MX1900J

Intel® Quad Core Bay Trail 4th gen Atom™
Mini ITX Motherboard

Quick Installation Guide

1st Ed – 18 March 2015

FCC Statement

THIS DEVICE COMPLIES WITH PART 15 FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS:

(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE.

(2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS "A" DIGITAL DEVICE, PURSUANT TO PART 15 OF THE FCC RULES.

THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT. THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS.

OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

Notice

This guide is designed for experienced users to setup the system within the shortest time. For detailed information, please always refer to the electronic user's manual.

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To receive the latest version of the user's manual; please visit our Web site at:
http://www.avalue.com.tw/

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Content

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.

1.2 Packing List

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

- 1 x MX1900J Motherboard
- 1 x SATA Power Cable
- 1 x I/O Shield

If any of the above items is damaged or missing, contact your retailer.

2. Hardware Configuration

2.1 Product Overview

2.1.1   Board Layout
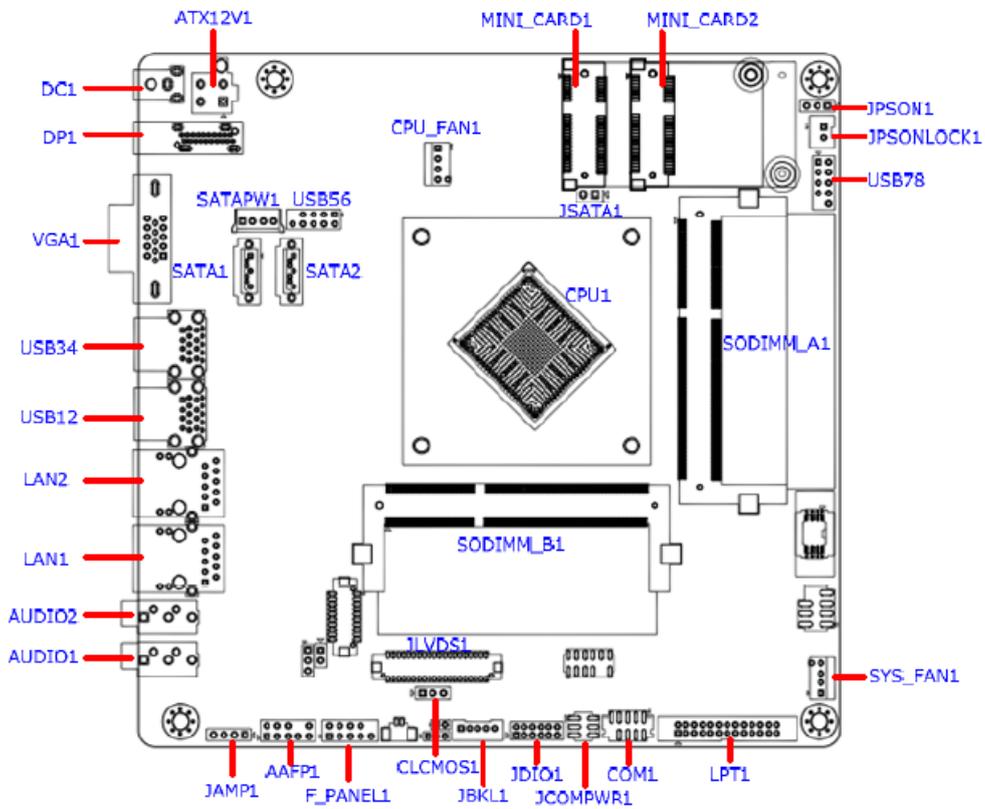
2.1.2   Back Panel
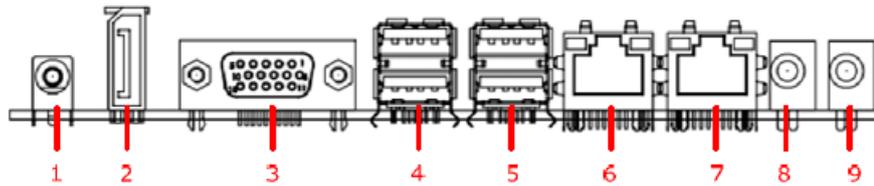
Item	Name	Function	Description
1	DC1	DC adapter Connector	The port is for a DC adapter.
2	DP1	Display Port	The display port Connector
3	VGA1	VGA Video Port	The VGA15-pin Connector.
4	USB34	USB 3.0 Connectors	These two 4-pin Universal Serial Bus (USB) ports are available for connecting USB 3.0 devices.
5	USB12	USB 3.0 Connectors	These two 4-pin Universal Serial Bus (USB) ports are available for connecting USB 3.0 devices.
6.	LAN2.	Gigabit LAN (RJ-45) Connectors	This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the LAN port LED indications.
7	LAN1	Gigabit LAN (RJ-45) Connectors	This port allows Gigabit connection to a Local Area Network (LAN) through a network hub. Refer to the table below for the LAN port LED indications.
8	AUDIO2	Microphone port (Pink)	This port connects a microphone.
9	AUDIO1	Line-out port (Lime)	This port connects a headphone or a speaker.

