CL200 Product Manual

Revision History

Revision History	Date
First release of HX11 manual	06/06/2023
Updated Errata and feature list	06/12/2023
Updated Specs for CL250	07/22/2024

Table of Contents

1 - Regulatory Compliance and Safety Information

This document provides international regulatory and safety compliance information for the OnLogic Fanless computers xxxx-CL2YY-xxxx, (where x can be any alphanumeric character or blank and Y is numeric character) computer system.

1.1 - Declaration of Conformity

FCC

This device complies with part 15 of the FCC rules as a Class A device. 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 might cause undesired operation.

Industry Canada Compliance Statement

This Class A digital apparatus complies with Canadian ICES-003.

Avis de Conformité à la Réglementation d'Industrie Canada

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CE

This equipment complies with all application European Union (CE) directives if it has a CE marking. For this device to remain CE compliant, only CE compliant parts can be installed and proper cables and cabling techniques are required.

1.2 - Safe use and installation instructions

1. Do not open or modify the device. The device uses components that comply with FCC and CE regulations. Modification of the device will void these certifications.
2. Install the device securely. Be careful handling the device to prevent injury and do not drop.
3. Wall or ceiling mounting device requires use of a mounting plate or bracket. Plate or bracket must be of metal construction and have a minimum thickness of 1mm.

4. Use M3x0.5mm Flat Head screws to attach mounting plate or mounting brackets to threaded holes on bottom of chassis. Screws should be a minimum length of 4mm. Add 1mm of screw length for every mm of additional thickness of plate or bracket beyond 1.5mm.
5. Operational temperature must be between 0-50°C with a non-condensing relative humidity of 10-90%. Derated operational temperature of 0-40°C dependent on included power adapter. See Table 1 below.
6. The device can be stored at temperatures between 0-60°C.
7. Keep the device away from liquids and flammable materials.
8. Do not clean the device with liquids. The chassis can be cleaned with a cloth.
9. Allow at least 2 inches of space around all sides of the device for proper cooling. If the device is mounted to a vertical surface then the recommended device orientation is so that heatsink fins allow air to rise unobstructed. Alternative orientations may result in reduced operational temperature range.
10. This device is intended for indoor operation only.
11. Use UL Listed external power supply with rated output 12V d.c., 3A min.
12. Install the device only with shielded network cables.
13. Service and repair of the device must be done by qualified service personnel. This includes but is not limited to replacement of CMOS battery. Replacement CMOS battery must be of same type as original.
14. Proper disposal of CMOS battery must comply with local governance.

WARNING: There is danger of explosion if the CMOS battery is replaced incorrectly. Disposal of battery into fire or a hot oven, or mechanically crushing or cutting of a battery can result in an explosion.

1.3 - Wireless

If this product was configured with a wireless device, the FCC and IC IDs will be detailed on a label on the chassis.

2 - What's In The Box
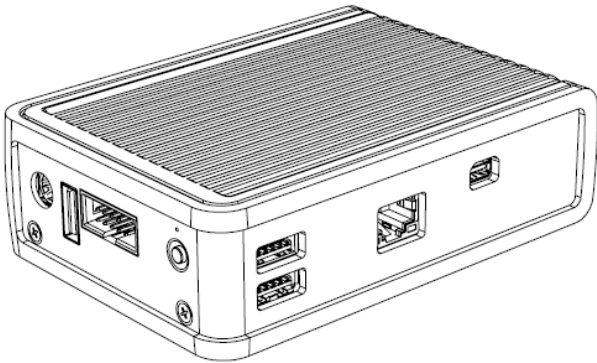
Figure 1. CL 200 Assembly
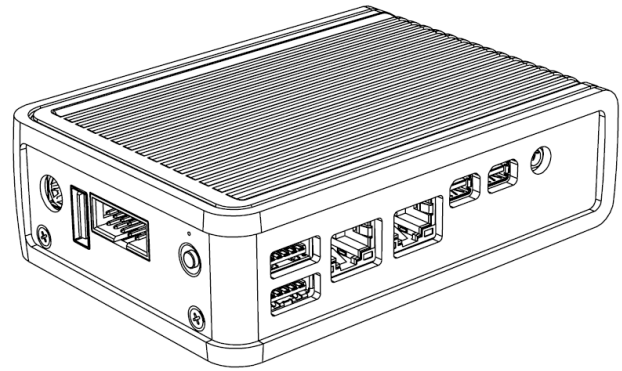
Figure 2. CL210 & CL250 Assembly

Accessories

- Power Adapter
- Thermal Pads

Thermal Pads are used to assist with cooling expansion mSATA and mPCIe cards. If you purchased your system with expansion cards pre-installed, the thermal pads will already be installed inside the system. If you purchased additional items such as mounting brackets, power supplies or antennas, they will be located in the system box or within the outer shipping carton.

All drivers and product guides can be found on the corresponding product page at www.onlogic.com.

3 - System Overview

3.1 - CL200 Exterior

Micro SD Slot

Figure 3. CL200 Back

USB 3.0 Connectors
Mini-DisplayPort

LAN Connectors (RJ45)

Figure 4. CL200 Front

DC-In Power Jack

USB 2.0 Vertical Type Connector

RS232 Box Header Connector
LED

Power Button
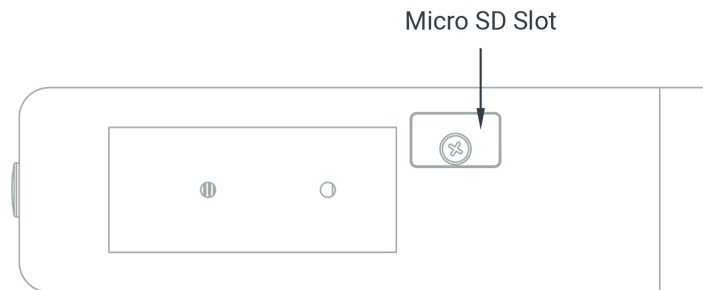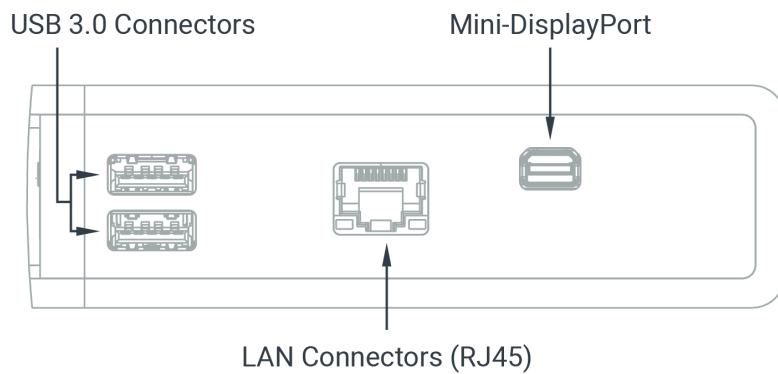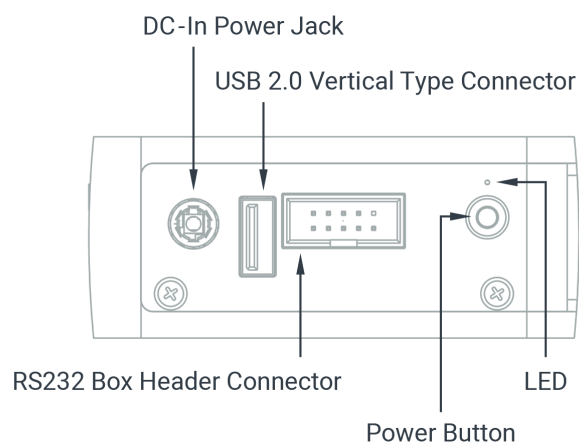
3.2 - CL210 & CL250 Exterior
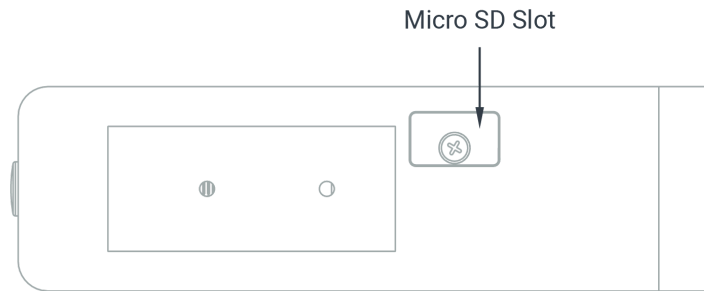
Figure 6. CL210 & CL250 Back
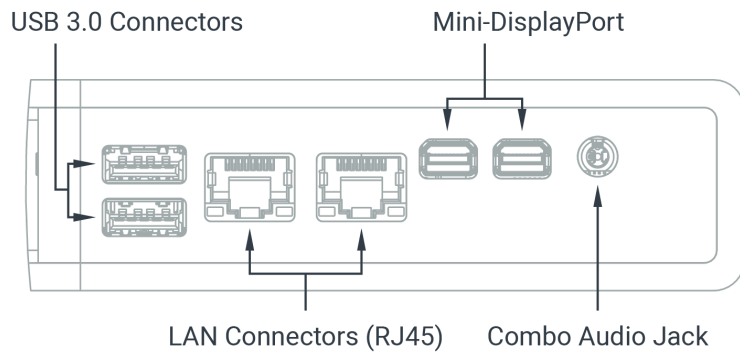
Figure 7. CL210 & CL250 Front
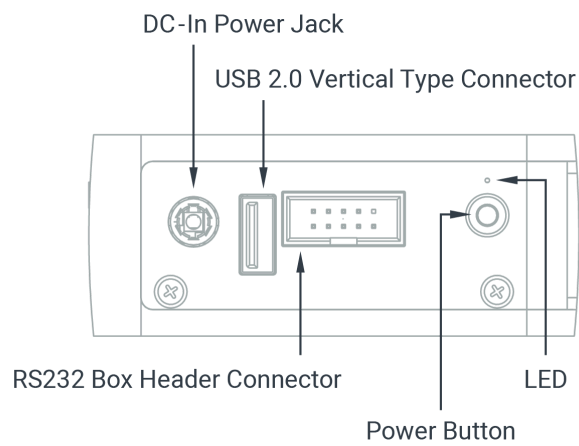
Figure 8. CL210 & CL250 Side

4 - System Specifications

CL200 Series	Board-Level Assembly		
	CL200 (Standard- Basic)	CL210 (Standard-Advanced)	CL250
Form Factor Pico ITX (100mm x 72mm)			
Processor Intel ® Celeron ®	N3350	N3350	J3455
System memory LPDDR4 onboard DRAM	2GB	4GB	8GB
Processor Graphics Intel® HD Graphics 500			
Audio Realtek ALC233	-	•	
Super I/O Nuvoton NCT 5524			
LAN LAN1: Realtek RTL8111H			
LAN2: Realtek RTL8111H	-	•	
Expansion Full-length mPCIe slot (PCIe/USB/mSATA signal)			
Half-length mPCIe slot (PCIe/USB signal)			
WiFi Antenna 4 x Antenna holes			
Onboard storage eMMC	8GB	32GB	None
Rear I/O Micro SD slot			
Front I/O Audio jack w/ Mic-in & Line-out	-	•	
mini-Display Port	1	2	2
Gb LAN port	1	2	2
USB3.0	2	2	2
Bottom I/O 1 x Power button			
1 x LED (on the backside of PCB)			
1 x USB2.0 vertical type			
1 x 12V DC-in barrel			
RS 232 Box Header Connector			
Onboard Headers & Connectors 1 x RTC battery header			
1 x CEC header (module population is optional)			
1x Clear CMOS, AT/ATX Jumper			

