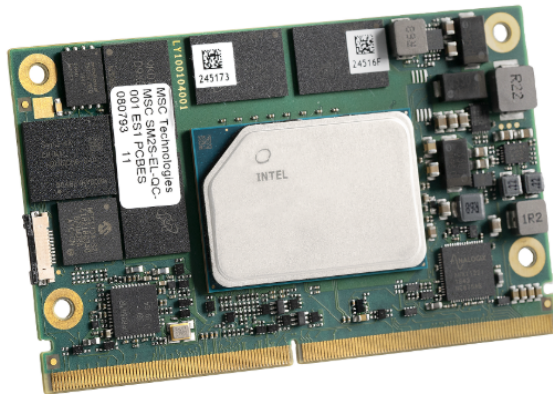


## TRIA SM2S-EL

Intel® Atom™ x6000 / Pentium® / Celeron® N and J Series SOC



82 x 50 mm

6 / 12 W

-40 +85 °C



## Highlights

- Integrated Intel UHD Graphics (Gen11)
- Up to 16GB LPDDR4x SDRAM with IBECC (only Atom SKU's)
- Up to 256GB eMMC 5.1, Flash (optional)
- SATA-III interface (6Gbps)
- 1x DisplayPort 1.4 / HDMI™ 2.0b
- 1x DisplayPort 1.4
- LVDS / Embedded DisplayPort and MIPI-DSI
- Triple Independent Display support
- DirectX, OpenGL 4.5, OpenCL 1.2, Vulkan v1.1
- Up to 4x PCI Express x1/x2/x4 Gen. 3
- 2x USB 3.1 Host interfaces (1x Host/Device)
- 6x USB 2.0 Host interfaces (1x Host/Device)
- 2x Gigabit Ethernet with TSN/TCC
- 1x SGMII Interface on PCIE-D (optional)
- UART, SPI, I2C, SMBus
- 2x CAN-FD
- HD/I2S Audio, SD Card interface
- Trusted Platform Module (optional)
- SMARC 2.1.1 compliant

## Technical Data

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Technology</b>         | x86                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Formfactor</b>         | SMARC™ Short Size                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>CPU</b>                | <p>Intel Atom x6425RE Processor, quad-core, 1.9GHz, 32EU, TCC, IBECC, 12W, IUC<br/> Intel Atom x6416RE Processor, quad-core, 1.7GHz, 16EU, TCC, IBECC, 9W, IUC<br/> Intel Atom x6414RE Processor, quad-core, 1.5GHz, 16EU, TCC, IBECC, 9W, IUC<br/> Intel Atom x6214RE Processor, dual-core, 1.4GHz, 16EU, TCC, IBECC, 6W, IUC<br/> Intel Atom x6212RE Processor, dual-core, 1.2GHz, 16EU, TCC, IBECC, 6W, IUC<br/> Intel Atom x6425E Processor, quad-core, 2.0/3.0GHz, 32EU, IBECC, 12W, EUC<br/> Intel Atom x6413E Processor, quad-core, 1.5/3.0GHz, 16EU, IBECC, 9W, EUC<br/> Intel Atom x6211E Processor, dual-core, 1.3/3.0GHz, 16EU, IBECC, 6W, EUC<br/> Intel Pentium J6426 Processor, quad-core, 2.0/3.0GHz, 32EU, 10W, PUC<br/> Intel Pentium N6415 Processor, quad-core, 1.2/3.0GHz, 16EU, 6W, PUC<br/> Intel Celeron J6413 Processor, quad-core, 1.8/3.0GHz, 16EU, 10W, PUC<br/> Intel Celeron N6211 Processor, quad-core, 1.2/3.0GHz, 16EU, 6W, PUC</p> <p>Intel® Technologies:<br/> Enhanced Intel® SpeedStep® Technology<br/> Intel® Virtualization Technology (VTx-2, VT-d)<br/> Intel® Trusted Execution Engine (TXE)<br/> Intel® Time Coordinated Computing (TCC)</p> <p>Precision Time Measurement (PTM)<br/> Precision Time Protocol (PTP)</p> <p>IUC - Intel Industrial Use Conditions<br/> EUC - Intel Embedded Use Conditions<br/> PUC - Intel PC Client Use Conditions</p> |
| <b>Chipset</b>            | Integrated in SOC                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>RAM</b>                | Up to 16GB LPDDR4x SDRAM, up to 4267MT/s, IBECC (only Atom SKU's), soldered                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Flash</b>              | Up to 256GB eMMC V5.1 Flash, soldered (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Storage Interfaces</b> | 1x SATA-III 6Gbps<br>1x SD 3.0/SDIO 3.0                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>USB</b>                | 2x USB 3.1 Host interfaces (1x Host/Device)<br>6x USB 2.0 Host interfaces (1x Host/Device)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Serial Interfaces</b>  | 4x UART (two with handshake)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Bus Interfaces</b>     | Up to 4x PCI-Express x1 Gen. 3 lanes<br>1x I2C Bus<br>1x SPI Bus (Boot)<br>1x SPI Bus (general purpose)/ eSPI (optional)<br>1x SMBus<br>2x CAN-FD (Flexible Data-Rate)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Display Controller</b> | Integrated Intel UHD Graphics (Gen11)<br>Up to 32 execution units (EU)<br>3D Acceleration: DirectX, OpenGL 4.5, OpenCL 1.2, Vulkan 1.0<br>Video Decode: MPEG-2, H.265/HEVC (L5.1), H.264, (L5.2), VC-1, WMV9, VP8, VP9, MVC, JPEG/MJPEG                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Display Interfaces</b> | Three independent displays supported<br>2x DP++<br>Dual-Channel LVDS 24/18 bit up to 1920 x 1200 @ 60Hz or<br>Embedded DisplayPort 1.3 up to 4096 x 2160 @ 60Hz and<br>MIPI-DSI x4 Interface up to 2560 x 1600 @ 60Hz (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Network Interface</b>  | 2x 10/100/1000Base-T<br>1x SGMII Interface on PCIe-D (optional)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Audio Interface</b>    | High Definition Audio and I2S Audio<br>or 2x I2S Audio                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |

|                           |                                                                                                                                                                                                                                           |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Security Device</b>    | Infineon Trusted Platform Module 2.0 (optional)                                                                                                                                                                                           |
| <b>Miscellaneous</b>      | Watchdog Timer:<br>Initiates system reset, (programmable, 1s ... 255h)<br>Fan Supply:<br>PWM Speed Control for system fan on carrier board<br>RTC battery:<br>external<br>System Monitoring:<br>Voltage, Temperature, CPU Fan, System Fan |
| <b>Feature Highlights</b> | SMARC™ 2.1.1 compliant                                                                                                                                                                                                                    |
| <b>Firmware</b>           | AMI Aptio UEFI                                                                                                                                                                                                                            |
| <b>OS Support</b>         | Windows 10 IoT Enterprise RS5 (64bit)<br>Windows 10 IoT Core RS5 (64bit)<br>Linux (Yocto Project)                                                                                                                                         |
| <b>Power Requirement</b>  | +5V +/-5%<br>+5V Standby                                                                                                                                                                                                                  |
| <b>Environment</b>        | Temperature Range:<br>0° ... 60°C (operating)<br>-25° ... 85°C (storage)<br>-40° ... 85°C (operating industrial)<br><br>Humidity:<br>5 ... 95% (operating, non-condensing)<br>5 ... 95% (storage, non-condensing)                         |
| <b>Dimensions</b>         | 82 x 50 mm                                                                                                                                                                                                                                |
| <b>Certificates</b>       | UL / CE                                                                                                                                                                                                                                   |
| <b>Cooling</b>            | Heatspreader<br>Heatsink                                                                                                                                                                                                                  |
| <b>Carrier</b>            | TRIA SM2-MB-EP1                                                                                                                                                                                                                           |