Item 6 (LAN2) LED table:

ACT/Link LED		Speed LED	
Status	Description	Status	Description
OFF	No link	OFF	10Mbps connection
Orange	Linked	Green	100Mbps connection
Blinking	Data activity	Orange	1Gbps connection

Item 7 (LAN1) LED table:

ACT/Link LED		Speed LED	
Status	Description	Status	Description
OFF	No link	OFF	10Mbps connection
Orange	Linked	Green	100Mbps connection
Blinking	Data activity	Orange	1Gbps connection

2.2 Setting Jumpers & Connectors

2.2.1   ATX Power connector (ATX12V1)
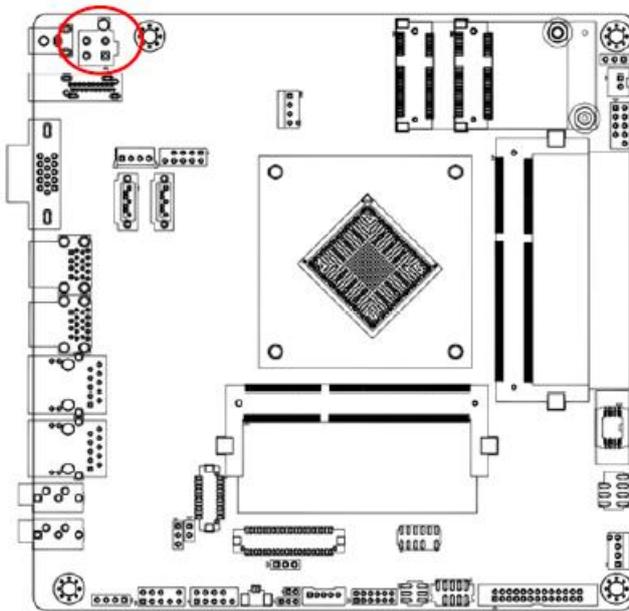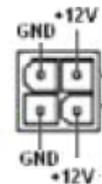
Note:

This header doesn't need to be connected to an ATX

power supply if a 12V DC adapter is connected to "DC1"

connector.

2.2.2   ATX/AT Mode Selection (JPSON1)
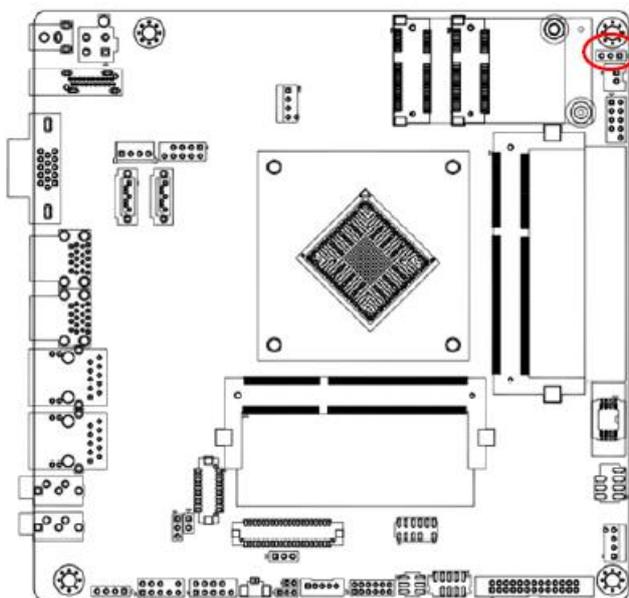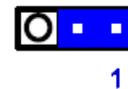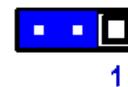
2.2.3   Clear CMOS Jumper (CLCMOS1)
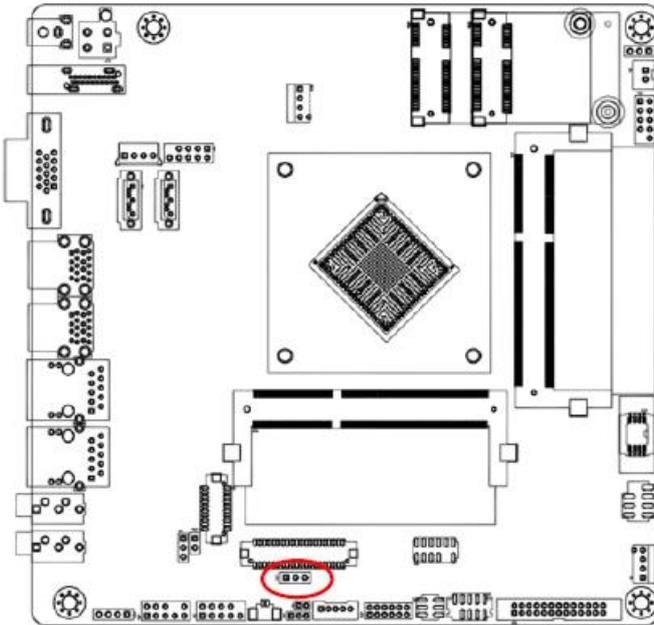
Normal (Default)
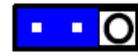
Clear CMOS
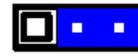
2.2.4   Front Panel connector (F_PANEL1)
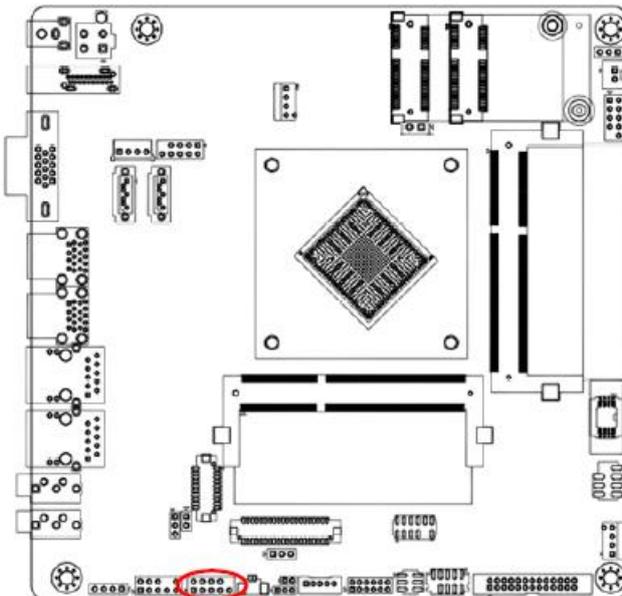
1. HDD LED+   2. +5V
3. HDD LED#   4. PWR LED#
5. GND   6. PANSWIN#
7. RST   8. GND
9. N/A

