

MITAC Desktop Board PD11BI

Product Guide

Desktop Board Features

This chapter briefly describes the features of Desktop Board PD11BI.

Table 1 summarizes the major features of the Desktop Board.

Feature Summary

TABLE 1. MITAC DESKTOP BOARD PD11BI FEATURES

Form Factor	Mini-ITX (170 millimeters [6.7 inches] x 170 millimeters [6.7 inches])	
Processor	Passively-cooled, soldered-down dual-core/quad-core Intel Bay Trail Processor with integrated graphics and memory controller	
Main Memory	- Support for dual channel DDR3L 1333/1600 SO-DIMMs - Support for up to 8 GB of system memory on a single SO-DIMM (or 4 GB each by 2 SO-DIMM)	
	204-pin DDR3L SO-DIMM	2
Integrated Graphics	- Intel HD graphics and DirectX 11 support - Integrated graphics: - Digital displays (DVI-I) - Analog displays (VGA) - Flat Panel displays (LVDS interface)	
External Graphics	External graphics support via a PCI Express 1.0a x1 graphics add-in card connector	
Audio	RealTek* ALC662 audio codec for 5.1 (6-channel) High Definition Audio (HD Audio) and AC '97 Audio. Included are: - Back panel audio connectors - Onboard S/PDIF digital audio header Front panel microphone/headphone header with support for HD Audio or AC '97 Audio	
Legacy I/O	Legacy I/O Controller (Nuvoton NCT 6104D) that provides: Hardware management support	
	Serial Port (Rear IO)	2
	Serial Port (On board)	2
	Parallel port via an onboard header	1
Expansion	PCI-e X1 bus add-in card	1

Capabilities	connector	
	PCI Express* Full-Mini Card slot with Half-Mini Card support	1
Peripheral Interfaces	● USB 2.0 back panel connectors (black)	2
	● USB 3.0 back panel connectors (blue)	2
	● USB 2.0 front panel ports	4 (Headers)
	● Serial ATA (SATA) 3.0 Gb/s interfaces	2
Hardware Monitor Subsystem	Hardware monitoring through the Nuvoton NCT 6104D legacy I/O controller, including: ● Remote thermal sensor ● 4-pin system fan header with speed control	
LAN Support	Realtek RTL8111G-CG Gigabit (10/100/1000 Mb/s) Ethernet LAN controller including an RJ-45 back panel connector with integrated status LEDs	
BIOS	Support for Advanced Configuration and Power Interface (ACPI), Plug and Play, and SMBIOS	
Instantly Available PC Technology	● Support for Advanced Configuration and Power Interface (ACPI) ● Wake on peripheral device	
Power Requirement	ATX12V, SFX12V or DC12V (4-pin)	
Environment	● Operating Temperature: 0 °C to +60 °C ● Storage Temperature: -20°C to +70°C	

Desktop Board Components

Figure 1 shows the approximate location of the major components on the top side of MiTAC Desktop Board PD11BI.

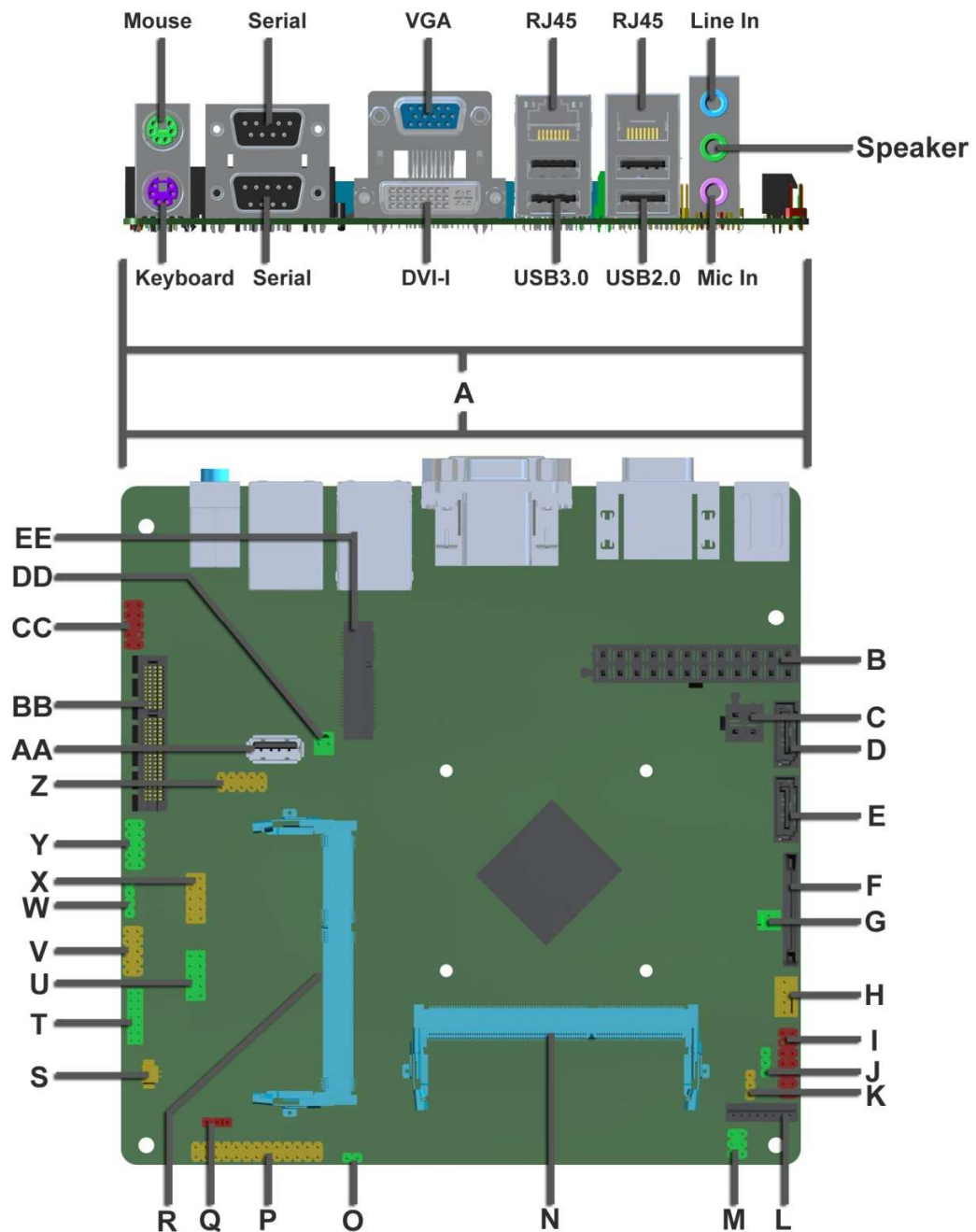
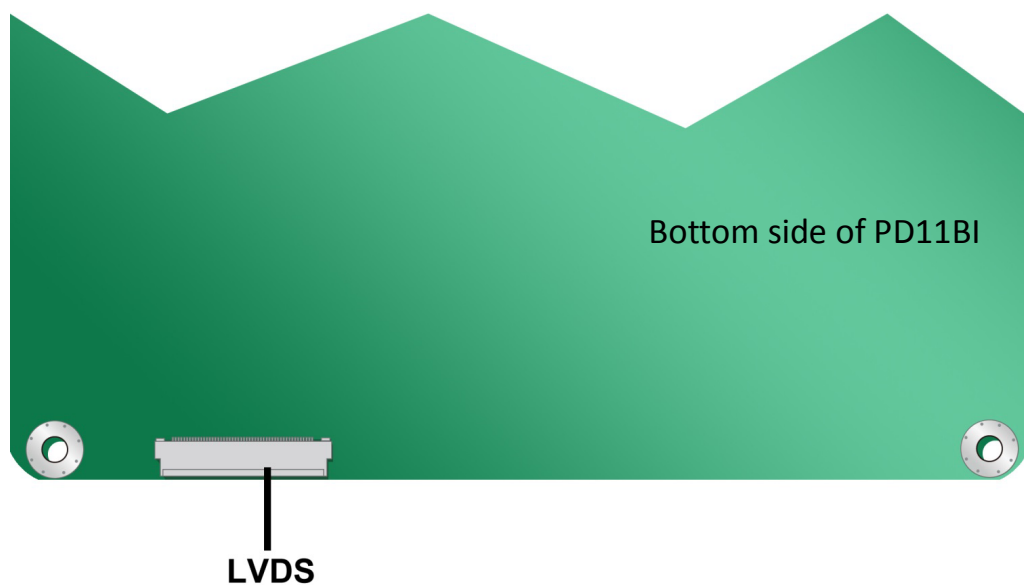