Technical Data for TRIA SM2S-EL

## Order Reference

| Order No. | Description                                                                                                                                                                                                                                                                                                         | Reference                           | Status* |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------|
| 88129     | SMARC 2.1.1 module with Intel Atom x6425RE, Quad-Core (1.9GHz), 12W, 16GB LPDDR4x (3200 MT/s) IBECC, 32EU, TCC, 64GB eMMC, 2x GbE LAN, 1x SATA, 2xUSB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, IUC (Industrial use conditions), industrial temperature -40...+85°C                         | MSC SM2S-EL-x6425RE-46N0281I PCBFTX | PV      |
| 87436     | SMARC 2.1.1 module with Intel Atom x6425RE, Quad-Core (1.9GHz), 12W, 4GB LPDDR4x (3733 MT/s) IBECC, 32EU, TCC, 4GB eMMC, 2x GbE LAN, SGMII on PCIe_D, no SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), 2x DP++, TPM 2.0, eDP, IUC (Industrial use conditions), extended temperature -25°C...+85°C | MSC SM2S-EL-x6425RE-22N0191E PCBFTX | OR      |
| 88125     | SMARC 2.1.1 module with Intel Atom x6414RE, Quad-Core (1.5GHz), 9W, 4GB LPDDR4x (3733 MT/s) IBECC, 16EU, TCC, 32GB eMMC, 2x GbE LAN, SGMII on PCIe_D, no SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, IUC (Industrial use conditions), industrial temperature -40...+85°C         | MSC SM2S-EL-x6414RE-25N0291I PCBFTX | PV      |
| 88121     | SMARC 2.1.1 module with Intel Atom x6212RE, Dual-Core (1.2GHz), 6W, 4GB LPDDR4x (3733 MT/s) IBECC, 16EU, TCC, 16GB eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, IUC (Industrial use conditions), industrial temperature -40...+85°C                          | MSC SM2S-EL-x6212RE-24N0281I PCBFTX | PV      |
| 88127     | SMARC 2.1.1 module with Intel Atom x6425E, Quad-Core (2.0GHz/3.0GHz), 12W, 16GB LPDDR4x (3200 MT/s), IBECC, 32EU, 64GB eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, EUC (Embedded use conditions), extended temperature -25°C...+85°C                        | MSC SM2S-EL-x6425E-46N0281E PCBFTX  | PV      |
| 88123     | SMARC 2.1.1 module with Intel Atom x6413E, Quad-Core (1.5GHz/3.0GHz), 9W, 8GB LPDDR4x (3733 MT/s), IBECC, 16EU, 32GB eMMC, 2x GbE LAN, SGMII on PCIe_D, no SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, EUC (Embedded use conditions), extended temperature -25°C...+85°C         | MSC SM2S-EL-x6413E-35N0291E PCBFTX  | PV      |
| 88119     | SMARC 2.1.1 module with Intel Atom x6211E, Dual-Core (1.3GHz/3.0GHz), 6W, 4GB LPDDR4x (3733 MT/s), IBECC, 16EU, 16GB eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, EUC (Embedded use conditions), extended temperature -25°C...+85°C                          | MSC SM2S-EL-x6211E-24N0281E PCBFTX  | PV      |
| 88116     | SMARC 2.1.1 module with Intel Pentium J6426, Quad-Core (2.0GHz/ 3.0GHz), 10W, 16GB LPDDR4x (3200 MT/s), 32EU, 64GB eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, PUC (PC Client use conditions), standard temperature 0...+60°C                               | MSC SM2S-EL-J6426-46N0281C PCBFTX   | PV      |
| 88114     | SMARC 2.1.1 module with Intel Celeron J6413, Quad-Core (1.8GHz/ 3.0GHz), 10W, 8GB LPDDR4x (3733 MT/s), 16EU, 16GB eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, PUC (PC Client use conditions), standard temperature 0...+60°C                                | MSC SM2S-EL-J6413-34N0281C PCBFTX   | PV      |
| 96349     | SMARC 2.1.1 module with Intel Atom x6413E, Quad-Core (1.5GHz/3.0GHz), 9W, 4GB LPDDR4x (3733 MT/s), IBECC, 16EU, 128GB eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, EUC (Embedded use conditions), industrial temperature -40...+85°C                         | MSC SM2S-EL-x6413E-27N0281I PCBFTX  | PV      |

