

3SM1001 series

System on Module based on i.MX28 processor



Actual size

FEATURES

- Support i.MX280/i.MX283/i.MX286/i.MX287 processors
- 200pin edge connector
- Industrial applications
- Low power consumption
- Small dimensions only 40 mm x 67,6 mm

CPU

NXP i.MX28, ARM926EJ-S 454 MHz CPU

MEMORY

Up to 512 MB DDR2-400 RAM memory (16 bit BUS)

STORAGE

Up to 8 GB FLASH memory (provided by internal microSD)

MULTIMEDIA AND HUMAN INTERFACE*

- 1x integrated LCD controller (800x480 Max resolution) for an external 24 bit RGB Color display (1V8 or 3V3 levels)
- 1x Resistive Touch Panel interface 4/5 Wire
- 1x Microphone Input (Optional)
- 1x Stereo Audio Input (Optional)
- 1x Stereo Audio Output (Optional)
- 1x Advanced IO Extender / Keypad controller Matrix 8x8 (64 Key) (Optional)

SYSTEM

- 1x Unique Power Supply Input 5 Vdc $\pm 10\%$
- 1x Power Supply Output for Base Board 1V8 max 10mA
- 1x Power Supply Output for Base Board 3V3 max 10mA
- 1x Li-Ion Battery Charger (785 mA max)
- Power-ON and RESET In/Out

Please note that all function may not be available simultaneously, due to pin muxing limitation of i.Mx28 module connector restrictions. Function availability depends also on the i.MX28 installed processor. For more details refer to i.MX28 datasheet



I/O PERIPHERALS*

- 2x MMC / SDIO / SD card interface (3V3)
- 1x USB OTG 2.0 LS/FS/HS
- 1x USB Host 2.0 LS/FS/HS
- 1x Full Ethernet 10/100 BASE-T + PHY (Optional)
- 1x Additional Full Ethernet 10/100 BASE-T on 10p.FPC connector supporting IEEE Std 1588™ compatible hardware timestamp (Optional)
- 2x CAN 2.0B Controller (Optional)
- 1x UART {TX,RX,RTS,CTS} (1V8 or 3V3 levels)
- 1x UART {TX,RX}, {RTS,CTS Optional} (1V8 or 3V3 levels)
- 1x RS-485 Half Duplex (Optional)
- 1x I2C BUS (1V8 levels)
- 1x SPI (1V8 or 3V3 levels)
- 1x I2S (1V8 or 3V3 levels)
- 1x PWM output (3V3 levels)
- 2x PWM output (external reference level)
- 6x Programmable Digital Input/Output (external reference level)
- 3x Programmable Digital Input/Output (1V8 or 3V3 levels)
- 2x ADC Input
- 1x SPDIF transmitter (Optional)
- RTC

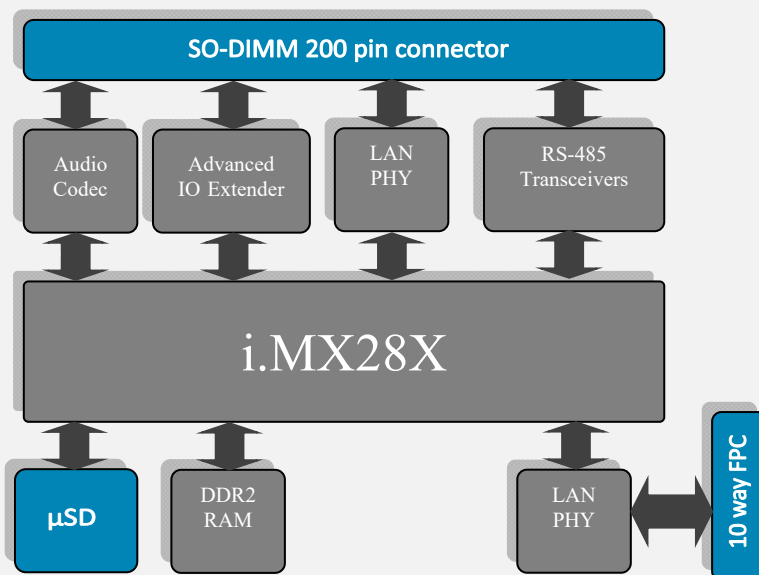
OPERATING SYSTEM

Linux

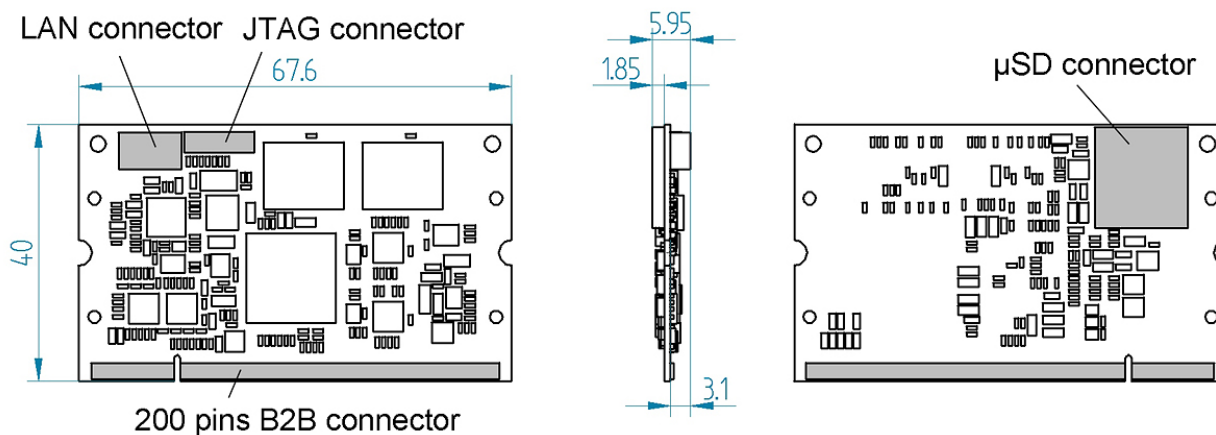
TEMPERATURE

- 0 to +70 °C for commercial version
- 40 to +85 °C for industrial version

BOARD DIAGRAM



DIMENSIONS



ORDERING INFORMATION

Processor Part Number	Selector	DDR2-400	Selector	Micro SD	Selector	Temperature Range	Selector	Option	Selector
i.MX 280 -454MHz	36110	32MB	A	None	0	Commercial	A	Default	None
i.MX283 - 454MHz	36111	64MB	B	2GB	3	Industrial	C	Advanced IO extender \Keypad	.1
i.MX286 - 454MHz	36112	128MB	C	4GB	4			In\out audio analog*	.2
i.MX287 - 454MHz	36113	256MB	D	8GB	5			Jtag connector	.3
								PHY Ethernet	.4
		512MB	E					RS-485	.5

*As alternative to I2S port

Please contact sales department to verify the correct code generated

Ordering Code Examples	36111C0A
i.MX283 - 454MHz	36111

Ordering Code Examples	36112C3A.12
i.MX286 - 454MHz	36112