

D150-B

User Manual (Version 1.0)

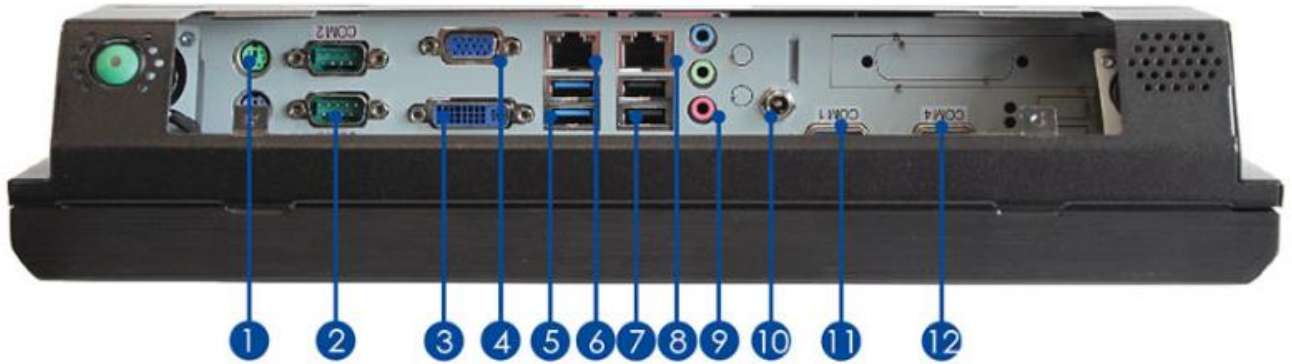
Front View



Rear View



Bottom View



1  PS / 2

2  COM

3  DVI

4  VGA

5  USB 3.0

6  Giga LAN

7  USB 2.0

8  Giga LAN

9  Giga LAN

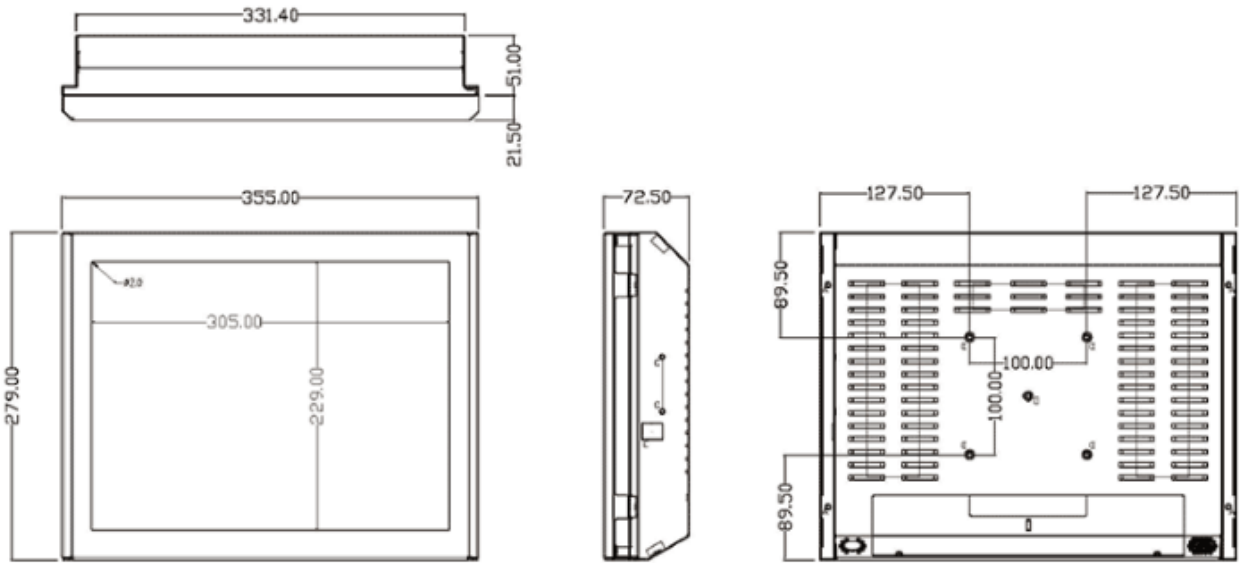
10  DC Jack

11  COM

12  COM

Mechanical Dimension

D150-B dimension: 355 x 279 x 72.5 mm



VESA mounting: 100 x 100 mm

Product Specifications

| | | |
|--------------|--------------------------------|---|
| MECHANICAL | MOUNTING | VESA 100 / Stand |
| | DIMENSIONS (W X D X H) | 280 x 355 x 55 mm |
| | WEIGHT | 5kg (11.1 lb) |
| LCD | DISPLAY TYPE | 15" TFT-LCD |
| | MAX. RESOLUTION | 1024 x 768 |
| | MAX. COLORS | 16M (8 bit / color) |
| | LUMINANCE (cd/m ²) | 350 |
| | VIEWING ANGLE (H/V) | 160° / 145° |
| | LED BACKLIGHT LIFETIME (hrs) | 50,000 |
| | TOUCH SCREEN | TYPE |
| TOUCH SCREEN | | single point |
| SYSTEM | PROCESSOR | Intel® Bay Trail Celeron® Processor J1900 (Quad Core, 2M Cache, up to 2.24 GHz) |
| | CHIPSET | Intel® SoC Integrated |
| | SYSTEM MEMORY | DDR3L 1333 MHz / 2 x 204-pin SO-DIMM / Max. 8GB (Non-ECC) |
| | ETHERNET | 2 x Realtek® RTL8111G Giga LAN |
| | I/O PORT | 2 x USB 3.0 / 2 x RJ45 / 2 x USB 2.0 / 1 x DVI / 1 x Line-in / 2 x PS/2 / 4 x RS232 / 1 x DC Jack / 1 x VGA / 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 | Windows 7 32bit / 64bit / Windows 10 64bit (UEFI only no legacy support) / Linux (support by request) |
| | WATCHDOG TIMER | 1~255 steps by software program |
| POWER REQUIREMENT | POWER INPUT | 12V DC-in Jack (Default) |
| | POWER ADAPTER | 84W adapter / DC12V / 7A / AC / DC |
| ENVIRONMENTAL | OPERATING TEMPERATURE | -20~50°C (4 ~ 122°F) |
| | STORAGE TEMPERATURE | -20 ~ 70°C (-4 ~158°F) |
| | STORAGE HUMIDITY | 10% ~ 90% @40°C non-condensing |
| | 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



Remove cover screws



Reverse Unit and Remove front cover



Remove 6 panel screws



Separate system module by lifting



