EPD-42T

42" Communication Board

Quick Reference Guide

1st Ed – 02 June 2020

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Part No. E2017E4T0A0R

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 "B" 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 INSTATLLED 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.

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.

Your satisfaction is our primary concern. Here is a guide to Avalue's customer services. To ensure you get the full benefit of our services, please follow the instructions below carefully.

Technical Support

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/

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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 EPD-42T 42" Communication Board
- 1 x Power Adapter
- 1 x US Power cord
- 1 x Wall mounting bracket
- 1 x Wall locking bracket
- 1 x Pan head screws (D6.8, M4*10mm) with washer (D8.1)
- 4 x Thumb screws (M4*10L)
- 2 x Pan head screws (D6.85, M4*6mm)

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

1.3 System Specifications

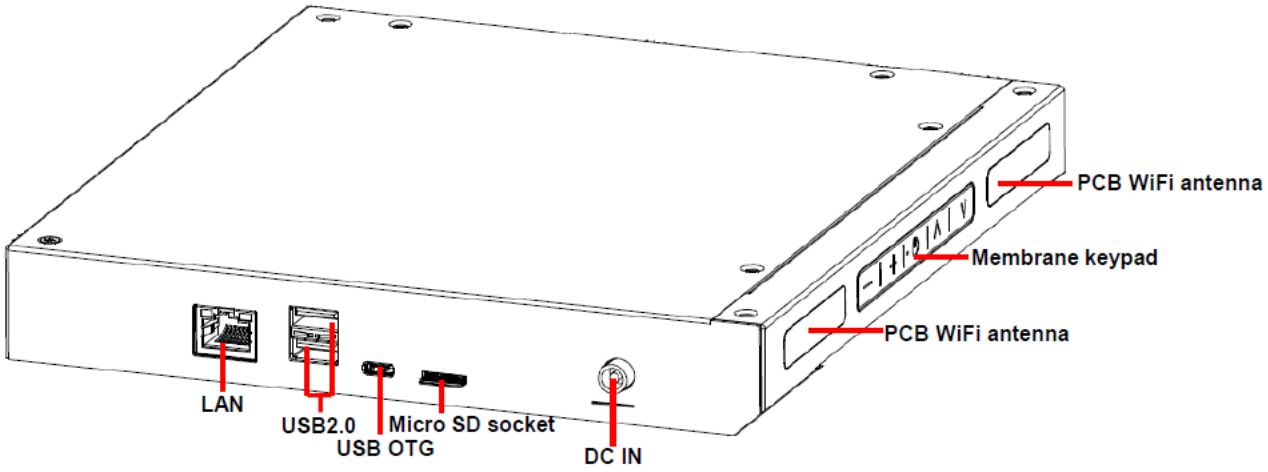
System	
CPU	NXP i.MX 7Dual Processor Dual Arm® Cortex®-A7 Cores And Cortex-M4
SBC	EMX-IMX7
System Chipset	NXP MCIMX7D7DVM10SD
GPIO Chip	PCA9555
System Memory	On-Board 2GB DDR3L
Battery	Wide Temperature RTC Battery
Expansion	1 x M.2 E-Key Socket for WiFi module
Storage	
Combination	On-Board 8GB eMMC microSD Socket
External I/O	
USB Port	2 x USB 2.0, 1 x Micro USB slot (USB OTG)
Others	2 x Antenna with dust cover, 5 x membrane function key
LED	1 x Stack LED for PWR
LAN	1 x LAN RJ-45 port supports 10/100/1000 Base-T
Display	
Chipset	NXP i.MX 7Dual Processor Dual Arm® Cortex®-A7 Cores And Cortex-M4
Resolution	2160 x 2880@50Hz (E Ink: ED420TT1)
Touch Screen	Ilitek ILI2325 controller chip with PCAP touch
Ethernet	
Ethernet Interface	10/100/1000 Base-Tx compatible
Audio	
Chipset	Cirrus Logic WM8960
Audio Interface	2 x 8Ω/2W Speakers
Mechanical & Environmental	
Power Connector	Lockable DC Jack
Power Requirement	DC +12V / 5A
Power Type	AT/ATX (AT is default)
Dimension	918.8 x 704.6 x 37.6mm
Weight	6.5 KG
Color	Black
Mounting Kit	VESA Wall mount holes (100 x 100)

Reliability	
Vibration Test	With On-Board 8GB eMMC/On-Board 1GB DDR3L: 0.5Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 1hr/axis (Only for Z-axis)
Drop Test	Avalue Standard Test Criteria (Change to use ISTA-1A)
Operating Temperature	0°C ~ 40°C (w/SSD, mSATA) ambient with air flow
Operating Humidity	5% ~ 90% relative humidity, non-condensing
Storage Temperature	-20°C ~ 60°C
Certification	CE/FCC Class B
OS Supported	Android/Linux

Note:

Specifications are subject to change without notice.

