

ASM-CX700/AT270/PNV/A50M ASM-ETX Series

Fanless VIA CX700M Eden V4 Micro PC/ Intel 945GSE Atom N270 /
Intel D510 & D525 / Slim ETX base Micro PC / T40E Ultra Slim PC AMD
A50M Chipset.

Quick Reference Guide

6th Ed – 09 August 2013

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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 ASM-CX700 (with EBM-CX700 inside), or 1 x ASM-AT270 (with EBM-945GSE inside), or 1 x Slim ETX base (with ETX CPU module & EAP-EX52 inside), or 1 x ASM-PNV (with EBM-PNV inside), or ASM-A50M (with EBM-A50M inside)
- 1 x Quick Reference Guide
- 1 x DVD-ROM contains the followings:
 - User's Manual (this manual in PDF file)
 - Ethernet driver and utilities
 - VGA drivers and utilities
 - Audio drivers and utilities
 - Chipset drivers and utilities.
- 1 x packing set includes the followings:
 - 1 x IDE HDD cable (44-pin, pitch 2.00mm) [ASM-CX700 only](#)
 - 1 x PS/2 keyboard & mouse Y cable (6-pin, Mini-DIN) [ASM-CX700 only](#)



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

Note: ASM-ETX Series' specifications are various based on each of them.

1.3 System Specifications

System 	
Model	ASM-CX700
CPU	Onboard VIA Eden V4 CPU
BIOS	Award 512 KB Flash BIOS
System Chipset	VIA CX700M
I/O Chipset	VIA VT1211
System Memory	One 200-pin SODIMM supports up to 1 GB DDR2 400/533 SDRAM
SSD	One CompactFlash Type I/II socket with ejector
Watchdog Timer	Reset: 1 sec.~255 min. and 1 sec. or 1 min./step
Display	VIA CX700M with integrated 2D and 3D Graphics engine
Audio	VIA VT1708 supports 5.1 CH Audio
Ethernet	Single Realtek RTL8100C 10/100 Base-T Fast Ethernet controllers Optional Dual RTL8110S GigaLAN
System Indicators	4 LED indicators show power, HDD, LAN1 & LAN2 (LAN2 is optional)
Drive Bay	Mounting kit for one 2.5" SATA HDD (hidden)
External I/O Ports 	
COM Port	1 x RS-232
Ethernet Port	1 x RJ-45, optional GigaLAN
VGA / LCD Port	1 x DB-15, 1 x DVI (optional)
TV-out	1 x RCA jack (optional)
Audio Port	Mic-in, Line-in, Line-out
USB Port	4 x USB 2.0
Mouse & KB	1 x PS/2 mini DIN (optional)
Power Supply Unit 	
Power Input	100 ~ 240 Vac / 50 ~ 60 Hz
Power Output	+12 Vdc / 4.16 A (50W)
Power Requirement	+12V@1.35A (with VIA Eden 1GHz & 1GB DDR2 667 SDRAM), +12V@0.97A (with VIA Eden 500 MHz & 1GB DDR2 667 SDRAM)
Environment & Mechanical 	
Operating Temperature	0~40°C (32~104°F)
Storage Temperature	-20 to +75°C (-4~167°F)
Relative Humidity	5 to 90% @ 40°C (104°F), relative humidity, non-condensing
Dimension (W x D x H)	7.2" x 10.1" x 1.0" (182 x 257 x 25 mm)
Weight	3.3 lbs (1.5 Kgs)
Mounting	Desktop (VESA Compliance)

