

Full Size PICMG1.3 CPU Card supports Dual socket LGA771 Intel® Xeon® processors and comes with VGA, Dual GbE, SATA II with RAID function, USB 2.0 and Audio

SPCIE-5100DX

Quick Installation Guide

Version 1.0

Oct. 19, 2009

Package Contents

SPCIE-5100DX package includes the following items:

- 1 x SPCIE-5100DX Single Board Computer
- 6 x SATA cable
- 1 x Dual RS-232 Ports cable with bracket
- 1 x Dual Ports USB cable with bracket
- 1 x Mini Jumper Pack
- 2 x LGA771 CPU Cooler
- 1 x SBC Support Bracket(On CPU board)
- 1 x Utility CD
- 1 x QIG (Quick Installation Guide)



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Specifications

- CPU:
Dual LGA771 CPU Socket (Socket J)
Dual-Core Intel® Xeon® processor 5100/5200 series CPU with a 1333/1066MHz FSB
Quad-Core Intel® Quad-Core Xeon® processor 5300/5400 series CPU with a 1333/1066MHz FSB
(System Max: Dual Intel® Xeon® 80W processor)
- System Chipset: Intel® 5100+ICH9R
- BIOS: AMI BIOS Label
- System memory: Four 240-pin 667/533 MHz dual-channel DDR2 SDRAM **ECC Registered** DIMM supported .(system max. 32GB)
- Ethernet: Dual Intel® 82574L PCIe GbE controllers (PCIex1 Interface)
- I/O Interface :
2 x RS-232 (2 on board by pin-header)
12 x USB2.0 (2 on bracket, 6 on board by pin header, 4 to BP via Golden Finger)
6 x SATA II with RAID 0,1,5 and 10
1 x FDD
1 x LPT
2 x 5-pin header for KB/MS
- Infrared interface
1x5-pin pin header
- Digital I/O: 8-bit digital I/O, 4-bit input/ 4-bit output
- Super I/O: ITE IT8718F
- Expansion: PCIe x16 signal to Backplane via Golden Finger
PCIe x4 signal to Backplane via Golden Finger
4x PCI signal to Backplane via Golden Finger
- Display Interface :
VGA support by XGI Volari Z9s Graphic controller (PCI Interface) with 64MB GDDR2 Memory
VGA resolution support up to UXGA (1600x1200) and CRT Hot plug
- Audio: 7.1 Channel HD Audio Kit with Realtek ALC883 supports

dual audio streams

- WDT: Software programmable 1-255 sec. System reset by Super I/O: ITE IT8718F
- Power supply: ATX power support
- FAN: Two 4-pin CPU FAN (Smart FAN)
One 4-pin Chipset FAN (Smart FAN)
- Power Consumption:
3.3V @1.07A, 5V @5.55A, 12V @12.3A (Dual Intel® Xeon® 5110 1.6GHz processor with DDR2 667MHz 2GB DRAM x 4) 3D Mark 2001SE
- Operating Temperature:
0 ~ 60°C (32 ~ 140°F)- for dual under 65W CPU
0 ~ 55°C (32 ~ 122°F)- for dual 80W CPU
- Operating Humidity: 5%~95% non-condensing
- Dimension: 338mm x 126mm
- Weight: GW:1500g / NW:1200g

Ordering Information

SPCIE-5100P-R10:

Full Size PICMG1.3 CPU Card supports Dual socket LGA771 Intel® Xeon® processors and comes with VGA, Dual GbE, SATA II with RAID function, USB 2.0 and Audio

AC-KIT883HD-R10:

7.1 Channel HD Audio kit with Realtek ALC883 support dual audio streams

32200-000017-RS: FDD cable

19800-000049-RS: LPT cable with bracket

19800-000066-RS: PS/2 KB/MS cable with bracket

32100-088600-RS/32102-000100-100-RS/32102-000100-200-RS:
SATA power cable

NOTICE

To be able to turn on the SPCIE-5100DX, the user must:

1. Install an ECC Registered DDR2 DIMM in the **CHA_DIMM1** or the **CHB_DIMM1** socket.
2. Connect a 12V power supply to the **ATX_12V1** power connector (8-pin).

