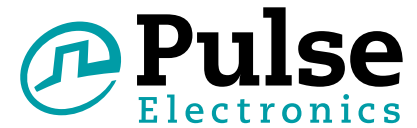
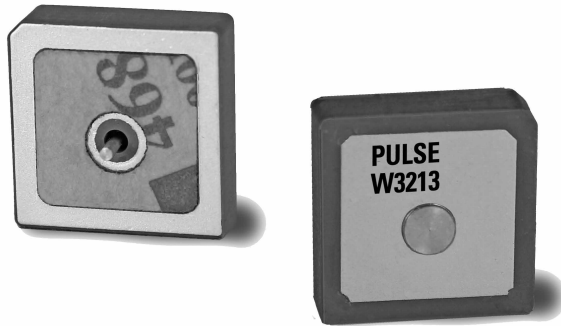


# 1.575 GHz GPS Ceramic Patch Antenna

Pulse Part Number W3213



Pulse is please to announce the W3213 GPS patch antenna to compliment our growing range of tracking antenna products. This small 0.5 x .05 inch (13 x 13 mm) ceramic patch antenna is 0.16 inches (4 mm) high and has a pin-through mount. Double sided tape is on the underside of the antenna for adhesion to the customer board.



Operating at 1.575 GHz, L1 GPS band, the W3213 patch provides circularly polarized radiation patterns to connect to satellite systems. Performance in this specification sheet is based on a ground plan of 1.2 x 1.2 inches (30 x 30 mm) delivering a gain of -1.5 dBic at Zenith and 10 degrees with 3dB axial ratio at Zenith. Increasing the size of the ground plane can significantly boost the actual application. Contact Pulse for applications support to get the best performance from your Navigation systems. Solutions for Glonass bands and surface mount patch antennas are also available on request.

#### Features

- Small footprint
- Right Hand Circular Polarization
- GPS L1 Band - 1.575 GHz
- RoHS Compliant Product

#### Applications

- Vehicle navigation and location
- Personal hand held tracking systems
- Healthcare and medical devices
- Small portable tracking equipment

## GPS L1 Band Patch Antenna

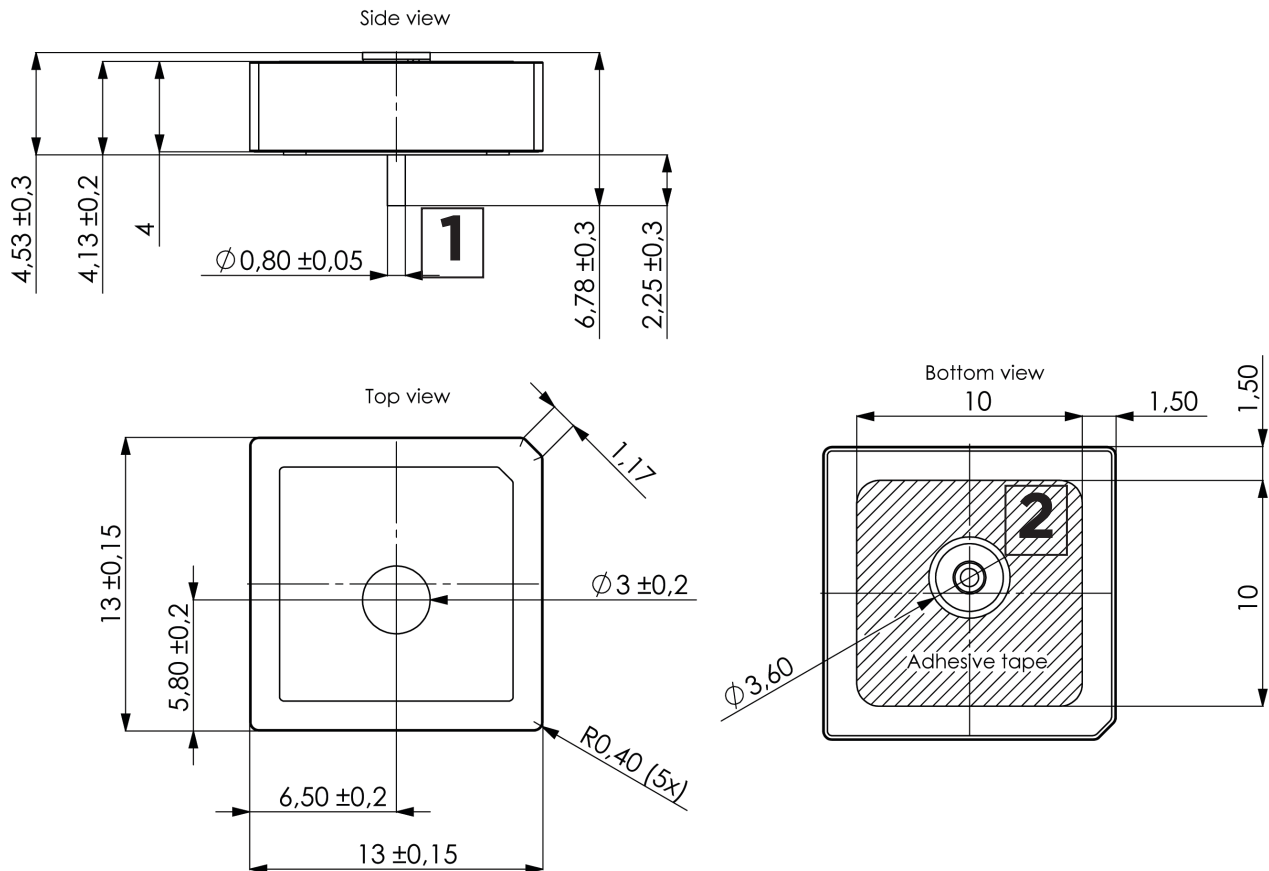
Typical performance (measured on 1.2 x 1.2 inch [30 x 30 mm] FR-4 ground plane)

