

# QP35 Industrial Cellular Router

Reliable and Remote-Manageble for Large Scale M2M Deloyment

High Speed LTE Networking Platform



The Ursalink UR35 is a cost-effective 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.

Integrating embedded cellular modem and dual SIM function, the UR35 provides 3G/4G cellular network with 150 Mbps download and 50 Mbps uplink, it also has 5 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 UR35 versatile in most of IoT/M2M applications.

## ► Benefits

- Dual SIM cards for backup between multiple carriers networking and global 2G/3G/LTE options make it easy to get connected
- Flexible modular design provides users with different connection modules like Ethernet, I/O, serial port, Wi-Fi, GPS for connecting diverse field assets
- FXS port for telephone communication
- Embedded Python SDK for second development
- 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

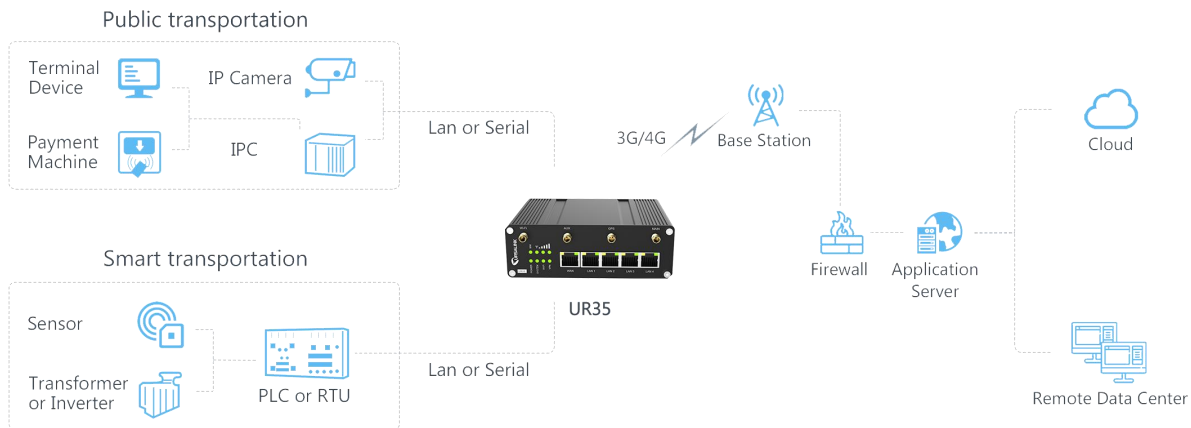
## ► Easy Maintenance

- 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
- Support 802.11b/g/n, as AP or client mode, to establish versatile wireless network or be the backup WAN link for 3G/4G
- 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

## Application Example



## Specifications

Hardware System	
CPU	528 MHz, ARM Cortex A7
Memory	128 MB Flash, 128 MB DDR3 RAM
Storage	1 × Micro SD
Ethernet Interface	
Ports	5 × RJ-45
Property	1 × WAN +4 × LAN (PoE PSE Optional)
Physical Layer	10/100 Base-T (IEEE 802.3)
Data Rate	10/100 Mbps (Auto-Sensing)
Interface	Auto MDI/MDIX
Mode	Full or half duplex (Auto-Sensing)
Cellular Interfaces	
Connectors	2 × 50 Ω SMA (Center PIN: SMA Female)
SIM Slots	2
Wi-Fi Interface (Optional)	
Connectors	1 × 50 Ω SMA (Center PIN: SMA Male)
Standards	IEEE 802.11b/g/n
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 and Client mode
Security	WPA/WPA2 authentication, WEP/TKIP/AES encryption

## GPS (Optional)

Connectors	1 × 50 Ω SMA (Center PIN: SMA Female)
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Protocols	NMEA 0183
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## Voice Interface (Optional)

Port	1 × RJ-11 (also be used for landline telephone's power supply)
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Standards	ITU Q.512 (SLIC), ITU K.20 (overcurrent and overvoltage protection)
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Subscriber line interface circuit (SLIC)	
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Ring voltage	40 to 90 Vpk configurable
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Ring frequency	20 to 25 Hz
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Ring waveform	sine wave
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Maximum ring load	2 ringer equivalence numbers (RENs)
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On-hook voltage (tip/ring)	-46 to -56V
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Off-hook current	18 to 20mA
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Terminating impedance	configurable
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## Serial Interface

