



# 2.4 GHz Omni N(m)

Operating Frequency: 2.40-2.4835 GHz

Product code: OMNI-A0128



OMNI-A0128 is a high performance omni-directional antenna for outdoor use and is molded of high strength UV-stable plastic. It is designed for direct connection to an N-type female connector. The antenna is electrically optimized for low sidelobe levels and maximum elevation beamwidth for largest coverage area. Azimuth pattern ripple is typically less than 0.5dBi. In addition, it is specially designed to reject incoming signals from 4.8-6GHz to reduce interference from other wireless systems. An integrated balun makes the pattern stable and independent of mounting platform. The antenna also incorporates a DC-short for surge and lightning protection. The antenna is waterproof with an IP67 rating. Each antenna is individually pressure-tested to 3 bar before leaving the factory floor to ensure a sound seal.

#### Features:

- High gain, small form factor, only 370mm long with a diameter of 24mm and weight of 80 grams.
- DC shorted
- IP67

#### Application areas:

- The antenna is ideal for outdoor mesh networking systems and wireless access nodes operating in the 2.4-2.5GHz range.



**Specifications:**

**Product Code:**

OMNI-A0128 7dBi 2.4GHz with N(m) connector mounting

**Electrical specifications**

|                          |                   |
|--------------------------|-------------------|
| Frequency                | 2400–2484 MHz     |
| Gain (max)               | 7 dBi (+0.5 dB)   |
| Gain (min over the band) | 6.5 dBi (+0.6 dB) |
| VSWR                     | 1.5:1 (max)       |
| Elevation 3 dB beamwidth | 20° (± 1°)        |
| Azimuth 3 dB beamwidth   | 360°              |
| Feed power handling      | 6 W               |
| Nominal input impedance  | 50 Ohm            |
| Polarisation             | Linear (Vertical) |
| Surge protection         | DC-shortcd feed   |

**Electrical compliance**

|                    |          |
|--------------------|----------|
| Sidelobes level    | < -14 dB |
| Cross polarisation | < -28 dB |

**Materials compliance** RoHS

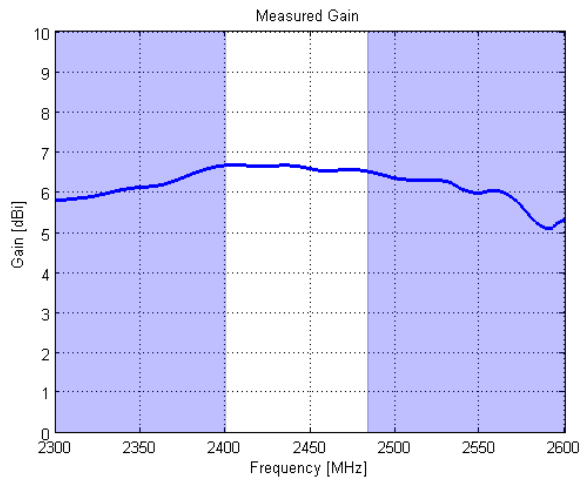
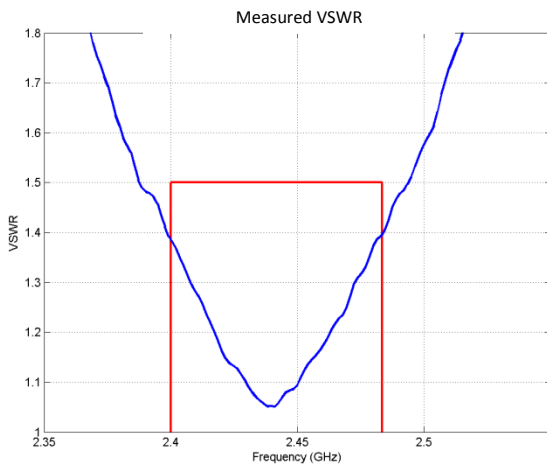
**Environmental:**

|                         |                               |
|-------------------------|-------------------------------|
| Flammability            | UL 94 Class HB                |
| Wind operation/survival | <200 km/h                     |
| Temperature Range       | - 40°C to +90°C               |
| Mechanical Shock        | ETSI 300 019-2-4 V2.2.2 T4.1E |
| Vibration               | ETSI 300 019-2-4 V2.2.2 T4.1E |
| Solar radiation         | IEC 68-2-5, MIL-STD-810       |
| Humidity                | 95% condensation, (IEC 60068) |
| Water Ingress Rating    | IP67                          |
| Salt spray              | ETSI 300 019-2-4              |

