

# EPC-R3720

## NXP i.MX8M Plus Cortex®-A53 Edge AI RISC-based Box Computer

NEW



### Features

- NXP i.MX8M Plus Cortex®-A53 Quad Core 1.6GHz
- On-board LPDDR4 6 GB, 4000MT/s memory
- HDMI up to 3840 x 2160 at 30Hz resolution
- Dual GbE LAN, 1 USB2.0 and 1 USB3.2 Gen 1
- 1 Micro SD Socket & 1 Nano SIM Slot
- 1 mini-PCIe for 3G/4G, 1 M.2 2230 Key E Slot
- Yocto Linux and Android
- 4 Kinds of Rear I/O for Each Vertical Focus: IEM, Self Service, Automation and Networking

For more documentation and software resources, please visit  
[AIM-Linux Developer Center](#)



### Specifications

Model		EPC-R3720IQ-ALA200	EPC-R3720IQ-ALA220	EPC-R3720IQ-ALA240	EPC-R3720IQ-ALA260
Processor System	CPU	NXP i.MX8M Plus Cortex®-A53 Quad 1.6 GHz			
Memory	Technology	LPDDR4			
	Capacity	6 GB On-board			
	Flash	16 GB On-board eMMC Flash for OS and 8 MB QSPI NOR Flash for board information			
Graphics	HDMI	1 x HDMI 2.0a, up to 3840 x 2160 at 30Hz			
	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			
Front I/O	USB	1 x USB3.2 Gen 1 Type A, 1 x USB 2.0 Type A			
	GbE	2 x RJ45 for GbE			
COM/CAN		1 x DB9 for RS-232/422/485 and 1 x CAN-FD			
Rear I/O		UIO-4030	UIO-4032	UIO-4034	UIO-4036
		1 x RS-485, 1 x 2 wires RS-232 4 x DIs, 4 x DOs	2 x 2 wires RS-232 1 x GbE, 2 x USB 2.0	2 x 2 wires RS-232 1 x CAN Bus 2.0B	4 x GbE (Hub)
Expansion	Full-Size Mini PCIe	1 Full Size Mini-PCIe Slot (USB Signal Only)			
	M.2 Micro	1 M.2 2230 Key E Slot (USB/PCIe/SDIO/UART/I2S)			
	SD Socket	1 Micro SD Socket			
	SIM	1 Nano SIM Slot			
	Antenna Holes	4			
Power	Power Supply Voltage	+12V			
	Power Type	Lockable DC-Jack			
	Power Consumption	9.2W			
Environment	Operating Temperature	-40 ~ 70 °C			
	Operating Humidity	5% ~ 95% relative humidity, non-condensing			
Mechanical	Dimensions	174 x 108 x 25 mm			
	Mounting	Wall mount, DIN Rail mount			
	Weight	750g			
Operating System	Linux	Yocto			
	Android	Android			
Certifications		CE/FCC Class B/CCC/BSMI			

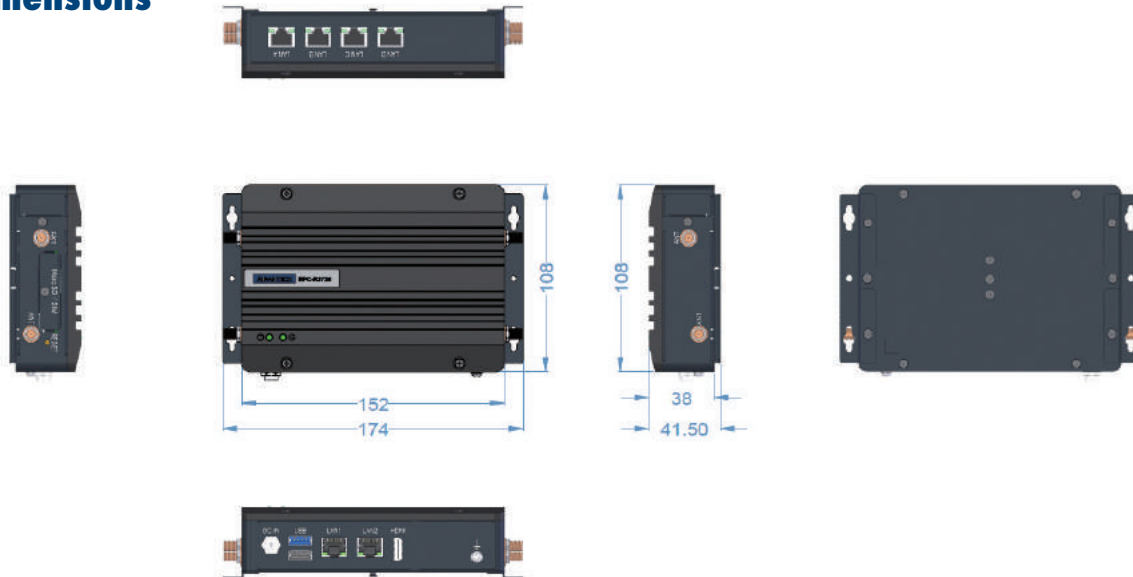


AIM-Linux Community is an open online forum where you may post questions about Advantech Arm-based Computing Platforms.

