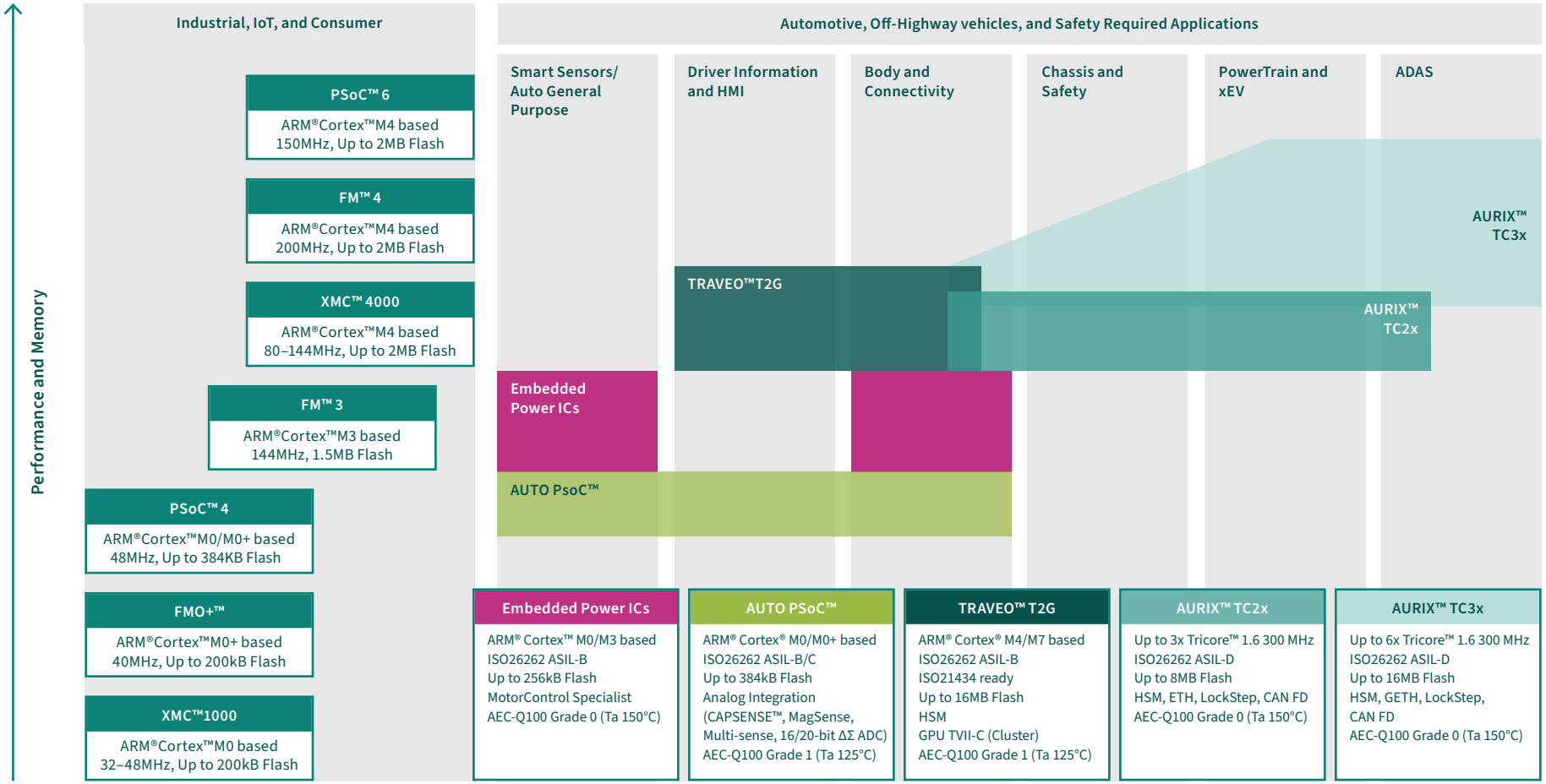
# Microcontroller pocket guide

www.infineon.com/microcontrollers

# Infineon Microcontrollers Portfolio




Note: AURIX™ is recommended for Industrial Applications that requires Safety ASIL-D and IEC 61508

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# Industrial IoT, and Consumer

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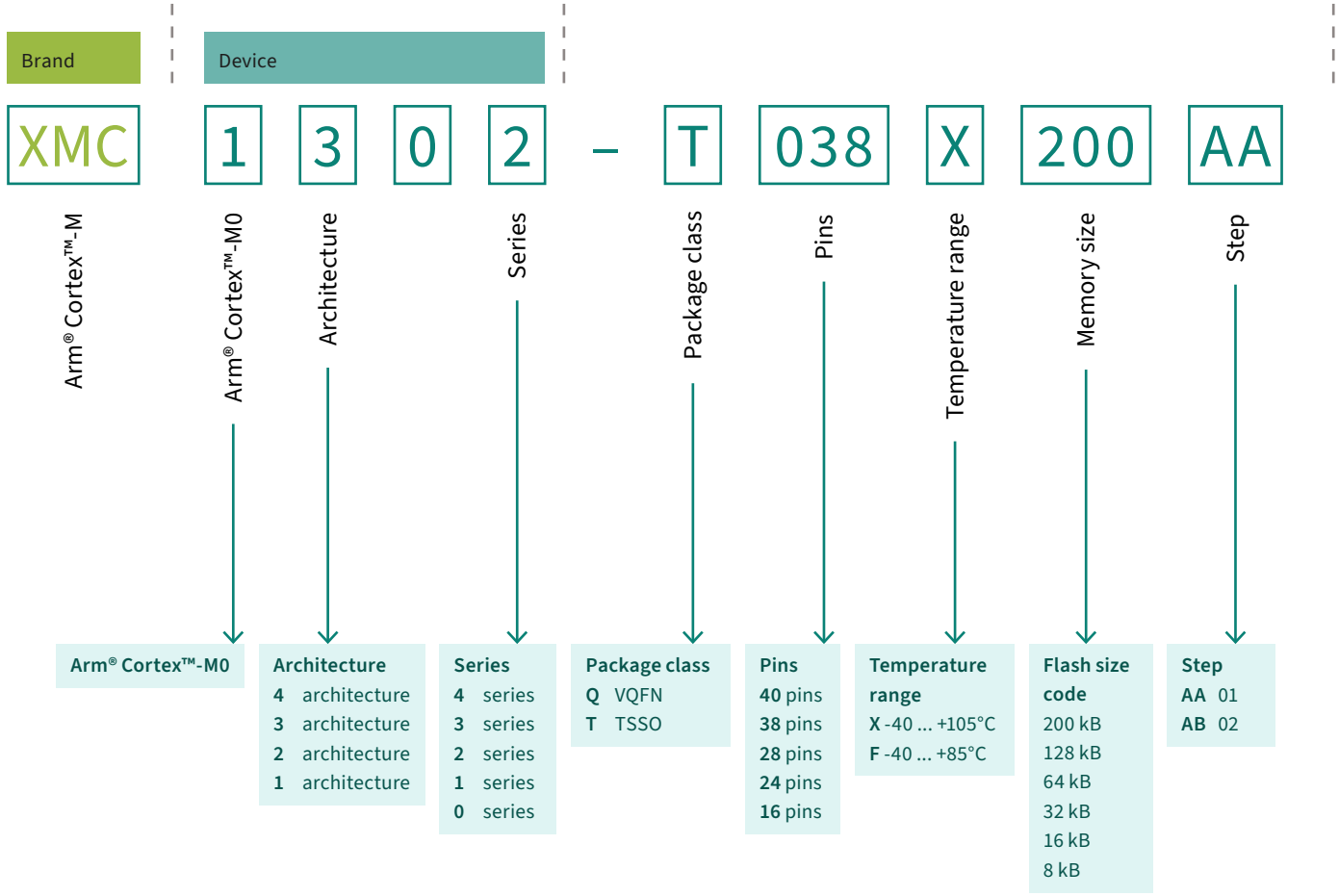
# 32-bit XMC™ Microcontroller – XMC1000 family



# 32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | Package | GPIOs | Core | | Co-processor | | | System | | | | | | | | | Debug | | Supply voltage [V] | Operating temperature range TA [°C] | Memory | | | | | | | Analog | | | Timer/PWM | | | | | | Communication | | | | | | | | | | | | | | External Bus Unit (EBU) | LED display | Capacitive touch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | | | Flash | ECC | RAM | Cache | EEPROM emulationin flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample and hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN | | | |
| **XMC1100 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1100-T016F0008 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 8 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016F0016 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016X0016 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016X0032 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016F0032 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016F0064 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T016X0064 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/7 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T038F0016 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-T038F0032 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
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| XMC1100-T038X0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q024F0008 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q024F0016 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q024X0016 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q024F0032 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |

# 32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | Package | GPIOs | Core | | Co-processor | | | System | | | | | | | | Debug | | Supply voltage [V] | Operating temperature range TA [°C] | Memory | | | | | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | Analog | | | Timer/PWM | | | | | Communication | | | | | | | | | | | | | | External Bus Unit (EBU) | LED display | Capacitive touch |
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| **XMC1100 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1100-Q024F0064 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/9 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q040F0016 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q040F0032 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1100-Q040F0064 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/1/12 | – | – | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| **XMC1200 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1200-T038F0200 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 200 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0016 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0032 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0128 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 128 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-T038F0200 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 200 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-Q040F0016 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-Q040F0032 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-Q040F0064 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |
| XMC1201-Q040F0128 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 128 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | – | – | – | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | 2x 64 segment | 16 ch |

# 32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | Package | GPIOs | Core | | Co-processor | | | | System | | | |

# 32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | Package | GPIOs | Core | | Co-processor | | | System | | | | | | | | | Debug | | Supply voltage [V] | Operating temperature range TA [°C] | Memory | | | | | | | Analog | | | Timer/PWM | | | | | | Communication | | | | | | | | | | | | External Bus Unit (EBU) | LED display | Capacitive touch |
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| **XMC1300 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1301-T016X0008 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 8 | – | 16 | – | ● | – | ● | 64 | 1/2/7 | – | 2x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-T016F0016 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/7 | – | 2x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-T016X0016 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/7 | – | 2x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-T016F0032 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/7 | – | 2x | – | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-T038F0008 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 8 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-T038F0016 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-T038F0032 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-T038X0032 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-T038F0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | – | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-T038X0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | – | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-Q024F0008 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 8 | – | 16 | – | ● | – | ● | 64 | 1/2/9 | – | 3x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-Q024F0016 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/9 | – | 3x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-Q040F0008 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 8 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-Q040F0016 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1301-Q040F0032 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | – | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |

# 32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | Package | GPIOs | Core | | Co-processor | | | System | | | | | | | | | Debug | | Supply voltage [V] | Operating temperature range TA [°C] | Memory | | | | | | | Analog | | | Timer/PWM | | | | | Communication | | | | | | | | | | | | | | External Bus Unit (EBU) | LED display | Capacitive touch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Automotive | Industrial | Consumer | | | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | | | Flash | ECC | RAM | Cache | EEPROM emulationin flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample and hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN | | | |
| **XMC1300 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1302-T016X0008 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 8 | – | 16 | – | ● | – | ● | 64 | 1/2/7 | – | 2x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T016X0016 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/7 | – | 2x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T016X0032 | – | ● | ● | TSSOP-16 | 14 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/7 | – | 2x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T028X0016 | – | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/10 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T028X0032 | – | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/10 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T028X0064 | – | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 64 | 1/2/10 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T028X0128 | – | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 64 | 1/2/10 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T028X0200 | – | ● | ● | TSSOP-28 | 26 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 64 | 1/2/10 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T038X0016 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T038X0032 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T038X0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 8 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T038X0128 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-T038X0200 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q024F0016 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/9 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q024X0016 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/9 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |

# 32-bit XMC™ Microcontroller – XMC1000 family

| Product type/partnumber | Markets | | | | | Core | | Co-processor | | | System | | | | | | | | | | Debug | | Supply voltage [V] | Operating temperature range TA [°C] | Memory | | | | | | | Analog | | | Timer/PWM | | | | | | Communication | | | | | | | | | | | | | External Bus Unit (EBU) | LED display | Capacitive touch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | | | | | Flash | ECC | RAM | Cache | EEPROM emulationin flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample and hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN | | | |
| **XMC1300 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1302-Q024F0032 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/9 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q024X0032 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/9 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q024F0064 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 64 | – | 16 | – | ● | – | ● | 64 | 1/2/9 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q024X0064 | – | ● | ● | VQFN-24 | 22 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 64 | 1/2/9 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q040X0016 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 16 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q040X0032 | – | ● | ● | VQFN-40 | 26 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 32 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q040X0064 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q040X0128 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1302-Q040X0200 | – | ● | ● | VQFN-40 | 34 | Cortex®-M0 | 32 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 64 | 1/2/12 | – | 3x | 4 ch | 4 ch | – | – | 1x | 9 ch | – | – | – | – | – | 2 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| **XMC1400 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1401-Q048F0064 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1401-Q048F0128 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1401-F064F0064 | – | ● | ● | LQFP-64 | 55 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1401-F064F0128 | – | ● | ● | LQFP-64 | 55 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 85 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1402-T038X0032 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 32 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |

# 32-bit XMC™ Microcontroller – XMC1000 family

| | Markets | | | | | Core | | Co-processor | | | System | | | | | | | | | | Debug | | | Memory | | | | | | | | Analog | | | Timer/PWM | | | | Communication | | | | | | | | | | | | | | | | External Bus Unit (EBU) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | Supply voltage [V] | Operating temperature range TA [°C] | Flash | ECC | RAM | Cache | EEPROM emulationin flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample and hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN | | LED display | Capacitive touch |
| **XMC1400 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1402-T038X0064 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-T038X0128 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-T038X0200 | – | ● | ● | TSSOP-38 | 34 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q040X0032 | – | ● | ● | VQFN-40 | 35 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 32 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q040X0064 | – | ● | ● | VQFN-40 | 35 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q040X0128 | – | ● | ● | VQFN-40 | 35 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q040X0200 | – | ● | ● | VQFN-40 | 35 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 3x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q048X0032 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 32 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q048X0064 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q048X0128 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q048X0200 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q064X0064 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q064X0128 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-Q064X0200 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-F064X0064 | – | ● | ● | LQFP-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |

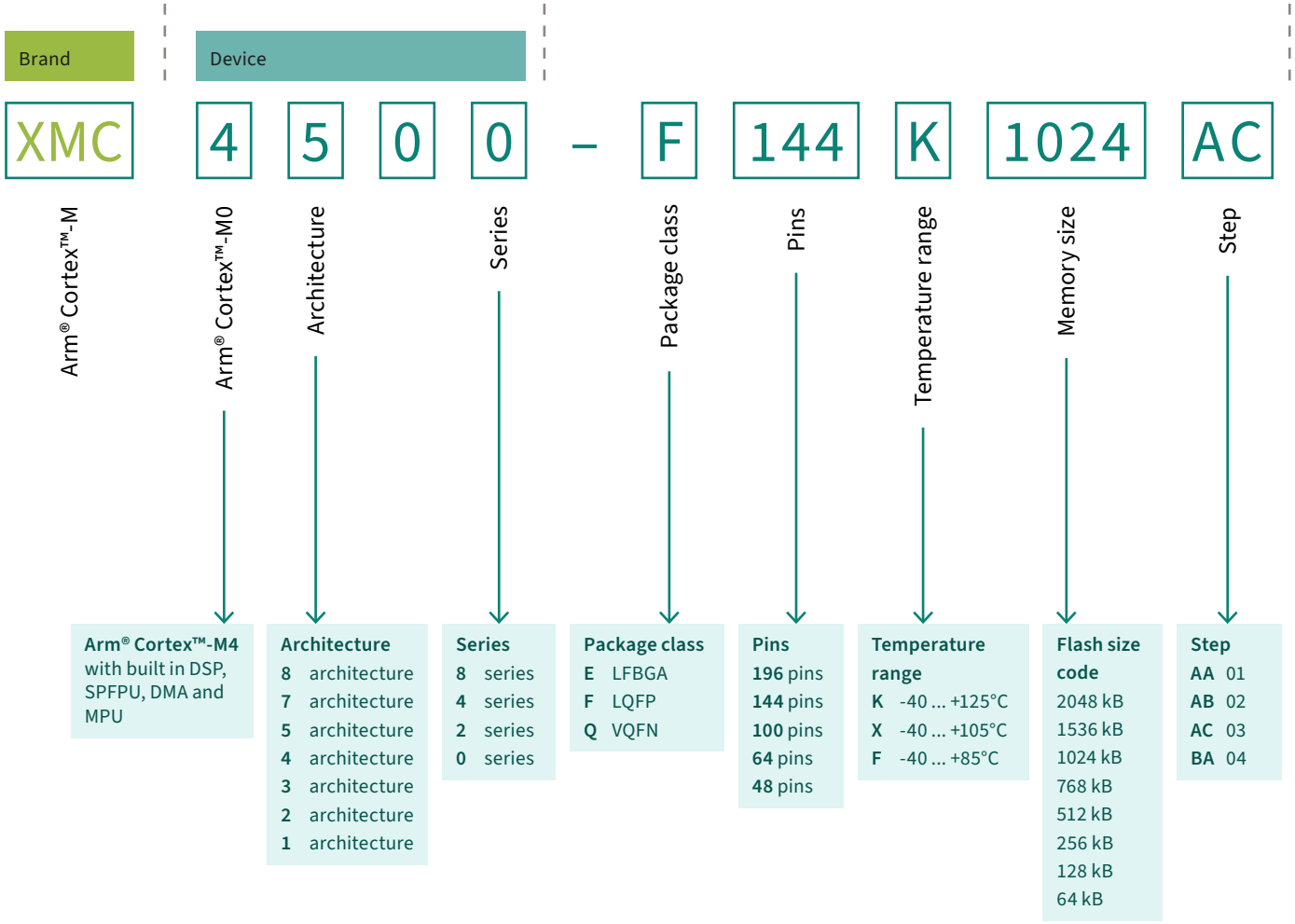
# 32-bit XMC™ Microcontroller – XMC1000 family

| | Markets | | | | | Core | | Co-processor | | | System | | | | | | | | | Debug | | | Memory | | | | | | | | Analog | | | Timer/PWM | | | | | Communication | | | | | | | | | | | | | | | | External Bus Unit (EBU) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | Supply voltage [V] | Operating temperature range TA [°C] | Flash | ECC | RAM | Cache | EEPROM emulationin flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample and hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN | | LED display | Capacitive touch |
| **XMC1400 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC1402-F064X0128 | – | ● | ● | LQFP-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1402-F064X0200 | – | ● | ● | LQFP-65 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | – | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1403-Q048X0064 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1403-Q048X0128 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1403-Q048X0200 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1403-Q064X0064 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1403-Q064X0128 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1403-Q064X0200 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | – | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | – | 8 ch | – | – | – | – | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | – | – |
| XMC1404-Q048X0064 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1404-Q048X0128 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1404-Q048X0200 | – | ● | ● | VQFN-48 | 42 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1404-Q064X0064 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1404-Q064X0128 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 128 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1404-Q064X0200 | – | ● | ● | VQFN-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 200 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |
| XMC1404-F064X0064 | – | ● | ● | LQFP-64 | 55 | Cortex®-M0 | 48 | ● | – | – | 1 | – | – | – | ● | ● | ● | ● | – | 1.8 to 5.5 | -40 to 105 | 64 | – | 16 | – | ● | – | ● | 96 | 1/2/12 | – | 4x | 8 ch | 8 ch | – | – | 2x | 9 ch | – | – | 2 | – | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 3x 64 segment | 24 ch |

# 32-bit XMC™ Microcontroller – XMC1000 family

| | Markets | | | | Core | | Co-processor | | | System | | | | | | | | Debug | | | Memory | | | | | | | Analog | | | Timer/PWM | | | | | Communication | | | | | | | |

# 32-bit XMC™ Microcontroller – XMC4000 family



# 32-bit XMC™ Microcontroller – XMC4000 family

| | Mar-kets | | | | | Core | | Co-pro-cessor | | | System | | | | | | | | | De-bug | | | | | | | | |

# 32-bit XMC™ Microcontroller – XMC4000 family

| | Markets | | | | | Core | | Co-processor | | | System | | | | | | | | | Debug | | | Memory | | | | | | | | Analog | | | Timer/PWM | | | | | | Communication | | | | | | | | | | | | | | | | External Bus Unit (EBU) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | Supply voltage [V] | Operating temperature range TA [°C] | Flash | ECC | RAM | Cache | EEPROM emulationin flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample and hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN | | LED display | Capacitive touch |
| **XMC4200 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4200-Q48F256 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 256 | ● | 40 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4200-Q48K256 | – | ● | ● | VQFN-48 | 30 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 256 | ● | 40 | 1 | ● | ● | – | 80 | 2/2/8 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4200-F64F256 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 256 | ● | 40 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4200-F64K256 | – | ● | ● | TQFP-64 | 45 | Cortex®-M4 | 80 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 256 | ● | 40 | 1 | ● | ● | – | 80 | 2/2/9 | 2 ch | – | 8 ch | 4 ch | ● | – | 1x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| **XMC4300 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4300-F100F256 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 256 | ● | 128 | 8 | ● | ● | – | 144 | 2/2/14 | 2 ch | – | 8 ch | 4 ch | – | – | – | – | l | l | 2 | ● | ● | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4300-F100K256 | – | ● | – | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 256 | ● | 128 | 8 | ● | ● | – | 144 | 2/2/14 | 2 ch | – | 8 ch | 4 ch | – | – | – | – | l | l | 2 | ● | ● | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| **XMC4400 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4402-F64F256 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4402-F64K256 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4402-F100F256 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4402-F100K256 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | – | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4400-F64F256 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | l | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4400-F64F512 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 512 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | l | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4400-F64K256 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | l | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |

# 32-bit XMC™ Microcontroller – XMC4000 family

| | Markets | | | | | Core | | Co-processor | | | System | | | | | | | | | | Debug | | Supply voltage [V] | Operating temperature range TA [°C] | Memory | | | | | | | Analog | | | | Timer/PWM | | | | | | Communication | | | | | | | | | | | | | External Bus Unit (EBU) | LED display | Capacitive touch |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | | | | Flash | ECC | RAM | Cache | EEPROM emulationin flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample and hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN | | | |
| **XMC4400 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4400-F64K512 | – | ● | ● | TQFP-64 | 41 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 125 | 512 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/9 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | ● | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4400-F100F256 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 85 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | ● | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4400-F100F512 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 85 | 512 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | ● | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4400-F100K256 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 125 | 256 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | ● | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| XMC4400-F100K512 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 8 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 125 | 512 | ● | 80 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | ● | 4 ch | 2x | – | – | ● | 2 | ● | – | 4 ch | ● | ● | ● | ● | ● | ● | ● | – | 1x 64 segment | 8 ch |
| **XMC4500 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4504-F100F512 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 85 | 512 | ● | 128 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | – | – | – | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4504-F100K512 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 125 | 512 | ● | 128 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | – | – | – | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4504-F144F512 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 85 | 512 | ● | 128 | 4 | ● | ● | – | 120 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | – | – | – | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4504-F144K512 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 125 | 512 | ● | 128 | 4 | ● | ● | – | 120 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | – | – | – | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4502-F100F768 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 85 | 768 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | – | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4502-F100K768 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 125 | 768 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | – | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4500-F100F768 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 85 | 768 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4500-F100F1024 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 85 | 1024 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4500-F100K768 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | | | 3.13 to 3.63 | -40 to 125 | 768 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |

# 32-bit XMC™ Microcontroller – XMC4000 family

| | Markets | | | | Core | | Co-processor | | | System | | | | | | | | Debug | | | | Memory | | | | | | | | Analog | | | | Timer/PWM | | | | Communication | | | | | | | | | | | | | | | | | External Bus Unit (EBU) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | Supply voltage [V] | Operating temperature range TA [°C] | Flash | ECC | RAM | Cache | EEPROM emulationin flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample and hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN | | LED display | Capacitive touch |
| **XMC4500 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4500-F100K1024 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 1024 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4500-F144F768 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 768 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4500-F144F1024 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 1024 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4500-F144K768 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 768 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4500-E144F1024 | – | ● | ● | LFB-GA-144 | 119 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 1024 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4500-F144K1024 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 120 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 1024 | ● | 160 | 4 | ● | ● | – | 120 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 3 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| **XMC4700 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4700-F100F1536 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F100K1536 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F100F2048 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F100K2048 | – | ● | ● | LQFP-100 | 75 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/18 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F144F1536 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F144K1536 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | 40 to 125 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F144F2048 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4700-F144K2048 | – | ● | ● | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | – | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |

# 32-bit XMC™ Microcontroller – XMC4000 family

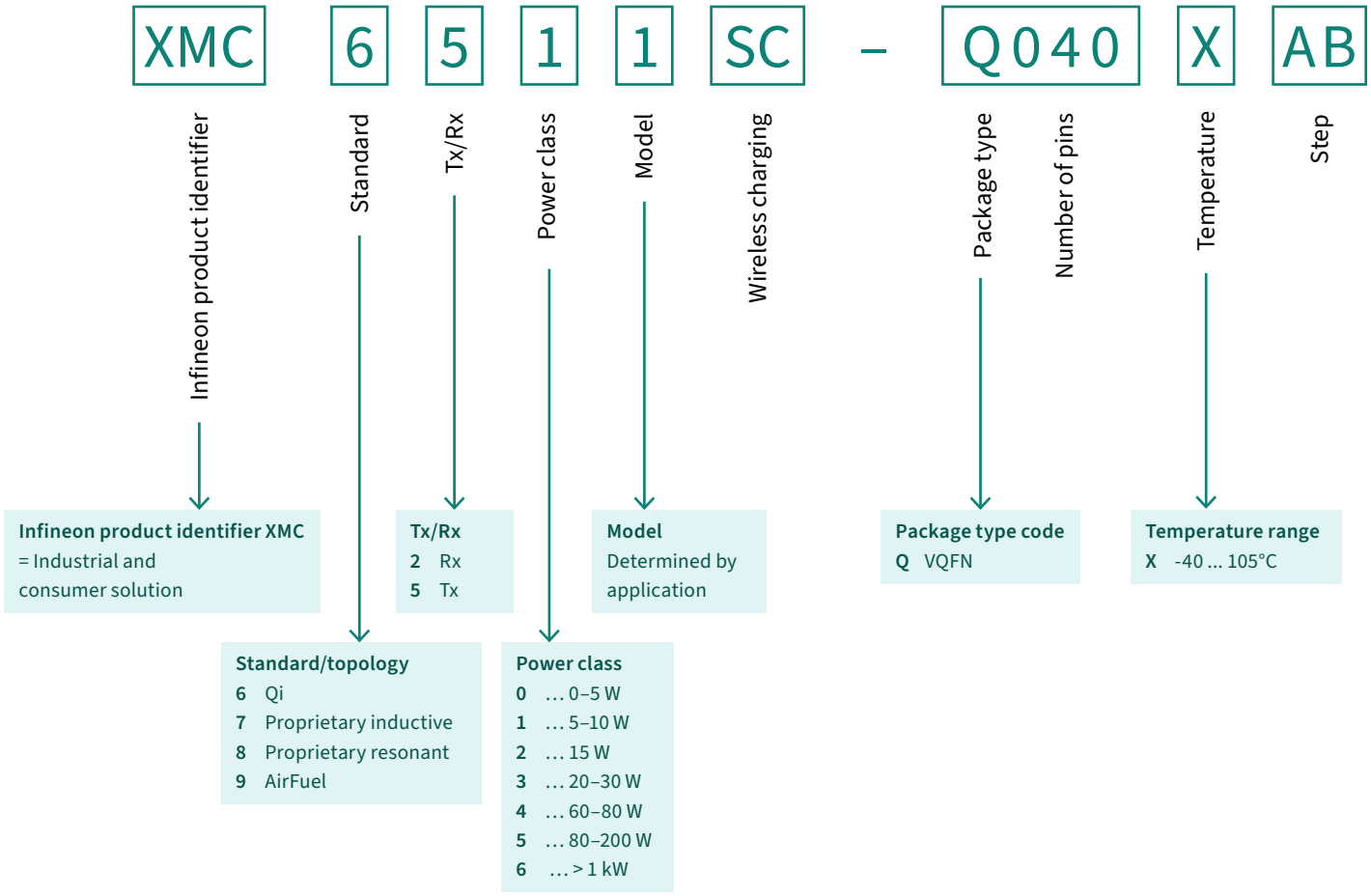
| | Markets | | | | Core | | Co-processor | | | System | | | | | | | | Debug | | | Memory | | | | | | | | Analog | | | | Timer/PWM | | | | Communication | | | | | | | |

# 32-bit XMC™ Microcontroller – XMC4000 family

| | Markets | | | | | Core | | Co-processor | | | System | | | | | | | | | Debug | | | Memory | | | | | | | | Analog | | | | Timer/PWM | | | | | Communication | | | | | | | | | | | | | | | | External Bus Unit (EBU) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | CORDIC/DIV | DSP | FPU | ERU | DMA | MPU | CRC | PRNG | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | Supply voltage [V] | Operating temperature range TA [°C] | Flash | ECC | RAM | Cache | EEPROM emulationin flash | Data/IP protection | Secure bootloader | Peripherals clock [MHz] | No. of 12-bit ADC/ No. of sample and hold/ No. of inputs | 12-bit DAC | Comparator | CCU4 | CCU8 | HRPWM (150 ps) | ΔΣ Demodulator | POSIF | BCCU/LED | EtherCAT® | IEEE1588 Ethernet MAC | CAN 2.0B nodes | USB | SDIO/SD/MMC | USIC (Universal Serial Interface Controller) # channels | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN | | LED display | Capacitive touch |
| **XMC4800 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| XMC4800-F144F2048 | – | ● | – | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-F144K2048 | – | ● | – | LQFP-144 | 119 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to125 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-E196F1024 | – | ● | – | LFB-GA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 1024 | ● | 200 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-E196K1024 | – | ● | – | LFB-GA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 1024 | ● | 200 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-E196F1536 | – | ● | – | LFB-GA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-E196K1536 | – | ● | – | LFB-GA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 125 | 1536 | ● | 276 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-E196F2048 | – | ● | – | LFB-GA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to 85 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |
| XMC4800-E196K2048 | – | ● | – | LFB-GA-196 | 155 | Cortex®-M4 | 144 | – | ● | ● | 2 | 12 ch | 1 | 1 | ● | ● | ● | ● | ● | 3.13 to 3.63 | -40 to125 | 2048 | ● | 352 | 8 | ● | ● | – | 144 | 4/4/26 | 2 ch | – | 16 ch | 8 ch | – | 4 ch | 2x | – | ● | ● | 6 | ● | ● | 6 ch | ● | ● | ● | ● | ● | ● | ● | ● | 1x 64 segment | 8 ch |

**BCCU** = Brightness and Color Control Unit for LED lighting
**CCU** = Capture Compare Unit
**FPU** = Floating Point Unit
**MMC** = Multi Media Card
**POSIF** = Motor Position Interface
**SDIO** = SD Card Interface with Input/Output
**USIC** = UART/SCI, SPI, Dual-SPI, Quad-SPI, IIC/I²C, IIS/I²S, LIN

