

MSC Q7-SK-xxx-EPx

Qseven Starter Kits



Example kit hardware.
Actual kit delivered may
vary depending on
Qseven Kit ordered.

Description

The Qseven Starter Kits are based on a compact 3.5" Qseven baseboard MSC Q7-MB-EPx and contain all necessary products to quickly enable the user to run and evaluate the Qseven module of choice. The kit does not contain a Qseven module in order to give the user greater flexibility as to which particular module version and CPU speed variant is desired.

As part of the Qseven Starter Kit, the appropriate heatsreader and a bootable Linux installation will be supplied. A power supply with cable kit is also included for convenience.

Direct screen output on a PC monitor is possible using the on-board VGA output. As an option each Starter Kit is also available with a suitable LCD kit consisting of a 7" LVDS TFT panel at WVGA resolution (800x480). Other LCD sizes/resolutions are possible upon request.

Assembly only takes a few moments and is well documented in the "Getting Started" document provided, then the Qseven Starter Kit will be ready to run. A Resource CD with drivers, tools and all documentation completes the Qseven Starter Kit

Highlights

- 3.5" Qseven Carrier Board with socket for Qseven compatible modules (not included):
 - Q7-US15W, Q7-US15W-FD with Intel Z5x0 CPU
 - Q7-TCTC-FD with Intel E6x0 CPU
 - Q7-NT2 with Tegra-290 ARM Cortex-A9 CPU
 - ... (future Qseven modules in preparation)
- Heatsreader with heatsink, 12V Power Supply and cable kit included for immediate operation of the Starter Kit
- VGA or DVI graphics output (depending on Starter Kit version ordered)
- LVDS graphics output on standard 30-pin connector; backlight + touch connector
- LAN connector (1 or 2, depending on kit)
- SATA connectors (1 or 2, depending on kit)
- USB 2.0 connectors (up to 6, depending on kit)
- Optional 7" WVGA TFT Kit with Touch

Technical Data – Qseven Starterkit

Module Interface

Qseven Module Connector

Socket for Qseven™ compatible module

Storage

SATA

1 or 2 x SATA connectors routed to Qseven module
 (1 SATA link usable only for some Qseven modules)

mSATA Socket

Support for mSATA and mSATAmini cards, up to 256GB capacity

MMC/SD Card

Cardholder with 4 bit interface

EEPROM

Serial EEPROM for EPI/DP extensions

Standard Interfaces

USB

up to 6 x USB 2.0 (depending on Qseven module used)
 - 2-4x USB-Host (Series-A Jack)
 - 1-3x USB-Host internal pin header
 - USB-Client on mini USB connector (or USB-Host, dep. on module)
 - USB at Mini PCI Express socket

Serial

RS-232C on pin header or 9 pin D-Sub connector (dep. on board)

ARM RS232 Debug Port

ARM Debug Port is routed to the Qseven module (only for Q7-NT2)

CAN Bus

Single channel, routed to Qseven module (support dep. on module)

Mini PCI express

Socket for one Mini PCI Express module with USB

Audio Interface

HD Audio

All HD Audio signals on pin header (EP3, EP4-002 baseboards)

AC'97 Audio

All AC'97 Audio signals on pin header (EP4-001 baseboard only)

Flat Panel / CRT Interface

Graphics

VGA 15 pin D-Sub connector via onboard SDVO/CRT converter (only for kits based on EP3), max. resolution depending on module

DVI connector, max. resolution depending on module
 (for kits based on EP4 baseboard)

LCD Interface

LVDS interface on Jili30 connector, EEPROM to store display data,
 Backlight connector (3.3/5/12V power and DIM signal)

Miscellaneous

Onboard System Signals

Power Button, Reset, Beeper

LAN Interface

Ethernet

One RJ45 connector with LEDs from Qseven module
 Second RJ45 connector with PCIe-connected GbE LAN Controller
 (for kits based on EP4 baseboard only)

Touch Controller

4/5 wire Resistive Touch Controller HS12-100500 driving 5-wire
 connector on pin header and 2 pin-out versions of 4-wire FFC

Heatspreader

Heatspreader

MSC Q7-US15W-01 HSP-001 (mountable on Q7-US15W module)
 MSC Q7-TCTC-FD-01 HSP-001 (mountable on Q7-TCTC module)
 MSC Q7-NT2-01 HSP-001 (mountable on Q7-NT2 module)

Heatrail

MSC Q7-XXX-01 HTR-001 (mountable underneath Qseven module)

Power Supply

Power Supply

110-230V AC to 12V DC with cable kit connecting to 4 pin ATX style
 power connector on Q7-MB-EPx baseboard; features an additional
 disk drive power connector.

