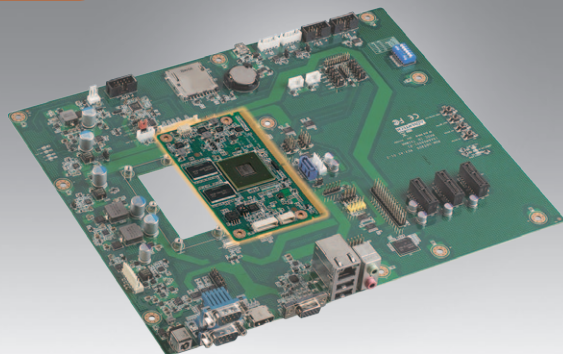


ROM-5420 Evaluation Kit

Development kit for
SMARC CPU Module ROM-5420

NEW



Features

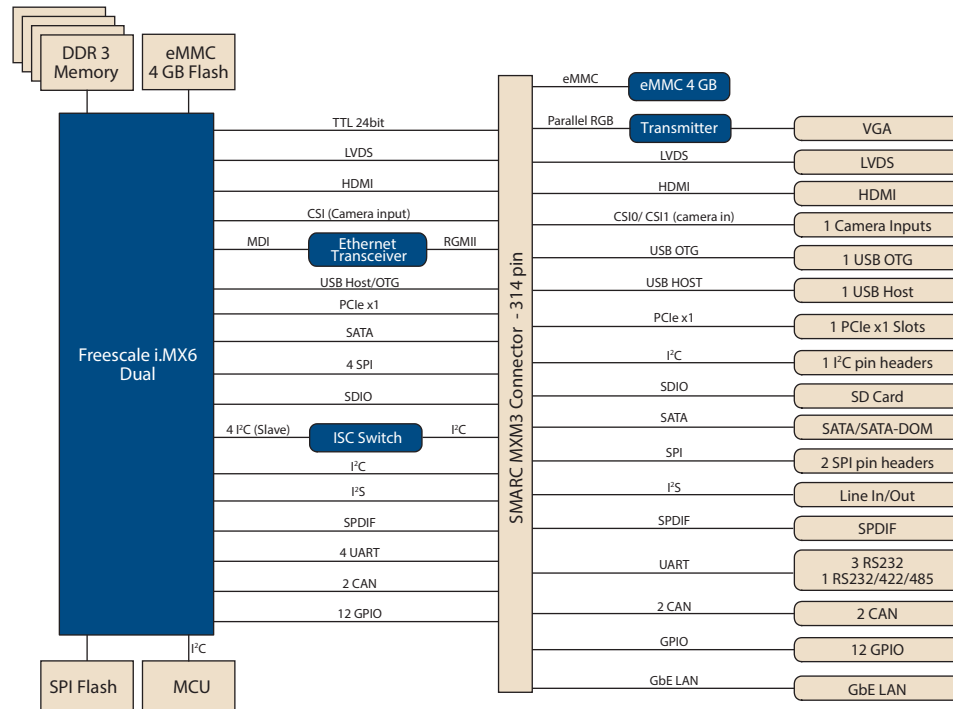
- Freescale ARM Cortex-A9 i.MX6 Dual 1 GHz high performance processor
- Onboard DDR3 1 GB
- Parallel RGB, HDMI, Single channel 24bit LVDS, 1366 x 768
- Supports 4 GB eMMC Flash, 1 SD/MMC, 1 SATA
- 2 CAN, 4 UART, 5 I²C, 12 GPIO, 1 PCIe, 1 camera input and 1 Gigabit LAN
- Supports OpenGL ES 2.0 and OpenVG 1.1 hardware accelerators
- Supports full HD hardware encode/decode engine
- Supports image protection



Specifications

Form Factor		ROM-5420 Evaluation Kit
Processor System	CPU	Freescale 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	Single channel 18/24-bit LVDS, 1366 x 768
	HDMI	1920 x 1080
	Parallel RGB	-
	VGA	1920 x 1080
	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	Freescale 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, 1 Lane
	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. load)
Environment	Operational Temperature	0 ~ 60° C
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	305 x 244 mm (12" x 9.6")
Operating System		Linux Kernel v3.0.35
Certifications		CE/FCC Class B

Block Diagram



Ordering Information

Part No.	Description
ROM-DK5420-F0A1E	ROM-5420 Evaluation Kit

Option Accessories

Part No.	Description
170203183C	Power Code 3P Europe 183cm
170203180A	Power Cord 3P UK 183cm

Packing List

Part No.	Description	Quantity
9696M59000E	SMARC v1.0/v1.1 Carrier board ROM-DB5900	1
Dual ROM-5420CD-MDA1E	SMARC CPU module Freescale i.mx6 dual core with 1GB memory (0 ~ 60° C)	1
9696ED2000E	SPI Debug adapter board	1
1700022373-01	Debug port cable for debug adapter board	1
9696MEG510E	Audio daughter board	1
9680015491	PCIe to miniPCIe adapter card	1
96LEDK-A070WV40NB1	7" LCD AUO G070VW01 V0 w/o touch	1
1700021882-01	LVDS backlight cable, 1	1
1700021883-01	LVDS cable	1
1700021941-01	SATA power	1
1700004711	SATA signal	1
1700019076	USB OTG to Type A female	1
1700019077	USB OTG to Type A male	1
1701100300	D-SUB 9P(M) 30cm for UART and CAN	2
1700022840-01	SPDIF to RCA cable for audio in and out	1
1700019474	A Cable D-SUB 9P for RS232/RS485	1
1700001524	US power cord	1
1757003553	Power adapter	1
SQF-ISDS1-4G-82C	Advantech SD 4GB MLC	1
1960063090N001	Heat spreader	1
1930005215	ScREW for heat spreader	4
1960063089N001	Semi heat sink	1
1930004835	ScREW for heat spreader and semi heat sink	4

Mouser Electronics

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