



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

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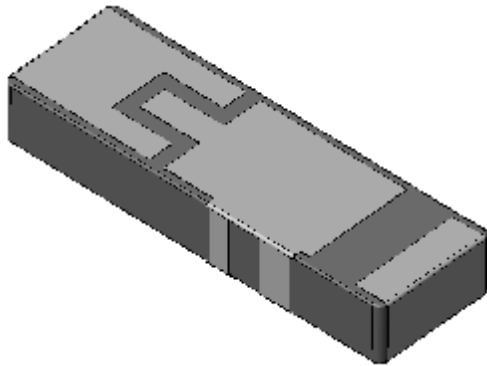
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



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 |

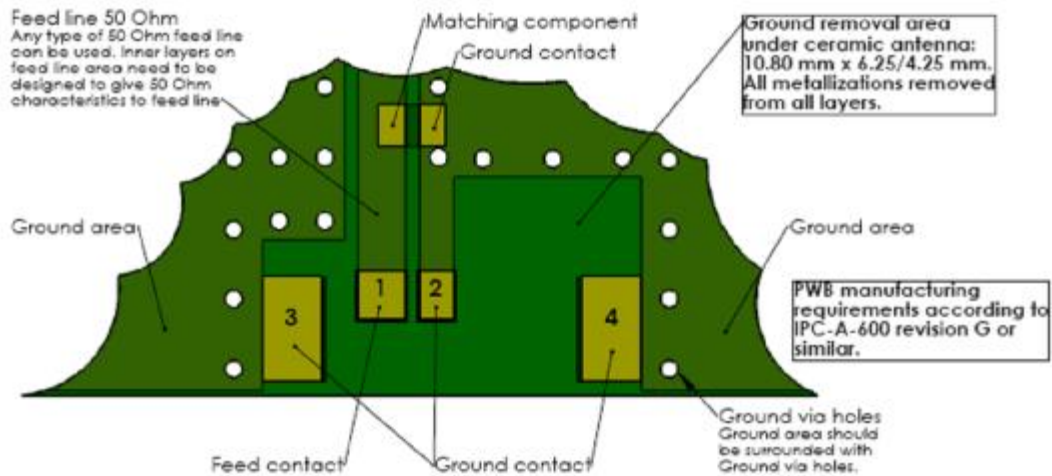
Pulse Finland Oy

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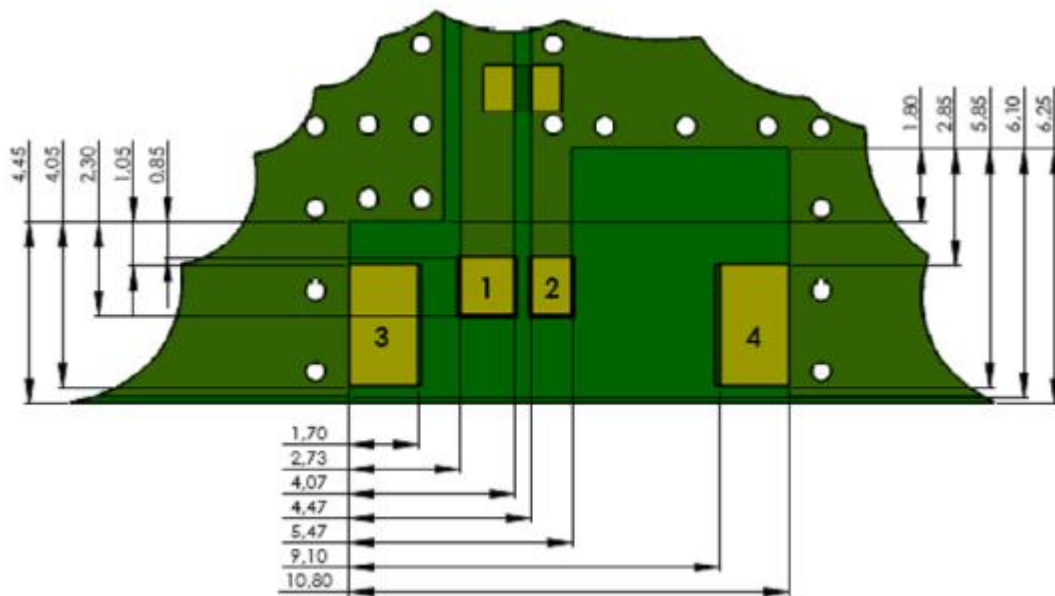
Domicile: Kempele
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www.pulseeng.com/antennas



