

1.575GHz GPS Ceramic Chip Antenna

Ground cleared under antenna, clearance area 10.80 x 6.25mm

Pulse Part Number: W3010



Features

- Omni directional radiation
- Low profile
- Compact size W x L x H (10 x 3.2 x 2 mm)
- Low weight (310 mg)
- Lead free materials
- Fully SMD compatible
- Lead free soldering compatible
- Tape and reel packing
- RoHS Compliant Product

Applications

- GPS L1 band
- 1.575 GHz

Electrical specifications @ +25 °C

Note: Electrical characteristics depend on test board (GP) size and antenna positioning on GP and Ground Clearance area size.

GPS

Typical performance (test board size 80x37 mm, PWB ground clearance area 10.80 x 6.25 mm)

Frequency Range [MHz]	RHCP Gain [dBic]	Linear Max Gain [dBi]	Efficiency [%] / [dB]	Return loss min. [dB]	Impedance [Ω]	Operating Temperature [°C]
1575.42 +/- 10	-0.2 (Peak) -0.7 (Band edges)	2.8 (Peak) 2.3 (Band edges)	75 / -1.25 (Peak) 70 / -1.55 (Band edges)	-18	50	-40 to +85

Pulse Finland Oy

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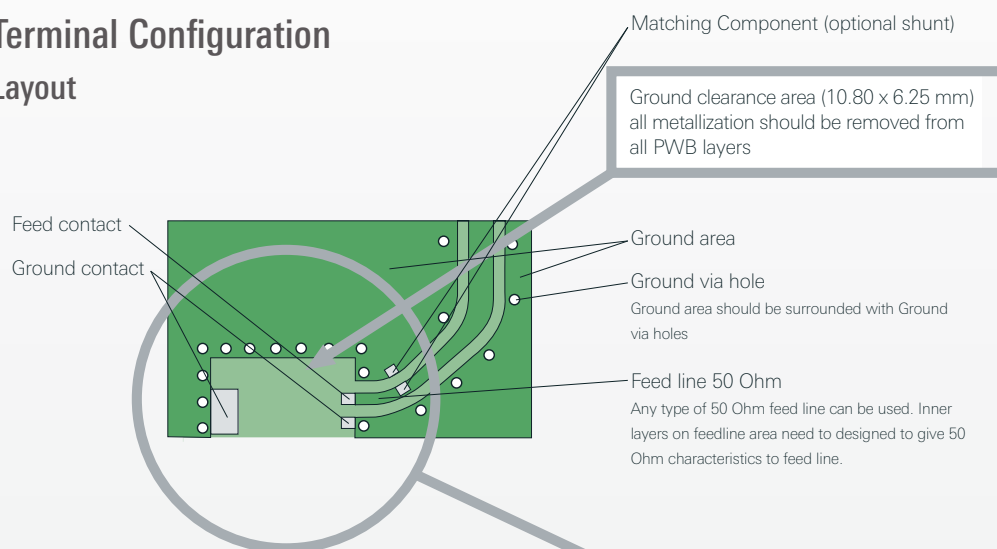


