

LAN Connector

Connector size: RJ-45

Connector location: LAN1



Connector Pin Definition

Pin	Definition	Pin	Definition
1	TX+	2	TX-
3	RX+	4	N/C1
5	N/C2	6	RX-
7	N/C3	8	N/C4
9	LAN Speed LED	10	+3.3V
11	LAN Link LED	12	+3.3V

USB Connector

Connector location: USB1



Connector Pin Definition

Pin	Definition	Pin	Definition
1	VCC	2	DATA-
3	DATA+	4	GND

USB Connector

Connector location: USB2



Connector Pin Definition

Pin	Definition	Pin	Definition
1	VCC	2	DATA1-
3	DATA1+	4	GND
5	VCC	6	DATA-
7	DATA+	8	GND

LVDS Power Connector

Connector location: J5

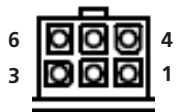


Connector Pin Definition

Pin	Definition	Pin	Definition
1	Panel_backlight	2	Panel_VDD
3	GND	4	GND
5	LVDS_PANEL	6	LVDS_BIASON

External 12V & 5V Power and SMBUS Connector

Connector location: CN2

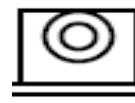


Connector Pin Definition

Pin	Definition	Pin	Definition
1	5V	2	12V
3	SMBCLK	4	GND
5	GND	6	SMBDATA

Mic-in

Connector location: CN11 and CN15



Connector Pin Definition

Pin	Definition	Pin	Definition
1	NC	2	MIC_JD
3	NC	4	MIC_OUT
5	GND	6	GND

Line-out

Connector location: CN8 and CN14

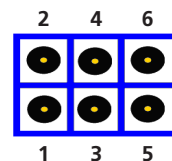


Connector Pin Definition

Pin	Definition	Pin	Definition
1	LINE_OUT_L	2	SURR_JD
3	NC	4	LINE_OUT_R
5	GND	6	GND

PCI-104 VI/O Voltage Setting

Connector location: J13

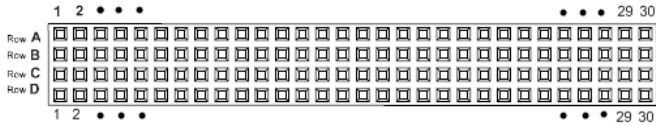


Connector Pin Definition

Pin No.	Status	Function Description
1-3, 2-4 (default)	Short	+3.3V
3-5, 4-6	Short	+5V

PCI-104 Connector

Connector location: CN16

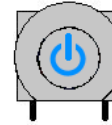


Connector Pin Definition

Pin	A	B	C	D
1	GND	Reserved	+5	AD00
2	VI/O	AD02	AD01	+5V
3	AD05	GND	AD04	AD03
4	C/BE0#	AD07	GND	AD06
5	GND	AD09	AD08	GND
6	AD11	VI/O	AD10	M66EN
7	AD14	AD13	GND	AD12
8	+3.3V	C/BE1#	AD15	+3.3V
9	SERR#	GND	Reserved	PAR
10	GND	PERR#	+3.3V	Reserved
11	STOP#	+3.3V	LOCK#	GND
12	+3.3V	TRDY#	GND	DEVSEL#
13	FRAME#	GND	IRDY#	+3.3V
14	GND	AD16	+3.3V	C/BE2#
15	AD18	+3.3V	AD17	GND
16	AD21	AD20	GND	AD19
17	+3.3V	AD23	AD22	+3.3V
18	IDSEL0	GND	IDSEL1	IDSEL2
19	AD24	C/BE3#	VI/O	IDSEL3
20	GND	AD26	AD25	GND
21	AD29	+5V	AD28	AD27
22	+5V	AD30	GND	AD31
23	REQ0#	GND	REQ1#	VI/O
24	GND	REQ2#	+5V	GNT0#
25	GNT1#	VI/O	GNT2#	GND
26	+5V	CLK0	GND	CLK1
27	CLK2	+5V	CLK3	GND
28	GND	INTD#	+5V	RST#
29	+12V	INTA#	INTB#	INTC#
30	-12V	REQ3#	GNT3#	GND

Power Button

Connector location: SW1



Reset Button

Connector location: SW2



MCU COM Port

Connector location: JP3

Connector Pin Definition

Pin	Function Description
1	TX
2	RX
3	GND

ACC_ON LED

Connector location: JP7



Connector Pin Definition

Pin	Function Description
1	+3.3V LED
2	GND

Temp Sensor

Connector location: JP8



Connector Pin Definition

Pin	Function Description
1	SENSOR+
2	GND

DC Power Input Connector

Connector location: CN1

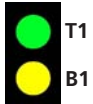


Connector Pin Definition

Pin	Function Description
1	GND
2	VIN (6V~36V)
3	IGNITION

Power On and IDE Active LED

Connector location: LED1

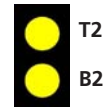


Connector Pin Definition

LED	Function Description
T1	POWER LED
B1	HD LED

GPIO and UMTS LEDs

Connector location: LED2



LED I/O Port Address and Data

LED	Function Description
T2	I/O PORT Address: 0EE0; Bit0: 1 (Light), 0 (Dark)
B2	UMTS STATUS

