

# **FPC 17"~21"W Series**

17"/18"W/21"W Flexible TFT Touch Panel PC

## **Quick Reference Guide**

---

2nd Ed – 8 August, 2011

# Contents

<b>1. Getting Started</b> .....	<b>3</b>
1.1 Safety Precautions .....	3
1.2 Packing List .....	3
1.3 System Specifications .....	4
1.3.1. 17" Series.....	4
1.3.2. 18.5" "widescreen" Series .....	7
1.3.3. 21" "widescreen" Series .....	10
1.4 System Overview.....	13
1.4.1 Rear View.....	13
1.5 System Dimensions.....	14
1.5.1 FPC 17" Series .....	14
1.5.2 18.5" "widescreen" Series .....	15
1.5.3 FPC 21" Widescreen Series .....	16
<b>2. Hardware Configuration</b> .....	<b>17</b>
2.1 Jumper and Connector Setting, Driver and BIOS Installing.....	17
2.2 Installing Hard Disk & Memory .....	18
2.2.1 Install HDD .....	19
2.2.1.1 2.5" SATA HDD .....	19

# 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 FPC 17"/18"W/21"W Series Panel PC
- 1 x CD/DVD-ROM contains the followings:
  - Quick Reference Guide (this manual in PDF file)
  - Ethernet driver and utilities
  - VGA drivers and utilities
  - Audio drivers and utilities
  - Wi-Fi drivers and utilities
  - Touch controller drivers and utilities
  - Chipset drivers and utilities
- 1 x packing set includes the followings
  - 1 x power cord
  - 1 x cable set for IDE, SATA, COM
  - 1 x antenna (for optional Wi-Fi)



---

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

---

## 1.3 System Specifications

### 1.3.1. 17" Series

Panel			
	FPC-1701	FPC-1702	FPC-1705
LCD size	17.0", 4:3		
Display type	SXGA TFT		
Resolution	1028 x 1024		
Color	16.7M		
Pixel pitch	0.264mm(H) x 0.264mm(V)		
Luminance	350 cd/m <sup>2</sup>		
Contrast ratio	1000		
Viewing angle	80(U), 85(D), 85(L), 85(R)		
Response time	5 ms		
Backlight	4 x CCFL		
Touch Type	5 Wires resistive		
Touch Light Transmission	80%		
Touch Interface	USB		
System			
Board	EMX-945GME3	EMX-965GME	EMX-PNV
CPU	Supports Intel μFC-PGA Core™Duo/Core™Solo/Core™2 Duo with 65nm process technology	Supports Intel® socket P Core™Duo /Core™Solo/Core™2 Duo with 65nm process technology	Onboard Intel® Atom™ Dual-Core 1.8 GHz CPU
Cooling method	Active CPU cooler		Passive CPU heatsink
System Chipset	Intel®82945GME GMCH / ICH7-M	Intel® GME965 GMCH / ICH8-M	Intel® ICH8-M
I/O Chip	Winbond W83627DHG-A		Winbond 83627DHG
Memory	Two 240-pin DIMM socket supports up to 4GB DDR2 533/667	Two 200-pin SODIMM socket supports up to 4GB DDR2 533/667	1 SODIMM socket supports up to 2GB SDRAM
SSD	One CompactFlash Type I/II socket (Purchase from Avalue Highly recommended)		
HDD Drive Bay	1 x 2.5" SATA		



Rear Panel I/O		
Serial Port	3 x RS-232	
Ethernet	1 x Realtek GigLAN port	2 x LAN ports (Realtek RTL8111B Gigabit LAN)   2 x LAN ports (Intel 82583V Gigabit LAN)
WiFi	Optional USB WiFi 802.11 b/g (occupy one USB port)	
VGA	1 x DB-15	
DVI	1 x DVI	n/a
HDMI	n/a	
Audio	Line out, Line in, Mic in	
USB	5 x USB 2.0	
Speaker	5W X 2	
Mouse & KB	1 x PS/2 Keyboard connector	
Mechanical & Environmental		
System Fan	1 x System Fan	
Color	Front panel Black	
	Rear panel Black	
Power input	100-240 VAC (180 W)	
Operating temperature	-20°C to 50°C.	
Storage temperature	-20°C to 60°C.	
Relative humidity	10% to 95% @ 40°C, non-condensing	
Mounting	Wall/Stand/VESA 75 mm X 75 mm and 100 mm X 100 mm	
Dimensions	387.5 mm X 346 mm X 75.6 mm	
Weight	6.14 kgs	

Panel		
	FPC-1706	FPC-17A3
LCD size	17.0", 4:3	
Display type	SXGA TFT	
Resolution	1028 x 1024	
Color	16.7 M	
Pixel pitch	0.264mm(H) x 0.264mm(V)	
Luminance	350 cd/m <sup>2</sup>	
Contrast ratio	1000	
Viewing angle	80(U), 85(D), 85(L), 85(R)	
Response time	5 ms	
Backlight	4 x CCFL	
Touch Type	5 Wires resistive	
Touch Light Transmission	80%	
Touch Interface	USB	