ASM-CX700/AT270/PNV/A50M - ASM-ETX Series

System 	
Model	ASM-AT270
CPU	Onboard Intel N270 Atom processor 1.6GHz, (2.5W)
BIOS	Award 4 Mbit Flash BIOS
System Chipset	Intel® 945GSE / ICH7-M
I/O Chipset	ITE 8712F
System Memory	Onboard 1GB DDR2, extra one 200-pin DDR2 SODIMM supports up to 2GB 400/533 SDRAM
SSD	One CompactFlash Type I/II socket with ejector
Watchdog Timer	Reset: 1 sec.~255 min. and 1 sec. or 1 min./step
Display	Intel® DVM T 3.0 Supports up to 224 MB Shared Video Memory
Audio	Realtek ALC655 supports 5.1 CH Audio
Ethernet	Dual Realtek RTL8111C Gigabit Ethernet, Supports Wake on LAN
System Indicators	4 LED indicators show power, HDD, LAN1 & LAN2
Drive Bay	Mounting kit for one 2.5" SATA HDD (hidden)
External I/O Ports 	
COM Port	1 x RS-232 OR 1 x RS-422 OR 1 x RS-485 setting by BIOS (default is 1 x RS-232)
Ethernet Port	2 x RJ-45
VGA / LCD Port	1 x DB-15, 1 x DVI (optional)
TV-out	1 x RCA jack (optional)
Audio Port	Mic-in, Line-in, Line-out
USB Port	4 x USB 2.0
Mouse & KB	1 x PS/2 mini DIN (optional)
Power Supply Unit 	
Power Input	100 ~ 240 Vac / 50 ~ 60 Hz
Power Output	+12 Vdc / 4.16 A (50W)
Power Requirement	+12@1.42A(with Atom N270 1.6GHz & 1GB DDR2 533 SDRAM)
Environment & Mechanical 	
Operating Temperature	0~40°C (32~104°F)
Storage Temperature	-20 to +75°C (-4~167°F)
Relative Humidity	5 to 90% @ 40°C (104°F), relative humidity, non-condensing
Dimension (W x D x H)	7.2" x 10.1" x 1.0" (182 x 257 x 25 mm)
Weight	3.3 lbs (1.5 Kgs)
Mounting	Desktop (VESA Compliance)

System 	
Model	ASM-PNV
CPU	Onboard Intel D510/525 Atom processor (13W)
BIOS	Award 8 Mbit Flash BIOS
System Chipset	Intel® ICH8-M
I/O Chipset	Winbond W83627DHG
System Memory	Onboard 1GB DDR2, extra one 200-pin SODIMM supports up to 2GB DDR2-667 SDRAM
SSD	One CompactFlash Type I/II socket with ejector
Watchdog Timer	Reset: 1 sec.~255 min. and 1 sec. or 1 min./step
Display	Intel® Graphics Media Accelerator 3150 integrated in Processor
Audio	Realtek ALC888 supports 5.1 CH HD Audio
Ethernet	Dual Intel® 82574L Gigabit Ethernet, Supports Wake on LAN
System Indicators	4 LED indicators show power, HDD, LAN1 & LAN2
Drive Bay	Mounting kit for one 2.5" SATA HDD (hidden)
External I/O Ports 	
COM Port	1 x RS-232/422/485 (default is 1 x RS-232)
Ethernet Port	2 x RJ-45
VGA / LCD Port	1 x DB-15
Audio Port	Mic-in, Line-in, Line-out
USB Port	4 x USB 2.0
Power Supply Unit 	
Power Input	100 ~ 240 Vac / 50 ~ 60 Hz
Power Output	+12 Vdc / 5 A (60W)
Power Requirement	+12V ~ +26V
Environment & Mechanical 	
Operating Temperature	0~40°C (32~104°F)
Storage Temperature	-20 to +75°C (-4~167°F)
Relative Humidity	5 to 90% @ 40°C (104°F), relative humidity, non-condensing
Dimension (W x D x H)	7.2" x 10.1" x 1.0" (182 x 257 x 25 mm)
Weight	3.3 lbs (1.5 Kgs)
Mounting	Desktop

