



MELFAS Inc.

MIT-200 Datasheet

Micro-controller IC for advanced In-Cell Touch Sensing

Features

• Embedded MCU

- Cortex-M3
- 16 interrupts with 4-bit priority control
- WIC included
- JTAG-DP and SW-DP included

• Embedded DSP

- Group DSP is included

• Embedded Oscillator

- Configurable to be 25/30/35/40 MHz
- Low power mode running at 5 MHz
- Sleep mode at which oscillation stops for maximum power saving

• Clocks

- Dividing factors are configurable
- Any clocks can be selectively gated for power saving
- All clocks can entirely be cut in deep sleep mode

• Power saving

- 3 power saving modes are supported
- Minimum power saving and earliest wakeup in Standby mode
- Medium power saving and medium wakeup time in Light sleep mode
- Maximum power saving and slowest wakeup time in Deep sleep mode

• Power consumption

- Standby : 150uW
- Active : 10mW

• Embedded Memories

- 64KB embedded flash
- 24KB SRAM for system memory
- 12KB SRAM for frame memory

• Peripherals

- I2C Slave
- SPI master
- 16 GPIOs
- 2 Timers, 2 Watchdogs
- DSP

• Interfaces

- I2C Slave for Host interface
- SPI Master for data transmission
- JTAG for debugging
- GPIO for interrupt or wakeup signal

• Power supply

- 1.65~3.3V main supply
- 2.5~3.6V supplementary supply
- 1.2V digital supply is generated internally from the main supply

• Flash programming

- ISC using I2C
- Flash programming by JTAG is supported

• Package

- XQFN 24ld 3x3x0.38T, 0.35mm pitch

• Applications

- Low power MCU optimized for touch data processing

Datasheet (REV. 9.0)

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