

# 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

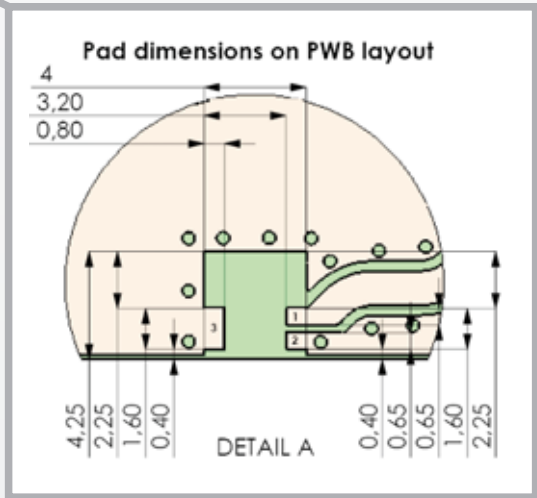
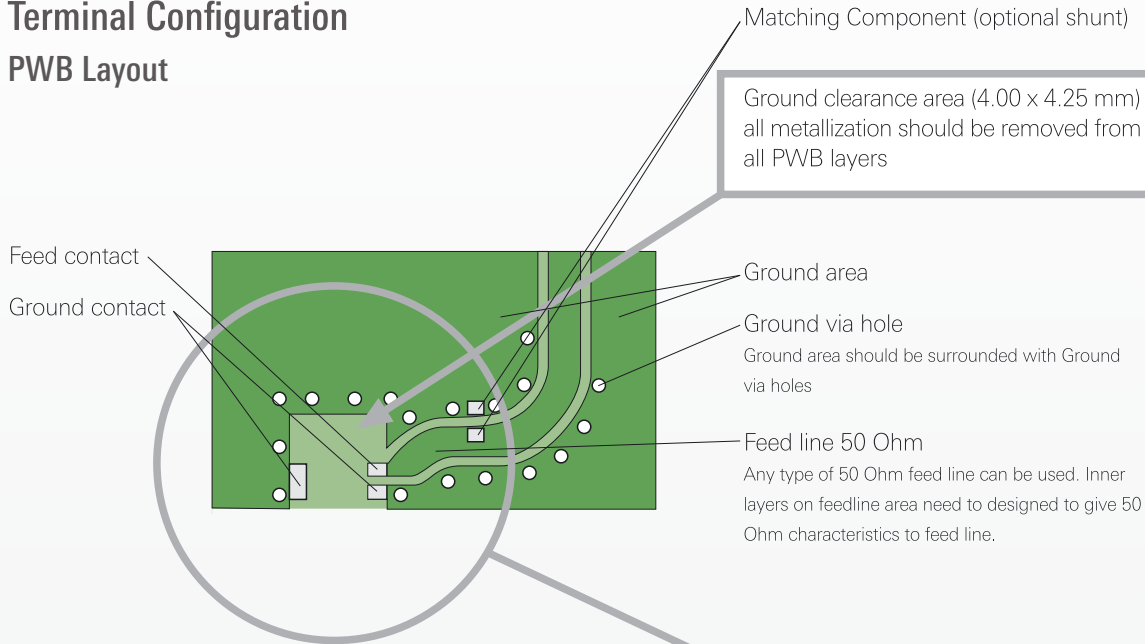
Takatie 6  
90440 Kempele, Finland  
Tel: +358 207 935 500  
Fax: +358 207 935 501  
[www.pulseeng.com/antennas](http://www.pulseeng.com/antennas)



