

MiTAC Panel PC System

P100-10AS

Product Guide

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**Front View**



**Rear View**



## Bottom View

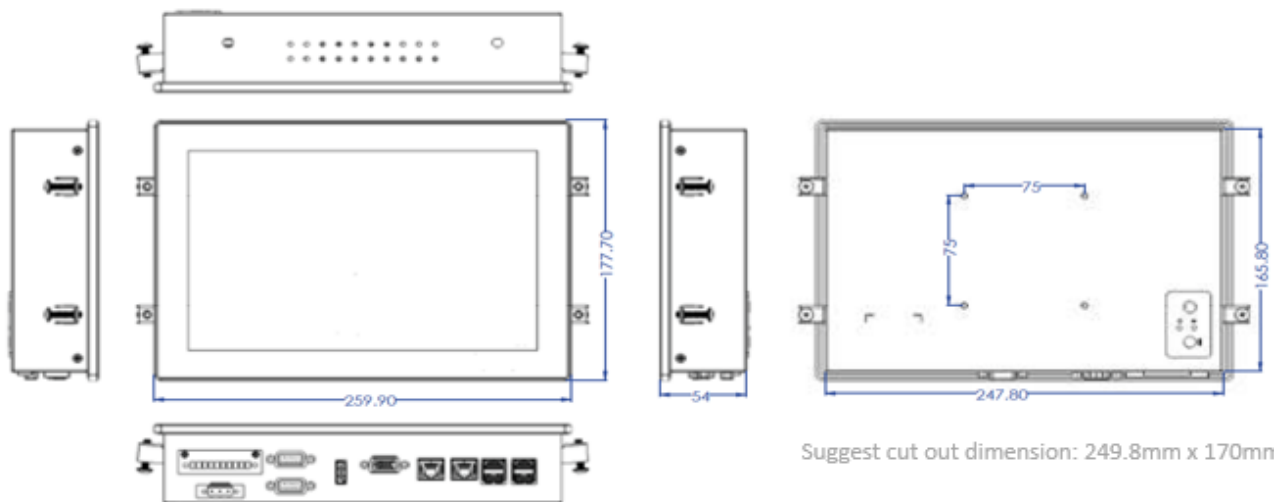


- ① Power
- ② Reset
- ③ 8 bit GPIO
- ④ DC-in
- ⑤ COM
- ⑥ HDMI
- ⑦ VGA
- ⑧ Giga LAN
- ⑨ Giga LAN
- ⑩ USB 3.0
- ⑪ USB 3.0

Top is COM 2 supports RS232,  
Bottom is COM 4 supports RS232/422/485.

## Mechanical Dimension

P100-10AS dimension: 259.8mm x 177.7mm x 54mm



Suggest cut out dimension: 249.8mm x 170mm

# Product Specifications

MECHANICAL	MOUNTING	VESA 75mm / Stand
	DIMENSIONS (W X D X H)	7.0" x 10.2" x 1.8" (178 x 260 x 54 mm)
	WEIGHT	1.65kg
LCD	DISPLAY TYPE	10.1" TFT-LCD
	MAX. RESOLUTION	1280 x 800
	MAX. COLORS	16.7M (8 bit / color)
	LUMINANCE (cd/m2)	400
	VIEWING ANGLE (H/V)	170° / 170°
	LED BACKLIGHT LIFETIME (hrs)	30,000
	HIGH BRIGHTNESS	Option
TOUCH SCREEN	TYPE	P-CAP
	TOUCH SCREEN	True-flat 10 points
	AR/AG	Option
SYSTEM	PROCESSOR	Intel® Apollo Lake-M N3350 / N4200 Processor
	CHIPSET	Intel® SoC Integrated
	SYSTEM MEMORY	DDR3L 1866 MHz / 1 x 204-pin SO-DIMM / Max. 8GB (Non-ECC)
	ETHERNET	2 x Intel® I210-IT Giga LAN
	I/O PORT	1 x 3-pin Phoenix type terminal block DC input / 1 x 8bit GPIO terminal block / 2 x COM (RS232 / RS422 / RS485) / 4 x USB 3.0 / 1 x VGA / 1 x HDMI 1.4
	EXPANSION SLOT	M.2 2230 E key (PCIe, USB 2.0) / Mini PCIe Full size (PCIe / USB / SATA)
	STORAGE	1 x SATA 2.5" HDD / SSD bay
	STEREO SPEAKER	-
	OS SUPPORT	Windows 10 64bit (UEFI only no legacy support) / Linux (support by request)
	WATCHDOG TIMER	1~255 steps by software program
POWER REQUIREMENT	POWER INPUT	DC-in 8~24V
	POWER ADAPTER	AC to DC / DC19V / 3.4A / 65W adapter
ENVIRONMENTAL	OPERATING TEMPERATURE	-10~50°C (14 ~ 122°F)
	STORAGE TEMPERATURE	-20 ~ 60°C (-4 ~ 140°F)
	STORAGE HUMIDITY	10% ~ 95% @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 (2pcs Each sides)  
(Torque 3.5 +/-0.5 Kgf-cm)



