PCA-6011

LGA775 Intel® Core™2 Quad SBC with VGA/DVI/Dual GbE LAN

DDR3 1333 Max 8GB
LPT
USB * 8
SATA * 4
COM1
COM2
FDD
IDE
LAN2
LAN1
VGA1
KBMS1
Core™ 2 Quad FSB 1333 MHz Processors
G41
DVI
ICH7/ICH7R
HDAUD1
LPC1

Quiet

CE FCC
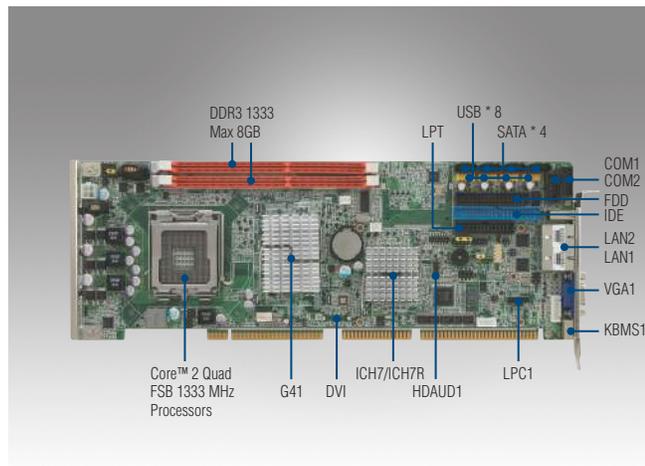
Features

- Compliant with PICMG 1.0
- Supports LGA 775 Intel® Core™2 Quad FSB 1333 MHz processors
- Supports Dual Channel DDR3 1333 SDRAM up to 8 GB
- Dual GbE LAN via two PCIe x1 lane
- 2 COM ports, 4 SATA ports, 8 USB ports
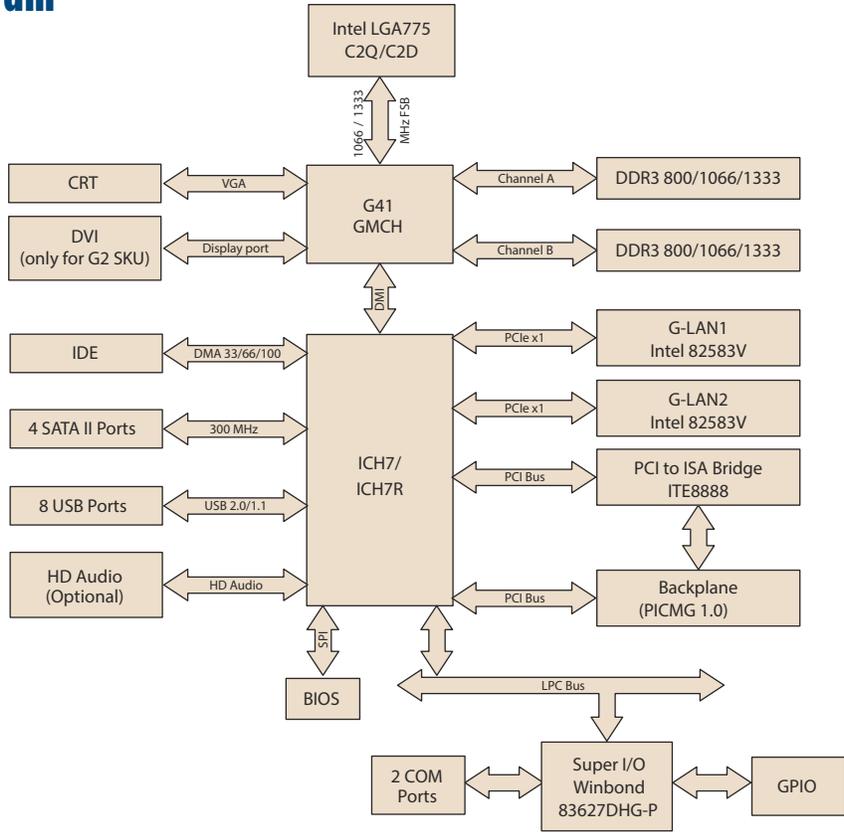- Dual display with VGA and DVI-D (G2 only)

