ERX-H61

Micro ATX Montherboard with Intel® H61 Express Chipset

Quick Installation Guide

2nd Ed – 8 March 2013

Part No. E2017RX6101R

1. Getting Started

1.1 Safety Precautions

Warning!

Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges. Only experienced electronics personnel should open the PC chassis.

Caution!

Always ground yourself to remove any static charge before touching the CPU card. Modern electronic devices are very sensitive to static electric charges. As a safety precaution, use a grounding wrist strap at all times. Place all electronic components in a static-dissipative surface or static-shielded bag when they are not in the chassis.

Always note that improper disassembling action could cause damage to the motherboard. We suggest not removing the heatsink without correct instructions in any circumstance. If you really have to do this, please contact us for further support.

1.2 Packing List

Before you begin installing your single board, please make sure that the following materials have been shipped:

- Rear I/O bracket X 1
- Quick Installation Guide X 1
- Driver/Utility CD X 1
- Serial ATA Signal Cable X 2

1.3 Specifications

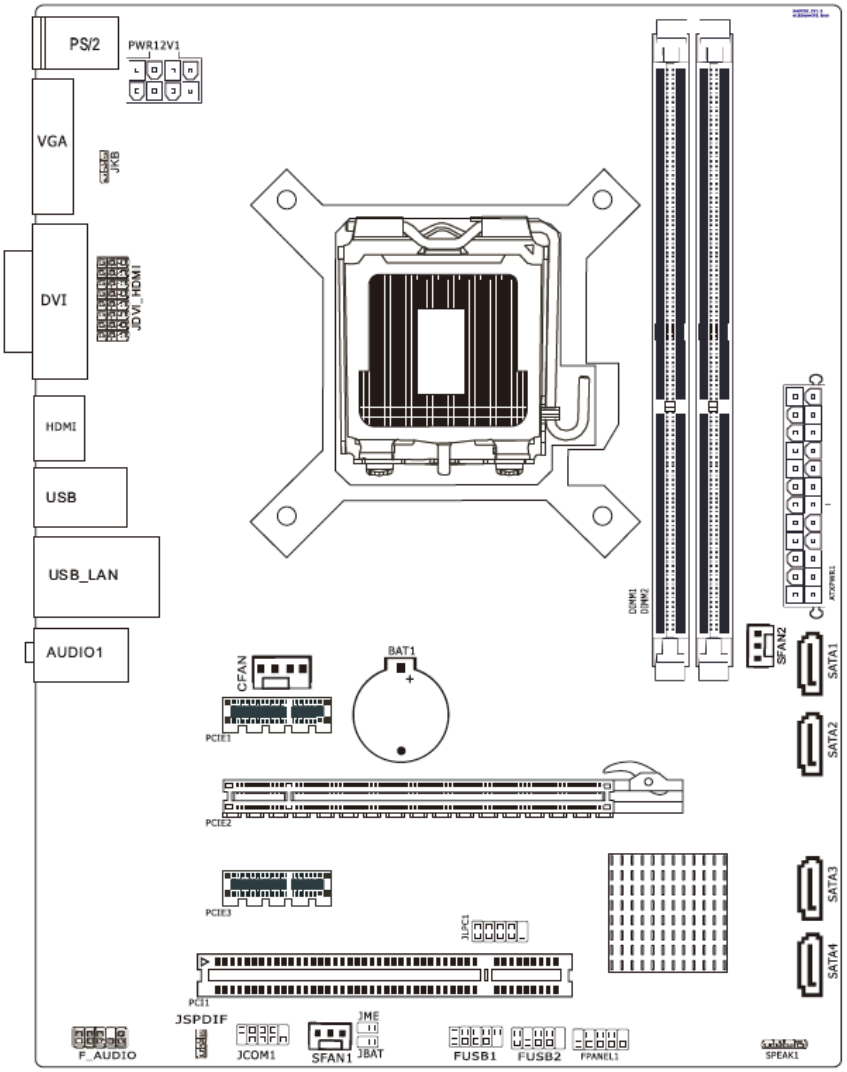
Title	ERX-H61
	Intel® Core™ i7, Core™ i5, Core™ i3, Pentium® /Celeron® Micro ATX Montherboard with Intel® H61 Express Chipset
Features	Intel® LGA1155 socket Supports Core™ i7, Core™ i5, Core™ i3, Pentium® and Celeron® processors
	Intel® H61 Express Chipset
	Two 240-pin DIMM sockets up to 8GB Dual Channel unbuffered DDR3 1066/1333MHz SDRAM
	VGA , DVI -D, HDMI
	Realtek® ALC 662/661 6-Channel HD Audio Codec
	Realtek® RTL8111E PCI-Express Gigabit Ethernet
	1 x PCIex16 , 2 x PCIex1 , 1 x PCI
	4 STAT II 3.0Gb/s , 8 x USB 2.0 Ports
Specifications	
System	
CPU	Intel® LGA1155 socket Supports Core™ i7, Core™ i5, Core™ i3, Pentium® and Celeron® processors
BIOS	AMI UEFI 1 x 32Mbit Flash ROM BIOS
System Chipset	Intel® H61 Express Chipset
I/O Chip	Nuvoton NCT5577D
System Memory	Two 240-pin DIMM sockets up to 8GB Dual Channel unbuffered DDR3 1066/1333MHz SDRAM
Watchdog Timer	NA
H/W Status Monitor	Monitoring temperature, Voltage, and Fan status.with Auto throttling control
Expansion	1 x PCIex16 , 2 x PCIex1 , 1 x PCI
I/O	
MIO	4 x STAT II 3.0Gb/s 1 x K/B 1 x Mouse 1 x S/PDIF Out header 1 x RS-232 1 x 24-pin ATX power connecto 1 x 8-pin ATX 12V power connector 1 x CPU fan header

