Intel® Desktop Boards
BIOS Settings Dictionary – Alphabetical

The BIOS Setup program can be used to view and change the BIOS settings for the computer. The BIOS Setup program is accessed by pressing the <F2> key after the Power-On Self-Test (POST) memory test begins and before the operating system boot begins. The following menus are available:

Menu Title	Purpose
Maintenance	Clears passwords and displays processor information. *The maintenance menu is displayed only when the Desktop Board is in Configure Mode.*
Main	Displays processor and memory configuration.
Configuration	Configures advanced features available through the chipset.
Performance	Allows for advanced configuration of CPU, memory and bus settings.
Security	Sets passwords and security features.
Power	Configures power management features and power supply controls.
Boot	Selects boot options.
Exit	Saves or discards changes to Setup program options.

The presence of menus and BIOS settings are dependent on your board model, hardware components installed, and the BIOS version. BIOS menu titles may differ.

If any problems occur after making BIOS settings changes (poor performance, intermittent issues, etc.), reset the desktop board to default values:

1. During boot, enter the BIOS setup by pressing F2.
2. Press F9 to set defaults.
3. Press F10 to Save and Exit.

If the system locks or won't boot after making BIOS settings changes, perform a BIOS recovery as described at http://support.intel.com/support/motherboards/desktop/sb/CS-023360.htm.

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BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
1394 *This BIOS setting is present only on Intel® Desktop Boards that include IEEE 1394.*	Configuration > On-Board Devices	• Disable • Enable	Disables or enables IEEE 1394 support
1-Core Ratio Limit	Performance > Processor Overrides	No changeable options	Display's Maximum CPU performance given adequate thermal margin, voltage, and current applied while not in C3 or C6 power states.
2-Core Ratio Limit	Performance > Processor Overrides	No changeable options	Display's Maximum CPU performance given adequate thermal margin, voltage, and current applied while not in C3 or C6 power states.
3-Core Ratio Limit	Performance > Processor Overrides	No changeable options	Display's Maximum CPU performance given adequate thermal margin, voltage, and current applied while not in C3 or C6 power states.
4-Core Ratio Limit	Performance > Processor Overrides	No changeable options	Display's Maximum CPU performance given adequate thermal margin, voltage, and current applied while not in C3 or C6 power states.

A

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
ACPI Suspend State	Power	• S1 State • S3 State	Specifies the ACPI sleep state. *For information on ACPI sleep states, refer to http://en.wikipedia.org/wiki/Advanced_Configuration_and_Power_Interface*
Active Processor Cores	Main	• All • 1 • 2	Indicates the number of cores to enable in each processor package.
After Power Failure	Power	• Stay Off • Last State • Power On	Determines the mode of operation if a power loss occurs. **Stay Off** keeps the power off until the power button is pressed. **Last State** restores the previous power state before power loss occurs. **Power On** restores power to the computer.
Audio	Configuration > On-Board Devices	• Disable • Enable	Enables or disables onboard audio.
Aux Fan Speed	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays aux fan speed.
Aux Fan Type	Configuration > Fan Control & Real-Time Monitoring	• 3-Wire Fan • 4-Wire Fan	Be sure to enter the proper fan type or your fan might not work properly which can lead to system instability or damage.

B

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
BIOS Version	Main	No changeable options	Displays the version of the BIOS currently installed on the PC.
Bluetooth	Configuration > Onboard Devices	• Disable • Enable	Enable or disable the onboard Bluetooth device. Note that this device is physically tied to a USB line and if the USB controller settings are changed it may affect this device
Boot Device Priority	Boot	• Optical Drives • Removable Devices • Hard Disk Drive • Network	Specifies the boot sequence from the available devices. The list of options may vary depending on board model and hardware configuration.
Boot Menu Type	Boot	• Normal • Advance	**Normal** allows you to set boot priority based on type of device. **Advanced** allows you to set boot priority for each device regardless of category
Boot to Network	Boot	• Disable • Enable	Disables or enables booting from the network.
Boot to Optical Devices	Boot	• Disable • Enable	Disables or enables booting from optical devices (CD/DVD).
Boot to Removable Devices	Boot	• Disable • Enable	Disables or enables booting from removable devices.
Boot USB Devices First	Boot	• Disable • Enable	Sets USB devices to be first in boot order.