| Order No. | Description                                                                                                                                                                                                                                                                                                        | Reference                           | Status* |
|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------|---------|
| 90305     | SMARC 2.1.1 module with Intel Atom x6414RE, Quad-Core (1.5GHz), 9W, 4GB LPDDR4x (3733 MT/s) IBECC, 32EU, TCC, 4GB eMMC, 2x GbE LAN, SGMII on PCIe_D, no SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), 2x DP++, TPM 2.0, eDP, IUC (Industrial use conditions), extended temperature -25°C...+85°C | MSC SM2S-EL-x6414RE-22N0191E PCBFTX | PV      |
| 110394    | SMARC 2.1.1 module with Intel Atom x6413E, Quad-Core (1.5GHz/3.0GHz), 9W, 4GB LPDDR4x (3733 MT/s), IBECC, 16EU, 32GB eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/ Device), TPM 2.0, LVDS, EUC (Embedded use conditions), industrial temperature -40...+85°C                        | MSC SM2S-EL-x6413E-25N0180I PCBFTX  | PV      |
| 111756    | SMARC 2.1.1 module with Intel Atom x6425E, Quad-Core (2.0GHz/3.0GHz), 12W, 16GB LPDDR4x (3200 MT/s), IBECC, 32EU, no eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/ Device), 6x USB 2.0 (1x Host/Device), TPM 2.0, LVDS, EUC (Embedded use conditions), extended temperature -25...+85°C                          | MSC SM2S-EL-x6425E-4NN0281E PCBFTX  | PV      |
| 111991    | SMARC 2.1.1 module with Intel Atom x6414RE, quad-core (1.5GHz), 9W, 8GB LPDDR4x (3733 MT/s) IBECC, 16EU, TCC, no eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), LVDS, TPM 2.0, IUC (Industrial use conditions), industrial temperature -40...+85°C                           | MSC SM2S-EL-x6414RE-3NN0281I PCBFTX | PV      |
| 117234    | SMARC 2.1.1 module with Intel Atom x6413E, quad-core (1.5GHz/3.0GHz), 9W, 8GB LPDDR4x (3733 MT/s) IBECC, 16EU, no TCC, no eMMC, 2x GbE LAN, 1x SATA, 2x USB 3.1 (1x Host/Device), 6x USB 2.0 (1x Host/Device), 2x DP++ and eDP, TPM 2.0, EUC (Embedded use conditions), extended temperature -25...+85°C           | MSC SM2S-EL-x6413E-3NN0181E PCBFTX  | PV      |

Ordering Information for TRIA SM2S-EL

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

## Accessories

### Carrier Options

| Order No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reference                     |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 68488     | SMARC 2.0 Embedded Platform with PCI Express x4 slot, GbE, SATA, USB 3.0, USB 2.0, USB 2.0 OTG, RS232, CAN, SPI, eSPI, SMBus, I2C and GPIO interface, LVDS/eDP, DisplayPort and HDMI display interface, regulated backlight supply, HD/I2S audio interface, MIPI CSI-2 camera interface, mini PCI Express card slot, SD card slot, fan connector, CMOS battery, Mini-ITX form factor (170 x 170 mm), ATX power connector and single 12V/24V power jack, commercial temperature range 0..+70°C                                                                                    | MSC SM2-MB-EP1-001<br>PCBFTX  |
| 85087     | SMARC 2.x compatible embedded platform (146 x 80mm), 10-36V input voltage, 3x RS232, 1x RS485, dual RJ45 LAN with LED (1 x LAN i210), 1x M.2 2280 Key M slot, mPCIe slot, 1x USB 3.0 Type A, 1x USB 3.0/ DisplayPort Type C , 1x USB 2.0 Type A, 1x USB 2.0 internal, 1x µUSB 2.0 Host/Device, 2x SPI, I <sup>2</sup> C, 12 GPIO on FC, 1x DisplayPort++ , LVDS/ eDP/DSI on JILI30 connector, µSD Card Slot, regulated backlight supply, HD Audio with amplifier, system fan connector, camera connector, RTC battery. Industrial temperature range -40..+85°C, x86 full version | MSC SM2S-MB-EP5-001<br>PCBFTX |
| 83979     | SMARC 2.x compatible embedded platform (146 x 80mm), 12V input voltage, 3x RS232, 1x RS485, dual RJ45 LAN with LED, 1x M.2 2280 Key M slot , 1x USB 2.0 Type A, 1x USB3.0 Type A, 1x USB 2.0 internal, 1x µUSB 2.0 Host/Device, 2x SPI, 12 GPIO on FC, 1x DisplayPort++ , LVDS/eDP/DSI on JILI30 connector, regulated backlight supply, RTC battery, Industrial temperature range -40..+85°C, x86 slim version                                                                                                                                                                   | MSC SM2S-MB-EP5-003<br>PCBFTX |

