



Specification

# SPECIFICATION

Part No. : **PA-01**

Specification No : PA-1575-15-10-A-02

Product Name : **Dielectric GPS PIFA antenna**

Features : 10mm\*4mm\*3mm  
1.5dB Gain



## REVISION STATUS

Version	Date	Page	Revision Description	Prepared	Approved
01	July 19 <sup>th</sup> 2005	All	New format	TW Product Centre	Ronan Quinlan
02	Nov 5 <sup>th</sup> 2008	All	New Format	IRL Head Office	Dermot O'Shea



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**1.0 Overview**

This specification is for the Taoglas miniature GPS PIFA (Planar inverted-F Type Antenna) for mobile GPS applications.

**2.0 Electrical Specifications**

The antenna has the electrical characteristics given in Table 1 under the Taoglas standard installation conditions – (on the standard PA01 evaluation board / ground plane).

No.	Parameter	Specification
1	Frequency	1575.42MHz±1.023MHz
2	Dimensions	10*4*3 mm
3	Configuration	External Ground PIFA
4	Mode	$\lambda/4$
5	Bandwidth	20MHz
6	SMD	SMD
7	Removed Ground Area	11*6.0mm
8	External Matching Circuit	None
9	Axial Ratio	-
10	VSWR	2 Max
11	Peak Gain	1.5 dBic max
12	Average Gain	-4/5 dBic
13	Polarization	Linear
14	Impedance	50Ω

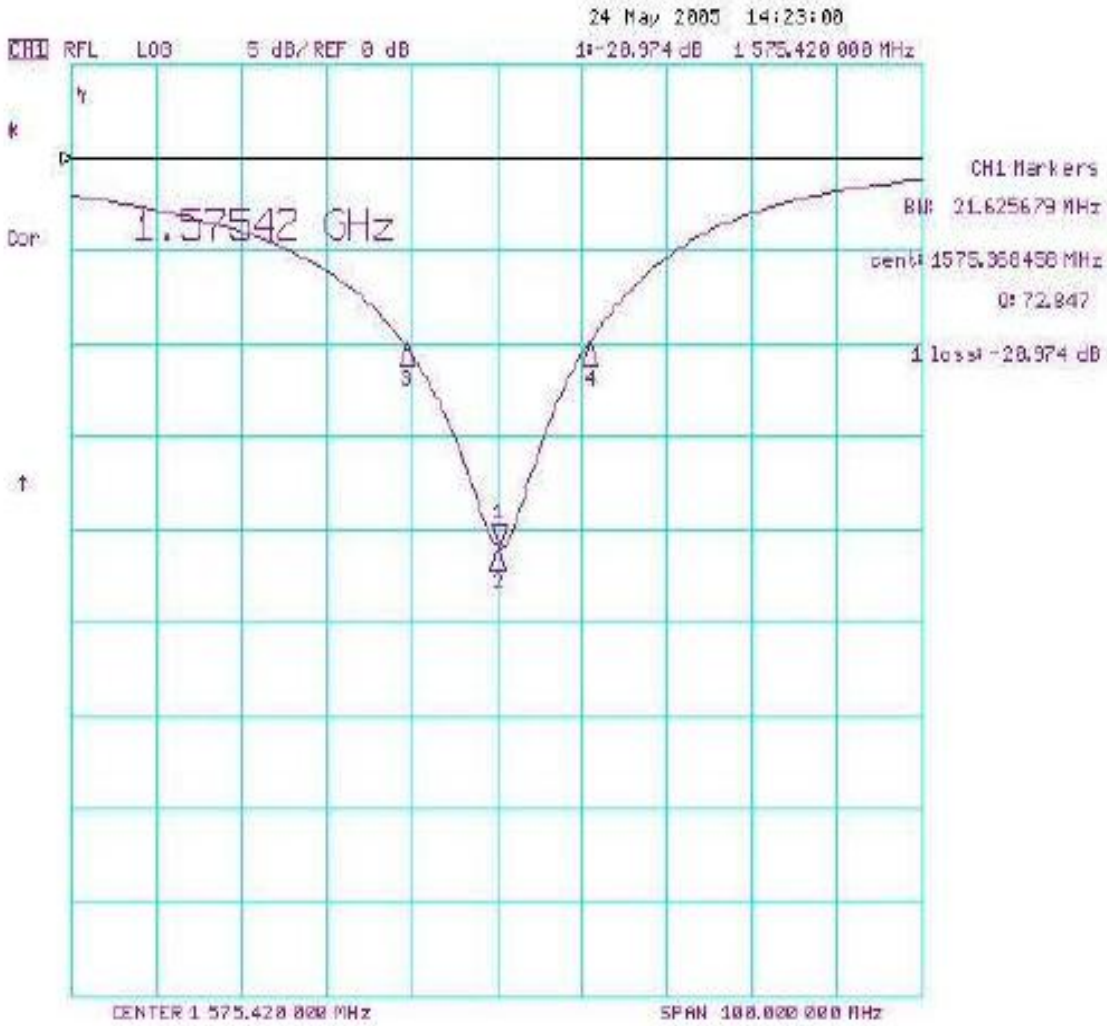
	Center Frequency (MHz)	Pass Band (MHz)	VSWR	Peak Gain (dBi)	Polarization
Specification	1575.42	Fo +/- 1.023	2.0 Max	-	-
Typical	1575.42	Fo +/- 1.023	1.5	1.5	Linear

