



## APPLICATIONS

The MAS-3 multiport antenna system is designed for installations where space is at a premium and the communication requirements is for several circuits simultaneously having a variety of path lengths. It provides five independent antenna modes. Two of these modes are NVIS modes for short range skywave circuits; two are low angle modes for medium range circuits; and the fifth mode is a high gain rotatable log periodic antenna for long range circuits. The relatively small installation area together with the five independent antenna ports makes the MAS-3 ideally suited for congested antenna fields or sites where space is severely limited.

## FEATURES

The MAS-3 multiport antenna system combines the four omnidirectional port capability of the SPQ-330 with the rotatable log periodic array (RLPA) features of the LPH-1A to provide a truly five port antenna system occupying the space normally required for a single antenna. All five ports may be used independently for transmit or receive. The RLPA has high gain, azimuth selection and permits communication between a fixed site and mobile stations such as ships and aircraft. It also features a torque tube and base-located rotator thereby providing high reliability and easy accessibility for inspections and maintenance. The spiral is a four-arm equiangular design wound on a pyramidal structure formed by the center support tower and four catenaries. It is fed using an AP four-port hybrid and is protected under US Patent 5189434.

## MULTIFUNCTIONAL CAPABILITY

## SHORT, MEDIUM AND LONG RANGE HF SKYWAVE PROPAGATION

### OPTIONAL EQUIPMENT

Obstruction lights, erection kit, repair kit with winch, safety climbing equipment. Coaxial cable, connector adapters and mating adapters. Computer controller with RS-232 interface. A 230V 50Hz unit is also available.

PORTS	PORT 1	PORT 2	PORT 3	PORT 4	PORT 5
APPLICATION	Short Range	Med Range	Med Range	Short Range	Long Range
MODE	NVIS	Low Angle	Low Angle	NVIS	RLPA
POLARIZATION	Elliptical	Vertical	Horizontal	Elliptical	Horizontal
FREQUENCY RANGE, MHz	2-30	4-30	4-30	2-30	2-30
IMPEDANCE, Ohms unbalanced	50	50	50	50	50
VSWR	2:1	3.5:1 max 2.5:1 Typical	2:1	2:1	2.5:1
DIRECTIVE GAIN, dBi	7	7	7	7	9-12
POWER, kW	1	1	1	1	1
INPUT CONNECTOR	Type "N"	Type "N"	Type "N"	Type "N"	Type "N"
AZIMUTH PATTERN	Omni	Omni	Omni	Omni	Directional
PRIMARY POWER	NA	NA	NA	NA	1.15 VAC
ROTATION SPEED	NA	NA	NA	NA	.3 rpm
TYPICAL ISOLATION, dB	25 Typical	25 Typical	25 Typical	25 Typical	25 Typical
DIMENSIONS	Height 106 ft; length 100 ft; width 100 ft				
WIND	100 mph, no ice				