

MiTAC Panel PC System

P156-11KS

Product Guide v1.2

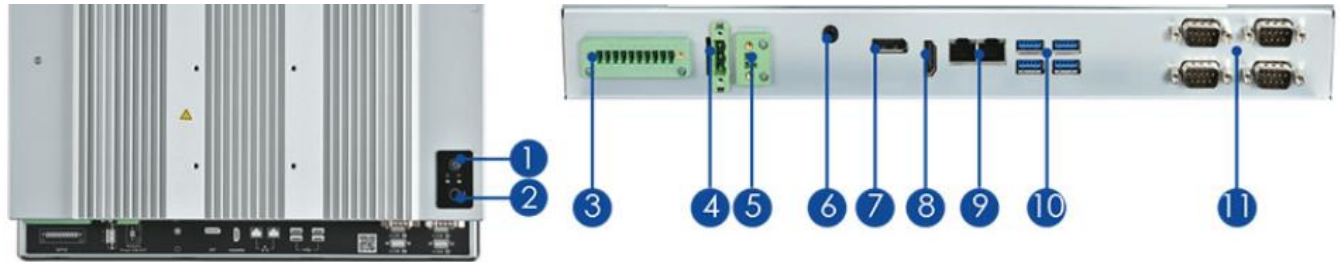
Front View



Rear View




Bottom View



1  Power

2  Reset

3  8 bit GPIO

4  DC-in (terminal block)

