D150-S

User Manual (Version 1.0)

Front View



Rear View

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Bottom View





Mechanical Dimension

D150-B dimension: 355 x 279 x 72.5 mm



VESA mounting: 100 x 100 mm

Product Specifications

	MOUNTING	VESA 100 / Stand
MECHANICAL	DIMENSIONS (W X D X H)	280 x 355 x 55 mm
	WEIGHT	5kg (11.1 lb)
	DISPLAY TYPE	15" TFT-LCD
	MAX. RESOLUTION	1024 x 768
	MAX. COLORS	16M (8 bit / color)
LCD	LUMINANCE (cd/m2)	350
	VIEWING ANGLE (H/V)	160° / 145°
	LED BACKLIGHT LIFETIME (hrs)	50,000
TOUCH CODEEN	ТҮРЕ	resistive
TOUCH SCREEN	TOUCH SCREEN	single point
	PROCESSOR	7 / 6th Gen Intel® Kaby Lake / Skylake LGA1151 Socket Processor, TDP Max. 35W
	CHIPSET	Intel® Q170 (Support RAID 0 / 1 / 5 / 10)
SYSTEM	SYSTEM MEMORY	DDR4 2133 / 2400MHz / 2 x 260-pin SO-DIMM / Max. 32GB (Non-ECC)
	ETHERNET	Intel® I219-LM Giga LAN + Intel® I211-AT Giga LAN
	I/O PORT	2 x RS232 / 2 x RJ45 / 1 x DisplayPort 1.2 / 1 x DC Jack / 4 x USB 3.0 / 1 x HDMI 1.4 / 1 x Line-out / 1 x Mic-in

	EXPANSION SLOT	Mini PCIe Half size (PCIe / USB) / Mini PCIe Full size (PCIe / USB / SATA)
	STORAGE	1 x SATA 2.5" HDD / SSD bay
	STEREO SPEAKER	2 x 2W
	OS SUPPORT	7th Gen Kaby Lake: Windows 10 64bit, Linux (support by request) / 6th Gen Skylake: Windows 7 32 / 64bit
	WATCHDOG TIMER	1~255 steps by software program
POWER	POWER INPUT	12V DC-in Jack (Default)
REQUIREMENT	POWER ADAPTER	84W adapter / DC12V / 7A / AC / DC
	OPERATING TEMPERATURE	-20~50°C (4 ~ 122°F)
	STORAGE TEMPERATURE	-20 ~ 70°C (-4 ~158°F)
	STORAGE HUMIDITY	10% ~ 90% @40°C non-condensing
ENVIRONMENTAL	VIBRATION RESISTANCE	Operating Random vibration Test 5-500Hz, 0.3 Grms@with HDD
	SHOCK RESISTANCE	Operating 50 G peak (3 ms duration)
	EMC	CE / FCC Class A
	FRONT PANEL PROTECTION	IP65 Compliant

Quick Installation Guide





Install HDD & memory



CPU cooler installation



Assemble LCD module



BIOS Information

1. MAIN PAGE

Main Advanced	Chipset	Security	Boot	Save & Exit	
BIOS Information	1				Item help
BIOS Vendor		America	n Megatr	ends	
Core Version		5.12			
Compliancy		UEFI 2.4	; PI 1.4		
BIOS Version		D7580X0	1		
Build Date		10/21/201	6		
					→←: Select Screen
Processor Informa	ation				↑↓: Select Item
Intel(R) CORE(T	M) [CPU NA	AME] @ [C	PU Freq.] GHZ	Enter: Select
					+/- : Change Opt.
Total Memory		8192 MB			F1: General Help
Memory Frequen	сy	2133 MH	Z		F2: Previous Values
					F3: Optimized Defaults
					F4: Save & Reset
System Date		[Mon mm	n/dd/yyyy]	ESC: Exit
System Time		[hh:mm:s	s]		
	Version 2 18	1263 Convrid	nht (C) 201	6 American Megatre	nds Inc

Field Name	BIOS Vendor
Default Value	American 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

Field Name	Compliancy
Default Value	UEFI 2.4 ; PI 1.3
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	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	System Date
Default Value	[xxx, mm dd yyyy]
Possible Value	[xxx, xx:xx:xxxx]
Help	Set the Date. Use Tab to switch between Date elements.

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

2. <u>ADVANCED PAGE</u>

Main	Advanced	Chipset	Security	Boot	Save & Exit	
► CPU	Configuration	n				Item help
► Powe	er & Performa	ince				
► PCH	-FW Configur	ration				
► Trust	ed Computing	g				→←: Select Screen
► ACP	I Settings					↑↓: Select Item
► SMA	RT Settings					Enter:Select
► SIO	Configuration					+/- : Change Opt
►S5 R	TC Wake Sett	ings				F1: General Help
► AMI	Graphic Outp	out Protoco	l Policy			F2: Previous Values
Netw	ork Stack Co	nfiguration				F3: Optimized Defaults
► CSM	Configuratio	n				F4: Save & Reset
► USB	Configuration	n				ESC: Exit

Field Name	CPU Configuration
Help	CPU Configuration Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.
Field Name	Power & Performance
Help	Power & Performance Options
Comment	Press Enter when selected to go into the associated Sub-Menu.
Field Name	PCH-FW Configuration
Help	Configure Management Engine Technology 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	SIO Configuration
Help	System Super IO Chip Parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	S5 RTC Wake Settings
	12

Help	Enable system to wake from S5 using RTC alarm
Comment	Press Enter when selected to go into the associated Sub-Menu.
Field Name	AMI Graphic Output Protocol Policy
Help	User Select Monitor Output by Graphic Output Protocol
Comment	Press Enter when selected to go into the associated Sub-Menu.
Field Name	Network Stack Configuration
Help	Network Stack Settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

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

Main	Advanced	Chipset	Security	Boot	Save & Exit	
CPU	Configuration	l				Item help
Туре				Intel(R)	Core(TM) CPU	
				[CPU N	AME] @ [CPU	
				Freq.] G	Hz	
ID				0x906E9)	
Speed	l			2800 MI	Hz	
L1 Da	ata Cache			32 KB x	4	
L1 In	struction Cacl	he		32 KB x	4	
L2 Ca	ache			256 KB	x 4	
L3 Ca	ache			6MB		
L4 Ca	ache			N/A		
VMX				Support	ed	→←: Select Screen
SMX/	/TXT			Support	ed	↑↓: Select Item
						Enter: Select
Hardv	vare Prefetcher			[Enabled	[]	+/- : Change Opt
Adjac	ent Cache Line	e Prefetch		[Enabled	[]	F1: General Help
Intel (VMX) Virtuali	zation Tecl	hnology	[Enabled	[]	F2: Previous Values
Active	e Processor Co	res		[All]		F3: Optimized Defaults
Hyper	r-threading			[Enabled	1]	F4: Save & Reset
Intel 7	Frusted Execution	ion Techno	logy	[Disable	d]	ESC: Exit

2.1 CPU CONFIGURATION

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

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

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

Field Name	L1 Data Cache
Default Value	Displays the Processor L1 Data Cache size.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	L1 Instruction Cache
Default Value	Displays the Processor L1 Instruction Cache size.
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	L4 Cache
Default Value	Displays the Processor L4 eDRAM 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 prefetching of adjacent cache lines.

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

Field Name	Active Processor Cores
Default Value	[All]
Possible Value	All
	1/2/3
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	Disabled
	Enabled
Help	Enables utilization of additional hardware capabilities provided by Intel
	(R) Trusted Execution Technology.\n\nChanges require a full power cycle
	to take effect.

2.2 POWER & PERFORMANCE

Main	Advanced	Chipset	Boot	Security	Save & Exit	
Powe	r & Perform	ance				Item help
► CP	U – Power Ma	anagement (Control			→←: Select Screen
						↑↓: Select Item
						Enter: Select
						+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
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Field Name	CPU – Power Management Control
Help	CPU – Power Management Control Options
Comment	Press Enter when selected to go into the associated Sub-Menu.

2.2.1 <u>CPU- Power Management Control</u>

Main Advanced Chipset Boot	Security Save & Exit	
CPU- Power Management Control	Item help	
Intel(R) SpeedStep(tm)	[Enabled]	→←: Select Screen
Intel(R) Speed Shift Technology	[Enabled]	↑↓: Select Item
Turbo Mode	[Enabled]	Enter: Select
C states	[Enabled]	+/- : Change Opt
Enhanced C-states	[Enabled]	F1: General Help
Package C State Limit	[Auto]	F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Reset
		ESC: Exit

Field Name	Intel(R) SpeedStep(tm)
Default Value	[Enabled]
Possible Value	Enabled
	Disabled
Help	Allows more than two frequency ranges to be supported.

Field Name	Intel(R) Speed Shift Technology
Default Value	[Enabled]
Possible Value	Enabled
	Disabled
Help	Enable/Disable Intel(R) Speed Shift Technology support. Enabling will
	expose the CPPC v2 interface to allow for hardware controlled P-states.

Field Name	Turbo Mode
Default Value	[Enabled]
Possible Value	Enabled
	Disabled
Help	Enable/Disable processor Turbo Mode (requires EMTTM enabled too).
	AUTO means enabled, unless max turbo ratio is bigger than 16 - SKL A0
	W/A

Field Name	CPU C states
Default Value	[Enabled]
Possible Value	Enabled
	Disabled
Help	Enable/Disable CPU Power Management. Allows CPU to go to C states
	when it's not 100% utilized.

Field Name	Enhanced C-states
Default Value	[Enabled]

Possible Value	Enabled Disabled
Help	Enable/Disable C1E. When enabled, CPU will switch to minimum speed when all cores enter C-State.

