

Wideband HF High-Power Antenna System

1 – 30 MHz

VERSION: 1.6

Product Code: OMNI-A0246



SPECIFICATIONS:

Electrical:	
Frequency range	1 – 30 MHz
VSWR	< 2.8:1
Nominal input impedance	50 Ω
Connector	EIA 1 5/8"
Feed power handling	7.5 kW CW
Efficiency	0 dBi down to 7 MHz, drops off to -30 dBi at 1 MHz
Polarisation	Vertical
Mechanical:	
Deployed dimensions (ø x l)	< 5 m x 14.5 m
Stowed dimensions (l x w x h)	4 m x 1.75 m x 0.87 m
Colour	Upon request
Mass	< 700 kg
Environmental: designed to meet the following specifications	
Wind survival	90 km/hr
Temperature (operational)	- 30 °C to + 55 °C
Temperature (storage)	- 30 °C to + 70 °C
Vibration (ground transportation when stowed)	MIL-STD-810G, Method 514.7, Procedure I
Water ingress rating	MIL-STD-820G, Method 506.6, Procedure I

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 2.8:1 over the band. The antenna gives a superior radiation pattern for HF signal interception and has been optimized for HF communication.

The antenna deploys from a compact enclosure by means of a winch mechanism in less than 220 seconds by a team of as few as 2 people. The antenna can be stowed just as quickly.

The antenna is equipped with a sophisticated wideband 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.

A groundplane structure of the size of a 20 foot container or larger is suggested for use.

All accessories such as matching unit, controller unit etc. are all included with the product.

PRODUCT FEATURES:

- Automatic deployment of antenna
- High-power handling
- Wideband
- Omni-directional
- Rugged
- Quick deployment time
- Compact packaging

APPLICATIONS:

- Wideband signal interception
- Non-NVIS HF communications
- RCIED suppression

Deployment: [OMNI-A0246 Deployment](#)

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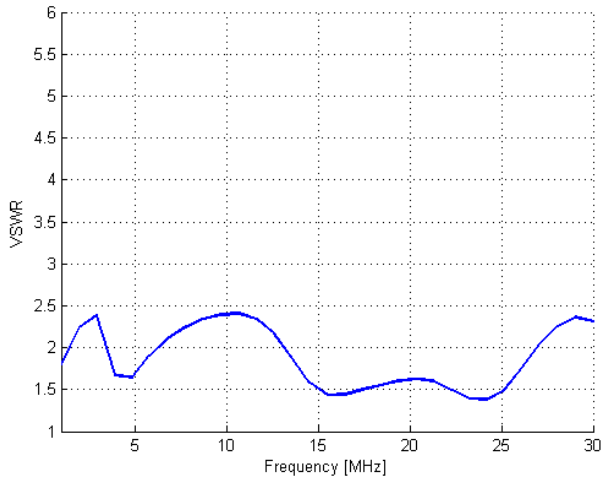
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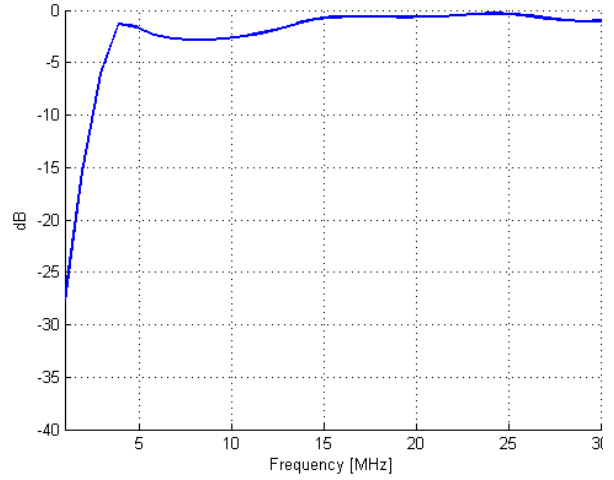
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ELECTRICAL PERFORMANCE GRAPHS:

VSWR:

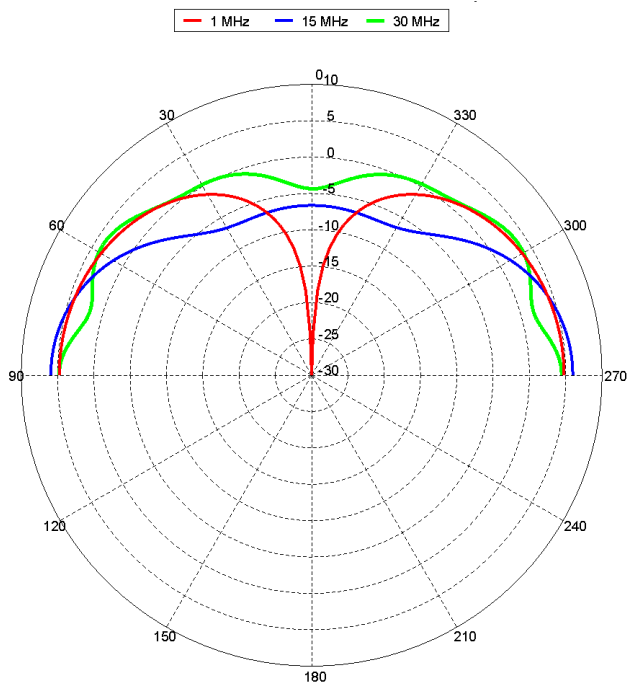


EFFICIENCY:



Patterns:

Simulated elevation gain pattern (infinite ground)*:



Infinite ground plane, excludes efficiency

1. Infinite conducting groundplane
2. Does not include effects of efficiency (see graph above)
3. Antenna mounted centrally on 40 ft container