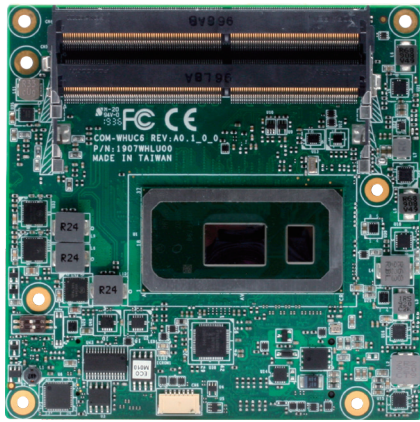


COM-WHUC6

COM Express Compact Type 6 with 8th Gen Intel® Core™ ULT SoC



Features

- 8th Generation Intel® Core™/Celeron™ ULT Processor
- DDR4 socket x 2, non-ECC Support
- Gigabit Ethernet x 1
- VGA, 18/24b 2ch LVDS LCDs or eDP, DDIx2 (DDI2 share with VGA)
- High Definition Audio Interface
- SATA3 x 2, eMMC onboard (up to 64GB)
- USB 3.2 Gen 2 x 4, USB2.0 x 8
- PCI-Express [x1] x 8 lanes available, 5 Devices max.
- GPIO x8, SMBus, I2C, LPC
- COM Express Type 6, Compact size, 95mm x 95mm



Specifications

| System | |
|-----------------------------|--|
| Form Factor | COM Express Compact size, 95mm x 95mm |
| CPU | 8th Generation Intel® Core™ ULT Series Processor |
| CPU Frequency | — |
| Chipset | Onboard 8th Generation Intel® Core™ SoC |
| Memory Type | SO-DIMM DDR4 2400 Socket x2 |
| Max. Memory Capacity | Up to 64GB |
| BIOS | AMI BIOS, Legacy free BIOS |
| Wake on LAN | Yes |
| Watchdog Timer | 255 Levels |
| Power Requirement | Standard: +12V |
| Power Supply Type | AT/ ATX Mode |
| Power Consumption (Typical) | 12V, estimate 18W with i7-8655UE @ 100% loading |
| Dimension (L x W) | 3.75" x 3.75" (95mm x 95mm) |
| Operating Temperature | 32°F ~ 140°F (0°C ~ 60°C) |
| Storage Temperature | -4°F ~ 158°F (-20°C ~ 70°C) |
| Operating Humidity | 0% ~ 90% relative humidity, non-condensing |
| MTBF (Hours) | TBD |
| Certification | CE/FCC Class A |
| Display | |
| VGA/LCD Controller | Intel® UHD Graphics 620 / 610 |
| Video Output | DDI0: LVDS, (eDP by BOM change) DDI1: Display Port DDI2: Default VGA, (DP by SW1&2 selected) |
| LVDS Interface | Support 18-bit and 24-bit dual channel |
| I/O | |
| Ethernet | Intel® I219 GbE x 1 |
| Audio | HD Audio x 1 |
| USB Port | USB 2.0 x 8, USB 3.2 Gen 2 x 4 |
| Serial Port | 2-wire UART x 2 (TX/RX) |
| HDD Interface | SATA3 x 2 as default (up to 3) |
| Onboard Storage | eMMC x 1 (up to 64GB) |
| Expansion Slot | PCIe[x1] x 4 + PCIe[x4] x 1 (default), I2C, LPC, SMBus |
| GPIO | 8-bit |
| TPM | TPM 2.0 Optional |

