

ROM-5780

Rockchip RK3399 Cortex-A72
SMARC v2.1 核心模块



特点

- Rockchip RK3399 Arm 双核 Cortex-A72 and 四核 Cortex-A53 1.8 GHz
- 板载2GB LPDDR4内存和16GB eMMC
- 支持HDMI2.0, 4K 60fps, 1 x DP, 1 x eDP, 1 x LVDS
- 支持4K H.264/H.265视频解码器
- 2 x USB3.0, 3 x USB2.0, 1 x USB2.0 OTG, 3 x UART, 12 x GPIO
- 1 x PCIe2.0, 1 x SATA, 2 x MIPI CSI, Gigabit LAN
- 支持Debian Linux和Android

产品介绍

研华ROM-5780 SMARC 2.1核心板, 搭载瑞芯微Rockchip RK3399 SOC, 该SOC包括双核Arm Cortex-A72和四核Cortex-A53处理器, HDMI支持4K显示。它提供了多种显示接口和I/O资源包括USB3.0、PCIe、SATA、MIPI-CSI高速接口。

ROM-5780与研华ROM-DB5901 SMARC2.1开发底板配套使用, 可加快终端产品外设集成速度, 缩短产品上市时间。底板原理图和Layout Checking List也将与开源的Linux BSP、测试程序、硬件设计程序和参考驱动程序一起提供。

规格

Form Factor		SMARC 2.1
Processor System	CPU	Rockchip RK3399 Arm dual-core Cortex-A72 and quad-core Cortex-A53, up to 1.8 GHz
Memory	Technology	LPDDR4- 3732 MT/s
	Capacity	Onboard 2/4GB LPDDR4
	Flash	16/32 GB eMMC NAND Flash for O.S. and boot loader; 8 MB SPI NOR Flash
Graphics	LVDS	1 x Single Channel 24-bits LVDS(Default) or 1 x Dual Channel 24-bits LVDS(Shared with eDP, by BOM Option)
	HDMI	1 x HDMI2.0, up to 4096 x 2160
	eDP	1 x eDP 1.3
	Graphics Engine	Arm Mali-T860MP4 GPU, support OpenGL ES1.1/2.0/3.0, OpenCL1.2, DirectX11.1 etc. Decoder:H.265 up to 4Kx2K @ 60fps, H.264, H.263, VC-1, VP9, VP8, MVC ,MPEG-1/2/4 Encoder:H.264 UP to HP@level4.1, MVC and VP8
Ethernet	Chipset	1 x RTL8211FSI
	Speed	1 x 10/100/1000 Mbps
RTC	RTC	Yes
WatchDog Timer		1-6553s, default 60s, power on/off 1s
Security		TPM2.0 (Optional)
I/O	PCIe	1 x PCIe 2.0 x 1
	SATA	1
	USB	2 USB3.0, 3 USB2.0, 1 USB2.0 OTG
	Audio	2 x I ^S
	SPDIF	-
	SDIO	1
	Serial Port	1 x 2-wire UART/Debug by switch selection 1 x 2-wire UART 1 x 4-wire UART
	SPI	1
	CAN	-
	GPIO	12
	I ² C	5
	Camera Input	1 x 4-lane MIPI CSI, 1 x 2-lane MIPI CSI
	System Bus	-
Touch	-	
Keypad	-	
Power	Power Supply Voltage	4.75-5.25V DC source
	Power Consumption	8.52W @ 5V (Max) 4.13W @ 5V (Idle)
Environment	Operating Temperature	0 ~ 60 °C/ -20 ~ 85 °C
	Operating Humidity	5 ~ 95% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	82 x 50 mm
Operation System		Linux Debian 9/10 and Android 7.1/10.0
Certifications		CE/FCC Class B