ASM-CX700/AT270/PNV/A50M - ASM-ETX Series

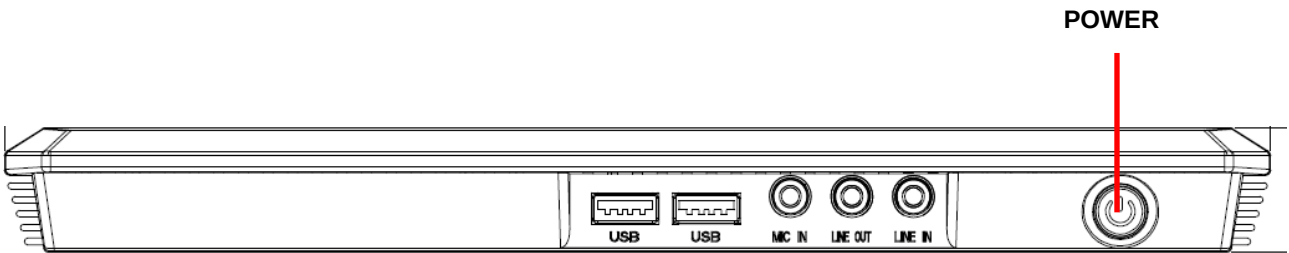
System	
Model	ASM-A50M
CPU	AMD Fusion Accelerated Dual-Core Processor T40E 1.0GHz CPU
BIOS	AMI 32M-bit SPI BIOS
System Chipset	AMD A50M Controller Hub
I/O Chip	Winbond W83627DHG-P
System Memory	Onboard 1G DDR3 1066 SDRAM Optional(Onboard 2G), One 204-pin DDR3 SODIMM up to 2GB DDR3 800/1066 SDRAM Optional(4GB)
SSD	1 x CompactFlash Type I/II socket
Watchdog Timer	Reset: 1 sec.~65535 sec./min. and 1 sec. or 1 min./step
H/W Status Monitor	Monitoring system temperature, voltage. Auto trotting control when CPU overheats
Expansion	2 Mini-PCle (Supports mSATA, WiFi, etc...)
Drive Bay	Mounting Kit for One 2.5" SATA HDD (Internal)
Expansion Interface	Optional 2 Mini-PCle Sockets (Replaces HDD Location)
External I/O Ports	
COM Port	2 x RS-232 (COM2 RS-232/422/485 setting by jumper & SW)
Ethernet Port	2 x RJ-45
VGA / LCD Port	1 x DB-15
Audio Port	1 x Mic-in, 1 x Line-in, 1 x Line-out
HDMI Port	1 x HDMI
USB	4 x USB 2.0 (Front 2; Rear 2)
DIO	Digital I/O DB9 (Replaces CF Socket)
Display	
Chipset	AMD Radeon 6250
Resolution	VGA: 1920 x 1200 @ 60 Hz, HDMI: 1920 x 1200 @ 60 Hz
Multiple Display	Two independent display combination of CRT, HDMI
Audio	
AC97 Codec	Realtek ALC892 supports 5.1-CH
Audio Interface	AMP LINE OUT, Line in, and Mic in (in header)
Audio Amplifer	2W per channel
Ethernet	
LAN Chip	2 x Realtek 8111E GigaLAN
Ethernet Interface	10/100/1000 Base-Tx Gigabit Ethernet Compatible
Mechanical & Environmental	
Power Requirement	+12Vdc ~ +26Vdc
Operating Temp.	0 to 50°C

Quick Reference Guide

Storage Temp.	-40~-75°C
Operating Humidity	0%~90% relative humidity, non-condensing
Size (L x W)	7.2" x 10.1" x 1.0" (182mm x 257mm x 25mm)
Weight	3.3lbs (1.5Kgs)
Mount	VESA Compliance

1.4 System Overview

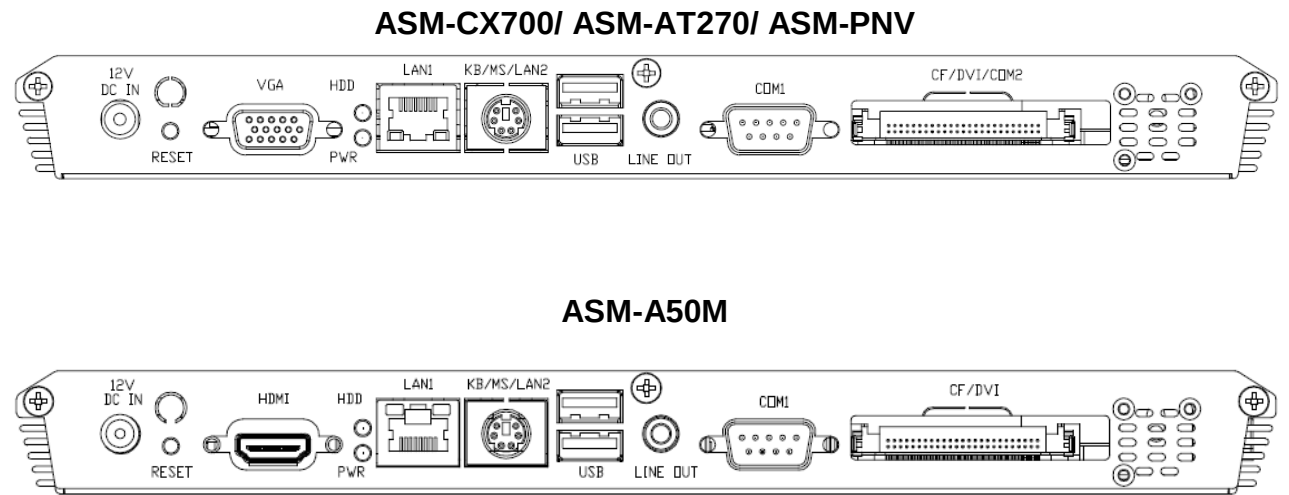
1.4.1 Front View



Connectors

Label	Function	Note
POWER	Power on button	
LINE IN	Line-in audio jack	
LINE OUT	Line-out audio jack	
MIC IN	Mic-in audio jack	