# Wireless power controller



# Wireless charging series

| Product type/ partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Topology | Power [W] | Transmitter | Receiver | Certification | CAN | NFC |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| XMC8201SC-Q024X | – | ● | ● | VQFN-24 | – | Resonant | 2.5 | – | ● | – | – | – |
| XMC8501SC-Q040X | – | ● | ● | VQFN-40 | – | Resonant | 2.5 | ● | – | – | CAN 2.0 | SPI |
| XMC8231SC-Q024X | – | ● | ● | VQFN-24 | – | Resonant | 30 | – | ● | – | – | – |
| XMC8531SC-Q040X | – | ● | ● | VQFN-40 | – | Resonant | 30 | ● | – | – | CAN 2.0 | SPI |
| XMC7201SC-Q024X | – | ● | ● | VQFN-24 | – | Inductive | < 5 | – | ● | – | – | – |
| XMC7501SC-Q040X | – | ● | ● | VQFN-40 | – | Inductive | < 5 | ● | – | – | CAN 2.0 | SPI |
| XMC6511SC-Q040X | – | ● | ● | VQFN-40 | – | Inductive | 10 | ● | – | Qi-Certified | – | – |
| XMC6521SC-Q040X | – | ● | ● | VQFN-40 | – | Inductive | 15 | ● | – | Qi-Certified | – | – |
| XMC7231SC-Q024X | – | ● | ● | VQFN-24 | – | Custom | 30 | – | ● | – | – | – |
| XMC7531SC-Q040X | – | ● | ● | VQFN-40 | – | Custom | 30 | ● | – | – | – | – |
| XMC7234SC-Q040X | – | ● | ● | VQFN-41 | – | Custom | 30 | – | ● | – | – | – |
| XMC7533SC-Q040X | – | ● | ● | VQFN-42 | – | Custom | 30 | ● | – | – | – | – |
| XMC7241SC-Q024X | – | ● | ● | VQFN-43 | – | Inductive | 80 | – | ● | – | CAN 2.0 | SPI |
| XMC7541SC-Q040X | – | ● | ● | VQFN-44 | – | Inductive | 80 | ● | – | – | CAN 2.0 | SPI |
| SAK-TC212S-8F133SC | ● | – | – | TQFP-80 | – | Inductive | 15 | ● | – | Qi-Certified | CAN FD | SPI |

# Industrial PSoC™ 4000

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4000 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4013LQI-411 | ● | ● | – | QFN | 13 | Cortex®-M0 | 16 | – | 0x0A431193 | 8 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tray |
| CY8C4013LQI-411T | ● | ● | – | QFN | 13 | Cortex®-M0 | 16 | – | 0x0A431193 | 8 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4013SXI-400 | ● | ● | – | SOP | 5 | Cortex®-M0 | 16 | – | 0x0A401193 | 8 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | – | 1 | – | – | 1 | – | – | – | – | – | – | – | Tube |
| CY8C4013SXI-400T | ● | ● | – | SOP | 5 | Cortex®-M0 | 16 | – | 0x0A401193 | 8 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | – | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4013SXI-410 | ● | ● | – | SOP | 5 | Cortex®-M0 | 16 | – | 0x0A411193 | 8 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tube |
| CY8C4013SXI-410T | ● | ● | – | SOP | 5 | Cortex®-M0 | 16 | – | 0x0A411193 | 8 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4013SXI-411 | ● | ● | – | SOP | 13 | Cortex®-M0 | 16 | – | 0x0A421193 | 8 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tube |
| CY8C4013SXI-411T | ● | ● | – | SOP | 13 | Cortex®-M0 | 16 | – | 0x0A421193 | 8 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4014FNI-421AT | ● | ● | ● | WLCSP | 13 | Cortex®-M0 | 16 | – | 0x0A441193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4014LQI-412 | ● | ● | – | QFN | 20 | Cortex®-M0 | 16 | – | 0x0A471193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tray |
| CY8C4014LQI-412KT | ● | ● | – | QFN | 20 | Cortex®-M0 | 16 | – | 0x0A471193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tray |
| CY8C4014LQI-412T | ● | ● | – | QFN | 20 | Cortex®-M0 | 16 | – | 0x0A471193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4014LQI-421 | ● | ● | ● | QFN | 13 | Cortex®-M0 | 16 | – | 0x0A461193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tray |
| CY8C4014LQI-421T | ● | ● | ● | QFN | 13 | Cortex®-M0 | 16 | – | 0x0A461193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4014LQI-422 | ● | ● | ● | QFN | 20 | Cortex®-M0 | 16 | – | 0x0A481193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tray |
| CY8C4014LQI-422KT | ● | ● | ● | QFN | 20 | Cortex®-M0 | 16 | – | 0x0A481193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tray |
| CY8C4014LQI-422T | ● | ● | ● | QFN | 20 | Cortex®-M0 | 16 | – | 0x0A481193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4014LQIW-412 | ● | ● | – | QFN | 20 | Cortex®-M0 | 16 | – | 0x0A471193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tray |
| CY8C4014LQIW-422 | ● | ● | ● | QFN | 20 | Cortex®-M0 | 16 | – | 0x0A481193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tray |

# Industrial PSoC™ 4000

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4000 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4014PVI-412 | ● | ● | – | SOP | 20 | Cortex®-M0 | 16 | – | 0x0A54119A | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tube |
| CY8C4014PVI-422 | ● | ● | ● | SOP | 20 | Cortex®-M0 | 16 | – | 0x0A55119A | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tube |
| CY8C4014SXI-420 | ● | ● | ● | SOP | 5 | Cortex®-M0 | 16 | – | 0x0A53119A | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tube |
| CY8C4014SXI-420T | ● | ● | ● | SOP | 5 | Cortex®-M0 | 16 | – | 0x0A53119A | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4014SXI-421 | ● | ● | ● | SOP | 13 | Cortex®-M0 | 16 | – | 0x0A441193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tube |
| CY8C4014SXI-421T | ● | ● | ● | SOP | 13 | Cortex®-M0 | 16 | – | 0x0A441193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Reel |
| CY8C4014SXIW-421 | ● | ● | ● | SOIC | 13 | Cortex®-M0 | 16 | – | 0x0A441193 | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 1 | 1 | – | – | 1 | – | – | – | – | – | – | – | Tube |
| **PSoC™ 4000 DS-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4045FNI-DS402T | ● | ● | – | WLCSP | 21 | Cortex®-M0 | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 4 | 8 | – | 3 | – | 8 | – | – | – | – | – | Reel |
| CY8C4045PVI-DS402 | ● | ● | – | SOP | 24 | Cortex®-M0 | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 4 | 8 | – | 3 | – | 8 | – | – | – | – | – | Tube |
| **PSoC™ 4000 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4024AXI-S402 | ● | ● | – | QFP | 27 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4024AXI-S412 | ● | ● | ● | QFP | 27 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4024AZI-S403 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4024AZI-S403T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4024AZI-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4024AZI-S413T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4024AZQ-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 1 msps) | – | 16 | – | 2 | ● | 105 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | PSoC™ 4 | – | Tray |
| CY8C4024FNI-S402 | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – |

# Industrial PSoC™ 4000

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4000 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4024FNI-S402T | l | l | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4024FNI-S412 | l | l | l | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | – |
| CY8C4024FNI-S412T | l | l | l | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4024LQI-S401 | l | l | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S401KT | l | l | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S402 | l | l | – | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S403 | l | l | – | QFN | 34 | Cortex®-M0+ | 24 | – | 0x1914 | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S403T | l | l | – | QFN | 34 | Cortex®-M0+ | 24 | – | 0x1914 | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4024LQI-S411 | l | l | l | QFN | 19 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S412 | l | l | l | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S412T | l | l | l | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4024LQI-S413 | l | l | l | QFN | 34 | Cortex®-M0+ | 24 | – | 0x1915 | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4024LQI-S413T | l | l | l | QFN | 34 | Cortex®-M0+ | 24 | – | 0x1915 | 16 | – | 2 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4025AXI-S402 | l | l | – | QFP | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025AXI-S412 | l | l | l | QFP | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025AZI-S403 | l | l | – | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025AZI-S403T | l | l | – | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4025AZI-S413 | l | l | l | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025AZI-S413T | l | l | l | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |

# Industrial PSoC™ 4000

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4000 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4025AZQ-S403 | l | l | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | l | 105 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4025AZQ-S413 | l | l | l | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | l | 105 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4025FNI-S402 | l | l | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | – |
| CY8C4025FNI-S402T | l | l | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4025FNI-S412 | l | l | l | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | – |
| CY8C4025FNI-S412T | l | l | l | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4025LQI-S401 | l | l | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4025LQI-S402 | l | l | – | QFN | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025LQI-S402T | l | l | – | QFN | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4025LQI-S403 | l | l | – | QFN | 34 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025LQI-S411 | l | l | l | QFN | 19 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4025LQI-S412 | l | l | l | QFN | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4025LQI-S412T | l | l | l | QFN | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4025LQI-S413 | l | l | l | QFN | 34 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4045AZI-S413 | l | l | l | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4045AZI-S413T | l | l | l | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4045FNI-S412 | l | l | l | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | – |
| CY8C4045FNI-S412T | l | l | l | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Reel |
| CY8C4045LQI-S411 | l | l | l | QFN | 19 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4000 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4045LQI-S412 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4045LQI-S412T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4045LQI-S413 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Tray |
| **PSoC™ 4100 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124AXI-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041A1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4124AXI-443T | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041A1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4124AXI5-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041A1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4124AXQ-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041A1193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4124AZI-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041A1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4124LQI-443 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041C1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4124LQI-443T | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041C1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4124LQQ-443 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04161193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4124PVI-432 | ● | ● | – | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04101193 | 16 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Tube |
| CY8C4124PVI-432T | ● | ● | – | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04101193 | 16 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4124PVI-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04111193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Tube |
| CY8C4124PVI-442T | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04111193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4124PVI5-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04111193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Tube |
| CY8C4124PVQ-432 | ● | ● | – | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04101193 | 16 | 4 | 4 | – | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Tube |
| CY8C4124PVQ-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04111193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Tube |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125AXI-473 | ● | ● | – | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041B1193 | 32 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AXI-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04161193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AXI-483T | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04161193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4125AXQ-473 | ● | ● | – | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041B1193 | 32 | 4 | 4 | – | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AXQ-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041C1193 | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-473 | ● | ● | – | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x041B1193 | 32 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04261193 | 32 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125LQI-483 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04171193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125LQI-483T | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04171193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4125LQQ-483 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04171193 | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125PVI-482 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04121193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Tube |
| CY8C4125PVI-482T | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04121193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4125PVQ-482 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x04121193 | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | – | – | – | – | – | Tube |
| CY8C4125AXI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1104 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AXI-M445T | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1104 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Reel |
| CY8C4125AZI-M433 | ● | ● | – | QFP | 38 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1100 | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-M443 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1101 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125AZI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1102 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4125LTI-M445 | ● | ● | ● | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1103 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4126AXI-M443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | – | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AXI-M443T | ● | ● | ● | QFP | 36 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | – | 2 | 4 | – | – | – | – | – | – | – | – | Reel |
| CY8C4126AXI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110A | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZI-M443 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1105 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1106 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZI-M475 | ● | ● | – | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1107 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126LTI-M445 | ● | ● | ● | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1108 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126LTI-M475 | ● | ● | – | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1109 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AXI-M485 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110E | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-M475 | ● | ● | – | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110C | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-M485 | ● | ● | ● | FP | 51 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110D | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127LTI-M475 | ● | ● | ● | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x110B | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | – | – | – | – | – | Tray |
| CYSHM35925I-M068LTIT | ● | ● | – | QFN | 55 | Cortex®-M0 | 24 | SAR (1, 12-bit @ 806 ksps) | 0x1111 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Reel |
| **PSoC™ 4100 PS-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125AZI-PS423 | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4125FNI-PS423T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |
| CY8C4125LQI-PS423 | ● | ● | ● | QFN | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4125PVI-PS421 | ● | ● | ● | SOP | 19 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | – | – | – | – | – | – | Tube |
| CY8C4145AZI-PS423 | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 PS-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4145AZI-PS433 | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4145FNI-PS423T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |
| CY8C4145FNI-PS433T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |
| CY8C4145FNQ-PS423T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |
| CY8C4145FNQ-PS433T | ● | ● | ● | WLCSP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Reel |
| CY8C4145LQI-PS423 | ● | ● | ● | QFN | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4145LQI-PS433 | ● | ● | ● | QFN | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | 1 | – | – | – | – | – | Tray |
| CY8C4145PVI-PS421 | ● | ● | ● | SOP | 19 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | – | – | – | – | – | – | Tube |
| CY8C4145PVI-PS431 | ● | ● | ● | SOP | 19 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 3 | – | 8 | – | – | – | – | – | – | Tube |
| CY8C4724FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4724LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4725FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4725LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4744AZI-S403 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4744FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Reel |
| CY8C4744LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 48 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | – | Tray |
| CY8C4745AZI-S403 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Tray |
| CY8C4745AZI-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | I | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4745FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | – | Reel |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 PS-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4745FNI-S412T | ● | ● | ● | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Reel |
| CY8C4745LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Tray |
| CY8C4745LQI-S411 | ● | ● | ● | QFN | 19 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | Tray |
| **PSoC™ 4100 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124AZI-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4124AZI-S413T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4124AZI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4124AZI-S433T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4124FNI-S403 | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 8 | – | – | – | – | – | – |
| CY8C4124FNI-S403T | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 8 | – | – | – | – | – | Reel |
| CY8C4124FNI-S413 | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – |
| CY8C4124FNI-S413T | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4124FNI-S433 | l | l | l | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 16 | 4 | l | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – |
| CY8C4124FNI-S433T | l | l | l | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 16 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4124LQI-S412 | l | l | l | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4124LQI-S412T | l | l | l | QFN | 27 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4124LQI-S413 | l | l | l | QFN | 34 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4124LQI-S413T | l | l | l | QFN | 34 | Cortex®-M0+ | 24 | – | – | 16 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4124LQI-S432 | l | l | l | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 16 | – | 4 | l | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Tray |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124LQI-S432T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4124LQI-S433 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4124LQI-S433T | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 16 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125AXI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125AXI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S413T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125AZI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S423T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125AZI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S433KT | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125AZI-S433T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125AZQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125FNI-S413 | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – |
| CY8C4125FNI-S413T | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125FNI-S423 | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – |
| CY8C4125FNI-S423T | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125FNI-S433 | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | – |
| CY8C4125FNI-S433T | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125LQI-S412 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S412T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S413 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S413KG | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S413T | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S422 | ● | ● | – | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S422T | ● | ● | – | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S423 | ● | ● | – | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S423T | ● | ● | – | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S432 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S432T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQI-S433 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4125LQI-S433T | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4125LQQ-S432 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4126AXI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AXI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AXI-S443 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AXI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AXI-S453 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4126AXI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray |
| CY8C4126AXQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4126AZI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AZI-S423T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4126AZI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AZI-S433T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4126AZI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4126AZQ-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4126AZQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4127AXI-S443 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AXI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AXI-S453 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AXI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-S443 | ● | ● | – | QFP | 38 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-S453 | ● | ● | – | QFP | 38 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4127AZQ-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4127AZQ-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 24 | SAR (1, 12-bit @ 806 ksps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray |
| CY8C4145AXI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | Tray |
| CY8C4145AXI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | Tray |
| CY8C4145AXQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4145AZI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | Tray |
| CY8C4145AZI-S423T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4145AZQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | Tray |
| CY8C4146AXI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | Tray |
| CY8C4146AXI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | Tray |
| CY8C4146AXI-S443 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray |
| CY8C4146AXI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray |
| CY8C4146AXI-S453 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray |
| CY8C4146AXI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | Tray |
| CY8C4146AXQ-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4146AXQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4146AZI-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | Tray |
| CY8C4146AZI-S423T | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Reel |
| CY8C4146AZI-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | Tray |
| CY8C4146AZI-S433T | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 2 | – | 16 | – | – | – | – | – | Reel |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146AZI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AZI-S453 | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AZI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AZI-S463 | ● | ● | – | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AZQ-S423 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146AZQ-S433 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146AZQ-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146AZQ-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4146FNI-S423 | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – |
| CY8C4146FNI-S423T | ● | ● | – | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146FNI-S433 | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | – |
| CY8C4146FNI-S433T | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146FNI-S443T | ● | ● | ● | WLCSP | 31 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146LQI-S422 | ● | ● | – | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146LQI-S422T | ● | ● | – | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146LQI-S423 | ● | ● | – | QFN | 34 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146LQI-S423T | ● | ● | – | QFN | 34 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146LQI-S432 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146LQI-S432T | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |

# Industrial PSoC™ 4100

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4100 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146LQI-S433 | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Tray |
| CY8C4146LQI-S433T | ● | ● | ● | QFN | 34 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | – | – | – | Reel |
| CY8C4146LQQ-S422 | ● | ● | – | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4146LQQ-S432 | ● | ● | ● | QFN | 27 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 5 | – | 2 | 3 | – | 16 | – | – | – | PSoC™ 4 | – | – | Tray |
| CY8C4147AXI-S443 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S453 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S465 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AXI-S475 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZI-S443 | ● | ● | – | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZI-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZI-S453 | ● | ● | ● | QFP | 38 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZI-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZI-S465 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZI-S475 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZQ-S445 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZQ-S455 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZQ-S465 | ● | ● | – | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | 1 | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |
| CY8C4147AZQ-S475 | ● | ● | ● | FP | 54 | Cortex®-M0+ | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | – | – | – | – | – | Tray |

# Industrial PSoC™ 4200

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4200 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4244AXQ-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04FA1193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 2 | – | – | – | – | Tray |
| CY8C4244AZI-443 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04DA1193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 2 | – | – | – | – | Tray |
| CY8C4244FNI-443T | ● | ● | ● | WLCSP | 31 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | – | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 2 | 2 | – | – | – | 2 | – | – | – | – | Reel |
| CY8C4244LQI-443 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F61193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 2 | – | – | – | – | Tray |
| CY8C4244LQQ-443 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F61193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 2 | – | – | – | – | Tray |
| CY8C4244PVI-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F11193 | 16 | 4 | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | 2 | – | – | – | – | Tube |
| CY8C4244PVQ-432 | ● | ● | – | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F01193 | 16 | 4 | 4 | – | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | 2 | – | – | – | – | Tube |
| CY8C4244PVQ-442 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04F11193 | 16 | 4 | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | 2 | – | – | – | – | Tube |
| CY8C4245AXI-473 | ● | ● | – | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04FB1193 | 32 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AXI-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04C81193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AXQ-473 | ● | ● | – | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04FB1193 | 32 | 4 | 4 | – | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AXQ-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04C81193 | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AZI-473 | ● | ● | – | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04DB1193 | 32 | 4 | 4 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AZI-483 | ● | ● | ● | QFP | 36 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04C81193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245FNI-483T | ● | ● | ● | WLCSP | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04E81193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Reel |
| CY8C4245LQI-483 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04B61193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245LQI-483T | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04B61193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Reel |
| CY8C4245LQQ-483 | ● | ● | ● | QFN | 34 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04B61193 | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 2 | 2 | 4 | – | 2 | 2 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245PVI-482 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04A61193 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | 4 | – | – | – | – | Tube |
| CY8C4245PVQ-482 | ● | ● | ● | SOP | 24 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x04A61193 | 32 | – | 4 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 4 | – | 1 | 2 | – | – | – | 4 | – | – | – | – | Tube |

# Industrial PSoC™ 4200

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4200 DS-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4245FNI-DS402T | ● | ● | – | WLCSP | 21 | Cortex®-M0 | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 4 | 8 | – | 3 | – | – | – | 4 | – | – | – | – | Reel |
| CY8C4246FNI-DS402T | ● | ● | – | WLCSP | 21 | Cortex®-M0 | 48 | – | – | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 4 | 8 | – | 3 | – | – | – | 4 | – | – | – | – | Reel |
| **PSoC™ 4200 L-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4246AZI-L423 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100211A0 | 64 | | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | – | – | ● | – | Tray |
| CY8C4246AZI-L423T | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100211A0 | 64 | | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | – | – | ● | – | Reel |
| CY8C4246AZI-L433 | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100011A0 | 64 | | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4246AZI-L433T | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100011A0 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Reel |
| CY8C4246AZI-L435 | ● | ● | – | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100111A0 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4246AZI-L445 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100311A0 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4246LTI-L445 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100411A0 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247AZI-L423 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100511A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | – | – | ● | – | Tray |
| CY8C4247AZI-L423T | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100511A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | – | – | ● | – | Reel |
| CY8C4247AZI-L433 | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x101511A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247AZI-L433T | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x101511A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 3 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Reel |
| CY8C4247AZI-L445 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100611A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247AZI-L475 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100811A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247AZI-L485 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100B11A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247BZI-L479 | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100A11A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247BZI-L479T | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100A11A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Reel |

# Industrial PSoC™ 4200

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4200 L-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4247BZI-L489 | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100D11A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247LTI-L445 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100711A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 32 | 2 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247LTI-L475 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100911A0 | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4247LTI-L485 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100C11A0 | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248AZI-L475 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100E11A0 | 256 | – | 32 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248AZI-L485 | ● | ● | ● | FP | 53 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x101111A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248BZI-L469 | ● | ● | – | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x101711A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | – | 4 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | – | – | ● | – | Tray |
| CY8C4248BZI-L479 | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x101011A0 | 256 | – | 32 | – | 85 | 5.5 | -40 | 1.7 | – | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248BZI-L489 | ● | ● | ● | BGA | 98 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x101311A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 4 | 2 | 8 | 32 | 4 | 2 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248LTI-L475 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x100F11A0 | 256 | – | 32 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248LTI-L485 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x101211A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| CY8C4248LTQ-L485 | ● | ● | ● | QFN | 57 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x101211A0 | 256 | – | 32 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 32 | 4 | 4 | 2 | – | – | 8 | 2 | – | ● | USB 2.0 full-speed client contr. | Tray |
| **PSoC™ 4200 M-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4245AXI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1124 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AZI-M433 | ● | ● | – | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1120 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AZI-M443 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1121 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AZI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1122 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245LTI-DM405 | ● | ● | – | QFN | 55 | Cortex®-M0 | 48 | – | 0x1123 | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 8 | 8 | – | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245LTI-DM405T | ● | ● | – | QFN | 55 | Cortex®-M0 | 48 | – | 0x1123 | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 8 | 8 | – | 4 | – | – | – | 4 | – | – | – | – | Reel |

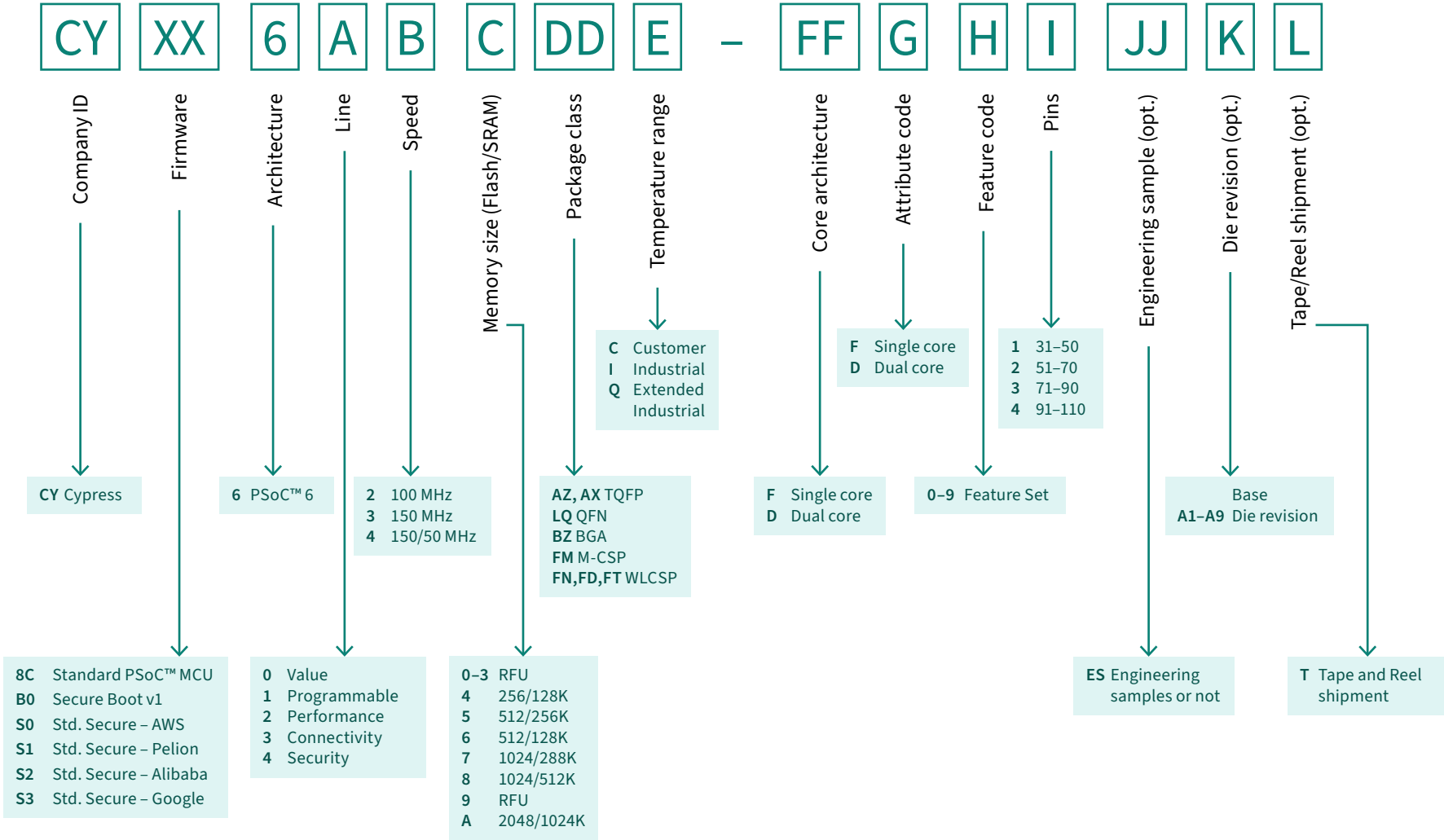
# Industrial PSoC™ 4200

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4200 M-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4245LTI-M445 | ● | ● | ● | QFN | 55 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1123 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246AXI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x112A | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4245AZI-M443 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1121 | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246AZI-M445 | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1126 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246AZI-M475 | ● | ● | – | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1127 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246AZQ-M443 | ● | ● | ● | QFP | 38 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | – | 64 | – | 8 | ● | 105 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246LTI-DM405 | ● | ● | – | QFN | 55 | Cortex®-M0 | 48 | – | 0x1128 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 8 | 8 | – | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246LTI-M445 | ● | ● | ● | QFN | 55 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1128 | 64 | – | 8 | ● | 85 | 5.5 | -40 | 1.7 | – | 1 | 2 | 8 | 8 | 2 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4246LTI-M475 | ● | ● | – | QFN | 55 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x1129 | 64 | – | 8 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AXI-M485 | ● | ● | ● | FP | 48 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x112E | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | – | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AXQ-M485 | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AZI-M475 | ● | ● | – | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x112C | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AZI-M475T | ● | ● | – | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | 0x112C | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Reel |
| CY8C4247AZI-M485 | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 806 ksps) | 0x112D | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AZQ-M485 | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247AZQ-M485T | ● | ● | ● | FP | 51 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 1 msps) | – | 128 | – | 16 | ● | 105 | 5.5 | -40 | 1.7 | 2 | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Reel |
| CY8C4247LTI-M475 | ● | ● | ● | QFN | 48 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 806 ksps) | 0x112B | 128 | – | 16 | ● | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |
| CY8C4247LTQ-M475 | ● | ● | – | QFN | 48 | Cortex®-M0 | 48 | SAR (1, 12-bit @ 806 ksps) | 0x112B | 128 | – | 16 | – | 85 | 5.5 | -40 | 1.7 | – | 2 | 2 | 8 | 8 | 4 | 4 | – | – | – | 4 | – | – | – | – | Tray |

# Industrial PSoC™ 4700

| Product type/partnumber | Industrial | Consumer | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Dedicated ADC (# Max Resolution @ Sample rate) | JTAG and Si ID | Flash [KB] | EEPROM [KB] | SRAM [KB] | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Continuous time blocks | # Dedicated comparators | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Op Amps | # Serial communication blocks | # SIO | # Smart I/Os | # Universal analog blocks | # Universal digital blocks | # USB IO | Part family | PLL | USB (type) | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 4700 S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4724FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Reel |
| CY8C4724LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Tray |
| CY8C4725FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Reel |
| CY8C4725LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 24 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Tray |
| CY8C4744AZI-S403 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Tray |
| CY8C4744FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Reel |
| CY8C4744LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 48 | – | – | 16 | – | 2 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Tray |
| CY8C4745AZI-S403 | ● | ● | – | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | Tray |
| CY8C4745AZI-S413 | ● | ● | ● | QFP | 36 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | ● | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 16 | – | – | – | – | – | Tray |
| CY8C4745FNI-S402T | ● | ● | – | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | Reel |
| CY8C4745FNI-S412T | ● | ● | ● | WLCSP | 21 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Reel |
| CY8C4745LQI-S401 | ● | ● | – | QFN | 19 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | – | – | – | – | – | – | Tray |
| CY8C4745LQI-S411 | ● | ● | ● | QFN | 19 | Cortex®-M0+ | 48 | – | – | 32 | – | 4 | – | 85 | 5.5 | -40 | 1.7 | – | – | 2 | 5 | – | – | 2 | – | 8 | – | – | – | – | – | Tray |

# Industrial PSoC™ 6



# Industrial PSoC™ 6

| Product type/partnumber | Industrial | Consumer | BLE Maximum Data Rate [Mbps] | BLE Power Output [dBm] | BLE RX Sensitivity [dBm] | BLE Supported Frequency band [GHz] | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | Dedicated ADC (# Max Resolution @ Sample rate) | Dedicated DAC (# Max Resolution @ Sample rate) | Flash [KB] | SRAM [KB] | I²S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I²C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 61 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6136F-TI-F42T | ● | ● | – | – | – | – | ● | WLC-SP | – | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6145A-ZI-S3F42 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6145A-ZI-S3F12 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6145A-ZI-S3F62 | ● | ● | – | – | – | – | – | QFP | 64 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C614AA-ZI-S2F14 | ● | ● | – | – | – | – | ● | QFP | 102 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 62 | – | 12 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6145A-ZI-S3F02 | ● | ● | – | – | – | – | – | QFP | 64 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C614AB-ZI-S2F44 | ● | ● | – | – | – | – | ● | BGA | 102 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C614AA-ZI-S2F04 | ● | ● | – | – | – | – | – | QFP | 102 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 62 | – | 13 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6145L-QI-S3F62 | ● | ● | – | – | – | – | – | QFN | 53 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6145L-QI-S3F72 | ● | ● | – | – | – | – | ● | QFN | 53 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6148B-ZI-S2F44 | ● | ● | – | – | – | – | ● | BGA | 102 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6145L-QI-S3F02 | ● | ● | – | – | – | – | – | QFN | 53 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6145L-QI-S3F12 | ● | ● | – | – | – | – | ● | QFN | 53 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C614AF-NI-S2F43T | ● | ● | – | – | – | – | ● | WLC-SP | 82 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Reel |

