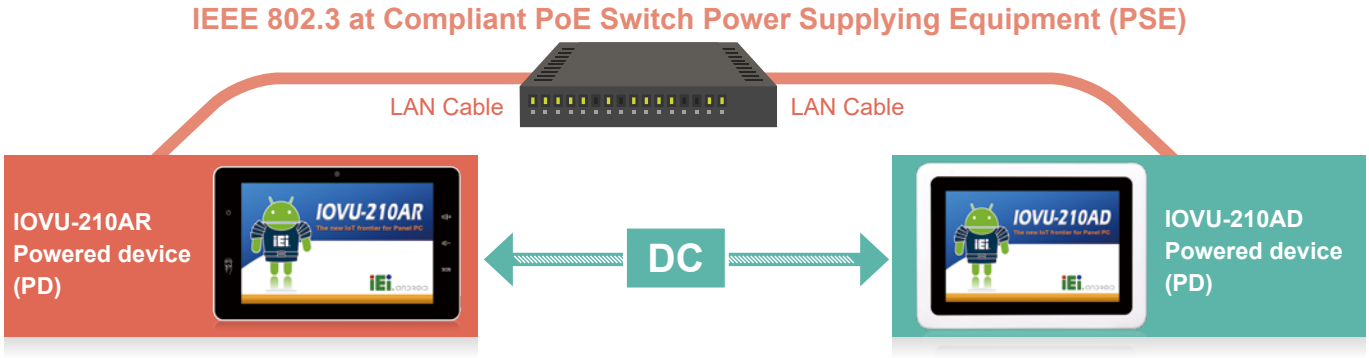
RISC Based Panel PC Solution

The IOVU RISC Based PC Series enables the great embedded flexibility for smart factory, building automation, factory control, and medical usage applications. Making use of the low power consumption RISC platform, the IOVU series adopts a fan-less and power efficient design, providing a cost-effective, stable, and easy to use solution to collect, transfer, process, access , and manage data.

Power over Ethernet supported

Both of data transfer and power supply through one single LAN cable.

- Simplify the construction.
- Dual power input design.



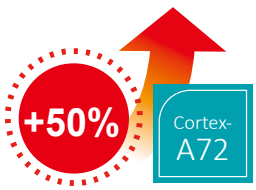
* When both DC-in and PoE are connected to the device, the connection with higher voltage will be the main power source.

RockChip RK3399 Processor

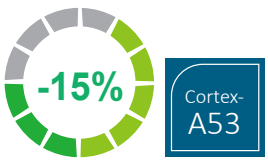
- Dual-core Cortex-A72 up to 1.8GHz + Quad-core Cortex-A53 up to 1.5GHz)
- Mali-T864 GPU (45% more than Mali-T628)
- 4K UHD H265/H264/VP9
- Dual USB Type-C and USB 2.0
- HDMI 2.0a with HDCP 2.2

Powerful, but low energy

Normally, the CPU will run A53 for low power consumption. If the application needs more computing power, A72 CPU will increase performance by 50%.



+50% performance than Cortex-A57



-15% power consumption than Cortex-A57

+45% performance than Mali-T628

RK3399 has more powerful GPU and supports 4K resolution video decode.

Mali-T860 MP4

VP9,10-bits H.265/ H.264 60fps

Supported OS

IEI products with RK3399 family CPU support dual OS with full API/SDK, making it easy to develop your own application on Android or Linux environment.

- Android 7.1
- Linux QT 5.9.4

Applications for RK3399

RK3399 has features of high performance, high expansion, all-round application and it will empower AI and assist the layout of industry products.

