IPM-21

21.5" Fanless IP Monitor

Quick Reference Guide

2nd Ed – 24 October, 2018

Part No. E2017IP21A1R

FCC Statement

THIS DEVICE COMPLIES WITH PART 15 FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.

(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS "A" DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES.

THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

Notice

This guide is designed for experienced users to setup the system within the shortest time. For detailed information, please always refer to the electronic user's manual.

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into body, or (b) support or sustain life and whose failure to perform, when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in significant injury to the user.
2. A critical component is any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

A Message to the Customer

Avalue Customer Services

Each and every Avalue's product is built to the most exacting specifications to ensure reliable performance in the harsh and demanding conditions typical of industrial environments. Whether your new Avalue device is destined for the laboratory or the factory floor, you can be assured that your product will provide the reliability and ease of operation for which the name Avalue has come to be known.

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We want you to get the maximum performance from your products. So if you run into technical difficulties, we are here to help. For the most frequently asked questions, you can easily find answers in your product documentation. These answers are normally a lot more detailed than the ones we can give over the phone. So please consult the user's manual first.

To receive the latest version of the user's manual; please visit our Web site at:
http://www.avalue.com.tw/

Content

1. Getting Started

1.1 Safety Precautions

Warning!

Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Caution!

Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

1.2 Packing List

- 1 x IPM-21 Fanless IP Monitor
- 1 x packing set includes the followings
  - 1 x adapter
  - 1 x Power cord

If any of the above items is damaged or missing, contact your retailer.

1.3 System Specifications

Component	
Mother Board	Mother Board and I/O Board of IPM-1003
HDMI in	HDMI input connector (HDMI monitor)
Memory	on board 1GB DDR2 memory
Audio	Yes (source from Box PC)
Power Supply	DC in
Adapter	60W 12V/5A
System Fan	Fanless
Speaker	2 x 2W Speakers
Panel	
LCD Panel	21.5” with PACP (w/ Touch Controller)
B/L Inverter/Converter	LED Driver Board UNITED LINK
Others	Membrane for power/ volume/ brightness
External I/O	
USB Port	3 x USB2.0 Ports for external peripherals in lower connector recess (Through PCI to USB2.0 Chip)
Video Port	1 x HDMI out on RX module when Tx’s HDMI signal not direct input the scale IC (Optional) Chassis Knock-out hole 1 x HDMI input on Rx Module
Audio Port	1 x 3.5mm stereo jack
Others	1 x RJ45 port for DoE only
Mechanical	
Power Typer	+12 ~ 26V DC in
Power Connector Type	DC Jack
Dimension	303.3 mm x 505 mm x 41.7mm
Weight	5 kg
Color	Metal housing black
Fanless	Yes
Reliability	
EMI Test	CE/FCC Class A
Safety	UL/CB design compatible
Dust and Rain Test	IP-65(Front Panel) design compatible
Vibration Test	Sine Vibration test (Non-operation)

