

ASR6601 GPIO Function MUX Table

| GPIO No. | Fun=0 | Fun=1 | Fun=2 | Fun=3 | Fun=4 | Fun=5 | Fun=6 | Fun=7 | Analog |
|-----------------------|---------------|-----------|-----------|---------------|----------|-----------|-------------|--------------|------------------------------------|
| GPIO00 | GPIO_PORTA_0 | UART0_RXD | UART0_TXD | UART0_SIR_OUT | SSP0_CLK | | GPTIM0_CH0 | GPTIM0_ETR | |
| GPIO01 | GPIO_PORTA_1 | UART0_TXD | UART0_RXD | UART0_SIR_IN | SSP0_NSS | I2S_MCLK | GPTIM0_CH1 | GPTIM2_ETR | |
| GPIO02 ^[1] | GPIO_PORTA_2 | | | | | | | | |
| GPIO03 | GPIO_PORTA_3 | UART0_RTS | I2S_DO | I2C0_SDA | SSP0_RX | | GPTIM0_CH3 | GPTIM2_CH1 | |
| GPIO04 | GPIO_PORTA_4 | UART1_RXD | UART1_TXD | UART1_SIR_OUT | SSP1_CLK | I2S_WS_IN | I2S_WS_OUT | GPTIM3_ETR | COM4/SEG23 ADC_IN3 |
| GPIO05 | GPIO_PORTA_5 | UART1_TXD | UART1_RXD | UART1_SIR_IN | SSP1_NSS | MCO | GPTIM0_CH0 | GPTIM0_ETR | COMP0_INN COM5/SEG22 ADC_IN2 |
| GPIO06 | GPIO_PORTA_6 | UART1_CTS | SWD | I2C1_SCL | SSP1_TX | | I2S_SCLK_IN | I2S_SCLK_OUT | |
| GPIO07 | GPIO_PORTA_7 | UART1_RTS | SWC | I2C1_SDA | SSP1_RX | | | LPTIM_OUT | |
| GPIO08 | GPIO_PORTA_8 | UART2_RXD | UART2_TXD | UART2_SIR_OUT | SSP2_CLK | | GPTIM1_CH0 | GPTIM3_CH0 | COMP0_INP SEG6 ADC_IN1 |
| GPIO09 | GPIO_PORTA_9 | UART2_TXD | UART2_RXD | UART2_SIR_IN | SSP2_NSS | COMP1_OUT | GPTIM1_CH1 | GPTIM3_CH1 | SEG14 DAC_OUT |
| GPIO10 | GPIO_PORTA_10 | UART2_CTS | | I2C2_SCL | SSP2_TX | | GPTIM0_CH0 | GPTIM0_ETR | COM3/SEG24 OPA0_OUT |
| GPIO11 | GPIO_PORTA_11 | UART2_RTS | | I2C2_SDA | SSP2_RX | | GPTIM1_CH2 | LPTIM_ETR | COMP0_OUT ADC_IN0 |

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|---------------|---------------|-----------|------------|---------------|------------|-------------|--------------|------------|--------------------|
| GPIO12 | GPIO_PORTA_12 | UART3_RXD | UART3_TXD | UART3_SIR_OUT | LPTIM1_ETR | EVENT_OUT | GPTIM1_CH3 | LPTIM_IN2 | SEG13 XO24M_IN |
| GPIO13 | GPIO_PORTA_13 | UART3_TXD | UART3_RXD | UART3_SIR_IN | LPTIM1_IN1 | | | | SEG12 XO24M_OUT |
| GPIO14 | GPIO_PORTA_14 | UART3_CTS | | I2C0_SCL | LPTIM1_IN2 | COMP0_OUT | GPTIM0_CH1 | | COM7/SEG20 |
| GPIO15 | GPIO_PORTA_15 | UART3_RTS | | I2C0_SDA | LPTIM1_OUT | COMP1_OUT | GPTIM1_CH0 | GPTIM3_CH0 | COM6/SEG21 |
| GPIO16 | GPIO_PORTB_0 | UART0_RXD | UART0_TXD | UART0_SIR_OUT | LPTIM1_ETR | I2S_MCLK | GPTIM1_CH1 | GPTIM3_CH1 | SEG0 |
| GPIO17 | GPIO_PORTB_1 | UART0_TXD | UART0_RXD | UART0_SIR_IN | LPTIM1_IN1 | I2S_SCLK_IN | I2S_SCLK_OUT | LPTIM_IN1 | SEG1 |
| GPIO23 | GPIO_PORTB_7 | UART1_RTS | | I2C2_SDA | SSP0_RX | | | | SEG2 |
| GPIO24 | GPIO_PORTB_8 | UART2_RXD | UART2_TXD | UART2_SIR_OUT | SSP1_CLK | | | | SEG3 |
| GPIO25 | GPIO_PORTB_9 | UART2_TXD | UART2_RXD | UART2_SIR_IN | SSP1_NSS | | | | SEG4 |
| GPIO26 | GPIO_PORTB_10 | UART2_CTS | LPTIM1_IN2 | I2C0_SCL | SSP1_TX | | | | SEG5 |
| GPIO27 | GPIO_PORTB_11 | UART2_RTS | LPTIM1_OUT | I2C0_SDA | SSP1_RX | MCO | | | SEG7 |
| GPIO28 | GPIO_PORTB_12 | UART3_RXD | UART3_TXD | UART3_SIR_OUT | SSP2_CLK | QSPI_NSS | GPTIM1_CH0 | GPTIM3_CH0 | SEG8 |
| GPIO29 | GPIO_PORTB_13 | UART3_TXD | UART3_RXD | UART3_SIR_IN | SSP2_NSS | | GPTIM1_CH1 | GPTIM3_CH1 | SEG9 |
| GPIO30 | GPIO_PORTB_14 | UART3_CTS | QSPI_IO1 | I2C1_SCL | SSP2_TX | | GPTIM1_CH2 | GPTIM3_ETR | SEG10 |
| GPIO31 | GPIO_PORTB_15 | UART3_RTS | QSPI_IO2 | I2C1_SDA | SSP2_RX | | GPTIM1_CH3 | GPTIM2_ETR | SEG11 |
| GPIO32 | GPIO_PORTC_0 | UART0_RXD | UART0_TXD | UART0_SIR_OUT | QSPI_IO2 | | | | COMP1_OUT |
| GPIO33 | GPIO_PORTC_1 | UART0_TXD | UART0_RXD | UART0_SIR_IN | QSPI_IO1 | | | | COMP1_INN |
| GPIO34 | GPIO_PORTC_2 | UART0_CTS | | I2C2_SCL | QSPI_IO3 | | | | SEG19 OPA2_OUT |

