EPC-R4710

Rockchip RK3399 Cortex-A72 ARM Based Box Computer

Features

- Rockchip RK3399 ARM Dual Cortex-A72 and Quad Cortex-A53 1.8 GHz
- Onboard 2GB LPDDR4 memory and 16GB eMMC
- Dual HDMI(4K 60fps + 1080P)
- Support 4K H.264/H.265 Video decoder
- 6 serial, 1 USB3.0, 4 USB2.0 ,1 USB OTG, 2 GbE, 5 GPIO
- M.2 for WIFI/BT support, mini-PCIe for 3G/4G support
- Supports Debian9/10 and Android7.1/10.0

Introduction

EPC-R4710 is an Arm based Box Computer powered by a high-performance Rockchip RK3399 ARM dual Cortex-A72 and quad Cortex-A53 high performance processor which supports 4K display from HDMI. It offers both rich display as dual HDMI/LVDS/eDP and rich IO as dual GbE/6serials/6USB/5GPIO. EPC-R4710 also features Mini-PCIe, M.2, and SIM card slots for integrating Wi-Fi, Bluetooth, and 3G/4G modules. It is an ideal solution for Kiosk, POS, and Vending machine application.

Specifications

Form Factor		ARM-based Box Computer
Processor	CPU	Rockchip RK3399 ARM dual Cortex-A72 and quad Cortex-A53 1.8 GHz
Memory	Technology	LPDDR4 1333MHz
	Capacity	On-board LPDDR4 2GB
	Flash	16GB of eMMC NAND Flash for OS and Advantech's boot loader
Graphics	HDMI	2
	eDP	1, max 2.7Gbps (inside)
	H/W Video Codec	Decoder: MPEG-1, MPEG-2, MPEG-4, H.263, H.264, AVS, VC-1, VP8, MVC, HEVC/H.265 decoder, 4k@60FPS Encoder: H.264 (BP@level4.0, MP, HP@level4.0), MVC and VP8
Ethernet	Chipset	RTL8211FSI
	Speed	2 x 10/100/1000 Mbps
RTC		Yes (Max timeout: 21s, Default timeout: 10s)
WatchDog Timer		Yes
Expansion	SD socket	1 x Micro SD slot
	M.2	1 x M.2 2230 Key E slot, w/SIDO*UART*PCIe*USB
	mini PCIe	1 x Full size mini PCIe slot (USB signal only)
	SIM	1 x SIM slot
I/O	SATA	-
	SATA Power	-
	USB	5 x USB Type A, 1 x USB OTG
	Audio	1 x line-out, 1 x mic-in
	SPDIF	-
	Serial Port	1 RS232/debug (default debug mode) 3 RS232 w/2wire 2 RS232/485 w/4wier
	SPI	1 x SPI by pin header inside
	CAN	-
	GPIO	5 x GPIO via D-SUB 9 (3.3V TTL level)
	I^2C	1 x I^2C by pin header in side
	System Bus	-
	Touch	-
	I/R	-
	LED	1 Green LED for system power 1 Orange LED for WLAN
	Button	1 x Power button, 1 x Reset button
Power	Power Supply Voltage	12V
	Power Type	DC-in
	Power Consumption	Boost 15W@12V
Environment	Operational Temperature	0 ~ 50 °C/-20 ~ 70 °C
	Operating Humidity	5% ~ 95%
Mechanical	Dimensions (W x D)	190 x 150 x 43 mm
Operating System		Android/Linux
Certifications		CCC/CE/FCC/BSMI Class B

