

GNSS CERAMIC PATCH

DIONE

L1 / L5 Stacked Ceramic Patch Antenna

SZC-N-3G30

BANDS
L1 + L5

PEAK GAIN
Up to 3.50 dBi

POLARIZATION
RHCP

SIZE
25.0 × 25.0 × 8.16 mm

L5	1176.42 ±12 MHz	Covers GPS L5, Galileo E5a, IRNSS L5
L1	1575.42 ±2 MHz	Covers GPS L1, BeiDou B1, Galileo E1

Key Features

- GPS L1 and L5
- BeiDou B1, Galileo E1 and E5a, IRNSS L5
- Through hole mount
- High gain
- Dimensions: 25.0 × 25.0 × 8.16 mm

1 Introduction

In the ever-evolving landscape of high-precision global navigation and positioning systems, the Synzen DIONE (SZC-N-3G30) patch antenna stands as a testament to cutting-edge technology and performance.

DIONE antenna boasts an advanced wide-band dual stacked ceramic patch antenna with optimized gain for GPS L1/L5, Galileo, GLONASS, and BeiDou bands. The result is a high-performance directional antenna that promises unparalleled precision and rapid positioning, making it an ideal choice for a diverse range of applications.

DIONE antenna can be tailored to specific customer device environments, with customization options available. For personalized assistance or integration and performance testing services, we encourage you to contact our regional Synzen customer support team.

— Features

- ◆ Multi-band excellence: covers the multi-band spectrum, catering to the needs of GPS, BeiDou / Compass, and IRNSS systems
- ◆ Compact design: a compact form factor of 25 × 25 × 8 mm, designed for versatility while maintaining high performance
- ◆ Versatile applications: RTK, wearables, transportation, agriculture technology, navigation, security solutions, and autonomous vehicles

— Applications

- | | |
|-------------------------|--------------------------------|
| ◆ RTK | ◆ Autonomous Vehicles / Drones |
| ◆ Precision Agriculture | ◆ Navigation |
| ◆ Automotive | |

2 Mechanical Specifications

Part Number	SZC-N-3G30
Name	DIONE
Dimensions (mm)	25.0 × 25.0 × 8.16
Weight	<14 g
Antenna Type	Through Hole Patch
Material	Ceramic

3 Electrical / RF Specifications

Band	Frequency Range (MHz)	Avg Efficiency (%)	Peak Gain (dBi)	Impedance	Polarization
L1	1575.42 ±2	>60	2.50	50 Ω	RHCP
L5	1176.42 ±12	>65	3.50		

*All performance stated is measured on a 70 × 70 mm GND.

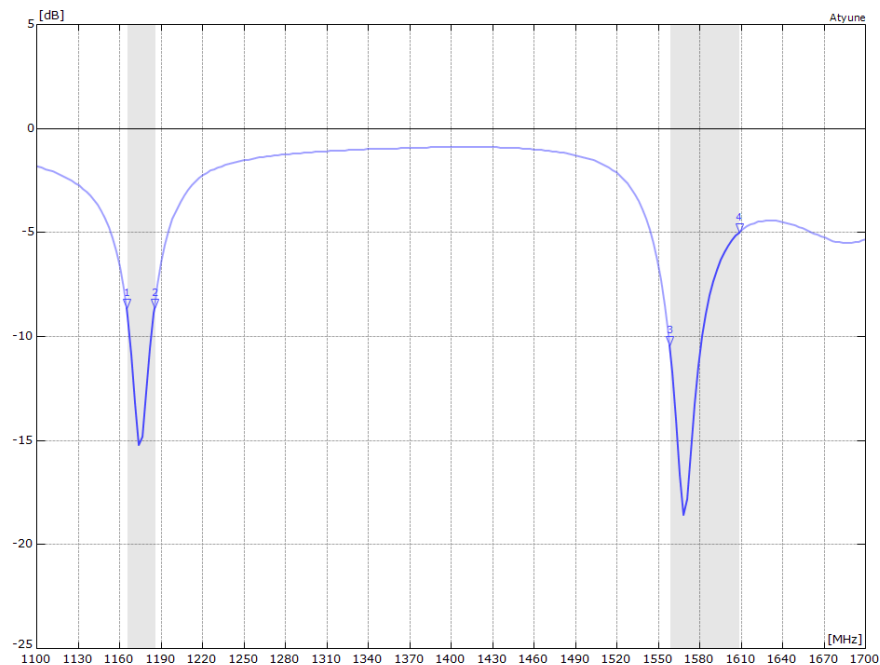
4 Environmental

Operational Temperature	-40 to +85°C
Storage Temperature	-10 to +110°C
Relative Humidity	≤75%
Moisture Sensitivity Level (MSL)	NA
RoHS and REACH compliant	Yes

