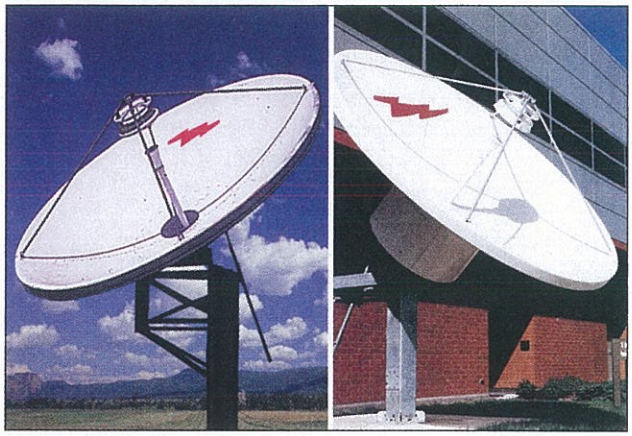
3.7-Meter Dual-Reflector C-, X-, Ku- or K-Band



3.7-Meter Pipe Mount

3.7-Meter Pedestal Mount

Features:

- *High Gain, Excellent Pattern Characteristics*
- *Gregorian Optics*
- *Self-Aligning Main Reflector – No Field Alignment*
- *Field Changeable Feed System, C-Band, Circular to Linear*
- *Ka-Band Operation on Application*
- *3-Year Warranty on All Structural Components*
- *High Wind (180 mph - 288 km/h) Option*
- *MPJ Versions Supplied with 20,000 Pound Jacks for Both Az and El Axis*

Compliances and Type Approvals:

- *APSTAR*
- *ASIASAT*
- *BRASILSAT*
- *INTELSAT F-1 compliant*
- *INTELSAT (IA012A00) or (IA012B00), E2, G*
- *EUTELSAT (EA-A002 or EA-A014)*
- *ITU-R, S.580-5 and S.465-5*
- *U. S. FCC Regulation 25.209*
- *Approved for use in the Territory of Russia by the Ministry of Communications of the Russian Federation (Reference: Homologation Certificate No OC/I-A -f-1)*

Now communications system integrators and designers can bring their systems on line faster, more economically, and with superior performance with Andrew 3.7-meter Earth Station Antenna (ESA). The Andrew 3.7-meter ESA features advanced dual-reflector technology together with a two-piece precision spun aluminum reflector assembly.

This combination provides extremely accurate surface contour, exceptionally high gain, superior efficiency, and closely controlled pattern characteristics.

Our wide selection of type approved antennas speeds system commissioning. The Andrew 3.7 Type Approved ESA can be deployed in the field with minimal testing of G/T to become fully certified as an INTELSAT standard E-2, E-1 station.

Andrew ESAs provide maximum durability with minimal maintenance. The hot-dipped galvanized steel ground mount assembly ensures extended product life. Galvanized and stainless steel hardware maximize corrosion resistance. The easily installed pedestal or pipe mount allows for non-critical foundation orientation.

The 2-port C-Band Circular R/T feed system is manually field switchable from circular to linear polarization. The 48 inch (1219 mm) diameter by 24 inch (610 mm) equipment enclosure with doors allows hub mounting of LNA systems.**

For cost effective system expansion, modular equipment options include 2- or 4-port* combining network configurations, dual-speed motor drive systems for worldwide applications, feed rotation systems*, anti-icing equipment, and pressurization systems. Microprocessor steptrack control and motorizable mount options are also available.

* Ku- and K-Band Only.
** Enclosure Available on Pedestal Mounts Only.

Antenna Accessories

Factory Feed System Testing and Documentation
Transmit Waveguide Kits, Cross-Axis Az/El/Pol
Motorization Kits
Geostationary Indoor Antenna Positioner with 40 Satellite Memory
Inclined Orbit Tracking Indoor Antenna Positioner (steptrack)
Anti-Icing and Deicing
LNA Support Kits
Ocean Transport Packing
Grounding Kit
Foundation Kit
Lightning Rod Kit
Obstruction Warning Light Kit
Cable-Mounting Kit
Major Subsystem Spare Part Kits
Az/El Vernier Kits
Hub Ventilation Kit

ANDREW.

3.7-Meter Dual-Reflector C-, X-, Ku- or K-Band

Electrical Specifications

Operating Frequency Band	
C-Band Receive	3.4-4.2 GHz
C-Band Transmit	5.850-6.725 GHz
X-Band Receive	7.25-7.75 GHz
X-Band Transmit	7.90-8.40 GHz
K- & Ku-Band Receive	10.7-13.25 GHz
Ku-Band Transmit	13.75-14.8 GHz
K-Band Transmit	17.3-18.4 GHz

Gain, with 2 port linear combiner (dBi, ±0.2 dB)

