

## HyperLink Wireless 2.4/ 5 GHz Dual Band / Dual Polarized Omni Antenna Model: HG2458-06DPU

### Applications

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- 2.4/5 GHz IEEE 802.11a/b/g applications
- Supports 1x2, 2x2 and 4x4 MIMO AP/Routers
- WiMax, WISP and WiFi applications
- Wireless video systems
- Point-to-multipoint applications

### Features

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- MIMO – Multiple-Input and Multiple-Output
- Dual polarity/dual frequency feed system in single enclosure
- Separate inputs for 2.4 GHz and 5 GHz – four connectors total
- UV-Resistant radome for all-weather operation
- Heavy duty industrial grade design



Patent Pending

### Description

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The HyperLink HG2458-06DPU is a professional high gain dual band/dual polarity omnidirectional base station antenna designed and optimized for 2.4 and 5 GHz frequencies. This antenna is ideally suited for multipoint applications where long range and wide coverage is desired. The DPU series stands out from the competition since they are true 360 degree Omni directional antennas which feature patent pending technology.

#### Dual Frequency / Dual Polarized

The HG2458-06DPU is actually four antennas in one, a 2.4 GHz dual polarized antenna and a 5 GHz dual polarized antenna together in a single radome. Each frequency features separate feeds for both horizontal and vertical polarities, four N-Female connectors total.

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

#### Rugged and Weatherproof

The HG2458-06DPU construction features a heavy-duty UV resistant PVCs radome for durability and aesthetics. Designed to operate in the harshest of environments, the HG2458-06DPU far exceeds other omnidirectional antennas. The included mounting system features twin heavy-duty mounting clamps and bolts for superior strength.



**Specifications**

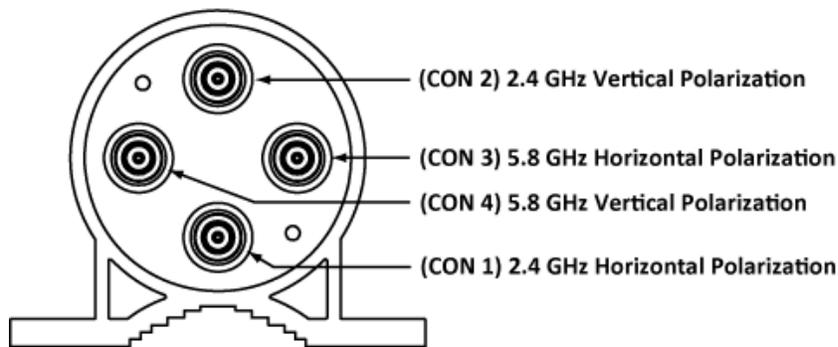
**Electrical Specifications**

|  |                                  |                  |                    |                  |
|--|----------------------------------|------------------|--------------------|------------------|
| <b>Frequency Range</b>                             | 2400-2500 MHz                    |                  | 5100-5800 MHz      |                  |
| <b>Polarization</b> (See Connection Diagram Below) | Horizontal (CON 1)               | Vertical (CON 2) | Horizontal (CON 3) | Vertical (CON 4) |
| <b>Gain</b>  | 6 dBi                            | 6 dBi            | 6 dBi              | 6 dBi            |
| <b>Vertical Beam Width (-3 dB)</b>                 | 30°                              | 25°              | 24°                | 25°              |
| <b>Horizontal Beam Width</b>                       | 360°                             |                  | 360°               |                  |
| <b>Impedance</b>                                   | 50 Ohm                           |                  |                    |                  |
| <b>Max. Input Power</b>                            | 100 Watts                        |                  |                    |                  |
| <b>VSWR</b>  | ≤ 1.6                            |                  | ≤ 1.8              |                  |
| <b>Isolation</b>                                   | > 28 dB                          |                  |                    |                  |
| <b>Lightning Protection</b>                        | DC Ground (2.4 GHz; 5 GHz H pol) |                  |                    |                  |
|  | DC Open (5 GHz V pol)            |                  |                    |                  |