	2 x System fan headers 1 x Front panel header 1 x Front panel audio header 1 x Speaker header
USB	8 x USB 2.0 (4 x USB 2.0 Ports ,rear I/O connectors , 4 x USB 2.0 Ports , internal pin-header)
Parallel Port	NA
PS2 KB/MS	1 x PS2 K/B , 1 x PS2 Mouse
DIO	NA
Display	
Chipset	Intel® HD Graphics Media Accelerator 2000/3000 (Based on CPU type) Support for DX10.1 and OpenGL3.0
Resolution	CRT 2048X1536 @ 75 Hz 1 x DVI-D port or 1 x HDMI port 1920 x 1200 @ 60 Hz selection by JUMP (The DVI-D port does not support D-Sub connection by adapter)
Dual Display	VGA+DVI, VGA+HDMI
Audio	
Audio Codec	Realtek ALC 662/661 6-Channel HD Audio Codec
Audio Interface	Mic-in , Line-in,Line out
Ethernet	
LAN Chip	1 x Realtek® RTL8111E PCI-Express Gigabit Ethernet
Ethernet Interface	10/100/1000 Base-Tx Gigabit Ethernet
Mechanical & Environmental	
Power Requirement	+12V/+5V/+5Vsb/+3.3V/-12V
Power Type	ATX
Operating Temp.	0 ~ 50°C (32 ~ 121°F)
Storage Temp	-40 ~ 75°C (-40 ~ 75°F)
Operating Humidity	0 ~ 90% Relative Humidity, Non-condensing
Size (L x W)	Micro ATX 9.6” x 7.28” (244mm x 185mm)
Weight	0.88lbs (0.4kg)

