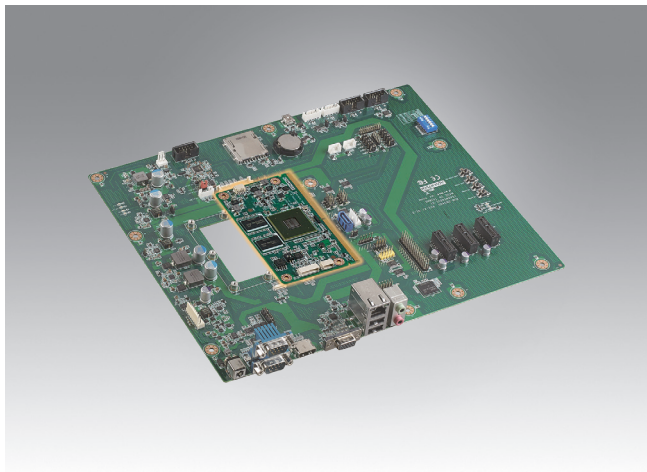


ROM-5420 Evaluation Kit

Development Kit for SMARC V1.1 CPU Module ROM-5420



Features

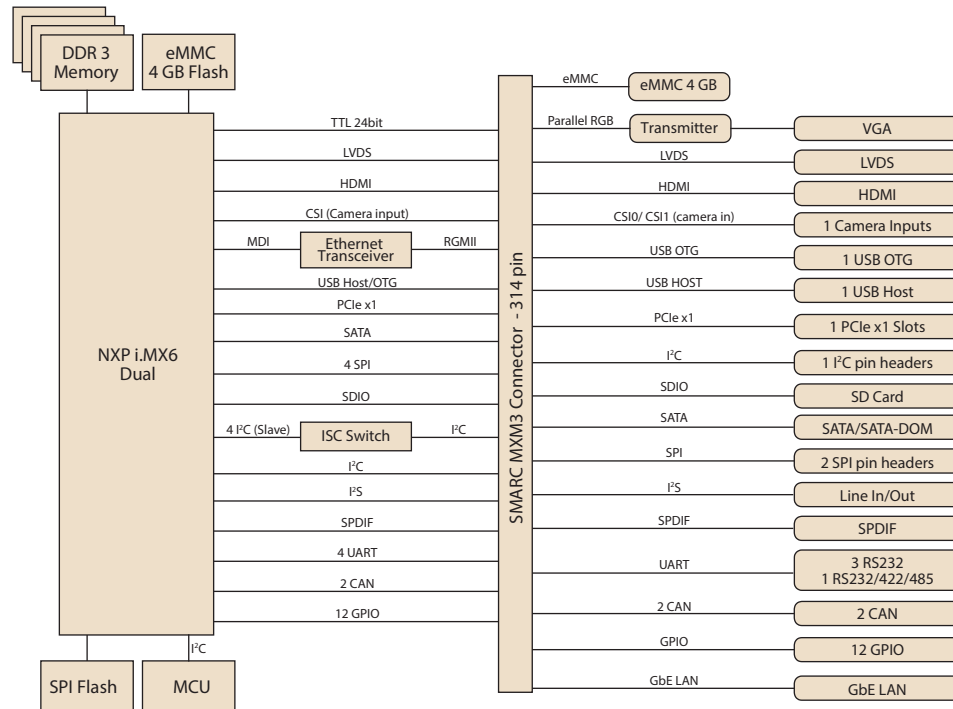
- Evaluation kit for ROM-5420
- High performance NXP i.mx6 dual-core 1GHz processor
- Onboard DDR3 1GB memory and eMMC 4GB
- Parallel RGB, HDMI, Single channel 24bit LVDS, 1366 x 768
- Supports 4 GB eMMC Flash, 1 SD/MMC, 1 SATA
- 2 CAN, 4 UART, 5 I²C, 12 GPIO, 1 PCIe, 1 camera input and 1 Gigabit LAN
- Cable pack & panel included
- Evaluative image & test utility built-in



