

Dualband WLAN Ceramic Chip Antenna

Ground cleared under antenna 11.60 x 6.00 mm. Pulse Part Number: W3006



Features

- Omnidirectional radiation
- Low profile
- Compact size WxLxH (10.0 x 3.2 x 1.5 mm)
- Low weight (240 mg)
- Fully SMD compatible
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product
- Single feed point

Applications

- IEEE 802.11a/b/g
- 5 GHz WLAN
- 2.4 GHz WLAN
- 2.4 GHz ISM Band Systems
- ZigBee IEEE 802.15.4

Electrical specifications @ +25 °C

Note: Electrical characteristics depend on test board (GP) size and antenna positioning on GP and Ground Clearance area size.

Dualband WLAN

Typical performance (testboard size 80 x 37 mm, PWB ground clearance area 11.60 x 6.00 mm)
1.5nH shunt inductor used for impedance matching.

Frequency Range [MHz]	Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [°C]
2400–2483.5	3.2 (peak) 2.7 (band edges)	70 / -1.55 (peak) 65 / -1.85 (band edges)	-8	50	-40 to +85
5150–5850	4.2 (peak) 3.0 (band edges)	80 / -0.95 (peak) 70 / -1.55 (band edges)	-10	50	-40 to +85

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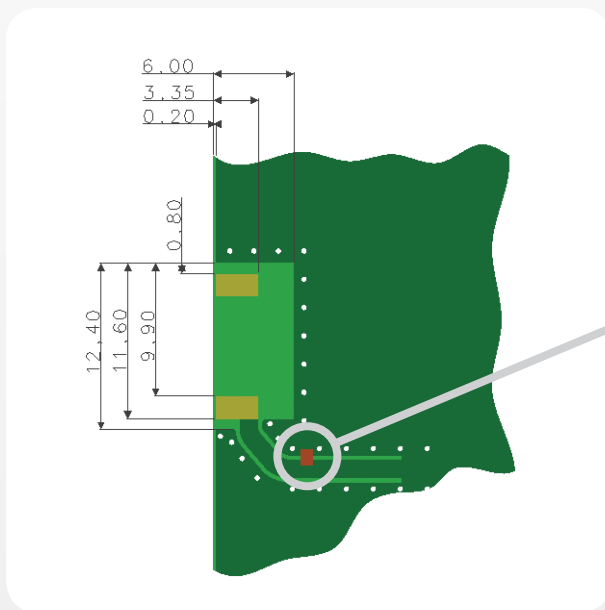
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**Recommended test board layout for electrical characteristic measurement,
test board outline size 80 x 37mm**



Shunt matching inductor,
1.5nH with presented setup.
Exact inductor value depends
on specific application.

Feed line should be designed to match 50 Ω characteristic impedance, depending on PWB material and thickness.

