

A white industrial outdoor router with eight white antennas. The top of the device has the 'RICON' logo in red. The front panel features a BNC connector, a reset button, and several status LEDs. The rear panel has four ports labeled 'POE WAN LAN1', 'LAN2', 'LAN3', and 'LAN4'.

RICON

S9955-5G/ODU

Industrial Outdoor Router Datasheet

Efficiency Through Innovative Technology

S9955-5G/ODU Industrial Outdoor Router



RICON S9955-5G/ODU Router is designed based on 5G technology with a high-performance 64-bit Processor, embedded operating system design.

APN/VPDN private network access, dual SIM (dual module optional) backup guarantees data transmission security and provides high-speed with reliable routing and data transmission capabilities.

Optional GPS positioning helps more convenient use cases.

Widely used in telecommunications, finance, information media, power, transportation, automotive and environmental industries.



Industry

Pipeline Monitoring
Robots
Flow Meters
Industrial Refrigeration
Air Detection
Pump Controls



Transportation

Vehicle tracking
Asset tracking
DVR



Smart City

Street Lighting
Traffic Lights
Elevator Monitoring
Parking Meters
Toll Collection
Advertising Boards
Smart Bins



Smart Energy

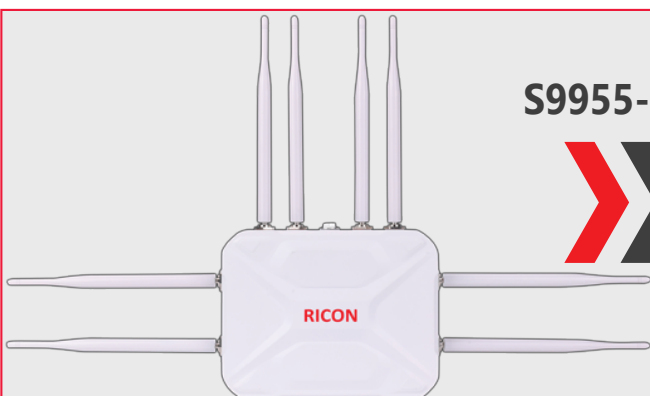
Electricity Metering
Gas Meters
Water Meters
Thermal Meters
Smart Grid
Wind Generators
EV Charging



Intelligent Agriculture

Food Tracing
Farmland Monitoring
Farm Management
Meteorological Stations
Environment Monitoring

S9955-5G/ODU Models & Quick Specifications



S9955-5G

1 x 5G Radio Interface (Qualcomm X62)
1 x 100/1000TBase Ethernet WAN Interface (PoE)
2 x 100/1000TBase Ethernet LAN Interface
WEB UI/CLI/SNMPv3/Telnet/SSH/TR069
Ricon Management System Controller (RMSC)
Component-level Industrial Design
IP67 Water-Proof Certified Outdoor Unit
802.11b/g/n/ac Wi-Fi
Qualcomm X62 Inside
TR069 support

S9955-5G/ODU Router Specifications

Interfaces



- » 1 x 5G Radio Interface (Qualcomm X62)
- » 1 x 100/1000TBase Ethernet WAN Interface
- » 2 x 100/1000TBase Ethernet LAN Interface
- » 1 x USB 2.0
- » 1 x MicroSD SD Card Slot

Indicators



- » 4G
- » SIGNALLING
- » 5GNR
- » POWER
- » WIFI

Power



- » Input +9-48V DC
- » Idle 250mA @48V DC
- » Running 550mA @12V DC

Physical Specs



- » Dimensions : 217mm x 164mm x 52mm (except antenna)
- » Weight : 750 gr.
- » Industrial Alloy Metal Housing

S9955-5G/ODU Industrial Outdoor Router

Cellular



- » 5G NR NSA n41/n78/n79
- » 5G NR SA n1/n28*/n41/n77/n78/n79
- » LTE-FDD B1/B2/B3/B5/B7/B8/B20/B28
- » LTE-TDD B34/B38/B39/B40/B41
- » WCDMA B1/B2/B5/B8
- » GNSS (Optional)

Wi-Fi



- » Standard: IEEE 802.11b/g/n/ac
- » AP, Client, Station, Bridge Mode Support
- » WEP, WPA and WPA2 encryption w/AES-TKIP
- » IEEE 802.11ac 5.8Ghz Wi-Fi support
- » SSID Isolation Support
- » Channel manipulation support
- » 20Mhz/40Mhz780Mhz beamer support
- » Dual Mesh Radio Application with 802.11ac

