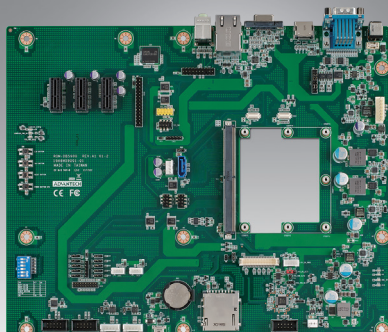


ROM-DB5900

Development Board for SMARC v1.1 RISC Module



Features

- Supports SGeT SMARC CPU module board
- 3 display outputs. TTL, HDMI, 24-bit LVDS
- 1 x SATA/SATA-DOM, 1 x RJ-45, 2 x USB 2.0, 2 x CAN bus, 4 x UART, 12 x GPIO
- 1 PCIe x1
- 2 MIPI interfaces for camera module
- Onboard eMMC Flash 4 GB, SD card
- Supports HD Audio codec and SPDIF
- Supports +12V DC and Lithium-ion battery power input

Introduction

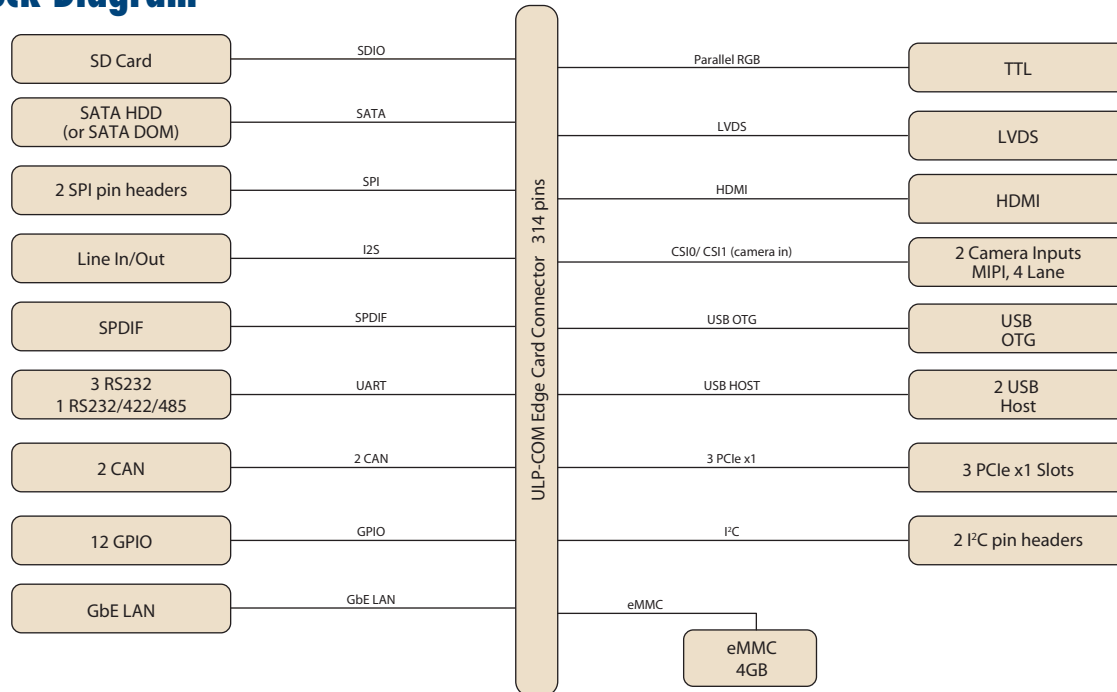
ROM-DB5900 is an evaluation carrier board designed for the Advantech SMARC module. It is compatible with SMARC module ROM-5420 and has a rich I/O interface for evaluation and development. It supports wide range operating temperatures, two power input interfaces, and also supports two MIPI connectors for the camera module. ROM-DB5900 is an ideal development board for mobile applications, such as portable devices, industrial tablets or HMI systems.

ROM-DB5900 is offered along with RISC SMARC carrier board design documents: Carrier Board Design Guide, layout, and schematic checklist, all ready for you to start your own carrier board design. With ROM-DB5900, you can easily learn the power of Advantech's RISC SMARC modules.

Specifications

Compatible Module		SMARC v1.1 CPU Module
Graphics	HDMI	1 HDMI TypeA
	LVDS	1 Dual 18/24-bit LVDS
	VGA	1 24 bit TTL
Ethernet	10/100/100 Mbps	1 RJ-45
Storage	Flash	Onboard 4 GB eMMC
	SD	1 SD card slot
	SATA	1 SATAII Connector (with SATA-DOM support)
I/O	USB	2 USB 2.0 Type A (Host), 1 min USB Type AB (OTG)
	UART	4 UART Ports
	Audio	1 1/8 Audio Jack (I ² S HD Audio), 1 SPDIF Pin header
	CAN	2 CAN 2.0B ports, Differential mode +5V
	GPIO	12 GPIO Ports
	I ² C	1 I ² C pin header
	SPI	2 SPI pin header
	Camera Input	2 MIPI connectors
	AFB	1 30pin AFB connector
Expansion	PCIe Slot	3 PCIe x1
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	305 x 244 mm

Block Diagram



Ordering Information

Part No.	Description
ROM-DB5900-SWA2E	Development board for SMARC v1.1 RISC Module series

Packing List

Part No.	Description
9696ED2000E	Debug adapter board
1700022373-01	Debug port cable for ROM-5420
1700021882-01	LVDS backlight cable
1700021883-01	LVDS cable
1700021941-01	SATA power cable
1700004711	SATA signal cable
1700006911	USB OTG to Type A female cable
1700019077	USB OTG to Type A male cable
1701100300	D-SUB 9P(M) for UART and CAN 30cm cable
1700022840-01	SPDIF to RCA cable for audio in and out
1700019474	D-SUB 9P(F) RS232/RS485 100cm cable

Option Accessories

Part No.	Description
96PSA-A36W12R1	Adapter 100-240V 36W 12V 3A
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
968EMW0093	Telit HE910-D 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 500hm AN8921F-5701SM (3G Antenna)
9680015491	PCIe to miniPCIe adapter card

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