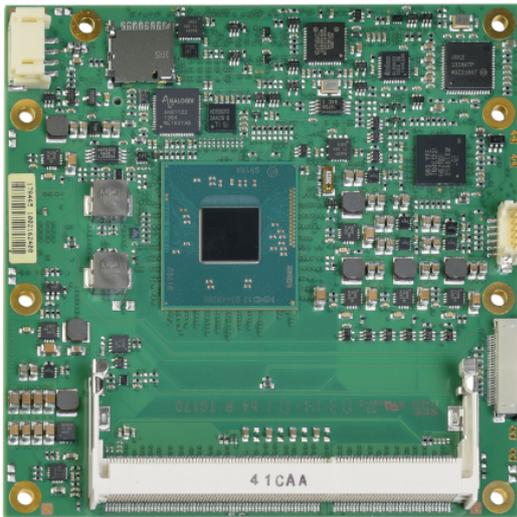


## TRIA C6C-BT

Intel® Atom™ / Celeron® SOC



95 x 95

8 / 14W

-40-+85

**COM**   
**Express**



## Highlights

- Intel Atom E3845 quad-core 1.91GHz, 10W
- Intel Atom E3827 dual-core 1.75GHz, 8W
- Intel Atom E3826 dual-core 1.46GHz, 7W
- Intel Atom E3825 dual-core 1.33GHz, 6W
- Intel Atom E3815 single-core 1.46GHz, 5W
- Intel Atom E3805 dual-core 1.33GHz, 3W (no graphics)
- Intel Celeron N2807 dual-core 1.58/2.16GHz, 4.3W
- Intel Celeron N2930 quad-core 1.83/2.16GHz, 7.5W
- Intel Celeron J1900 quad-core 2.00/2.42GHz, 10W
- Integrated Intel Gen. 7 HD graphics
- Up to 8GB DDR3L SDRAM, dual-channel
- Two SATA 3Gb/s mass storage interfaces
- MicroSD card socket
- DisplayPort/HDMI/DVI and VGA interface
- LVDS/Embedded DisplayPort interface
- Two independent displays supported
- DirectX 11.1, OpenGL 3.2, OpenCL 1.1
- One USB 3.0 and up to seven USB 2.0 interfaces
- Up to five PCI Express™ x1 lanes
- Trusted Platform Module (option)

# COM Express Type 6



- Extended temperature variants

# COM Express Type 6



## Technical Data

|                           |  |
|---------------------------|--|
| <b>Technology</b>         | x86  |
| <b>Formfactor</b>         | COM Express Compact  |
| <b>CPU</b>                | Intel Atom E3845 quad-core 1.91GHz, 10W TDP<br>Intel Atom E3827 dual-core 1.75GHz, 8W TDP<br>Intel Atom E3826 dual-core 1.46GHz, 7W TDP<br>Intel Atom E3825 dual-core 1.33GHz, 6W TDP<br>Intel Atom E3815 single-core 1.46GHz, 5W TDP<br>Intel Atom E3805 dual-core 1.33GHz, 3W TDP (no graphics)<br>Intel Celeron N2807 dual-core 1.58/2.16GHz, 4.3W TDP<br>Intel Celeron N2930 quad-core 1.83/2.16GHz, 7.5W TDP<br>Intel Celeron J1900 quad-core 2.00/2.42GHz, 10W TDP |
| <b>Chipset</b>            | SOC  |
| <b>RAM</b>                | up to 8GB DDR3L (1333), 2x 204 pin SO-DIMM   |
| <b>Flash</b>              | MicroSD card socket  |
| <b>Storage Interfaces</b> | 2x SATA 3Gb/s  |
| <b>USB</b>                | 1x USB 3.0,<br>4x USB 2.0,<br>3x USB 2.0 (optional hub)  |
| <b>Serial Interfaces</b>  | 1x PCU UART<br>1x HS UART  |
| <b>Bus Interfaces</b>     | Up to 5x PCI Express x1 Gen 2,<br>LPC bus (Low Pin Count bus)  |
| <b>Display Controller</b> | Integrated Intel HD graphics Gen. 7  |
| <b>Display Memory</b>     | UMA  |
| <b>Display Interfaces</b> | 1x Digital Display Interface (DP 1.1a (2560 x 1600), DVI/HDMI 1.4a (1920 x 1080)),<br>1x Embedded DisplayPort 1.3 (shared with LVDS) 2560 x 1600 @ 60Hz,<br>Analog up to 2560 x 1600 @ 60Hz,<br>LVDS 24 bit, dual channel (shared with Embedded DisplayPort), 1920 x 1200 @ 60Hz   |
| <b>Network Interface</b>  | 10/100/1000Base-TX (choice of Intel i210 or i225)  |
| <b>Audio Interface</b>    | High Definition Audio  |
| <b>Security Device</b>    | TPM 1.2  |
| <b>Miscellaneous</b>      | Watchdog Timer:<br>Initiates system reset, programmable<br>Fan Supply:<br>4-pin header for CPU fan, PWM speed controlled<br>and PWM speed control for system fan supported<br>RTC battery: external<br>System Monitoring:<br>voltage, temperature, CPU fan, system fan   |
| <b>Feature Highlights</b> | Type 6 pin-out   |
| <b>Firmware</b>           | AMI Aptio UEFI   |
| <b>OS Support</b>         | Windows 7, 8, 8.1 (embedded), note: i210 only<br>BSP for Linux on request<br>EAPI (HW Programming Interface)   |

