

# GNSS - Automotive Grade Active External Puck Antenna



**AECW0401G4Z**

Request Samples



Check Inventory



Ø46.6 x 16.3 mm  
**RoHS/RoHS II Compliant**  
MSL Level = 1

## Features

- Automotive Grade Antenna
- Manufactured in Automotive Certified lines
  - IATF 16949 certified
  - ISO 9001 certified
- Level-3 PPAP available upon request
- GNSS/GPS/GLONASS/BeiDou/QZSS
- IP67 rated
- RHCP
- High LNA gain of 28 dB
- Easy installation using screw

## Applications

- IoT
- M2M
- Automotive Applications
- Geolocation Tracking
- Vehicle Tracking and Fleet Management
- Smart City
- Transportation
- Smart Agriculture

## Product Image



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## Part Number Builder

AECW0401G4Z - □□□□□

Color / UV Coating	
Code	Description
S (Standard)	Black without UV coating
A	Black with UV Coating
B	White without UV Coating
C	White with UV Coating

Cable length in 'mm'	
Code	Description
3000 (Standard)	3000 mm
Other Examples :	
0200	200 mm
2000	2000 mm

Cable Type & Connector Type		
Code	Cable Type	Connector Type
S (Standard)	RG-174	SMA (M)
A		FAKRA C (F)
B		RP-SMA (M)
C		SMB (M)
D		N-Type (M)
E		TNC (M)
F		BNC (M)
G		MCX (M)
H		MMCX (M)
I		FME (M)
J		FME (F)
K		SMA (M)
L		FAKRA C (F)
M	RP-SMA (M)	
N	SMB (M)	
O	N-Type (M)	
P	TNC (M)	
Q	BNC (M)	
R	MCX (M)	
T	MMCX (M)	
U	FME (M)	
V	FME (F)	

### Example Configurations :

Part Number	UV Protection Coating / Color	Cable length	Cable Type / Connector Type
AECW0401G4ZS-3000S	No / Black	3000 mm	RG-174 with SMA (M) (Standard)
AECW0401G4ZA-1000A	Yes / Black	1000 mm	RG-174 with FAKRA C (M)
AECW0401G4ZB-5000O	No / White	5000 mm	LMR-100 with N-Type (M)

### Note :

- For the standard part number (AECW0401G4Z), please refer to the packaging at the end of the document.
- For custom configurations (AECW0401G4Z□-□□□□□), MOQs, pricing and packaging changes may be applicable.



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## Electrical Specification

Parameter	Specification			Unit
	Min	Typ	Max	
Center Frequency	1561		1602	MHz
VSWR			1.5	
Gain (Zenith)			2.0	dBic
Axial Ratio			3.0	dB
Impedance	50			Ω
Polarization	RHCP			
<b>LNA</b>				
Gain	26	28	30	dB
Noise Figure			1.5	dB
VSWR			2.0	
Ex-band Attenuation	@CF + 50 MHz	12		dB
	@CF - 50 MHz	16		dB
Supply Voltage (DC)	2.2		5	V
Current Consumption	5		15	mA
<b>FILTER</b>				
Insertion Loss			3.0	dB

## Mechanical Specification

Parameter	Specification
Antenna Dimension	Ø46.6 x 16.3 mm
Radome Material	ABS
Mounting Type	Screw
RF Connector	SMA (M)
RF Cable	RG-174
Cable Length	3 m

