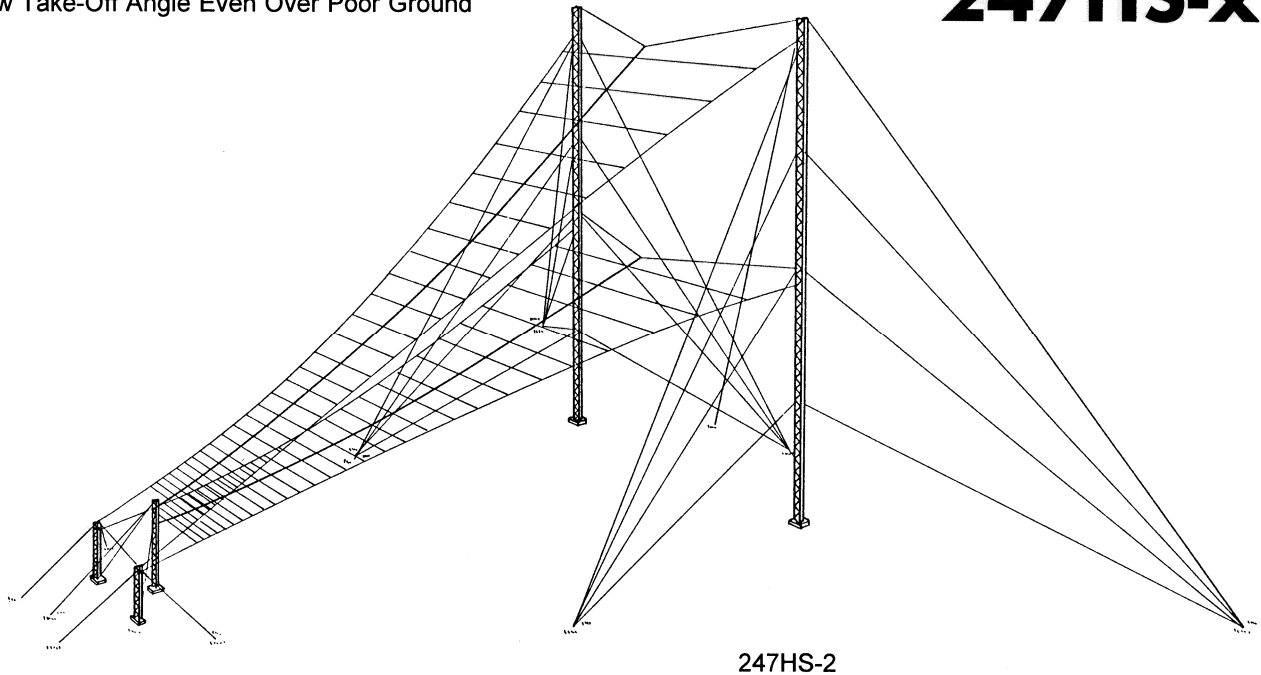




# Horizontally Stacked L.P. Antenna

## 247HU-x 247HS-x

- ★ For Reliable Communications on Medium to Long Ranges Circuits
- ★ High Gain Over A Broad Bandwidth
- ★ Low Take-Off Angle Even Over Poor Ground



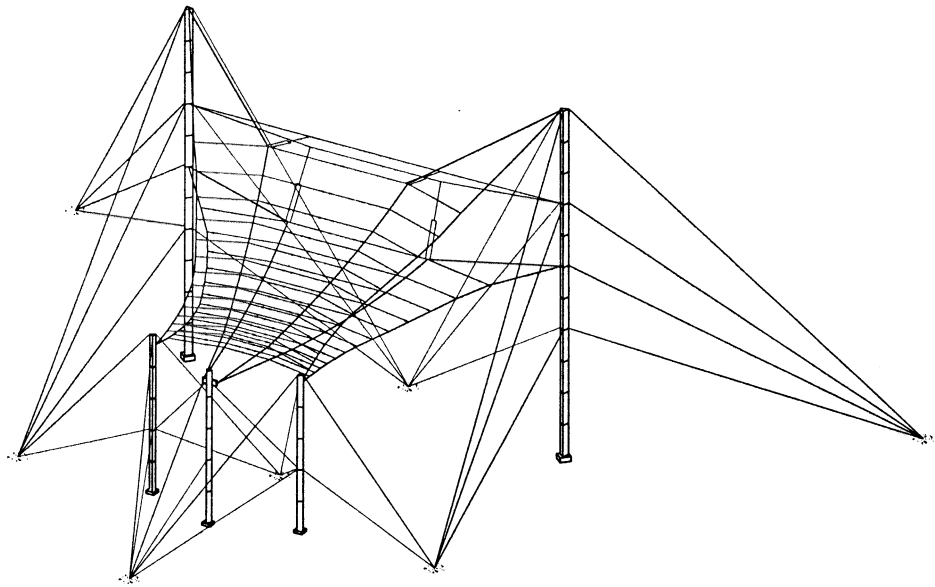
The CD log-periodic antennas, 247HS provide a low VSWR over a very broad frequency range. In addition, this series offers a low take-off angle independent of local ground conditions coupled with very low side lobes and the increased directional gain contributed by a two stacked array. The virtual absence of spurious lobes excludes off-the-path interference at receiving terminals and minimizes interfering radiation from transmitting stations. As a result, series 247HS antennas are ideal for minimum to long distance circuits where achieving reliable communications with adequate signal-to-noise levels is essential. This antenna is designed for communication to stations at distances on the order of from 1000 to 8000 kilometer - either a group of fixed stations or mobile stations such as ships or aircrafts. The increase in vertical aperture decreased the H-plane beamwidth resulting in antenna gain of 15 dBi while retaining an azimuthal beamwidth of 60°. All the CD antennas share the same high quality, exhaustively tested components and materials. All the radiators, feedlines, and catenaries are of alumoweld, a wire composed of a high strength steel core and a highly conductive corrosion resistant welded coating of aluminum. All the feedline and radiator tip insulators are made of high strength glazed alumina. The CD towers are furnished with galvanized high strength steel. All the bolts and nuts are of the same material as the tower thereby eliminating all dissimilar metal contacts. To simplify installation at the site, antennas are largely pre-assembled before shipment.

