UBC-200

NXP ARM® Cortex®-A9 i.MX6 RISC Compact Box Computer

Features

- NXP ARM® Cortex®-A9 i.MX6 dual/quad-core 1 GHz processor
- Onboard DDR3 1GB/2GB, 1066MHz
- 4 GB of eMMC Flash onboard
- HDMI with 1920 x 1080 resolution
- 1 USB 2.0 slot, 1 10/100/1000 Mbps Ethernet slot, and 1 SD slot
- Metal chassis for rugged application
- Low power consumption, fanless design
- Supports wall mounting and DIN rails

Introduction

UBC-200 is an IP-based RISC compact box developed for industrial and IoT applications. Equipped with a powerful NXP ARM® Cortex®-A9 i.MX6 dual/quad-core processor, UBC-200 delivers excellent CPU performance and reduced power consumption. In addition to supporting USB 2.0, HDMI (up to 1080p resolution), and Gigabit Ethernet, the system features 1 x mini PCIe slot for integrating Wi-Fi/3G modules and 1 x built-in SD card slot for storage expansion. The wall mount brackets included with the UBC-200 system enable flexible installation.

Specifications

Form Factor		2.5" Box computer
Processor System	CPU	NXP ARM® Cortex®-A9 i.MX6 dual/quad-core 1.0 GHz processor
Memory	Technology	DDR3 1066 MHz
	Capacity	1 GB of onboard DDR3, supports up to 2 GB
	Flash	4 GB of eMMC Flash for OS and 4 MB of NOR Flash for Advantech's boot loader
Graphics	HDMI	1
	Graphics Engine	2 x IPUs. OpenGL ES 2.0 for 3D, BitBlt for 2D and OpenVG 1.1
	H/W Video Codec	Decoder: MPEG-4 ASP, H.264 HP, H.263, MPEG-2 MP, MJPEG BP Encoder: MPEG-4 SP, H.264 BP, H.263, MJPEG BP
Ethernet	Chipset	NXP i.MX6 integrated RGMII
	Speed	1 10/100/1000 Mbps
RTC	RTC	Yes
Watchdog Timer	Watchdog Timer	Yes
I/O	USB	1 x USB 2.0
	SDIO	1 x SD slot
	Button	1 x Reset button
Indicator	LED	1 x Green LED for system power
Expansion	Mini PCIe	1
	SD Socket	1
	SIM	1
Power	Power Supply Voltage	9 ~ 24 V_{DC}
	Power Type	2-pole lockable DC-in
	Power Consumption	3.16 Watts (max. load)
Environment	Operating Temperature	0 ~ 60 °C
	Operating Humidity	5 ~ 95% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	111 x 77 x 30 mm
	Mounting	Wall mount, DIN rail
	Weight	312 g
Operating System	Linux	V3.0.35
	Android	V4.3
Certifications		CE/FCC Class B

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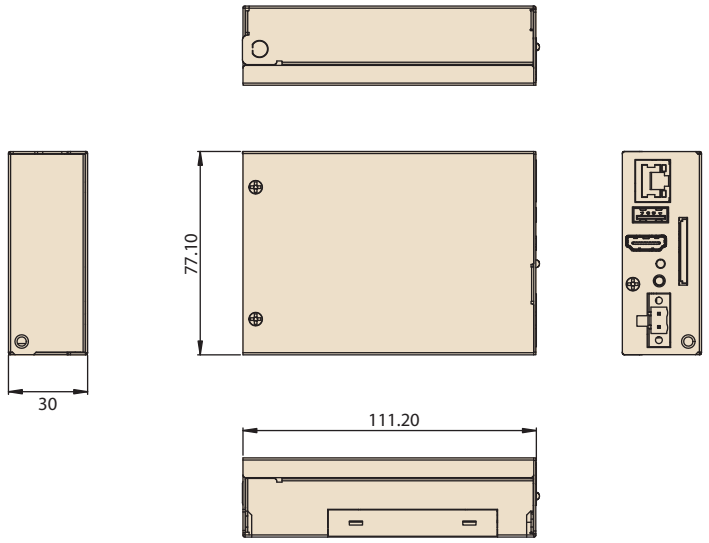
Dimensions

Unit: mm



Ordering Information

Part Number	CPU	Memory	Flash Memory	UART	LAN	USB Host	HDMI	Size	Operating Temperature
UBC-200CD-MDA1E	NXP i.MX6 dual-core, 1 GHz	1 GB	4 GB	-	1	1	1	111 x 77 x 30 mm	0 ~ 60 °C
UBC-200CQ-MEA1E	NXP i.MX6 quad-core, 1 GHz	2 GB	4 GB	-	1	1	1	111 x 77 x 30 mm	0 ~ 60 °C

Packing List

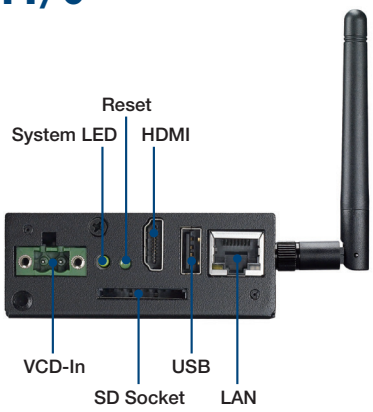
Part Number	Description
1960062939N001	Wall-mount bracket

Optional Accessories

Part Number	Description
96PSA-A36W12R1	Adapter 100-240 V 36 W 12 V 3A
1700017968	DC-jack/plug-in cable
1960015198T011	DIN-rail for UBC-200
SQF-ISDM1-8G-21C	SQF SDHC C10 UHS-I MLC 8G, 1CH (-25~85°C)
EWM-W169M201E	M.2 2230 SDIO bus WiFi5/BT5.0 combo module
1750008717-01	Dipole Ant. D.B 2.4/5G WIFI 3dBi SMA/M-R BLK
1750008303-01	Antenna AN0727-64SP6BSM
EWM-C117FL06E*	LTE 4G,3G WCDMA/DC-HSPA+, 2G module, MPCI-L280H
1750008799-01	Cable Ant.SMA/F-R-BH MFH4/113 BLK L170
1750006264	Antenna SMA(F)/MHF 15cm SMALFN8-3150A-00X00R
1700001524	Power cord 3P UL 10A 125 V 180 cm
1700019146	Power Cord CCC 3P 10A 250V 183cm
170203183C	Power cord 3P Europe (WS-010+WS-083) 183 cm
170203180A	Power cord 3P UK 2.5A/3A 250 V 1.83 M
1700008921	Power Cord 3P PSE 183cm

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

External I/O



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