

# ALLISCOM

## W series

### GPS Antenna

### Data Sheet



<b>Model No.</b>	<b>W series</b>
<b>Feature</b>	<b>Waterproof Housing IP67 Standard High Performance Fast signal acquisition</b>
<b>Benefit</b>	<b>Withstand harsh salt water environment Durability</b>
<b>Description</b>	<b>Allis Communications W Series GPS Marine Antenna is a durable antenna for outdoor harsh environment. The W Series Antenna will withstand harsh salt water environment and sunlight. The cone shaped body will also prevent bird interference.</b>

# 1. Electrical Specifications

## 1.1 Electrical Data

Patch Antenna:						
Frequency		1575.42 ± 3 MHz				
VSWR		1.5 max.				
Bandwidth		20MHz min. at -10dB				
Axial Ratio		3dB typical				
Impedance		50Ω				
Peak Gain		4dBic min. at 0° (7cm x 7cm ground plane)				
Gain Coverage		≥ -4dBic at -90° ≤ θ ≤ 90°(over 75% volume)				
Power Handling		1 watt				
Polarization		RHCP				
Amplifier Module:						
Model No.	Amplifier Gain without cable	Noise Figure	Output VSWR	Filtering	DC Voltage	DC Current
W340C	40dB typical	2dB typical	2.0 max.	At ±40MHz 9dB At ±75MHz 20dB At ±100MHz 28dB	DC 2.7 to 4.2V	24±5mA
W527R	27dB typical	2dB typical			DC 5.0 to 12V	21±3mA
W540C	40dB typical	2dB typical			DC 4.5 to 5.5V	25±5mA
W827A	27dB typical	1.5dB typical			DC 3.0to 5.5V	20±5mA
W842C	42dB typical	1.5dB typical		At ±40MHz 60dB At ±75MHz 50dB At ±100MHz 50dB	DC 3 to 5.5V	25±5mA

\* Specifications subject to change without notice.

## 1.2 Gain Pattern

Test Equipment : NSI Spherical near-field measurement system

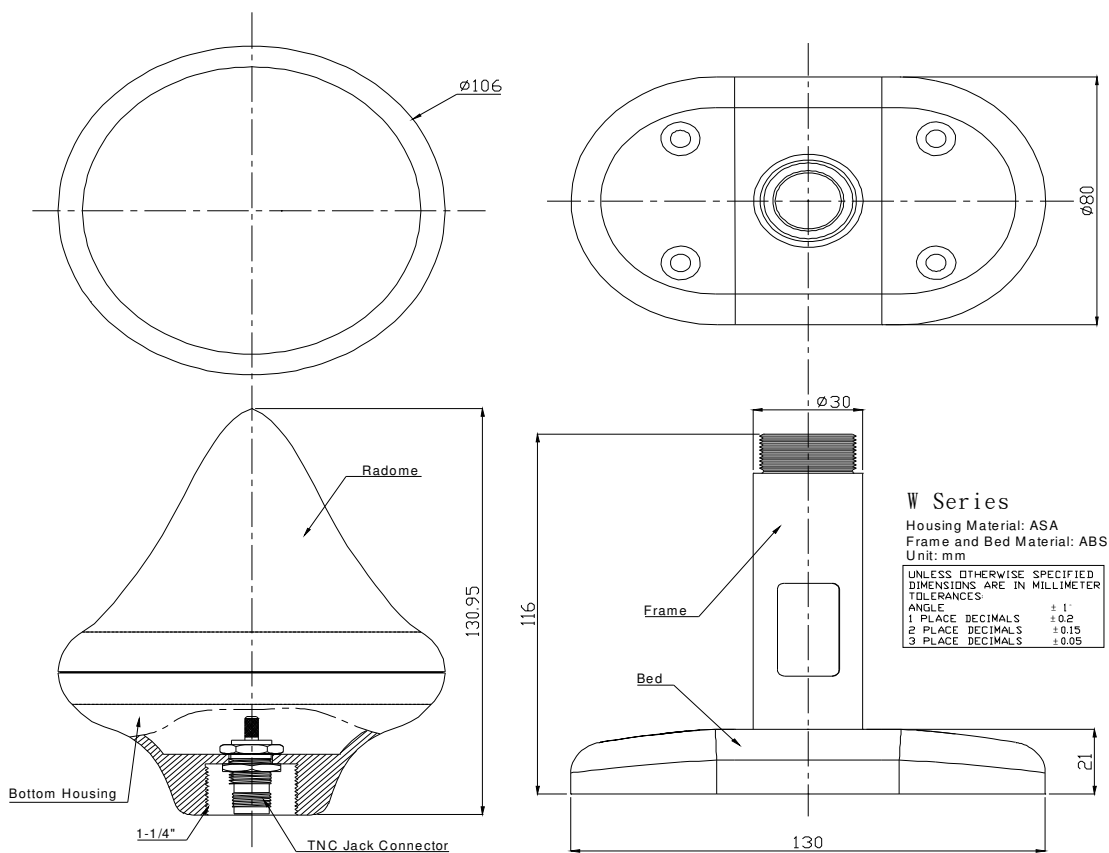
Type.	Peak Gain (at 0°)	Axial Ratio (at 0°)	Voltage
W340C	40.25dB	2dB Max.	Voltage: 3V
W527R	28.3dB	2dB Max.	Voltage: 5V
W540C	40.1dB	2dB Max.	
W827A	27.6dB	1dB Max.	
W842C	42.03 dB	3 dB Typical	