GPS/ BT Ceramic Chip Antenna

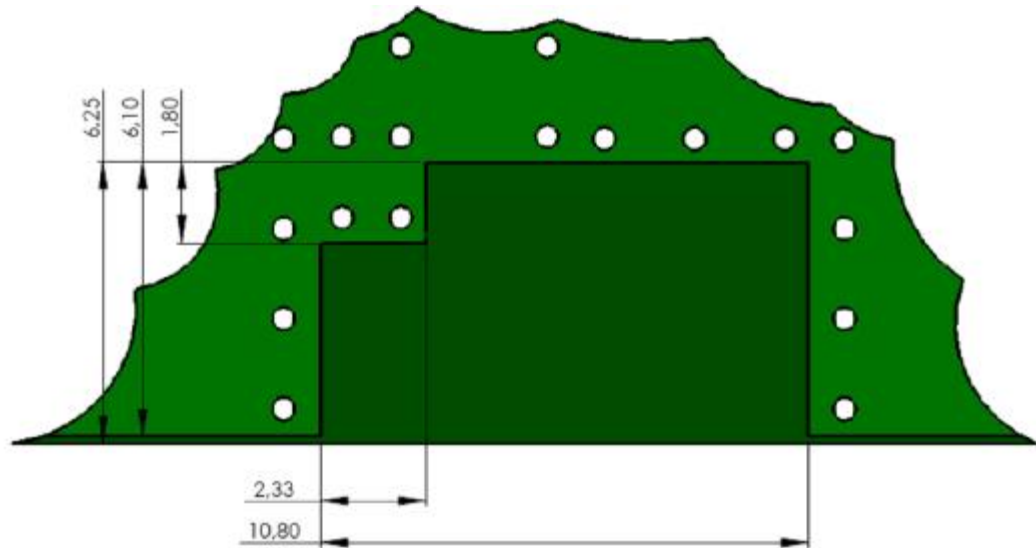


PWB Layout under ceramic antenna



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 |

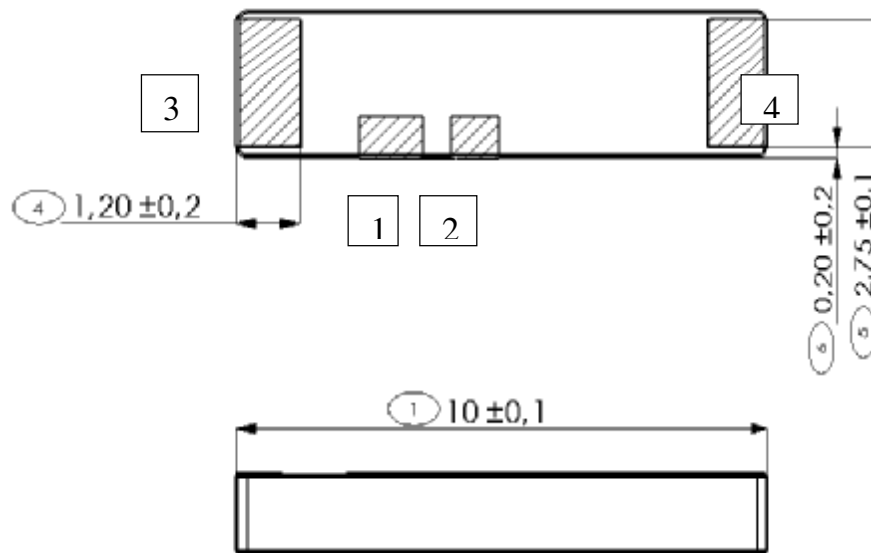


Recommended ground clearance area under antenna on PWB (bottom surface)

