

# **AQUA-2330P Data Sheet**

## **SDARS Quadrifilar Helix Antenna**

MAY. 2007

Ver.1.1

## Revision History

Revision	Date	Description of Changes
V041607	APR.16, 2007	First Release
V052707	MAY.27, 2007	Insert the blocking capacitor (page.10)

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

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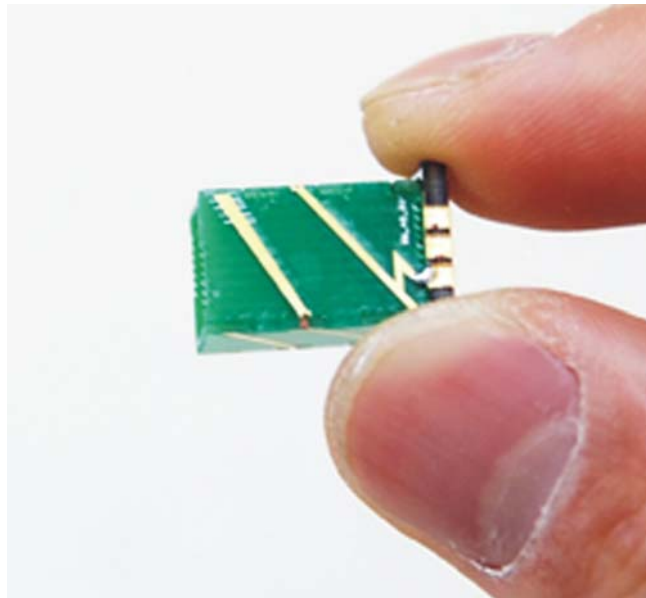
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## 1. General Description

AQUA-2330P is the smallest passive quadrifilar helix antenna (QHA) for SDARS (satellite digital audio radio systems) applications.

### 1.1 Features

- Square-QHA\*
- 2.3GHz LHCP SDARS Antenna
- 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



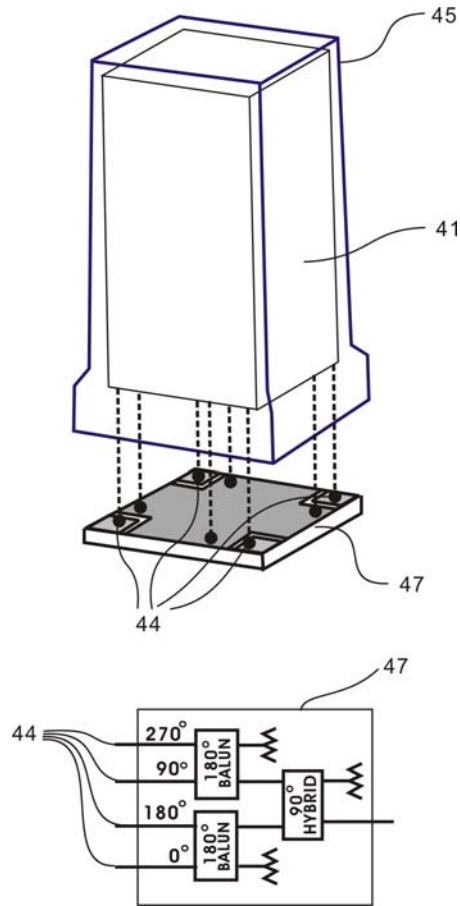
\* Patent Pending

### 1.2 Typical Applications

- Consumer electronic devices requiring SDARS feature
- Handheld devices such as PDA

