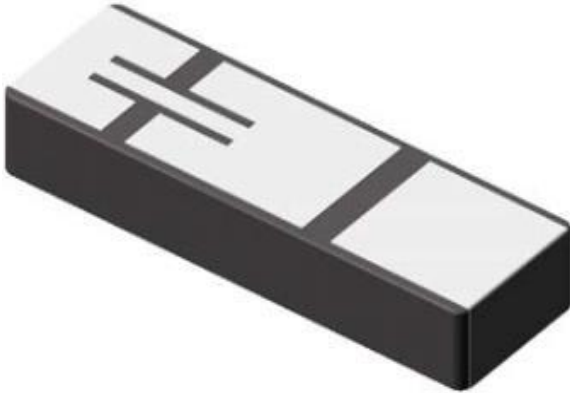


2.4/5 GHz Dualband WiFi Ceramic Chip Antenna

Pulse Part Number CW3006



Features

- Low profile
- Compact size W x L x H (10x 3.2 x 1.5 mm)
- Low weight (240 mg)
- Lead free materials
- Fully SMD compatible
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product

Applications

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

Electrical specifications @ +25 ° C

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

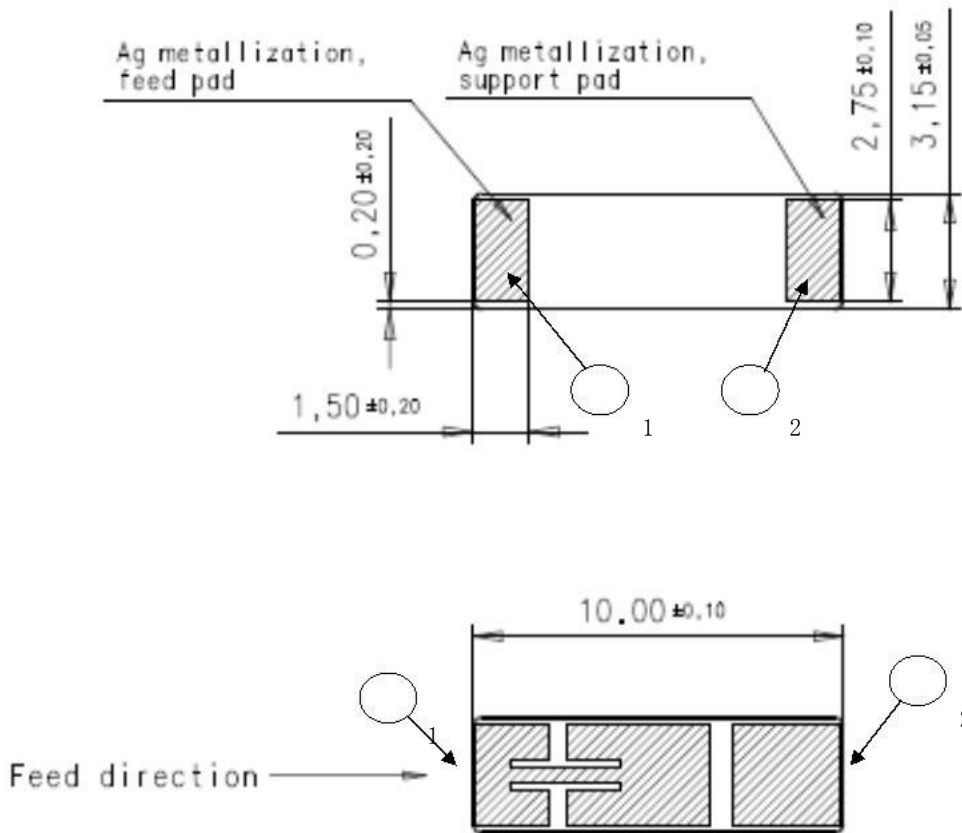
Typical performance (testboard size 80x37 mm, PWB ground clearance area 11.6 x 6.25 mm), 1.5nH shunt inductor used for impedance matching.