# Industrial PSoC™ 6

| Product type/partnumber | Industrial | Consumer | BLE Maximum Data Rate [Mbps] | BLE Power Output [dBm] | BLE RX Sensitivity [dBm] | BLE Supported Frequency band [GHz] | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | Dedicated ADC (# Max Resolution @ Sample rate) | Dedicated DAC (# Max Resolution @ Sample rate) | Flash [KB] | SRAM [KB] | I²S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I²C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 61 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6148A-ZI-S2F44 | ● | ● | – | – | – | – | ● | QFP | 102 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 62 | – | 13 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6148F-NI-S2F43T | ● | ● | – | – | – | – | ● | WLC-SP | 82 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C614AF-NI-S2F03T | ● | ● | – | – | – | – | – | WLC-SP | 82 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C614AB-ZI-S2F04 | ● | ● | – | – | – | – | – | BGA | 102 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 3 | – | 13 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6145L-QI-S3F42 | ● | ● | – | – | – | – | ● | QFN | 53 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6136B-ZI-F14 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Tray |
| CY8C6137B-ZI-F54 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray |
| CY8C6117B-ZI-F34 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 50 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray |
| CY8C6116B-ZI-F54 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 50 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray |
| CY8C6117B-ZI-F34T | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 50 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6145F-NI-S3F41T | ● | ● | – | – | – | – | ● | WLC-SP | 37 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | – | Reel |
| CY8C6145F-NI-S3F71T | ● | ● | – | – | – | – | ● | WLC-SP | 37 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | – | Reel |
| CY8C6145F-NI-S3F11T | ● | ● | – | – | – | – | ● | WLC-SP | 37 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | – | Reel |
| CY8C6117F-DI-F02T | ● | ● | – | – | – | – | – | WLC-SP | – | Cortex®-M4 | 50 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel |

# Industrial PSoC™ 6

| Product type/partnumber | Industrial | Consumer | BLE Maximum Data Rate [Mbps] | BLE Power Output [dBm] | BLE RX Sensitivity [dBm] | BLE Supported Frequency band [GHz] | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | Dedicated ADC (# Max Resolution @ Sample rate) | Dedicated DAC (# Max Resolution @ Sample rate) | Flash [KB] | SRAM [KB] | I²S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I²C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 61 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6137F-DI-F02T | ● | ● | – | – | – | – | – | WLC-SP | – | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Reel |
| CY8C6136F-DI-F42T | ● | ● | – | – | – | – | ● | WLC-SP | – | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6145A-ZI-S3F72 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6136B-ZI-F34 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray |
| CY8C6137B-ZI-F14 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Tray |
| CY8C6137B-ZI-F34 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray |
| **PSoC™ 62 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6247F-DI-D32T | ● | ● | – | – | – | – | ● | WLC-SP | – | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6247F-DI-D52T | ● | ● | – | – | – | – | ● | WLC-SP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6248B-ZI-S2D44 | ● | ● | – | – | – | – | ● | BGA | 100 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray |
| CY8C624AB-ZI-S2D14 | ● | ● | – | – | – | – | ● | BGA | 100 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray |
| CY8C624AB-ZI-S2D04 | ● | ● | – | – | – | – | – | BGA | 100 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6248A-ZI-S2D14 | ● | ● | – | – | – | – | ● | QFP | 27 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6248A-ZI-S2D44 | ● | ● | – | – | – | – | ● | QFP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray |

# Industrial PSoC™ 6

| Product type/partnumber | Industrial | Consumer | BLE Maximum Data Rate [Mbps] | BLE Power Output [dBm] | BLE RX Sensitivity [dBm] | BLE Supported Frequency band [GHz] | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | Dedicated ADC (# Max Resolution @ Sample rate) | Dedicated DAC (# Max Resolution @ Sample rate) | Flash [KB] | SRAM [KB] | I²S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I²C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 62 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C624AA-ZI-S2D14 | ● | ● | – | – | – | – | ● | QFP | – | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 4 | – | – | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6245A-ZI-S3D12 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | – | 8 | Dual host and device | Tray |
| CY8C6245L-QI-S3D62 | ● | ● | – | – | – | – | – | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | 12 | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6245A-ZI-S3D42 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | – | 8 | Dual host and device | Tray |
| CY8C6245L-QI-S3D12 | ● | ● | – | – | – | – | ● | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6245A-ZI-S3D62 | ● | ● | – | – | – | – | – | QFP | 64 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | – | 8 | Dual host and device | Tray |
| CY8C6245L-QI-S3D72 | ● | ● | – | – | – | – | ● | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6247B-ZI-AUD54 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6246B-ZI-D04 | ● | ● | – | – | – | – | – | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Tray |
| CY8C6247B-ZI-D54T | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6247B-ZI-D44T | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6245A-ZI-S3D02 | ● | ● | – | – | – | – | – | QFP | 64 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | 2 | – | 8 | Dual host and device | Tray |
| CY8C6245L-QI-S3D42 | ● | ● | – | – | – | – | ● | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C6247B-ZI-D54 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray |

# Industrial PSoC™ 6

| Product type/partnumber | Industrial | Consumer | BLE Maximum Data Rate [Mbps] | BLE Power Output [dBm] | BLE RX Sensitivity [dBm] | BLE Supported Frequency band [GHz] | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | Dedicated ADC (# Max Resolution @ Sample rate) | Dedicated DAC (# Max Resolution @ Sample rate) | Flash [KB] | SRAM [KB] | I²S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I²C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 62 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6245F-NI-S3D41T | ● | ● | – | – | – | – | ● | WLC-SP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Reel |
| CY8C6245F-NI-S3D11T | ● | ● | – | – | – | – | ● | WLC-SP | – | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 16 | Dual host and device | Reel |
| CY8C6245L-QI-S3D02 | ● | ● | – | – | – | – | – | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 12 | 2 | – | 6 | – | ● | 8 | Dual host and device | Tray |
| CY8C624AB-ZI-S2D44 | ● | ● | – | – | – | – | ● | BGA | 100 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 4 | – | 12 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6247F-DI-D02T | ● | ● | – | – | – | – | – | WLC-SP | – | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Reel |
| CY8C6247B-ZI-D34 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | Dual host and device | Tray |
| CY8C624AF-NI-S2D43T | ● | ● | – | – | – | – | ● | WLC-SP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Reel |
| CY8C624AA-ZI-S2D44 | ● | ● | – | – | – | – | ● | QFP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 2048 | 1024 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6245A-ZI-S3D72 | ● | ● | – | – | – | – | ● | QFP | 64 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | – | 6 | – | – | 8 | Dual host and device | Tray |
| CY8C6248F-NI-S2D43T | ● | ● | – | – | – | – | ● | WLC-SP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 1024 | 512 | 2 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | – | – | – | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6245F-NI-S3D71T | ● | ● | – | – | – | – | ● | WLC-SP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | – | 512 | 256 | – | ● | 85 | 3.6 | -40 | 1.7 | 1 | 2 | – | 12 | 2 | 12 | 6 | – | ● | 8 | Dual host and device | Reel |
| CY8C6247B-ZI-D44 | ● | ● | – | – | – | – | ● | BGA | 104 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | Dual host and device | Tray |
| **PSoC™ 63 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6347F-MI-BLD33T | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLC-SP | 72 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Reel |

# Industrial PSoC™ 6

| Product type/partnumber | Industrial | Consumer | BLE Maximum Data Rate [Mbps] | BLE Power Output [dBm] | BLE RX Sensitivity [dBm] | BLE Supported Frequency band [GHz] | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | Dedicated ADC (# Max Resolution @ Sample rate) | Dedicated DAC (# Max Resolution @ Sample rate) | Flash [KB] | SRAM [KB] | I²S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I²C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 63 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6347F-MI-BLD13T | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLC-SP | 72 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Reel |
| CY8C6347F-MI-BLD53T | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLC-SP | 72 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Reel |
| CY8C6347F-MI-BUD43T | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLC-SP | 69 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6347F-MI-BUD13T | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLC-SP | 69 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C6347F-MI-BUD33T | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLC-SP | 69 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Reel |
| CY8C68237 FM-BLE | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLC-SP | 72 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 5,5 | -40 | 1.9 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Tray |
| CY8C6347F-MI-BLD43T | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLC-SP | 72 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Reel |
| CY8C6336B-ZI-BLD14 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 84 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6347B-ZI-BLD34 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 84 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6316B-ZI-BLF54 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 84 | Cortex®-M4 | 50 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6336B-ZI-BLF04 | ● | ● | 2 | +4 | -95 | 2.4 | – | BGA | 84 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6347B-ZI-BLD44 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 84 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6337B-ZI-BLF14 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 84 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6316B-ZI-BLF03 | ● | ● | 2 | +4 | -95 | 2.4 | – | BGA | 78 | Cortex®-M4 | 50 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 160 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | – | Tray |

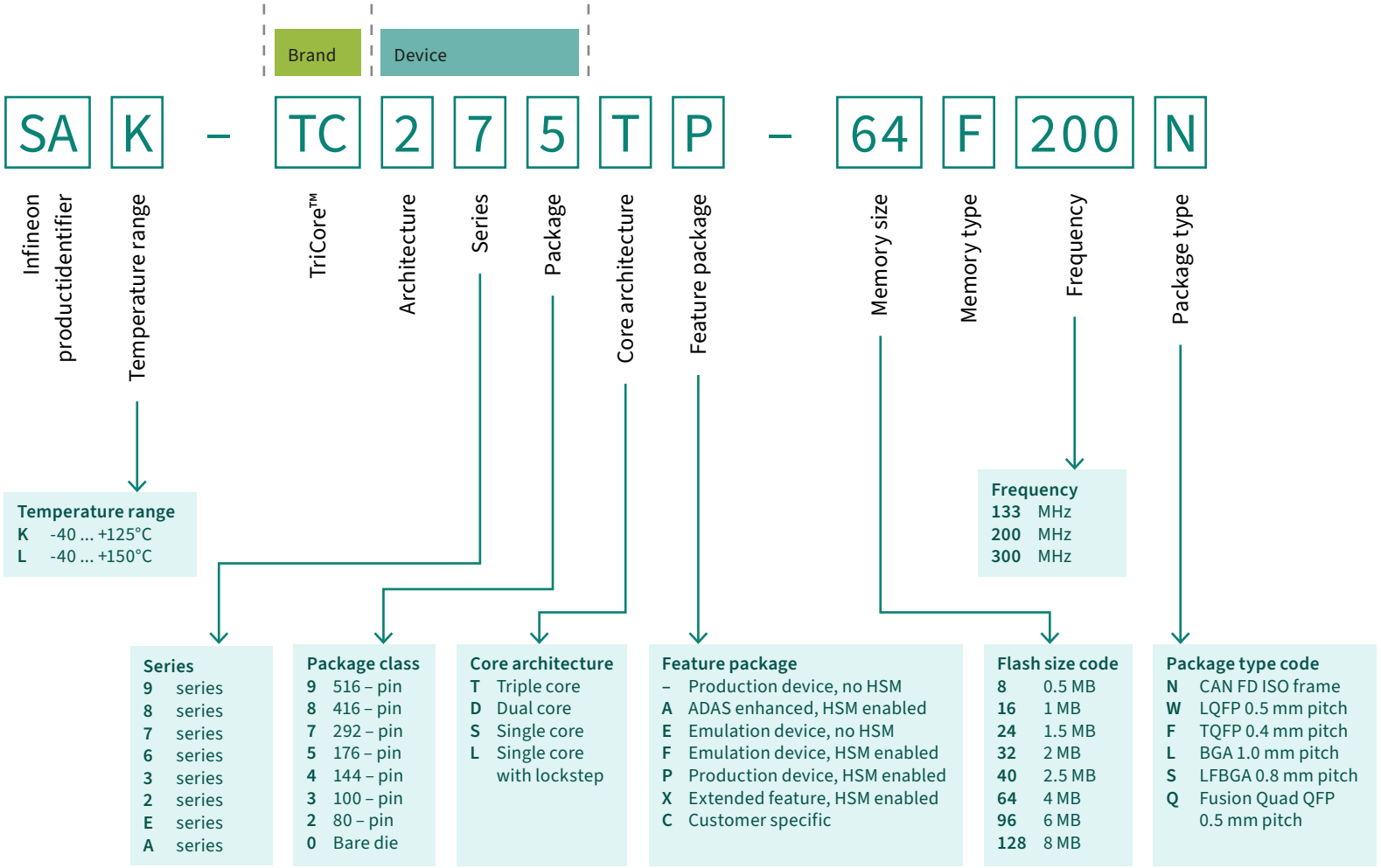
# Industrial PSoC™ 6

| Product type/partnumber | Industrial | Consumer | BLE Maximum Data Rate [Mbps] | BLE Power Output [dBm] | BLE RX Sensitivity [dBm] | BLE Supported Frequency band [GHz] | CapSense | Package | # GPIOs | Processor type | Max. Operating frequency [MHz] | Secondary processor type | Cryptographics accelerator | Dedicated ADC (# Max Resolution @ Sample rate) | Dedicated DAC (# Max Resolution @ Sample rate) | Flash [KB] | SRAM [KB] | I²S | LCD direct drive | Max. Operating temp. [°C] | Max. Operating voltage [V] | Min. Operating temp. [°C] | Min. Operating voltage [V] | # CAN controllers | # Dedicated comparators | # Dedicated OpAmps | # Dedicated timer/Counter/PWM blocks | # DMA channels | # Programmable universal digital blocks | # Serial communication blocks (I²C, UART, SPI) | PDM-PCM | Quad-SPI | Smart I/O | FS-USB | Package carrier |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **PSoC™ 63 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C6336B-ZI-BLF03 | ● | ● | 2 | +4 | -95 | 2.4 | – | BGA | 78 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 160 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | – | Tray |
| CY8C6347B-ZI-BLD43 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Tray |
| CY8C6336B-ZI-BLD13 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 160 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | – | ● | 16 | – | Tray |
| CY8C6337B-ZI-BLF13 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Tray |
| CY8C6347B-ZI-BLD43T | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Reel |
| CY8C6347B-ZI-BLD53T | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Reel |
| CY8C6316B-ZI-BLF53 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 50 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 160 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | ● | 16 | – | Tray |
| CY8C6336L-QI-BLF42 | ● | ● | 2 | +4 | -95 | 2.4 | ● | QFN | 41 | Cortex®-M4 | 150 | – | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Tray |
| CY8C6316B-ZI-BLF04 | ● | ● | 2 | +4 | -95 | 2.4 | – | BGA | 84 | Cortex®-M4 | 50 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | Dual host and device | Tray |
| CY8C6336L-QI-BLF02 | ● | ● | 2 | +4 | -95 | 2.4 | – | QFN | 41 | Cortex®-M4 | 150 | – | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 512 | 128 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | – | 32 | 32 | – | 9 | 2 | ● | 16 | – | Tray |
| CY8C6347F-MI-BUD53T | ● | ● | 2 | +4 | -95 | 2.4 | ● | WLC-SP | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | – | – | 16 | Dual host and device | Reel |
| CY8C6347B-ZI-BLD33 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | – | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Tray |
| CY8C6347L-QI-BLD52 | ● | ● | 2 | +4 | -95 | 2.4 | ● | QFN | – | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Tray |
| CY8C6347B-ZI-BLD53 | ● | ● | 2 | +4 | -95 | 2.4 | ● | BGA | 78 | Cortex®-M4 | 150 | Cortex®-M0 | (AES, 3DES, RSA, SHA-512, SHA-256 and ECC) | SAR (1, 12-bit @ 1 msps) | (1, 12-bit @ 200 ksps) | 1024 | 288 | 1 | ● | 85 | 3.6 | -40 | 1.7 | – | 2 | 2 | 32 | 32 | 12 | 9 | 2 | ● | 16 | – | Tray |

# Automotive, Off-Highway vehicles, and Safety Required Applications

Content

# AURIX™ Microcontroller – TC2x family



# AURIX™ Microcontroller – TC2x family

| | Markets | | | Package | | Tri Core™ | | Program flash | | Data flash | | | SRAM | DMA | ADC | | Timer-GTM | | | | Timer | Interfaces | | | | | | | | | | | | | | | | Safety | Security | Power | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type | Automotive | Industrial | Consumer | Temperature $T_A$ [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PMI) [KB] | Channels | Modules 12-bit (SAR) / 16-bit (DS) | Channels VADC/DSADC | GTM input/output channels | TOM – standard 16-bit PWM ch. | ATOM – complex 24-bit PWM ch. | DTM – 2x4 ch | CCU/GPT modules | FlexRay (#/ch.) | CAN-FD (nodes/obj)/DIS 2014) | CAN-FD (nodes/obj)/DIS 2015) | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface ($I^2C$) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | FFT accelerator engine | "Camera (incl. pixel preprocessing), and ext. ADC 16-bit interface (CIF)" | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | Embedded Voltage Regulator (EVR) | Standby control unit |
| **AURIX™ TC2x – family** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAK-TC299TX-128F300 | ● | ● | – | 125 | lFBGA-516 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 84/10 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 6 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | 1 | – | – | 1 | ASIL-D | ● | ● | SRAM |
| SAK-TC299TY-128F300 | ● | ● | – | 125 | lFBGA-516 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 84/10 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 6 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | 1 | – | – | 1 | ASIL-D | – | ● | SRAM |
| SAK-TC299TP-128F300 | ● | ● | – | 125, 150 | lFBGA-516 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 728 | 128 | 11/10 | 84/10 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 6 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | 1 | – | – | 1 | ASIL-D | ● | ● | SRAM |
| SAK-TC298TP-128F300 | ● | ● | – | 125, 150 | lFBGA-416 (1.0 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 728 | 128 | 11/10 | 62/10 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 4 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | 1 | – | – | 1 | ASIL-D | ● | ● | SRAM |
| SAK-TC297TA-128F300 | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | – | 1 | 1 | 1 | ASIL-D | ● | ● | SRAM |
| SAK-TC297TB-128F300 | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | – | 1 | 1 | 1 | ASIL-D | – | ● | SRAM |
| SAK-TC297TX-128F300 | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | – | – | – | 1 | ASIL-D | ● | ● | SRAM |
| SAK-TC297TY-128F300 | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 2776 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | - | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | – | – | – | 1 | ASIL-D | – | ● | SRAM |
| SAK-TC297TP-128F300 | ● | ● | – | 125, 150 | lFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 728 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | – | – | – | 1 | ASIL-D | ● | ● | SRAM |
| SAK-TC297T-128F300 | ● | ● | – | 125, 150 | lFBGA-292 (0.8 mm) | 3/1 | 300 | 8 | 20 years | 768 | 125 k | 10 years | 728 | 128 | 11/10 | 60/6 diff | 48/152 | 80 | 72 | – | 2/1 | 2/4 | 6/384 | 4 | 5 | 4 | 2 | 15 | 5 | 1 | 1 | 3 diff lVDS | – | – | – | 1 | ASIL-D | – | ● | SRAM |
| SAK-TC277TP-64F200 | ● | ● | – | 125, 150 | lFBGA-292 (0.8 mm) | 3/2 | 200 | 4 | 20 years | 384 | 125 k | 10 years | 472 | 64 | 8/6 | 60/6 diff | 32/88 | 48 | 40 | – | 2/1 | 1/2 | 4/256 | 4 | 4 | 4 | 1 | 10 | 3 | 1 | 1 | 2 diff lVDS | – | – | – | 1 | ASIL-D | ● | ● | SRAM |
| SAK-TC277T-64F200 | ● | ● | – | 125, 150 | lFBGA-292 (0.8 mm) | 3/2 | 200 | 4 | 20 years | 384 | 125 k | 10 years | 472 | 64 | 8/6 | 60/6 diff | 32/88 | 48 | 40 | – | 2/1 | 1/2 | 4/256 | 4 | 4 | 4 | 1 | 10 | 3 | 1 | 1 | 2 diff lVDS | – | – | – | 1 | ASIL-D | – | ● | SRAM |
| SAK-TC275TP-64F200 | ● | ● | – | 125, 150 | lQFP-176 (0.5 mm) | 3/2 | 200 | 4 | 20 years | 384 | 125 k | 10 years | 472 | 64 | 8/6 | 48/6 diff | 32/88 | 48 | 40 | – | 2/1 | 1/2 | 4/256 | 4 | 4 | 4 | 1 | 10 | 3 | 1 | 1 | 2 diff lVDS | – | – | – | 1 | ASIL-D | ● | ● | SRAM |

# AURIX™ Microcontroller – TC2x family

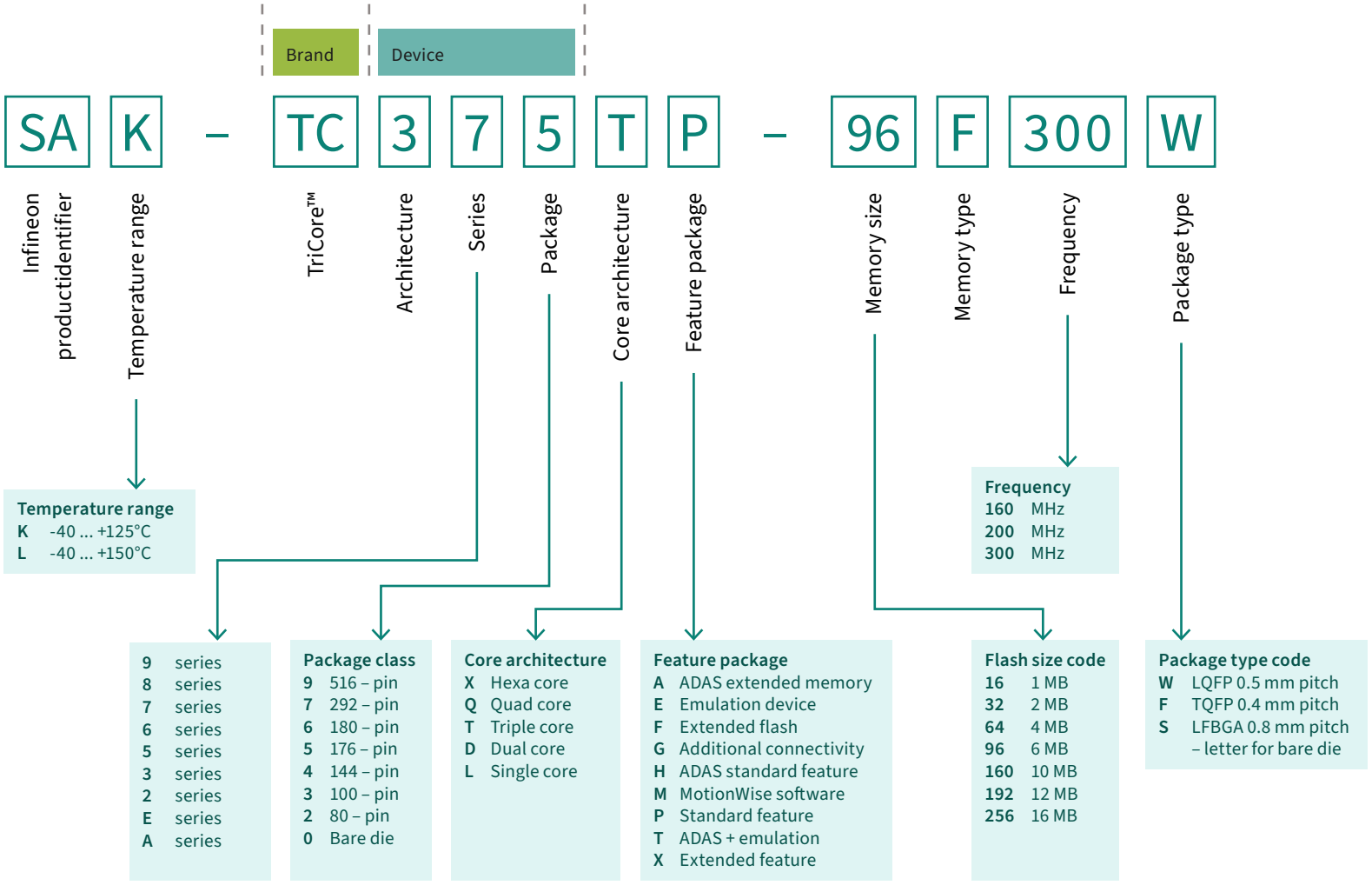
| | Markets | | | Package | | TriCore™ | | Program flash | | Data flash | | | SRAM | DMA | ADC | | Timer-GTM | | | | Timer | Interfaces | | | | | | | | | | | | | | | | | | Safety | Security | Power | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type | Automotive | Industrial | Consumer | Temperature $T_A$ [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PMI) [KB] | Channels | Modules 12-bit (SAR) / 16-bit (DS) | Channels VADC/DSADC | GTM input/output channels | TOM – standard 16-bit PWM ch. | ATOM – complex 24-bit PWM ch. | DTM – 2x4 ch | CCU/GPT modules | FlexRay (#/ch.) | CAN-FD (nodes/obj)/DIS 2014) | CAN-FD (nodes/obj)/(DIS 2015) | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface ($I^2C$) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | FFT accelerator engine | "Camera (incl. pixel preprocessing), and ext. ADC 16-bit interface (CIF)" | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | Embedded Voltage Regulator (EVR) | Standby control unit |
| **AURIX™ TC2x – family** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAK-TC275T-64F200 | ● | ● | – | 125, 150 | lQFP-176 (0.5 mm) | 3/2 | 200 | 4 | 20 years | 384 | 125 k | 10 years | 472 | 64 | 8/6 | 48/6 diff | 32/88 | 48 | 40 | – | 2/1 | 1/2 | 4/256 | 4 | 4 | 4 | 1 | 10 | 3 | 1 | 1 | 2 diff lVDS | – | – | – | 1 | ASIL-D | – | ● | SRAM |
| SAK-TC267D-40F200 | ● | ● | – | 125, 150 | lFBGA-292 (0.8 mm) | 2/1 | 200 | 2.5 | 20 years | 96 | 125 k | 10 years | 240 | 48 | 4/3 | 56/3 diff | 24/ 64 | 32 | 32 | – | 2/1 | 1/2 | 5/256 | No | 4 | 4 | 1 | 6 | 2 | 1 | 1 | 2 diff lVDS | – | – | – | 1 | ASIL-D | – | ● | Yes |
| SAK-TC265D-40F200 | ● | ● | – | 125, 150 | lQFP-176 (0.5 mm) | 2/1 | 200 | 2.5 | 20 years | 96 | 125 k | 10 years | 240 | 48 | 4/3 | 50/3 diff | 24/ 64 | 32 | 32 | – | 2/1 | 1/2 | 5/256 | 4 | 4 | 4 | 1 | 6 | 2 | 1 | 1 | 2 diff lVDS | – | – | – | 1 | ASIL-D | – | ● | Yes |
| SAK-TC264DA-40F200 | ● | ● | – | 125 | lQFP-144 (0.5 mm) | 2/1 | 200 | 2.5 | 20 years | 96 | 125 k | 10 years | 752 | 48 | 4/3 | 40/3 diff | 24/ 64 | 32 | 32 | – | 2/1 | 1/2 | 5/256 | 4 | 4 | 4 | 1 | 6 | 2 | 1 | 1 | 2 diff lVDS | – | 1 | 1 | 1 | ASIL-D | – | ● | Yes |
| SAK-TC264D-40F200 | ● | ● | – | 125, 150 | lQFP-144 (0.5 mm) | 2/1 | 200 | 2.5 | 20 years | 96 | 125 k | 10 years | 240 | 48 | 4/3 | 40/3 diff | 24/ 64 | 32 | 32 | – | 2/1 | 1/2 | 5/256 | 4 | 4 | 4 | 1 | 6 | 2 | 1 | 1 | 2 diff lVDS | – | – | – | 1 | ASIL-D | – | ● | Yes |
| SAK-TC234LA-32F200 | ● | ● | – | 125 | TQFP-144 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 704 | 16 | 4/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | No | 4 | 2 | – | 4 | – | – | – | – | – | 1 | – | 1 | ASIL-D | ● | ● | WUT + SRAM |
| SAK-TC234LX-32F200 | ● | ● | – | 125 | TQFP-144 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 704 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | No | 4 | 2 | – | 4 | – | – | – | – | – | – | – | 1 | ASIL-D | ● | ● | WUT + SRAM |
| SAK-TC237LP-32F200 | ● | ● | – | 125, 150 | lFBGA-292 (0.8 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | ● | ● | WUT + SRAM |
| SAK-TC234LP-32F200 | ● | ● | – | 125, 150 | TQFP-144 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | ● | ● | WUT + SRAM |
| SAK-TC234L-32F200 | ● | ● | – | 125, 150 | TQFP-144 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK-TC233L-32F200 | ● | ● | – | 125, 150 | TQFP-100 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK-TC233LP-32F200 | ● | ● | – | 125, 150 | TQFP-100 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 192 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | 1/2 | 6/256 | 4 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | ● | ● | WUT + SRAM |
| SAK-TC224L-16F133 | ● | ● | – | 125, 150 | TQFP-144 (0.4 mm) | 1/1 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |

# AURIX™ Microcontroller – TC2x family

| | Markets | | | Package | | Tri Core™ | | Program flash | | Data flash | | | SRAM | DMA | ADC | | Timer-GTM | | | | Timer | Interfaces | | | | | | | | | | | | | | | | Safety | Security | Power | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type | Automotive | Industrial | Consumer | Temperature $T_A$ [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PMI) [KB] | Channels | Modules 12-bit (SAR) / 16-bit (DS) | Channels VADC/DSADC | GTM input/output channels | TOM – standard 16-bit PWM ch. | ATOM – complex 24-bit PWM ch. | DTM – 2x4 ch | CCU/GPT modules | FlexRay (#/ch.) | CAN-FD (nodes/obj)/DIS 2014) | CAN-FD (nodes/obj)/DIS 2015) | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface ($I^2C$) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | FFT accelerator engine | "Camera (incl. pixel preprocessing), and ext. ADC 16-bit interface (CIF)" | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | Embedded Voltage Regulator (EVR) | Standby control unit |
| **AURIX™ TC2x – family** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SAK-TC224S-16F133 | ● | ● | – | 125, 150 | TQFP-144 (0.4 mm) | 1/0 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK-TC223L-16F133 | ● | ● | – | 125, 150 | TQFP-100 (0.4 mm) | 1/1 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK-TC223S-16F133 | ● | ● | – | 125, 150 | TQFP-100 (0.4 mm) | 1/0 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK-TC222L-16F133 | ● | ● | – | 125, 150 | TQFP-80 (0.4 mm) | 1/1 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK-TC222S-16F133 | ● | ● | – | 125, 150 | TQFP-80 (0.4 mm) | 1/0 | 133 | 1 | 20 years | 96 | 125 k | 10 years | 96 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK-TC214L-8F133 | ● | ● | – | 125, 150 | TQFP-144 (0.4 mm) | 1/1 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK-TC214S-8F133 | ● | ● | – | 125, 150 | TQFP-144 (0.4 mm) | 1/0 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK-TC213L-8F133 | ● | ● | – | 125, 150 | TQFP-100 (0.4 mm) | 1/1 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK-TC213S-8F133 | ● | ● | – | 125, 150 | TQFP-100 (0.4 mm) | 1/0 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |
| SAK-TC212L-8F133 | ● | ● | – | 125, 150 | TQFP-80 (0.4 mm) | 1/1 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-D | – | ● | WUT + SRAM |
| SAK-TC212S-8F133 | ● | ● | – | 125, 150 | TQFP-80 (0.4 mm) | 1/0 | 133 | 0.5 | 20 years | 64 | 125 k | 10 years | 56 | 16 | 2/– | 24/– | 8/32 | 32 | – | 2 | 2/1 | – | 3/128 | 3 | 4 | 2 | – | 4 | – | – | – | – | – | – | – | – | ASIL-B | – | ● | WUT + SRAM |

