SPECIFICATION

Part No.	:	**AA.107.301111**
Product Name	:	Stingray Low Profile Adhesive Mount GPS-GLONASS-GALILEO Antenna
Feature	:	1575.42/1602MHz 55mm*51.7mm*10.8mm 3.3V 3M RG174 SMA(M) IP65 Rated Custom cables and connectors available RoHS Compliant

1. Introduction

The Stingray low profile Adhesive Mount (only 10.8mm in height) GNSS antenna is designed for applications which require high positioning accuracy by combining signals from GPS, GLONASS and GALILEO systems. A high gain wide-band patch antenna on an integral ground delivers reliable performance, ideal for those applications that require durability, small size and covert installation, and reliable reception and transmission crossing through different mobile networks.

Its high quality low profile covert housing can be attached onto the glass or even out of sight under the dashboard.

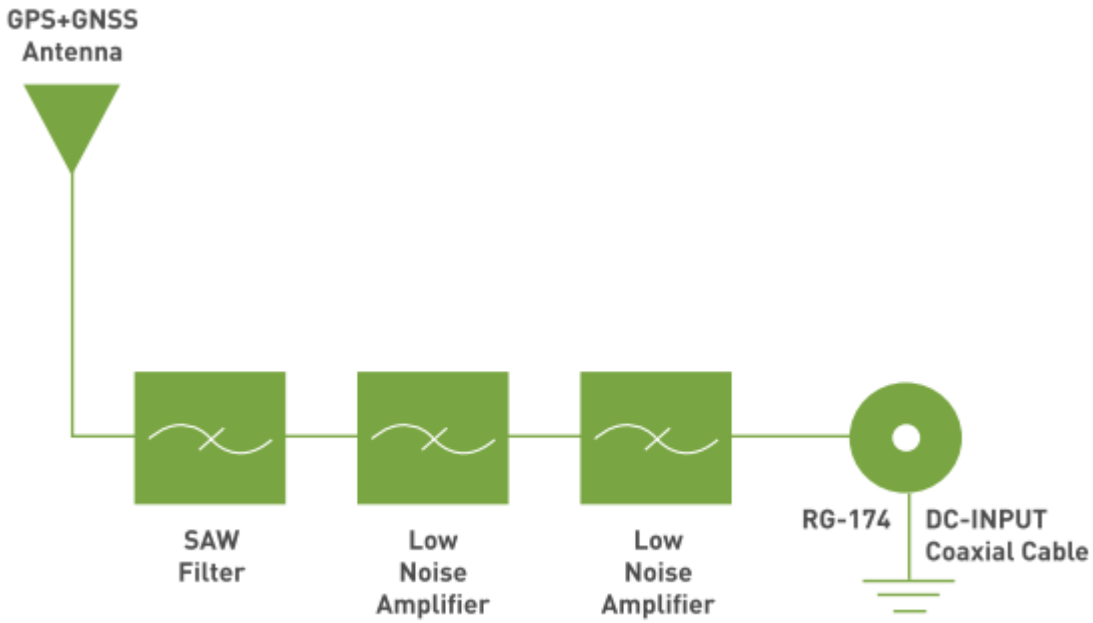
The standard version has 3 metres RG174 cable and SMA(M) connector. The cables and connectors are completely customizable according to customer request.

