

CONICAL MONOPOLE ANTENNA SERIES

ANT-001-001

1.5 – 32 MHz

NSN: 5985 27 067 8177



Conical Monopole Antenna of the series ANT-001-001 feature excellent wide-band properties due to their great diameter and special design.

It is a vertically polarized, omnidirectional shortwave antenna and therefore mainly suited for groundwave application and for skywave applications with low take-off angles.

Feeding is carried out at the base, which is insulated against ground. A ground net is supplied with the antenna.

TECHNICAL DATA

Electrical :	Frequency ranges	ANT-001-001.1532 → 1.5 – 32 MHz ANT-001-001.2032 → 2.0 – 32 MHz ANT-001-001.2432 → 2.4 – 32 MHz ANT-001-001.3432 → 3.4 – 32 MHz ANT-001-001.4032 → 4.0 – 32 MHz
	Nominal impedance	50 Ω
	VSWR	2.0 : 1 (max)
	Gain	5dBi (@ 5 MHz)
	RF input power	Receive only – Transmit up to 10kW avg.
Mechanical :	RF connectors	N-type to coaxial 1 5/8" EIA (depending on receive to RF power)
	Dimensions	see Table - 1
	Wind speed	170 km/h (without ice) 120 km/h (1.2 cm radial ice)

MECHANICAL DATA

Lower Frequency	Mast Height*	Ground Screen Diameter	Cage Diameter	Bend Height
1.5	42 m	84 m	16 m	8 m
2.0	35 m	72 m	16 m	8 m
2.4	27 m	54 m	16 m	8 m
3.4	24 m	48 m	16 m	8 m
4.0	18 m	36 m	12 m	5 m

(NOTE: * additional height Franking Rod)

Table - 1: Mechanical Dimensions (can be adjusted to site conditions)

The conical-monopole antenna is supported by a hot-galvanized (minimum 80 micron) lattice mast steel (comply with EN 10025, 1090, 14732/9606), insulated base point insulator (DIN 40680) solid-core type. All other insulators are low loss ceramic C110.

The radiator wires are made of Aluminum Clad-Steel Wire (Alumoweld) type (EN50182/2001).

Tension ropes are galvanized/stainless Steel.

The antenna is supplied with a star shaped pure copper ground network of radials.

All bolts and screws are made of stainless steel.

Solar Powered Obstruction Light (ICAO) is also provided-optionally.