### SPECIFICATION

Model No.	247HS-1	247HS-2	247HU-1	247HU-2
Frequency Range	4~30 MHz	6~30 MHz	8~30 MHz	12~30 MHz
Forward Gain	14 dBi	15 dBi	16 dBi	17 dBi
Azimuth Half Power Beam Width	60°~70°	60~70°	40~45°	35°~40°
Radiation Angle, Maximum	20°~30°	15°~25°	15°~25°	10°~20°
Front to Back Ratio, Nominal	14 dB	14 dB	14 dB	14 dB
VSWR, Maximum	2:1	2:1	2:1	2:1
Tower Height	66.5 m	44.5 m	49 m	34 m
Dimensions Length x Width	130 x 150 m	96 x 100 m	95 x 132 m	63 x 88 m
Wind Loading Capability	45 m/s	45 m/s	45 m/s	45 m/s
System Net Weight	3100 kg	2600 kg	2950 kg	2200 kg

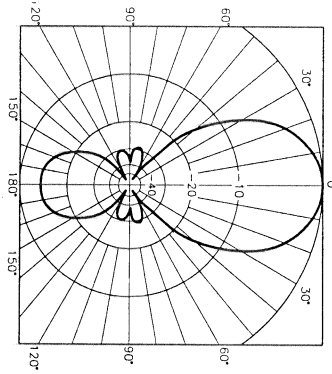
Note: Use an appropriate sub-model number when specifying or ordering a system.

247Hx-x-1. Receive or 100W Transmit	Type -N- Female
247Hx-x-2. Transmit, 1 kW Ave./2 kW PEP	Type -N- Female
247Hx-x-3. Transmit, 5 kW Ave./10 kW PEP	Type 7/8" EIA. Female or LC
247Hx-x-4. Transmit, 10 kW Ave./20 kW PEP	Type 1-5/8" EIA. Female

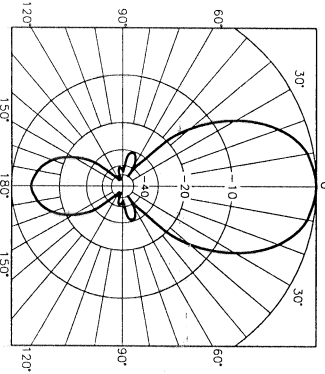


247HU-2

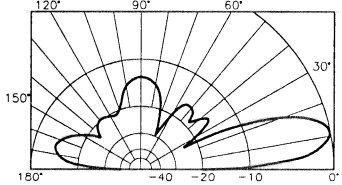
Model 247HU-2 Radiation Patterns.



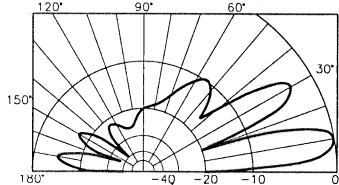
AZIMUTH 12 MHz



AZIMUTH 22 MHz

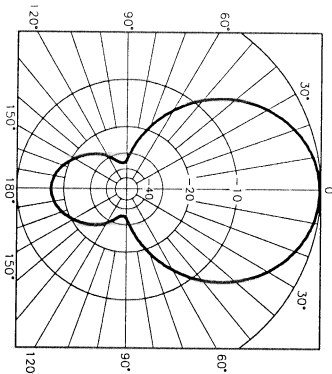


ELEVATION 12 MHz

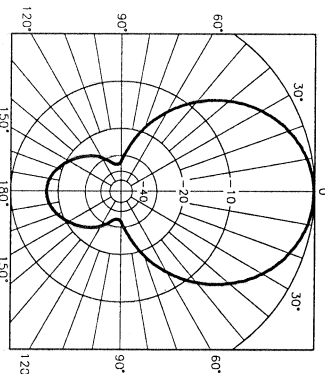


ELEVATION 22 MHz

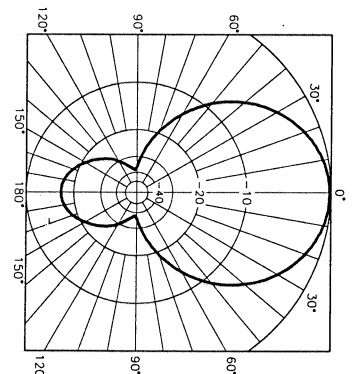
Model 247HS-2 Radiation Patterns.



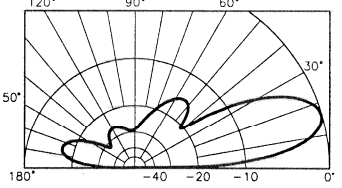
AZIMUTH 6 MHz



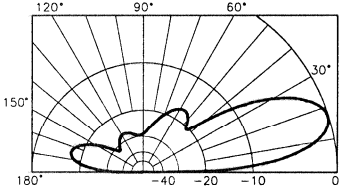
AZIMUTH 12 MHz



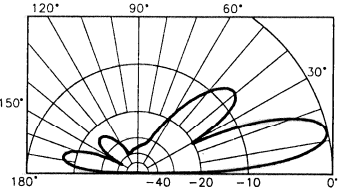
AZIMUTH 22 MHz



ELEVATION 6 MHz



ELEVATION 12 MHz



ELEVATION 22 MHz

Azimuth Pattern at Elevation Angle of Beam Maximum