

MiTAC Panel PC System

P210-11KS

Product Guide v1.2

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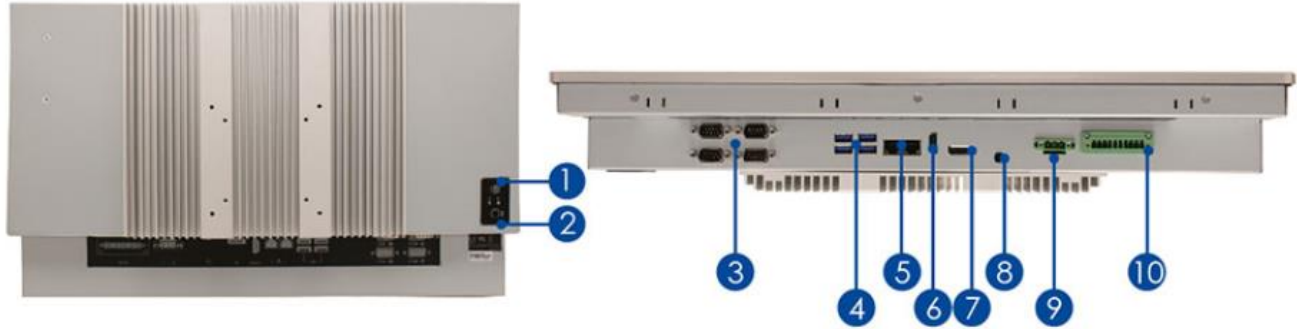
**Front View**



**Rear View**



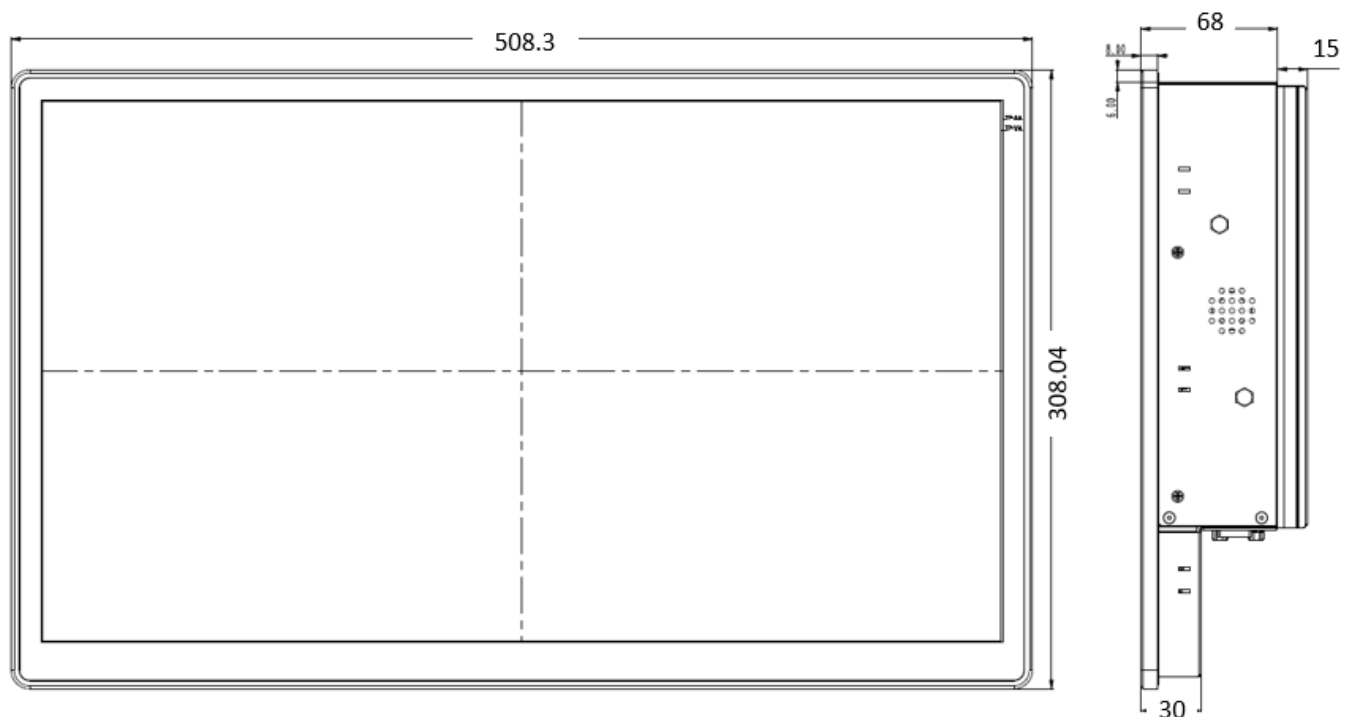
## Bottom View

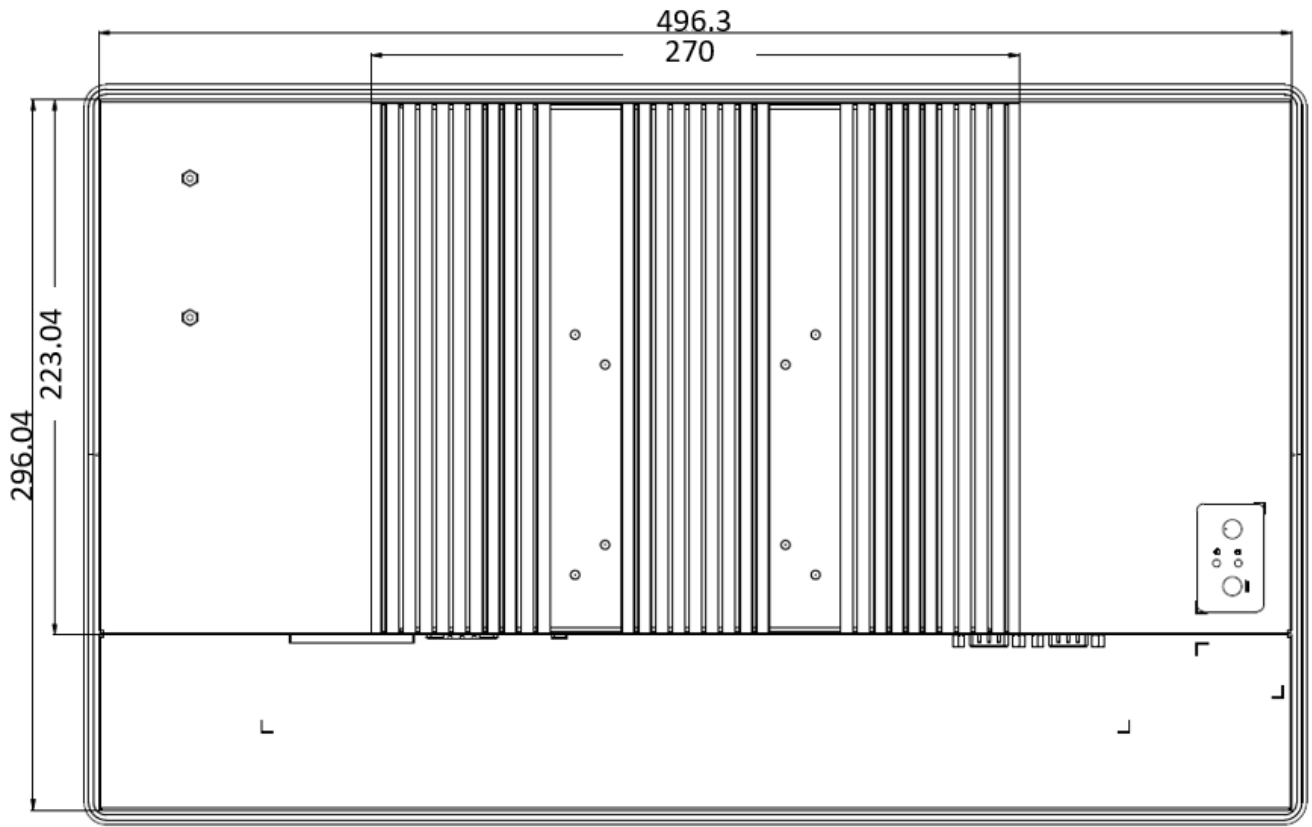


- |   |           |   |                |    |                          |
|---|-----------|---|----------------|----|--------------------------|
| 1 | ⏻ Power   | 5 | 🌐 Giga LAN     | 9  | ⚡ DC-in (terminal block) |
| 2 | ↻ Reset   | 6 | 📺 HDMI         | 10 | 🔌 8 bit GPIO             |
| 3 | 🗑️ COM    | 7 | Ⓜ️ DisplayPort |    |                          |
| 4 | 🔌 USB 3.0 | 8 | 🎧 Audio Jack   |    |                          |