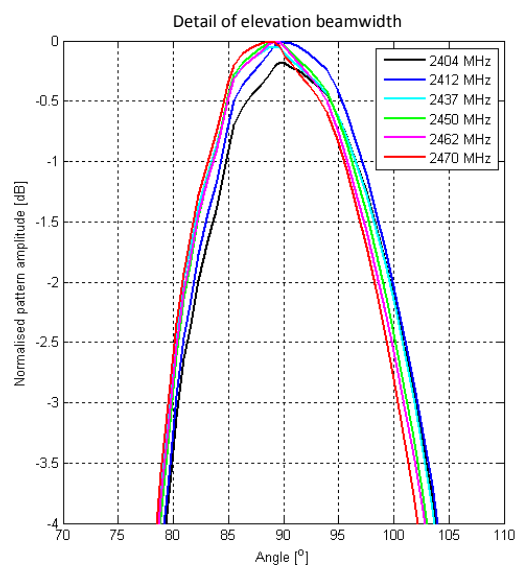
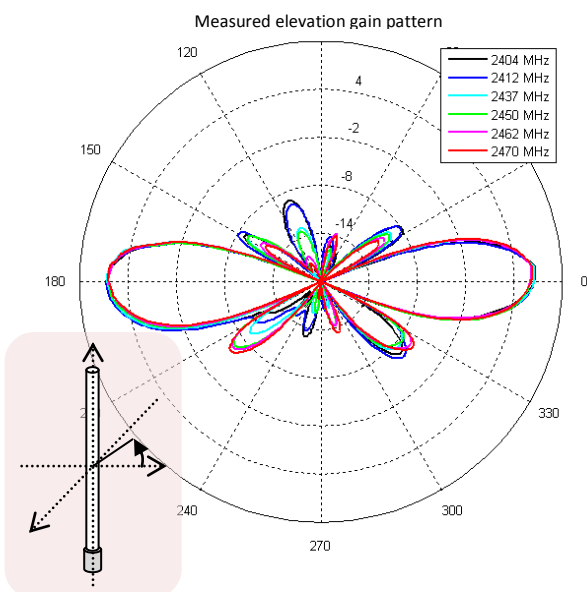
**Mechanical:**

|                     |                          |
|---------------------|--------------------------|
| Packaged weight     | 0.085 kg                 |
| Deployed dimensions | 370mm x 24mm (l x d)     |
| Colour              | RAL9002, cool grey       |
| Mounting            | Direct to N(m) connector |

**VSWR and Gain**

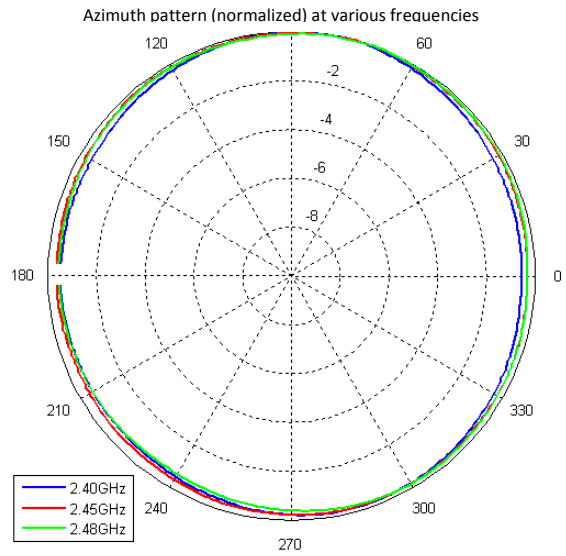
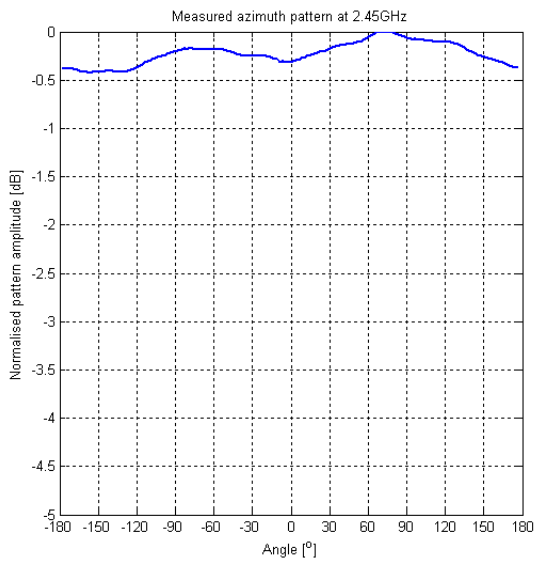


**Co-polar Radiation Patterns (Elevation, E-plane)**





### Co-polar Radiation Patterns (Elevation, E-Plane)



### Cross-polar Radiation Patterns

