

# ROM-7420

NXP i.MX6 Cortex-A9  
Qseven v1.2 核心模块



## 特点

- NXP ARM® Cortex® - A9i.MX6双核/四核1GHz高性能处理器
- 1GB DDR3内存和4GB eMMC闪存
- HDMI, VGA, LVDS, 多达4个显示器
- 70 x 70mm紧凑型尺寸
- 提供2个CAN、4个UART、Giga LAN、PCIe和SATA等丰富I/O接口
- 低功耗、无风扇设计
- 支持Linux和Android BSP系统



## 产品介绍

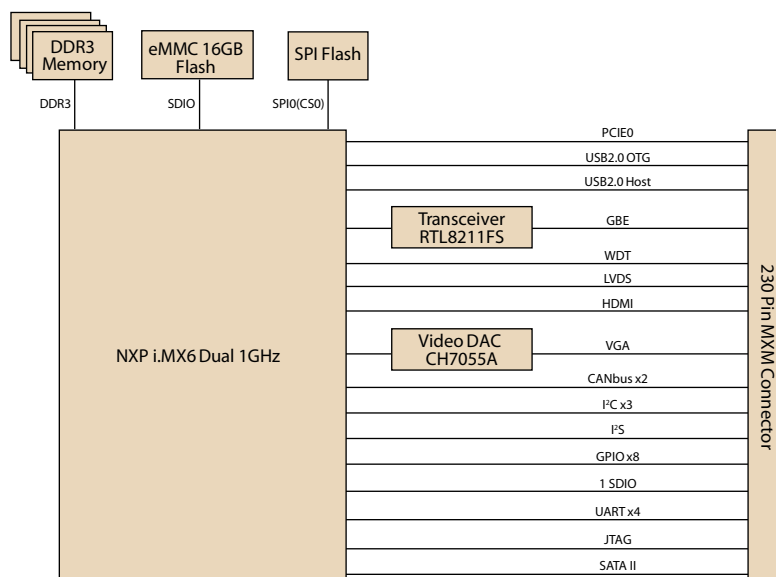
ROM-7420 Qseven模块搭载ARM Cortex-A9 NXP i.MX6系列超低功耗SoC和Linux I/O解决方案。NXP i.MX6支持2D、3D图形加速，全高清1080P视频解码和高清1080p视频编码硬件引擎。

ROM-7420搭载研华ROM-DB7500评估板，易于系统集成和设计参考。我们还提供用于载板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Linux BSP、实用测试工具、硬件设计工具和参考代码。

## 规格

Form Factor		Qseven 1.2
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	2 24-bit LVDS, 1366 x 768 for 1ch; 1920 x 1080 for 2ch
	HDMI	1920 x 1080 at 60Hz
	Parallel RGB	-
	VGA	1920 x 1080 at 60Hz
	Graphics Engine	2 IPU. 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	4 UART (4 x 2 wire, w/ 3.3V)
	SPI	1
	CAN	2 x CAN bus 2.0B
	GPIO	8
	I <sup>2</sup> C	3
	Camera Input	-
	System Bus	-
	Touch	-
Keypad	-	
Power	Power Supply Voltage	+5 V
	Power Consumption	3.16W (Max)
Environment	Operating Temperature	0 ~ 60 °C
	Operating Humidity	0% ~ 90% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	70 x 70 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 Host	USB OTG	Display	SATA	PCIe	HDMI	SD	CANbus	I2C	SPI	Size	Power Input	Operating Temperature
ROM-7420CD-MDA2E	i.MX6 Dual 1 GHz	1 GB	16 GB	4	1	1	1	2 x 24-bit LVDS 1 x VGA	1	1	1	1	2	3	1	70 x 70 x 5mm	5V	0 ~ 60 °C
ROM-7420WD-MDA2E	i.MX6 Dual 1 GHz	1 GB	16 GB	4	1	1	1	2 x 24-bit LVDS 1 x VGA	1	1	1	1	2	3	1	70 x 70 x 5mm	5V	-40 ~ 85 °C

## 开发底板

Part No.	Description
ROM-DB7500-SCA1E	Development Board for Qseven v1.2 RISC Module

## 可选配件

Part No.	Description
1700020442-01	Debug Port Cable for ROM-7420
9696ED2000E	Debug Port Adapter for ROM-7420
96PSA-A36W12R1-3	ADP A/D 100-240V 36W 12V C6 DC PLUG 90°
1700001524	Power Cord 3P UL 10A 125V 180cm
1700019146	Power Cord CCC 3P 10A 250V 183cm
170203183C	Power Cord 3P Europe (WS-010+WS-083)183cm
170203180A	Power Cord 3P UK 2.5A/3A 250V 1.83M
1700008921	Power Cord 3P PSE 183cm
SQF-MSDM1-8G-21C	SQF MICRO SD C10 MLC 8G (-25 ~ 85 °C)
EWM-C117FL06E*	LTE 4G,3G WCDMA/DC-HSPA+, 2G module, MPCIL280H
1750006264	Antenna cable SMA(F)/MHF 15cm
1750008303-01	Antenna AN0727-64SP6BSM
1960061913N001	Heat spreader O-NXP-S-5W 70x63x8-SC ROM-7420

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

## 尺寸图

Unit: mm