Figure 1. MiTAC Desktop Board PD11BI Components (Top)

TABLE 2. MiTAC DESKTOP BOARD PD11BI COMPONENTS (SHOWN IN FIGURE 1)

A	Back Panel Connectors
B	ATX Power in header
C	Power 2pin header
D	SATA 3GB Header
E	SATA 3GB Header
F	SATA POWER Connector
G	SATA +5v Power Header
H	System Fan Header
I	FRONT_PANEL Control Header
J	AUX Power LED Header
K	Panel backlight Inverter power select Header
L	Flat Panel Display Brightness Header
M	LCD Power select Header
N	DDR3L memory slot
O	Deep sleep select Header
P	Parallel Port Header
Q	Clear CMOS header
R	DDR3L memory slot
S	RTC Battery connector
T	LPC Debug Port Header
U	SERIAL PORT Header
V	Digital I/O Header
W	SPDIF Header
X	SERIAL PORT Header
Y	Dual-Port USB 2.0 Header
Z	Dual-Port USB 2.0 Header or for Intel®Z-U130 USB Solid-State Drive
AA	USB2.0 single port Header (Stuff Option)
BB	PCIe X1 slot or PCIe X4 slot
CC	Front Audio Header
DD	MINICARD_WLAN LED Header
EE	MINI-PCI-E connector



Processor

MITAC Desktop Board PD11BI includes a passively-cooled, Intel Bay Trail-D processor with integrated graphics and memory controller. The processor is soldered to the Desktop Board and is not customer upgradeable.



NOTE

The board is designed to be passively cooled in a properly ventilated chassis. Chassis venting locations are recommended above the processor heatsink area for maximum heat dissipation effectiveness.

System Memory



NOTE

To be fully compliant with all applicable SDRAM memory specifications, the board should be populated with DIMMs that support the Serial Presence Detect (SPD) data structure. If your memory modules do not support SPD, you will see a notification to this effect on the screen at power up. The BIOS will attempt to configure the memory controller for normal operation.

The Desktop Board has two 204-pin DDR3L SO-DIMM sockets with gold-plated contacts. These sockets support:

- Support for DDR3L 1333/1600 MHz SO-DIMMs (DDR3L 1600 MHz SO-DIMMs operate at 1333 MHz only)
- Serial Presence Detect (SPD) memory only
- Non-ECC memory
- Up to 8 GB of memory (on a single SO-DIMM or 4 GB each by 2 SO-DIMM)

Connecting to the Internal Headers and Connectors

Front panel main header

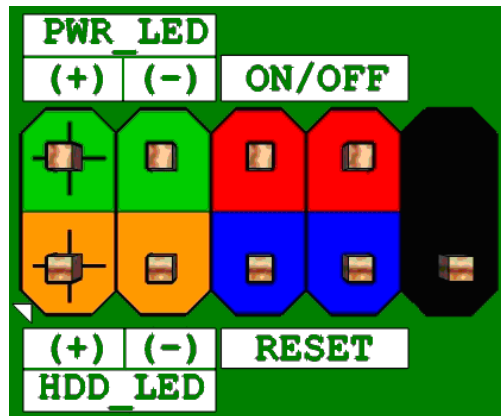


Figure 2 Front panel main header pin-out

Pin	Signal Name	Description	Pin	Signal Name	Description
1	HDD_POWER_LED	Pull-up resistor (750) to +5V	2	POWER_LED_MAIN	[Out] Front panel LED (main color)
3	HDD_LED#	[Out] Hard disk activity LED	4	POWER_LED_ALT	[Out] Front panel LED (alt color)
5	GROUND	Ground	6	POWER_SWITCH#	[In] Power switch
7	RESET_SWITCH#	[In] Reset switch	8	GROUND	Ground
9	+5V_DC	Power	10	KEY	No pin

TABLE 2 FRONT PANEL MAIN HEADER SIGNALS

HD Audio front panel audio header

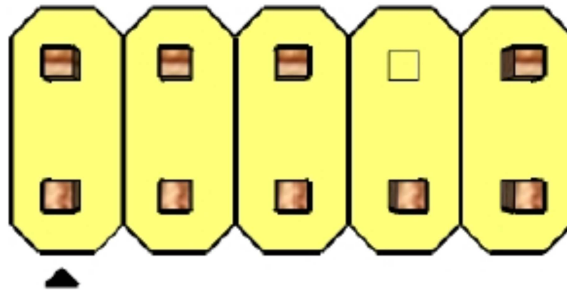


Figure 4 HD Audio front panel audio header pin-out diagram

Pin	Signal name	Description
1	MIC	Front panel microphone input signal (biased when supporting stereo microphone)
2	AUD_GND	Ground used by analog audio circuits
3	MIC BIAS	Microphone power / additional MIC input for stereo microphone support
4	PRESENCE#	Active low signal that signals BIOS that an Intel HD Audio dongle is connected to the analog header_ PRESENCE# = 0 when an Intel HD Audio dongle is connected.
5	FP_OUT_R	Right channel audio signal to front panel (Headphone drive capable)
6	AUD_GND	Ground used by analog audio circuits
7	RESERVED	Reserved
8	KEY	No Pin
9	FP_OUT_L	Left channel audio signal to front panel (headphone drive capable)
10	AUD_GND	Ground used by analog audio circuits

TABLE 4 HD AUDIO FRONT PANEL AUDIO HEADER

Front panel USB header (Dual Ports)

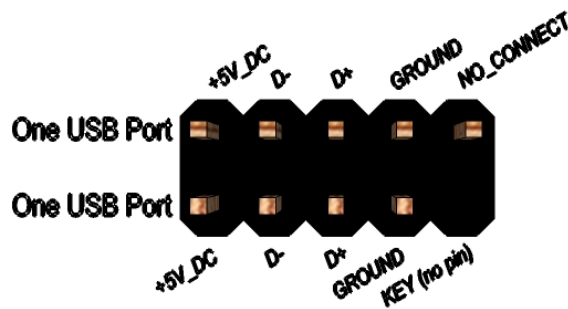


Figure 6 Front panel USB header pin-out

Pin	Signal	Pin	Signal
1	+5V DC	2	+5V DC
3	Data (negative)	4	Data (negative)
5	Data (positive)	6	Data (positive)
7	Ground	8	Ground
9	Key (no pin)	10	No Connect

TABLE 6 FRONT PANEL USB HEADER SIGNALS

USB2.0 single port for Intel Z-U130 USB Flash card Header

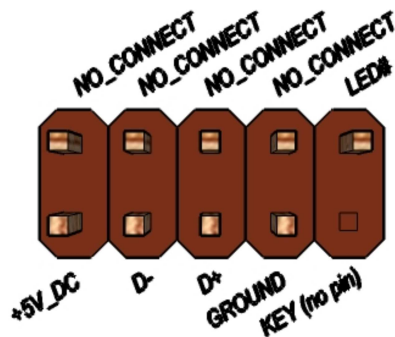


Figure 6 Front panel USB header pin-out

Pin	Signal	Pin	Signal
1	+5V DC	2	NC
3	Data (negative)	4	NC
5	Data (positive)	6	NC
7	Ground	8	NC
9	Key (no pin)	10	LED#

