



Topside View



Underside View

AA.160.301111

Specification

Part No.	AA.160.301111
Product Name	Magnet Mount GPS-GLONASS Antenna
Feature	1575MHz – 1609MHz Custom cables and connectors available RoHS Compliant

1. Introduction

This antenna is designed for applications which require high positioning accuracy by combining signals from GPS and Glonass

systems. High gain wide-band patch antenna on a large integral ground delivers maximum performance.

2. Specification

2.1 Ceramic Patch Antenna 36*36*6mm

Parameter	Specification
Frequency	1575-1609MHz
Bandwidth	40MHz min.
VSWR	1.5:1
Peak Gain	4.0dBic (70*70mm Ground Plane)
Impedance	50Ω
Polarization	RHCP

2.2 Low Noise Amplifier

Parameter	Specification
Noise Figure	1.5dB typ.
Output VSWR	<2.0 max.
LNA Gain	32dB typical (without cable)
DC Power Input	3-5V
Impedance	50Ω
DC Current	8.5mA @5.0V typ.

2. Specification

2.3 Material

Parameter	Specification
Antenna	Dielectric Ceramics
PCB	FR4
Shielding	Tinplate
Cable	RG-174 Length = 3M
Connector	SMA(M)

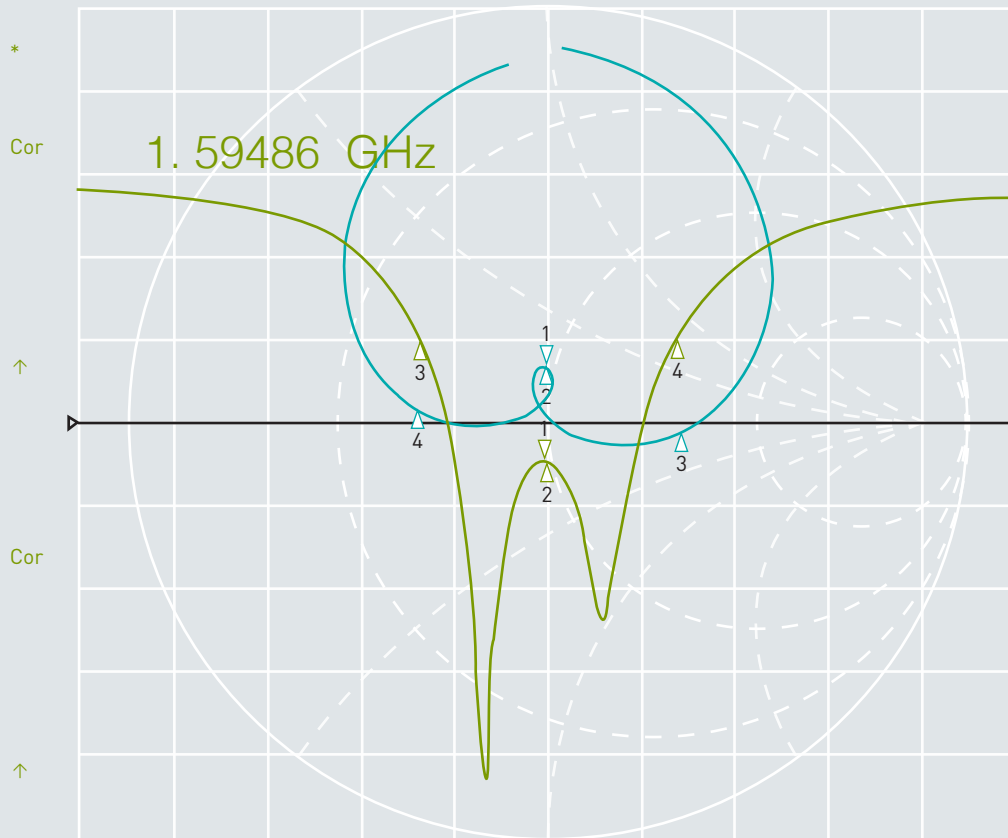
2.4 Testing Conditions

Parameter	Specification
Working Temp	-40°C~+85°C
Storage Temp	-40°C~+100°C
Vibration	Sine sweep 1g(0-p) 10~55~10Hz each axis
DC Voltage	DC=3-9V

3. S11 Performance Comparison

(Passive Patch – separated from the LNA)

