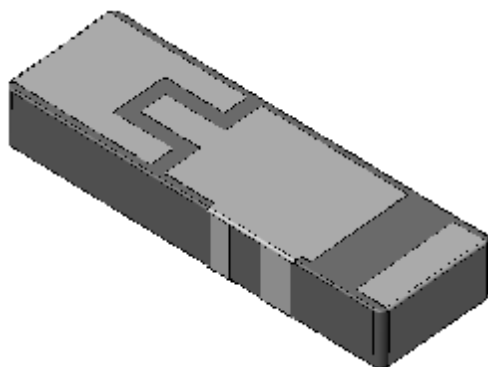


W3056 Ceramic Single Feed GPS/BT Antenna

Ground clearance type i.e. groundings removed from all PWB layers (ground removal area **10.80 mm x 6.25 / 4.25 mm.**).

Pulse Part Number: W3056



Features

- Omni directional radiation
- Low profile
- Compact size W x L x H (10 x 3.2 x 1.5mm)
- Low weight (240 mg)
- Lead free materials
- Fully SMD compatible
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product

Dual Band Applications

- GPS L1 band (1.575 GHz)
- Bluetooth, WLAN, WiFi (2.4 – 2.5GHz)

Electrical specifications @ +25 °C

Note: Electrical characteristics are measured on test pwb with matching circuit (2.2 nH shunt matching inductor on feed).

GPS / BT

Typical performance (test board size 100x40mm, PWB ground removal area **10.80 mm x 6.25/4.25 mm**)

Frequency Range [MHz]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [°C]
1575.42 +/-10	75/-1.25 (Peak) 65/-1.9 (+/- 10MHz)	-20 (Peak) -10 (+/- 10MHz)	50	-40 to +85
2400 - 2480	80/-1 (Peak) 70/-1.55 (Band edges)	-10 (Peak) -8 (Band edges)	50	-40 to +85