C

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Chassis Intrusion	Security	• Disable • Enable	Enables or disables the chassis intrusion feature.
Chipset-SATA Mode	Configuration > SATA Drives	• IDE • RAID • AHCI	**IDE** is default **RAID:** enables RAID which may require you to install the RAID Driver during OS installation **AHCI**: allows you to take advantage of Advanced Host Controller Interface features such as Native command Queuing, Hot plug, etc., without the option to use RAID. Requires a hard drive that supports AHCI.
Clear BIOS Passwords	Maintenance	• OK • Cancel	Allows you to clear passwords
Clear Event Log	Configuration > Event Log	• Disable • Enable	**Enable** discards all events in the event log and will reset the option to **disable** upon exiting BIOS.
CMOS Battery Failure (x)	Configuration > Event Log	No changeable options	Displays the number of times (in parenthesis) that this type of event has occurred; displays date/time of the last event of this type
CMOS Checksum Error (x)	Configuration > Event Log	No changeable options	Displays the number of times (in parenthesis) that this type of event has occurred; displays date/time of the last event of this type
CMOS Time Not Set (x)	Configuration > Event Log	No changeable options	Displays the number of times (in parenthesis) that this type of event has occurred; displays date/time of the last event of this type

Command Rate	Performance > Memory Overrides	• Auto • 1T • 2T	Auto will adjust based on memory mode. 2T is usually more stable.
Compliance Test Pattern	Configuration > PCI/PCIe Add-In Slots	• Disable • Enable	Used for making sure a PCI Express slot remains functional and enabled per PCI Express specification for Compliance test card testing of PCI Express cards.
Core Multiplexing Technology *This BIOS setting is present only when a dual core processor is installed.*	Main	• Disable • Enable	When disabled, turns off all but one processor core. You may need to disable this for legacy operating systems that do not support multiple cores. The remaining core may have access to more cache. The amount of cache available to the remaining core will depend on the particular processor. The increase in available cache can result in better performance under certain applications.
CPU C State	Power	• Disable • Enable	Allows processor to set idle state for power savings. Takes affect only after reboot.
CPU Fan Control	Configuration > Fan Control & Real-Time Monitoring	• Disable • Enable	Disables or enables processor fan control.
CPU Idle State	Performance > Processor Overrides	• High Performance • Low Power	**High Performance**: forces operating system to use Maximum Multiplier at all times. **Low Power**: allows operating system to adjust multiplier down.
CPU Voltage Override	Performance > Processor Overrides	• 1.1125V • 1.1000V • 1.0875V • 1.0750V • 1.0625V • 1.0500V • 1.0375V • 1.0250V • 1.0125V • 1.000V • Default	Sets the CPU Voltage (VID). **Warning: The use of this option will shorten the life of the processor. The default value is strongly recommended.**
CPU Voltage Override Type	Performance > Processor Overrides	• None • Static • Dynamic	**None:** lets the CPU manage its own power usage with default upper limits. **Static**: keeps the CPU at a user-specified voltage at all times. **Dynamic**: allows the CPU to vary its voltage use, but with new upper limits.
CPU Vreg Droop Control	Performance > Processor Overrides	• High V-droop (Power Saving) • Low V-droop	Changes the amount of voltage drop applied when the processor draws maximum current. Choosing the "Low V-droop" option causes the desktop board to supply voltage with no drop even at maximum processor current draw.

D

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Discard Changes	Exit	No changeable options	Discards changes without exiting Setup. The option values present when the computer was turned on are used.
Discrete SATA	Configuration > SATA Drives	• Disable • Enable	Enable or disable the discrete SATA controller

Discrete SATA Controller Mode	Configuration > SATA Drives	• IDE • RAID	**IDE** is default **RAID:** enables RAID which may require you to install the RAID Driver during OS installation
Display F10 to Enter Boot Menu	Boot > Boot Display Options	• Disable • Enable	When enabled, system displays the F10 key prompt string during POST.
Display F12 for Network Boot	Boot > Boot Display Options	• Disable • Enable	When enabled, system displays the F12 key prompt string during POST.
Display F2 to Enter Setup	Boot > Boot Display Options	• Disable • Enable	When enabled, system displays the F2 key prompt string during POST.
Display F7 to Update BIOS	Boot > Boot Display Options	• Disable • Enable	When enabled, system displays the F7 key prompt string during POST. To use the F7 BIOS Flash Update tool, USB media containing a BIOS update file (.bio) must be connected during boot.
Display Setup Prompt	Configuration > On-Board Devices	• On • Off	Displays the "F2 to enter BIOS setup" message during boot.

