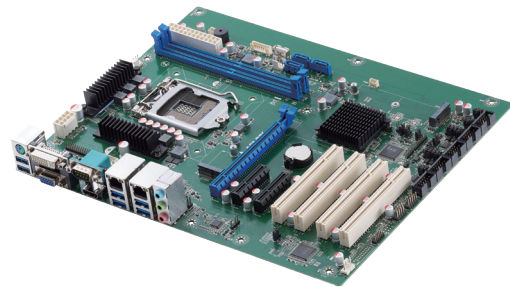


IMB-C46H

Industrial ATX Motherboard for
 10th Gen Intel® Core™ i9/i7/i5/i3 Processors

Features

- 10th Gen Intel® Core™ i9/i7/i5/i3 processors with H420E chipset
- Dual-channel DDR4 up to 2933 MHz memory up to 64GB
- Triple independent display: DVI-D/ HDMI/ VGA/ eDP
- Dual GbE ports: 2x Intel 1 Gigabit
- Expansion slots: 1x PCIe Gen3 x16, 2x PCIe Gen3 x2, 4x PCI



Ordering Information

| PN | Model Name | Chipset | Memory | PCIe x16 | PCIe x4 | PCI | DVI-D | HDMI | VGA | eDP | LAN | COM | SATA | M.2 | USB3.0 | USB2.0 |
|---------------|------------|---------|--------------------------|----------|----------------|-----|-------|------|-----|-----|-----|-----|------|-----|--------|--------|
| 95-13018-0000 | IMB-C46H | H420E | Non-ECC DDR4 2933 MHz | 1 | 2 (PCIe x2) | 4 | 1 | 1 | 1 | 1 | 2 | 6 | 3 | 2 | 6 | 3 |

Packing Lists

| Description | QTY |
|---------------------|-----|
| IMB-C46H I/O shield | 1 |
| M.2 screws kits | 1 |
| SATA cable | 1 |
| COM cable (1 port) | 1 |

Embedded OS

| PN | Description |
|---------------|--|
| 92-56094-0010 | Windows 10 IoT Ent LTSC 2021 High End PKEA |
| 92-56094-2010 | Windows 10 IoT Ent LTSC 2021 Value PKEA |
| 92-56094-4010 | Windows 10 IoT Ent LTSC 2021 Entry PKEA |

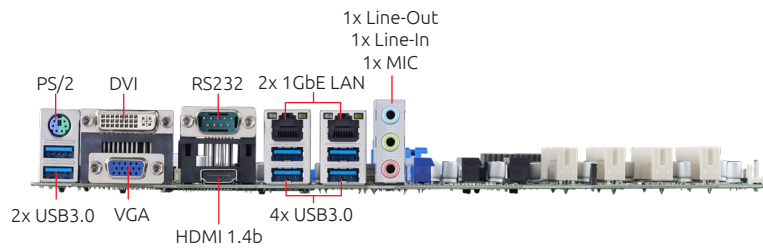
Optional Accessories

| PN | Description |
|---------------|------------------------|
| 32-20495-0000 | CPU cooler for 65W CPU |
| 32-20530-0010 | CPU cooler for 35W CPU |
| 30-25003-3000 | COM Cable (2 ports) |
| 30-25010-3010 | USB2.0 Cable (2 ports) |
| 30-25009-3000 | USB2.0 Cable (4 ports) |
| 30-25046-0100 | USB3.0 Cable (2 ports) |
| 30-10057-7000 | SATA Cable |

