

ROM-2620

NXP i.MX8ULP Cortex-A35
OSM v1.1 核心模块



产品介绍

研华ROM-2620 OSM 1.1模块搭载NXP i.MX 8ULP SOC, 其中包括2个Arm Cortex-A35内核和一个Cortex-M33 实时内核和Vivante GC7000 nanoULTRA/GC328图形引擎。它为嵌入式应用提供USB2.0, Fast Ethernet, MIPI-CSI, I2C, SPI, GPIO, PWM和MIPI DSI。

ROM-2620与研华OSM载板配套使用, 可加快终端产品外设集成速度, 缩短产品上市时间。同时底板原理图和Layout Checking List也将同开源的Linux BSP、Azure Sphere OS、测试程序、硬件设计实用程序和参考驱动程序一起提供客户。

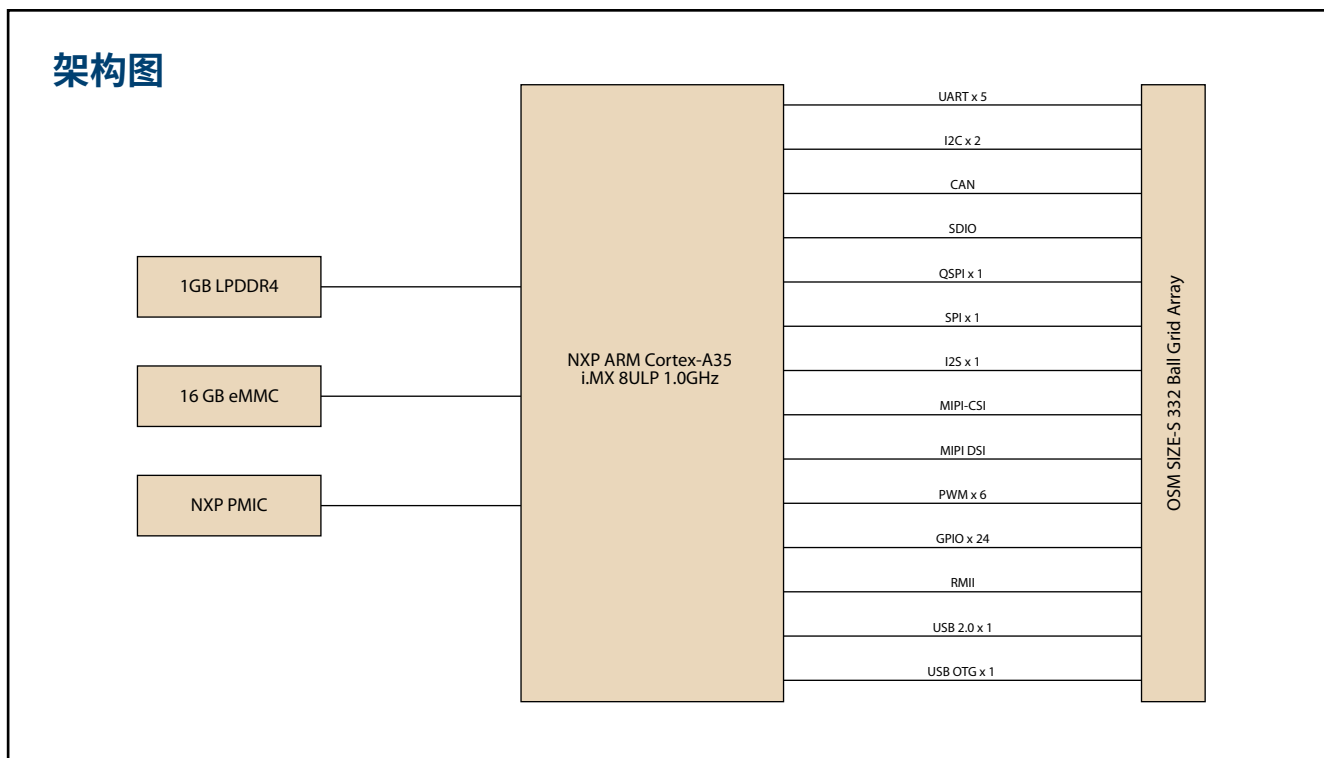
特点

- NXP Arm®Cortex®-A35 i.MX 8ULP双核, 最高达1.0 GHz
- 1 x Arm Cortex-M33核心
- 板载LPDDR4 1GB, 2000MT/s内存
- 1 x 4Lane MIPI-DSI
- 1 x USB2.0, 1 x USB2.0 OTG, 5 x UART, 2 x I2C, 24 x GPIO, 6 x PWM, 1 x CAN
- 超小的尺寸- OSM
- 支持Yocto Linux和Microsoft Azure Sphere操作系统

