

## BulletPlus-NA2 - 4G/LTE Ethernet/Serial/USB Gateway w/WIFI

The BulletPlus-NA2 provides a feature packed, compact industrial strength wireless solution using ultra fast 4G/LTE technology for critical data applications. Supporting commonly used North America Bands the BulletPlus-NA2 provides up to 150 Mbps for today's data intensive applications. The BulletPlus-NA2 features 3 Ethernet Ports, Dual SIM support, 802.11b/g/n WIFI, RS232/485 Serial Data, 2x Programmable I/O and Standalone GPS.

4G/LTE

Dual SIM

Standalone GPS

3x Ethernet Ports

Low Power

RS232/485 Serial Port



## Features

- Low Power Consumption
- Ultra Fast 4G/LTE Operation
- Up to 150Mbps Downlink / 50 Mbps Uplink Over Air
- Dual SIM Card Support w/Failover
- Support for 802.11b/g/n devices (Up to 150 Mbps)
- IP Pass-through Mode
- Firewall with ACL Security, DMZ & Port Forwarding
- 2x Programmable Analog/Digital Inputs or 2 Digital Outputs
- IPSec, GRE / VPN Tunneling
- RS232/485 Serial Data/Console Port
- 3 - 10/100 Ethernet (PoE), (3x LAN or 1x WAN/2xLAN)
- USB Host Port
- Standalone GPS (TCP Server, UDP Reporting, SMTP)
- Wide Operating Temperature (-40°C to +85°C)
- Data Usage Alerts (Email, SMS)
- User interface via telnet or web browser
- Microhard NMS Support



