Bluetooth / WLAN / WiFi Antenna

Ceramic Chip Antenna (ground cleared under antenna)

Pulse Part Number: **W3300**



Features

- Omni directional radiation
- Low profile
- Compact size W x L x H (3.2 x 1.6 x 1.1 mm)
- Low weight (33 mg)
- Fully SMD compatible
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product

Applications

- Bluetooth, WLAN, WiFi
- IEEE 802.11b/g
- ZigBee IEEE 802.15.4
- 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.

W3300 Bluetooth / WLAN / WiFi

*Typical performance (test board size 80x37 mm, PWB ground clearance area **4.00 x 6.25 mm**)*

Frequency Range [MHz]	Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [°C]
2400 – 2483.5	2,2 (peak) 1,9 (band edges)	75 / -1,3 (peak) 70 / -1,6 (band edges)	-11	50	-40 to +85

Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501

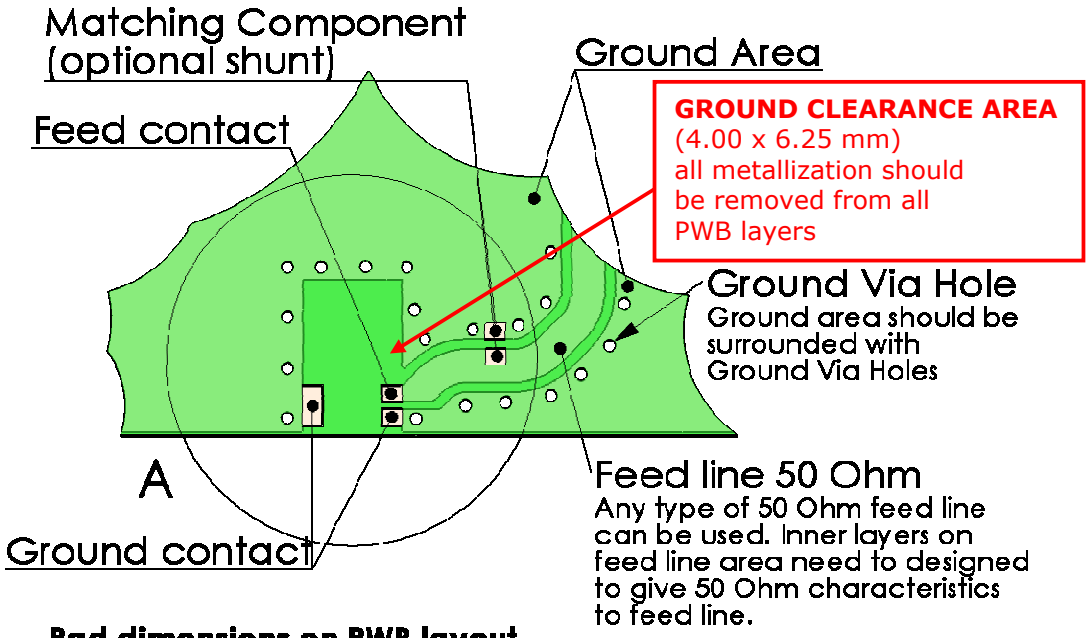
Domicile: Kempele
Business ID: 1933992-8
firstnamelastname@pulseeng.com
www.pulseeng.com/antennas

Pulse
A TECHNITROL COMPANY

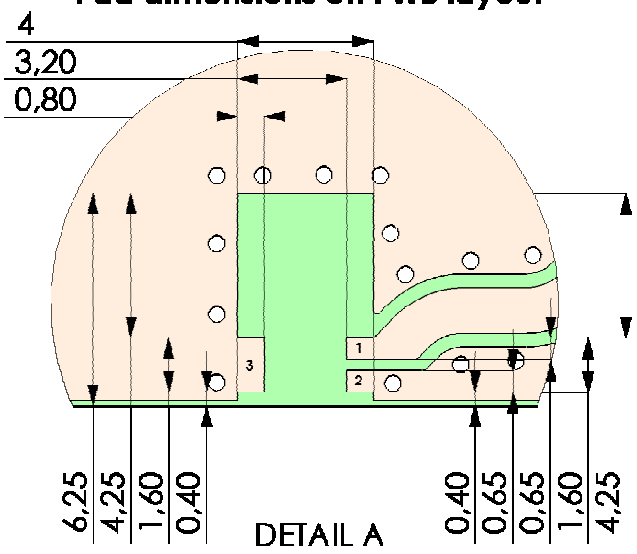
© 2006. All Rights Reserved.

