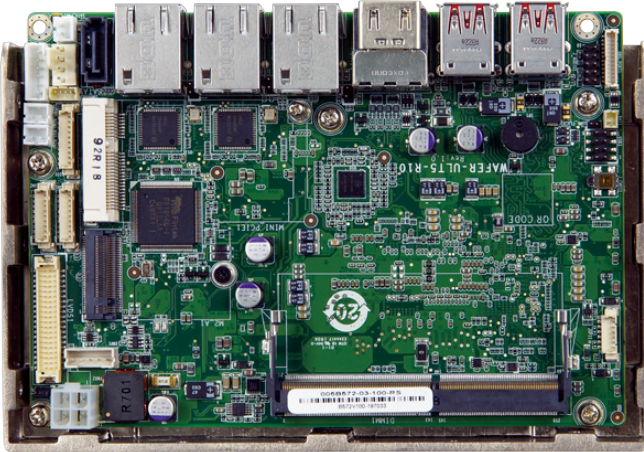


WAFER-ULT5

3.5" SBC supports Intel® 8th Generation Whiskey Lake processor with DDR4 SO-DIMM, Triple display with dual HDMI™ 1.4, LVDS, Triple GbE, USB 3.1 Gen2, M.2 A key, mPCIe with mSATA support, SATA 6Gb/s, COM and RoHS



Features

- » 3.5" SBC supports Intel® 8th generation Whiskey Lake processor with DDR4 SO-DIMMs
- » Triple display with dual HDMI™, LVDS selection
- » M.2 A Key, PCIe Mini slot with mSATA support
- » COM, USB 3.1 Gen2, SATA 6Gb/s support
- » Support temperature operation: -20°C ~ 60°C

Specifications

| | |
|--------------------------|--|
| System | |
| CPU | 8th generation Intel® mobile ULT Processor |
| | Intel® Core™ i7-8665UE 1.7 GHz (up to 4.4GHz, Quad-core, 8MB cache, TDP=15W) |
| | Intel® Core™ i5-8365UE 1.6 GHz (up to 4.1GHz, Quad-core, 6MB cache, TDP=15W) |
| | Intel® Core™ i3-8145UE 2.2 GHz (up to 3.9GHz, Dual-core, 4MB cache, TDP=15W) |
| | Intel® Celeron® processor 4305UE (up to 2.0GHz, Dual-core, 2MB cache, TDP=15W) |
| | Intel® Celeron® processor 4205U (up to 1.8GHz, Dual-core, 2MB cache, TDP=15W) |
| Memory | 1 x DDR4 2400MHz SO-DIMM |
| Memory Max. | 32GB |
| Physical Characteristics | |
| Dimensions (LxWxH) (mm) | 146 X 102 |
| Net Weight | 350g |
| Storage | |
| Storage | 1 x SATA :with 5V SATA power connector |
| I/O Interface | |
| Display Output | 2 x HDMI™ :1.4 (up to 4096x2160@30Hz) |
| | 1 x LVDS :18/24-bit dual-channel LVDS by CH7511B DP to LVDS converter (up to 1920x1200@60Hz) |
| Ethernet | 3 x LAN :2 x Intel I211AT (colay with I210); |
| | 1 x PCIe GbE LAN Intel i219 Controller; |
| Audio | 1 x HD Audio :2x5 pin, support 7.1 channel HD audio by AC-KIT-892HD-R10 |
| I/O Interface | 1 x Internal RS-232 :1x9 pin, P=1.25 |
| | 1 x Internal RS-232/422/485 :1x9 pin, P=1.25 (Support Auto Flow Control over RS-485) |
| | 4 x External USB 3.2 Gen1x1 |
| | 2 x Internal USB 2.0 :2x4 pin, P=2.0 |
| Expansion | 1 x PCIe mini Card Slot :Full-size (w/ SATA signal, support mSATA) |
| | 1 x M.2(NGFF) :with A Key 2230 |
| Power | |
| Power Supply | 12V DC input |
| | 1 x Internal power connector (2x2 pin) |
| | Support AT/ATX mode |
| Environment | |

| | |
|-----------------------|-------------------------|
| Operating Temperature | -20°C ~ 60°C |
| Storage Temperature | -30°C ~ 70°C |
| Humidity | 5% ~95%, non-condensing |

