

1.2 m Flyaway Tx/Rx Antenna System

C-Band Linear

	Receive	Transmit	Receive	Transmit
Frequency	3.4-4.2 GHz	5.7-6.725 GHz	3.625-4.2 GHz	5.85-6.425 GHz
Feed - 2 Port Xpol				
Return Loss	17.7 dB typ	20 dB typ	17.7 dB typ	20 dB typ
Insertion Loss	0.3 dB typ	0.1 dB typ	0.5 dB typ	0.3 dB typ
Tx/Rx Isolation	40 dB	70dB	40 dB	60 dB
Feed Interface	WR229	WR137 or N	WR229	WR137 or N

Antenna				
Efficiency	72%	72%	68%	68%
Cross Polarization On Axis within 1 dB Beamwidth	30 dB	30dB	17.7 dB typ	17.7 dB
Tx/Rx Sidelobe Level	32 - 25 log \ -10	100\ D <\< 48°	17.7 dB typ	17.7 dB
Midband Gain	32.4 dBi	36.4 dBi	32.2 dBi	36.1 dBi
Noise Temperature	55K @ 10°EL 50K @ 30°EL	---	65 K@ 10 55K@ 30	---

Ka-Band Linear

	Receive	Transmit	Receive	Transmit
Frequency	18.2 - 21.2 GHz	27.5 - 31 GHz	19.7 - 20.2 GHz	29.5 - 30 GHz
Feed - 2 Port Xpol				
Return Loss	17.7 dB typ	20 dB typ	16 dB typ	18 dB typ
Insertion Loss	0.3 dB typ	0.1 dB typ	0.5 dB typ	0.3 dB typ
Tx/Rx Isolation	40 dB	80 dB	40 dB	80 dB
Feed Interface	WR42	WR28	WR42	WR28

Antenna				
Efficiency	65%	65%	65%	65%
Midband Gain	45.8 dBi	49.5 dBi	46.1 dBi	49.6 dBi
Noise Temperature	81K @ 10°EL 76K @ 30°EL	---	86K @ 10°EL 81K @ 30°EL	---
Cross Polarization On Axis within 1 dB Beamwidth	30 dB	30 dB	21 dB	21 dB
Tx/Rx Sidelobe Level	32 - 25 log \ -10	100\ D <\< 48°	21 dB	21 dB

Ka-Band Circular

Ku-Band

	Receive	Transmit
Frequency	10.7 - 12.75 GHz	13.75 - 14.5 GHz
Feed - 2 Port Xpol		
Return Loss	17.7 dB typ	20 dB typ
Insertion Loss	0.3 dB typ	0.1 dB typ
Tx/Rx Isolation	40 dB	80 dB
Feed Interface	WR75	WR75

Antenna		
Efficiency	70%	70%
Cross Polarization On Axis within 1 dB Beamwidth	30 dB	35 dB
Tx/Rx Sidelobe better than	100\ D <\< 20° 20° <\< 26.3° 26.3° <\< 48° 48° <\	29 - 25 log \ -3.5 32 - 25 log \ -10
Midband Gain	41.8 dBi	43.5 dBi
Noise Temperature	58 K @ 10° EL 53 K @ 30° EL	---

X-Band

	Receive	Transmit
Frequency	7.25 - 7.75 GHz	7.9 - 8.4 GHz
Feed - 2 Port Xpol		
Return Loss	17.7 dB typ	17.7dB
Insertion Loss	0.3 dB typ	0.2 dB typ
*Tx/Rx Isolation	30 dB	30 dB
Feed Interface	WR112	WR112

Antenna Specifications		
Efficiency	70%	70%
Midband Gain	38.0 dBi	38.7 dBi
Noise Temperature	50 K @ 10° 45 K @ 30°	---
Cross Polarization On Axis 1 dB beamwidth	23 dB	21dB
Tx/Rx Sidelobe Level	32 - 25 log \ -10	100\ D <\< 48° 48° <\

Mechanical Data

Focal Length	30 in / 76.2 cm	
f/D	0.635	
Offset Angle	22.0°	
Antenna Optics	Single Offset	
Mount Type	Elevation over Azimuth Tripod	
Elevation Adjustment	0° to 90° Continuous Fine Adjustment	
Azimuth Adjustment	+ 30° Fine, 360° Continuous	
	Standard	Metric
Reflector Petals	1 @ 54x30x15 in 91lbs	137x76x38cm 41.4 kg
Positioner and Tripod	1 @ 47x16x15 in 73 lbs	120x38x41cm 33.2 kg
Ku-Band Feed System	1 @ 21x12x11in 27 lbs	53x30x28cm 12.3 kg
Environmental Data		
Wind Loading		
Operational (No Ballast or Anchors)	25 mph	40 kmh
Operational (With Ballast or Anchors)	45 mph	72 kmh
Survival (With Ballast or Anchors)	90 mph	145 kmh
Temperature	-40° to 140°F	-40° to 60°C
Rain		1.3 cm / h
Solar Radiation	360 BTU/h/ft² (1000 Kcal/h/m²)	

**Weights may differ slightly depending on mount configuration



Our cases are constructed of .080 aircraft grade aluminum with Heli-Arc welded corners. Hardware consists of spring loaded recessed handles with Heavy Duty latches and full length piano hinge. The cases are lined with closed cell high density foam and the parts are custom fit and supported with the foam for extra protection. Each case is waterproof. Custom colors may be available.

Manual Adjustment

Option 1

Basic Features

- Preassembled Tripod Base Mount with Pull Pins
- All Aluminum Cases for Easy Transportation
- Patented Two Piece Dual Skin Metal Reflector
- C, Ku, Ka and X Bands
- Sturdy Boom Accommodates Many Outdoor Units
- Self Leveling Feet for Uneven Surfaces

Unique Features

- Azimuth and Elevation Hand Crank for Easy Adjustment
- 5 Minute Setup



Dual Axis Motorized with Smart Jog Controller

Option 2

- Includes Basic Features of Option 1

Unique Features

- Motorized Az/EI Mount for Jog Control
- Easy 15 minute Setup with Control Cable
- Limited Motion Mount
- Motorized Feed Assembly for Polarization Adjustment
- Actuator Control
- Manual Jog or Tracking motions Available
- RCI-3050 Controller
- 2 or 3 Axis Motorization



Auto Locate

Option 3

- Includes Basic Features of Option 1

Unique Features

- Motorized Feed Assembly for Polarization Adjustment
- Easy 15 minute Setup with Control Cable
- Fluxgate Compass and GPS Tracking
- Limited Motion Mount
- 2 or 3-Axis Motorization
- RCI-3000 Controller
- Automatically Locates Satellite without Manually Adjusting