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

2.4/5 GHz Dualband WiFi Ceramic Chip Antenna

Pulse Part Number CW3006

Terminal Configuration and antenna dimensions

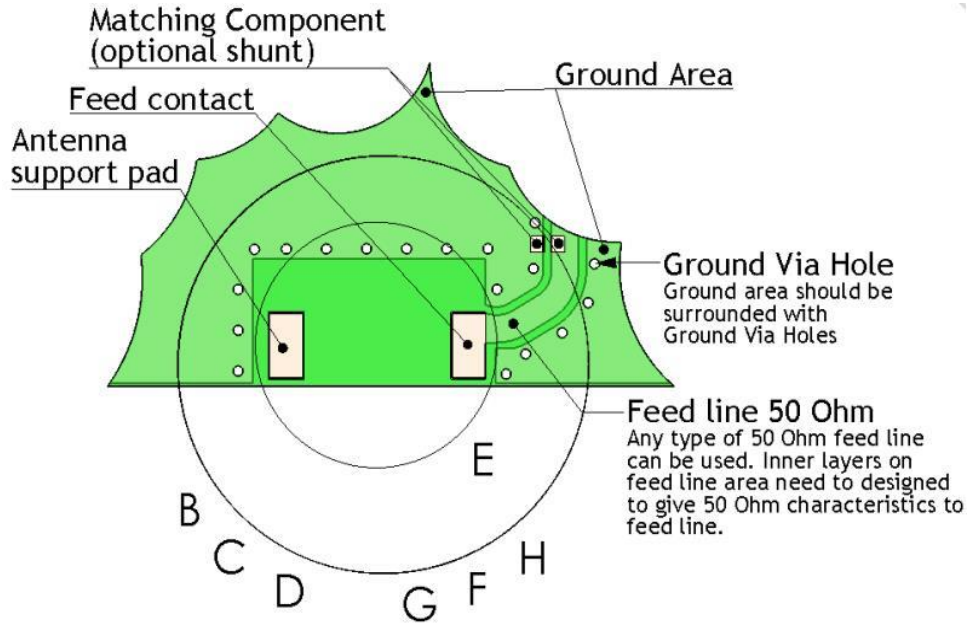


No.	Terminal Name	Terminal Dimensions
1	Feed	1.5 x 2.75 mm
2	Support pad	1.5 x 2.75 mm
Antenna feed pad can be identified by looking top surface metallization pattern		

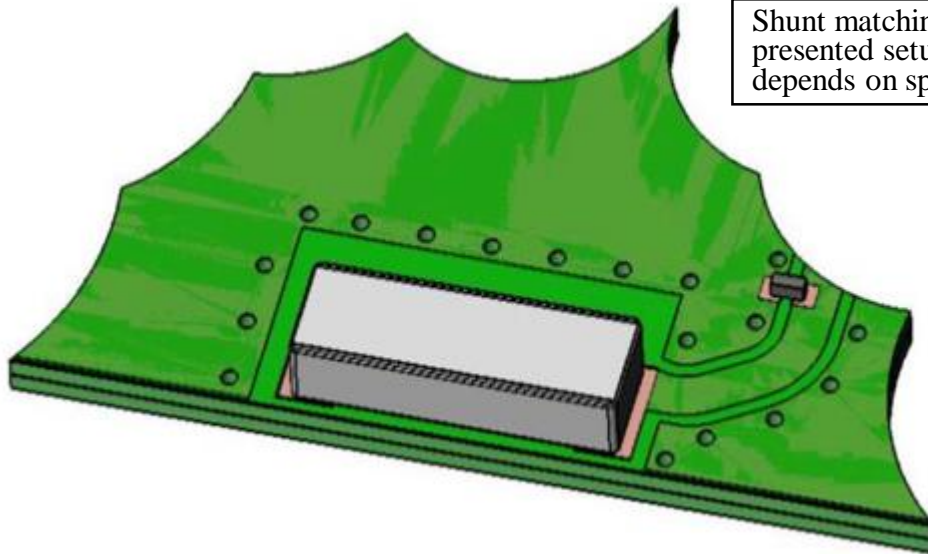
2.4/5 GHz Dualband WiFi Ceramic Chip Antenna

