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2.4 GHz Helical WiFi SMD Antenna

Ground cleared under antenna, clearance area 7.50 x 5.50 mm. Pulse Part Number: W3108



Features

- Low profile (5.5 mm)
- Compact size W x L x H (5.0 x 2.5 x 5.5 mm)
- Low weight (140 mg)
- Lead Free materials
- Fully SMD compatible
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product

Applications

- IEEE 802.11b/g
- Bluetooth
- WiFi
- 2.4 GHz WLAN
- 2.4 GHz ISM Band Systems
- ZigBee IEEE 802.15.4

Engineering samples available

Electrical specifications @ +25 °C

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

2.4 GHz WiFi

Typical performance (testboard size 100 x 40 mm, PWB ground clearance area 7.5 x 5.5 mm)
Values below are measured inside typical mobile phone chassis including all mechanics

Frequency Range [MHz]	Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [°C]
2400 – 2483.5	1.5	50 / -3	-8	50	-40 to +85

Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501
www.pulseeng.com/antennas

Pulse
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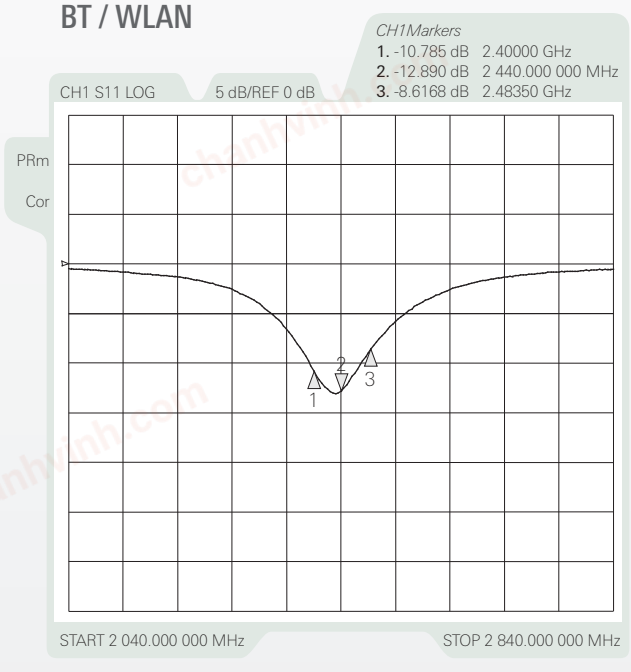
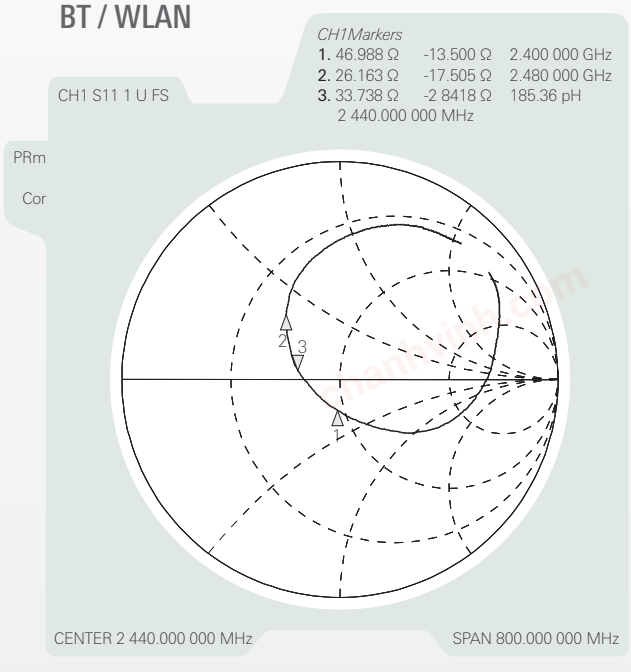
Typical Electrical Characteristics (T=25 °C)

Measured on basic chassis including PWB, display, battery and plastic covers. Chassis size abt. 17 x 40 x 100 mm.
Typical Return Loss S11/ impedance

