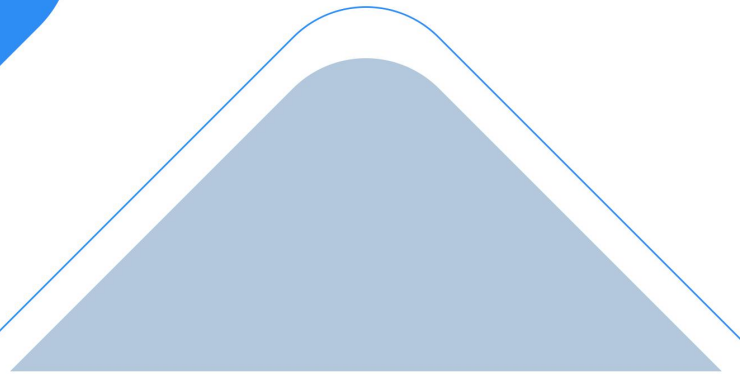


# UR32

## Industrial Router



UR32 is a cost-effective industrial cellular router with embedded intelligent 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.

Integrating embedded cellular modem and dual SIM function, the UR32 provides 3G/4G cellular network with 150 Mbps download and 50 Mbps uplink, it also has 2 fast Ethernet ports and supports Wi-Fi that compliance with 802.11b/g/n standard. All these capabilities deliver users an uninterrupted internet access.

Easy deployment and comprehensive remote device management makes UR32 versatile in most of IoT/M2M applications.



## ◆ Benefits

- NXP industrial grade processor
- Global 4G LTE CAT4/3G network with dual SIM cards for backup between multiple carrier networks
- Embedded Python SDK for secondary development
- Flexible modular design provides users with different connection modules like Ethernet, I/O, serial port, Wi-Fi, 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, Cellular (dual SIM) and Wi-Fi
- Secure transmission with VPN tunnels like IPsec/OpenVPN/GRE/L2TP/PPTP/DMVPN
- Embeds hardware watchdog to automatically recover from various failures, ensure highest level of availability
- Establishes 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

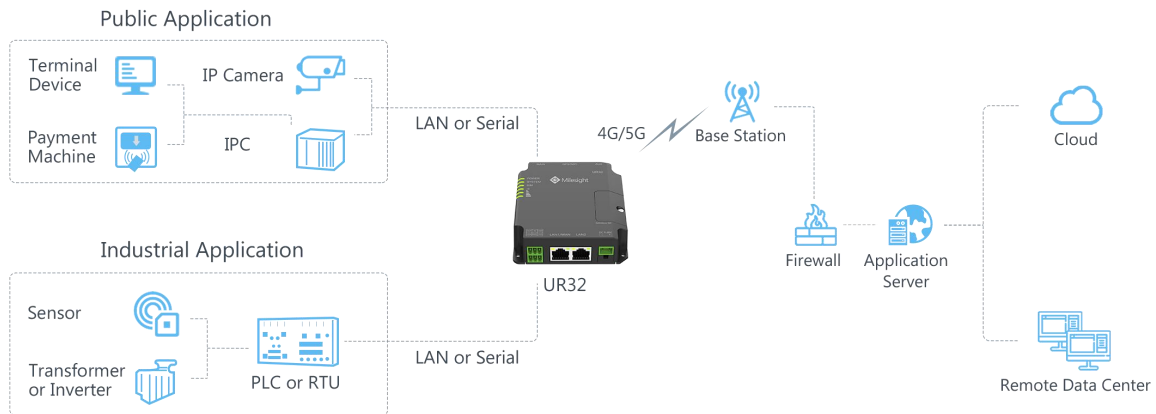
## ◆ Capabilities

- Link remote devices in an environment where communication technologies are constantly changing
- Support 802.11 a/b/g/n, as AP or client mode, to establish versatile wireless network or be the backup WAN link for 4G/3G
- Support rich protocols like SNMP, Modbus bridging, RIP, OSPF
- Support wide operating temperature ranging from -40°C to +70°C/-40°F to +158°F

