

MITAC Desktop Board PD10RI

Product Guide

Desktop Board Features

This chapter briefly describes the features of Desktop Board PD10RI. Below summarizes the major features of the Desktop Board.

Feature Summary

TABLE: MITAC DESKTOP BOARD PD10RI FEATURES

Form Factor	Low-profile Mini-ITX (20 millimeters [0.79 inches] x 170.18 millimeters [6.7 inches] x 170.18 millimeters [6.7 inches])	
Processor	Intel Braswell N3160/J3160 Processor with integrated graphics	
Chipset		
Memory	<ul style="list-style-type: none"> ● Support for dual channel DDR3L 1066/1333 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
Graphics	<ul style="list-style-type: none"> ● Integrated graphics: <ul style="list-style-type: none"> ■ Digital Display (HD-out) ■ Analog displays (VGA) ■ Internal flat panel displays: <ul style="list-style-type: none"> ◆ LVDS ◆ Embedded DisplayPort* eDP* ● External graphics support via a PCI Express 1.0a x1 graphics add-in card connector 	
Audio	<ul style="list-style-type: none"> ● 2 + 2 Channel High Definition Audio (HD Audio) using a Realtek* ALC283 audio codec supporting: <ul style="list-style-type: none"> ■ Analog stereo line-out (back panel jack) ■ In-chassis stereo speakers support (3 W/3 Ω via an internal header) 	
Expansion Capability	● PCI Express x1 add-in card connector	1
	● PCI Express Full-/Half-Mini Card slot	1
	● PCI Express Half-Mini Card slot	1
Peripheral Interfaces	● USB 2.0 front panel ports	5 (Headers)
	● USB 3.0 back panel connectors (blue)	4
	● SATA 3.0 Gb/s	2
	● SATA 3.0 Gb/s port (multiplexed with an mSATA port, routed to the PCI Express Full-/Half-Mini Card slot)	1
Legacy I/O	● Legacy I/O Controller (NCT6683D) that provides:	
	■ Powered RS232	2
	■ Configurable RS232/422/485	2
	■ Parallel port via an onboard header	1

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	<ul style="list-style-type: none"> ● BIOS resident in a Serial Peripheral Interface (SPI) Flash device ● Support for Advanced Configuration and Power Interface (ACPI), and System Management BIOS (SMBIOS)
Hardware Management	<p>Nuvoton NCT6104D based subsystem, including:</p> <ul style="list-style-type: none"> ● Voltage sense to detect out of range power supply voltages ● Thermal sense to detect out of range thermal values ● 3-pin system fan header
Power Requirement	<ul style="list-style-type: none"> ● DC connectivity via back-panel DC jack(2.5mm/ ID, 5.5mm/ OD) ● Internal 2 pin power connector
Environment	<ul style="list-style-type: none"> ● Operating Temperature: 0 °C to +60 °C ● Storage Temperature: -20°C to +70°C
Safety	<ul style="list-style-type: none"> ● CE ● FCC

Desktop Board Components

Figure shows the approximate location of the major components on the top side of MiTAC Desktop Board PD10RI.

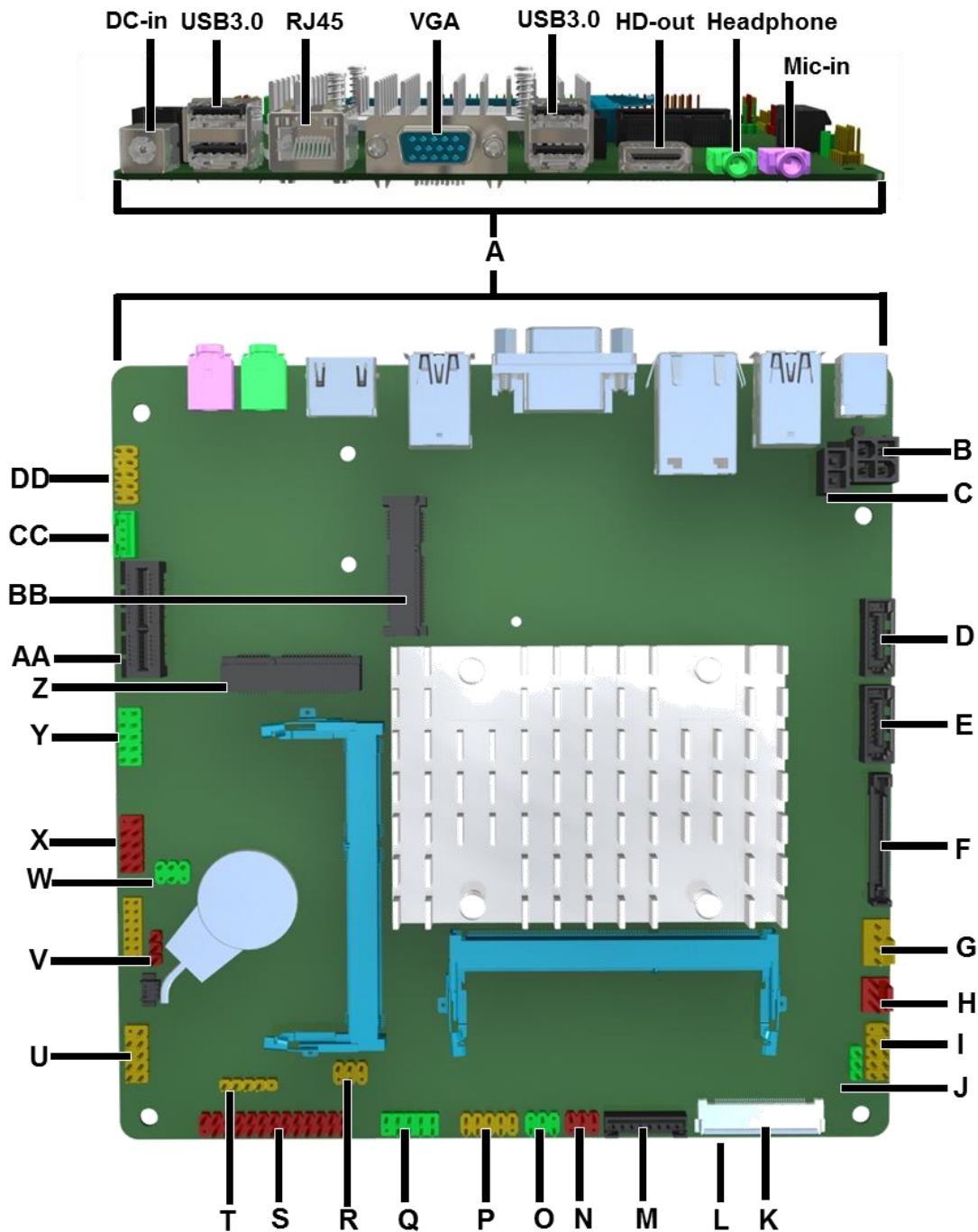


Figure: MiTAC Desktop Board PD10RI Components (Top)

