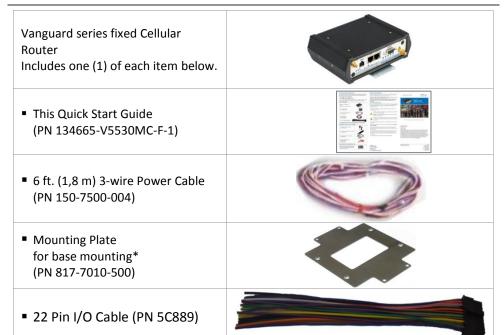
## **MODEM NETWORK CONNECTION**

After the modem has been successfully provisioned and, if applicable, the SIM card has been accepted, a data connection can be enabled. The SVC LED will indicate when the cellular connection has been established.

- Steady green indicates a 4G connection.
- Steady amber indicates a 3G/2G connection.

Return to the Unit Status page to verify WAN Status is UP. The WAN IP Address shows the current IP address assigned to the modem and you are ready to browse the Web.

#### **BASIC PACKAGE**



\* Mounting plate includes four #6-32  $\times$  ¼ (3/16-inch tread length) clear-zinc plated stainless steel Philips undercut flat head (82° countersink) screws to fasten the plate to the bottom of the Vanguard chassis.

## ACCESSORY KIT (PN 134751-V5530F)

<ul> <li>110-220 VAC 3-wire Power Supply (PN 150-7001-005)</li> </ul>	
<ul> <li>4 in. (10 cm) plastic "Rubber Duck" antenna (PN 4GF546-8113)</li> </ul>	
<ul> <li>DB-9 Male to DB-9 Female Serial Cable (PN L2CAB0002)</li> </ul>	
<ul> <li>Category 5 100Base 7 ft. (2 m) Red Ethernet Cable (PN L2CAB0006)</li> </ul>	

## DIN RAIL MOUNT (PN 250-5800-410)

Includes DIN mount assembly (with retainer spring and screw) four  $#6-32 \times \frac{1}{4}$ -inch length cap screws and four #6lock washers for fastening to bottom of Vanguard Chassis to facilitate mounting to a DIN rail.



# **MINIMUM REQUIREMENTS**

Interface and configuration of this cellular device requires a user PC with an Ethernet interface, Microsoft Windows 98 or newer, and a web browser.

Any changes or modifications not expressly approved by the party responsible for compliance (in the country where used) could void the user's authority to operate the equipment.

CalAmp reserves the right to update its products, software or documentation without obligation to notify any individual or entity. Product updates may result in differences between the information provided and the product shipped. For access to the most current product documentation and application notes, visit www.calamp.com.

## **UL LISTED MODELS ONLY**

Hazardous locations installation instructions. Users are advised to visit www.calamp.com where they can download the complete user manual and review Appendix C – UL Installation Instructions.

This equipment is suitable for use in Class I, Division 2, Groups A, B, C and D or nonhazardous locations only.

> WARNING - EXPLOSION HAZARD, Do not connect while circuit is live unless area is known to be non-hazardous.

WARNING --- EXPLOSION HAZARD, Substitution of components may impair suitability for Class I, Division 2.



When operating at elevated temperature extremes, the surface may exceed +70 Celsius. For user safety, the Vanguard should be installed in a restricted access location.

The Unit is to be powered with a Listed Class 2 or LPS power supply, rated 10 - 30 Vdc or equivalent.

Device is open-type and must be installed in a tool only accessible enclosure suitable for the environment.

All wiring routed outside the housing, except for the antenna, must be installed in grounded conduit, following acceptable wiring methods based on installation location and electrical code.

The USB and SIM connector is for temporary connection only during maintenance and setup of the device. Do not use, connect, or disconnect unless area is known to be non-hazardous. Connection or disconnection in an explosive atmosphere could result in an explosion.

Do not operate reset switch unless area is known to be non-hazardous.

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#### ABOUT CALAMP

CalAmp is a leading provider of wireless communications products that enable anytime/anywhere access to critical information, data and entertainment content. With comprehensive capabilities ranging from product design and development through volume production, CalAmp delivers costeffective high quality solutions to a broad array of customers and end markets. CalAmp is the leading supplier of Direct Broadcast Satellite (DBS) outdoor customer premise equipment to the U.S. satellite television market. The Company also provides wireless data communication solutions for the telemetry and asset tracking markets, private wireless networks, Interoperable Train Control (ITC) radio transceivers for use in railroad Positive Train Control (PTC) applications, public safety communications and critical infrastructure and process control applications. For additional information, please visit the Company's website at www.calamp.com.