Serial ATA

Connector location: CN6



Connector Pin Definition

Pin	Definition	Pin	Definition
1	GND	2	SATA_TXP0 -
3	SATA_TXN0	4	GND
5	SATA_RXN0	6	SATA_RXP0
7	GND		

Serial ATA Power Input

Connector location: J10



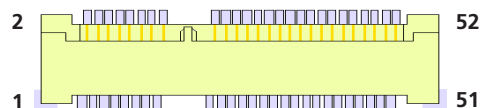
Connector Pin Definition

Pin	Definition	Pin	Definition
1	+V12S	2	GND
3	GND	4	+V5S

Mini-PCle Socket (for 3.5G module)

PCIe Interface

Connector location: CN10



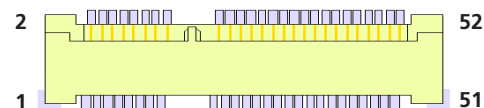
Connector Pin Definition

Pin	Definition	Pin	Definition	Pin	Definition	Pin	Definition
1	MIC +	2	+V3.3S	27	GND	28	NC
3	MIC -	4	GND	29	GND	30	NC
5	SPK +	6	NC	31	NC	32	NC
7	GND	8	USIM PWR	33	RESET	34	GND
9	GND	10	USIM DATA	35	GND	36	USB_D-
11	VCC_MSM26_DIG	12	USIM CLK	37	GND	38	USB_D+
13	NC	14	USIM RST	39	+V3.3S	40	GND
15	GND	16	NC	41	+V3.3S	42	LED_WWAN#
17	NC	18	GND	43	GND	44	NC
19	NC	20	W_DISABLE#	45	NC	46	NC
21	GND	22	NC	47	NC	48	NC
23	NC	24	NC	49	NC	50	GND
25	NC	26	GND	51	NC	52	+V3.3S

Mini-PCle Socket (for WLAN module)

USB + PCIe Interface

Connector location: CN13

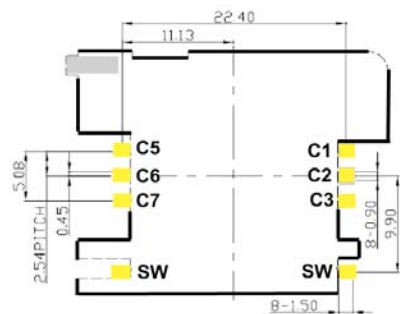


Connector Pin Definition

Pin	Definition	Pin	Definition	Pin	Definition	Pin	Definition
1	WAKE#	2	+V3.3S	27	GND	28	+V1.5S
3	NC	4	GND	29	GND	30	SMB_CLK
5	NC	6	+V1.5S	31	PETn0	32	SMB_DATA
7	CLKREQ#	8	NC	33	PETp0	34	GND
9	GND	10	NC	35	GND	36	USB_D-
11	REFCLK-	12	NC	37	NC	38	USB_D+
13	REFCLK+	14	NC	39	NC	40	GND
15	GND	16	NC	41	NC	42	LED_WWAN#
17	NC	18	GND	43	NC	44	LED_WLAN#
19	NC	20	DISABLE#	45	NC	46	LED_WPAN#
21	GND	22	PERST#	47	NC	48	+V1.5S
23	PERn0	24	+3.3S	49	NC	50	GND
25	PERp0	26	GND	51	NC	52	+V3.3S

SIM Card Connector

Connector location: CN4



Connector Pin Definition

Pin	Definition	Pin	Definition
C1	POWER VOLTAGE	C2	RESET SIGNAL
C3	CLOCK SIGNAL	C5	GND
C6	VPP:PROGRAM VOLTAGE	C7	I/O
SW	Contact present switch		

Bluetooth Connector

Connector location: J7



Pin	Definition	Pin	Definition
1	GND	2	USB_6P_L
3	USB_6N_L	4	NC
5	NC	6	BT_AUDIO_EN_R
7	NC	8	BT_3.3V
9	NC	10	GND

CHAPTER 3: SYSTEM SETUP

Removing the Chassis Cover



Prior to removing the chassis cover, make sure the unit's power is off and disconnected from the power sources to prevent electric shock or system damage.

1. The screws on the cover are used to secure the cover to the chassis. Remove these screws and put them in a safe place for later use.



