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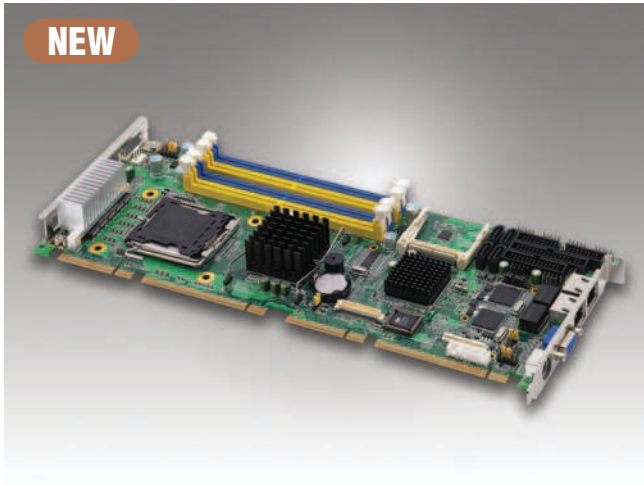Email & Skype: info@chipsmall.com Web: www.chipsmall.com
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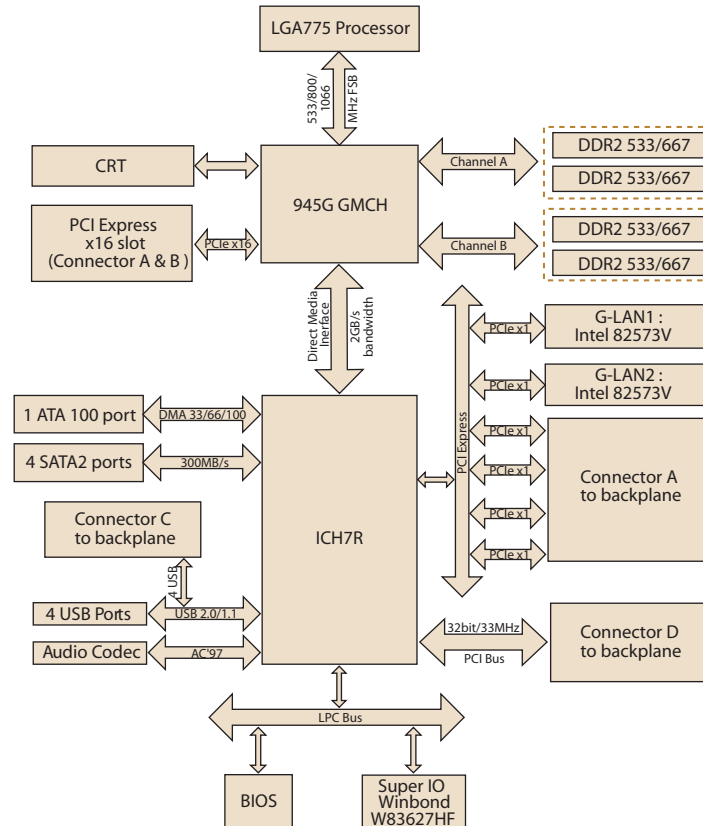
# PCE-5120-A2E

NEW

## Features

- Complies with PICMG 1.3
- Supports LGA 775 Intel® Core™ 2 Duo with 1066/800/533 MHz FSB
- Supports dual-channel DDR2 533/667 SDRAM up to 4 GB
- One PCIe x16 and four PCIe x1 links to backplane
- Dual Gigabit Ethernet via two PCIe x1 ports
- Onboard IPMI module (optional)
- Four SATA2 channels with software RAID 0, 1, 5 and 10

RoHS COMPLIANT 2002/95/EC    c ⓤⓁus E180881    PICMG    C E   FCC

## Specifications

| | | | | |
|---|---|---|---|---|
| **Processor System** | CPU | Intel Core 2 Duo | Pentium Dual-Core | Celeron 400 Sequence |
| | Max. Speed | E6700 (2.66 GHz) | E2220 (2.40 GHz) | 440 (2 GHz) |
| | L2 Cache | 4 MB | 1 MB | 512 KB |
| | Chipset | Intel 945G + ICH7R | | |
| | BIOS | Award 4 Mb FWH | | |
| | Front Side Bus | 1066/800/533 MHz | | |
| **Bus** | PCI Express | One x16 & four x1 to backplane | | |
| | PCI | Four 32-bit/33 MHz PCI Masters to Backplane | | |
| **Memory** | Technology | Dual-channel DDR2 533/667 MHz DIMMs | | |
| | Max. Capacity | 4 GB | | |
| | Socket | 240-pin DIMM x 4 | | |
| **Graphics** | External Card | PCI Express x16 Graphics card | | |
| | Chipset Integrated | Intel Graphics Media Accelerator 950 | | |
| | VRAM | Shared with 224 MB system memory | | |
| | Video Output | 15-pin CRT connector x 1 | | |
| **Ethernet** | Interface | 10/100/1000Base-T | | |
| | Controller | LAN1: Intel 82573V (PCI Express x1)<br>LAN2: Intel 82573V (PCI Express x1) | | |
| | Connector | RJ-45 with LED connector x 2 | | |
| **SATA2** | Max. Data Transfer Rate | 300 MB/s | | |
| | Channel | 4 on SHB; supports software RAID 0, 1, 5 and 10 | | |
| **EIDE** | Mode | ATA 100/66/33 | | |
| | Channel | 1 (supports up to 2 IDE devices including 1 optional type II CF card) | | |
| **I/O Interface** | USB | Max. 8 (USB 2.0 compliant) 4 on SHB by Pin Header, 4 to Backplane | | |
| | Serial | 4 (RS-232) with Pin Header (COM2 can be configured to RS-232/422/485) | | |
| | Parallel | 1 (EPP/ECP) | | |
| | FDD | 1 | | |
| | PS/2 | 1 (Y cable for mouse and keyboard included) | | |
| **Watchdog Timer** | Output | Interrupt, system reset | | |
| | Interval | Programmable 1, 2, 4, 8,…, 256 sec | | |
| **Miscellaneous** | Audio Output | AC97 audio interface (requires an audio extension module P/N: PCA-AUDIO-00A1E) | | |
| **Power Requirement** | Test Conditions | Intel Core 2 Duo Desktop Processor E6400; DDR2 667 MHz 1 GB x 4 | | |

