

APPLICATIONS

The MAS-2 multipoint antenna system is designed for installations where space is at a premium and multiple communication circuits are needed. 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-2 ideally suited for congested antenna fields or sites where space is severely limited.

FEATURES

The MAS-2 multipoint antenna system combines the four omnidirectional port capability of the SPQ-330 with the rotatable log periodic array (RLPA) features of the LPH-30 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 mounted rotator thereby providing 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

HORIZONTAL AND VERTICAL POLARIZATION

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	2-30	2-30	6-30
IMPEDANCE, OHMS UNBALANCED	50	50	50	50	50
VSWR	2.0:1 typical	2.5:1 typical 4.0:1 Max	2.0:1 typical	2.0:1 typical	2.0:1 typical
DIRECTIVE GAIN, dB	7	7	7	7	12
INPUT POWER, kW	10	10	10	10	10
INPUT CONNECTOR	1- $\frac{1}{8}$ " EIA	1- $\frac{1}{8}$ " EIA	1- $\frac{1}{8}$ " EIA	1- $\frac{1}{8}$ " EIA	1- $\frac{1}{8}$ " EIA
AZIMUTH PATTERN	Omni	Omni	Omni	Omni	Directional
TYPICAL ISOLATION, dB	25 Typical	25 Typical	25 Typical	25 Typical	25 Typical
DIMENSIONS	Height 106 ft; Length 100 ft; Width 100 ft				
WIND	120 mph, no ice; 80 mph, $\frac{1}{4}$ " ice				
TEMPERATURE	-60°F to + 160°F				
HUMIDITY	0 to 100%				
ELEVATION	Sea level to 12,000 ft				
SAND AND DUST	MIL-STD-810 Method 510.2 Pro II				
SALT FOG	MIL-STD-810 Method 509.2				
FUNGUS	MIL-STD-454KReq4				
RAIN	4 in/hr., 40 mph winds				
LIGHTNING	MIL-E-4158E				
CORROSION PROTECTION	MIL-STD-454K				