Digital Signage

KIOSK

POS

RISC Based Panel PC Selection Guide

		IOVU-210AD-RK39-R10-TW	IOVU-207AR-RK39-R10-TW	IOVU-210AR-RK39-R10-TW
Chassis	Color	white		
	Dimensions (WxHxD)	293 x 209.5 x 44.5 (mm)	210.7 x 154.7 x 29.6 (mm)	282.5 x 174.3 x 26.8 (mm)
	System Fan	Fanless		
	Chassis Construction	PC + ABS plastic front, Metal rear	PC + ABS plastic front, Metal rear	PC + ABS plastic
Display	Size	10"	7"	10"
	Resolution	800(RGB) x 1280	720 RGB x 1280	800(RGB) x 1280
	Brightness (cd/m²)	350 cd/m² (typ.)	300 cd/m² (typ.)	350 cd/m² (typ.)
	Pixel Pitch (mm)	0.0564(H) x 0.1692(V)	0.1239 (H) ×0.119 (V)	0.0564(H) x 0.1692(V)
	Viewing Angle (H/V)	85/85/85/85 Deg.	70/70/70/70 Deg.	85/85/85/85 Deg.
	Touchscreen	Projected capacitive		
Motherboard	CPU	Rockchip RK3399 (Dual-core Cortex-A72 up to 1.8GHz + Quad-core Cortex-A53 up to 1.5GHz)		
	System Memory	On-board 2 GB LPDDR3-1866		
Storage	SD Card	1 x Micro SD Slot		
	Flash	On-board 16 GB eMMC		
Communication	WLAN	On-board Wi-Fi 802.11a/b/g/n/ac (2T2R)		
	Bluetooth	Bluetooth 4.1		
	RFID	13.56 MHz ISO4443 A/B, read-write capable (NXP PN553)	N/A	13.56 MHz ISO4443 A/B, read-write capable (NXP PN553)
I/O Interfaces	I/O interface	1 x 10/100/1000Mbps RJ45 LAN w/ POE 1 x RS-232/422/485 1 x RS-232 1 x DIO 4pin (2 in / 2 out) 1 x DC jack 1 x DC in terminal block	1 x 10/100/1000Mbps RJ45 LAN 2 pin terminal block for SOS key 1 x DC jack	1 x RS-232 (4 pin wafer connector) 1 x RS-232/422/485 (4 pin terminal block) 1 x 4 bit (2 in, 2 out) - (terminal block) 2 x 2 bit (1 in, 1 out) - (4 pin wafer connector) 3 x I²C (4 pin wafer connector) 1 x 10/100/1000Mbps RJ45 LAN w/ POE 1 x 10/100/1000Mbps RJ45 LAN 1 x DC jack
	USB 3.2 Gen 1	1 x Type A 1 x Type C OTG	1 x Type A	1 x Type A
	USB 2.0	2 x Type A	1 x Type A	1 x Type A
	Others	2 x USB 2.0 (internal)	1 x Type C OTG (Internal) 2 x UART w/ 3V (internal) 2 x USB 2.0 (internal)	1 x Type C OTG (Internal) 2 x UART w/ 3V (internal) 2 x USB 2.0 (internal)
Multimedia	Speaker / Mic	2 x Mic 1 x 2W speaker	1 x Mic 1 x 2W Speake	1 x Mic 2 x 1.5W Speaker
	Camera	5-megapixel	5-megapixel	5-megapixel
LED Indicator & Button	Indicator	1 x Power LED 1 x WiFi LED 1 x BT LED	1 x Power (green) 1 x Mail (blue) 1 x Phone (green) 1 x Exclamation Mark (red)	1 x Power LED 1 x RFID LED 3 x Key pad LED (Volume / SOS)
	Button	1 x Reset Button	1 x Reset Button 1 x SOS Key (with red bar) 2 x Function Key for AP operation (with green bar)	1 x Reset Button 1 x Volume up 1 x Volume down 1 x SOS Button
Power	Power Input	12V DC input (range : 9V ~ 30V) PoE: IEEE 802.3 at standard (Power Device)	12V DC input (range : 9V ~ 30V)	12V DC input (range : 9V ~ 30V) PoE: IEEE 802.3 at standard (Power Device)
	Consumption	12V @ 1.2A	12V @ 1.05A	12V @ 1.1A
Reliability	Mounting	VESA Mount 75mmx75mm	VESA Mount 75mmx75mm	Panel mount, In wall cage VESA 110mmx100mm
	Operating Temperature	-10°C ~ 50°C with air flow		
	Storage Temperature	-20°C ~ 60°C		
	Humidity	10% ~ 90%, non-condensing		
	Safety/EMC	CE/FCC / Class A compliant	CE/FCC / Class B compliant	CE/FCC / Class B compliant
OS	Supported OS	Android 7.1	Android 7.1 / Linux	Android 7.1 / Linux

IOVU-207AR-RK39

7” RISC-based Panel PC

Features

- CPU: Rockchip RK3399 (Dual-core Cortex-A72 up to 1.8GHz + Quad-core Cortex-A53 up to 1.5GHz)
- Boot Flash: 16G eMMC Nand Flash
- RAM: 2GB LPDDR3-1866
- OS: Android 7.1 / Linux
- 1 x SOS Key (with red bar):
  Press for calling help in case emergency
  2 x Function Keys (with green bar):
  Default hot key by AP programming

IOVU

Fanless | Wireless 802.11b/g/n | Bluetooth | Touchscreen | Camera | Android | Linux

Specifications

Model		IOVU-207AR-RK39
Chassis	Color	White
	Dimensions (WxHxD) (mm)	210.7 x 154.7 x 29.6
	System Fan	Fanless
	Chassis Construction	PC + ABS plastic front, Metal rear
Display	Size	7"
	Resolution	720 RGB (H) x 1280 (V)
	Brightness (cd/m²)	300 cd/m2 (typ.)
	Contrast Ratio	800:1(typ.)
	Pixel Pitch (mm)	0.1239 (H) ×0.119 (V)
	Viewing Angle (H/V)	70/70/70/70 Deg.
	Touchscreen	Projected capacitive
Motherboard	CPU	Rockchip RK3399 (Dual-core Cortex-A72 up to 1.8GHz + Quad-core Cortex-A53 up to 1.5GHz)
	System Memory	2GB LPDDR3-1866
Storage	SD Card	1 x Micro SD slot
	Flash	16GB eMMC NAND FLASH
Communication	WLAN	802.11 a/b/g/n/ac
	Bluetooth	Bluetooth V4.1
I/O Interfaces	COM port	2 x UART pin header with 3V (internal)
	Ethernet	1 x GbE RJ45 by RTL8211E
	USB 3.2 Gen 1	1 x USB 3.2 Gen 1 (5Gb/s) Type A
	USB 2.0	1 x USB 2.0 Type A 2 x USB 2.0 pin header (internal)
	Others	2 pin terminal block for SOS key
Multimedia	Audio	1 x Speaker (2 W) , 1 x Digital Mic in
	Camera	Front 5-megapixel (CMOS)
LED Indicator & Button	Indicator	1 x Power LED 1 x Mail 1 x Phone 1 x Exclamation Mark
	Button	1 x Reset Button 1 x SOS button (red bar) 2 x Function Key (green bar)
Power	Power Input	DC 9 V~30 V, φ2.5/5.5mm DC Jack
	Power Consumption	12V @ 1.05A
Reliability	Mounting	VESA Mount 75mmx75mm
	Operating Temperature	-10°C ~ 50°C with air flow
	Storage Temperature	-20°C ~ 60°C
	Humidity	10% ~ 90%, non-condensing
	Weight (Net)	0.72 kg
	Safety/EMC	CE/FCC Class B compliant
OS	Supported OS	Android 7.1 / Linux
	Watch dog timer	Yes

Ordering Information

Part No.	Description
IOVU-207AR-RK39-R10-TW	7" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, Camera, WIFI/BT, Gigabit Ethernet, TW reg, ROHS
IOVU-207AR-RK39-R10-CN	7" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, Camera, WIFI/BT, Gigabit Ethernet, CN reg, ROHS
IOVU-207AR-RK39-R10-EU	7" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, Camera, WIFI/BT, Gigabit Ethernet, EU reg, ROHS
IOVU-207AR-RK39-R10-US	7" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, Camera, WIFI/BT, Gigabit Ethernet, US reg, ROHS

