

Bluetooth / WLAN / WiFi Ceramic Chip Antenna

Ground cleared under antenna, clearance area **4.00 x 4.25 mm / 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 [Ω]	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 [dBic]	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
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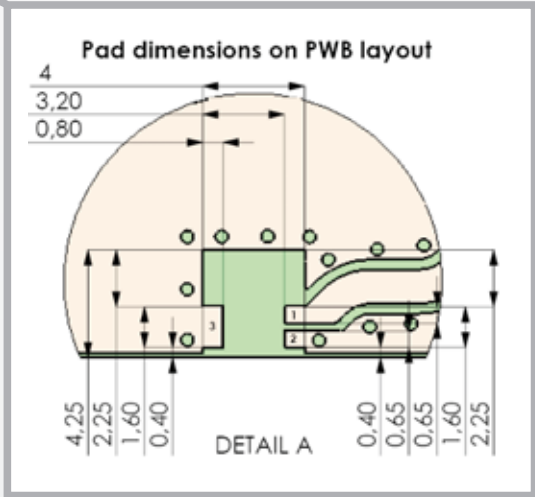
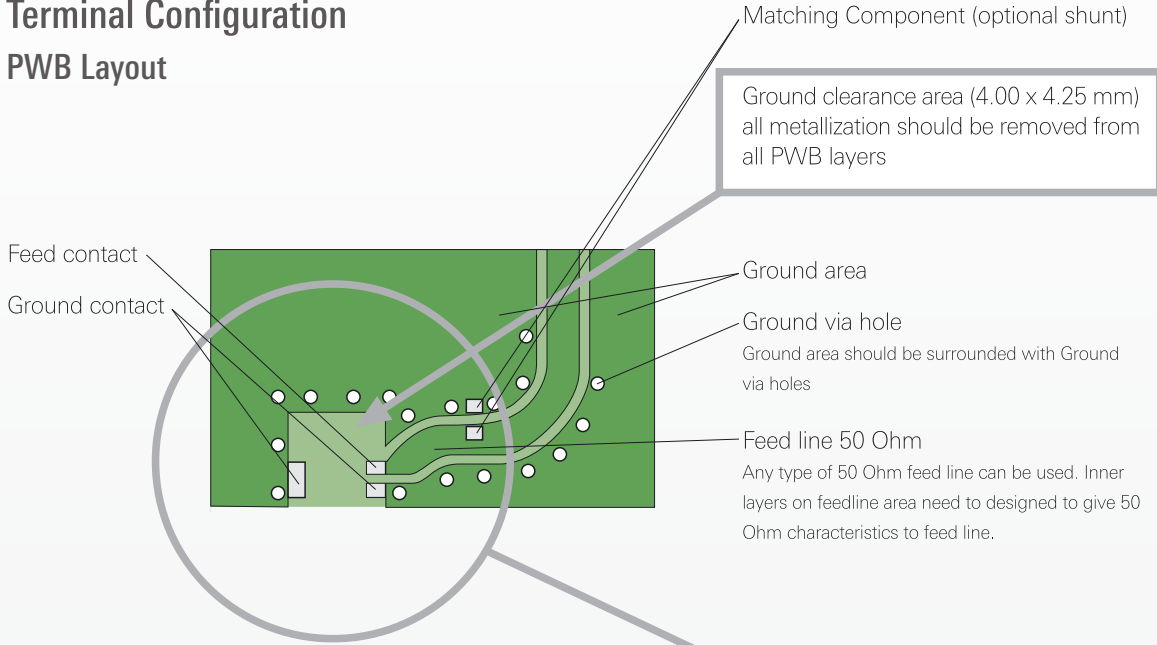


