

# ROM-3420

NXP i.MX6 Cortex-A9  
RTX v2.0 核心模块



- NXP ARM® Cortex®-A9 i.MX6高性能处理器
- DDR3内存, 4GB eMMC闪存
- 支持广泛的电源输入 (5V-24V)
- 支持OpenGL ES 2.0和OpenVG 1.1硬件加速器
- 支持全高清1080p视频解码以及HD 1080p视频编码
- 1个PCIe、1个GbE、1个USB 2.0、1个USB OTG2.0、1个SATAII、4个I2C、1个I2S、1个摄像头输入、2个CANbus、10个GPIO、系统总线
- 低功耗、无风扇设计
- 支持Linux和Android BSP系统



## 产品介绍

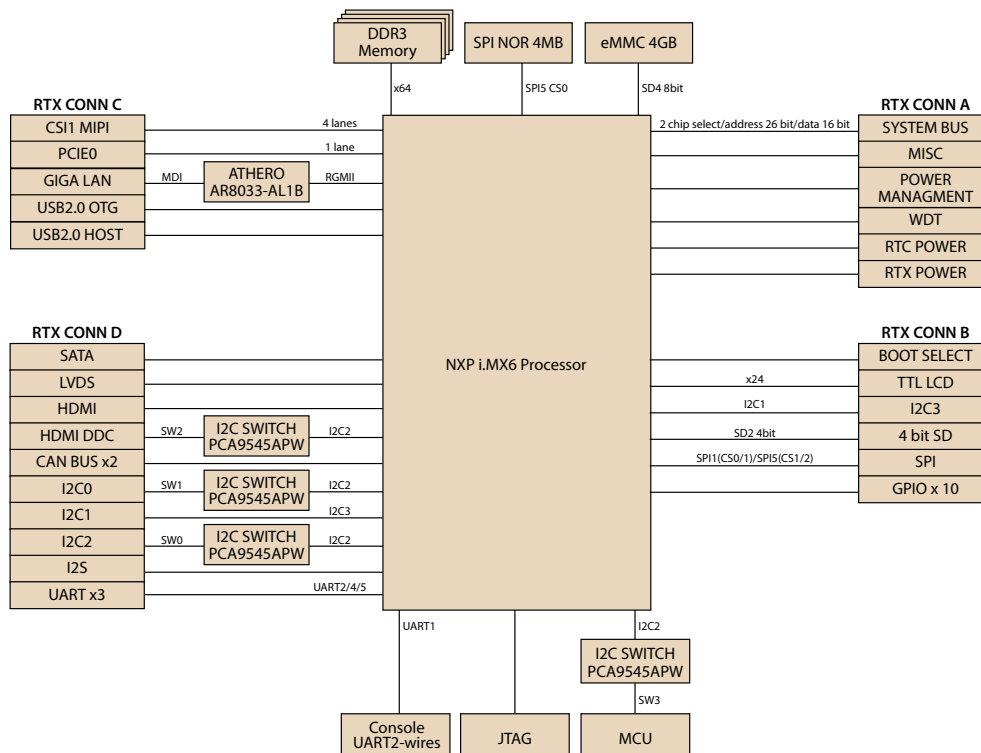
ROM-3420 RTX2.0模块搭载ARM Cortex A9双核1GHz NXP i.MX6 超低功耗SoC和Linux I/O解决方案。NXP i.MX6支持2D、3D图像加速,支持全高清1080p视频解码和编码。此外,ROM-3420还支持5V-24V的电源输入,可为工业应用提供广泛的温度范围。

ROM-3420 RTX2.0模块搭载ROM-DB3900评估板,易于系统集成和硬件设计参考,同时提供Linux BSP功能和参考代码,支持应用开发和设备集成。

## 规格

Form Factor		RTX v2.0
Processor System	CPU	NXP Arm Cortex-A9 i.MX6 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	1 24-bit TTL, 1920 x 1200 at 60Hz
	VGA	-
	Graphics Engine	2 IPUs. OpenGL ES 2.0 for 3D, BitBlit 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 <sup>2</sup> S
	SPDIF	-
	SDIO	1
	Serial Port	3 UART (3 x 4 wire w / 3.3V)
	SPI	2
	CAN	2 CAN bus 2.0B
	GPIO	10
	I <sup>2</sup> C	4
	Camera Input	1 MIPI v1.0, 4 x Lane
	System Bus	Address: 26 bits, Data: 16 bits
Touch	-	
Keypad	-	
Power	Power Supply Voltage	5 ~ 24 V
	Power Consumption	6.25W (Max)
Environment	Operating Temperature	0 ~ 60 °C/ -40 ~ 85 °C
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	68 x 68 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

### 架构图



### 订货信息

Part No.	CPU	Memory	Flash Memory	UART	LAN	USB	Display	SATA	PCIe	HDMI	SD	CANbus	IPC	SPI	Size	Power input	Operating Temperature
ROM-3420CD-MDA2E	i.MX6 Dual 1GHz	1 GB	16 GB	3	1	1 USB2.0, 1 USB2.0 OTG	1 x 24bit LVDS, 1 x 24bit TTL, 1 x HDMI	1	1	1	1	2	4	2	68 x 68 x 7 mm	5 ~ 24 V	0 ~ 60 °C
ROM-3420WD-MDA2E	i.MX6 Dual 1GHz	1 GB	16 GB	3	1	1 USB2.0, 1 USB2.0 OTG	1 x 24bit LVDS, 1 x 24bit TTL, 1 x HDMI	1	1	1	1	2	4	2	68 x 68 x 7 mm	5 ~ 24 V	-40 ~ 85 °C
ROM-3420CQ-MEA2E	i.MX6 Quad 1GHz	2 GB	16 GB	3	1	1 USB2.0, 1 USB2.0 OTG	1 x 24bit LVDS, 1 x 24bit TTL, 1 x HDMI	1	1	1	1	2	4	2	68 x 68 x 7 mm	5 ~ 24 V	0 ~ 60 °C
ROM-3420WQ-MEA2E	i.MX6 Quad 1GHz	2 GB	16 GB	3	1	1 USB2.0, 1 USB2.0 OTG	1 x 24bit LVDS, 1 x 24bit TTL, 1 x HDMI	1	1	1	1	2	4	2	68 x 68 x 7 mm	5 ~ 24 V	-40 ~ 85 °C

### 开发底板

Part No.	Description
ROM-DB3900-SWA1E	Development board for RTX2.0 module

### 可选配件

Part No.	Description
1700022373-01	Debug port cable for ROM-3420/5420
9696ED2000E	Debug adapter board
1960065189ND001	Semi-Heatsink for ROM-3420
1930004835	Screws for heatsink
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
EWM-C117FL06E*	LTE 4G,3G WCDMA/DC-HSPA+, 2G module, MPC1-L280H
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

