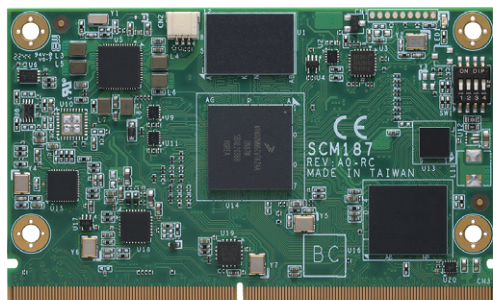
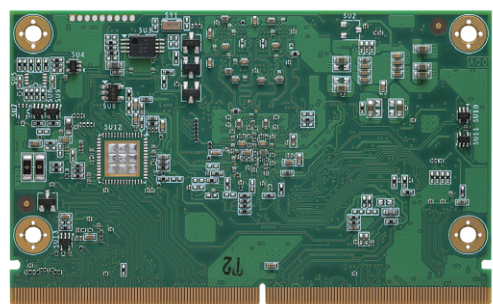


SCM187 NEW

RISC Embedded SMARC v2.1 SoM with i.MX 8M Mini Quad Core SoC, 4GB/2GB RAM and 8GB eMMC



▲ Top view



▲ Rear view

Features

- SMARC 2.1 (82 x 50 mm)
- NXP i.MX 8M Mini A53 quad-core processor
- Dual CANbus
- Dual-channel 24-bit LVDS
- 10/100/1000 Mbps Ethernet
- USB 2.0
- MIPI-CSI
- Audio
- Yocto 4.0

Specifications

Core System

CPU	NXP i.MX8M Mini 1.6GHz SoC with Quad A53 (SCM187-4R8E-IL, SCM187-2R8E-IL) NXP i.MX8M Mini 1.8GHz SoC with Quad A53 (SCM187-4R0E-CH)
System Memory	LPDDR4 4GB (SCM187-4R8E-IL, SCM187-4R0E-CH) LPDDR4 2GB (SCM187-2R8E-IL)
Operating System	Yocto 4.0, Linux Kernel 5.15.52
Storage	1 x SDIO3.0 interface 1 x 8GB eMMC (SCM187-4R8E-IL, SCM187-2R8E-IL)
RTC	Battery on the baseboard is required
Power Requirement	+5V ± 5%

I/O

Graphics	1 x Dual-channel 24-bit LVDS (SCM187-4R8E-IL, SCM187-2R8E-IL) 1 x HDMI (SCM187-4R0E-CH)
Ethernet	1 x 10/100/1000 Mbps Ethernet
USB	3 x USB 2.0
COM	2 x UART TX/RX/RTS/CTS 2 x UART TX/RX (for debug console)
I ² C	3 x I ² C
QSPI	1 x QSPI
SPI	1 x SPI
CANbus	2 x CANbus
GPIO	14 x GPIO
OS Flash	1 x OS Flash
Audio	1 x I ² S
Camera Input	1 x MIPI-CSI 4-lane
Security	1 x TPM 2.0 (optional, none in default)
Storage	1 x SDIO3.0 interface
PCIe	1 x PCIe Gen2 x1

Mechanical and Environmental

Dimensions	82 x 50 mm (3.23" x 1.97")
Board Thickness	1.2 mm ± 0.1 mm
Operating Temperature	-40°C to +85°C (-40°F to +185°F) (SCM187-4R8E-IL, SCM187-2R8E-IL) 0°C to +70°C (-32°F to +158°F) (SCM187-4R0E-CH)
Operating Humidity	10% to 95%, non-condensing
Storage Temperature	-40°C to +85°C (-40°F to +185°F)
Storage Humidity	10% to 95%, non-condensing

Ordering Information

Standard

SCM187-4R8E-IL (P/N: E38S187100)	SMARC Module, NXP i.MX 8M Mini 1.6GHz SoC Quad A53 with 4GB RAM, 8GB eMMC, industrial variant, and LVDS
SCM187-2R8E-IL (P/N: E38S187102)	SMARC Module, NXP i.MX 8M Mini 1.6GHz SoC Quad A53 with 2GB RAM, 8GB eMMC, industrial variant, and LVDS
SCM187-4R0E-CH (P/N: E38S187101)	SMARC Module, NXP i.MX 8M Mini 1.8GHz SoC Quad A53 with 4GB RAM, without eMMC, commercial variant, and HDMI

Optional

ACC100-187-HS (P/N: E39R100103)	SCM187 Heatsink kit (-40°C to +75°C)
ACC100-187-HSP (P/N: E39R100104)	SCM187 Heat spreader kit
SCB184-EMMC-AX (P/N: E39E184100)	Baseboard of Embedded SMARC Module, default boot mode at eMMC, for SMARC Module with eMMC onboard
SCB184-SD-AX (P/N: E39E184101)	Baseboard of Embedded SMARC Module, default boot mode at Micro SD card, for SMARC Module without eMMC onboard