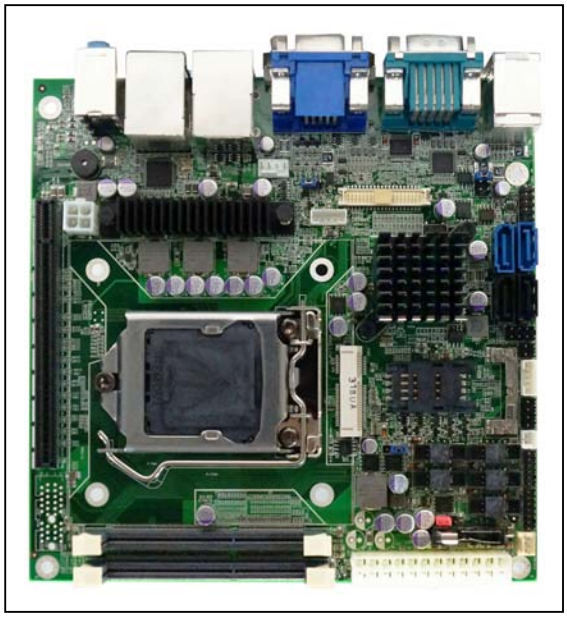
Custom Embedded Solutions

Quick Installation Guide

MB-73340

Mini-ITX support Intel® 4th generation Core™ i7/i5/i3/ LGA1150 processor, Intel® H81 chipset, DDR3 up to 16GB, 2 x Intel® Giga LAN, 4 x SATA, Audio HDMI/DVI/VGA & LVDS, 4 x SATA, 10 x USB, 1 x RS232/422/485 + 5 x RS232 PCI-Express X16 & X1 slots, Mini-PCIe socket



Ver.	Release Date	Update
Beta	2013.09.04	Release

Packing list

Before using this product make sure that the following materials have been shipped

- 1 x MB-73340 board
- 1 x SATA cable, L/ 200mm (p/n: CB-SATA11-00)
- 1 x CD Driver Utility

p/n: CB-SATA11-00

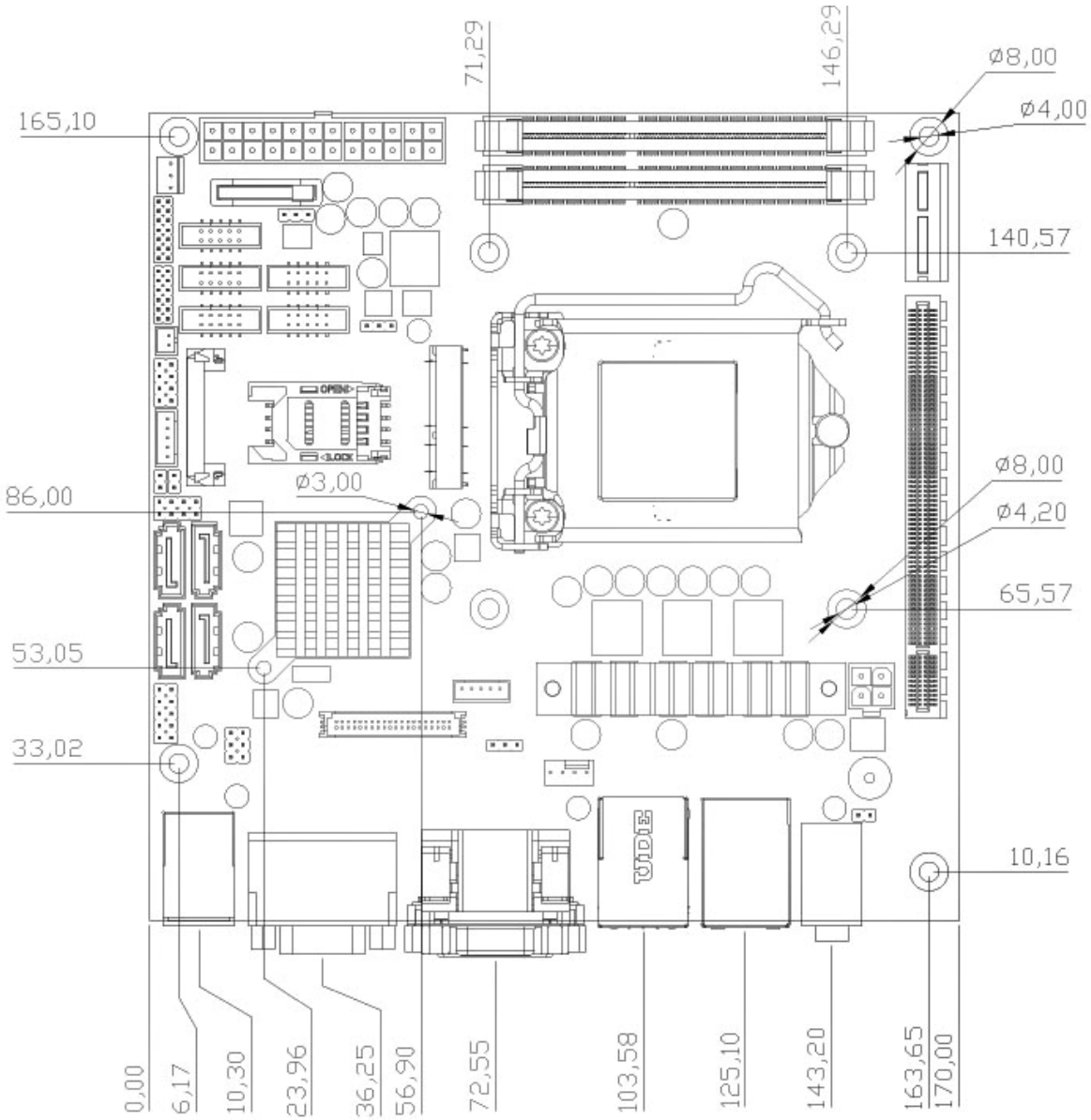

Model Name	Description
MB-7334A	Mini-ITX w/ Intel H81 chipset, 2 GLAN,HDMI/DVI/VGA/LVDS, COM, USB, Mini-PCIe socket, 4 SATA, PCIe X16 slot
MB-7334B	Mini-ITX w/ Intel H81 chipset, 2 GLAN,HDMI/DVI/VGA/LVDS, COM, USB, Mini-PCIe socket, 4 SATA, PCIe X16 & X1 slots

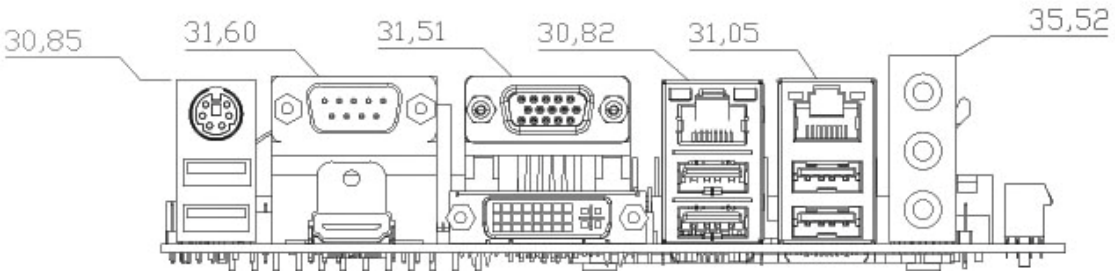
* If any items are missing or damaged please contact WIN sales representative or distributor

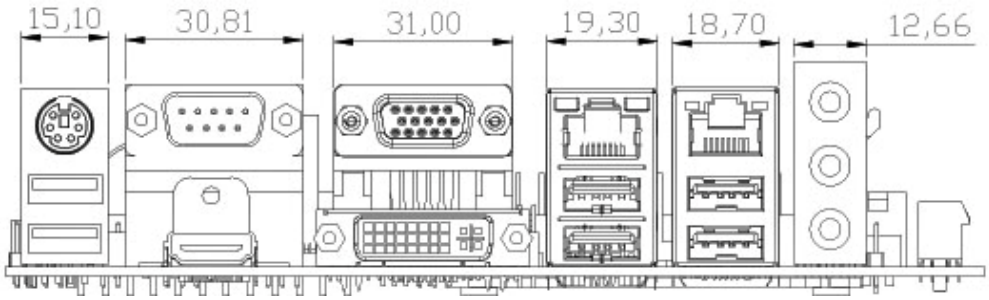
Optional Accessories

Photo	Model Name	
	P/N:	RE-S01
	PCI-express riser card support 1 x PCIe X16 & 1 x PCI slots Note: Works with MB-7334B only	
	P/N:	CB-ICOM38-00
	Dual D-Sub 9-pin COM port card, L/ 250mm, with bracket	
	P/N:	CB-IUSB07-AA
	Dual USB cable, L/ 250mm, with bracket	
	P/N:	CB-SATA11-00
	SATA cable with lockable, L/ 200mm	

