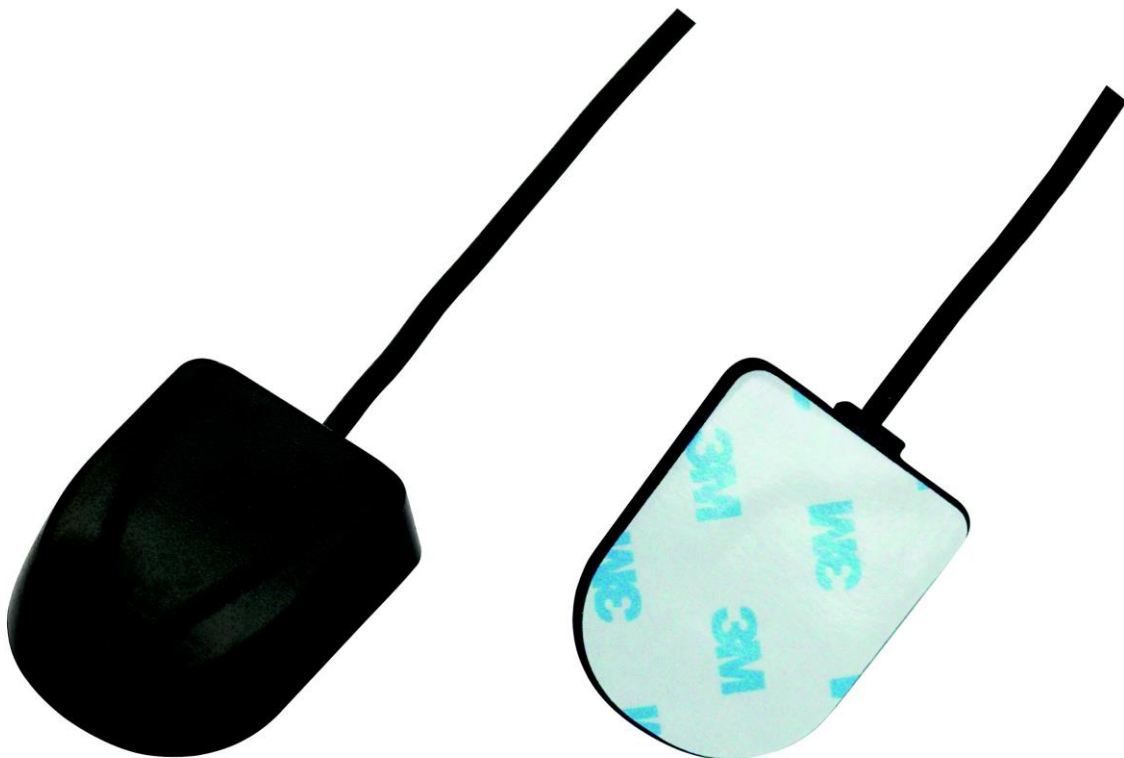


SPECIFICATION

Part No.	:	AA.108.301111
Product Name	:	Titan GPS/GALILEO Antenna AA.108
Features	:	Adhesive Mount Covert stylish design Wide band input voltage IP-67 Waterproof 3M RG-174 SMA(M) Connector Cable and connector customizable RoHS Compliant



1. Introduction

Our AA.108 Titan adhesive mount external antenna is ideal for robust, covert installations where durability and small size is paramount. It is ideal for telematics and M2M applications for commercial vehicle installations for fleet management etc.

Titan antennas are also widely used for consumer GPS/GALILEO devices when extra sensitivity is required, e.g. navigation devices and speed trap detectors.

The AA.108 is first tier automotive approved IP67 antenna, the part AA.108.301F21 (with GT5 connector) is listed in the global automotive IMDS databases, it has gone through full PPAP design, reliability and quality audits, including audits at the production facility.