E

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Enhanced Consumer IR	Configuration > On-Board Devices	• Disable • Enable	Enables or disables consumer infrared communication feature.
Enhanced Intel SpeedStep® Technology	Power	• Disable • Enable	Allows processor to dynamically transition speed and voltage states. *For information on SpeedStep, refer to http://en.wikipedia.org/wiki/Speedstep*
eSATA Port x	Configuration > SATA Drives	*[drive]*	Displays the drive installed on this external SATA port. Shows [Not installed] if no drive is installed.
Event Logging	Configuration > Event Log	• Disable • Enable	Enables or disables tracking occurrences during system boot.
Exit Discarding Changes	Exit	No changeable options	Exits without saving any changes made in the BIOS Setup program.
Exit Saving Changes	Exit	No changeable options	Exits and saves the changes in CMOS SRAM.

F

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Failsafe Watchdog	Performance	• Disable • Enable	Enables or disables Failsafe Watchdog. *For more information, refer to http://download.intel.com/design/chipsets/applnots/29227301.pdf*
Fixed Disk Boot Sector	Maintenance	• Normal • Write Protect	Boot sector VIRUS protection
Front Fan Speed	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays front fan speed.
Front Fan Type	Configuration > Fan Control & Real-Time Monitoring	• 3-Wire Fan • 4-Wire Fan	Be sure to enter the proper fan type or your fan might not work properly which can lead to system instability or damage.

H

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Hard Disk Pre-Delay	Configuration > SATA Drives	• Disable • 3 Seconds • 6 Seconds • 9 Seconds • 12 Seconds • 15 Seconds • 21 Seconds • 30 Seconds	Causes the BIOS to insert a delay before attempting to detect IDE drives in the system. Time options available may vary by board.
Hard Drive Order	Boot	Lists all installed hard drive devices	Allows you to set the boot order of hard drives (used when Boot Menu type is set to normal)
Hide Option ROM/Expansion Card Text	Boot > Boot Display Options	• Disable • Enable	Displays add in Option ROM text
Host Clock Frequency	Main	No changeable options	Displays the current host clock frequency.
Host Clock Frequency (Mhz)	Performance	Multiple options ranging from 133 to 500	This overrides the host clock frequency. Host Clock Frequency x Processor Multiplier = Processor Speed
HPET	Configuration > On-Board Devices	• Disable • Enable	Enables or disables HPET (High Precision Event Timer) support. *For information on HPET, refer to http://en.wikipedia.org/wiki/HPET*

I

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Intel® Hyper-Threading Technology *This BIOS setting is present only on Intel® Desktop Boards that support Hyper-Threading Technology if a processor supporting Hyper-Threading Technology is installed.*	Main	• Disable • Enable	When disabled, only one thread per active core will operate. *For information on Hyper-Threading, refer to http://en.wikipedia.org/wiki/Hyperthreading*
Intel® Management Engine Information: Firmware Version	Main > System Identification Information	No changeable options	Displays the current firmware version of the Intel® Management Engine (Intel® ME)
Intel® Trusted Execution Technology	Security	• Disable • Enable	Enables or disables Intel Trusted Execution Technology. *For information on Trusted Execution Technology, refer to http://www.intel.com/technology/security/*

Intel® Turbo Boost Technology	Performance > Processor Overrides	• Disable • Enable	**Enable** to automatically allow processor cores to run faster than the base operating frequency if it is operating below power, current and temperature specification limits.
Intel® VT	Security	• Disable • Enable	Enables or disables Virtualization Technology. Takes affect only after power cycling. *For more information refer to http://www.intel.com/technology/virtualization/index.htm*
Intel® VT for Directed I/O (VT-d)	Security	• Disable • Enable	Enables or disables Intel® VT for Directed I/O. *For information on Intel® VT, refer to http://www.intel.com/technology/advanced_comm/virtualization.htm*
Internal LED Brightness Level *This BIOS setting is present only on certain Extreme Series Intel® Desktop Boards.*	Configuration > On-Board Devices	• OFF • Low • Med • High	Sets the brightness level for the board's power switch
Internal Temp	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Reads the thermal sensor in the Heceta chip itself

L

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
L2 Cache RAM	Main	No changeable options	Displays the size of L2 processor cache.
L3 Cache RAM	Main	No changeable options	Displays the size of L3 processor cache.
LAN *This BIOS setting is present only on Intel® Desktop Boards that include onboard LAN.*	Configuration > On-Board Devices	• Disable • Enable	Enables or disables the onboard LAN.
Legacy Front Panel Audio	Configuration > On-Board Devices	• Disable • Enable	When enabled, the system assumes that a High Definition audio connector is not present in the system (Legacy audio is present) When disabled, the system assumes that a High Definition audio connector is present in the system.
Load Custom Defaults	Exit	No changeable options	Loads the custom defaults for Setup options.
Load Optimal Defaults	Exit	No changeable options	Loads optimal defaults.
Lowest Fan Speed	Configuration > Fan Control & Real-Time Monitoring	• Slow • Off	This option defines the fan speed at the lowest system temperature. **Slow** allows the fans to continue to run at a reduced speed at low system temperatures. **Off** turns off the fans at low system temperatures.

