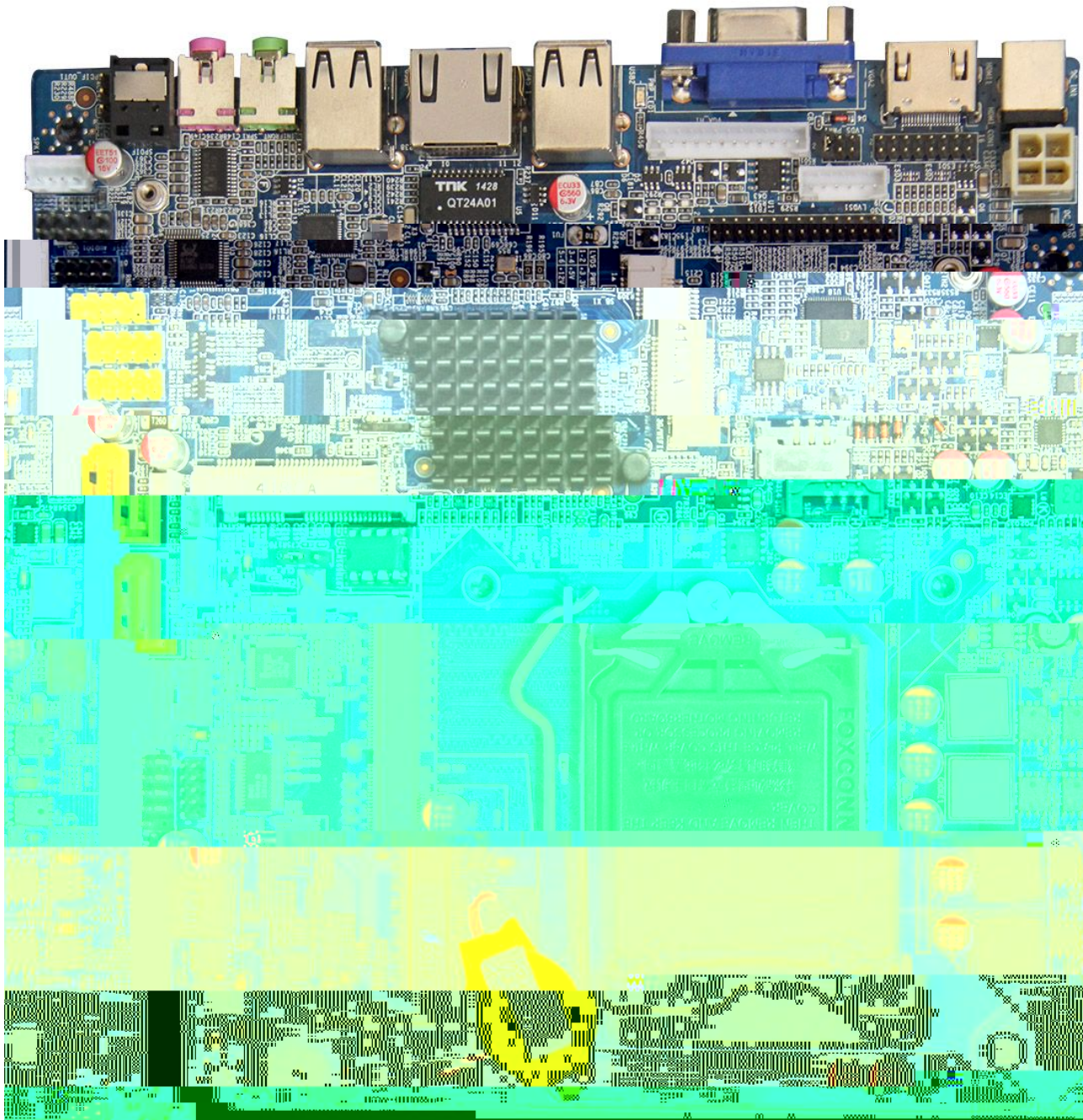


User Guide

VER 1.0

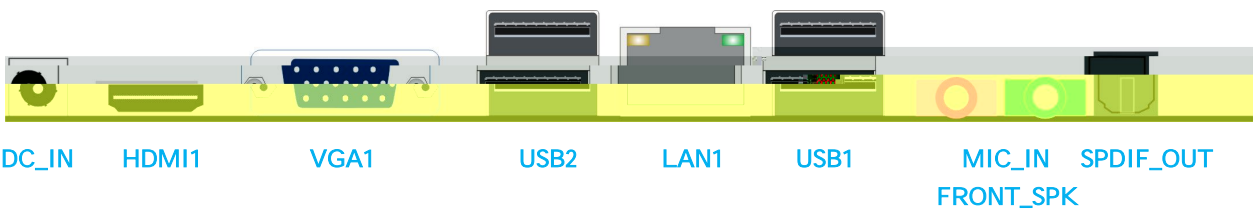


	4
	4
	4
	5
1.4	5
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	6
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	7
	7
□	8
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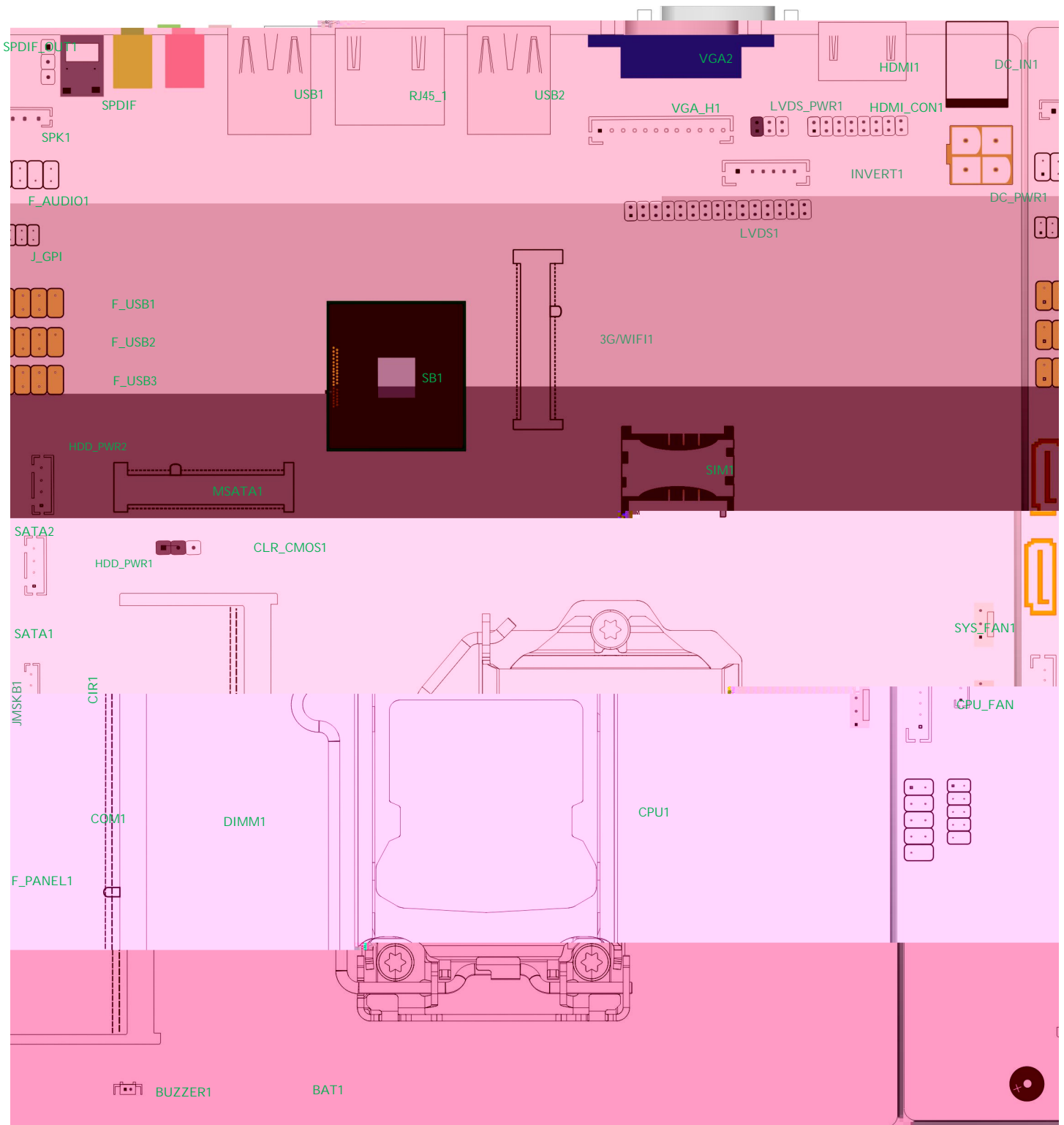
GM-H6102 MINI-ITX × 1
 × 1
I/O × 1
SATA × 1
SATA × 1