Gain : Measured on a Taoglas Reference Ground plane (40\*80\*0.8)  
 Antenna position : Right side, Horizontal



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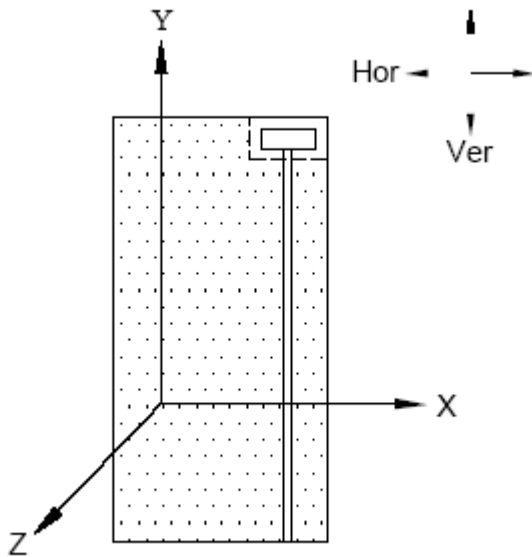
2.1 Reflection characteristics (return loss)





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2.2 Horizontal orientation



Evaluation board (top view) :



antenna



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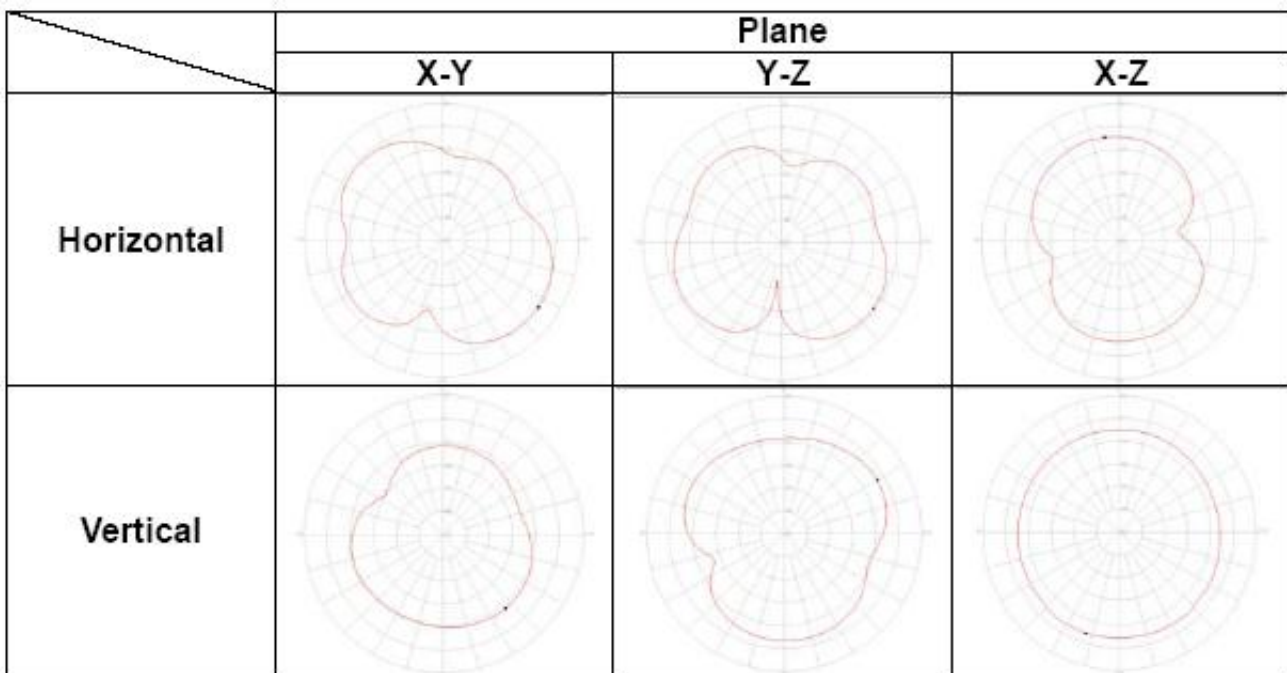
