COM Express Type 10

/**V N E T**[°] **EMBEDDED**

MSC C10-MB-EV

Mini-ITX Evaluation Board



Description

The MSC C10-MB-EV is a compact platform for developing and prototyping system electronics and software before a specific baseboard becomes available.

It provides the interface infrastructure for the COM Express Type 10 modules and offers various PC type connectors for external access.

With this universal platform a tool is offered to test quickly what's needed to choose the right product out of MSC's COM Express portfolio.

This development tool also helps to develop software in parallel with the hardware to speed up the integration process.

Highlights

- Socket for COM Express[™] Type 10 modules
- PCI Express x4 slot
- PCI Express Mini Card slot
- Two SATA connectors
- Two USB 3.0 interfaces
- Up to six USB 2.0 ports
- DisplayPort connectors
- LVDS and eDP connectors
- GbE interface
- SD Card slot
- HD audio codec
- Super I/O
- Various additional COM Express[™] specific interfaces
- Power supply via ATX-style power connector or single voltage power jack

- Wide power input range
- Size 170mm x 170mm

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Technical Data - MSC C10-MB-EV

Formfactor	Mini-ITX	
Flash	SD Card socket	
Storage Interfaces	2x SATA up to 6Gb/s	
USB	2x USB 3.0 (USB 2.0 compliant), 6x USB 2.0	
Bus Interfaces	PCI Express™ One PCI Express x4 interface (on PCI Express x16 socket)	
	LPC LPC bus on 10-pin header; usable for optional POST code display	
Display Interfaces	DisplayPort One DisplayPort connector	
	Embedded DisplayPort One 40-pin eDP connector	
	LVDS One 30-pin Jili connector	
Network Interface	RJ45 connector for LAN on COMe module, 10/100/1000 Mb/s supported, depending on COM Express module used, two status LED's integrated	
Audio Interface	HD audio codec (Realtek ALC888) routed to 3x audio jacks and SPDIF on 5-pin header (product option)	
Miscellaneous	Feature connector Carrying SMBus, I ² C bus, power button, reset button, beeper, HD LED and other system signals	
	Fan 4 pin fan connector; PWM controlled by COM Express module	
	EEPROM One serial EEPROMs on I ² C bus	
	One serial EEPROM for LVDS configuration data	
	Battery CR 2032 type RTC battery (3V, socketed)	
Feature Highlights	Carrier board for COM Express Type 10 pin-out	
Power Requirement	Standard 20pin ATX power connector and additional ATX12V connector Additional power jack for single voltage supply (wide input range 5V to 20V)	
Environment	Ambient Temperature; 0° … 60°C (operating), -25° … 85°C (storage)	
	Humidity: 5 … 95% (operating, non-condensing), 5 … 95% (storage, non-condensing)	



Dimensions

170mm x 170mm



Order Reference - MSC C10-MB-EV

Order Number	Description	Reference	Cat*
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	OR
110451	COM Express Type 10 Evaluation Carrier Board with PCI Express x4 slot, USB 3.0/2.0, GbE, SATA, DisplayPort, eDP/LVDS; 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-002 PCBFTX	PV
1127126	IO Shield for C10-MB-EV	MSC C10-MB-EV-01 IOS-001	PV

*COM products are divided in two categories, "PV" (preferred variant) and "OR" (on request).



Accessories

Order Number	Description	Reference			
	10.1" Displaykit				
78879	Displaykit suitable for all COM Carrier Boards and all COM Starterkits. Comprises 10.1" WXGA LCD with PCAP Touch Sensor and Touch Controller. Includes all cables required to connect to COM Carrier Boards (LVDS, B/L & Touch).	MSC DIS-AM1280800-101-KIT SETPAC			
	12.1" Displaykit				
78880	Displaykit suitable for all COM Carrier Boards and all COM Starterkits. Comprises 12.1" WXGA LCD with PCAP Touch Sensor and Touch Controller Includes all cables required to connect to COM Carrier Boards (LVDS, B/L & Touch)	MSC DIS-AM1280800-121-KIT SETPAC			
	5.0" Displaykit				
81871	Displaykit suitable for all COM Carrier Boards and all COM Starterkits. Comprises 5.0" WVGA LCD with PCAP Touch Sensor and Touch Controller Includes all cables required to connect to COM Carrier Boards (LVDS, B/L & Touch)	MSC DIS-AM800480-050-KIT SETPAC			
	7" Displaykit				
78911	Displaykit suitable for all COM Carrier Boards and all COM Starterkits. Comprises 7.0" WVGA LCD with PCAP Touch Sensor and Touch Controller Includes all cables required to connect to COM Carrier Boards (LVDS, B/L & Touch)	MSC DIS-AM800480-070-KIT SETPAC			

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