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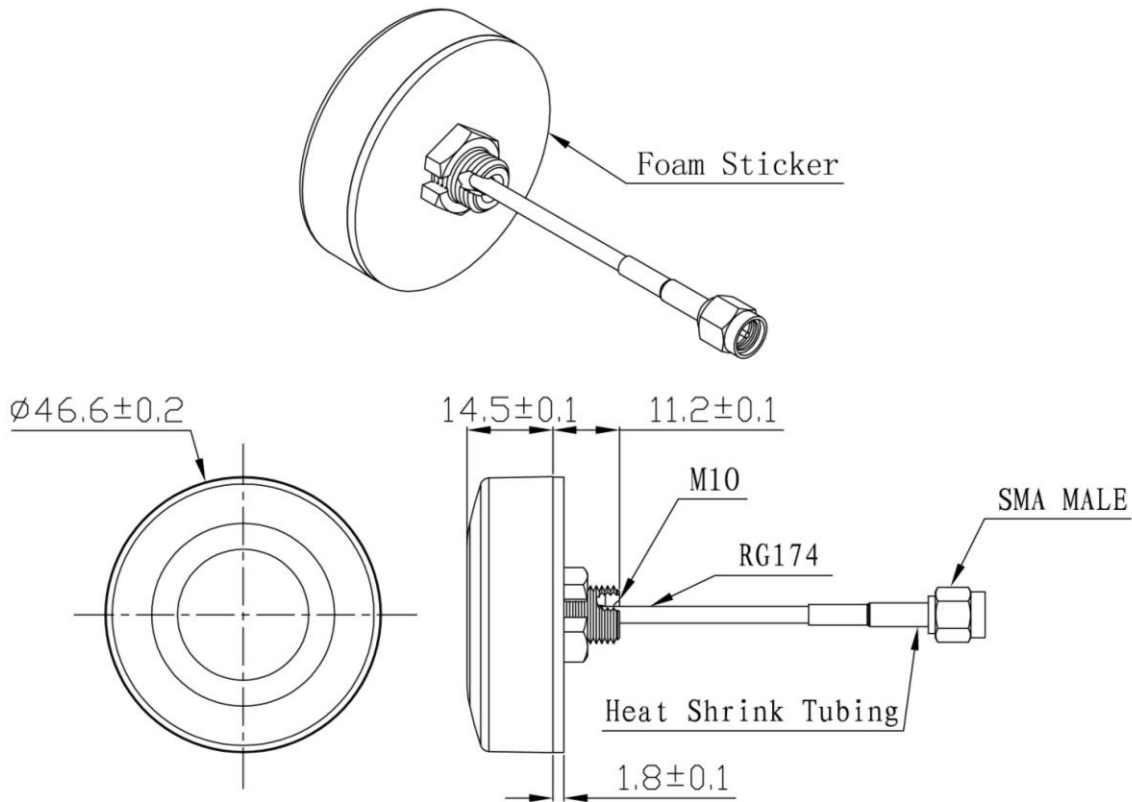


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## Environmental Specification

Parameter	Specification
Operating Temperature	-40°C to +85°C
Storage Temperature	-40°C to +85°C
Relative Humidity	Up to 95%
RoHS Compliance	Yes
PB Free	Yes
MSL	1
ESD Sensitive	Yes
Vibration	10 ~ 55 Hz with 1.5 mm amplitude 2 hrs
UL rating	UL-HB
Ingress Protection	IP67 (excluding cable outlet)

## Product Dimension



Unit: mm



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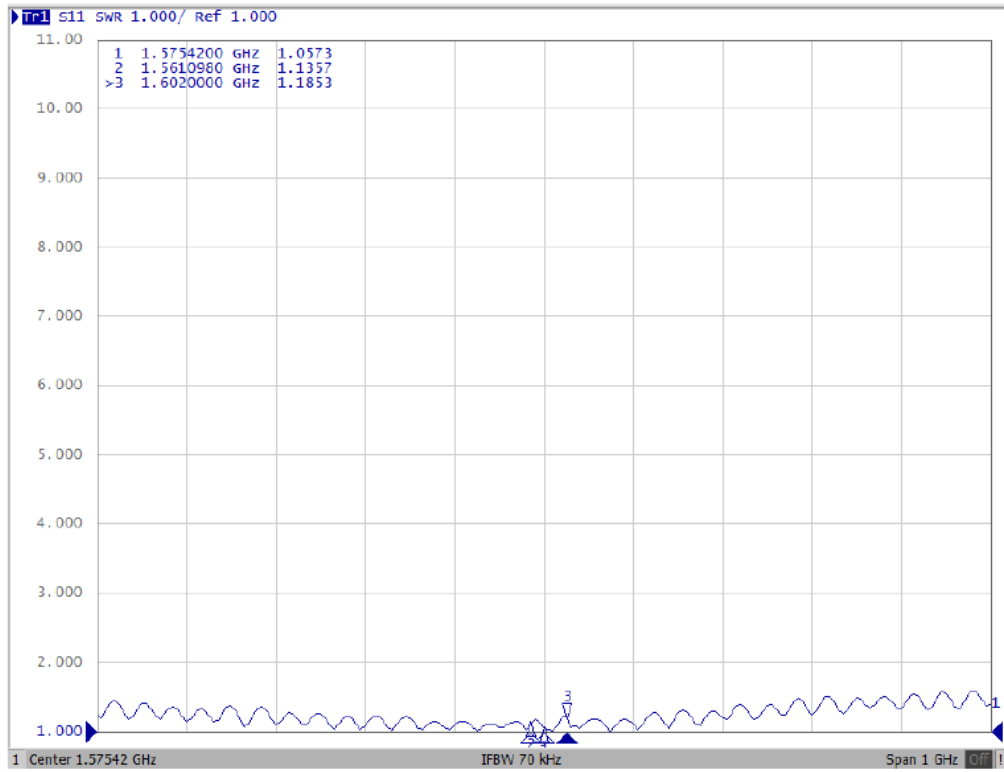


