

High Performance 5G Cellular Dual Ethernet/Serial Gateway w/ Dual SIM

The IPn5G is a high performance, industrial strength, multi-network router for fixed and mobile applications. The IPn5G rugged 5G router/gateway features a Qualcomm Snapdragon Chipset and is capable of up to 3.4 Gbps download¹ and 900 Mbps upload¹, ideal for data hungry applications! The IPn5G features Dual Gigabit Ethernet, Dual SIM w/Failover, 3x Serial Data Ports, 8x Programmable I/O and Integrated GPS.

5G



5G Cellular

Dual Gigabit Ethernet

8x Programmable I/O

Dual SIM w/Failover

3x Serial Data Ports

Features

- Ultra Fast 5G Operation with 4G/LTE Fallback
- Up to 3.4 Gbps Download / 900 Mbps Upload ¹
- Dual SIM Card Support 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 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 Specifications



Cellular Data Rate (Max.) ¹	
5G SA Sub-6	DL 2.4 Gbps; UL 900 Mbps
5G NSA Sub-6	DL 3.4 Gbps; UL 550 Mbps
LTE CAT19	DL 1.6 Gbps; UL 200 Mbps
WCDMA	DL 42 Mbps; UL 5.76 Mbps
Cellular Frequency Bands	
5G NR	NSA n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 75/ 76/ 77/ 78/ 79
	SA n1/ 2/ 3/ 5/ 7/ 8/ 12/ 13/ 14/ 18/ 20/ 25/ 26/ 28/ 29/ 30/ 38/ 40/ 41/ 48/ 66/ 70/ 71/ 75/ 76/ 77/ 78/ 79
LTE	FDD B1/ 2/ 3/ 4/ 5/ 7/ 8/ 12/ 13/ 14/ 17/ 18/ 19/ 20/ 25/ 26/ 28/ 29/ 30/ 32/ 66/ 71
	TDD B34/ 38/ 39/ 40/ 41/ 42/ 43/ 48
	LAA B46
UMTS	WCDMA B1/ 2/ 4/ 5/ 8/ 19
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 921kpbs 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	4x SMA Female (Main, DIV, MIMO1/2)
Data	2x RJ-45 (Ethernet) 6 PIN Interlock (RS485) 10 PIN Interlock (RS232/Digital I/O) DE9 RS232 Micro USB
SIM	2x Nano (4FF)
Power, I/O	4 PIN Interlock
Input Voltage	
	7 - 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	TBA
UL Hazloc (C1Div2)	Pending
Order Options	
Model	IPn5G

1. Chipset rated speeds



Microhard Systems Inc.
150 Country Hills Landing N.W.
Calgary, AB, Canada T3K 5P3

www.microhardcorp.com
info@microhardcorp.com
1-855-353-0028