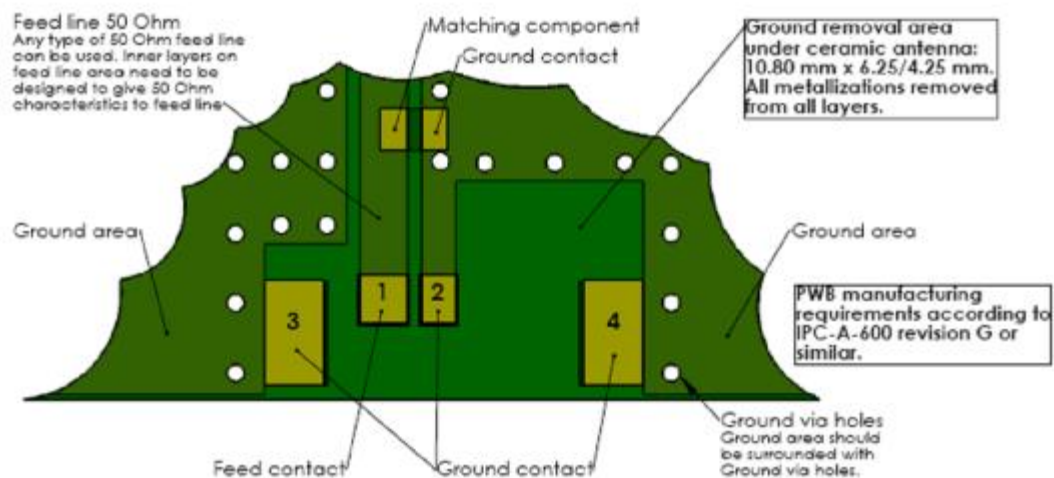
Pulse Finland Oy

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

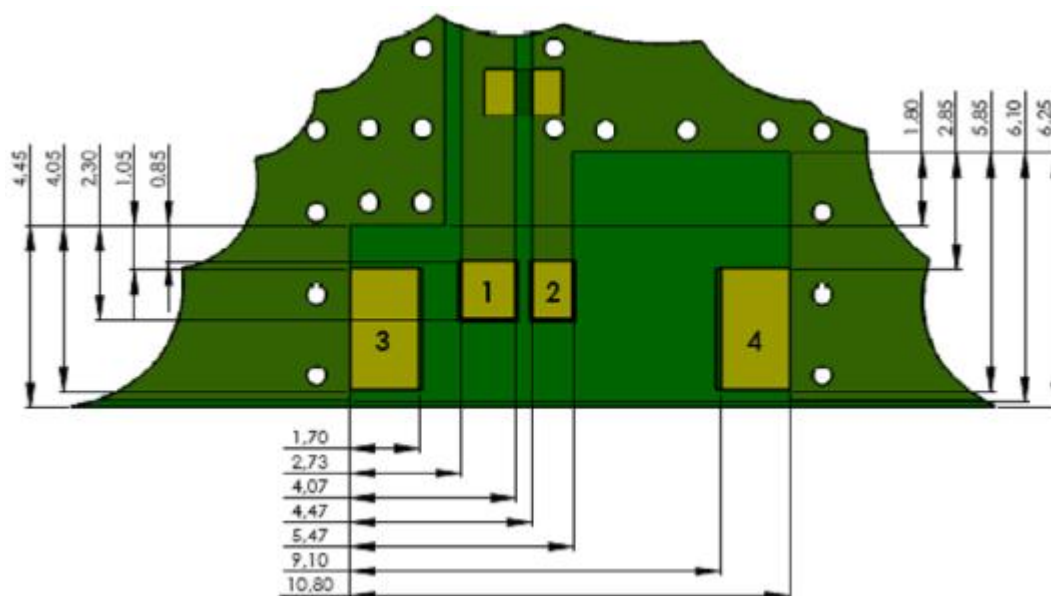
Domicile: Kempele
Business ID: 1933992-8
firstname.lastname@pulseeng.com
www.pulseeng.com/antennas



GPS/BT Ceramic Chip Antenna

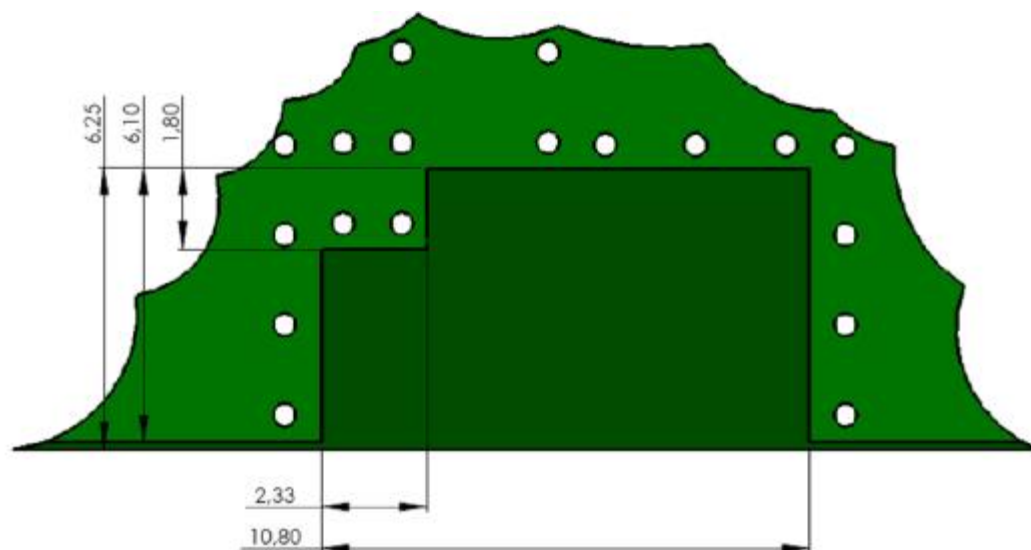


PWB Layout under ceramic antenna



Recommended Antenna Pad Dimensions on PWB Layout (top surface)

PWB features		
No.	Terminal Name	Terminal Dimensions
1	Feed	1.45 x 1.34 mm
2	GND	1.45 x 1.00 mm
3	GND	3.00 x 1.70 mm
4	GND	3.00 x 1.70 mm

