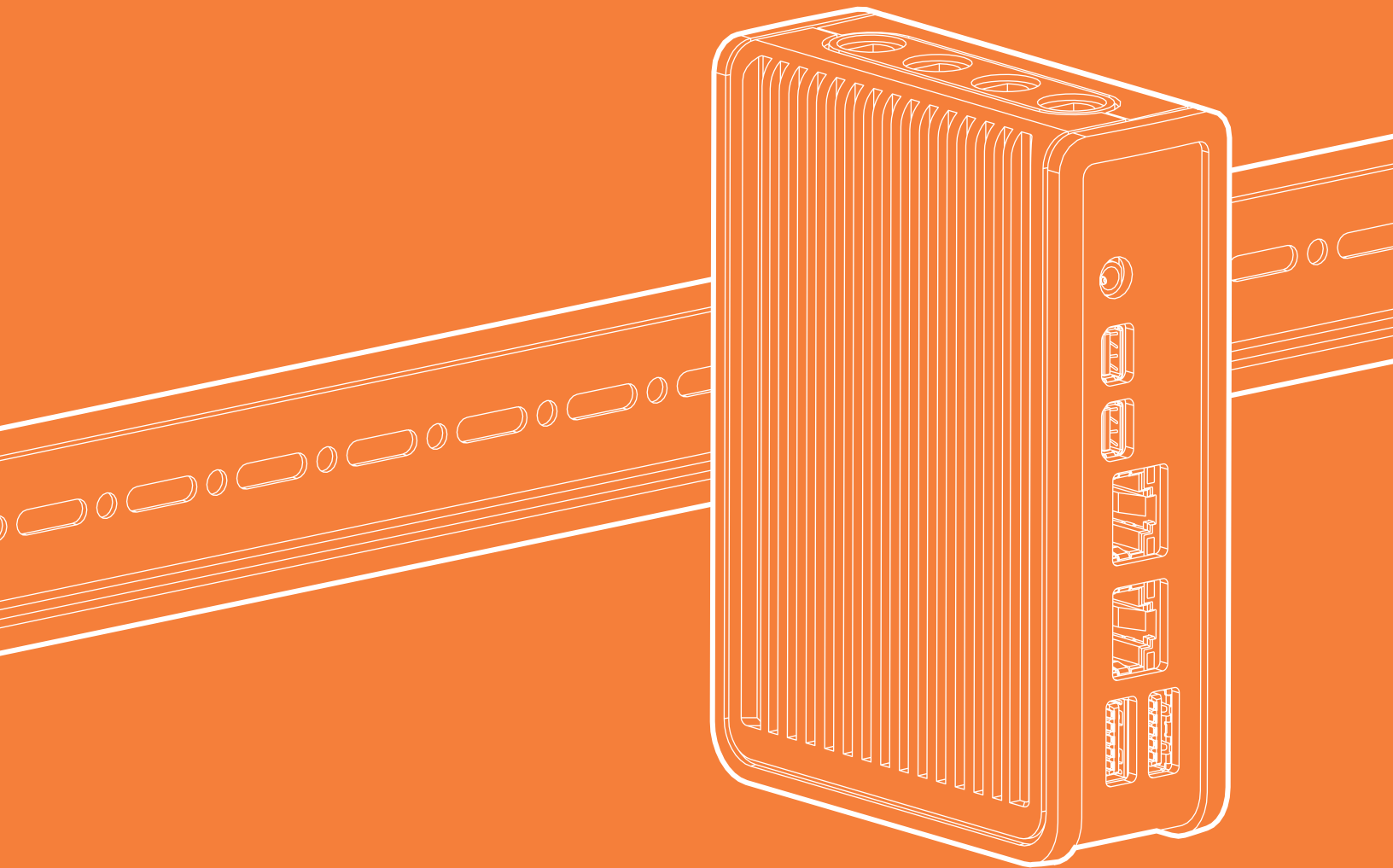


CL200 Series Manual

Version 1.0



US Office

Phone: +1 802 861 2300

Email: info@onlogic.com

www.onlogic.com

EU Office

Phone: +31 85 2733760

Email: info@onlogic.eu

www.onlogic.com

Ultra Key User Guide

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1 - About OnLogic

OnLogic is powering innovation with highly configurable embedded and IoT computers engineered for reliability. Businesses worldwide depend on our solutions to operate in the toughest environments while tapping into the evolving Industrial Internet of Things.

This guide will introduce you to the CL200 Series and walk you through hardware installation and BIOS setup. For technical questions or support, please reach out via our contact information below.

You have a lot of choices when choosing computer hardware. The OnLogic Team wants to thank you for trusting our hardware to meet your application needs. The CL200 Series is the result of input from partners like you. We've worked hard to create a system that meets the varied needs of industrial and IoT computing and we've manufactured this system under our strict quality assurance and immunity standards to serve you best. If you have any concerns about the quality or performance of this product, please contact us directly or [visit our support page](#).

1.1 - Contact Information

OnLogic Global

35 Thompson Street,
South Burlington, VT 05403
USA

+1 802 861 2300
info@onlogic.com

OnLogic Europe

Handelskade 49,
2288 BA Rijswijk,
The Netherlands

+31 85 2733760
info.eu@onlogic.com

2 - 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.

