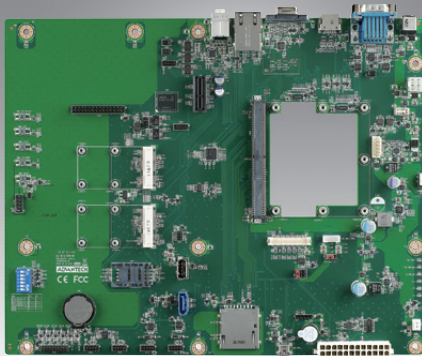


# ROM-DB5900

Development board for  
RISC SMARC module



## Features

- Supports SGeT SMARC CPU Module Board
- 3 display outputs. VGA, HDMI, 24-bit LVDS
- 1 SATA/SATA-DOM, 1 RJ-45, 2 USB 2.0, 2 CAN bus, 4 UART, 12 GPIO
- 1 PCIe x1 and 2 miniPCIe slots
- 2 MIPI interfaces for camera module
- Onboard eMMC flash 4 GB, SD card, SIM card slot
- Support HD Audio codec and SPDIF
- Support 4 types power input

## Introduction

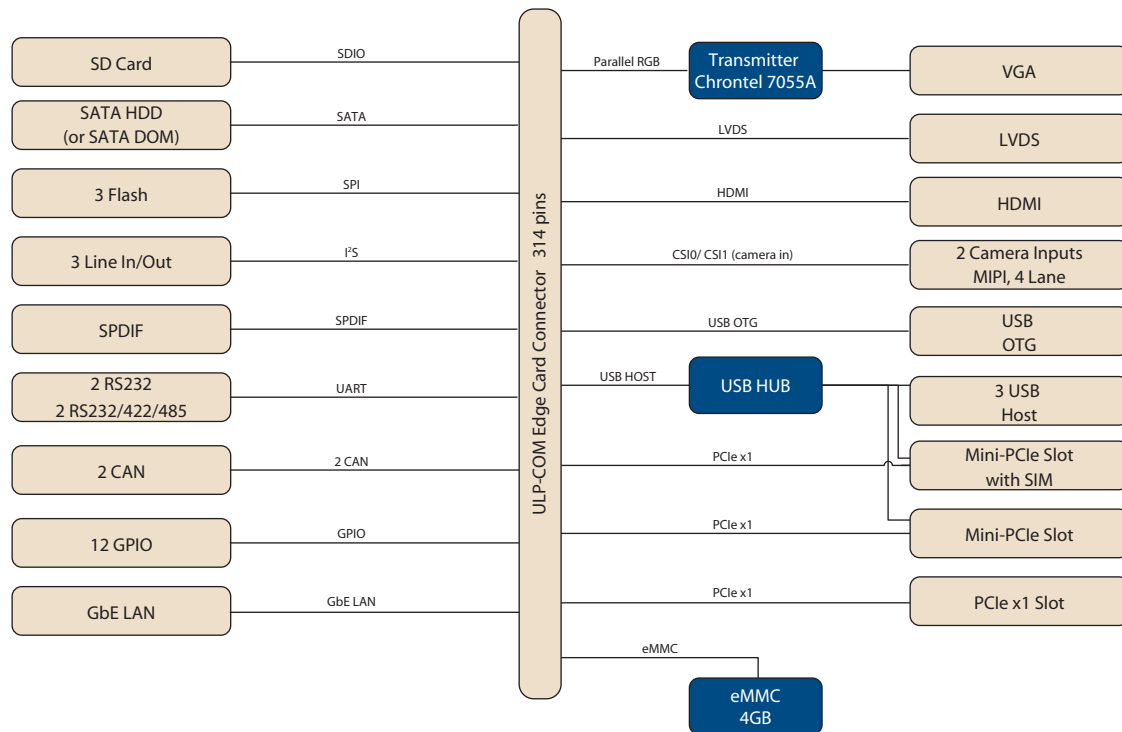
ROM-DB5900 is a evaluation carrier board designed for Advantech SMARC module. It is compatible with SMARC module ROM-5420 and has rich I/O interface for evaluation and development. It supports wide range operation temperature, 4 power input interfaces (one of them is design for lithium-ion battery) and also supports two MIPI connectors for camera module. ROM-DB5900 is an ideal development board for mobile applications, such as portable device, industrial tablet or HMI system.

ROM-DB5900 released along with RISC SMARC carrier board design documents: Carrier Board Design Guide, Layout, Schedmatic Checklist, and also the reference board schematics ready for you to start your own carrier board design. With DB5900, you can easily learn the power of Advantech RISC SMARC module.

## Specifications

Compatible Module		Advantech SMARC CPU Module Series (82 x 80 mm)
Graphic	HDMI	1 HDMI TypeA
	LVDS	1 Dual 24-bit LVDS
	VGA	1 D-Sub 15 with female connector
Ethernet	10/100/100 Mbps	1 RJ45
Storage	eMMC	Onboard 4GB eMMC
	EEPROM	Onboard 4MB EEPROM
	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 <sup>2</sup> S HD Audio), 1 SPDIF Pin header
	CAN	2 CAN 2.0B ports, Differential mode +5V
	GPIO	12 GPIO Ports
	I <sup>2</sup> C	1 I <sup>2</sup> C pin header
	SPI	2 SPI pin header
	Camera input	2 MIPI connectors
	AFB	1 30pin AFB connector
Expansion	PCIe slot	1 PCIe x1
	miniPCIe slot	2 mini-PCIe (one support SIM card reader)
Power input	Power	4 Power Inputs (+12V DC-Jack, +12V 4pin, ATX power, +12V battery)
Environment	Operation	-40 ~ 85° C (-40 ~ 185° F)
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Physical Characteristics	Dimensions	305 x 244 mm (12" x 9.6")

## Block Diagram



## Ordering Information

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

## Packing List

Part No.	Description	Quantity
-	ROM-DB5900 development board	1

## Accessories

Part No.	Description
1757003553	ADAPTER 100-240V 36W 12V 3A
1700001524	Power Cord 3P UL 10A 125V 180cm
SQF-ISDA2-2G-ETE	SQFlash SD card SLC 2G, 2CH (-40 ~ 85° C)
EWM-W142F01E	802.11 b/g/n,AR9287,2T2R,Full size Mini PCIe
EWM-C106FT01E	Cellular, HSUPA/WCDMA/GPRS,Full Mini PCIe
1750005583	Antenna Coaxial Cable SMA/MHF 10cm
1750006233	Antenna SMA D(M) JACK to I-PEX MHF CABLE L:100mm