

## PPC-3100-RE9A/PPC-3120-RE9A 10.4/12.1" Fanless Panel PC with Intel® Atom™ E3940 Processor Startup Manual

### Packing List

Before card installation, check that the following items are included with the product:

1. 1 x PPC-3100/3120 panel PC
2. 1 x PPC-3100/3120 3-in-1 startup manual
3. 2 x Phoenix connector
4. 8 x Mount brackets
5. 8 x Mount screws

If any of the above items are missing or damaged, contact your distributor or sales representative immediately.

### Software Installation

Before installing software on the panel PC, install the corresponding drivers to ensure full functionality.

All drivers can be downloaded from the Advantech website at <http://www.advantech.com>.

### Layout

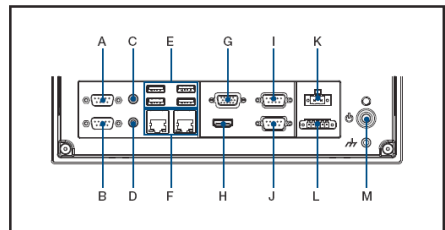


Front View



Rear View

### System I/O



- |                 |                               |
|-----------------|-------------------------------|
| A. COM4: RS-232 | H. HDMI                       |
| B. COM5: RS-232 | I. COM1: RS-232               |
| C. Line Out     | J. COM2: RS-232               |
| D. Mic In       | K. DC Inlet and AT/ATX switch |
| E. 4 x USB 3.0  | L. COM3: Isolated RS-422/485  |
| F. 2 x LAN      | M. Power Button               |
| G. VGA          |                               |

For more information about this product, visit the Advantech website at

[http://www.advantech.com/products/fanless-panel-pcs/sub\\_1-2/kjm3](http://www.advantech.com/products/fanless-panel-pcs/sub_1-2/kjm3)



For technical support and customer service, visit the Advantech support website at

[http://support.advantech.com/support/new\\_default.aspx](http://support.advantech.com/support/new_default.aspx)



This manual is for the PPC-3100-RE9A/3120-RE9A series, Rev. A0.

Part No. 2043310001  
Printed in China

Edition 2  
October 2020

## Specifications

	PPC-3100-RE9A	PPC-3120-RE9A
LCD Panel	10.4"	12.1"
Display Type	TFT LCD	TFT LCD
Max. Resolution	800 x 600	1024 x 768
Brightness	400 nits	600 nits
Color	262k/16.2M	262k/16.2M
Pixel Pitch (H x V)	0.264 x 0.264	0.240 x 0.240
Viewing Angle	160°, 140°	160°, 140°
Contrast	700	700
Backlight Lifetime	30,000 hrs (minimum)	50,000 hrs (minimum)
Touchscreen Type	5-wire resistive touch	
Light Transmission	80±5%	
Controller	USB interface	
Durability	At least 35 million touches at the same point without failure	
Processor	Intel® Atom™ E3940 quad core	
Memory	1 x SODIMM DDR3L 1866 MHz (max. 8 GB)	
Storage	1 x 2.5" SATA bay, 1 x mSATA bay	
Network (LAN)	2 x 10/100/1000 Mbps Ethernet	
I/O	5 x Serial ports: 4 x RS-232, 1 x isolated RS-422/485 (adjustable via BIOS) 4 x USB 3.0 1 x Line-out, 1 x Mic-in 1 x VGA 1 x HDMI 1 x GPIO (8 channels, TTL level, internal)	
Expansion	1 x Mini PCIe Optional for PPC-3120: 1 x PCIe x1 or 1 x PCI	
Speaker	2 x 1W	
OS Support	Microsoft® Windows 10 (64 bit), Windows 10 LTSC, Linux, Android 8.1	
Power Supply	9 ~ 32 Vdc	
Power Consumption*	25W	36W
Operating Temperature	0 ~ 50 °C (32 ~ 122 °F) with 2.5" SATA SSD -20 ~ 60 °C (-4 ~ 140 °F) with -40 ~ 85 °C mSATA or 2.5" SATA SSD	
Storage Temperature	-30~ 60 °C (-22 ~ 140 °F)	-40 ~ 60 °C (-40 ~ 140 °F)
Relative Humidity	10 ~ 95% @ 40 °C (non-condensing)	
Shock	Operating 10G peak acceleration (11 ms duration), in accordance with IEC 60068-2-27	
Vibration	Operating random vibration test, 5 ~ 500 Hz, 1Grms with HDD/ 2Grms with SSD, in accordance with IEC 60068-2-64	
Safety and EMC	Safety: CB, UL, CCC EMC: CE, FCC Class B, BSMI	
Dimensions	271.8 x 216.8 x 57.5 mm (10.7 x 8.5 x 2.3 in)	317 x 246 x 60.5 mm (12.5 x 9.7 x 2.4 in)
Weight	2.8 kg (6.17 lb)	3.4 kg (7.5 lb)