2.1 - 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.

2.2 - 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 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 device is mounted

to vertical surface then 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.

2.3 - Wireless

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

3 - What's In The Box

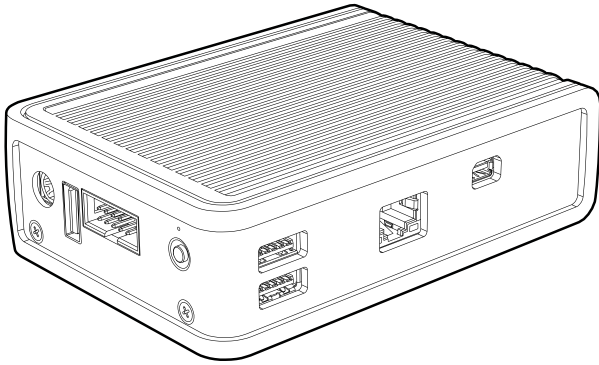


Figure 1. CL 200 Assembly

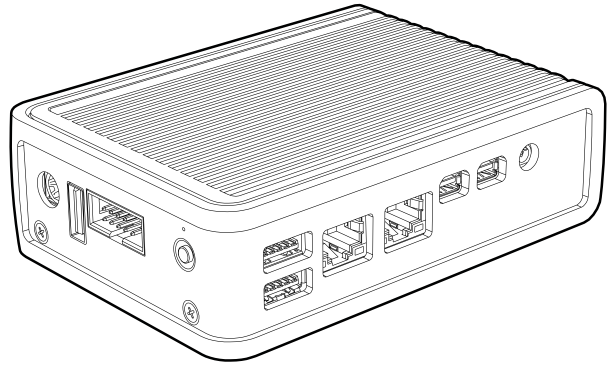


Figure 2. CL210 Assembly

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.