Terminal Configuration

PWB Layout



Pad dimensions on PWB layout



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

PWB features		
No.	Terminal Name	Terminal Dimensions
1	Feed	0.8 x 0.65 mm
2	GND	0.8 x 0.65 mm
3	GND	0.8 x 1.60 mm

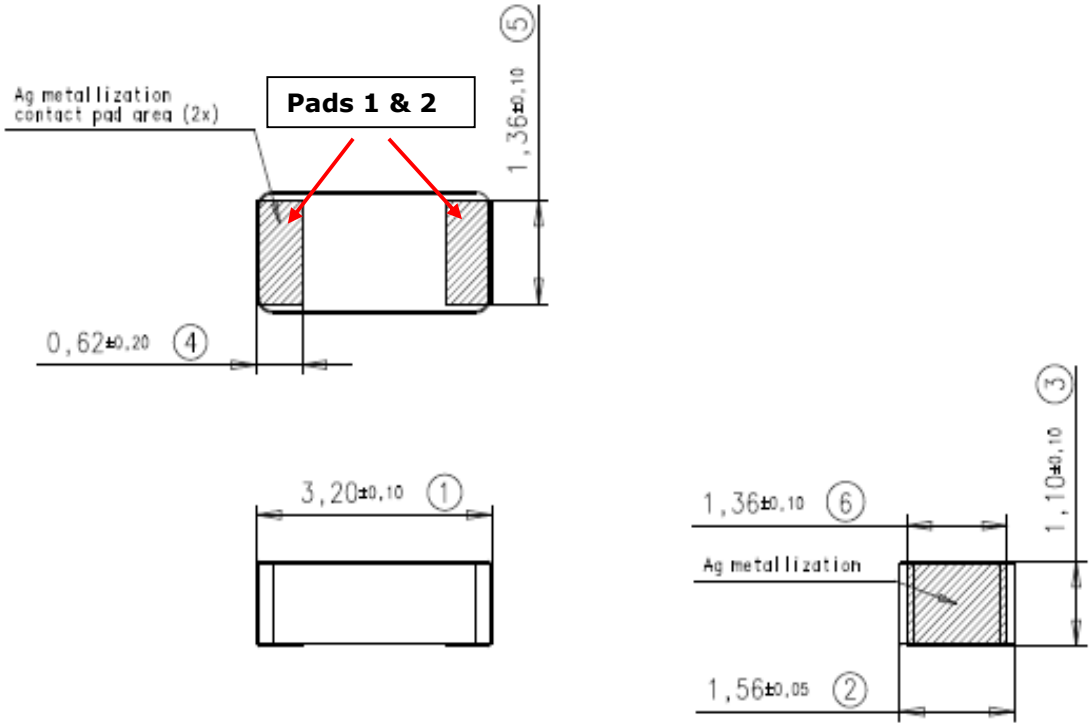
Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501

Domicile: Kempele
Business ID: 1933992-8
firstnamelastname@pulseeng.com
www.pulseeng.com/antennas

© 2006. All Rights Reserved.

Terminal Configuration

Antenna soldering pads



Antenna features		
No.	Terminal Name	Terminal Dimensions
1	Feed / GND	0.62 x 1.36 mm
2	Feed / GND	0.62 x 1.36 mm
Antenna is symmetrical. Either of terminals 1 or 2 can be Feed / GND		

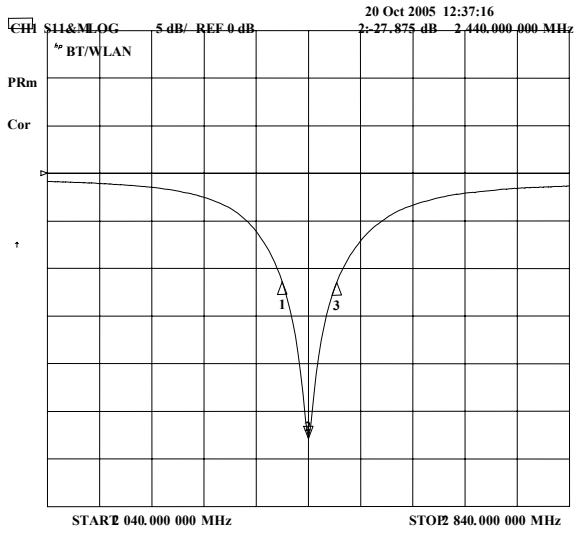
Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501

