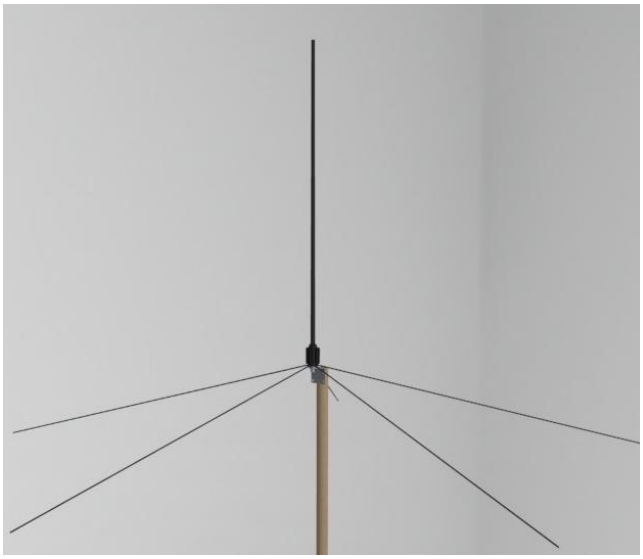
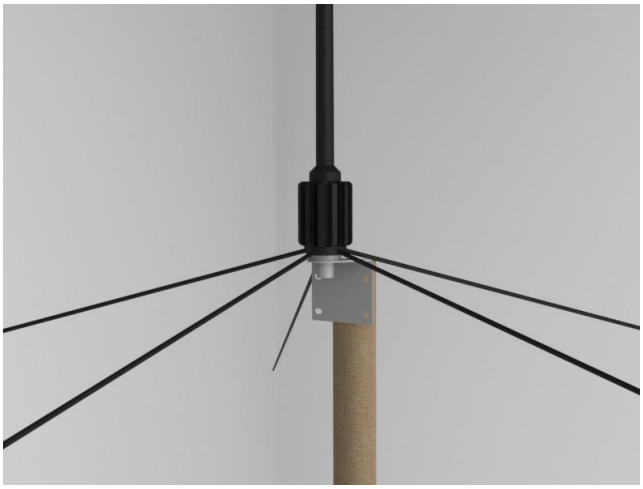
VHF Monitoring Antenna

20 – 520 MHz

VERSION: 1.5

Product Code: OMNI-A0155





PRODUCT FEATURES:

- High efficiency VHF antenna
- Full-band coverage, takes the place of 2 regular antennas
- Groundplane independent

APPLICATION AREAS:

- High-power systems
- Wideband monitoring

SPECIFICATIONS:

Electrical:	
Frequency range	20 – 520 MHz
Gain	See graph
VSWR	< 3:1, typical 2.5:1
Nominal impedance	50 Ω
Azimuth pattern	Omni-directional
Power handling	20 W CW
DC resistance	Short circuit
Connector	N-type female
Mechanical:	
Dimensions of base (l x d)	200 mm x 60 mm
Dimensions of radiator (l x d)	1300 mm x 35 mm max
Dimensions of radials (l x d)	1600 mm x 5 mm
Total length	1600 mm
Total diameter	3000 mm
Total mass	3 kg
Mounting	Mast-mount flange (40 – 100 mm)
Colour	Black, others on request
Environmental: designed to meet the following specifications	
Temperature range	Storage: -30 °C to +70 °C Operation -30 °C to +55 °C
Weatherproofing	IP66 rain resistant
Shock and vibration	MIL-STD-810E 516.4: vibration category 8, shock 40 g
Exposed materials	Painted aluminium and fibreglass

PRODUCT OVERVIEW:

This wideband manpack antenna covers the full VHF band with some extension to 20 MHz and 520 MHz. By covering the full VHF band in 1 antenna, it replaces 2 conventional high-power antennas, reducing clutter and the visual signature.

The matching section at the base of the antenna contains transformers and loading for the whip. This is mounted directly onto an L-shaped mounting bracket and an N-type connector. The whip extends from the top of the matching section. The radiating whip is loaded along its length to control the antenna radiation patterns.

The antenna comes with 5 radials, 1.6 m in length that connect into the base of the antenna. These radials make the antenna groundplane independent without compromising on electrical performance.

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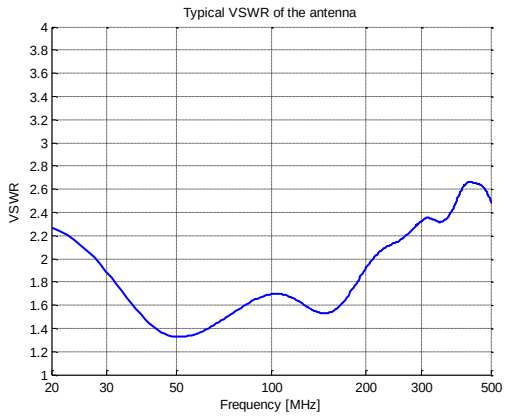
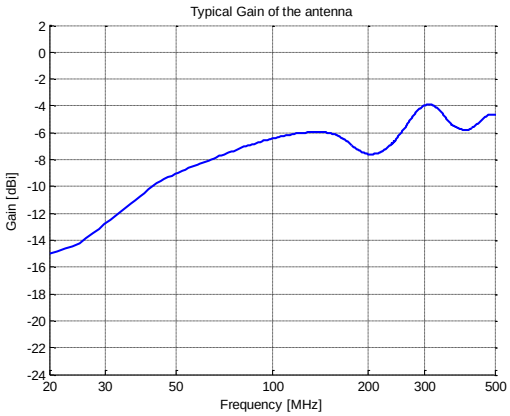
VSWR AND GAIN GRAPHS:

Typical VSWR:

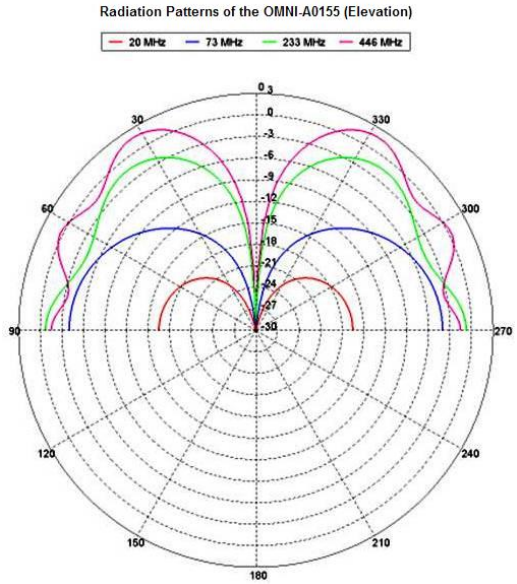


GAIN:



Radiation patterns:

E-plane:



H-plane: