

## DATASHEET

HYPERION SZA-C-3G27 | Active GPS Antenna | GNSS

### Features:

GPS L1, L2, L5 / GALILEO E1, E5, E6 / GLONASS L1, L2, L3 / BEIDOU B1, B2 1559-1610 MHz

Gain: >3.5dBic 1173-1281MHz; >3.5dBic 1558-1605MHz

Axial Ratio:  $\leq 5$ dB

LNA Gain: 36dB

Dimensions: 70.0 x 70.0 x 14.1 mm

Cable Length: 90mm

Connector: MHF1 (U.FL Compatible)

RoHS compliant

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## Introduction

HYPERION, a large GNSS active antenna specifically designed for drones and high-precision applications. This advanced antenna delivers a substantial LNA gain of 36dB, making it ideal for demanding environments where accuracy is paramount.

### Key Features:

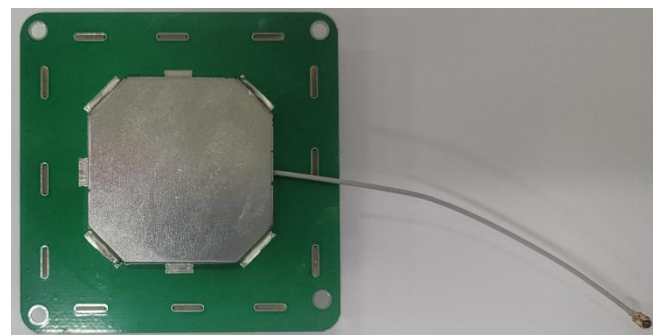
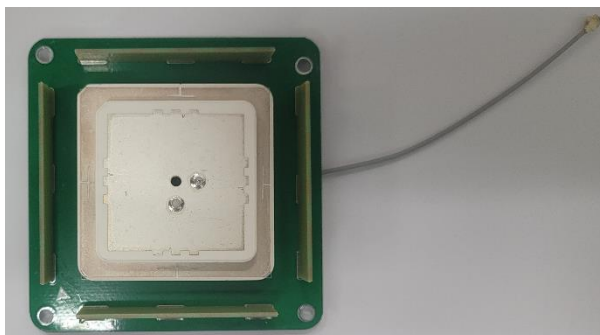
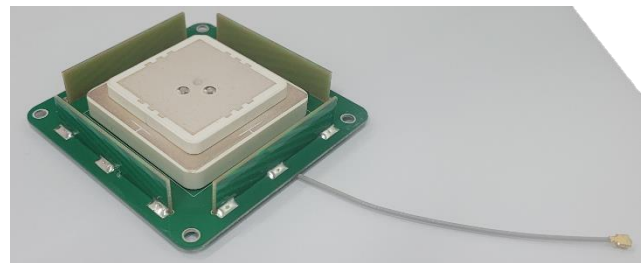
- High LNA Gain: 36dB
- Comprehensive GNSS Support: GPS/GLONASS/GALILEO/BeiDou
- Large Form Factor: 70x70x14.1 mm
- Excellent Out-of-Band Rejection
- Robust Design for Precision Applications

### Typical Applications:

- Drones and UAVs
- Surveying Equipment
- Precision Agriculture
- Autonomous Vehicles
- Geographical Information Systems (GIS)
- High-Precision Navigation Systems

Despite its remarkable out-of-band rejection capabilities, the HYPERION maintains an impressively low noise figure, significantly minimizing signal degradation that is typical of losses in transmission lines.

For further optimization tailored to specific device environments, Synzen offers custom-tuned patch antennas. Elevate your GNSS experience with the Synzen HYPERION (SZA-N-3G27).



## Mechanical Specifications

Parameter	
Part Number	SZA-N-3G27
Name	HYPERION
Dimensions (mm)	70.0 x 70.0 x 14.1
Weight	<g
Antenna Type	Active Ceramic Patch + Cable (RHCP)
Cable Length (mm)*	90.0, 1.13ø
Connector*	MHF1 (U.FL Compatible)
Fixing	4 x 3.2mm ø fixing holes

**\*Alternate cable length and connectors available on request**

## Electrical / RF Specifications

Frequency Range (MHz)	Efficiency (%)	Peak Gain (dBic)	VSWR	Impedance
1173-1281	>70	3.5	<2.0:1	50Ω
1558-1605	>75	3.5	<2.0:1	