1.4.2 Rear View

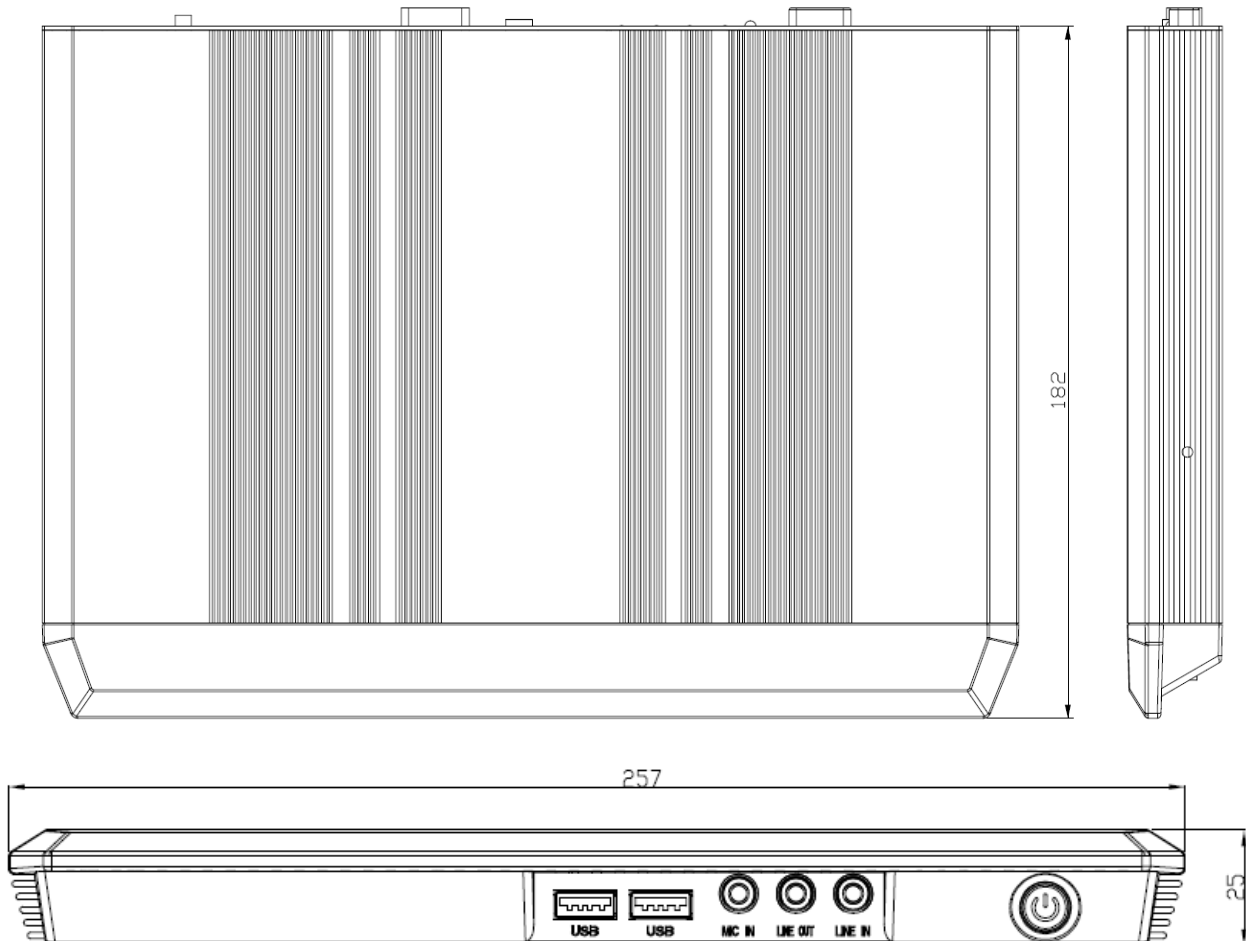


Connectors

Label	Function	Note
CF	CF Type I/II Socket with Ejector	
COM1	Serial port	DB-9 male connector
COM2	Serial Port 2 (ASM-A50M)	DB-9 male connector
LINE OUT	Line-out audio jack	
USB	2 x USB 2.0 connector	Dock USB
KB/MS/LAN2	ASM-CX700: KB/MS is default, LAN2 is optional	6-pin mini DIN
	ASM-AT270/ PNV LAN2 is default, KB/MS is optional	
	ASM-A50M LAN2 is default, KB/MS is optional	
LAN1	2 x 10/100Base-Tx Ethernet connector	RJ-45
HDD	HDD indicator	
VGA	CRT connector	DB-15 female connector
RESET	Reset button	
DC-IN	DC Power-in connector	
HDD	HDD indicator	
HDMI	HDMI connector (ASM-A50M)	
PWR	System power indicator	
Wi-Fi	USB Wi-Fi Module (optional)	

