

1.2m Mobile VSAT Systems

Jog Control

Option 1



Basic Features

- Single Piece Lightweight Reflector
- Auto Deploy and Stow
- Patented Dual Skin Design
- Ku and Ka Bands
- Motorized Feed for Polarization Adjustments
- Palletized Full Motion Mount

Unique Features

- RCI-3050 Controller
- Jog Controller and Position Reference Locator

Auto Locate with GPS and Fluxgate Compass

Option 2



- Includes Basic Features of Option 1

Unique Features

- Auto Locate
- Manual Peaking
- GPS and Fluxgate Compass
- Auto Satellite Locating
- 50 Preset Satellite Locations
- One Touch Tx/Rx Capabilities
- RCI-3000A Controller
- Motorized Feed for Polarization Adjustment

Auto Commission

Option 3



- Includes Features of Option 2

Unique Features

- Auto Commission
- Automatically Locates and Peaks Signal Satellite without Manually Adjusting
- Includes DVB Receiver

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ISO 9001/2000

1.2m Mobile VSAT Tx/Rx Antenna System

C-Band Linear		C-Band Circular		Ku-Band		Ku-Band Linear	
	Receive	Transmit	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	Frequency	10.7 - 12.75 GHz	13.75 - 14.5 GHz
Feed - 2 Port Xpol					Feed - 2 Port Xpol		
Return Loss	17.7 dB typ	20 dB typ	17.7 dB typ	20 dB typ	Return Loss	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	Insertion Loss	0.3 dB typ	0.1 dB typ
Tx/Rx Isolation	40 dB	70dB	40 dB	60 dB	Tx/Rx Isolation	40 dB	80 dB
Feed Interface	WR229	WR137 or N	WR229	WR137 or N	Feed Interface	WR75	WR75
Antenna				Antenna			
Efficiency	72%	72%	68%	68%	Efficiency	70%	70%
Cross Polarization On Axis within 1 dB Beamwidth	30 dB 22 dB	30dB 25 dB	17.7 dB typ 17.7 dB	17.7 dB 17.7 dB	Cross Polarization On Axis within 1 dB Beamwidth	30 dB 22 dB	35 dB 26 dB
Tx/Rx Sidelobe Level	32 - 25 log θ -10	100 λ /D < θ < 48° 48° < θ			Tx/Rx Sidelobe better than	100 λ /D < θ < 20° 20° < θ < 26.3° 26.3° < θ < 48° 48° < θ	29 - 25 log θ -3.5 32 - 25 log θ -10
Midband Gain	32.4 dBi	36.4 dBi	32.2 dBi	36.1 dBi	Midband Gain	41.8 dBi	43.5 dBi
Noise Temperature	55K @ 10°EL 50K @ 30°EL	---	65 K@10 55K@ 30	---	Noise Temperature	58 K @ 10° EL 53 K @ 30° EL	---
Ka-Band Linear		Ka-Band Circular					
	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				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 22 dB	30 dB 22 dB	21 dB 21 dB	21 dB 21 dB			
Tx/Rx Sidelobe Level	32 - 25 log θ -10	100 λ /D < θ < 48° 48° < θ					

Mechanical Specs

Controller			
Type	Jog	Automatic Deploy and Stow, Front Panel Jog of Az, El and Pol	
	Auto locate	Finds Preprogram Satellite w/in Limited Geographical Area	
	Auto Commission	Finds Any Satellite, Anywhere in the World	
Size	Two Rack Units High		
Input Power	100V AC, 1 ph, 60 Hz, 15 amp or 220V AC, 1 ph, 50 Hz, 8 amp		
Mechanical			
Travel - Azimuth Full Coverage	\pm 200° Roto-Lok from stow position		
Travel - Elevation	0 - 65° from boresight		
Polarization	\pm 95° for 2-Port		
Speed	Slewing/Deployment: 2°/second, Peaking:		
Motors			
RF Interface	ODU Mounting	Feed Boom or Rear of Reflector	
	Waveguide	WR 75 Ku	
	Coax	RG59 run from feed to base plus 15 ft.	
Electrical Interface	25 ft. of connectors for controllers		
Mechanical Interface	Pallet for Installation on most SUVs and Vans		
Manual Drive	Handcrank for Az Axis		
Size	4 feet	1.2m	
Weight	150 lbs	68kg	
Environmental			
Wind Survival	Deployed	60 mph	100 kph
	Stowed	80 mph	130 kph
Operational	Tracking	45 mph 60°F	72 kph @ 15.5°C
Temperature	Survival	-40°F to 125°F	-40°C to 51°C
	Operational	-20°F to 140°F	-28°C to 60°C
Boresight Backlash	Tx Gain Loss 0.1 dB Max, .05 db Typical		
Boresight Deflection	Tx Gain Loss.5 dB Typical in 30 gusting to 45 mph winds		

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