

MSC C6C-SLU

Intel® Core™ 6th Generation



95 x 95



17 / 19W



0 +60



IoT Solutions
Alliance

COM Express

Description

The MSC C6C-SLU module is based on Intel's 6th generation Core processor family with a new processor architecture based on 14 nm process technology. The Intel multi-chip-package includes processor, graphics and chipset on one carrier and allows extreme compact high-performance designs.

The new MSC C6C-SLU brings triple independent display support with up to 4k x 2k resolution, highest level graphics acceleration and hardware based video en-/decoding. Fast DDR4 memory and multiple USB 3.0/2.0 interfaces complete the compact and power saving module.

Different dual-core processors are supported by this design. Besides an extensive set of interfaces and features, the MSC C6C-SLU optionally offers hardware based security compliant to the requirements of TCG (Trusted Computing Group).

The Type 6 pin-out allows direct access to the latest digital display interfaces like DisplayPort, HDMI 1.4b and DVI as well as up to four USB 3.0 interfaces supporting the fastest peripherals currently available.

Highlights

- Intel Core i7-6600U dual-core 2.6/3.4GHz, 4MB L2, 15W TDP, 7.5/25W cTDP
- Intel Core i5-6300U dual-core 2.4/3.0GHz, 3MB L2, 15W TDP, 7.5/25W cTDP
- Intel Core i3-6100U dual-core 2.3GHz, 3MB L2, 15W TDP, 7.5 cTDP
- Intel Celeron 3955U dual-core 2.0GHz, 2MB L2, 15W TDP, 10W cTDP
- Integrated Intel Gen. 9 HD graphics
- Up to 32 GB DDR4-2133 SDRAM, dual-channel
- Three SATA 6Gb/s mass storage interfaces
- MicroSD card socket
- DisplayPort/HDMI/DVI interface
- LVDS/embedded DisplayPort interface
- Three independent displays supported
- DirectX 12, OpenGL 4.4, OpenCL 2.x
- Four USB 3.0/2.0 and four USB 2.0 interfaces
- Eight PCI Express™ x1 lanes
- Trusted Platform Module

Technical Data - MSC C6C-SLU

Technology	x86
Formfactor	COM Express Compact
CPU	Intel Core i7-6600U dual-core 2.6/3.4GHz, 4MB L2, 15W TDP, 7.5/25W cTDP, Intel Core i5-6300U dual-core 2.4/3.0GHz, 3MB L2, 15W TDP, 7.5/25W cTDP, Intel Core i3-6100U dual-core 2.3GHz, 3MB L2, 15W TDP, 7.5 cTDP, Intel Celeron 3955U dual-core 2.0GHz, 2MB L2, 15W TDP, 10W cTDP
Chipset	Integrated in Multi-Chip-Package
RAM	2x 260-pin SO-DIMM socket for up to 2x 16 GB DDR4 SDRAM (DDR4-2133); dual channel operation
Flash	MicroSD card socket
Storage Interfaces	Up to 3x SATA 6Gb/s
USB	4x USB 3.0/2.0, 4x USB 2.0
Serial Interfaces	2x high-speed serial ports from PCH
Bus Interfaces	Up to 8x PCI Express x1 Gen 2 or Gen3 (depending on processor variant), LPC bus (Low Pin Count bus; no DMA support)
Display Controller	Integrated Intel HD graphics Gen. 9
Display Interfaces	2x Digital Display Interface (DP 1.2 (4096 x 2304 @ 60Hz), DVI/HDMI 1.4b (2560 x 1600 @ 60Hz or 4096 x 2160 @ 24Hz)) 1x Embedded DisplayPort 1.4 (on variants without LVDS only); 4096 x 2304 @ 60Hz, LVDS 24bit, dual-channel (not on all variants); 1920 x 1200 @ 60Hz
Network Interface	10/100/1000Base-TX (Intel i219)
Audio Interface	High Definition Audio
Security Device	TPM 1.2, TPM 2.0 (optional)
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
Firmware	AMI Aptio UEFI
OS Support	Windows 7, 8, 8.1, 10 (embedded) BSP for Linux on request 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
Certificates	UL / CE