Jumpers setting and Connectors

LABEL	FUNCTION
J_CMOS1	Clear CMOS Setup jumper
KB1、MS1	PS/2 MOUSE & KEYBOARD Connectors
LAN1、LAN2	RJ45 LAN Connectors
COM1 COM2	Internal Serial Port Connectors
LPT1	Internal Parallel Port Connector
VGA1	D-SUB15 Female Connector
JSPI1	Flash BIOS SPI ROM Connector
USB23 USB45 USB67	Internal USB Connectors
USB_C0 USB_C1	External USB Connectors
SATA1 SATA2 SATA3 SATA4 SATA5 SATA6	Serial ATA Connectors
FDD1	FDC Connector
CPU_FAN1 CPU_FAN2	CPU Fan Connectors
MCH_FAN1	North Bridge Fan Connector
DIO1	Digital I/O Connector
F_PANEL1	PWR、RST Buttons、Indicators and Speaker connector
J_AUDIO1	Extend Audio Module Connector
IR1	Infrared Interface Connector
ATX_12V1	CPU Power Input Connector
CHA_DIMM1 CHA_DIMM2 CHB_DIMM1 CHB_DIMM2	Registered ECC DIMM slots
BAT1	Coin battery connector

J_CMOS1 : Clear CMOS Setup Jumper	
J_CMOS1	DESCRIPTION
1-2 (Default)	Keep CMOS Setup (Normal Operation)
Short 2-3	Clear CMOS Setup

KB1 : 5-pin PS/2 Keyboard Connector	
PIN NO.	DESCRIPTION
1	KEYBOARD CLOCK
2	KEYBOARD DATA
3	N/C
4	GROUND
5	VCC(+5V)

MS1 : 5-pin PS/2 Mouse Connector	
PIN NO.	DESCRIPTION
1	Mouse CLOCK
2	Mouse DATA
3	N/C
4	GROUND
5	VCC(+5V)

COM1, COM2 : Internal Serial Port Connectors(RS-232)			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	DCD#	2	DSR#
3	RXD	4	RTS#
5	TXD	6	CTS#
7	DTR#	8	RI#
9	GND	10	NC

IR1: Infrared Interface Connector	
PIN NO.	DESCRIPTION
1	VCC(+5V)
2	NC
3	IR-RX
4	GND
5	IR-TX

BAT1 : Coin Battery Connector	
PIN	DESCRIPTION
1	BAT+(+3.3V)
2	BAT-(GND)

USB23, USB45, USB67 :			
Internal USB Connectors			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC(+5V)	2	GND
3	DATA-	4	DATA+
5	DATA+	6	DATA-
7	GND	8	VCC(+5V)

LPT1 : Internal Parallel Port Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	STROBE#	14	AUTO FORM FEED #
2	DATA0	15	ERROR#
3	DATA1	16	INITIALIZE#
4	DATA2	17	PRINTER SELECT LN#
5	DATA3	18	GND
6	DATA4	19	GND
7	DATA5	20	GND
8	DATA6	21	GND
9	DATA7	22	GND
10	ACKNOWLEDGE#	23	GND
11	BUSY	24	GND
12	PAPER EMPTY	25	GND
13	PRINTER SELECT		

JSPI1: Flash BIOS SPI ROM Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	+3.3V	2	GND
3	CS0#	4	CLK
5	SO0	6	SI
7	N/C	8	N/C

CPU_FAN1, CPU_FAN2 :	
CPU Fan Connectors	
PIN NO.	DESCRIPTION
1	Ground
2	+12V
3	Rotation Signal
4	Control