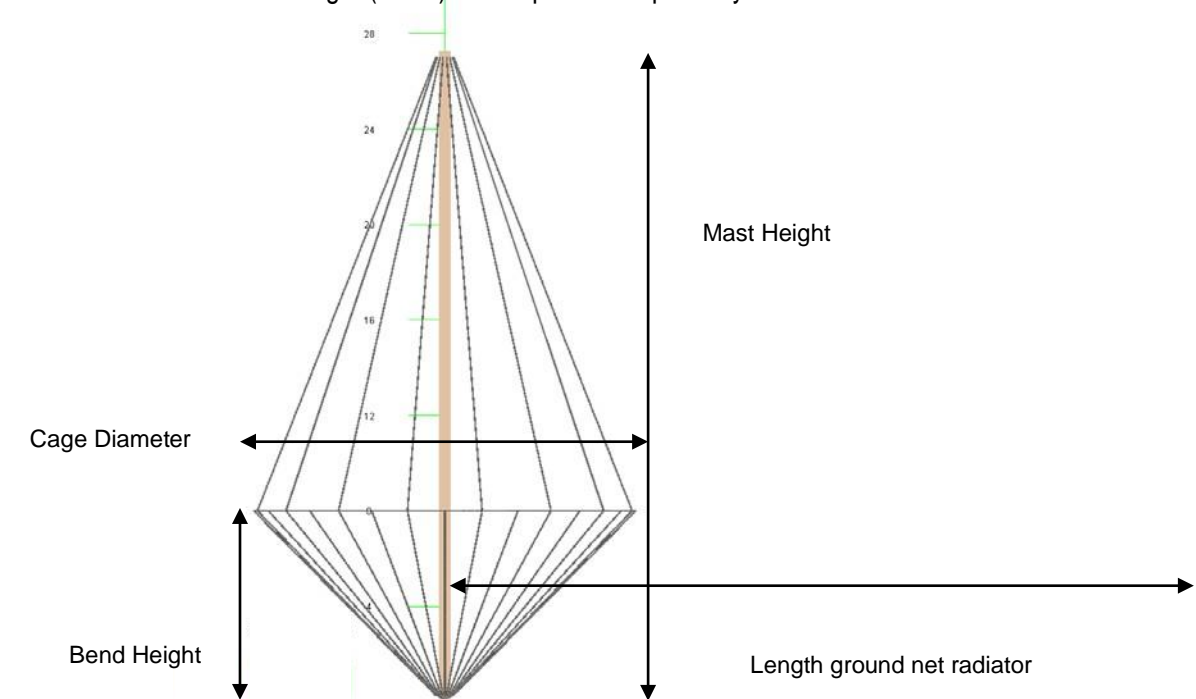


Figure - 1: Main Dimensions

ELECTRICAL DATA

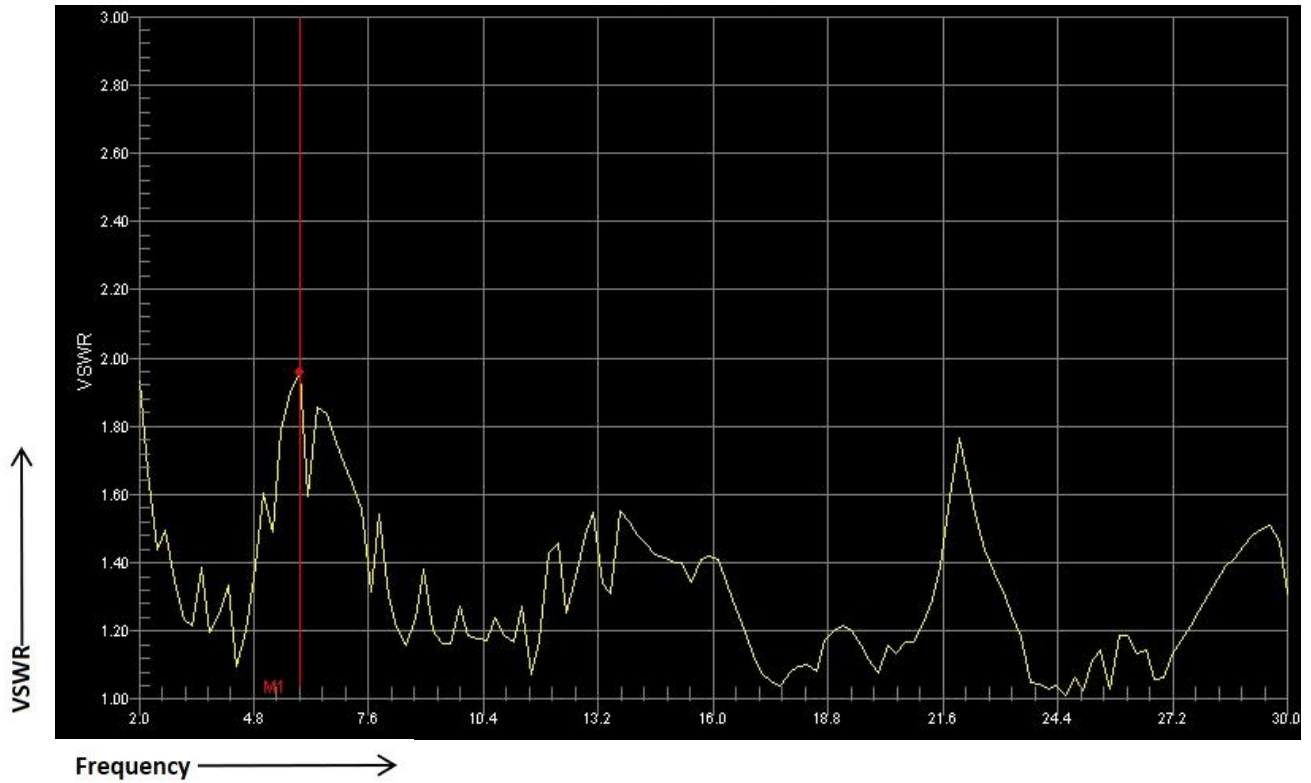
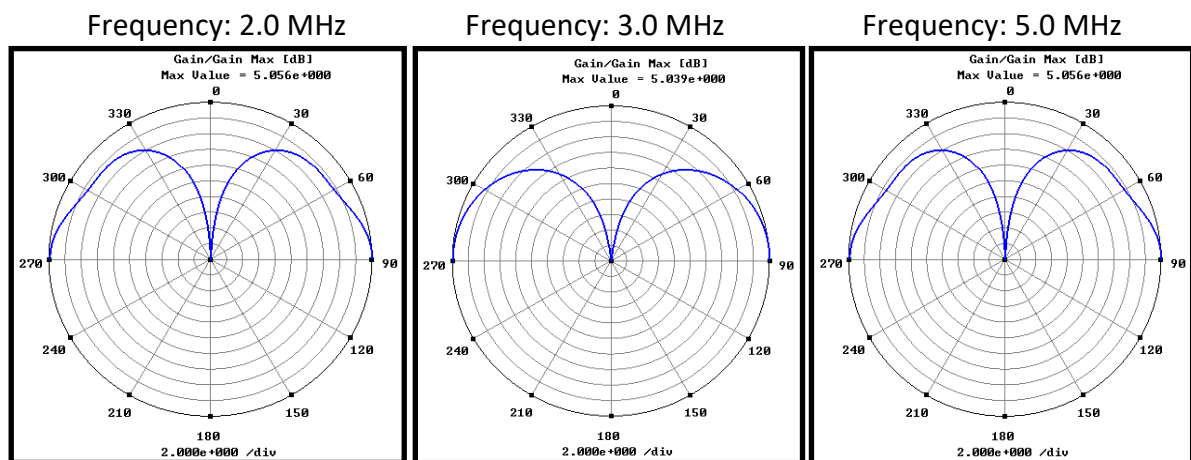