## LNA

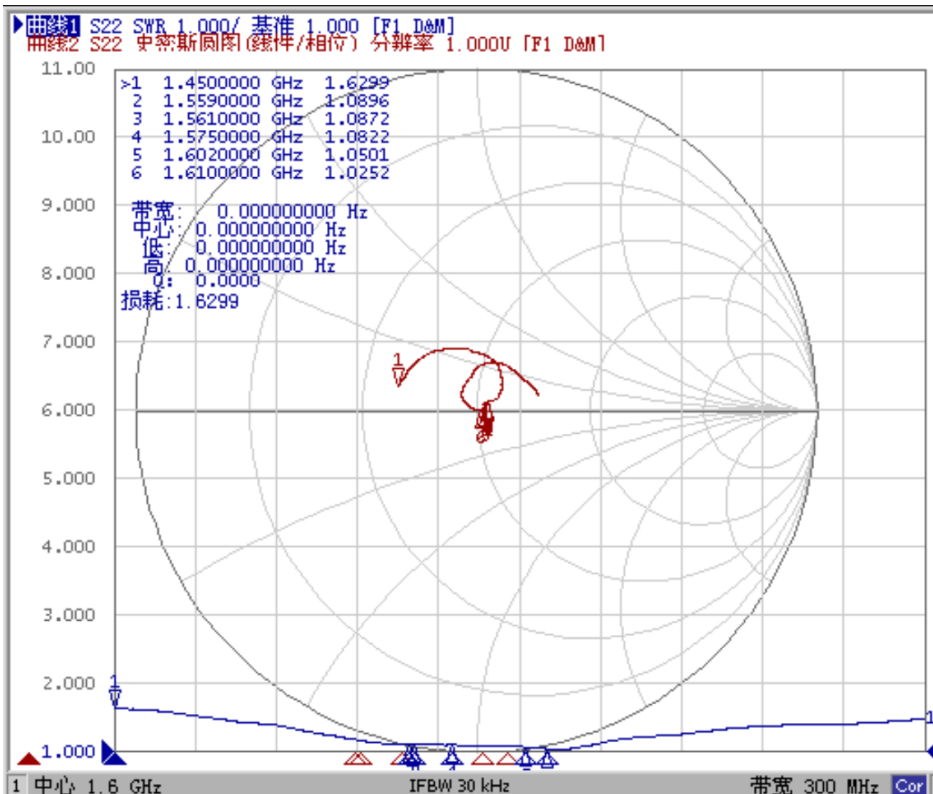
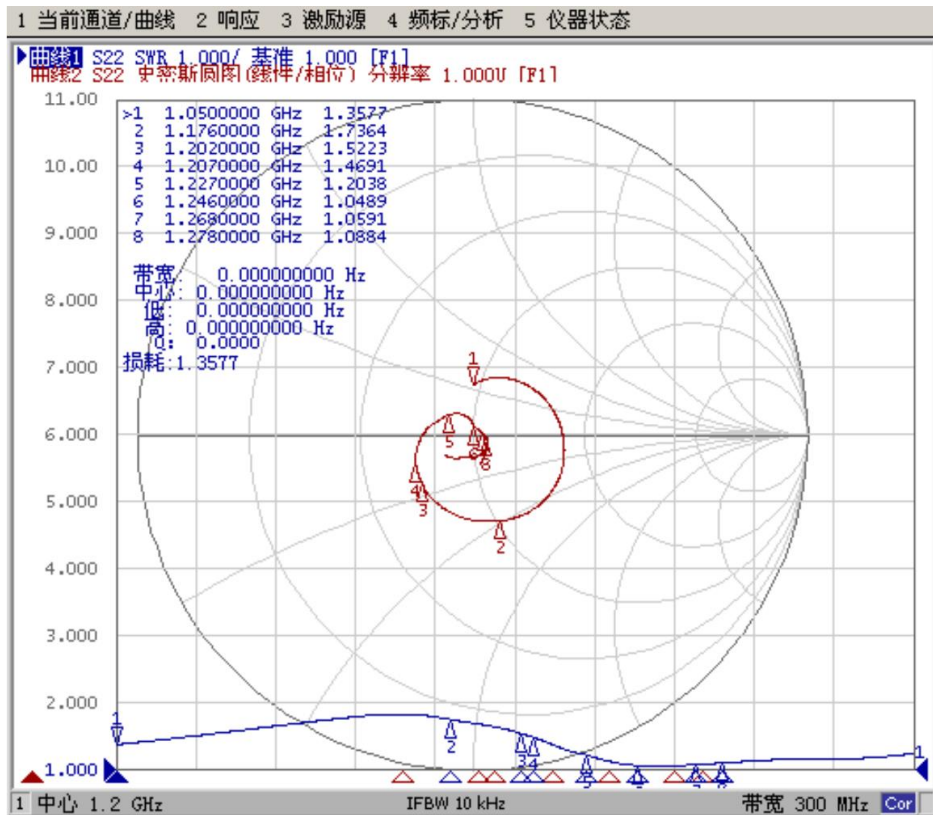
Frequency Range (MHz)	DC Voltage (V)	Current consumption (mA)	Gain (dB)	VSWR	Noise Figure
1173-1281	3.0 to 5.0	25.0 ±5	36±2	<2.0:1	50Ω
1558-1605					

