

FLEETPC-8-I7B- POE

In-Vehicle Computing

User's Manual

Version 1.2

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From	To			
1.0		Dec 30, 2014	Initial Document Issued	Stanley Chou
1.0	1.1	Feb. 26, 2015	Update Connector and BIOS	Stanley Chou
1.1	1.2	Jun. 30, 2015	Replace Mechanical Drawing	Stanley Chou

CarTFT.com e.K.

User Manual

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This device complies to Part 15 of the FCC Rules. Operation is subject to the following two conditions:

1. This device may not cause harmful interference.
2. This device must withstand any background interference including those that may cause undesired operation.

Safety Information

Read the following precautions before setting up a CARTFT.COM E.K. Product.

Electrical safety

- To prevent electrical shock hazard, disconnect the power cable from the electrical outlet before relocating the system.
- When adding or removing devices to or from the system, ensure that the power cables for the devices are unplugged before the signal cables are connected. If possible, disconnect all power cables from the existing system before you add a device.
- Before connecting or removing signal cables from the motherboard, ensure that all power cables are unplugged.
- Seek professional assistance before using an adapter or extension cord. These devices could interrupt the grounding circuit.
- Make sure that your power supply is set to the correct voltage in your area. If you are not sure about the voltage of the electrical outlet you are using, contact your local power company.
- If the power supply is broken, do not try to fix it by yourself. Contact a qualified service technician or your retailer.

Operation safety

- Before installing the motherboard and adding devices on it, carefully read all the manuals that came with the package.
- Before using the product, make sure all cables are correctly connected and the power cables are not damaged. If you detect any damage, contact your dealer immediately.
- To avoid short circuits, keep paper clips, screws, and staples away from connectors, slots, sockets and circuitry.
- Avoid dust, humidity, and temperature extremes. Do not place the product in any area where it may become wet.
- Place the product on a stable surface.
- If you encounter technical problems with the product, contact a qualified service technician or your retailer.

CAUTION

Incorrectly replacing the battery may damage this computer. Replace only with the same or its equivalent as recommended by CarTFT.com e.K.. Dispose used battery according to the manufacturer's instructions.

Technical Support

Please do not hesitate to call or e-mail our customer service when you still cannot fix the problems.

E-mail : sales@cartft.com

Website : www.cartft.com

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7.1	Packing List	7-1

1.0 INTRODUCTION

1.0 INTRODUCTION

1.1 Model Specification

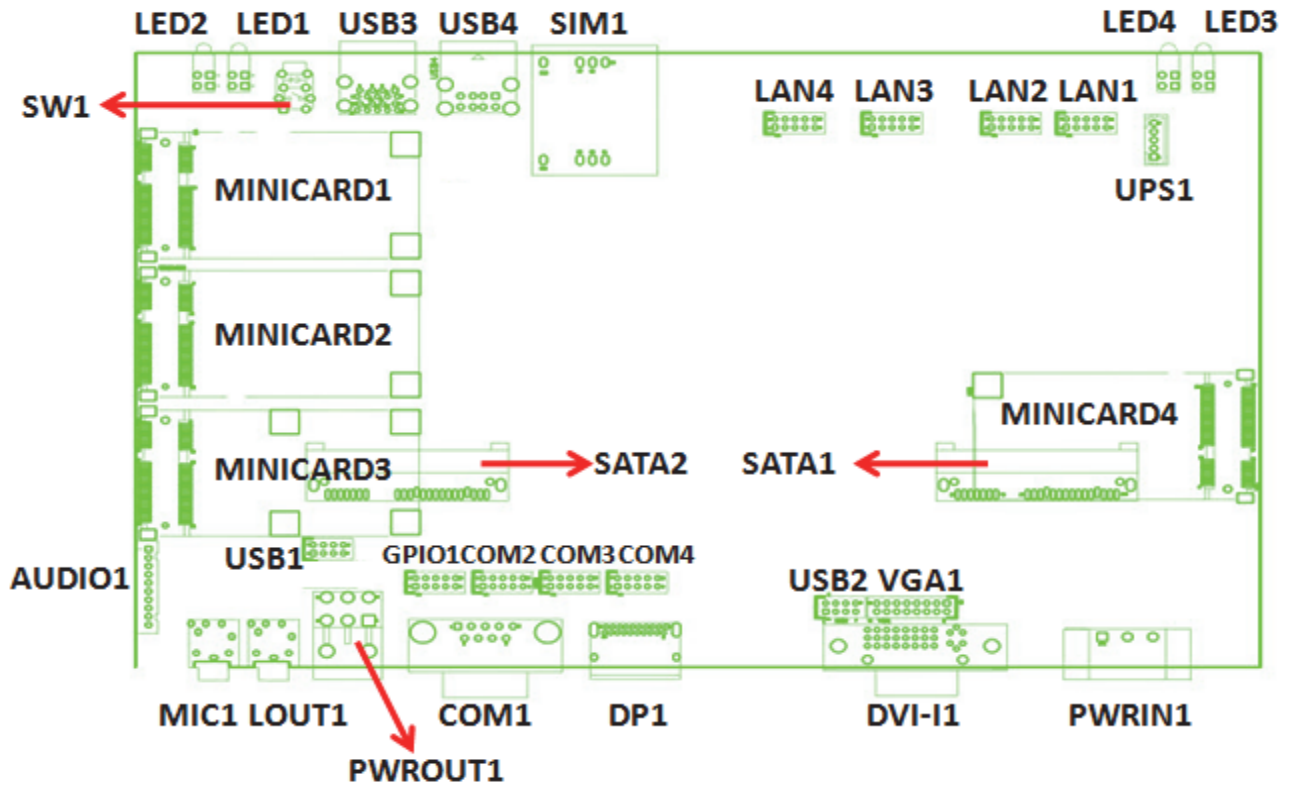


System	
CPU	Intel Gen 4 Core i7-4650U 1.7GHz up to 3.3GHz Intel Gen 4 Core i5-4300U 1.9GHz up to 2.9GHz Intel Gen 4 Core i3-4010U 1.7GHz
Memory	2 x DDR3L 1600 MHz SO-DIMM up to 16GB
Chipset	QM87
LAN Chipset	Intel I210-AT Gb/s Ethernet Controllers Onboard Support PXE and WOL
Audio	Realtek ALC662 HD Codec onboard
Watchdog	Watchdog Timer Support, Offer 1 – 255 Step
Power Requirement	
Power Input	9V-36V DC Power input
Power Protection	Automatics Recovery Short Circuit Protection
Power Management	Vehicle Power Ignition for Variety Vehicle
Power Off Control	Power off Delay Time Setting by Software, Default is 5 Mins
Battery	Internal Battery Kit for 10 Mins Operating (Optional)
Storage	
Type	2 x 2.5" Drive Bay for SATA Type HDD / SSD, Support RAID 0, 1 1 x Mini-PCIe DOM

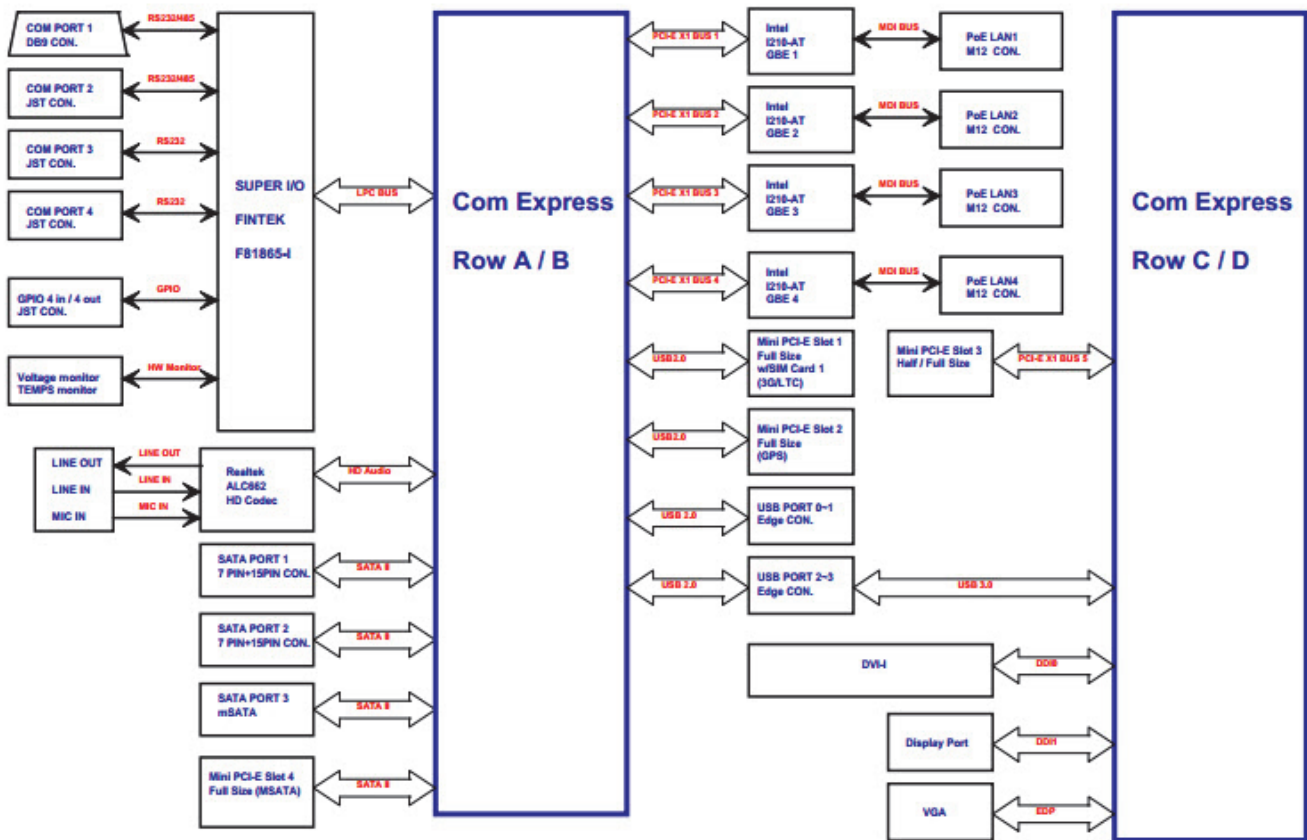
Graphics	
Graphics	Intel® HD Graphics 5000 DirectX Video Acceleration (DXVA) for Accelerating Video Processing - Full AVC/VC1/MPEG2 HW Decode Supports DirectX 11/10.1/10/9 and OpenGL 4.0
Resolution	Up to 4096 x 2304
Qualification	
Certifications	CE, FCC Class A, EMark Compliance, EN50155, EN50121
I/O	
Serial Port	4 x RS-232 (2 with RS-485 (Auto Direction Control))
USB Port	2 x USB 3.0 Ports, 2 x USB 2.0 Ports
LAN	4 x M12 Ports for GbE POE (15.4W per port)
Video Port	1 x DVI-D Connector on Rear I/O 1 x DP Port Connector on Rear I/O (Support Dual Independent Display)
DIO Port	4 In and 4 Out
Audio	1 x Line-out and 1 x Mic-in (Line-in Optional)
SIM Card Socket	1 x SIM Card Socket Supported Onboard with eject
Environment	
Operating Temp.	-40°C ~ 70°C (Default CPU 17Watt)
Storage Temp.	-40 ~ 80°C
Relative Humidity	0% RH– 95% RH
Vibration (random)	2.5g@5~500 Hz with SSD
Vibration Operating	MIL-STD-810F, Method 514.5, Category 20, Ground Vehicle-Highway
Truck Storage	MIL-STD-810F, Method 514.5, Category 24, Integrity Test
Shock	Operating: MIL-STD-810F, Method 516.5, Procedure I, Trucks and semi-trailers=40G (11ms) with SSD
Crash Hazard	MIL-STD-810F, Method 516.5, Procedure V, Ground equipment=100
Mechanical	
Construction	Aluminum alloy
Mounting	Supports both of wall-mount/VESA-mount
Weight	1.780 kg (bare-bone)
Dimensions	250 x 150 x 55 mm

1.2 FLEETPC-8-I7B-POE Illustration (MB, System)

Main Board



1.3 Architecture



1.4 Principal component Specification

CPU

Chip	Description				
Intel	1. Power consumption:				
	CPU	Core Frequency	Cache	TDP	Tj
	i7-4650U	1.7 GHz	4MB	15 W	105°C
	i5-4300U	1.9 GHz	3MB	15 W	105°C
	i3-4010U	1.7 GHz	3MB	15 W	105°C
2980U	1.6 GHZ	2MB	15 W	105°C	

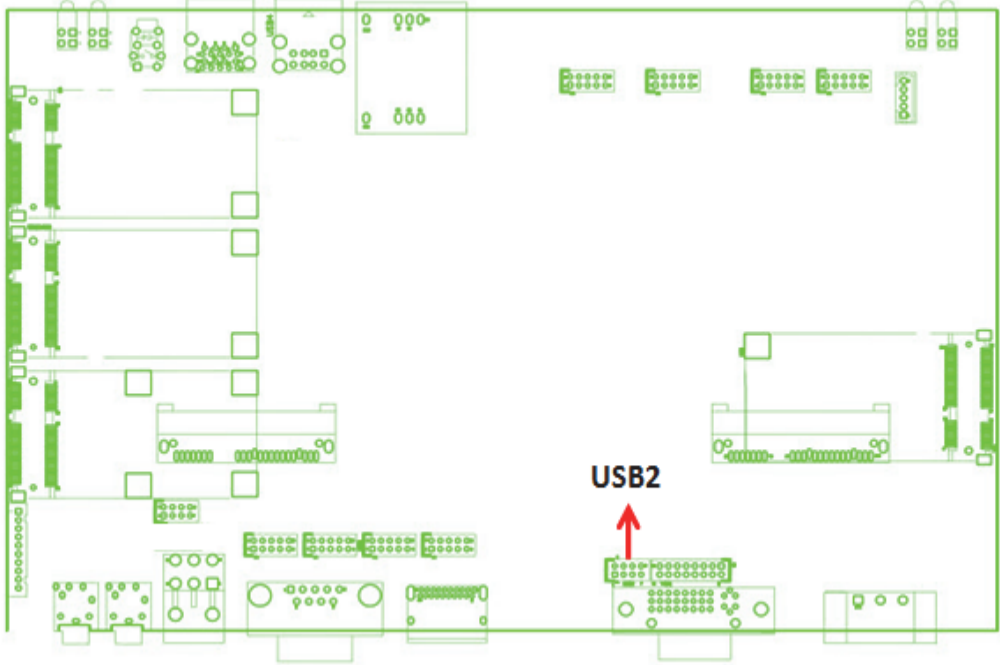
2.0 INTERNAL CONNECTOR SPECIFICATION

2.0 INTERNAL CONNECTOR

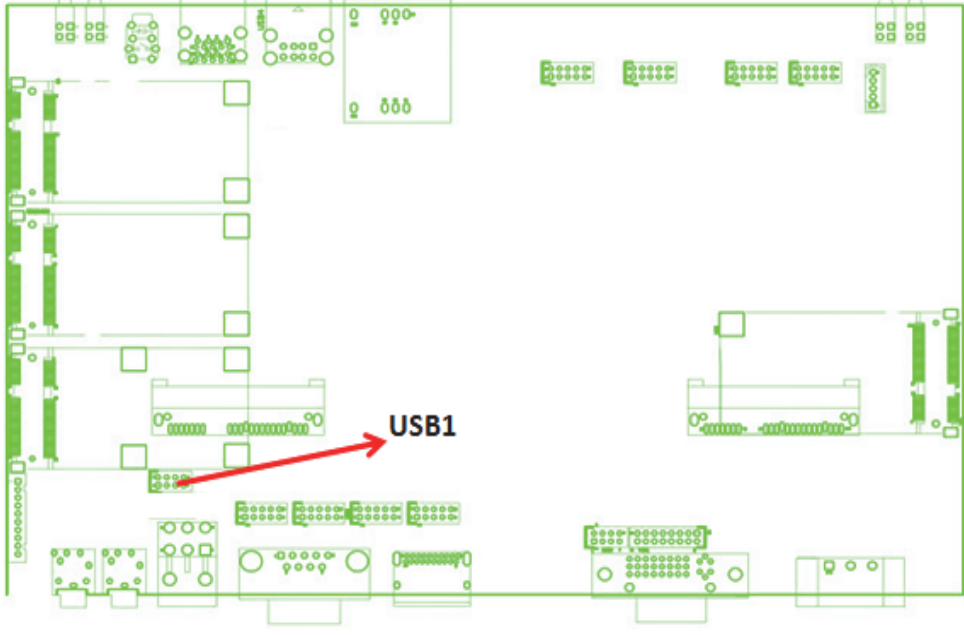
2.1 VGA Connector (VGA1)

Connector size	2 X 8 = 16 Pin																																							
Connector type	JST-2.0mm-M-180																																							
Connector location	VGA1																																							
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>RED</td> <td>2</td> <td>GREEN</td> </tr> <tr> <td>3</td> <td>BLUE</td> <td>4</td> <td>NC</td> </tr> <tr> <td>5</td> <td>CER_DET</td> <td>6</td> <td>GND</td> </tr> <tr> <td>7</td> <td>GND</td> <td>8</td> <td>GND</td> </tr> <tr> <td>9</td> <td>+5V</td> <td>10</td> <td>GND</td> </tr> <tr> <td>11</td> <td>NC</td> <td>12</td> <td>DAC_SDA</td> </tr> <tr> <td>13</td> <td>HSYNC</td> <td>14</td> <td>VSYNC</td> </tr> <tr> <td>15</td> <td>DAC_SCL</td> <td>16</td> <td>NC</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	1	RED	2	GREEN	3	BLUE	4	NC	5	CER_DET	6	GND	7	GND	8	GND	9	+5V	10	GND	11	NC	12	DAC_SDA	13	HSYNC	14	VSYNC	15	DAC_SCL	16	NC
Pin	Signal	Pin	Signal																																					
1	RED	2	GREEN																																					
3	BLUE	4	NC																																					
5	CER_DET	6	GND																																					
7	GND	8	GND																																					
9	+5V	10	GND																																					
11	NC	12	DAC_SDA																																					
13	HSYNC	14	VSYNC																																					
15	DAC_SCL	16	NC																																					
Connector map																																								


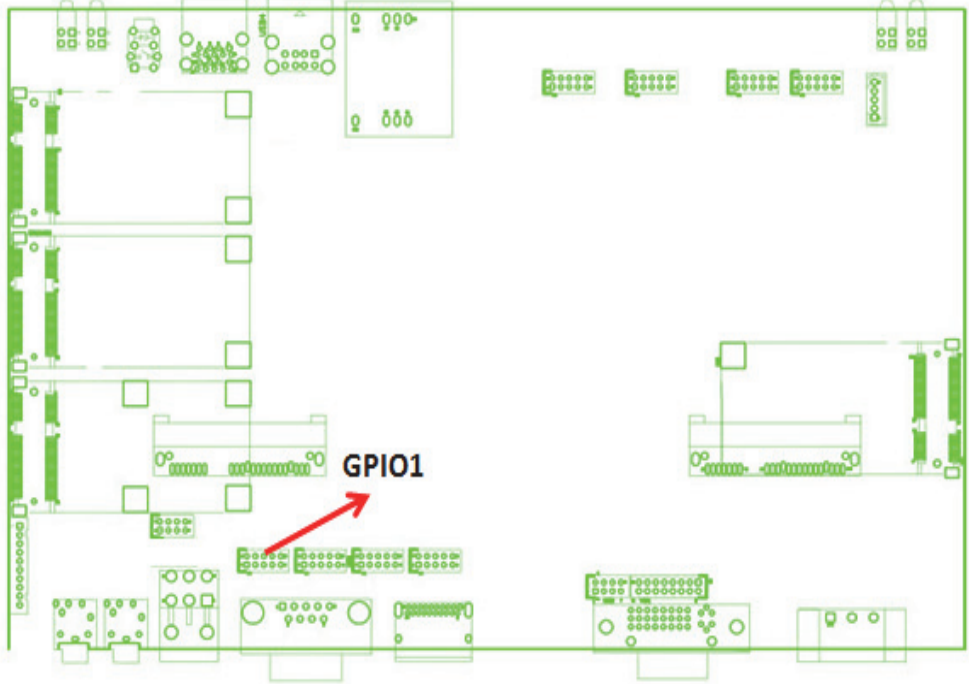
2.2 USB Connector (USB2)

Connector size	2 X 4 = 8 Pin																							
Connector type	JST-2.0mm-M-180																							
Connector location	USB2 (Co-layout with DVI-I1)																							
Connector pin definition	<table border="1"><thead><tr><th>Pin</th><th>Signal</th><th>Pin</th><th>Signal</th></tr></thead><tbody><tr><td>1</td><td>5VSB</td><td>2</td><td>5VSB</td></tr><tr><td>3</td><td>USB 7N</td><td>4</td><td>NC</td></tr><tr><td>5</td><td>USB 7P</td><td>6</td><td>NC</td></tr><tr><td>7</td><td>GND</td><td>8</td><td>GND</td></tr></tbody></table>				Pin	Signal	Pin	Signal	1	5VSB	2	5VSB	3	USB 7N	4	NC	5	USB 7P	6	NC	7	GND	8	GND
Pin	Signal	Pin	Signal																					
1	5VSB	2	5VSB																					
3	USB 7N	4	NC																					
5	USB 7P	6	NC																					
7	GND	8	GND																					
Connector map																								

2.3 USB Connector (USB1)

Connector size	2 X 4 = 8 Pin																							
Connector type	JST-2.0mm-M-180																							
Connector location	USB1 (Co-layout with MINICARD3)																							
Connector pin definition	<table border="1"><thead><tr><th>Pin</th><th>Signal</th><th>Pin</th><th>Signal</th></tr></thead><tbody><tr><td>1</td><td>5VSB</td><td>2</td><td>5VSB</td></tr><tr><td>3</td><td>USB 6N</td><td>4</td><td>NC</td></tr><tr><td>5</td><td>USB 6P</td><td>6</td><td>NC</td></tr><tr><td>7</td><td>GND</td><td>8</td><td>GND</td></tr></tbody></table>				Pin	Signal	Pin	Signal	1	5VSB	2	5VSB	3	USB 6N	4	NC	5	USB 6P	6	NC	7	GND	8	GND
Pin	Signal	Pin	Signal																					
1	5VSB	2	5VSB																					
3	USB 6N	4	NC																					
5	USB 6P	6	NC																					
7	GND	8	GND																					
Connector map																								

2.4 GPIO Connector (GPIO1)

Connector size	2 X 5 = 10 Pin			
Connector type	JST-2.0mm-M-180			
Connector location	GPIO1			
Connector pin definition	Pin	Signal	Pin	Signal
	1	GPI0	2	GPI1
	3	GPI2	4	GPI3
	5	GPO0	6	GPO1
	7	GPO2	8	GPO3
	9	GND	10	+12V
Connector map				
	Pin	Signal		
		GPI0		
	1	GPI0		
	2	GPI1		
	3	GPI2		
	4	GPI3		
	5	GPO0		
	6	GPO1		
	7	GPO2		
	8	GPO3		
	9	GND		
				

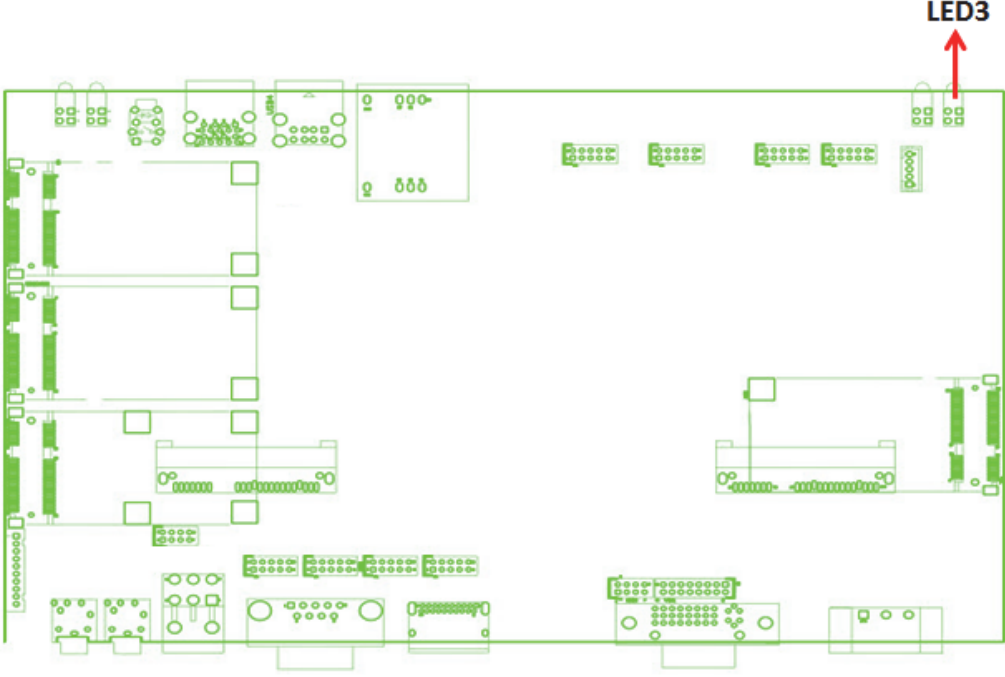
2.5 LED Connector (LED1)

Connector size	2 X 2 = 4 Pin															
Connector type	LED WITH HOUSING															
Connector location	LED1															
Connector pin definition	<table border="1"><thead><tr><th>Pin</th><th>Signal</th><th>Pin</th><th>Signal</th></tr></thead><tbody><tr><td>A1</td><td>3.5G LED P</td><td>A2</td><td>UPS LED P</td></tr><tr><td>C1</td><td>3.5G LED N</td><td>C2</td><td>UPS LED N</td></tr></tbody></table>				Pin	Signal	Pin	Signal	A1	3.5G LED P	A2	UPS LED P	C1	3.5G LED N	C2	UPS LED N
Pin	Signal	Pin	Signal													
A1	3.5G LED P	A2	UPS LED P													
C1	3.5G LED N	C2	UPS LED N													
Connector map																

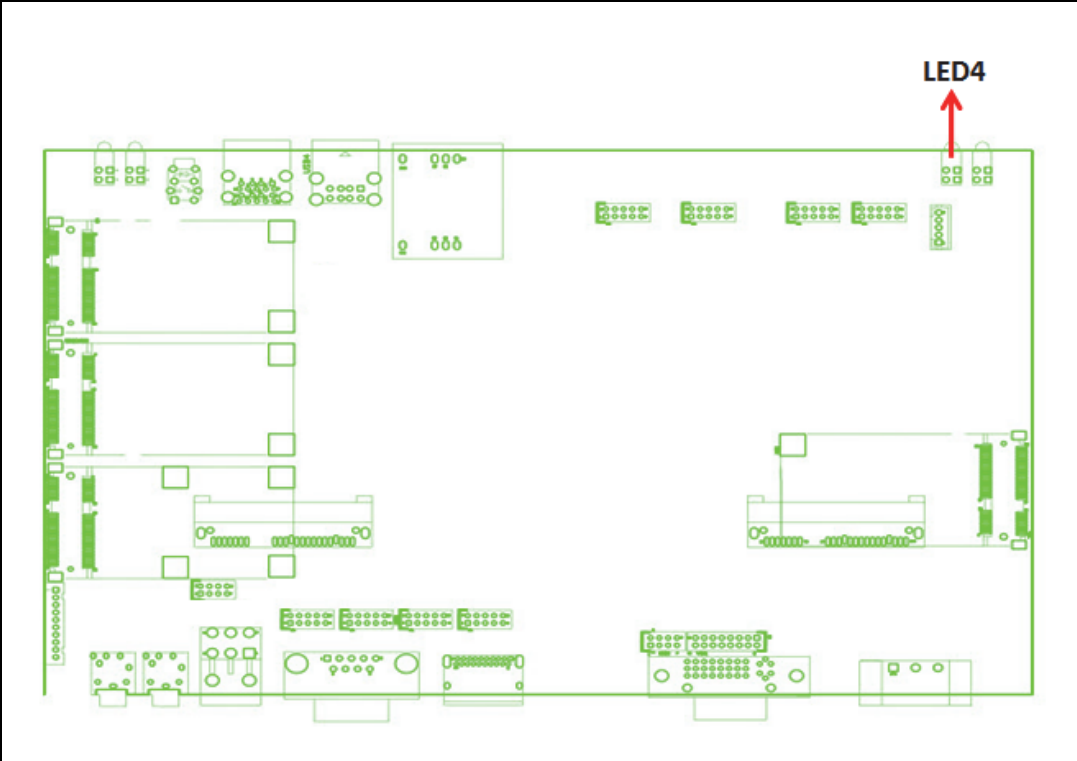
2.6 LED Connector (LED2)

Connector size	2 X 2 = 4 Pin															
Connector type	LED WITH HOUSING															
Connector location	LED2															
Connector pin definition	<table border="1"><thead><tr><th>Pin</th><th>Signal</th><th>Pin</th><th>Signal</th></tr></thead><tbody><tr><td>A1</td><td>ACC LED P</td><td>A2</td><td>HDD LED P</td></tr><tr><td>C1</td><td>ACC LED N</td><td>C2</td><td>HDD LED N</td></tr></tbody></table>				Pin	Signal	Pin	Signal	A1	ACC LED P	A2	HDD LED P	C1	ACC LED N	C2	HDD LED N
Pin	Signal	Pin	Signal													
A1	ACC LED P	A2	HDD LED P													
C1	ACC LED N	C2	HDD LED N													
Connector map																

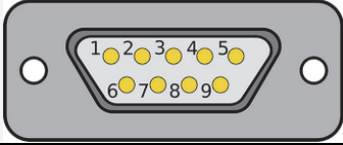
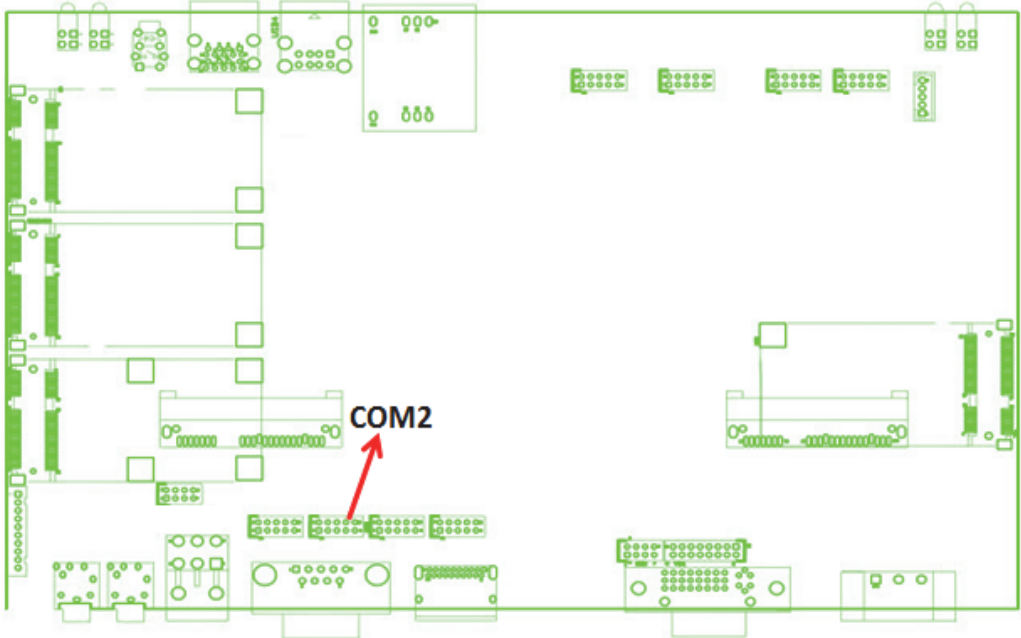
2.7 LED Connector (LED3)