TABLE: MITAC DESKTOP BOARD PD10RI COMPONENTS

A	Back Panel Connectors
B	DC Power 4pin header
C	DC Power 2pin header
D	SATA 6G header
E	SATA 6G header
F	SATA power header
G	CPU fan header
H	System fan header
I	Front panel main header
J	Power LED Header
K	LVDS connector
L	eDP connector (optional)
M	Backlight (inverter) power header
N	LVDS voltage selection header
O	Backlight (inverter) voltage selection header
P	Dual-port USB2.0 header
Q	COM2 port header (Power RS232)
R	COM2 Power selection header
S	Parallel Port header/MiAPI function header
T	Single-port USB2.0 header
U	COM1 port header (Power RS232)
V	CMOS clear header
W	COM1Power selection header
X	COM3 port header (RS232/422/485)
Y	COM4 port header (RS232/422/485)
Z	Full length Mini Card connector
AA	PCIe x1 slot
BB	Half length Mini Card connector
CC	Internal speaker header
DD	Front Audio header

Processor

MITAC Desktop Board PD10RI includes a passively-cooled, Intel Braswell N3160/J3160 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.

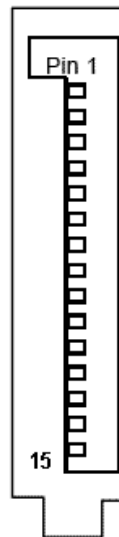
The Desktop Board has two 204-pin DDR3L SO-DIMM sockets with gold-plated contacts. These sockets support:

- Support for DDR3L SO-DIMMs
- 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

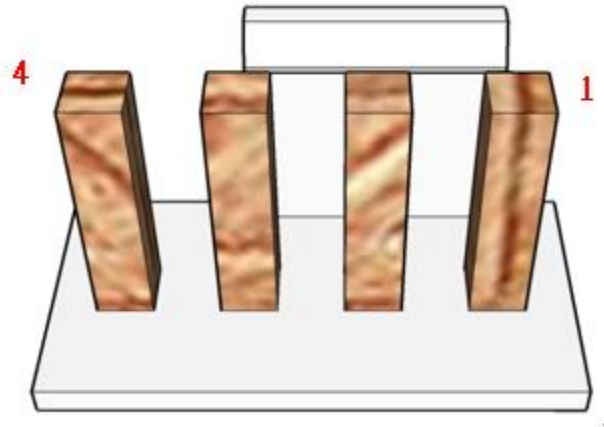
1	SATA_POWER2	SATA power header
2	J20	CPU FAN header
3	SYSTEM_FAN2	System FAN header
4	FRONT_PANEL2	Front I/O header
5	AUX_POWER_LED2	Alternate Power LED Header 1x3
6	LVDS1	LVDS connector
7	FPD_PWR2	LVDS power 1x8 pin header
8	LCD_SEL2	LVDS power header (3V, 5V, 12V)
9	INV_SEL2	LVDS inverter board header
10	J18	Parallel Port 2x13 pin header
11	J19	MiAPI 2x13 pin header
12	J21	Clear CMOS header
13	FP_USB_1	Dual-Port USB 2.0 Header
14	FP_USB_2	Single-Port USB 2.0 Header
15	COM1/COM2	Internal COM port header (RS232)
16	COM3/COM4	Internal COM port header (RS232/RS422/RS485)
17	J22/J23	Tx/Rx selection header
18	J25/J27	Power COM port header (For pin9)
19	INT_SPK1	Internal speaker header
20	FPAUDIO2	Front Audio header
21	EDP1	eDP connector

SATA power header



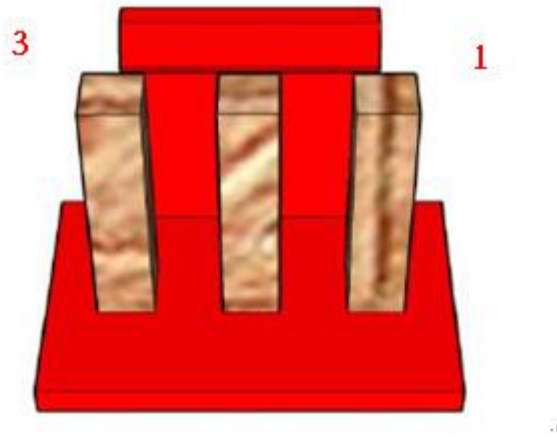
Pin #	Mating	Function
—	—	Coding notch
1	3rd	3.3 V
2	3rd	
3	2nd	
4	1st	Ground
5	2nd	
6	2nd	
7	2nd	5 V
8	3rd	
9	3rd	
10	2nd	Ground
11	3rd	Staggered spinup/activity (in supporting drives)
12	1st	Ground
13	2nd	12 V
14	3rd	
15	3rd	

CPU FAN header



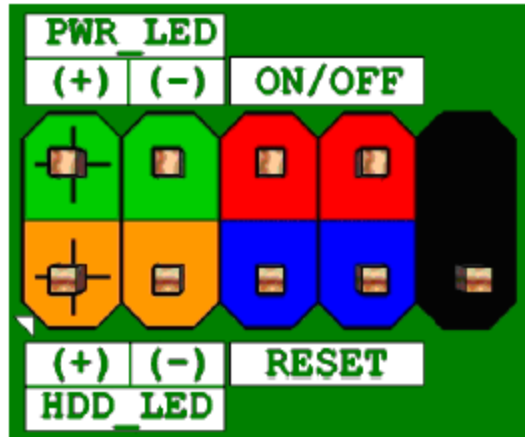
Pin.	Signal.
4.	FAN_CTRL.
3.	FAN_TACH.
2.	VCC-12V.
1.	GND.

System FAN header



Pin.1	Signal.1	.1
3.1	FAN_TACH.1	.1
2.1	FAN_CTRL.1	.1
1.1	GND.1	.1

Front I/O header



Pin	Signal Name	Description	Pin	Signal Name	Description
1	HDD_POWER_LED	Pull-up resistor (750Ω) 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

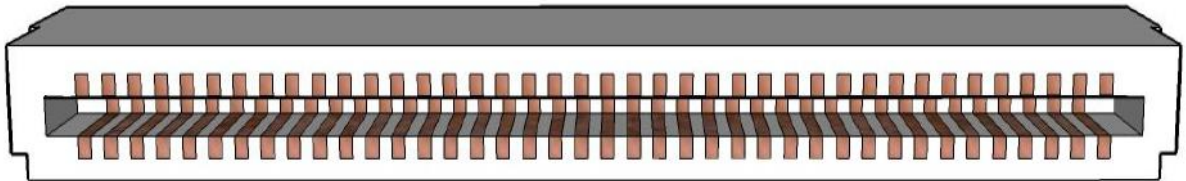
Alternate Power LED Header



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

LVDS connector

Silkscreen (LVDS1)