## FPC 17"~21"W Series

System		
Board	EMX-QM57	EMX-780E
CPU	Intel® Arrandale/ Ibex-M Support Intel® 32nm Arrandale BGA1288 SV/ LV/ ULV Processors, TDP Up to 35W by iMVP-6.5	Supports AM2/ AM2+/ AM3 Socket Support 65W Athlon/ Athlon X2/Quad-Core™ AMD Phenom™ II Processors
Cooling method	Active CPU cooler	
System Chipset	Intel® QM57	AMD RS780E/ SB710
I/O Chip	Winbond W83667HG-A	FINTEK F71863FG
Memory	Two SODIMMs Up to 8GB DDR3 Dual-channel 1066/800MHz SDRAM	Two 200-pin SODIMMs Support Up to 4GB DDR2 800 SDRAM
SSD	One CompactFlash Type I/II socket (Purchase from Avalue Highly recommended)	
HDD Drive Bay	1 x 2.5" SATA	
Rear Panel I/O		
Serial Port	2 x RS-232 COM ports	
Ethernet	2 x LAN ports (Intel® 82577LM & Realtek RTL8111D Gigabit LAN)	2 x LAN ports (Realtek RTL8111D Gigabit LAN)
WIFI	Optional USB WIFI 802.11 b/g (occupy one USB port)	
VGA	1 x DB-15	
DVI	n/a	
HDMI	1 x HDMI	
Audio	Line out, Line in, Mic in	
USB	5 x USB 2.0	
Speaker	5W X 2	
Mouse & KB	1 x PS/2 Keyboard connector	
Mechanical & Environmental		
System Fan	1 x System Fan	
Color	Front panel Black	
	Rear panel Black	
Power input	100-240 VAC (180 W)	
Operating temperature	-20°C to 50°C.	
Storage temperature	-20°C to 60°C.	
Relative humidity	10% to 95% @ 40°C, non-condensing	
Mounting	Wall/Stand/VESA 75 mm X 75 mm and 100 mm X 100 mm	
Dimensions	387.5 mm X 346 mm X 75.6 mm	
Weight	6.14 kgs	

## 1.3.2. 18.5" "widescreen" Series

Panel 			
	FPC-18W01	FPC-18W02	FPC-18W05
LCD size	18.5", 16:9		
Display type	WXGA TFT		
Resolution	1366 x 768		
Color	16.7M		
Pixel pitch	0.300mm(H) x 0.300mm(V)		
Luminance	300cd/m <sup>2</sup>		
Contrast ratio	1000		
Viewing angle	80(U), 85(D), 85(L), 85(R)		
Response time	5 ms		
Backlight	4 x CCFL		
Touch Type	5 Wire resistive		
Touch Light Transmission	80%		
Touch Interface	USB		
System 			
Board	EMX-945GME3	EMX-965GME	EMX-PNV
CPU	Supports Intel $\mu$ FC-PGA Core™Duo/Core™Solo/Core™2 Duo with 65nm process technology	Supports Intel® socket P Core™Duo /Core™Solo/Core™2 Duo with 65nm process technology	Onboard Intel® Atom™ Dual-Core 1.8 GHz CPU
Cooling method	Active CPU cooler		Passive CPU heatsink
System Chipset	Intel®82945GME GMCH / ICH7-M	Intel® GME965 GMCH / ICH8-M	Intel® ICH8-M
I/O Chip	Winbond W83627DHG-A		Winbond 83627DHG
Memory	Two 240-pin DIMM socket supports up to 4GB DDR2 533/667	Two 200-pin SODIMM socket supports up to 4GB DDR2 533/667	1 SODIMM socket supports up to 2GB SDRAM
SSD	One CompactFlash Type I/II socket (Purchase from Avalue Highly recommended)		
HDD Drive Bay	1 x 2.5" SATA		

## FPC 17"~21"W Series

Rear Panel I/O			
Serial Port	3 x RS-232		
Ethernet	1 x Realtek GigLAN port	2 x LAN ports (Realtek RTL8111B Gigabit LAN)	2 x LAN ports (Intel 82583V Gigabit LAN)
WIFI	Optional USB WiFi 802.11 b/g (occupy one USB port)		
VGA	1 x DB-15		
DVI	1 x DVI	n/a	
HDMI	n/a		
Audio	Line out, Line in, Mic in		
USB	5 x USB 2.0		
Speaker	5W X 2		
Mouse & KB	1 x PS/2 Keyboard connector		
Mechanical & Environmental			
System Fan	1 x System Fan		
Color	Front panel Black		
	Rear panel Black		
Power input	100-240 VAC (180 W)		
Operating temperature	-20°C to 50°C.		
Storage temperature	-20°C to 60°C.		
Relative humidity	10% to 95% @ 40°C, non-condensing		
Mounting	Wall/Stand/VESA 75 mm X 75 mm and 100 mm X 100 mm		
Dimensions	459.5 mm X 309 mm X 79.6 mm		
Weight	5.77 Kgs		