System			
CPU/GPU	Intel® 1155	I3,I5,I7	CPU
	Intel® H61		
	1	DDR3-1066/1333/1600MHz	8GB
	2×SATA 2.0, 1× mSATA		
	Realtek ALC662,	5.1	
	1× Realtek RTL8111E	,PCI-E	
	1×MINI PCI-E	(WIFI) 3G	
	CPU		
	VGA+HDMI, VGA+LVDS, LVDS+HDMI /		
COM	1×COM RS-232		
USB	10× USB 2.0/1.1(4 IO, 6)		
I / O	DC jack, HDMI, VGA, USB, RJ45, USB, Line-out, Mic-in, SPDIF		
	1×VGA	, 1×HDMI	, 1×LVDS , 1×Invert , 1×SPDIF_OUT ,
	1×SPK	,1×	
	1×COM	, 1×8bit GPIO	, 1×CIR 1×PS/2
I / O	3× USB 2.0/1.1 6 USB 2.0/1.1		
	1×4-pin 12~19V	, 2×	, 1×CPU ,1×
	1×	,1×	

Mechanical & Environmental			
DC 12~19V	CPU	(L×W)	170mm×170mm
0~50	-40~75		0~90%
, ATM/VTM, , ,			



DC_IN	12~19V DC		
HDMI1			
VGA1			
USB2	USB 2.0		
LAN1	RJ-45	S	USB2.0/1.1
USB1	USB 2.0		USB 1.1
MIC-IN			
FRONT_SPK			



: 1pin

Intel® 1155

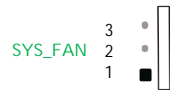
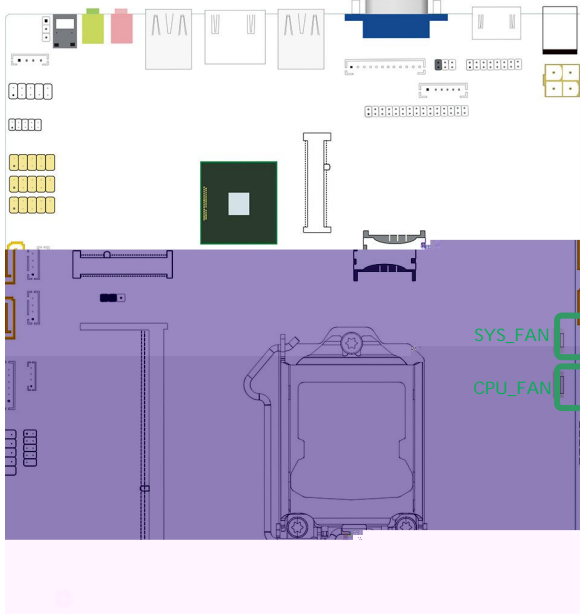
I3,I5,I7

CPU,

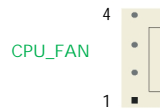
Intel® H61

CPU

SYS_FAN1:
CPU_FAN1: CPU

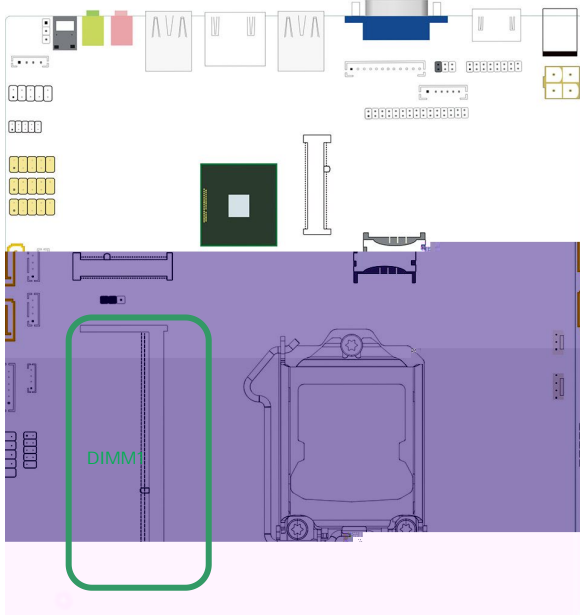


PIn	
1	GND
2	+12V
3	

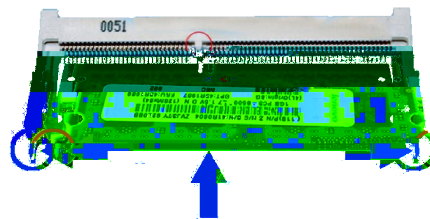


PIn	
1	GND
2	+12V
3	
4	FAN_PWM

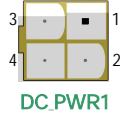
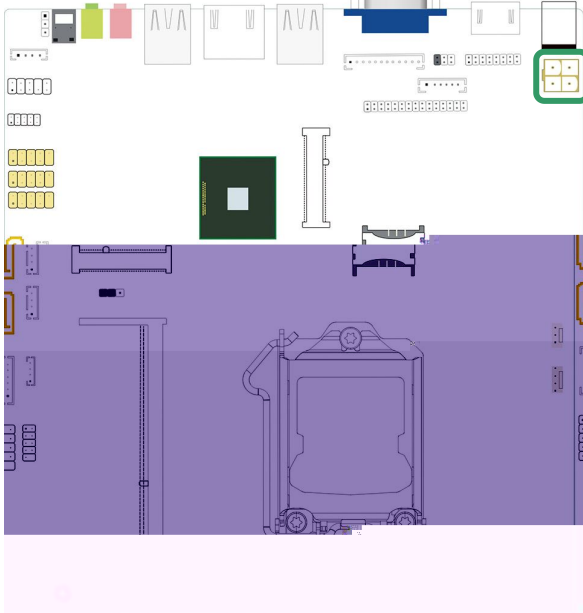
DIMM1: (SO-DIMM)



	PIN		
DIMM1	204	1066/1333/1600MHz	8GB



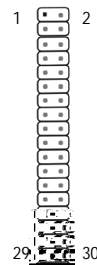
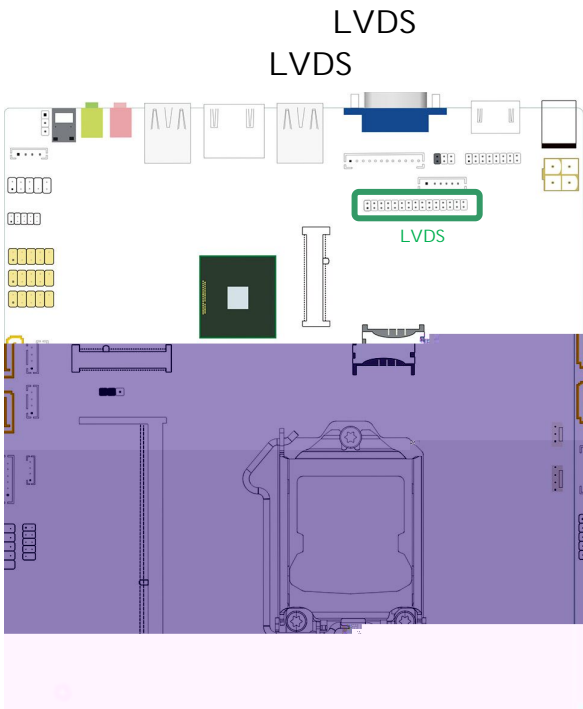
DC_PWR1: DC 12~ 19V (4-pin)
12~ 19V



Pin	
1	GND
2	GND
3	12~ 19V
4	12~ 19V

2.5.1 :LVDS,VGA,HDMI_CON1

LVDS1: LVDS



LVDS

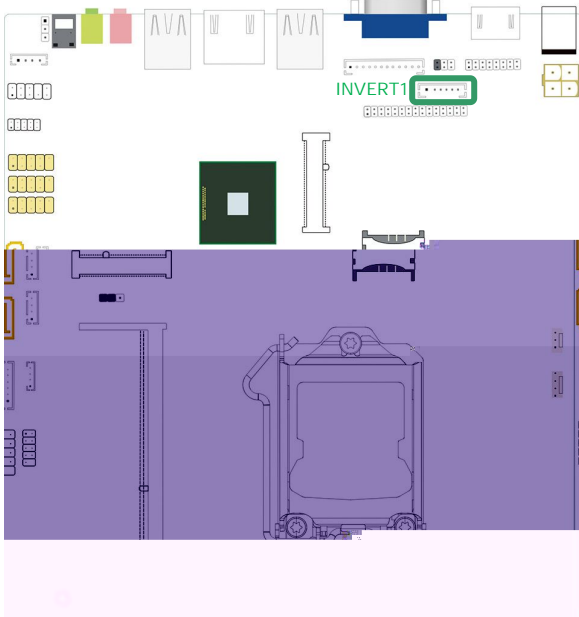
24bit LVDS

PIN	PIN		
1	VCC	2	VCC
3	CLK	4	DATA
5	GND	6	GND
7	ADO0-	8	ADO0+
9	ADO1-	10	ADO1+
11	ADO2-	12	ADO2+
13	GND	14	GND
15	ACLK-	16	ACLK+

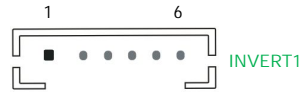
PIN	PIN		
17	AD03-	18	AD03+
19	BDO0-	20	BDO0+
21	BDO1-	22	BDO1+
23	BDO2-	24	BDO2+
25	GND	26	GND
27	BCLK-	28	BCLK+
29	BDO3-	30	BDO3+

