TYPE 243: 2.4m C-Band Linear RT/TX Class III Antenna System

SKYWARE GLOBAL

Detail Photos
(on right from top to bottom)

Heavy-duty galvanized Az/El Mount

Fine azimuth and elevation adjustments

RF tested C-band Linear Polarized feed assembly

The two-piece reflector is thermoset-molded for strength and surface accuracy.

The Skyware Global Type 243 2.4 m Class III Rx/Tx Antenna is a rugged commercial grade product suitable for the most demanding applications. The two-piece reflector is thermoset-molded for strength and surface accuracy. Molded into the rear of each reflector half is a network of support ribs which not only strengthens the antenna, but also helps to sustain the critical parabolic shape necessary for transmit performance.

The Az/El mount is constructed from heavy-gauge steel to provide a rigid support to the reflector and feed support arm. Heavy-duty lockdown bolts secure the mount to any 168 mm (6.63") O.D. mast and prevent slippage in high winds. Hot-dip galvanizing is standard on this model for maximum environmental protection.

- All materials comply with EU directive No. 2002/95/EC (RoHS).

- Two-piece precision offset thermoset-molded reflector.

- Heavy-duty galvanized Az/El mount.

- Fine Azimuth and elevation adjustments.

- Galvanized support arm and alignment struts.

- Factory pre-assembled mount.

- RF tested feed assembly.

- Heavy-duty Class III mount for 11 kg (25 lb) RF electronics (LNB & BUC)

• P R O D U C T   S P E C I F I C A T I O N S

2.4 m C-band Linear Rx/Tx Class III Antenna System

RF Performance

Efffective Aperture . . . . 2.4m (96 in)

Operating Frequency
TX . . . . 5.850 - 6.725 GHz
RX. . . . . 3.400 - 4.200 GHz

Polarization . . . . .Linear, Orthogonal

Gain (±0.3 dB)
TX . . . . .42.0 dBi @ 6.1GHz
RX. . . . . 38.0 dBi @ 3.9GHz

3 dB Beamwidth
TX . . . . .1.3° @ 6.1 GHz
RX . . . . .2.1° @ 3.9 GHz

Sidelobe Envelope (Tx, Co-Pol dBi)

$2.5° < \theta < 20°$ . . . . 29-25 log θ

$20° < \theta < 26.3°$ . . . . -3.5

$26.3° < \theta < 48°$ . . . . 32-25 log θ

$48° < \theta < 180°$ . . . . -3.5

Antenna Cross-Polarization. . . . . 30 db (On Axis)

Antenna Noise Temperature
10° EL. . . . . 40K°
20° EL. . . . . 35K°
30° EL. . . . . 32K°

VSWR
Tx 1.3:1
Rx 1.5:1

Isolation(Port to Port)
Tx . . . . 60 dB
Rx . . . . 60 dB

Feed Interface
Tx . . . . Type N or CPR-137
Rx CPR-229

(All specifications typical)

Mechanical Performance

Reflector Material. . . . . . . .Glass Fiber Reinforced Polyester

Antenna Optics . . . . .Two-Piece Offset Feed Prime Focus

Mount Type . . . .   Elevation Over Azimuth

Elevation Adjustment Range . . . . 10° - 90° Continuous
Fine Adjustment

Azimuth Adjustment Range . . . . . .   360° Continuous; ± 12°
Fine Adjustment

Mast Pipe Interface. . . . . .6.63 in (168 mm) Diameter

Enviromental Performance

Wind Loading

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

Survival . . . . 125 mph (200 km/h)

Temperature . . . . -50°C to +80°C

Humidity. . . . . .0 to 100% (Condensing)

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

Solar Radiation . . . . .360 BTU/h/ ft^2

Shock and Vibration. . . . . As Encountered during
Shipping and handling

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