UR71 Industrial Cellular Router

Reliable and Remote-Manageable for Large Scale M2M Deployment

High Speed LTE Networking Platform

The Ursalink UR71 is an industrial cellular router with embedded intelligent software features that are designed for multifarious M2M/IoT applications. Global WCDMA and 4G LTE carrier supported make this drop-in connectivity a great help for operators in maximizing uptime.

Adopting high-performance and low-power consumption industrial platform of 64-bit CPU and cellular module, UR71 is capable of providing wire-speed network with a typical 2.0 W power consumption and ultra-small package to ensure the extremely safe and reliable connection to the wireless network.

Meanwhile, it also supports 1 Gigabit Ethernet port, Serial port (RS232/RS485), which enable you to scale up M2M application combining data and video in limited time and budget.

UR71 is particularly suitable for smart grid, digital media installations, industrial automation, telemetry equipment, medical device, digital factory, finance, payment device, environment protection, water conservancy and so on.

▶ Benefits

- Built-in industrial strong CPU, big memory; Micro SD card available to support further development and customized requirements
- Gigabit Ethernet is applied to all models of Ursalink routers for lightning transmission of data
- Dual SIM cards for backup between multiple carriers networking and global 2G/3G/LTE options make it easy to get connected
- Embed Ursalink SDK (Python 2.7/C) for secondary development
- Flexible modular design provides users with different connection modules like Ethernet, serial port, for connecting diverse field assets
- Rugged enclosure, optimized for DIN rail or shelf mounting
- 3-year warranty included

▶ Security & Reliability

- Automated failover/failback between Ethernet and Cellular (dual SIM)
- Enable unit with security frameworks like IPsec/OpenVPN/GRE/L2TP/PPTP/DMVPN
- Embed hardware watchdog, able to automatically recover from various failure, ensure highest level of availability
- To establish a secured mechanism on centralized authentication and authorization of device access by supporting AAA (Radius, TACACS+, LDAP, local Authentication) and multiple levels of user authority
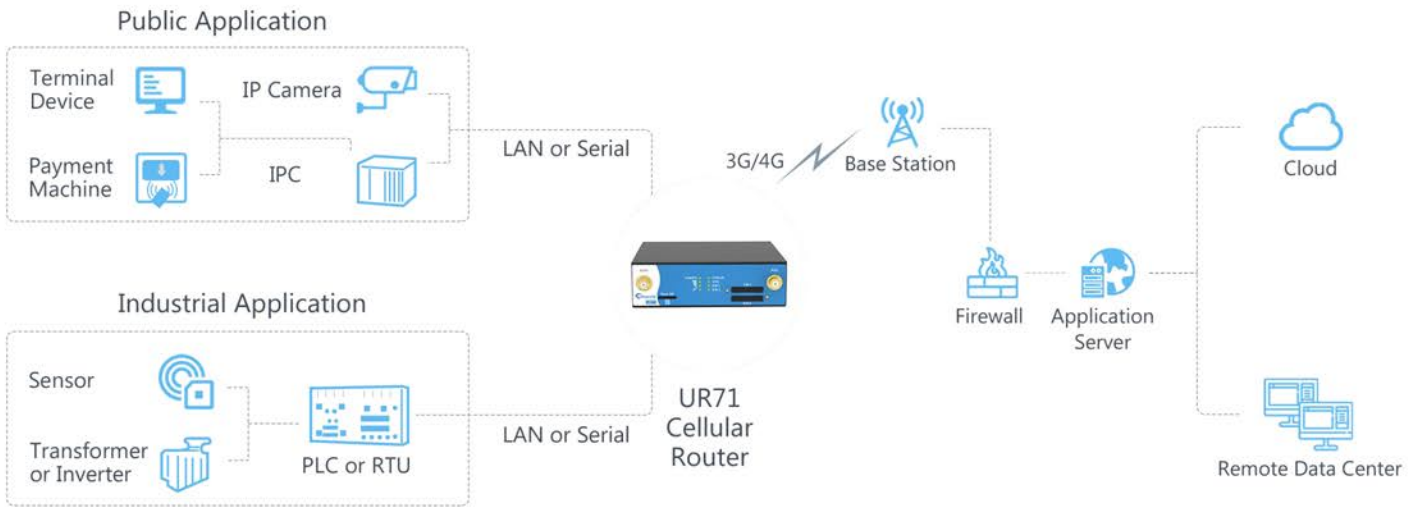
▶ Easy Maintenance

- Ursalink DeviceHub provides easy setup, mass configuration, and centralized management of remote devices
- The user-friendly web interface design and more than one option of upgrade help administrator to manage the device as easy as pie
- WEB GUI and CLI enable the admin to achieve simple management and quick configuration among a large quantity of devices
- Efficiently manage the remote routers on the existing platform through the industrial standard SNMP

▶ Capabilities

- Link remote devices in an environment where communication technologies are constantly changing
- Industrial 64-bit ARM Cortex-A53 processor, high-performance operating up to 800 MHz with low power consumption below 1W, and 256 MB RAM available to support more applications
- Support rich protocols like SNMP, MQTT, Modbus bridging, RIP, OSPF
- Support wide operating temperature ranging from -40°C to +70°C/-40℉ to +158℉

