CSB200-897

SBC Fanless System
Slim Type System with IBASE IB897 3.5" Disk-Size SBC







Features

- Fanless system with IBASE IB897 3.5" Disk-Size SBC
- Onboard Intel® Atom™ Processor E3845 SoC, 1.91GHz
- iSMART- for auto-scheduler and power resume
- Wide-range operating temperature from -30°C to 60°C
- 12V~24V DC wide-range power input
- Supports 2x Mini PCI-E (1x full-size & 1x half size)
- Supports 1x 2.5" SATA HDD or SSD
- Wall mount kit included

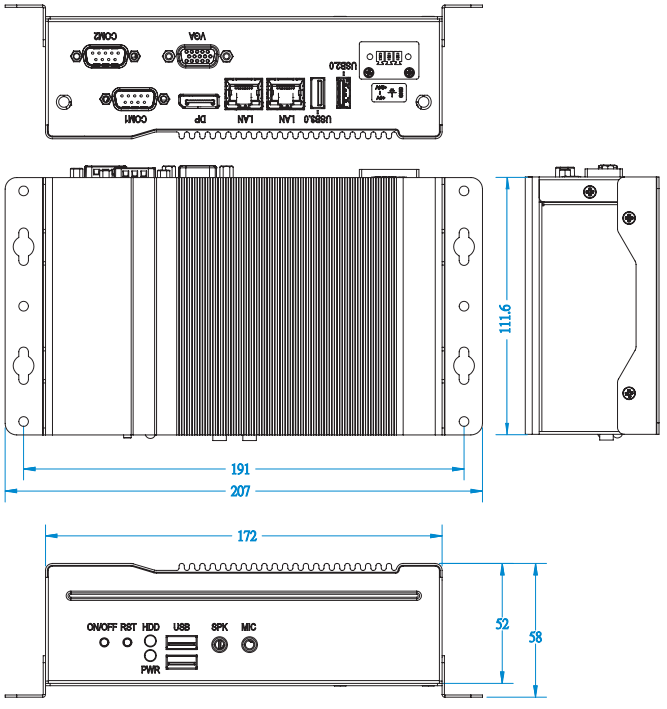
Specifications

System Mainboard	IB897-I45P
CPU Type	Intel® Atom™ QC Processor E3845
System Speed	1.91GHz
Memory	2x 2GB DDR3L-1333 SO-DIMM, Max. 8GB
Construction	Aluminum & steel
Chassis Color	Black
Front Panel External I/O	1x Power LED 1x HDD LED 1x Power button 1x Reset button 2x USB 2.0 ports 1x Line-out, 1x Mic-in
Rear Panel External I/O	1x USB 2.0 port 1x USB 3.0 port 1x DisplayPort 1x VGA port 2x DB9 for COM1(RS232/422/485, select from BIOS) / COM2 2x RJ45 GbE connector 1x DC jack with lock or terminal block (12V~24V DC)
Storage	1x 2.5" HDD or SSD
Power Supply	Optional 60W power adaptor
Mounting	Desktop or wall mount (wall mount kit included)
Dimensions	172mm (W) x 111.6mm (D) x 52mm (H) 6.77"(W) x 4.39"(D) x 2.05"(H)
Operating Temperature	-10°C~ 50°C (14°F~122°F) (With HDD) -30°C~60°C (22°F~140°F) (With SSD)
Storage Temperature	-20°C ~ 80°C (-4°F~176°F)
Relative Humidity	5~90% @ 45°C, (non-condensing)
Vibration	Operating: 0.25Grms / 5~500Hz Non-operating: 1Grms / 5~500Hz
Shock	Operating: 20G / 11ms Non-operating: 40G / 11ms
Certification	CE / LVD / FCC Class B / CCC

Ordering Information

CSB200-897	Fanless chassis with IB897-I45P, Intel® Atom™ E3845 SoC (1.91GHz), 2x COM, 2x 2GB DDR3L memory, 2.5" 320GB SATA HDD (w/o 60W power adaptor)
CSB200-897-IT	Fanless chassis with IB897-I45P, Intel® Atom™ E3845 SoC (1.91GHz), 2x COM, 2x 2GB DDR3L memory, 2.5" 64GB industrial-grade SSD (w/o 60W power adaptor)

Dimensions and Drawing



Remarks: 1. Specifications are subject to change without prior notice. 2. ODM/OEM is available. 3. For user's manual & datasheet download, visit www.ibase.com.tw.

CSB200-897

User Manual

2015 Aug Ver. A1

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Safety Information

Your CSB200-897 is designed and tested to meet the latest standards of safety for information technology equipment. However, to ensure your safety, it is important that you read the following safety instructions

Setting up your system

- Read and follow all instructions in the documentation before you operate your system.
- Do not use this product near water.
- Set up the system on a stable surface. Do not secure the system on any unstable plane.
- Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.
- Slots and openings on the chassis are for ventilation. Do not block or cover these openings. Make sure you leave plenty of space around the system for ventilation. ***Never insert objects of any kind into the ventilation openings***.
- This system should be operated from the type of power indicated on the marking label. If you are not sure of the type of power available, consult your dealer or local power company.
- Use this product in environments with ambient temperatures between 0˚C and 40˚C.
- If you use an extension cord, make sure that the total ampere rating of the devices plugged into the extension cord does not exceed its ampere rating.
- DO NOT LEAVE THIS EQUIPMENT IN AN ENVIRONMENT WHERE THESTORAGE TEMPERATURE MAY GO BELOW -20° C (-4° F) OR ABOVE 80° C (176° F). THIS COULD DAMAGE THE EQUIPMENT. THE EQUIPMENT SHOULD BE IN A CONTROLLED ENVIRONMENT.

Care during use

- Do not walk on the power cord or allow anything to rest on it.
- Do not spill water or any other liquids on your system.
- When the system is turned off, a small amount of electrical current still flows. Always unplug all power, and network cables from the power outlets before cleaning the system.
- If you encounter the following technical problems with the product, unplug the power cord and contact a qualified service technician or your retailer.
  - The power cord or plug is damaged.
  - Liquid has been spilled into the system.
  - The system does not function properly even if you follow the operating instructions.
  - The system was dropped or the cabinet is damaged.

Lithium-Ion Battery Warning

CAUTION: Danger of explosion if 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.

NO DISASSEMBLY

The warranty does not apply to the products that have been disassembled by users

WARNING
HAZARDOUS MOVING PARTS
KEEP FINGERS AND OTHER BODY PARTS AWAY

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CHAPTER 1 INTRODUCTION

1.1 General Description

The fanless CSB200-897 system comes with the IB897 3.5-inch SBC and integrates the Intel® Atom™ E3845 processor that featuring 22nm microarchitecture and 3-D Tri-Gate transistors. With unparalleled reliability, the 1.91GHz processor allows the CSB200-897 to operate in wide temperatures at -30°C to +60°C in harsh industrial environments for 24/7 operation. The CSB200-897 is ideal for IOT (Internet of Things), factory automation, In-vehicle and other rugged applications that could utilize its 12V to 24V DC wide-range power input.

Incorporating the E3845 system-on-chip (SoC), the CSB200-897 comes on board with two pieces of 2GB DDR3L-133 SO-DIMM memory. The maximum system memory capacity is 8GB. Moreover, it comes with a variety of functional interface at the rear panel including one USB 2.0, one USB 3.0, DisplayPort, CRT VGA, two serial ports, two Gigabit LAN, and one DC jack connector or a terminal block for 12V~24V DC input.

Measuring 172mm(w) by 112mm(d) by 52mm(h), the black CSB200-897 unit comes with a wall mount kit and optional 60W power adaptor. The model is currently available with either a 2.5-inch 320GB SATA HDD or 64GB industrial grade SSD. Expansion is provided by two Mini PCI-E slots. All units feature IBASE's iSMART green technology for power on/off scheduling and power resume functions.



1.2 System Specifications

1.2.1 Hardware Specifications

Engineer Specifications

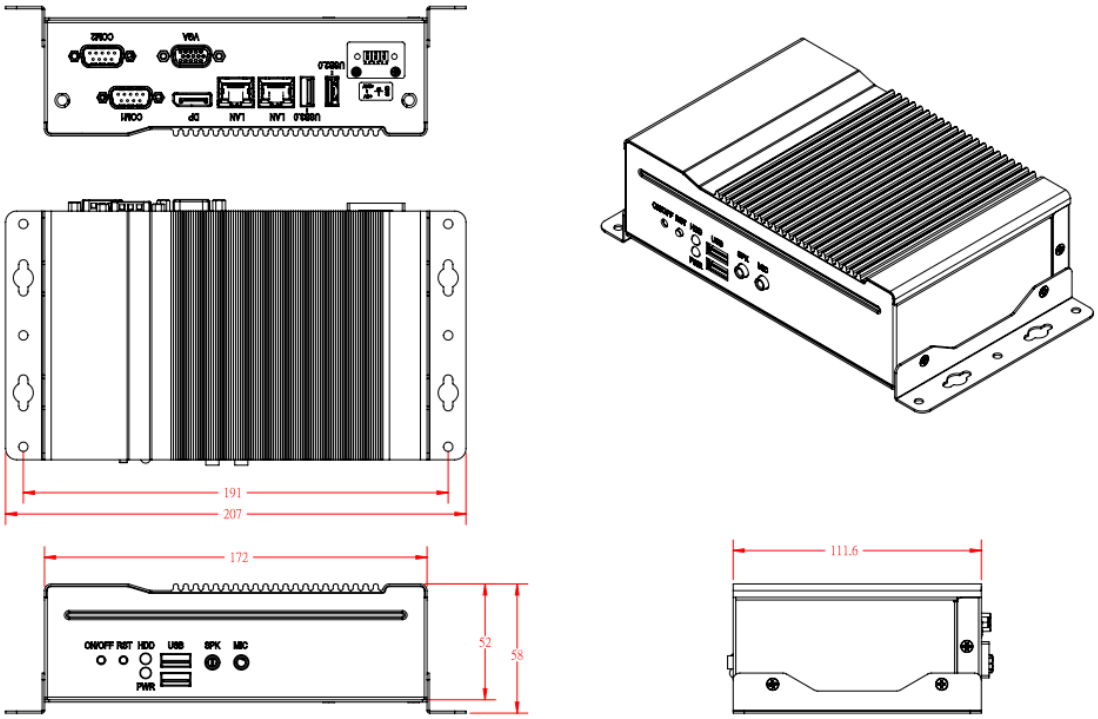
Product Name	**CSB200-897** **CSB200-897-IT**
Motherboard	IB897
CPU type	Intel® Atom™ QC E3845 [TDP=10W] (IB897-I45) Intel® Atom™ DC E3827 [TDP=8W] (IB897-I27)
Chipset	Integrated in SoC
Memory	Intel ® Atom ™ E3800 SoC processor integrated memory controller - DDR3L (1.35V) @1600 MHz , SO-DIMM [204-pin horizontal type] x **2** - Max. 8GB , Non-ECC *memory module with heatsink* [opional]
Storage	1 x 2.5” SATA HDD 2.5” 320GB 5400RPM Toshiba MQ01ABF032 HDD
Front Panel I/O	- 1 x HDD LED - 1 x PWR LED - 1 x RST Button - 1 x ON/OFF Button - 2 x USB2.0 ports - 1 x Line-out port - 1 x MIC-in port 2 x DB9 broken hole [reserved]
Rear Panel I/O	2 x Antenna reserved on real panel 1 x COM Port [thru pin header] 1 x DB15 for VGA port [thru pin header] 1 x 12V~24V DC-in (Terminal block 3 pins) 1 x DC jack with lock (share Terminal 3 pins space) 1 x DB9 for COM#1(RS232/422/485, select from BIOS) 1 x USB 3.0 port 1 x USB2.0 port 2 x RJ-45 GbE Connector

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	1 x Display Port
Power Adaptor [optional]	DPS-60PBA-A00 60W Power Adapter Input Voltage: 90~264V Input Frequency: 47~63Hz Output Voltage: 12V/5A
Mounting	Desktop or wall mount
Chassis Material	Aluminum & Steel
Chassis Color	Black
External dimensions	172 (W) x ~111.6 (D) x 52 (H) mm
Operating Temperature	-30°C~60°C (22°F~140°F) [with 2.5” SSD] -10°C~50°C (14°F~122°F) [with 2.5” HDD]
Storage Temperature	-20°C~80°C (-4°F~176°F)
Relative Humidity	5%~90%@45°C (non-condensing)
Vibration	Operating : 0.25Grms / 5~500Hz Non-operating : 1Grms / 5~500Hz
Shock	Operating : 20G / 11ms Non-operating : 40G / 11ms
Certification	CE / LVD / FCC / CCC / UL-CB
Regulation	RoHS 2.0
Eup/Erp function	N/A

·This specification is subject to change without prior notice.