Packing List

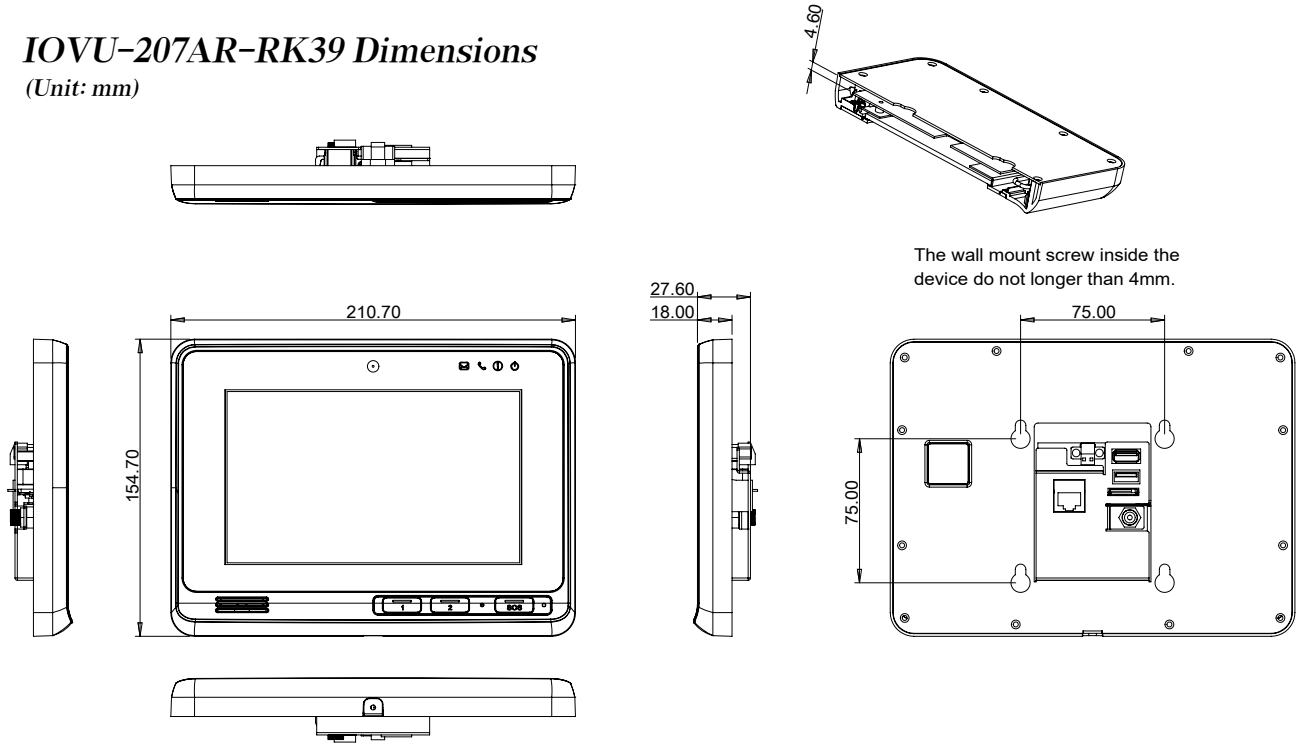
1 x IOVU-207AR Device
1 x Wall mount bracket
1 x Screw set

Options

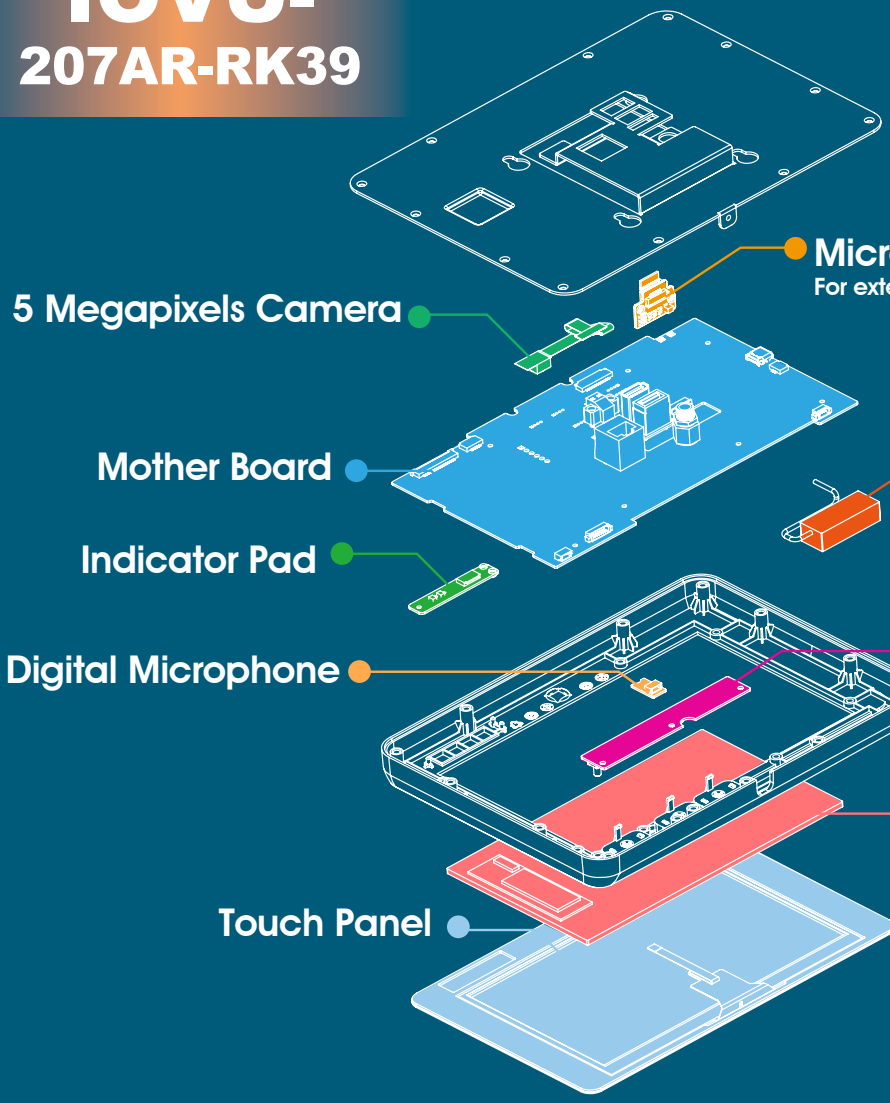
Item	Part No.	Description
Power Adapter	63040-010060-120-RS	Vin:90~264VAC;60W;Φ2.5/Φ5.5/lock