Bluetooth Ceramic Chip Antenna W3008

Ground cleared under antenna, clearance area **4.00 x 4.25 mm**

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

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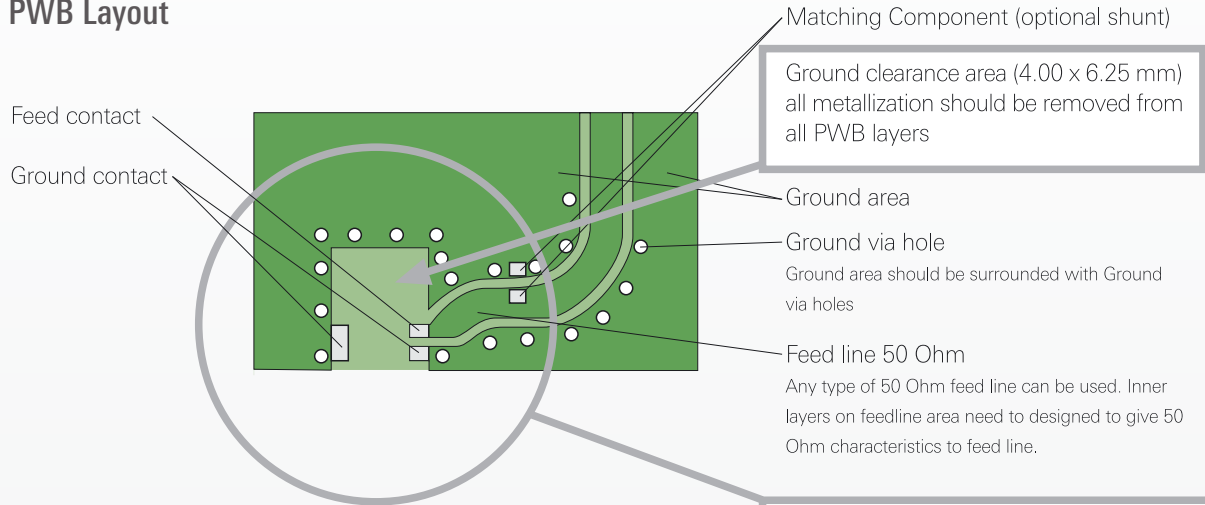


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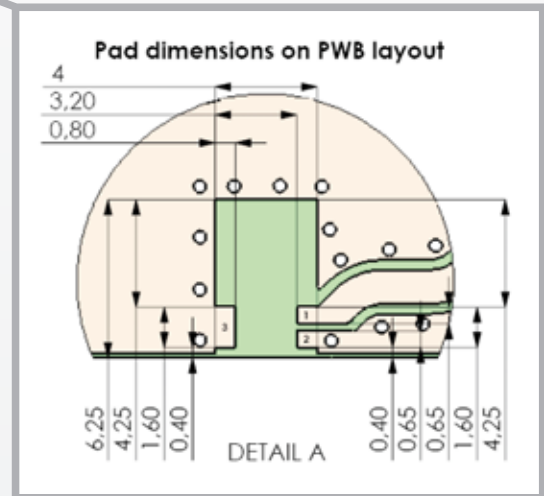
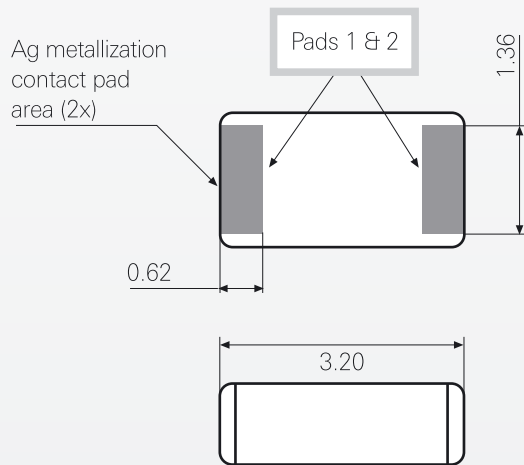
Ground cleared under antenna, clearance area **4.00 x 6.25 mm**