Pulse Part Number CW3006

Terminal Configuration



PWB manufacturing requirements according to IPC-A-600 revision G or similar

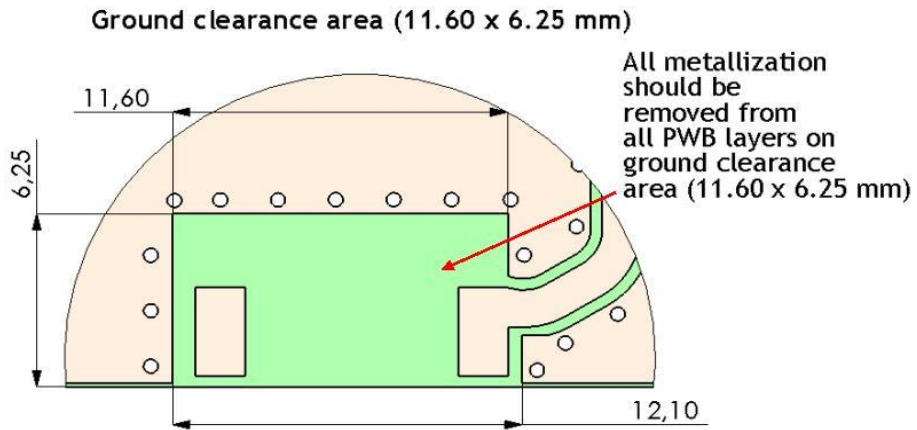


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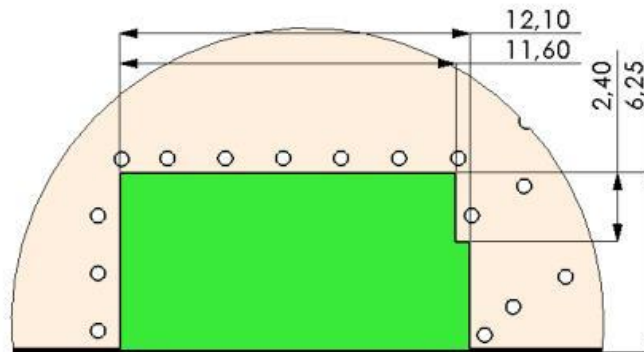
2.4/5 GHz Dualband WiFi Ceramic Chip Antenna

Pulse Part Number CW3006

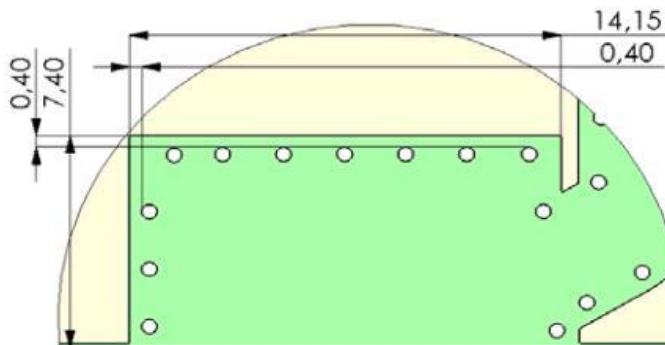
Ground clearance area



Opening in bottom/inner ground layers



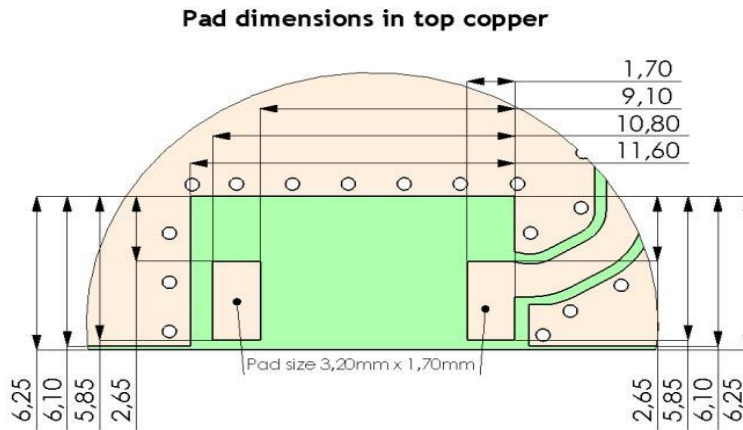
Opening in other layers (no ground/ RF)



