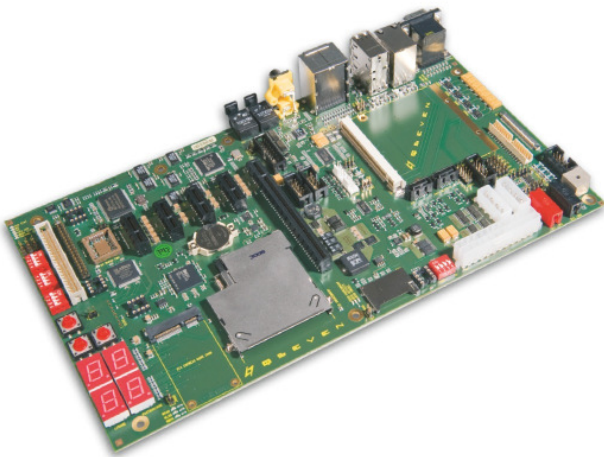


MSC Q7-MB-RP

Reference Platform




Description

The MSC Q7-MB-RP is a reference platform provided to test and qualify Qseven™ modules for compatibility with the specification. The board is shipped with a complete set of design files. An extensive design guide for the Qseven™ module technology is also provided to allow the motherboard designer to easily implement a custom version of a Qseven™ carrier.

The Qseven™ reference platform MSC Q7-MB-RP offers a large variety of interfaces commonly used in industrial applications such as dual Gigabit LAN, USB 2.0, serial and LVDS/SDVO for display attachment. In addition PCI Express is supported with four PCIe x1 slots.

This platform for rapid prototyping or low volume production helps to assess the fit of a specific CPU Technology. It is a key instrument to shorten design cycles and to improve time to market of new Qseven™ based systems.

305x173 

Highlights

- Four PCI Express™ x1 slots
- One ADD2 slot for SDVO / DP / HDMI
- Mini PCI Express™ & ExpressCard slot
- MMC / SD Card socket
- Two SATA onboard connectors
- Two Super I / O (Winbond / SMSC)
- COM1 / COM2, LPT, fan control and HW monitor
- HD audio codec with surround support (6 channel)
- Up to eight USB interfaces
- LVDS display via Jili30
- Various status LEDs and control

Technical Data – MSC Q7-MB-RP

Module Interface

Qseven module connector: Socket for one Qseven module

Storage

SATA

2 x SATA connectors

MMC/SD Card

Cardholder with 8bit interface

EEPROM

Serial EEPROM for SM Bus , Serial EEPROM for I²C Bus, Serial EEPROM for EPI/DP extensions

BIOS Flash

PLCC32 socket for external BIOS

Standard Interfaces

USB

8 x USB 2.0

- Five USB-Host (Serie-A Jack)
- One USB-Host or one USB-Client
- One USB at MiniPCIExpress Socket
- One USB at ExpressCard Socket

Serial

2 x COM on 9 pin Dsub connector driven by the onboard Super I/O, 2x COM port on header with SMSC Super I/O

Bus Interfaces

PCI Express

Four PCI Express x1 slot

Flat Panel / CRT Interface

Graphics

Standard SDVO/DP/HDMI interface, Digital DVI monitor interface via SDVO/DVI converter, Analog monitor interface via SDVO/DVI converter

LCD Interface

LVDS-Interface on Jili30 connector, EEPROM to store display data, Backlight connector onboard; cable kit and inverter available from MSC

Miscellaneous

Debug Support

POST Display and LED indicators, Beeper

System Control

SMSC 3114 or Winbond W83627DHG for extra COM ports

LAN Interface

Ethernet

One RJ45 connector for LAN on Qseven module

Power Supply

Power

Standard 24pin ATX power connector and additional 2pin 5VDC connector;

Environment

Ambient Temperature

0° ... +60° C operating, -25° ... 85° C storage

Humidity

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

Mechanical

Dimensions

305mm x 173mm

Accessoires

VGA out

ADD2 VGA CARD

DVI out

ADD2 DVI CARD