Temperature Recognition

- » Operation Temp.: -40°C to +75°C
- » Store Temp: -40°C ~ +85°C
- » Relative humidity: <95% (non-condensing)

VPN

- » IPSec (IKEv1-IKEv2) / CA
- » PPTP/L2TP/IPIP
- » GRE/EoGRE/mGRE/DMVPN/EzVPN
- » OpenVPN

Device Management

- » Local or remote web browser (IE v8 or above)
- » CLI/Telnet/SSH command line
- » RMS Ricon Management System Controller (Optional)
- » MQTT Reporting capabilities
- » Bandwidth Utilization Monitoring
- » Secure Remote Access
- » TR069 Customized Structure Support

Failover (Intelligent Auto-Recovery)

- » Dual SIM single module for cold backup
- » Dual SIM dual module for hot backup or load balance
- » SIM/WAN backup, dual SIM failover
- » LCP, HeartBeat Package Monitoring
- » Hardware Watchdog

Security (Firewall & Filtering)

- » IP packet/Domain/MAC Filter
- » Two-Factor Authentication
- » TACACS/TACACS+/RADIUS
- » Digest Authentication (Anti-CSRF)
- » Encrypted Password Storage
- » ACL
- » Anti-DDoS

Hardware Compatibility

- » Support OpenWrt
- » Support feature customize with API
- » CPU: Qualcomm IPQ4019 Quad Core
- » SDRAM: DDR3 1GB
- » Flash: 1GB

Certifications



Health	EN 62311
Safety	EN 60950 - 1+A11+A1+A12
EMC	EN 301-489-1/-7/-17/-24 EN 55022, EN 55024
Radio	EN 301 511 EN 301 908-1/-2 EN 300 328



S9955-5G/ODU Industrial Outdoor Router

Routing Protocols

- » Static route
- » Policy Routing
- » RIPv2 / OSPF dynamic route
- » BGP
- » VRRP

Multiple Working Modes

- » LED Indicators
- » Internal Storage (MicroSD)
- » Support WEB, CLI, SSH, multiple parameter management
- » Data trigger online/offline
- » LCP/ICMP/flow/heartbeat check, ensure network reachability

Ultra Secure Data Transmission

- » VPN support GRE/L2TP/PPTP/IPSec/OpenVPN/EoGRE
- » GRE over IPSec, IPSec over PPTP/L2TP
- » Supports DHCP Server/DHCP Relay
- » SNMP network management, NTP support, GPS clock support
- » OSPF, RIP, BGP
- » QoS(Quality of Service) smart control base on protocol, application,IP subnet
- » IGMP Snooping

Easy Maintenance

- » Support local /remote firmware and patch upgrade
- » Support parameter backup and import, Support encryption
- » Support CFE firmware upgrade (Never about crash when doing upgrade)
- » Support Console port maintenance
- » Support smart switch when using multiple server
- » Local/Remote log for easy debugn

Network Connectivity

- » 5G NR NSA n41/n78/n79
- » 5G NR SA n1/n28*/n41/n77/n78/n79
- » 4G(TD-LTE/FDD LTE), DS-HSPA+, HSPA+, HSPA, WCDMA, EVDO, TD-SCDM,CDMA1x , EDGE/GPRS
- » WAN, WLAN, SIM1\SIM2 multiple way network
- » WLAN AP/station/repeater, 802.11ac
- » WAN support ADSL(PPPoE), static IP, DHCP client
- » Support VPDN, APN private network
- » 802.11b/g/n/acWi-Fi optional, WPS key
- » Supports DNS proxy and Dynamic DNS (DDNS)

RMS Ricon Management System

- » Great monitor capability
- » Remote terminal management maintenance
- » Check status of internet at any time
- » GIS showing device location
- » Remote Debug
- » Flow static and analyze (IPFix)

Industrial Design, Stable and Durable

- » Alloy shell, IP67 protection with Water-Proof
- » Antenna lightning protection
- » SIM/UIIM port: 15KV ESD protection
- » Ethernet port: 1.5KV magnetic isolation protection
- » Impact: IEC60068-2-27
- » Free-Fall: IEC68-2-32
- » Vibration: IEC68-2-6, JT/794
- » Crash: IEC68-2-29
- » EMC/EDI: EN61000-4-2, level4
- » EMC/EFTBI: EN61000-4-4, level4
- » EMC/EMF: EN61000-4-8, >level4
- » EMC/PFEMS: EN61000-4-3, level3
- » RF Induced Conductivity: EN61000-4-6, level3

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