Panel		
	FPC-18W06	FPC-18WA3
LCD size	18.5", 16:9	
Display type	WXGA TFT	
Resolution	1366 x 768	
Color	16.7M	
Pixel pitch	0.300mm(H) x 0.300mm(V)	
Luminance	300cd/m <sup>2</sup>	
Contrast ratio	1000	
Viewing angle	80(U), 85(D), 85(L), 85(R)	
Response time	5 ms	
Backlight	4 x CCFL	
Touch Type	5 Wire resistive	
Touch Light Transmission	80%	
Touch Interface	USB	



System		
Board	EMX-QM57	EMX-780E
CPU	Intel® Arrandale/ Ibex-M Support Intel® 32nm Arrandale BGA1288 SV/ LV/ ULV Processors, TDP Up to 35W by iMVP-6.5	Supports AM2/ AM2+/ AM3 Socket Support 65W Athlon/ Athlon X2/Quad-Core™ AMD Phenom™ II Processors
Cooling method	Active CPU cooler	
System Chipset	Intel® QM57	AMD RS780E/ SB710
I/O Chip	Winbond W83667HG-A	FINTEK F71863FG
Memory	Two SODIMMs Up to 8GB DDR3 Dual-channel 1066/800MHz SDRAM	Two 200-pin SODIMMs Support Up to 4GB DDR2 800 SDRAM
SSD	One CompactFlash Type I/II socket (Purchase from Avalue Highly recommended)	
HDD Drive Bay	1 x 2.5" SATA	
Rear Panel I/O		
Serial Port	2 x RS-232 COM ports	
Ethernet	2 x LAN ports (Intel® 82577LM & Realtek RTL8111D Gigabit LAN)	2 x LAN ports (Realtek RTL8111D Gigabit LAN)
WIFI	Optional USB WIFI 802.11 b/g (occupy one USB port)	
VGA	1 x DB-15	
DVI	n/a	
HDMI	1 x HDMI	
Audio	Line out, Line in, Mic in	
USB	5 x USB 2.0	
Speaker	5W X 2	
Mouse & KB	1 x PS/2 Keyboard connector	
Mechanical & Environmental		
System Fan	1 x System Fan	
Color	Front panel Black	
	Rear panel Black	
Power input	100-240 VAC (180 W)	
Operating temperature	-20°C to 50°C.	
Storage temperature	-20°C to 60°C.	
Relative humidity	10% to 95% @ 40°C, non-condensing	
Mounting	Wall/Stand/VESA 75 mm X 75 mm and 100 mm X 100 mm	
Dimensions	459.5 mm X 309 mm X 79.6 mm	
Weight	5.77 Kgs	

## FPC 17"~21"W Series

### 1.3.3. 21" "widescreen" Series

Panel			
	FPC-21W01	FPC-21W02	FPC-21W05
LCD size	21", 16:9		
Display type	Full HD TFT		
Resolution	1920 x 1080		
Color	16.7M		
Pixel pitch	0.248mm(H) x 0.248mm(V)		
Luminance	300cd/m <sup>2</sup>		
Contrast ratio	1000		
Viewing angle	80(U), 85(D), 85(L), 85(R)		
Response time	5 ms		
Backlight	4 x CCFL		
Touch Type	5 Wire resistive		
Touch Light Transmission	80%		
Touch Interface	USB		
System			
Board	EMX-945GME3	EMX-965GME	EMX-PNV
CPU	Supports Intel $\mu$ FC-PGA Core™Duo/Core™Solo/Core™2 Duo with 65nm process technology	Supports Intel® socket P Core™Duo /Core™Solo/Core™2 Duo with 65nm process technology	Onboard Intel® Atom™ Dual-Core 1.8 GHz CPU
Cooling method	Active CPU cooler		Passive CPU heatsink
System Chipset	Intel®82945GME GMCH / ICH7-M	Intel® GME965 GMCH / ICH8-M	Intel® ICH8-M
I/O Chip	Winbond W83627DHG-A		Winbond 83627DHG
Memory	Two 240-pin DIMM socket supports up to 4GB DDR2 533/667	Two 200-pin SODIMM socket supports up to 4GB DDR2 533/667	1 SODIMM socket supports up to 2GB SDRAM
SSD	One CompactFlash Type I/II socket (Purchase from Avalue Highly recommended)		
HDD Drive Bay	1 x 2.5" SATA		

Rear Panel I/O			
Serial Port	3 x RS-232		
Ethernet	1 x Realtek GigLAN port	2 x LAN ports (Realtek RTL8111B Gigabit LAN)	2 x LAN ports (Intel 82583V Gigabit LAN)
WiFi	Optional USB WiFi 802.11 b/g (occupy one USB port)		
VGA	1 x DB-15		
DVI	1 x DVI		n/a
HDMI	n/a		
Audio	Line out, Line in, Mic in		
USB	5 x USB 2.0		
Speaker	5W X 2		
Mouse & KB	1 x PS/2 Keyboard connector		
Mechanical & Environmental			
System Fan	1 x System Fan		
Color	Front panel Black		
	Rear panel Black		
Power input	100-240 VAC (180 W)		
Operating temperature	-20°C to 50°C.		
Storage temperature	-20°C to 60°C.		
Relative humidity	10% to 95% @ 40°C, non-condensing		
Mounting	Wall/Stand/VESA 75 mm X 75 mm and 100 mm X 100 mm		
Dimensions	526 mm X 346.5 mm X 80.4 mm		
Weight	7.32 Kgs		

