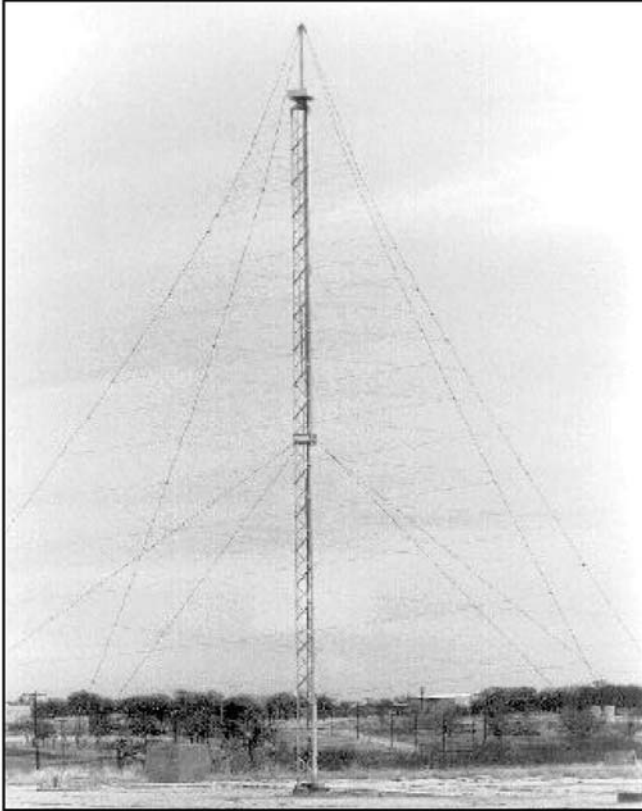


SRQ-230

- ROOF TOP
- SHORT—MEDIUM RANGES
- FULL DUPLEX
- VERTICAL POLARIZATION
- OMNIDIRECTIONAL
- HORIZONTAL POLARIZATION



Applications

The SRQ 230 is a broadband, multimode, HF spiral antenna that is designed for rooftop or similar limited space applications where full duplex operation is desired on both short and medium range circuits simultaneously. Its relatively small size and multifunctional operation makes it ideally suited for rooftop or similar type installations.

Features

The antenna is a four arm equiangular spiral design that is wound on a pyramid structure formed by a center support tower and four catenaries. The base of the pyramid is a 40 foot square with catenary anchors located at the corners of the square. The catenaries are dielectric with prepositioned element attachment clamps. The elements are constructed from jacketed cables that provide protection from the environment. The support tower is an all aluminum bolted structure.

Characteristics

The antenna is fed with a four port hybrid and provides four independent radiation modes simultaneously. Two of the modes provide low angle, omnidirectional, conical radiation patterns. The other two modes provide axial radiation patterns with maximum radiation directed along the central axis of the pyramid. All four patterns are omnidirectional in azimuth. The two axial mode radiation patterns are used independently for transmit and receive on short range skywave circuits. The two conical mode radiation patterns are used independently for transmit and receive on the medium range circuits. The horizontally polarized conical mode is used for transmitting and the vertically polarized conical mode is used for receiving. The apex of the SRQ-230 spiral is directed toward the zenith; therefore, the radiation patterns are essentially independent of the roof or ground except at the lower frequencies. This is important since many roofs do not have good reflective properties. Each input is isolated from all other inputs, typically in excess of 30 dB (installation dependent). Additionally, each axial mode input provides full 2 to 30 MHz bandwidth with input VSWR less than 2:1. The conical low angle mode inputs provide for 4 to 30 MHz bandwidth operation with an input VSWR less than 2:1 for the horizontally polarized transmit mode and less than 4:1 for the vertically polarized receive model. The antenna is protected under US Patent 5189434.

Optional Equipment

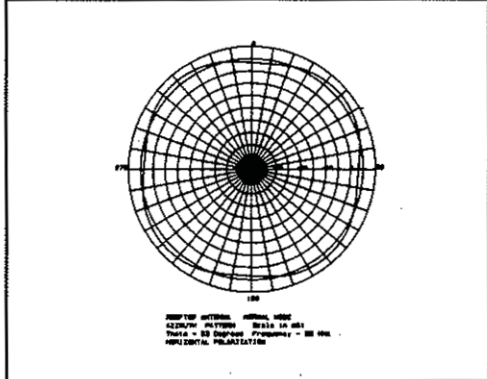
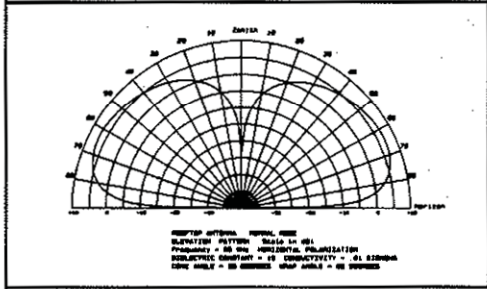
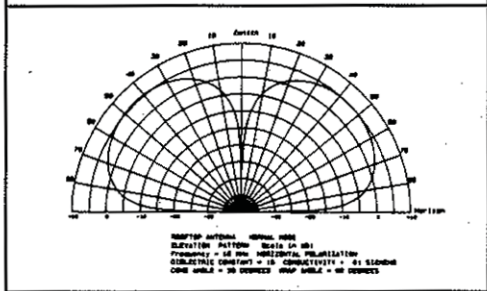
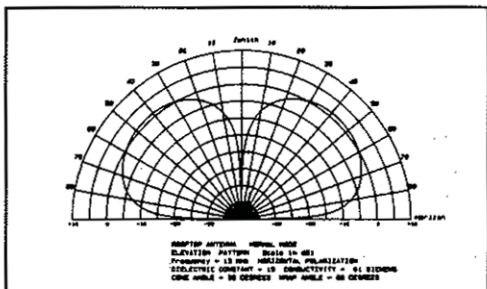
Erection kit, obstruction lighting kit, roof mount anchor kit, ground mount anchor kit. Coaxial cable, connector adapters and mating adapters.



