

**COM Express Compact size Type 6 Module, 6th Generation Intel®
Core™ ULT Processor, VGA, LVDS, DDI, GbE, SATAIII,
USB 3.0 and HD Audio, RoHS**

ICE-ULT3

Quick Installation Guide

Version 1.0

Oct 27, 2016.

Package List

ICE-ULT3 package includes the following items:

- 1 x ICE-ULT3 single board computer
- 1 x Heatsink
- 1 x Driver CD
- 1 x QIG (Quick Installation Guide)



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Specifications

- CPU:
 - 6th generation Intel® mobile ULT on-board SoC
 - Intel® Core™ i7-6600U (up to 3.4GHz, dual-core, 4MB cache, TDP=15W)
 - Intel® Core™ i5-6300U (up to 3.0GHz, dual-core, 3MB cache, TDP=15W)
 - Intel® Core™ i3-6100U (up to 2.3GHz, dual-core, 3MB cache, TDP=15W)
 - Intel® Celeron® processor 3955U (up to 2.0GHz, dual-core, 2MB cache, TDP=15W)
 - Intel® Celeron® processor 3855U (up to 1.6GHz, dual-core, 2MB cache, TDP=15W)
- BIOS: UEFI BIOS
- Memory:
 - Two 260-pin 2133/1867 MHz dual-channel DDR4 SDRAM
 - Unbuffered DIMM supported (system max. 32GB)
- Graphics Engine:
 - Intel® HD Graphics Gen 9 support for DX11/12, OCL 2.x, OGL 4.3/4.4, ES 2.0 Decode/Encode for HEVC, VP8, VP9 2, VDENC
- Display Output:
 - 1 x DDI: DisplayPort/HDMI/DVI
 - 1 x DDI: DisplayPort/HDMI/DVI (Option with 1 x CRT via CH7517)
 - 1 x DDI: Embedded DP (Option with 1 x Dual Channel LVDS 18/24 bit via CH7511B)
- Ethernet:
 - Intel® Clarkville-V I219LM Support Intel® AMT 11.0
- Embedded Controller: TBD
- I/O Interface:
 - 2 x RS-232 (2-Wire) to base board
 - 4 x USB 2.0 to base board

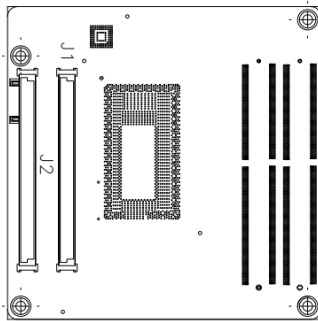
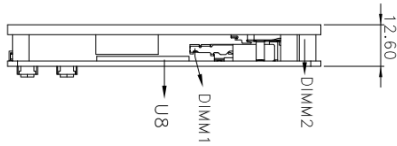
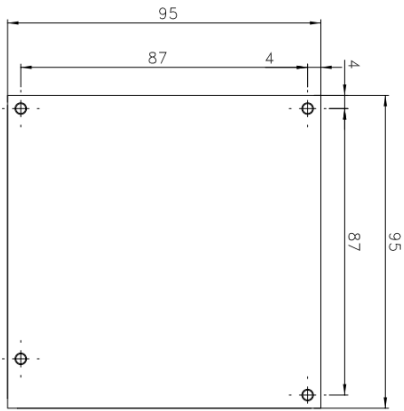
- 4 x USB 3.0 to base board (with 4 x USB 2.0)
- 2 x SATA 6GB/s signal to base board
- Audio: High definition audio interface
- SMBus: Yes, to baseboard
- I²C: Yes, to baseboard
- LPC: Yes, to baseboard
- Expansion:
 - 1 x PCIe x1 signal to base board (Via PCIe x16 channel)
 - 8 x PCIe x1 signal to base board
- Watchdog Timer:
 - Software programmable support 1~255 sec. system reset
- eMMC: eMMC 5.0 (optional)
- GPIO: 8 bit GPIO, to base board
- TPM: Through base board
- Power Supply:
 - 12V: 12V±5%, 5VSB: 5V±5%, RTC Battery: 2.0-3.3V
- Power Consumption:
 - +12V@2.57A, 5VSB@0.04A, 5V@0.02A
 - (Intel® Core™ i7-6600U with two 8GB 2400 MHz DDR4 memory)
- Operating Temperature:
 - 20°C ~ 65°C
- Operation Humidity: 5% ~ 95%, non-condensing
- Dimensions: 95 mm x 95 mm
- Weight(GW/ NW): 600g / 250g

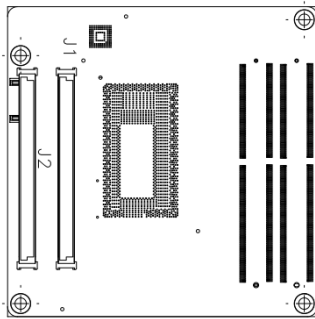
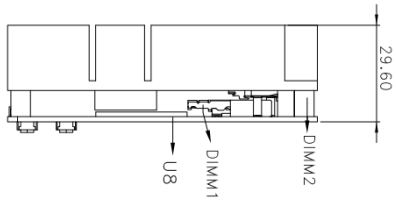
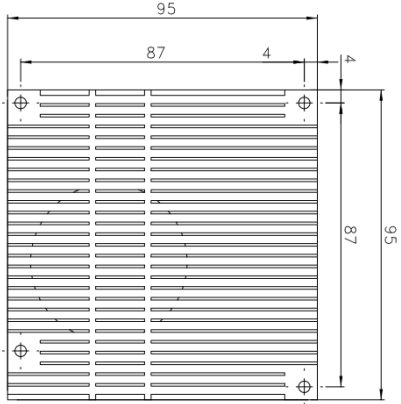
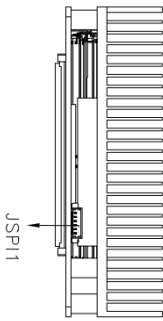
Ordering Information

- **ICE-ULT3-i7-R10:**
 COM Express Compact size Type 6 Module, 6th Generation Intel®
 Core™ i7-6600U (15W) on-board Processor (ULT), DDR4, VGA,
 LVDS, DDI, GbE, USB 3.0, SATA 6Gb/s and HD Audio, RoHS

- **ICE-ULT3-i5-R10:**
COM Express Compact size Type 6 Module, 6th Generation Intel® Core™ i5-6300U (15W) on-board Processor (ULT), DDR4, VGA, LVDS, DDI, GbE, USB 3.0, SATA 6Gb/s and HD Audio, RoHS
- **ICE-ULT3-i3-R10:**
COM Express Compact size Type 6 Module, 6th Generation Intel® Core™ i3-6100U (15W) on-board Processor (ULT), DDR4, VGA, LVDS, DDI, GbE, USB 3.0, SATA 6Gb/s and HD Audio, RoHS
- **ICE-ULT3-C-R10:**
COM Express Compact size Type 6 Module, Intel® Celeron® 3955U (15W) on-board Processor (ULT), DDR4, VGA, LVDS, DDI, GbE, USB 3.0, SATA 6Gb/s and HD Audio, RoHS
- **ICE-ULT3-CE-R10:**
COM Express Compact size Type 6 Module, Intel® Celeron® 3855U (15W) on-board Processor (ULT), DDR4, VGA, LVDS, DDI, GbE, USB 3.0, SATA 6Gb/s and HD Audio, RoHS
- **ICE-DB-T6R-R11:**
Base Board for COM Express Type 6 Module COM.0 Rev. 2.1, support PICMG EAPI R1.0

Board Layout: Jumper and Connector Locations





(Unit: mm)