2. Specifications

Ceramic Patch	
Outline Dimension	25*25*4mm
Ground Size	25*25*4mm
Center Frequency	1575.42±3MHz
Bandwidth	10MHz
VSWR	1.92 Max
Axial ratio	3dB Typ.
Gain @ Zenith	2dBic Typ.
Impedance	50Ω
Polarization	RHCP

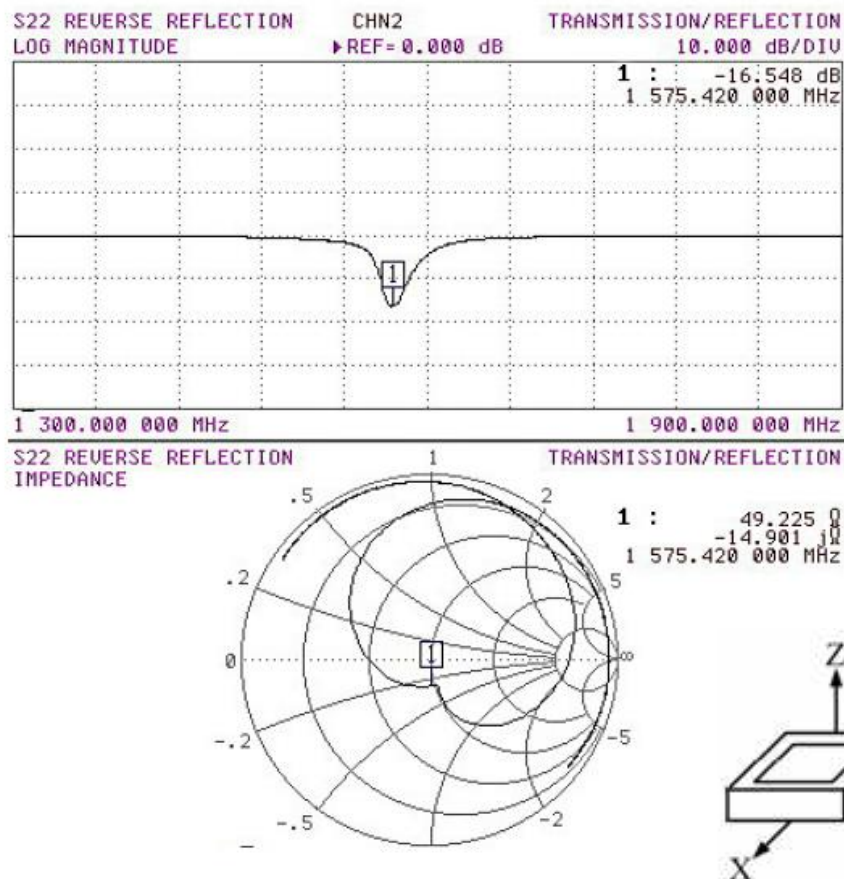
LNA Specification						
Frequency	1575.42MHz					
Impedance	50Ω					
VSWR	1.92 Max.					
DC Power Input	1.8V	2.5V	2.7V	3.3V	5V	12V
Gain	21.8dB	28dB	29dB	31dB		
Noise Figure	1.4dB	1.38dB	1.3dB			
Power Consumption	4.5mA	6.6mA	7mA			
Band Attenuation	40dB @fo±50MHz					
Operating temp	-40℃ ~ +85℃					
Storage Temp	-40℃ ~ +90℃					

*Formula = Patch Antenna Average Gain + LNA typical gain – RG174 cable loss @1.2dB per meter = Gain at connector
 Gain at the Connector - Patch Gain 2dB + LNA Gain 30dB – Cable loss of 1.2dB per metre (@3m = 3.6dB) = 28.4dB approx.