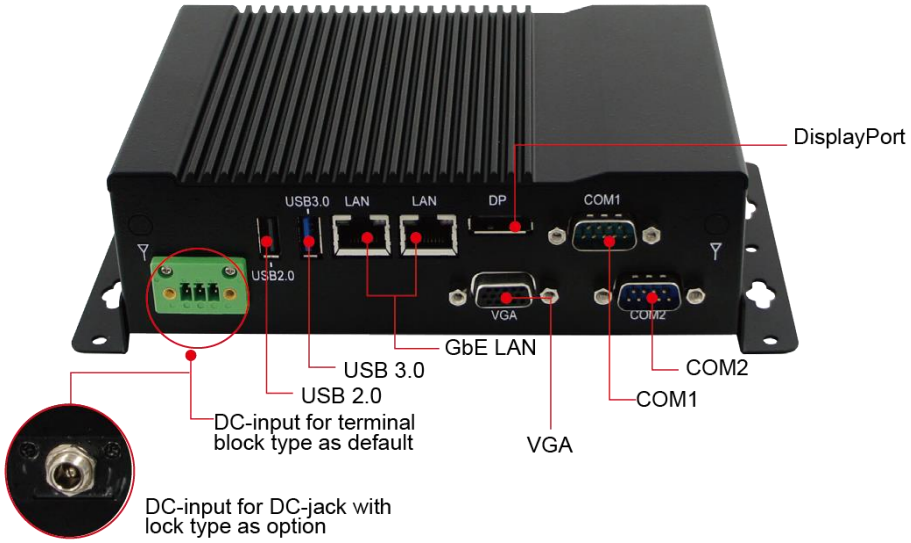
1.2.2 Dimensions



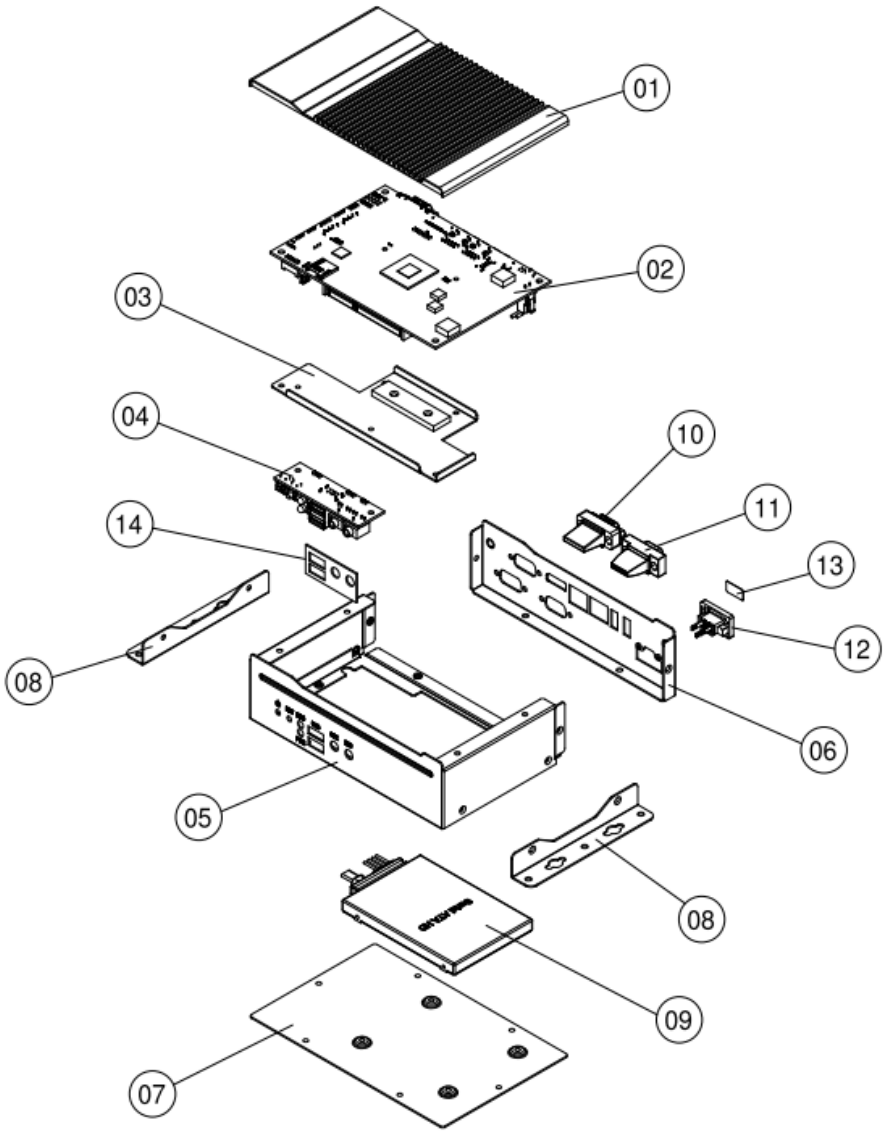
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1.2.3 I/O View


ON/OFF RST HDD USB SPK MIC
PWR
Power button
Reset button
USB 2.0
Audio


USB3.0 LAN LAN DP COM1
USB2.0
VGA
COM2
DisplayPort
GbE LAN
USB 3.0
USB 2.0
COM2
COM1
DC-input for terminal block type as default
VGA
DC-input for DC-jack with lock type as option

1.3 Exploded View of the CSB200-897 Assembly



1.3.1 Parts Description

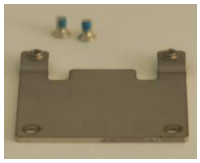
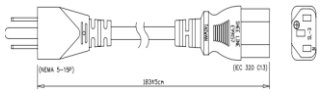
Part No.	Description	Part No.	Description
1	CSB200-897 Heatsink	2	DIP PCBA, IB897
3	Bracket for easier assembly	4	DIP PCBA, ID737A
5	BASE	6	CSB200-897_Front
7	Bottom side BASE	8	Wall mount bracket
9	2.5” HDD	10	COM port connector
11	VGA connector	12	Power input connector
13	Sticker_12V~24V	14	Gasket

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1.4 Packing List

Item No.	Description	Qty
1	Driver CD	1
2	User manual	1
3	Wall mount kit	2

1.4.1 Optional Items

WiFi Solution	Description	
WiFi module	WIRELESS;PCI-E MINI CARD 802.11B/G/N [AW-NE238H] (A008WLAWNE238H000P)	
External Antenna	WiFi Antenna (A055RFA02C2M20800P)	
Internal cable-1/2	From Wifi module to Rear/Front panel (A055RFA0000021000P/A055RFA0000032000P)	 
Bracket	MPCIE-EXT V-B1 Bracket, RoHS; Extend Half to Full size. (SC2MPCIEEXT0B1100P)	
3G Solution	**Description**	
ZU 202	Wireless; 3.75G UMTS/HSPA [ZU202] RoHS (A008WIRELESS00520P)	
ZU 200	Wireless; 3.75G UMTS/HSPA & GPS Module [ZU200] RoHS (A008WIRELESS00510P)	
Cable	Cable; Antenna-2 30CM P 2pcs (C501ANT0200300000P)	
Antenna	Antenna; 3G, P, 2pcs (A055ANT0921Q2P000P)	
Power kit	**Description**	
Power Adaptor	P/S; ADAPTER 60W 12V 2 PIN bare wire type, DPS-60PBA-A00] RoHS (A005PS060W0702000P)	
Power Cord	PW CORD; Chinese/American/Japan 3PIN 10A (A030PCAM040100000P)	

CHAPTER 2 MOTHERBOARD INTRODUCTION

2.1 Introduction

The IB897 is a 3.5-inch single board computer based on the Intel® Atom™ E3800 series SoC processors.

The IB897 platform is wide temperature for low-power and high-performance designs in a broad range of markets including Industrial Control & Automation, Digital Signage, Thin Client, Electronic Gaming Machines, and SMB storage appliances.

IB897 Features:

- Onboard Intel® Atom™ E3845/E3827 SoC 1.91GHz / 1.75GHz
- Two DDR3L SO-DIMM, 1333 MHz, Max. 8GB memory
- Integrated graphics for VGA, DisplayPort and 24 bit dual channel LVDS
- 2 x SATA II connector
- 2x COM port connector
- 2 x Mini-PCIe(x1) slots (1x Full-size, 1x Half size)
- Wide temperature operating supporting
- 1x 12V to 24V DC-IN power connector

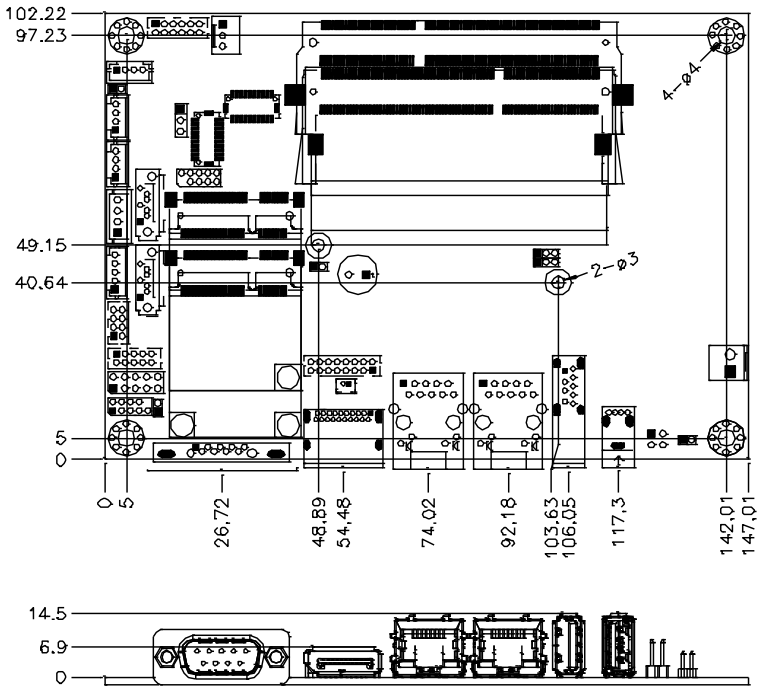
Product Name	**IB897**
Form Factor	3.5”
CPU Type	Intel® Atom™ QC E3845 [TDP=10W](IB897-I45) Intel® Atom™ DC E3827 [TDP=8W] (IB897-I27) Package = FCBGA1170,Type-3, 25mmx27mm, 22nm, Tj= -40˚ C to +110˚ C
CPU Speed	Intel ® Atom ™ QC E3845 (1.91GHz, 2MB cache) Intel ® Atom ™ DC E3827 (1.75GHz, 1MB cache)
Cache	Up to 2MB for IB897-I45P Up to 1MB for IB897-I27P
Chipset	Integratd in Intel ® Atom ™ E3800 SoC processor
BIOS	AMI BIOS
Memory	Intel ® Atom ™ E3800 SoC processor integrated memory controller - DDR3L (1.35V) @1600 MHz , SO-DIMM [204-pin horizontal type] x **2** - Max. 8GB , Non-ECC

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Display	Intel® Gen7 w/4EUs graphics engines(Gfx freq @ 542MHz/792MHz [Turbo]) Supports DX 11, OGL 3.0, OCL 1.1, OGLES 2.0, DP x 1 ; CRT x 1 via pin header
LVDS	- LVDS(Thru eDP, via NXP PTN3460 bridge IC) 24-bit dual channels LVDS interface w/DF20 socket x2
LAN	2 x Intel® I210IT PCIe Gigabit LAN [9mm x 9mm @64-QFC package, -40 to 85 degree]
USB (Universal Serial Bus)	Intel® Atom™ SoC built-in USB host controller Support USB 2.0 x 4 ports; USB 3.0 x 1 port, USB 2.0 HSIC** x 2 ports (Thru SMSC USB2514)
Serial ATA Ports	Intel® Atom™ SoC built-in SATA II controller, supports 2 ports
Audio	Intel® Atom™ SoC built-in HD Audio controller + Realtek ALC269QHD Codec w/class-D speaker amplifier(2.3W per channel @ 5V power supply) [7mm x 7mm @ 48-QFN] ; support 2-channel audio out + amp
LPC I/O	Nuvoton NCT5523D [64-pin LQFP, 7x7x1.4mm] - COM #1 (RS232/422/485) [EXAR SP339EER1 x 1 for jumper-less] - COM #2 (RS-232 only) [Hardware Monitor] 2 x Thermal inputs ; 2 x Voltage monitoring ; 1 x Fan Header(**DC** Fan type)
Digital IO	4 in & 4 out
Expansion Slots	Mini PCI-e socket x **2** (1xFull-sized+1xHalf-sized, both with USB HSIC signal) **Full-sized MiniPCIe(1x) support mSATA**
Edge Connector	DB9 x 1 for COM1 DisplayPort x 1 RJ45 x 2 for LAN 1 & 2 USB 2.0 vertical connector x 1 (from SoC) USB 3.0 vertical connector x 1 (from SoC)
On Board Header/Connector	DF11 2 x 8 pins headers x 1 for CRT DF11 2x4 pins header x 1 for 2 x USB 2.0 (from HSIC) DF20 socket connector x 2 for 24-bit dual channel LVDS 4 pins box header x 1 for backlight/brightness control (PWM mode) DF11 2x6 pins box header x1 for Audio