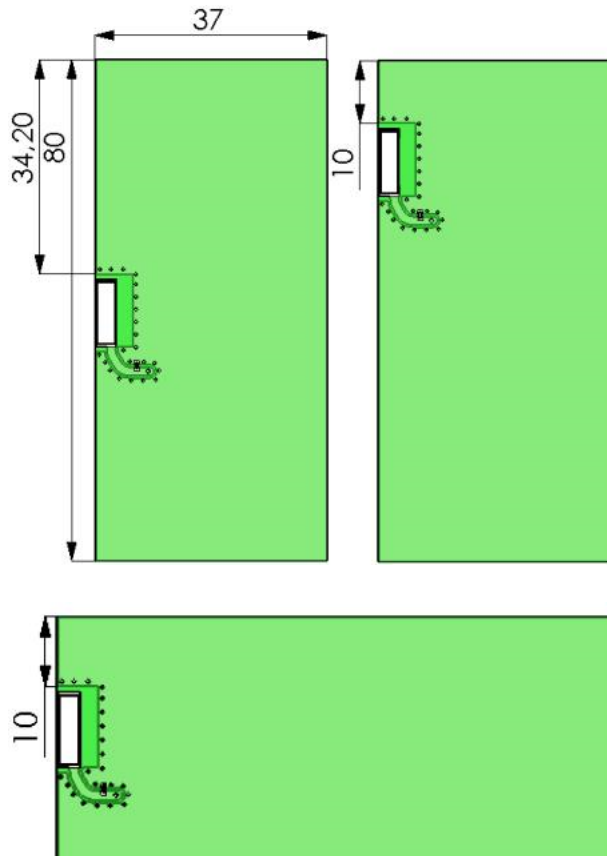
2.4/5 GHz Dualband WiFi Ceramic Chip Antenna

Pulse Part Number CW3006

Recommended Antenna Pad Dimensions on PWB Layout (top surface)



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



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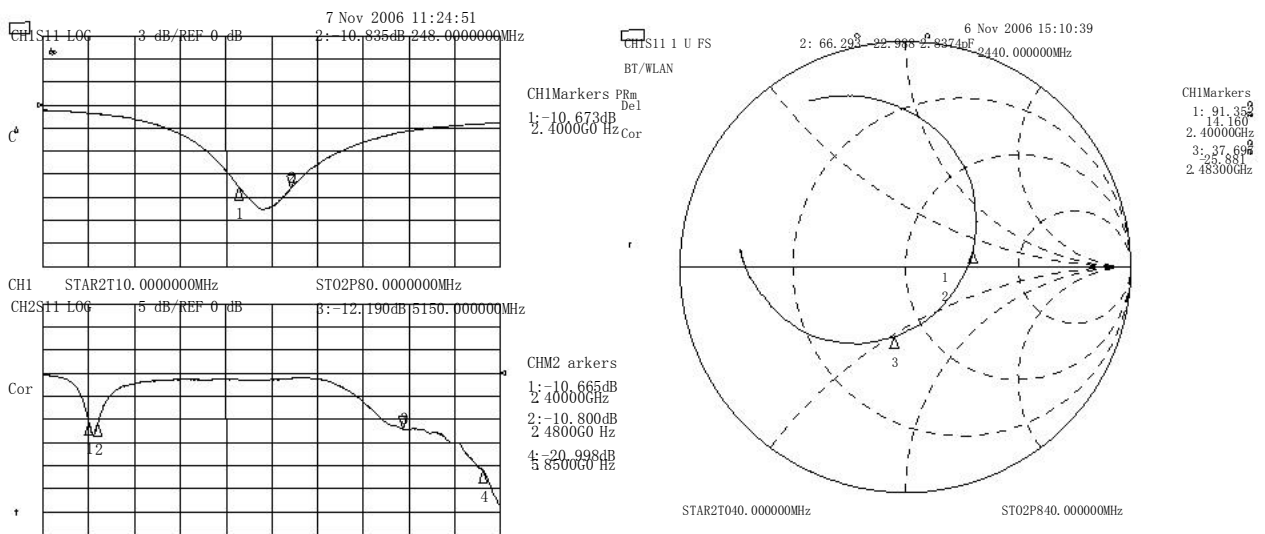
2.4/5 GHz Dualband WiFi Ceramic Chip Antenna