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 |

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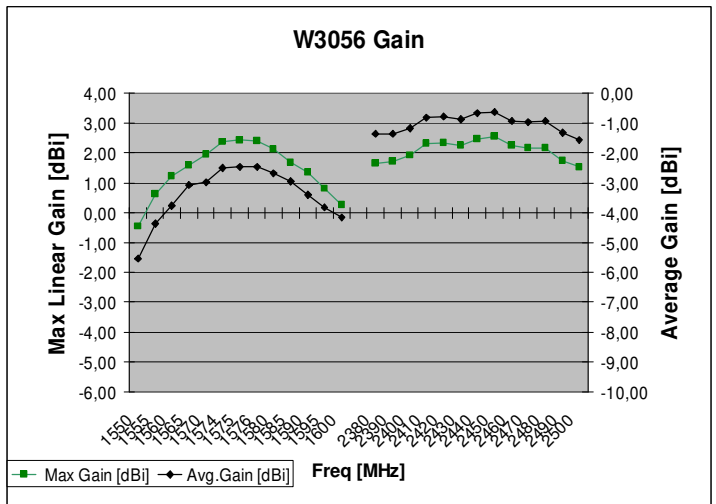
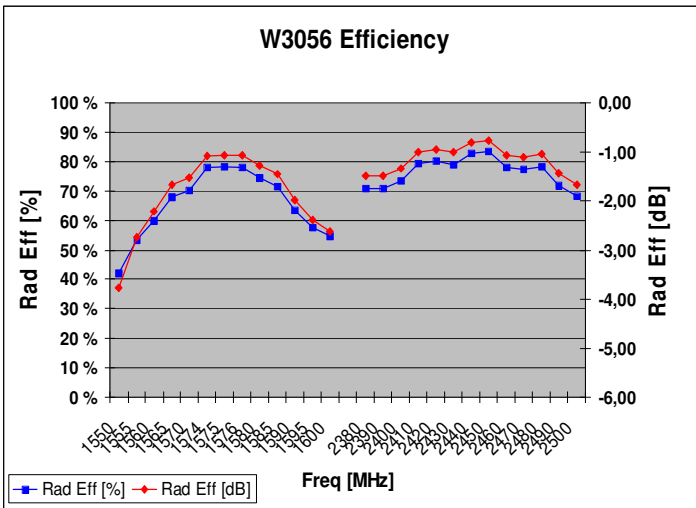
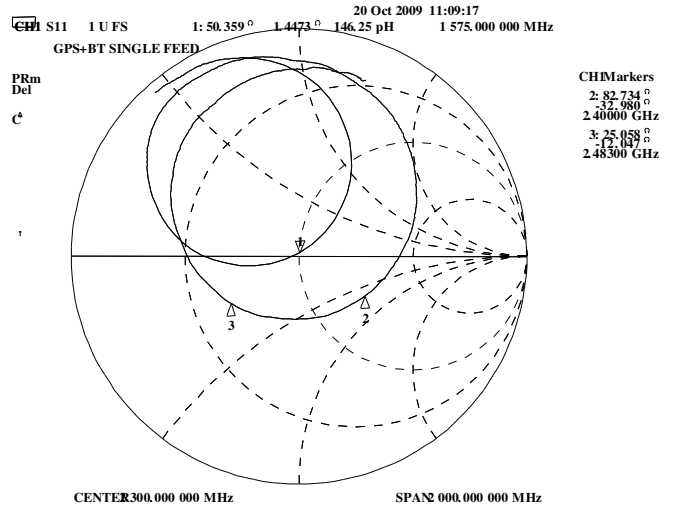
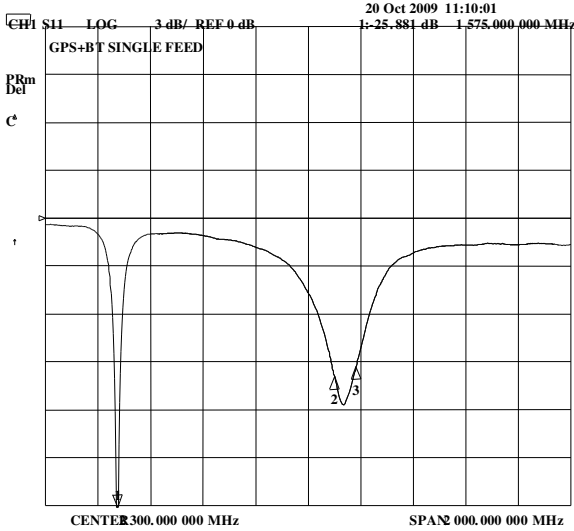


GPS/ BT Ceramic Chip Antenna

Typical Electrical Characteristics (T=25 °C)