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

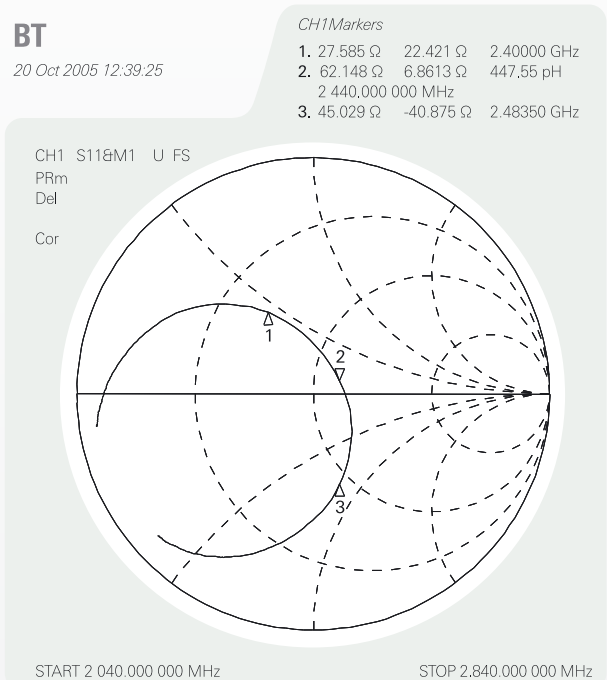
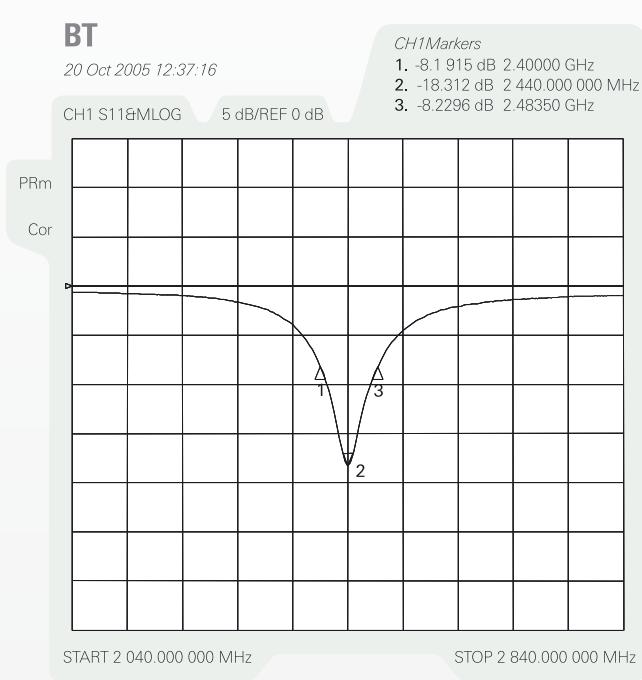
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1	Feed	0.8 x 0.65 mm
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Ground cleared under antenna, clearance area **4.00 x 4.25 mm**

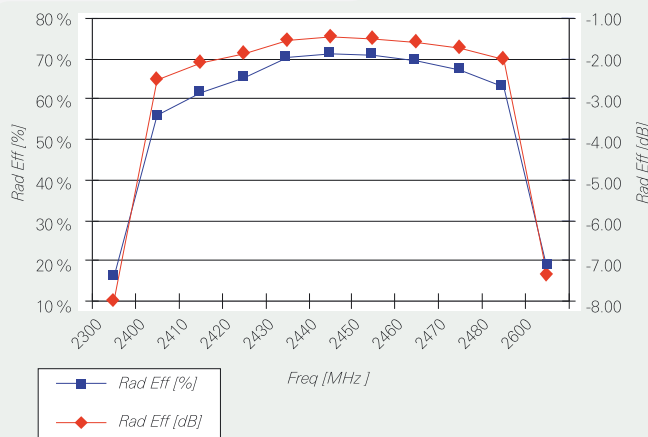
Typical Electrical Characteristics (T=25 °C)

