

EPS-QM77

Fanless Intel® 3rd Generation Core™ i7/ i5/ i3 Ivy Rugged
Embedded System with Intel® QM77 Chipset

Quick Reference Guide

2nd Ed –13 January 2014

Copyright Notice

Copyright © 2014 Avalue Technology Inc., ALL RIGHTS RESERVED.

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 EPS-QM77 Fanless Rugged Embedded System
- 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
- Other major components include the followings:
 - Screw kit for 2.5" Drive bay fixing
 - AC to DC Adapter (Optional)
 - Power Cord (Optional)



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

1.3 System Specifications

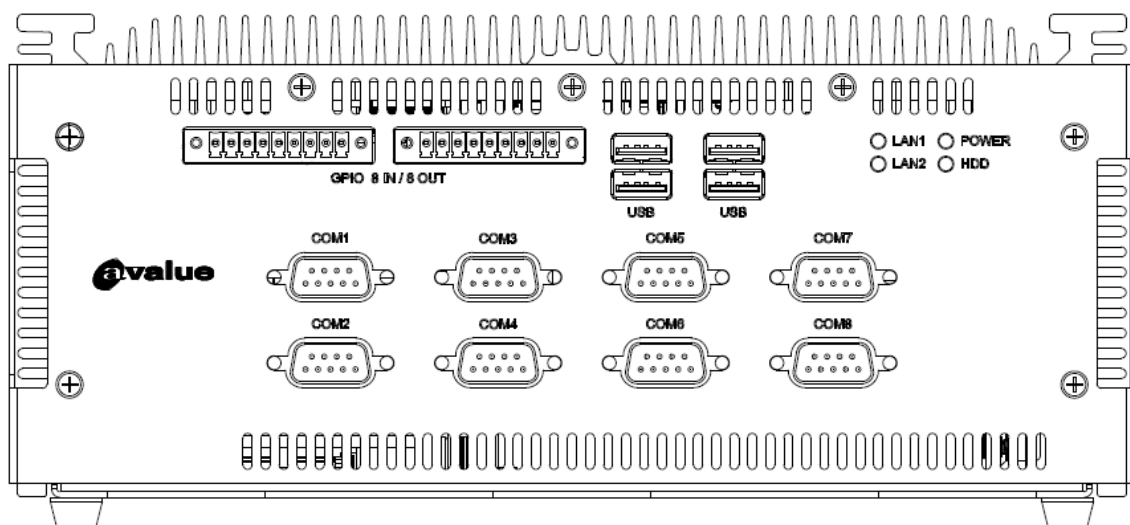
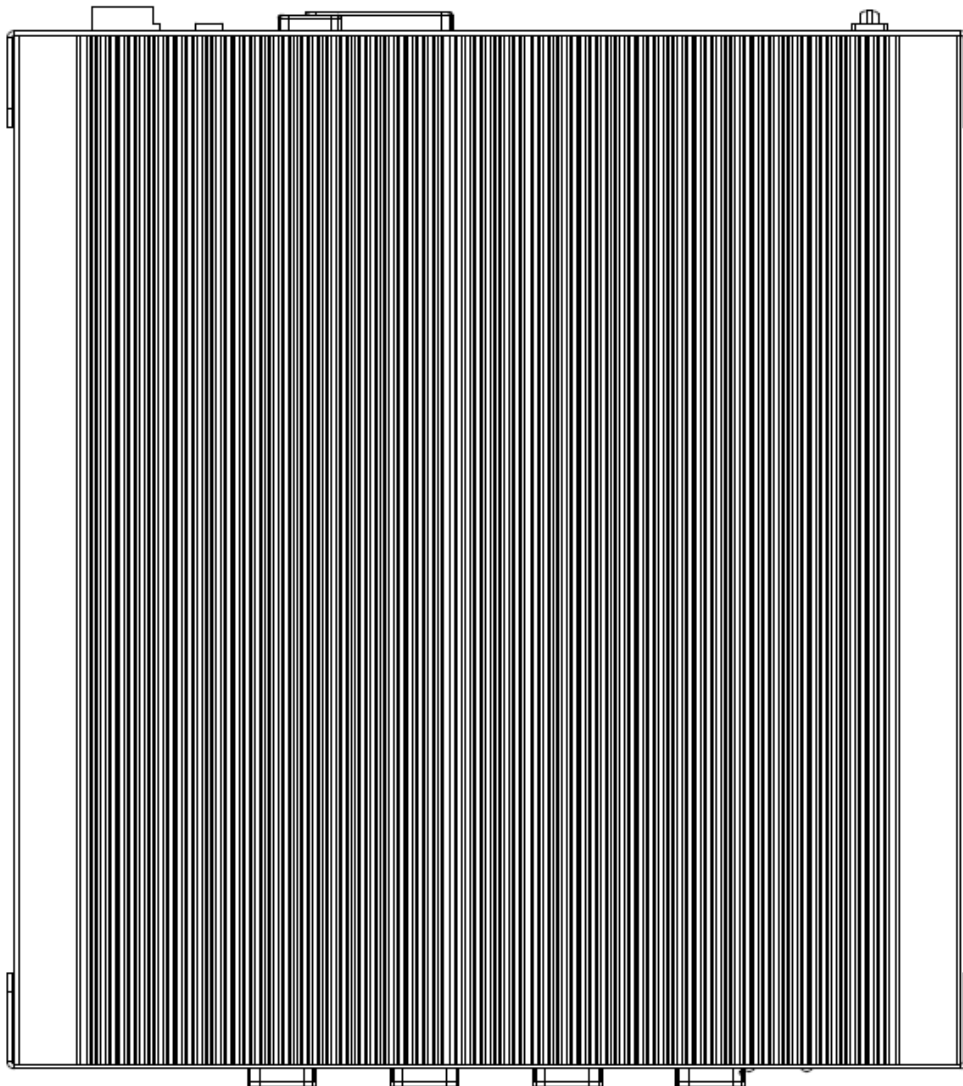
Component	
Mother Board	EAP-CE02+ESM-QM77
CPU	Intel® Core™ i7-3610QE 3.3GHz with 6MB Cache CPU Intel® Core™ i5-3610ME 3.3GHz with 3MB Cache CPU Intel® Core™ i3-3610ME 2.4GHz with 3MB Cache CPU
System Chipset	Intel® QM77 Chipset
BIOS	AMI 16 Mbit SPI BIOS
I/O Chipset	Nuvoton NTC6776F
System Memory	One 204-pin SODIMM Sockets Up to 8GB DDR3 1333/1600 SDRAM
Display	Intel® QM77 with Integrated Graphics Engine
Audio	RealTek ALC892
Ethernet	Dual Intel® Gigabit Ethernet, 82579LM and 82574L.
Watchdog Timer	Reset: 1sec. ~ 255min. and 1sec. or 1min./step
Storage	
Hard Disk Drive	2.5" Drive Bay Supported
Solid State Drive	SATA DOM supported
External I/O	
Serial Port	8 x COM port; pin-9 RI/+5V/+12V selected by jumper and COM5~8 RS232/422/485 mode setting by BIOS
Parallel Port	1 x DP-25 connector
USB Port	4 USB 2.0 on the Front; 4 USB 3.0 on the Rear
DIO Port	2 x Phoenix type for 8 IN/ 8 OUT GIPO
Video Port	1 x CRT, 1 x HDMI, 2 x Display Port
Audio Port	1 x Mic in, 1 x Line out, 1 x Line in
LAN Port	2 x RJ45
Wireless LAN Antenna	2 x Knockouts for Antenna Mounting
Switch	1 x Power on off rock switch 1 x 2-pin phoenix extending switch
Indicator Light	4 LEDs Indicators on the front side 1 x Green LED for Power on/off 1 x Yellow LED for HDD Access 2 x Green LED for LAN Act and Link
Expansion Slots	Supported three riser cards: a. 2 PCI Riser Card b. 1 PCI + 1 PCIe16 Riser Card c. 1 PCIe16 Riser Card

EPS-QM77

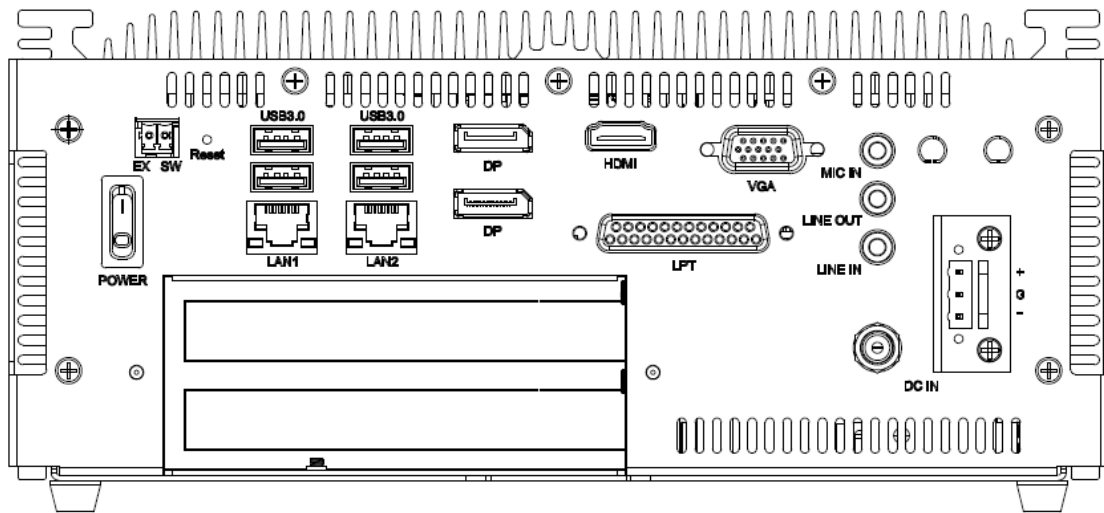
	2 Mini PCIe Socket, One supported SIM Card Slot
Mechanical	
Power Type	a. +12Vdc~+26Vdc 3-Pin Phoenix Connector b. +18Vdc~+75Vdc DC/DC Wide Range Power Module as an option
Power Connector Type	a. 3-Pin Phoenix Type b. Lockable DC Jack
ACPI	Single Power ATX Support S0, S3, S4, S5 ACPI 1.0b and 2.0 Compliant
Power Mode	AT/ ATX (ATX is the default setting)
Dimension	250mm x 270mm x 108mm
Weight	10lbs (5Kgs)

1.4 System Overview

1.4.1 Front & Top View



1.4.2 Rear View



Connectors

Label	Function	Note
COM1~8	Serial port connector 1~8	
DC-IN	DC power-in connector (Phoenix & Lockable DC Jack)	
EX SW	Power button Extension connector	1 x 2-pin Phoenix Type
GPIO 8IN/8OUT	Digital I/O	2 x 9-pin Phoenix Type
HDD	HDD Indicator	
Reset	Reset button	
LAN1	RJ-45 Ethernet 1	
LAN2	RJ-45 Ethernet 2	
Audio Jack	MIC IN, LINE OUT and LINE IN	
LPT	LPT connector	
DP	DP connector	
Power	System power switch	
USB1~8	USB connector 1~8	
VGA	VGA connector	
HDMI	HDMI connector	

2. Hardware Configuration

Jumper and Connector Setting, Driver and BIOS Installing

For advanced information, please refer to:

- 1- ESM-QM77 Quick Installation Guide or User's Manual
- 2- EAP-CE02, AUX-055 and AUX-036/ AUX -037 (Optional) / AUX -049 (Optional) included in this manual.