Connector size	2 X 2 = 4 Pin															
Connector type	LED WITH HOUSING															
Connector location	LED3															
Connector pin definition	<table border="1"><thead><tr><th>Pin</th><th>Signal</th><th>Pin</th><th>Signal</th></tr></thead><tbody><tr><td>A1</td><td>OUT1 LEDP</td><td>A2</td><td>OUT2 LEDP</td></tr><tr><td>C1</td><td>DGND</td><td>C2</td><td>DGND</td></tr></tbody></table>				Pin	Signal	Pin	Signal	A1	OUT1 LEDP	A2	OUT2 LEDP	C1	DGND	C2	DGND
Pin	Signal	Pin	Signal													
A1	OUT1 LEDP	A2	OUT2 LEDP													
C1	DGND	C2	DGND													
Connector map																

2.8 LED Connector (LED4)

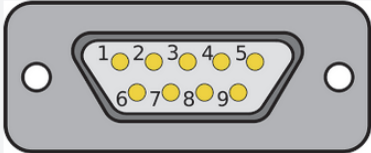
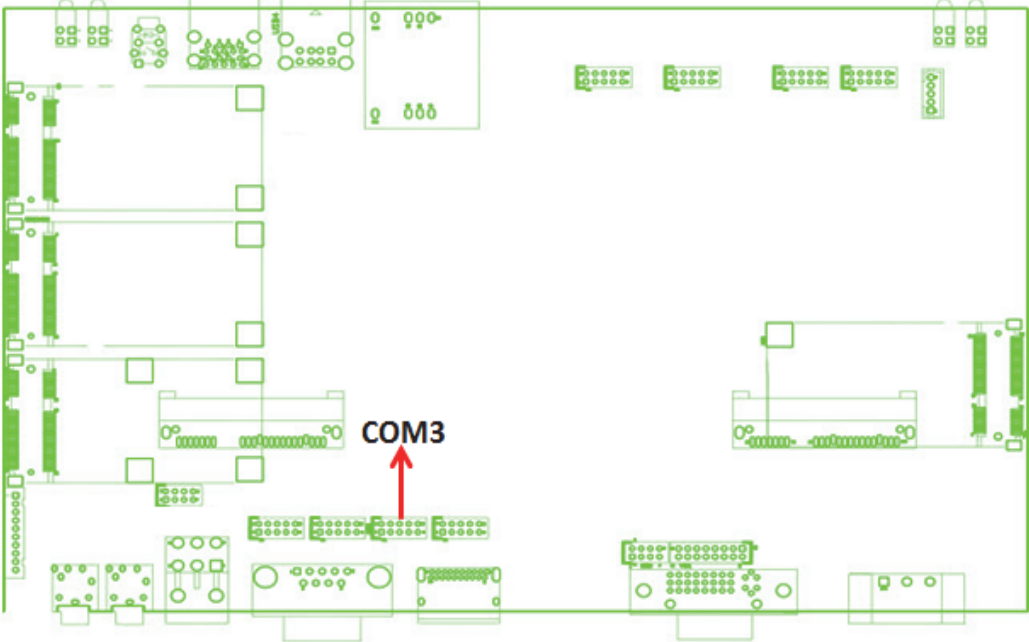
Connector size	2 X 2 = 4 Pin															
Connector type	LED WITH HOUSING															
Connector location	LED4															
Connector pin definition	<table border="1"><thead><tr><th>Pin</th><th>Signal</th><th>Pin</th><th>Signal</th></tr></thead><tbody><tr><td>A1</td><td>OUT3 LEDP</td><td>A2</td><td>OUT4 LEDP</td></tr><tr><td>C1</td><td>DGND</td><td>C2</td><td>DGND</td></tr></tbody></table>				Pin	Signal	Pin	Signal	A1	OUT3 LEDP	A2	OUT4 LEDP	C1	DGND	C2	DGND
Pin	Signal	Pin	Signal													
A1	OUT3 LEDP	A2	OUT4 LEDP													
C1	DGND	C2	DGND													
Connector map																

2.9 COM Connector (COM2)

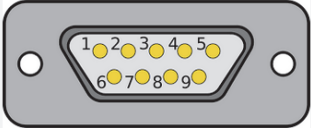
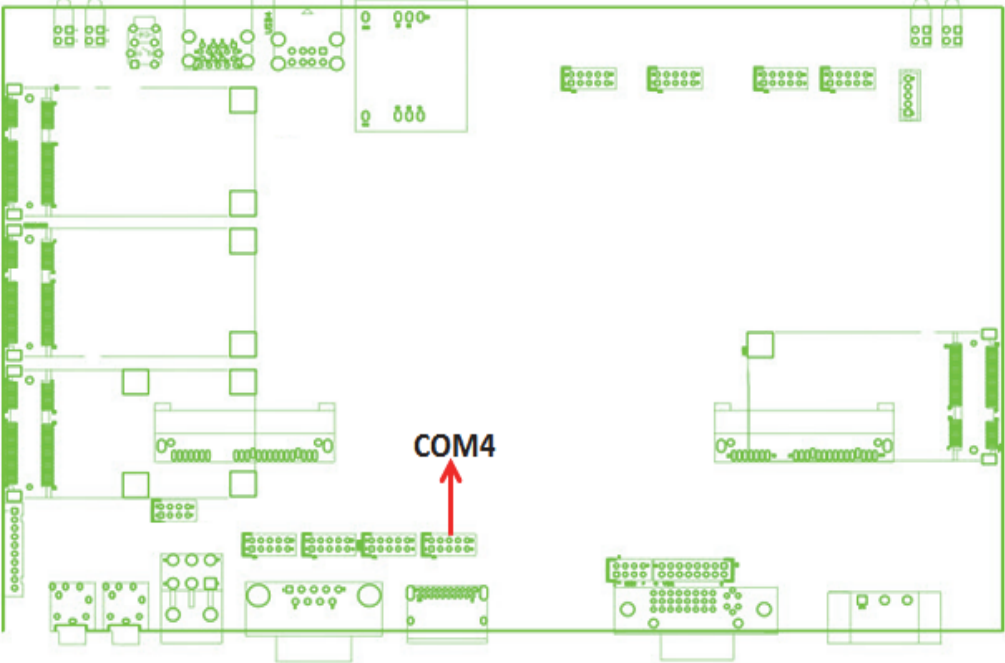
Connector size	2 X 5 = 10 Pin																																			
Connector type	JST-2.0mm-M-180																																			
Connector location	COM2																																			
Connector pin definition	Pin	Signal	Pin	Signal																																
	1	COM2 DCD	2	COM2 RXD																																
	3	COM2 TXD	4	COM2 DTR																																
	5	GND	6	COM2 DSR																																
	7	COM2 RTS	8	COM2 CTS																																
	9	COM2 RI	10	GND																																
Connector map																																				
	<table border="1"> <thead> <tr> <th rowspan="2">Pin</th> <th colspan="2">Signal</th> </tr> <tr> <th>RS232</th> <th>RS485</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>COM2 DCD</td> <td>TXD-/RXD-</td> </tr> <tr> <td>2</td> <td>COM2 RXD</td> <td>TXD+/RXD+</td> </tr> <tr> <td>3</td> <td>COM2 TXD</td> <td>NC</td> </tr> <tr> <td>4</td> <td>COM2 DTR</td> <td>NC</td> </tr> <tr> <td>5</td> <td>GND</td> <td>GND</td> </tr> <tr> <td>6</td> <td>COM2 DSR</td> <td>NC</td> </tr> <tr> <td>7</td> <td>COM2 RTS</td> <td>NC</td> </tr> <tr> <td>8</td> <td>COM2 CTS</td> <td>NC</td> </tr> <tr> <td>9</td> <td>COM2 RI</td> <td>NC</td> </tr> </tbody> </table>					Pin	Signal		RS232	RS485	1	COM2 DCD	TXD-/RXD-	2	COM2 RXD	TXD+/RXD+	3	COM2 TXD	NC	4	COM2 DTR	NC	5	GND	GND	6	COM2 DSR	NC	7	COM2 RTS	NC	8	COM2 CTS	NC	9	COM2 RI
Pin	Signal																																			
	RS232	RS485																																		
1	COM2 DCD	TXD-/RXD-																																		
2	COM2 RXD	TXD+/RXD+																																		
3	COM2 TXD	NC																																		
4	COM2 DTR	NC																																		
5	GND	GND																																		
6	COM2 DSR	NC																																		
7	COM2 RTS	NC																																		
8	COM2 CTS	NC																																		
9	COM2 RI	NC																																		
																																				

2.10 COM Connector (COM3)

Connector size	2 X 5 = 10 Pin
----------------	----------------

Connector type	JST-2.0mm-M-180			
Connector location	COM3			
Connector pin definition	Pin	Signal	Pin	Signal
	1	COM3_DCD	2	COM3_RXD
	3	COM3_TXD	4	COM3_DTR
	5	GND	6	COM3_DSR
	7	COM3_RTS	8	COM3_CTS
	9	COM3_RI	10	GND
Connector map				
	Pin	Signal		
		RS232		
	1	COM3_DCD		
	2	COM3_RXD		
	3	COM3_TXD		
	4	COM3_DTR		
	5	GND		
	6	COM3_DSR		
	7	COM3_RTS		
	8	COM3_CTS		
	9	COM3_RI		
				

2.11 COM Connector (COM4)

Connector size	2 X 5 = 10 Pin																									
Connector type	JST-2.0mm-M-180																									
Connector location	COM4																									
Connector pin definition	Pin	Signal	Pin	Signal																						
	1	COM4_DCD	2	COM4_RXD																						
	3	COM4_TXD	4	COM4_DTR																						
	5	GND	6	COM4_DSR																						
	7	COM4_RTS	8	COM4_CTS																						
	9	COM4_RI	10	GND																						
Connector map																										
	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td></td> <td>RS232</td> </tr> <tr> <td>1</td> <td>COM4_DCD</td> </tr> <tr> <td>2</td> <td>COM4_RXD</td> </tr> <tr> <td>3</td> <td>COM4_TXD</td> </tr> <tr> <td>4</td> <td>COM4_DTR</td> </tr> <tr> <td>5</td> <td>GND</td> </tr> <tr> <td>6</td> <td>COM4_DSR</td> </tr> <tr> <td>7</td> <td>COM4_RTS</td> </tr> <tr> <td>8</td> <td>COM4_CTS</td> </tr> <tr> <td>9</td> <td>COM4_RI</td> </tr> </tbody> </table>					Pin	Signal		RS232	1	COM4_DCD	2	COM4_RXD	3	COM4_TXD	4	COM4_DTR	5	GND	6	COM4_DSR	7	COM4_RTS	8	COM4_CTS	9
Pin	Signal																									
	RS232																									
1	COM4_DCD																									
2	COM4_RXD																									
3	COM4_TXD																									
4	COM4_DTR																									
5	GND																									
6	COM4_DSR																									
7	COM4_RTS																									
8	COM4_CTS																									
9	COM4_RI																									
																										

2.12 AUDIO Connector

Connector size	1 X 10 = 10 Pin																						
Connector type	JST-2.0mm-M-180																						
Connector location	AUDIO1																						
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>NC</td> </tr> <tr> <td>2</td> <td>NC</td> </tr> <tr> <td>3</td> <td>NC</td> </tr> <tr> <td>4</td> <td>NC</td> </tr> <tr> <td>5</td> <td>NC</td> </tr> <tr> <td>6</td> <td>NC</td> </tr> <tr> <td>7</td> <td>LINE_IN_R_CA</td> </tr> <tr> <td>8</td> <td>LINE_IN_L_CA</td> </tr> <tr> <td>9</td> <td>LINE_IN-JD</td> </tr> <tr> <td>10</td> <td>AGND</td> </tr> </tbody> </table>	Pin	Signal	1	NC	2	NC	3	NC	4	NC	5	NC	6	NC	7	LINE_IN_R_CA	8	LINE_IN_L_CA	9	LINE_IN-JD	10	AGND
Pin	Signal																						
1	NC																						
2	NC																						
3	NC																						
4	NC																						
5	NC																						
6	NC																						
7	LINE_IN_R_CA																						
8	LINE_IN_L_CA																						
9	LINE_IN-JD																						
10	AGND																						
Connector map																							

2.13 SATA Connector (SATA1)

Connector size	22Pin																																																																			
Connector type	SATA-F-22P-90																																																																			
Connector location	SATA1																																																																			
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>S1</td> <td>GND</td> <td>P1</td> <td>NC</td> </tr> <tr> <td>S2</td> <td>SATA_TXP0</td> <td>P2</td> <td>NC</td> </tr> <tr> <td>S3</td> <td>SATA_TXN0</td> <td>P3</td> <td>NC</td> </tr> <tr> <td>S4</td> <td>GND</td> <td>P4</td> <td>GND</td> </tr> <tr> <td>S5</td> <td>SATA_RXN0</td> <td>P5</td> <td>GND</td> </tr> <tr> <td>S6</td> <td>SATA_RXP0</td> <td>P6</td> <td>GND</td> </tr> <tr> <td>S7</td> <td>GND</td> <td>P7</td> <td>+5V</td> </tr> <tr> <td></td> <td></td> <td>P8</td> <td>+5V</td> </tr> <tr> <td></td> <td></td> <td>P9</td> <td>+5V</td> </tr> <tr> <td></td> <td></td> <td>P10</td> <td>NC</td> </tr> <tr> <td></td> <td></td> <td>P11</td> <td>GND</td> </tr> <tr> <td></td> <td></td> <td>P12</td> <td>GND</td> </tr> <tr> <td></td> <td></td> <td>P13</td> <td>NC</td> </tr> <tr> <td></td> <td></td> <td>P14</td> <td>NC</td> </tr> <tr> <td></td> <td></td> <td>P15</td> <td>NC</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	S1	GND	P1	NC	S2	SATA_TXP0	P2	NC	S3	SATA_TXN0	P3	NC	S4	GND	P4	GND	S5	SATA_RXN0	P5	GND	S6	SATA_RXP0	P6	GND	S7	GND	P7	+5V			P8	+5V			P9	+5V			P10	NC			P11	GND			P12	GND			P13	NC			P14	NC			P15	NC
Pin	Signal	Pin	Signal																																																																	
S1	GND	P1	NC																																																																	
S2	SATA_TXP0	P2	NC																																																																	
S3	SATA_TXN0	P3	NC																																																																	
S4	GND	P4	GND																																																																	
S5	SATA_RXN0	P5	GND																																																																	
S6	SATA_RXP0	P6	GND																																																																	
S7	GND	P7	+5V																																																																	
		P8	+5V																																																																	
		P9	+5V																																																																	
		P10	NC																																																																	
		P11	GND																																																																	
		P12	GND																																																																	
		P13	NC																																																																	
		P14	NC																																																																	
		P15	NC																																																																	
Connector map																																																																				

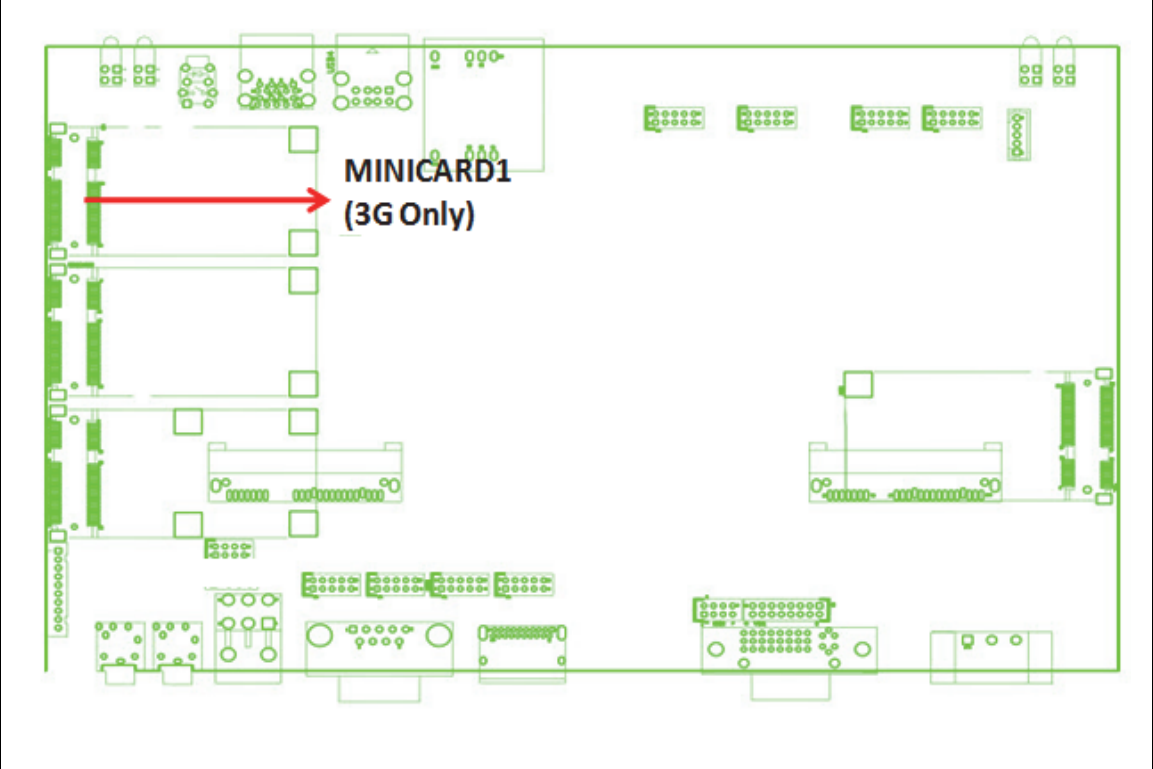
2.14 SATA Connector (SATA2)

Connector size	22Pin																																																																			
Connector type	SATA-F-22P-90																																																																			
Connector location	SATA2																																																																			
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>S1</td> <td>GND</td> <td>P1</td> <td>NC</td> </tr> <tr> <td>S2</td> <td>SATA_TXP1</td> <td>P2</td> <td>NC</td> </tr> <tr> <td>S3</td> <td>SATA_TXN1</td> <td>P3</td> <td>NC</td> </tr> <tr> <td>S4</td> <td>GND</td> <td>P4</td> <td>GND</td> </tr> <tr> <td>S5</td> <td>SATA_RXN1</td> <td>P5</td> <td>GND</td> </tr> <tr> <td>S6</td> <td>SATA_RXP1</td> <td>P6</td> <td>GND</td> </tr> <tr> <td>S7</td> <td>GND</td> <td>P7</td> <td>+5V</td> </tr> <tr> <td></td> <td></td> <td>P8</td> <td>+5V</td> </tr> <tr> <td></td> <td></td> <td>P9</td> <td>+5V</td> </tr> <tr> <td></td> <td></td> <td>P10</td> <td>NC</td> </tr> <tr> <td></td> <td></td> <td>P11</td> <td>GND</td> </tr> <tr> <td></td> <td></td> <td>P12</td> <td>GND</td> </tr> <tr> <td></td> <td></td> <td>P13</td> <td>NC</td> </tr> <tr> <td></td> <td></td> <td>P14</td> <td>NC</td> </tr> <tr> <td></td> <td></td> <td>P15</td> <td>NC</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	S1	GND	P1	NC	S2	SATA_TXP1	P2	NC	S3	SATA_TXN1	P3	NC	S4	GND	P4	GND	S5	SATA_RXN1	P5	GND	S6	SATA_RXP1	P6	GND	S7	GND	P7	+5V			P8	+5V			P9	+5V			P10	NC			P11	GND			P12	GND			P13	NC			P14	NC			P15	NC
Pin	Signal	Pin	Signal																																																																	
S1	GND	P1	NC																																																																	
S2	SATA_TXP1	P2	NC																																																																	
S3	SATA_TXN1	P3	NC																																																																	
S4	GND	P4	GND																																																																	
S5	SATA_RXN1	P5	GND																																																																	
S6	SATA_RXP1	P6	GND																																																																	
S7	GND	P7	+5V																																																																	
		P8	+5V																																																																	
		P9	+5V																																																																	
		P10	NC																																																																	
		P11	GND																																																																	
		P12	GND																																																																	
		P13	NC																																																																	
		P14	NC																																																																	
		P15	NC																																																																	
Connector map																																																																				

2.15 Mini PCI-E Connector (MINICARD1)

Connector size	2 X 26 = 52 Pin			
Connector type	MINI PCI-E CON 9.2mmH			
Connector location	MINICARD1			
Connector pin definition	Pin	Signal	Pin	Signal
	1	PCIE_WAKE#	2	3VSB
	3	NC	4	GND
	5	NC	6	NC
	7	NC	8	UIM_PWR
	9	GND	10	UIM_DAT
	11	NC	12	UIM_CLK
	13	NC	14	UIM_RST
	15	GND	16	NC
	17	NC	18	GND
	19	NC	20	MINICARD1 DIS#
	21	GND	22	NC
	23	NC	24	3VSB
	25	NC	26	GND
	27	GND	28	NC
	29	GND	30	NC
	31	NC	32	MC8090_WA KE#
	33	NC	34	GND
	35	GND	36	USB_4N
	37	GND	38	USB_4P
	39	3VSB	40	GND
	41	3VSB	42	LED_WWAN #
	43	GND	44	NC
	45	NC	46	NC
47	NC	48	NC	
49	NC	50	GND	
51	NC	52	3VSB	

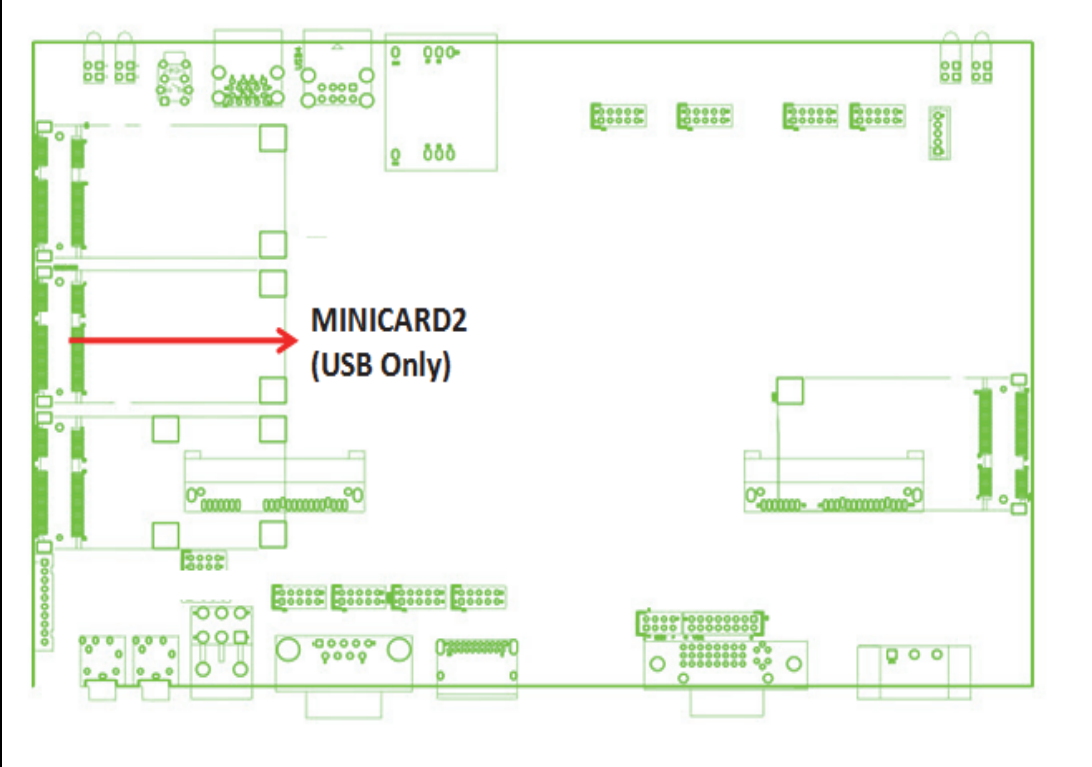
Connector map



2.16 Mini PCI-E Connector (MINICARD2)

Connector size	2 X 26 = 52 Pin			
Connector type	MINI PCI-E CON 9.2mmH			
Connector location	MINICARD2			
Connector pin definition	Pin	Signal	Pin	Signal
	1	PCIE_WAKE#	2	3VSB
	3	NC	4	GND
	5	NC	6	+1.5V
	7	MINICARD2_CLKREQ#	8	NC
	9	GND	10	NC
	11	NC	12	NC
	13	NC	14	NC
	15	GND	16	NC
	17	NC	18	GND
	19	NC	20	MINICARD2_DIS#
	21	GND	22	PCIE_RST#
	23	NC	24	3VSB
	25	NC	26	GND
	27	GND	28	+1.5V
	29	GND	30	SMB_CLK
	31	NC	32	SMB_DATA
	33	NC	34	GND
	35	GND	36	USB_5N
	37	GND	38	USB_5P
	39	3VSB	40	GND
	41	3VSB	42	NC
	43	GND	44	NC
	45	NC	46	NC
47	NC	48	+1.5V	
49	NC	50	GND	
51	NC	52	3VSB	

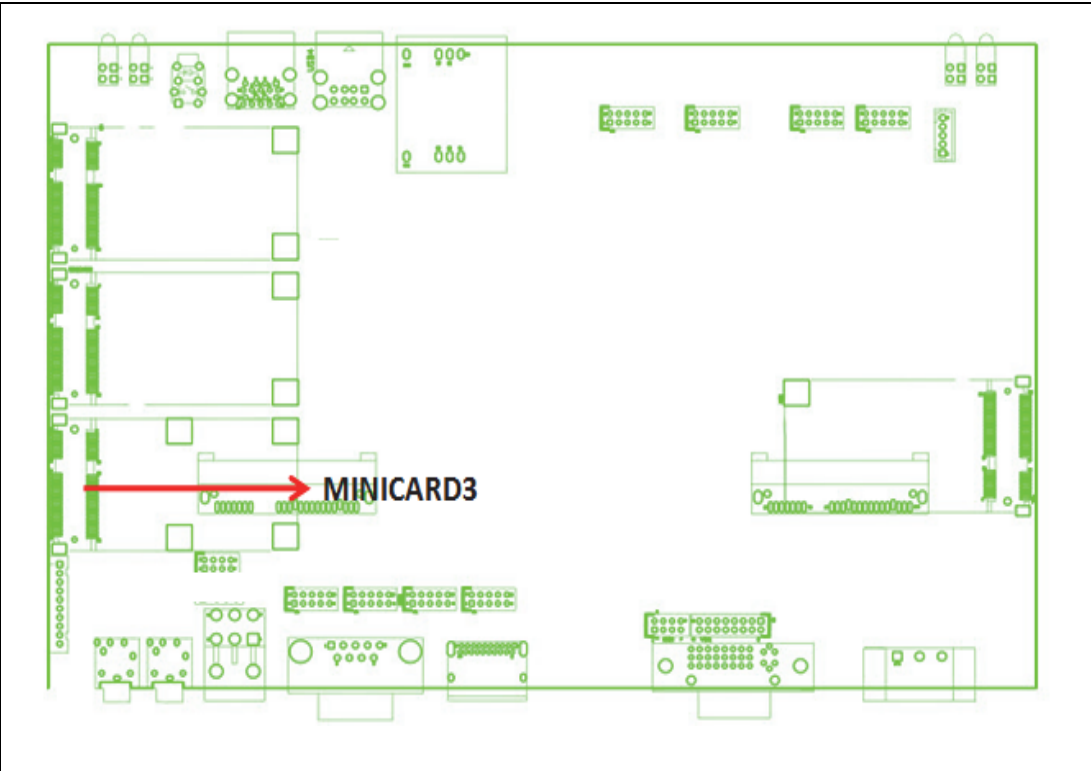
Connector map



2.17 Mini PCI-E Connector (MINICARD3)

4.17 Mini PCI-E connector				
Connector size	2 X 26 = 52 Pin			
Connector type	MINI PCI-E CON 9.2mmH			
Connector location	MINICARD3			
Connector pin definition	Pin	Signal	Pin	Signal
	1	PCIE_WAKE#	2	3VSB
	3	NC	4	GND
	5	NC	6	+1.5V
	7	MINICARD3_CLKREQ#	8	NC
	9	GND	10	NC
	11	PCIE_MCARD3_CLK_N	12	NC
	13	PCIE_MCARD3_CLK_P	14	NC
	15	GND	16	NC
	17	NC	18	GND
	19	NC	20	MINICARD3_DIS#
	21	GND	22	PCIE_RST#
	23	PCIE_MCARD3_RX_N	24	3VSB
	25	PCIE_MCARD3_RX_P	26	GND
	27	GND	28	+1.5V
	29	GND	30	SMB_CLK
	31	PCIE_MCARD3_TX_N	32	SMB_DATA
	33	PCIE_MCARD3_TX_P	34	GND
	35	GND	36	USB_6N
	37	GND	38	USB_6P
	39	3VSB	40	GND
	41	3VSB	42	NC
	43	GND	44	NC
	45	NC	46	NC
	47	NC	48	+1.5V
	49	NC	50	GND
51	NC	52	3VSB	

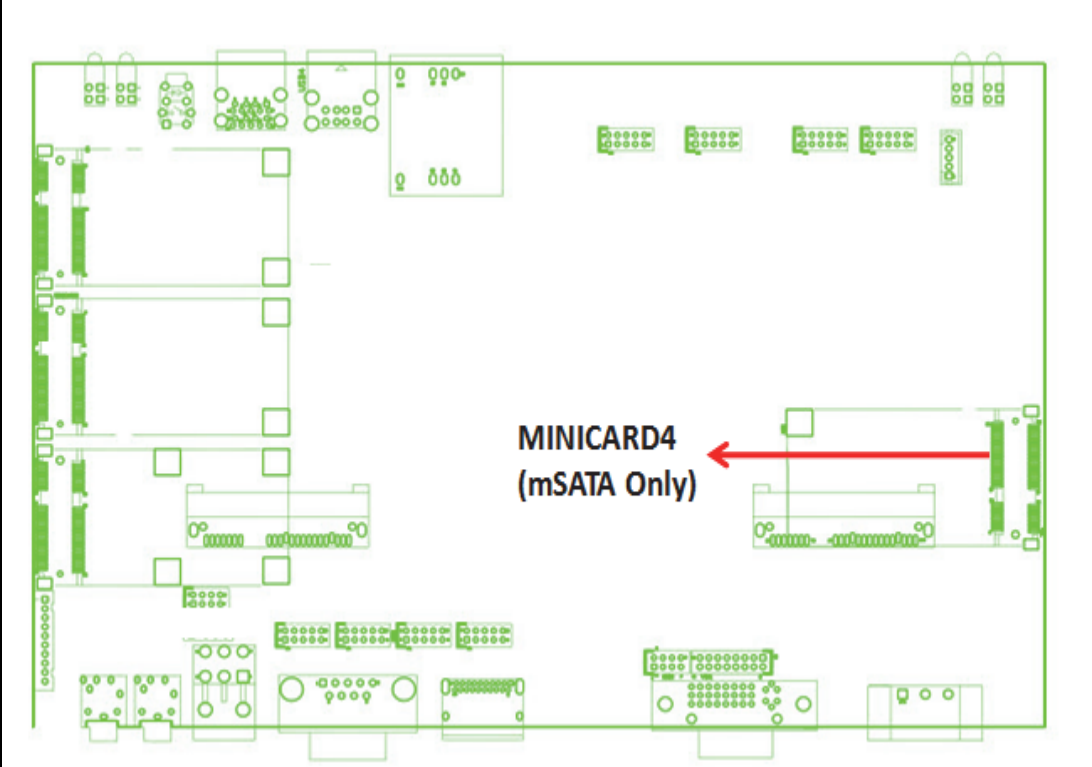
Connector map




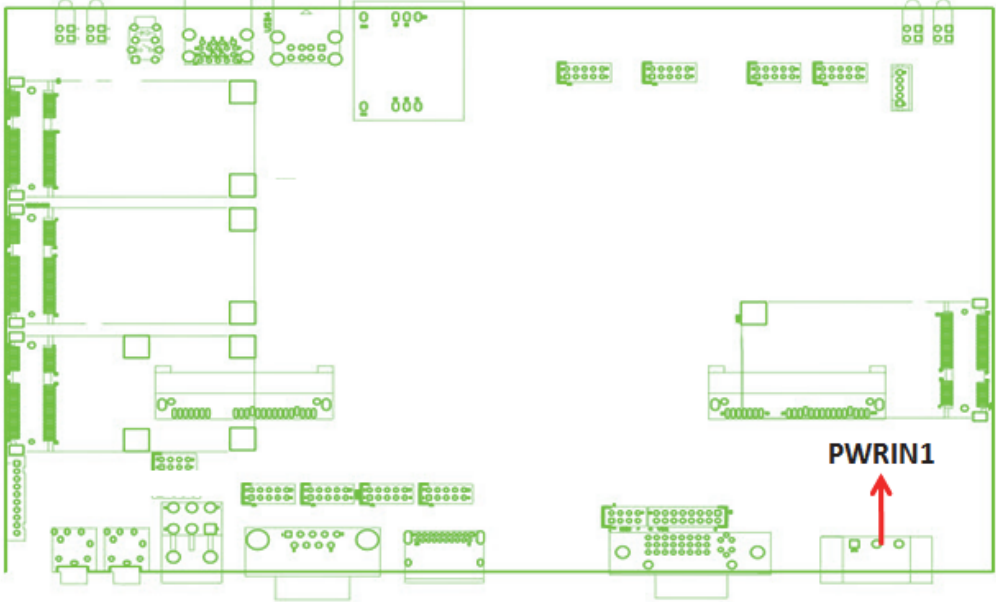
2.18 Mini PCI-E Connector (MINICARD4)

