

TRIA C6C-WLU

Intel® Core™ 8th Generation



 95 x 95

 17 / 19W

 0-+60

COM 
Express



Highlights

- Intel® Core™ i7-8665UE quad-core 1.7/4.4 GHz, 8MB L2, 15W TDP
- Intel® Core™ i5-8365UE quad-core 1.6/4.1 GHz, 6MB L2, 15W TDP
- Intel® Core™ i3-8145UE dual-core 2.2/3.9 GHz, 4MB L2, 15W TDP
- Intel® Celeron® 4305UE dual-core 2.0 GHz, 2MB L2, 15W TDP
- Integrated Intel® UHD Graphics 610, 620
- Up to 16 GB DDR4-2400 SDRAM, dual-channel, memory down
- Two SATA 6Gb/s mass storage interfaces
- Two DisplayPort/HDMI/DVI interfaces
- Embedded DisplayPort / LVDS (24 Bit, dual channel) interface
- Three independent displays supported
- DirectX 12, OpenGL 4.5, OpenCL™
- Resolution up to 4096 x 2304
- Four USB 3.1/2.0 and four USB 2.0 interfaces
- Eight PCI Express™ x1 lanes
- Wi-Fi module with IEEE 802.11ac and Bluetooth® 5
- Trusted Platform Module 2.0
- UEFI Firmware

COM Express Type 6



Technical Data

Technology	x86
Formfactor	COM Express Compact
CPU	Intel® Core™ i7-8665UE quad-core 1.7/4.4 GHz, 8MB L2, 15W TDP Intel® Core™ i5-8365UE quad-core 1.6/4.1 GHz, 6MB L2, 15W TDP Intel® Core™ i3-8145UE dual-core 2.2/3.9 GHz, 4MB L2, 15W TDP Intel® Celeron® 4305UE dual-core 2.0 GHz, 2MB L2, 15W TDP
Chipset	Integrated in Multi-Chip-Package
RAM	Up to 2x 8 GB DDR4 SDRAM (DDR4-2400); dual channel operation; memory down
Storage Interfaces	2x SATA 6Gb/s
USB	4x USB 3.1/2.0, 4x USB 2.0
Serial Interfaces	2x high-speed serial ports from PCH
Bus Interfaces	9x PCI Express x1 Gen3, LPC bus (Low Pin Count bus; no DMA support)
Display Controller	Integrated Intel HD graphics Gen. 9 3D Acceleration: DirectX® 11/12, OpenGL 4.5, OpenGL ES 2.0, OpenCL™; Video Decode: H.264 @ Level 5.2, H.265/HEVC 10-bit, MPEG2, VC1/WMV, JPEG, VP8, VP9 10-bit; Video Encode: H.264, H.265, VP8, VP9, AVC M/JPEG. Triple independent display support
Display Interfaces	Display Port and HDMI/DVI: 2x Digital Display Interface, usable as DisplayPort 1.2 (up to 4096 x 2304 @ 60Hz), also usable as HDMI 1.4 or DVI (up to 4096 x 2160 @ 30Hz) 1x Embedded DisplayPort 1.4 (on variants without LVDS only); 4096 x 2304 @ 60Hz LCD: LVDS 24bit, dual-channel (not on all variants); 1920 x 1200 @ 60Hz
Network Interface	10/100/1000Base-TX (Intel i219) Wi-Fi Module (optional), Intel® Wireless-AC 9560, IEEE 802.11ac, Bluetooth® 5
Audio Interface	High Definition Audio
Security Device	TPM 2.0
Miscellaneous	Watchdog Timer: Initiates system reset, programmable Fan Supply: 4-pin header for CPU fan, PWM speed controlled and PWM speed control for system fan supported RTC battery: external System Monitoring: voltage, temperature, CPU fan, system fan
Feature Highlights	Type 6 pin-out

COM Express Type 6



Firmware	UEFI Firmware: AMI Aptio® V Security: TPM 2.0 support, TCG compliant Power Management: ACPI Active fan control USB: USB legacy support (keyboard, mouse, storage) Monitoring: System Monitoring Health Monitoring Tria Adv. Boot Device Selection: Boot device priority setting based on physical interfaces
OS Support	Windows 10 (embedded) BSP for Linux (Yocto) EAPI (HW Programming Interface)
Power Requirement	12V +/-5%, 5V Stby optional, 17 W to 19 W (typ.)
Environment	Ambient Temperature; 0° ... 60°C (operating), -25° ... 85°C (storage) Humidity: 5 ... 95% (operating, non-condensing), 5 ... 95% (storage, non-condensing)
Dimensions	95mm x 95mm

