# Compact Wideband Dipole

## 20 – 100 MHz
## Product Code: DIPL-A0047

**VERSION: 3.3**

**PRODUCT FEATURES:**

- Small and light – only 1/3rd of the length of a full-size dipole for this frequency range
- VSWR better than 2.8:1 across the entire frequency range
- No matching unit required, so ideal for wideband jamming and frequency-agile applications
- Balanced antenna design does not require a groundplane

**SPECIFICATIONS:**

| | |
|---|---|
| **Electrical:** | |
| Frequency range | 20 – 100 MHz |
| VSWR | < 2.8:1 |
| Nominal input impedance | 50 Ω |
| Connector | N-type female |
| Feed power handling | 400 W CW |
| Gain (max) | 5 dBi (±0.5 dB) |
| Gain (minimum over the band) | -16 dBi (±0.5 dB) |
| Polarisation | Linear (vertical / horizontal) |
| | |
| **Mechanical:** | |
| Deployed dimensions (l x w x d) | 2.5 m x 1.0 m x 0.5 m |
| Colour | Upon request |
| Total mass | 10 kg |

**PRODUCT DESCRIPTION:**

The DIPL-A0047 is a small and lightweight yet rugged wideband dipole antenna that operates over the frequency range 20 MHz to 100 MHz with an input power of 500 W.

It is ideal for rapid deployment applications as its small size and lightweight makes it suitable for deployment on vehicles, and lightweight field masts where larger antennas would be impractical.

The antenna pattern is essentially omni-directional, making it ideal for wideband jamming applications such as improvised explosive device (IED) suppression. The bowtie-based design lends the antenna a wide bandwidth and ground plane independence.

The DIPL-A0047 is constructed entirely from corrosion-resistant materials and specified over a wide operating temperature range from -20 ºC to +50 ºC.

The antenna can be broken down into three parts for transportation:

- the central feed part, measuring 600 mm by 350 mm by 150 mm and
- 2 identical foldable bowtie arms, each measuring 1200 mm by 70 mm by 40 mm when stowed

Deployment is very fast as the parts clip together without any loose fasteners.

**APPLICATIONS:**

- Wideband jamming
- IED suppression
- Frequency agile communications
- Spectrum monitoring



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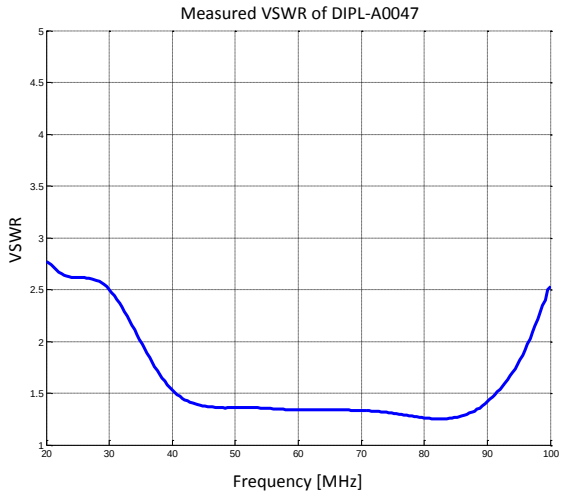
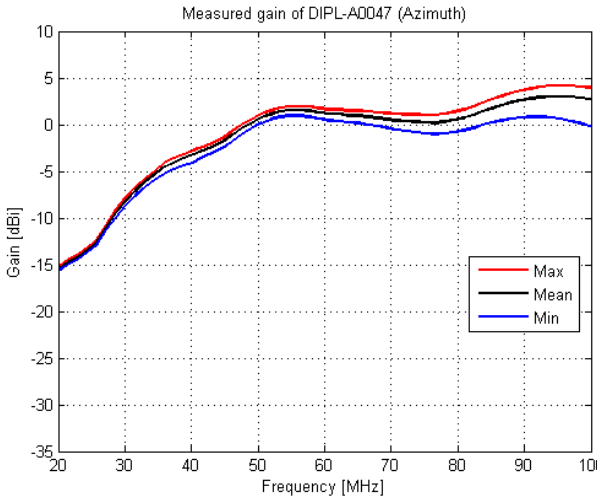
## VSWR AND GAIN GRAPHS:

**VSWR:***




**GAIN:****

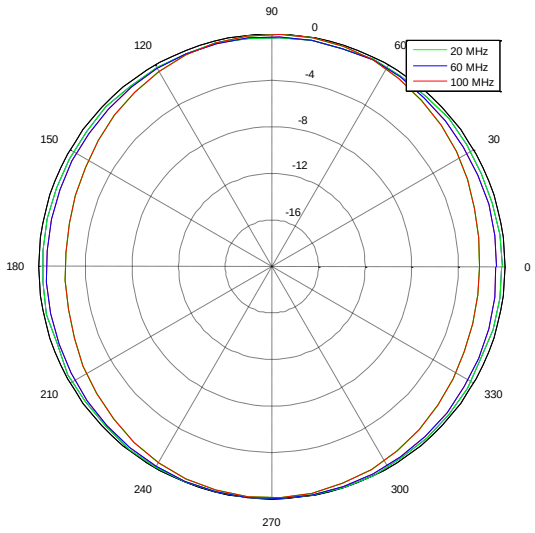



* NOTE: VSWR measured on an isolated, non-conductive mast, at least 5 m from metallic disturbances using a beaded co-axial cable