- Cellular phones, Smart phones

## 2. System Block Diagram



\*Patent Pending

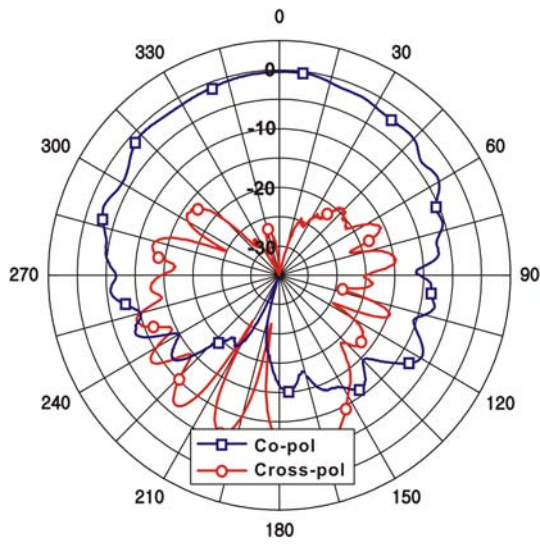
- 41 : Square-QHA
- 44 : Feeding Points
- 45 : Housing
- 47 : Feeding Network

### 3. Specifications

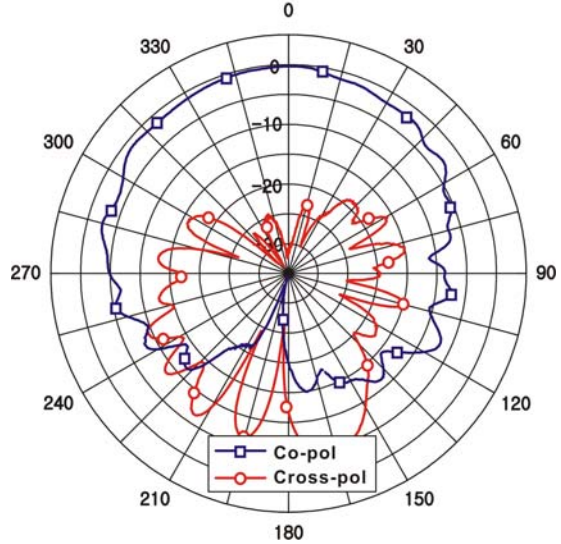
No		Min	Typ	Max	Unit
1	Part Number	AQUA-2330P			Each
2	Type	Square Quadrifilar Helix*			
3	Frequency	2320~2350			MHz
4	Polarization	Left-Hand Circular Polarization			
5	Gain	0	2		dBic
6	Beamwidth		>120		Degrees
7	Bandwidth(3dB)		40		MHz
8	Axial Ratio		<2.0		
9	VSWR		<2.0		
10	Impedance		50		Ohms
11	Element Dimensions	9.7x9.7x15.5			mm
12	Overall Dimensions (w/radome)	14.3x14.3x24.1			mm
13	Weight (exclusive radome)	5			grams
14	Mounting	SMT			

\* Patent Pending

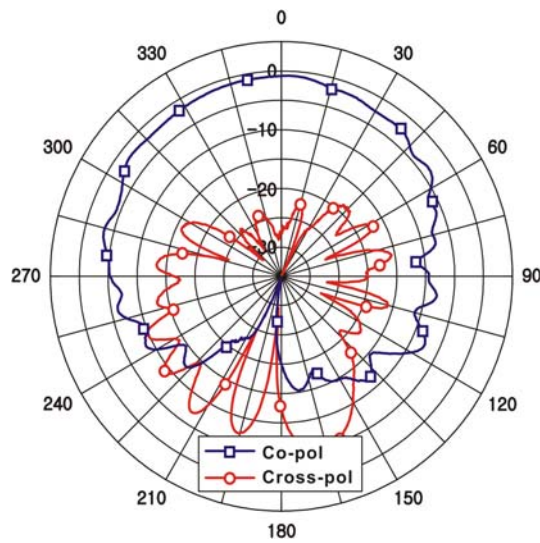
● Radiation Pattern (dBic)