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

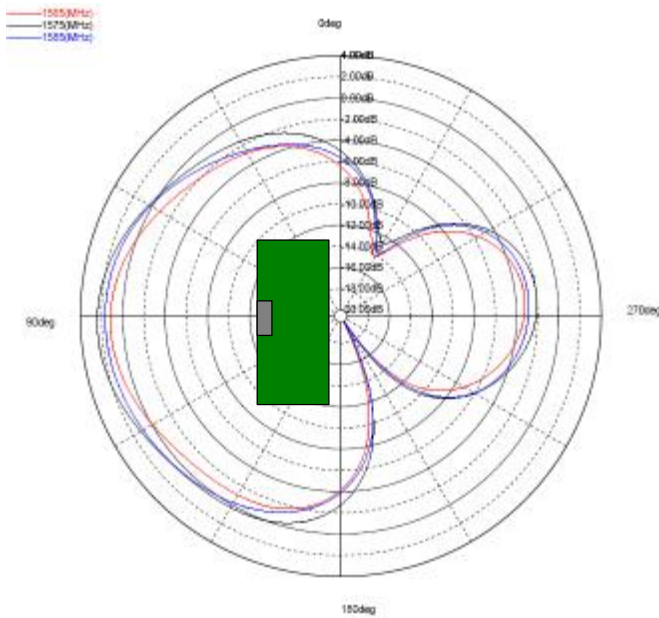
Typical Return Loss S11/ impedance, free space efficiency and gain



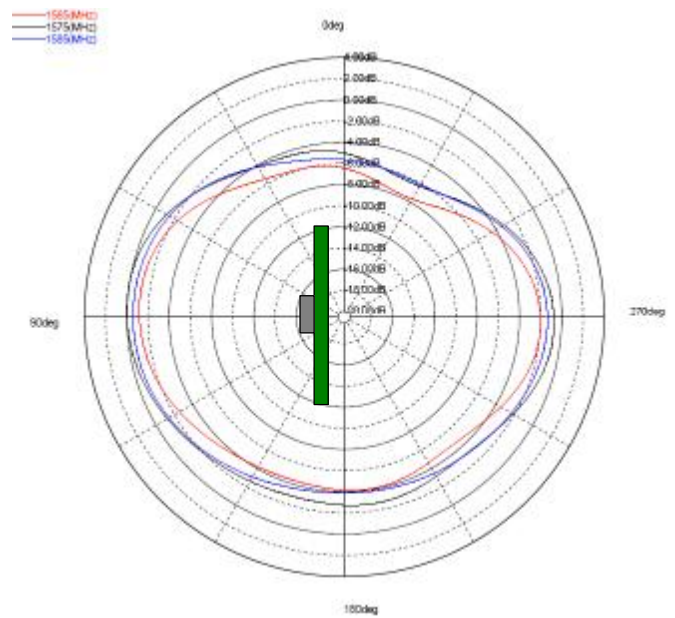
GPS/ BT Ceramic Chip Antenna

Typical Free space Radiation Patterns / GPS

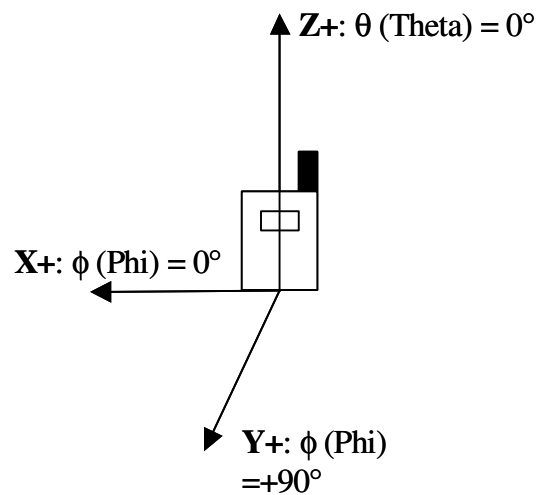
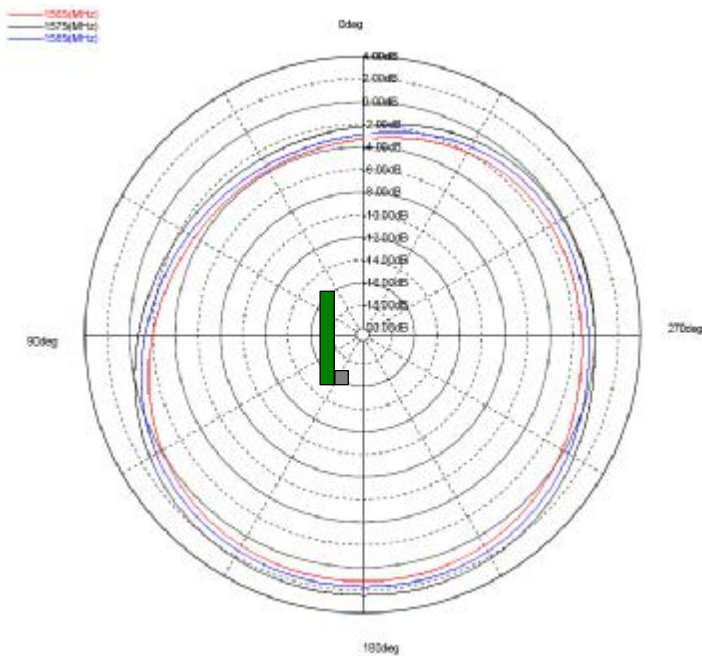
XZ-PLANE



