

PICO-BT01

Pico-ITX Board

User's Manual 12th Ed

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Packing List

Before setting up your product, please make sure the following items have been shipped:

Item	Quantity
● PICO-BT01	1
● Heat Spreader	1
● COM x 2, Line-Out Cable	1

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

About this Document

This User's Manual contains all the essential information, such as detailed descriptions and explanations on the product's hardware and software features (if any), its specifications, dimensions, jumper/connector settings/definitions, and driver installation instructions (if any), to facilitate users in setting up their product.

Users may refer to the product page at AAEON.com for the latest version of this document.

Safety Precautions

Please read the following safety instructions carefully. It is advised that you keep this manual for future references

1. All cautions and warnings on the device should be noted.
2. Make sure the power source matches the power rating of the device.
3. Position the power cord so that people cannot step on it. Do not place anything over the power cord.
4. Always completely disconnect the power before working on the system's hardware.
5. No connections should be made when the system is powered as a sudden rush of power may damage sensitive electronic components.
6. If the device is not to be used for a long time, disconnect it from the power supply to avoid damage by transient over-voltage.
7. Always disconnect this device from any AC supply before cleaning.
8. While cleaning, use a damp cloth instead of liquid or spray detergents.
9. Make sure the device is installed near a power outlet and is easily accessible.
10. Keep this device away from humidity.
11. Place the device on a solid surface during installation to prevent falls
12. Do not cover the openings on the device to ensure optimal heat dissipation.
13. Watch out for high temperatures when the system is running.
14. Do not touch the heat sink or heat spreader when the system is running
15. Never pour any liquid into the openings. This could cause fire or electric shock.
16. As most electronic components are sensitive to static electrical charge, be sure to ground yourself to prevent static charge when installing the internal components. Use a grounding wrist strap and contain all electronic components in any static-shielded containers.

17. If any of the following situations arises, please the contact our service personnel:
 - i. Damaged power cord or plug
 - ii. Liquid intrusion to the device
 - iii. Exposure to moisture
 - iv. Device is not working as expected or in a manner as described in this manual
 - v. The device is dropped or damaged
 - vi. Any obvious signs of damage displayed on the device
18. **DO NOT LEAVE THIS DEVICE IN AN UNCONTROLLED ENVIRONMENT WHERE THE STORAGE TEMPERATURE IS BELOW -20° C (-4°F) OR ABOVE 60°C (140°F) TO PREVENT DAMAGE.**

FCC Statement

Warning!



This device complies with Part 15 FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received including interference that may cause undesired operation.

Caution:

There is a danger of explosion if the battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the manufacturer's instructions and your local government's recycling or disposal directives.

Attention:

Il y a un risque d'explosion si la batterie est remplacée de façon incorrecte. Ne la remplacer qu'avec le même modèle ou équivalent recommandé par le constructeur. Recycler les batteries usées en accord avec les instructions du fabricant et les directives gouvernementales de recyclage.

China RoHS Requirements (CN)

产品中有毒有害物质或元素名称及含量

AAEON 主板/子板/背板

QQ4-381 Rev.A2

部件名称	有毒有害物质或元素					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
印刷电路板 及其电子组件	×	○	○	○	○	○
外部信号 连接器及线材	×	○	○	○	○	○
本表格依据 SJ/T 11364 的规定编制。 ○：表示该有毒有害物质在该部件所有均质材料中的含量均在GB/T 26572标准规定的限量要求以下。 ×：表示该有害物质的某一均质材料超出了GB/T 26572的限量要求，然而该部件仍符合欧盟指令2011/65/EU 的规范。 环保使用期限(EFUP (Environmental Friendly Use Period))：10年 备注：此产品所标示之环保使用期限，系指在一般正常使用状况下。						

China RoHS Requirement (EN)

Name and content of hazardous substances in product

AAEON Main Board/Daughter Board/Backplane

QO4-381 Rev.A2

Part Name	Hazardous Substances					
	铅 (Pb)	汞 (Hg)	镉 (Cd)	六价铬 (Cr(VI))	多溴联苯 (PBB)	多溴二苯醚 (PBDE)
PCB Assemblies	×	○	○	○	○	○
Connector and Cable	×	○	○	○	○	○
The table is prepared in accordance with the provisions of SJ/T 11364. ○: Indicates that said hazardous substance contained in all of the homogenous materials for this product is below the limit requirement of GB/T 26572. ×: Indicates that said hazardous substance contained in at least one of the homogenous materials used for this part is above the limit requirement of GB/T 26572. But this product still be compliance with 2011/65/EU Directive (allowed with 2011/65/EU Annex III of RoHS exemption with number 6(c),7(a),7(c)-1). EFUP (Environment Friendly Use Period) value: 10 years Notes: This product defined period of use is under normal condition.						

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Chapter 1

Product Specifications

1.1 Specifications

System	
Form Factor	Pico-ITX
Processor	Intel® Celeron® Processor J1900 (4C, 2 GHz, up to 2.42 GHz, TDP 10W)
	Intel® Celeron® Processor N2807 (2C, 1.58 GHz, up to 2.16 GHz, TDP 4.3W)
	Intel Atom® Processor E3845 (4C, 1.91 GHz, TDP 10W)
	Intel Atom® Processor E3825 (2C, 1.33 GHz, TDP 6W)
Chipset	Integrated with Intel® SoC
Memory Type	DDR3L 1333MHz SODIMM x 1, Max. 8GB
BIOS	AMI/SPI
Wake on LAN	Yes
Watchdog Timer	255 levels
Security	-
RTC Battery	Lithium Battery 3V/240mAh
Dimension (L x W)	3.94" x 2.84" (100mm x 72mm)
Weight	0.88 lb. (0.4Kg)
OS Support	Windows® 10 (64-bit)
	Windows® 7 (64-bit)
	Ubuntu 21.04.0/Kernel 5.10
Power	
Power Requirement	+12Vdc
Power Supply Type	AT/ATX (Default) optional lockable connector
Power Consumption	Intel® Celeron® Processor J1900, 2.0 GHz, DDR3L 1333MHz 8GB 1.14A @+12V

Power

System Cooling Heatspreader, Heatsink, or Cooler (Optional)

Display

Controller Intel® HD Graphics for Intel Atom® Processor Z3700 Series

LVDS/eDP LVDS (18/24-bit) up to 1400 x 900 @60Hz

Display Interface VGA (up to 2048 x 1152 @60Hz) or DP (up to 2560 x 1400 @60Hz)

Multiple Display Up to 2 Simultaneous Displays

Audio

Codec Realtek ALC897/892

Audio Interface Line-out x 1

Speaker -

External I/O

Ethernet RJ-45 10/100/1000Base-TX x 1 (Standard: Intel® Ethernet Controller I211-AT, WiTAS Models: Intel® Ethernet Controller I210-IT)

USB USB 3.2 Gen 1 x 1
USB 2.0 x 1

Serial Port -

Video VGA (up to 2048 x 1152 @60Hz) or DP (up to 2560 x 1400 @60Hz)

Internal I/O

USB	USB 2.0 x 1 (Pin Header)
Serial Port	RS-232 x 1
	RS-232/422/485 x 1 (Ring/+5V/+12V)
Video	LVDS (18/24-bit) up to 1400 x 900 @60Hz
SATA	SATA 3Gb/s x 1
	+5V SATA Power Connector x 1
Audio	Line-out x 1
GPIO	4-bit (2-in, 2-out)
SMBus/ I2C	I2C/SMBus x1 (SMBus as Default)
Fan	-
Front Panel	HDD LED, PWR LED, Power Button, Buzzer, Reset

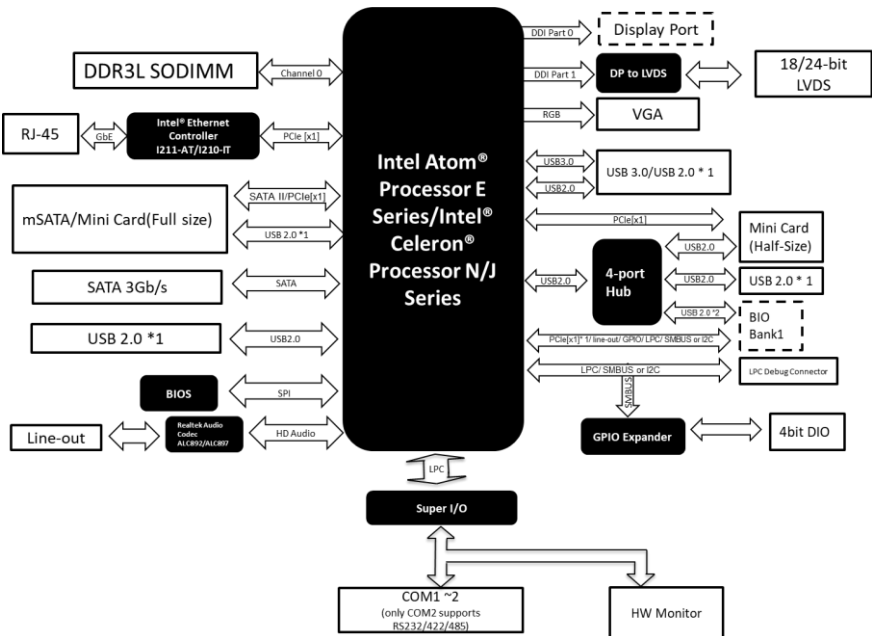
Expansion

Mini PCIe/mSATA	Full-size mPCIe/mSATA or USB 2.0 x 1 (SATA as default, PCIe selected by HW BOM)
	Half-size Mini Card x 1
M.2	-
Other	BIO x 1 (Optional)

Environmental & Certification

Operating Temperature	32°F ~ 140°F (0°C ~ 60°C)
	WiTAS2: -40°F ~ 185°F (-40°C ~ 85°C)
Storage Temperature	-40°F ~ 176°F (-40°C ~ 80°C)
Operating Humidity	0% ~ 90% relative humidity, non-condensing
MTBF (Hours)	80,000
Certification	CE, FCC