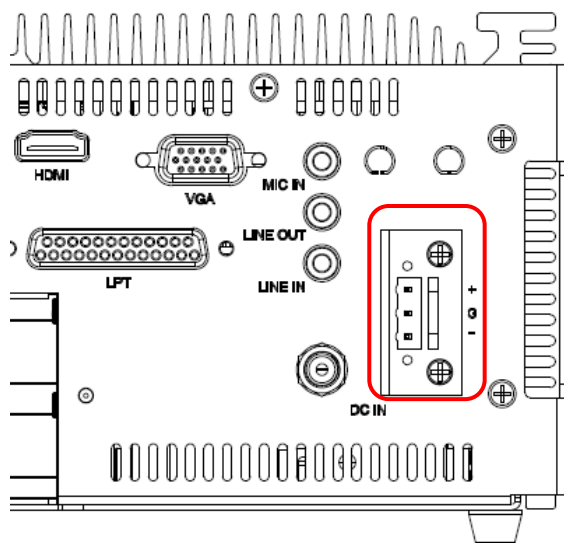


Note: If you need more information, please visit our website:

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

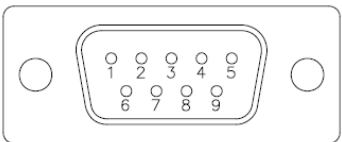
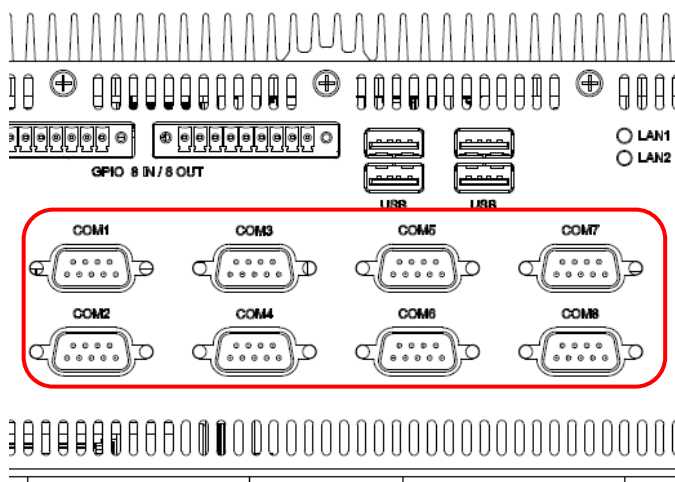
2.1 EPS-QM77 connector mapping

2.1.1 DC power-in connector (DC-IN)



Note:
Phoenix and Lockable DC Jack can't be used at the same time.

2.1.2 External Serial Port 1/2/3/4/5/6/7/8 connector (COM1/2/3/4/5/6/7/8)



In RS-232 Mode

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

In RS-422 Mode

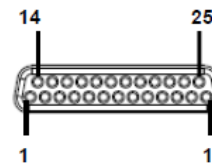
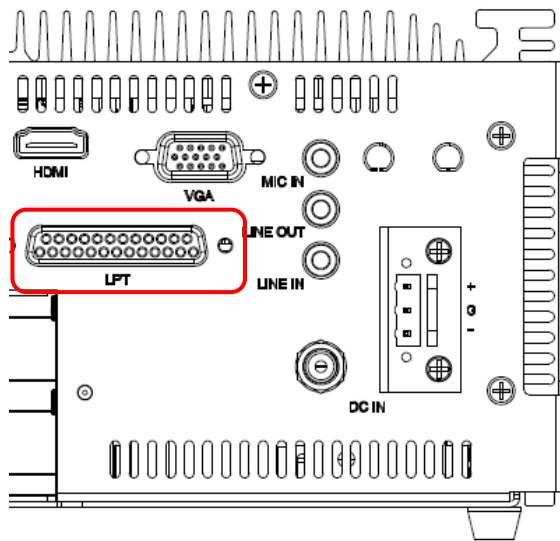
Signal	PIN	PIN	Signal
422TX-	1		
422TX+	2		
422RX+	3		
422RX-	4		
GND	5		

In RS-485 Mode

Signal	PIN	PIN	Signal
485TX-	1		
485TX+	2		
GND	5		

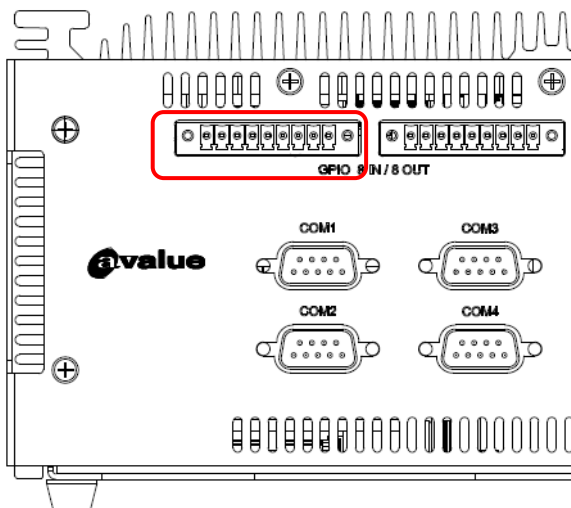
Note:
COM5,6,7,8 can be changed to RS-422 and 485 through the BIOS setup.
In RS-485 mode, This differential signal pair sends and receives serial data, which is controlled through the RTS register.
Set the RTS register to LOW for transmitting, and HIGH for receiving.

2.1.3 External LPT connector (LPT1)



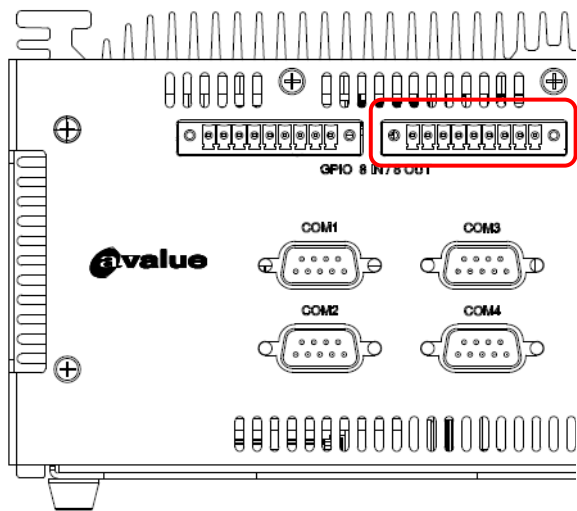
Signal	PIN	PIN	Signal
STB-	1	14	LPT_AFD#
PD0	2	15	LPT_ERR#
PD1	3	16	LPT_INIT#
PD2	4	17	LPT_SLIN#
PD3	5	18	GND
PD4	6	19	GND
PD5	7	20	GND
PD6	8	21	GND
PD7	9	22	GND
LPT_ACK#	10	23	GND
LPT_BUSY	11	24	GND
LPT_PE	12	25	GND
LPT_SLCT	13		

2.1.4 Digital I/O connector (GPI1)



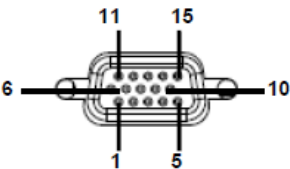
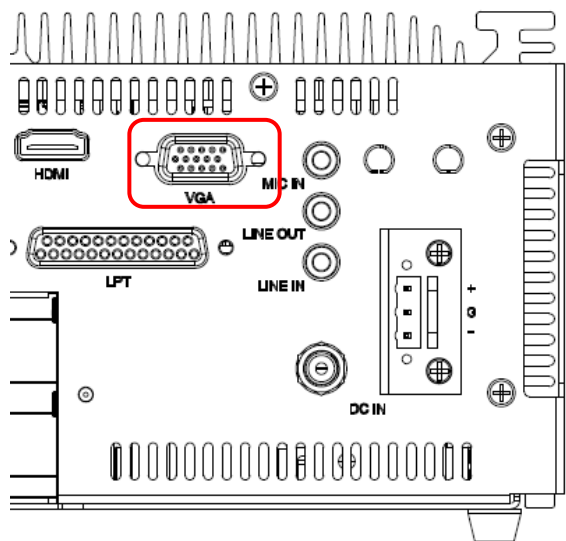
Signal	PIN
GPI0	1
GPI1	2
GPI2	3
GPI3	4
GPI4	5
GPI5	6
GPI6	7
GPI7	8
GND	9