Install HDD & memory



Assemble LCD module



Fix 6 panel screws



Assemble front cover



Secure Cover Screws

BIOS Information

1. Main Page

| Main | | Advanced | Chipset | Security | Boot | Save & Exit |
|---|---------------------|----------|---------|----------|------|------------------------|
| BIOS Information | | | | | | Item help |
| BIOS Vender | American Megatrends | | | | | |
| Core Version | 5.017 | | | | | |
| Compliancy | UEFI 2.3; PI 1.2 | | | | | |
| BIOS Version | D7400X02 | | | | | |
| Build Date and Time | 03/07/2014 16:41:29 | | | | | |
| CPU configuration | | | | | | |
| Intel(R) Celeron(R) CPU J1800 @ 2.41GHz | | | | | | |
| Microcode Revision | 320 | | | | | |
| Memory Information | | | | | | |
| Total Memory | 8192 MB (DDR3) | | | | | |
| GOP Information | | | | | | |
| Intel(R) GOP Driver | [7.1.1.1005] | | | | | →←: Select Screen |
| TXE Information | | | | | | ↑↓: Select Item |
| Sec RC Version | 00.05.00.00 | | | | | Enter: Select |
| TXE Information | 01.01.00.1089 | | | | | +/- : Change Opt |
| System Language | [English] | | | | | F1: General Help |
| System Date | [Mon mm/dd/yyyy] | | | | | F2: Previous Values |
| System Time | [hh:mm:ss] | | | | | F3: Optimized Defaults |
| Access Level | Administrator | | | | | F4: Save & Exit |
| | | | | | | ESC: Exit |
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| | |
|---------------|--|
| Field Name | BIOS Vender |
| Default Value | AMI Megatrends |
| Comment | This field is not selectable. There is no help text associated with it |

| | |
|------------|---------------------|
| Field Name | Core Version |
|------------|---------------------|

| | |
|---------------|--|
| Default Value | 4.6.5.1 |
| Comment | This field is not selectable. There is no help text associated with it |

| | |
|---------------|--|
| Field Name | Complacency |
| Default Value | UEFI 2.3; PI 1.2 |
| Comment | This field is not selectable. There is no help text associated with it |

