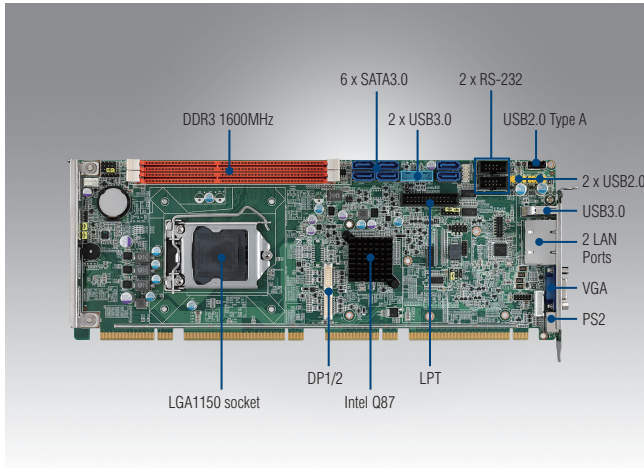


PCE-5128

**LGA1150 Intel® Core™i7/i5/i3/Pentium®
SHB DDR3/SATA 3.0/USB3.0/Dual GbE/
3 Displays**



Features

- Supports Intel® Core™ i7/i5/i3 LGA1150 processors with Q87
- Dual Channel (Non-ECC) DDR3 1333/1600 up to 16 GB
- Supports PCIE 3.0, USB 3.0, SATA3.0, SW Raid 0, 1, 5, 10
- Supports CRT and 2 x DP/DVI-D (optional) display
- Supports out-of-band remote management with AMT9.0
- Supports Advantech TPM module (LPC I/O)
- Supports SUSIAccess and Embedded Software APIs

