**POLYHEX**

System on Module Based on NXP i.MX 8M Mini CPU

Introduction:

SOM-iMX8MM is a consumer & industrial grade core board based on NXP i.MX 8M Mini CPU, and it comes with onboard 4GB RAM and 32GB eMMC. SOM-iMX8MM supports Android 10.0 operation system and a variety of interfaces like SPDIF, DSI, CSI, USB2.0 & USB OTG, GPIO, etc. For internet connection, it is perfectly compatible with WIFI-2.4Ghz/5Ghz, BT5.0 and 10/100/1000M LAN.

Features:

· NXP i.MX 8M Mini CPU

· Android 10.0 operating system

· Onboard 4GB RAM 2GB optional

· 32GB eMMC 8GB/16GB/64GB/128GB optional

· 10/100/1000M LAN, WIFI-2.4GHz/5GHz, BT5.0

50mm

82mm
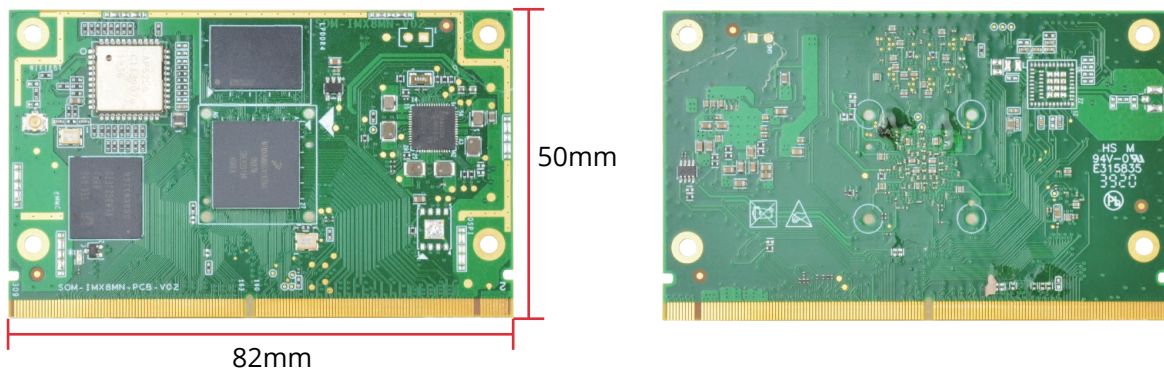
Specification:

System	
CPU	MIMX8MM6CVTKZAA:Quad Cortex®-A53, 1.6GHz
	(Support Consumer&Industrial i.MX 8M Mini SoloLite/Solo/DualLite/Dual/QuadLite/Quad)
Memory	Onboard 4GB LPDDR 4, Support2GB
Flash	32GB eMMC5.1, Support 8GB/16GB/64GB/128GB
OS	Android 10.0, Ubuntu 18.04 server, Yocto 2.5.2
Communication	
WIFI & BT	WIFI-2.4GHz/5GHz, BT5.0
LAN	1 x 10/100/1000M LAN Port

Connectivity	
SDIO	1 x SDIO
CSI	1 x CSI
DSI	1 x DSI
PCIe	1 x PCIe
USB	1 x USB2.0 , 1 x USB OTG
SPI	2 x SPI
QSPI	1 x QSPI
I2C	4 x I2C
UART	3 x UART
JTAG	1 x JTAG
I2S	1 x I2S
SAI	1 x SAI , 8 Channel
GPIO	16 x GPIO
SPDIF	1 x SPDIF
Physical interface	MXM3.0 （Standard 314Pin）
Power	
Power In	5VDC/2A
Mechanical	
Size	82mm x 50mm x 1.2mm

SOM-iMX8MM is compatible with the following Carrier Board:

Model: BMB-01

76mm

125mm
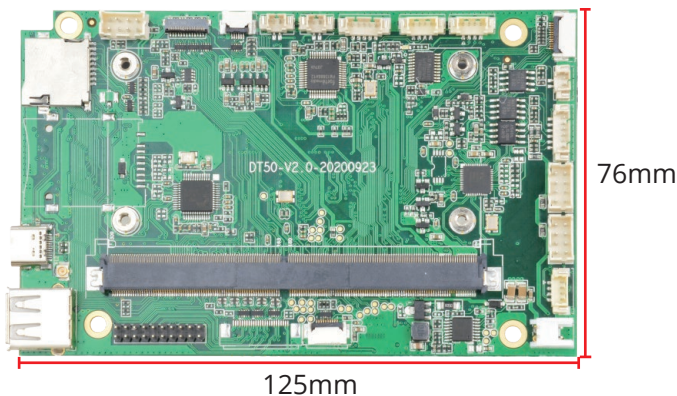
Carrier Board Specification:

Interfaces	BMB-01
Network	3 x 100M LAN
WIFI	Insert WIFI IEEE802.11 a/b/g/n, support AP mode
Bluetooth	Support BT5.0
Display	1 x TP/I2C, 1 x LVDS/Single 8bit
Audio	1 x Left Speaker, 1 x Right Speaker, 3 x Digital Mic
Camera	1 x CSI Camera
USB	1 x USB 2.0 Host Type-A, 1 x USB OTG Type-C