Front View



Rear View



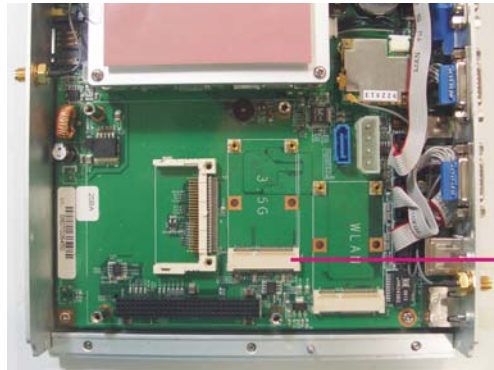
Bottom View

2. Lift the cover upward then remove it from the chassis.



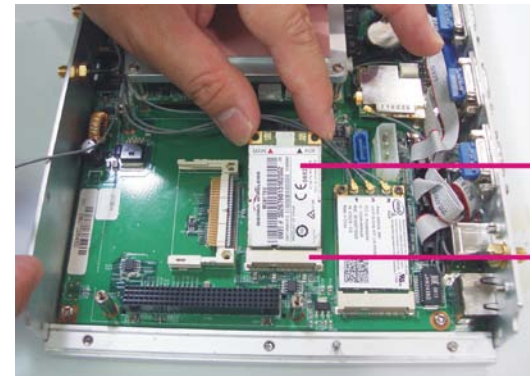
Installing a GPRS/UMTS/HSDPA Module

1. The Mini PCI Express slot shown below is used to install a 3.5G communication module such as GPRS, UMTS or HSDPA module.



Mini PCI Express slot

2. Insert the module into the Mini PCI Express slot at a 45 degrees angle until the gold-plated connector on the edge of the module completely disappears inside the slot.



GPRS/UMTS/HSDPA module

Mini PCI Express slot

3. Push the module down then secure it with mounting screws.



4. Attach one end of the RF cable onto the module.



Attach RF cable to the module

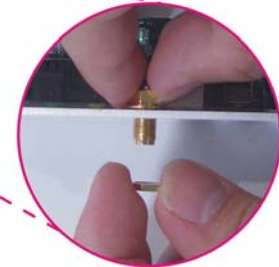
5. The photo below shows one end of the RF cable properly attached onto the module.



6. Mount the other end of the cable to the antenna mounting hole located at the front panel of the chassis.

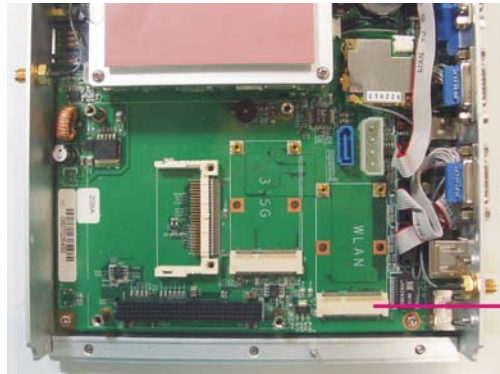


RF cable mounted at the front panel



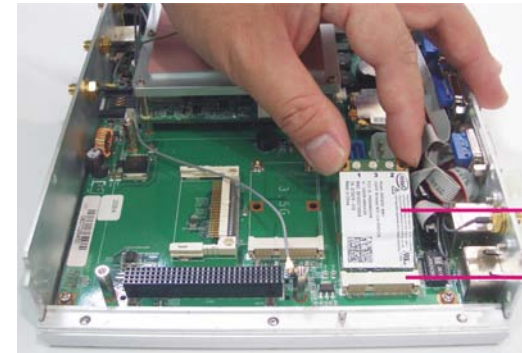
Installing a Wireless LAN Module

1. The Mini PCI Express slot shown below is used to install a wireless LAN module.



Mini PCI Express slot

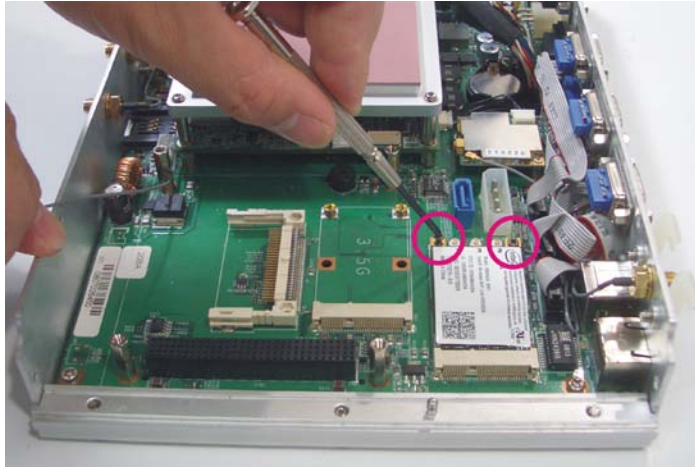
2. Insert the wireless LAN module into the Mini PCI Express slot at a 45 degrees angle until the gold-plated connector on the edge of the module completely disappears inside the slot.



