

MSC Q7-MB-EP1 Embedded Platform




Description

The Qseven™ open specification (www.qseven-standard.org) is a module concept to bring PCI Express and other high speed serial technologies like SATA, USB 2.0 and LVDS on a small form factor COM (Computer On Module).

Qseven™ modules are plugged onto an application-specific baseboard. The specification has been created for applications requiring both small form factor and lowest power consumption using latest processor and I/O technology.

The Qseven™ embedded platform MSC Q7-MB-EP1 offers a variety of interfaces commonly used in embedded applications such as Gigabit LAN, USB 2.0, serial and LVDS/VGA for display attachment. In addition mini PCI Express and SD-Card sockets are supported to extend the functions on the motherboard.

A board support package for Microsoft Windows XP and Linux is available for download from our COM support web site at www.msc-ge.com.

148x102 

Highlights

- Socket for Qseven™ compatible modules
- One VGA port up to 1920x1200
- Mini PCI Express slot
- MMC/SD Card socket
- Two SATA onboard connectors
- One RS-232 D-Sub9 connector
- Four USB 2.0 interfaces, two external
- One mini-USB 2.0 client connector
- Optional touch screen controller onboard
- Optional LVDS display connection via Jili30 interface, cable sets available thru MSC display group
- Backlight interface 3.3/5/12VDC
- HD audio codec (6 channel), one channel to front
- Fan control
- EEPROM for display parameters
- Size (148 x 102 mm)
- Wide input range from 10 -28VDC

Technical Data – MSC Q7-MB-EP1

Module Interface

Qseven module connector

Socket for one Qseven module

Storage Interfaces

SATA

2 x SATA connectors routed to Qseven module

MMC/SD Card

Cardholder with 4 bit interface

EEPROM

Serial EEPROM for EPI/DP extensions

Standard Interfaces

USB

4 x USB 2.0

- Two USB-Host (Serie-A Jack)
- Two USB-Host internal pin header
- One USB-Host or one USB-Client on mini USB connector
- One USB at Mini PCI Express socket

Serial

1x RS-232 on 9 pin Dsub connector driven by the onboard USB-to-RS-232 converter (FT232RL)

Mini PCI express

Socket for one mini PCI Express module with USB support

Audio Interface

HD Audio codec VT1708, all signals on pin header, line out on front

Display Interface

Graphics

VGA 15 pin Dsub connector via onboard SDVO/CRT converter, max 1980x1200 depending on module

LCD Interface

LVDS interface on Jili30 connector, EEPROM to store display data, Backlight connector onboard (3.3/5/12V)
Cable kits and inverters available from MSC

Miscellaneous

Onboard system signals

Power Button, Reset, Beeper (optional)

Network Interface

Ethernet

One RJ45 connector with LED for LAN on Qseven module

Touch Controller (optional)

Controller (HS12-100S00 for 4/5 wire touch screens on internal pin header

Power Supply

Power

4pin ATX style power connector for 10-28VDC

Environment

Ambient Temperature

0° ... 60° C (operating)
-25° ... 85° C (storage)

Humidity

20 ... 80% (operating, non-condensing)
5 ... 95% (storage, non-condensing)

Mechanical

Dimensions

148 mm x 102mm

Heatrail pre assembled

Order Reference – MSC Q7-MB-EP1

Order Number	Description	Reference
32451	Qseven embedded platform, 10-28V input voltage, RJ45 connector with LED for LAN, Dual SATA connector, SD card holder, 4 x USB (2 x external), VGA output, mini PCI Express socket, battery, system fan support.	MSC Q7-MB-EP1-001
32452	Qseven embedded platform, 10-28V input voltage, RJ45 connector with LED for LAN, Dual SATA connector, SD card holder, 4 x USB (2 x external), VGA output, 1 x RS232, LVDS and touch screen support, backlight, mini PCI Express socket, Audio on line-out connector, battery, system fan support.	MSC Q7-MB-EP1-002

Accessories

Order Number	Description	Accessories
	Power Supply	
39698	Power supply Unit with connector for Q7-MB-EPx baseboards	MSC Q7-MB-EP-PSU1

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