

SPC-2133

21.5" Fanless Full IP-65 Stainless Steel Chassis Touch Panel
PC with Intel® Apollo Lake Solution

Quick Reference Guide

4th Ed – 20 August 2020

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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 UNDESIRE 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.

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 SPC-2133 Panel PC
- 1 x Power Adapter
- 1 x DC-in extended cable



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

1.3 System Specifications

| | |
|-------------------------------|--|
| Component | |
| Mother Board | EBM-APL N3350 |
| CPU | Onboard Processor |
| CPU Cooler (Type) | full flat rear cover |
| Memory | 4GB DDR3L |
| Power Supply | External power adapter |
| Adapter | AC/DC adapter 24V/2.5A 90 Plug Type ACC-ADP-060N-03R |
| System Fan | Fanless |
| Speaker | 2 x 5W |
| Wireless LAN | ACC-MPCI-E-WIFI-13R (Optional) |
| Operating System | Windows 10 |
| Storage | |
| Hard Disk Drive | 1 x 2.5" Drive Bay |
| Solid State Drive | 1 x 2.5" Drive Bay |
| Panel | |
| LCD Panel | 21.5" 21.5" FHD TFT LCD AUO T215HVN01.1 |
| LCD Control Board | Built-in |
| B/L Inverter/Converter | Built-in |
| Touch Screen | H8593C 21.5" PCAP Touch YoungFast |
| Touch Controller | For E968X000143R : EETI EXC3188 (Come with touch screen) |
| External I/O | |
| Serial Port | 1 x COM DB9 |
| USB Port | 3 x USB 2.0 |
| LAN Port | 1 x LAN |
| Wireless LAN Antenna | Internal 2 x antenna (Optional) |
| Expansion Slots | 1 x MiniPCIe Slot |
| Others | Side waterproof power button |
| Mechanical | |
| Power Type | AT/ATX |
| Power Connector Type | DC in 4pin M8 |
| Dimension | 595 x 386 x 58 mm |
| Weight | 9 Kgs |
| Color | Silver stainless |
| Fan-less | Full System Fan-less |
| Others | External waterproof DC cable |

SPC-2133

| | |
|------------------------------|--|
| Others | N4200 SKU: Tall USB cap in plastic, DB9 cap in plastic, other caps in metal. With rectifier solution in system. |
| Reliability | |
| EMI Test | CE, FCC Class B for all SKUs Model Name: SPC-2133 & OI-21V2X |
| Safety | LVD for EBM-APL N4200 SKU Model Name: OI-21V2X |
| Dust and Rain Test | Full IP-65, IP69K for all SKUs |
| Vibration Test | With SSD/mSATA : 1.5Grms, IEC 60068-2-64, Random, 5 ~ 500Hz, 30min/axis |
| Mechanical Shock Test | With CF/SSD : 10Grms, IEC 60068-2-27, Half Sine, 11ms |
| Drop Test | EC-60068-2-32 (96.5cm) |
| Operating Temperature | 0°C ~ 40°C (32°F ~ 104°F) |
| Operating Humidity | 0% ~ 90% Relative Humidity, Non-condensing |
| Storage Temperature | -10°C ~ 50°C (14°F ~ 122°F) |

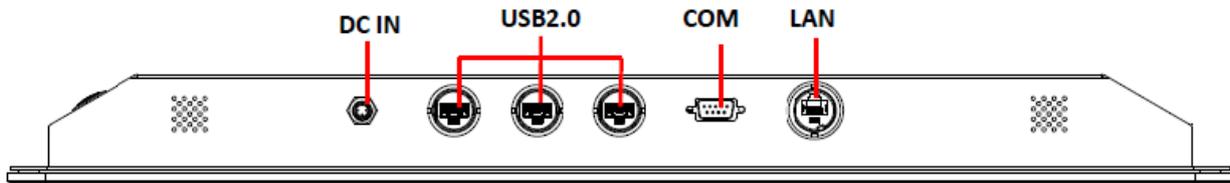


Note:

Specifications are subject to change without notice.