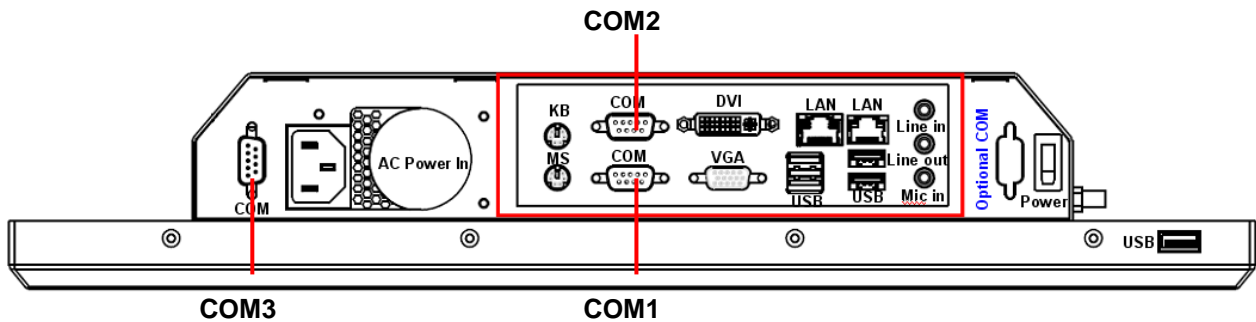
Panel		
	FPC-21W06	FPC-21WA3
LCD size	21", 16:9	
Display type	Full HD TFT	
Resolution	1920 x 1080	
Color	16.7M	
Pixel pitch	0.248mm(H) x 0.248mm(V)	
Luminance	300cd/m <sup>2</sup>	
Contrast ratio	1000	
Viewing angle	80(U), 85(D), 85(L), 85(R)	
Response time	5 ms	
Backlight	4 x CCFL	
Touch Type	5 Wire resistive	
Touch Light Transmission	80%	
Touch Interface	USB	

## FPC 17"~21"W Series

System		
Board	EMX-QM57	EMX-780E
CPU	Intel® Arrandale/ Ibex-M Support Intel® 32nm Arrandale BGA1288 SV/ LV/ ULV Processors, TDP Up to 35W by iMVP-6.5	Supports AM2/ AM2+/ AM3 Socket Support 65W Athlon/ Athlon X2/Quad-Core™ AMD Phenom™ II Processors
Cooling method	Active CPU cooler	
System Chipset	Intel® QM57	AMD RS780E/ SB710
I/O Chip	Winbond W83667HG-A	FINTEK F71863FG
Memory	Two SODIMMs Up to 8GB DDR3 Dual-channel 1066/800MHz SDRAM	Two 200-pin SODIMMs Support Up to 4GB DDR2 800 SDRAM
SSD	One CompactFlash Type I/II socket (Purchase from Avalue Highly recommended)	
HDD Drive Bay	1 x 2.5" SATA	
Rear Panel I/O		
Serial Port	2 x RS-232 COM ports	
Ethernet	2 x LAN ports (Intel® 82577LM & Realtek RTL8111D Gigabit LAN)	2 x LAN ports (Realtek RTL8111D Gigabit LAN)
WIFI	Optional USB WIFI 802.11 b/g (occupy one USB port)	
VGA	1 x DB-15	
DVI	n/a	
HDMI	1 x HDMI	
Audio	Line out, Line in, Mic in	
USB	5 x USB 2.0	
Speaker	5W X 2	
Mouse & KB	1 x PS/2 Keyboard connector	
Mechanical & Environmental		
System Fan	1 x System Fan	
Color	Front panel Black	
	Rear panel Black	
Power input	100-240 VAC (180 W)	
Operating temperature	-20°C to 50°C.	
Storage temperature	-20°C to 60°C.	
Relative humidity	10% to 95% @ 40°C, non-condensing	
Mounting	Wall/Stand/VESA 75 mm X 75 mm and 100 mm X 100 mm	
Dimensions	526 mm X 346.5 mm X 80.4 mm	
Weight	7.32 Kgs	