Figure - 2: Actual VSWR Values ANT-001-001.2032 Type Antenna

Vertical Radiation Patterns



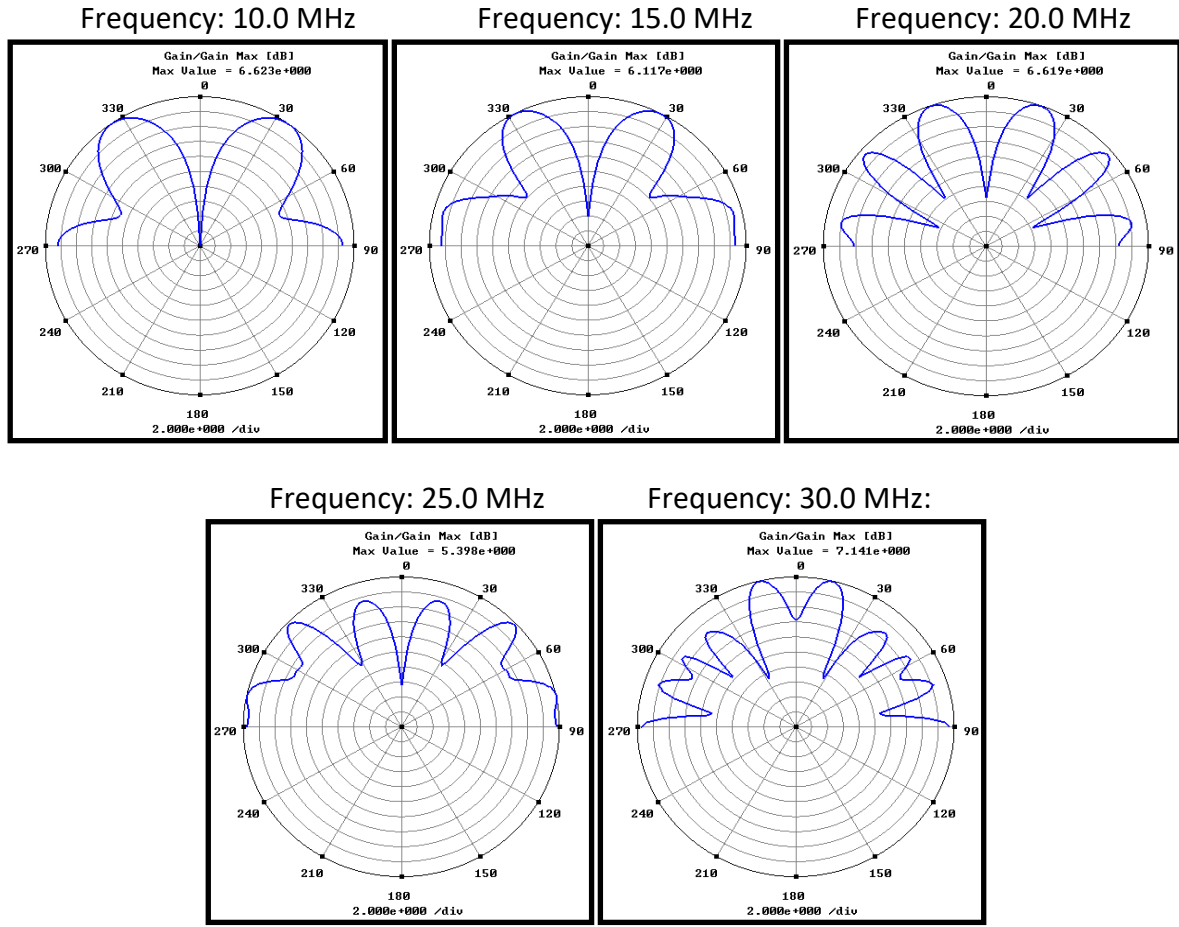


Figure - 3: E-plane radiation patterns ANT-001-001.2032 Type Antenna over ideally conducting ground