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

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

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

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

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

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

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

| | |
|---------------|------------------------|
| Field Name | System Lanhuage |
| Default Value | [English] |

| | |
|------|------------------------------------|
| Help | Choose the system default language |
|------|------------------------------------|

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

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

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

2. Advanced Page

| Main | Advanced | Chipset | Boot | Security | Save & Exit | |
|---|----------|---------|------|----------|-------------|---|
| Wireless RF | | | | | [Enabled] | Item help |
| Onboard Lan 0 Controller | | | | | [Enabled] | |
| Wake On Lan from Lan 0 | | | | | [Enabled] | |
| Onboard Lan 1 Controller | | | | | [Enabled] | |
| Wake On Lan from Lan 1 | | | | | [Enabled] | |
| <ul style="list-style-type: none"> ▶ SMART Settings ▶ NCT6104D Super IO Configuration ▶ NCT6104D HW Monitor ▶ Intel(R) Smart Connect Technology ▶ S5 RTC Wake Settings ▶ CPU Configuration ▶ PPM Configuration ▶ SATA Configuration ▶ Network Stack Configuration ▶ CSM Configuration ▶ Trusted Computing ▶ USB Configuration ▶ Security Configuration | | | | | | |
| ▶ Realtek PCIe GBE Family Controller (MAC:88:88:88:88:88:88) | | | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
| ▶ Realtek PCIe GBE Family Controller (MAC:88:88:88:88:88:87) | | | | | | |
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| | |
|----------------|--------------------------------|
| Field Name | Wireless RF |
| Default Value | [Enabled] |
| Possible Value | Disabled Enabled |
| Help | Enable or disable Wireless RF. |

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

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

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

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

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

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

| | |
|------------|---------------------------|
| Field Name | NCT6104D HW Monior |
|------------|---------------------------|

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

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

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

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

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

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

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

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

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

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

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

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

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

2.1 SMART Settings

| Main | Advanced | Device | Chipset | Security | Boot | Save & Exit |
|---|----------|--------|---------|----------|------|---|
| SMART settings | | | | | | Item help |
| SMART Self Test | | | | | | [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 Settings |
|------------|-----------------------|

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

2.2 NCT6104D Super IO Configuration

| Main | Advanced | Chipset | Security Boot | Save & Exit |
|---|----------|--------------------|---------------|--|
| NCT6104D Super IO Configuration | | | | Item help |
| Super IO Chip | | NCT6104D | | |
| Serial Port 1 Configuration | | | | |
| Serial Port | | [Enabled] | | |
| Device Settings | | IO=xxx | | |
| Serial Port 2 Configuration | | | | |
| Serial Port | | [Enabled] | | |
| Device Settings | | IO=xxx | | |
| Serial Port 3 Configuration | | | | |
| Serial Port | | [Enabled] | | |
| Device Settings | | IO=xxx | | |
| Serial Port 4 Configuration | | | | |
| Serial Port | | [Enabled] | | |
| Device Settings | | IO=xxx | | |
| Parallel Port Configuration | | | | |
| Parallel Port | | [Enabled] | | |
| Device Settings | | IO=xxx | | |
| Device Mode | | [STD Printer Mode] | | |
| | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
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| | |
|------------|---|
| Field Name | Super IO Chip |
| Value | Display Super IO Chip name |
| Comment | This field is not selectable. There is no help text associated with it. |

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

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

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

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

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

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

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

| | |
|----------------|----------------------|
| Field Name | Parallel Port |
| Default Value | [Enabled] |
| Possible Value | Enabled Disabled |

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

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

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

2.3 NCT61064 H/W Monitor

| Main | Advanced | Chipset Security | Boot | Save & Exit |
|---|----------|------------------|------|--|
| PC Health Status | | | | Item help |
| DIMM_THRM temperature : +32 C | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
| VR_THRM temperature : +32 C | | | | |
| System Fan Speed : xxxx RPM | | | | |
| VCORE : +x.xxx V | | | | |
| V1P8_MON : +x.xxx V | | | | |
| VCC1_MON : +x.xxx V | | | | |
| VSM_MON : +x.xxx V | | | | |
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| | |
|------------|-------------------------|
| Field Name | PC Health Status |
|------------|-------------------------|

| | |
|----------------|------------------------------|
| Field Name | DIMM_THRM temperature |
| Possible Value | Show DIMM_THRM temperature |

