

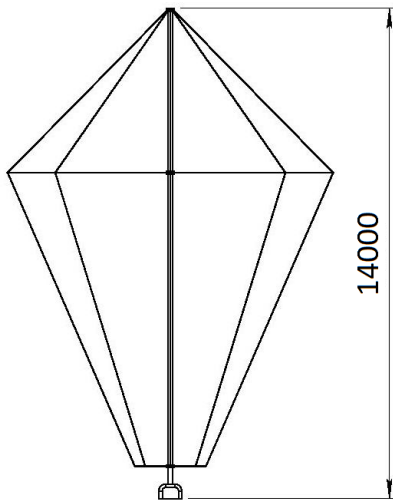
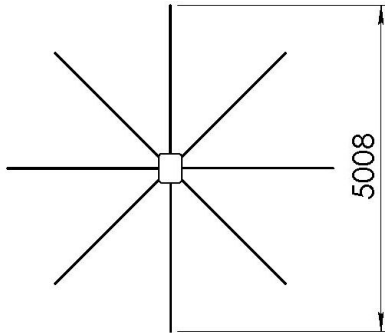
High-Power HF Omni-Directional Antenna

1 – 30 MHz

Product Code: OMNI-A0289

VERSION: 1.3

SPECIFICATIONS:



PRODUCT FEATURES:

- High-power handling
- Wideband
- Omni-directional
- Rugged
- Quick deployment time

APPLICATIONS:

- Wideband signal interception
- Non-NVIS HF communications

| | |
|---|---|
| Electrical: | |
| Frequency range | 1 – 30 MHz |
| VSWR | < 2.8:1 |
| Nominal input impedance | 50 Ω |
| Connector | 7/8" |
| Feed power handling | 10 kW CW |
| Efficiency | 0 dBi down to 7 MHz, drops off to -30 dBi at 1 MHz |
| Polarisation | Vertical |
| Groundplane requirements | Groundplane dependent, 10 meter ground radials supplied |
| Mechanical: | |
| Deployed dimensions (ø x l) | 5 m x 14 m (excl. groundplane) |
| Colour | Upon request |
| Mass | 700 kg (packaged) |
| Environmental: designed to meet the following specifications | |
| Wind survival | 120 km/hr (with all guy ropes deployed) |
| Temperature (operational) | - 30 °C to + 51 °C |
| Temperature (storage) | - 30 °C to + 71 °C |
| Vibration (ground transportation when stowed) | MIL-STD-810E method 514.5, cat 1 |
| Water ingress rating | MIL-STD-820F (506.4) IP65 |

PRODUCT DESCRIPTION:

This is a wideband wire cone monopole antenna that operates over the 1 to 30 MHz band with a VSWR of less than 2.6:1 over the band, with the typical value close to 1.7:1. The antenna gives a superior radiation pattern for HF signal interception and has been optimized for HF communication.

The antenna is equipped with a sophisticated frequency selective matching unit which provides excellent VSWR characteristics for best possible efficiency across the band and requires no band switching or other matching control. The design has taken into account the worst-case soil-types and so will work for diverse deployments in deserts, urban areas and wetlands.

The antenna has been designed to be mounted on a permanent plinth and consists of aluminium mast sections, a cable spreader system with ropes and ground pegs, a mast isolator, antenna matching unit, ground radials and mast guy ropes. The antenna can be deployed by four persons in less than 120 minutes

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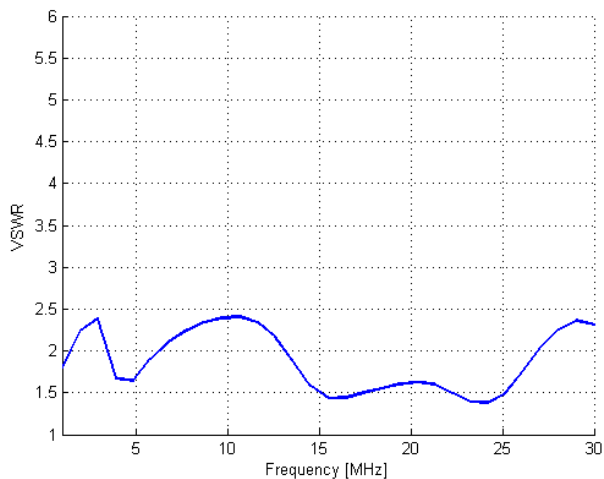
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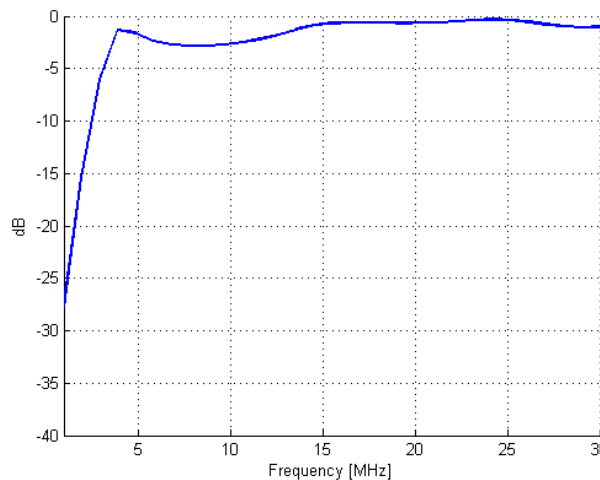
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ELECTRICAL PERFORMANCE GRAPHS:

VSWR:

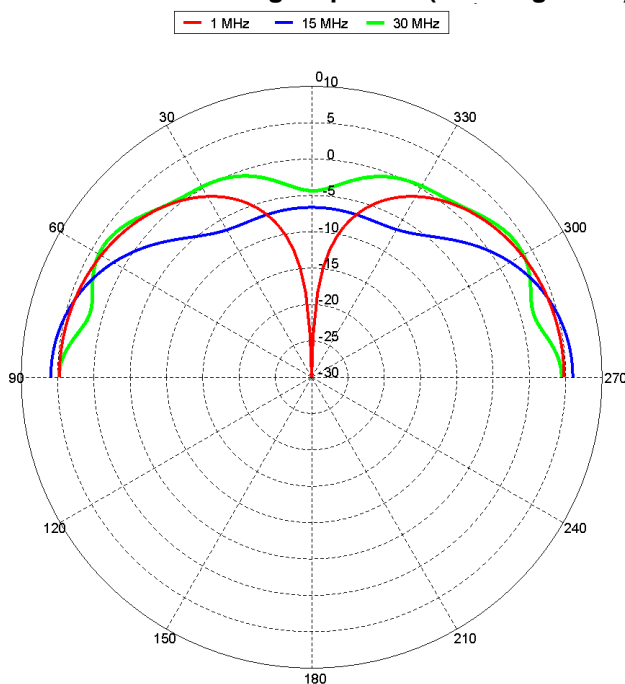


EFFICIENCY:



Patterns:

Simulated elevation gain pattern (infinite ground)*:



1. Infinite conducting groundplane
2. Does not include effects of efficiency (see graph above)