

# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

Ground cleared under antenna, clearance area 4.00 x 4.25/6.25 mm. Pulse Part Number W3008, W3008C



## 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.*

### Bluetooth, W3008

Typical performance (test board size 80x37 mm, PWB ground clearance area 4.00 x 4.25 mm)

Frequency Range [MHz]	Linear Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [ $\Omega$ ]	Operating Temperature [°C]
2400–2483.5	1.7 (Peak) 0.7 (Band edges)	70 / -1.6 (Peak) 55 / -2.6 (Band edges)	-8	50	-40 to +85

### Bluetooth / WLAN / WiFi, W3008C

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

Frequency Range [MHz]	Linear Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [ $\Omega$ ]	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

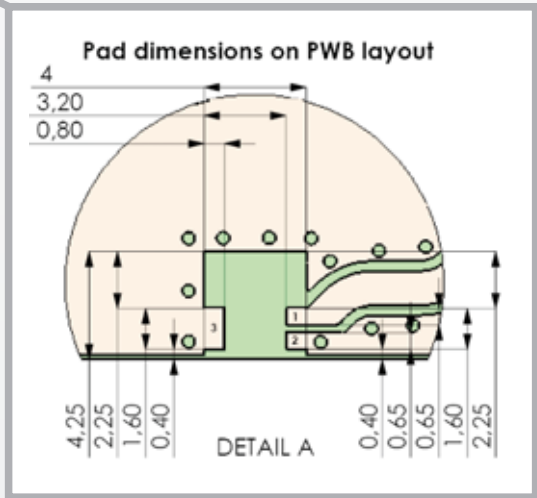
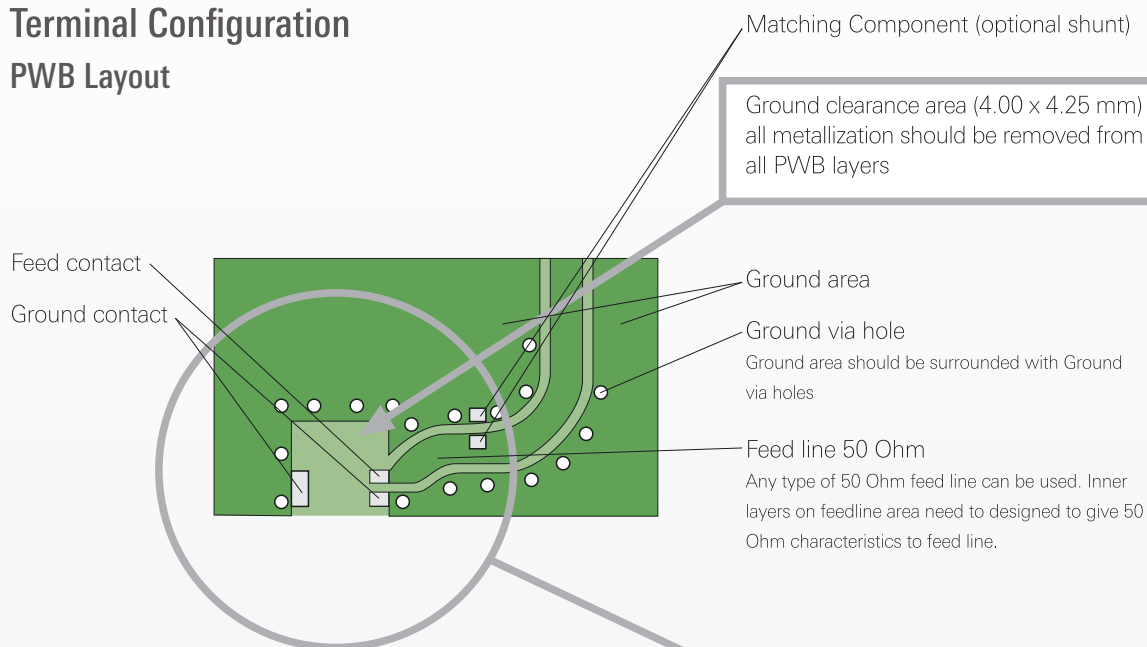
Takatie 6  
90440 Kempele, Finland  
Tel: +358 207 935 500  
Fax: +358 207 935 501  
[www.pulseeng.com/antennas](http://www.pulseeng.com/antennas)



# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

## Terminal Configuration

### PWB Layout



### 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

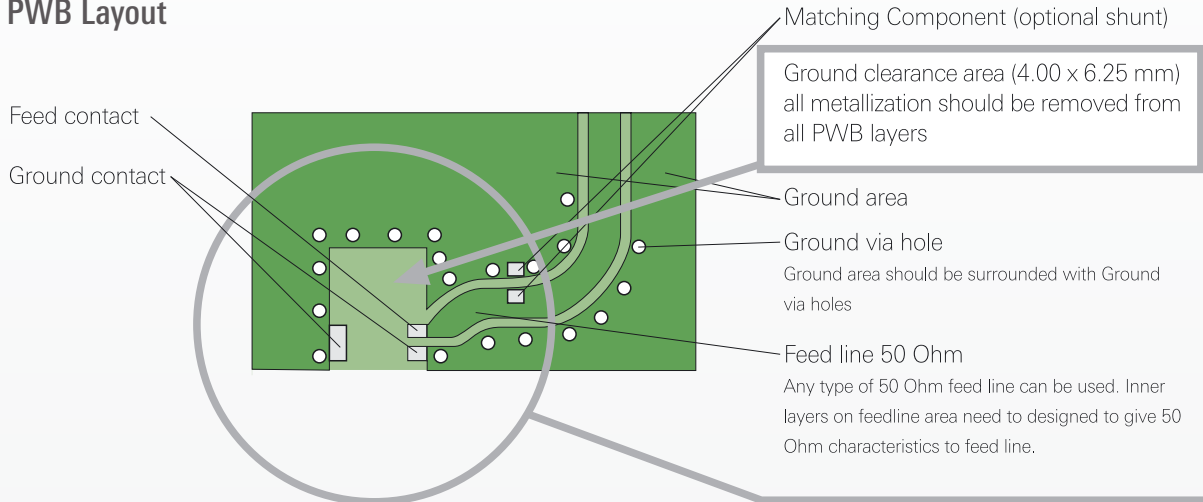
Takatie 6  
90440 Kempele, Finland  
Tel: +358 207 935 500  
Fax: +358 207 935 501  
[www.pulseeng.com/antennas](http://www.pulseeng.com/antennas)



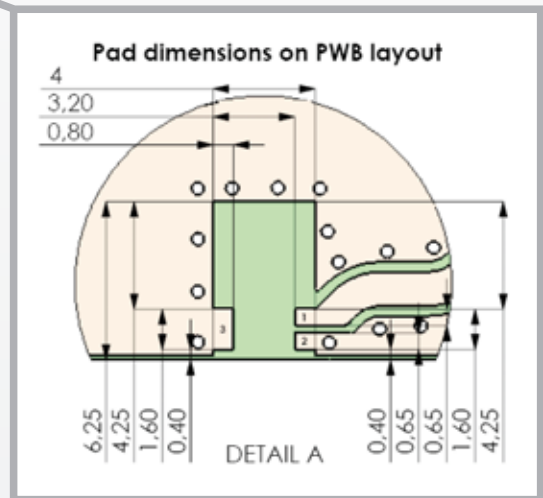
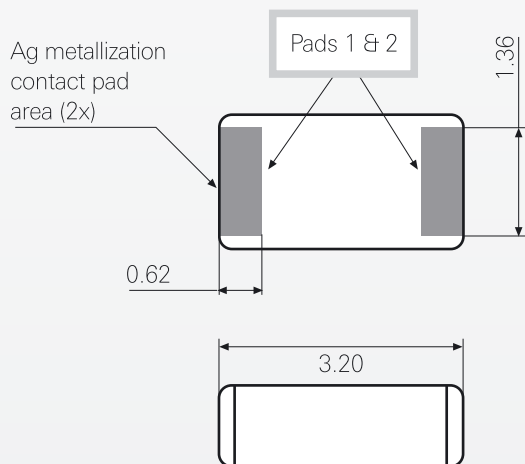
# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