2.1.5 Digital I/O connector (GPO1)



Signal	PIN
GPO0	1
GPO1	2
GPO2	3
GPO3	4
GPO4	5
GPO5	6
GPO6	7
GPO7	8
GND	9

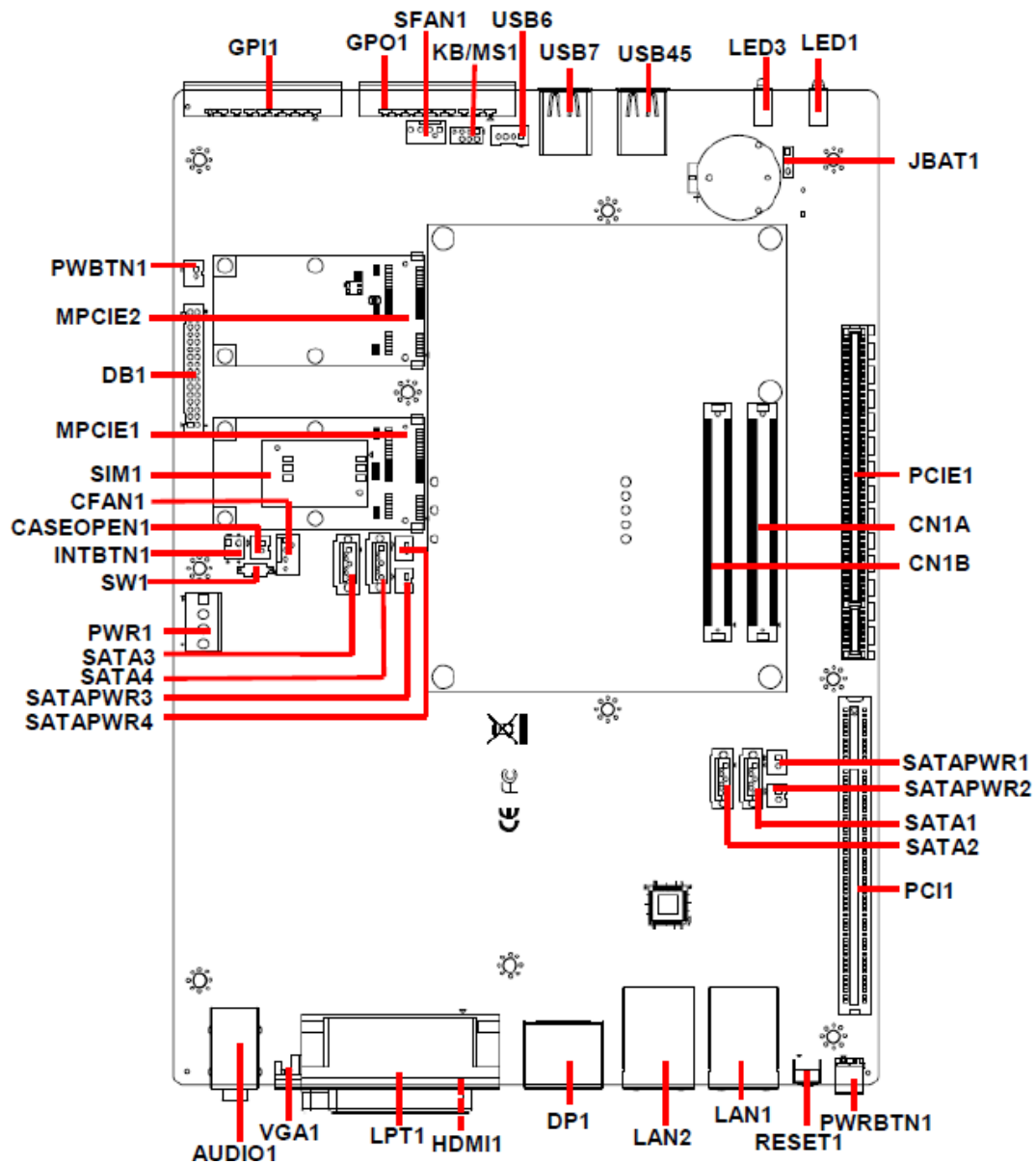
2.1.6 VGA connector (VGA)



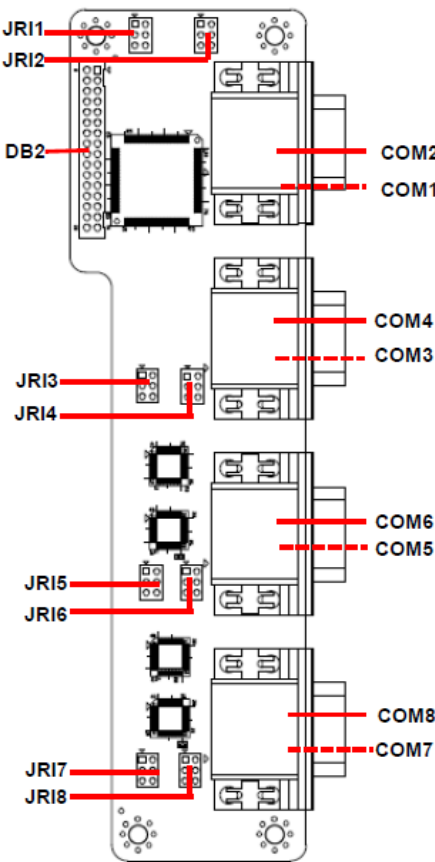
PIN	Signal	PIN	Signal	PIN	Signal
1	RED	6	VGA_CABLE	11	NC
2	GREEN	7	GND	12	DATA
3	BLUE	8	GND	13	HSYNC
4	NC	9	+5V	14	VSYNC
5	GND	10	GND	15	CLK

2.2 EAP-CE02,AUX-055 Overviews

2.2.1 EAP-CE02



2.2.2 AUX-055



2.3 EAP-CE02 Jumper & Connector list

Jumpers

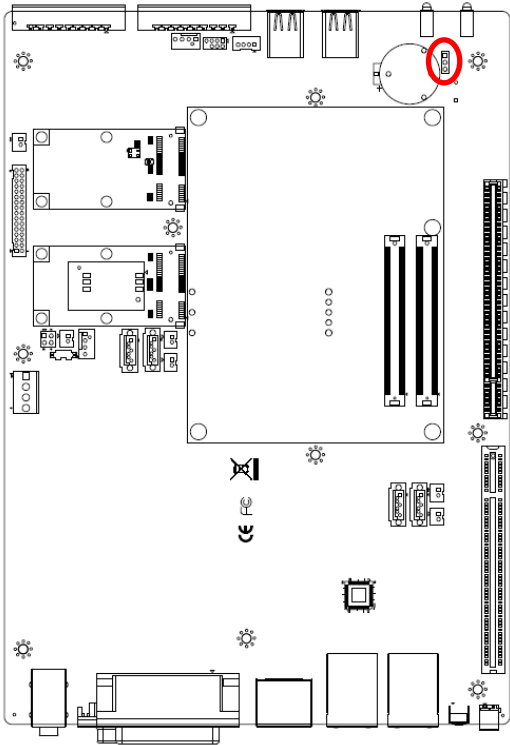
Label	Function	Note
JBAT1	Clear CMOS	3 x 1 header, pitch 2.54mm
SW1	AT/ATX mode selector	

Connectors

Label	Function	Note
AUDIO1	Audio connector	Phone Jack
CN1A/B	COM Express Connector 1/2	
PWBTN1	Power button	2 x 1 wafer, pitch 2.00mm
DB1	Multi-function port	16 x 2 wafer, pitch 2.00mm
CFAN1	CPU Fan connector	4 x 1 wafer
PWR1	Power connector	4 x 1 wafer, pitch 3.96mm
USB6	USB connector 6	4 x 1 wafer, pitch 2.00mm
KB/MS1	PS/2 Keyboard & mouse connector	4 x 2 header, pitch 2.00mm
LAN1/2	LAN connector 1/2	
LED1	Up: SATA Active Down: Power on/off	
LED3	Up: LAN1 Active Down: LAN2 Active	
MPCIE1/2	Mini PCI Express connector 1/2	52 pin
PCI1	PCI Connector 1	PCI slot
PCIE1	PCI Express connector 1	
PWRBTN1	Power button	
SATA1/2/3/4	Serial ATA connector 1/2/3/4	
SATAPWR1/2/3/4	SATA Power connector 1/2/3/4	2 x 1 wafer, pitch 2.00mm
SFAN1	System Fan connector	4 x 1 wafer
SIM1	SIM card slot	6 pin
USB45	USB connector 4 & 5	
USB7	USB connector 7	
VGA1	VGA connector	D-sub 15-pin, female
RESET1	Reset button	
DP1	DP connector	
LPT1	LPT connector	
GPI1/GPO1	Digital I/O connector	
INTBTN1	Intel Front Panel connector	2 x 2 header, pitch 2.54mm
CASEOPEN1	Chassis Intrusion connector	2 x 1 wafer, pitch 2.00mm
HDMI1	HDMI connector	

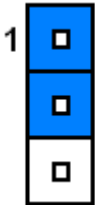
2.4 EAP-CE02 Jumpers & Connectors settings