2.2.5 Fan connector (CPU_FAN1, SYS_FAN1)
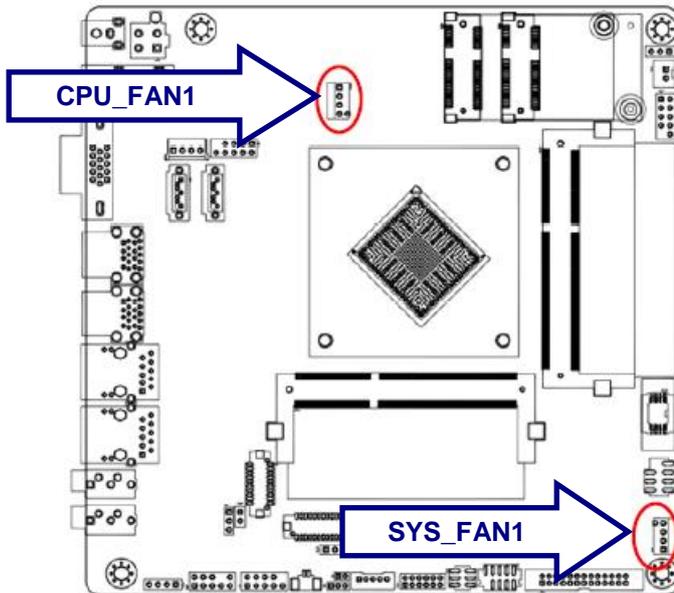
CPU_FAN1

1. GND
2. +V12
3. FAN_SPEED1
4. FAN_PWM1

SYS_FAN1

4. FAN_PWM3
3. FAN_SPEED3
2. +V12
1. GND

2.2.6 Serial Port connector (COM1)

1
2
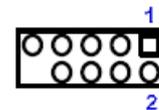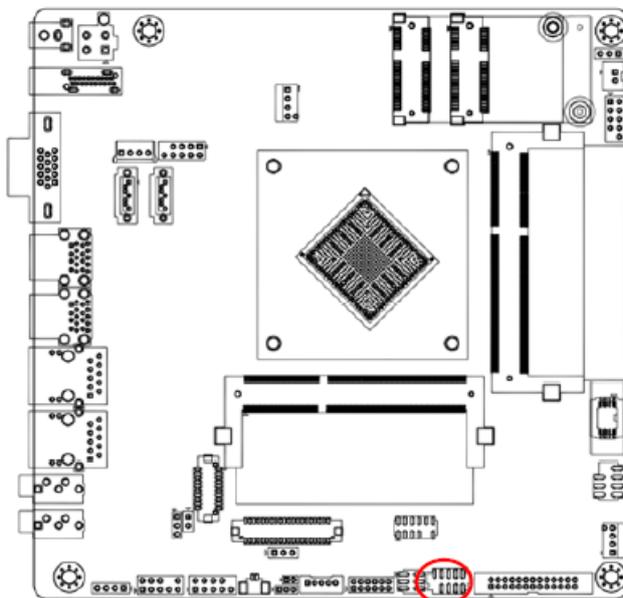
1. DCD#	2. RX
3. TX	4. DTR#
5. GND	6. DSR#
7. RTS#	8. CTS#
9. RI3xPOWERxJMP	