规格

Form Factor		OSM 1.1
Processor System	CPU	NXP i.MX 8ULP Cortex-A35 Dual core (up to 1.0GHz)
	MCU	1 x Arm Cortex-M33 core
Memory	Technology	LPDDR4 2000MT/s
	Capacity	On-board 1GB
	Flash	16 GB eMMC NAND Flash for O.S.
Graphics	LVDS/MIPI DSI	1 x 4 lane MIPI-DSI
	HDMI	-
	Parallel RGB	-
	VGA	-
	Graphics Engine	GC7000 nanoULTRA/GC328 with 2D/3D Graphic Acceleration supporting 1G Pixel/s, OpenVG 1.1, Open GL ES3.1, Vulkan, and Open CL 1.2 FP.
Ethernet	Chipset	1 x NXP i.MX 8ULP integrated RMII
	Speed	1 x 10/100 Mbps
RTC	RTC	i.MX 8ULP internal RTC
Security		NXP i.MX 8ULP integrated Trust Zone
I/O	PCIe	-
	SATA	-
	USB	1 USB 2.0 1 USB 2.0 OTG by serial download mode
	Audio	1 x I ² S
	SPDIF	-
	SDIO	1
	Serial Port	2 x 4-wire UART, 2 x 2-wire UART (1 share with debug port) and 1 console
	SPI	1
	CAN	1
	GPIO	24
	QSPI	1
	I ² C	2
	Camera Input	1 x 2-lane MIPI CSI
	PWM	6
Touch	-	
Keypad	-	
Power	Power Supply Voltage	5V
	Power Consumption	TBD
Environment	Operating Temperature	0 ~ 60 °C/ -40 ~ 85 °C
	Operating Humidity	5 ~ 95% relative humidity, non-condensing
Mechanical	Dimensions (W x D)	30 x 30 mm
Operation System		Yocto Linux & Microsoft Azure Sphere
Certifications		CE/FCC Class B

架构图



订货信息

Part No.	CPU	Memory	Flash Memory	UART	LAN	USB 2.0	Display	SD	I2S	I2C	SPI	Size	Power input	Operating Temperature
ROM-2620WD-MDA1E	i.MX 8ULP	1GB	16GB	5	1	2	1 x MIPI DSI	1	1	2	1	30 x 30 mm	5V	-40 – 85 °C
ROM-2620CD-MDA1E	i.MX 8ULP	1GB	16GB	5	1	2	1 x MIPI DSI	1	1	2	1	30 x 30 mm	5V	0 – 60 °C

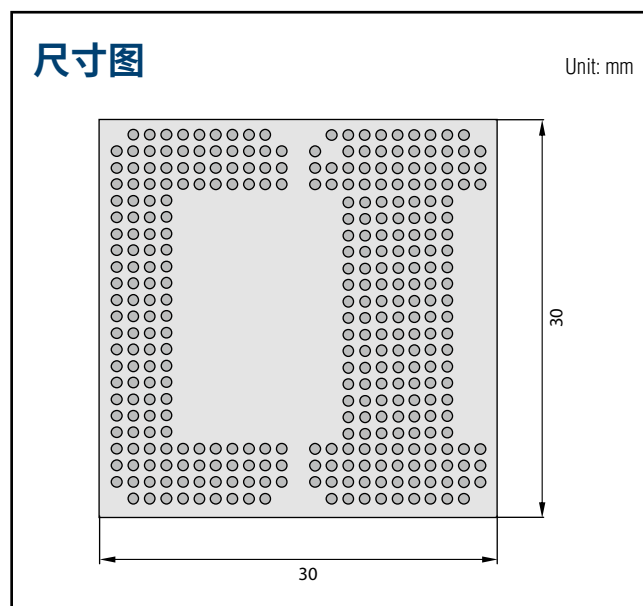
开发底板

Part No.	Description
TBD	ROM-2620 evaluation kit

可选配件

Part No.	Description
1701100300	Debug port cable
1700019474	D-SUB 9P(F)/D-SUB 9P(F) RS232/RS485 100c
TBD	Heat Spreader
TBD	Semi Heat Sink
TBD	Screw 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
1700019146	Power Cord CCC 3P 10A 250V 183cm
170203180A	Power Cord 3P UK 2.5A/3A 250V 1.83M
1700008921	Power Cord 3P PSE 183cm
SQF-ISDM1-16G-21C	SQF SD Card I-SD UHS-I MLC 16G (0-70°C)
SQF-ISDM1-16G-21E	SQF I-SD UHS-I MLC 16G (-40-85°C)

尺寸图



*Please contact us for suggesting suitable cellular module for your region.