TABLE 6 FRONT PANEL USB HEADER SIGNALS

Serial port header

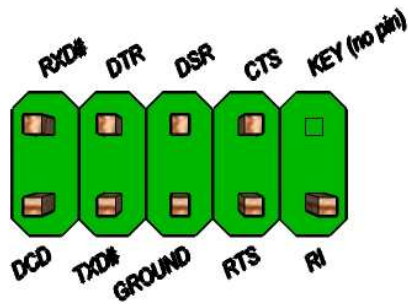


Figure 10 Serial port header pin-out

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

TABLE 10 SERIAL PORT HEADER SIGNALS

System fan header

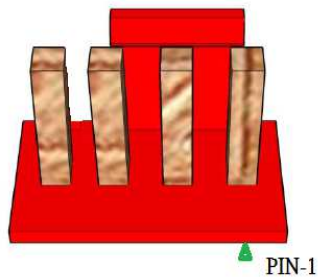


Figure 12: System fan header

Pin	Signal
4	FAN_CTRL
3	FAN_TACH
2	VCC-12V
1	GND

TABLE 12: SYSTEM FAN HEADER

Alternate Power LED header



Figure 15 Alternate Power LED header

Pin	Signal Name
1	MAIN COLOR LED
2	KEY
3	ALT COLOR LED

TABLE 15: ALTERNATE POWER LED HEADER

Parallel Port 2x13 pin header

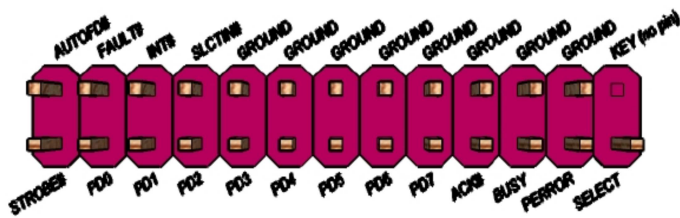


Figure 16 Parallel Port 2x13 pin header

Pin	Standard Signal Name	ECP Signal Name	EPP Signal Name
1	STROBE#	STROBE#	WRITE#
2	AUTOFD#	AUTOFD#, HOSACK	DATASTB#
3	PD0	PD0	PD0
4	FAULT#	FAULT#, PERIPHREQST#	FAULT#
5	PD1	PD1	PD1
6	INT#	INT#, REVERSERQST#	RESET#
7	PD2	PD2	PD2
8	SLCTIN#	SLCTIN#	ADDRSTB#
9	PD3	PD3	PD3
10	GROUND	GROUND	GROUND
11	PD4	PD4	PD4
12	GROUND	GROUND	GROUND
13	PD5	PD5	PD5
14	GROUND	GROUND	GROUND
15	PD6	PD6	PD6
16	GROUND	GROUND	GROUND
17	PD7	PD7	PD7
18	GROUND	GROUND	GROUND
19	ACK#	ACK#	INTR
20	GROUND	GROUND	GROUND
21	BUSY	BUSY#, PERIPHACK	WAIT#
22	GROUND	GROUND	GROUND
23	PERROR	PE, ACKREVERSE#	PE
24	GROUND	GROUND	GROUND
25	SELECT	SELECT	SELECT
26	KEY (no pin)	KEY (no pin)	KEY (no pin)

TABLE 16: PARALLEL PORT 2X13 PIN HEADER

Flat Panel Display Brightness Header



Figure 8 LVDS inverter power header

Pin	Signal Name	Description
1	BKLT_EN	Backlight enable
2	BKLT_PWM	Backlight PWM control
3	12V/19V	Inverter power
4	12V/19V	Inverter power
5	GND	Ground
6	GND	Ground
7	BRIGHTNESS_UP	BRIGHTNESS UP
8	BRIGHTNESS_DOWN	BRIGHTNESS DOWN

TABLE 8 8-PIN FLAT PANEL DISPLAY BRIGHTNESS HEADER

LVDS data header

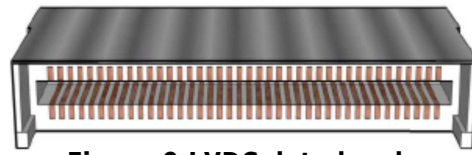


Figure 9 LVDS data header

Pin	Signal	Description
1	LA_DATAP3	LVDS Channel A diff data output - positive
2	LA_DATAN3	LVDS Channel A diff data output - negative
3	LA_DATAP2	LVDS Channel A diff data output - positive
4	LA_DATAN2	LVDS Channel A diff data output - negative
5	LA_DATAP1	LVDS Channel A diff data output - positive
6	LA_DATAN1	LVDS Channel A diff data output - negative
7	LA_DATAP0	LVDS Channel A diff data output - positive
8	LA_DATAN0	LVDS Channel A diff data output - negative
9	LB_DATAP3	LVDS Channel B diff data output-positive
10	LB_DATAN3	LVDS Channel B diff data output-negative
11	LB_DATAP2	LVDS Channel B diff data output-positive
12	LB_DATAN2	LVDS Channel B diff data output-negative
13	LB_DATAP1	LVDS Channel B diff data output-positive
14	LB_DATAN1	LVDS Channel B diff data output-negative
15	LB_DATAP0	LVDS Channel B diff data output-positive
16	LB_DATAN0	LVDS Channel B diff data output-negative
17	GND	Ground
18	3.3V/5V/12V	Selectable LCD power output
19	3.3V/5V/12V	Selectable LCD power output
20	3.3V/5V/12V	Selectable LCD power output
21	NC	NC
22	EDID_3.3V	VCC3
23	GND	Ground
24	GND	Ground
25	GND	Ground
26	LA_CLKP	LVDS Channel A diff data output - positive
27	LA_CLKN	LVDS Channel A diff data output - negative
28	GND	Ground
29	GND	Ground
30	GND	Ground
31	EDID_CLK	EDID/DDC clock signal

32	BKLT_EN	
33	BKLT_CTRL	
34	LB_CLKP	LVDS Channel B diff data output - positive
35	LB_CLKN	LVDS Channel B diff data output - negative
36	BKLT_PWR	Selectable BKLT power output
37	BKLT_PWR	Selectable BKLT power output
38	BKLT_PWR	Selectable BKLT power output
39	NC	NC
40	EDID_DATA	EDID/DDC data signal

TABLE 9 40-PIN LVDS DATA HEADER PIN-OUT REFERENCE

Panel backlight Inverter power select Header

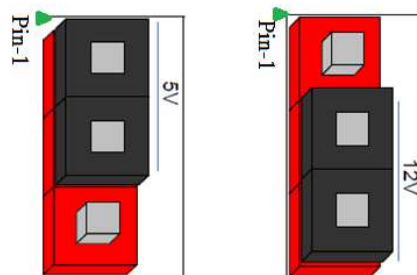


Figure 13: Panel backlight Inverter power select Header

Pin	Signal Name
1	5V
2	NC
3	12V

TABLE 13: PANEL BACKLIGHT INVERTER POWER SELECT HEADER

SATA +5V Power Header

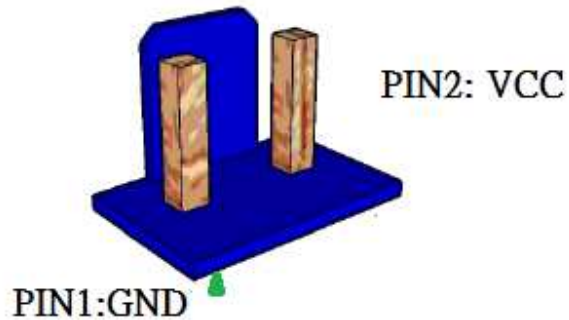


Figure 17 SATA +5V Power Header

Pin	Signal Name
1	VCC
2	GND

TABLE 17: SATA +5V POWER HEADER

SPDIF Out header

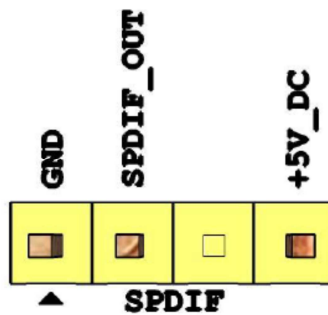


Figure 20 SPDIF Out header

Pin	Signal Name	Description
1	GND	Ground
2	SPDIF_OUT	SPDIF signal from the codec
3	Key (no pin)	Key (no pin)
4	+5V_DC	5 V power (for optical/TOSLINK module)