Pin.	Signal.	Description.
1	LA_DATAP3.	LVDS ChannelA diff data output- positive.
2	LA_DATAN3.	LVDS ChannelA diff data output- negative.
3	LA_DATAP2.	LVDS ChannelA diff data output- positive.
4	LA_DATAN2.	LVDS ChannelA diff data output- negative.
5	LA_DATAP1.	LVDS ChannelA diff data output- positive.
6	LA_DATAN1.	LVDS ChannelA diff data output- negative.
7	LA_DATAP0.	LVDS ChannelA diff data output- positive.
8	LA_DATAN0.	LVDS ChannelA diff data output- negative.
9	LB_DATAP3.	LVDS ChannelB diff data output-positive.
10	LB_DATAN3.	LVDS ChannelB diff data output-negative.
11	LB_DATAP2.	LVDS ChannelB diff data output-positive.
12	LB_DATAN2.	LVDS ChannelB diff data output-negative.
13	LB_DATAP1.	LVDS ChannelB diff data output-positive.
14	LB_DATAN1.	LVDS ChannelB diff data output-negative.
15	LB_DATAP0.	LVDS ChannelB diff data output-positive.
16	LB_DATAN0.	LVDS ChannelB 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.,	BKLT enable.,
33	BKLT_CTRL.,	BKLT control.,
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.,

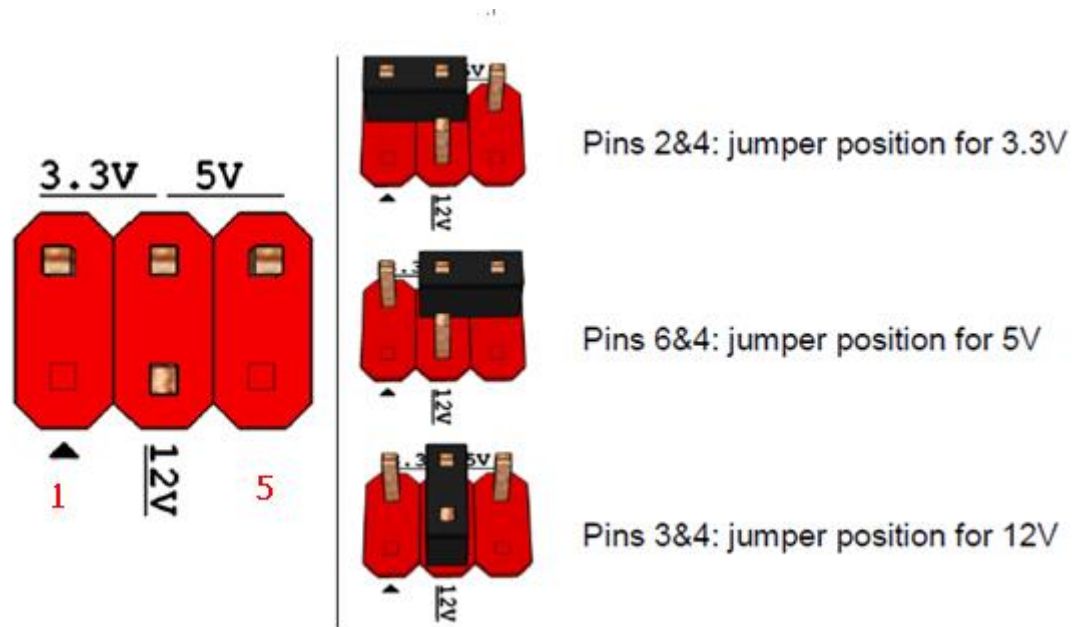
LVDS power 1x8 pin header



Pin	Signal	Description
1	BKLT_EN	Backlight enable
2	BKLT_PWM	Backlight control
3	BKLT_PWR (5V/12VV_IN)	Backlight inverter power
4	BKLT_PWR (5V/12VV_IN)	Backlight inverter power
5	BKLT_GND/Brightness_GND	Ground (shared)
6	BKLT_GND/Brightness_GND	Ground (shared)
7	Brightness_Up	Panel brightness increase
8	Brightness_Down	Panel brightness decrease

LVDS power header (3V, 5V, 12V)

Silkscreen (LCD_SEL2)



Pin	Signal	Description
1	Key	No pin
2	3.3V	3.3V option
3	12V	12V option
4	LCD_VCC	Send voltage to connector
5	Key	No pin
6	5V	5V option (default)

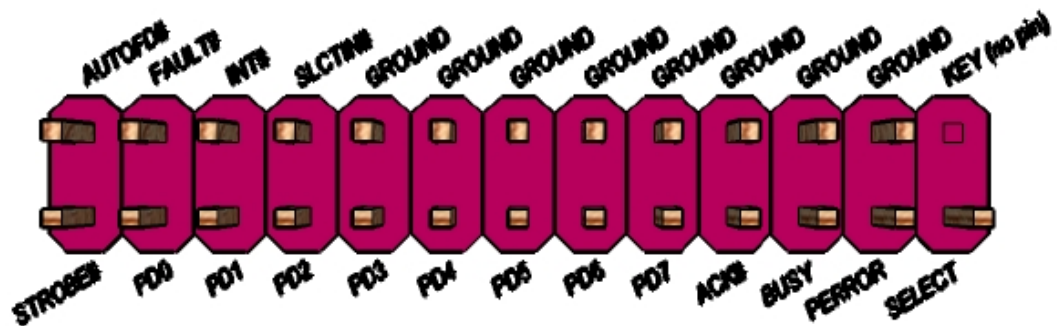
LVDS inverter board header

Silkscreen (INV_SEL2)



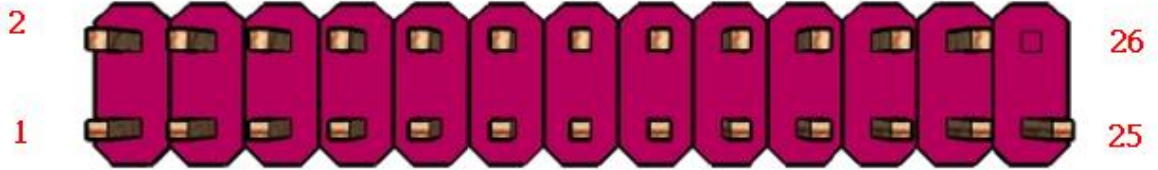
Pin	Signal	Description
1	Key	No pin
2	5V	5V option
3	8V~24V	8V~24V option (default)
4	LCD_VCC	Send voltage to connector
5	Key	No pin
6	12V	12V option

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)