# 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

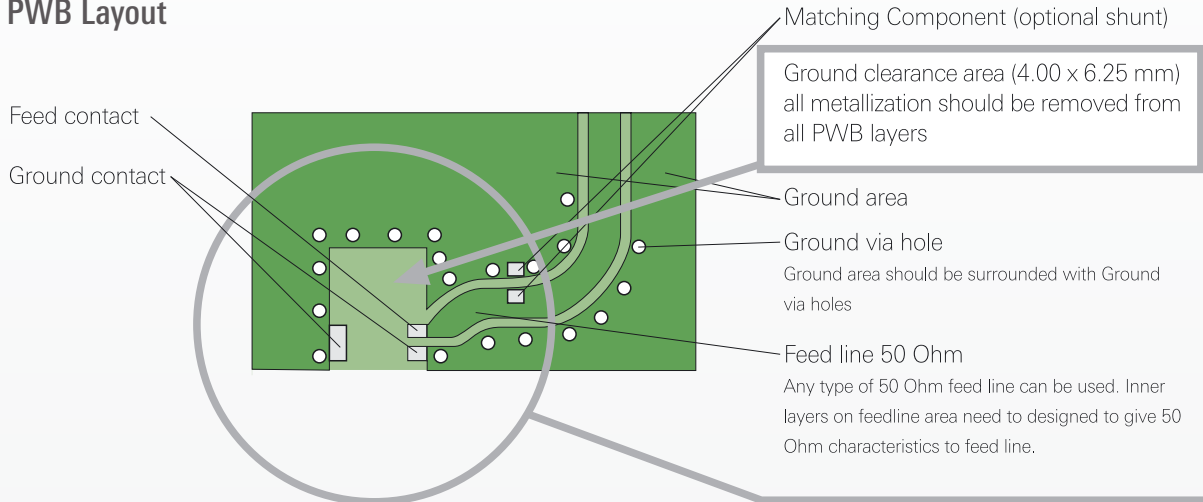
Takatie 6  
90440 Kempele, Finland  
Tel: +358 207 935 500  
Fax: +358 207 935 501  
[www.pulseeng.com/antennas](http://www.pulseeng.com/antennas)



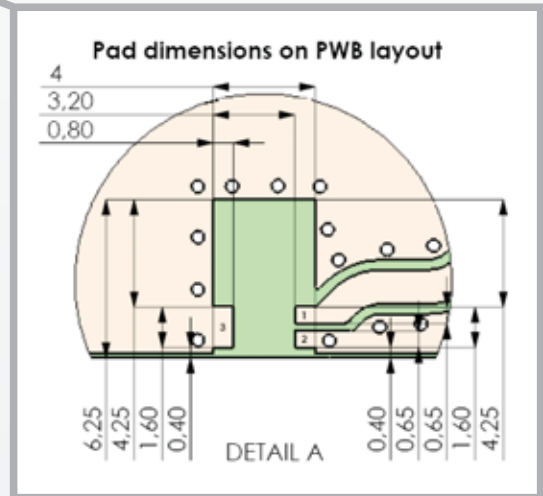
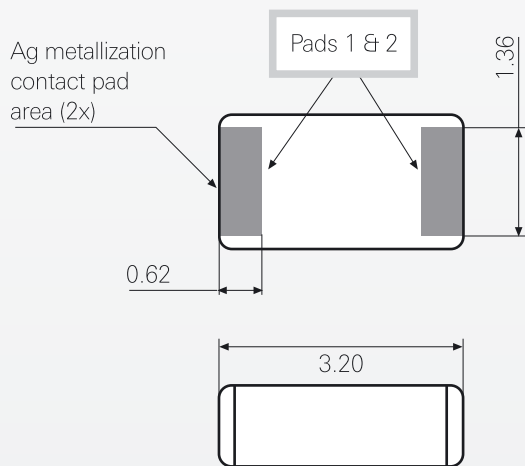
# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

