

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

The BulletPlusAX-5G-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 BulletPlusAX-5G-RC features 4x Gigabit LAN Ports, Dual Independent Gigabit WAN Ports, Dual SIM + eSIM, Concurrent Dual Band WiFi 6, Dual Serial Ports, 2x Programmable I/O, and Standalone GPS.

5G RedCap



5G RedCap - Future Proof

LTE CAT4 Fallback

6x Gigabit Ethernet Ports

Concurrent Dual WIFI 6

Dual Serial Ports

Dual SIM + eSIM

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
- Concurrent Dual Band 802.11AX (2.4 & 5 GHz) WIFI 6
- Firewall with ACL Security, DMZ & Port Forwarding
- 2x Programmable I/O
- IPSec, GRE / VPN Tunneling
- RS232/485 Serial Data Port / RS232 Console/Data Port
- Six 10/100/1000 Ethernet Ports (4LAN/2WAN)
- 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 NMS2 & Microhard IoT Portal Support



BulletPlusAX-5G-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		
	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		

WiFi Features

Modes Access Point, Station/Client, Mesh Repeater
Concurrent 2.4 & 5 GHz

WiFi Performance 2.4 GHz				
Mode	HT Mode	Max. Rate	Max. Power (Adjustable)	Max. Sensitivity
802.11b	N/A	11Mbps	5 - 22 dBm	-99 ± 2 dBm
802.11g	N/A	54Mbps	5 - 22 dBm	-95 ± 2 dBm
802.11n	HT20/40	MCS7	5 - 22 dBm	-90 ± 2 dBm
802.11ax	HE20/40/80	MCS11	5 - 22 dBm	-61 ± 2 dBm
WiFi Performance 5 GHz				
Mode	HT Mode	Max. Rate	Max. Power (Adjustable)	Max. Sensitivity
802.11n	HT20/40	MCS7	5 - 24 dBm	-90 ± 2 dBm
802.11ac	VHT20/40/80	MCS9	5 - 24 dBm	-90 ± 2 dBm
802.11ax	HE20/40/80	MCS11	5 - 24 dBm	-61 ± 2 dBm

Serial Ports

Serial Interface 1x RS232/485 Serial Port, 1x RS232 Console + Data Port
Baud Rate: 300bps to 230kbps
TCP Server/Client / UDP Server/Client / Modbus / SMTP

Ethernet Ports (10/100/1000)

6 LAN or
5 LAN + 1 WAN or
4 LAN + 2 Independent WAN

I/O

2x Programmable I/O

USB

Type A USB 2.0 Host Mode

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

Network

Carrier Connection ICMP Keep Alive, Traffic Watchdog, DDNS, Failover
Network Protocols IPv4, IPv6, TCP, UDP, TCP/IP, ARP, ICMP, DHCP, HTTP, SNMP V1/2/3, FTP, NTP, DNS, VRRP, 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 Standard (Optional SMA)
GPS: 1x SMA Female
Cellular: 2x SMA Female
Data Ethernet: 6x RJ45
Serial/Console: 2x DE9 Female
USB: Type A
SIM 2x Nano (4FF), eSIM
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 Approx. 5" x 3" x 1.2" (128mm x 76mm x 30mm)
Weight Approx. 350 grams

Approvals

FCC/ISED(IC)
PTCRB (Pending)
RoHS Compliant

Order Options

Model BulletPlusAX-5G-RC

1. Chipset rated speeds



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