## 2.2.7   COM1 Ring-In/ +12V/ +5V Select (JCOMPWR1)

Ring (Default)

+12V

+5V
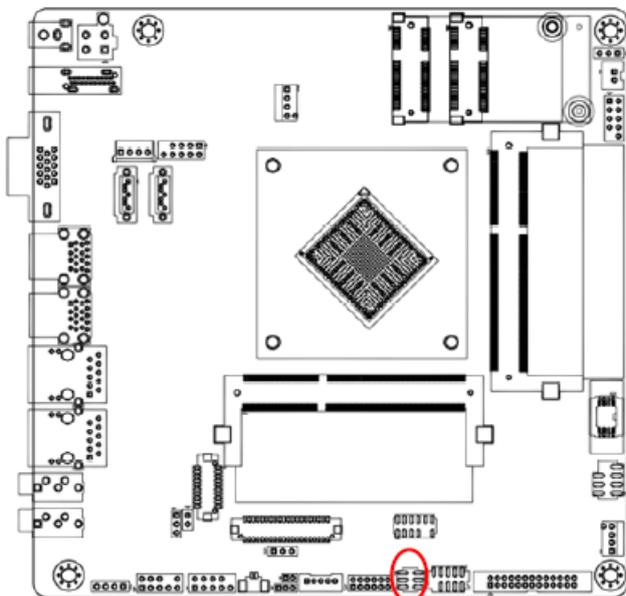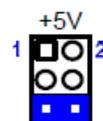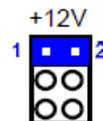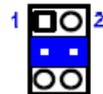
2.2.8   LPT Port connector (LPT1)
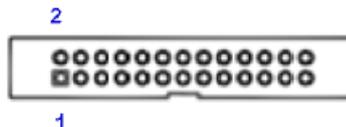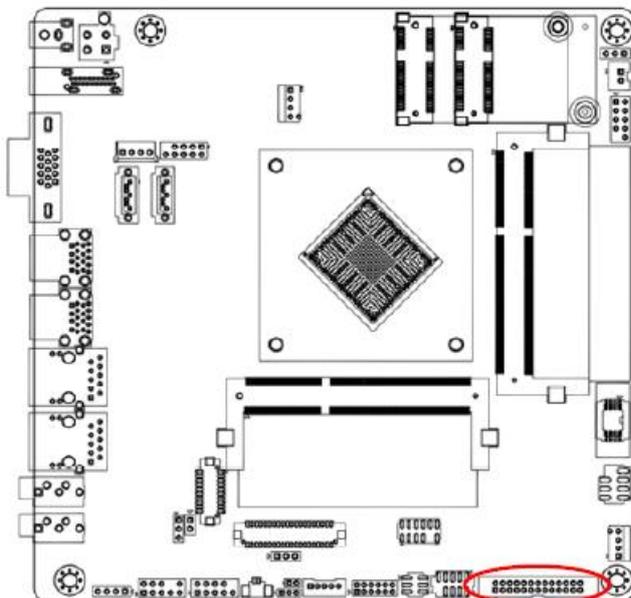
1. LPT_STB#	2. LPT_AFD#
3. LPT_PD0	4. LPT_ERR#
5. LPT_PD1	6. LPT_INIT#
7. LPT_PD2	8. LPT_SLIN#
9. LPT_PD3	10. GND
11. LPT_PD4	12. GND
13. LPT_PD5	14. GND
15. LPT_PD6	16. GND
17. LPT_PD7	18. GND
19. LPT_ACK#	20. GND
21. LPT_BUSY	22. GND
23. LPT_PE	24. GND
25. LPT_SLCT	26. NC