Connector size	2 X 26 = 52 Pin			
Connector type	MINI PCI-E CON 9.2mmH			
Connector location	MINICARD4			
Connector pin definition	Pin	Signal	Pin	Signal
	1	PCIE_WAKE#	2	3VSB
	3	NC	4	GND
	5	NC	6	+1.5V
	7	MINICARD4_CLKREQ#	8	NC
	9	GND	10	NC
	11	PCIE_MCARD4_CLK_N	12	NC
	13	PCIE_MCARD4_CLK_P	14	NC
	15	GND	16	NC
	17	NC	18	GND
	19	NC	20	MINICARD4_DIS#
	21	GND	22	PCIE_RST#
	23	SATA_RX2_P	24	3VSB
	25	SATA_RX2_N	26	GND
	27	GND	28	+1.5V
	29	GND	30	SMB_CLK
	31	SATA_TX2_N	32	SMB_DATA
	33	SATA_TX2_P	34	GND
	35	GND	36	NC
	37	GND	38	NC
	39	3VSB	40	GND
	41	3VSB	42	NC
	43	GND	44	NC
	45	NC	46	NC
47	NC	48	+1.5V	
49	MSATA_LED	50	GND	
51	GND	52	3VSB	

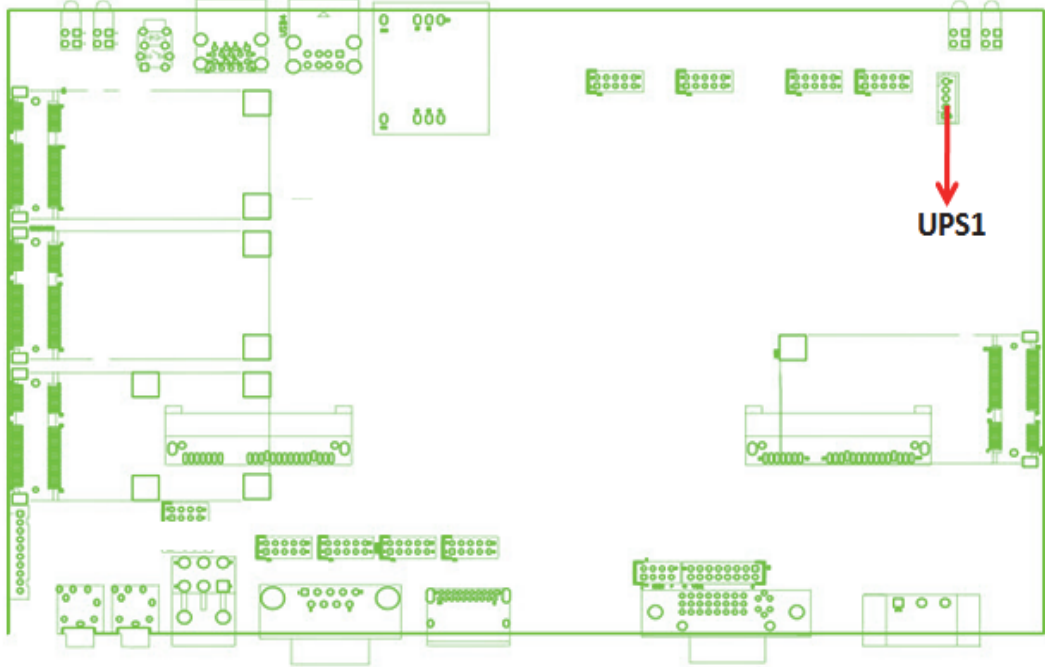
Connector map




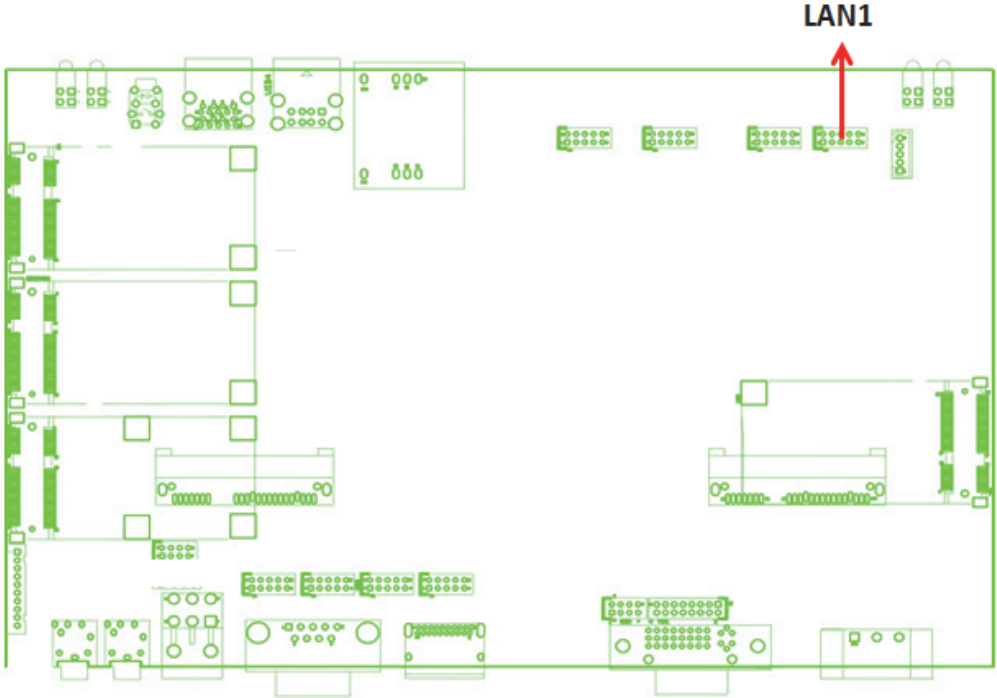
2.19 Power Input Connector

Connector size	1 X 3 = 3 Pin								
Connector type	Terminal block 3PIN pitch :5.08mm								
Connector location	PWRIN1								
Connector pin definition	<p style="text-align: center;">Pin1 / Pin2 / Pin3</p>  <table border="1" data-bbox="420 609 1365 749"><thead><tr><th>Pin</th><th>Signal</th></tr></thead><tbody><tr><td>1</td><td>GND</td></tr><tr><td>2</td><td>VIN (9V~36V)</td></tr><tr><td>3</td><td>IGNITION</td></tr></tbody></table>	Pin	Signal	1	GND	2	VIN (9V~36V)	3	IGNITION
Pin	Signal								
1	GND								
2	VIN (9V~36V)								
3	IGNITION								
Connector map									


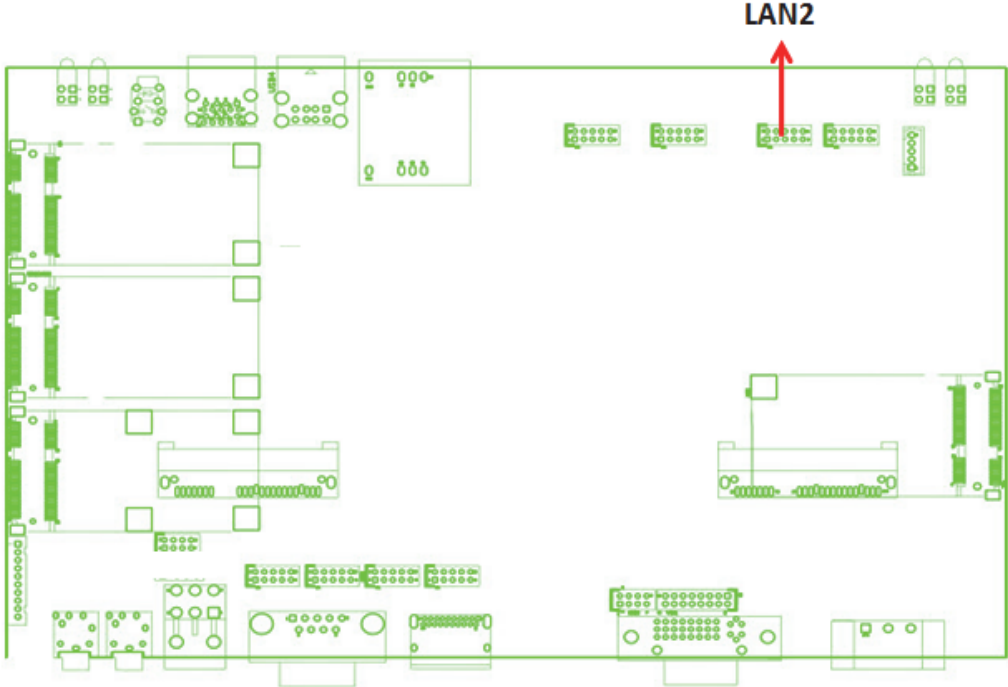
2.20 UPS Power Connector

Connector size	1 X 5 = 5 Pin												
Connector type	WAFER 2.54mm-M-180												
Connector location	UPS1												
Connector pin definition	<table border="1"><thead><tr><th>Pin</th><th>Signal</th></tr></thead><tbody><tr><td>1</td><td>+12V</td></tr><tr><td>2</td><td>+12V</td></tr><tr><td>3</td><td>NC</td></tr><tr><td>4</td><td>GND</td></tr><tr><td>5</td><td>GND</td></tr></tbody></table>	Pin	Signal	1	+12V	2	+12V	3	NC	4	GND	5	GND
Pin	Signal												
1	+12V												
2	+12V												
3	NC												
4	GND												
5	GND												
Connector map													


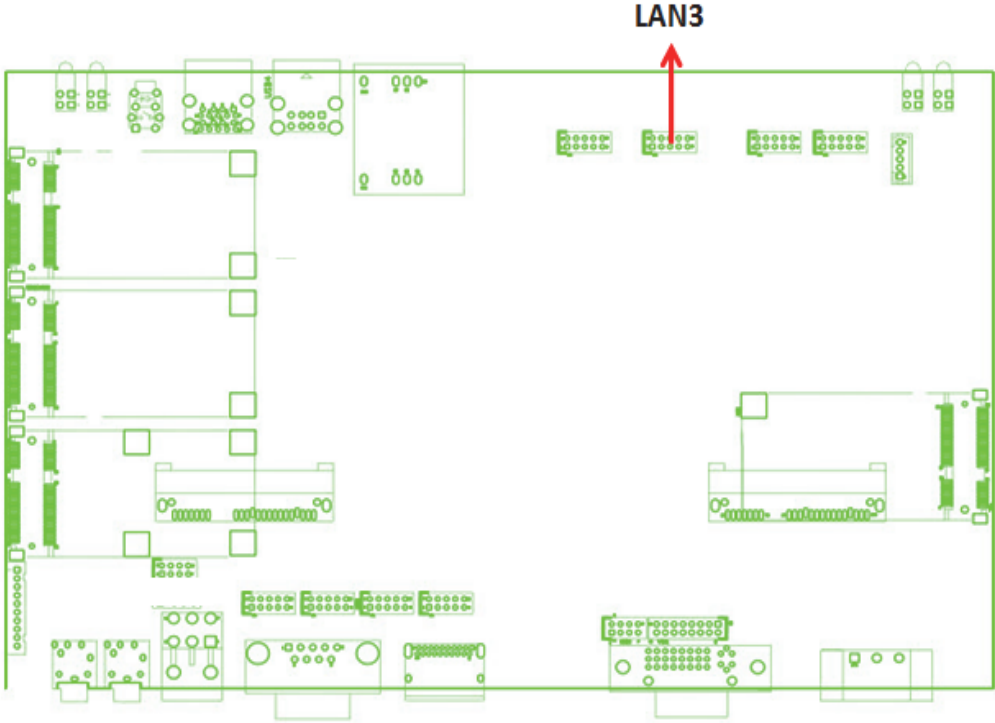
2.21 LAN Connector (LAN1)

Connector size	2 X 5 = 10 Pin																													
Connector type	JST-2.0mm-M-180																													
Connector location	LAN1																													
Connector pin definition	Pin	Signal	Pin	Signal																										
	1	LAN1_MDI0P_R	2	LAN1_MDI1P_R																										
	3	LAN1_MDI0N_R	4	LAN1_MDI1N_R																										
	5	NC	6	NC																										
	7	LAN1_MDI2P_R	8	LAN1_MDI3P_R																										
	9	LAN1_MDI2N_R	10	LAN1_MDI3N_R																										
Connector map																														
	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>LAN1_MDI0P_R</td> <td>+V</td> </tr> <tr> <td>2</td> <td>LAN1_MDI0N_R</td> <td>+V</td> </tr> <tr> <td>3</td> <td>LAN1_MDI1P_R</td> <td>-V</td> </tr> <tr> <td>4</td> <td>LAN1_MDI2P_R</td> <td></td> </tr> <tr> <td>5</td> <td>LAN1_MDI2N_R</td> <td></td> </tr> <tr> <td>6</td> <td>LAN1_MDI1N_R</td> <td>-V</td> </tr> <tr> <td>7</td> <td>LAN1_MDI3P_R</td> <td></td> </tr> <tr> <td>8</td> <td>LAN1_MDI3N_R</td> <td></td> </tr> </tbody> </table>				Pin	Signal		1	LAN1_MDI0P_R	+V	2	LAN1_MDI0N_R	+V	3	LAN1_MDI1P_R	-V	4	LAN1_MDI2P_R		5	LAN1_MDI2N_R		6	LAN1_MDI1N_R	-V	7	LAN1_MDI3P_R		8	LAN1_MDI3N_R
Pin	Signal																													
1	LAN1_MDI0P_R	+V																												
2	LAN1_MDI0N_R	+V																												
3	LAN1_MDI1P_R	-V																												
4	LAN1_MDI2P_R																													
5	LAN1_MDI2N_R																													
6	LAN1_MDI1N_R	-V																												
7	LAN1_MDI3P_R																													
8	LAN1_MDI3N_R																													
																														


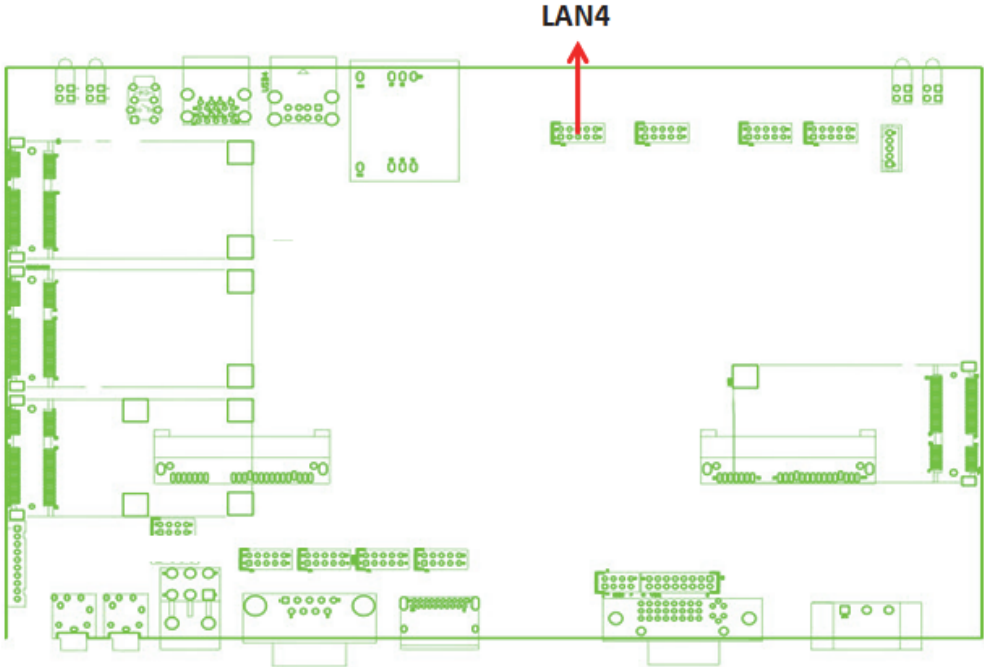
2.22 LAN Connector (LAN2)

Connector size	2 X 5 = 10 Pin																													
Connector type	JST-2.0mm-M-180																													
Connector location	LAN2																													
Connector pin definition	Pin	Signal	Pin	Signal																										
	1	LAN2 MDI0P_R	2	LAN2 MDI1P_R																										
	3	LAN2 MDI0N_R	4	LAN2 MDI1N_R																										
	5	NC	6	NC																										
	7	LAN2 MDI2P_R	8	LAN2 MDI3P_R																										
	9	LAN2 MDI2N_R	10	LAN2 MDI3N_R																										
Connector map																														
	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>LAN2 MDI0P_R</td> <td>+V</td> </tr> <tr> <td>2</td> <td>LAN2 MDI0N_R</td> <td>+V</td> </tr> <tr> <td>3</td> <td>LAN2 MDI1P_R</td> <td>-V</td> </tr> <tr> <td>4</td> <td>LAN2 MDI2P_R</td> <td></td> </tr> <tr> <td>5</td> <td>LAN2 MDI2N_R</td> <td></td> </tr> <tr> <td>6</td> <td>LAN2 MDI1N_R</td> <td>-V</td> </tr> <tr> <td>7</td> <td>LAN2 MDI3P_R</td> <td></td> </tr> <tr> <td>8</td> <td>LAN2 MDI3N_R</td> <td></td> </tr> </tbody> </table>				Pin	Signal		1	LAN2 MDI0P_R	+V	2	LAN2 MDI0N_R	+V	3	LAN2 MDI1P_R	-V	4	LAN2 MDI2P_R		5	LAN2 MDI2N_R		6	LAN2 MDI1N_R	-V	7	LAN2 MDI3P_R		8	LAN2 MDI3N_R
Pin	Signal																													
1	LAN2 MDI0P_R	+V																												
2	LAN2 MDI0N_R	+V																												
3	LAN2 MDI1P_R	-V																												
4	LAN2 MDI2P_R																													
5	LAN2 MDI2N_R																													
6	LAN2 MDI1N_R	-V																												
7	LAN2 MDI3P_R																													
8	LAN2 MDI3N_R																													
																														

2.23 LAN Connector (LAN3)

Connector size	2 X 5 = 10 Pin																													
Connector type	JST-2.0mm-M-180																													
Connector location	LAN3																													
Connector pin definition	Pin	Signal	Pin	Signal																										
	1	LAN3 MDI0P_R	2	LAN3 MDI1P_R																										
	3	LAN3 MDI0N_R	4	LAN3 MDI1N_R																										
	5	NC	6	NC																										
	7	LAN3 MDI2P_R	8	LAN3 MDI3P_R																										
	9	LAN3 MDI2N_R	10	LAN3 MDI3N_R																										
Connector map																														
	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>LAN3 MDI0P_R</td> <td>+V</td> </tr> <tr> <td>2</td> <td>LAN3 MDI0N_R</td> <td>+V</td> </tr> <tr> <td>3</td> <td>LAN3 MDI1P_R</td> <td>-V</td> </tr> <tr> <td>4</td> <td>LAN3 MDI2P_R</td> <td></td> </tr> <tr> <td>5</td> <td>LAN3 MDI2N_R</td> <td></td> </tr> <tr> <td>6</td> <td>LAN3 MDI1N_R</td> <td>-V</td> </tr> <tr> <td>7</td> <td>LAN3 MDI3P_R</td> <td></td> </tr> <tr> <td>8</td> <td>LAN3 MDI3N_R</td> <td></td> </tr> </tbody> </table>				Pin	Signal		1	LAN3 MDI0P_R	+V	2	LAN3 MDI0N_R	+V	3	LAN3 MDI1P_R	-V	4	LAN3 MDI2P_R		5	LAN3 MDI2N_R		6	LAN3 MDI1N_R	-V	7	LAN3 MDI3P_R		8	LAN3 MDI3N_R
Pin	Signal																													
1	LAN3 MDI0P_R	+V																												
2	LAN3 MDI0N_R	+V																												
3	LAN3 MDI1P_R	-V																												
4	LAN3 MDI2P_R																													
5	LAN3 MDI2N_R																													
6	LAN3 MDI1N_R	-V																												
7	LAN3 MDI3P_R																													
8	LAN3 MDI3N_R																													
																														

2.24 LAN Connector (LAN4)

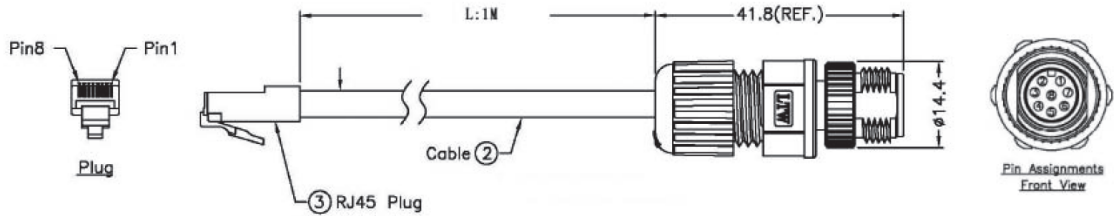
4.24 LAN connector																														
Connector size	2 X 5 = 10 Pin																													
Connector type	JST-2.0mm-M-180																													
Connector location	LAN4																													
Connector pin definition	Pin	Signal	Pin	Signal																										
	1	LAN4 MDI0P_R	2	LAN4 MDI1P_R																										
	3	LAN4 MDI0N_R	4	LAN4 MDI1N_R																										
	5	NC	6	NC																										
	7	LAN4 MDI2P_R	8	LAN4 MDI3P_R																										
	9	LAN4 MDI2N_R	10	LAN4 MDI3N_R																										
Connector map																														
	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th></th> </tr> </thead> <tbody> <tr> <td>1</td> <td>LAN4 MDI0P_R</td> <td>+V</td> </tr> <tr> <td>2</td> <td>LAN4 MDI0N_R</td> <td>+V</td> </tr> <tr> <td>3</td> <td>LAN4 MDI1P_R</td> <td>-V</td> </tr> <tr> <td>4</td> <td>LAN4 MDI2P_R</td> <td></td> </tr> <tr> <td>5</td> <td>LAN4 MDI2N_R</td> <td></td> </tr> <tr> <td>6</td> <td>LAN4 MDI1N_R</td> <td>-V</td> </tr> <tr> <td>7</td> <td>LAN4 MDI3P_R</td> <td></td> </tr> <tr> <td>8</td> <td>LAN4 MDI3N_R</td> <td></td> </tr> </tbody> </table>				Pin	Signal		1	LAN4 MDI0P_R	+V	2	LAN4 MDI0N_R	+V	3	LAN4 MDI1P_R	-V	4	LAN4 MDI2P_R		5	LAN4 MDI2N_R		6	LAN4 MDI1N_R	-V	7	LAN4 MDI3P_R		8	LAN4 MDI3N_R
Pin	Signal																													
1	LAN4 MDI0P_R	+V																												
2	LAN4 MDI0N_R	+V																												
3	LAN4 MDI1P_R	-V																												
4	LAN4 MDI2P_R																													
5	LAN4 MDI2N_R																													
6	LAN4 MDI1N_R	-V																												
7	LAN4 MDI3P_R																													
8	LAN4 MDI3N_R																													
																														

3.0 EXTERNAL CONNECTOR SPECIFICATION

3.0 EXTERNAL CONNECTOR SPECIFICATION

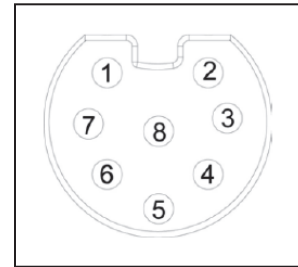
3.1 M12 Connecting to the Network

A. M12 to RJ45 Cable

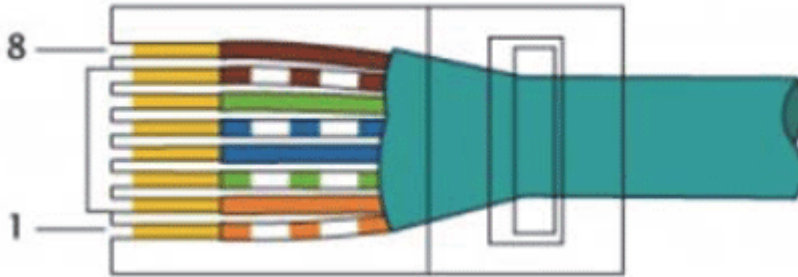


B. M12 connector pin define

Pin	Signal	Pin	Signal
1	TD1+	2	TD1-
3	TD2+	4	TD3+
5	TD3-	6	TD2-
7	TD4+	8	TD4-



C. CAT5 connector pin define

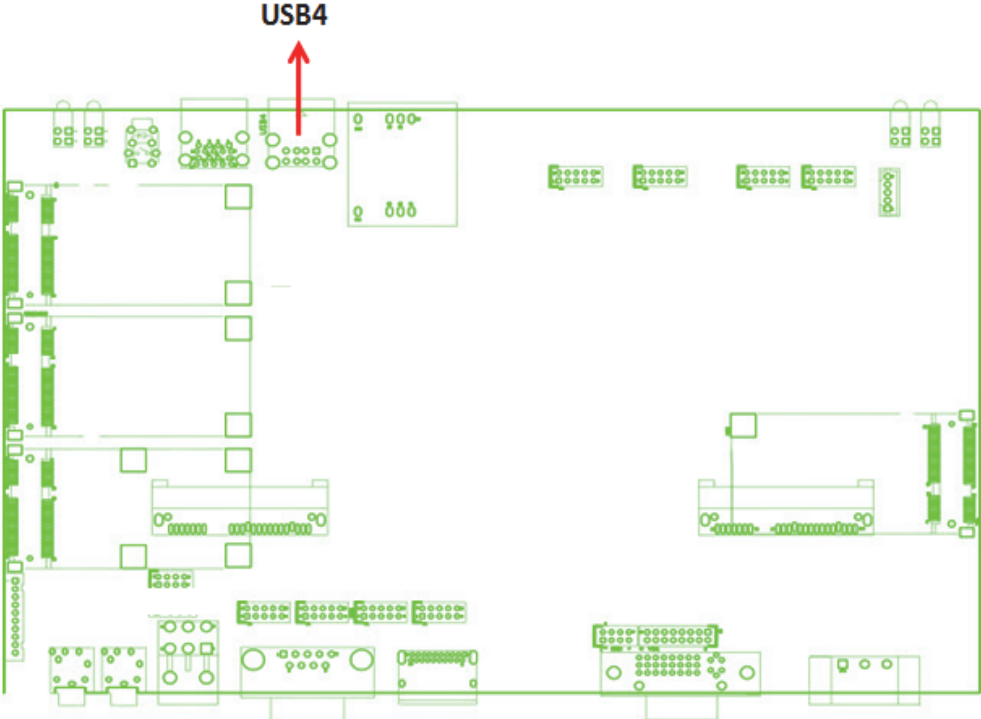


Pin	Signal	Pin	Signal
1	TD1+	2	TD1-
3	TD2+	4	TD3+
5	TD3-	6	TD2-
7	TD4+	8	TD4-

3.2 USB Connector (USB3)

Connector size	18 Pin																																											
Connector type	USB3.0 Type A																																											
Connector location	USB3																																											
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5VSB</td> <td>2</td> <td>USB0_N</td> </tr> <tr> <td>3</td> <td>USB0_P</td> <td>4</td> <td>GND</td> </tr> <tr> <td>5</td> <td>SSRX0_ON</td> <td>6</td> <td>SSRX0_OP</td> </tr> <tr> <td>7</td> <td>GND</td> <td>8</td> <td>SSTX0_ON</td> </tr> <tr> <td>9</td> <td>SSTX0_OP</td> <td>10</td> <td>5VSB</td> </tr> <tr> <td>11</td> <td>USB1_N</td> <td>12</td> <td>USB1_P</td> </tr> <tr> <td>13</td> <td>GND</td> <td>14</td> <td>SSRX1_ON</td> </tr> <tr> <td>15</td> <td>SSRX1_OP</td> <td>16</td> <td>GND</td> </tr> <tr> <td>17</td> <td>SSTX1_ON</td> <td>18</td> <td>SSTX1_OP</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	1	5VSB	2	USB0_N	3	USB0_P	4	GND	5	SSRX0_ON	6	SSRX0_OP	7	GND	8	SSTX0_ON	9	SSTX0_OP	10	5VSB	11	USB1_N	12	USB1_P	13	GND	14	SSRX1_ON	15	SSRX1_OP	16	GND	17	SSTX1_ON	18	SSTX1_OP
Pin	Signal	Pin	Signal																																									
1	5VSB	2	USB0_N																																									
3	USB0_P	4	GND																																									
5	SSRX0_ON	6	SSRX0_OP																																									
7	GND	8	SSTX0_ON																																									
9	SSTX0_OP	10	5VSB																																									
11	USB1_N	12	USB1_P																																									
13	GND	14	SSRX1_ON																																									
15	SSRX1_OP	16	GND																																									
17	SSTX1_ON	18	SSTX1_OP																																									
Connector map																																												

3.3 USB Connector (USB4)

Connector size	8 Pin																							
Connector type	USB2.0 Type A																							
Connector location	USB4																							
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5VSB</td> <td>2</td> <td>USB2_ON</td> </tr> <tr> <td>3</td> <td>USB2_OP</td> <td>4</td> <td>GND</td> </tr> <tr> <td>5</td> <td>5VSB</td> <td>6</td> <td>USB1_ON</td> </tr> <tr> <td>7</td> <td>USB1_OP</td> <td>8</td> <td>GND</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	1	5VSB	2	USB2_ON	3	USB2_OP	4	GND	5	5VSB	6	USB1_ON	7	USB1_OP	8	GND
Pin	Signal	Pin	Signal																					
1	5VSB	2	USB2_ON																					
3	USB2_OP	4	GND																					
5	5VSB	6	USB1_ON																					
7	USB1_OP	8	GND																					
Connector map																								