2. Specification

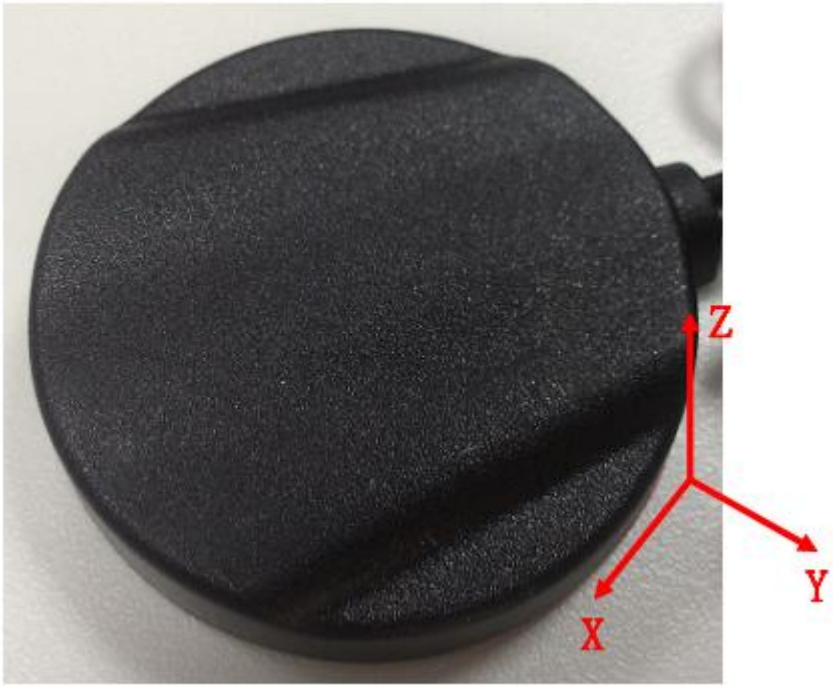
ELECTRICAL	
Centre Frequency	GPS/GALILEO: 1574.42MHz±3MHz GLONASS: 1602MHz±0.5MHz
LNA Gain at 3.3V	28dB Typ.
VSWR	2.0:1
Impedance	50Ω
Return Loss	10dB Min.
Impedance	50Ω
DC power Input	3.3V
Noise Figure	2.2dB Typ.
Power Consumption	10mA Typ.
MECHANICAL	
Antenna Dimensions	55 x 51.7 x 10.8mm
Housing Material	UV Resistant ABS
Cable	3M RG174 (fully customizable)
Connector	SMA(M) (fully customizable)
ENVIRONMENTAL	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 85°C
Relative Humidity	40% to 95%