## Mechanical Dimension

P210-11KS dimension: 508.3mm x 308.04mm x 83mm





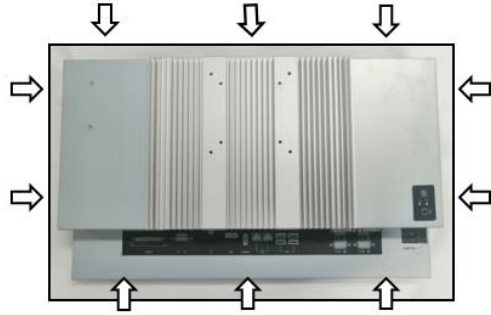
Suggest cut out dimension: 497mm x 297mm

# Product Specifications

LCD	DISPLAY TYPE	21.5" TFT-LCD
	MAX. RESOLUTION	1920 x 1080
	MAX. COLORS	16.7M (8 bit / color)
	LUMINANCE (cd/m2)	250
	VIEWING ANGLE (H/V)	170° / 160°
	LED BACKLIGHT LIFETIME (hrs)	30,000
	HIGH BRIGHTNESS	Option
TOUCH SCREEN	TYPE	P-CAP
	TOUCH SCREEN	True-flat 10 points
	AR/AG	Option
SYSTEM	PROCESSOR	7th Gen Intel® Kaby Lake-U i3-7100U(Dual Core, 3MB Cache, 2.40 GHz) / option: 7th Gen Kaby Lake celeron 3965U / i5-7300U / i7-7600U / option: 6th Gen Skylake celeron 3955U / i3-6100U / i5-6300U / i7-6600U
	CHIPSET	Intel® SoC Integrated
	SYSTEM MEMORY	DDR4 2133MHz / 2 x 260-pin SO-DIMM / Max. 32GB (Non-ECC)
	ETHERNET	Intel® I219-LM Giga LAN + Intel® I211-AT Giga LAN
	I/O PORT	1 x 3-pin Phoenix type terminal block DC input / 2 x RJ45 / 1 x Audio Jack (combo Line-out + Mic-in) / 1 x 8bit GPIO terminal block / 4 x RS232 / 1 x DisplayPort 1.2 / 1 x 2-pin remote power on/off / 4 x USB 3.0 / 1 x HDMI 1.4
	EXPANSION SLOT	Wireless: M.2 2230 E key (PCIe, USB)
	STORAGE	1 x SATA 2.5" HDD / SSD bay

	STEREO SPEAKER	2 x 2W
	OS SUPPORT	Windows 10 64bit
	WATCHDOG TIMER	1~255 steps by software program
POWER REQUIREMENT	POWER INPUT	DC-in 8~24V
	POWER ADAPTER	AC to DC / DC19V / 3.4A / 65W adapter
MECHANICAL	MOUNTING	VESA 75/100mm / Panel Mount
	DIMENSIONS (W X H X D)	508.3 x 308 x 83 mm
	WEIGHT	8kg
ENVIRONMENTAL	OPERATING TEMPERATURE	0 ~ 50°C (32 ~ 122°F)
	STORAGE TEMPERATURE	-20 ~ 60°C (-4 ~ 140°F)
	STORAGE HUMIDITY	10% ~ 90% @40°C non-condensing
	VIBRATION RESISTANCE	Operating Random vibration Test 5-500Hz, 0.3 Grms@with HDD / 2Grms @with SSD, follow IEC 60068-2-64
	SHOCK RESISTANCE	Operating 10 G peak acceleration (11 ms duration) / follow IEC 60068-2-27
	EMC	CE / FCC Class A

# Quick Installation Guide

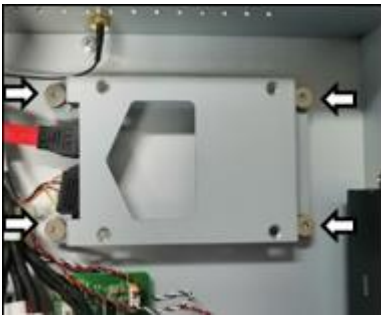


Remove 10pcs rear cover screws.

(Torque 4.5 +/-0.5 Kgf-cm)



Open rear cover



Disassemble the HDD bracket.

(Torque 4.5 +/-0.5 Kgf-cm)



Install HDD with the screws in AK.

(Torque 4.5 +/-0.5 Kgf-cm)



Install HDD bracket and connect the cables.

(Torque 4.5 +/-0.5 Kgf-cm)



Install SODIMMs



Install antennas in rear cover (option).

(Torque 4.5 +/-0.5 Kgf-cm)



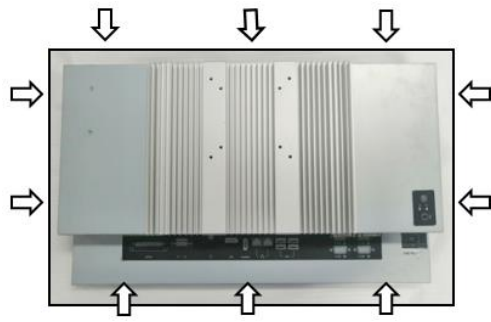
Install WIFI card and connect the antennas. (option)

(Torque 4.5 +/-0.5 Kgf-cm)



Connect LVDS cable, backlight cable and TP cable before secure the rear cover





Secure 10pcs rear cover screws.

(Torque 4.5 +/-0.5 Kgf-cm)

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[Note] need manually install drivers

Please check the latest drivers on MiTAC official website

<http://www.mitacmct.com/IndustrialPanelPC=P210-11KS=P210-11KS=downloads=EN>

# 3.5" SBC M/B Components

Figure 1 shows location of the major components on the top side of MITAC 3.5" SBC M/B PD11KS.

