OMNI-85
690 - 2700 MHZ PANEL MOUNT LTE ANTENNA

Product Overview

This broadband antenna ensures a strong 2G, 3G or 4G/LTE connection and fast transfer speeds for your broadband modem or router. The antenna is vertically polarized and omni-directional. This antenna can be fitted directly on any equipment that uses an SMA female connector. The knuckle base of the antenna allows multiple angle deployment to accommodate the orientation of the equipment.

Features

• Consistent performance across all frequency bands.
• This antenna is ground plane independent.
• The knuckle mount allows multiple angle deployment.
• Lightweight

Application areas

• Urban and rural areas
• On-the-go: Highly Portable
• Poor data signal reception (indoor or outdoor)
• Slow data transmission connection
• Unstable connection
• Increase system transmission reliability
• LTE fringe areas (close to an LTE area, but just out of reach)
• Network operator flexibility - as the antennas is wideband, a new antenna is not needed per network operator - works on most networks
Frequency bands

The OMNI-85 is a wide-band antenna that works from 690 - 2700 MHz

**OMNI-85:**

- **Band 1:** 450 - 960 MHz
- **Band 2:** 1710 - 2170 MHz
- **Band 3:** 2.3 - 2.5 GHz
- **Band 4:** 2.5 - 2.7 GHz

VSWR:

Voltage Standing Wave Ratio (VSWR)

VSWR is a measure of how efficiently radio-frequency power is transmitted from a power source, through a transmission line, into a load. In an ideal system, 100% of the energy is transmitted which corresponds to a VSWR of 1:1. The XPOL-10 delivers superior performance across all bands with a VSWR of 2.5:1 or better.

Gain:

(excluding cable loss)

Gain* in dBi

6 dBi is the peak gain across all bands from 450 - 1880 MHz

- Gain @ 690 - 960 MHz: 4 dBi
- Gain @ 1710 - 2170 MHz: 6 dBi
- Gain @ 2300 - 2400 MHz: 2.5 dBi
- Gain @ 2500 - 2700 MHz: 5 dBi

*Antenna gain measured with polarisation aligned standard antenna
Radiation Patterns

Port 2 Vertical: 800 - 1000 MHz

Port 2 Vertical: 1700 - 2200 MHz

Port 2 Vertical: 2300 - 2400 MHz

Port 2 Vertical: 2500 - 2700 MHz
## Electrical Specifications

<table>
<thead>
<tr>
<th>Frequency Bands</th>
<th>Gain (Max)</th>
<th>VSWR</th>
<th>Feed Power Handling</th>
<th>Input Impedance</th>
<th>Polarisation</th>
<th>DC Short</th>
</tr>
</thead>
<tbody>
<tr>
<td>690 - 960 MHz</td>
<td>6 dBi</td>
<td>&lt;2.5:1</td>
<td>10 W</td>
<td>50 Ohm (nominal)</td>
<td>Linear Vertical</td>
<td>Yes</td>
</tr>
<tr>
<td>1710 - 2170 MHz</td>
<td></td>
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</tr>
<tr>
<td>2300 - 2400 MHz</td>
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<tr>
<td>2500 - 2700 MHz</td>
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</tbody>
</table>

## Mechanical Specifications

<table>
<thead>
<tr>
<th>Product Dimensions (L x W x D):</th>
<th>210mm x 20mm x 14mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight:</td>
<td>28 g</td>
</tr>
<tr>
<td>Packaged Weight:</td>
<td>30 g</td>
</tr>
<tr>
<td>Radome Material:</td>
<td>ABS (Halogen Free)</td>
</tr>
<tr>
<td>Radome Colour:</td>
<td>Pantone - Black</td>
</tr>
<tr>
<td></td>
<td>RAL - Black</td>
</tr>
</tbody>
</table>

## Environmental Specifications

<table>
<thead>
<tr>
<th>Wind Survival:</th>
<th>Indoor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature Range [Operating]:</td>
<td>-20°C to +70°C</td>
</tr>
<tr>
<td>Environmental Conditions:</td>
<td>Indoor</td>
</tr>
<tr>
<td>Operating Relative Humidity:</td>
<td>Up to 98%</td>
</tr>
<tr>
<td>Storage Humidity:</td>
<td>5% to 95% - non condensing</td>
</tr>
<tr>
<td>Storage Temperature:</td>
<td>-20°C to +70°C</td>
</tr>
</tbody>
</table>

## Product Box Contents

- **Antenna:** A-OMNI-0085-V2
- **Connector:** SMA (m) adaptor
  
  The connector is factory mounted to the antenna

## Ordering Information

- **Commercial name:** OMNI-85
- **Order Product Code:** A-OMNI-0085-V2
- **EAN number:** 6009693810198

## Certification Approvals and Standards

- **Flammability rating:** UL 94-V0
- **EN 13823**
- **Water Ingress Protection Ratio/Standard:** IP 55 (NEMA 4X)
- **Impact resistance:** IK 05
- **Salt Spray:** MIL-STD 810F /ASTM B117
  
  Complies with UL, CE, EN, CSA and IEC standards

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