

# GMA J 1800D16 Mother board

## User Guide

VER 1.1





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**1** :

## 1.1

:

/

## 1.2

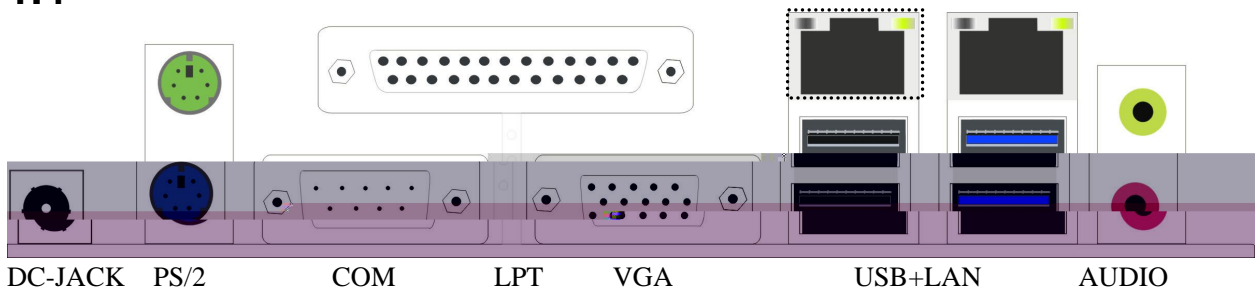
<b>GM-J1800D16</b> MINI-ITX	1
	1
I/O	1
COM	2
SATA	1
SATA	1

### 1.3

System			
<b>CPU/GPU</b>	Intel® Bay Trail J1800	2.41GHz CPU	2.58GHz
	1× , DDR3L	1333/1600MHz	8GB
	×SATA ,1× mSATA		
	Realtek ALC662,	5.1	
	1×Realtek RTL8111F	,PCI-E	
	1×MINI PCI-E	WIFI/3G	
<b>LVDS</b>	24-bit LVDS,		:1920×1200
	VGA1+LVDS( EDP)		
<b>COM</b>	6×COM RS-232(COM2,3,	5V/12V),COM3	RS-422/485 COM4
	RS-485		
<b>USB</b>	9× USB 2.0/1.1(3	IO, 6	) 1×USB 3.0
<b>I / O</b>	DC_ , PS/2, LPT, COM, VGA, USB, RJ45+USB, Mic-in+Line-out		
	1×LVDS( EDP)	,1×VGA	, 1× 1× 1×SPDIF
	5×COM	5 COM RS-232	
<b>I / O</b>	3× USB 2.0/1.1	6 USB 2.0/1.1	
	1×8bit GPIO	, 1×SIM	
	1×4-pin 12V	1× CPU	1×
	2×SATA	1× ,1×	

Mechanical & Environmental			
DC 12V		(L×W)	170mm×170mm
0~50	-40~75		0~90%
			, POS

### 1.4



DC-JACK	DC 12V		
PS/2			
LPT			
COM	COM		
VGA			
USB+LAN	USB2.0+2.0/USB 2.0+3.0	USB3.0	USB2.0,USB 1.1
Audio			

# 1.5



注: 1pin

2 :

## 2.1 CPU

Intel® Bay Trail J1800

2.41GHz CPU

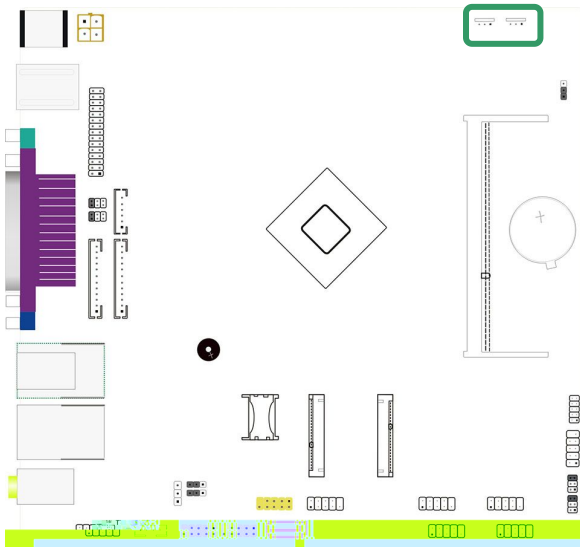
2.58GHz.

## 2.2

CPU

FAN1: CPU

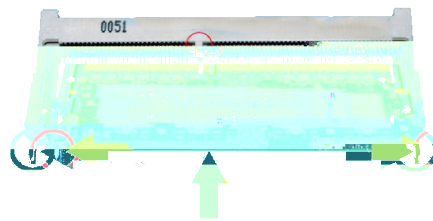
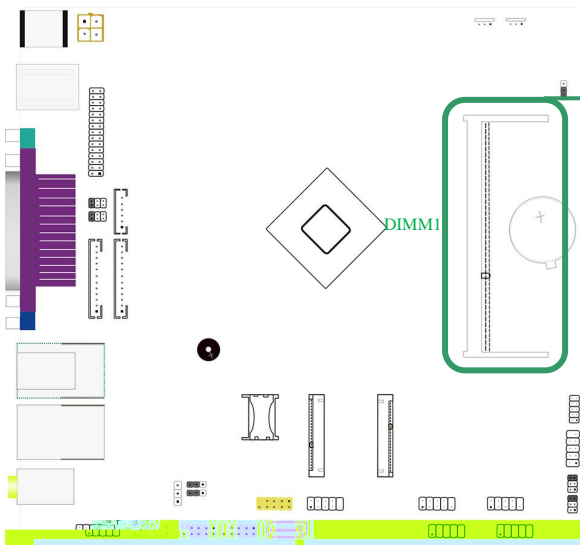
FAN2:



Pin	
1	GND
2	+12V
3	

## 2.3

DIMM1: (SO-DIMM)



	PIN			
<b>DIMM1</b>	204	1.35V	1333/1600MHz	8GB

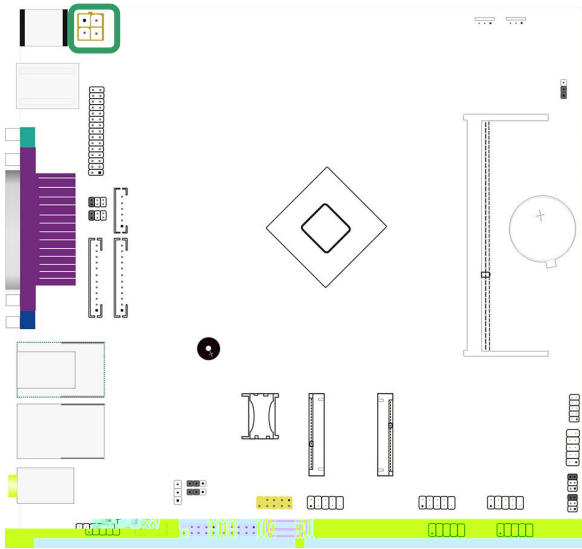
2.3.1

30

2.3.2

## 2.4 ( DC )

DC 12V / (4Pin)



DC\_PWR1



Pin	
1	GND
2	GND
3	12V
4	12V



DC\_PWR1

IO DC\_jack

## 2.5 / / /

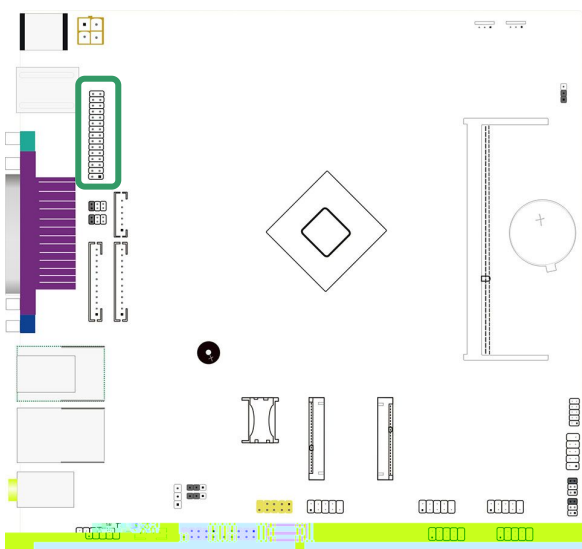
### 2.5.1 :LVDS, INVERT, LVDS\_PWR ,EDP,VGA1,VGA\_H1

