



UHF/VHF VIPER™ SC DIGITAL IP RADIO

**AUTOMATION
GROUP**

IP ROUTER FOR LICENSED SPECTRUM



KEY FEATURES

- DSP Technology – unrivalled flexibility
- UHF 406.1 - 470 or 450 - 512 MHz
- VHF 148 - 174 MHz
- Up to 48 kbps over a 25 kHz channel
- Multi speed base station
- Base Station prioritisation of Ethernet protocols
- Header & Payload Compression
- Radius User & Device authentication
- AES 128 Encryption & user access control
- Encrypted VPN Tunnels with dynamic session keys
- Terminal Server, DHCP, NAT
- Native UDP, TCP/IP and SNMPv2c Support
- Simultaneous serial RS-232 and Ethernet IP
- Local or network diagnostics & programming
- Embedded web server / text editor
- Bridge or Router Modes
- Smart Route redundancy
- Multi element collision management
- 1 to 10 Watts Continuous duty
- Wide input range of 10-30 VDC
- Rugged construction & wide temp. range

Secure, Long Range Ethernet/IP, 48 kbps over licensed 25kHz channel for SCADA, Telemetry and other critical IP Data Applications,

APPLICATIONS

It's no longer necessary to choose between Ethernet IP and Long Range Narrowband radio communications. Dataradio Viper SC radio modems deliver up to 48 kbps IP over long range licensed channels allowing you to bring secure user data from the field, right to your fingertips on the company LAN.

The Dataradio Viper SC is software selectable for 12.5 and 25kHz channels, with data rates from 8 to 48 kbps and the all digital interface offers robust communications without manual adjustments.

An internal web server and Telnet access provide familiar interfaces for IT administrators to set up and view device information, configure network parameters, manage devices (SNMP) and deploy unit upgrades from any location on the network.

The Dataradio Viper SC features store and forward, route redundancy for extended range, expansion and agile network design. With advanced diagnostics capability and completely software defined, the Dataradio Viper SC provides over the air upgrades, channel migration and follows industry standards - to ensure your capital investment in this platform is protected well into the future.

INDUSTRIES

- Oil & Gas Pipelines, Gas Distribution and Coal Seam Gas
- Water and Wastewater
- Electricity Transmission and Distribution
- Transport including Rail, Air/Ship ports and Intelligent Road Systems
- Security and Defence
- Mining and Heavy Industry

APPLICATIONS

- Large or small scale SCADA & Telemetry
- Remote Monitoring solutions
- Automation Remote Networking
- Wireless applications where protected, licensed spectrum is essential



CalAmp Viper SPECIFICATIONS

GENERAL

Frequency Range	406.1 - 470 MHz or 450 – 512 MHz (UHF) 148 - 174 MHz (VHF)
Channel Bandwidth	12.5, 25 and 50 kHz*
Configurations	Bridge or Router in Simplex or Half Duplex
Dimensions / Weight	165mm x 56mm x 108mm, 1.1kg – incl. mounting plate
Operating Temperature	-30° to +60°C
Supply Voltage	10 - 30VDC, 13.8VDC nominal
Power Consumption	<ul style="list-style-type: none"> • Transmit 800mA @ 1 W; 1450mA @ 5W nominal • Receive 360mA nominal
Interface/Connectors	<ul style="list-style-type: none"> • 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 TX/RX SMA Female for RX on dual RF port model
Network Management	Web Interface / SNMPv2c / Telnet
LEDs	Power, Status, Link, Activity, Rx/Tx
Standards/Approvals	ACMA AS4295-2004 (Spectrum Impact Testing), CSA Class I Div II Groups A, B, C & D, ETSI EN 300 113, FCC & IC

TRANSMITTER

Power Output	1-10 W Adjustable
Duty Cycle	100% (Power Foldback for High Temps)
Modulation	2, 4 & 8 level FSK
Spurious Emissions	< -36 dBm
TX Rise Time	< 2 ms
TX Release Time	< 1 ms
Data Turnaround Time	< 10 ms

RECEIVER

	Bit Error Rate (BER) @ 1x10 ⁻⁶ (in dBm)
	16 kbps = -109
	32 kbps = -101
	48 kbps = -94
Selectivity	> 70 dB
Spurious Rejection	> 75 dB
Intermodulation Rejection	> 75 dB
Receive Input Power	17 dBm (max)

