

ALLISCOM

GPS/GLONASS/BDS Antenna

Data Sheet



Model No. W5GGR

Feature GPS + GLONASS +BDS
1560MHz ~1610MHz
IP67-rated
High Performance
Fast signal acquisition
Withstand harsh saltwater environment
Durability

Description Allis Communications W Series Antenna is a durable antenna for outdoor harsh environment. The W5GGR Antenna feature GPS and GLONASS functionality. The antenna complies with IP67 standard and will withstand saltwater environment. The cone shaped body will also prevent bird interference.

1. Electrical Specifications

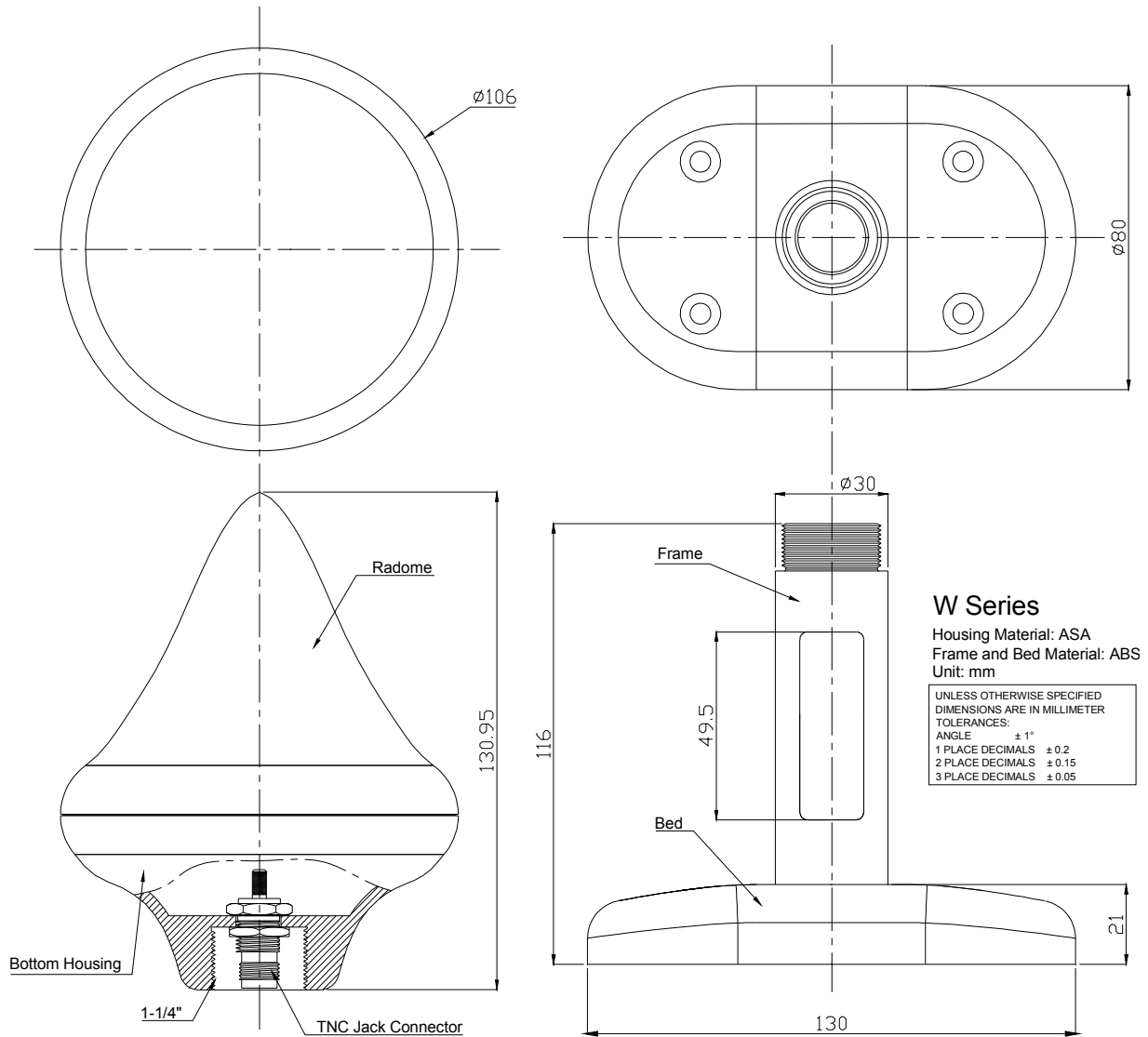
Passive specifications		
Operating Frequency Range	1560MHz ~1610MHz	
Bandwidth	50 MHz Min.	
VSWR	2.0 Max	
Power Heading	1W	
Polarization type	RHCP	
Rated resistance	50Ω	
Module specifications		
Noise Figure	2.0 dBMax.	
Gain (5.5v) /Current	36dB / 31mA Typ.	
Gain (5.0v) /Current	35dB / 30mA Typ.	
Gain (3.3v) /Current	33dB / 25mA Typ.	
Gain (3.0v) /Current	31dB / 24mA Typ.	
Gain (2.7v) /Current	31dB / 23mA Typ.	
Filtering	Attenuation (Typ.)	0 ~ 1460MHz--46dB 1460 ~ 1505MHz--32dB 1734 ~ 2000MHz--30dB 2000 ~ 4250 MHz--36dB 4250 ~ 6000 MHz--54 dB
Power supply Voltage	5V to 12V	
Rated resistance	50Ω	
Test Equipment : NSI Spherical near-field system		
1610MHz @5V Peak Gain / Axial Ration	38dB / 8.0dB	
1600MHz @5V Peak Gain / Axial Ration	37dB / 6.0dB	
1590MHz @5V Peak Gain / Axial Ration	39dB / 3.4dB	
1580MHz @5V Peak Gain / Axial Ration	38dB / 3.0dB	
1575MHz @5V Peak Gain / Axial Ration	37dB / 2.3dB	
1570MHz @5V Peak Gain / Axial Ration	38dB / 2.0dB	