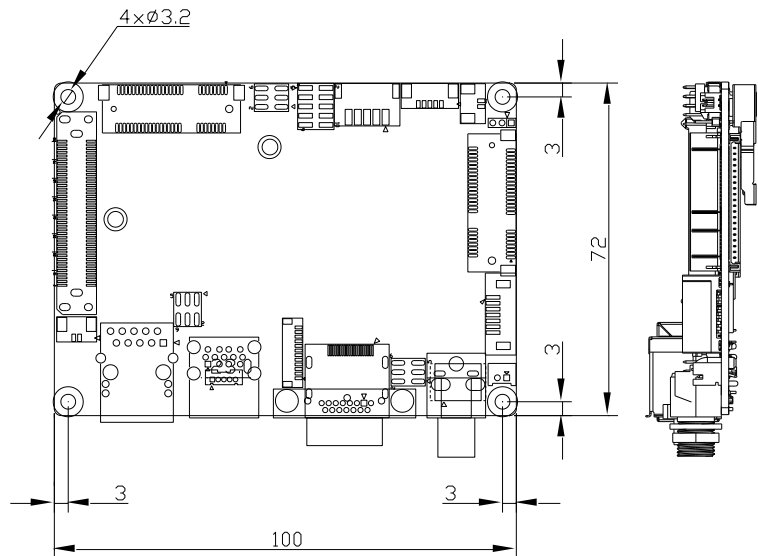
1.2 Block Diagram



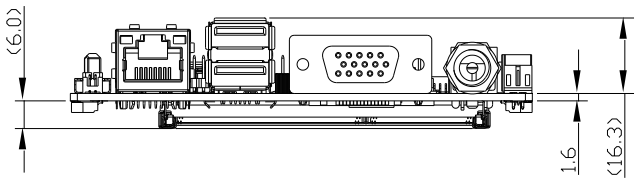
Chapter 2

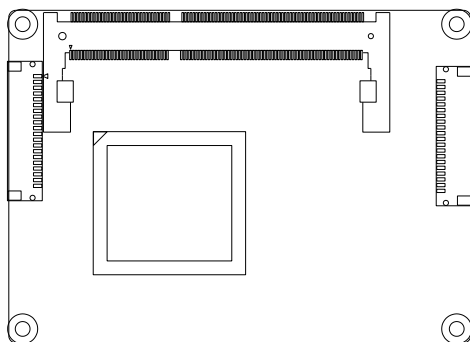
Hardware Information

2.1 Dimensions



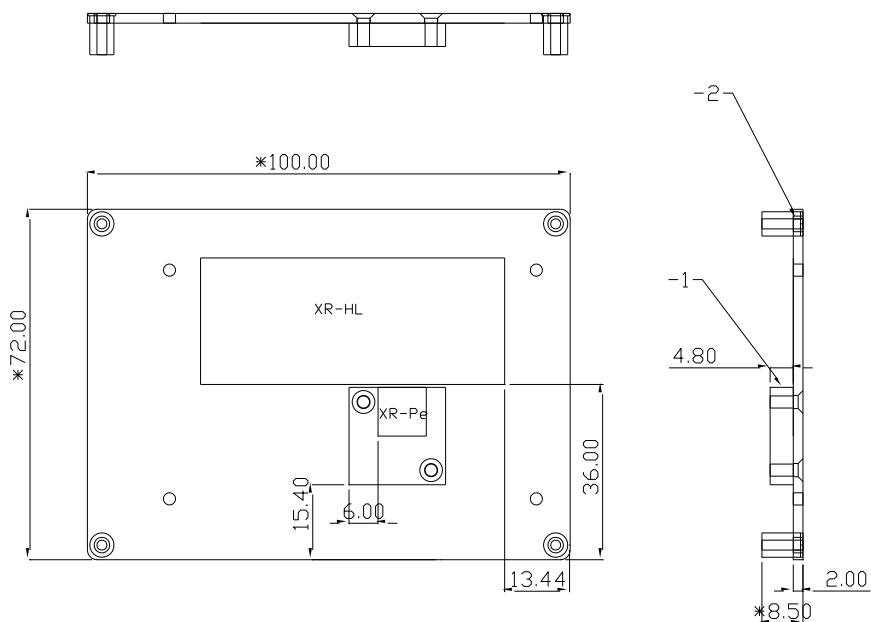
Component Side

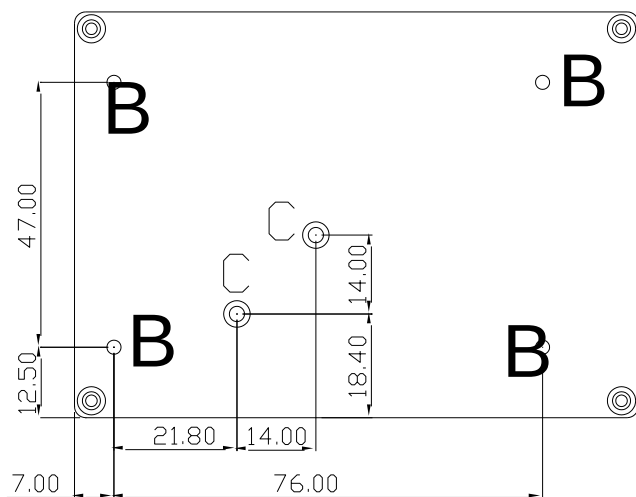
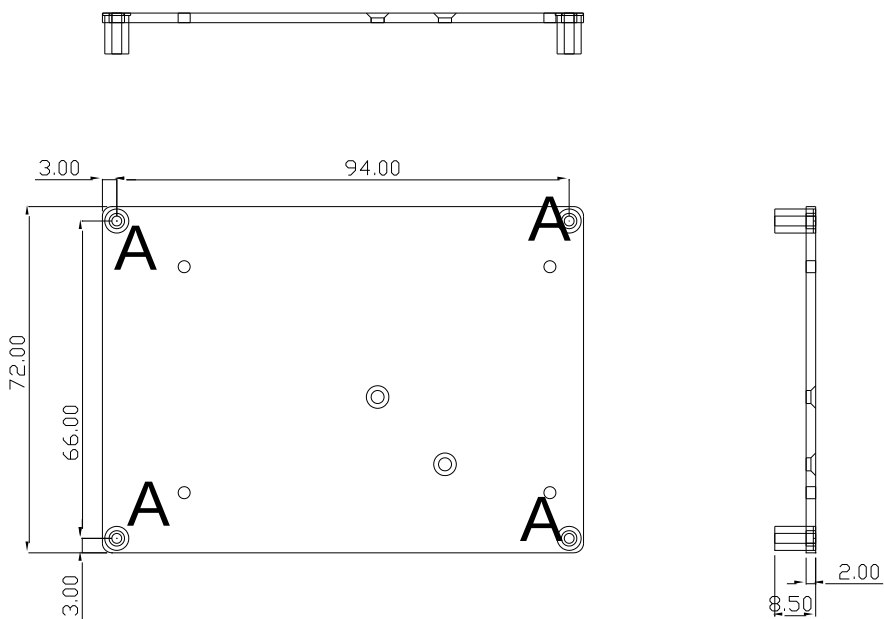


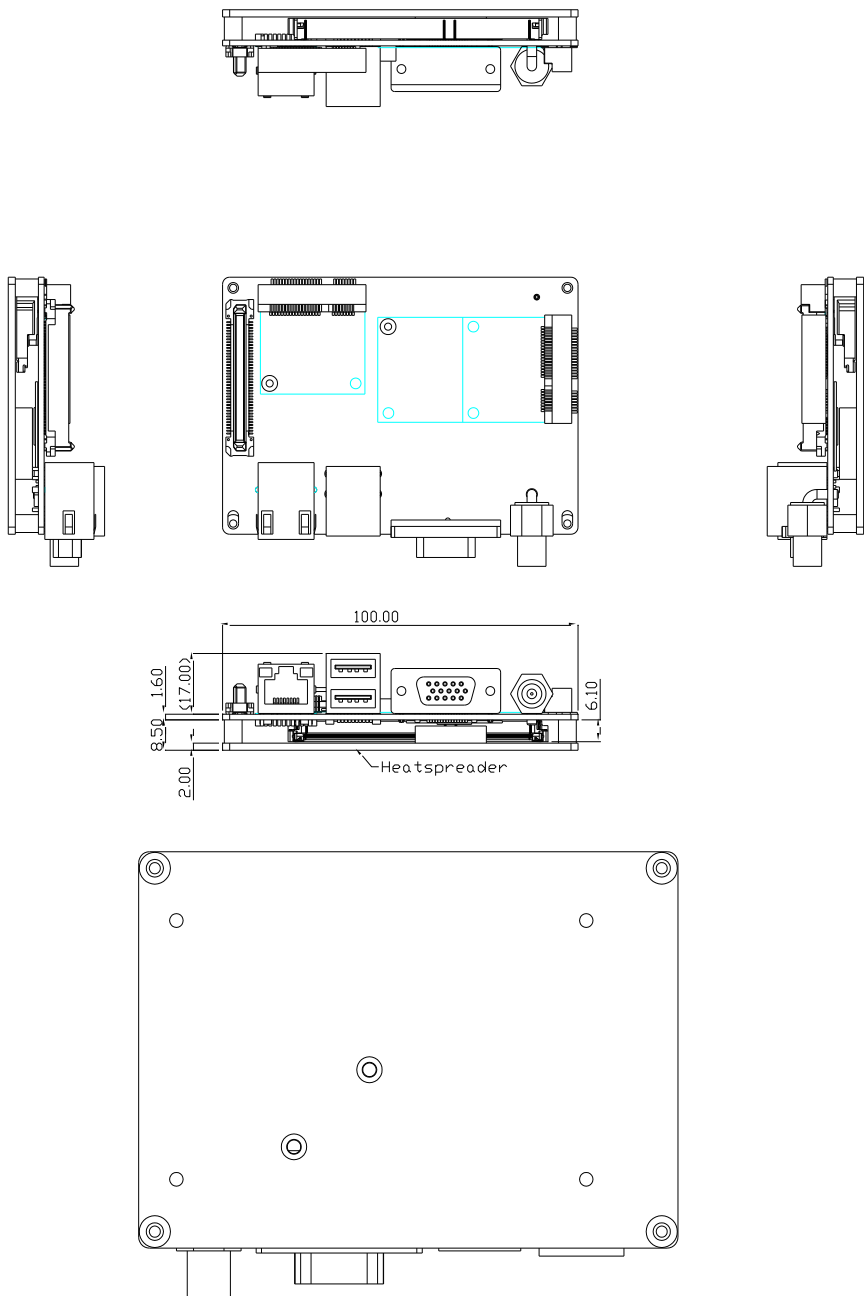


Solder Side

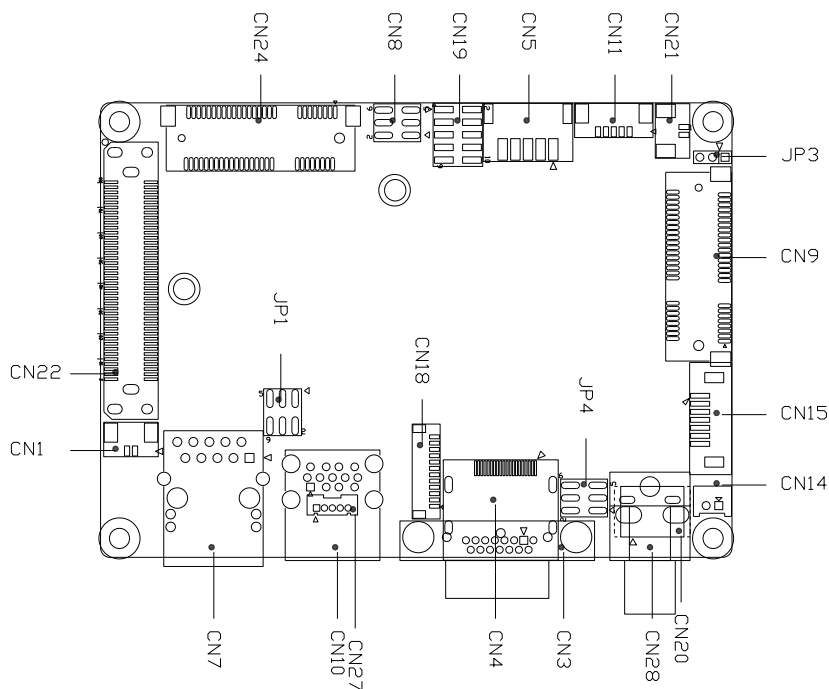
Heat Spreader



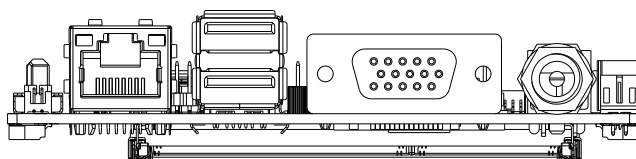


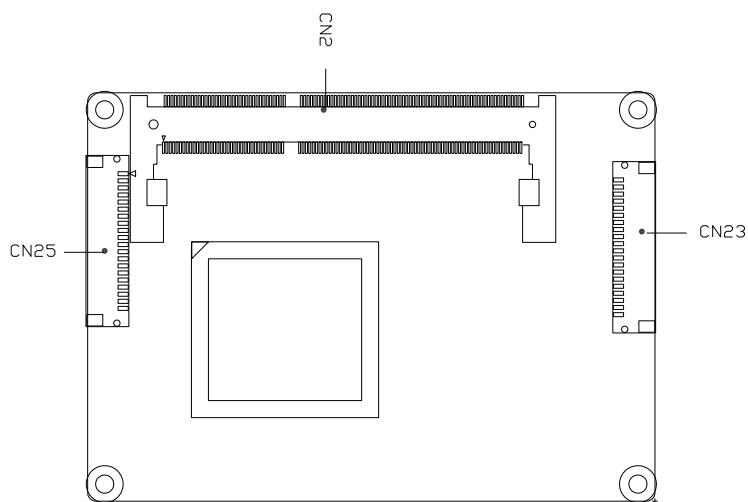


2.2 Jumpers and Connectors



Component Side





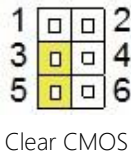
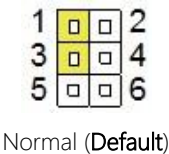
Solder Side

2.3 List of Jumpers

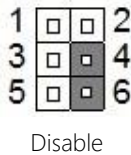
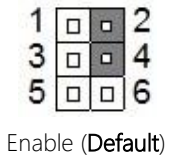
Please refer to the table below for all of the board's jumpers that you can configure for your application

Label	Function
JP1 (Pins 1, 3, 5)	Clear CMOS Jumper
JP1 (Pins 2, 4, 6)	Auto Power Button Enable/Disable Selection
JP3	LVDS Port Operating Voltage Selection
JP4 (Pins 1, 3, 5)	LVDS Port Backlight Inverter Voltage Selection
JP4 (Pins 2, 4, 6)	LVDS Port Backlight Lightness Control Mode Selection

2.3.1 Clear CMOS Jumper (JP1 Pins 1,3,5)

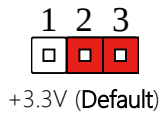
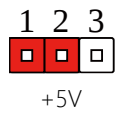


2.3.2 Auto Power Button Enable/Disable Selection (JP1 Pins 2,4,6)

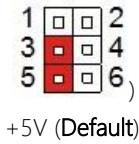
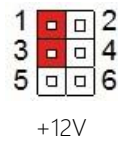


Note: To prevent damage to the system or unwanted operation, do not use any other configuration for JP1 than what is shown in Ch 2.3.1 and Ch 2.3.2.

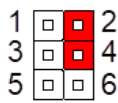
2.3.3 LVDS Port Operating Voltage Selection (JP3)



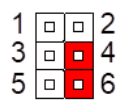
2.3.4 LVDS Port Backlight Inverter Voltage Selection (JP4 Pins 1,3,5)



2.3.5 LVDS Port Backlight Lightness Control Mode Selection (JP4 Pins 2,4,6)



VR Mode (Default)



PWM Mode

Note: To prevent damage to the system or unwanted operation, do not use any other configuration for JP4 than what is shown in Ch 2.3.4 and Ch 2.3.5.

2.4 List of Connectors

Please refer to the table below for all of the board's connectors that you can configure for your application

Label	Function
CN1	Battery
CN2	DDR3L SODIMM Slot
CN3	VGA Port
CN4	DP Port
CN5	LVDS Port Inverter/Backlight Connector
CN7	RJ-45 LAN Port
CN8	GPIO Port
CN9	Full-size Mini Card Slot/Default mSATA (Select by BOM)
CN10	USB Ports 0 and 1
CN11	USB 2.0 Port 2
CN14	+5V Output for SATA HDD
CN15	SATA Port
CN18	Port 80 Debug Port
CN19	Front Panel
CN20	External +12V Input w/ Lockable Power-In Connector (Optional)
CN21	Buzzer Connector
CN22	BIO Connector
CN23	COM Port 1, Port 2 & Line-Out Connector
CN24	Mini Card Slot (Half-Size Mini Card)
CN25	LVDS Connector

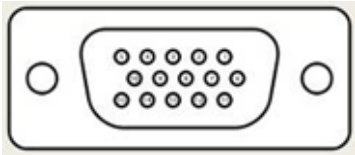
2.4.1 Battery (CN1)

Pin	Pin Name	Signal Type	Signal Level
1	+3.3V	PWR	3.3V
2	GND	GND	

2.4.2 DDR3L SODIMM Slot (CN2)

Standard specification.