Field Name	Package C state limit
Default Value	[Auto]
Possible Value	Auto
	Cpu Default
	C7S
	C7
	C6
	C3
	C2
	C0/C1
Help	Maximum Package C State Limit Setting. Cpu Default: Leaves to Factory
	default value. Auto: Initializes to deepest available Package C State Limit.

2.3 PCH-FW CONFIGURATION

Main	Advanced	Chipset	Boot	Security	Save & Exit	
AN	► AMT 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
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Field Name	AMT Configuration
Help	Configure Intel(R) Active Management Technology Parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

2.3.1 <u>AMT Configuration</u>

Main Advanced Chipset	Boot	Security	Save & Exit	
ASF support		[Enabled]		Item help
USB Provisioning of AMT	[Disabled]		isabled]	→←: Select Screen
CIRA Configuration				↑↓: Select Item
ASF Configuration				Enter: Select
Secure Erase Configuration				+/- : Change Opt
				F1: General Help
				F2: Previous Values
				F3: Optimized Defaults
				F4: Save & Reset
				ESC: Exit

Field Name	ASF support
Default Value	[Enabled]
Possible Value	Enabled
	Disabled
Help	Enable/Disable Alert Standard Format support.

Field Name	USB Provisioning of AMT
Default Value	[Disabled]
Possible Value	Enabled
	Disabled
Help	Enable/Disable of AMT USB Provisioning.

Field Name	CIRA Configuration
Help	Configure Remote Assistance Process parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	ASF Configuration
Help	Configure Alert Standard Format parameters.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Secure Erase Configuration
Help	Secure Erase configuration menu
Comment	Press Enter when selected to go into the associated Sub-Menu.

2.3.1.1 CIRA Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit	
Activ	ate Remote As	ssistance Pro	ocess	[Enabled]		Item help
CIRA	Timeout			0		
						→←: Select Screen
						↑↓: Select Item
						Enter: Select
						+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
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Field Name	Activate Remote Assistance Process
Default Value	[Disabled]
Possible Value	Enabled
	Disabled
Help	Trigger CIRA boot
	Note:
	Network Access must be activated first from MEBx Setup.

Field Name	CIRA Timeout
Default Value	[0]
Possible Value	0~255
Help	OEM defined timeout for MPS connection to be established.
	0 - use the default timeout value of 60 seconds.
	255 - MEBx waits until the connection succeeds

2.3.1.2 ASF Configuration

Main Advanced	Chipset	Boot	Security	Save & Exit	
PET Progress			[En	abled]	Item help
WatchDog			[Di	sabled]	
OS Timer			0		→←: Select Screen
BIOS Timer			0		↑↓: Select Item
					Enter: Select
					+/- : Change Opt
					F1: General Help
					F2: Previous Values
					F3: Optimized Defaults
					F4: Save & Reset
					ESC: Exit

Field Name	PET Progress
Default Value	[Enabled]
Possible Value	Enabled
	Disabled
Help	Enable/Disable PET Events Progress to receive PET Events.

Field Name	Activate Remote Assistance Process
Default Value	[Disabled]
Possible Value	Enabled
	Disabled
Help	Enable/Disable WatchDog Timer

Field Name	OS Timer
Default Value	[0]
Possible Value	0~65535
Help	Set OS watchdog timer

Field Name	BIOS Timer
Default Value	[0]
Possible Value	0~65535
Help	Set BIOS watchdog timer

2.3.1.3 Secure Erase Configuration

Main	Advanced	Chipset	Boot	Security	Save & Exit	
Secur	Secure Erase mode [Simulated]			Item help		
Force	Secure Erase			[Di	sabled]	
						→←: 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 Erase mode
Default Value	[Simulated]
Possible Value	Simulated
	Real
Help	Change Secure Erase module behavior:
	Simulated: Performs SE flow without erasing SSD
	Real: Erase SSD.

Field Name	Force Secure Erase
Default Value	[Disabled]
Possible Value	Enabled
	Disabled
Help	Force Secure Erase on next boot

2.4 TRUSTED COMPUTING

Main Advanced Chip	set Boot	Security	Save & Exit	
TPM20 Device Found				Item help
Security Device Support		[Ena	ıble]	→←: Select Screen
				↑↓: Select Item
Pending operation		[Noi	ne]	Enter: Select
TPM2.0 UEFI Spec Versi	on	[TCG_2]		+/- : Change Opt
				F1: General Help
				F2: Previous Values
				F3: Optimized Defaults
				F4: Save & Reset
				ESC: Exit

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	Security Device SUPPORT
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

2.5 ACPI SETTINGS

Main	Advanced	Chipset	Boot	Security	Save & Exit	
ACPI	Settings					Item help
Enable	e ACPI Auto	Configuratio	n	[Disabl	ed]	→←: Select Screen
						↑↓: Select Item
Enable	e Hibernation			[Enable	ed]	Enter: Select
ACPI	Sleep State			[S3 (Su	spend to RAM)]	+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit

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 not be effective with some operating systems.