Specifications

Form Factor		ROM-5420 Evaluation Kit
Processor System	CPU	NXP ARM Cortex-A9 i.MX6 Dual 1 GHz
Memory	Technology	DDR3 1066 MHz
	Capacity	On-board DDR3 1 GB
	Flash	4 GB eMMC NAND Flash for O.S. and 4 MB SPI NOR Flash for Advantech boot loader
Graphics	LVDS	1 Single 24-bit LVDS, 1366 x 768 at 60Hz
	HDMI	1920 x 1080 at 60Hz
	Parallel RGB	-
	VGA	1920 x 1080 at 60Hz
	Graphics Engine	2 IPUs. OpenGL ES 2.0 for 3D, BitBlt for 2D and OpenVG 1.1
	H/W Video Codec	Decoder: MPEG-4 ASP, H.264 HP, H.263, MPEG-2 MP, MJPEG BP Encoder: MPEG-4 SP, H.264 BP, H.263, MJPEG BP
Ethernet	Chipset	NXP i.MX6 integrated RGMII
	Speed	1 10/100/1000 Mbps
RTC	RTC	Yes
WatchDog Timer		256-level timer interval, from 0 ~ 128 sec
I/O	PCIe	1 PCIe x 1
	SATA	1 SATAII
	USB	1 USB 2.0, 1 USB 2.0 OTG
	Audio	1 Line in, 1 Audio out
	SPDIF	1
	SDIO	1 SD card slot
	Serial Port	4 UART (2 x 2 wire, 2 x 4 wire w/ 3.3V)
	SPI	4
	CAN	2 CAN bus 2.0B
	GPIO	12
	I ² C	5
	Camera Input	1 MIPI v1.0, 4x Lane
	System Bus	-
	Touch	-
	Keypad	-
Power	Power Supply Voltage	DC-IN +12V/ Lithium Battery Input +3 ~ 5.25 V
	Power Consumption	4.92W (Max.)
Environment	Operating Temperature	0 ~ 60 °C
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	305 x 244 mm
Operation System		Linux & Android
Certifications		CE/FCC Class B

Block Diagram



Ordering Information

Part No.	Description
ROM-DK5420-FOA1E	ROM-5420 Evaluation Kit
ROM-DK5420-FOA2E	ROM-5420 Evaluation Kit w/o Power code for china

Packing List

Part No.	Description
ROM-5420CD-MDB1E	SMARC v1.1 CPU module NXP i.mx6 dual-core w/1GB memory (0 ~ 60 °C)
9696590010E	SMARC v1.1 Carrier board ROM-DB5900
96PSA-A36W12R1	Power Adapter 100-240V 36W 12V
1700001524	Power cord 3P UL 180cm
9696ED2000E	SPI Debug adapter board
1700022373-01	Debug port cable for debug adapter board
1700019076	USB OTG to Type A female
1700019077	USB OTG to Type A male
1700021941-01	SATA power
1700004711	SATA signal
1701100300	D-SUB 9P(M) 30cm for UART and CAN
1700022840-01	SPDIF to RCA cable for audio in and out
1700019474	A Cable D-SUB 9P for RS232/RS485
9696MEG510E	Audio daughter board
9680015491	PCIe to miniPCIe adapter card
SQF-ISDS1-4G-82C	Advantech SD 4GB MLC
96LEDK-A070WV40NB1	7" LCD AUO G070VW01 V0 w/o touch
1700021882-01	LVDS backlight cable
1700021883-01	LVDS cable
1930004835	Screw for CPU module

Option Accessories

Part No.	Description
170203183C	Power Code 3P EU 183cm
170203180A	Power Cord 3P UK 183cm
1700008921	Power Cord 3P PSE 183cm
1700019146	Power Cord CCC 3P 2.5A 250V 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 500hm AN8921F-5701SM (3G Antenna)
1960063090N001	Heat spreader
1930005215	Screw for heat spreader
1960063089N001	Semi heat sink
1930004835	Screw for heat spreader and semi heat sink