# COM Express Type 6



|                          |   |
|--------------------------|---|
| <b>Power Requirement</b> | Wide range input +5 ... +17V,<br>5V Stby optional,<br>8 W (typ.) up to 14 W (typ.)  |
| <b>Environment</b>       | Ambient Temperature;<br>0° ... 60°C (operating),<br>-25° ... 85°C (storage)<br>Extended temperature variants possible on request<br>Humidity:<br>5 ... 95% (operating, non-condensing), 5 ... 95% (storage, non-condensing) |
| <b>Dimensions</b>        | 95mm x 95mm   |
| <b>Certificates</b>      | UL / CE   |

Technical Data for TRIA C6C-BT

# COM Express Type 6



## Order Reference

| Order No. | Description  | Reference             | Status* |
|-----------|--|-----------------------|---------|
| 46755     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3815 single-core 1.46GHz, 512 kB L2, 5W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>1x socket for DDR3L SO-DIMM; MicroSD card socket. | MSC C6C-BT-001 PCBFTX | OR      |
| 46757     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3825 dual-core 1.33GHz, 1MB L2, 6W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>1x socket for DDR3L SO-DIMM; MicroSD card socket.      | MSC C6C-BT-002 PCBFTX | OR      |
| 46759     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3826 dual-core 1.46GHz, 1MB L2, 7W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM; MicroSD card socket.      | MSC C6C-BT-003 PCBFTX | OR      |
| 46761     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3827 dual-core 1.75GHz, 1MB L2, 8W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM; MicroSD card socket.      | MSC C6C-BT-004 PCBFTX | OR      |
| 46763     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3845 quad-core 1.91GHz, 2MB L2, 10W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM; MicroSD card socket.     | MSC C6C-BT-005 PCBFTX | OR      |

# COM Express Type 6



| Order No. | Description   | Reference             | Status* |
|-----------|---|-----------------------|---------|
| 46765     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel Celeron N2930 quad-core 1.83/2.16GHz, 2MB L2, 7.5W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM.                                   | MSC C6C-BT-006 PCBFTX | PV      |
| 46767     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel Celeron J1900 quad-core 2.42GHz, 2MB L2, 10 TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM.  | MSC C6C-BT-007 PCBFTX | PV      |
| 65881     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3815 single-core 1.46GHz, 512 kB L2, 5W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>1x socket for DDR3L SO-DIMM; MicroSD card socket, -40°... +85°C (I-Temp) | MSC C6C-BT-101 PCBFTX | PV      |
| 65883     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3825 dual-core 1.33GHz, 1MB L2, 6W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>1x socket for DDR3L SO-DIMM; MicroSD card socket, -40°... +85°C (I-Temp)      | MSC C6C-BT-102 PCBFTX | PV      |
| 65885     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3826 dual-core 1.46GHz, 1MB L2, 7W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM; MicroSD card socket, -40°... +85°C (I-Temp)      | MSC C6C-BT-103 PCBFTX | OR      |
| 65887     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3827 dual-core 1.75GHz, 1MB L2, 8W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM; MicroSD card socket -40°... +85°C (I-Temp)       | MSC C6C-BT-104 PCBFTX | PV      |

