

**Full-size PICMG 1.3 CPU card supports LGA1150 Intel® Xeon® E3/
Core™ i3/Pentium® and Celeron® per Intel® C226, DDR3,
VGA, IDP, Dual Intel® PCIe GbE, SATA 6Gb/s, mSATA,
mini PCIe, RS-232, HD Audio, iRIS-2400 and RoHS**

SPCIE-C2260-i2

Quick Installation Guide

Version 1.0

Nov. 13, 2015.

Package List

SPCIE-C2260-i2 package includes the following items:

- 1 x SPCIE-C2260-i2 single board computer
- 1 x Dual RS-232 cable
- 2 x SATA cable
- 1 x USB cable
- 1 x Utility CD
- 1 x QIG (Quick Installation Guide)



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Specifications

- CPU:
LGA1150 Intel® Xeon® E3/Core™ i3/Pentium® or Celeron® processor supported
- PCH: Intel® C226
- Memory:
Four 240-pin 1600/1333MHz dual-channel DDR3 & DDR3L SDRAM ECC and non-ECC unbuffered DIMMs support up to 32GB
- BIOS: UEFI BIOS
- Graphic Engine:
Intel® HD Graphics Gen 7.5 support for DX11.1 and OpenCL 1.2, OpenGL 3.2 Full MPEG2, VC1, AVC Decode
- Display Output:
VGA (Up to 1920x1200 @ 60 Hz)
iDP interface for HDMI, LVDS, VGA, DVI, DP (Up to 3840x2160 @60 Hz)
- Ethernet:
LAN1: Intel® I217LM Clarkville-V with Intel® iAMT 9.0 support
LAN2: Intel® I210 PCIe controller
- Super IO: Fintek F81866
- EC: IWDD
- Digital I/O: 8-bit digital I/O (4-bit input / 4-bit output)
- Audio: Supports by IEI AC-KIT-892HD audio kit
- I/O Interface:
4 x RS-232
1 x RS-422/485
1 x LPT
1 x 6-pin wafer for KB/MS
1 x mSATA (colay SATA port 6)
6 x SATA 6GB/s (RAID 0, 1, 5, 10 supported)
8 x USB 2.0 (4 by pin header, 4 by backplane pin header)

- 4 x USB 3.0 (2 on rear IO, 4 by pin header)
- Watchdog Timer:
 - Software programmable support 1~255 sec. system reset
- FAN:
 - 1 x 4-pin CPU fan connector
 - 1 x 3-pin system fan connector
- Front Panel:
 - 1 x Front Panel
 - (Power LED, HDD LED, Speaker, Power Button, Reset Button)
- LAN LED: 2 x 2 Pin for LAN1 LED, LAN2 LED (Active)
- TPM: 1 x 20-pin (2x10) header
- SMBus: 1 x 4-pin (1x4) wafer
- I2C: 1 x 4-pin (1x4) wafer
- IR: 1 x 5-pin (1x5) header
- IPMI: 1 x DDR3 SO-DIMM slot supports iRIS-2400
- Expansion:
 - PCIe signal and PCI signal via golden finger
 - PCI signal by ITE 8892 (PCIe to PCI bridge)
 - 1 x mini PCIe slot supports PCIe x 1, USB devices and mSATA
- Power supply:
 - 5V/12V, AT/ATX support
- Power Consumption:
 - 5V@3.55A, 12V@0.37A, Vcore_12V@7.61A, 3.3V@1.55A, 5VSB@0.13A
 - (3.4GHz Intel® CPU with four GB 1333MHz DDR3 memory)
- Operation Temperature: -20°C ~ 60°C
- Operation Humidity: 5% ~ 95%, non-condensing
- Dimensions: 338mm x 126mm
- Weight GW/NW: 1200g / 420g