## 1.4 System Overview

### 1.4.1 Rear View



### Connectors

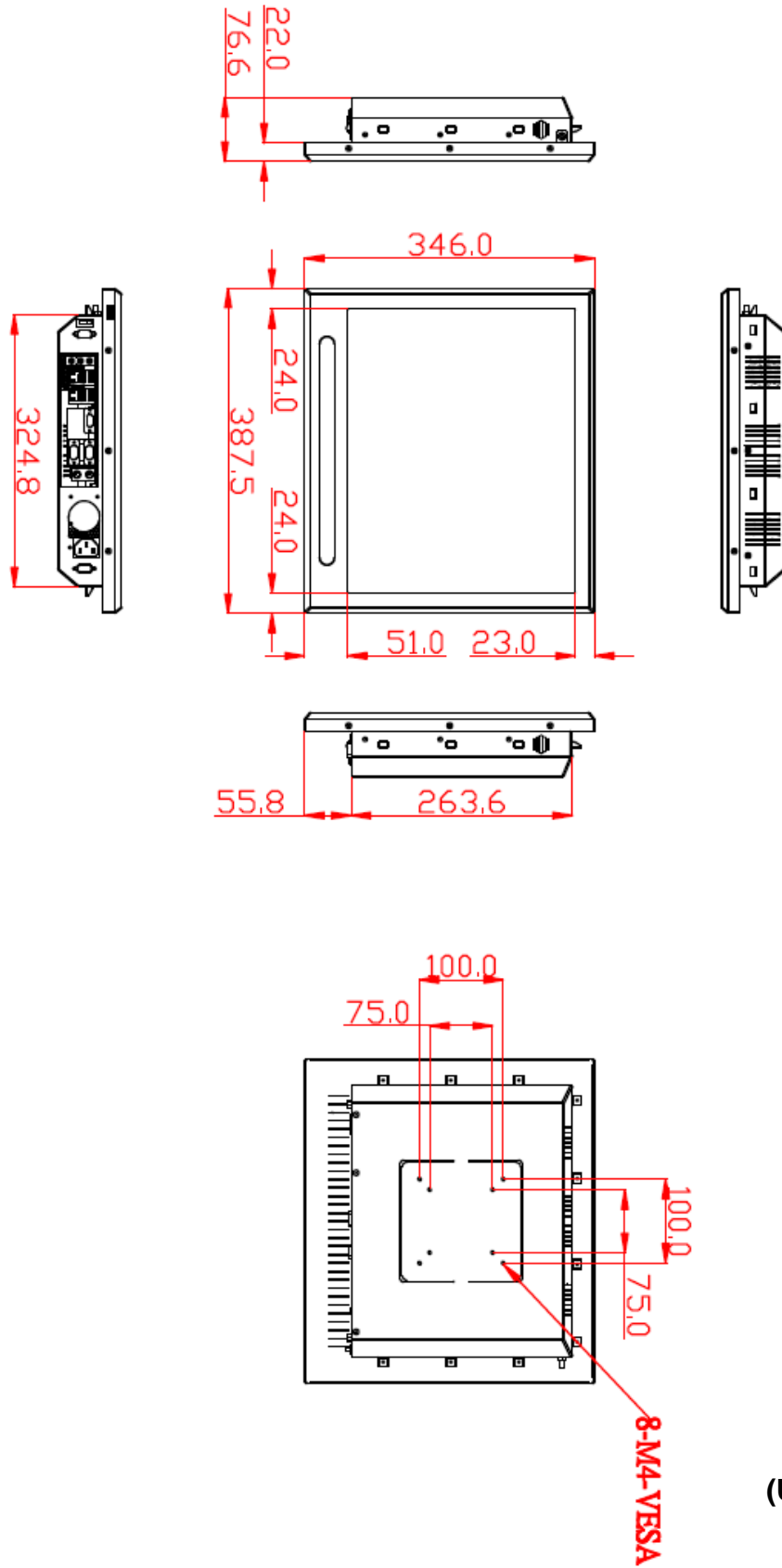
Label	Function	Note
COM1/2/3	Serial port 1/2/3	DB-9 male connector
DVI	DVI connector	
KB	PS/2 keyboard connector	6-pin mini DIN
LAN	10/100/1000Base-Tx Ethernet connector	RJ-45
LINE IN	Line-in audio jack	
LINE OUT	Line-out audio jack	
MIC IN	Mic-in audio jack	
MS	PS/2 mouse connector	6-pin mini DIN
Power	System power switch	
USB	USB 2.0 connector	
VGA	CRT connector	DB-15 female connector