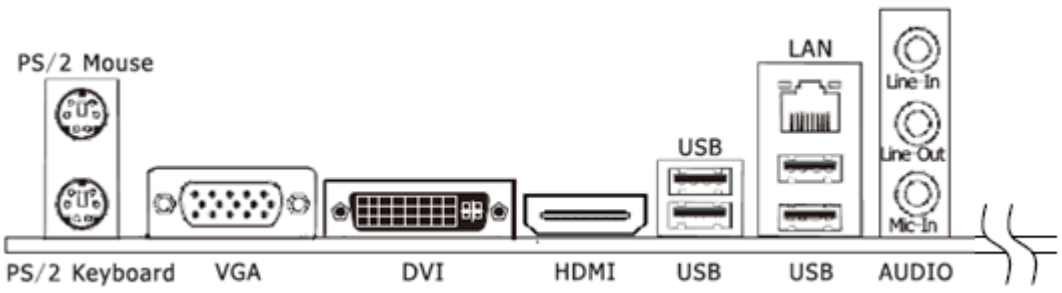
2 Hardware Configuration

2.1 Product Overview

2.1.1 Main board layout

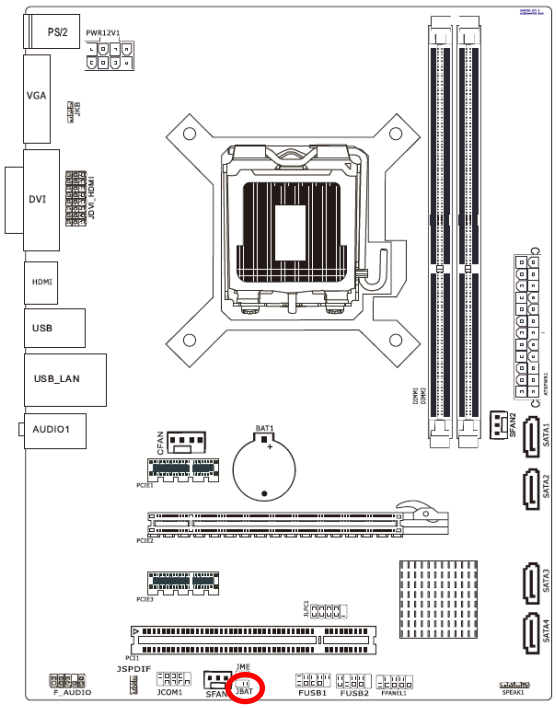


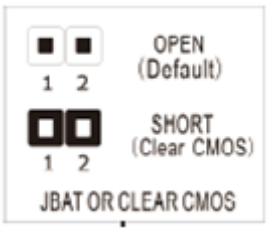
2.1.2 Connecting Rear Panel I/O Devices



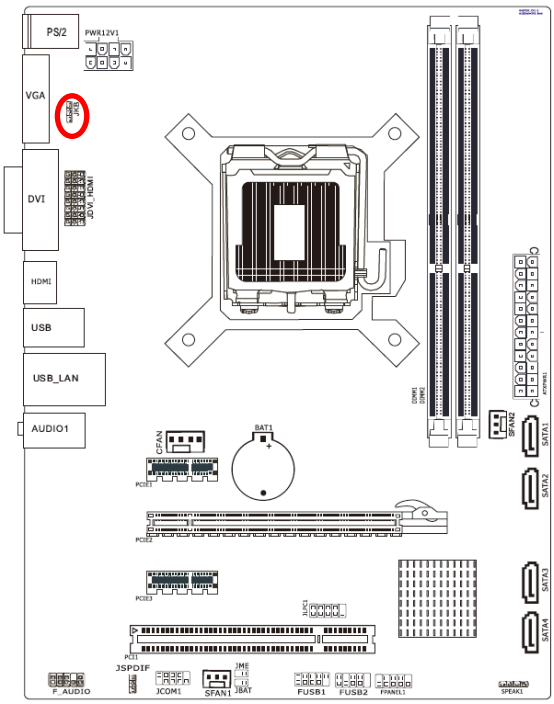
2.2 Setting Jumpers & Connectors

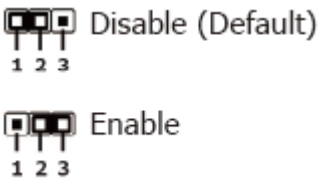
2.2.1 Clear CMOS (JBAT)



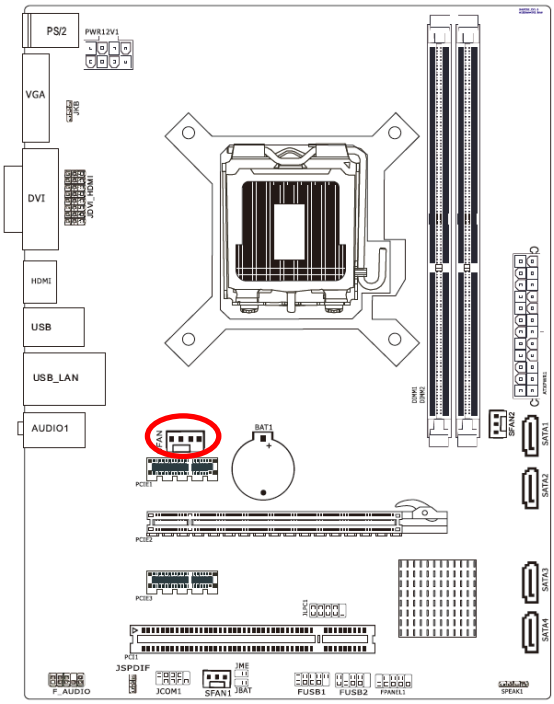


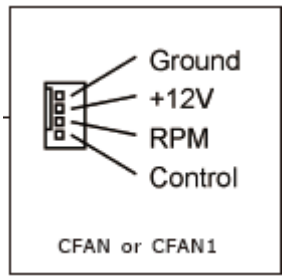
2.2.2 Keyboard Power Function (JKB)



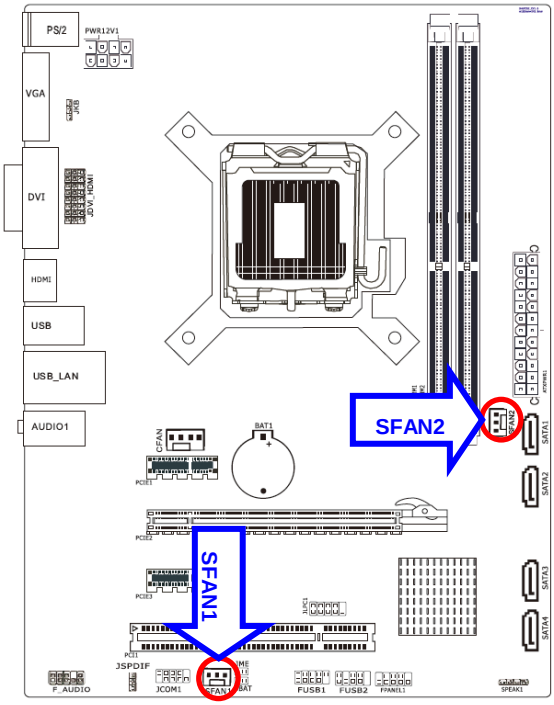


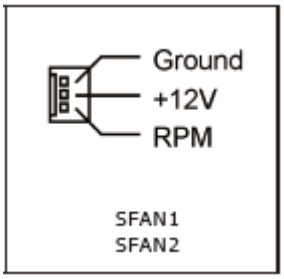
2.2.3 FAN power connectors (CFAN or CFAN1)



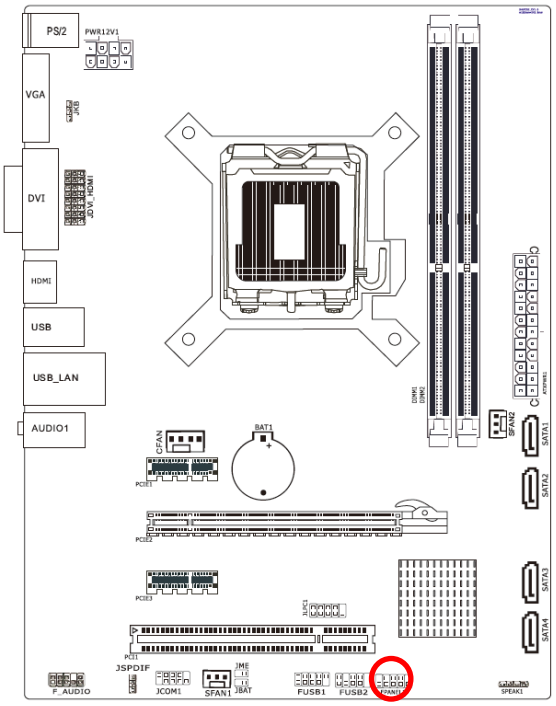


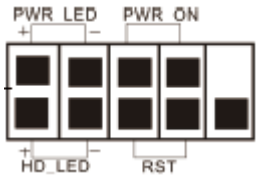
2.2.4 System Fan Power Connector (SFAN1/SFAN2)





