

This article, [VT1729](#), and [VT1730](#) provide reference information and tips for setting BIOS Setup parameters on the Copperhead (VL-EBX-41) CPU board. Start BIOS Setup by pressing Delete or F2 after hearing the Console Available Beep, or during the early boot cycle. The Main menu appears first. You can scroll to other menus using the left and right arrow keys. The BIOS Setup menus are:

- [Main Menu](#)
- [Advanced Menu](#)
 - [VersaLogic Features](#)
 - [PCI Subsystem Settings](#)
 - [Advanced PCI Express Settings](#)
 - [Advanced ACPI Settings](#)
 - [Trusted Computing](#)
 - [CPU Configuration](#)
 - [SATA Configuration](#)
 - [Intel\(R\) Rapid Start Technology](#)
 - [Intel TXT Configuration](#)
 - [Management Engine Configuration](#)
 - [Firmware Update Configuration](#)
 - [Advanced USB Configuration](#)
 - [Super IO Configuration](#)
 - [Serial Port x Configuration](#)
 - [Hardware Monitor](#)
 - [Serial Port Console Redirection](#)
 - [Console Redirection Settings](#)
 - [Intel ICC](#)
 - [Network Stack](#)
 - [CPU Power Management](#)
 - [Intel\(R\) 82574L Gigabit Network Connection...](#)
 - [NIC Configuration](#)
- [Chipset Menu](#)
 - [PCH \(Southbridge\) Configuration](#)
 - [PCI Express Configuration](#)
 - [PCI Express Root Port x](#)
 - [USB Configuration](#)
 - [PCH HD Audio Configuration](#)
 - [BIOS Security Configuration](#)
 - [System Agent \(Northbridge\) Configuration](#)
 - [Graphics Configuration](#)
 - [LCD Control](#)
 - [Northbridge PCIe Configuration](#)
 - [Memory Configuration](#)
 - [Memory Thermal Configuration](#)
 - [GT - Power Management Control](#)
- [Boot Menu](#)
 - [CSM16 Parameters](#)
 - [CSM Parameters](#)
- [Security Menu](#)
- [Save & Exit Menu](#)



The basic idea when using BIOS Setup is to navigate to the menus containing fields you want to review, and change those fields as desired. When your settings are complete, navigate to the Save & Exit menu, and select "Save Changes and Exit." This causes the settings to be stored in nonvolatile memory in the system, and the system will reboot so that POST can configure itself with the new settings.

Once an operating system boots, BIOS Setup is no longer available. To reenter BIOS Setup after boot, simply reset the system or power off and power back on.

Note: The configurations and factory defaults described here are for Copperhead BIOS version 1.02.

Main Menu

The Main menu displays BIOS, processor, memory and other system information and edits the system date and time.

+ ----- +	
EBX-41 BIOS Information	
BIOS Vendor	American Megatrends
Core Version	4.6.5.3
Compliancy	UEFI 2.3; PI 1.2
VersaLogic BIOS Version	1.02
BIOS Tag	IVYBR
BIOS Part Number	ZY-IP-1067
Build Date and Time	12/13/2013 14:49:00
System Language	[English]
System Date	[Tue 11/19/2012]
System Time	[13:57:23]
Access Level	Administrator
Processor Information	
Name	Ivy Bridge
Brand String	Intel(R) Core(TM) i7-351
Frequency	1600 MHz
Processor ID	306a9
Stepping	E1
Number of Processors	2Core(s) / 4Thread(s)
Microcode Revision	13
GT Info	GT2 (100 MHz)
IGFX VBIOS Version	2137
Memory RC Version	1.7.0.0
Total Memory	8192 MB (DDR3)
Memory Frequency	1600 MHz
PCH Information	
Name	PantherPoint
Stepping	04/C1



	TXT Capability of Platform/PCH	Supported	
	LAN PHY Revision	N/A	
	ME FW Version	8.1.0.1265	
	ME Firmware SKU	5MB	
	SPI Clock Frequency		
	D0FR Support	Supported	
	Read Status Clock Frequency	33 MHz	
	Write Status Clock Frequency	33 MHz	
	Fast Read Status Clock Frequency	33 MHz	
+	-----		+

System Language

The system language is set to English and cannot be changed.

System Date and Time

The system date and time are editable.