5  Remote Power on/off

6  Audio Jack

7  DisplayPort

8  HDMI

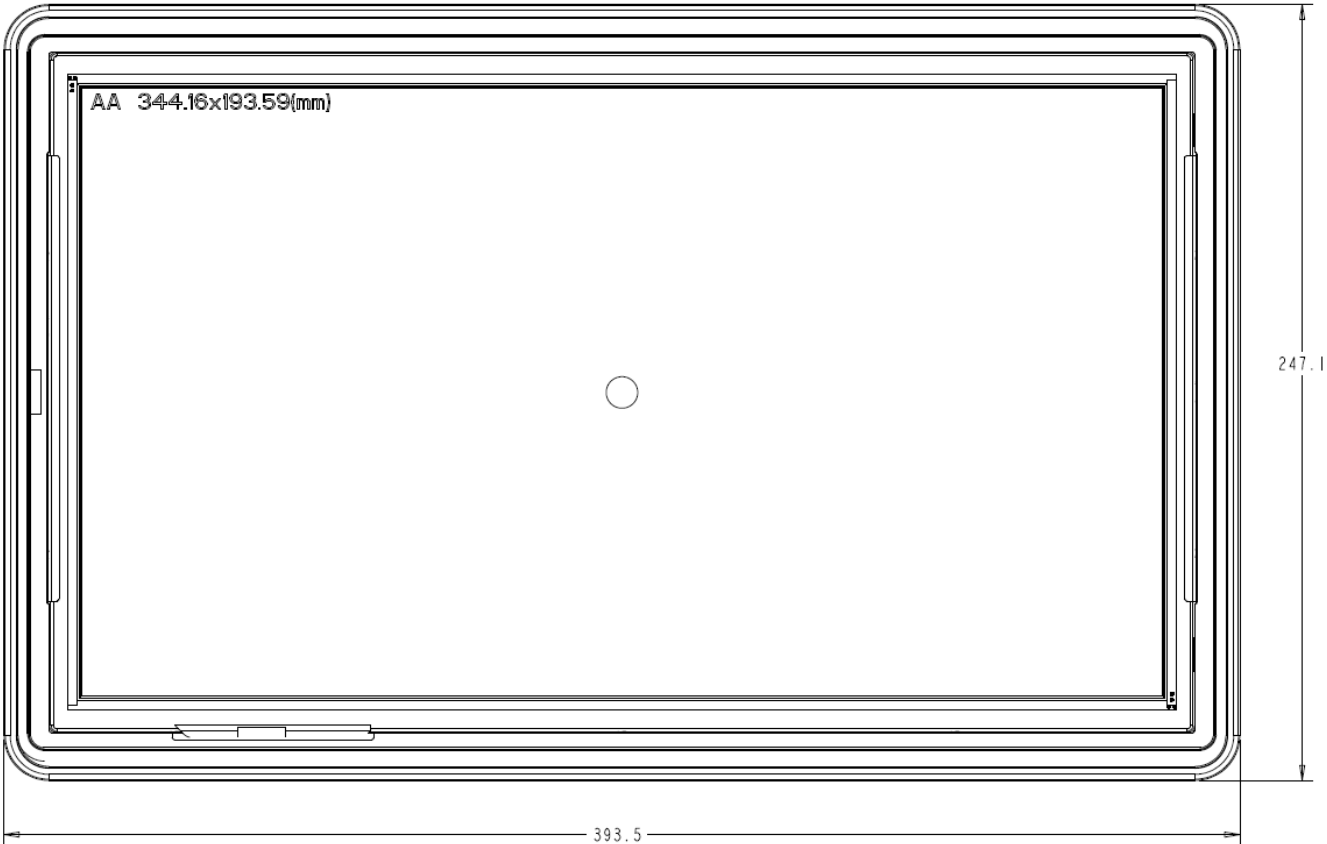
9  Giga LAN

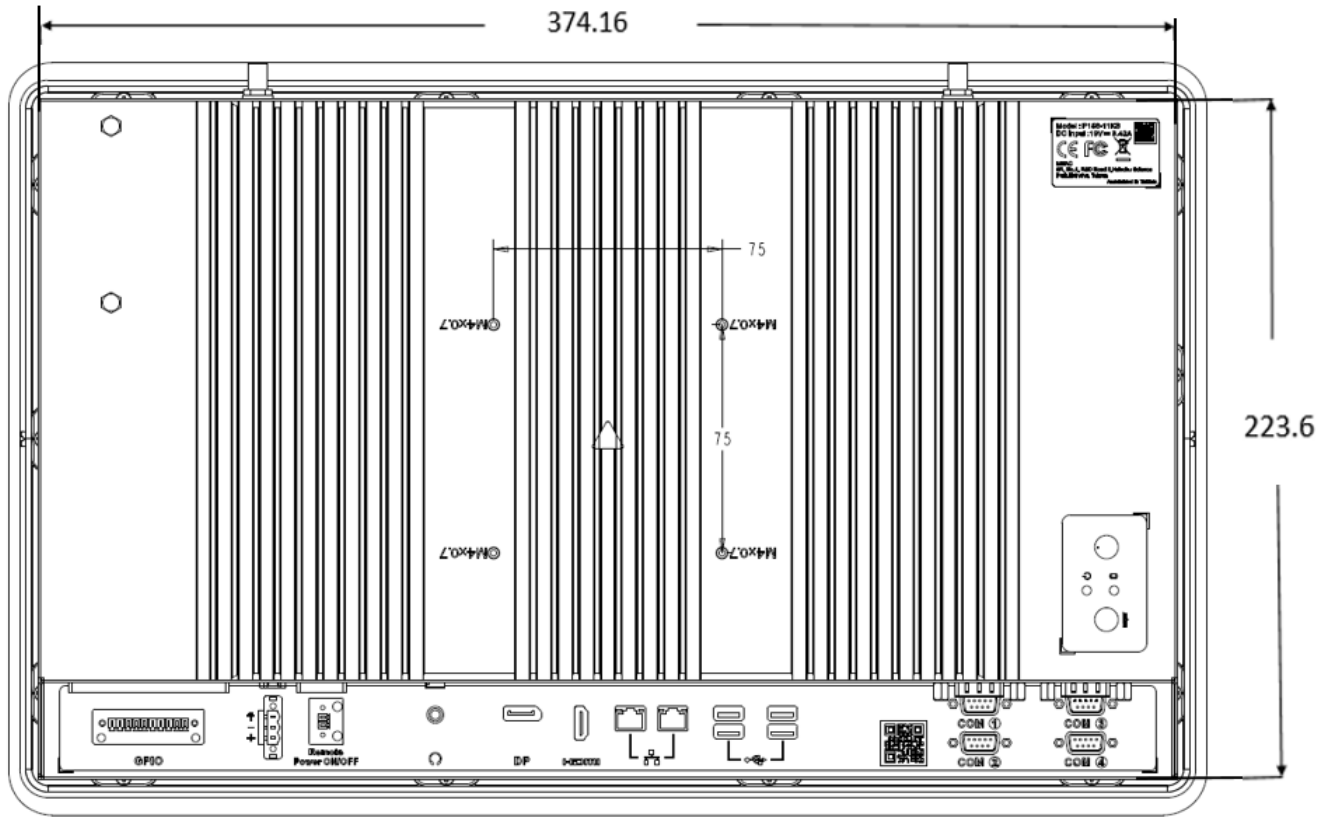
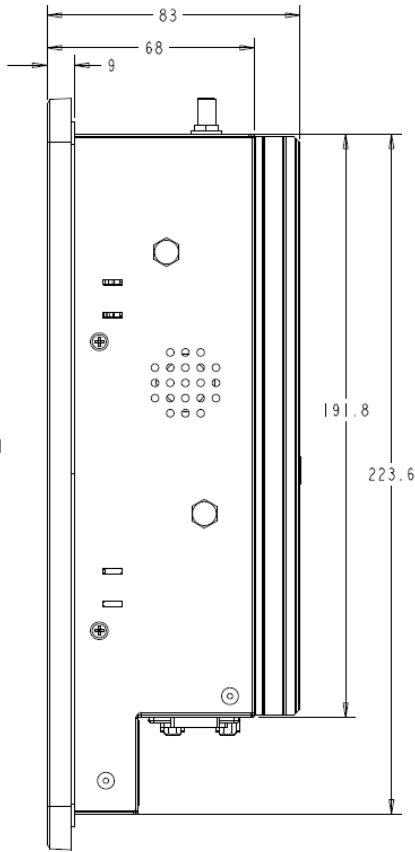
10  USB 3.0