Ordering Information

| | |
|-------------------|---|
| WAFER-ULT5-i7-R10 | 3.5" SBC supports Intel® 14nm 8th Gen (ULT) Core™ i7-8665UE (15W) on-board CPU with DDR4 SO-DIMM , triple display with Dual HDMI™, LVDS, M.2 A key, PCIe mini with mSATA , SATA 6Gb/s, dual COM, support Audio and RoHS |
| WAFER-ULT5-i5-R10 | 3.5" SBC supports Intel® 14nm 8th Gen (ULT) Core™ i5-8365UE (15W) on-board CPU with DDR4 SO-DIMM support, triple display with Dual HDMI™, LVDS, M.2 A key, PCIe mini with mSATA support, SATA 6Gb/s, dual COM, Audio and RoHS |
| WAFER-ULT5-i3-R10 | 3.5" SBC supports Intel® 14nm 8th Gen (ULT) Core™ i3-8145UE (15W) on-board CPU with DDR4 SO-DIMM support, triple display with Dual HDMI™, LVDS, M.2 A key, PCIe mini with mSATA support, SATA 6Gb/s, dual COM, Audio and RoHS |
| WAFER-ULT5-CE-R10 | 3.5" SBC supports Intel® 14nm 8th Gen (ULT) Celeron™ 4205U (15W) on-board CPU with DDR4 SO-DIMM support, triple display with Dual HDMI™, LVDS, M.2 A key, PCIe mini with mSATA support, SATA 6Gb/s, dual COM, Audio and RoHS |
| WAFER-ULT5-C-R10 | 3.5" SBC supports Intel® 14nm 8th Gen (ULT) Celeron™ 4305UE (15W) on-board CPU with DDR4 SO-DIMM support, triple display with Dual HDMI™, LVDS, M.2 A key, PCIe mini with mSATA support, SATA 6Gb/s, dual COM, Audio and RoHS |