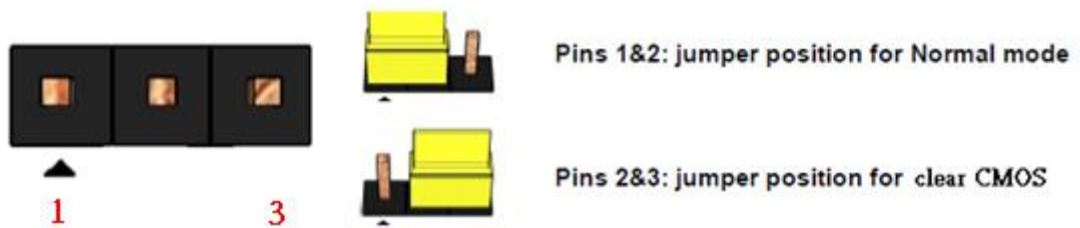
MiAPI header



Pin 1	GPIO	
Pin 2	Power (5V)	Main power
Pin 3	GPIO	
Pin 4	PWRBT_N	Power button
Pin 5	GPIO	
Pin 6	TX	UART Transmitter
Pin 7	GPIO	
Pin 8	RX	UART Receiver
Pin 9	GPIO	
Pin 10	Power (5V)	Resume power
Pin 11	GPIO	
Pin 12	WDTO	Watch dog
Pin 13	GPIO	
Pin 14	GND	
Pin 15	GPIO	
Pin 16	GND	
Pin 17	GPIO	
Pin 18	GND	
Pin 19	GPIO	
Pin 20	GND	
Pin 21	GPIO	
Pin 22	GND	

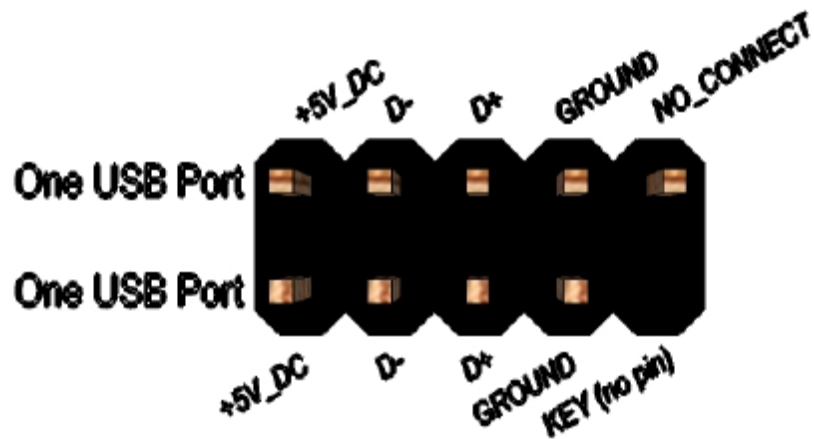
Pin 23	SMB_DATA_MAIN	
Pin 24	GND	
Pin 25	SMB_CLK_MAIN	
Pin 26	NC	

Clear CMOS header



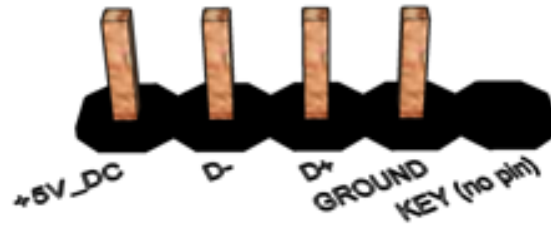
1-2	Normal
2-3	Clear CMOS

Dual-Port USB 2.0 Header



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

Single-Port USB 2.0 Header



Pin	Signal
1	+5V DC
2	Data (negative)
3	Data (positive)
4	Ground
5	Key (no pin)

Internal COM port header

(Power RS232)



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)

Internal COM port header

(RS232/422/485 programmable)



RS232

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)

RS422

Pin	Signal	Pin	Signal
1	T(B) /R(B)	2	T(A) /R(A)
3	R(A)	4	R(B)
5	Ground	6	NC
7	NC	8	NC
9	NC	10	Key (no pin)

RS485

Pin	Signal	Pin	Signal
1	T(B) /R(B)	2	T(A) /R(A)
3	NC	4	NC
5	Ground	6	NC
7	NC	8	NC
9	NC	10	Key (no pin)

Tx/Rx selection header

H12



Pins 1&2: jumper position Tx for MiAPI header

Pins 2&3: jumper position Tx for COM2 header
(H14)

H13



Pins 1&2: jumper position Rx for MiAPI header

Pins 2&3: jumper position Rx for COM2 header
(H14)

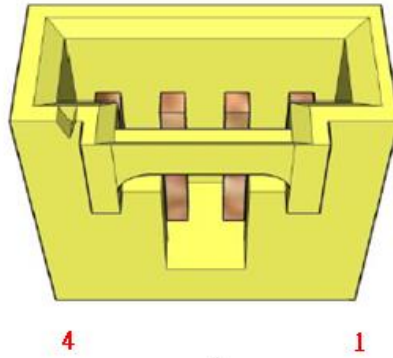
Power COM port header

(For pin 9, J25 and J27)



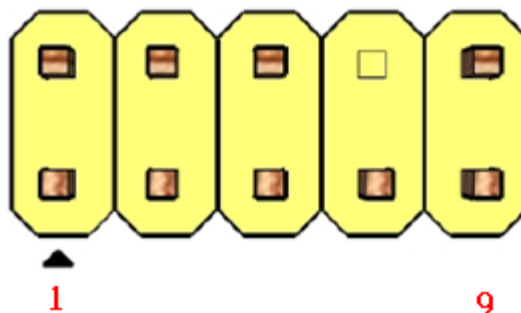
Pin	Signal	Description
1	Key	No pin
2	12V	12V option
3	RI	RI signal (default)
4	COM_P9	Send to connector pin 9
5	Key	No pin
6	5V	5V option

Internal speaker header



Pin	Signal name	Description
1	A_GND	Analog ground
2	Front_L	Analog front left
3	Front_R	Analog front right
4	A_GND	Analog ground

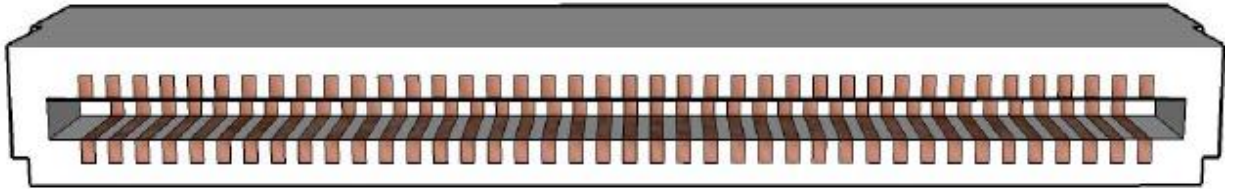
Front Audio header



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

eDP connector

Silkscreen (EDP1)



Pin.	Signal.	Description.
1	NC.	NC.
2	GND.	Ground.
3	LANE3_N.	LVDS Channel A diff data output- negative.
4	LANE3_P.	LVDS Channel A diff data output- positive.
5	GND.	Ground.
6	LANE2_N.	LVDS Channel A diff data output- negative.
7	LANE2_P.	LVDS Channel A diff data output- positive.
8	GND.	Ground.
9	LANE1_N.	LVDS Channel B diff data output-negative.
10	LANE1_P.	LVDS Channel B diff data output-positive.
11	GND.	Ground.
12	LANE0_N.	LVDS Channel B diff data output-negative.
13	LANE0_P.	LVDS Channel B diff data output-positive.
14	GND.	Ground.
15	AUX_P.	LVDS AUX Channel diff data output-positive.
16	AUX_N.	LVDS AUX Channel 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	3.3V/5V/12V.	Selectable LCD power output.
22	NC.	NC.
23	GND.	Ground.