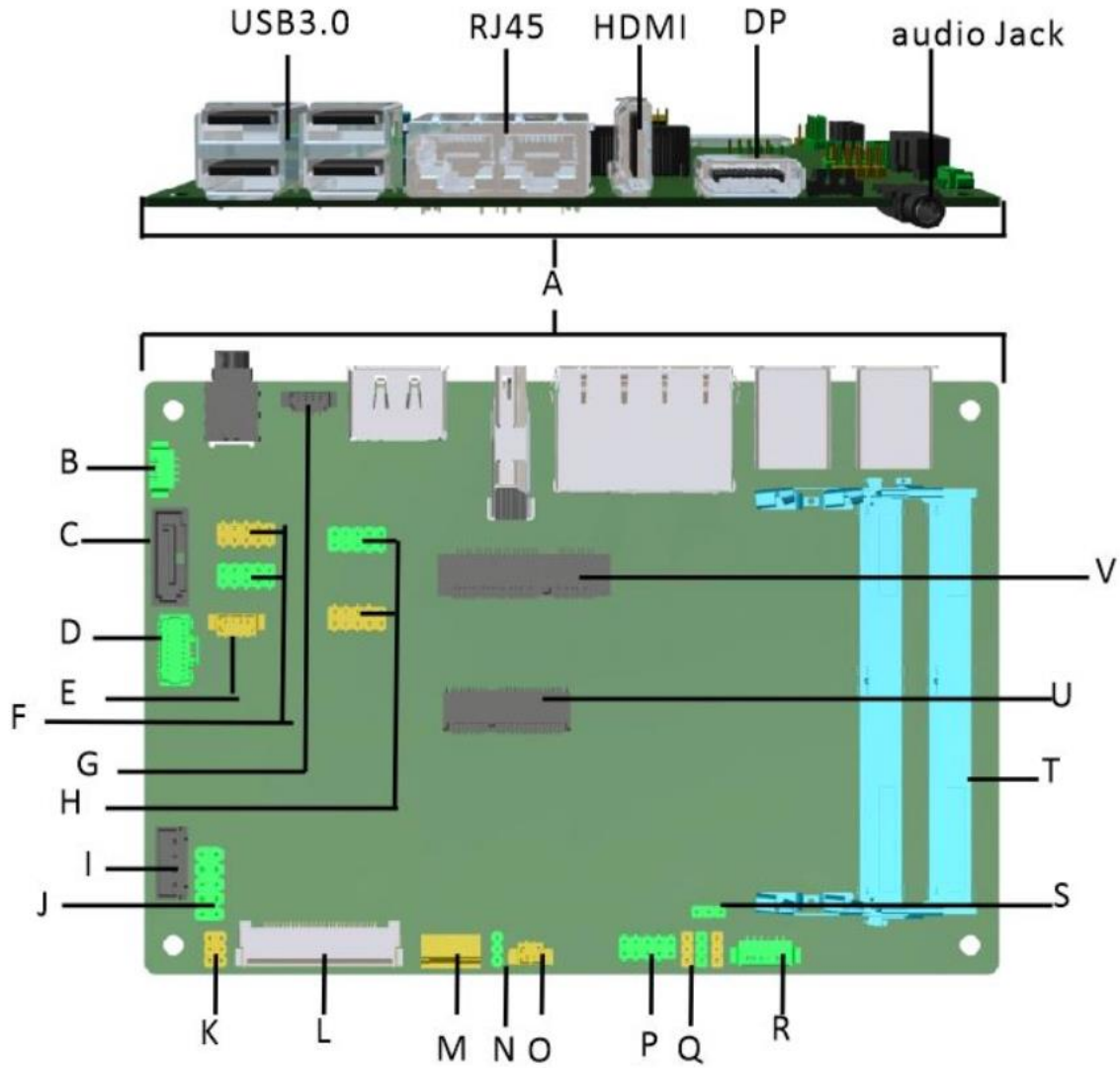


FIGURE 1. MITAC 3.5" SBC M/B COMPONENTS

Label	Description
A	Back Panel Connectors
B	Internal Speaker Header
C	SATA Header
D	MiAPI Header
E	SATA Power Header
F	Rs232 Header
G	External Speaker Header
H	Rs232 header
I	DC Power Input Header
J	Front Panel Header
K	LCD Power Select Header
L	LVDS/EDP Header
M	Fan Header
N	Back Light Power Select Header
O	RTC Battery Header
P	USB2.0 Header
Q	AT / ATX Mode Select Header
R	Backlight Power Header
S	Clear CMOS Header
T	DDR4 SODIMM socket
U	M.2 E key connector
V	Mini PCIE connector

**(Dual RJ45 Connector)**

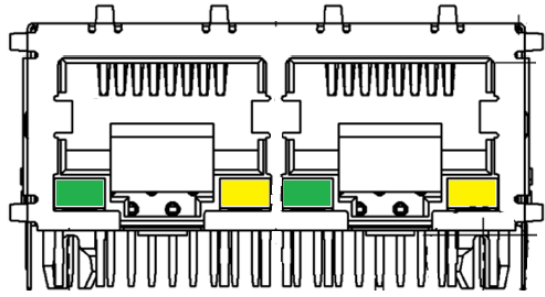
Diagram	LED	Color	State	Condition
 <p>Figure 1 LAN Connector (2D) ▲</p>	Link	N/A	Off	LAN link is not established
		Green	On	LAN link is established
			Blinking	LAN activity occurring
	Speed	N/A	Off	10 Mb/s data rate
		Green	On	100 Mb/s data rate
		Yellow	On	1000 Mb/s data rate

Table 3: RJ45 LED behavior ▲

**(LVDS/eDP Connector)**

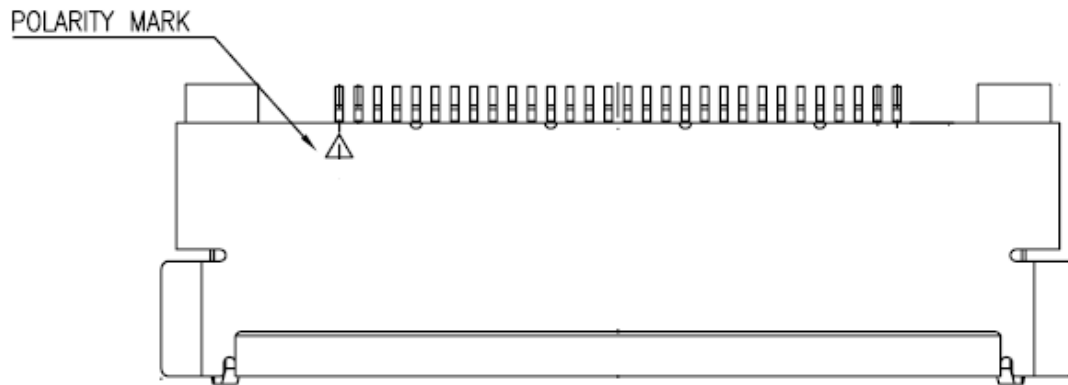


Figure 2: LVDS/ eDP Connector (2D)▲

Table 4: LVDS/ eDP Connector pin definition ▼

PIN	LVDS Define	eDP Define
1	LVDS0_LINK3_CON_DP	NC
2	LVDS0_LINK3_CON_DN	GND
3	LVDS0_LINK2_CON_DP	eDP_TX3_DN
4	LVDS0_LINK2_CON_DN	eDP_TX3_DP
5	LVDS0_LINK1_CON_DP	GND
6	LVDS0_LINK1_CON_DN	eDP_TX2_DN
7	LVDS0_LINK0_CON_DP	eDP_TX2_DP
8	LVDS0_LINK0_CON_DN	GND
9	LVDS1_LINK3_CON_DP	eDP_TX1_DN
10	LVDS1_LINK3_CON_DN	eDP_TX1_DP
11	LVDS1_LINK2_CON_DP	GND
12	LVDS1_LINK2_CON_DN	eDP_TX0_DN
13	LVDS1_LINK1_CON_DP	eDP_TX0_DP
14	LVDS1_LINK1_CON_DN	GND
15	LVDS1_LINK0_CON_DP	eDP_AUX_DN
16	LVDS1_LINK0_CON_DN	eDP_AUX_DP
17	GND	GND
18		Panel VDD
19		Panel VDD
20		Panel VDD
21		Panel VDD
22		Panel VDD
23		GND

24		GND	
25		GND	
26	LVDS0_CLK_CON_DP		GND
27	LVDS0_CLK_CON_DN		Hot Plug Detect
28		GND	
29		GND	
30		GND	
31	DDC_SCL		GND
32		Backlight Enable	
33		Backlight Control	
34	LVDS1_CLK_CON_DP		NC
35	LVDS1_CLK_CON_DN		NC
36		Backlight VCC	
37		Backlight VCC	
38		Backlight VCC	
39		Backlight VCC	
40	DDC_SDA		NC