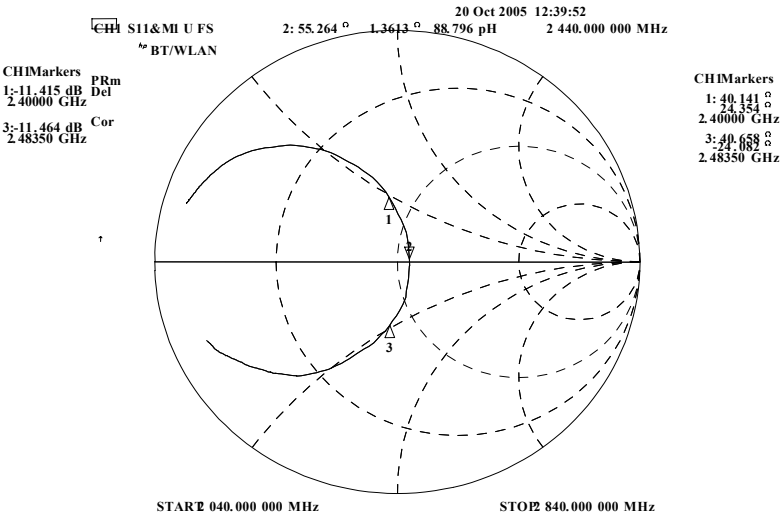
Domicile: Kempele
Business ID: 1933992-8
firstnamelastname@pulseeng.com
www.pulseeng.com/antennas

© 2006. All Rights Reserved.

Typical Electrical Characteristics (T=25 °C)

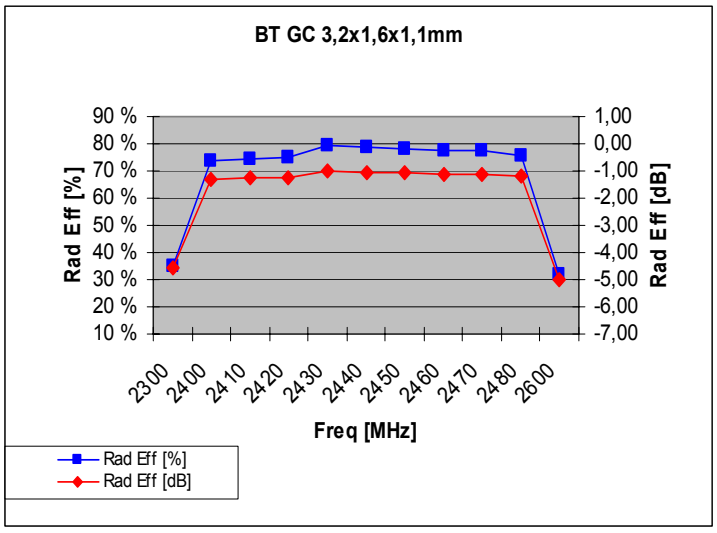
Typical Return Loss S11/ impedance, measured on the test board