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

2.6 SMART SETTINGS

Main	Advanced	Chipset	Security	Boot	Save & Exit	
SMA	RT Settings					Item help
	-					
SMA	ART Self Test		[Dis	sabled]		
						→←: Select Screen
						↑↓: Select Item
						Enter: Select
						+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
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Field Name	SMART Self Test
Default Value	[Disabled]
Possible Value	Disabled
	Enabled
Help	Run SMART Self Test on all HDDs during POST.

2.7 SUPER IO CONFIGURATION

Main Advanced Chipset	Security	Boot	Save & Exit	
SIO Configuration				Item help
Super IO Chip		NCT	C6104D	→←: Select Screen
Serial Port 1 Configuration				↑↓: Select Item
Serial Port 2 Configuration				Enter: Select
Serial Port 3 Configuration				+/- : Change Opt
Serial Port 4 Configuration				F1: General Help
Parallel Port Configuration				F2: Previous Values
				F3: Optimized Defaults
				F4: Save & Reset
				ESC: Exit

Field Name	Serial Port 1 Configuration
Help	Set Parameters of Serial Port 1 (COMC)
Comment	Press Enter when selected to go into the associated Sub-Menu.
Field Name	Serial Port 2 Configuration
Help	Set Parameters of Serial Port 2 (COMD)
Comment	Press Enter when selected to go into the associated Sub-Menu.
Field Name	Serial Port 3 Configuration
Help	Set Parameters of Serial Port 3 (COME)
Comment	Press Enter when selected to go into the associated Sub-Menu.
Field Name	Serial Port 4 Configuration
TT 1	

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

Field Name	Parallel Port Configuration
Help	Set Parameters of Parallel Port (LPT/LPTE)
Comment	Press Enter when selected to go into the associated Sub-Menu.

2.7.1 <u>Serial Port 1 Configuration</u>

Main Advanced Chipse	et Security Boot Save & Exit	
Serial Port 1 Configuration	l	Item help
Serial Port	[Enabled]	→←: Select Screen
Device Settings	IO=2F8h; IRQ=3;	↑ ↓ : Select Item
		Enter: Select
Change Settings	[Auto]	+/- : Change Opt
		F1: General Help
		F2: Previous Values
		F3: Optimized Defaults
		F4: Save & Reset
		ESC: Exit
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Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled
	Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	Device Settings
Default Value	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=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

2.7.2 Serial Port 2 Configuration

Main Ad	lvanced	Chipset	Security	Boot	Save & Exit	
Serial Port	t 2 Confi	guration				Item help
Serial Port				[Ena	abled]	→←: Select Screen
Device Set	tings			IO=	3E8h; IRQ=7;	↑ ↓ : Select Item
						Enter: Select
Change Set	tings			[Aut	to]	+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
		Version 2.1	8.1263. Copyrig	ght (C) 201	6 American Mega	trends, 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 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=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

2.7.3 Serial Port 3 Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit	
Serial	Port 3 Config	guration				Item help
Comio 1 1	Dout			[[]]m	bladl	Colored Comment
Serial	Pon			[Ella	abled]	→←: Select Screen
Device	e Settings			IO=	2E8; IRQ=7;	↑ ↓ : Select Item
						Enter: Select
Change	e Settings			[Au	to]	+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
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Field Name	Serial Port
Default Value	[Enabled]
Possible Value	Disabled
	Enabled
Help	Enable or Disable Serial Port(COM)

Field Name	Device Settings
Default Value	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=2E8h; IRQ=7;
	IO=2E8h; IRQ=3,4,5,6,7,9,10,11,12;
	IO=3E8h; IRQ=3,4,5,6,7,9,10,11,12;
	IO=2F0h; IRQ=3,4,5,6,7,9,10,11,12;
	IO=3F0h; IRQ=3,4,5,6,7,9,10,11,12;
Help	Select an optimal settings for Super IO Device

2.7.4 <u>Serial Port 4 Configuration</u>

Main 4	Advanced	Chipset	Security	Boot	Save & Exit	
Serial Po	ort 4 Confi	guration				Item help
Sorial Do	rt			[Eng	bledl	Sect Salaat Samaan
	-44 [°]					: Select Screen
Device S	ettings			10=	5F8; IKQ=4;	$\uparrow \downarrow$: Select Item
						Enter: Select
Change S	Settings			[Au	to]	+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
		Version 2.1	8.1263 Copyrig	ht (C) 201	6 American Megatr	ends, 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 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=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

2.7.5 Parallel Port Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit	
Paralle	l Port Config	Item help				
Parallel	Port		[Enab	led]		→←: Select Screen
Device	Settings		IO=3 ′	78h; IRQ	=5	↑ ↓ : Select Item
						Enter: Select
Change	Settings		[Auto]]		+/- : Change Opt
Device	Mode		[STD	Printer M	[ode]	F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
		Version 2.18.	.1263. Copyrig	ght (C) 201	6 American Megati	rends, Inc.