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

| | |
|----------------|-------------------------|
| Field Name | System Fan Speed |
| Possible Value | Show system fan speed |

| | |
|----------------|--------------------|
| Field Name | VCORE Volt. |
| Possible Value | ShowVCORE Volt |

| | |
|----------------|-------------------|
| Field Name | V1P8 Volt. |
| Possible Value | Show V1P8 Volt |

| | |
|----------------|-------------------|
| Field Name | VCC1 Volt. |
| Possible Value | Show VCC1 Volt |

| | |
|----------------|----------------------|
| Field Name | VSM_MON Volt. |
| Possible Value | Show VSM_MON Volt |

2.4 Intel(R) Smart Connect Technology

| Main | Advanced | Device | Chipset | Security | Boot | Save & Exit |
|---|----------|--------|---------|-----------------------|------|------------------------|
| ISCT Support | | | | [Disabled] | | Item help |
| ISCT Notification Control | | | | [Enabled] | | |
| ISCT WLAN Power Control | | | | [Enabled] | | |
| ISCT WWAN Power Control | | | | [Enabled] | | |
| ISCT Sleep Duration Value Format | | | | [Duration In Seconds] | | |
| ISCT RF Kill Switch Type | | | | [Hardware] | | →←: Select Screen |
| ISCT RTC Timer Support | | | | [Disabled] | | ↑↓: Select Item |
| | | | | | | Enter: Select |
| | | | | | | +/- : Change Opt |
| | | | | | | F1: General Help |
| | | | | | | F2: Previous Values |
| | | | | | | F3: Optimized Defaults |
| | | | | | | F4: Save & Exit |
| | | | | | | ESC: Exit |
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| | |
|----------------|-----------------------------|
| Field Name | ISCT Support |
| Default Value | [Disabled] |
| Possible Value | Enabled Disabled |
| Help | Enable/Disable ISCT Support |

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

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

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

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

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

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

2.5 S5 RTC Wake Settings

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|---|-----------|---------|------|----------|---|
| Wake system with Fixed Time | [Enabled] | | | | |
| Wake up hour | 0 | | | | |
| Wake up minute | 0 | | | | |
| Wake up second | 0 | | | | |
| | | | | | 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 | Wake system with Fixed Time |
| Default Value | [Disabled] |
| Possible Value | Disabled Fixed Time Dynamic Time |
| Help | Enable or disable System wake on alarm event. Select FixedTime system will wake on the hr::min::sec specified. Select DynamicTime , System will wake on the current time + Increase minute(s) |

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

| | |
|---------------|-----------------------|
| Field Name | Wake up minute |
| Default Value | [0] |

| | |
|----------------|--------|
| Possible Value | 0-59 |
| Help | 0 - 59 |

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

2.6 CPU Configuration

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|---|----------|---------|------|----------|--|
| CPU Configuration | | | | | Item help |
| Intel(R) Celeron(R) CPU [CPU NAME] @ [CPU Freq.] GHz | | | | | |
| CPU Signature | | | | | 30673 |
| Microcode Patch | | | | | 320 |
| Max CPU Speed | | | | | 2410 MHz |
| Min CPU Speed | | | | | 1334 MHz |
| Processor Cores | | | | | 4 |
| Intel HT Technology | | | | | Supported |
| Intel VT-x Technology | | | | | Supported |
| L1 Data Cache | | | | | 24 KB x 2 |
| L1 Code Cache | | | | | 32 KB x 2 |
| L2 Cache | | | | | 1024KB x 4 |
| L3 Cache | | | | | Not Present |
| CPU Speed | | | | | 2418 MHz |
| 64-bit | | | | | Supported |
| Active Processor Cores | | | | | [All] |
| Execute Disable Bit | | | | | [Enabled] |
| Intel Virtualization Technology | | | | | [Enabled] |
| | | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
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| | |
|------------|-------------------|
| Field Name | CPU Configuration |
|------------|-------------------|

| | |
|------------|---------------|
| Field Name | CPU Signature |
|------------|---------------|

| | |
|---------------|--|
| Default Value | Displays CPU Signature |
| Comment | This field is not selectable. There is no help text associated with it |

| | |
|---------------|--|
| Field Name | Microcode Patch |
| Default Value | CPU Microcode Patch Revision |
| Comment | This field is not selectable. There is no help text associated with it |