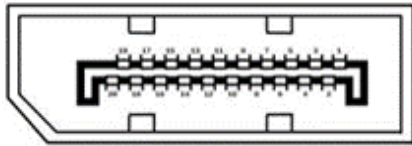
2.4.3 VGA Port (CN3)



Pin	Pin Name	Signal Type	Signal Level
1	RED	OUT	
2	GREEN	OUT	
3	BLUE	OUT	
4	NC		
5	GND	GND	
6	RED_GND_RTN	GND	
7	GREEN_GND_RTN	GND	
8	BLUE_GND_RTN	GND	
9	+5V	PWR	+5V
10	GND	GND	
11	NC		

Pin	Pin Name	Signal Type	Signal Level
12	DDC_DATA	I/O	+5V
13	HSYNC	OUT	
14	VSYNC	OUT	
15	DDC_CLK	I/O	+5V

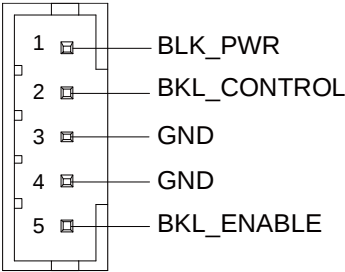
2.4.4 DP Port (CN4)



Pin	Pin Name	Signal Type	Signal Level
1	DDIO_DP_D0_P	DIFF	
2	GND	GND	
3	DDIO_DP_D0_N	DIFF	
4	DDIO_DP_D1_P	DIFF	
5	GND	GND	
6	DDIO_DP_D1_N	DIFF	
7	DDIO_DP_D2_P	DIFF	
8	GND	GND	
9	DDIO_DP_D2_N	DIFF	
10	DDIO_DP_D3_P	DIFF	
11	GND	GND	
12	DDIO_DP_D3_N	DIFF	
13	GND		
14	GND		
15	DDIO_DP_AUX_P	I/O	+3.3V

Pin	Pin Name	Signal Type	Signal Level
16	GND		
17	DDIO_DP_AUX_N	I/O	+3.3V
18	HPLG_DETECT	IN	+1.8V
19	RTN_PWR		
20	PWR	IN	+3.3V

2.4.5 LVDS Port Inverter/Backlight Connector (CN5)



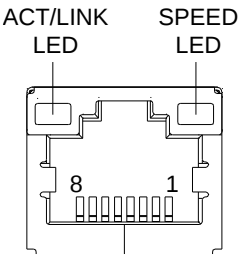
Pin	Pin Name	Signal Type	Signal Level
1	BKL_PWR	PWR	+5V / +12V
2	BKL_CONTROL	OUT	
3	GND	GND	
4	GND	GND	
5	BKL_ENABLE	OUT	+3.3V

Note 1: LVDS2/BKL_PWR can be set to +5V or +12V by JP4 (Pins 1, 3, 5).

Note 2: LVDS2/BKL_CONTROL can be set by JP4 (Pins 2, 4, 6).

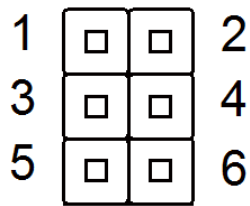
Note 3: The driving current supports up to 2A.

2.4.6 RJ-45 LAN Port (CN7)



Pin	Pin Name	Signal Type	Signal Level
1	MDI0+	DIFF	
2	MDI0-	DIFF	
3	MDI1+	DIFF	
4	MDI2+	DIFF	
5	MDI2-	DIFF	
6	MDI1-	DIFF	
7	MDI3+	DIFF	
8	MDI3-	DIFF	

2.4.7 GPIO Port (CN8)



Pin	Pin Name	Signal Type	Signal Level
1	+5V	PWR	+5V
2	GPIO_0	I/O	+5V
3	GPIO_1	I/O	+5V
4	GPIO_2	I/O	+5V
5	GPIO_3	I/O	+5V
6	GND	GND	

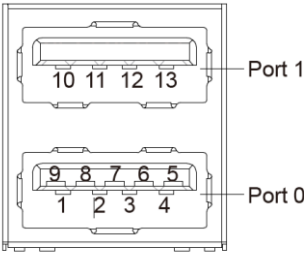
2.4.8 Full-size Mini Card/mSATA Slot (CN9)

Pin	Pin Name	Signal Type	Signal Level
1	PCIE_WAKE#	IN	
2	+3.3VSB/+3.3V	PWR	+3.3V
3	NC		
4	GND	GND	
5	NC		
6	+1.5V	PWR	+1.5V
7	PCIE_CLK_REQ#	IN	
8	NC		
9	GND	GND	
10	NC		
11	PCIE_REF_CLK-	DIFF	

Pin	Pin Name	Signal Type	Signal Level
12	NC		
13	PCIE_REF_CLK+	DIFF	
14	NC		
15	GND	GND	
16	NC		
17	NC		
18	GND	GND	
19	NC		
20	W_DISABLE#	OUT	+3.3V
21	GND	GND	
22	PCIE_RST#	OUT	+3.3V
23	PCIE_RX-/mSATARX+	DIFF	
24	+3.3VSB/+3.3V	PWR	+3.3V
25	PCIE_RX+/mSATARX-	DIFF	
26	GND	GND	
27	GND	GND	
28	+1.5V	PWR	+1.5V
29	GND	GND	
30	SMB_CLK	I/O	+3.3V
31	PCIE_TX-/mSATATX-	DIFF	
32	SMB_DATA	I/O	+3.3V
33	PCIE_TX+/mSATATX+	DIFF	
34	GND	GND	
35	GND	GND	
36	USB_D-	DIFF	
37	GND	GND	
38	USB_D+	DIFF	
39	+3.3VSB/+3.3V	PWR	+3.3V

Pin	Pin Name	Signal Type	Signal Level
40	GND	GND	
41	+3.3VSB/+3.3V	PWR	+3.3V
42	NC		
43	GND	GND	
44	NC		
45	NC		
46	NC		
47	NC		
48	+1.5V	PWR	+1.5V
49	NC		
50	GND	GND	
51	NC		
52	+3.3VSB/+3.3V	PWR	+3.3V

2.4.9 USB Ports 0 & 1 (CN10)

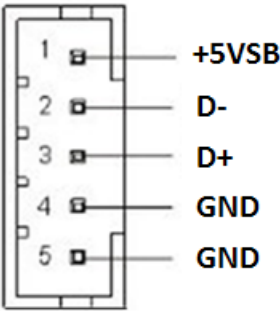


Pin	Pin Name	Signal Type	Signal Level
1	+5VSB	PWR	+5V
2	USB0_D-	DIFF	
3	USB0_D+	DIFF	
4	GND	GND	
5	USB0_SSRX-	DIFF	

Pin	Pin Name	Signal Type	Signal Level
6	USB0_SSRX+	DIFF	
7	GND	GND	
8	USB0_SSTX-	DIFF	
9	USB0_SSTX+	DIFF	
10	+5VSB	PWR	+5V
11	USB1_D-	DIFF	
12	USB1_D+	DIFF	
13	GND	GND	

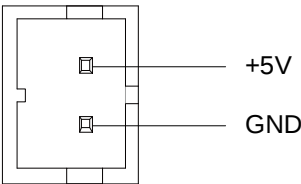
Note: Only Port 0 supports USB 3.2 Gen 1.

2.4.10 USB 2.0 Port 2 (CN11)



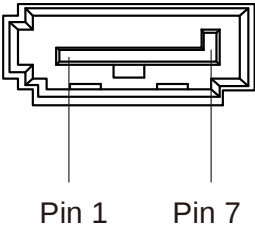
Pin	Pin Name	Signal Type	Signal Level
1	+5VSB	PWR	+5V
2	USB2_D-	DIFF	
3	USB2_D+	DIFF	
4	GND	GND	
5	GND	GND	

2.4.11 +5V Output for SATA HDD (CN14)



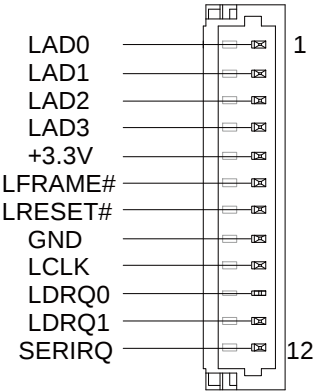
Pin	Pin Name	Signal Type	Signal Level
1	+5V	PWR	+5V
2	GND	GND	

2.4.12 SATA Port (CN15)



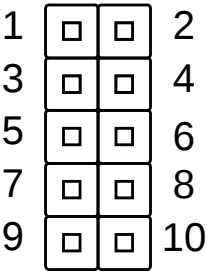
Pin	Pin Name	Signal Type	Signal Level
1	GND	GND	
2	SATA_TX1+	DIFF	
3	SATA_TX1-	DIFF	
4	GND	GND	
5	SATA_RX1-	DIFF	
6	SATA_RX1+	DIFF	
7	GND	GND	

2.4.13 Port 80 Debug Port (CN18)



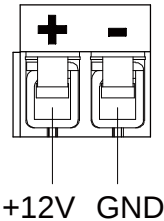
Pin	Pin Name	Signal Type	Signal Level
1	LAD0	I/O	+3.3V
2	LAD1	I/O	+3.3V
3	LAD2	I/O	+3.3V
4	LAD3	I/O	+3.3V
5	+3.3V	PWR	+3.3V
6	LFRAME#	IN	
7	LRESET#	OUT	+3.3V
8	GND	GND	
9	LCLK	OUT	
10	SMB_DATA [Default] / I2C_DATA	I/O	
11	SMB_CLK [Default] / I2C_CLK	IN	
12	SMB_ALERT [Default] / INT_SERIRQ	I/O	+3.3V

2.4.14 Front Panel (CN19)



Pin	Pin Name	Pin	Pin Name
1	PWR_BTN-	2	PWR_BTN+
3	HDD_LED-	4	HDD_LED+
5	BUZZER-	6	BUZZER+
7	PWR_LED-	8	PWR_LED+
9	H/W RESET-	10	H/W RESET+

2.4.15 External +12V Input (CN20)



Pin	Pin Name	Signal Type	Signal Level
1	+12V	PWR	+12V
2	GND	GND	

2.4.16 Buzzer Connector (CN21)

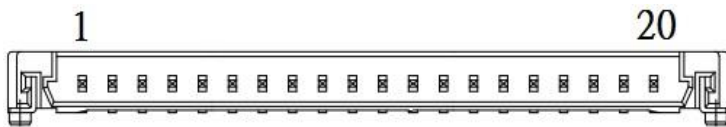
Pin	Pin Name	Signal Type	Signal Level
1	+3.3V	PWR	3.3V
2	BUZZER-		

2.4.17 BIO Connector (CN22)

Pin	Pin Name	Pin	Pin Name
1	+12VSB	2	GND
3	GND	4	PCIE_TXN0
5	PCIE_RXN0	6	PCIE_TXP0
7	PCIE_RXP0	8	GND
9	GND	10	NC
11	NC	12	NC
13	NC	14	GND
15	GND	16	PS_ON#
17	NC	18	NC
19	+5VSB	20	+5VSB
21	+5VSB	22	+5VSB
23	PCIE_REF_CLK0	24	RESET#
25	PCIE_REF_CLK0#	26	GND
27	GND	28	NC
29	NC	30	NC
31	NC	32	GND
33	GND	34	NC
35	NC	36	NC
37	NC	38	GND
39	GND	40	NC

Pin	Pin Name	Pin	Pin Name
41	NC	42	GND
43	NC	44	NC
45	GND	46	NC
47	USBN0	48	GND
49	USBP0	50	USBN1
51	GND	52	USBP2
53	I2C_CLK or SMB_CLK [Default]	54	GND
55	I2C_DATA or SMB_DATA [Default]	56	WAKE#
57	GND	58	USB_OC0#
59	+5V	60	USB_OC1#
61	+5V	62	+5V
63	+5V	64	+5V
65	LPC_AD0	66	LPC_FRAME#
67	LPC_AD1	68	SERIRQ
69	LPC_AD2	70	LPC_DRQ
71	LPC_AD3	72	PWR_OK/GPIO
73	GND	74	AGND
75	LPC_CLK	76	AUD_LINEOUT_L
77	PME#	78	AUD_LINEOUT_R
79	GND	80	GND

2.4.18 COM Port 1, Port 2 & Line Out Connector (CN23)



Pin	Pin Name	Signal Type	Signal Level
1	DCDB	IN	
2	DSRB	IN	
3	RXB	IN	
4	RTSB	OUT	±9V
5	TXB	OUT	±9V
6	CTSB	IN	
7	DTRB	OUT	±9V
8	RIB/+5V/+12V	IN/ PWR	+5V/+12V
9	DCDA	IN	
10	DSRA	IN	
11	RXA	IN	
12	RTSA	OUT	±9V
13	TXA	OUT	±9V
14	CTSA	IN	
15	DTRA	OUT	±9V
16	RIA	IN	
17	GND	GND	
18	AGND	GND	
19	LOUT_R	I/O	
20	LOUT_L	I/O	

COM Port 2 RS-485			
Pin	Pin Name	Signal Type	Signal Level
1	RS485_D-	I/O	±5V
2	NC		
3	RS485_D+	I/O	±5V
4	NC		
5	NC		
6	NC		
7	NC		
8	NC/+5V/+12V	PWR	+5V/+12V
17	GND	IN	

COM Port 2 RS-422			
Pin	Pin Name	Signal Type	Signal Level
1	RS422_TX-	OUT	±5V
2	NC		
3	RS422_TX+	OUT	±5V
4	NC		
5	RS422_RX+	IN	
6	NC		
7	RS422_RX-	IN	
8	NC/+5V/+12V	PWR	+5V/+12V
17	GND	GND	

Note 1: COM 2 RS-232/422/485 can be set by BIOS setting. Default is RS-232.

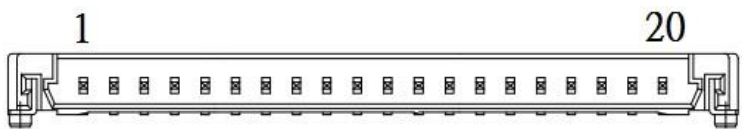
Note 2: COM 2 RI/ +5V/ +12V function can be set by BOM (R524 RI/ R521 +12V/ R526 +5V).