## EPC-R3720

### Dimensions

Unit: mm



### Ordering Information

Part Number	CPU	Memory	Flash	HDMI	LAN	USB	DI/DO	Serial Port	Micro SD	Nano SIM	CAN	I/O Exp.	Operating Temperature
EPC-R3720IQ-ALA200	Quad 1.6 GHz	6 GB	16 GB, Yocto 3.0	1	2	2	4/4	1 RS-232, 1 RS-485	1	1	1	UIO-4030	-40 ~ 70 °C**
EPC-R3720IQ-ALA10B (BSMI*)	Quad 1.6 GHz	6 GB	16 GB, Yocto 3.0	1	3	4	-	2 RS-232	1	1	1	UIO-4032	-40 ~ 70 °C**
EPC-R3720IQ-ALA220	Quad 1.6 GHz	6 GB	16 GB, Yocto 3.0	1	2	2	-	2 RS-232	1	1	2 (CAN-FD on front I/O, CANbus on rear I/O)	UIO-4034	-40 ~ 70 °C**
EPC-R3720IQ-ALA12B (BSMI*)	Quad 1.6 GHz	6 GB	16 GB, Yocto 3.0	1	6 (2 as independent, and 4 by hub)	2	-	-	1	1	1	UIO-4036	-40 ~ 70 °C**

\*BSMI SKU is for sale in Taiwan only

\*\*BSMI SKU supports only -40~60°C

### Packing List

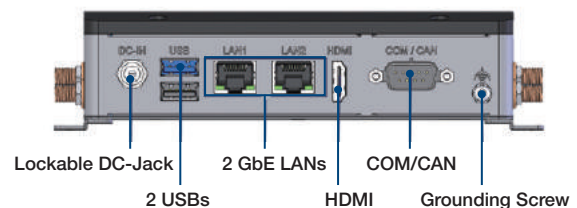
Part Number	Description
1960099634N001	Wall Mount Bracket x 2pcs
1930004607	Screw M3x4L for Wall Mount Bracket x 4pcs

### Optional Accessories

Part Number	Description
96PSA-A36W12W7-5	ADP A/D 100-240V 36W 12V C6 LOCK DC JACK 62368
1700001524	Power Cord 3P UL 10A 125V 180cm
170203183C	Power Cord 3P Europe (WS-010+WS-083) 183cm
170203180A	Power Cord 3P UK 2.5A/3A 250V 1.83M
1700008921	Power Cord 3P PSE 183cm
1700019146	Power Cord CCC 3P 2.5A 250V 183cm
EPC-R3700-DR01	DIN Rail Kit
1700033212-01	Y Cable for CAN & RS-232 Debug
AIW-154BN	802.11ac+BT5.0 NXP 88W8997 M.2 2230 PCIe+UART
1750008717-01	Dipole Ant. D.B 2.4/5G WIFI 3dBi SMA/M-R BLK
1750007965-01	Antenna Cable R/P SMA (M) to MHF4, 300mm
AIW-344FQ-*01	AIW-3 series LTE CAT4 mini PCI-e module
1750008303-01	Antenna 4G/LTE Antenna L=13 cm
1750006009	Antenna Cable SMA (F) to MHF 1.32 25cm

