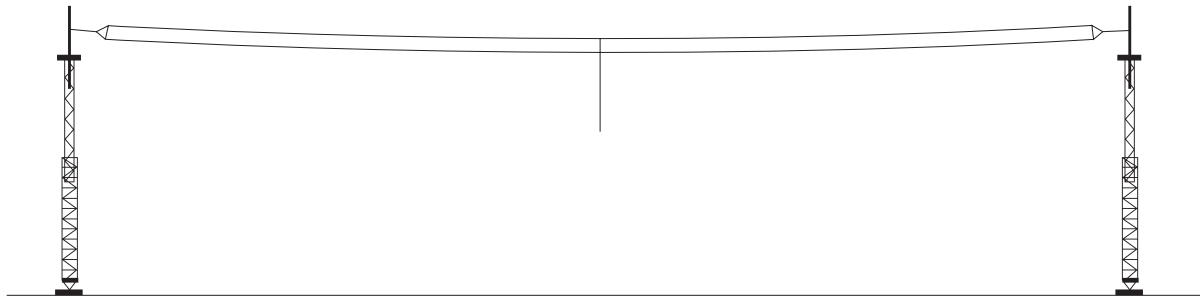


BASE ANTENNA

411 TERMINATED FOLDED DIPOLE

DTC

A CODAN COMPANY



Codan's 411 Terminated Folded Dipole Antenna is a 2-wire antenna designed for broadband operation in fixed stations. The 411 antenna series is available to suit power levels of 150W or 1000W, with the 150W versions also available in standard and militarised variants. Easy to install, the 411 Antenna can be mounted horizontally or as an inverted-V using suitable support structures.

PERFORMANCE

The 411 Antenna provides excellent performance for short to medium distance HF communications. It is offered in a range of lengths to suit installation requirements. To optimise the antenna for Near Vertical Incidence Skywave (NVIS) propagation, use an inverted V configuration or adjust the installed height above ground. Designed and manufactured with corrosion and UV resistant materials to withstand all types of hostile environments.

EASY TO INSTALL

The 411 Antenna is supplied completely assembled and ready for installation. Installation hardware includes 50 m of high quality UV resistant rope and pulley as well as easy to understand installation instructions. A range of coaxial cable lengths and types are available but are ordered separately. Codan also has a range of mast options that are suitable for use with the 411 Antenna.

ANTENNA MODELS

The model of 411 Antenna should be selected to suit the application depending on the required power rating and the maximum amount of available space to install it. As a general rule, the radiation efficiency of the 411 Antenna increases with antenna length so it is recommended to select the longest variant that the installation site can accommodate.

The 150W power rated 411 Antennas are available in a standard "C" version or a militarised "M" version. The M version antennas have blackened spreader bars, stainless steel wire elements, and an N-type RF connector.

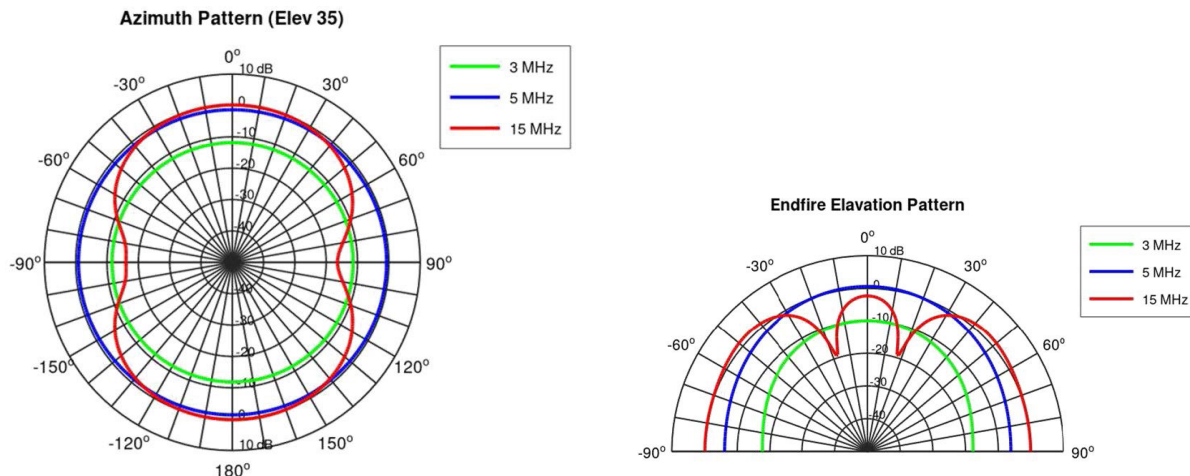
MODEL	PART NUMBER	LENGTH (M)	POWER (W)
C411-43M	15-00411-003	43	150
M411-43M	15-00411-203	43	150
C411-34M	15-00411-004	34	150
M411-34M	15-00411-202	34	150
C411-27M	15-00411-005	27	150
M411-27M	15-00411-201	27	150
C411-43M-1kW	15-00411-012	43	1000
C411-34M-1kW	15-00411-011	34	1000

