

Full-size PICMG 1.3 CPU card supports LGA1156 socket for Intel® Core™ i7 processor with VGA, Dual PCIe GbE, SATA 3Gb/s, COM, USB 2.0 and Audio, RoHS

PCIE-Q57A

Quick Installation Guide

Version 1.0

Apr. 07, 2010

Package Contents

PCIE-Q57A package includes the following items:

- 1x PCIE-Q57A Single Board Computer
- 1 x Mini Jumper Pack
- 6x SATA cable
- 1x Dual RS-232 cable
- 1x USB cable
- 1 x Utility CD
- 1 x QIG (Quick Installation Guide)



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Specifications

- CPU: LGA1156 socket supports Intel® Clarkdale (Dual Core) & Lynnfield (Quad Core) processor
- System Chipset: Intel® Q57
- BIOS: AMI BIOS
- System Memory: 2 x 240-pin dual-channel DDR3
1333/1066/800 MHz SDRAM Slot up to 8GB
- Graphic: VGA Integrated in Intel® Q57
- Display Output:
 - 1 x VGA
 - 1 x SDVO interface
- Ethernet:
 - Intel® 82583V (co-layout with 82574L) PCIe controller
 - Intel® 82578DM (Hanksville) with Intel® iAMT 6.0 supported by iEZman software UI.
- I/O Interface:
 - 2 x RS-232
 - 14 x USB2.0 (2 on rear side, 12 on board by pin-header)
 - 6 x SATA II support RAID 0, 1, 5, 10
 - 1 x FDD
 - 1 x LPT
 - 1 x 6-pin wafer on board for KB/MS
- Super I/O: ITE IT8718F
- Digital I/O: 8-bit Digital I/O (4-bit input, 4-bit output)
- Infrared Interface: 1 x 5-pin infrared connector
- Audio:
 - 7.1 channel HD Audio kit with Realtek ALC883 codec support dual audio streams
- Watchdog timer:
 - Software programmable 1-255 sec. by Super I/O:ITE IT8718F
- Power Supply: ATX Power (Support AT/ATX mode)
- Power Consumption:
 - 3.3V@0.89A, 5V@4.62A, 12V@0.51A, Vcore_12V@4.35, 5VSB@0.14A
 - (Intel®Core™ i5 6603.3GHz CPU with two 2GB 1066MHZ DDR3)

- Operation Temperature: 0 ~ 60°C(32°F ~ 140°F)
- Operation Humidity: 5% ~ 95%, non-condensing
- FAN:
 - 1 x 4-pin CPU fan connector
 - 1 x 4-pin PCH fan connector
- Dimensions: 338mm X 126mm
- Weight: 1.1Kg

Ordering Information

PCIE-Q57A-R10:

PICMG 1.3 with LGA1156 socket for Intel®Core™ i7 processor with VGA, Dual PCIe GbE, SATAII, COM, USB 2.0 and Audio, RoHS

AC-KIT883HD-R10:

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

CB-USB14-RS: 4-port USB cable

CF-1156-RS-R10: LGA1156 CPU cooler

32000-000075-RS: PS/2 KB/MS cable with bracket

32100-088600-RS/32102-000100-100-RS/32102-000100-200-RS:

SATA power cable

32200-000017-RS: FDD cable

19800-000049-RS: LPT cable with bracket

Jumpers setting and Connectors

LABEL	FUNCTION
VGA1	VGA 15-pin Female Connector
USB_C1 USB_C2	USB Port Connector
LAN1、LAN2	RJ45 LAN Connector
MS/KB1	Internal PS/2 KEYBOARD/MOUSE Connector
COM1 COM2	Internal Serial Port DB-9 Connectors
USB1 USB2 USB3 USB4	Internal USB Connectors
J_AUDIO1	Extend Audio Module Connector
SATA1 SATA2 SATA3 SATA4 SATA5 SATA6	Serial ATA Connectors
IR1	IrDA Infrared Interface Connector
JSPI1	SPI Flash connector
FDD1	Internal FDD Connector
LPT1	Internal LPT Connector
CPU_FAN1	Fan Connector
F_PANEL1	PWR & RST Buttons and Indicators
DIO1	Digital I/O Connector
CPU12V1	ATX 12V CPU Power Source