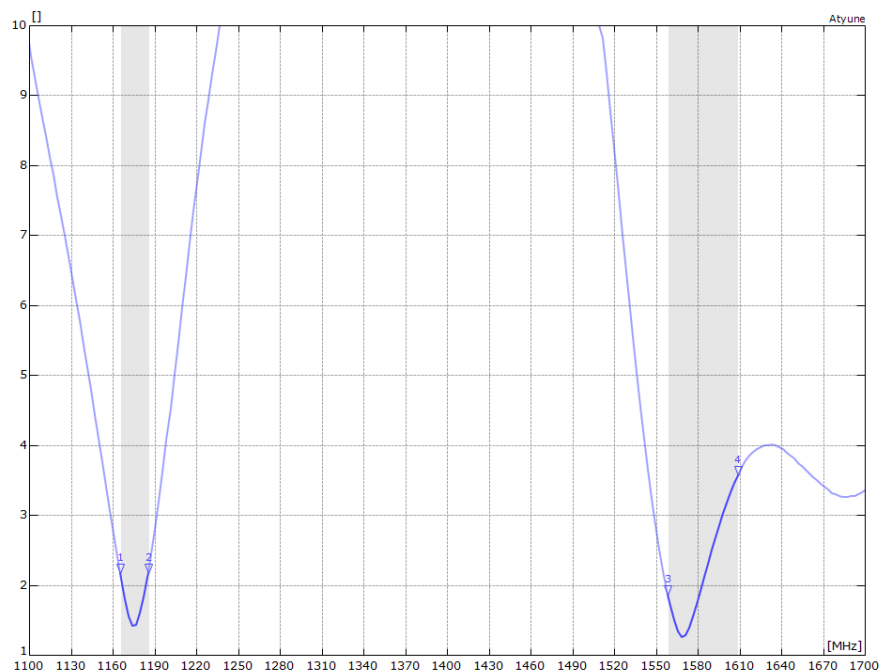
5

S11/ VSWR

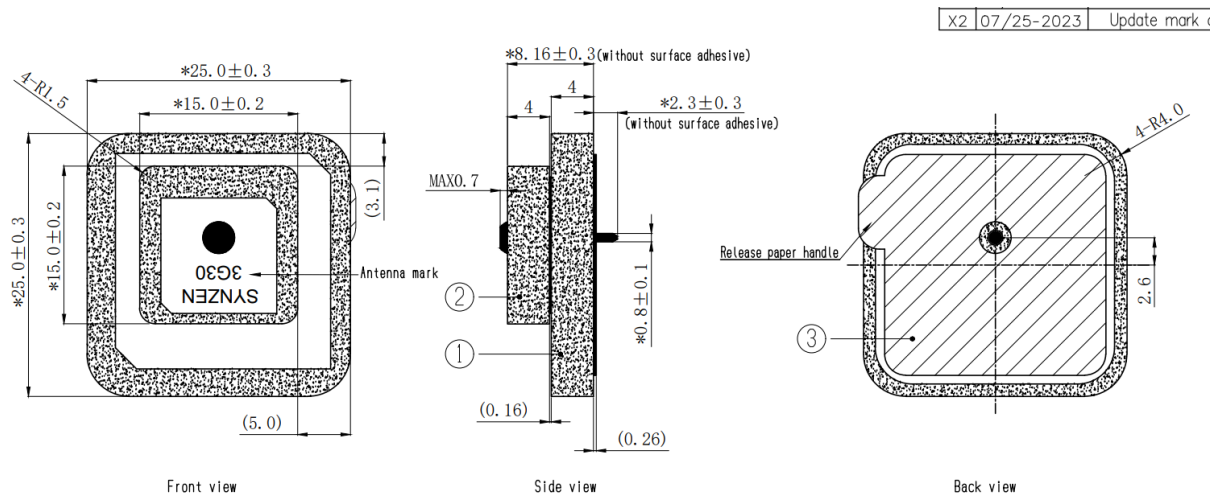
S11 Parameter



VSWR



6 Antenna Mechanical Drawing



7 Materials

No.	Part	Description	Qty
1	Antenna	Ceramic, $25 \times 25 \times 4$ mm	1
2	Antenna	Ceramic, $15 \times 15 \times 4$ mm	1
3	Adhesive	NITTO 5000	1

8 Packaging

Packaging Type	Quantity
Tray	50
Inner Box	150
Outer Box	600

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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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