Field Name	Parallel Port
Default Value	[Enabled]
Possible Value	Disabled
	Enabled
Help	Enable or Disable Parallel Port(LPT/LPTE)

Field Name	Device Settings
Default Value	Device Super IO Parallel Port Address/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=378h; IRQ=5;		
	IO=378h; IRQ=5,6,7,9,10,11,12;		
	IO=278h; IRQ=5,6,7,9,10,11,12;		
	IO=3BCh; IRQ=5,6,7,9,10,11,12;		
Help	Select an optimal settings for Super IO Device		

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

2.8 S5 RTC WAKE SETTINGS

Main	Advanced	Chipset	Boot	Security	Save & Exit	
Wak	e system with	Fixed Time)	[Dis	able]	Item help
Wak	e up hour			0		
Wak	e up minute			0		→←: Select Screen
Wak	e up second			0		↑↓: Select Item
Wak	Wake up minute increase			1		Enter: Select
						+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit

Field Name	Wake system from S5
Default Value	[Disabled]
Possible Value	Disabled
	Fixed Time
	Dynamic Time
Help	Enable or disable System wake on alarm event. Select FixedTime,
	system will wake on the hr::min::sec specified. Select DynamicTime,
	System will wake on the current time + Increase minute(s)

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

Field Name	Wake up minute
Default Value	[0]
Possible Value	0-59
Help	Select 0 – 59 for Minute

Field Name	Wake up second		
Default Value	[0]		
Possible Value	0 - 59		
Help	Select 0 – 59 for Second		

Field Name	Wake up minute increase
Default Value	[0]
Possible Value	0 - 59
Help	1-5

2.9 AMI GRAPHIC OUTPUT PROTOCOL POLICY

Main	Advanced	Chipset	Security	Boot	Save & Exit	
Intel (R) Graphics	Controller				Item help
Intel (R) GOP Driv					
						→←: Select Screen
Outpu	t Select			[Out	put Devices]	↑↓: Select Item
						Enter: Select
						+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit

Field Name	Display Device Driver Version Information
Default Value	By Graphic card
Possible Value	By Graphic card
Help	NA

Field Name	Output Select
Default Value	EDP1
Possible Value	EDP1
	DP1
	HDMI3
Help	Output Interface

Main Advanced	Chipset	Security	Boot	Save & Exit	
					Item help
Network stack		[En	abled]		
Ipv4 PXE Suppor	rt	[En	abled]		
Ipv6 PXE Suppor	rt	[En	abled]		
					→←: Select Screen
					↑↓: Select Item
					Enter: Select
					+/- : Change Opt
					F1: General Help
					F2: Previous Values
					F3: Optimized Defaults
					F4: Save & Reset
					ESC: Exit

2.10 NETWORK STACK CONFIGURATION

Field Name	Network stack
Default Value	[Disabled]
Possible Value	Disabled
	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	Ipv4 HTTP Support
Default Value	[Disabled]
Possible Value	Disabled
	Enabled
Help	Enable Ipv4 HTTP Boot Support. If disabled IPV4 HTTP 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.

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

2.11 CSM CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit	
Compatibility Support Module Configuration					Item help	
CSM S	Support			[Disab	led]	
CSM1	6 Module Vers	sion		00.20		
Option	n Rom executi	on				→←: Select Screen
						↑↓: Select Item
Netwo	rk			[Do no	t launch]	Enter: Select
Storage	e			[UEFI]		+/- : Change Opt
Video				[UEFI]	l	F1: General Help
Other I	PCI devices			[UEFI]	l	F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
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Field Name	CSM support
Default Value	[Disabled]
Possible Value	Disabled
	Enabled
Help	Enable/Disable CSM Support.

Field Name	CSM16 Module Version
Default Value	00.20
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	Video
Default Value	[UEFI]

Possible Value	UEFI
	Legacy
Help	Controls the execution of UEFI and Legacy Video OpROM.

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

2.12 USB CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit	
USB	Configuration	Item help				
USB]	Devices:					
1	Keyboard, 1 I	Mouse				
						→←: Select Screen
Lega	acy USB Supp	ort		[Enable	ed]	↑↓: Select Item
XHC	CI Hand-off			[Enable	ed]	Enter: Select
USB	Mass Storage	Driver Sup	oport	[Enable	ed]	+/- : Change Opt
Port	60/64 Emulati	on		[Disab]	led]	F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
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Field Name	USB Devices:
Default Value	Connected USB devices
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	USB Mass Storage Driver Support
Default Value	[Enabled]
Possible Value	Disabled
	Enabled
Help	Enable/Disable USB Mass Storage Driver Support.

Field Name	Port 60/64 Emulation	
Default Value	[Disabled]	

Possible Value	Disabled
	Enabled
Help	Enables I/O port 60h/64h emulation support. This should be enabled for
	the complete USB keyboard legacy support for non-USB aware OSes.

