



# Perseus Tech. International Corp.

Golden Tech. Tower  
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## The GPS LTCC Chip Antenna( 1.575GHz) (GPS001)

The Global Position System(GPS) is one of the major wireless application in the near future. GPS can be applied in many 3C product, such as, cell-phone, PDA, etc. to provide the position information.

The GPS LTCC chip antenna(1.575GHz) by the *Perseus Tech. Int'l Corp.* is especially design for GPS facility application. The small-embedded antenna provides the most reliable, ease to use and adjustment-free antenna technology to solve the problem during assembly and implement by developer.

The details of antenna specification are as followings:

Part NO. : GPS001	
ITEM	SPECIFICATION
Size	10.0 x 3.0 x 1.5 mm
Central frequency	1575 MHz
Bandwidth	150 MHz
Peak gain	3 dBi
Normal gain	0.5 dBi
VSWR	2.0(Max.)
Power handling	3.0(Max.)
Polarization	Linear
Azimuth Beamwidth	Omni-directional
Feed Point Impedance	50 $\Omega$
Weight	0.16 g

Note: **GPS**                      **001**  
-----  
**Series**                      **Series number**  
**Name**

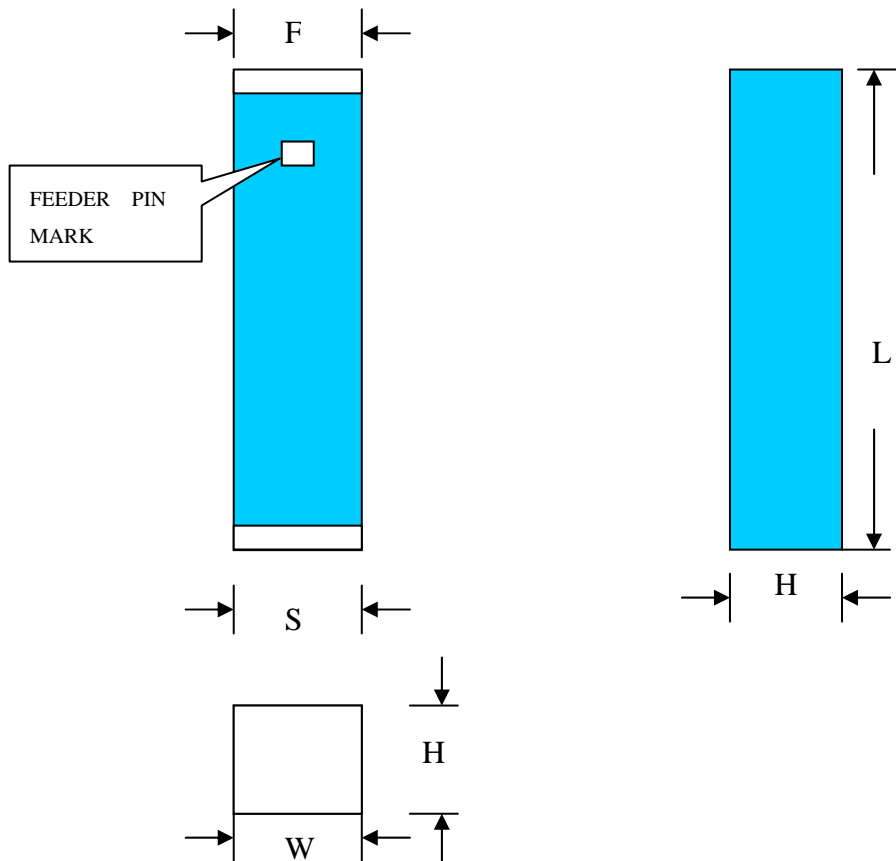


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## Mechanical Specification of Chip Antenna

(GPS001)



ITEM	DIMENSION	PORT
L	10.0 mm	-
W	3.0 mm	-
H	1.5 mm	-
F	----- mm	Feed termination
S	----- mm	Solder termination