Remove rear cover



Install SODIMMs



Install 2.5" HDD/SSD and connect SATA & SATA Power cable(Torque 5.5 +/-0.5 Kgf-cm)



Remove the protection of thermal pad  
release paper before the assembly of  
Rear Cover



Secure Cover Screws  
(Torque 3.5 +/-0.5 Kgf-cm)

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[Note] need manually install drivers

Please check the latest drivers on MiTAC official website

<http://www.mitacmct.com/IndustrialPanelPC=P100=P100-10AS=downloads=EN>

MITAC Embedded System

P100-10AS

BIOS Specification

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1. **MAIN PAGE**

Main		Advanced	Chipset	Security	Boot	Save & Exit
<b>BIOS Information</b>						<b>Item help</b>
BIOS Version			D7740X01			
Build Date			02/02/2017			
<b>Processor Information</b>						→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Genuine Intel® CPU @ 1.50GHz						
<b>SATA Devices</b>						
SATA Port0	[Not Installed]					
SATA Port1	[Not Installed]					
<b>Memory Information</b>						
Total Memory			8192 MB			
Memory speed			1600MHz			
System Date			[Mon, mm/dd/yyyy]			
System Time			[hh:mm:ss]			
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Field Name	BIOS Version
Default Value	Display the version of the BIOS
Comment	This field is not selectable. There is no help text associated with it.

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

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

Field Name	SATA Port 0
Value	Display the installed SATA port 0 devices.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	SATA Port 1
Value	Display the installed SATA port 0 devices.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Total Memory
Value	Display the installed memory size.
Comment	This field is not selectable. There is no help text associated with it.

Field Name	Memory Speed
Default Value	Display the installed memory speed
Comment	This field is not selectable. There is no help text associated with it.

Field Name	System Date
Default Value	[xxx, mm dd yyyy]
Possible Value	[xxx, xx:xx:xxxx]
Help	<p>Set the Date. Use Tab to switch between Date elements.</p> <p>Default Ranges:</p> <p>Year: 2005-2099</p> <p>Months: 1-12</p> <p>Days: dependent on month</p>

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

2. **ADVANCED PAGE**

Main	Advanced	Chipset	Security	Boot	Save & Exit
				LAN1	[Enable]
				LAN2	[Enable]
				Mini PCIe	[Enable]
				M.2	[Enable]
				Intel(R) I210 Gigabit Network Connection – 00:22:4D:4D:...	
				Intel(R) I210 Gigabit Network Connection – 00:22:4D:4D:...	
				Driver Health	
				Trusted Computing	
				SMART settings	
				NCT6116D Super IO Configuration	
				S5 RTC Wake Settings	
				CPU Configuration	
				Network Stack Configuration	
				Platform Trust Technology	
					<b>→←: Select Screen</b> <b>↑↓: Select Item</b> <b>Enter: Select</b> <b>+/- : Change Opt</b> <b>F1: General Help</b> <b>F2: Previous Values</b> <b>F3: Optimized Defaults</b> <b>F4: Save &amp; Reset</b> <b>ESC: Exit</b>

Field Name	<b>LAN1</b>
Default Value	Enabled
Possible Value	Disabled Enabled
Help	Enable/Disable LAN Device