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

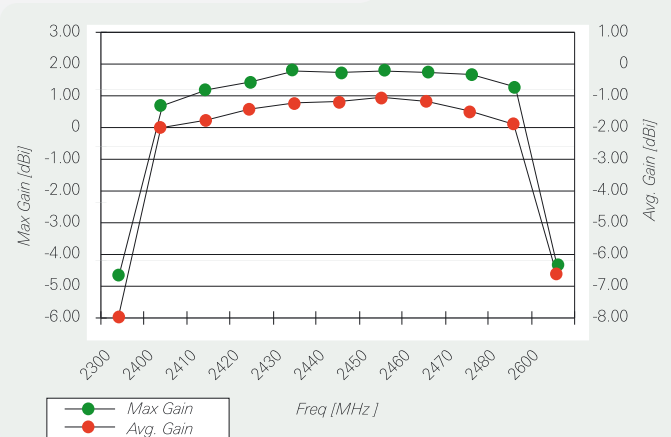


Free space efficiency and maximum gain / PWB ground clearance area 4.00 x 4.25 mm

BT GC 3.2 x 1.6 x 1.1 mm



BT GC 3.2 x 1.6 x 1.1 mm



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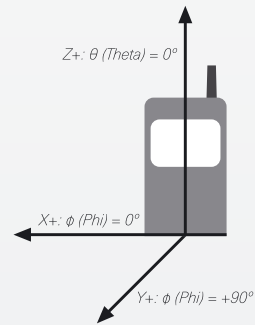
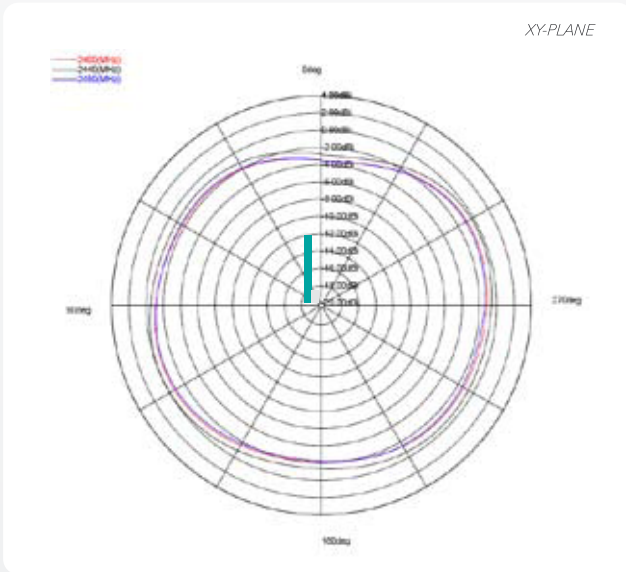
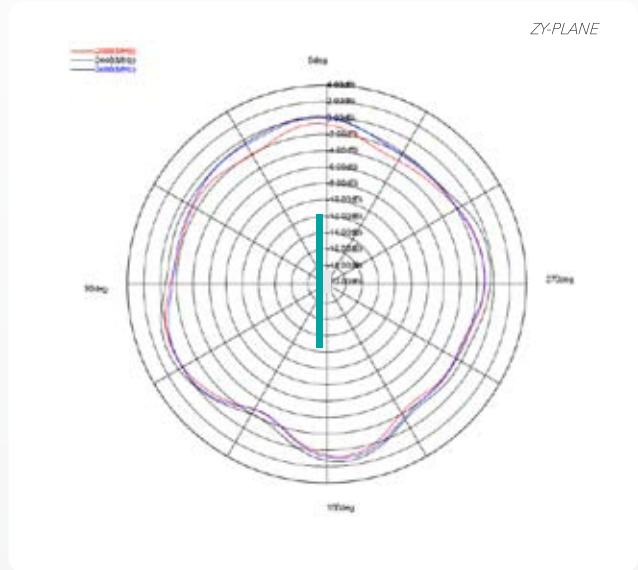
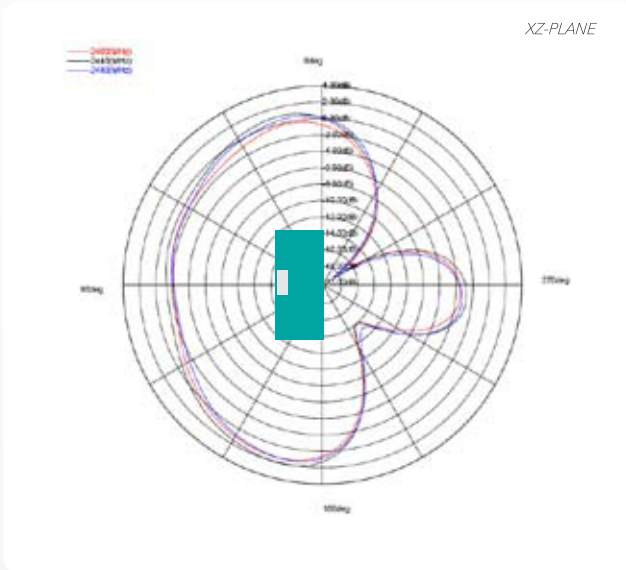
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Ground cleared under antenna, clearance area **4.00 x 4.25 mm**