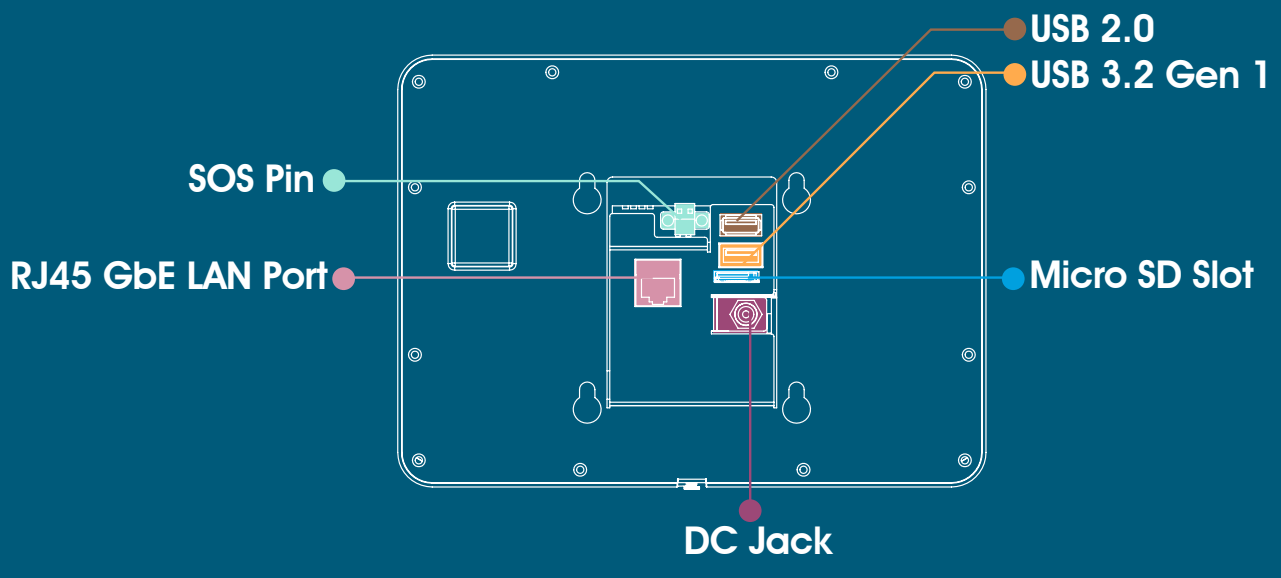
IOVU-207AR-RK39 Dimensions

(Unit: mm)



IOVU-207AR-RK39





IOVU-210AD-RK39

10.1” RISC Base Panel PC

Features

- 10.1” 1280x800 LCD
- Project Capacitive Touch Screen
- CPU: Rockchip RK3399 (Dual-core Cortex-A72 up to 1.8GHz + Quad-core Cortex-A53 up to 1.5GHz)
- OS: Android 7.1
- Boot Flash: 16GB eMMC Nand Flash
- RAM: 2GB LPDDR3

