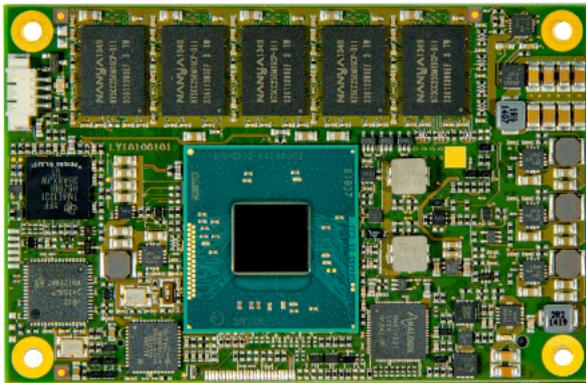


## TRIA C10M-BT

Intel® Atom™ / Celeron® SOC



84 x 55

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, ECC opt.
- Two SATA 3Gb/s mass storage interfaces
- eMMC SSD (optional)
- DisplayPort/HDMI/DVI 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
- Two UARTs
- Trusted Platform Module (option)

# COM Express Type 10



- Extended temperature variants (on request)

# COM Express Type 10



## Technical Data

<b>Technology</b>	x86
<b>Formfactor</b>	COM Express Mini
<b>CPU</b>	Intel Atom E3845 quad-core 1.91GHz, 10W TDP Intel Atom E3827 dual-core 1.75GHz, 8W TDP Intel Atom E3826 dual-core 1.46GHz, 7W TDP Intel Atom E3825 dual-core 1.33GHz, 6W TDP Intel Atom E3815 single-core 1.46GHz, 5W TDP Intel Atom E3805 dual-core 1.33GHz, 3W TDP (no graphics) Intel Celeron N2807 dual-core 1.58/2.16GHz, 4.3W TDP Intel Celeron N2930 quad-core 1.83/2.16GHz, 7.5W TDP Intel Celeron J1900 quad-core 2.00/2.42GHz, 10W TDP
<b>Chipset</b>	SOC
<b>RAM</b>	up to 8GB DDR3L@1.35V SDRAM (DDR1333) soldered on board, ECC optional
<b>Flash</b>	eMMC optional
<b>Storage Interfaces</b>	2x SATA 3Gb/s
<b>USB</b>	1x USB 3.0 , 4x USB 2.0, 3x USB 2.0 (optional hub)
<b>Serial Interfaces</b>	1x PCU UART 1x HS UART
<b>Bus Interfaces</b>	3x PCI Express x1 Gen 2, fourth channel is available if no GbE is used; 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)), 1x Embedded DisplayPort 1.3, 2560 x 1600 @ 60Hz (shared with LVDS), LVDS 24 bit, single-channel, 1366 x 768 @ 60Hz (shared with Embedded DisplayPort)
<b>Network Interface</b>	10/100/1000Base-TX (Intel i210)
<b>Audio Interface</b>	High Definition Audio
<b>Security Device</b>	TPM 1.2 (option)
<b>Miscellaneous</b>	Watchdog Timer: Initiates system reset, programmable RTC battery: external System Monitoring: voltage, temperature, CPU fan, system fan
<b>Feature Highlights</b>	Type 10 pin-out
<b>Firmware</b>	AMI Aptio UEFI
<b>OS Support</b>	Windows 7 Windows 10 Windows 10 IOT Core BSP for Linux on request EAPI (HW Programming Interface)
<b>Power Requirement</b>	Wide range input +5 ... +20V, 5V Stby optional, 8 W (typ.) up to 14 W (typ.)

# COM Express Type 10



<b>Environment</b>	Ambient Temperature; 0° ... 60°C (operating, commercial), -40° ... 85°C (operating, industrial), -40° ... 85°C (storage) Humidity: 5 ... 95% (operating, non-condensing), 5 ... 95% (storage, non-condensing)
<b>Dimensions</b>	84mm x 55mm