Field Name	<b>LAN2</b>
Default Value	Enabled
Possible Value	Disabled Enabled
Help	Enable/Disable LAN Device

Field Name	<b>Mini PCIe</b>
Default Value	Enabled
Possible Value	Disabled Enabled
Help	Enable/Disable mini PCIe

Field Name	<b>M.2</b>
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Default Value	Enabled
Possible Value	Disabled Enabled
Help	Enable/Disable M.2

Field Name	<b>Intel(R) I210 Gigabit Network Connection – 00:22:4D:4D:00:01</b>
Help	Configure Gigabit Ethernet device parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>Intel(R) I210 Gigabit Network Connection – 00:22:4D:4D:00:02</b>
Help	Configure Gigabit Ethernet device parameters
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>Driver Health</b>
Help	Provides Health Status for the Drivers/Controllers
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>Trusted Computing</b>
Help	Trusted Computing settings
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>SMART Settings</b>
Help	System SMART settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

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

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

Field Name	<b>Network Stack Configuration</b>
Help	Network stack Settings.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	<b>Platform Trust Technology</b>
Help	Platform Trust Technology
Comment	Press Enter when selected to go into the associated Sub-Menu.



## 2.1 INTEL(R) I210 GIGABIT NETWORK CONNECTION – 00:22:4D:4D:00:01

Main	Advanced	Chipset	Security	Boot	Save & Exit
NIC Configuration					Item help
Blink LEDs		0			
UEFI Driver		Inter(R) PRO/1000 7.3...			
Adapter PBA		000300-000			
Device Name		Intel(R) I210 Gigabit...			
Chip Type		Intel i210			→←: Select Screen
PCI Device ID		1533			↑↓: Select Item
PCI Address		01:00:00			Enter: Select
					+/- : Change Opt
Link Status		[Disconnected]			F1: General Help
					F2: Previous Values
MAC Address		00:22:4D:4D:00:01			F3: Optimized Defaults
Virtual MAC Address		00:00:00:00:00:00			F4: Save & Reset
					ESC: Exit
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Field Name	NIC Configuration
Help	Click to configure the network device port.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Blink LEDs



Default Value	0
Possible Value	0-15
Help	Identify the physical network port by blinking the associated LED.

## 2.3.1 NIC CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
<p>Link Speed [Auto Negotiated]</p> <p>Wake On LAN [Disabled]</p>					<p>Item help</p> <p>→←: Select Screen</p> <p>↑↓: Select Item</p> <p>Enter: Select</p> <p>+/- : Change Opt</p> <p>F1: General Help</p> <p>F2: Previous Values</p> <p>F3: Optimized Defaults</p> <p>F4: Save &amp; Reset</p> <p>ESC: Exit</p>
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Field Name	<b>Link Speed</b>
Default Value	Auto Negotiated
Possible Value	Auto Negotiated 10Mbps Half 10 Mbps Full 100 Mbps Half 100 Mbps Full

Help	Specifies the port speed used for the selected boot protocol.
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Field Name	<b>Wake On LAN</b>
Default Value	Enabled
Possible Value	Disabled Enabled
Help	Enables the server to be powered on using an in-band magic packet.

## 2.2 INTEL(R) I210 GIGABIT NETWORK CONNECTION – 00:22:4D:4D:00:02

Main	Advanced	Chipset	Security	Boot	Save & Exit
NIC Configuration					Item help
Blink LEDs		0			
UEFI Driver		Inter(R) PRO/1000 7.3...			
Adapter PBA		000300-000			
Device Name		Intel(R) I210 Gigabit...			
Chip Type		Intel i210			→←: Select Screen
PCI Device ID		1533			↑↓: Select Item
PCI Address		01:00:00			Enter: Select
					+/- : Change Opt
Link Status		[Disconnected]			F1: General Help
					F2: Previous Values
MAC Address		00:22:4D:4D:00:02			F3: Optimized Defaults
Virtual MAC Address		00:00:00:00:00:00			F4: Save & Reset
					ESC: Exit
Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.					

Field Name	NIC Configuration
Help	Click to configure the network device port.
Comment	Press Enter when selected to go into the associated Sub-Menu.

