PRODUCT BRIEF

TRAVEO™ T2G CYT2CL MCU series

Providing unparalleled excellence for automotive clusters

Infineon releases its second generation TRAVEO™ microcontroller in embedded flash 40 nm technology. It comes back with an increase in graphic performance, memory sizes and connectivity to address the new automotive trends and challenges. CYT2CL offers one of the most scalable safety and cluster entry microcontroller portfolios. In terms of performance, it offers single core Cortex® -M4 running up to 160 MHz, four LCD controllers and Sound subsystem with three packages (144-LQFP 0.4mm/0.5mm pitch and 176-LQFP). It is consuming below 52 mA in Active mode and 40 uA in Deepsleep mode with 32 KB RAM retention. Its mirrored embedded flash banks offer A/B swap capabilities.

Safety is the core know-how of Infineon, and all products provide safety mechanism (including MBIST, ECC Flash/RAM, CRC) to ensure a safety platform supporting ASIL-B ISO 26262. State-of-the-art security with Secure Boot support by a dedicated ARM® Cortex®-M0+ core and security hardware to accelerate cryptographic functions.

In terms of security, this product has an HSM compliant Evita full, ensuring the implementation of future proofed security measure. On top of this, it offers extensive connectivity with 4 CAN FD, 2 LINs, 1-ch 100 MHz for serial memory interface (SMIF).

The TRAVEO™ CYT2CL offers automotive cluster entry feature, sophisticated safety/security function, four LCD controllers with 32 segments (SEG) and four commons (COM) as LCD controller and two time-division multiplexing (TDM) interfaces/two pulse-code modulation-pulse width modulation (PCM-PWM) interfaces/up to five sound generator (SG) interfaces/one PCM Audio stream mixer with five input streams as sound subsystem. CYT2CL features a dedicated best-in-class standby mode controller, with its own voltage domain to, not only support low power modes, but also to perform certain operations such as analog measurements, CAN and LIN communications, RTC and basic processing while the rest of microcontroller is in standby.

Key features

- ARM® Cortex®-M4 single CPU up to 160 MHz operation
- Up to 4 MB flash, 128 KB work flash, 512 KB SRAM
- Four LCD controllers, with 32 segments (SEG) and four commons (COM)
- Mixer, 5x Sound Generator, PCM-PWM
- 4-ch CAN-FD, 12-ch SCB, 2-ch LIN, 2-ch CXPI and 1-ch SMIF
- Cortex®-M0+ for HSM security

Key benefits

- Single chip graphic solution for cluster
- Optimized memory footprint for reduced BOM
- Best-in-class performance enabling ASIL-B designs
- A/B swap software update over the air support
- Best-in-class power consumption
- TRAVEO™ T2G graphic MCU portfolio for a wide range of applications and a high level of software re-use

Key applications

- Instrument cluster
- LCD
- AVAS (Acoustic Vehicle Alerting System)
- 2-wheelers
- Classic cockpit solutions

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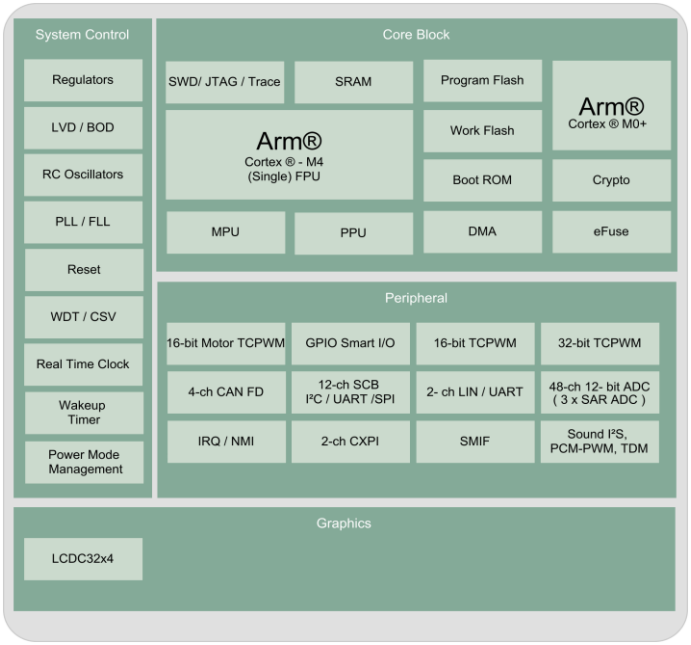
Block Diagram



Product table

Device Code	Ordering Code	Package	Package Pitch	Code-flash (KB)	Work-flash (KB)	SRAM (KB)	ADC Channels	SCB	CAN FD	LIN	CXPI	LCD	SMIF	Mixer	PCM.PWM	TDM	Temperature Grade	JTAG ID CODE
CYT2CL7BAS	CYT2CL7BAAQ0AZSGS	144-LQFP	0.5mm	4160	128	512	48	12	4	2	2	32 S x 4 C	1	1	1	2	105 °C	0x1EC03069
CYT2CLCLHBAS	CYT2CLHBAAQ0AZSGS	144-LQFP	0.4mm	4160	128	512	48	12	4	2	2	32 S x 4 C	1	1	1	2	105 °C	0x1EC05069
CYT2CL8BAS	CYT2CL8BAAQ0AZSGS	176-LQFP	-	4160	128	512	48	12	4	2	2	32 S x 4 C	1	1	1	2	105 °C	0x1EC01069

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