TF Slot	1 x TF Slot (Max. 128GB)
SIM Slot	1 x SIM Slot (Reserved)
Debug	1 x ARM Debug Serial Port
MCU Program	1 x MCU Program Port
CAN	1 x CAN
RS485	2 x RS485
RTC	1 x RTC
Power Supply	12V/1A
Button & Light	1 x Reset Button/LED Light, 1 x Backlight
Sensor	1 x Light Sensor
Size	125mm x 76mm

Interface Diagram:

- DC-IN/Audio OUT
- CSI Camera
- Light Sensor
- Left Speaker
- Right Speaker
- Digital Mic
- ARM Debug Serial Port
- MCU Program Port
- TF Card Slot
- SIM Card Slot (Reserved)
- Type C (USB OTG)
- USB 2.0 Host
- Reset Button/LED Light
- RTC
- 1 x CAN + 2 x RS485
- 100M LAN2 + 12V Output
- 100M LAN2 + 12V Output
- 100M LAN1
- Backlight
- LVDS/Single 8bit
- TP/I2C
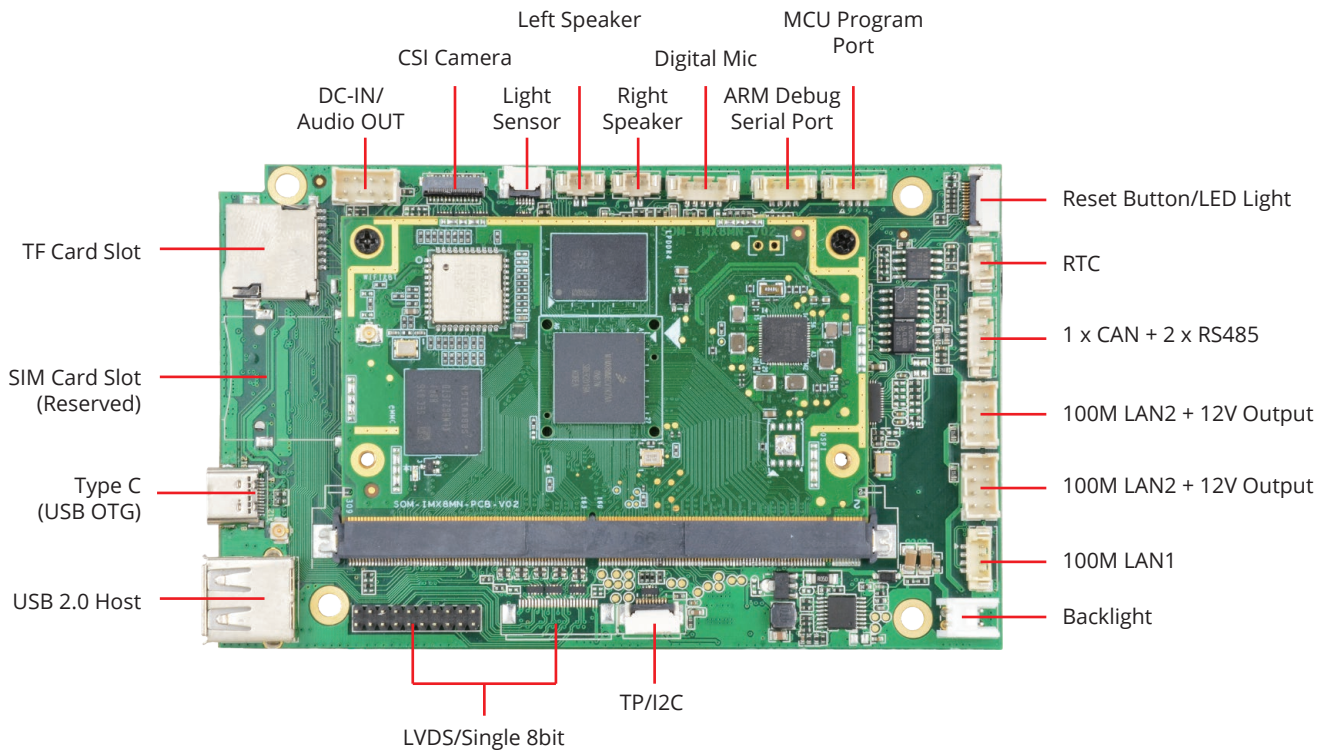
ABOUT POLYHEX

As a board level and system level designer and manufacturer, Polyhex, with 9-year experience, always delivers best-in-class embedded computing solutions based on both ARM and X86 architecture, including hardware customization and software debugging etc. Partnered with silicon vendors like Intel, NXP, ST, Rockchip, Allwinner and so on, we have earned trust from clients worldwide in over 30 countries. Polyhex is also certified with ISO9001 and ISO13485 for the self-owned manufacture facility.

POLYHEX
Beyond the Embedded Deployment