3.4 DVI-I Connector

Connector size	29 Pin																																																																			
Connector type	DVI-I																																																																			
Connector location	DVI-I1																																																																			
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DVI TX2 N</td> <td>2</td> <td>DVI TX2 P</td> </tr> <tr> <td>3</td> <td>GND</td> <td>4</td> <td>5VSB</td> </tr> <tr> <td>5</td> <td>+12V</td> <td>6</td> <td>DVI DDC CLK</td> </tr> <tr> <td>7</td> <td>DVI DDC DATA</td> <td>8</td> <td>CRT VSYNC</td> </tr> <tr> <td>9</td> <td>DVI TX1 N</td> <td>10</td> <td>DVI TX1 P</td> </tr> <tr> <td>11</td> <td>GND</td> <td>12</td> <td>USB 7N</td> </tr> <tr> <td>13</td> <td>USB 7P</td> <td>14</td> <td>+5V</td> </tr> <tr> <td>15</td> <td>GND</td> <td>16</td> <td>DVI HPD</td> </tr> <tr> <td>17</td> <td>DVI TX0 N</td> <td>18</td> <td>DVI TX0 P</td> </tr> <tr> <td>19</td> <td>GND</td> <td>20</td> <td>CRT DAC_SDA</td> </tr> <tr> <td>21</td> <td>CRT_DAC_SCL</td> <td>22</td> <td>NC</td> </tr> <tr> <td>23</td> <td>DVI CLK P</td> <td>24</td> <td>DVI CLK N</td> </tr> <tr> <td>C1</td> <td>CRT RED</td> <td>C2</td> <td>CRT GREEN</td> </tr> <tr> <td>C3</td> <td>CRT BLUE</td> <td>C4</td> <td>CRT HSYNC</td> </tr> <tr> <td>C5</td> <td>CRT_DET</td> <td>C6</td> <td>GND</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	1	DVI TX2 N	2	DVI TX2 P	3	GND	4	5VSB	5	+12V	6	DVI DDC CLK	7	DVI DDC DATA	8	CRT VSYNC	9	DVI TX1 N	10	DVI TX1 P	11	GND	12	USB 7N	13	USB 7P	14	+5V	15	GND	16	DVI HPD	17	DVI TX0 N	18	DVI TX0 P	19	GND	20	CRT DAC_SDA	21	CRT_DAC_SCL	22	NC	23	DVI CLK P	24	DVI CLK N	C1	CRT RED	C2	CRT GREEN	C3	CRT BLUE	C4	CRT HSYNC	C5	CRT_DET	C6	GND
	Pin	Signal	Pin	Signal																																																																
1	DVI TX2 N	2	DVI TX2 P																																																																	
3	GND	4	5VSB																																																																	
5	+12V	6	DVI DDC CLK																																																																	
7	DVI DDC DATA	8	CRT VSYNC																																																																	
9	DVI TX1 N	10	DVI TX1 P																																																																	
11	GND	12	USB 7N																																																																	
13	USB 7P	14	+5V																																																																	
15	GND	16	DVI HPD																																																																	
17	DVI TX0 N	18	DVI TX0 P																																																																	
19	GND	20	CRT DAC_SDA																																																																	
21	CRT_DAC_SCL	22	NC																																																																	
23	DVI CLK P	24	DVI CLK N																																																																	
C1	CRT RED	C2	CRT GREEN																																																																	
C3	CRT BLUE	C4	CRT HSYNC																																																																	
C5	CRT_DET	C6	GND																																																																	
Connector map	<p>The diagram shows a detailed PCB layout with various components like capacitors, resistors, and integrated circuits. A red arrow points to a 29-pin connector labeled 'DVI-I1' located in the lower right quadrant of the board.</p>																																																																			

3.5 DP Connector

Connector size	20 Pin																																															
Connector type	Display port																																															
Connector location	DP1																																															
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>DP2_LANE_0P</td> <td>2</td> <td>GND</td> </tr> <tr> <td>3</td> <td>DP2_LANE_0N</td> <td>4</td> <td>DP2_LANE_1P</td> </tr> <tr> <td>5</td> <td>GND</td> <td>6</td> <td>DP2_LANE_1N</td> </tr> <tr> <td>7</td> <td>DP2_LANE_2P</td> <td>8</td> <td>GND</td> </tr> <tr> <td>9</td> <td>DP2_LANE_2N</td> <td>10</td> <td>DP2_LANE_3P</td> </tr> <tr> <td>11</td> <td>GND</td> <td>12</td> <td>DP2_LANE_3N</td> </tr> <tr> <td>13</td> <td>DP2_AUX_EN#</td> <td>14</td> <td>GND</td> </tr> <tr> <td>15</td> <td>DP2_AUXP_CLK</td> <td>16</td> <td>GND</td> </tr> <tr> <td>17</td> <td>DP2_AUXN_DATA</td> <td>18</td> <td>DP2_HPDP</td> </tr> <tr> <td>19</td> <td>GND</td> <td>20</td> <td>DP2_VCC3</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	1	DP2_LANE_0P	2	GND	3	DP2_LANE_0N	4	DP2_LANE_1P	5	GND	6	DP2_LANE_1N	7	DP2_LANE_2P	8	GND	9	DP2_LANE_2N	10	DP2_LANE_3P	11	GND	12	DP2_LANE_3N	13	DP2_AUX_EN#	14	GND	15	DP2_AUXP_CLK	16	GND	17	DP2_AUXN_DATA	18	DP2_HPDP	19	GND	20	DP2_VCC3
Pin	Signal	Pin	Signal																																													
1	DP2_LANE_0P	2	GND																																													
3	DP2_LANE_0N	4	DP2_LANE_1P																																													
5	GND	6	DP2_LANE_1N																																													
7	DP2_LANE_2P	8	GND																																													
9	DP2_LANE_2N	10	DP2_LANE_3P																																													
11	GND	12	DP2_LANE_3N																																													
13	DP2_AUX_EN#	14	GND																																													
15	DP2_AUXP_CLK	16	GND																																													
17	DP2_AUXN_DATA	18	DP2_HPDP																																													
19	GND	20	DP2_VCC3																																													
Connector map																																																

3.6 COM Connector (COM1)

Connector size	9 Pin																											
Connector type	D-SUB																											
Connector location	COM1																											
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>COM1_DCD</td> <td>2</td> <td>COM1_RXD</td> </tr> <tr> <td>3</td> <td>COM1_TXD</td> <td>4</td> <td>COM1_DTR</td> </tr> <tr> <td>5</td> <td>GND</td> <td>6</td> <td>COM1_DSR</td> </tr> <tr> <td>7</td> <td>COM1_RTS</td> <td>8</td> <td>COM1_CTS</td> </tr> <tr> <td>9</td> <td>COM1_RI#</td> <td></td> <td></td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	1	COM1_DCD	2	COM1_RXD	3	COM1_TXD	4	COM1_DTR	5	GND	6	COM1_DSR	7	COM1_RTS	8	COM1_CTS	9	COM1_RI#		
Pin	Signal	Pin	Signal																									
1	COM1_DCD	2	COM1_RXD																									
3	COM1_TXD	4	COM1_DTR																									
5	GND	6	COM1_DSR																									
7	COM1_RTS	8	COM1_CTS																									
9	COM1_RI#																											
Connector map	<p>The diagram shows a detailed PCB layout with various components, including integrated circuits, capacitors, and connectors. A red arrow points to a 9-pin D-sub connector labeled 'COM1' located in the lower-middle section of the board.</p>																											

3.7 MIC IN Connector

Connector size	6 Pin																			
Connector type	Phone Jack																			
Connector location	MIC1																			
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>MIC OUT-L</td> <td>2</td> <td>MIC-JD</td> </tr> <tr> <td>3</td> <td>NC</td> <td>4</td> <td>MIC OUT-R</td> </tr> <tr> <td>5</td> <td>AGND</td> <td>6</td> <td>AGND</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	1	MIC OUT-L	2	MIC-JD	3	NC	4	MIC OUT-R	5	AGND	6	AGND
Pin	Signal	Pin	Signal																	
1	MIC OUT-L	2	MIC-JD																	
3	NC	4	MIC OUT-R																	
5	AGND	6	AGND																	
Connector map	<p>The diagram shows a complex PCB layout with various components including microprocessors, memory modules, and connectors. A red arrow at the bottom left points to a 6-pin connector labeled 'MIC1', which is the location of the MIC IN Connector.</p>																			

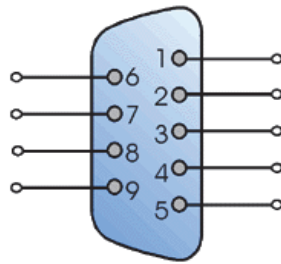
3.8 LINE OUT Connector

Connector size	6 Pin																			
Connector type	Phone Jack																			
Connector location	LOUT1																			
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>FRONT_OUT_R</td> <td>2</td> <td>FRONT-JD</td> </tr> <tr> <td>3</td> <td>NC</td> <td>4</td> <td>FRONT_OUT_L</td> </tr> <tr> <td>5</td> <td>AGND</td> <td>6</td> <td>AGND</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	1	FRONT_OUT_R	2	FRONT-JD	3	NC	4	FRONT_OUT_L	5	AGND	6	AGND
Pin	Signal	Pin	Signal																	
1	FRONT_OUT_R	2	FRONT-JD																	
3	NC	4	FRONT_OUT_L																	
5	AGND	6	AGND																	
Connector map																				

3.9 Power Out Connector

Connector size	6 Pin																			
Connector type	ATX 6PIN																			
Connector location	PWROUT1																			
Connector pin definition	<table border="1"> <thead> <tr> <th>Pin</th> <th>Signal</th> <th>Pin</th> <th>Signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>+12V</td> <td>2</td> <td>+12V</td> </tr> <tr> <td>3</td> <td>RELAY IN</td> <td>4</td> <td>GND</td> </tr> <tr> <td>5</td> <td>GND</td> <td>6</td> <td>RELAY OUT</td> </tr> </tbody> </table>				Pin	Signal	Pin	Signal	1	+12V	2	+12V	3	RELAY IN	4	GND	5	GND	6	RELAY OUT
Pin	Signal	Pin	Signal																	
1	+12V	2	+12V																	
3	RELAY IN	4	GND																	
5	GND	6	RELAY OUT																	
Connector map																				

3.10 CAN BUS Pin Assignment



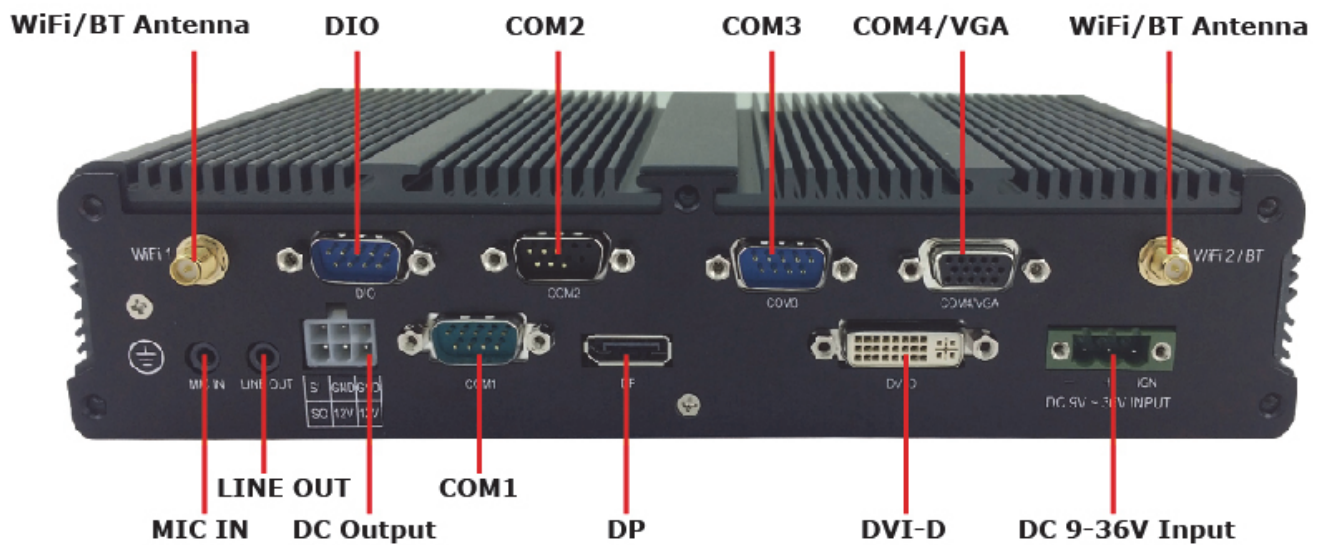
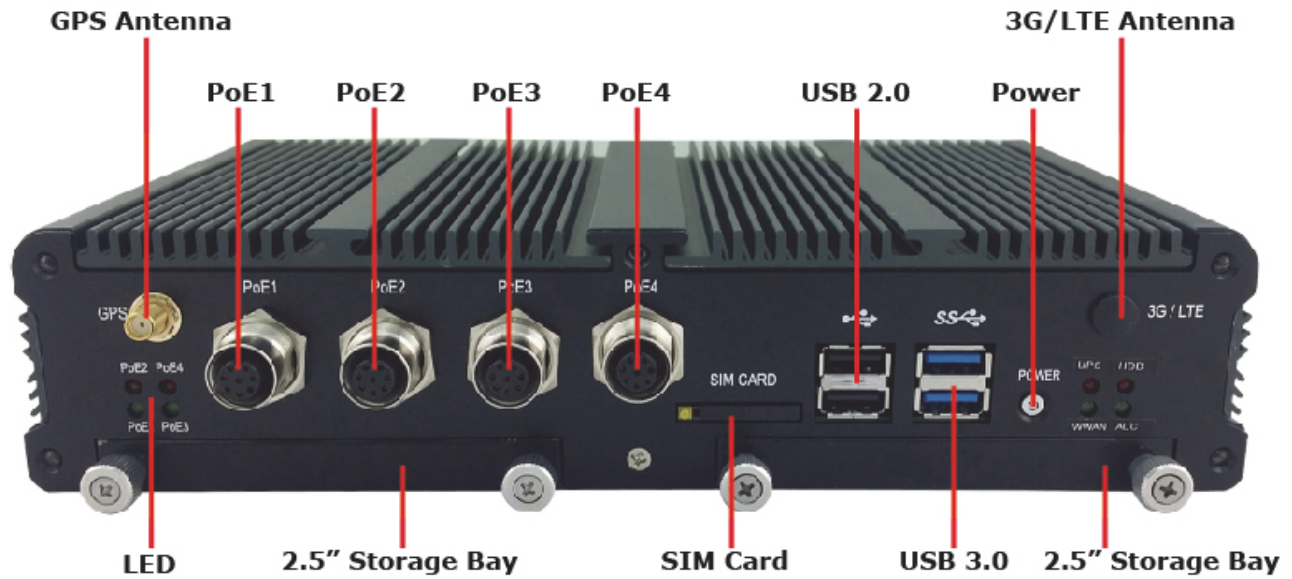
A. Connector pin definition

Pin	Signal	Pin	Signal
1	nc	6	CAN_GND
2	CAN_L	7	CAN_H
3	CAN_GND	8	nc
4	nc	9	nc
5	nc		

4.0 SYSTEM INSTALLATION

4.0 SYSTEM INSTALLATION

4.1 System Introduction



4.2 Opening Chassis

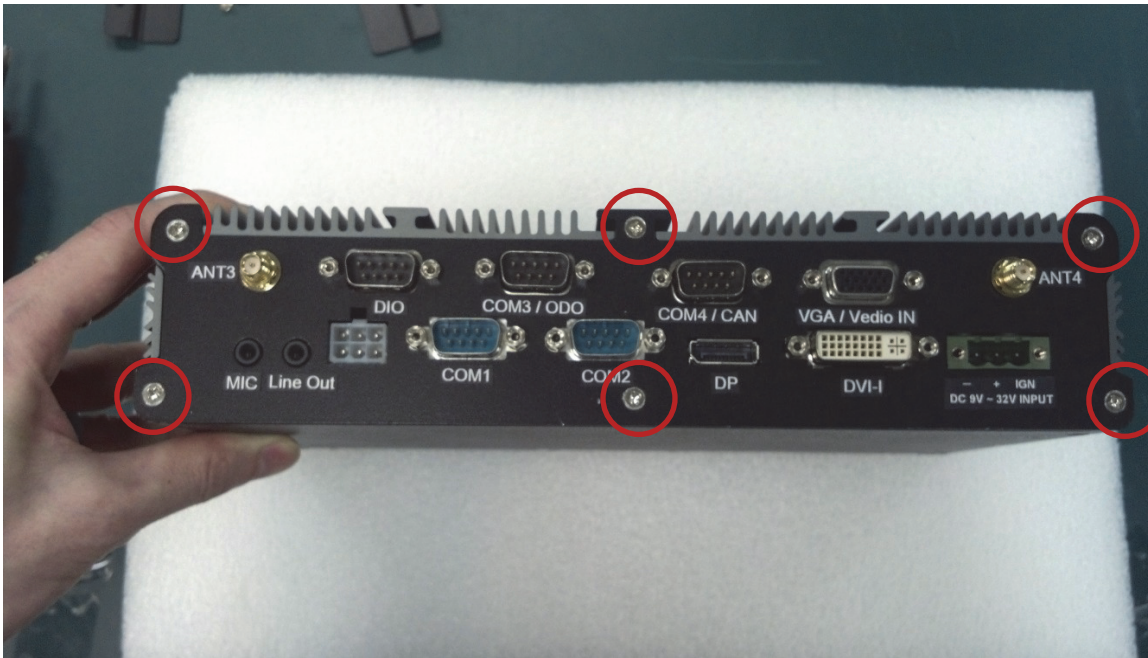
Step1. Unscrew the six screws of the Back Cover as shown in the picture.



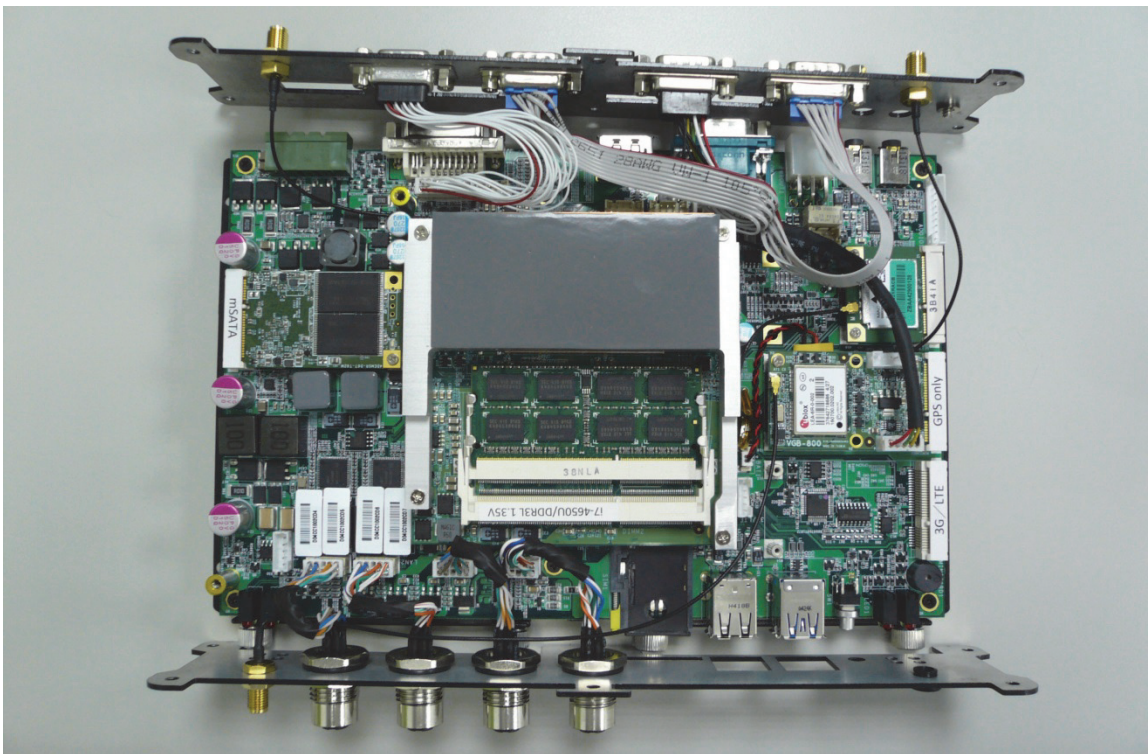
Step2. Unscrew the six screws of the Front Panel as shown in the picture.



Step3. Unscrew the six screws of the Rear Panel as shown in the picture.

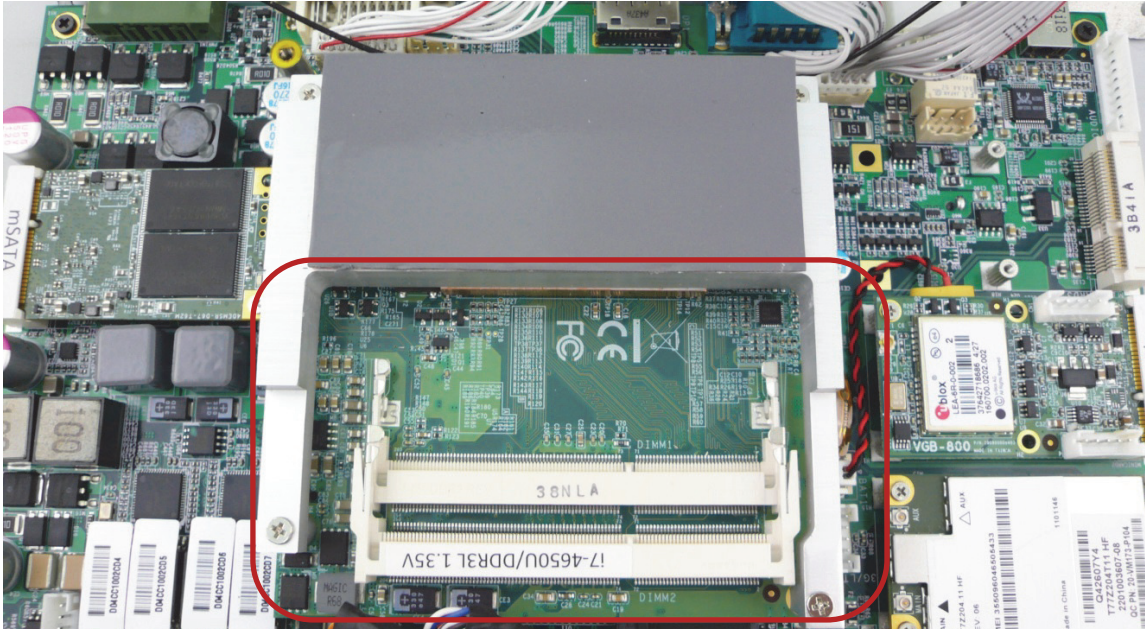


Step4. Open Top Cover as shown in the picture.



4.3 Installing Memory

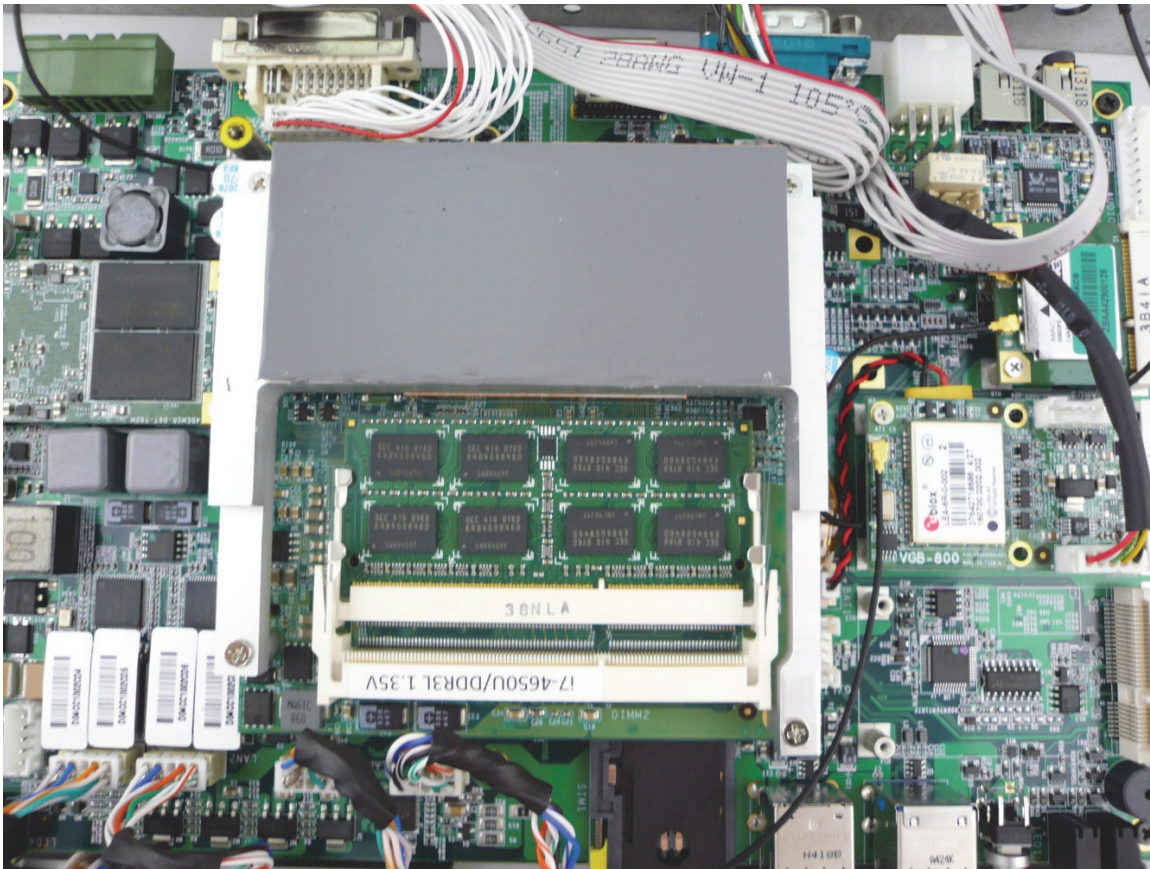
Step1. Put Memory on this place as shown in the picture.



Step2. Hold the Memory with its notch aligned with the Memory socket of the board and insert it at a 30-degree angle into the socket as shown in the picture.

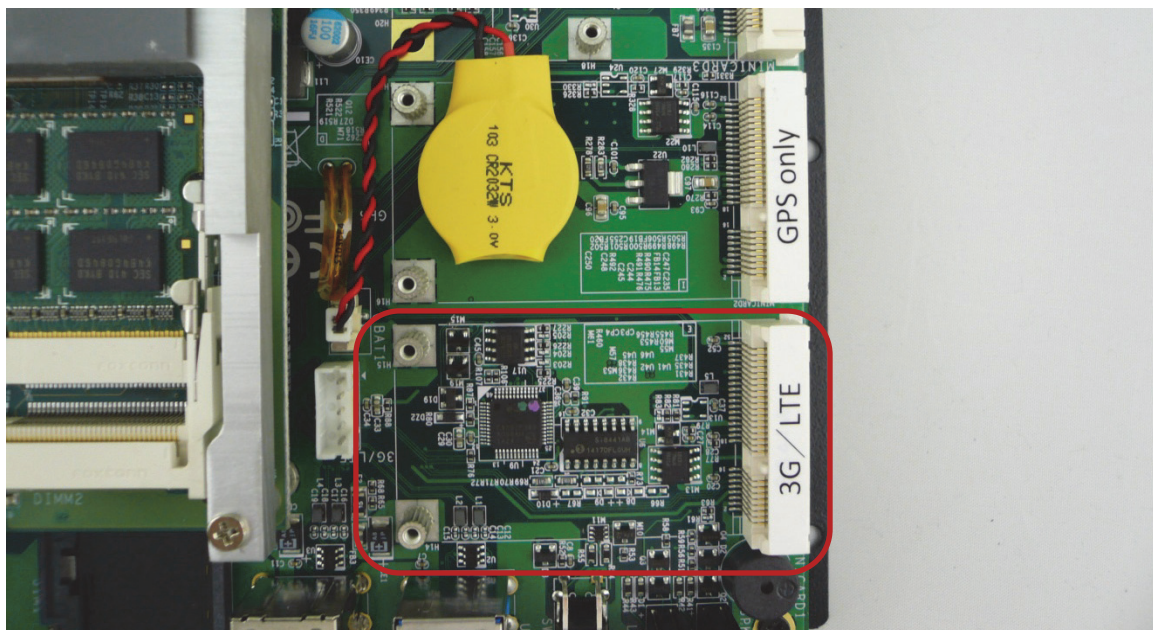


Step3. Press down on the Memory so that the tabs of the socket lock on both sides of the module as shown in the picture.



4.4 Installing MINI PCIe Expansion Card (PCIe 1, 3G/LTE Module only)

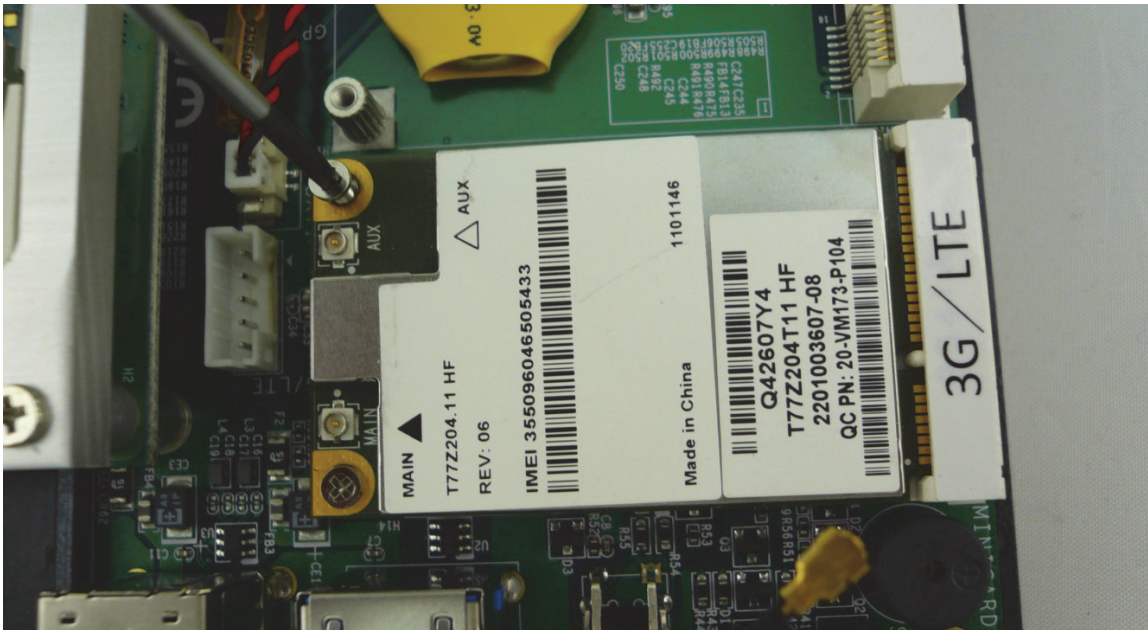
Step 1. Put MINI PCIe Expansion Card on this place as shown in the picture.



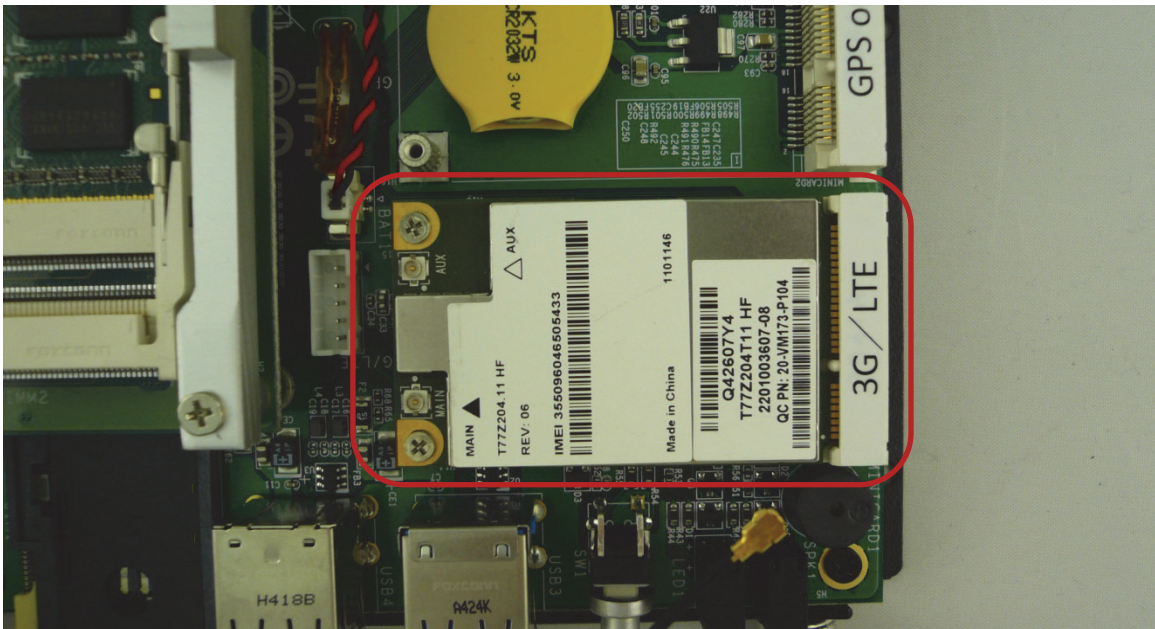
Step 2. Hold the Module with its notch aligned with the socket of the board and insert it at a 30 degree angle into the socket as shown in the picture.