Technical Data for TRIA C6C-WLU

Order Reference

Order No.	Description	Reference	Status *
80782	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Core i7-8665UE, four-core, 1.7/4.4GHz, 15W TDP; 16GB DDR4 SDRAM; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; HD audio; 2x SATA, 4x USB3/2, 4x USB2, 9x PCIe x1 Gen 3; TPM.	MSC C6C-WLU-8665UE-4 N201C PCBFTX	PV
80784	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Core i7-8665UE, four-core, 1.7/4.4GHz, 15W TDP; 16GB DDR4 SDRAM; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; HD audio; 2x SATA, 4x USB3/2, 4x USB2, 9x PCIe x1 Gen 3; Wi-Fi module; TPM.	MSC C6C-WLU-8665UE-4 N211C PCBFTX	OR
80778	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Core i5-8365UE, four-core, 1.6/4.1GHz, 15W TDP; 8GB DDR4 SDRAM; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; HD audio; 2x SATA, 4x USB3/2, 4x USB2, 9x PCIe x1 Gen 3; TPM.	MSC C6C-WLU-8365UE-3 N201C PCBFTX	PV
80780	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Core i5-8365UE, four-core, 1.6/4.1GHz, 15W TDP; 16GB DDR4 SDRAM; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; HD audio; 2x SATA, 4x USB3/2, 4x USB2, 9x PCIe x1 Gen 3; Wi-Fi module; TPM.	MSC C6C-WLU-8365UE-4 N211C PCBFTX	PV
80774	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Core i3-8145UE, dual-core, 2.2/3.9GHz, 15W TDP; 4GB DDR4 SDRAM; Graphics: integrated Intel HD Gen 9 (GT2); eDP; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; HD audio; 2x SATA, 4x USB3/2, 4x USB2, 9x PCIe x1 Gen 3; TPM.	MSC C6C-WLU-8145UE-2 N101C PCBFTX	OR
80776	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Core i3-8145UE, dual-core, 2.2/3.9GHz, 15W TDP; 8GB DDR4 SDRAM; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; HD audio; 2x SATA, 4x USB3/2, 4x USB2, 9x PCIe x1 Gen 3; TPM.	MSC C6C-WLU-8145UE-3 N201C PCBFTX	PV
80750	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Celeron 4305UE, dual-core, 2.0GHz, 15W TDP; 4GB DDR4 SDRAM; Graphics: integrated Intel HD Gen 9 (GT2); eDP; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; HD audio; 2x SATA, 4x USB3/2, 4x USB2, 9x PCIe x1 Gen 3; TPM.	MSC C6C-WLU-4305UE-2 N101C PCBFTX	PV

COM Express Type 6



Order No.	Description	Reference	Status *
80772	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Celeron 4305UE, dual-core, 2.0GHz, 15W TDP; 4GB DDR4 SDRAM; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; HD audio; 2x SATA, 4x USB3/2, 4x USB2, 9x PCIe x1 Gen 3; TPM.	MSC C6C-WLU-4305UE-2 N201C PCBFTX	OR
81210	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Celeron 4305UE, dual-core, 2.0GHz, 15W TDP; 8GB DDR4 SDRAM; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; HD audio; 2x SATA, 4x USB3/2, 4x USB2, 9x PCIe x1 Gen 3; TPM.	MSC C6C-WLU-4305UE-3 N201C PCBFTX	PV

Ordering Information for TRIA C6C-WLU

*PV = Preferred variant; OR = on Request (in OEM quantities only)

Accessories

Carrier Boards

Order No.	Description	Reference
67295	COM Express Type 6 Evaluation Carrier Board with PCI Express x4/x16 slot, USB 3.0/2.0, GbE, SATA, DisplayPort, eDP/LVDS, VGA and HD audio interfaces; Mini PCI Express socket, SD card slot, ATX power connector and single 12V power jack. Dimensions: 170mm x 170mm (Mini-ITX form factor)	MSC C6-MB-EV-001 PCBFTX
41857	COM Express Type 6 Evaluation Carrier Board with various PCI Express x1, x4 and x16 slots, USB 3.0/2.0, GbE, SATA, DisplayPort, HDMI, LVDS, eDP, VGA, HD audio interfaces; mSATA and Mini PCI Express sockets, POST code display, ATX power connector. Dimensions: 305 x 244 mm (ATX form factor)	MSC C6-MB-EVA PCBFTX

Carrier Board TRIA C6B-KLH/CFLR/CFLH/TRIA C6C-TLU/WLU/KLU/EL/AL/BT

Cooling Solutions

Order No.	Description	Reference
80060	Passive Heatsink for C6C-WLU, consisting of a single-piece aluminum profile with fins, standoffs without thread (2.7mm inner diameter), screws and thermal interface material for the thermal contact to SOC.	MSC C6C-WLU-01 HSI-001
80072	Heatspreader for C6C-WLU. Single-piece aluminum profile, standoffs without thread (2.7mm inner diameter), screws and thermopad for the thermal contact to SOC.	MSC C6C-WLU-01 HSP-001
80074	Heatspreader for C6C-WLU. Single-piece aluminum profile, threaded standoffs (M2.5), screws and thermopad for the thermal contact to SOC.	MSC C6C-WLU-02 HSP-001

Cooling Devices for TRIA C6C-WLU

Order No.	Description	Reference
79809	Fan kit for Heatsink MSC HCA-ALP/RLP/MLH-0x HSI-xxx, MSC C6B-ALP/RLP/MLH-0x HSI-xxx, MSC C6B-TLH-0x HSI-xxx, MSC C6C-ALP/RLP-0x HSI-xxx, MSC C6C-TLU-0x HSI-xxx, MSC C6C-WLU-0x HSI-xxx, MSC C6C-ALN/ASL-0x HSI-xxx, MSC C6C-EL-0x HSI-xxx, MSC C6C-RYZx-0x HSI-xxx, PWM fan 80x80x15mm.	MSC C6C-FANKIT-01- HSF-001

Fan Kit for COM Express Heatsinks

COM Express Type 6



Tria Technologies GmbH
Industriestr. 16
76297 Stutensee
info@tria-technologies.com
tria-technologies.com

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