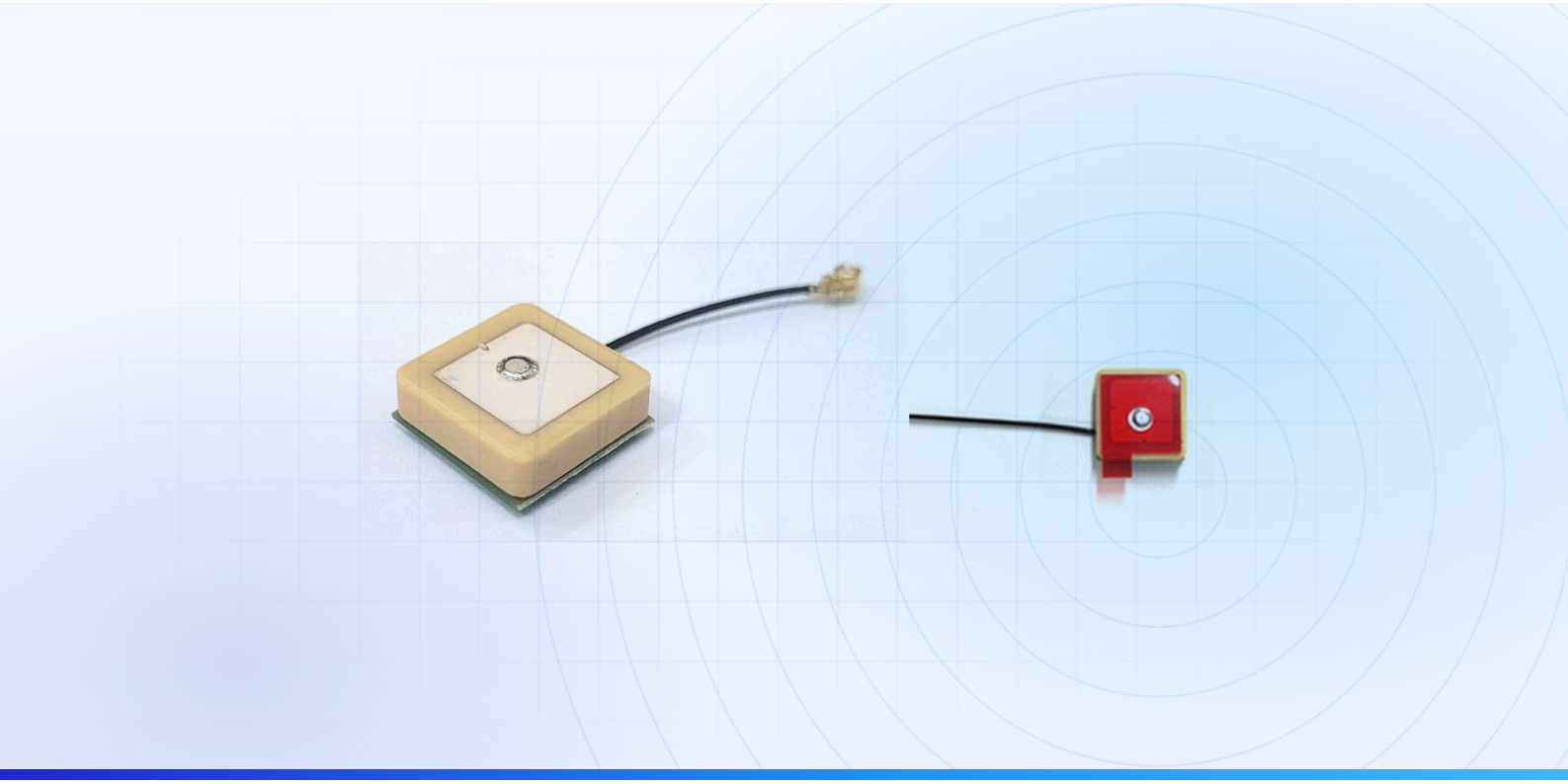
SP TECHNOLOGY

PRODUCT DATASHEET



ACTIVE GNSS

MIMAS

Active GNSS Patch Antenna

SZA-N-3G23

BAND	LNA GAIN	NOISE FIGURE	SIZE
GNSS L1	20 dB	≤2.0 dB	15.0 × 15.0 × 5.9 mm

L1	1574 to 1607 MHz	Covers GPS L1, Galileo E1, GLONASS G1

Key Features

- High LNA gain: 20 dB
- Comprehensive GNSS support: GPS / GLONASS / Galileo
- Excellent out-of-band rejection
- Ideal for transmitter-heavy environments

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2026
Rev B

1 Introduction

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

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 ≤2.0 dB, significantly minimizing signal degradation that is typical of losses in transmission lines.