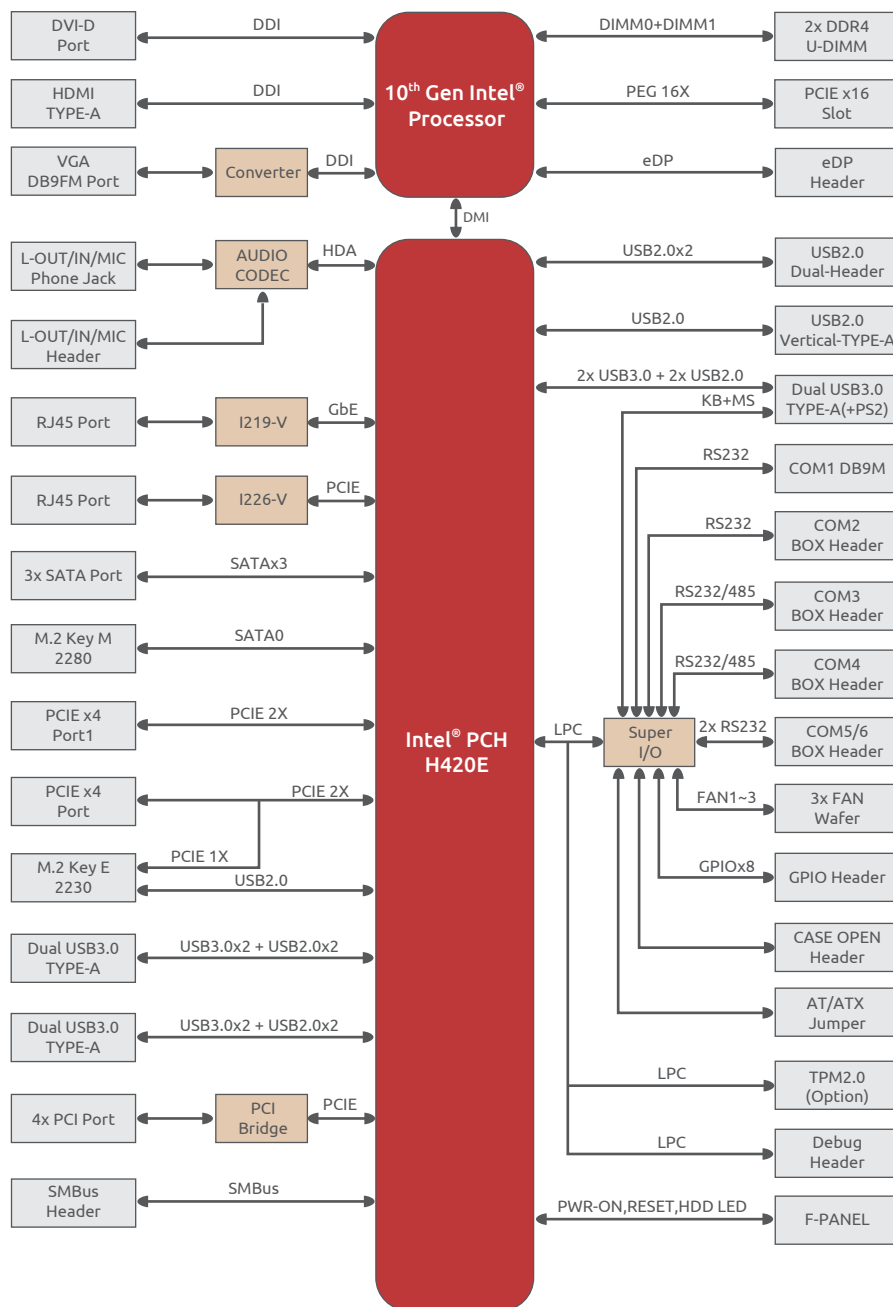
Specifications

| Model | IMB-C46H |
|-------------------------------------|---|
| Processor System | |
| CPU | 10th Gen Intel® Core™, up to 65W |
| Chipset | H420E |
| Memory | 2x DDR4 UDIMMs up to 2933MHz, up to 64 GB, non-ECC |
| OS Support | Windows® 10 64-bit |
| Display | |
| VGA | 1 |
| HDMI | 1 |
| DisplayPort | - |
| No.of Displays | 3 (DVI-D/ HDMI/ VGA/ eDP) |
| Ethernet | |
| Gbe Port | 2 |
| Controller/ Frequency | 1x Intel® I219-V, 1Gbps/ 100Mbps / 10Mbps 1x Intel® I226-V, 1Gbps/ 100Mbps / 10Mbps |
| Storage | |
| SATA | 3x SATA 6Gb/s ports |
| RAID | - |
| I/O Interfaces | |
| USB | 6x USB 3.0 (rear I/O) 2x USB 2.0 by pin header 1x USB2.0 (Vertical TYEP-A, Internal) |
| COM | 1x RS-232 (COM1, rear I/O) 3x RS-232 (COM2/5/6, by internal header) 2x RS-232/RS485 (COM3/4, by internal header) |
| PS/2 | 1 (pin header) |
| Audio | Realtek ALC897 |
| LPT | 1 (pin header) |
| GPIO | 8x GPIO |
| TPM | TPM2.0 (option) |
| Expansion Slots | |
| PCIe | 1x PCIe x16 Slot 1x PCIe x4 slot (PCIe x2, co-lay with M.2 M-key 2280) 1x PCIe x4 slot (PCIe x2, share PCIe x1 with M.2 E key 2230 by BOM change) |
| PCI | 4 |
| M.2 | 1x M.2 Key-E 2230 Slot (PCIe x1, USB 2.0) 1x M.2 Key-M 2242/2280 Slot (PCIe 2x/SATA, default) |
| Mechanical and Environmental | |
| Dimension | ATX(305 mm x 244 mm (W x L)) |
| Operating Temperature | 0°C to 60°C |
| Storage Temperature | 20°C to 75°C |
| Relative Humidity | 60°C @ 95% RH, Non-condensing |
| Certification | |
| | CE & FCC Class A |

Product Illustration



Block Diagram



CPU Support List

| Family | Number | CPU Core | Frequency | Cache | Processor Base Power | Since BIOS |
|------------|----------------|----------|-----------|-------|----------------------|------------|
| Comet Lake | i9-10900E | 10 Cores | 4.70 GHz | 20 MB | 65 W | 1.01.10 |
| Comet Lake | i9-10900TE | 10 Cores | 4.50 GHz | 20 MB | 35 W | 1.01.10 |
| Comet Lake | i7-10700E | 8 Cores | 4.50 GHz | 16 MB | 65 W | 1.01.10 |
| Comet Lake | i7-10700TE | 8 Cores | 4.40 GHz | 16 MB | 35 W | 1.01.10 |
| Comet Lake | i5-10500E | 6 Cores | 4.20 GHz | 12 MB | 65 W | 1.01.10 |
| Comet Lake | i5-10500TE | 6 Cores | 3.70 GHz | 12 MB | 35 W | 1.01.10 |
| Comet Lake | i3-10100E | 4 Cores | 3.80 GHz | 6 MB | 65 W | 1.01.10 |
| Comet Lake | i3-10100TE | 4 Cores | 3.60 GHz | 6 MB | 35 W | 1.01.10 |
| Comet Lake | Pentium G6400 | 2 Cores | 3.20 GHz | 4 MB | 35 W | 1.01.10 |
| Comet Lake | Pentium G6400E | 2 Cores | 3.80 GHz | 4 MB | 58 W | 1.01.10 |
| Comet Lake | G5900TE | 2 Cores | 3.00 GHz | 2 MB | 35 W | 1.01.10 |
| Comet Lake | G5900E | 2 Cores | 3.20 GHz | 2 MB | 58 W | 1.01.10 |