LVDS1: LVDS

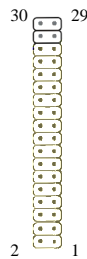
LVDS

24bit LVDS

6 6 8 8 LVDS



LVDS1

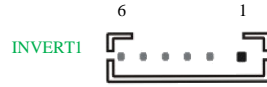
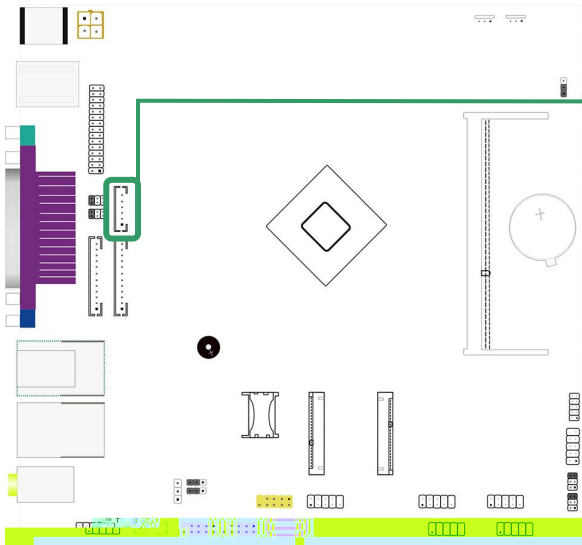


PIN		PIN	
1	VCC	2	VCC
3	VCC	4	GND
5	GND	6	GND
7	ADO0-	8	ADO0+
9	ADO1-	10	ADO1+
11	ADO2-	12	ADO2+
13	GND	14	GND
15	ACLK-	16	ACLK+
17	AD03-	18	AD03+
19	BDO0-	20	BDO0+
21	BDO1-	22	BDO1+
23	BDO2-	24	BDO2+
25	GND	26	GND
27	BCLK-	28	BCLK+
29	BDO3-	30	BDO3+

### INVERT1: LVDS

1 6pin INVERT

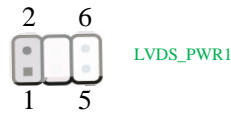
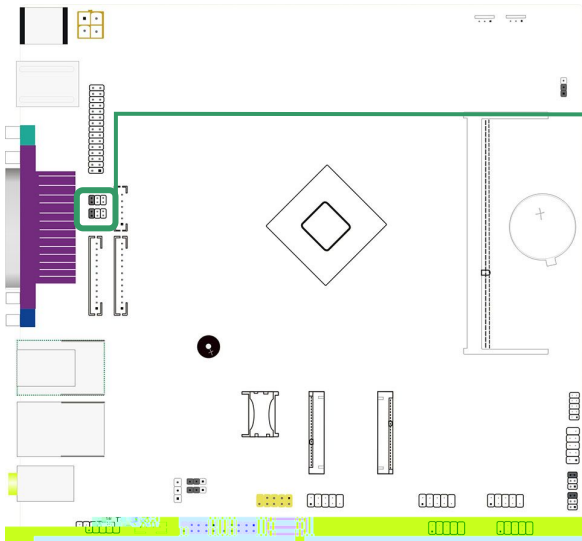
LVDS



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

### LVDS\_PWR1: LVDS

LVDS



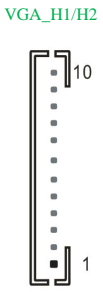
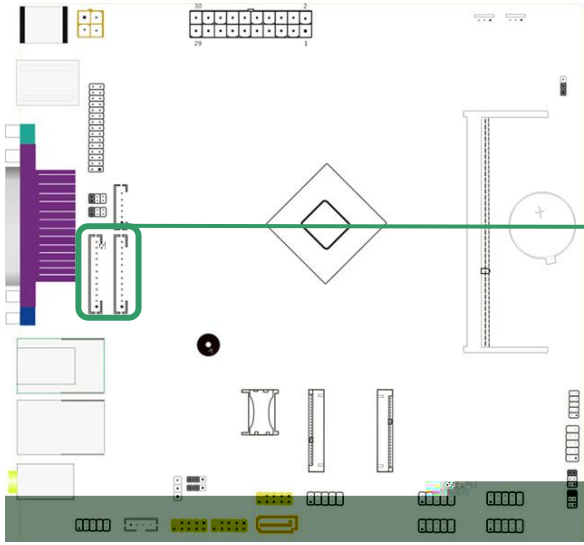
Pin	
1-2	LVDS 3.3V ( )
3-4	LVDS 5V
5-6	LVDS 12V

VGA\_H1: VGA

IO

VGA

VGA



PIN		PIN	
1	GND	7	Green
2	VSYNC	8	GND
3	HSYNC	9	Blue
4	GND	10	GND
5	Red	11	DDCDATA
6	GND	12	DDCCLK

1 VGA

1 VGA

1

24bit LVDS(eDP)

:

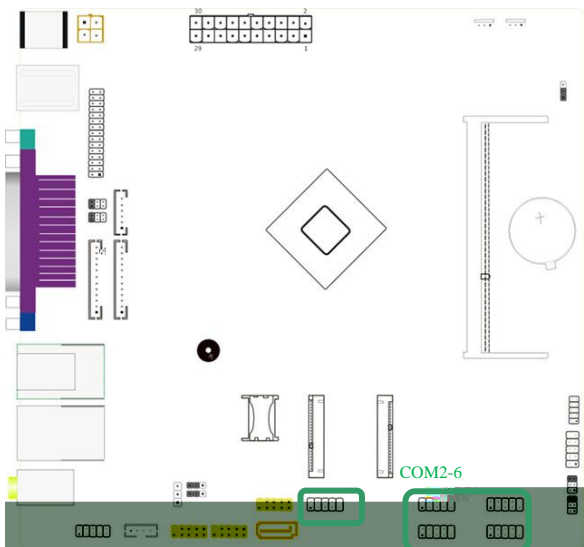
VGA1 +LVDS (eDP)	/	( eDP)
VGA_H1+LVDS (eDP)	/	( eDP)
VGA1+VGA_H1		

2.5.2

:COM ,JSW1~2,F\_USB,J\_GPIO, F\_AUDIO JAMP1

SPDIF\_OUT1

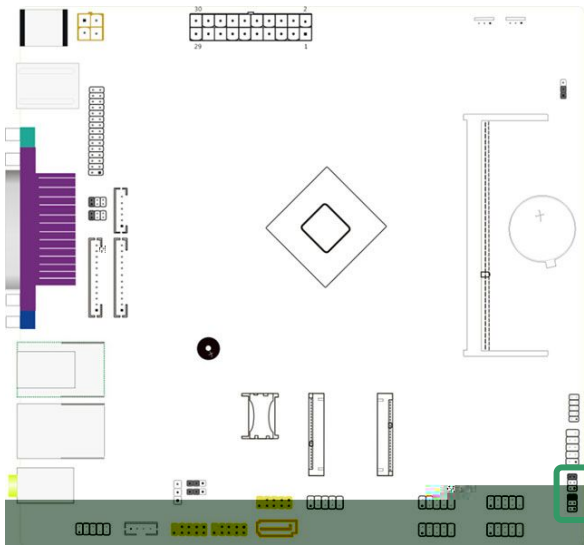
COM RS-232



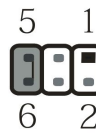
PIN		PIN	
1	DCD#	2	RXD
3	TXD	4	DTR#
5	GND	6	DSR#
7	RTS#	8	CTS#
9	RI#/( )	10	NC

**JPCOM2,JPCOM3:**

2 COM2-3 5V/12V



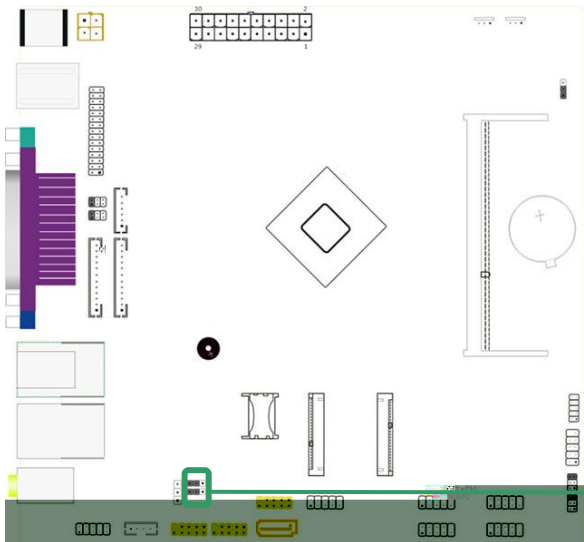
Pin	
1-2	COM2,3 9PIN 5V
3-4	COM2,3 9PIN 12V
5-6	Normal( )



JP2~3

: COM1-6 RI

**JSW1,JSW2:**



COM	JSW1	JSW2
SIM_CARD	1-2	1-2
F_USB3	2-3	2-3



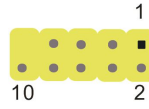
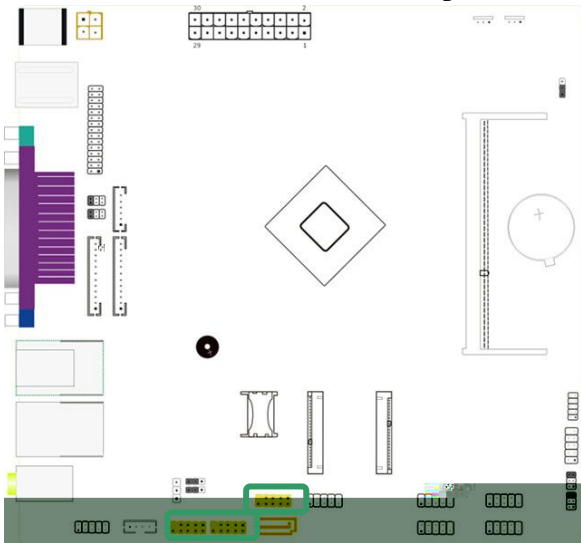
**F\_USB1,F\_USB2 F\_USB3**