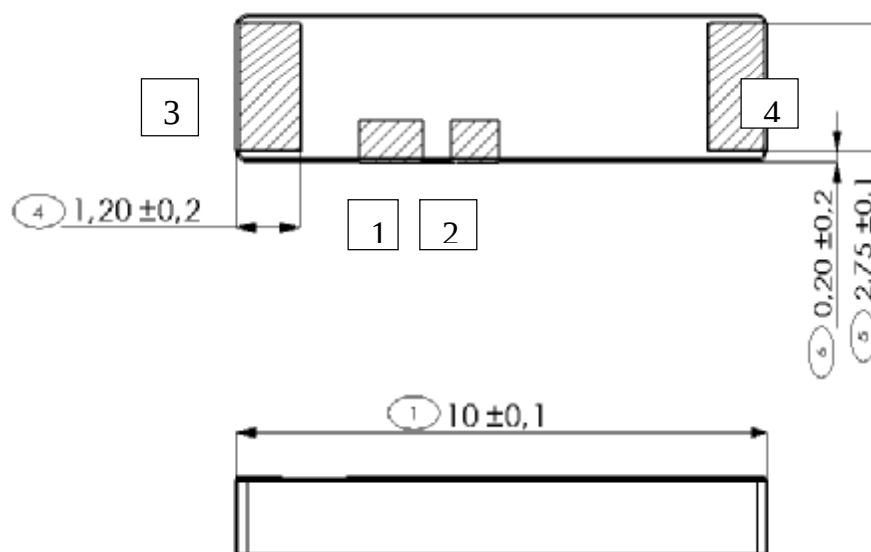


Recommended ground clearance area under antenna on PWB (bottom surface)