Carrier Options TRIA SM2S-ASL/ALN/EL/AL/RYZ

| Order No. | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Reference                     |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| 68488     | SMARC 2.0 Embedded Platform with PCI Express x4 slot, GbE, SATA, USB 3.0, USB 2.0, USB 2.0 OTG, RS232, CAN, SPI, eSPI, SMBus, I2C and GPIO interface, LVDS/eDP, DisplayPort and HDMI display interface, regulated backlight supply, HD/I2S audio interface, MIPI CSI-2 camera interface, mini PCI Express card slot, SD card slot, fan connector, CMOS battery, Mini-ITX form factor (170 x 170 mm), ATX power connector and single 12V/24V power jack, commercial temperature range 0..+70°C                                                                                    | MSC SM2-MB-EP1-001<br>PCBFTX  |
| 85087     | SMARC 2.x compatible embedded platform (146 x 80mm), 10-36V input voltage, 3x RS232, 1x RS485, dual RJ45 LAN with LED (1 x LAN i210), 1x M.2 2280 Key M slot, mPCIe slot, 1x USB 3.0 Type A, 1x USB 3.0/ DisplayPort Type C , 1x USB 2.0 Type A, 1x USB 2.0 internal, 1x µUSB 2.0 Host/Device, 2x SPI, I <sup>2</sup> C, 12 GPIO on FC, 1x DisplayPort++ , LVDS/ eDP/DSI on JILI30 connector, µSD Card Slot, regulated backlight supply, HD Audio with amplifier, system fan connector, camera connector, RTC battery. Industrial temperature range -40..+85°C, x86 full version | MSC SM2S-MB-EP5-001<br>PCBFTX |
| 83979     | SMARC 2.x compatible embedded platform (146 x 80mm), 12V input voltage, 3x RS232, 1x RS485, dual RJ45 LAN with LED, 1x M.2 2280 Key M slot , 1x USB 2.0 Type A, 1x USB3.0 Type A, 1x USB 2.0 internal, 1x µUSB 2.0 Host/Device, 2x SPI, 12 GPIO on FC, 1x DisplayPort++ , LVDS/eDP/DSI on JILI30 connector, regulated backlight supply, RTC battery, Industrial temperature range -40..+85°C, x86 slim version                                                                                                                                                                   | MSC SM2S-MB-EP5-003<br>PCBFTX |

Carrier Options TRIA SM2S-ASL/ALN/EL/AL/RYZ

### Cooling Options

| Order No. | Description                                                                                                                                                                                  | Reference                 |
|-----------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 82414     | Passive Heatsink for SM2S-EL variants with Atom processor, consisting of a single-piece aluminium pin cooler and thermal pad for contact to the processor, with 2.7mm through-hole standoffs | MSC SM2S-EL-01<br>HSI-001 |

| Order No. | Description                                                                                                                                                                                             | Reference                 |
|-----------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|
| 85122     | Heatspreader for SM2S-EL variants with Atom processor, consisting of a single-piece aluminium plane and thermal pad for contact to the processor, with 2.7mm through-hole standoffs                     | MSC SM2S-EL-01<br>HSP-001 |
| 88512     | Passive Heatsink for SM2S-EL variants with Pentium/Celeron processor, consisting of a single-piece aluminium pin cooler and thermal pad for contact to the processor, with 2.7mm through-hole standoffs | MSC SM2S-EL-02<br>HSI-001 |
| 88511     | Heatspreader for SM2S-EL variants with Pentium/Celeron processor, consisting of a single-piece aluminium plane and thermal pad for contact to the processor, with 2.7mm through-hole standoffs          | MSC SM2S-EL-02<br>HSP-001 |

Cooling Options TRIA SM2S-EL

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