

High Performance 5G RedCap Cellular Dual Ethernet/Serial Gateway

The IPn5G-RC is a high-performance, industrial-grade, multi-network router designed for both fixed and mobile applications. This rugged 5G RedCap router/gateway delivers download speeds of up to 223 Mbps¹ and upload speeds of up to 123 Mbps¹, making it ideal for medium speed, large capacity data needs! The IPn5G-RC features Dual Gigabit Ethernet, Dual SIM + eSIM, 3x Serial Data Ports, 8x Programmable I/O and Integrated GPS.

5G RedCap



5G RedCap - Future Proof

LTE CAT4 Fallback

Dual Gigabit Ethernet

Dual SIM + eSIM

8x Programmable I/O

3x Serial Data Ports

Features

- **Fast 5G-SA Redcap Operation with LTE CAT4 Fallback**
- **Up to 223 Mbps Download / 123 Mbps Upload¹**
- **Dual SIM Card + eSIM w/Failover & Load Balancing**
- **Firewall with ACL Security, DMZ & Port Forwarding**
- **Digital I/O - 8 Analog Inputs/Outputs or 8 Digital Outputs**
- **IPSec, GRE / VPN Tunneling**
- **2 x Serial Data/Console Ports (RS232), 1 Data Port (RS485)**
- **2 x 10/100/1000 Ethernet Ports (WAN/LAN)**
- **Multi WAN Failover**
- **USB 2.0 Port**
- **Integrated Multi-constellation GNSS/GPS (TCP/UDP/SMTP)**
- **Wide Operating Temperature (-40°C to +85°C)**
- **Data Usage Alerts (Email, SMS)**
- **User interface via SSH or HTTP/HTTPS web browser**
- **Microhard NMS2 & Microhard IoT Portal Support**



IPn5G-RC Specifications



Cellular Data Rate (Max.) ¹	
5G SA Sub-6	DL 223 Mbps; UL 123 Mbps
LTE CAT4	DL 195 Mbps; UL 105 Mbps
Cellular Frequency Bands	
3GPP Rel-17 Redcap SA operation, Sub-6 GHz	
5G	5G NR SA n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 77/ 78/ 79
	DL 2X2 MIMO n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 77/ 78/ 79
LTE	LTE-FDD B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 30/ 66/ 70/ 71
	LTE-TDD B34/ 38/ 39/ 40/ 41/ 42/ 43/ 48
LTE	DL 2X2 MIMO B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 30/ 38/ 39/ 40/ 41/ 42/ 43/ 48/ 66/ 70/ 71
Network	
Carrier Connection	ICMP Keep Alive, Traffic Watchdog, DDNS, Failover
Network Protocols	IPv4, IPv6, TCP, UDP, TCP/IP, ARP, ICMP, DHCP, HTTP, SNMP, FTP, DNS, Serial over IP, Modbus Slave (TCP/Serial), Load Balancer
Security	VPN, IPsec with IKE/ISAKMP; Multiple tunnel support (16); 3DES and up to 256-bit AES Encryption, VPN Tunneling L2TP, GRE, Open VPN, HTTPS, RADIUS
Management	Telnet, WebUI, SNMP V1/2/3, Wireless Upgrade (HTTP/FTP), AT Command Interface (Serial/Telnet), Microhard NMS2 & IoT Portal Support, Data Usage Alerts, SSH
Diagnostics	RSSI, Ec/No, Voltage, Temperature, Remote diagnostics, UDP Event Reporting, SMS Alerts, Netflow
Serial	
Serial Interface	1 x RS232 Data (Full Support) 1 x RS232 Console/Data (TX/RX) 1 x RS485 Data (2/4 wire) Baud Rate: 300bps to 230kbps TCP Server/Client / UDP Server/Client / Modbus / SMTP
Ethernet	
LAN	2x RJ45 Ethernet Ports (10/100/1000 Gbps)
I/O	
	8x Analog Input/Output or 8x Digital Outputs
USB	
	USB 2.0

GPS	
Reporting	TCP/UDP/Email, GpsGate, TAIP
GNSS	GPS, GLONASS, BDS, Galileo, QZSS
GPS Protocols	NMEA 0183 V3.0
Acquisition Sensitivity	-145 dBm (Cold-start)
Tracking Sensitivity	-160 dBm (Open Sky/Active-patch Antenna)
Accuracy	<2m CEP-50 (Open sky, 1 Hz tracking)
Standalone time to first fix	1s/29s/32s (hot/warm/cold)
Total number of SVs	~55 SVs
Interfaces	
Antenna	3x SMA Female (Main, DIV, GPS)
Data	2x RJ-45 (Ethernet)
	6 PIN Interlock (RS485)
	10 PIN Interlock (RS232/Digital I/O)
	DE9 RS232 Micro USB
SIM	2x Micro (2FF), eSIM (Optional)
Power, I/O	4 PIN Interlock
Input Voltage	
	8 - 30V _{DC} Reverse Polarity Protection
Environmental	
Operating Temperature	-40°C to +85°C
Humidity	5-95%, non-condensing
Dimensions	
Size	~57 mm (W) x 98 mm (L) x 45 mm (H)
Weight	~ 225 grams
Approvals	
Regulatory	FCC, IC/ISED, PTCRB (Pending)
Carrier	Carrier Specific Approvals
UL Hazloc (C1Div2)	Pending
Order Options	
Model	IPn5G-RC

1. Chipset rated speeds



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