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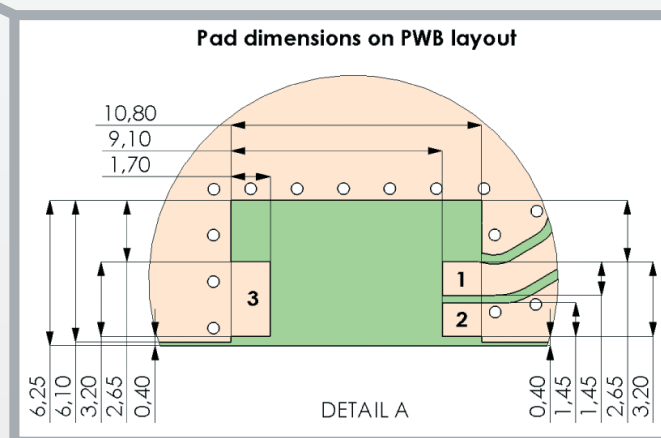
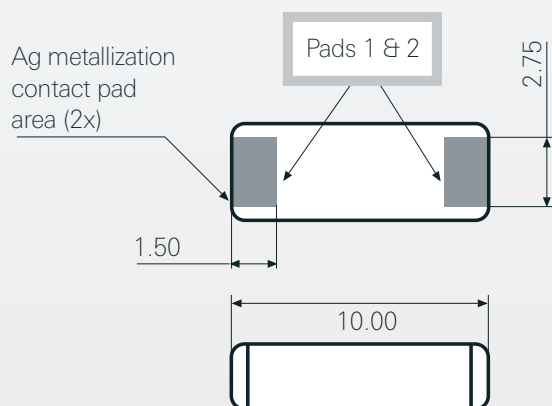
Ground cleared under antenna, clearance area 10.80 x 6.25mm

Terminal Configuration

Layout



Antenna



Antenna features

No.	Terminal name	Terminal Dimensions
1	Feed / GND	1.50 x 2.75 mm
2	Feed / GND	1.50 x 2.75 mm

Antenna is symmetrical.

Either of terminals 1 or 2 can be feed / GND

PWB features

No.	Terminal name	Terminal Dimensions
1	Feed	1.70 x 1.45 mm
2	GND	1.70 x 1.45 mm
3	GND	1.70 x 3.20 mm

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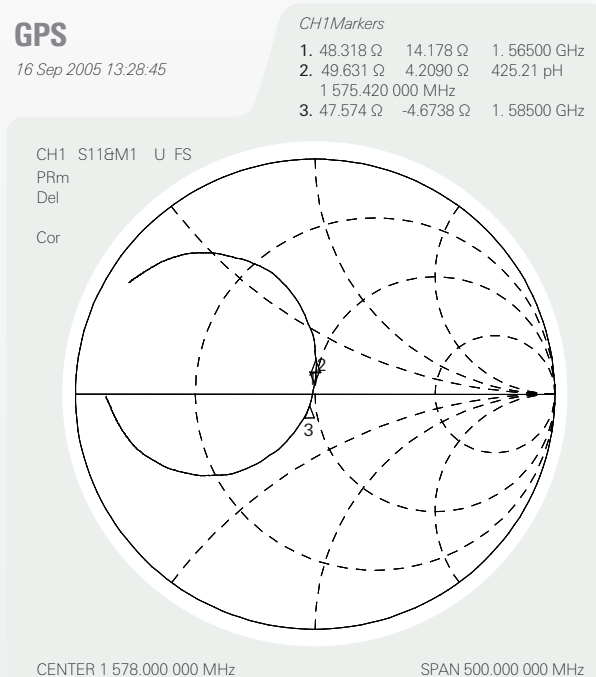
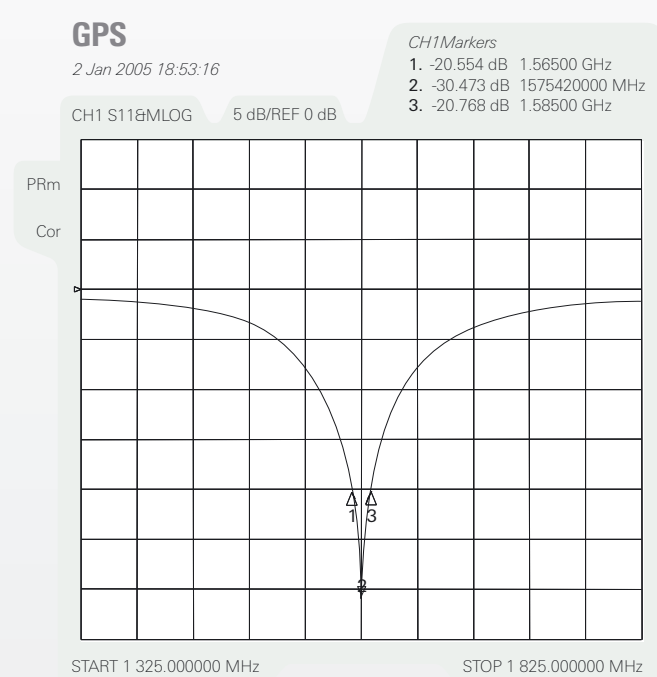
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Typical Electrical Characteristics (T=25 °C)