1.5 System Dimensions

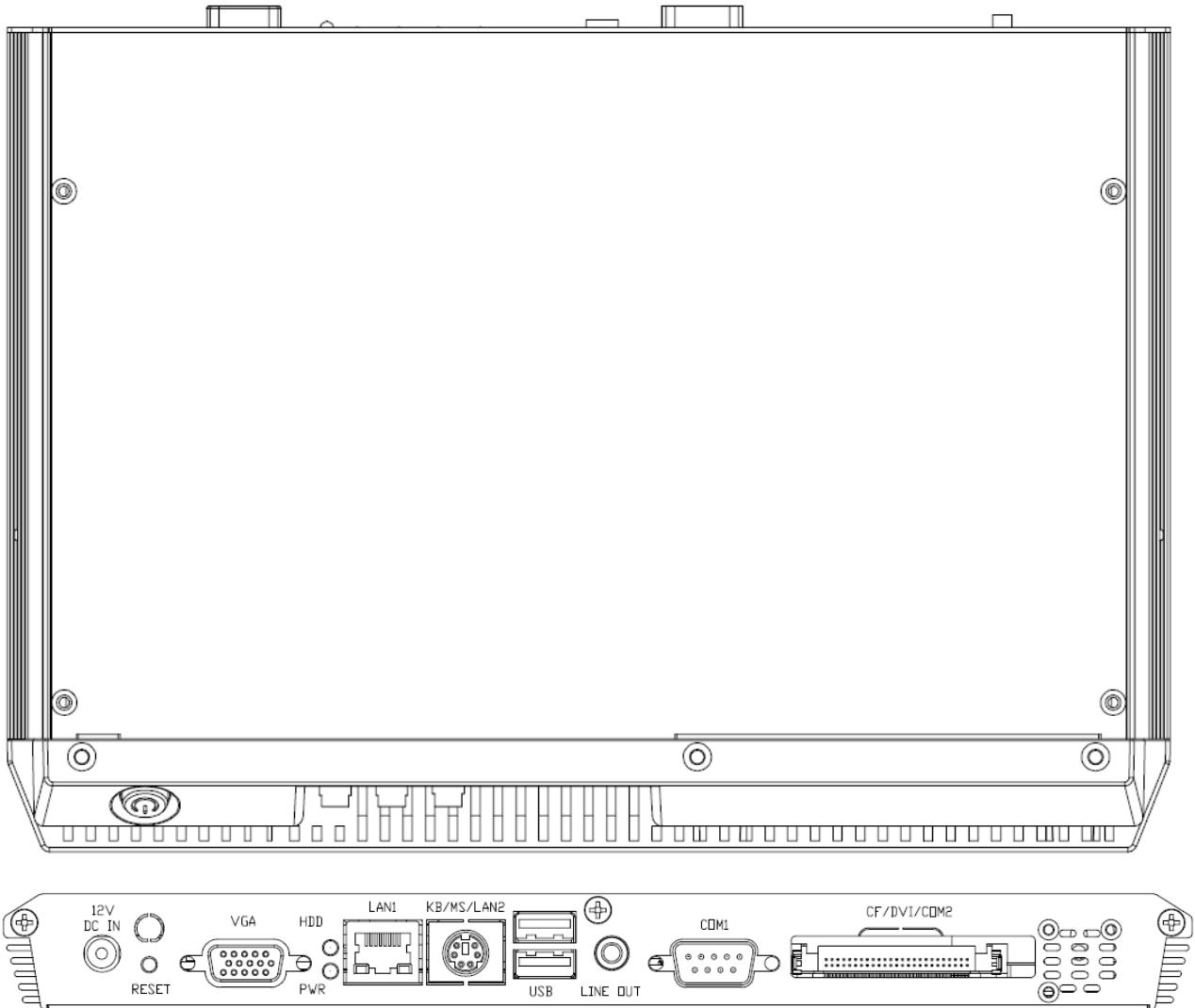
1.5.1 Top and Front



(Unit: mm)

