

# Vanguard™

3G CELLULAR BROADBAND ROUTER

CalAmp®



## *Mission Critical Broadband Connectivity for Fixed and Mobile Applications*

Vanguard offers a single, flexible platform to address a variety of wireless communications needs with serial to IP conversion, over-the-air configuration and system monitoring for optimal connectivity. This ready to deploy broadband router enables wireless data connectivity for up to two LAN and one serial device over public cellular networks at 3G speeds.

Equipped for a broad range of fixed applications, Vanguard provides reliable connectivity for Programmable Logic Controllers (PLCs), Remote Terminal Units (RTUs), Ethernet web cameras or any other Ethernet or serial device. For mobile applications, this intelligent broadband router incorporates an optional 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 Wi-Fi access point also allows your tethered devices to remain connected even when you leave the vehicle.

This widely deployed wireless solution delivers countless software capabilities. OEMs may tailor the Vanguard by loading their application on the Open Developer Platform (ODP) which allows a Linux application to run on a partition of the embedded Linux operation system.

## *Experience The Advantage*

- Internal web configuration, diagnostics and OTA updates
- Auto redial (always-on connection)
- ODP partitioned flash for custom applications
- GRE and IPsec tunneling, local IP, VPN client and WAN gateways
- Internal serial port for embedded devices
- Optional local and remote GPS for AVL and local mapping
- Wi-Fi option with tethered connectivity



# Vanguard Specifications

## GENERAL

Input Voltage	9 to 28 VDC
TX Power @13.8 VDC	350 mA (500 mA with Wi-Fi)
RX Power @13.8 VDC	130 mA (240 mA with Wi-Fi)
Diversity Support	Rx Diversity
Security	IPsec Tunneling, RADIUS Authentication
Certifications	IC, FCC

## CONNECTORS/INTERFACE

Device Management	SNMP, HTTP embedded web server for setup and help
LED Indicators	RSSI, SVC, NET, GPS, AUX
Power	4-pin locking connector
Ethernet	Dual 10/100 Mbps RJ-45, auto MDIX, auto-negotiate, & activity LED
Serial I/O	EIA-232F DE9 Female DCE, up to 115Kbps 2 digital inputs/outputs, 2 analog inputs, 2 outputs (relay driven contact closures)
Primary Antenna	50 Ohm SMA Female
RX Diversity Antenna	50 Ohm SMA Female
GPS Antenna	50 Ohm SMA Female (optional)
Wi-Fi Antenna	50 Ohm RP-SMA Female (optional)

## MECHANICAL/ENVIRONMENTAL

Dimensions	4.3 (L) x 6.0(W) x 1.8(H) in, 14x15.25x4.5 cm
Weight	2.5 lb, 1.13 kg
Temperature Range	-30° to +60° C, -22° to +140° F
Humidity	5% to 95% non-condensing

## CDMA TECHNOLOGY/BANDS

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

## GSM TECHNOLOGY/BANDS

UMTS/HSPA	Tri-band 850/1900/2100 MHz Downlink 7.2 Mbps, Uplink 2.0 Mbps
EDGE/GPRS	Quad-band 850/900/1800/1900 MHz Downlink 236 kbps, Uplink 236 kbps



Industrial  
Wireless

CalAmp's industrial wireless solutions combine utility-class performance and the proven reliability needed for mission critical communications. Our ruggedized line of licensed, unlicensed, and cellular devices provide narrowband, wideband and broadband data connectivity for fixed and mobile applications.