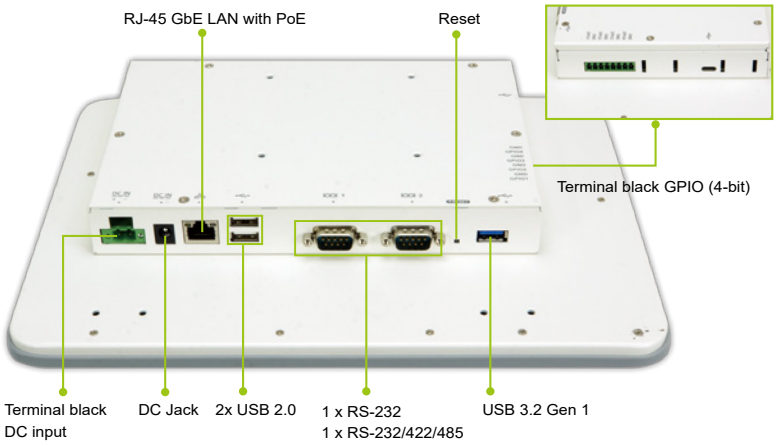
IOVU

Wireless 802.11b/g/n | Bluetooth | Touchscreen | RFID | RS-232 | Android

Specifications

Model		IOVU-210AD-RK39
Chassis	Color	White
	Dimensions (WxHxD) (mm)	293 x 209.5 x 44.5
	System Fan	Fanless
	Chassis Construction	PC + ABS plastic front, Metal rear
Display	Size	10.1"
	Resolution	800(RGB) x 1280
	Brightness (cd/m²)	350 cd/m² (typ.)
	Contrast Ratio	800:1(typ.)
	Pixel Pitch (mm)	0.0564(H) x 0.1692(V)
	Viewing Angle (H/V)	85/85/85/85 Deg.
	Touchscreen	Project Capacitive
Motherboard	CPU	Rockchip RK3399 (Dual-core Cortex-A72 up to 1.8GHz + Quad-core Cortex-A53 up to 1.5GHz)
	System Memory	2GB LPDDR3-1866
Storage	SD Card	1 x Micro SD slot (Internal)
	Flash	16GB eMMC NAND FLASH
Communication	WLAN	802.11 a/b/g/n/ac
	Bluetooth	Bluetooth V4.1
	RFID	13.56 MHz ISO4443 A/B, read-write capable, ISO 14443A (MIFARE), ISO 14443B (FeliCa)
I/O Interfaces	COM port	1 x RS-232 (DB-9) 1 x RS-232/422/485 (DB-9)
	GPIO	4 bit (2 in, 2 out)
	Ethernet	1 x GbE RJ45 by RTL8211E w/ PoE
	USB 3.2 Gen 1	1 x USB 3.2 Gen 1 (5Gb/s) Type A 1 x USB 3.2 Gen 1 (5Gb/s) Type C OTG
	USB 2.0	2 x USB 2.0 Type A 2 x USB 2.0 pin header (internal)
Multimedia	Audio	1 x Speaker (2 W) , 2 x Digital Mic in
	Camera	Front 5-megapixel (CMOS)
LED Indicator & Button	Indicator	1 x Power, 1 x BT, 1 x Wi-Fi
	Button	1 x Reset Button
Power	Power Input	DC 9 V~30 V * DC input: φ2.5/5.5mm DC Jack or Terminal block * PoE: IEEE 802.3 at standard (Power Device)
	Power Consumption	12V @ 1.2A
Reliability	Mounting	VESA Mount 75mm x 75mm
	Operating Temperature	-10°C ~ 50°C with air flow
	Storage Temperature	-20°C ~ 60°C
	Humidity	10% ~ 90%, non-condensing
	Weight (Net)	1.84 kg
	Safety/EMC	CE/FCC Class A compliant
OS	Supported OS	Android 7.1
	Watch dog timer	Yes

* When both DC-in and PoE are connected to the device, the connection with higher voltage will be the main power source.



Ordering Information

Part No.	Description
IOVU-210AD-RK39-R11-TW	10.1" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, WiFi/BT, IEEE 802.3at for POE, phone jack, 4xGPIO, Android 7.1, NFC, TW reg, ROHS
IOVU-210AD-RK39-R11-CN	10.1" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, WiFi/BT, IEEE 802.3at for POE, phone jack, 4xGPIO, Android 7.1, NFC, CN reg, ROHS
IOVU-210AD-RK39-R11-EU	10.1" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, WiFi/BT, IEEE 802.3at for POE, phone jack, 4xGPIO, Android 7.1, NFC, EU reg, ROHS
IOVU-210AD-RK39-R11-US	10.1" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, WiFi/BT, IEEE 802.3at for POE, phone jack, 4xGPIO, Android 7.1, NFC, US reg, ROHS