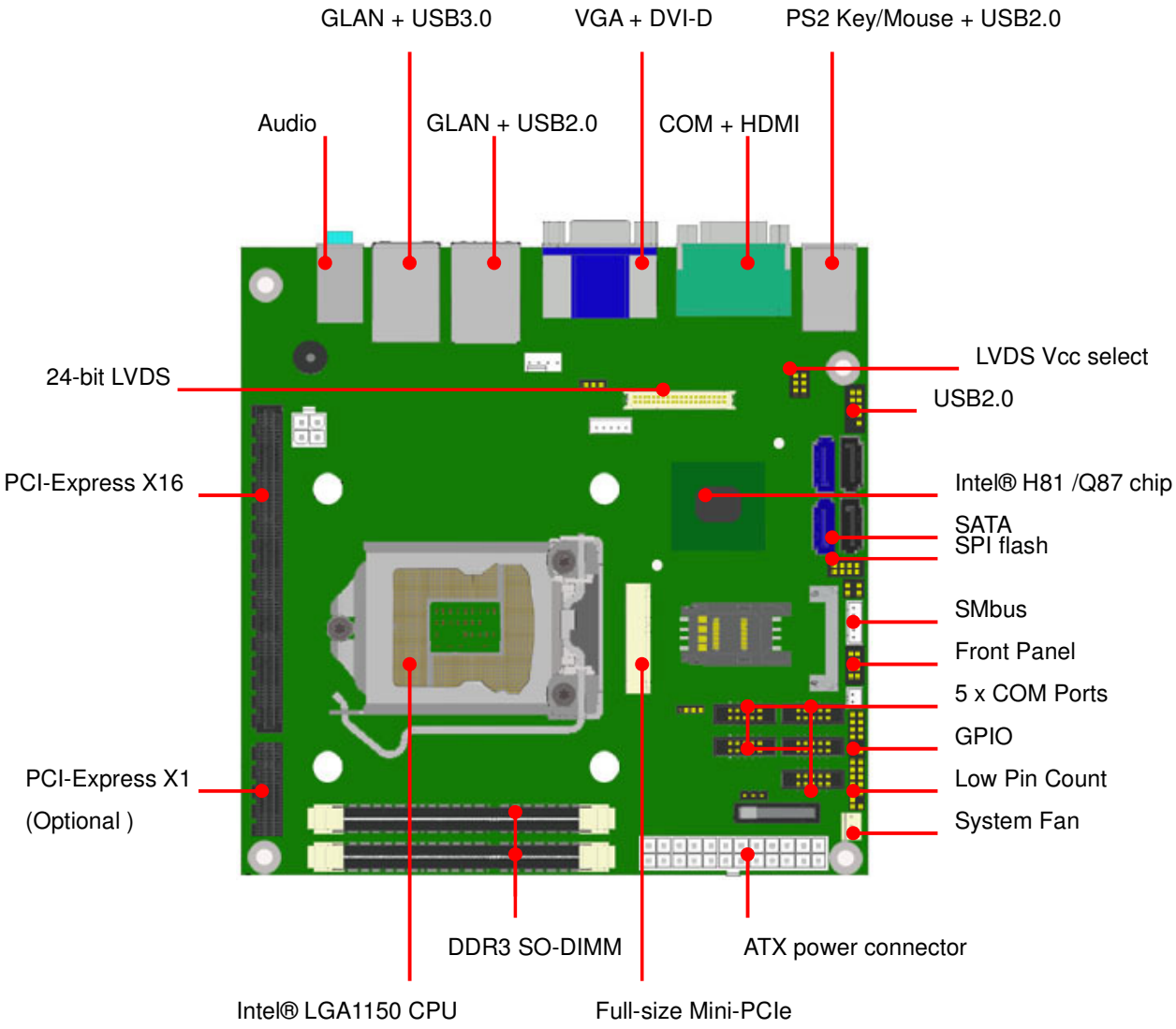
1.4 Board Layout Dimensions

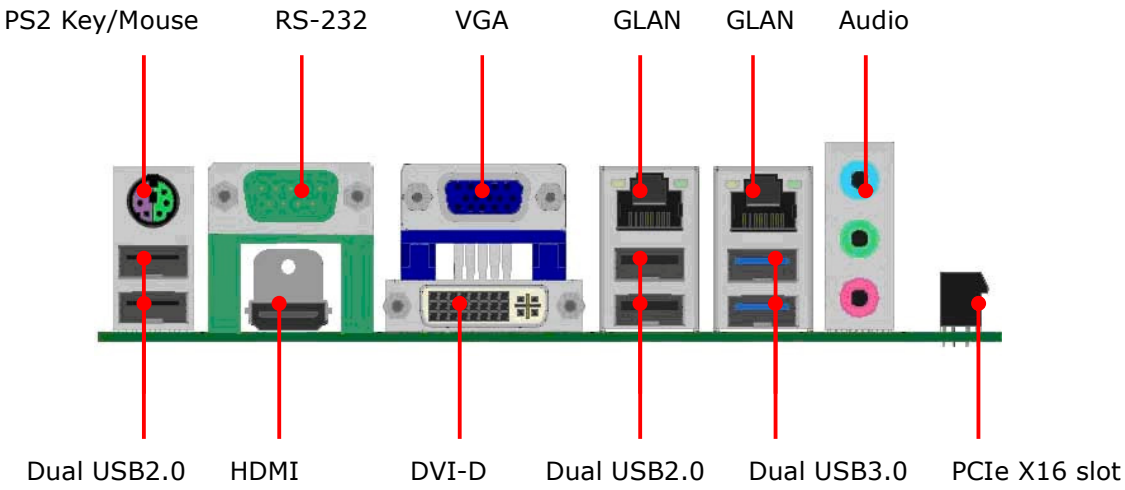



30,85
31,60
31,51
30,82
31,05
35,52

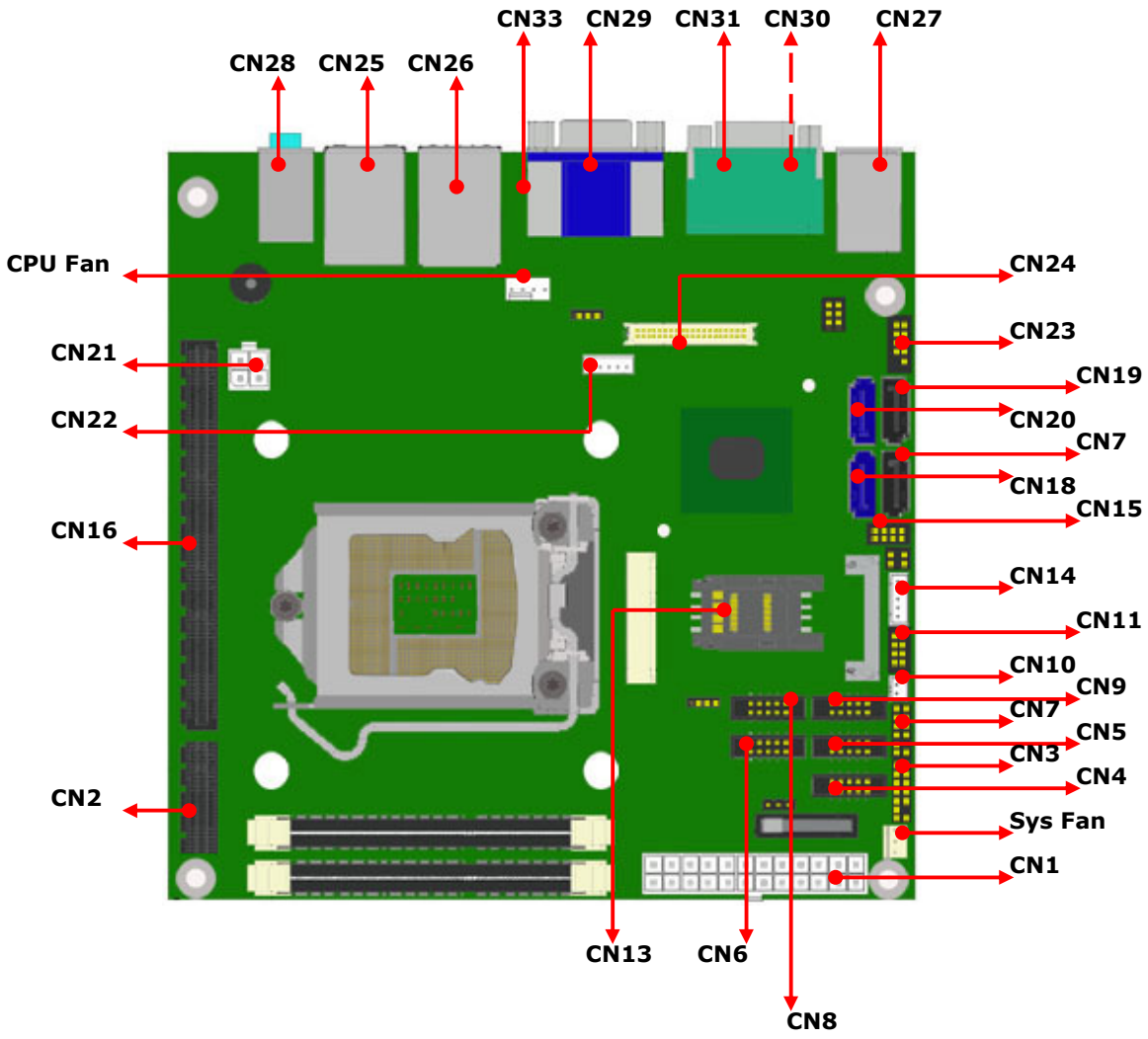

15,10
30,81
31,00
19,30
18,70
12,66

1.5 IO ports


GLAN + USB3.0
VGA + DVI-D
PS2 Key/Mouse + USB2.0
Audio
GLAN + USB2.0
COM + HDMI
LVDS Vcc select
24-bit LVDS
USB2.0
PCI-Express X16
Intel® H81 /Q87 chip
SATA
SPI flash
SMbus
Front Panel
5 x COM Ports
GPIO
PCI-Express X1
(Optional)
Low Pin Count
System Fan
DDR3 SO-DIMM
ATX power connector
Intel® LGA1150 CPU
Full-size Mini-PCIe


PS2 Key/Mouse
RS-232
VGA
GLAN
GLAN
Audio
Dual USB2.0
HDMI
DVI-D
Dual USB2.0
Dual USB3.0
PCIe X16 slot

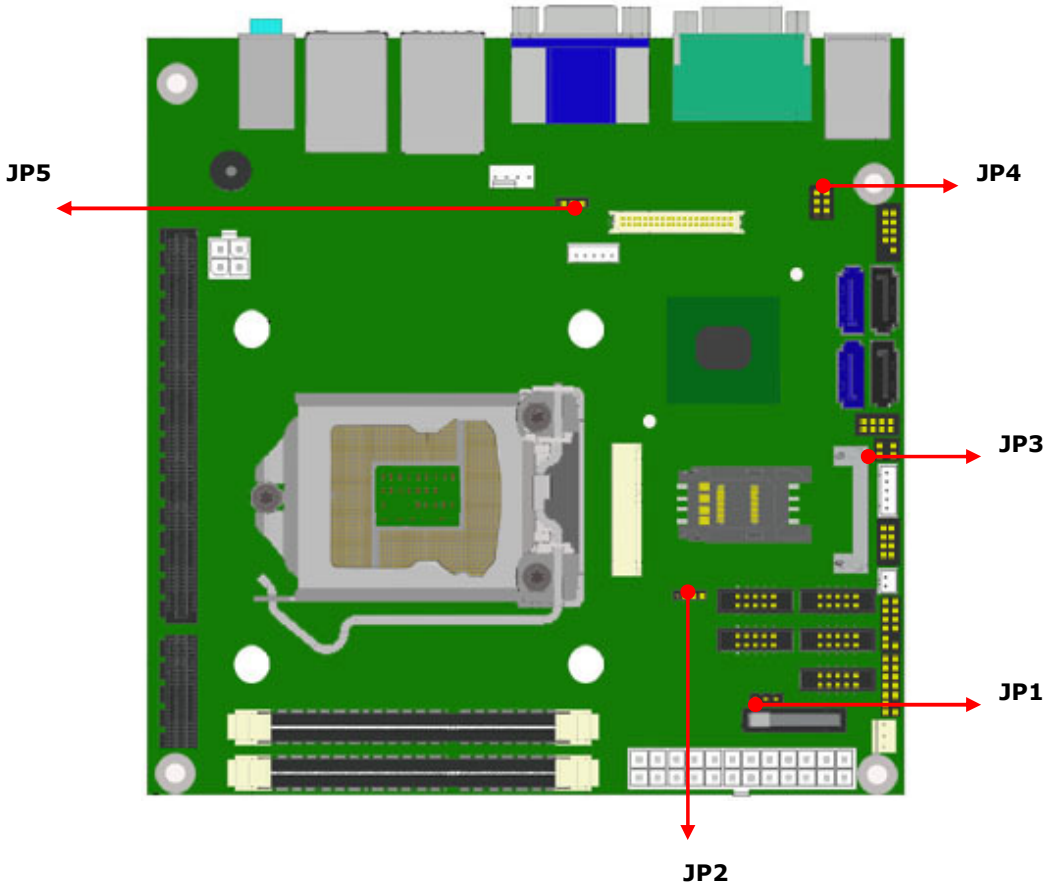
2.1 The location of onboard connectors



Label	Function
CN1	ATX power connector
CN2	PCI-Express X1 slot (Optional)
CN3	LPC pin header
CN4	COM4 pin header. RS232
CN5	COM3 pin header. RS232
CN6	COM5 pin header. RS232
CN7	8-bit GPIO pin header
CN8	COM6 pin header. RS232
CN9	COM2 pin header. RS232/422/485
CN10	Mini-PCIe WLAN LED pin header
CN11	Front panel pin header
CN12	Mini-PCIe socket
CN13	SIM card holder
CN14	SMBus pin header
CN15	SPI flash pin header
CN16	PCI-Express X16 slot
CN17	SATA2 conector
CN18	SATA3 connector
CN19	SATA2 connector
CN20	SATA3 connector
CN21	P4 4-pin 12V connector