## Environmental

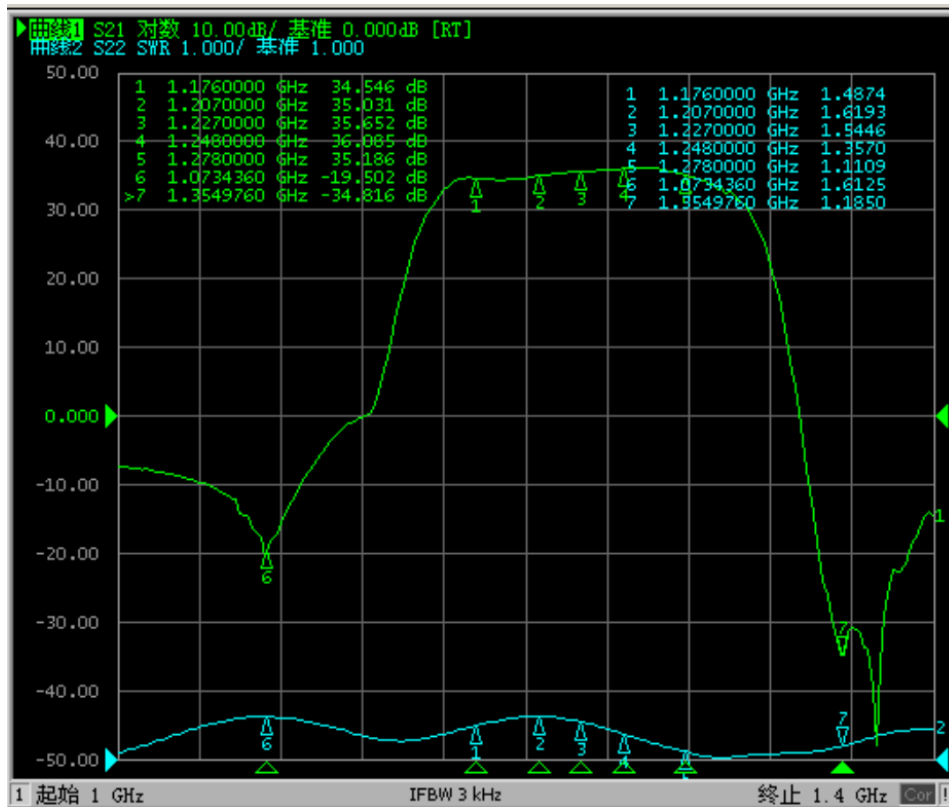
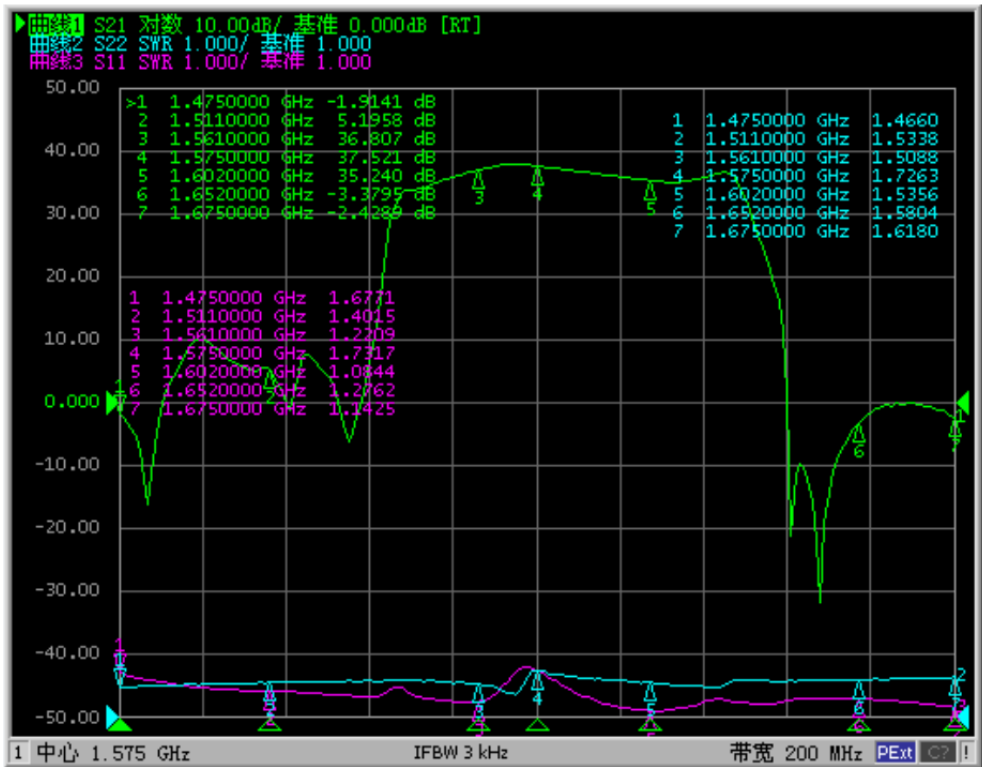
Parameter	
Operational Temperature	-40 to +85
Storage Temperature	-55 to +85
Relative Humidity (Storage)	65±20% RH
Moisture Sensitivity	1
RoHs and REACH compliant	Yes

