

1.8m Mobile VSAT Systems

Manual Adjustment

Option 1

Manual Adjustment

Ku-band: P/N TXMVSAT-180KU-JOG

C-band: P/N TXMVSAT-180C-JOG



Basic Features

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

Unique Features

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

Dual Axis Motorized with Auto Locate Controller

Option 2

Auto-Locate Controller

Ku-band: P/N TXMVSAT-180KUAUTO

C-band: P/N TXMVSAT-180CAUTO



• Includes Basic Features of Option 1

Unique Features

- Auto Locate
- Manual Peaking
- GPS and Fluxgate Compass
- Auto Satellite Locationg
- 50 Preset Satellite Locations
- One Touch Tx/Rx Capabilities
- RCI-3000A Controller

Auto Locate with Auto Commission Controller

Option 3

Auto Commission Controller

Ku-band: P/N TXMVSAT-180KU-PRO

C-band: P/N TXMVSAT-180C-PRO



• Includes Features of Option 2

Unique Features

- Auto Commission
- Auto Peaking Using Pulse Sensors
- Includes DVB Receiver
- Automatically Locates Satellite without Manually Adjusting
- GPS
- Motorized Feed Option

1.8m Mobile VSAT

C-Band		C-Band Linear	
Polarity		Receive	Transmit
Frequency		3.4-4.2 GHz	5.7-6.725 GHz
Feed - 2 Port Xpol			
Return Loss		17.7 dB typ	17.7 dB
Insertion Loss		0.2 dB	0.2 dB
Tx/Rx Isolation		40 dB	70 dB
Feed Interface		WR229	WR137 or N
Antenna Specifications			
Efficiency		70%	70%
Midband Gain		36.0 dBi	39.8 dBi
Noise Temperature		55 K @ 10° 50 K @ 30°	---
Cross Pol On Axis		30 dB	30 dB
1 dB beamwidth		22 dB	25 dB
Tx/Rx Sidelobe Level		32 - 25 log θ -10	100 $\lambda/D < \theta < 48^\circ$ 48° < θ

Ku-Band		Ku-Band Linear	
Polarity		Receive	Transmit
Single Optic Frequency		10.7 - 12.75 GHz	13.75-14.5 GHz
Feed - 2 Port Xpol			
Return Loss		17.7 dB typ	20 dBtyp
Insertion Loss		0.3 dB typ	0.1 dBtyp
Tx/Rx Isolation		40 dB	80 dB
Feed Interface		WR75	WR75
Antenna Specifications			
Efficiency		70%	70%
Midband Gain		45.3 dBi	47.0 dBi
Noise Temperature		55 K @ 10° EL 50 K @ 30° EL	---
Cross Polarization On Axis		30 dB	30 dB
within 1 dB Beamwidth		22 dB	26 dB
Tx/Rx Sidelobe		29 - 25 log θ -3.5 32 - 25 log θ -10	100 $\lambda/D < \theta < 20^\circ$ 20° < $\theta < 26.3^\circ$ 26.3° < $\theta < 48^\circ$ 48° < θ

C-Band Circular			
Polarity		Receive	Transmit
Frequency		3.625-4.2 GHz	5.85-6.425 GHz
Feed - 2 Port Xpol			
Return Loss		17.7 dB typ	17.7 dB
Insertion Loss		0.3 dB	0.2 dB
Tx/Rx Isolation		40 dB	60 dB
Feed Interface		WR229	WR137 or N
Antenna Specifications			
Efficiency		70%	70%
Midband Gain		35.6 dBi	39.5 dBi
Noise Temperature		65K @ 10° 60K @ 30°	---
Cross Pol On Axis		15.3 dB	17.7 dB
1 dB beamwidth		15.3 dB	17.7 dB
Tx/Rx Sidelobe Level		32 - 25 log θ -10	100 $\lambda/D < \theta < 48^\circ$ 48° < θ

Auto Commissioning

Ku-band: P/N TXMVSAT-180KU-PRO
C-band: P/N TXMVSAT-180C-PRO

Mechanical Specs

Controller			
Type	Jog	Automatic Deploy and Stow, Front Panel	
	Auto locate	Jog of Az, El and Pol	
	Auto Commission	Geographical Area	
		Finds Any Satellite, Anywhere in the World	
Size	Two Rack Units High		
Input Power	AC, 1 ph, 50 Hz, 8 amp		
Mechanical			
Travel - Azimuth	270°		
Travel - Elevation	0-90° from boresight		
Polarization	± 95°		
Speed	Slewing / Deploying: 2° / sec, Peaking:		
Drive System	Roto-Lok ®		
Motors	24V DC Variable Speed		
	TransmitType N Female Coax to W/G		
RF Interface	Adapter on Feed		
Receive	WR229 Flat Flange at feed omt		
Electrical Interface	25 ft. Cable with Connectors for Controller		
Manual	7/16 Hex Socket Wrench on Az and El		
Size	6ft	1.8m	
Weight	325 lbs.	147kg	
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		