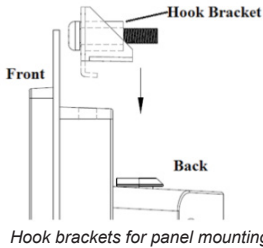
\*Power consumption test conditions:

Windows 10 (64 bit), Burn-In 8.0, COM port RS-232, 4 x loopbacks, 3 x USB 3.0 devices, and 1 x USB mouse

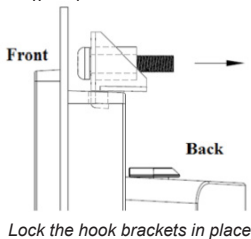
## System Mounting

To mount the flat-bezel panel PC, follow the steps outlined below.

1. Prepare a panel cutout according to the panel PC dimensions.  
(Panel cutout dimensions  
For PPC-3100: 265 x 210 mm/10.43 x 8.26 in  
For PPC-3120: 311 x 240 mm/12.24 x 9.44 in)
2. Install the panel PC in the cutout. Retrieve the 8 hook brackets and M6 x 21 screws from the accessory box.

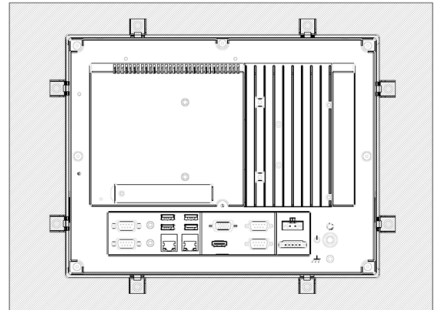
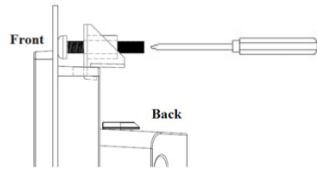


3. Insert the hook brackets into the holes as shown in the figure above. Then move the hook brackets in the direction of the arrow shown in the figure below to lock them in place. Hang the panel PC from the hook brackets.



## System Mounting (Cont.)

4. Tighten the screws to affix the panel PC in place.



## Safety Instructions

1. Read these safety instructions carefully.
2. Retain this startup manual for future reference.
3. Disconnect the equipment from all power outlets before cleaning. Use only a damp cloth for cleaning. Do not use liquid or spray detergents.
4. For pluggable equipment, the power outlet socket must be located near the equipment and easily accessible.
5. Protect the equipment from humidity.
6. Place the equipment on a reliable surface during installation. Dropping or letting the equipment fall may cause damage.
7. The openings on the enclosure are for air convection. Protect the equipment from overheating. Do not cover the openings.
8. Ensure that the voltage of the power source is correct before connecting the equipment to a power outlet. The power outlet socket should be grounded.
9. Position the power cord away from high-traffic areas. Do not place anything over the power cord.
10. All cautions and warnings on the equipment should be noted.
11. If the equipment is not used for a long time, disconnect it from the power source to avoid damage from transient overvoltage.
12. Never pour liquid into an opening. This may cause fire or electrical shock.
13. Never open the equipment. For safety reasons, the equipment should be opened only by qualified service personnel.
14. If one of the following occurs, have the equipment checked by service personnel:
  - The power cord or plug is damaged.
  - Liquid has penetrated the equipment.
  - The equipment has been exposed to moisture.
  - The equipment is malfunctioning or does not function according to the user manual.
  - The equipment has been dropped or damaged.
  - The equipment shows obvious signs of breakage.

## Safety Instructions (Cont.)

15. Do not leave the equipment in an environment with a storage temperature of below -30 °C (-22 °F) or above 60 °C (140 °F) as this may cause damage. The equipment should be kept in a controlled environment.
16. CAUTION: Batteries are at risk of exploding if incorrectly replaced. Replace only with the same or equivalent type as recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.  
ATTENTION: Il y a danger d'explosion s'il y a un remplacement incorrect de la pile. Remplacer uniquement avec une pile du même type ou d'un type équivalent recommandé par le constructeur.
17. In accordance with the IEC 704-1:1982 specifications, the sound pressure level at the operator's position does not exceed 70 dB (A).
18. This product is intended to be supplied by a listed power adapter or DC power source rated 9 ~ 32 V<sub>DC</sub>, 7~2A, and TMA 60 °C.
19. RESTRICTED ACCESS AREA: The equipment should only be installed in a restricted access area.
20. DISCLAIMER: These instructions are provided in accordance with IEC 704-1 standards. Advantech disclaims all responsibility for the accuracy of any statements contained herein.
21. CAUTION: This product is not intended for use by children and is not suitable for use in locations where children are likely to be present (this product is not a toy).
22. Keep the monitor away from direct sunlight, strong bright lights, and any other heat source. Lengthy exposure to such environments may result in discoloration and damage to the monitor.