## Terminal Configuration

### PWB Layout



### Antenna



### 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

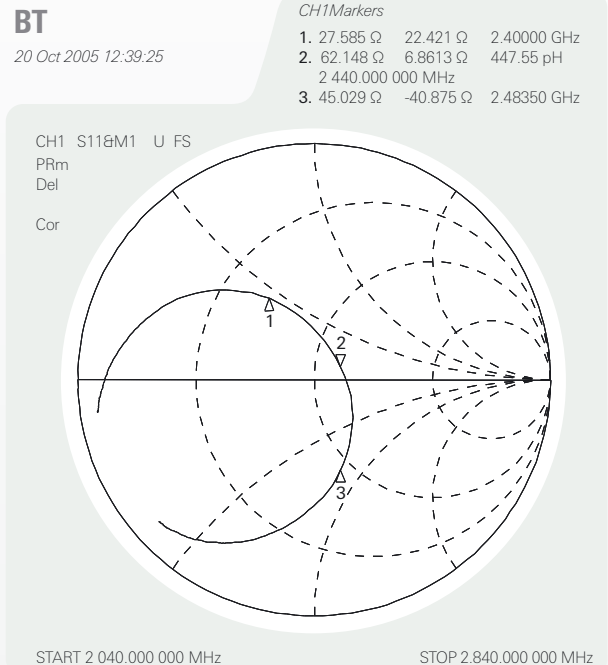
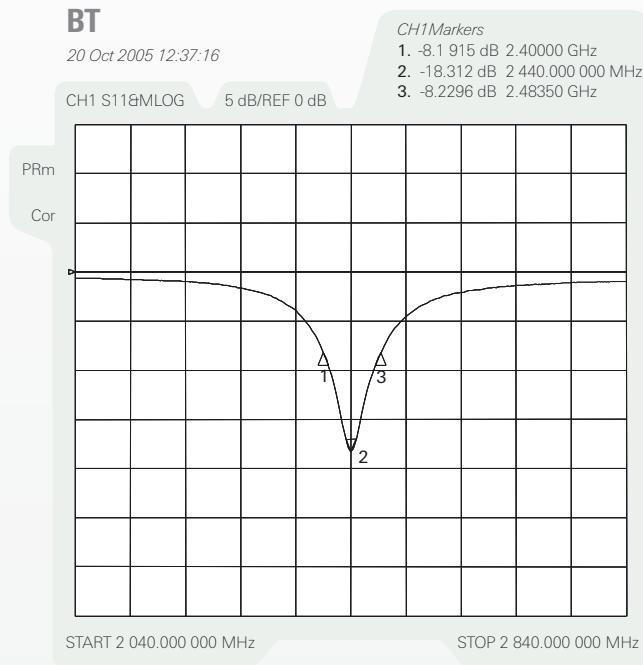
### PWB features

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

# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

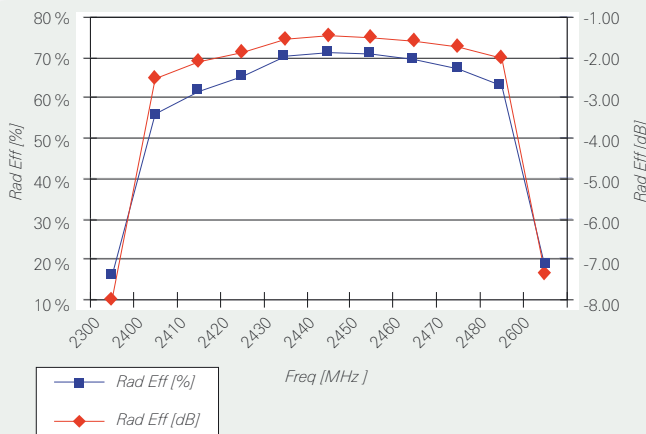
## Typical Electrical Characteristics (T=25 °C), W3008

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

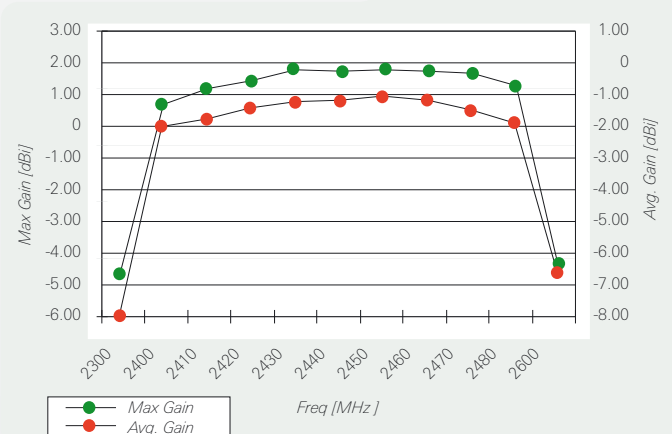


Free space efficiency and maximum gain / PWB ground clearance area 4.00 x 4.25 mm

