UBC-330

TI Sitara™ AM3352 Cortex®-A8 RISC Computing Box

Features

- TI Sitara™ AM3352 Cortex®-A8 1.0 GHz processor
- 512 MB of DDR3-800 and 4 GB of eMMC NAND Flash onboard
- 4 GPI and 4 GPO ports (with ESD and isolation protection)
- 5x serial port w/ESD protection (Contact 4KV / Air 8KV)
- 2 Gigabit Ethernet ports
- Supports Linux BSP
- 0 ~ 55 °C operating temperature
- Equipped with hardware watchdog time for system protection

Introduction

UBC-330 is a RISC computing box powered by a TI Sitara™ AM3352 Cortex®-A8 processor and equipped with 2 Gigabit Ethernet, 5 serial, 4 GPI, and 4 GPO ports. For industrial applications, the serial and GPIO ports feature rugged ESD and isolation protection to prevent system damage from power fluctuations. UBC-330 also supports multiple power input voltages and a wide operating temperature, making it the ideal solution for automation control in smart grid, industrial, and machinery automation applications.

Specifications

Form Factor		Box computer
Processor System	CPU	TI Sitara™ AM3352 Cortex®-A8 1.0 GHz processor
	Capacity	512 MB of onboard DDR3 at 800 MHz
	Flash	4 GB of eMMC NAND Flash for OS and 4 MB of SPI NOR Flash for ADV loader
Ethernet	Transceiver	RTL 8211
	Speed	2 x 10/100/1000 Mbps
WatchDog Timer		MSP430G2202 (timeout: 1 ~ 6553s, default 60s/power on/off 1s)
I/O	USB	1 x USB2.0 host
	Serial Port	5 (1x 4 wires RS-232/422/485, 4x 2 wires RS-232) The 5 serial port w/ ESD protection (Contact 4KV/ Air 8KV)
	CAN	CAN bus version 2.0 A and B
	GPIO	4 GPI and 4 GPO ports (with optional ESD and isolation protection) **GPI:** ESD protection: Contact 4KV/ Air 8KV Isolation: 0 ~ 50V_{DC} input and 10KHz speed **GPO:** ESD protection: Contact 4KV/ Air 8KV Isolation: 5 ~ 40V_{DC} output and 10KHz speed (200mA max/channel sink current)
	I^2C	1
	Button	1 x Reset button
Expansion	SD Socket	1 x SD slot
Power	Power Supply Voltage	+12/19/24 V DC-in
	Power Type	2-pole lockable DC-in
	Power Consumption	3.3 Watts (maximum)
Environment	Operational Temperature	0 ~ 55 °C
	Operating Humidity	5 ~ 95% relative humidity, non-condensing
Mechanical	Dimensions (W x D x H)	117 x 166 x 30 mm
Operating System		Linux
Certifications		CE FCC/CCC Class B

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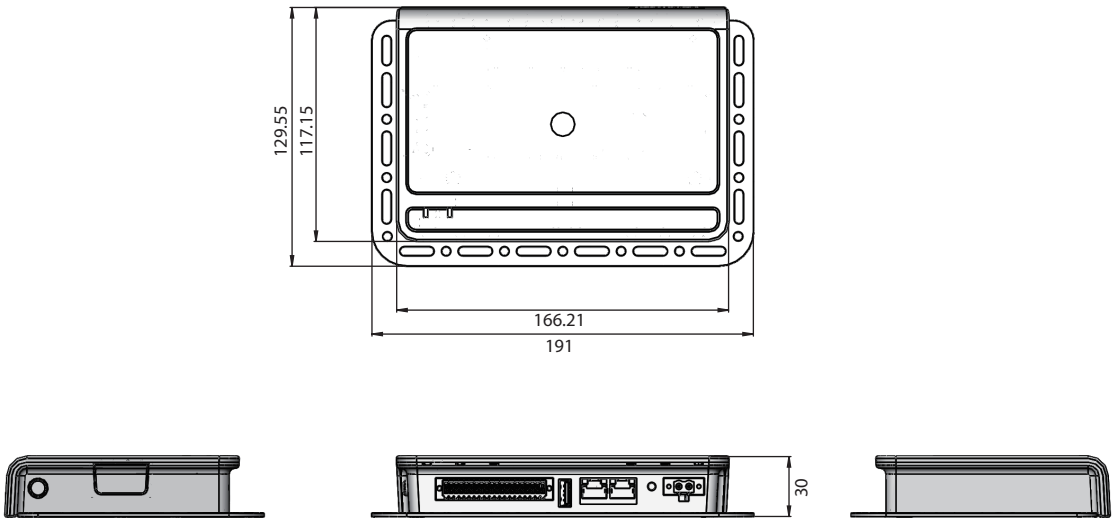
Dimensions

Unit: mm



Ordering Information

Part Number	CPU	Memory	eMMC	SD	CAN	UART	GPIO	Isolation	ESD	USB Host	LAN	Operating Temperature
UBC-330NS-JLA1E	TI AM3352 1.0 GHz	512 MB	4 GB	1	1	5	8	Serial: No GPIO: Yes	Serial: Yes GPIO: Yes	1	2	0 ~ 55 °C

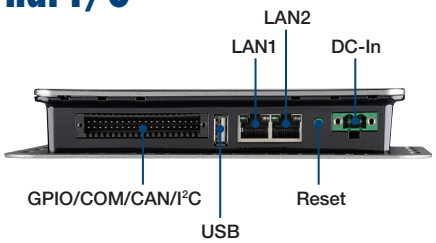
Packing List

Part Number	Description
UBC-330NS-JLA1E	UBC-330 AM3352 1 GHz 512 MB computing box
1652006830-01	20x2P 2.54mm 180D 0156-1A40

Optional Accessories

Part Number	Description
96PSA-A36W12R1-3	ADP A/D 100-240V 36W 12V C6 DC PLUG 90°
1700023307-01	DC jack/plug-in cable 1*2P-5.0 10 cm RSB-4220
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
1700019146	Power Cord CCC 3P 10A 250V 183cm
170203180A	Power cord 3P UK 2.5A/3A 250 V 1.83 M
1700001524	Power cord 3P UL 10A 125 V 180 cm

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