MCH_FAN1:	
North Bridge Fan Connector	
PIN NO.	DESCRIPTION
1	Ground
2	+12V
3	Rotation Signal
4	NC

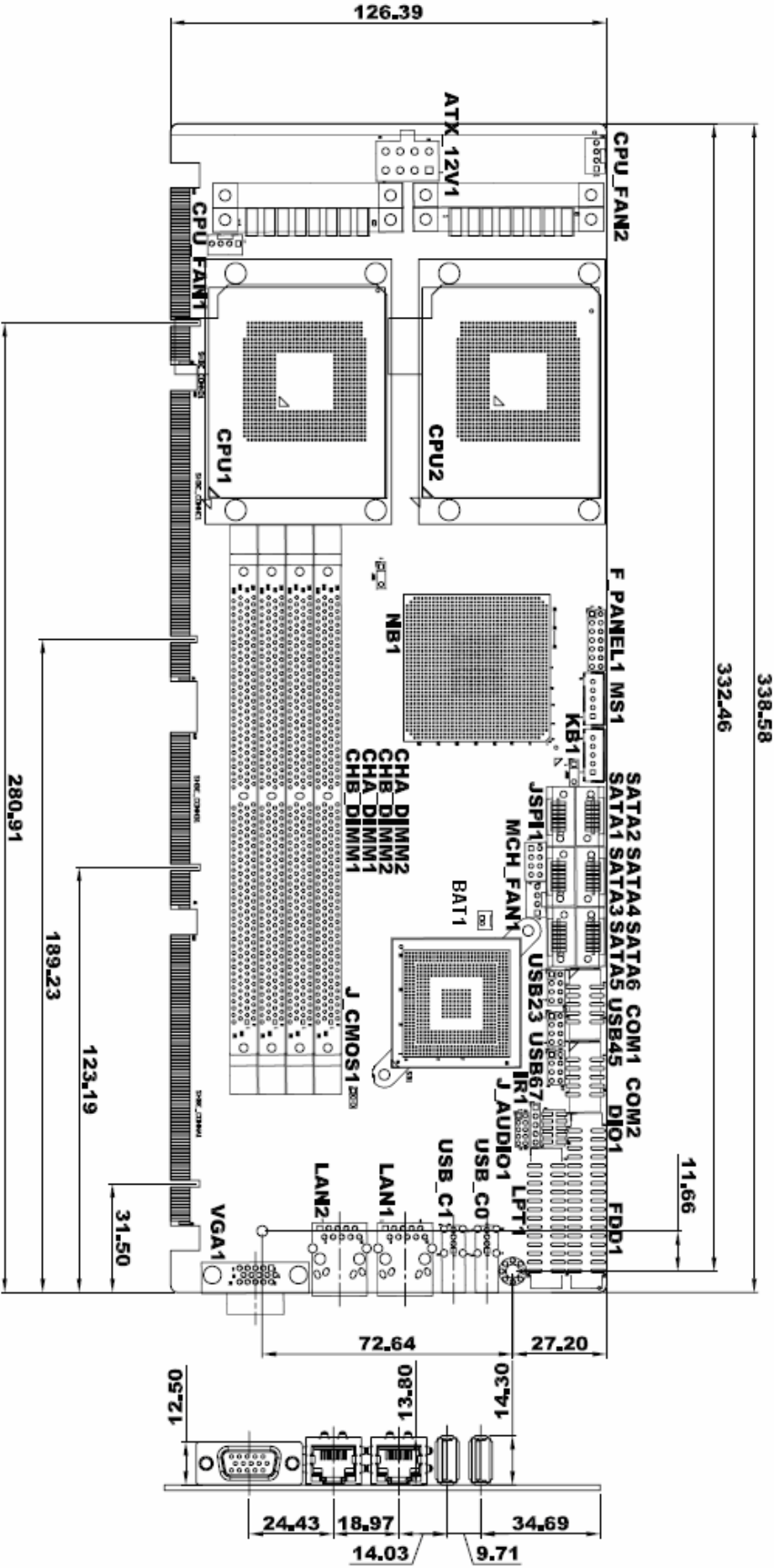
DIO1 : Digital Input / Output Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	Ground	2	VCC(+5V)
3	Output 3	4	Output 2
5	Output 1	6	Output 0
7	Input 3	8	Input 2
9	Input 1	10	Input 0