Label	Function
CN22	LVDS backlight inverter
CN23	Dual USB 2.0 pin header
CN24	24-bit LVDS connector
CN25	LAN2 & dual USB 3.0 connector
CN26	LAN1 & dual USB 2.0 connector
CN27	PS2 Key/Mouse & dual USB 2.0
CN28	Audio Jack connector
CN29	VGA connector
CN30	COM1 connector. RS232
CN31	HDMI connector
CN32	N/A
CN33	DVI-D connector

2.2 The location of onboard jumpers



Label	Function
JP1	CMOS Clear jumper (1-2 : Normal , 2-3 : Clear CMOS)
JP2	AT / ATX power mode selection (1-2 : ATX , 2-3 : AT)
JP3	Clear RTC (Open : Normal , Shorted : Clear RTC)
JP4	LVDS Vcc power level selection (3.3V / 5V / 12V)
JP5	LVDS brightness control mode (1-2 : PWM , 2-3 : DC)

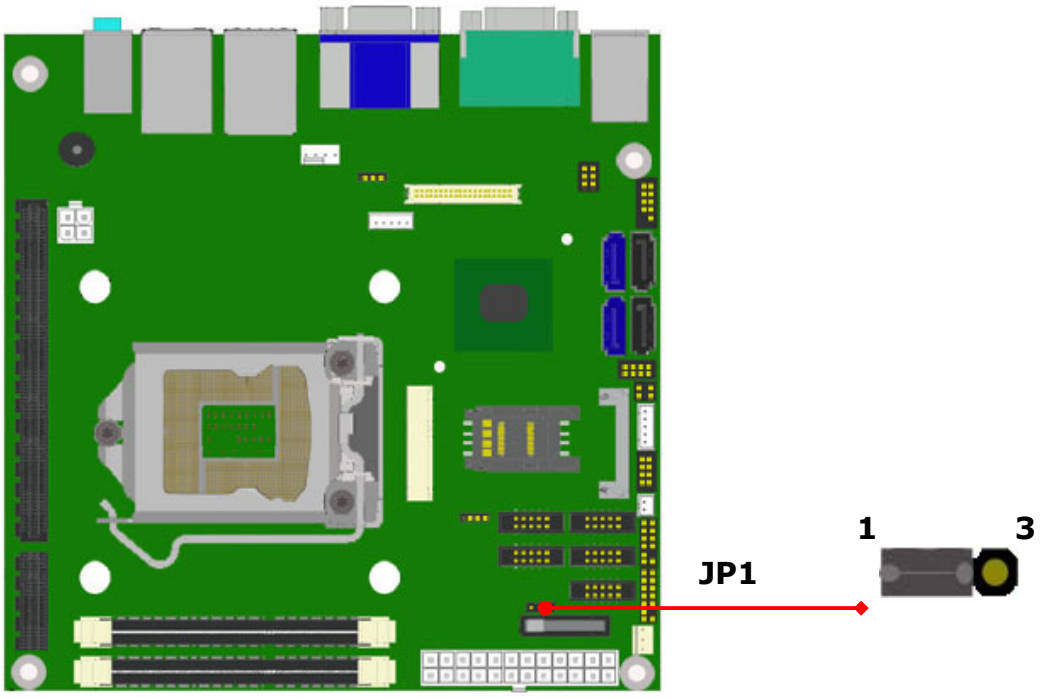
2.3 The function list of onboard jumpers setting

- 2.3.1 : JP1 for Clear CMOS

If you want to clean the CMOS data, set jumper to 2-3 just for few seconds, then, move the jumper back to 1-2 pin