2.4.19 Mini Card Slot (Half-size) (CN24)

Pin	Pin Name	Signal Type	Signal Level
1	PCIE_WAKE#	IN	
2	+3.3VSB	PWR	+3.3V
3	NC		
4	GND	GND	
5	NC		
6	+1.5V	PWR	+1.5V
7	PCIE_CLK_REQ#	IN	
8	NC	PWR	
9	GND	GND	
10	NC	I/O	
11	PCIE_REF_CLK-	DIFF	
12	NC	IN	
13	PCIE_REF_CLK+	DIFF	
14	NC		
15	GND	GND	
16	NC	PWR	
17	NC		
18	GND	GND	
19	NC		
20	W_DISABLE#	OUT	+3.3V
21	GND	GND	
22	PCIE_RST#	OUT	+3.3V
23	PCIE_RX-	DIFF	
24	+3.3VSB	PWR	+3.3V
25	PCIE_RX+	DIFF	
26	GND	GND	

Pin	Pin Name	Signal Type	Signal Level
27	GND	GND	
28	+1.5V	PWR	+1.5V
29	GND	GND	
30	SMB_CLK	I/O	+3.3V
31	PCIE_TX-	DIFF	
32	SMB_DATA	I/O	+3.3V
33	PCIE_TX+	DIFF	
34	GND	GND	
35	GND	GND	
36	USB_D-	DIFF	
37	GND	GND	
38	USB_D+	DIFF	
39	+3.3VSB	PWR	+3.3V
40	GND	GND	
41	+3.3VSB	PWR	+3.3V
42	NC		
43	GND	GND	
44	NC		
45	NC		
46	NC		
47	NC		
48	+1.5V	PWR	+1.5V
49	NC		
50	GND	GND	
51	NC		
52	+3.3VSB	PWR	+3.3V

2.4.20 LVDS Port (CN25)



Pin	Pin Name	Signal Type	Signal Level
1	BKL_ENABLE	OUT	
2	BKL_CONTROL	OUT	
3	LCD_PWR	PWR	+3.3V/+5V
4	LVDS_A_CLK-	DIFF	
5	LVDS_A_CLK+	DIFF	
6	LCD_PWR	PWR	+3.3V/+5V
7	LVDS_DA0+	DIFF	
8	LVDS_DA0-	DIFF	
9	LCD_PWR	PWR	+3.3V/+5V
10	LVDS_DA1+	DIFF	
11	LVDS_DA1-	DIFF	
12	GND	GND	
13	LVDS_DA2+	DIFF	
14	LVDS_DA2-	DIFF	
15	GND	GND	
16	LVDS_DA3+	DIFF	
17	LVDS_DA3-	DIFF	
18	GND	GND	
19	DDC_DATA	I/O	
20	DDC_CLK	I/O	

Chapter 3

AMI BIOS Setup

3.1 System Test and Initialization

The board uses certain routines to perform testing and initialization. If an error, fatal or non-fatal, is encountered, a few short beeps or an error message will be outputted. The board can usually continue the boot up sequence with non-fatal errors.

The system configuration verification routines check the current system configuration against the values stored in the CMOS memory. If they do not match, an error message will be outputted, in which case you will need to run the BIOS setup program to set the configuration information in memory.

There are three situations in which you will need to change the CMOS settings:

- You are starting your system for the first time
- You have changed your system's hardware
- The CMOS memory has lost power and the configuration information is erased

The system's CMOS memory uses a backup battery for data retention, which is to be replaced once emptied.

3.2 AMI BIOS Setup

The AMI BIOS ROM has a pre-installed Setup program that allows users to modify basic system configurations, which is stored in the battery-backed CMOS RAM and BIOS NVRAM so that the information is retained when the power is turned off.

To enter BIOS Setup, press or <F2> immediately while your computer is powering up.

The function for each interface can be found below.

Main – Date and time can be set here. Press <Tab> to switch between date elements

Advanced – Enable/ Disable boot option for legacy network devices

Chipset – For hosting bridge parameters

Security – The setup administrator password can be set here

Boot – Enable/ Disable quiet Boot Option

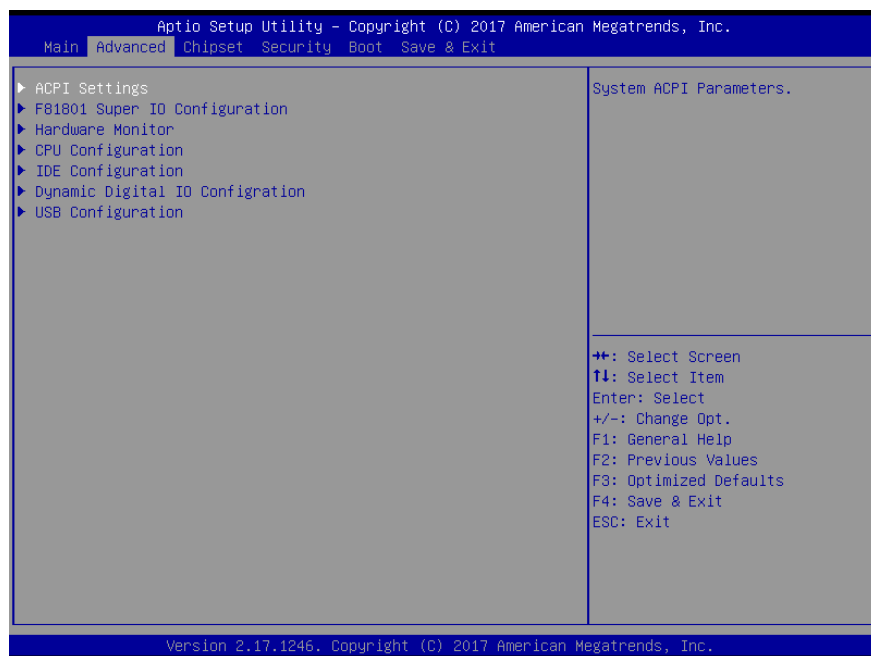
Save & Exit – Save your changes and exit the program

3.3 Setup Submenu: Main

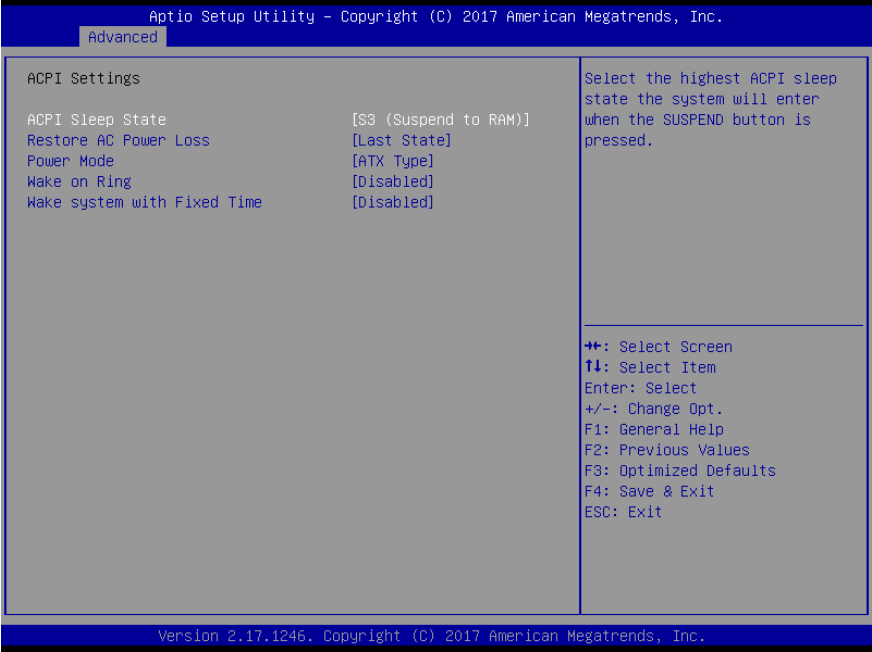
Press "Delete" to enter Setup



3.4 Setup Submenu: Advanced



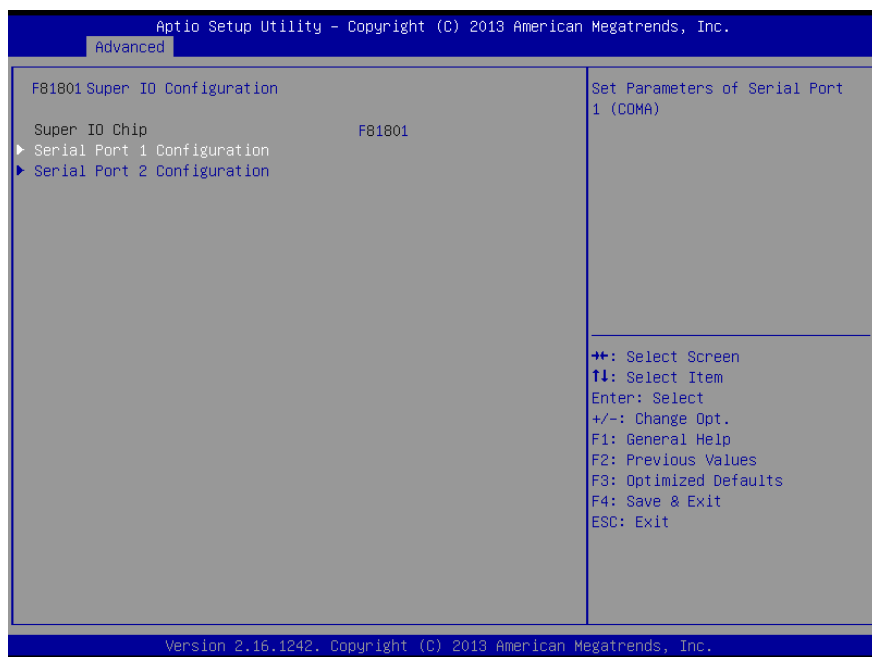
3.4.1 ACPI Settings



Options Summary		
ACPI Sleep State	Suspend Disabled	
	S3 (suspend to RAM)	Optimal Default, Failsafe Default
Select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.		
Restore on Power Loss	Power Off	
	Power On	
	Last State	Optimal Default, Failsafe Default
Select power state when power is re-applied after a power failure.		
Power Mode	ATX Type	Optimal Default, Failsafe Default
	AT Type	
Select power supply mode.		
Wake on Ring	Disabled	Optimal Default, Failsafe Default
	Enabled	
Enable or disable System Wake on Ring.		

Options Summary		
RTC wake system from S5	Disabled	Optimal Default, Failsafe Default
	Fixed Time	
Enable or disable System wake on alarm event. When enabled, System will wake on the hr::min::sec specified.		

3.4.2 F81801 Super IO Configuration



3.4.2.1 Serial Port 1 Configuration

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.

Advanced

Serial Port 1 Configuration		Enable or Disable Serial Port (COM)
Serial Port	[Enabled]	
Device Settings	IO=3F8h; IRQ=4;	
Change Settings	[Auto]	

++: Select Screen
↑↓: Select Item
Enter: Select
+/-: Change Opt.
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Exit
ESC: Exit

Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

3.4.2.2 Serial Port 2 Configuration



Options Summary		
Serial Port	Disabled	
	Enabled	Default
Allows BIOS to En/Disable correspond serial port.		
Change Settings (Serial Port 1)	Auto	Default
	IO=3F8h; IRQ=4;	
	IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12;	
	IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12;	
	IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12;	
	IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12;	
Allows BIOS to Select Serial Port resource.		

Options Summary		
Change Settings (Serial Port 2)	Auto	Default
	IO=2F8h; IRQ=3;	
	IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12;	
	IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12;	
	IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12;	
	IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12;	
COM2 Type Select	RS232	Default
	RS422	
	RS485	
Select Working model.		

3.4.3 Hardware Monitor

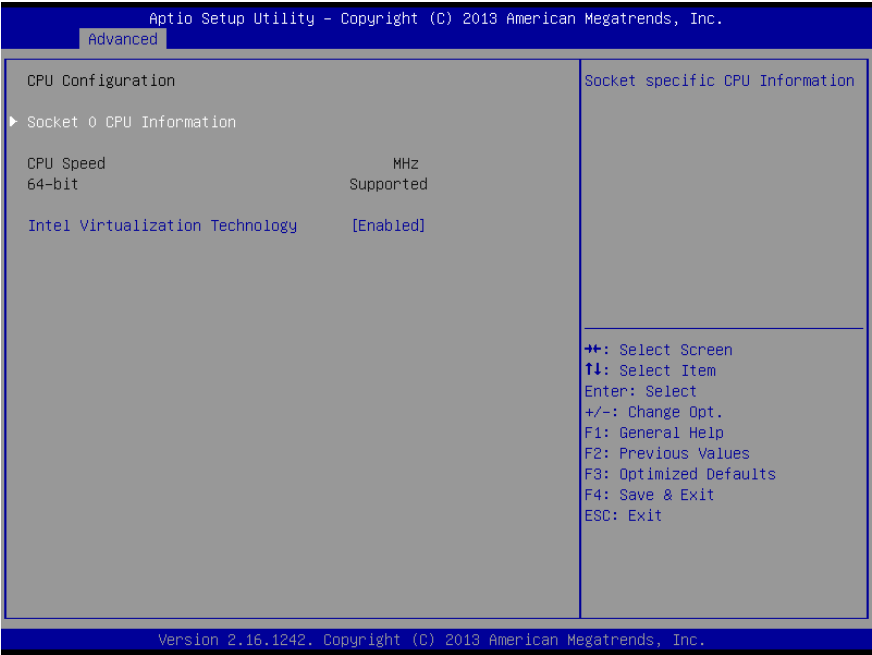
Aptio Setup Utility - Copyright (C) 2021 American Megatrends, Inc.