# COM Express Type 6



| Order No. | Description  | Reference             | Status* |
|-----------|--|-----------------------|---------|
| 65889     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3845 quad-core 1.91GHz, 2MB L2, 10W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM; MicroSD card socket, -40°... +85°C (I-Temp)      | MSC C6C-BT-105 PCBFTX | PV      |
| 69934     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3845 quad-core 1.91GHz, 2MB L2, 10W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; HD audio;<br>2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART, 5x PCIe x1; TPM;<br>2x socket for DDR3L SO-DIMM; MicroSD card socket, -40°... +85°C (I-Temp) | MSC C6C-BT-115 PCBFTX | OR      |
| 91831     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel Celeron N2930 quad-core 1.83/2.16GHz, 2MB L2, 7.5W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; no +5V STDBY; HD audio;<br>2x SATA, 1x USB3/2, 7x USB2, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM.   | MSC C6C-BT-036 PCBFTX | OR      |
| 91915     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel Celeron J1900 quad-core 2.00/2.42GHz, 2MB L2, 10W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; no +5V STDBY; HD audio;<br>2x SATA, 1x USB3/2, 7x USB2, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM.  | MSC C6C-BT-037 PCBFTX | OR      |
| 91916     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3815 single-core 1.46GHz, 512 kB L2, 5W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; no +5V STDBY; HD audio;<br>2x SATA, 1x USB3/2, 7x USB2, 5x PCIe x1;<br>1x socket for DDR3L SO-DIMM; MicroSD card socket.<br>Industrial temp. -40 to +85°C | MSC C6C-BT-131 PCBFTX | OR      |
| 91917     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3845 quad-core 1.91GHz, 2MB L2, 10W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i210 Gbit; no +5V STDBY; HD audio;<br>2x SATA, 1x USB3/2, 7x USB2, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM; MicroSD card socket.<br>Industrial temp. -40 to +85°C     | MSC C6C-BT-135 PCBFTX | OR      |

# COM Express Type 6



| Order No. | Description   | Reference                  | Status* |
|-----------|---|----------------------------|---------|
| 95551     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel Celeron N2930 quad-core 1.83/2.16GHz, 2MB L2, 7.5W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i225 Gbit; no +5V STBY; HD audio;<br>2x SATA, 1x USB3/2, 4x USB2, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM.   | MSC C6C-BT-03611<br>PCBFTX | OR      |
| 95603     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel Celeron J1900 quad-core 2.00/2.42GHz, 2MB L2, 10W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i225 Gbit; no +5V STDBY; HD audio;<br>2x SATA, 1x USB3/2, 4x USB2, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM.   | MSC C6C-BT-03711<br>PCBFTX | OR      |
| 95605     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3815 single-core 1.46GHz, 512 kB L2, 5W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i225 Gbit; no +5V STBY; HD audio;<br>2x SATA, 1x USB3/2, 4x USB2, 5x PCIe x1;<br>1x socket for DDR3L SO-DIMM; MicroSD card socket.<br>Industrial temp. -40 to +85°C | MSC C6C-BT-13111<br>PCBFTX | OR      |
| 95607     | COM Express Type 6 Compact module (95mm x 95mm);<br>CPU: Intel E3845 quad-core 1.91GHz, 2MB L2, 10W TDP;<br>Graphics: integrated Intel HD Gen 7; various display interfaces;<br>Ethernet: Intel i225 Gbit; no +5V STBY; HD audio;<br>2x SATA, 1x USB3/2, 4x USB2, 5x PCIe x1;<br>2x socket for DDR3L SO-DIMM; MicroSD card socket.<br>Industrial temp. -40 to +85°C     | MSC C6C-BT-13511<br>PCBFTX | OR      |