**Mechanical Specifications**

|                                 |                                    |
|---------------------------------|------------------------------------|
| <b>Connector</b>                | (4) N-Female                       |
| <b>Weight</b>                   | 5.3 lbs (2.4 kg)                   |
| <b>Length</b>                   | 28.2 in. (718 mm)                  |
| <b>Radome Diameter</b>          | 2.9 in. (75 mm)                    |
| <b>Radome Material</b>          | UV Resistant PVC                   |
| <b>Mounting Mast Size (Dia)</b> | 1.6 to 3.5 in. (40 to 90 mm)       |
| <b>Operating Temperature</b>    | -40° C to 60° C (-40° F to 140° F) |
| <b>Max. Wind Velocity</b>       | 130 mph (210 km/h)                 |
| <b>RoHS Compliant</b>           | Yes                                |

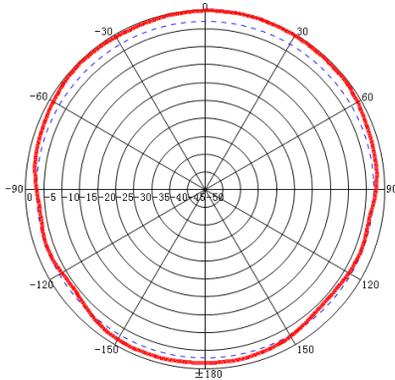
**CONNECTION DIAGRAM**



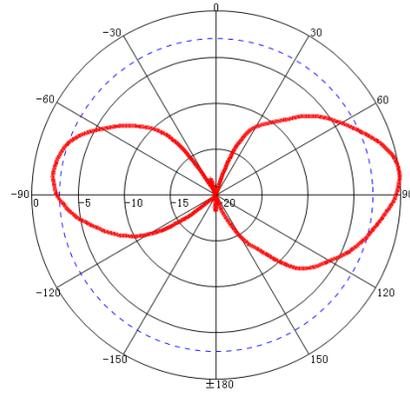
**BOTTOM VIEW**

## RF Antenna Patterns

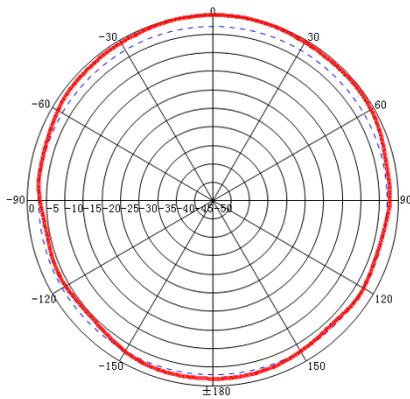
### Horizontal Polarization



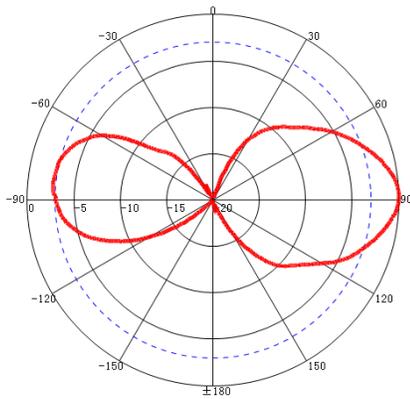
**H-Plane: 2400 MHz**



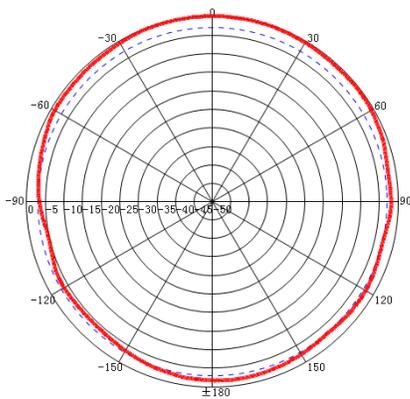
**V-Plane: 2400 MHz**



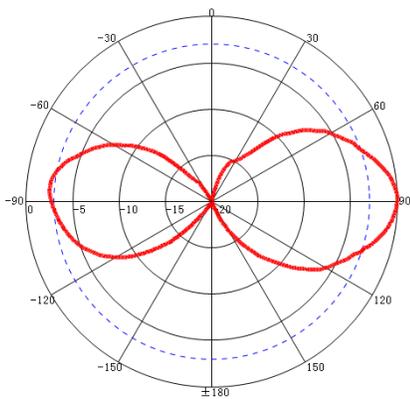
**H-Plane: 2450 MHz**



**V-Plane: 2450 MHz**

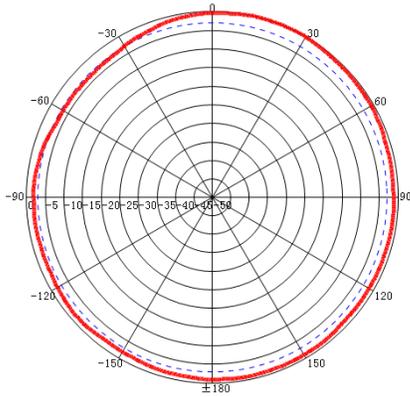