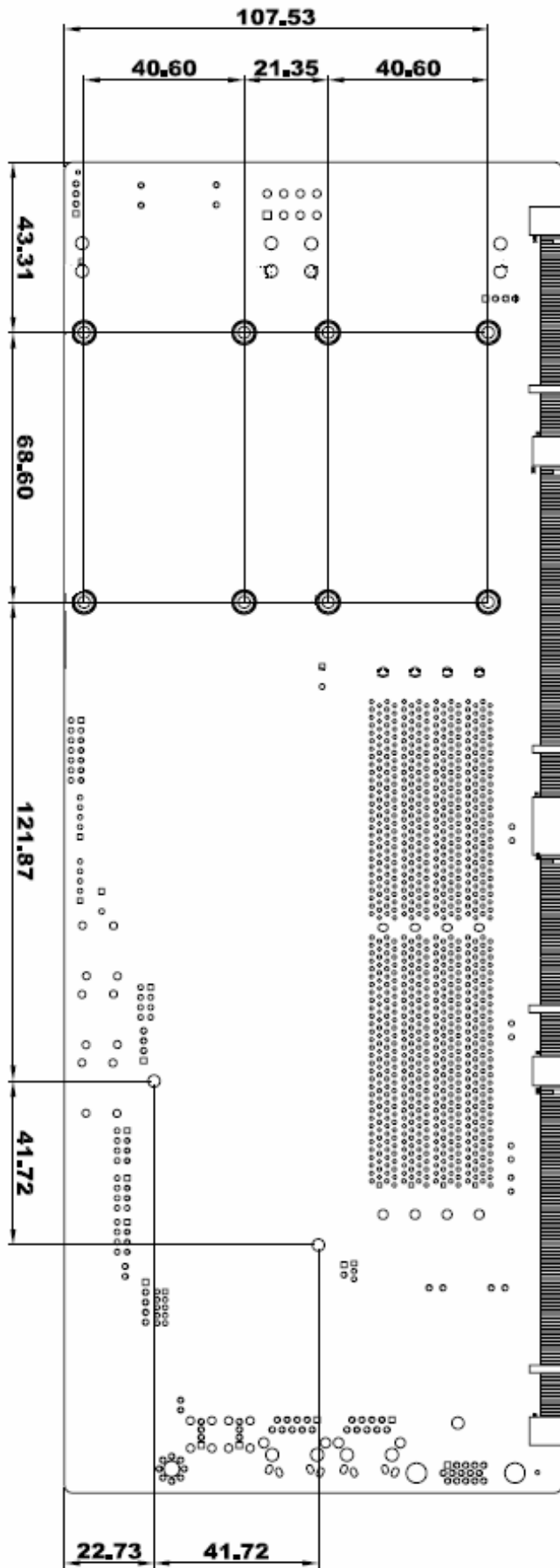
F_PANEL1 : PWR 、 RST Buttons 、 Indicators and Speaker connector					
Function	PIN	DESCRIPTION	PIN	DESCRIPTION	Function
Power LED	1	PWRLED+	2	Speaker+	Speaker
	3	N/C	4	N/C	
	5	PWRLED-	6	N/C	
PWRBTN	7	PWRBTN+	8	Speaker-	RESET
	9	PWRBTN-	10	N/C	
HDDLED	11	HDDLED+	12	RESET+	
	13	HDDLED-	14	RESET-	