ZY-PLANE



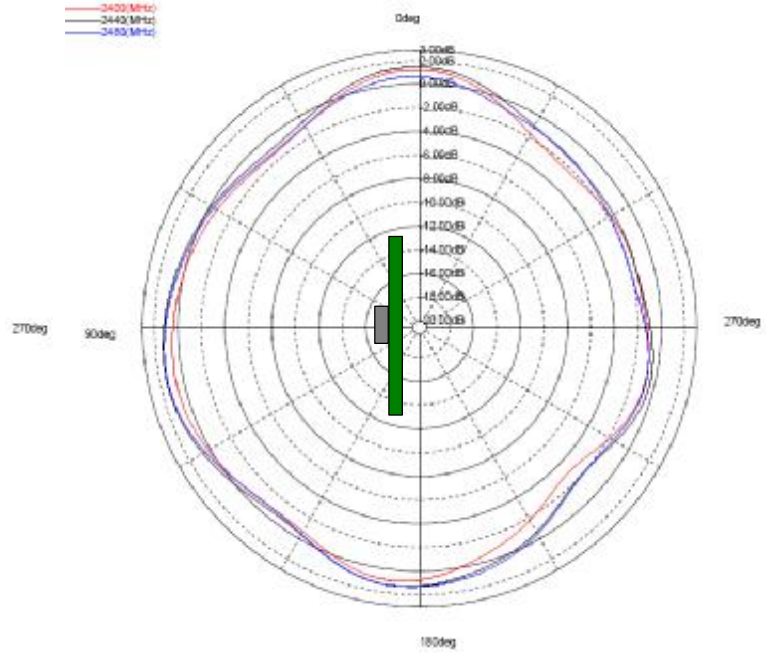
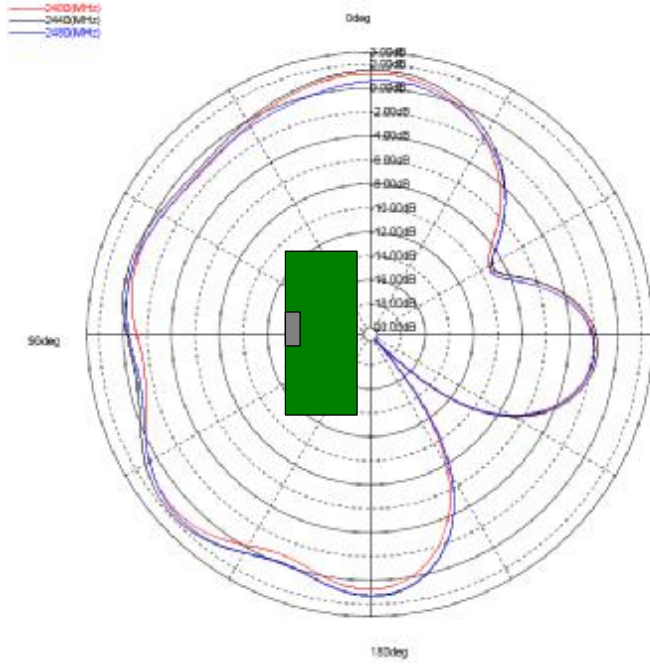
XY-PLANE