### BT GC 3.2 x 1.6 x 1.1 mm



### BT GC 3.2 x 1.6 x 1.1 mm



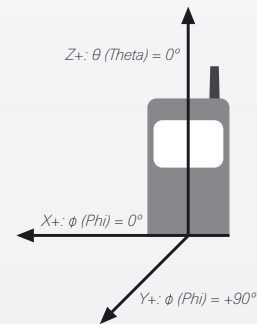
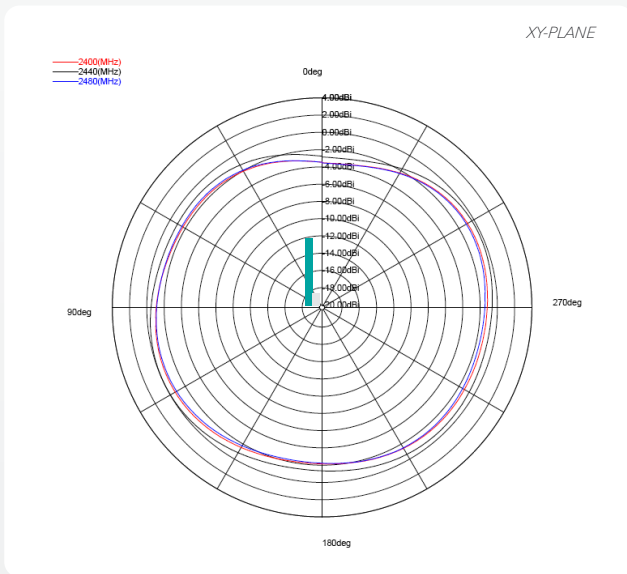
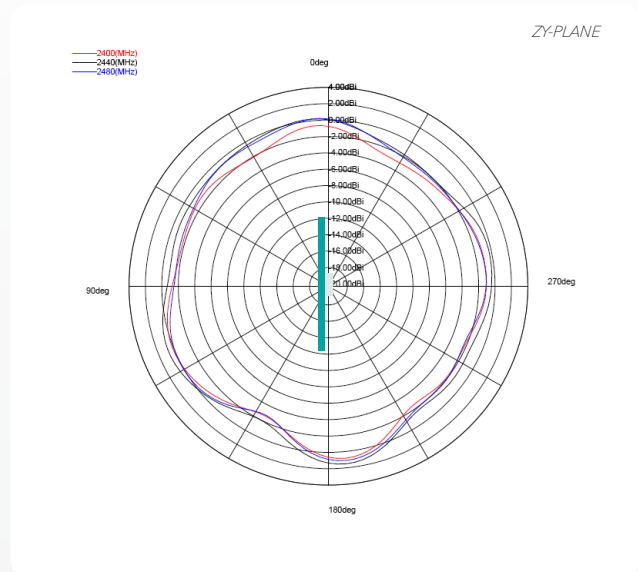
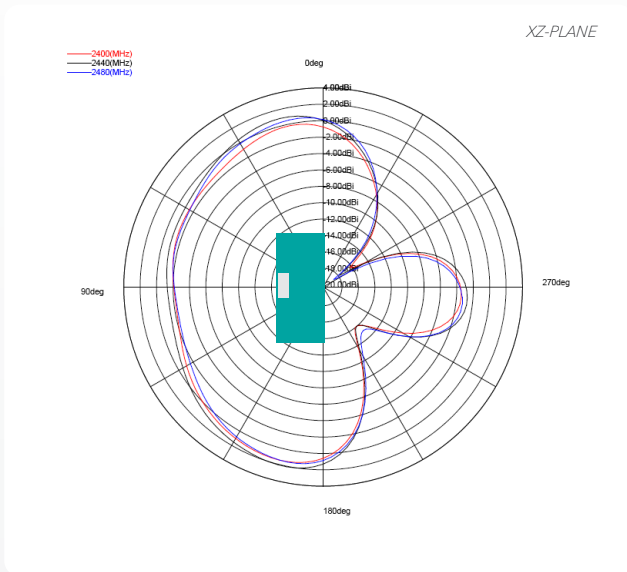
Pulse Finland Oy

