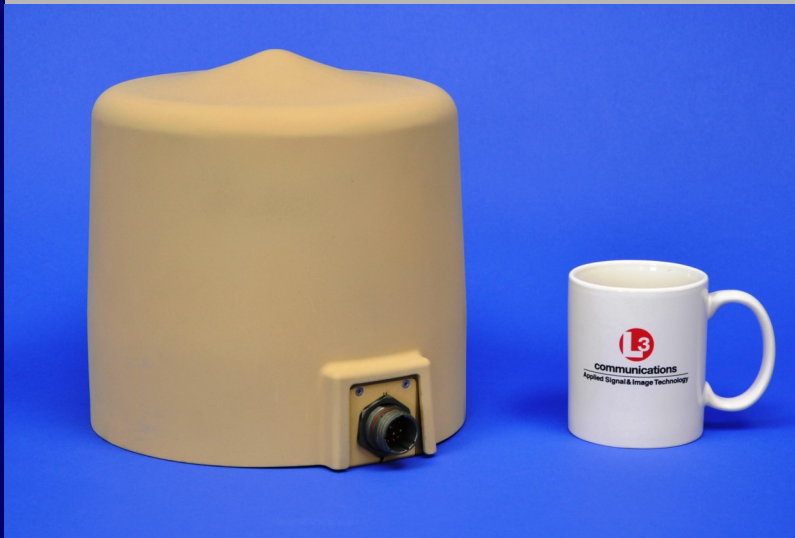


DF-80A Downconverting DF Antenna Head



Features

- Supports Simultaneous DF and Intercept Operations
- Integrated Dual Channel Down-converter
- Low Noise Figure
- Low Size, Weight and Power
- Conducted Built-In Test (CBIT)
- Internal Electronic Compass

Product Overview

The DF-80A downconverting direction finding (DF) antenna head enables COMINT DF and Intercept operations in the 3-6 GHz frequency range with existing lower frequency sensors and receivers. The DF-80A antenna architecture consists of a commutating eight element directional antenna array and an omnidirectional antenna element mounted above the directional array to provide signal intercept and DF reference signals. The unit contains an internal dual-channel, phase coherent down-converter in support of simultaneous intercept and DF functionality. The downconverter bypass mode retains the LNA and antenna switching providing an output frequency in the 3-6 GHz band, useful as an electronically steerable, directional intercept antenna. Additional features include low size, weight and power (SWaP), integrated electronic compass and conducted built-in-test (CBIT).

Application

The DF-80A enables the user to detect, collect, and DF/Geo-locate radio frequency (RF) signals of interest in the 3000 - 6000 MHz frequency range when used with an existing companion DF Sensor or Receiver. The unit can be mounted on a fixed mast, tripod or vehicle roof. Control of the unit is accomplished via a serial interface from the companion DF Sensor or receiver. The DF-80A unit requires DC power from an external source such as the companion DF Sensor or receiver.

Specifications

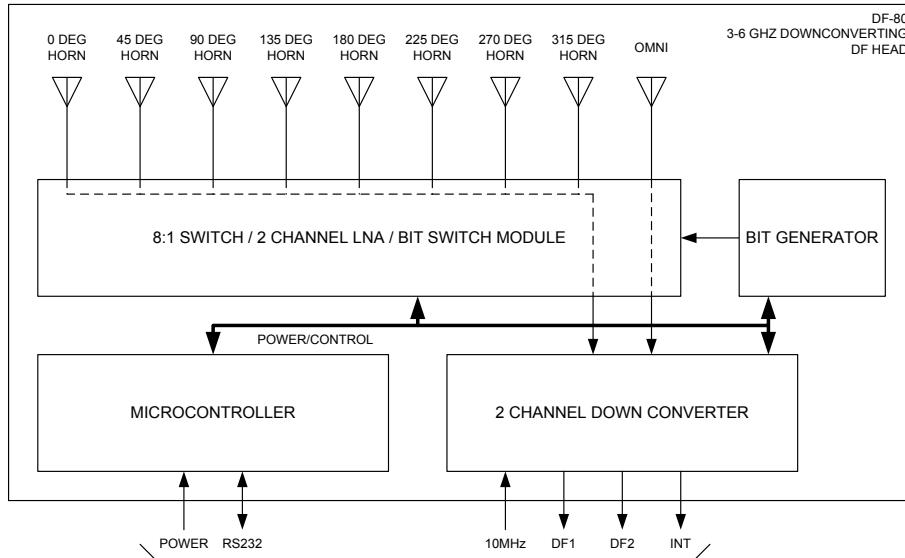
Operating Frequency Range: 3-6 GHz
Output Frequency Range: 400-2000 MHz in 7 sub-bands
Gain (Typical)
DF 18 dB
Omni 21 dB
Noise Figure (Typical)
DF 8 dB
Omni 5 dB
DF Accuracy (20 dB SNR) < 10° RMS Typical
Reference Input: 10 MHz (50 Ω, 0 dBm +/- 5 dBm)
(internal temp. compensated 10 MHz ref. used in absence of external input)
Size: 10" Dia. x 9.5" H
Power: < 10 W (9-32 VDC)
Weight: < 10 lbs.
Operating Temperature Range: -37C to +71C
Storage Temperature Range: -46C to +85C
Environmental (Design to Meet):
Humidity: 5% to 95% non-condensing
Altitude: < 15,000 ft. MSL
Shock (11mS, 1/2 sine): 2.5g op, 10g non-op
Vibration (5-500 Hz random): 2 g RMS
EMI/RFI (MIL-STD-461E): CE102, CE106, CS101, CS103, CS114, CS115, CS116, RE102 and RS103



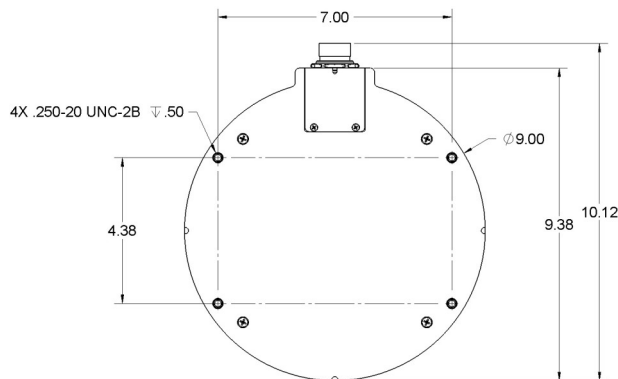
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System Block Diagram



Mechanical Data (inches)



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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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