Field Name	Blink LEDs

Default Value	0
Possible Value	0-15
Help	Identify the physical network port by blinking the associated LED.

2.1.1 NIC CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
<p>Link Speed [Auto Negotiated]</p> <p>Wake On LAN [Disabled]</p>					<p><b>Item help</b></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 &amp; Reset</p> <p>ESC: Exit</p>
<p>Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.</p>					

Field Name	<b>Link Speed</b>
Default Value	Auto Negotiated
Possible Value	Auto Negotiated 10Mbps Half 10 Mbps Full 100 Mbps Half 100 Mbps Full

Help	Specifies the port speed used for the selected boot protocol.
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Field Name	<b>Wake On LAN</b>
Default Value	Enabled
Possible Value	Disabled Enabled
Help	Enables the server to be powered on using an in-band magic packet.

## 2.3 DRIVER HEALTH

Main	Advanced	Chipset	Security	Boot	Save & Exit
Intel(R) PRO/1000 7.3.20 PCI-E <span style="float: right;">Healthy</span>					<b>Item help</b>
					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.					

Field Name	<b>Intel(R) PRO/1000 7.3.20 PCI-E</b>
Help	Provides Health Status for the Drivers/Controllers
Comment	Press Enter when selected to go into the associated Sub-Menu.



## 2.3.1 INTEL(R) PRO/1000 7.3.20 PCI-E

Main	Advanced	Chipset	Security	Boot	Save & Exit
Controller 73a9fd58 Child 0 <span style="float: right;">Healthy</span>  Intel(R) I210 Gigabit Network Connection Healthy  Controller 73a9f558 Child 0 <span style="float: right;">Healthy</span>  Intel(R) I210 Gigabit Network Connection Healthy					<b>Item help</b>
					→←: Select Screen  ↑↓: Select Item  Enter: Select  +/- : Change Opt  F1: General Help  F2: Previous Values  F3: Optimized Defaults  F4: Save & Reset  ESC: Exit
Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.					

Field Name	<b>Controller 73a9fd58 Child 0</b>
Help	Provides Health Status for the Drivers/Controllers
Comment	Show driver/controller status

Field Name	<b>Intel(R) I210 Gigabit Network Connection</b>
Help	Provides Health Status for the Drivers/Controllers

Comment	Show driver/controller status
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Field Name	<b>Controller 73a9f558 Child 0</b>
Help	Provides Health Status for the Drivers/Controllers
Comment	Show driver/controller status

Field Name	<b>Intel(R) I210 Gigabit Network Connection</b>
Help	Provides Health Status for the Drivers/Controllers
Comment	Show driver/controller status

## 2.4 TRUSTED COMPUTING

Main	Advanced	Chipset	Security	Boot	Save & Exit
TPM20 Device Found Vendor: INTC Firmware Version: 3.0  Security Device Support [Enable] Active PCR banks SHA-1, SHA256 Available PCR banks SHA-1, SHA256  Pending operation [None]					<b>Item help</b>  →←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.					

Field Name	Security Device Support
Default Value	Enabled

Possible Value	Disabled  Enabled
Help	Enables or Disables BIOS support for security device. O.S. will not show Security Device. TCG EFI protocol and INT1A interface will not be available.

Field Name	<b>Pending operation</b>
Default Value	None
Possible Value	None TPM Clear
Help	Schedule an Operation for the Security Device. NOTE: Your Computer will reboot during restart in order to change State of Security Device.

## 2.5 SMART SETTINGS

Main	Advanced	Chipset	Security	Boot	Save & Exit
SMART Settings					Item help
SMART Self Test					[Disabled]
					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.					

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

## 2.6 NCT6116D SUPER IO CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
NCT6116D Super IO Configuration					Item help
Serial Port 1				[Enabled]	
Serial Port 2				[Enabled]	
Serial Port 3				[Enabled]	
Serial Port 4				[Enabled]	
Serial Port Mode				[3T/5R RS-232]	
SLEW Rate				[1.5Mbps]	
					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.02.1205. Copyright (C) 2010 American Megatrends, Inc.					