## 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

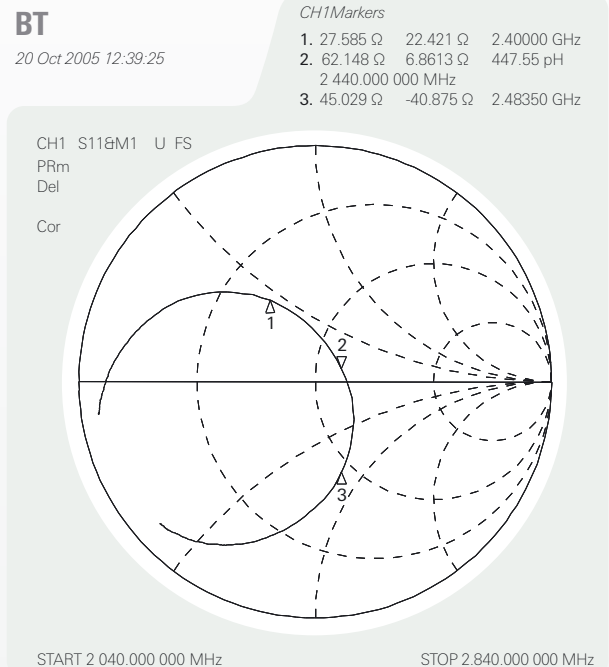
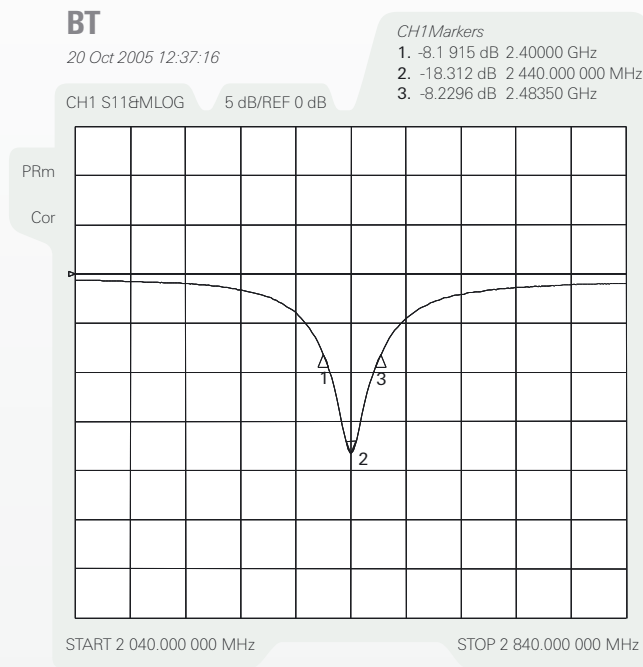
### PWB features

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

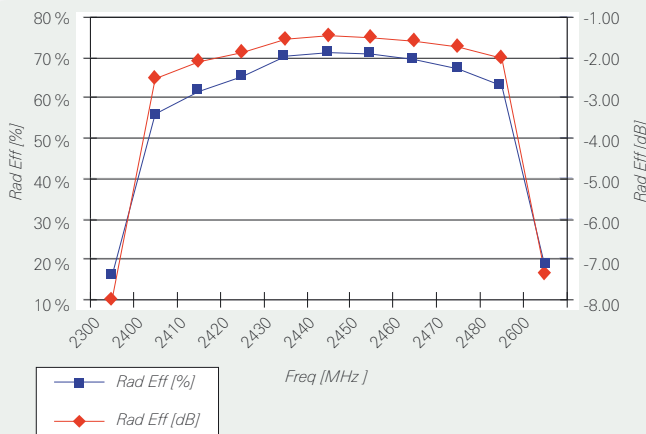
## Typical Electrical Characteristics (T=25 °C), W3008

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

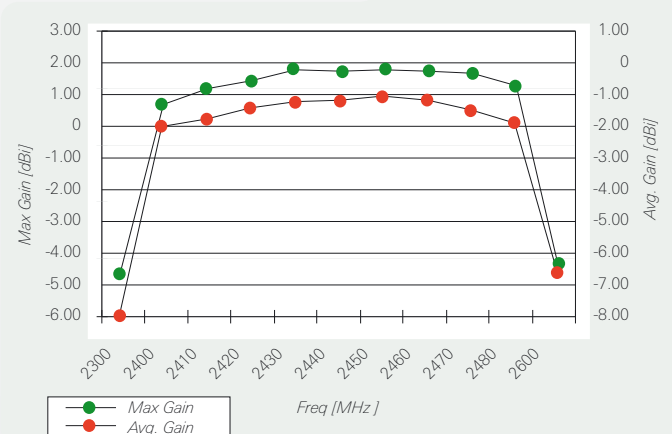


Free space efficiency and maximum gain / PWB ground clearance area 4.00 x 4.25 mm