2.2.5 Front Panel Switches (FPANEL1)





HD_LED (Red): Hard Driver LED connector

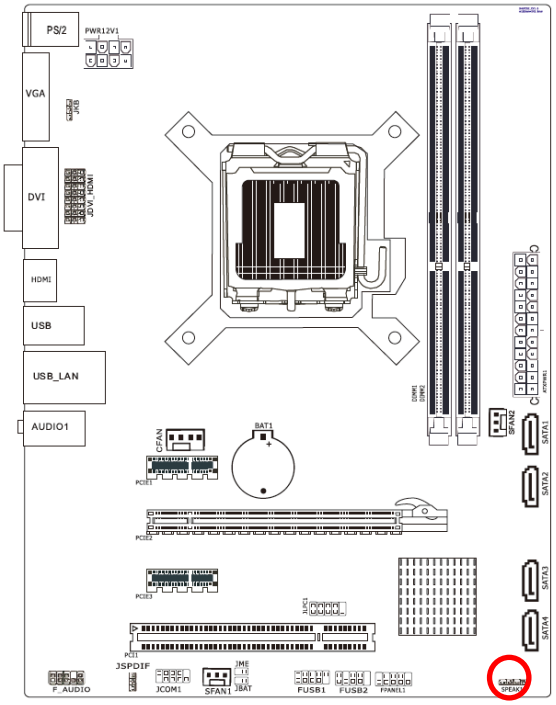
RST (Blue): Reset Switch

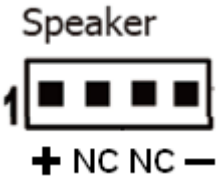
PWR_ON (Black): Power Switch

PWR_LED (Green): Power/Standby LED

2.2.6 Speaker Headers (SPEAK1)

This 4-pin connector connects to the PC buzzer speaker.

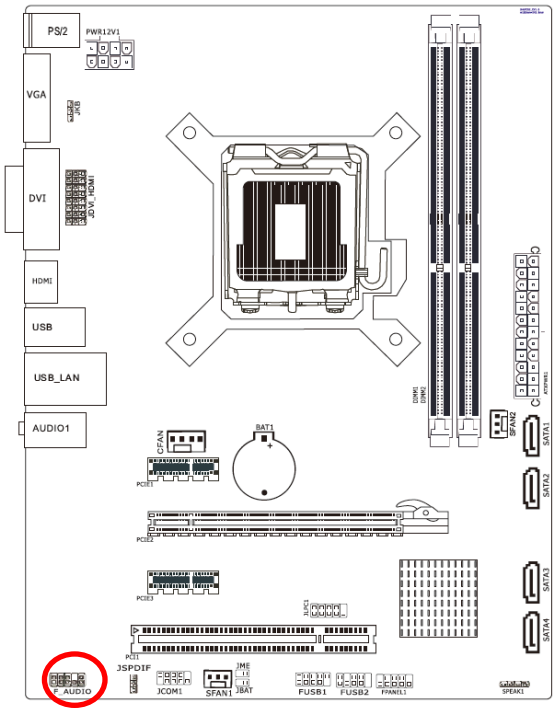




Speaker (Yellow or Black)