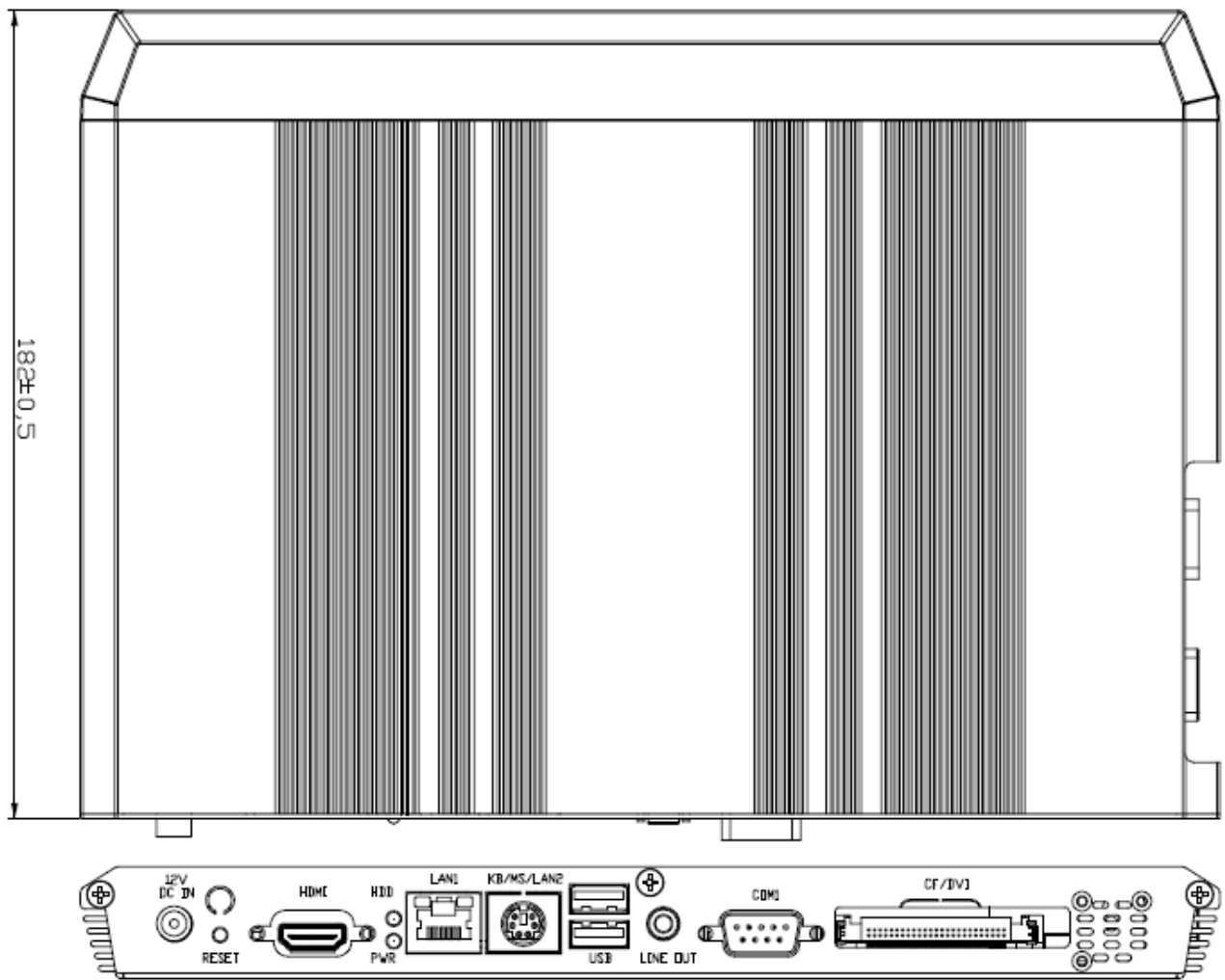
1.5.2 Bottom and Rear

ASM-CX700/ ASM-AT270/ ASM-PNV



(Unit: mm)

ASM-A50M



Side view (ASM-A50M)



(Unit: mm)

2. Hardware Configuration

2.1 Connector Setting, Driver and BIOS Installing

- Please refer to EBM-CX700, EBM-945GSE, EBM-PNV or EBM-A50M Slim ETXs' Quick Installation Guide or User's Manual.