5 - Motherboard Overview

5.1 - Core Design - Motherboard
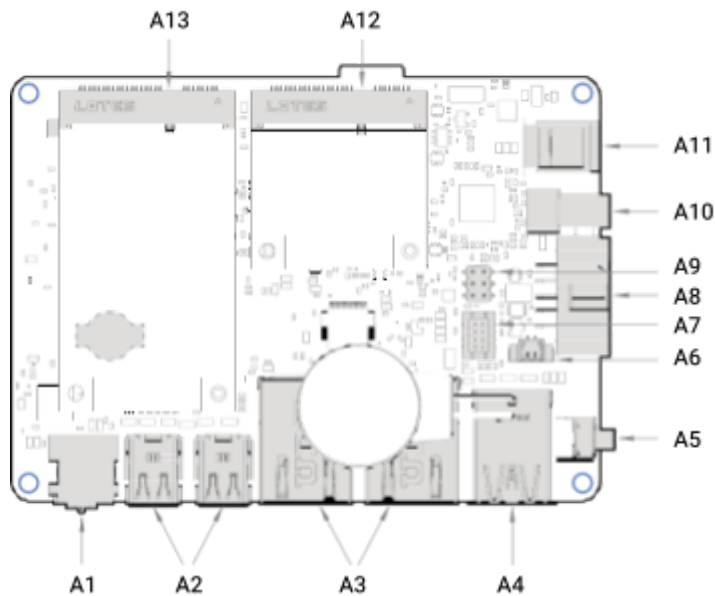
Item	Function description
A1	Combo Audio JACK connector (optional)
A2	miniDisplay Port connector - J54-DDI0 1st display
	miniDisplay Port connector - J55-DDI1 2nd display (optional)
A3	RJ45 LAN connector - J_Lan_1
	RJ45 LAN connector - J_Lan_2 (optional)
A4	Dual USB3.0 connector
A5	Power button
A6	Battery header
A7	HDMI CEC header (optional)
A8	RS 232 COM Box header
A9	Clear CMOS + AT/ATX mode header
A10	USB2.0 vertical type connector
A11	DC-IN PWR jack
A12	Half-height mPCIE slot
A13	mPCIE slot/mSATA slot

B1
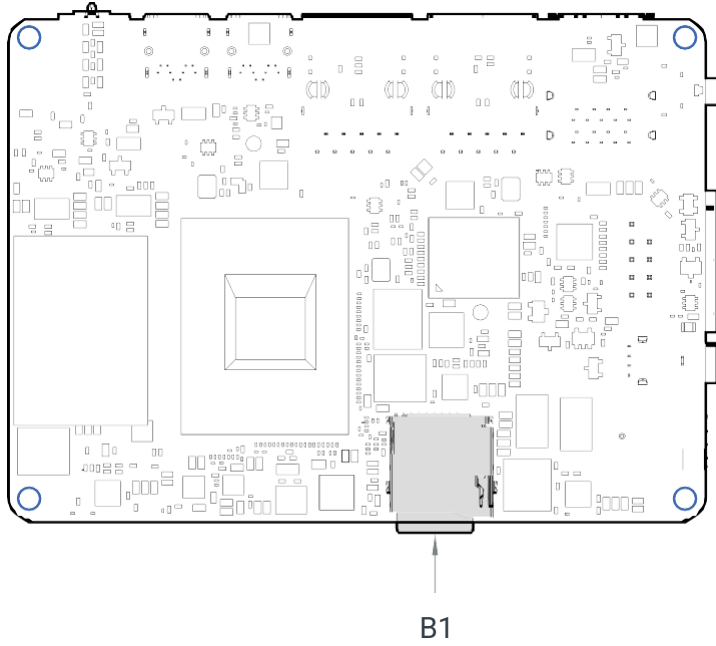
Item	Function description
B1	Micro SD Connector

5.1.1 - Processor Core Design
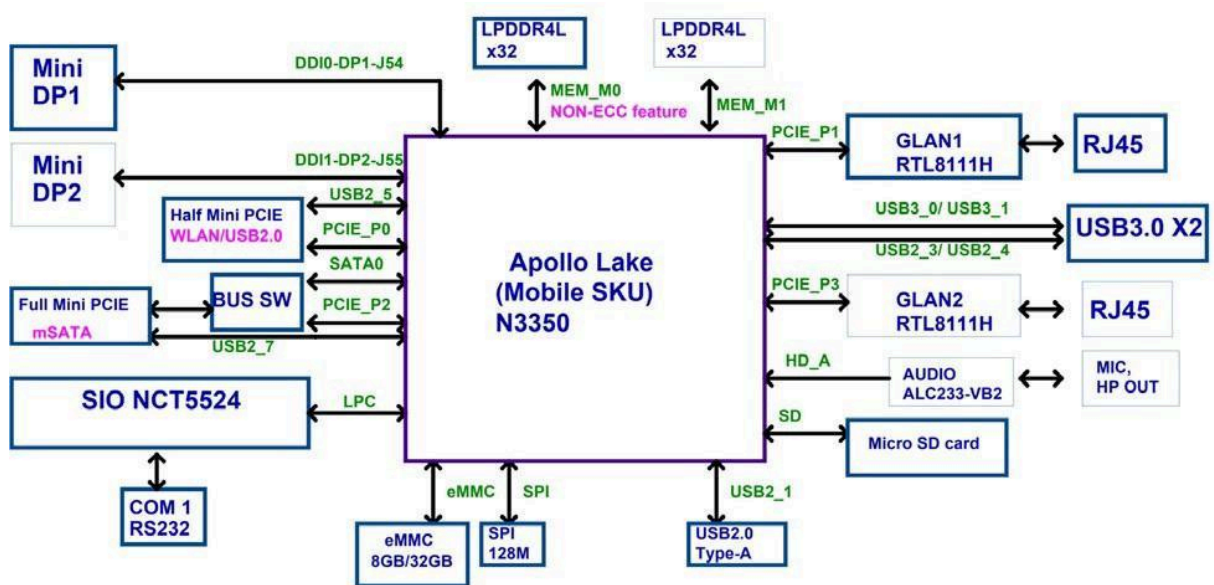
Figure 11. Core Design Block Diagram

5.1.2 - Memory & Storage

System	Storage	Manufacturer	Part Number	Size
CL200G-10	eMMC	San Disk	SD1NBDG4-8G	8 GB
CL210G-10	eMMC	Samsung	KLMG2JETD-B041	32 GB

System	Memory	Manufacturer	Part Number	Size
CL200G-10	LPDDR4	Samsung	K4F8E304HB-MGCH	1 GB x 2
CL210G-10	LPDDR4	Samsung	K4F6E304HB-MGCJ	2 GB x 2

Memory and storage are soldered on the motherboard for the CL200 Series computers. Memory for both systems are LPDDR4 dual channel RAM. Both systems use industrial-grade eMMC onboard storage. Manufacturers and part numbers are subject to change, so please check the system pages for updates. Additional storage is available using the uSD card Revision 3.01 (SDXC) supporting up to 2TB.

5.1.3 - Processor Graphics

Onboard Intel HD Graphics 500 processing circuitry is integrated into the processor.

- Single Display supports maximum resolution up to 3840x2160 (4K) @ 60 Hz.
- Dual independent displays achieved through the optional second Mini- Display Port.
- Up to three mirrored displays is achieved via Display Port v1.2 daisy chaining.

5.1.4 - Combo Audio Jack

The audio jack is implemented using the Realtek ALC233-VB2 and supports Nokia and Apple headset connectors.
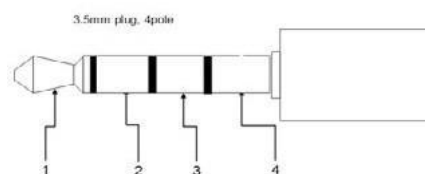
Figure 12. CL200 Series Combo Audio Jack

Pin	Nokia Headset Connector	Standard Connector
1	Left	Left
2	Right	Right
3	Mic	Ground
4	Ground	Mic

5.1.5 - LAN Port

Speed LED
(Green/Yellow)

Link LED
(Green)
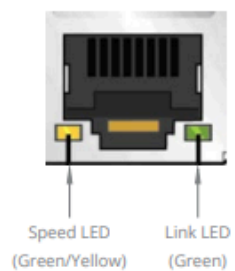
Figure 13. LAN Port

Table 1. RJ45 LED Behavior

LED	Color	State	Condition
Link	N/A	Off	LAN link is not established
	Green	On	LAN link is established
		Blinking	LAN activity occurring
Speed	N/A	Off	10 Mb/s data rate
	Green	On	100 Mb/s data rate
	Yellow	On	1000 Mb/s data rate

5.1.6 - Serial Port

The serial port header is 2x5, 2.54 mm pitch, colored black and keyed at pin 10.
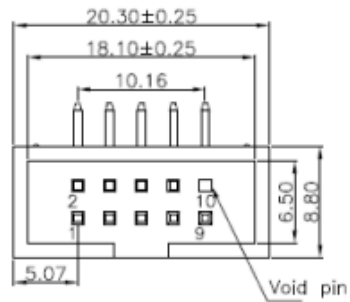
Figure 14. Serial Port Connector

Table 2. RS232 Header Pin Definition

Pin	Name	Signal
1	COM3_P1_40mils	DCD (Data Carrier Detect)
2	NRX3	RXD# (Receive Data)
3	NTX3	TXD# (Transmit Data)
4	NDTR3	DTR (Data Terminal Ready)
5	GND	Ground
6	NDSR3	DSR (Data Set Ready)
7	NRTS3	RTS (Request To Send)
8	NCTS3	CTS (Clear To Send)
9	COM3_P9_40mils	RI (Ring Indicator)
10	Key	Key (no pin)

5.1.7 - Mini-PCI Express Expansion Slots

Standard pin-out supports half-height PCIe/USB and full-height PCIe/USB/mSATA signal.

5.1.8 - Jumpers and Headers

5.1.8.1 - Jumper Set Up

The following illustration shows how to use jumpers.
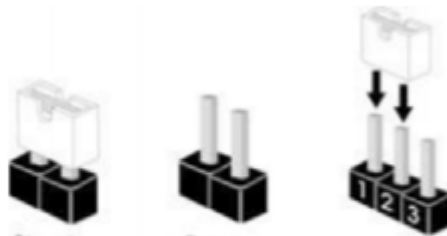
Figure 15. Jumper Short or Open

"Short" pins together by placing the jumper shunt on pins. Pins not capped with jumpers are "open". With the illustrated 3-pin jumper, the shunt shorts pins 1 and 2. Check the corresponding header pin attributes to see what functionality is supported by shorting different pin pairs.