TABLE 20: SPDIF OUT HEADER

MINICARD_Wireless Activity LED Header

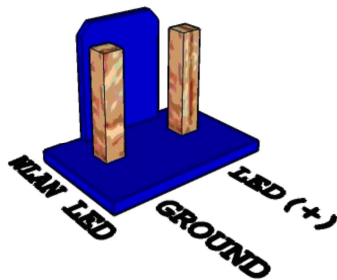


Figure 20 Wireless activity LED header

Pin	Signal Name
1	Ground
2	MINICARD_WLAN#

TABLE 20: WIRELESS ACTIVITY LED HEADER

Digital I/ O Header



Figure 20 Digital I/ O Header

Pin	Name	Pin	Name
1		2	GROUND
3		4	SMB_CLK_RESUME
5	3VSB	6	SMB_DATA_RESUME
7	POWER_SWITCH# [IN]	8	UART1_TX/ RX
9	NC Pin	10	KEY

TABLE 20: DIGITAL I/ O HEADER

FRONT_PANEL Control Header (customized)

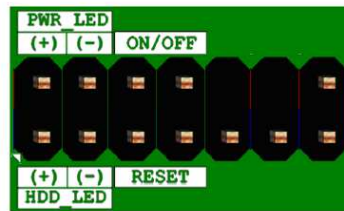


Figure 20 FRONT_PANEL Header(customized)

Pin	Name	Description	Pin	Name	Description
1	HDD_POWER_LED	Pull-up resistor (750W) to +5V	2	POWER_LED_MAIN	[Out] Front panel LED (main color)
3	HDD_LED#	[Out] Hard disk activity LED	4	POWER_LED_ALT	[Out] Front panel LED (alt color)
5	GROUND	Ground	6	POWER_SWITCH#	[In] Power switch
7	RESET_SWITCH#	[In] Reset switch	8	GROUND	Ground
9	+5V_DC	Power	10	KEY	No pin
11	Error LED	[Out] Error LED	12	KEY	No pin
13	GROUND	Ground	14	NC Pin	No connect

TABLE 20: FRONT_PANEL CONTROL HEADER(CUSTOMIZED)

RJ45 LED behavior

Diagram	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

TABLE 22: RJ45 LED BEHAVIOR

Note: LAN solution must be tested for IEEE802.3 conformance

CMOS Clear

CMOS Clear

1-2	Normal
2-3	Clear CMOS

TABLE 23: CMOS CLEAR BEHAVIOR

MITAC Desktop Board PD11BI BIOS Specifiction

1. Main Page

Main Advanced Chipset Security Boot Save & Exit		
BIOS Information		Item help
BIOS Vender	American Megatrends	
Core Version	5.017	
Compliancy	UEFI 2.3; PI 1.2	
BIOS Version	D7400X02	
Build Date and Time	03/07/2014 16:41:29	
CPU configuration		
Intel(R) Celeron(R) CPU J1800 @ 2.41GHz		
Microcode Revision	320	
Memory Information		
Total Memory	8192 MB (DDR3)	
GOP Information		
Intel(R) GOP Driver	[7.1.1.1005]	
TXE Information		
Sec RC Version	00.05.00.00	
TXE Information	01.01.00.1089	
System Language	[English]	
System Date	[Mon mm/dd/yyyy]	
System Time	[hh:mm:ss]	
Access Level	Administrator	
		→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.		

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	4.6.5.1
Comment	This field is not selectable. There is no help text associated with it

Field Name	Complacency
Default Value	UEFI 2.3; PI 1.2

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 and Time
Default Value	Display build date and time of the BIOS
Comment	This field is not selectable. There is no help text associated with it.

Field Name	CPU Configuration
Value	Display the installed CPU brand.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Microcode Revision
Value	Display processor micro-code revision.
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	TXE Information
Value	Display Sec RC and TXE FW version.
Comment	This field is not selectable. There is no help text associated with it.

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

Field Name	System Date
Default Value	[xxx, mm dd yyyy]
Possible Value	[xxx, xx:xx:xxxx]
Help	Set the Date. Use Tab to switch between Date elements.

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

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

2. Advanced Page

Main	Advanced	Chipset	Boot	Security	Save & Exit
Wireless RF [Enabled]					Item help
Onboard Lan 0 Controller [Enabled] Wake On Lan from Lan 0 [Enabled]					
Onboard Lan 1 Controller [Enabled] Wake On Lan from Lan 1 [Enabled]					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
▶ SMART Settings ▶ NCT6104D Super IO Configuration ▶ NCT6104D HW Monitor ▶ Intel(R) Smart Connect Technology ▶ S5 RTC Wake Settings ▶ CPU Configuration ▶ PPM Configuration ▶ SATA Configuration ▶ Network Stack Configuration ▶ CSM Configuration ▶ Trusted Computing ▶ USB Configuration ▶ Security Configuration					
▶ Realtek PCIe GBE Family Controller (MAC:88:88:88:88:88:88) ▶ Realtek PCIe GBE Family Controller (MAC:88:88:88:88:88:87)					

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Field Name	Wireless RF
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or disable Wireless RF.

Field Name	Onboard LAN 0 Controller
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or disable onboard NIC which LAN port on rear USB 2.0 port

Field Name	Wake On LAN from LAN 0
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or disable WOL from LAN 0 Device. Disable WOL from LAN 0 will also disable Lan 1 WOL function.

Field Name	Onboard LAN 1 Controller
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or disable onboard NIC which LAN port on rear USB 3.0 port

Field Name	Wake On LAN from LAN 1
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or disable WOL from LAN 1 Device.

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

Field Name	NCT6104D Super IO Configuration
Help	System Super IO Chip Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	NCT6104D HW Monior
Help	Monitor hardware status
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Intel(R) Smart Connect Technology
Help	Intel (R) Smart Connect Technology Settings
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	PPM Configuration
Help	PPM Configuration Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	SATA Configuration
Help	IDE Devices Configuration
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	CSM Configuration
Help	CSM configuration: Enable/Disable, Option ROM execution settings, etc.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Trusted Computing
Help	Trusted Computing 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	Security Configuration
Help	Intel(R) Anti-Theft Technology Configuration.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Realtek PCIe GBE Family Controller (MAC:88:88:88:87:88)
Help	Get driver information and configure Realtek Ethernet controller parameter
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Realtek PCIe GBE Family Controller (MAC:88:88:88:87:88)
Help	Get driver information and configure Realtek Ethernet controller parameter
Comment	Press Enter when selected to go into the associated Sub-Menu.

2.1 SMART Settings

Main	Advanced	Device	Chipset	Security	Boot	Save & Exit
SMART settings						Item help
SMART Self Test						→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.						

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

2.2 NCT6104D Super IO Configuration

Main	Advanced	Chipset	Security Boot	Save & Exit
NCT6104D Super IO Configuration				Item help
Super IO Chip				NCT6104D
Serial Port 1 Configuration				
Serial Port				[Enabled]
Device Settings				IO=xxx
Serial Port 2 Configuration				
Serial Port				[Enabled]
Device Settings				IO=xxx
Serial Port 3 Configuration				
Serial Port				[Enabled]
Device Settings				IO=xxx
Serial Port 4 Configuration				
Serial Port				[Enabled]
Device Settings				IO=xxx
Parallel Port Configuration				
Parallel Port				[Enabled]
Device Settings				IO=xxx
Device Mode				[STD Printer Mode]
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.				