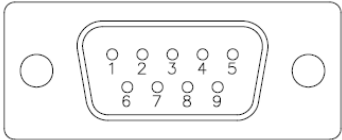
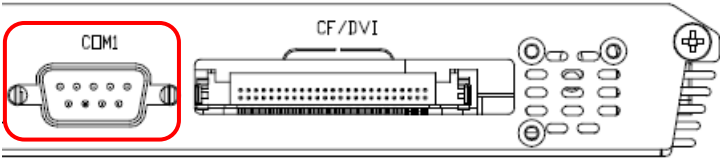


Note: If you need more information, please visit our website:

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

2.2 Connector Mapping

2.2.1 Serial Port 1/2 connector (COM1/2)



In RS-232 Mode

Signal	PIN	PIN	Signal
DCD1	1	6	DSR1
RxD1	2	7	RTS1
TxD1	3	8	CTS1
DTR1	4	9	RI1
GND	5		

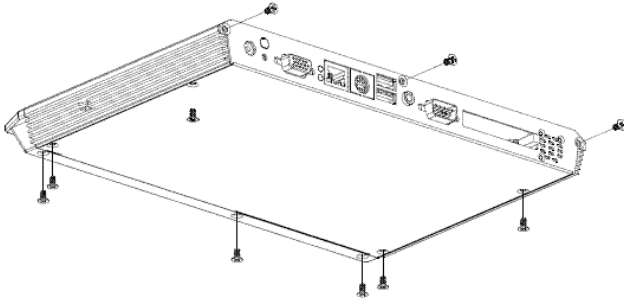
In RS-422 Mode

Signal	PIN	PIN	Signal
TxD1-	1	6	NC
RxD1+	2	7	NC
TxD1+	3	8	NC
RxD1-	4	9	NC
GND	5		

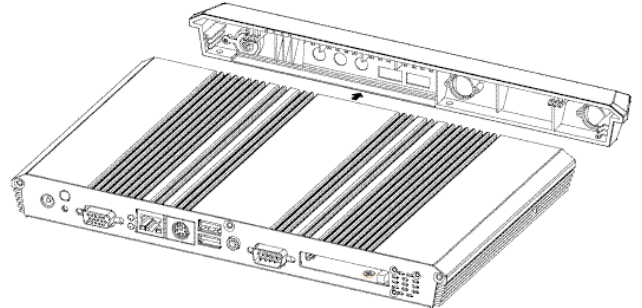
In RS-485 Mode

Signal	PIN	PIN	Signal
DATA1-	1	6	NC
NC	2	7	NC
DATA1+	3	8	NC
NC	4	9	NC
GND	5		

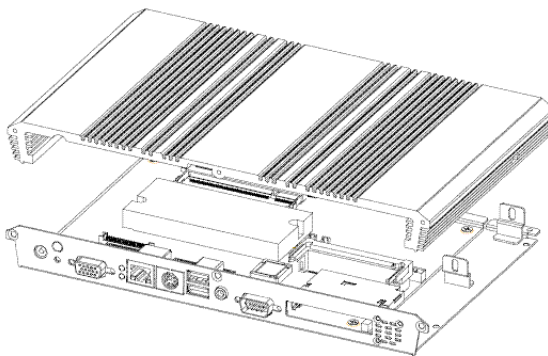
2.3 Installing Hard Disk & Memory



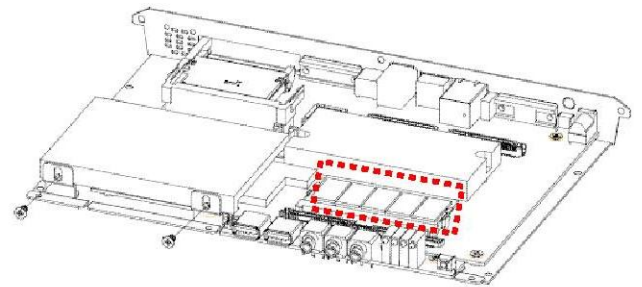
Step 1. Remove 10 screws from the case, and 4 screws from COM and VGA ports.



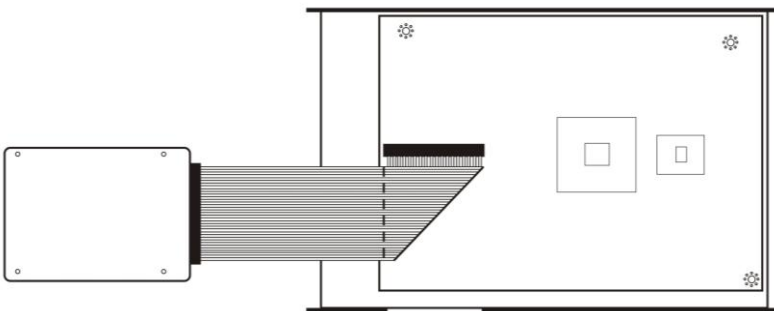
Step 2. Remove the rear chassis.