Field Name	Serial Port 1
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable or Disable Serial Port (COM)

Field Name	Serial Port 2
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable or Disable Serial Port (COM)

Field Name	Serial Port 3
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable or Disable Serial Port (COM)

Field Name	Serial Port 4
Default Value	[Enabled]
Possible Value	Enabled Disabled
Help	Enable or Disable Serial Port (COM)

Field Name	Serial Port Mode
Default Value	[3T/5R RS-232]
Possible Value	1T/1R RS-422 3T/5R RS-232 1T/1R RS-485 TX ENABLE Low Active 1T/1R RS-485 with termination resistor TX ENABLE Low Active



	1T/1R RS-422 with termination resistor  Disabled
Help	Enable or Disable Serial Port (COM)

Field Name	SLEW Rate
Default Value	[1.5Mbps]
Possible Value	256Kbps  1. 5Mbps
Help	Select SLEW rate to 1.5Mbps or 256Kbps

## 2.7 S5 RTC WAKE SETTINGS(NO FUNCTION WHEN DEEPSX POWER POLICIES ENABLED)

Main	Advanced	Chipset	Security	Boot	Save & Exit
Wake system from S5				[Disabled]	Item help
Wake up hour				0	
Wake up minute				0	
Wake up second				0	
					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.					

Field Name	Wake system from S5
Default Value	[Disabled]

Possible Value	Disabled  Fixed Time  Dynamic Time
Help	Enabler 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(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0-23
Help	Select 0-23 For example enter 3 for 3am and 15 for 3pm

Field Name	Wake up minute(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0-59
Help	0 - 59

Field Name	Wake up second(Show when Wake system from S5 set to Fixed Time)
Default Value	0
Possible Value	0 - 59
Help	0 - 59

Field Name	Wake up minute increase(Show when Wake system from S5 set to Dynamic Time)
Default Value	1
Possible Value	1-5

Help	1 - 5
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## 2.8 CPU CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
<b>CPU Configuration</b>					<b>Item help</b>
Intel(R) Core(TM) CPU [CPU NAME] @ [CPU Freq.] GHz					
CPU Signature				406c3	
Microcode Patch				33c	
Max CPU Speed				1600 MHz	
Min CPU Speed				480 MHz	
Processor Cores				2	
Intel HT Technology				Not Supported	
Intel VT-x Technology				Supported	
L1 Data Cache				24 KB x 2	
L1 Code Cache				32 KB x 2	
L2 Cache				1024 KB x 1	
L3 Cache				Not Present	
64-bit				Supported	
Intel Virtualization Technology				[Enabled]	→←: Select Screen
EIST				[Enable]	↑↓: Select Item
Turbo mode				[Enable]	Enter: Select
					+/- : Change Opt
					F1: General Help

	<b>F2: Previous Values</b>  <b>F3: Optimized Defaults</b>  <b>F4: Save &amp; Reset</b>  <b>ESC: Exit</b>
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Field Name	CPU Configuration
Default Value	[Intel CPU Brand String]
Comment	This field is not selectable. There is no help text associated with it.

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

## 2.9 NETWORK STACK CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
					Item help
Network stack					[Enabled]
Ipv4 PXE Support					[Enabled]
Ipv6 PXE Support					[Enabled]
					→←: Select Screen ↑↓: Select Item Enter: Select +/- : Change Opt F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Reset ESC: Exit
Version 2.14.1219. Copyright (C) 2011 American Megatrends, Inc.					

Field Name	Network stack
Default Value	[Enabled]
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.

## 2.10 PLATFORM TRUST TECHNOLOGY

Main	Advanced	Device	Chipset	Security	Boot	Save & Exit
TPM Configuration						Item help
fTPM						[Enabled]
						→←: Select Screen

	<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 &amp; Reset</p> <p>ESC: Exit</p>
<p>Version 2.15.1326. Copyright (C) 2012 American Megatrends, Inc.</p>	

Field Name	Compatibility Support Module Configuration
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Field Name	fTPM Support
Default Value	[Enabled]
Possible Value	Disabled/Enabled
Help	Enable/Disable fTPM

### 3. CHIPSET

Main	Advanced	Chipset	Security	Boot	Save & Exit
Restore AC Power Loss				[Power Off]	Item help
DeepSx Power Policies				[Disabled]	
Output Panel Type				[Disable]	
DVMT Pre-Allocated				[64M]	
DVMT Total Gfx Mem				[256MB]	
Wake On Lan				[Enable]	
OS Selection				[Windows]	
					→←: 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	Restore AC Power State
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Default Value	[Power Off]
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.
Note	When enabled, "Wake On Lan" and "S5 RTC Wake Settings" are no function.

