

PPC-1528/1728/2128

15"/17"/21.5" XGA TFT Fanless Multifunctional Plastic
Panel PC with Intel® Core™ i5/i3 CPU

Quick Reference Guide

1st Ed – 15 July 2015

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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:

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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 PPC-1528/1728/2128 Panel PC
- 1 x Driver/Utility DVD-ROM
- 1 x packing set includes the followings:
 - 1 x power cord
 - 1 x AC/DC adapter 12V/5A 60W(PPC-1528/1728); 12V/7A 84W(PPC-2128)



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

1.3 System Specifications

Component		
Model	PPC-1528	PPC-1728
Mother Board	EBM-QM87U	
CPU	Onboard Intel® Core™ i5/i3 CPU	
CPU Cooler (Type)	Fanless Heat Pipe	
Memory	Two 204-pin SODIMM Supports Up to 16GB DDR3L 1600MHz SDRAM	
Audio Codec	RealTek ALC892-GR	
Power Supply	External power adapter	
Adapter	FSP060-DBAE1	
System Fan	Fanless	
Speaker	8Ω 2W*2	
Camera	2.0M CMOS WCAM w/ Mic-in (ACC-NBCAM-006)	
Wireless LAN	ABOCOM WM5201 Mini PCI-E, 802.11 b/g/n (Optional)	
Operating System	Windows 7 Windows Embedded Standard 7 Windows Embedded POSReady 7 Windows 7 For Embedded System	
Storage		
Hard Disk Drive	2.5" HDD	
Solid State Drive	2.5" SSD	
Other Storage Device	Type I/II CF	
Panel		
LCD Panel	15" XGA TFT LCD 1024*768 G150XGE-L05	17" SXGA TFT LCD AUO G170EG01 V1
LCD Control Board	Built-in	
B/L Inverter/Converter	Built-in	
Touch Screen	T150S-5RB017N-0A18R0-200FH 5 wire Analog	T170S-5RB004N-0A18R0-200FH
Touch Controller	Onboard Touch controller EETI ETP-CP-MER4485XRU V1.008.A	
External I/O		
Serial Port	2 x COM D-sub 9 pin (1 For Optional)	
USB Port	4 x USB (2 For Optional)	
Video Port	1 x HDMI	
Audio Port	1 x Line out (RealTek ALC892-GR)	
LAN Port	1 x Intel I210AT GbE controller 1 x Intel I218LM GbE PHY	1 x RJ-45 Intel WGI210AT/SLJXR 1 x RJ-45 Intel WGI218LM/SLK3B

Wireless LAN Antenna	PCB Antenna 2.4/5.0GHz-IPEX Ø1.13mm 50cm (Optional)	
Switch	1 x Power switch	
Mechanical		
Power Type	AT/ATX	
Power Connector Type	Lockable DC Jack	
Dimension	351mm x 319mm x 54mm	391.5mm x 364.5mm x 59mm
Weight	4.9 Kgs	5.9 Kgs
Color	Black and White	
Fanless	Fanless	
Reliability		
EMI Test	Class B	
Safety	CE / FCC	
Operating Temperature	0°C ~ 40°C	
Operating Humidity	10% to 95% @ 40°C, Non-condensing	
Storage Temperature	-10°C ~ 50°C	