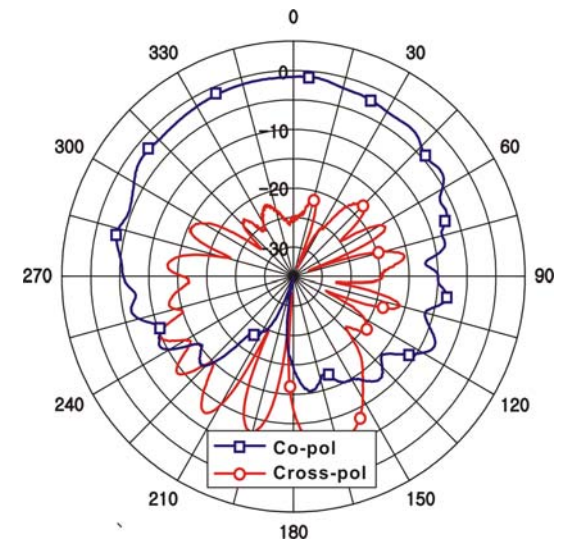
(a) 2.32GHz



(b) 2.33GHz

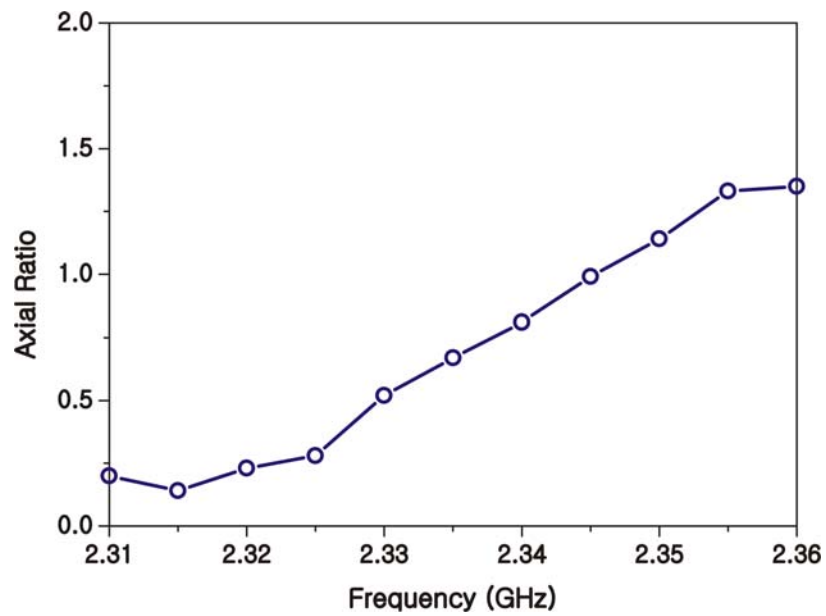
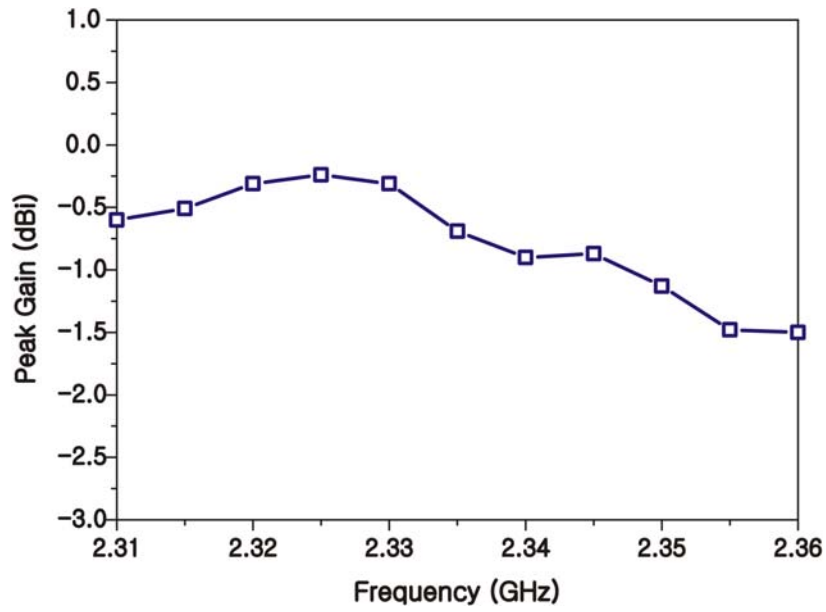