USB  
USB 2.0

USB ,  
480 Mbps  
5.0Gbps

2 USB 2.0  
1 USB3.0

4  
1 USB 3.0



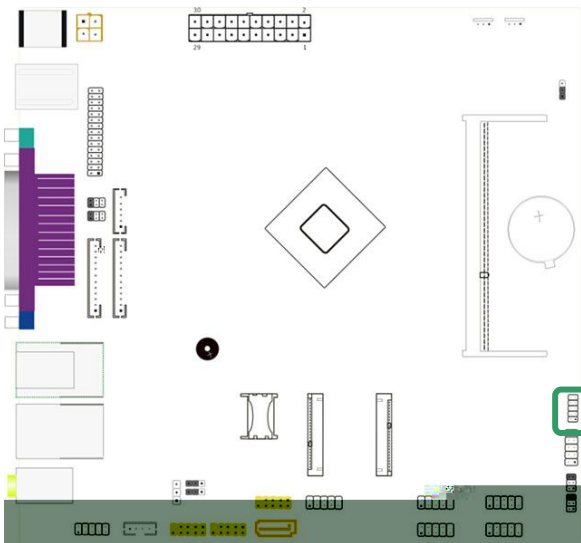
F\_USB1 F\_USB2 F\_USB3

PIN		PIN	
1	+5V	2	+5V
3	USB1_Data-	4	USB2_Data-
5	USB1_Data+	6	USB2_Data+
7	GND	8	GND
9		10	GND_CHASSIS

### J\_GPIO

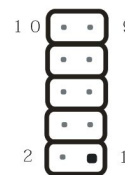
8bit GPIO

4 4



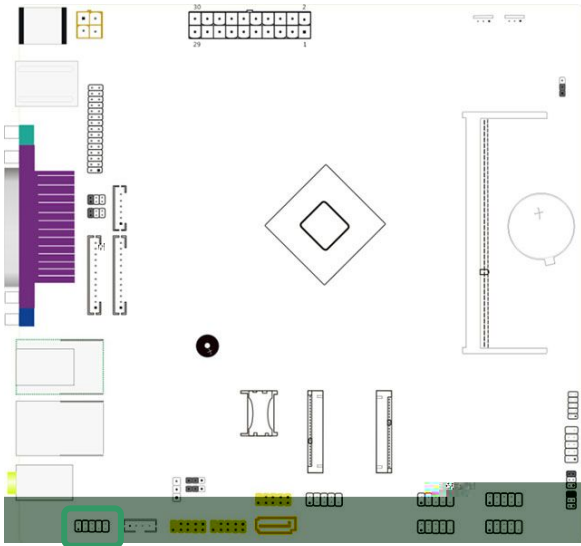
PIN		PIN	
1	GND	2	+5V
3	SIO_GP51	4	SIO_GP12
5	SIO_GP37	6	SIO_GP62
7	SIO_GP36	8	SIO_GP40
9	SIO_GP23	10	SIO_GP10

J\_GPIO

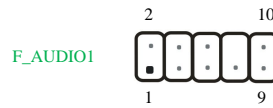


F\_AUDIO1 JAMP1 SPDIF\_OUT1

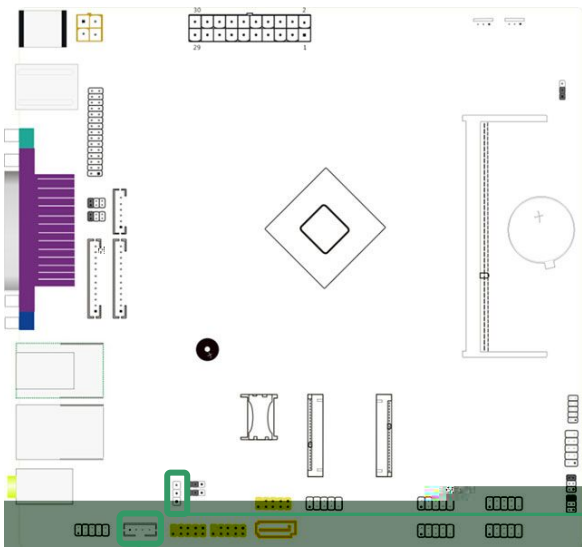
### F\_AUDIO1



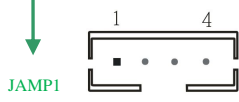
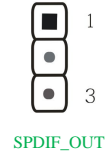
PIN		PIN	
1	MIC-L	2	GND
3	MIC-R	4	PRESENCE
5	LINEOUT-R	6	MIC SENSE
7	SENSE_SEND	8	
9	LINEOUT-L	10	LINEOUT SENSE



**JAMP1 SPDIF\_OUT1**



PIN	
1	+5V
2	SPDIF_OUT
3	GND

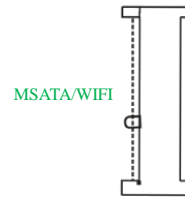
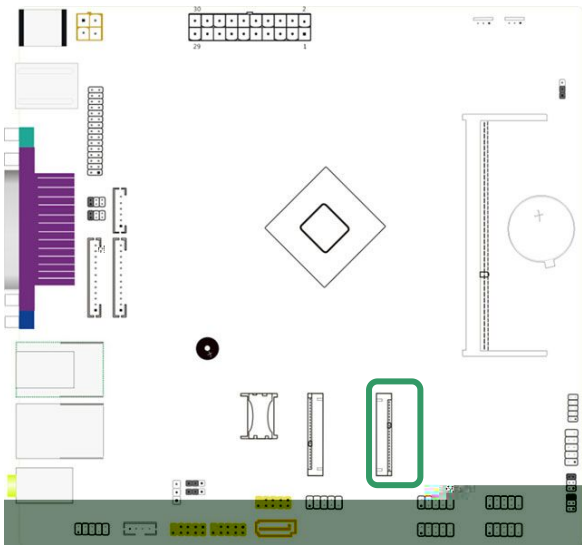


PIN	
1	AMP_L+
2	AMP_L-
3	AMP_R-
4	AMP_R+





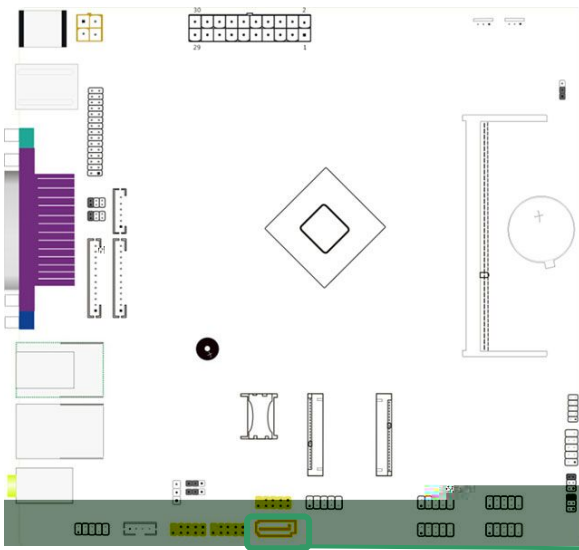
# MSATA: mSATA



**!** SSD

**SATA1/SATA2: 1 SATA2.0 1 SATA 3.0**  
**SATA SATA\_PWR1 SATA\_PWR2,SATA3.0**

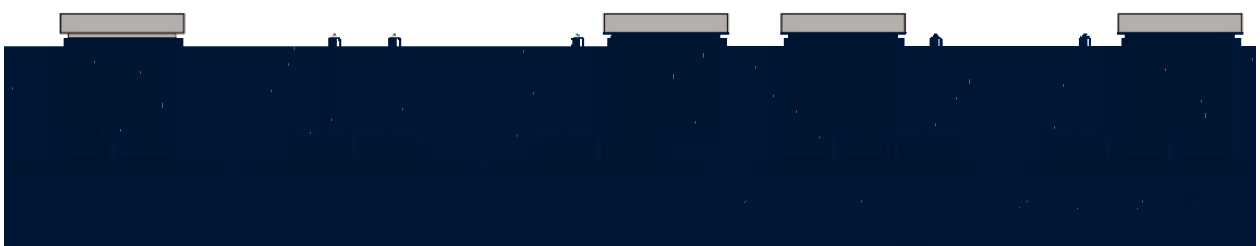
6Gb/s



\*

:

2



:

