

# Wireless External Dual Band Antenna for 2.4 GHz & 5.0 GHz Applications

Pulse Part Number W1043



The W1043 series offers superior transmission and reception between wireless access points and devices on a WLAN (Wireless Local Area Network). Wireless networks, especially those that are indoors, often have physical barriers which inhibit communication between wireless devices. These barriers cause blind spots, intermittent signal quality and interference. Selecting the correct external antenna can improve the range and reliability of wireless networks.

W1043 antennas offers an economical solution for OEMs of wireless devices. These antennas are compatible with IEEE 802.11a/b/g/n, Bluetooth® and ZigBee™ applications, as well as other 2.4 GHz and 5 GHz ISM frequency band uses. This dual-band antenna covers the 2.4 GHz and 5.0 GHz frequencies plus 5.15 GHz and 5.85 GHz.

## Features

- Dual band, blade style antenna
- Omni directional radiation pattern provides broad 360° coverage
- RF efficient PCB radiator design
- RoHS Compliant Product

## Applications

- WLAN devices using WiFi (802.11a/b/g), Bluetooth and ZigBee
- In-building wireless access points (AP)
- Replacements for wireless routers
- Spatial Diversity AP configurations

## Electrical Specifications

Frequency 1 [MHz]		2400 - 2500
Frequency 2 [MHz]		4900 - 5825
Nominal Impedance [ $\Omega$ ]		50
VSWR	Freq 1	2:1
	Freq 2	2:1
Gain	Freq 1 [dBi avg]	2
	Freq 2 [dBi avg]	4
Radiation Pattern		Omni
Polarization		Linear Vertical
Power Rating [W]		3
Connector		RP SMA*

## Environmental Specifications

Operating Temperature [°C]	-30 to +75
Storage Temperature [°C]	-30 to +85

## Mechanical Specifications

Radome Material	PBT/PC+ABS
Color	Black*
Weight [oz/g]	.64 / 18.21
Dimensions [in/mm]	6.2 / 157.5

\* Default configuration. For other colors/connector options, please contact Pulse for assistance.

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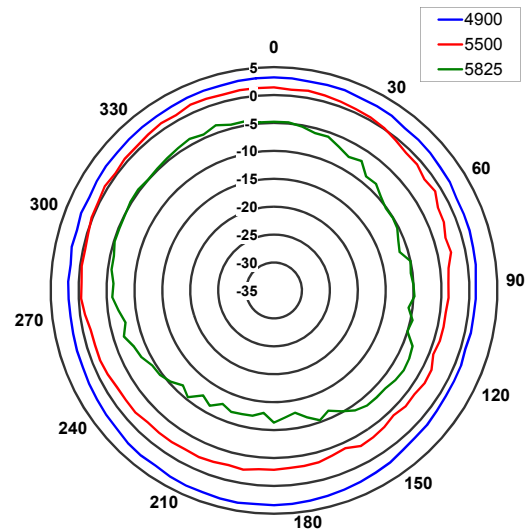
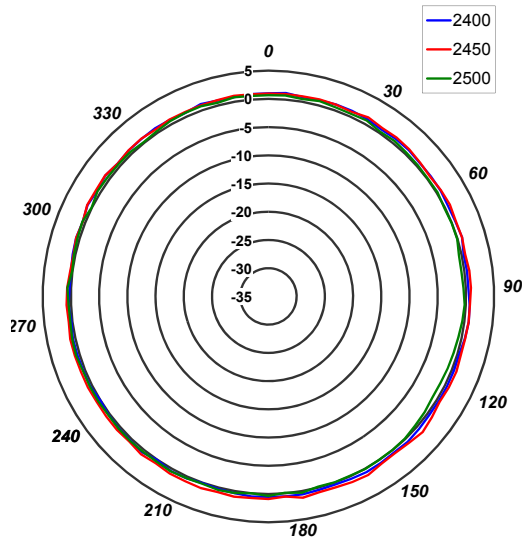
## Application Notes:

Omn-directional antennas provide a uniform, donut-shaped, 360° radiation pattern. The omni-directional pattern is suitable for point-to-multipoint broadcasting in all directions. This antenna is primarily used for WLAN applications. However, it can also be used for a variety of other applications within the specified frequency range. When used as an access point, the antenna is ideally located at the center of the coverage area.

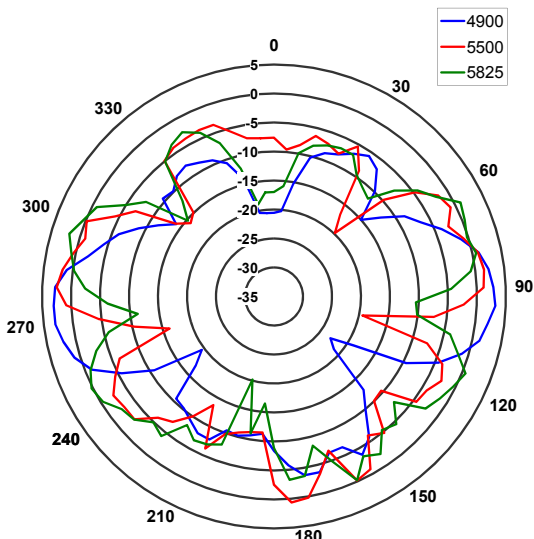
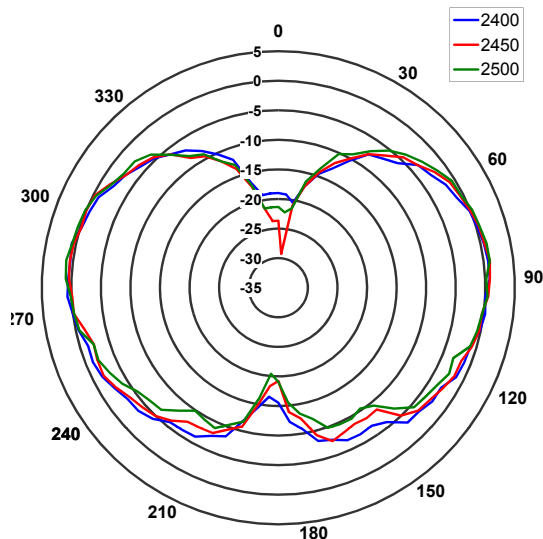
## Radiation Patterns

NOTE: Tested in bent (articulated) position.

### Horizontal Plane



### Vertical Plane



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