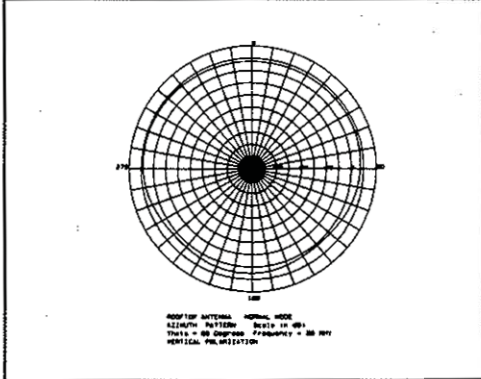
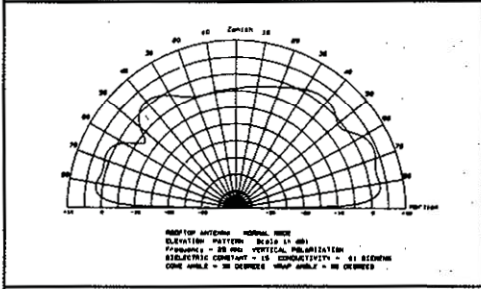
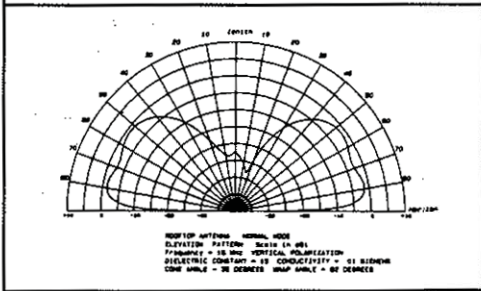
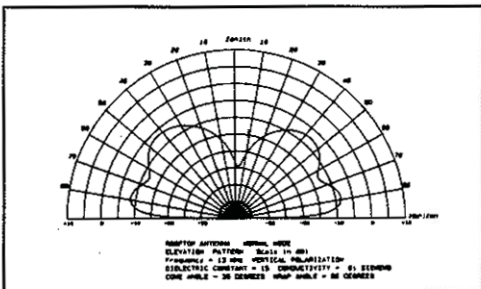
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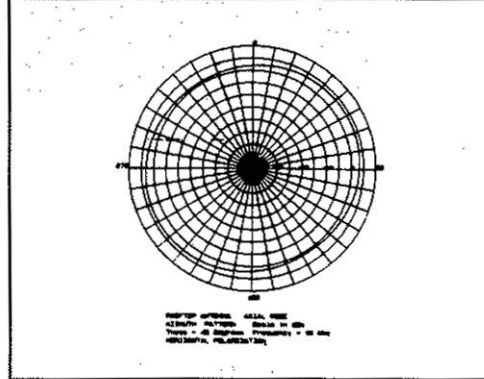
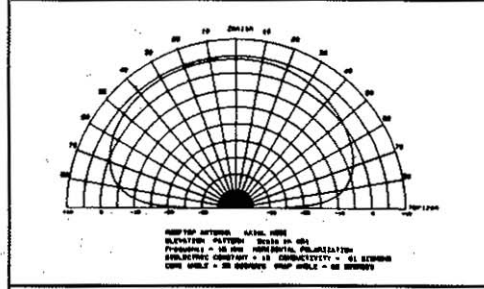
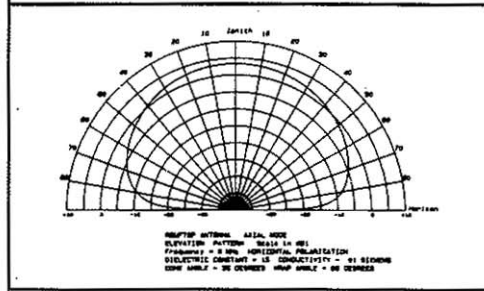
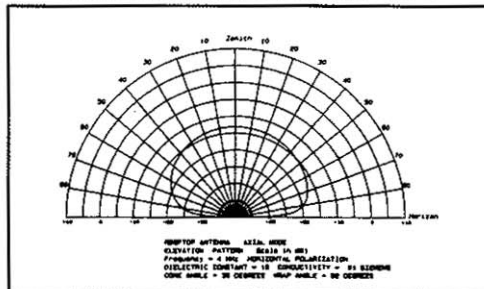
LOW ANGLE MODE-Port 3



LOW ANGLE MODE-Port 2



HIGH ANGLE MODE-Ports 1 & 4



SPECIFICATIONS:

Frequency Range	2 to 30 MHz	Input Connector	Type "N"
Short Range	2 to 30 MHz	Azimuth Radiation Pattern	Omnidirectional, ± 1.5 dB
Medium Range	4 to 30 MHz	Elevation Pattern	Variable with Mode and Frequency
Polarization	Elliptical		
Input Impedance	50 Ohms unbalanced	Number of Ports (simultaneous)	
VSWR		Short Range	2
Mode 1, High Angle	2:1	Medium Range	2
Mode 2, Low Angle, Vert.	4:1	Height	45 ft (13.72 m)
Mode 3, Long Angle, Horiz.	2:1	Installation Area	40 ft x 40 ft (12.2 m x 12.2 m)
Mode 4, High Angle	2:1	Wind Survival (no ice)	100 mph (87 knots)
Directive Gain	7 dBi nominal		
Power	1 kW avg and 2 kW PEP		