## (External Speaker Socket)

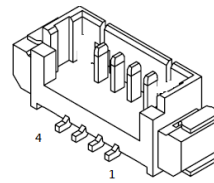


Figure 3: External Speaker Socket (2D) ▼

Table 5: External Speaker Socket pin definition ▼

Pin	Signal Name	Description
1	VDD	+12V
2	LINE OUT L	[Out] Left channel
3	LINE OUT R	[Out] Right channel
4	GND	Ground

## (Internal Speaker Socket)

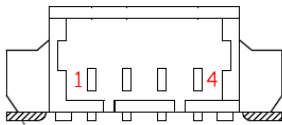


Figure 4: Internal Speaker Socket (2D)▲

Table 6: Internal Speaker Socket pin definition ▼

Pin	Signal Name	Description
1	LINE OUT L-	[Out] Left channel-
2	LINE OUT L+	[Out] Left channel+
3	LINE OUT R-	[Out] Right channel-
4	LINE OUT R+	[Out] Right channel +

## (SATA Power Socket)

Figure 5: SATA Power Socket (2D) ▼

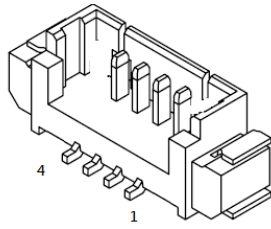
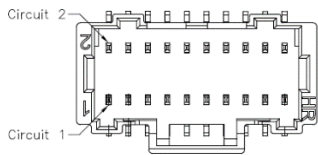


Table 7: SATA Power Socket pin definition ▼

Pin	Signal Name	Description
1	VCC3	[Out] +3V
2	GND	[Out] Ground
3	VCC	[Out] +5V
4	12V	[Out] +12V

## (MiAPI Socket)

Figure 6: MiAPI Socket (2D) ▼



1	MAPI_GPIO1	2	VCC
3	MAPI_GPIO2	4	MAPI_GPIO6
5	MAPI_GPIO3	6	MAPI_GPIO7
7	MAPI_GPIO4	8	MAPI_GPIO8
9	MAPI_GPIO5	10	MAPI_GPIO9
11	WD_Time	12	MAPI_GPIO10
13	Power Button	14	SMBUS_DATA



15	UART_TX	16	SMBUS_CLK
17	UART_RX	18	5VSB
19	GND	20	NA

Table 8: MiAPI Socket pin definition ▲

**(DC IN Power Socket)**

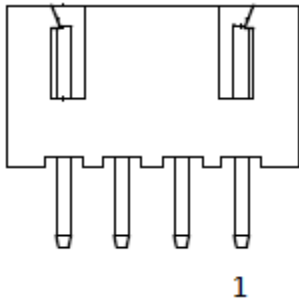


Table 9:

External Speaker Socket definition ▲

Pin	Signal Name	Description
1	VDD	[IN] 8~24V
2	VDD	[IN] 8~24V
3	GND	Ground
4	GND	Ground

pin

**(FAN Socket)**

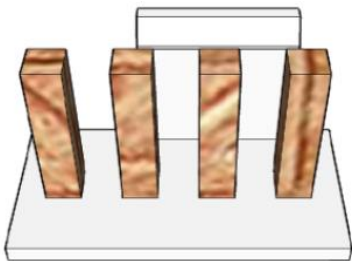


Table 10:

External Speaker Socket pin definition )▲

Pin	Signal Name	Description
1	GND	Ground
2	VDD	[Out] 12V
3	CPU_FAN_TACH	FAN speed detect
4	CPU_FAN_CTRL	FAN speed control

**(Panel Backlight Control Cable Socket)**

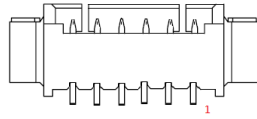


Figure 7: Backlight control cable Socket (2D)▲

Pin	Signal Name	Description
1	BKTL_EN	[Out] Lift channel-
2	BKLT_CTRL	[Out] Lift channel+
3	BKLT_PWR	[Out] Right channel-
4	BKLT_PWR	[Out] Right channel +
5	GND	Ground
6	GND	Ground

Table 11: Backlight control cable Socket pin definition ▲

**(COM Port Header)**



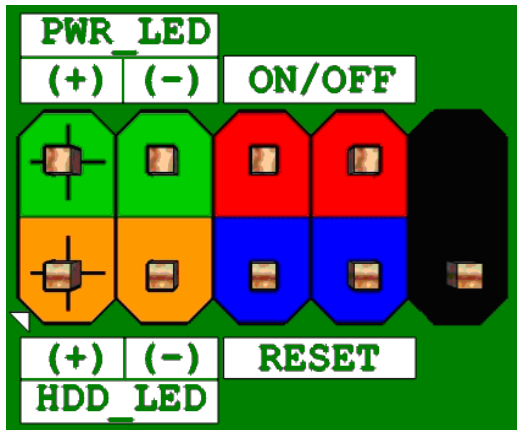
Figure 8: RS232 COM Port Header (2D)▲

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 12: RS232 COM Port pin definition ▲

Note. H4 COM port support RS422 & RS485 by BIOS setting.

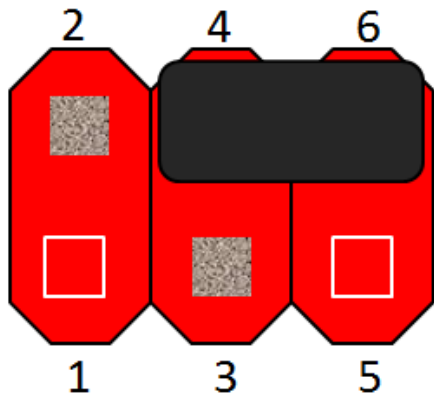
(Front Panel Header)



Pin	Signal Name	Description	Pin	Signal Name	Description
1	HDD_POWER_LED	Pull-up resistor (510Ω) 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	VCC(+5V)	Power	10	KEY	No pin

Table 13 Front panel main header signals ▲

**(Panel Power Selection Header)**



Pins 6&4: Jumper position for +5V mode(Default)

Figure 9: Panel Power Selection Headers ▲

Pin	Signal Name	Description
1	NC	No Pin
2	VCC3	+3V
3	12V	+12V
4	PANEL_PWR	[Out] output panel power
5	NC	No Pin
6	VCC	+5V

Table 14: Panel Power selection header pin definition ▲

**(Panel Backlight Power Selection Header)**



**Pins 1&2: jumper position for +12V mode**



**Pins 2&3: jumper position for +5V mode**

Pin	Signal Name	Description
1	12V	+12V
2	BKLT_PWR	Backlight Power
3	VCC	+5V

Table 15: Panel Power selection header pin definition ▲

**(Dual USB2.0 Header)**

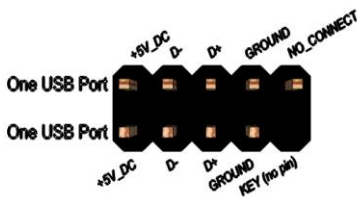


Figure 10: Dual USB2.0 header pin-out

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 16: Dual USB2.0 header pin definition ▲

( **AT/ATX Mode Selection Header** )



**Pins 1&2: jumper position for +12V mode**



**Pins 2&3: jumper position for +5V mode**

Pin	Signal Name	Description
1	PSON_AT_N	Power on signal
2	SW_PWRBT_N	Power switch signal
3	NC	No connection

Table 17: Panel Power selection header pin definition ▲

( **CMOS Clear Header** )



