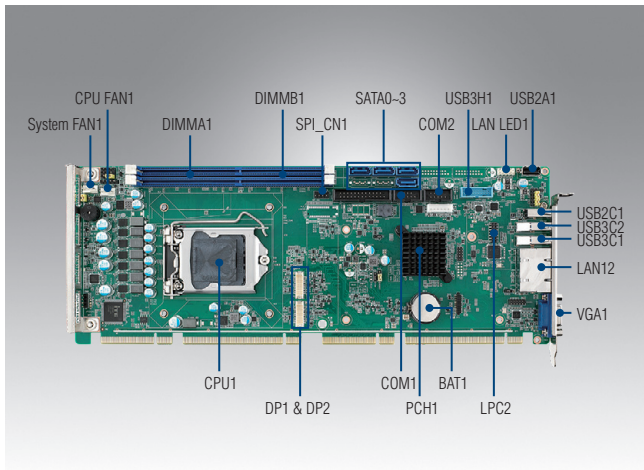


# PCE-5032

**LGA1200 10th Generation Intel® Core™  
i9/i7/i5/i3/Pentium/Celeron System Host  
Board with DDR4, SATA 3.0, USB 3.2,  
Dual GbE, and Dual Displays**



Quiet

## Specifications

CE FCC

## Features

- Intel® Core™ i9/i7/i5/i3 LGA1200 processor with H420E chipset
- Up to 64 GB of dual-channel (non-ECC) DDR4 2666/2933 MHz
- PCIe 3.0, USB 3.2, and SATA 3.0 slots
- Supports VGA and DVI-D/DP display (with optional cable)
- Supports Advantech's LPC modules, SUSI 4.0, and embedded software APIs