BIOS AMI BIOS BIOS CMOS RAM CMOS RAM  
CMOS RAM

BIOS BIOS BIOS BIOS

BIOS BIOS BIOS BIOS

BIOS BIOS

BI OS

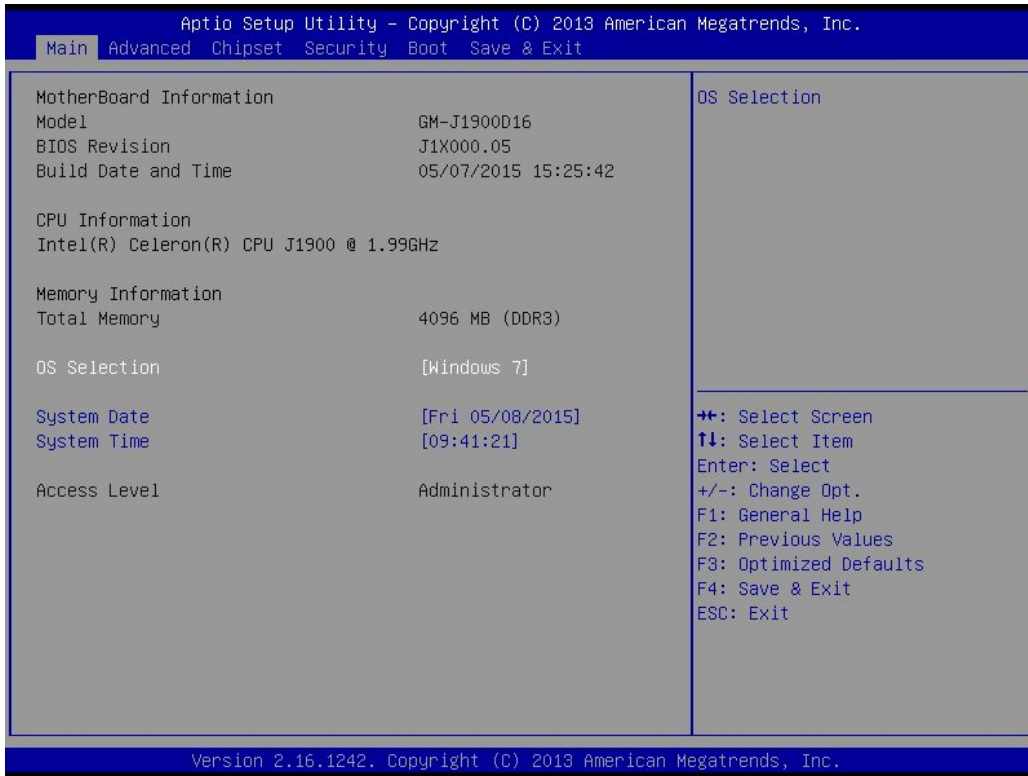
BIOS BIOS POST BIOS

Press Delete to BIOS BIOS <Delete> BIOS  
Reset

BIOS Ctrl+Alt+Delete



### 3.1 MAIN MENU BIOS



#### BIOS Information BIOS

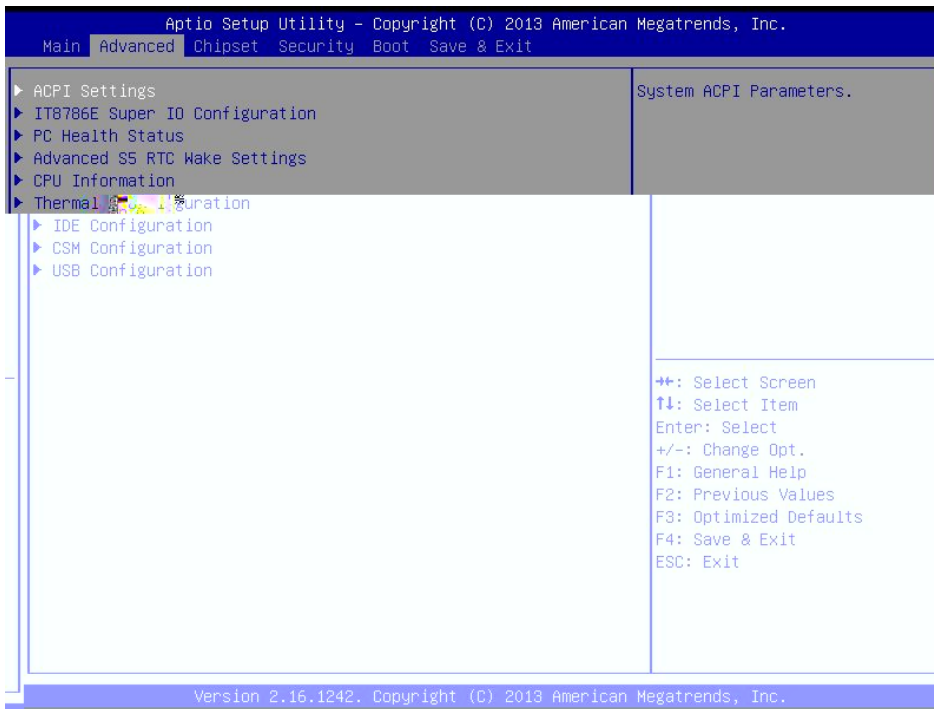
OS Selection ( )