3. GPS/GLONASS/GALILEO Antenna

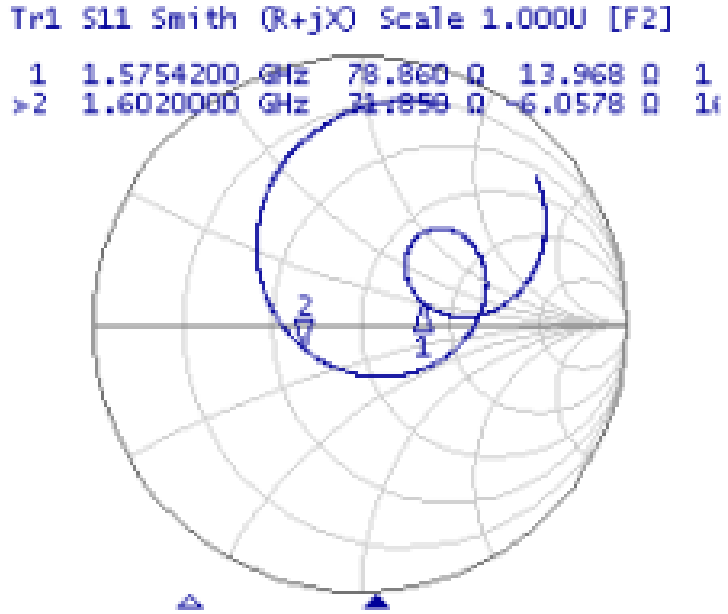
3.1. Antenna Block Diagram



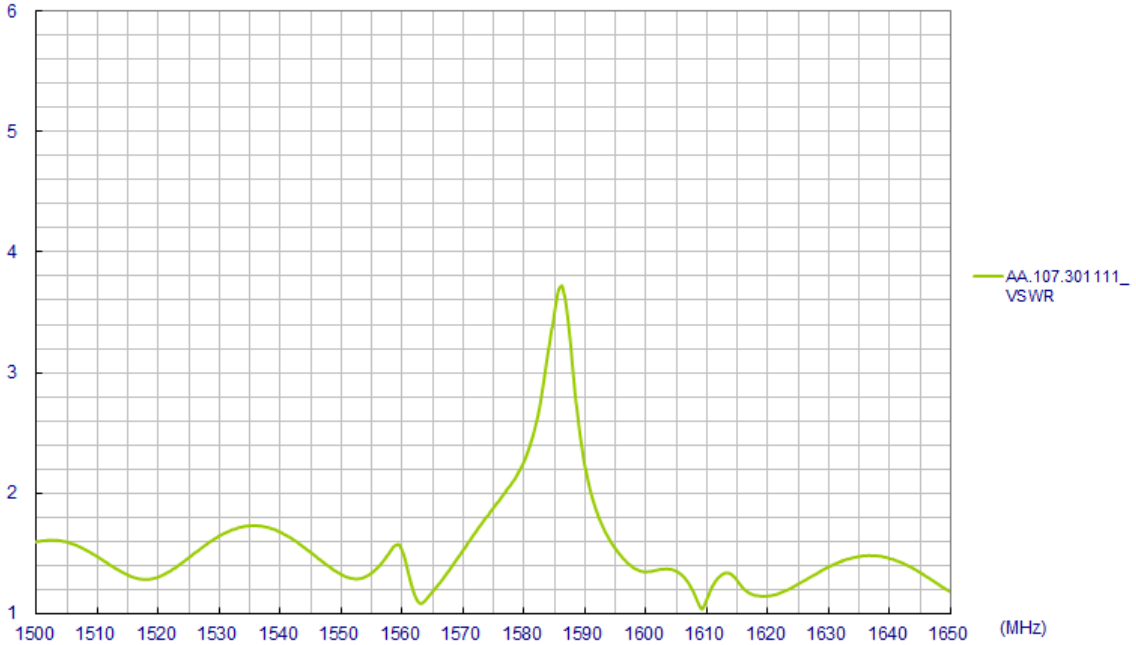
3.2. Test Setup



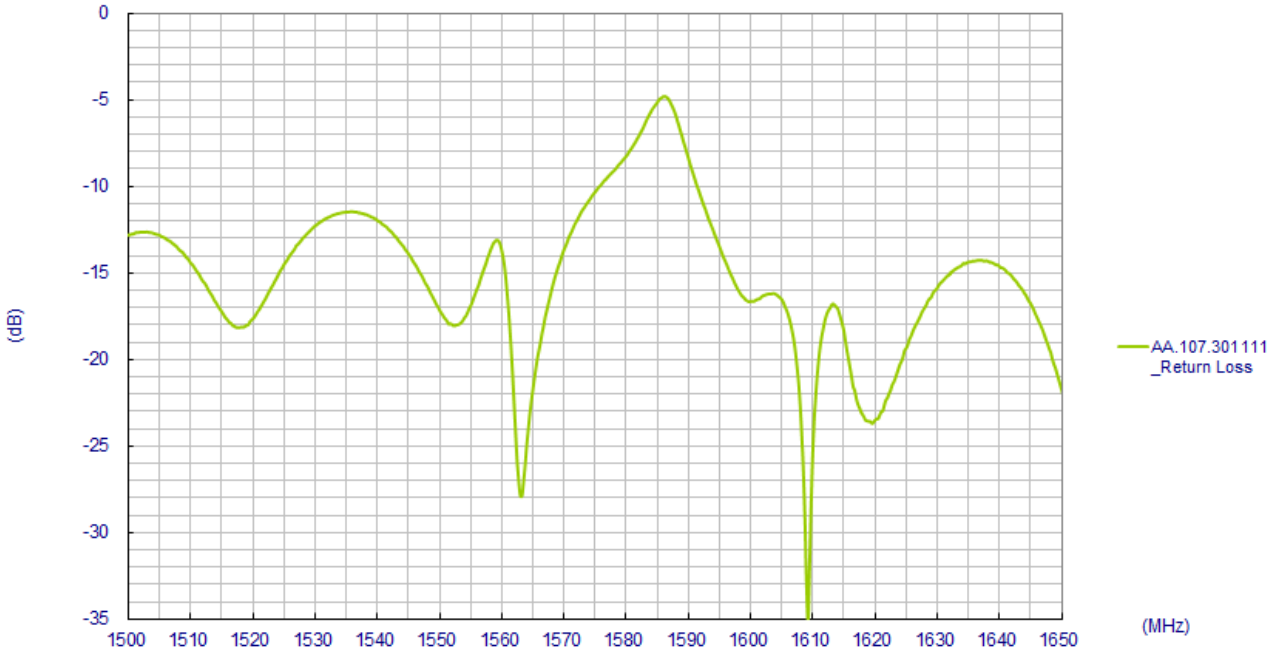