5.1.8.2 - AT/ATX,CMOS Jumper
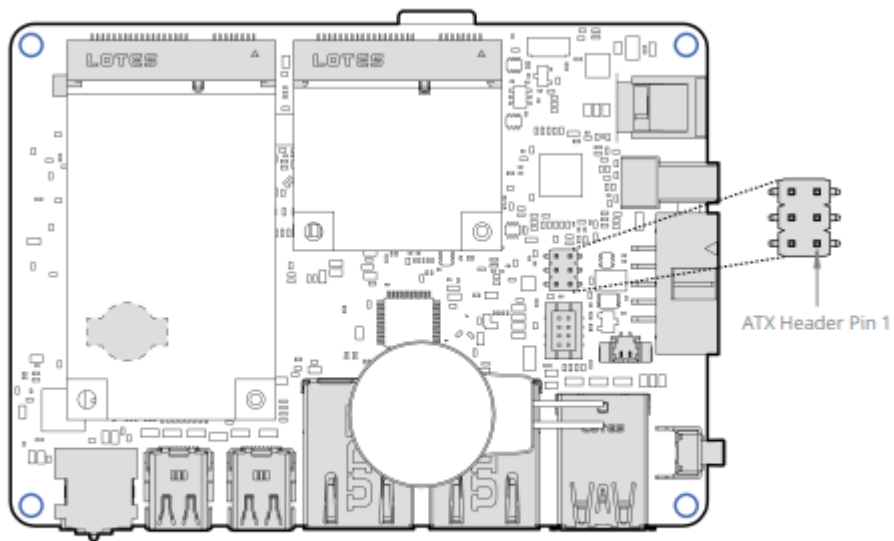
Figure 16. ATX Header Pin 1 on Motherboard

The following illustration shows the header without any jumpers.
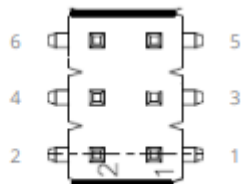
This illustration shows jumpers in the default 6-4 and 5-3 positions.
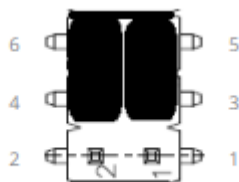
Table 3. Header Settings for AT/ATX. CMOS, and MSATA

Function	Setting
Clear CMOS	2-4
Normal (default)	4-6
AT Mode	1-3
ATX Mode (default)	3-5

5.1.8.3 - Clearing the CMOS

Setting the jumper with the Clear CMOS jumper shunt allows you to clear the data in the CMOS.

NOTE: Do not clear the CMOS right after updating the BIOS. You must boot up the system first and then

shut it down before clearing the CMOS.

NOTE: The password, date, time user default profile will be cleared only if the CMOS battery is removed.

To clear and reset system parameters to the default setup, follow these steps:
1. Turn off the computer and unplug the power cord from the power supply.
2. Wait 15 seconds.
3. Remove the jumper shunt from pins 6 and 4 and use it to short pins 2 and 4 on the header for 5 seconds.
4. Remove the jumper shunt and return it to short pins 6 and 4

5.1.9 - 2-Pin Battery Cable Header

The 3V Battery coin cell cable header is clearly labeled:

Function	Setting
3V Power	Pin 1
GND	Pin 2

5.1.10 - HDMI CEC Header

If it was selected and configured in the build, the chip will be populated. CEC functionality will work with an HDMI adapter. Please see series pages for additional information.

Pin	Function
1	DP2_CEC
2	DP1_CEC
3	Key
4	5MBus DATA
5	3.3V
6	5MBus Clock
7	Power BTN
8	GND
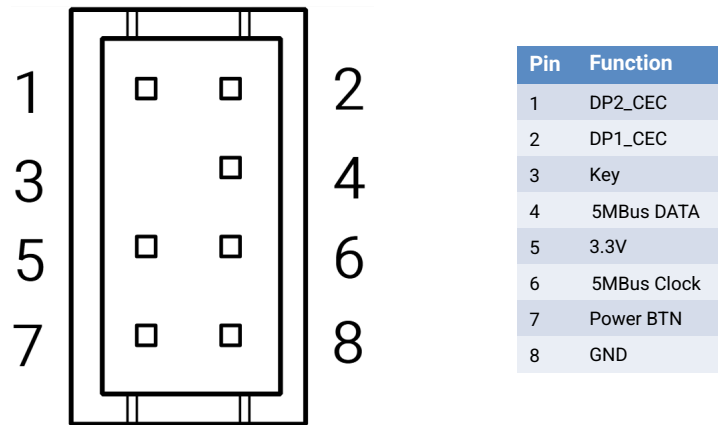
Figure 18. HDMI CEC Header

6 - Installation

Before starting installation:

- Read and understand the installation precautions listed in the "Pre-Installation Precautions" section.

Refer to the drawings and specifications in this chapter for:

- Using available screw hole positions
- Installing modules in the expansion slots (mini-PCIe and mini-PCIe/mini-SATA slots)
- Locating and connecting jumpers and onboard headers

6.1.1 - Pre-Installation Precautions

It is important to read the following precautions before installing expansion cards into the motherboard:

- Wear a grounding strap attached to a grounded device to avoid damage from static electricity
- Before opening the system, discharge static electricity by touching the metal case to a grounded object
- Leave components in the static-proof bags they came in until they can be installed
- Hold all circuit boards by the edges
- Do not bend circuit boards

7 - Building CL200 Series with Wi-Fi

To add Wi-Fi to the CL200 Series, follow this procedure.

1. Before starting, ensure that you have read and understand the instillation precautions listed above in the "Pre-Instillation Precations" section.

2. Remove both screws from the front of the case. Retain screws.

3. Remove the cover of the unit by sliding it toward the rear.

4. Remove rubber port blockers to install SMA connector through antenna holes. Remove nut first and line up the key. Install nut on the outside to hold connector in place.

5. Unscrew the screw on the standoff for the card length required. Retain screw.

6. Insert card at a 45 degree angle into the mPCIe slot until it snaps in.

7. Press down on the card's edge and screw down using retained screw into standoff.
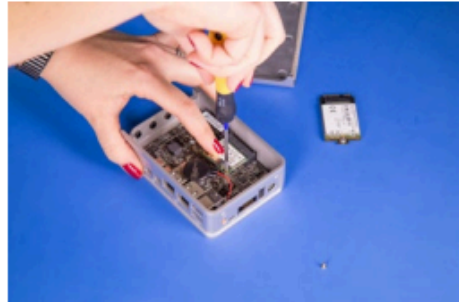
8. Install second card as needed following the same instructions as above.

9. If installing broadcast modules, install MHF4 pgitail cable to the module. Make sure the MHF4 cable maps to the correct port.
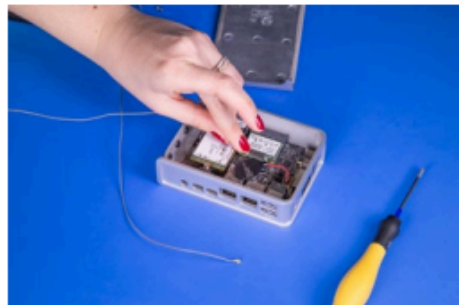
10. Remove clear sticker backing from thermal pads to attach to installed modules.

11. Install thermal pads onto installed modules, making sure to keep all wires free from pads and other ports.

12. Install cover onto the unit using retained screws.

13. Install antennas to exposed SMA connector.

8 - Mounting Information

8.1 - Clip Installation & Wall Mounting

Step 1: Mark and prep holes in surface for mounting

Step 2: Attach wall mount brackets to chassis

Step 3: Fasten system to surface
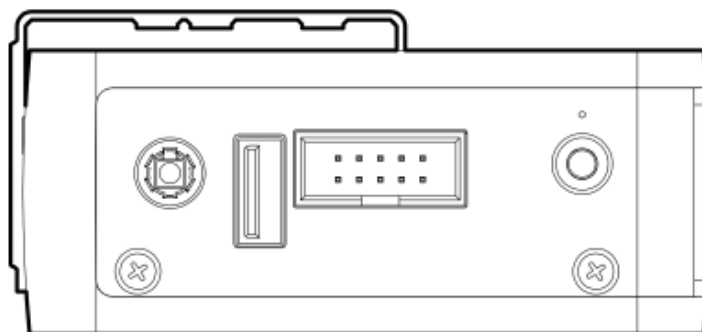
Figure 19. CL200 Mounting Plate Side
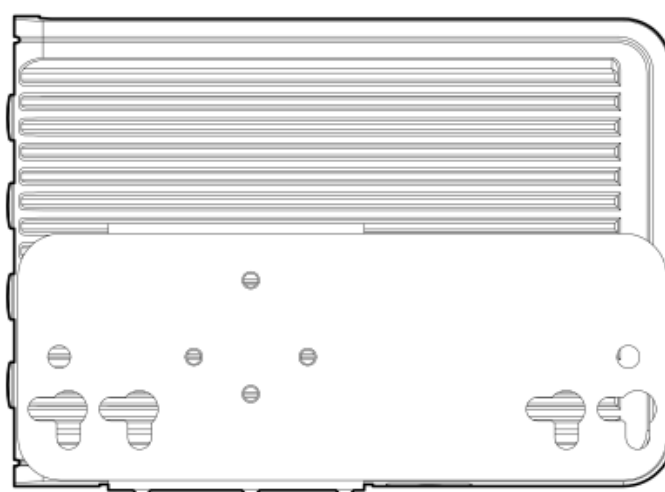
Figure 20. CL200 Mounting Plate Back

8.2 - DIN Rail

Mounting

Step 1: Attach DIN Rail mounting brackets to the chassis

Step 2: Clip system to the DIN Rail
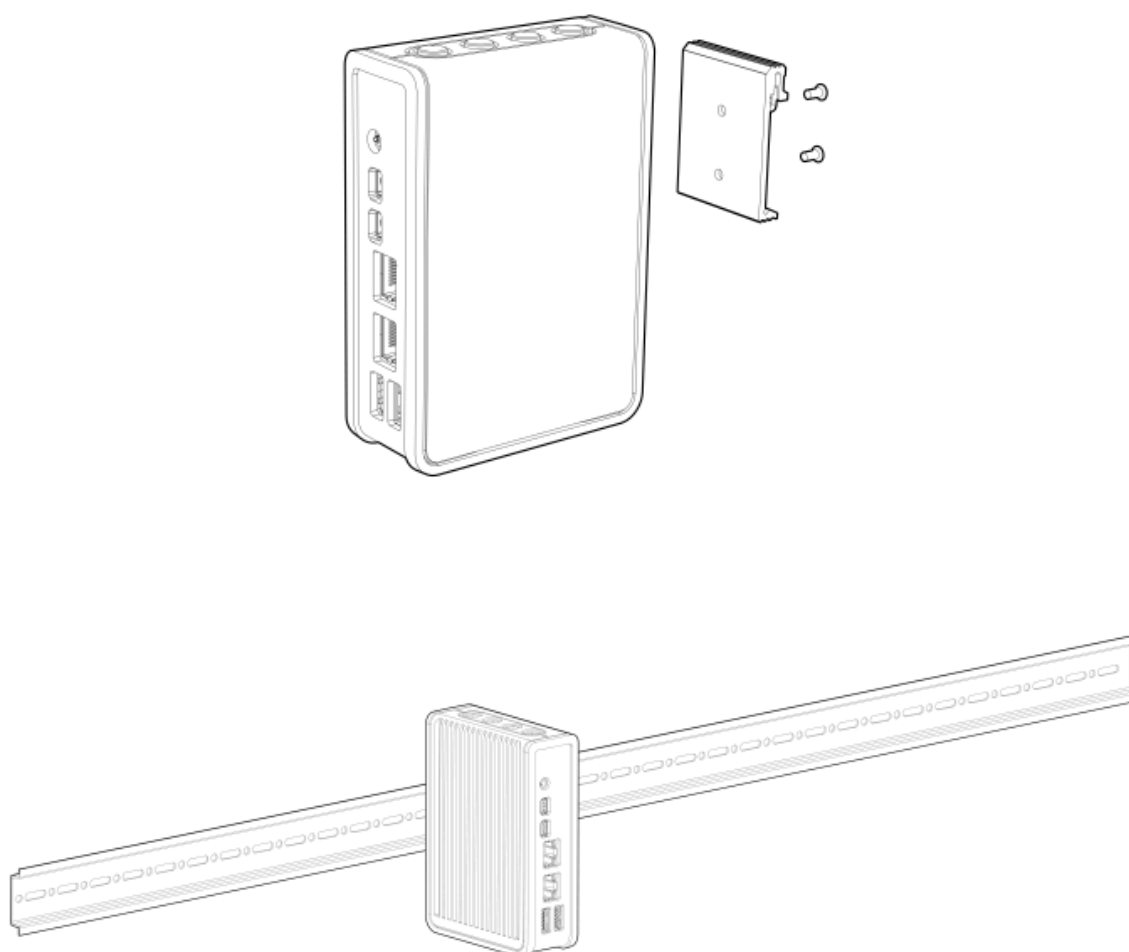
Figure 21. CL200 DIN Rail Mounting

9 - Power Management

The CL200 Series supports multiple power states. These states can be configured on the motherboard. This section describes the power management functions you can perform.