24	GND.,	Ground.,
25	GND.,	Ground.,
26	GND.,	Ground.,
27	HPD.,	Hot plug detect
28	GND.,	Ground.,
29	GND.,	Ground.,
30	GND.,	Ground.,
31	GND.,	Ground.,
32	BKLT_EN.,	BKLT enable.,
33	BKLT_CTRL.,	BKLT control.,
34	NC.,	NC.,
35	NC.,	NC.,
36	BKLT_PWR.,	Selectable BKLT power output.,
37	BKLT_PWR.,	Selectable BKLT power output.,
38	BKLT_PWR.,	Selectable BKLT power output.,
39	BKLT_PWR.,	Selectable BKLT power output.,
40	NC.,	NC.,

MITAC Desktop Board PD10RI BIOS Specification

1. Main Page

Main	Advanced	Chipset	Security	Boot	Save & Exit
BIOS Information					Item help
BIOS Vendor			American Megatrends		
Core Version			5.11		
Compliance			UEFI 2.4; PI 1.3		
BIOS Version			D7530X01		
Build Date			05/04/2015		
Processor Information					
Intel(R) Celeron(R) CPU N3050 @ 1.60GHz					
Memory Information					→←: Select Screen
Total Memory			8192 MB (DDR3L)	↑↓: Select Item	
Memory Slot 0			4096MB	Enter: Select	
Memory Slot 1			4096MB	+/- : Change Opt	
System Language			[English]	F1: General Help	
System Date			[Mon, mm/dd/yyyy]	F2: Previous Values	
System Time			[hh:mm:ss]	F3: Optimized Defaults	
					F4: Save & Reset
					ESC: Exit
Version 2.17.1249. Copyright (C) 2011 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	5.11
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	Memory Information
Value	Display the installed Memory size, type etc..
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 Slot 0
Default Value	Memory in the DIMM.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Memory Slot 1
Default Value	Memory in the DIMM.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	System Language
Default Value	[English]
Possible 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.

2. Advanced Page

Main	Advanced	Chipset	Security	Boot	Save & Exit
<ul style="list-style-type: none"> ▶ RealTek PCIe GBE Family Controller (MAC:00:22:4D:7F:87:60) ▶ ACPI Settings ▶ SMART settings ▶ NCT6104D Super IO Configuration ▶ S5 RTC Wake Settings ▶ CPU Configuration ▶ SATA Configuration ▶ Network Stack Configuration ▶ ESM Configuration 					
<p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Reset</p> <p>ESC: Exit</p>					
<p>Version 2.17.1249. Copyright (C) 2011 American Megatrends, Inc.</p>					

Field Name	RealTek PCIe GBE Family Controller (MAC:00:22:4D:7F:87:60)
Help	Get driver information and configure Realtek Ethernet controller parameter.

Comment	Press Enter when selected to go into the associated Sub-Menu.
---------	---

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

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

Field Name	NCT6104D Super IO Configuration
Help	SIO 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.

2-1 Realtek PCIe GBE Family Controller

(MAC:00:22:4D:7F:87:60)

(If Network Stack IPv4/IPv6 enabled, create by RealTek UEFI PXE Driver)

Main	Advanced	Chipset	Security	Boot	Save & Exit
Driver Information Driver Name: Realtek UEFI UNDI Driver Driver Version: 2.035 Driver Released Date: 2015/03/30 Device Information Device Name: Realtek PCIe GBE Family PCI Slot: 03:00:00 MAC Address: 00:22:4D:7F:87:60					Item help →←: 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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Field Name	Driver Name:
------------	--------------

Default Value	Installed UEFI Driver Name
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Driver Version:
Default Value	Installed UEFI Driver Version
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Driver Released Date:
Default Value	Installed UEFI Driver Release Date
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Device Name:
Default Value	UEFI driver support device
Comment	This field is not selectable. There is no help text associated with it.

Field Name	PCI Slot:
Default Value	Device PCI Bus/Device/Number
Comment	This field is not selectable. There is no help text associated with it.

Field Name	MAC Address:
Default Value	LAN Device Mac address
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Patent Information
Default Value	This product is covered by one or US6,570,884,US6,115,776 and US6,
Comment	This field is not selectable. There is no help text associated with it.

2-2 ACPI Settings

Main	Advanced	Chipset	Security	Boot	Save & Exit	
ACPI Settings					Item	help
Enable	ACPI	Auto Configuration			[Disabled]	
Enable	Hibernation				[Enabled]	
ACPI	Sleep State				[S3 (Suspend to RAM)]	
					→←: 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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Field Name	Enable ACPI Auto Configuration
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Enables or Disables BIOS ACPI Auto Configuration.

Field Name	Enable Hibernation
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enables or Disables System ability to Hibernate (OS/S4 Sleep State). This option may be not effective with some OS.

Field Name	ACPI Sleep State
Default Value	[S3 (Suspend to RAM)]
Possible Value	Suspend Disabled S3 (Suspend to RAM)
Help	Select the highest ACPI sleep state the system will enter when the SUSPEND button is pressed.

2-3 SMART Settings

Main	Advanced	Chipset	Security	Boot	Save & Exit
SMART Settings SMART Self Test [Disabled]					Item help →←: 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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Field Name	SMART Self Test
Default Value	[Disabled]
Possible Value	Disabled Enabled
Help	Run SMART Self Test on all HDDs during POST.

2-4 NCT6104D Super IO

configuration (SKU-B this will not appear, some item will follow sKU)

Main	Advanced	Chipset	Security	Boot	Save & Exit
NCT6104D Super IO Configuratio					
Super IO Chip					NCT6104D
Serial Port 1 Configuration					
Serial Port 2 Configuration					
Serial Port 3 Configuration					
Serial Port 4 Configuration					
Rs232 port config					
					Item help →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Restore Legacy Defaults F4: Save & Reset ESC: Exit
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Field Name	Serial Port 1 Configuration
Help	Set Parameters of Serial Port 1 (COMA)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Serial Port 2 Configuration
Help	Set Parameters of Serial Port 2 (COMB)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Serial Port 3 Configuration
Help	Set Parameters of Serial Port 3 (COMC)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Serial Port 4 Configuration
Help	Set Parameters of Serial Port 4 (COMD)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Rs232 port config
Help	User Select Rs232 port config
Comment	Press Enter when selected to go into the associated Sub-Menu.

