

## Vanguard 3G™ Cellular Broadband Router



For over 25 years, Dataradio products have delivered private wireless connectivity for mission critical applications. With the introduction of the Vanguard 3G, we are expanding our portfolio to include cellular connectivity. Vanguard 3G was built tough to provide reliable wide area CDMA or GSM cellular connectivity optimized for high speed, mobile environments with demanding data requirements.

**CDMA models** leverage high-speed EV-DO Rev 1 technology to provide data access at speeds up to 3.1 Mbps with backward compatibility to EV-DO Rev 0 and CDMA 1x technology. **GSM models** leverage high-speed HSUPA technology to provide data access at speeds up to 7.2 Mbps with backward compatibility to HSDPA, UMTS, EDGE and GPRS technology.

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. What's more, an optional built in WiFi access point allows your tethered devices to remain connected even when you leave the vehicle.

### Key Benefits

- Built-in WiFi option extends the wireless network beyond the vehicle with tethered connectivity to handheld devices or lap top
- Integrated local and remote GPS provides location info for AVL and for local mapping
- Serial and Ethernet interfaces simplify deployment and ease technology migration
- 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

- EV-DO Rev A (IS-856-A)  
800 MHz Cellular; 1900 MHz PCS  
Downlink up to 3.1 Mbps Uplink up to 1.8 Mbps
- 1xEV-DO Rev 0 (IS-856)  
800 MHz Cellular; 1900 MHz PCS  
Downlink up to 2.4 Mbps Uplink 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/HSUPA  
Quad-band 850/900/1800/1900  
Downlink up to 7.2 Mbps  
Uplink up to 2.0 Mbps
- UMTS/HSDPA  
Tri-band 850/1900/2100  
Downlink up to 3.6 Mbps  
Uplink up to 384 Kbps
- 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 +70° C
- Storage: -40 to +85° C

### Dimensions

- 6.0 x 1.77 x 5.0 inches
- 2.65 lbs.

### Security

- AES, WEP, TKIP

### Power Consumption (@12V DC)

- Tx/Rx (Typical/Max): 316/340 mA
- Idle: 166 mA
- Low-Power Mode: 54 mA
- Input Voltage: 9 - 28V DC

### Host Interfaces

- Ethernet: 10/100 Mbps RJ-45, Auto MDIX
- Serial: EIA-232F DE9 Female DCE
- I/O: 4 Digital, 4 Analog, 2 Relay
- USB: Type B

### Antenna Connection

- Primary: 50 Ohm TNC
- Rx Diversity: 50 Ohm SMA
- GPS: 50 Ohm SMA
- WiFi: 50 Ohm SMA

### LED Indicators

- Network, Signal, Activity, Service, GPS, Power

### Application Interfaces

- TCP/IP, UDP/IP, DHCP, HTTP, SNMP, SMTP, SMS, MSCI, NMEA, TAIP, GPS Binary

### Standards/Approvals

- FCC
- Industry Canada
- Mil-Std 810-F
- PTCRB
- CE
- Carrier specific approvals

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