### Power Requirement (continued)

| Voltage | +12 V | +5 V | +3.3 V | +5 VSB | -12 V | -5 V |
|---|---|---|---|---|---|---|
| Typical Current | 5 A | 3 A | 11 A | 0.7 A | 0 A | 0 A |

| | | Operating | Non-Operating |
|---|---|---|---|
| **Environment** | Temperature | 0 ~ 55° C (32 ~ 131° F), depends on CPU's speed | -20 ~ 80° C (-4 ~ 176° F) |
| **Physical** | Dimensions (L x W) | 338.58 x 126.39 mm (13.3" x 4.98") | |

# Board Diagram

```
                          ┌──────────────────┐
                          │ LGA775 Processor │
                          └──────────────────┘
                               │  533/800/
                               │  1066
                               │ MHz FSB

┌────────────┐          ┌──────────────────┐   Channel A   ┌──────────────────┐
│    CRT     │◄────────►│                  │◄─────────────►│ DDR2 533/667     │
└────────────┘          │   945G GMCH      │               ├──────────────────┤
┌────────────┐          │                  │               │ DDR2 533/667     │
│PCI Express │          │                  │               └──────────────────┘
│ x16 slot   │◄────────►│                  │   Channel B   ┌──────────────────┐
│(Connector  │ PCIe x16 │                  │◄─────────────►│ DDR2 533/667     │
│  A & B )   │          │                  │               ├──────────────────┤
└────────────┘          └──────────────────┘               │ DDR2 533/667     │
                          │ Direct Media     │              └──────────────────┘
                          │ Inerface  2GB/s
                          │           bandwidth
                                                          ┌────────────────┐
                                            PCIe x1       │ G-LAN1 :       │
                                         ◄───────────────►│ Intel 82573V   │
┌────────────────┐                                        └────────────────┘
│ 1 ATA 100 port │ DMA 33/66/100                           ┌────────────────┐
└────────────────┘◄────────►┌──────────────┐   PCIe x1     │ G-LAN2 :       │
┌────────────────┐          │              │◄─────────────►│ Intel 82573V   │
│ 4 SATA2 ports  │ 300MB/s  │              │               └────────────────┘
└────────────────┘◄────────►│              │   PCIe x1
                            │              │◄─────────────►┌────────────────┐
┌────────────────┐          │              │   PCIe x1     │                │
│ Connector C    │          │   ICH7R      │◄─────────────►│ Connector A    │
│ to backplane   │          │              │   PCIe x1     │ to backplane   │
└────────────────┘          │              │◄─────────────►│                │
      │ 4 USB               │              │   PCIe x1     │                │
┌────────────────┐          │              │◄─────────────►└────────────────┘
│ 4 USB Ports    │USB 2.0/1.1│             │
└────────────────┘◄────────►│              │ 32bit/33MHz   ┌────────────────┐
┌────────────────┐  AC'97   │              │◄─────────────►│ Connector D    │
│ Audio Codec    │◄────────►│              │  PCI Bus      │ to backplane   │
└────────────────┘          └──────────────┘               └────────────────┘
                               │
                          ┌─────LPC Bus──────┐
                          │                  │
                     ┌────────┐      ┌──────────────┐
                     │  BIOS  │      │ Super IO     │
                     └────────┘      │ Winbond      │
                                     │ W83627HF     │
                                     └──────────────┘
```

## Ordering Information

| Part Number | Gigabit LAN | VGA |
|---|---|---|
| PCE-5120G2-00A2E | Dual | Yes |
| PCE-5120VG-00A2E | Single | Yes |

## Bracket View

PCE-5120G2-00A2E              PCE-5120VG-00A2E

## Packing List

| Part Number | Description | Quantity |
|---|---|---|
| 1700340640 | FDD cable | x 1 |
| 1701400452 | Ultra ATA 66/100 HDD cables | x 1 |
| 1700003194 | Serial ATA HDD data cable | x 2 |
| 1703150102 | Serial ATA HDD power cable | x 2 |
| 1701260305 | Printer + COM cable | x 1 |
| 1701092300 | Dual COM port cable kit | x 1 |
| 1700060202 | Y cable for PS/2 keyboard and mouse | x 1 |
| 1750000400 | CPU cooler | x 1 |
| 1700008461 | USB cable with 4 ports | x 1 |
| 9689000068 | Jumper pack | x 1 |
| - | Startup manual | x 1 |
| - | Utility CD | x 1 |

## Accessories

| Part Number | Description |
|---|---|
| PCA-AUDIO-00A1E | Audio extension module |