System Date

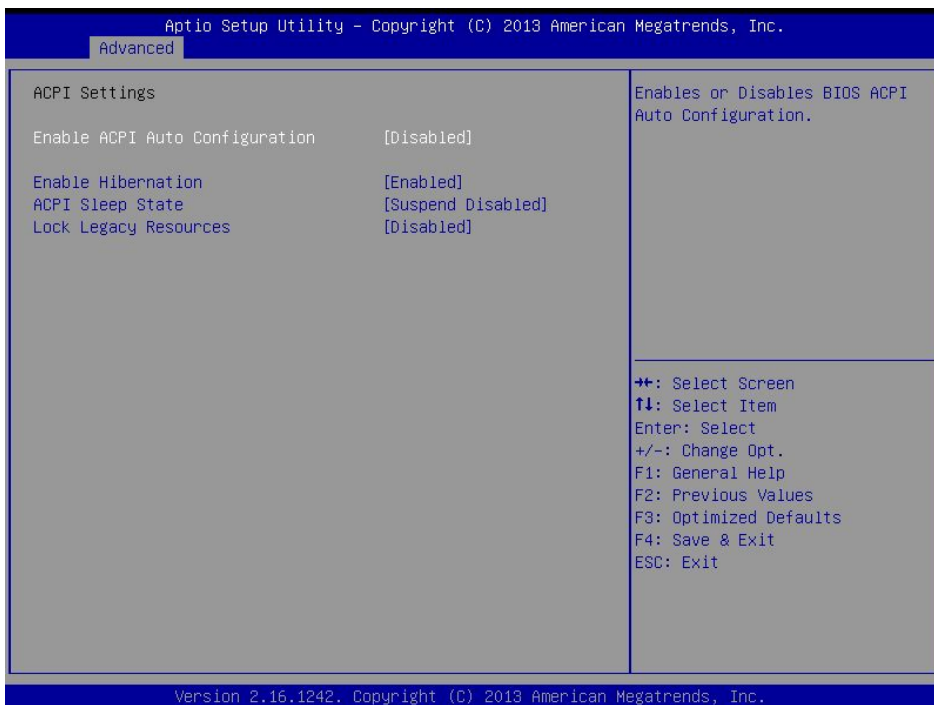
System Time

## 3.2 ADVANCED MENU

CPU I/O



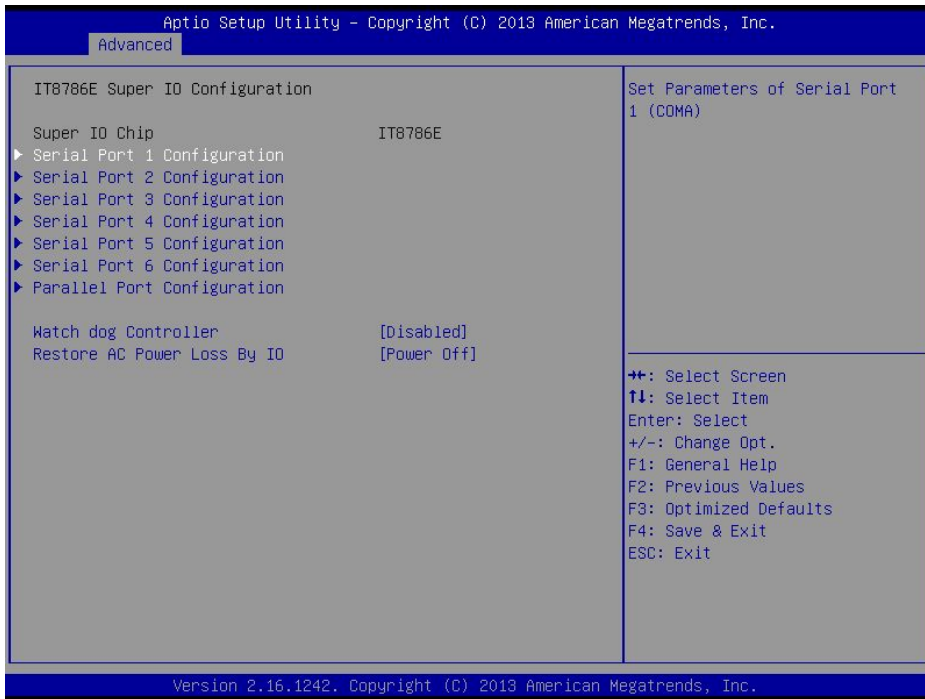
### ACPI Settings



### Enable Hibernation

### ACPI Sleep State ACPI

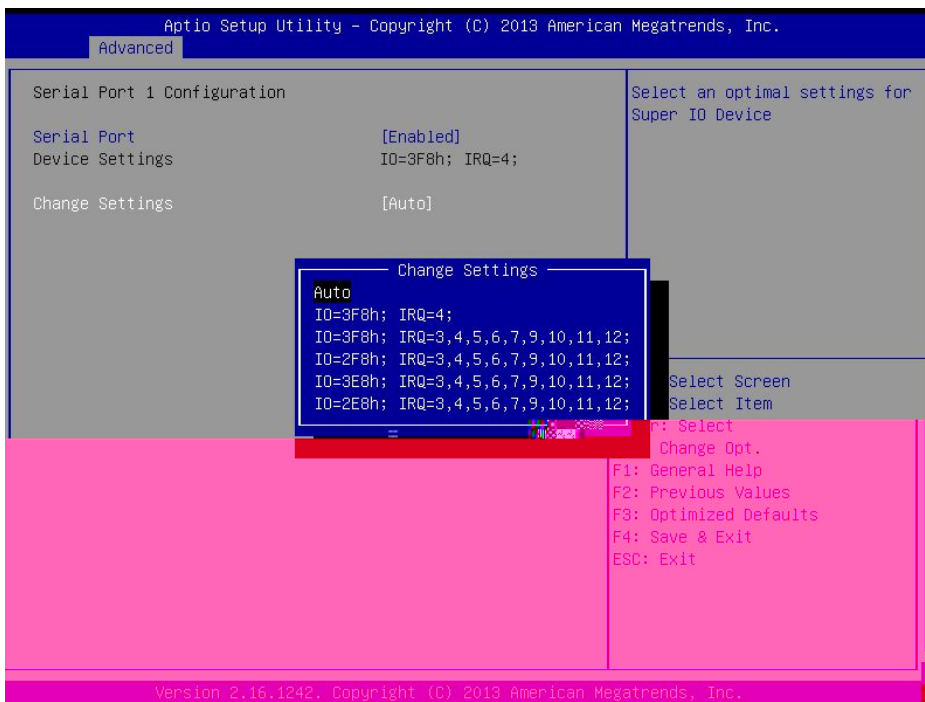
### IT8786E Super IO Configuration( IO )



**Watch dog Controller ( )**

**Restore AC Power Loss By IO (IO )**

### Configuration

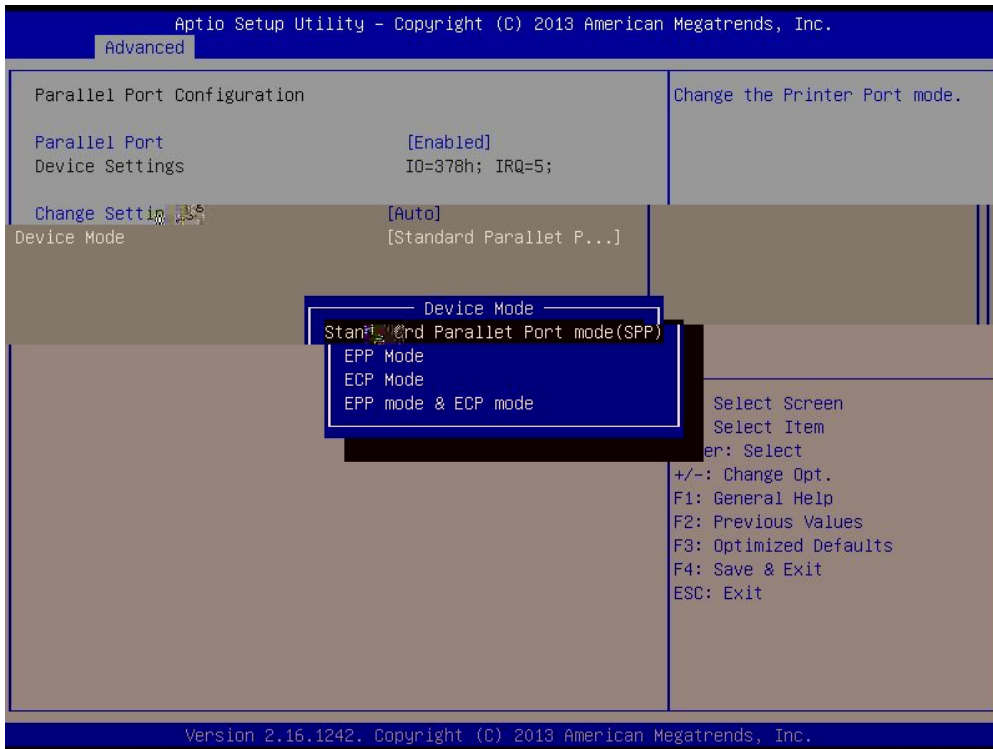


**Serial PortX**

**Device Settings**

**Change Settings**

**Parallel Port Configuration**



**Parallel Port**

**Device Settings**

**[IO=378h;IRQ=6]**

**Change Settings**

**Device Mode**

## PC Health Status PC

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.

Advanced

Pc Health Status

CPU temperature	: +22 C
SYS temperature	: +25 C
CPU Fan Speed	: 6026 RPM
SYS Fan Speed	: N/A
+12V	: +12.240 V
+5V	: +4.968 V
VBAT	: +3.192 V

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

Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

## Advanced S5 RTC Wake Settings S5

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.

Advanced

Advanced S5 RTC Wake Settings [Disabled]

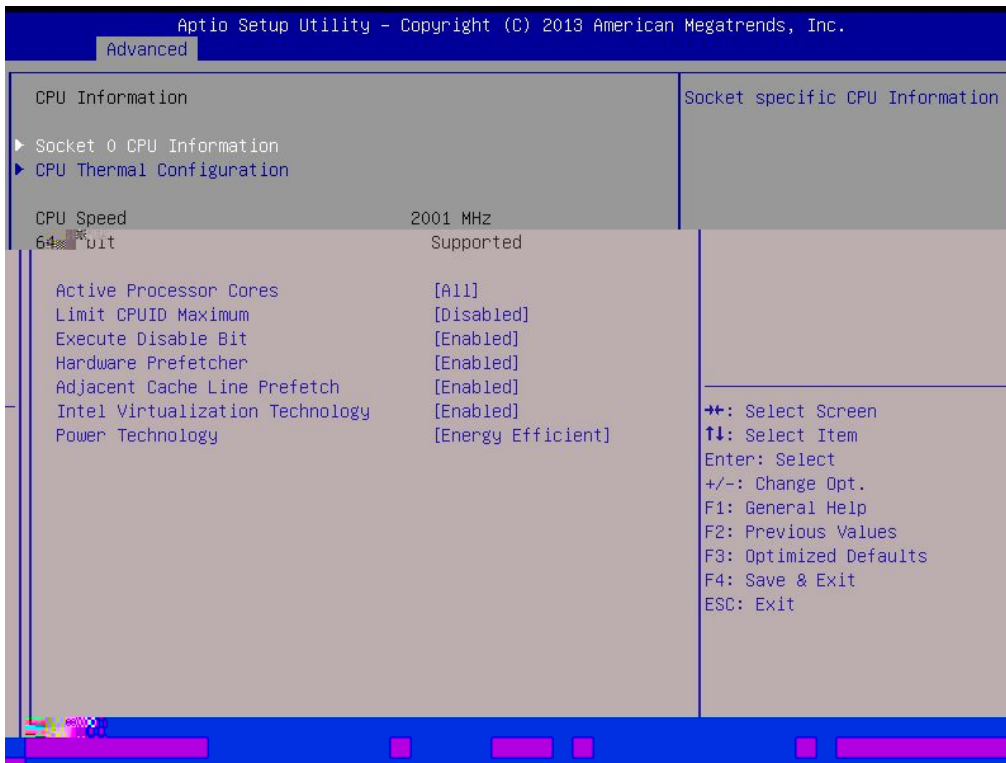
Enable or disable System wake on alarm event. Select FixedTime, system will wake on the day::hr::min::sec specified. Select DynamicTime, System will wake on the current time + Increase minute(s)

Advanced S5 RTC Wake Settings  
Disabled  
Enabled

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

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## CPU Information CPU



Socket 0 CPU Information ( 0 CPU )

Active Processor Cores[ALL]

Limit CPUID Maximum[Disabled]

Execute Disable Bit [Enabled]

Hardware Prefetcher [

Adjacent Cache Line Prefetch [ Enabled ]

Intel Virtualization Technology [Disabled]

## Thermal Configuration ( )

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.

