



UR52 Industrial Cellular Router

Reliable and Remote-Manageable
for Large Scale M2M Deployment

High Speed LTE Networking Platform



The Ursalink UR52 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 UR52 provides 3G/4G cellular network with 150 Mbps download and 50 Mbps uplink, it also has 2 fast Ethernet ports and supports dual-band Wi-Fi that compliance with 802.11a/b/g/n/ac standard. All these capabilities deliver users an uninterrupted internet access.

Easy deployment and comprehensive remote device management makes UR52 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 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)
- 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

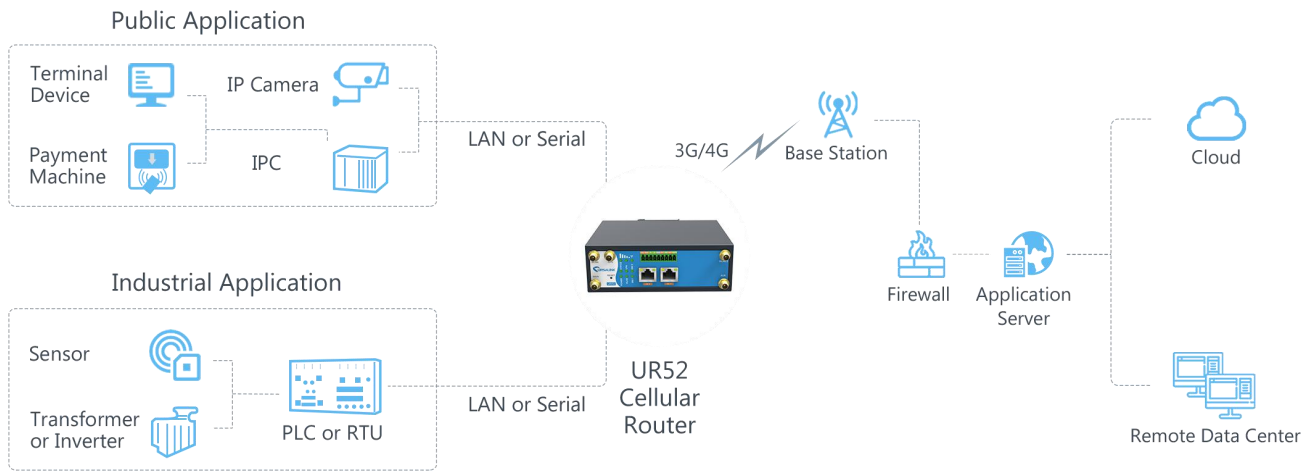
► Easy Maintenance

- Uralink Device Management Platform 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 802.11a/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 temperature ranging from -40°C to +70°C/-40°F to +158°F

Application Example



Specifications

Cellular Interfaces	
Connectors	2 × 50 Ω SMA (Center PIN: SMA Female)
SIM Slots	2
Wi-Fi Interface (Optional)	
Connectors	2 × 50 Ω SMA (Center PIN: SMA Female)
Standards	IEEE 802.11a/b/g/n (optional: IEEE 802.11ac)
Tx Power	802.11a: 12 dBm +/- 2 dBm (54 Mbps) 802.11b: 16 dBm +/- 1.5 dBm (11 Mbps) 802.11g: 15 dBm +/- 1.5 dBm (54 Mbps) 802.11n@2.4 GHz: 14 dBm +/- 1.5 dBm (HT20 MCS7) 802.11ac@5 GHz: 10 dBm +/- 2 dBm (HT80 MCS9)
Rx Sensitivity	802.11b: ≤ -75 dBm (11 Mbps) 802.11g: ≤ -68 dBm (54 Mbps) 802.11n@2.4 GHz: ≤ -67 dBm (HT20 MCS7) 802.11n@2.4 GHz: ≤ -64 dBm (HT40 MCS7) 802.11ac@5 GHz: ≤ -64 dBm (HT20 MCS8) 802.11ac@5 GHz: ≤ -55 dBm (HT40 MCS9) 802.11ac@5 GHz: ≤ -64 dBm (HT80 MCS9)
Modes	Access point, support for multiple SSID support AP and Client mode
Security	WPA/WPA2 authentication, WEP/TKIP/AES encryption

