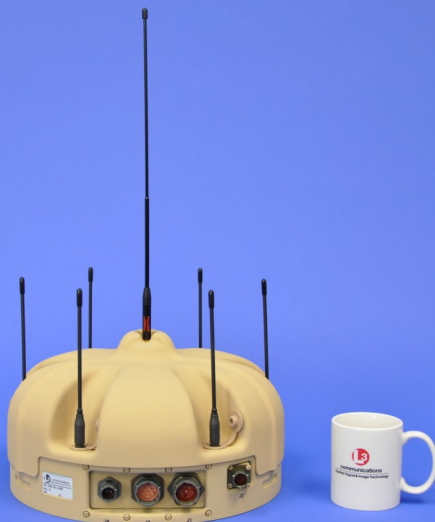


RDF-110 Self Contained VHF/UHF DF Sensor

Features

- Internal Dual Channel Tuner and Signal Processor with On-board DF Algorithms
- Multiple Operating Modes
- Ethernet Interface
- Wide Frequency Range
- Dedicated Broadband RF Intercept Output
- Integrated GPS & Compass
- Low Size, Weight and Power



Product Overview

The RDF-110 is a unique solution for Direction Finding and Geo-location missions. L-3 ASIT's RAPID FIRE technology has enabled the integration of low size, weight and power (SWaP) multi-channel tuners and FPGA signal processors with innovative, mature DF algorithms to create a fully self contained DF Sensor. The RDF-110 DF Sensor independently provides true line of bearing (LOB) responses to DF task requests received through an Ethernet connection.

Application

The RDF-110 is a self contained DF sensor capable of supporting bolt-on augmentation of sophisticated COMINT Scan and Intercept Systems where DF tasking was not previously an objective. Fully self contained DF Sensors do not require expensive external receiver resources to accomplish the conventional DF mission. The RDF-110 is a fully autonomous solution for direction finding but can also be used in a network of DF sensors combined to produce real time precise geo-location data for targets of interest. The DF Sensor's low cost and simple interface architecture enables affordable networked geo-location. The low SWaP makes this DF Sensor suitable for a variety of platforms including battery powered manpack or unattended ground sensors.

Specifications

Operating Frequency:

Standard: 400-3000 MHz
Suitably Mounted: 100-3000 MHz
Optional EFR-3: 20-3000 MHz

DF Accuracy (20 dB SNR):

Standard: 5 deg RMS, typical
Suitably Mounted: 10 deg RMS, typical
Optional EFR-3: 6.5 deg RMS, typical

Operating Modes:

Single and Directed Search LOB Request

Signal Types Supported: CW, SSB, AM and FM

Bandwidths: 0.5, 3, 6, 15, 25, 50, and 200 kHz

LOB Time: 100 milliseconds (from task receipt)

LOB Storage: 100 min. (time & position stamped)

Scan Rate: 40 Channels per second min.

Navigation Data: Internal GPS & Compass (contact factory for external source)

Size: 13.6" Dia. x 7.5" H, Typical (excluding antennas)

Power: < 20 W (9-32 VDC Source)

Weight: < 14 lbs.

Operating Temperature Range: -40°C to +71°C

Storage Temperature Range: -40°C to +85°C

Environmental (Design to Meet):

Humidity: Tropical Levels (MIL-STD-810F)

Altitude: < 15,000 ft. MSL

Shock: 11ms, 40g peak (MIL-STD-810F 516.5)