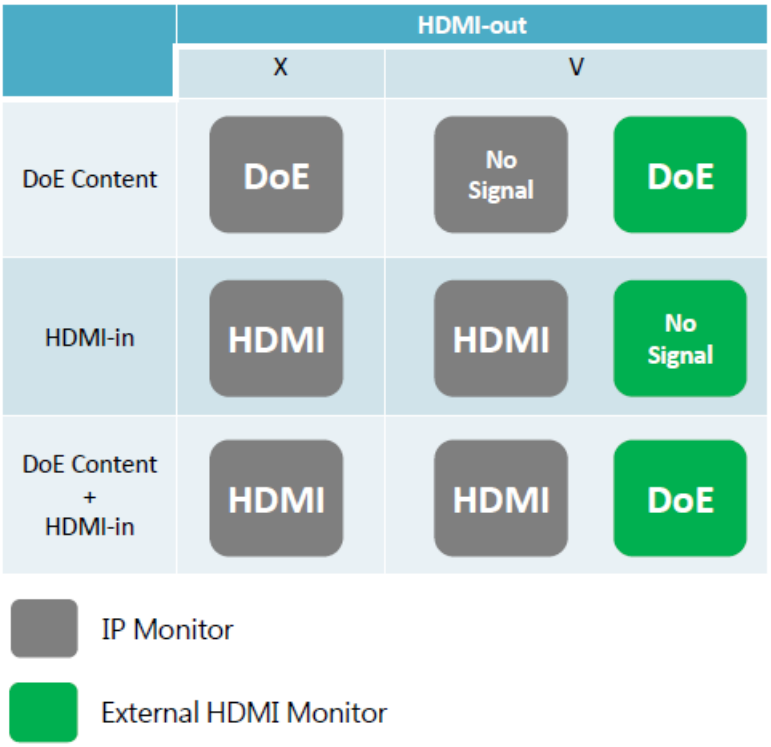
	Test Fc : Vibration sinusoidal 1. Test Acceleration : 2G 2. Test frequency : 5 ~ 500 Hz 3. Sweep：1 Oct/ per one minute. (logarithmic) 4. Test Axis : X,Y and Z axis 5. Test time :10 min. each axis 6. System condition : Non-Operating mode 7. Reference IEC 60068-2-6 Testing procedures <u>Package Vibration Test</u> 1. PSD: 0.026G²/Hz , 2.16 Grms 2. Non-operation mode 3. Test Frequency : 5-500Hz 4. Test Axis : X,Y and Z axis 5. 30 min. per each axis 6. IEC 60068-2-64 Test:Fh <u>Random Vibration Operation</u> 1. PSD: 0.0505G²/Hz, 1.5 Grms 2. operation mode 3. Test Frequency : 5-500Hz 4. Test Axis : X,Y and Z axis 5. 30 minutes per each axis 6. IEC 60068-2-64 Test:Fh 7. Storage : N/A
Mechanical Shock Test	<u>Bump Test</u> 1. Wave form：Half Sine wave 2. Acceleration Rate：10g for operation mode 3. Duration Time：11ms 4. No. of Shock：Z axis 300 times 5. Test Axis: Z axis 6. Operation mode 7. Reference IEC 60068-2-29 Testing procedures Test Eb : Bump Test
Drop Test	<u>Packing Drop</u> 1. One corner , three edges, six faces 2. ISTA 2A, IEC-60068-2-32 Test:Ed
Operating Temperature	0°C ~ 50°C (32°F ~ 122°F), ambient w/ air flow
Operating Humidity	5 ~ 90% Relative Humidity, Non-condensing

Storage Temperature	-20°C ~ 60°C (-4°F ~ 140°F)

Note: Specifications are subject to change without notice.

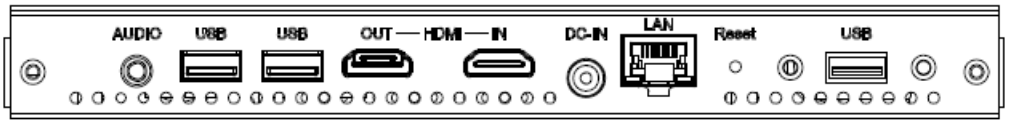
Remark:

When HDMI monitor is connected to HDMI-out connector, the content from Display Over Ethernet (DoE) is switched to HDMI monitor and the content from HDMI-In remains on IP monitor screen.