Pulse Part Number CW3006

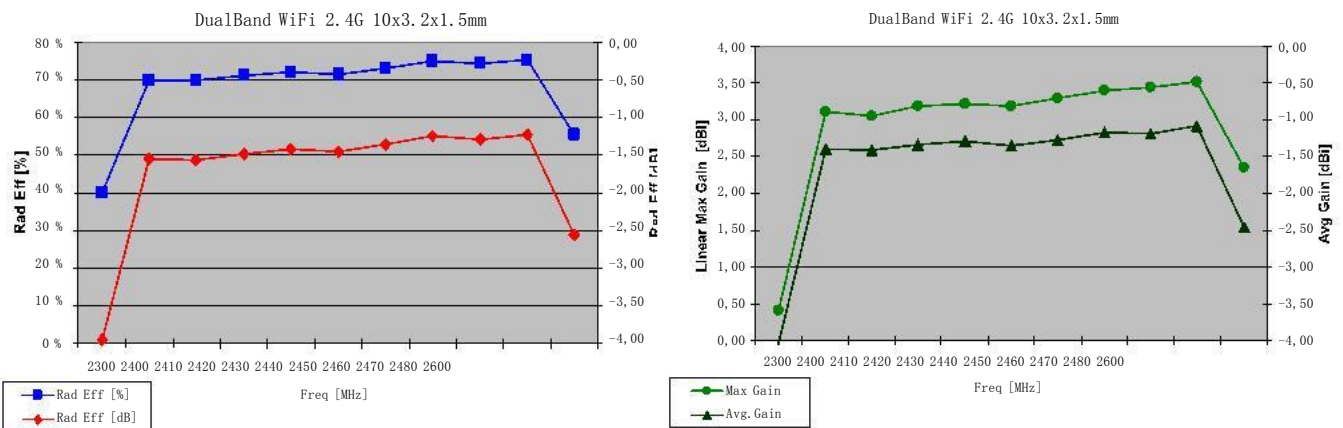
2.4 GHz Typical Electrical Characteristics (T=25 °C)

Measured on the 80 x 37mm test board with matching circuit (shunt 1.5 nH)

Typical Return Loss S11/ impedance



Typical free space efficiency and maximum gain



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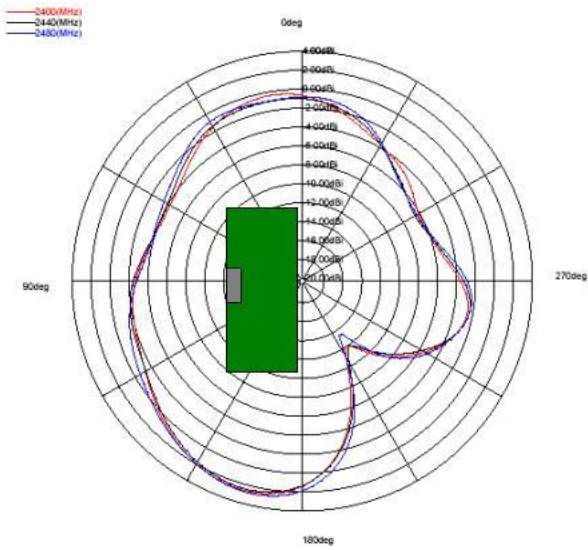


