ROM-DB7501

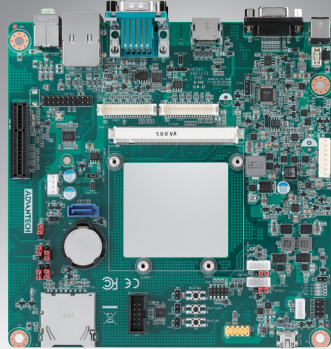## Development Board for Qseven v2.0 RISC Module

Preliminary

Features

- Supports Qseven v2.0 module form factor
- Mini-ITX form factor
- 2 24-bit LVDS, 1 VGA, 1 HDMI
- Smart battery support
- 8 GPIO, Line-in/Audio-out
- Support ATX mode, Input power +12V
- Cable pack included
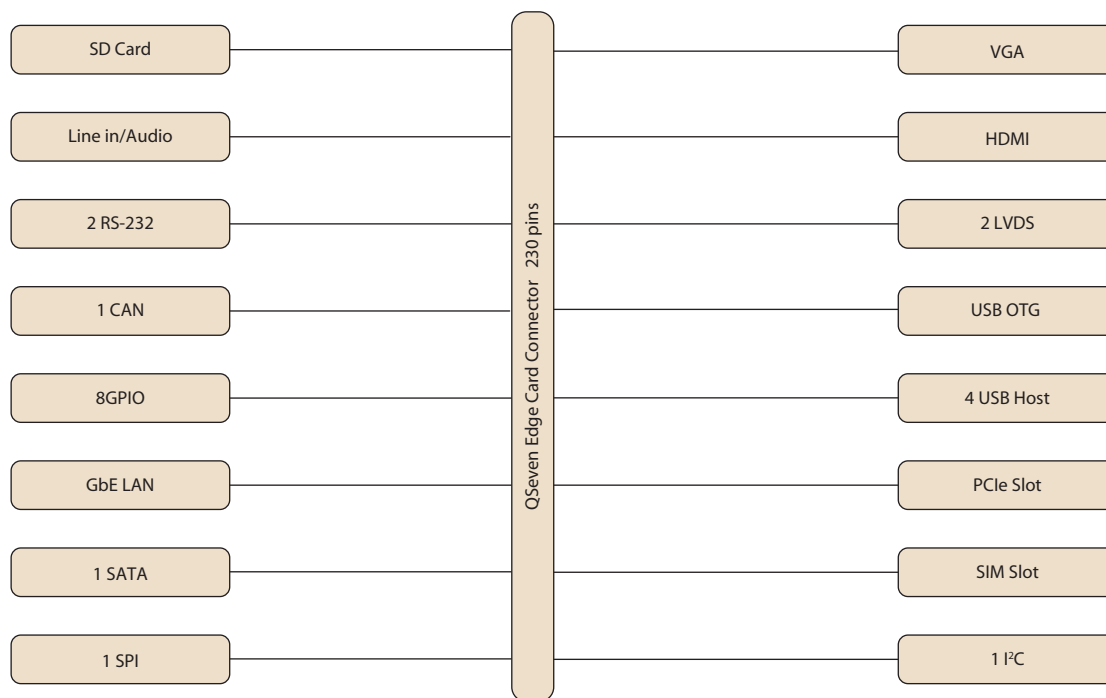
CE FCC RoHS COMPLIANT 2002/95/EC

Introduction

ROM-DB7501 is an Referenced Carrier Board designed for Advantech's RISC Qseven 2.0 module. It i provides a thorough environment for module board evaluation with its complete function support. It also supports 12V power input through AC/DC power adapter and with smart battery design, it's more easier for the end user to design portable devices by referring ROM-DB7501 design.

ROM-DB7501 is offered along with several carrier board design documents: Carrier Board Design Guide, layout checklist, schematics checklist and the refer schematics are all ready for you to start your own carrier board design. With ROM-DB7501, you can quickly start evaluating your Qseven 2.0 module and design your own carrier board.

Specifications

Compatible Modules		Qseven v2.0 CPU module
Graphics	HDMI	1 HDMI TypeA
	LVDS	2 Single 24-bit LVDS
	VGA	1 D-Sub 15 with female connector
Ethernet	LAN	1 GbE with RJ45 connector
Storage	Flash	-
	SD	1 SD card slot
	SATA	1 SATAII Connector (with SATA-DOM support)
I/O	USB	1 USB mini Type B (OTG), 2 USB 2.0 Type A, 1 USB 9-Pin Header
	COM	1 4-wire RS-232 DB9, 1 4-wire RS-232 Pin header
	Audio	1 2 port phone jack, support Line-in , Line-out
	CAN	1 CAN bus 2.0B DB9, Differential mode +5V
	GPIO	1 DB9 female
	I²C	1 pin header
	SPI	1 pin header
	Camera Input	-
	Keypad	-
	I²S	1 pin header
Expansion	PCIe Slot	1 PCIe by 2
	System bus	-
Power Input	Power	2 Power Inputs (+12V DC-Jack, Lithium-ion battery)
Environment	Operating Temperature	0 ~ 60 °C
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Physical Characteristics	Dimensions	170 x 170 mm

Block Diagram

	QSeven Edge Card Connector 230 pins	
SD Card		VGA
Line in/Audio		HDMI
2 RS-232		2 LVDS
1 CAN		USB OTG
8GPIO		4 USB Host
GbE LAN		PCIe Slot
1 SATA		SIM Slot
1 SPI		1 I²C

Ordering Information

Part No.	Description
ROM-DB7501-SCA1E	Development board for RISC Qseven Module series

Packing List

Part No.	Description
1700022373-01	Debug port cable for ROM-5420
9696ED2000E	Debug Port for ROM-7420
1654909900	DB9 Loopback
1700004711	SATA Cable
1700021941-01	SATA Power Cable
1700021861-01	USB Cable Type A
1700019076	USB OTG Host Cable
1700019077	USB OTG Client Cable
1700021882-01	LVDS Backlight Cable
1700021883-01	LVDS Cable

Optional Accessories

Part No.	Description
96PSA-A36W12R1	Adapter 100-240V 36W 12V 3A
1700001524	Power cord 3P UL 180cm
170203183C	Power cord 3P EU 183cm
170203180A	Power cord 3P UK 183cm
1700008921	Power Cord 3P PSE 183cm
EWM-W142F01E	802.11 b/g/n,AR9287,2T2R,Full size Mini PCIe
EWM-C106FT01E	Cellular, HSUPA/WCDMA/GPRS,Full Mini PCIe
1750007156-01	Cellular/GPS SMA Short JACK(9.5MM) L=100mm (3G Cable)
1750007050-01	WiFi RP-SMA short SMA Jack(9.5mm) to U.FL_100mm (WiFi Cable)
1750000318	EMI Antenna 2DBI 2.4GHz SMA (WiFi Antenna)
1750005865	Antenna L=10.9cm 50Ohm AN8921F-5701SM (3G Antenna)
SQF-ISDS1-2G-86E	SQFlash SD card SLC 2G, 1 CH (-40 ~ 85°C)