

UR75 EDGE

Edge Computing Gateway

Easy to Deploy
Manage and Monitor Your System

Reliable and Remote-Manageable
for Large Scale M2M Deployment



The Ursalink UR75 Edge features an ARM Cortex-A53 processor and versatile communication interface, easy integration with edge computing services such as AWS Greengrass, Azure IoT Edge and Alibaba Cloud Link Edge makes UR75 an intelligent gateway for data acquisition and computing at fields as well as a reliable networking communication platform for large scale deployments.

► Benefits

- Built-in industrial strong CPU and big memory; SSD is available to support further development and customize requirements
- Gigabit Ethernet is applied to all models of Ursalink routers for lightning transmission of data
- Dual SIM cards for backup between multiple carriers networking and global 2G/3G/LTE options make it easy to get connected
- Embed Ursalink SDK (Python 2.7/C) 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

- Quickly develop functions with Function Compute and deploy them seamlessly to edge nodes
- 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
- Ursalink DeviceHub provides easy setup, mass configuration, and centralized management of remote devices

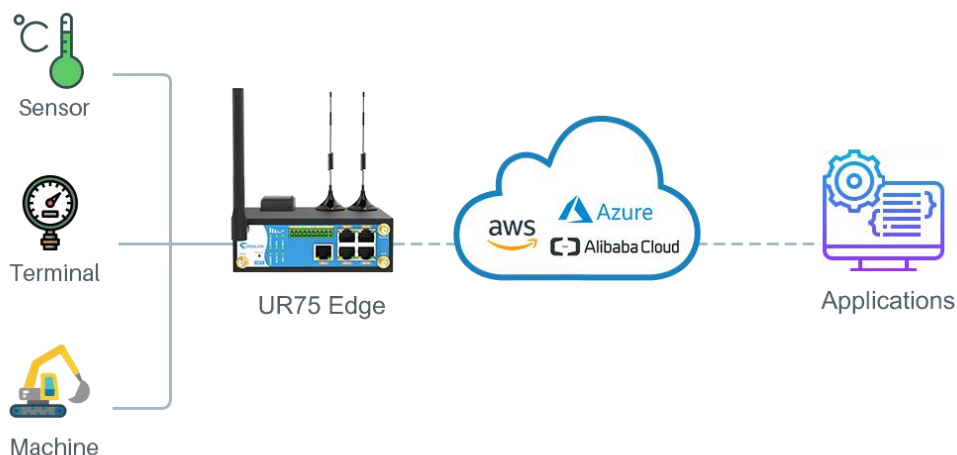
► Easy Maintenance

- 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

- The device data can be aggregated and cleaned locally, and the processed data can be transmitted to the Cloud for storage and analysis.
- It can be continuously running in a broken or weak network environment, and the latest data can be synchronized to the Cloud after the network is restored
- Link remote devices in an environment where communication technologies are constantly changing
- Industrial 64-bit ARM Cortex-A53 processor, high-performance operating up to 800 MHz with low power consumption below 1W, and 512 MB RAM available to support more applications
- Support 802.11b/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

Application Example



Specifications

Hardware System	
CPU	800MHz, 64-bit ARM Cortex-A53
Memory	512 MB DDR3 RAM
Storage	8GB Flash and M.2 SSD interface for Expansion
Ethernet Interface	
Ports	5 × RJ-45
Property	1 × WAN + 4 × LAN or 2 × WAN + 3 × LAN
Physical Layer	10/100/1000 Base-T (IEEE 802.3)
Data Rate	10/100/1000 Mbps (Auto-Sensing)
Interface	Auto MDI/MDIX
Mode	Full or half duplex (Auto-Sensing)
Serial Interface	
Ports	1 × RS232 + 1 × RS485 or 2 × RS232 or 2 × RS485
Connector	Terminal Block
Baud Rate	300bps to 230400bps
IO	
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

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 802.11b/g/n/ac
Tx Power	802.11b: 15dBm ± 2dBm@11Mbps 802.11g: 13dBm ± 2dBm@54Mbps 802.11gn HT20: 12dBm ± 2dBm@MCS7 802.11gn HT40: 11dBm ± 2dBm@MCS7 802.11an HT20: 11dBm ± 2dBm@MCS7 802.11an HT40: 10dBm ± 2dBm@MCS7 802.11ac(HT80): 4dBm ± 2dBm@MCS9
Rx Sensitivity	802.11b: ≤ -76dBm@11Mbps 802.11g: ≤ -65dBm@54Mbps 802.11gn HT20: ≤ -64dBm@MCS7 802.11gn HT40: ≤ -61dBm@MCS7 802.11an HT20: ≤ -64dBm@MCS7 802.11an HT40: ≤ -61dBm@MCS7 802.11ac (HT80): ≤ -51dBm@MCS9
Modes	Support for multiple SSID, AP and Client mode
Security	WPA/WPA2 authentication, WEP/TKIP/AES encryption,
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 TCP to Modbus RTU), Modbus Master

Power Supply and Consumption

Connector	2-pin with 5.08 mm terminal block
Input Voltage	9-48 VDC
Power Consumption	Typical 4 W (Max 6.7 W)

Physical Characteristics

Ingress Protection	IP30
Housing & Weight	Metal, 492 g (1.08 lb)
Dimensions	132 x 103.8 x 45 mm (5.20 x 4.09 x 1.77 in)
Mounting	Desktop, Wall or DIN Rail Mounting

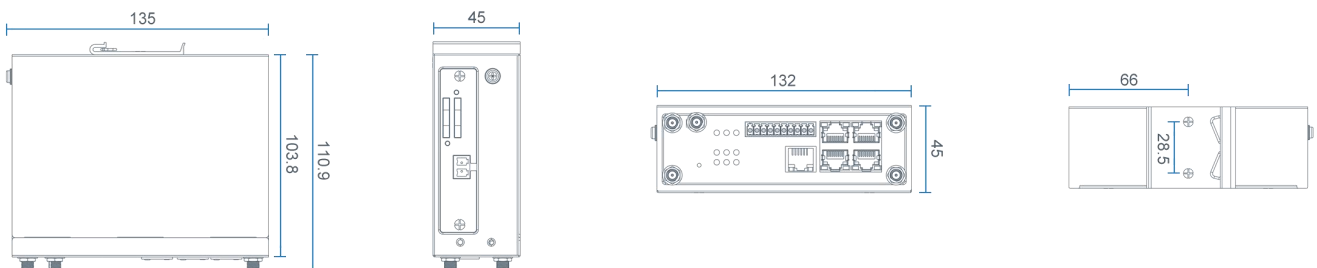
Others

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, Timer
Certifications	RoHS, CE, FCC
EMC	IEC 61000-4-2 Level 3 IEC 61000-4-3 Level 3 IEC 61000-4-4 Level 4 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	UR75 EDGE	
Network Type	LTE	HSPA
Air Interface	LTE(LTE-FDD/LTE-TDD)/CDMA(CDMA 1x/EVDO)/TD-SDMA/DC-HSPA+/HSPA+/HSUPA/HSDPA/WCDMA/EDGE/GPRS/GSM	HSPA+/HSUPA/HSDPA/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@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/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