Field-proven Handhelds
Mountable Trackers
& Satellite Modems

NAL Research Corporation

SYN7391-B Flat Mount Iridium® Antenna

General Description

Model SYN7391-B is a pocket-sized, 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 SYN7391-B is impact, UV, chemical and jet fuel resistance.

Specifications

Mechanical

Dimensions:	1.54” L x 1.54” W x 0.37” H (3.91 cm x 3.91 cm x 0.94 cm)
Weight:	1.1 oz. (31.2 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:	SMA Female Connector with 36” Cable (Option: TNC, MCX, MMCX or N)
Material:	6061-T6 Aluminum Alloy Base Composite Radome
Ground Plane:	Requires horizontal, relatively flat, metallic mounting surface with minimum of 10” from all edges, centered for optimal performance
Mounting:	4x 2-56 screws

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	2.6" Ground Plane
	90º Zenith +4.9	90º Zenith +4.4
	10º Elevation –1.0	10º Elevation –2.6
	20º Elevation +1.5	20º Elevation –1.0
	30º Elevation +2.4	30º Elevation +0.4
	45º Elevation +3.3	45º Elevation +2.5
	70º Elevation +4.7	70º Elevation +4.0
Axial Ratio:	2 dB	
Impedance:	50 Ohms	
Power Handling:	200 Watts	
Lightning Protection:	DC Grounded	
Cable loss between antenna and modem:	Less than 3dB	

Powered by iridium®

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Environmental

Operating Temperature:	–67ºF to +185ºF (–55ºC to +85ºC)
Operating Altitude:	70,000 ft (21 km)
Vibration:	> 30 G's
Leakage:	Hermetically Seal

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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