2-4-1 Serial Port 1 Configuration(SKU-D & SKU-I)

Main	Advanced	Chipset	Security	Boot	Save & Exit
Serial Port 1 Configuration					Item help
Serial Port				[Enabled]	→ ← : Select Screen
Device Settings				IO=3F8;IRQ=4;	↑ ↓ : Select Item
					Enter: Select
					+/- : Change Opt
					F1: General Help

	F2: Previous Values F3: Restore Legacy Defaults F4: Save & Reset ESC: Exit
--	---

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

Field Name	Device Settings
Default Value	IO=3F8;IRQ=4;
Comment	This field is not selectable. There is no help text associated with it.This will hide when device set to disable.

2-4-2 Serial Port 2 Configuration(SKU-D & SKU-I)

Main	Advanced	Chipset	Security	Boot	Save & Exit
Serial Port 2 Configuration					Item help
Serial Port		[Enabled]			→←: Select Screen
Device Settings		IO=2F8h; IRQ=3			↑ ↓ : Select Item
					Enter: Select
					+/- : Change Opt
					F1: General Help
					F2: Previous Values
					F3: Restore Legacy Defaults
					F4: Save & Reset
					ESC: Exit
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Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port (COM)

Field Name	Device Settings
Default Value	IO=2F8h; IRQ=3
Comment	This field is not selectable. There is no help text associated with it.This will hide when device set to disable.

2-4-3 Serial Port 3 Configuration(SKU-I only)

Main	Advanced	Chipset	Security	Boot	Save & Exit
Serial Port 3 Configuration					Item help
Serial Port		[Enabled]			→←: Select Screen
Device Settings		IO=3E8h; IRQ=5			↑ ↓ : Select Item
					Enter: Select
					+/- : Change Opt
					F1: General Help
					F2: Previous Values
					F3: Restore Legacy Defaults
					F4: Save & Reset
					ESC: Exit
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Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port (COM)

Field Name	Device Settings
Default Value	IO=3E8h; IRQ=5
Comment	This field is not selectable. There is no help text associated with it.This will hide when device set to disable.

2-4-4 Serial Port 4 Configuration (SKU-I only)

Main	Advanced	Chipset	Security	Boot	Save & Exit
Serial Port 4 Configuration					Item help
Serial Port		[Enabled]			→←: Select Screen
Device Settings		IO=2E8h; IRQ=5			↑ ↓ : Select Item
					Enter: Select
					+/- : Change Opt
					F1: General Help
					F2: Previous Values
					F3: Restore Legacy Defaults
					F4: Save & Reset
					ESC: Exit
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Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port (COM)

Field Name	Device Settings
Default Value	IO=2E8h; IRQ=5
Comment	This field is not selectable. There is no help text associated with it. This will hide when device set to disable.

2-4-5 Parallel Port Configuration (SKU-D only)

Main	Advanced	Chipset	Security	Boot	Save & Exit
Parallel Port Configuration					Item help
Parallel Port					[Enabled]
Device Settings					IO=378h; IRQ=7
Device Mode					[STD Printer Mode]
					→←: Select Screen ↑ ↓ : Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Restore Legacy Defaults F4: Save & Reset ESC: Exit
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Field Name	Parallel Port
Default Value	[Enabled]

Possible Value	Enabled Disabled
Help	Enable or Disable Parallel Port (LPT/LPTE)

Field Name	Device Settings
Default Value	IO=378;IRQ=7
Comment	This field is not selectable. There is no help text associated with it.This will hide when device set to disable.

Field Name	Device Mode
Default Value	[STD Printer Mode]
Possible Value	STD Printer Mode SPP Mode EPP-1.9 and SPP Mode EPP-1.7 and SPP Mode ECP Mode ECP and EPP 1.9 Mode ECP and EPP 1.7 Mode
Help	Change the Printer Port mode.

2-4-6 Rs232 port config (SKU-I only)

Main	Advanced	Chipset	Security	Boot	Save & Exit
RS232 port config					Item help

Com3 set to	[3T/5R RS-232]	
Com4 set to	[3T/5R RS-232]	<p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>+/- : Change Opt</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Reset</p> <p>ESC: Exit</p>
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Field Name	Com3 set to
Default Value	[3T/5R RS-232]
Possible Value	1T/1R RS-422 3T/5R RS-232 1T/1R RS-485 TX ENABLE Low Active 1T/1R RS-485 TX ENABLE High Active 1T/1R RS-422 with termination resistor 1T/1R RS-232 co-exists with RS485 1T/1R RS-485 with termination resistor TX ENABLE Low Active Disabled
Help	User Select Rs232 port config

Field Name	Com4 set to
Default Value	[3T/5R RS-232]
Possible Value	1T/1R RS-422 3T/5R RS-232 1T/1R RS-485 TX ENABLE Low Active 1T/1R RS-485 TX ENABLE High Active 1T/1R RS-422 with termination resistor 1T/1R RS-232 co-exists with RS485 1T/1R RS-485 with termination resistor TX ENABLE Low Active Disabled
Help	User Select Rs232 port config

2-5 S5 RTC Wake Settings(No function when DeepSx Power Policies enabled)

Main	Advanced	Chipset	Security	Boot	Save & Exit
	Wake system from S5			[Disabled]	Item help
	Wake up hour			0	
	Wake up minute			0	

<p>Wake up second</p> <p style="text-align: right;">0</p>	<p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>+/- : Change Opt</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Reset</p> <p>ESC: Exit</p>
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Field Name	Wake system from S5
Default Value	[Disabled]
Possible Value	<p>Disabled</p> <p>Fixed Time</p> <p>Dynamic Time</p>
Help	<p>Enabler 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)</p>

Field Name	Wake up hour(Show when Wake system from S5 set to Fixed Time)
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(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0-59
Help	Select 0-60

Field Name	Wake up second(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0 - 59
Help	Select 0-60

Field Name	Wake up minute increase(Show when Wake system from S5 set to Dynamic Time)
Default Value	1
Possible Value	1-5
Help	1 - 5

2-6. CPU Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit
CPU Configuration					
Item help					
Intel(R) Core(TM) CPU [CPU NAME] @ [CPU Freq.] GHz					
CPU Signature 406c3					
Microcode Patch 33c					
Max CPU Speed 1600 MHz					
Min CPU Speed 480 MHz					
Processor Cores 2					
Intel HT Technology Not Supported					
Intel VT-x Technology Supported					

L1 Data Cache	24 KB x 2	
L1 Code Cache	32 KB x 2	
L2 Cache	1024 KB x 1	
L3 Cache	Not Present	
64-bit	Supported	
Intel Virtualization Technology	[Enabled]	→←: Select Screen
▶PPM Configuration		↑↓: Select Item
		Enter: Select
		+/- : Change Opt
		F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Reset
		ESC: Exit
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Field Name	CPU Configuration
Default Value	[Intel CPU Brand String]
Comment	This field is not selectable. There is no help text associated with it.

