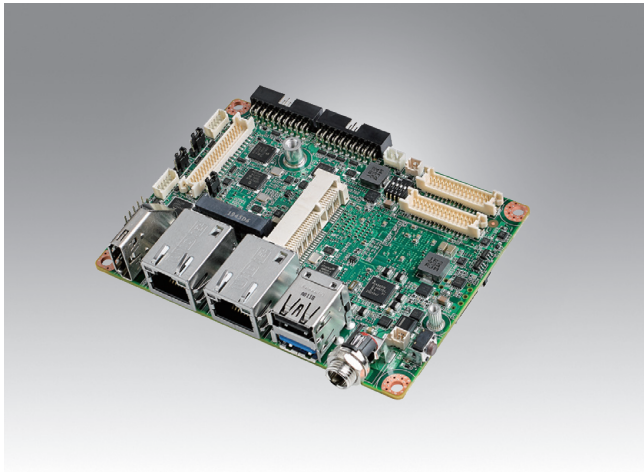


RSB-3720

NXP i.MX8M Plus Cortex®-A53 2.5" SBC with UIO40-Express



Features

- NXP Arm® Cortex®-A53 i.MX8M Plus Quad/Dual up to 1.8 GHz
- Onboard LPDDR4 4 GB/ 6 GB, 4000MT/s memory
- HDMI 1920x1080 at 60Hz, 1 Single or 1 Dual Channel 24 bit LVDS (or 1 4-Lane MIPI-DSI by BOM Option)
- 1 4-wire RS-232/422/485, 1 USB3.2 Gen1 By 1, 1 USB2.0, 1 Micro SD, 1 Mic. in / Line out
- 1 mini-PCIe for 3G/4G, 1 M.2 2230 Key E Slot
- Supports Yocto Linux and Android
- Support I/O Expansions by UIO40-Express I/O boards, please refer to page #3 for more information



Specifications

Form Factor	2.5" SBC with UIO40-Express for I/O Expansions	
Processor System	CPU	NXP i.MX8M Plus Cortex-A53 Quad/Dual core (up to 1.8GHz)
Memory	Technology	LPDDR4 4000MT/s
	Capacity	On-board 4 GB / 6 GB
	Flash	16 GB eMMC Flash for O.S. and 8 MB QSPI NOR Flash for board information
NPU	NPU	2.3 TOP/s Neural Network Performance (Support AI models based on Tensorflow Lite and armNN Framework)
Graphics	HDMI	1 HDMI 2.0a, up to 3840 x 2160 at 30Hz
	LVDS	1 Single Channel or 1 Dual Channel 24 Bit LVDS, Backlight power, 5/12V, Max. 1A
	MIPI-DSI	1 4-Lane MIPI-DSI (shared with LVDS connector) by BOM option
	Graphics Engine	GC7000UL with 2D/3D Graphic Acceleration supporting 1G Pixel/s, OpenVG 1.1, Open GL ES3.1, Vulkan, and Open CL 1.2 FP.
	H/W Video Codec	Decoder: 1080p60 HEVC/H.265 Main, VP9 Profile 0/2, VP8, AVC/H.264 Baseline/Main/High Encoder: 1080p60 AVC/H.264, HEVC/H.265
Ethernet	Chipset	NXP i.MX8M Plus integrated RGMII
	Speed	2 10/100/1000 Mbps
WatchDog Timer	WatchDog Timer	1-6553s, power on/off 4s
I/O	USB	1 USB3.2 Gen1 By 1 Host, 1 USB2.0 Host
	Audio	1 Mic. in / Line out by pin header
	CAN	1 CANbus for RSB-3720CQ/CD or 1 CAN-FD for RSB-3720WQ/WD by COM1 pin header*
	Serial Port	1 4 wires RS-232/422/485 by COM1 pin header* (default configured as debug console)
	Camera Input	2 4-Lane MIPI-CSI2
	UIO40-Express	1 USB3.2 Gen1 By 1, 3 USB2.0, 10 GPIO, 2 UART, 1 CANbus, 1 I2C
Indicator	LED	1 Power LED 1 Programmable LED
Expansion	Mini PCIe	1 Full Size Mini PCIe Slot (USB Signal Only)
	M.2	1 M.2 2230 Key E Slot (USB/PCIe/SDIO/UART/I2S)
	SD Socket	1 Micro SD Socket
	SIM Slot	1 Nano SIM Slot
Power	Power Supply Voltage	+12 V
	Power Type	Lockable DC-Jack (2pin type connector by BOM option)
	Power Consumption	7.13W
Environment	Operating Temperature	0 ~ 60 °C / -40 ~ 85 °C
	Operating Humidity	5%~95% Relative humidity, non-condensing
Mechanical	Dimensions	100 x 72 x 19 mm
	Weight	0.05kg
Operation System	Yocto Linux & Android	
Certifications	CE/FCC Class B	