Ordering Information

- **SPCIE-C2260-i2-R10:**
Full-size PICMG 1.3 CPU card supports LGA1150 Intel® Xeon® E3/Core™ i3/Pentium® and Celeron per Intel® C226, DDR3, VGA, IDP, Dual Intel® PCIe GbE, SATA 6Gb/s, mSATA, RS-232, mini PCIe, HD Audio, iRIS-2400 and RoHS
- **32200-074800-RS:** RS-422/485 cable, 200mm
- **19800-010500-100-RS:** USB 3.0 cable with bracket
- **19800-000075-RS:** KB/MS cable with bracket
- **SAIDE-KIT01-R10:** SATA to IDE/CF converter board
- **32102-000100-200-RS:**
SATA power cable, MOLEX 5264-4P to SATA15P
- **19800-000049-RS:** LPT Cable
- **AC-KIT-892HD-R10:**
7.1 channel HD Audio kit with Realtek ALC892 support dual audio streams
- **CF-1150SA-R10:** Special cooler kit for LGA1150, High-performance compatible, 95W
- **CF-1150SB-R10:** Special cooler kit for LGA1150, High-performance compatible, 65W
- **CF-1150SC-R10:**
Special cooler kit for LGA1150, 1U chassis compatible, 65W
- **DP-DVI-R10:**
DisplayPort to DVI-D converter board (For iEi IDP connector)
- **DP-HDMI-R10:**
DisplayPort to HDMI converter board (For iEi IDP connector)
- **DP-LVDS-R10:**
DisplayPort to LVDS converter board (For iEi IDP connector)
- **DP-VGA-R10:**
DisplayPort to VGA converter board (For iEi IDP connector)
- **DP-DP-R10:**
DisplayPort to DisplayPort converter board (For iEi IDP connector)

Jumpers setting and connectors

LABEL	FUNCTION
J_ATX_AT1	AT/ATX mode select switch
J_CMOS1	Clear CMOS button
PCIEX16 Power	PCIEX16 channel mode setting
USB SW1, USB SW2	USB power setting
MSATA_SW1	M-SATA switch auto-detect
J_FLASH1	Flash descriptor security override
J_AUDIO1	Audio source connector
BAT1	Battery connector
CHASSIS1	Chassis status connector
CPU_FAN1	CPU fan connector
CPU12V1	+12V power connector
CHA_DIMM1, CHA_DIMM2 CHB_DIMM1, CHB_DIMM2	DDR3 DIMM slots
DIO1	Digital I/O connector
DP1	Display port connector
CN3	EC debug connector
F_PANEL1	Front panel connector
IPMI1	Collocation IPMI module (iRIS-2400)
IR1	IrDA Infrared Interface Connector
CN1	I2C Connector
KB_MS1	Keyboard and mouse connector
LED_LAN1	LAN1 link LED connector
LED_LAN2	LAN2 link LED connector
LPT1	Parallel port connector
CN4	M-SATA card connector
COM1, COM3, COM4, COM5	RS-232 serial port connector
COM2	RS-422/485 serial port connector
SATA1, SATA2, SATA3 SATA4, SATA5, SATA6	SATA 6Gb/s drive connectors
CN2	SMBUS connector
SPDIF1	SPDIF connector
JSPI1	Flash SPI ROM connector

JSPI2	Flash EC ROM connector
SYS_FAN1	System fan connector
TPM1	TPM connector
USB1, USB2	Internal USB 2.0 connectors
CN7	Internal USB 3.0 connector
LAN1, LAN2	RJ45 LAN connectors
CN5, CN6	External USB 3.0 ports
VIDEO1	VGA connector

J_ATX_AT1: AT/ATX mode select switch

PIN NO.	DESCRIPTION
Short 1 - 2	ATX Mode (default)
Short 2 - 3	AT Mode

J_CMOS1: Clear CMOS button

PIN NO.	DESCRIPTION
NC (default)	Keep CMOS Setup (Normal Operation)
Press button	Clear CMOS Setup

PCIEX16 channel mode setting	
PCIE x16	DESCRIPTION
1 x16 PCIE	1 x16 PCIE (default)
2 x8 PCIE	2 x8 PCIE
1 x8 , 2x4 PCIE	1 x8 , 2x4 PCIE