Component	
Model	PPC-2128
Mother Board	EBM-QM87U
CPU	Onboard Intel® Core™ i5/i3 CPU
CPU Cooler (Type)	Fanless Heat Pipe
Memory	Two 204-pin SODIMM Supports Up to 16GB DDR3L 1600MHz SDRAM
Audio Codec	RealTek ALC892-GR
Power Supply	External power adapter
Adapter	FSP060-DBAE1
System Fan	Fanless
Speaker	8Ω 2W*2
Camera	Optional 2.0M CMOS WCAM w/ Mic-in (ACC-NBCAM-006)
Wireless LAN	Optional ABOCOM WM5201 Mini PCI-E, 802.11 b/g/n (Optional)
Operating System	Windows 7 Windows Embedded Standard 7 Windows Embedded POSReady 7 Windows 7 For Embedded System Windows 8.1
Storage	
Hard Disk Drive	2.5" HDD
Solid State Drive	2.5" SSD (Default ACC-2SFD-32G-23R)
Other Storage Device	Type I/II CF
Panel	
LCD Panel	21.5" SXGA TFT LCD 1920*1080 AUO T215HVN01.0
B/L Inverter/Converter	LED Driving board ADB-2850-60 V2.4
Touch Screen	T216S-5RB005N-0A28R0-200PH
Touch Controller	EETI ETP-CP-S458XRU
External I/O	
Serial Port	2 x COM D-sub 9 pin (1 For Optional)
USB Port	2 x USB 3.0 2 x USB 2.0 (For Optinal)
Video Port	1 x HDMI
Audio Port	1 x Line out (RealTek ALC892-GR)
LAN Port	1 x RJ-45 Intel WGI210AT/SLJXR 1 x RJ-45 Intel WGI218LM/SLK3B
Wireless LAN Antenna	Optional PCB Antenna 2.4/5.0GHz-IPEX Ø1.13mm 50cm
Expansion Slots	1 x MiniPCIe Slot
Mechanical	

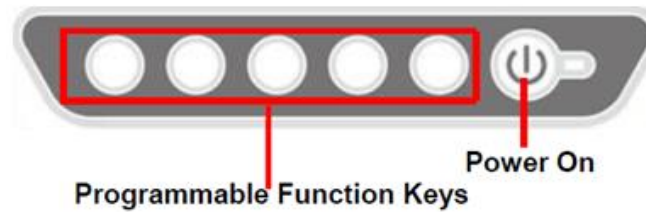
Power Type	AT/ATX
Power Connector Type	Lockable DC Jack
Dimension	542mm x 382mm x 63mm
Weight	8.5 Kgs
Color	White and Gray
Fanless	Fanless
Reliability	
EMI Test	Class B
Safety	CE / FCC
Operating Temperature	0°C ~ 40°C
Operating Humidity	10% to 95% @ 40°C, Non-condensing
Storage Temperature	-10°C ~ 50°C



Note: Specifications are subject to change without notice.

