# **F SERIES** \*F50EX008-2 MILITARY 225 TO 400 MHZ RADIO



# **KEY FEATURES**

Frequency Hopping Spread Spectrum

**Long Range:** 60 mile line of sight, ability to extend through Repeaters

**Error free communication:** 32 bit CRC with automatic retransmission

**Industrial Grade Specifications:** 100% tested for RF performance from -40° C to +75° C

Repeater and simultaneous Endpoint and Repeater function all in a single radio

RS232/RS422/RS485 interface

+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

# **OVERVIEW**

The FreeWave Technologies military products are designed to meet the rigorous demands of military and government users world wide. This user-configurable 225- 400 MHz product is available as OEM board level radio. It is used in applications ranging from UAVs to UGVs 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.

\* 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.



# **TECHNICAL SPECIFICATIONS**

#### **SPECIFICATIONS**

MODEL FORM FACTOR OPTIONS F50EX008-2 128 L x 62 W x 20 H (mm)

**Board Level** 

### TRANSMITTER

Frequency Range	225 to 400 MHz
Output Power	4 Watt (average)
Data Link Range	60 miles, clear line of sight
Modulation	2 level GFSK
Occupied Bandwidth	230 kHz
RF Connector	SMA

#### RECEIVER

Sensitivity	-103 dBm @ BER 1x 10 <sup>-6</sup>
Selectivity	20 dB at fc +/- 230 kHz
System Gain	139 dB exclusion of antennas

### **POWER REQUIREMENTS**

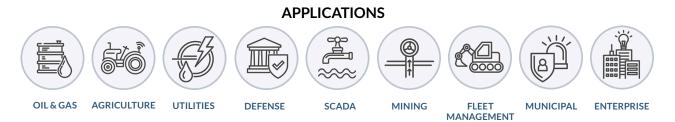
Operating Voltage	+9.5 VDC to +30 VDC
+9.5 VDC Typical Current Transmit: 3.2 A	Receive: 315 mA
+12 VDC Typical Current Transmit: 2.5 A	Receive: 250 mA
+30 VDC Typical Current Transmit: 750 mA	Receive: 100 mA

### **GENERAL INFORMATION**

-40°C to +75°C or -40°C to +90°C (available)
0 to 95%, non-condensing
128 L x 62 W x 20 H (mm)
200 g

#### **DATA TRANSMISSION**

32 bit CRC, retransmit on error
Proprietary Spread Spectrum Technology
115.2 kbps
RS232/RS422/RS485



# **CONTACT US**

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