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Chipset

Auto Power Button Status	[Disabled(ATX)]	
Restore AC Power Loss	[Last State]	-----
> PCI Express Configuration		
> PCI Azalia Configuration		
Power Saving Function(ERP)	[Disabled]	
PCIEX16 Power	[1 x16 PCIE]	
USB SW1	[+5V DUAL]	
USB SW2	[+5V DUAL]	

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USB SW1, USB SW2: USB power setting	
PCIE x16	DESCRIPTION
+5V DUAL	5V DUAL (default)
+5V	+5V

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Chipset

Auto Power Button Status	[Disabled(ATX)]	
Restore AC Power Loss	[Last State]	-----
> PCI Express Configuration		
> PCI Azalia Configuration		
Power Saving Function(ERP)	[Disabled]	
PCIEX16 Power	[1 x16 PCIE]	
USB SW1	[+5V DUAL]	
USB SW2	[+5V DUAL]	

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MSATA_SW1: M-SATA switch auto-detect	
PIN NO.	DESCRIPTION
Open	Auto Detect M-SATA (default)
Short	M-SATA Enable

J_FLASH1: Flash descriptor security override	
PIN NO.	DESCRIPTION
Short 1 - 2	Disabled (default)
Short 2 - 3	Enabled

J_AUDIO1: Audio source connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	HDA_SYNC	2	HDA_BIT_CLK
3	HDA_SDOUT	4	HDA_SPKR
5	HDA_SDIN	6	HDA_RST#
7	HDA_VCC	8	HDA_GND
9	HDA_+12V	10	HDA_GND

BAT1: Battery connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VBATT	2	GND

CHASSIS1: Chassis status connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+3.3VSB	2	CHASSIS OPEN

CPU_FAN1: CPU fan connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	+12V
3	FANIO	4	PWM

CPU12V1: +12V power connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	GND
3	+12V	4	+12V

DIO1: Digital I/O connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	VCC
3	Output 3	4	Output 2
5	Output 1	6	Output 0
7	Input 3	8	Input 2
9	Input 1	10	Input 0

DP1: Display port connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+5V	2	LANE1N
3	LANE1P	4	GND
5	LANE3N	6	LANE3P
7	GND	8	AUX_CTRL_DET_D
9	GND	10	HPD
11	AUXP	12	AUXN
13	GND	14	LANE2P
15	LANE2N	16	GND
17	LANE0P	18	LANE0N
19	+3.3V	20	NC

CN3: EC debug connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	EC_EPP_STB#	2	EC_EPP_AFD#
3	EC_EPP_PD0	4	NC
5	EC_EPP_PD1	6	EC_EPP_INIT#
7	EC_EPP_PD2	8	EC_EPP_SLIN#
9	EC_EPP_PD3	10	GND
11	EC_EPP_PD4	12	NC
13	EC_EPP_PD5	14	EC_EPP_BUSY
15	EC_EPP_PD6	16	EC_EPP_KSI5
17	EC_EPP_PD7	18	EC_EPP_KSI4

F_PANEL1: Front panel connector					
	PIN	DESCRIPTION	PIN	DESCRIPTION	
PWR LED	1	+5V	2	BEEP_PWR	SPKR
	3	NC	4	IPMI ID_LED+	IPMI LED
	5	GND	6	IPMI ID_LED-	
PWR BTN	7	PWRBTN_SW#	8	PC_BEEP	SPKR
	9	GND	10	NC	RESET
HDD LED	11	+5V	12	EXTRST-	
	13	SATA_LED#	14	GND	

IR1: IrDA connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+V5S	2	NC
3	IR-RX	4	IR-RX
5	IR-TX		



CN1: I2C Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	PCH_GP38 (I2C_DAT)
3	PCH_GP39 (I2C_CLK)	4	+5V

KB_MS1: Keyboard and mouse connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC	2	MSDATA
3	MSCLK	4	KBDATA
5	KBCLK	6	GND

