

ROM-5420

NXP i.MX6 Cortex-A9 SMARC v1.1 核心模块



- NXP ARM® Cortex® -A9 i.MX6高性能处理器
- DDR3内存, 4GB eMMC闪存
- 支持并行RGB输入, HDMI, 单通道 18/24-bit LVDS, 1366x768 解析度
- 2个CAN、4个UART、5个I2C、12个GPIO、1个PCIe、1个摄像头输入、1个Gigabit LAN
- 支持OpenGL ES 2.0和OpenVG 1.1硬件加速器
- 支持全高清视频解码和编码
- 低功耗、无风扇设计
- 支持Linux和Android BSP系统



产品介绍

ROM-5420 SAMRC v1.1模块搭载ARM Cortex A9 NXP i.MX6 超低功耗SoC和Linux I/O解决方案芯片。NXP i.MX6支持2D、3D图像加速, 支持全高清1080p分辨率的视频解码和高清1080p视频编码硬件引擎。

ROM-5420模块搭载ROM-DB5900评估板, 易于系统集成和硬件设计参考; 我们还提供用于开发的参考电路和布线检查表, 以及用于应用开发和设备集成的优化Linux BSP、实用测试工具、硬件设计工具和参考代码。

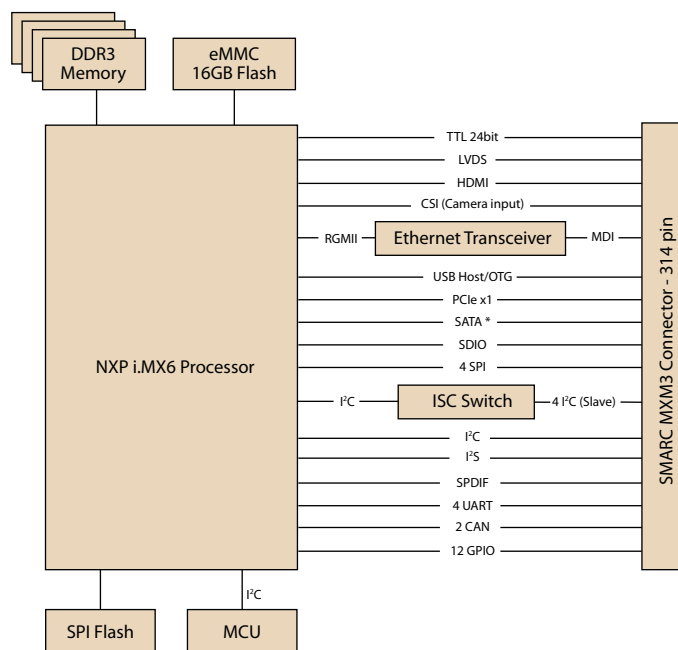


规格

Form Factor		SMARC v1.1
Processor System	CPU	NXP Arm Cortex-A9 i.MX6 800MHz/1GHz
	Technology	DDR3 1066 MHz up to 2GB
Memory	Capacity	On-board DDR3
	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	1 24-bit TTL, 1920 x 1200 at 60Hz
	VGA	-
	Graphics Engine	2 IPU's. 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 x 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 SATA II *
	USB	1 USB 2.0, 1 USB 2.0 OTG
	Audio	I ² S
	SPDIF	1
	SDIO	1
	Serial Port	4 UART (2 x 2 wire, 2 x 4 wire w/ 3.3V)
	SPI	4
	CAN	2 x 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	+3 ~ 5.25 V
	Power Consumption	3.1W (Max)
Environment	Operating Temperature	0 ~ 60 °C/ -40 ~ 85 °C
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	82 x 50 mm
Operation System		Linux Ubuntu 14.04/16.04/18.04 /Debian 8/ Yocto 2.1/2.5 &Android 6.0.1
Certifications		CE/FCC Class B

* Dual/Quad CORE SKU ONLY

架构图



订货信息

Part No.	CPU	Memory	Flash Memory	UART	LAN	USB Host	USB OTG	Display	SATA	PCIe	HDMI	SD	CANbus	I ² C	SPI	Size	Power input	Operating Temperature
ROM-5420CD-MDB2E	i.mx6 Dual 1GHz	1GB	16 GB	4	1	1	1	1x 24bit LVDS 1x 24bit TTL 1x HDMI	1	1	1	1	2	5	4	82 x 50 x 5 mm	3 ~ 5.25V	0 ~ 60 °C
ROM-5420CQ-MEB2E	i.mx6 Quad 1GHz	2GB	16 GB	4	1	1	1	1x 24bit LVDS 1x 24bit TTL 1x HDMI	1	1	1	1	2	5	4	82 x 50 x 5 mm	3 ~ 5.25V	0 ~ 60 °C
ROM-5420WQ-MEB2E	i.mx6 Quad 800MHz	2GB	16 GB	4	1	1	1	1x 24bit LVDS 1x 24bit TTL 1x HDMI	1	1	1	1	2	5	4	82 x 50 x 5 mm	3 ~ 5.25V	-40 ~ 85 °C

开发底板

Part No.	Description
ROM-DB5900-SWA2E	Development Board for SMARC v1.1

可选配件

Part No.	Description
1700022373-01	Debug port cable for ROM-3420/5420
ROM-ED20-00A1E	Debug adapter board
1960063090N001	Heat spreader
1930005215	Screws for heat spreader
1960063089N001	Semi heat sink
1930004835	Screws for heat spreader and semi heat sink
96PSA-A36W12R1-3	ADAPTER 100-240V 36W 12V 3A
1700001524	Power cord 3P UL 10A 125V 180cm
170203183C	Power cord 3P Europe (WS-010+WS-083)183cm
1700008921	Power cord 3P PSE 183cm
170203180A	Power cord 3P UK 2.5A/3A 250V 1.83M
1700019146	Power Cord CCC 3P 10A 250V 183cm
SQF-ISDM1-16G-21C	SQ Flash SD card UHS-I MLC 16GB (0 ~ 70 °C)
SQF-ISDM1-16G-21E	SQ Flash SD card UHS-I MLC 16GB (-40 ~ 85 °C)
EWM-W188M201E	WiFi 802.11ac/abgn 2T2R and BT4.2
1750008671-01	Dipole Ant.SMA/M-R 2.4/5G 2.5/4dBi BLK 109mm
1750007965-01	Antenna cable, SMA (M) to MHF4, 300mm
AIW-344FQ-J01*	AIW-3 series LTE CAT4 mini PCI-e module for JP
1750008303-01	Antenna AN0727-64SP6BSM
1750006009	Antenna Cable SMA (F) to MHF 1.32 25cm

* Please contact us to get suitable cellular module for your region.

尺寸图

Unit: mm