3. <u>CHIPSET PAGE</u>

Main	Advanced	Chipset	Security	Boot	Save & Exit			
► Syst	tem Agent (SA	Item help						
► PCH	► PCH-IO 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	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.

Main	Advanced	Chipset	Security	Boot	Save & Exit	
► Me	mory Configu	ration				Item help
► Gra	phics Configu	ration				
						→←: 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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3.1 SYSTEM AGENT (SA) CONFIGURATION

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.

3.1.1 <u>Memory Configuration</u>

Main Advanced	Chipset	Boot	Security	Save & Exit	
Channel 0 Slot 0			Populated	& Enabled	Item help
Size			8192 (DDF	R4)	
Channel 0 Slot 1			Populated	& Enabled	→←: Select Screen
Size			8192 (DDF	R4)	↑↓: 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	Channel [0:1] Slot 0
Help	Channel Slot status.
Comment	This field is not selectable. There is no belp text associated with it

L	
Comment	This field is not selectable. There is no help text associated with it.
Field Name	Size
Help	Memory Size in the Slot.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Max TOLUD
Default Value	[Dynamic]
Possible Value	Dynamic
	2.5 GB
	2.75 GB
	3 GB
	3.25 GB
	3 GB
Help	Maximum Value of TOLUD.
	Dynamic assignment would adjust TOLUD automatically based on
	largest MMIO length of installed graphic controller

3.1.2 Graphics Configuration

Main Advanced Chipset	Security	Boot	Save & Exit	
Graphics Configuration				Item help
Primary Display		[Auto]		→←: Select Screen
Internal Graphics		[Auto]		↑↓: Select Item
GTT Size		[8MB]		Enter: Select
Aperture Size		[256MB]	+/- : Change Opt
DVMT Pre-Allocated		[32M]		F1: General Help
DVMT Total Gfx Mem		[256M]		F2: Previous Values
► LCD Control				F3: Optimized Defaults
				F4: Save & Reset
				ESC: Exit

Field Name	Primary Display
Default Value	[Auto]
Possible Value	AUTO/IGFX/PEG/PCI/SG
Help	Select which of IGFX/PEG/PCI Graphics device should be Primary
_	Display Or select SG for Switchable Gfx.

Field Name	Internal Graphics
Default Value	[AUTO]
Possible Value	AUTO/Disabled/Enabled
Help	Keep IGFX enabled based on the setup options.

Field Name	GTT Size
Default Value	[8MB]
Possible Value	2MB/4MB/8MB
Help	Select the GTT Size

Field Name	Aperture Size
Default Value	[256M]
Possible Value	128MB/256MB/512MB/1024MB/2048MB
Help	Select the Aperture Size
	Note : Above 4GB MMIO BIOS assignment is automatically enabled
	when selecting 2048MB aperture. To use this feature, please disable
	CSM Support.

Field Name	DVMT Pre-Allocated
Default Value	[32M]
Possible Value	32M / 64M / 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.
Field Name	LCD Control
Help	LCD Control

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

Comment

3.1.2.1 LCD Control

Main	Advanced	Chipset	Security	Boot	Save & Exit	
LCD	Control					Item help
Prima	ary IGFX Boot	Display		[VBIOS	Default]	→←: Select Screen
Secor	ndary IGFX Bo	oot Display		[Disable	ed]	↑↓: Select Item
Activ	e LFP			[Disable	LFP]	Enter: Select
						+/- : Change Opt
						F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
	V	Version 2.18.12	63. Copyright	(C) 2016 A	merican Megatre	nds, Inc.

Field Name Primary IGFX Boot Display Default Value [VBIOS Default] Possible Value VBIOS Default/DP /LFP /HDMI Help Select the Video Device which will be activated during POST. This has no effect if external graphics present. Secondary boot display selection will appear based on your selection. VGA modes will be supported only on primary display

Field Name	Secondary IGFX Boot Display
Default Value	[Disabled]
Possible Value	Disabled /DP/ HDMI
Help	Select Secondary Display Device.

Field Name	Active LFP
Default Value	[Disabled]
Possible Value	Enabled
	Disabled
Help	Select the Active LFP Configuration.

3.2 PCH-IO CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit	
РСН	-IO Configura	ation				Item help
► SAT	CA And RST Co	onfiguration	l			→←: Select Screen
►HD	Audio Configu	iration				↑↓: Select Item
Deep	Sx Power Poli	cies		[Disabled]	l	Enter: Select
Wak	ke on LAN Ena	ıble		[Enabled]		+/- : Change Opt
State	After G3			[S5 State]		F1: General Help
						F2: Previous Values
						F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
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Field Name	SATA And RST Configuration
Help	SATA Device Option Settings
Comment	Press Enter when selected to go into the associated Sub-Menu.

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	Disabled
	Enabled in S4-S5
Help	Configure the DeepSx Mode configuration.

Field Name	Wake on LAN Enable
Default Value	[Enabled]
Possible Value	Enabled
	Disabled
Help	Enable/Disable 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).