### 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

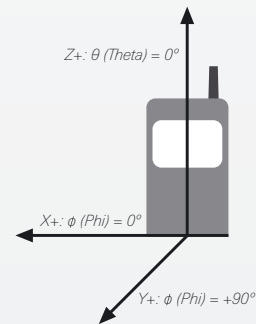
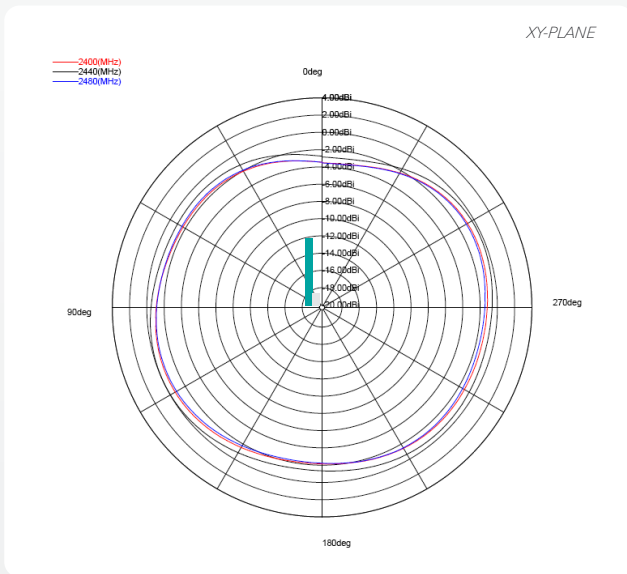
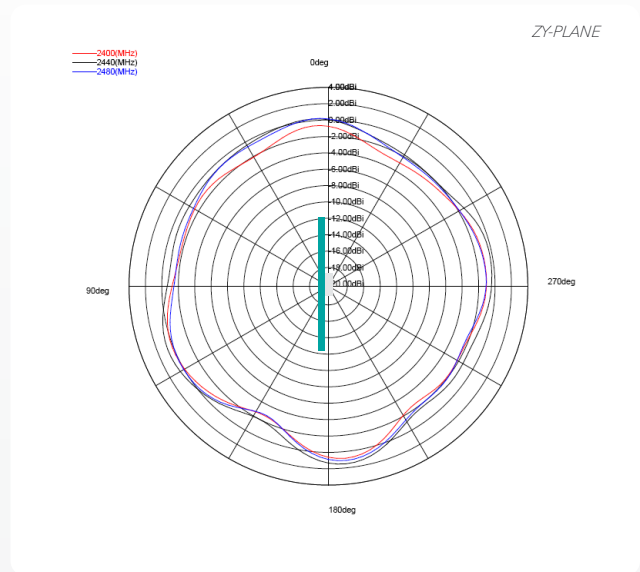
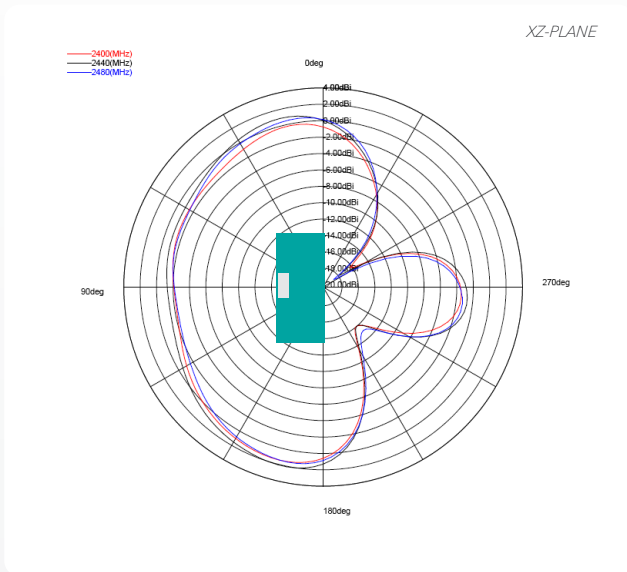
[www.pulseeng.com/antennas](http://www.pulseeng.com/antennas)



© 2010. All Rights Reserved.