Typical Free Space Radiation Patterns



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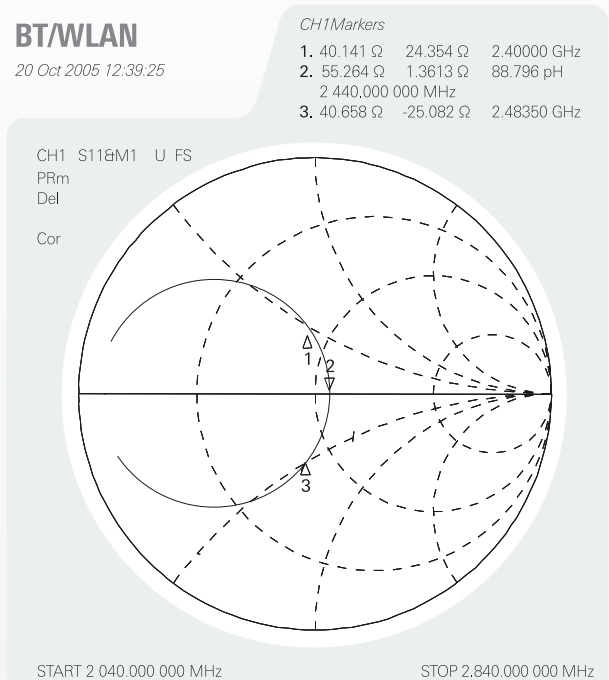
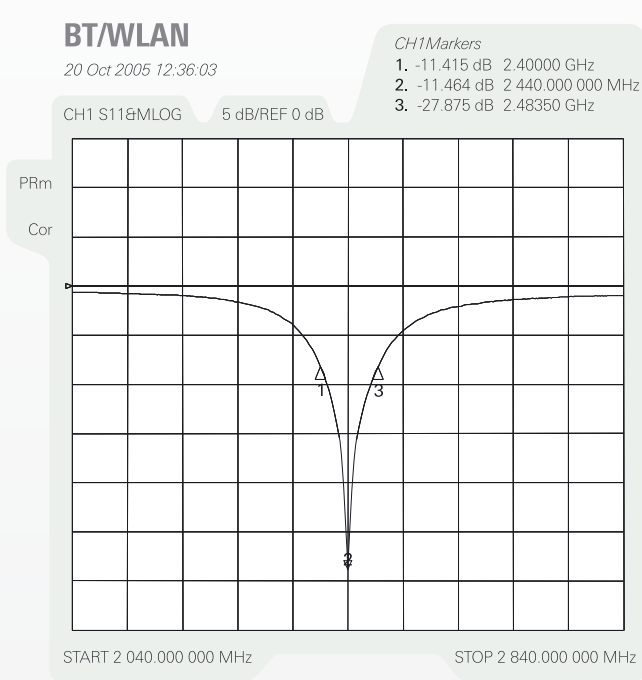