Ordering Information for TRIA C6C-BT

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

# COM Express Type 6



## Accessories

### Carrier Options

| 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<br>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<br>PCBFTX    |

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

### Cooling Solutions

| Order No. | Description  | Reference             |
|-----------|--|-----------------------|
| 1120173   | Active Heatsink for C6C-BW, C6C-BT and CXC-BT, consisting of a single-piece aluminum profile with fins, standoffs without thread (2.7mm inner diameter), screws and thermopads for the thermal contact to SOC. PWM fan 80x80x15mm. | MSC C6C-BT-01 HSF-001 |
| 1119053   | Passive Heatsink for C6C-BW, C6C-BT and CXC-BT, consisting of a single-piece aluminum profile with fins, standoffs without thread (2.7mm inner diameter), screws and thermopad for the thermal contact to SOC.                     | MSC C6C-BT-01 HSI-001 |
| 1122654   | Heatspreader for C6C-BW, C6C-BT and CXC-BT. Single-piece aluminum profile, standoffs without thread (2.7mm inner diameter), screws and thermopad for the thermal contact to SOC.!  | MSC C6C-BT-01 HSP-001 |
| 1122653   | Heatspreader for C6C-BW, C6C-BT and CXC-BT. Single-piece aluminum profile, threaded standoffs (M2.5), screws and thermopad for the thermal contact to SOC.   | MSC C6C-BT-02 HSP-001 |

Cooling Devices for TRIA C6C-BW/BT

### Memory Options

| Order No. | Description  | Reference                             |
|-----------|--|---------------------------------------|
| 66204     | 2GB DDR3-1600 SoDimm / 2Gb based / ind. Temp. / 1.35V    | MOD SODIMM DDR3 2GB PC3-12800 CL11 1B |
| 79966     | 2GB SoDimm, DDR3L-1866, 256x8 based, sorting wide Temp   | MOD SODIMM DDR3 2GB PC3-14900 CL13 1B |
| 73461     | 2GB SoDimm, DDR3L-1866, 256Mx8 based                     | MOD SODIMM DDR3 2GB PC3-14900 CL13 1B |
| 79962     | 4GB DDR3-1600 SoDimm, 4Gb based, ind. Temp., Low Voltage | MOD SODIMM DDR3 4GB PC3-12800 CL11 1B |
| 79964     | 4GB SoDimm, DDR3L-1866, 512Mx8 based, wide Temp.         | MOD SODIMM DDR3 4GB PC3-14900 CL13 1B |

# COM Express Type 6



| Order No. | Description  | Reference                             |
|-----------|--|---------------------------------------|
| 79967     | 4GB SoDimm, DDR3L-1866, 512x8 based, sorting wide Temp | MOD SODIMM DDR3 4GB PC3-14900 CL13 1B |
| 72004     | 4GB SoDimm, DDR3L-1866, 512Mx8 based                   | MOD SODIMM DDR3 4GB PC3-14900 CL13 1B |
| 79965     | 8GB SoDimm, DDR3L-1866, 512Mx8 based, wide Temp.       | MOD SODIMM DDR3 8GB PC3-14900 CL13 2B |
| 79963     | 8GB SoDimm, DDR3L-1866, 512Mx8 based                   | MOD SODIMM DDR3 8GB PC3-14900 CL13 2B |

Memory Options for TRIA C6C-BT

## Starter Kits

| Order No. | Description  | Reference              |
|-----------|--|------------------------|
| 67555     | COM Express Type 6 Starterkit for all C6C-BT and C6C-BW modules; uses the C6-MB-EV platform for Type 6 modules in Mini-ITX format; includes 2x DDR3 memory modules, suitable Heatspreader for C6C-BT and -BW modules and 12V Power Supply with Power Cable; includes Resource Drive with drivers, tools and documentation. Please order separately the COM Express C6C-BT or C6C-BW module of your choice. | MSC C6-SK-BT-EV-KIT001 |

Starter Kits for TRIA C6C-BW/BT

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