1.4 System Overview

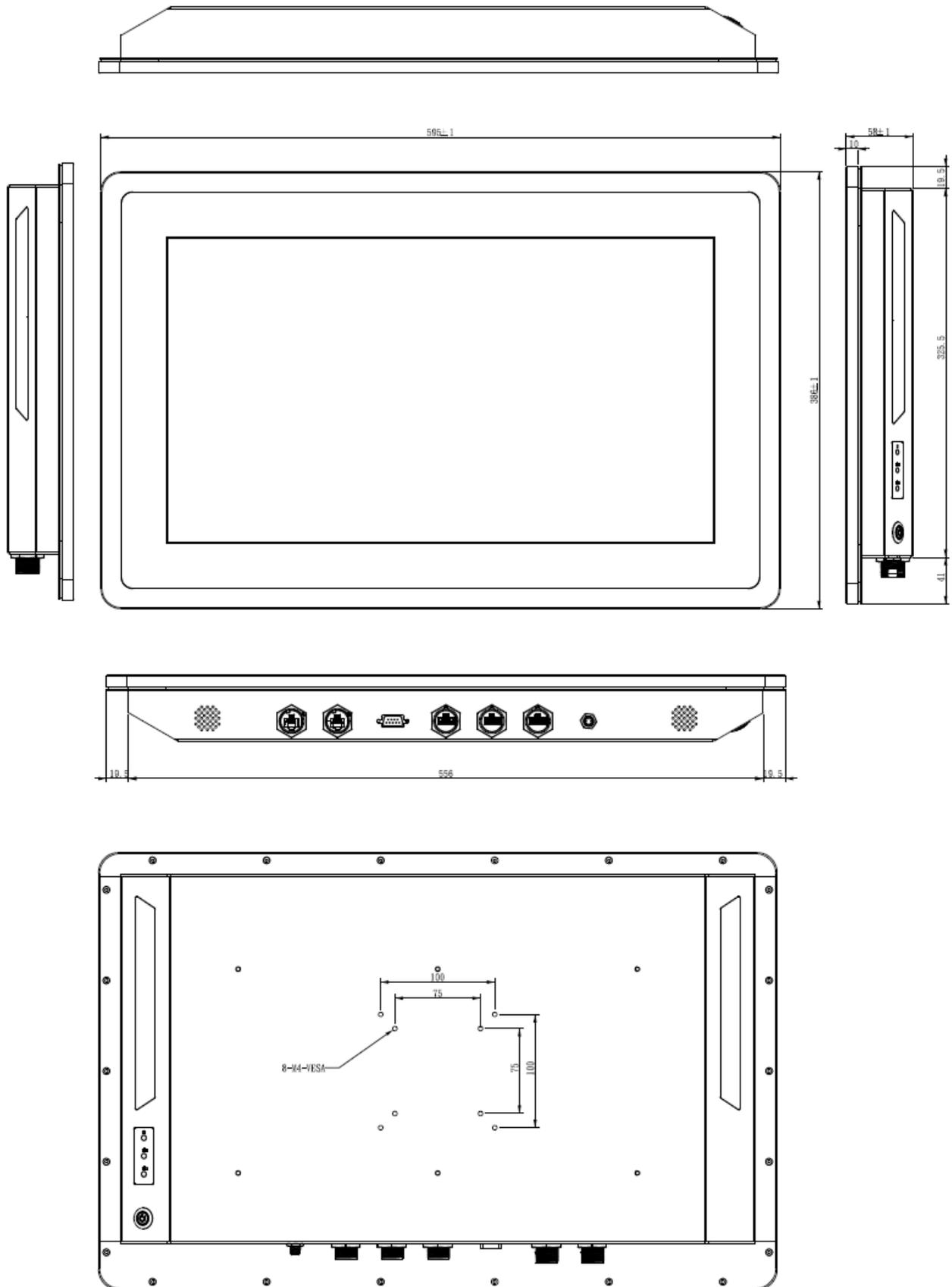
1.4.1 Bottom View



Connectors

| Label | Function | Note |
|--------|--------------------------|---------------------|
| COM | Serial port connector | DB-9 male connector |
| USB2.0 | 3 x USB2.0 connector | |
| LAN | RJ-45 Ethernet connector | |
| DC IN | DC Power-in connector | |

1.5 System Dimensions



(Unit: mm)

2. Hardware Configuration

For advanced information, please refer to:

- 1- EBM-APL User's Manual

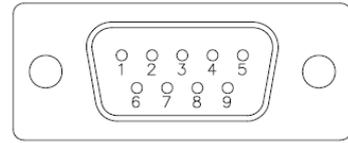
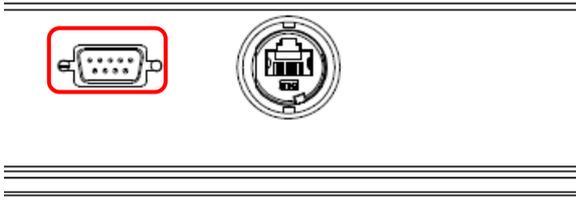


Note: If you need more information, please visit our website:

<http://www.avalue.com.tw>

2.1 SPC-2133 connector mapping

2.1.1 Serial port connector (COM)



| Signal | PIN | PIN | Signal |
|--------|-----|-----|--------|
| DCD | 1 | 6 | DSR |
| RXD | 2 | 7 | RTS |
| TXD | 3 | 8 | CTS |
| DTR | 4 | 9 | RI |
| GND | 5 | | |