J_CMOS1 : Clear CMOS setting Jumper	
J_CMOS1	DESCRIPTION
1-2 (Default)	Normal
2-3	Clear CMOS Data

VGA1 : 15-pin Female Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	RED	2	GREEN
3	BLUE	4	NC
5	GND	6	GND
7	GND	8	GND
9	VCC	10	GND
11	NC	12	DDCDAT
13	HSYNC	14	VSYNC
15	DDCCLK		

LAN1、 LAN2: RJ45 LAN Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	TRD1P0	5	TRD1P2
2	TRD1N0	6	TRD1N2
3	TRD1P1	7	TRD1P3
4	TRD1N1	8	TRD1N3

MS/KB1: Internal 6-pin Keyboard Connector	
PIN	DESCRIPTION
1	VCC(+5V)
2	Mouse Data
3	Mouse Clock
4	Keyboard Data
5	Keyboard Clock
6	Ground

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

USB1-USB4: Internal USB Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC	2	GND
3	DATA-	4	DATA+
5	DATA+	6	DATA-
7	GND	8	VCC

USB_C1, USB_C2: External USB Connector	
PIN	DESCRIPTION
1	VCC
2	DATA-
3	DATA+
4	GROUND

IR1: Infrared Interface Connector	
PIN	DESCRIPTION
1	VCC (+5V)
2	NC
3	IR-RX
4	GND
5	IR-TX

J_AUDIO1 : External Audio Module Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	ACZ_SYNC	2	ACZ_BITCLK
3	ACZ_SDOOUT	4	ACZ_PCBEPP
5	ACZ_SDIN	6	ACZ_RST#
7	ACZ_VCC(+5V)	8	ACZ_GND
9	ACZ_12V	10	ACZ_GND

SATA1-SATA6 : Serial ATA Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	5	RX-
2	TX+	6	RX+
3	TX-	7	GND
4	GND		

JSPI1: Flash BIOS SPI ROM connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC	2	CE#
3	SO	4	N/C
5	GND	6	CLOCK
7	SI	8	N/C

CPU_FAN1, CPU_FAN2: CPU Fan Connectors	
PIN	DESCRIPTION
1	Ground
2	+12V
3	Rotation Signal
4	Control

FDD1: Floppy Disk Drive Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	GND	2	REDUCE WRITE
3	GND	4	N/C
5	N/C	6	N/C
7	GND	8	INDEX#
9	GND	10	MOTOR ENABLE A#
11	GND	12	DRIVE SELECT B#
13	GND	14	DRIVE SELECT A#
15	GND	16	MOTOR ENABLE B#
17	GND	18	DIRECTION#
19	GND	20	STEP#
21	GND	22	WRITE DATA#
23	GND	24	WRITE GATE#
25	GND	26	TRACK 0#
27	GND	28	WRITE PROTECT#
29	GND	30	READ DATA#
31	GND	32	SIDE 1 SELECT#
33	GND	34	DISK CHANGE#

LPT1 : 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		

F_PANEL1 : PWR, RST Buttons, Speaker and Indicators					
Function	PIN	DESCRIPTION	PIN	DESCRIPTION	Function
Power LED	1	+5V	2	+5V	Speaker
	3	N/C	4	N/C	
	5	GROUND	6	N/C	
PWRBTN	7	PWRBTN+	8	Speaker	RESET
	9	PWRBTN-	10	N/C	
HDDLED	11	+5V	12	Reset-	
	13	HDLED-	14	GND	

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

CPU12V1: ATX-12V CPU Power Input connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	GND	2	GND
3	+12V	4	+12V

Board Layout: Jumper and Connector Locations

