

## 2.4m Offset Tx/Rx Antenna System



TXINT-240



### 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.

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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)	17.7 dB	27.3 dB	30.0 dB	35.0 dB
within 1 dB Beamwidth	17.7 dB	27.3 dB	22.0 dB	26.0 dB
Return Loss	17.7 dB	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	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	30.0 dB	35.0 dB	30.0 dB	35.0 dB
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 $\theta$	100 $\lambda$ /D < $\theta$ < 20°	
		-3.5	20° < $\theta$ < 26.3°	
		32 - 25 log $\theta$	26.3° < $\theta$ < 48°	
		-10	48° < $\theta$	

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	21 dB	21 dB	30.0 dB	22.0 dB
within 1 dB Beamwidth	21 dB	21 dB	22.0 dB	22.0 dB
Return Loss	16 dB	18 dB	17.7 dB	20.0 dB

## Mechanical Specs

Antenna Optics	Single Offset
Mount Type	
Az El Mast Pole	360° Continuous AZ \ 0°-90°EI
Navigator Dual Access Motorized	0-120° AZ 5°-90° EI

## Environmental Specs

Windload Operational / Survival	45 mph gusts of 60 mph / survival 100 (stowed)	73 kmh gusts of 100 kmh / survival 160kmh (stowed)
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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