**Note:** Rear I/O (marked in red) complies with the integrated Main board.

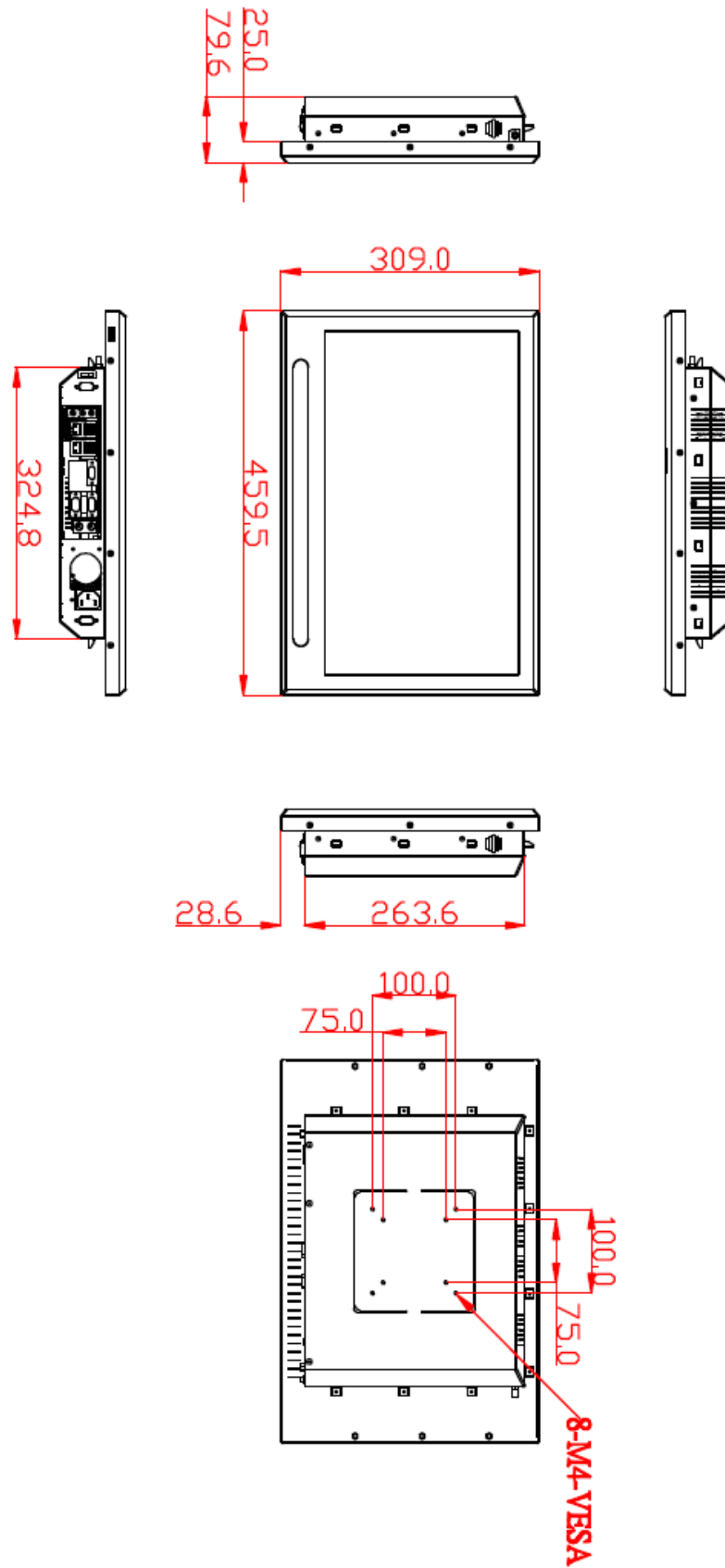
## 1.5 System Dimensions

### 1.5.1 FPC 17" Series



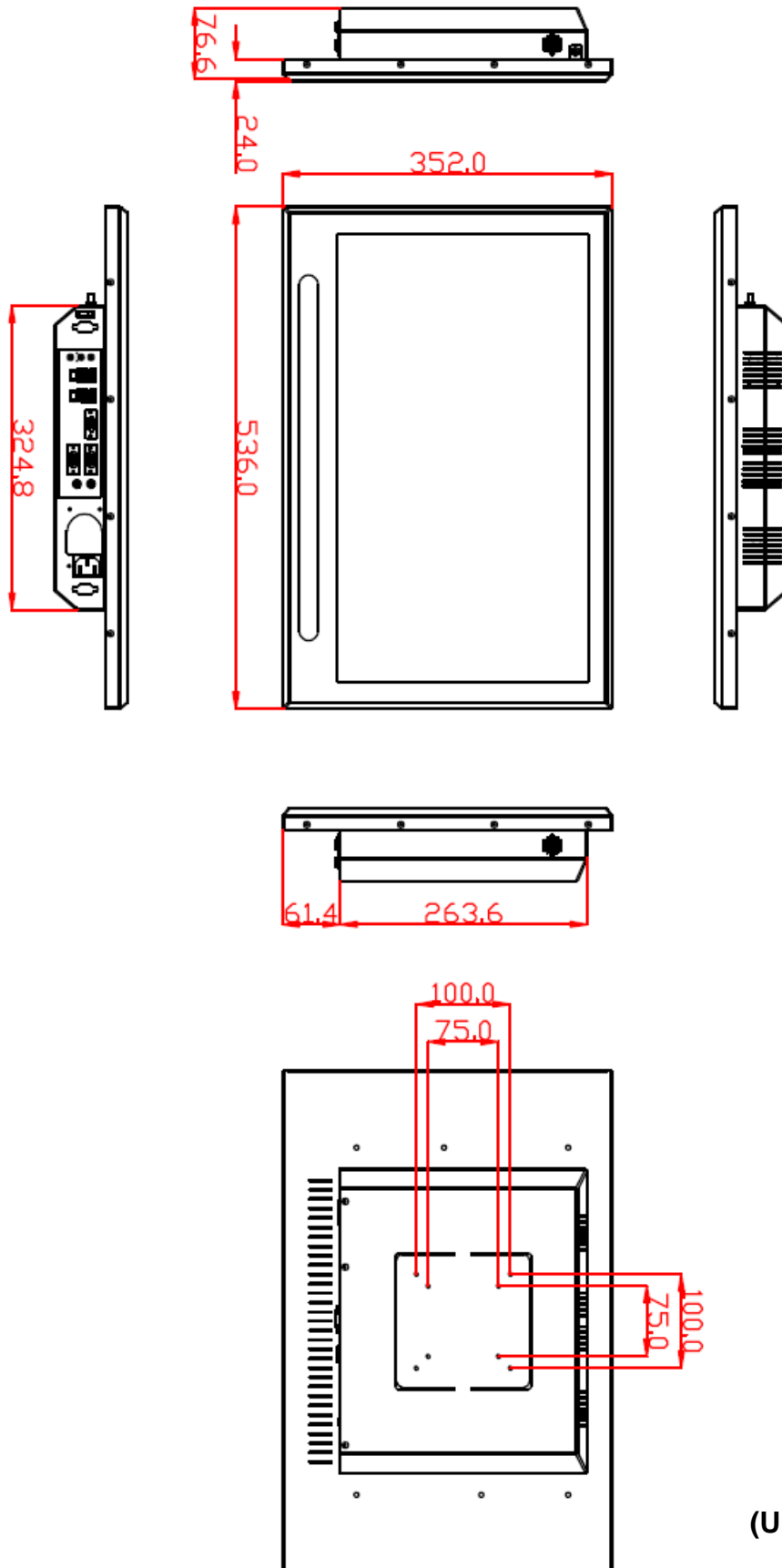
(Unit: mm)

