



## 2.4m Ku-Band Rx-Tx Offset Antenna System



### FEATURES

---

- Two-piece precision offset thermoset-molded reflector.
- Heavy-duty galvanized Az/EI mount.
- Fine Azimuth and elevation adjustments.
- Galvanized support arm and alignment struts.
- Factory pre-assembled mount.
- Galvanized and stainless hardware for maximum corrosion resistance.
- Includes Ku-Band linear cross-polarized Rx-Tx feed assembly.

### DESCRIPTION

---

The Andrew Corporation 2.4m Offset Rx-Tx 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 not only strengthens the antenna, but also helps to maintain its critical parabolic shape necessary for transmit performance.

The Az/EI mount is constructed from heavy-gauge steel to provide a rigid support to the reflector and feed support arm. Heavy-duty lock-down bolts secure the mount to any 6.63 in. O.D. mast and prevent slippage in high wind. Hot-dip galvanizing is standard for maximum environmental protection.

This model has been tested and Type Approved for use on the Intelsat Satellite System.

## 2.4m Ku-Band Rx-Tx Offset Antenna System

ANTENNA MODEL  
INTELSAT STANDARD  
APPROVAL CODE

62-24356-01C  
Standard G, K-3 (IESS 601)  
IA057A00

### RF PERFORMANCE

Effective Aperture		2.4m
Operating Frequency	Tx	13.75 - 14.50 GHz
	Rx	10.70 - 12.75 GHz
Polarization		Linear, Orthogonal
Gain ( $\pm 2$ dBi)	Tx	48.9 dBi @ 14.25 GHz
	Rx	47.4 dBi @ 11.95 GHz
3 dB Beamwidth	Tx	.59° @ 14.3 GHz
	Rx	.71° @ 12.0 GHz
Sidelobe Envelope (Tx, Co-Pol dBi)	$1^\circ \leq \Theta \leq 20^\circ$	29-25 Log $\Theta$
	$20^\circ \leq \Theta \leq 26.3^\circ$	-3.5
	$26.3^\circ \leq \Theta \leq 48^\circ$	32-25 Log $\Theta$
	$48^\circ \leq \Theta \leq 180^\circ$	-10 (Typical)
Antenna Cross-Polarization		30 dB on Axis
		26dB in .5dB contour
Antenna Noise Temperature	10° EL	55° K
	20° EI	46° K
	30° EI	45° K
VSWR		1.3:1 Max.
Isolation, Port to Port	Tx	70 dB Min.
	Rx	35 dB Min.
Feed Interface		WR75 Cover Flange (UBR120) (Both Ports)

### MECHANICAL PERFORMANCE

Reflector Material		Glass Fiber Reinforced Polyester
Antenna Optics		Two-Piece Offset Feed Prime Focus
Mount Type		Elevation over Azimuth
Elevation Adjust. Range		10°-90° Continuous Fine Adjustment
Azimuth Adjust. Range		360° Continuous; $\pm 12^\circ$ Fine Adjust.
Feed Support		Rectangular Section With Alignment Legs
Mast Pipe Interface		6.63 in. (168m) Diameter
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		Salt, Pollutants and Contaminants as Encountered in Coastal and Industrial Areas
Solar Radiation		360 BTU/h/ft <sup>2</sup>
Shock and Vibration		As Encountered During Shipping and Handling



Connecting the Wireless World

**Andrew Corporation**  
10500 W. 153rd Street  
Orland Park, IL 60462 USA

**Customer Support Center**  
1315 Industrial Park Drive  
Smithfield, NC 27577 USA  
Telephone +1-919-989-2205  
Fax: + 1-919-989-2200

**Internet**  
[www.andrew.com](http://www.andrew.com)

All designs, specifications and availabilities of products and services presented in this bulletin are subject to change without notice.

Bulletin 11033 (1/04) Copyright © 2004  
Andrew Corporation, Orland Park, IL 60462 USA

Printed in USA