

2.4m Offset Tx/Rx Antenna System

TXINT-240

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 Gain (Rx/Tx)	38.3 dBi	42.2 dBi		38.2dBi	42.6 dBi
Antenna Noise Temperature at 30° Elevation	35 K			30 K	
Typical G/T @ 30° EL 3.912 GHz					
Clear Horizon w/ 50 K LNA		19.4 dB/K			19.0 dB/K
Cross Pol Isolation on Axis (4port) within 1 dB Beamwidth	17.7 dB	27.3 dB		30.0 dB	35.0 dB
Return Loss	17.7 dB	19.0 dB		17.7 dB	19.0 dB

RF SPECIFICATIONS		Circular Single Optic		Linear Single Optic	
Ka-Band	Receive	Transmit		Receive	Transmit
Frequency in GHz	19.7 - 20.2 GHz	29.5 - 30 GHz		18.2 - 21.2 GHz	27.5 - 31 GHz
Midband Gain (Rx/Tx)	52.1 dBi	55.5 dBi		51.9 dBi	55.6 dBi
Antenna Noise Temperature at 30° Elevation	75 K			70 K	
Typical G/T @ 30° EL, midband					
Clear Horizon w/ 120 K LNA		29.2 dB/K			29.1 dB/K
Cross Pol Isolation on Axis (4port) within 1 dB Beamwidth	21 dB	21 dB		30.0 dB	32.0 dB
Return Loss	16 dB	18 dB		17.7 dB	20.0 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	48.0 dB	49.6 dB		48.0 dB	49.6 dB
Antenna Noise Temperature at 30° Elevation	30 K			30 K	
Typical G/T @ 30° EL 11.725 GHz					
Clear Horizon w/ 80 K LNA	27.6 dB/K				27.6 dB/K
Cross Pol Isolation on Axis within 1 dB Beamwidth	30.0 dB	35.0 dB		30.0 dB	35.0 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		100 λ /D < θ < 20°	
		-3.5		20° < θ < 26.3°	
		32 - 25 log θ		26.3° < θ < 48°	
		-10		48° < θ	

Mechanical Specs	
Antenna Optics	Single Offset
Mount Type	
Az El Mast Pole	6 5/8 in / 16.83 cm O.D.
Navigator Dual Access Motorized	0-120° AZ 5-90° EI

Environmental Specs	
Windload Operational / Survival	45 mph gusts of 125 mph 3 kmh gusts of 200 kmh)
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%

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Features

- Easy To Ship, Installation without Crane
- Extra support ribs for added rigidity in wind
- High Wind Load Options Available
- Sub-Reflector Option for Ku-Band Low Cross Pol Applications
- Various Frequency and Feed Options
- Long Focal Length for Excellent Sidelobe Rejection

Description

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

Need a more cost effective solution for a 2.4 meter transmit/receive antenna? Many customers require the extra link margin that a larger antenna like a 2.4 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 2.4 meter offset is the affordable, flexible choice.

Patriot's newest offset antenna is not just affordable, it's a solid performer. The stretch formed 2.4 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.