Packing List

- COM-WHUC6

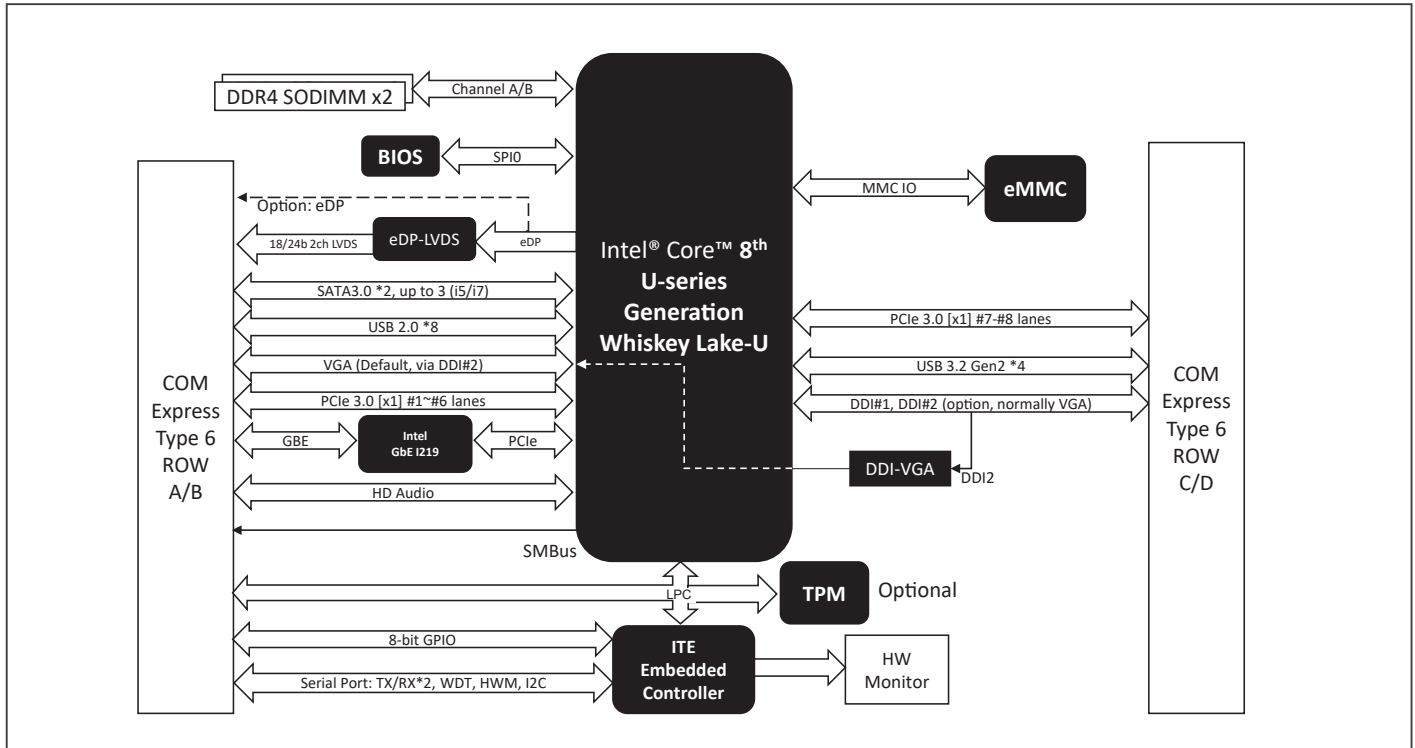
Optional Accessories

- **ECB-920A-A10-0001**
COM Express Type 1/6/10 Carrier Board, Gigabit Ethernet, USB, 2 COM, 4 SATA, PCIe, AT/ATX, Legacy Free, Rev. A1.0
- **COM-WHUC6-HSP01**
Heat Spreader, 95 x 95 x 11mm, Black, COM-WHUC6
- **COM-WHUC6-FAN01**
CPU Cooler, 95 x 95 x 36mm, Silver, FAN + Heat Sink for COM-WHUC6
- **COM-FAN02**
CPU Cooler, 95 x 95 x 26.5mm, Silver, use w/HSP

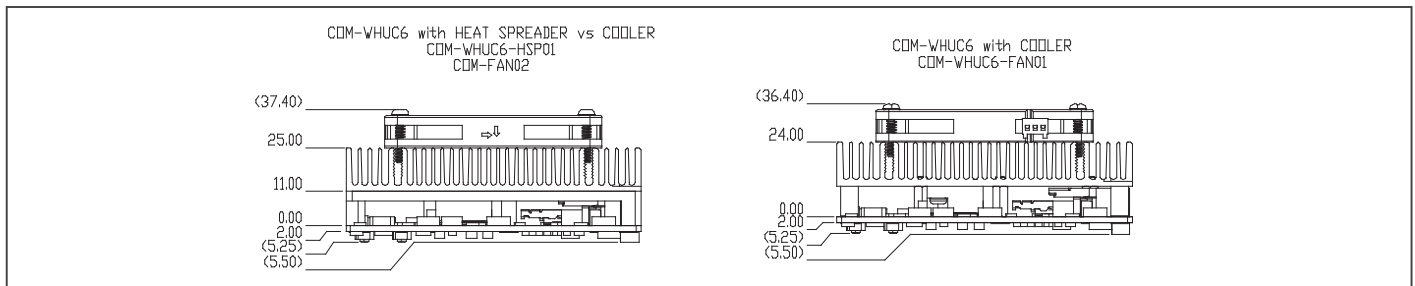
CPU Support Chart

| CPU | Core / Thread | Base Frequency | Max Turbo Frequency | Graphic |
|----------------|---------------|----------------|---------------------|-------------------------|
| i7-8665UE | 4c / 8t | 1.7 GHz | 4.4 GHz | Intel® UHD Graphics 620 |
| i5-8365UE | 4c / 8t | 1.6 GHz | 4.1 GHz | Intel® UHD Graphics 620 |
| i3-8145UE | 2c / 4t | 2.20 GHz | 3.90 GHz | Intel® UHD Graphics 620 |
| Celeron 4305UE | 2c / 2t | 2.00 GHz | 2.00 GHz | Intel® UHD Graphics 610 |

Block Diagram Unit: mm



Dimension Unit: mm



Ordering Information

| Part Number | COM Express Type | CPU | Memory | Display | LVDS | Storage | LAN | USB | UART | Expansion | Power | Temperature | Other |
|--------------------|------------------|-----------|-----------------|--------------------------|------------------------|--------------------------------|---------|----------------------------------|--------------------|---|-------|-------------|-------|
| COM-WHUC6-A10-0001 | Type 6 | i7-8665UE | DDR4 SO-DIMM x2 | VGA, DDI x2, LVDS or eDP | 18/24b 2ch LVDS or eDP | SATA 3 x 2 eMMC x 1 (64 GB) | GbE x 1 | USB 2.0 x 8 USB 3.2 Gen 2 x 4 | 2-Wire (Tx/Rx) x 2 | PCIe[x1] x 4 + PCIe[x4] x 1 (default), I2C x 1, LPC x 1, SMBUS x 1 | +12V | 0°C ~ 60°C | — |
| COM-WHUC6-A10-0003 | Type 6 | i3-8145UE | DDR4 SO-DIMM x2 | VGA, DDI x2, LVDS or eDP | 18/24b 2ch LVDS or eDP | SATA 3 x 2 eMMC x 1 (64 GB) | GbE x 1 | USB 2.0 x 8 USB 3.2 Gen 2 x 4 | 2-Wire (Tx/Rx) x 2 | PCIe[x1] x 4 + PCIe[x4] x 1 (default), I2C x 1, LPC x 1, SMBUS x 1 | +12V | 0°C ~ 60°C | — |