3.3. Smith Chart - Impedance



3.4. VSWR



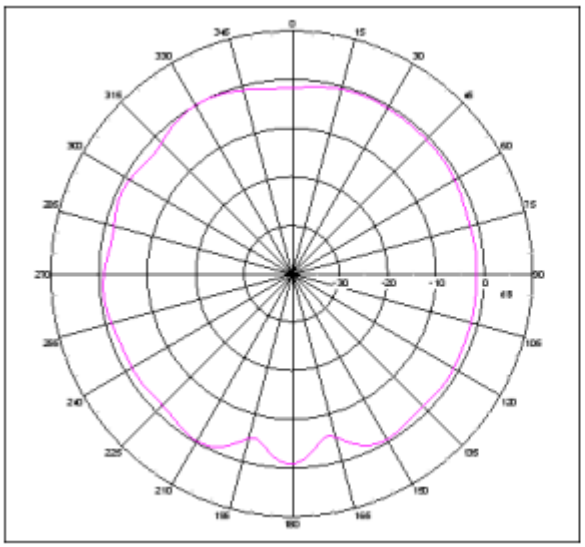
3.5. Return loss



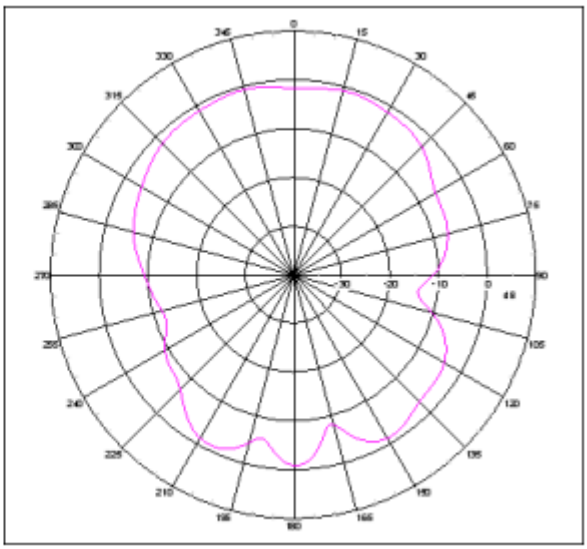
3.6. Antenna Radiation Patterns