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

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

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

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

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

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

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

| | |
|------------|-----------------|
| Field Name | L2 Cache |
|------------|-----------------|

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

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

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

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

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

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

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

2.7 PPM Configuration

| Main | Advanced | Chipset | Security | Boot | Save & Exit |
|---|----------|---------|----------|------|--|
| PPM Configuration | | | | | Item help |
| EIST | | | | | [Enabled] |
| CPU C state Report | | | | | [Enabled] |
| Enhanced C state | | | | | [Enabled] |
| Max CPU C-state | | | | | [C7] |
| | | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
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| | |
|------------|--------------------------|
| Field Name | PPM Configuration |
|------------|--------------------------|

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

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

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

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

2.8 SATA Configuration

| Main | Advanced | Chipset | Boot | Security | Save & Exit | |
|---|----------|---------|------|----------|--|------------------|
| Serial-ATA (SATA) | | | | | [Enabled] | Item help |
| SATA mode | | | | | [AHCI Mode] | |
| Serial-ATA Port 0 | | | | | [Enabled] | |
| Serial-ATA Port 1 | | | | | [Enabled] | |
| SATA Port0 | | | | | | |
| Not Present | | | | | | |
| SATA Port1 | | | | | | |
| INTEL SSDSC2BW (120.0GB) | | | | | | |
| | | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit | |
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| | |
|----------------|-----------------------------|
| Field Name | Serial-ATA (SATA) |
| Default Value | [Enabled] |
| Possible Value | Enabled / Disable |
| Help | Enable / Disable Serial ATA |

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

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

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

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

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

2.9 Network Stack Configuration

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|---|----------|---------|------|------------|--|
| Network Stack | | | | [Disabled] | Item help |
| Ipv4 PXE Support | | | | [Enabled] | |
| Ipv6 PXE Support | | | | [Enabled] | |
| PXE boot wait time | | | | 0 | |
| | | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
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| | |
|----------------|-----------------------------------|
| Field Name | Network Stack |
| Default Value | [Disabled] |
| Possible Value | Disabled Enabled |
| Help | Enable/Disable UEFI Network Stack |

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

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

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

2.10 CSM Configuration

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

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

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

| | |
|------------|-----------------------|
| Field Name | GateA20 Active |
|------------|-----------------------|

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

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

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

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

| | |
|------------|---|
| Field Name | Compatibility Support Module Configuration |
|------------|---|

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

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

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

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

2.11 Trusted Computing

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|---|----------|---------|------|----------|--|
| Configuration Security Device Support [Disabled] | | | | | Item help |
| Current Status Information No Security Device Found | | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
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| | |
|----------------|---|
| Field Name | Security Device Support |
| Default Value | [Disabled] |
| Possible Value | Disabled Enabled |
| Help | Enable or Disable BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available. |

2.12 USB Configuration

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|---|----------|---------|------|------------|--|
| USB Configuration | | | | | Item help |
| USB Module Version | | | | 8.10.27 | |
| USB Devices: 1 Keyboard, 1 Mouse, 2 Hubs | | | | | |
| Legacy USB Support | | | | [Enabled] | |
| XHCI Hand-off | | | | [Enabled] | |
| EHCI Hand-off | | | | [Disabled] | |
| | | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
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| | |
|------------|--------------------------|
| Field Name | USB Configuration |
|------------|--------------------------|

| | |
|---------------|--|
| Field Name | USB Module Version |
| Default Value | USB module version |
| Comment | This field is not selectable. There is no help text associated with it |

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

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

| | |
|------------|----------------------|
| Field Name | XHCI Hand-off |
|------------|----------------------|

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

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

2.13 Security Configuration

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|---|----------|---------|------|----------|--|
| Intel(R) TXE Configuration | | | | | Item help |
| TXE | | | | | [Enabled] |
| TXE HMRFPO | | | | | [Disabled] |
| TXE Firmware Update | | | | | [Enabled] |
| TXE EOP Message | | | | | [Enabled] |
| TXE Unconfiguration Perform | | | | | |
| | | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
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| | |
|------------|----------------------------|
| Field Name | Intel(R) TXE Configuration |
|------------|----------------------------|

| | |
|----------------|---------------------|
| Field Name | TXE |
| Default Value | [Enabled] |
| Possible Value | Disabled Enabled |
| Help | |

| | |
|----------------|---------------------|
| Field Name | TXE HMRFPO |
| Default Value | [Disabled] |
| Possible Value | Disabled Enabled |
| Help | |