# BulletPlus-NA2 Specifications

<b>Supported Bands</b>	LTE FDD: B2,B4,B5,B12,B13,B14,B66,B71 WCDMA: B2,B4,B5	<b>Security</b>	VPN, IPSec with IKE/ISAKMP; Multiple tunnel support (16); 3DES and up to 256-bit AES Encryption, VPN Tunneling L2TP, GRE, HTTPS, RADIUS																																				
<b>Cellular Data Features*</b>	LTE FDD: Up to 150 Mbps DL, 50 Mbps UL LTE TDD: Up to 130 Mbps DL, 35 Mbps UL DC-HSPA+: Up to 42 Mbps DL, 5.7 Mbps UL WCDMA: Up to 384 Kbps DL, 384 Kbps UL	<b>Firewall</b>	NAT, NAT-T VPN tunneling, Port forwarding, VPN/GRE pass-through; Access control lists, DMZ																																				
<small>*Module Standalone Laboratory Performance</small>		<b>Management</b>	Telnet, WebUI, SNMP V1/2/3, Wireless Upgrade (HTTP/FTP), AT Command Interface (Serial/Telnet), Microhard NMS Support, Data Usage Alerts, SSH																																				
<b>WiFi Features</b>	802.11b/g/n (2.4GHz)	<b>Diagnostics</b>	RSSI, Ec/No, Voltage, Temperature, Remote diagnostics, UDP Event Reporting, SMS Alerts, Netflow																																				
<b>WiFi Performance</b>	<table border="1"> <thead> <tr> <th>Rate</th> <th>Mode</th> <th>Tx (dBm)</th> <th>Rx (dBm)</th> </tr> </thead> <tbody> <tr> <td>1 Mbps</td> <td>b</td> <td>30</td> <td>-97 ± 1</td> </tr> <tr> <td>11 Mbps</td> <td>b</td> <td>30</td> <td>-92 ± 1</td> </tr> <tr> <td>6 Mbps</td> <td>g</td> <td>30</td> <td>-94 ± 1</td> </tr> <tr> <td>54 Mbps</td> <td>g</td> <td>26</td> <td>-75 ± 1</td> </tr> <tr> <td>MCS0</td> <td>n (HT20)</td> <td>30</td> <td>-96 ± 1</td> </tr> <tr> <td>MCS7</td> <td>n (HT20)</td> <td>26</td> <td>-75 ± 1</td> </tr> <tr> <td>MCS0</td> <td>n (HT40)</td> <td>30</td> <td>-94 ± 1</td> </tr> <tr> <td>MCS7</td> <td>n (HT40)</td> <td>26</td> <td>-73 ± 1</td> </tr> </tbody> </table>	Rate	Mode	Tx (dBm)	Rx (dBm)	1 Mbps	b	30	-97 ± 1	11 Mbps	b	30	-92 ± 1	6 Mbps	g	30	-94 ± 1	54 Mbps	g	26	-75 ± 1	MCS0	n (HT20)	30	-96 ± 1	MCS7	n (HT20)	26	-75 ± 1	MCS0	n (HT40)	30	-94 ± 1	MCS7	n (HT40)	26	-73 ± 1	<b>Input Voltage</b>	7 - 30VDC Passive PoE on WAN (optional) Reverse polarity protection
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<b>Serial Interface</b>	RS232/485* Serial Data Port <small>*RS485 introduced on devices shipped after Nov 30, 2021</small>	<b>Current Consumption (@12VDC)</b>	Idle (LTE Connected): 120 mA WiFi (AP mode+LTE): 170 mA																																				
<b>Serial Baud Rate</b>	300bps to 921kbps	<b>Connectors:</b>	<table border="0"> <tr> <td>Antenna</td> <td>3x SMA Female (Cell, Div, GPS)</td> </tr> <tr> <td></td> <td>1x RPSMA Female (WiFi)</td> </tr> <tr> <td>Data</td> <td>3x RJ-45 (Ethernet)</td> </tr> <tr> <td></td> <td>4 PIN Interlock (Vin, I/O)</td> </tr> <tr> <td></td> <td>DB9 RS232</td> </tr> <tr> <td>USB</td> <td>Type A</td> </tr> <tr> <td>SIM</td> <td>2x 1.8 / 3.0V (2FF)</td> </tr> </table>	Antenna	3x SMA Female (Cell, Div, GPS)		1x RPSMA Female (WiFi)	Data	3x RJ-45 (Ethernet)		4 PIN Interlock (Vin, I/O)		DB9 RS232	USB	Type A	SIM	2x 1.8 / 3.0V (2FF)																						
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<b>Serial Port Service</b>	Extensive Serial Port Support: TCP Server/Client / UDP Server/Client / Modbus / SMTP	<b>Environmental</b>	<table border="0"> <tr> <td>Operating Temperature</td> <td>-40°C to +85°C</td> </tr> <tr> <td>Humidity</td> <td>5-95%, non-condensing</td> </tr> <tr> <td>Vibration</td> <td>MIL-STD-810G</td> </tr> </table>	Operating Temperature	-40°C to +85°C	Humidity	5-95%, non-condensing	Vibration	MIL-STD-810G																														
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<b>Ethernet</b>	2x LAN 10/100, Auto - MDI/X IEEE 802.3 1x WAN 10/100, Auto - MDI/X IEEE 802.3	<b>Weight</b>	Approx. 175 grams																																				
<b>I/O</b>	2x Programmable Analog/Digital Inputs or 2x Digital Outputs	<b>Dimensions</b>	Approx. 3.05" x 2.2" x 1.1" (77mm x 55mm x 28mm)																																				
<b>USB</b>	Host Type A USB 2.0	<b>Approvals</b>	FCC / IC PTCRB UL Hazloc MIL-STD-810G Carrier Specific Approvals																																				
<b>GPS</b>	TCP Server, UDP/Email Reporting, GpsGate GPS, GNSS, GLONASS, BeiDou	<b>Order Options</b>																																					
Navigation Update Rate	Up to 5 Hz	<b>Model</b>	BulletPlus-NA2																																				
Accuracy	Position: 2.5 m CEP SBAS: 2.0 m CEP																																						
Sensitivity* (Active/Passive Antenna)	Tracking: -160 dBm Cold Starts: -145 dBm Hot Starts: -155 dBm <small>*Sensitivities are typical and may vary</small>																																						
<b>SMS</b>	SMS to/from Ethernet via Telnet SMS Alerts SMS Remote Control																																						
<b>Carrier Connection</b>	PAP, CHAP, ICMP Keep Alive, Traffic Watchdog, DDNS, IP pass-through.																																						
<b>Network Protocols</b>	TCP, UDP, TCP/IP, ARP, ICMP, DHCP, HTTP, SNMP, FTP, DNS, Serial over IP, Modbus Slave (TCP/Serial)																																						

## Contact Information

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