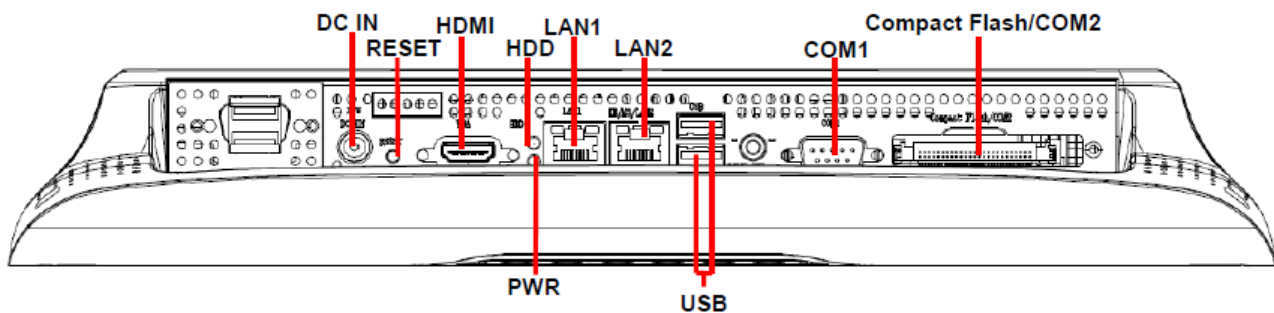
1.4 System Overview

1.4.1 Front View

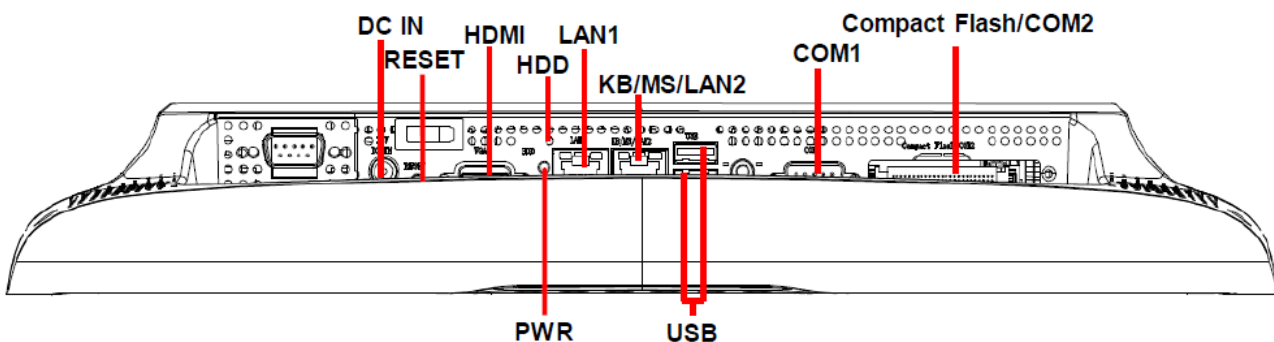


Note: The programmable function keys are available to be programmed by the user, and they are unable to work unless programmed.