Takatie 6  
 90440 Kempele, Finland  
 Tel: +358 207 935 500  
 Fax: +358 207 935 501  
[www.pulseeng.com/antennas](http://www.pulseeng.com/antennas)



# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

## Typical Free Space Radiation Patterns, W3008



Pulse Finland Oy

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

[www.pulseeng.com/antennas](http://www.pulseeng.com/antennas)



# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

## Typical Electrical Characteristics (T=25 °C), W3008C

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

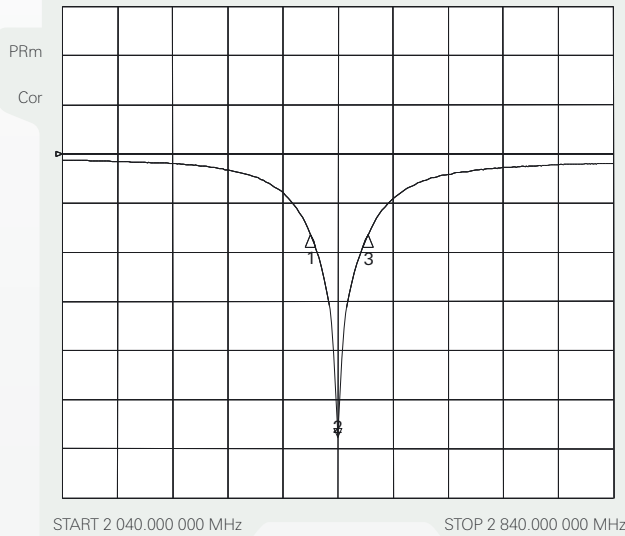
### BT/WLAN

20 Oct 2005 12:36:03

CH1 S11&MLOG 5 dB/REF 0 dB

CH1Markers

- 1. -11.415 dB 2.40000 GHz
- 2. -11.464 dB 2.440.000 000 MHz
- 3. -27.875 dB 2.48350 GHz



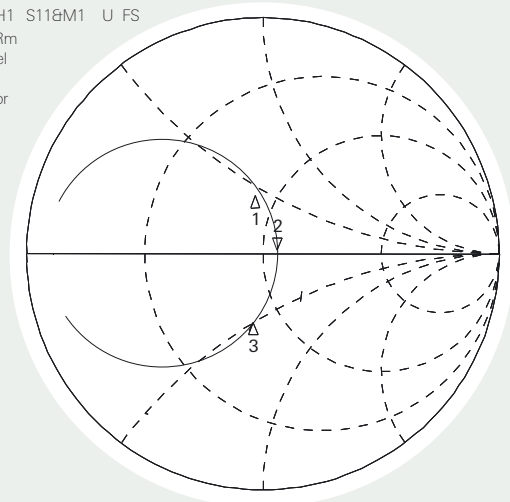
### BT/WLAN

20 Oct 2005 12:39:25

CH1Markers

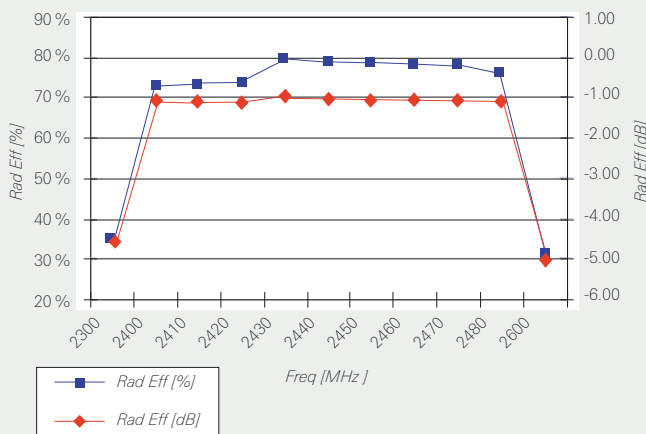
- 1. 40.141 Ω 24.354 Ω 2.40000 GHz
- 2. 55.264 Ω 1.3613 Ω 88.796 pH
- 3. 40.658 Ω -25.082 Ω 2.48350 GHz