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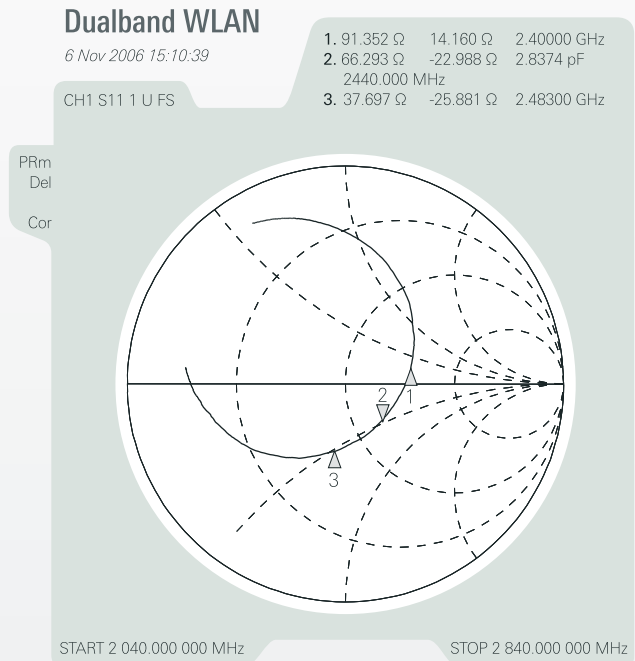
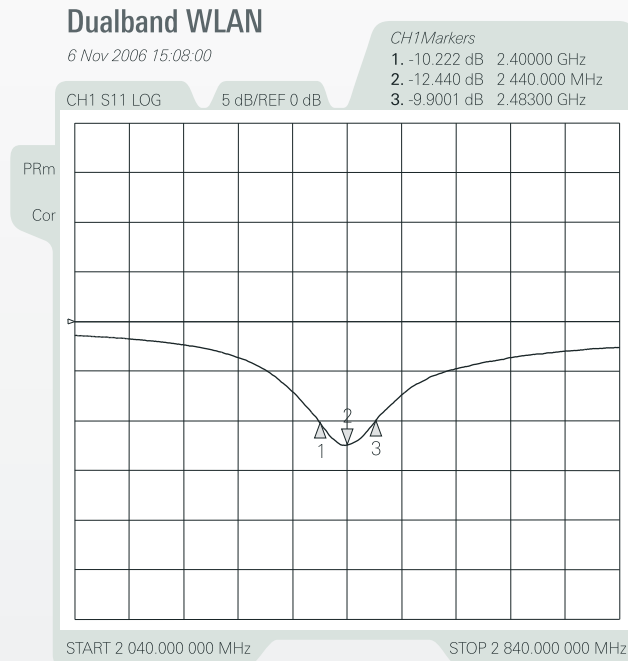
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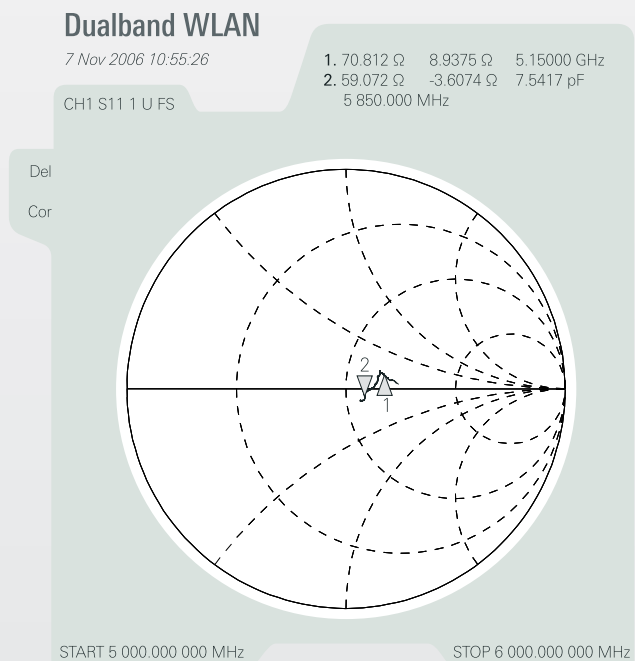
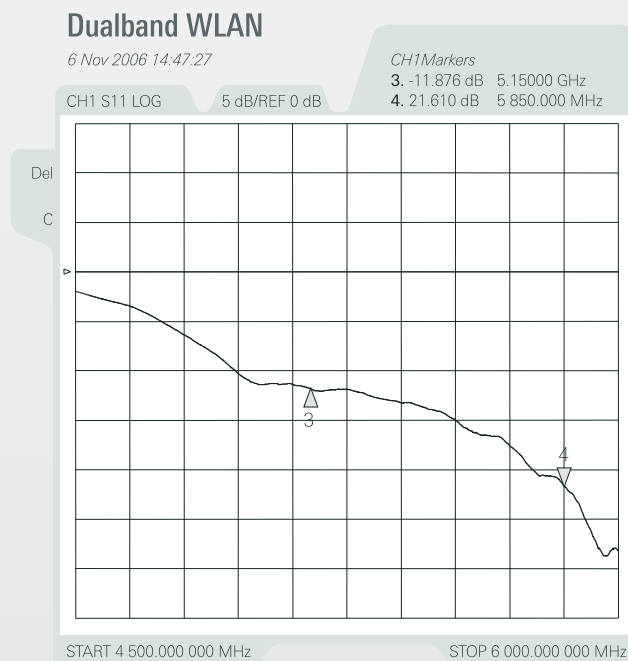
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Typical Electrical Characteristics (T=25 °C)