**ASC** = Asynchronous Serial Channel
**EVR** = Embedded Voltage Regulator
**MSC** = Micro Second Channel
**SENT** = Single Edge Nibble Transmission
Ambient temperature range:
**K** = -40 ... 125°C, L = -40 ... 150°C

# AURIX™ Microcontroller – TC3x family



# AURIX™ Microcontroller – TC3x family

| | Markets | | | Package | | Tri Core™ | | Program flash | | Data flash | | | SRAM | DMA | Timer | Interfaces | | | | | | | | | | | | | | Safety | Serurity | Power | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type | Automotive | Industrial | Consumer | Temperature $T_A$ [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PMI) [KB] | Channels | GTM/CCU/GPT modules | FlexRay (#/ch.) | CAN-FD | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface ($I^2C$) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | Signal Processing Unit (SPU) | "Camera (incl. pixel preprocessing), and ext. ADC 16-bit interface (CIF)" | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | "Embedded Voltage Regulator (EVR) (5 V/3.3 V)" | Standby control unit Standby control unit |
| **AURIX™ TC3x – family** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TC397XA-256F300S | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 6/4 | 300 | 16 | 20 years | 1024 | 125 k | 10 years | 6912 | 128 | ● / ● / ● | 4 | 12 | 6 | 12 | 2 | 17 | 4 | ● | 2 | 1 | – | 2 | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC399XX-256F300S | ● | ● | – | 125–150 | lFBGA-516 (0.8 mm) | 6/4 | 300 | 16 | 20 years | 1024 | 125 k | 10 years | 6912 | 128 | ● / ● / ● | 4 | 12 | 6 | 12 | 2 | 25 | 4 | ● | 2 | 4 | ● | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC399XP-256F300S | ● | ● | – | 125–150 | lFBGA-516 (0.8 mm) | 6/4 | 300 | 16 | 20 years | 1024 | 125 k | 10 years | 2816 | 128 | ● / ● / ● | 4 | 12 | 6 | 12 | 2 | 25 | 4 | ● | 2 | 4 | ● | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC397XX-256F300S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 6/4 | 300 | 16 | 20 years | 1024 | 125 k | 10 years | 6912 | 128 | ● / ● / ● | 4 | 12 | 6 | 12 | 2 | 20 | 4 | ● | 2 | 2 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC397XP-256F300S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 6/4 | 300 | 16 | 20 years | 1024 | 125 k | 10 years | 2816 | 128 | ● / ● / ● | 4 | 12 | 6 | 12 | 2 | 20 | 4 | ● | 2 | 2 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC397QA-160F300S | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 4/4 | 300 | 16 | 20 years | 1024 | 125 k | 10 years | 6368 | 128 | ● / ● / ● | 4 | 12 | 6 | 12 | 2 | 20 | 4 | ● | 2 | 1 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC397XM-256F300S | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 6/4 | 300 | 16 | 20 years | 1024 | 125 k | 10 years | 2816 | 128 | ● / ● / ● | 4 | 12 | 6 | 12 | 2 | 20 | 4 | ● | 2 | 2 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC389QP-160F300S | ● | ● | – | 125–150 | lFBGA-516 (0.8 mm) | 4/2 | 300 | 10 | 20 years | 512 | 125 k | 10 years | 1568 | 128 | ● / ● / ● | 4 | 12 | 5 | 24 | 2 | 25 | 4 | ● | 1 | 3 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC387QP-160F300S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 4/2 | 300 | 10 | 20 years | 512 | 125 k | 10 years | 1568 | 128 | ● / ● / ● | 4 | 12 | 5 | 24 | 2 | 20 | 4 | ● | 1 | 2 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC3E7QG-160F300S | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 4/2 | 300 | 10 | 20 years | 512 | 125 k | 10 years | 1696 | 128 | ● / ● / ● | 4 | 20 | 5 | 24 | 2 | 20 | 4 | ● | 1 | 2 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC3E7QF-192F300S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 4/2 | 300 | 12 | 20 years | 512 | 125 k | 10 years | 1696 | 128 | ● / ● / ● | 4 | 16 | 5 | 24 | 2 | 20 | 4 | ● | 1 | 2 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC3E7QX-192F300S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 4/2 | 300 | 12 | 20 years | 512 | 125 k | 10 years | 1696 | 128 | ● / ● / ● | 4 | 20 | 5 | 24 | 2 | 20 | 4 | ● | 1 | 2 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC377TX-96F300S | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 3/3 | 300 | 6 | 20 years | 256 | 125 k | 10 years | 4208 | 128 | ● / ● / ● | 2 | 12 | 5 | 12 | 1 | 15 | 2 | ● | 1 | 2 | – | – | 1 | 2/2 | ASIl-D | Full eVita | ● | ● (8 bit) |

# AURIX™ Microcontroller – TC3x family

| | Markets | | | Package | | Tri Core™ | | Program flash | | Data flash | | | SRAM | DMA | Timer | Interfaces | | | | | | | | | | | | | | Safety | Serurity | Power | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type | Automotive | Industrial | Consumer | Temperature $T_A$ [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PMI) [KB] | Channels | GTM/CCU/GPT modules | FlexRay (#/ch.) | CAN-FD | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface (I²C) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | Signal Processing Unit (SPU) | "Camera (incl. pixel preprocessing), and ext. ADC 16-bit interface (CIF)" | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | "Embedded Voltage Regulator (EVR) (5 V/3.3 V)" | Standby control unit Standby control unit |
| **AURIX™ TC3x – family** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TC377TP-96F300S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 3/2 | 300 | 6 | 20 years | 256 | 125 k | 10 years | 1136 | 128 | ● / ● / ● | 2 | 8 | 5 | 12 | 1 | 15 | 2 | ● | 1 | 2 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC375TP-96F300W | ● | ● | – | 125–150 | lQFP-176 ( 0.5 mm) | 3/2 | 300 | 6 | 20 years | 256 | 125 k | 10 years | 1136 | 128 | ● / ● / ● | 2 | 8 | 5 | 12 | 1 | 15 | 2 | ● | 1 | 2 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC367DP-64F300S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 2/2 | 300 | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ● / ● / ● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC364DP-64F300W | ● | ● | – | 125–150 | lQFP-176 ( 0.5 mm) | 2/2 | 300 | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ● / ● / ● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC364DP-64F300F | ● | ● | – | 125–150 | TQFP-144 (0.4 mm) | 2/2 | 300 | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ● / ● / ● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC366DP-64F300S | ● | ● | – | 125–150 | BGA-180 (0.8 mm) | 2/2 | 300 | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ● / ● / ● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC365DP-64F300W | ● | ● | – | 125–150 | lQFP-176 ( 0.5 mm) | 2/2 | 300 | 4 | 20 years | 128 | 125 k | 10 years | 672 | 64 | ● / ● / ● | 2 | 8 | 4 | 12 | 1 | 10 | 2 | ● | 1 | 1 | – | – | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC357TA-64F300S | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 3/2 | 300 | 4 | 20 years | 128 | 125 k | 10 years | 3664 | 64 | ● / ● / ● | 2 | 8 | 4 | 4 | 1 | – | – | – | – | – | – | 2 | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC357TH-64F300S | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 3/2 | 300 | 4 | 20 years | 128 | 125 k | 10 years | 3152 | 64 | ● / ● / ● | 2 | 8 | 4 | 4 | 1 | – | – | – | – | – | – | 2 | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC356TH-64F300S | ● | ● | – | 125 | BGA-180 (0.8 mm) | 3/2 | 300 | 4 | 20 years | 128 | 125 k | 10 years | 3152 | 64 | ● / ● / ● | 2 | 8 | 4 | 4 | 1 | – | – | – | – | – | – | 2 | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC356TA-64F300S | ● | ● | – | 125 | BGA-180 (0.8 mm) | 3/2 | 300 | 4 | 20 years | 128 | 125 k | 10 years | 3664 | 64 | ● / ● / ● | 2 | 8 | 4 | 4 | 1 | – | – | – | – | – | – | 2 | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC337DA-32F200S | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 2/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 1576 | 16 | ● / ● / ● | 2 | 4 | 4 | 6 | – | 6 | – | – | – | – | – | 1 | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC337LP-32F200S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |

# AURIX™ Microcontroller – TC3x family

| | Markets | | | Package | | Tri Core™ | | Program flash | | Data flash | | | SRAM | DMA | Timer | Interfaces | | | | | | | | | | | | | | Safety | Serurity | Power | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type | Automotive | Industrial | Consumer | Temperature $T_A$ [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PMI) [KB] | Channels | GTM/CCU/GPT modules | FlexRay (#/ch.) | CAN-FD | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface ($I^2C$) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | Signal Processing Unit (SPU) | "Camera (incl. pixel preprocessing), and ext. ADC 16-bit interface (CIF)" | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | "Embedded Voltage Regulator (EVR) (5 V/3.3 V)" | Standby control unit Standby control unit |
| **AURIX™ TC3x – family** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TC334LP-32F200F | ● | ● | – | 125–150 | TQFP-144 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC333LP-32F200F | ● | ● | – | 125–150 | TQFP-100 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 6 | 4 | 5 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC337LP-32F300S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 1/1 | 300 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC337DA-32F300S | ● | ● | – | 125 | lFBGA-292 (0.8 mm) | 2/1 | 300 | 2 | 20 years | 128 | 125 k | 10 years | 1576 | 16 | ● / ● / ● | 2 | 4 | 4 | 6 | – | 6 | – | – | – | – | – | 1 | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC336LP-32F300S | ● | ● | – | 125–150 | BGA-180 (0.8 mm) | 1/1 | 300 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC336LP-32F200S | ● | ● | – | 125–150 | BGA-180 (0.8 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC336DA-32F300S | ● | ● | – | 125 | BGA-180 (0.8 mm) | 2/1 | 300 | 2 | 20 years | 128 | 125 k | 10 years | 1576 | 16 | ● / ● / ● | 2 | 4 | 4 | 5 | – | 6 | – | – | – | – | – | 1 | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC336DA-32F200S | ● | ● | – | 125 | BGA-180 (0.8 mm) | 2/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 1576 | 16 | ● / ● / ● | 2 | 4 | 4 | 5 | – | 6 | – | – | – | – | – | 1 | – | 1/1 | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC334LP-32F300F | ● | ● | – | 125–150 | TQFP-144 (0.4 mm) | 1/1 | 300 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 8 | 4 | 12 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC333LP-32F300F | ● | ● | – | 125–150 | TQFP-100 (0.4 mm) | 1/1 | 300 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 6 | 4 | 5 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC332LP-32F300F | ● | ● | – | 125–150 | TQFP-80 (0.4 mm) | 1/1 | 300 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 6 | 4 | 5 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC332LP-32F200F | ● | ● | – | 125–150 | TQFP-80 (0.4 mm) | 1/1 | 200 | 2 | 20 years | 128 | 125 k | 10 years | 248 | 16 | ● / ● / ● | 2 | 6 | 4 | 5 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC327LP-16F160S | ● | ● | – | 125–150 | lFBGA-292 (0.8 mm) | 1/1 | 160 | 1 | 20 years | 96 | 125 k | 10 years | 152 | 16 | ● / ● / ● | 2 | 8 | 4 | 4 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |

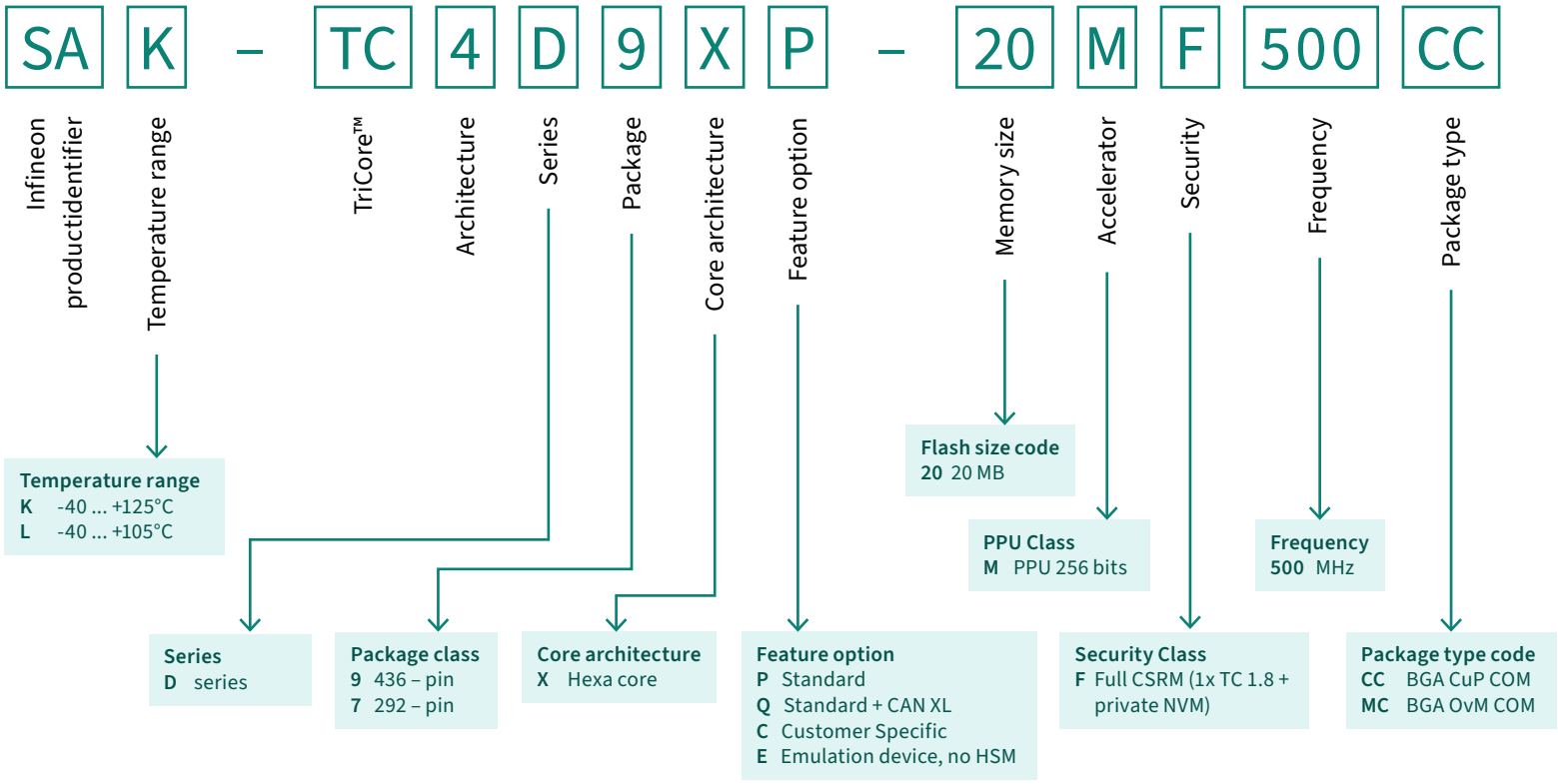
# AURIX™ Microcontroller – TC3x family

| | Markets | | | Package | | Tri Core™ | | Program flash | | Data flash | | | SRAM | DMA | Timer | Interfaces | | | | | | | | | | | | | | Safety | Serurity | Power | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type | Automotive | Industrial | Consumer | Temperature $T_A$ [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PMI) [KB] | Channels | GTM/CCU/GPT modules | FlexRay (#/ch.) | CAN-FD | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface ($I^2C$) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | Signal Processing Unit (SPU) | "Camera (incl. pixel preprocessing), and ext. ADC 16-bit interface (CIF)" | Ethernet MAC 100 Mbit/s | SIL level | Hardware Security Module (HSM) | "Embedded Voltage Regulator (EVR) (5 V/3.3 V)" | Standby control unit Standby control unit |
| **AURIX™ TC3x – family** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TC324LP-16F160F | ● | ● | – | 125–150 | TQFP-144 (0.4 mm) | 1/1 | 160 | 1 | 20 years | 96 | 125 k | 10 years | 152 | 16 | ● / ● / ● | 2 | 8 | 4 | 4 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC323LP-16F160F | ● | ● | – | 125–150 | TQFP-100 (0.4 mm) | 1/1 | 160 | 1 | 20 years | 96 | 125 k | 10 years | 152 | 16 | ● / ● / ● | 2 | 6 | 4 | 4 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |
| TC322LP-16F160F | ● | ● | – | 125–150 | TQFP-80 (0.4 mm) | 1/1 | 160 | 1 | 20 years | 96 | 125 k | 10 years | 152 | 16 | ● / ● / ● | 2 | 6 | 4 | 4 | – | 6 | – | – | – | – | – | – | – | -/- | ASIl-D | Full eVita | ● | ● (8 bit) |

**ASC** = Asynchronous Serial Channel
**EVR** = Embedded Voltage Regulator
**MSC** = Micro Second Channel
**SENT** = Single Edge Nibble Transmission

Ambient temperature range:
**K** = -40 ... 125°C, L = -40 ... 150°C

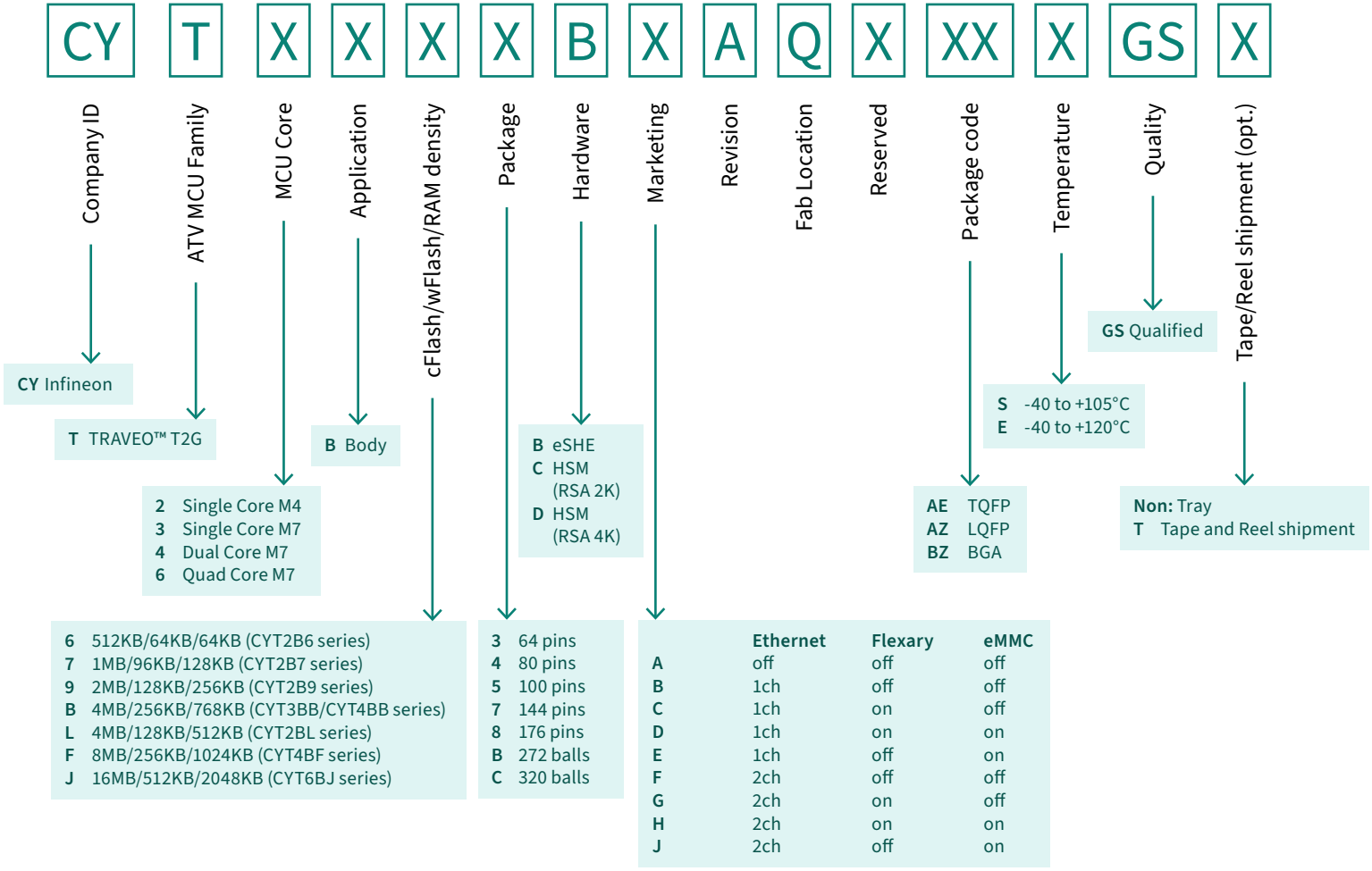
# AURIX™ Microcontroller – TC4x family



# AURIX™ Microcontroller – TC4x family

| | Markets | | | Package | | Tri Core™ | | Program flash | | Data flash | | | SRAM | DMA | Timer | Interfaces | | | | | | | | | | | | | | | | Safety | Serurity | Power | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type | Automotive | Industrial | Consumer | Temperature $T_A$ [°C] | Package (Pitch) | # Cores/checker | Max frequency [MHz] | Size [MB] | Data retention | Physical size [kb] | Erase cycles | Data retention | Total (DMI, PMI) [KB] | Channels | GTM/CCU/GPT modules | FlexRay (#/ch.) | CAN-FD | Queued Synchronous Peripheral Interface (QSPI) | Asynchronous/Synchronous Interface (ASCLIN) | Inter-Integrated Circuit Bus Interface ($I^2C$) | Single Edge Nibble Transmission (SENT) | Peripheral Sensor Interface (PSI5) | PSI with Serial PHY Connection (PSI5S) | High-Speed Communication Tunnel (HSCT) | Micro Second Channel (MSC) | External bus interface e.g. ext. memory | Signal Processing Unit (SPU) | "Camera (incl. pixel preprocessing), and ext. ADC 16-bit interface (CIF)" | Ethernet MAC 100 Mbit/s | Gigabit Ethernet | SIL level | Hardware Security Module (HSM) | "Embedded Voltage Regulator (EVR) (5 V/3.3 V)" | Standby control unit Standby control unit |
| **AURIX™ TC4x – family** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TC4D9XP-20MF500 | ● | ● | – | 125 | BGA-436 (0.8 mm) | 6/6 | 500 | 20 | 20 years | 1024 | 250k | 10 years | 10016 | 128 | eGTM/no/no | 4 | 20 | 8 | 28 | 3 | 30 | 2 | Yes | 2 | 1 | Yes | – | – | 4 | 2 (5 Gbit) | ASIl-D | ISO-21434 | Yes | Yes (8 bit) |

# TRAVEO™ T2G Body decoder



# TRAVEO™ T2G Body

| | | | | | Core | | | System | | | | | | | | Debug | | | Me-mory | | | Ana-log | Timer | | | Communication | | | | | | | | | | | | Ex. Inter-rupt | Safety | Security | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type<br>-CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU)<br>-CM7F_Q (Quad core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I2S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT2B6 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B63BADQ0AZSGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 576 | 64 | 64 | 22 | 2 | 46 | 4 | 6 | 5 | 3 | 0 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | eSHE |
| CYT2B63BADQ0AZEGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 576 | 64 | 64 | 22 | 2 | 46 | 4 | 6 | 5 | 3 | 0 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | eSHE |
| CYT2B63CADQ0AZSGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 576 | 64 | 64 | 22 | 2 | 46 | 4 | 6 | 5 | 3 | 0 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | HSM |
| CYT2B63CADQ0AZEGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 576 | 64 | 64 | 22 | 2 | 46 | 4 | 6 | 5 | 3 | 0 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | HSM |
| CYT2B64BADQ0AZSGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 576 | 64 | 64 | 28 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | eSHE |
| CYT2B64BADQ0AZEGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 576 | 64 | 64 | 28 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | eSHE |
| CYT2B64CADQ0AZSGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 576 | 64 | 64 | 28 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | HSM |
| CYT2B64CADQ0AZEGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 576 | 64 | 64 | 28 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | HSM |
| CYT2B65BADQ0AZSGS | 100-LQFP | 100 | 78 | 16 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 576 | 64 | 64 | 32 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | eSHE |
| CYT2B65BADQ0AZEGS | 100-LQFP | 100 | 78 | 16 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 576 | 64 | 64 | 32 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | eSHE |
| CYT2B65CADQ0AZSGS | 100-LQFP | 100 | 78 | 16 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 576 | 64 | 64 | 32 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | HSM |
| CYT2B65CADQ0AZEGS | 100-LQFP | 100 | 78 | 16 (3port) | ARM_CM4F/CM0+ | 80 | Single precision | ● | ● | 54/26/2 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 576 | 64 | 64 | 32 | 2 | 46 | 4 | 6 | 5 | 4 | 0 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | HSM |
| **TRAVEO™ T2G CYT2B7 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B73BADQ0AZSGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 27 | 4 | 63 | 11 | 7 | 6 | 5 | 0 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | eSHE |

*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Body

| | | | | | Core | | | System | | | | | | | | | Debug | | | Memory | | | Analog | Timer | | | Communication | | | | | | | | | | | Ex. Interrupt | Safety | Security | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type<br>-CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU)<br>-CM7F_Q (Quad core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I2S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT2B7 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B73BADQ0AZEGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 27 | 4 | 63 | 11 | 7 | 6 | 5 | 0 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | eSHE |
| CYT2B73CADQ0AZSGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 27 | 4 | 63 | 11 | 7 | 6 | 5 | 0 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | HSM |
| CYT2B73CADQ0AZEGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 27 | 4 | 63 | 11 | 7 | 6 | 5 | 0 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | HSM |
| CYT2B74BADQ0AZSGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 34 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | eSHE |
| CYT2B74BADQ0AZEGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 34 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | eSHE |
| CYT2B74CADQ0AZSGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 34 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | HSM |
| CYT2B74CADQ0AZEGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 34 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | HSM |
| CYT2B75BADQ0AZSGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 39 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | eSHE |
| CYT2B75BADQ0AZEGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 39 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | eSHE |
| CYT2B75CADQ0AZSGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 39 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | HSM |
| CYT2B75CADQ0AZEGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 39 | 4 | 63 | 12 | 8 | 7 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | HSM |
| CYT2B77BADQ0AZSGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 54 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | eSHE |
| CYT2B77BADQ0AZEGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 54 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | eSHE |
| CYT2B77CADQ0AZSGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 54 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | HSM |

*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Body

| | | | | | Core | | | System | | | | | | | | Debug | | | Memory | | | Analog | Timer | | | Communication | | | | | | | | | | | | Ex. Interrupt | Safety | Security | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type | -CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU)<br>-CM7F_Q (Quad core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I2S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT2B7 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B77CADQ0AZEGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 54 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | HSM |
| CYT2B78BADQ0AZSGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 64 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | eSHE |
| CYT2B78BADQ0AZEGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 64 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | eSHE |
| CYT2B78CADQ0AZSGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 1088 | 96 | 128 | 64 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | HSM |
| CYT2B78CADQ0AZEGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 89/33/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 1088 | 96 | 128 | 64 | 4 | 63 | 12 | 8 | 8 | 6 | 0 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | HSM |
| **TRAVEO™ T2G CYT2B9 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B93BACQ0AZSGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | eSHE |
| CYT2B93BACQ0AZEGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | eSHE |
| CYT2B93CACQ0AZSGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | HSM |
| CYT2B93CACQ0AZEGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | HSM |
| CYT2B94BACQ0AZSGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | eSHE |
| CYT2B94BACQ0AZEGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | eSHE |
| CYT2B94CACQ0AZSGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | HSM |
| CYT2B94CACQ0AZEGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | HSM |

*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Body

| | | | | | Core | | | System | | | | | | | | Debug | | | Memory | | | Analog | Timer | | | Communication | | | | | | | | | | | Ex. Interrupt | Safety | Security | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type<br>-CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU)<br>-CM7F_Q (Quad core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I2S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT2B9 Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2B95BACQ0AZSGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | eSHE |
| CYT2B95BACQ0AZEGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | eSHE |
| CYT2B95CACQ0AZSGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | HSM |
| CYT2B95CACQ0AZEGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | HSM |
| CYT2B97BACQ0AZSGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | eSHE |
| CYT2B97BACQ0AZEGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | eSHE |
| CYT2B97CACQ0AZSGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | HSM |
| CYT2B97CACQ0AZEGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | HSM |
| CYT2B98BACQ0AZSGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | eSHE |
| CYT2B98BACQ0AZEGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | eSHE |
| CYT2B98CACQ0AZSGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 2112 | 128 | 256 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | HSM |
| CYT2B98CACQ0AZEGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 2112 | 128 | 256 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | HSM |
| **TRAVEO™ T2G CYT2BL Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2BL3BAAQ0AZSGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | eSHE |

*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Body

| | | | | | Core | | | System | | | | | | | | Debug | | | Memory | | | Analog | Timer | | | Communication | | | | | | | | | | | Ex. Interrupt | Safety | Security | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type<br>-CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU)<br>-CM7F_Q (Quad core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I2S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT2BL Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2BL3BAAQ0AZEGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | eSHE |
| CYT2BL3CAAQ0AZSGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | HSM |
| CYT2BL3CAAQ0AZEGS | 64-LQFP | 64 | 49 | 9 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 27 | 8 | 63 | 11 | 7 | 7 | 5 | 2 | NA | 0 | NA | 0 | 0 | NA | 49 | ASIL-B | ● | HSM |
| CYT2BL4BAAQ0AZSGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | eSHE |
| CYT2BL4BAAQ0AZEGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | eSHE |
| CYT2BL4CAAQ0AZSGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | HSM |
| CYT2BL4CAAQ0AZEGS | 80-LQFP | 80 | 63 | 14 (3port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 34 | 8 | 63 | 12 | 8 | 9 | 7 | 3 | NA | 0 | NA | 0 | 0 | NA | 63 | ASIL-B | ● | HSM |
| CYT2BL5BAAQ0AZSGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | eSHE |
| CYT2BL5BAAQ0AZEGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | eSHE |
| CYT2BL5CAAQ0AZSGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | HSM |
| CYT2BL5CAAQ0AZEGS | 100-LQFP | 100 | 78 | 20 (4port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 39 | 8 | 63 | 12 | 8 | 9 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 78 | ASIL-B | ● | HSM |
| CYT2BL7BAAQ0AZSGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | eSHE |
| CYT2BL7BAAQ0AZEGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | eSHE |
| CYT2BL7CAAQ0AZSGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | HSM |