Step 3. Screw two screws to the holder as shown in the picture.

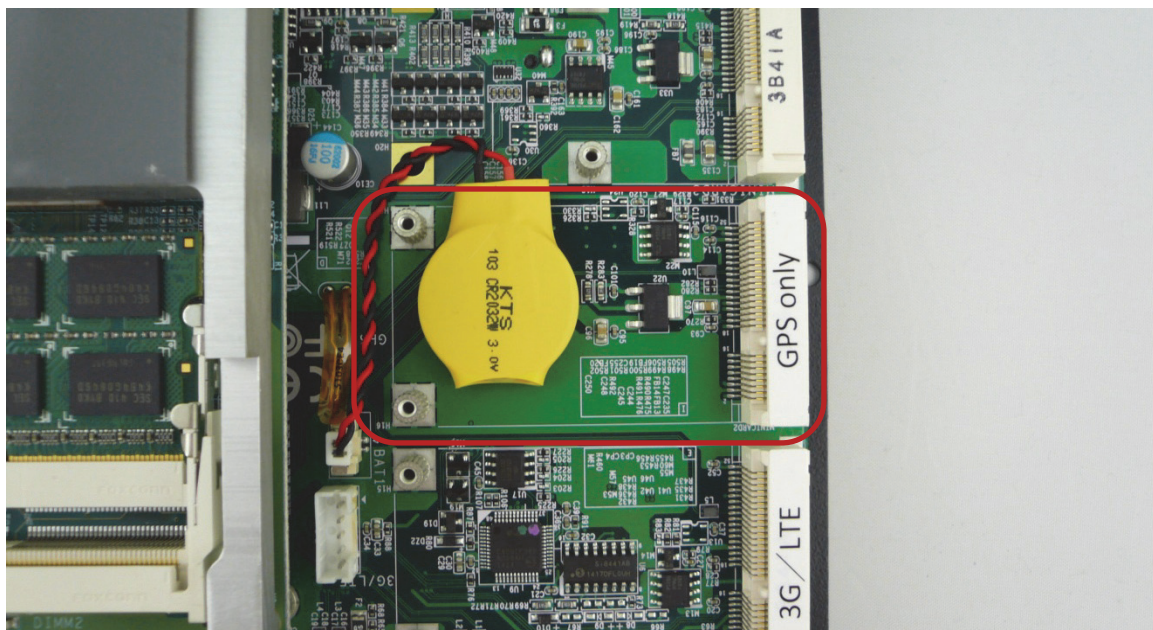


Step 4. Done as shown in the picture.

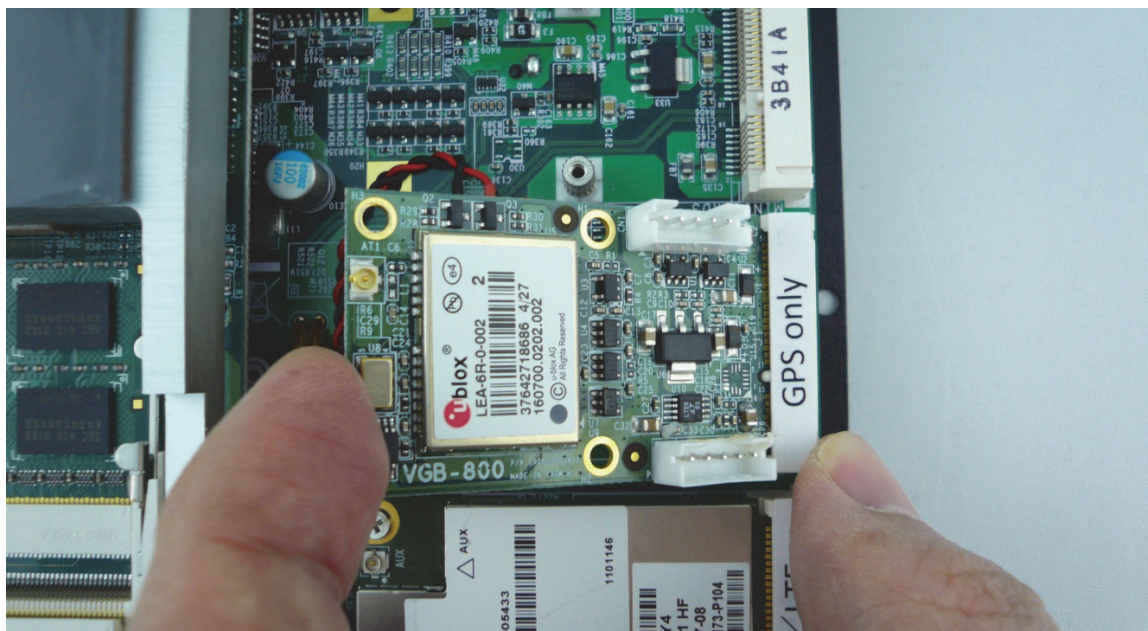


4.5 Installing MINI PCIe Expansion Card (PCIe 2, GPS Module only)

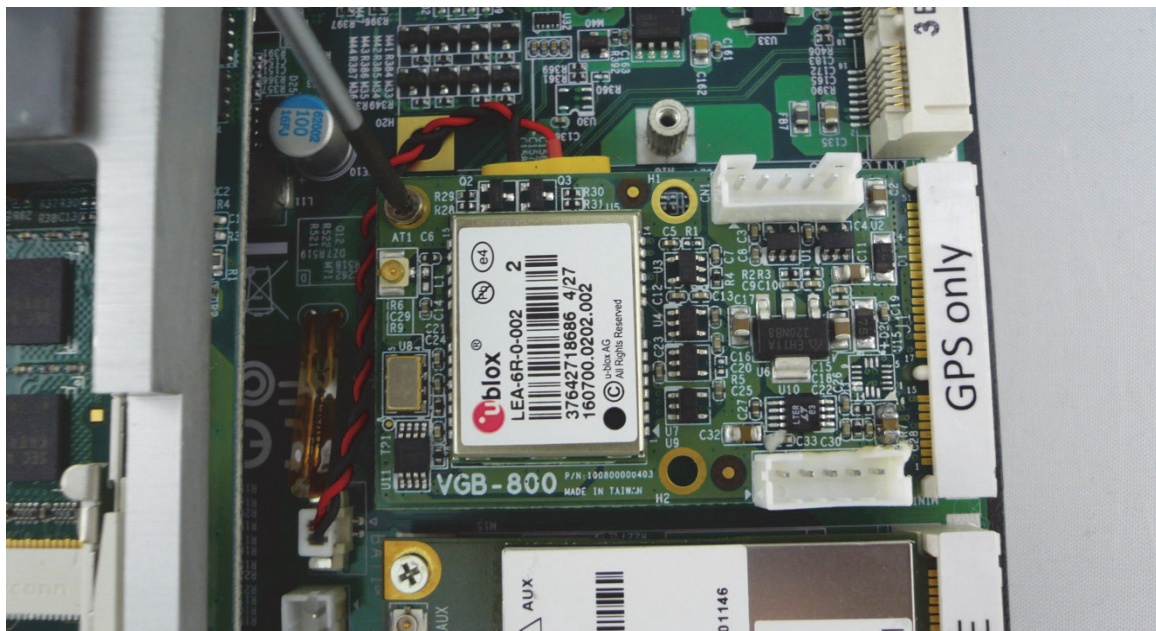
Step 1. Put MINI PCIe Expansion Card on this place as shown in the picture.



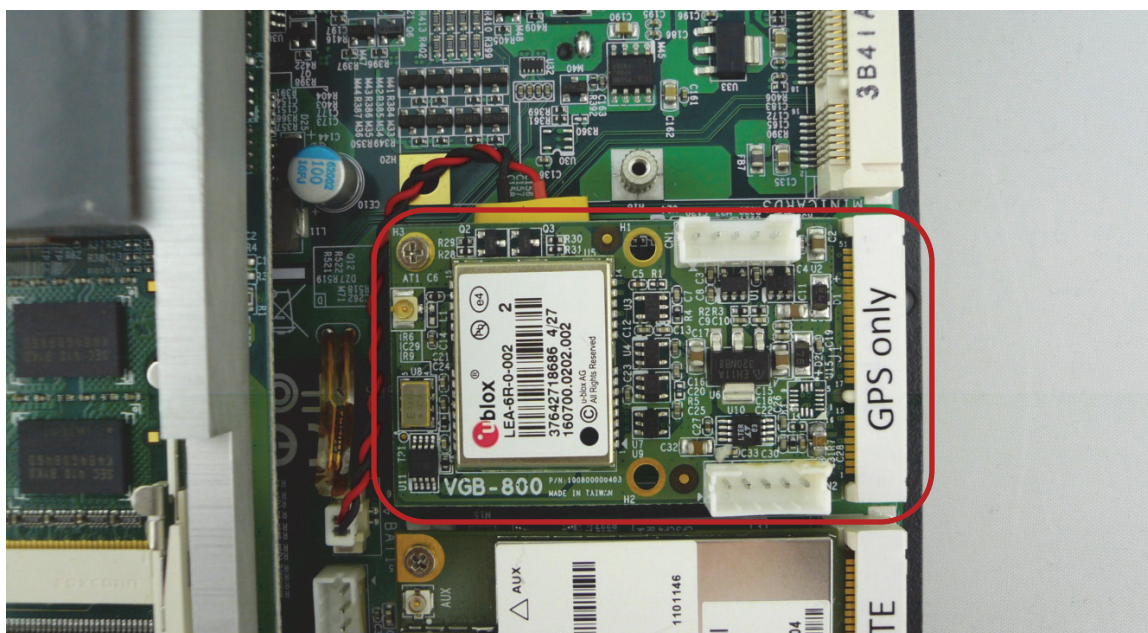
Step 2. Hold the Module with its notch aligned with the socket of the board and insert it at a 30 degree angle into the socket as shown in the picture.



Step 3. Screw two screws to the holder as shown in the picture.

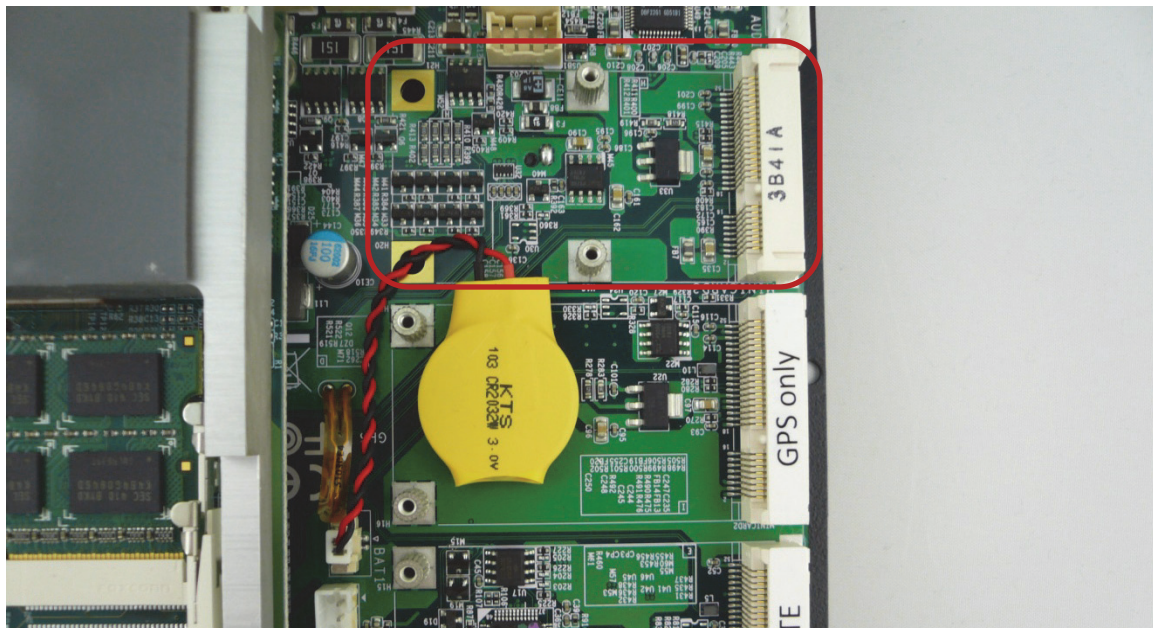


Step 4. Done as shown in the picture.

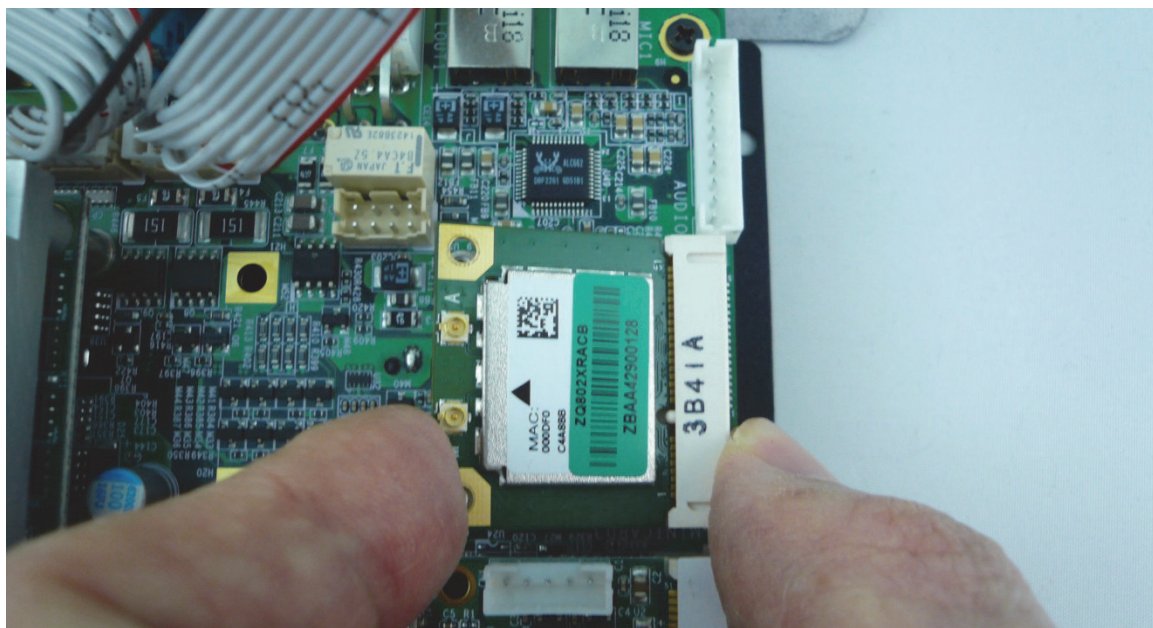


4.6 Installing MINI PCIe Expansion Card (PCIe 3)

Step 1. Put MINI PCIe Expansion Card on this place as shown in the picture.



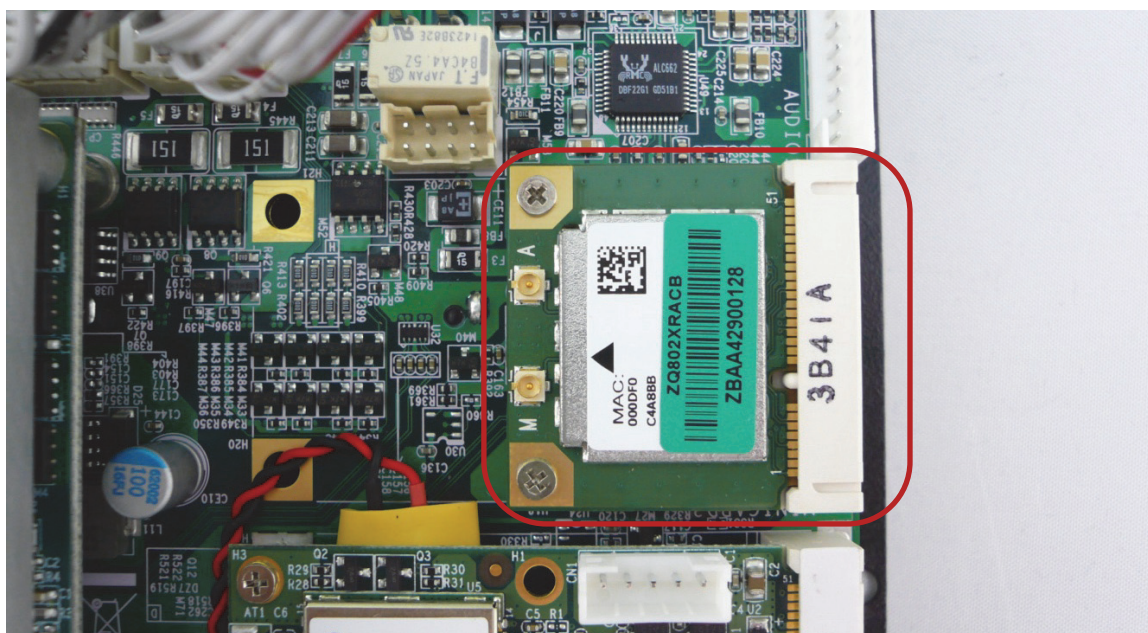
Step 2. Hold the Module with its notch aligned with the socket of the board and insert it at a 30 degree angle into the socket as shown in the picture.



Step 3. Screw two screws to the holder as shown in the picture.

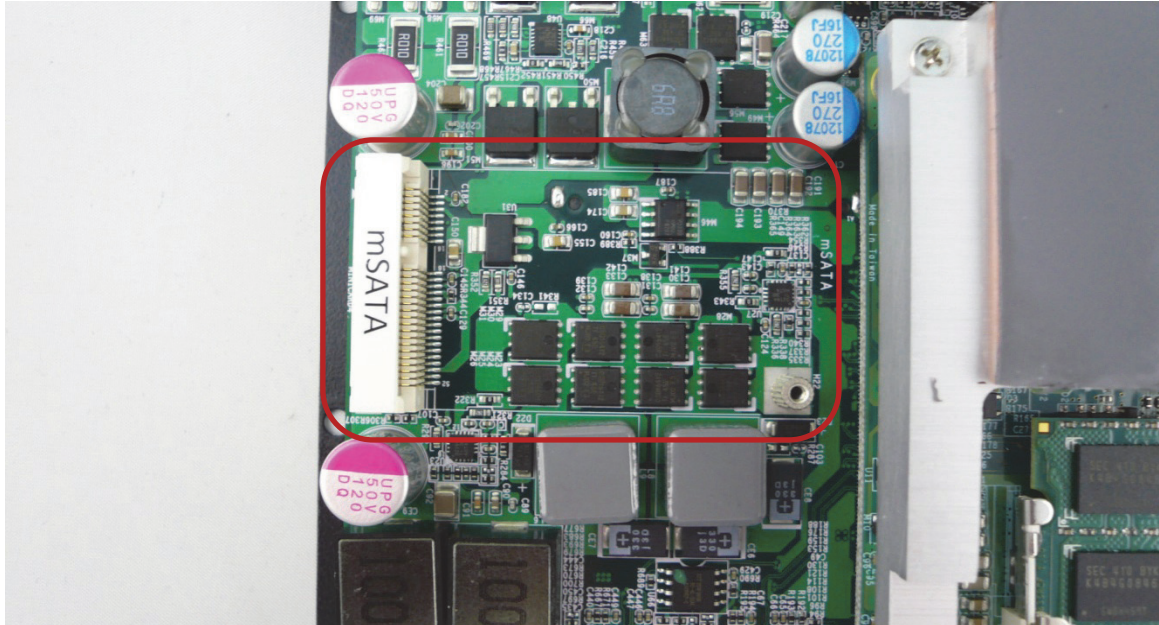


Step 4. Done as shown in the picture.

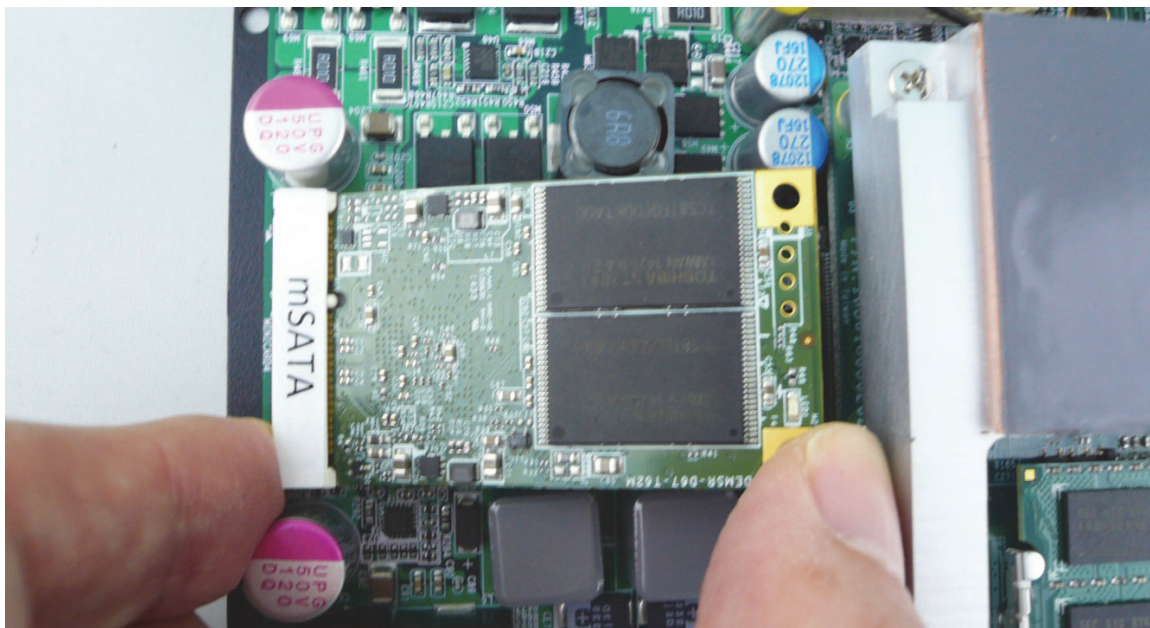


4.7 Installing mSATA Flash Card (PCIe 4, mSATA only)

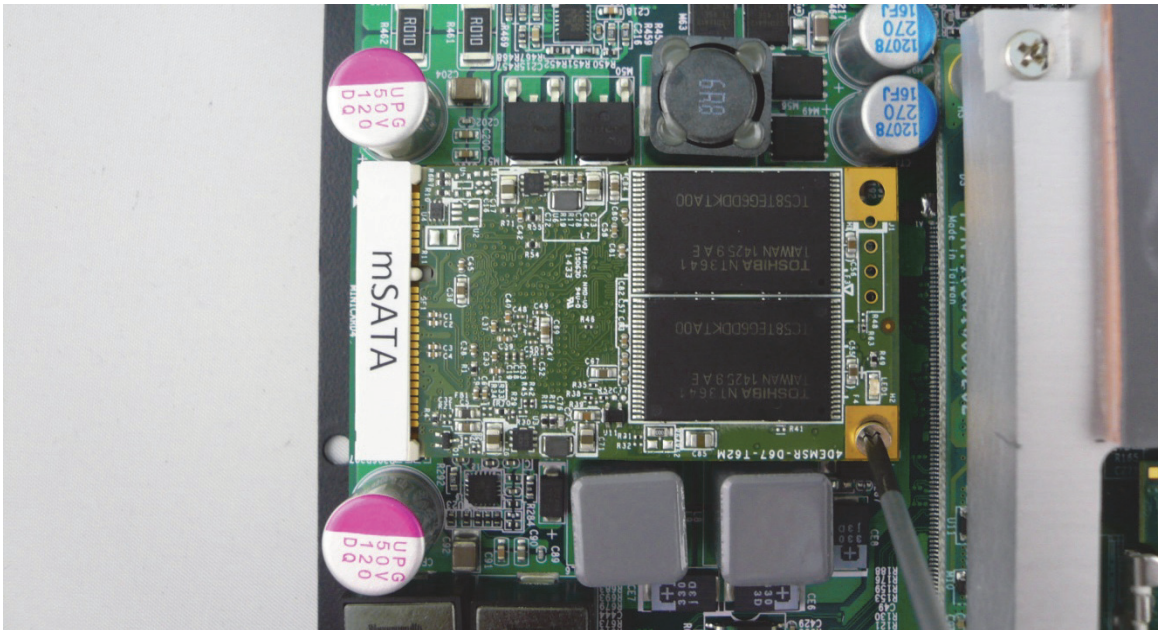
Step 1. Put mSATA Flash Card on this place as shown in the picture.



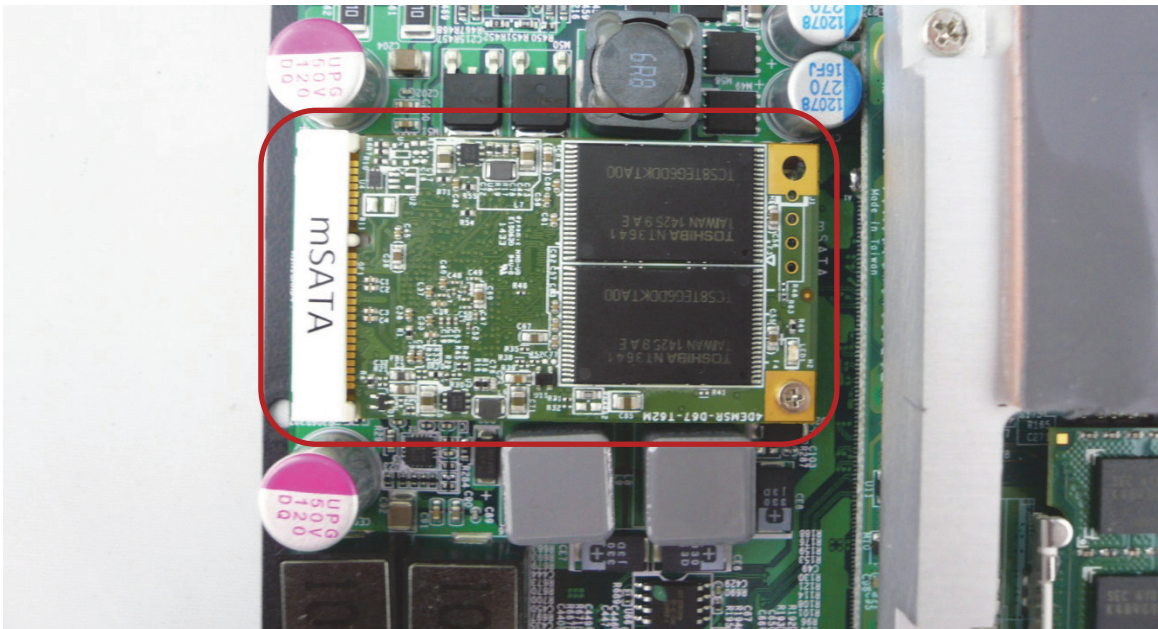
Step 2. Hold the Module with its notch aligned with the socket of the board and insert it at a 30 degree angle into the socket as shown in the picture.



Step 3. Screw two screws to the holder as shown in the picture.

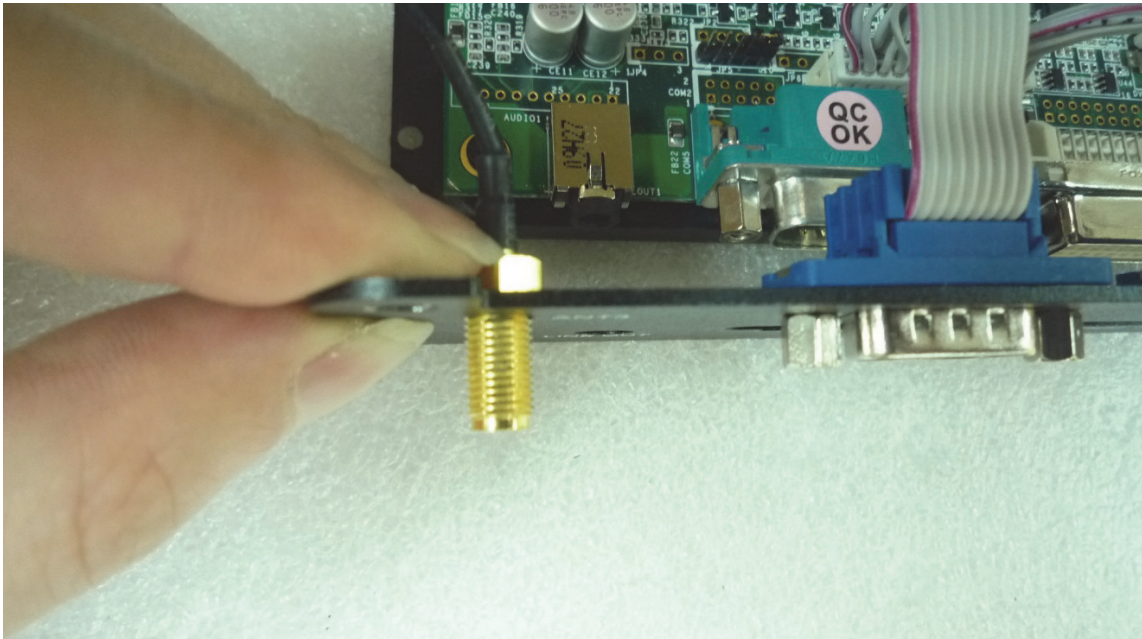


Step 4. Done as shown in the picture.



4.8 Installing Internal Antenna Cable

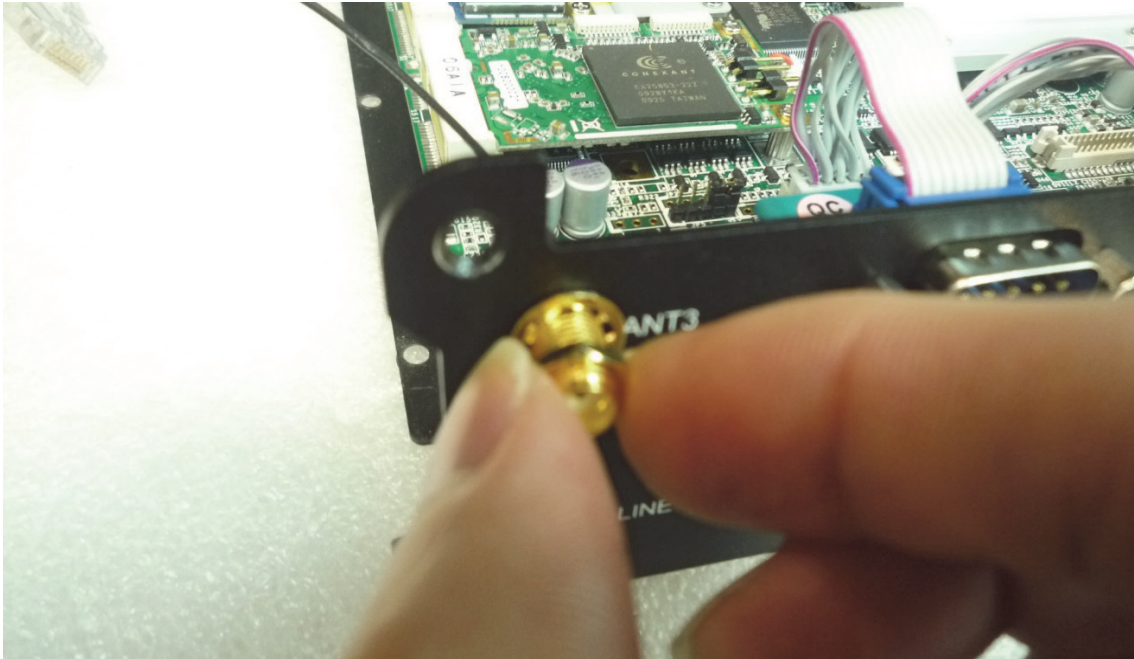
Step 1. Take the SMA Connector and Plug into IO Panel as shown in the picture.