Field Name	Super IO Chip
Value	Display Super IO Chip name
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial Port 1 Configuration
Value	Set Parameters of Serial Port 1 (COMA)
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Enabled Disabled

Help	Enable or Disable Serial Port (COM)
------	-------------------------------------

Field Name	Device Settings
Value	Select an optimal settings for Super IO Device
Comment	This field is not selectable. There is no help text associated with itt.

Field Name	Serial Port 2 Configuration
Value	Set Parameters of Serial Port 1 (COMB)
Comment	This field is not selectable. There is no help text associated with itt.

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

Field Name	Device Settings
Value	Select an optimal settings for Super IO Device
Comment	This field is not selectable. There is no help text associated with itt.

Field Name	Parallel Port Configuration
Value	Set Parameters of Parallel Port (LPT/LPTE)
Comment	This field is not selectable. There is no help text associated with itt.

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

Field Name	Change Settings
Value	Select an optimal settings for Super IO Device
Comment	This field is not selectable. There is no help text associated with itt.

Field Name	Device Mode
Value	Change the Printer Port mode
Comment	This field is not selectable. There is no help text associated with itt.

2.3 NCT61064 H/W Monitor

Main	Advanced	Chipset Security	Boot	Save & Exit
PC Health Status				Item help
DIMM_THRM temperature : +32 C VR_THRM temperature : +32 C System Fan Speed : xxxx RPM VCORE : +x.xxx V V1P8_MON : +x.xxx V VCC1_MON : +x.xxx V VSM_MON : +x.xxx 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	PC Health Status
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Field Name	DIMM_THRM temperature
Possible Value	Show DIMM_THRM temperature

Field Name	VR-THRM temperature
Possible Value	Show VR-THRM temperature

Field Name	System Fan Speed
Possible Value	Show system fan speed

Field Name	VCORE Volt.
Possible Value	ShowVCORE Volt

Field Name	V1P8 Volt.
Possible Value	Show V1P8 Volt

Field Name	VCC1 Volt.
Possible Value	Show VCC1 Volt

Field Name	VSM_MON Volt.
Possible Value	Show VSM_MON Volt

2.4 Intel(R) Smart Connect Technology

Main	Advanced	Device	Chipset	Security	Boot	Save & Exit
ISCT Support				[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
ISCT Notification Control				[Enabled]		
ISCT WLAN Power Control				[Enabled]		
ISCT WWAN Power Control				[Enabled]		
ISCT Sleep Duration Value Format				[Duration In Seconds]		
ISCT RF Kill Switch Type				[Hardware]		
ISCT RTC Timer Support				[Disabled]		
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Field Name	ISCT Support
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Enable/Disable ISCT Support

Field Name	ISCT Notification Control
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable/Disable ISCT Notification Control

Field Name	ISCT WLAN Power Control
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable/Disable ISCT WLAN Power Control

Field Name	ISCT WWAN Power Control
Default Value	[Enabled]
Possible Value	Enabled Disabled

Help	Enable/Disable ISCT WWAN Power Control
------	--

Field Name	ISCT Sleep Duration Value Format
Default Value	Duration In Seconds
Possible Value	Duration In Seconds
Help	ISCT Sleep Duration is only in Seconds Format, Actual time format is not supported.

Field Name	ISCT RF Kill Switch Type
Default Value	[Hardware]
Possible Value	Software Hardware
Help	Software/Hardware ISCT RF Kill Switch Type

Field Name	ISCT RTC Timer Support
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Enable/Disable ISCT RTC Timer

2.5 S5 RTC Wake Settings

Main	Advanced	Chipset	Boot	Security	Save & Exit
Wake system with Fixed Time				[Enabled]	Item help →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Wake up hour				0	
Wake up minute				0	
Wake up second				0	
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Field Name	Wake system with Fixed Time
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)

Field Name	Wake up hour
Default Value	[0]
Possible Value	0-23
Help	Select 0-23 For example enter 3 for 3am and 15 for 3pm

Field Name	Wake up minute
Default Value	[0]
Possible Value	0-59
Help	0 - 59

Field Name	Wake up second
Default Value	[0]

Possible Value	0 - 59
Help	0 - 59

2.6 CPU Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit
CPU Configuration					
Intel(R) Celeron(R) CPU [CPU NAME] @ [CPU Freq.] GHz CPU Signature 30673 Microcode Patch 320 Max CPU Speed 2410 MHz Min CPU Speed 1334 MHz Processor Cores 4 Intel HT Technology Supported Intel VT-x Technology Supported L1 Data Cache 24 KB x 2 L1 Code Cache 32 KB x 2 L2 Cache 1024KB x 4 L3 Cache Not Present CPU Speed 2418 MHz 64-bit Supported					Item help
Active Processor Cores [All] Execute Disable Bit [Enabled] Intel Virtualization Technology [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	CPU Configuration
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Field Name	CPU Signature
Default Value	Displays CPU Signature
Comment	This field is not selectable. There is no help text associated with it

Field Name	Microcode Patch
Default Value	CPU Microcode Patch Revision

Comment	This field is not selectable. There is no help text associated with it
---------	--

Field Name	Max CPU Speed
Default Value	Displays the Max CPU Speed
Comment	This field is not selectable. There is no help text associated with it

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

Field Name	Processor Cores
Default Value	Displays number of cores.
Comment	This field is not selectable. There is no help text associated with it

Field Name	Intel HT Technology
Default Value	When Hyper-threading is enabled, 2 logical CPUs per core is present.
Comment	This field is not selectable. There is no help text associated with it

Field Name	Intel VT-x Technology
Default Value	CPU VMX hardware support for virtual machines.
Comment	This field is not selectable. There is no help text associated with it

Field Name	L1 Data Cache
Default Value	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	L1 Code Cache Size
Comment	This field is not selectable. There is no help text associated with it

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

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

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

Field Name	64-bit
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Default Value	Displays if 64-bit supported
Comment	This field is not selectable. There is no help text associated with it

Field Name	Active Processor Cores
Default Value	[All]
Possible Value	All 1
Help	Number of cores to enable in each processor package.

Field Name	Execute Disable Bit
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	XD can prevent certain classes of malicious buffer overflow attacks when combined with a supporting OS (Windows Server 2003 SP1, Windows XP SP2, SuSE Linux 9.2, RedHat Enterprise 3 Update 3.)

Field Name	Intel Virtualization Technology
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	When enabled, a VMM can utilize the additional hardware capabilities provided by Vanderpool Technology.

2.7 PPM Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit
PPM Configuration					Item help
EIST [Enabled] CPU C state Report [Enabled] Enhanced C state [Enabled] Max CPU C-state [C7]					→←: 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	PPM Configuration
------------	--------------------------

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

Field Name	CPU C state Report
Default Value	[Enabled]
Possible Value	Disabled / Enabled
Help	Enable/Disable CPU C state report to OS.

Field Name	Enhanced C state
Default Value	[Disabled]
Possible Value	Disabled / Enabled
Help	Enable/Disable Enhanced CPU C state

Field Name	Max CPU C-state
Default Value	[C7]
Possible Value	C7 / C6
Help	This option control Max C state that the processor will support

2.8 SATA Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit
Serial-ATA (SATA) [Enabled] SATA mode [AHCI Mode] Serial-ATA Port 0 [Enabled] Serial-ATA Port 1 [Enabled] SATA Port0 Not Present SATA Port1 INTEL SSDSC2BW (120.0GB)					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-ATA (SATA)
Default Value	[Enabled]
Possible Value	Enabled / Disable
Help	Enable / Disable Serial ATA

Field Name	SATA Mode
Default Value	[AHCI Mode]
Possible Value	IDE Mode / AHCI Mode
Help	Select IDE / AHCI

Field Name	Serial-ATA Port 0
Default Value	[Enabled]
Possible Value	Enabled / Disable
Help	Enable / Disable Serial ATA Port 0

Field Name	Serial-ATA Port 1
Default Value	[Enabled]
Possible Value	Enabled / Disable
Help	Enable / Disable Serial ATA Port 1

Field Name	Serial ATA Port 0
Default Value	Not Present
Possible Value	SATA Device Model Name

Field Name	Serial ATA Port 1
Default Value	Not Present
Possible Value	SATA Device Model Name

2.9 Network Stack Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit
Network Stack				[Disabled]	Item help
Ipv4 PXE Support				[Enabled]	
Ipv6 PXE Support				[Enabled]	
PXE boot wait time				0	
					→←: 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

Field Name	Ipv4 PXE Support
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable Ipv4 PXE Boot Support. If disabled IPV4 PXE boot option will not be created.

