

2.4 and 1.8 meter C-Band Tx/Rx Antenna System

TXINT-180CL **TXFCC-240CL**
TXINT-180CC **TXFCC-240CC**

RF SPECIFICATIONS	C-Band Linear		C-Band Circular	
C-Band	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
Feed - 2 Port Xpol				
Return Loss	17.7 dB typ	17.7 dB	17.7 dB typ	17.7 dB
Insertion Loss	0.2 dB	0.2 dB	0.3 dB	0.2 dB
Tx/Rx Isolation	40 dB	70 dB	40 dB	60 dB
Feed Interface	WR229	WR137	WR229	WR137
1.8 Meter Antenna				
Efficiency	70%	70%	67%	67%
Midband Gain	36.0 dBi	39.8 dBi	35.6 dBi	39.5 dBi
Noise Temperature	50 K @ 10°	---	65 K @ 10°	---
f/D	.610			
Focal Length	43.2 in			
Cross Pol On Axis	30 dB	30dB	15.3 dB	17.7 dB
1 dB beamwidth	22 dB	25 dB	15.3 dB	17.7 dB
Tx/Rx Sidelobe Level	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	
2.4 Meter Antenna				
Efficiency	70%	70%	67%	67%
Midband Gain	38.2dBi	42.4 dBi	38.3 dBi	42.2 dBi
Noise Temperature	50 K @ 10°	---	65 K @ 10°	---
f/D	.64			
Focal Length	61.4 in			
Cross Pol On Axis	30 dB	30 dB	15.3 dB	17.7 dB
1 dB beamwidth	22 dB	25 dB	15.3 dB	17.7 dB
Tx/Rx Sidelobe Level	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	
Mechanical Specifications				
Antenna Optics	Single Offset			
Mount Type	Elevation over Azimuth			
Mast Pipe Size	4 in / 10.16 cm O.D (1.8m) 4 1/2 in / 16.83 cm O.D. (2.4m)			
Elevation Adjustment Range	8° to 90° Continuous Fine Adjustment			
Azimuth Adjustment Range	+ 15° Fine, 360° Continuous			
Environmental Specifications				
Wind Loading	Operational	50 mph 80kph		
	Survival	125 mph 200 kph		
Temperature	Operational	-40° to 140° F -40° to 60°C		
	Survival	-60° to 180°F -51° to 82°C		
Rain	Operational	1.5 in/hr 1.3 cm/h		
	Survival	3 in/ her 7.6 cm/h		
Ice	Survival	2.5 cm (1 inch) radial or 1.3 (.5 inch) radial + 100 kph (60 mph)		



ATRIOT Antenna Systems

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Model Numbers
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TXFCC-180CL
TXINT-180CC Intelsatapproval 1A101A00

Features

2.4 meter

- Az/EI Interface to 4 1/2 in O.D. Pipe
- Galvanized Steel Mount
- Easy to ship, Two-Piece construction

1.8 meter

- Az-EI Interface to 4 in O.D. Pipe
- Feed Options for Linear or Circular
- Back frame pre-assembled to reflector

Description

Why pay more for a C-band antenna? The stamping process for the 2.4m produces the solid reflector results in superior surface accuracy and repeatability. The steel back structure adds strength and stability to the system and keeps the installation process simple.

With a past history of use in high quality SNG (Satellite News Gathering) applications, the Patriot 1.8 meter antenna provides surface accuracy, rugged stiffness, and precision. The Navigator Style fine tune Azimuth and Elevation cap reduces pointing errors during installation on both antennas, allowing more accurate boresighting on the satellite. Increased pointing accuracy leads to greater link availability. Special packaging techniques are employed for every systems shipped to protect the surface of the dish.