*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Body

| | | | | | Core | | | System | | | | | | | | Debug | | | Me-mory | | | Ana-log | Timer | | | Communication | | | | | | | | | | | | Ex. Inter-rupt | Safety | Security | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type<br>-CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU)<br>-CM7F_Q (Quad core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I2S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT2BL Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2BL7CAAQ0AZEGS | 144-LQFP | 144 | 122 | 29 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 54 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 122 | ASIL-B | ● | HSM |
| CYT2BL8BAAQ1AZSGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | eSHE |
| CYT2BL8BAAQ1AZEGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | eSHE |
| CYT2BL8CAAQ1AZSGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | HSM |
| CYT2BL8CAAQ1AZEGS | 176-LQFP | 176 | 152 | 36 (5port) | ARM_CM4F/CM0+ | 160 | Single precision | ● | ● | 92/44/4 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 128 | 512 | 64 | 8 | 63 | 12 | 8 | 12 | 8 | 4 | NA | 0 | NA | 0 | 0 | NA | 152 | ASIL-B | ● | HSM |
| **TRAVEO™ T2G CYT3BB/4BB Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT3BB5CEBQ1AESGS | 100-TE-QFP | 100 | 72 | 15 (3port) | ARM_CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 256 | 768 | 39 | 7 | 63 | 12 | 9 | 9 | 8 | 0 | TX 2ch, RX 2ch (2 instances) | 1 | 10/100 | 0 | 1 | 1 | 72 | ASIL-B | ● | HSM |
| CYT3BB5CEBQ1AEEGS | 100-TE-QFP | 100 | 72 | 15 (3port) | ARM_CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 256 | 768 | 39 | 7 | 63 | 12 | 9 | 9 | 8 | 0 | TX 2ch, RX 2ch (2 instances) | 1 | 10/100 | 0 | 1 | 1 | 72 | ASIL-B | ● | HSM |
| CYT3BB7CEBQ1AESGS | 144-TE-QFP | 144 | 116 | 27 (5port) | ARM_CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 256 | 768 | 54 | 7 | 63 | 12 | 10 | 12 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 116 | ASIL-B | ● | HSM |
| CYT3BB7CEBQ1AEEGS | 144-TE-QFP | 144 | 116 | 27 (5port) | ARM_CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 256 | 768 | 54 | 7 | 63 | 12 | 10 | 12 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 116 | ASIL-B | ● | HSM |
| CYT3BB8CEBQ1AESGS | 176-TE-QFP | 176 | 148 | 36 (5port) | ARM_CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 256 | 768 | 64 | 8 | 63 | 12 | 10 | 16 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 148 | ASIL-B | ● | HSM |
| CYT3BB8CEBQ1AEEGS | 176-TE-QFP | 176 | 148 | 36 (5port) | ARM_CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 256 | 768 | 64 | 8 | 63 | 12 | 10 | 16 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 148 | ASIL-B | ● | HSM |
| CYT3BBBCEBQ1BZSGS | 272-BGA | 272 | 220 | 36 (5port) | ARM_CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 256 | 768 | 72 | 8 | 63 | 12 | 11 | 16 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 220 | ASIL-B | ● | HSM |
| CYT3BBBCEBQ1BZEGS | 272-BGA | 272 | 220 | 36 (5port) | ARM_CM7F/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 256 | 768 | 72 | 8 | 63 | 12 | 11 | 16 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 220 | ASIL-B | ● | HSM |

*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Body

| | | | | | Core | | | System | | | | | | | | Debug | | | Memory | | | Analog | Timer | | | Communication | | | | | | | | | | Ex. Interrupt | Safety | Security | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type<br>-CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU)<br>-CM7F_Q (Quad core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I2S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT3BB/4BB Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT4BB5CEBQ1AESGS | 100-TE-QFP | 100 | 72 | 15 (3port) | ARM_CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 256 | 768 | 39 | 7 | 63 | 12 | 9 | 9 | 8 | 0 | TX 2ch, RX 2ch (2 instances) | 1 | 10/100 | 0 | 1 | 1 | 72 | ASIL-B | ● | HSM |
| CYT4BB5CEBQ1AEEGS | 100-TE-QFP | 100 | 72 | 15 (3port) | ARM_CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 256 | 768 | 39 | 7 | 63 | 12 | 9 | 9 | 8 | 0 | TX 2ch, RX 2ch (2 instances) | 1 | 10/100 | 0 | 1 | 1 | 72 | ASIL-B | ● | HSM |
| CYT4BB7CEBQ1AESGS | 144-TE-QFP | 144 | 116 | 27 (5port) | ARM_CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 256 | 768 | 54 | 7 | 63 | 12 | 10 | 12 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 116 | ASIL-B | ● | HSM |
| CYT4BB7CEBQ1AEEGS | 144-TE-QFP | 144 | 116 | 27 (5port) | ARM_CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 256 | 768 | 54 | 7 | 63 | 12 | 10 | 12 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 116 | ASIL-B | ● | HSM |
| CYT4BB8CEBQ1AESGS | 176-TE-QFP | 176 | 148 | 36 (5port) | ARM_CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 256 | 768 | 64 | 8 | 63 | 12 | 10 | 16 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 148 | ASIL-B | ● | HSM |
| CYT4BB8CEBQ1AEEGS | 176-TE-QFP | 176 | 148 | 36 (5port) | ARM_CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 256 | 768 | 64 | 8 | 63 | 12 | 10 | 16 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 148 | ASIL-B | ● | HSM |
| CYT4BBBCEBQ1BZSGS | 272-BGA | 272 | 220 | 36 (5port) | ARM_CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 256 | 768 | 72 | 8 | 63 | 12 | 11 | 16 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 220 | ASIL-B | ● | HSM |
| CYT4BBBCEBQ1BZEGS | 272-BGA | 272 | 220 | 36 (5port) | ARM_CM7F_D/CM0+ | 250 | Dual precision | ● | ● | 100/58/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 4160 | 256 | 768 | 72 | 8 | 63 | 12 | 11 | 16 | 8 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 220 | ASIL-B | ● | HSM |
| **TRAVEO™ T2G CYT4BF Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT4BF8CEDQ0AESGS | 176-TE-QFP | 176 | 148 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 8384 | 256 | 1024 | 81 | 16 | 87 | 15 | 10 | 17 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 148 | ASIL-B | ● | HSM |
| CYT4BF8CEDQ0AEEGS | 176-TE-QFP | 176 | 148 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 8384 | 256 | 1024 | 81 | 16 | 87 | 15 | 10 | 17 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 0 | 1 | 1 | 148 | ASIL-B | ● | HSM |
| CYT4BF8CDDQ0AESGS | 176-TE-QFP | 176 | 148 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 8384 | 256 | 1024 | 81 | 16 | 87 | 15 | 10 | 17 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 2 | 1 | 1 | 148 | ASIL-B | ● | HSM |
| CYT4BF8CDDQ0AEEGS | 176-TE-QFP | 176 | 148 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 8384 | 256 | 1024 | 81 | 16 | 87 | 15 | 10 | 17 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 1 | 10/100 | 2 | 1 | 1 | 148 | ASIL-B | ● | HSM |
| CYT4BFBCJDQ0BZSGS | 272-BGA | 272 | 220 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 8384 | 256 | 1024 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 2 | 10/100/ 1000 | 0 | 1 | 1 | 220 | ASIL-B | ● | HSM |

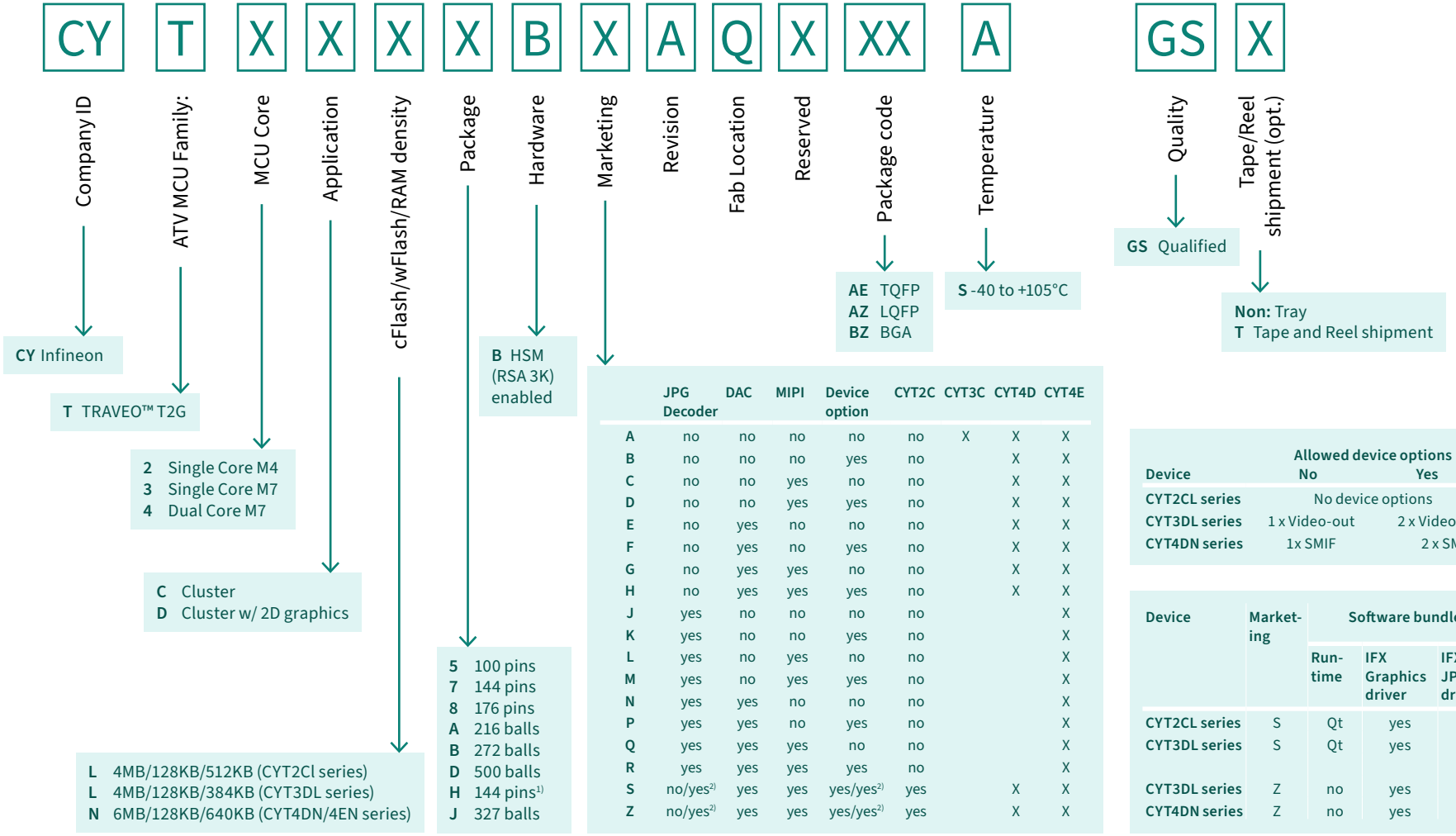
*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Body

| | | | | | Core | | | | System | | | | | | | | Debug | | | Memory | | | Analog | Timer | | | Communication | | | | | | | | | | | Ex. Interrupt | Safety | Security | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type | -CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU)<br>-CM7F_Q (Quad core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I2S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT4BF Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT4BFBCJDQ0BZEGS | 272-BGA | 272 | 220 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 8384 | 256 | 1024 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 2 | 10/100/ 1000 | 0 | 1 | 1 | 220 | ASIL-B | ● | HSM |
| CYT4BFBCHDQ0BZSGS | 272-BGA | 272 | 220 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 8384 | 256 | 1024 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 2 | 10/100/ 1000 | 2 | 1 | 1 | 220 | ASIL-B | ● | HSM |
| CYT4BFBCHDQ0BZEGS | 272-BGA | 272 | 220 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 8384 | 256 | 1024 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 2 | 10/100/ 1000 | 2 | 1 | 1 | 220 | ASIL-B | ● | HSM |
| CYT4BFCCJDQ0BZSGS | 320-BGA | 320 | 240 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 8384 | 256 | 1024 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 2 | 10/100/ 1000 | 0 | 1 | 1 | 240 | ASIL-B | ● | HSM |
| CYT4BFCCJDQ0BZEGS | 320-BGA | 320 | 240 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 8384 | 256 | 1024 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 2 | 10/100/ 1000 | 0 | 1 | 1 | 240 | ASIL-B | ● | HSM |
| CYT4BFCCHDQ0BZSGS | 320-BGA | 320 | 240 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 8384 | 256 | 1024 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 2 | 10/100/ 1000 | 2 | 1 | 1 | 240 | ASIL-B | ● | HSM |
| CYT4BFCCHDQ0BZEGS | 320-BGA | 320 | 240 | 36 (5port) | ARM_CM7F_D/CM0+ | 350 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 8384 | 256 | 1024 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 3ch (3 instances) | 2 | 10/100/ 1000 | 2 | 1 | 1 | 240 | ASIL-B | ● | HSM |
| **TRAVEO™ T2G CYT6BJ Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT6BJ8DDAQ0AESGS | 176-TE-QFP | 176 | 145 | 36 (5port) | ARM_CM7F_Q/CM0+ | 320 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 16768 | 512 | 2048 | 77 | 16 | 87 | 15 | 10 | 17 | 10 | 0 | TX 3ch, RX 2ch (3 instances) | 1 | 10/100 | 2 | 1 | 1 | 145 | ASIL-B | ● | HSM |
| CYT6BJ8DDAQ0AEEGS | 176-TE-QFP | 176 | 145 | 36 (5port) | ARM_CM7F_Q/CM0+ | 320 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 16768 | 512 | 2048 | 77 | 16 | 87 | 15 | 10 | 17 | 10 | 0 | TX 3ch, RX 2ch (3 instances) | 1 | 10/100 | 2 | 1 | 1 | 145 | ASIL-B | ● | HSM |
| CYT6BJBDHAQ0BZSGS | 272-BGA | 272 | 221 | 36 (5port) | ARM_CM7F_Q/CM0+ | 320 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 16768 | 512 | 2048 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 2ch (3 instances) | 2 | 10/100/ 1000 | 2 | 1 | 1 | 220 | ASIL-B | ● | HSM |
| CYT6BJBDHAQ0BZEGS | 272-BGA | 272 | 221 | 36 (5port) | ARM_CM7F_Q/CM0+ | 320 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 16768 | 512 | 2048 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 2ch (3 instances) | 2 | 10/100/ 1000 | 2 | 1 | 1 | 220 | ASIL-B | ● | HSM |
| CYT6BJCDHAQ0BZSGS | 320-BGA | 320 | 241 | 36 (5port) | ARM_CM7F_Q/CM0+ | 320 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 105 | 16768 | 512 | 2048 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 2ch (3 instances) | 2 | 10/100/ 1000 | 2 | 1 | 1 | 240 | ASIL-B | ● | HSM |
| CYT6BJCDHAQ0BZEGS | 320-BGA | 320 | 241 | 36 (5port) | ARM_CM7F_Q/CM0+ | 320 | Dual precision | ● | ● | 143/65/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to 5.5 | -40 to 125 | 16768 | 512 | 2048 | 96 | 16 | 87 | 15 | 11 | 20 | 10 | 0 | TX 3ch, RX 2ch (3 instances) | 2 | 10/100/ 1000 | 2 | 1 | 1 | 240 | ASIL-B | ● | HSM |

*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Cluster decoder




| | JPG Decoder | DAC | MIPI | Device option | CYT2C | CYT3C | CYT4D | CYT4E |
|---|---|---|---|---|---|---|---|---|
| A | no | no | no | no | no | X | X | X |
| B | no | no | no | yes | no | | X | X |
| C | no | no | yes | no | no | | X | X |
| D | no | no | yes | yes | no | | X | X |
| E | no | yes | no | no | no | | X | X |
| F | no | yes | no | yes | no | | X | X |
| G | no | yes | yes | no | no | | X | X |
| H | no | yes | yes | yes | no | | X | X |
| J | yes | no | no | no | no | | | X |
| K | yes | no | no | yes | no | | | X |
| L | yes | no | yes | no | no | | | X |
| M | yes | no | yes | yes | no | | | X |
| N | yes | yes | no | no | no | | | X |
| P | yes | yes | no | yes | no | | | X |
| Q | yes | yes | yes | no | no | | | X |
| R | yes | yes | yes | yes | no | | | X |
| S | no/yes[2)] | yes | yes | yes/yes[2)] | yes | | X | X |
| Z | no/yes[2)] | yes | yes | yes/yes[2)] | yes | | X | X |

[1)] 0.4mm pitch

[2)] CY3DL/CY4DN

| Device | Allowed device options No | Yes |
|---|---|---|
| CYT2CL series | No device options | |
| CYT3DL series | 1 x Video-out | 2 x Video-out |
| CYT4DN series | 1x SMIF | 2 x SMIF |

| Device | Marketing | Software bundle Run-time | IFX Graphics driver | IFX JPEG-driver |
|---|---|---|---|---|
| CYT2CL series | S | Qt | yes | no |
| CYT3DL series | S | Qt | yes | yes |
| CYT3DL series | Z | no | yes | no |
| CYT4DN series | Z | no | yes | yes |

# TRAVEO™ T2G Cluster

| | | | | | Core | | | System | | | | | | | | Debug | | | Memory | | | Ana-log | Timer | | | Communication | | | | | | | | | | | | | | | | External Interrupt channel | Graphics | | | | | | | | LC DC | Safe-ty | Secu-rity | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type<br>-CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I²S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | MIPI D-PHY | LVDS TX PHY | LPDDR4/DDR3 PHY | Graphics | 2.5 D Engine (IRIS on-the-fly) | Video-In | Video-out | Drawing engine | VRAM | VRAM Protection | JPEG Decoder | LCDC | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT4DN Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT4DNJBA CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 1 | 168 | 0 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT4DNJBB CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 2 | 168 | 0 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT4DNJBC CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 1 | 168 | 1 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT4DNJBD CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 2 | 168 | 1 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT4DNJBE CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 1 | 168 | 0 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT4DNJBF CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 2 | 168 | 0 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT4DNJBG CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 1 | 168 | 1 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT4DNJBH CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 2 | 168 | 1 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT4DNJBJ CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 1 | 168 | 0 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 1 | NA | ASIL-B | ● | HSM |
| CYT4DNJBK CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 2 | 168 | 0 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 1 | NA | ASIL-B | ● | HSM |
| CYT4DNJB LCQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 1 | 168 | 1 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 1 | NA | ASIL-B | ● | HSM |
| CYT4DNJBM CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 2 | 168 | 1 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 1 | NA | ASIL-B | ● | HSM |
| CYT4DNJBN CQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/ Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100/ 1000 | 0 | 0 | 1 | 168 | 0 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 1 | NA | ASIL-B | ● | HSM |

*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Cluster

| | | | | | Core | | | System | | | | | | | | Debug | | | Memory | | | Ana-log | Timer | | | Communication | | | | | | | | | | | | | | | | External Interrupt channel | Graphics | | | | | | | | | LCDC | Safe-ty | Secu-rity | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type<br>-CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I²S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | MIPI D-PHY | LVDS TX PHY | LPDDR4/DDR3 PHY | Graphics | 2.5 D Engine (IRIS on-the-fly) | Video-In | Video-out | Drawing engine | VRAM | VRAM Protection | JPEG Decoder | LCDC | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT4DN Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT4DNJBPCQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 168 | 0 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 1 | NA | ASIL-B | ● | HSM |
| CYT4DNJBQCQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 1 | 168 | 1 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 1 | NA | ASIL-B | ● | HSM |
| CYT4DNJBRCQ1BZSGS | 327-BGA | 327 | 168 | 8 (1port) | ARM_CM7F_D/CM0+ | 320 | Double precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 6336 | 128 | 640 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 168 | 1 | 2 x single / 1 x dual | NA | ● | ● | 1 | 2 | ● | 4 MB | ● | 1 | NA | ASIL-B | ● | HSM |
| **TRAVEO™ T2G CYT3DL Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT3DLBBABQ1BZSGS | 272-BGA | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 135 | 0 | 1 x single | NA | ● | ● | 1 | 1 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLBBABQ1BZSGS | 272-BGA | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 135 | 0 | 1 x single | NA | ● | ● | 1 | 2 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLBBABQ1BZSGS | 272-BGA | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 135 | 1 | 1 x single | NA | ● | ● | 1 | 1 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLBBABQ1BZSGS | 272-BGA | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 135 | 1 | 1 x single | NA | ● | ● | 1 | 2 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLBBABQ1BZSGS | 272-BGA | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 135 | 0 | 1 x single | NA | ● | ● | 1 | 1 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLBBABQ1BZSGS | 272-BGA | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 135 | 0 | 1 x single | NA | ● | ● | 1 | 2 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLBBABQ1BZSGS | 272-BGA | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 135 | 1 | 1 x single | NA | ● | ● | 1 | 1 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLBBABQ1BZSGS | 272-BGA | 272 | 135 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 135 | 1 | 1 x single | NA | ● | ● | 1 | 2 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLBBABQ1BZSGS | 216-TEQFP | 216 | 108 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 108 | 0 | 1 x single | NA | ● | ● | 1 | 1 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |

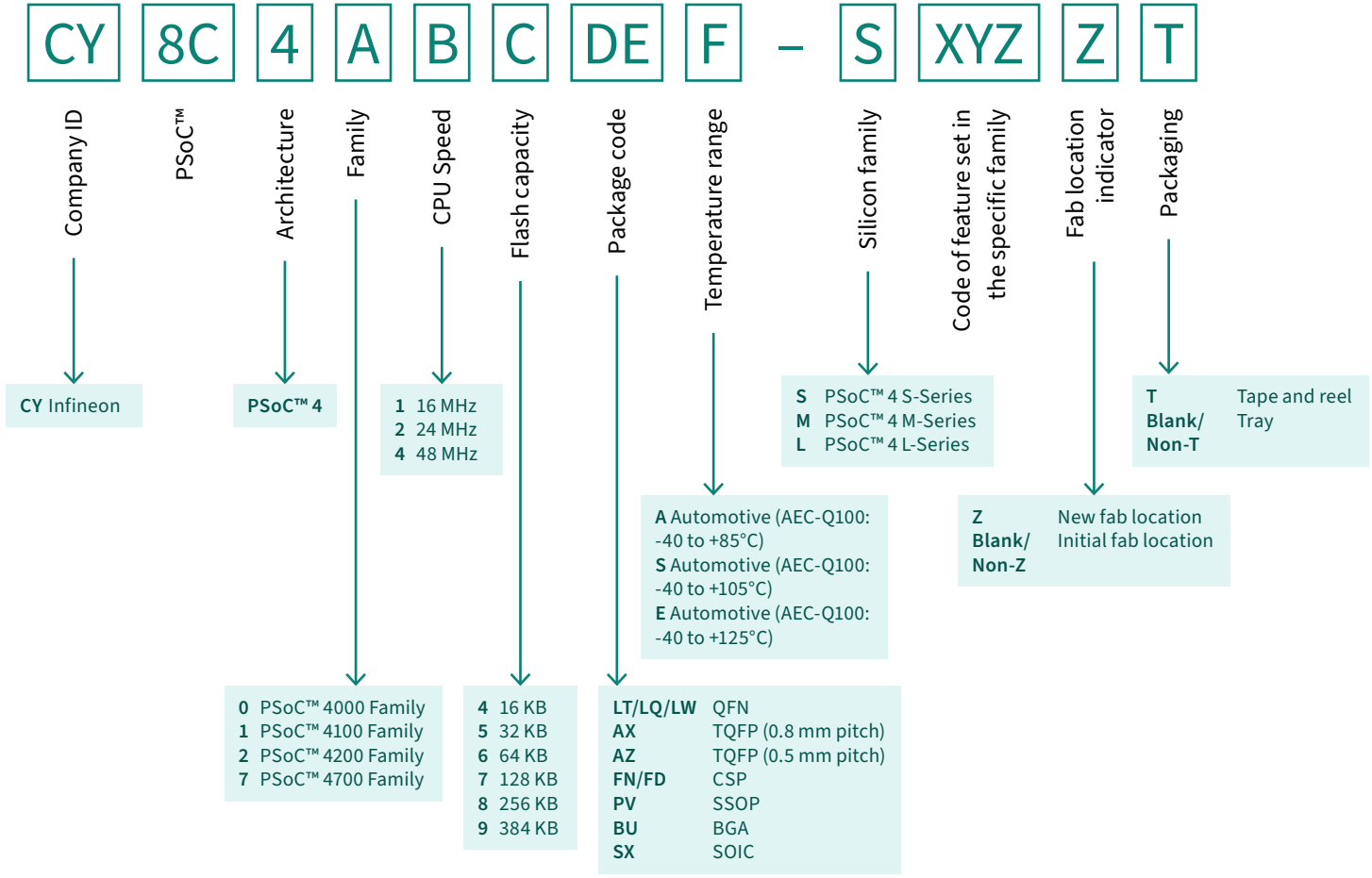
*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# TRAVEO™ T2G Cluster

| | | | | | Core | | | System | | | | | | | | Debug | | | Memory | | | Ana-log | Timer | | | Communication | | | | | | | | | | | | | | External | Graphics | | | | | | | | | | | LCDC | Safe-ty | Secu-rity | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ordering part number* | Package | Pin count | GPIO | Smart IO | Main Core type/ Crypto Core type<br>-CM4F (Single Core with FPU)<br>-CM7F (Single Core with FPU)<br>-CM7F_D (Dual core with FPU) | Main Core frequency [MHz] | FPU | MPU | PPU | DMA (P-DMA0/P-DMA1/M-DMA0) | RC-OSC | Hardware Watchdog | RTC channel | Temperature sensor | Debug Interface | Supply voltage[V] | Operating temperature range TA[°C] | Code Flash (KB) | Work Flash (KB) | SRAM (KB) | ADC Channel | 32bit TCPWM | 16bit TCPWM | 16bit TCPWM (Motor control) | SCB channel | LIN channel | CAN FD channel | CXPI channel | I²S channel | Ethernet channel | Ethernet speed | FlexRay channel | eMMC channel | SMIF (SPI/HyperBus) | External Interrupt channel | MIPI D-PHY | LVDS TX PHY | LPDDR4/DDR3 PHY | Graphics | 2.5 D Engine (IRIS on-the-fly) | Video-In | Video-out | Drawing engine | VRAM | VRAM Protection | JPEG Decoder | LCDC | SIL level | Flash Security | eSHE/HSM |
| **TRAVEO™ T2G CYT3DL Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT3DLBBABQ1BZSGS | 216-TEQFP | 216 | 108 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 108 | 0 | 1 x single | NA | ● | ● | 1 | 2 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLABCBQ1AESGS | 216-TEQFP | 216 | 108 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 108 | 1 | 1 x single | NA | ● | ● | 1 | 1 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLABDBQ1AESGS | 216-TEQFP | 216 | 108 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 108 | 1 | 1 x single | NA | ● | ● | 1 | 2 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLABEBQ1AESGS | 216-TEQFP | 216 | 108 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 108 | 0 | 1 x single | NA | ● | ● | 1 | 1 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLABFBQ1AESGS | 216-TEQFP | 216 | 108 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 108 | 0 | 1 x single | NA | ● | ● | 1 | 2 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLABGBQ1AESGS | 216-TEQFP | 216 | 108 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 108 | 1 | 1 x single | NA | ● | ● | 1 | 1 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| CYT3DLABHBQ1AESGS | 216-TEQFP | 216 | 108 | 8 (1port) | ARM_CM7F/CM0+ | 240 | Double-precision | ● | ● | 76/84/8 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 384 | 48 | 32 | 50 | 0 | 12 | 2 | 4 | 2 | 4 | 1 | 10/100 | 0 | 0 | 2 | 108 | 1 | 1 x single | NA | ● | ● | 1 | 2 | ● | 2 MB | ● | 0 | NA | ASIL-B | ● | HSM |
| **TRAVEO™ T2G CYT2CL Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CYT2CL7BAAQ0AZSGS | 144-LQFP | 144 | 108 | 8 (1port) | ARM_CM4F/CM0+ | 160 | Double-precision | ● | ● | 76/84/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 48 | 16 | 46 | 0 | 12 | 2 | 4 | 2 | 2 | 0 | NA | 0 | 0 | 1 | 108 | 0 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 2seg x 4com | ASIL-B | ● | HSM |
| CYT2CLHBAAQ0AZSGS | 144-LQFP | 1440.4 mm | 108 | 8 (1port) | ARM_CM4F/CM0+ | 160 | Double-precision | ● | ● | 76/84/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 48 | 16 | 46 | 0 | 12 | 2 | 4 | 2 | 2 | 0 | NA | 0 | 0 | 1 | 108 | 0 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 2seg x 4com | ASIL-B | ● | HSM |
| CYT2CL8BAAQ0AZSGS | 176-LQFP | 176 | 140 | 8 (1port) | ARM_CM4F/CM0+ | 160 | Double-precision | ● | ● | 76/84/4 | ● | ● | 1 | ● | SWD/JTAG/Trace | 2.7 to 5.5 | -40 to 105 | 4160 | 128 | 512 | 48 | 16 | 46 | 0 | 12 | 2 | 4 | 2 | 2 | 0 | NA | 0 | 0 | 1 | 140 | 0 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | 0 | 2seg x 4com | ASIL-B | ● | HSM |

*: Supported shipment types are “Tray” (default) and “Tape and Reel”.
To order the “Tape and Reel” shipment type, add the character ‘T’ at the end of the ordering code.