9.1 - Unexpected Shutdown Function

An unexpected shutdown does not necessarily cause a loss of data, but it can make access to some of your data difficult. To remedy this possibility, follow this procedure to power up the system again after the system power has been off more than 4 seconds:

- If the SOC BIOS mode is set to AT mode, press the Power button once to power on the system.
- If the SOC BIOS mode is set to ATX mode, press the Power button twice to power on the system.

9.2 - Wake-Up Events

The motherboard supports the following wake-up events.

Table 4. Supported Wake-Up Events

Wake-Up Event	From ACPI State	Comments
Power Button	S3, S4, S5	
RTC Alarm	S3, S4, S5	monitor to remain in sleep state
LAN	S3, S4, S5	
USB	S3	
PCIe	S3, S4, S5	via WAKE; monitor to remain in sleep state

Notes: S4 implies OS support only. USB ports must be turned off during S4/S5 states

10- UEFI Overview

The following section describes the CL200 Series UEFI. It shows each screen menu with a table describing the various fields and values.

11 - Main Page

Main	Advanced	Chipset	Security	Boot	Save & Exit	
BIOS Information						**Item help**
BIOS Vender		American Megatrends				
Core Version		5.12				
Compliancy		UEFI 2.5 ; PI 1.4				
BIOS Version		D7870X02				
Build Date		12/01/2017				
Platform Firmware Information						
BXT SOC		B1				
MRC Version		0.56				
PUNIT FW		2C				
PMC FW		03.29				
TXE FW		3.1.50.2222				
ISH FW		N/A				
GOP		10.0.1036				
CPU Flavor		BXT Notebook/Desktop				
Board ID		APL RVP 1C Lite (03)				
Fab ID		FAB1				
						→←: Select Screen
						↑↓: Select Item
Memory Information						Enter: Select
Total Memory		2048 MB				+/- : Change Opt
Memory Speed		1600MHz				F1: General Help
						F2: Previous Values
System Language		[English]				F3: Optimized Defaults
						F4: Save & Exit
System Date		[Mon, mm/dd/yyyy]				ESC: Exit
System Time		[hh:mm:ss]				

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Field Name	BIOS Vender
Default Value	AMI Megatrends
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Core Version
Default Value	5.12
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Compliancy
Default Value	UEFI 2.4; PI 1.4
Comment	This field is not selectable. There is no help text associated with it.

Field Name	BIOS Version
Default Value	Display the version of the BIOS
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Build Date
Default Value	Display build time of the BIOS
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Access Level
Default Value	Display the access level.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	BXT SOC
Default Value	Display the SOC version.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	MRC version
Default Value	Display the MRC version
Comment	This field is not selectable. There is no help text associated with it.

Field Name	PUNIT FW
Default Value	Display the PUNIT FW version.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	PMC FW
Default Value	Display the PMC FW version.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	TXE FW
Default Value	Display the TXE FW version.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	ISH FW
Default Value	Display the ISH FW version.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	GOP
Default Value	Display the GOP version
Comment	This field is not selectable. There is no help text associated with it.

Field Name	CPU Flavor
Default Value	Display the CPU flavor.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Board ID
Default Value	Display the board ID.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Fab ID
Default Value	Display the fab ID.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Total Memory
Value	Display the installed memory size.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Memory Speed
Value	Display the installed memory speed.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	System Language
Default Value	[English]
Comment	Choose the system default language.

Field Name	System Date
Default Value	[xxx mm/dd/yyyy]
Help	Set the Date. Use Tab to switch between Date elements.

Field Name	System Time
Default Value	[hh :mm :ss]
Help	Set the Time. Use Tab to switch between Time elements.

12 - Advanced Page

```
Main    Advanced    Chipset    Security    Boot    Save & Exit
                                                                    Item  help

  ▶SMART Settings
  ▶NCT5524D Super IO Configuration
  ▶Hardware Monitor
  ▶S5 RTC Wake Settings
  ▶CPU Configuration
  ▶AMI Graphic Output Protocol Policy
  ▶Network Stack Configuration
  ▶USB Configuration
  ▶Platform Trust Technology
  ▶Thermal                                    →←: Select Screen
  ▶System Component                            ↑↓: Select Item
  ▶RC ACPI Settings                            Enter: Select
                                               +/- : Change Opt
                                               F1: General Help
                                               F2: Previous Values
                                               F3: Optimized Defaults
                                               F4: Save & Exit
                                               ESC: Exit

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```

Field Name	SMART Settings
Help	System SMART Settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	NCT5524D Super IO Configuration
Help	System Super IO Chip Parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Hardware Monitor
Help	Monitor hardware status.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	S5 RTC Wake Settings
Help	Enable system to wake from S5 using RTC alarm.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	CPU Configuration
Help	CPU Configuration Parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	AMI Graphic Output Protocol Policy
Help	User Select Monitor Output by Graphic Output Protocol.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Network Stack Configuration
Help	Network Stack Settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	USB Configuration
Help	USB Configuration Parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Platform Trust Technology
Help	Platform Trust Technology.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Thermal
Help	Thermal.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	System Component
Help	System Component.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	RC ACPI Settings
Help	RC ACPI Settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

12.1 - SMART Settings

```
        Advanced
SMART Settings                                                    Item  help

SMART Self Test                         [Disabled]



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


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```

Field Name	SMART Self Test
Default Value	[Disabled]
Possible Value	Disabled / Enabled
Help	Run SMART Self Test on all HDDs during POST.

12.2 - NCT5524D Super IO Configuration

Advanced		
NCT5524D Super IO Configuration		**Item help**
Super IO Chip	NCT5524D	
Serial Port 1	[Enabled]	
		→←: Select Screen
		↑↓: Select Item
		Enter: Select
		+/- : Change Opt
		F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Exit
		ESC: Exit

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Field Name	Serial Port 1
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Enable or Disable Serial Port (COM).

13 - Hardware Monitor

Advanced

PC Health Status		Item help
VR temperature	: +37° c	
DIMM temperature	: +44° c	
VCORE	: 1.3000V	
VIN0	: +0.928 V	
VIN2	: +1.064 V	
VCC3V	: +1.375 V	
VSB3V	: +3.302 V	
VBAT	: N/A	
AVSB	: +3.328 V	

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

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Field Name	VR temperature
Default Value	Display the temperature of the VR
Comment	This field is not selectable. There is no help text associated with it.

Field Name	DIMM temperature
Default Value	Display the temperature of the DIMM
Comment	This field is not selectable. There is no help text associated with it.

Field Name	VCORE
Default Value	Display the voltage of the VCORE.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	VIN0
Default Value	Display the voltage of the VIN0.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	VIN2
Default Value	Display the voltage of the VIN2
Comment	This field is not selectable. There is no help text associated with it.

Field Name	VCC3V
Default Value	Display the voltage of the VCC3V
Comment	This field is not selectable. There is no help text associated with it.

Field Name	VSB3V
Default Value	Display the voltage of the VSB3V
Comment	This field is not selectable. There is no help text associated with it.

Field Name	VBAT
Default Value	Display the voltage of the VBAT
Comment	This field is not selectable. There is no help text associated with it.

Field Name	AVSB
Default Value	Display the voltage of the AVSB
Comment	This field is not selectable. There is no help text associated with it.

13.1 - S5 RTC Wake Settings

```
┌──────────────────────────────────────────────────────────────────────────┐
│ Advanced                                                                   │
├──────────────────────────────────────────────┬───────────────────────────┤
│ Wake system from S5              [Disable]     │      Item  help           │
│                                                │                           │
│                                                │                           │
│                                                │                           │
│                                                │                           │
│                                                │                           │
│                                                │                           │
│                                                ├───────────────────────────│
│                                                │ →←: Select Screen         │
│                                                │ ↑↓: Select Item           │
│                                                │ Enter: Select             │
│                                                │ +/- : Change Opt          │
│                                                │ F1: General Help          │
│                                                │ F2: Previous Values       │
│                                                │ F3: Optimized Defaults    │
│                                                │ F4: Save & Exit           │
│                                                │ ESC: Exit                 │
│                                                │                           │
├──────────────────────────────────────────────┴───────────────────────────┤
│         Version 2.18.1263. Copyright (C) 2017 American Megatrends, Inc.     │
└──────────────────────────────────────────────────────────────────────────┘
```
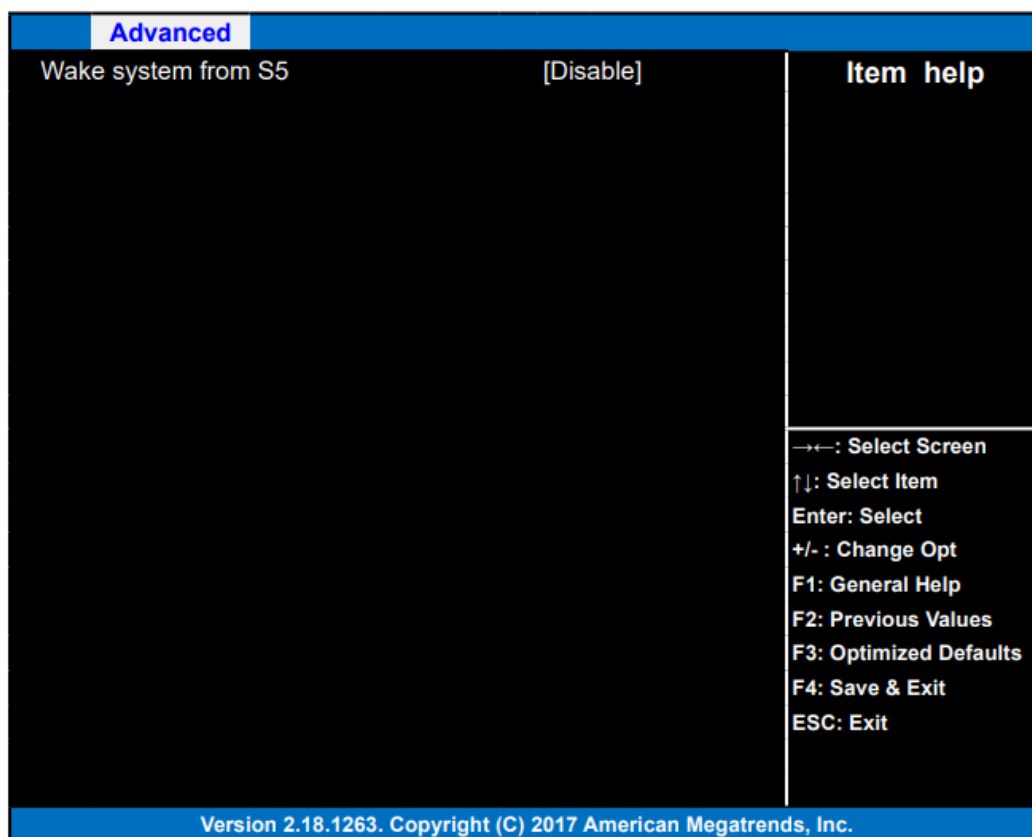
Field Name	Wake system from S5
Default Value	[Disabled]
Possible Value	Disabled / Fixed time / Dynamic Time
Help	Enable or disable System wake on alarm event. Select FixedTime, system will wake on the hr::min::sec specified. Select DynamicTime, System will wake on the current time + Increase minute(s).

