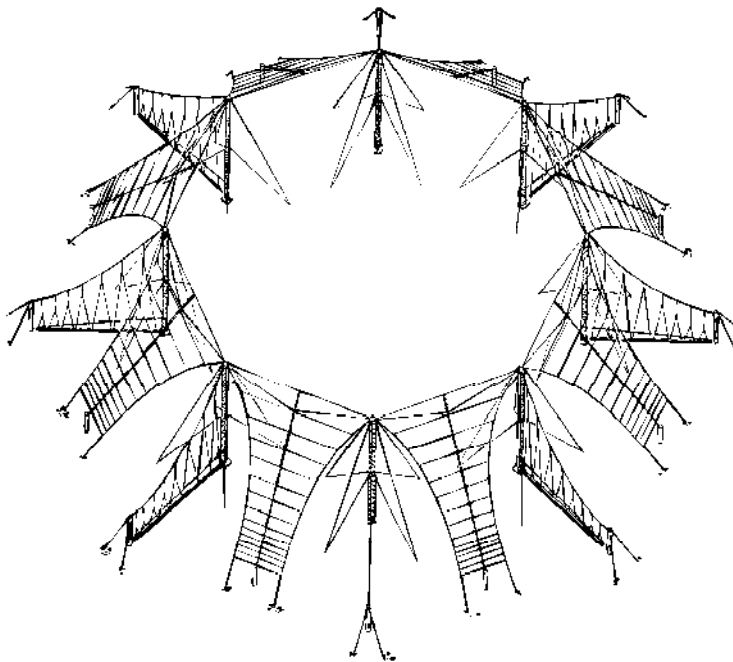


EAN113-3 CIRCULAR ARRAY

- SHORT, MEDIUM AND LONG RANGE
- HORIZONTAL AND VERTICAL POLARIZATION



Applications

The EAN113-3 monitor antenna is for communicating over short, medium and long range distances in the 2-30 MHz frequency range. Corrosion resistant materials are utilized throughout the antenna system, making long life possible in any climate.

Features

The EAN113-3 is a multisector circular array consisting of sixteen log periodic curtain antennas. Eight of the curtain antennas are horizontally polarized and the remaining eight are vertically polarized. The horizontal curtains are modified versions of the LPH-0406 log periodic antennas. Each prefabricated curtain consists of 21 dipoles supported by droppers from 2 horizontal catenaries. The modification process reduces the lower frequency coverage from 3 MHz down to 2 MHz by the addition of a termination assembly. Below 3 MHz the gain rolls off and the radiation patterns broaden. Above 3 MHz the antenna

is full sized, naturally resonant, efficient, and provides near constant radiation characteristics with frequency. The vertical curtains are modified versions of the LMV-0207 log monopole antennas. Each curtain consists of 11 triangular shaped radiating elements. The modification reduces the lower frequency from 3.5 MHz down to 2 MHz by the addition of a termination assembly. Below 3.5 MHz the gain begins to roll off and radiation patterns broaden. Above 3.5 MHz the antenna is full sized, naturally resonant, efficient, and provides near constant radiation characteristics with frequency.



SPECIFICATIONS

Frequency Range	2-30 MHz	Front-To-Back Ratio	12 dB + 3 dB nominally, across the 3.5 to 30 MHz frequency range
Application	Receive	Dimensions	Approximately 960' diameter (guy to guy) x 100' H 100' H x 232.5' L x 120' W
VSWR	2.0:1 Maximum	Circular Array	
Input Impedance	50 Ohms unbalanced	LMV-0207 Vertical (Including ground screen)	100' H x 147' L x 203'-10" W -20°C to +55°C
Input Connection	Type "N" female	LPH-0406 Horizontal	
Polarization	Dual polarization provided by horizontal and vertical antennas	Temperature	100%
Directive Gain	Minimum of 4 dBi at 2 MHz increasing to 11 dBi + 1 dB above 14 MHz	Humidity	100 mph wind, no ice
LMV-0207 Vertical		Wind Loading	9,800' (3000 meters) installed
LPH-0406 Horizontal	Minimum of 6 dBi at 2 MHz increasing to 11 dBi + 1 dB above 14 MHz	Altitude	MIL-STD-810, Method 510.2
Azimuth Half-Power Beamwidth	130° + 10° across the 3.5 MHz to 30 MHz frequency range	Sand and Dust	
LMV-0207			
LPH-0406	70° + 10° across the 3 MHz to 30 MHz frequency range		