

IOT-R75W

Industrial 5G Cellular Router with Dual 5G SIM Cards and RS232/485 IoT Integration



Outstanding Features

- Qualcomm quad-core CPU with big memory
- Global 5G (NSA/SA)/4G LTE network with dual SIM cards for backup between multiple carrier networks
- Strong Wi-Fi performance with 2 x 2 MIMO 802.11 a/b/g/n/ac, up to 1.733Gbps
- Gigabit Ethernet ports for lightning transmission of data
- Automated failover/failback between Ethernet, Cellular (dual SIM), and Wi-Fi
- Embeds hardware watchdog to automatically recover from various failures, ensure the highest level of availability
- Provide 1xRS232, 1xRS485, 1x DI, 1xDO for IoT integration
- Secure VPN connection (OpenVPN, IPsec, PPTP, L2TP, DMVPN, GRE)
- Support wide voltage input 9 ~ 48V DC
- Rugged design with a wide temperature range from -40°C to +70°C or -40°F to +158°F
- Support Cloud upgrade and remote management

Specification

Hardware System	
CPU	Qualcomm Quad-core ARM Cortex-A7, 716.8 MHz
Memory	512 MB DDR3 RAM and 8GB Flash
Extendable Storage	1 × M.2 NVMe SSD Interface
Cellular Interface	
Antenna	UR75-5G: 4 × 50 Ω SMA Connectors (Center PIN: SMA Female) UR75-4G: 2 × 50 Ω SMA Connectors (Center PIN: SMA Female)
SIM Slots	2 (Mini SIM-2FF)
Frequency Band	5G NR: n1/n2/n3/n5/n7/n8/n12/n20/n28/n41/n66/n71/n77/n78/n79 LTE FDD: B1/B2/B3/B4/B5/B7/B8/B9/B12/B13/B14/B17/B18/B19/B20/B21(TBD)/B25/B26/B28/B29/B30/B32/B66/B71 LTE TDD: B34/B38/39/B40/B41/B42/B43/B48 LAA: B46 WCDMA: B1/B2/B3/B4/B5/B6/B8/B19
Ethernet Interface	
Numbers	5 × 10/100/1000 Mbps
Property	1 × WAN +4 × LAN
Mode	Full or half duplex (Auto-Sensing)
Wi-Fi Interface	
Antenna	2 × 50 Ω SMA Connectors (Center PIN: RP-SMA Female)
Standards	IEEE 802.11 b/g/n, 2.4 GHz IEEE 802.11 a/n/ac, 5 GHz
Tx Power	2.4G: 26dBm(max) 5G: 26.4dBm(max)
Rx Sensitivity	
2.4 GHz	802.11b: ≤ -92dBm@11Mbps 802.11g: ≤ -78dBm@54Mbps 802.11ac VHT20: ≤ -91dBm@MCS0 802.11ac VHT20: ≤ -66dBm@MCS8 802.11ac VHT40: ≤ -88.5dBm@MCS0 802.11ac VHT40: ≤ -64dBm@MCS8
5 GHz	802.11a: ≤ -91dBm@6Mbps 802.11a: ≤ -76dBm@54Mbps 802.11ac VHT20: ≤ -90dBm@MCS0 802.11ac VHT20: ≤ -68dBm@MCS8 802.11ac VHT40: ≤ -87dBm@MCS0 802.11ac VHT40: ≤ -65dBm@MCS9 802.11ac VHT80: ≤ -84dBm@MCS0 802.11ac VHT80: ≤ -60dBm@MCS9
Modes	AP and Client mode
Security	WPA/WPA2 authentication, WEP/TKIP/AES encryption
GPS	
Antenna	1 × 50 Ω SMA Connector (Center PIN: SMA Female)
Technology	GPS/GLONASS/Beidou/Galileo/QZSS
Serial Interface	
Numbers	1 × RS232 + 1 × RS485 (2 × 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
USB	1 × USB 2.0 (Reserved)
LED Indicators	1 × POWER, 1 × SYSTEM, 1 × VPIN, 1 × WLAN, 1 × SIM, 3 × Signal strength
Built-in	Watchdog, Timer
Software	
Network Protocols	IPv4/IPv6, PPP, PPPoE, SNMP v1/v2c/v3, TCP, UDP, DHCP, RIPv1/v2, OSPF, DDNS, VRRP, HTTP, HTTPS, DNS, ARP, QOS, SNMP, 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	≤ 7.9W

Physical Characteristics

Ingress Protection	IP30
Housing	Metal
Dimension	135 x 118 x 45 mm (5.31 x 4.65 x 1.77 in)
Installation	Desktop, Wall or DIN Rail Mounting

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

Approvals

Regulatory	CE, RoHS
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* For 5G version, GPS is under development; for 4G version, GPS is optional.

Dimensions (mm)