2.4.1 Clear CMOS (JBAT1)

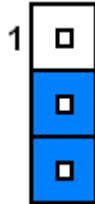


*Default

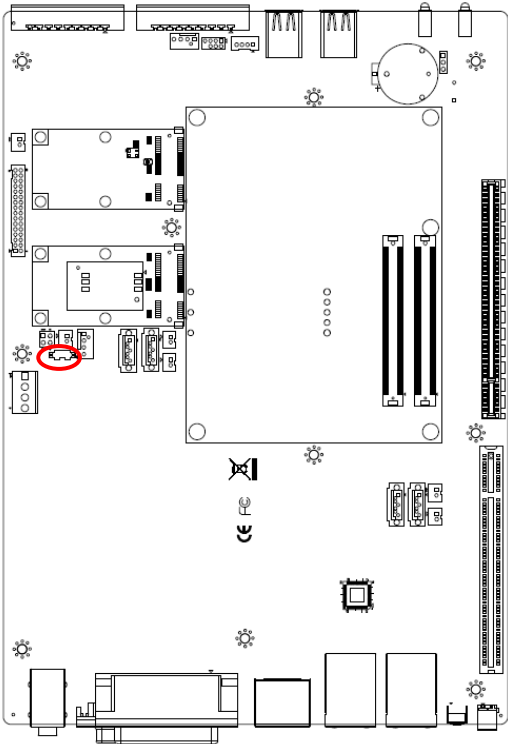
Protect*



Clear CMOS



2.4.2 AT/ATX mode selector (SW1)



*Default

AT/ATX mode



ATX mode*

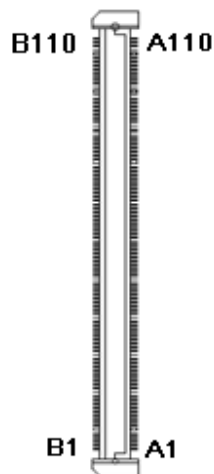
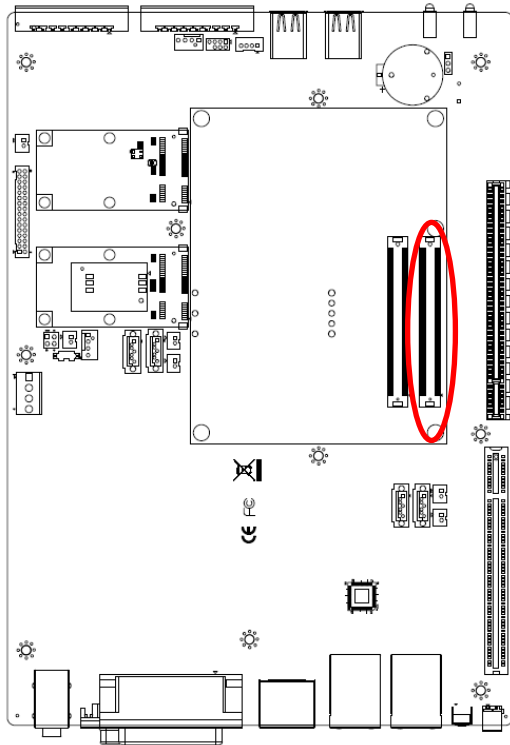
ON		↗	2	OFF
			1	

AT mode

ON	↖		2	OFF
			1	

Signal	PIN	PIN	Signal
AT_BN	4	2	EXT_PWRBTN#
MU_OFF#	3	1	GND

2.4.3 COM Express connector 1 (CN1A)



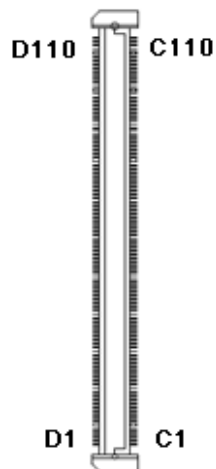
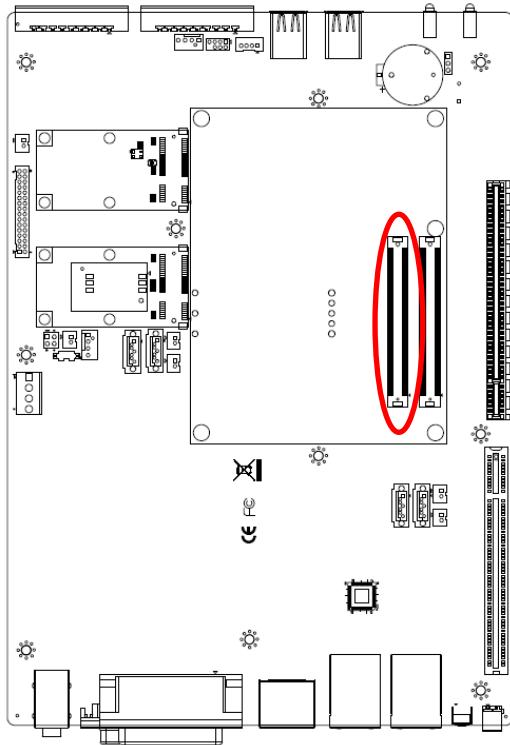
Signal	PIN	PIN	Signal
GND	B1	A1	GND
GBE0_ACT#	B2	A2	GBE0_MDI3-
LPC_FRAME#	B3	A3	GBE0_MDI3+
LPC_AD0	B4	A4	GBE0_LINK100#
LPC_AD1	B5	A5	GBE0_LINK1000#
LPC_AD2	B6	A6	GBE0_MDI2-
LPC_AD3	B7	A7	GBE0_MDI2+
LPC_DRQ0#	B8	A8	GBE0_LINK#
LPC_DRQ1#	B9	A9	GBE0_MDI1-
LPC_CLK	B10	A10	GBE0_MDI1+
GND	B11	A11	GND
PWRBTN#	B12	A12	GBE0_MDI0-
SMB_CK	B13	A13	GBE0_MDI0+
SMB_DAT	B14	A14	GBE0_CTREF
SMB_ALERT#	B15	A15	SUS_S3#
SATA1_TX+	B16	A16	SATA0_TX+
SATA1_TX-	B17	A17	SATA0_TX-
SUS_STAT#	B18	A18	SUS_S4#
SATA1_RX+	B19	A19	SATA0_RX+
SATA1_RX-	B20	A20	SATA0_RX-
GND	B21	A21	GND
SATA3_TX+	B22	A22	SATA2_TX+
SATA3_TX-	B23	A23	SATA2_TX-
PWR_OK	B24	A24	SUS_S5#
SATA3_RX+	B25	A25	SATA2_RX+
SATA3_RX-	B26	A26	SATA2_RX-
WDT	B27	A27	BATLOW#
AC/HDA_SDIN2	B28	A28	(S)ATA_ACT#
AC/HDA_SDIN1	B29	A29	AC/HDA_SYNC
AC/HDA_SDIN0	B30	A30	AC/HDA_RST#

Signal	PIN	PIN	Signal
GND	B31	A31	GND
SPKR	B32	A32	AC/HDA_BITCLK
I2C_CK	B33	A33	AC/HDA_SDOUT
I2C_DAT	B34	A34	BIOS_DIS0#
THRM#	B35	A35	THRMTRIP#
USB7-	B36	A36	USB6-
USB7+	B37	A37	USB6+
USB_4_5_OC#	B38	A38	USB_6_7_OC#
USB5-	B39	A39	USB4-
USB5+	B40	A40	USB4+
GND	B41	A41	GND
USB3-	B42	A42	USB2-
USB3+	B43	A43	USB2+
USB_0_1_OC#	B44	A44	USB_2_3_OC#
USB1-	B45	A45	USB0-
USB1+	B46	A46	USB0+
EXCD1_PERST#	B47	A47	VCC_RTC
EXCD1_CPPE#	B48	A48	EXCD0_PERST#
SYS_RESET#	B49	A49	EXCD0_CPPE#
CB_RESET#	B50	A50	LPC_SERIRQ
GND	B51	A51	GND
PCIE_RX5+	B52	A52	PCIE_TX5+
PCIE_RX5-	B53	A53	PCIE_TX5-
GPO1	B54	A54	GPI0
PCIE_RX4+	B55	A55	PCIE_TX4+
PCIE_RX4-	B56	A56	PCIE_TX4-
GPO2	B57	A57	GND
PCIE_RX3+	B58	A58	PCIE_TX3+
PCIE_RX3-	B59	A59	PCIE_TX3-
GND	B60	A60	GND

Signal	PIN	PIN	Signal
PCIE_RX2+	B61	A61	PCIE_TX2+
PCIE_RX2-	B62	A62	PCIE_TX2-
GPO3	B63	A63	GPI1
PCIE_RX1+	B64	A64	PCIE_TX1+
PCIE_RX1-	B65	A65	PCIE_TX1-
WAKE0#	B66	A66	GND
WAKE1#	B67	A67	GPI2
PCIE_RX0+	B68	A68	PCIE_TX0+
PCIE_RX0-	B69	A69	PCIE_TX0-
GND	B70	A70	GND
LVDS_B0+	B71	A71	LVDS_A0+
LVDS_B0-	B72	A72	LVDS_A0-
LVDS_B1+	B73	A73	LVDS_A1+
LVDS_B1-	B74	A74	LVDS_A1-
LVDS_B2+	B75	A75	LVDS_A2+
LVDS_B2-	B76	A76	LVDS_A2-
LVDS_B3+	B77	A77	LVDS_VDD_EN
LVDS_B3-	B78	A78	LVDS_A3+
LVDS_BKLT_EN	B79	A79	LVDS_A3-
GND	B80	A80	GND
LVDS_B_CK+	B81	A81	LVDS_A_CK+
LVDS_B_CK-	B82	A82	LVDS_A_CK-
LVDS_BKLT_CTRL	B83	A83	LVDS_I2C_CK
VCC_5V_SBY	B84	A84	LVDS_I2C_DAT
VCC_5V_SBY	B85	A85	GPI3
VCC_5V_SBY	B86	A86	RSVD1
VCC_5V_SBY	B87	A87	RSVD2
BIOS_DIS1#	B88	A88	PCIE_CLK_REF+
VGA_RED	B89	A89	PCIE_CLK_REF--
GND	B90	A90	GND

Signal	PIN	PIN	Signal
VGA_GRN	B91	A91	SPI_POWER
VGA_BLU	B92	A92	SPI_MISO
VGA_HSYNC	B93	A93	GPO0
VGA_VSYNC	B94	A94	SPI_CLK
VGA_I2C_CK	B95	A95	SPI_MOSI
VGA_I2C_DAT	B96	A96	PP_TPM
SPI_CS#	B97	A97	TYPE10#
NC	B98	A98	NC
NC	B99	A99	NC
GND	B100	A100	GND
FAN_PWMOUT	B101	A101	NC
FAN_TACHIN	B102	A102	NC
SLEEP#	B103	A103	LID#
VCC_12V	B104	A104	VCC_12V
VCC_12V	B105	A105	VCC_12V
VCC_12V	B106	A106	VCC_12V
VCC_12V	B107	A107	VCC_12V
VCC_12V	B108	A108	VCC_12V
VCC_12V	B109	A109	VCC_12V
GND	B110	A110	GND