# 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

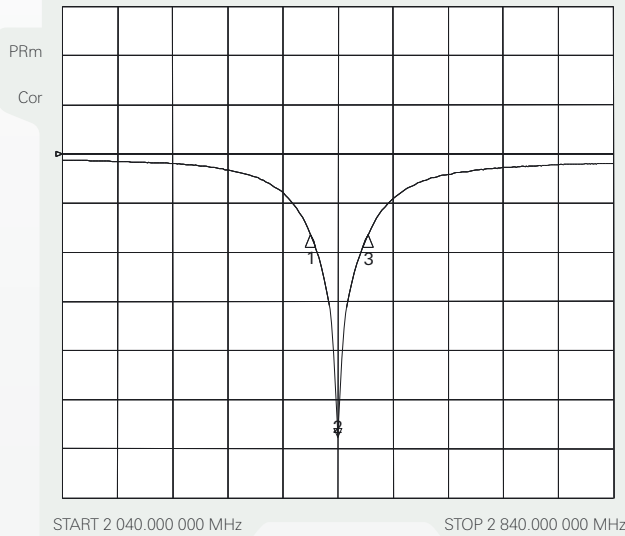
### BT/WLAN

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



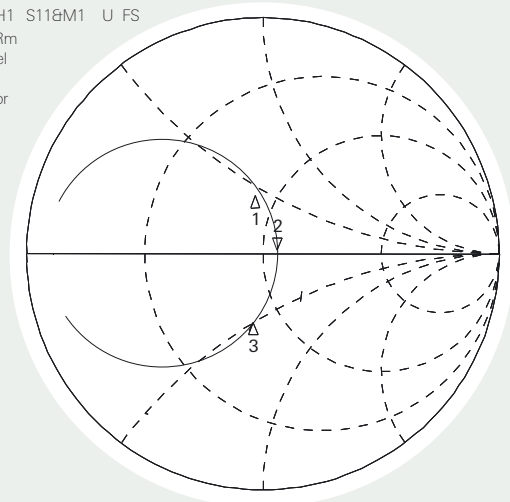
### BT/WLAN

20 Oct 2005 12:39:25

CH1Markers

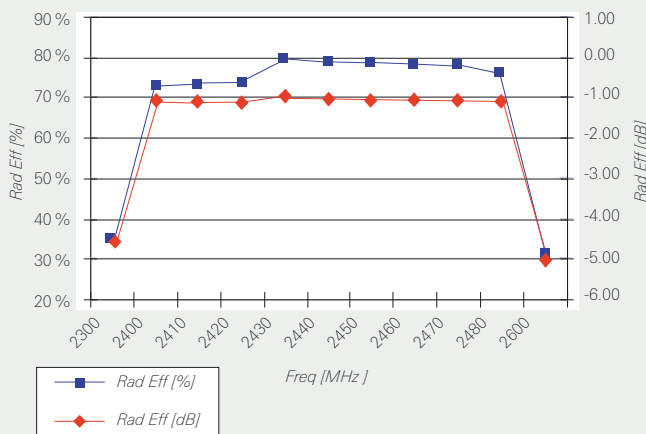
- |                    |           |             |
|--------------------|-----------|-------------|
| 1. 40.141 Ω        | 24.354 Ω  | 2.40000 GHz |
| 2. 55.264 Ω        | 1.3613 Ω  | 88.796 pF   |
| 2. 440.000 000 MHz |           |             |
| 3. 40.658 Ω        | -25.082 Ω | 2.48350 GHz |