### 2.2.9   SATA 3.0 Ports (SATA1, SATA2)
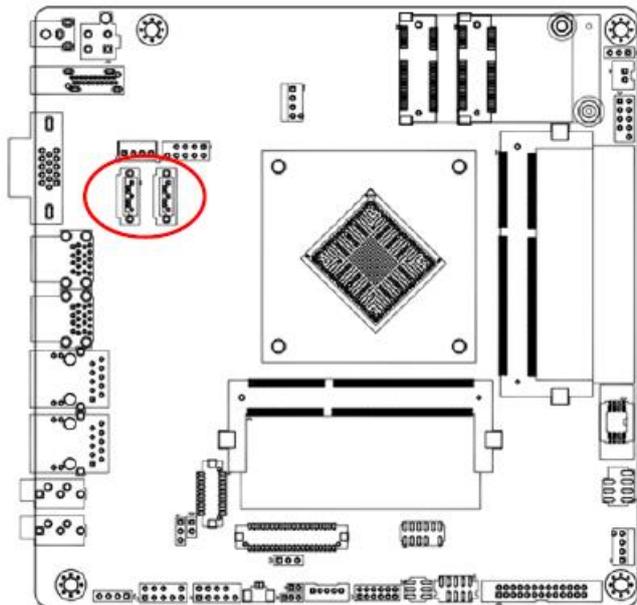
SATA

1. GND
2. TX+
3. TX-
4. GND
5. RX-
6. RX+
7. GND

Note:

Due to "SATA2" and "MINI_CARD1 (mSATA)" are

sharing the same SATA channel, only either one of them

can be used. Please DO NOT install devices to these two

headers at the same time.

2.2.10   SATA Power Header (SATAPW1)
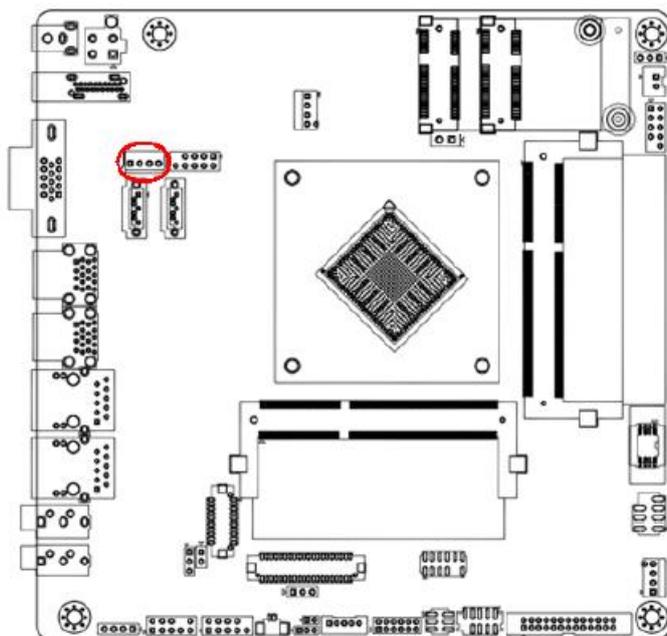
1. +12V
2. GND
3. GND
4. +5V

## 2.2.11   mSATA Mode Select (JSATA1)
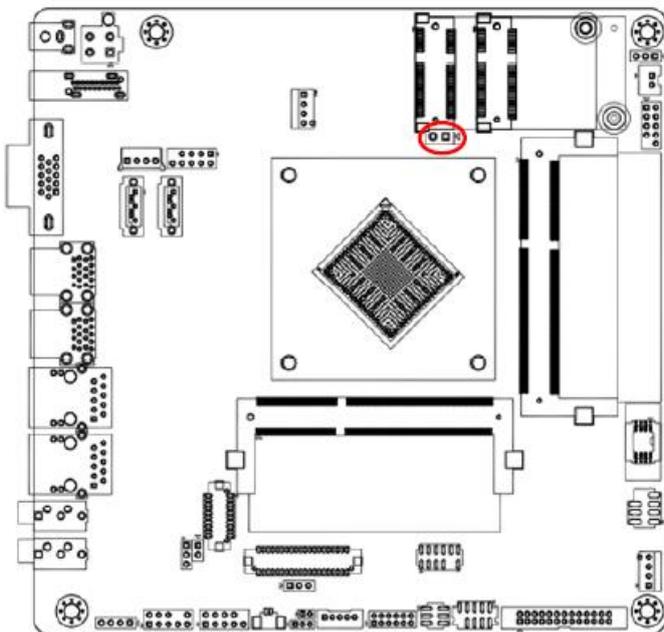

Auto mode
(Default)

1

Force mSATA

1

Note:

Remove this jumper only when there is trouble for BIOS to

detect the installed mSATA device on connector

"MINI_CARD1".

