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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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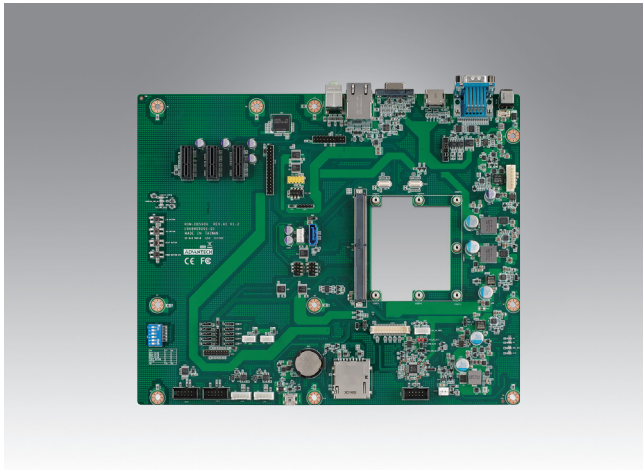
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ROM-DB5900

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

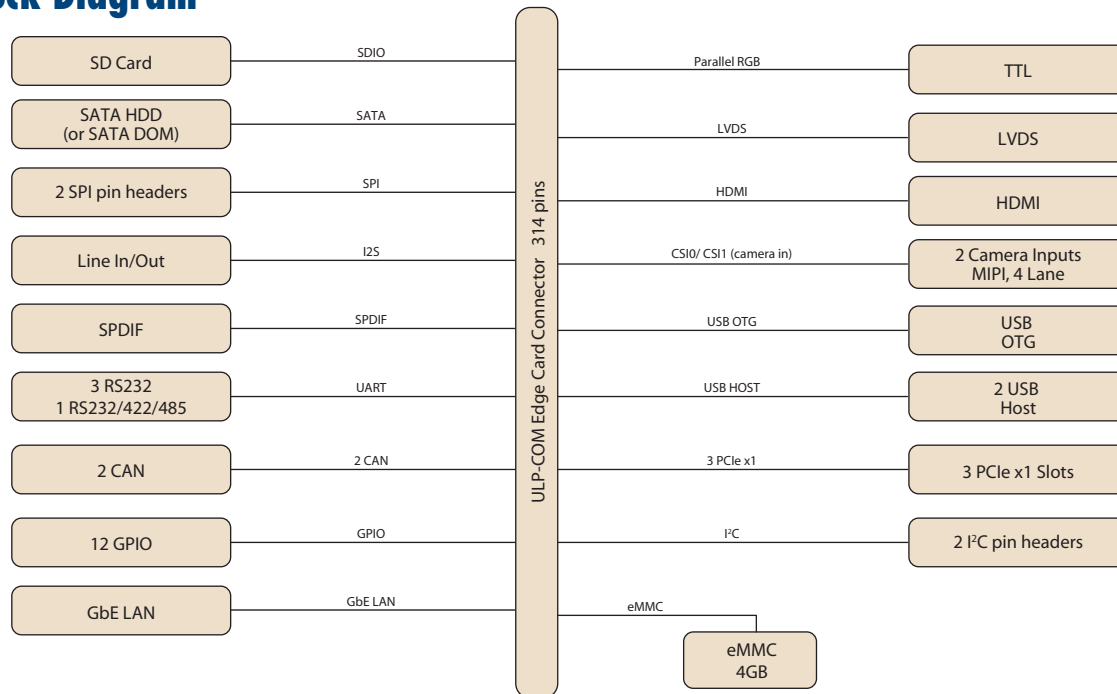
ROM-DB5900 is an evaluation carrier board designed for the Advantech SMARC module. It is compatible with SMARC module ROM-5420 and has a rich I/O interface for evaluation and development. It supports wide range operating temperatures, two power input interfaces, and also supports two MIPI connectors 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
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