

3.0 m FCC Compliant Offset Tx/Rx Antenna System

TX300-KLOF
TX300-CLOF
TX300-CCOF

RF SPECIFICATIONS		Circular Single Optic		Linear Single Optic	
C-Band		Receive	Transmit	Receive	Transmit
Frequency in GHz		3.625 - 4.20 / 5.850 - 6.425		3.40 - 4.20 / 5.7 - 6.725	
Midband Antenna Gain (Rx/Tx)		40.5 dB	44.4 dB	40.2 dB	44.6 dB
Antenna Noise Temperature at 20° Elevation		35 K		30 K	
Typical G/T @ 20° EL 3.912 GHz		21.2 dB/K		20.9 dB/K	
Clear Horizon w/ 50 K LNA		17.7 dB typ		30.0 dB	35.0 dB
Cross Pol Isolation on Axis within 1 dB Beamwidth		17.7 dB typ	17.7 dB	22.0 dB	26.0 dB
Return Loss		17.7 dB typ	19.0 dB	17.7 dB	19.0 dB
RF SPECIFICATIONS		Linear Dual Optic		Linear Single Optic	
Ku-Band		Receive	Transmit	Receive	Transmit
Frequency in GHz		10.70 - 12.75 / 13.75 - 14.50		10.70 - 12.75 / 13.75 - 14.50	
Midband Gain		50.0 dB	51.7 dB	50.0 dB	51.7 dB
Antenna Noise Temperature at 20° Elevation		35 K		35 K	
Typical G/T @ 20° EL 11.725 GHz		29.4 dB/K		29.4 dB/K	
Clear Horizon w/ 80 K LNA		30.0 dB	35.0 dB	30.0 dB	35.0 dB
Cross Pol Isolation on Axis within 1 dB Beamwidth		30.0 dB	35.0 dB	22.0 dB	26.0 dB
Return Loss		17.7 dB typ	20.0 dB	17.7 dB typ	20.0 dB
Tx/Rx Sidelobe Level		29 - 25 log θ -3.5		100 λ /D < θ < 20° 20° < θ < 26.3°	
		32 - 25 log θ -10		26.3° < θ < 48° 48° < θ	
MECHANICAL & ENVIRONMENTAL SPECIFICATIONS					
Mount	Motorized Kingpost w/180° H to H Mount or Az/EI Motorizable Kingpost Mount Elevation adjustment 0-120° Azimuth 180°)				
Kingpost Mount	Hot-Dip Galvanized				
Reflector Structure	Aluminum with powder coating on reflector surface				
Windload Operational / Survival	45 mph (48-73 km/h gusts) 125 mph (200 km/h)				
Ambient Temp. Operational	-40° to 122°F (-40° to 50°C)				
Ambient Temp. Survival	-40° to 140°F (-40°C to 60°C)				
Relative Humidity	0% to 100%				

Call For X-Band or Specialty 4-Port Feed Assemblies



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Features

- Motorized Kingpost w/180° H to H, or Az/EI Motorizable Kingpost Mount.
- Extra support ribs for added rigidity in wind
- Diameter = 10 ft., 3.0m
- Long Focal Length for Excellent Sidelobe Rejection
- Easy To Ship, Installation without Crane
- Sub-reflector Option for Ku-Band Low Cross Pol Applications
- Various Tx/Rx and Rx-Only Feed Options, Including 4-Port C/Ku
- High Wind Loading Options Available

Description

Solid Performer Ideal for Commercial C-Band and Ku-Band Applications

Need a more cost effective solution for a 3.0 meter C-band or Ku-Band transmit/receive antenna? Many customers require the extra link margin that a larger antenna like a 3.0 meter can provide, for the hub station in their VSAT networks, a video uplink, or an SCPC central station. However, affordable prices are not often found when considering the other antennas on the market. The Patriot 3.0 meter offset is the affordable, flexible choice. Every Az/EI fixed Kingpost antenna is fully upgradable in the field to a Dual-Axis Motorized antenna with 180° H to H Mount.

Patriot's newest offset antenna is not just affordable, it's a solid performer. The stretch formed 3.0 meter antenna with kerf panels provides superior surface accuracy. This antenna allows for easy installation without the need for a crane or a lifting device.