# Automotive PSoC™ 4 decoder



# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4000-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4014SXA-421/Z | 16 | 16 | 2 | – | – | ● | – | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 10 | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4014LQA-422 | 16 | 16 | 2 | – | – | ● | – | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 16 | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4014LQA-422/Z | 16 | 16 | 2 | – | – | ● | – | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 16 | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4014SXS-421/Z | 16 | 16 | 2 | – | – | ● | – | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 10 | ● | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4014LQS-422 | 16 | 16 | 2 | – | – | ● | – | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 16 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4014LQS-422/Z | 16 | 16 | 2 | – | – | ● | – | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 16 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4014LQE-422/Z | 16 | 16 | 2 | – | – | ● | – | – | – | – | 1 | 1 | 1 | – | – | – | – | – | – | – | 16 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● |
| **PSoC™ 4100-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124PVA-442/Z | 24 | 16 | 4 | – | 1 | ● | – | – | ● | 806 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125PVA-482 | 24 | 32 | 4 | – | 1 | ● | – | – | ● | 806 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125PVA-482/Z | 24 | 32 | 4 | – | 1 | ● | – | – | ● | 806 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124PVS-442/Z | 24 | 16 | 4 | – | 1 | ● | – | – | ● | 806 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4125PVS-482/Z | 24 | 32 | 4 | – | 1 | ● | – | – | ● | 806 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| **PSoC™ 4200-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4244PVA-442Z | 48 | 16 | 4 | 2 | 1 | ● | – | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4245PVA-452Z | 48 | 32 | 4 | 4 | – | – | – | – | ● | – | 0 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4245PVA-472Z | 48 | 32 | 4 | 4 | 1 | – | – | – | ● | 1000Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4245PVA-482 | 48 | 32 | 4 | 4 | 1 | ● | – | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4245PVA-482Z | 48 | 32 | 4 | 4 | 1 | ● | – | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4200-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4244PVS-442Z | 48 | 16 | 4 | 2 | 1 | ● | – | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4245PVS-452Z | 48 | 32 | 4 | 4 | – | – | – | – | ● | – | 0 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4245PVS-472Z | 48 | 32 | 4 | 4 | 1 | – | – | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4245PVS-482Z | 48 | 32 | 4 | 4 | 1 | ● | – | – | ● | 1000 Ksps | 2 | 4 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| **PSoC™ 4100M-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125AZA-M443 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – | – |
| CY8C4125AZA-M445 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – | – |
| CY8C4126AZA-M443 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | | – | – | ● | – | – |
| CY8C4126AZA-M445 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – | – |
| CY8C4127AZA-M485 | 24 | 128 | 16 | – | 4 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – | – |
| CY8C4125AZS-M443 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – |
| CY8C4125AZS-M445 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – |
| CY8C4126AZS-M443 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | | – | – | – | ● | – |
| CY8C4126AZS-M445 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – |
| CY8C4127AZS-M485 | 24 | 128 | 16 | – | 4 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – |
| CY8C4245AZA-M443 | 48 | 32 | 4 | 4 | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | | – | – | – | ● | – | – |
| CY8C4245AZA-M445 | 48 | 32 | 4 | 4 | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4246AZA-M443 | 48 | 64 | 8 | 4 | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | | – | – | – | ● | – | – |
| CY8C4246AZA–M445 | 48 | 64 | 8 | 4 | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4200M–Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4247LWA–M464 | 48 | 128 | 16 | 4 | 4 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 46 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – | – |
| CY8C4247AZA–M475 | 48 | 128 | 16 | 4 | 4 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4247AZA–M483 | 48 | 128 | 16 | 4 | 4 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | 2 | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4247AZA–M485 | 48 | 128 | 16 | 4 | 4 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | 2 | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4247LWA–M484 | 48 | 128 | 16 | 4 | 4 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | 2 | – | – | – | 46 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – | – |
| CY8C4245AZS–M443 | 48 | 32 | 4 | 4 | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4245AZS–M445 | 48 | 32 | 4 | 4 | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4246AZS–M443 | 48 | 64 | 8 | 4 | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4246AZS–M445 | 48 | 64 | 8 | 4 | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4247LWS–M464 | 48 | 128 | 16 | 4 | 4 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 46 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – |
| CY8C4247AZS–M475 | 48 | 128 | 16 | 4 | 4 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | – | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4247AZS–M483 | 48 | 128 | 16 | 4 | 4 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | 2 | – | – | – | 38 | – | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4247AZS–M485 | 48 | 128 | 16 | 4 | 4 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | 2 | – | – | – | 51 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4247LWS–M484 | 48 | 128 | 16 | 4 | 4 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | – | – | 2 | – | – | – | 46 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – |
| **PSoC™ 4000S–Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4024LQA–S411 | 24 | 16 | 2 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4024PVA–S412 | 24 | 16 | 2 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4025LQA–S411 | 24 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4025PVA-S412 | 24 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4000S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4045LQA-S411 | 48 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4045PVA-S412 | 48 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4024LQS-S411 | 24 | 16 | 2 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4024PVS-S412 | 24 | 16 | 2 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4025LQS-S411 | 24 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4025PVS-S412 | 24 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4045LQS-S411 | 48 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 19 | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4045PVS-S412 | 48 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4024LQA-S413 | 24 | 16 | 2 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4025LQA-S413 | 24 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4045LQA-S413 | 48 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4024LQS-S413 | 24 | 16 | 2 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4025LQS-S413 | 24 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4045LQS-S413 | 48 | 32 | 4 | – | – | ● | – | – | – | – | 2 | 5 | 2 | – | – | – | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| **PSoC™ 4100S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124PVA-S412 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124LQA-S413 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124PVA-S422 | 24 | 16 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124LQA-S423 | 24 | 16 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4124PVA-S432 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124LQA-S433 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125PVA-S412 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125LQA-S413 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125PVA-S422 | 24 | 32 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125LQA-S423 | 24 | 32 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125PVA-S432 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4125LQA-S433 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146PVA-S422 | 48 | 64 | 8 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQA-S423 | 48 | 64 | 8 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146PVA-S432 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQA-S433 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4124PVS-S412 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4124LQS-S413 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4124PVS-S422 | 24 | 16 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4124LQS-S423 | 24 | 16 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4124PVS-S432 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4124LQS-S433 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4125PVS-S412 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125LQS-S413 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4125PVS-S422 | 24 | 32 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4125LQS-S423 | 24 | 32 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4125PVS-S432 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4125LQS-S433 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146PVS-S422 | 48 | 64 | 8 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146LQS-S423 | 48 | 64 | 8 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146PVS-S432 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146LQS-S433 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4124PVE-S412 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4124LQE-S413 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4124PVE-S422 | 24 | 16 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4124LQE-S423 | 24 | 16 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4124PVE-S432 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4124LQE-S433 | 24 | 16 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4125PVE-S412 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4125LQE-S413 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | – | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4125PVE-S422 | 24 | 32 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4125LQE-S423 | 24 | 32 | 4 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4125PVE-S432 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4125LQE-S433 | 24 | 32 | 4 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146PVE-S422 | 48 | 64 | 8 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 5 | 2 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146LQE-S423 | 48 | 64 | 8 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146PVE-S432 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 24 | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146LQE-S433 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 5 | 3 | – | – | 16 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | – | ● |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4126AZA-S455 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4146AZA-S245 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4146AZA-S255 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4146AZA-S265 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4146AZA-S275 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4146AZA-S455 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4127AZA-S445 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4127AZA-S455 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZA-S245 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZA-S255 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZA-S265 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZA-S275 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147AZA-S285 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZA-S295 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZA-S445 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZA-S455 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZA-S465 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZA-S475 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4126AZS-S455 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4146AZS-S245 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4146AZS-S255 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4146AZS-S265 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4146AZS-S275 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4146AZS-S455 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4127AZS-S445 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4127AZS-S455 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4147AZS-S245 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4147AZS-S255 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4147AZS-S265 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4147AZS-S275 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4147AZS-S285 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147AZS-S295 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – |
| CY8C4147AZS-S445 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – |
| CY8C4147AZS-S455 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – |
| CY8C4147AZS-S465 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – |
| CY8C4147AZS-S475 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – |
| CY8C4126LQA-S453 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQA-S243 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQA-S253 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQA-S263 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQA-S273 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4146LQA-S453 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4127LQA-S443 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4127LQA-S453 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4147LQA-S243 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4147LQA-S253 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4147LQA-S263 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4147LQA-S273 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4147LQA-S283 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4147LQA-S293 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147LQA-S443 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4147LQA-S453 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4147LQA-S463 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4147LQA-S473 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4126LQS-S453 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146LQS-S243 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146LQS-S253 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146LQS-S263 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146LQS-S273 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4146LQS-S453 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4127LQS-S443 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4127LQS-S453 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4147LQS-S243 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4147LQS-S253 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4147LQS-S263 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4147LQS-S273 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4147LQS-S283 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4147LQS-S293 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4147LQS-S443 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147LQS-S453 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4147LQS-S463 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4147LQS-S473 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4126LQE-S453 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146LQE-S243 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146LQE-S253 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146LQE-S263 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146LQE-S273 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4146LQE-S453 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4127LQE-S443 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4127LQE-S453 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4147LQE-S243 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4147LQE-S253 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4147LQE-S263 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4147LQE-S273 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4147LQE-S283 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4147LQE-S293 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4147LQE-S443 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4147AZE-S465 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147AZE-S475 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | ● |
| CY8C4126LQA-S455 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4146LQA-S245 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4146LQA-S255 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4146LQA-S265 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4146LQA-S275 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4146LQA-S455 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4127LQA-S445 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4127LQA-S455 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S245 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S255 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S265 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S275 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S285 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S295 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S445 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S455 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S465 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |
| CY8C4147LQA-S475 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4126LQS-S455 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4146LQS-S245 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4146LQS-S255 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4146LQS-S265 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4146LQS-S275 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4146LQS-S455 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4127LQS-S445 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4127LQS-S455 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S245 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S255 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S265 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S275 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S285 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S295 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S445 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S455 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S465 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4147LQS-S475 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | 1 | – | – | – | 54 | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● | – |
| CY8C4126LDA-S453 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146LDA-S243 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4146LDA-S253 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4146LDA-S263 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4146LDA-S273 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4146LDA-S453 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4127LDA-S443 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4127LDA-S453 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S243 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S253 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S263 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S273 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S283 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S293 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S443 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S453 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S463 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S473 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4126LDS-S453 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4146LDS-S243 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146LDA-S243 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4146LDA-S253 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4146LDA-S263 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4146LDA-S273 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4146LDA-S453 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4127LDA-S443 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4127LDA-S453 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S243 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S253 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S263 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S273 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S283 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S293 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S443 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S453 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S463 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDA-S473 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4126LDS-S453 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4146LDS-S243 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146LDS-S253 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4146LDS-S263 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4146LDS-S273 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4146LDS-S453 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4127LDS-S443 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4127LDS-S453 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S243 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S253 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S263 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S273 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S283 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S293 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S443 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S453 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S463 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDS-S473 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4126LDE-S453 | 24 | 64 | 8 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4146LDE-S243 | 48 | 64 | 8 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4146LDE-S253 | 48 | 64 | 8 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4146LDE-S263 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4146LDE-S273 | 48 | 64 | 8 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4146LDE-S453 | 48 | 64 | 8 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4127LDE-S443 | 24 | 128 | 16 | – | 2 | – | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4127LDE-S453 | 24 | 128 | 16 | – | 2 | ● | – | – | ● | 806 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S243 | 48 | 128 | 16 | – | – | – | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S253 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S263 | 48 | 128 | 16 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S273 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S283 | 48 | 128 | 16 | – | – | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S293 | 48 | 128 | 16 | – | – | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S443 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S453 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S463 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| CY8C4147LDE-S473 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | 1 | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147AZE-S598 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4147AZE-S578 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4148AZE-S598 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4148LDE-S573 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4148LDE-S593 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4147AZA-S548 | 48 | 128 | 16 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4147AZE-S548 | 48 | 128 | 16 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4147AZS-S548 | 48 | 128 | 16 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4147AZA-S555 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | | – |
| CY8C4147AZS-S555 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | ● | – |
| CY8C4147AZE-S555 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4147AZA-S558 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4147AZS-S558 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4147AZE-S558 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4147AZA-S565 | 48 | 128 | 16 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZS-S565 | 48 | 128 | 16 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4147AZE-S565 | 48 | 128 | 16 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4147AZA-S568 | 48 | 128 | 16 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4147AZS-S568 | 48 | 128 | 16 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4147AZE-S568 | 48 | 128 | 16 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | | | | ● |
| CY8C4147AZA-S575 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZS-S575 | 48 | 128 | 16 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147AZE-S575 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4147AZA-S578 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4147AZS-S578 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | | ● | – |
| CY8C4147AZA-S585 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | | – |
| CY8C4147AZS-S585 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4147AZE-S585 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4147AZA-S588 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4147AZS-S588 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4147AZE-S588 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4147AZA-S595 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4147AZS-S595 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4147AZE-S595 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4147AZA-S598 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4147AZS-S598 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4148AZA-S545 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4148AZS-S545 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4148AZE-S545 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4148AZA-S548 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4148AZS-S548 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4148AZE-S548 | 48 | 256 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● |
| CY8C4148AZA-S555 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4148AZS-S555 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4148AZE-S555 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● |
| CY8C4148AZA-S558 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – |
| CY8C4148AZS-S558 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4148AZE-S558 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4148AZA-S565 | 48 | 256 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4148AZS-S565 | 48 | 256 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4148AZE-S565 | 48 | 256 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4148AZA-S568 | 48 | 256 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4148AZS-S568 | 48 | 256 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4148AZE-S568 | 48 | 256 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4148AZA-S575 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4148AZS-S575 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | | ● | – |
| CY8C4148AZE-S575 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4148AZA-S578 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4148AZS-S578 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4148AZE-S578 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4148AZA-S585 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4148AZS-S585 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4148AZE-S585 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4148AZA-S588 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4148AZS-S588 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | |
| CY8C4148AZE-S588 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4148AZA-S595 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4148AZS-S595 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4148AZE-S595 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4148AZA-S598 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4148AZS-S598 | 48 | 256 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4149AZA-S545 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | | – |
| CY8C4149AZS-S545 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4149AZE-S545 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4149AZA-S548 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4149AZS-S548 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4149AZE-S548 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4149AZA-S555 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4149AZS-S555 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4149AZE-S555 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4149AZA-S558 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4149AZS-S558 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4149AZE-S558 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4149AZA-S565 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4149AZS-S565 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4149AZE-S565 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4149AZA-S568 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4149AZS-S568 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4149AZE-S568 | 48 | 384 | 32 | | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4149AZA-S575 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4149AZS-S575 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4149AZE-S575 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4149AZA-S578 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4149AZS-S578 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4149AZE-S578 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4149AZA-S585 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4149AZS-S585 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4149AZE-S585 | 48 | 384 | 32 | | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4149AZE-S585 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 54 | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4149AZA-S588 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4149AZS-S588 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4149AZE-S588 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4149AZA-S595 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● | – | – |
| CY8C4149AZS-S595 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | ● | – |
| CY8C4149AZE-S595 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 54 | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | – | – | ● |
| CY8C4149AZA-S598 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – | – |
| CY8C4149AZS-S598 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | ● | – |
| CY8C4149AZE-S598 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 84 | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | – | – | ● |
| CY8C4147LDA-S543 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDE-S543 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4147LDS-S543 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDA-S553 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDS-S553 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDE-S553 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4147LDA-S563 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDS-S563 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDE-S563 | 48 | 128 | 16 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147LDA-S573 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDS-S573 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDE-S573 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4147LDA-S583 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDS-S583 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDE-S583 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4147LDA-S593 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4147LDS-S593 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4147LDE-S593 | 48 | 128 | 16 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4148LDA-S543 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4148LDS-S543 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4148LDE-S543 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4148LDA-S553 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4148LDS-S553 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4148LDE-S553 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4148LDA-S563 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4148LDS-S563 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4148LDE-S563 | 48 | 256 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4148LDA-S573 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |

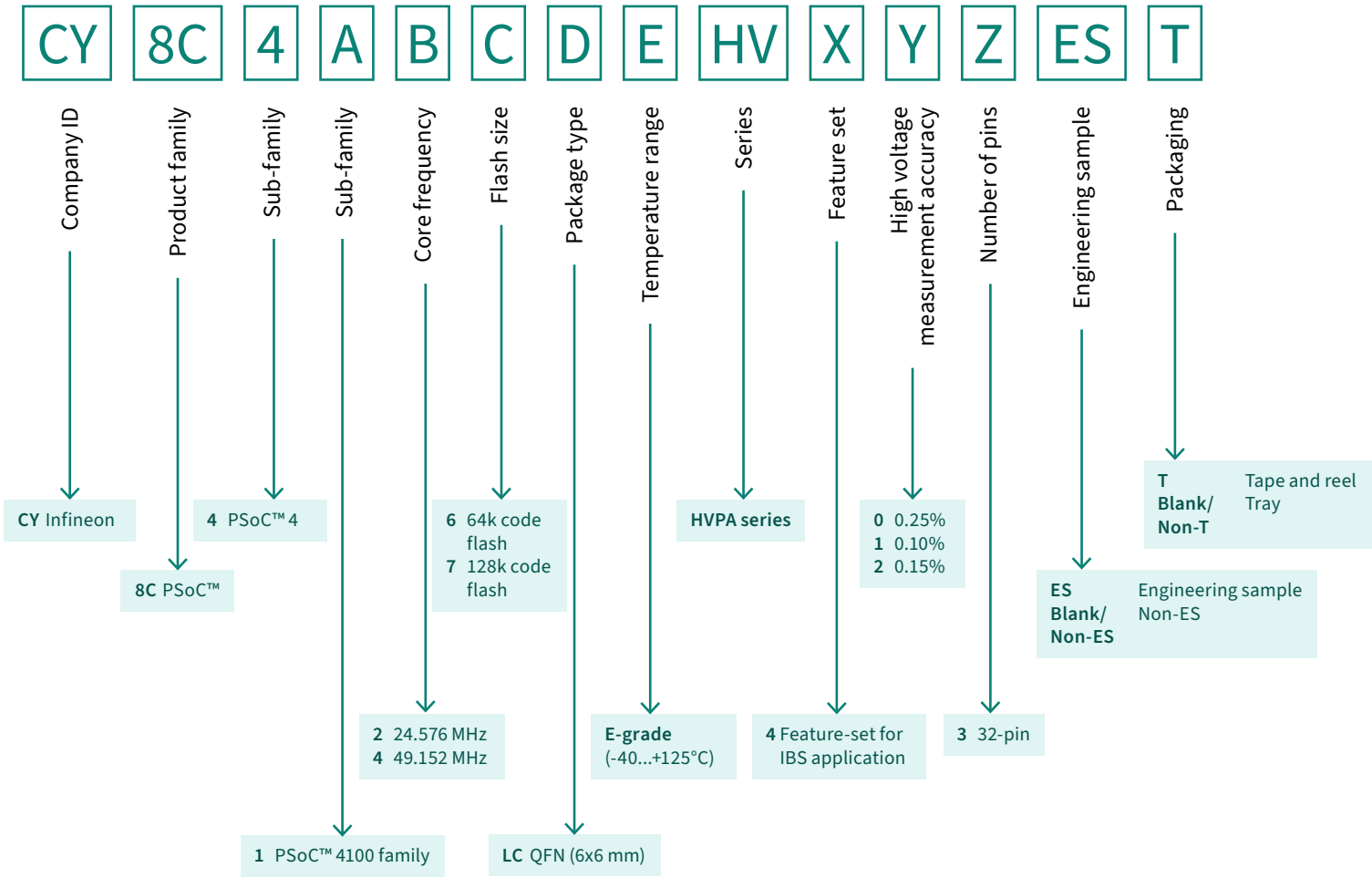
# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4148LDS-S573 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4148LDA-S583 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4148LDS-S583 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4148LDE-S583 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4148LDA-S593 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4148LDS-S593 | 48 | 256 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | | ● | – |
| CY8C4149LDA-S543 | 48 | 384 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4149LDS-S543 | 48 | 384 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4149LDE-S543 | 48 | 384 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4149LDA-S553 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4149LDS-S553 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4149LDE-S553 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4149LDA-S563 | 48 | 384 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4149LDS-S563 | 48 | 384 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4149LDE-S563 | 48 | 384 | 32 | – | 2 | – | – | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4149LDA-S573 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |
| CY8C4149LDS-S573 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – |
| CY8C4149LDE-S573 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | – | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● |
| CY8C4149LDA-S583 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | ● | – | – |

# Automotive PSoC™ 4 Series

| | Features | | | | | | | | | | | | | | | | | | | | Packages | | | | | | | | | | | | | | | Operating Temp. | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/ partnumber | Max CPU Speed (MHz) | Flash (KB) | SRAM (KB) | UDB | Op-amp (CTBm) | CAPSENSE | I²S | USB Full Speed | Direct LCD Drive | 12-bit SAR ADC | LP Comparators | TCPWM Blocks | SCB Blocks | WCO | ECO | Smart IOs | CAN | CAN-FD | CRYPTO | USB Full Speed | GPIO | 16-SOIC | 20-SSOP | 24-QFN | 28-SSOP | 32-QFN | 40-QFN | 48-QFN | 48-TQFP | 56-QFN | 64-WQFN | 64-TQFP | 80-TQFP | 100-TQFP | 124-VFBGA | -40 to +85°C | -40 to +105°C | -40 to +125°C |
| **PSoC™ 4100S Max-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4149LDS-S583 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | ● | – |
| CY8C4149LDE-S583 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | – | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| CY8C4149LDA-S593 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | ● | – | – |
| CY8C4149LDS-S593 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | | ● | – |
| CY8C4149LDE-S593 | 48 | 384 | 32 | – | 2 | 2 | ● | – | ● | 1000 Ksps | 2 | 8 | 5 | ● | ● | 24 | – | 1 | ● | – | 38 | – | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● |
| **PSoC™ 4700S Plus-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4746LQS-S263 | 48 | 64 | 8 | – | – | ● | – | – | – | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – |
| CY8C4747LQS-S453 | 48 | 128 | 16 | – | 2 | ● | – | – | ● | 1000 Ksps | 2 | 8 | 4 | ● | ● | 24 | – | – | – | – | 34 | – | – | – | – | – | ● | – | – | – | – | – | – | – | – | – | ● | – |
| **PSoC™ 4200L-Series** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4248BZA-L489 | 48 | 256 | 32 | 8 | 4 | ● | – | ● | ● | 1000 Ksps | 2 | 8 | 4 | – | – | – | 2 | – | – | ● | 98 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | ● | – | – |
| CY8C4248BZS-L489 | 48 | 256 | 32 | 8 | 4 | ● | – | ● | ● | 1000 Ksps | 2 | 8 | 4 | – | – | – | 2 | – | – | ● | 98 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | – | ● | – |

# PSoC™ 4 HVPA (High Voltage Precision Analog)

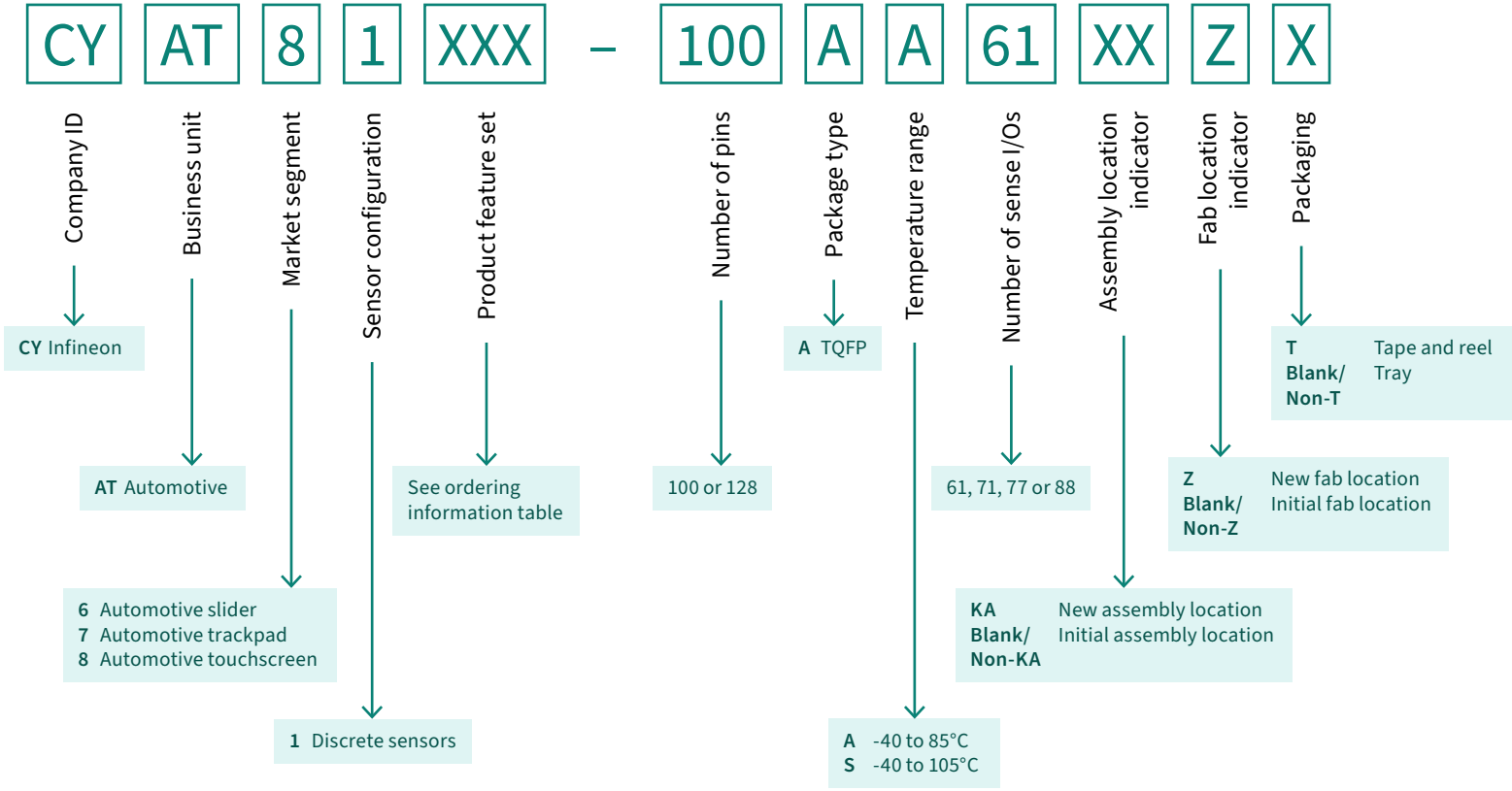


# PSoC™ 4 HVPA (High Voltage Precision Analog)

| | Features | | | | | | | | | | | | | | | | | | Packages | | Operating Temp | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MPN | Max CPU Speed (MHz) | Code Flash (KB) with ECC | Data Flash EEPROM with ECC | SRAM (KB) with ECC | 16-20 bit Precision ΔΣ ADC | Digital Channels | Overcurrent Detection (OCD) comparators | Current measurement accuracy | "High Voltage measurement Ios (with 28V HV divider)" | "High Voltage (w/HV dividers) measurement accuracy" | TCPWM Blocks | SCB Blocks | LIN Controller | "High Voltage Subsystem (LDO, LIN PHY)" | CRYPTO | CAN / CAN-FD | iso-UART | GPIO | 32-QFN (5*5mm) | 48-QFN (7*7mm) | -40 to +125C | Target Applications |
| **HVPA-144k 412X LIN** | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4126LCE-HV403 | 24,576 | 64 | 8 | 4 | 2 | 4 | – | 0.30%[2] | 2 | 0,25% | 4 | 1 | ● | ● | – | – | – | 9 | ● | – | ● | Intelligent Battery Sensors (IBS) for 12V Pb |
| CY8C4126LCE-HV413 | 24,576 | 64 | 8 | 4 | 2 | 4 | – | 0.30%[2] | 2 | 0.1%[1] | 4 | 1 | ● | ● | – | – | – | 9 | ● | – | ● | Intelligent Battery Sensors (IBS) for 12V Pb |
| CY8C4126LCE-HV423 | 24,576 | 64 | 8 | 4 | 2 | 4 | – | 0.30%[2] | 2 | 0.15%[1] | 4 | 1 | ● | ● | – | – | – | 9 | ● | – | ● | Intelligent Battery Sensors (IBS) for 12V Pb |
| CY8C4127LCE-HV403 | 24,576 | 128 | 8 | 8 | 2 | 4 | – | 0.30%[2] | 2 | 0,25% | 4 | 1 | ● | ● | – | – | – | 9 | ● | – | ● | Intelligent Battery Sensors (IBS) for 12V Pb |
| CY8C4127LCE-HV413 | 24,576 | 128 | 8 | 8 | 2 | 4 | – | 0.30%[2] | 2 | 0.1%[1] | 4 | 1 | ● | ● | – | – | – | 9 | ● | – | ● | Intelligent Battery Sensors (IBS) for 12V Pb |
| CY8C4127LCE-HV423 | 24,576 | 128 | 8 | 8 | 2 | 4 | – | 0.30%[2] | 2 | 0.15%[1] | 4 | 1 | ● | ● | – | – | – | 9 | ● | – | ● | Intelligent Battery Sensors (IBS) for 12V Pb |
| **HVPA-144k 414X LIN** | | | | | | | | | | | | | | | | | | | | | | |
| CY8C4147LCE-HV403 | 49,152 | 128 | 8 | 8 | 2 | 4 | - | 0.30%[2] | 2 | 0,25% | 4 | 1 | ● | ● | – | – | – | 9 | ● | – | ● | Intelligent Battery Sensors (IBS) for 12V Pb |
| CY8C4147LCE-HV413 | 49,152 | 128 | 8 | 8 | 2 | 4 | - | 0.30%[2] | 2 | 0.1%[1] | 4 | 1 | ● | ● | – | – | – | 9 | ● | – | ● | Intelligent Battery Sensors (IBS) for 12V Pb |
| CY8C4147LCE-HV423 | 49,152 | 128 | 8 | 8 | 2 | 4 | - | 0.30%[2] | 2 | 0.15%[1] | 4 | 1 | ● | ● | – | – | – | 9 | ● | – | ● | Intelligent Battery Sensors (IBS) for 12V Pb |