11  COM

Mechanical Dimension

P156-11KS dimension: 393.5mm x 247.1mm x 83mm



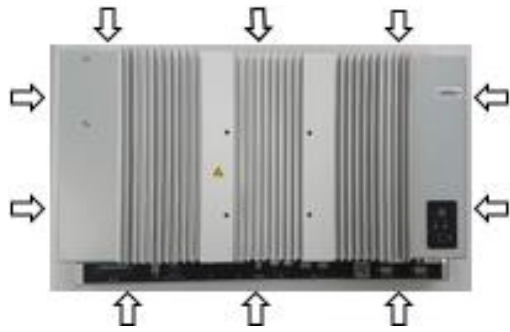


Product Specifications

LCD	DISPLAY TYPE	15.6" TFT-LCD
	MAX. RESOLUTION	1920 x 1080
	MAX. COLORS	16.2M (8 bit / color)
	LUMINANCE (cd/m2)	450
	VIEWING ANGLE (H/V)	170° / 170°
	LED BACKLIGHT LIFETIME (hrs)	50,000
	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

POWER REQUIREMENT	OS SUPPORT	Windows® 10 64bit
	WATCHDOG TIMER	1~255 steps by software program
	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)	393.5 x 247.1 x 83mm
	WEIGHT	5kg (11.1 lb)
	OPERATING TEMPERATURE	-20~55°C (-4 ~ 131°F)
	STORAGE TEMPERATURE	-20 ~ 70°C (-4 ~158°F)
ENVIRONMENTAL	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 B
	FRONT PANEL PROTECTION	IP65 Compliant

Quick Installation Guide

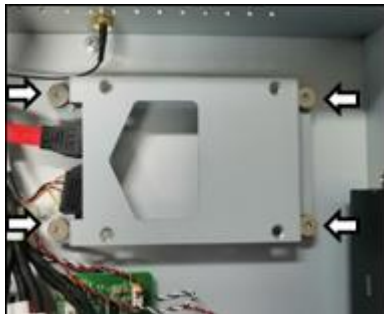


Remove 10pcs rear cover screws.

(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)

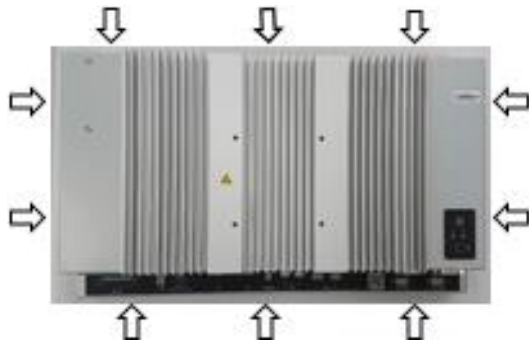


Install WIFI card and connect the antennas. (option)

(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)



While VESA mount(75mm x 75mm) is needed,
Use Secure 4pcs rear cover screws (M4x0.7P)
(Torque 9 +/-0.5 Kgf-cm)