2.4.4 COM Express connector 2 (CN1B)



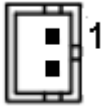
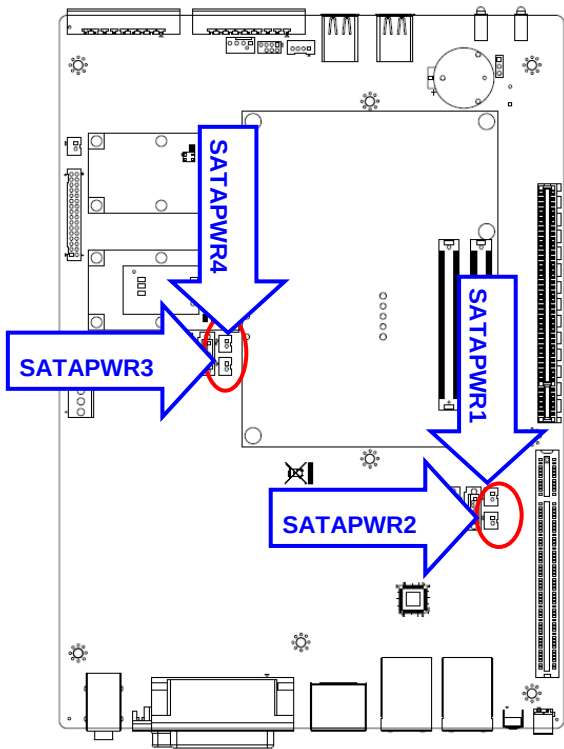
Signal	PIN	PIN	Signal
GND	D1	C1	GND
GND	D2	C2	GND
USB_SSTX0-	D3	C3	USB_SSRX0-
USB_SSTX0+	D4	C4	USB_SSRX0+
GND	D5	C5	GND
USB_SSTX1-	D6	C6	USB_SSRX1-
USB_SSTX1+	D7	C7	USB_SSRX1+
GND	D8	C8	GND
USB_SSTX2-	D9	C9	USB_SSRX2-
USB_SSTX2+	D10	C10	USB_SSRX2+
GND	D11	C11	GND
USB_SSTX3-	D12	C12	USB_SSRX3-
USB_SSTX3+	D13	C13	USB_SSRX3+
GND	D14	C14	GND
DDI1_CTRLCLK_AUX+	D15	C15	DDI1_PAIR6+
DDI1_CTRLCLK_AUX-	D16	C16	DDI1_PAIR6-
NC	D17	C17	NC
NC	D18	C18	NC
PCIE_TX6+	D19	C19	PCIE_RX6+
PCIE_TX6-	D20	C20	PCIE_RX6-
GND	D21	C21	GND
NC	D22	C22	NC
NC	D23	C23	NC
NC	D24	C24	DDI1_HPD
NC	D25	C25	DDI1_PAIR4+
DDI1_PAIR0+	D26	C26	DDI1_PAIR4-
DDI1_PAIR0-	D27	C27	NC
NC	D28	C28	NC
DDI1_PAIR1+	D29	C29	DDI1_PAIR5+
DDI1_PAIR1-	D30	C30	DDI1_PAIR5-

Signal	PIN	PIN	Signal
GND	D31	C31	GND
DDI1_PAIR2+	D32	C32	DDI2_CTRLCLK_AUX+
DDI1_PAIR2-	D33	C33	DDI2_CTRLDATA_AUX-
DDI1_DDC_AUX_SEL	D34	C34	DDI2_DDC_AUX_SEL
NC	D35	C35	NC
DDI1_PAIR3+	D36	C36	DDI3_CTRLCLK_AUX+
DDI1_PAIR3-	D37	C37	DDI3_CTRLDATA_AUX-
NC	D38	C38	DDI3_DDC_AUX_SEL
DDI2_PAIR0+	D39	C39	DDI3_PAIR0+
DDI2_PAIR0-	D40	C40	DDI3_PAIR0-
GND	D41	C41	GND
DDI2_PAIR1+	D42	C42	DDI3_PAIR1+
DDI2_PAIR1-	D43	C43	DDI3_PAIR1-
DDI2_HPD	D44	C44	DDI3_HPD
NC	D45	C45	NC
DDI2_PAIR2+	D46	C46	DDI3_PAIR2+
DDI2_PAIR2-	D47	C47	DDI3_PAIR2-
NC	D48	C48	NC
DDI2_PAIR3+	D49	C49	DDI3_PAIR3+
DDI2_PAIR3-	D50	C50	DDI3_PAIR3-
GND	D51	C51	GND
PEG_TX0+	D52	C52	PEG_RX0+
PEG_TX0-	D53	C53	PEG_RX0-
NC	D54	C54	TYPE0#
PEG_TX1+	D55	C55	PEG_RX1+
PEG_TX1-	D56	C56	PEG_RX1-
TYPE2#	D57	C57	TYPE1#
PEG_TX2+	D58	C58	PEG_RX2+
PEG_TX2-	D59	C59	PEG_RX2-
GND	D60	C60	GND

Signal	PIN	PIN	Signal
PEG_TX3+	D61	C61	PEG_RX3+
PEG_TX3-	D62	C62	PEG_RX3-
NC	D63	C63	NC
NC-	D64	C64	NC
PEG_TX4+	D65	C65	PEG_RX4+
PEG_TX4-	D66	C66	PEG_RX4-
GND	D67	C67	NC
PEG_TX5+	D68	C68	PEG_RX5+
PEG_TX5-	D69	C69	PEG_RX5-
GND	D70	C70	GND
PEG_TX6+	D71	C71	PEG_RX6+
PEG_TX6-	D72	C72	PEG_RX6-
GND	D73	C73	GND
PEG_TX7+	D74	C74	PEG_RX7+
PEG_TX7-	D75	C75	PEG_RX7-
GND	D76	C76	GND
NC	D77	C77	NC
PEG_TX8+	D78	C78	PEG_RX8+
PEG_TX8-	D79	C79	PEG_RX8-
GND	D80	C80	GND
PEG_TX9+	D81	C81	PEG_RX9+
PEG_TX9-	D82	C82	PEG_RX9-
NC	D83	C83	NC
GND	D84	C84	GND
PEG_TX10+	D85	C85	PEG_RX10+
PEG_TX10-	D86	C86	PEG_RX10-
GND	D87	C87	GND
PEG_TX11+	D88	C88	PEG_RX11+
PEG_TX11-	D89	C89	PEG_RX11-
GND	D90	C90	GND

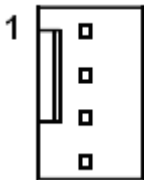
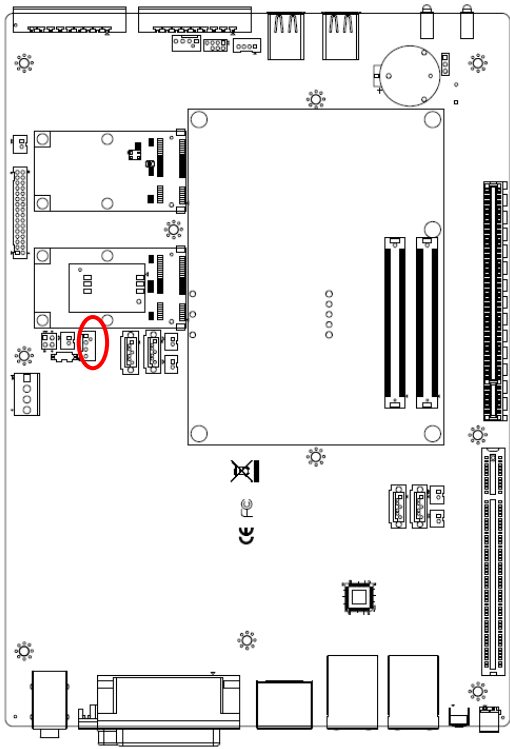
Signal	PIN	PIN	Signal
PEG_TX12+	D91	C91	PEG_RX12+
PEG_TX12-	D92	C92	PEG_RX12-
GND	D93	C93	GND
PEG_TX13+	D94	C94	PEG_RX13+
PEG_TX13-	D95	C95	PEG_RX13-
GND	D96	C96	GND
NC	D97	C97	NC
PEG_TX14+	D98	C98	PEG_RX14+
PEG_TX14-	D99	C99	PEG_RX14-
GND	D100	C100	GND
PEG_TX15+	D101	C101	PEG_RX15+
PEG_TX15-	D102	C102	PEG_RX15-
GND	D103	C103	GND
VCC_12V	D104	C104	VCC_12V
VCC_12V	D105	C105	VCC_12V
VCC_12V	D106	C106	VCC_12V
VCC_12V	D107	C107	VCC_12V
VCC_12V	D108	C108	VCC_12V
VCC_12V	D109	C109	VCC_12V
GND	D110	C110	GND

2.4.5 SATA Power connector 1/2/3/4 (SATAPWR1/2/3/4)



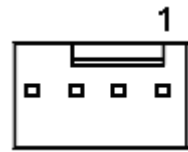
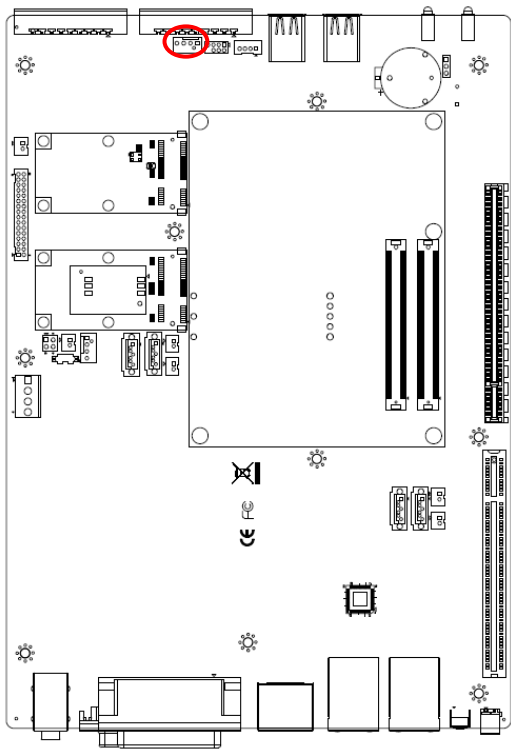
Signal	PIN
GND	1
+5V	2