Field Name	Output Panel Type
Default Value	Disable
Possible Value	LVDS eDP Disabled
Help	Select Output Panel Type

Field Name	LVDS Interface Type
Default Value	8 bit-VESA Dual Channel
Possible Value	8 bit-VESA Single Channel 8 bit-VESA Dual Channel

	6 bit-VESA Single Channel  6 bit-VESA Dual Channel
Help	Sets LVDS connectivity.
Comment	This field only show when Output Panel Type set to LVDS

Field Name	LVDS Panel Type
Default Value	1920x1080
Possible Value	800x600  1024x768  1366x768  1280x800  1920x1080
Help	Select LVDS panel used by Internal Graphics Device by selecting the appropriate setup item.
Comment	This field only show when Output Panel Type set to LVDS

Field Name	DVMT Pre-Allocated
Default Value	[64M]
Possible Value	64M /96M /128M /160M /192M /224M /256M /288M /320M  352M /384M /416M /448M /480M /512M
Help	Select DVMT 5.0 Pre-Allocated (Fixed) Graphics Memory size used by the Internal Graphics Device.

Field Name	DVMT Total Gfx Mem
Default Value	[256MB]

Possible Value	128MB /256MB /Max
Help	Select DVMT 5.0 Total Graphic Memory size used by the Internal Graphics Device.

Field Name	Wake On Lan
Default Value	Enabled
Possible Value	Disabled Enabled
Help	Enable or Disable the Wake on Lan

Field Name	OS Selection
Default Value	Windows
Possible Value	Windows Intel Linux
Help	Select the target OS.



#### 4. SECURITY

Main	Advanced	Chipset	Security	Boot	Save & Exit
<p><b>Password Description</b></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> <p>Minimum Length 3</p> <p>Maximum Length 20</p> <p><a href="#">Setup Administrator Password</a></p> <p><a href="#">User Password</a></p> <p>HDD Security Configuration</p> <p><a href="#">P0:Device Name</a></p> <p><a href="#">Secure Boot</a></p>				<p><b>Item help</b></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 &amp; Reset</p> <p>ESC: Exit</p>	
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Field Name	Setup Administrator Password
Help	Set Administrator Password
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

Field Name	<b>P0: Device Name</b>
Help	HDD Security Configuration for selected drive
Comment	Press Enter when selected to go into the associated Sub-Menu.

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

## 2.11 HDD SECURITY CONFIGURATION

Main	Advanced	Chipset	Security	Boot	Save & Exit
HDD Password Description				<b>Item help</b>	
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.					
If the 'Set HDD Password' option is grayed out,					
do power cycle to enable the option again.					
HDD PASSWORD CONFIGURATION:					
Security Supported	:		Yes	→←: Select Screen	
Security Enabled	:		No	↑↓: Select Item	
Security Locked	:		No	Enter: Select	
Security Frozen	:		No	+/- : Change Opt	
HDD User Pwd Status			NOT INSTALLED	F1: General Help	
				F2: Previous Values	
				F3: Optimized Defaults	
				F4: Save & Reset	
				ESC: Exit	
<a href="#">Set User Password</a>					

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

## 2.12 SECURE BOOT MODE

Main	Advanced	Chipset	Security	Boot	Save & Exit
					<b>Item help</b>
System Mode					Setup
Vendor Keys					Not Modified
Secure Boot Enable					[Enabled]
Secure Boot Mode					[Standard]
Key Management					
					→←: Select Screen
					↑↓: Select Item
					Enter: Select
					+/- : Change Opt
					F1: General Help
					F2: Previous Values
					F3: Optimized Defaults

F4: Save & Reset

ESC: Exit

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Field Name	Secure Boot Enable
Default Value	[Enabled]
Possible Value	Enabled / Disabled
Help	Secure Boot activated when Platform Key(PK) is enrolled, System mode is User/Deployed, and CSM function is disabled

Field Name	Secure Boot Mode
Default Value	[Standard]
Possible Value	Standard / Custom
Help	Secure Boot Mode - Custom & Standard, Set UEFI Secure Boot Mode to STANDARD mode or CUSTOM mode, this change is effect after save. And after reset, the mode will return to STANDARD mode

Field Name	Key Management
Help	Enables experienced users to modify Secure Boot variables
Comment	Press Enter when selected to go into the associated Sub-Menu.