3.2.1 SATA And RST Configuration

Main	Advanced	Chipset	Security	Boot	Save & Exit	
SATA	And RST Co	onfiguration	l			Item help
SATA	Mode Selecti	on		[AHCI]		→←: Select Screen
						↑↓: Select Item
Seria	l ATA Port 0			Empty		Enter: Select
Mini	Serial ATA Po	ort 1		Empty		+/- : Change Opt
Seria	l ATA Port 2			Empty		F1: General Help
Seria	l ATA Port 3			Empty		F2: Previous Values
Seria	l ATA Port 4			Empty		F3: Optimized Defaults
						F4: Save & Reset
						ESC: Exit
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Field Name	SATA Mode Selection	
Default Value	[AHCI]	
Possible Value	AHCI	
	Intel RST Premium	
Help	Determines how SATA controller(s) operate.	

Field Name	Serial ATA Port [0:4]	
Help	Serial ATA Port status	
Comment	This field is not selectable. There is no help text associated with it.	

3.2.2 <u>HD Audio Configuration</u>

Main Advanced	Chipset	Boot	Security	Save & Exit	
HD Audio Configur	ation				Item help
HD Audio			[Auto]		→←· Select Screen
THE Multi			[nuto]		↑↓: 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 / Enabled / Disabled
Help	Control Detection of the HD-Audio device.
	Disabled = HDA will be unconditionally disabled
	Enabled = HDA will be unconditionally enabled
	Auto = HDA will be enabled if present, disabled otherwise.

4. <u>SECURITY PAGE</u>

Main	Advanced	Chipset	Security	Boot	Save & Exit	
Pass	sword Descri	ption				Item help
If O	nly the Admir	nistrator's pass	sword is set,			
then	this only lim	its access to S	etup and is			
only	asked for wh	en entering S	etup.			
If O	NLY the User	's password i	s set, then thi	is		
is a	power on pass	sword and mu	ist be entered	to		
boot	t or enter Setu	p. In Setup th	e User will			
have	e Administrato	or rights				
The	password len	gth must be				
in th	ne following ra	ange:				
Min	imum Length			3		
Max	kimum Length	l		20		→←: Select Screen
						↑↓: Select Item
Adn	ninistrator Pas	ssword				Enter: Select
Use	r Password					+/- : Change Opt
						F1: General Help
HD	D Security Co	nfiguration:				F2: Previous Values
HDI	D Security dri	ve				F3: Optimized Defaults
						F4: Save & Reset
► S	ecure Boot me	enu				ESC: Exit

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

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

Field Name	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 menu
Help	Customizable Secure Boot settings

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

4.1 HDD SECURITY

Main Advanced	Chipset	Security	Boot	Save & Exit	
HDD Password De	scription :				Item help
Allows Access to Se	et, Modify and	d Clear			
HardDisk User and	Master Passw	vords.			
User Password need	l to be installe	ed for			
Enabling Security. I	Master Passw	ord can			
be Modified only w	hen successfu	illy unlocked			
with Master Passwo	ord in POST.				
If the 'Set HDD Pas	sword' option	is grayed ou	t,		
do power cycle to e	nable the opti	on again.			
	CONFICUD				
HDD PASS WORD	CONFIGURA	ATION:			Calant Comme
Security Supported		Ves			$\rightarrow \leftarrow$: Select Screen
Security Enabled	•	No	•		The select select
Security Ladded		No			+/- · Change Ont
Security Frozen		No			F1: General Help
HDD User Pwd Stat		NO	T INSTA	ALLED	F2: Previous Values
		110	1 1 10 11		F3: Optimized Defaults
Set User Password					F4: Save & Reset
Set Master Password	1				ESC: Exit

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
Comment	

Field Name	Set Master Password
Help	Set HDD Master Password. \n*** Advisable to Power Cycle System after Setting Hard
	impact on HDD when password is set or removed. If the 'Set HDD Master option' is
	grayed out, user might have entered setup with user HDD Security privilege(expected) or else do power cycle to enable the option again
Comment	

4.2 SECURE BOOT MODE

Main Advanced Chipset	Security	Boot	Save & Exit	
				Item help
System Mode	Set	up		
Secure Boot	No	t Active		→←: Select Screen
Vendor Keys	No	t Active		↑↓: Select Item
				Enter: Select
Attempt Secure Boot	[Er	abled]		+/- : Change Opt
Secure Boot Mode	[Sta	andard]		F1: General Help
 Key Management 				F2: Previous Values
				F3: Optimized Defaults
				F4: Save & Reset
				ESC: Exit
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Field Name	Attempt Secure Boot
Default Value	[Enabled]
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	[Standard]
Possible Value	Standard
	Custom
Help	Secure Boot mode selector:Standard/Custom.
-	In Custom mode Secure Boot Variables can be configured without 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.