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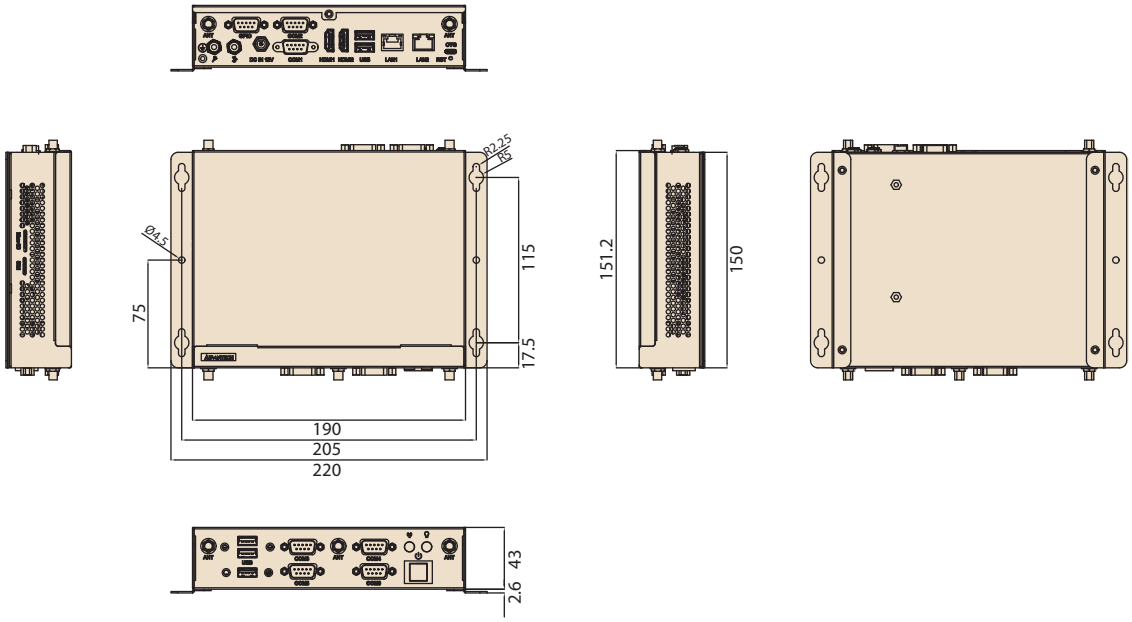
Dimensions

Unit: mm



Ordering Information

Part Number	CPU	Memory	Flash	HDMI	LAN	Serial Port	USB Host	SD	Operating Temperature
EPC-R4710NO-XAA1E	Rockchip RK3399	2GB	16GB	2	2	6	6	1	0 ~ 50 °C
EPC-R4710IO-XAA1E	Rockchip RK3399K	2GB	16GB	2	2	6	6	1	-20 ~ 70 °C

Packing List

Part Number	Description
EPC-R4710	EPC-R4710 Box computer

Optional Accessories

Port Number	Description
96PSA-A36W12R1-3	ADP A/D 100-240V 36W 12V C6 DC PLUG 90°
170203183C	Power cord 3P Europe (WS-010+WS-083) 183 cm
170203180A	Power cord 3P UK 2.5A/3A 250 V 1.83 M
1700001524	Power cord 3P UL 180cm
1700008921	Power Cord 3P PSE 183cm
1700019146	Power Cord CCC 3P 10A 250V 183cm
EWM-W188M201E	WiFi 802.11ac/abgn 2T2R and BT4.2
1750008800-01	Antenna Cable R/P SMA (M) to MHF4, 100mm
1750008717-01	Dipole Ant. D.B 2.4/5G WIFI 3dBi SMA/M-R BLK
968AD00479*	4G module LTE Cat 4 for China
EWM-C117FL06E*	LTE 4G,3G WCDMA/DC-HSPA+, 2G module, MPCI-L280H
1750006264	Antenna cable SMA(F)/MHF 15cm
1750008303-01	Antenna AN0727-64SP6BSM
SQF-MSDM1-8G-21C	SQF MICRO SD C10 MLC 8G (-25 ~ 85 °C)

* Please contat us to get suitiable celluar module for your region.

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
• Platform compatibility tests • Preloaded functional driver and software stacks	• License authorized Canonical delivers 10-years of bug fixes and security updates • In-house bundled service	• Containerized technology for service provision and deployment • AI resources from Caffe, TensorFlow, and mxnet	• Embedded Linux and Android Alliance (ELAA)

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
• Devices status • Peripherals/firmware • Open for extension	• Real-time monitoring • Remote controls • Troubleshooting	• 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