

Type 755: 75cm Rx/Tx Ku-Band Elliptical Antenna System



- ISO 9001:2008 Certificate of Registration
- One-piece precision elliptical offset thermoset-molded reflector.
- Single bolt fine elevation adjustment.
- Extruded aluminum feed support arm.
- Pre-assembled Az/EI/Skew mount for optimum alignment capability.
- Plated hardware for maximum corrosion resistance.
- Includes Rx/Tx feed assembly.
- Available with Co-Pol or Cross-Pol feed.
- All materials comply with EU Directive No. 2011/65/EC (RoHS).
- Designed for typical 1W and 2W Ku-band Block-Up Converters (BUCs)*

* 2 kg or 4.5 lb or max. weight for RF electronics (BUC and LNB)



The **Skyware Global 75cm Rx/Tx Ku-Band Elliptical Antenna** is a rugged commercial grade product suitable for the most demanding applications.

- The reflector is thermoset-molded for strength and surface accuracy. Molded into the rear of the reflector is a network of support ribs which strengthens the antenna and sustains the parabolic shape necessary for transmit performance.
- The heavy-gauge galvanized steel Az/EI/Skew mount provides rigid support to the reflector.
- The mount secures the antenna to any 60 mm (2.38") O.D. mast and prevents slippage in high winds.
- This mount allows for precise alignment of the elliptical reflector to the geostationary arc.
- A special powder paint process offers excellent protection from weather-related corrosion.



Satcom solutions for the long haul

REV 04/17-03
Page 1 of 2

1315 Outlet Center Drive, Smithfield, NC 27577 T + 1 919 934 9711 F + 1 919 989 2274 Sales @ Skyware Global.com

All designs, specification and availabilities of products and services presented in this bulletin are subject to change without notice. ©2017 Skyware Global

• PRODUCT SPECIFICATIONS

RF Performance

Effective Aperture 75 cm equivalent (30 in)
(62 cm x 89 cm Elliptical Aperture)

Operating Frequency
TX 13.75-14.50GHz
RX 10.70-12.75GHz

Polarization Linear, Co or Cross-Polarized

Gain (± 0.2 dB)
TX 39.3 dBi @ 14.3GHz
RX 37.8 dBi @ 12.0GHz

3 dB Beamwidth
TX 1.6° @ 14.3GHz
RX 2.0° @ 12.0GHz

Sidelobe Envelope (Tx, Co-Pol dBi)
 $1.8 < \theta < 20^\circ$ $29-25 \log \theta$ dBi
 $20^\circ < \theta < 26.3^\circ$ -3.5 dBi
 $26.3^\circ < \theta < 48^\circ$ $32-25 \log \theta$ dBi
 $48^\circ < \theta < 180^\circ$ -10

Antenna Cross-Polarization. $.30$ db on Axis

Antenna Noise Temperature ¹
 30° EL 50K

VSWR
TX 1.3:1
RX 1.5:1

Isolation (Port to Port)
TX 80db
RX 35db

Feed Interface
TX WR75 Flat Flange
RX WR75 Flat Flange

(All specifications typical)

75cm Rx/Tx Ku-Band Elliptical Antenna

Mechanical Performance

Reflector Material Glass Fiber Reinforced Polyester

Antenna Optics One-Peice Offset Feed Prime Focus

Mount Type Three Axis, Skew, Elevation and Azimuth

Polarization (Skew) Adjustment Range . . . $\pm 90^\circ$ Continuous

Elevation Adjustment Range $5^\circ-90^\circ$ Continuous
Fine Adjustment

Azimuth Adjustment Range 360° Continuous

Mast Pipe Interface. $.60$ mm
(2.38 in) Diameter

Enviromental Performance

Wind Loading
Operational. 50 mph (80 km/h)

Functional Survival 80 mph (128 km/h)

Ultimate Survival 125 mph (200 km/h)

Operational Temperature. -40°C to $+60^\circ\text{C}$

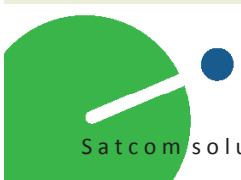
Survival Temperature. -50°C to $+80^\circ\text{C}$

Humidity. 0 to 100% (Condensing)

Atmosphere. Standard Hardware 500 Hrs
SST Requirements (ASTM B-117)

Solar Radiation. 360 BTU/h/ft²

Shock and Vibration. As Encountered during
Shipping and handling



REV 04/17-03
Page 2 of 2

1315 Outlet Center Drive, Smithfield, NC 27577 T + 1 919 934 9711 F + 1 919 989 2274 Sales @ Skyware Global.com

All designs, specification and availabilities of products and services presented in this bulletin are subject to change without notice. ©2017 Skyware Global