

# Viper-100™ Viper-400™ Viper-900™

## Narrowband IP Router for Licensed Spectrum



You no longer have to choose between wireless IP and secure, long range communications; The Viper Series delivers both! Using a Software Defined Radio, Viper-XXX is programmable for 25, 12.5, or 6.25 kHz channels. This robust communications link for UHF, VHF, and MAS licensed networks features an internal web browser with a familiar interface for IT and network administrators to set up and view device information, configure network parameters and deploy unit upgrades from any location.

Each Viper features store and forward and route redundancy for extended range and easy network expansion. With advanced diagnostic capabilities, over the air firmware upgrades, channel migration and RoHS compliance, you can bet your investment today is protected well into the future.

### Key Benefits

- 1-10 Watts (1-8 W MAS) Continuous Duty; software selectable
- 10-30 VDC Wide Range Power Supply
- Advanced security and encryption designed to meet FIPS 140-2 requirements
- On/Off-line Diagnostics for Network Health & Status
- Simultaneous Communications via RS-232 ports and IP/Ethernet
- Easily Configured as a Bridge or Router
- Single Device Store and Forward for easy network expansion
- Embedded web server for Programming/Setup
- Route redundancy switches from primary to a secondary path when encountering system interference and link degradation
- RoHS Compliant

High Speed

Long Range

Ruggedized

Safe/Secure

Diversity

Connectivity

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**CaiAmp**®

## Viper Specifications

### General

#### Frequency Range

- VHF: 136-174 MHz
- UHF: 406-512 MHz
- MAS: 928-960 MHz

#### Channel Bandwidth

- 6.25 kHz, 12.5 kHz; 25 kHz
- 6.25 KHz not available for MAS

#### Operating Mode

- Simplex or Half-Duplex

#### Size

- 5.50 x 2.125 x 4.25 inches
- 2.4 lbs.

#### Operating Temperature

- -30° to + 60° C

#### Supply Voltage

- 10-30 VDC

#### Cold Start

- 15 seconds (typical)

#### Emission Designators

- 3K55F1D (6.25 kHz)
- 8K30F1D (12.5 kHz)
- 16K8F1D (25 kHz)

### Standards/Approvals

- FCC
- Industry Canada
- Designed to meet UL Class I Div II

### Interface/Connectors

#### Power

- Power I/O Right-angle, 4 contacts (male)

#### Ethernet

- RJ-45 10/100 BaseT auto-MDIX

#### Serial (2)

- DE-9F Setup Port/Terminal Server

#### Antenna

- TNC Female

#### Network Management

- Web interface/SNMP

#### LEDs

- Power, Status, Link, Activity, Rx/Tx

### Transmitter

#### Power Output

- 1-10 W Adjustable (UHF, VHF)
- 1-8 W Adjustable (MAS)

#### Frequency Tolerance

- +1.0 PPM

#### FM Hum and Noise

- Less than -45 dB @ 25 kHz

#### Duty Cycle

- 100%

### Receiver

#### Sensitivity

- 25 kHz @10-6 Bit Error Rate:  
-114 dBm @ 16 kbps; -106 dBm @ 32 kbps
- 12.5 kHz @10-6 Bit Error Rate:  
-116 dBm @ 8 kbps; -109 dBm @ 16 kbps
- 6.25 kHz @10-6 Bit Error Rate:  
-115 dBm @ 4 kbps; -106 dBm @ 8 kbps

#### Selectivity

- > 75 dB @ 25 kHz Channel
- > 60 dB @ 12.5 kHz Channel
- > 45 dB @ 6.25 kHz Channel

### Modem

#### Data Rates (User Selectable)

- 16 kbps, 32 kbps @ 25 kHz
- 8 kbps, 16 kbps @ 12.5 kHz
- 4 kbps, 16 kbps @ 6.25 kHz

#### Modulation

- 2FSK, 4FSK

#### Diagnostics

- Temperature, Voltage, Local/Remote RSSI, Forward/Reverse Power, Packet Error Rate

#### Encryption

- AES 128, 192, 256; Designed to meet FIPS 140-2 Requirements

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