**Pins 1&2: Normal**

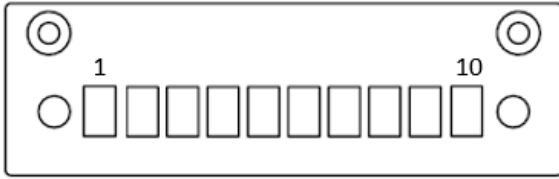


**Pins 2&3: jumper position for CMOS Reset**

CMOS Clear	
1-2	Clear CMOS
2-3	Normal

Table 18: CMOS Clear behavior ▲

**(8bit GPIO terminal block)**

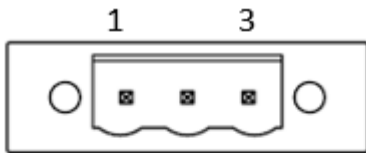


PIN	Signal Name
1	MAPI_GPIO1
2	MAPI_GPIO2
3	MAPI_GPIO3
4	MAPI_GPIO4
5	MAPI_GPIO5
6	MAPI_GPIO6
7	MAPI_GPIO7
8	MAPI_GPIO8
9	5VSB
10	GND

MiAPI 20pin		terminal block 10pin	
Pin	Signal Name	Pin	Signal Name
1	MAPI_GPIO1	1	MAPI_GPIO1
2	VCC	2	MAPI_GPIO2
3	MAPI_GPIO2	3	MAPI_GPIO3
4	MAPI_GPIO6	4	MAPI_GPIO4
5	MAPI_GPIO3	5	MAPI_GPIO5
6	MAPI_GPIO7	6	MAPI_GPIO6
7	MAPI_GPIO4	7	MAPI_GPIO7
8	MAPI_GPIO8	8	MAPI_GPIO8
9	MAPI_GPIO5	9	5VSB
10	MAPI_GPIO9	10	GND
11	Watchdog Timer		
12	MAPI_GPIO10		
13	Power Button		
14	SMB_MAIN_DATA		
15	UART_TX		
16	SMB_MAIN_CLK		
17	UART_RX		
18	5VSB		
19	GND		
20	N/C		

Table 11: MIPI header signals

**(3-pin Phoenix type terminal block DC input)**



PIN	Signal Name
1	GND
2	GND
3	Power 8~24V

MITAC Embedded System

P210-10AI

BIOS Specification

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**MAIN PAGE**

Main		Advanced	Chipset	Security	Boot	Save & Exit
<b>BIOS Information</b>						<b>Item help</b>
BIOS Vender	American Megatrends					
Core Version	5.12					
Compliancy	UEFI 2.6 ; PI 1.4					
BIOS Version	D7760A01					
Build Date	04/21/2017					
ME FW Version	11.8.50.3399					
<b>Processor Information</b>						
Intel(R) CORE(TM) i5-7300U CPU @ 2.60GHz						
<b>Memory Information</b>						
Total Memory	32768 MB					
Memory Frequency	2133 MHz					
<b>SATA Devices</b>						
SATA1	Empty					
MSATA	Empty					
System Date	[Www mm/dd/yyyy]					
System Time	[hh:mm:ss]					
→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit						
Version 2.18.1264. Copyright (C) 2017 American Megatrends, Inc.						

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

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

Field Name	<b>Compliancy</b>
Default Value	UEFI 2.6 ; PI 1.4
Comment	This field is not selectable. There is no help text associated with it.

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

Field Name	<b>Build Date</b>
------------	-------------------

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

Field Name	<b>ME FW Version</b>
Value	ME Firmware Version.
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	<b>Memory Frequency</b>
Value	Display the installed memory frequency.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>SATA1</b>
Value	Display the installed SATA port device.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>MSATA</b>
Value	Display the installed SATA port device.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>System Date</b>
Default Value	[Www mm/dd/yyyy]
Possible Value	Www : Mon/Tue/Wed/Thu/Fri/Sat/Sun mm : 1-12 dd : 1-31 yyyy : 1998-9999
Help	Set the Date. Use Tab to switch between Date elements.

Field Name	<b>System Time</b>
Default Value	[hh :mm :ss]
Possible Value	hh : 0-23 mm : 0-59 ss : 0-59
Help	Set the Time. Use Tab to switch between Time elements.

**ADVANCED PAGE**

Main	Advanced	Chipset	Security	Boot	Save & Exit
<ul style="list-style-type: none"> <li>▶ CPU Configuration</li> <li>▶ Trusted Computing</li> <li>▶ ACPI Settings</li> <li>▶ SMART Settings</li> <li>▶ Super IO Configuration</li> <li>▶ Hardware Monitor</li> <li>▶ S5 RTC Wake Settings</li> <li>▶ Network Stack Configuration</li> </ul>					<p><b>Item help</b></p> <p>→←: Select Screen            ↑↓: Select Item            Enter: Select            +/- : Change Opt            F1: General Help            F2: Previous Values            F3: Optimized Defaults            F4: Save &amp; Reset            ESC: Exit</p>
Version 2.18.1264. Copyright (C) 2017 American Megatrends, Inc.					

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

Field Name	<b>Trusted Computing</b>
Help	Trusted Computing Settings
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

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

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

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

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

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

## CPU CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit	
<b>CPU Configuration</b>						
<b>Type</b>	Intel(R) Core(TM) CPU i5-7300U @ 2.60 GHz				<b>Item</b>	<b>help</b>
<b>ID</b>	0x806E9					
<b>Speed</b>	2700 MHz					
<b>L1 Data Cache</b>	32 KB x 2					
<b>L1 Code Cache</b>	32 KB x 2					
<b>L2 Cache</b>	256 KB x 2					
<b>L3 Cache</b>	3MB					
<b>L4 Cache</b>	N/A					
<b>VMX</b>	Supported					
<b>SMX/TXT</b>	Supported					
Hardware Prefetcher	[Enabled]					
Adjacent Cache Line Prefetch	[Enabled]					
Active Processor Cores	[All]					
Hyper-Threading	[Enabled]					
Intel Trusted Execution Technology	[Disabled]					
					→←: Select Screen	
					↑↓: Select Item	
					Enter: Select	
					+/- : Change Opt	
					F1: General Help	
					F2: Previous Values	
					F3: Optimized Defaults	
					F4: Save & Reset	
					ESC: Exit	
Version 2.18.1264. Copyright (C) 2017 American Megatrends, Inc.						

Field Name	<b>Type</b>
Default Value	[Intel CPU Brand String]
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>ID</b>
Default Value	Displays CPU Signature
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	<b>L1 Code Cache</b>
------------	----------------------

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

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

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

Field Name	<b>L4 Cache</b>
Default Value	L4 Cache Size
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>VMX</b>
Default Value	VMX Supported or Not
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>SMX/TXT</b>
Default Value	SMX/TXT Supported or Not
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>Hardware Prefetcher</b>
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	To turn on/off the MLC streamer prefetcher.

Field Name	<b>Adjacent Cache Line Prefetch</b>
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	To turn on/off the prefetching of adjacent cache lines.

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

Field Name	<b>Hyper-Threading</b>
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enabled for Windows XP and Linux (OS optimized for Hyper-Threading Technology) and Disabled for other OS (OS not optimized for Hyper-Threading Technology).

Field Name	<b>Intel Trusted Execution Technology</b>
Default Value	[Disabled]
Possible Value	Enabled Disabled

Help	Enables utilization of additional hardware capabilities provided by Intel (R) Trusted Execution Technology. Changes require a full power cycle to take effect.
------	---

**TRUSTED COMPUTING (OPTIONAL)**

Main	Advanced	Chipset	Security	Boot	Save & Exit
<b>TPM20 Device Found</b> <b>Vender : NTC</b> <b>Firmware Version: 1.3</b>					<b>Item help</b>
Security Device Support [Enable] Pending operation [None] TPM2.0 UEFI Spec Version [TCG_2]					→←: 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	<b>Security Device SUPPORT</b>
Default Value	[Enable]
Possible Value	Enable Disable
Help	Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available.

Field Name	<b>Pending operation</b>
Default Value	[None]
Possible Value	None TPM Clear
Help	Schedule an Operation for the Security Device. NOTE: Your Computer will reboot during restart in order to change State of Security Device.