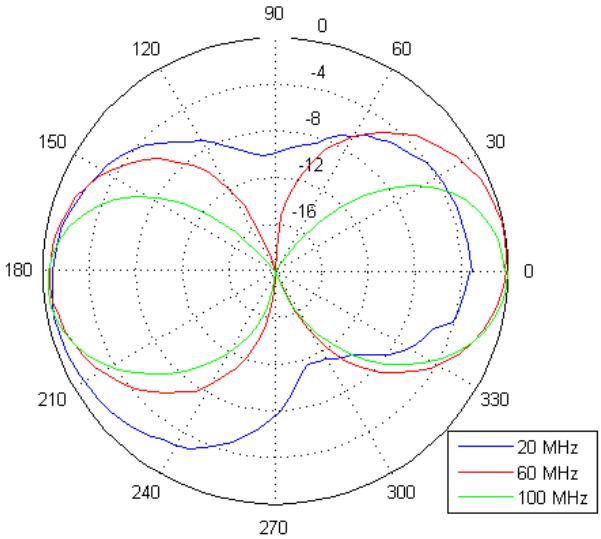
** NOTE: Gain measurement accuracy below 50 MHz is ±5 dB due to uncertainties in the measurement setup and references at such low frequencies. Gain is measured in vertical polarisation with isolated, non-conductive mast and beaded RF cable.

## Azimuth and elevation patterns:

**Measured azimuth pattern:**




**Measured elevation pattern:**







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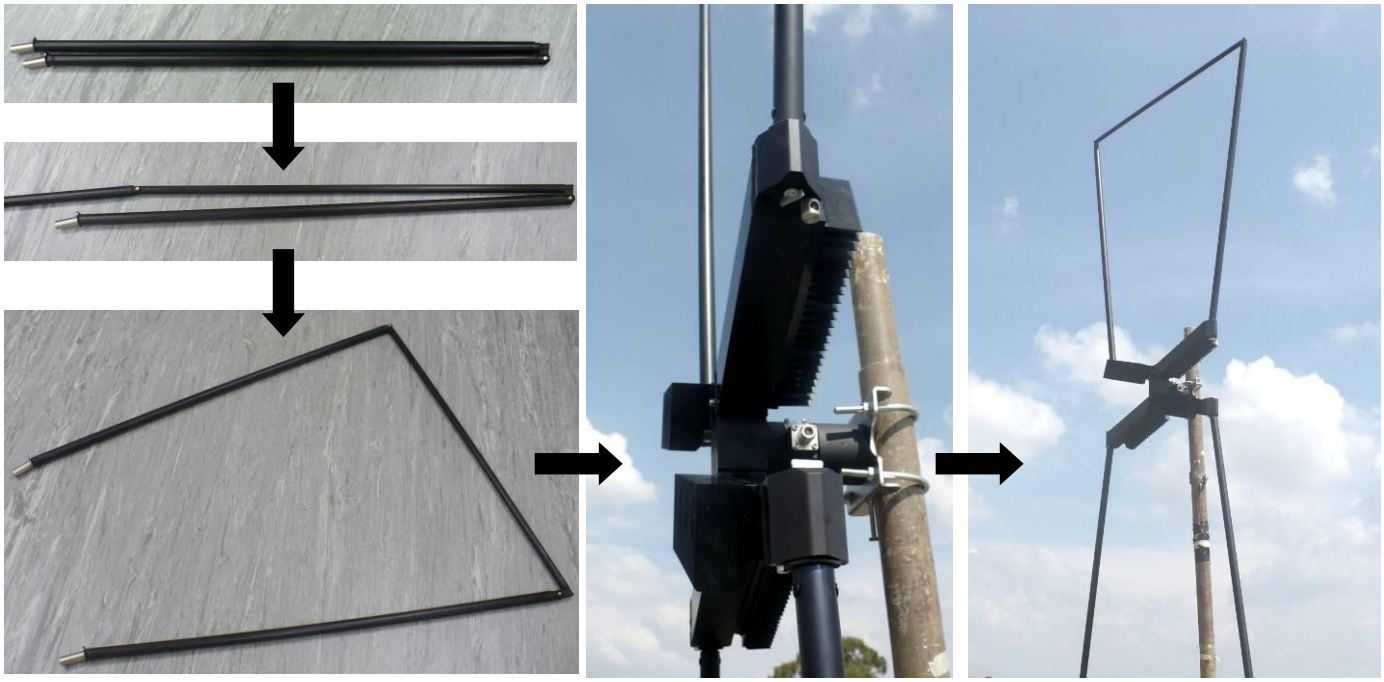
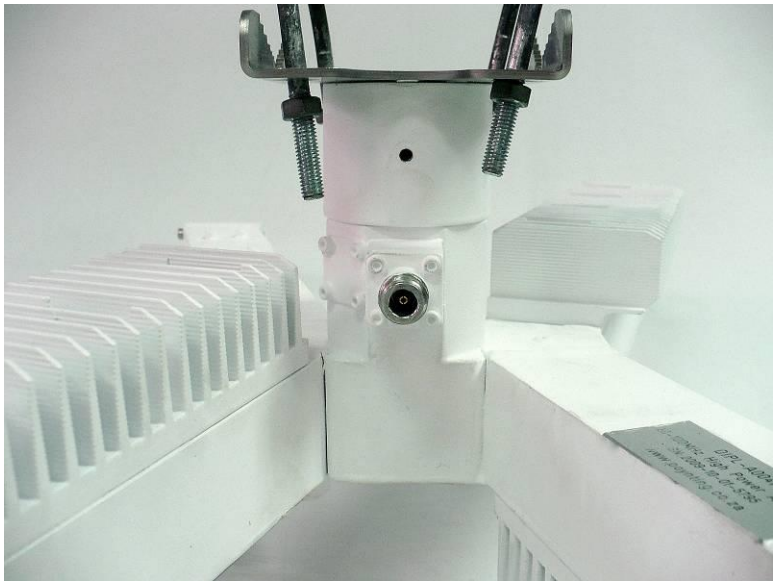
**Deployment:**



**Other photos:**





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