

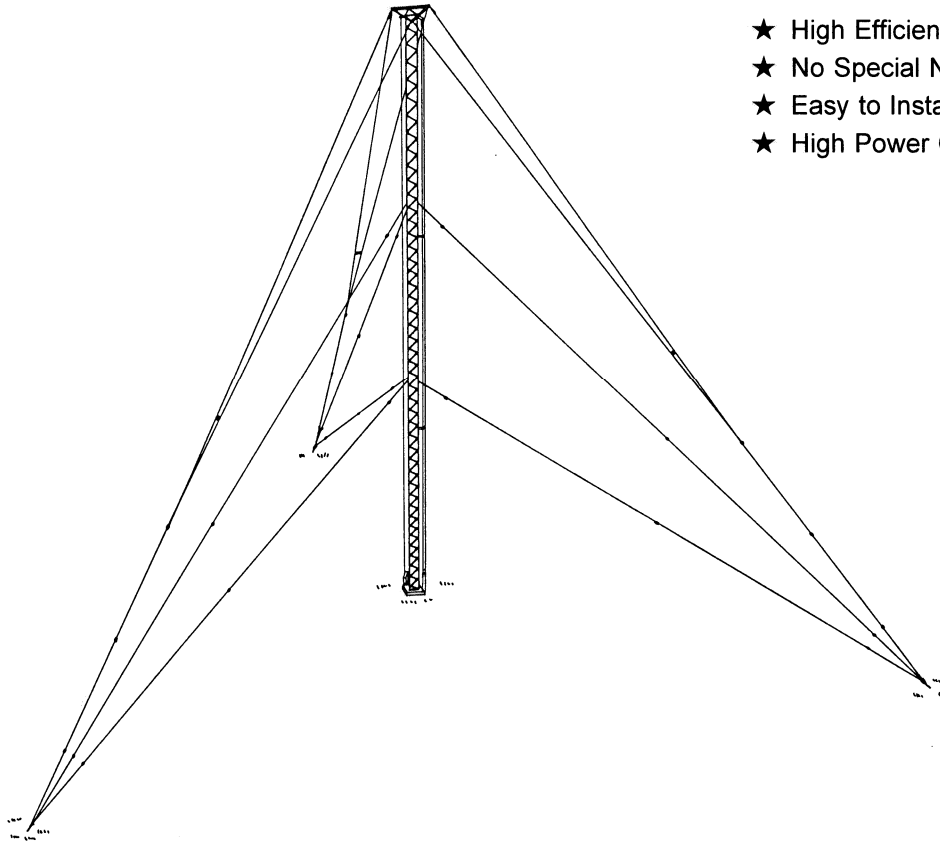


Umbrella-Loading Folded Monopole

518KHZ

NAVTEX Frequency

CV-051



- ★ High Efficiency
- ★ No Special Network needed
- ★ Easy to Install
- ★ High Power Capability

The CD model CV-051 is reduced scale omnidirectional 518 KHz vertically polarized vertical antenna designed to provide a high efficiency and high power radiation capability for fixed transmitting and receiving sites. The antenna have a low angle radiation pattern and provide both short and long range MF communications by ground wave and sky wave respectively. The radiation pattern in the azimuth plane is essentially, omnidirectional.

The CV-051 is shortened its height to 28% against full size antenna (140 m.) by combining a characteristics of a special type of vertical radiator in which the upper part of the aerial has a capacitance loading elements and low-loss type of linear loading circuit. Therefore the overall height of this antenna is extremely low compared with mono-pole antenna. No other special matching circuit is not necessary as the matching network is used in order to ensure maximum transfer of RF energy on 50 ohm impedance. VSWR meter is also included in this matching network. And supporting tower itself is constructionally grounded therefore expensive Austin transformer is not required for install the obstruction light.

There are 36 ground radials are included in this antenna. Assembling and installation of this antenna requires approximately 8 man-days excluding time required for pouring of concrete foundations and ground screen installation.

SPECIFICATIONS

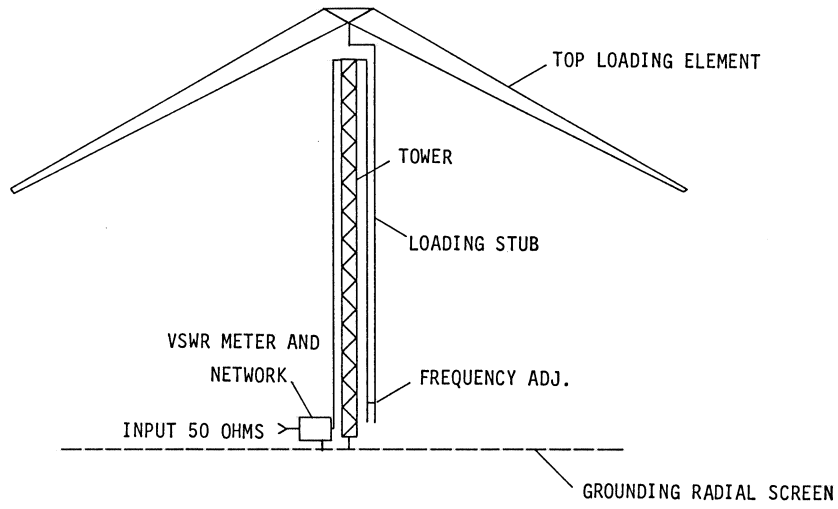
PolarizationVertical
 Resonant Frequency 518 KHz
 Gain. Over Average Soil 1.5 dBi
 Input Impedance50 ohms
 VSWR Less than 1.5 : 1
 RF Power Capability 10 kW
 Input Connector, Refer to Note below
 Antenna Height 40 m
 Guy Radius 39 m
 Ground Screen Radius 25 m
 Wind Loading Capability 45 m/s
 System Net Weight 850 kg