INVERT1: LVDS

1 6pin INVERT



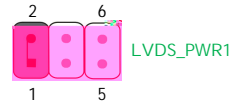
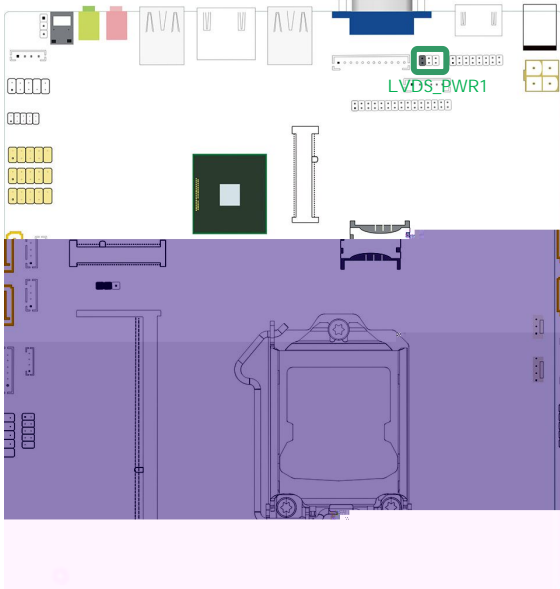
LVDS



Pin	
1	+12V
2	+12V
3	ENABLE
4	PWM
5	GND
6	GND

LVDS_PWR1: LVDS

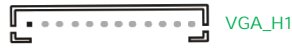
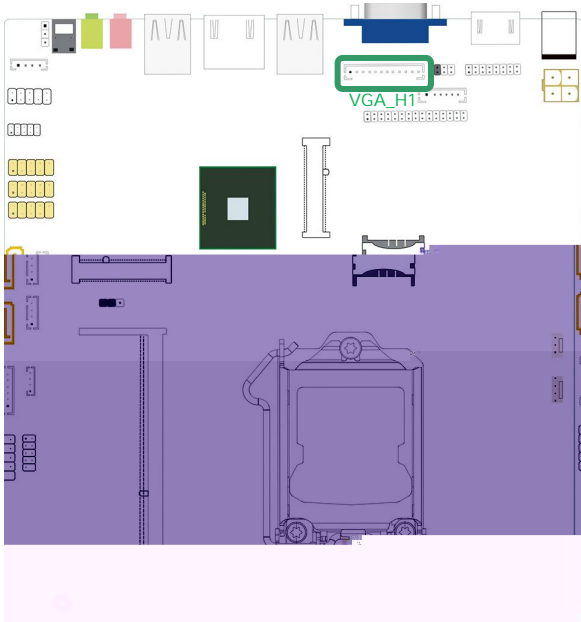
LVDS



Pin				
1-2	LVDS	3.3V	()
3-4	LVDS	5V		
5-6	LVDS	12V		

VGA_H1: VGA

1 VGA IO VGA1

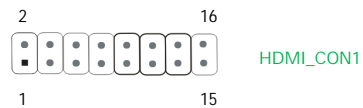
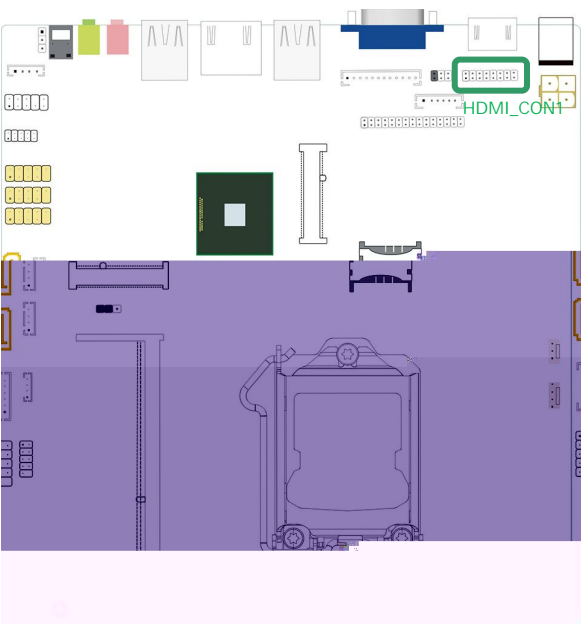


PIN		PIN	
1	GND	7	GREEN
2	VSYNC	8	GND
3	HSYNC	9	BLUE
4	GND	10	GND
5	RED	11	DDC-DATA
6	GND	12	DDC-CLK

3 1 VGA 1 VGA 1 24bit LVDS

VGA + VGA1	
VGA/VGA1 + LVDS1	/

HDMI_CON1 :HDMI



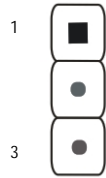
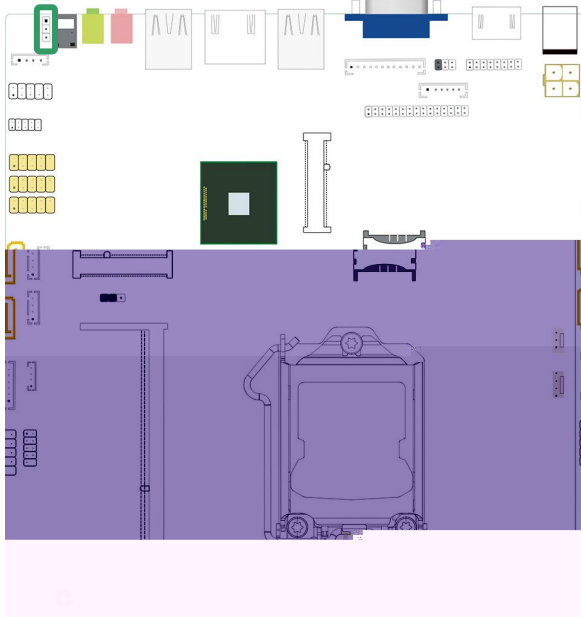
PIN		PIN	
1	TMDS Data2+	2	TMDS Data1+
3	TMDS Data2-	4	TMDS Data1-
5	GND	6	GND
7	TMDS Data0+	8	TMDS Cl ock+
9	TMDS Data0-	10	TMDS Cl ock-
11	GND	12	+5V
13	SCL	14	+5V
15	SDA	16	Hbt Plug Detect

2.5.2

SPDIF_OUT

SPDIF_OUT

SPDIF_OUT



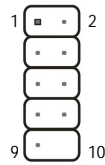
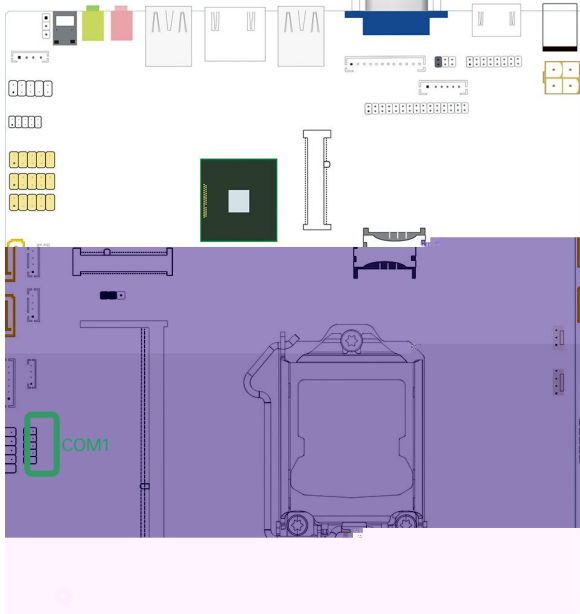
Pin	
1	+5V
2	SPDIF_OUT
3	GND

SPDIF_OUT

2.5.3

:COM,CIR1,USB,GPIO,PS/2,F_AUDIO,SPK1

COM1: RS-232



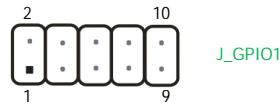
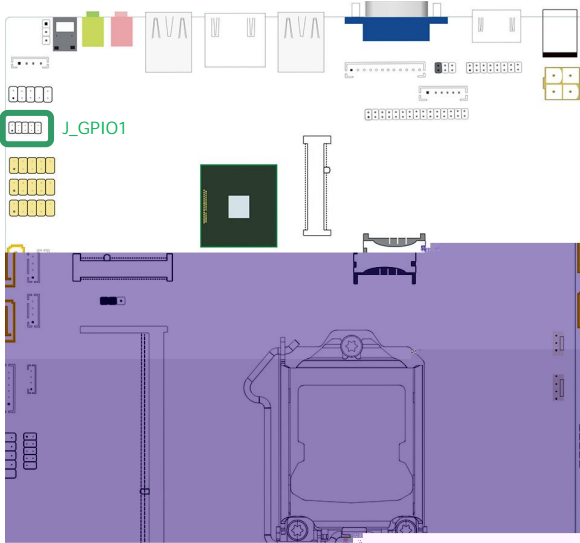
PIN		PIN	
1	DCD#	2	RXD
3	TXD	4	DTR#
5	GND	6	DSR#
7	RTS#	8	CTS#
9	RI#/()	10	NC

COM1

J_GPIO1:

8bit GPIO

4 4

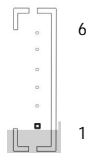
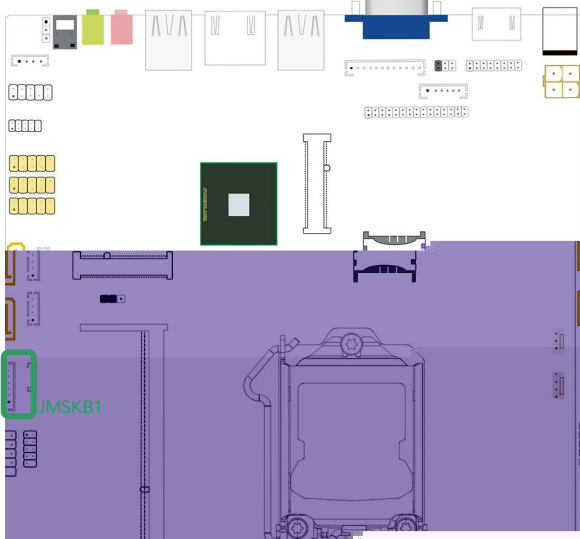


PIN		PIN	
1	GND	2	+5V
3	PCH_GPIO71	4	PCH_GPIO7
5	PCH_GPIO70	6	PCH_GPIO6
7	PCH_GPIO69	8	PCH_GPIO1
9	PCH_GPIO68	10	PCH_GPIO17

JMSKB1:

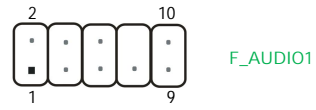
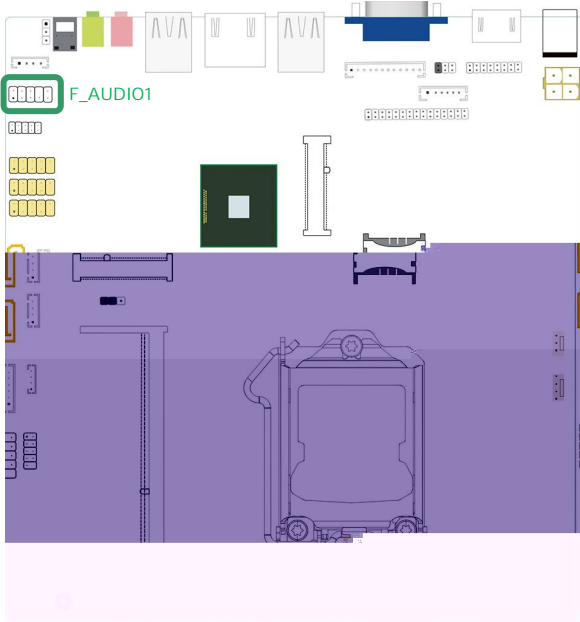
PS/2

PS/2



Pin	
1	KB_CLK
2	GND
3	KB_DATA
4	MS_DATA
5	+5V
6	MS_CLK

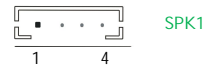
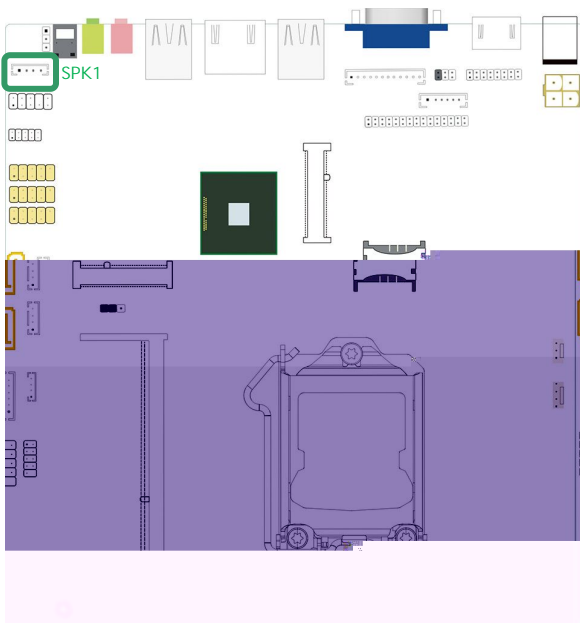
F_AUDIO1:



PIN		PIN	
1	MIC-L	2	GND
3	MIC-R	4	NC
5	LINEOUT-R	6	MIC SENSE
7	GND	8	
9	LINEOUT-L	10	LINEOUT SENSE

SPK1:

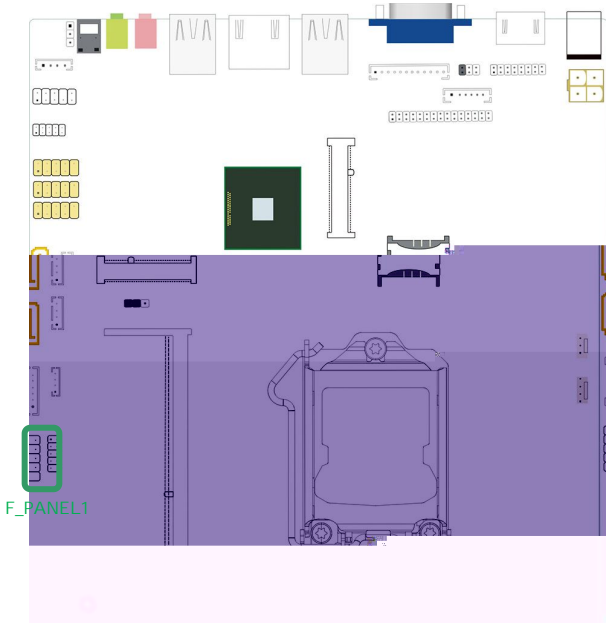
5W 2



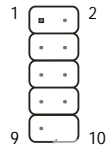
Pin	
1	SPKL+
2	SPKL-
3	SPKR-
4	SPKR+

2.5.4 :F_PANEL1,CLR_CMOS

F_PANEL1: 10PIN



F_PANEL1

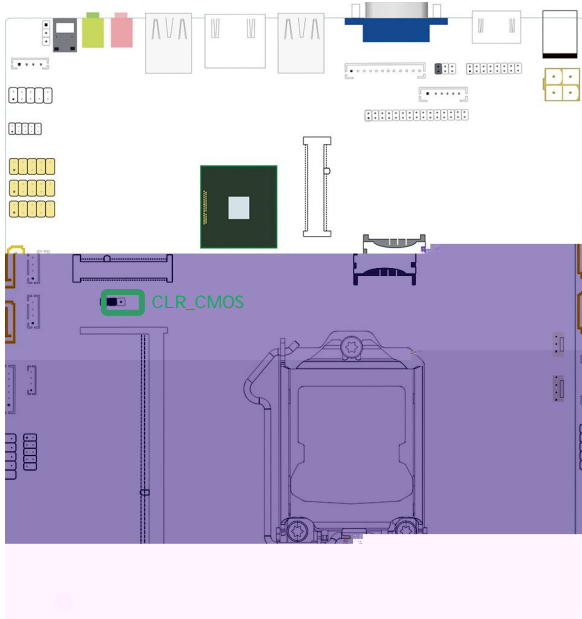


PIN		PIN	
1	HDD_LED+	2	PWR_LED+
3	HDD_LED-	4	GND
5	GND	6	GND
7	RESET	8	PWR_ON
9	GND	10	

CLR_CMOS

Pin2-3

BIOS



Pin	
1-2	Normal
2-3	Clear CMOS

" Pin 2-3 "

5

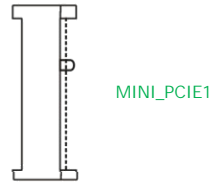
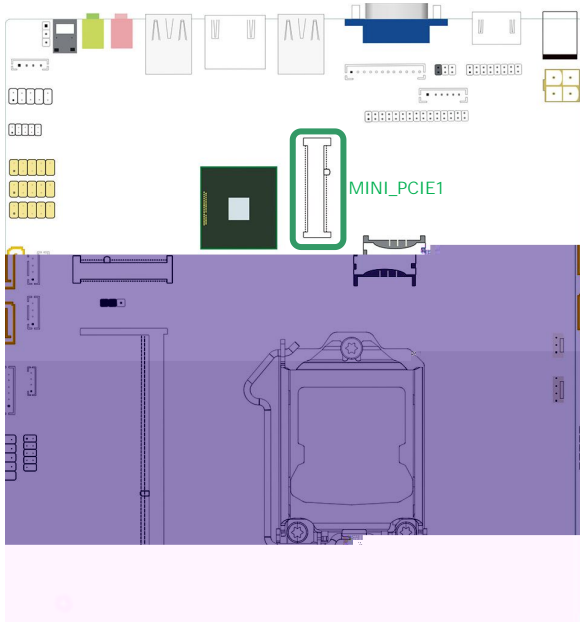
" Pin 1-2 "