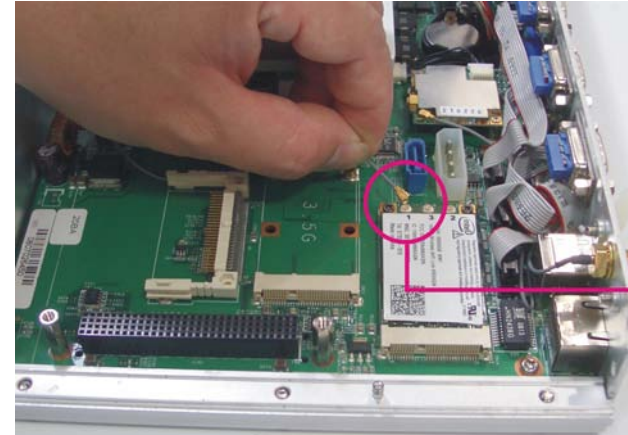
Wireless LAN module

Mini PCI Express slot

3. Push the module down then secure it with mounting screws.

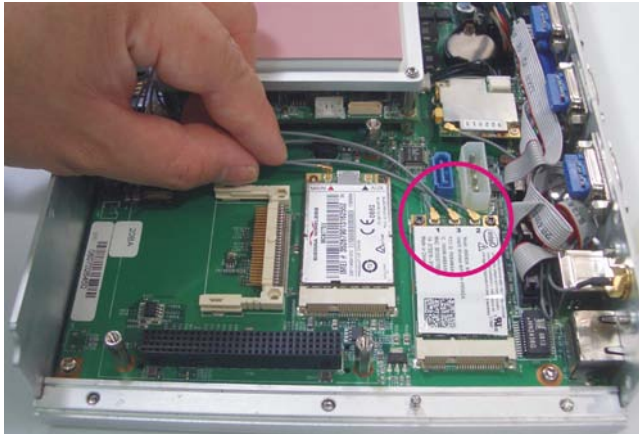


4. Attach one end of the RF cable onto the module.



Attach RF cable to the module

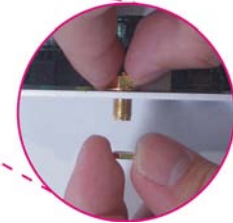
5. The photo below shows one end of the RF cable properly attached onto the module.



6. Mount the other end of the cable to the antenna mounting hole located at the front panel of the chassis.

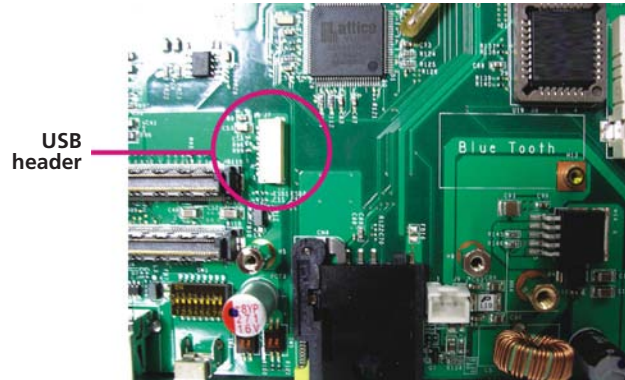


RF cable mounted at the front panel



Installing a Bluetooth Module

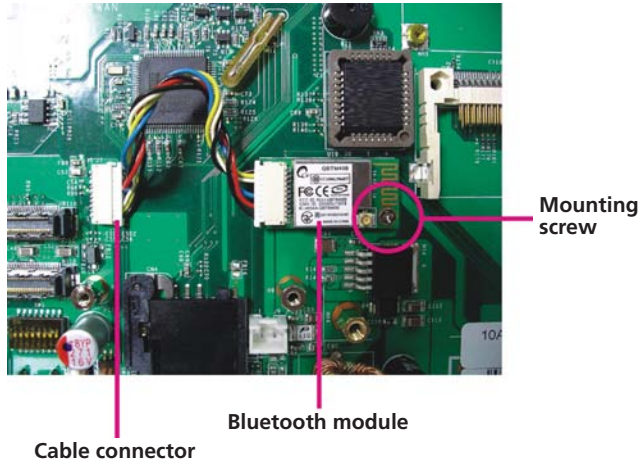
1. The USB header shown below is used to install a Bluetooth module.