13.2 - CPU Configuration

```
        Advanced
  CPU Configuration                                          Item  help

▶ Socket 0 CPU Information

  Speed                              1100MHz
  64-bit                             Supported

▶ CPU Power Management
  VT-d                               [Enabled]
  Monitor Mwait                      [Enabled]
  DTS                                [Enabled]

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

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```

Field Name	Socket 0 CPU Information
Help	Socket specific CPU Information.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	CPU Power Management
Help	CPU Power Management options.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	VT-d
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Enable/Disable CPU VT-d.

Field Name	Monitor Mwait
Default Value	[Enabled]
Possible Value	Disabled / Enabled / Auto
Help	Enable/Disable Monitor Mwait.

Field Name	DTS
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Enabled/Disabled Digital Thermal Sensor.

13.3 - Socket 0 CPU Information

```
                  Advanced
   Socket 0 CPU Information                                Item  help

   Intel(R) Pentium(R) CPU N4200 @ 1.1GHz
    CPU Signature                    506C9
   Microcode Patch                   28
   Max CPU Speed                     1100MHz
   Min CPU Speed                     800MHz
   Processor Cores                   4
   Intel HT Technology               Not Supported
   Intel VT-x Technology             Supported

   L1 Data Cache                     24 kB x 4
   L1 Code Cache                     32 kB x 4            →←: Select Screen
   L2 Cache                          1024 kB x2           ↑↓: Select Item
   L3 Cache                          Not Present          Enter: Select
                                                          +/- : Change Opt
                                                          F1: General Help
                                                          F2: Previous Values
                                                          F3: Optimized Defaults
                                                          F4: Save & Exit
                                                          ESC: Exit

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```

Field Name	CPU Signature
Default Value	Display the CPU signature
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Microcode Patch
Default Value	Display the microcode patch.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Max CPU speed
Default Value	Display the max speed of CPU.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Min CPU Speed
Default Value	Display the min speed of CPU.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Processor Cores
Default Value	Display the core numbers of processor.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Intel HT Technology
Default Value	Display the Intel HT Technology.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Intel VT-x Technology
Default Value	Display the Intel VT-x Technology.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	VSM
Default Value	Display the voltage of the VSM
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L1 Data Cache
Default Value	Display the L1 data cache size.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L1 Code Cache
Default Value	Display the L1 code cache size.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L2 Cache
Default Value	Display the L2 cache size.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L3 Cache
Default Value	Display the L3 cache size.
Comment	This field is not selectable. There is no help text associated with it.

13.4 - CPU Power Management

```
                Advanced
   CPU Power Management Configuration                    Item  help
     EIST                              [Enabled]
     Turbo Mode                        [Enabled]



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


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```

Field Name	EIST
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Enable/Disable Intel SpeedStep.

Field Name	Turbo Mode
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Turbo Mode.

13.5 - AMI Graphic Output Protocol Policy

Advanced	
Intel(R) Graphics Controller	**Item help**
Intel(R) GOP Driver [10.0.1036]	
Output Select [DP1]	
	→←: Select Screen
	↑↓: Select Item
	Enter: Select
	+/- : Change Opt
	F1: General Help
	F2: Previous Values
	F3: Optimized Defaults
	F4: Save & Exit
	ESC: Exit
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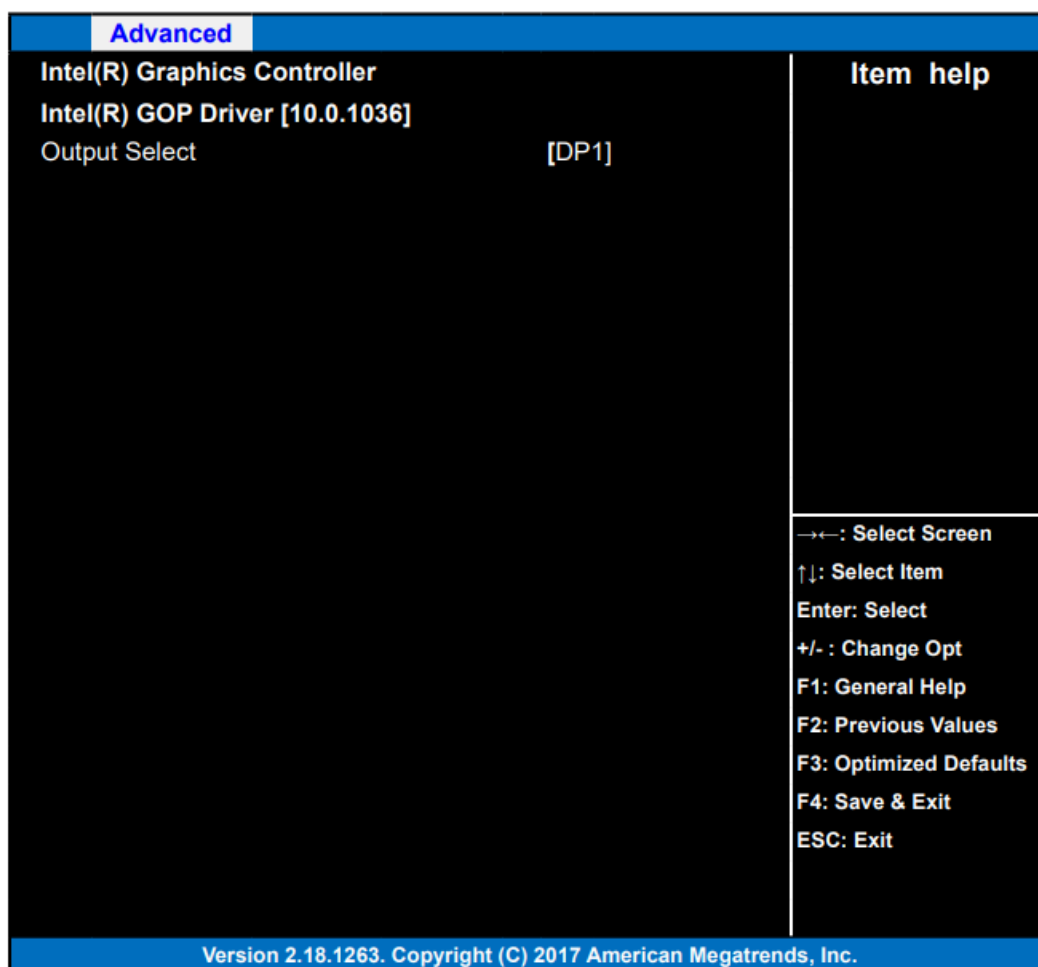
Field Name	Output Select
Default Value	Depend on connecting port
Possible Value	DP1 / DP2
Help	Output Interface.

13.6 - Network Stack Configuration

```
     Advanced

 Network Stack                    [Disabled]              Item  help




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

     Version 2.18.1263. Copyright (C) 2017 American Megatrends, Inc.
```
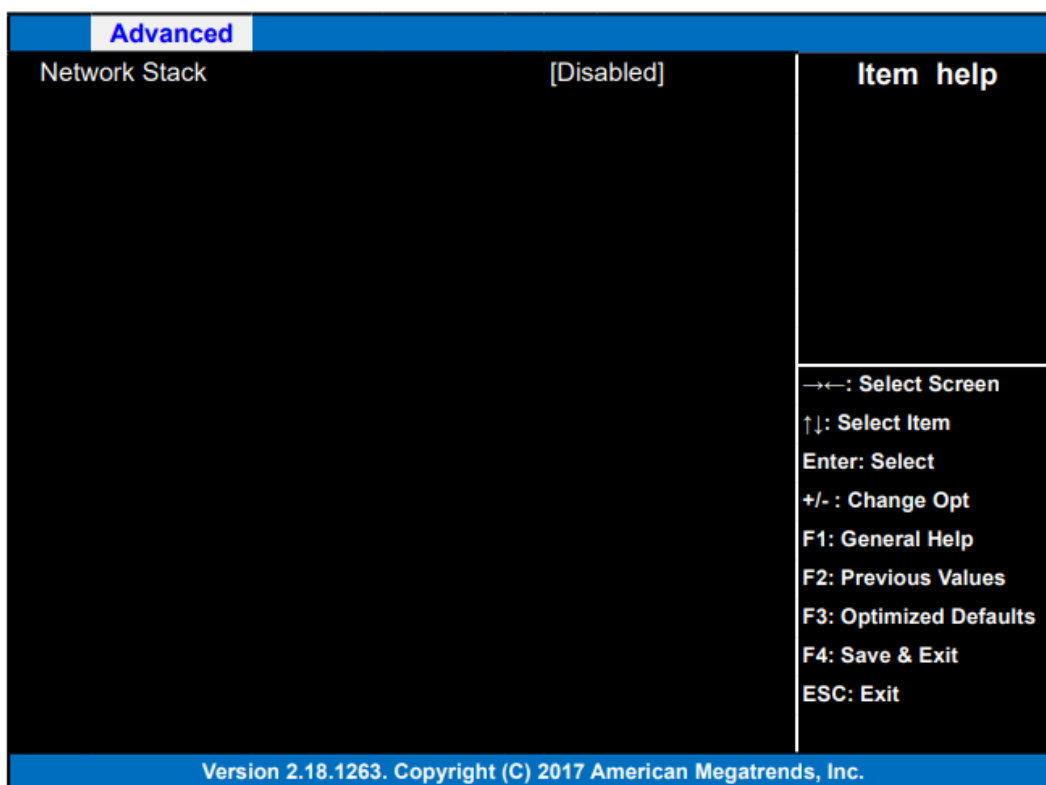
Field Name	Network Stack
Default Value	[Disabled]
Possible Value	Disabled / Enabled
Help	Enable/Disable UEFI Network Stack.

13.7 - USB Configuration

```
         Advanced
 USB Configuration                                         Item  help

 USB Module Version              17

 USB Controllers:                1 XHCI

 USB Devices:                    1 Keyboard, 1 M…



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


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```

Field Name	USB Module Version
Default Value	Display the USB module version
Comment	This field is not selectable. There is no help text associated with it.