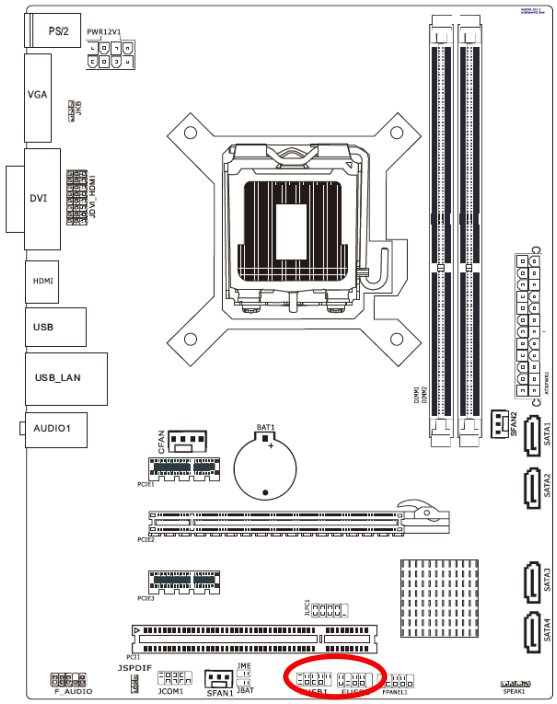
Pin No.	1	2	3	4
Pin Define	VCC	NC	NC	GND

2.2.7 Front Panel Audio Connection Header (F_AUDIO)



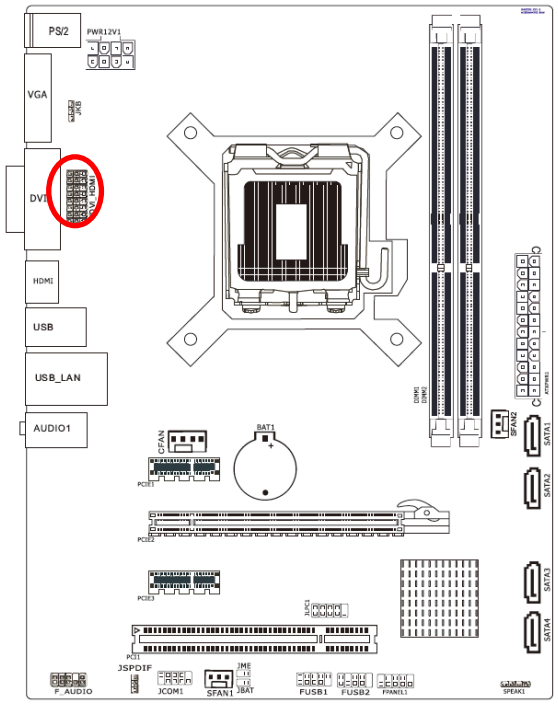
Pin No.	Header	HD Audio Definition	AC97 Audio Definition
1	PORT1L	Microphone_Left	Microphone
2	AGND	Ground	Ground
3	PORT1R	Microphone_Right	MIC Power
4	PRESENCE#	-ACZ_DET	N/A
5	PORT2R	Line2_Right	Line out (R)
6	SENSE1_RETURN	AuD_R_Return	N/A
7	SENSE_SEND	FAUDIO_JD	N/A
8	No Pin	N/A	N/A
9	PORT2L	Line2_Left	Line Out(L)
10	SENSE2_RETURN	AuD_L_Return	N/A

2.2.8 Additional USB Ports (FUSB1/FUSB2)



Pin	Pin Assignment	Pin	Pin Assignment
1	VCC	2	VCC
3	Data 0-	4	Data 0-
5	Data 0+	6	Data 0+
7	Ground	8	Ground
9	No Pin	10	NC

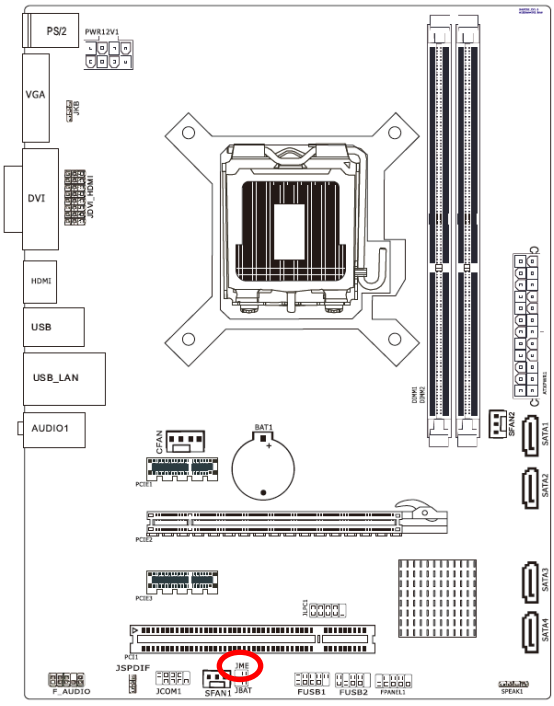
2.2.9 JDVI_HDMI and JME connectors (JDVI_HDMI / JME)