Field Name	<b>TPM2.0 UEFI Spec Version</b>
Default Value	[TCG_2]
Possible Value	TCG_1_2 TCG_2
Help	Select the TCG2 Spec Version Support,TCG_1_2: the Compatible mode for Win8/Win10,TCG_2: Support new TCG2 protocol and event format for Win10 or later.



## ACPI SETTINGS

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

Field Name	<b>Enable Hibernation</b>
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	<b>ACPI Sleep State</b>
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.

## SMART SETTINGS

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

## SUPER IO CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
<b>SIO Configuration</b>					<b>Item help</b>
<ul style="list-style-type: none"> <li>▶ Serial Port 1 Configuration</li> <li>▶ Serial Port 2 Configuration</li> <li>▶ Serial Port 3 Configuration</li> <li>▶ Serial Port 4 Configuration</li> </ul>					→←: 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	<b>Serial Port 1 Configuration</b>
Help	Set Parameters of Port 1 (COMA)
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

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

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

Serial Port 1 Configuration

<b>Main</b>	<b>Advanced</b>	<b>Chipset</b>	<b>Security</b>	<b>Boot</b>	<b>Save &amp; Exit</b>
<b>Serial Port 1 Configuration</b>					<b>Item help</b>
Serial Port [Enabled]					→←: Select Screen ↑ ↓ : Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Device Settings IO=3E8h; IRQ=7;					
Change Settings [Auto]					
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Field Name	<b>Serial Port</b>
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	<b>Device Settings</b>
Default Value	Device Super IO COM1 Address and IRQ.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>Change Settings</b>
Default Value	[Auto]
Possible Value	Auto IO=3E8h; IRQ=7; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2F0h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E0h; IRQ=3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

Serial Port 2 Configuration

<b>Main</b>	<b>Advanced</b>	<b>Chipset</b>	<b>Security</b>	<b>Boot</b>	<b>Save &amp; Exit</b>
<b>Serial Port 2 Configuration</b>					<b>Item help</b>
Serial Port				[Enabled]	→←: Select Screen ↑ ↓ : Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Device Settings				IO=2E8h; IRQ=5;	
Change Settings				[Auto]	
Mode Configuration				[3T/5R RS232]	
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Field Name	<b>Serial Port</b>
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	<b>Device Settings</b>
Default Value	Device Super IO COM2 Address and IRQ.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>Change Settings</b>
Default Value	[Auto]
Possible Value	Auto IO=2E8h; IRQ=7; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2F0h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E0h; IRQ=3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

Field Name	<b>Mode Configuration</b>
Default Value	[3T/5R RS232]
Possible Value	1T/1R RS422 3T/5R RS232 1T/1R RS485 TX ENABLE Low Active 1T/1R RS422 with termination resistor 1T/1R RS485 with termination resistor TX ENABLE Low Active Disabled
Help	Configure serial port as RS232/RS422/RS485.

Serial Port 3 Configuration

<b>Main</b>	<b>Advanced</b>	<b>Chipset</b>	<b>Security</b>	<b>Boot</b>	<b>Save &amp; Exit</b>
<b>Serial Port 3 Configuration</b>					<b>Item help</b>
Serial Port [Enabled]					→←: Select Screen ↑ ↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Device Settings IO=3F8h; IRQ=4;					
Change Settings [Auto]					
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Field Name	<b>Serial Port</b>
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	<b>Device Settings</b>
Default Value	Device Super IO COM3 Address and IRQ.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>Change Settings</b>
Default Value	[Auto]
Possible Value	Auto IO=3F8h; IRQ=4; IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

Serial Port 4 Configuration

<b>Main</b>	<b>Advanced</b>	<b>Chipset</b>	<b>Security</b>	<b>Boot</b>	<b>Save &amp; Exit</b>
<b>Serial Port 4 Configuration</b>					<b>Item help</b>
Serial Port				[Enabled]	→←: Select Screen ↑ ↓ : Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Device Settings				IO=2F8h; IRQ=3;	
Change Settings				[Auto]	
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Field Name	<b>Serial Port</b>
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	<b>Device Settings</b>
Default Value	Device Super IO COM4 Address and IRQ.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>Change Settings</b>
Default Value	[Auto]
Possible Value	Auto IO=2F8h; IRQ=3; IO=3F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2F8h; IRQ=3,4,5,6,7,9,10,11,12; IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12; IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

# HARDWARE MONITOR

Main		Advanced	Chipset	Security	Boot	Save & Exit
<b>PC Health Status</b>						<b>Item help</b>
CPU temperature					: xx °C	→←: Select Screen
CPU VR temperature					: xx °C	↑↓: Select Item
DIMM temperature					: xx °C	Enter: Select
Fan Speed					: xxxx RPM	+/- : Change Opt
1V StandBy					: x.xxx V	F1: General Help
CPU Vcore					: x.xxx V	F2: Previous Values
System Memory					: x.xxx V	F3: Optimized Defaults
+12V StandBy					: x.xxx V	F4: Save & Reset
						ESC: Exit
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## S5 RTC WAKE SETTINGS

Main	Advanced	Chipset	Security	Boot	Save & Exit	
Wake system from S5					[Disabled]	<b>Item help</b>  →←: 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 from S5
Default Value	[Disabled]
Possible Value	Disabled Fixed Time
Help	Enabler or disable System wake on alarm event, Select FixedTime, system will wake on the hr::min::sec specified.

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	0 - 59

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

## NETWORK STACK CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
<p>Network stack [Disabled]</p> <p>Ipv4 PXE Support [Disabled]</p> <p>Ipv6 PXE Support [Disabled]</p>					<p><b>Item help</b></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 &amp; Reset</p> <p>ESC: Exit</p>
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Field Name	<b>Network stack</b>
Default Value	[Disabled]
Possible Value	Disabled (Restore non-Windows 8 Default) Enabled
Help	Enable/Disable UEFI Network stack.

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

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

**CHIPSET PAGE**

Main   Advanced <b>Chipset</b> Security   Boot   Save & Exit																					
▶ System Agent (SA) Configuration	<table border="1"> <thead> <tr> <th>Item</th> <th>help</th> </tr> </thead> <tbody> <tr> <td>→←</td> <td>: Select Screen</td> </tr> <tr> <td>↑↓</td> <td>: Select Item</td> </tr> <tr> <td>Enter</td> <td>: Select</td> </tr> <tr> <td>+/-</td> <td>: Change Opt</td> </tr> <tr> <td>F1</td> <td>: General Help</td> </tr> <tr> <td>F2</td> <td>: Previous Values</td> </tr> <tr> <td>F3</td> <td>: Optimized Defaults</td> </tr> <tr> <td>F4</td> <td>: Save &amp; Reset</td> </tr> <tr> <td>ESC</td> <td>: Exit</td> </tr> </tbody> </table>	Item	help	→←	: Select Screen	↑↓	: Select Item	Enter	: Select	+/-	: Change Opt	F1	: General Help	F2	: Previous Values	F3	: Optimized Defaults	F4	: Save & Reset	ESC	: Exit
Item		help																			
→←	: Select Screen																				
↑↓	: Select Item																				
Enter	: Select																				
+/-	: Change Opt																				
F1	: General Help																				
F2	: Previous Values																				
F3	: Optimized Defaults																				
F4	: Save & Reset																				
ESC	: Exit																				
▶ PCH-IO Configuration																					
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Field Name	<b>System Agent (SA) Configuration</b>
Help	System Agent (SA) Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>PCH-IO Configuration</b>
Help	PCH Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

## SYSTEM AGENT (SA) CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
<b>System Agent (SA) Configuration</b>  <span style="color: blue;">▶ Memory Configuration</span> <span style="color: blue;">▶ Graphics Configuration</span>					<b>Item help</b>  →←: 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	<b>Memory Configuration</b>
Help	Memory Configuration Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>Graphics Configuration</b>
Help	Graphics Configuration
Comment	Press Enter when selected to go into the associated Sub-Menu.

