

# **UR71 Industrial** Cellular Router

Reliable and Remote-manageable For Large Scale M2M Deployment

High Speed LTE Networking Platform



The Ursalink UR71 is a 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-bits CPU and wireless module, UR71 is capable of providing wire-speed network with a typical 1W 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 enables 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

- Strong CPU and big memory, SSD/Micro SD card available to support further development and customizing requirements
- Gigabit Ethernet is applied to all models of Ursalink routers for lightning transmission of data
- Dual SIM cards for backup between multiple carrier networking and global 2G/3G/LTE options make it easy to get connected
- Embed Ursalink SDK (Python 2.7/C) for secondary development
- Flexible interface 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)
- Enables 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, Tacacs+, Radius, LDAP, local authentication and multiple levels of user authority

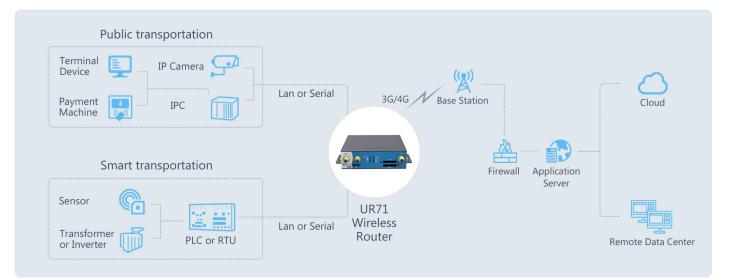
#### Easy Maintenance

- Ursalink Remote Manager\* provides easy setup, mass configuration, and centralized management of remote devices
- The user-friendly web interface design and more than one option of upgrading make the admin to manage the device as easy as pie
- WEB GUI and CLI enable the admin to achieve the simple manage and quick config to 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-bits ARM Cortex-A53 processor, high-performance operating up to 800MHz and low power consumption below 1W, and 256 MB memory available to support more applications
- Support rich protocols like SNMP, MQTT, Modbus bridging, RIP, OSPF
- Support wide operating temp range(-20°C to  $70^{\circ}C/4^{\circ}F$ -158°F)

### Application Example



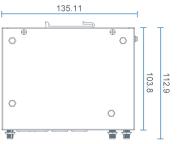
# Specifications

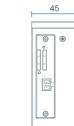
Cellular Interfaces			
Connectors	2 × 50Ω SMA (Center pin: female)		
SIM Slots	2		
Hardware System			
CPU	800MHz, 64-bits ARM Cortex-A53		
Flash	64MB, Can be extended by Micro SD card		
Memory	DDR3 256MB		
Ethernet Interface			
Port & Standard/Physical	1×10/100/1000Mbps Base-T (IEEE 802.3),		
layer	1×LAN or 1×WAN		
Data	10/100/1000 M bit/s; Full or Half duplex; Auto MDI/MDIX		
rate/Mode/Interface			
Connector	RJ-45		
Serial Interface			
Ports	1×RS232		
	Or 1×RS485 (optional)		
Connector	Terminal block, 300bps to 230400bps		

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 VPN		
Access Authentication	CHAP/PAP/MS-CHAP/MS-CHAPV2		
Firewall	ACL/DMZ/Port mapping/Mac binding		
Management	Web, CLI, SMS, Watchdog, on-demand dial up, AAA, local Authentication,		
	Radius, TACACS+, LDAP		
Multilevel Authority	Multiple levels of user authority		
Reliability	VRRP, WAN Link Backup; Automatic Recover from Failure		
Serial Port	Transparent, TCP Client/Server, UDP, Modbus RTU gateway, Modbus RTU to		
	Modbus TCP		
Power Supply and Consumption			
Connector	2-pin with 5.08 mm terminal block		
Input Voltage	9 to 48V DC		
Power Consumption	Typical 4 W (Max 6 W)		
Physical Characteristics			
Ingress Protection	IP30		
Housing & Weight	Metal, 369g (0.81lb)		
Dimensions	132x103.8x45 mm (5.20 x 4.09 x 1.77 in)		
Mounting	Desktop, wall or DIN rail mounting		

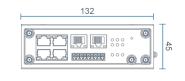
Others	
Reset Button	1×RESET
TF	Micro SD card
LED Indicators	1×POWER, 1×WLAN, 1×STATUS, 1×VPN,
	1×SIM1, 1×SIM2, 3×Signal strength
Built-in	Watchdog, RTC, Timer
Certifications	RoHS, CE, FCC
EMC	ESD Electrostatic Discharge Immunity: EN61000-4-2,level 4 RFI Radio Frequency Immunity: EN61000-4-3,level 4 EFT Electrical Fast Transient/Burst Immunity: EN61000-4-4, level 4 Surge Immunity: EN61000-4-5, level 3 Immunity to Conducted Disturbances: EN61000-4-6,level 4 Power Frequency Magnetic Field Immunity: EN61000-4-8, horizontal/vertical 400A/m (>level 4) Shock Test: IEC60068-2-27 Free Fall: IEC60068-2-32 Vibration: IEC60068-2-6
Environmental	
Operating Temperature	-20°C to 70°C (4°F -158°F)
Storage Temperature	-40°C to 85°C (-40°F -185°F)
Relative Humidity	0% to 95% (non-condensing) at 25°C/77 $^\circ\mathrm{F}$

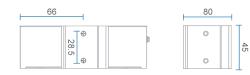
# Product Images/Dimensions (mm)





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# Ordering Information

Model	UR71-L	UR71-U
Router Type	LTE Router	HSPA+ Router
Air Interface	LTE(LTE-FDD/LTE-TDD)/CDMA(CDMA 1XEVDO)/TD-SDMA/DC-HSPA+/HSPA+ /HSUPA/HSDPA/ECDMA/EDGE/GPRS /GSM	HSPA+/HUSUPA/HSUPA/EDGE/GPRS/ GSM
Frequency Band 4G	-E: B1/B3/B5/B7/B8/B20 @FDD LTE, B38/B40/B41@TDD LTE -V: B4/B13@FDD LTE -A: B2/B4/B12@FDDLTE -AU:B1/B2/B3/B4/B5/B7/B8/B28 @FDD LTE,B40@TDD LTE -J: B1/B3/B8/B18/B19/B26 @FDD LTE,B41@TDD LTE -CE:B1/B3/B8@FDD LTE, B38/B39/B40/B41@TDD LTE	
3G	-E: B1/B5/B8@WCDMA -A:B2/B4/B5@WCDMA -AU:B1/B2/B5/B8 WCDMA -J: B1/B6/B8/B19@WCDMA -CE:B1/B8@WCDMA,B34/B39@TD- SCDMA,BC0@CDMA2000 1×/EVDO	-E: 900/2100@UMTS -A: 850/1900@UMTS -G: 800/850/900/1900/2100 @UMTS
2G	-E: B3/B8@GSM -A: B2/B3/B5/B8@GSM -AU: B2/B3/B5/B8@GSM -CE: 900/1800@GSM	-E: 850/900/1800/1900@GSM -G: 850/900/1800/1900@GSM

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