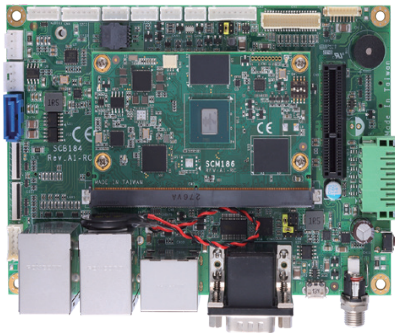
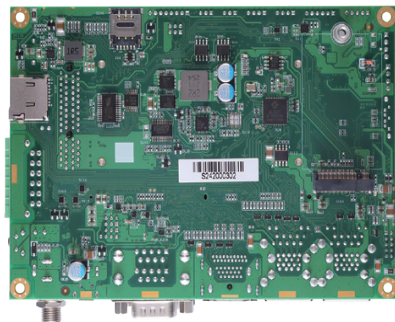


# SCM186-4R8EC-184EVK NEW

SMARC v2.0 SoM Evaluation Kit with i.MX 8M Plus Quad 1.8 GHz SoC, 4GB RAM, 8GB eMMC, GbE LAN, USB, Audio, and CANbus for Evaluation Purposes



▲ Top view



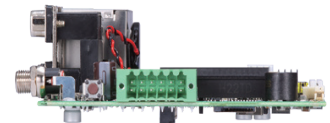
▲ Rear view

## Features

- NXP i.MX 8M Plus Quad A53 Core Processor
- Neural Processing Unit (NPU), up to 2.3 TOPS
- Cortex-M7 for Real-time Control
- Dual CANbus
- Dual-channel 24-bit LVDS
- HDMI up to 4K Resolution
- GbE LAN
- Quad USB 3.2 Gen1
- Audio
- Micro SD Socket & SIM Socket
- M.2 Key B Slot for 5G Module
- 12V-24V Wide Voltage
- Yocto 3.3



▲ Front view



▲ Side view

## Specifications

### Core System

CPU	NXP i.MX 8M Plus 1.8GHz SoC with Quad A53
System Memory	LPDDR4 4GB
AI Accelerator	NPU, up to 2.3 TOPS
Operating System	Yocto 3.3, Linux Kernel 5.10.35
Storage	1 x Micro SD slot 1 x 8GB eMMC

### Internal I/O and Features

PCIe*	1 x PCIe x4 slot (SCM186 support PCIe Gen3 x1)
USB*	2 x USB 2.0
Audio	1 x Line In/ Line Out
CANbus	2 x CANbus
I <sup>2</sup> C	2 x I <sup>2</sup> C Header
QSPI	1 x QSPI Header
SPI	1 x SPI Header
Graphics	1 x Dual-channel 24-bit LVDS
5G	1 x SIM card slot 1 x M.2 Key B 3052 slot for 5G Module
SATA*	1 x SATA for SATA III (not support on SCM186) 1 x SATA Power (not support on SCM186)
Fan	1 x Fan control
Storage	1 x 8GB eMMC
RTC	1 x RTC-Battery (CR2032)
Security*	1 x TPM2.0 (option, none in default)

**External I/O**

Ethernet*	2 x GbE LAN (SCM186 support 1 x GbE LAN)
USB	4 x USB 3.2 Gen1 Type A
Graphics*	1 x HDMI 1 x DisplayPort (not support on SCM186)
COM	1 x DB9 for RS-232 (Tx/Rx) 1 x DB9 for RS-232/RS-485 (Tx/Rx)
OS Flash	1 x OS Flash
GPIO	10 x GPIO
Power	1 x Lockable DC jack (12V-24V)
Reset	1 x Reset button
Storage	1 x Micro SD slot

**Mechanical and Environmental**

Power Input	12V-24V DC-in
Dimensions	146 x 102 mm (approx. 5.75" x 4.02")
Operating Temperature	0°C to +70°C (-32°F to +158°F)
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

\* The connected SMARC module must also support the features for the connector to function. Refer to the SMARC module's datasheets for information about supported features.

**Ordering Information**

**Standard**

SCM186-4R8EC-184EVK	Evaluation Kit Boards, SMARC Module SCM186-4R8E-C with Baseboard SCB184 (Heatsink Excluded)
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\* Specifications and certifications may vary based on different requirements.

**Optional**

E39R100101	SCM186 Heatsink Kit (0°C to +70°C)
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## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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