▶ Application Example

Public Application

Terminal Device — IP Camera
Payment Machine — IPC

LAN or Serial

Industrial Application

Sensor
Transformer or Inverter — PLC or RTU

LAN or Serial

3G/4G — Base Station

UR71 Cellular Router

Firewall — Application Server

Cloud

Remote Data Center

▶ Specifications

Cellular Interfaces	
Connectors	2 × 50 Ω SMA (Center PIN: SMA Female)
SIM Slots	2
Hardware System	
CPU	800 MHz, 64-bit ARM Cortex-A53
Memory	64 MB Flash, 256 MB DDR3 RAM
Storage	1 × Micro SD
Ethernet Interface	
Port	1 × RJ-45
Property	1 × LAN
Physical Layer	10/100/1000 Base-T (IEEE 802.3)
Data Rate	10/100/1000 Mbps (Auto-Sensing)
Interface	Auto MDI/MDIX
Mode	Full or Half Duplex (Auto-Sensing)
Serial Interface	
Port	1 × RS232 or 1 × RS485
Connector	DB9 Female Terminal Block
Baud Rate	300bps to 230400bps

GPS (Optional)

Connectors	1 × 50 Ω SMA (Center PIN: SMA Female)
Sensitivity	-167dBm@Tracking, -149dBm@Acquisition, -161dBm@Re-acquisition
Position Accuracy	<2.5m CEP

Software

Network Protocols	PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QOS, SNTP, Telnet, VLAN, SSH, etc.
VPN Tunnel	DMVPN/IPsec/OpenVPN/PPTP/L2TP/GRE
Access Authentication	CHAP/PAP/MS-CHAP/MS-CHAPV2
Firewall	ACL/DMZ/Port Mapping/MAC Binding
Management	Web, CLI, SMS, On-demand dial up
AAA	Radius, TACACS+, LDAP, Local Authentication
Multilevel Authority	Multiple Levels of User Authority
Reliability	VRRP, Dual SIM Backup
Serial Port	Transparent (TCP Client/Server, UDP), Modbus Gateway (Modbus TCP to Modbus RTU), Modbus Master

Power Supply and Consumption

Connector	2-pin with 5.08 mm terminal block
Input Voltage	9-48 VDC
Power Consumption	Typical 2.8 W (Max 4.2 W)

Physical Characteristics

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Ingress Protection	IP30
Housing & Weight	Metal, 369 g (0.81 lb)
Dimensions	100 x 96.1 x 30 mm (3.94 x 3.78 x 1.18 in)
Mounting	Desktop, Wall or DIN Rail Mounting

Others

Reset Button	1 × RESET
LED Indicators	1 × POWER, 1 × STATUS, 1 × VPN 1 × SIM1, 1 × SIM2, 3 × Signal Strength
Built-in	Watchdog, RTC
Certifications	RoHS, CE, FCC
EMC	IEC 61000-4-2 Level 3 IEC 61000-4-3 Level 3 IEC 61000-4-4 Level 4 IEC 61000-4-5 Level 4 IEC 61000-4-6 Level 3 IEC 61000-4-8 Level 4

Environmental

Operating Temperature	-40°C to +70°C (-40℉ to +158℉) Reduced Cellular Performance Above 60°C
Storage Temperature	-40°C to +85°C (-40℉ to +185℉)
Ethernet Isolation	1.5 kV RMS
Relative Humidity	0% to 95% (non-condensing) at 25°C/77℉

▶ Product Images/Dimensions (mm)
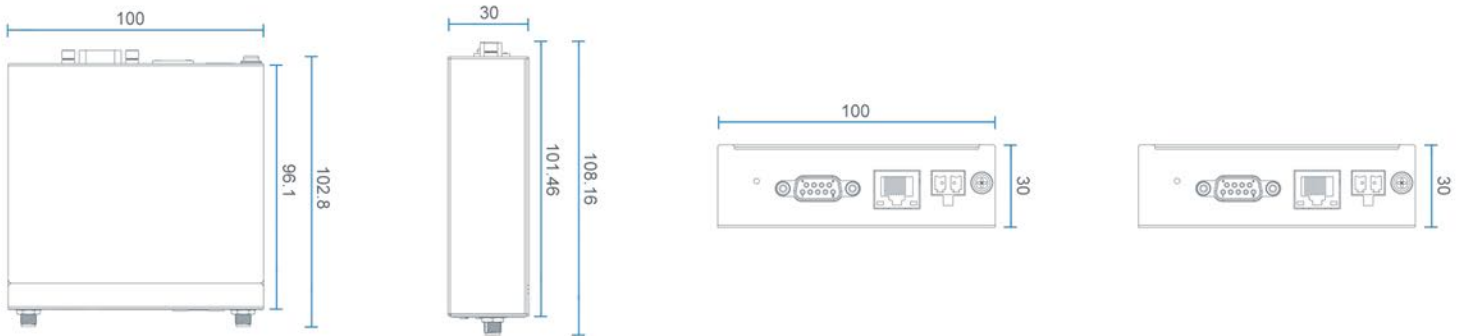
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