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

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

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

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

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

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|-------------------------------|----------|---------|------|-----------------|---|
| Output Panel Type | | | | [LVDS] | Item help |
| LVDS Interface Type | | | | [Dual Channel] | |
| LVDS Panel Type | | | | [VBIOS Default] | |
| Audio Controller | | | | [Enabled] | |
| Front Panel Audio | | | | [Auto] | |
| XHCI Mode | | | | [Enabled] | |
| USB Per Port Control | | | | [Enabled] | |
| USB Port (Backpanel USB 2.0) | | | | [Enabled] | |
| USB Port (Backpanel USB 2.0) | | | | [Enabled] | |
| USB Port (Frontpanel USB 2.0) | | | | [Enabled] | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
| USB Port (Backpanel USB 3.0) | | | | [Enabled] | |
| High Precision Timer | | | | [Enabled] | |
| Restore AC Power Loss | | | | [Last State] | |
| DeepSx Power Policies | | | | [Disabled] | |

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

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

| | |
|------------|------------------------|
| Field Name | LVDS Panel Type |
|------------|------------------------|

| | |
|----------------|---|
| Default Value | [VBIOS Default] |
| Possible Value | VBIOS Default 640x480 LVDS 800x600 LVDS 1024x768 LVDS1 1280x1024 LVDS 1400x1050(RB) LVDS1 1400x1050 LVDS2 1600x1200 LVDS 1366x768 LVDS 1680x1050 LVDS 1920x1200 LVDS 1440x900 LVDS 1600x900 LVDS 1024x768 LVDS2 1280x800 LVDS 1920x1080 LVDS 2048x1536 LVDS |
| Help | Select LVDS panel used by Internal Graphics Device by selecting the appropriate setup item. |

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

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

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

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

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

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

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

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

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

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

| | |
|----------------|--|
| Field Name | DeepSx Power Policies |
| Default Value | [Disabled] |
| Possible Value | Disabled Enabled |
| Help | Configure the DeepSx Mode configuration. |

3 Security

| Main | Advanced | Chipset | Boot | Security | Save & Exit | | | | |
|--|----------|---------|------|----------|----------------|---|----------------|----|---|
| <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</p> <p>User Password</p> <p>HDD Security Configuration</p> <p>P0:WDC WD6400AA</p> <p>▶ Secure Boot menu</p> <p>▶ Secure Flash Update</p> | | | | | Minimum Length | 3 | Maximum Length | 20 | <p>Item help</p> <p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>+/- : Change Opt</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save & Exit</p> <p>ESC: Exit</p> |
| Minimum Length | 3 | | | | | | | | |
| Maximum Length | 20 | | | | | | | | |
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| | |
|------------|---|
| Field Name | Administrator Password |
| Help | Set Administrator Password |
| Comment | Press Enter when selected to go into the associated Sub-Menu. |

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

| | |
|------------|------------------------------------|
| Field Name | HDD Security Configuration: |
|------------|------------------------------------|

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

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

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

4.1 HDD Security Configuration

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|--|----------|---------|------|----------|--|
| <p>HDD Password Description</p> <p>Allow Access to Set, Modify and Clear Hard Disk User and Master Password. User Password need to be installed for Enabling Security. Master Password can Be Modified only when successfully unlocked With Master Password in POST.</p> <p>HDD PASSWORD CONFIGURATION:</p> <p>Security : Yes</p> <p>Supported Security : No</p> <p>Enabled Security : No</p> <p>Locked Security : No</p> <p>Frozen Security : No</p> <p>HDD User Pwd Status : NOT INSTALLED</p> <p>HDD Master Pwd Status : NOT INSTALLED</p> <p>Set User Password</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 | Set User Password |
| Help | Set HDD User Password |
| Comment | Press Enter when selected to go into the associated Sub-Menu. |

4.2 Secure Boot menu

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

| | |
|----------------|---------------------------------|
| Field Name | Secure Boot |
| Possible Value | Show current secure boot status |