JP5	
Closed Pin	Result
1-2 *	Normal
2-3	Clear CMOS

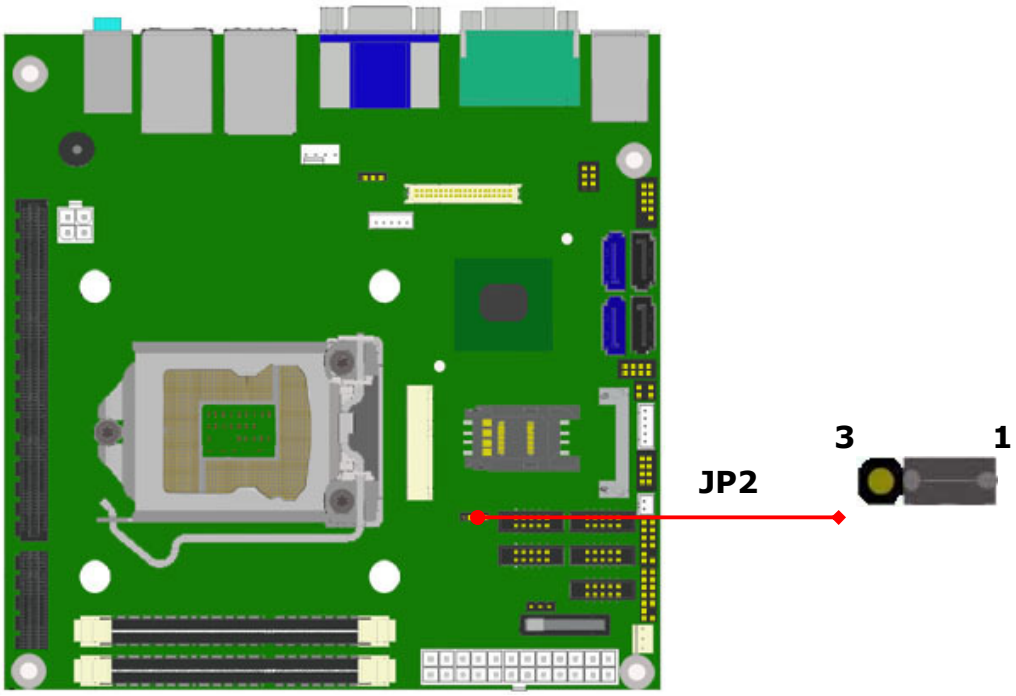
* Default setting



- 2.3.2: JP2 for ATX / AT mode

JP6	
Closed Pin	Result
1-2 *	ATX mode
2-3	AT mode

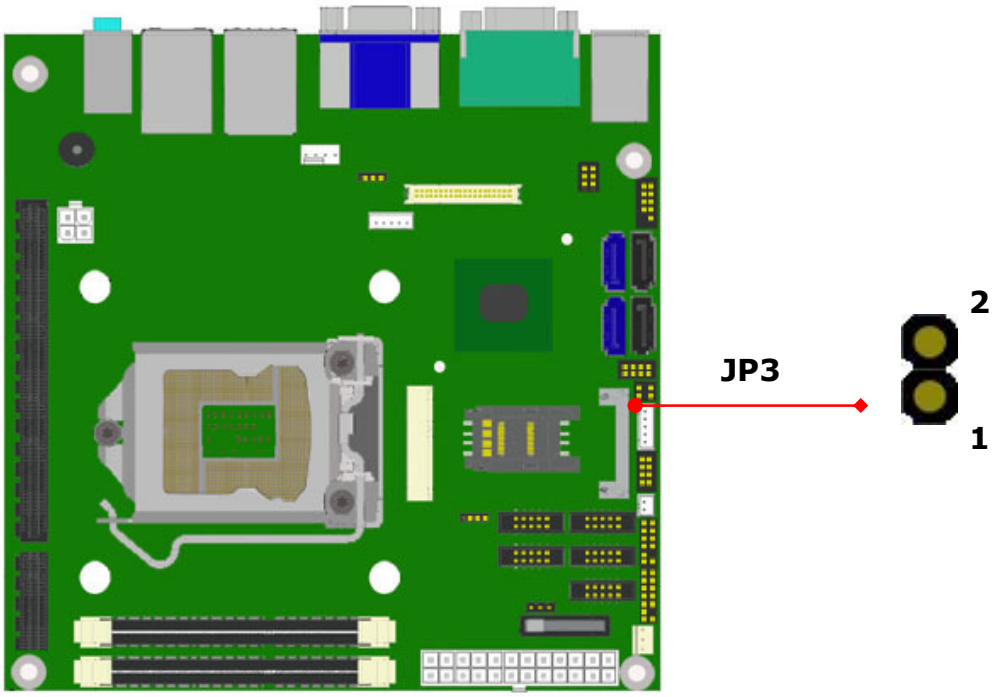
* Default setting



- 2.3.3 : JP3 for Clear RTC

JP5	
Closed Pin	Result
Open *	Normal
Shorted	Clear RTC

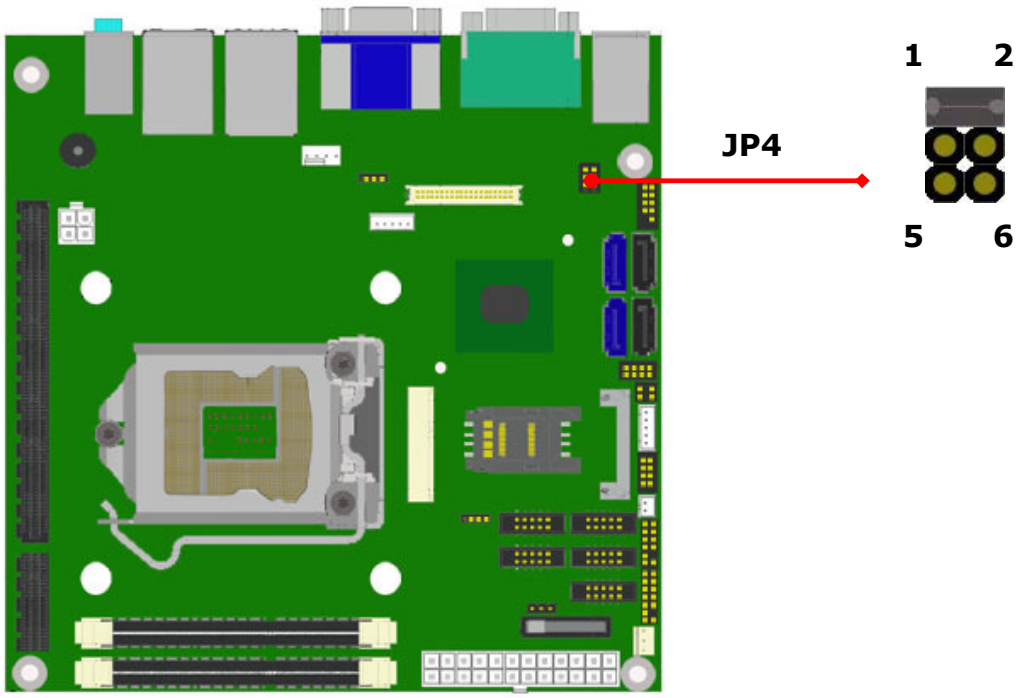
* Default setting



- 2.3.4 : JP4 for Panel Voltage select

JP4	
Closed Pin	Result
1-2 *	+3.3V
3-4	+5V
5-6	+12V

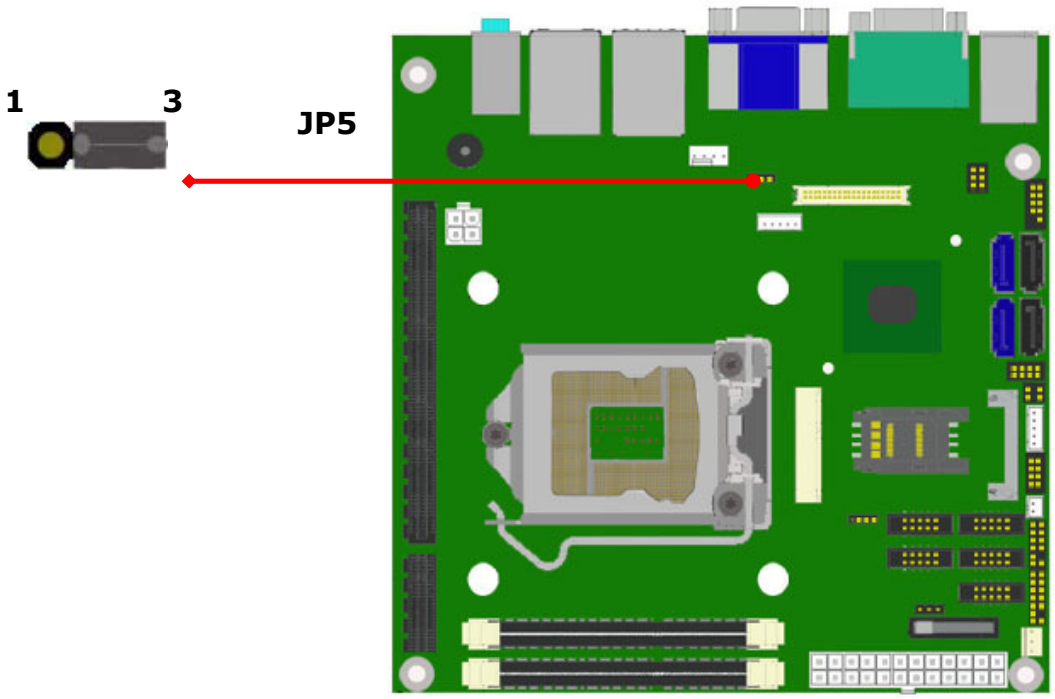
* Default setting



- 2.3.5 : JP5 for LVDS brightness control mode

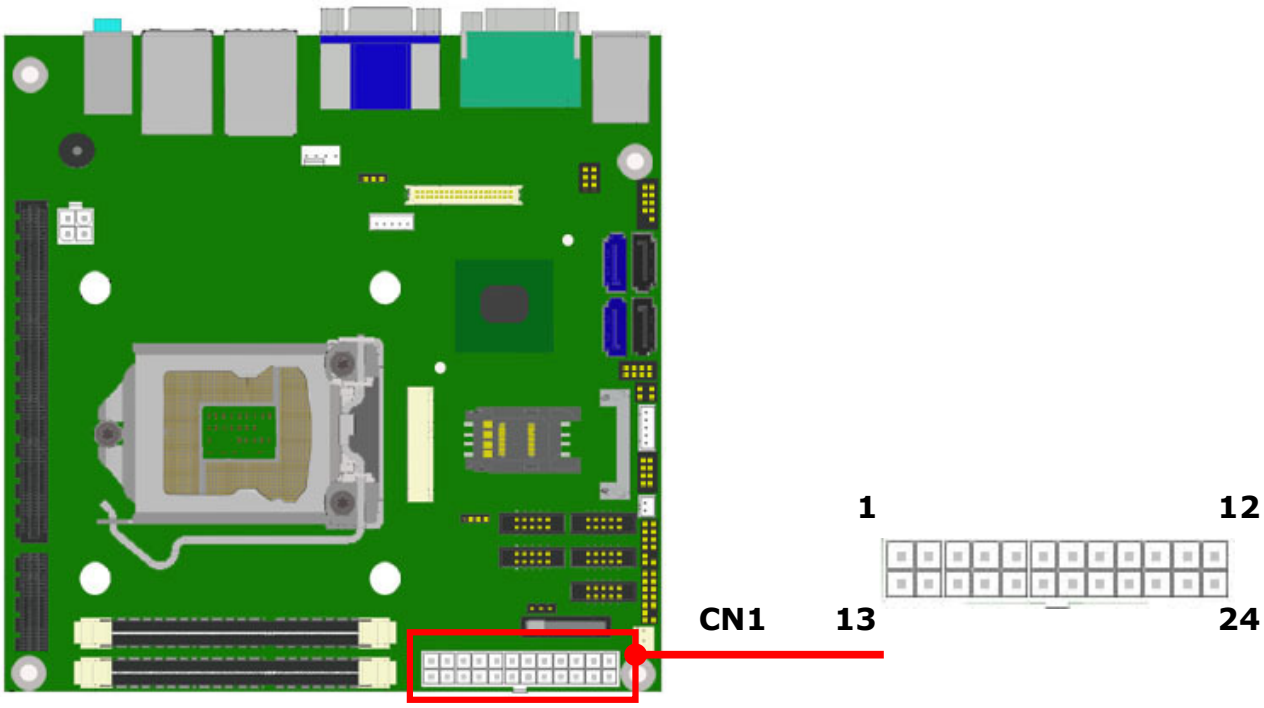
JP5	
Closed Pin	Result
1-2	PWM mode
2-3 *	DC Level

* Default setting



- 2.4.1 : CN1 for ATX power supply connector

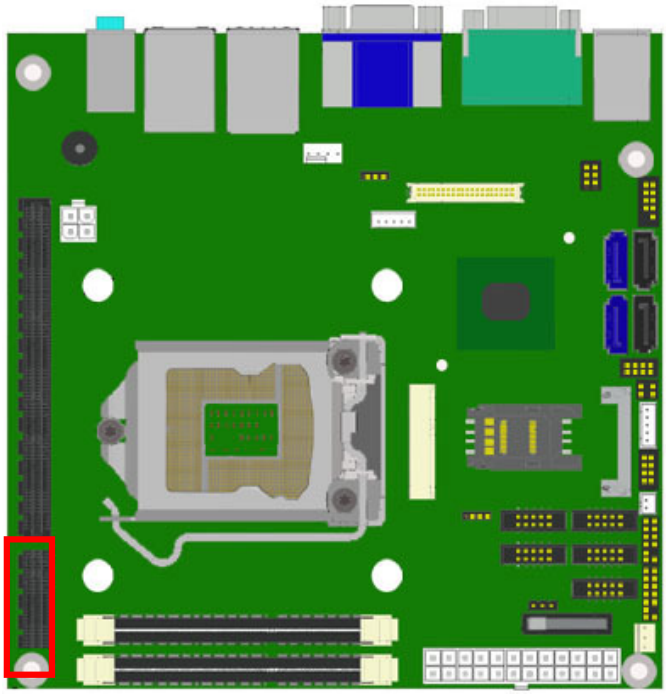
CN1 : 24-pin , pitch 2.0 mm			
Pin	**Signal**	**Pin**	**Signal**
1	3.3V	2	3.3V
3	GND	4	5V
5	GND	6	5V
7	GND	8	Power_OK
9	5VSB	10	12V
11	12V	12	3.3V
13	3.3V	14	-12V
15	GND	16	PS_ON
17	GND	18	GND
19	GND	20	RSVD
21	5V	22	5V
23	5V	24	GND



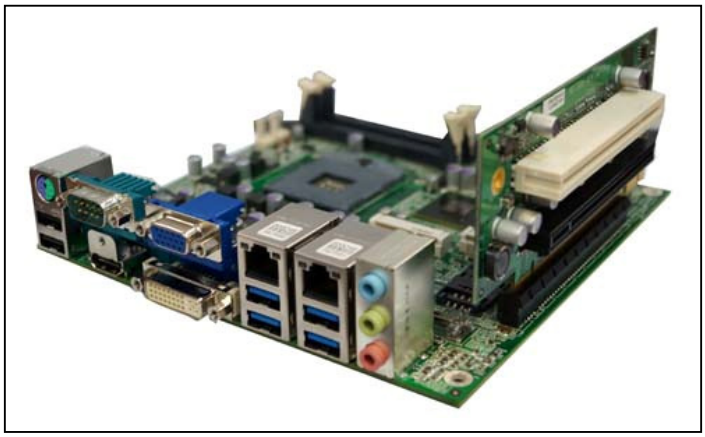
- 2.4.2 : CN2 for PCI-Express X1 slot

Note: This slot could work with WIN's RE-S01 riser card to get PCIe X16 & PCI expansion slots and compatible with MB-7334B only.

Pin	Side B	Side A
1	+12V	PRSNT1
2	+12V	+12V
3	+12V	+12V
4	GND	GND
5	SMCLK	TCK
6	SMDAT	TDI
7	GND	TOD
8	+3.3V	TMS
9	RST	+3.3V
10	+3.3V AUX	+3.3V
11	WAKE	PWRGD
	Key Notch	
12	Reserved	GND
13	GND	REFCLK+
14	HSOp	REFCLK-
15	HSOn	GND
16	GND	HSIp
17	PRSNT2	HSIn
18	GND	GND