GPS/BT Ceramic Chip Antenna

Terminal Configuration

Antenna



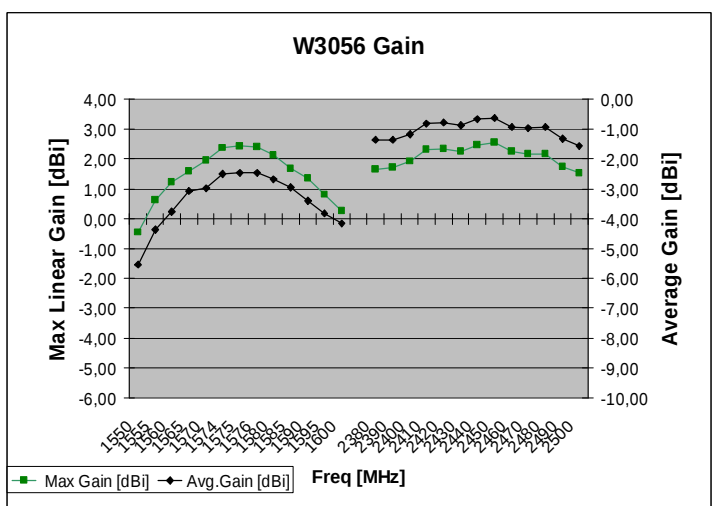
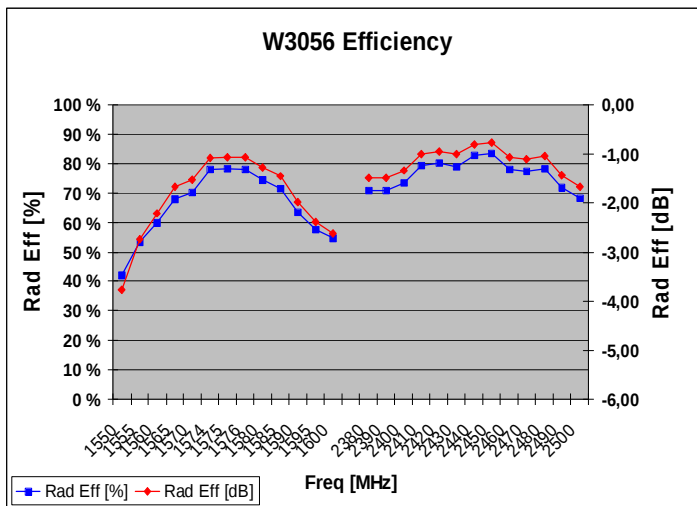
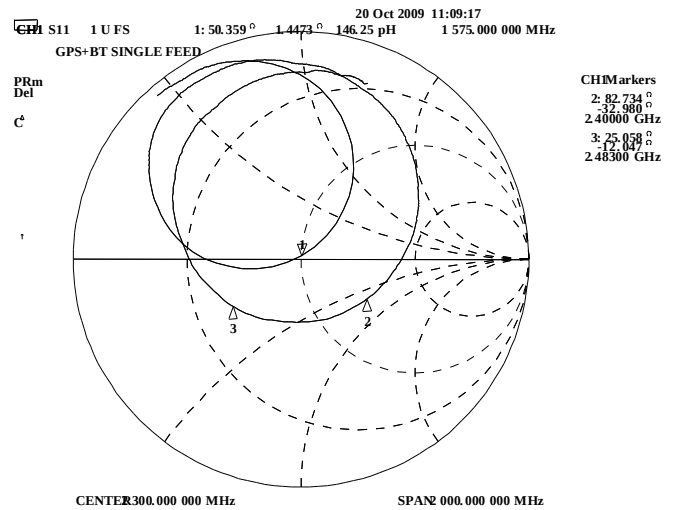
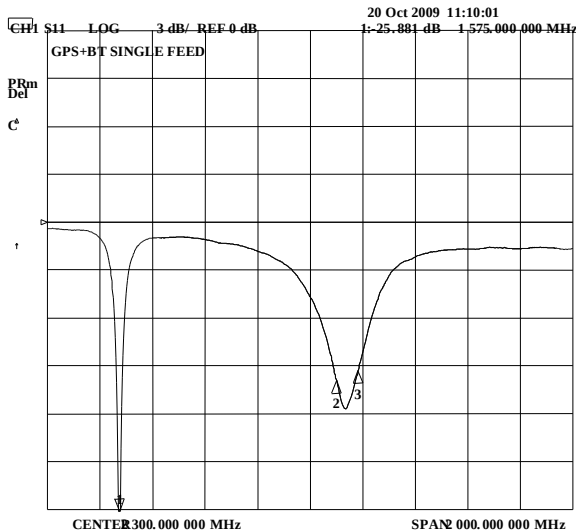
No.	Terminal Name	Terminal Dimensions
1	Feed	1.34 x 0.80 mm
2	GND	1.00 x 0.80 mm
3	GND	2.75 x 1.20 mm
4	GND	2.75 x 1.20 mm

GPS/BT Ceramic Chip Antenna

Typical Electrical Characteristics (T=25 °C)

Measured on test pwb with matching circuit (2.2 nH shunt matching inductor on feed).

Typical Return Loss S11/ impedance, free space efficiency and gain



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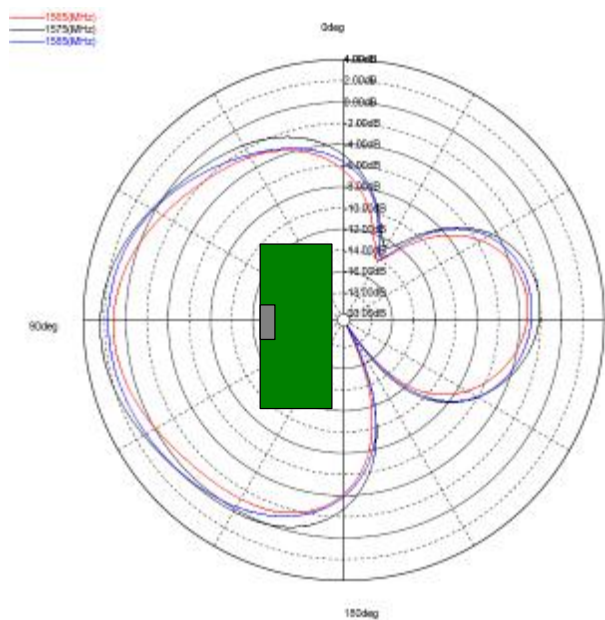