4 - System Overview

4.1 - CL200 Exterior

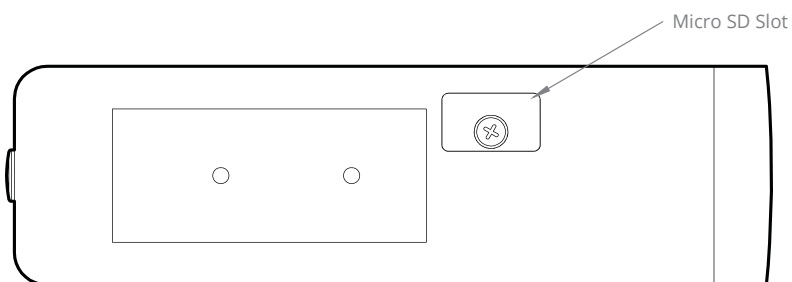


Figure 3. CL200 Back

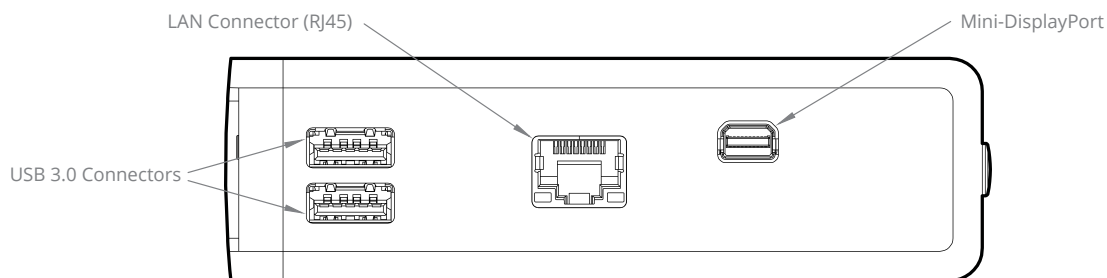


Figure 4. CL200 Front

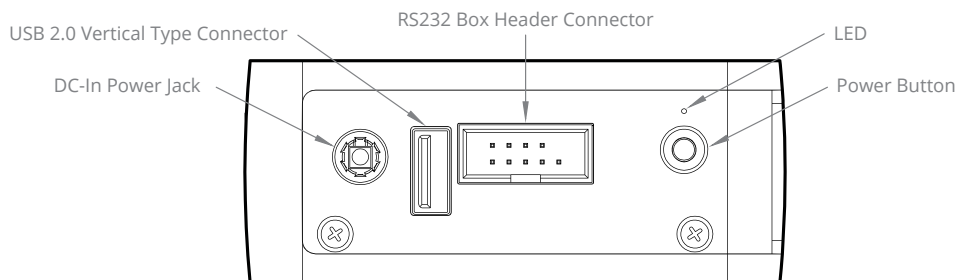


Figure 5. CL200 Side I/O

4.2 - CL210 Exterior

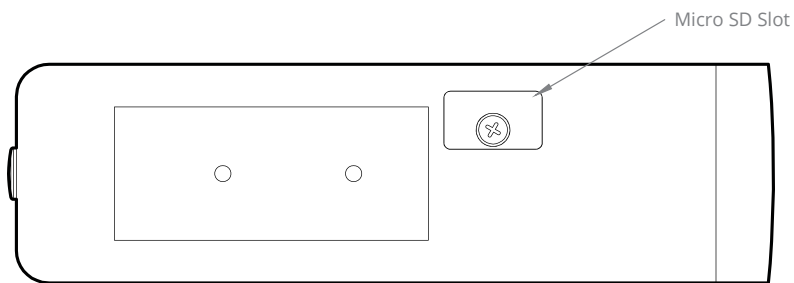


Figure 6. CL210 Back

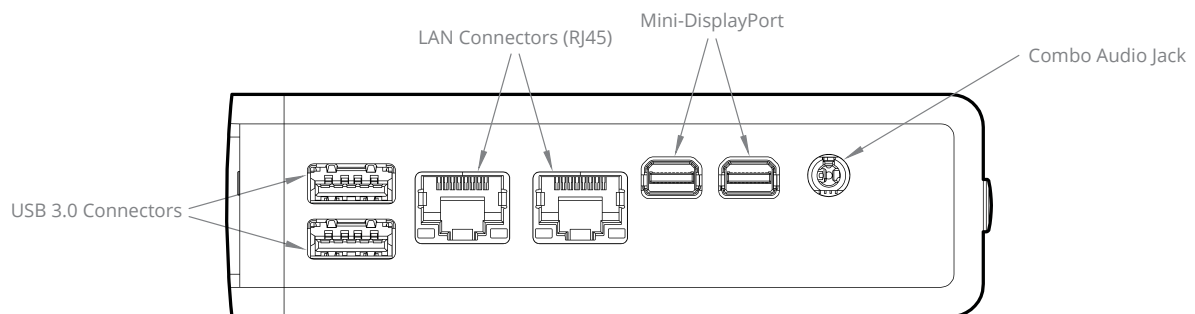


Figure 7. CL210 Front

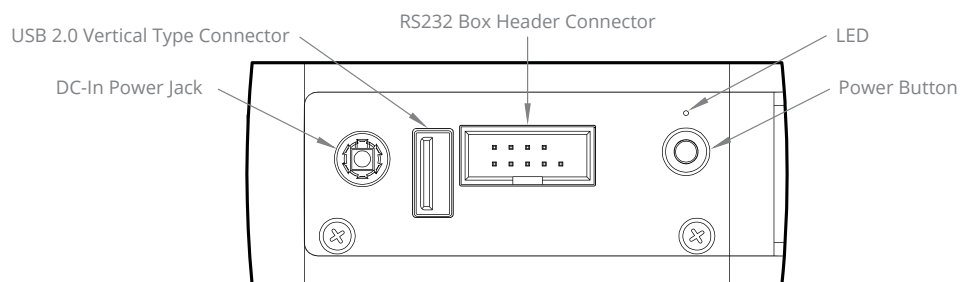


Figure 8. CL210 Side I/O

5 - System Specifications

	CL200 Series	Board-Level Assembly	
		CL200 (Standard- Basic)	CL210 (Standard-Advanced)
Form Factor	Pico ITX (100mm x 72mm)		
Processor	Intel® Celeron®	N3350	N3350
System memory	LPDDR4 onboard DRAM	2GB	4GB
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
Rear I/O	Micro SD slot		
Front I/O	Audio jack w/ Mic-in & Line-out	-	•
	mini-Display Port	1	2
	Gb LAN port	1	2
	USB3.0	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		

