

ALLISCOM

A812J GNSS Antenna

Data Sheet



Model No.	A812J
Feature	Low Noise Figure < 0.9dB Waterproof Housing Screw Mounting Low Profile
Benefit	Resistant to harsh outdoor environment High Performance Concealable
Description	Allis Communications A812J Active External Antenna is a Bottom Feed Antenna for roof-mount application. Designed for vehicles and outdoor devices. Cable lengths, types and connectors are fully customizable.

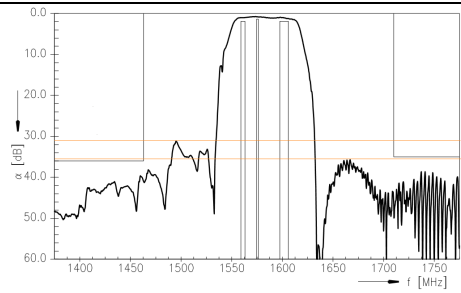
1. Electrical Specifications

1.1 Electrical Data

Patch Antenna (with 7*7cm ground plane)

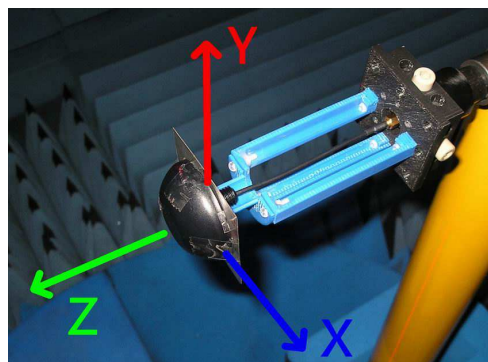
Frequency	GPS only: 1575.42 ± 3 MHz
	GPS/ GLONASS: 1585 ± 3 MHz
VSWR	1.5 max.
Bandwidth	20MHz min. at -10dB
Axial Ratio	3dB max.
Polarization	RHCP
Peak Gain	4dBic min. at 0°
Gain Coverage	≥ -4dBic at -90° ≤ θ ≤ 90°(over 75% volume)
Impedance	50Ω

LNA/Filter Module

Frequency Range	1555 ~ 1615MHz															
Module Gain	14dB typ.															
Noise Figure	0.9 dB max.															
Single Filter Out of band Attenuation	<table> <tr> <td>1500MHz</td> <td><</td> <td><-25dB</td> </tr> <tr> <td>1530MHz</td> <td>--</td> <td>-30dB</td> </tr> <tr> <td>1630MHz</td> <td>--</td> <td><-15dB</td> </tr> <tr> <td>1640MHz</td> <td>--</td> <td>-54dB</td> </tr> <tr> <td>1660MHz</td> <td>></td> <td><-30dB</td> </tr> </table> 	1500MHz	<	<-25dB	1530MHz	--	-30dB	1630MHz	--	<-15dB	1640MHz	--	-54dB	1660MHz	>	<-30dB
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1530MHz	--	-30dB														
1630MHz	--	<-15dB														
1640MHz	--	-54dB														
1660MHz	>	<-30dB														
Output VSWR	2.0 max.															
Output Impedance	50Ω															
Operation Voltage	DC 2.7 ~ 5.5V															
Current	3 ~ 6mA															

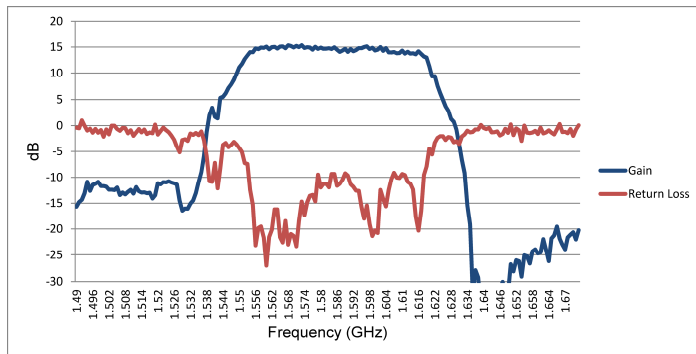
* Specifications subject to change without notice.

