

# Pro Series

## Industrial Router

### UR32

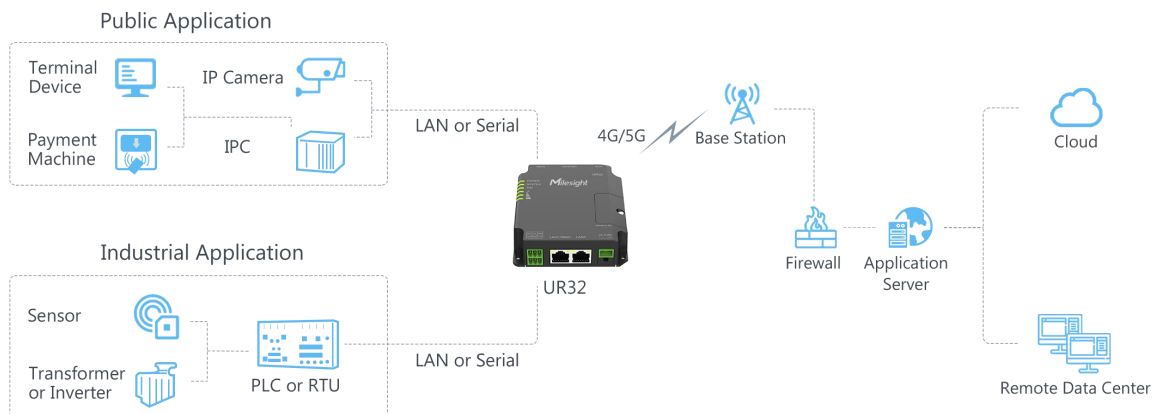


UR32 is a cost-effective industrial cellular router with embedded intelligent features that are designed for multifarious M2M/IoT applications. Global WCDMA and 4G LTE carrier supported make this drop-in connectivity a great help for operators in maximizing uptime.

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.

### ◆ Application Example



## ◆ 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

## ◆ Specifications

| <b>Hardware System</b>                        |   |
|---|---|
| CPU   | ARM Cortex-A7, 528 MHz  |
| Memory  | 128 MB DDR3 RAM and 128MB Flash                                 |
| Extendable Storage                            | 1 × Micro SD  |
| <b>Cellular Interface</b>                     |   |
| Antenna Connector                             | 2 × 50 Ω SMA Connectors (Center PIN: SMA Female)                |
| SIM Slots                                     | 2 (Mini SIM-2FF)  |
| <b>Ethernet Interface</b>                     |   |
| 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)                 |
| <b>Wi-Fi Interface (Optional)<sup>1</sup></b> |   |
| 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                |
| <b>GPS (Optional)</b>                         |   |
| Antenna Connector                             | 1 × 50 Ω SMA Connector (Center PIN: SMA Female)                 |
| Protocol                                      | NMEA0183, PMTK  |
| <b>Serial Interface</b>                       |   |
| Numbers                                       | 1 × RS232 (RS485 Optional)                                      |
| Connector                                     | 3.5mm Terminal Block  |
| Baud Rate                                     | 300bps to 230400bps   |
| <b>DI/DO</b>                                  |   |
| Numbers                                       | 1 × DI (dry contact) + 1 × DO (wet contact), Galvanic Isolation |
| Connector                                     | 3.5mm Terminal Block  |
| Maximum V/A                                   | 0.3A@30VDC (DO)   |
| <b>Others</b>                                 |   |

|                                     |  |
|-------------------------------------|--|
| Reset Button                        | 1 × RESET  |
| LED Indicators                      | 1 × POWER, 1 × SYSTEM, 1 × SIM, 3 × Signal strength  |
| Built-in                            | Watchdog, Timer  |
| <b>Software</b>                     |  |
| Network Protocols                   | IPv4/IPv6, 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)  |
| <b>Power Supply and Consumption</b> |  |
| 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)   |
| <b>Physical Characteristics</b>     |  |
| 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   |
| <b>Environmental</b>                |  |
| Operating Temperature               | -40°C to +70°C (-40°F to +158°F)<br>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  |
| <b>Approvals</b>                    |  |
| Regulatory                          | CE, FCC, RCM, NBTC, SPDDI  |
| Carrier                             | PTCRB, AT&T  |
| Environmental                       | RoHS   |

|                 |  |
|-----------------|--|
| EMC             | EN 55032, EN 55035   |
|                 | IEC 61000-4-2 Level 3  |
|                 | IEC 61000-4-3 Level 2  |
|                 | IEC 61000-4-4 Level 2  |
| EMS             | IEC 61000-4-5 Level 2  |
|                 | IEC 61000-4-6 Level 3  |
|                 | IEC 61000-4-8 Level 1  |
|                 | IEC 61000-4-11 Level 3   |
| Radio Frequency | EN 301 489-1/17/19/52, EN 301 511, EN 301 908-1/2/13, EN 303 413,<br>EN300 328 |
| Safety          | EN62368-1  |

## ◆ Dimensions(mm)