CH1 S11&M1 U FS  
PRm  
Del  
Cor

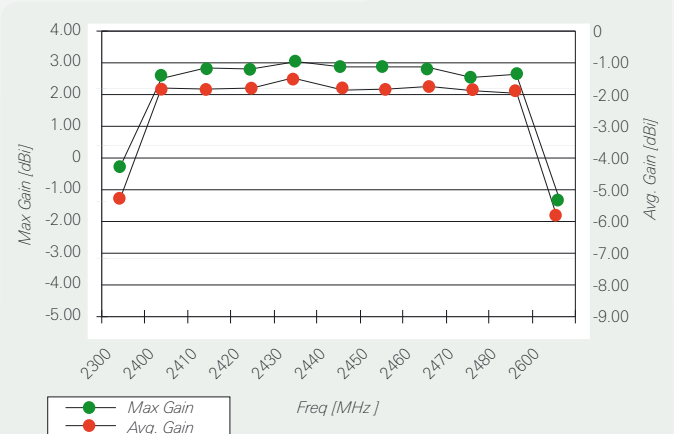


Free space efficiency and maximum gain / PWB ground clearance area 4.00 x 6.25 mm

### BT GC 3.2 x 1.6 x 1.1 mm



### BT GC 3.2 x 1.6 x 1.1 mm



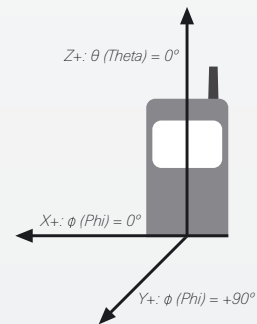
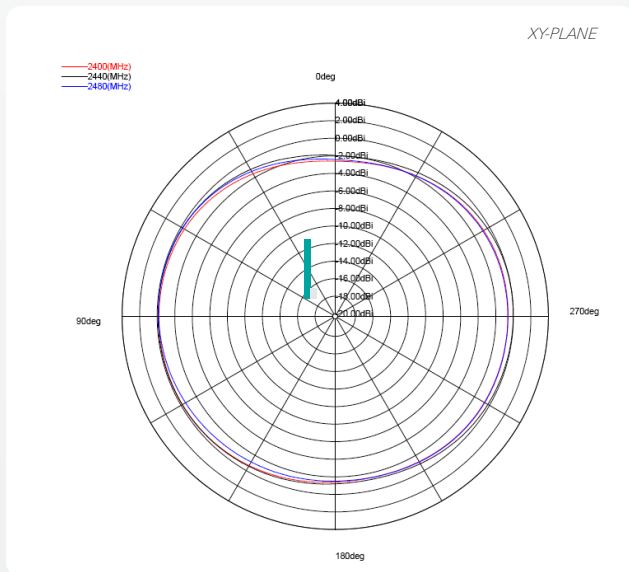
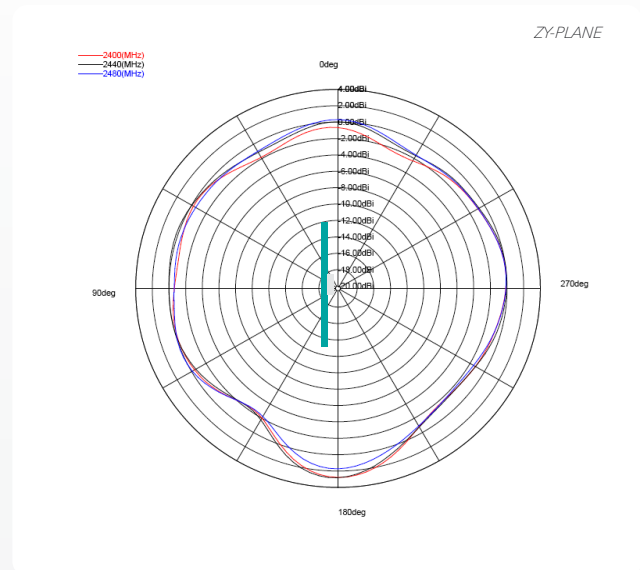
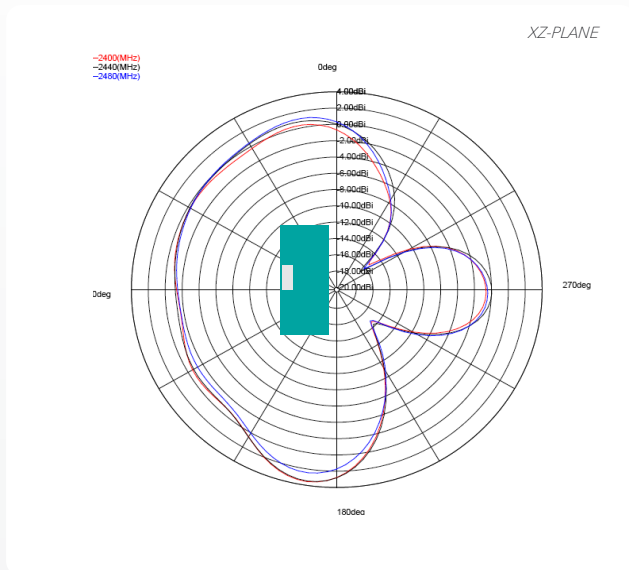
Pulse Finland Oy

