



DATASHEET

MIMAS SZA-C-3G23 | Active GPS Antenna | GNSS

Features:

GPS L1 / GALILEO / GLONASS G1 / BEIDOU: 1559-1610 MHz

>1.5dBic Peak Gain, >50% Efficiency

Dimensions: 15.0 x 15.0 x 5.9 mm

Cable Length: 35mm

Connector: MHF1 (U.FL Compatible)

RoHs compliant

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Introduction

MIMAS, 15mm internal GPS/GLONASS/GALILEO/BeiDou active patch antenna with a robust LNA gain of 20dB.

Key Features:

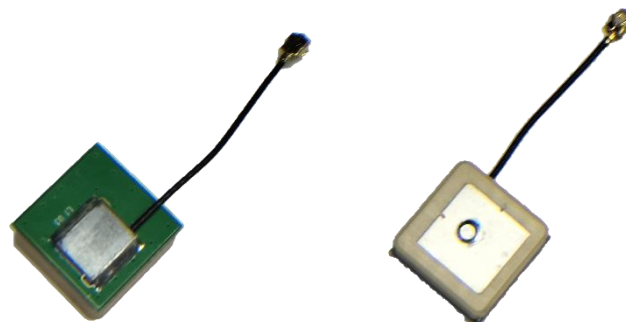
- High LNA Gain: 20dB
- Comprehensive GNSS Support: GPS/GLONASS/GALILEO/BeiDou
- Excellent Out-of-Band Rejection
- Ideal for Transmitter-Heavy Environments

Typical Applications:

- Wearables
- Connected Health
- Transportation

The Synzen MIMAS (SZA-N-3G23) integrates front-end, and back-end SAW filters with outstanding rejection across all non-GNSS frequencies, protecting your GPS receiver from potential overdriving or damage caused by nearby transmitters.

Despite its remarkable out-of-band rejection capabilities, the MIMAS maintains an impressively low noise figure of $\leq 2.0\text{dB}$, significantly minimizing signal degradation that is typical of losses in transmission lines.



Mechanical Specifications

Parameter	
Part Number	SZA-N-3G23
Name	MIMAS
Dimensions (mm)	15.0 x 15.0 x 5.9
Weight	<6g
Antenna Type	Active Ceramic Patch + Cable
Cable Length (mm)*	35.0, 0.81 \emptyset
Connector*	MHF1 (U.FL Compatible)
Adhesive backing	3M 468

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

Electrical / RF Specifications

Frequency Range (MHz)	Efficiency (%)	Peak Gain (dBic)	VSWR	Impedance
1575.42 \pm 1.023 /1602.56 \pm 4.0	>50	1.5	<2.0:1	50 Ω

LNA

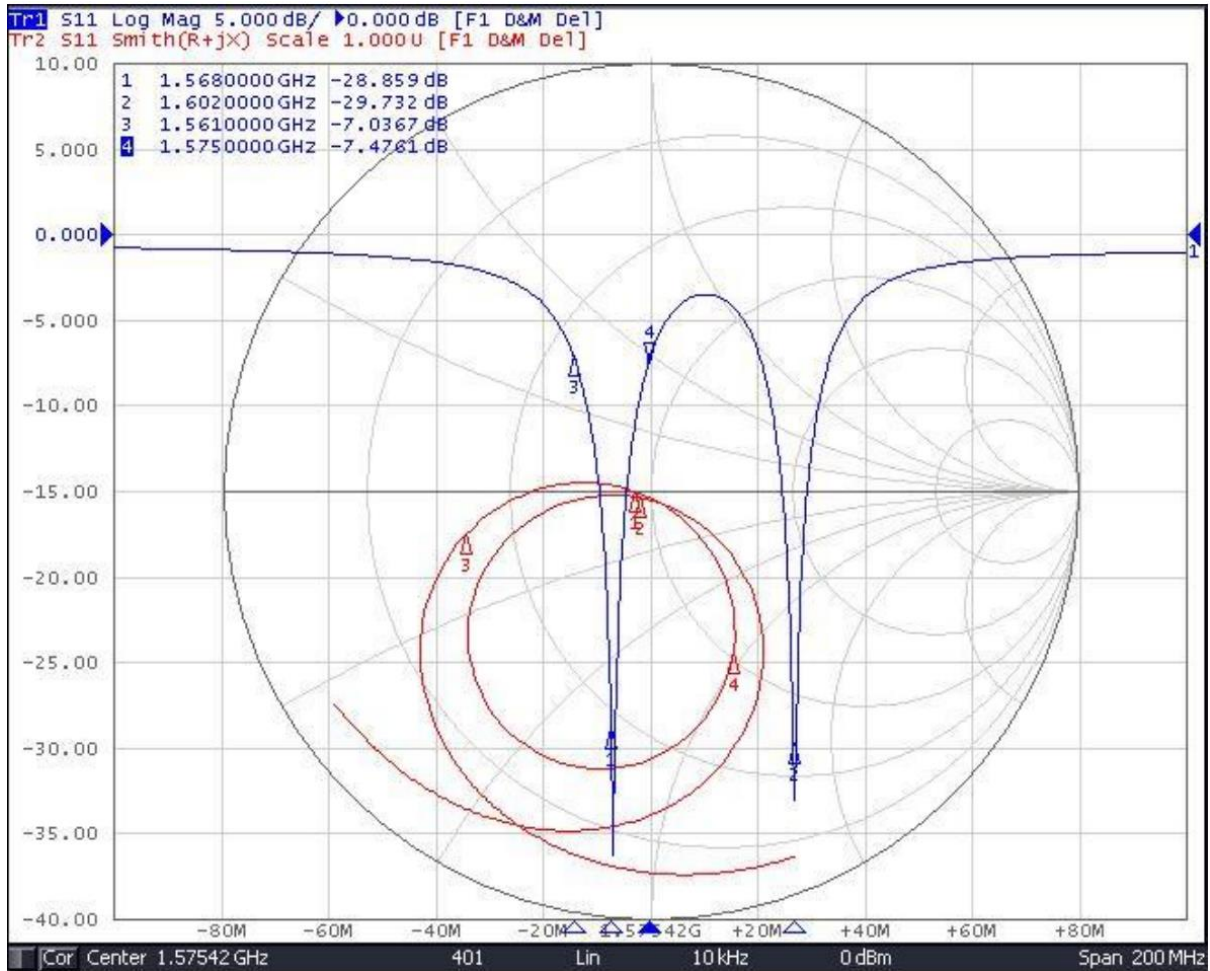
Frequency Range (MHz)	DC Voltage (V)	Current consumption (mA)	Gain (dB)	VSWR	Noise Figure
1575.42 \pm 1.023 /1602.56 \pm 4.0	3.0 \pm 0.3V	5.0 \pm 2	20	<2.0:1	50 Ω