\*Please contact us for suggesting suitable cellular module for your region

### Front I/O



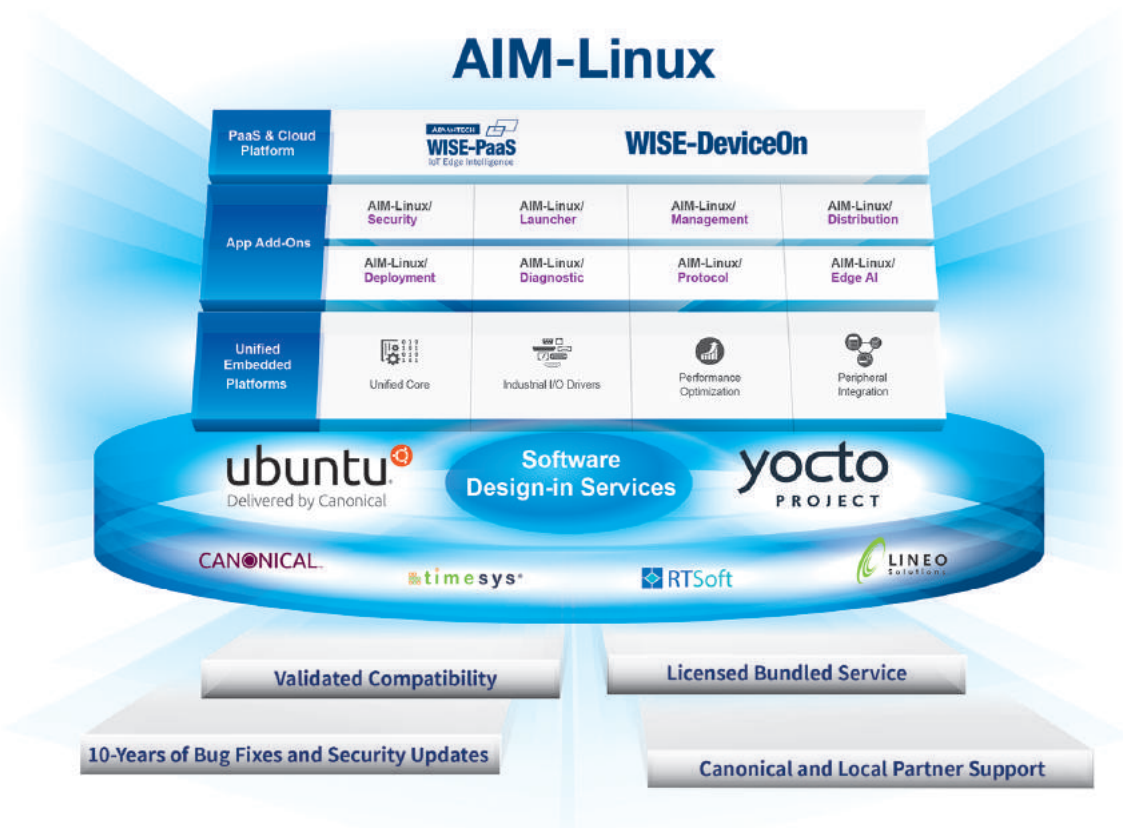


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## Embedded Linux Support and Design-in Services

### Hardware Certified Ubuntu and Yocto with Eco Partner Services

Linux is the most popular embedded OS for transportation, outdoor services, factory automation, and mission critical applications. Its open source and kernel reliability features ease security updates, and make it particularly adaptable to new AI and Edge computing technology. Advantech has cooperated with Canonical and other software partners to provide hardware certified Ubuntu image and Yocto BSP as Linux offerings. The Advantech, Embedded Linux, and Android Alliance (ELAA) delivers local software services and consultation.



#### Features

Certified OS and BSP	Licensed Services	Numerous AI and Edge Resources	Local Partner Alliance
<ul style="list-style-type: none"><li>Platform compatibility tests</li><li>Preloaded functional driver and software stacks</li></ul>	<ul style="list-style-type: none"><li>License authorized Canonical delivers 10-years of bug fixes and security updates</li><li>In-house bundled service</li></ul>	<ul style="list-style-type: none"><li>Containerized technology for service provision and deployment</li><li>AI resources from Caffe, TensorFlow, and mxnet</li></ul>	<ul style="list-style-type: none"><li>Embedded Linux and Android Alliance (ELAA)</li></ul>

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# WISE-DeviceOn

## Massive IoT Device Management Utility

IoT deployment and management typically involves numerous disparate devices installed on multiple sites. These devices require effective monitoring, managing, and tracking. Advantech's easy-to-use WISE-DeviceOn interface enables users to remotely monitor device health, troubleshoot problems, and send software/firmware updates over-the-air (OTA). In sum, DeviceOn empowers quick real-time responsiveness to emerging problems.



### Features

Comprehensive Management	Remote Access	Efficient Operations
<ul style="list-style-type: none"><li>• Devices status</li><li>• Peripherals/firmware</li><li>• Open for extension</li></ul>	<ul style="list-style-type: none"><li>• Real-time monitoring</li><li>• Remote controls</li><li>• Troubleshooting</li></ul>	<ul style="list-style-type: none"><li>• Zero-touch on-boarding</li><li>• OTA updates</li><li>• Batch control</li></ul>

### Product Highlights



**SOM-6883**

High-performance 11<sup>th</sup> Gen Intel<sup>®</sup>  
COMe Type 6 Module



**MIO-5375**

Compact 11<sup>th</sup> Gen Intel<sup>®</sup> Outdoor  
Focused 3.5" SBC



**EPC-B5587**

10<sup>th</sup> Gen Intel<sup>®</sup> Xeon<sup>®</sup> based Edge  
server



**EPC-R3220**

Arm based IoT Edge Gateway