BT / WLAN

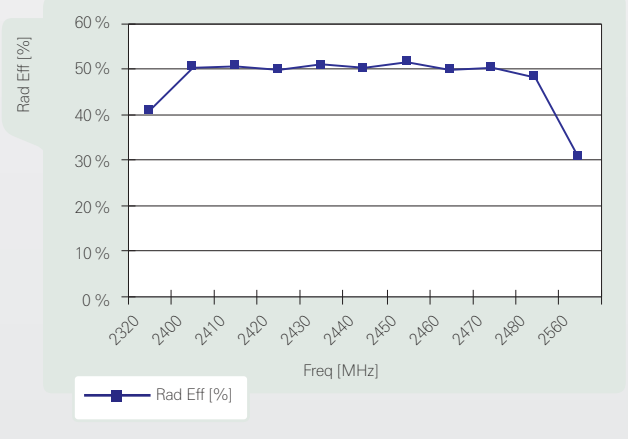


BT / WLAN



Free space efficiency and maximum gain, PWB ground clearance area 6.00 x 11.00 mm

Wlan 2,4 GHz GC Helix



Wlan 2,4 GHz GC Helix



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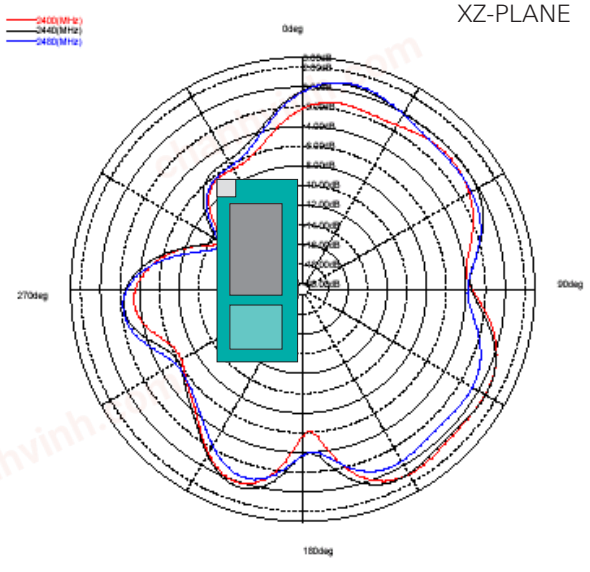
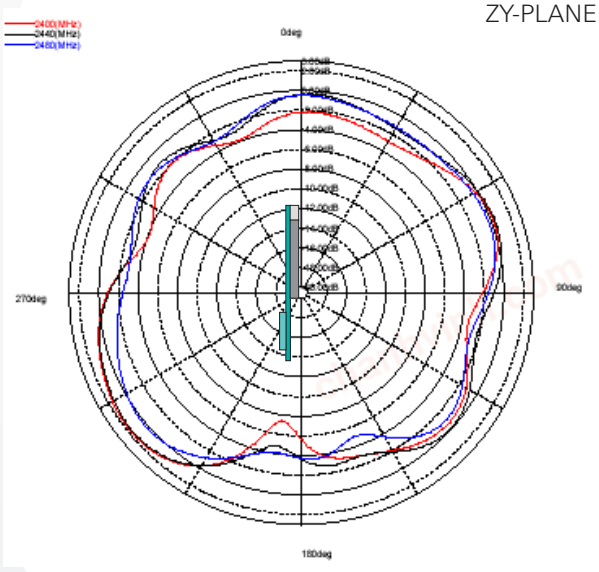
Typical Free space Radiation Patterns