Field Name	USB Controllers
Default Value	Display the USB controller number.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	USB Devices
Default Value	Display the USB device number.
Comment	This field is not selectable. There is no help text associated with it.

13.8 - Platform Trust Technology

```
                  Advanced
   TPM Configuration                                       Item  help
   fTPM                              [Enabled]


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


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```
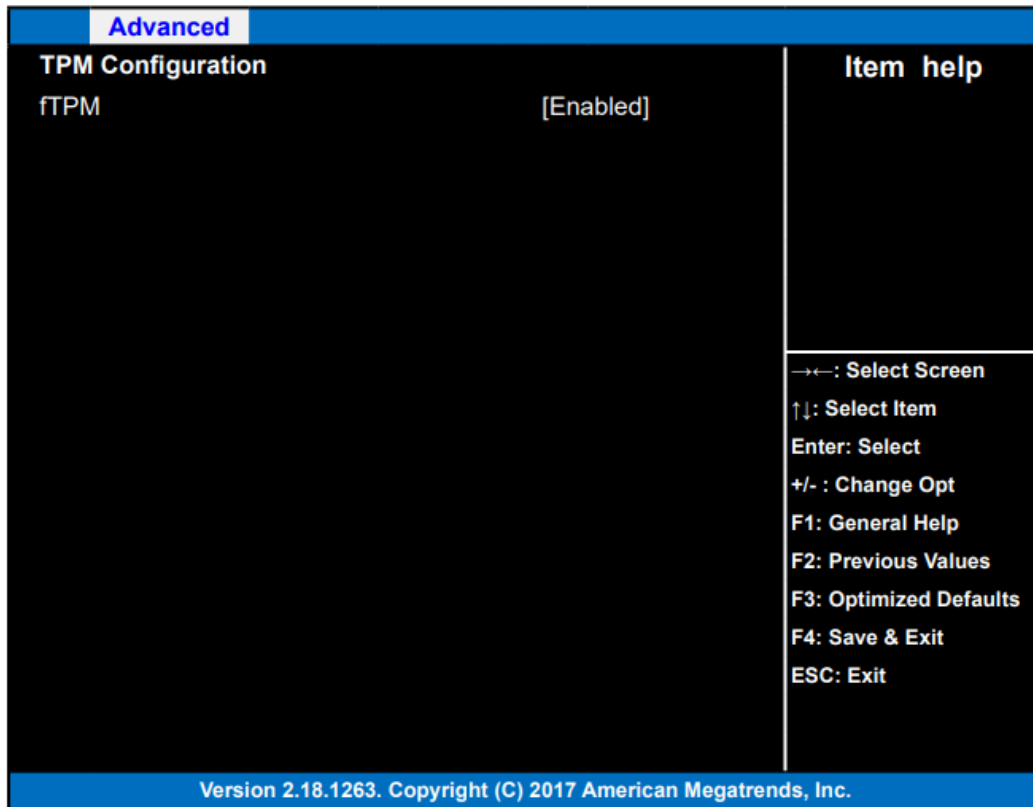
Field Name	fTPM
Default Value	[Enabled]
Possible Value	Enabled / Disabled
Help	Enable/Disable fTPM.

13.9 - Thermal

```
                Advanced
  Thermal Configuration Parameters                       Item  help
  Automatic Thermal Reporting          [Enabled]

  Dynamic Platform & Thermal Framework
  DPTF                                 [Enable]
   DPTF Processor                      [Enable]
    Active Thermal Trip Point          90
    Passive Thermal Trip Point         100
    S3/CS Thermal Trip Point           110
    Hot Thermal Trip Point             110
    Critical Thermal Trip Point        105
    Thermal Sampling Period            0
   FAN Device                          [Enabled]
   Generic Device 1                    [Enabled]
    Active Thermal Trip Point          60
    Passive Thermal Trip Point         65
    S3/CS Thermal Trip Point           70
    Hot Thermal Trip Point             75          →←: Select Screen
    Critical Thermal Trip Point        80          ↑↓: Select Item
    Thermal Sampling Period            50          Enter: Select
   Generic Device 2                    [Enabled]   +/- : Change Opt
    Active Thermal Trip Point          60          F1: General Help
    Passive Thermal Trip Point         65          F2: Previous Values
    S3/CS Thermal Trip Point           70          F3: Optimized Defaults
    Hot Thermal Trip Point             75          F4: Save & Exit
    Critical Thermal Trip Point        80          ESC: Exit
    Thermal Sampling Period            50

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```

Field Name	Automatic Thermal Reporting
Default Value	[Enabled]
Possible Value	Disabled / Enabled

Help	Configure _CRT, _PSV and _AC0 automatically based on values recommended in BWG's Thermal Reporting for Thermal Management settings. Set to Disabled for manual configuration.

Field Name	DPTF
Default Value	[Enable]
Possible Value	Disable / Enable

Field Name	DPTF Processor
Default Value	[Enable]
Possible Value	Disable / Enable
Help	Enable/Disable Processor Participant Device

Field Name	Active Thermal Trip Point
Default Value	90
Possible Value	0~127
Help	This value controls the temperature of the ACPI Active Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Passive Thermal Trip Point
Default Value	100
Possible Value	0~127
Help	This value controls the temperature of the ACPI Passive Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	S3/CS Thermal Trip Point
Default Value	110
Possible Value	0~127
Help	This value controls the temperature of the ACPI Critical Thermal Trip Point for entering S3 or CS. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Hot Thermal Trip Point
Default Value	110
Possible Value	0~127
Help	This value controls the temperature of the ACPI Hot Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Critical Thermal Trip Point
Default Value	105
Possible Value	0~127
Help	This value controls the temperature of the ACPI Critical Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Thermal Sampling Period
Default Value	0
Possible Value	0~100

Help	The polling interval in 10ths of seconds. A value of 0 tells the driver to use interrupts. NOTE: The granularity of the sampling period is 0.1 seconds. For example, if the sampling period is 30 seconds, then _TSP needs to report 300; if the sampling period is 0.5 seconds, then choose 5.

Field Name	FAN Device
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Enable the Fan device.

Field Name	Generic Device 1
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Enable/Disable Thermistor 1 device.

Field Name	Active Thermal Trip Point
Default Value	60
Possible Value	0~127
Help	This value controls the temperature of the ACPI Active Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Passive Thermal Trip Point
Default Value	65
Possible Value	0~127
Help	This value controls the temperature of the ACPI Passive Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	S3/CS Thermal Trip Point
Default Value	70
Possible Value	0~127
Help	This value controls the temperature of the ACPI Critical Thermal Trip Point for entering S3 or CS. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Hot Thermal Trip Point
Default Value	75
Possible Value	0~127
Help	This value controls the temperature of the ACPI Hot Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Critical Thermal Trip Point
Default Value	80
Possible Value	0~127
Help	This value controls the temperature of the ACPI Critical Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Thermal Sampling Period
Default Value	50
Possible Value	0~100
Help	The polling interval in 10ths of seconds. A value of 0 tells the driver to use interrupts. NOTE: The granularity of the sampling period is 0.1 seconds. For example, if the sampling period is 30 seconds, then _TSP needs to report 300; if the sampling period is 0.5 seconds, then choose 5.

Field Name	Generic Device 2
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Enable/Disable Thermistor 2 device.

Field Name	Active Thermal Trip Point
Default Value	60
Possible Value	0~127
Help	This value controls the temperature of the ACPI Active Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Passive Thermal Trip Point
Default Value	65
Possible Value	0~127
Help	This value controls the temperature of the ACPI Passive Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	S3/CS Thermal Trip Point
Default Value	70
Possible Value	0~127
Help	This value controls the temperature of the ACPI Critical Thermal Trip Point for entering S3 or CS. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Hot Thermal Trip Point
Default Value	75
Possible Value	0~127
Help	This value controls the temperature of the ACPI Hot Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Critical Thermal Trip Point
Default Value	80
Possible Value	0~127
Help	This value controls the temperature of the ACPI Critical Thermal Trip Point. NOTE: a value of zero will cause the DPTF driver to disable the trip point.

Field Name	Thermal Sampling Period
Default Value	50
Possible Value	0~100

Help	The polling interval in 10ths of seconds. A value of 0 tells the driver to use interrupts. NOTE: The granularity of the sampling period is 0.1 seconds. For example, if the sampling period is 30 seconds, then _TSP needs to report 300; if the sampling period is 0.5 seconds, then choose 5.

13.10 - System Component

```
              Advanced
   PNP Setting                              [Disable]              Item  help





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


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```

Field Name	PNP Setting
Default Value	[Disable]
Possible Value	Disable / Performance / Power / Power & Performance
Help	Select PNP setting mode, Disable, Performance, Power or Power & Performance mode.

13.11 - RC ACPI Settings

```
         Advanced
 Native ASPM                          [Enable]             Item  help
 Low Power S0 Idle Capability         [Enable]

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

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```

Field Name	Native ASPM
Default Value	[Enable]
Possible Value	Disabled / Enable
Help	On enable, vista will control the ASPM support for the device. If disabled, the BIOS will.

Field Name	Low Power S0 Idle Capability
Default Value	[Enable]
Possible Value	Disable / Enable
Help	This variable determines if we enable ACPI Lower Power S0 Idle Capability (Mutually exclusive with Smart connect). Also updates the Platform S0ix Capability Support in IGD OpRegion.

14 - Chipset

```
Main   Advanced   Chipset   Security   Boot   Save & Exit

                                                              Item  help
  Memory Information

   Total Memory                    2048 MB (LPDDR3)

   Memory SO-DIMM1                 2048 MB (LPDDR3)

  ▶PCI Express Configuration
  ▶USB Configuration
   Auto Power On                   [Disable]
   Wake On Lan                     [Disable]
   OS Selection                    [Windows]

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

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```

Field Name	Total Memory
Default Value	Display the total memory size.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Memory Slot0
Default Value	Display the memory size of slot0.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	PCI Express Configuration
Help	PCI Express Configuration Settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	USB Configuration
Help	USB Configuration Settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Auto Power On
Default Value	[Disable]
Possible Value	Enable / Disable / Last State
Help	Specify what state to go to when power is re-applied after a power failure (G3 state). Enable: System will boot directly as soon as power applied. Disable: System will keeps in power-off state until power button is pressed.

Field Name	Wake On Lan
Default Value	[Disable]
Possible Value	Disable / Enable
Help	Enable or Disable the Wake on Lan.

Field Name	OS Selection
Default Value	[Windows]
Possible Value	Windows / Intel Linux
Help	Select the target OS.

14.1 - PCI Express Configuration

```
                        Chipset
   PCI Express Configuration                            Item  help
 ▶ PCI Express Root Port 3
 ▶ LAN 1
 ▶ PCI Express Root Port 5
 ▶ LAN 2




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

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```

Field Name	PCI Express Root Port 3
Help	Control the PCI Express Root Port. AUTO: To disable unused root port automatically for the most optimum power savings. Enable: Enable PCIe root port. Disable: Disable PCIe root port.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	LAN 1
Help	Control the PCI Express Root Port. AUTO: To disable unused root port automatically for the most optimum power savings. Enable: Enable PCIe root port. Disable: Disable PCIe root port.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	PCI Express Root Port 5
Help	Control the PCI Express Root Port. AUTO: To disable unused root port automatically for the most optimum power savings. Enable: Enable PCIe root port. Disable: Disable PCIe root port.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	LAN2
Help	Control the PCI Express Root Port. AUTO: To disable unused root port automatically for the most optimum power savings. Enable: Enable PCIe root port. Disable: Disable PCIe root port.
Comment	Press Enter when selected to go into the associated Sub-Menu.