1 -40$^{0}$C <TA< 85$^{0}$C, 11V<VBAT<14V
2 -40$^{0}$C <TA< 105$^{0}$C, VBAT<19V

# Gen6XL – First high performance single chip Touch Controller



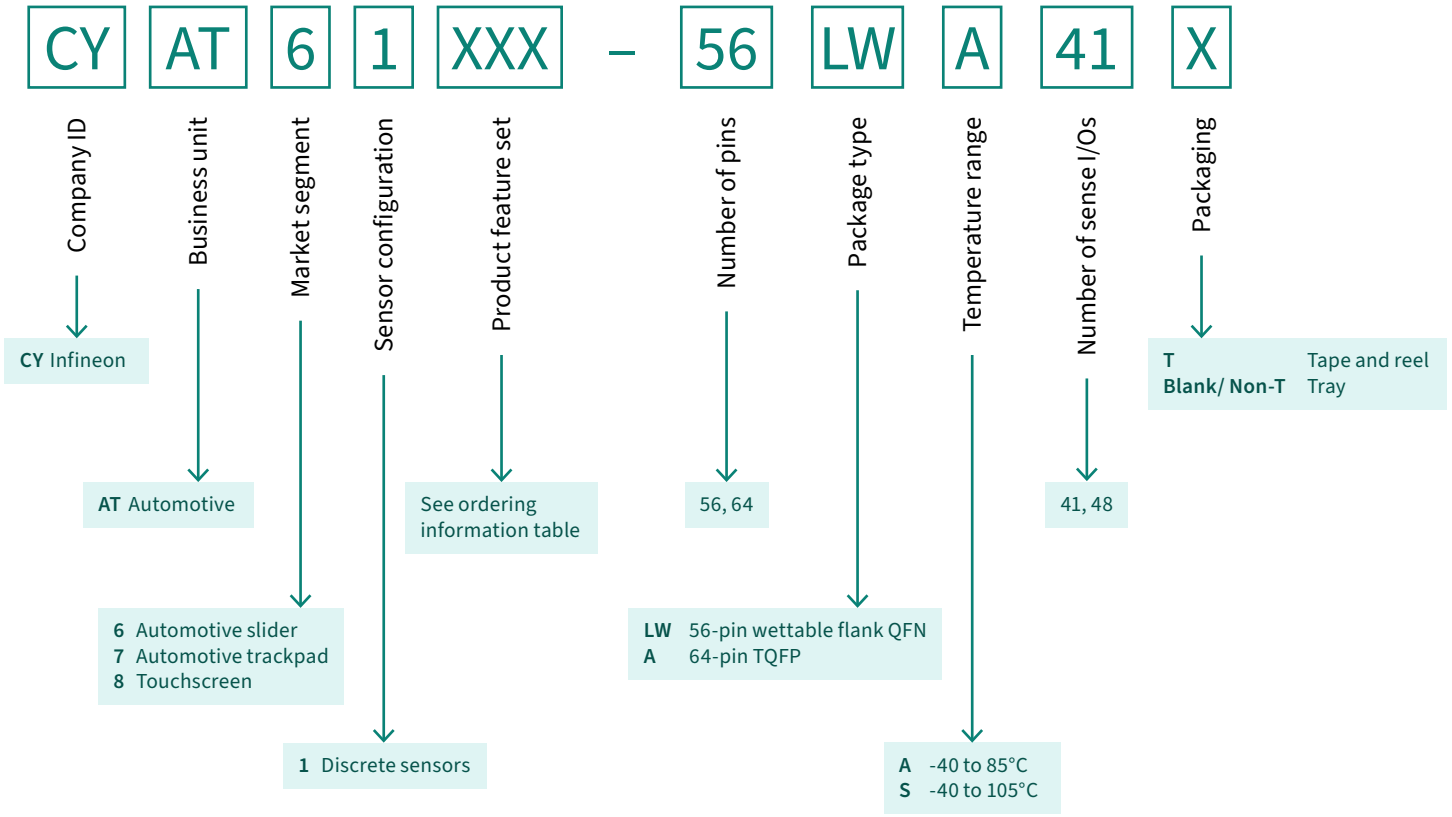
# Gen6XL – First high performance single chip Touch Controller

| Product type/ partnumber | Number of Sense pins | Number of fingers | Low power wake-up button | Capsense Buttons | Water Rejection | Thin Glove support | Display Armor | Gestures | Thick Overlay/Thick Glove support | 5-V Tx | Package |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TSG6_XL** | | | | | | | | | | | |
| CYAT81682-100AA61Z | 61 | 10 | – | ● | ● | ● | ● | – | – | – | 100 TQFP |
| CYAT81682-100AS61Z | 61 | 10 | – | ● | ● | ● | ● | – | – | – | 100 TQFP |
| CYAT81682-100AA71Z | 71 | 10 | – | ● | ● | ● | ● | – | – | – | 100 TQFP |
| CYAT81682-100AS71Z | 71 | 10 | – | ● | ● | ● | ● | – | – | – | 100 TQFP |
| CYAT81682-100AA77Z | 77 | 10 | – | ● | ● | ● | ● | – | – | – | 100 TQFP |
| CYAT81682-100AS77Z | 77 | 10 | – | ● | ● | ● | ● | – | – | – | 100 TQFP |
| CYAT81682-128AA88Z | 88 | 10 | – | ● | ● | ● | ● | – | – | – | 128 TQFP |
| CYAT81682-128AS88Z | 88 | 10 | – | ● | ● | ● | ● | – | – | – | 128 TQFP |
| CYAT81685-100AA61Z | 61 | 10 | – | ● | ● | ● | ● | ● | – | – | 100 TQFP |
| CYAT81685-100AS61Z | 61 | 10 | – | ● | ● | ● | ● | ● | – | – | 100 TQFP |
| CYAT81685-100AA71Z | 71 | 10 | – | ● | ● | ● | ● | ● | – | – | 100 TQFP |
| CYAT81685-100AS71Z | 71 | 10 | – | ● | ● | ● | ● | ● | – | – | 100 TQFP |
| CYAT81685-100AA77Z | 77 | 10 | – | ● | ● | ● | ● | ● | – | – | 100 TQFP |
| CYAT81685-100AS77Z | 77 | 10 | – | ● | ● | ● | ● | ● | – | – | 100 TQFP |
| CYAT81685-128AA88Z | 88 | 10 | – | ● | ● | ● | ● | ● | – | – | 128 TQFP |
| CYAT81685-128AS88Z | 88 | 10 | – | ● | ● | ● | ● | ● | – | – | 128 TQFP |
| CYAT81688-100AA61Z | 61 | 10 | – | ● | ● | ● | ● | ● | ● | ● | 100 TQFP |
| CYAT81688-100AS61Z | 61 | 10 | – | ● | ● | ● | ● | ● | ● | ● | 100 TQFP |
| CYAT81688-100AA71Z | 71 | 10 | – | ● | ● | ● | ● | ● | ● | ● | 100 TQFP |

# Gen6XL – First high performance single chip Touch Controller

| Product type/ partnumber | Number of Sense pins | Number of fingers | Low power wake-up button | Capsense Buttons | Water Rejection | Thin Glove support | Display Armor | Gestures | Thick Overlay/Thick Glove support | 5-V Tx | Package |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **TSG6_XL** | | | | | | | | | | | |
| CYAT81688-100AS71Z | 71 | 10 | – | • | • | • | • | • | • | • | 100 TQFP |
| CYAT81688-100AA77Z | 77 | 10 | – | • | • | • | • | • | • | • | 100 TQFP |
| CYAT81688-100AS77Z | 77 | 10 | – | • | • | • | • | • | • | • | 100 TQFP |
| CYAT81688-128AA88Z | 88 | 10 | – | • | • | • | • | • | • | • | 128 TQFP |
| CYAT81688-128AS88Z | 88 | 10 | – | • | • | • | • | • | • | • | 128 TQFP |
| CYAT81689-100AA61Z | 61 | 10 | • | • | • | • | • | • | • | • | 100 TQFP |
| CYAT81689-100AS61Z | 61 | 10 | • | • | • | • | • | • | • | • | 100 TQFP |
| CYAT81689-100AA77Z | 77 | 10 | • | • | • | • | • | • | • | • | 100 TQFP |
| CYAT81689-100AS77Z | 77 | 10 | • | • | • | • | • | • | • | • | 100 TQFP |
| CYAT81689-128AA88Z | 88 | 10 | • | • | • | • | • | • | • | • | 128 TQFP |
| CYAT81689-128AS88Z | 88 | 10 | • | • | • | • | • | • | • | • | 128 TQFP |
| CYAT81689-100AS71Z | 71 | 10 | • | • | • | • | • | • | • | • | 100 TQFP |

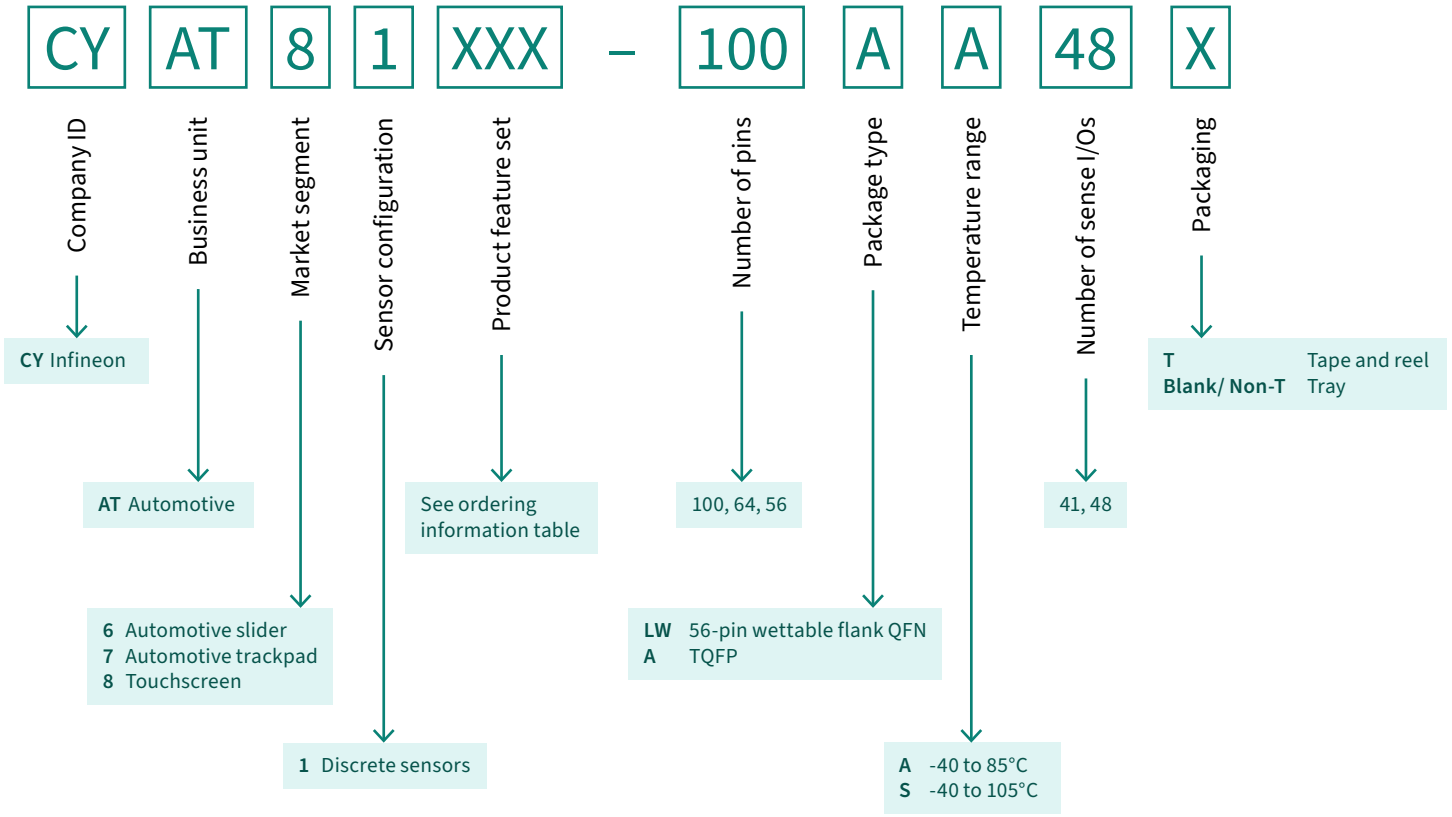
# Gen6L – Slider solution



# Gen6L – Slider solution

| Product type/ partnumber | No of Sense pins | No of Fingers | Slider | Wake up button support | Capsense Buttons | Water Rejection | Thin Glove Support | Thick Overlay/Thick Glove support | Package |
|---|---|---|---|---|---|---|---|---|---|
| **TSG6_L** | | | | | | | | | |
| CYAT61652-56LWA41 | 41 | 10 | • | | • | • | • | | 56 QFN |
| CYAT61652-56LWS41 | 41 | 10 | • | | • | • | • | | 56 QFN |
| CYAT61658-56LWA41 | 41 | 10 | • | | • | • | • | • | 56 QFN |
| CYAT61658-56LWS41 | 41 | 10 | • | | • | • | • | • | 56 QFN |
| CYAT61659-56LWA41 | 41 | 10 | • | • | • | • | • | • | 56 QFN |
| CYAT61659-56LWS41 | 41 | 10 | • | • | • | • | • | • | 56 QFN |
| CYAT61652-64AA48 | 48 | 10 | • | | • | • | • | | 64 TQFP |
| CYAT61652-64AS48 | 48 | 10 | • | | • | • | • | | 64 TQFP |
| CYAT61658-64AA48 | 48 | 10 | • | | • | • | • | • | 64 TQFP |
| CYAT61658-64AS48 | 48 | 10 | • | | • | • | • | • | 64 TQFP |
| CYAT61659-64AA48 | 48 | 10 | • | • | • | • | • | • | 64 TQFP |
| CYAT61659-64AS48 | 48 | 10 | • | • | • | • | • | • | 64 TQFP |

# Gen6L – Low cost Touch controller solution



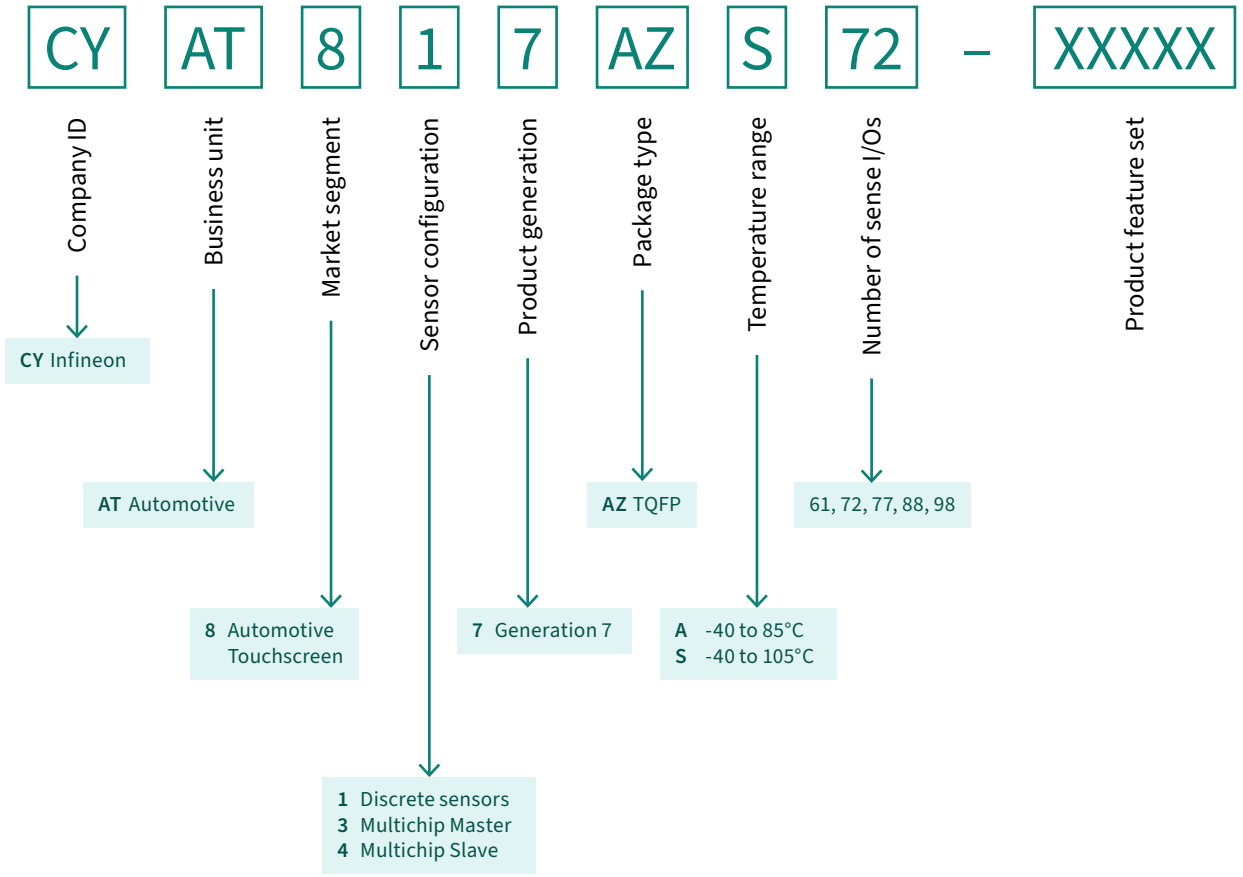
# Gen6L – Low cost Touch controller solution

| Product type/ partnumber | No of Sense pins | No of Fingers | Wake up button/Wake on screen | Capsense Buttons | Water Rejection | Thin Glove Support | Gestures | Thick Overlay/Thick Glove support | Package |
|---|---|---|---|---|---|---|---|---|---|
| **TSG6_L** | | | | | | | | | |
| CYAT81650-100AA48 | 48 | 10 | – | – | – | – | – | – | 100-pin TQFP |
| CYAT81650-100AS48 | 48 | 10 | – | – | – | – | – | – | 100-pin TQFP |
| CYAT81652-100AA48 | 48 | 10 | – | ● | ● | ● | – | – | 100-pin TQFP |
| CYAT81652-100AS48 | 48 | 10 | – | ● | ● | ● | – | – | 100-pin TQFP |
| CYAT81655-100AA48 | 48 | 10 | – | ● | ● | ● | ● | – | 100-pin TQFP |
| CYAT81655-100AS48 | 48 | 10 | – | ● | ● | ● | ● | – | 100-pin TQFP |
| CYAT81658-100AA48 | 48 | 10 | – | ● | ● | ● | ● | ● | 100-pin TQFP |
| CYAT81658-100AS48 | 48 | 10 | – | ● | ● | ● | ● | ● | 100-pin TQFP |
| CYAT81659-100AA48 | 48 | 10 | ● | ● | ● | ● | ● | ● | 100-pin TQFP |
| CYAT81659-100AS48 | 48 | 10 | ● | ● | ● | ● | ● | ● | 100-pin TQFP |
| CYAT81650-64AA48 | 48 | 10 | – | – | – | – | – | – | 64-pin TQFP |
| CYAT81650-64AS48 | 48 | 10 | – | – | – | – | – | – | 64-pin TQFP |
| CYAT81652-64AA48 | 48 | 10 | – | ● | ● | ● | – | – | 64-pin TQFP |
| CYAT81652-64AS48 | 48 | 10 | – | ● | ● | ● | – | – | 64-pin TQFP |
| CYAT81655-64AA48 | 48 | 10 | – | ● | ● | ● | ● | – | 64-pin TQFP |
| CYAT81655-64AS48 | 48 | 10 | – | ● | ● | ● | ● | – | 64-pin TQFP |
| CYAT81658-64AA48 | 48 | 10 | – | ● | ● | ● | ● | ● | 64-pin TQFP |
| CYAT81658-64AS48 | 48 | 10 | – | ● | ● | ● | ● | ● | 64-pin TQFP |
| CYAT81659-64AA48 | 48 | 10 | ● | ● | ● | ● | ● | ● | 64-pin TQFP |

# Gen6L – Low cost Touch controller solution

| Product type/ partnumber | No of Sense pins | No of Fingers | Wake up button/Wake on screen | Capsense Buttons | Water Rejection | Thin Glove Support | Gestures | Thick Overlay/Thick Glove support | Package |
|---|---|---|---|---|---|---|---|---|---|
| **TSG6_L** | | | | | | | | | |
| CYAT81659-64AS48 | 48 | 10 | • | • | • | • | • | • | 64-pin TQFP |
| CYAT71658-56LWS41 | 41 | 10 | • | • | • | • | • | • | 56-pin QFN |
| CYAT71658-56LWA41 | 41 | 10 | • | • | • | • | • | • | 56-pin QFN |

# Gen7XL – Touch Controller with advanced features



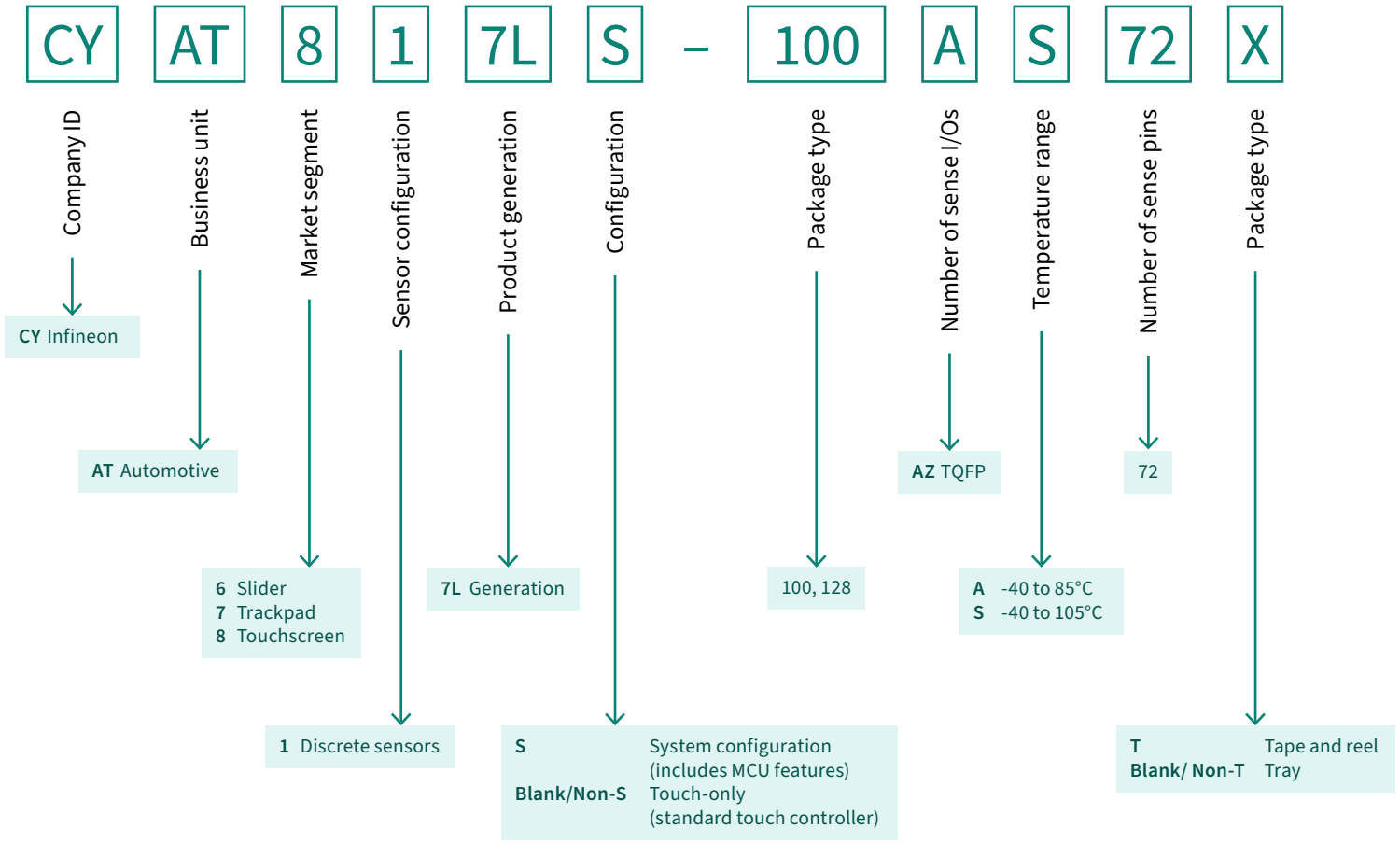
# Gen7XL – Touch Controller with advanced features

| Product type/ partnumber | Number of Pins | Number of Fingers | Hover | Force Touch | CapSense Buttons | Low-power Wake-up Button | Slider | Haptic | Acoustic | Secondary SCB (Touch Data) | CAN | Proximity | Crypto | Gesture Touchscreen | Gesture Slider | $H_2O$ | Package |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TSG7_XL** | | | | | | | | | | | | | | | | | |
| CYAT817AZS61-3A002 | 61 | 10 | ● | ● | – | – | – | – | – | – | – | – | – | – | – | ● | 100-TQFP |
| CYAT817AZS61-3A202 | 61 | 10 | ● | ● | – | – | – | ● | – | – | – | – | – | | | ● | 100-TQFP |
| CYAT817AZS61-22002 | 61 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | 100-TQFP |
| CYAT817AZA72-3BFBA | 72 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | 100-TQFP |
| CYAT817AZS72-32002 | 72 | 10 | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | 100-TQFP |
| CYAT817AZS72-33002 | 72 | 10 | ● | | ● | – | – | – | – | – | – | – | – | – | – | ● | 100-TQFP |
| CYAT817AZS72-3B002 | 72 | 10 | ● | ● | ● | – | – | – | – | – | – | – | – | – | – | ● | 100-TQFP |
| CYAT817AZS72-3B202 | 72 | 10 | ● | ● | ● | – | – | ● | – | – | – | – | – | – | – | ● | 100-TQFP |
| CYAT817AZS72-3BFBA | 72 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | 100-TQFP |
| CYAT817AZS72-22002 | 72 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | 100-TQFP |
| CYAT817AZA77-5BFBA | 77 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | 128-TQFP |
| CYAT817AZS77-5A002 | 77 | 10 | ● | ● | – | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZS77-5A202 | 77 | 10 | ● | ● | – | – | – | ● | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZS77-5BFBA | 77 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | 128-TQFP |
| CYAT817AZS77-520DA | 77 | 10 | ● | – | – | – | – | – | – | ● | – | – | ● | ● | – | ● | 128-TQFP |
| CYAT817AZS77-53C02 | 77 | 10 | ● | – | ● | ● | ● | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZS77-42002 | 77 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZA88-5BFBA | 88 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | – | ● | ● | ● | – | ● | 128-TQFP |
| CYAT817AZA88-53002 | 88 | 10 | ● | – | ● | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |

# Gen7XL – Touch Controller with advanced features

| Product type/ partnumber | Number of Pins | Number of Fingers | Hover | Force Touch | CapSense Buttons | Low-power Wake-up Button | Slider | Haptic | Acoustic | Secondary SCB (Touch Data) | CAN | Proximity | Crypto | Gesture Touchscreen | Gesture Slider | $H_2O$ | Package |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **TSG7_XL** | | | | | | | | | | | | | | | | | |
| CYAT817AZA88-5B002 | 88 | 10 | ● | ● | ● | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZA88-5B202 | 88 | 10 | ● | ● | ● | – | – | ● | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZS88-5BFBA | 88 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | | ● | 128-TQFP |
| CYAT817AZS88-52002 | 88 | 10 | ● | – | – | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZA88-42002 | 88 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZS88-42002 | 88 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZA98-42002 | 98 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZA98-5BFBA | 103 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | | ● | 128-TQFP |
| CYAT817AZA98-53002 | 103 | 10 | ● | – | ● | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZA98-5B002 | 103 | 10 | ● | ● | ● | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZA98-5B202 | 103 | 10 | ● | ● | ● | – | – | ● | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZS98-42002 | 103 | 10 | – | – | – | – | – | – | – | – | – | – | – | – | – | ● | 128-TQFP |
| CYAT817AZS98-523DA | 103 | 10 | ● | – | – | – | – | ● | ● | ● | ● | – | ● | ● | – | ● | 128-TQFP |
| CYAT817AZS98-5BFBA | 103 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | | ● | ● | ● | – | ● | 128-TQFP |
| CYAT817AZS98-5BFFE | 103 | 10 | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | ● | 128-TQFP |

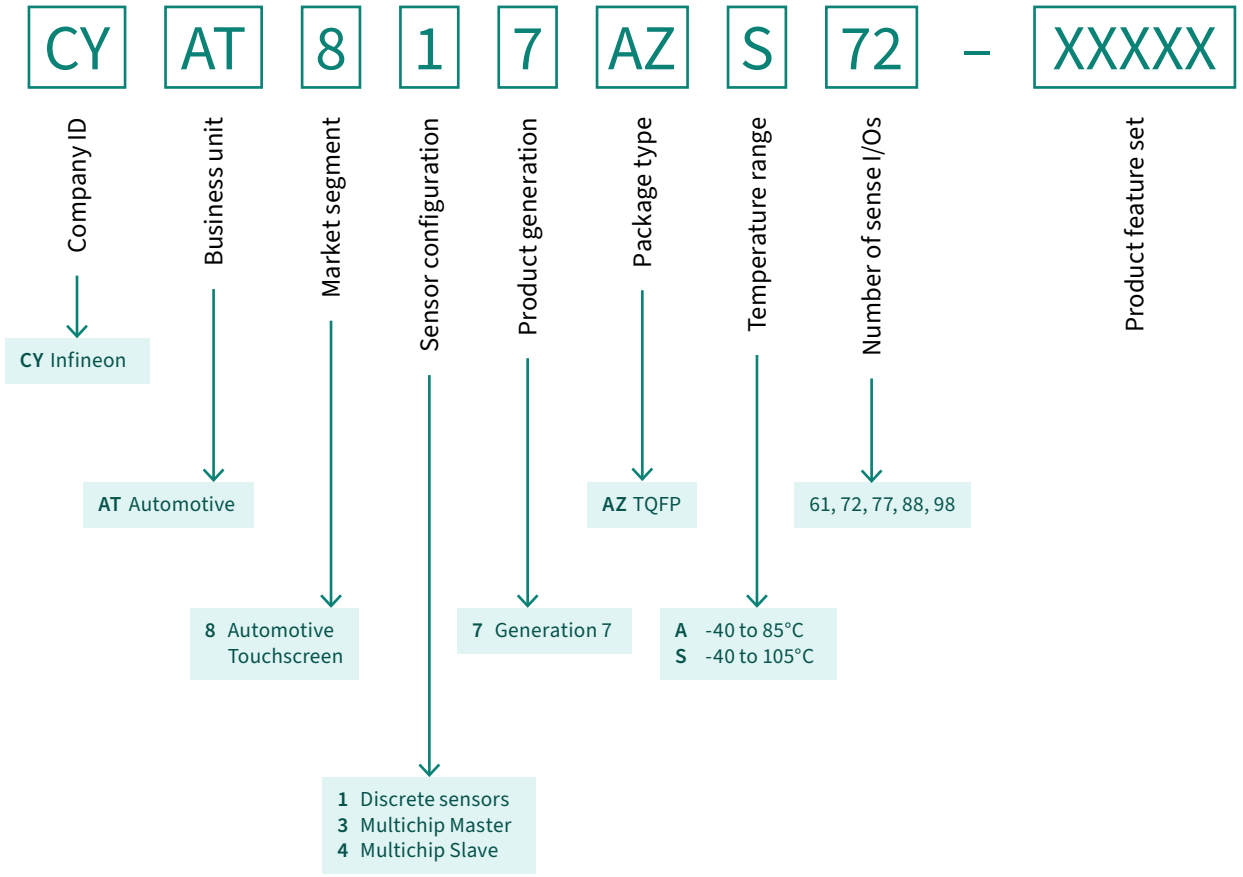
# Gen7L – Touch + MCU features



# Gen7L – Touch + MCU features

| Product type/ partnumber | Number of sense pins | Multitouch | Touch only | Touch+ MCU functions | No. of GPIOs | Package |
|---|---|---|---|---|---|---|
| **TSG7_L** | | | | | | |
| CYAT817L-100AA72 | 72 | ● | ● | – | 13 | 100-TQFP |
| CYAT817L-100AS72 | 72 | ● | ● | – | 13 | 100-TQFP |
| CYAT817LS-100AA72 | 72 | ● | – | ● | 13 | 100-TQFP |
| CYAT817LS-100AS72 | 72 | ● | | ● | 13 | 100-TQFP |
| CYAT817L-128AA72 | 72 | ● | ● | – | 29 | 128-TQFP |
| CYAT817L-128AS72 | 72 | ● | ● | – | 29 | 128-TQFP |
| CYAT817LS-128AA72 | 72 | ● | – | ● | 29 | 128-TQFP |
| CYAT817LS-128AS72 | 72 | ● | – | ● | 29 | 128-TQFP |

