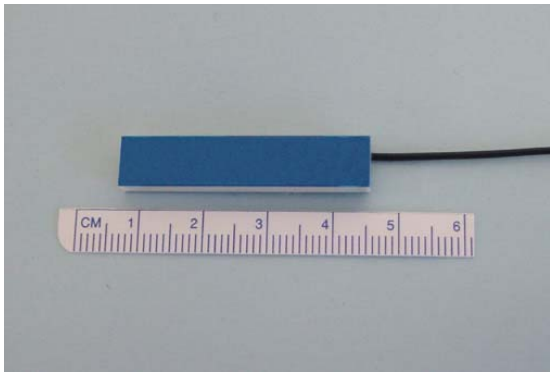
WLAN Quad Band Antenna for Worldwide 802.11a/b Embedded Wireless Applications



Features

- *Covers all Worldwide WLAN Bands:*
  - *802.11b—2.45 GHz*
  - *802.11a*
    - *Japan—5.0 GHz*
    - *North America—5.25 GHz*
    - *Europe—5.6 GHz*
- *Very Low Profile for Embedded Applications*
- *Optimized for Remote Cable Mounting in Desktop/Laptop Applications*

This quad band WLAN antenna provides exceptional performance for embedded wireless applications implementing multiple frequencies. This Meander Line Antenna provides superior efficiency and gain directivity and is the best performance solution for developers implementing a multiple frequency system in both the lower and upper WLAN bands.

Electrical Specifications

Frequency Ranges	**2390—2490 MHz** **4900—5900 MHz**
Efficiency	**60% across low band** **50% across high bands**
VSWR	**< 2.0:1 in the lower band** **< 2.0:1 in the upper bands**
Polarization	**Linear**
Patterns	**Uni directional**
Feed Impedance	**50 Ohms Unbalanced**

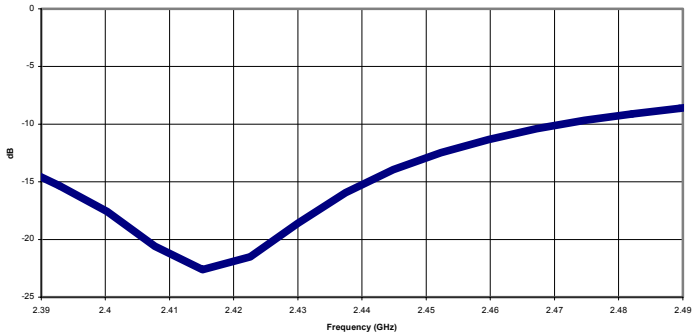
Mechanical Specifications

Size	**1.5 x 0.31 x 0.17 inches** **38.1 x 7.9 x 4.3 mm**
Cable/ Connectors	**Customer to specify cable type, cable length and connector type**

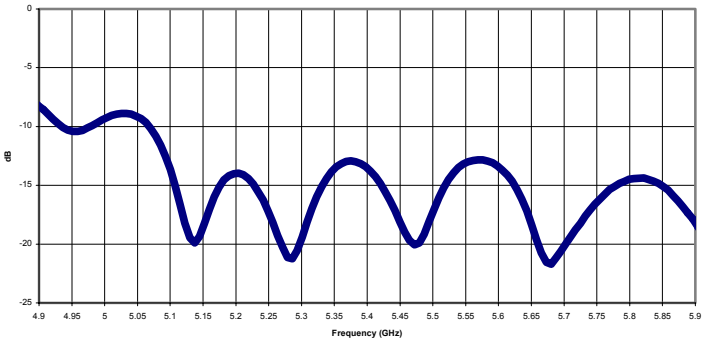
Mechanical Specifications

Temperature Tolerance	**Less than a 1 dB degradation and center frequency shift of less then 10 MHz when operated at any temperature in the range 0 to +65 ° C**
Humidity	**Less than a 1 dB degradation and center frequency shift of less then 10 MHz when operated in relative humidity of 10—95% non-condensing and a temperature of 120 degrees F**
Chemical Resistance	**Resists damage from wetting by water, brine, commonly used cleaning agents and non-toxic household substances**
Mechanical Durability	**Maintains integrity for impacts of 4 feet or less**