Advanced Menu

The Advanced menu provides access to configuration sub-menus.

+	-----	+
	> VersaLogic Features	
	> PCI Subsystem Settings	
	> ACPI Settings	
	> Trusted Computing	
	> CPU Configuration	
	> SATA Configuration	
	> Intel(R) Rapid Start Technology	
	> Intel TXT Configuration	
	> Management Engine Configuration	
	> USB Configuration	
	> Super IO Configuration	
	> Hardware Monitor	
	> Serial Port Console Redirection	
	> Intel ICC	
	> Network Stack	
	> CPU Power Management Configuration	
	> Intel(R) 82574L Gigabit Network Connection - 00:04:BF:9...	
	> Intel(R) 82574L Gigabit Network Connection - 00:04:BF:9...	
+	-----	+

VersaLogic Features



The VersaLogic Features menu provides FPGA information and provides access to PCIe Mini Card settings.

FPGA Revision	02
FPGA Flags	(no flags)
Mini Card slot (J8)	[MSATA_DETECT pin]

Mini Card slot (J8)

Values: MSATA_DETECT pin, PRES_DISABLE2# pin, MSATA_DETECT OR PRES_DISABLE2# pins, Force PCIe Mini Card mode, Force mSATA SSD mode, Pin 43 mSATA Detect

Sets the detect method or function of the J8 PCIe Mini Card / mSATA interface. The Mini Card slot J8 can support either a PCIe Mini Card or an mSATA module. The mSATA specifications states that Pin 51 on the connector can be used to automatically detect an mSATA module. But some modules also use Pin 43 due to conflicts on Pin 51. Note: You will not need to change this setting unless the Mini Card you are using is not currently being detected properly.

PCI Subsystem Settings

This menu provides access to PCI subsystem settings. PCI Express common and device settings are primarily for troubleshooting and are defined in the Intel PCI Express 1.0 specification.

PCI Bus Driver Version	V 2.05.02
PCI 64bit Resources Handling	
Above 4G Decoding	[Disabled]
PCI Common Settings	
PCI Latency Timer	[32 PCI Bus Clocks]
VGA Palette Snoop	[Disabled]
PERR# Generation	[Disabled]
SERR# Generation	[Disabled]
> Advanced PCI Express Settings	

Above 4G Decoding

Values: Enabled, Disabled



Enables or disables 64-bit capable devices to be decoded in the address space above 4 GB.

PCI Latency Timer

Values: 32, 64, 96, 128, 160, 192, 224, 248 PCI Bus Clocks

Sets the value to be programmed into the PCI Latency Timer register, affecting how much time a parallel PCI bus master can hold the bus and maximize throughput, potentially delaying other devices waiting for bus ownership. The latency timer does not apply to PCI Express devices.

VGA Palette Snoop

Values: Enabled, Disabled

Enables or disables VGA Palette Snoop for add-on display cards. VGA Palette Snooping for on-board Intel graphics is always disabled.

PERR# Generation

Values: Enabled, Disabled

Disable to suppress the PCI bridge data parity error generation capability.

SERR# Generation

Values: Enabled, Disabled

Disable to suppress the PCI bridge system error generation capability.

Advanced PCI Express Settings

This menu provides access to PCI Express device and link register settings.

+ ----- +		
	PCI Express Device Register Settings	
	Relaxed Ordering	[Disabled]
	Extended Tag	[Disabled]
	No Snoop	[Enabled]
	Maximum Payload	[Auto]
	Maximum Read Request	[Auto]
	PCI Express Link Register Settings	
	ASPM Support	[Disabled]
	Native PCIe Support	[Disabled]
	WARNING: Enabling ASPM may cause some	
	PCIe devices to fail	
	Extended Synch	[Disabled]
	Link Training Retry	[5]
	Link Training Timeout (uS)	100

Unpopulated Links	[Keep Link ON]	
+ -----		+

Relaxed Ordering

Values: Enabled, Disabled

Enables or disables PCIe device relaxed ordering of PCI Express traffic through switches and the Root Complex.

Extended Tag

Values: Enabled, Disabled

Enables or disables Extended Tag. If enabled allows device to use 8-bit tag field in the Requester Transaction ID field. If Disabled, only 5 bits may be used, limiting the maximum number of outstanding Requests per Function to 32.

