

# **AQUA-1575P Data Sheet**

## **Passive GPS Quadrifilar Helix Antenna**

MAY. 2007

Ver. 1.1



**Confidential**

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**Page 1**

## Revision History

Revision	Date	Description of Changes
V032007	MAR.20, 2007	First Release
V052705	MAY.27,2007	Insert the blocking capacitor (page.9)

\* **AQUA** : **A**ctenna's **QU**adrifilar **A**ntenna

## Table of Contents

1. General Description.....	4
1.1 Features .....	4
1.2 Typical Applications .....	4
2. System Block Diagram .....	5
3. Specifications .....	6
4. Mechanical Dimensions .....	8
5. Application .....	9

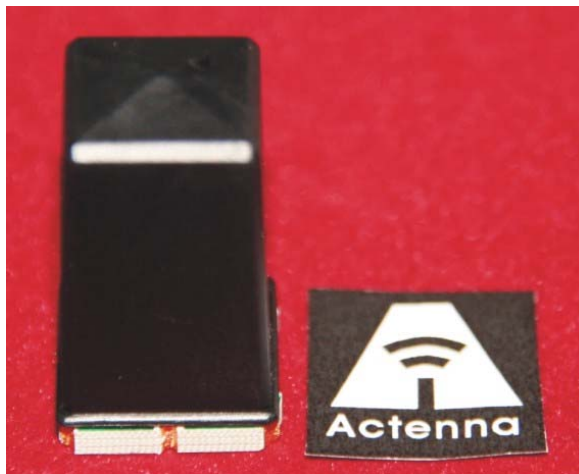


## 1. General Description

AQUA-1575P is the smallest passive quadrifilar helix antenna (QHA) for GPS applications.

### 1.1 Features

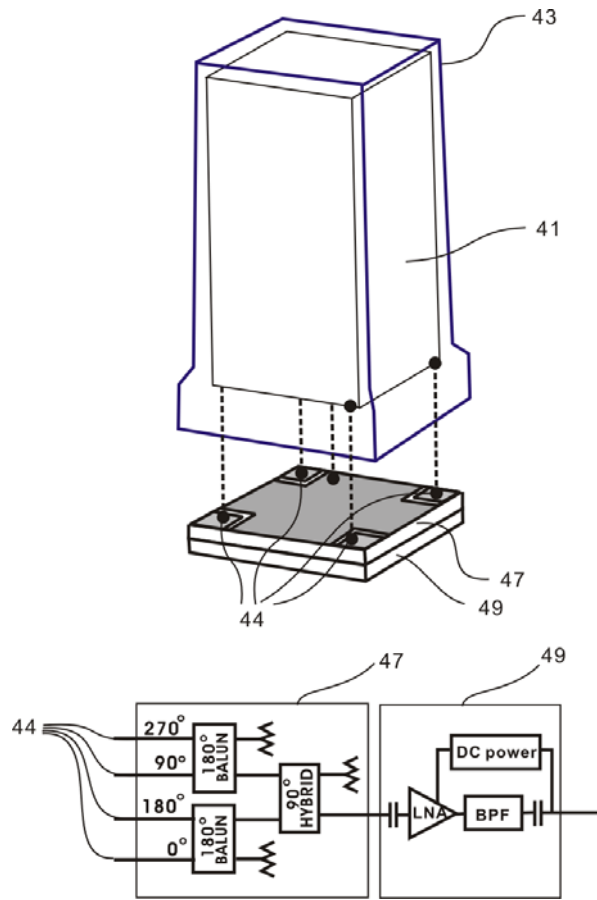
- Square-QHA
- Compact size
- Ideal for tight integration
- Low interaction with platform
- Wide beamwidth
- Negligible detuning close to users
- Internal and external mounting
- SMT compatible
- Easy Application and Save development time
- OEM/ODM



### 1.2 Typical Applications

- Consumer electronic devices requiring GPS feature
- Handheld devices such as PDA
- Cellular phones, Smart phones