Packing List

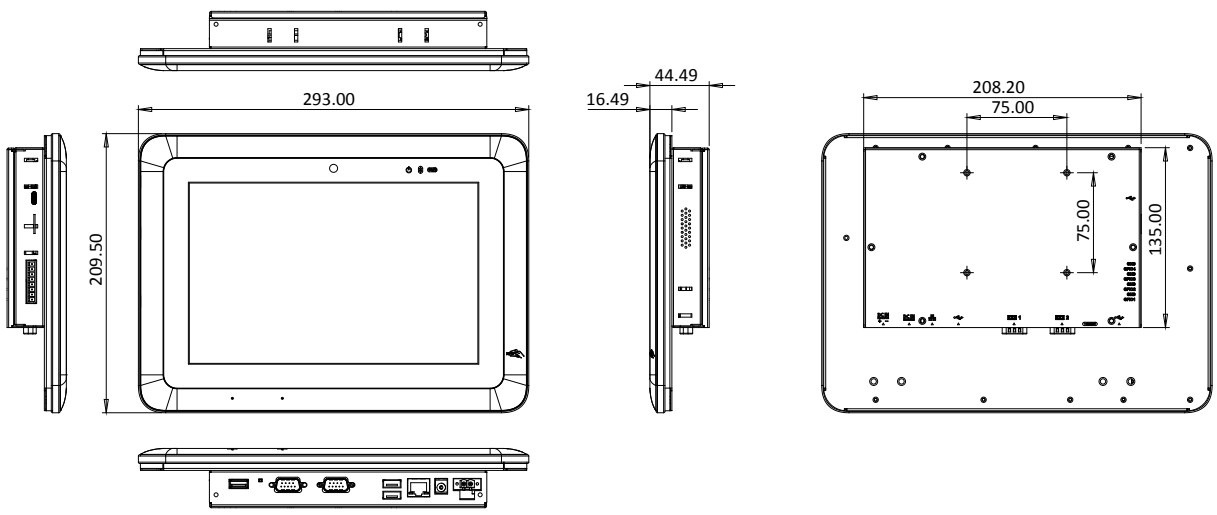
1 x IOVU-210AD Device

Options

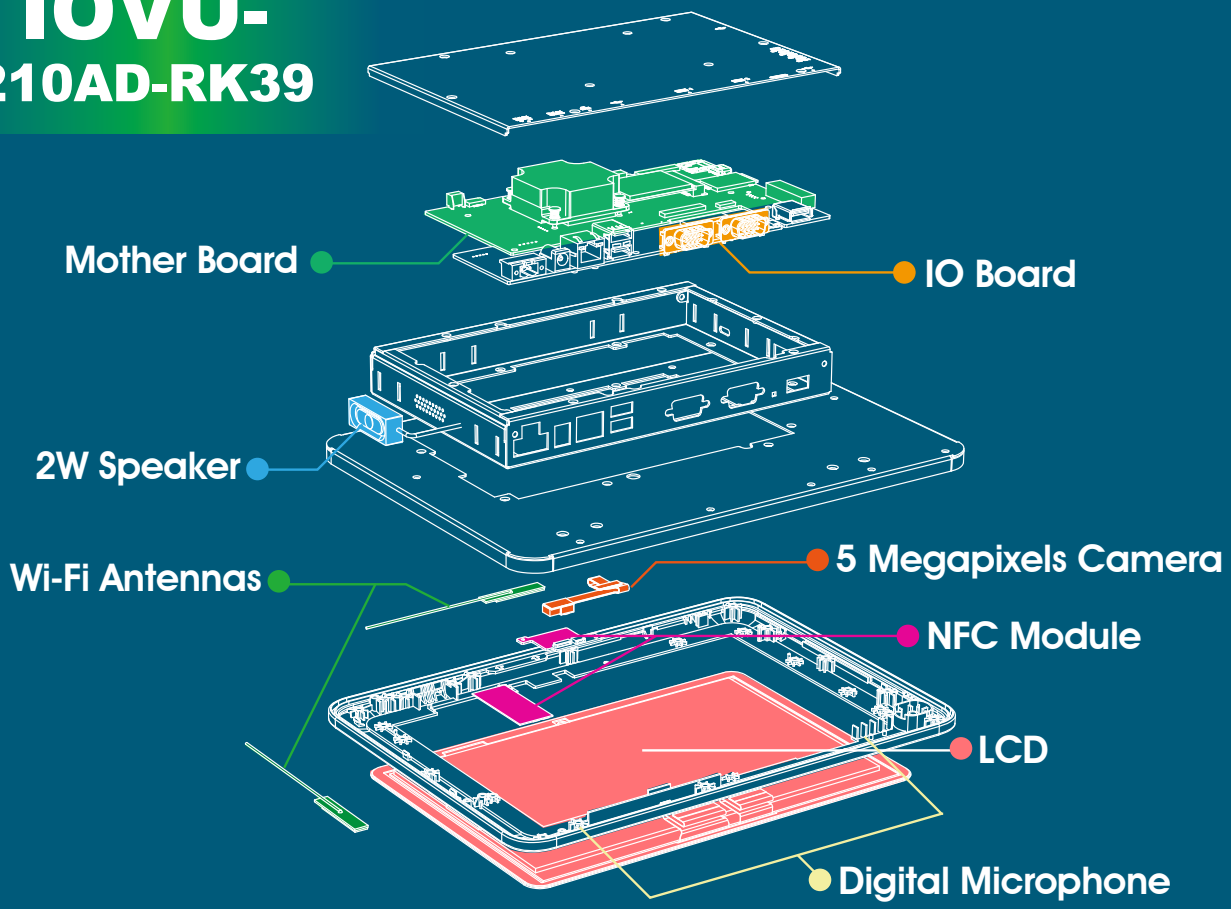
Item	Part No.	Description
Power Adapter	63040-010060-120-RS	Vin:90~264VAC;60W;Φ2.5/Φ5.5/lock
ARM	ARM-11-RS	Flat Panel Monitor ARM
Stand	STAND-A12-RS	LCD MONITOR/PPC STAND
Wall Mount Kit	AFLWK-19B	Monitor Wall mounting kit with lock

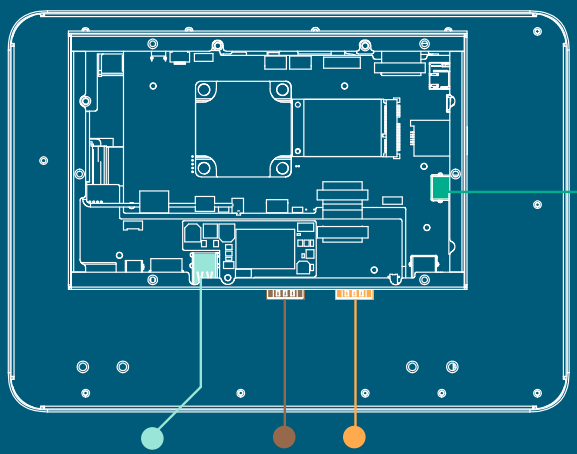
IOVU-210AD-RK39 Dimensions

(Unit: mm)



IOVU-210AD-RK39





IOVU-210AR-RK39

10.1” RISC-based Panel PC

Features

- 10.1” 1280x800 LCD
- Project Capacitive Touch Screen
- CPU: Rockchip RK3399 (Dual-core Cortex-A72 up to 1.8GHz + Quad-core Cortex-A53 up to 1.5GHz)
- OS: Android 7.1 / Linux
- Boot Flash: 16GB eMMC Nand Flash
- RAM: 2GB LPDDR3-1866
- Grove Interface IOT Sensor connectors

IOVU

Wireless 802.11b/g/n | Bluetooth | Touchscreen | Camera | Dual GbE | Android | Linux

Specifications

Model		IOVU-210AR-RK39
Chassis	Color	White
	Dimensions (WxHxD) (mm)	282.5 x 174.3 x 26.8
	System Fan	Fanless
	Chassis Construction	PC + ABS plastic
Display	Size	10.1"
	Resolution	800(RGB) x 1280
	Brightness (cd/m²)	350 cd/m² (typ.)
	Contrast Ratio	800:1(typ.)
	Pixel Pitch (mm)	0.0564 (H) × RGB × 0.1692 (V)
	Viewing Angle (H/V)	85/85/85/85 Deg.
	Touchscreen	Project Capacitive
Motherboard	CPU	Rockchip RK3399 (Dual-core Cortex-A72 up to 1.8GHz + Quad-core Cortex-A53 up to 1.5GHz)
	System Memory	2GB LPDDR3-1866
Storage	SD Card	1 x Micro SD slot
	Flash	16GB eMMC NAND FLASH
Communication	WLAN	802.11 a/b/g/n/ac
	Bluetooth	Bluetooth V4.1
	RFID	13.56 MHz ISO4443 A/B, read-write capable, ISO 14443A (MIFARE), ISO 14443B (FeliCa)
I/O Interfaces	COM port	1 x RS-232 (4 pin wafer connector) 1 x RS-232/422/485 (4 pin terminal block) 2 x UART pin header with 3V (internal)
	GPIO	1 x 4 bit (2 in, 2 out) 2 x 2 bit (1 in, 1 out)
	Ethernet	1 x GbE RJ45 by RTL8211E with PoE (PD) 1 x GbE RJ45 by RTL8211E
	USB 3.2 Gen 1	1 x USB 3.2 Gen 1 (5Gb/s) Type A
	USB 2.0	1 x USB 2.0 Type A 2 x USB 2.0 pin header (internal)
	Others	3 x I²C sensor connectors (3V)
Multimedia	Audio	2 x Speaker (1.5W), 1 x Digital Mic in
	Camera	Front 5-megapixel (CMOS)
LED Indicator & Button	Indicator	1 x Power LED 1 x RFID LED
	Button	1 x Reset button 2 x Volume key (up / down) on screen 1 x SOS key on screen
Power	Power Input	DC 9 V~30 V * DC input: φ2.5/5.5mm DC Jack * PoE: IEEE 802.3 at standard (Power Device)
	Power Consumption	12V @ 1.1A
Reliability	Mounting	Panel mount, In wall cage
	Operating Temperature	-10°C ~ 50°C with air flow
	Storage Temperature	-20°C ~ 60°C
	Humidity	10% ~ 90%, non-condensing
	Weight (Net)	0.85 kg
	Safety/EMC	CE/FCC Class B compliant
OS	Supported OS	Android 7.1 / Linux
	Watch dog timer	Yes