No Snoop

Values: Enabled, Disabled

Enables or disables the PCIe device No Snoop attribute of PCI Express traffic Refer to the PCI Express 1.0 specification.

Maximum Payload

Values: Auto, 128 Bytes, 256 Bytes, 512 Bytes, 1024 Bytes, 2048 Bytes, 4096 Bytes

Sets the maximum data payload size that a PCI Express device may transmit within a Transaction Layer Packet.

Maximum Read Request

Values: Auto, 128 Bytes, 256 Bytes, 512 Bytes, 1024 Bytes, 2048 Bytes, 4096 Bytes

Sets the maximum data payload size that a PCI Express device may request within a Transaction Layer Packet.

ASPM Support

Values: Disabled, Auto, Force L0s

Configures Active State Power Management, which can power down a link to a PCIe device even when the device is in a full power state. The Disabled setting will keep the links powered up (L0 state) at all times. Forcing links to L0s will configure a power saving state that allows for



quick entry and recovery while disabling L1. Auto will enable the L0s and L1 state as supported by hardware. Note that the OS may override these settings if Native ASPM is enabled in the Platform Misc Configuration menu.

Native PCIe Support

Values: Enabled, Disabled

Enables or disables Native PCIe Support. This feature is available only in Windows Vista and above.

Extended Synch

Values: Enabled, Disabled

Enabling this setting allows generation of extended synchronization patterns, which may help to allow logic analyzers to achieve symbol lock before the link changes power states and resumes communication.

Link Training Retry

Values: Disabled, 2, 3, 5

Sets or disables the number of retry attempts software will take to retrain the link if the first training attempt was unsuccessful.

Link Training Timeout (uS)

Values: 10 - 1000

Sets the number of microseconds software will wait before polling the link training bit in the Link Status register.

Unpopulated Links

Values: Keep Link ON, Disabled

If set to "Disabled," software will disable unpopulated PCIe links to save power.

ACPI Settings

This menu provides access to ACPI settings.

+ ----- +		
	ACPI Settings	
	Enable ACPI Auto Configuration	[Disabled]
	Enable Hibernation	[Enabled]

	ACPI Sleep State	[S3 (Suspend to RAM)]	
	Lock Legacy Resources	[Disabled]	
	S3 Video Repost	[Disabled]	
+	-----	-----	+

Enable ACPI Auto Configuration

Values: Enabled, Disabled

Enables or disables BIOS ACPI Auto Configurations. When enabled, the following three parameters are hidden.

Enable Hibernation

Values: Enabled, Disabled

Enables or disables the system's ability to hibernate (S4 Sleep State). The setting of this option may have no effect with some operating systems.

ACPI Sleep State

Values: Suspend Disabled, S1 only (CPU Stop Clock), S3 only (Suspend to RAM), Both S1 and S3 available for OS to choose from

Selects the highest ACPI Sleep State the system will enter when the power button is pressed.

Lock Legacy Resources

Values: Enabled, Disabled

Enables or disables Legacy Resources..

S3 Video Repost

Values: Enabled, Disabled

Enable to re-initialize video when resuming from the S3 state.

Trusted Computing

The Trusted Computing screen provides access to security device (Trusted Platform Module) settings.

+	-----	-----	+
	Configuration		
	Security Device Support	[Disable]	

```

| Current Status Information
| NO Security Device Found
|
+-----+

```

Security Device Support

Values: Enable, Disable

Enables or disables BIOS support for a security device. The operating system will not show a security device. TCG EFI protocol and INT1A interface will not be available.

CPU Configuration

The CPU Configuration menu sets CPU parameters.

CPU Configuration	
Intel(R) Core(TM) 17-3517UE CPU @ 1.70GHz	
CPU Signature	306a9
Microcode Patch	13
Max CPU Speed	1700 MHz
Min CPU Speed	800 MHz
CPU Speed	1600 MHz
Processor Cores	2
Intel HT Technology	Supported
Intel VT-x Technology	Supported
Intel SMX Technology	Supported
64-bit	Supported
L1 Data Cache	32 kB x 2
L2 Data Cache	32 kB x 2
L1 Cache	256 kB x 2
L2 Cache	4096 kb
Hyper-Threading	[Enabled]
Active Processor Cores	[All]
Limit CPUID Maximum	[Disabled]
Execute Disable Bit	[Enabled]
Intel Virtualization Technology	[Disabled]
Hardware Prefetcher	[Enabled]
Adjacent Cache Line Prefetch	[Enabled]
TCC Activation Offset	0
Primary Plane Current Value	0
Secondary Plane Current Value	0

Hyper-Threading



Values: Enabled, Disabled

Enables or disables hyper-threading. When enabled, a second logical processor becomes available. This should be enabled for Windows XP and Linux (operating systems optimized for hyper-threading technology) and disabled for other operating systems that are not optimized.

