

EPC-R5710

NXP i.MX8M Plus Cortex-A53 Arm-Based边缘智能系统



产品介绍

研华EPC-R5710是一款集成NXP高性能视频编解码和AI功能的边缘智能工业网关。可提供2.3或26 TOPS NPU AI计算能力,支持多个网口、多种工业接口和存储,以及5G/4G、Wi-Fi5/6等无线技术。支持8路MIC阵列,实现音视频AI分析。集成的云协作功能。EPC-R5710支持多种PLC数据采集和工业协议转换。凭借高性能、高品质,广泛应用于安防、智慧城市、智慧交通、智慧工厂、能源电力等领域的AI视频监控、机器视觉和工业数据采集应用。

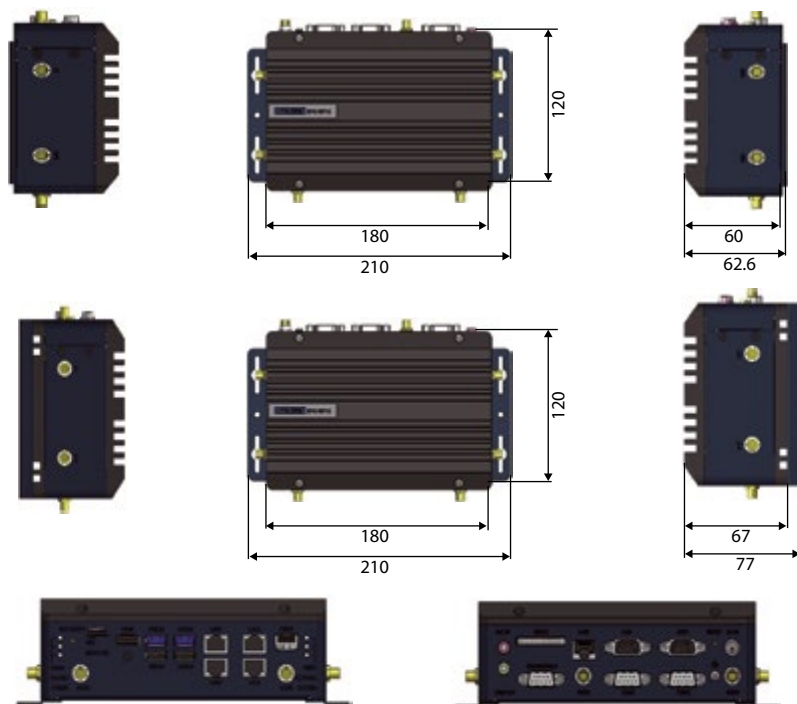
规格

Processor	CPU/GPU	NXP i.MX 8M Plus Cortex-A53 Dual/Quad Core (up to 1.8GHz) ,GPU GC7000UL
	NPU	2.3 TOPS Neural Network performance, extend 26 TOPS AI card
	MCU	1 x Arm Cortex -M4F core
Memory	Technology	LPDDR4
	Capacity	2GB/4GB/6GB on board
	Flash	16/32GB EMMC NAND Flash for OS and 8MB SPI NOR Flash for boot loader
Graphics	HDMI	1 x HDMI2.0, 1920x1080
	Graphics Engine	GC7000UL with 2D/3D Graphic Acceleration supporting 1G Pixel/s, OpenVG 1.1, Open GL ES3.1, Vulkan, and Open CL 1.2 FP.
	H/W Video Codec	Decoder: H.265, H.264, VP8/9 1080p Encoder:H.264, VP8 1080p
Ethernet	Ethernet	5 x 10/100/1000Mbps (route/switch), 1 x 1G FSP fiber
WatchDog Timer	WatchDog Timer	1~6553s, default 60s, power on/off 4s
RTC	RTC	Support
TPM/TCM	TPM/TCM	Support
Front I/O	Ethernet	5 x 10/100/1000Mbps, 1 x 1G FSP fiber
	USB	2 x USB3.0 type A host, 2 x USB2.0 type A host
	HDMI	1 x HDMI2.0, 1920x1080
	Micro SD	1 x Micro SD socket
	SIM	1 x standard SIM socket
Rear I/O	Audio	1 x Mic , 1 x Line out,
	MIC Array	2 x I2S+1xI2C, support 8 channels MIC array (Digital or analog)
	CAN	1 x CAN FD (-40~70°C), 1 x CAN (0~50°C)
	Serial Port	2 x RS232/RS422/RS485, 1 x 2-wire RS232 or debug port (default:Debug)
	GPIO	5
Indicator	LED	6 Green LED for power, system, storage, 5G,4G,Wi-Fi and fiber status
Expansion	Mini PCIe	1 x mini PCIe slot (only USB2.0 signal for 4G/GPS)
	M.2 E Key	1 x M.2 E Key slot (for WiFi5/WiFi6, BT and 26 TOPS AI card)
	M.2 B Key	1 x M.2 B KEY (USB3.0 for 5G)
	SATA	1 x SATA2.0 Header (2.5 inch SSD)
	Antenna Holes	8 (5G/4Gx4 & WIFI/BT x2&BTx1&GPSx1)
Mechanical	System	180 x 120 x 60 mm or 180 x120 x 67mm
	Mounting	Wall mount
Power	Power supply	12V 3A DC-in
Environment	Operating temperature	0~50°C, -40~70°C
	Operating Humidity	5 ~ 95% relative humidity, non-condensing
Operating System		Linux, Yocto
Certifications		CCC/CE/FCC Class B