## 2.13 KEY MANAGEMENT

Main	Advanced	Chipset	Security	Boot	Save & Exit																												
Provision Factory Default			[Disabled]		Item help																												
<p> <a href="#">?</a> Restore Factory Keys  <a href="#">?</a> Enroll Efi Image  <a href="#">?</a> Export Secure Boot variables         </p>																																	
<table border="1"> <thead> <tr> <th>Secure Boot variable</th> <th>size</th> <th>key#</th> <th>key source</th> </tr> </thead> <tbody> <tr> <td><a href="#">?</a> Platform Key(PK)</td> <td>0</td> <td>0</td> <td>No Keys</td> </tr> <tr> <td><a href="#">?</a> Key Exchange Key</td> <td>0</td> <td>0</td> <td>No Keys</td> </tr> <tr> <td><a href="#">?</a> Authorized Signatures</td> <td>0</td> <td>0</td> <td>No Keys</td> </tr> <tr> <td><a href="#">?</a> Forbidden Signatures</td> <td>0</td> <td>0</td> <td>No Keys</td> </tr> <tr> <td><a href="#">?</a> Authorized TimeStamps</td> <td>0</td> <td>0</td> <td>No Keys</td> </tr> <tr> <td><a href="#">?</a> OsRecovery Signatures</td> <td>0</td> <td>0</td> <td>No Keys</td> </tr> </tbody> </table>						Secure Boot variable	size	key#	key source	<a href="#">?</a> Platform Key(PK)	0	0	No Keys	<a href="#">?</a> Key Exchange Key	0	0	No Keys	<a href="#">?</a> Authorized Signatures	0	0	No Keys	<a href="#">?</a> Forbidden Signatures	0	0	No Keys	<a href="#">?</a> Authorized TimeStamps	0	0	No Keys	<a href="#">?</a> OsRecovery Signatures	0	0	No Keys
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Field Name	Provision Factory Default
Default Value	[Disabled]
Possible Value	Enabled Disabled
Help	Provision factory default keys on next system re-boot while platform is in Setup Mode.

Field Name	Restore Factory Keys
Help	Reset the content of all UEFI Secure Boot key databases to their factory default values
Comment	

Field Name	Reset to Setup Mode
Help	Delete the content of all UEFI Secure Boot key databases. This puts the system in Setup Mode
Comment	

Field Name	Enroll Efi Image
Help	Allow the image to run in Secure Boot mode. Enroll SHA256 hash of an efi binary into Authorized Signature Database(db)
Comment	

Field Name	Export Secure Boot Variables
Help	Save NVRAM content of Secure Boot policy variables to the files

	(EFI_SIGNATURE_LIST data format) in root folder on a target file system device
Comment	

Field Name	Platform Key (PK) : 0 0 No Keys
Possible Value	<p>Details</p> <p>Export</p> <p>Set New</p> <p>Delete</p>
Help	<p>Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in:  a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Default,External,Mixed,TestAMI</p>

Field Name	Key Exchange Key : 0 0 No Keys
Possible Value	<p>Details</p> <p>Export</p> <p>Set New</p> <p>Append</p> <p>Delete</p>
Help	<p>Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in:  a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Default,External,Mixed,TestAMI</p>

Field Name	Authorized Signature : 0 0 No Keys
Possible Value	Details



	<p>Export</p> <p>Set New</p> <p>Append</p> <p>Delete</p>
Help	<p>Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in:  a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256)\nKey Source: Default,External,Mixed,TestAMI</p>

Field Name	Forbidden Signature : 0 0 No Keys
Possible Value	<p>Details</p> <p>Export</p> <p>Set New</p> <p>Append</p> <p>Delete</p>
Help	<p>Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in:  a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256) Key Source: Default,External,Mixed,TestAMI</p>