	4 pins box header x1 for speaker DF11 2x5 pins box header x 1 for COM2 2x5 pins headers x 1 for LPC(80-port card debugging purpose) Mini PCI-e(1x) connector x **2** 5 pins box header x 1 for smart battery SATA connector x **2** for SATA device 4-pins power connector x 1 (JST type, For SATA device) 2-pins connector x 1 for power input Micro SD slot x 1(3.3V type only)
Watchdog Timer	Yes (256 segments, 0, 1, 2…255 sec/min)
Power Input	**+12V ~ +24V DC-in**
RoHS	Yes
Board Size	102mm x 147mm
OS supporting	- Windows 8.1/ Embedded ; Windows 7 / Embedded - Linux

2.2 Board Dimensions

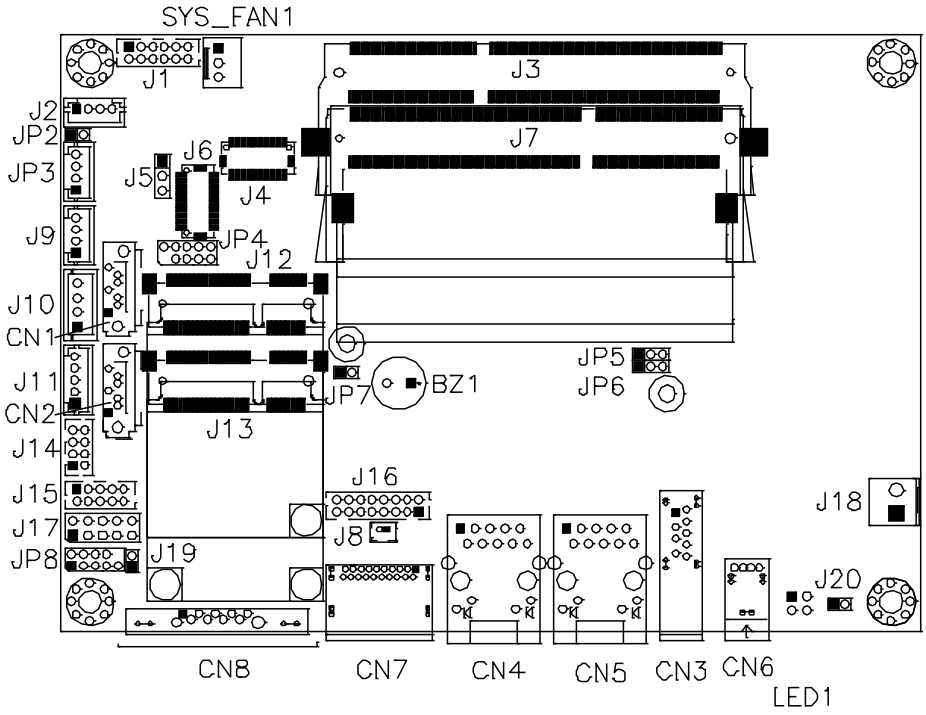


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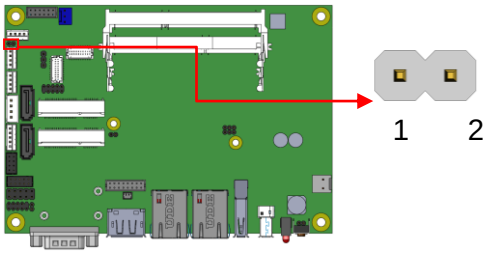
2.3 Setting the Jumpers

Jumpers are used on IB897-I45P to select various settings and features according to your needs and applications. Contact your supplier if you have doubts about the best configuration for your needs. The following lists the connectors on IB897-I45P and their respective functions.

2.4 Jumper Locations on IB897

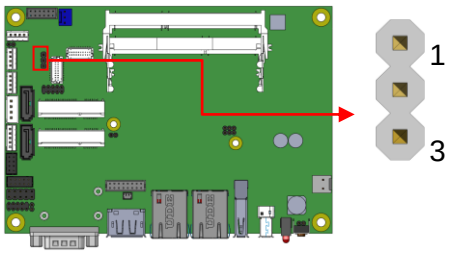


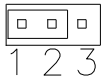
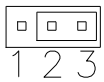
JP2: LVDS Panel Brightness Control Selection



JP2	Brightness Control (PWM mode)
Open	3.3V
Close	5V(Default)

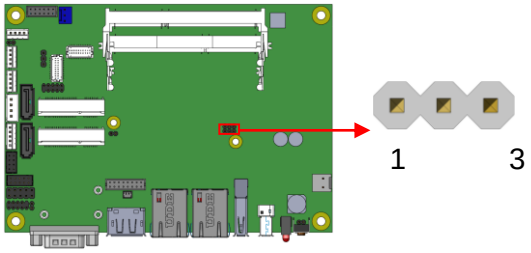
J5: LVDS Panel Power Selection



J5	Setting	Panel Voltage
	Pin 1-2 Short/Closed	3.3V (default)
	Pin 2-3 Short/Closed	5V

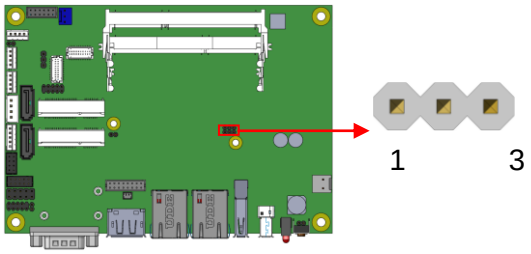
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JP5: Clear ME Contents



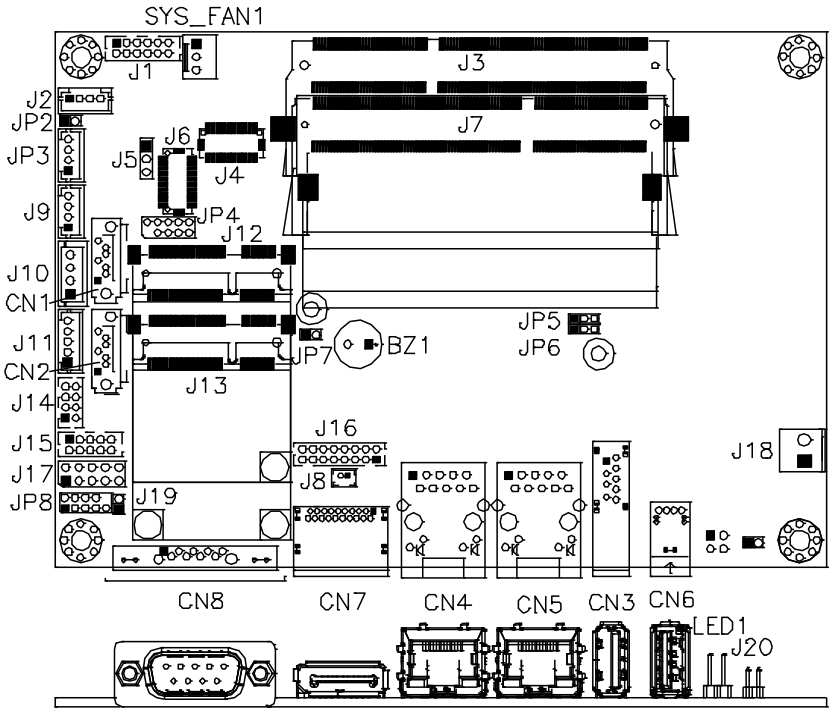
JP5	Setting	Function
	Pin 1-2 Short/Closed	Normal
	Pin 2-3 Short/Closed	Clear ME REGISTER

JP6: Clear CMOS Contents

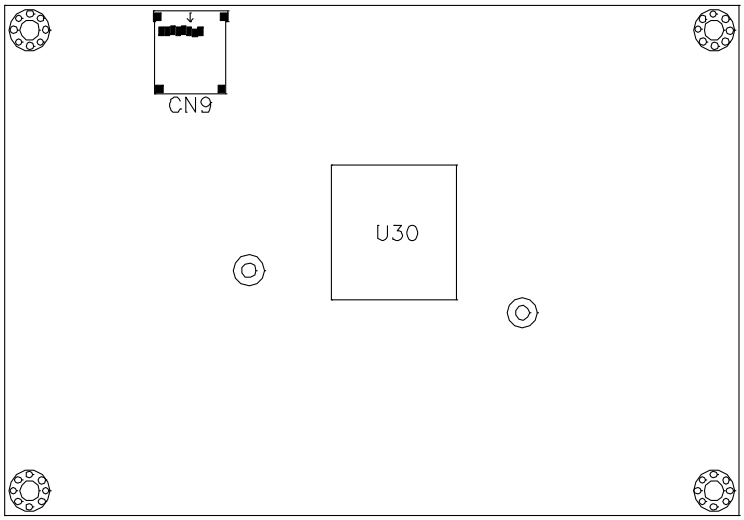


JP6	Setting	Function
	Pin 1-2 Short/Closed	Normal
	Pin 2-3 Short/Closed	Clear CMOS

Connector Locations on IB897-I45P



Bottom side



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CN3: USB3.0 Connector

CN4, CN5: Gigabit LAN Connector

CN4: Intel® I210IT Connector

CN5: Intel® I210IT Connector

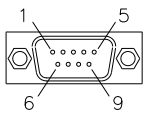
CN6: USB2.0 Connector

CN7: DP Connector

CN8: DB9 Connector (COM1)

Signal Name	Pin #	Pin #	Signal Name
DCD, Data carrier detect	1	6	DSR, Data set ready
RXD, Receive data	2	7	RTS, Request to send
TXD, Transmit data	3	8	CTS, Clear to send
DTR, Data terminal ready	4	9	RI, Ring indicator
GND, ground	5	10	Not Used

COM1 is jumper-less for RS-232, RS-422 and RS-485 and is to be configured with BIOS Selection.



Pin #	Signal Name		
	RS-232	R2-422	RS-485
1	DCD	TX-	DATA-
2	RX	TX+	DATA+
3	TX	RX+	NC
4	DTR	RX-	NC
5	Ground	Ground	Ground
6	DSR	NC	NC
7	RTS	NC	NC
8	CTS	NC	NC
9	RI	NC	NC
10	NC	NC	NC

CN9: Micro SD (3.3V) Connector

SW1: Power Switch [For IB897-I45/I27/I15]

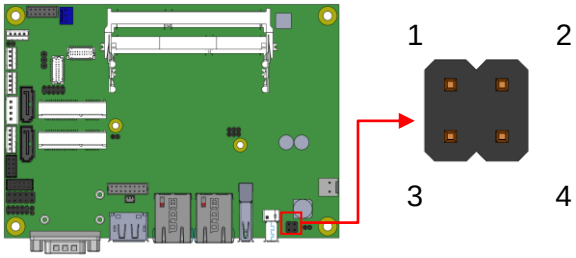
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LED1:

Power LED and HDD LED Connector [For IB897-I45/I27/I15]

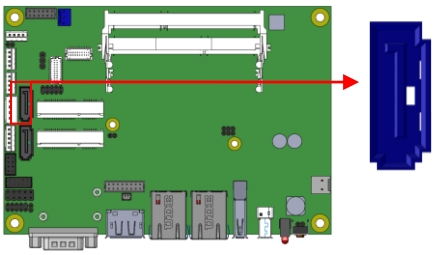
2x2 Pin-header (2.54mm) [For IB897-I45P/I27P/I15P]

The green LED at the bottom is power LED. The red LED on top is the HDD LED.