**H-Plane: 2500 MHz**

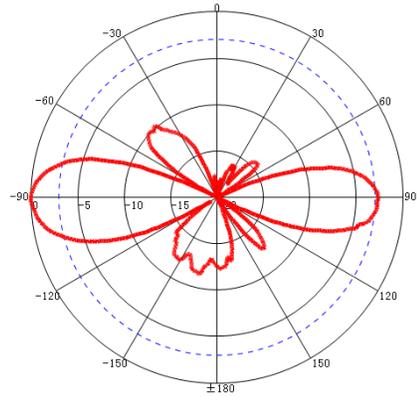


**V-Plane: 2500 MHz**

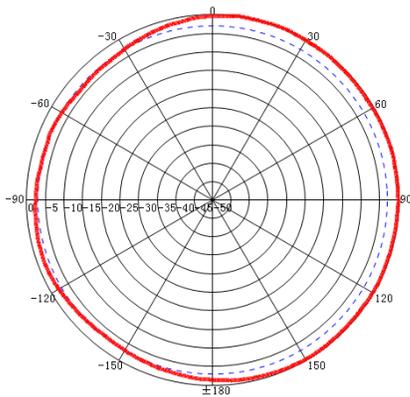
**Horizontal Polarization**



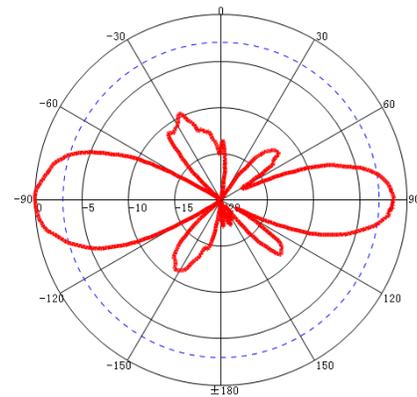
**H-Plane: 5100 MHz**



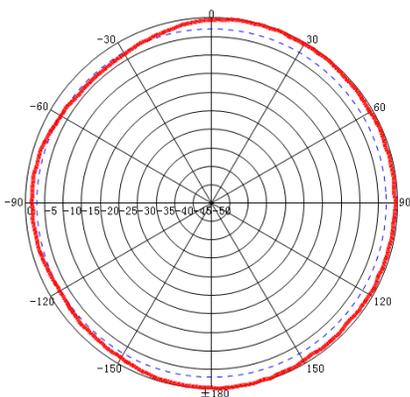
**V-Plane: 5100 MHz**



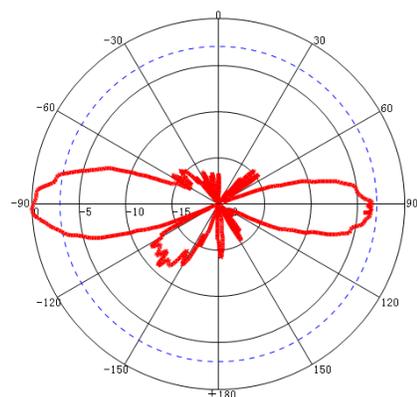
**H-Plane: 5500 MHz**



**V-Plane: 5500 MHz**

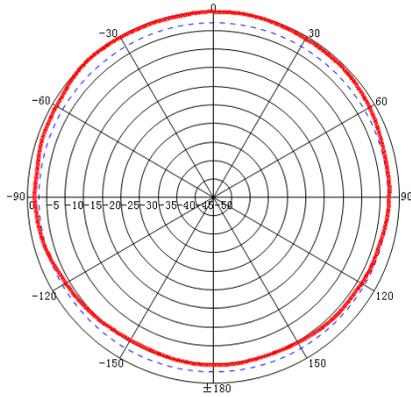


**H-Plane: 5800 MHz**

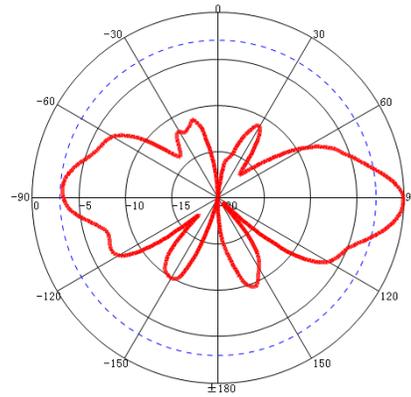


**V-Plane: 5800 MHz**

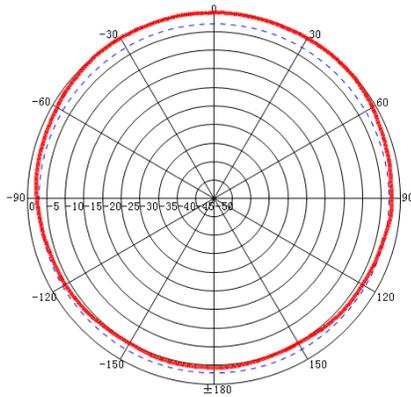
**Vertical Polarization**



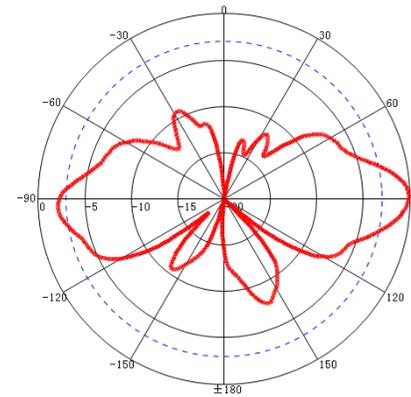