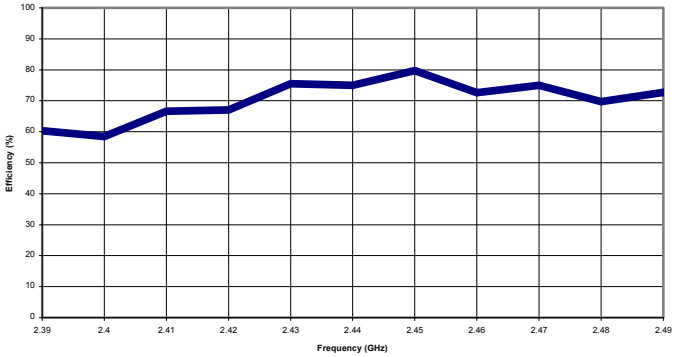
Typical Return Loss (Low Band)



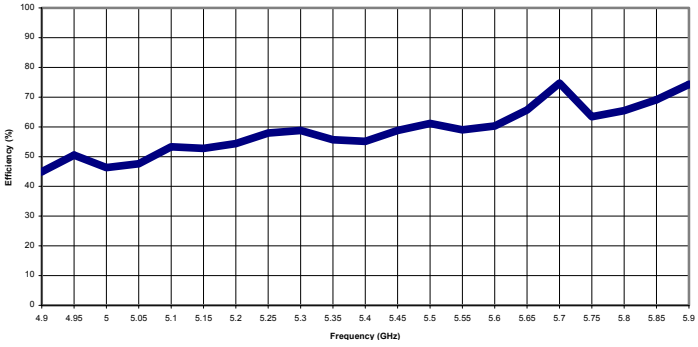
Typical Return Loss (High Bands)



Swept Efficiency (Low Band)

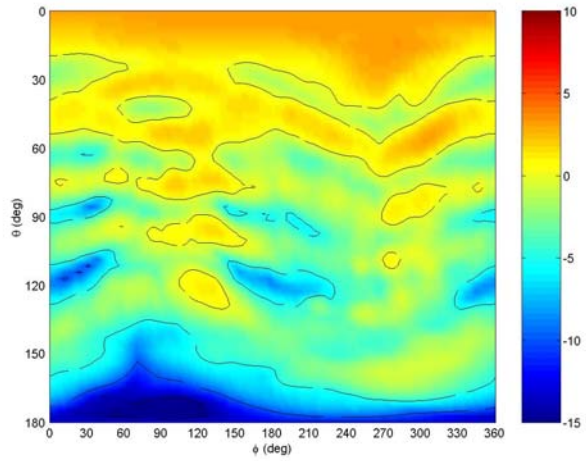


Swept Efficiency (High Bands)

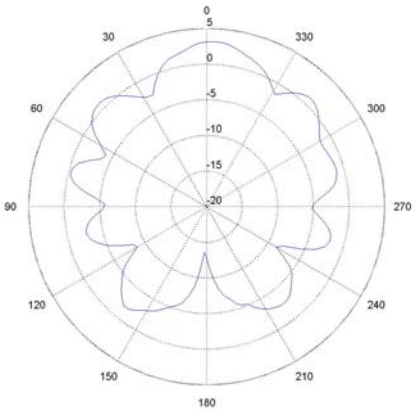


Data shown for single element only as installed in laptop screen

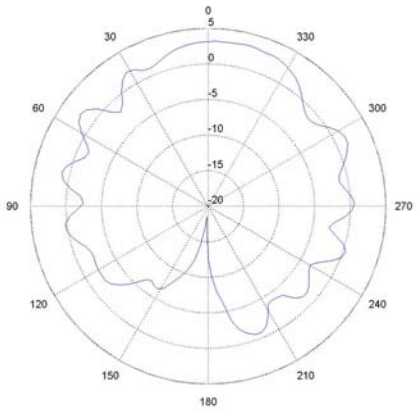
Diversity Spherical Gain Contour Map at 2.39 GHz