1.5.2 18.5" "widescreen" Series



# FPC 17"~21"W Series

## 1.5.3 FPC 21" Widescreen Series



(Unit: mm)



# 2. Hardware Configuration

## 2.1 Jumper and Connector Setting, Driver and BIOS Installing

- Please refer to EMX-945GME3 / EMX-965GME / EMX-PNV / EMX-780E / EMX-QM57 Quick Installation Guide or User's Manual.

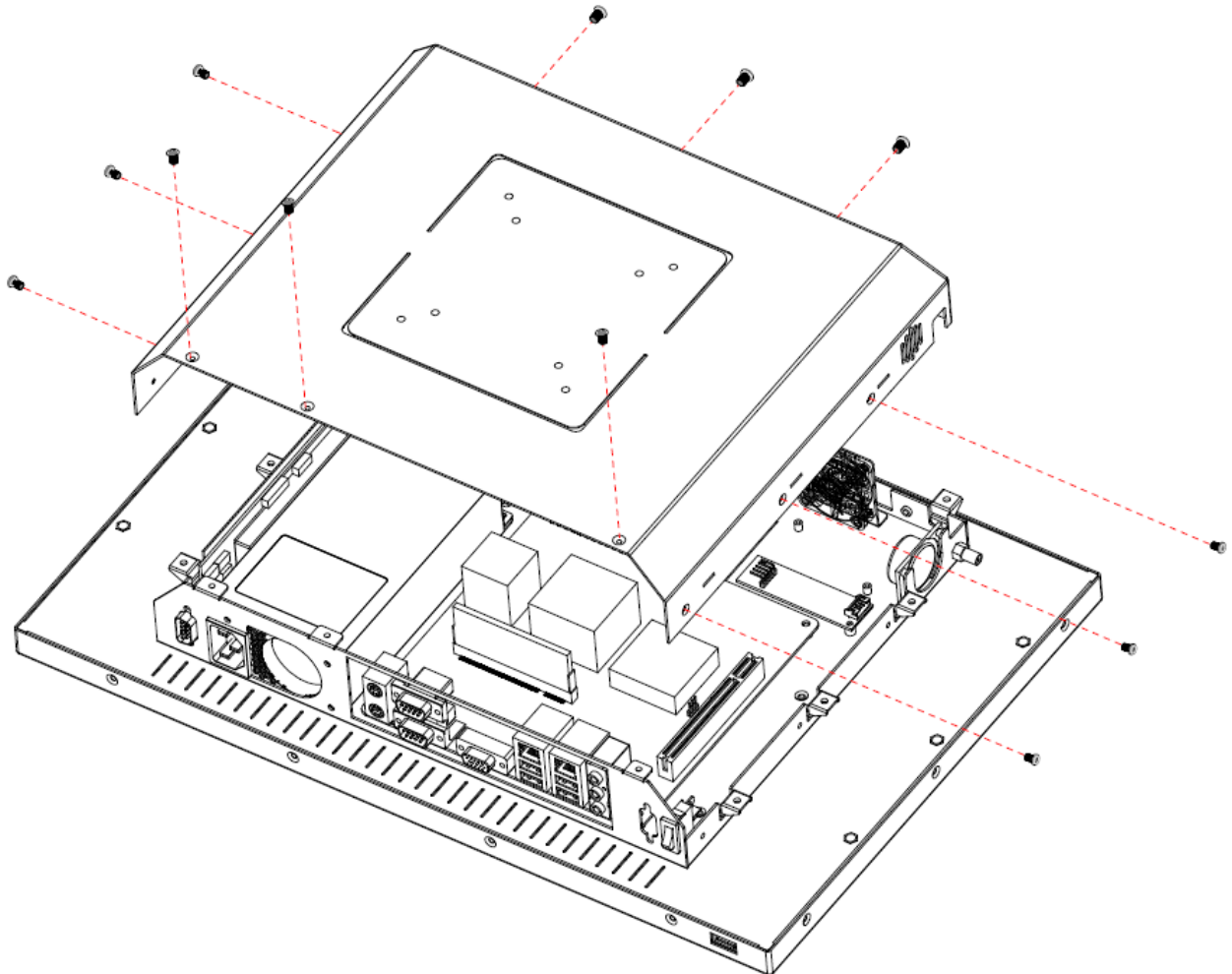


**Note:** If you need more information, please visit our website:

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