6 - Motherboard Overview

6.1 - Core Design - Motherboard

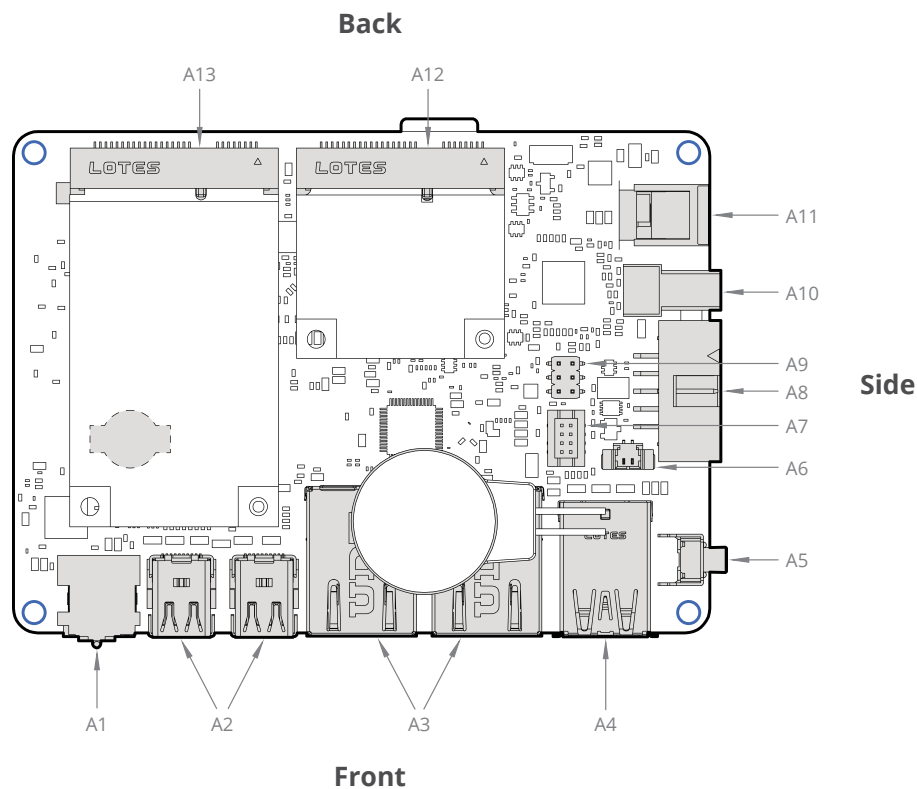


Figure 9. EPM162 Top View

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

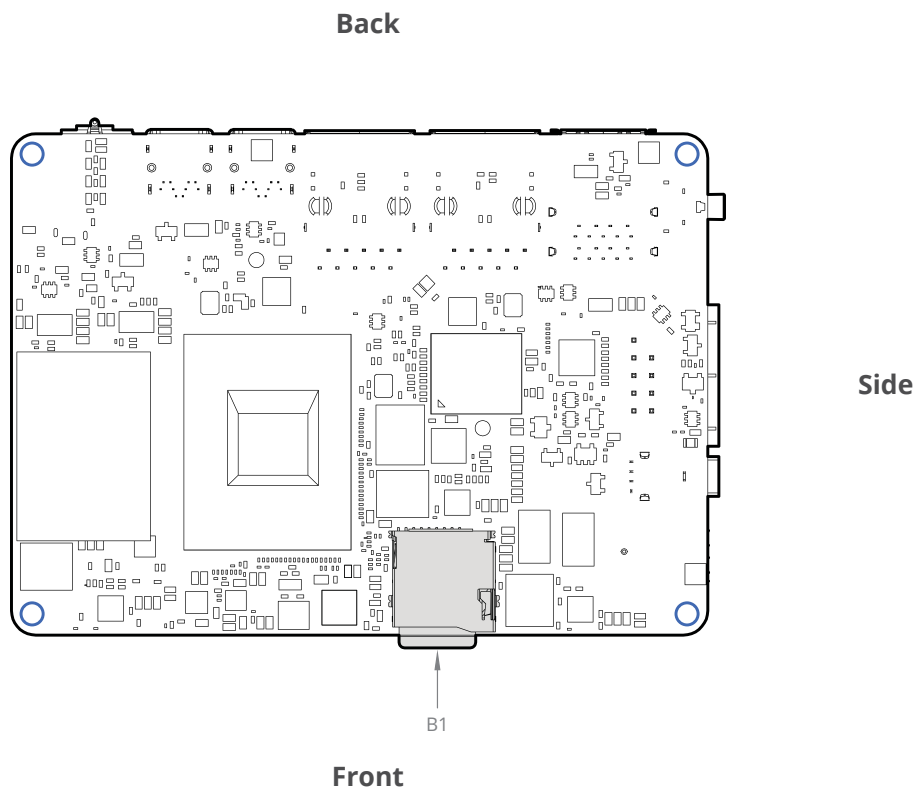


Figure 10. CPU Side Connector Placement

Item	Function description
B1	Micro SD Connector

6.1.1 - Processor Core Design

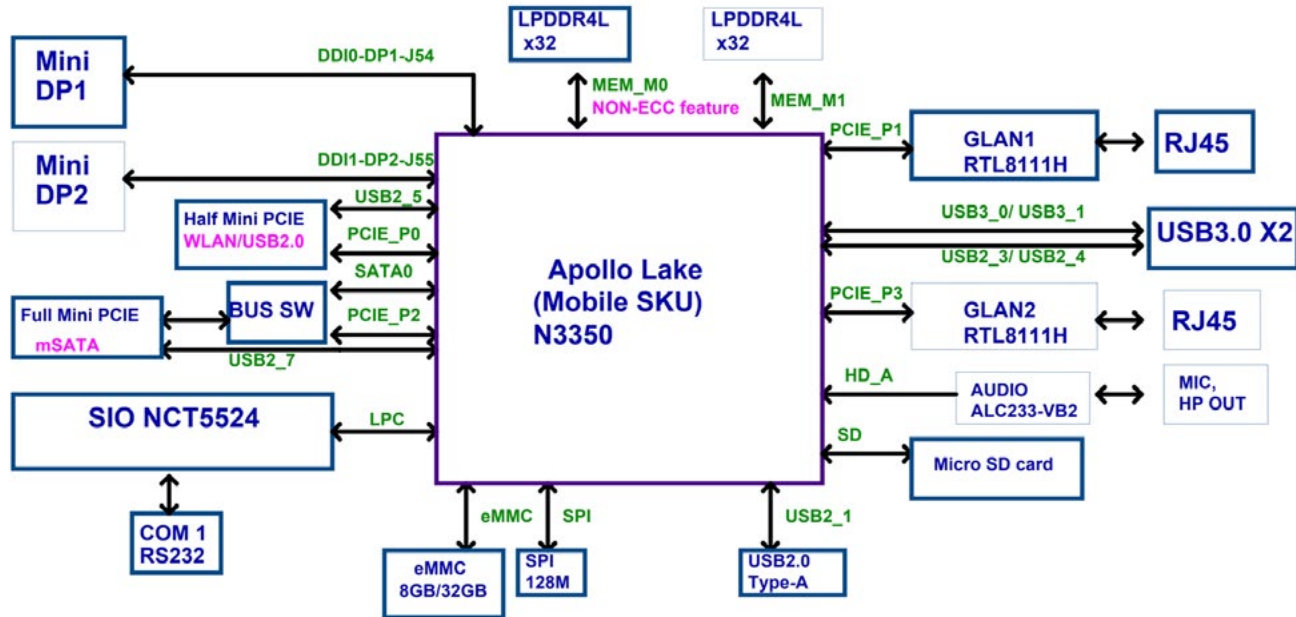


Figure 11. Core Design Block Diagram

6.1.2 - 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.