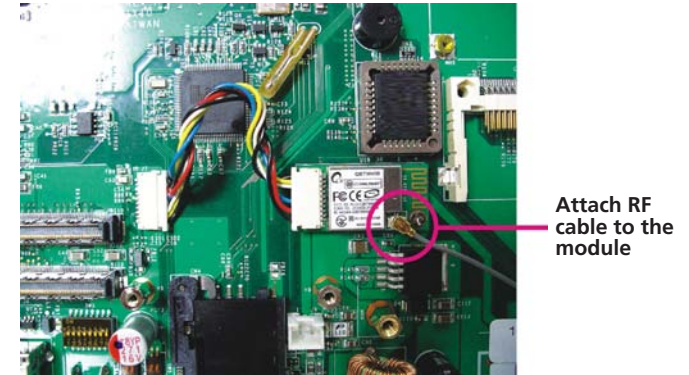
2. Install the provided mounting stud as shown in the illustration below.



3. Insert the Bluetooth module's cable connector into the USB header. Push the module down then secure it with a mounting screw.



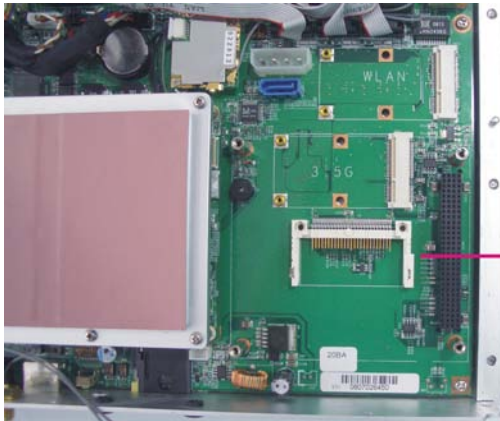
4. Attach one end of the RF cable onto the module.



5. Mount the other end of the cable to the Bluetooth mounting hole located at the front panel of the chassis.

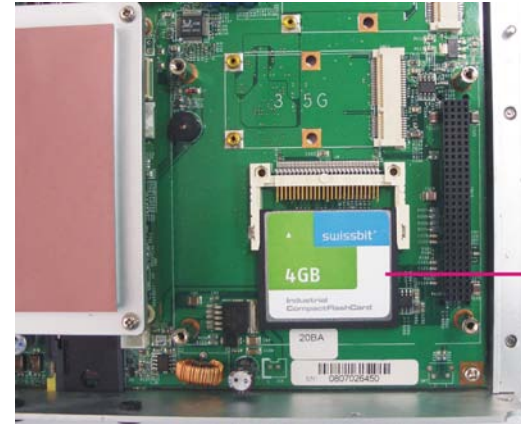
Installing a CompactFlash Card

1. Locate for the CompactFlash socket on the board.



CompactFlash socket

2. With the CompactFlash card's label facing up, position the card to the socket.



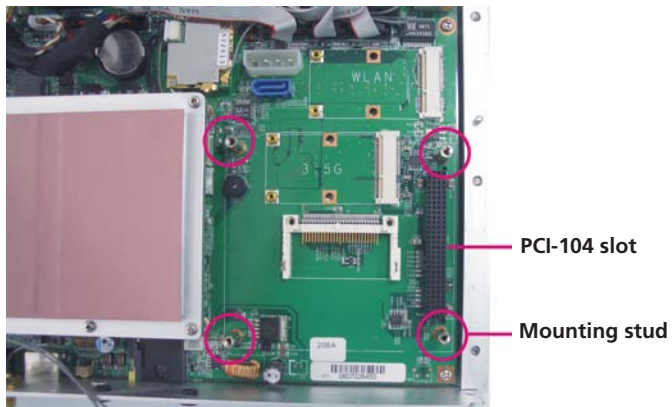
CompactFlash card

3. Insert the card until it is completely seated in the socket.



Installing the PCI-104 Module

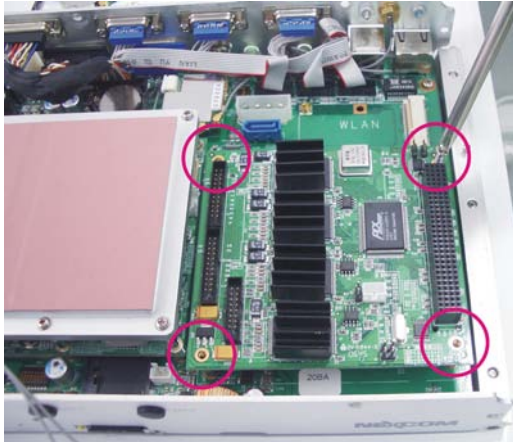
1. Locate for the PCI-104 slot on the board.



2. Position the PCI-104 module above the slot then press it down firmly until it is completely seated in the slot. This will at the same time align the module's mounting holes to the mounting studs on the board.