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

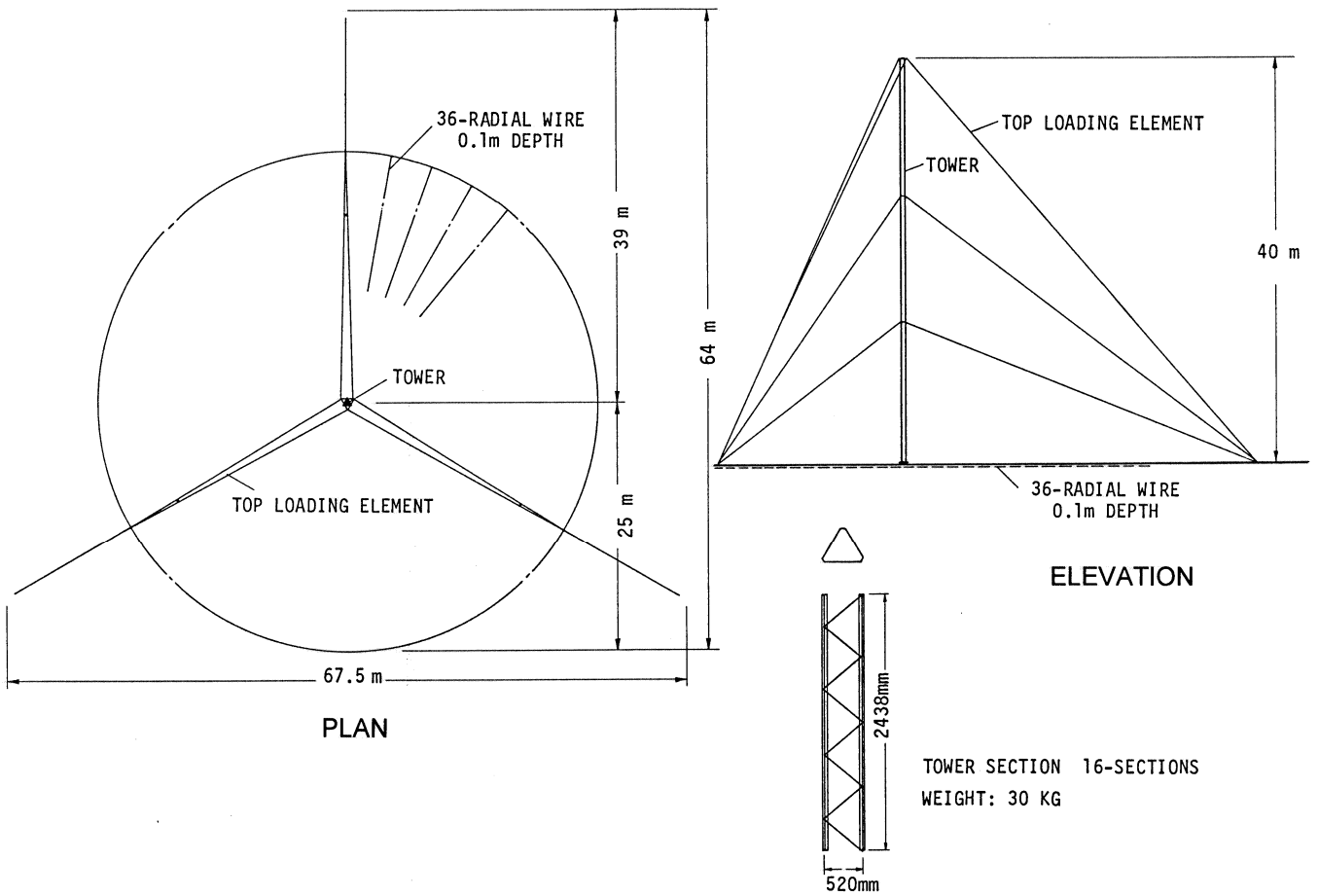
CV-051-1 Transmit, Ave./PEP 1kW/2kW
 -N- Female

CV-051-2 Transmit, Ave./PEP 5kW/10kW
 7/8" EIA Female

CV-051-3 Transmit, Ave./PEP 10kW/20kW
 1-5/8" EIA Female



CV-051, Electrical Shimplified Schematic



CV-051, Installation