Technical Data for TRIA C10M-BT

# COM Express Type 10



## Order Reference

Order No.	Description	Reference	Status*
49221	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel E3815 single-core 1.46GHz, 0.5MB L2, 5W TDP; Graphics: integrated Intel HD Gen 7; DP/HDMI and LVDS interfaces; Ethernet: Intel i210 Gbit; 2GB DDR3 SDRAM; HD audio; 2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART; 3x PCIe x1; -40...+85°C	MSC C10M-BT-2111 PCBFTX	PV
49219	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel E3827 dual-core 1.75GHz, 1MB L2, 8W TDP; Graphics: integrated Intel HD Gen 7; DP/HDMI and LVDS interfaces; Ethernet: Intel i210 Gbit; 4GB DDR3 SDRAM; 4GB eMMC; TPM; HD audio; 2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART; 3x PCIe x1; - 40...+85°C	MSC C10M-BT-3164 PCBFTX	PV
49215	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel E3845 quad-core 1.91GHz, 2MB L2, 10W TDP; Graphics: integrated Intel HD Gen 7; DP/HDMI and LVDS interfaces; Ethernet: Intel i210 Gbit; 4GB DDR3 ECC SDRAM; 16GB eMMC; TPM; HD audio; 2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART; 3x PCIe x1; -40...+85°C	MSC C10M-BT-33E5 PCBFTX	PV
68403	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel E3845 quad-core 1.91GHz, 2MB L2, 10W TDP; Graphics: integrated Intel HD Gen 7; DP/HDMI and eDP interfaces; Ethernet: Intel i210 Gbit; 4GB DDR3 ECC SDRAM; 16GB eMMC; TPM; HD audio; 2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART; 3x PCIe x1; -40...+85°C	MSC C10M-BT-37E5 PCBFTX	PV
49213	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel E3815 single-core 1.46GHz, 0.5MB L2, 5W TDP; Graphics: integrated Intel HD Gen 7; DP/HDMI and LVDS interfaces; Ethernet: Intel i210 Gbit; 2GB DDR3 SDRAM; HD audio; 2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART; 3x PCIe x1;	MSC C10M-BT-2011 PCBFTX	OR
49223	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel E3825 dual-core 1.33GHz, 1MB L2, 6W TDP; Graphics: integrated Intel HD Gen 7; DP/HDMI and LVDS interfaces; Ethernet: Intel i210 Gbit; 4GB DDR3 SDRAM; HD audio; 2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART; 3x PCIe x1;	MSC C10M-BT-2022 PCBFTX	OR

# COM Express Type 10



Order No.	Description	Reference	Status*
49217	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel Celeron J1900 quad-core 2.0/2.42GHz, 2MB L2, 10W TDP; Graphics: integrated Intel HD Gen 7; DP/HDMI and LVDS interfaces; Ethernet: Intel i210 Gbit; 4GB DDR3 SDRAM; 16GB eMMC; HD audio; 2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART; 3x PCIe x1;	MSC C10M-BT-20E7 PCBFTX	OR
68335	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel E3805 dual-core 1.33GHz, 1MB L2, 3W TDP; Graphics: no; Ethernet: Intel i210 Gbit; 8GB DDR3 ECC SDRAM; 32GB eMMC (SD); TPM; HD audio; 2x SATA, 1x USB3, 7x USB2, 3x PCIe x1; -40...+85°C	MSC C10M-BT-37J9 PCBFTX	OR
68389	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel E3827 dual-core 1.75GHz, 1MB L2, 8W TDP; Graphics: integrated Intel HD Gen 7; DP/HDMI and eDP interfaces; Ethernet: Intel i210 Gbit; 4GB DDR3 ECC SDRAM; 16GB eMMC; TPM; HD audio; 2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART; 3x PCIe x1; -40...+85°C	MSC C10M-BT-37E4 PCBFTX	OR
67761	COM Express Type 10 Mini module (84mm x 55mm); CPU: Intel E3815 single-core 1.46GHz, 0.5MB L2, 5W TDP; Graphics: integrated Intel HD Gen 7; DP/HDMI and LVDS interfaces; Ethernet: Intel i210 Gbit; 1GB DDR3 SDRAM; HD audio; 2x SATA, 1x USB3, 7x USB2, 1x PCU UART, 1x HS UART; 3x PCIe x1;	MSC C10M-BT-2001 PCBFTX	OR

Ordering Information for TRIA C10M-BT

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

# COM Express Type 10



## Accessories

### Carrier Options

Order No.	Description	Reference
67293	COM Express Type 10 Evaluation Carrier Board with PCI Express x4 slot, USB 3.0/2.0, GbE, SATA, DisplayPort, eDP/LVDS 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 C10-MB-EV-001 PCBFTX

Carrier Options for Tria COM Express Type 10 modules

### Cooling Solutions

Order No.	Description	Reference
1124458	Heatspreader for C10M-BT. Single-piece aluminum profile, standoffs with M2.5 thread and thermopad for the thermal contact to SOC.	MSC C10M-BT-02 HSP-001
1124457	Heatspreader for C10M-BT. Single-piece aluminum profile, standoffs without thread (2.7mm inner diameter) and thermopad for the thermal contact to SOC.	MSC C10M-BT-01 HSP-001
1126980	Passive Heatsink for C10M-BT and C10M-BTC consisting of a single-piece aluminum pin cooler, standoffs without thread (2.7mm inner diameter) and thermopad for the thermal contact to SOC. With threaded mounting holes for an optional fan.	MSC C10M-BT-01 HSI-001

Cooling Devices for TRIA C10M-BT

### Starter Kits

Order No.	Description	Reference
65357	COM Express Type 10 Starterkit for all C10M-BT modules; uses the new C10-MB-EV platform for Type 10 modules (Mini-ITX format); includes suitable Heatspreader for C10M-BT modules	MSC C10-SK-BT-EV

Starter Kits for TRIA C10M-BT

# COM Express Type 10



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