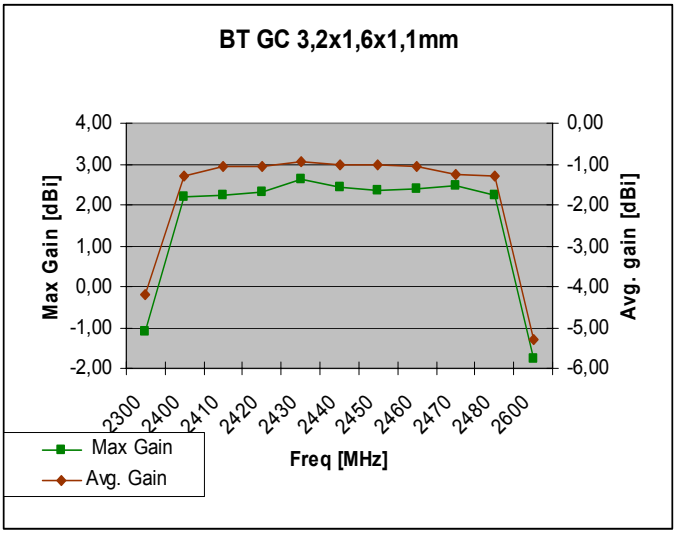




Free space efficiency and maximum gain / PWB ground clearance area

4.00 x 6.25 mm





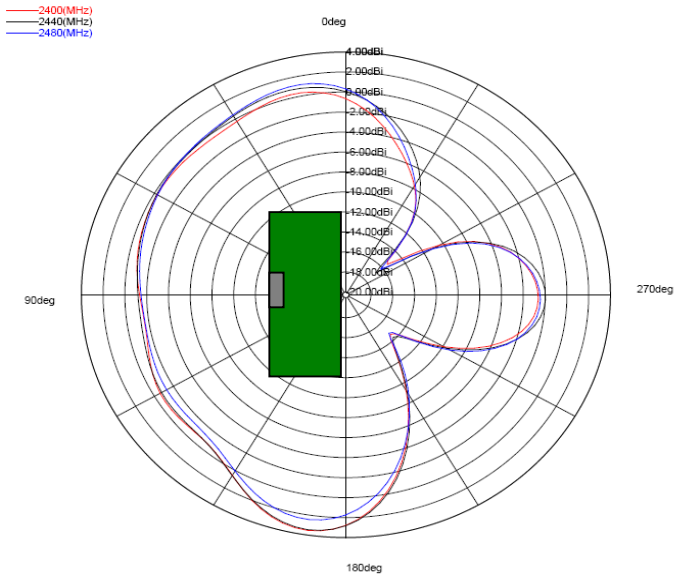
Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501

Domicile: Kempele
Business ID: 1933992-8
firstnamelastname@pulseeng.com
www.pulseeng.com/antennas

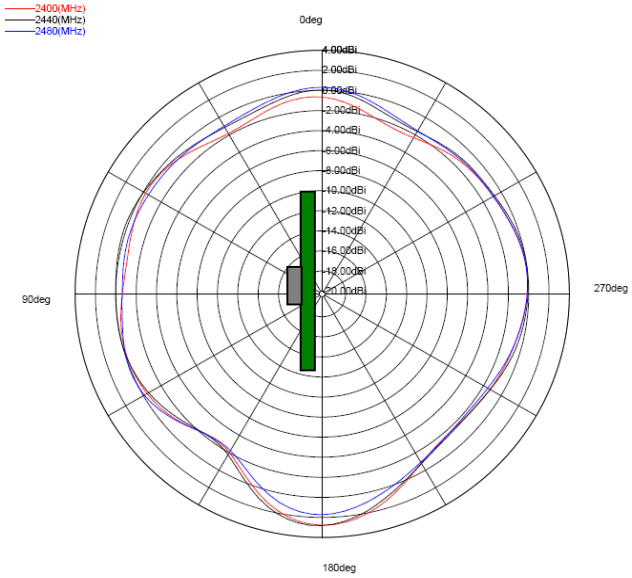
© 2006. All Rights Reserved.