Packing List

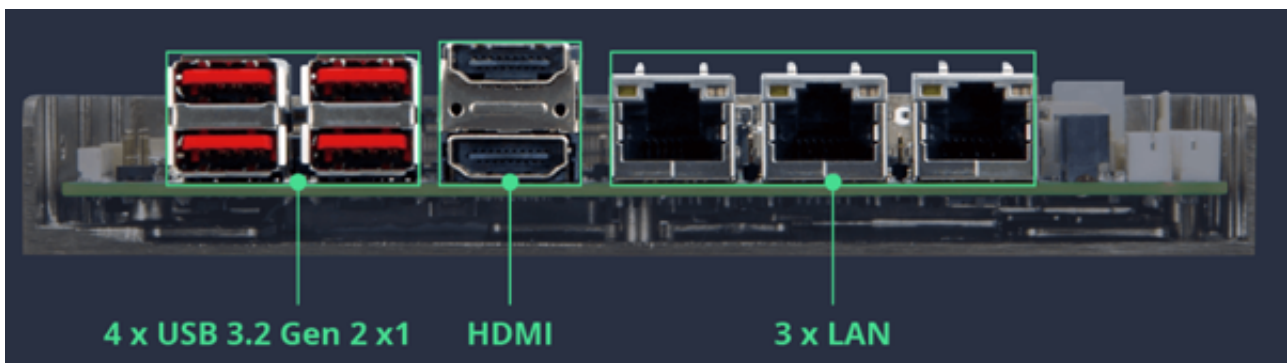
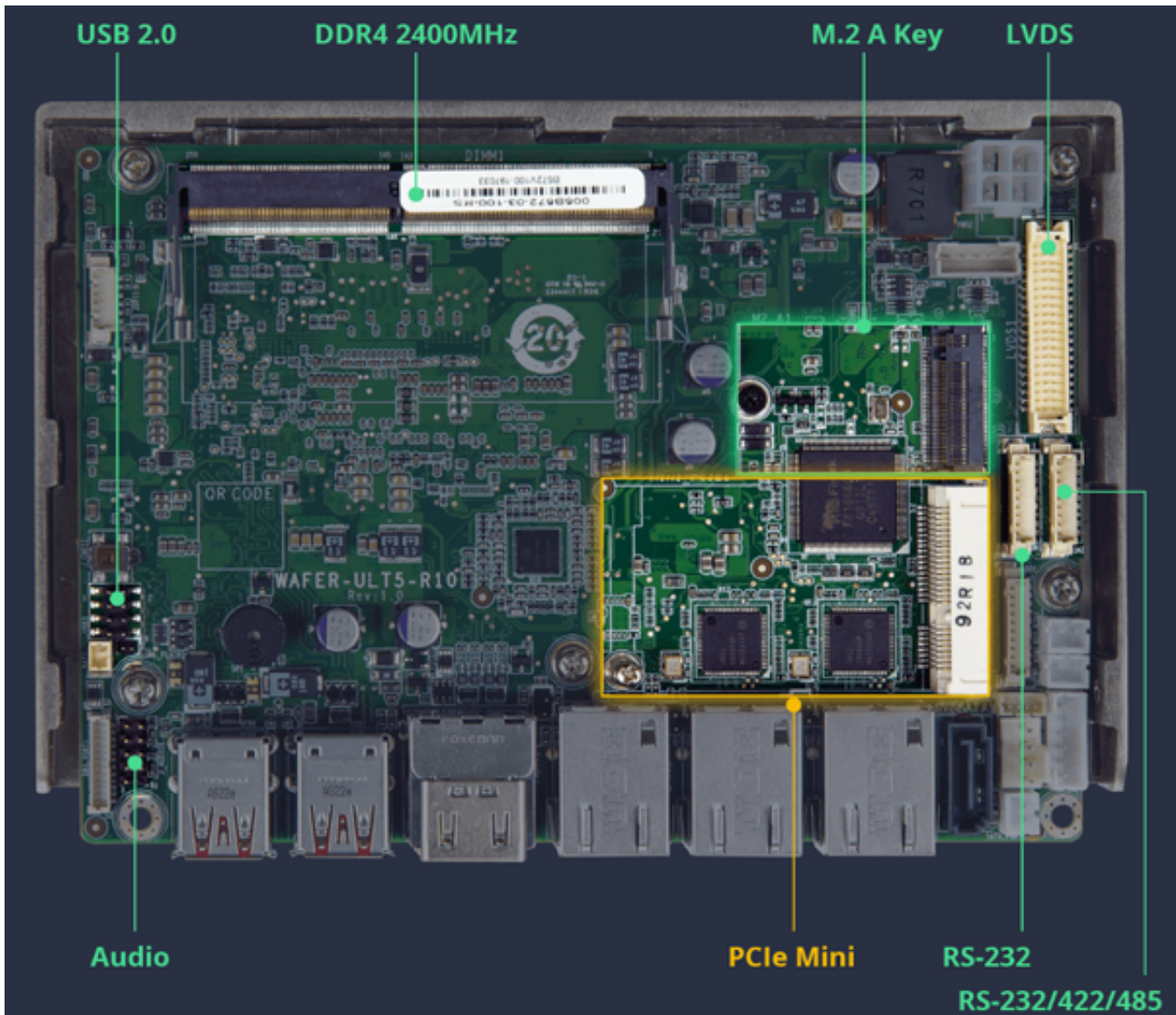
| | |
|--|------------------|
| 1 x WAFER-ULT5 single board computer with Heatspreader | 1 x Power Cable |
| 1 x SATA with power cable kit | 2 x RS-232 cable |
| 1 x QIG (Quick Installation Guide) | |

Intel's 8th Gen Core (Whiskey Lake-U) SoC

IEI's 3.5" WAFER-ULT5 based on Intel® Whiskey Lake-U 15W SoC, which is aimed at embedded applications. The 8th Gen Intel® Core™ processors with blazing-fast performance, which can meet the demand of high-speed data processing and transmission, and can also suit into various environment with no space limit.