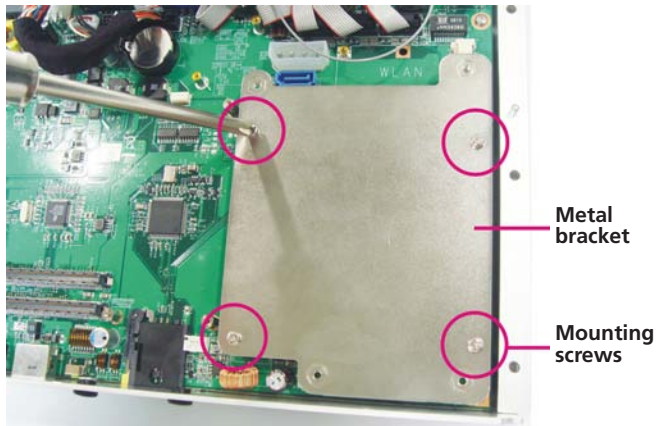



3. Secure the module with mounting screws.



Installing a SATA Hard Drive

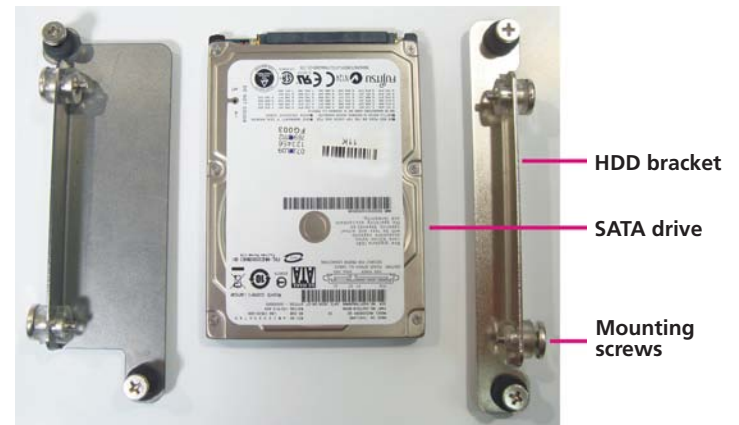
1. The metal bracket is used to hold a SATA hard drive. First, remove the screws that secure the metal bracket to the board then remove the bracket.



 If you intend to install a CompactFlash card or a Mini PCI Express module, please install these devices first before proceeding to the next step. Refer to their respective sections in this chapter for instructions on installing a CF card or a Mini PCI Express module.



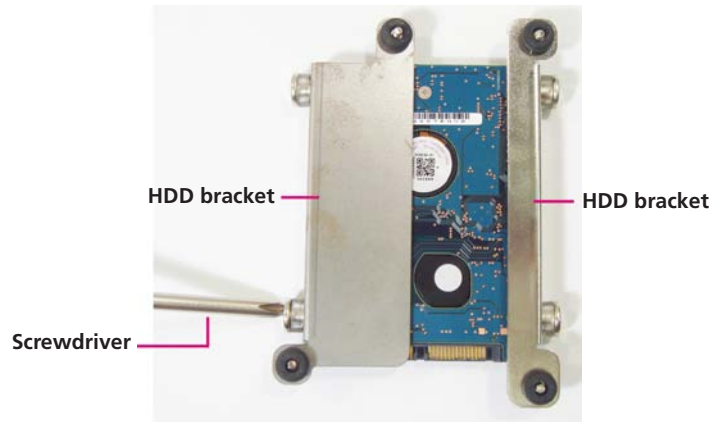
- During Windows XP OS installation, press “F6” to select and install the SATA driver.
 - If you intend to install a Windows XP SP2 or earlier version, you must first set the “USB 2.0 Controller” field (in the BIOS) to Disabled.
 - By default, the “Legacy USB Support” field (in the BIOS) is Disabled. If you are using a USB device to install the Windows operating system, you must first set this field to Enabled. Set this field back to Disabled after you have finished the installation.
2. Position the HDD brackets on each side of the SATA drive. Align the mounting holes that are on the sides of the SATA drive with the HDD brackets’ mounting screws.