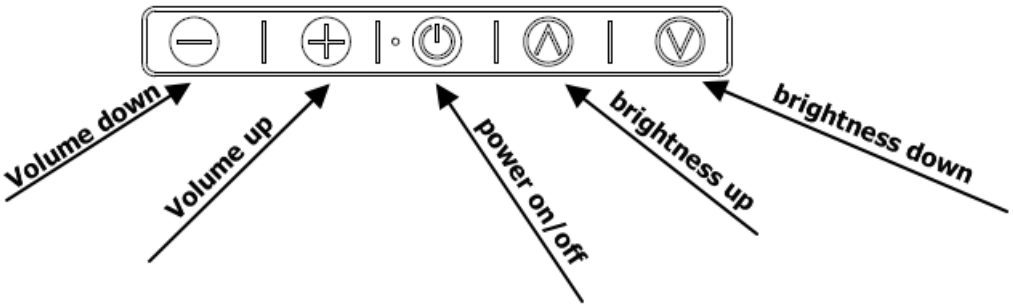


1.4 System Overview

1.4.1 Rear View



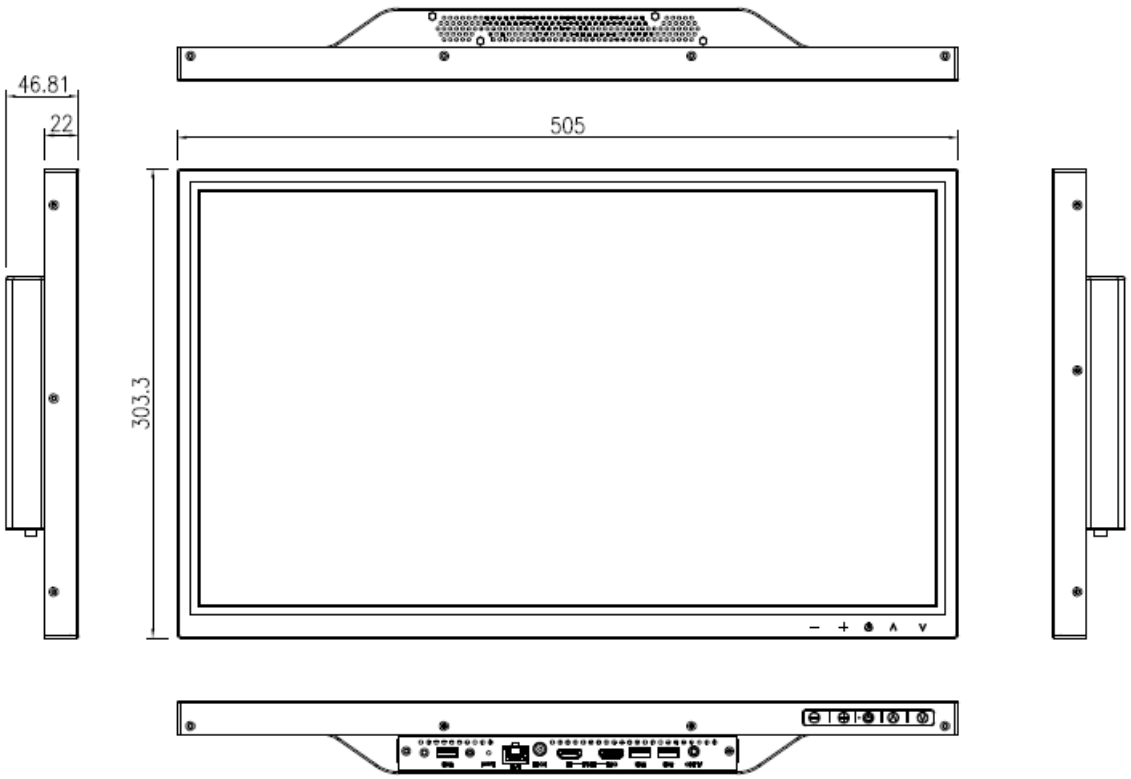
1.4.2 Membrane

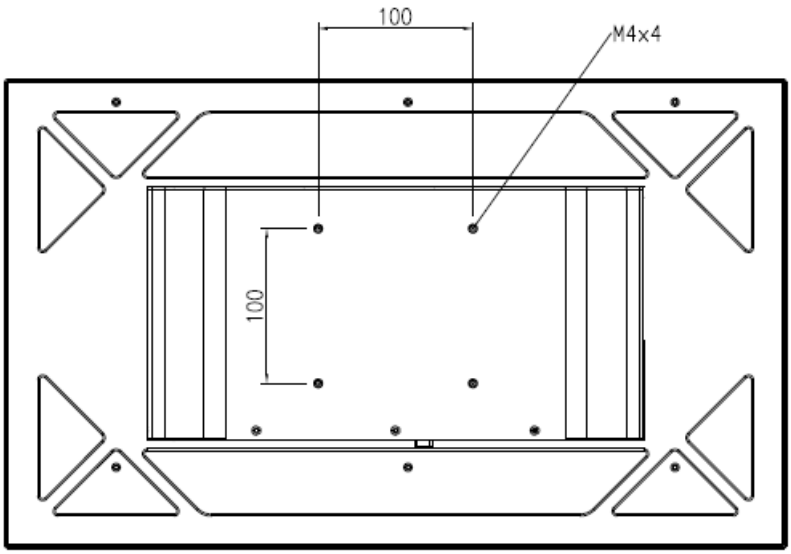


Connectors

Label	Function	Note
HDMI-IN	HDMI-IN connector	
HDMI-OUT	HDMI-OUT connector	
DC IN	DC Power-in connector	
LAN	RJ45 Gigabit Ethernet(with Powered LAN) connector	
Audio	Audio connector	
USB	3 x USB 2.0 connector	
Reset	Reset button	

1.5 System Dimensions





(Unit: mm)