2.4.6 CPU Fan Connector (CFAN1)



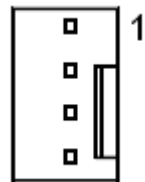
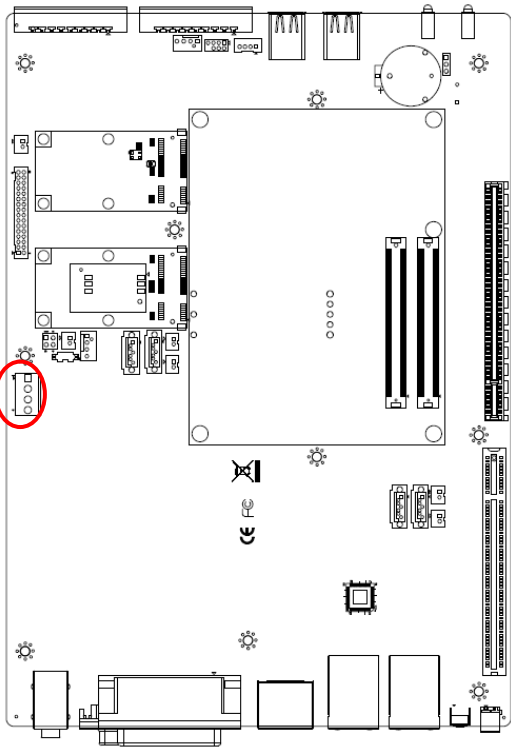
Signal	PIN
GND	1
+12V	2
+5V	3
CPUFANOUT	4

2.4.7 System Fan Connector (SFAN1)



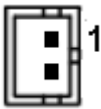
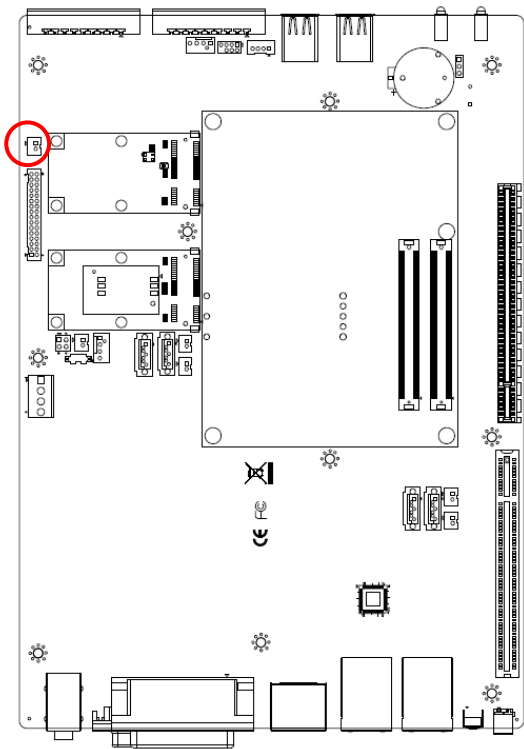
Signal	PIN
GND	1
+12V	2
+5V	3
SYSFANOUT	4

2.4.8 Power connector (PWR1)



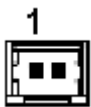
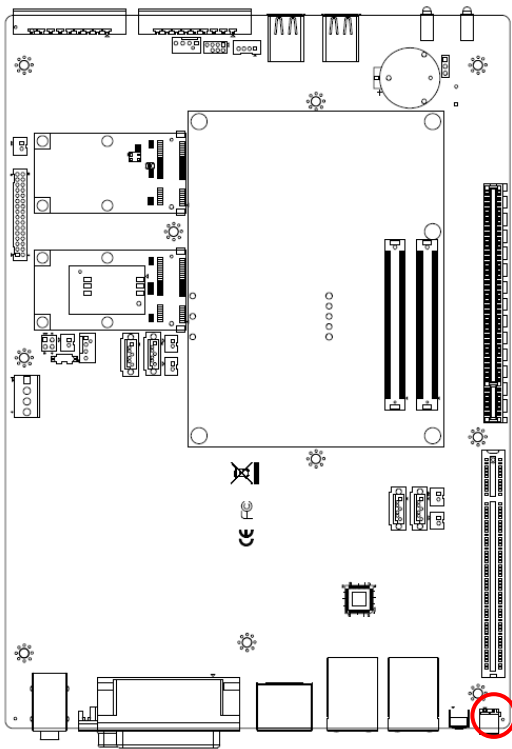
Signal	PIN
GND	1
GND	2
+PWRIN	3
+PWRIN	4

2.4.9 Power button (PWBTN1)



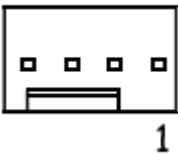
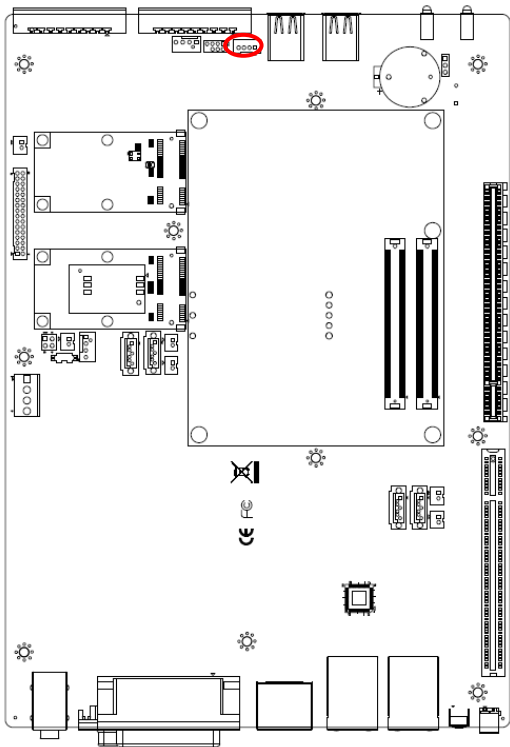
Signal	PIN
GND	1
EXT_PWRBTN#	2

2.4.10 Power button (PWRBTN1)



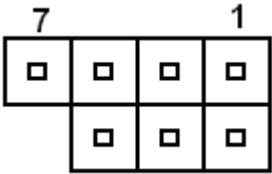
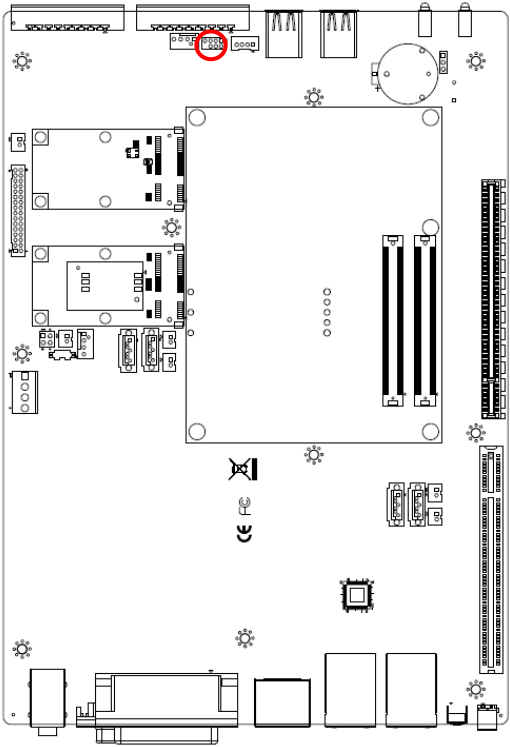
Signal	PIN
EXT_PWRBTN#	1
GND	2

2.4.11 USB connector 6 (USB6)



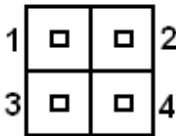
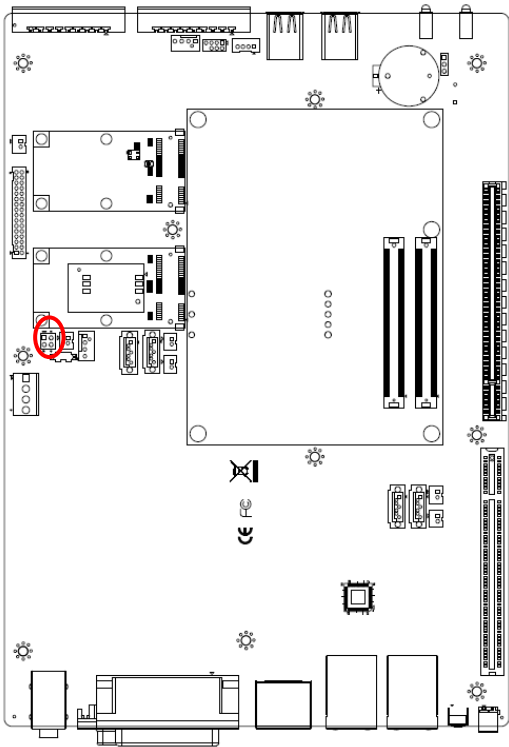
Signal	PIN
USBVCC5	1
Z_PN6	2
Z_PP6	3
GND	4

2.4.12 PS/2 Keyboard & mouse connector (KB/MS1)



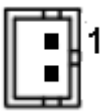
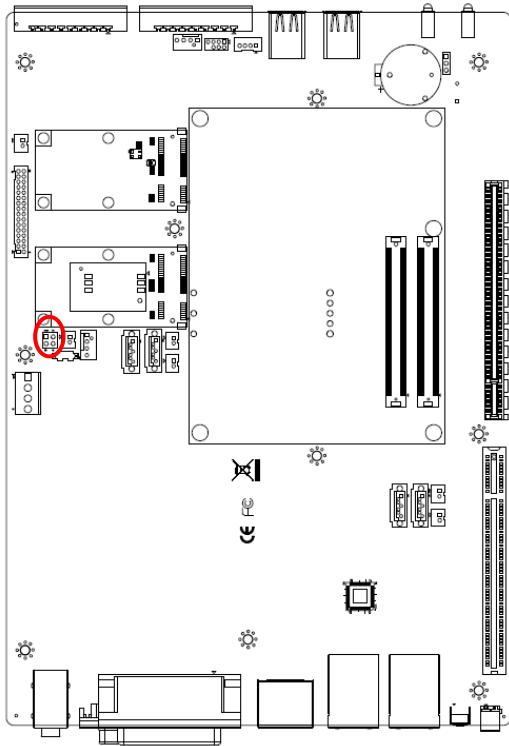
Signal	PIN	PIN	Signal
KBDT	1	2	KBCK
GND	3	4	PS2PWR
MSDT	5	6	MSCK
NC	7		