Advanced

Thermal Configuration Parameters		This value controls the temperature of the ACPI critical Trip Point in which the OS will shut the system off.
Critical Trip Point	[90 C]	
Passive Trip Point	[85 C]	
Dynamic Platform&Thermal Framework		
DPTF	[Disabled]	

Critical Trip Point [70 C]  
 Passive Trip Point [85 C]

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

## IDE Configuration (IDE )

Aptio Setup Utility - Copyright (C) 2013 American Megatrends, Inc.

Advanced

IDE Configuration		Enable / Disable Serial ATA
Serial-ATA (SATA)	[Enabled]	
SATA Test Mode	[Disabled]	
SATA Speed Support	[Gen2]	
SATA ODD Passthrough	[No ODD]	
SATA Mode	[AHCI Mode]	
Serial-ATA Port 0	[Enabled]	
SATA Port0 HotPlug	[Disabled]	
Serial-ATA Port 1	[Enabled]	
SATA Port1 HotPlug	[Disabled]	
SATA Port0	Not Present	
SATA Port1	Not Present	

++: 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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# CSM Configuration CMS

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Advanced

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

Version 2.16.1242. Copyright (C) 2013 American Megatrends, Inc.

## USB

XHCI HAND-OFF [Enabled]

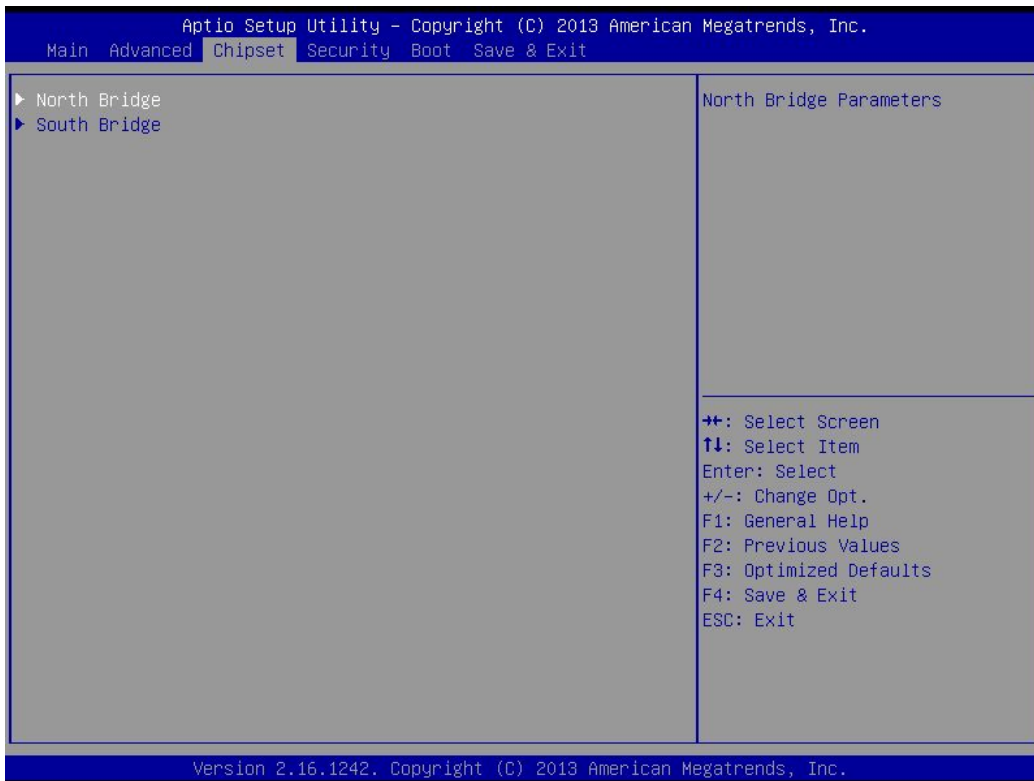
EHCI Hand-off [Disabled]

USB Mass Storage Driver Support [Enabled]

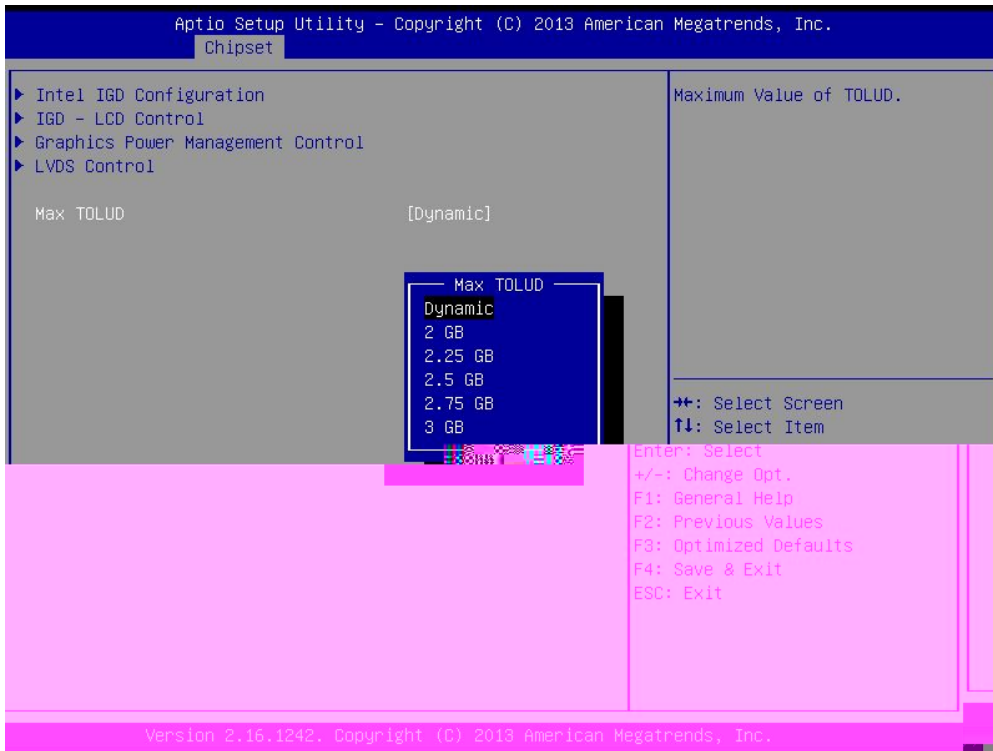
USB Transfer time-out [20sec]

Device reset time-out [20sec]