Active Processor Cores

Values: All, 1, 2, 3

Sets the number of processor cores to enable in the processor package.

Limit CPUID Maximum

Values: Enabled, Disabled

Enables or disables CPUID maximum. For Windows XP and Windows 7, this parameter is disabled. Enabling this can prevent problems in some older operating systems that do not support Hyper-Threading.

Execute Disable Bit

Values: Enabled, Disabled

Enables or disables the Execute Disable bit, allowing data memory to be unusable as instruction memory and improving security.

Intel Virtualization Technology

Values: Enabled, Disabled

When enabled, a VMM can use additional hardware capabilities provided by Vanderpool Technology.

Hardware Prefetcher

Values: Enabled, Disabled

Enables or disables the mid-level cache (L2) streamer prefetcher.

Adjacent Cache Line Prefetch

Values: Enabled, Disabled

Enables or disables the prefetching of adjacent cache lines.

TCC Activation Offset

Values: 0 - 50

Sets the offset from the factory TCC (Thermal Control Circuit) activation temperature. A higher value (in degrees C) will activate sooner .

Primary Plane Current Value

Values: 0 - 255

Sets the maximum instantaneous current allowed for the primary plane. Used by Intel Turbo Boost Technology to limit power beyond TDP.

Secondary Plane Current Value

Values: 0 - 255

Sets the maximum instantaneous current allowed for the secondary plane.

SATA Configuration

The SATA Configuration menu provides access to SATA controller settings.

+	-----	+
	SATA Controller(s)	[Enabled]
	SATA Mode Selection	[AHCI]
	Aggressive LPM Support	[Enabled]
	SATA Controller Speed	[Gen3]
	SMART Self Test	[Enabled]
	Serial ATA Port 0	Empty
	Software Preserve	Unknown
	Port 0	[Enabled]
	Hot Plug	[Enabled]
	External SATA	[Disabled]
	SATA Device Type	[Hard Disk Driver]
	Spin Up Device	[Disabled]
	Serial ATA Port 1	Empty
	Software Preserve	Unknown
	Port 1	[Enabled]
	Hot Plug	[Enabled]
	External SATA	[Disabled]
	SATA Device Type	[Hard Disk Driver]
	Spin Up Device	[Disabled]
	Serial ATA Port 2	Empty
	Software Preserve	Unknown
	Port 2	[Enabled]
	Hot Plug	[Enabled]
	External SATA	[Disabled]
	SATA Device Type	[Hard Disk Driver]
	Spin Up Device	[Disabled]
	Serial ATA Port 3	Empty
	Software Preserve	Unknown

	Port 3	[Enabled]	
	Hot Plug	[Enabled]	
	External SATA	[Disabled]	
	SATA Device Type	[Hard Disk Driver]	
	Spin Up Device	[Disabled]	
	mSATA Port	Empty	
	Software Preserve	Unknown	
	Port 4	[Enabled]	
	PCIe/mSATA Port	Empty	
	Software Preserve	Unknown	
	Port 5	[Enabled]	
+	-----	-----	+

SATA Controller(s)

Values: Enabled, Disabled

Enables or disables PCI SATA controllers. When disabled, the next four options are hidden.

SATA Mode Selection

Values: IDE, AHCI, RID

Determines the SATA controller mode. AHCI is the standard, full speed and capability mode, though OS drivers may be required. If the OS does not support the AHCI interface, use IDE mode. In RAID mode, attach at least two SATA drives, and press Ctrl-i while the board boots to enter the Intel Rapid Storage Technology Option ROM RAID configuration screen.

When set to IDE, the SATA options are hidden and the "IDE Legacy / Native Mode Selection" option appears. When Set to RAID, the "Alternate ID" option appears. The "Alternate ID" option enables or disables the reporting of alternate PCI device IDs for the RAID controller.