Environmental

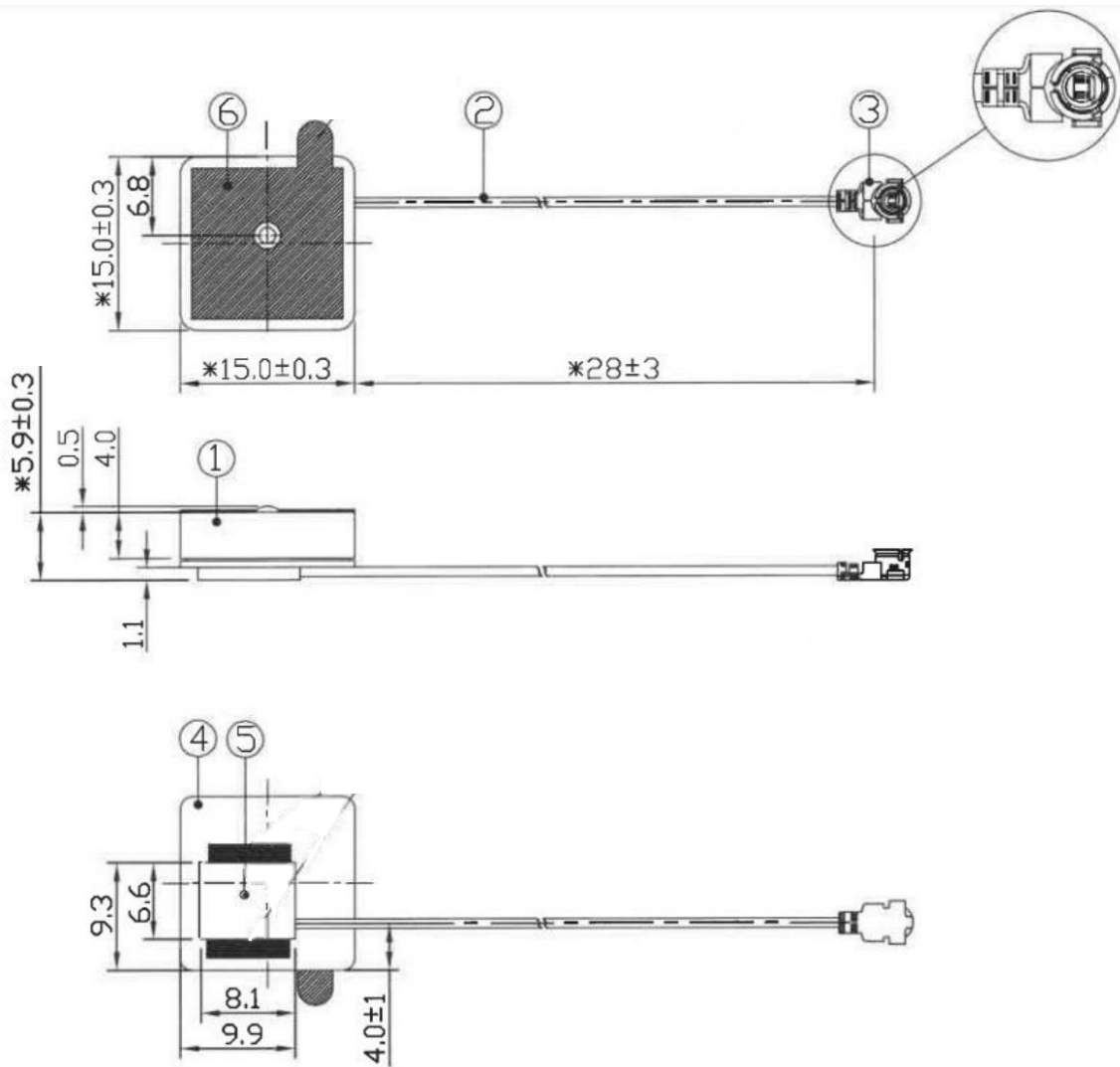
Parameter	
Operational Temperature	-40 to +85
Storage Temperature	-40 to +85
Relative Humidity (Storage)	65 \pm 20% RH
Moisture Sensitivity	1
RoHs and REACH compliant	Yes

RF Characteristics

Return loss / Smith Chart



Mechanical Drawing



Packaging

Antennas packed in tray (50pcs)

5 trays are packed per bag.

4 vacuum bags per carton

Total 1000pcs per carton (345 x 210 x 275mmm)



Material Regulation

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

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