Memory Configuration

Main		Advanced	Chipset	Boot	Security	Save & Exit
<b>Memory Configuration</b>						<b>Item help</b>
Memory Frequency					2133 Mhz	→←: Select Screen
DIMM#1					16384 MB (DDR4)	↑↓: Select Item
DIMM#2					16384 MB (DDR4)	Enter: Select
						+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
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Field Name	<b>Memory Frequency</b>
Help	Memory speed
Comment	This field is not selectable. There is no help text associated with it.

Field Name	<b>DIMM#[1:2]</b>
Help	Memory in the DIMM.
Comment	This field is not selectable. There is no help text associated with it.

Graphics Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit
<b>Graphics Configuration</b>					<b>Item help</b>
DVMT Pre-Allocated [32M]					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
DVMT Total Gfx Mem [256M]					
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Field Name	<b>DVMT Pre-Allocated</b>
Default Value	[32M]
Possible Value	32M / 64M / 4M/ 8M/ 12M/ 16M/ 20M/ 24M/ 28M/ (32M/F7)/ 36M/ 40M/ 44M/ 48M/ 52M/ 56M/ 60M
Help	Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.

Field Name	<b>DVMT Total Gfx Mem</b>
Default Value	[256M]
Possible Value	128MB / 256MB / MAX
Help	Select DVMT5.0 Total Graphic Memory size used by the Internal Graphics Device.

## PCH-IO CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
<b>PCH-IO Configuration</b>					<b>Item help</b>
▶ HD Audio Configuration					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
DeepSx Power Policies			[Disabled]		
Wake On LAN			[Enabled]		
State After G3			[S5 State]		
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Field Name	<b>HD Audio Configuration</b>
Help	HD Audio Subsystem Configuration Settings
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>DeepSx Power Policies</b>
Default Value	[Disabled]
Possible Value	Enabled in S4-S5 Disabled
Help	configure the DeepSx Mode configuration.

Field Name	<b>Wake On LAN</b>
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enabled/Disabled integrated LAN to wake the system.

Field Name	<b>State After G3</b>
Default Value	[S5 State]
Possible Value	S0 State S5 State
Help	Specify what state to go to when power is re-applied after a power failure (G3 state).

HD Audio Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit
<b>HD Audio Subsystem Configuration Settings</b>					<b>Item help</b>
HD Audio [Auto]					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.18.1264. Copyright (C) 2017 American Megatrends, Inc.					

Field Name	<b>HD Audio</b>
Value	[Auto]
Possible Value	Auto / Enable / Disable
Help	Control Detection of HD-Audio device. Disabled = HDA will be unconditionally disabled Enable = HDA will be unconditionally enabled Auto = HDA will be enabled if present, disabled otherwise.



**SECURITY PAGE**

Main	Advanced	Chipset	Security	Boot	Save & Exit				
<p><b>Password Description</b></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> <tr> <td>Minimum length</td> <td>3</td> </tr> <tr> <td>Maximum length</td> <td>20</td> </tr> </table> <p><a href="#">Administrator Password</a> <a href="#">User Password</a></p> <p>HDD Security Configuration: <a href="#">HDD Security drive</a></p> <ul style="list-style-type: none"> <li>▶ <a href="#">Secure Boot</a></li> <li>▶ <a href="#">Secure Flash Update</a></li> </ul>					Minimum length	3	Maximum length	20	<p><b>Item help</b></p>
Minimum length	3								
Maximum length	20								
					<p>→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save &amp; Reset ESC: Exit</p>				
Version 2.18.1264. Copyright (C) 2017 American Megatrends, Inc.									

Field Name	<b>Administrator Password</b>
Help	Set Administrator Password

Field Name	<b>User Password</b>
Help	Set User Password.

Field Name	<b>HDD Security drive</b>
Help	HDD Security Configuration for selected drive

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

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

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

## HDD SECURITY

Main	Advanced	Chipset	Security	Boot	Save & Exit																																				
HDD Password Description :  Allows Access to Set, Modify and Clear HardDisk User and Master Passwords. User Password need to be installed for Enabling Security. Master Password can be Modified only when successfully unlocked with Master Password in POST. If the 'Set HDD Password' option is grayed out, do power cycle to enable the option again.  HDD PASSWORD CONFIGURATION:					<b>Item help</b>																																				
<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Security Supported</td> <td style="width: 10%;">:</td> <td style="width: 10%;">Yes</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Security Enabled</td> <td>:</td> <td>No</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Security Locked</td> <td>:</td> <td>No</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Security Frozen</td> <td>:</td> <td>No</td> <td></td> <td></td> <td></td> </tr> <tr> <td>HDD User Pwd Status</td> <td>:</td> <td>NOT INSTALLED</td> <td></td> <td></td> <td></td> </tr> <tr> <td>HDD Master Pwd Status</td> <td>:</td> <td>INSTALLED</td> <td></td> <td></td> <td></td> </tr> </table>					Security Supported	:	Yes				Security Enabled	:	No				Security Locked	:	No				Security Frozen	:	No				HDD User Pwd Status	:	NOT INSTALLED				HDD Master Pwd Status	:	INSTALLED				→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Security Supported	:	Yes																																							
Security Enabled	:	No																																							
Security Locked	:	No																																							
Security Frozen	:	No																																							
HDD User Pwd Status	:	NOT INSTALLED																																							
HDD Master Pwd Status	:	INSTALLED																																							
<a href="#">Set User Password</a>																																									
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Field Name	Set User Password
Help	Set HDD User Password. *** Advisable to Power Cycle System after Setting Hard Disk Passwords ***. Discard 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

## SECURE BOOT

Main	Advanced	Chipset	Security	Boot	Save & Exit
System Mode			Setup		
Vender keys			Not Modified		
Secure Boot Enable			[Disabled] Not Active		
Secure Boot Mode			[Custom]		
▶ Restore Factory Keys					
▶ Reset To Setup Mode					
▶ Key Management					
					<b>Item help</b> →←: 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	<b>Secure Boot Enable</b>
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Secure Boot activated when Platform Key(PK) is enrolled, System mode is User/Deployed, and CSM function is disabled

Field Name	<b>Secure Boot Mode</b>
Default Value	[Custom]
Possible Value	Standard Custom
Help	Customizable Secure Boot mode: In Custom mode Secure Boot Policy variables can be configured by a physically present user without full authentication

Field Name	<b>Key Management</b>
Help	Enables expert users to modify Secure Boot Policy variables without full authentication
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>Restore Factory Keys</b>
Help	Force System to User Mode. Configure NVRAM to contain OEM-defined factory default Secure Boot keys

Field Name	<b>Reset to Setup Mode</b>
Help	Delete NVRAM content of all UEFI Secure Boot key databases

Key Management

Main	Advanced	Chipset	Security	Boot	Save & Exit																												
Factory Key Provision <span style="float: right;">[Disabled]</span>					<b>Item help</b>																												
<ul style="list-style-type: none"> <li>▶ Restore Factory Keys</li> <li>▶ Reset To Setup Mode</li> <li>▶ Export Secure Boot variables</li> <li>▶ Enroll Efi Image</li> </ul> <p>Device Guard ready</p> <ul style="list-style-type: none"> <li>▶ Remove 'UEFI CA' from DB</li> <li>▶ Restore DB defaults</li> </ul>																																	
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: left;">Secure Boot variable</th> <th style="text-align: center;">Size</th> <th style="text-align: center;">Key#</th> <th style="text-align: left;">Key Source</th> </tr> </thead> <tbody> <tr> <td>▶ Platform Key(PK)</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Key</td> </tr> <tr> <td>▶ Key Exchange Key</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Key</td> </tr> <tr> <td>▶ Authorized Signatures</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Key</td> </tr> <tr> <td>▶ Forbidden Signatures</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Key</td> </tr> <tr> <td>▶ Authorized TimeStamps</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Key</td> </tr> <tr> <td>▶ OsRecovery Signatures</td> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> <td>No Key</td> </tr> </tbody> </table>					Secure Boot variable	Size	Key#	Key Source	▶ Platform Key(PK)	0	0	No Key	▶ Key Exchange Key	0	0	No Key	▶ Authorized Signatures	0	0	No Key	▶ Forbidden Signatures	0	0	No Key	▶ Authorized TimeStamps	0	0	No Key	▶ OsRecovery Signatures	0	0	No Key	
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Field Name	<b>Factory Key Provision</b>
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Provision factory default keys on next re-boot only when System in Setup Mode