2.4.13 Intel Front Panel connector (INTBTN1)



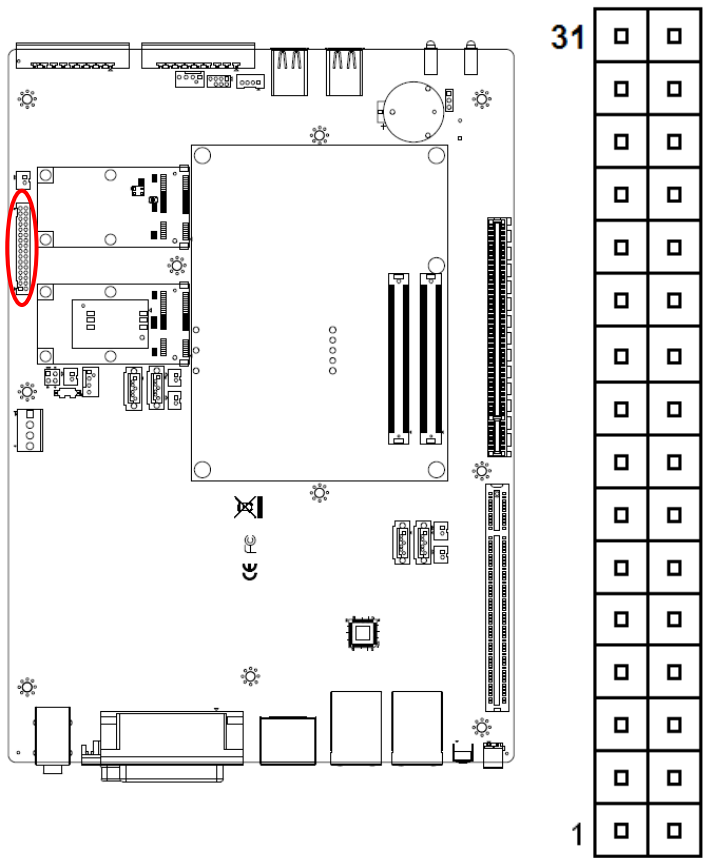
Signal	PIN	PIN	Signal
GND	1	2	EXT_PWRBTN#
GND	3	4	SYS_RERST#

2.4.14 Chassis Intrusion connector (CASEOPEN1)



Signal	PIN
GND	1
+3.3V	2

2.4.15 Multi-function port 1 (DB1)



Signal	PIN	PIN	Signal
URIB#	31	32	URIA#
UDTRB#	29	30	UDTRA#
UCTSB#	27	28	UCTSA#
USOUTB	25	26	USOUTA
URTSB#	23	24	URTSA#
USINB	21	22	USINA
UDSRB#	19	20	UDSRA#
UDCDB#	17	18	UDCDA#
COM_WAKE#	15	16	+12V
GND	13	14	+5V
GND	11	12	+5V
GND	9	10	LPC_SERIRQ
PORT80_CLK	7	8	LPC_AD3
LPC_FRAME#	5	6	LPC_AD2
CB_RST#	3	4	LPC_AD1
+3.3V	1	2	LPC_AD0

2.5 AUX-055 Connector list

Jumpers

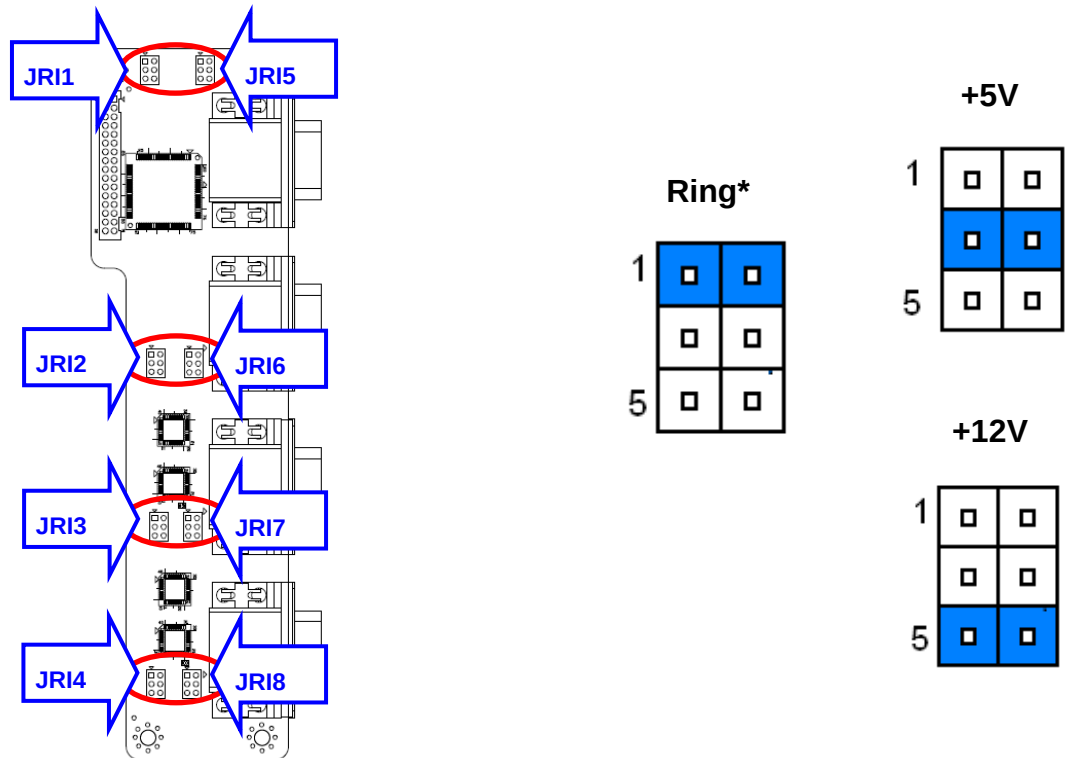
Label	Function	Note
JRI1~8	Serial port 1~8 – Ring, +5V, +12V power select	3 x 2 header, pitch 2.00mm

Connectors

Label	Function	Note
COM1~8	Serial port connector 1~8	
DB2	Multi-function port 2	16 x 2 wafer, pitch 2.00mm

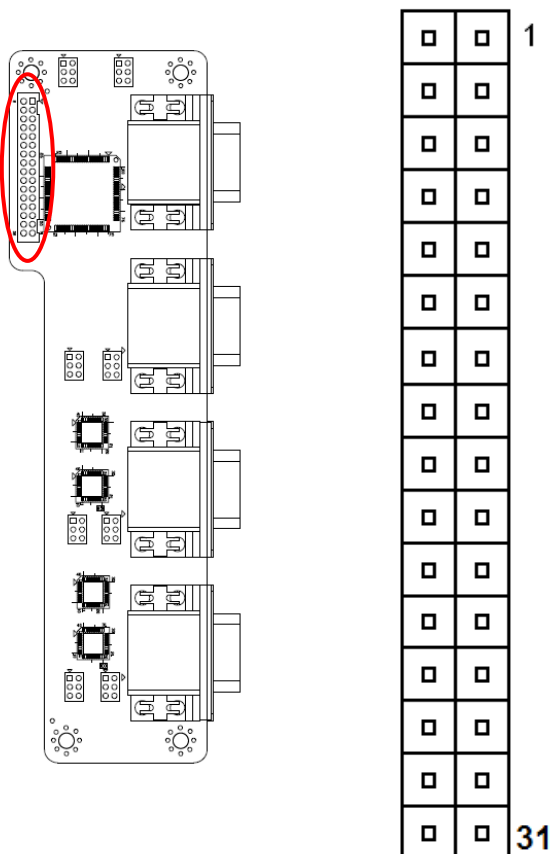
2.6 AUX-055 Jumpers & Connectors settings

2.6.1 Serial port 1 - Ring, +5V, +12V power select (JRI1)



*** Default**

2.6.2 Multi-function port 2 (DB2)



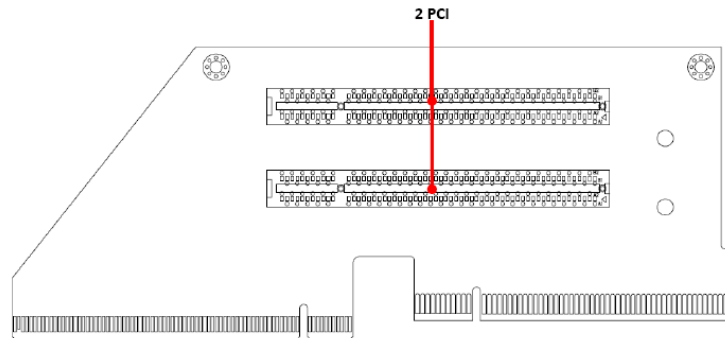
Signal	PIN	PIN	Signal
ULPC_AD0	2	1	+3.3V
ULPC_AD1	4	3	UCB_RST#
ULPC_AD2	6	5	ULPC_FRAME#
ULPC_AD3	8	7	ULPC_CLK
ULPC_SIRQ	10	9	GND
+5V	12	11	GND
+5V	14	13	GND
+12V	16	15	COMWAKE#
UDCD1	18	17	UDCD2
UDSR1	20	19	UDSR2
URxDD1	22	21	URxDD2
URTS1	24	23	URTS2
UTXDD1	26	25	UTXDD2
UCTS1	28	27	UCTS2
UDTR1	30	29	UDTR2
JRI1	32	31	JRI2

2.7 Daughter Boards (AUX-036 – AUX-037 – AUX-049)

2.7.1 AUX-036

Connectors

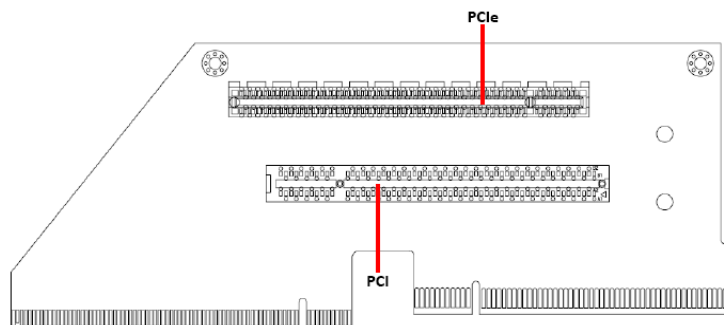
Label	Function	Note
PCI1/2	PCI connector 1/2	