Bluetooth / WLAN / WiFi / Ceramic Chip Antenna W3008c

Ground cleared under antenna, clearance area **4.00 x 6.25 mm**

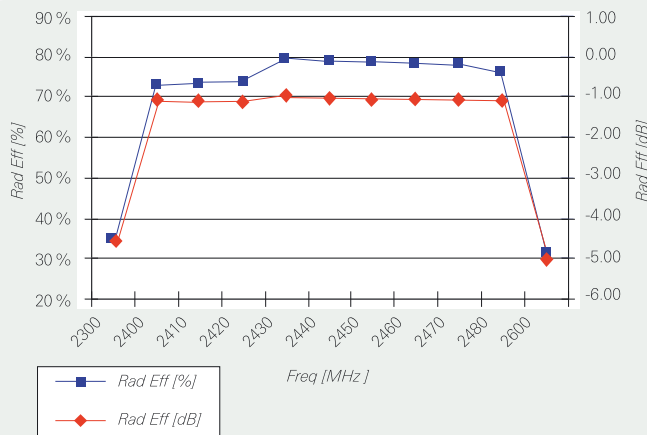
Typical Electrical Characteristics (T=25 °C)

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

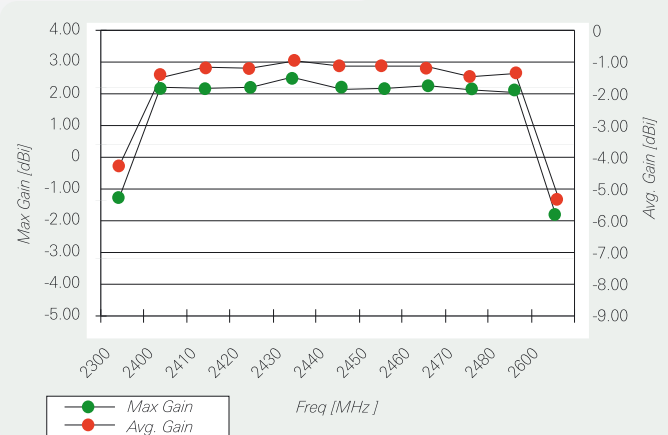


Free space efficiency and maximum gain / PWB ground clearance area 4.00 x 6.25 mm