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|---------------|---------------|-------------|-----------|----------------|------------|-------------|----------------|------------|------------------------|
| GPIO35 | GPIO_PORTC_3 | UART0_RTS | | I2C2_SDA | QSPI_CLK | | | | SEG18 OPA2_INN |
| GPIO36 | GPIO_PORTC_4 | UART1_RXD | UART1_TXD | UART1_SIR_OUT | QSPI_IO0 | COMP0_OUT | | | SEG17 OPA2_INP |
| GPIO37 | GPIO_PORTC_5 | UART1_TXD | UART1_RXD | UART1_SIR_IN | QSPI_NSS | | | | COMP1_INP |
| GPIO40 | GPIO_PORTC_8 | UART2_RXD | UART2_TXD | UART2_SIR_OUT | QSPI_IO3 | MCO | | GPTIM1_ETR | COM0 OPA1_OUT |
| GPIO41 | GPIO_PORTC_9 | UART2_TXD | UART2_RXD | UART2_SIR_IN | QSPI_CLK | EVENT_OUT | | GPTIM2_CH1 | COM1/SEG26 OPA1_INN |
| GPIO42 | GPIO_PORTC_10 | UART2_CTS | | I2C1_SCL | QSPI_IO0 | | | | COM2/SEG25 OPA1_INP |
| GPIO44 | GPIO_PORTC_12 | UART3_RXD | UART3_TXD | UART3_SIR_OUT | SSP0_CLK | | GPTIM1_ETR | | SEG16 OPA0_INN |
| GPIO45 | GPIO_PORTC_13 | UART3_TXD | UART3_RXD | UART3_SIR_IN | SSP0_NSS | | GPTIM1_CH0 | GPTIM3_CH0 | SEG15 OPA0_INP |
| GPIO47 | GPIO_PORTC_15 | UART3_RTS | LPUART_TX | I2C2_SDA | SSP0_RX | | GPTIM1_CH2 | GPTIM2_CH0 | ADC_IN7 |
| GPIO58 | GPIO_PORTD_10 | RTC_TAMPER | LPTIM_IN1 | RTC_IO_OUT | LPTIM1_ETR | LPUART_RX | LORA_RF_SWITCH | | |
| GPIO59 | GPIO_PORTD_11 | RTC_WAKEUP0 | LPTIM_ETR | LORA_RF_SWITCH | LPTIM1_IN2 | LPUART_RTS | | | |
| GPIO60 | GPIO_PORTD_12 | RTC_WAKEUP1 | LPUART_RX | LORA_RF_SWITCH | LPTIM1_IN1 | LPTIM_IN2 | | | |
| GPIO62 | GPIO_PORTD_14 | LPTIM_IN2 | LPUART_RX | LPTIM_ETR | LPTIM1_IN2 | RTC_WAKEUP1 | | | |

[1] GPIO02 Function0 is BOOT0. Do not use this GPIO for other purposes to avoid affecting the BOOT0 function, and GPIO02 must be routed out; GPIO02 and RSTN are used together. When the rising edge of RSTN detects that GPIO02 is high, the chip enters the bootloader mode.