Notes:

1. The 43m antenna is 10dB more efficient from 2 to 4 MHz than the 27m version.
2. The reference dipole is 1/4 wavelength above ground.

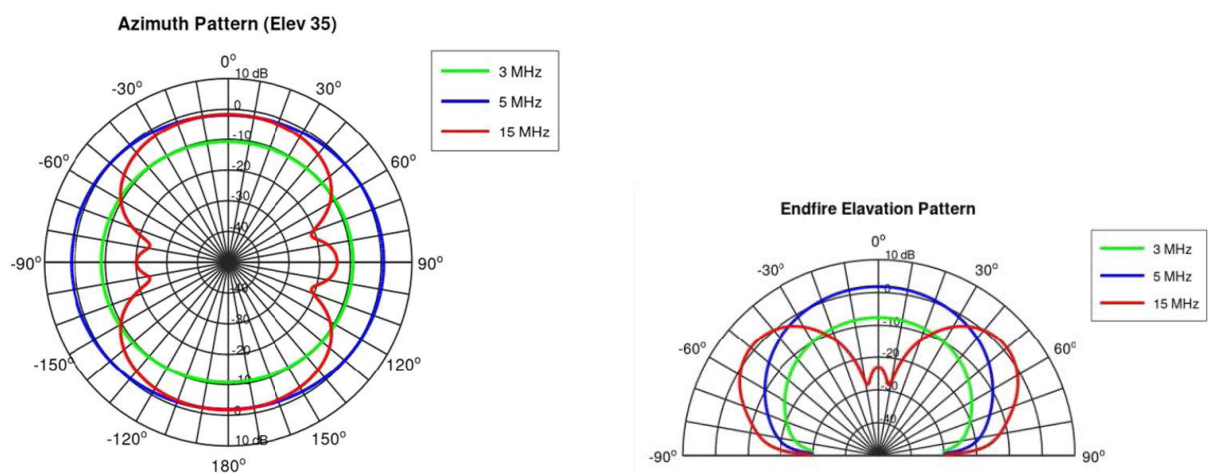
BASE ANTENNA

411 TERMINATED FOLDED DIPOLE



Inverted V Radiation Patterns

Modelled above perfect earth; Azimuth slice taken at an elevation of 35degrees from horizon;
Elevation slice taken at an azimuth angle of 90degrees from Endfire



Horizontal Radiation Patterns

Modelled above perfect earth; Azimuth slice taken at an elevation of 35degrees from horizon;
Elevation slice taken at an azimuth angle of 90degrees from Endfire