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## Test Measurement - VSWR



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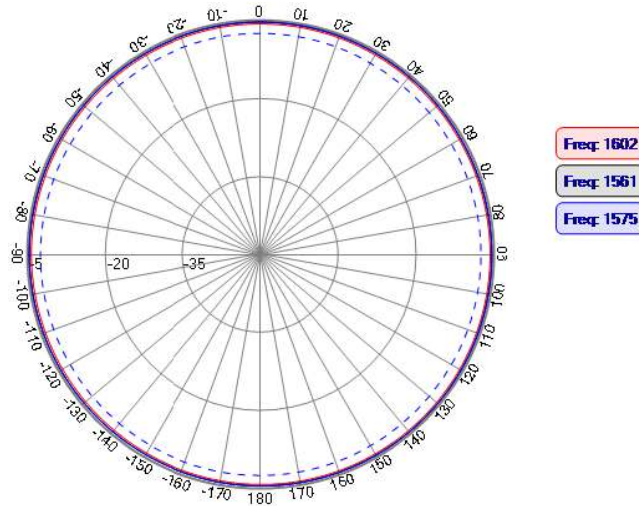


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## Radiation Characteristics

### 2D Pattern

#### XY - Plane

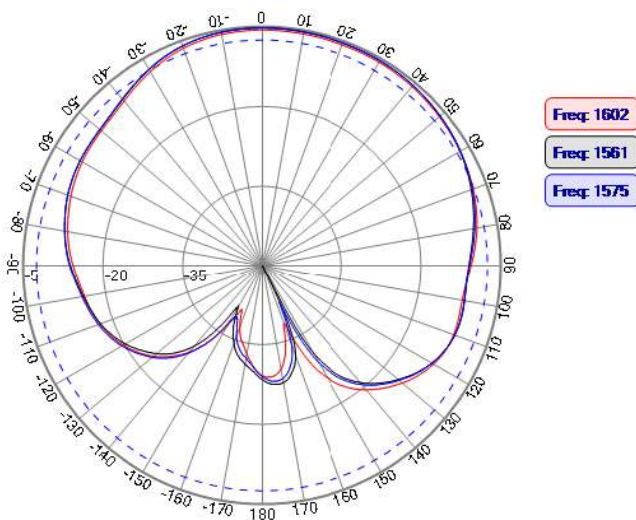


Freq: 1602

Freq: 1561

Freq: 1575

#### XZ - Plane

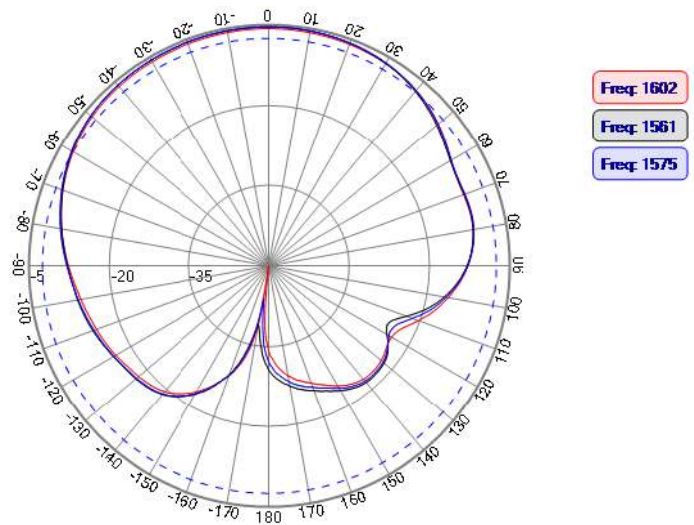


Freq: 1602

Freq: 1561

Freq: 1575

#### YZ - Plane



Freq: 1602

Freq: 1561

Freq: 1575



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## Packaging Information

Number of Antenna/ Carton : 100 pcs  
Weight of 1 pc of the antenna : 100 g  
Dimension of the Carton : 490 x 230 x 270 mm  
Weight of the Carton : 11 kg

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