3. Tighten the mounting screws to secure the HDD brackets in place.

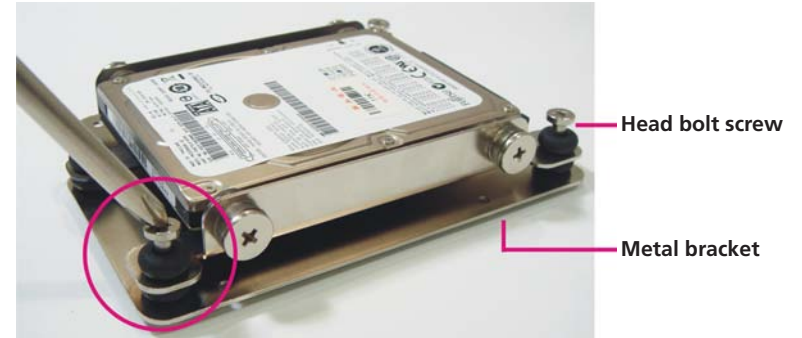


Top View

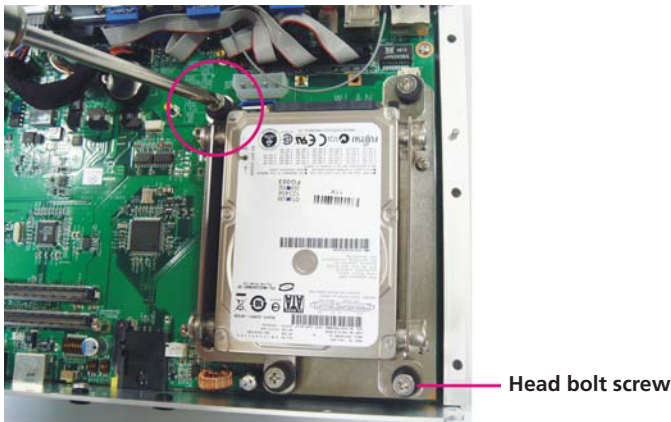
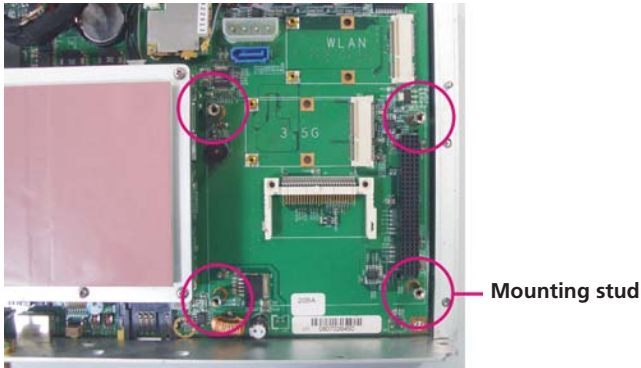


Bottom View

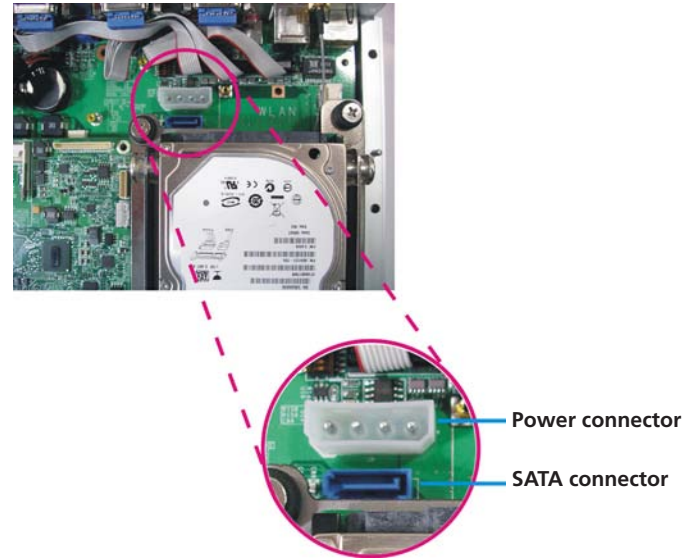
4. Now place the SATA drive on the metal bracket then tighten the head bolt screws to secure the drive on the metal bracket.



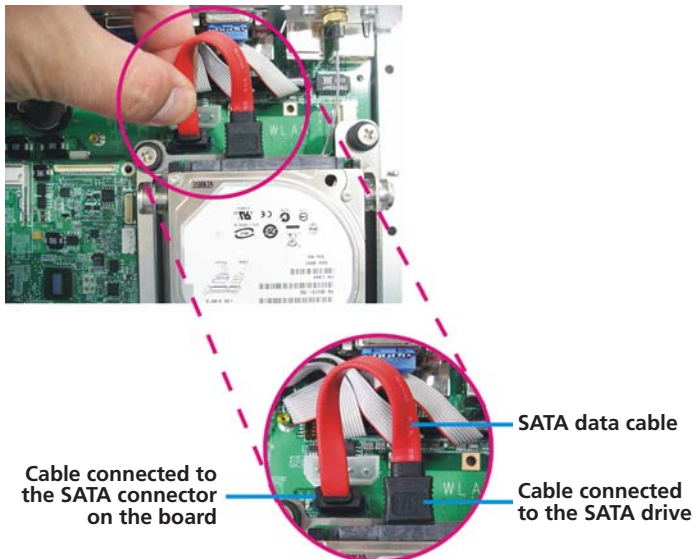
5. Align the head bolt screws with the mounting studs on the board.
Tighten the head bolt screws to secure the drive to the chassis.