4.3 KEY MANAGEMENT

Main Advanced Chipset	t Securi	ty Boot	Save & Exit	
Provision Factory Defaults		[Disabled]	Item help
Reset to Setup Mode				
Enroll Efi Image				→←: Select Screen
Save all Secure Boot varia	bles			↑↓: Select Item
				Enter: Select
Secure Boot variable	Size	Key#	Key source	+/- : Change Opt
Platform Key(PK)	0	0		F1: General Help
Key Exchange Key	0	0		F2: Previous Values
Authorized Signatures	0	0		F3: Optimized Defaults
Forbidden Signatures	0	0		F4: Save & Reset
Authorized TimeStamps	0	0		ESC: Exit
OsRecovery Signatures	0	0		
	-		-	

Field Name	Provision Factory Defaults
Default Value	[Disabled]
Possible Value	Enabled
	Disabled
Help	Allow to provision factory default Secure Boot keys when System is in Setup Mode

Field Name	Reset to Setup Mode
Help	Force System to Setup Mode - clear all Secure Boot Variables
Comment	

Field Name	Save All Secure Boot Variables
Help	Allow the image to run in Secure Boot mode.
	Enroll SHA256 hash of the binary into Authorized Signature Database (db)
Comment	

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

Field Name	Platform Key (PK)	
Default Value	Size:0, Key#:0, Key source: *	
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:
	Default,External,Mixed,Test
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: *	
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:	
	Default,External,Mixed,Test	
comment	Press Enter when selected to go into the associated Sub-Menu.	

Field Name	Authorized Signature	
Default Value	Size:0, Key#:0, Key source: *	
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:	
	Default,External,Mixed,Test	
comment	Press Enter when selected to go into the associated Sub-Menu.	

Field Name	Forbidden Signature	
Default Value	Size:0, Key#:0, Key source: *	
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:	
	Default,External,Mixed,Test	
comment	Press Enter when selected to go into the associated Sub-Menu.	

Field Name	Authorized TimeStamps	
Default Value	Size:0, Key#:0, Key source: *	
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:
	Default,External,Mixed,Test
comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	OsRecovery Signatures	
Default Value	Size:0, Key#:0, Key source: *	
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:	
	Default,External,Mixed,Test	
comment	Press Enter when selected to go into the associated Sub-Menu.	

5. <u>BOOT PAGE</u>

Main	Advanced	Chipset	Security	Boot	Save & Exit	
Boot	Boot Configuration Item help					Item help
Setup Prompt Timeout				1		
Bootu	p NumLock	State		[On]		
Quiet	Boot			[Enable	d]	
Boot	mode select			[UEFI]		
FIXE	D BOOT OI	RDER Prior	ities			
Boot	Option #1			[Hard I	Disk]	→←: Select Screen
Boot	Option #2			[CD/D]	VD]	↑↓: Select Item
Boot	Option #3			[USB H	Iard Disk]	Enter: Select
Boot	Option #4			[USB C	CD/DVD]	+/- : Change Opt
Boot	Option #5			USB K	Key]	F1: General Help
Boot	Option #6			[USB F	[loppy]	F2: Previous Values
Boot	Option #7			[USB L	an]	F3: Optimized Defaults
Boot	Option #8			[Netwo	rk]	F4: Save & Reset
						ESC: Exit
► CD/	/DVD ROM Dri	ve BBS Priorit	ies			
Hard Disk Drive BBS Priorities						
NETWORK Drive BBS Priorities						
► USB CD/DVD ROM Drive BBS Priorities						
► USB Hard Disk Drive BBS Priorities						
► USB KEY Drive BBS Priorities						
				(0) 001 (

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

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

Field Name	Boot mode select
Default Value	[UEFI]
Possible Value	LEGACY
	UEFI
Help	Select boot mode LEGACY/UEFI.

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

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

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

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

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

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

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

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

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

Field Name	(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.

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

5.1 (LIST BOOT DEVICE TYPE) DRIVE BBS PRIORITIES

Main	Advanced	Chipset	Security	Boot	Save & Exit	
Boo	t Option #1	-	[Boo	t Device N	[ame 1]	Item help
Boo	t Option #2		[Boo	t Device N	[ame 2]	
						→←: Select Screen

↑↓: Select Item
Enter: Select
+/- : Change Opt
F1: General Help
F2: Previous Values
F3: Optimized Defaults
F4: Save & Reset
ESC: Exit

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

6. <u>SAVE & EXIT PAGE</u>

Main Advanced Chipset	Security	Boot	Save & Exit	
Save Options				Item help
Discard Changes and Exit				
Save Changes and Reset				→←: Select Screen
Discard Changes and Reset				↑↓: Select Item
				Enter: Select
Default Options				+/- : Change Opt
Restore Defaults				F1: General Help
Save as user Defaults				F2: Previous Values
Restore user Defaults				F3: Optimized Defaults
				F4: Save & Reset
Boot Override				ESC: Exit
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Field Name	Discard Changes and Exit
Help	Exit system setup without saving any changes.
Comment	

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

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

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

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

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