BT GC 3.2 x 1.6 x 1.1 mm



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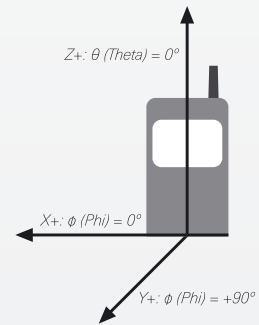
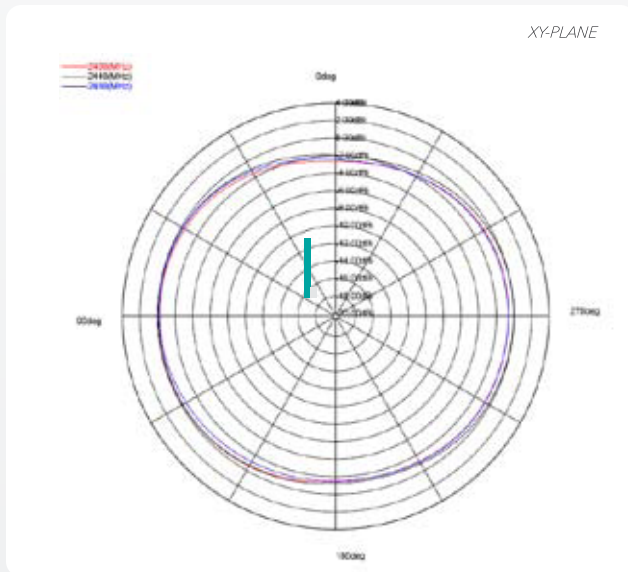
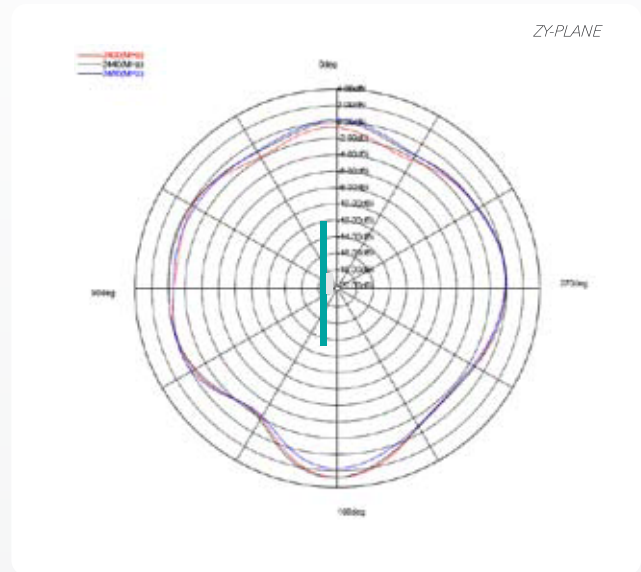
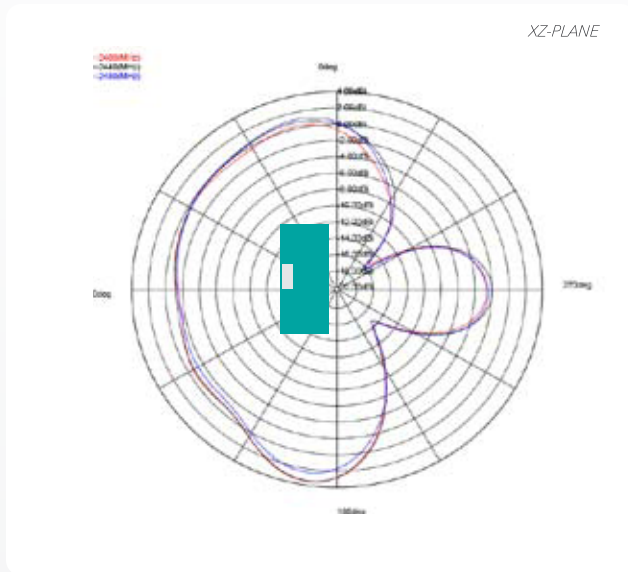
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Typical Free Space Radiation Patterns



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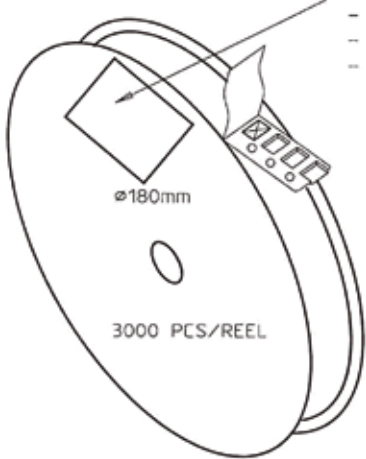
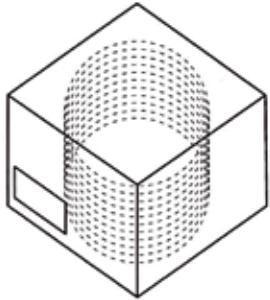


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Packing Form

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

MATERIAL																																														
HANDLINGS																																														
LK Products	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;">RATIO</td> <td style="width: 40%;">DRWN</td> <td style="width: 20%;">010305</td> <td style="width: 10%;">PeHa</td> <td style="width: 10%;">H</td> </tr> <tr> <td></td> <td>DGNER</td> <td></td> <td></td> <td>G</td> </tr> <tr> <td></td> <td>CHKD</td> <td></td> <td></td> <td>F</td> </tr> <tr> <td></td> <td>APPRD</td> <td></td> <td></td> <td>E</td> </tr> <tr> <td></td> <td>APPRD BY</td> <td></td> <td></td> <td>D</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>C</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>B</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>A</td> </tr> <tr> <td>VERSION</td> <td colspan="4">MOD/DATE/NAME</td> </tr> </table>	RATIO	DRWN	010305	PeHa	H		DGNER			G		CHKD			F		APPRD			E		APPRD BY			D					C					B					A	VERSION	MOD/DATE/NAME			
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