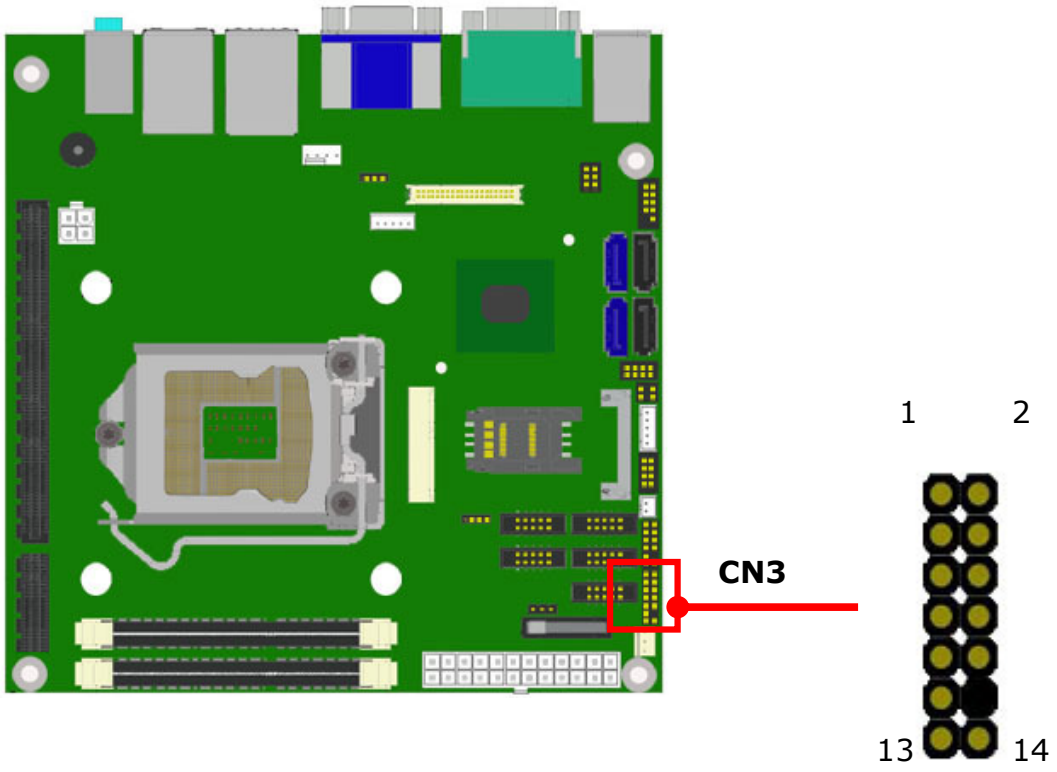


Example of configuration of with RE-S01 riser card



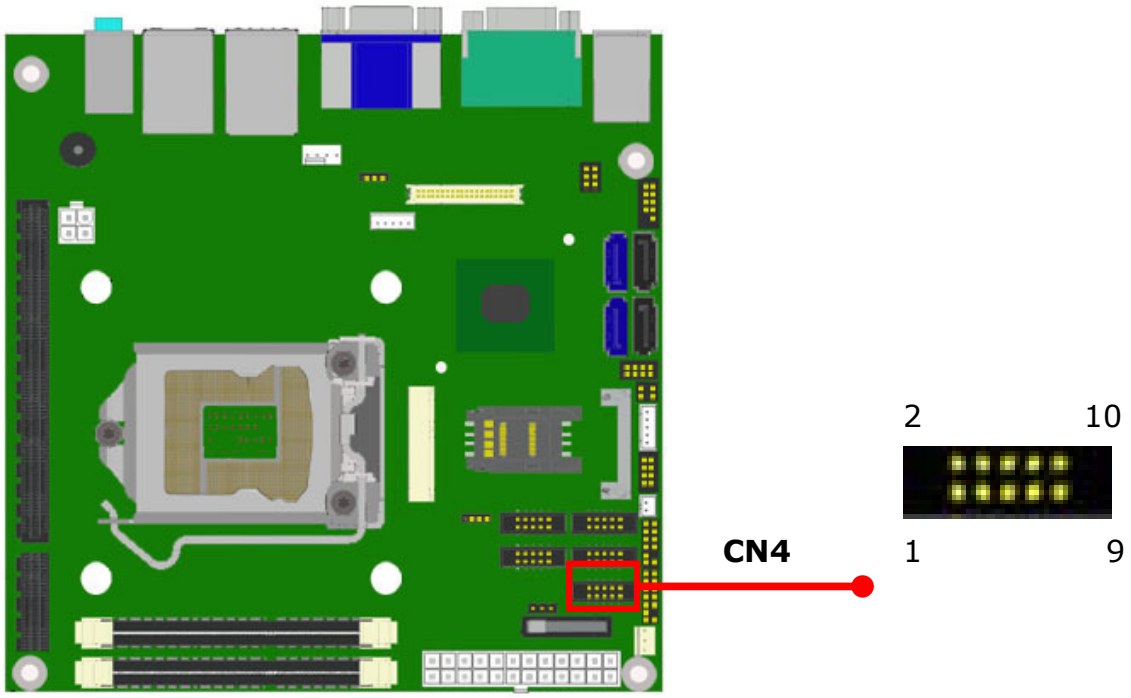
- 2.4.3 : CN3 for Low Pin Count pin-header

CN3 : 2 x 7 header, pitch 2.0 mm			
Pin	**Signal**	**Pin**	**Signal**
1	+3.3V	2	LAD0
3	LAD1	4	LAD2
5	LAD3	6	LFRAME
7	Reset	8	+5V
9	PORT80_PCLK	10	LPME
11	GND		Key
13	SERIRQ	14	LDRQ



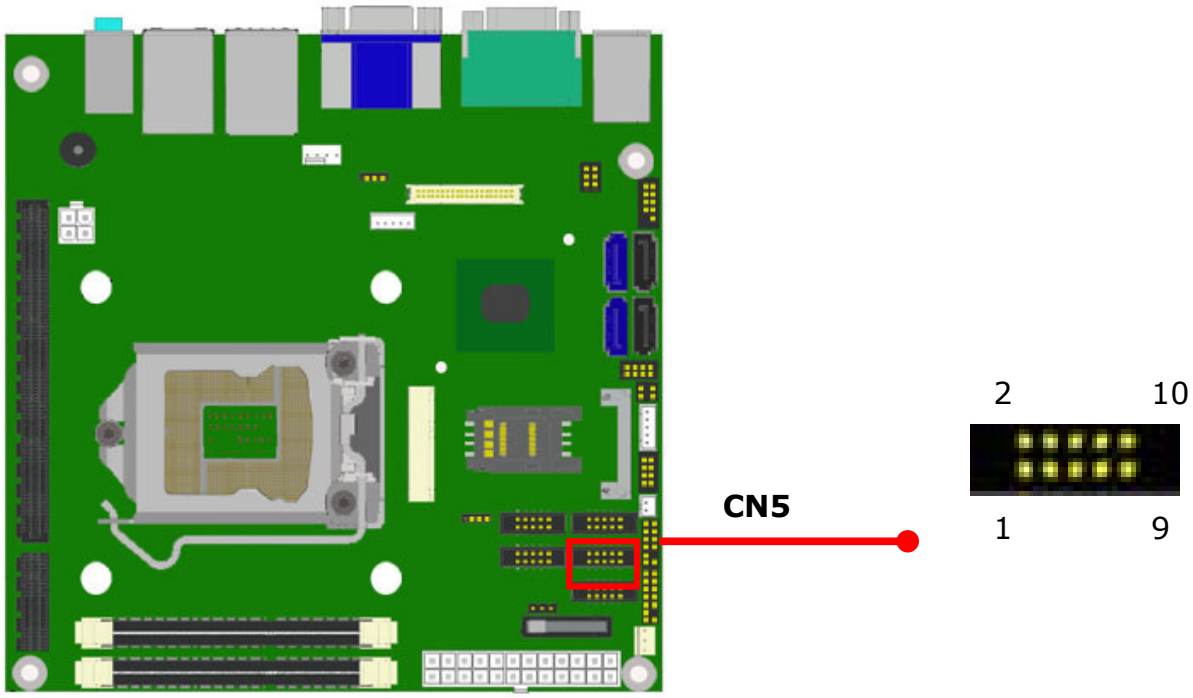
- 2.4.4 : CN4 for COM4 box header

CN4 : 2 x 5 header, pitch 2.00 mm			
Pin	**Signal**	**Pin**	**Signal**
1	DCD, Data carrier detect	2	DSR, Data set ready
3	RXD, Receive Data	4	RTS, Request to send
5	TXD, Send Data	6	CTS, Clear to se
7	DTR, Data Terminal Ready	8	RI, Ring indicator
9	GND	10	N/C



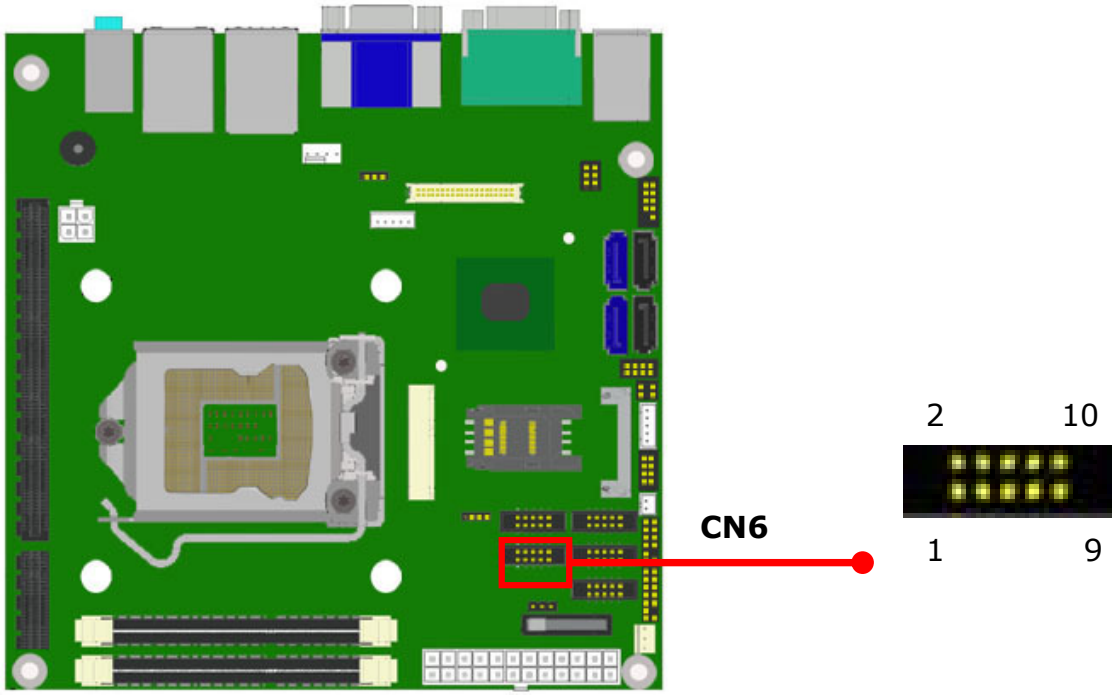
- 2.4.5 : CN5 for COM3 box header

CN5 : 2 x 5 header, pitch 2.00 mm			
Pin	**Signal**	**Pin**	**Signal**
1	DCD, Data carrier detect	2	DSR, Data set ready
3	RXD, Receive Data	4	RTS, Request to send
5	TXD, Send Data	6	CTS, Clear to se
7	DTR, Data Terminal Ready	8	RI, Ring indicator
9	GND	10	N/C



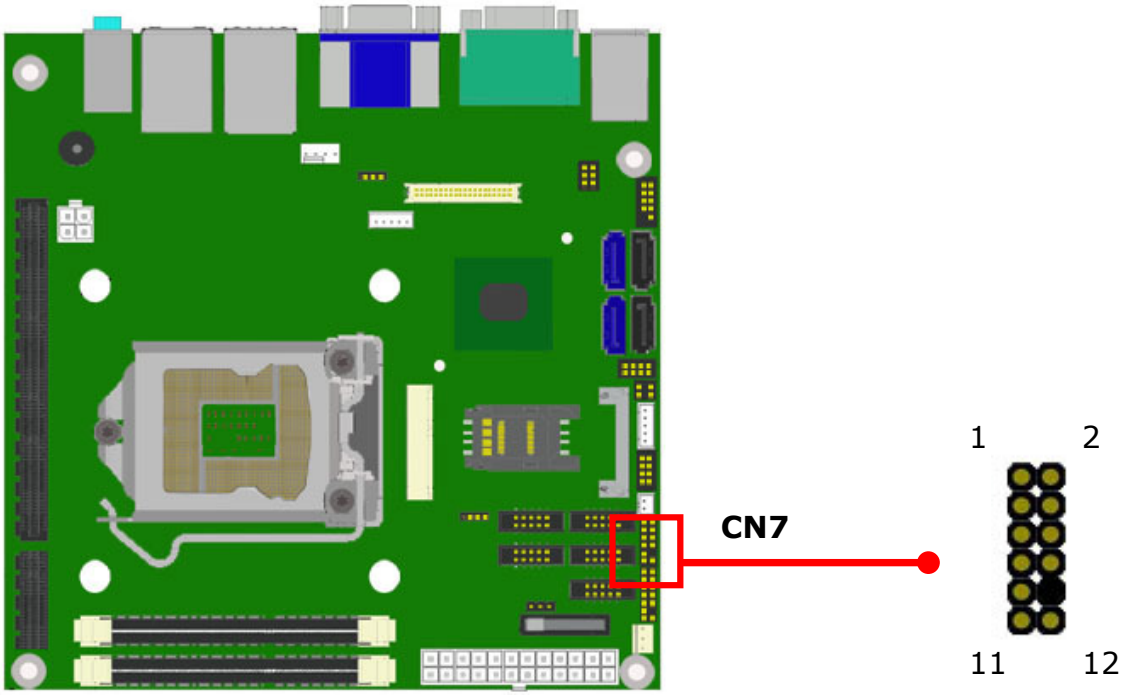
- 2.4.6 : CN6 for COM5 box header

CN6 : 2 x 5 header, pitch 2.00 mm			
Pin	**Signal**	**Pin**	**Signal**
1	DCD, Data carrier detect	2	DSR, Data set ready
3	RXD, Receive Data	4	RTS, Request to send
5	TXD, Send Data	6	CTS, Clear to se
7	DTR, Data Terminal Ready	8	RI, Ring indicator
9	GND	10	N/C



