mWAVE
Your Partner in Antenna Technology

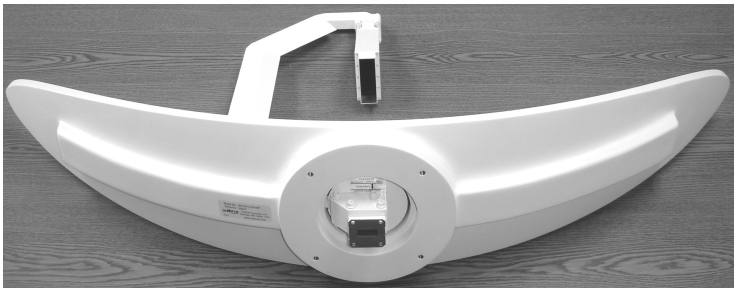
Shaped Beam X-band Radar Antenna

Model RP40X10-93-90F

The photographs below depict mWAVE's single-linear polarized X-band orange peel parabolic reflector antenna. The antenna operates from 9.2 to 9.4 GHz producing a vertically polarized shaped-beam radiation pattern. The H-plane Azimuth pattern is substantially more directive than the E-plane Elevation pattern.

The reflector is a precision lightweight composite with an integral mounting hub. The reflector is illuminated by a front-insertable X-Band buttonhook style feed. The RF input of the feed is a WR-90F flange located behind the vertex of the reflector. Power handling is 3 kW peak with a 5% duty cycle maximum.

The projected aperture of the antenna is elliptical in shape with a major dimension of approximately 42 inches in azimuth. The axial dimension of the antenna is approximately 22" along the focal axis of the reflector. The weight of the fully assembled antenna is approximately 10 lb. The finish is white paint.



TYPICAL ANTENNA PERFORMANCE

Frequency (GHz)	Gain (dBil)	HPBW (deg.)		SLL (dB)		On-Axis X-pol (dB)	Return Loss (dB)
		Azimuth	*Elevation*	*Azimuth*	*Elevation*		
9.2	29.8	2.3	9.4	19.1	21.9	38.5	18.7
9.3	29.9	2.4	9.5	19.1	22.6	40.0	14.5
9.4	29.8	2.4	9.5	18.7	21.3	42.5	14.9

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

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