COMS

2.5.5

:MINI-PCIE1,MSATA1,SIM1,SATA1,SATA2,HDD_PWR1,HDD_PWR2

MINI-PCIE1: Mini PCI-E WIFI/3G

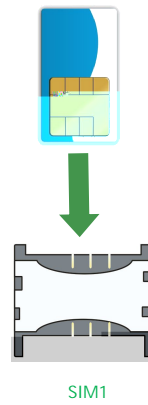
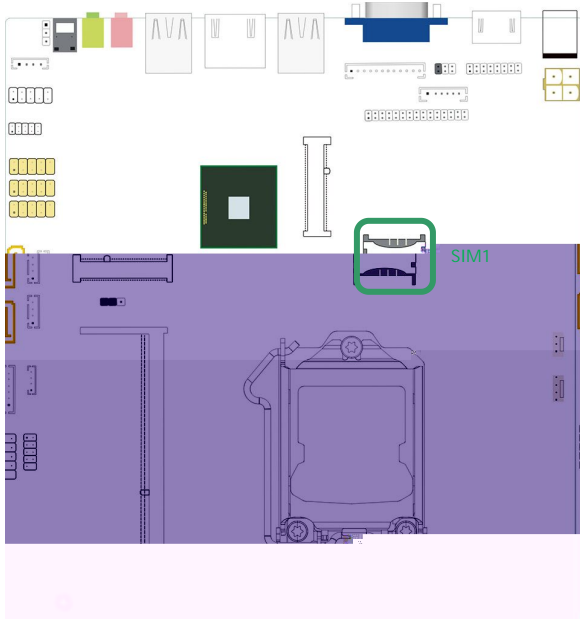


 WIFI/3G

SIM1: SIM

1 SIM

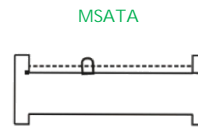
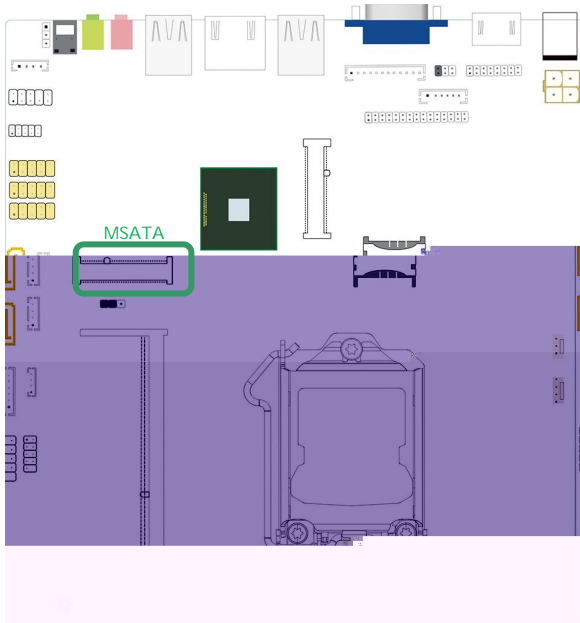
3G SIM



 3G SIM

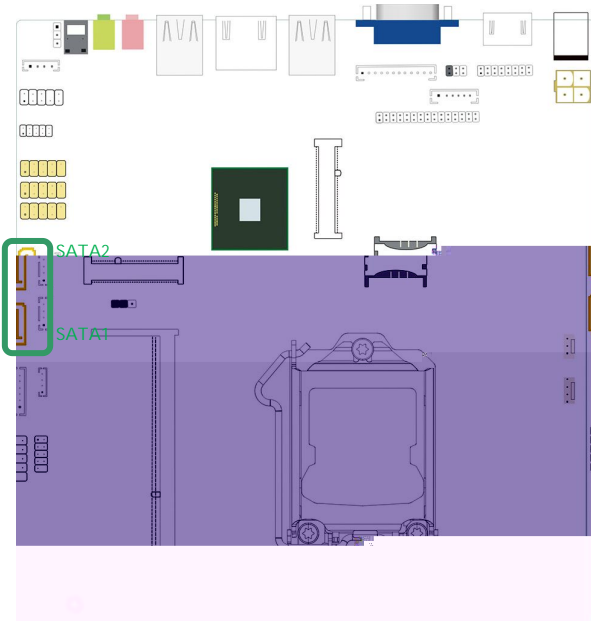
MSATA1: mSATA
nSATA

SSD



! SSD

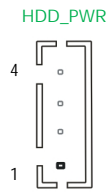
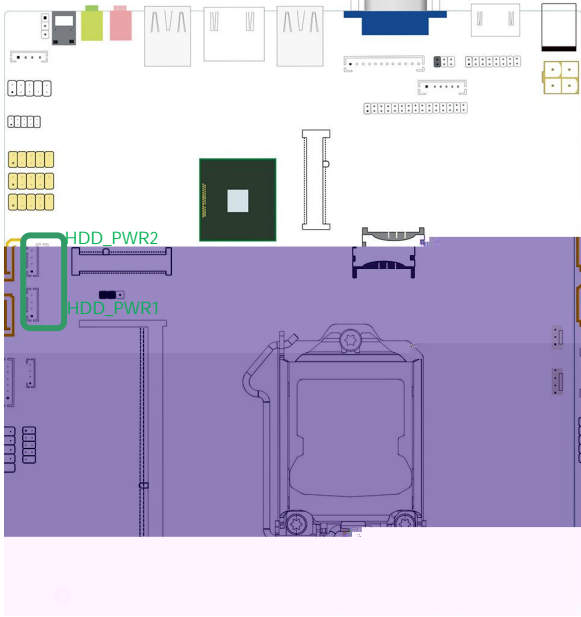
SATA1/SATA2: 2x SATA 3.0
SATA3.0 6Gb/s



HDD_PWR1,HDD_PWR2:SATA

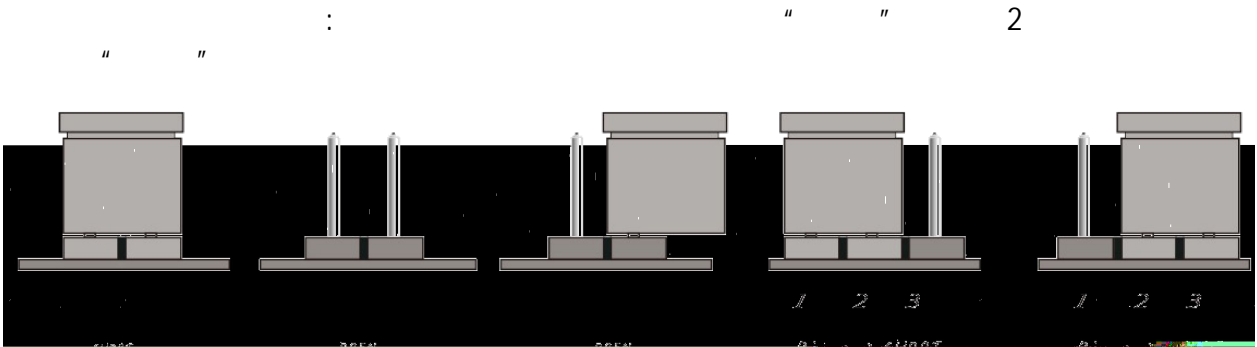
SATA

SATA



Pin	
1	+12V
2	GND
3	GND
4	+5V

*



BIOS AMI BIOS BIOS COMS RAM COMS RAM
COMS RAM
BIOS BIOS BIOS BIOS
BIOS BIOS BIOS
BIOS BIOS
BIOS

BIOS BIOS POST BIOS

Press Delete to Run Setup
Press F1 to Load default values and continued default value

F1 BIOS F3 BIOS < Delete > BIOS
Reset

BIOS

BIOS	
ENTER	
+/-	
F1	
F2	
F3	
F4	
ESC	

BIOS

			BIOS	
	DOS			AMI BIOS
FPT.EXE			FPT /D <	BIOS >
backup.BIN	BIOS	FPT /T <	BIOS >	NEWBIOS.BIN
4	BIOS	" Delete"	CMOS	" F3"
5				

BIOS

BIOS BIOS BIOS

3.1 MAIN MENU BIOS

AMI BIOS

CPU I/O



Aptio Setup Utility - Copyright (C) 2012 American Megatrends, Inc.

Main **Advanced** Chipset Boot Security Save & Exit

- ▶ ACPI Settings
- ▶ S5 RTC Wake Settings
- ▶ CPU Configuration
- ▶ SATA Configuration
- ▶ USB Configuration
- ▶ Super IO Configuration
- ▶ PC Health status
- ▶ CPU PPM Configuration

System ACPI Parameters.

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

Version 2.15.1236. Copyright (C) 2012 American Megatrends, Inc.

ACPI Settings

Aptio Setup Utility - Copyright (C) 2012 American Megatrends, Inc.