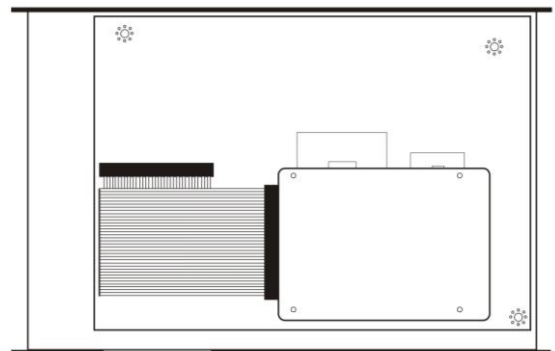
Step 3. Remove the top chassis.



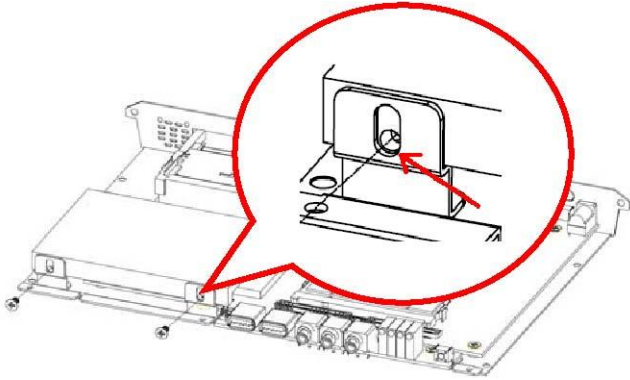
Step 4. Install the DDR SODIMM into the memory socket.



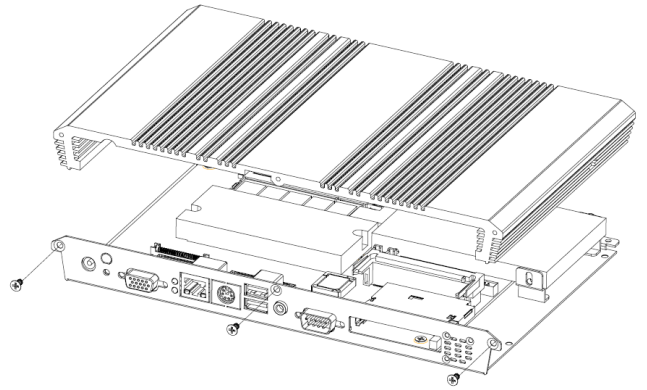
Step 5-1. HDD installation: Connect the HDD to IDE connector via SATA cable. Diagonally fold SATA cable, as shown above.



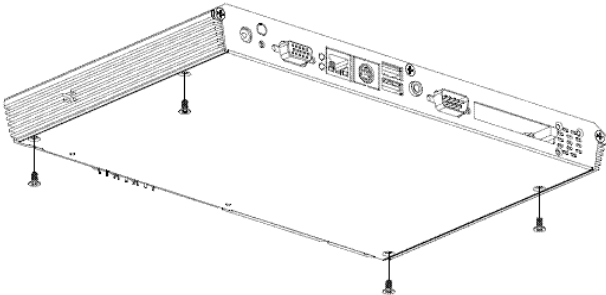
Step 5-2. Re-fold SATA cable as shown above for a proper installation of the HDD.



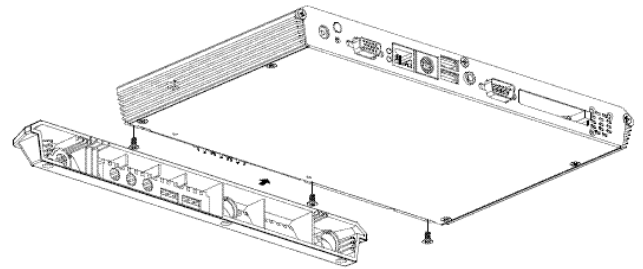
Step 5-3. Insert the HDD into the Drive Bay. Remember to properly seat the HDD so as to match screws and HDD holes.



Step 6. Reassemble the top chassis and fasten with 3 screws.



Step 7. Fasten 4 screws from the bottom chassis.



Step 8. Reassemble the rear chassis and fasten 3 screws to lock.

