





Overview

Digisat has designed & manufacturing Ku-Band Transmit-

Receive, Offset/prime focus Vsat Antenna System

8-#3.1

to consider global coverage & compliance in term of 1.2M

Ku-Band Offset Antenna is a rigid/rugged com Vsat Antenna suitable for Global Vsat Network.

The reflector is GFRP compression molded for strength and surface accuracy. Uniform Molded into the rear of the reflector is a left & right support ribs which not only strengthens the antenna, but also helps to sustain its critical parabolic shape. This ensures outstanding RF performance for transmit and receive ap- plications such as Hughes ON service and remote satellite broadband applications. Single/One Piece Rugged Reflector Mount

169.

AZ/EI mount is constructed from heavy-gauge steel solid Rod to provide a rigid support to the reflector. The AZ/EI mount secures the antenna to either a 62 mm or 75 mm.

Corrosion Proof Back structure in Eye shape to support securely to reflector.

42.5

A specially formulated powder coating paint process offers excellent protection from weather-related corrosion. (Galvanized also available as optional) Plated hardware kit, powder coated Feed mount.

Key Features

- One-piece GFRP -offset reflector Ħ
- Single bolt fine elevation adjustment ж
- Galvanized/ Polyester powder coated 19 Ħ mm 1.75"] O.D. feed support legs
- Factory pre-assembled Az/EI mount
- Plated hardware for maximum corrosion
 - resis- trance free.

POLARIZER

Available with a wide variety of Ku-band feeds as option





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Electrical

Antenna Size 1.2m (48 in.)

Operating Frequency (GHz) Receive = 10.70-12.75 GHz Transmit = 13.75-14.50 GHz

Midband Gain (+/- .3 dBi) Receive = 41.5 dB Transmit = 43.0 dB

Antenna Noise Temperature 20° Elevation = 46°K 30° Elevation = 43°K

Antenna Sidelobe Envelope Per ITU-R S.580-6

Antenna Beamwidth Receive = 1.5° Transmit = 1.2°

Polarization Linear, Orthogonal

Cross-Pol Isolation 30 dB on Axis 26 dB in 1 dB Contour

Feed Specifications – Standard RxTx

Operating Frequency (GHz) Receive = 10.70-12.75 GHz Transmit = 13.75-14.50 GHz

Port-Port Isolation

Transmit = 85 dB Min Receive = 30 dB Min

VSWR Transmit = 1.3:1 Max Receive = 1.5:1 Max

Insertion Loss

Transmit = 0.2 dB Max Receive = 0.4 dB Max



Mechanical Performance

Reflector Material Glass Fiber Reinforced Polyester SMC

Antenna Optics Prime Focus, Offset, 0.8 F/D

Mount Type Elevation over Azimuth

Elevation Adjustment Range 5° to 90° Continuous Fine Adjustment

Azimuth Adjustment Range 360° Continuous, +/- 20° Fine Adjustment

Mount Material mild steel (hop dip galvanized or powder coated)

Gross Antenna Weight 34kg. (appx)

Environmental Performance

Wind Loading Operational = 50 mi/h (72 km/h) Survival = 125 mi/h (200 km/h)

Temperature Operational = -40° to 140° F (-40° to 60° C) Survival = -50° to 160° F (-46° to 71° C)

Rain Operational = $\frac{1}{2}$ inch/h (13mm/h) Survival = 2 inch/h (51mm/h)

Ice Survival = $\frac{1}{2}$ inch (13mm) Radial Ice

Atmospheric Conditions Salt, Pollutants, and Contaminants as Encounered in Coastal and Industrial Areas

Solar Radiation 360 BTU/h/ft2 (1135 W/m2)

DIGISAT SKILL INDIA PVT. LTD. (DSIPL) 3/2, IT Knowledge Park, MIDC Kharadi Pune. INDIA Tel. : +91 92000 03380, +91 98227 88197 Eamil : info@digisat.in Website : www.digisat.in