## 2. System Block Diagram



\*Patent Pending

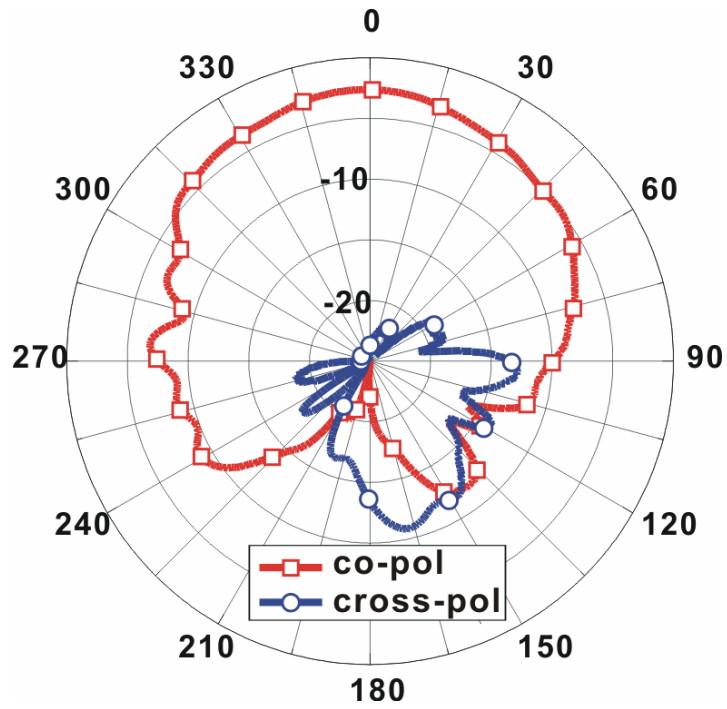
- 41 : Square-QHA
- 43 : Housing
- 47 : Feeding Network
- 49 : LNA Module (\*option)

### 3. Specifications

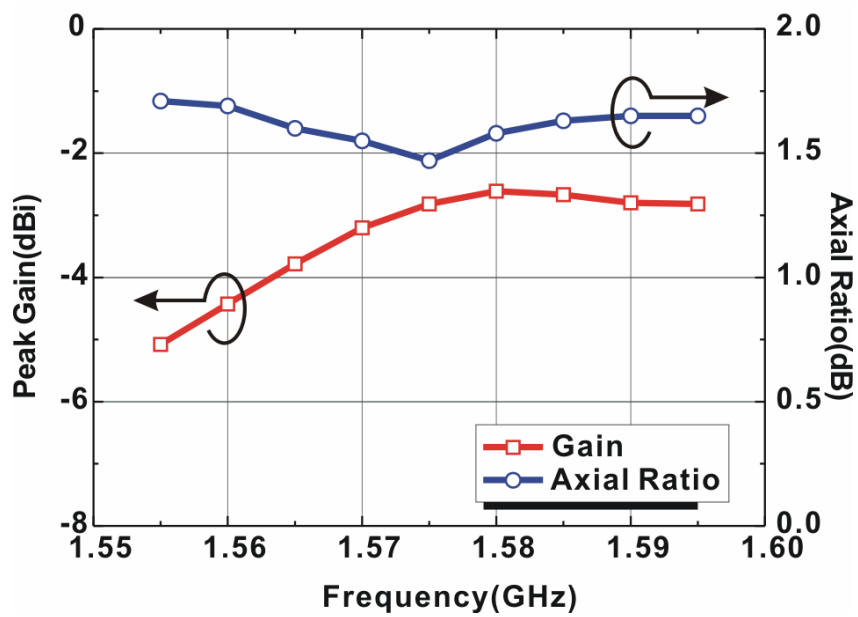
No		Min	Typ	Max	Unit
1	Part Number	AQUA-1575P			Each
2	Type	Square Quadrifilar Helix*			
3	Frequency	1573.42	1575.42	1577.42	MHz
4	Polarization	Right-Hand Circular Polarization			
5	Gain	-2	0		dBic
6	Beamwidth		>120		Degrees
7	Bandwidth(3dB)		20		MHz
8	Axial Ratio		<2.0		
9	Element Dimensions				mm
10	Overall Dimensions (w/radome)				mm
11	Weight (exclusive radome)	5			grams
12	Mounting	SMT			