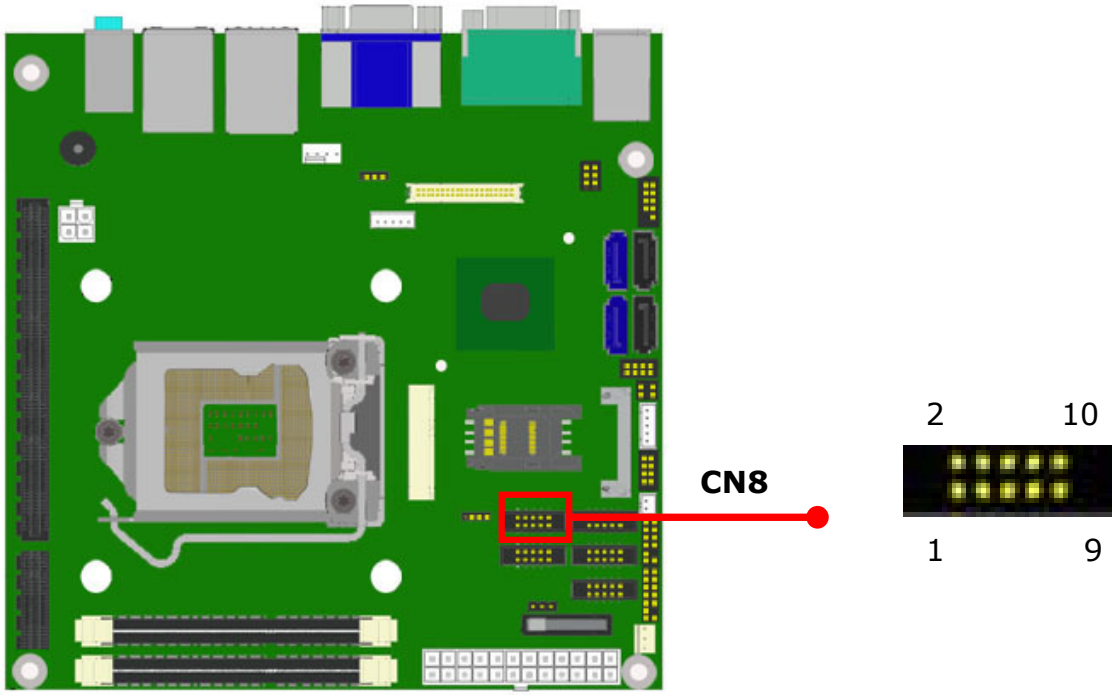
2.4.7 : CN7 for 8-bit GPIO

CN7 : 2 x 6 header , pitch 2.0 mm			
Pin	**Signal**	**Pin**	**Signal**
1	+3.3V	2	GPI0
3	GPI1	4	GPI2
5	GPI3	6	GPO0
7	GPO1	8	GPO2
9	GPO3	10	Key
11	+5V	12	GND



- 2.4.8 : CN8 for COM6 box header

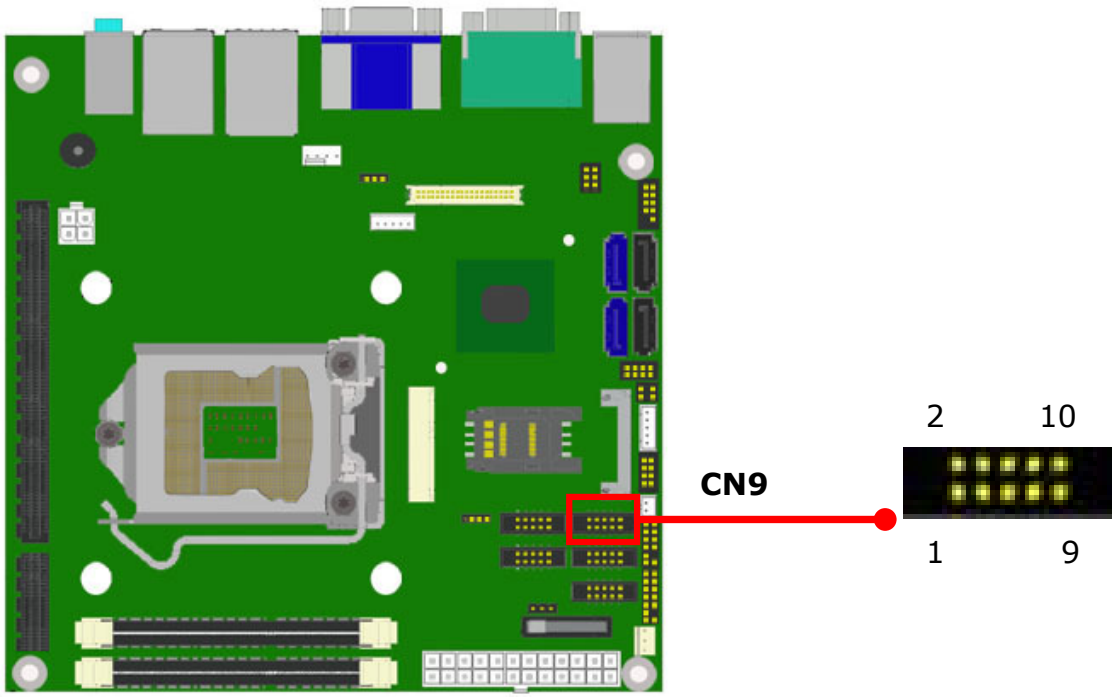
CN8 : 2 x 5 header, pitch 2.00 mm			
Pin	**Signal**	**Pin**	**Signal**
1	DCD, Data carrier detect	2	DSR, Data set ready
3	RXD, Receive Data	4	RTS, Request to send
5	TXD, Send Data	6	CTS, Clear to se
7	DTR, Data Terminal Ready	8	RI, Ring indicator
9	GND	10	N/C



- 2.4.9 : CN9 for COM2 , RS232/422/485

Note: COM2 RS-232/422/485 mode could be set by BIOS. Default is RS-232.

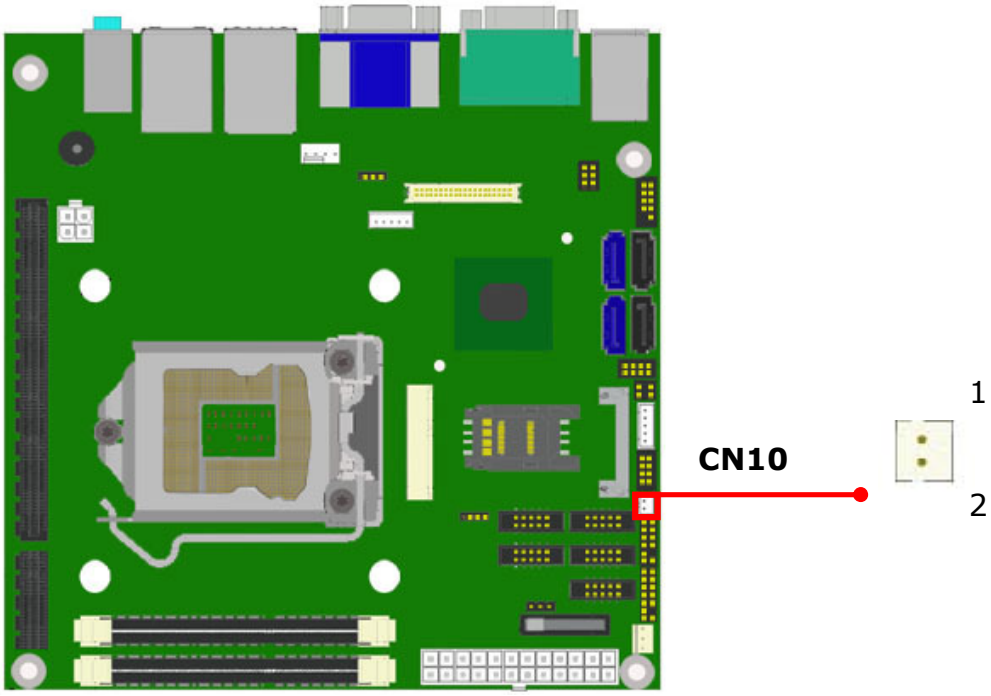
CN9 : 2 x 5 header , Pitch 2.00 mm			
Pin	**RS232 mode**	**RS422 mode**	**RS485 mode**
1	DCD, Data carrier detect	TXD-	TXD-
2	DSR, Data set ready		
3	RXD, Received Data	TXD+	TXD+
4	RTS, Request to send		
5	TXD, Transmitted Data	RXD+	
6	CTS, Clear to sent		
7	DTR, Data terminal ready	RXD-	
8	RI, Ring indicator		
9	GND		
10	N/C		



- 2.4.10 : CN10 for Full-size Mini-PCIe WLAN LED indictor

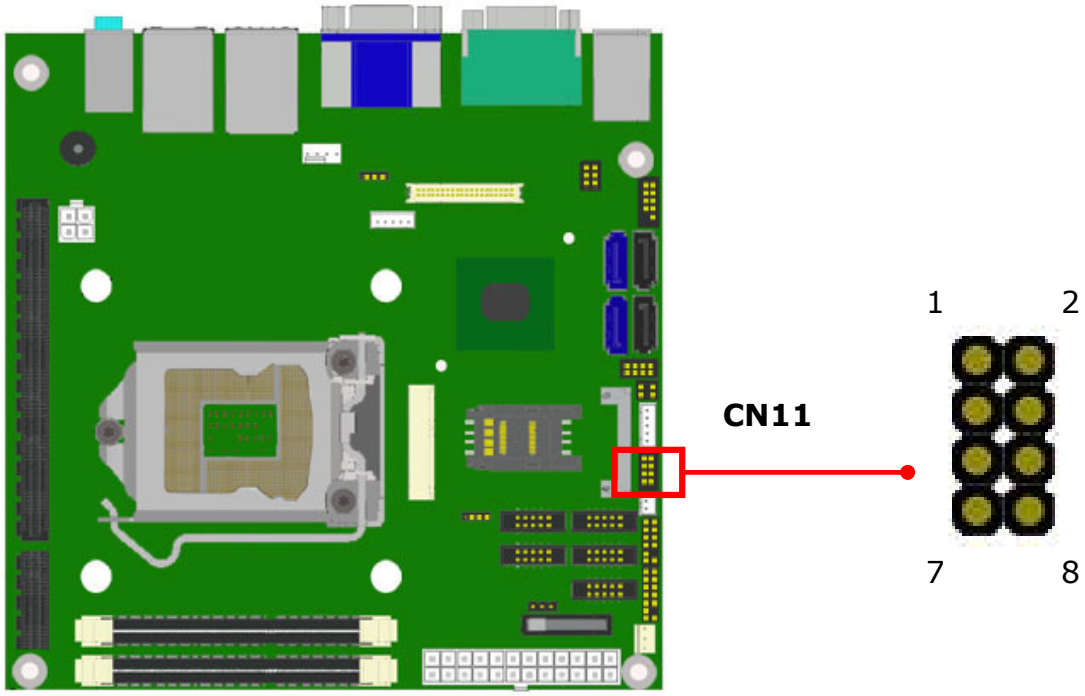
CN10 : 1 x 2 , 2-pin wafer			
Pin	**Signal**	**Pin**	**Signal**
1	LED_WLAN	2	+3.3V

Note: Full-size Mini-PCIe card could support Mini-PCIe module via PCIe or USB signal.