Advanced

ACPI Settings

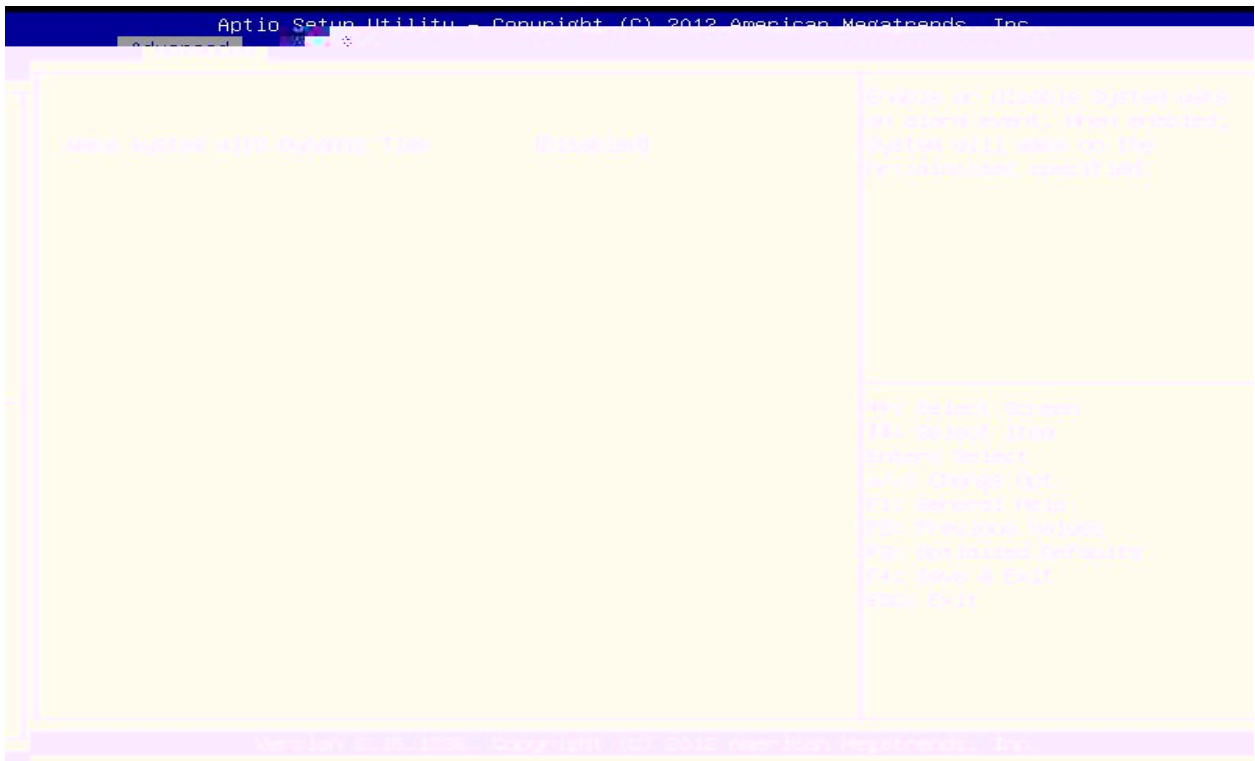
Enable Hibernation [Enabled]
ACPI Sleep State [S1 only(CPU Stop Cl...)]

ACPI Sleep State
Suspend Disabled
S1 only(CPU Stop Clock)

Select ACPI sleep state the system will enter when the SUSPEND button is pressed.

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

Version 2.15.1236. Copyright (C) 2012 American Megatrends, Inc.



Advanced

SATA Controller(s)	[Enabled]	Determines how SATA controller(s) operate.
SATA Mode Selection	[IDE]	
SATA Test Mode	[Disabled]	
IDE Legacy / Native Mode Selection	[Native]	

Serial ATA Port 1	Empty
Software Preserve	Unknown
Serial ATA Port 2	Empty
Software Preserve	Unknown
Serial ATA Port 3	Empty
Software Preserve	Unknown
Serial ATA Port 4	Empty
Software Preserve	Unknown
Serial ATA Port 5	Empty
Software Preserve	Unknown
Serial ATA Port 6	Empty
Software Preserve	Unknown

SATA Mode Selection

- IDE
- AHCI
- RAID

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

Aptio Setup Utility - Copyright (C) 2012 American Megatrends, Inc.

Advanced

<p>USB Configuration</p> <p>USB Module Version 8.10.28</p> <p>USB Devices: 1 Drive, 2 Hubs</p> <p>Legacy USB Support [Enabled] [Enabled]</p> <p>Hand-off [Enabled]</p> <p>Hand-off [Disabled]</p> <p>Mass Storage Driver Support [Enabled]</p> <p>60/64 Emulation [Enabled]</p> <p>Hardware delays and time-outs:</p> <p>Transfer time-out [20 sec]</p> <p>Reset time-out [20 sec]</p> <p>Power-up delay [Auto]</p> <p>Storage Devices:</p> <p>Max USB 2.0 RecoveryFF [Auto]</p>	<p>Enables Legacy USB support. AUTO option disables legacy support if no USB devices are connected. DISABLE option will keep USB devices available only for EFI applications.</p> <p>USB 3.0 Support [Enabled]</p> <p>XHCI [Enabled]</p> <p>EHCI [Enabled]</p> <p>USB Mass Storage [Enabled]</p> <p>Port [Enabled]</p> <p>USB H [Enabled]</p> <p>USB t [Enabled]</p> <p>Devic [Enabled]</p> <p>Devic [Enabled]</p> <p>Mass [Enabled]</p> <p>Kingm [Enabled]</p>
---	---

→+: Select Screen

↑↓: Select Item

Enter: Select

+/-: Change Opt.

F1: General Help

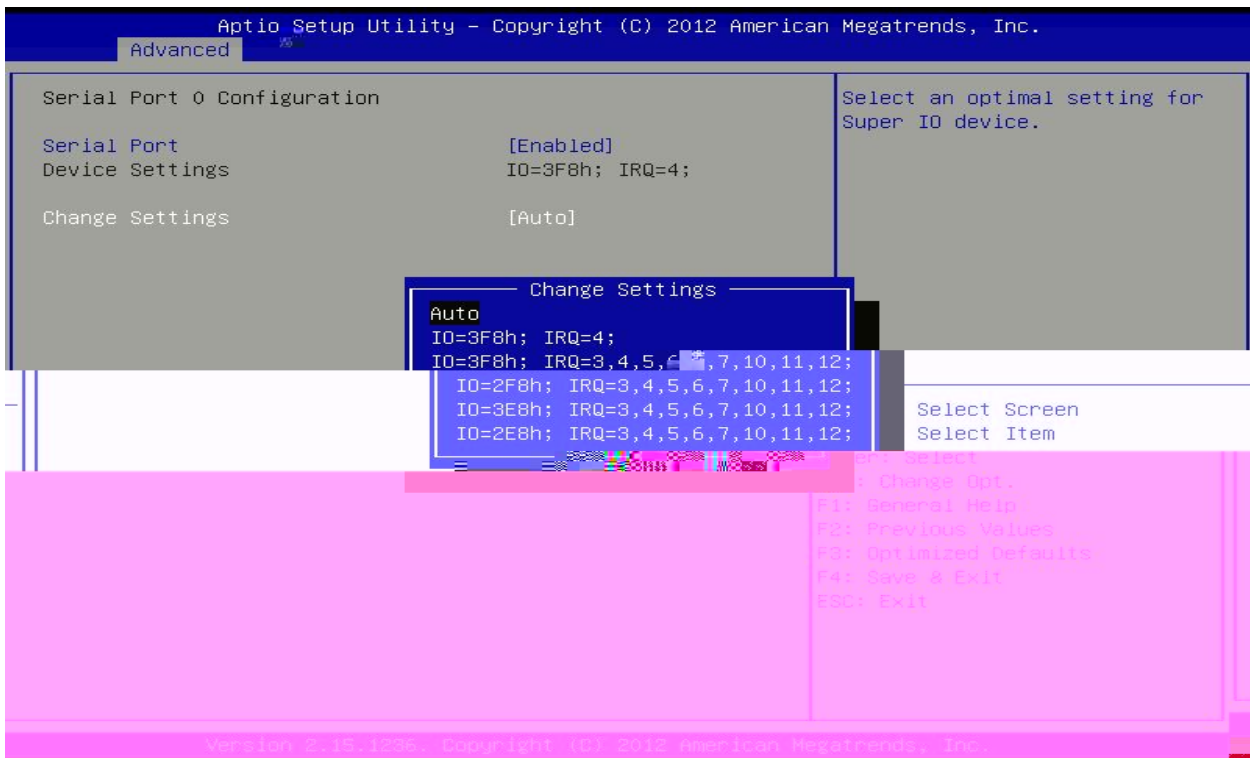
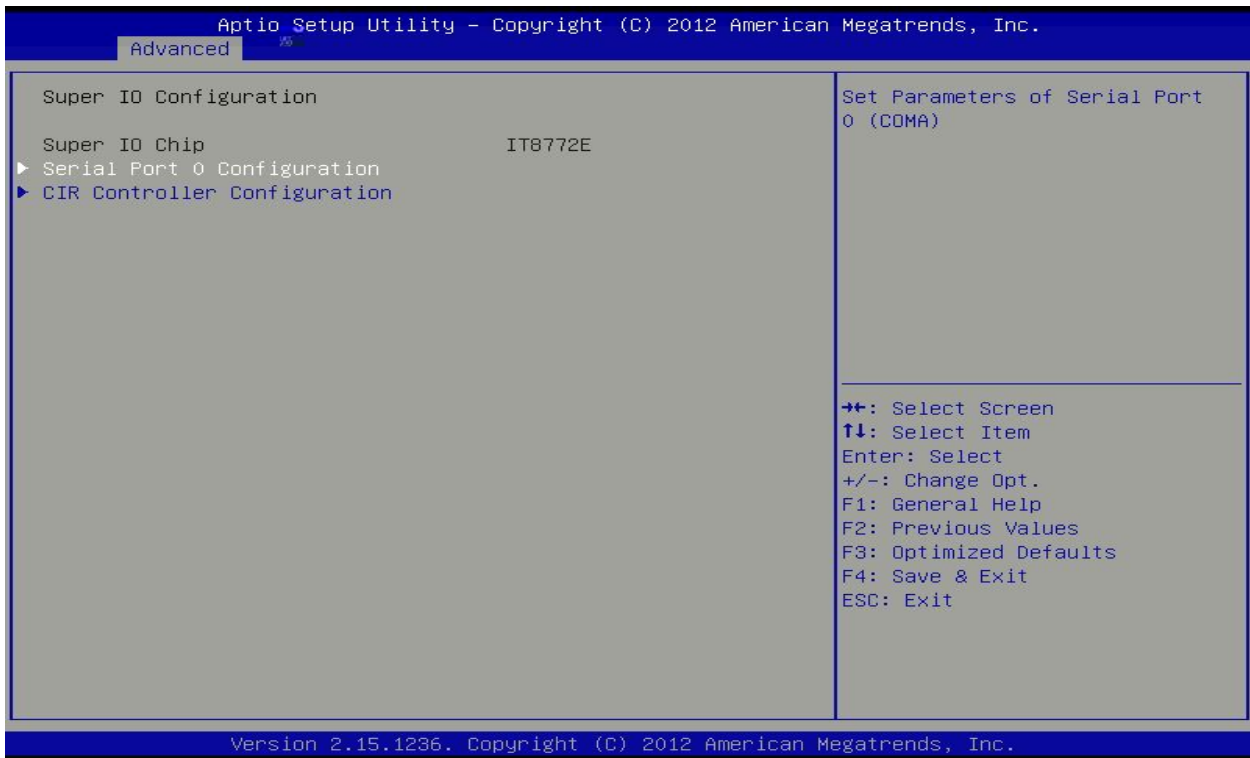
F2: Previous Values

