Vanguard 400™

Industrial Cellular Router

Cal/Amp®

Reliable, Energy Efficient Wireless Connectivity for Industrial Fixed Assets

Experience The Advantage

- Reliable secure wireless connectivity

- CDMA cellular configuration

- Auto redial for always-on connection

- Open Developer Platform partitioned flash and API for custom applications

- Secure management via Device Outlook, HTTPS and Radius authentication

- Browser configuration, diagnostics and OTA updates

Secure Industrial Communications

Uniquely designed for rugged energy efficient connectivity, Vanguard 400™ is a flexible platform that addresses a variety of wireless communication needs with serial to IP conversion, over-the-air configuration and system monitoring for optimal connectivity. The Vanguard 400™ has been cost-optimized for serial applications while also meeting industry standards including MIL-STD-810G, facilitating economical wireless connectivity in the most challenging environmental conditions. Vanguard 400™ is built on proven 3G cellular technology for unsurpassed coverage, matched to serial data throughput requirements, eliminating higher cost LTE technology.

This ready-to-deploy broadband router boasts efficient consumption and a field proven ability to transport a wide array of telemetry and serial protocols, resulting in an intelligent communication device with the ability to integrate seamlessly into existing equipment topologies. Enabling intelligence at the edge, with integrated I/O and an embedded programing environment, Vanguard 400™ improves ROI and future proofs deployments. Vanguard 400™ delivers efficient highly reliable connectivity for a broad range of fixed applications such as industrial remote monitoring and control, SCADA and telemetry applications and intelligent traffic systems.

Intelligent

Like the other variants of the widely deployed Vanguard family of wireless solutions, Vanguard 400™ delivers countless software capabilities. The Vanguard 400™ provides reliable connectivity for Programmable Logic Controllers (PLCs), Remote Terminal Units (RTUs) and any serial device. OEMs and developers can build custom applications on the Open Developer Platform (ODP) designed to simplify the development and accelerate time-to-market of embedded M2M and Industrial IoT applications to facilitate distributed intelligence and local decision making at the edge of the network. ODP supports C, C++, Java and Linux programming environments and provides developers with a range of capabilities that includes control of serial and I/O ports, cellular modem status information, and direct control of the router. With these powerful tools, Vanguard 400™ can be tailored with customized duty cycles to manage power efficiently for remote applications.

Simple Cost Effective Remote Management

CalAmp, a market leader in managing millions of remote devices, seamlessly integrates the Vanguard 400™ with DeviceOutlook, CalAmp's proven cloud-based enterprise-grade remote management and control application. This flexible platform addresses a variety of wireless communications needs with over-the-air configuration and system to minimize downtime by optimizing preventive and predictive maintenance tasks while pro-actively monitoring device state, condition and utilization. With a straightforward user interface, this widely-deployed wireless solution delivers effective performance and rich, field-proven software capabilities out of the box. Using DeviceOutlook, customers can update Vanguard 400 with ODP applications automatically on startup, during installation, or at any time during the deployment life-cycle.

Vanguard 400™ Specifications

General

Security	RADIUS Client, HTTPS web server
Device Management	SNMP, HTTP embedded web server

Connectors/Interface

LED Indicators	RSSI, SVC, NET
Power	4-pin locking connector
Serial	EIA-232F DE9 Female DCE, up to 115 Kbps
Antenna	50 Ohm SMA Female

Cellular/Bands

Operating Bands (MHz)

EVDO Rev A (IS-856-A)	800 Cellular/1900 PCS
	Downlink 3.1 Mbps; Uplink 1.8 Mbps
1xEVDO Rev0 (IS-856)	800 Cellular/1900 PCS
	Downlink 2.4 Mbps; Uplink 153.6 kbps
1xRTT (IS-2000)	800 Cellular/1900 PCS
	Downlink 153.6 kbps; Uplink 153.6 kbps

Electrical

Input Voltage	9-32 VDC
TX Power @13.8 VDC	350 mA
RX Power @13.8 VDC	130 mA

Environmental

Temperature	-30° to +70° C (connected to primary power)
Humidity	-22° to +158° F (storage)
	5% to 95% non-condensing

Physical

Dimensions	5.8 x 4.0 x 1.2" (146 x 102 x 40 mm)
Weight	8.0 oz (227 g)

Comprehensive I/O

Digital Inputs	2
Digital Outputs	2
Analog Inputs	2

Cal/Amp®
DeviceOutlook™

DeviceOutlook Provides:

Configuration Management

- Track firmware versions
- Configure all devices simultaneously from a single location
- Schedule OTA firmware and ODP upgrades with account management options and user defined groups

Remote Device Management and Tracking

- Locate and monitor the state, condition and utilization of mobile devices

Faster Deployments & Improved ROI

- Reduce costs
- Faster deployment
- Minimize infrastructure
- Reduce support
- Eliminate capital costs

About CalAmp

CalAmp (NASDAQ: CAMP) is a telematics pioneer leading transformation in a global connected economy. We help reinvent businesses and improve lives around the globe with technology solutions that streamline complex IoT deployments and bring intelligence to the edge. Our software applications, scalable cloud services, and intelligent devices collect and assess business-critical data from mobile assets, cargo, companies, cities and people. We call this The New How, powering autonomous IoT interaction, facilitating efficient decision making, optimizing resource utilization, and improving road safety. CalAmp is headquartered in Irvine, California and has been publicly traded since 1983. LoJack is a wholly owned subsidiary of CalAmp. For more information, visit calamp.com, or LinkedIn, Twitter, YouTube or CalAmp Blog.

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