

# FRF-114 DATA SHEET

## Description:

The FIRST RF Corporation FRF-114 is a passive L1 / L2 Low Observable GPS antenna with incorporated filter. The radiator is enclosed in an aluminum housing and may be mounted completely flush to the outer mold line of the platform. The antenna is secured from the back with a typical environmental gasket and standard #6-32 screws. The antenna provides EME susceptibility protection, while maintaining very uniform, hemispherical coverage for optimum reception of the GPS satellite signal.

## RF Performance Overview:

### Frequency:

1575.42 ± 10 MHz / 1227.60 ± 10 MHz

### VSWR:

< 2.5:1

### Polarization:

RHCP

### Impedance:

50 omhs

### Radiation Pattern:

Hemispherical

### Antenna Gain:

|                        |           |
|------------------------|-----------|
| 90° Elevation (Zenith) | +2.0 dB   |
| 90-40° Elevation       | > -1.6 dB |
| 40-30° Elevation       | > -4.0 dB |
| 30-20° Elevation       | > -5.5 dB |
| 20-10° Elevation       | > -7.5 dB |

### Power Handling:

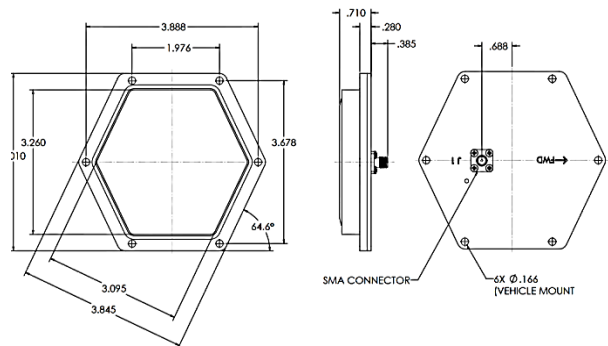
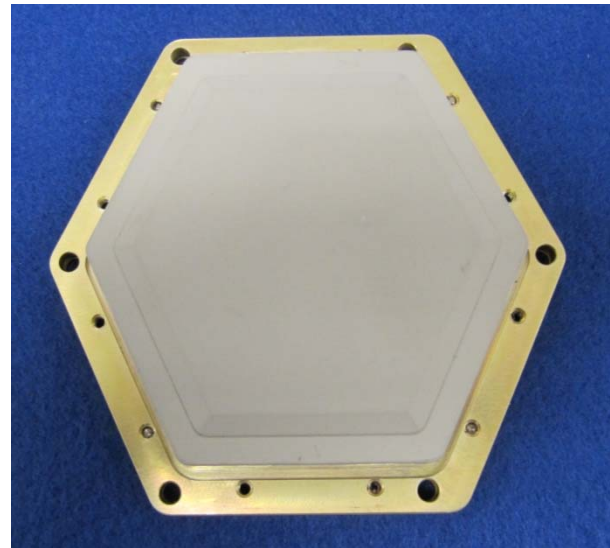
60 W Continuous

### Filter Rejection:

> 30 dB below 1 GHz  
 > 20 dB above 1.75 GHz

### Lighting Protection:

DC Grounded



## Mechanical Overview:

### Weight:

0.6 lbs

### Physical Dimensions:

3.3" x 3.2" Hex x 0.66" thick

### Connector:

SMA Jack (Female)

## Environmental:

### Temperature:

-54°C to +72°C

### Vibration:

> 12 G's

### Altitude:

> 45,000 ft.

### Protection:

Sealed from rain, sand, dust, salt fog.