Specifications

Processor System	CPU (45nm/65nm)	Intel Core 2 Quad	Intel Core 2 Duo	Intel Pentium		Intel Celeron	
	Max Speed	Q9650 3.0 GHz	E8500 3.16 GHz	E6500 2.93 GHz		E1500 2.2 GHz	
	L2 Cache	12 MB	6 M	8 M		512 KB	
	Chipset	Intel G41 + ICH7/ICH7R (only for G2 SKU)					
	BIOS	AMI 16 Mb SPI Flash					
	FSB	800/1066/1333 MHz					
Bus	PCI	32 bit/33 MHz PCI					
	ISA	HISA (ISA High Driver)					
Memory	Technology	Dual-channel DDR3 800/1066/1333 DIMMs					
	Max. Cap.	8 GB					
	Socket	240-pin DIMM x 2					
Graphics	Controller	Intel Graphics Media Accelerator X4500					
	VRAM	Shared with system memory up to 352 MB					
	Video Output	15-Pin VGA D-sub Connector x1/DVI connector x1 (only for G2 SKU)					
Ethernet	Interface	10/100/1000 Mbps					
	Controller	Intel 82583 V					
	Connector	RJ-45 with LED Connector x 2 (G2 SKU), x1 (VG SKU)					
SATA	Bandwidth	300 MB/s					
	Channel	4 ports					
	RAID	0, 1, 5, 10 (only for G2 SKU)					
EIDE	Mode	ATA 100/66/33					
	Channel	1 (Supports up to 2 IDE devices; Master device is alternative for CF socket)					
	CF	(Optional)					
I/O Interface	USB 2.0	8 ports by pin header(VG SKU); 6 ports by pin header/1 port on bracket I/O (G2 SKU)					
	Serial	2 RS-232 on board pin-headers, plus for ports of RS-485 with auto-flow control by module (optional, Advantech P/N: PCA-COM485-00A1E)					
	Parallel	1 (EPP/ECP/SPP)					
	FDD	1					
	PS/2	1 (for mouse and keyboard, Y cable is included in the package)					
Watchdog Timer	Output	System reset					
	Interval	Programmable, 1~255 sec					
Miscellaneous	Audio Output	Intel High Definition audio interface (requires an audio extension module P/N: PCA-AUDIO-HDA1E)					
Power Requirement	CPU	Configuration1: Core 2 Quad Q9400 (3.0 G, 95 W) + DDR3 1066 2 G x2					
	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V	-5 V
	Curent	5.14 A	4.04 A	0 A	0.17 A	0 A	0 A
	CPU	Configuration 2: Core2 Duo E8400 (3.0G, 65W) + DDR3 1066 2 GB x2					
	Voltage	+12 V	+5 V	+3.3 V	+5 VSB	-12 V	-5 V
	Curent	3.63 A	3.4 A	0 A	0.15 A	0 A	0 A
Environment		Operating		Non-Operating			
	Temperature	0 ~ 60 °C (32 ~ 140 °F) (operating humidity: 40 °C @ 85% RH Non-Condensing)		-40 °C ~ 85 °C and 60 °C @ 95% RH Non-Condensing			
Physical	Dimensions (L x H)	338 x 122 mm (13.3" x 4.8")					

Last updated: 13-Sep-2017

Block Diagram

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                              Intel LGA775
                              C2Q/C2D
                                 │
                          1066/1333 ┃ MHz FSB
                                 │
   CRT ◄──── VGA ────►    ┌──────────────┐  ◄── Channel A ──►  DDR3 800/1066/1333
                          │  G41         │
   DVI                    │  GMCH        │
   (only for G2 SKU) ◄── Display port ─► └──────────────┘  ◄── Channel B ──►  DDR3 800/1066/1333
                                 │ DMI
                                 │
   IDE ◄── DMA 33/66/100 ──►  ┌──────────┐  ◄── PCIe x1 ──►  G-LAN1 Intel 82583V
                              │          │
   4 SATA II Ports ◄── 300 MHz ──► │ ICH7/  │  ◄── PCIe x1 ──►  G-LAN2 Intel 82583V
                              │ ICH7R    │
   8 USB Ports ◄── USB 2.0/1.1 ──► │        │  ◄── PCI Bus ──►  PCI to ISA Bridge ITE8888
                              │          │
   HD Audio (Optional) ◄── HD Audio ──► └──────────┘  ◄── PCI Bus ──►  Backplane (PICMG 1.0)
                           SPI │      │
                           BIOS    │ LPC Bus
                                 ┌──────────────┐
   2 COM Ports ◄──────────► │ Super I/O    │  ◄──────►  GPIO
                            │ Winbond      │
                            │ 83627DHG-P   │
                            └──────────────┘
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Ordering Information

Part Number	LAN	VGA	COM	SATA	S/W RAID	USB	DVI	CF
PCA-6011VG-00A1E	Single GbE	Yes	2	4	-	8	No (Optional)	No (Optional)
PCA-6011G2-00A1E	Dual GbE	Yes	2	4	Yes	7	Yes	No (Optional)

Packing List

Part Number	Description	Quantity
1701400452	IDE HDD cable	x 1
1700008461-11	USB cable with 4 ports	x 1
1700022749	Serial ATA HDD power cable	x 1
1700003194	Serial ATA HDD data cable	x 2
1700060202	Y-cable for PS/2 mouse & keyboard	x 1
1701260305	Printer + COM cable	x 1
9689000068	Jumper pack	x 1
2190000902	Warranty card	x 1
2002601110	Startup manual	x 1
2062601100	Utility CD	x 1

Optional Accessories

Part Number	Description
1750000332	LGA 775 CPU cooler for 115 W TDP CPUs
PCA-AUDIO-HDA1E	Audio extension module
1701090401	Single COM cable kit
PCA-COM485-00A1E	4 x 422/485 COM module
1700008822-11	DVI-D cable

I/O View

PCA-6011G2-00A1E

PCA-6011VG-00A1E