Field Name	Ipv6 PXE Support
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable Ipv6 PXE Boot Support. If disabled IPV6 PXE boot option will not be created.

Field Name	PXE boot wait time
Default Value	[0]
Possible Value	0~5
Help	Wait time to press ESC key to abort the PXE boot

2.10 CSM Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit
Compatibility Support Module Configuration					Item help
CSM Support					[Enabled]
CSM16 Module Version					07.71
GateA20 Active					[Upon Request]
Option ROM Message					[Force BIOS]
INT19 Trap Response					[Immediate]
Boot option filter					[UEFI and Legacy]
Option ROM execution order					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Network					[UEFI only]
Storage					[UEFI only]
Video					[UEFI only]
Other PCI devices					[UEFI first]
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Field Name	Compatibility Support Module Configuration
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Field Name	CSM Support
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable / Disable CSM Support.

Field Name	CSM16 Module Version
Default Value	07.71
Comment	This field is not selectable. There is no help text associated with it

Field Name	GateA20 Active
Default Value	[Upon Request]
Possible Value	Upon Request Always
Help	UPON REQUEST - GA20 can be disabled using BIOS services. ALWAYS - do not allow disabling GA20; this option is useful when any RT code is executed above 1MB..

Field Name	Option ROM Message
Default Value	[Force BIOS]
Possible Value	Force BIOS Keep Current
Help	Set display mode for Option ROM

Field Name	INT19 Trap Response
Default Value	[Immediate]
Possible Value	Immediate Postponed
Help	BIOS reaction on INT19 trapping by Option ROM: IMMEDIATE - execute the trap right away; POSTPONED - execute the trap during legacy boot.

Field Name	Boot option filter
Default Value	[UEFI and Legacy]
Possible Value	UEFI and Legacy Legacy only UEFI only
Help	This option controls Legacy/UEFI ROMs priority

Field Name	Compatibility Support Module Configuration
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Field Name	Network
Default Value	[UEFI only]
Possible Value	Do not launch UEFI only Legacy only Legacy first UEFI first
Help	Controls the execution of UEFI and Legacy PXE OpROM

Field Name	Storage
Default Value	[UEFI only]
Possible Value	Do not launch UEFI only Legacy only Legacy first UEFI first
Help	Controls the execution of UEFI and Legacy Storage OpROM

Field Name	Video
Default Value	[UEFI only]

Possible Value	Do not launch UEFI only Legacy only Legacy first UEFI first
Help	Controls the execution of UEFI and Legacy Video OpROM

Field Name	Other PCI devices
Default Value	[UEFI first]
Possible Value	Do not launch UEFI only Legacy only Legacy first UEFI first
Help	Determines OpROM execution policy for devices other than Network, Storage, or Video

2.11 Trusted Computing

Main	Advanced	Chipset	Boot	Security	Save & Exit
Configuration Security Device Support [Disabled] Current Status Information No Security Device Found					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	Security Device Support
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Enable or Disable BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available.

2.12 USB Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit
USB Configuration					Item help
USB Module Version				8.10.27	
USB Devices:					
1 Keyboard, 1 Mouse, 2 Hubs					
Legacy USB Support				[Enabled]	→←: Select Screen
XHCI Hand-off				[Enabled]	↑↓: Select Item
EHCI Hand-off				[Disabled]	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 Configuration
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Field Name	USB Module Version
Default Value	USB module version
Comment	This field is not selectable. There is no help text associated with it

Field Name	USB Devices:
Default Value	Connect USB device type
Comment	This field is not selectable. There is no help text associated with it

Field Name	Legacy USB Support
Default Value	[Enabled]
Possible Value	Disabled Enabled Auto
Help	Enables Legacy USB support. AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available only for EFI applications.

Field Name	XHCI Hand-off
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	This is a workaround for OSes without XHCI hand-off support. The XHCI ownership change should be claimed by XHCI driver.

Field Name	EHCI Hand-off
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	This is a workaround for OSes without EHCI hand-off support. The EHCI ownership change should be claimed by EHCI driver.

2.13 Security Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit
Intel(R) TXE Configuration					Item help
TXE [Enabled] TXE HMRFP0 [Disabled] TXE Firmware Update [Enabled] TXE EOP Message [Enabled] TXE Unconfiguration Perform					→←: 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	Intel(R) TXE Configuration
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Field Name	TXE
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	

Field Name	TXE HMRFP0
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	

Field Name	TXE Firmware Update
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	

Field Name	TXE EOP Message
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Send EOP Message Befor Enter OS

Field Name	TXE Unconfiguration Perform
Default Value	
Help	Revert TXE settings to factory defaults

2.14 Realtek PCIe GBE Family Controller (MAC:xx:xx:xx:xx:xx:xx)

Main	Advanced	Chipset	Boot	Security	Save & Exit
Driver Information Driver Name: Realtek UEFI UNDI Driver Driver Version: 2.022 Driver Released Date: 2013/03/26					Item help
Device Information Device Name: Realtek PCIe GBE Family PCI Slot: 01:00:00 MAC Address: xx:xx:xx:xx:xx:xx					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.					

3 Chipset

Main	Advanced	Chipset	Boot	Security	Save & Exit
Output Panel Type [LVDS] LVDS Interface Type [Dual Channel] LVDS Panel Type [VBIOS Default] Audio Controller [Enabled] Front Panel Audio [Auto] XHCI Mode [Enabled] USB Per Port Control [Enabled] USB Port (Backpanel USB 2.0) [Enabled] USB Port (Backpanel USB 2.0) [Enabled] USB Port (Frontpanel USB 2.0) [Enabled] USB Port (Backpanel USB 3.0) [Enabled] High Precision Timer [Enabled] Restore AC Power Loss [Last State] DeepSx Power Policies [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 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.					

Field Name	Output Panel Type
Default Value	[LVDS]
Possible Value	LVDS Disabled
Help	Select Output Panel Type

Field Name	LVDS Interface Type
Default Value	[Dual channel]
Possible Value	Single channel Dual channel
Help	Sets LVDS connectivity

Field Name	LVDS Panel Type
Default Value	[VBIOS Default]
Possible Value	VBIOS Default 640x480 LVDS 800x600 LVDS 1024x768 LVDS1

	1280x1024 LVDS 1400x1050(RB) LVDS1 1400x1050 LVDS2 1600x1200 LVDS 1366x768 LVDS 1680x1050 LVDS 1920x1200 LVDS 1440x900 LVDS 1600x900 LVDS 1024x768 LVDS2 1280x800 LVDS 1920x1080 LVDS 2048x1536 LVDS
Help	Select LVDS panel used by Internal Graphics Device by selecting the appropriate setup item.

Field Name	Audio Controller
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Control Detection of the Azalia device. Disabled = Azalia will be unconditionally disabled. Enabled = Azalia will be unconditionally Enabled. Auto = Azalia will be enabled if present disabled otherwise.

Field Name	Front Panel Audio
Default Value	[Auto]
Possible Value	Auto High Definition Front Panel Legacy Front Panel DISABLE
Help	Automatically or Manually select the type of audio front panel installed.