Takatie 6  
90440 Kempele, Finland  
Tel: +358 207 935 500  
Fax: +358 207 935 501  
[www.pulseeng.com/antennas](http://www.pulseeng.com/antennas)



# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

## Typical Free Space Radiation Patterns , W3008C



Pulse Finland Oy

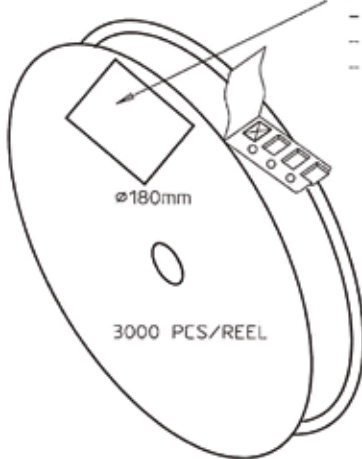
Takatie 6  
 90440 Kempele, Finland  
 Tel: +358 207 935 500  
 Fax: +358 207 935 501

[www.pulseeng.com/antennas](http://www.pulseeng.com/antennas)



# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

## Packing Form



ø180mm  
3000 PCS/REEL

**REEL LABEL INFORMATION:**

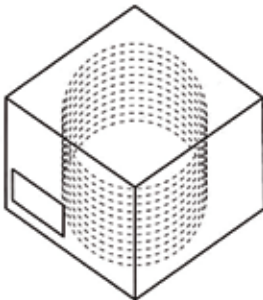
- TRACEABILITY
- QUANTITY
- PRODUCT CODE

**CARRIER TAPE H85-00125**  
width=8,00 depth=1,22  
**COVER TAPE H85-00126**  
width=5,60


**LENGTH OF TAPE:**

- Leader section: 50 empty cavities before component section
- Trailer section: 25 empty cavities after component section.

Empty part cavities at leader and trailer section of the tape must be sealed with top cover tape.



BOX H85-00128 (182x182x132)	1 pcs	
- LABEL	1 pcs/BOX	
REEL H85-00127 (D180, W12)	10 pcs	
- REEL LABEL	1 pcs/REEL	

<b>MATERIAL</b>																																			
<b>HANDLINGS</b>																																			
		<b>RATIO</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>DRWN</td> <td>010305</td> <td>PeHa</td> <td>H</td> </tr> <tr> <td>DGNER</td> <td></td> <td></td> <td>G</td> </tr> <tr> <td>CHKD</td> <td></td> <td></td> <td>F</td> </tr> <tr> <td>APPRD</td> <td></td> <td></td> <td>E</td> </tr> <tr> <td>APPRD BY</td> <td></td> <td></td> <td>D</td> </tr> <tr> <td></td> <td></td> <td></td> <td>C</td> </tr> <tr> <td></td> <td></td> <td></td> <td>B</td> </tr> <tr> <td></td> <td></td> <td></td> <td>A</td> </tr> </table>	DRWN	010305	PeHa	H	DGNER			G	CHKD			F	APPRD			E	APPRD BY			D				C				B				A
DRWN	010305	PeHa	H																																
DGNER			G																																
CHKD			F																																
APPRD			E																																
APPRD BY			D																																
			C																																
			B																																
			A																																
<b>PRODUCT</b>	H90-OY116-F01P01																																		
<b>DENOMINATION</b>	PACKING FORM																																		
	<b>VERSION</b>		<b>MOD/DATE/NAME</b>																																





Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.