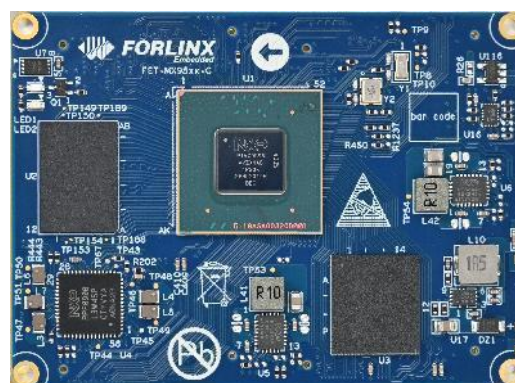


FET-MX95XX-C SoM

FET-MX95XX-C System on Module (SoM) runs at up to 1.8GHz on NXP i.MX95 is a six-core Cortex-A55 featuring application processor offers advanced graphics and video cores, powerful vision and machine learning acceleration, efficient CPU performance plus real-time processing and advanced security with integrated EdgeLock Secure Enclave to support energy-efficient edge computing. offer a rich set of peripherals such as 10GbE, USB3.0 and PCIe3.0 targeting automotive, industrial and commercial IoT market.

Features:

- GPU Mali-G310 supports OpenGL ES 3.2, Vulkan 1.2, OpenCL 3.0 ;
- Built-in 2TOPS NPU for edge computing;
- Built-in ISP, supports 2x MIPI-CSI;
- Various high-speed peripherals such as 1x USB3.0, 2x PCIe3.0;
- 5x CAN-FD;
- 1x 10G Ethernet, dual-Gigabit Ethernet, supports TSN;



6x A55	1.8GHz	2.0TOPS
Architecture	Clock	NPU
Mali-G310	M7	10G
GPU	M-core	Ethernet

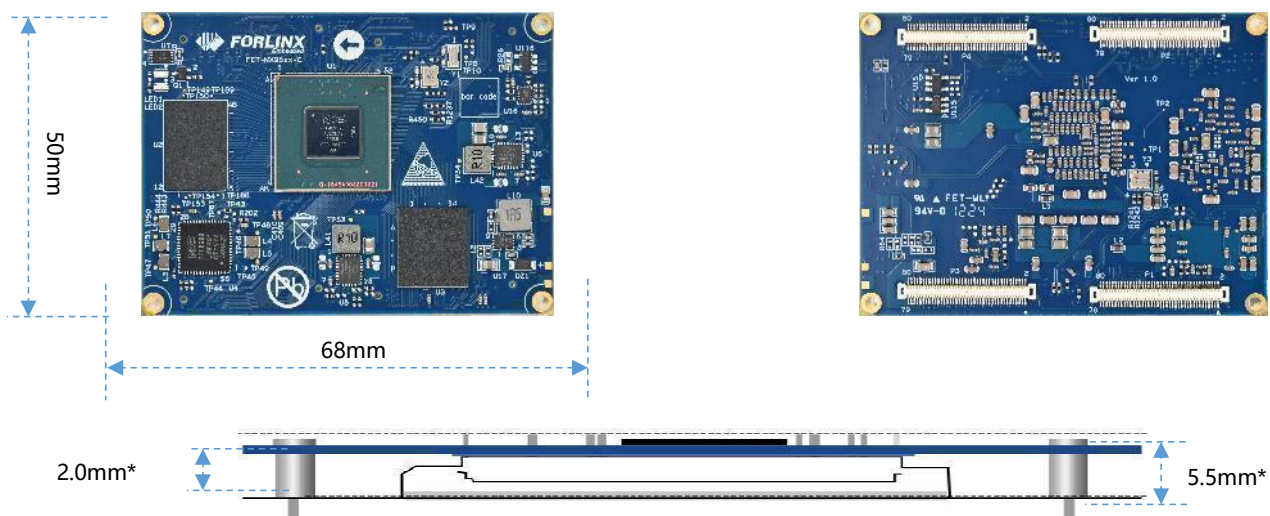
SoM features:

CPU	NXP i.MX9596 Clock: 6× Cortex-A55@1.8GHz + 1x Cortex-M7@800MHz + 1x Cortex-M33@333MHz NPU: 2TOPS, GPU: Mali-G310; OpenGL ES 3.2, Vulkan 1.2, OpenCL 3.0 VPU: Hard decode: •H.264, H.265: up to 4K@30fps Hard encode: •H.264, H.265: up to 4K@30fps
RAM	8GB LPDDR4X
ROM	64GB eMMC
Power input	DC 12V
Operating temp	-40~85°C
Package	Board-to-board connector(4x 80-pin, 0.5mm pitch, Stack Height-2mm)

SoM Features

Interface	QTY	Spec.
JTAG	1	4-pin (JTAG)
UART	≤ 8	Up to 5Mbps
SPI	≤ 8	Master mode/ slave mode configurable
XSPI	≤ 1	Supports 2x Serial Nor flash and Serial Nand flash
CAN-FD	≤ 5	Supports ISO11898-1, CAN 2.0B
SAI	≤ 5	
SD Card	≤ 1	SD card 3.0
SDIO	≤ 1	SDIO3.0
ADC	≤ 8	1x 12-bit 8-lane 1MS/s ADC
1 Gbps Ethernet	≤ 2	1.8 V RMII/RGMII ,TSN
10 Gbps Ethernet	2	Supports XFI, SGMII (2.5 G and 1G), and 10 G-USXGMII (10GE),TSN
USB3.0	1	USB Host or USB Device
USB2.0	1	USB Host or USB Device
PCIe	2	PCI Express Gen3
MIPI-DSI	≤ 1	1x 350 MHz 4-lane MIPI-DSI, up to 2.5Gbps; Supports 4k@30Hz or 3840 x 1440@60Hz
MIPI CSI-2	≤ 2	MIPI-DSI v1.2 and MIPI D-PHY v1.2
LVDS	1	Up to 1080P@60Hz (2x 4-lane or 1x 8-lane)
IIC	≤ 7	IEEE 1149.1 testability (JTAG)
PDM	≤ 1	8-ch MIC
SPDIF	≤ 1	
PWM	≤ 6	
GPIO	≤ 111	

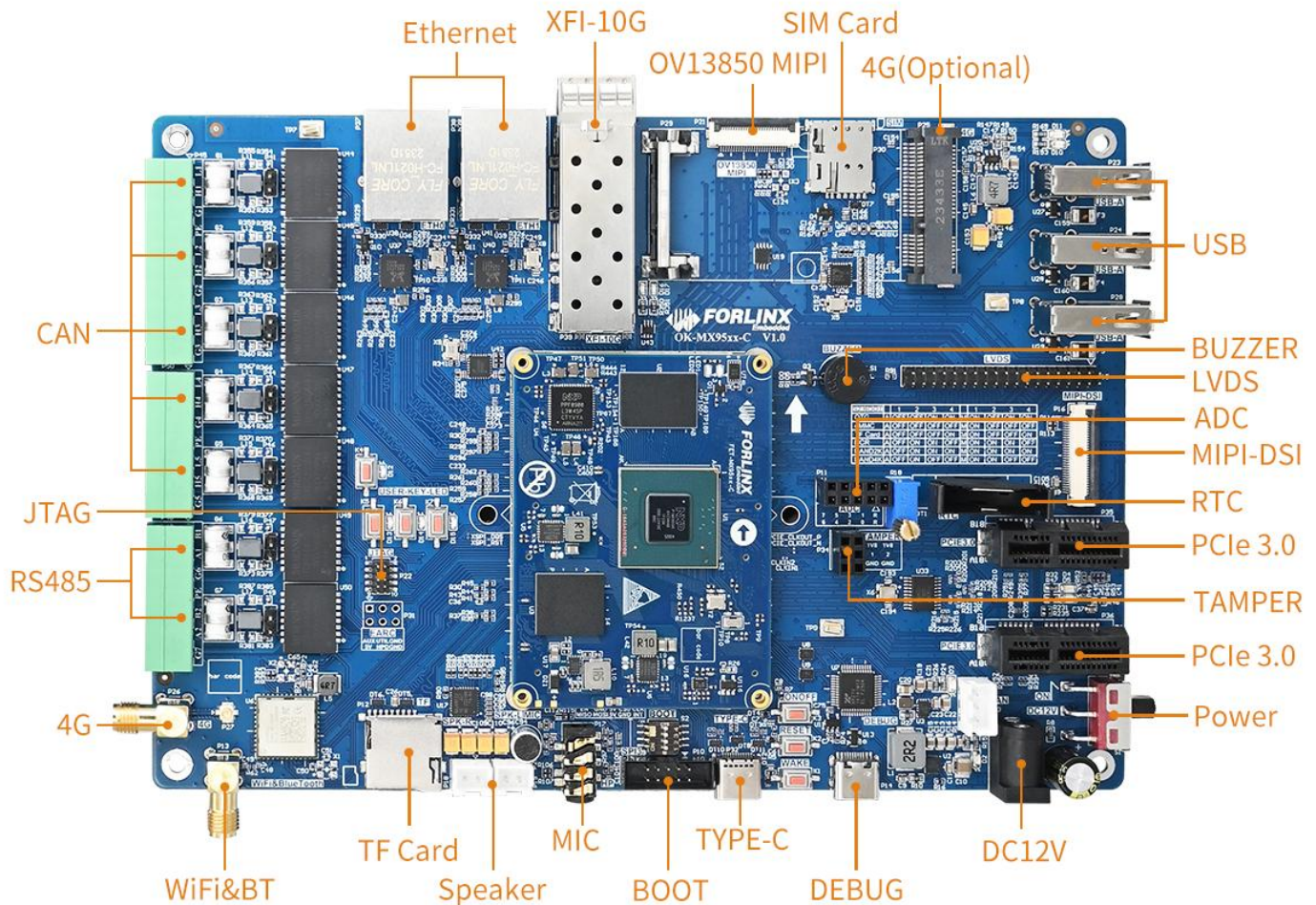
Exterior and dimensions:



Order options:

Model	Core number	Clock	RAM	Flash	Working temp	Status
FET-MX95xx-C+188GSE64G1xxx: xx	6x A53	A55@1.8GHz	8GB	64GB	-40~85°C	Mass production

Development board/ kit



Carrier board features:

Interface	QTY	Spec.
LVDS	1	Dual 8-bit, up to 1080p@60Hz
MIPI-DSI	1	4-lane, each lane up to 2.5Gbps, 4kp30 or 3840 x 1440p60
XFI	1	10G SFP cage
Ethernet	2	10/100/1000Mbps adaptive, RJ45 connector
TYPE-C(DEBUG)	1	UART1/ 2/ 3 debug ports are converted to USB for A53/ M33/ M7
TYPE-C(USB1)	1	USB1 pinned out by Type-C, support OTG
USB Host	3	Expanded by hub, USB2.0 up to 480Mbps
PCIe3.0	2	PCIe X1, supports RC code and EP mode
TF Card	1	SD3.0,4-bit
MIPI-CSI	1	Tested module: OV13850
WiFi& BT	1	On-board AW-CM358SM, 2.4G/5G dual-band Wi-Fi, BT5.0,supports audio features 1x SDIO for WiFi 1x UART for BT 1x I2S for audio
RTC	1	Recommended battery model: CR2032
SPI	1	SPI3, by pin headers
Key	7	Contains Reset, Sleeping mode, power switch and 4 user-defined keys
Audio	3	Contains 1x 4-stage headphone socket with built-in HP and MIC 1 on-board separate electret MIC 1 dual-channel speaker
CAN	5	CAN FD with isolated circuit, complies with CAN 2.0B up to 5Mbps
RS485	2	Auto transceiving control, with isolated circuit
SARADC	8	1.8V, on-board sliding rheostat
4G	1	Mini PCIe slot, EC20/ EC25 4G networking can be well supported
Buzzer	1	Active buzzer
JTAG	1	
QSPI FLASH	1	XSPI, 4-bit,FLASH
EARC	1	By pin headers, for audio transmitter
TAMPER	1	By pin headers, for tamper detecting
FAN	1	SoM cooling solution
LED	4	User-defined LED