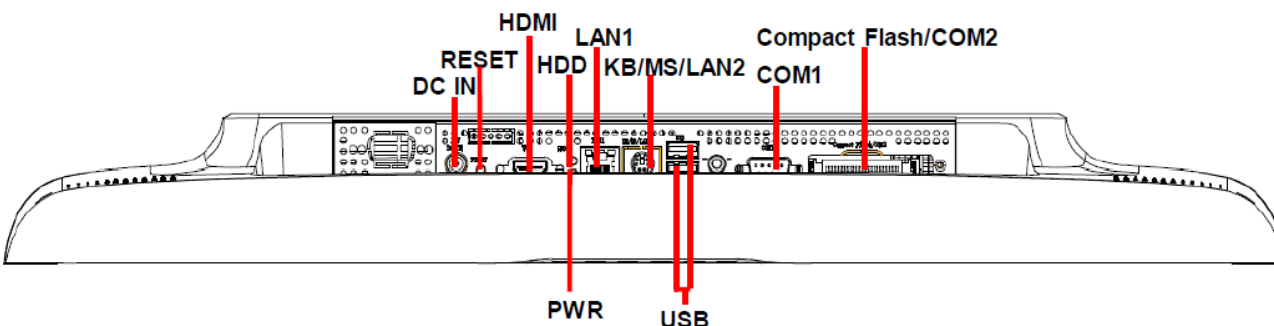
1.4.2 PPC-1528 Rear View



1.4.3 PPC-1728 Rear View



1.4.4 PPC-2128 Rear View

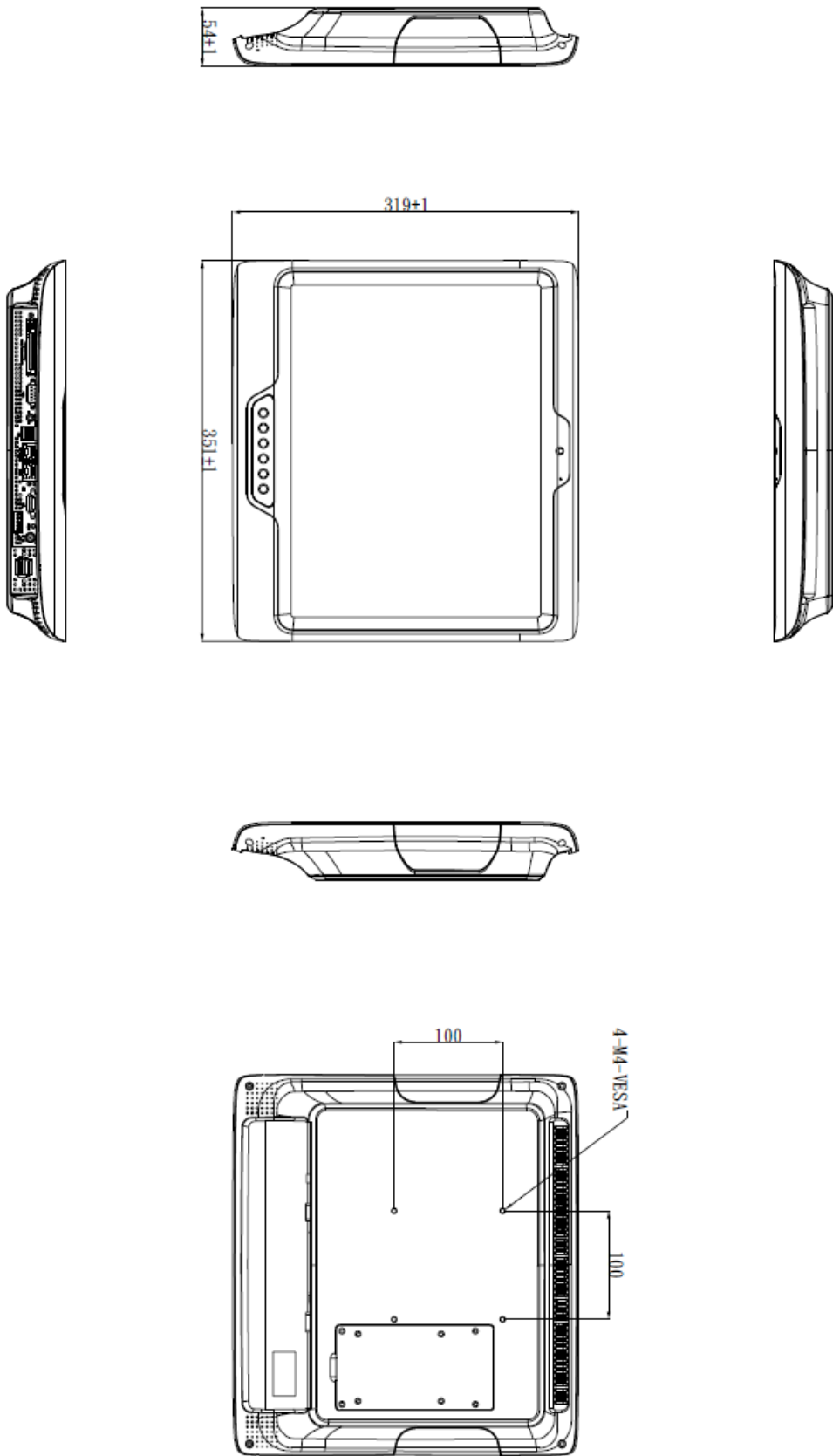


Connectors

Label	Function	Note
COM1	External Serial port 1 connector	DB-9 male connector
Compact Flash/COM2	CF Type I/II Socket with Ejector	
DC IN	DC Power-in connector	
HDD	HDD LED	
LAN1	RJ-45 Ethernet connector	
KB/MS/LAN2	PS/2 keyboard & mouse connector Optional 2 nd LAN	
PWR	Power LED	
RESET	Reset button	
USB	4 x USB 2.0 connector (2 x USB 2.0 For Optional) (FPC-1528/1728) 2 x USB 3.0 connector 2 x USB 2.0 connector (For Optional) (FPC-2128)	
HDMI	HDMI connector	