Evaluation board (underside) :



SMA (F) connector

Non metal area for antenna

2.3 Directivity

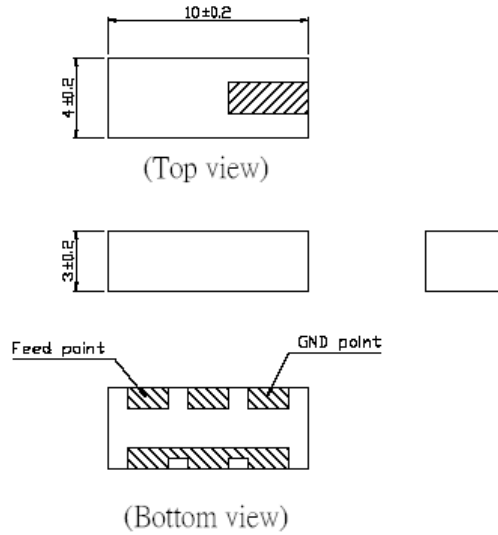




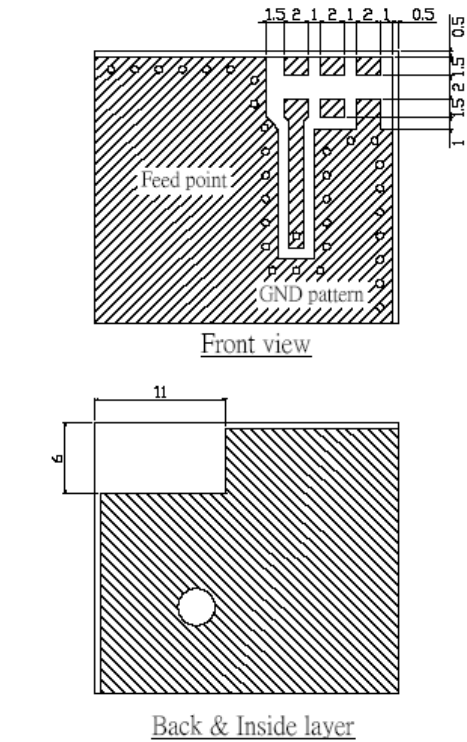
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### 4.0 Mechanical Dimensions

#### Shape and Dimension



#### Recommend foot print for Evaluation Board





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5.0 Delivery Mode

Blister tape to IEC 286-3

Polyester

Pieces/tape: 1000

