

FRF-179 DATA SHEET

Description:

The FIRST RF Corporation FRF-179 antenna system is an omni-directional, multi-band, high gain omni S/C-Band antenna system suitable for installation on commercial and tactical rotary winged aircraft.

The antenna eliminates the need for separate S and C-Band antennas on vehicles and improves cosite and RF system performance.

The product is the latest version of the FIRST RF multi-band family of antennas which have been manufactured in high quantities.

The antenna has been designed to meet MIL-STD 810 environments and to pass additional vibration conditions when suitably mounted on the vehicle platform.

RF Performance Overview:

Receive Only

S/C-Band: Frequency: 2000-6000 MHz

Switchable S/C-Band filtering and LNA

Gain: $\geq +5$ dBi

VSWR: 2.5:1 Max

Nominal Impedance: 50 Ohms

Power Handling: Optional Limiter 10W CW

Polarization: Vertical

Isolation: N/A

LNA Specifications:

2.5 GHz; 5V, 92 mA

- 24 dB Gain
- 1.3 dB Noise Figure
- 11.2 dB Input Return Loss
- 35.9 dBm Output IP3
- 12 dBm Output Power at 1dB gain compression



FRF-179 Antenna on Helicopter

Environmental:

Designed to exceed MIL-STD-810F
Temperature: -40-+71°C Operational

Mechanical Overview:

Connectors: Single N Type Female

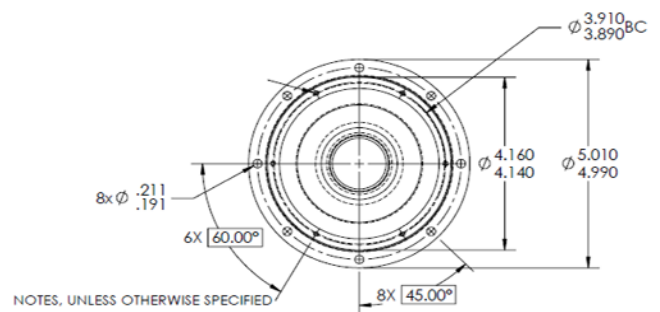
Physical Dimensions: Height <12" with Base

Outside Diameter: <1.6"

Antenna Weight: 2.5 lbs. with Base

Radome: Electrically Insulated to 10kV rms

Vehicle Mounting: Antenna has flexible eight hole mounting interface. The bolt holes are positioned on a 4.5" diameter.



FRF-179 Antenna Mounting Interface