14.2 - PCI Express Root Port 3

```
                      Chipset
PCI Express Root Port 3              [Auto]              Item  help
If DISABLED, goto ENABLE first
 then Auto on next boot
ASPM                                 [Auto]



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

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```

Field Name	PCI Express Root Port 3
Default Value	[Auto]
Possible Value	Disable / Enable / Auto
Help	Control the PCI Express Root Port. AUTO: To disable unused root port automatically for the most optimum power savings. Enable: Enable PCIe root port. Disable: Disable PCIe root port.

Field Name	ASPM
Default Value	[Auto]
Possible Value	Disable / L0s / L1 / L0sL1 / Auto
Help	PCI Express Active State Power Management settings.

14.3 - LAN 1

	Chipset		
LAN 1		[Auto]	Item help
If DISABLED, goto ENABLE first			
then Auto on next boot			
ASPM		[Auto]	
			→←: Select Screen
			↑↓: Select Item
			Enter: Select
			+/- : Change Opt
			F1: General Help
			F2: Previous Values
			F3: Optimized Defaults
			F4: Save & Exit
			ESC: Exit
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Field Name	LAN 1
Default Value	[Auto]
Possible Value	Disable / Enable / Auto
Help	Control the PCI Express Root Port. AUTO: To disable unused root port automatically for the most optimum power savings. Enable: Enable PCIe root port. Disable: Disable PCIe root port.

Field Name	ASPM
Default Value	[Auto]
Possible Value	Disable / L0s / L1 / L0sL1 / Auto
Help	PCI Express Active State Power Management settings.

14.4 - PCI Express Root Port 5

```
                    Chipset
PCI Express Root Port 5          [Auto]              Item  help
If DISABLED, goto ENABLE first
 then Auto on next boot
ASPM                             [Auto]




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

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```

Field Name	PCI Express Root Port 5
Default Value	[Auto]
Possible Value	Disable / Enable / Auto
Help	Control the PCI Express Root Port. AUTO: To disable unused root port automatically for the most optimum power savings. Enable: Enable PCIe root port. Disable: Disable PCIe root port.

Field Name	ASPM
Default Value	[Auto]
Possible Value	Disable / L0s / L1 / L0sL1 / Auto
Help	PCI Express Active State Power Management settings.

14.5 - LAN2

```
                    Chipset
 LAN2                              [Auto]              Item  help
 If DISABLED, goto ENABLE first
  then Auto on next boot
 ASPM                             [Auto]



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

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```
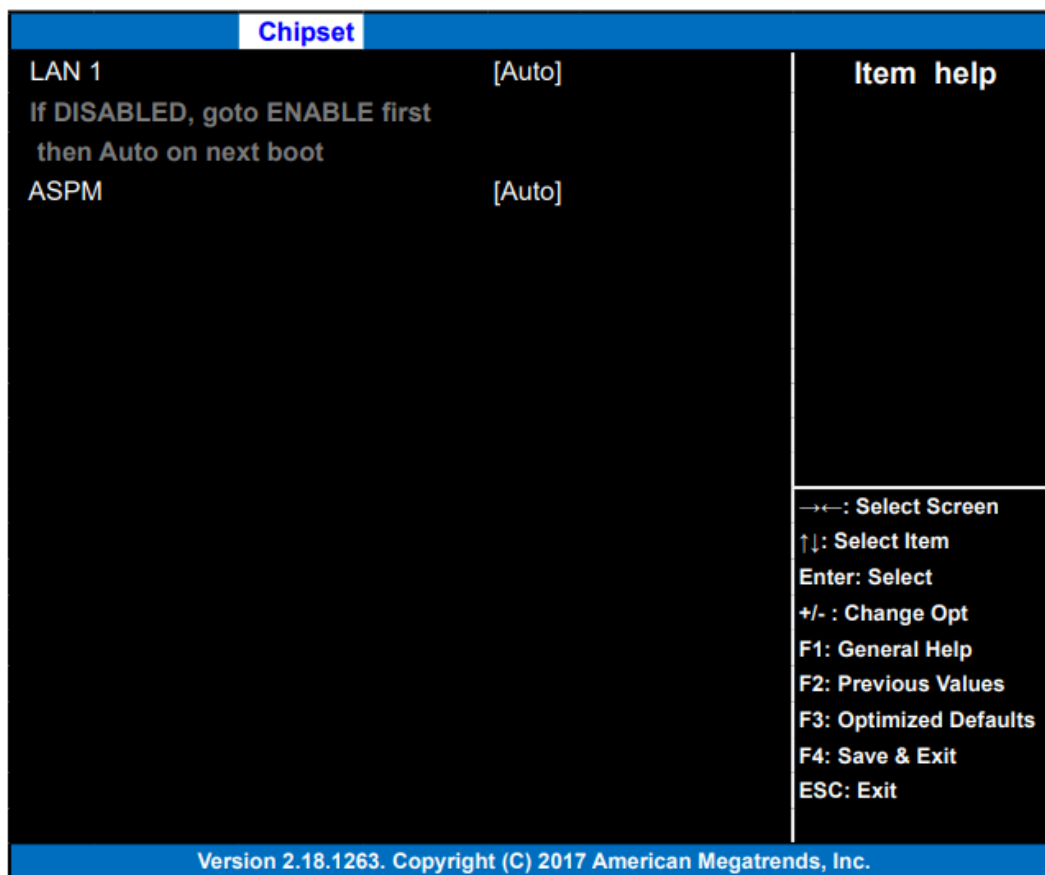
Field Name	LAN2
Default Value	[Auto]
Possible Value	Disable / Enable / Auto
Help	Control the PCI Express Root Port. AUTO: To disable unused root port automatically for the most optimum power savings. Enable: Enable PCIe root port. Disable: Disable PCIe root port.

Field Name	ASPM
Default Value	[Auto]
Possible Value	Disable / L0s / L1 / L0sL1 / Auto
Help	PCI Express Active State Power Management settings.

15.6 - USB Configuration

```
                    Chipset
                                                            Item  help

     USB VBUS                      [Enable]
     XHCI Compilance Mode          [Enable]




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

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```
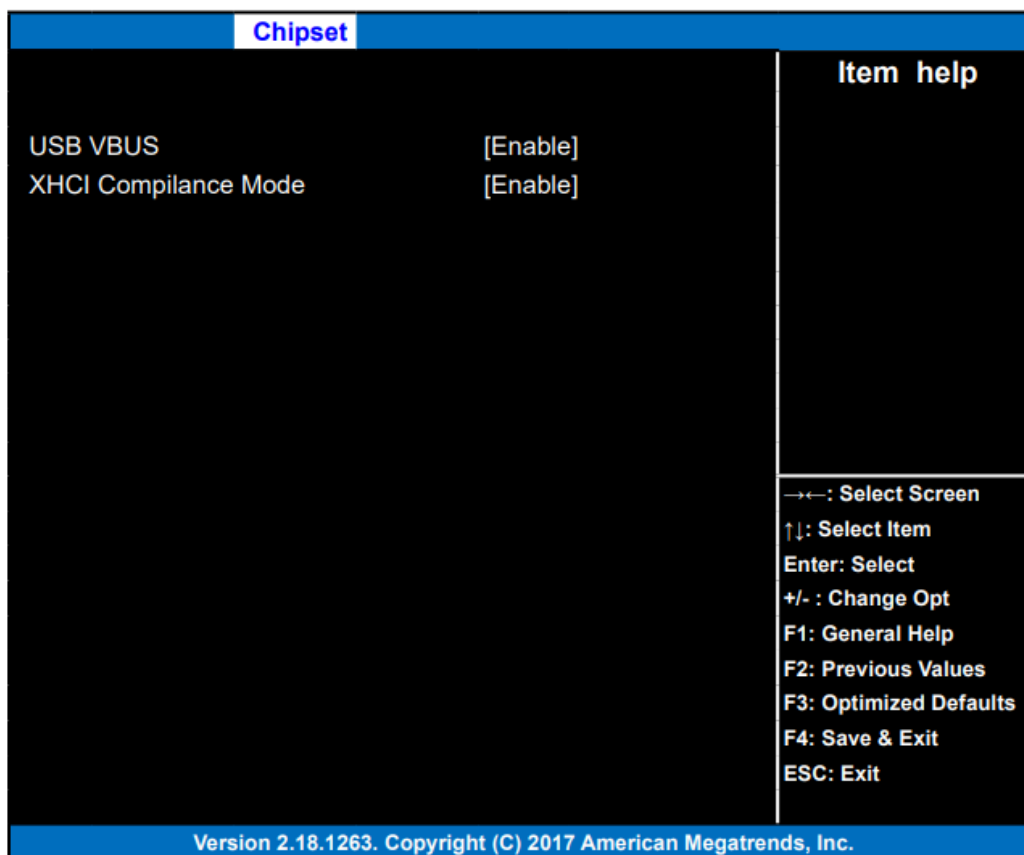
Field Name	USB VBUS
Default Value	[Enable]
Possible Value	Disable / Enable
Help	VBUS should be Enable in HOST mode. It should be Disable in OTG device mode.

Field Name	XHCI Compliance Mode
Default Value	[Enable]
Possible Value	Enable / Disable
Help	Options to Enable XHCI Link Compliance Mode. Default is Enable to enable Compliance Mode. Set Disable to disable Compliance Mode.