\* Patent Pending

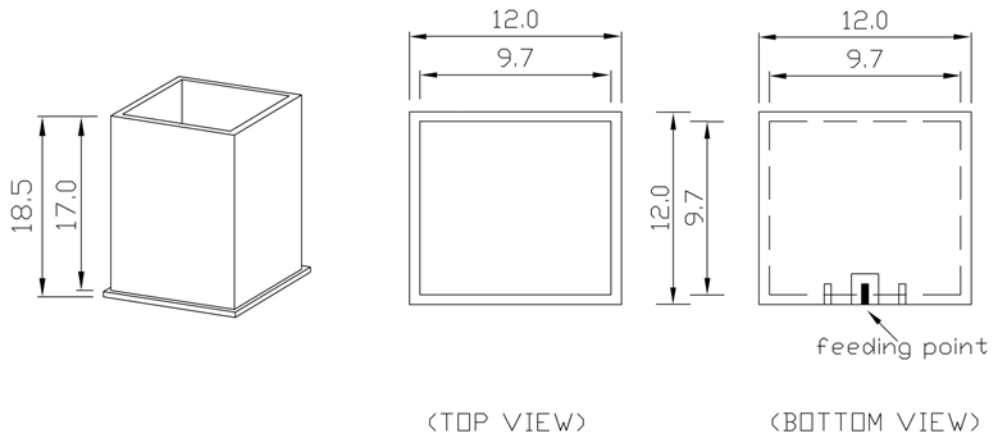
● Radiation Pattern (dBic)



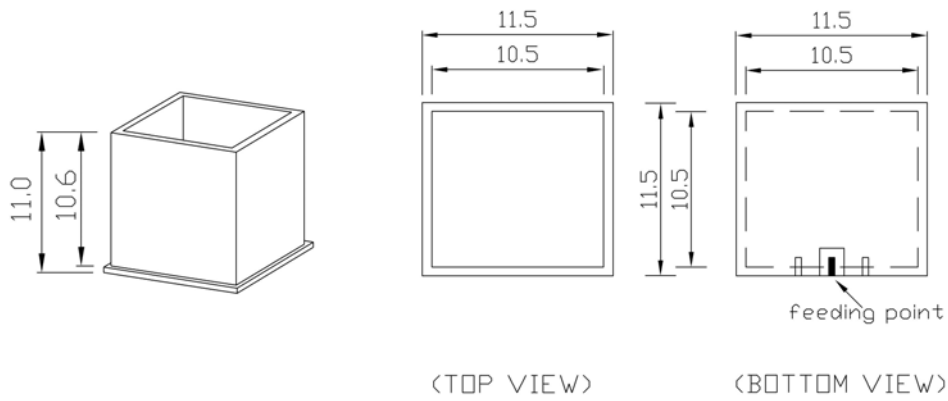
● Gain and Axial Ratio



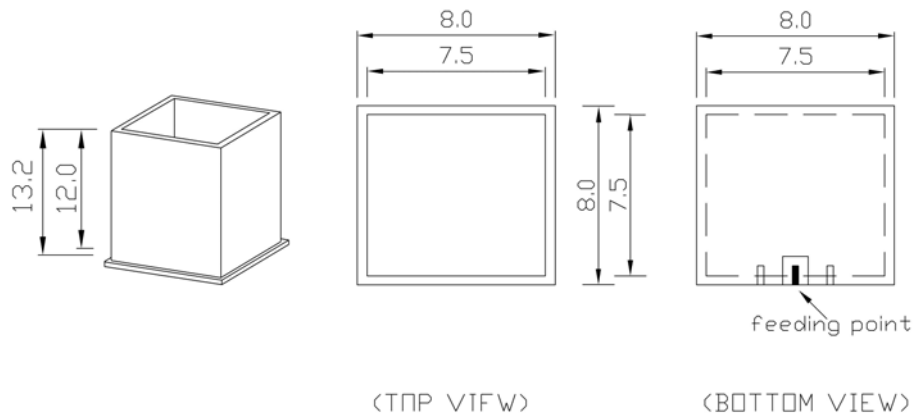
### 4. Mechanical Dimensions (mm)



(AQUA-1575P-A)



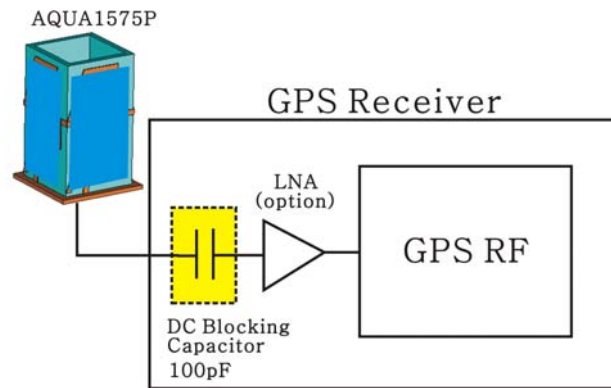
(AQUA-1575P-B)



(AQUA-1575P-C)

## 5. Application

- \* Insert the DC blocking capacitor into the GPS receiver.



## 6. ASS'Y

\* ANTENNA POSITION