- 2.4.11 : CN11 for Front Panel pin header

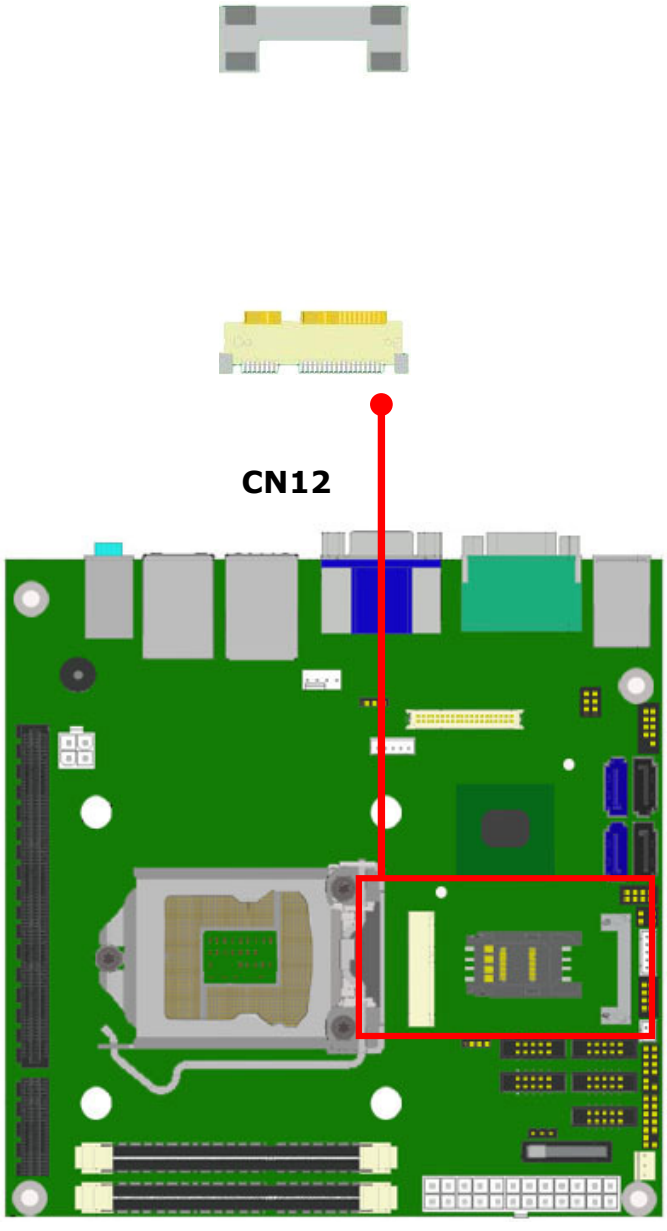
CN11 : 2 x 4 header, pitch 2.54 mm			
Pin	**Signal**	**Pin**	**Signal**
1	HDD_LED+	2	Power_LED+
3	HDD_LED-	4	GND
5	GND	6	GND
7	RESET+	8	Power Switch



- 2.4.12 : CN12 for Full-size Mini-PCIe socket

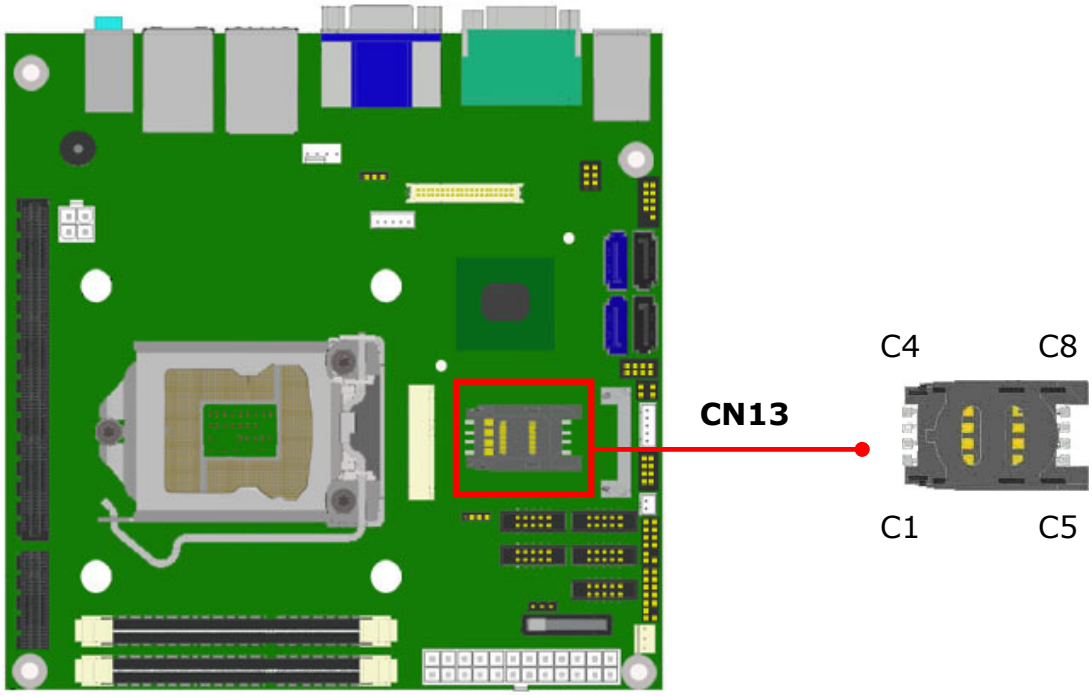
Note: Full-size Mini-PCIe card could support Mini-PCIe module via PCIe or USB signal.

Pin	Signal	Pin	Signal
1	WAKE	27	GND
2	+3.3V AUX	28	+1.5V
3	N/C	29	GND
4	GND	30	SMBCLK
5	N/C	31	PETN0
6	+1.5V	32	SMBDATA
7	CLKREQ	33	PETP0
8	UIM_PWR	34	GND
9	GND	35	GND
10	UIM_DATA	36	USB_D-
11	REFCLK-	37	GND
12	UIM_CLK	38	USB_D+
13	REFCLK+	39	+3.3V AUX
14	UIM_RESET	40	GND
15	GND	41	+3.3V AUX
16	UIM_VPP	42	LED_WWAN
17	UIM_C8	43	GND
18	GND	44	LED_WLAN
19	UIM_C4	45	N/C
20	W_Disable	46	N/C
21	GND	47	N/C
22	PERST	48	+1.5V
23	PERN0	49	N/C
24	+3.3V AUX	50	GND
25	PERP0	51	N/C
26	GND	52	+3.3V AUX



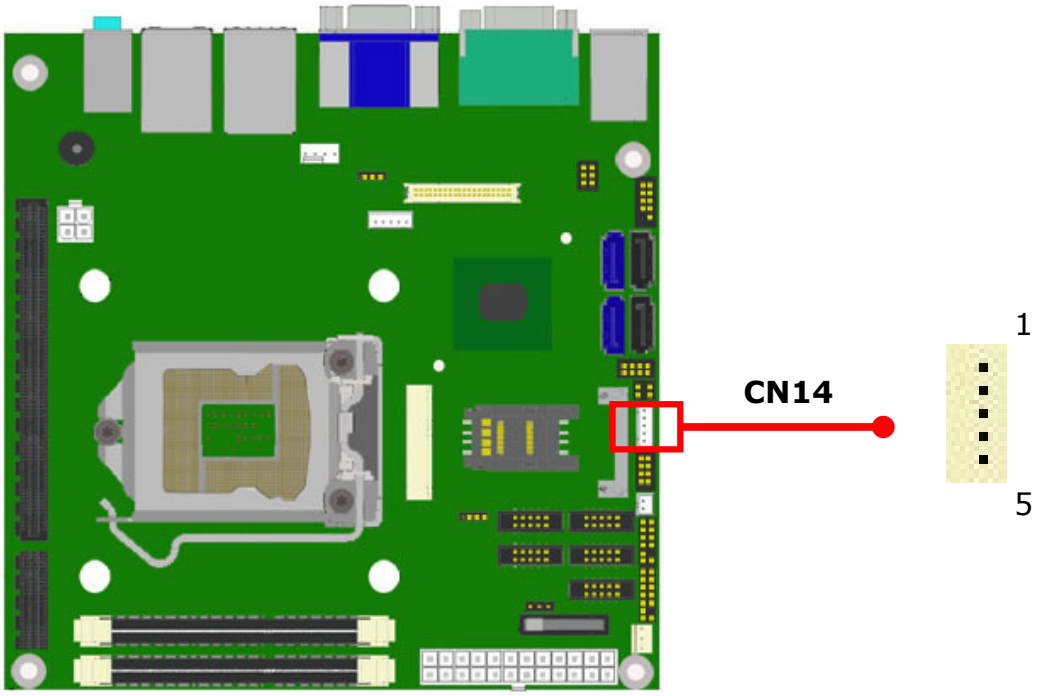
- 2.4.13 : CN13 for SIM holder

CN13 : SIM card holder			
Pin	**Signal**	**Pin**	**Signal**
C1	VCC	C2	RESET
C3	CLOCK	C4	Reserved
C5	GND	C6	VPP
C7	I/O	C8	Reserved