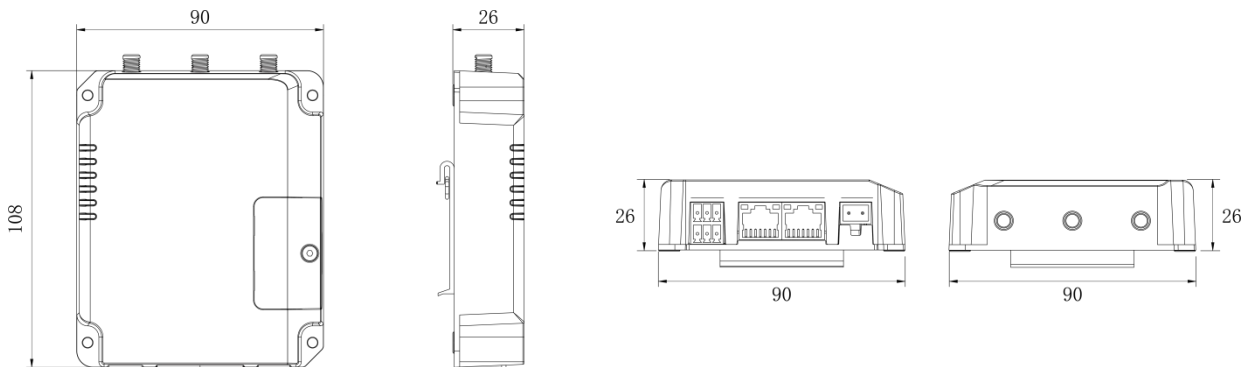
## ◆ Easy Maintenance

- 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

## ◆ Application Example



## ◆ Dimensions(mm)



## ◆ Specifications

### Hardware System

CPU	ARM Cortex-A7, 528 MHz
Memory	128 MB DDR3 RAM and 128MB Flash
Extendable Storage	1 × Micro SD

### Cellular Interface

Antenna Connector	2 × 50 Ω SMA Connectors (Center PIN: SMA Female)
SIM Slots	2 (Mini SIM-2FF)

### Ethernet Interface

Numbers	2 × 10/100 Mbps
Property	1 × WAN + 1 × LAN or 2 × LAN
Mode	Full or half duplex (Auto-Sensing)
PoE	2 × 802.3 af/at PoE PSE on LAN Ports (Optional)

**Wi-Fi Interface (Optional)**

Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: RP-SMA Female)
Standards	IEEE 802.11 b/g/n, 2.4GHz
Tx Power	802.11b: 16 dBm +/-1.5 dBm (11 Mbps)
	802.11g: 14 dBm +/-1.5 dBm (54 Mbps)
	802.11n: 13 dBm +/-1.5 dBm (65 Mbps, HT20/40 MCS7)
Modes	AP or Client mode
Security	WPA/WPA2 authentication, WEP/TKIP/AES encryption

**GPS (Optional)**

Antenna Connector	1 × 50 Ω SMA Connector (Center PIN: SMA Female)
Sensitivity	-167dBm@Tracking, -149dBm@Acquisition, -161dBm@Re-acquisition
Position Accuracy	<2.5m CEP
Protocol	NMEA0183, PMTK

**Serial Interface**

Numbers	1 × RS232 (RS485 Optional)
Connector	3.5mm Terminal Block
Baud Rate	300bps to 230400bps

**DI/DO**

Numbers	1 × DI (dry contact) + 1 × DO (wet contact), galvanic isolation
Connector	3.5mm Terminal Block
Maximum V/A	0.3A@30VDC (DO)

**Others**

Reset Button	1 × RESET
LED Indicators	1 × POWER, 1 × SYSTEM, 1 × SIM, 3 × Signal strength
Built-in	Watchdog, Timer

**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	DMVPN, IPsec, OpenVPN, PPTP, L2TP, GRE
Security	Access Control, DMZ, Port Mapping, MAC Binding, SPI Firewalls, DoS&DDoS Protection, Filtering(IP&Domain), IP Passthrough
Management	Web, CLI, SMS, On-demand dial up, SNMP v1/v2/v3, DeviceHub
AAA	Radius, Tacacs+, LDAP, Local Authentication
Multilevel Authority	Multiple Levels of User Authority
Reliability	VRRP, WAN Failover, Dual SIM Backup