6.1.3 - 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.

6.1.4 - Combo Audio Jack

The audio jack is implemented using the Realtek ALC233-VB2 and supports Nokia and Apple headset connectors.

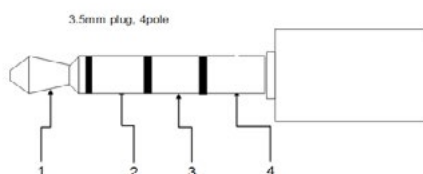


Figure 12. CL200 Series Combo Audio Jack

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

6.1.5 - LAN Port

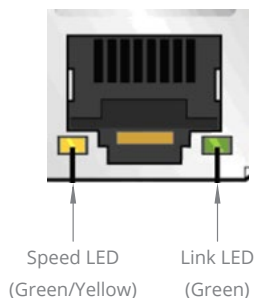


Figure 13. LAN Port

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

6.1.6 - Serial Port

The serial port header is 2x5, 2.54 mm pitch, colored black and keyed at pin 10.

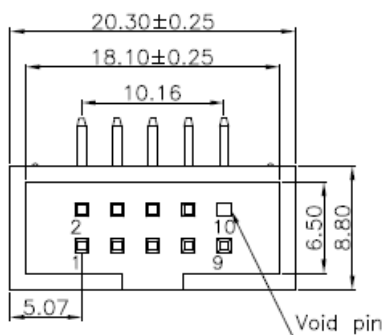


Figure 14. Serial Port Connector

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)

6.1.7 - Mini-PCI Express Expansion Slots

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

6.1.8 - Jumpers and Headers

6.1.8.1 - 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.

6.1.8.2 - AT/ATX,CMOS Jumper

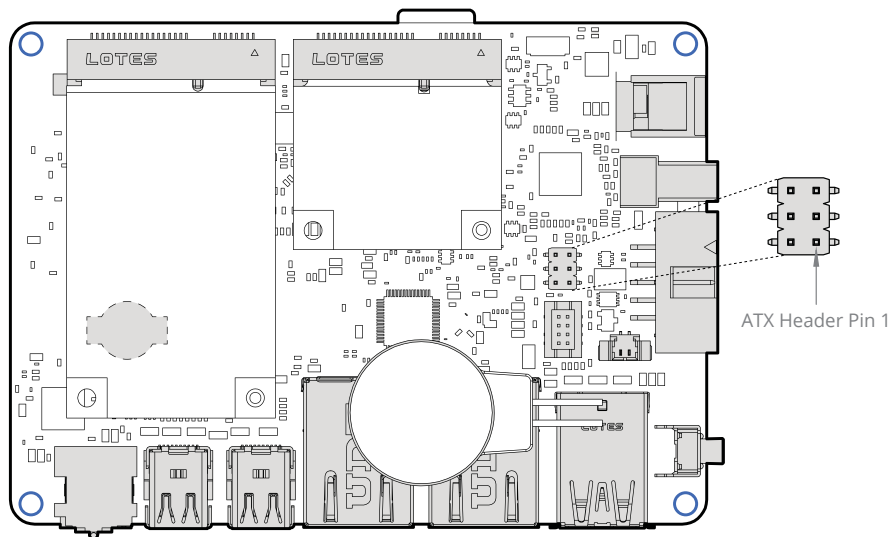
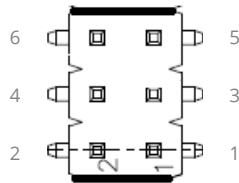


Figure 16. ATX Header Pin 1 on Motherboard

The following illustration shows the header without any jumpers.



This illustration shows jumpers in the default 6-4 and 5-3 positions.

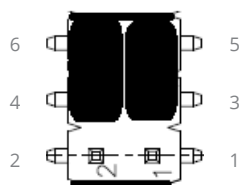


Table 3. Header Settings for AT/ATX, CMOS, and MSATA

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

6.1.8.3 - 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

6.1.9 - 2-Pin Battery Cable Header

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

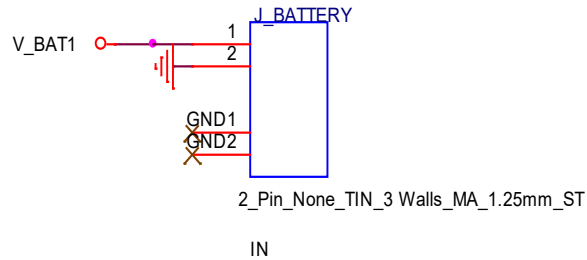


Figure 17. 2-Pin Battery Cable Header

Function	Setting
3V Power	Pin 1
GND	Pin 2

6.1.10 - 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.