M

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Maximum Non-Turbo Ratio	Performance > Processor Overrides	+/- to change value	Maximum non-turbo processor speed = maximum non-turbo ratio x host clock frequency
Memory Channel X Slot X	Main	No changeable options	Displays the amount of memory in each populated memory slot.
Memory Multiplier	Performance > Memory Overrides	• Auto • 12: DDR3-1600 • 10: DDR3-1333 • 8: DDR3-1067 • 6: DDR3-800	Select the memory speed: Memory Multiplier x Host Clock = Memory Speed
Memory Size Decrease (x)	Configuration > Event Log	No changeable options	Displays the number of times (in parenthesis) that this type of event has occurred; displays date/time of the last event of this type
Memory Speed	Main	No changeable options	Displays the current memory speed.
Memory Voltage	Performance > Memory Overrides	Multiple options ranging from 1.30 to 2.00	Allows you to override the memory voltage. **WARNING: Altering memory voltage may reduce system stability, cause the processor and other system components to fail, cause reductions in system performance, and/or affect system data integrity.**
Missing AA# (x)	Configuration > Event Log	No changeable options	Displays the number of times (in parenthesis) that this type of event has occurred; displays date/time of the last event of this type

N

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Numlock	Configuration > On-Board Devices	• Off • On	Specifies the power-on state of the Numlock feature on the numeric keypad of the keyboard.

O

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
On-board LAN MAC Address	Main > System Identification Information	No changeable options	Displays the system's LAN MAC Address
Optical Drive Order	Boot	Lists all installed optical drives	Allows you to set the boot order of optical drives (used when Boot Menu type is set to normal)
OS ACPI C2 report	Power	• Disable • Enable	Enable or disable the C3 (ACPI C2) report to the operating system.

P

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
PCH Core Voltage Override	Performance > Bus Overrides	Multiple options ranging from 1.0300V to 1.500V	PCH Core Voltage might need to be adjusted when raising Uncore/QPI Voltage under the configuration page to achieve stable operation.

PCI Bus Frequency	Performance > Bus Overrides	No changeable options	Displays the PCI bus frequency
PCI Config Map Slot x	Configuration > PCI/PCIe Add-In Slots	No changeable options	Displays memory map for each PCI or PCIe slot; "FFFF" will appear if slot is empty.
PCI Config VendID:DevID	Configuration > PCI/PCIe Add-In Slots	No changeable options	Displays Vendor ID and Device ID of any add-in card in a given PCI or PCIe slot. Displays FFFF:FFFF if slot is empty.
PCI Express Bus Frequency	Performance > Bus Overrides	• 110MHz • 109MHz • 108MHz • 107MHz • 106MHz • 105MHz • 104MHz • 103MHz • 102MHz • 101MHz • Default	Set the PCI Express Clock frequency. Also modifies PCI Clock frequency.
PCI Latency Timer	Configuration > On-Board Devices	• 32 • 64 • 96 • 128 • 160 • 192 • 224 • 248	Sets PCI latency time.
PCIe ASPM Support	Power	• Disable • Enable	Enables or disables ASPM (Active State Power Management) support for PCI Express devices.
Performance Memory Profiles	Performance > Memory Overrides	• Automatic • Manual - User Defined	**Auto** allows timings to be programmed according to the memory detected. **Manual – User Defined** allows manual override of detected SDRAM settings. **WARNING: Altering memory voltage may reduce system stability, cause the processor and other system components to fail, cause reductions in system performance, and/or affect system data integrity.**
POST Code Routing	Configuration > On-Board Devices	• PCI • LPC	Routing for POST Codes. **PCI** - routes POST codes to the PCI bus (POST card in PCI slot) **LPC** - routes POST codes to the LPC bus (onboard POST display if it exists)
POST Code Routing	Boot > Boot Display Options	• PCI • On-Board	Routing for 80h, 84-6h, 88h, 8C-Eh Used to select between sending BIOS POST codes to the PCI BUS (POST card in PCI slot) or to the On-Board POST display
POST Function Hotkeys	Boot > Boot Display Options	• Disable • Enable	Displays whatever function keys are selected to display during POST.

Primary Video Adapter	Configuration > Video	• Ext PCI Express Graphics • Ext PCI • Auto Options may vary depending on your configuration.	Allows selecting a specific video controller as the display device that will be active when the system boots.
Processor Fan Speed	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays processor fan speed.
Processor Thermal Margin *This BIOS setting is present only on Intel® Desktop Boards with certain processors installed.*	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays the processor's thermal specification minus its current temperature, giving you a general indication of how much hotter it can get before it is running hotter than what it is designed to handle. Example: *Processor Thermal Margin = 10°C* This processor can get about 10°C hotter than it is currently running before it will exceed its thermal specification.
Processor Turbo Speed	Main	No changeable options	Displays the current processor speed.
Processor Type	Main	No changeable options	Displays processor type.

R

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Rear Fan Speed	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays rear fan speed.
Rear Fan Type	Configuration > Fan Control & Real-Time Monitoring	• 3-Wire Fan • 4-Wire Fan	Be sure to enter the proper fan type or your fan might not work properly which can lead to system instability or damage.
Remote Temp	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays the temperature of the onboard remote thermal diode.
Removable Drive Order	Boot	Lists all installed removable devices	Allows you to set the boot order of removable devices (floppy drives, USB thumb drives, etc) - used when Boot Menu type is set to normal.

S

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
S.M.A.R.T.	Configuration > SATA Drives	• Auto • Disable • Enable	Enable or Disable support for the hard disk's S.M.A.R.T. (Self Monitoring Analysis And Reporting Technology) capability. S.M.A.R.T. is supported by all current hard disks and allows the early prediction and warning of impending hard disk failures. You should enable it if you want to use S.M.A.R.T.-aware utilities to monitor the hard disk's condition. *For information on S.M.A.R.T., refer to http://en.wikipedia.org/wiki/Self-Monitoring,_Analysis,_and_Reporting_Technology*
S1 State Indicator	Power	• Off • Blink • On	Sets the action for the front panel power LED when the system is in S1 sleep mode. Off: LED stays of when in S1 Blink: LED blinks when in S1 On: LED stays solid on when in S1
S3 State Indicator	Power	• Off • Blink • On • Alternate Color	Sets the action for the front panel power LED when the system is in S3 sleep mode. Off: LED stays of when in S3 Blink: LED blinks when in S3 On: LED stays solid on when in S3 Alternate color: Systems built with a dual-color front panel power LED may set this
SATA Port x	Configuration > SATA Drives	*[drive]*	Displays the drive installed on this SATA port. Shows [Not installed] if no drive is installed.
Save Custom Defaults	Exit	No changeable options	Saves the current values as custom defaults. Normally, the BIOS reads the Setup values from flash memory. If this memory is corrupted, the BIOS reads the custom defaults. If no custom defaults are set, the BIOS reads the factory defaults.
Set Supervisor Password	Security	Password can be up to seven alphanumeric characters.	Specifies the supervisor password.
Set User Password	Security	Password can be up to seven alphanumeric characters.	Specifies the user password.
Skull Backlighting *This BIOS setting is present only on certain Extreme Series Intel® Desktop Boards.*	Configuration > On-Board Devices	• Disable • Enable	Enable backlighting on the onboard skull.
Skull Eye Hard Drive Activity *This BIOS setting is present only on certain Extreme Series Intel® Desktop Boards.*	Configuration > On-Board Devices	• Disable • Enable	Sets the skull's eyes to light up matching hard drive activity.