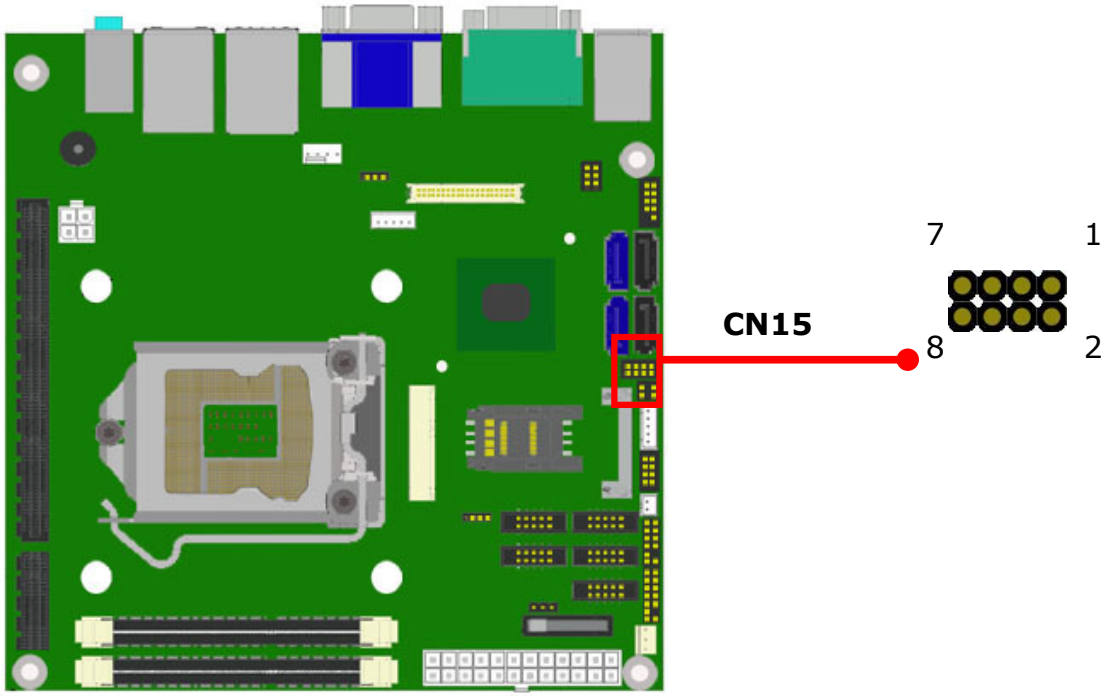
- 2.4.14 : CN14 for SMBUS pin header

CN14 : 1 x 5 pin header , 2.00 mm pitch			
Pin	**Signal**	**Pin**	**Signal**
1	+5V	2	Clock
3	Data	4	N/C
5	GND		



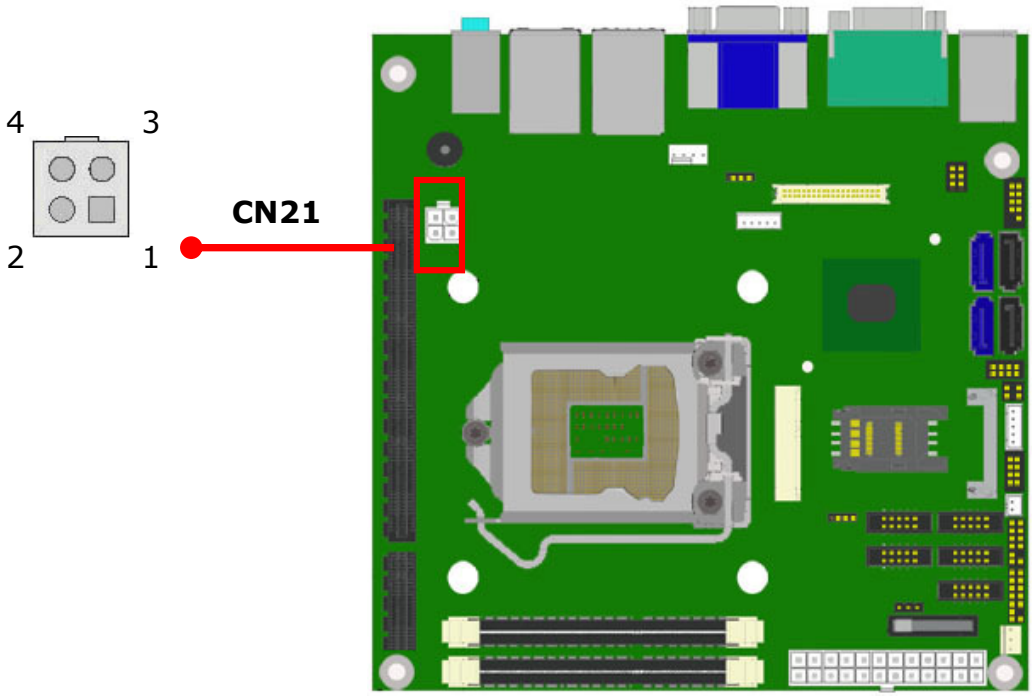
- 2.4.15 : CN15 for SPI programmer

CN15 : 2 x 4 header , pitch 2.54 mm			
Pin	**Signal**	**Pin**	**Signal**
1	+3.3V	2	GND
3	CS_N (Chip Select)	4	SCLK (Serial Clock)
5	MISO (Master Input, Slave Output)	6	MOSI (Master Output, Slave Input)
7	N/C	8	FLASH_IO



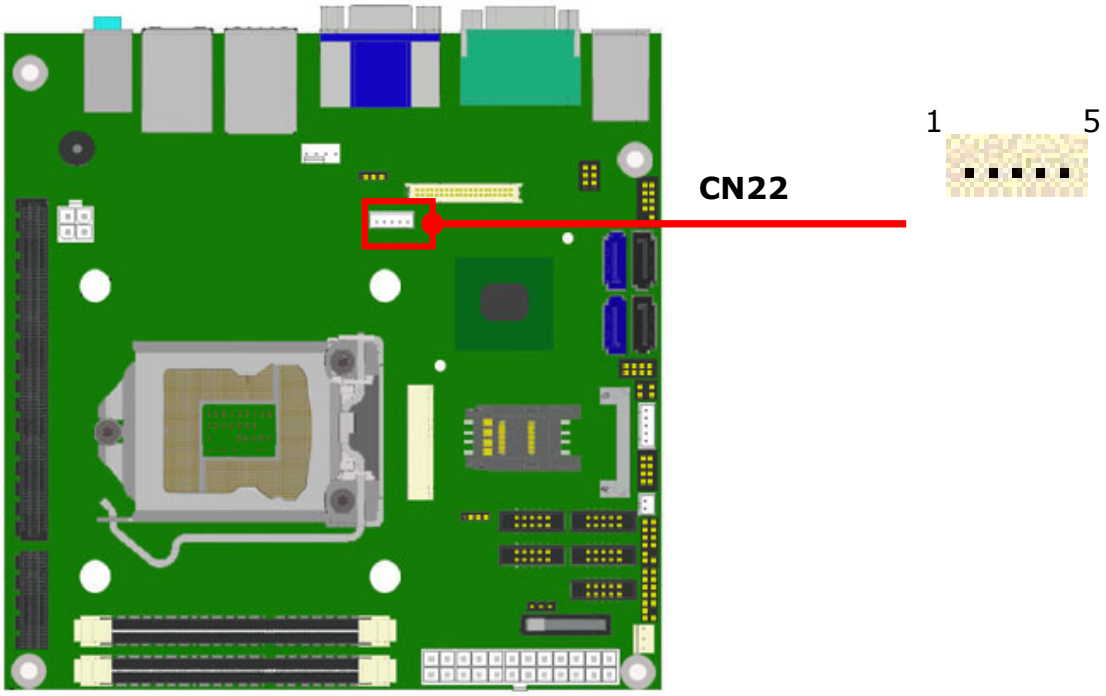
- 2.4.16 : CN21 for 4-pin 12V power input

CN21 : ATX 2 x 2			
Pin	**Signal**	**Pin**	**Signal**
1	GND	2	GND
3	12V	4	12V



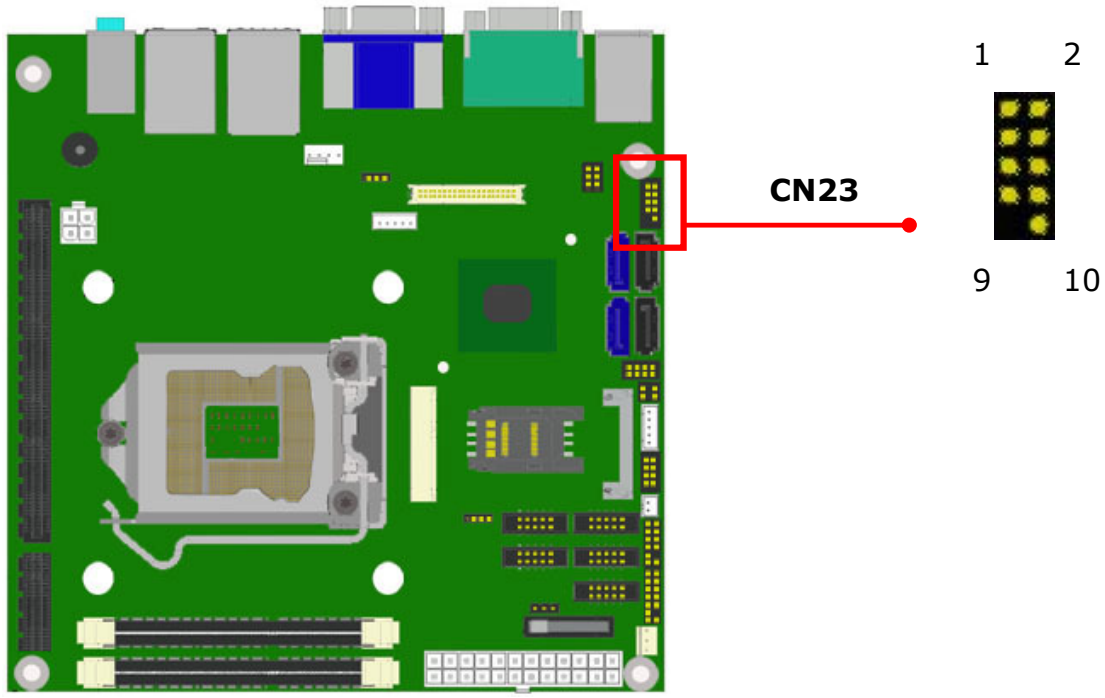
- 2.4.17 : CN22 for LVDS Backlight pin header

CN22: 1 x 5 wafer, Pitch : Pitch 2.0 mm			
Pin	**Signal**	**Pin**	**Signal**
1	+12V	2	GND
3	Backlight Enable	4	Backlight Control
5	+5V		



- 2.4.18 : CN23 for USB 2.0 pin header

CN23: 2 x 5 header , pitch 2.54 mm			
Pin	**Signal**	**Pin**	**Signal**
1	+5V	2	+5V
3	USB6_ data-	4	USB7_data-
5	USB6_ data+	6	USB7_data+
7	GND	8	GND
9	Key	10	GND



- 2.4.19 : CN24 for 24-bit Dual Channel LVDS

CN24 : connector type : DF13A-40DP-1.25V					
Pin	**Signal**	**Pin**	**Signal**	**Pin**	**Signal**
1	LVDS_VCC	15	LVDSA_1+	29	GND
2	LVDS_VCC	16	LVDSB_1+	30	GND
3	LVDS_VCC	17	GND	31	DDC_Clock
4	LVDS_VCC	18	GND	32	DDC_Data
5	GND	19	LVDSA_2-	33	GND
6	GND	20	LVDSB_2-	34	GND
7	LVDSA_0-	21	LVDSA_2+	35	LVDSA_3-
8	LVDSB_0-	22	LVDSB_2+	36	LVDSB_3-
9	LVDSA_0+	23	GND	37	LVDSA_3+
10	LVDSB_0+	24	GND	38	LVDSB_3+
11	GND	25	LVDSA_Clock-	39	SMB_Clock
12	GND	26	LVDSB_Clock-	40	SMB_Data
13	LVDSA_1-	27	LVDSA_Clock+		
14	LVDSB_1-	28	LVDSB_Clock+