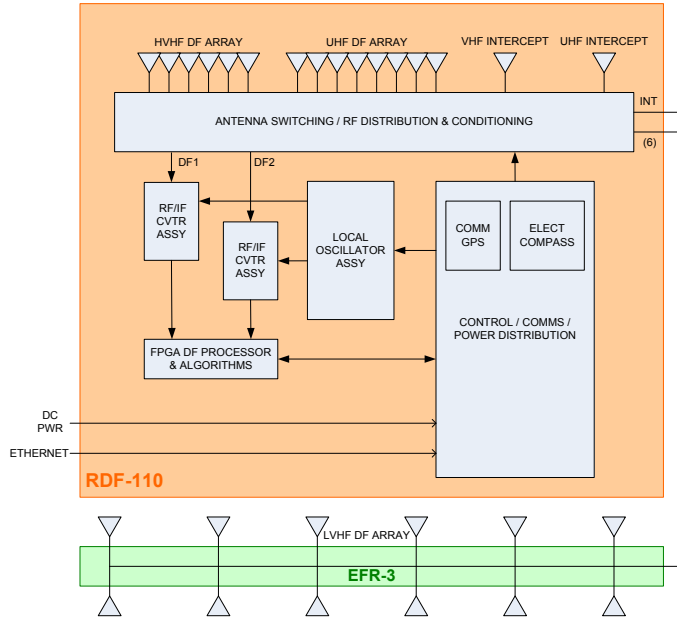
Vibration: 3 axis, 5 - 500 Hz random (MIL-STD-

810F) 514.5C VII, Fig. 514-C-3

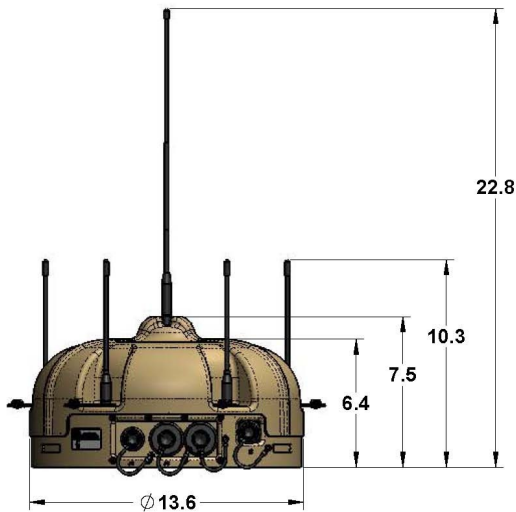
EMI/RFI: (MIL-STD-461E) CE102, CS101,

CS114, RE102 and RS103

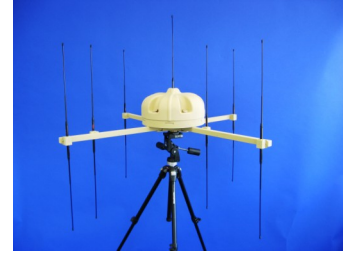
System Block Diagram



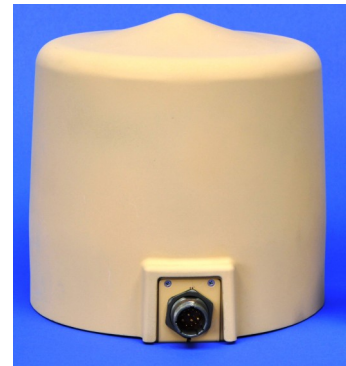
Mechanical Data (inches)



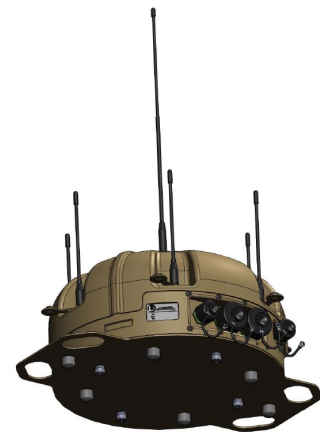
Optional Equipment



RDF-110 with EFR-3



DF-80A 3GHz to 6GHz
Downconverting DF Antenna



Vehicle Roof Mounting Plate

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All equipment is warranted for a period of **one (1) year** from date of delivery. The standard terms and conditions of the warranty are available for review upon request. Additional warranty coverage is also available at the time of sale. Please ask your sales representative for more information.

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