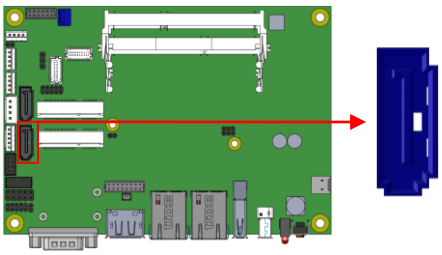


Signal Name	Pin #	Pin #	Signal Name
VCC3	1	2	HDD_LED
VCC5	3	4	GND

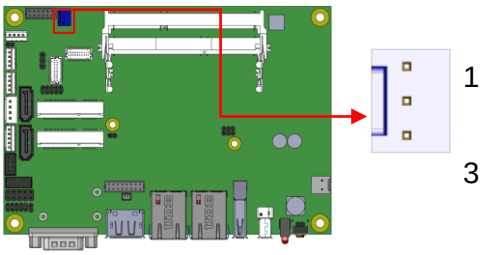
CN1: SATAII /share mSATA/ Connectors



CN2: SATAII Connectors



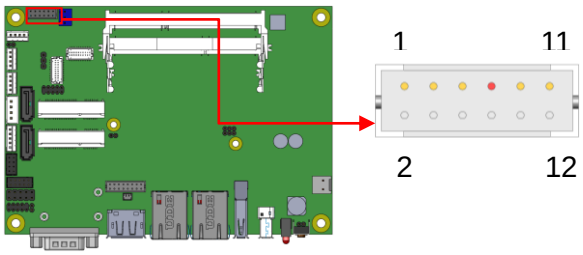
SYS_FAN1: SYSTEM Fan Power Connector



Pin #	Signal Name
1	Ground
2	+12V(500mA)
3	Rotation detection

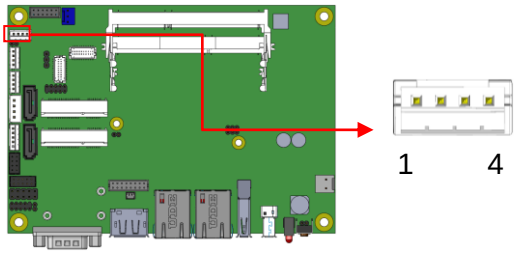
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J1: Audio Connector (DF11-12DP-2DSA)



Signal Name	Pin #	Pin #	Signal Name
LINEOUT_R	2	1	LINEOUT_L
Ground	4	3	JD_FRONT
LINEIN_R	6	5	LINEIN_L
Ground	8	7	JD_LINEIN
MIC-R	10	9	MIC_L
Ground	12	11	JD_MIC1

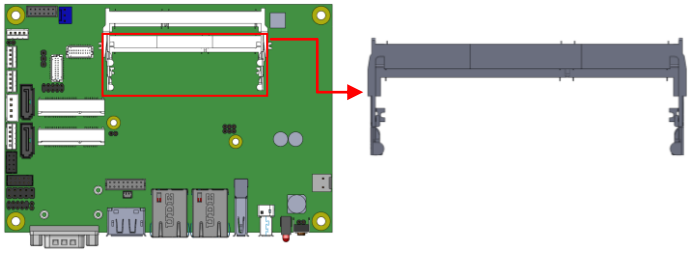
J2: Amplify Connector (JST B4B-PH-K-S)



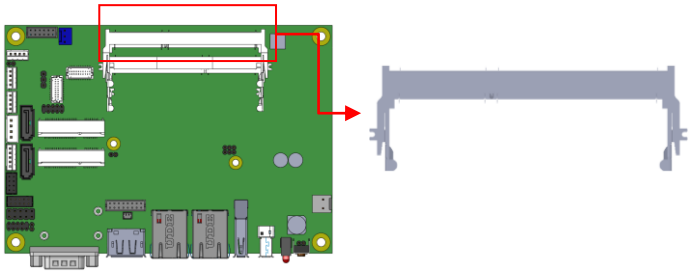
Pin #	Signal Name
1	OUTL+
2	OUTL-
3	OUTR-
4	OUTR+

J7: DDR3L SO-DIMM(CH-A) Sockets

**** Please note CH-A must be installed for booting up****

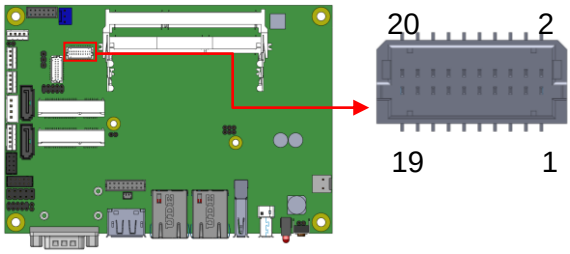


J3: DDR3L SO-DIMM(CH-B) Sockets

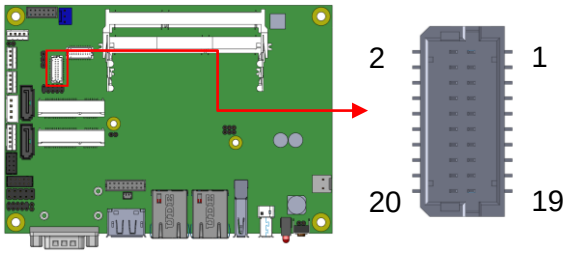


J4, J6: LVDS Connectors, (DF20G-20DP-1V)

J4: First Channel LVDS



J6: Second Channel LVDS

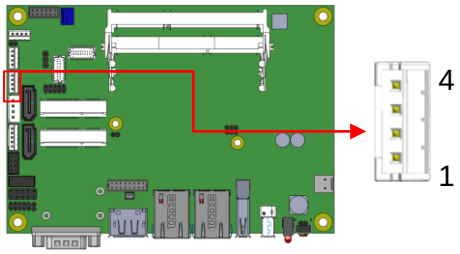


Signal Name	Pin #	Pin #	Signal Name
TX0N	2	1	TX0P
Ground	4	3	Ground
TX1N	6	5	TX1P
Ground	8	7	Ground
TX2N	10	9	TX2P

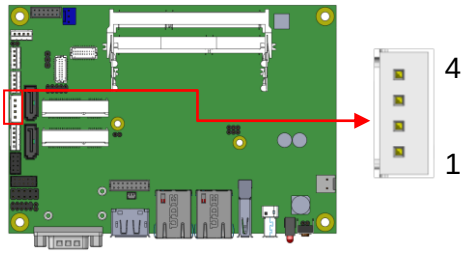
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Ground	12	11	Ground
CLKN	14	13	CLKP
Ground	16	15	Ground
TX3N	18	17	TX3P
Power(1A)	20	19	Power

J9: MCU Flash Connector (factory use only)



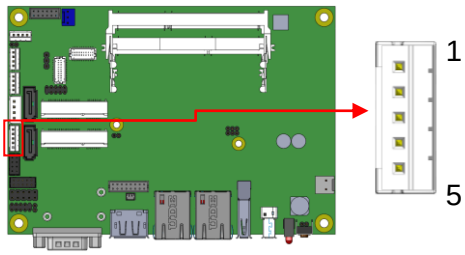
J10: SATA HDD Power Connectors(JST B4B-XH-A)



Pin #	Signal Name
1	+5V(1A)
2	Ground
3	Ground
4	+12V(1A)

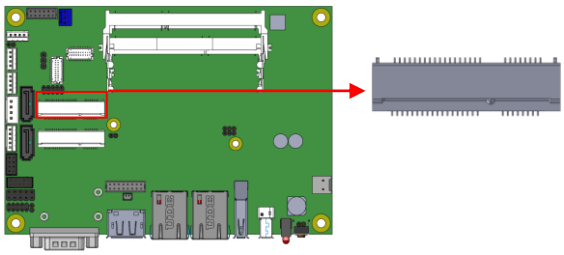
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J11: Smart Battery(JST B5B-PH-K-S)

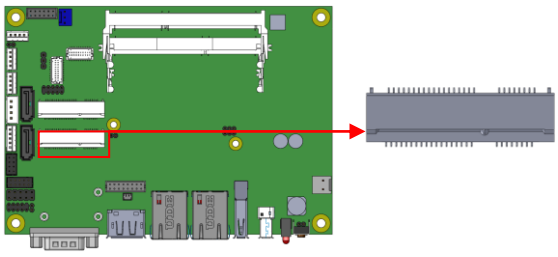


Pin #	Signal Name
1	RST#
2	ICHSWI#
3	Ground
4	SMB_DATA
5	SMB_CLK

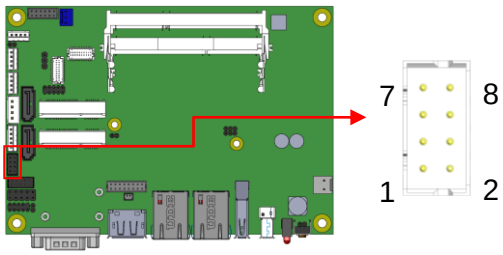
J12: Mini PCIE Connector (share mSATA)



J13: Mini PCIE Connector (Half Size)

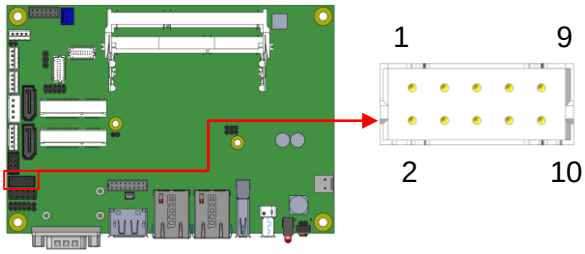


J14: USB 2.0 Connector(DF11-8DP-2DSA)



Signal Name	Pin #	Pin #	Signal Name
Vcc	1	2	Ground
D0-	3	4	D1+
D0+	5	6	D1-
Ground	7	8	Vcc

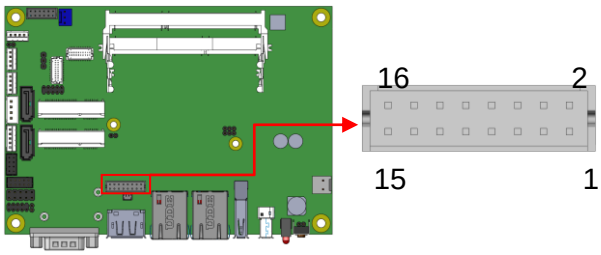
J15: COM2/RS232 Serial Port(DF11-10DP-2DSA)



Signal Name	Pin #	Pin #	Signal Name
DCD, Data carrier detect	1	2	RXD, Receive data
TXD, Transmit data	3	4	Data terminal ready
GND, ground	5	6	DSR, Data set ready
RTS, Request to send	7	8	CTS, Clear to send
RI, Ring indicator	9	10	Not Used

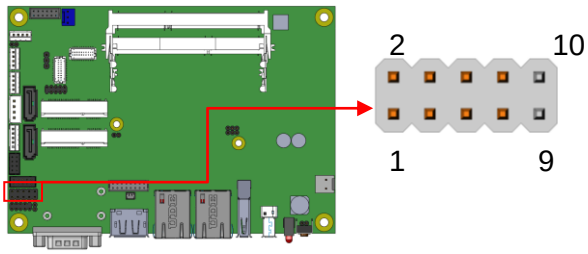
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J16: VGA Connector (DF11-16DP-2DSA)



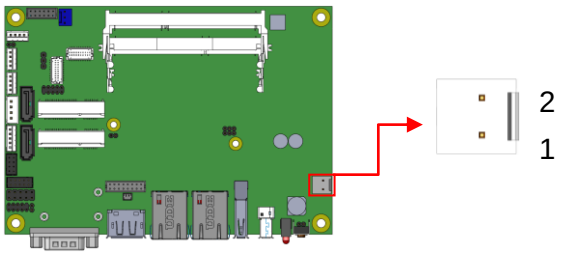
Signal Name	Pin #	Pin #	Signal Name
+5V	2	1	Red
Ground	4	3	Green
N.C	6	5	Blue
DDCDATA	8	7	N.C
H_SYNC	10	9	GND
V_SYNC	12	11	GND
DDCCLK	14	13	GND
N.C.	16	15	GND

J17: Digital I/O(signal level 5V)Connector(2.54mm)



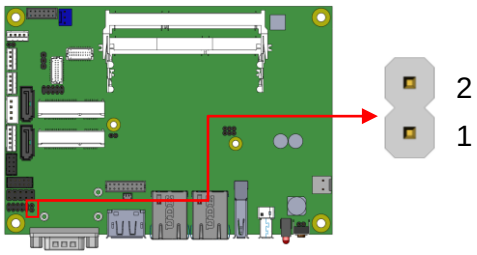
Signal Name	Pin #	Pin #	Signal Name
GND	1	2	VCC(500mA)
OUT3	3	4	OUT1
OUT2	5	6	OUT0
IN3	7	8	IN1
IN2	9	10	IN0

J18: Board Input Power Connector(HK_WAFER396-2S-WV)



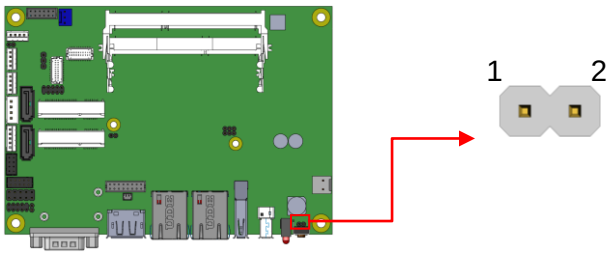
Pin #	Signal Name
1	+9V to +30V(80W)
2	GND