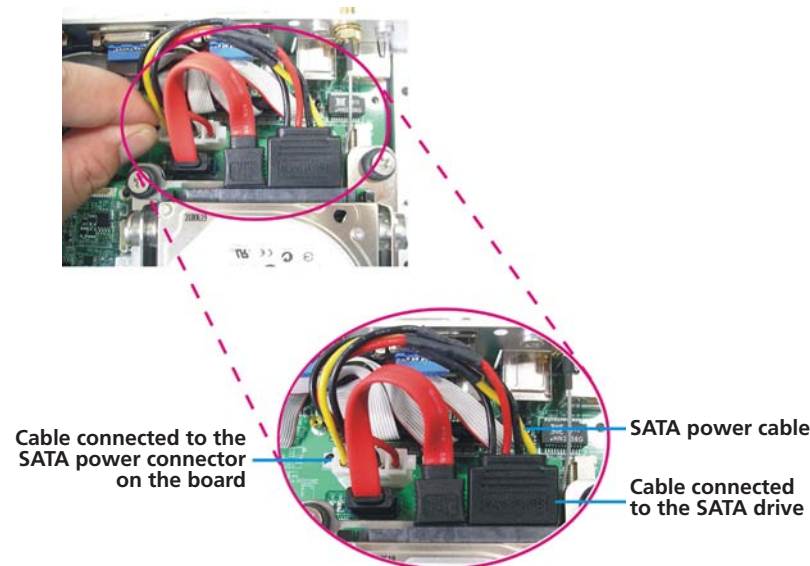
6. Locate for the SATA connector and the power connector. on the board.



- 7. Connect one end of the SATA data cable to the SATA connector that is on the board then connect the other end of the cable to the SATA connector at the rear of the SATA drive.

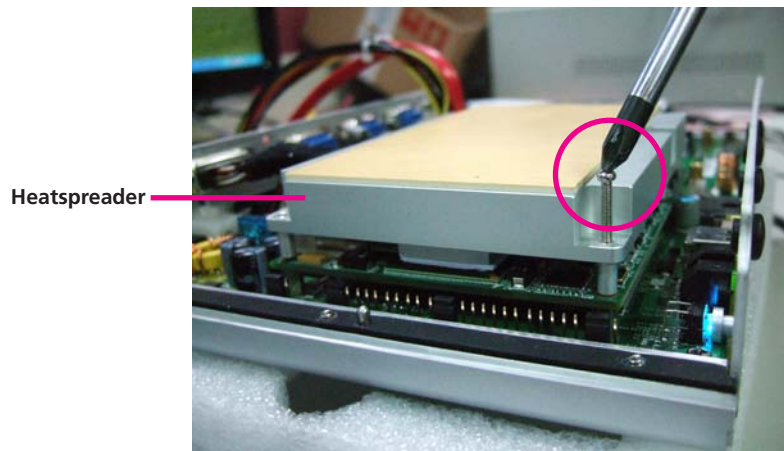


- 8. Connect one end of the SATA power cable to the SATA power connector that is on the board then connect the other end of the cable to the SATA power connector at the rear of the SATA drive.

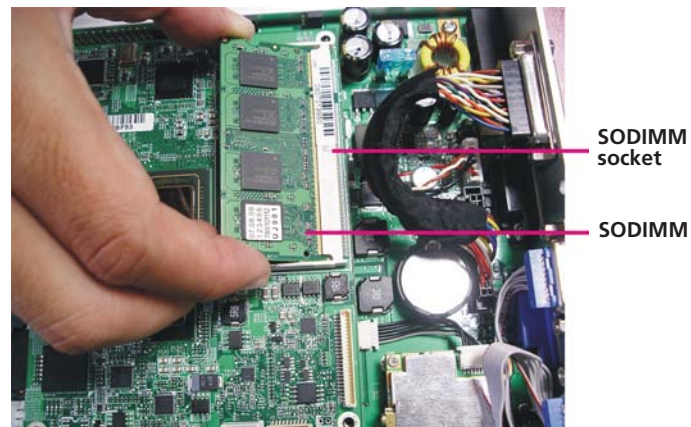


Installing the SODIMM

1. Remove the heatspreader's mounting screws.



2. Insert the module into the socket at an approximately 30 degrees angle. Apply firm even pressure to each end of the module until it slips into the socket. The gold-plated connector on the edge of the module will almost completely disappear inside the socket.



3. Push the module down until the clips on both sides of the socket lock into position. You will hear a distinctive “click”, indicating the module is correctly locked into position.

