PUSR®
www.pusr.com



USR-EG528

Open CPU Computer

IoT Controller

All- New Featured Industrial Computer Series

Quad-core 64-bit ARM Cortex A53; Linux Ubuntu22.04; Original Node-RED;

WukongEdge Engine; Diverse I/O and Ethernet interfaces; Powerful CPU chip.







LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Product Features

USR-EG528 is an ARM-based Linux industrial control computer. It is equipped with RK3562 chip, quad-core Cortex-53 processor with a main frequency of 2.0 GHz. The build-in NPU supports Caffe/Mxnet/TensorFlow/TFLite/ONNX/Darknet frameworks.

It also incorporates the WukongEdge edge computing engine, enabling data collection, edge computing, and cloud reporting with simple configuration. The product is pre-installed with the latest Node-Red, featuring drag-and-drop programming, allowing business logic to be implemented immediately.

The product also supports 4G/Wi-Fi/ Ethernet, and when paired with a router, firewall functions enable comprehensive networking. It comes with 2 USB ports and 4 serial ports, HDMI configuration, and can easily connect to various industrial sites. It is equipped with a standard Ubuntu 24.04 environment, with open root access, and the development environment is set up in one click, allowing for unrestricted creativity and rapid project launch.







- RK3562, Quad-core 34-bit ARM Cortex-A53 CPU,, up to 2.0GHz.
- 2*Fast Network port, 4G network, WiFi connectivity, to ensure stable Internet access.
- Diverse hardware interface, HDMI output, 2*USB, 2*RS485, 2*RS485/RS232.
- Standard Linux Ubuntu 24.04, with user friendly UI.
- Native Node-RED, featuring drag-and-drop programming, allowing business logic to be implemented immediately.
- Built-in WukongEdge computing engine, enabling data collection, edge computing, and cloud reporting with simple configuration.
- Simple configuration enables data collection and reporting, making it more convenient and efficient to use.
- Powerful edge gateway function, supporting edge collection, edge computing, group reporting, and capable of handling 2000 real-point collection.
- Rich collection protocols, supporting standard Modbus and various mainstream PLC protocols for collection, as well as various industry protocol collection.
- Interconnected control, supporting multi-point linkage, supporting linked SMS alarms, linked platform alarms, and linked point control.
- Multiple protocol conversions, integrating Modbus, OPCUA, power protocol, building protocol and other protocol conversions.

Product Parameter

USR-EG528	
CPU	Rockchip RK3562, quad-core 64-bit Cortex-A53, main frequency up to 2.0GHz
GPU	ARM G52 2EE, Support openGL ES 1.1/2.0/3.2, OpenCL 2.0, Vulkan 1.1, High performance dedicated 2D processor.
NPU	1.0TOPS@INT8 Support Caffe/Mxnet/TensorFlow/TFLite/ONNX/Darknet frameworks.
OS	Linux Ubuntu 22.04 (without desktop)
RAM	DDR4 4G
ROM	eMMC 32GB
SD Storage	External SD card interface
Network	Ethernet: 2 * 10/100M RJ45 Ethernet port
	WiFi: Dual band

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

	IEEE 802.11 a/b/g/n/ac/ax 2.4G: 2.400~2.4835 GHz 5.8G: 5.150~5.850GHZ
	Cellular: LTE Cat 4 (5G cellular can be customized)
GPS	Sensitivity: -162dBm Receive frequency: 1575.42MHz Satellite channel: 20 channels Accuracy: <10m The GPS function is only available for GL version
SIM	Nano SIM (Single SIM card by fault, Dual SIM card can be customized)
HDMI	HDMI output, 1.4, 60Hz, 1080P
RTC	Built-in RTC clock battery
USB	1*USB2.0 HOST 1*USB3.0 OTG (Compatible with upgrading, HOST by default)
LED	1 * power, red 1 * SYS, green, flashing after start up
Key	1 * update key, for updating firmware
Serial	2 * RS485 2 * RS485/RS232
Power input	DC 9-36V, DC socket, 5.5 * 2.1mm
Weight	WiFi: 340g
Operating temperature	-25-75℃
Storage temperature	-25-80℃
Operating humidity	5%-95%
Video Codec	Support 4K 60fps H.265/H.264 decoder Support 1080P 100fps H.265/H.264 encoder Support 8M ISP and HDR
Language	English by default
Software	
Edge computing	Edge acquisition, edge computing, active reporting... Up to 2000 data points
Protocol conversion	Modbus, Json, IEC104, IEC61850, BACnet, OPC UA, SL651, DNP 3.0
Acquisition protocol	Mainstream PLC protocols, Modbus TCP/RTU, DTL645, IEC104, IEC61850, BACnet IP
Open CPU	Linux Ubuntu 24.04 OS, support C/C++ programming, built-in Node-RED, support installing Docker