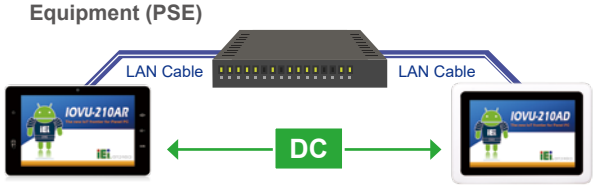
* When both DC-in and PoE are connected to the device, the connection with higher voltage will be the main power source.

Power over Ethernet supported

Both of data transfer and power supply through one single LAN cable.

- Simplify the construction.
- Dual power input design.

IEEE 802.3 at Compliant PoE Switch Power Supplying Equipment (PSE)



IOVU-210AR
Powered device (PD)

IOVU-210AD
Powered device (PD)

* When both DC-in and PoE are connected to the device, the connection with higher voltage will be the main power source.

Ordering Information

Part No.	Description
IOVU-210AR-RK39-R11-TW	10.1" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, Camera, WIFI/BT, POE 802.3at, COM port, DIO, 4pin sensor connector, Front Camera, NFC, TW reg, ROHS
IOVU-210AR-RK39-R11-CN	10.1" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, Camera, WIFI/BT, POE 802.3at, COM port, DIO, 4pin sensor connector, Front Camera, NFC, CN reg, ROHS
IOVU-210AR-RK39-R11-EU	10.1" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, Camera, WIFI/BT, POE 802.3at, COM port, DIO, 4pin sensor connector, Front Camera, NFC, EU reg, ROHS
IOVU-210AR-RK39-R11-US	10.1" TFT-LCD; Rockchip 3399 Processor, 2GB LPDDR3 , 16GB eMMC Flash, Camera, WIFI/BT, POE 802.3at, COM port, DIO, 4pin sensor connector, Front Camera, NFC, US reg, ROHS

Packing List

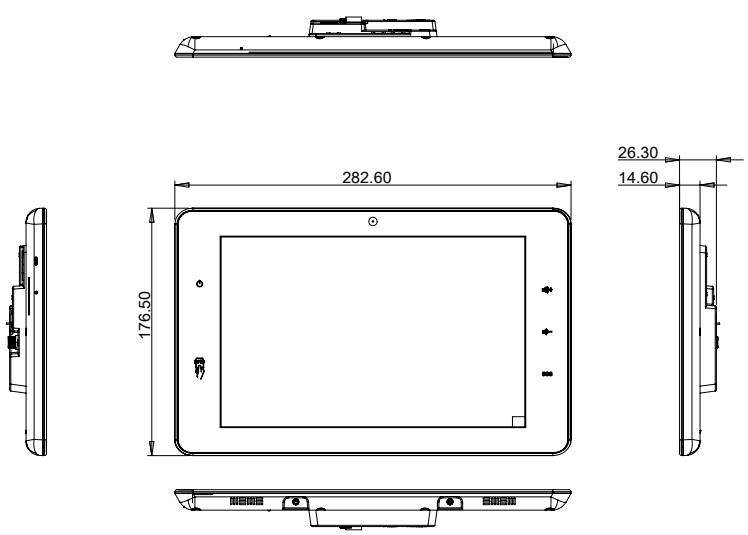
1 x IOVU-210AR Device
1 x Wall mount bracket
1 x Screw set

Options

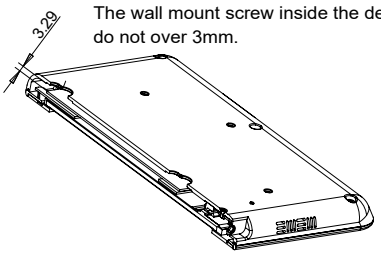
Item	Part No.	Description
Power Adapter	63040-010060-120-RS	Vin:90~264VAC;60W;Φ2.5/Φ5.5/lock
In Wall Cage	41320-0490E4-00-RS	In wall bracket for IOVU-210AR

