



# Horizontal Bi-Conical Dipole

## 02-00040 | 20kW | 2/3-30MHz

02

Data Sheet

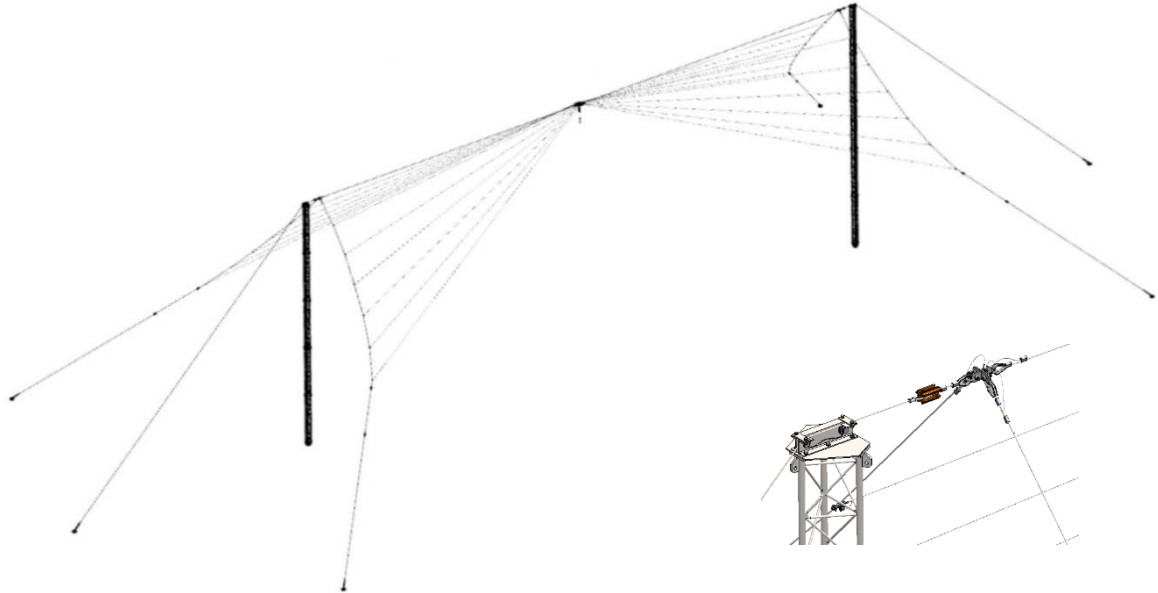


Figure 1 – 02-00040 Installed Antenna

The Lencom® 02-00040 Horizontal Biconical Dipole antenna has been designed for fixed station, multi-frequency operation.

Lencom produces two standard versions:

02-00040-04 which covers a 3-30MHz range; and

02-00040-06 which covers a 2-30MHz range.

Both units come standard with a power rating of 1kW average, but can be supplied for power levels up to 20kW average.

The semi-conical nature of the radiating elements provides impressive efficiency over the entire HF spectrum. The antenna displays the normal, omnidirectional radiation pattern of a dipole, allowing for all round communication.

The VSWR is typically less than 2.5:1 over the whole band and less than 2:1 over most of the band.

No antenna tuner is required.

The antenna elements are constructed of stranded, stainless steel wire rope for long life and resistance to kinking and the main support wire is constructed from galvanised steel for strength.

Lencom can provide masts suitable for the 02-00040.



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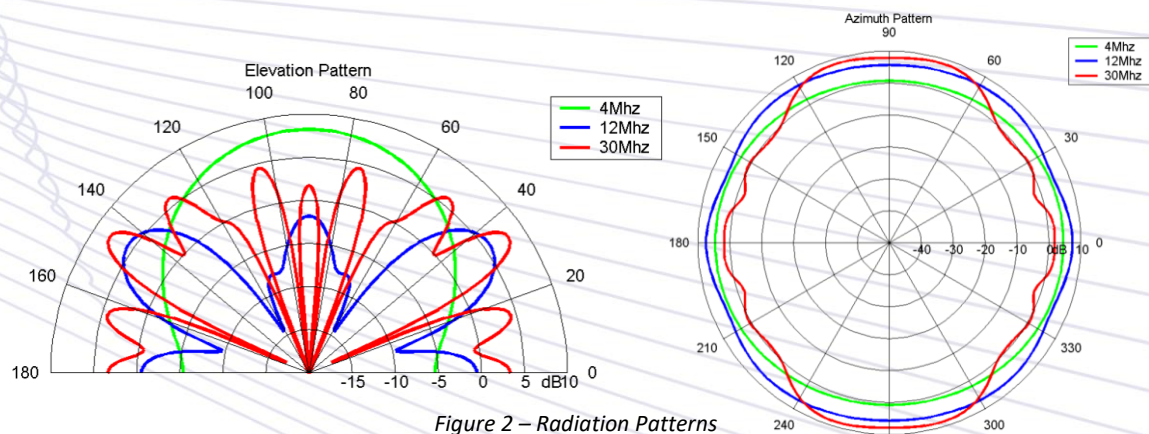
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### Key Characteristics

<i>Frequency range<sup>1</sup></i>	02-00040-04   3-30MHz 02-00040-06   2-30MHz
<i>Power rating</i>	1-20kW average
<i>Input impedance</i>	50Ω
<i>VSWR over range</i>	<2:1 (typical)
<i>Isotropic gain</i>	8dbi (typical)
<i>Radiation pattern</i>	Refer radiation plot
<i>Input Balun</i>	Up to 20kW 50/150
<i>RF connector type</i>	N socket   1 5/8" EIA   3 1/8" EIA
<i>Wind rating</i>	230km/h (no ice)
<i>Mast requirement</i>	02-00040-04   Min: 15m, Preferred: 20m 02-00040-06   Min: 25m
<i>Installation length</i>	02-00040-04   Mast to Mast 39.5m 02-00040-06   Mast to Mast 61.4m
<i>Packed dimensions/weight</i>	02-00040-04   800x800x500mm 150kg 02-00040-06   800x800x500mm 180kg



**Figure 2 – Radiation Patterns**  
 Modelled above average earth; Azimuth slice taken at an elevation of 35degrees from horizon;  
 Elevation slice taken at an azimuth angle of 90degrees from broadside

### 1.1 Available Accessories

<i>Mast</i>	<i>Earthing kit</i>	<i>Coaxial Cable</i>	<i>Lightning Arrestor</i>
<a href="#">Masts: 15m</a> Steel mast	<a href="#">Earthing kit</a>	Available to customer specifications	<a href="#">Lightning arrestor</a>

<sup>1</sup> Note: VSWR performance at the low end of the frequency band is sensitive to ground and site conditions.