Ports	1 × RS232 + 1 × RS485
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Connector	Terminal block
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Baud Rate	300bps to 230400bps
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## IO

Connector	Terminal block
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Digital	1 × DI + 1 × DO
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## 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.
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VPN Tunnel	DMVPN/IPsec/OpenVPN/PPTP/L2TP/GRE
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Access Authentication	CHAP/PAP/MS-CHAP/MS-CHAPV2
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Firewall	ACL/DMZ/Port Mapping/MAC Binding/SPI/URL Filter/IP Passthrough
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Management	Web, CLI, SMS, On-demand dial up, DeviceHub
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AAA	RADIUS, TACACS+, LDAP, Local Authentication
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Multilevel Authority	Multiple Levels of User Authority
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Reliability	VRRP, WAN Failover, Dual SIM Backup
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Serial Port	Transparent (TCP Client/Server, UDP), Modbus Gateway (Modbus RTU to Modbus TCP)
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## Power Supply and Consumption

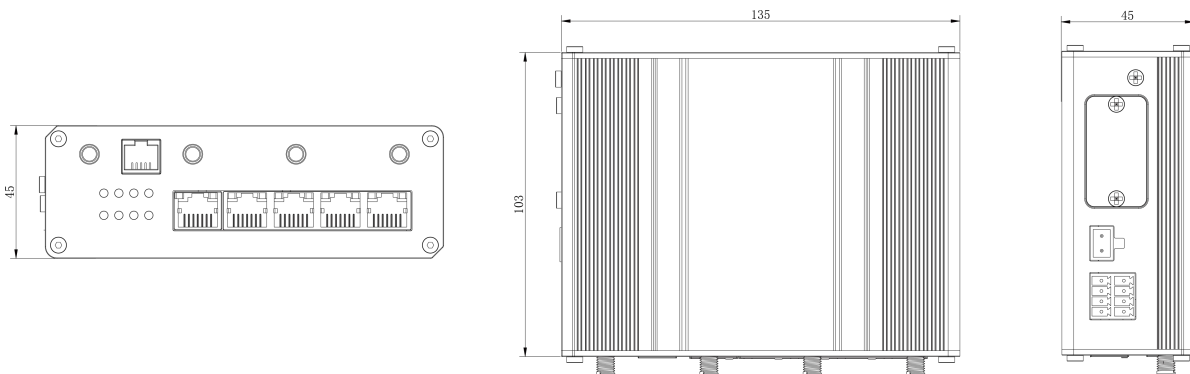
Power Input Connector	2-pin with 5.08 mm terminal block
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Input Voltage	9-48 VDC (48 V power input is needed for PoE output)
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Power Consumption	Typical 3.9 W, Max 4.6 W (In Non-PoE mode)
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Power Output	4 × 802.3 af/at PoE output
<b>Physical Characteristics</b>	
Ingress Protection	IP30
Housing & Weight	Metal, 485 g
Dimensions	135 x 103 x 45 mm (5.31 x 4.06 x 1.77 in)
Mounting	Desktop, Wall or DIN Rail Mounting
<b>Others</b>	
Reset Button	1 × RESET
LED Indicators	1 × POWER, 1 × SYSTEM, 1 × SIM, 1 × Wi-Fi, 1 × VPN, 3 × Signal strength
<b>Environmental</b>	
Operating Temperature	-40°C to +70°C (-40°F to +158°F) 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

## ► Product Images/Dimensions (mm)



## ► Ordering Information

Model	UR35
Air Interface	LTE(LTE-FDD/LTE-TDD)/CDMA(CDMA 1x/EVDO)/TD-SDMA/DC-HSPA+/HSPA+/HSUPA/HSDPA/WCDMA/EDGE/GPRS/GSM
4G	-EC: B1/B3/B5/B7/B8/B20/B28A@FDD LTE -AF: B2/B4/B5/B12/B13/B14/B66/B71@FDD LTE -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/B5/B8@FDD LTE, B38/B39/B40/B41@TDD LTE
3G	-EC: B1/B8@WCDMA -AF: 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
2G	-EC: B3/B8@GSM -AU: B2/B3/B5/B8@GSM -CE: 900/1800@GSM

\*: Any other frequency bands requirements please contact us.

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