Field Name	XHCI Mode
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Mode of operation of xHCI controller

Field Name	USB Per Port Control
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Control each of the USB ports (0~3). Enable:Enable USB per port

	Disable: Use USB port X settings
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Field Name	USB Port (Backpanel USB 2.0)
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable / Disable USB Port (Backpanel USB 2.0)

Field Name	USB Port (Backpanel USB 2.0)
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable / Disable USB Port (Backpanel USB 2.0)

Field Name	USB Port (Frontpanel USB 2.0)
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable / Disable USB Port (Frontpanel USB 2.0)

Field Name	USB Port (Backpanel USB 3.0)
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable / Disable USB Port (Backpanel USB 3.0 ports)

Field Name	High Precision Timer
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable the High Precision Event Timer

Field Name	Restore AC Power Loss
Default Value	[Last State]
Possible Value	Power off Power on Last State
Help	Select AC power state when power is re-applied after a power failure

Field Name	DeepSx Power Policies
Default Value	[Disabled]
Possible Value	Disabled Enabled

Help	Configure the DeepSx Mode configuration.
------	--

3 Security

Main	Advanced	Chipset	Boot	Security	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: Minimum Length 3 Maximum Length 20 Administrator Password User Password HDD Security Configuration P0:WDC WD6400AA ▶ Secure Boot menu ▶ Secure Flash Update					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	Administrator Password
Help	Set Administrator Password
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	User Password
Help	Set Setup User Password. Note: Only can modify System Date, System Timer, I217, and I210 options if User Password.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	HDD Security Configuration: P0: WDC WD6400AA
Help	Set HDD password
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Secure Boot menu
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Help	Customizable Secure Boot settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Secure Flash Update
Help	Secure Flash Update support
Comment	Press Enter when selected to go into the associated Sub-Menu.

4.1 HDD Security Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit
HDD Password Description Allow Access to Set, Modify and Clear Hard Disk User and Master Password. User Password need to be installed for Enabling Security. Master Password can Be Modified only when successfully unlocked With Master Password in POST. HDD PASSWORD CONFIGURATION: Security : Yes Supported Security : No Enabled Security : No Locked Security : No Frozen : NOT INSTALLED HDD User Pwd Status : NOT INSTALLED HDD Master Pwd Status : NOT INSTALLED Set User Password					Item help →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.15.1326. Copyright (C) 2012 American Megatrends, Inc.					

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

4.2 Secure Boot menu

Main	Advanced	Chipset	Boot	Security	Save & Exit
System Mode				Setup	Item help →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Secure Boot				Not Active	
Secure Boot				[Disabled]	
Secure Boot Mode				[Custom]	
► Key Management					
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Field Name	System Mode
Possible Value	Show current secure system mode

Field Name	Secure Boot
Possible Value	Show current secure boot status

Field Name	Secure Boot
Default Value	[Disabled]
Possible Value	Enabled / Disabled
Help	Secure Boot can be enabled if 1.System running in User mode with enrolled Platform Key(PK) 2.CSM function is disabled

Field Name	Secure Boot Mode
Default Value	[Custom]
Possible Value	Standard / Custom
Help	Secure Boot mode selector. 'Custom' Mode allows physically present users ability to override Image Execution policy and manage Secure Boot Keys.

4.2.1 Key Management

Main	Advanced	Chipset	Boot	Security	Save & Exit
Default key Provision [Disabled] ▶ Enroll All Factory Default Keys ▶ Save All Secure Boot Variables Platform Key NOT INSTALLED ▶ Delete PK ▶ Set new PK Key Exchange Key NOT INSTALLED ▶ Delete KEK ▶ Set new KEK ▶ Append KEK Authorized Signatures NOT INSTALLED ▶ Delete DB ▶ Set new DB ▶ Append DB Authorized TimeStamps NOT INSTALLED ▶ Delete DB ▶ Set new DB ▶ Append DB Forbidden Signatures NOT INSTALLED ▶ Delete DB ▶ Set new DB ▶ Append DB					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	Default Key Provision
Default Value	[Disabled]
Possible Value	Enabled / Disabled
Help	Install Factory default Secure Boot Keys when System is in Setup Mode.

Field Name	Enroll All Factory Default Keys
Help	Force System to User Mode - install all Factory Default keys(PK,KEK,db,dbx,dbt). Change takes effect after reboot.
Comment	

Field Name	Delete All Factory Default Key
Help	Force System to User Mode - clear all Factory Default

	keys(PK,KEK,db,dbx). Change takes effect after reboot
Comment	

Field Name	Save All Secure Boot Variables
Help	Store content of each Secure Boot Variable(data formatted as EFI_SIGNATURE_LIST) to a file with matching name on selected file system
Comment	

Field Name	Delete PK
Help	Delete the Variable from NVRAM. Removing PK will reset System to Setup Mode
Comment	

Field Name	Set new PK
Help	Insert Factory Default Keys or load from a file formatted as: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST, b)EFI_CERT_X509 (DER encoded), c)EFI_CERT_RSA2048 (bin), d)EFI_CERT_SHA256 (bin) 2.Efi Time-Based Authenticated Variable
Comment	

Field Name	Delete KEK
Help	Delete the Variable from NVRAM. Removing KEK will reset System to Setup Mode
Comment	

Field Name	Set new KEK
Help	Insert Factory Default Keys or load from a file formatted as: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST, b)EFI_CERT_X509 (DER encoded), c)EFI_CERT_RSA2048 (bin), d)EFI_CERT_SHA256 (bin) 2.Efi Time-Based Authenticated Variable
Comment	

Field Name	Append KEK
Help	Insert Factory Default Keys or load from a file formatted as: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST, b)EFI_CERT_X509 (DER encoded),

	c)EFI_CERT_RSA2048 (bin), d)EFI_CERT_SHA256 (bin) 2.Efi Time-Based Authenticated Variable
Comment	

Field Name	Delete DB
Help	Delete the Variable from NVRAM. Removing DB will reset System to Setup Mode
Comment	

Field Name	Set new DB
Help	Insert Factory Default Keys or load from a file formatted as: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST, b)EFI_CERT_X509 (DER encoded), c)EFI_CERT_RSA2048 (bin), d)EFI_CERT_SHA256 (bin) 2.Efi Time-Based Authenticated Variable
Comment	

Field Name	Append DB
Help	Insert Factory Default Keys or load from a file formatted as: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST, b)EFI_CERT_X509 (DER encoded), c)EFI_CERT_RSA2048 (bin), d)EFI_CERT_SHA256 (bin) 2.Efi Time-Based Authenticated Variable
Comment	

Field Name	Delete DBX
Help	Delete the Variable from NVRAM. Removing DBX will reset System to Setup Mode
Comment	

Field Name	Set new DBX
Help	Insert Factory Default Keys or load from a file formatted as: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST, b)EFI_CERT_X509 (DER encoded), c)EFI_CERT_RSA2048 (bin), d)EFI_CERT_SHA256 (bin) 2.Efi Time-Based Authenticated Variable
Comment	

Field Name	Append DBX
Help	Insert Factory Default Keys or load from a file formatted as: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST, b)EFI_CERT_X509 (DER encoded), c)EFI_CERT_RSA2048 (bin), d)EFI_CERT_SHA256 (bin) 2.Efi Time-Based Authenticated Variable
Comment	

4.3 Secure Flash update

Main	Advanced	Chipset	Boot	Security	Save & Exit
Signed BIOS update				Enable	Item help →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
Public Key store				Sha256	
Signature algorithm					
BIOS flash method				Runtime,Capsule,Recovery	
Flash write-protection				Disable	
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4 Boot