IDE Legacy / Native Mode Selection

Values: Native, Legacy

This option appears with the SATA controller in IDE mode. In Native Mode, the controller is accessed at standard PCI-enumerated register regions. In Legacy Mode, the controller resources are fixed at ISA bus era legacy I/O locations.

Aggressive LPM Support

Values: Enabled, Disabled

Enables or disables Aggressive LPM (Link Power Management) Support. Enable to put the SATA link into a very low power state after a period of inactivity.

SATA Controller Speed



Values: Gen1, Gen2, Gen3

Sets the maximum speed the SATA controller can support. Gen1 = 1.5 Gb/s. Gen2 = 3.0 Gb/s. Gen3 = 6.0 Gb/s.

SMART Self Test

Values: Enabled, Disabled

Enables or disables SMART Self Test on all hard disk drives during POST.

Port x

Values: Enabled, Disabled

Enables or disables Port x.

Hot Plug

Values: Enabled, Disabled

Enables or disables Hot Plug. Enabling Hot Plug designates a port as hot-pluggable.

External SATA

Values: Enabled, Disabled

When enabled, configures a port to work with eSATA cabling.

SATA Device Type

Values: Hard Disk Driver, Solid State Drive

Specifies whether the SATA port is connected to a hard disk drive or solid state drive.

Spin Up Device

Values: Enabled, Disabled

If set to Enabled, SATA drive will be reset and spin up with a COMRESET command when connected. For drives that do not support Staggered Spin-up.

Intel(R) Rapid Start Technology

This menu provides access to Intel Rapid Start Technology settings.

```
+ -----+
| Intel\(R\) Rapid Start Technology      [Disabled]      |
```

Intel(R) Rapid Start Technology

Values: Enabled, Disabled

Enables or disables Intel(R) Rapid Start Technology, which allows quick waking from a very low power S4 state, restoring memory from an iFFS partition on a Solid State Drive. When Enabled, the following four options appear.

Entry on S3 RTC Wake

Values: Enabled, Disabled

Enables or disables iFFS invocation upon an S3 RTC wake. Sets up the Real-Time Clock to schedule a wake to perform a transition from S3 (Suspend to RAM) to S4 (Hibernate).

Entry After

Values: 1, 2, 5, 10, 15, or 30 minutes, 1 hour, 2 hours

Sets the RTC wake timer at S3 entry.

Active Page Threshold Support

Values: Enabled, Disabled

Attempts support of RST with an iFFS partition smaller than total system memory. May fail if there are too many active pages used by the OS. When enabled, the Active Memory Threshold option appears.

Active Memory Threshold

Values: 0 - 65535

This option supports RST when the partition size is greater than the active page threshold size in megabytes. A setting of 0 equals auto mode, which checks if the partition size is adequate at S3 entry.

Intel TXT Configuration

This menu provides access to Intel Trusted Execution Technology settings.

```
+-----+
| Intel Trusted Execution Technology Configuration |
| Intel TXT support only can be enabled/disabled if SMX |
```

```

| is enabled. VT and VT-d support must also be enabled |
| prior to TXT. |
| |
| Secure Mode Extensions \(SMX\) [Enabled] |
| |
| Intel TXT Support [Disabled] |
| |
+-----+

```

Secure Mode Extensions (SMX)

Values: Enabled

Indicates that Secure Mode Extensions are supported by the CPU.

Intel TXT(LT) Support

Values: Enabled, Disabled

Enables or disables Intel Trusted Execution Technology (LaGrande Technology) support. This option will not be available unless a TPM is present, Trusted Computing Support is enabled, and VT-d is enabled.

Management Engine Configuration

This menu displays Management Engine firmware information and provides access to the Firmware Update Configuration menu.

```

+-----+
| ME FW Version          8.1.0.1265 |
| ME Firmware Mode      Normal Mode |
| ME Firmware Type      Full Sku Firmware |
| ME Firmware SKU       5MB |
|> Firmware Update Configuration |
| |
+-----+

```

Firmware Update Configuration

This menu provides access to the ME Firmware Image Re-flash option.

```

+-----+
| ME FW Image Re-Flash [Disabled] |
| |
+-----+

```

ME FW Image Re-Flash



Values: Enabled, Disabled

Enables or disables the ME FW Image Re-Flash function. You will need to enable this option only if VersaLogic provides an updated ME firmware. Also, the setting only applies to the next time that the system boots (i.e., you set this option and then reboot into the update app provided by VersaLogic).