1575MHz

XZ Plane

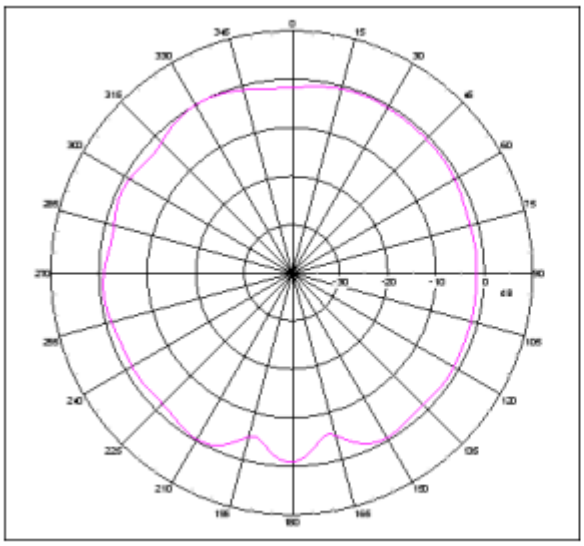


YZ Plane

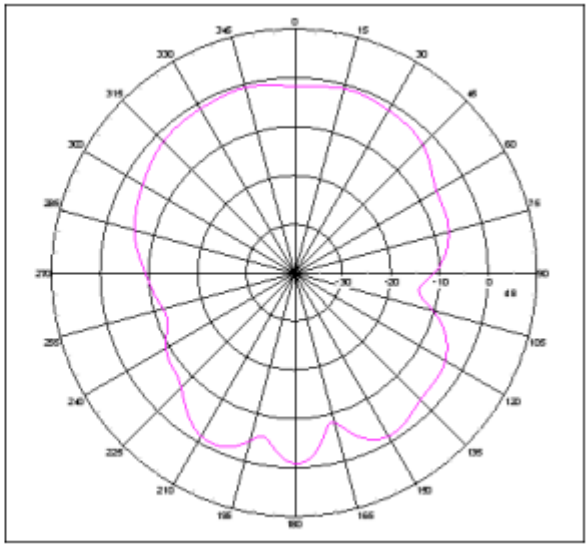


1602MHz

XZ Plane



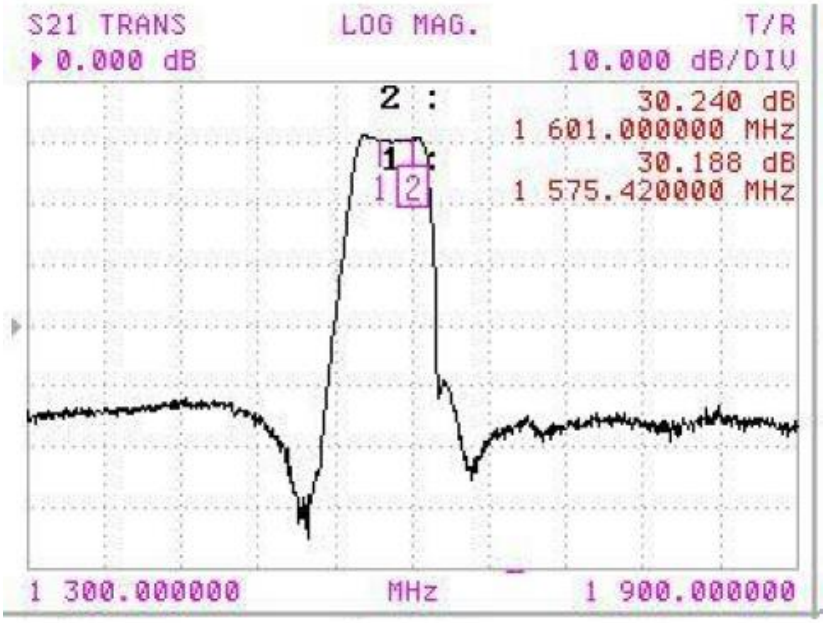