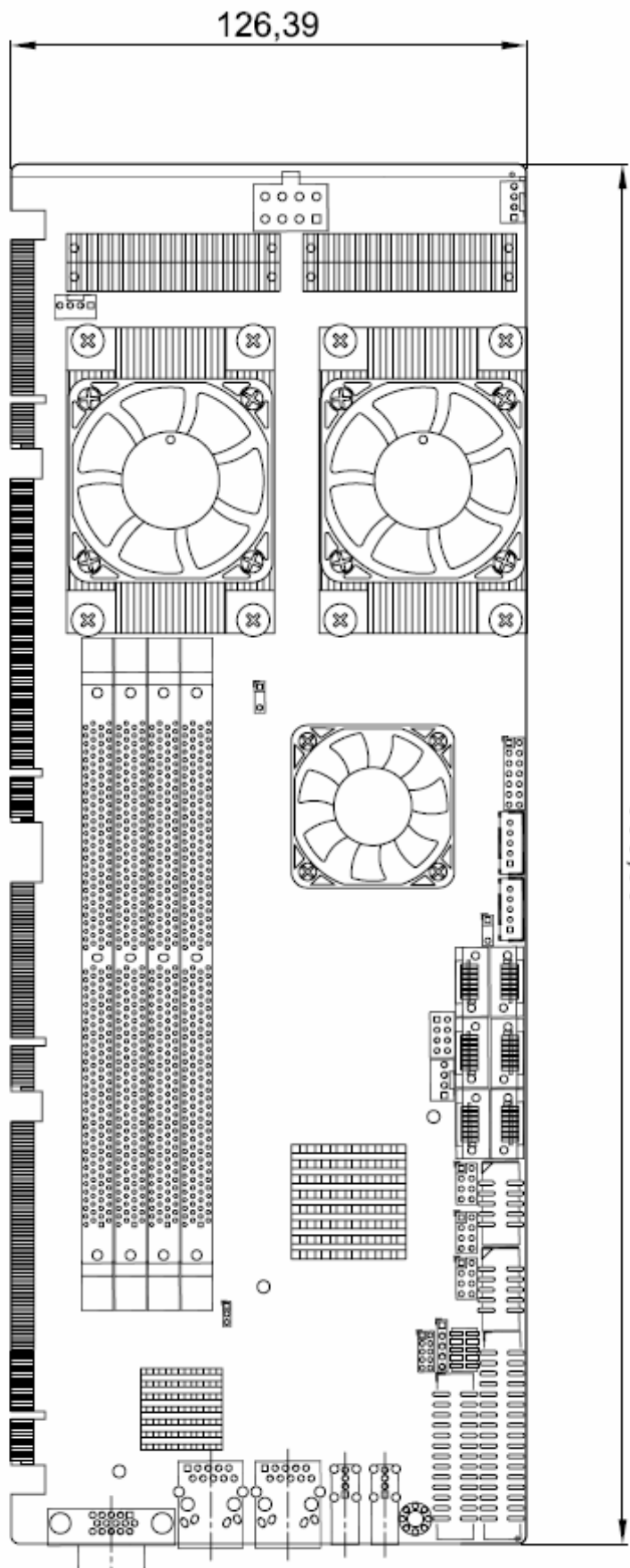
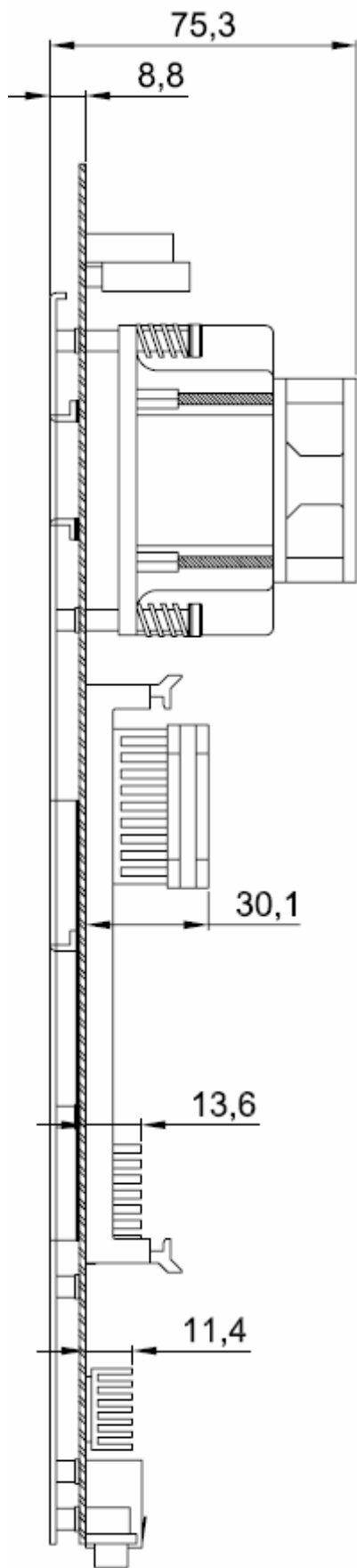
ATX_12V1:CPU Power Input Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	5	+12V
2	GND	6	+12V
3	GND	7	+12V
4	GND	8	+12V