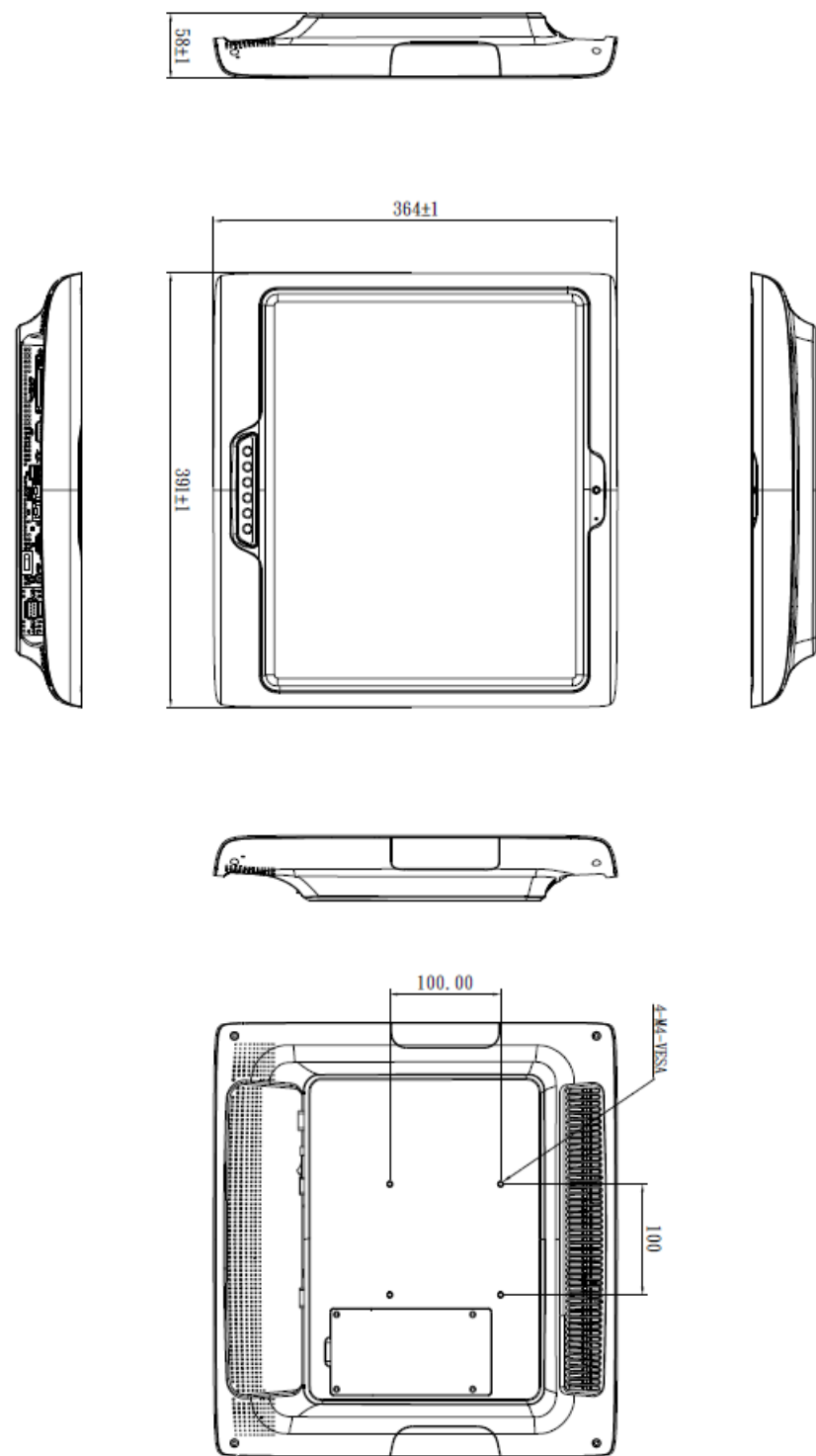
1.5 System Dimensions

1.5.1 PPC-1528



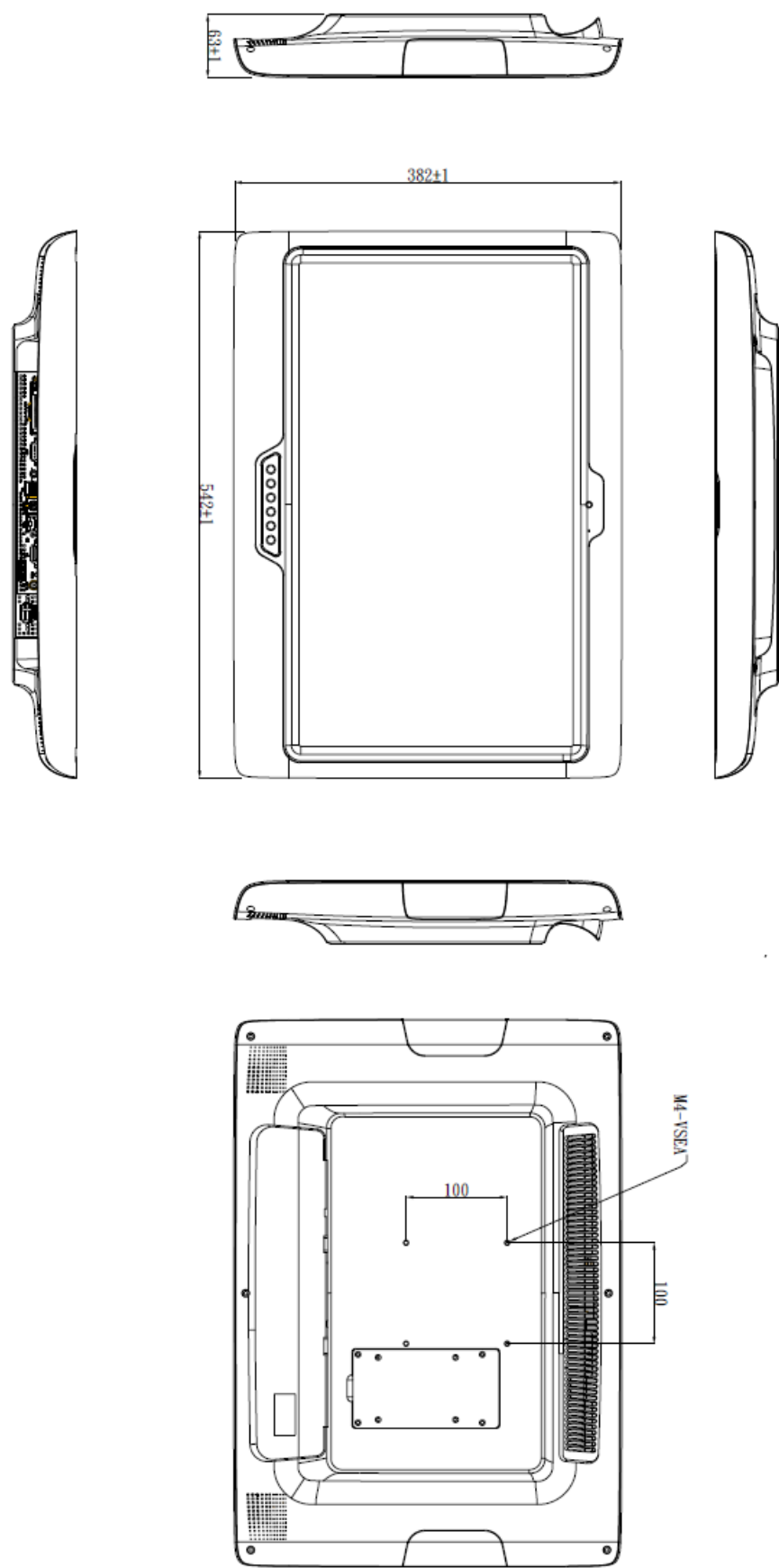
(Unit: mm)

1.5.2 PPC-1728



(Unit: mm)

1.5.3 PPC-2128



(Unit: mm)

2. Hardware Configuration

- Please refer to EBM-QM87U User's Manual.