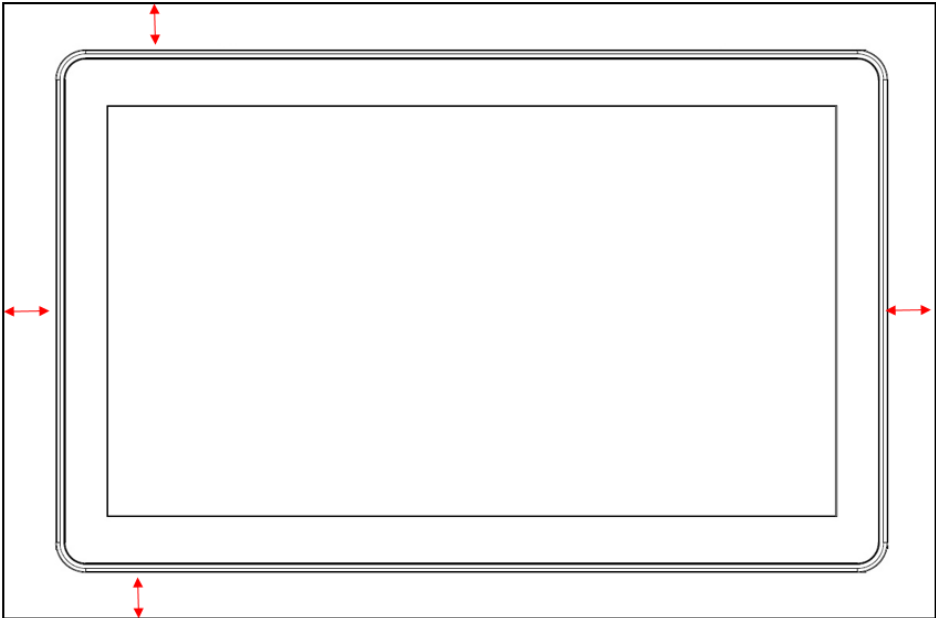
[Note] need manually install drivers

Please check the latest drivers on MiTAC official website

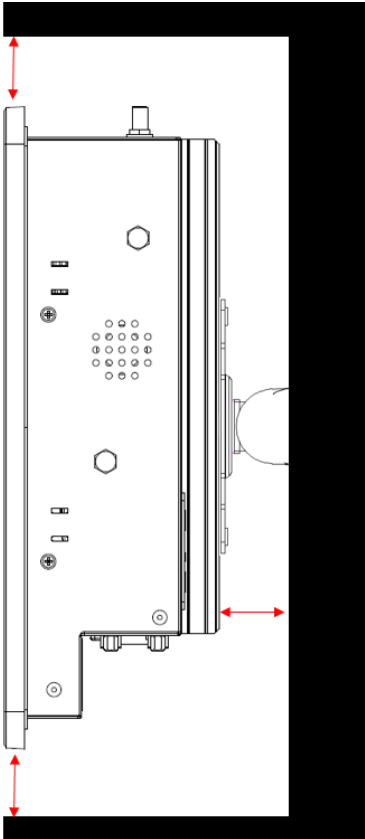
<http://www.mitacmct.com/IndustrialPanelPC=P156-11KS=P156-11KS=downloads=EN>

Quick VESA Installation

1. Suggest to keep 20mm or above clearance area on top/right/left-side



2. Suggest to keep 20mm or above clearance area on rear-side



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.