2. Mechanical Specifications

2.1 Mechanical Data

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

2.2 Dimensions



3. Appendix: Gain Patterns

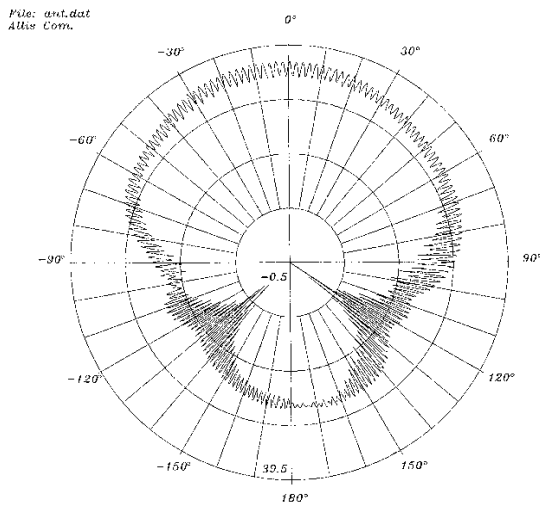
Test Equipment: NSI Spherical near-field measurement system

● **W5GGR at 1570MHz**

Test Voltage : 5V

Axial Ratio:2.0dB

Peak Gain: 38dB

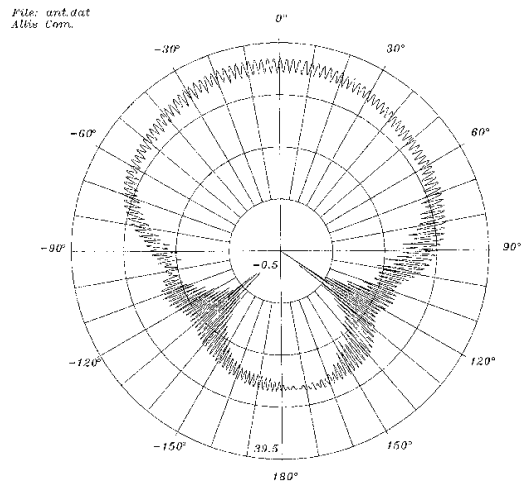


● **W5GGR at 1575MHz**

Test Voltage : 5V

Axial Ratio:2.3dB

Peak Gain: 37dB



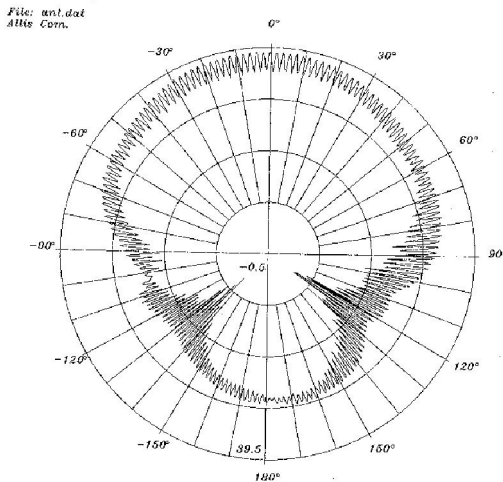
● **W5GGR at 1580MHz**

Test Voltage : 5V

Axial Ratio:3dB

Peak Gain: 38dB

Polar plot

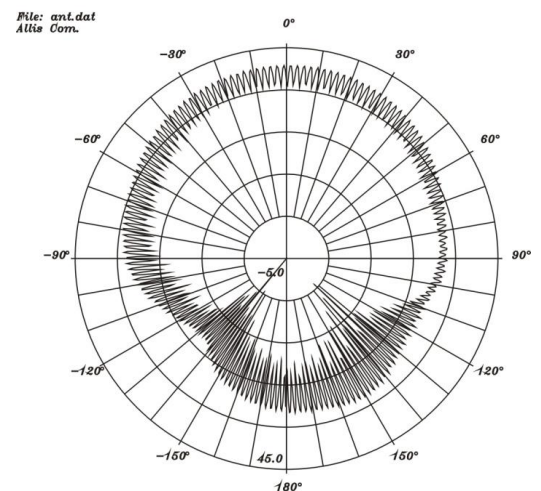


● **W5GGR at 1590MHz**

Test Voltage : 5V

Axial Ratio:3.4dB

Peak Gain: 39dB

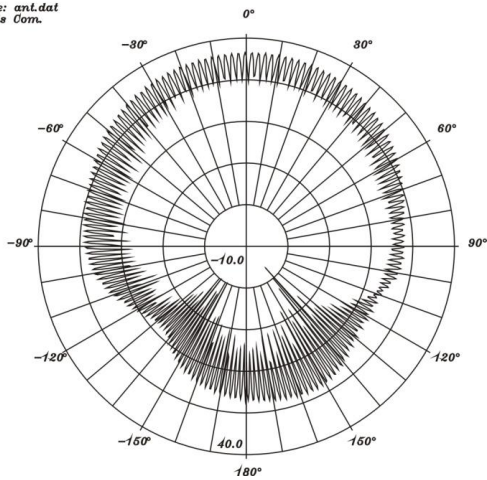


● **W5GGR at 1600MHz**

Test Voltage : 5V
 Axial Ratio:6.0dB
 Peak Gain: 37dB

Polar plot

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● **W5GGR at 1610MHz**

Test Voltage : 5V
 Axial Ratio:8.0dB
 Peak Gain: 37dB

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