

FRF-164 / 165 DATA SHEET

Description:

The FIRST RF Corporation FRF-164 and FRF-165 comprise a 4-element set of conformal passive L1 / L2 GPS antennas with incorporated limiter. The elements reside completely within an aluminum housing and set below the outer mold line of the platform installation.

The individual elements are less than 2.25"×2.25"×0.51" and may be reconfigured per number, spacing, profile, etc. to meet the needs of various, multiple platforms.



RF Performance Overview:

Frequency:

1575.42 ± 10 MHz / 1227.60 ± 10 MHz

VSWR:

< 2.0:1 / < 2.5:1

Polarization:

RHCP

Impedance:

50 omhs

Radiation Pattern:

Hemispherical

Antenna Gain:

	L1 / L2
90° Elevation (Zenith)	+1.0 dB / -1.1 dB
90-40° Elevation	-0.4 dB / -1.6 dB
40-30° Elevation	-2.1 dB / -2.7 dB
30-20° Elevation	-3.3 dB / -3.6 dB
20-10° Elevation	-4.9 dB / -4.5 dB

Null Depth:

> 20 dB

Power Handling:

4 W Continuous
400 W Peak

Limiter:

29 dBm Typical Leakage Power Out

Lighting Protection:

DC Grounded

Mechanical Overview:

Weight:

1.9 lbs (FRF-164 (3-element upper), includes aluminum housing)
0.6 lbs (FRF-165 (single element lower), includes aluminum housing)

Physical Dimensions:

2.25"×2.25"×0.51" (each element)

Connector:

SMP Plug (Male)

Environmental:

Temperature:

-40°C to +80°C

Vibration:

> 24 G's

Altitude:

> 60,000 ft.

Protection:

Sealed from rain, sand, dust, salt fog.