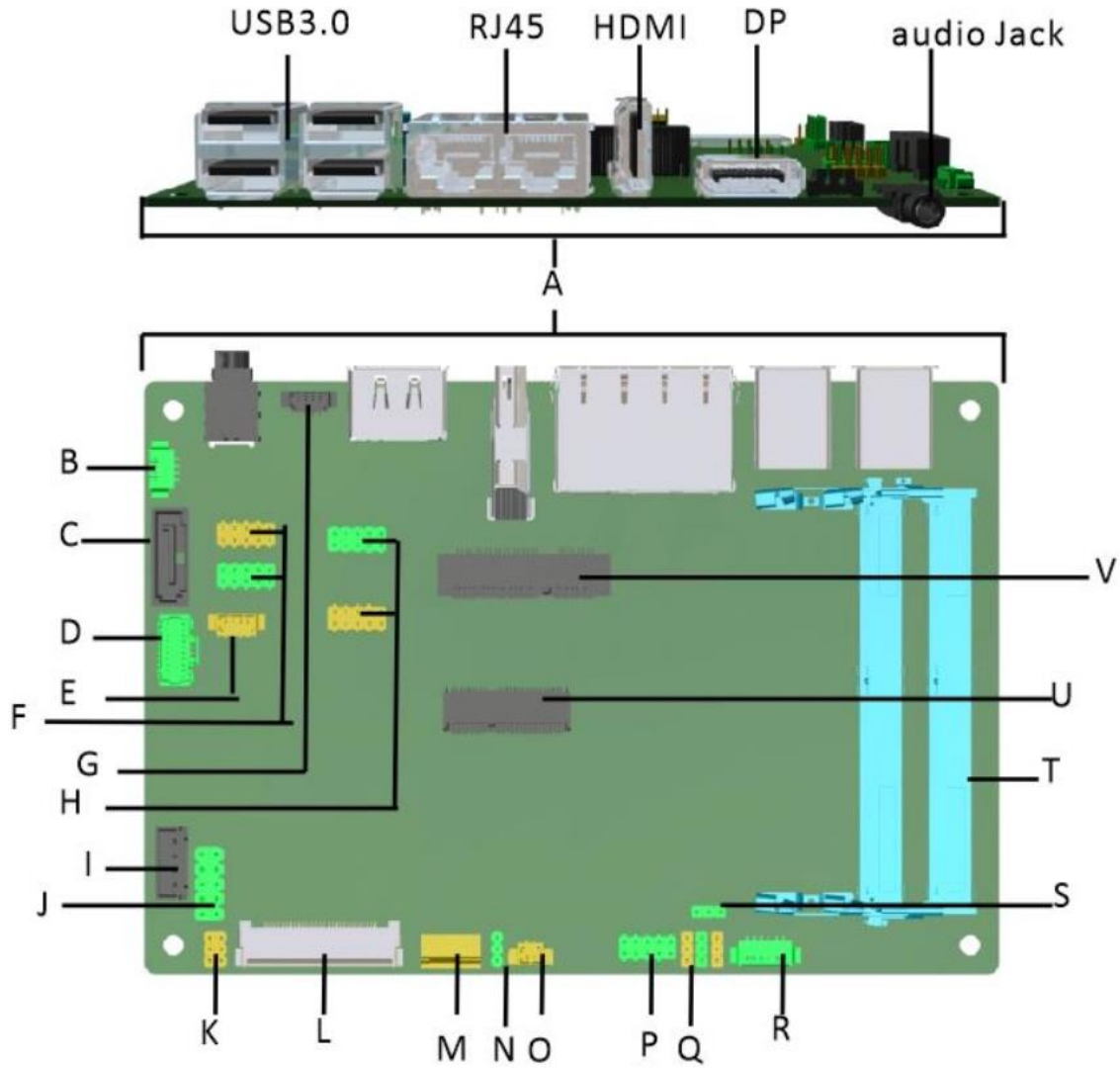


FIGURE 1. MITAC 3.5" SBC M/B COMPONENTS

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)

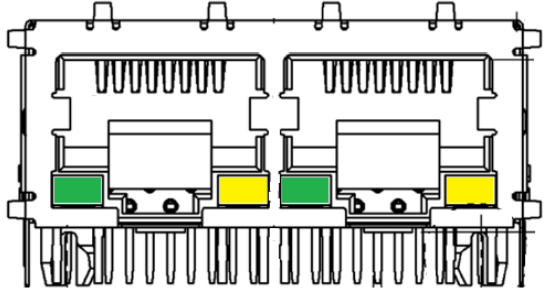
Diagram	LED	Color	State	Condition
 <p>Figure 1 LAN Connector (2D)▲</p>	Link	N/A	Off	LAN link is not established
		Green	On	LAN link is established
			Blinking	LAN activity occurring
	Speed	N/A	Off	10 Mb/s data rate
		Green	On	100 Mb/s data rate
		Yellow	On	1000 Mb/s data rate

Table 3: RJ45 LED behavior ▲

(LVDS/eDP Connector)

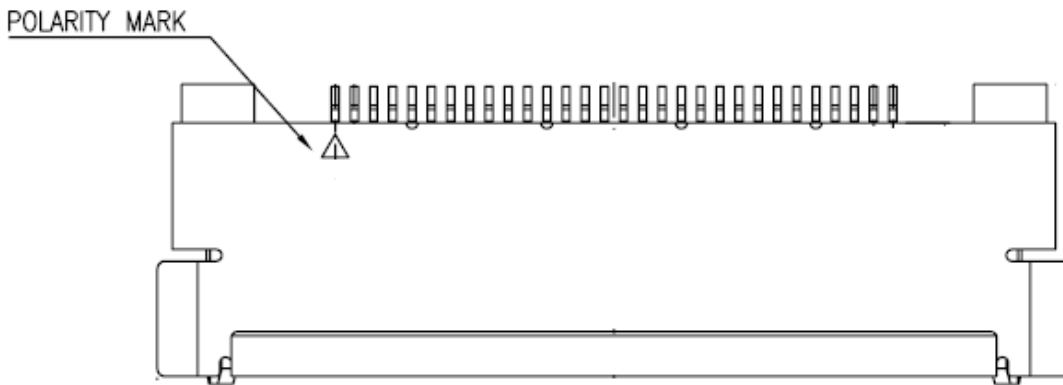


Figure 2: LVDS/ eDP Connector (2D)▲

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)

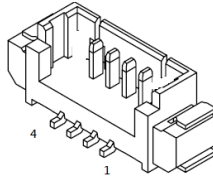


Figure 3: External Speaker Socket (2D) ▼

Table 5: External Speaker Socket pin definition ▼

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

(Internal Speaker Socket)

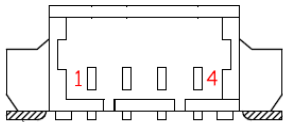


Figure 4: Internal Speaker Socket (2D) ▲

Table 6: Internal Speaker Socket pin definition ▼

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

(SATA Power Socket)