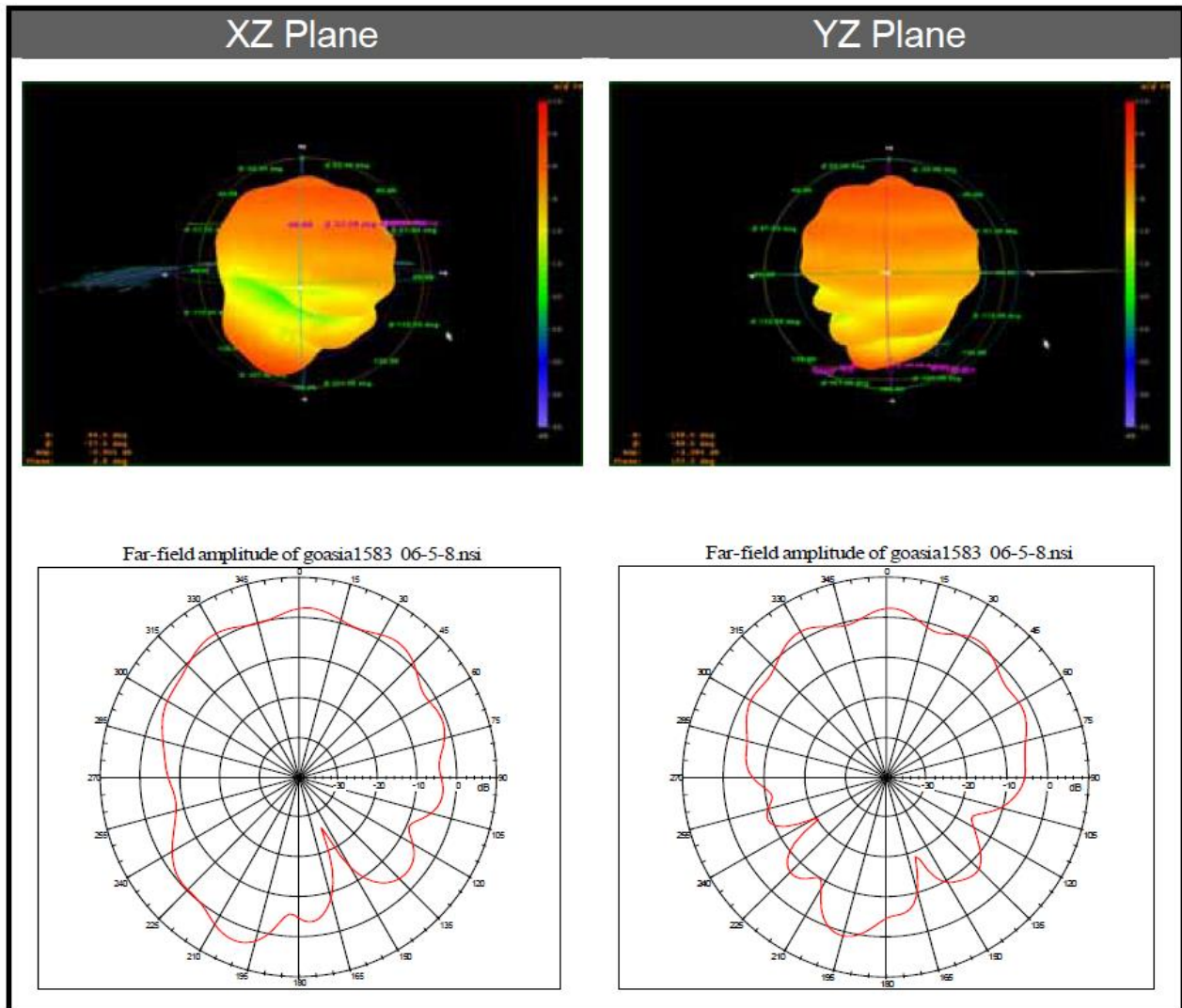
3. Ceramic Antenna Radiation Pattern (with housing)



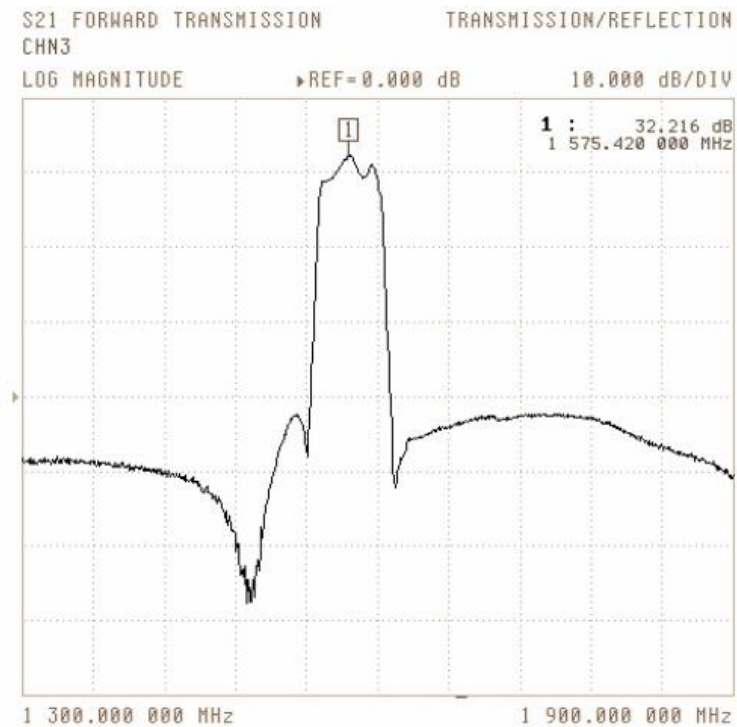
3.1. Ceramic Antenna S11 (with housing)