CH1 S11 LOG 5 dB / REF -15 dB 1: -17.124 dB 1 594.860 000 MHz
 CH2 S11 1 U FS 1: 47.842 Ω 13.580 Ω 1.3552 nH



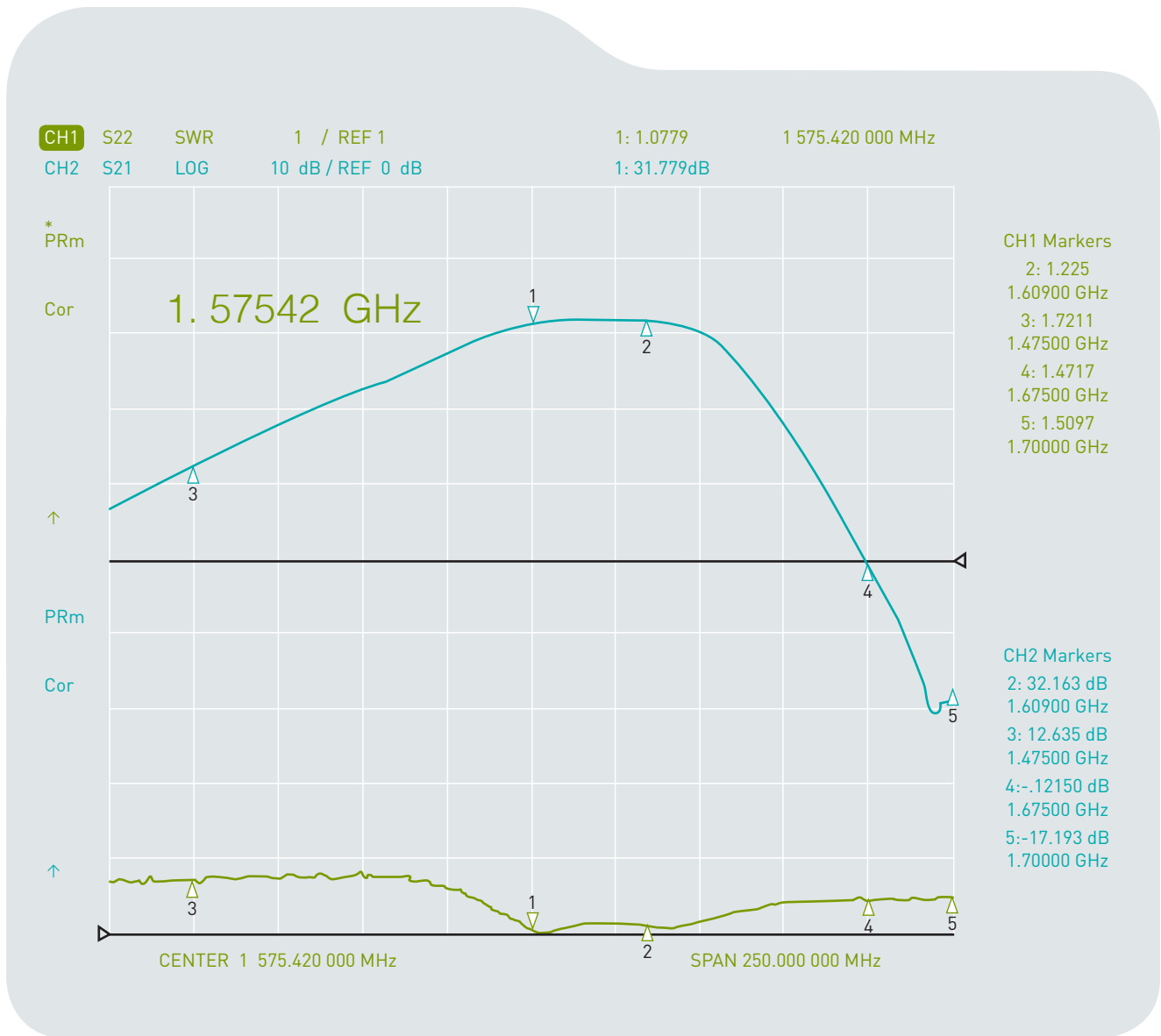
CH1 Markers
 BW: 54.653550 MHz
 cent: 1595.273028 MHz
 Q: 29.189
 1 loss: -17.124 dB

CH2 Markers
 2: 48.057 Ω
 13.596 mΩ
 1.59527 GHz
 3: 95.949 Ω
 -4.6445 Ω
 1.56794 GHz
 4: 26.038 Ω
 2.2139 Ω
 1.62259 GHz