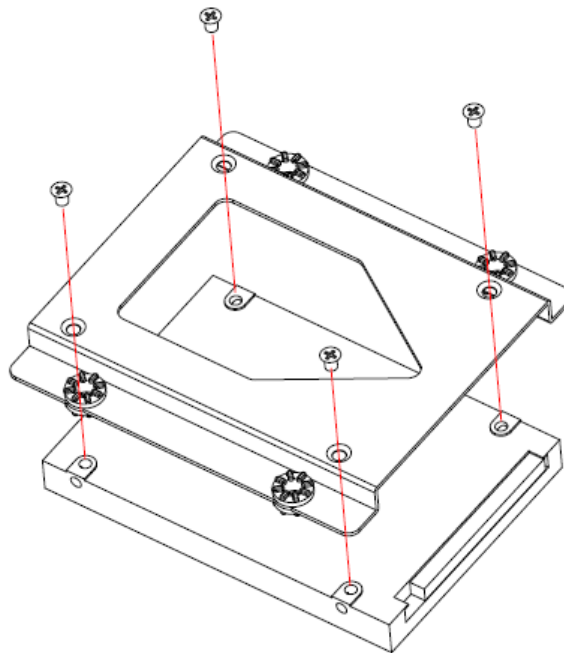
## 2.2 Installing Hard Disk & Memory

Remove 12 screws as indicated below to open the back of the chassis.

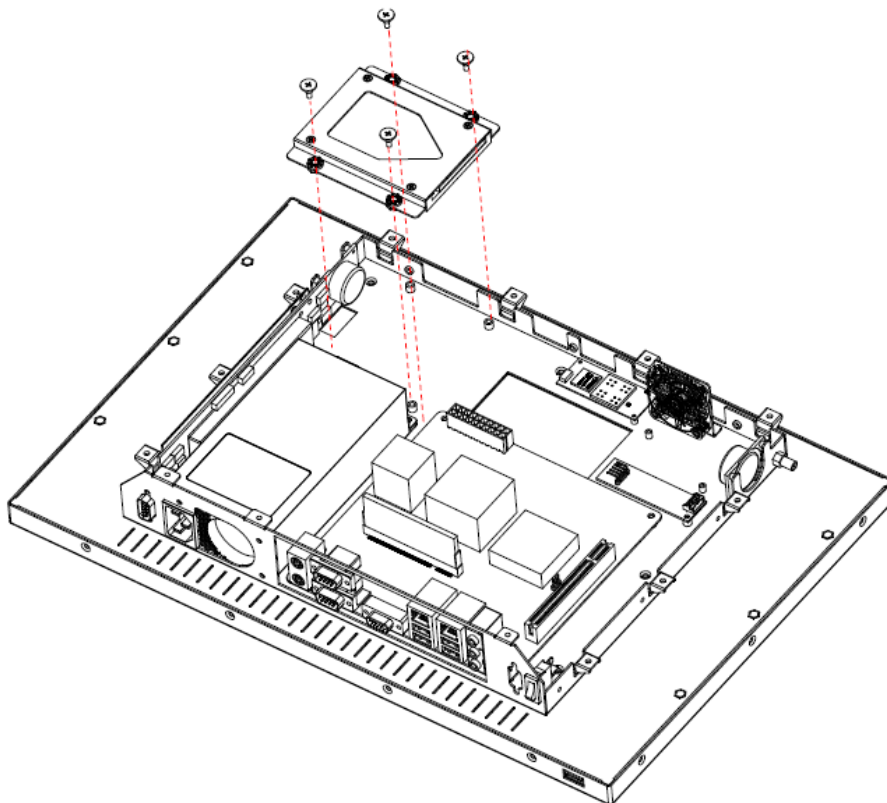


## 2.2.1 Install HDD

### 2.2.1.1 2.5" SATA HDD



**Step 1.** Attach the HDD bracket to the 2.5" SATA HDD by means of 4 screws as shown above, and then connect HDD data and power cables.



**Step 2.** Position the HDD bracket & 2.5" SATA HDD assembly into the chassis and lock with 4 screws as indicated above.