1.2 Antenna measurement

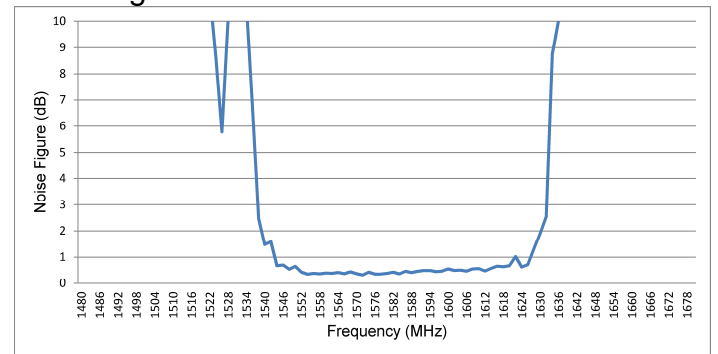


1.2.1 LNA/Filter Module (Voltage: 3V)

Gain and Return Loss



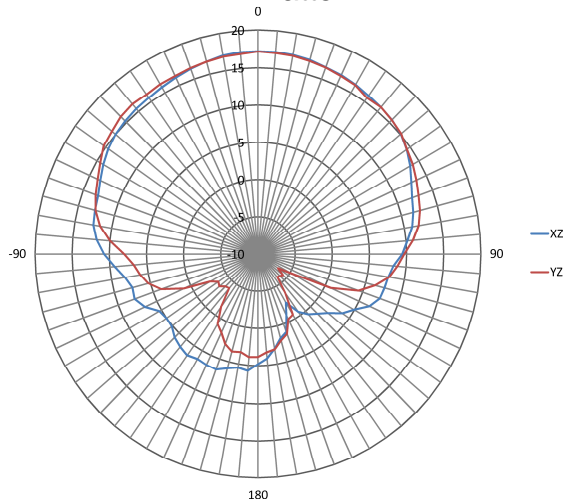
Noise Figure



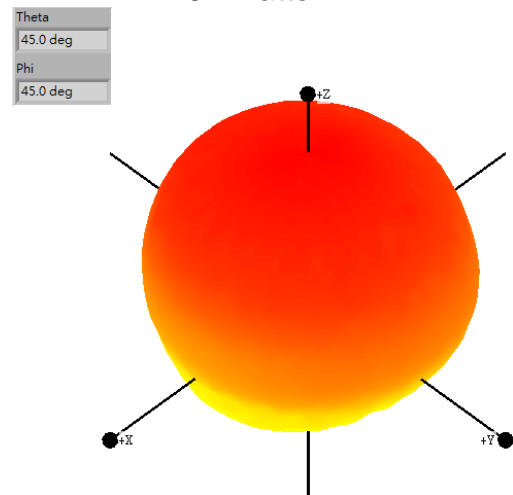
1.2.2 RHCP Radiation Pattern (Voltage=3V; 17cm RG174 cable; 7*7cm ground plane)

Frequency=1575MHz; Gain=17.42dBic

2D Pattern



3D Pattern



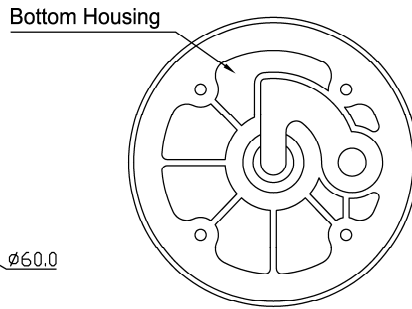
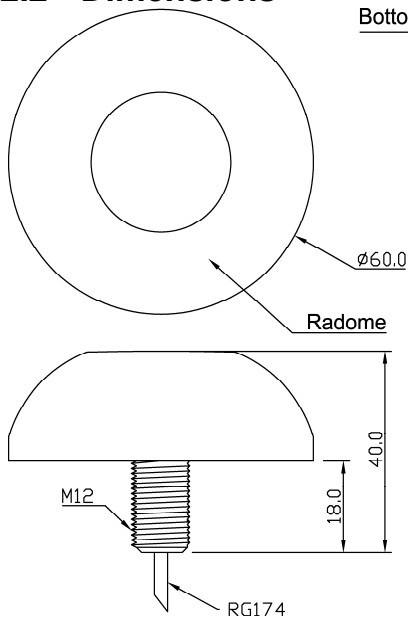
2. Mechanical Specifications

2.1 Mechanical Data

Weight (Without Cable)	65 grams max.
Size	60mm Dia. x 40 mm
Mounting	Screw Mount
RF Cable/ Connector	Custom
Housing Color	Black

* Specifications subject to change without notice.

2.2 Dimensions

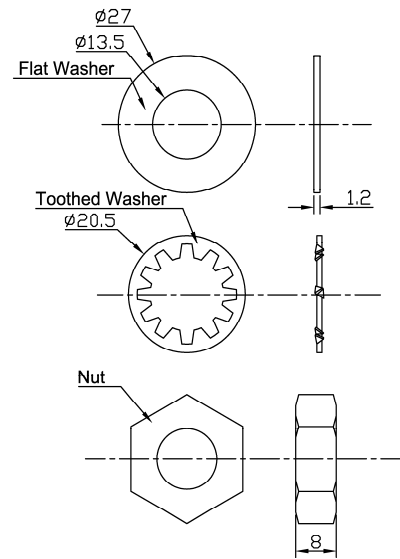


A Series

Housing Material: PC

Unit: mm

UNLESS OTHERWISE SPECIFIED TOLERANCES:	
ANGLE	± 1°
1 PLACE DECIMALS	± 0.2
2 PLACE DECIMALS	± 0.15
3 PLACE DECIMALS	± 0.05



3. Environmental Specifications

Working Temperature	-40°C < T < +85°C
Storage Temperature	-50°C < T < +95°C
Vibration	Sine Sweep, 1G(0-P), 10-150-10Hz each axis
Humidity	95%~100% RH
Weatherproof	IP56

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