Field Name	Authorized TimeStamps : 0 0 No Keys
Possible Value	<p>Set New</p> <p>Append</p>
Help	<p>Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in:  a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256)\nKey Source: Default,External,Mixed,TestAMI</p>

Field Name	OsRecovery Signatures: 0 0 No Keys
Possible Value	Set New  Append
Help	Enroll Factory Defaults or load certificates from a file: 1.Public Key Certificate in: a)EFI_SIGNATURE_LIST b)EFI_CERT_X509 (DER encoded) c)EFI_CERT_RSA2048 (bin) d)EFI_CERT_SHA256,384,512 2.Authenticated UEFI Variable 3.EFI PE/COFF Image(SHA256)\nKey Source: Default,External,Mixed,TestAMI

## 5. BOOT

Boot mode select = UEFI

Main	Advanced	Chipset	Boot	Security	Save & Exit	
<b>Boot Configuration</b>					<b>Item</b>	<b>help</b>
			Setup Prompt Timeout	3		
			Bootup NumLock State	[On]		
			Fast Boot	[Enable]		
<b>FIXED BOOT ORDER Priorities</b>						
			Boot Option #1	[Hard Disk]		
			Boot Option #2	[CD/DVD]		
			Boot Option #3	[USB Hard Disk]		
			Boot Option #4	[USB CD/DVD]		
			Boot Option #5	[USB Key]		
			Boot Option #6	[USB Floppy]		
			Boot Option #7	[USB Lan]		
			Boot Option #8	[Network]		
UEFI CD/DVD ROM Drive BBS Priorities					→←: Select Screen	
UEFI Hard Disk Drive BBS Priorities					↑↓: Select Item	
UEFI NETWORK Drive BBS Priorities					Enter: Select	
UEFI USB CD/DVD ROM Drive BBS Priorities					+/- : Change Opt	
UEFI USB Hard Disk Drive BBS Priorities					F1: General Help	
					F2: Previous Values	
					F3: Optimized Defaults	

Field Name	<b>Setup Prompt Timeout</b>
Default Value	3
Possible Value	1~65535
Help	Number of seconds to wait for setup activation key. 65535(0xFFFF) means indefinite waiting.

Field Name	<b>Boot NumLock State</b>
Default Value	[On]
Possible Value	On Off
Help	Select the keyboard NumLock state

Field Name	<b>Fast Boot</b>
Default Value	[Enabled]
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.

**Boot mode select = UEFI**

Field Name	<b>Boot Option #1</b>
Default Value	[Hard Disk]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Set the system boot order

Field Name	<b>Boot Option #2</b>
Default Value	[CD/DVD]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Set the system boot order

Field Name	<b>Boot Option #3</b>
Default Value	[USB Hard Disk]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Set the system boot order

Field Name	<b>Boot Option #4</b>
Default Value	[USB CD/DVD]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Set the system boot order

Field Name	<b>Boot Option #5</b>
Default Value	[USB Key]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Set the system boot order

Field Name	<b>Boot Option #6</b>
Default Value	[USB Floppy]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Set the system boot order

Field Name	<b>Boot Option #7</b>
Default Value	[USB Lan]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Set the system boot order

Field Name	<b>Boot Option #8</b>
Default Value	[Network]
Possible Value	CD/DVD, Hard Disk, Network, USB CD/DVD, USB Hard Disk, USB KEY, USB Floppy, USB Lan
Help	Set the system boot order

6. **SAVE & EXIT**

Main	Advanced	Chipset	Security	Boot	Save & Exit
<p>Save Options</p> <p>Save Changes and Exit</p> <p>Discard Changes and Exit</p> <p>Save Changes and Reset</p> <p>Discard Changes and Reset</p> <p>Restore Defaults</p> <p>Boot Override</p>					<p><b>Item help</b></p> <hr/> <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 &amp; Reset</p> <p>ESC: Exit</p>
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Field Name	Save Options
------------	--------------

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

Field Name	Discard Changes and Exit
Help	Exit system setup without saving the changes.
Comment	

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

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

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