

Full-size PICMG 1.3 CPU card supports LGA775 Intel® Core™ 2 Quad processor and Dual-channel DDR3 memory with VGA, Dual PCIe GbE, SATAII, COM and USB 2.0, RoHS

PCIE-G41A2

Quick Installation Guide

Version 1.0

Apr. 16, 2010

Package Contents

PCIE-G41A2 package includes the following items:

- 1x PCIE-G41A2 Single Board Computer
- 1x Dual RS-232 Ports cable with bracket
- 1x Dual USB Ports Cable with bracket
- 4x SATA cable
- 1 x Mini Jumper Pack
- 1 x Utility CD
- 1 x QIG (Quick Installation Guide)



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Specifications

- CPU: LGA 775 Intel®Core™ 2 Extreme/Quad/Duo, Celeron with a 1333/1066/800MHz FSB support
- System Chipset: Intel® G41+ICH7R
- BIOS: AMI BIOS
- System Memory: 2 x 240-pin Dual-channel DDR3
1066/800MHz SDRAM Slot up to 8GB
- Ethernet: Dual Realtek RTL8111CP PCIe GbE controllers (PCIe x1 Interface)
- I/O Interface:
 - 2 x RS-232
 - 8 x USB2.0 (2 on bracket, 2 on board by pin-header, 4 to backplane via Golden Finger)
 - 4 x SATA II support RAID 0, 1, 10, 5
 - 1 x IDE
 - 1 x FDD
 - 1 x LPT
 - 1 x PS/2 KB/MS by 6-pin header
- 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 pin header
- Graphic:
 - Intel® Graphics Media Accelerator X4500 (Intel®GMA X4500)
- Display:
 - Analog CRT
 - VGA display output resolution up to 2048 x 1536
- Audio:
 - 1 x Audio Interface pin-header, supports :
 - 5.1 channel Audio kit with Realtek ALC655 AC' 97 codec
 - 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

- Power Consumption:
3.3V@0.53A, 5V@6.2A, 12V@0.11A, Vcore_12V@2.91A
(Intel®Core™2 Duo E8500 3.16GHz 1333MHz FSB CPU with
2*2GB DDR3 1066MHz SDRAM)
- Operation Temperature: -20°C ~ 60°C(32°F ~ 140°F)
- Operation Humidity: 5% ~ 95%, non-condensing
- FAN: One 4-pin CPU FAN connector (Smart FAN)
- Dimensions: 338mm X 126mm
- Weight: 1.1Kg

Ordering Information

PCIE-G41A-R10:

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AC-KIT883HD-R10:

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

AC-KIT08R-R10: 5.1Channel AC' 97 audio kit with Realtek ALC655

CB-USB14-RS: 4 ports USB cable

CF-775A-RS:

High performance CPU cooler (92mmx92mmx73mm , 130W)

CF-520-RS-R11:

High performance CPU cooler (115mmx115mmx67mm , 115W)

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

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

32200-000017-RS: FDD cable

19800-000049-RS: LPT cable with Bracket

32200-000052-RS: ATA66 IDE flat cable

Jumpers setting and Connectors

LABEL	FUNCTION
J_CMOS1	Clear CMOS setting Jumper
VGA1	External VGA 15-pin Female Connector
USB_C1 USB_C2	External USB Port Connectors
LAN1、LAN2	External RJ45 LAN Connectors
MS/KB1	Internal PS/2 KEYBOARD/MOUSE Connector
COM1 COM2	Internal Serial Port Connectors
USB1	Internal USB Connector
J_AUDIO1	External Audio Module Connector
SATA1 SATA2 SATA3 SATA4	Serial ATA Connectors
IR1	Infrared Interface Connector
PIDE	Internal IDE Connector
FDD1	Internal FDD Connector
LPT1	Internal LPT Connector
CPU_FAN1	CPU Fan Connector
DIO1	Digital Input / Output Connector
F_PANEL1	PWR、RST Buttons、Speaker and Indicators
CPU12V1	ATX-12V CPU Power Input Connector

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

VGA1 : 15-pin Female 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	DDCDAT
13	HSYNC	14	VSYNC
15	DDCCLK		

USB_C01,USB_C02	
PIN NO.	DESCRIPTION
1	VCC
2	DATA-
3	DATA+
4	GROUND

MS/KB1: Internal 6-pin Keyboard Connector	
PIN NO.	DESCRIPTION
1	VCC(+5V)
2	Mouse Data
3	Mouse Clock
4	Keyboard Data
5	Keyboard Clock
6	Ground

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

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: Internal USB Connector			
PIN	DESCRIPTION	PIN	DESCRIPTION
1	VCC (+5V)	2	GND
3	DATA-	4	DATA+
5	DATA+	6	DATA-
7	GND	8	VCC (+5V)

J_AUDIO1 : External Audio Module Connector			
PIN	DESCRIPTION	PIN	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

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

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

SATA1~SATA4 : Serial ATA Connector			
PIN	DESCRIPTION	PIn	DESCRIPTION
1	GND	5	RX-
2	TX+	6	RX+
3	TX-	7	GND
4	GND	8	N/C

PIDE1: IDE Interface Connector			
PIN NO.	DESCRIPTION	PIN NO.	DESCRIPTION
1	RESET#	2	GND
3	DATA 7	4	DATA 8
5	DATA 6	6	DATA 9
7	DATA 5	8	DATA 10
9	DATA 4	10	DATA 11
11	DATA 3	12	DATA 12
13	DATA 2	14	DATA 13
15	DATA 1	16	DATA 14
17	DATA 0	18	DATA 15
19	GND	20	N/C
21	IDE DRQ	22	GND
23	IOW#	24	GND
25	IOR#	26	GND
27	IDE CHRDY	28	BALE – DEFAULT
29	IDE DACK	30	GND
31	INTERRUPT	32	N/C
33	SA1	34	PDIAG#
35	SA0	36	SA2
37	HDC CS0#	38	HDC CS1#
39	HDD ACTIVE#	40	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

FDD1: FDC Connector			
PIN NO.	DESCRIPTION	PIN NO.	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 NO.	DESCRIPTION	PIN NO.	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		

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

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-	RESET
	13	HDLED-	14	GND	

Board Layout: Jumper and Connector Locations