Order Reference - MSC C6C-SLU

Order Number	Description	Reference	Cat
67586	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Celeron 3955U, dual-core, 2.0GHz, 15W TDP, 10W cTDP; Graphics: integrated Intel HD Gen 9 (GT1); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; TPM 1.2 HD audio; 2x SATA, 4x USB3, 4x USB2, 8x PCIe x1 Gen 2; 2x socket for DDR4 SO-DIMM.	MSC C6C-SLU-001 PCBFTX	PV
67588	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel i3-6100U, dual-core, 2.3GHz, 15W TDP, 7.5W cTDP; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; TPM 1.2 HD audio; 2x SATA, 4x USB3, 4x USB2, 8x PCIe x1 Gen 2; 2x socket for DDR4 SO-DIMM.	MSC C6C-SLU-002 PCBFTX	PV
67590	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel i5-6300U, dual-core, 2.4/3.0GHz, 15W TDP, 7.5/25W cTDP; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; TPM 1.2 HD audio; 3x SATA, 4x USB3, 4x USB2, 8x PCIe x1 Gen 3; 2x socket for DDR4 SO-DIMM.	MSC C6C-SLU-003 PCBFTX	PV
67592	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel i7-6600U, dual-core, 2.6/3.4GHz, 15W TDP, 7.5/25W cTDP; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; TPM 1.2 HD audio; 3x SATA, 4x USB3, 4x USB2, 8x PCIe x1 Gen 3; 2x socket for DDR4 SO-DIMM.	MSC C6C-SLU-005 PCBFTX	PV
67713	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Celeron 3955U, dual-core, 2.0GHz, 15W TDP, 10W cTDP; Graphics: integrated Intel HD Gen 9 (GT1); eDP; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; TPM 1.2 HD audio; 2x SATA, 4x USB3, 4x USB2, 8x PCIe x1 Gen 2; 2x socket for DDR4 SO-DIMM.	MSC C6C-SLU-011 PCBFTX	OR
67715	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel i3-6100U, dual-core, 2.3GHz, 15W TDP, 7.5W cTDP; Graphics: integrated Intel HD Gen 9 (GT2); eDP; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; TPM 1.2 HD audio; 2x SATA, 4x USB3, 4x USB2, 8x PCIe x1 Gen 2; 2x socket for DDR4 SO-DIMM.	MSC C6C-SLU-012 PCBFTX	PV
67717	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel i5-6300U, dual-core, 2.4/3.0GHz, 15W TDP, 7.5/25W cTDP; Graphics: integrated Intel HD Gen 9 (GT2); eDP; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; TPM 1.2 HD audio; 3x SATA, 4x USB3, 4x USB2, 8x PCIe x1 Gen 3; 2x socket for DDR4 SO-DIMM.	MSC C6C-SLU-013 PCBFTX	OR

Order Reference - MSC C6C-SLU

Order Number	Description	Reference	Cat
67719	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel i7-6600U, dual-core, 2.6/3.4GHz, 15W TDP, 7.5/25W cTDP; Graphics: integrated Intel HD Gen 9 (GT2); eDP; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; TPM 1.2 HD audio; 3x SATA, 4x USB3, 4x USB2, 8x PCIe x1 Gen 3; 2x socket for DDR4 SO-DIMM.	MSC C6C-SLU-015 PCBFTX	PV
84391	COM Express Type 6 Compact module (95mm x 95mm); CPU: Intel Core i3-6100U, dual-core, 2.3GHz, 15W TDP; Graphics: integrated Intel HD Gen 9 (GT2); LVDS; 2x DP/HDMI/DVI; Ethernet: Intel i219 Gbit; TPM 2.0 HD audio; 2x SATA, 4x USB3, 4x USB2, 8x PCIe x1 Gen 2; 2x socket for DDR4 SO-DIMM.	MSC C6C-SLU-202 PCBFTX	OR

Accessories

Order Number	Description	Reference
Carrier Options		
41886	COM Express Type 6 Small Test and Evaluation Board with one PCI Express socket, USB 3.0, GbE, SATA, DisplayPort, HDMI, VGA and HD audio interfaces	MSC C6-AD-T6T2 PCBFTX
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
Cooling Options		
1129634	Active Heatsink for C6C-SLU and C6C-KLU, consisting of a single-piece aluminum profile with fins, milled standoffs without thread (2.7mm inner diameter), screws and thermopads for the thermal contact to SOC. PWM fan 80x80x15mm.	MSC C6C-SLU-01 HSF-001
1129633	Passive Heatsink for C6C-SLU and C6C-KLU, consisting of a single-piece aluminum profile with fins, milled standoffs without thread (2.7mm inner diameter), screws and thermopad for the thermal contact to SOC.	MSC C6C-SLU-01 HSI-001
1129631	Heatspreader for C6C-SLU and C6C-KLU. Single-piece aluminum profile, milled standoffs without thread (2.7mm inner diameter), screws and thermopad for the thermal contact to SOC.	MSC C6C-SLU-01 HSP-001
1129632	Heatspreader for C6C-SLU and C6C-KLU. Single-piece aluminum profile with milled standoffs with M2.5 thread, screws and thermopad for the thermal contact to SOC.	MSC C6C-SLU-02 HSP-001
Memory Options		
83002	4GB DDR4-2400 SoDimm, 1.2V	M4SI-4GSSNCSJ-F
81883	8GB DDR4-2400 SoDimm, 1.2V	M4SI-8GSSOCSJ-F
Starter Kits		
68454	Starterkit for COM Express Type 6 modules MSC C6C-SLU/KLU with Intel 6th/7th generation Core processors (Skylake U, Kaby Lake U). Consists of the MSC C6-MB-EV Mini-ITX platform board, suitable Heatsink with fan, two memory modules and a suitable power supply with cable kit. Please order separately the COM Express C6C-SLU/KLU module of your choice.	MSC C6-SK-SLU-EV-KIT001 BRDFTX

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