Advanced USB Configuration

The USB Configuration menu provides access to general USB controller and device settings. For chipset-specific USB configuration settings, enter the Chipset - PCH-IO Configuration - USB Configuration screen.

+ -----+ +	
Advanced USB Configuration	
USB Devices:	
2 Drives, 1 Keyboard, 1 Mouse	
Legacy USB Support	[Enabled]
USB3.0 Support	[Enabled]
xHCI Hand-off	[Enabled]
EHCI Hand-off Workaround	[Disabled]
Port 60/64 Emulation	[Enabled]
USB hardware delays and time-outs:	
USB transfer time-out	[20 sec]
Device reset time-out	[20 sec]
Device power-up delay	[Auto]
Mass Storage Devices:	
SanDisk	[Auto]
SanDisk	[Auto]
+ -----+ +	

Legacy USB Support

Values: Enabled, Disabled, Auto

Enables or disables the BIOS emulation of USB keyboards and USB mass storage devices as legacy PS/2 keyboards, mice and ATA hard drives, primarily for use in DOS and pre-OS environments. BIOS Setup and EFI applications will recognize USB devices regardless of this setting, and USB controllers and ports will always be available for use by OS drivers. Auto will enable Legacy USB Support when booting to a legacy (non-UEFI) OS while a USB keyboard/mouse or mass storage device is attached.

USB3.0 Support

Values: Enabled, Disabled



Enables or disables USB 3.0 (xHCI) controller support.

xHCI Hand-off Workaround

Values: Enabled, Disabled

Enables or disables a workaround for OSES with limited xHCI Hand-Off support. This parameter should normally be set to Disabled.

EHCI Hand-Off Workaround

Values: Enabled, Disabled

Enables or disables a workaround for OSES with limited EHCI Hand-Off support. This parameter should normally be set to Disabled.

Port 60/64 Emulation

Values: Enabled, Disabled

Enables or disables port 60h/64h emulation support. This option should be enabled for the complete USB keyboard legacy support for non-USB aware operating systems.

USB transfer time-out

Values: 1 sec, 5 sec, 10 sec, 20 sec

Sets the USB transfer timeout value for control, bulk, and interrupt transfers.

Device reset time-out

Values: 10 sec, 20 sec, 30 sec, 40 sec

Sets the timeout periods for USB device initialization and the Start Unit command to enable mass storage access operations.

Device power-up delay

Values: Auto, Manual

Selects the time allowed for devices to report themselves to the Host Controller, including through USB hubs. When set to Auto, root port devices will be given 100 ms, while devices connected to hubs will be given time as specified in the Hub descriptor. When this parameter is set to Manual, a delay from 1 to 40 seconds can be selected. The default is 5 seconds.

Mass Storage Devices

Values: Auto, Floppy, Forced FDD, Hard Disk, CD-ROM



Sets the mass storage device emulation type. The Auto setting enumerates devices according to their media format. Optical drives are emulated as CD-ROM. Drives with no media will be emulated according to a drive type.

Super IO Configuration

This screen provides access to the serial port configuration menus.

```
+ -----+
| Super IO Configuration                                     |
|                                                         |
| Super IO Chip                                           SMSC SCH3114 |
|> Serial Port 0 Configuration                             |
|> Serial Port 1 Configuration                             |
|> Serial Port 2 Configuration                             |
|> Serial Port 3 Configuration                             |
|                                                         |
|                                                         |
+ -----+
```

Serial Port x Configuration

These menus are used to configure serial port operation.

```
+ -----+
| Serial Port 0 Configuration                               |
|                                                         |
| Serial Port                                             [Enabled] |
| Device Settings                                         IO=3F8h; IRQ=4; |
|                                                         |
| I/O Base Address                                       [IO=3F8h] |
| IRQ                                                    [IRQ=4] |
| Device Mode                                           [Normal] |
| Transceiver Mode                                       [RS-232 4-wire] |
|                                                         |
|                                                         |
+ -----+
```

Serial Port

Values: Enable, Disable

Enables or disables a serial port. When the serial port is disabled, the configuration options are hidden.