Vertrieb durch

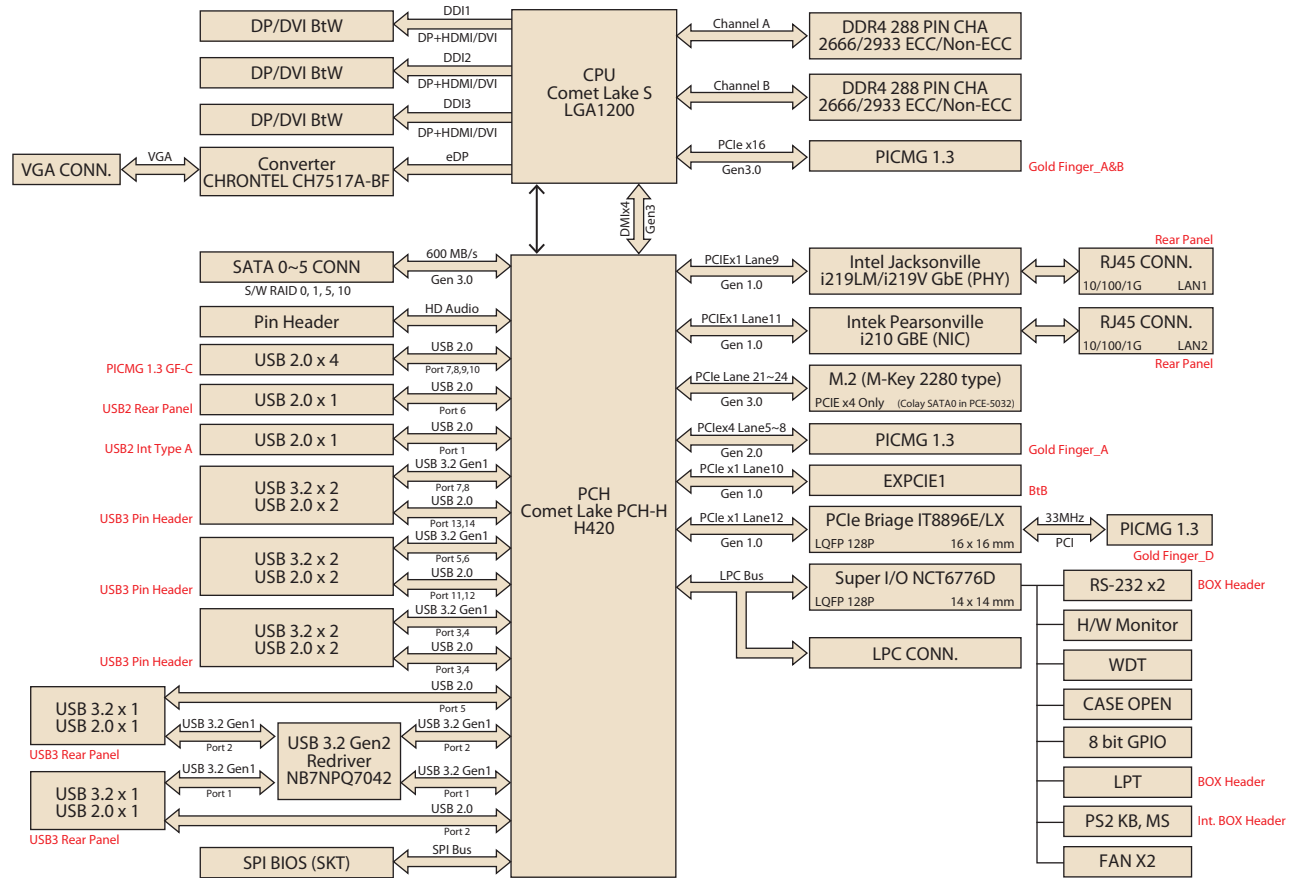


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|                    |                    |                                                                                          |           |            |            |           |           |           |            |           |                              |         |         |         |
|--------------------|--------------------|------------------------------------------------------------------------------------------|-----------|------------|------------|-----------|-----------|-----------|------------|-----------|------------------------------|---------|---------|---------|
| Processor System   | CPU                | i9-10900K                                                                                | i9-10900E | i9-10900TE | i7-10700TE | i7-10700E | i5-10500E | i5-10500E | i5-10500TE | i3-10100E | i3-10100TE                   | G6400E  | G5900E  | G5900TE |
|                    | Speed              | 3.7GHz                                                                                   | 2.80GHz   | 1.80GHz    | 2.00GHz    | 2.90GHz   | 3.10GHz   | 3.10GHz   | 2.30GHz    | 3.60 GHz  | 2.30GHz                      | 3.80GHz | 3.20GHz | 3.00GHz |
|                    | L3 Cache           | 20MB                                                                                     | 20MB      | 20MB       | 16MB       | 16MB      | 12MB      | 12MB      | 12MB       | 6MB       | 6MB                          | 4MB     | 2MB     | 2MB     |
|                    | Cores              | 10                                                                                       | 10        | 10         | 8          | 8         | 6         | 6         | 6          | 4         | 4                            | 2       | 2       | 2       |
|                    | TDP                | 125W                                                                                     | 65W       | 35W        | 35W        | 65W       | 65 W      | 65W       | 35W        | 65W       | 35W                          | 58W     | 58W     | 35W     |
|                    | Socket             | LGA 1200                                                                                 |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Chipset            | Intel H420E                                                                              |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | BIOS               | AMI 128Mbit SPI Flash                                                                    |           |            |            |           |           |           |            |           |                              |         |         |         |
| Bus                | PCI-Express        | 1 x PCIe x16 and 1 x PCIe x4 to backplane                                                |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | PCI                | 4 x PCI master to backplane, 32-bit, 33 MHz                                              |           |            |            |           |           |           |            |           |                              |         |         |         |
| Memory             | Technology         | Dual-channel (non-ECC) U-DIMM DDR4 2666/2933 MHz                                         |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Max. Capacity      | up to 64GB (based on CPU)                                                                |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Socket             | 2 x DDR4 288-pin DIMM                                                                    |           |            |            |           |           |           |            |           |                              |         |         |         |
| Graphics           | Controller         | Chipset integrated with Intel® HD Graphics                                               |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | VRAM               | Shared system memory is subject to OS                                                    |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | VGA                | Supports resolutions of up to 2048 x 1152 @ 60MHz                                        |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | DVI-D              | Supports resolutions of up to 1920 x 1200 @ 60MHz                                        |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Display Port       | Supports resolutions of up to 4096 x 2160 @ 60MHz                                        |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Dual Display       | CRT+DP/CRT+DVI                                                                           |           |            |            |           |           |           |            |           |                              |         |         |         |
| Ethernet           | Interface          | 10/100/1000 Mbps                                                                         |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Controller         | LAN 1: Intel® I219-V<br>LAN 2: Intel® I211-AT                                            |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Connector with LED | RJ45 x 2                                                                                 |           |            |            |           |           |           |            |           |                              |         |         |         |
| Rear I/O           | USB 3.2 (Gen1)     | 2                                                                                        |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | USB 2.0            | 1                                                                                        |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Ethernet           | 2                                                                                        |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | VGA                | 1                                                                                        |           |            |            |           |           |           |            |           |                              |         |         |         |
| Internal Connector | USB                | 5 x USB 2.0 ( 1 USB Type A + 4 on backplane), 2 x USB 3.2                                |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | SATA               | 4                                                                                        |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | DP/DVI-D           | 1 (Pin header)                                                                           |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | COM                | 2                                                                                        |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | GPIO               | 8 bits                                                                                   |           |            |            |           |           |           |            |           |                              |         |         |         |
| Watchdog Timer     | Output             | System reset                                                                             |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Interval           | Programmable 1-255 sec                                                                   |           |            |            |           |           |           |            |           |                              |         |         |         |
| Miscellaneous      | Audio              | Intel® High Definition audio interface (requires audio extension module PCA-AUDIO-HDB1E) |           |            |            |           |           |           |            |           |                              |         |         |         |
| Power Requirement  | Test Environment   | Intel W-1290E, Memory 2* DDR4 2666U 32GB                                                 |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Voltage            | +3.3V, 5V, 12V                                                                           |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Current            | 1.09A, 1.30A, 0.50A                                                                      |           |            |            |           |           |           |            |           |                              |         |         |         |
| Environment        | Operating          |                                                                                          |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Temperature        | 0 ~ 60 °C (dependent on CPU and cooler solution)                                         |           |            |            |           |           |           |            |           | Non-operating<br>-40 ~ 85 °C |         |         |         |
|                    | Humidity           | 40 °C @ 85% relative humidity (non-condensing)                                           |           |            |            |           |           |           |            |           |                              |         |         |         |
| Physical           |                    |                                                                                          |           |            |            |           |           |           |            |           |                              |         |         |         |
|                    | Dimensions (L x H) | 338 x 122 mm (13.3" x 4.8")                                                              |           |            |            |           |           |           |            |           |                              |         |         |         |

