



# FRF-110A

## DATA SHEET

Caption

### Description:

The FIRST RF Corporation FRF-110A antenna is a high-gain, ultra-lightweight airborne UHF SAR antenna. The antenna provides an alternative to conventional quad-ridged waveguides for broadband UHF SAR by providing a high-gain beam tailored for airborne SAR applications. This product is the second in the FRF-110 series of antennas, designed to halve the weight of the FRF-110 with minor differences to its performance. Like its predecessor, the FRF-110A has been demonstrated in airborne imagery missions. The antenna has been designed to meet RTCA DO-160 environments and has been independently power tested in high-altitude conditions.

### RF Performance Overview:



FRF-110A UHF SAR Antenna in a typical mounting configuration

### Antenna Information:

Frequency: 225-450 MHz

Gain:

- 6.5 dBi at 225 MHz
- 7.5 dBi at 450 MHz

VSWR: 2.9:1 Max

Beamwidth: > 60° azimuth and elevation

Isolation: > 20dB

Front-to-Back: > 12.5dB

Power Handling:

- 500W peak
- 100W average

Nominal Impedance: 50 Ohms

Polarization: Dual linear

### Environmental:

Designed to exceed RTCA DO-160

Operating Temperature: -55°C to +17°C

### Mechanical Overview:

Connectors: 2×TNC female (recessed)

1×Grounding pin

Physical Dimensions

- Width: 23"
- Diameter: 25"
- Height: 9.5"

Antenna Weight: 10 lbs.

Mounting: 6 × 0.250-28 UNF-2B on a 8" diameter