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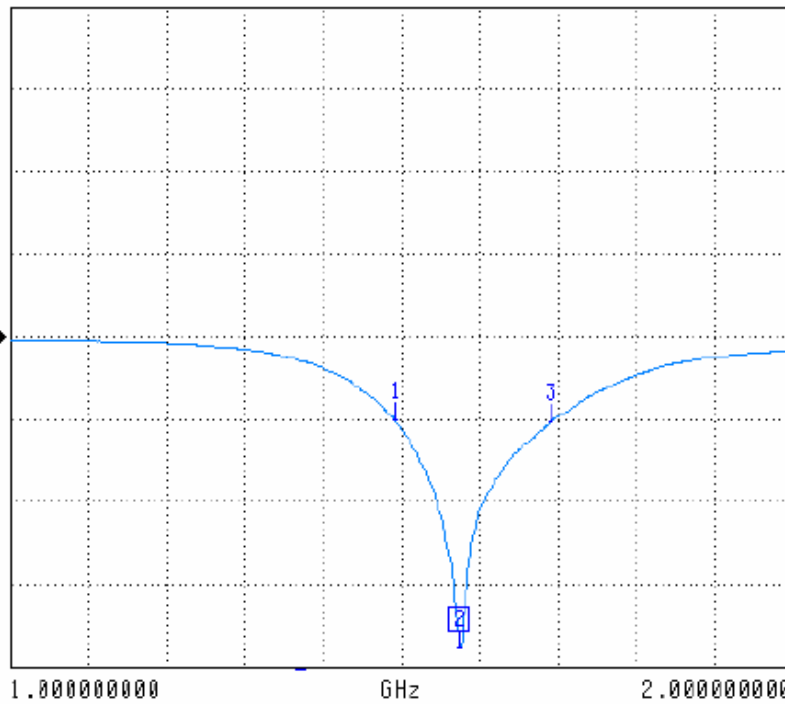
## Return Loss of GPS001

S11 FORWARD REFLECTION

LOG MAGNITUDE

REF - 0.000 dB

10.000 dB/DIV



CH 1 - S11  
REFERENCE PLANE  
0.0000 mm

MARKER 2  
1.575000000 GHz  
-37.764 dB

MARKER TO MAX  
▶ MARKER TO MIN

1	1.492187500 GHz	-10.215 dB
3	1.690625000 GHz	-10.479 dB

MARKER READOUT  
FUNCTIONS

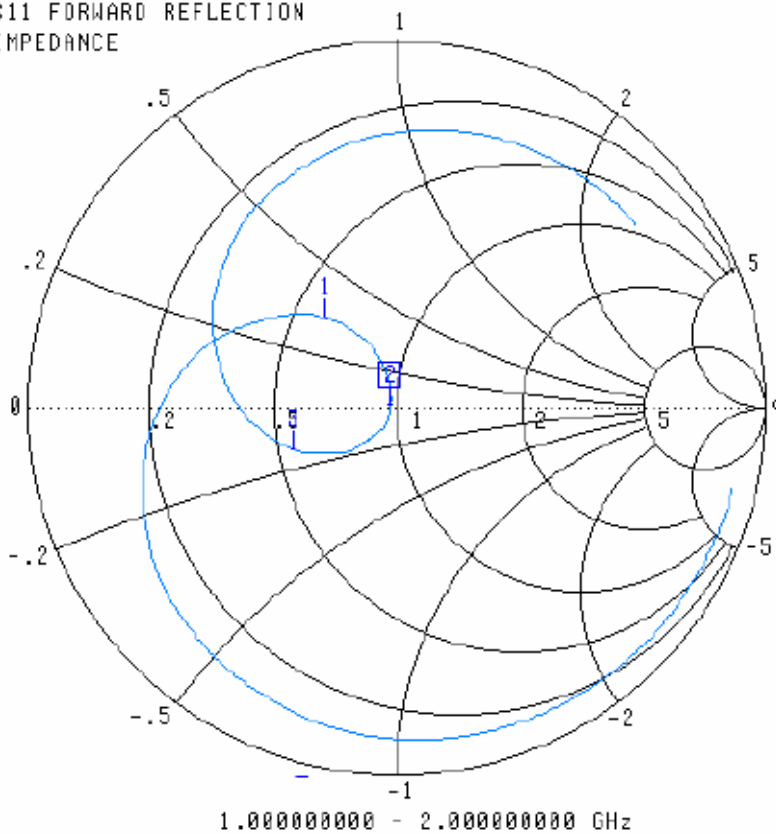


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## Smith Chart of GPS001

S11 FORWARD REFLECTION  
IMPEDANCE



CH 1 - S11  
REFERENCE PLANE  
0.0000 mm

MARKER 2  
1.575000000 GHz  
48.774  $\Omega$   
359.387  $j\Omega$

MARKER TO MAX  
▶ MARKER TO MIN

**1** 1.492187500 GHz  
30.617  $\Omega$   
16.383  $j\Omega$   
**3** 1.690625000 GHz  
27.733  $\Omega$   
-7.058  $j\Omega$

MARKER READOUT  
FUNCTIONS