HyperLink Wireless 2.4/4.9-5.8 GHz Four Element Dual Polarized Flat Panel Antenna
Model: HG2458-14DP-4NF

Features

- Four independent antennas
- MIMO – Multiple-Input and Multiple-Output
- Dual polarity feed system in single enclosure
- Dual band, high gain operation
- Two vertical and two horizontal elements
- UV-resistant radome for all-weather operation

Applications

- 2.4/4.9-5.8 GHz Indoor/Outdoor Wireless LAN systems
- MIMO wireless access points and routers
- Supports IEEE 802.11 a/b/g/n and 802.11ac applications
- Homeland Security and Public Safety Band
- Hospitality, Industrial, Municipality

Description

Superior Performance

The HyperLink HG2458-14DP-4NF Flat Panel Antenna combines four dual band antennas in a single housing. The unit consists of two vertically and two horizontally polarized multi-patch antennas. It is a professional quality antenna designed primarily for MIMO point-to-multipoint and point-to-point applications in the 2.4 GHz and the 4.9-5.8 GHz frequency bands. The unit can be used with APs and Routers with one to four antenna ports.

This antenna incorporates advanced dual polarization technology that allows for the interoperability of two radios to transmit and receive paths. This technology allows for the attenuation of unwanted signals from adjacent channels and/or co-located equipment.

Rugged and Weatherproof

This aesthetically pleasing antenna features a heavy-duty UV-resistant plastic radome ideal for all-weather indoor and outdoor operation. The HG2458-14DP-4NF antenna is supplied with a tilt and swivel mast mount kit. This allows quick installation at various degrees of up/down tilt for easy alignment.
## Mechanical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector Interface</td>
<td>N-Female (4x)</td>
</tr>
<tr>
<td>Radome Material</td>
<td>Gray ASA</td>
</tr>
<tr>
<td>Rated Wind Velocity</td>
<td>130mph (210km/h)</td>
</tr>
<tr>
<td>Operating Temperature</td>
<td>-40° C to 85° C (-40° F to 185° F)</td>
</tr>
<tr>
<td>Dimensions</td>
<td>12.40” x 12.40” x 0.98” (315x315x25mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>3.3 lbs (1.5 kg including the bracket)</td>
</tr>
<tr>
<td>Mounting Mast Size (Dia.)</td>
<td>0.75-2.00 in. (19-50 mm)</td>
</tr>
<tr>
<td>RoHS Compliant</td>
<td>Yes</td>
</tr>
</tbody>
</table>

## Electrical Specifications

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency Range</td>
<td>2400-2500 / 4900-5850 MHz</td>
</tr>
<tr>
<td>Gain</td>
<td>13 dBi (2.4 GHz) / 14 dBi (5 GHz)</td>
</tr>
<tr>
<td>Polarization</td>
<td>Vertical (2x) and Horizontal (2x)</td>
</tr>
<tr>
<td>VSWR</td>
<td>≤ 2.0</td>
</tr>
<tr>
<td>Horizontal Beamwidth</td>
<td>40° (2.4 GHz) / 32° (5 GHz)</td>
</tr>
<tr>
<td>Vertical Beamwidth</td>
<td>45° (2.4 GHz) / 22° (5 GHz)</td>
</tr>
<tr>
<td>F/B Ratio</td>
<td>23 dB (2.4 GHz) / 26 dB (5 GHz)</td>
</tr>
<tr>
<td>Cross-pol Isolation</td>
<td>&lt; -28dB</td>
</tr>
<tr>
<td>Max. Input Power</td>
<td>25 watts</td>
</tr>
<tr>
<td>Lightning Protection</td>
<td>DC Ground</td>
</tr>
<tr>
<td>Input Impedance</td>
<td>50 Ohm</td>
</tr>
</tbody>
</table>

## Wind Loading Data

<table>
<thead>
<tr>
<th>Wind Speed (MPH)</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>54 lbs.</td>
</tr>
<tr>
<td>125</td>
<td>85 lbs.</td>
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</tbody>
</table>
RF Antenna Patterns – V-Pol

- 2.45 GHz
  - Date: 2014-03-10
  - Elevation-H-Plane
  - Polarization: Main
  - Gain: 17.5 dBi
  - HPBW: 30.6°
  - FBR: 25.1 dB

- 5.8 GHz
  - Date: 2014-03-10
  - Elevation-H-Plane
  - Polarization: Main
  - Gain: 20 dBi
  - HPBW: 25.1°
  - FBR: 26.7 dB

- 2.45 GHz
  - Date: 2014-03-10
  - Elevation-V-Plane
  - Polarization: Main
  - Gain: 18.5 dBi
  - HPBW: 42.5°
  - FBR: 27.5 dB

- 5.8 GHz
  - Date: 2014-03-10
  - Elevation-V-Plane
  - Polarization: Main
  - Gain: 16.5 dBi
  - HPBW: 43.3°
  - FBR: 28.3 dB

- 2.45 GHz
  - Date: 2014-03-10
  - Elevation-H-Plane
  - Polarization: Crossed
  - Gain: 18.5 dBi
  - HPBW: 35.1°
  - FBR: 37.5 dB

- 5.8 GHz
  - Date: 2014-03-10
  - Elevation-H-Plane
  - Polarization: Crossed
  - Gain: 17.5 dBi
  - HPBW: 38.3°
  - FBR: 38.3 dB

- 2.45 GHz
  - Date: 2014-03-10
  - Elevation-V-Plane
  - Polarization: Crossed
  - Gain: 14.5 dBi
  - HPBW: 40.5°
  - FBR: 25.0 dB

- 5.8 GHz
  - Date: 2014-03-10
  - Elevation-V-Plane
  - Polarization: Crossed
  - Gain: 16.5 dBi
  - HPBW: 42.5°
  - FBR: 26.7 dB