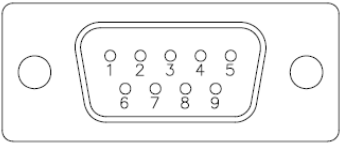
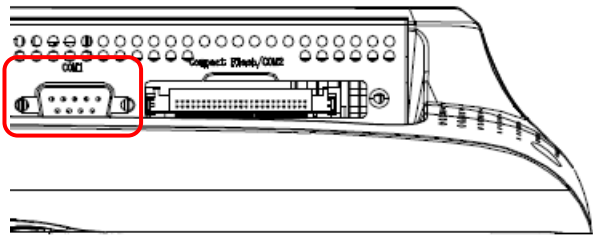


Note: If you need more information, please visit our website:

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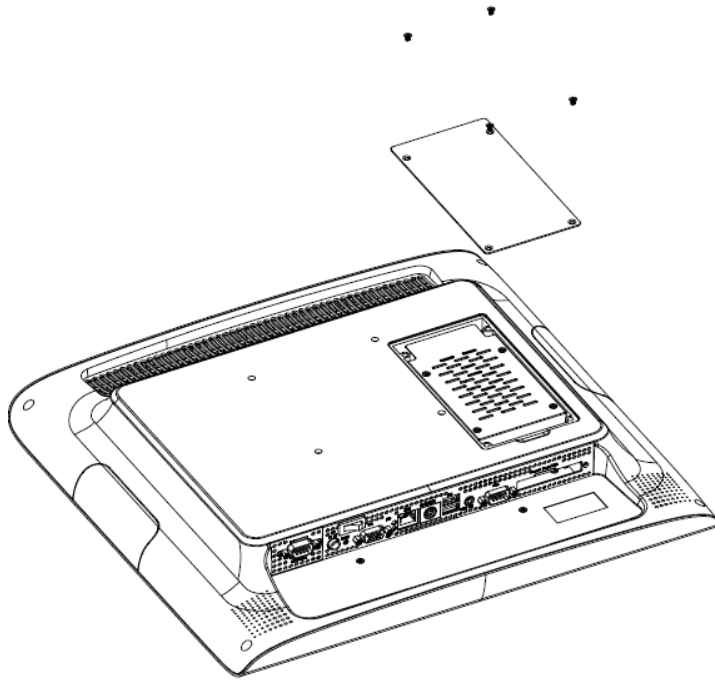
2.1 PPC-1528/1728/2128 connector mapping

2.1.1 External Serial port 1 connector (COM1)



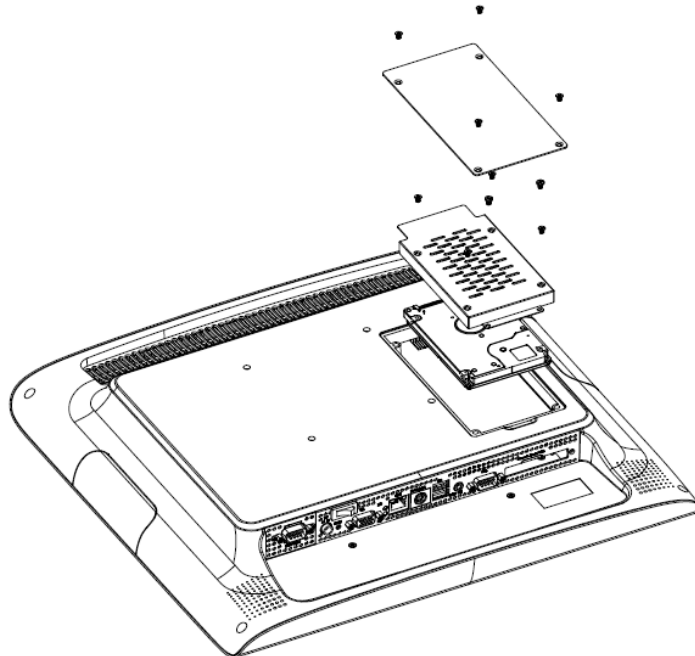
Signal	PIN	PIN	Signal
DCD	1	6	DSR
RXD	2	7	RTS
TXD	3	8	CTS
DTR	4	9	RI
GND	5		

2.2 Installing Hard Disk & Memory



Step 1. Unfasten 4 screws from the rear middle side of your panel.

Step 2. Remove the HDD service window.



Step 3. Slide HDD into its bracket until properly seated.

Step 4. Secure HDD by means of 4 screws.