Figure 5: SATA Power Socket (2D) ▼

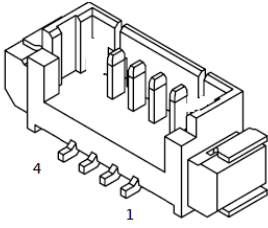
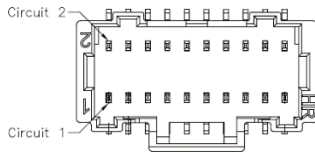


Table 7: SATA Power Socket pin definition ▼

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)

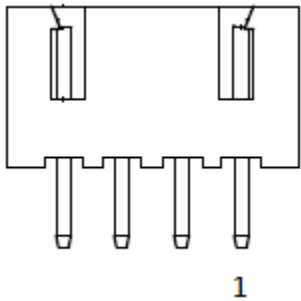


Table 9: External Speaker Socket pin definition ▲

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

(FAN Socket)

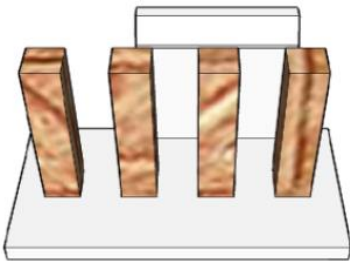


Table 10: External Speaker Socket pin definition)▲

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)

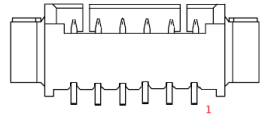


Figure 7: Backlight control cable Socket (2D)▲

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)



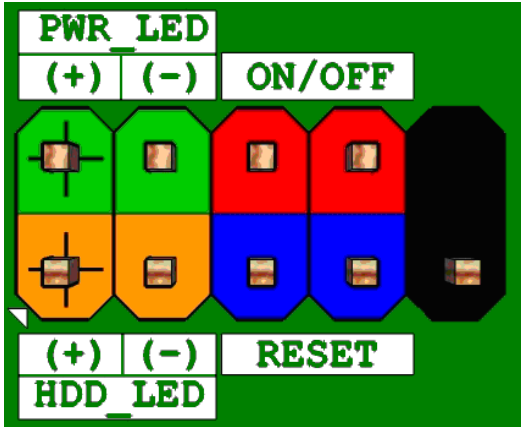
Figure 8: RS232 COM Port Header (2D)▲

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.

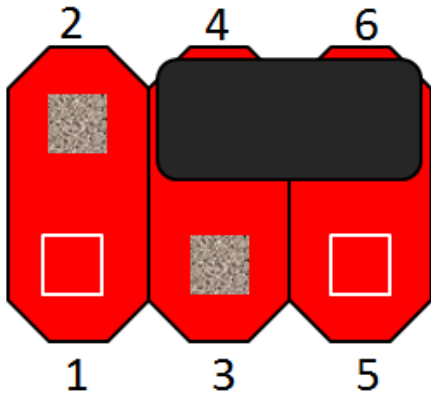
(Front Panel Header)



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)