JDVI_HDMI Jumper

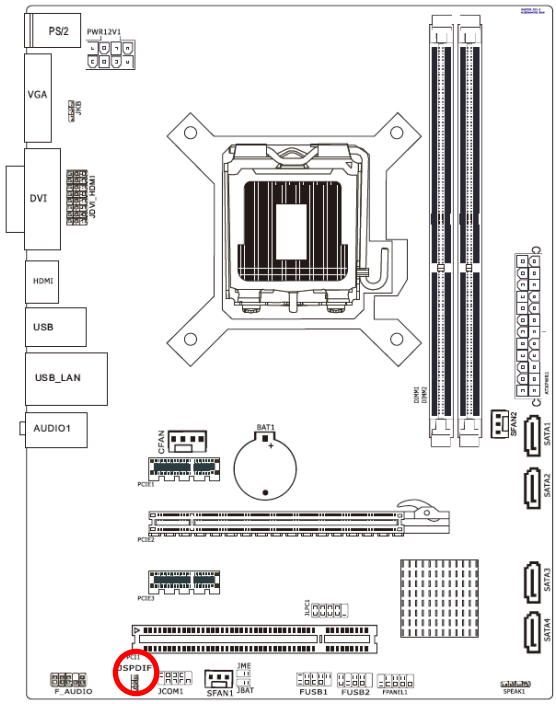
Pin No.	Definition
Pin1-2	DVI
Pin2-3	HDMI

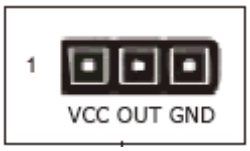
Shorten #pin 1-2 to DVI device. If can't be detected, please shorten #pin 2-3 to HDMI.



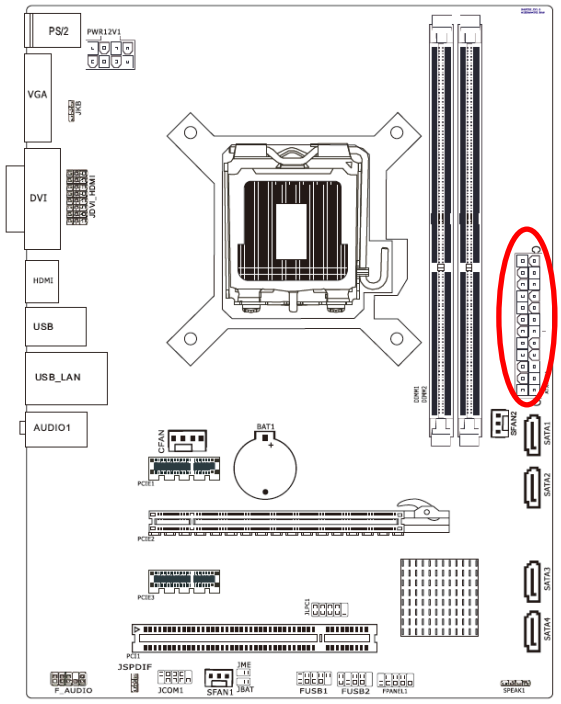
JME: short #pin 1-2 to refresh your ME

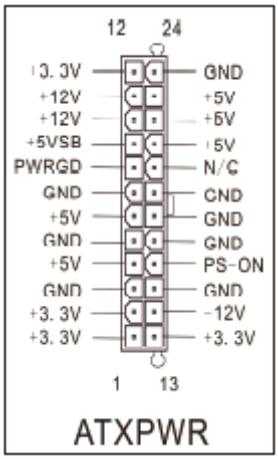
2.2.10 S/PDIF Output connector (Optional)





2.2.11 ATX power connector (ATXPWR)





2.2.12 Power connector (PWR12V)