*COM1 pin header shared by serial port and CANbus

Compatible I/O Expansion Boards

UIO-4030

1 x RS-485
1 x RS-232
1 x 4 DIs & 4 DOs



CE FC

Specifications

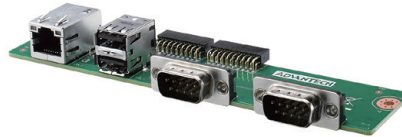
General	
USB	–
RS-232	1 x 2 wires RS-232
RS-485	1 x RS-485
GPIO	4 DIs, 4 DOs (2.5-24V)
CAN Bus	–
GbE	–
Dimension	146 x 31 x 22 mm
Environment	
Weight	180g
Operating Humidity	5 ~ 95% relative humidity, non-condensing
Operating Temperature	-40 ~ 85 °C
Storage Temperature	-40 ~ 85 °C and 60 °C @ 95% RH Non-Condensing

Ordering Information

P/N	Description
UIO-4030	UIO-4030, 1 RS232, 4 DIs, 4 DOs, 1 RS-485

UIO-4032

1 x GbE
2 x USB2.0
2 x RS-232



CE FC

Specifications

General	
USB	2 x USB 2.0
RS-232	2 x 2 wires RS-232
RS-485	–
GPIO	–
CAN Bus	–
GbE	1 x GbE
Dimension	146 x 31 x 22 mm
Environment	
Weight	200g
Operating Humidity	5 ~ 95% relative humidity, non-condensing
Operating Temperature	-40 ~ 85 °C
Storage Temperature	-40 ~ 85 °C and 60 °C @ 95% RH Non-Condensing

Ordering Information

P/N	Description
UIO-4032	UIO-4032, 1 GbE, 2 USB, 2 RS-232

UIO-4034

1 x CAN bus
2 x RS-232



CE FC

Specifications

General	
USB	–
RS-232	2 x 2 wires RS-232
RS-485	–
GPIO	–
CAN Bus	1 x CAN bus 2.0B, 1 Mbps
GbE	–
Dimension	146 x 31 x 22 mm
Environment	
Weight	180g
Operating Humidity	5 ~ 95% relative humidity, non-condensing
Operating Temperature	-40 ~ 85 °C
Storage Temperature	-40 ~ 85 °C and 60 °C @ 95% RH Non-Condensing

Ordering Information

P/N	Description
UIO-4034	UIO-4034, 1 CAN, 2 RS-232

Compatible I/O Expansion Boards: UIO40-Express

UIO-4036

4 x GbE



CEFC

Specifications

General	
USB	-
RS-232	-
RS-485	-
GPIO	-
CAN Bus	-
GbE	4 x GbE
Dimension	146 x 31 x 20 mm
Environment	
Weight	200g
Operating Humidity	5 ~ 95% relative humidity, non-condensing
Operating Temperature	-40 ~ 85 °C
Storage Temperature	-40 ~ 85 °C and 60 °C @ 95% RH Non-Condensing

Ordering Information

P/N	Description
UIO-4036	UIO-4036, 4 GbE

UIO-4038

4 x GbE (3 x LAN; 1 x WAN)



CEFC

Specifications

General	
USB	-
RS-232	-
RS-485	-
GPIO	-
CAN Bus	-
GbE	4 x GbE (3 x LAN; 1 x WAN)
Dimension	146 x 100 x 20mm
Environment	
Weight	300g
Operating Humidity	5 ~ 95% relative humidity, non-condensing
Operating Temperature	-40 ~ 85 °C
Storage Temperature	-40 ~ 85 °C and 60 °C @ 95% RH Non-Condensing

Ordering Information

P/N	Description
UIO-4038	UIO-4038, 3 x LAN, 1 x WAN

Thermal Solutions

P/N	Description
1970005253T000	UIO-4038 Heat Spreader for EPC-R3720

UIO-4040

NVMe SSD



CEFC

Specifications

General	
USB	-
RS-232	-
RS-485	-
GPIO	-
CAN Bus	-
GbE	-
NVMe SSD	SQF-C8Bxx-xG-EDx
Dimension	146 x 31 x 20mm
Environment	
Weight	200g
Operating Humidity	5 ~ 95% relative humidity, non-condensing
Operating Temperature	-40 ~ 85 °C
Storage Temperature	-40 ~ 85 °C and 60 °C @ 95% RH Non-Condensing

Ordering Information

P/N	Description
UIO-4040	UIO-4040, NVMe SSD storage 128GB
UIO-4040-256G	UIO-4040, NVMe SSD storage 256GB
UIO-4040-512G	UIO-4040, NVMe SSD storage 512GB
UIO-4040-1TB	UIO-4040, NVMe SSD storage 1TB
UIO-4040-2TB	UIO-4040, NVMe SSD storage 2TB

Thermal Solutions

P/N	Description
1970005329T000	UIO-4040 Heat Spreader for SSD (for EPC-R3720/EPC-R7200)
1970005330T000	UIO-4040 Heat Spreader for IC (for EPC-R3720/EPC-R7200)