2,4 GHz Typical Return Loss S11/ impedance, measured on the test board



5GHz Typical Return Loss S11/ impedance, measured on the test board



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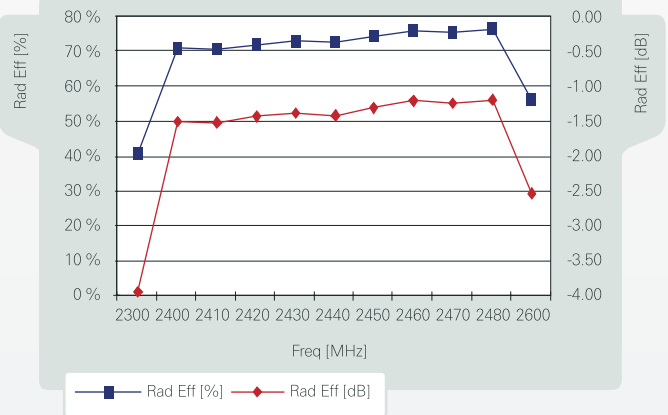
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2,4 GHz free space efficiency and maximum gain

DualBand WiFi 2.4G 10 x 3.2 x 1.5 mm

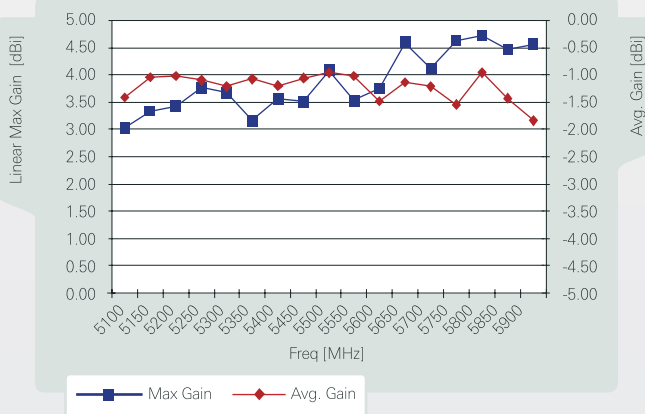


DualBand WiFi 2.4G 10 x 3.2 x 1.5 mm