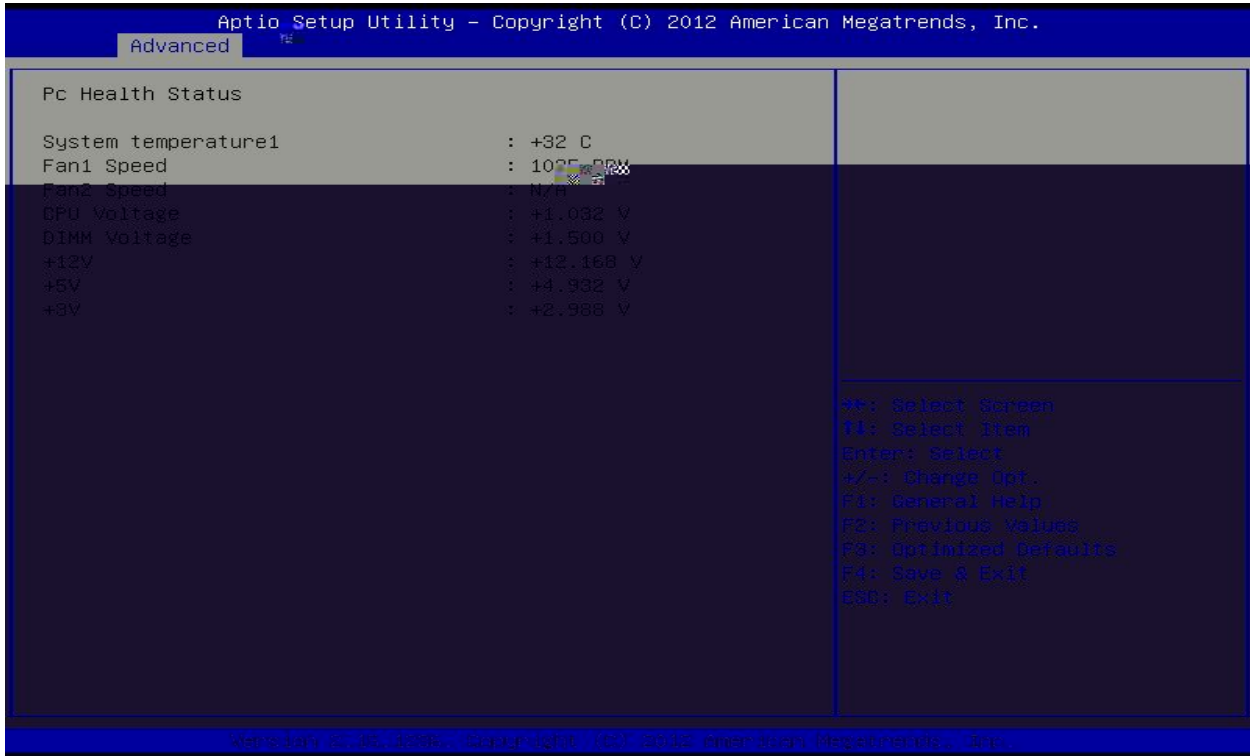
F3: Optimized Defaults

F4: Save & Exit

ESC: Exit

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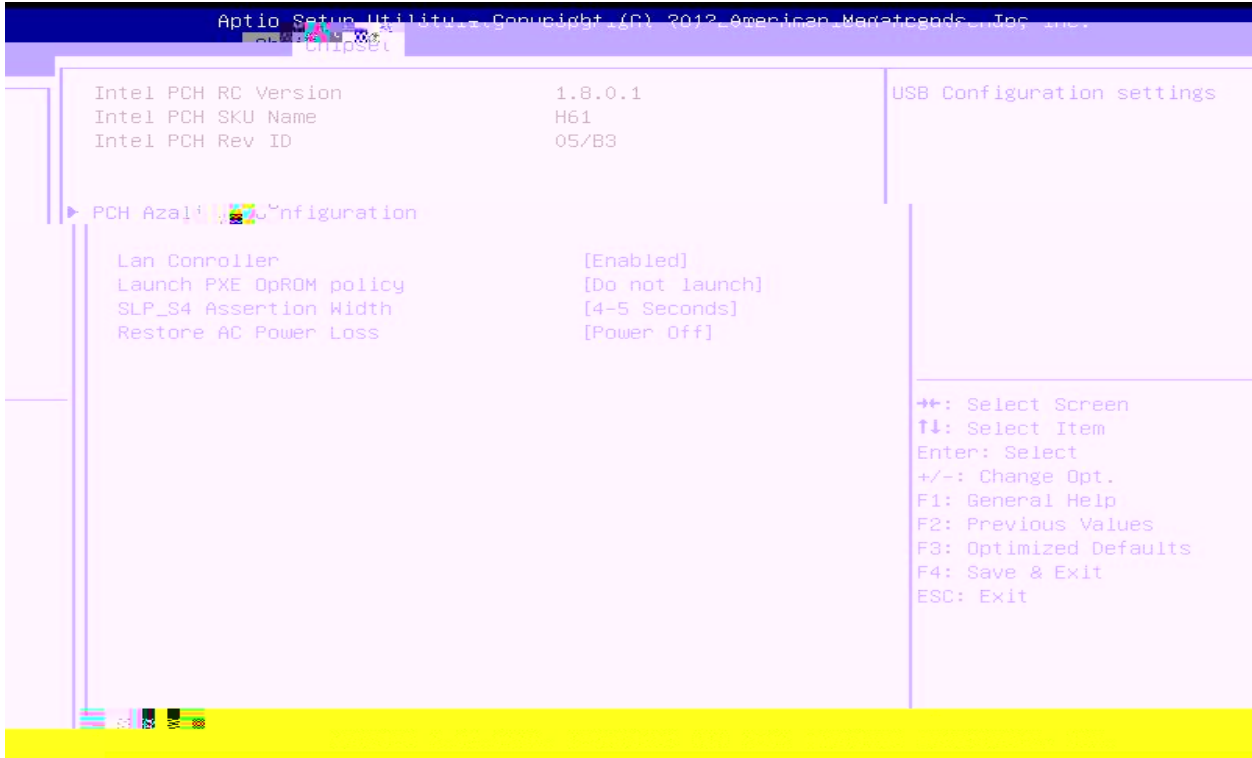
□□