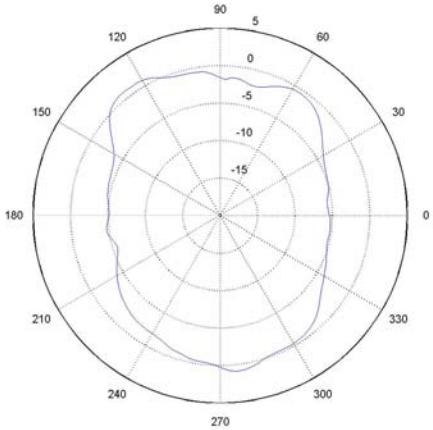
Diversity Gain Patterns at 2.39



Phi = 0 degrees



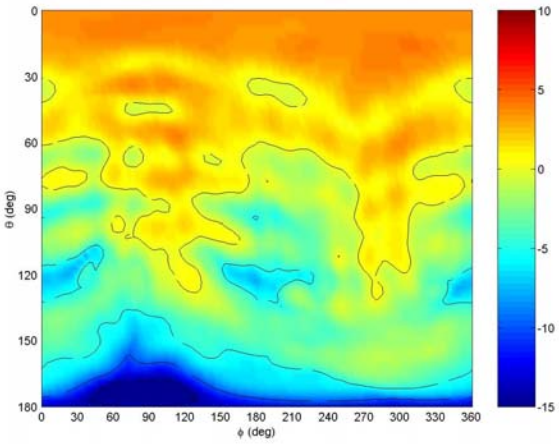
Phi = 90 degrees



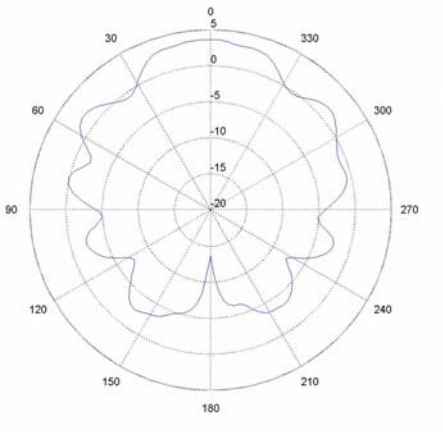
Theta= 90 degrees

Diversity data shown consists of combination of a left and right mounted antenna in a laptop screen with cable and connector loss removed

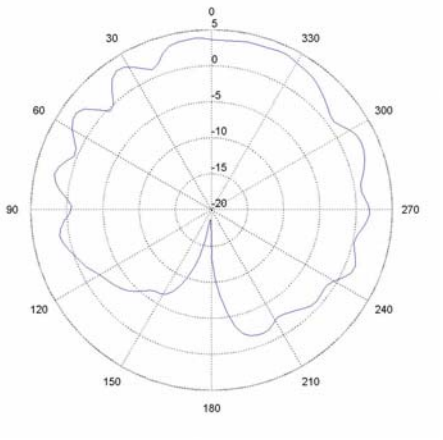
Diversity Spherical Gain Contour Map at 2.45 GHz