Typical Free space Radiation Patterns

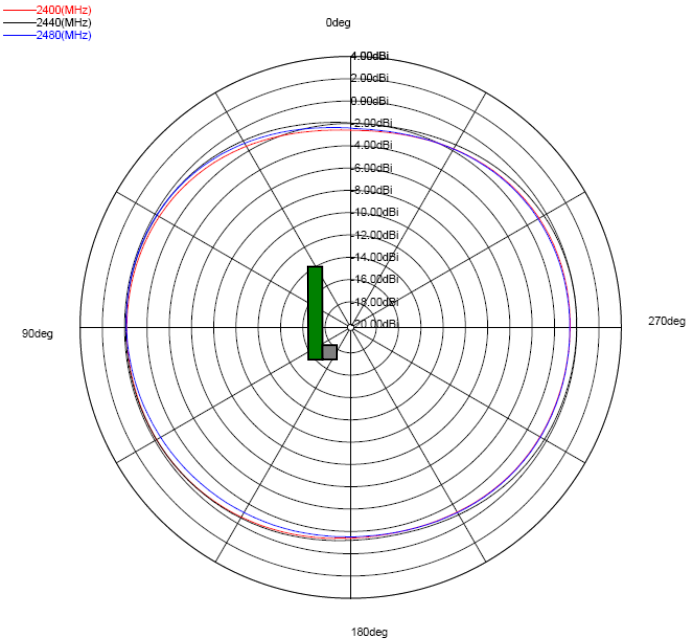
XZ-PLANE

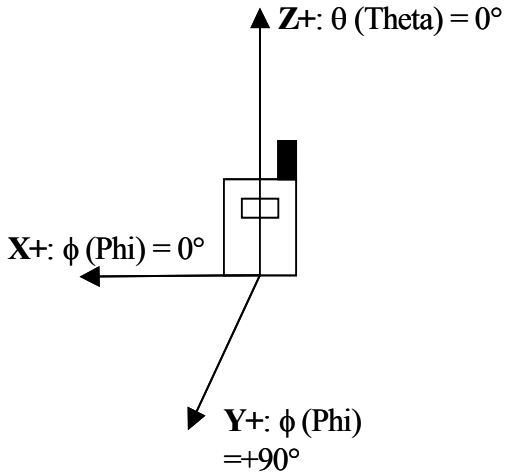


ZY-PLANE



XY-PLANE



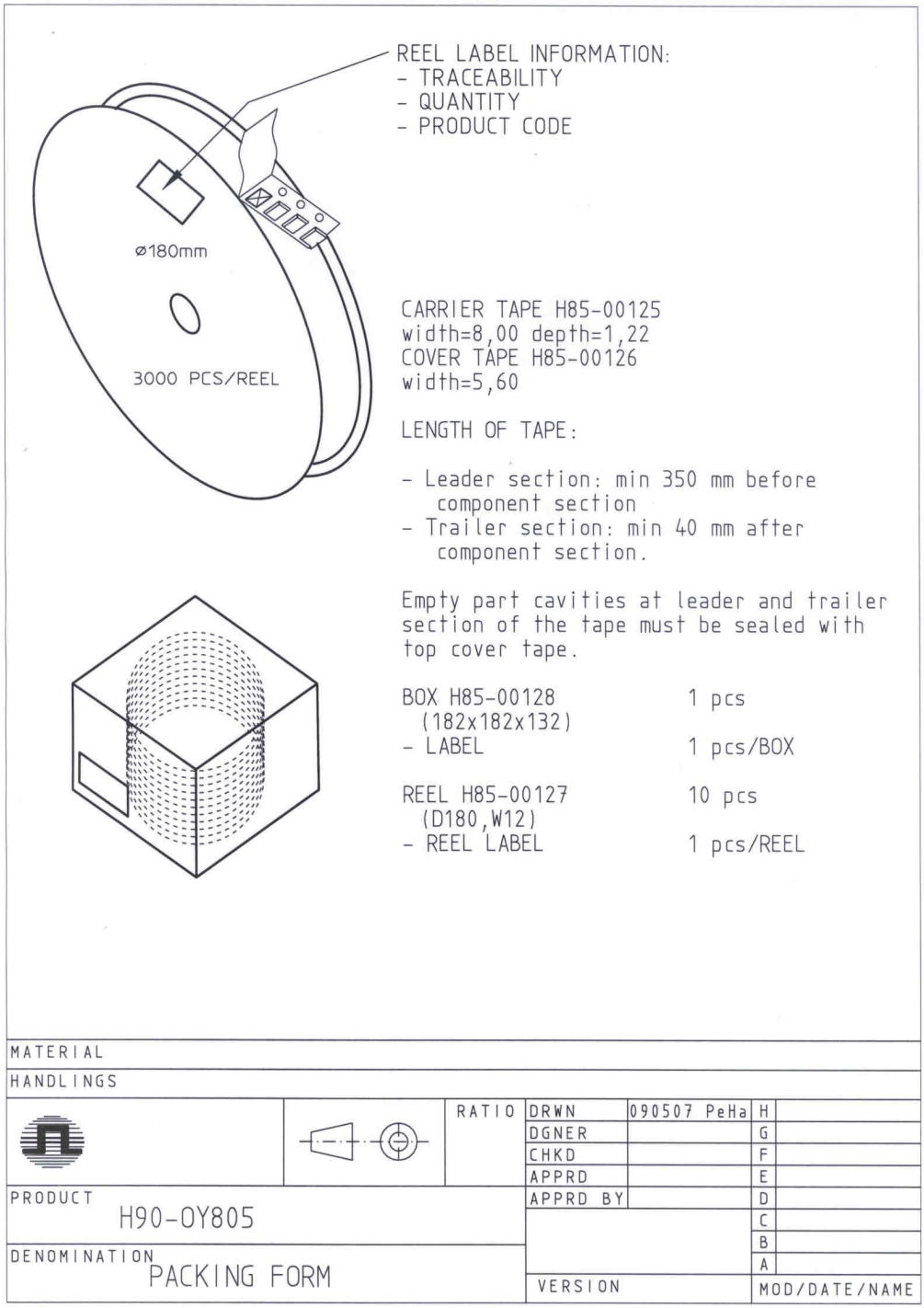


Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501

Domicile: Kempele
Business ID: 1933992-8
firstnamelastname@pulseeng.com
www.pulseeng.com/antennas

© 2006. All Rights Reserved.

Packing form



Pulse Finland Oy
Takatie 6
90440 Kempele, Finland
Tel: +358 207 935 500
Fax: +358 207 935 501

Domicile: Kempele
Business ID: 1933992-8
firstnamelastname@pulseeng.com
www.pulseeng.com/antennas

© 2006. All Rights Reserved.