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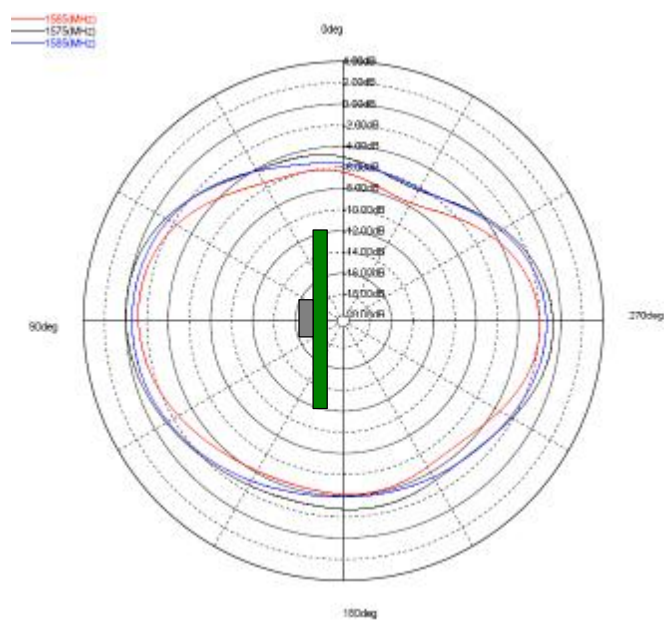
GPS/BT Ceramic Chip Antenna

Typical Free space Radiation Patterns / GPS

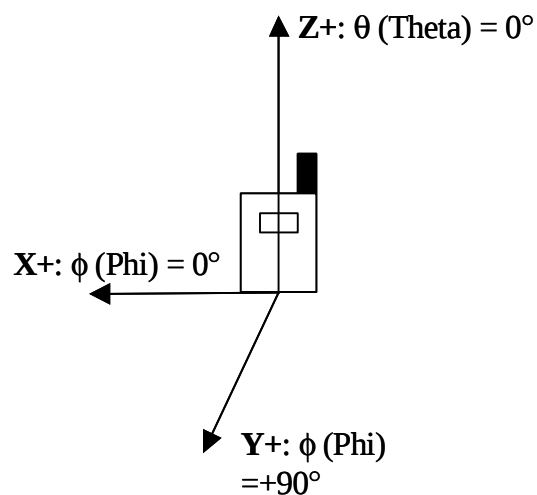
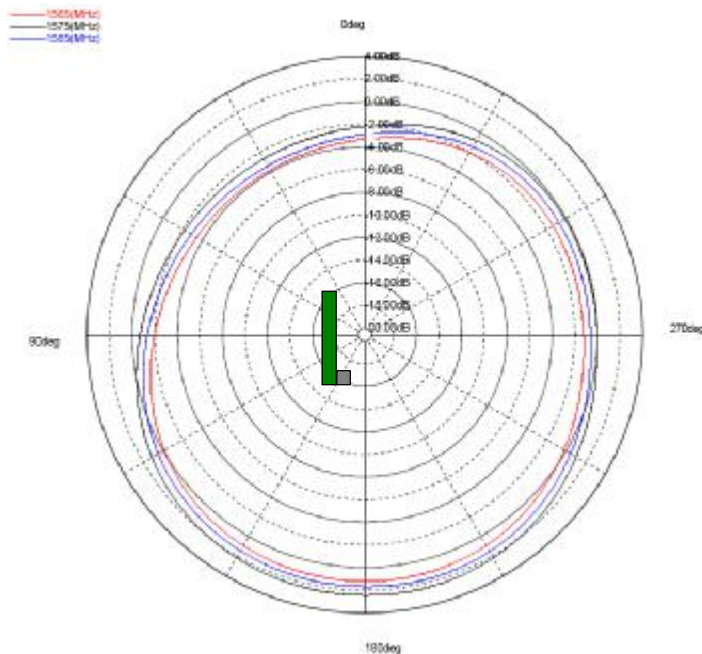
XZ-PLANE