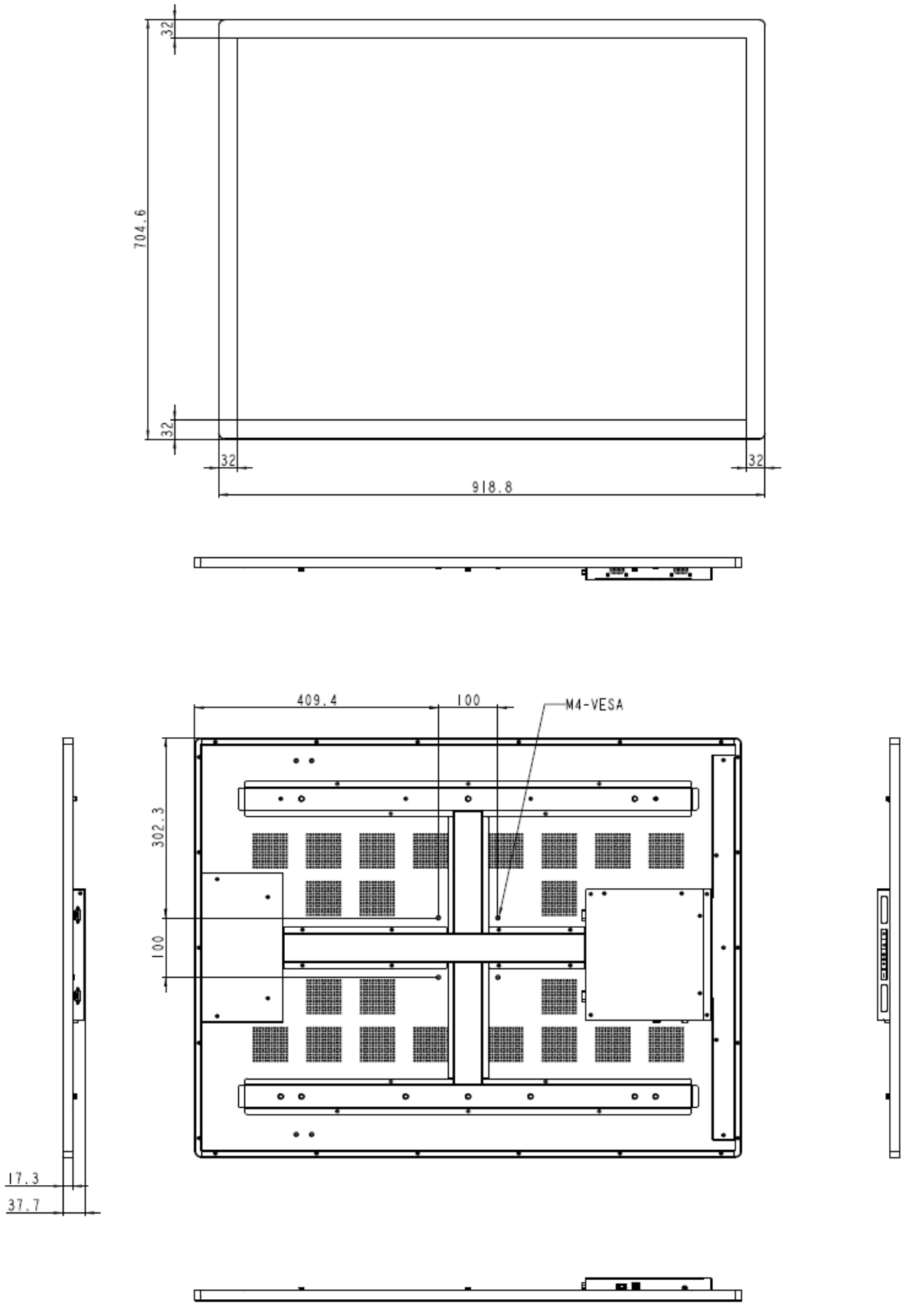
1.4 System Overview



Connectors

Label	Function	Note
LAN	RJ-45 Ethernet connector	
USB2.0	2 x USB2.0 connector	
USB OTG	USB OTG connector	
Micro SD socket	Micro SD socket	
DC IN	DC Power-in connector	
PCB WiFi antenna	2 x PCB WiFi antenna	
Membrane keypad	Membrane keypad	

1.5 System Dimensions



(Unit: mm)