Ordering Guide

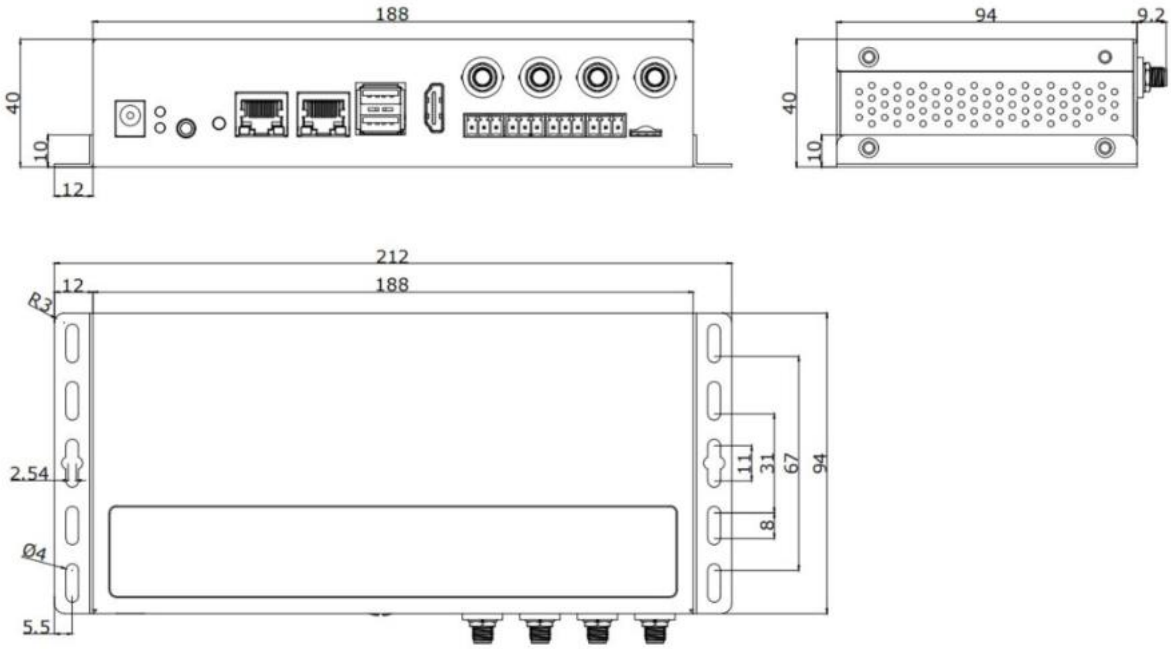
Model	Ethernet	IO	Network connectivity	Region	Frequency Band
USR-EG528K-GL*	√	√	LTE Cat 4 2.4G WiFi 5.8G WiFi	Global	LTE TDD:B34/38/39/40/41 LTE FDD: B1/2/3/4/5/7/8/12/13/18/19/20/25/26/28/66 GSM: B2 /3/5/8 GPS：GPS/GLONASS/BDS/Galileo/QZSS 2.4G WiFi: 2.4-2.4835 GHz 5.8G WiFi: 5.15-5.85 GHz IEEE 802.11 a/b/g/n/ac/ax
USR-EG528K-EW	√	×	2.4G WiFi 5.8G WiFi	Global	2.4G WiFi: 2.4-2.4835 GHz 5.8G WiFi: 5.15-5.85 GHz IEEE 802.11 a/b/g/n/ac/ax
USR-EG528K-G4*	√	√	LTE Cat 4 2.4G WiFi 5.8G WiFi	China, India	LTE TDD:B34/38/39/40/41 LTE FDD: B1/3/5/8 GSM: 900/1800MHz 2.4G WiFi: 2.4-2.4835 GHz 5.8G WiFi: 5.15-5.85 GHz IEEE 802.11 a/b/g/n/ac/ax

Note: The USR-EG528K-G4 and USR-EG528K-GL are under development.

LRI Distribuída no Brasil pela LRI | vendas@lri.com.br | 51 2129-3000

Product Dimensions

Unit: mm



Product Interfaces