ZY-PLANE

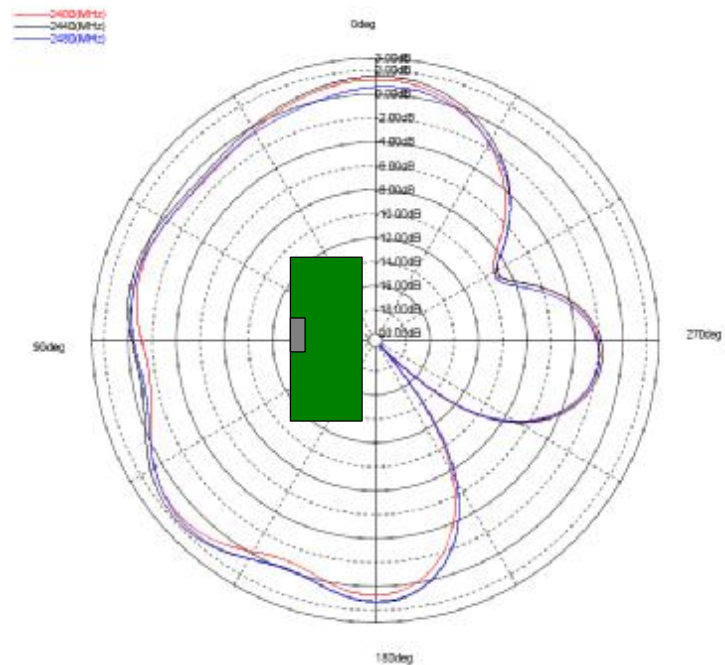


XY-PLANE

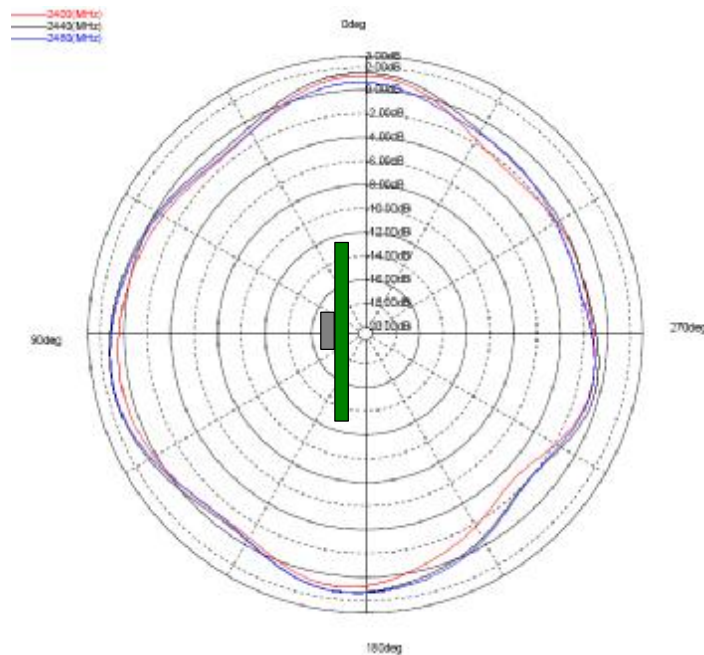


Typical Free space Radiation Patterns / BT

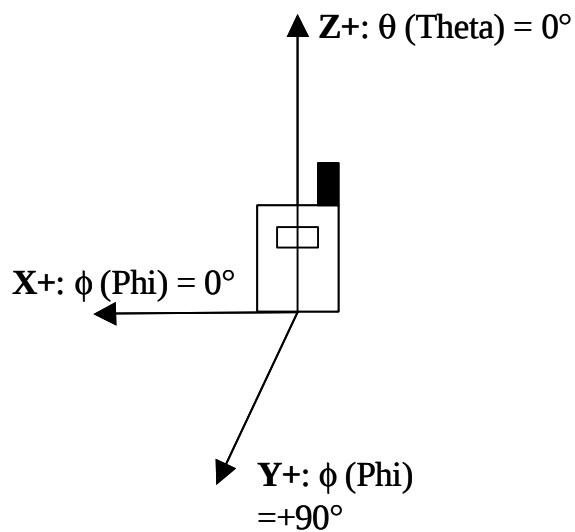
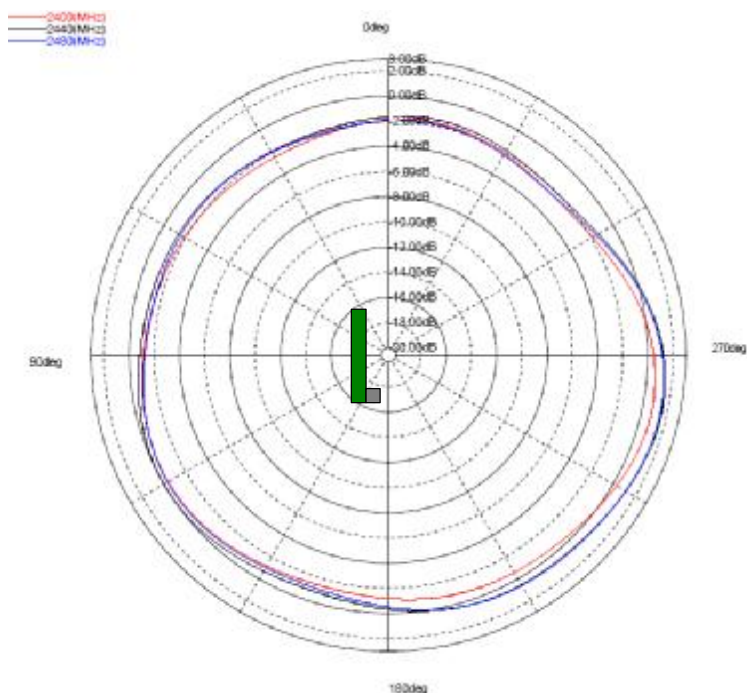
XZ-PLANE



ZY-PLANE

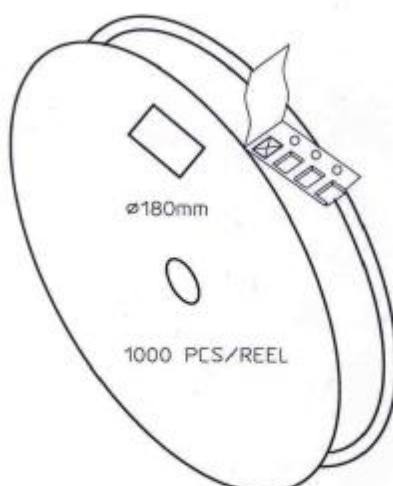
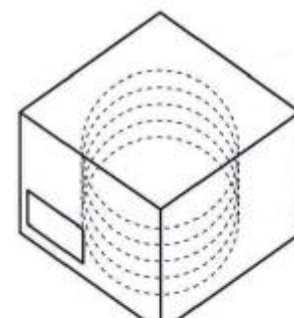
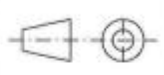


XY-PLANE



W3056 GPS/BT Antenna Packing

Packing form

 CARRIER TAPE H85-00168 width=24,00 depth=2.20 COVER TAPE H85-00159 width=21.20 LENGTH OF TAPE: - Leader section: min 350 mm before component section - Trailer section: min 40 mm after component section. Empty part cavities at leader and trailer section of the tape must be sealed with top cover tape.																																	
 BOX H85-00128 (182x182x125) 1 pcs - LABEL 1 pcs/BOX REEL H85-00160 (D180, W28) 4 pcs - REEL LABEL 1 pcs/REEL																																	
MATERIAL																																	
HANDLINGS																																	
																																	
PRODUCT	<table border="1"> <tr> <td>RATIO</td> <td>DRWN</td> <td>160107 PeHa</td> <td>H</td> </tr> <tr> <td></td> <td>DGNER</td> <td></td> <td>G</td> </tr> <tr> <td></td> <td>CHKD</td> <td></td> <td>F</td> </tr> <tr> <td></td> <td>APPRD</td> <td></td> <td>E</td> </tr> <tr> <td></td> <td>APPRD BY</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>	RATIO	DRWN	160107 PeHa	H		DGNER		G		CHKD		F		APPRD		E		APPRD BY		D				C				B				A
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