## 2.2.12   Front USB2.0 Headers (USB56, USB78)

USB78

USB56

1		2	1.USB+5V	2.USB+5V
			3.USB -	4. USB -
			5.USB +	6.USB +
			7.GND	8. GND
				9. NC
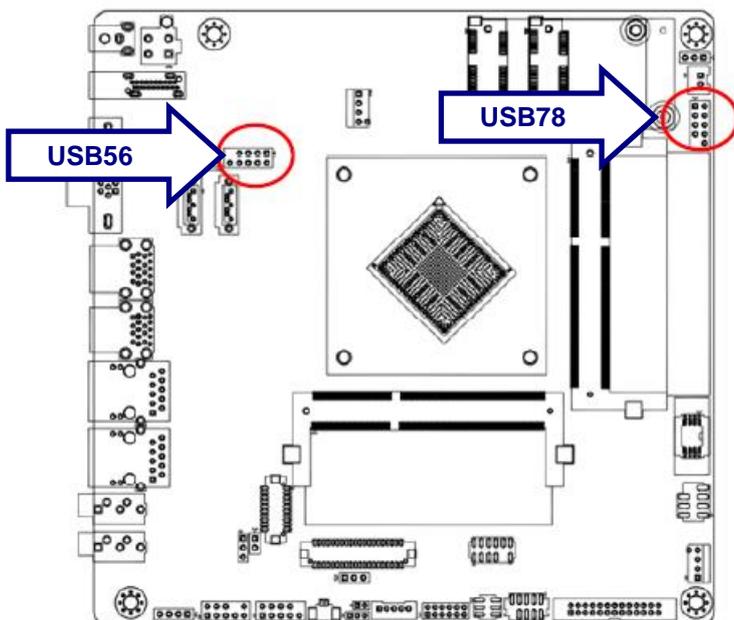
2.2.13 Front Panel Audio connector (AAFP1)
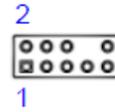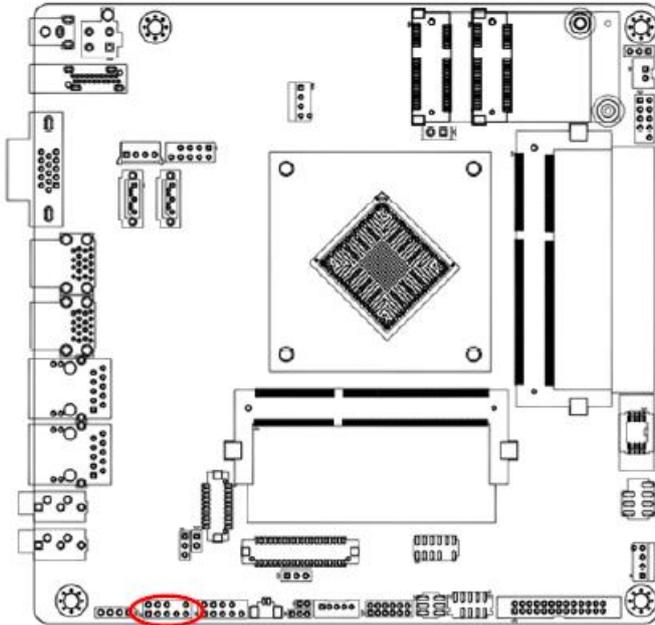
10. LINE2-JD	9. LINE2L
8. NC	7. SENSEB
6. MIC2-JD	5. LINE2R
4. +3.3	3. MIC2R
2. GND	1. MIC2L