Serial Port                      Transparent(TCP Client/Server, UDP), Modbus Master/Slave, Modbus Gateway (Modbus RTU to Modbus TCP)

### Power Supply and Consumption

Power Connector            2-pin 5.08 mm Terminal Block

Input Voltage                9-48 VDC, with Surge-Protection and Reverse Polarity Protection

Power Consumption        Typical 1.9 W, Max 2.4 W (In Non-PoE mode)

### Physical Characteristics

Ingress Protection        IP30

Housing & Weight          Metal, 271 g

Dimension                    108 x 90 x 26 mm (4.25 x 3.54 x 1.02 in)

Installation                 Desktop, Wall or DIN Rail Mounting

### Environmental

Operating                    -40°C to +70°C (-40°F to +158°F)

Temperature                 Reduced Cellular Performance Above 60°C

Storage Temperature      -40°C to +85°C (-40°F to +185°F)

Ethernet Isolation         1.5 kV RMS

Relative Humidity         0% to 95% (non-condensing) at 25°C/77°F

### Approvals

Regulatory                  CE, FCC, RCM, NBTC, SPDDI

Carrier                        PTCRB, AT&T

Environmental              RoHS

EMC                            EN 55032, EN 55035

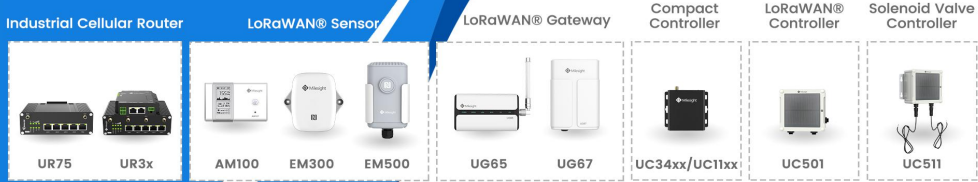
EMS                            IEC 61000-4-2 Level 3  
IEC 61000-4-3 Level 3  
IEC 61000-4-4 Level 3  
IEC 61000-4-5 Level 3  
IEC 61000-4-6 Level 3  
IEC 61000-4-8 Level 4

Radio Frequency          EN 301 489-1/17/19/52, EN 301 511, EN 301 908-1/2/13, EN 303 413, EN300 328

Safety                         EN60950-1



LoRaWAN® Sensor/Controller  
LoRaWAN® Gateway  
Industrial 4G/5G Router



Picture	Model	Descriptions	Configurations	GPS	PoE	Wi-Fi	Additional info
	UR32-L00E		4G Only				<b>Frequency Bands</b> <b>L00E:</b> B1/B3/B5/B7/B8/B20/B38/B40/B41 <b>L00AF:</b> B2/B4/B5/B12/B13/B14/B66/B71 <b>L00AU:</b> B1/B2/B3/B4/B5/ B7/B8/B28/B40
	UR32-L00E-G	1 × WAN + 1 × LAN (10/100 Mbps) 1 × DI + 1 × DO 1 × RS232	4G and GPS	✓			
	UR32-L00E-W-485		4G and Wi-Fi			✓	
	UR32-L00E-P-W		4G, PoE and Wi-Fi		✓	✓	
	UR35-L00E-W		4G and Wi-Fi			✓	
	UR35-L00E-G-P-W		4G, GPS, PoE and Wi-Fi	✓	✓	✓	
	UR75-500GL-G-W	1 × WAN + 4 × LAN (10/100/1000 Mbps) 1 × DI + 1 × DO 1 × RS232 + 1 × RS485	5G, GPS and Wi-Fi	✓		✓	
	UR75-500GL-G-P-W		5G, GPS, PoE and Wi-Fi	✓	✓	✓	

**Remark:**

"-L00E", "-L00AU", "-L00AF" in the model refers to different 4G modules in option for different countries/regions, (e.g.)  
 "-E/EU": for EMEA/South Korea/Thailand/India  
 "-AU": for Latin America/Australia/New Zealand  
 "-AF": for North America Firstnet

Wi-Fi and GPS can't be supported simultaneously in UR32.