(c) 2.34GHz

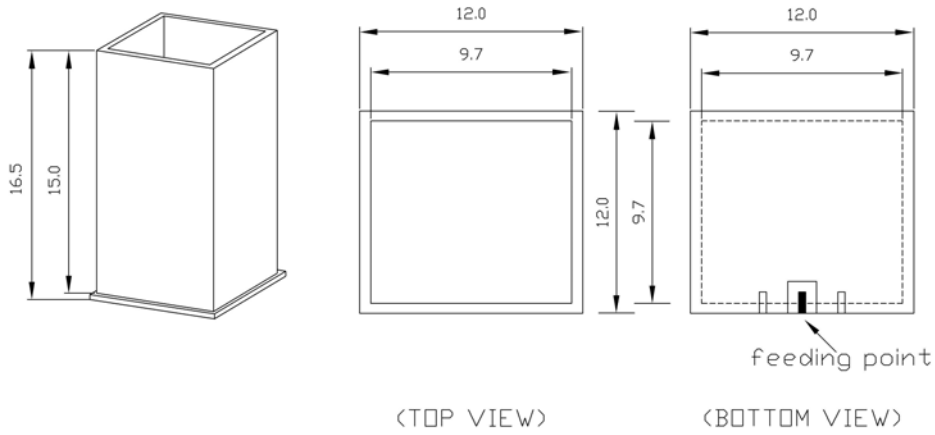


(d) 2.35GHz

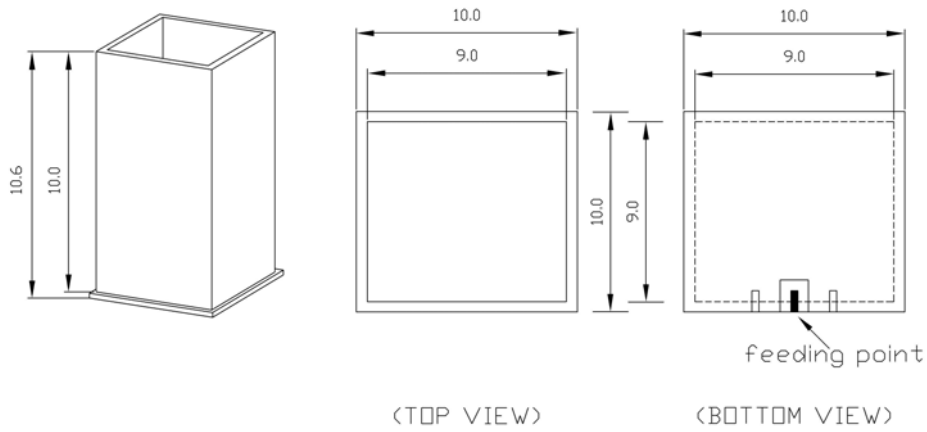
● Gain and Axial Ratio



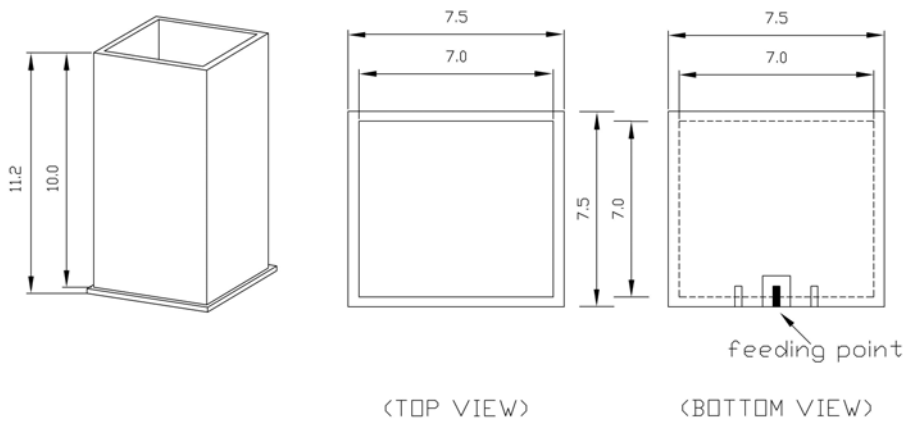
### 4. Mechanical Dimensions (mm)



(AQUA-2330P-A)



(AQUA-2330P-C)



(AQUA-2330P-C)

## 5. Application

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

