

EPC-R6410

NXP i.MX6 Cortex-A9 RISC Embedded Mini-ITX Box Computer



Features

- NXP ARM Cortex-A9 i.MX6 Dual/Quad 1GHz high performance processor
- On board DDR3 1066MHz 1GB/2GB memory and 8GB EMMC NAND flash
- Supports Dual Display: VGA/HDMI
- Supports 1 x mini-PCIe, 4 x serial ports, 6 x USB, 1 x M.2 socket, 8 x GPIO, 1 x CAN
- Low power consumption, fanless design
- Supports Linux and Android BSP



Introduction

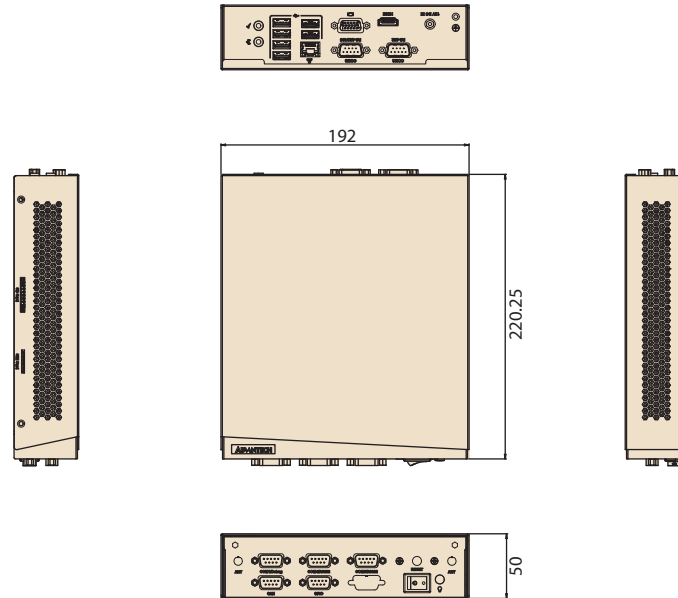
EPC-R6410 is the RISC based box computer which integrated NXP i.MX6D/Q Cortex-A9 1.0GHz high performance processor. It is designed for the applications that require high performance and rich I/O but low power consumption. It supports dual display via HDMI and VGA up to 1080p, 1 Gigabit Ethernet, 6 USB 2.0 and 4 serials, as well as mini-PCIe for 4G/3G and M.2 for WiFi/BT. With wall mount brackets, fanless and dust-proof design, you can easily install in a rugged environment.

Specifications

Form Factor		Embedded Box Computer
Processor System	CPU	NXP ARM Cortex-A9 i.MX6 Dual/Quad 1GHz processor
	Capacity	1GB/2GB of onboard DDR3 at 1066 MHz
	Flash	8 GB of eMMC NAND Flash for OS and 4 MB of SPI NOR Flash for ADV loader
Ethernet	Transceiver	RTL 8211
	Speed	1 x 10/100/1000 Mbps
WatchDog Timer		C8051 (time out: 0.1~6553.5s, power on/off 4s)
I/O	USB	6 x USB2.0 host
	Serial	4 (3 of RS-232 w/ 4wire, 1 of RS-232/422/485 w/ 4wire)
	CAN	1
	GPIO	8
	Button	1 x Reset button, 1 x Power button
Expansion	SD Socket	1 x SD slot
	Mini-PCIe	1 (USB signal only)
	M.2	1 (E-Key)
Power	Power Supply Voltage	12 V DC-in
	Power Type	DC-Jack
	Power Consumption	6W@Max Mode
Environment	Operational Temperature	0 ~ 55 °C
	Operating Humidity	5 ~ 95% relative humidity, non-condensing
Mechanical	Dimensions (W x D x H)	200 x 230 x 50 mm
Operating System	Android	Android4.4.2@ Kernel V3.0.35/Android6.0@kernel V4.1.15
	Linux	Yocto1.7, Kernel V3.14.28/Yocto2.1@Kernel V4.1.15
Certifications		CE/FCC/CCC Class B

Dimensions

Unit: mm



Ordering Information

Part Number	CPU	Memory	eMMC	SD	CAN	UART	GPIO	VGA	HDMI	USB Host	LAN	Operating Temperature
EPC-R6410CD-PAA1E	NXP i.MX6D	1GB	8GB	1	1	4	8	1	1	6	1	0 ~ 55 °C
EPC-R6410CQ-VAA1E	NXP i.MX6Q	2GB	8GB	1	1	4	8	1	1	6	1	0 ~ 55 °C

Packing List

Part Number	Description
96966410000/10	NXP i.MX6D/Q 1GHz computing board
1960074545N001	Wall mount

Optional Accessories

Part Number	Description
96PSA-A36W12W7-5	ADP A/D 100-240V 36W 12V C6 LOCK DC JACK 62368
170203183C	Power cord 3P Europe (WS-010+WS-083) 183 cm
SQF-MSDM1-8G-21C	SQF MICRO SD C10 MLC 8G (-25 ~ 85 °C)
1700008921	Power Cord 3P PSE 183cm
170203180A	Power cord 3P UK 2.5A/3A 250 V 1.83 M
1700019146	Power Cord CCC 3P 10A 250V 183cm
1700001524	Power cord 3P UL 10A 125 V 180 cm
968AD00018	Wifi BT module AW-NB136NF
1750002842	Wireless Antenna R-AN2450-5701RS R/P SM
1750007965-01	Antenna Cable R/P SMA (M) to MHF4, 300mm
968AD00479*	4G module LTE Cat 4 for China
EWM-C117FL06E*	LTE 4G,3G WCDMA/DC-HSPA+, 2G module, MPCCI-L280H
1750006264	Antenna cable SMA(F)/MHF 15cm
1750008303-01	Antenna AN0727-64SP6BSM

Front View



Rear View



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

<p>Certified OS and BSP</p> <ul style="list-style-type: none"> Platform compatibility tests Preloaded functional driver and software stacks 	<p>Licensed Services</p> <ul style="list-style-type: none"> License authorized Canonical delivers 10-years of bug fixes and security updates In-house bundled service 	<p>Numerous AI and Edge Resources</p> <ul style="list-style-type: none"> Containerized technology for service provision and deployment AI resources from Caffe, TensorFlow, and mxnet 	<p>Local Partner Alliance</p> <ul style="list-style-type: none"> Embedded Linux and Android Alliance (ELAA)
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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">• Devices status• Peripherals/firmware• Open for extension	<ul style="list-style-type: none">• Real-time monitoring• Remote controls• Troubleshooting	<ul style="list-style-type: none">• Zero-touch on-boarding• OTA updates• Batch control

Product Highlights



SOM-6883

High-performance 11th Gen Intel® COMe Type 6 Module



MIO-5375

Compact 11th Gen Intel® Outdoor Focused 3.5" SBC



EPC-B5587

10th Gen Intel® Xeon® based Edge server



EPC-R3220

Arm based IoT Edge Gateway