LED_LAN1: LAN1 link LED connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+3.3V	2	LAN1_LED_LNK#_ACT

LED_LAN2: LAN2 link LED connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+3.3V	2	LAN2_LED_LNK#_ACT

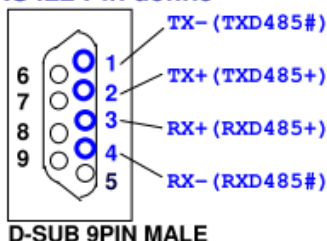
LPT1: Parallel port connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	STROBE#	2	DATA0
3	DATA1	4	DATA2
5	DATA3	6	DATA4
7	DATA5	8	DATA6
9	DATA7	10	ACKNOWLEDGE#
11	BUSY	12	PAPER EMPTY
13	PRINTER SELECT	14	AUTO FORM FEED #
15	ERROR#	16	INITIALIZE#
17	PRINTER SELECT LN#	18	GND
19	GND	20	GND
21	GND	22	GND
23	GND	24	GND
25	GND	26	NC

CN4: M-SATA card connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	PCIE_WAKE#	2	+3.3V
3	N/C	4	GND
5	N/C	6	1.5V
7	N/C	8	N/C
9	GND	10	N/C
11	MSATA_CLK#	12	N/C
13	MSATA_CLK	14	N/C
15	GND	16	N/C
17	PLTRST_N	18	GND
19	N/C	20	+3.3V
21	GND	22	PLTRST_N
23	SATA_RX+	24	+3.3V
25	SATA_RX-	26	GND
27	GND	28	1.5V
29	GND	30	SMB_CLK
31	SATA_TX-	32	SMB_DATA
33	SATA_TX+	34	GND
35	GND	36	USB_DATA-
37	GND	38	USB_DATA+
39	+3.3V	40	GND
41	+3.3V	42	N/C
43	+3.3V	44	N/C
45	CLINK_CLK	46	N/C
47	CLINK_DATA	48	1.5V
49	CLINK_RST#	50	GND
51	MSATA_DET	52	+3.3V

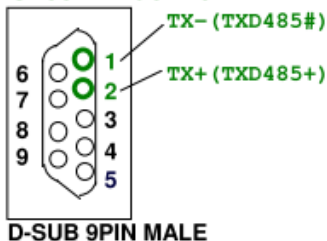
COM1, COM3, COM4, COM5: RS-232 serial port connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	DCD	2	DSR
3	RXD	4	RST
5	TXD	6	CTS
7	DTR	8	RI
9	GND	10	GND

COM2: RS-422/485 serial port connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	RXD485#	2	RXD485+
3	TXD485+	4	TXD485#

RS422 Pin define



RS485 Pin define



SATA1, SATA2, SATA3, SATA4, SATA5, SATA6: SATA 6Gb/s drive connectors			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	SATA_TX+
3	SATA_TX-	4	GND
5	SATA_RX-	6	SATA_RX+
7	GND		

CN2: SMBUS connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	SMB_DATA
3	SMB_CLK	4	+5V

SPDIF1: SPDIF connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+5V	2	NC
3	SPDIFOUT	4	GND
5	SPDIFIN		

JSPI1: Flash SPI ROM connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+3.3V	2	SPI_CS#
3	SPI_SO	4	NC
5	GND	6	SPI_CLK
7	SPI_SI	8	NC

JSPI2: Flash EC ROM connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+3.3V	2	SPI_CS#
3	SPI_SO	4	NC
5	GND	6	SPI_CLK
7	SPI_SI	8	NC

SYS_FAN1: System fan connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	FANIO	2	+12V (PWM)
3	GND		

TPM1: TPM connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	LCLK	2	GND
3	LFRAME#	4	NC
5	LRERST#	6	+5V
7	LAD3	8	LAD2
9	+3.3V	10	LAD1
11	LAD0	12	GND
13	SCL	14	SDA
15	SB3V	16	SERIRQ
17	GND	18	GLKRUN#
19	LPCPD#	20	LDRQ#