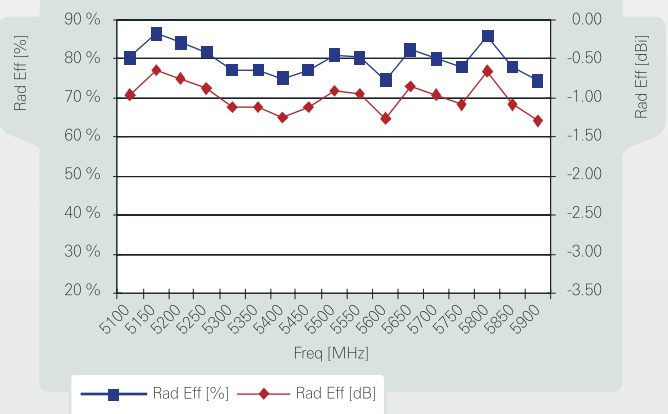


5 GHz free space efficiency and maximum gain

DualBand WiFi 5G 10 x 3.2 x 1.5 mm



DualBand WiFi 5G 10 x 3.2 x 1.5 mm



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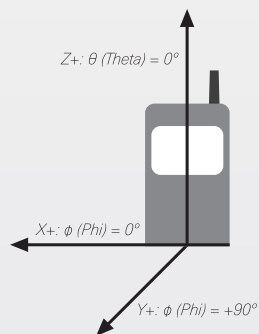
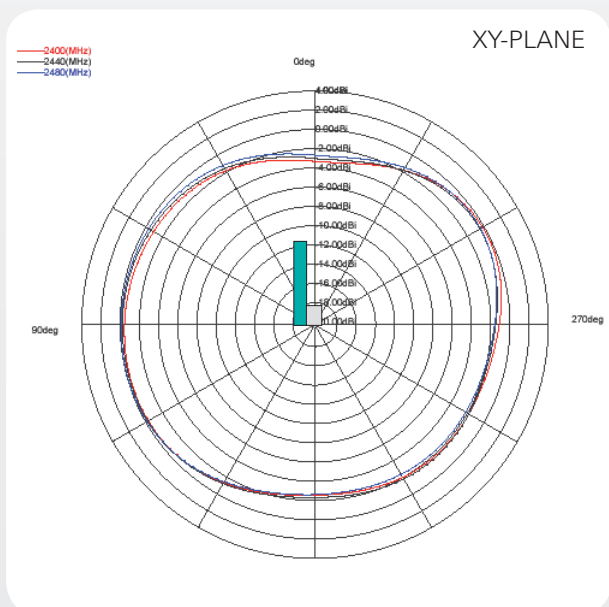
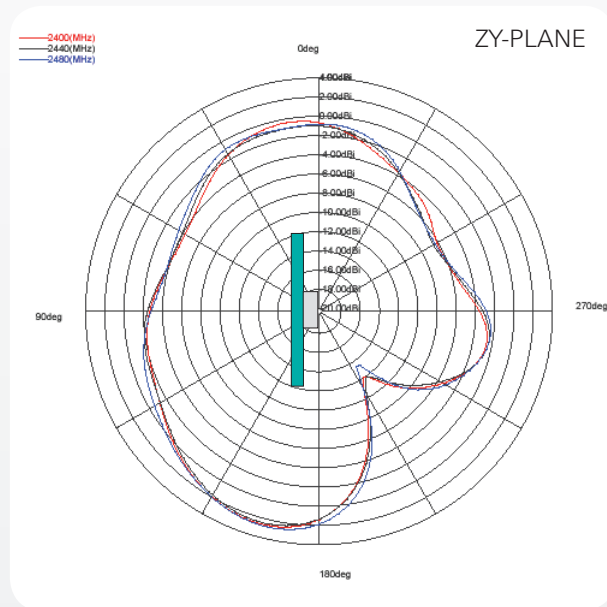
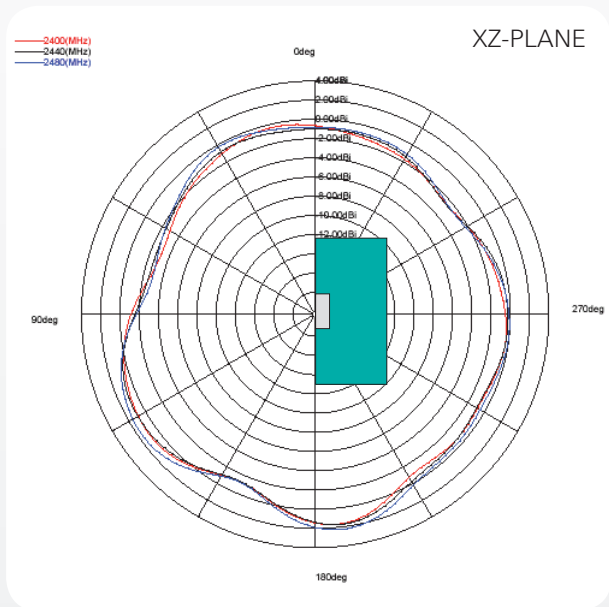


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2,4 GHz Typical Free space Radiation Patterns