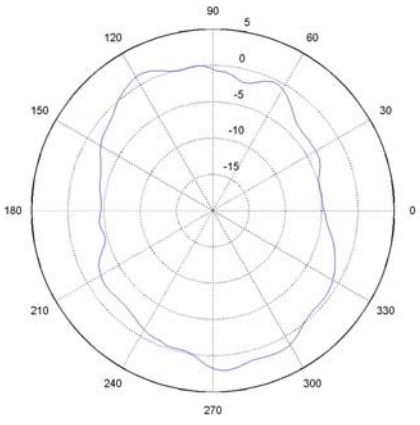
Diversity Gain Patterns at 2.45



Phi = 0 degrees



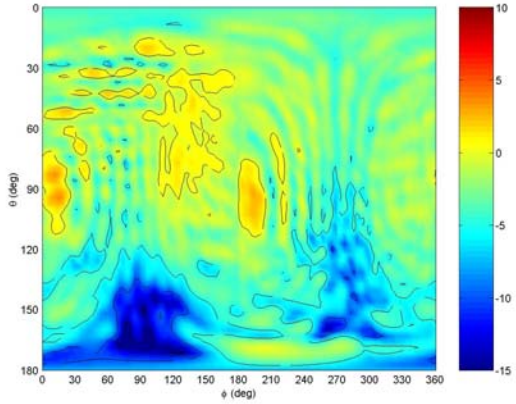
Phi = 90 degrees



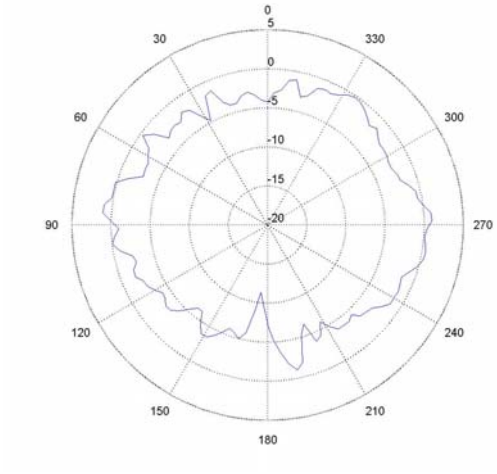
Theta= 90 degrees

Diversity data shown consists of combination of a left and right mounted antenna in a laptop screen with cable and connector loss removed.

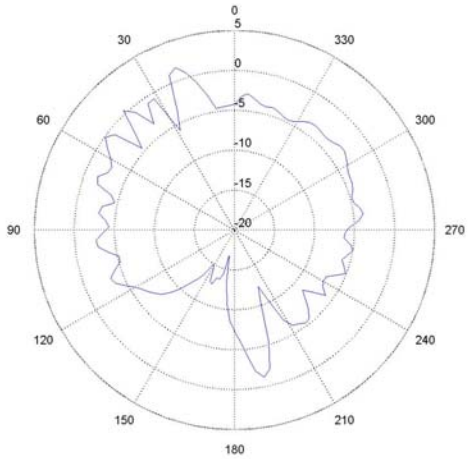
Diversity Spherical Gain Contour Map at 5.0 GHz



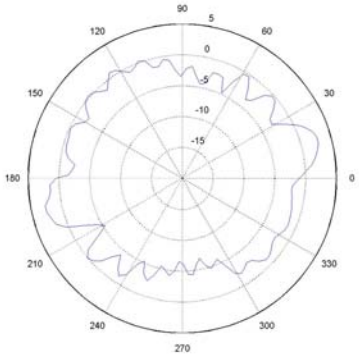
Diversity Gain Patterns at 5.0



Phi = 0 degrees



Phi = 90 degrees



Theta= 90 degrees

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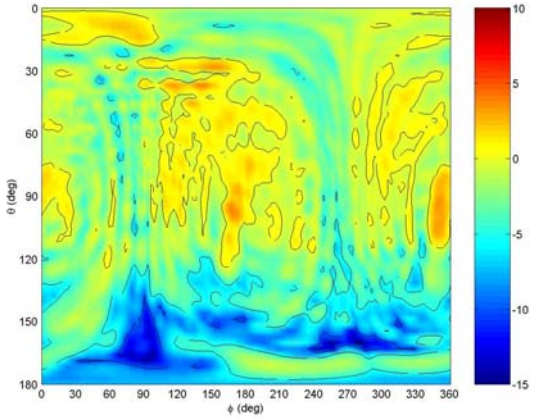
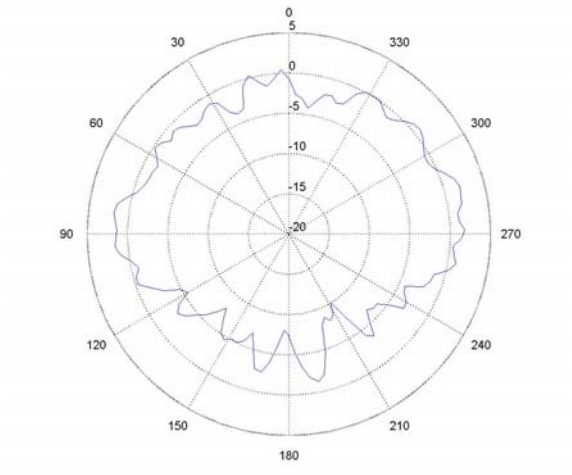
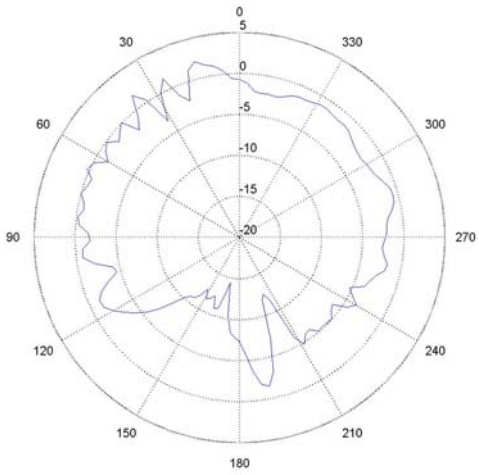
Diversity Spherical Gain Contour Map at 5.25 GHz