Item	Typical Performance	Unit
Center Frequency	1575.42	MHz
Polarization	Right Hand Circular	—
RHCP Gain @ Zenith	-1.5	dBic
RHCP Gain @ 10° Elevation	-1.5	dBic
Axial Ratio @ Zenith	3	dB
VSWR	1.6 Max	—
Impedance	50	Ω

# 1.575 GHz GPS Ceramic Patch Antenna

Pulse Part Number W3213

## Mechanical Specifications



No.	Item	Description
1	Feed Pin	Silver plated brass
2	Adhesive	0.13 mm thick double sided tape

**Notes:**

Feed pin manual soldering conditions:

- 300° C max soldering iron temperature, 5 seconds max
- Typical lead free solders are applicable

Electrode silver metallization may tarnish if antenna is stored/used in corrosive environment, especially where chloride, sulphur or sulfide, alkali or acid salts exist in the air. Corrosive gases may cause oxidation of electrodes and reduce solderability.

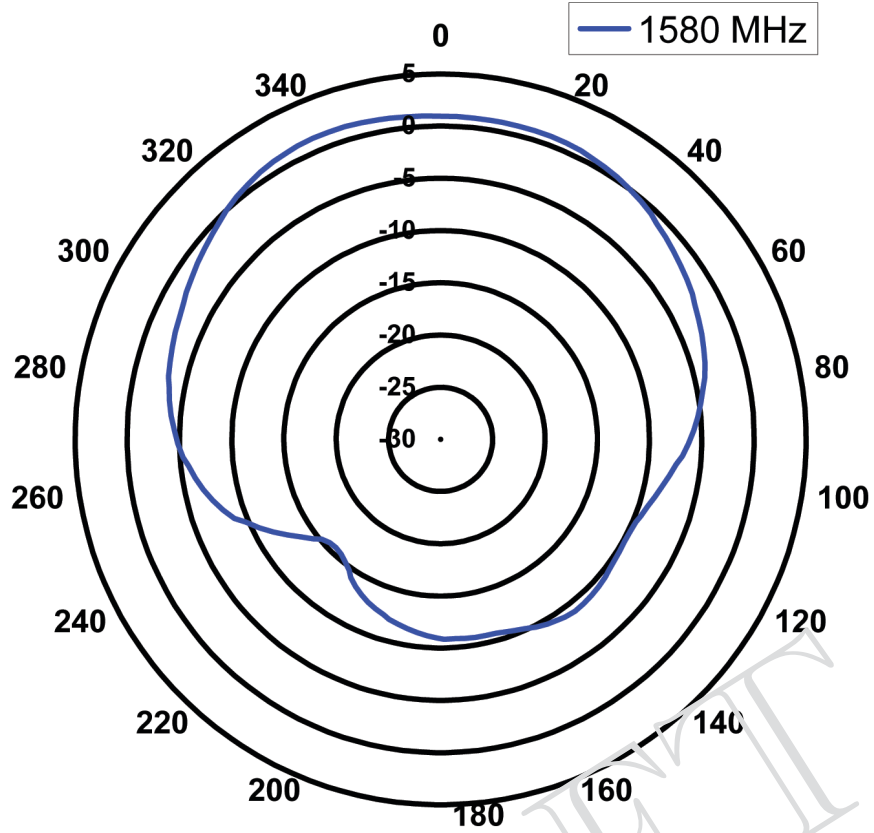
**NOTE:** Antennas are delivered in trays (80 antennas per tray), 10 trays per shipping box (800 antennas per shipping box).

# 1.575 GHz GPS Ceramic Patch Antenna

Pulse Part Number W3213

## Radiation Patterns

### Vertical Plane



## For More Information

### Pulse Worldwide Headquarters

12220 World Trade Drive  
San Diego, CA 92128  
U.S.A.

### Larsen Brand Antennas

3611 NE 112th Avenue  
Vancouver, WA 98682  
USA

### Europe Headquarters

Pulse GmbH & Co. KG  
Zeppelinstrasse 15  
Herrenberg  
Germany

### Asia Headquarters

B402, Shenzhen Academy of  
Aerospace Technology Bldg,  
10th Kejian Road, High-Tech Zone  
Nanshan District, Shenzhen, PR China 518057

### Pulse North Asia

3F, No. 198, Zhongyuan Road  
Zhongli City, Taoyuan County 320  
Taiwan R. O. C.

### Pulse (Suzhou) Wireless Products Co., Inc.

99 Huo Ju Road, (#29 Bldg, 4th Phase)  
Suzhou New District  
Science & Tech Industrial Park  
Jiangsu Province, Suzhou 215009 PR China

Tel: 858 674 8100  
Fax: 858 674 8262

Tel: 360 944 7551  
Fax: 360 944 7556

Tel: 49 7032 7806 0  
Fax: 49 7032 7806 135

Tel: 86 755 33966678  
Fax: 86 755 33966700

Tel: 886 3 4356768  
Fax: 886 3 4356823

Tel: 86 512 6807 9998  
Fax: 86 512 6809 8023

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