

Vanguard 3G™ Cellular Broadband Router



For over 25 years, Dataradio products have delivered private wireless connectivity for mission critical applications. With the Dataradio Vanguard 3G cellular broadband router, we have expanded our offering to include public cellular networks. The Vanguard 3G was built tough to provide reliable CDMA or GSM cellular connectivity optimized for high speed, mobile environments with demanding data requirements.

CDMA models leverage high-speed EVDO Rev A technology to provide data access at speeds up to 3.1 Mbps with backward compatibility to EVDO Rev 0 and CDMA 1xRTT technology. GSM models leverage high-speed HSPA technology to provide data access at speeds up to 7.2 Mbps with backward compatibility to EDGE and GPRS technologies.

This intelligent broadband router incorporates a highly sensitive 16-channel GPS receiver and an intelligent algorithm that offers outstanding receive sensitivity and improved accuracy, integrity, and availability of GPS signals - even when the vehicle is off. An optional, built in WiFi access point also allows your tethered devices to remain connected even when you leave the vehicle.

Key Benefits

- Integrated local and remote GPS provides location info for AVL and for local mapping
- Serial and Ethernet interfaces simplify deployment and ease technology migration
- Built-in WiFi option extends the wireless network beyond the vehicle with tethered connectivity to handheld devices or laptop
- Secure, remote management with password protected configuration for easy upgrades and maintenance
- Rugged enclosure with a wide operating temperature range suitable for trunk mounting

High Speed

Long Range

Ruggedized

Safe/Secure

Diversity

Connectivity

Vanguard 3G Specifications

CDMA Technology/Bands

- EVDO Rev A (IS-856-A)
800 MHz Cellular/1900 MHz PCS
Downlink up to 3.1 Mbps
Uplink up to 1.8 Mbps
- 1xEVDO Rev 0 (IS-856)
800 MHz Cellular/1900 MHz PCS
Downlink up to 2.4 Mbps
Uplink up to 153.6 kbps
- 1xRTT (IS-2000)
800 MHz Cellular/1900 MHz PCS
Downlink up to 153.6 kbps
Uplink up to 153.6 kbps

GSM Technology/Bands

- UMTS/HSPA (HSDPA & HSUPA)
Tri-band 850/1900/2100 Mhz
Downlink up to 7.2 Mbps
Uplink up to 2.0 Mbps
- UMTS/EDGE/GPRS
Quad-band 850/900/1800/1900 MHz
Downlink up to 236 kbps
Uplink up to 236 kbps

All Models

Temperature Range

- Operating: -30 to +60°C²
- Storage: -40 to +85°C

Mechanical Specifications

- Size: 5.5"(L) x 6.0"(W) x 1.8"(H)
(14 x 15.25 x 4.5 cm)
- Weight: 2.65 lb (1.2kg)

Power Consumption

- TX (Average at 13.8VDC)
350 mA without WiFi module
500mA with WiFi module
- RX(Average at 13.8VDC)
130 mA without WiFi module
240mA with WiFi module
- Input Voltage: 9 - 28V DC

Host Interfaces

- Ethernet: 10/100 Mbps RJ-45, auto MDIX, auto-negotiate, & activity LED
- Serial: EIA-232F DE9 Female DCE, up to 115Kbps
- I/O: 4 Digital inputs, 4 analog inputs, 4 digital outputs (relay driven contact closures)
- USB: V2.0 client port, Type B¹

Antenna Connection

- Primary: 50 Ohm TNC Female
- RX Diversity: 50 Ohm SMA Female
- GPS: 50 Ohm SMA Female
- WiFi: 50 Ohm RP-SMA Female

LED Indicators

- Power
- Status
- Network
- GPS
- WiFi

Application Interfaces

- Ethernet: TCP/IP, UDP/IP, DHCP, HTTP, SNMP
- GPS: NMEA, TAIP
- WiFi: IEEE 802.11b/g, access point (AD HOC) and client modes
- Security(WAP) and Encryption (AES, WEP, TKIP)
- EIA-RS232: 3-wire DOX mode, GPS reporting over serial port
- Command: Web interface
- USB: Ethernet over USB¹

Standards/Approvals

- FCC ID: EOT14071R2
- Industry Canada ID: 773-14071R2
- PTCRB
- Australia: A-tick
- Mil-Std 810-F
- RoHS
- Carrier specific approvals

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¹ Reserved for future use

² Limited RF TX power from +60 to +70°C