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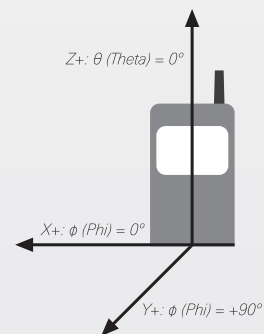
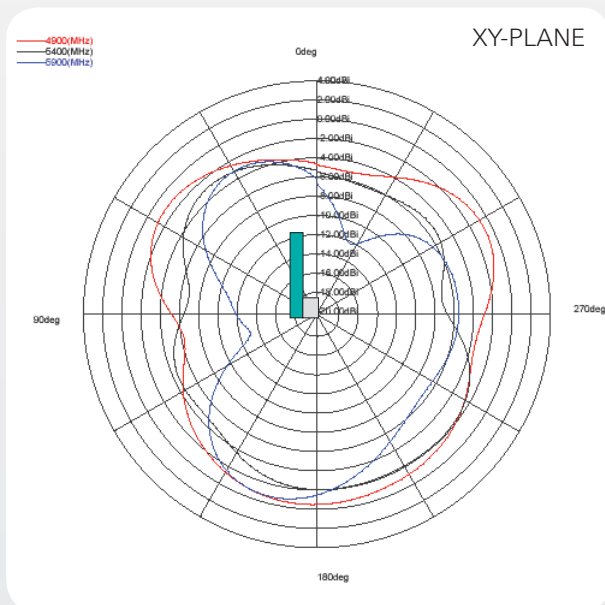
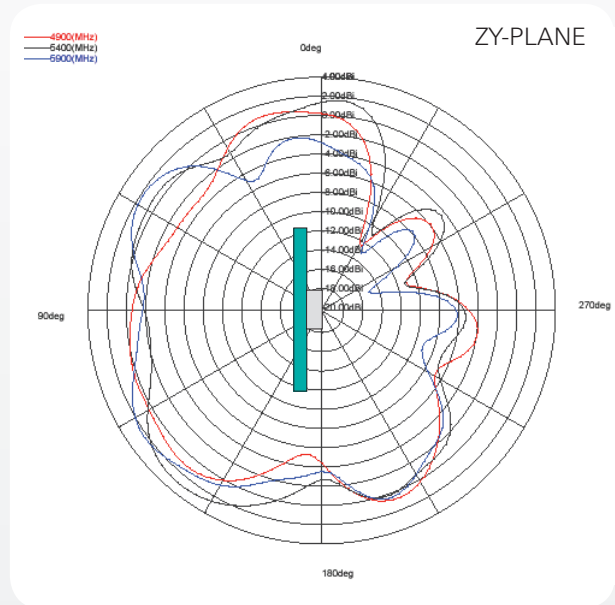
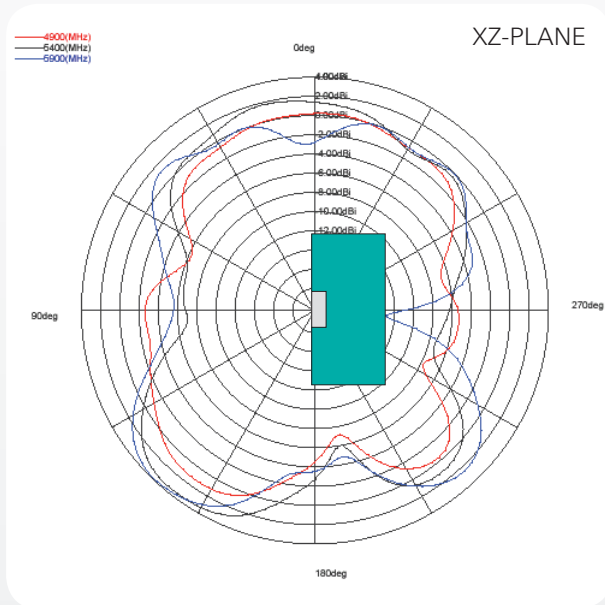


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5 GHz Typical Free space Radiation Patterns



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