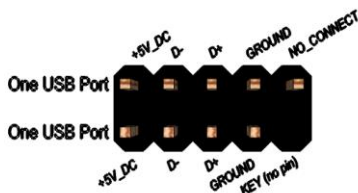


Figure 10: Dual USB2.0 header pin-out

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

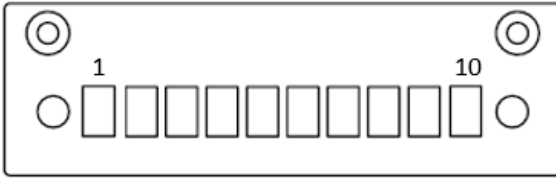


Pins 2&3: jumper position for CMOS Reset

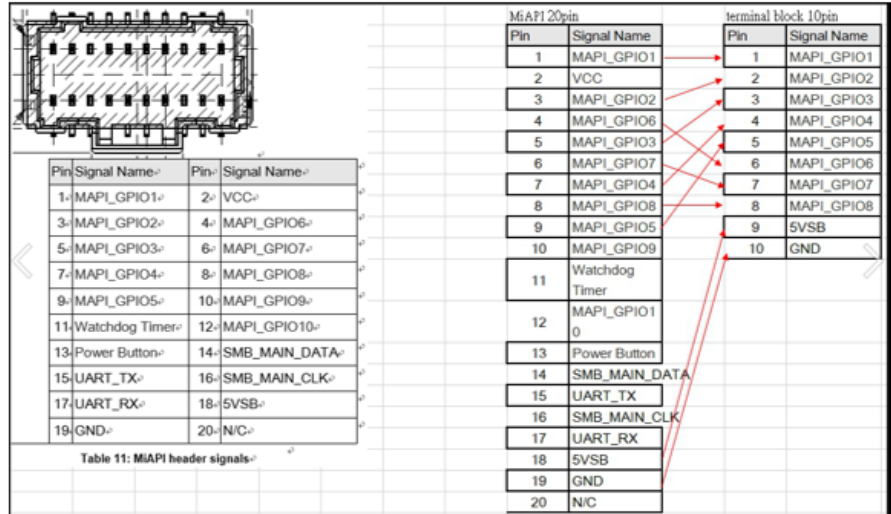
CMOS Clear	
1-2	Clear CMOS
2-3	Normal

Table 18: CMOS Clear behavior ▲

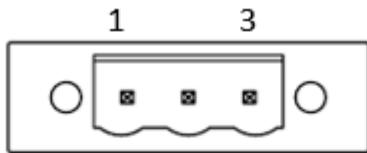
(8bit GPIO terminal block)



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



(3-pin Phoenix type terminal block DC input)



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

MITAC Embedded System

P156-11KS

BIOS Specification

MAIN PAGE

Main		Advanced	Chipset	Security	Boot	Save & Exit
BIOS Information						Item help
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					
Processor Information						
Intel(R) CORE(TM) i5-7300U CPU @ 2.60GHz						
Memory Information						
Total Memory	32768 MB					
Memory Frequency	2133 MHz					
SATA Devices						
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	BIOS Vender
Default Value	AMI Megatrends
Comment	This field is not selectable. There is no help text associated with it.

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

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

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

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

Field Name	ME FW Version
Value	ME Firmware Version.
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	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 Frequency
Value	Display the installed memory frequency.
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	System Date
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	System Time
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"> ▶ CPU Configuration ▶ Trusted Computing ▶ ACPI Settings ▶ SMART Settings ▶ Super IO Configuration ▶ Hardware Monitor ▶ S5 RTC Wake Settings ▶ Network Stack Configuration 					<p style="text-align: center;">Item help</p> <p>→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit</p>
Version 2.18.1264. Copyright (C) 2017 American Megatrends, Inc.					

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

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

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

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

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

Field Name	Network Stack Configuration
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	
CPU Configuration						
Type	Intel(R) Core(TM) CPU i5-7300U @ 2.60 GHz				Item	help
ID	0x806E9					
Speed	2700 MHz					
L1 Data Cache	32 KB x 2					
L1 Code Cache	32 KB x 2					
L2 Cache	256 KB x 2					
L3 Cache	3MB					
L4 Cache	N/A					
VMX	Supported					
SMX/TXT	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	Type
Default Value	[Intel CPU Brand String]
Comment	This field is not selectable. There is no help text associated with it.

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

Field Name	Speed
Default Value	Displays the CPU Speed
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	L4 Cache
Default Value	L4 Cache Size
Comment	This field is not selectable. There is no help text associated with it.

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

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

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

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

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

Field Name	Hyper-Threading
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	Intel Trusted Execution Technology
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
TPM20 Device Found Vender : NTC Firmware Version: 1.3					Item help
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
Version 2.18.1264. Copyright (C) 2017 American Megatrends, Inc.					

Field Name	Security Device SUPPORT
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	Pending operation
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	TPM2.0 UEFI Spec Version
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
ACPI Settings					Item help
Enable ACPI Auto Configuration [Disabled]					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Enable Hibernation [Enabled]					
ACPI Sleep State [S3 (Suspend to RAM)]					
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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.

SMART SETTINGS

Main	Advanced	Chipset	Security	Boot	Save & Exit
SMART Settings					Item help
SMART Self Test [Disabled]					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & 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.

SUPER IO CONFIGURATION

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

Field Name	Serial Port 2 Configuration
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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	Serial Port 3 Configuration
Help	Set Parameters of 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 Port 4 (COMD)
Comment	Press Enter when selected to go into the associated Sub-Menu.

Serial Port 1 Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit
Serial Port 1 Configuration					Item help
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	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	Device Settings
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	Change Settings
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

Main	Advanced	Chipset	Security	Boot	Save & Exit
Serial Port 2 Configuration					Item help
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	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	Device Settings
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	Change Settings
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	Mode Configuration
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

Main	Advanced	Chipset	Security	Boot	Save & Exit
Serial Port 3 Configuration					Item help
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]					
Version 2.18.1264. Copyright (C) 2017 American Megatrends, Inc.					