YZ Plane



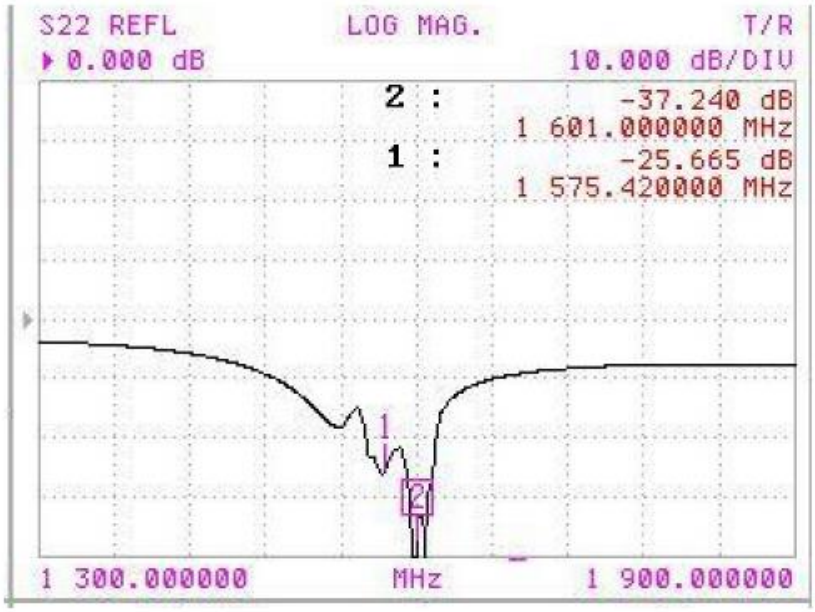
3.7. GPS/GLONASS/GALILEO Antenna Gain Chart

Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
1575	1.36	50.13
1602	0.09	52.64