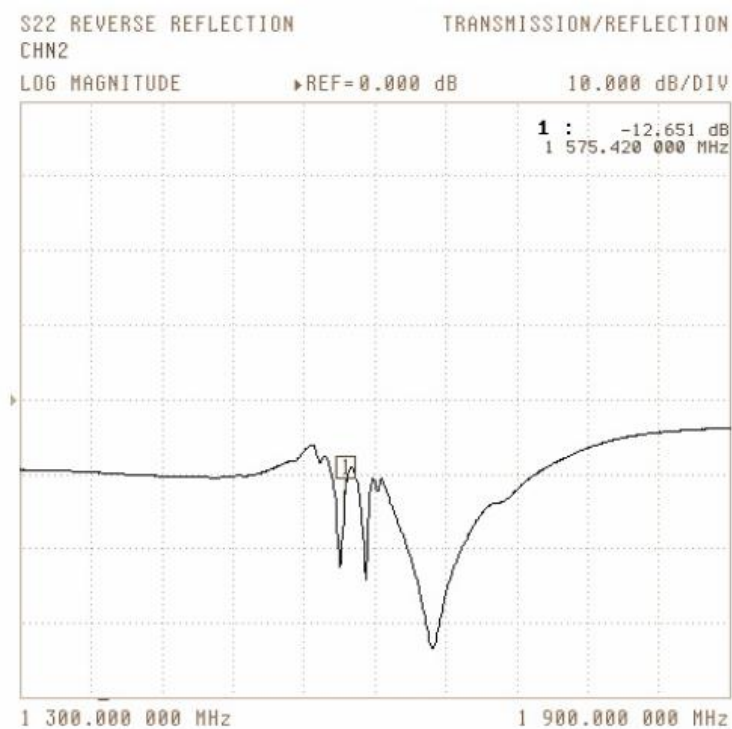
3.2. XZ Plane & YZ Plane



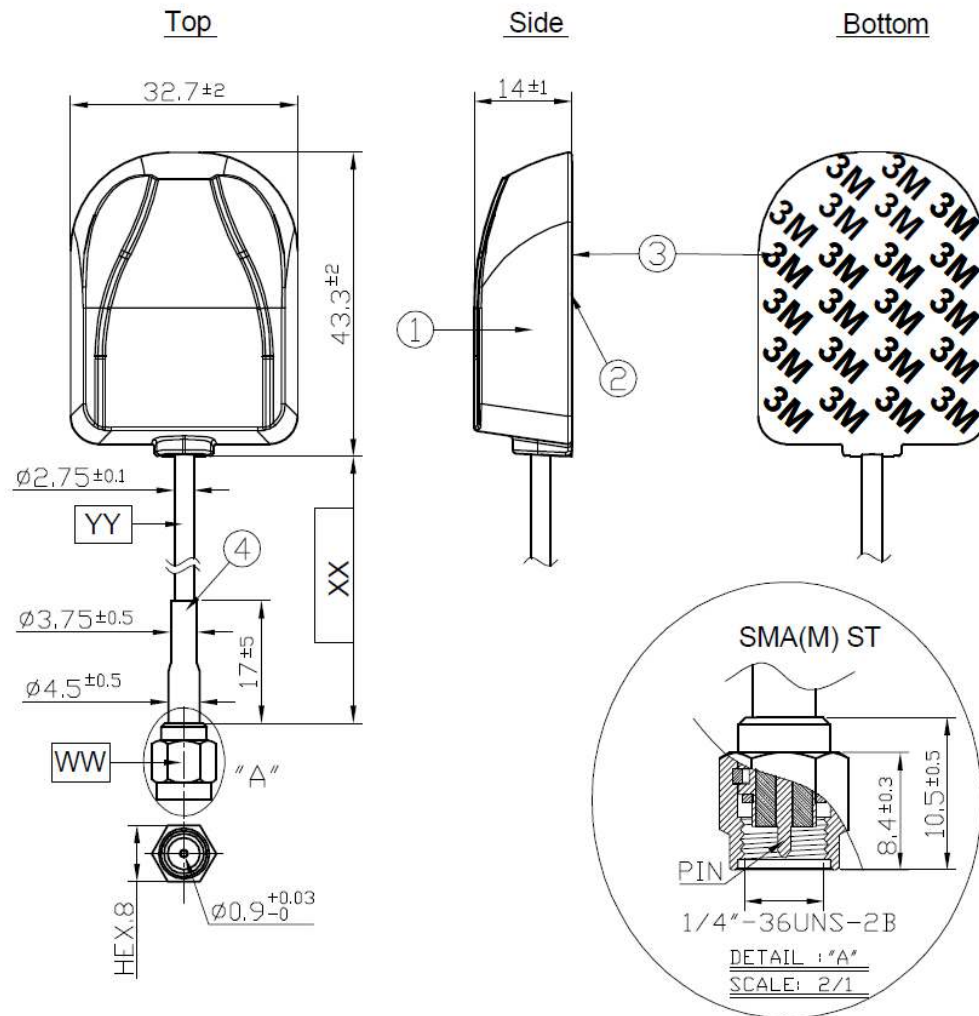
3.3. LNA gain



3.4. LNA S22

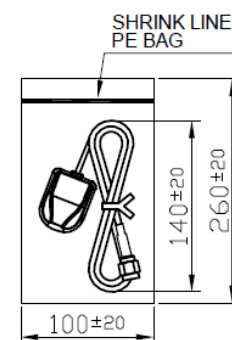


4. Drawing (Unit: mm)



	Name	Material	Finish	QTY
1	GPS Antenna Housing Top	PC	Black	1
2	GPS Antenna Housing Bottom	PC	Black	1
3	Double Sided Adhesive	3M 4612	White	1
4	Heat Shrink Tube	PE	Black	1

	Name	Spec	Finish	QTY
WW	Connector Type	SMA(M) ST	Gold	1
XX	Cable Length	3000 \pm 30mm	Black	1
YY	Cable Type	RG174	Black	1

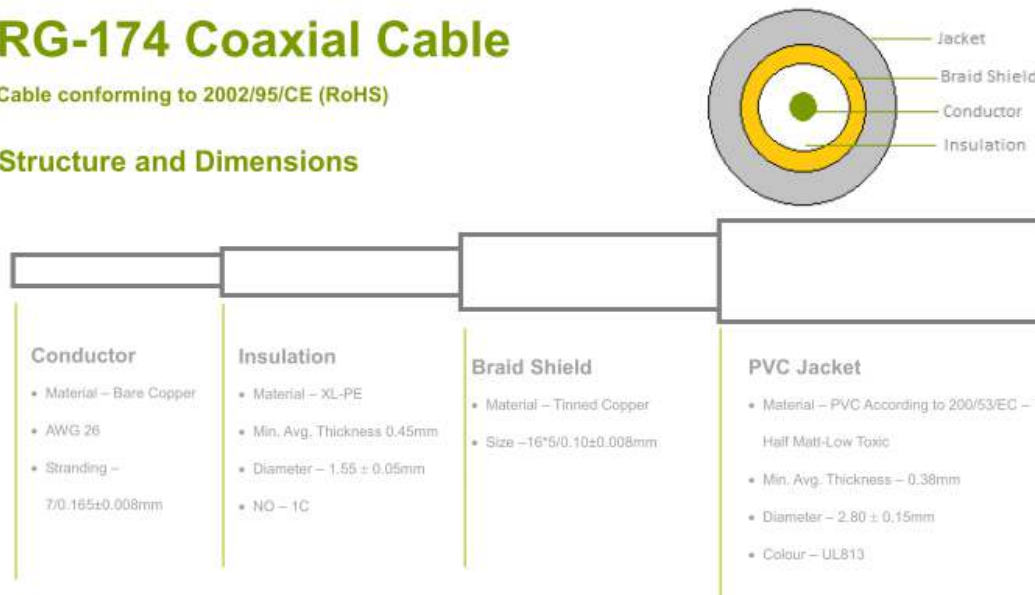


5. RG-174 Cable Specification

RG-174 Coaxial Cable

Cable conforming to 2002/95/CE (RoHS)

Structure and Dimensions



Electrical & Physical Specification

1	Temperature rating:	80°C
2	Voltage	30V
3	Capacitance nominal (1KHz):	30.8 pF/ft
4	Conductor Resistance at 20°C	MAX 26AWG: 148.94Ω/km
5	Impedance:	50 ± 5 Ω

RG-174 Cable Attenuation(dB/100mm)												
GHz	0.5	1	1.5	2	2.5	3	3.5	4	4.5	5	5.5	6
RG-174	67	110	127	153	168	183	207	229	252	272	291	311

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