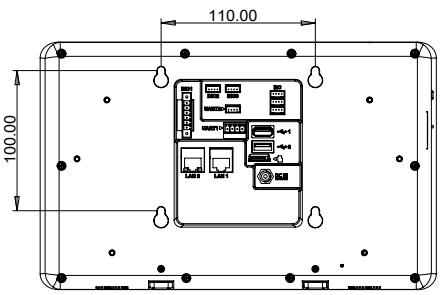
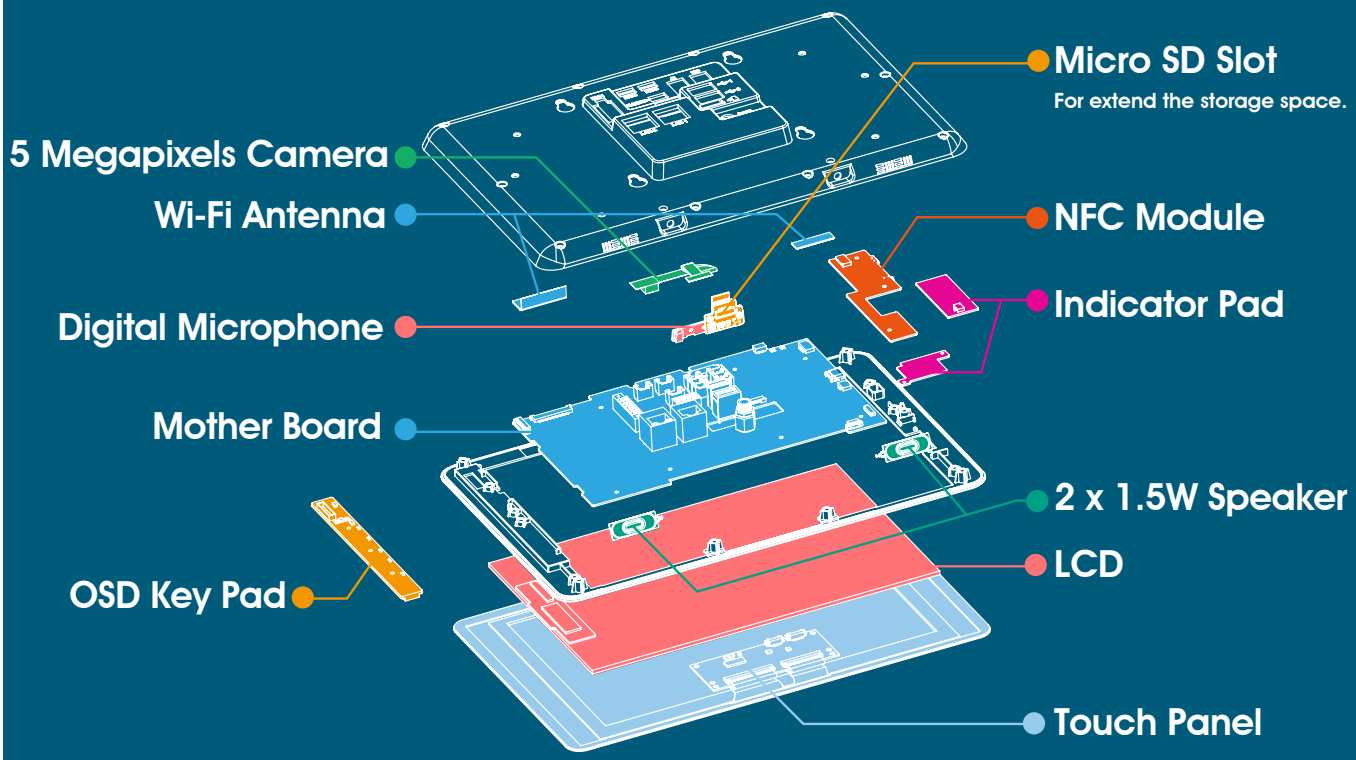
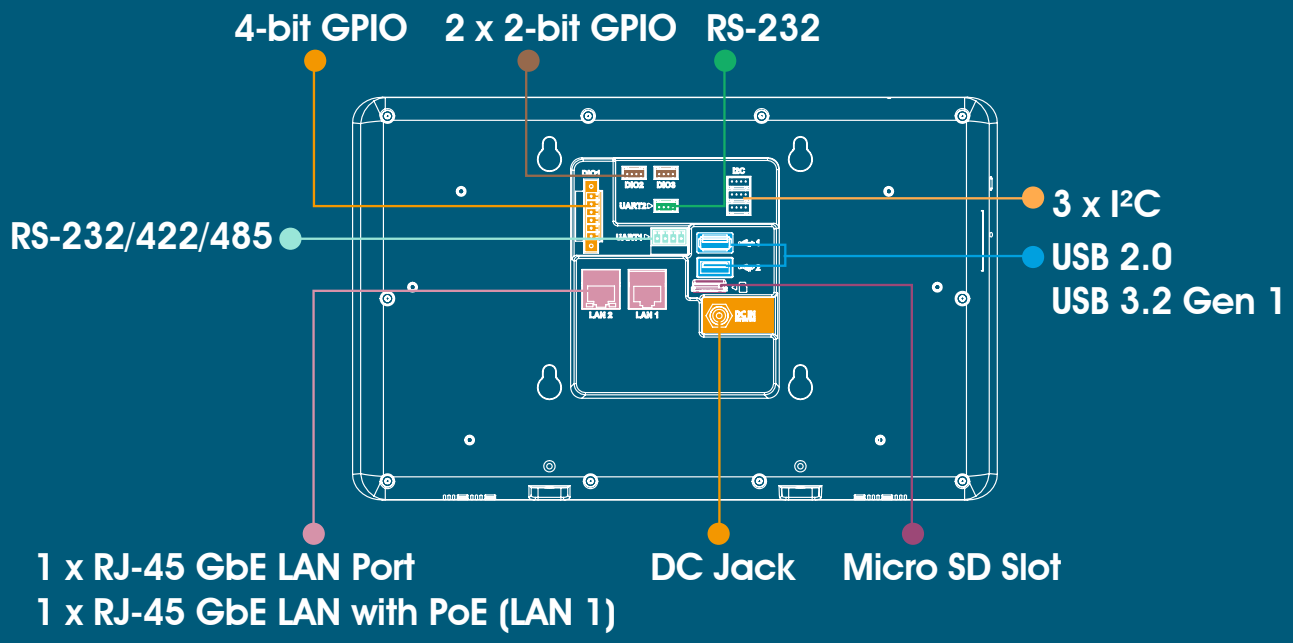
IOVU-210AR-RK39 Dimensions

(Unit: mm)



The wall mount screw inside the device do not over 3mm.

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