Step 2. Put the Washer into the SMA Connector as shown in the picture.



Step 3. Put the Oring to SMA Connector and tighten as shown in the picture.



Step 4. Done as shown in the picture.



Step 5. Take the IpeX Connector and press on the wifi module as shown in the picture.



Step 6. Take the IpeX Connector and press on the 3G module as shown in the picture.



Step 7. Take the IpeX Connector and press on the GPS module as shown in the picture.



4.9 Installing SIM Card

Step 1. Use thin stick to push the button as shown in the picture.



Step 2. Take the holder away from front panel as shown in the picture.



Step 3. Put your SIM Card into the holder as shown in the picture.



Step 4. Take the SIM card holder and Insert it into the socket as shown in the picture.



Attention:

Please cut the main power when you insert the SIM.

Caution :

The SIM card will be not detected.

4.10 Installing HDD

Step 1. Put the HDD into HDD Holder as shown in the picture.



Step 2. Screw two screws on both side as shown in the picture.



Step 3. Push the HDD Holder into the socket as shown in the picture.



Step 4. Fully insert the HDD Holder into the socket until a “click” is heard as shown in the picture.



Step 5. Tighten to Storage Bracket screws as shown in the picture.

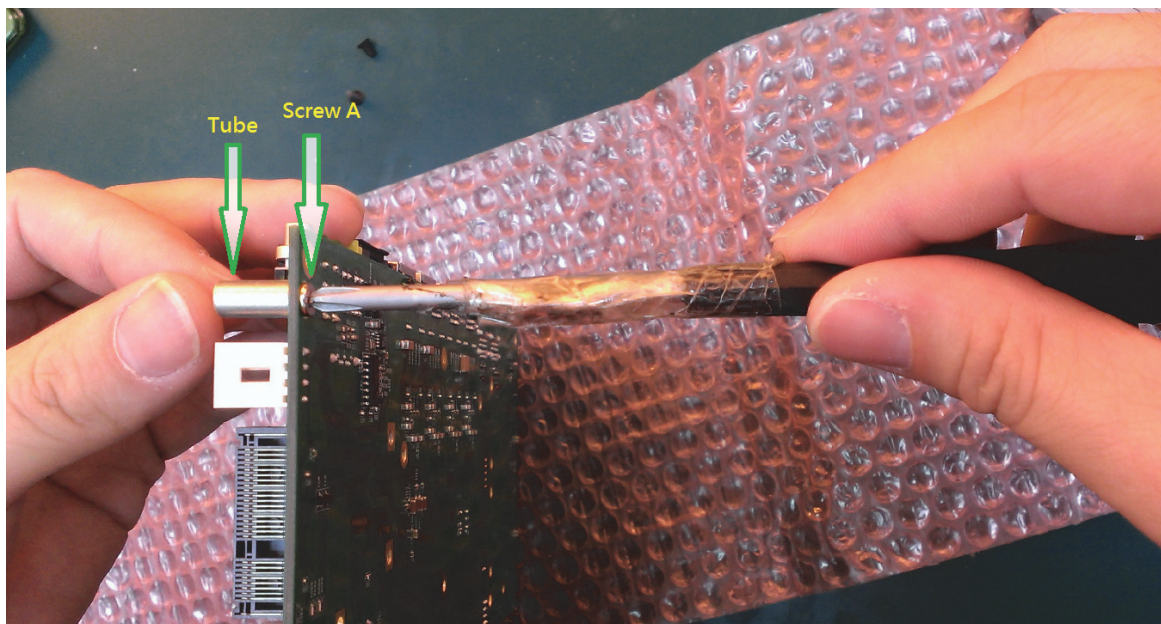


4.11 Installing Battery Module

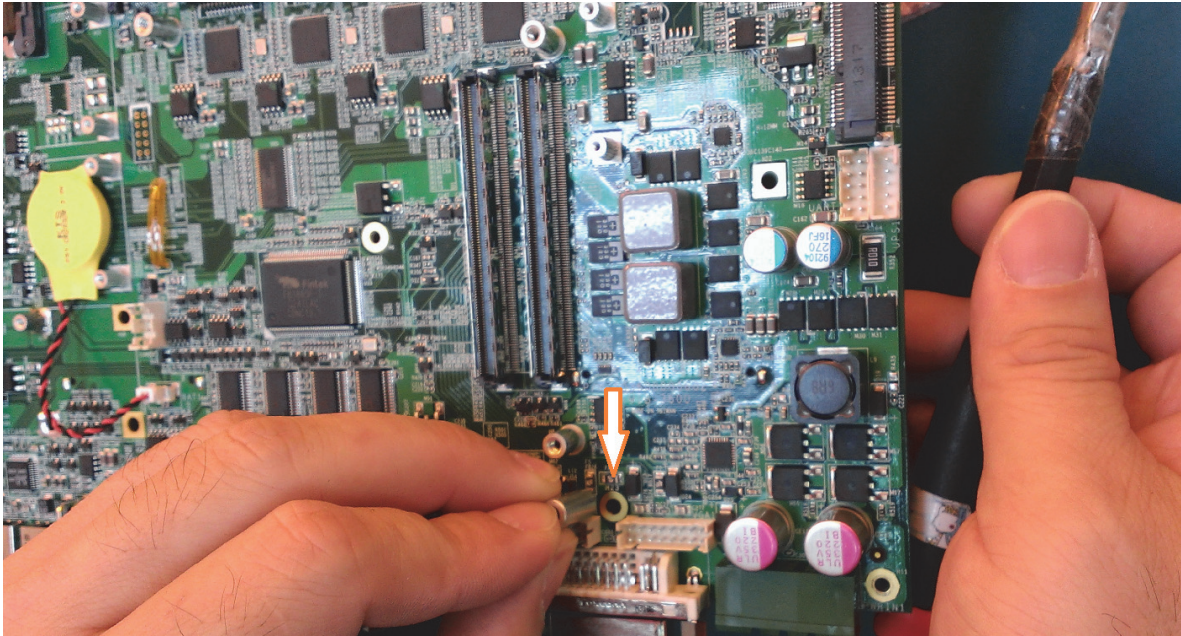
Step 1. Accessories list



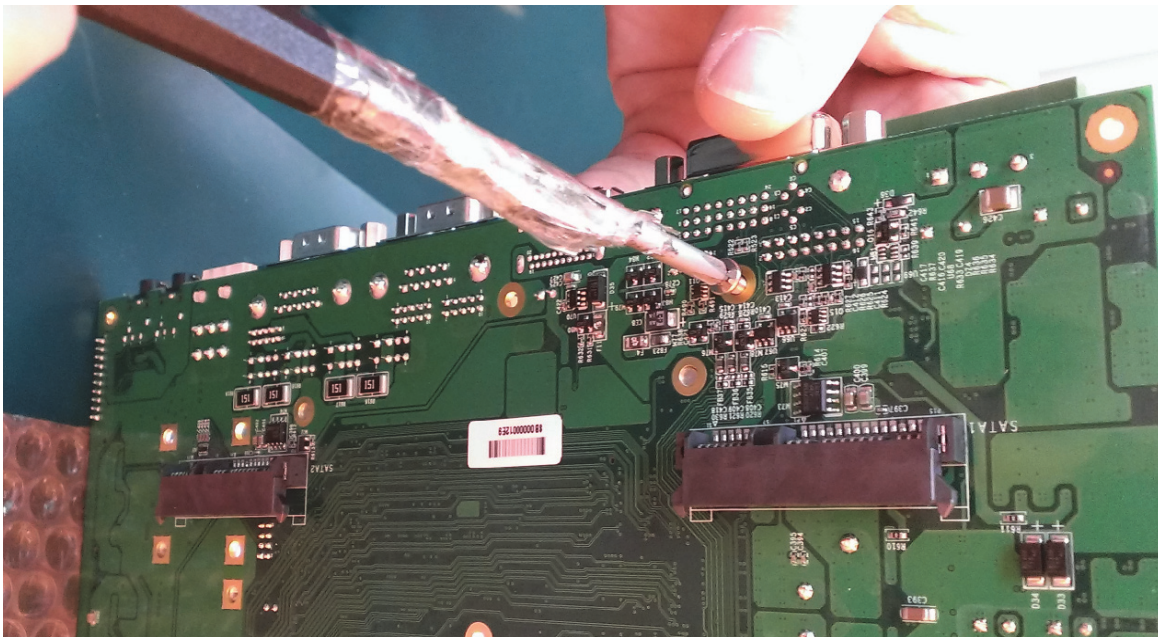
Step 2. Fix the Tube with Screw A on the motherboard



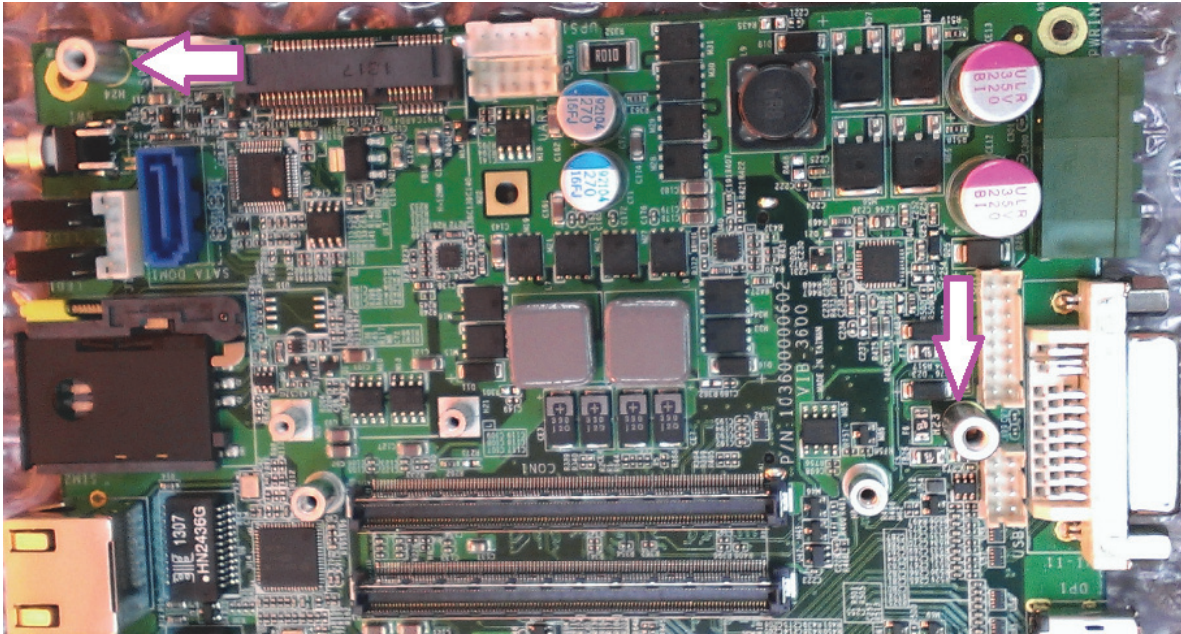
Step 3. Fix the Tube with Screw A to another hole.



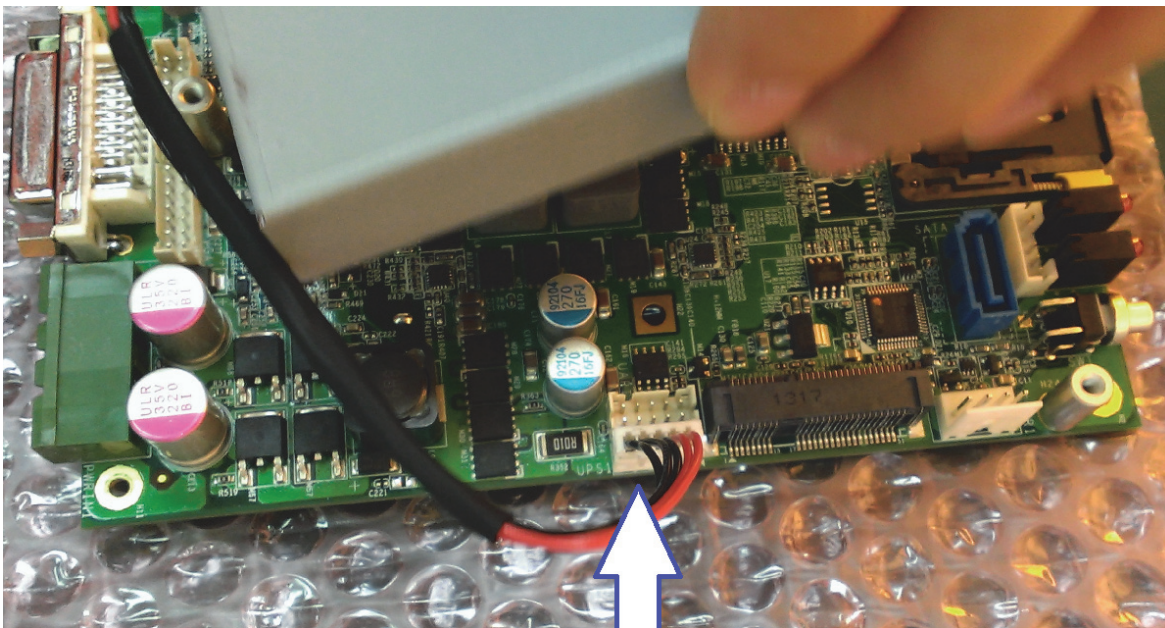
Step 4. Fix the Scew A from back side



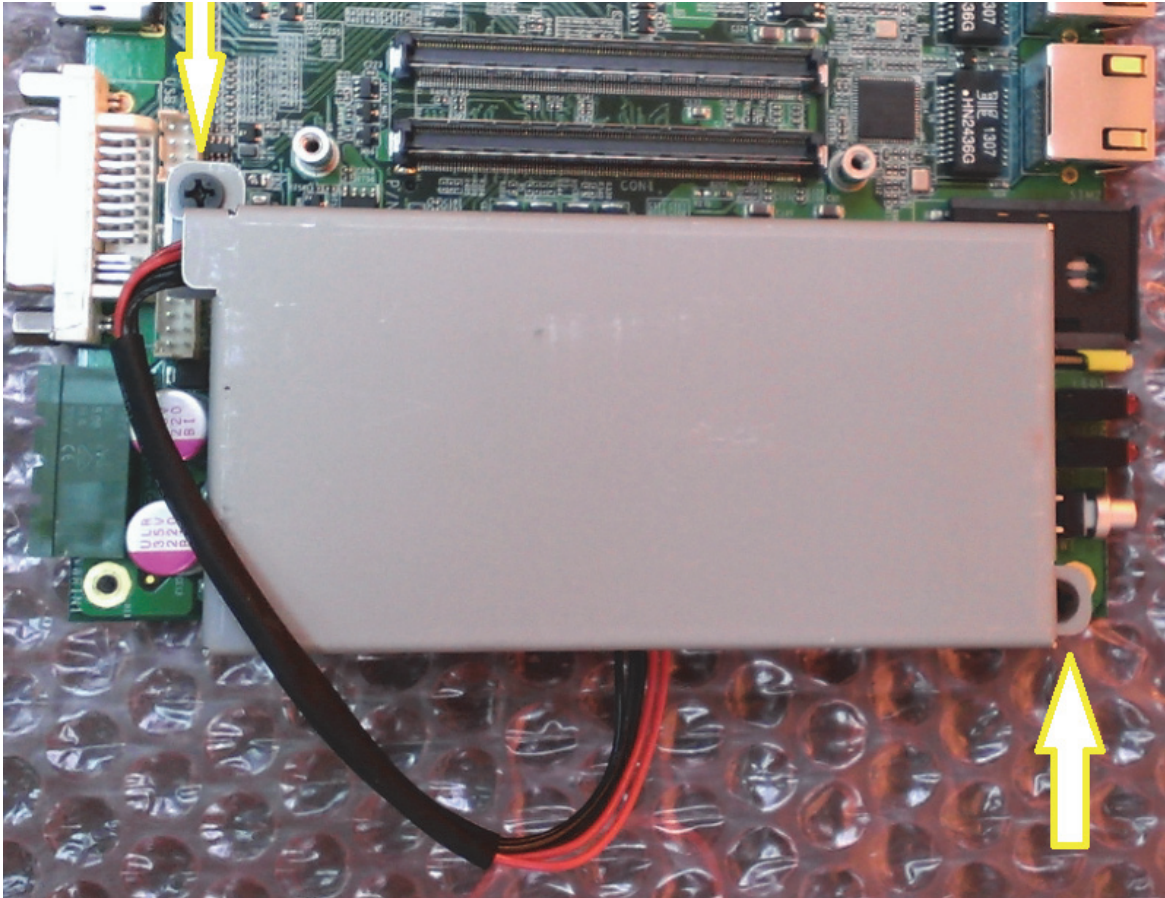
Step 5. Tube Location check.



Step 6. Connect the battery with motherboard on UPS location.



Step 7. Fix the battery with Screw B. (Done)



5.0 SYSTEM RESOURCE

5.0 SYSTEM RESOURCE

5.1 Ignition Power Management Quick Guide

Startup/shutdown conditions from the IGNITION signal:

- IGNITION startup signal must be valid during 3 sec. (anti-noise protection).
- IGNITION shutdown – IGNITION signal must be inactive during 3 Sec, then PIC controller initiate Power Button signal (**OS must be set to shut down from the Power Button**). It generate Main Button shutdown event and then goes to complete power off.

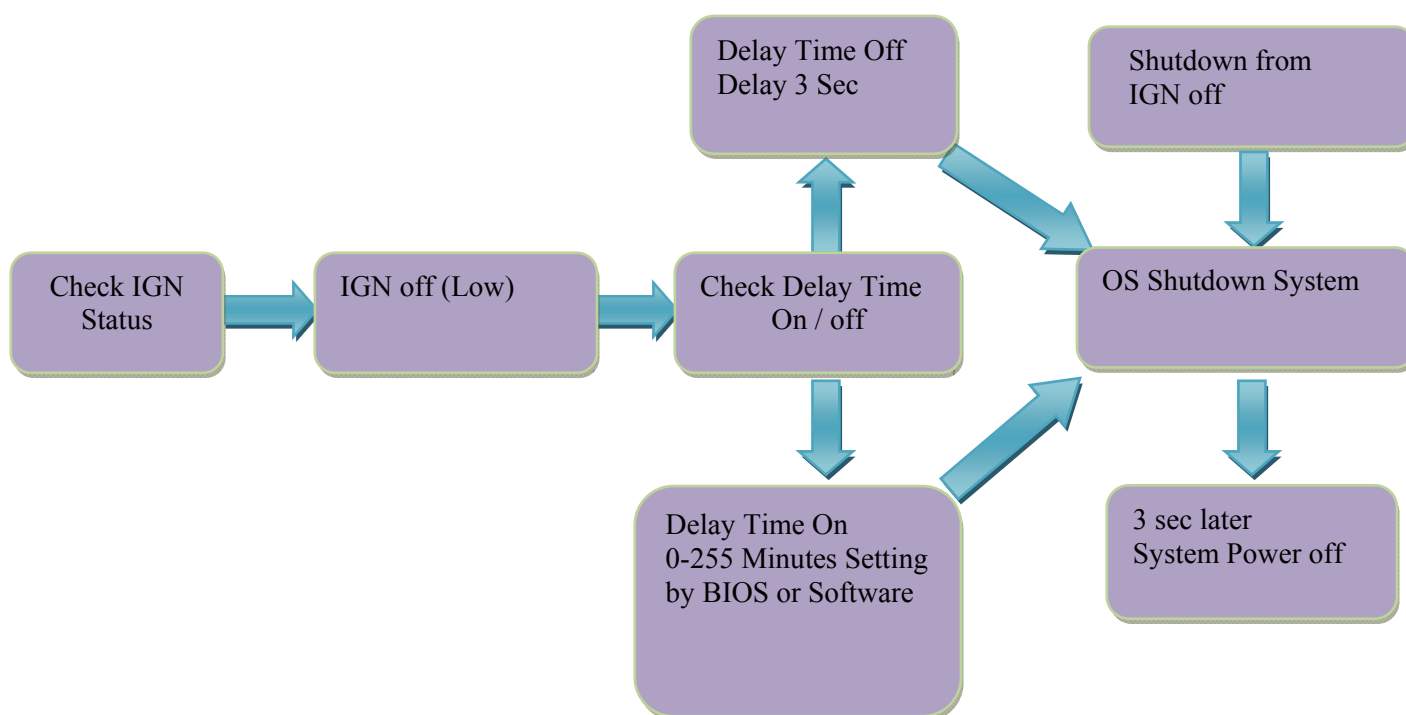
Typically the system can start only from IGNITION signal, because startup PIC controller is disconnected from the power source.

The system can be switched off from:

- Power IGNITION OFF signal.
- ACPI OS shutdown
- Power Button – generate ACPI event (OS dependent).



Power Ignition Startup Procedure



Power Ignition Shutdown Procedure

Power Management

- Power-off delay time is selectable by Software to disable and enable in 0-255 minutes
- Ignition On/Off status detectable by SW
- If the ignition is off and the system is still on after 3 Sec, FLEETPC-8-I7B-POE will shut down automatically.
- If the ignition is turned on again and the power-off delay is in progress, FLEETPC-8-I7B-POE will cancel the delay function and will continue to operate normally.
- If the ignition is turned on again and the power-off delay ended, FLEETPC-8-I7B-POE will shut down completely will power-on again automatically.

5.2 GPIO & Delay Time Setting

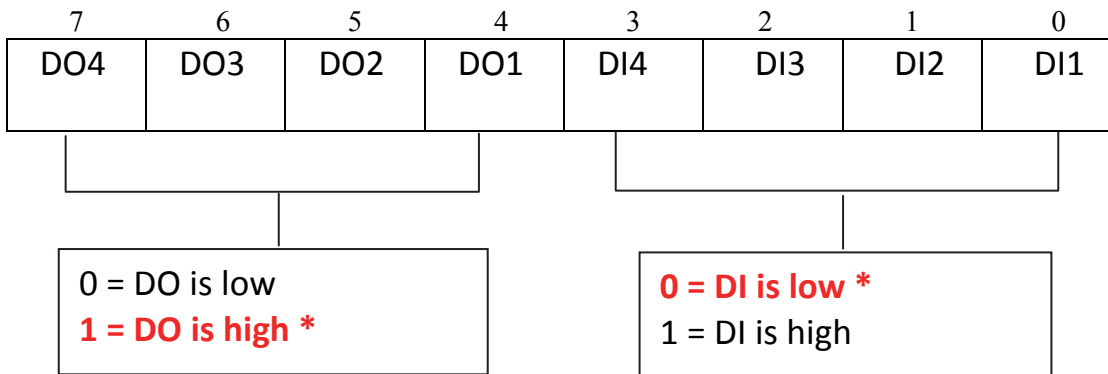
5.2.1 GPIO and Ignition Control Register

The General Purpose I/O is an interface available on some devices. These can read digital signals from other parts of a circuit, or output to control other devices. At GPIO control register, the GPI is use to receive data, the GPO is set data to send.

I/O port: 0xA35 (base address) for Control Register (Read 0xA2h / Write 0xA1h)
0xA36 (base address) for Control Data Value

Debug Command Line

```
- O A35 A1
- O A36 0F // Set Bit 4-7 to Low
```



GPIO5 Output Enable Register – Index A0h

Bit	Name	R/W	Default	Description
7	GPIO57_OE	R/W	0	0 : GPIO57 is input 1 : GPIO57 is output
6	GPIO56_OE	R/W	0	0 : GPIO56 is input 1 : GPIO56 is output
5	GPIO55_OE	R/W	0	0 : GPIO55 is input 1 : GPIO55 is output
4	GPIO54_OE	R/W	0	0 : GPIO54 is input 1 : GPIO54 is output
3	GPIO53_OE	R/W	0	0 : GPIO53 is input 1 : GPIO53 is output
2	GPIO52_OE	R/W	0	0 : GPIO52 is input 1 : GPIO52 is output
1	GPIO51_OE	R/W	0	0 : GPIO51 is input 1 : GPIO51 is output

0	GPIO50_OE	R/W	0	0 : GPIO50 is input 1 : GPIO50 is output
---	-----------	-----	---	---

GPIO5 Output Data Register – Index A1h

Bit	Name	R/W	Default	Description
7	GPIO57_DATA	R/W	1	GPIO57 output data in output mode.
6	GPIO56_DATA	R/W	1	GPIO56 output data in output mode.
5	GPIO55_DATA	R/W	1	GPIO55 output data in output mode.
4	GPIO54_DATA	R/W	1	GPIO54 output data in output mode.
3	GPIO53_DATA	R/W	1	GPIO53 output data in output mode.
2	GPIO52_DATA	R/W	1	GPIO52 output data in output mode.
1	GPIO51_DATA	R/W	1	GPIO51 output data in output mode.
0	GPIO50_DATA	R/W	1	GPIO50 output data in output mode.

GPIO5 Pin Status Register – Index A2h

Bit	Name	R/W	Default	Description
7	GPIO57_ST	R	1	GPIO57 pin status.
6	GPIO56_ST	R	1	GPIO56 pin status.
5	GPIO55_ST	R	1	GPIO55 pin status.
4	GPIO54_ST	R	1	GPIO54 pin status.
3	GPIO53_ST	R	1	GPIO53 pin status.
2	GPIO52_ST	R	1	GPIO52 pin status.
1	GPIO51_ST	R	1	GPIO51 pin status.
0	GPIO50_ST	R	1	GPIO50 pin status.

GPIO5 Drive Enable Register – Index A3h

Bit	Name	R/W	Default	Description
7	GPIO57_DRV_ENST	R/W	0	GPIO57 Drive Enable 0 : GPIO57 is open drain. 1 : GPIO57 is push pull.
6	GPIO56_DRV_ENST	R/W	0	GPIO57 Drive Enable 0 : GPIO56 is open drain. 1 : GPIO56 is push pull.
5	GPIO55_DRV_ENST	R/W	0	GPIO57 Drive Enable 0 : GPIO55 is open drain. 1 : GPIO55 is push pull.
4	GPIO54_DRV_ENST	R/W	0	GPIO57 Drive Enable 0 : GPIO54 is open drain. 1 : GPIO54 is push pull.
3	GPIO53_DRV_ENST	R/W	0	GPIO57 Drive Enable 0 : GPIO53 is open drain. 1 : GPIO53 is push pull.
2	GPIO52_DRV_ENST	R/W	0	GPIO57 Drive Enable 0 : GPIO52 is open drain. 1 : GPIO52 is push pull.
1	GPIO51_DRV_ENST	R/W	0	GPIO57 Drive Enable 0 : GPIO51 is open drain. 1 : GPIO51 is push pull.
0	GPIO50_DRV_ENST	R/W	0	GPIO57 Drive Enable 0 : GPIO50 is open drain. 1 : GPIO50 is push pull.

I/O port: I/O port: 0xA35 (base address) for Control Register (Read 0xF2h bit 3)
0xA36 (base address) for Control Data Value

7	6	5	4	3	2	1	0
X	X	X	X	Ignition Status	X	X	X

0 = Ignition off
1 = Ignition on

Debug Command Line

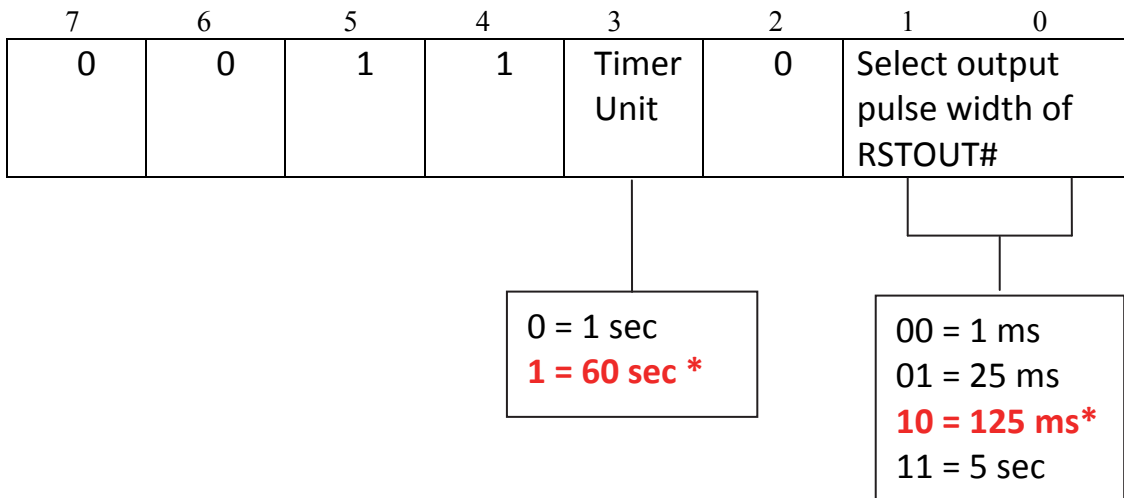
- O A35 F2
 - I A36 // Check Bit 3
 Status

5.2.2 WDT Setting

I/O port: **A10 (base address) + 05h and 06h**

1 Watchdog Timer Control Register

The Watchdog Timer Control Register controls the WDT working mode. Write the value to the WDT Configuration Port. The following table describes the Control Register bit definition:



Debug Command Line

- O A16 05
 - O A15 32 // 5 sec //

3A → 5 minutes

Watchdog Timer Function

Watch dog timer is provided for system controlling. If time-out can trigger one signal to high/low level/pulse, the signal is depend on register setting.

The time unit has two ways from 1sec or 60sec. In pulse mode, there are four pulse widths can be selected (1ms/25ms/125ms/5sec). Others, please refer the device register description as below.

Watchdog Timer Configuration Register 1- base address +05h

Bit	Name	R/W	Default	Description
7	Reserved	R	0	Reserved
6	WDTMOUT_STS	R/W	0	If watchdog timeout event occurs, this bit will be set to 1. Write a 1 to this bit will clear it to 0.
5	WD_EN	R/W	0	If this bit is set to 1, the counting of watchdog time is enabled.
4	WD_PULSE	R/W	0	Select output mode (0:level, 1:pulse) of RSTOUT# by setting this bit.
3	WD_UNIT	R/W	0	Select time unit (0:1sec, 1:60sec) of watchdog timer by setting this bit.
2	WD_HACTIVE	R/W	0	Select output polarity of RETOUT# (1:high active, 0:low active) by setting the bit.
1-0	WD_PSWIDTH	R/W	0	Select output pulse width of RSTOUT# 0:1 ms 1:25 ms 2:125 ms 3:5 sec

Watchdog Timer Configuration Register 2- base address +06h

Bit	Name	R/W	Default	Description
7-0	WD_TIME	R/W	0	Time of watchdog timer

Watchdog PME Control Register - base address + 0Ah

Bit	Name	R/W	Default	Description
7	WDT_PME	R	--	The PME Status This bit will set when WDT_PME_EN is set and the watchdog timer is 1 unit before time out (of time out)
6	WDT_PME_EN	R/W	0	0 : Disable Watchdog PME. 1 : Enable Watchdog PME
5-1	Reserved	--	--	Reserved
0	WDOUT_EN	R/W	0	0 : disable Watchdog time out output via WDTRST# 1 : enable Watchdog time out output via WDTRST#

6.0 BIOS

6.0 BIOS

6.1 Enter The BIOS

Power on the computer and the system will start POST (Power On Self Test) process. When the message below appears on the screen, press (DEL) key to enter Setup.

Press DEL to enter SETUP

If the message disappears before you respond and you still wish to enter Setup, restart the system by turning it OFF and On or pressing the RESET button. You may also restart the system by simultaneously pressing <Ctrl>, <Alt>, and <Delete> keys.

Important

- The items under each BIOS category described in this chapter are under continuous update for better system performance. Therefore, the description may be slightly different from the latest BIOS and should be held for reference only.
- Upon boot-up, the 1st line appearing after the memory count is the BIOS version. It is usually in the format.

Mainboard V1.0 073109 where :

1st digit refers to BIOS maker as A = AMI, W = AWARD, and P = PHOENIX

2nd - 5th digit refers to the model number.

6th digit refers to the chipset as I = Intel, N = NVIDIA, A = AMD and V = VIA.

7th - 8th digit refers to the customer as MS = all standard customers.