Advanced

Pc Health Status CPU temperature : +74 ℃ System temperature : +62 ℃ VCORE : +0.648 V VMEM : +1.352 V +3.3V : +3.360 V 3VSB : +3.392 V VBAT : +3.216 V		++: Select Screen F1: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit

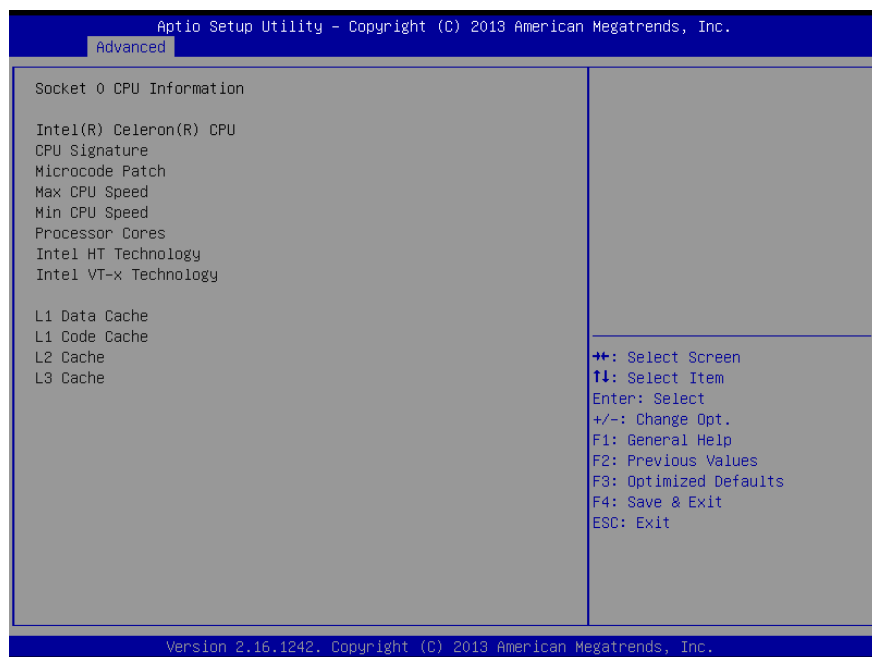
Version 2.17.1246. Copyright (C) 2021 American Megatrends, Inc.

3.4.4 CPU Configuration



Options Summary		
Intel Virtualization Technology	Disabled	
	Enabled	Optimal Default, Failsafe Default
When enabled, a VMM can utilize the additional hardware capabilities provided by Vander pool Technology.		

3.4.4.1 Socket 0 CPU Information



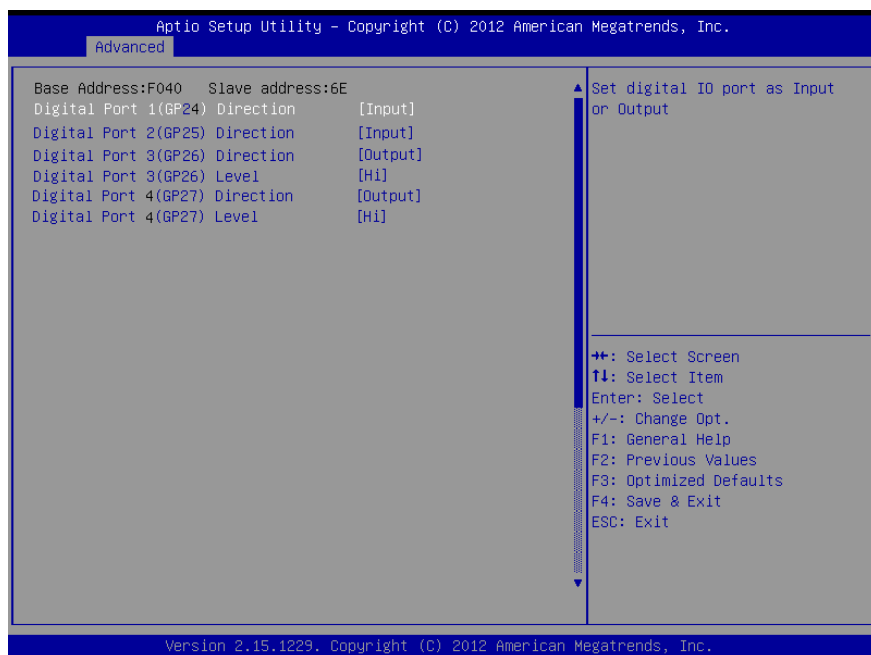
3.4.5 SATA Configuration



Options Summary		
Serial-ATA (SATA)	Enabled	Default
	Disabled	
Enable/Disable SATA.		
SATA Speed Support	Gen1	Default
	Gen2	
SATA Speed Support Gen1 or Gen2.		
SATA Mode	IDE	Default
	AHCI	
IDE: Configure SATA controllers as legacy IDE. AHCI: Configure SATA controllers to operate in AHCI mode.		
Serial-ATA Port x	Enabled	Default
	Disabled	
Enable/Disable SATA Port.		

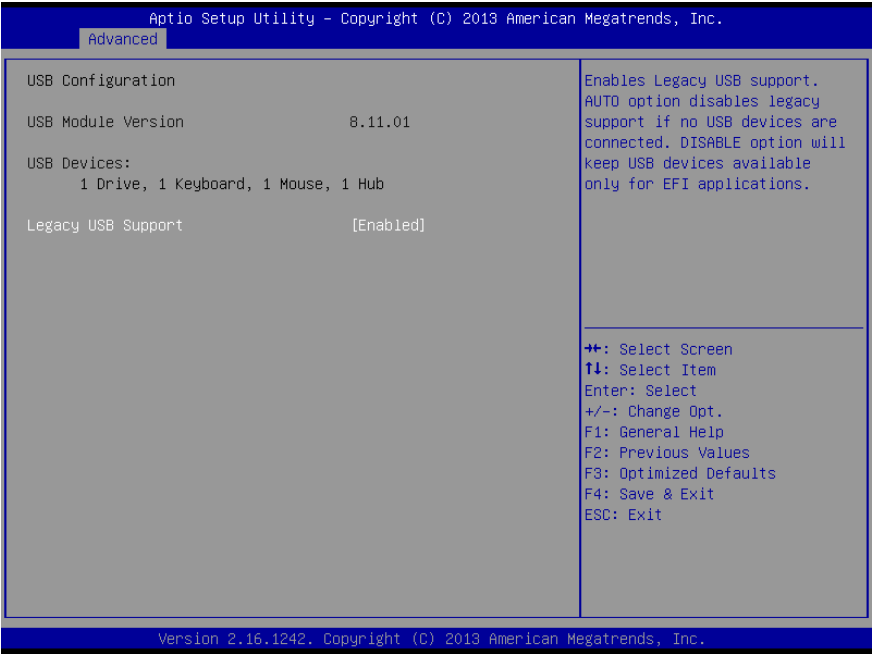
Options Summary		
SATA Port1 HotPlug	Enabled	
	Disabled	Default
Enable/Disable SATA Port Hotplug.		

3.4.6 Dynamic GPIO Configuration



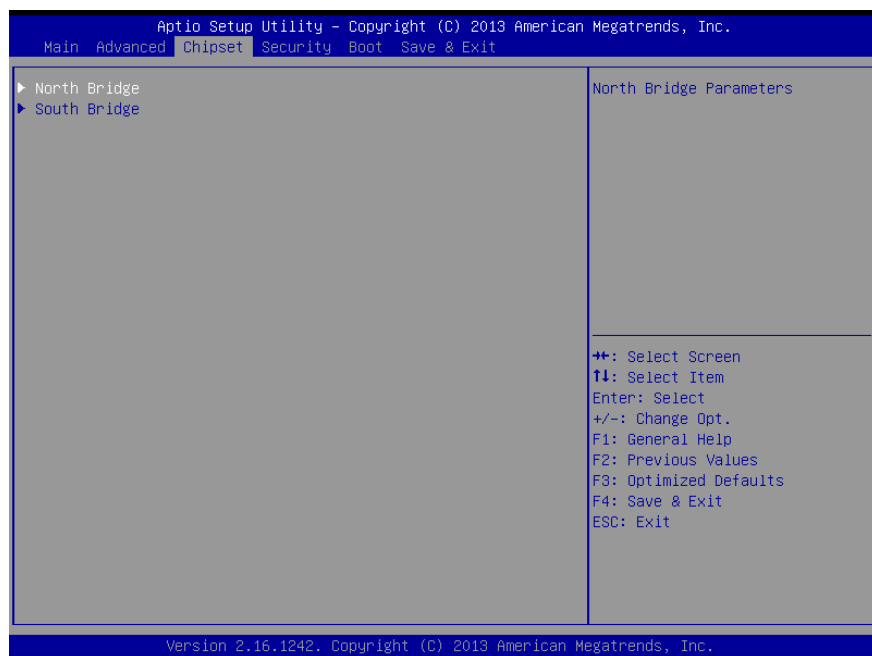
Options Summary		
GPIO X Direction	Input	
	Output	
Set GPIO as input or Output.		
GPIO X Level	Hi	Default
	Low	
Set GPIO Output port Hi or Low.		

3.4.7 USB Configuration



Options Summary		
Legacy USB Support	Enabled	Optimal Default, Failsafe Default
	Disabled	
	Auto	
Enables BIOS Support for Legacy USB Support. When enabled, USB can be functional in legacy environment like DOS. AUTO option disables legacy support if no USB devices are connected.		
Device Name (Emulation Type)	Auto	Optimal Default, Failsafe Default
	Floppy	
	Forced FDD	
	Hard Disk	
	CDROM	
If Auto. USB devices less than 530MB will be emulated as Floppy and remaining as Floppy and remaining as hard drive. Forced FDD option can be used to force a HDD formatted drive to boot as FDD (Ex. ZIP drive).		

3.5 Setup Submenu: Chipset



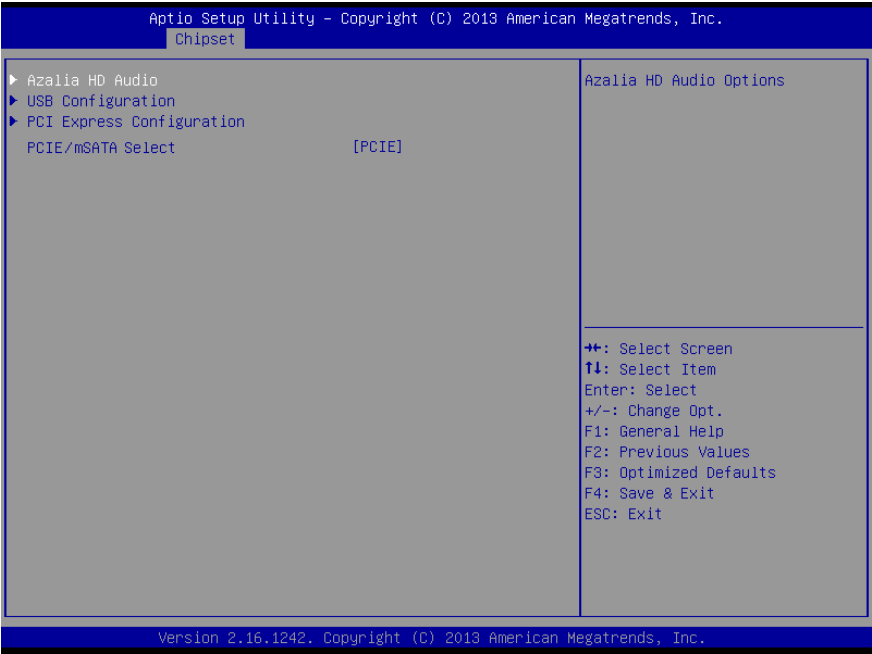
3.5.1 North Bridge



Options Summary		
Primary IGFX Boot Display	VBIOS Default	Optimal Default, Failsafe Default
	CRT	
	DP	
	LVDS	
Select the Video device.		
LVDS1	Disabled	
	Enabled	Optimal Default, Failsafe Default
En/Dis LVDS.		
Panel Type	640x480	
	800x480	
	800x600	
	1024x600	
	1024x768	Optimal Default, Failsafe Default
	1280x768	
	1366x768	

Options Summary		
Panel Type	1440x900	
Select panel type.		
Color Depth	18Bit	Optimal Default, Failsafe Default
	24Bit	
Set color depth.		
Backlight Type	Normal	Optimal Default, Failsafe Default
	Inverted	
Select backlight control signal type.		
Backlight Level	0-100%	
Select backlight control level.		
Panel Scaling	Auto	Optimal Default, Failsafe Default
	Off	
	Force Scaling	
Select the LCD scaling option used by the internal graphics device.		

3.5.2 South Bridge



Options Summary		
PCIe/mSATA Select	PCIe	Optimal Default, Failsafe Default
	mSATA	
PCIe/mSATA Select.		

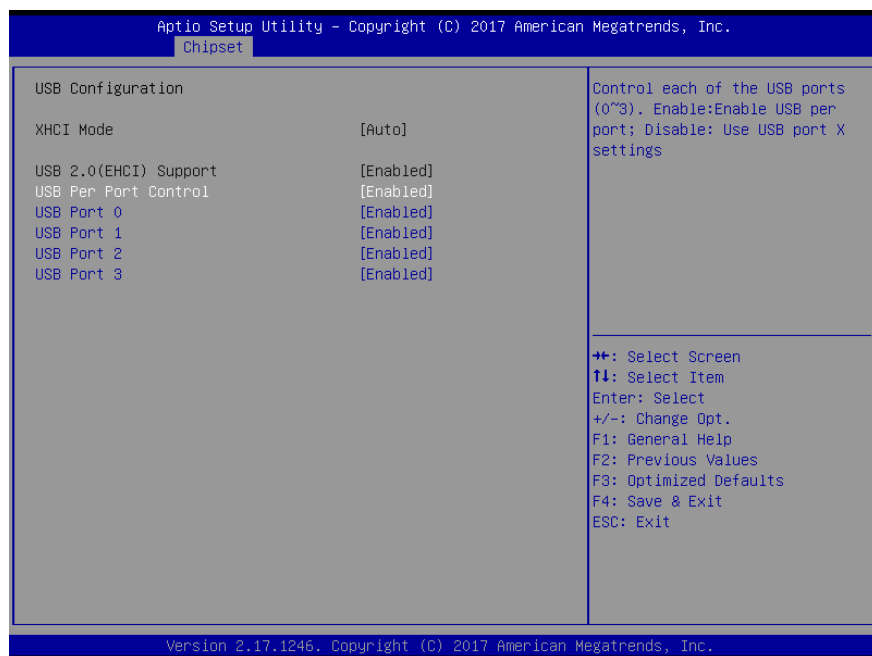
Note: PCIe/mSATA Select is available only for A1.0 version and not available for A1.1 and/or later versions.