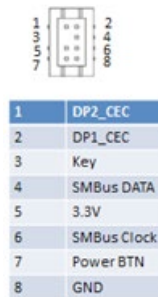


Figure 18. HDMI CEC Header

7 - 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

7.1.1 - 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

8 - 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 installation precautions listed above in the “Pre-Installation Precautions” section.
2. Remove both screws from the front of the case. Retain screws.

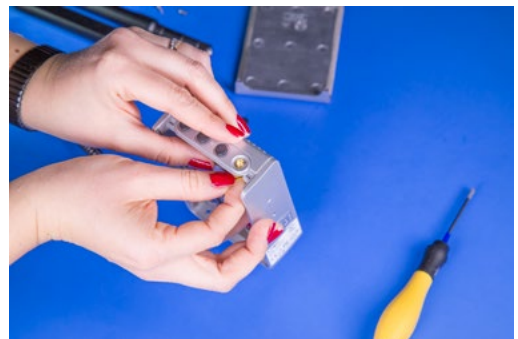


CL200 Series Industrial Computer

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



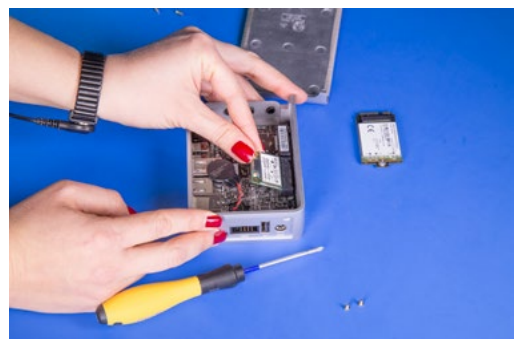
4. Remove rubber port blockers to install SMA connector through antenna holes. Remove nut first and line up the key. Install nut on the outside to hold connector in place.



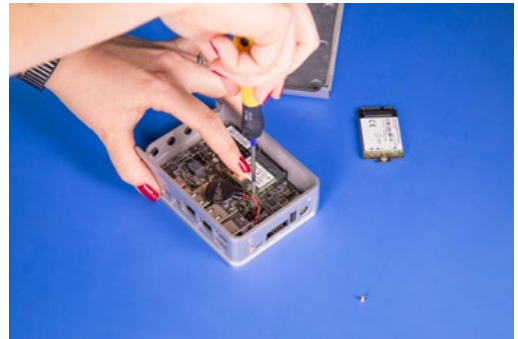
5. Unscrew the screw on the standoff for the card length required. Retain screw.



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



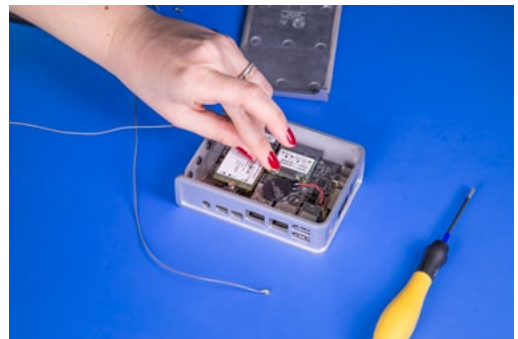
7. Press down on the card's edge and screw down using retained screw into standoff.



8. Install second card as needed following the same instructions as above.



9. If installing broadcast modules, install MHF4 pigtail cable to the module. Make sure the MHF4 cable maps to the correct port.

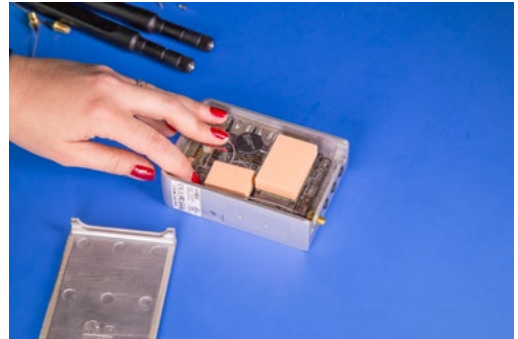


10. Remove clear sticker backing from thermal pads to attach to installed modules.



CL200 Series Industrial Computer

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.