Features

- High LNA gain: 20 dB
- Comprehensive GNSS support: GPS / GLONASS / Galileo
- Excellent out-of-band rejection
- Ideal for transmitter-heavy environments

Applications

- Wearables
- Connected Health
- Transportation

2 Mechanical Specifications

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

**Alternate cable length and connectors available on request*

3 Antenna Specifications

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

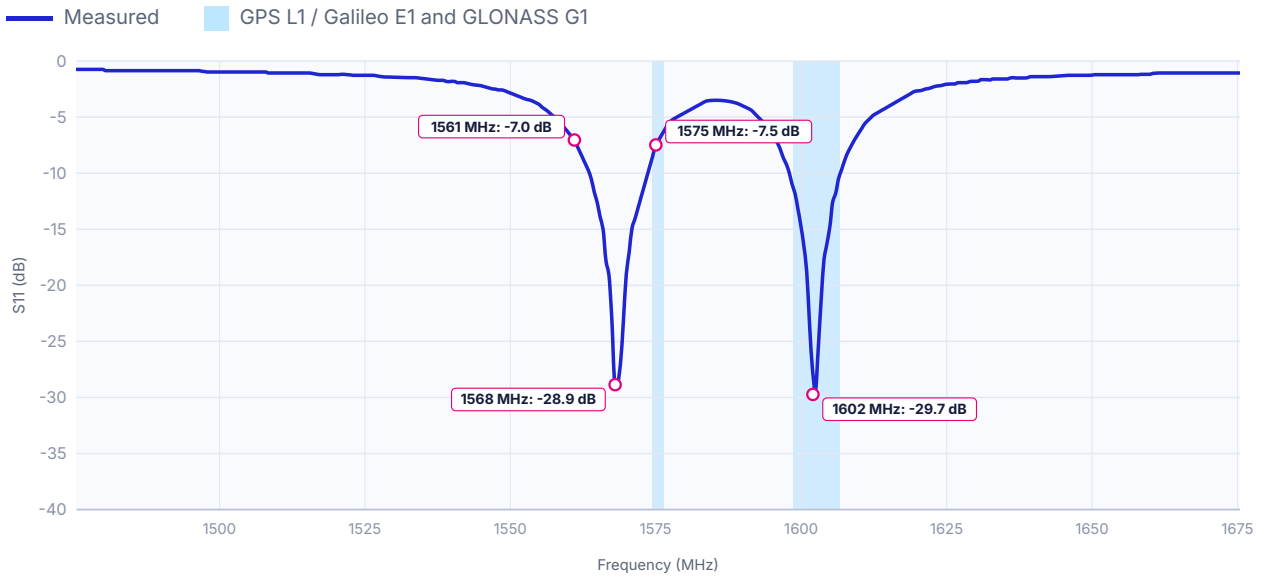
4 LNA Specifications

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

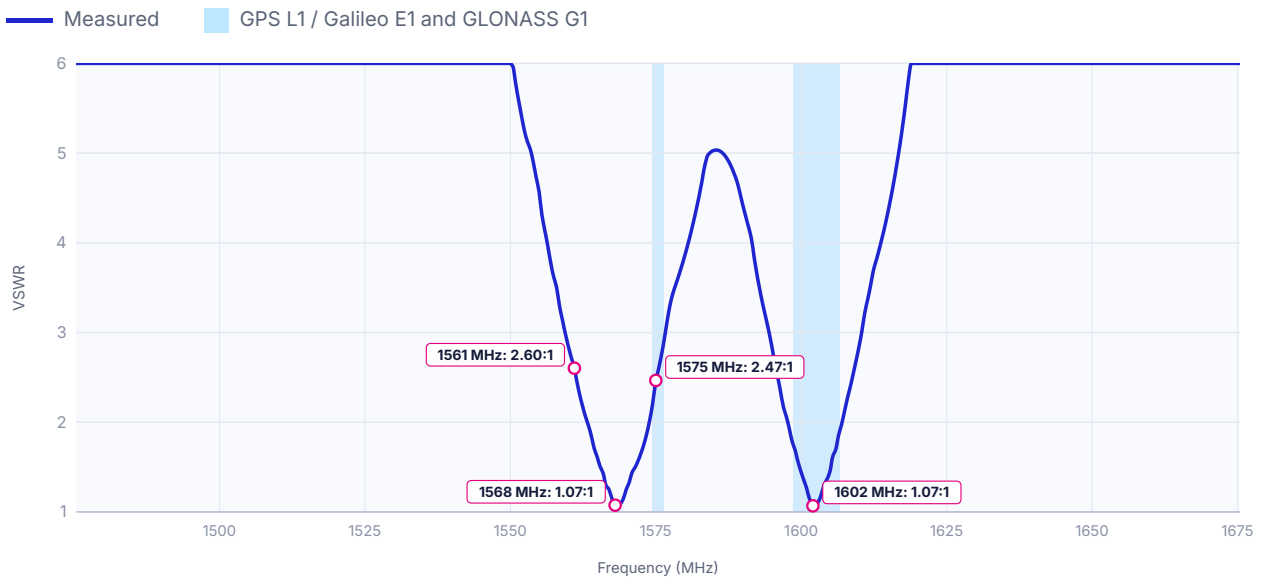
5 Environmental

Operational Temperature	-40 to +85°C
Storage Temperature	-40 to +85°C
Relative Humidity (Storage)	65 ±20% RH
Moisture Sensitivity Level (MSL)	1
RoHS and REACH compliant	Yes