## 2. Mechanical Specification

### 2.1 Mechanical Data

Item	Specification
Weight (Without Cable)	280 grams max.
Size	106mm Dia. x 235 mm
Connector	TNC Jack (Female)
Label	See 3.6
Mounting	1" X 14 Thread male
Housing Color	White

### 2.2 Dimension



### 3. Appendix: Gain Patterns

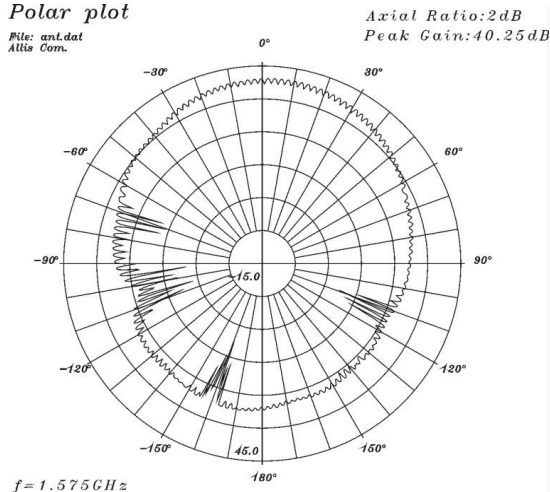
Test Equipment: NSI Spherical near-field measurement system

● **W340C**

DC Voltage: 3V  
DC Current: 23.19mA

*Polar plot*

File: ant.dat  
Allis Com.

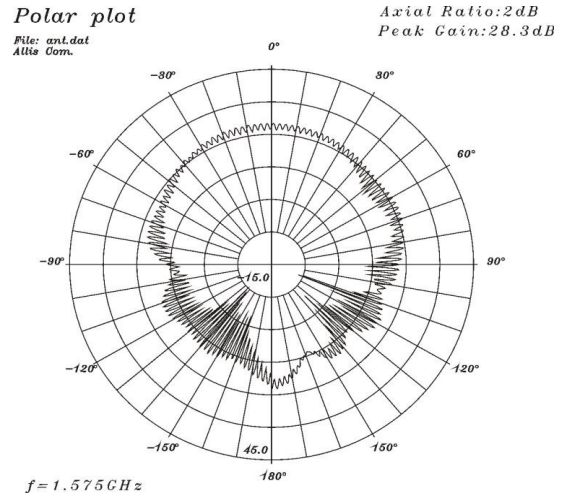


● **W527R**

DC Voltage: 5V  
DC Current: 21.6mA

*Polar plot*

File: ant.dat  
Allis Com.

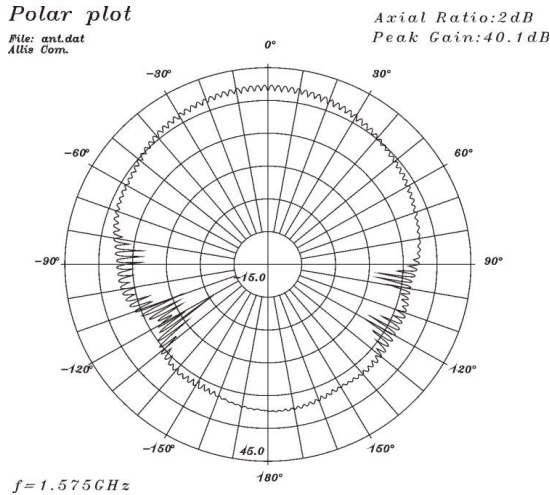


● **W540C**

DC Voltage: 5V  
DC Current: 26.2mA

*Polar plot*

File: ant.dat  
Allis Com.



● **W827A**

DC Voltage: 5V  
DC Current: 20.1mA

*Polar plot*

File: ant.dat  
Allis Com.

