NAL Research Corp.
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Mobile Bolt Mount Antenna
Model SAF2040-B

General Description

Model SAF2040-B is a low profile, passive L-band antenna designed to operate with the NAL Research satellite modems and trackers. It provides continuous coverage from 1610 to 1626.5 MHz specifically for the Iridium network. The bolt attachment option allows a secure and permanent installation. The SAF2040-B is suitable for harsh environment and long term operations. It is impact, UV, chemical and jet fuel resistance.

Specifications

Mechanical

Diameter:	3.5” (8.89 cm)
Height:	0.583” (1.48 cm)
Weight:	5.15 oz. (146 g)
Finish:	Skydrol Resistant Polyurethane Enamel and Base Iridite Per MIL-C-5441
Color:	Gloss White #17925 Lusterless Gray #36320 Olive Drab Green #34031 Lusterless Black #37038
Connector:	TNC Female Connector (Option: TNC, SMA, N, N Bulkhead, MCX, MMCX or Cable)
Material:	6061-T6 Aluminum Alloy Base Composite Radome

Environmental

Operating Temperature:	–67°F to +185°F (–55°C to +85°C)
Operating Altitude:	70,000 ft (21 km)
Vibration:	> 30 G’s
Leakage:	Hermetically Seal

Electrical

Frequency:	1610 to 1626.5 MHz
Radiation Pattern:	Hemispherical
Polarization:	Right Hand Circular
VSWR:	Less than 1.5 : 1
Gain (dB):	
4-Foot Ground Plane	Free Space
90° Zenith +4.9	90° Zenith +5.7
10° Elevation –1.0	10° Elevation –2.4
20° Elevation +1.5	20° Elevation –0.1
30° Elevation +2.4	30° Elevation +1.6
45° Elevation +3.3	45° Elevation +3.0
70° Elevation +4.7	70° Elevation +5.0
Axial Ratio:	2 dB
Impedance:	50 Ohms
Power Handling:	200 Watts
Lightning Protection:	DC Grounded
Cable loss between antenna and modem:	Must be kept < 3dB

Designed To

FAA TSO-C144, DO-160D, D0-228, MIL-C-5541, MIL-E-5400, MIL-I-45208A, MIL-STD-810 and SAE J1455

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