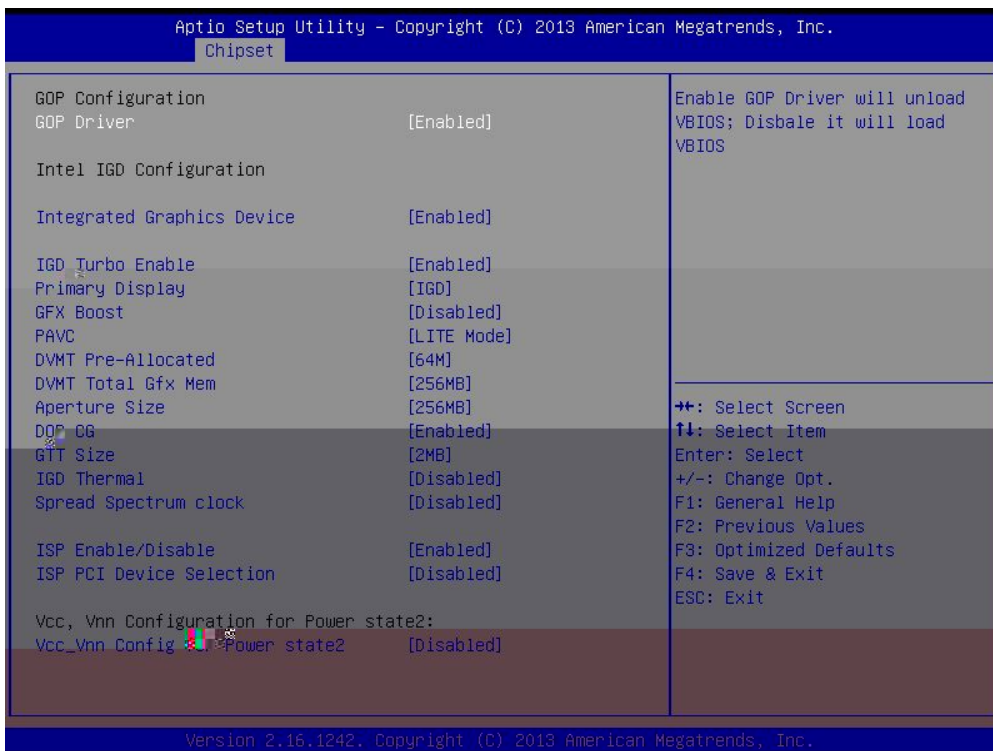
### 3.3 Chipset MENU



#### North Bridge



## Intel IGD Configuration



## GOP Driver

## Integrated Graphics Device

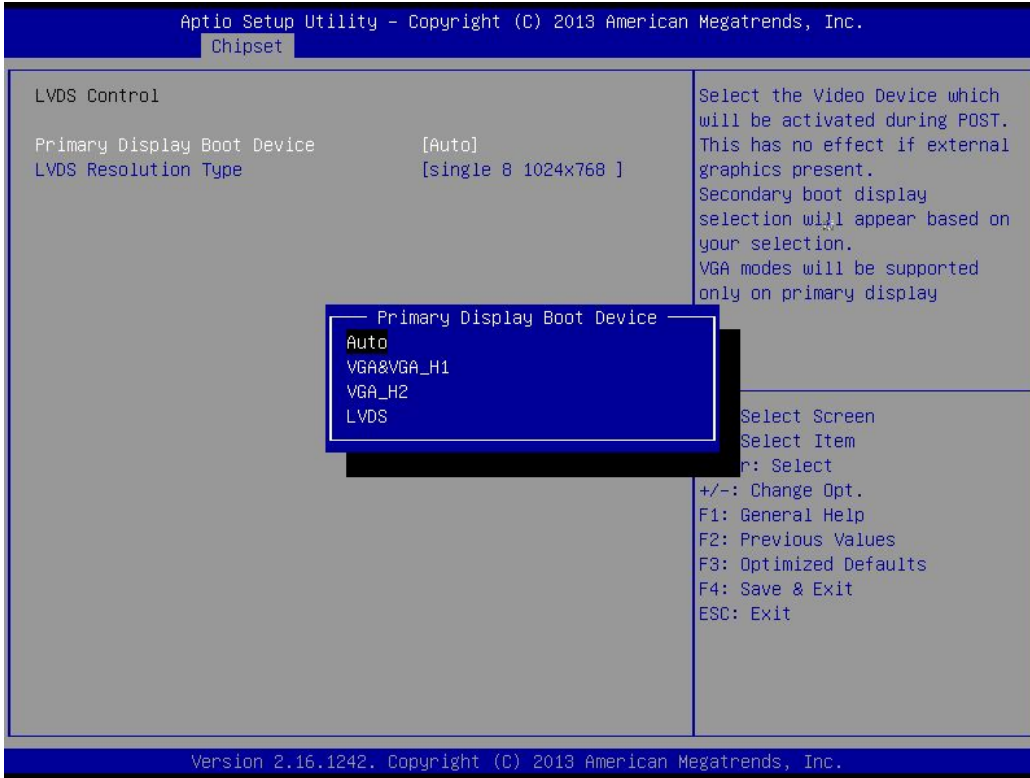
## Primary Display

## PAVC

DVMT Pre-Allocate

DVMT Total Gfx Mem

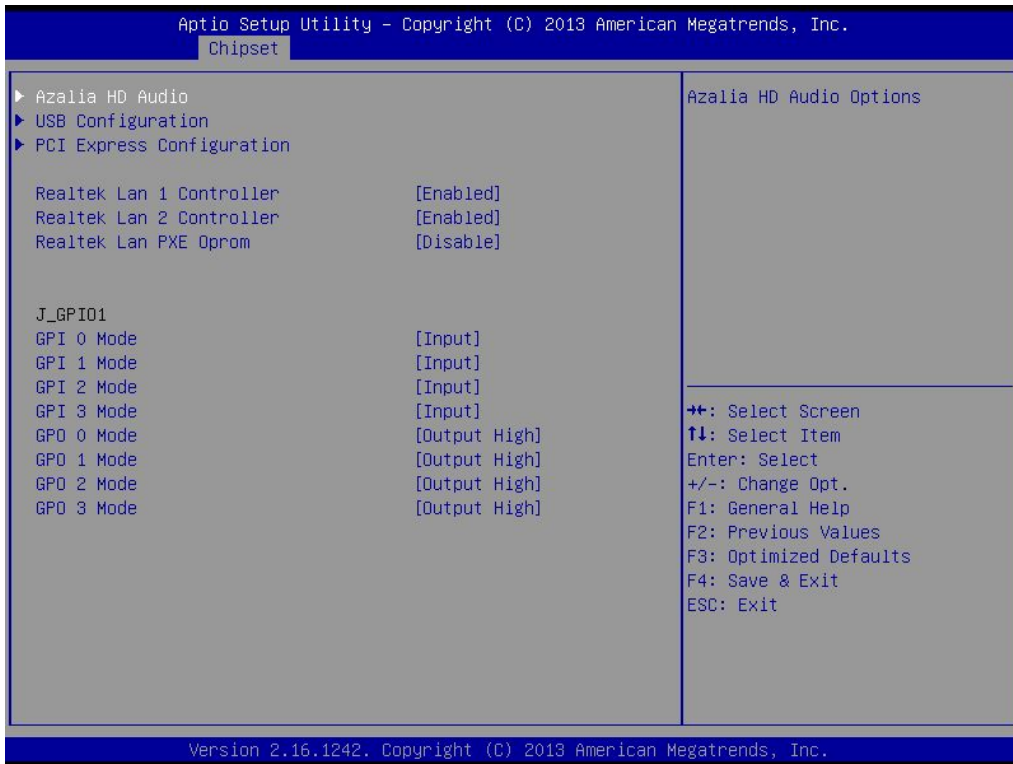
**LVDS Control LVDS**



**Primary Display Boot Device**

**LVDS Resolution Type LVDS**

**South Bridge**



**Azalia HD Audio**

**Azalia HDMI codec Port [Enabled]**

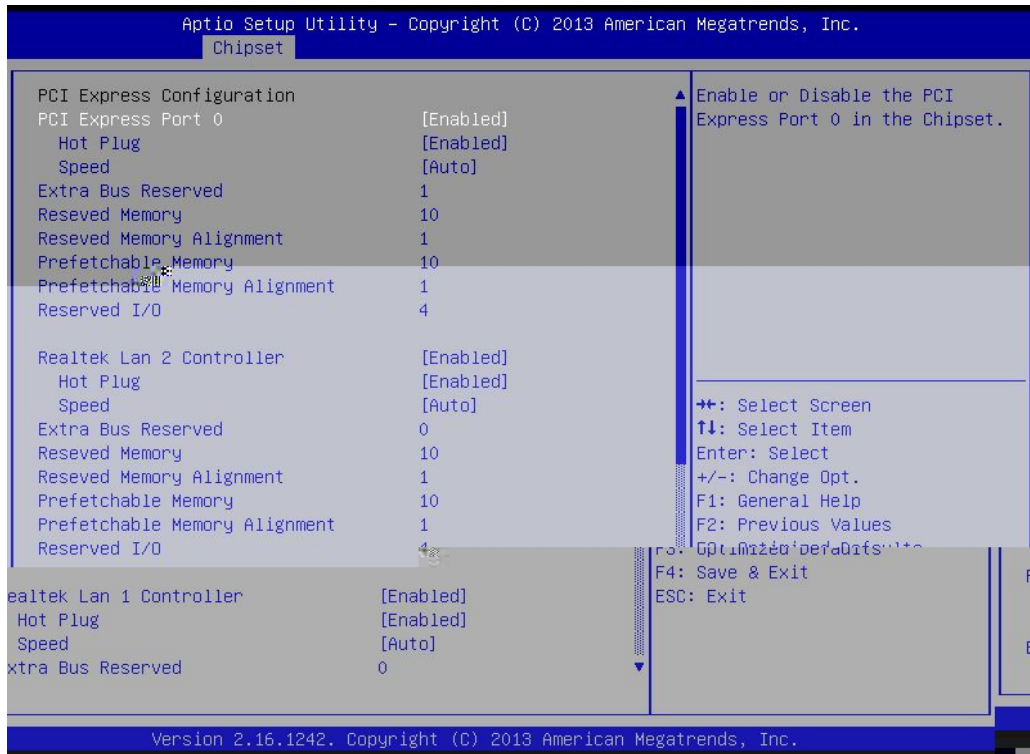
**USB Configuration (USB )**

**Lan Controller [Enabled]**

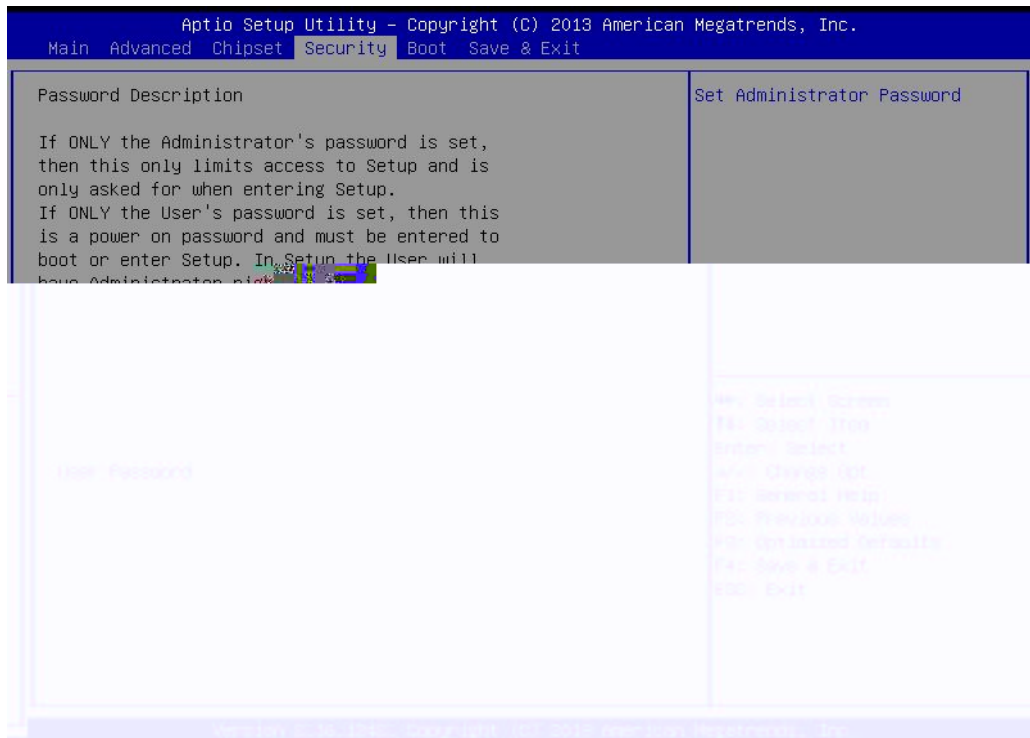
**Lan PXE OpROM Boot [Do not launch]**

**Restore AC Power Loss [Power Off]**

## PCI Express Configuration



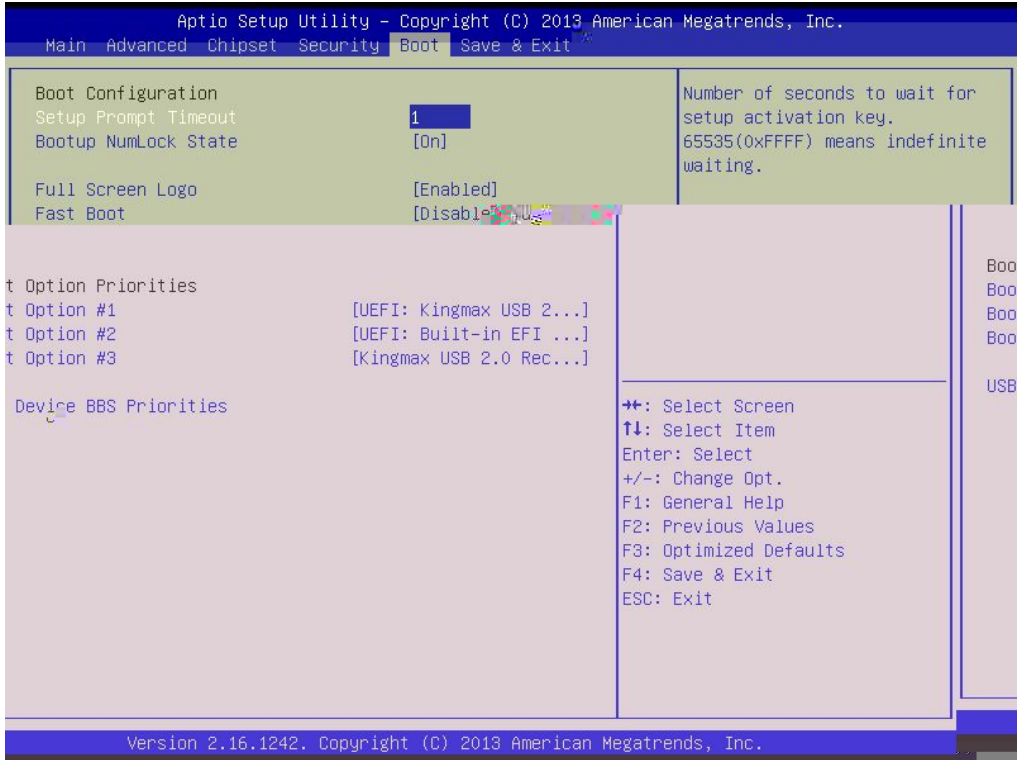
## 3.4 Security MENU



### Administrator Password

## User Password

### 3.5 BOOT MENU



**Setup Prompt Timeout [1]**

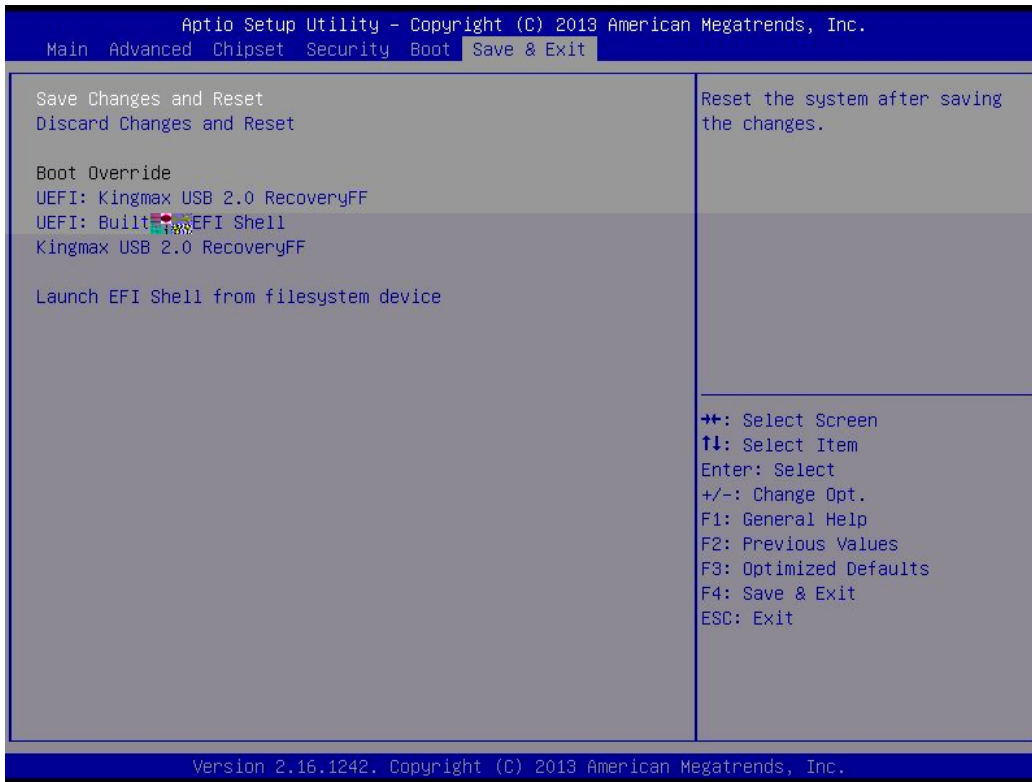