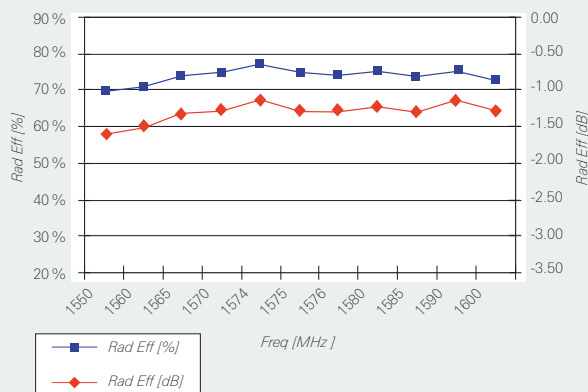
Measured with 3.3 pF shunt capacitor

Typical Return Loss S11/impedance

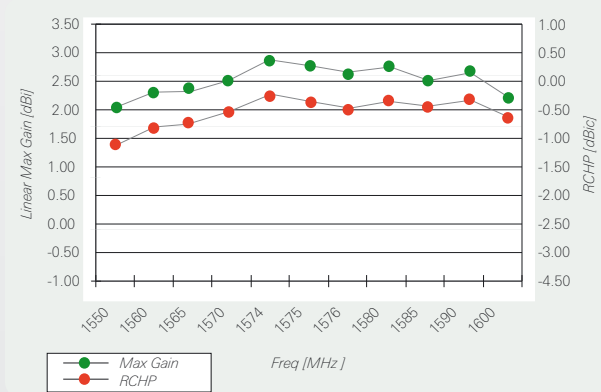


Free space efficiency and maxium gain

GPS CG 10 x 3.2 x 2 mm



GPS CG 10 x 3.2 x 2 x 2 mm



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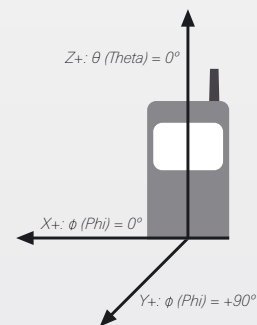
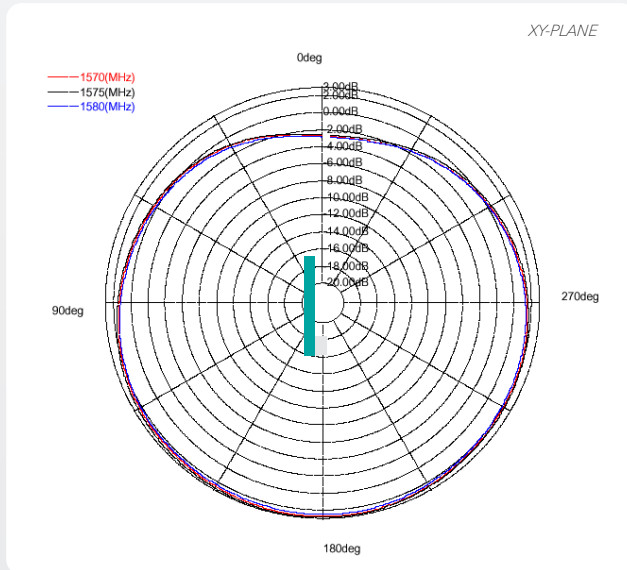
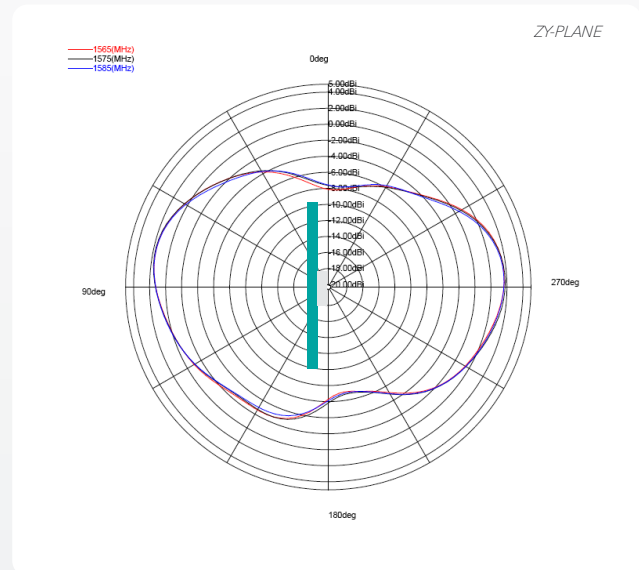
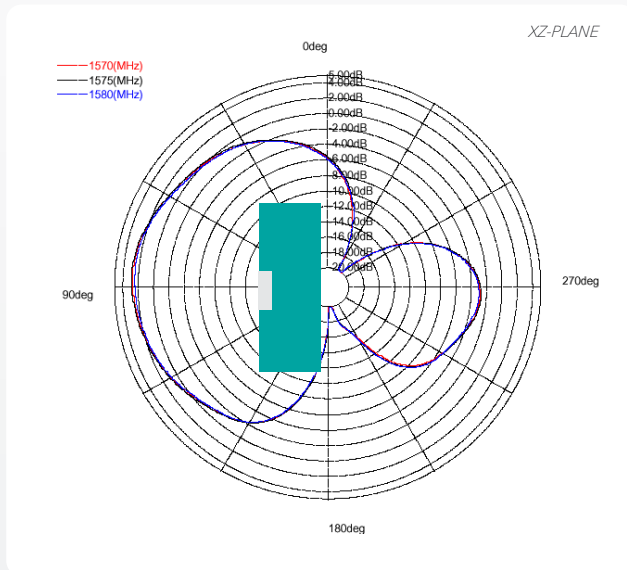
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Typical Free space Radiation Patterns



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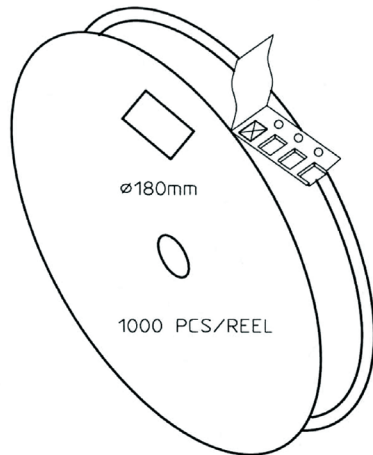


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Packing form

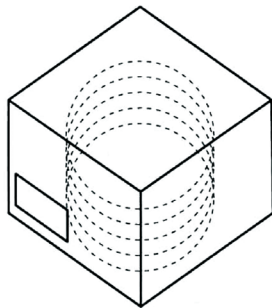


CARRIER TAPE H85-00188
width=24,00 depth=2.20
COVER TAPE H85-00159
width=21.20

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.

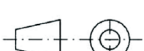


BOX H85-00128 1 pcs
(182x182x125)
- LABEL 1 pcs/BOX

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	
			APPRD BY		D	
PRODUCT			H90-OY113-F01P01			
DENOMINATION			PACKING FORM			C
						B
						A
			VERSION		MOD/DATE/NAME	

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