2.7.2 AUX-037 (optional)

Connectors

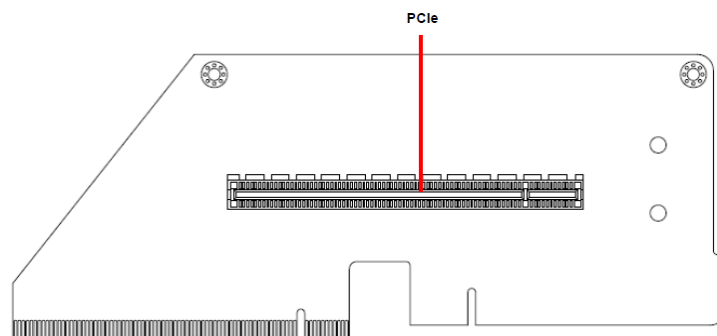
Label	Function	Note
PCI	PCI connector 1	
PCIe	PCI Express X16 connector	



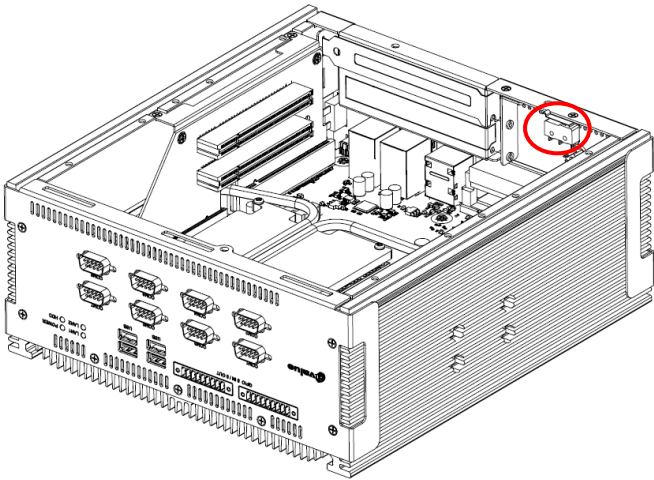
2.7.3 AUX-049 (optional)

Connectors

Label	Function	Note
PCIe	PCI Express X16 connector	

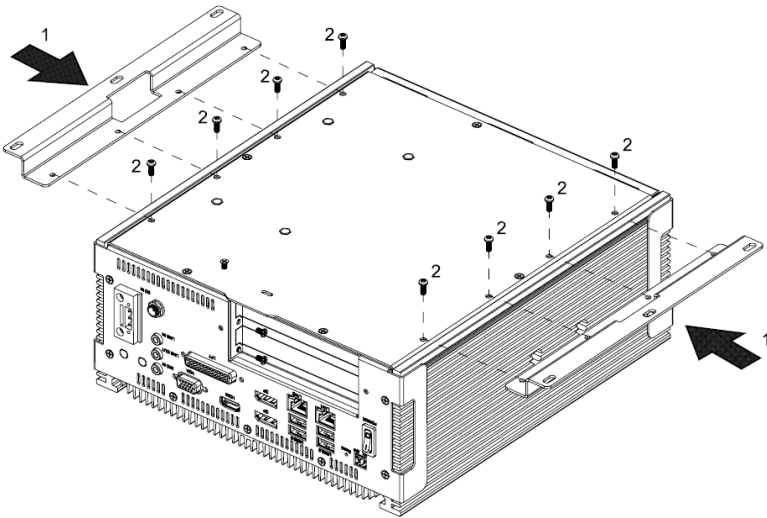


2.8 Chassis Intrusion Sensor BIOS Installing (EPS-QM77)



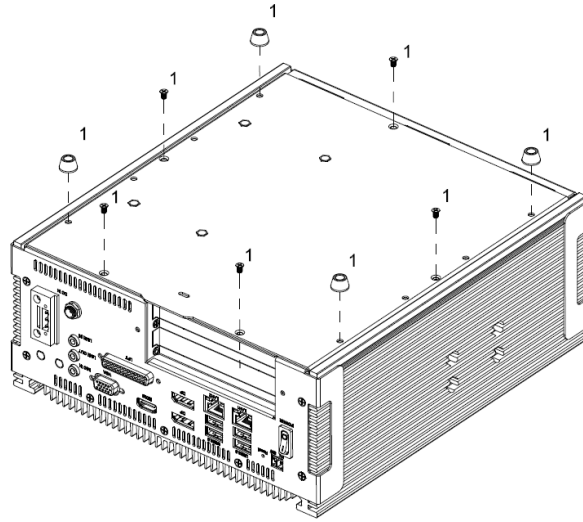
Item	Option	Description
Case open	Disabled Enabled	Enable: Showing message on the screen that “Alert! Cover was previously removed.” When the system is turn on next time.

2.9 Installing Mounting Brackets (EPS-QM77)



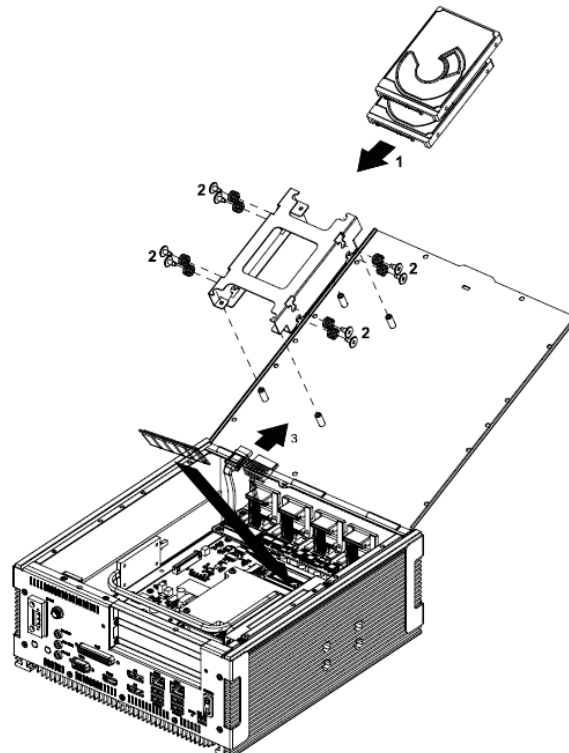
- Step 1.** Locate brackets on both sides, matching the holes on the system
- Step 2.** Insert and fasten 4 screws on each side of the system to secure Mounting brackets

2.10 Installing Hard Disk & Memory (EPS-QM77)



Step 1. Remove 9 screws from the bottom of your system.

Step 2. Remove the chassis cover.



Step 1. Remove 8 screws to release the HDD bracket.

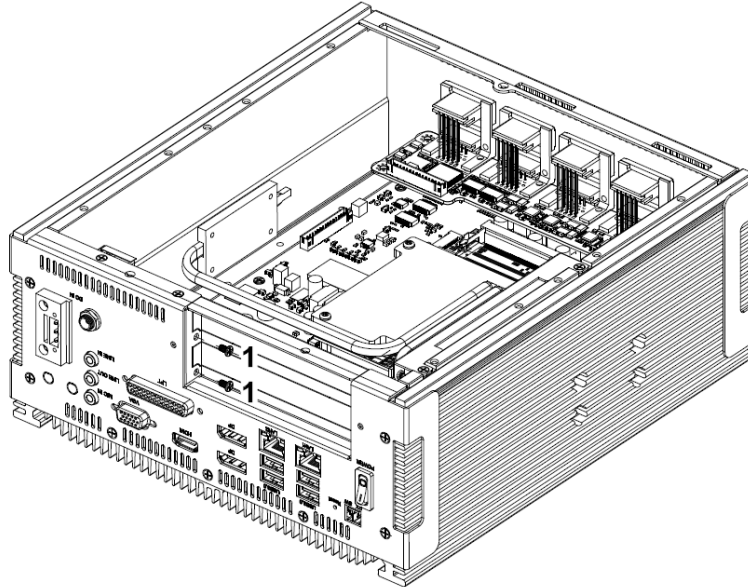
Step 2. Slide HDD into its bracket until properly seated.

Step 3. Secure HDD by means of 8 screws.

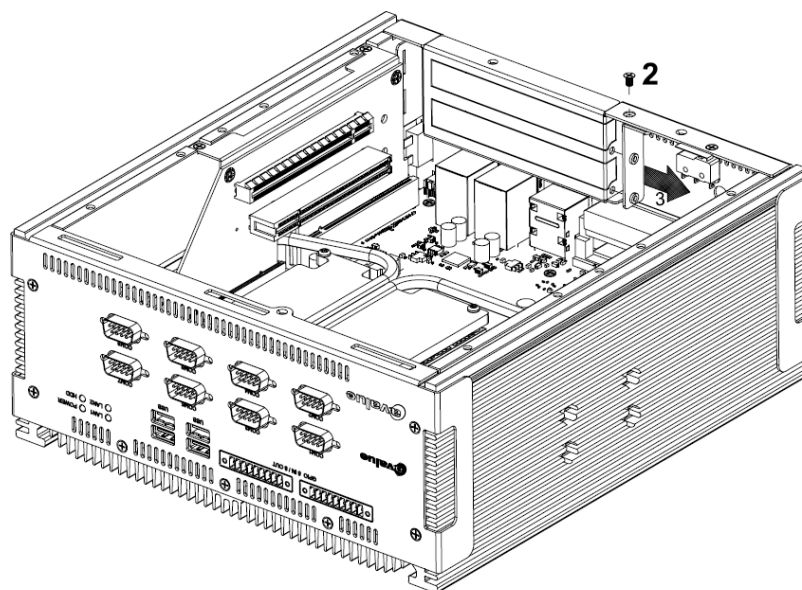
Step 4. Connect necessary cables to the HDD

Step 5. Slide the DDR3 SODIMM into the memory socket and press it down to seat it properly.

2.11 Installing PCI devices (EPS-QM77)



Step1. Remove 2 screws to release the retention clip



Step2. Remove one screw to release the retention clip

Step3. The retention clip can now be removed to open slot cover for PCI installation