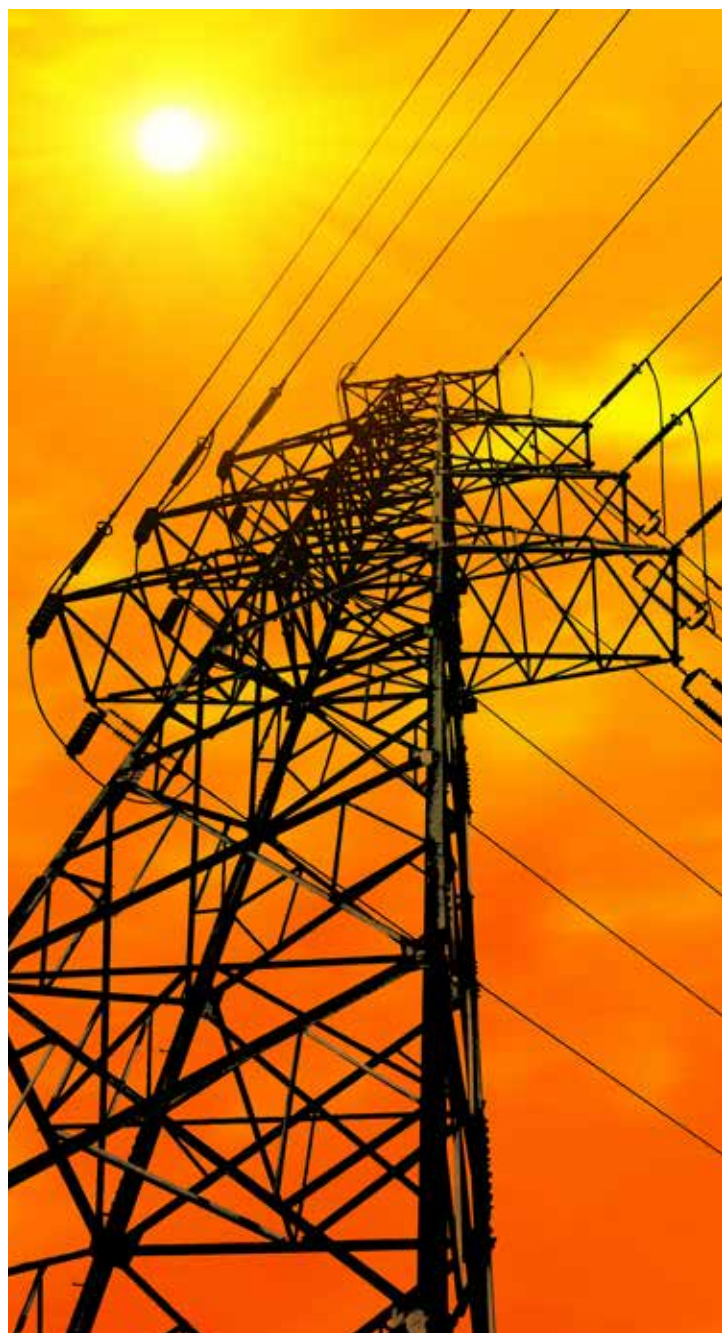
MODEM

Data Rates (User Selectable)	<ul style="list-style-type: none"> • 32 - 96 kbps - 50 kHz* • 16 - 48 kbps - 25 kHz • 8 - 24 kbps - 12.5 kHz
Diagnostics	<ul style="list-style-type: none"> • Temperature • Voltage • Local/Remote RSSI • Forward/Reverse Power • Packet Error Rate
Security	Radius User & Device Authentication, AES 128 Encryption, User Access Control & Encrypted VPN Tunnels with centrally dynamic session keys

OPTIONS AVAILABLE

	<ul style="list-style-type: none"> • Din Rail kit • Dual RF Port Radio Allows For External RF Filtering • Industrial Grade Base Station – 19" Rack Mount • High Availability, Redundant Base Station – 19" Rack Mount
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* = Subject to ACMA compliance & licensing



The Viper SC Base Station is also available

Automation Group

Sydney • Newcastle • Dubbo • Brisbane • Melbourne • Perth

P 1300 724 743 E sales@automationgroup.com.au W automationgroup.com.au