

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

The Bullet5G is a high performance, industrial strength, multi-network router for fixed and mobile applications. The Bullet5G 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 Bullet5G features Gigabit Ethernet, Dual SIM w/Failover, RS232/485 Serial, 2x Programmable I/O and Integrated GPS.

5G



5G Cellular

Gigabit Ethernet

Integrated GPS

Dual SIM w/Failover

RS232/485 Serial

Features

- Ultra Fast 5G Operation with 4G/LTE Fallback
- Up to 3.4 Gbps Download / 900 Mbps Upload¹
- Dual SIM Card Support w/Failover & Load Balancing
- Firewall with ACL Security, DMZ & Port Forwarding
- 2x Programmable I/O
- IPSec, GRE / VPN Tunneling
- RS232/485 Serial Console/Data Port
- Gigabit Ethernet
- IPv6 & IPv4 Support
- 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



Bullet5G 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	RS232/485 Console/Data Port Baud Rate: 300bps to 230kbps TCP Server/Client / UDP Server/Client / Modbus / SMTP
Ethernet	
LAN	1x RJ45 Ethernet Ports (10/100/1000 Gbps)
I/O	
	2x Programmable I/O
USB	
	1x USB Type-C

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
Host Interfaces	
Antenna	4x SMA Female (Main, DIV, MIMO1/2)
Data	Ethernet: RJ45 Serial: DE9 Female USB Type-C
SIM	2x Nano (4FF), Optional eSIM
Power, I/O	4 PIN Interlock
Input Voltage	
	7 - 58V _{DC} PoE (802.3af) Reverse Polarity Protection
Environmental	
Operating Temperature	-40°C to +85°C
Humidity	5-95%, non-condensing
Dimensions	
Size	~50 mm (W) x 85 mm (L) x 34 mm (H)
Weight	~ 200 grams
Approvals	
Regulatory	FCC, IC/ISED, PTCRB
Carrier	TBA
UL Hazloc (C1Div2)	Pending
Order Options	
MHK120100	Bullet5G
MHK120102	Bullet5G + Antenna AC Kit

1. Chipset rated speeds



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