**H-Plane: 2400 MHz**



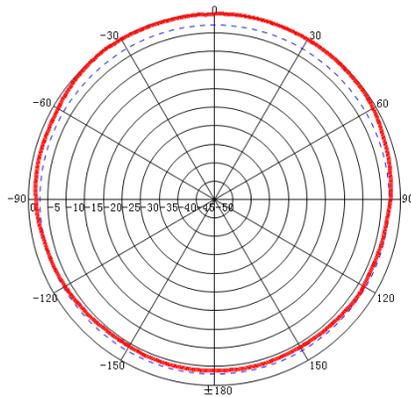
**V-Plane: 2400 MHz**



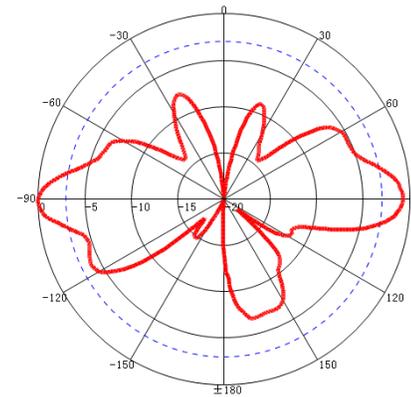
**H-Plane: 2450 MHz**



**V-Plane: 2450 MHz**

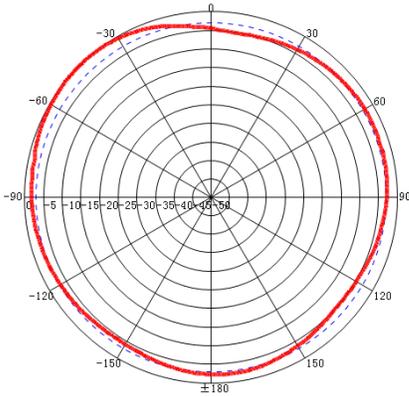


**H-Plane: 2500 MHz**

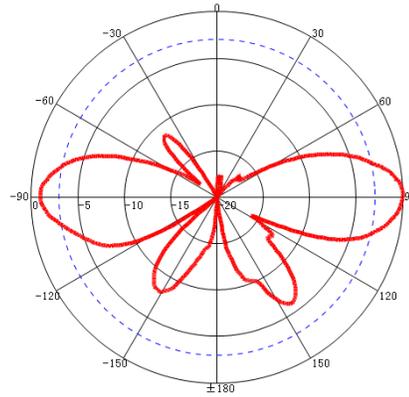


**V-Plane: 2500 MHz**

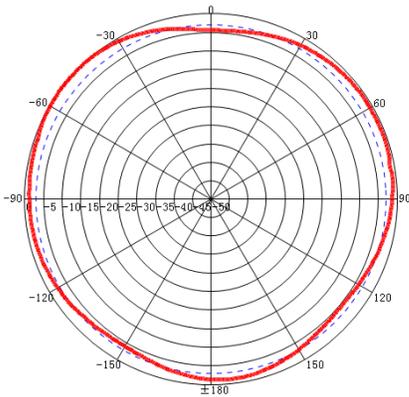
**Vertical Polarization**



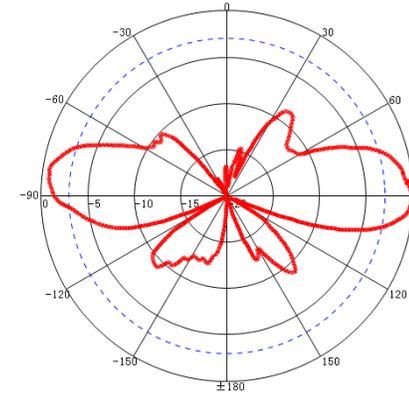
**H-Plane: 5100 MHz**



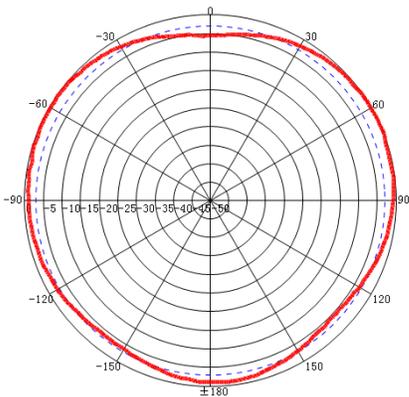
**V-Plane: 5100 MHz**



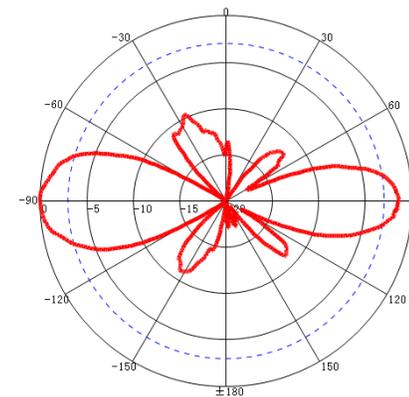
**H-Plane: 5500 MHz**



**V-Plane: 5500 MHz**



**H-Plane: 5800 MHz**



**V-Plane: 5800 MHz**