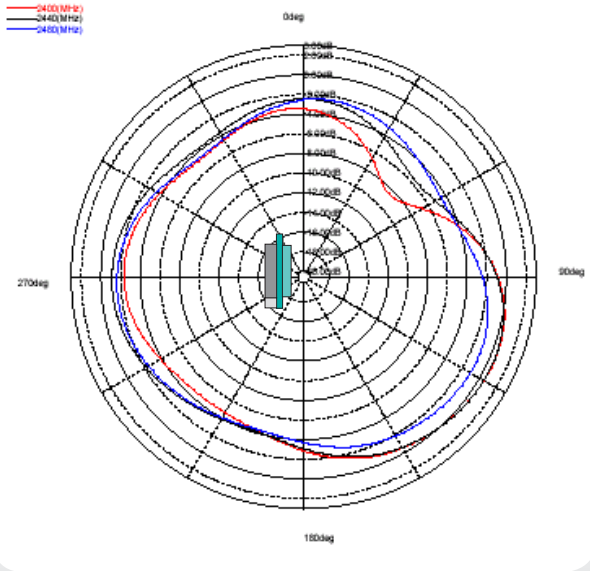
XZ-PLANE

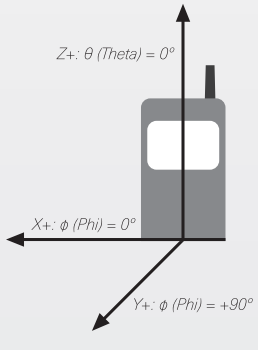


ZY-PLANE



XY-PLANE





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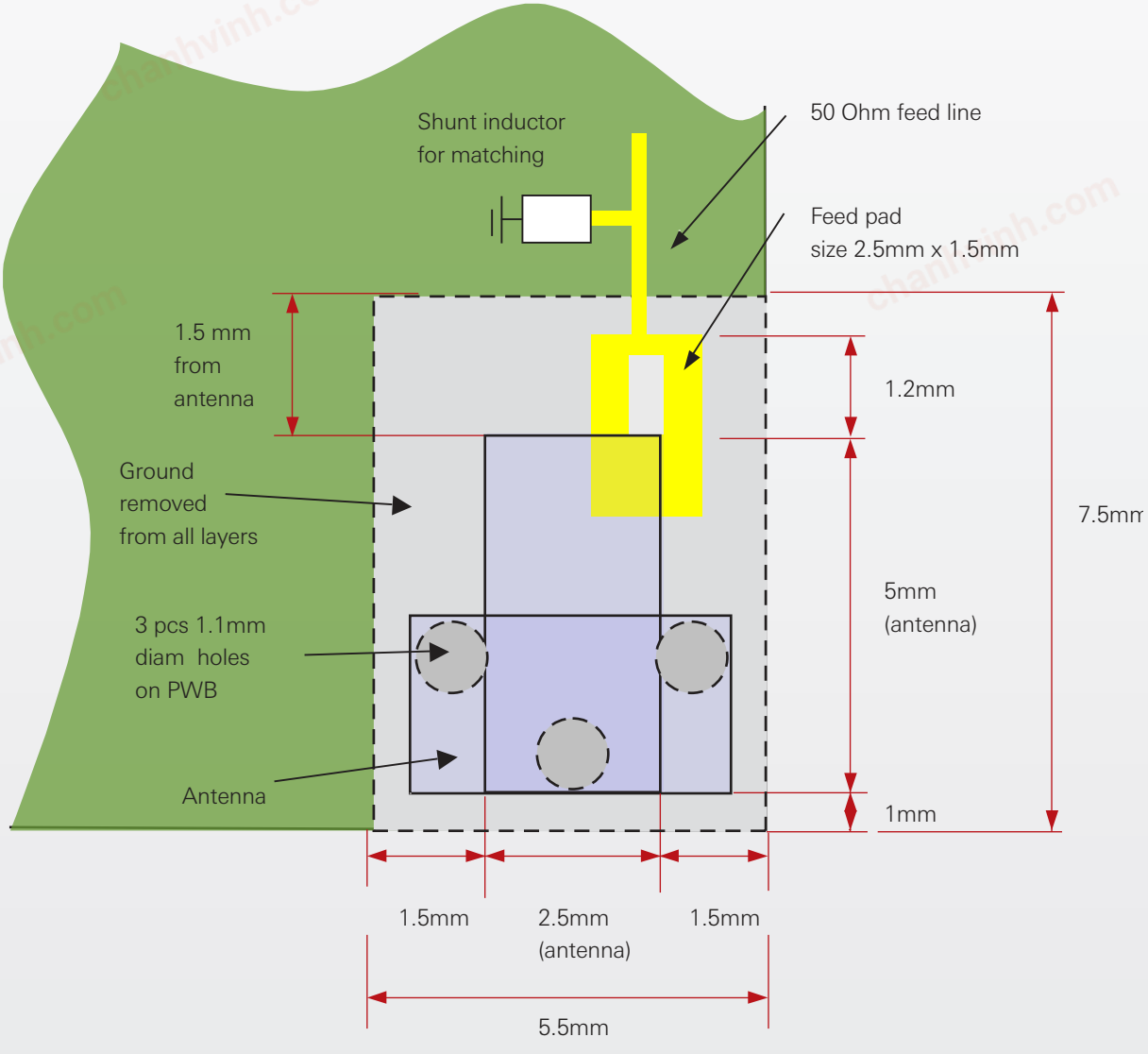
Recommended pad layout and guard distances

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



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