## Block Diagram



## Ordering Information

| Part Number     | Chipset | Memory  | Backplane | Display       | USB 3.2 | USB 2.0 | COM | GbE LAN | AMT | SATA | SW RAID | Intelligent System Module Support |
|-----------------|---------|---------|-----------|---------------|---------|---------|-----|---------|-----|------|---------|-----------------------------------|
| PCE-5032G2-00A2 | H420E   | Non-ECC | PCE-5BXX  | VGA + DVI/DP* | 4       | 6       | 2   | 2       | No  | 4    | No      | Yes                               |

Note: DP/DVI-D cable is optional

## Packing List

| Part Number | Description                   | Quantity |
|-------------|-------------------------------|----------|
| 1700003194  | Serial ATA HDD data cable     | x2       |
| 1701260305  | COM + printer ports cable kit | x1       |
| 2190000902  | Warranty card                 | x1       |
| 2041513200  | Startup manual                | x1       |

## I/O View



PCE-5032G2-00A2

## Optional Accessories

| Part Number      | Description                               |
|------------------|-------------------------------------------|
| 1700020277-01    | 2-port USB 3.0 cable w/ BKT (30 cm)       |
| 1700002204       | 2-port USB 2.0 cable w/ BKT (27 cm)       |
| 1700021831-01    | DP to DVI-D cable w/ BKT for G2 SKU       |
| 1701090401       | Single COM cable (40 cm)                  |
| 1701092300       | Dual COM cable (28.5 cm)                  |
| 1960049408N001   | CPU cooler for 1U Chassis and 84W TDP     |
| 1960050255N001   | CPU cooler for 2U Chassis and 95W TDP     |
| 1960052651N021   | CPU cooler for 2U/4U Chassis and 80W TDP  |
| 1960067860N001   | CPU cooler for 2U/4U chassis and 125W TDP |
| PCA-COM485-00A1E | 4-port RS-422/485 LPC module              |
| PCA-COM232-00A1E | 4-port RS-232 LPC module                  |
| PCE-DP10-00A1E   | DP redriver board (25 cm) for G2 SKU      |
| PCA-AUDIO-HDB1E  | Extension module for HD audio             |
| PCA-TPM-00B1E    | TPM 2.0 Module                            |
| PCE-SA01-00A1E   | Extension Stack Board                     |
| 20706WX9HS0099   | PCE-5032 win 10 embedded OS (high-end)    |
| 20706WX9VS0103   | PCE-5032 win 10 embedded OS (value)       |
| 20706WX9ES0113   | PCE-5032 win 10 embedded OS (entry)       |

\* for PCE-7132/5132/5032, PCE-SA01-00A1E miniPCIe only support PCIe1 signal