3.5.2.1 Azalia HD Audio

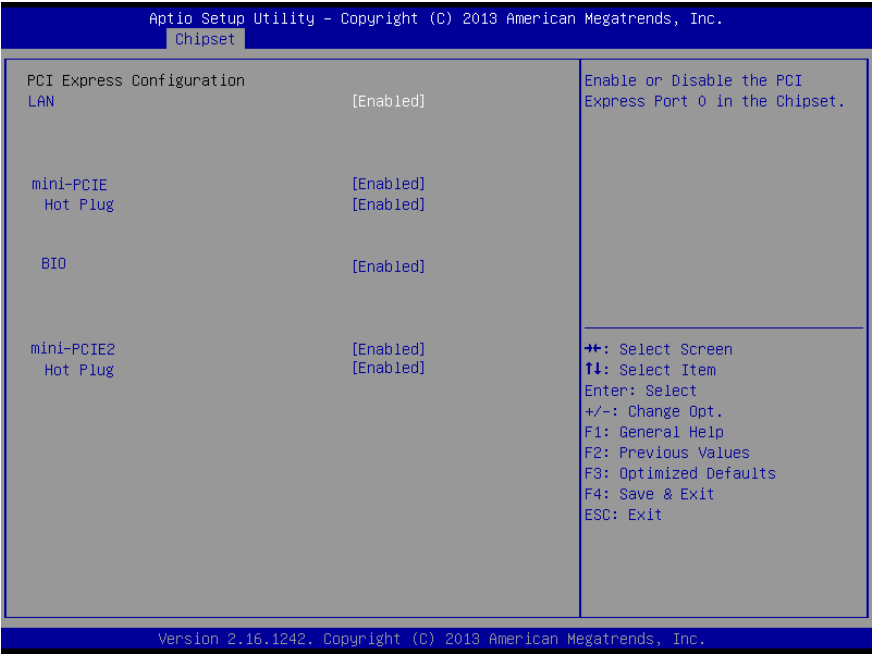


Options Summary		
Azalia HD Audio	Disabled	
	Enabled	Optimal Default, Failsafe Default
Enabling/Disabling HD Audio controller.		

3.5.2.2 USB Configuration

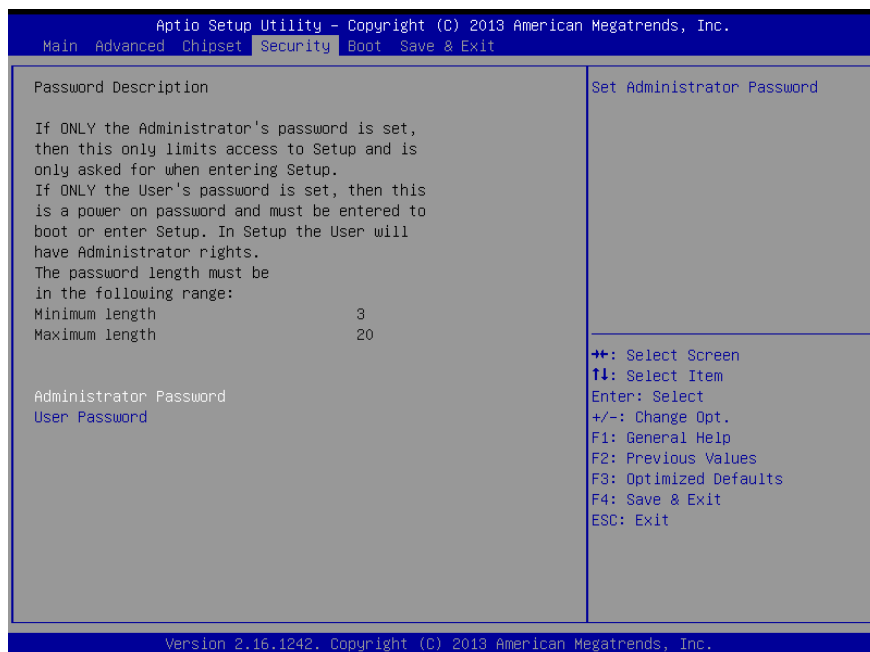


3.5.2.3 PCI Express Configuration



Options Summary		
PCI Express Root Port x	Enabled	Optimal Default, Failsafe Default
	Disabled	
Enabling/Disabling PCI Express root ports.		
Hot Plug (Mini Card)	Disabled	
	Enabled	Optimal Default, Failsafe Default
Enable/ Disable PCIe hot plug.		

3.6 Setup Submenu: Security



Change User/Administrator Password

You can set an Administrator Password or User Password. An Administrator Password must be set before you can set a User Password. The password will be required during boot up, or when the user enters the Setup utility. A User Password does not provide access to many of the features in the Setup utility.

Select the password you wish to set, and press Enter. In the dialog box, enter your password (must be between 3 and 20 letters or numbers). Press Enter and retype your password to confirm. Press Enter again to set the password.

Removing the Password

Select the password you want to remove and enter the current password. At the next dialog box press Enter to disable password protection.

3.7 Setup Submenu: Boot



Options Summary		
PXE	Do not launch	Optimal Default; Failsafe Default
	legacy	
Controls the execution of Legacy PXE OpROM.		
Quiet Boot	Disabled	
	Enabled	Default
En/Disable showing boot logo.		

3.8 Setup Submenu: Save & Exit



Chapter 4

Drivers Installation

4.1 Driver Download/Installation

Drivers for the PICO-BT01 can be downloaded from the product page on the AAEON website by following this link:

<https://www.aaeon.com/en/p/pico-itx-boards-pico-bt01>

Download the driver(s) you need and follow the steps below to install them.

Install Chipset Driver

1. Open the **Chipset** folder and open the **SetupChipset.exe** file
2. Follow the instructions
3. Drivers will be installed automatically

Install Graphics Driver

1. Open the **Graphics** folder and select your OS
2. Open the **Setup.exe** file in the folder
3. Follow the instructions
4. Driver will be installed automatically

Install LAN Driver

1. Open the **LAN** folder followed by the **I211** folder
2. Select your OS
3. Open the **.exe** file in the folder
4. Follow the instructions
5. Driver will be installed automatically

Install Audio Driver

1. Open the **Audio** folder and open the **Win7_8-32_64_R273.exe** file
2. Follow the instructions
3. Driver will be installed automatically

Install USB 3.0 Driver

1. Open the **USB 3.0** folder and open the **Setup.exe** file
2. Follow the instructions
3. Driver will be installed automatically

Install MBI Driver

1. Open the **MBI** folder and open the **Setup.exe** file
2. Follow the instructions
3. Driver will be installed automatically

Install Linux Peripheral Driver

1. Open the **Linux Driver-Peripheral** folder
2. Follow the instructions in the user guides provided to manually install drivers

Appendix A

I/O Information

A.1 I/O Address Map

■	Input/output (I/O)
■	[00000000 - 0000006F] PCI Express Root Complex
■	[00000020 - 00000021] Programmable interrupt controller
■	[00000024 - 00000025] Programmable interrupt controller
■	[00000028 - 00000029] Programmable interrupt controller
■	[0000002C - 0000002D] Programmable interrupt controller
■	[0000002E - 0000002F] Motherboard resources
■	[00000030 - 00000031] Programmable interrupt controller
■	[00000034 - 00000035] Programmable interrupt controller
■	[00000038 - 00000039] Programmable interrupt controller
■	[0000003C - 0000003D] Programmable interrupt controller
■	[00000040 - 00000043] System timer
■	[0000004E - 0000004F] Motherboard resources
■	[00000050 - 00000053] System timer
■	[00000060 - 00000060] Standard PS/2 Keyboard
■	[00000061 - 00000061] Motherboard resources
■	[00000063 - 00000063] Motherboard resources
■	[00000064 - 00000064] Standard PS/2 Keyboard
■	[00000065 - 00000065] Motherboard resources
■	[00000067 - 00000067] Motherboard resources
■	[00000070 - 00000070] Motherboard resources
■	[00000070 - 00000077] System CMOS/real time clock
■	[00000078 - 000000CF] PCI Express Root Complex
■	[00000080 - 0000008F] Motherboard resources
■	[00000092 - 00000092] Motherboard resources
■	[000000A0 - 000000A1] Programmable interrupt controller
■	[000000A4 - 000000A5] Programmable interrupt controller
■	[000000A8 - 000000A9] Programmable interrupt controller
■	[000000AC - 000000AD] Programmable interrupt controller
■	[000000B0 - 000000B1] Programmable interrupt controller
■	[000000B2 - 000000B3] Motherboard resources
■	[000000B4 - 000000B5] Programmable interrupt controller
■	[000000B8 - 000000B9] Programmable interrupt controller
■	[000000BC - 000000BD] Programmable interrupt controller
■	[000002F8 - 000002FF] Communications Port (COM2)
■	[000003B0 - 000003BB] Microsoft Basic Display Adapter
■	[000003C0 - 000003DF] Microsoft Basic Display Adapter
■	[000003F8 - 000003FF] Communications Port (COM1)
■	[00000400 - 0000047F] Motherboard resources
■	[000004D0 - 000004D1] Programmable interrupt controller
■	[00000500 - 000005FE] Motherboard resources
■	[00000600 - 0000061F] Motherboard resources
■	[00000680 - 0000069F] Motherboard resources
■	[00000A00 - 00000A0F] Motherboard resources
■	[00000A10 - 00000A1F] Motherboard resources
■	[00000D00 - 0000FFFF] PCI Express Root Complex
■	[0000E000 - 0000EFFF] Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor PCI Express - Root Port 1 - 0F48
■	[0000F000 - 0000F01F] Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor Platform Control Unit - SMBus Port - 0F12

A.2 Memory Address Map

Memory	
[000A0000 - 000BFFFF]	Microsoft Basic Display Adapter
[000A0000 - 000BFFFF]	PCI Express Root Complex
[000C0000 - 000DFFFF]	PCI Express Root Complex
[000E0000 - 000FFFFF]	PCI Express Root Complex
[C0000000 - CFFFFFFF]	Microsoft Basic Display Adapter
[C0000000 - D0716FFF]	PCI Express Root Complex
[D0000000 - D03FFFFF]	Microsoft Basic Display Adapter
[D0400000 - D04FFFFF]	Intel(R) Trusted Execution Engine Interface
[D0500000 - D05FFFFF]	Intel(R) Trusted Execution Engine Interface
[D0600000 - D061FFFF]	Intel(R) I211 Gigabit Network Connection
[D0600000 - D06FFFFF]	Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor PCI Express - Root Port 1 - 0F48
[D0620000 - D0623FFF]	Intel(R) I211 Gigabit Network Connection
[D0700000 - D070FFFF]	Intel(R) USB 3.0 eXtensible Host Controller - 0100 (Microsoft)
[D0710000 - D0713FFF]	High Definition Audio Controller
[D0714000 - D071401F]	Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor Platform Control Unit - SMBus Port - 0F12
[D0716000 - D07167FF]	Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor AHCI - 0F23
[E0000000 - EFFFFFFF]	Motherboard resources
[E00000D0 - E00000DB]	Intel(R) Sideband Fabric Device
[FED00000 - FED003FF]	High precision event timer
[FED01000 - FED01FFF]	Motherboard resources
[FED03000 - FED03FFF]	Motherboard resources
[FED04000 - FED04FFF]	Motherboard resources
[FED08000 - FED08FFF]	Motherboard resources
[FED0C000 - FED0FFFF]	Motherboard resources
[FED1C000 - FED1CFFF]	Motherboard resources
[FEE00000 - FEEFFFFFFF]	Motherboard resources
[FEF00000 - FEFFFFFFFF]	Motherboard resources
[FF000000 - FFFFFFFF]	Intel(R) 82802 Firmware Hub Device

A.3 IRQ Mapping Chart

	Interrupt request (IRQ)	
	(ISA) 0x00000000 (00)	System timer
	(ISA) 0x00000001 (01)	Standard PS/2 Keyboard
	(ISA) 0x00000003 (03)	Communications Port (COM2)
	(ISA) 0x00000004 (04)	Communications Port (COM1)
	(ISA) 0x00000008 (08)	High precision event timer
	(ISA) 0x0000000C (12)	PS/2 Compatible Mouse
	(ISA) 0x00000051 (81)	Microsoft ACPI-Compliant System
	(ISA) 0x00000052 (82)	Microsoft ACPI-Compliant System
	(ISA) 0x00000053 (83)	Microsoft ACPI-Compliant System
	(ISA) 0x00000054 (84)	Microsoft ACPI-Compliant System
	(ISA) 0x00000055 (85)	Microsoft ACPI-Compliant System
	(ISA) 0x00000056 (86)	Microsoft ACPI-Compliant System
	(ISA) 0x00000057 (87)	Microsoft ACPI-Compliant System
	(ISA) 0x00000058 (88)	Microsoft ACPI-Compliant System
	(ISA) 0x00000059 (89)	Microsoft ACPI-Compliant System
	(ISA) 0x0000005A (90)	Microsoft ACPI-Compliant System
	(ISA) 0x0000005B (91)	Microsoft ACPI-Compliant System
	(ISA) 0x0000005C (92)	Microsoft ACPI-Compliant System
	(ISA) 0x0000005D (93)	Microsoft ACPI-Compliant System
	(ISA) 0x0000005E (94)	Microsoft ACPI-Compliant System
	(ISA) 0x0000005F (95)	Microsoft ACPI-Compliant System
	(ISA) 0x00000060 (96)	Microsoft ACPI-Compliant System
	(ISA) 0x00000061 (97)	Microsoft ACPI-Compliant System
	(ISA) 0x00000062 (98)	Microsoft ACPI-Compliant System
	(ISA) 0x00000063 (99)	Microsoft ACPI-Compliant System
	(ISA) 0x00000064 (100)	Microsoft ACPI-Compliant System
	(ISA) 0x00000065 (101)	Microsoft ACPI-Compliant System
	(ISA) 0x00000066 (102)	Microsoft ACPI-Compliant System
	(ISA) 0x00000067 (103)	Microsoft ACPI-Compliant System
	(ISA) 0x00000068 (104)	Microsoft ACPI-Compliant System
	(ISA) 0x00000069 (105)	Microsoft ACPI-Compliant System
	(ISA) 0x0000006A (106)	Microsoft ACPI-Compliant System
	(ISA) 0x0000006B (107)	Microsoft ACPI-Compliant System
	(ISA) 0x0000006C (108)	Microsoft ACPI-Compliant System

