Viper SC + Base Station™

Digital Infrastructire for Viper SC + Series

Cal/Amp®

Experience The Advantage

- Standard and redundant

- Advanced security and encryption designed to meet FIPS 140-2

- VLAN support

- Warm and cold standby

- Fast failure detection through RF power sensor combined with RF traffic monitoring

- 8 pin I/O alarm port

- 2 relays – second relay configurable as 2 digital inputs

- Digital I/O can be configured to operate at 1.8V or 3.3V

- Store and forward repeater mode

Versatile, Secure Communications with Multispeed Functionality

The Viper SC+ Base Station eliminates the tradeoffs between speed, range and reliability. The Base Station is available in a standard or redundant configuration using a Software Defined Radio programmable for 100, 50, 25, 12.5 or 6.25 kHz channels. Redundant configuration features primary and backup radios with identical Ethernet MAC addresses. The VHF and UHF 12.5 kHz and 25 kHz Viper SC+ Base is also approved for ETSI and ACMA operation.

Each Base Station offers rugged packaging, simple installation and flexible management for VHF, 200MHz, UHF & 900MHz licensed networks. Housed in a rugged, 19" rack mountable, aluminum case and built for industrial applications in a variety of environments, the Viper SC+ Base Station operates over an extended temperature range and provides worry-free operation in the roughest environments.

The Base Station operates the MultiSpeed Rate Controller supporting speeds up to 256 kbps at 100 kHz channel for FCC/IC and up to 48 kbps at 25 kHz channel for ETSI/ACMA operation. MultiSpeed operation allows each remote Viper SC+ to communicate to a Viper SC+ Base Station at the fastest channel speed supported by a given signal strength. MultiSpeed results in an adaptive network which is optimized for performance and reliability.

Centralized Management Platform

Viper SC+ Base Station can be remotely managed via an intuitive embedded webpage or SNMP. For medium to large deployments, Viper SC+ Base Station can be integrated with remote management systems.

Viper SC+ Base Station Specifications

General

FCC/IC

Frequency Range:	VHF: 136-174 MHz, 200: 215-240 MHz
	UHF: 406.1-470 MHz & 450-512 MHz
	900: 880-902MHz & 928-960 MHz
Channel Bandwidth:	6.25 kHz, 12.5 kHz, 25 kHz, 50 kHz and 100k Hz
Output Impedance:	50 Ω
Cold start:	60 seconds

ETSI/ACMA

Frequency Range:	142-174 MHz, 406.1-470 MHz, 450-512 MHz
Channel Bandwidth:	12.5 kHz, 25 kHz (ETSI/ACMA)
Output Impedance:	50 Ω
Cold start:	60 seconds

Receiver

Rx Current Drain (25° C, one unit powered)

Power Out	DC Input 11V	DC Input 20V	DC Input 30V
	1.7 A (max)	1.2 A (max)	760 mA (max)
All Relays on	1.5 A (typ)	945 mA (typ)	646 mA (typ)
All Relays Off	1.3 A (typ)	925 mA (typ)	622 mA (typ)

Tx Current Drain, at Max (25° C, one unit powered)

Power Out	DC Input 11V	DC Input 20V	DC Input 30V
	6.7 A (max)	4.7 A (max)	2.9 A (max)
All Relays on	4.5 A (typ)	3.1 A (typ)	1.9 A (typ)
All Relays Off	4.3 A (typ)	2.9 A (typ)	1.7 A (typ)

Tx Current Drain, at 1W (25° C, one unit powered)

Power Out	DC Input 11V	DC Input 20V	DC Input 30V
	2.6 A (max)	1.7 A (max)	1.1 A (max)
All Relays on	2.1 A (typ)	1.4 A (typ)	880 mA (typ)
All Relays Off	1.9 A (typ)	1.2 A (typ)	860 mA (typ)

Primary Power 11-30 VDC, negative GND

Mechanical

Dimensions

Chassis	16 W x 4.75 H x 11.375 D in, (41 x 12 x 29 cm)
Front Panel	19 W x 5.22 H x 0.25 D in, (48 x 13 x 0.6 cm)

Weight

Standard	11.5 lbs, (5.2 kg)
Repeater/Redundant	15 lbs, (6.8 kg)
Mounting Options	19" rack mount

Environmental

Operating Temperature	-40° to +70° C, (-40° to +158° F)
Specified Temperature	-30° to +60° C, (-22° to +140° F)
Storage Temperature	-40° to +85° C, (-40° to +185° F)
Operating Humidity	5% to 95% Non-condensing RH

Interfaces

Status Display

Controller LEDs	Power, Status, Fan Error
Data LEDs	COM Data, Setup Data, Link/Act 1, Link/Act 2
Radio LEDs	Tx, Power, Error, Link/Act
Other	Alarm Disabled, Manual Override (Redundant Models only)
Antenna	N female (Tx/Rx) connector
Serial SETUP	One RS-232, DE-9F port
Serial COM	One RS-232, DE-9F port
Ethernet	Two 10/100 Base-T/TX auto-MDIX, RJ-45 port
I/O	8 pin alarm
Power	4 pin main
	4 pin internal auxiliary