



# High-Performance Vehicle-Mounted External Active Antenna JS-PAS51A-D5





# 1. Electrical Characteristics

## 1.1 Ceramic Antenna

1	Ceramic Antenna Specification	L5 (36mm*36mm*2mm) B1&L1 (25mm*25mm*4mm)
2	Operating Frequency	B1:1561.098±2.046MHz L1: 1575.42±1.023MHz L5:1176.45±10.23MHz
3	Impedance	50Ω
4	Polarization	RHCP
5	VSWR	≤2.0
6	Maximum Gain(39*39 Test Baseboard)	0dBic(B2a) 2.5dBic(B11&B1C)

## 1.2 Low-Noise Amplifier (LNA)

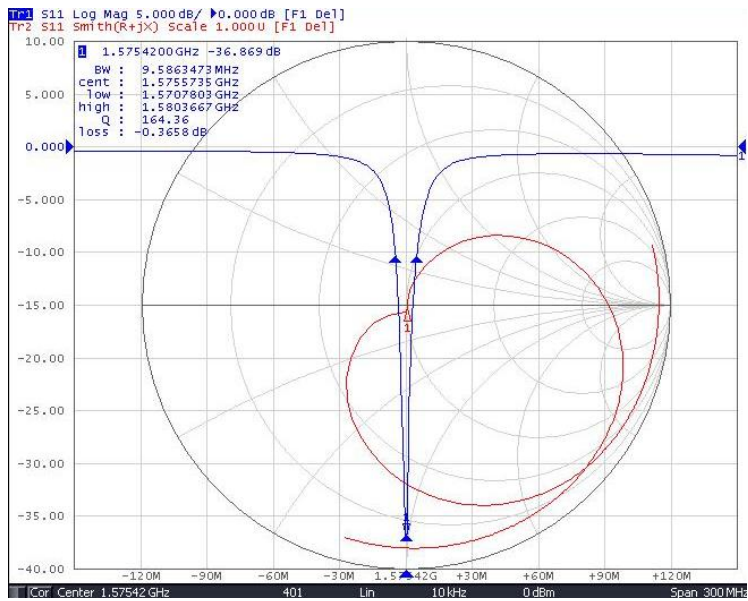
1	Operating Frequency	B1:1561.098±2.046MHz L1: 1575.42±1.023MHz L5:1176.45±10.23MHz
2	Operating Voltage	3 ~ 5V
3	Amplifier Gain	28±3dB
4	VSWR	≤2.0
5	Noise Figure	≤2.0
6	Current Consumption	15±3mA (@ 3.3V)

## 1.3 Antenna System (Including RF Cable, RF Connector, etc.)

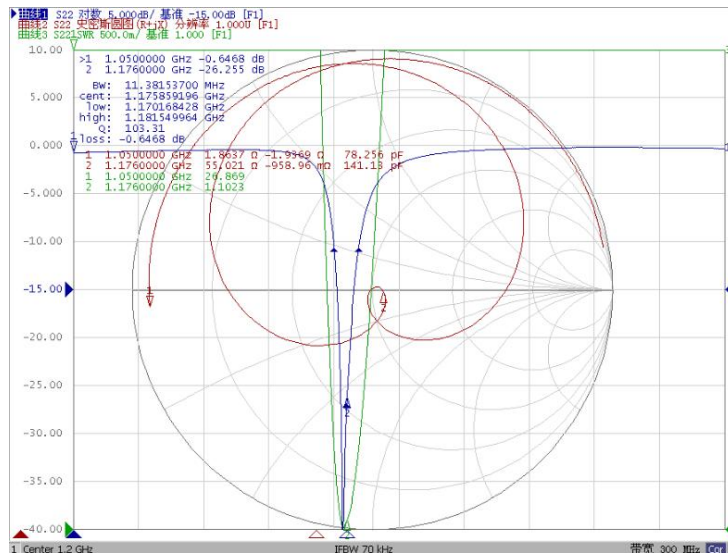
1	Operating Frequency	B1:1561.098±2.046MHz L1: 1575.42±1.023MHz L5:1176.45±10.23MHz
2	VSWR	≤2.0
3	Impedance	50Ω