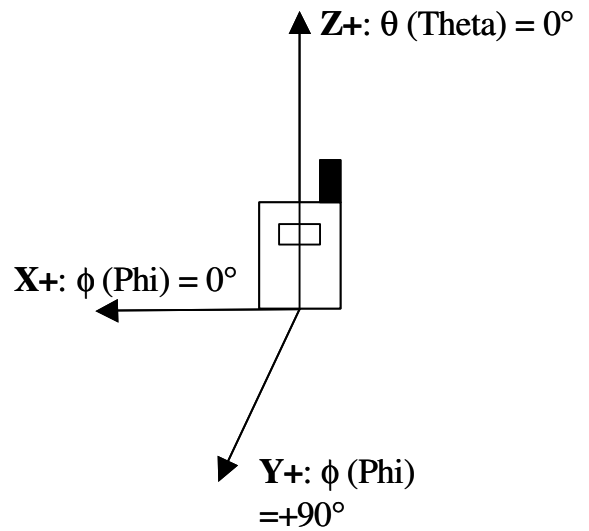
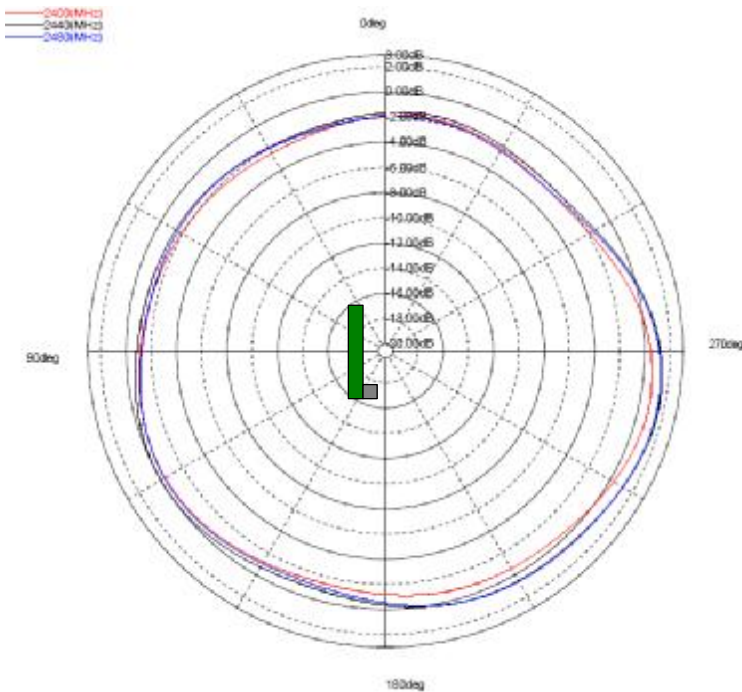
Typical Free space Radiation Patterns / BT

XZ-PLANE

ZY-PLANE

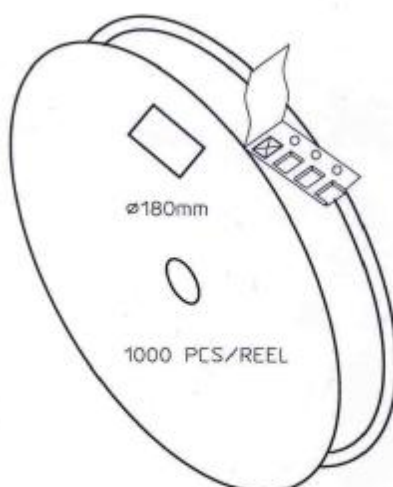


XY-PLANE



W3056 GPS/ BT Antenna Packing

Packing form

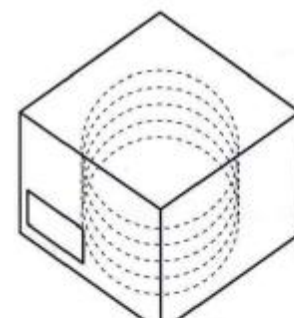


CARRIER TAPE H85-00168
 width=24,00 depth=2.20
 COVER TAPE H85-00159
 width=21.20

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.


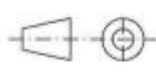


BOX H85-00128 1 pcs
 (182x182x125)
 - LABEL 1 pcs/BOX

REEL H85-00160 4 pcs
 (D180, W28)
 - REEL LABEL 1 pcs/REEL

MATERIAL

HANDLINGS

| | | | | | |
|---|---|-------|----------|-------------|---------------|
|  |  | RATIO | DRWN | 160107 PeHa | H |
| | | | DGNER | | G |
| | | | CHKD | | F |
| | | | APPRD | | E |
| PRODUCT | | | APPRD BY | | D |
| H90-OY113-F01P01 | | | | | C |
| | | | | | B |
| | | | | | A |
| DENOMINATION | | | VERSION | | MOD/DATE/NAME |
| PACKING FORM | | | | | |