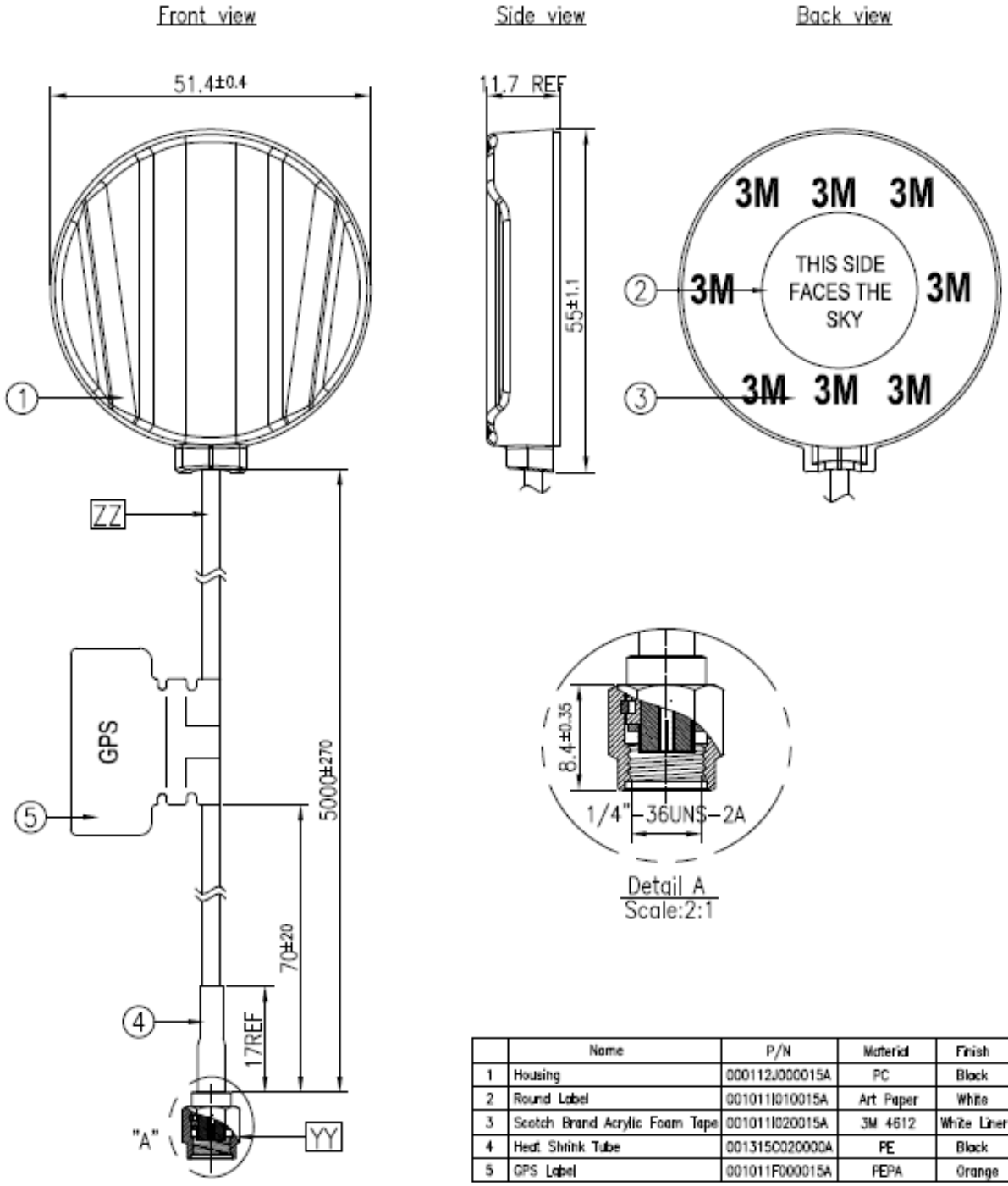
3.8. GPS/GLONASS/GALILEO LNA Gain



3.9. GPS/GLONASS/GALILEO LNA Output Return Loss



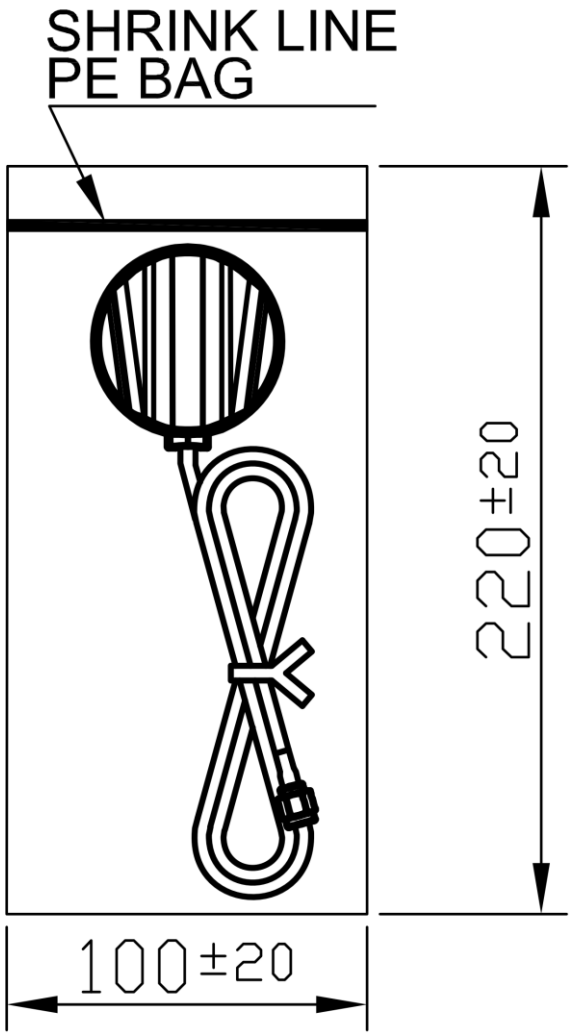
4. Drawing



	Name	P/N	Material	Finish	QTY
1	Housing	000112J000015A	PC	Black	1
2	Round Label	001011I010015A	Art Paper	White	1
3	Scotch Brand Acrylic Foam Tape	001011I020015A	3M 4612	White Liner	1
4	Heat Shrink Tube	001315C020000A	PE	Black	1
5	GPS Label	001011F000015A	PEPA	Orange	1

	Name	P/N	SPEC	Finish	QTY
YY	Connector Type	200214E000015A	RP-SMA(M)ST	Au Plated	1
ZZ	Cable Type	301315C000000A	RG174	Black	1

5. Packaging



PACKING:1PCS/BAG

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