## 2. Ceramic Antenna Test Curves

### 1) B1&L1

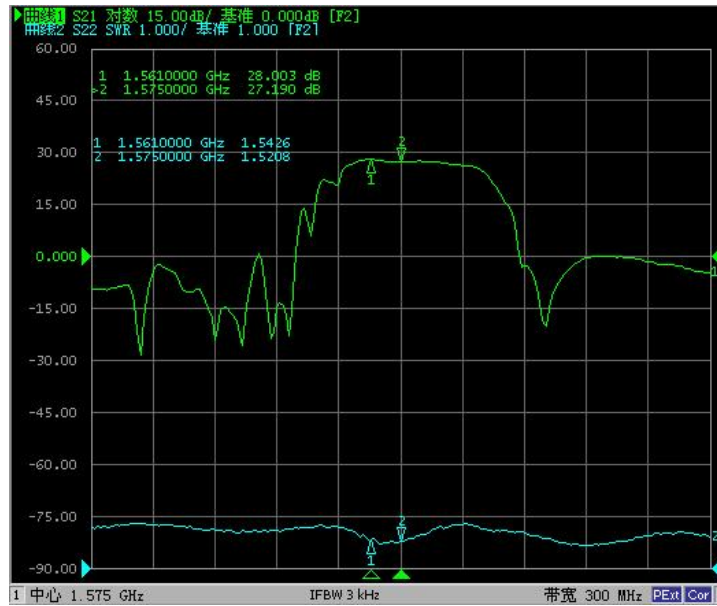


### 2) L5

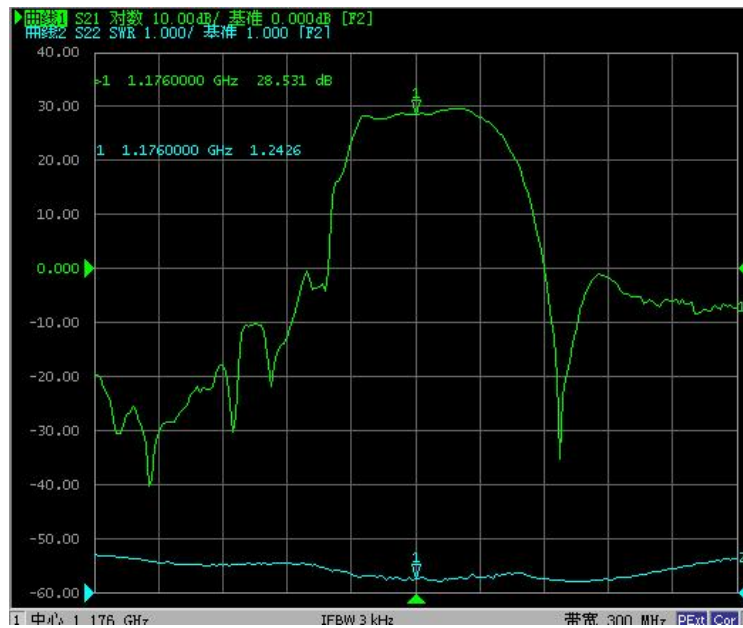


### 3. Low-Noise Amplifier Circuit Test Curves

#### 1) B1&L1

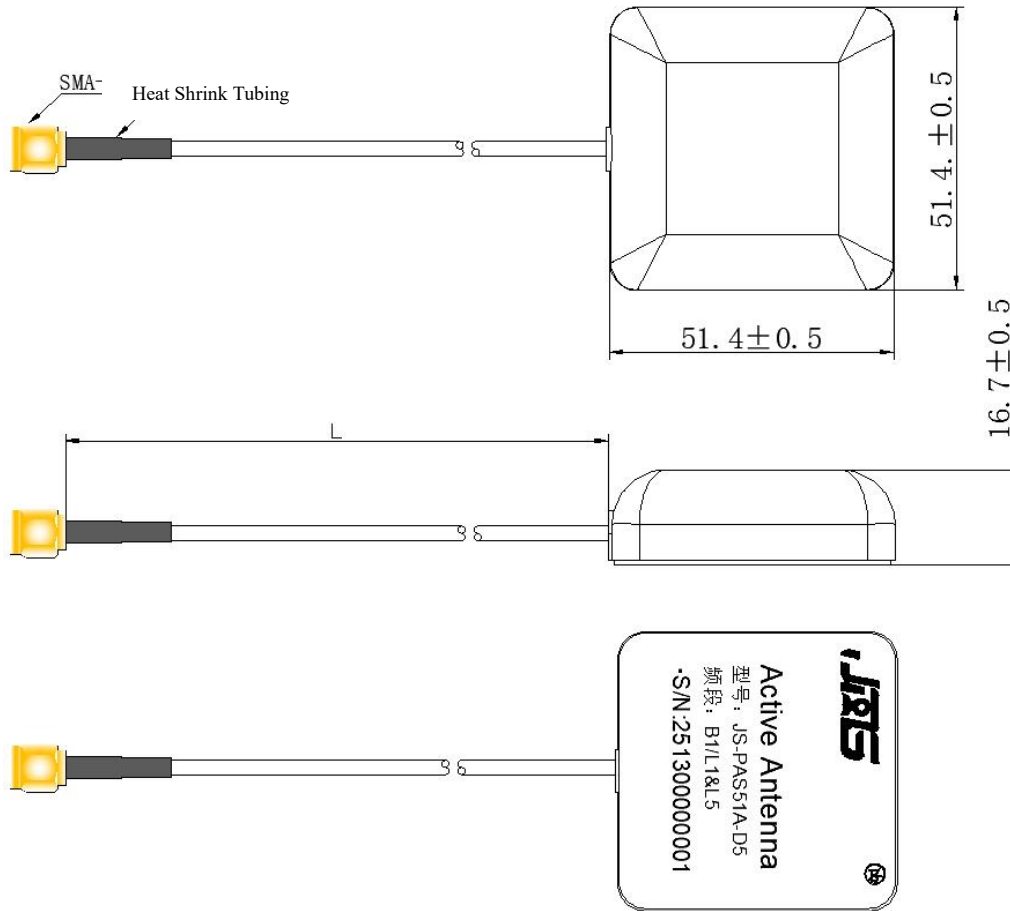


#### 2) L5



Test Voltage: 3.3V

#### 4. Product Structure Diagram



$L=3000\pm 100\text{mm}$  (unit:mm)

#### 5. Main Materials

No.	Material Name	Description
1	Ceramic Antenna	Dielectric ceramic
2	Circuit Board	FR4
3	Shielding Case	Tinplate
4	RF Cable	RG174
5	RF Connector	SMA-J3
6	Magnet	NdFeB

#### 6. Reliability Tests

No.	Material Name	Description
1	Operating Temperature	-40°C~+85°C
2	Storage Temperature	-40°C~+85°C
3	Vibration Tests	Sine sweep 1g(0-p) 10~55~10Hz each axis
4	Enclosure Protection Rating	IPX7

## 7. Precautions for Use

A. Before installing our product, please ensure it has been evaluated and verified.

B. The product warranty period is 1 year. Beyond the warranty period, repair costs will be calculated based on the actual repair price.

C. The front side of the product should be installed facing the sky as much as possible to ensure good satellite signal reception.

D. The product is an electronic device; please take precautions against electrostatic discharge (ESD).