Hardware System	
CPU	528 MHz, ARM Cortex A7
Memory	128 MB Flash, 128 MB DDR3 RAM
Storage	1 × Micro SD
Ethernet Interface	
Ports	2 × RJ-45
Property	1 × WAN + 1 × LAN or 2 × LAN
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)
Serial Interface (Optional)	
Ports	1 × RS232 + 1 × RS485 or 2 × RS232 or 2 × RS485
Connector	Terminal block
Baud Rate	300bps to 230400bps
IO (Optional)	
Connector	(4) pin screw down terminal block
Digital	2 × DI + 2 × DO
GPS (Optional)	
Connectors	1 × 50 Ω SMA (Center PIN: SMA Female)
Sensitivity	-167dBm@Tracking, -149dBm@Acquisition, -161dBm@Re-acquisition
Position Accuracy	<2.5m CEP
Protocols	NMEA 0183, PMTK
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
Access Authentication	CHAP/PAP/MS-CHAP/MS-CHAPV2
Firewall	ACL/DMZ/Port Mapping/MAC Binding
Management	Web, CLI, SMS, On-demand dial up
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 Gateway (Modbus RTU to Modbus TCP)

Power Supply and Consumption

Connector	2-pin with 5.08 mm terminal block
Input Voltage	9-48 VDC
Power Consumption	Typical 2.5 W (Max 4.1 W)

Physical Characteristics

Ingress Protection	IP30
Housing & Weight	Metal
Dimensions	132 x 103.8 x 45 mm (5.20 x 4.09 x 1.77 in)
Mounting	Desktop, Wall or DIN Rail Mounting

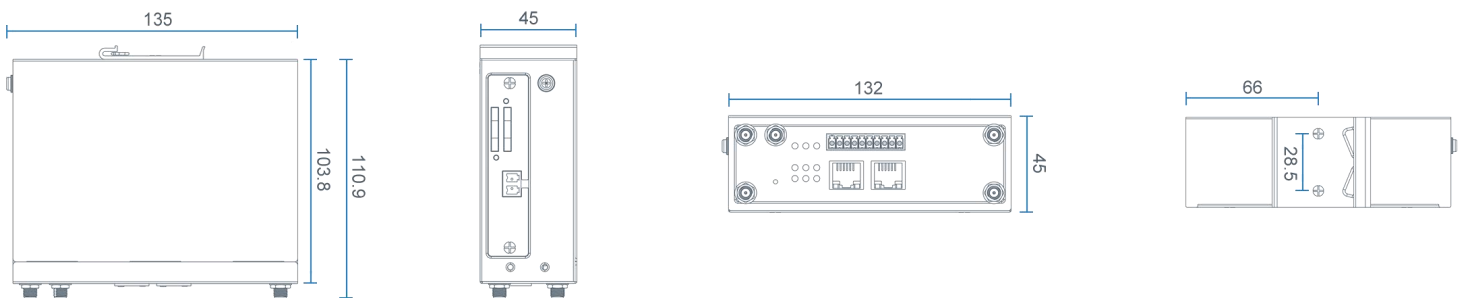
Others

Reset Button	1 × RESET
LED Indicators	1 × POWER, 1 × WLAN, 1 × STATUS, 1 × VPN, 1 × SIM1, 1 × SIM2, 3 × Signal strength
Built-in	Watchdog, RTC
Certifications	RoHS, CE, FCC
EMC	IEC 61000-4-2 Level 3 IEC 61000-4-3 Level 4 IEC 61000-4-4 Level 3 IEC 61000-4-5 Level 4 IEC 61000-4-6 Level 3 IEC 61000-4-8 Level 4

Environmental

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	4G LTE	3G	Wi-Fi	GPS	Serial Port	DI/DO
UR52-L-W-G	√		√	√	√	√
UR52-L-W	√		√		√	√
UR52-L-G	√			√	√	√
UR52-L	√				√	√
UR52-U-W-G		√	√	√	√	√
UR52-U-W		√	√		√	√
UR52-U-G		√		√	√	√
UR52-U		√			√	√

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