15 - Security

```
Main   Advanced   Chipset   Security   Boot   Save & Exit
```

Password Description		Item help
If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup. If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will have Administrator rights. The password length must be in the following range:		
Minimum Length	3	
Maximum Length	20	→←: Select Screen
		↑↓: Select Item
Setup Administrator Password		Enter: Select
User password.		+/- : Change Opt
		F1: General Help
		F2: Previous Values
HDD Security Configuration:		F3: Optimized Defaults
P1:TS128GMSA370		F4: Save & Exit
		ESC: Exit
►Secure Boot		

```
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```

Field Name	Setup Administrator Password
Help	Set Setup Administrator Password.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	User Password
Help	Set User Password
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	P1:TS128GMSA370
Help	HDD Security Configuration for selected drive.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Secure Boot
Help	Customizable Secure Boot settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.
Help	Secure Boot Mode – Custom & Standard, Set UEFI Secure Boot Mode to STANDARD mode or CUSTOM mode, this change is effect after save. And after reset, the mode will return to STANDARD mode.

15.1 - Secure Boot

```
                        Security
                                                          Item  help
    System Mode                   Setup
    Secure Boot                   Not Active
    Vendor Keys                   Active

    Attempt Secure Boot           [Enabled]

    Secure Boot Mode              [Standard]
  ▶ Key Management
                                                    →←: Select Screen
                                                    ↑↓: Select Item
                                                    Enter: Select
                                                    +/- : Change Opt
                                                    F1: General Help
                                                    F2: Previous Values
                                                    F3: Optimized Defaults
                                                    F4: Save & Exit
                                                    ESC: Exit

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```
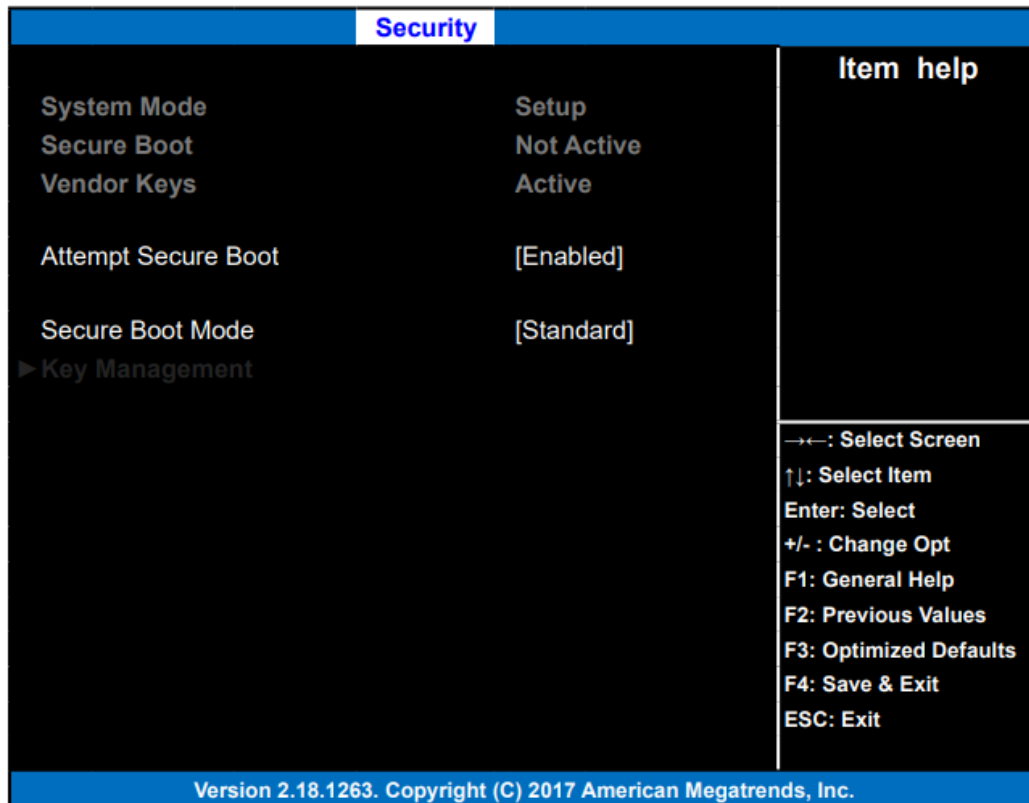
Field Name	Attempt Secure Boot
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Secure Boot activated when Platform Key(PK) is enrolled, System mode is User/De-ployed, and CSM function is disabled.

Field Name	Secure Boot Mode
Default Value	[Standard]
Possible Value	Standard / Customized
Help	Secure Boot Mode – Custom & Standard, Set UEFI Secure Boot Mode to STANDARD mode or CUSTOM mode, this change is effect after save. And after reset, the mode will return to STANDARD mode.

16 - Boot

```
Main   Advanced   Chipset   Security   Boot   Save & Exit
  Boot Configuration                                          Item  help
  Setup Prompt Timeout                  3
  Bootup NumLock State                  [On]
  Fast Boot                             [Enable]


  FIXED BOOT ORDER Priorities
  Boot Option #1                        [Hard Disk:Windows
                                        B...]
  Boot Option #2                        [CD/DVD]
  Boot Option #3                        [USB Hard Disk]
  Boot Option #4                        [USB CD/DVD]
  Boot Option #5                        [USB Key]
  Boot Option #6                        [USB Floppy]        →←: Select Screen
  Boot Option #7                        [USB Lan]           ↑↓: Select Item
  Boot Option #8                        [Network]           Enter: Select
                                                            +/- : Change Opt
  ►UEFI Hard Disk Drive BBS Priorities                      F1: General Help
                                                            F2: Previous Values
                                                            F3: Optimized Defaults
                                                            F4: Save & Exit
                                                            ESC: Exit


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```

Field Name	Setup Prompt Timeout
Default Value	3
Possible Value	1~65535
Help	Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

Field Name	Bootup NumLock State
Default Value	[On]
Possible Value	On / Off
Help	Select the keyboard NumLock state.

Field Name	Fast Boot
Default Value	[Enable]
Possible Value	Disable / Enable

Help	Enables or disables FastBoot features. Most probes are skipped to reduce time cost during boot.

Field Name	Boot Option #1
Default Value	[Hard Disk:Windows Boot Manager (P1: TS128GMSA370)]
Possible Value	Hard Disk:Windows Boot Manager (P1: TS128GMSA370) CD/DVD USB Hard Disk USB CD/DVD USB Key USB Floppy USB Lan Network Disable
Help	Sets the system boot order.

Field Name	Boot Option #2
Default Value	[CD/DVD]
Possible Value	Hard Disk:Windows Boot Manager (P1: TS128GMSA370) CD/DVD USB Hard Disk USB CD/DVD USB Key USB Floppy USB Lan Network Disable
Help	Sets the system boot order.

Field Name	Boot Option #3
Default Value	[USB Hard Disk]
Possible Value	Hard Disk:Windows Boot Manager (P1: TS128GMSA370) CD/DVD USB Hard Disk USB CD/DVD USB Key USB Floppy USB Lan Network Disable
Help	Sets the system boot order.

Field Name	Boot Option #4
Default Value	[USB CD/DVD]
Possible Value	Hard Disk:Windows Boot Manager (P1: TS128GMSA370) CD/DVD USB Hard Disk USB CD/DVD USB Key USB Floppy USB Lan Network Disable
Help	Sets the system boot order.

Field Name	Boot Option #5
Default Value	[USB key]
Possible Value	Hard Disk:Windows Boot Manager (P1: TS128GMSA370) CD/DVD USB Hard Disk USB CD/DVD USB Key USB Floppy USB Lan Network Disable
Help	Sets the system boot order.

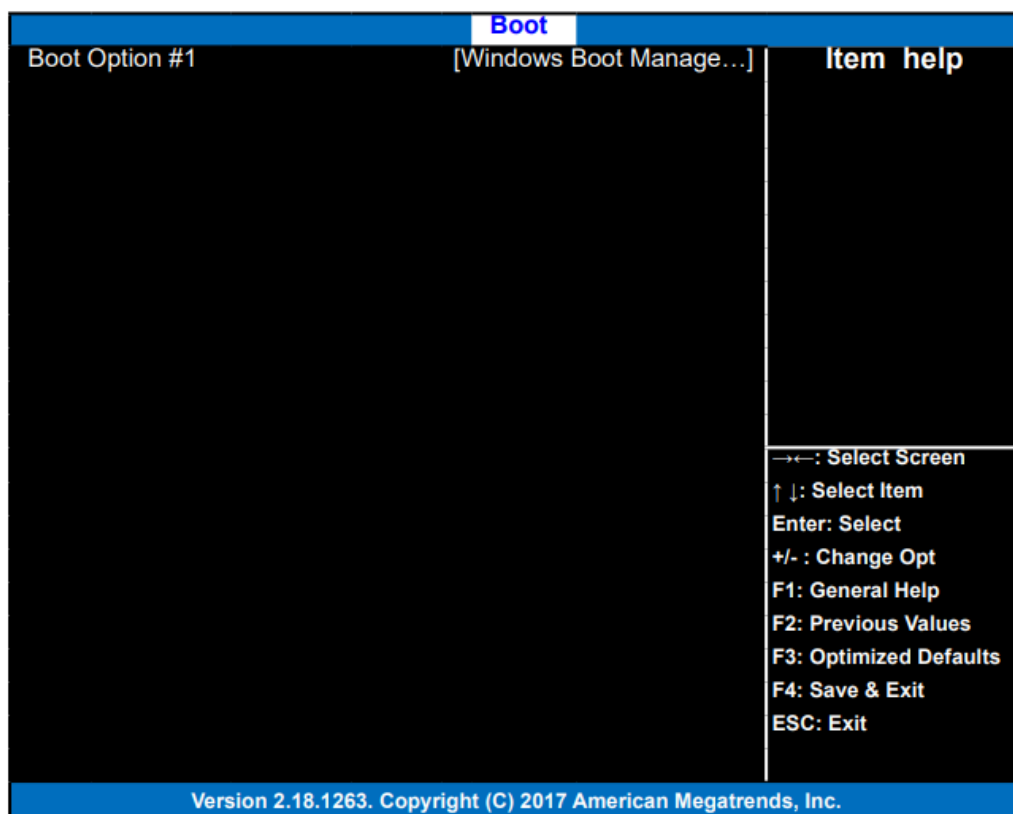| Field Name	Boot Option #6
Default Value	[USB Floppy]
Possible Value	Hard Disk:Windows Boot Manager (P1: TS128GMSA370) CD/DVD USB Hard Disk USB CD/DVD USB Key USB Floppy USB Lan Network Disable
Help	Sets the system boot order.

Field Name	Boot Option #7
Default Value	[USB Lan]
Possible Value	Hard Disk:Windows Boot Manager (P1: TS128GMSA370) CD/DVD USB Hard Disk USB CD/DVD USB Key USB Floppy USB Lan Network Disable
Help	Sets the system boot order.

Field Name	Boot Option #8
Default Value	[Network]
Possible Value	Hard Disk:Windows Boot Manager (P1: TS128GMSA370) CD/DVD USB Hard Disk USB CD/DVD USB Key USB Floppy USB Lan Network Disable
Help	Sets the system boot order.

Field Name	UEFI Hard Disk Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available UEFI Hard Disk Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

16.1 - UEFI Hard Disk Drive BBS Priorities

Field Name	Boot Option #1
Default Value	[Windows Boot Manager (P1: TS128GMSA370)]
Possible Value	Windows Boot Manager (P1: TS128GMSA370) Disable
Help	Sets the system boot order.

17 - Save & Exit

```
Main   Advanced   Chipset   Security   Boot   Save & Exit                Item help
  Save Options
Save Changes and Exit
Discard Changes and Exit

 Save Changes and Reset
 Discard Changes and Reset

 Restore Defaults

 Boot Override
Windows Boot Manager (P1: TS128GMSA370)
Launch EFI Shell from filesystem device
                                                             →←: Select Screen
                                                             ↑↓: Select Item
                                                             Enter: Select
                                                             +/- : Change Opt
                                                             F1: General Help
                                                             F2: Previous Values
                                                             F3: Optimized Defaults
                                                             F4: Save & Exit
                                                             Esc: Exit

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```

Field Name	Save Changes and Exit
Help	Exit system setup after saving the changes.

Field Name	Discard Changes and Exit
Help	Exit system setup without saving any changes.

Field Name	Save Changes and Reset
Help	Reset the system after saving the changes.

Field Name	Discard Changes and Reset
Help	Reset system setup without saving any changes.

Field Name	Restore Defaults
Help	Restore/Load Default values for all the setup options.

Field Name	Windows Boot Manager (P1: TS128GMSA370)

Field Name	Launch EFI Shell from filesystem device
Help	Attempts to Launch EFI Shell application (Shell.efi) from one of the available filesystem devices.