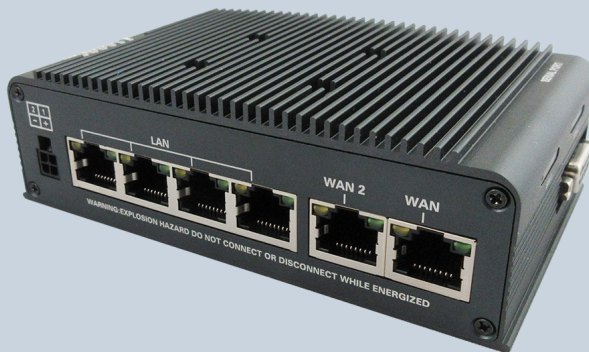


High Performance 5G Cellular Ethernet/Serial Gateway w/ Dual Band AX WIFI

The BulletPlusAX-5G is a high performance, industrial strength, multi-network router for fixed and mobile applications. The BulletPlusAX-5G 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 BulletPlusAX-5G features 4x Gigabit LAN Ports, Dual Independent Gigabit WAN Ports, Dual SIM w/Failover, Concurrent Dual Band 802.11ax WIFI, Dual Serial Ports, 2x Programmable I/O, and Standalone GPS.

5G



5G Cellular

6x Gigabit Ethernet Ports

Concurrent Dual Band WIFI

Dual Serial Ports

Dual SIM w/Failover

Features

- **Ultra Fast 5G Operation with 4G/LTE Fallback**
- **Up to 3.4 Gbps Download / 950 Mbps Upload ¹**
- **Dual SIM Card Support w/Failover & Load Balancing**
- **Concurrent Dual Band 802.11AX (2.4 & 5 GHz) WIFI**
- **Firewall with ACL Security, DMZ & Port Forwarding**
- **2x Programmable I/O**
- **IPSec, GRE / VPN Tunneling**
- **RS232/485 Serial Data Port / RS232 Console/Data Port**
- **5 - Gigabit Ethernet (4LAN/1WAN)**
- **IPv6 & IPv4 Support**
- **Standalone 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 IoT (NMS) Portal Support**



BulletPlusAX-5G 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	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
Wi-Fi Features	
Modes	Access Point, Client, Repeater Concurrent 2.4 (802.11b/g/n) & 5 GHz (802.11a/n/ac/ax)
Performance (2X2 MIMO)	Rate Mode Tx(dBm)* Rx(dBm)
	6 Mbps a 26 -94 ± 2
	54 Mbps a 26 -80 ± 2
	1 Mbps b 26 -95 ± 2
	11 Mbps b 26 -90 ± 2
	6 Mbps g 26 -94 ± 2
	54 Mbps g 26 -80 ± 2
	MCS0 n (HT20) 26 -94 ± 2
	MCS7 n (HT20) 26 -76 ± 2
	MCS0 n (HT40) 26 -92 ± 2
	MCS7 n (HT40) 26 -73 ± 2
	MCS0 ac (VHT20) 26 -93 ± 2
	MCS8 ac (VHT20) 26 -71 ± 2
	MCS0 ac (VHT80) 26 -88 ± 2
	MCS9 ac (VHT80) 26 -66 ± 2
	MCS0 ax (VHT20) 26 -92 ± 2
	MCS8 ax (VHT20) 26 -70 ± 2
	MCS0 ax (VHT80) 26 -87 ± 2
	MCS9 ax (VHT80) 26 -65 ± 2
*Total Tx power in dBm for 2 chains	
Serial Ports	
Serial Interface	1x RS232/485 Serial Port, 1x RS232 Console Port Baud Rate: 300bps to 230kbps TCP Server/Client / UDP Server/Client / Modbus / SMTP
Ethernet Ports	
LAN	4x RJ45 Ethernet Ports (10/100/1000 Gbps)
WAN	2x RJ45 Ethernet Port (10/100/1000 Gbps)
I/O	
	2x Programmable I/O
USB	
	Type A USB 2.0 Host Mode

GPS (Optional)	
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
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 NMS Support, Data Usage Alerts, SSH
Diagnostics	RSSI, Ec/No, Voltage, Temperature, Remote diagnostics, UDP Event Reporting, SMS Alerts, Netflow
Host Interfaces	
Antenna	WiFi: 2x RPSMA Female Cellular: 4x SMA Female GPS: 1x SMA Female
Data	Ethernet: 6x RJ45 Serial/Console: 2x DE9 Female USB: Type A
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	Approx. 5" x 3" x 1.5" (127mm x 76mm x 38mm)
Weight	Approx. 425 grams
Approvals	
	FCC/ISED(IC) PTCRB (Pending) RoHS Compliant
Order Options	
Model	BulletPlusAX-5G

1. Chipset rated speeds



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