EPD-2501

Public Information Display (Digital Signage)

Quick Reference Guide

1st Ed – 15 August 2023

Part No. E2017E511A0R

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-2501 Public Information Display (Digital Signage)
- 1 x Power Adapter

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

1.3 System Specifications

Component	
Mother Board	ECM-APL2-B1 + LT1000 TCON Board (E9697E51102R)
CPU	Onboard Intel® Celeron® SoC BGA Processor N3350 (Apollo Lake Platform)-(with CPU Bottom Mounted)
Memory	1x 204pin DDR3L SO-DIMM up to 8G B DDR3L 1866MTs SDRAM (Non-ECC)
Power Supply	+12V DC in
Adapter	+12V/5A (60W)
Speaker	2 x 2W (need to add AUX-031 Amplifier Board)
Wireless LAN	mPCIe Wi-Fi/BlueTooth module(ACC-WIFI-KIT-09R)(Optional)
Bluetooth	mPCIe Wi-Fi/BlueTooth module(ACC-WIFI-KIT-09R)(Optional)
Operating System	Linux (default)/ Windows 10 IoT
Storage	
Solid State Drive	1 x 2.5" Drive Bay
Other Storage Device	1 x mSATA (Shared mPCIe)
Panel	
LCD Panel	EInk EL253TV1 EInk AC253TT1(optional)
Screen	2.8mm Super Clear CG
External I/O	
Serial Port	1 x RS232
USB Port	4 x USB 3.1 (Gen1 5Gbps)
Video Port	1 x HDMI (3840x2160@30Hz)
Audio Port	2 x speaker out (L/R 1x2 header)
LAN Port	2 x RJ45 LAN port (2 x Intel® I211AT, 10/100/1000 Base-Tx Gigabit Ethernet Compatible)
Wireless LAN Antenna	2 x Antenna (E199TN00028R)
Switch	2 x Power Switch(1X LT1000, 1XECM-APL2)
Indicator Light	3 x LED indicator for power & Storage
Mechanical	
Power Type	Power Input: +12V/5A (60W) (accept +12V DC in)
Power Connector Type	Lockable DC Jack
Dimension	594.7 x 349.7 x 38.8 mm
Weight	4.4kg
Color	Black

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Fanless	Fanless
OS Support	Linux (default)/ Windows 10 IoT
Reliability	
EMI Test	CE / FCC Class B
Vibration Test	1.5Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 30min/axis
Mechanical Shock Test	10Grms, IEC 60068-2-27, Half Sine, 11ms
Drop Test	ISTA-2A, IEC-60068-2-32 (96.5cm)
Operating Temperature	15 ~ 30°C
Operating Humidity	30°C @ 95% Relative Humidity, Non-condensing
Storage Temperature	-25 ~ 60°C
Other Test	Front IP65

Note: Specifications are subject to change without notice.

1.4 System Overview
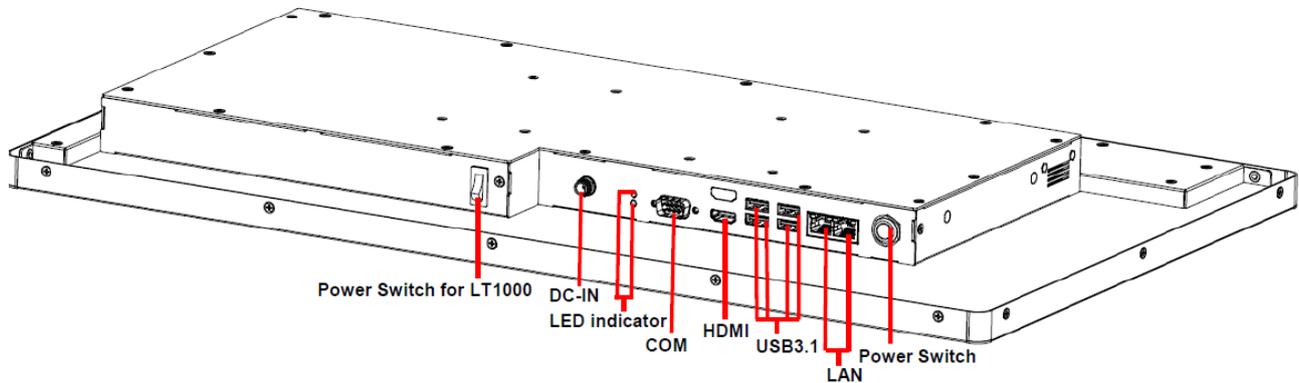
Connectors

Label	Function	Note
Power Switch for LT1000	Power Switch for LT1000	
DC-IN	DC Power-in connector	
LED indicator	2 x LED indicator	
COM	Serial port connector	
HDMI	HDMI connector	
USB3.1	4 x USB3.1 connector	
LAN	2 x RJ-45 Ethernet	
Power Switch	Power Switch	