9 - Mounting Information

9.1 - 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

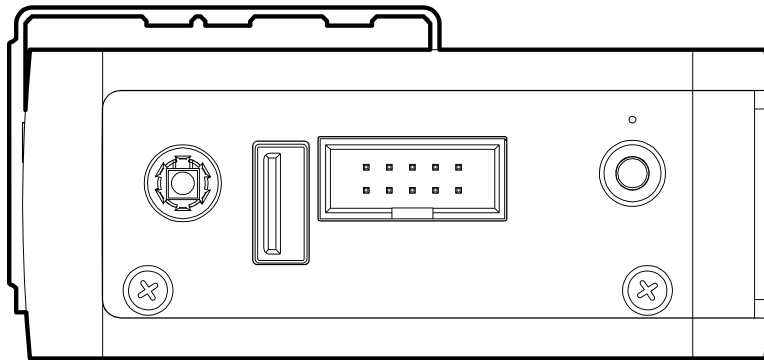


Figure 19. CL200 Mounting Plate Side

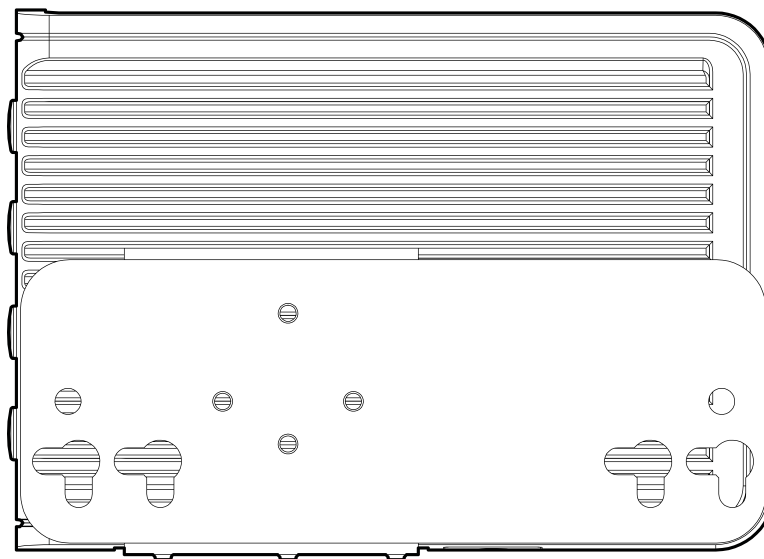


Figure 20. CL200 Mounting Plate Back

9.2 - DIN Rail

Mounting

Step 1: Attach DIN Rail mounting brackets to the chassis

Step 2: Clip system to the DIN Rail

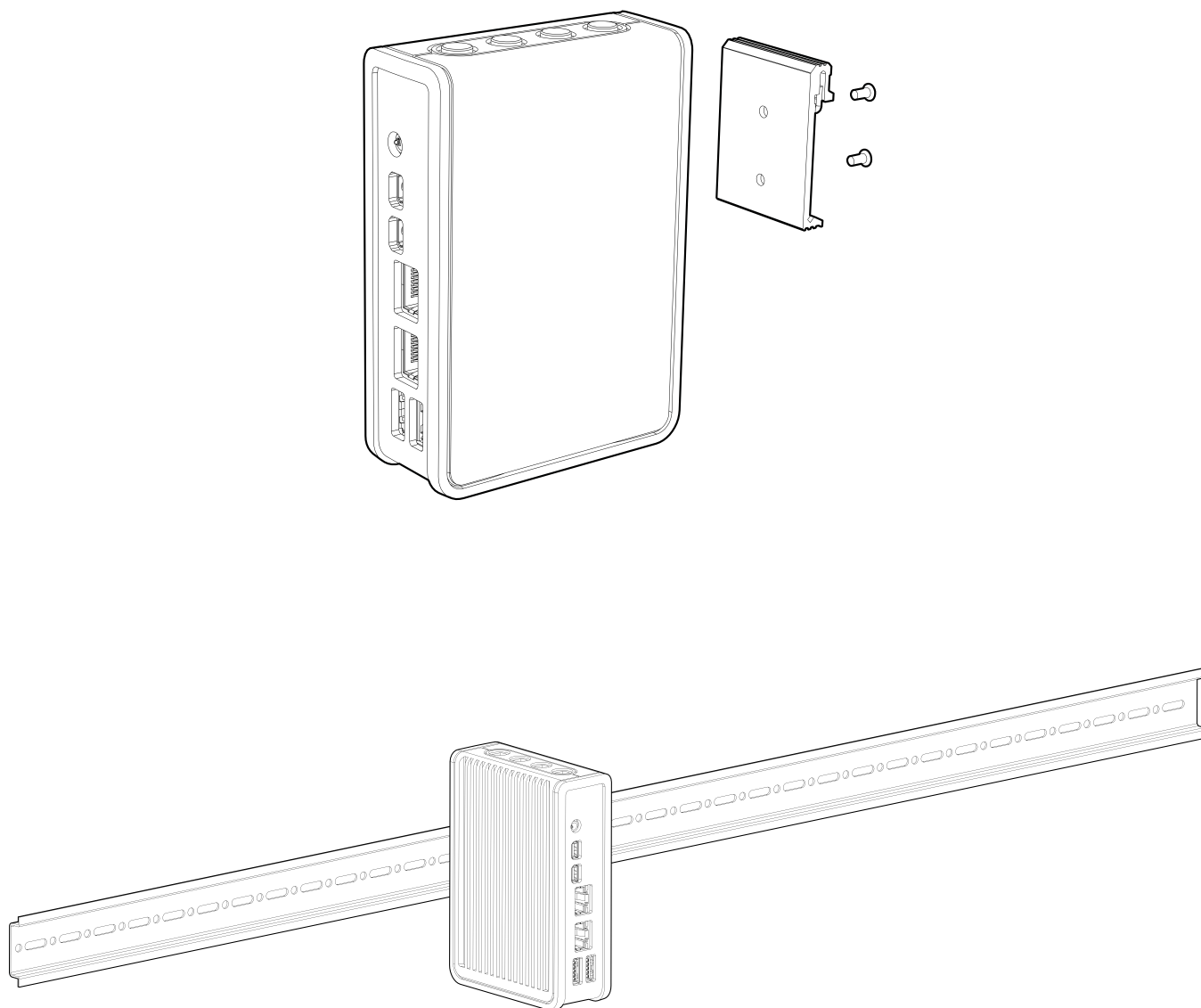


Figure 21. CL200 DIN Rail Mounting

10 - 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.