架构图

For AI

Unit: mm



订购信息

Part Number	CPU	Memory	Flash	HDMI	SATA	SD	LAN	Fiber	USB	UART	Can	Audio	GPIO	TPM/TCM	MIC Array	Operating Temperature
EPC-R5710NQ-BLA1E	NXP 8M PLUS 1.8GHz	4 GB	16 GB	1	1	1	5	1	2 USB3.0 2 USB2.0	2 x RS232/RS485 1 x RS232	1	1 Line out 1 MIC in	5	2	1	0 ~ 50°C
EPC-R5710NQ-ALA1E	NXP 8M PLUS 1.8GHz	6 GB	16 GB	1	1	1	5	1	2 USB3.0 2 USB2.0	2 x RS232/RS485 1 x RS232	1	1 Line out 1 MIC in	5	2	1	0 ~ 50°C
EPC-R5710IQ-XLA1E	NXP 8M PLUS 1.8GHz	2 GB	16 GB	1	1	1	5	1	2 USB3.0 2 USB2.0	2 x RS232/RS485 1 x RS232	1	1 Line out 1 MIC in	5	1	1	-40 ~ 70°C
EPC-R5710IQ-BLA1E	NXP 8M PLUS 1.8GHz	4 GB	16 GB	1	1	1	5	1	2 USB3.0 2 USB2.0	2 x RS232/RS485 1 x RS232	1	1 Line out 1 MIC in	5	1	1	-40 ~ 70°C
EPC-R5710IQ-ALA1E	NXP 8M PLUS 1.8GHz	6 GB	16 GB	1	1	1	5	1	2 USB3.0 2 USB2.0	2 x RS232/RS485 1 x RS232	1	1 Line out 1 MIC in	5	1	1	-40 ~ 70°C

装箱单

Part Number	Description
1960103066N001	WALL MOUNT 2965C for EPC-R5710
1960104002N101	Wall mount Bracket for EPC-R5710 Liquid 2965C for AI configuration

可选配件

Part Number	Description
96PSA-A36W12W7	ADP A/D 100-240V 36W 12V WO/PFC
1702002605	Power Cord 3P EU 10A 250V 183 cm (72 in)
1702031801	Power Cord 3P UK 10A 250V 183 cm (72 in)
1702002600	Power Cord UL 3P 10A 125V 183 cm (72 in)
1700008921	Power Cord 3P PSE 183 cm (72 in)
1700009652	Power Cord CCC 3P 10A 250V 187 cm (73.6 in)
968DD00064	Quectel RM500Q-GL m.2 Wireless 5G Module
1750009353-01	TUBE Ant. SMA-Jack/F-BH MHF4/113 BLK 300mm for 5G
1750009372-01	Ant.SMA/M 90/180 5G BLK 167mm RG178 for 5G
1990038961N000	Thermal Pad PG45A K=4.5 45*30*2MM for 5G
968AD00584	Quectel EC20CEFHLG Mini PCIe 4G module
1750007965-01	Antenna Cable R/P SMA (M) to MHF4, 300 mm (11.8 in) for 4G
1750008303-01	Antenna AN0727-64SP6BSM for 4G
1970005269T000	HD R2 32x32x27.4MM SC EPC-R5710 for 4G

Part Number	Description
1990016840S000	Thermal Pad 32x32x1.5mm GR-Hm K=6 for DAC-SC01 for 4G
AIW-154BN	AzureWare AW-CM276MA WiFi5 module
AIW-165BN	AzureWare AW-XM458MA WiFi6 module
1750007965-01	WiFi Coaxial Cable, SMA (M) to MHF4, 300 mm for WiFi5/WiFi6
1750008717-01	WiFi Dual band 2.4G and 5G Antenna for WiFi5/WiFi6
1970005268T000	HD R2 20x20x27.4MM SC EPC-R5710 for WiFi5/WiFi6
1990031873N020	Thermal pad 20x20x2.5mm(t) K=4.0 TP TG4040 for WiFi5
1990033689N000	Thermal-Pad 20x20x1mm TP K=1.2 Eapus XR-HL for WiFi6
1990030557N000	Thermal-Pad 70x62x2mm XR-HL K=1.2 TP Eapus for SSD
968DD00322	Hailo-8 HM218B1C2KAE 2230 A+E key M.2 module AI Module 26 Tops
1990011911N000	Thermal Pad 20x20x1.0mm GR-Hm K=6 for Hailo H8 AI card
1700019474	Debug cable D-SUB 9P(F)/D-SUB 9P(F) 100cm