2.4/5 GHz Dualband WiFi Ceramic Chip Antenna

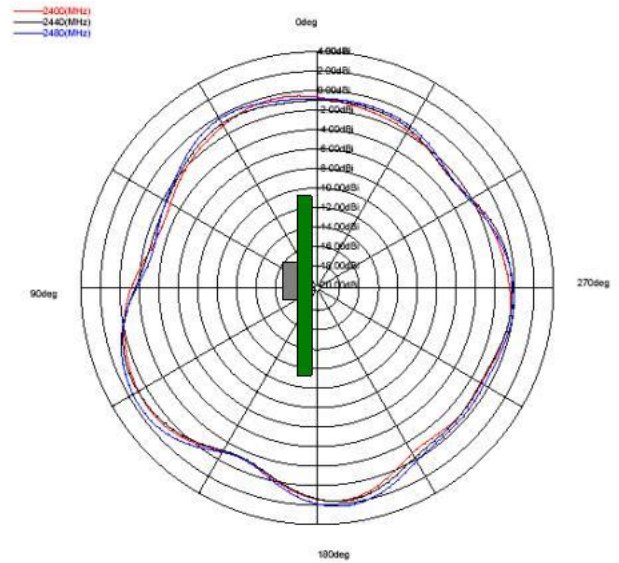
Pulse Part Number CW3006

2.4 GHz Typical Free Space Radiation Patterns

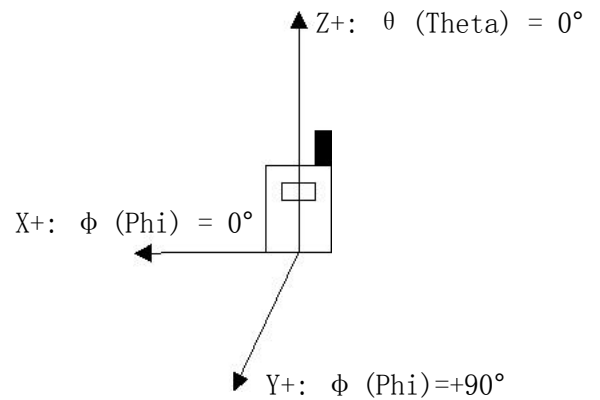
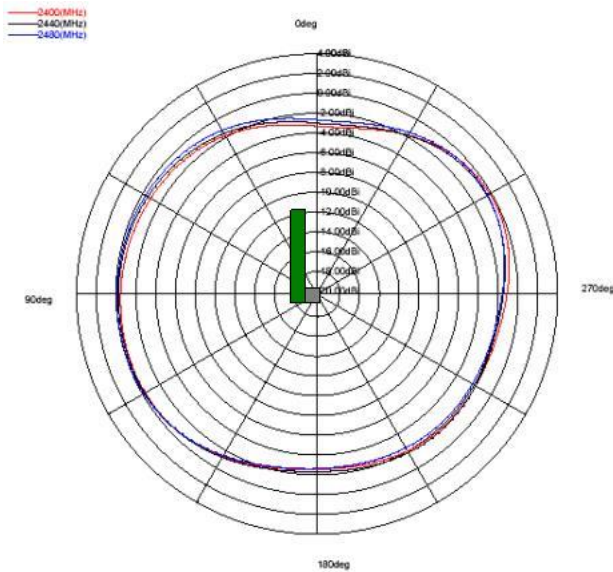
XZ-PLANE