10.1 - Unexpected Shutdown Function

An unexpected shutdown does not necessarily cause a loss of data, but it can make access to some 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:

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

10.2 - 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

11 - UEFI Overview

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

12 - Main Page

Main Advanced Chipset Security Boot Save & Exit		
BIOS Information		Item help
BIOS Vender	American Megatrends	
Core Version	5.12	
Compliance	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	
Memory Information		→←: Select Screen
Total Memory	2048 MB	↑↓: Select Item
Memory Speed	1600MHz	Enter: Select
System Language	[English]	+/- : Change Opt
System Date	[Mon, mm/dd/yyyy]	F1: General Help
System Time	[hh:mm:ss]	F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Exit
		ESC: Exit
Version 2.18.1263. Copyright (C) 2017 American Megatrends, Inc.		

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	Compliance
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.

13 - Advanced Page

Main	Advanced	Chipset	Security	Boot	Save & Exit
▶ 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 ▶ System Component ▶ RC ACPI Settings					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	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.

13.1 - 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.

13.2 - NCT5524D Super IO configuration

Advanced	
NCT5524D Super IO Configuration	
Super IO Chip	NCT5524D
Serial Port 1	[Enabled]
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	Serial Port 1
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Enable or Disable Serial Port (COM).

14 - Hardware Monitor

Advanced		
PC Health Status		Item help
VR temperature	: +37° c	→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
DIMM temperature	: +44° c	
VCORE	: 1.3000V	
VIN0	: +0.928 V	
VIN2	: +1.064 V	
VCC3V	: +1.375 V	
VS3V	: +3.302 V	
VBAT	: N/A	
AVSB	: +3.328 V	
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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.

14.1 - 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
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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).

14.2 - CPU Configuration

Advanced		Item help
CPU Configuration		
▶ 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.

14.3 - Socket 0 CPU Information

Advanced		Item help
Socket 0 CPU Information		
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	
L2 Cache	1024 kB x2	
L3 Cache	Not Present	
		→←: 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	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.

14.4 - CPU Power Management

Advanced	
CPU Power Management Configuration	
EIST	[Enabled]
Turbo Mode	[Enabled]
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	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.

14.5 - AMI Graphic Output Protocol Policy

Advanced		Item help
Intel(R) Graphics Controller		
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.

14.6 - 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	
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Field Name	Network Stack
Default Value	[Disabled]
Possible Value	Disabled / Enabled
Help	Enable/Disable UEFI Network Stack.

14.7 - USB Configuration

Advanced	
USB Configuration	
USB Module Version	17
USB Controllers:	1 XHCI
USB Devices:	1 Keyboard, 1 M...
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	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.

14.8 - Platform Trust Technology

Advanced	
TPM Configuration fTPM [Enabled]	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	fTPM
Default Value	[Enabled]
Possible Value	Enabled / Disabled
Help	Enable/Disable fTPM.

14.9 - Thermal

Advanced			Item help
Thermal Configuration Parameters			
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		
Critical Thermal Trip Point	80		
Thermal Sampling Period	50		
Generic Device 2	[Enabled]		
Active Thermal Trip Point	60		
Passive Thermal Trip Point	65		
S3/CS Thermal Trip Point	70		
Hot Thermal Trip Point	75		
Critical Thermal Trip Point	80		
Thermal Sampling Period	50		
			→←: 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	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.

14.10 - 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.

14.11 - 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.

15 - Chipset

Main	Advanced	Chipset	Security	Boot	Save & Exit
Memory Information					Item help
Total Memory 2048 MB (LPDDR3)					
Memory SO-DIMM1 2048 MB (LPDDR3)					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
► PCI Express Configuration					
► USB Configuration					
Auto Power On [Disable]					
Wake On Lan [Disable]					
OS Selection [Windows]					
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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.

15.1 - PCI Express Configuration

Chipset	
PCI Express Configuration ▶ PCI Express Root Port 3 ▶ LAN 1 ▶ PCI Express Root Port 5 ▶ LAN 2	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	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.

15.2 - 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.

15.3 - 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.

15.4 - 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.

15.5 - 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 Compliance 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.

16 - Security

Main		Advanced		Chipset		Security		Boot		Save & Exit					
Password Description 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: <table><tr><td>Minimum Length</td><td>3</td></tr><tr><td>Maximum Length</td><td>20</td></tr></table> Setup Administrator Password User password. HDD Security Configuration: P1:TS128GMSA370 ► Secure Boot								Minimum Length	3	Maximum Length	20	Item help →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit			
Minimum Length	3														
Maximum Length	20														
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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.

16.1 - 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			
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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/Deployed, 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.

17 - 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.1]
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]
Boot Option #7					[USB Lan]
Boot Option #8					[Network]
► UEFI Hard Disk Drive BBS Priorities					
					→←: 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	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.

17.1 - UEFI Hard Disk Drive BBS Priorities

Boot		Item help
Boot Option #1	[Windows Boot Manage...]	
		→←: 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	Boot Option #1
Default Value	[Windows Boot Manager (P1: TS128GMSA370)]
Possible Value	Windows Boot Manager (P1: TS128GMSA370) Disable
Help	Sets the system boot order.

18 - 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.