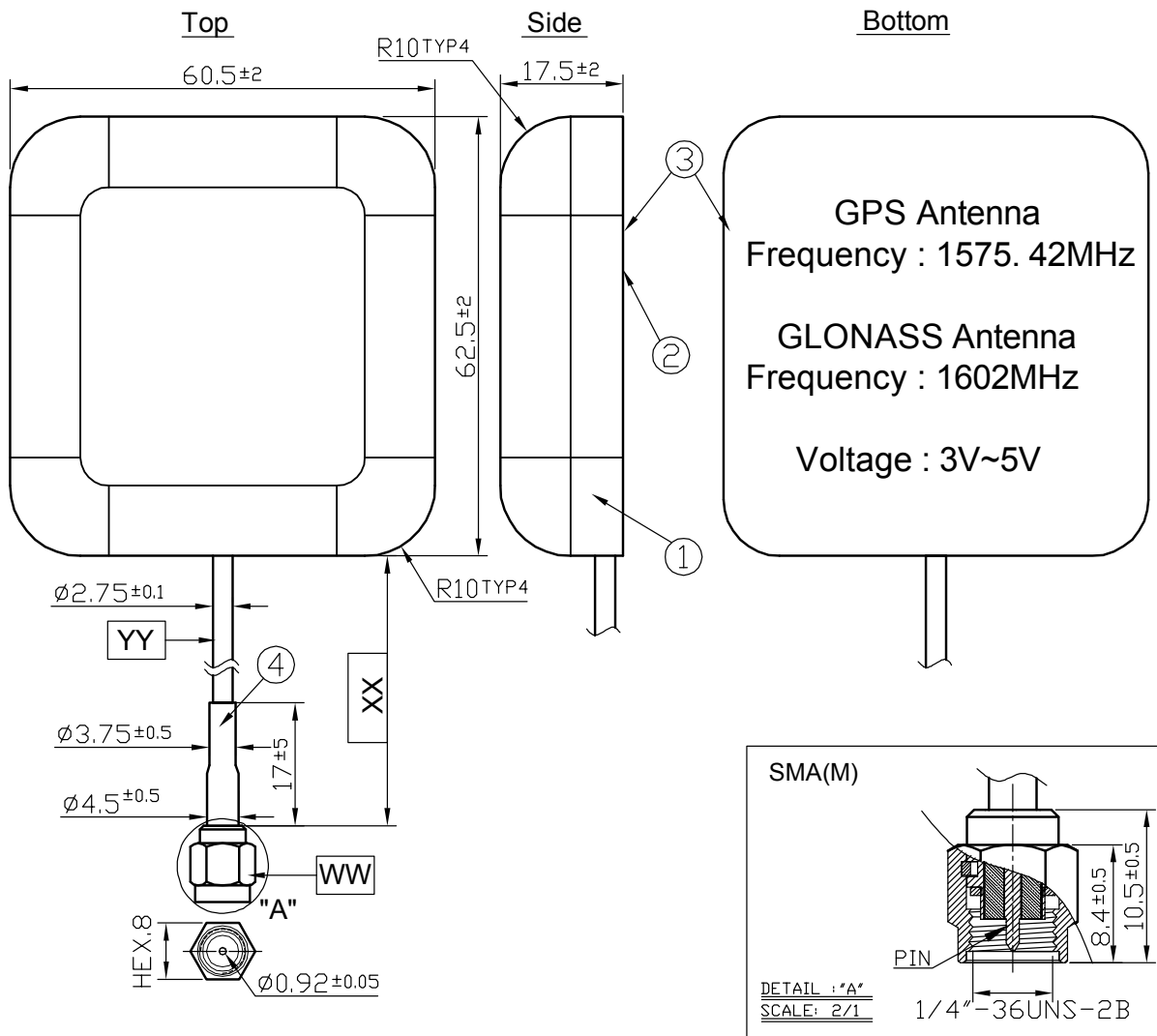
CENTER 1 595.000 000 MHz

SPAN 200.000 000 MHz

4. S21/S22 Performance Comparison (LNA)



5. Drawing

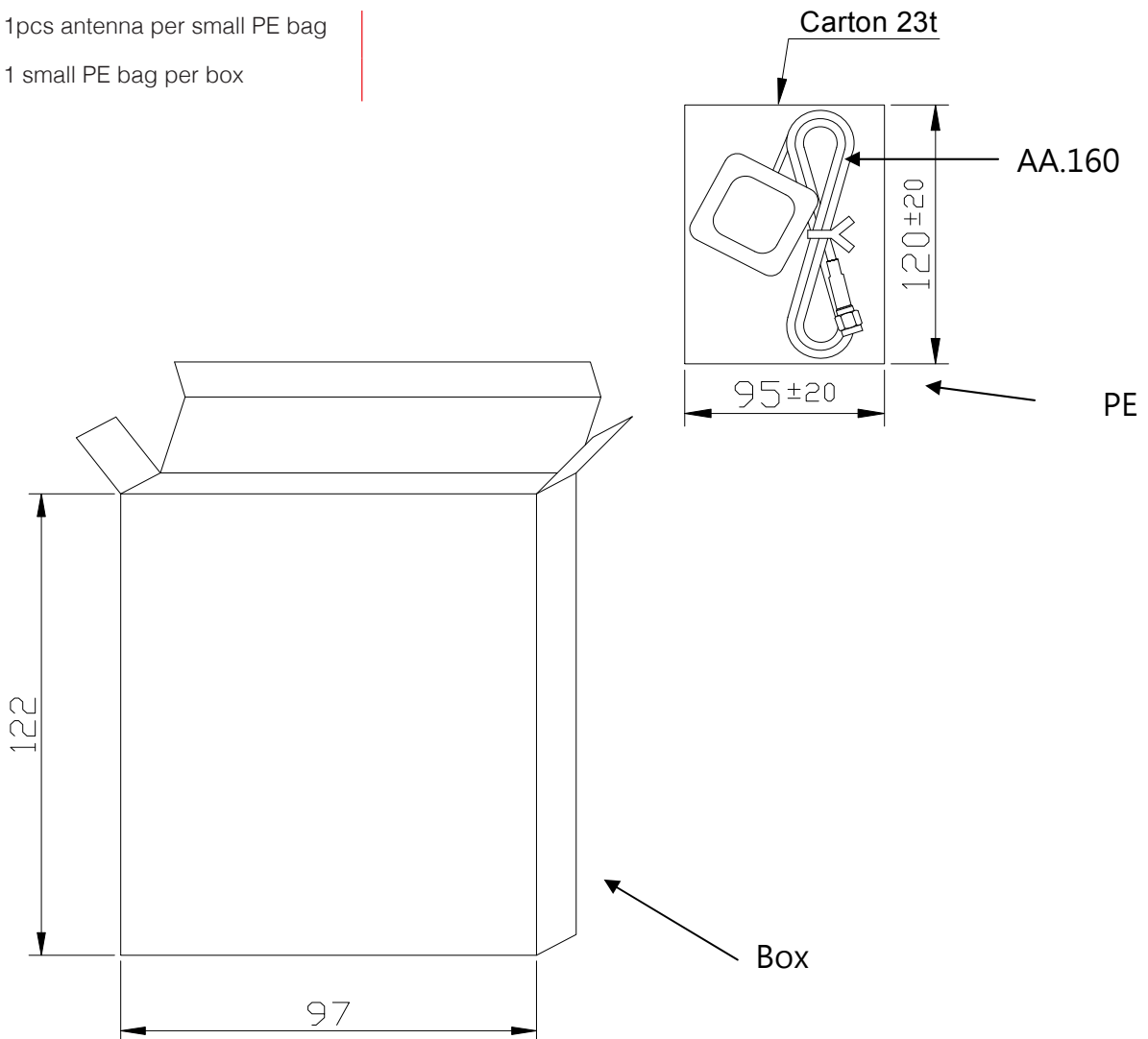


	Name	Material	Finish	QTY
1	AA.160 Antenna Housing Top	ABS+PC	Black	1
2	AA.160 Antenna Housing Bottom	ABS+PC	Black	1
3	AA.160 Sticker	Terylene	Silver	1
4	Heat Shrink Tube	PE	Black	1

	Name	P/N	Spec	Finish	QTY
WW	Connector Type	SMA.M.ST.PLUG.D.WS	SMA(M)	Gold	1
XX	Cable Length		3000±30mm		1
YY	Cable Type	301311F0000XXA	RG174	Black	1

6. Packaging

- 1 pcs antenna per small PE bag
- 1 small PE bag per box



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