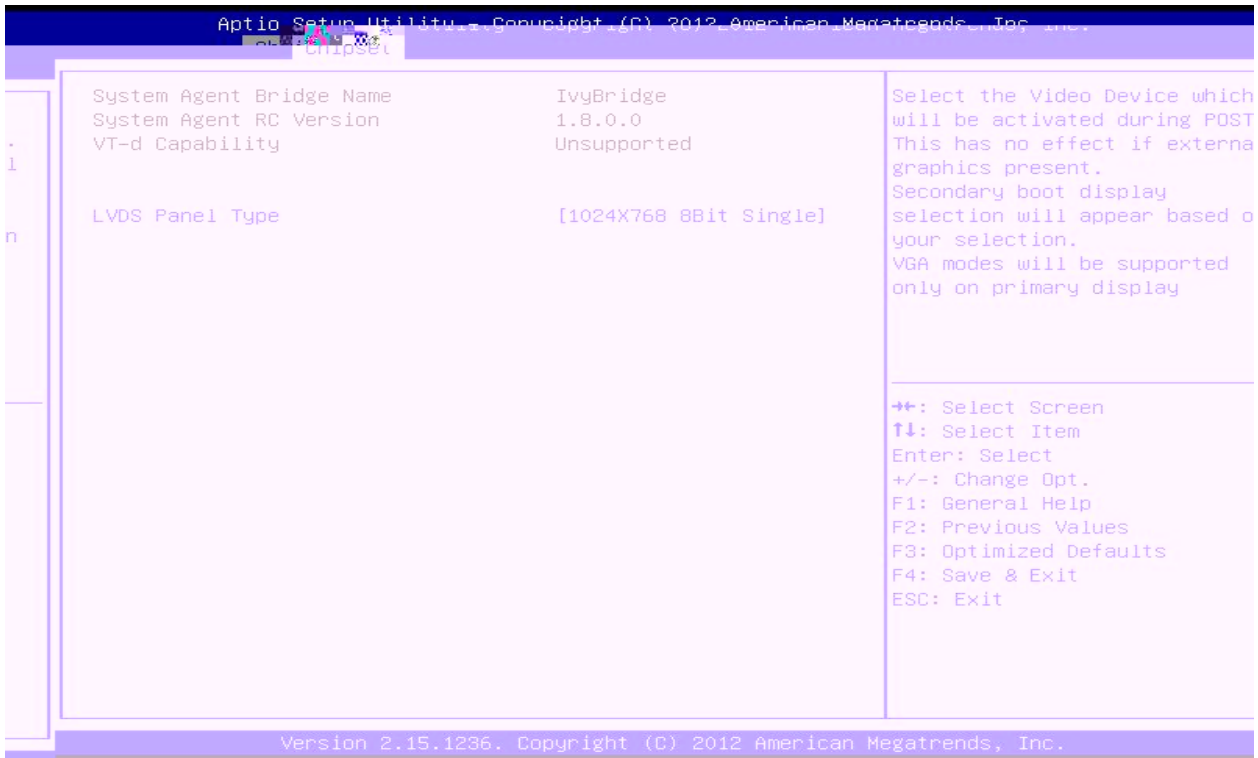
□□

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Main Advanced **Chipset** Boot Security Save & Exit

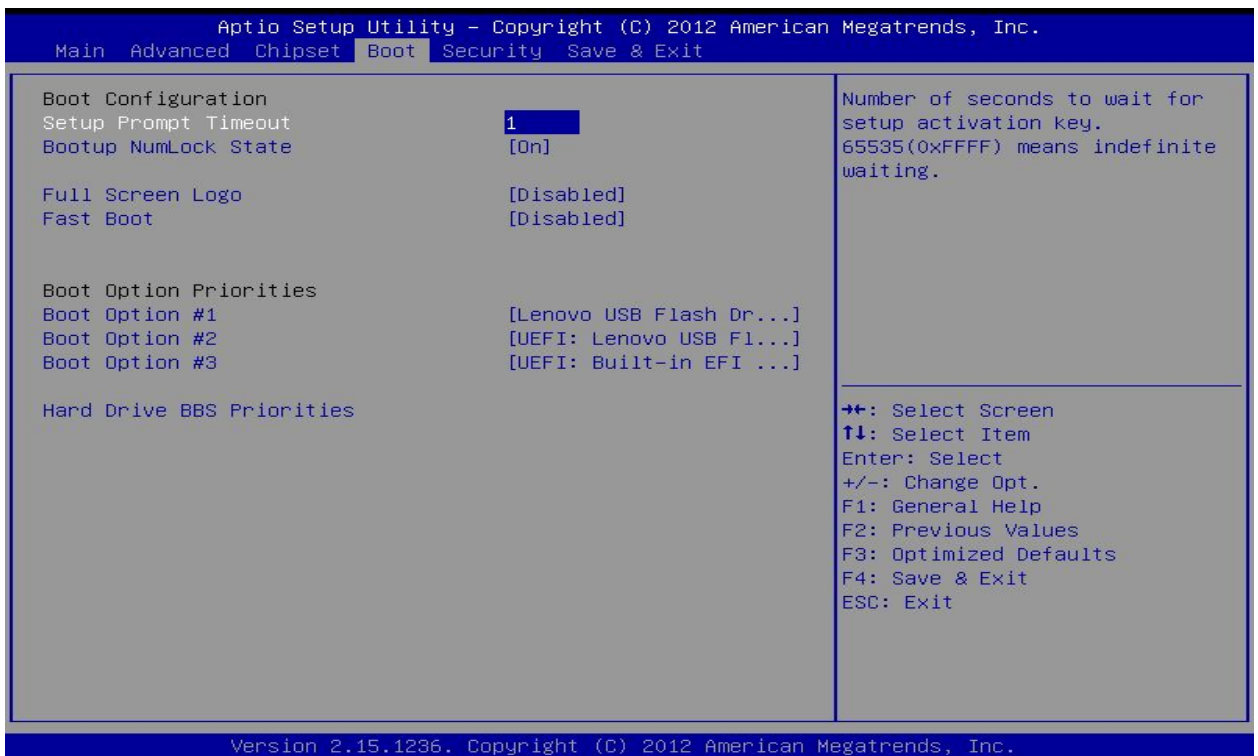
<p>▶ PCH-ID Configuration ▶ System Agent (SA) Configuration</p>	<p>PCH Parameters</p> <hr/> <p>←→: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit</p>
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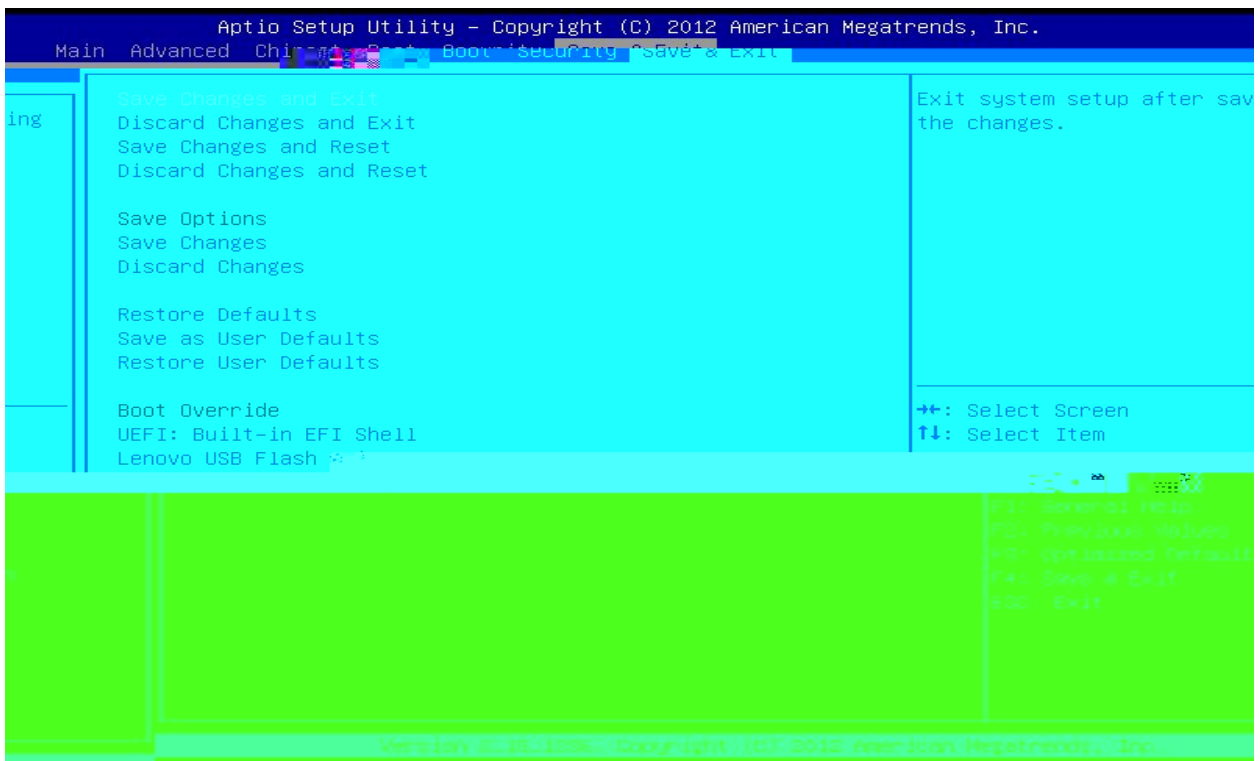




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Main Advanced Chipset Boot Security Save & Exit	
Password Description If ONLY the Administrator's password is set, then this only limits access to Setup and is only asked for when entering Setup. If ONLY the User's password is set, then this is a power on password and must be entered to boot or enter Setup. In Setup the User will... * Have Administrator Rights. The password length must be in the following range: Minimum length 3 Maximum length 20 Administrator Password User Password	Set Administrator Password →+: Select Screen ↑↓: Select Item Enter: Select +/-: Change Opt. F1: General Help F2: Previous Values F3: Optimized Defaults F4: Save & Exit ESC: Exit
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