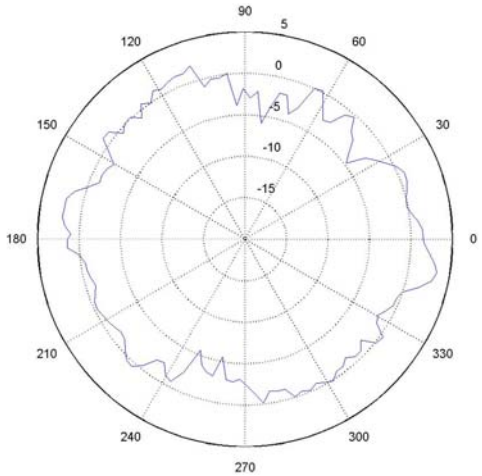
Diversity Gain Patterns at 5.25



Phi = 0 degrees



Phi = 90 degrees



Theta= 90 degrees

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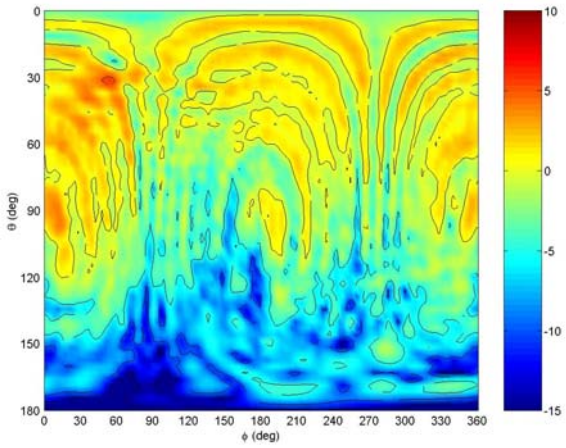
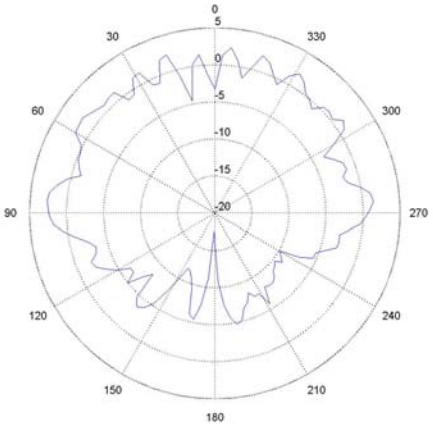
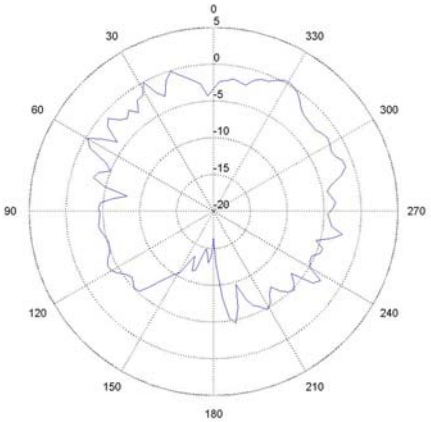
Diversity Spherical Gain Contour Map at 5.8 GHz



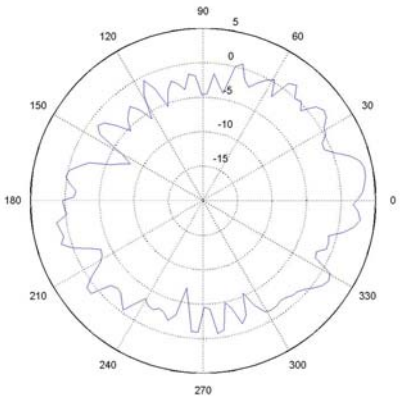
Diversity Gain Patterns at 5.8



Phi = 0 degrees



Phi = 90 degrees



Theta= 90 degrees

Diversity data shown consists of combination of a left and right mounted antenna in a laptop screen with cable and connector loss removed.