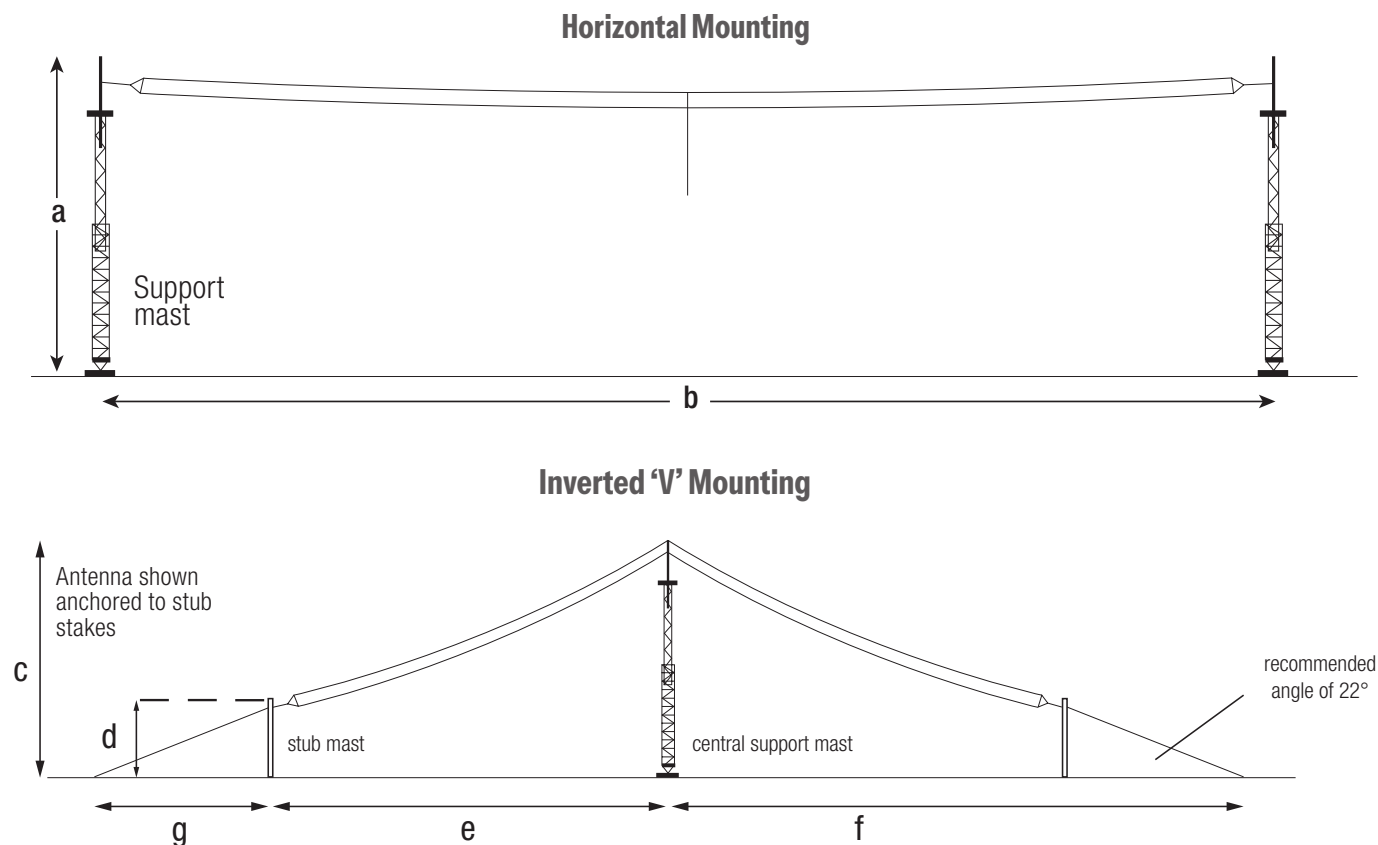
BASE ANTENNA

411 TERMINATED FOLDED DIPOLE

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ANTENNA INSTALLATION



Note: Antenna should be oriented broadside to the preferred direction of communication to maximise signal level. Horizontal configuration should be used for medium to long distance communications, and inverted-V for short to medium distance.

ANTENNA INSTALLATION DIMENSIONS

MODEL	DIMENSIONS (m)					
	a	b	c	d	e	f
15-00411-003/012/203	10	47	13	4.8	22	32
15-00411-004/011/202	8	38	11	4.2	18	27
15-00411-005/201	6.5	31	8	3	14.5	20

Note: Dimension 'b' allows 2 metres between each end of the antenna and the support mast.

ACCESSORIES

- 30m RG58 Coaxial Cable
- 100m low loss RG213 Coaxial Cable
- RG213 Strain Relief Hardware
- In-line Lightning Arrestor
- Spare waterproof UHF plug (provided as standard with each antenna)

COMPATIBLE MASTS

- CT15 Telescopic Mast
- 12 m & 15 m Guyed Masts
- 10 m Premium Guyed Mast

BASE ANTENNA

411 TERMINATED FOLDED DIPOLE

GENERAL SPECIFICATIONS	
Frequency range	2 to 30 MHz
RF Connector	150W “C” variants - UHF type socket 1kW “C” variants - N-type socket All “M” variants - N-type socket
Input impedance	50 Ω
VSWR	Typically 2.5:1
Power rating	150 W PEP, 100 W CW 1000 W PEP, 600 W CW
Wind rating	160 km/h
Ingress Protection	IP44 - Balun enclosure

PRACTICAL CRITERIA	
Maximum coaxial cable length (m)	$\leq 30\text{m}$ with RG58 coaxial cable $\leq 100\text{m}$ using RG213 coaxial cable
Grounding requirements	None required
Footprint	See antenna installation dimension table
Antenna location	Suitable for ground or roof top installation

Values noted are typical. Equipment descriptions and specifications subject to change without notice or obligation.

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