I/O Base Address

Values: 3F8h, 3E8h, 2E8h, 200h, 208h, 220h, 228h, 238h, 338h

Sets the serial port base address.



IRQ

Values: Auto, 3, 4, 5, 6, 7, 10, 11, 12

Sets the serial port IRQ.

Device Mode

Values: Normal, High Speed

Selects either Normal or High Speed mode for the serial port.

Transceiver Mode

Values: RS-232 4-wire, RS-422, RS-485

Selects the serial port mode. Auto flow control is enabled in RS-485 mode.

Hardware Monitor

This screen provides information on hardware status.

+ ----- +	
Hardware Monitor	
Approx CPU deg C to therm shutdown	: +80 C
Board Temperature (SIO internal)	: +26 C
CPU Fan Speed	: 7468 RPM
DDR3	: +1.51 V
+1.05V	: +1.04 V
VCC (SIO supply)	: +3.26 V
+5.0V	: +4.86 V
VTR (trickle/standby)	: +3.26 V
Vbat	: +2.69 V
Smart Fan	[Enabled]
Fan Mode	[Fan Always On Full]
+ ----- +	

Smart Fan

Values: Enabled, Disabled

Enables or disables smart fan control.

Fan Mode

Values: Fan Always On Full, Fan Off, Manual Speed

Selects fan mode. When Manual Speed is selected, the Manual Fan Speed setting appears.



Manual Fan Speed

Values: 50-255

Selects the fan speed. The default is 200.

Serial Port Console Redirection

This menu configures console redirection parameters.

```
+ -----+
|
|  COM0
|  Console Redirection                [Disabled]
|> Console Redirection Settings
|
|  COM1
|  Console Redirection                [Disabled]
|> Console Redirection Settings
|
|  COM2
|  Console Redirection                [Disabled]
|> Console Redirection Settings
|
|  COM3
|  Console Redirection                [Disabled]
|> Console Redirection Settings
|
|  Serial Port for Out-of-Band Management/
|  Windows Emergency Management Services (EMS)
|  Console Redirection                [Enabled]
|> Console Redirection Settings
|
+ -----+
```

Console Redirection

Values: Enabled, Disabled

Enables or disables console redirection on a serial port.

Console Redirection Settings

Console redirection settings for each serial port are set on a separate menu. These settings should be matched with the terminal emulation program using the serial console.

```
+ -----+
|  COMx
|  Console Redirection Settings
|
|  Terminal Type                    [ANSI]
|
+ -----+
```

Bits per second	[115200]	
Data Bits	[8]	
Parity	[None]	
Stop Bits	[1]	
Flow Control	[None]	
VT-UTF8 Combo Key Support	[Enabled]	
Recorder Mode	[Disabled]	
Resolution 100x31	[Disabled]	
Legacy OS Redirection Resolution	[80x24]	
PuTTY KeyPad	[VT100]	
+ -----	+ -----	+

Terminal Type

Values: ANSI, VT100, VT100+, VT-UTF8

Sets the console redirection terminal type.

Bits per second

Values: 115200, 9600, 19200, 38400, 57600

Sets the serial port baud rate.

Data Bits

Values: 8, 7

Sets the serial port data bits per character.

Parity

Values: None, Even, Odd, Mark, Space

Sets the console redirection parity.

Stop Bits

Values: 1, 2

Sets the serial port stop bits.

Flow Control

Values: None, Hardware RTS/CTS, Software Xon/Xoff [Windows EMS only]

Sets the serial port flow control. RTS/CTS flow control is valid only in RS-232 mode.



VT-UTF8 Combo Key Support

Values: Enabled, Disabled

Enables or disables VT-UTF8 combo key support for ANSI/VT100 terminals.

Recorder Mode

Values: Enabled, Disabled

Enables or disables recorder mode to capture terminal data.

Resolution 100x31

Values: Enabled, Disabled

Allows terminal display size of 100x31 characters. This expanded size also allows for full character dimensions for the video console when Console Redirection is enabled.

Legacy OS Redirection Resolution

Values: 80x24, 80x25

Selects between the two common early terminal screen dimensions.

PuTTY KeyPad

Values: VT100, LINUX, XTERMR6, SCO, ESCN, VT400

Selects FunctionKey and KeyPad on the PuTTY terminal client.

[Back to Top](#)