ZY-PLANE



XY-PLANE



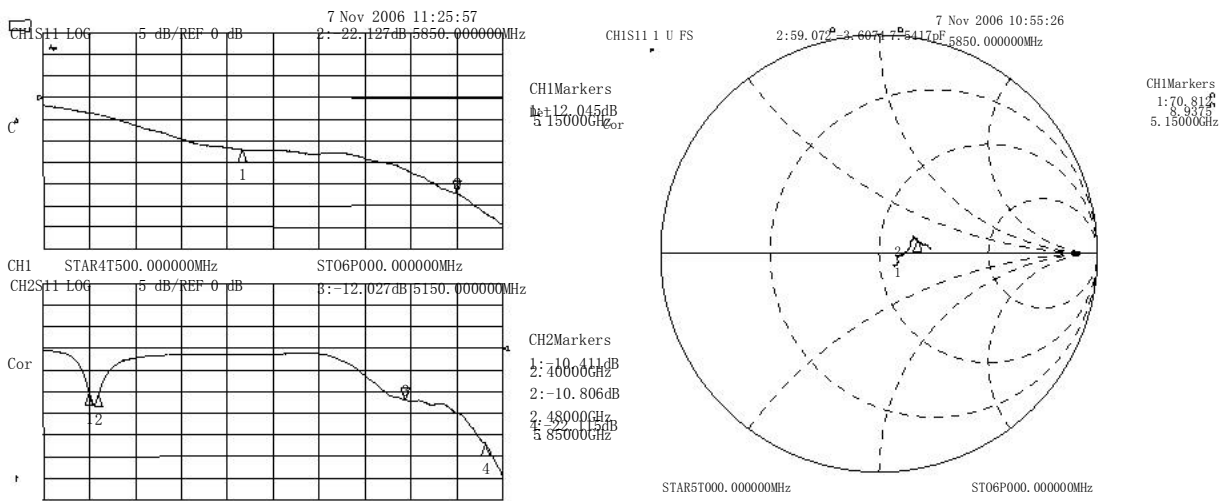
2.4/5 GHz Dualband WiFi Ceramic Chip Antenna

Pulse Part Number CW3006

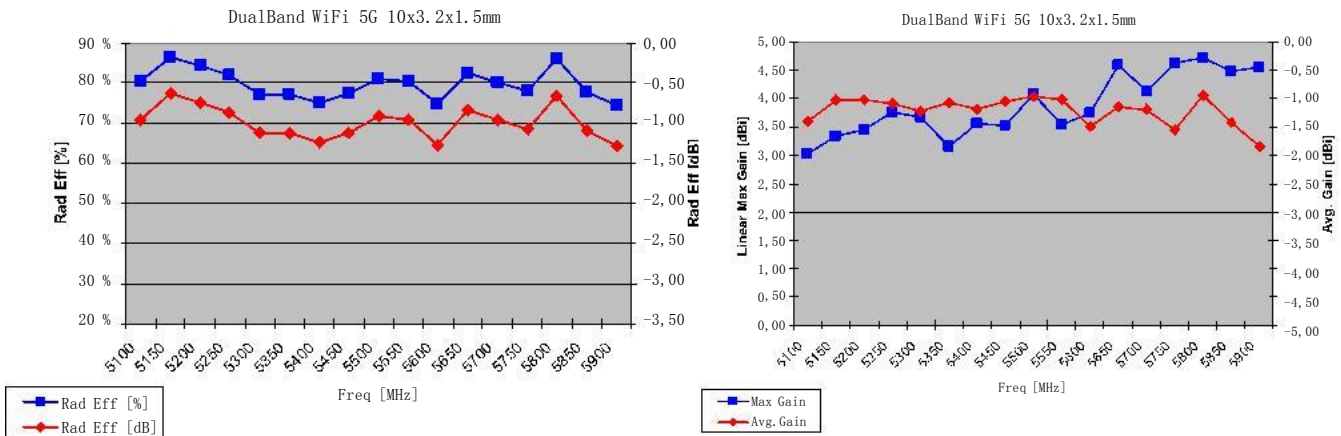
5 GHz Typical Electrical Characteristics (T=25 °C)

Measured on the 80 x 37mm test board with matching circuit (shunt 1.5 nH)