# RF Characteristics

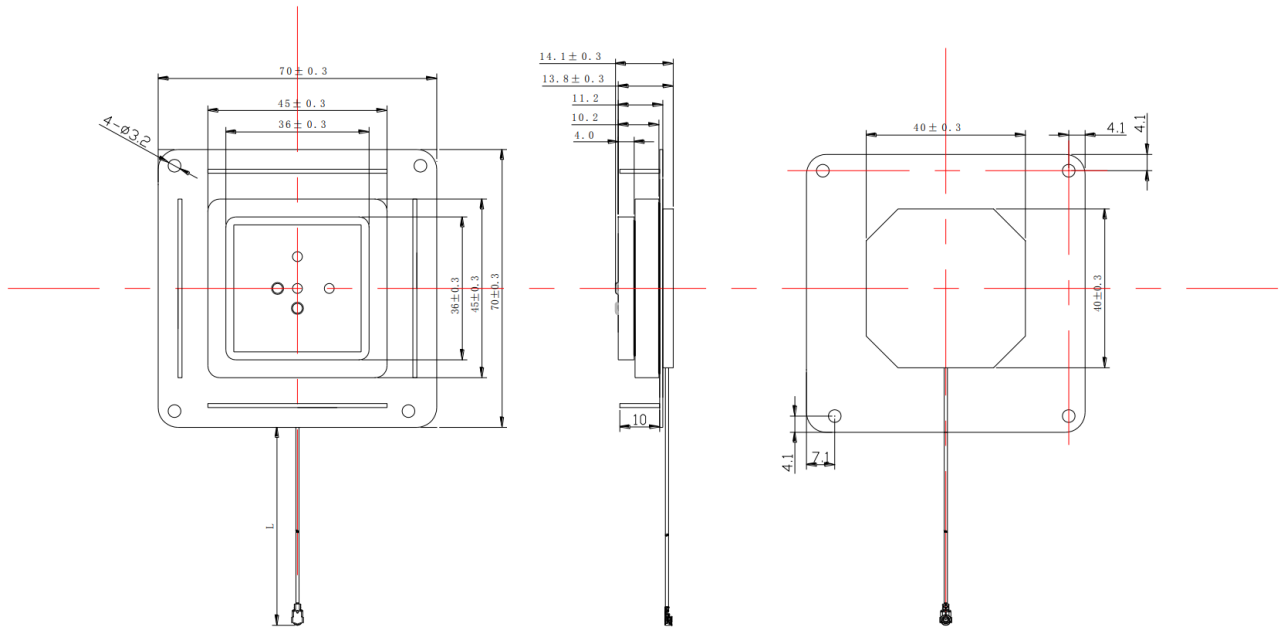
## Return loss / Smith Chart



### LNA Performance



# Mechanical Drawing



$L=78 \pm 5\text{mm}$

## Packaging

Each Carton contains 100pcs.

Dimensions of Carton: 630 x 460 x 105 (mm)



## Material Regulation

The antenna has been assessed to conform to RoHS requirements. A certificate of conformance is available upon request.



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