V1.0 refers to the BIOS was released.

073109 refers to the date this BIOS was released.

Control Keys

Power on the computer and the system will start POST (Power On Self Test) process. When the message below appears on the screen, press (DEL) key to enter Setup.

<↑>	Move to the previous item
<↓>	Move to the next item
<←>	Move to the item in the left hand
<→>	Move to the item in the right hand
<Enter>	Select the item
<Esc>	Jumps to the Exit menu or returns to the main menu from a submenu
<+/PU>	Increase the numeric value or make changes
<-/PD>	Decrease the numeric value or make changes
<F1>	General Help
<F3>	Load Optimized Defaults
<F4>	Save all the CMOS changes and exit

Getting Help

After entering the Setup menu, the first menu you will see is the Main Menu.

Main Menu

The main menu lists the setup functions you can make changes to. You can use the arrow keys (↑↓) to select the item. The on-line description of the highlighted setup function is displayed at the bottom of the screen.

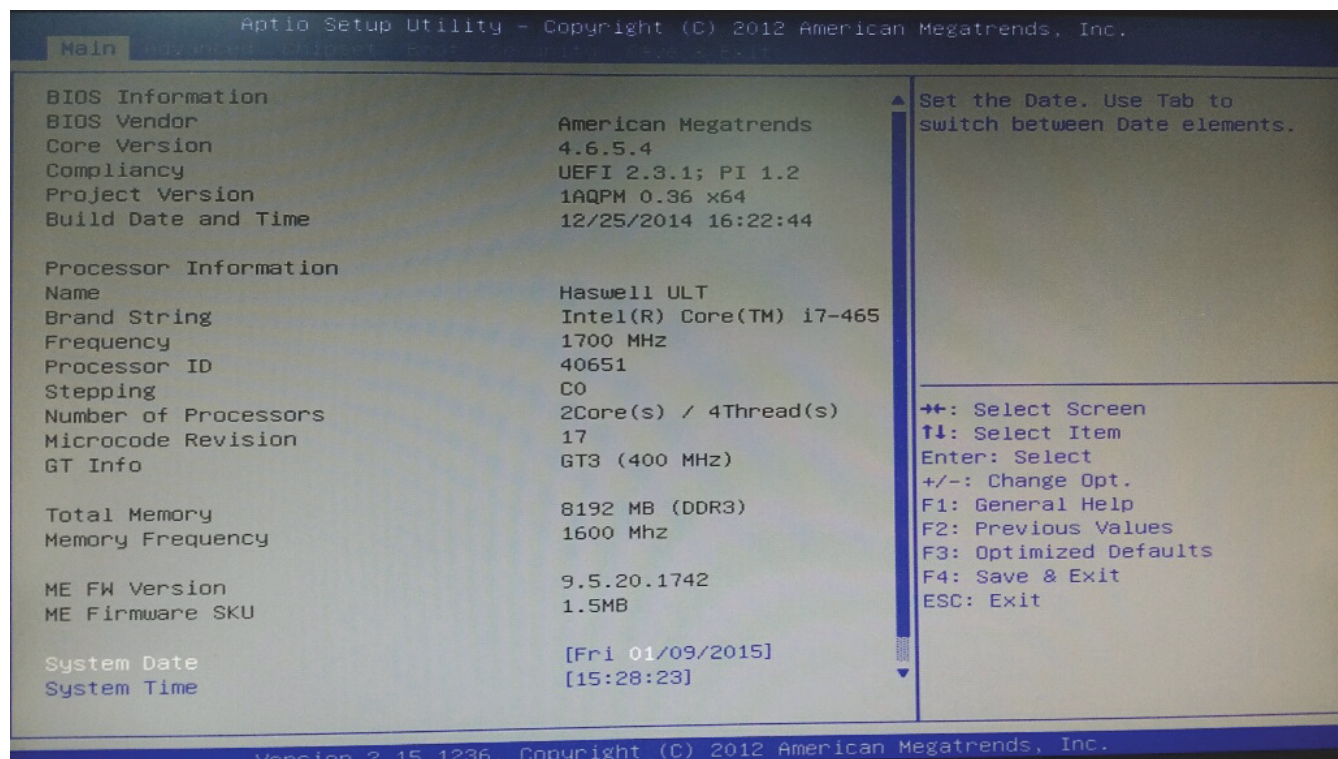
Sub-Menu

If you find a right pointer symbol (as shown in the right view) appears to the left of certain fields that means a sub-menu can be launched from this field. A sub-menu contains additional options for a field parameter. You can use arrow keys (↑↓) to highlight the field and press <Enter> to call up the sub-menu. Then you can use the control keys to enter values and move from field to field within a sub-menu. If you want to return to the main menu, just press the <Esc >.

General Help <F1>

The BIOS setup program provides a General Help screen. You can call up this screen from any menu by simply pressing <F1>. The Help screen lists the appropriate keys to use and the possible selections for the highlighted item. Press <Esc> to exit the Help screen.

6.2 Main



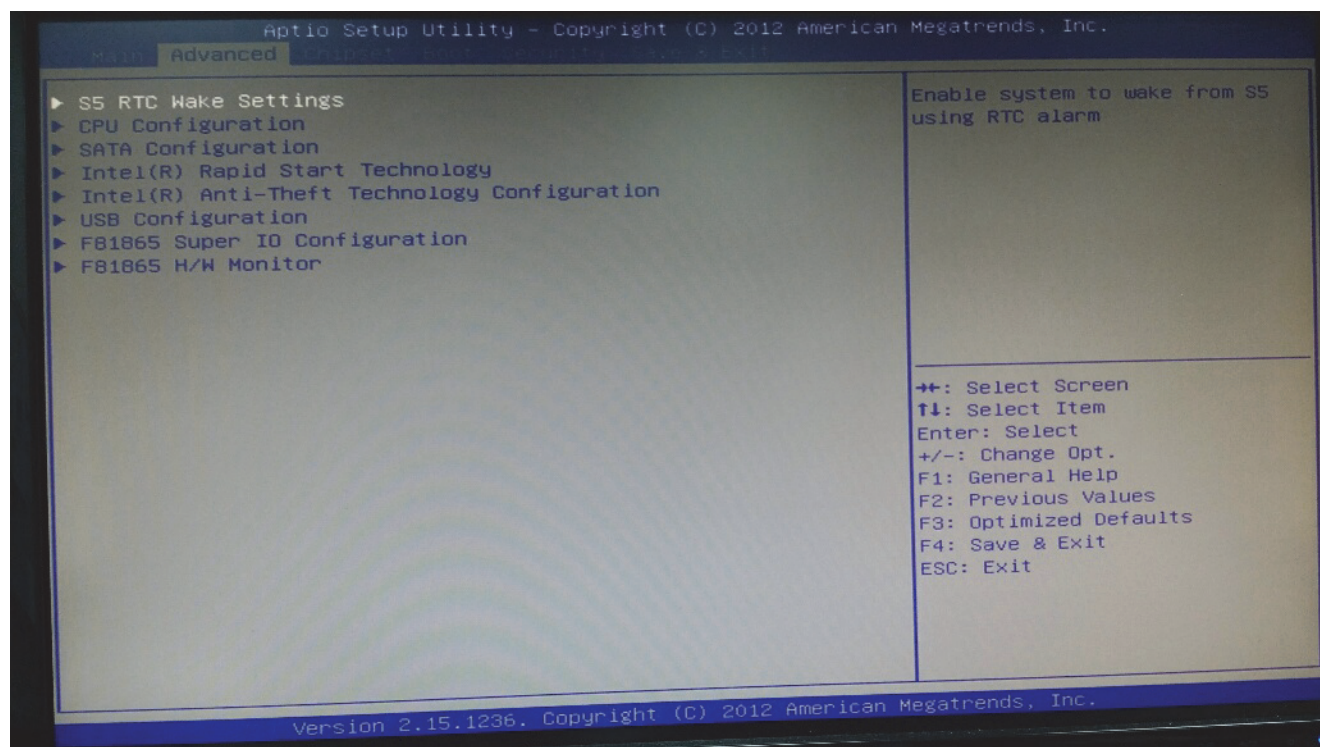
» System Date

This setting allows you to set the system Date. The time format is <Day> <Month> <Date> <Year>.

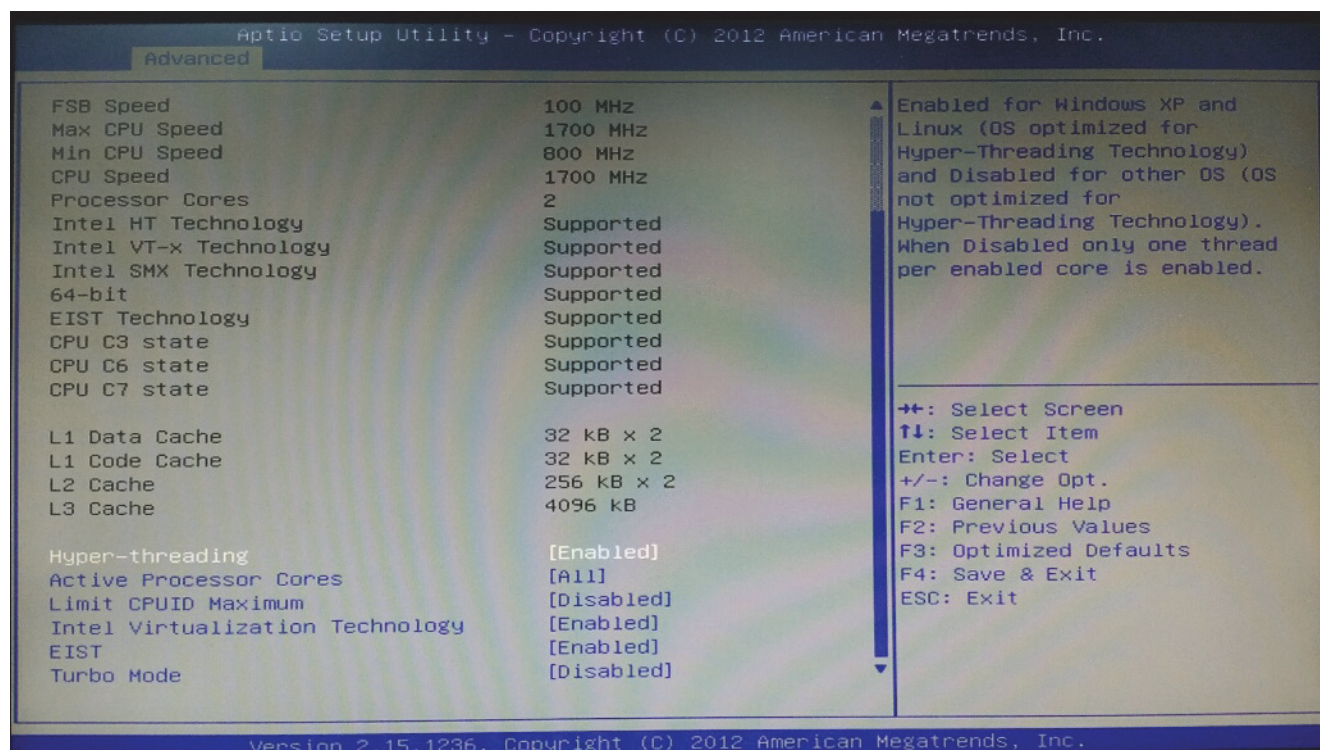
» System Time

This setting allows you to set the system time. The time format is <Hour> <Minute> <Second>.

6.3 Advanced



CPU Configuration



» Limit CPUID Maximum

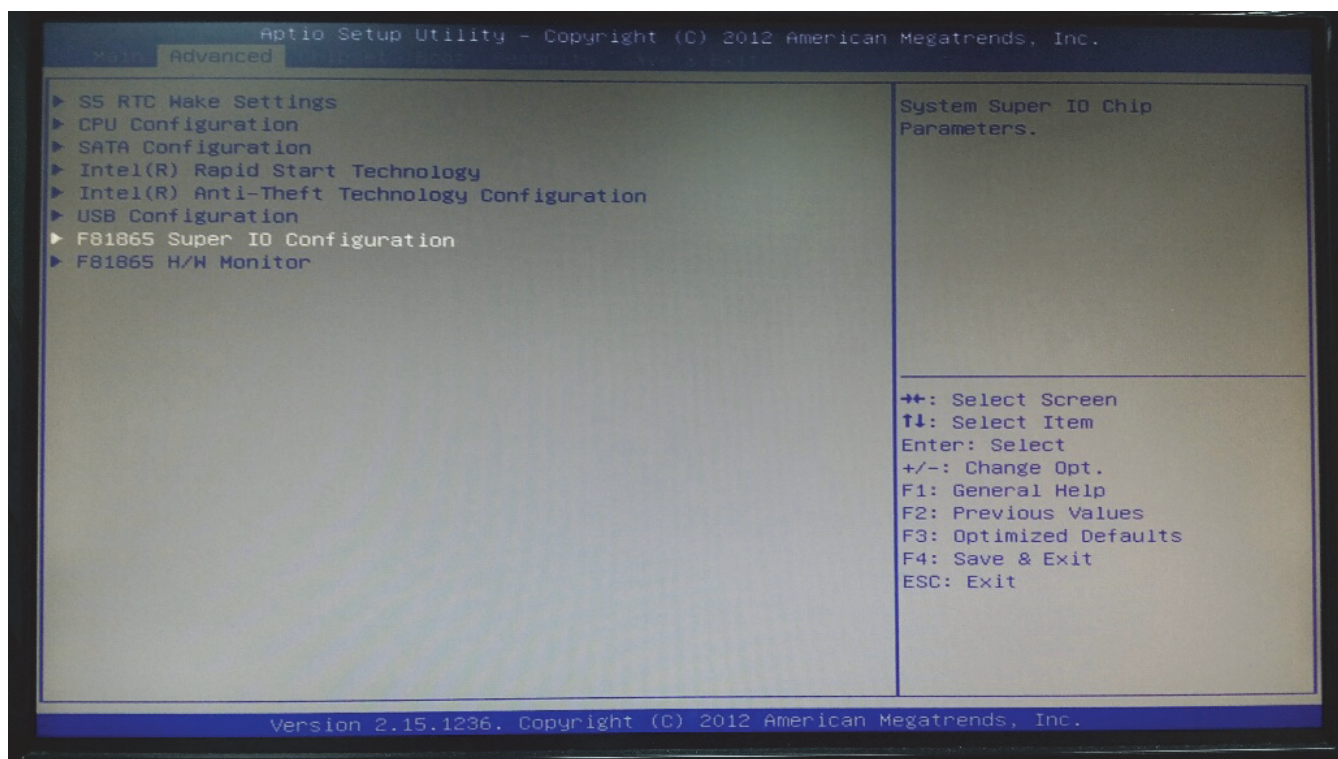
The CPUID instruction of some newer CPUs will return a value greater than 3. The default is Disabled because this problem does not exist in the Windows series operating systems. If you are using an operating system other than Windows, this problem may occur. To avoid this problem, enable this field to limit the return value to 3 or less than 3.

» Intel Virtualization Technology

When this field is set to Enabled, the VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.

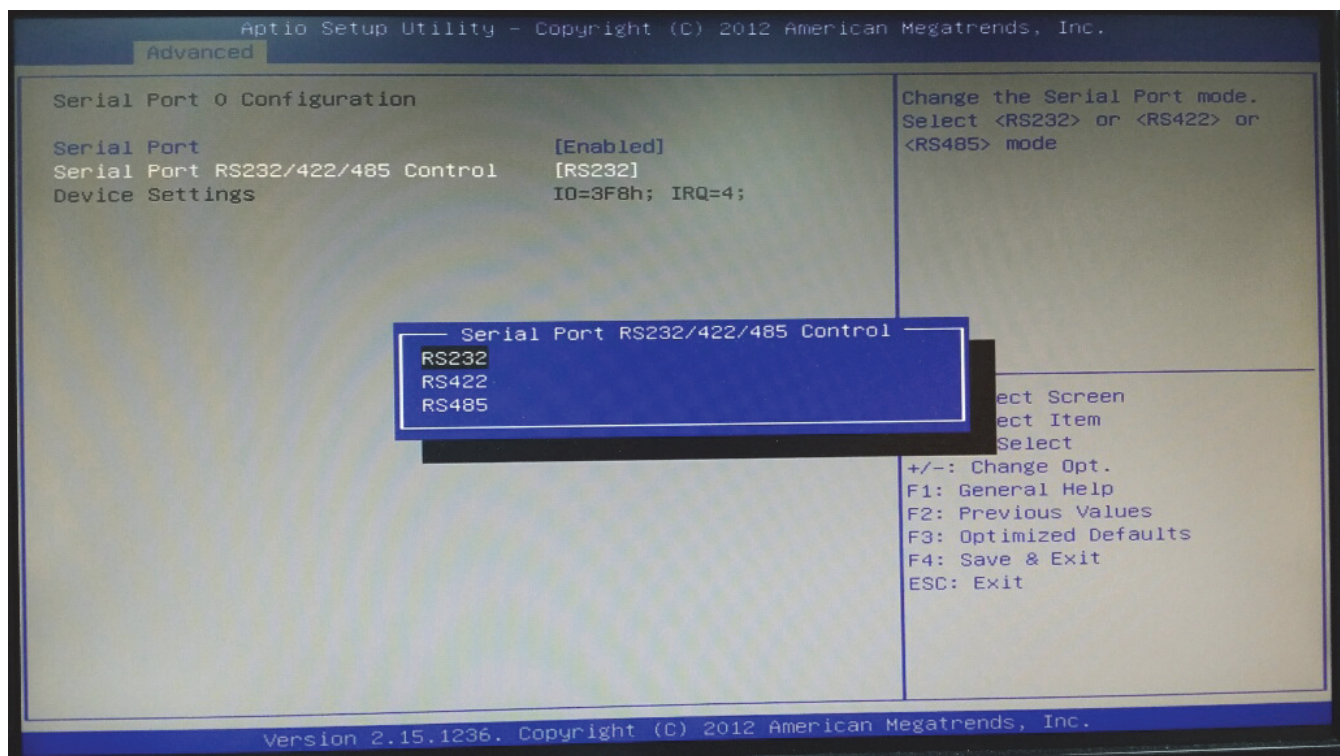
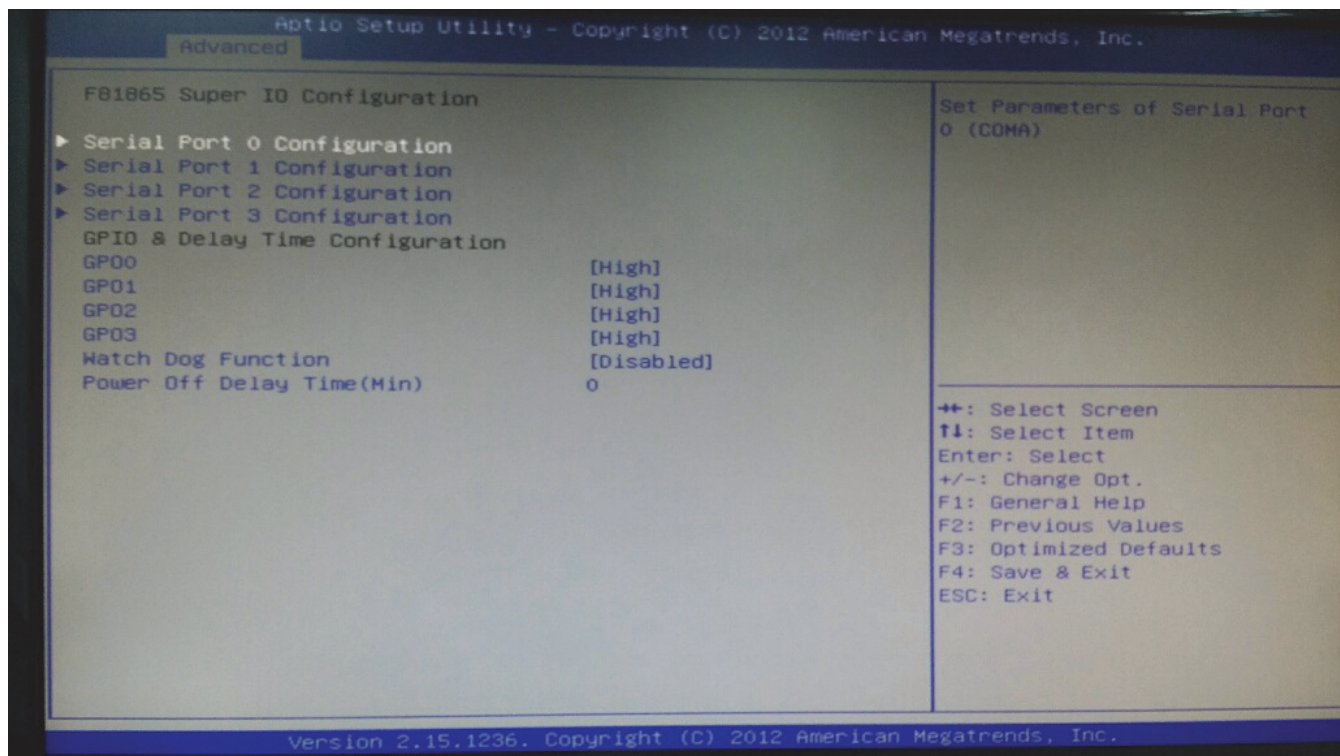
» EIST

This field is used to enable or disable the Intel Enhanced SpeedStep Technology

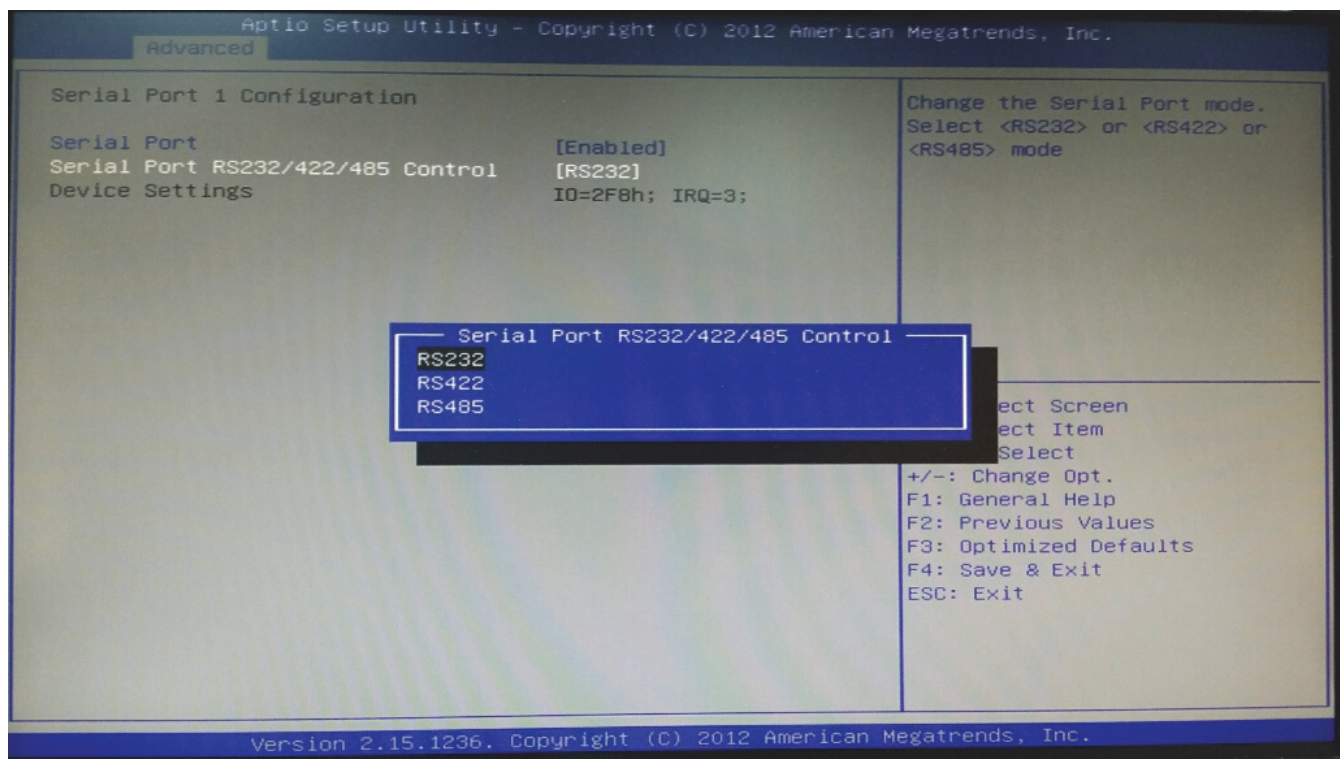
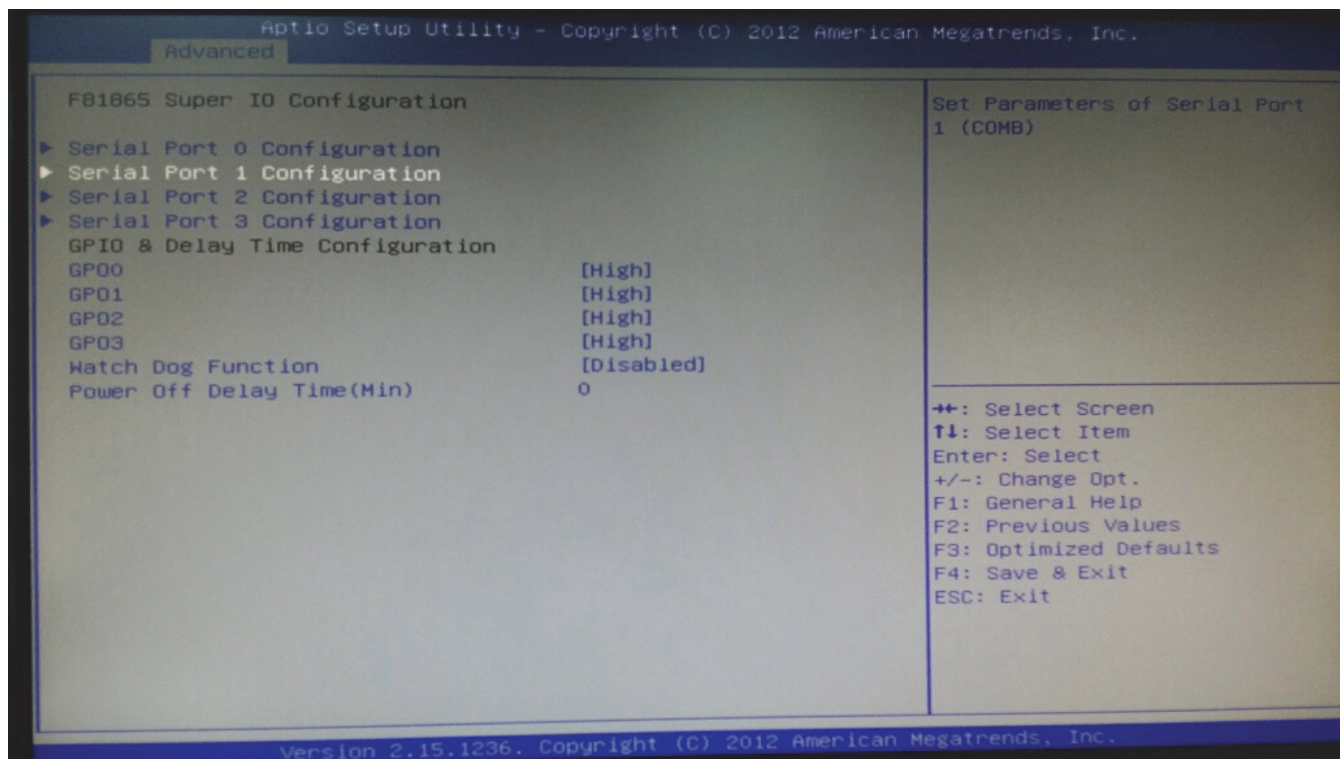
Super IO Configuration**» Serial Port 0/1/2/3 Enable or Disable**

Select an Enable or Disable for the specified serial ports.