## 2.2.14 Amplifier connector (JAMP1)
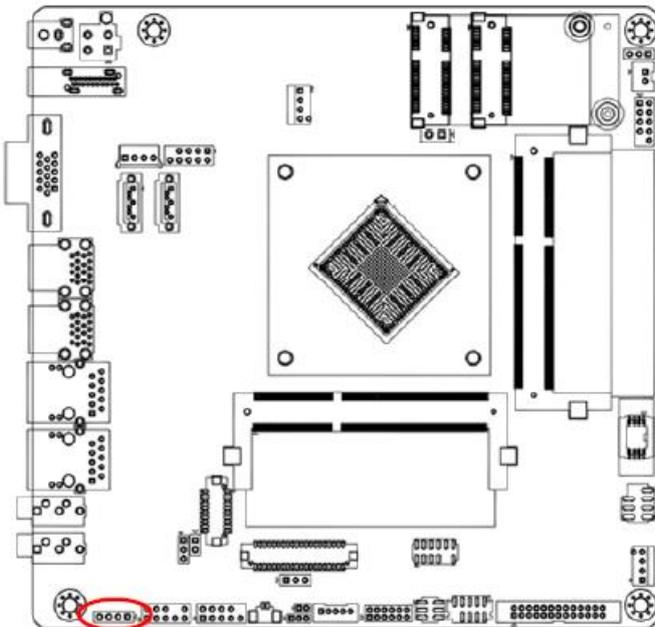
1. AMP_L-
2. AMP_L+
3. AMP_R-
4. AMP_R+

2.2.15   Digital I/O connector (JDIO1)
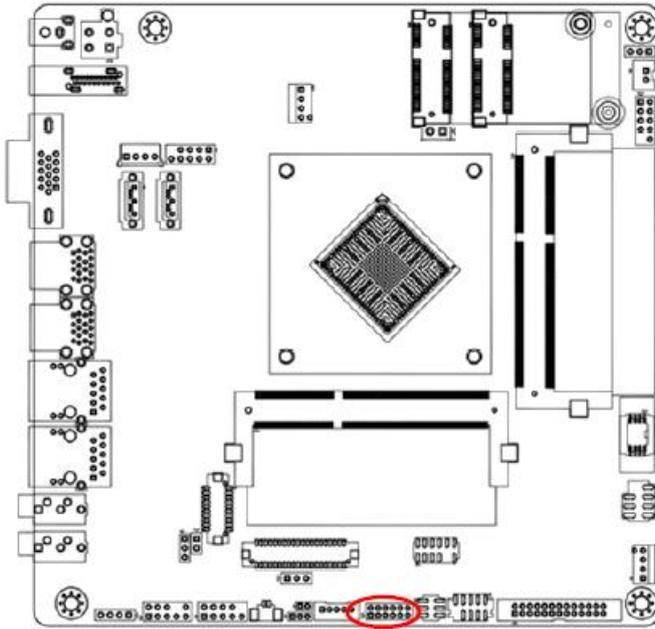


```
1. SIO_GPIO0      2. SIO_GPIO4
3. SIO_GPIO1      4. SIO_GPIO5
5. SIO_GPIO2      6. SIO_GPIO6
7. SIO_GPIO3      8. SIO_GPIO7
9. SMB_CLK_       10. SMB_DATA_
   RESUME            RESUME
11. GND           12. +5Vsb
```

2.2.16   LVDS Panel connector (JLVDS1)
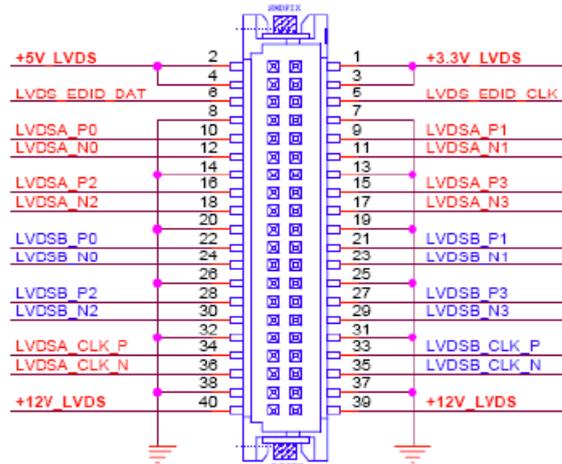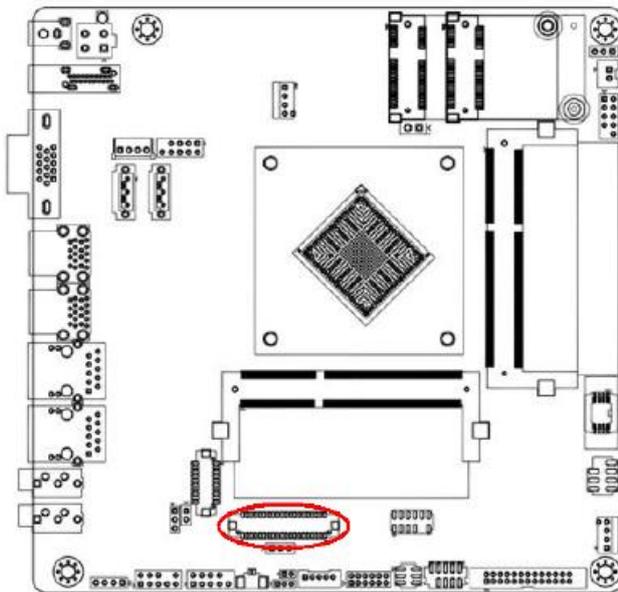
2.2.17 LVDS Panel Backlight connector (JBKL1)
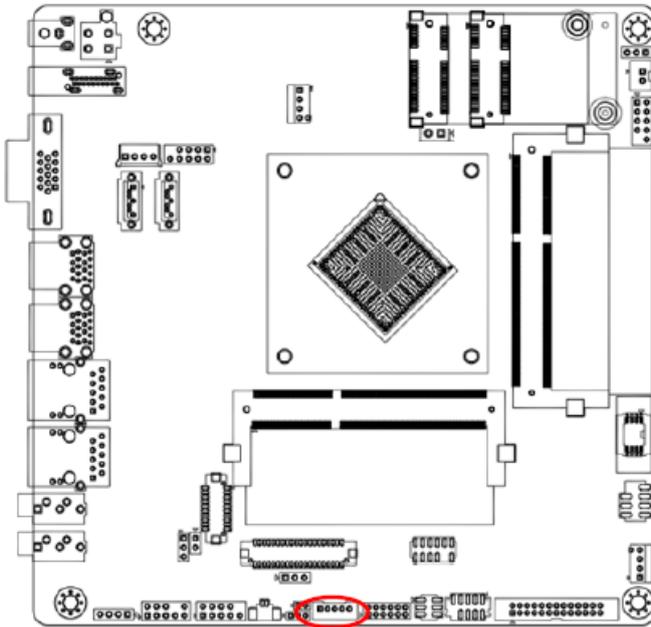