J19: Reset Switch(2mm)



Pin #	Signal Name
1	Reset Switch
2	Ground

J20: Power Switch(2mm)

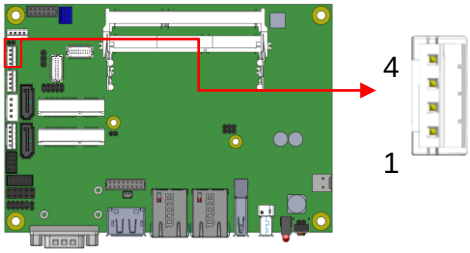


Pin #	Signal Name

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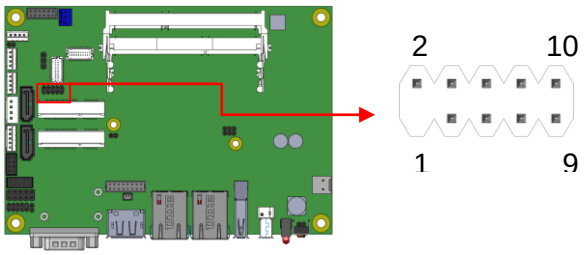
1	Power Switch
2	Ground

JP3: LCD Backlight Connector(JST B4B-PH-K-S)

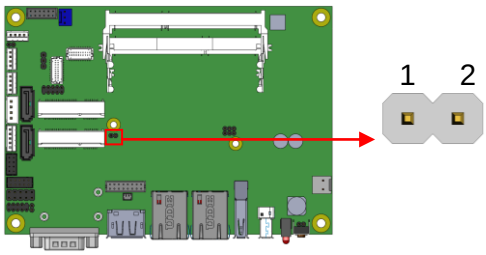


Pin #	Signal Name
1	+12V(1A)
2	Backlight Enable
3	Brightness Control
4	Ground

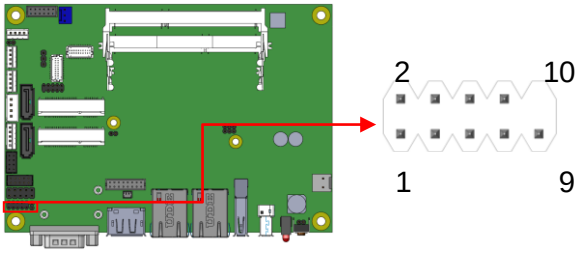
JP4: SPI Flash Connector (factory use only)



JP7: Factory use only



JP8: Debug 80 Port Connector (factory use only)



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CHAPTER 3 BIOS SETUP

This chapter describes the different settings available in the AMI BIOS that comes with the board. The topics covered in this chapter are as follows:

BIOS Introduction

The BIOS (Basic Input/Output System) installed in your computer system's ROM supports Intel processors. The BIOS provides critical low-level support for a standard device such as disk drives, serial ports and parallel ports. It also password protection as well as special support for detailed fine-tuning of the chipset controlling the entire system.

BIOS Setup

The BIOS provides a Setup utility program for specifying the system configurations and settings. The BIOS ROM of the system stores the Setup utility. When you turn on the computer, the BIOS is immediately activated. Pressing the <Del> key immediately allows you to enter the Setup utility. If you are a little bit late pressing the <Del> key, POST (Power On Self Test) will continue with its test routines, thus preventing you from invoking the Setup. If you still wish to enter Setup, restart the system by pressing the "Reset" button or simultaneously pressing the <Ctrl>, <Alt> and <Delete> keys. You can also restart by turning the system Off and back On again. The following message will appear on the screen:

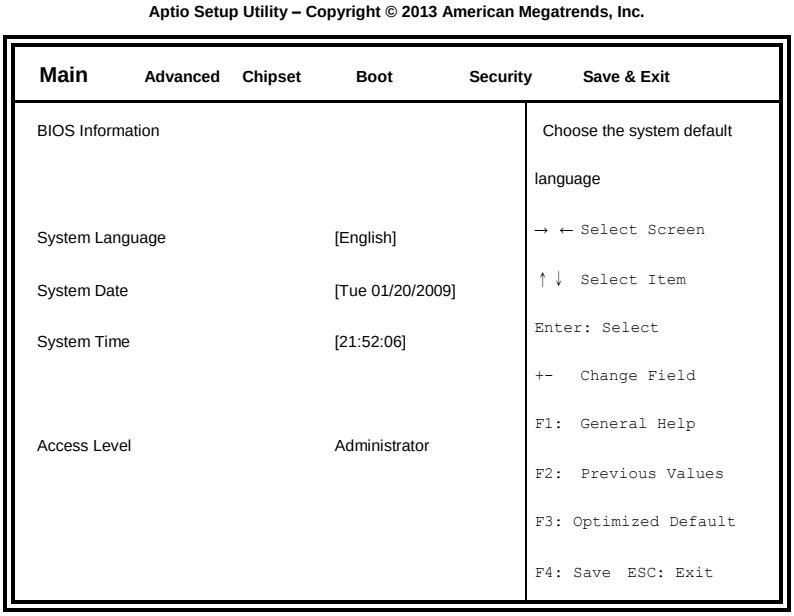
```
Press  <DEL> or <F2> to  Enter  Setup
```

In general, you press the arrow keys to highlight items, <Enter> to select, the <PgUp> and <PgDn> keys to change entries, <F1> for help and <Esc> to quit.

When you enter the Setup utility, the Main Menu screen will appear on the screen. The Main Menu allows you to select from various setup functions and exit choices.

Warning: *It is strongly recommended that you avoid making any changes to the chipset defaults. These defaults have been carefully chosen by both AMI and your system manufacturer to provide the absolute maximum performance and reliability. Changing the defaults could cause the system to become unstable and crash in some cases.*

Main Settings



System Language

Choose the system default language.

System Date

Set the Date. Use Tab to switch between Data elements.

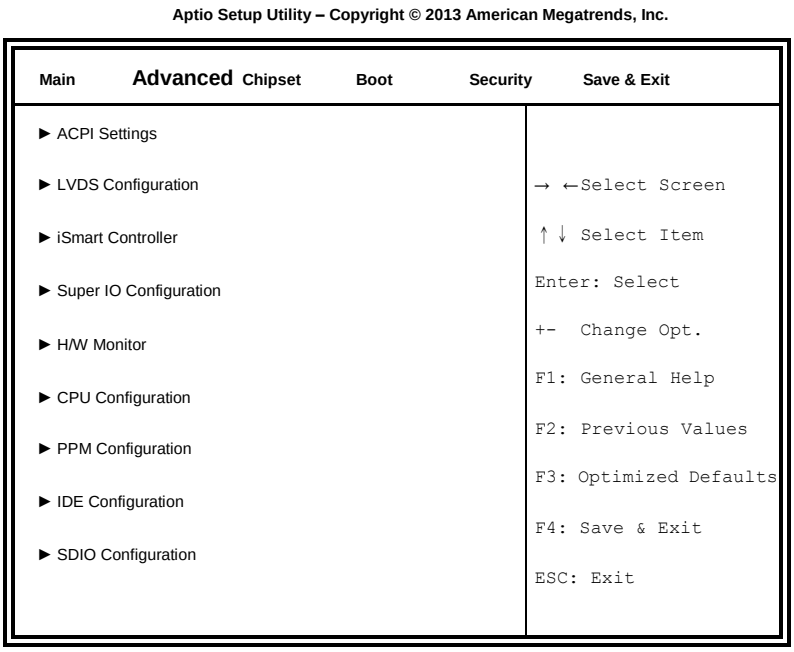
System Time

Set the Time. Use Tab to switch between Data elements.

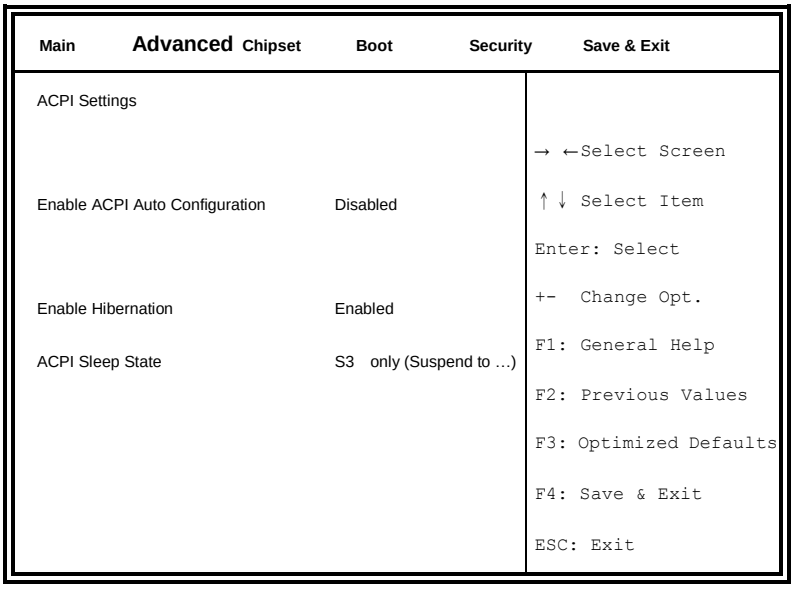
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Advanced Settings

This section allows you to configure and improve your system and allows you to set up some system features according to your preference.



ACPI Settings



Enabled ACPI Auto Configuration

Enables or Disables BIOS ACPI Auto Configuration.

Enable Hibernation

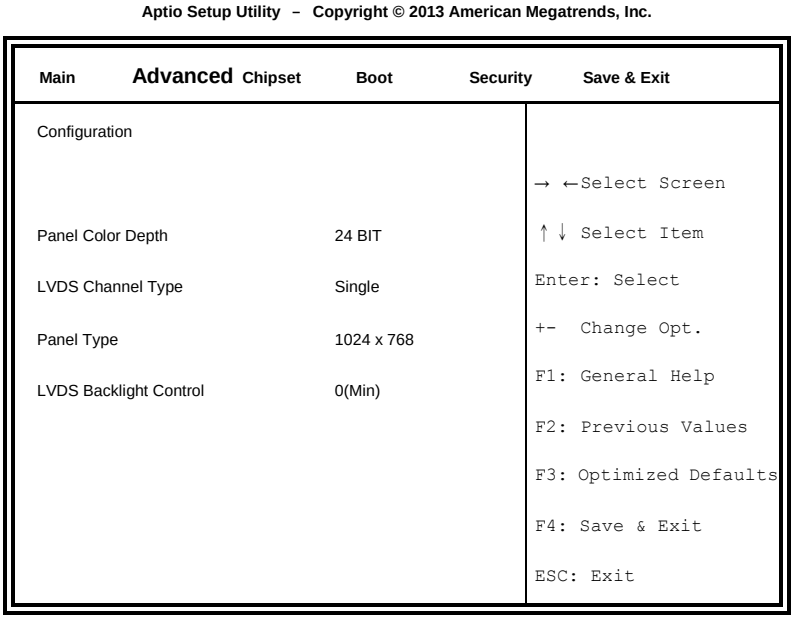
Enables or Disables System ability to Hibernate (OS/S4 Sleep State). This option may be not effective with some OS.

ACPI Sleep State

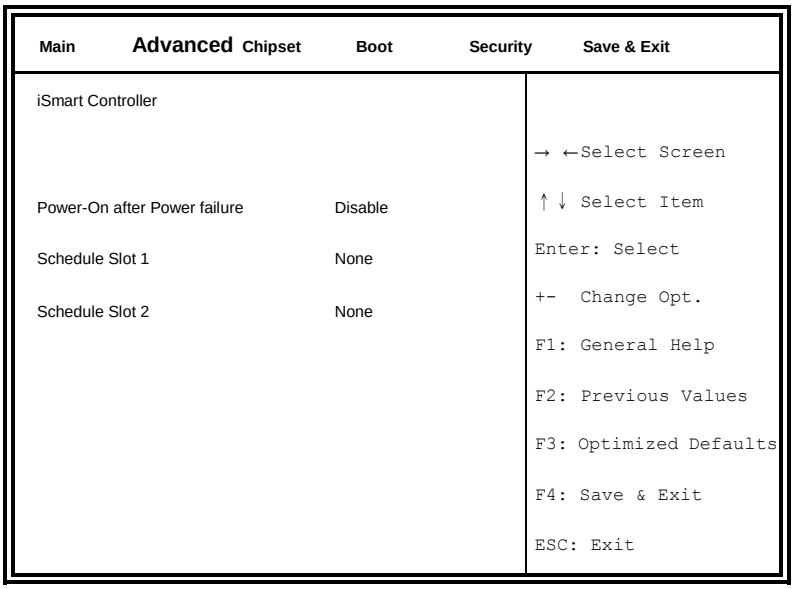
Select ACPI sleep state the system will enter when the SUSPEND button is pressed.