1.5 System Dimensions

17. 5±0. 3   17. 5±0. 3

17. 5±0. 3

349. 7

17. 5±0. 3

17. 5±0. 3
38. 8±0. 3

594. 7

97. 35   474

197. 35   200

100

8-M4-VESA

124. 85

100
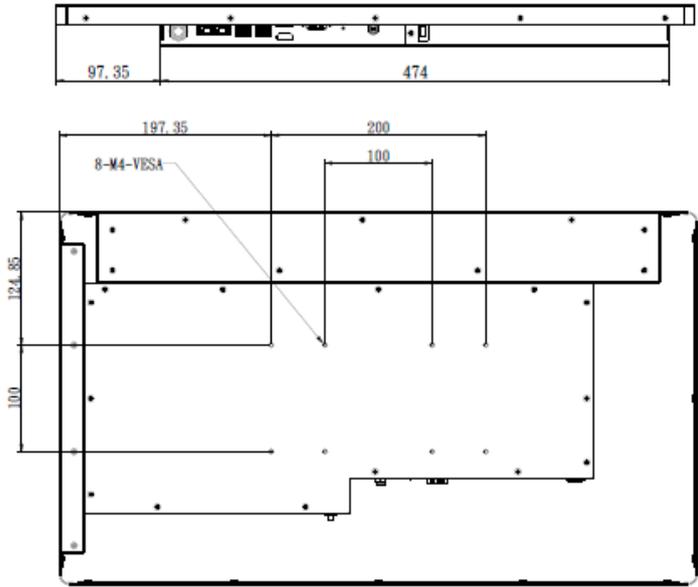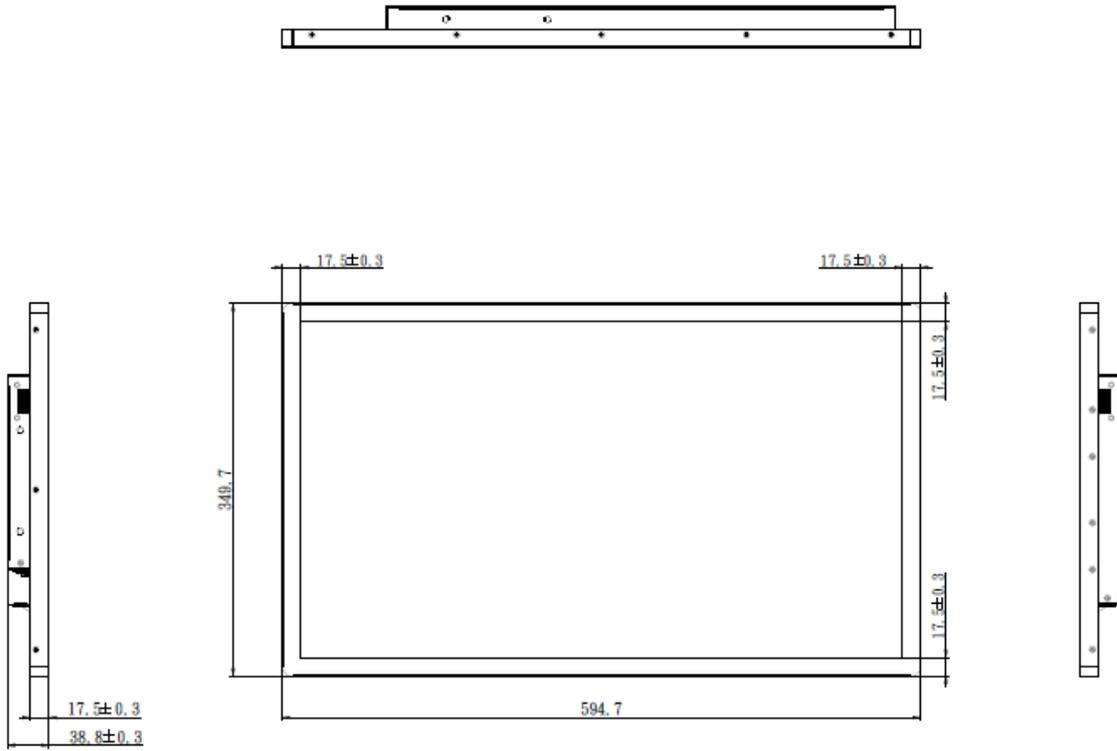
(Unit: mm)

2. Hardware Configuration

Note: If you need more information, please visit our website:

http://www.avalue.com.tw

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2.1 EPD-2501 connector mapping

2.1.1 Serial port connector (COM)
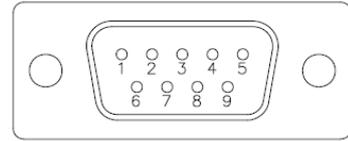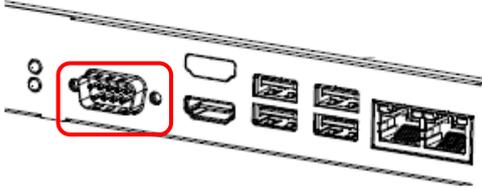
Signal	PIN	PIN	Signal
NDCD#	1	6	NDSR#
NRXD	2	7	NRTS#
NTXD	3	8	NCTS#
NDTR#	4	9	NRI#
GND	5		