 (ISA) 0x0000006C (108)	Microsoft ACPI-Compliant System
 (ISA) 0x0000006D (109)	Microsoft ACPI-Compliant System
 (ISA) 0x0000006E (110)	Microsoft ACPI-Compliant System
 (ISA) 0x0000006F (111)	Microsoft ACPI-Compliant System
 (ISA) 0x00000070 (112)	Microsoft ACPI-Compliant System
 (ISA) 0x00000071 (113)	Microsoft ACPI-Compliant System
 (ISA) 0x00000072 (114)	Microsoft ACPI-Compliant System
 (ISA) 0x00000073 (115)	Microsoft ACPI-Compliant System
 (ISA) 0x00000074 (116)	Microsoft ACPI-Compliant System
 (ISA) 0x00000075 (117)	Microsoft ACPI-Compliant System
 (ISA) 0x00000076 (118)	Microsoft ACPI-Compliant System
 (ISA) 0x00000077 (119)	Microsoft ACPI-Compliant System
 (ISA) 0x00000078 (120)	Microsoft ACPI-Compliant System
 (ISA) 0x00000079 (121)	Microsoft ACPI-Compliant System
 (ISA) 0x0000007A (122)	Microsoft ACPI-Compliant System
 (ISA) 0x0000007B (123)	Microsoft ACPI-Compliant System
 (ISA) 0x0000007C (124)	Microsoft ACPI-Compliant System
 (ISA) 0x0000007D (125)	Microsoft ACPI-Compliant System
 (ISA) 0x0000007E (126)	Microsoft ACPI-Compliant System
 (ISA) 0x0000007F (127)	Microsoft ACPI-Compliant System
 (ISA) 0x00000080 (128)	Microsoft ACPI-Compliant System
 (ISA) 0x00000081 (129)	Microsoft ACPI-Compliant System
 (ISA) 0x00000082 (130)	Microsoft ACPI-Compliant System
 (ISA) 0x00000083 (131)	Microsoft ACPI-Compliant System
 (ISA) 0x00000084 (132)	Microsoft ACPI-Compliant System
 (ISA) 0x00000085 (133)	Microsoft ACPI-Compliant System
 (ISA) 0x00000086 (134)	Microsoft ACPI-Compliant System
 (ISA) 0x00000087 (135)	Microsoft ACPI-Compliant System
 (ISA) 0x00000088 (136)	Microsoft ACPI-Compliant System
 (ISA) 0x00000089 (137)	Microsoft ACPI-Compliant System
 (ISA) 0x0000008A (138)	Microsoft ACPI-Compliant System
 (ISA) 0x0000008B (139)	Microsoft ACPI-Compliant System
 (ISA) 0x0000008C (140)	Microsoft ACPI-Compliant System
 (ISA) 0x0000008D (141)	Microsoft ACPI-Compliant System
 (ISA) 0x0000008E (142)	Microsoft ACPI-Compliant System

 (ISA) 0x0000008E (142)	Microsoft ACPI-Compliant System
 (ISA) 0x0000008F (143)	Microsoft ACPI-Compliant System
 (ISA) 0x00000090 (144)	Microsoft ACPI-Compliant System
 (ISA) 0x00000091 (145)	Microsoft ACPI-Compliant System
 (ISA) 0x00000092 (146)	Microsoft ACPI-Compliant System
 (ISA) 0x00000093 (147)	Microsoft ACPI-Compliant System
 (ISA) 0x00000094 (148)	Microsoft ACPI-Compliant System
 (ISA) 0x00000095 (149)	Microsoft ACPI-Compliant System
 (ISA) 0x00000096 (150)	Microsoft ACPI-Compliant System
 (ISA) 0x00000097 (151)	Microsoft ACPI-Compliant System
 (ISA) 0x00000098 (152)	Microsoft ACPI-Compliant System
 (ISA) 0x00000099 (153)	Microsoft ACPI-Compliant System
 (ISA) 0x0000009A (154)	Microsoft ACPI-Compliant System
 (ISA) 0x0000009B (155)	Microsoft ACPI-Compliant System
 (ISA) 0x0000009C (156)	Microsoft ACPI-Compliant System
 (ISA) 0x0000009D (157)	Microsoft ACPI-Compliant System
 (ISA) 0x0000009E (158)	Microsoft ACPI-Compliant System
 (ISA) 0x0000009F (159)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A0 (160)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A1 (161)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A2 (162)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A3 (163)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A4 (164)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A5 (165)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A6 (166)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A7 (167)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A8 (168)	Microsoft ACPI-Compliant System
 (ISA) 0x000000A9 (169)	Microsoft ACPI-Compliant System
 (ISA) 0x000000AA (170)	Microsoft ACPI-Compliant System
 (ISA) 0x000000AB (171)	Microsoft ACPI-Compliant System
 (ISA) 0x000000AC (172)	Microsoft ACPI-Compliant System
 (ISA) 0x000000AD (173)	Microsoft ACPI-Compliant System
 (ISA) 0x000000AE (174)	Microsoft ACPI-Compliant System
 (ISA) 0x000000AF (175)	Microsoft ACPI-Compliant System
 (ISA) 0x000000B0 (176)	Microsoft ACPI-Compliant System

	(ISA) 0x000000B0 (176)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B1 (177)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B2 (178)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B3 (179)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B4 (180)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B5 (181)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B6 (182)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B7 (183)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B8 (184)	Microsoft ACPI-Compliant System
	(ISA) 0x000000B9 (185)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BA (186)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BB (187)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BC (188)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BD (189)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BE (190)	Microsoft ACPI-Compliant System
	(ISA) 0x000000BF (191)	Microsoft ACPI-Compliant System
	(ISA) 0x00000100 (256)	Microsoft ACPI-Compliant System
	(ISA) 0x00000101 (257)	Microsoft ACPI-Compliant System
	(ISA) 0x00000102 (258)	Microsoft ACPI-Compliant System
	(ISA) 0x00000103 (259)	Microsoft ACPI-Compliant System
	(ISA) 0x00000104 (260)	Microsoft ACPI-Compliant System
	(ISA) 0x00000105 (261)	Microsoft ACPI-Compliant System
	(ISA) 0x00000106 (262)	Microsoft ACPI-Compliant System
	(ISA) 0x00000107 (263)	Microsoft ACPI-Compliant System
	(ISA) 0x00000108 (264)	Microsoft ACPI-Compliant System
	(ISA) 0x00000109 (265)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010A (266)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010B (267)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010C (268)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010D (269)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010E (270)	Microsoft ACPI-Compliant System
	(ISA) 0x0000010F (271)	Microsoft ACPI-Compliant System
	(ISA) 0x00000110 (272)	Microsoft ACPI-Compliant System
	(ISA) 0x00000111 (273)	Microsoft ACPI-Compliant System
	(ISA) 0x00000112 (274)	Microsoft ACPI-Compliant System

 (ISA) 0x00000111 (273)	Microsoft ACPI-Compliant System
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 (ISA) 0x00000114 (276)	Microsoft ACPI-Compliant System
 (ISA) 0x00000115 (277)	Microsoft ACPI-Compliant System
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 (ISA) 0x00000119 (281)	Microsoft ACPI-Compliant System
 (ISA) 0x0000011A (282)	Microsoft ACPI-Compliant System
 (ISA) 0x0000011B (283)	Microsoft ACPI-Compliant System
 (ISA) 0x0000011C (284)	Microsoft ACPI-Compliant System
 (ISA) 0x0000011D (285)	Microsoft ACPI-Compliant System
 (ISA) 0x0000011E (286)	Microsoft ACPI-Compliant System
 (ISA) 0x0000011F (287)	Microsoft ACPI-Compliant System
 (ISA) 0x00000120 (288)	Microsoft ACPI-Compliant System
 (ISA) 0x00000121 (289)	Microsoft ACPI-Compliant System
 (ISA) 0x00000122 (290)	Microsoft ACPI-Compliant System
 (ISA) 0x00000123 (291)	Microsoft ACPI-Compliant System
 (ISA) 0x00000124 (292)	Microsoft ACPI-Compliant System
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 (ISA) 0x00000126 (294)	Microsoft ACPI-Compliant System
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 (ISA) 0x0000012B (299)	Microsoft ACPI-Compliant System
 (ISA) 0x0000012C (300)	Microsoft ACPI-Compliant System
 (ISA) 0x0000012D (301)	Microsoft ACPI-Compliant System
 (ISA) 0x0000012E (302)	Microsoft ACPI-Compliant System
 (ISA) 0x0000012F (303)	Microsoft ACPI-Compliant System
 (ISA) 0x00000130 (304)	Microsoft ACPI-Compliant System
 (ISA) 0x00000131 (305)	Microsoft ACPI-Compliant System
 (ISA) 0x00000132 (306)	Microsoft ACPI-Compliant System
 (ISA) 0x00000133 (307)	Microsoft ACPI-Compliant System

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 (ISA) 0x00000138 (312)	Microsoft ACPI-Compliant System
 (ISA) 0x00000139 (313)	Microsoft ACPI-Compliant System
 (ISA) 0x0000013A (314)	Microsoft ACPI-Compliant System
 (ISA) 0x0000013B (315)	Microsoft ACPI-Compliant System
 (ISA) 0x0000013C (316)	Microsoft ACPI-Compliant System
 (ISA) 0x0000013D (317)	Microsoft ACPI-Compliant System
 (ISA) 0x0000013E (318)	Microsoft ACPI-Compliant System
 (ISA) 0x0000013F (319)	Microsoft ACPI-Compliant System
 (ISA) 0x00000140 (320)	Microsoft ACPI-Compliant System
 (ISA) 0x00000141 (321)	Microsoft ACPI-Compliant System
 (ISA) 0x00000142 (322)	Microsoft ACPI-Compliant System
 (ISA) 0x00000143 (323)	Microsoft ACPI-Compliant System
 (ISA) 0x00000144 (324)	Microsoft ACPI-Compliant System
 (ISA) 0x00000145 (325)	Microsoft ACPI-Compliant System
 (ISA) 0x00000146 (326)	Microsoft ACPI-Compliant System
 (ISA) 0x00000147 (327)	Microsoft ACPI-Compliant System
 (ISA) 0x00000148 (328)	Microsoft ACPI-Compliant System
 (ISA) 0x00000149 (329)	Microsoft ACPI-Compliant System
 (ISA) 0x0000014A (330)	Microsoft ACPI-Compliant System
 (ISA) 0x0000014B (331)	Microsoft ACPI-Compliant System
 (ISA) 0x0000014C (332)	Microsoft ACPI-Compliant System
 (ISA) 0x0000014D (333)	Microsoft ACPI-Compliant System
 (ISA) 0x0000014E (334)	Microsoft ACPI-Compliant System
 (ISA) 0x0000014F (335)	Microsoft ACPI-Compliant System
 (ISA) 0x00000150 (336)	Microsoft ACPI-Compliant System
 (ISA) 0x00000151 (337)	Microsoft ACPI-Compliant System
 (ISA) 0x00000152 (338)	Microsoft ACPI-Compliant System
 (ISA) 0x00000153 (339)	Microsoft ACPI-Compliant System
 (ISA) 0x00000154 (340)	Microsoft ACPI-Compliant System

 (ISA) 0x00000153 (339)	Microsoft ACPI-Compliant System
 (ISA) 0x00000154 (340)	Microsoft ACPI-Compliant System
 (ISA) 0x00000155 (341)	Microsoft ACPI-Compliant System
 (ISA) 0x00000156 (342)	Microsoft ACPI-Compliant System
 (ISA) 0x00000157 (343)	Microsoft ACPI-Compliant System
 (ISA) 0x00000158 (344)	Microsoft ACPI-Compliant System
 (ISA) 0x00000159 (345)	Microsoft ACPI-Compliant System
 (ISA) 0x0000015A (346)	Microsoft ACPI-Compliant System
 (ISA) 0x0000015B (347)	Microsoft ACPI-Compliant System
 (ISA) 0x0000015C (348)	Microsoft ACPI-Compliant System
 (ISA) 0x0000015D (349)	Microsoft ACPI-Compliant System
 (ISA) 0x0000015E (350)	Microsoft ACPI-Compliant System
 (ISA) 0x0000015F (351)	Microsoft ACPI-Compliant System
 (ISA) 0x00000160 (352)	Microsoft ACPI-Compliant System
 (ISA) 0x00000161 (353)	Microsoft ACPI-Compliant System
 (ISA) 0x00000162 (354)	Microsoft ACPI-Compliant System
 (ISA) 0x00000163 (355)	Microsoft ACPI-Compliant System
 (ISA) 0x00000164 (356)	Microsoft ACPI-Compliant System
 (ISA) 0x00000165 (357)	Microsoft ACPI-Compliant System
 (ISA) 0x00000166 (358)	Microsoft ACPI-Compliant System
 (ISA) 0x00000167 (359)	Microsoft ACPI-Compliant System
 (ISA) 0x00000168 (360)	Microsoft ACPI-Compliant System
 (ISA) 0x00000169 (361)	Microsoft ACPI-Compliant System
 (ISA) 0x0000016A (362)	Microsoft ACPI-Compliant System
 (ISA) 0x0000016B (363)	Microsoft ACPI-Compliant System
 (ISA) 0x0000016C (364)	Microsoft ACPI-Compliant System
 (ISA) 0x0000016D (365)	Microsoft ACPI-Compliant System
 (ISA) 0x0000016E (366)	Microsoft ACPI-Compliant System
 (ISA) 0x0000016F (367)	Microsoft ACPI-Compliant System
 (ISA) 0x00000170 (368)	Microsoft ACPI-Compliant System
 (ISA) 0x00000171 (369)	Microsoft ACPI-Compliant System
 (ISA) 0x00000172 (370)	Microsoft ACPI-Compliant System
 (ISA) 0x00000173 (371)	Microsoft ACPI-Compliant System
 (ISA) 0x00000174 (372)	Microsoft ACPI-Compliant System
 (ISA) 0x00000175 (373)	Microsoft ACPI-Compliant System