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	CPU Speed
Default Value	Displays the 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	64-bit
Default Value	Displays if 64-bit supported
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	Intel Virtualization Technology
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	When enabled, a VMM can utilize the additional hardware capabilities provided by Vander pool Technology

Field Name	PPM Configuration
Help	PPM Configuration Parameter

2-6-1 PPM Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit
PPM Configuration					Item help
CPU C state Report					[Enabled]
					→←: 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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Field Name	CPU C state Report
Default Value	[Enabled]
Possible Value	Enabled

	Disabled
Help	Enable/Disable CPU C state report to OS.

2-7 SATA Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit	
SATA Configuration					Item	help
SATA	Interface Speed			[Gen2]		
SATA Port 0						
Not Present						
SATA Port 1						
Not Present						
					→←: 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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Field Name	SATA Interface Speed
Default Value	[Gen2]
Possible Value	Gen1 / Gen2/Gen3
Help	Select SATA Interface Speed, CHV A1 always with Gen1 Speed.

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

Field Name	SATA Port1
Default Value	Not Present
Possible Value	SATA Device Model Name

2-8 Network Stack Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit
<p>Network stack [Enabled]</p> <p>Ipv4 PXE Support [Enabled]</p> <p>Ipv6 PXE Support [Enabled]</p>					<p>Item help</p>
					<p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>+/- : Change Opt</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Reset</p> <p>ESC: Exit</p>
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Field Name	Network stack
Default Value	[Enabled]
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.

2-9 CSM Configuration

Main	Advanced	Device	Chipset	Security	Boot	Save & Exit
Compatibility Support Module Configuration						Item help
CSM Support				[Enabled]		
CSM Module Version				07.76		
GateA20 Active				[Upon Request]		
Option ROM Message				[Force BIOS]		
Boot option filter				[UEFI only]		

<p>Option ROM execution order</p> <p>Network [UEFI]</p> <p>Storage [UEFI]</p> <p>Video [UEFI]</p> <p>Other PCI devices [UEFI]</p>		→←: 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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Field Name	Compatibility Support Module Configuration
------------	--

Field Name	CSM Support
Default Value	[Enabled]
Possible Value	Disabled/Enabled
Help	Enable / Disable CSM Support.

Field Name	CSM16 Module Version
Default Value	07.74
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	Boot option filter
Default Value	[UEFI only]
Possible Value	UEFI only Legacy only
Help	This option controls Legacy/UEFI ROMs priority.

Field Name	Network
Default Value	[UEFI]
Possible Value	Do not launch UEFI Legacy
Help	Controls the execution of UEFI and Legacy PXE OpROM

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

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

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

3. Chipset

Main	Advanced	Chipset	Security	Boot	Save & Exit
Output Panel Type			[LVDS]		Item help
LVDS Interface Type			[8 bit-VESA Dual..]		

Swap Mode	[Disable]	
LVDS Panel Type	[VBIOS Default]	
DeepSx Power Policies	[Enable]	
Front Panel Audio	[Auto]	→←: Select Screen
Restore AC Power Loss	[Late state]	↑↓: Select Item
DVMT Pre-Allocated	[64MB]	Enter: Select
DVMT Total Gfx Mem	[256MB]	+/- : Change Opt
		F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Reset
		ESC: Exit
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Field Name	Output Panel Type
Default Value	[LVDS]
Possible Value	eDP LVDS
Help	Select output Panel Type

Field Name	LVDS Interface Type (Hidden when Output Panel Type is eDP)
Default Value	[Dual Channel]
Possible Value	8 bit-VESA Single Channel

	8 bit-VESA Dual Channel 6 bit-VESA Single Channel 6 bit-VESA Dual Channel 8 bit-JEIDA Single Channel 8 bit-JEIDA Dual Channel
Help	Sets LVDS connectivity.
Field Name	Swap Mode (Hidden when Output Panel Type is eDP)
Default Value	[Disable]
Possible Value	Disable Enable
Help	Enable:LVDS Even and Odd swap. Disable:LVDS Even and Odd no swap.

Field Name	LVDS Panel Type (Hidden when Output Panel Type is eDP)
Default Value	[VBIOS Default]
Possible Value	VBIOS Default 1920x1080 LVDS
Help	Select LVDS panel used by Internal Graphics Device by selecting the appropriate setup item.

Field Name	Front Panel Audio
Default Value	Auto
Possible Value	Auto High Definition Front Panel Legacy Front Panel Disabled

Help	Automatically or Manually select the type of audio front panel installed.
------	---

Field Name	DeepSx Power Policies
Default Value	Enable
Possible Value	Disabled Enabled
Help	Configure the DeepSx Mode configuration. When enabled, “Wake On Lan” and “S5 RTC Wake Settings” are no function.
Note	When enabled, “Wake On Lan” and “S5 RTC Wake Settings” are no function.

Field Name	Restore AC Power State
Default Value	[Latest 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	DVMT Pre-Allocated
Default Value	[64M]
Possible Value	64M / 96M / 128M / 256M / 384M
Help	Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.

Field Name	DVMT Total Gfx Mem
Default Value	[256MB]
Possible Value	128MB / 256MB / Max
Help	Select DVMT 5.0 Total Graphic Memory size used by the Internal Graphics Device.

4. Security

Main	Advanced	Chipset	Security	Boot	Save & Exit				
<p>Password Description</p> <p>If Only the Administrator's password is set then this only limits access to Setup and is only asked for when entering Setup</p> <p>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.</p> <p>The password length must be in the following range:</p> <table border="0"> <tr> <td>Minimum Length</td> <td>3</td> </tr> <tr> <td>Maximum Length</td> <td>20</td> </tr> </table> <p>Administrator Password</p> <p>User Password</p> <p>HDD Security Configuration</p> <p>P0:Device Name</p> <p>Secure Boot menu</p>				Minimum Length	3	Maximum Length	20	<p>Item help</p> <p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>+/- : Change Opt</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Reset</p> <p>ESC: Exit</p>	
Minimum Length	3								
Maximum Length	20								

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

Field Name	P0: Device Name
Help	HDD Security Configuration for selected drive
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

4-1 HDD Security Configuration

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

Field Name	Set User Password
Help	Set HDD User Password. \n*** Advisable to Power Cycle System after Setting Hard Disk Passwords ***.\nDiscard or Save changes option in setup does not have any impact on HDD when password is set or removed. If the 'Set HDD User Password' option is grayed out, do power cycle to enable the option again
Comment	Press Enter when selected to go into the associated Sub-Menu.

4-2 Secure Boot Mode



System Mode	Setup	Item help
Secure Boot	Not Active	
Secure Boot	[Enabled]	→←: Select Screen
Secure Boot Mode	[Standard]	↑↓: Select Item
▶Key Management		Enter: Select
		+/- : Change Opt
		F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Reset
		ESC: Exit
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Field Name	Secure Boot
Default Value	[Enabled]
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	[Standard]
Possible Value	Standard / Custom

Help	Secure Boot mode selector. 'Custom' Mode enables users to change Image Execution policy and manage Secure Boot Keys
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Field Name	Key Management
Help	Enables experienced users to modify Secure Boot variables
Comment	Press Enter when selected to go into the associated Sub-Menu.