CH1 S11&M1 U FS  
PRm  
Del  
Cor

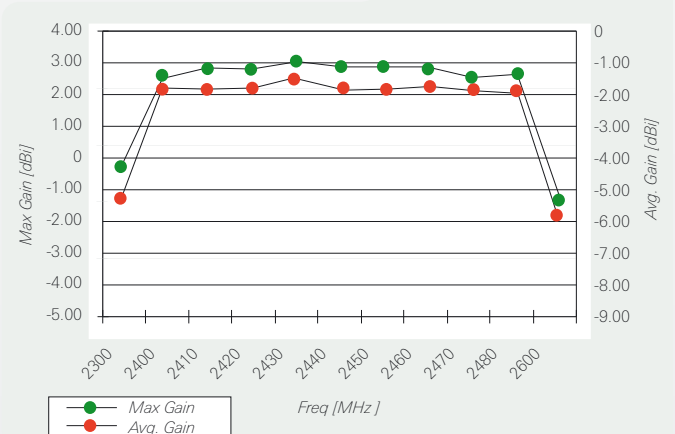


Free space efficiency and maximum gain / PWB ground clearance area 4.00 x 6.25 mm

### BT GC 3.2 x 1.6 x 1.1 mm



### BT GC 3.2 x 1.6 x 1.1 mm



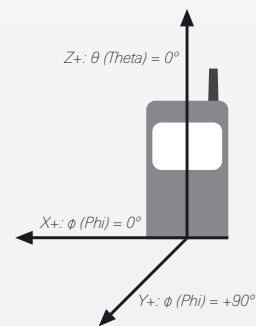
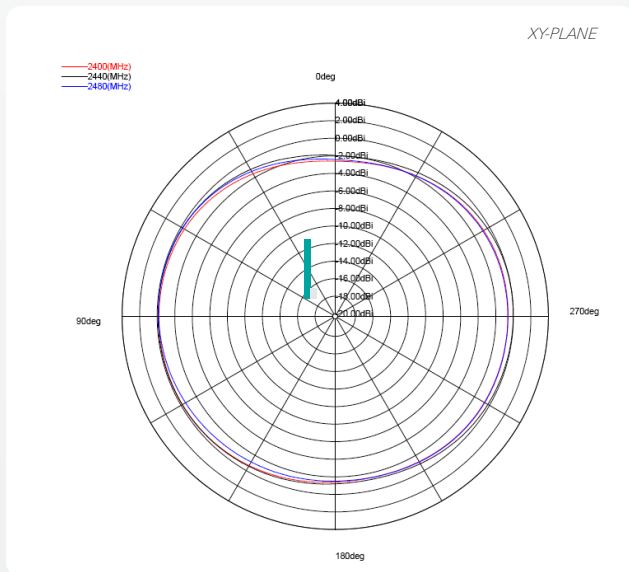
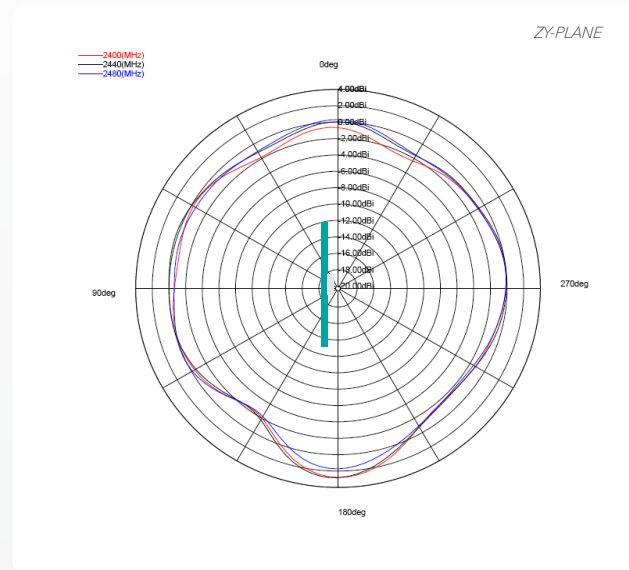
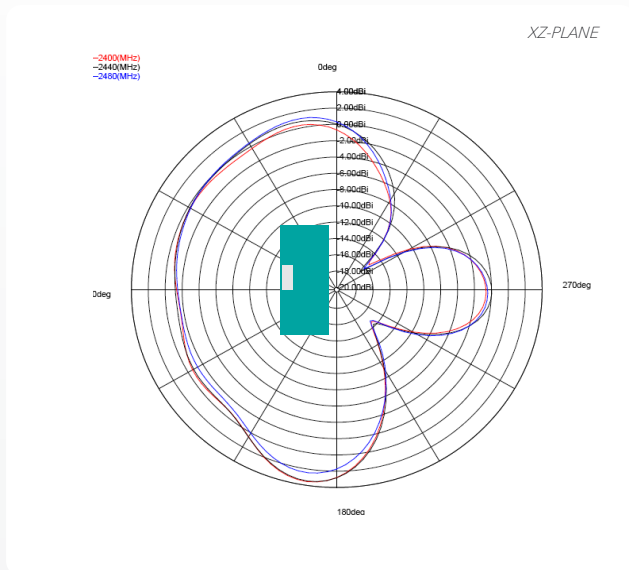
Pulse Finland Oy