USB1, USB2: Internal USB 2.0 connectors			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC	2	GND
3	USB_DATA-	4	USB_DATA+
5	USB_DATA+	6	USB_DATA-
7	GND	8	VCC

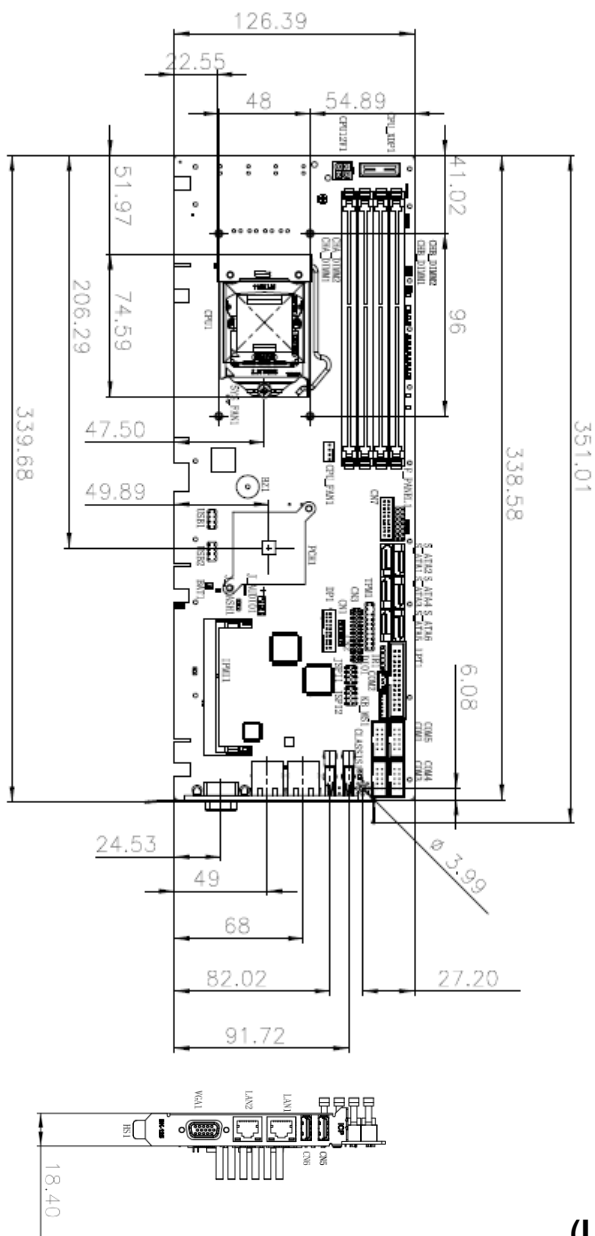
CN7: Internal USB 3.0 connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VCC	2	USB3_RX-
3	USB3_RX+	4	GND
5	USB3_TX-	6	USB3_TX+
7	GND	8	USB_DATA-
9	USB_DATA+	10	NC
11	USB_DATA+	12	USB_DATA-
13	GND	14	USB3_TX+
15	USB3_TX-	16	GND
17	USB3_RX+	18	USB3_RX-
19	VCC	20	NC

LAN1, LAN2: RJ45 LAN connectors			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	MDIA3-	2	MDIA3+
3	MDIA2-	4	MDIA2+
5	MDIA1-	6	MDIA1+
7	MDIA0-	8	MDIA0+

CN5, CN6: External USB 3.0 ports			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	VBUS	2	D-
3	D+	4	GND
5	STDA_SSRX_N	6	STDA_SSRX_P
7	GND_DRAIN	8	STDA_SSTX_N
9	STDA_SSTX_P		

VIDEO1: VGA connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	RED	2	GREEN
3	BLUE	4	NC
5	GND	6	GND
7	GND	8	GND
9	VCC	10	GND
11	NC	12	DDCDA
13	HSYNC	14	VSYNC
15	DDCCLK		

Board Layout: Jumper and Connector Locations



(Unit: mm)