SMR Series

*3400 SMR 3.4 GHz Military Radio

*3400SMR-C

*3400SMR-CE

OVERVIEW

The 3400 SMR radio provides outstanding performance and versatility in a small footprint that is ideal for OEM applications. The board level radio offers a cost effective solution that allows customers to incorporate wireless communications into a wide variety of applications.

With more interface options available a surface mount design and no additional RF shield, the 3400 SMR board level product has tremendous flexibility for use in applications around the world.

All radios are designed, manufactured and tested in Boulder, Colorado.

MODEL	DIMENSIONS	PRODUCT OPTIONS
3400SMR-C	127 L x 61 W x 15 H (mm)	Board Level
3400SMR-CE	173 L x 107 W x 35 H (mm)	Ruggedized Enclosure

APPLICATIONS

Government & Defense

KEY FEATURES

- **Secure**: FHSS Technology prevents detection and unauthorized access
- **High Speed:** Over the air data rate of 115.2 Kbps
- **Long Range**: 20 mile range
- **Error Free Communications**: 32 bit CRC with automatic retransmission
- **Industrial Grade Specifications**: 100% tested for RF performance from -40° C to +75° C
- Improved supply voltage range and power consumption. Input voltage range is now +6 to +30 VDC at a full RF output power. Receive current is less than 80 mA @ 12 VDC
- Separate diagnostic serial allows real-time local diagnostics and set up menu access
- Master, slave, repeater functions in a single radio
- **Noise Immunity**: Superior performance in noise congested environments

3400 SMR 3.4 GHz Military Radio Technical Specifications

TRANSMITTER	Frequency Range	3.3 to 3.5 GHz (FHSS)
	Output Power	5 mW to 750 mW
	Data Link Range	20 miles, Clear Line of Sight
	Modulation	2 level GFSK, 115.2 kbps, 153.6 kbps
	RF Data Rate	115.2 kbps Standard Speed or 153.6 kbps High Speed
	Occupied Bandwidth	350 kHz
	Hopping Patterns	25 to 200 MHz in 25 MHz steps, single channel 15 per Band, 105 total, user selectable
	Hopping Frequency	Up to 112
	Hopping Bandwidth	6, user selectable
	Frequency Zones	16 Zones
	RF Connector	Board Level: SMA straight or reversed, or no RF connector Ruggedized Enclosure: TNC (female connectors)
RECEIVER	Sensitivity	-102 dBm for BER $1x10^{-6}$ -107 dBm for BER $1x10^{-4}$
	Selectivity	20 dB at fc +/- 350 kHz
	System Gain	132 dB
DATA TRANSMISSION	Error Detection	32 bit CRC, Retransmit on error
	Data Encryption	AES 128 bit encryption* and FHSS Technology
	Link Throughput	115.2 kbps standard speed, 80 kbps low speed
	Data Interface	Serial
	Protocol	RS232/RS485/RS422 or TTL
	Data Connector	Board Level: 10-pin header with locking ramp, 0.1 inch spacing, power/data connector Ruggedized Enclosure: DB9
	IF Selectivity	40 dB at fc +/- 1.5 MHz
POWER REQUIREMENTS	Operating Voltage	+6 to +30 VDC
	Typical Current (mA)	

Mode	+6 VDC	+12 VDC	+30 VDC
Transmit	400 mA	325 mA	150 mA
Receive	95 mA	80 mA	35 mA
Idle	30 mA	25 mA	10 mA
Sleep	8 mA	5 mA	2 mA

GENERAL INFORMATION	Operating Temp. Range	-40° C to +75° C
	Dimensions	Board level: 127 L x 61 W x 15 H (mm) Ruggedized Enclosure: 173 L x 107 W x 35 H (mm)
	Weight	Board Level: 60g | Enclosed: 590g
	Humidity	0 to 95 % non-condensing

* This device is regulated under the U.S. International Traffic in Arms Regulation (ITAR). These regulations control the Export and Import of the defense articles. The device may only be sold or transferred to a non-U.S. party (in the U.S. or abroad) after authorization is obtained from the U.S. Department of State. Customer (a) agrees to comply with ITAR regulations and (b) shall be responsible for obtaining all necessary U.S. Government authorizations required to ensure compliance with these and other applicable U.S. Laws. Please contact

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