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

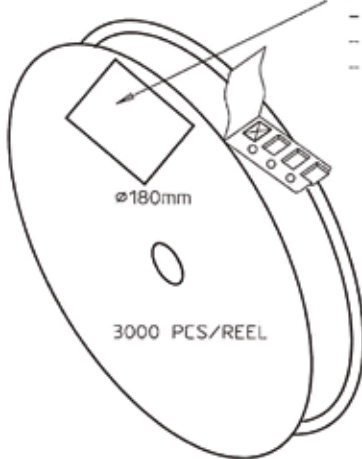
Takatie 6  
90440 Kempele, Finland  
Tel: +358 207 935 500  
Fax: +358 207 935 501

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



# Bluetooth / WLAN / WiFi Ceramic Chip Antenna

## Packing Form



ø180mm  
3000 PCS/REEL

**REEL LABEL INFORMATION:**

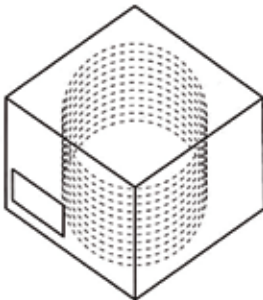
- TRACEABILITY
- QUANTITY
- PRODUCT CODE

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

MATERIAL					
HANDLINGS					
		RATIO	DRWN	010305 PeHa H	
			DGNER		G
			CHKD		F
			APPRD		E
PRODUCT	H90-OY116-F01P01		APPRD BY		D
DENOMINATION	PACKING FORM				C
					B
					A
		VERSION	MOD/DATE/NAME		

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)





## Данный компонент на территории Российской Федерации

### Вы можете приобрести в компании MosChip.

Для оперативного оформления запроса Вам необходимо перейти по данной ссылке:

<http://moschip.ru/get-element>

Вы можете разместить у нас заказ для любого Вашего проекта, будь то серийное производство или разработка единичного прибора.

В нашем ассортименте представлены ведущие мировые производители активных и пассивных электронных компонентов.

Нашей специализацией является поставка электронной компонентной базы двойного назначения, продукции таких производителей как XILINX, Intel (ex.ALTERA), Vicor, Microchip, Texas Instruments, Analog Devices, Mini-Circuits, Amphenol, Glenair.

Сотрудничество с глобальными дистрибьюторами электронных компонентов, предоставляет возможность заказывать и получать с международных складов практически любой перечень компонентов в оптимальные для Вас сроки.

На всех этапах разработки и производства наши партнеры могут получить квалифицированную поддержку опытных инженеров.

Система менеджмента качества компании отвечает требованиям в соответствии с ГОСТ Р ИСО 9001, ГОСТ РВ 0015-002 и ЭС РД 009

### Офис по работе с юридическими лицами:

105318, г.Москва, ул.Щербаковская д.3, офис 1107, 1118, ДЦ «Щербаковский»

Телефон: +7 495 668-12-70 (многоканальный)

Факс: +7 495 668-12-70 (доб.304)

E-mail: [info@moschip.ru](mailto:info@moschip.ru)

Skype отдела продаж:

moschip.ru

moschip.ru\_4

moschip.ru\_6

moschip.ru\_9