J_AUDIO1 : Extend Audio Module Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	ACZ_SYNC	2	ACZ_BITCLK
3	ACZ_SDOUT	4	ACZ_PCBEEP
5	ACZ_SDIN	6	ACZ_RST#
7	ACZ_VCC(+5V)	8	ACZ_GND
9	ACZ_12V	10	ACZ_GND

Board Layout: Jumper and Connector Locations

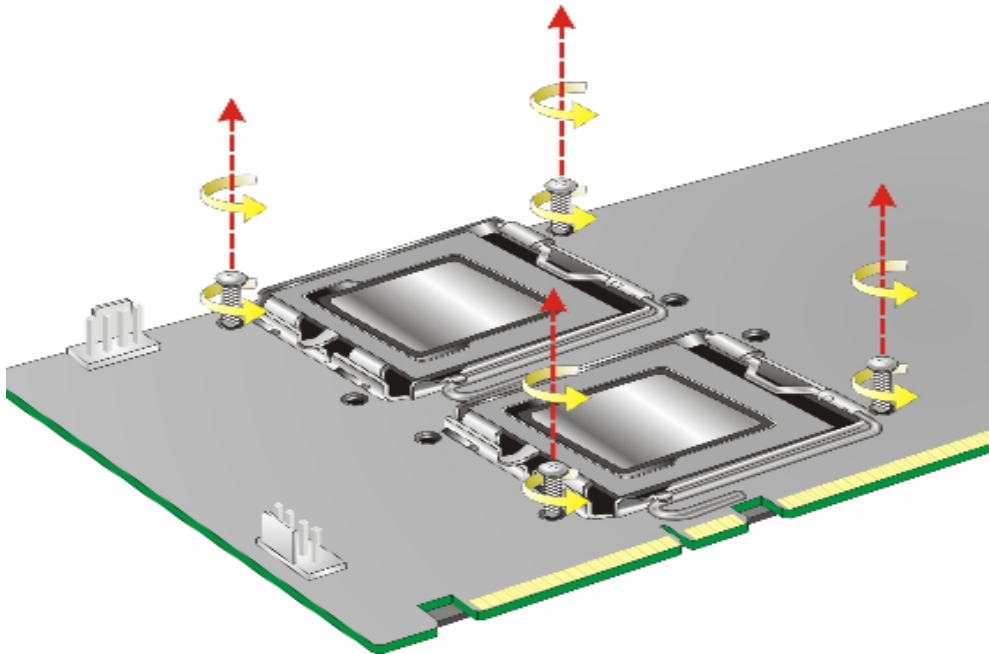






LGA771 Cooler Installation Guild

A. Remove the retention screws from the CPU card.



B. Install the CPU coolers to the CPU card as shown in the figure below.