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

| | |
|----------------|-------------------------|
| Field Name | Secure Boot Mode |
| Default Value | [Custom] |
| Possible Value | Standard / Custom |

| | |
|------|--|
| Help | Secure Boot mode selector. 'Custom' Mode allows physically present users ability to override Image Execution policy and manage Secure Boot Keys. |
|------|--|

4.2.1 Key Management

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|--|----------|---------|------|---------------|------------------|
| Default key Provision | | | | [Disabled] | Item help |
| ▶ Enroll All Factory Default Keys | | | | | |
| ▶ Save All Secure Boot Variables | | | | | |
| Platform Key | | | | NOT INSTALLED | |
| ▶ Delete PK | | | | | |
| ▶ Set new PK | | | | | |
| Key Exchange Key | | | | NOT INSTALLED | |
| ▶ Delete KEK | | | | | |
| ▶ Set new KEK | | | | | |
| ▶ Append KEK | | | | | |
| Authorized Signatures | | | | NOT INSTALLED | |
| ▶ Delete DB | | | | | |
| ▶ Set new DB | | | | | |
| ▶ Append DB | | | | | |
| Authorized TimeStamps | | | | NOT INSTALLED | |
| ▶ Delete DB | | | | | |
| ▶ Set new DB | | | | | |
| ▶ Append DB | | | | | |
| Forbidden Signatures | | | | NOT INSTALLED | |
| ▶ Delete DB | | | | | |
| ▶ Set new DB | | | | | |
| ▶ Append DB | | | | | |
| →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit | | | | | |
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| | |
|----------------|--|
| Field Name | Default Key Provision |
| Default Value | [Disabled] |
| Possible Value | Enabled / Disabled |
| Help | Install Factory default Secure Boot Keys when System is in Setup Mode. |

| | |
|------------|--|
| Field Name | Enroll All Factory Default Keys |
|------------|--|

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

| | |
|------------|---|
| Field Name | Delete All Factory Default Key |
| Help | Force System to User Mode - clear all Factory Default keys(PK,KEK,db,dbx). Change takes effect after reboot |
| Comment | |

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

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

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

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

| | |
|------------|---|
| Field Name | Set new KEK |
| Help | Insert Factory Default Keys or load from a file formatted as: 1.Public Key Certificate in: |

| | |
|---------|--|
| | a)EFI_SIGNATURE_LIST, b)EFI_CERT_X509 (DER encoded), c)EFI_CERT_RSA2048 (bin), d)EFI_CERT_SHA256 (bin) 2.Efi Time-Based Authenticated Variable |
| Comment | |

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

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

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

| | |
|------------|---|
| Field Name | Append DB |
| Help | Insert Factory Default Keys or load from a file formatted as: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST, b)EFI_CERT_X509 (DER encoded), c)EFI_CERT_RSA2048 (bin), |

| | |
|---------|--|
| | d)EFI_CERT_SHA256 (bin) 2.Efi Time-Based Authenticated Variable |
| Comment | |

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

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

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

4.3 Secure Flash update

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

Boot mode select = UEFI

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|---|----------|---------|------|-----------------------|------------------------|
| Boot Configuration | | | | | Item help |
| Setup Prompt Timeout | | | | 6 | |
| Bootup NumLock State | | | | [On] | |
| Quiet Boot | | | | [Disable] | |
| Fast Boot | | | | [Disabled] | |
| VGA Support | | | | [EFI Driver] | |
| USB Support | | | | [Partial Initial] | |
| PS2 Devices Support | | | | [Enabled] | |
| Network Stack Driver Support | | | | [Enabled] | |
| Boot mode select | | | | [UEFI] | |
| FIXED BOOT ORDER Priorities | | | | | |
| Boot Option #1 | | | | [UEFI CD/DVD] | →←: Select Screen |
| Boot Option #2 | | | | [UEFI Hard Disk:Win.] | ↑↓: Select Item |
| Boot Option #3 | | | | [UEFI USB KEY] | Enter: Select |
| Boot Option #4 | | | | [UEFI Network] | +/- : Change Opt |
| Boot Option #5 | | | | [UEFI USB CD/DVD] | F1: General Help |
| Boot Option #6 | | | | [UEFI USB Hard Disk] | F2: Previous Values |
| ▶ UEFI Hard Disk Drive BBS Priorities | | | | | F3: Optimized Defaults |
| | | | | | F4: Save & Reset |
| | | | | | ESC: Exit |
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Boot mode select = LEGACY