 (ISA) 0x00000174 (372)	Microsoft ACPI-Compliant System
 (ISA) 0x00000175 (373)	Microsoft ACPI-Compliant System
 (ISA) 0x00000176 (374)	Microsoft ACPI-Compliant System
 (ISA) 0x00000177 (375)	Microsoft ACPI-Compliant System
 (ISA) 0x00000178 (376)	Microsoft ACPI-Compliant System
 (ISA) 0x00000179 (377)	Microsoft ACPI-Compliant System
 (ISA) 0x0000017A (378)	Microsoft ACPI-Compliant System
 (ISA) 0x0000017B (379)	Microsoft ACPI-Compliant System
 (ISA) 0x0000017C (380)	Microsoft ACPI-Compliant System
 (ISA) 0x0000017D (381)	Microsoft ACPI-Compliant System
 (ISA) 0x0000017E (382)	Microsoft ACPI-Compliant System
 (ISA) 0x0000017F (383)	Microsoft ACPI-Compliant System
 (ISA) 0x00000180 (384)	Microsoft ACPI-Compliant System
 (ISA) 0x00000181 (385)	Microsoft ACPI-Compliant System
 (ISA) 0x00000182 (386)	Microsoft ACPI-Compliant System
 (ISA) 0x00000183 (387)	Microsoft ACPI-Compliant System
 (ISA) 0x00000184 (388)	Microsoft ACPI-Compliant System
 (ISA) 0x00000185 (389)	Microsoft ACPI-Compliant System
 (ISA) 0x00000186 (390)	Microsoft ACPI-Compliant System
 (ISA) 0x00000187 (391)	Microsoft ACPI-Compliant System
 (ISA) 0x00000188 (392)	Microsoft ACPI-Compliant System
 (ISA) 0x00000189 (393)	Microsoft ACPI-Compliant System
 (ISA) 0x0000018A (394)	Microsoft ACPI-Compliant System
 (ISA) 0x0000018B (395)	Microsoft ACPI-Compliant System
 (ISA) 0x0000018C (396)	Microsoft ACPI-Compliant System
 (ISA) 0x0000018D (397)	Microsoft ACPI-Compliant System
 (ISA) 0x0000018E (398)	Microsoft ACPI-Compliant System
 (ISA) 0x0000018F (399)	Microsoft ACPI-Compliant System
 (ISA) 0x00000190 (400)	Microsoft ACPI-Compliant System
 (ISA) 0x00000191 (401)	Microsoft ACPI-Compliant System
 (ISA) 0x00000192 (402)	Microsoft ACPI-Compliant System
 (ISA) 0x00000193 (403)	Microsoft ACPI-Compliant System
 (ISA) 0x00000194 (404)	Microsoft ACPI-Compliant System
 (ISA) 0x00000195 (405)	Microsoft ACPI-Compliant System
 (ISA) 0x00000196 (406)	Microsoft ACPI-Compliant System

 (ISA) 0x00000195 (405)	Microsoft ACPI-Compliant System
 (ISA) 0x00000196 (406)	Microsoft ACPI-Compliant System
 (ISA) 0x00000197 (407)	Microsoft ACPI-Compliant System
 (ISA) 0x00000198 (408)	Microsoft ACPI-Compliant System
 (ISA) 0x00000199 (409)	Microsoft ACPI-Compliant System
 (ISA) 0x0000019A (410)	Microsoft ACPI-Compliant System
 (ISA) 0x0000019B (411)	Microsoft ACPI-Compliant System
 (ISA) 0x0000019C (412)	Microsoft ACPI-Compliant System
 (ISA) 0x0000019D (413)	Microsoft ACPI-Compliant System
 (ISA) 0x0000019E (414)	Microsoft ACPI-Compliant System
 (ISA) 0x0000019F (415)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A0 (416)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A1 (417)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A2 (418)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A3 (419)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A4 (420)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A5 (421)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A6 (422)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A7 (423)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A8 (424)	Microsoft ACPI-Compliant System
 (ISA) 0x000001A9 (425)	Microsoft ACPI-Compliant System
 (ISA) 0x000001AA (426)	Microsoft ACPI-Compliant System
 (ISA) 0x000001AB (427)	Microsoft ACPI-Compliant System
 (ISA) 0x000001AC (428)	Microsoft ACPI-Compliant System
 (ISA) 0x000001AD (429)	Microsoft ACPI-Compliant System
 (ISA) 0x000001AE (430)	Microsoft ACPI-Compliant System
 (ISA) 0x000001AF (431)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B0 (432)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B1 (433)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B2 (434)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B3 (435)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B4 (436)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B5 (437)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B6 (438)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B7 (439)	Microsoft ACPI-Compliant System

 (ISA) 0x000001B6 (438)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B7 (439)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B8 (440)	Microsoft ACPI-Compliant System
 (ISA) 0x000001B9 (441)	Microsoft ACPI-Compliant System
 (ISA) 0x000001BA (442)	Microsoft ACPI-Compliant System
 (ISA) 0x000001BB (443)	Microsoft ACPI-Compliant System
 (ISA) 0x000001BC (444)	Microsoft ACPI-Compliant System
 (ISA) 0x000001BD (445)	Microsoft ACPI-Compliant System
 (ISA) 0x000001BE (446)	Microsoft ACPI-Compliant System
 (ISA) 0x000001BF (447)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C0 (448)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C1 (449)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C2 (450)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C3 (451)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C4 (452)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C5 (453)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C6 (454)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C7 (455)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C8 (456)	Microsoft ACPI-Compliant System
 (ISA) 0x000001C9 (457)	Microsoft ACPI-Compliant System
 (ISA) 0x000001CA (458)	Microsoft ACPI-Compliant System
 (ISA) 0x000001CB (459)	Microsoft ACPI-Compliant System
 (ISA) 0x000001CC (460)	Microsoft ACPI-Compliant System
 (ISA) 0x000001CD (461)	Microsoft ACPI-Compliant System
 (ISA) 0x000001CE (462)	Microsoft ACPI-Compliant System
 (ISA) 0x000001CF (463)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D0 (464)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D1 (465)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D2 (466)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D3 (467)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D4 (468)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D5 (469)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D6 (470)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D7 (471)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D8 (472)	Microsoft ACPI-Compliant System

 (ISA) 0x000001D7 (471)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D8 (472)	Microsoft ACPI-Compliant System
 (ISA) 0x000001D9 (473)	Microsoft ACPI-Compliant System
 (ISA) 0x000001DA (474)	Microsoft ACPI-Compliant System
 (ISA) 0x000001DB (475)	Microsoft ACPI-Compliant System
 (ISA) 0x000001DC (476)	Microsoft ACPI-Compliant System
 (ISA) 0x000001DD (477)	Microsoft ACPI-Compliant System
 (ISA) 0x000001DE (478)	Microsoft ACPI-Compliant System
 (ISA) 0x000001DF (479)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E0 (480)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E1 (481)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E2 (482)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E3 (483)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E4 (484)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E5 (485)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E6 (486)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E7 (487)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E8 (488)	Microsoft ACPI-Compliant System
 (ISA) 0x000001E9 (489)	Microsoft ACPI-Compliant System
 (ISA) 0x000001EA (490)	Microsoft ACPI-Compliant System
 (ISA) 0x000001EB (491)	Microsoft ACPI-Compliant System
 (ISA) 0x000001EC (492)	Microsoft ACPI-Compliant System
 (ISA) 0x000001ED (493)	Microsoft ACPI-Compliant System
 (ISA) 0x000001EE (494)	Microsoft ACPI-Compliant System
 (ISA) 0x000001EF (495)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F0 (496)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F1 (497)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F2 (498)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F3 (499)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F4 (500)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F5 (501)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F6 (502)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F7 (503)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F8 (504)	Microsoft ACPI-Compliant System
 (ISA) 0x000001F9 (505)	Microsoft ACPI-Compliant System

	(ISA) 0x000001EF (495)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F0 (496)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F1 (497)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F2 (498)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F3 (499)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F4 (500)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F5 (501)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F6 (502)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F7 (503)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F8 (504)	Microsoft ACPI-Compliant System
	(ISA) 0x000001F9 (505)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FA (506)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FB (507)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FC (508)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FD (509)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FE (510)	Microsoft ACPI-Compliant System
	(ISA) 0x000001FF (511)	Microsoft ACPI-Compliant System
	(PCI) 0x00000005 (05)	Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor Platform Control Unit - SMBus Port - 0F12
	(PCI) 0x00000010 (16)	Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor PCI Express - Root Port 1 - 0F48
	(PCI) 0x00000011 (17)	Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor PCI Express - Root Port 2 - 0F4A
	(PCI) 0x00000012 (18)	Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor PCI Express - Root Port 3 - 0F4C
	(PCI) 0x00000013 (19)	Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor AHCI - 0F23
	(PCI) 0x00000013 (19)	Intel(R) Atom(TM)/Celeron(R)/Pentium(R) Processor PCI Express - Root Port 4 - 0F4E
	(PCI) 0x00000016 (22)	High Definition Audio Controller
	(PCI) 0xFFFFFFFF7 (-9)	Intel(R) Trusted Execution Engine Interface
	(PCI) 0xFFFFFFFF8 (-8)	Intel(R) I211 Gigabit Network Connection
	(PCI) 0xFFFFFFFF9 (-7)	Intel(R) I211 Gigabit Network Connection
	(PCI) 0xFFFFFFFFFA (-6)	Intel(R) I211 Gigabit Network Connection
	(PCI) 0xFFFFFFFFFB (-5)	Intel(R) I211 Gigabit Network Connection
	(PCI) 0xFFFFFFFFFC (-4)	Intel(R) I211 Gigabit Network Connection
	(PCI) 0xFFFFFFFFFD (-3)	Intel(R) I211 Gigabit Network Connection
	(PCI) 0xFFFFFFFFFE (-2)	Intel(R) USB 3.0 eXtensible Host Controller - 0100 (Microsoft)
Memory		
	[000A0000 - 000BFFFF] Microsoft Basic Display Adapter	
	[000A0000 - 000BFFFF] PCI Express Root Complex	

Appendix B

Electrical Specifications for I/O Ports

B.1 Electrical Specifications for I/O Ports

I/O	Reference	Signal Name	Rate Output
VGA	CN3	VGA: +5V	+5V/0.5A
LVDS Port Inverter / Backlight Connector	CN5	VDD	+5V/2A or +12V/2A
GPIO Port	CN8	D0~D3	+5V/(Open drain)
Mini-Card Slot	CN9	+3.3VSB +1.5V	+3.3V/1.1A +1.5V/0.375A
USB 3.0 Port 1 & 2	CN10	+5VSB	+5VSB/1A (per channel)
USB 2.0 Port 3	CN11	+5VSB	+5VSB/0.5A
+5V Output for SATA HDD	CN14	+5V	+5V/1A
Port 80 Debug Port	CN18	+3.3V	+3.3V/0.5A
COM Port 2	CN23	+5V/+12V	+5V/1A or +12V/1A
Mini-Card Slot	CN24	+3.3VSB +1.5V	+3.3V/1.1A +1.5V/0.375A
LVDS Port	CN25	VCC	+3.3V/2A or +5V/2A

Appendix C

Mating Connectors

C.1 List of Mating Connectors and Cables

The table notes mating connectors and available cables.

Conn Label	Function	Mating Connector		Available Cable	Cable P/N
		Vendor	Model no		
CN1	Battery	Molex	51021-0200	Battery Cable	175011901M
CN2	DDR3 204PIN SKT	Transcend	TS1GSK64W6H-I		NA
CN3	VGA Connector	SUNBOX	VGA Cable		NA
CN4	DP Connector	Molex	0687830007		NA
CN5	LVDS Port Inverter / Backlight Connector	JST	PHR-5		NA
CN7	LAN Connector	Molex	44915-0001		NA
CN8	GPIO Port	Molex	79107-7002		NA
CN9	Mini-Card Slot (Full-Mini Card)	Transcend	TS64GMSM360I		NA
CN10	USB 3.0 Connector	Foxconn	UEA20103-4EK3-7F		NA
CN11	USB Connector	Molex	51021-0500	USB Cable	1700050207
CN14	+5V Output for SATA HDD	JST	PHR-2	SATA power cable	1702150155
CN15	SATA Port	Molex	887505318	SATA Cable	NA
CN18	Port 80 Debug Port	JST	SHR-12V-S-B	AAEON Port 80 Debug Port Cable	1703120130
CN19	Front Panel Connector	Molex	538-79107-7004	Front Panel Cable	1701100156
CN20	External +12V Input	Molex	19211-0003	Power cable	170204010R
CN21	Buzzer connector	Molex	51021-0200	Buzzer Cable	170302010C
CN22	BIO connector	Hirose	FX18-80S-0.8SV20		N/A
CN23	COM Port 1/2 & line out connector	Hirose	DF14-20S-1.25C	COM Port 1/2 & line out cable	1703200153
CN24	Mini-Card Slot (Half-Mini Card)	Intel	7260HMMW		NA
CN25	LVDS Port	Hirose	DF14-20S-1.25C	LVDS cable	170430015A