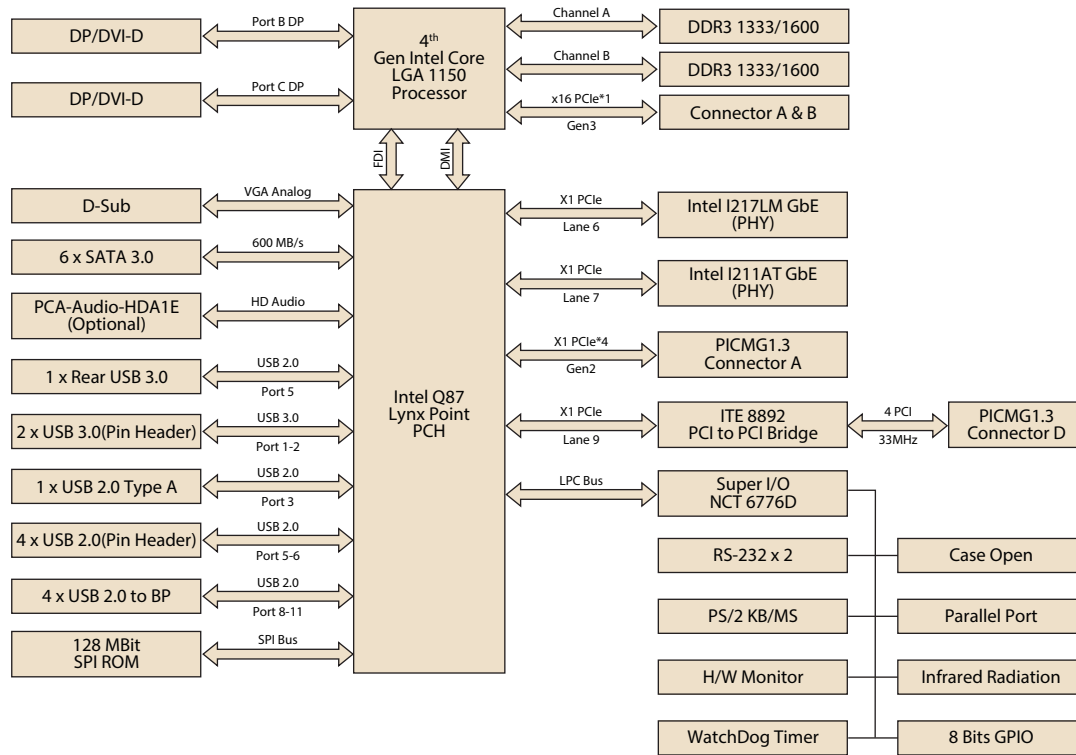
Quiet

CE FCC

Specifications

| Processor System | | Haswell refresh CPUs are supported from BIOS V2.xx | | | | | | |
|--------------------|----------------------|---|-----------|----------|-----------|----------|-----------|---------------|
| | CPU | i7-4790S | i5-4590S | i5-4590T | i3-4360 | i3-4350T | i3-4340TE | |
| | Base Frequency | 3.2GHz | 3.0GHz | 2.0GHz | 3.7GHz | 3.1GHz | 2.6GHz | |
| | L3 Cache | 8MB | 6MB | 6MB | 4MB | 4MB | 4MB | |
| Processor System | | Haswell CPUs are supported by both BIOS V1.xx and V2.xx | | | | | | |
| | CPU | i7-4770S | i7-4770TE | i5-4570S | i5-4570TE | i3-4330 | i3-4330TE | G3420 G3320TE |
| | Base Frequency | 3.1GHz | 2.3GHz | 2.9GHz | 2.7GHz | 3.5GHz | 2.4GHz | 3.2GHz 2.3GHz |
| | L3 Cache | 8MB | 8MB | 6MB | 4MB | 3MB | 3MB | 3MB |
| | SKU/Chipset | Intel Q87 | | | | | | |
| | BIOS | AMI 128Mbit SPI Flash | | | | | | |
| Bus | | PCI-Express One x16 plus four x1 to backplane | | | | | | |
| | PCI | Four 32-bit 33 MHz PCI Masters to backplane | | | | | | |
| Memory | | Technology Dual channel (Non-ECC) DDR3 1333/1600 UDIMM | | | | | | |
| | Max. Cap. | 16 GB (8 GB per DIMM) | | | | | | |
| | Socket | DDR3 240-pin DIMM x 2 | | | | | | |
| Graphics | | Controller Chipset integrated Intel HD Graphics | | | | | | |
| | VRAM | Shared system memory is subject to OS | | | | | | |
| | CRT | Supports resolution up to 1920 x 2000 pixel at 60Hz | | | | | | |
| | DVI-D | Supports resolution up to 1920 x 1200 pixel at 60Hz | | | | | | |
| | Triple Display | CRT+DP/DVI-D+DP/DVI-D | | | | | | |
| Ethernet | | Interface 10/100/1000 Mbps | | | | | | |
| | Controller | LAN 1: Intel I217LM LAN 2: Intel I211AT | | | | | | |
| | Connector with LED | RJ-45 x 2 | | | | | | |
| SATA | | S/W Raid 0, 1, 5, 10 SATA 3.0 x 6 (600 MB/sec) | | | | | | |
| Rear I/O | | USB 3.0 1 | | | | | | |
| | Ethernet | 2 | | | | | | |
| | VGA | 1 | | | | | | |
| | PS/2 | 1 (PS/2 Y cable supports 1 x keyboard and 1 x mouse) | | | | | | |
| Internal Connector | | USB Night USB2.0 (Pin-header*4+USB Type A*1+ 4 on backplane); Two USB3.0 (Pin header) | | | | | | |
| | SATA | 6 | | | | | | |
| | DP/DVI-D | 2 (Pin header) | | | | | | |
| | COM | 2 | | | | | | |
| | Parallel | 1 | | | | | | |
| | IrDA | 1 | | | | | | |
| | GPIO | 8-bit | | | | | | |
| Watchdog Timer | | Output System reset | | | | | | |
| | Interval | Programmable 1-255 sec | | | | | | |
| Miscellaneous | | Audio Intel High Definition audio interface (required an audio extension module P/N: PCA-AUDIO-HDA1E) | | | | | | |
| Power Requirement | | Test Environment Core i7-4770S DDR3 1600 8GB x 2 | | | | | | |
| | Voltage | +12V | +5V | +3.3V | +5Vsb | -12V | -5V | |
| | Current | 4.02A | 1.36A | 0.81A | 0.09A | 0A | 0A | |
| Environment | | Operating 0 ~ 60° C (32~140° F); Depends on CPU frequency and cooler solution | | | | | | |
| | Temperature/Humidity | Operating humidity: 40° C @ 85% RH Non-Condensing | | | | | | |
| | | Non-operating -40 ~ 85° C and 60° C @ 95% RH Non-Condensing | | | | | | |
| Physical | | Dimensions 338 mm (L) x 122 mm (W) (13.3" x 4.8") | | | | | | |

Block Diagram



Ordering Information

| Part Number | PCH | Memory | Backplane | LAN | VGA | DP/ DVI-D | COM | SATA III | USB 2.0 | USB 3.0 | S/W Raid | AMT |
|------------------|-----|---------|-----------|-----|-----|-----------|-----|----------|---------|---------|----------|-----|
| PCE-5128G2-00A1E | Q87 | Non-ECC | PCE-5BXX | 2 | Yes | 2* | 2 | 6 | 10 | 3 | Yes | Yes |

Note: Both DP and DVI-D cable are optional.

Packing List

| Part Number | Description | Quantity |
|---------------|-------------------------------|----------|
| 1700003194 | Serial ATA HDD data cable | x2 |
| 1700022749-11 | Serial ATA HDD power cable | x1 |
| 1701260305 | COM + printer ports cable kit | x1 |
| 1700060202 | Keyboard and mouse Y-cable | x1 |
| 1700008461 | 4-port USB cable kit | x1 |
| 9689000068 | Jumper package | x1 |
| 2190000902 | Warranty Card | x1 |
| 2006512800 | Startup manual | x1 |
| 2066512802 | Utility CD | x1 |

Optional Accessories

| Part Number | Description |
|------------------|---------------------------------------|
| 1960047831N001 | PCE-5128 optimized CPU Cooler (2U) |
| PCA-AUDIO-HDA1E | Audio module |
| PCA-TPM-00A1E | TPM module(Trust Platform management) |
| PCA-COM232-00A1E | 4 Ports RS-232 Module by LPC |
| PCA-COM485-00A1E | 4 Ports RS-485/422 Module by LPC |
| 1700020277-01 | 2 ports USB 3.0 cable w/ BKT(30cm) |
| 1700021831-01 | DP to DVI-D cable w/ BKT |
| PCE-DP10-00A1E | DP to DP cable w/ BKT |

I/O View



PCE-5128G2-00A1E