Boot mode select = UEFI

Main	Advanced	Chipset	Boot	Security	Save & Exit
Boot Configuration				Item help	
Setup Prompt Timeout				6	
Bootup NumLock State				[On]	
Quiet Boot				[Disable]	
Fast Boot				[Disabled]	
VGA Support				[EFI Driver]	
USB Support				[Partial Initial]	
PS2 Devices Support				[Enabled]	
Network Stack Driver Support				[Enabled]	
Boot mode select				[UEFI]	
FIXED BOOT ORDER Priorities					
Boot Option #1				[UEFI CD/DVD]	
Boot Option #2				[UEFI Hard Disk:Win.]	
Boot Option #3				[UEFI USB KEY]	
Boot Option #4				[UEFI Network]	
Boot Option #5				[UEFI USB CD/DVD]	
Boot Option #6				[UEFI USB Hard Disk]	
► 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 & Reset	
				ESC: Exit	
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Boot mode select = LEGACY

Main	Advanced	Chipset	Boot	Security	Save & Exit
Boot Configuration				Item help	
Setup Prompt Timeout				6	
Bootup NumLock State				[On]	
Quiet Boot				[Disable]	
Fast Boot				[Enabled]	
VGA Support				[EFI Driver]	
USB Support				[Partial Initial]	
PS2 Devices Support				[Enabled]	
Network Stack Driver Support				[Enabled]	

Boot Mode select	[LEGACY]	
FIXED BOOT ORDER Priorities		
Boot Option #1	[USB Floppy]	
Boot Option #2	[USB KEY]	
Boot Option #3	[USB Hard Disk]	→←: Select Screen
Boot Option #4	[USB CD/DVD]	↑↓: Select Item
Boot Option #5	[Hard Disk]	Enter: Select
Boot Option #6	[Network]	+/- : Change Opt
		F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Reset
		ESC: Exit
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Field Name	Setup Prompt Timeout
Default Value	[6]
Possible Value	1~65535
Help	Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

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

Field Name	Quiet Boot
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Enables or disables Quiet Boot option

Field Name	Fast Boot
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Enables or disables boot with initialization of a minimal set of devices required to launch active boot option. Has no effect for BBS boot options.

Field Name	VGA Support
Default Value	[EFI Driver]

Possible Value	EFI Driver / Auto
Help	If Auto, only install Legacy OpRom with Legacy OS and logo would NOT be shown during post. Efi driver will still be installed with EFI OS.

Field Name	USB Support
Default Value	[Partial Initial]
Possible Value	Disable / Full Initial / Partial Initial
Help	If Disabled, all USB devices will NOT be available until after OS boot. If Partial Initial, USB Mass Storage and specific USB port/device will NOT be available before OS boot. If Enabled, all USB devices will be available in OS and Post.

Field Name	PS2 Devices Support
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	If Disabled, PS2 devices will be skipped.

Field Name	NetWork Stack Driver Support
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	If Disabled, NetWork Stack Driver will be skipped.

Field Name	Boot mode select
Default Value	[UEFI]
Possible Value	LEGACY UEFI
Help	Secure Boot mode selector. 'Custom' Mode allows physically present users ability to override Image Execution policy and manage Secure Boot Keys.

Boot mode select = UEFI, FIXED BOOT ORDER Priorities

Field Name	Boot Option #1
Default Value	[UEFI CD/DVD]
Possible Value	UEFI CD/DVD, UEFI Hard Disk, UEFI USB KEY, UEFI Network, UEFI USB CD/DVD, UEFI USB Hard Disk, Disabled.
Help	Sets the system boot order.

Field Name	Boot Option #2
Default Value	[UEFI Hard Disk]
Possible Value	UEFI CD/DVD, UEFI Hard Disk, UEFI USB KEY, UEFI Network, UEFI USB CD/DVD, UEFI USB Hard Disk, Disabled.

Help	Sets the system boot order.
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Field Name	Boot Option #3
Default Value	[UEFI USB Key]
Possible Value	UEFI CD/DVD, UEFI Hard Disk, UEFI USB KEY, UEFI Network, UEFI USB CD/DVD,UEFI USB Hard Disk, Disabled.
Help	Sets the system boot order.

Field Name	Boot Option #4
Default Value	[UEFI Network]
Possible Value	UEFI CD/DVD, UEFI Hard Disk, UEFI USB KEY, UEFI Network, UEFI USB CD/DVD,UEFI USB Hard Disk, Disabled.
Help	Sets the system boot order.

Field Name	Boot Option #5
Default Value	[UEFI USB CD/DVD]
Possible Value	UEFI CD/DVD, UEFI Hard Disk, UEFI USB KEY, UEFI Network, UEFI USB CD/DVD,UEFI USB Hard Disk, Disabled.
Help	Sets the system boot order.

Field Name	Boot Option #6
Default Value	[UEFI USB Hard Disk]
Possible Value	UEFI CD/DVD, UEFI Hard Disk, UEFI USB KEY, UEFI Network, UEFI USB CD/DVD,UEFI USB Hard Disk, Disabled.
Help	Sets the system boot order.

Boot mode select = LEGACY, FIXED BOOT ORDER Priorities.

Field Name	Boot Option #1
Default Value	[CD/DVD]
Possible Value	CD/DVD, Hard Disk, USB KEY, Network, USB CD/DVD, USB Hard Disk, USB Floppy, Disabled.
Help	Sets the system boot order.

Field Name	Boot Option #2
Default Value	[Hard Disk]
Possible Value	CD/DVD, Hard Disk, USB KEY, Network, USB CD/DVD, USB Hard Disk, USB Floppy, Disabled.
Help	Sets the system boot order.

Field Name	Boot Option #3
Default Value	[USB Key]
Possible Value	CD/DVD, Hard Disk, USB KEY, Network, USB CD/DVD, USB Hard Disk, USB Floppy, Disabled.
Help	Sets the system boor order.

Field Name	Boot Option #4
Default Value	[Network]
Possible Value	CD/DVD, Hard Disk, USB KEY, Network, USB CD/DVD, USB Hard Disk, USB Floppy, Disabled.
Help	Sets the system boot order.

Field Name	Boot Option #5
Default Value	[USB CD/DVD]
Possible Value	CD/DVD, Hard Disk, USB KEY, Network, USB CD/DVD, USB Hard Disk, USB Floppy, Disabled.
Help	Sets the system boot order.

Field Name	Boot Option #6
Default Value	[USB Hard Disk]
Possible Value	CD/DVD, Hard Disk, USB KEY, Network, USB CD/DVD, USB Hard Disk, USB Floppy, Disabled.
Help	Sets the system boot order.

Field Name	Boot Option #7
Default Value	[USB Floppy]
Possible Value	CD/DVD, Hard Disk, USB KEY, Network, USB CD/DVD, USB Hard Disk, USB Floppy, Disabled.
Help	Sets the system boot order.

5 Save & Exit

Main	Advanced	Chipset	Boot	Security	Save & Exit
Save Changes and Reset Discard Changes and Reset Save Options Restore user Defaults Restore Defaults Restore Defaults Save as user Defaults Restore user Defaults Restore Windows 8-64 bits Defaults Restore Windows 7 Defaults Restore Windows 8-32 bits Defaults Boot Override UEFI: Built-in UEFI Shell Windows Boot Manager Launch EFI Shell from filesystem device					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	Save Changes and Reset
Help	Reset the system after saving the changes.
Comment	

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

Field Name	Save Options
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Field Name	Save Changes
Help	Save Changes done so far to any of the setup options.
Comment	

Field Name	Discard Changes
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Help	Discard Changes done so far to any of the setup options.
Comment	

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

Field Name	Save as User Defaults
Help	Save the changes done so far as User Defaults.
Comment	

Field Name	Restore User Defaults
Help	Restore the User Defaults to all the setup options.
Comment	

Field Name	Restore Windows 8-64 bits Defaults
Help	Restore/Load Windows 8-64 bits Default values for all the setup options.
Comment	

Field Name	Restore Windows 7 Defaults
Help	Restore/Load Windows 7 Default values for all the setup options.
Comment	

Field Name	Restore Windows 8-32 bits Defaults
Help	Restore/Load Windows 8-32 bits Default values for all the setup options.
Comment	

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