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## **QUICK START GUIDE**





FIXED ASSETS Vanguard 5530 Multicarrier Broadband 4G LTE Cellular Router



This quick start guide covers programming software installation and basic setup. For advanced configuration, please refer to the user manual.

All specifications are typical and subject to change without notice.

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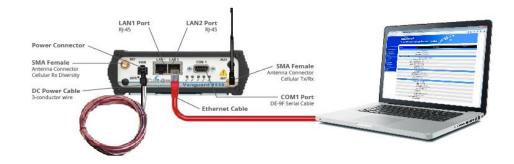
#### **DEVICE CONNECTIONS**

Step 1 Insert the SIM card into the spring-loaded SIM slot as shown.



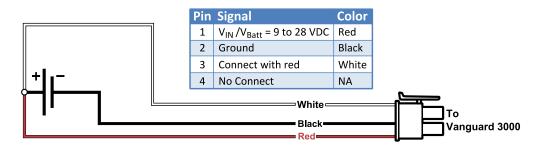
**Step 2** Connect a cellular antenna (for Tx/Rx) to the SMA connector labeled ANT on the front of the Vanguard modem. Optionally, a second cellular antenna (for Rx diversity) may be connected to the SMA connector labeled DIV.

**Step 3** Connect the Ethernet cable to the modem's Ethernet port and connect the other end into the network port of your PC.



**Step 4** Connect the DC power cable (or optional AC power adapter) to an applicable power source and plug the connector into the modem. Use the following diagram and pin-out table when using the 3-wire cable to connect the unit to a DC power supply.

*Note:* White and red wires must both be connected to positive DC power to power the Vanguard router.



At power up, all LEDs will light red, then amber, then green. At the end of the boot sequence, the service light will blink as it attempts a network connection.

#### SUBSCRIBER ACTIVATION

In order to use the modem, it must be activated for your specific carrier.

#### ACCESSING THE MODEM'S WEB SERVER

**Step 1** Enable a network connection with the following LAN settings. In the Internet Protocol (TCP/IP) Properties window, select **Obtain an IP address automatically** and **Obtain DNS server address automatically**. Click **OK** and close.

**Step 2** Open a Web browser and enter **192.168.1.50** in the Address bar. When the connection Login window appears, enter the User name: **admin** and the Password: **password** and click **OK**.

**IMPORTANT NOTE:** CalAmp strongly recommends that you change the default password before the Vanguard is deployed on a public cellular network.

Note: On the **Unit Status** page, the WAN status will read DOWN until the cellular connection is enabled. Before activating the unit, you will need to select your carrier and, if applicable, activate your SIM card.

## **CARRIER SELECTION**

**Step 1** Select **Cell Connection** from the Main Navigation Panel and select the **Carrier** tab. In the Carrier section, select the (Primary) Carrier, APN, user name, password and authentication protocol required by the carrier. Most carriers don't require a user name, password or authentication for connection. Please check with your carrier for more information.

Carrier	Settings	Dynamic DNS	System Monitor		HELP
Carrier					
	Primary Carrier	Verizon			
	Primary Carrier Data Session Type				
	Auto Connect	Enable O Disable			
	Carrier APN				
	Username	200 A			
	Password				
	Authentication Protocols	PAP CHAP			
				Save & Apply	Save Cancel

**Step 2** Click **Save & Apply** to save your carrier selection. This will also refresh the page. The options on the settings page change depending on which carrier is selected.

**Step 3** Configure the applicable settings on the **Settings** tab.

See instructions that follow that are specific to your carrier.

#### SIM SETTINGS (SIM CARD ACCEPTANCE)

In Cell Connection » Settings, SIM STATUS should read SIM ACCEPTED.

IM Status
SIM STATUS: SIM ACCEPTED
PIN STATUS: PIN DISABLED
ATTEMPTS LEFT: NA
IN Settings
ion button initiates PIN commands immediately
Pin Action 🔍 Change PIN 💿 Enable PIN
Current PIN
Action Enable