

SPQ-230/330

- HF FOUR ARM SPIRAL
- SHORT AND MEDIUM RANGE
- SMALL INSTALLATION AREA



Applications

The SPQ-230/330 HF spiral antennas are designed for installations where space is at a premium and the communication requirement is for operation on several circuits simultaneously. The antennas are four arm spirals that are fed with a four port hybrid designed specifically to provide two short range and two medium range patterns simultaneously. The relatively small installation area and multifunctional operational capability makes these antennas ideally suited for congested antenna fields or sites where space is severely limited. The antenna is protected under US Patent 5189434.

Features

The SPQ-230/330 operates as four (4) separate antennas integrated into one structure. All inputs are isolated from each other permitting full duplex operation on two separate circuits and a medium range skywave circuit simultaneously or three half duplex and one receive only circuit. The spiral is a four arm equiangular design that is wound on a pyramidal structure formed by a central tower and four catenaries. The catenaries are dielectric with prepositioned element attachment clamps. The elements are constructed from jacketed cables that provide protection from the environment. The elements are terminated in resistive loads. The tower is a bolted aluminum structure.



| SPECIFICATIONS | PORT 1 | PORT 2 | PORT 3 | PORT 4 |
|----------------|---------------------------------|-----------|------------|------------|
| | Short | Medium | Medium | Short |
| | Range | Range | Range | Range |
| | NVIS | Low Angle | Low Angle | NVIS |
| | Elliptical | Vertical | Horizontal | Elliptical |
| | 2-30 | 2-30 | 2-30 | 2-30 |
| | 50 Ohms | 50 Ohms | 50 Ohms | 50 Ohms |
| | 2:1 | 4:1 | 2:1 | 2:1 |
| | 7 | 7 | 7 | 7 |
| | 1 | 1 | 1 | 1 |
| | Type "N" | Type "N" | Type "N" | Type "N" |
| | Omni | Omni | Omni | Omni |
| | 25 dB | | | |
| | | | | |
| | 160' x 155' x 155' | | | |
| | 103' x 100' x 100' | | | |
| | 100 mph, no ice | | | |
| | -60°F to +160°F | | | |
| | 100% | | | |
| | Sea level to 12,000 ft | | | |
| | MIL-STD-810 Method 510.2 Pro II | | | |
| | MIL-STD-810 Method 509.2 | | | |
| | MIL-STD-454K Reqt 4 | | | |
| | 4 in/hr, 40 mph winds | | | |
| | MIL-E-4158E | | | |
| | MIL-STD-454K | | | |