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LVDS Configuration



iSmart Controller



Power-On after Power failure

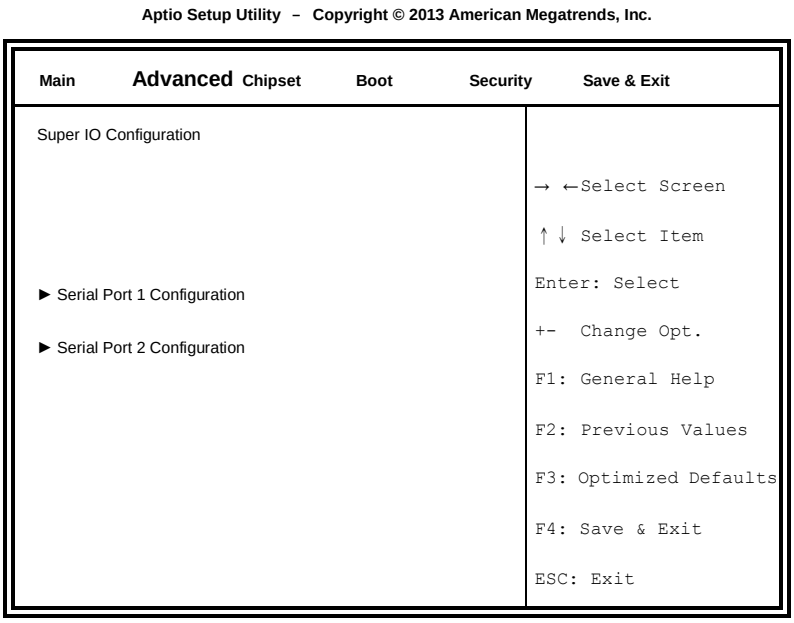
This field sets the system power status whether *Disable or Enable* when power returns to the system from a power failure situation.

Schedule Slot 1 / 2

Setup the hour/minute for system power on.

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Super IO Configuration



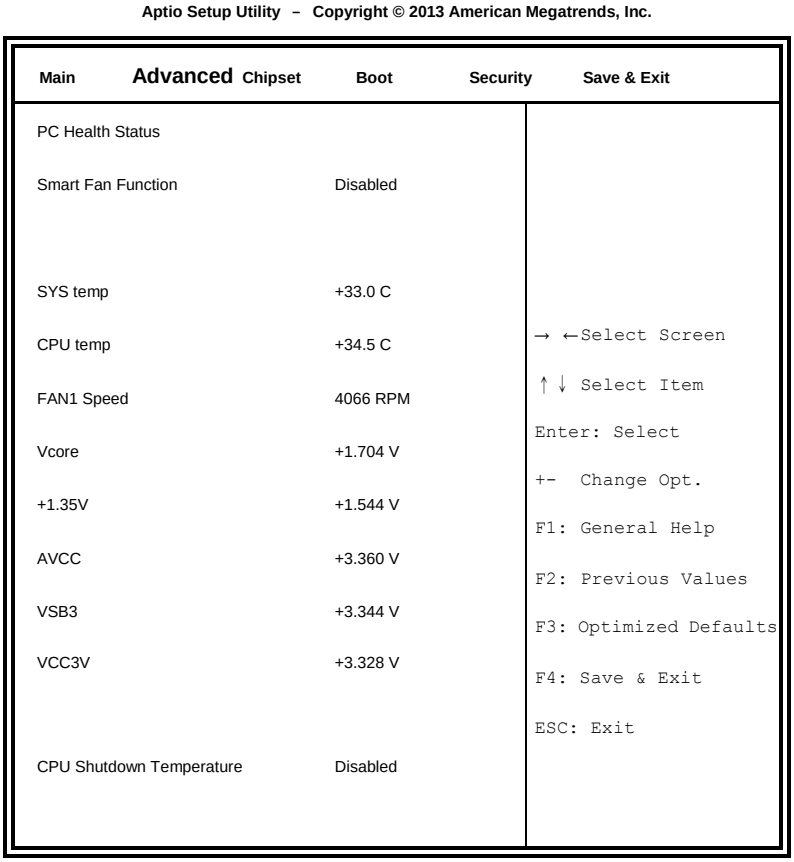
Serial Port 1 Configuration

Set parameters of serial port 1(COMA)

Serial Port 2 Configuration

Set parameters of serial port 2(COMA)

H/W Monitor



Smart Fan Function

This field enables or disables the smart fan feature.

Disabled (default)

50 ℃

60 ℃

70 ℃

80 ℃

90 ℃

Shutdown Temperature

This field enables or disables the Shutdown Temperature

Disabled (default)

70 ℃/158 F

75 ℃/167 F

80 ℃/176 F

85 ℃/185 F

90 ℃/194 F

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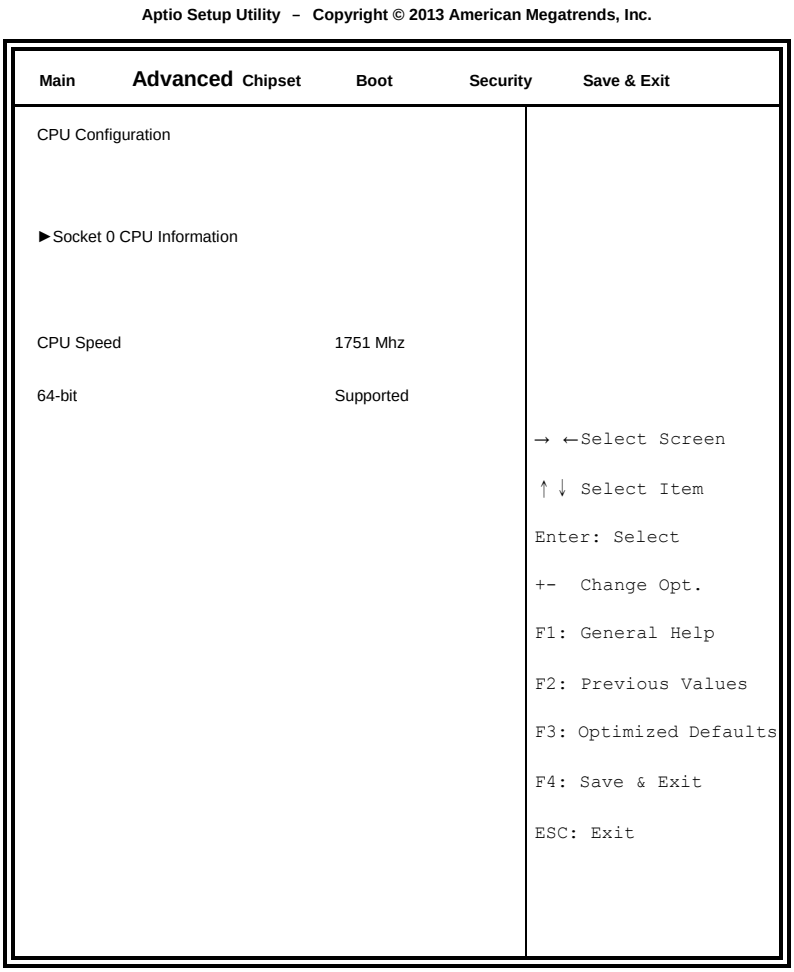
90 ℃/203 F

Temperatures/Voltages

These fields are the parameters of the hardware monitoring function feature of the motherboard. The values are read-only values as monitored by the system and show the PC health status

CPU Configuration

This section shows the CPU configuration parameters.

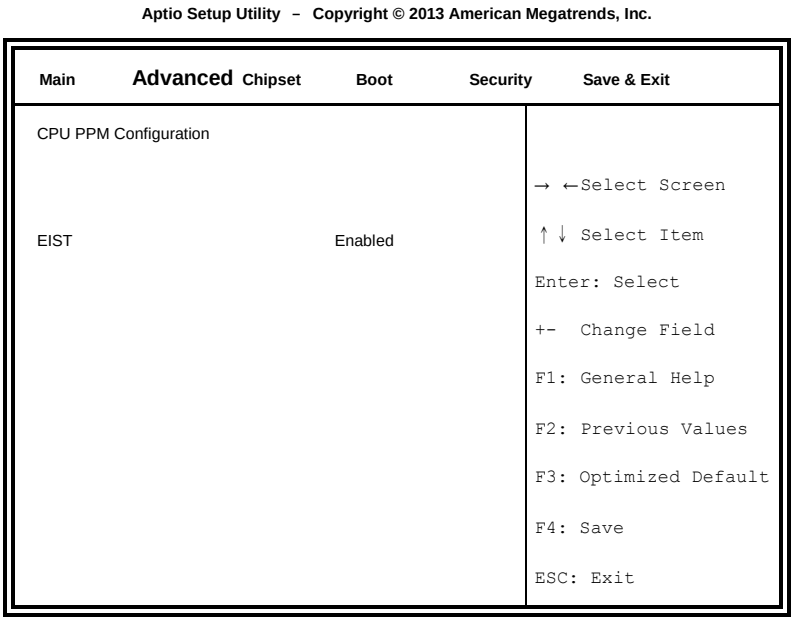


Socket 0 CPU Information

Socket specific CPU Information.

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CPU PPM Configuration

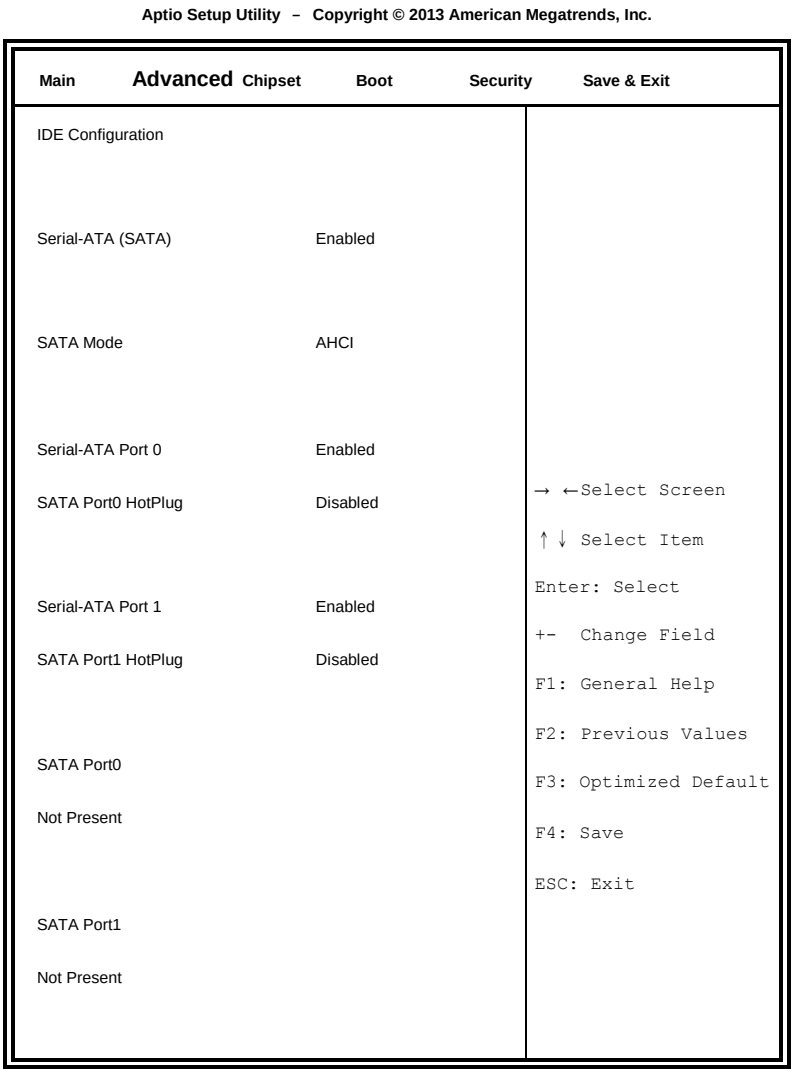


EIST

Enable/Disable Intel SpeedStep.

IDE Configuration

SATA Devices Configuration.