Slot x PCI	Configuration > PCI/PCIe Add-In Slots	No changeable options	Displays speed of any add-in card in this slot; shows "Not populated" if slot is empty.
Slot x PCIe x1	Configuration > PCI/PCIe Add-In Slots	No changeable options	Displays speed of any add-in card in this slot; shows "Not populated" if slot is empty.
Slot x PCIe x4	Configuration > PCI/PCIe Add-In Slots	No changeable options	Displays speed of any add-in card in this slot; shows "Not populated" if slot is empty.
Slot x PCIe x8	Configuration > PCI/PCIe Add-In Slots	No changeable options	Displays speed of any add-in card in this slot; shows "Not populated" if slot is empty.
Slot x PCIe x8/x16	Configuration > PCI/PCIe Add-In Slots	No changeable options	Displays speed of any add-in card in this slot; shows "Not populated" if slot is empty.
Supervisor Password	Security	No changeable options	Reports if there is a supervisor password set.
SW Single Processor Mode *This BIOS setting is present only on Intel® Desktop Boards that include support for dual core processors when a dual core processor is installed.*	Main	• Disable • Enable	Sets the processor mode for dual core processors. **Disabled:** Dual Core processor will run in Dual Core mode. **Enabled:** Dual Core processor will NOT run in Dual Core mode.
System Date	Main	Month, day, year	Specifies the current date.
System Fan Control	Configuration > Fan Control & Real-Time Monitoring	• Disable • Enable	Disables or enables system fan control.
System Identification Information	Main	No changeable options	Displays information such as System Information, Desktop Board Information, Chassis Information, etc.
System Time	Main	Hour, minute, and second	Specifies the current time.

T

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
tCL	Performance > Memory Overrides	+/- to change value	CAS Latency: # of cycles between request for data and data read
TDC Current Limit Override (Amps)	Performance > Processor Overrides	No changeable options	Displays the default current limit.
TDP Power Limit Override (Watts)	Performance > Processor Overrides	No changeable options	Displays the default processor rated TDP.
tFAW	Performance > Memory Overrides	+/- to change value	Four Active Window: period of time before the 5th successive ACTIVE command to a new bank can be issued
Total Memory	Main	No changeable options	Displays the total amount of RAM.
tRASmin	Performance > Memory Overrides	+/- to change value	Minimum RAS Active Time: # cycles between precharge and bank activation

tRC	Performance > Memory Overrides	+/- to change value	Row Cycle Delay: minimum interval between successive ACTIVE commands to the same bank
tRCD	Performance > Memory Overrides	+/- to change value	RAS-to-CAS Delay: # of cycles between activating and read/write
tRFC	Performance > Memory Overrides	+/- to change value	RAS Refresh: # cycles from refresh to activation of a row
tRP	Performance > Memory Overrides	+/- to change value	RAS Pre-Charge: # cycles between closing one row and opening the next.
tRRD	Performance > Memory Overrides	+/- to change value	RAS to RAS Delay: # cycles to activate next bank in the same rank
tRTP	Performance > Memory Overrides	+/- to change value	Read to Precharge Delay: # cycles between read and precharge command to same rank
tWR	Performance > Memory Overrides	+/- to change value	Write Recovery: # cycle between write and precharge
tWTR	Performance > Memory Overrides	+/- to change value	Write to Read: # cycles between write and next read commands; related to tCL

U

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
UEFI boot	Boot	• Disable • Enable	Enables or disables Unified Extended Firmware Interface (UEFI) Boot. *For information on UEFI, refer to http://www.uefi.org/home*
Uncore Multiplier	Performance > Memory Overrides	+/- to change value	Sets the Uncore CPU multiplier. This is non-adjustable for Intel Core i7 and Intel Core i5 processors. It is shown for information purposes.
Uncore Voltage Override	Performance > Memory Overrides	Multiple options ranging from 1.10 to 1.80	Allows the CPU Uncore voltage to be adjusted.
USB Boot	Boot	• Disable • Enable	Disables or enables booting from USB boot devices.
USB Legacy	Configuration > On-Board Devices > USB	• Disable • Enable	Disables or enables USB functionality.
USB Port X	Configuration > On-Board Devices > USB	• Disable • Enable	Enable or disable individual USB ports
User Password	Security	No changeable options	Reports if there is a user password set.

V

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
v_SM	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays voltage level of the +1.5V in supply
v12.0	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays voltage level of the +12V in supply
v3.3	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays voltage level of the +3.3V in supply

v5.0	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays voltage level of the +5V in supply
Vccp	Configuration > Fan Control & Real-Time Monitoring	No changeable options	Displays voltage level of the VCCP in supply

W

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
Wake on LAN from S5	Power > APM	• Stay Off • Power-On	In ACPI soft-off mode only, determines how the system responds to a LAN wake up event when the system is in the ACPI soft-off mode.
Wake system from S5	Power	• Disable • Enable	Enable or disable System wake on alarm event. When enabled, system will wake on the day/hour/minute/second specified.

X

BIOS Setting	Appears on BIOS Screen…	Options	Description / Purpose
XD Technology	Security	• Disable • Enable	Enables or disables "No Execute" memory protection. *For more information, refer to http://www.intel.com/technology/xdbit/*