| Main | Advanced | Chipset | Boot | Security | Save & Exit |
|---------------------------|----------|---------|------|--------------|------------------|
| Boot Configuration | | | | | Item help |
| Setup Prompt Timeout | | | | 6 | |
| Bootup NumLock State | | | | [On] | |
| Quiet Boot | | | | [Disable] | |
| Fast Boot | | | | [Enabled] | |
| VGA Support | | | | [EFI Driver] | |

| | | |
|--|-------------------|------------------------|
| USB Support | [Partial Initial] | |
| PS2 Devices Support | [Enabled] | |
| Network Stack Driver Support | [Enabled] | |
| | | |
| Boot Mode select | [LEGACY] | |
| | | |
| FIXED BOOT ORDER Priorities | | |
| Boot Option #1 | [USB Floppy] | |
| Boot Option #2 | [USB KEY] | |
| Boot Option #3 | [USB Hard Disk] | →←: Select Screen |
| Boot Option #4 | [USB CD/DVD] | ↑↓: Select Item |
| Boot Option #5 | [Hard Disk] | Enter: Select |
| Boot Option #6 | [Network] | +/- : Change Opt |
| | | F1: General Help |
| | | F2: Previous Values |
| | | F3: Optimized Defaults |
| | | F4: Save & Reset |
| | | ESC: Exit |
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| | |
|----------------|--|
| Field Name | Setup Prompt Timeout |
| Default Value | [6] |
| Possible Value | 1~65535 |
| Help | Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting. |

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

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

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

| | |
|----------------|--|
| Field Name | VGA Support |
| Default Value | [EFI Driver] |
| Possible Value | EFI Driver / Auto |
| Help | If Auto, only install Legacy OpRom with Legacy OS and logo would NOT be shown during post. Efi driver will still be installed with EFI OS. |

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

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

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

| | |
|---------------|-------------------------|
| Field Name | Boot mode select |
| Default Value | [UEFI] |

| | |
|----------------|--|
| Possible Value | LEGACY UEFI |
| Help | Secure Boot mode selector. 'Custom' Mode allows physically present users ability to override Image Execution policy and manage Secure Boot Keys. |

Boot mode select = UEFI, FIXED BOOT ORDER Priorities

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

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

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

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

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

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

Boot mode select = LEGACY, FIXED BOOT ORDER Priorities.

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

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

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

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

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

| | |
|------------|-----------------------|
| Field Name | Boot Option #6 |
|------------|-----------------------|

| | |
|----------------|---|
| Default Value | [USB Hard Disk] |
| Possible Value | CD/DVD, Hard Disk, USB KEY, Network, USB CD/DVD, USB Hard Disk, USB Floppy, Disabled. |
| Help | Sets the system boot order. |

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

5 Save & Exit

| Main | Advanced | Chipset | Boot | Security | Save & Exit | |
|---|----------|---------|------|----------|---|--|
| | | | | | Save Changes and Reset | Item help |
| | | | | | Discard Changes and Reset | |
| | | | | | Save Options | |
| | | | | | Restore user Defaults | |
| | | | | | Restore Defaults | |
| | | | | | Restore Defaults | |
| | | | | | Save as user Defaults | |
| | | | | | Restore user Defaults | |
| | | | | | Restore Windows 8-64 bits Defaults | |
| | | | | | Restore Windows 7 Defaults | |
| | | | | | Restore Windows 8-32 bits Defaults | |
| | | | | | Boot Override | |
| | | | | | UEFI: Built-in UEFI Shell | |
| | | | | | Windows Boot Manager | |
| | | | | | Launch EFI Shell from filesystem device | |
| | | | | | | →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit |
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| | |
|------------|--|
| Field Name | Save Changes and Reset |
| Help | Reset the system after saving the changes. |
| Comment | |

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

| | |
|------------|---------------------|
| Field Name | Save Options |
|------------|---------------------|

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

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

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

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

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

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

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

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

| | |
|------------|----------------------|
| Field Name | Boot Override |
|------------|----------------------|

| | |
|------------|--|
| Field Name | Launch EFI Shell from filesystem device |
|------------|--|

| | |
|---------|---|
| Help | Attempts to Launch EFI Shell application (Shell.efi) from one of the available filesystem devices |
| Comment | |

1.