Field Name	<b>Restore Factory Keys</b>
Help	Force System to User Mode. Configure NVRAM to contain OEM-defined factory default Secure Boot keys

Field Name	<b>Reset to Setup Mode</b>
Help	Delete NVRAM content of all UEFI Secure Boot key databases

Field Name	<b>Export Secure Boot variables</b>
Help	Copy NVRAM content of Secure Boot variables to files in a root folder on a file system device

Field Name	<b>Enroll Efi Image</b>
Help	Allow the image to run in Secure Boot mode. Enroll SHA256 Hash certificate of a PE image into Authorized Signature Database (db)

Field Name	<b>Remove 'UEFI CA' from DB</b>
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Help	Device Guard ready system must not list 'Microsoft UEFI CA' Certificate in Authorized Signature database (db)
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Field Name	<b>Remove DB defaults</b>
Help	Restore DB variable to factory defaults

Field Name	<b>Platform Key (PK)</b>
Default Value	Size:0, Key#:0, Key source: No Key
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
comment	Press Enter when selected to go into the associated Sub-Menu “Key Management”.

Field Name	<b>Key Exchange Key</b>
Default Value	Size:0, Key#:0, Key source: No Key
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>Authorized Signature</b>
Default Value	Size:0, Key#:0, Key source: No Key
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>Forbidden Signature</b>
Default Value	Size:0, Key#:0, Key source: No Key
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin)

	d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>Authorized TimeStamps</b>
Default Value	Size:0, Key#:0, Key source: No Key
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>OsRecovery Signatures</b>
Default Value	Size:0, Key#:0, Key source: No Key
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Factory,External,Mixed
comment	Press Enter when selected to go into the associated Sub-Menu.

**SECURE FLASH UPDATE**

Main	Advanced	Chipset	Security	Boot	Save & Exit
<p>▶ Path for ROM Image</p> <p>Notice :</p> <p>ROM Image must in the root folder of storage device. File name must match with current BIOS project.</p>					<p><b>Item help</b></p> <p>→←: Select Screen            ↑↓: Select Item            Enter: Select            +/- : Change Opt            F1: General Help            F2: Previous Values            F3: Optimized Defaults            F4: Save &amp; Reset            ESC: Exit</p>
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Field Name	<b>Path for ROM Image</b>
Help	Enter the path to the Secure flash option



**BOOT PAGE**

Main	Advanced	Chipset	Security	Boot	Save & Exit
<b>Boot Configuration</b>					<b>Item help</b>
Setup Prompt Timeout				1	
Bootup NumLock State				[On]	
Boot Mode Select				[UEFI]	
<b>FIXED BOOT ORDER Priorities</b>					→←: Select Screen
Boot Option #1				[USB Floppy]	↑↓: Select Item
Boot Option #2				[USB CD/DVD]	Enter: Select
Boot Option #3				[Hard Disk]	+/- : Change Opt.
Boot Option #4				[USB Key]	F1: General Help
Boot Option #5				[USB Hard Disk]	F2: Previous Values
Boot Option #6				[USB Lan]	F3: Optimized Defaults
Boot Option #7				[Network]	F4: Save & Reset
<ul style="list-style-type: none"> <li>▶ (UEFI) USB Floppy Drive BBS Priorities</li> <li>▶ (UEFI) USB CD/DVD Drive BBS Priorities</li> <li>▶ (UEFI) Hard Disk Drive BBS Priorities</li> <li>▶ (UEFI) USB Key Drive BBS Priorities</li> <li>▶ (UEFI) USB Hard Disk Drive BBS Priorities</li> <li>▶ (UEFI) USB Lan Drive BBS Priorities</li> <li>▶ (UEFI) Network Drive BBS Priorities</li> </ul>					ESC: Exit
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Field Name	<b>Setup Prompt Timeout</b>
Default Value	1
Possible Value	1~65535
Help	Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

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

Field Name	<b>Boot Mode Select</b>
Default Value	[UEFI]
Possible Value	LEGACY ( <b>Support Skylake series for Win7</b> ) UEFI
Help	Select boot mode LEGACY/UEFI

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

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

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

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

Field Name	<b>Boot Option #5</b>
Default Value	[USB Hard Disk]
Possible Value	Hard Disk, USB Hard Disk, USB CD/DVD, USB Key, USB Floppy , USB Lan, Network
Help	Sets the system boot order

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

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

Field Name	<b>(UEFI) USB Floppy Drive BBS Priorities</b>
Help	Specifies the Boot Device Priority sequence from available USB Floppy Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>(UEFI) USB CD/DVD ROM Drive BBS Priorities</b>
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	<b>(UEFI) USB Hard Disk Drive BBS Priorities</b>
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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	<b>(UEFI) USB KEY Drive BBS Priorities</b>
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	<b>(UEFI) Hard Disk Drive BBS Priorities</b>
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	<b>(UEFI) NETWORK Drive BBS Priorities</b>
Help	Specifies the Boot Device Priority sequence from available NETWORK Drives.
Comment	Press Enter when selected to go into the associated Sub-Menu.

(LIST BOOT DEVICE TYPE) DRIVE BBS PRIORITIES

Main	Advanced	Chipset	Security	Boot	Save & Exit
Boot Option #1 [Boot Device Name 1]  Boot Option #2 [Boot Device Name 2]					<p><b>Item help</b></p> <p>→←: Select Screen                      ↑↓: Select Item</p> <hr/> <p>Enter: Select                      +/- : Change Opt                      F1: General Help                      F2: Previous Values                      F3: Optimized Defaults                      F4: Save &amp; Reset                      ESC: Exit</p>
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Field Name	<b>Boot Option #1</b>
Default Value	
Possible Value	Boot Device Name 1 of this type
Help	Sets the system boot order

Field Name	<b>Boot Option #2</b>
Default Value	
Possible Value	Boot Device Name 2 of this type
Help	Sets the system boot order

**SAVE & EXIT PAGE**

Main	Advanced	Chipset	Security	Boot	Save & Exit
Save Options  Discard Changes and Exit Save Changes and Reset Discard Changes and Reset  Restore Defaults					<p><b>Item help</b></p> <p>→←: Select Screen                      ↑↓: Select Item</p> <hr/> <p>Enter: Select                      +/- : Change Opt                      F1: General Help                      F2: Previous Values                      F3: Optimized Defaults                      F4: Save &amp; Reset</p>

Field Name	<b>Discard Changes and Exit</b>
Help	Exit system setup with without saving any changes.

Field Name	<b>Save Changes and Reset</b>
Help	Reset the system after saving the changes.

Field Name	<b>Discard Changes and Rest</b>
Help	Reset system setup without saving any changes.

Field Name	<b>Restore Defaults</b>
Help	Restore/Load Legacy Default values for all the setup options.

**RECOVERY PAGE (ACTIVE FOR SECURE FLASH UPDATE ONLY)**

Main	Advanced	Chipset	Security	Boot	Save & Exit	Recovery
Please select block you want to update						<b>Item help</b>  →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Reset NVRAM [Disabled]						
▶ Process with flash update						
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Field Name	<b>Reset NVRAM</b>
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Set this option to reset NVRAM to default values

Field Name	<b>Process with flash update</b>
Help	Select this to start flash update