Environment

Ambient Temperature

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

Humidity

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

Mechanical

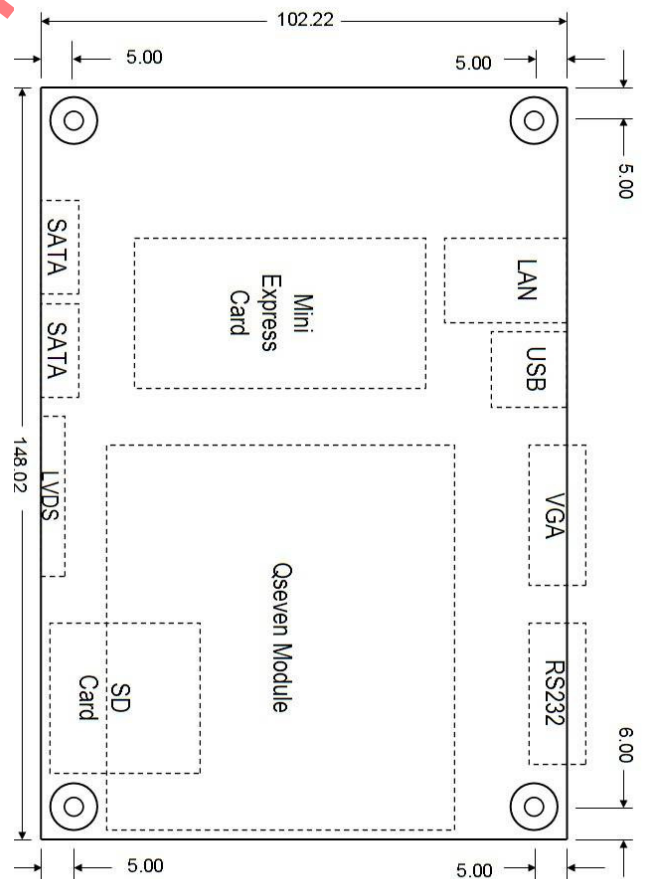
Dimensions

148 mm x 102mm

Optional Accessories

TFT Kits

Various TFT kits suitable for the Q7-MB-EPx baseboards are
 available on request



Order References – MSC Q7-SK-xxx-EPx

Order Number	Description	Reference
14565	Qseven Starterkit based on Q7-MB-EP3 baseboard, with Cooling and Power Supply (Q7-US15W-FD module not contained: please order separately from below list)	MSC Q7-SK-US15W-EP3-KIT001
14565	Qseven Starterkit as before but with 7" WVGA TFT Kit and Resistive Touch Panel (Q7-US15W-FD module not contained: please order separately from below list)	MSC Q7-SK-US15W-EP3-KIT002
14565	Qseven Starterkit based on Q7-MB-EP3 baseboard, with Cooling and Power Supply (Q7-TCTC-FD module not contained: please order separately from below list)	MSC Q7-SK-TCTC-EP3-KIT001
14565	Qseven Starterkit as before but with 7" WVGA TFT Kit and Resistive Touch Panel (Q7-TCTC-FD module not contained: please order separately from below list)	MSC Q7-SK-TCTC-EP3-KIT002
41085	Qseven Starterkit based on Q7-MB-EP4 baseboard, with I/O Board, Cooling + Power Supply (Q7-NT2 module not contained: please order separately from below list)	MSC Q7-SK-NT2-EP4-KIT001
14565	Qseven Starterkit as before but with 7" WVGA TFT Kit and Resistive Touch Panel (Q7-NT2 module not contained: please order separately from below list)	MSC Q7-SK-NT2-EP4-KIT002

Suitable Qseven Modules

Order Number	Description	Reference
Qseven Modules with Z5x0 "Menlow" CPU and US15W "Poulsbo" SCH:		
38786	Qseven Module with Intel Atom Z530 1.6GHz, 1GB DRAM, 7.2GB Flash Disk	MSC Q7-US15W-FD-006
39400	Qseven Module with Intel Atom Z510 1.1GHz, 1GB DRAM, 3.6GB Flash Disk	MSC Q7-US15W-FD-013
39402	Qseven Module with Intel Atom Z530 1.6GHz, 1GB DRAM, 3.6GB Flash Disk	MSC Q7-US15W-FD-014
Qseven Modules with E6x0 "Tunnelcreek" CPU and EG20T "Topcliff" SCH:		
39878	Qseven Module with Intel Atom E620 600MHz, 1GB DRAM, 3.6GB Flash Disk	MSC Q7-TCTC-FD-002
39890	Qseven Module with Intel Atom E680T 1.6GHz, 1GB DRAM, 3.6GB Flash Disk	MSC Q7-TCTC-FD-104
Qseven Tegra-290 Module:		
40182	Qseven Module with NVidia Tegra-290 900MHz, 1GB DRAM, 2GB NAND Flash	MSC Q7-NT2-999-ES

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