

# MicroScan II

2, 7, and 13 GHz Central Receive Antenna



## Applications

- Dual Axis Steerable Central Receive Antenna

## Features

- 18" x 30" offset parabola
- High-strength, lightweight honeycomb construction
- Solid-state feed
- Broadband design covers 2/2.5 GHz, 6.4/7, and 13 GHz
- Triband model: 2, 7, and 13 GHz
- Left circular, right circular, horizontal and vertical polarization

## Rotator

- Ruggedized rotating mechanism
- Dual speed
- Dual hinged access doors for ease of access
- Adjustable elevation

## LNA/Block Downconverter

- 24 dB gain LNA
- 6.5/7 GHz block downconverter (used with 7 GHz system)

## Overview

The MicroScan Central Receive Antenna is ideal for portable video applications using the 2 GHz and/or 7 GHz bands. The MicroScan system includes a low-profile offset-fed antenna, consisting of a reflector, feed, low-noise amplifier, and block downconverter (2/7 version only)—plus a rotator assembly and surge suppression circuits. The MicroScan system features both elevation and azimuth drive and can be controlled by a variety of controllers, including ASC-140 Antenna Slave and MAC-1000 Antenna Controller.

The antenna feed is offset for greater feed efficiencies and reduced sidelobes. The feed offers a full range of polarizations with a built-in low-noise amplifier (LNA), block downconverter, dual band filter, and surge protection. All signals are fed through the surge protection unit to prevent damage to the feed circuitry.

The MicroScan is available as a single band antenna covering your choice of the 1.8, 2/2.5, or 7 GHz bands—or as a multiband antenna system covering the 2/2.5 GHz, 6.5/7 GHz, and 13 GHz bands.

The feed design permits a choice of linear (H or V), circular RHCP or LHCP or quad (H, V, RHCP, or LHCP) polarization, with a full range of remote switching options with the LNA/block downconverter mounted in the feed to minimize the signal loss from cables. The MicroScan is also available with an optional solid-state switching feed, eliminating the electro-mechanical switches for improved reliability. This version also offers the sharper response PCS filter and high dynamic range LNA.

# SPECIFICATIONS

## GENERAL

Antenna Type:	Offset Fed Parabola
Frequency Range	
2 GHz Model:	1.99 to 2.5 GHz
7 GHz Model:	6.45 to 7.125 GHz
13 GHz Model:	12.7 to 13.2 GHz
Antenna Gain	
2 GHz Model:	20 dBi Nominal
7 GHz Model:	30 dBi Nominal
13 GHz Model:	35 dBi Nominal
LNA:	24 dB Gain
	2 dB Noise Figure
Front to Back Rejection:	-25 dB Minimum
Side Lobe Rejection:	-20 dB Minimum
RF Connector:	"N" Female

## PHYSICAL

Reflector Size:	29.5" x 18.5" (75 x 47 cm)
Max Height Inch Pan & Tilt Head:	33" (84 cm)
Max Depth, Inch Feed:	25.5" (65 cm)
Weight, including Mounting Plate:	70 lbs (31.8 kg)
Size with Radome:	40" (h) x 43" (d) (102 x 109 cm)
Weight, with Radome:	120 lbs (54.5 kg)

## PAN AND TILT

Elevation Tilt:	+25 to -15 Degrees
Azimuth:	0 to 358 Degrees

## WINDLOAD

Frontal Windload with Radome:	125 mph – 702 lbs
Frontal Windload without Radome:	60 mph – 60 lbs
	100 mph – 101 lbs
	125 mph – 126

## ORDERING INFORMATION

MRA-2	2 GHz quad. pol. solid-state with gain reduction and PCS filter
MRA-7	7 GHz quad. pol. solid-state with 7 – 2 GHz block downconverter
MRA-27	2/7 GHz quad. pol. solid-state with gain reduction, PCS filter @ 2 GHz, and 7 – 2 block downconverter
MRA-2713	2/7/13 GHz quad. pol. solid-state with gain reduction, PCS filter @ 2 GHz, and dual block downconverters
MRA-714	7/14 GHz quad. pol. solid-state with dual block downconverters
MRA-213	2/13 GHz quad. pol. solid-state with gain reduction, PCS filter @ 2 GHz, and 13 – 2 GHz block downconverter

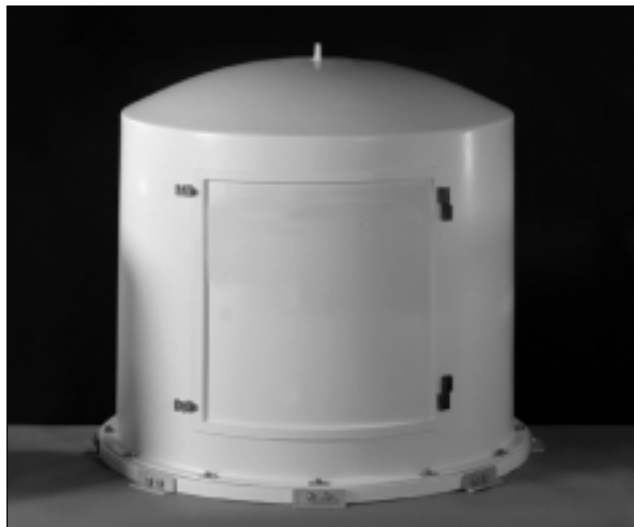
## CONTROLLER

ASC-140M	ASC-140 Controller
MAC-1000-R	MAC-1000 Controller

## OPTIONS

900017-1	Silo Radome
901586-1	High Gain Linear Amp 30 dB DC (no bypass)
901586-2	High Gain Linear Amp 30 dB DC (with bypass)
842746-2-x	Control Cable & Controllers (x = specify length in feet)

*Note: Consult factory for additional polarization options.*



*MicroScan: With optional radome*



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