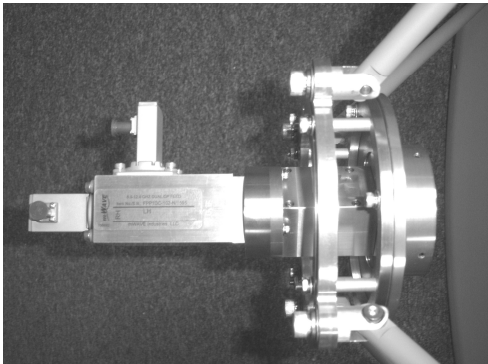


Model RPCD3-102-N

3 Foot X-Band Dual Circular Polarized Prime Focus Antenna

The photos below are of mWAVE Industries, LLC model RPCD3-102-N dual circular polarized full waveguide bandwidth 8.0-12.4 GHz 3' prime focus antenna. The main reflector is a one-piece solid aluminum spinning. The reflector is illuminated by a X-Band Dual CP prime focus feed that is supported by means of a precision dielectric quadrapod. Each RF input operates from 8.0 to 12.4 GHz. Inputs are labeled LHCP and RHCP. This feed consists of a machined scalar horn, waveguide polarizer and OMT. The feed construction is entirely metal waveguide components and uses no lossy dielectric materials. Input are type N female but the antenna can also be shipped having WR-90F waveguide flanges.

The antenna has been outfitted with a modified version of our standard mounting bracket. The modified bracket is constructed of aluminum and provides a flat mounting surface located behind the vertex of the reflector. Mounting provisions consist of eight #10-32 UNF tapped holes. The total weight of the reflector, feed, and mounting bracket is approximately 23 lb. The finish is gray paint. Unpainted aluminum surfaces are Chemical Conversion per MIL-DTL-5541F, Type 1, Class 1A, Color Gold.



NOTE: mWAVE also offers a family of full waveguide dual circular polarized prime focus feeds covering 2.60-50.0 GHz that can be used with this reflector. Other diameter reflectors are also available for alternate beamwidth and gain requirements.

Below are two tables showing the summarized data of the antenna. Radiation patterns, gain and axial ratio data was recorded on mWAVE's outdoor test range to insure meeting the customer's needs and requirements.

LHCP-System Port				
Frequency (GHz)	Gain (dBic)	HPBW (deg.)	On-Axis Axial Ratio (dB)	Return Loss (dB)
8.0	34.3	2.8	0.7	27.4
10.2	36.4	2.2	1.0	13.5
12.4	38.0	1.9	0.4	16.3

RHCP-System Port				
Frequency (GHz)	Gain (dBic)	HPBW (deg.)	On-Axis Axial Ratio (dB)	Return Loss (dB)
8.0	34.3	2.8	1.3	25.2
10.2	36.4	2.2	0.8	19.0
12.4	38.0	1.9	0.3	17.0

Contact mWAVE Industries, LLC for your antenna development and manufacturing needs.