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

Field Name	Device Settings
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	Change Settings
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

Main	Advanced	Chipset	Security	Boot	Save & Exit
Serial Port 4 Configuration					Item help
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	Serial Port
Default Value	[Enabled]
Possible Value	Disabled Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	Device Settings
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	Change Settings
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
PC Health Status CPU temperature : xx °C CPU VR temperature : xx °C DIMM temperature : xx °C Fan Speed : xxxx RPM 1V StandBy : x.xxx V CPU Vcore : x.xxx V System Memory : x.xxx V +12V StandBy : x.xxx V					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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S5 RTC WAKE SETTINGS

Main	Advanced	Chipset	Security	Boot	Save & Exit	
Wake system from S5					[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
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>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	[Disabled]
Possible Value	Disabled (Restore non-Windows 8 Default) Enabled
Help	Enable/Disable UEFI Network stack.

Field Name	Ipv4 PXE Support
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	Ipv6 PXE Support
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 Chipset Security Boot Save & Exit	
▶ System Agent (SA) Configuration	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	System Agent (SA) Configuration
Help	System Agent (SA) Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	PCH-IO Configuration
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
System Agent (SA) Configuration					Item help
<ul style="list-style-type: none"> ▶ Memory Configuration ▶ Graphics Configuration 					<ul style="list-style-type: none"> →←: 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	Memory Configuration
Help	Memory Configuration Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

Memory Configuration

Main		Advanced		Chipset	Boot	Security	Save & Exit
Memory Configuration							Item help
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	Memory Frequency
Help	Memory speed
Comment	This field is not selectable. There is no help text associated with it.

Field Name	DIMM#[1:2]
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
Graphics Configuration					Item help
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	DVMT Pre-Allocated
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	DVMT Total Gfx Mem
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
PCH-IO Configuration					Item help
▶ 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	HD Audio Configuration
Help	HD Audio Subsystem Configuration Settings
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

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

Field Name	State After G3
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
HD Audio Subsystem Configuration Settings HD Audio [Auto]					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	HD Audio
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>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> <tr> <td>Minimum length</td> <td>3</td> </tr> <tr> <td>Maximum length</td> <td>20</td> </tr> </table> <p>Administrator Password User Password</p> <p>HDD Security Configuration: HDD Security drive</p> <ul style="list-style-type: none"> ▶ Secure Boot ▶ Secure Flash Update 					Minimum length	3	Maximum length	20	<p>Item help</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 & Reset ESC: Exit</p>				
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Field Name	Administrator Password
Help	Set Administrator Password

Field Name	User Password
Help	Set User Password.

Field Name	HDD Security drive
Help	HDD Security Configuration for selected drive

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

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

Field Name	Secure Flash Update
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:					Item help																																				
<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																																							
Set User Password																																									
Version 2.18.1264. Copyright (C) 2017 American Megatrends, Inc.																																									

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					
					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	Secure Boot Enable
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	Secure Boot Mode
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	Key Management
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	Restore Factory Keys
Help	Force System to User Mode. Configure NVRAM to contain OEM-defined factory default Secure Boot keys

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

Key Management

Main	Advanced	Chipset	Security	Boot	Save & Exit																												
Factory Key Provision [Disabled]					Item help																												
<ul style="list-style-type: none"> ▶ Restore Factory Keys ▶ Reset To Setup Mode ▶ Export Secure Boot variables ▶ Enroll Efi Image 																																	
Device Guard ready																																	
<ul style="list-style-type: none"> ▶ Remove 'UEFI CA' from DB ▶ Restore DB defaults 																																	
<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	
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																														
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Field Name	Factory Key Provision
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Provision factory default keys on next re-boot only when System in Setup Mode

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

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

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

Field Name	Enroll Efi Image
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	Remove 'UEFI CA' from DB
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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	Remove DB defaults
Help	Restore DB variable to factory defaults

Field Name	Platform Key (PK)
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	Key Exchange Key
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	Authorized Signature
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	Forbidden Signature
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	Authorized TimeStamps
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	OsRecovery Signatures
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>Item help</p> <p>→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit</p>
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Field Name	Path for ROM Image
Help	Enter the path to the Secure flash option

BOOT PAGE

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

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

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

Field Name	Boot Option #1
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	Boot Option #2
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	Boot Option #3
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	Boot Option #4
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	Boot Option #5
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	Boot Option #6
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	Boot Option #7
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	(UEFI) USB Floppy Drive BBS Priorities
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	(UEFI) 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	(UEFI) USB Hard Disk Drive BBS Priorities
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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	(UEFI) 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	(UEFI) 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	(UEFI) 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.

(LIST BOOT DEVICE TYPE) DRIVE BBS PRIORITIES

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

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

RECOVERY PAGE (ACTIVE FOR SECURE FLASH UPDATE ONLY)

Main	Advanced	Chipset	Security	Boot	Save & Exit	Recovery
Please select block you want to update						Item help →←: 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	Reset NVRAM
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Set this option to reset NVRAM to default values

Field Name	Process with flash update
Help	Select this to start flash update