4-3 Key Management

Main	Advanced	Chipset	Security	Boot	Save & Exit
Provision Factory Default Keys				[Disabled]	
					Item help
▶Enroll All Factory Default Keys					
▶Save All Secure Boot Variables					
Secure Boot variable					
size key# key source					
▶Platform Key(PK)					0 0
▶Key Exchange Key					0 0
▶Authorized Signatures					0 0
▶Forbidden Signatures					0 0
▶Authorized TimeStamps					0 0
					→←: 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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Field Name	Provision Factory Default Key
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,dbt,dbx). Change takes effect after reboot
Comment	

Field Name	Delete All Secure Boot Variables
Help	Force System to Setup Mode - clear all Secure Boot Variables(PK,KEK,db,dbx). Change takes effect after reboot
Comment	

Field Name	Save All Secure Boot Variables
Help	Save NVRAM content of all Secure Boot variables to the files (EFI_SIGNATURE_LIST data format) in root folder on a target file system device
Comment	

Field Name	Platform Key (PK) : 0 0
Possible Value	Set New Key Delete key
Help	Enroll Factory Defaults or load the keys from a file with:\n 1.Public Key Certificate in:\n a)EFI_SIGNATURE_LIST\n b)EFI_CERT_X509 (DER encoded)\n c)EFI_CERT_RSA2048 (bin)\n d)EFI_CERT_SHA256 (bin)\n 2.Authenticated UEFI Variable\n \nKey source:Default,Custom,Mixed\n(*) modified from Setup menu

Field Name	Key Exchange Keys : 0 0
Possible Value	Set New Key Append Key(If Provision Factory Default Key Enable) Delete key
Help	Enroll Factory Defaults or load the keys from a file with:\n 1.Public Key Certificate in:\n a)EFI_SIGNATURE_LIST\n b)EFI_CERT_X509 (DER encoded)\n c)EFI_CERT_RSA2048 (bin)\n d)EFI_CERT_SHA256 (bin)\n 2.Authenticated UEFI Variable\n \nKey source:Default,Custom,Mixed\n(*) modified from Setup menu

Field Name	Authorized Signatures : 0 0
Possible Value	Set New Key Append Key(If Provision Factory Default Key Enable) Delete key
Help	Enroll Factory Defaults or load the keys from a file with:\n 1.Public Key Certificate in:\n a)EFI_SIGNATURE_LIST\n b)EFI_CERT_X509 (DER encoded)\n c)EFI_CERT_RSA2048 (bin)\n d)EFI_CERT_SHA256 (bin)\n 2.Authenticated UEFI Variable\n \nKey source:Default,Custom,Mixed\n(*) modified from Setup menu

Field Name	Forbidden Signatures: 0 0
Possible Value	Set New Key Append Key (If Provision Factory Default Key Enable) Delete key
Help	Enroll Factory Defaults or load the keys from a file with: 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.Authenticated UEFI Variable Key source:Default,Custom,Mixed (*) modified from Setup menu

Field Name	Authorized TimeStamps : 0 0
Possible Value	Set New Key Delete key
Help	Enroll Factory Defaults or load the keys from a file with: 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.Authenticated UEFI Variable Key source:Default,Custom,Mixed (*) modified from Setup menu

5. Boot

Boot mode select = UEFI

Main	Advanced	Chipset	Boot	Security	Save & Exit
Boot Configuration					Item help
	Setup Prompt Timeout		3		
	Bootup NumLock State		[On]		
	Fast Boot		[Disabled]		
	Boot mode select		[UEFI]		
FIXED BOOT ORDER Priorities					
	Boot Option #1		[Hard Disk]		
	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 CD/DVD ROM Drive BBS Priorities				→←: Select Screen
	UEFI Hard Disk Drive BBS Priorities				↑↓: Select Item
	UEFI NETWORK Drive BBS Priorities				Enter: Select
					+/- : Change Opt
					F1: General Help

UEFI USB CD/DVD ROM Drive BBS Priorities	F2: Previous Values
UEFI USB Hard Disk Drive BBS Priorities	F3: Optimized Defaults
UEFI USB KEY Drive BBS Priorities	F4: Save & Reset
	ESC: Exit
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Boot mode select = LEGACY

Main	Advanced	Chipset	Security	Boot	Save & Exit
Boot Configuration					Item help
				Setup Prompt Timeout	3
				Bootup NumLock State	[On]
				Fast Boot	[Enabled]
				Boot mode select	[Legacy]
FIXED BOOT ORDER Priorities					

Boot Option #1	[Hard Disk]	
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]	
CD/DVD ROM Drive BBS Priorities		→←: Select Screen
Hard Disk Drive BBS Priorities		↑↓: Select Item
NETWORK Drive BBS Priorities		Enter: Select
USB CD/DVD ROM Drive BBS Priorities		+/- : Change Opt
USB Hard Disk Drive BBS Priorities		F1: General Help
USB KEY Drive BBS Priorities		F2: Previous Values
USB Floppy Drive BBS Priorities		F3: Optimized Defaults
		F4: Save & Reset
		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	Boot NumLock State
Default Value	[On]
Possible Value	On Off
Help	Select the keyboard NumLock state

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	Boot mode select
Default Value	[UEFI]
Possible Value	LEGACY (Restore non-Windows 8 Default) UEFI
Help	Select boot mode LEGACY/UEFI.

Boot mode select = UEFI

Field Name	Boot Option #1
Default Value	[Hard Disk]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan

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

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

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

Field Name	Boot Option #5
Default Value	[USB Key]

Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Sets the system boot order

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

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

Field Name	Boot Option #8
Default Value	[Network]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Sets the system boot order

Boot mode select = LEGACY

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

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

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

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

Field Name	Boot Option #5
Default Value	[USB Key]

Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Sets the system boot order

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

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

Field Name	Boot Option #8
Default Value	[Network]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Sets the system boot order

Legacy mode: When Restore not Win8 and Win10 64-bits defaults and reset will present

Field Name	CD/DVD ROM Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available

	CDROM/DVD Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

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

Field Name	USB CD/DVD ROM Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available USB CDROM/DVD Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

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

Field Name	USB Floppy Drive BBS Priorities (UEFI Boot Mode Not Support)
Help	Specifies the Boot Device Priority sequence from available USB Floppy Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

UEFI mode: When Restore Win8 and Win10 64-bits defaults and reset will present

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.

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

Field Name	UEFI USB CD/DVD ROM Drive BBS Priorities
Help	Specifies the Boot Device Priority sequence from available UEFI USB CDROM/DVD Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

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

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

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

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	Restore Windows 8-64 bits Defaults
Help	Restore/Load Windows 8 and 10 64-bits Default values for all the setup options.
Comment	

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

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

Field Name	Restore Windows 10 Defaults
Help	Restore/Load Windows 10-32 bits values for all the setup options.
Comment	

Field Name	Boot Override
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