Serial-ATA(SATA)

Enabled / Disabled Serial ATA

SATA Mode

Select IDE / AHCI Mode

Serail –ATA Port 0

Enabled / Disabled Serial Port 0

SATA Port0 HotPlug

Enabled / Disabled SATA Port 0 HotPlug

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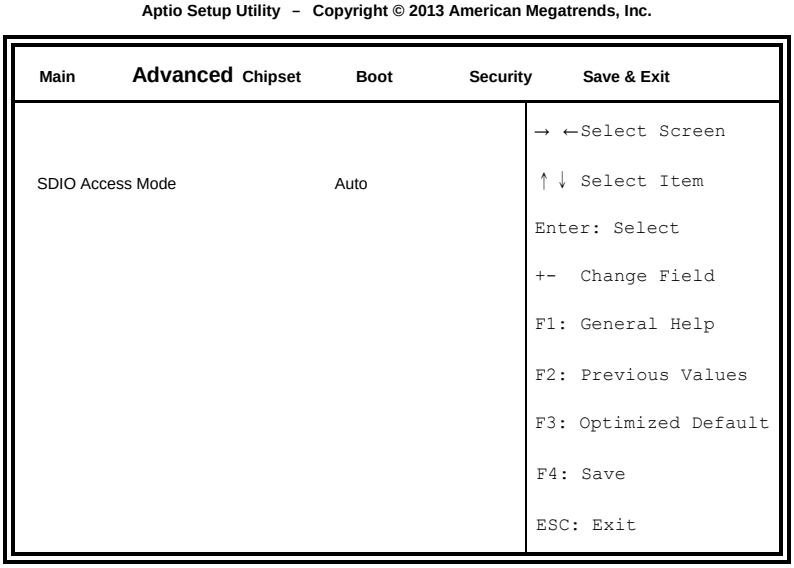
Serail –ATA Port 1

Enabled / Disabled Serial Port 1

SATA Port1 HotPlug

Enabled / Disabled SATA Port 1 HotPlug

SDIO Configuration

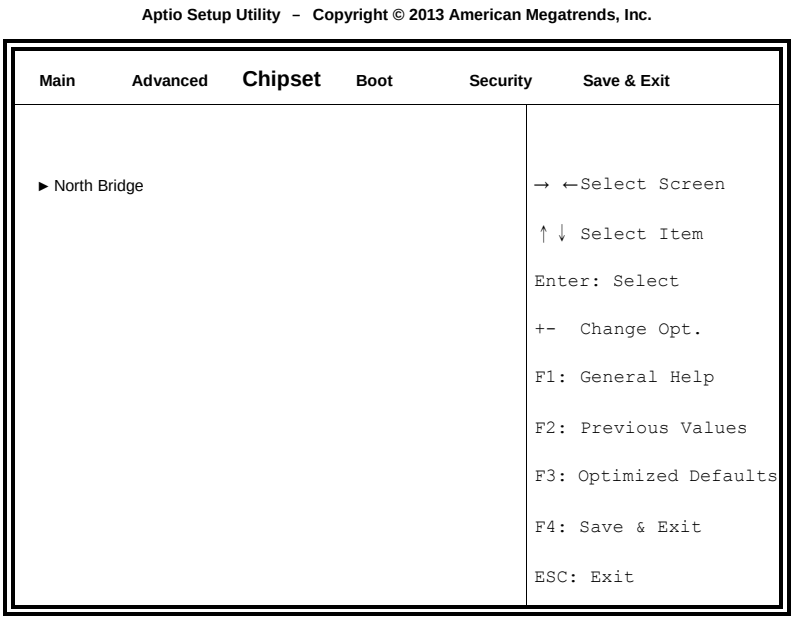


SDIO Access Mode

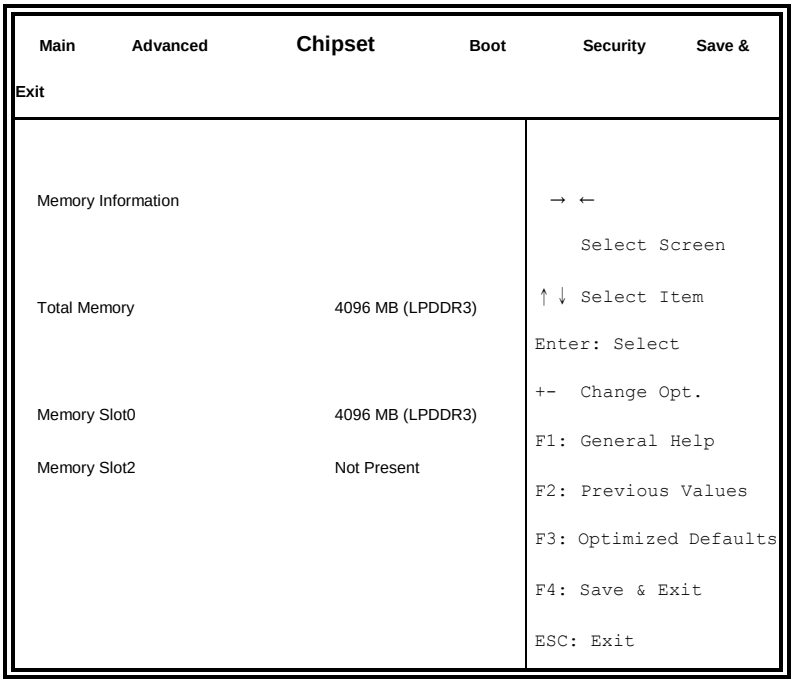
Auto Option: Access SD device in DMA mode if controller supports it. Otherwise, in PIO mode. DMA options: Access SD device in DMA mode. PIO Option: Access PIO device in DMA

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Chipset Settings

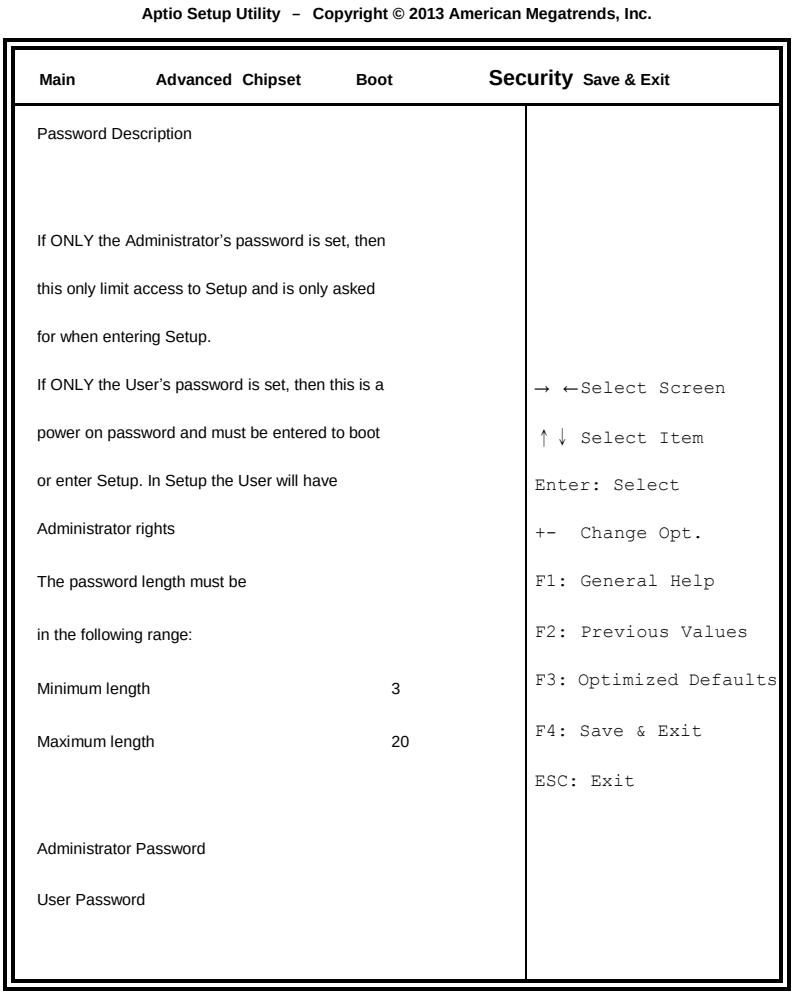


North Bridge



Security Settings

This section allows you to configure and improve your system and allows you to set up some system features according to your preference.



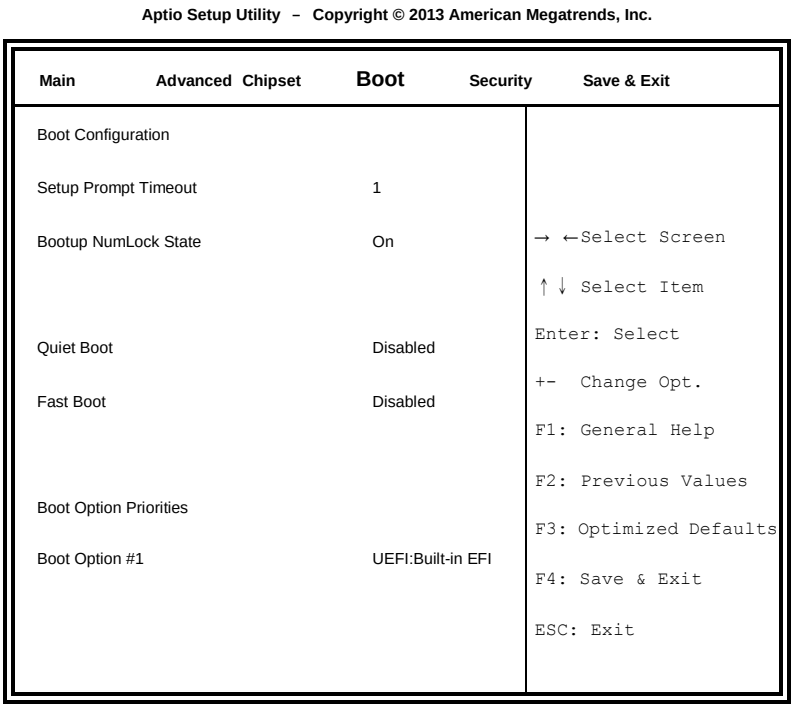
Administrator Password

Set Administrator Password.

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Boot Settings

This section allows you to configure the boot settings.



Setup Prompt Timeout

Number of seconds to wait for setup activation key.

65535(0xFFFF) means indefinite waiting.

Bootup NumLock State

Select the keyboard NumLock state.

Quiet Boot

Enables or disables Quiet Boot option.

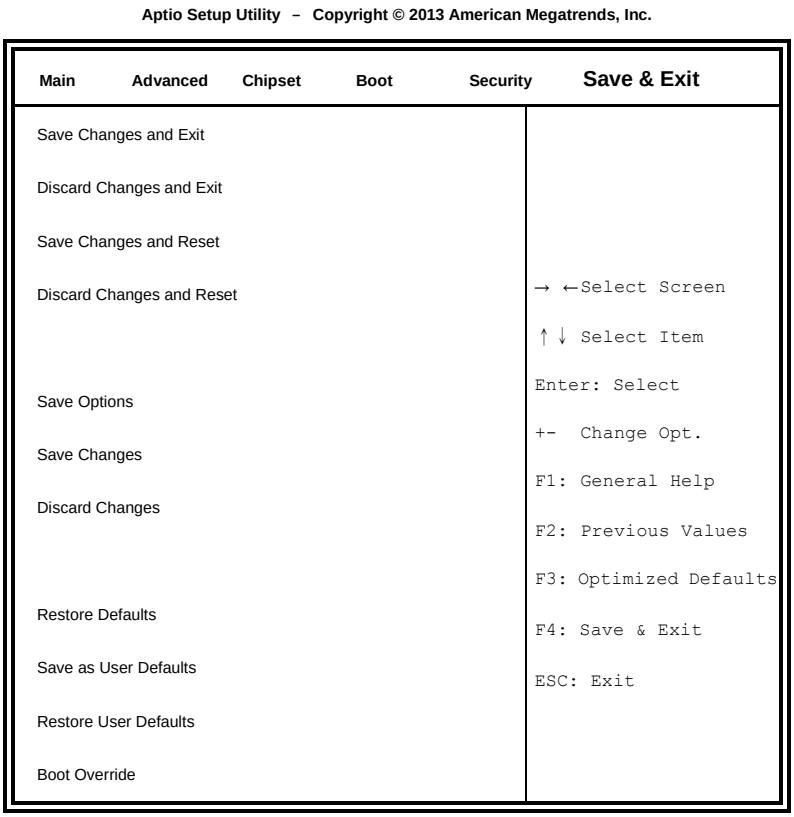
Fast Boot

Enables or disables boot with initialization of a minimal set of devices required to launch active boot option. Has no effect for BBS boot options.

Boot Option Priorities

Sets the system boot order.

Save & Exit Settings



Save Changes and Exit

Exit system setup after saving the changes.

Discard Changes and Exit

Exit system setup without saving any changes.

Save Changes and Reset

Reset the system after saving the changes.

Discard Changes and Reset

Reset system setup without saving any changes.