Typical Return Loss S11/ impedance



Typical free space efficiency and maximum gain



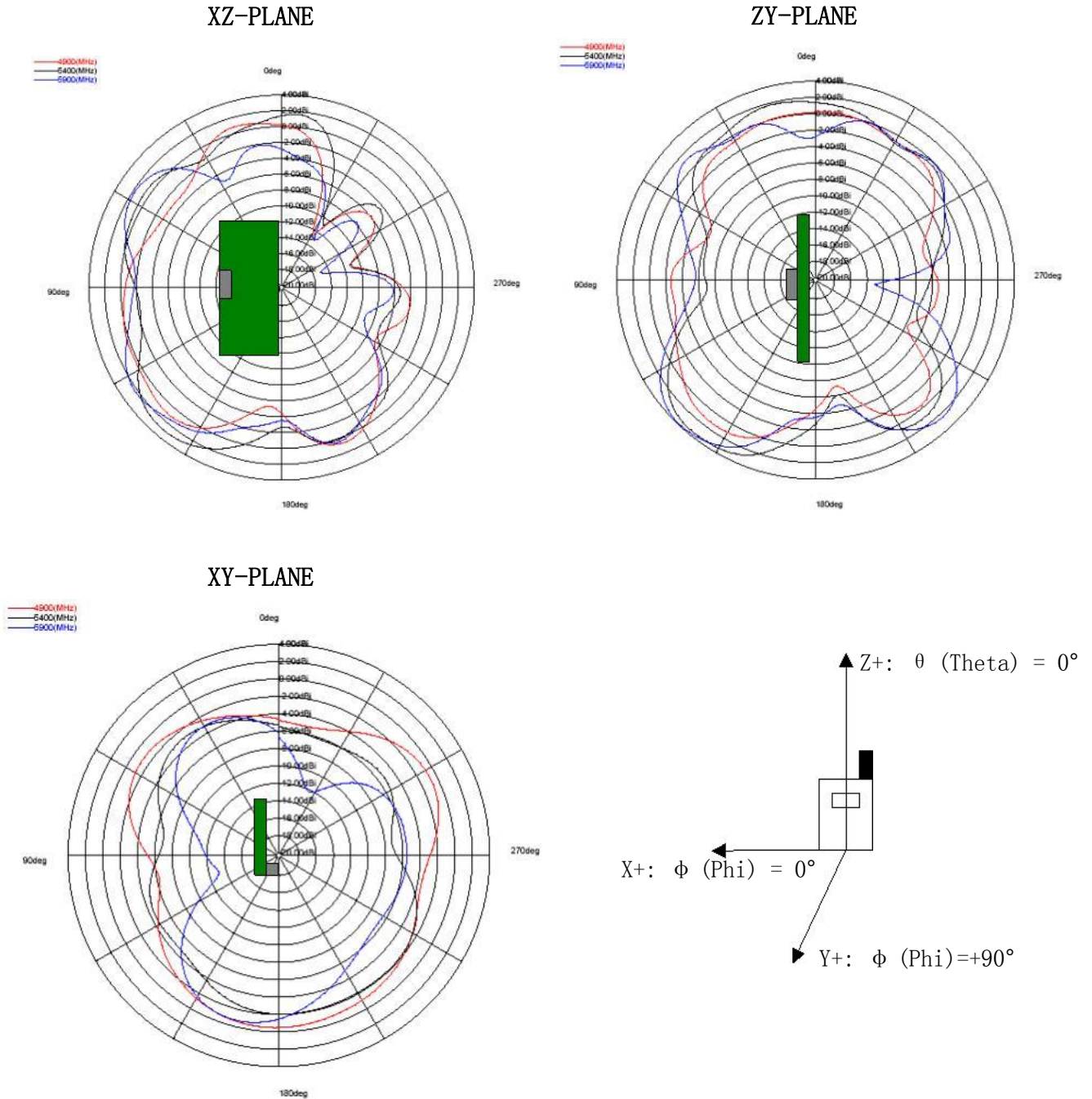
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2.4/5 GHz Dualband WiFi Ceramic Chip Antenna

Pulse Part Number CW3006

5 GHz Typical Free Space Radiation Patterns



Contact: mobiledeviceantenna.sales@pulseelectronics.com