Rx Frequency	Rx Gain	Tx Frequency	Tx Gain
3.400 GHz	41.0	5.850 GHz	45.9
3.625 GHz	41.6	6.175 GHz	46.4
4.000 GHz	42.7	6.425 GHz	46.6
4.200 GHz	43.1	6.725 GHz	46.9
7.250 GHz	47.7	7.90 GHz	48.2
7.500 GHz	47.9	8.15 GHz	48.4
7.750 GHz	48.1	8.40 GHz	48.6
10.700 GHz	50.6	13.75 GHz	52.5
10.950 GHz	50.8	14.00 GHz	52.7
11.950 GHz	51.6	14.25 GHz	52.8
12.750 GHz	52.1	14.50 GHz	53.0
		14.80 GHz	53.2
		17.30 GHz	54.8
		18.40 GHz	55.2

Polarization
C-Band is circular, (switchable to linear) or linear only;
X-Band is circular; Ku-Band is linear; K-Band is linear or circular

Polarization Discrimination, (Linearly-Polarized):
>35 dB across 1 dB beamwidth - C- or Ku-Band or K-Band

Voltage Axial Ratio, (Circularly-Polarized) across the 1 dB beamwidth
C-Band, <1.09:1 Tx
<1.20:1 Rx
X-Band, <1.20:1 Tx and Rx

Beamwidth, Mid-band, Degrees

	C-Band	Ku-Band	X-Band	K-Band
3 dB Receive (Transmit)	1.20 (0.80)	0.42 (0.36)	0.65 (0.60)	0.42 (0.30)
15 dB Receive (Transmit)	2.0 (1.40)	0.85 (0.69)	1.19 (1.09)	0.85 (0.60)

Antenna Noise Temperature – under clear sky conditions, at 68°F (20°C), with 2-port combiner.

Elevation	Kelvin (C-Band)	Kelvin (X-Band)	Kelvin (K- & Ku-Band)
10°	43	48	52
30°	38	35	39
50°	36	33	37

Antenna VSWR, Transmit and Receive <1.3:1

G/T Performance (C-Band)

LNA/LNB Noise Temperature	65K	45K	30K
ES37 G/T at 10° EL (dB/K)	22.3	23.2	24.0

Based on a 2-port, linearly-polarized antenna configuration at 4 GHz and at 10° elevation under clear sky conditions.

G/T Performance (X-Band)

LNA/LNB Noise Temperature	100K	75K	50K
ES37 G/T at 10° EL (dB/K)	25.9	26.6	27.6

Based on a 2-port, circularly-polarized antenna configuration at 7.5 GHz and at 10° elevation under clear sky conditions.

G/T Performance (Ku-Band and K-Band)

LNA/LNB Noise Temperature	165K	125K	90K
ES37 G/T at 10° EL (dB/K)	28.2	29.1	30.1

Based on a 2-port, linearly-polarized antenna configuration at 12 GHz and at 10° elevation under clear sky conditions.

Mechanical Specifications

Feed Type	Dual-Reflector, Gregorian
Reflector Material	Precision-Formed Aluminum
Reflector Segments	2
Mount Type	El over Az, Pedestal or pipe mount
Antenna Pointing Range, Coarse/(Continuous)	
Elevation	0-90° (90°)
Azimuth	180° (120°)
Polarization	360° (180°)
Hub/Enclosure Dimensions (when applicable) Pedestal mount only	
Diameter	48 in (1.2 m)
Depth	24 in (0.6 m)
Wind Loading, Survival (standard)	125 mph (200 km/h) in any position of operation
Wind Loading, Survival (optional high wind)	180 mph (288 km/h) in any position of operation
Wind Loading, Operational (motor drives)	45 mph (66 km/h), gusting to 65 mph (97 km/h)
Temperature, Operational	-40° to 125°F (-40° to 52°C)
Rain	4 in (102 mm) per hour
Solar Radiation	360 BTU/hr/ft^2 (1135 watts/m^2)
Relative Humidity	100%
Shock and Vibration	As encountered by commercial air, rail and truck shipment
Atmospheric Conditions	Moderate coastal/industrial areas. Severe conditions require additional protection.

Typical Pedestal Mount Slab Foundation

Soil Bearing Capacity	2000 lb/ft^2 (14,646 kg/m^2)
Reinforcing Steel	194 lb (88 kg)
Concrete Compressive Strength	3000 lb/in^2 (211 kg/cm^2)
Foundation Size:	REF: 203340
Length	9.0 ft (2.74 m)
Width	9.0-ft (2.74 m)
Depth	1.0 ft (0.3 m)
Concrete Volume	3.0 yd^3 (2.3 m^3)

Typical Pipe Mount Slab Foundation

Soil Bearing Capacity	2000 lb/ft^2 (14,646 kg/m^2)
Reinforcing Steel	353 lb (160 kg)
Concrete Compressive Strength	3000 lb/in^2 (211 kg/cm^2)
Foundation Size:	REF: 240165
Length	10.0 ft (2.74 m)
Width	10.0 ft (2.74 m)
Depth	1.0 ft (0.3 m) to 2.5 ft (0.76 m)
Concrete Volume	5.3 yd^3 (4.3 m^3)

Shipping Information

Weight, Net	1750 lb (800 kg)
Shipping Weight	2670 lb (1220 kg)
Shipping Volume	530 ft^3 (15.0 m^3)
Shipping Container:	
Quantity, 2	Standard 20 ft land/sea container
Quantity, 4	Standard 40 ft land/sea container

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