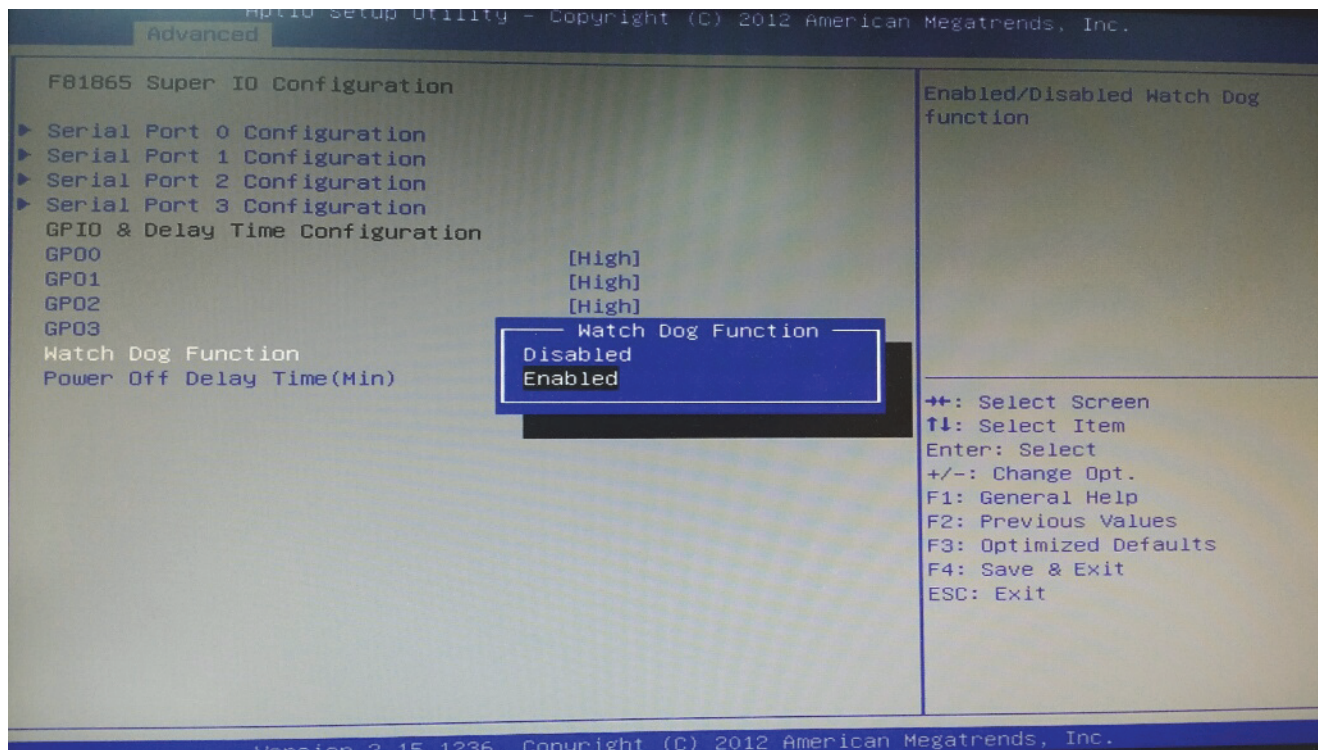
» COM1 RS232/485 Select



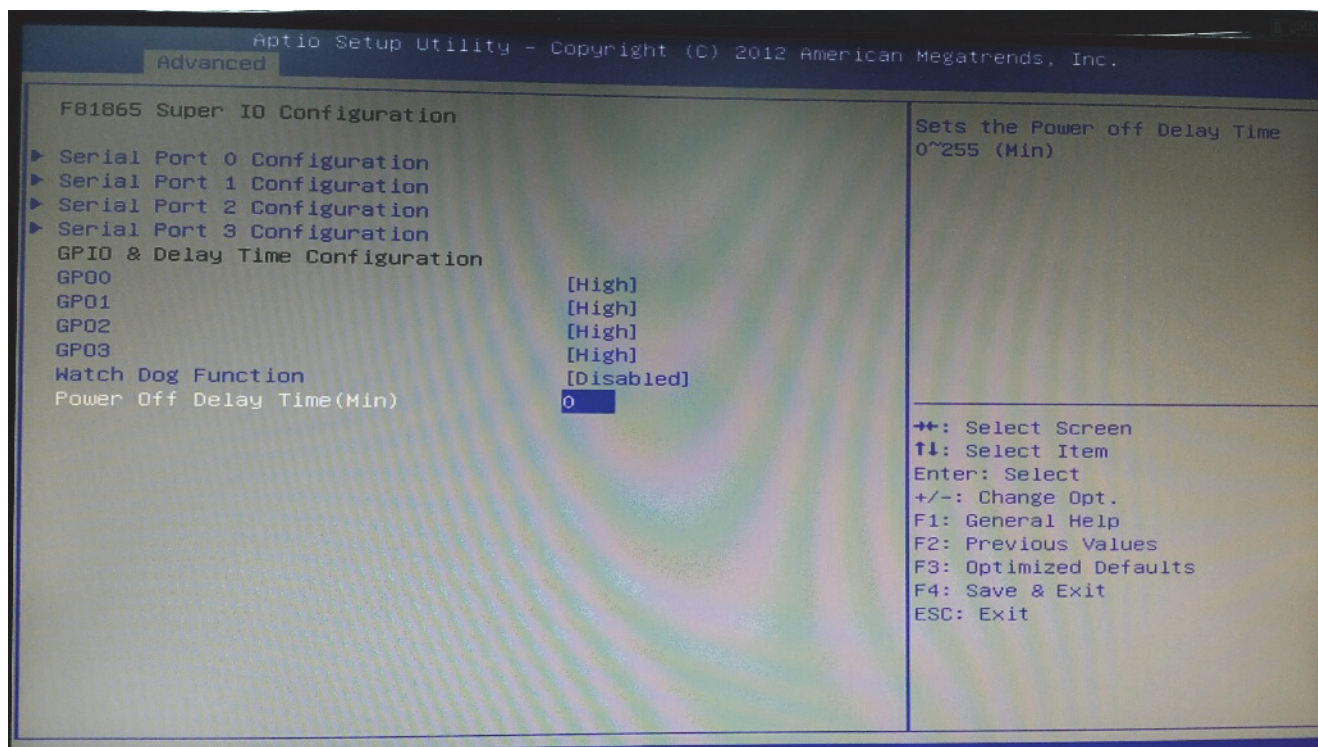
» COM2 RS232/485 Select



» Watch Dog Function



» GPIO Configuration – Power off delay time setting 0-255

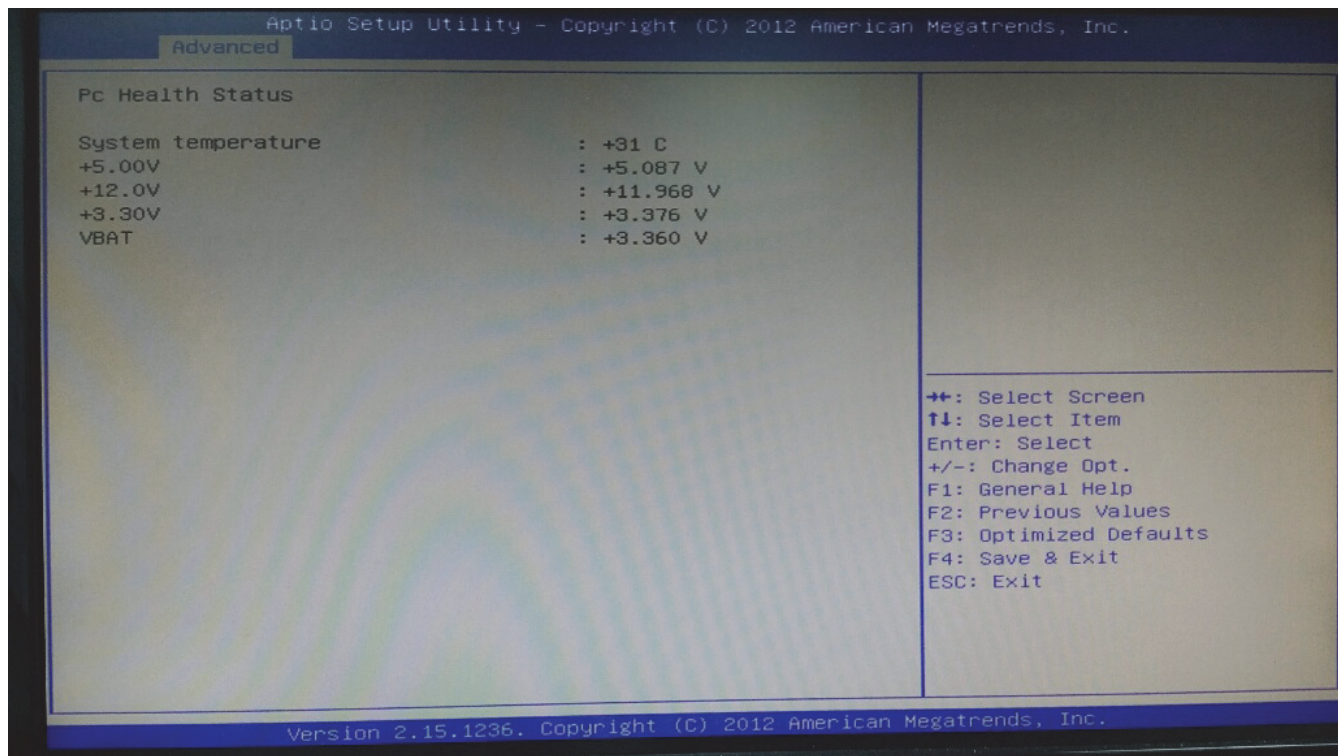


» GPO 0/ 1/ 2/ 3/ Data

These settings configure special GPIO data.

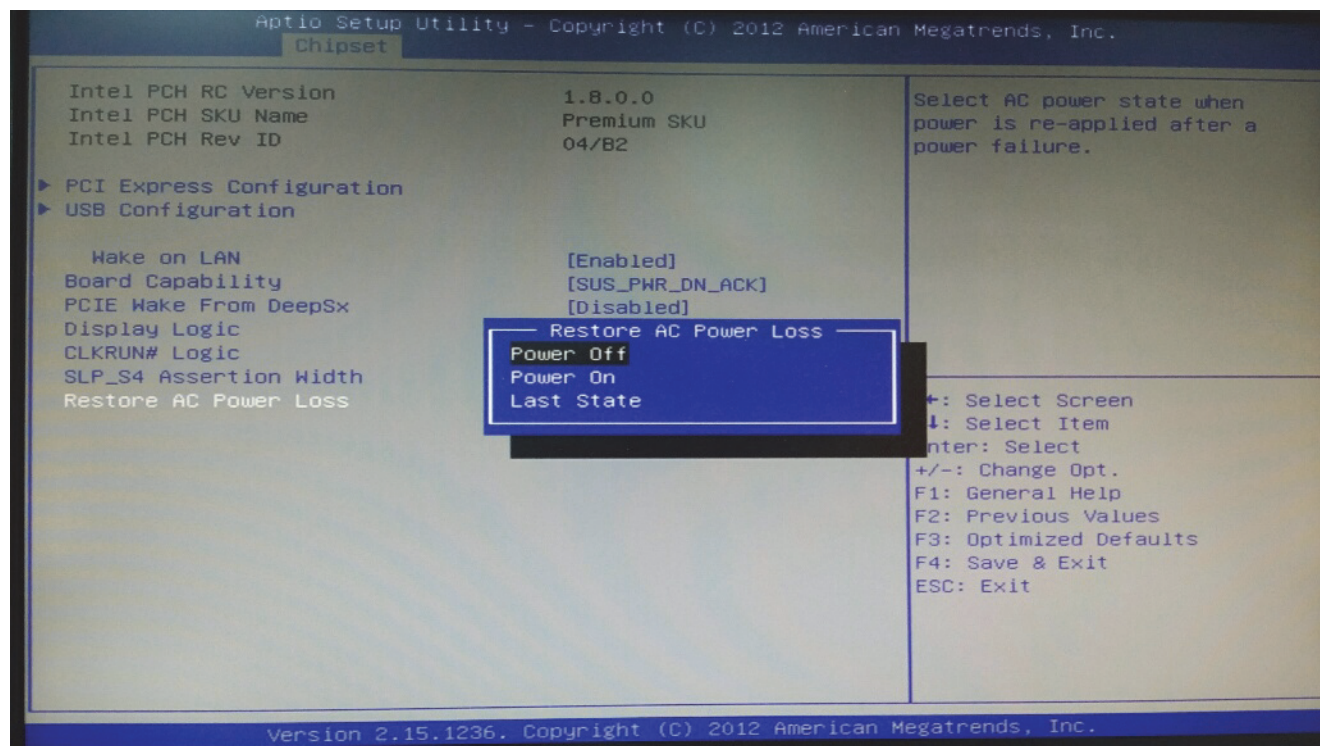
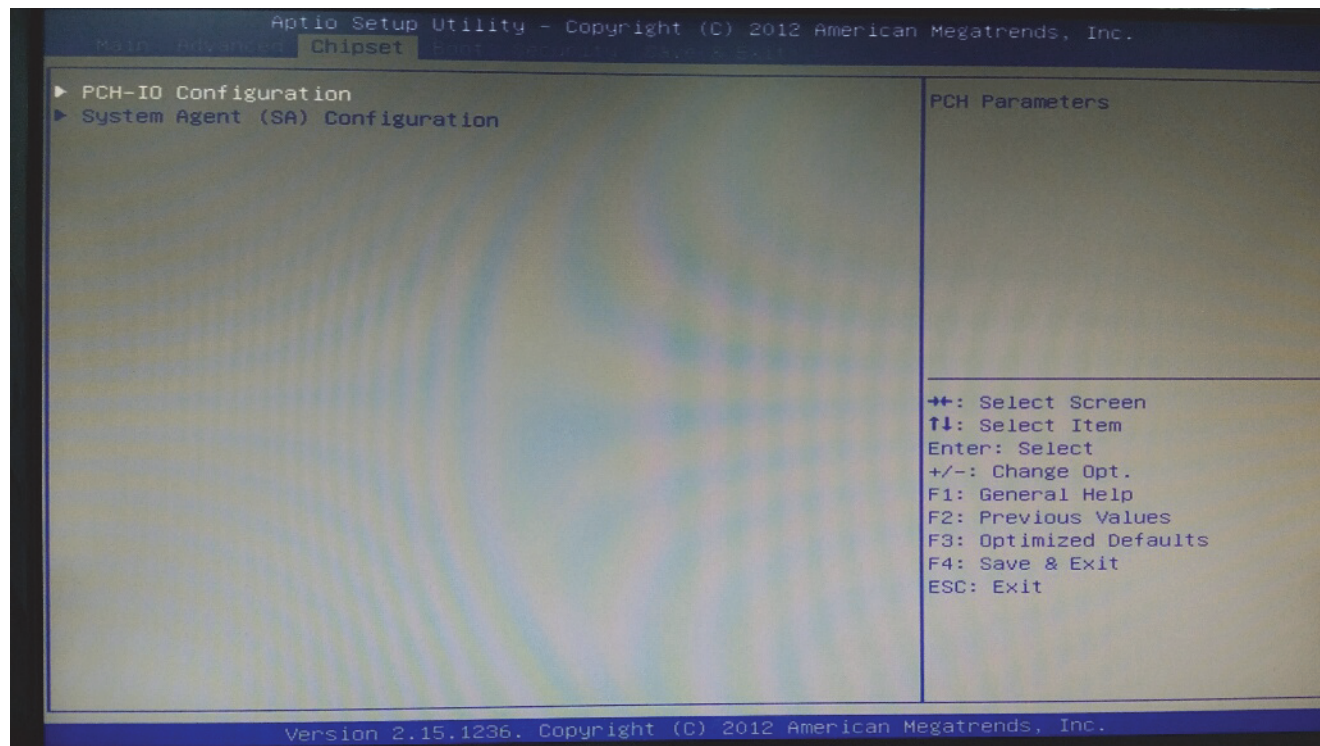
Hardware Health Configuration

These items display the current status of all monitored hardware devices/components such as voltages, temperatures and all fans' speeds.



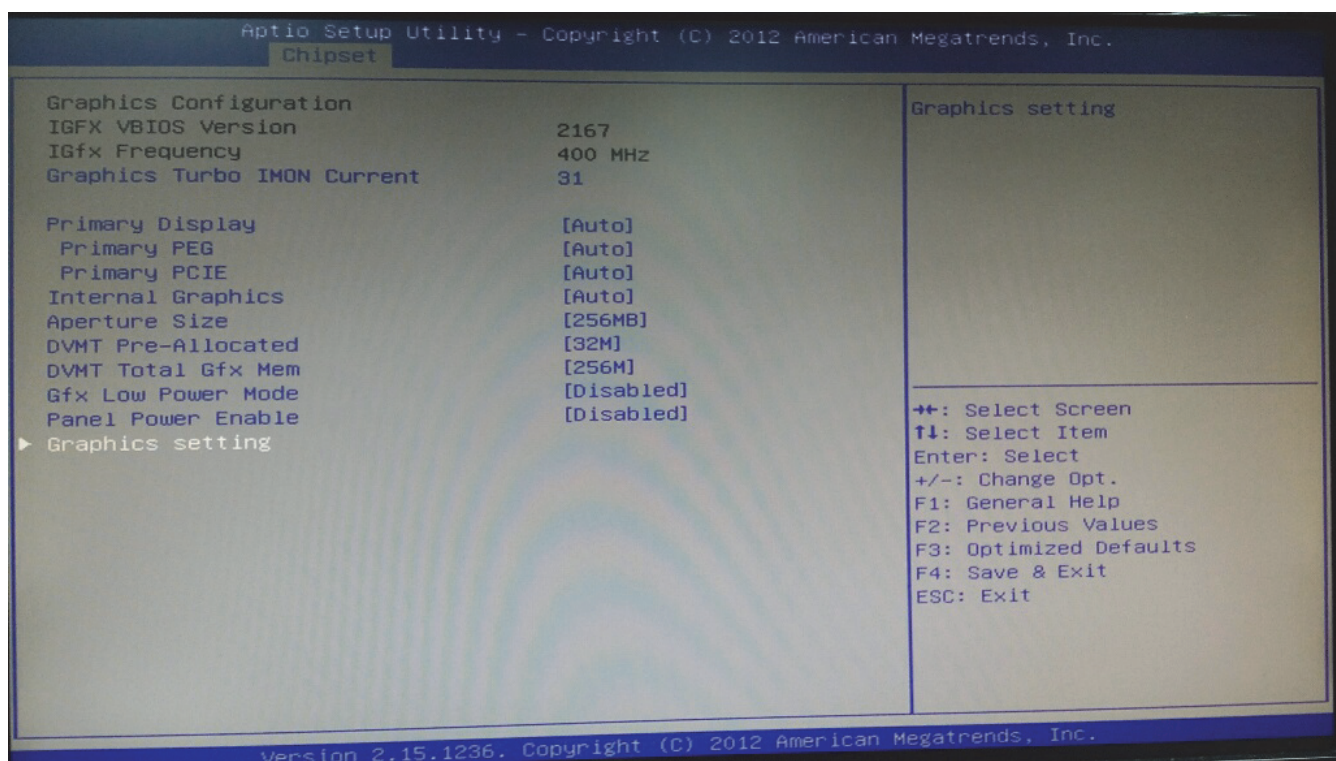
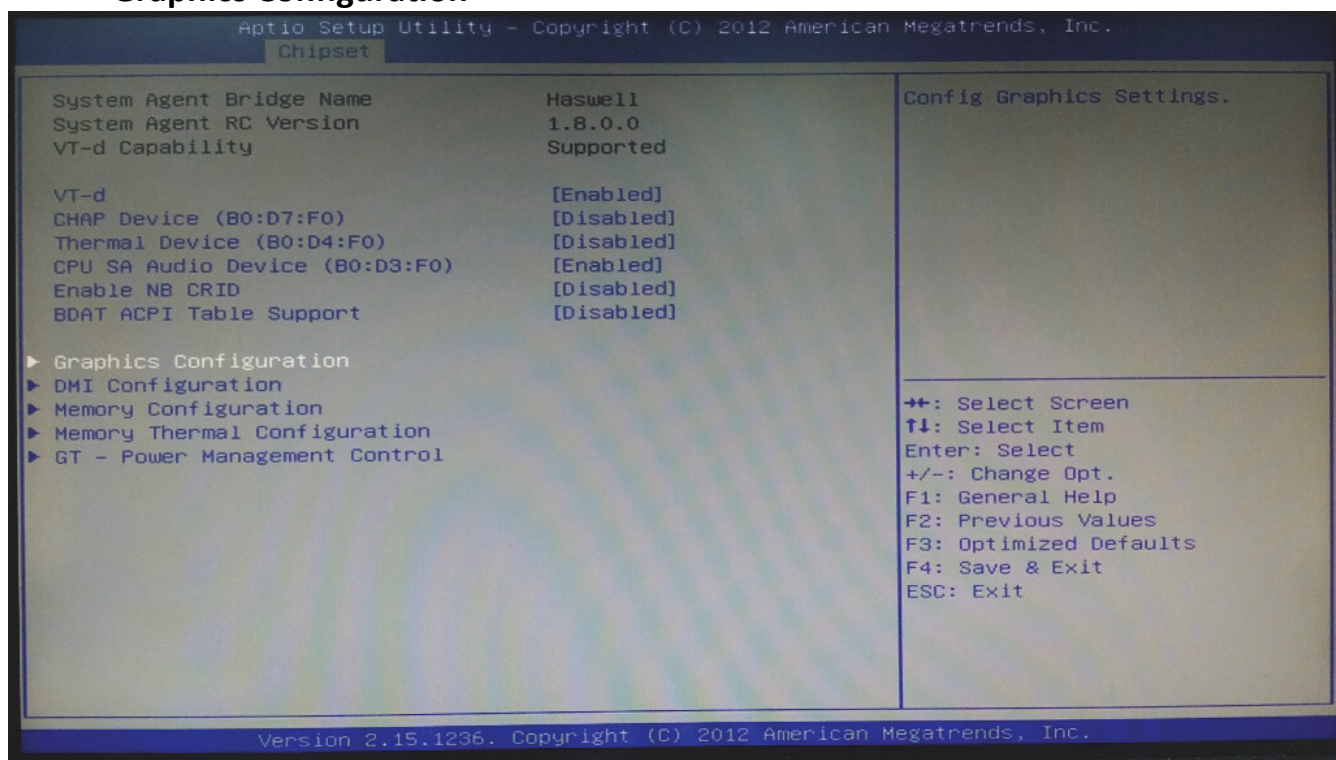
6.4 Chipset

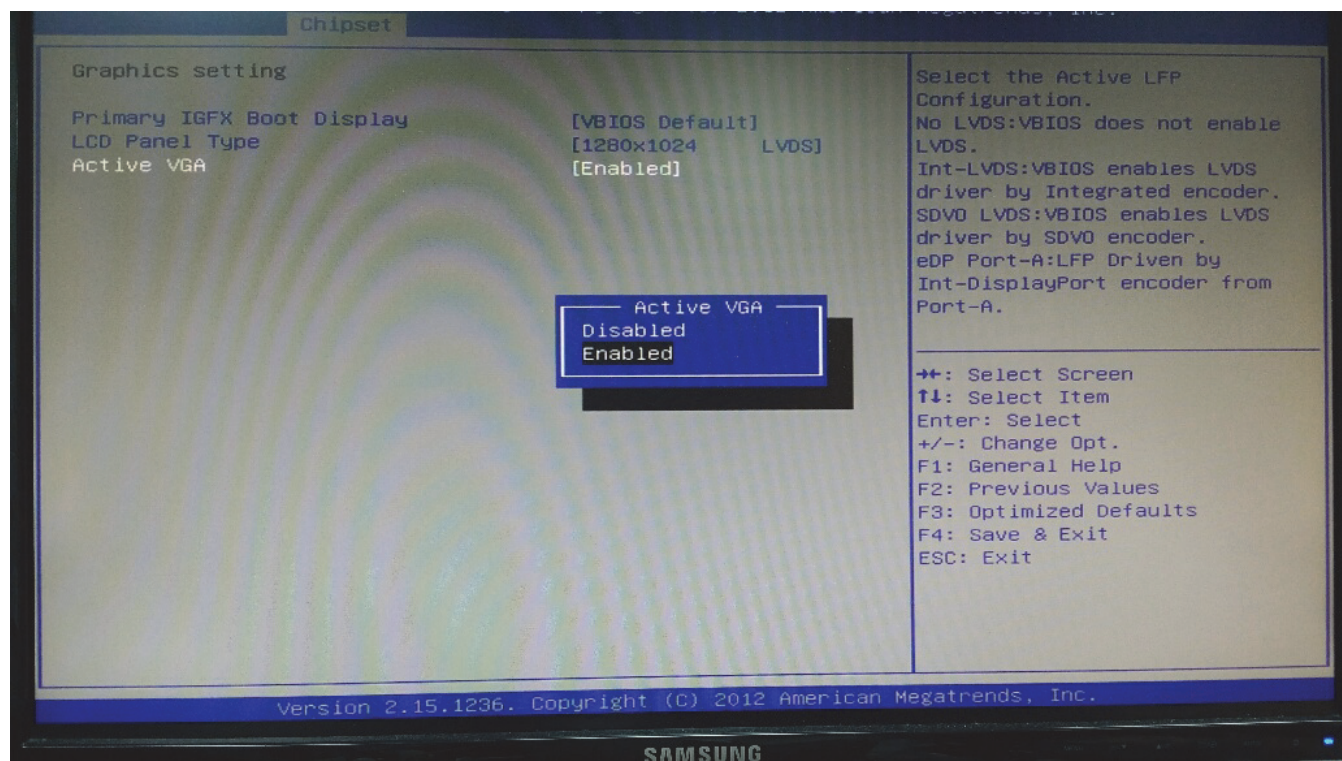
PCH-IO Configuration – Restore AC Power Loss

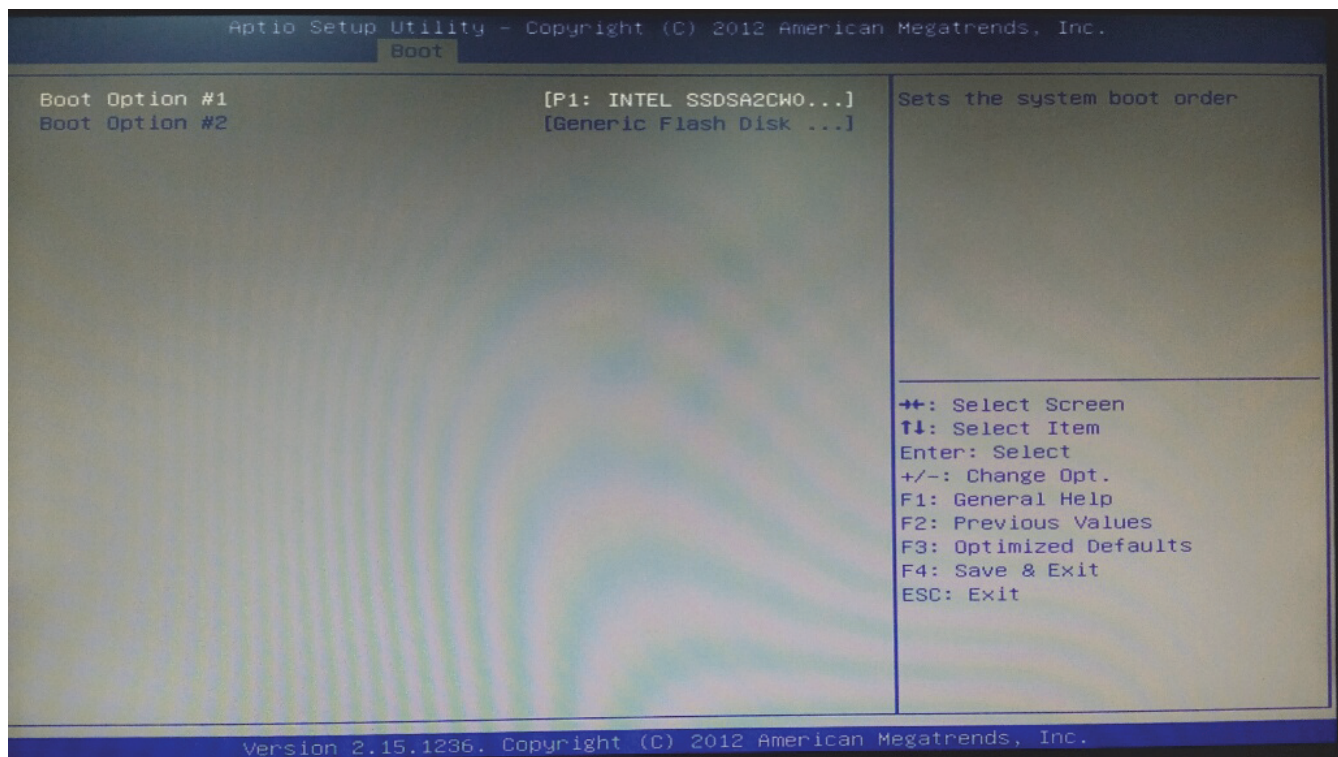


System Agent (SA) Configuration

» Graphics Configuration



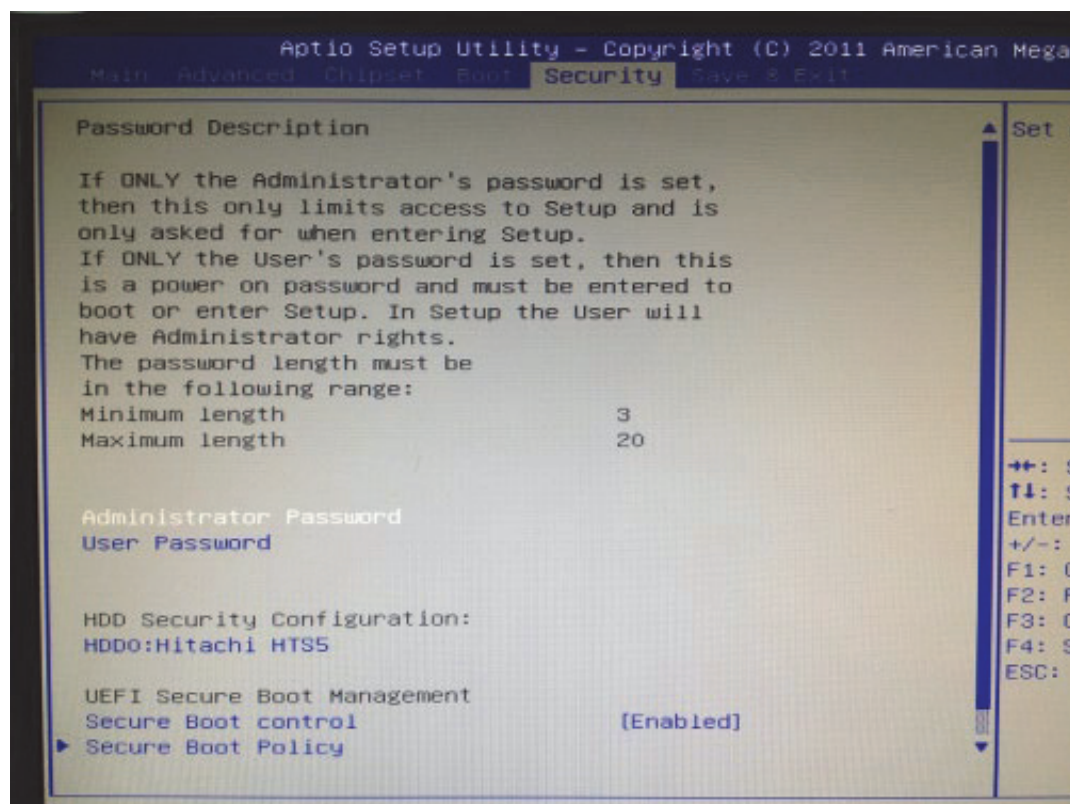




» Hard Disk Drives, CD/DVD Drives, USB Drives

These settings allow you to set the boot sequence of the specified devices.

6.6 Security



» Administrator Password

Administrator Password controls access to the BIOS Setup utility. These settings allow you to set or change the administrator password.

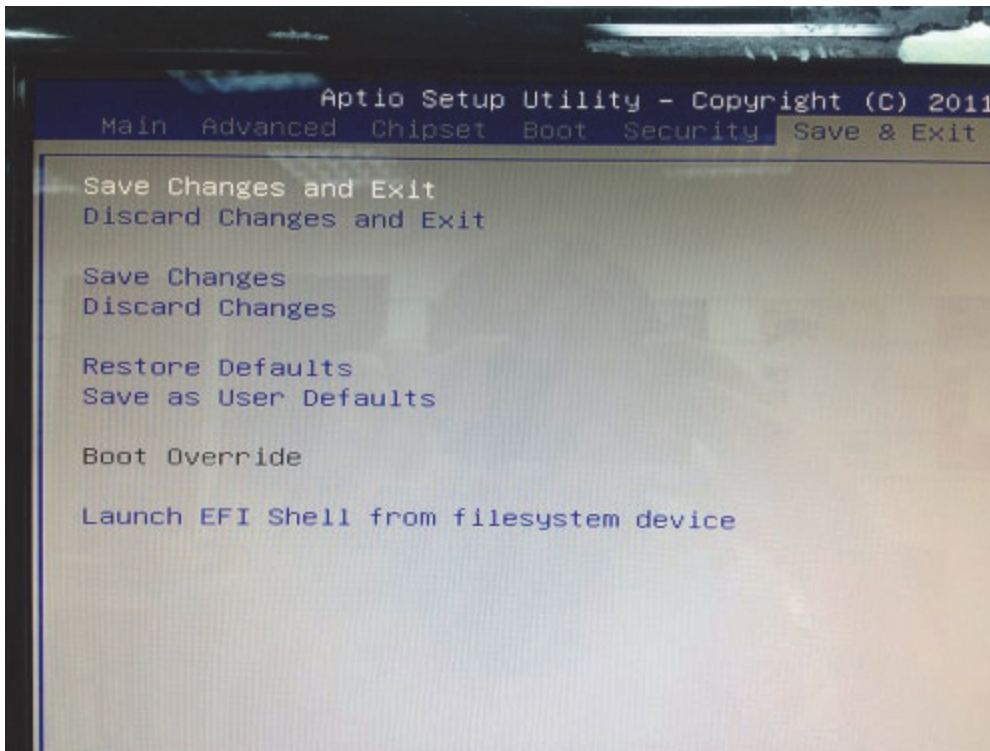
» User Password

User Password controls access to the system at boot. These settings allow you to set or change the user password.

» Boot Sector Virus Protection

This function protects the BIOS from accidental corruption by unauthorized users or computer viruses. When enabled, the BIOS data cannot be changed when attempting to update the BIOS with a Flash utility. To successfully update the BIOS, you will need to disable this Flash Protection function.

6.7 Exit



» Save Changes and Exit

Save changes to CMOS and exit the Setup Utility.

» Discard Changes and Exit

Abandon all changes and exit the Setup Utility.

» Discard Changes

Abandon all changes and continue with the Setup Utility.

» Load Optimal Defaults

Use this menu to load the default values set by the mainboard manufacturer specifically for optimal performance of the mainboard.

» Load Failsafe Defaults

Use this menu to load the default values set by the BIOS vendor for stable system performance

7.0 PACKING LIST


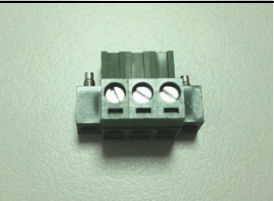
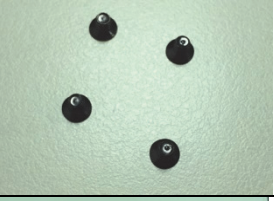

7.0 PACKING LIST

7.1 Packing List

System

Item	Part Number	Module Name
1	1906	FLEETPC-8-I7B-POE System

Accessory

Picture	Part Number	Module Name	Q'ty
	1906_1	Mount Bracket	2
	1703	CABLING PHOENIX CON MALE 3PIN	1
	1906_2	Screw F Type M3*4L ISO BK	8
	1906_3	CB IP65 M12 LAN Male 1M	4