# Gen7XL – Multi-chip



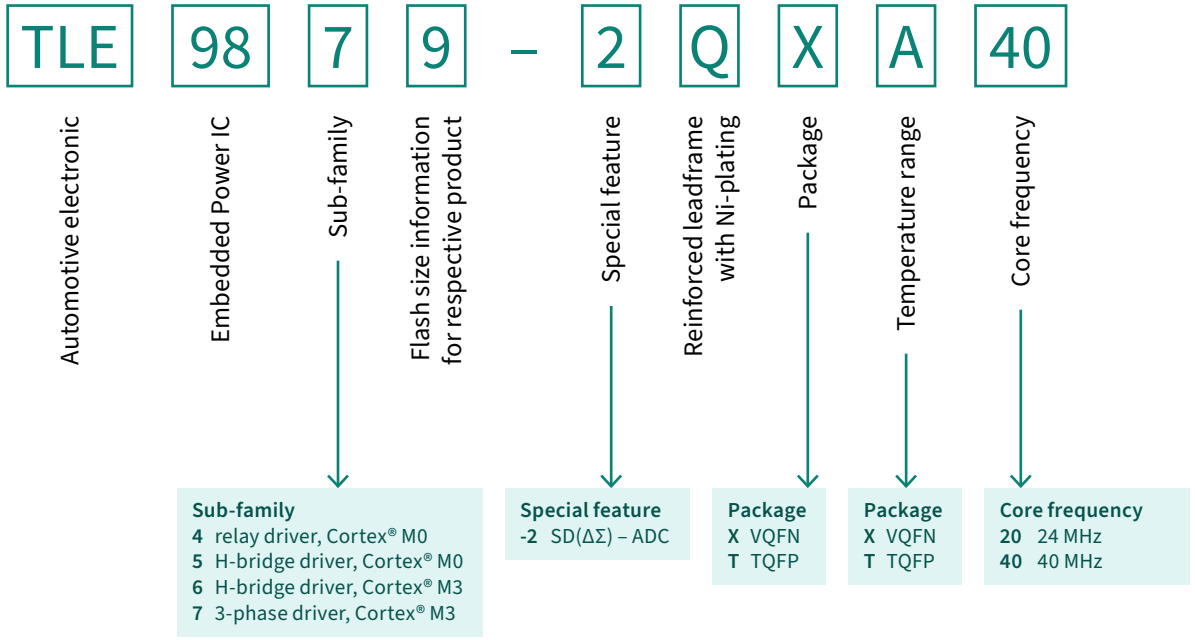
# Gen7XL – Multi-chip

| Product type/ partnumber | Number of Pins | Multitouch | Glove | H2O | Package |
|---|---|---|---|---|---|
| **TSG7_XL MC** | | | | | |
| CYAT837AZA98-42002 | 98 | • | • | • | 128-pin TQFP |
| CYAT837AZS98-42002 | 98 | • | • | • | 128-pin TQFP |
| CYAT847AZA98-42002 | 98 | • | • | • | 128-pin TQFP |
| CYAT847AZS98-42002 | 98 | • | • | • | 128-pin TQFP |
| CYAT837AZA88-42002 | 88 | • | • | • | 128-pin TQFP |
| CYAT837AZS88-42002 | 88 | • | • | • | 128-pin TQFP |
| CYAT847AZA88-42002 | 88 | • | • | • | 128-pin TQFP |
| CYAT847AZS88-42002 | 88 | • | • | • | 128-pin TQFP |
| CYAT837AZA77-42002 | 77 | • | • | • | 128-pin TQFP |
| CYAT837AZS77-42002 | 77 | • | • | • | 128-pin TQFP |
| CYAT847AZA77-42002 | 77 | • | • | • | 128-pin TQFP |
| CYAT847AZS77-42002 | 77 | • | • | • | 128-pin TQFP |
| CYAT847AZA72-22002 | 72 | • | • | • | 100-pin TQFP |
| CYAT847AZS72-22002 | 72 | • | • | • | 100-pin TQFP |
| CYAT847AZA61-22002 | 61 | • | • | • | 100-pin TQFP |
| CYAT847AZS61-22002 | 61 | • | • | • | 100-pin TQFP |

# PSoC™ Fingerprint FPG1

| Product type/ partnumber | Active Imaging Area | Resolution | CPU | Firmware | Communication Interface | Encryption | Encrytion Mode | Pacakge Type | Package Size | Automotive Qualification | Operating Temperature |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CYFP10020A00 | 8 x 8 mm | 340 dpi | Cortex®-M0 | Supplied by Infineon | SPI slave bit rates up to 7.8 Mbps | 256-bit AES | ECB, CBC | BGA-73 | 8.87x9.26x0.70 mm | AEC-Q100 | Automotive AECQ-Q100: -40 to +85°C |
| CYFP10020S00 | 8 x 8 mm | 340 dpi | Cortex®-M0 | Supplied by Infineon | SPI slave bit rates up to 7.8 Mbps | 256-bit AES | ECB, CBC | BGA-73 | 8.87x9.26x0.70 mm | AEC-Q100 | Automotive AECQ-Q100: -40 to +105°C |

# 32-bit Embedded Power ICs based on Arm® Cortex® M



# Selection table – Embedded Power ICs for Motor Control

| Criteria | TLE984x | TLE9845QX | TLE9850/1QX(W) | TLE985x | TLE986x | TLE987x |
|---|---|---|---|---|---|---|
| Controller | Arm® Cortex®-M0 | | | | Arm® Cortex®-M3 | |
| Core frequency | 25/40 MHz | 40 MHz | | | 24/40 MHz | |
| Flash size | 36–64 KB | 48 KB | 64 KB | 48–96 KB | 36–256 KB | |
| Driver stage | Relay | H-bridge | | Half-bridge | | B6-bridge |
| | | PN FET | NN FET | N FET | | N FET |
| High-voltage monitor inputs | 4 – 5 | 5 | 4 | | 1 | |
| Junction temperature levels | 150°C | 150°C | 175°C | 150°C/175°C | 150°C/175°C | |
| Package | VQFN-48-31 | | VQFN-48-29 | VQFN-48-29<br>VQFN-48-31 | TQFP-48-10<br>VQFN-48-29<br>VQFN-48-31 | |
| Applications | Window lift<br>Sunroof | Engine cooling fan<br>Auxiliary water pump<br>HVAC blower<br>Fuel pump | | Window lift<br>Sunroof<br>Wiper<br>Power lift gate | Engine cooling fan<br>Oil/water/fuel pump<br>HVAC blower<br>Power tools | |

# 32-bit Embedded Power ICs based on Arm® Cortex® M

| | Mar-kets | | | | | Core | | System | | | | De-bug | | | | Memory | | | | | | | | Driver circuits | | | | Analog | | | | Timer | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | ERU | DMA | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | Supply voltage [V] | Operating temperature range TA [°C] | Flash | ECC | RAM [kByte] | Cache | EEPROM emulationin flash [kByte] | Data/IP protection | Fast LIN BSL bootloader | Peripherals clock [MHz] | MOSFET half bridge driver with double stage charge pump: 3 phase | MOSFET half bridge driver with double stage charge pump: 2 phase | MOSFET half bridge driver with double stage charge pump: 1 phase | High side switches | Low side switches | No. of 10-bit ADC channels | No. of 8-bit ADC channels | Operational amplifier | ΔΣ ADC | CCU6 | GPT12 | Timer 2/21 | Timer 3 | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN |
| **Relay Driver IC** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE9842QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 25 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 36 kByte | ● | 2 kByte | – | 4 kByte | ● | selec-table | – | – | – | ● | ●● | 12 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9842-2QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 40 kByte | ● | 2 kByte | – | 4 kByte | ● | selec-table | – | – | – | ●● | ●● | 13 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9843QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 25 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | – | – | ● | ●● | 12 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9843-2QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 52 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | – | – | ●● | ●● | 13 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9844QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 25 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | – | – | ● | ●● | 12 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9844-2QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | – | – | ●● | ●● | 13 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| **Relay Driver IC** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE9845QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | – | – | ●● | ●● | 13 ch | 7 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9850QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | – | selec-table | – | – | ● | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9851QXW | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | – | ● | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| **Relay Driver IC** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE9852QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | ● | – | ● | – | 11 ch | 9 ch | – | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9853QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 48 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | ● | – | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9854QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | ● | – | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE9854QXW | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | – | ● | – | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |

# 32-bit Embedded Power ICs based on Arm® Cortex® M

| | Markets | | | | | Core | | System | | | | Debug | | | | Memory | | | | | | | | | Driver circuits | | | | Analog | | | | Timer | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Product type/partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | ERU | DMA | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | Supply voltage [V] | Operating temperature range TA [°C] | Flash | ECC | RAM [kByte] | Cache | EEPROM emulationin flash [kByte] | Data/IP protection | Fast LIN BSL bootloader | Peripherals clock [MHz] | MOSFET half bridge driver with double stage charge pump: 3 phase | 2 phase | 1 phase | High side switches | Low side switches | No. of 10-bit ADC channels | No. of 8-bit ADC channels | Operational amplifier | ΔΣ ADC | CCU6 | GPT12 | Timer 2/21 | Timer 3 | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN |
| **H-Bridge Driver IC** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE9855QX | ● | – | – | VQFN-48 | 10 | Cortex® M0 | 40 | – | – | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 96 kByte | ● | 4 kByte | – | 4 kByte | ● | selec-table | ● | – | – | ● | – | 12 ch | 9 ch | ● | – | 3 ch | ● | ● | – | ● | – | – | ● | – | – | ● |
| TLE-9861QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 36 kByte | ● | 3 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | – |
| TLE-9862QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M4 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 256 kByte | ● | 8 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9867QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9867QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9867QXW20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE9868Q-XB20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 20 | – | – | ● | ● | – | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 4 kByte | – | 5 kByte | ● | selec-table | ● | – | – | – | – | 6 ch | 10 ch | – | ●● | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9869QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 10 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| **3-Phase Bridge Driver IC** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE-9871QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 36 kByte | ● | 3 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | – |
| TLE-9872QTW40 | ● | – | – | TQFP-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 256 kByte | ● | 8 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9872QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 256 kByte | ● | 8 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE9872-2QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 14 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 256 kByte | ● | 8 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | ●● | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9873QXW40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 48 kByte | ● | 3 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9877QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |

# 32-bit Embedded Power ICs based on Arm® Cortex® M

| | Mar-kets | | | | | Core | | System | | | | De-bug | | | | Memory | | | | | | | | Driver circuits | | | | Analog | | | | Timer | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | MOSFET half bridge driver with double stage charge pump | | | | | | | | | | | | | | | | | | | |
| Product type/partnumber | Automotive | Industrial | Consumer | Package | GPIOs | Processor type | Core frequency [MHz] | ERU | DMA | Watchdog | Real-Time Clock | SWD, SPD | JTAG, Trace | Supply voltage [V] | Operating temperature range TA [°C] | Flash | ECC | RAM [kByte] | Cache | EEPROM emulationin flash [kByte] | Data/IP protection | Fast LIN BSL bootloader | Peripherals clock [MHz] | 3 phase | 2 phase | 1 phase | High side switches | Low side switches | No. of 10-bit ADC channels | No. of 8-bit ADC channels | Operational amplifier | ΔΣ ADC | CCU6 | GPT12 | Timer 2/21 | Timer 3 | SPI | Dual SPI | Quad SPI | UART/SCI | IIC/I²C | IIS/I²S | LIN |
| **3-Phase Bridge Driver IC** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TLE-9877QTW40 | ● | – | – | TQFP-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9877QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9877QXW40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 64 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9879QTW40 | ● | – | – | TQFP-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9879QXA20 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 24 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9879QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE9879-2QXA40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 14 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 150 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | ●● | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |
| TLE-9879QXW40 | ● | – | – | VQFN-48 | 10 | Cortex® M3 | 40 | – | 13 ch | ● | ● | ● | ● | – | 5.5 to 28 | -40 to 175 | 128 kByte | ● | 6 kByte | – | 4 kByte | ● | selec-table | ● | – | – | – | – | 7 ch | 9 ch | ● | – | 3 ch | ● | ● | ● | ● | – | – | ● | – | – | ● |

# Legacy: 16/32-bit Microcontroller

| Product type | Automotive | Industrial | Consumer | Temperatureranges | Package | Max clock frequency[MHz] | Programmemory[kByte] | SRAM(incl. cache)[KByte] | Co-processor | Digital I/O lines | Number ofADC channels | Timed IO channels(PWM, capture) | External bus interface | CAN nodes | Ethernet | Communicationinterfaces | Additional features /remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **XC2000 for automotive applications** | | | | | | | | | | | | | | | | | |
| **XC2200 for body applications** | | | | | | | | | | | | | | | | | |
| **U-series** | | | | | | | | | | | | | | | | | |
| XC2220U | ● | – | – | F, K | VQFN-48 | 40 | 32–64 | 8 | MAC | 33 | 10 | 17 | ● | – | – | 1x USIC | – |
| **L-series** | | | | | | | | | | | | | | | | | |
| XC2224I | ● | – | – | F, K | VQFN-48 | 66 | 96–160 | 12 | MAC | 33 | 10 | 23 | ● | 2 | – | 2x USIC | – |
| XC2234I | ● | – | – | F, K | LQFP-64 | 66 | 96–160 | 12 | MAC | 49 | 19 | 24 | ● | 2 | – | 2x USIC | CuWb |
| **N-series** | | | | | | | | | | | | | | | | | |
| XC2238N | ● | – | – | F, K | LQFP-64 | 80 | 192–320 | 34 | MAC | 38 | 9 | 22 | ● | 6 | – | 4x USIC | CuWb |
| XC2268N | ● | – | – | F, K | LQFP-100 | 80 | 192–320 | 34 | MAC | 76 | 16 | 32 | ● | 6 | – | 6x USIC | CuWb |
| **M-series** | | | | | | | | | | | | | | | | | |
| XC2237M | ● | – | – | F, K | LQFP-64 | 80 | 448–832 | 50 | MAC | 38 | 9 | 22 | ● | 6 | – | 6x USIC | – |
| XC2267M | ● | – | – | F, K | LQFP-100 | 80 | 448–832 | 50 | MAC | 76 | 16 | 32 | ● | 6 | – | 8x USIC | CuWb |
| XC2287M | ● | – | – | F, K | LQFP-144 | 80 | 448–832 | 50 | MAC | 119 | 24 | 44 | ● | 6 | – | 8x USIC | CuWb |
| **I-series** | | | | | | | | | | | | | | | | | |
| XC2269I | ● | – | – | F, K | LQFP-100 | 128 | 1088 | 90 | MAC | 76 | 19 | 32 | ● | 6 | – | 10x USIC, 2xFlexRay | CuWb |
| XC2289I | ● | – | – | F, K | LQFP-144 | 128 | 1088 | 90 | MAC | 118 | 28 | 44 | ● | 6 | – | 10x USIC, 2x FlexRay | CuWb |
| **H-series** | | | | | | | | | | | | | | | | | |
| XC2289H | ● | – | – | F, K | LQFP-144 | 100 | 1600 | 138 | MAC | 119 | 24 | 44 | ● | 4 | – | 10x USIC, 2x FlexRay | – |
| XC2299H | ● | – | – | F, K | LQFP-176 | 100 | 1600 | 138 | MAC | 150 | 30 | 66 | ● | 6 | – | 10x USIC, 2x FlexRay | – |

# Legacy: 16/32-bit Microcontroller

| Product type | Automotive | Industrial | Consumer | Temperatureranges | Package | Max clock frequency[MHz] | Programmemory[kByte] | SRAM(incl. cache)[KByte] | Co-processor | Digital I/O lines | Number ofADC channels | Timed IO channels(PWM, capture) | External bus interface | CAN nodes | Ethernet | Communicationinterfaces | Additional features /remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **XC2300 for safety applications** | | | | | | | | | | | | | | | | | |
| **A-series** | | | | | | | | | | | | | | | | | |
| XC2336A | ● | – | – | F, K | LQFP-64 | 40 | 448–832 | 50 | MAC | 38 | 9 | 24 | ● | 2 | – | 4x USIC | – |
| XC2365A | ● | – | – | F, K | LQFP-100 | 80 | 448–832 | 50 | MAC | 76 | 16 | 24 | ● | 3 | – | 6x USIC | CuWb |
| XC2387A | ● | – | – | F, K | LQFP-144 | 80 | 448–832 | 50 | MAC | 119 | 24 | 32 | ● | 3 | – | 6x USIC | CuWb |
| **B-series** | | | | | | | | | | | | | | | | | |
| XC2336B | ● | – | – | F, K | LQFP-64 | 80 | 320 | 34 | MAC | 38 | 9 | 20 | ● | 2 | – | 4x USIC | CuWb |
| XC2365B | ● | – | – | F, K | LQFP-100 | 80 | 192–320 | 18–34 | MAC | 76 | 16 | 24 | ● | 3 | – | 6x USIC | CuWb |
| **C-series** | | | | | | | | | | | | | | | | | |
| XC2388C | ● | – | – | F, K | LQFP-144 | 100 | 1088–1600 | 138 | MAC | 119 | 24 | 32 | ● | 4 | – | 10x USIC, 2x FlexRay | – |
| **D-series** | | | | | | | | | | | | | | | | | |
| XC2321D | ● | – | – | F, K | VQFN-48 | 80 | 96–160 | 12 | MAC | 33 | 10 | 23 | ● | 2 | – | 2x USIC | – |
| XC2331D | ● | – | – | F, K | LQFP-64 | 80 | 96–160 | 12 | MAC | 49 | 19 | 24 | ● | 2 | – | 2x USIC | CuWb |
| **E-series** | | | | | | | | | | | | | | | | | |
| XC2368E | ● | – | – | F, K | LQFP-100 | 128 | 576–1088 | 90 | MAC | 75 | 16 | 32 | ● | 3 | – | 6x USIC, 2x FlexRay | CuWb |
| XC2388E | ● | – | – | F, K | LQFP-144 | 128 | 576–1088 | 90 | MAC | 118 | 24 | 32 | ● | 3 | – | 8x USIC, 2x FlexRay | CuWb |
| **S-series** | | | | | | | | | | | | | | | | | |
| XC2320S | ● | – | – | F, K | VQFN-48 | 66 | 32–64 | 8 | MAC | 33 | 10 | 17 | ● | – | – | 1x USIC | – |

# Legacy: 16/32-bit Microcontroller

| Product type | Automotive | Industrial | Consumer | Temperatureranges | Package | Max clock frequency[MHz] | Programmemory[kByte] | SRAM(incl. cache)[KByte] | Co-processor | Digital I/O lines | Number ofADC channels | Timed IO channels(PWM, capture) | External bus interface | CAN nodes | Ethernet | Communicationinterfaces | Additional features /remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **XC2700 for powertrain applications** | | | | | | | | | | | | | | | | | |
| **2-series** | | | | | | | | | | | | | | | | | |
| XC2722X | ● | – | – | K | VQFN-48 | 40 | 64 | 8 | MAC | 33 | 10 | 17 | ● | – | – | 2x USIC | – |
| **3-series** | | | | | | | | | | | | | | | | | |
| XC2723X | ● | – | – | K | VQFN-48 | 66 | 160 | 12 | MAC | 33 | 10 | 23 | ● | 2 | – | 2x USIC | – |
| XC2733X | ● | – | – | K | LQFP-64 | 66 | 160 | 12 | MAC | 49 | 19 | 24 | ● | 2 | – | 2x USIC | CuWb |
| **4-series** | | | | | | | | | | | | | | | | | |
| XC2734X | ● | – | – | K | LQFP-64 | 80 | 320 | 34 | MAC | 38 | 9 | 20 | ● | 2 | – | 4x USIC | CuWb |
| XC2764X | ● | – | – | K | LQFP-100 | 80 | 320 | 34 | MAC | 76 | 16 | 24 | ● | 2 | – | 4x USIC | CuWb |
| **5-series** | | | | | | | | | | | | | | | | | |
| XC2765X | ● | – | – | K | LQFP-100 | 80 | 576–832 | 50 | MAC | 76 | 16 | 37 | ● | 2 | – | 4x USIC | CuWb |
| XC2785X | ● | – | – | K | LQFP-144 | 80 | 576–832 | 50 | MAC | 119 | 24 | 44 | ● | 2 | – | 4x USIC | CuWb |
| **7-series** | | | | | | | | | | | | | | | | | |
| XC2787X | ● | – | – | K | LQFP-144 | 100 | 1600 | 138 | MAC | 119 | 24 | 60 | ● | 2 | – | 6x USIC | – |
| **8-series** | | | | | | | | | | | | | | | | | |
| XC2768X | ● | – | – | K | LQFP-100 | 128 | 1088 | 90 | MAC | 76 | 19 | 32 | ● | 2 | – | 10x USIC, 2x FlexRay | CuWb |
| XC2788X | ● | – | – | K | LQFP-144 | 128 | 1088 | 90 | MAC | 118 | 28 | 44 | ● | 2 | – | 10x USIC, 2x FlexRay | CuWb |
| XC2320S | ● | – | – | F, K | VQFN-48 | 66 | 32–64 | 8 | MAC | 33 | 10 | 17 | ● | – | – | 1x USIC | – |

**MAC** = Multiply-Accumulate-Unit (DSP)
**USIC** = ASC, SPI, I²C, I²S

**F** = -40/+85 °C
**K** = -40/+125 °C

# Legacy: 16-bit Industrial Microcontroller

| Product type | Automotive | Industrial | Consumer | Temperatureranges | Package | Max clock frequency[MHz] | Programmemory[kByte] | SRAM(incl. cache)[KByte] | Co-processor | Digital I/O lines | Number ofADC channels | Timed I/O channels(PWM, capture) | External bus interface | CAN nodes | Ethernet | Communicationinterfaces | Additional features /remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **XE166 real time signal controller for industrial and multi market** | | | | | | | | | | | | | | | | | |
| **Classic series - alpha line** | | | | | | | | | | | | | | | | | |
| XE164x | – | ● | ● | F, K | LQFP-100 | 66/80 | 768 | 24–82 | MAC | 75 | 11–16 | 30–37 | ● | 0–4 | – | 4–6x USIC | – |
| XE167x | – | ● | ● | F, K | LQFP-144 | 66/80 | 768 | 28–82 | MAC | 118 | 16–24 | 30–44 | ● | 0–5 | – | 4–6x USIC | – |
| **U series - compact line** | | | | | | | | | | | | | | | | | |
| XE161x | – | ● | ● | F, K | VQFN-48 | 40/66 | 64 | 8 | MAC | 33 | 10 | 15 | – | – | – | 2x USIC | – |
| **L series - econo line** | | | | | | | | | | | | | | | | | |
| XE161x | – | ● | ● | F, K | VQFN-48 | 66/80 | 128–160 | 12 | MAC | 33 | 10 | 21 | – | 1 | – | 4x USIC | – |
| XE162x | – | ● | ● | F, K | LQFP-64 | 66/80 | 96–160 | 12 | MAC | 48 | 19 | 21 | – | 2 | – | 4x USIC | CuWb |
| **N series - value line** | | | | | | | | | | | | | | | | | |
| XE162xN | – | ● | ● | F, K | LQFP-64 | 80 | 128–320 | 18–34 | MAC | 40 | 9 | 23 | ● | 0–2 | – | 6x USIC | CuWb |
| XE164xN | – | ● | ● | F, K | LQFP-100 | – | 128–320 | 18–34 | MAC | 75 | 11–16 | 30 | ● | 0–2 | – | 4–6x USIC | CuWb |
| **M series - base line** | | | | | | | | | | | | | | | | | |
| XE162xM | – | ● | ● | F, K | LQFP-64 | 80 | 384–576 | 24–50 | MAC | 40 | 9 | 23 | – | 0–2 | – | 6x USIC | – |
| XE164xM | – | ● | ● | F, K | LQFP-100 | 80 | 384–576 | 26–50 | MAC | 76 | 11–16 | 30–37 | ● | 0–4 | – | 4–6x USIC | CuWb |
| XE167xM | – | ● | ● | F, K | LQFP-144 | 80 | 384–576 | 34–50 | MAC | 119 | 16–24 | 30–44 | ● | 0–6 | – | 4–8x USIC | CuWb |
| **H series - high line** | | | | | | | | | | | | | | | | | |
| XE167xH | – | ● | ● | F, K | LQFP-144 | 100 | 1.024–1.600 | 138 | MAC | 98–118 | 24 | 60 | ● | 6 | – | 10x USIC | – |
| XE169xH | – | ● | ● | F, K | LQFP-176 | 100 | 1.024–1.600 | 138 | MAC | 98–118 | 30 | 60 | ● | 6 | – | 10x USIC | – |

**MAC** = Multiply-Accumulate-Unit (DSP)
**USIC** = ASC, SPI, I²C, I²S

**F** = -40/+85 °C
**K** = -40/+125 °C

# Legacy: 8-bit Microcontroller

| Product type | Automotive | Industrial | Consumer | Temperatureranges | Package | Max clock frequency[MHz] | Programmemory[kByte] | SRAM(incl. cache)[KByte] | Co-processor | Digital I/O lines | Number ofADC channels | Timed I/O channels(PWM, capture) | External bus interface | CAN nodes | Ethernet | Communicationinterfaces | Additional features /remarks |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **C500 family** | | | | | | | | | | | | | | | | | |
| C505CA-4EM /-lM | ● | ● | ● | F, B, K | MQFP-44 | 20 | 0 | 1.25 | – | 34 | 8 | 4 | – | 1 | – | 1x USART | OTP, ROM less |
| C515C-8EM | ● | ● | ● | F, B, K | MQFP-80 | 10 | 64 | 2.25 | – | 49 | 8 | 4 | – | 1 | – | 1x USART, 1x SSC | OTP |
| **XC800 family** | | | | | | | | | | | | | | | | | |
| **XC82x-series** | | | | | | | | | | | | | | | | | |
| XC822MT | ● | ● | ● | F, K | TSSOP-16 | 24 | 2–4 | 0.5 | – | 17 | 4 | 4 | – | – | – | 1x UART, 1x SSC, lIN | – |
| **XC83x-series** | | | | | | | | | | | | | | | | | |
| XC836MT | ● | ● | ● | F, K, L | TSSOP-28 | 24 | 4–8 | 0.5 | VC | 25 | 8 | 4 | – | – | – | 1x UART, 1x SSC, lIN | – |
| **XC86x-series** | | | | | | | | | | | | | | | | | |
| XC866 | ● | ● | ● | F, K, A, L | TSSOP-38 | 26.67 | 4–16 | 0.75 | – | 27 | 8 | 4 | – | – | – | 1x UART, 1x SSC | – |
| XC866l | ● | ● | ● | F, K, A, L | TSSOP-38 | 26.67 | 4–16 | 0.75 | – | 27 | 8 | 4 | – | – | – | 1x UART, lIN BSl, 1x SSC | – |
| **XC87x-series** | | | | | | | | | | | | | | | | | |
| XC878 | ● | ● | ● | F, K, X | lQFP-64 | 27 | 52–64 | 3 | [VC] | 48 | 8 | 10 | ● | [2] | – | 2x UART, 1x SSC, [lIN] | – |
| **XC88x-series** | | | | | | | | | | | | | | | | | |
| XC886 | ● | ● | ● | F, K, A, L | TQFP-48 | 24 | 24–32 | 1.75 | [VC] | 34 | 8 | 4 | – | [2] | – | 2x UART, [lIN BSl], [1x SSC] | – |
| XC888 | ● | ● | ● | F, K, [A], [L] | TQFP-64 | 24 | 24–32 | 1.74 | [VC] | 48 | 8 | 4 | – | [2] | – | 2x UART, [lIN BSl], [1x SSC] | – |
| **CIC family (companion IC)** | | | | | | | | | | | | | | | | | |
| CIC61508 | ● | ● | – | K | TSSOP-38 | 26.67 | – | 0.25 | – | – | – | – | – | – | – | Safety signature watchdog | Flash |

[ ] = Optional features
**MDU** = Multiply Divide Unit
**LIN BSL** = LIN Bootstrap Loader
**SSC** = Synchronous Serial Channel
**VC** = Vector Computer (MDU + CORDIC)

**A** = -40/+140 °C
**F** = -40/+85 °C
**K** = -40/+125 °C
**L** = -40/+150 °C
**X** = -40/+105 °C

# Voltage regulators for Microcontrollers

| Microcontroller family | Output voltage [V] | Output current (max) [mA] | Safety support | Voltage regulator | Automotive | Industrial |
|---|---|---|---|---|---|---|
| **Legacy 8/16-bit Microcontrollers** | | | | | | |
| XC8xxx | 3.3/5 | 30 | – | TLE4296-2G; TLE4295G | ● | – |
| XC8xxx | 3.3/5 | 30 | – | TLE4296-2G; TLE4295G | ● | – |
| XC8xxx | 5 | 300 | – | TLS835B2EL; TLS835D2EL | ● | – |
| XC8xxx | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XC8xxx | 3.3/5 | 400 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxTA | ● | – |
| XC8xxx | 3.3/5 | 50 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XC8xxx | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XE166/XC2000 | 3.3/5 | 400 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxTA | ● | – |
| XE166/XC2001 | 5 | 300 | – | TLS835B2EL; TLS835D2EL | ● | – |
| XE166/XC2002 | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XE166/XC2003 | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| **32-bit XMC™ Arm® Microcontroller** | | | | | | |
| XMC1000 series | 3.3/5 | 300 | – | TLS835B2EL; TLS835D2EL | ● | – |
| XMC1000 series | 3.3 | 150 | – | TLE4266-2G; TLS820D3EL | ● | – |
| XMC1000 series | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XMC1000 series | 5 | 100 | – | TLS810B1EJ; TLS810A1LD | ● | – |
| XMC1000 series | 3.3/5 | 400 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxTA | ● | – |
| XMC4000 series | 3.3/5 | 500 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxTA | ● | – |
| XMC4000 series | 3.3/5 | 300 | – | TLS835B2EL; TLS835D2EL | ● | – |
| **32-bit AURIX™ TriCore™ Microcontroller** | | | | | | |
| AURIX TC21x/22x/23x | 3.3 | 150/500 | ASIL-D | TLF35584 | ● | – |
| AURIX TC21x/22x/23x | 3.3 | 150/500 | QM/ASIL-B | TLF502x1/TLS4120 | ● | – |
| AURIX TC21x/22x/23x | 3.3 | 150/500 | QM/ASIL-B | TLE9461/TLE9471 | ● | – |
| AURIX TC26x/27x/29x | 3.3/5 | 250/400/500 | ASIL-D | TLF35584 | ● | – |
| AURIX TC26x | 3.3/5 | 250/400/500 | QM/ASIL-B | TLE926xB/TLE9471 | ● | – |
| AURIX TC27x/29x | 3.3/5 | 500 | QM/ASIL-B | TLE9471 | ● | – |

# Voltage regulators for Microcontrollers

| Microcontroller family | Output voltage [V] | Output current (max) [mA] | Safety support | Voltage regulator | Automotive | Industrial |
|---|---|---|---|---|---|---|
| **32-bit AURIX™ TriCore™ Microcontroller** | | | | | | |
| AURIX TC33x | 3.3/5 | 250/400/500 | QM/ASIL-B | TLE926xB/TLE9471 | ● | – |
| AURIX TC33x A | 3.3/5 | – | QM/ASIL-B | TLF30681 | ● | – |
| AURIX TC35x A | 3.3/5 | 750 | ASIL-B | TLF30682 | ● | – |
| AURIX TC35x A | 3.3/5 | 750 | QM/ASIL-B | TLE927x/TLE9278B | ● | – |
| AURIX TC36x/37x | 3.3/5 | 500 | QM/ASIL-B | TLE9471 | ● | – |
| AURIX TC37x | 3.3/5 | 500 | ASIL-D | TLF35584 | ● | – |
| AURIX TC38x/TC39x | 3.3/5 | 750 | ASIL-D | TLF35584 & TLF11251 | ● | – |
| AURIX TC38x/TC39x | 3.3/5 | 750 | QM/ASIL-B | TLE927x/TLE9278B | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 1000 | – | TLS4120D0EPV | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 1800 | – | TLS4120D0EPV | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 2300 | – | TLS4125D0EPV | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 400 | – | TLF80511TF/ EJ/ TC; TLE42764D; TLS850FxTA | ● | – |
| AURIX TC2xx & TC3xx | 3.3/5 | 1000 | – | TLS4120D0EPV | ● | – |

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Published by
Infineon Technologies AG
Am Campeon 1-15, 85579 Neubiberg
Germany

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Document number:
XXXXXXXXX
Date: 06/2024

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