



F Series

*F51EX008 Military 225-400 MHz Radio



*F51EX008

OVERVIEW

The FreeWave Technologies military products are designed to meet the rigorous demands of military and government users worldwide. This user-configurable 225-400 MHz product is available as OEM board level radio. It is used in applications ranging from UAV's to UGV's and more.

FreeWave military products share the same features as our other radios that assure data transmission such as 32 bit CRC error detection with automatic retransmission, 115.2 kbps throughput, high speed hopping and more.

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

APPLICATIONS



Government & Defense

KEY FEATURES

- Frequency Hopping Spread Spectrum
- **Long Range:** 60 mile line of sight, ability to extend through repeaters
- **Error Free Communications:** 32 bit CRC with automatic retransmission
- **Industrial Grade Specifications:** 100% tested for RF performance from -40° C to +75° C
- Repeater and simultaneous Slave and Repeater function all in a single radio
- TTL Interface
- **Input Voltage Range:** +9.5 to +30 VDC
- **Noise Immunity:** Superior performance in noise congested environments.
- **Secure:** Proprietary spread spectrum technology prevents detection and unauthorized access
- TDMA Available

MODEL	DIMENSIONS	PRODUCT OPTIONS
F51EX008	128 L x 62 W x 20 H (mm)	Board Level

F51EX008 225-400 MHz Military Radio Technical Specifications

TRANSMITTER	Frequency Range	225 - 400 MHz			
	Output Power	4 W (average)			
	Data Link Range	60 miles, Clear Line of Sight			
	Modulation	2 level GFSK			
	Occupied Bandwidth	230 kHz			
RECEIVER	Sensitivity	-103 dBm @ BER 1x10 ⁻⁶			
	Selectivity	20 dB at fc +/- 230 kHz			
	System Gain	139 dB			
DATA TRANSMISSION	Error Detection	32 bit CRC, Retransmit on error			
	Data Encryption	Dynamic Key Substitution			
	Maximum Throughput	115.2 kbps			
	Data Interface	TTL			
	RF Connector	SMA			
POWER REQUIREMENTS	Operating Voltage	+9.5 to +30 VDC			
	Typical Current (mA)	Mode	+9.5 VDC	+12 VDC	+30 VDC
		Transmit	3.2 A	2.5 A	750 mA
		Receive	315 mA	250 mA	100 mA
GENERAL INFORMATION	Operating Temp. Range	-40° C to +75° C or -40° C +90° C (available)			
	Dimensions	128 L x 62 W x 20 H (mm)			
	Weight	200 g			
	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 FreeWave for export control information for specific products.



FreeWave Radios Require Professional Installation. Specifications may change at any time without notice. ©2013 FreeWave Technologies, Inc.

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