**Bootup NumLock State [On]**

**Full Screen Logo [Disabled]**

**Fast Boot [Disabled]**

**Boot Option Priorities**

### 3.6 Save&Exit MENU



**Save Changes and Exit**

**Discard Changes and Exit**

**Launch EFI Shell From filesystem device**

## 4 :

### 4.1

GM-J1X001 Driver \ Chipset \ infirst\_9.4.0.1026 \ , double-click “Setup”.

Intel XP/WIN7/WIN8

### 4.2

XP GM-J1X001 Driver \ VGA \ WIN XP \ 32bit/64bit \ , double-click “Setup”.

WIN7&WIN8 GM-J1X001 Driver \ VGA \ WIN7&WIN8 \ 32bit/64bit \ , double-click “Setup”.

32bit 64bit 32 64

### 4.3

XP GM-J1X001 Driver \ Audio \ XP \ , double-click “Setup.exe”.

WIN7&WIN8 GM-J1X001 Driver \ Audio \ WIN7&WIN8 \ , double-click “Setup.exe”.

### 4.4

XP GM-J1X001 Driver \ LAN \ XP\_5820 \ , double-click “Setup.exe”.

WIN7 GM-J1X001 Driver \ LAN \ Win7\_7077 \ , double-click “Setup.exe”.

WIN8&WIN8.1 GM-J1X001 Driver \ LAN \ Win8\_8.1\_8020 \ , double-click “Setup.exe”