Save Changes

Save Changes done so far to any of the setup options.

Discard Changes

Discard Changes done so far to any of the setup options.

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Restore Defaults

Restore/Load Defaults values for all the setup options.

Save as User Defaults

Save the changes done so far as User Defaults.

Restore User Defaults

Restore the User Defaults to all the setup options.

CHAPTER 4 DRIVERS INSTALLATION

This section describes the installation procedures for software and drivers. The software and drivers are included with the motherboard. If you find the items missing, please contact the vendor where you made the purchase.

IMPORTANT NOTE:

After installing your Windows operating system, you must install first the Intel Chipset Software Installation Utility before proceeding with the drivers installation.

4.1 Intel Chipset Software Installation Utility

The Intel Chipset Drivers should be installed first before the software drivers to enable Plug & Play INF support for Intel chipset components. Follow the instructions below to complete the installation.

1. Insert the DVD that comes with the board.
2.Click ***Intel*** and then ***Intel(R) Baytrail Chipset***.



3.Click ***Intel(R) Chipset Software Installation Utility.***



4. When the Welcome screen to the Intel® Chipset Device Software appears, click ***Next*** to continue.

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5. Click ***Yes*** to accept the software license agreement and proceed with the installation process.

6. The Setup process is now complete. Click ***Finish*** to restart the computer and for changes to take effect.

4.2 VGA Drivers Installation

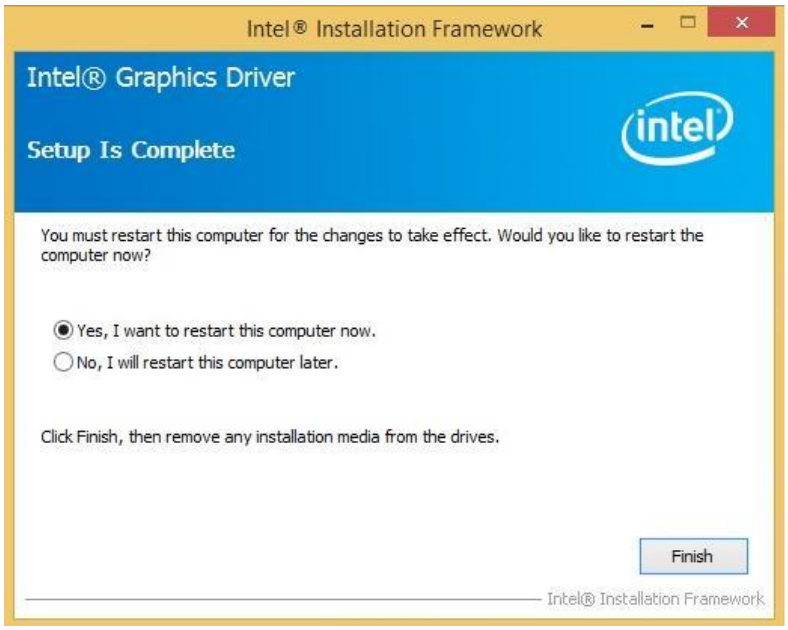
1. Insert the DVD that comes with the board. Click ***Intel*** and then ***Intel(R) Baytrail Chipset***. Click ***Intel(R) Baytrail Graphics Driver.***



2. When the Welcome screen appears, click ***Next*** to continue.

3. Click ***Yes*** to accept the license agreement and continue the installation.

4. Setup complete. Click ***Finish*** to restart the computer and for changes to take effect.



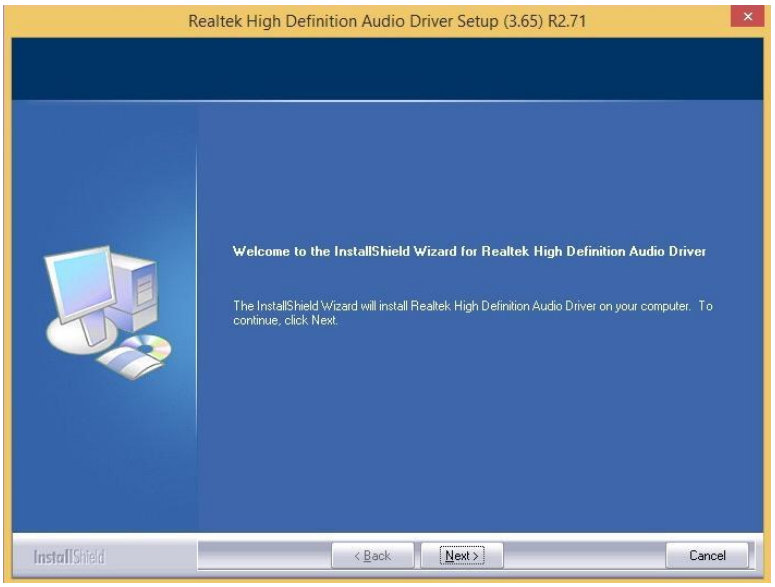
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4.3 Realtek HD Audio Driver Installation

1. Insert the DVD that comes with the board. Click ***Intel*** and then ***Intel(R) Baytrail Chipset***. Click ***Realtek High Definition Audio Driver.***



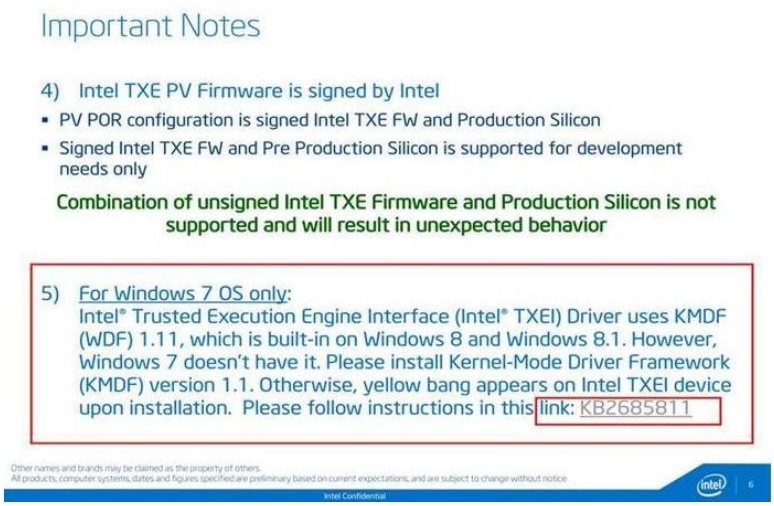
2. On the Welcome screen, click ***Next*** to proceed with the installation.



3. InstallShield Wizard is complete. Click ***Finish*** to restart the computer and for changes to take effect.

4.4 Intel Trusted Execution Engine Installation

Note :Windows 7 OS only

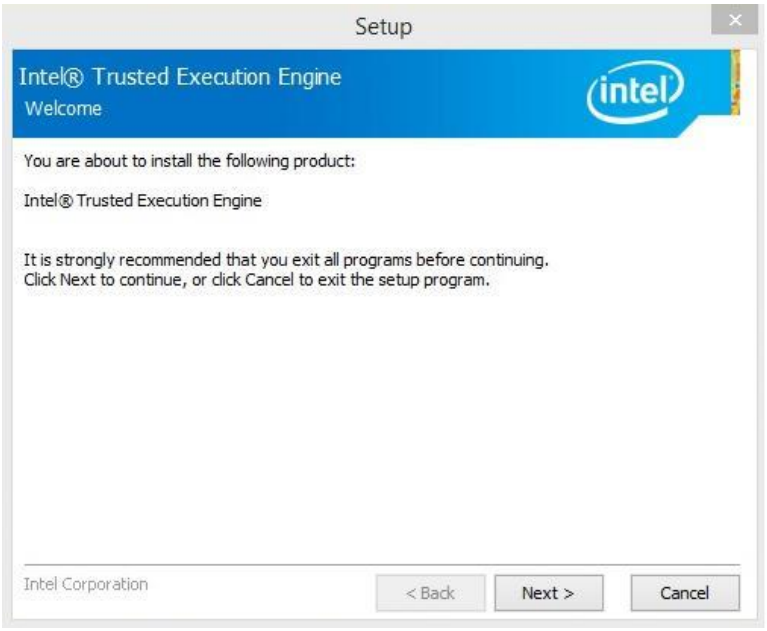


1. Insert the DVD that comes with the board. Click ***Intel*** and then ***Intel(R) Baytrail Chipset***. Click ***Intel(R) Baytrail Graphics Driver.***



2. On the Setup Welcome screen, click ***Next*** to proceed with the installation process.

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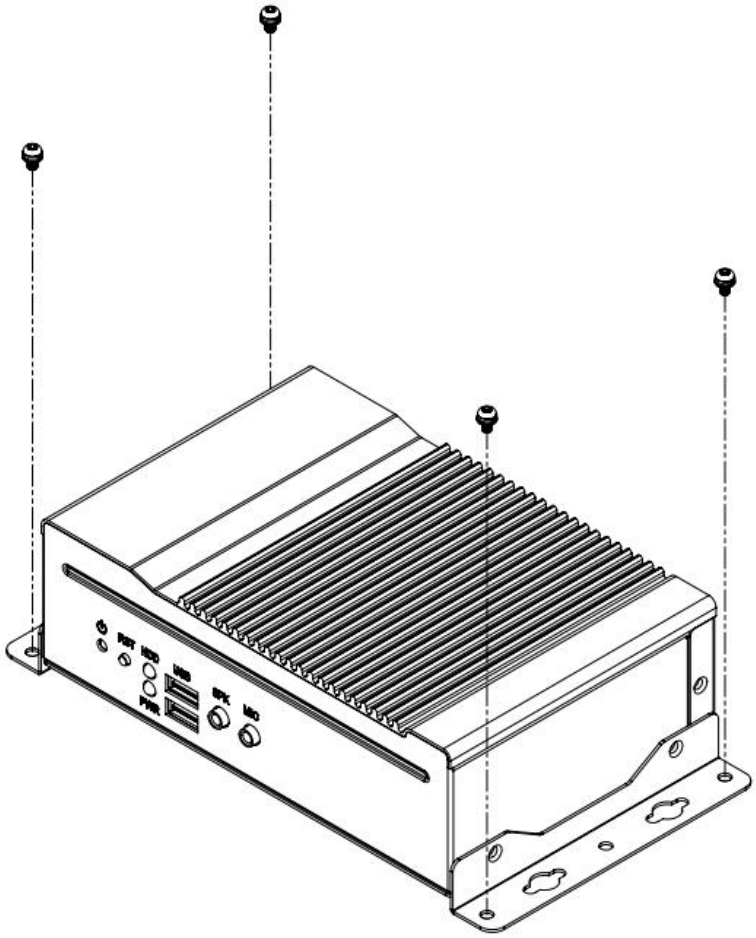


3. Click ***Next*** accept the license agreement and continue the installation.

4. Installation of the Intel Trusted Execution Engine is now complete. Click ***Finish***.

Appendix

Mounting CSB200-897 to the Wall



You can install CSB200-897 on plastic (LCD monitor), wood, drywall surface over studs, or a solid concrete or metal plane directly. Ensure the installer uses at least four M3 length 6mm screws to secure the system on wall. ***Four M3 length 6mm screws [Four M3 length 4.4mm for VESA mounting] are recommended to secure the system on wall.***

Fasteners are not included with the unit, and must be supplied by the installer. The types of fasteners required are dependent on the type of wall construction. Choose fasteners that are rated either ”Medium Duty“ or ”Heavy Duty.“ To assure proper fastener selection and installation, follow the fastener manufacturer’s

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recommendations.

Wall Mounting Requirements

Note: *Before mounting the system on wall, ensure that you are following all applicable building and electric codes.*

When mounting, ensure that you have enough room for power and signal cable routing. And have good ventilation for power adapter. The method of mounting must be able to support weight of the CSB110-902 plus the suspend weight of all the cables to be attached to the system. Use the following methods for mounting your system:

Mounting to hollow walls

- **Method 1: Wood surface** – A minimum wood thickness – 38mm (1.5in.) by 25.4 cm (10in.) – of high, construction – grade wood is recommended.
  Note: This method provides the most reliable attachment of the unit with little risk that the unit will come loose or require ongoing maintenance.
- **Method 2: Drywall walls** - Drywall over wood studs is acceptable.

Mounting to a solid concrete or brick wall - Mounts on a flat smooth surface.

Selecting the Location

Plan the mounting location thoroughly. Locations such as walkway areas, hallways, and crowded areas are not recommended. Mount the unit to a flat, sturdy, structurally sound column or wall surface.

The best mounting surface is a standard countertop, cabinet, table, or other structure that is minimally the width and length of the unit. This recommendation reduces the risk that someone may accidentally walk into and damage the device. Local laws governing the safety of individuals might require this type of consideration.