



UR72 Industrial Cellular Router

Reliable and Remote-manageable
For Large Scale M2M Deployment

High Speed LTE Networking Platform



The Ursalink UR72 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-bits CPU and wireless module, UR72 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 2-port Gigabit Ethernet switch, Serial port (RS232/RS485) and IO input/output, which enables you to scale up M2M application combining data and video in limited time and budget.

UR72 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

- Industrial Wifi solution, 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, I/O, serial port, Wifi, CAN*, LoRa*, GPS* 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

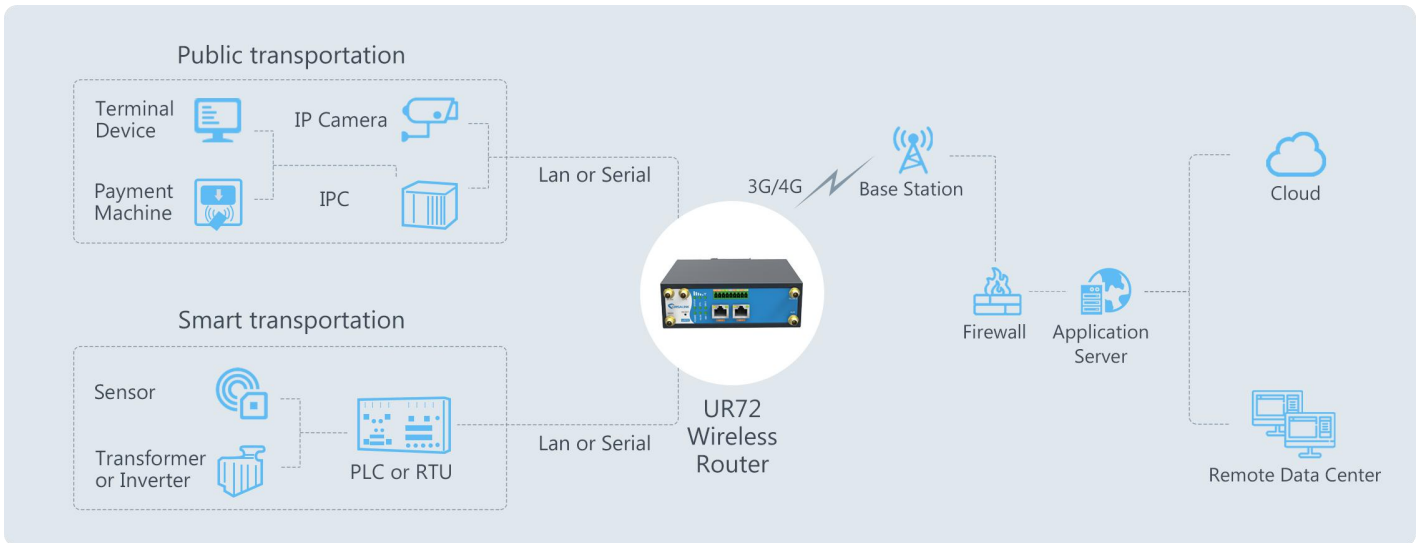
- Ursalink Remote Manager* provides easy setup, mass configuration, and centralized management of remote devices
- The user-friendly web interface design and more than one option of upgrading make the admin to manage the device as easy as pie
- WEB GUI and CLI enable the admin to achieve the simple manage 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 max. 512GB SSD interface with M.2(SATA protocol)
- Support 802.11/b/g/n/ac, as AP or client mode, to establish versatile wireless network or be the backup WAN link for 3G/4G
- Support rich protocols like SNMP, MQTT, Modbus bridging, RIP, OSPF
- Support wide operating temp range(-20°C to 70°C/4°F -158°F)

*COMING SOON

Application Example



Specifications

Cellular Interfaces

Connectors 2 × 50Ω SMA (Center pin: female)

SIM Slots 2

WiFi Interface (optional)

Standards IEEE 802.11a/b/g/n (optional: IEEE 802.11ac)

TX Power
 802.11a: 5dBm (54Mbps)
 802.11bg: 18dBm (54Mbps)
 802.11n: 21dBm–14dBm (2.4GHz MCS0–MCS7)
 802.11n: 19dBm–14dBm (5GHz MCS0–MCS7)
 802.11ac: 19dBm–13dBm (MCS0–MCS9)

Rx Sensitivity
 802.11a: 15dBm (54Mbps)
 802.11bg: -75dBm (54Mbps)
 802.11n: -92dBm--73dBm (2.4GHz MCS0–MCS7)
 802.11n: -93dBm--72dBm (5GHz MCS0–MCS7)
 802.11ac: -93dBm--62dBm (MCS0–MCS9)

Modes
 Access point, support for multiple SSID
 support AP and Client mode

Security
 WPA/WPA2 authentication, WEP/TKIP/AES encryption,
 Shared keys, support for open systems

Connectors 2 ×50Ω SMA

Hardware System	
CPU	800MHz, 64-bits ARM Cortex-A53
Flash	64MB, Can be extended by Micro SD card or SSD
Memory	DDR3 256MB
Ethernet Interface	
Port & Standard/Physical layer	2×10/100/1000Mbps Base-T (IEEE 802.3), 1×WAN+1×LAN or 2×LAN
Data rate/Mode/Interface	10/100/1000 M bit/s; Full or Half duplex; Auto MDI/MDIX
Connector	RJ-45
Magnet Isolation Protection	1.5KV
Serial Interface	
Ports	1×RS232+ 1×RS485 Or 2×RS232(optional) Or 2×RS485 (optional)
Connector	Terminal block, 300bps to 230400bps
IO	
Connector	(4)Pin screw down terminal block
Digital	2×DI+2×DO
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, 471g (1.04lb)
Dimensions	132x103.8x45 mm (5.20 x 4.09 x 1.77 in)
Mounting	Desktop, wall or DIN rail mounting

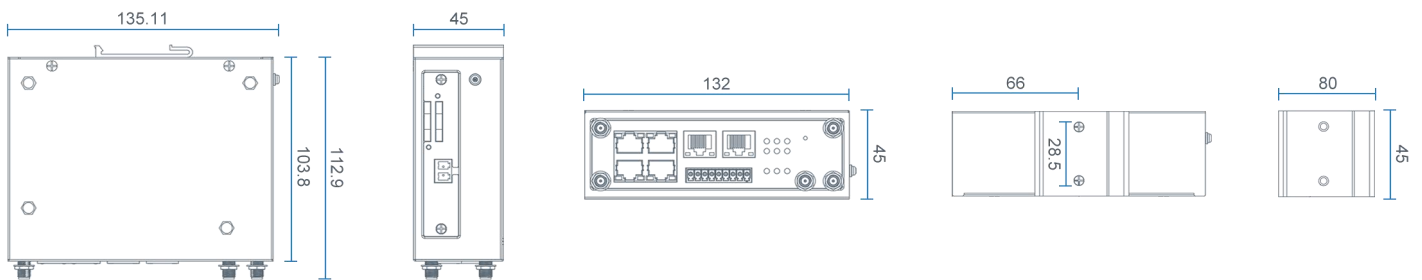
Others

Reset Button	1×RESET
SSD	M.2 interface with 22 x 42mm size (SATA protocol), up to 512GB
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°F

Product Images/Dimensions (mm)



► Ordering Information

Model	UR72-L	UR72-U
Router Type	LTE Router	HSPA+ Router
Air Interface	LTE(LTE-FDD/LTE-TDD)/CDMA(CDMA 1XEVD0)/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 1x/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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