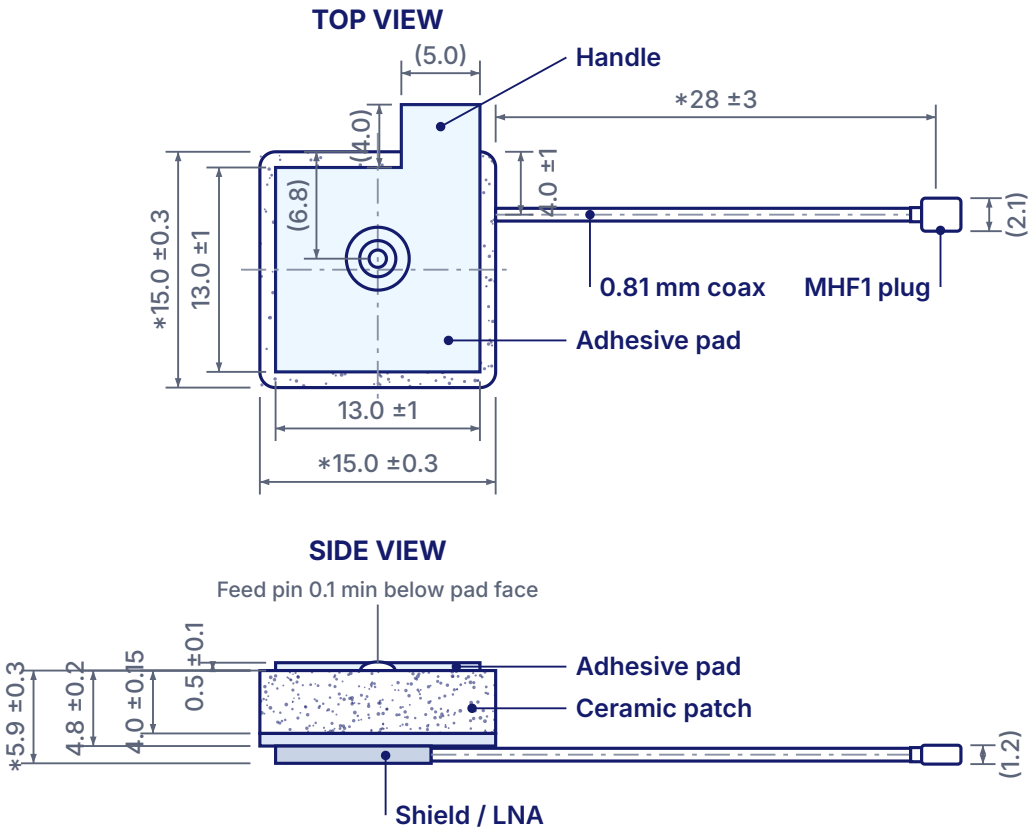
6 S11 Parameter



7 VSWR

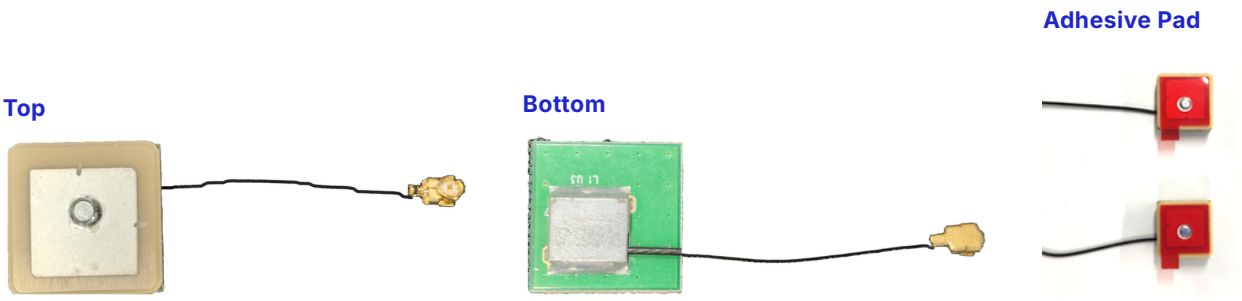


8 Mechanical Drawing



All dimensions in mm. * critical dimension, ( ) reference dimension

9 Top, Bottom and Adhesive Pad View



10 Packaging



11 Compliance

ROHS
Compliant
Conforms to EU RoHS Directive 2011/65/EU as amended by Delegated Directive (EU) 2015/863.

REACH
Compliant
Conforms to EU REACH Regulation (EC) No 1907/2006.

CERTIFICATE
On request
A certificate of conformance is available upon request from sales@synzen.com.tw.

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