1. +12V_BL
2. GND
3. BL_EN
4. BRIGHT1
5. +5V_BL

3. Mechanical Drawing
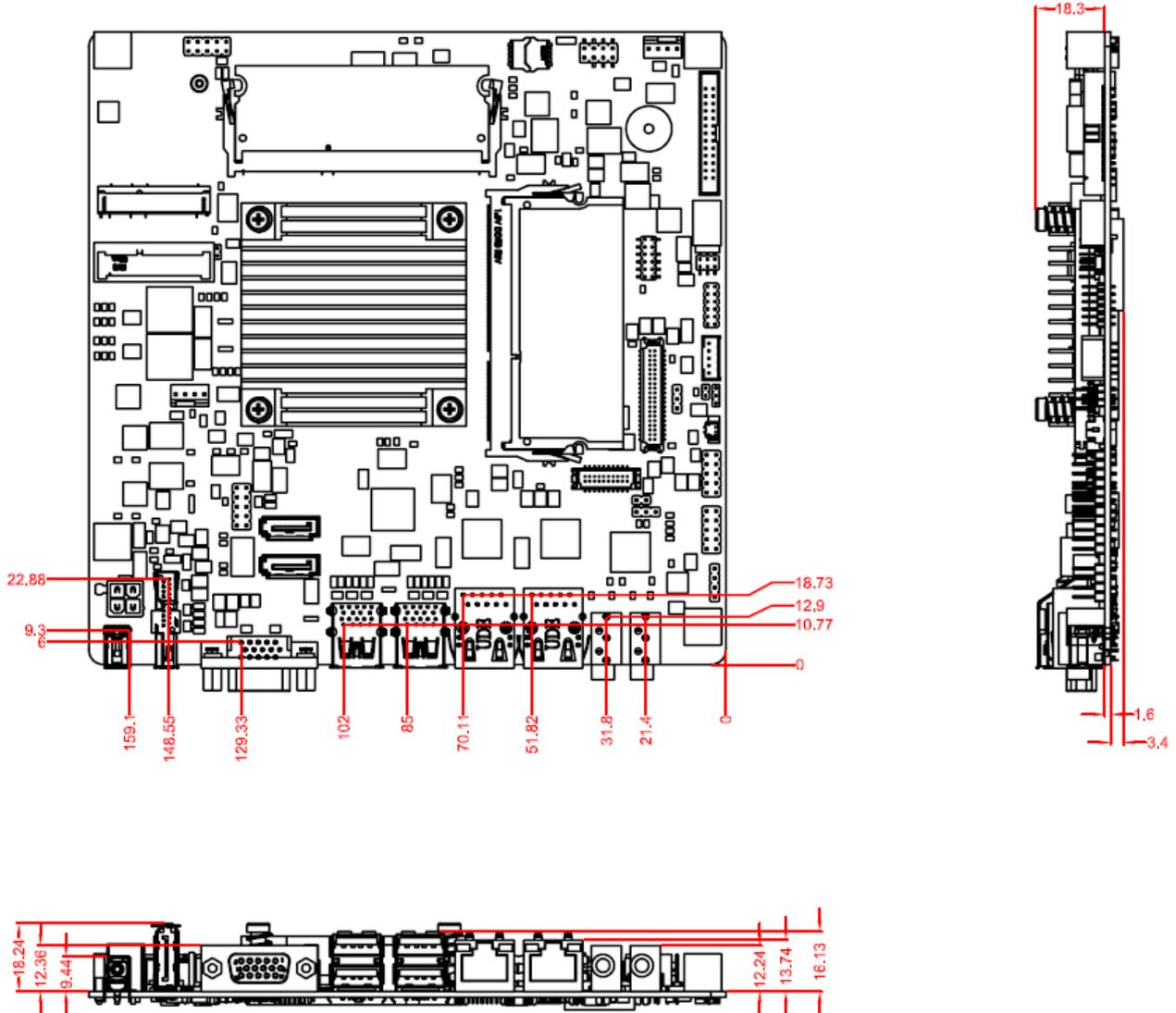
Unit: mm

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Unit: mm