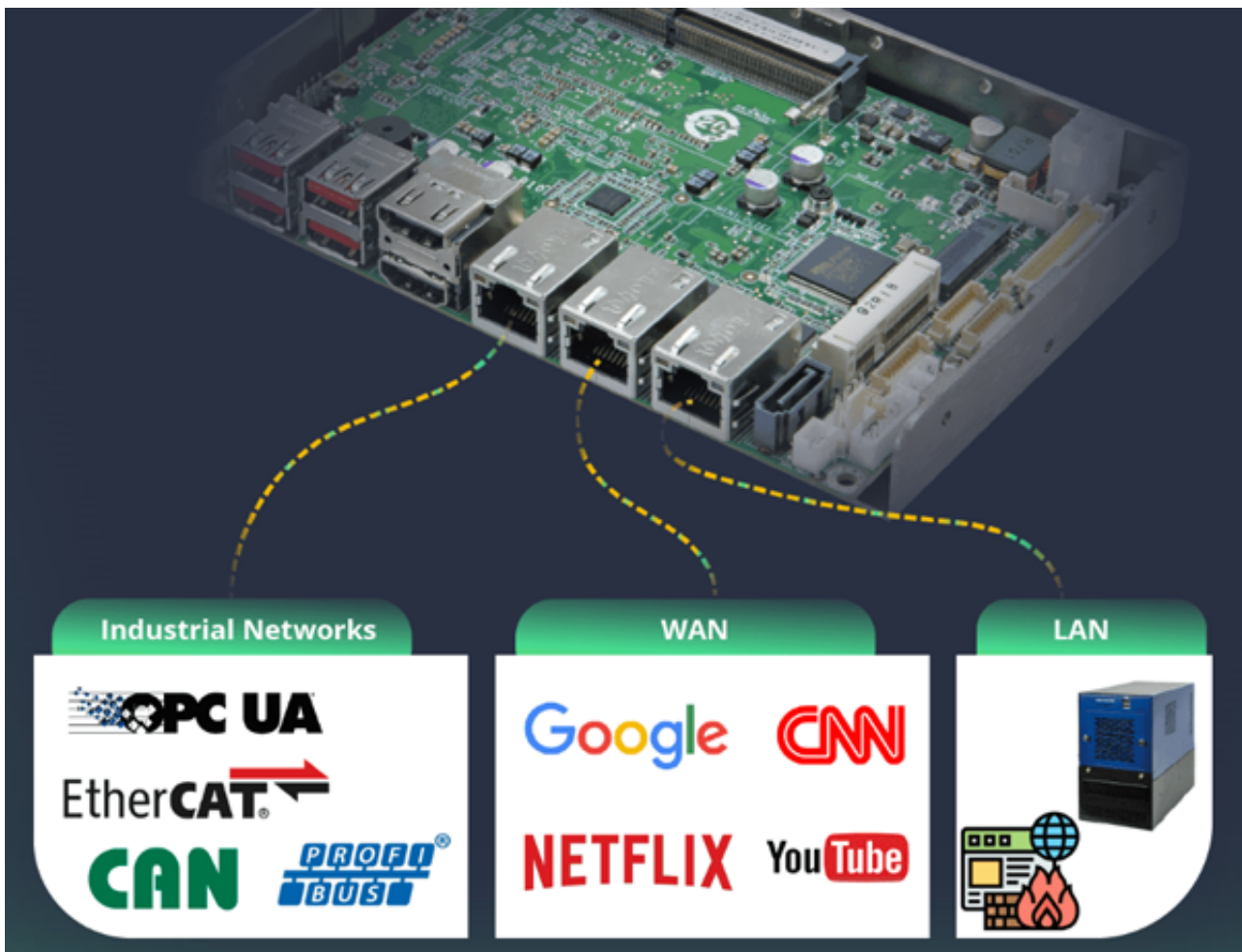
Product Overview





Triple GbE LAN Ports

The WAFER-ULT5's GbE ports design by intel LAN I211AT & I219LM controllers, which allows the system to offer diverse data communication applications



Four USB 3.2 GEN 2 10Gbps Transmission

The WAFER-ULT5 is built with four high speed 10Gbps USB 3.2 GEN 2 ports, It's an ideal choice for external storage devices, digital cameras ,webcam ,video devices and all other USB electronic devices.



Application Field

Due to the features of compact, reliable and flexible design, WAFER-ULT5 is suitable in the application field of autonomic guided vehicle, factory automation and transportation operator panel.

