

— GNSS FPC + CABLE

ZETA

GNSS FPC Antenna

SZK-C-0G04

BAND
1559 to 1610 MHz

PEAK GAIN
2.00 dBi

CONNECTOR
MHF1, 100 mm

SIZE
40 × 10 × 0.2 mm

GNSS L1	1559 to 1610 MHz	Covers GNSS L1
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Key Features

- For GNSS applications 1559 to 1610 MHz
- Clean resonance with no unwanted out of band response
- Simple integration, plug and operate the device without designing onboard antenna
- Can be tuned for various environments and plastic thickness with additional Pi network, free tuning service available
- Alternate cable lengths available upon request, contact sales@synzen.com.tw

1 Introduction

A flexible antenna for GNSS applications. For use internal to a device which requires an integrated antenna solution. High performance with a small form factor for simple integration.

— Features

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- ◆ Clean resonance with no unwanted out of band response
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— Applications

- | | |
|------------------|--------------------|
| ◆ Drones | ◆ Smart Grid |
| ◆ M2M Industrial | ◆ Portable Devices |
| ◆ Asset Tracking | |

2 Mechanical Specifications

Part Number	SZK-C-0G04
Name	ZETA
Dimensions (mm)	40 × 10 × 0.2
Weight	<1 g
Antenna Type	FPC + Cable
Cable Length*	100 mm, Black
Cable Type	Mini Coax Ø 1.13 mm
Connector*	MHF1 (U.FL Compatible)
Adhesive Backing	3M 468

*Alternate cable length and connectors available on request

3 RF Specifications

Frequency Range (MHz)	Average Efficiency	Peak Gain (dBi)	S11 (max) dB	VSWR (max)	Impedance
1559 to 1610	>70%	2.00	<-12.5	1.65:1	50 Ω

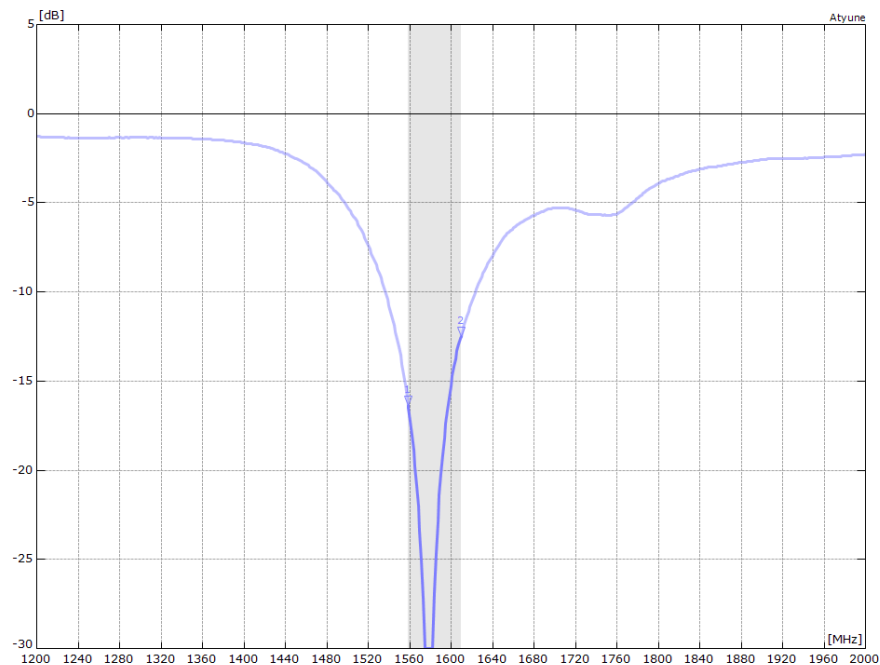
Polarization: Linear. Max input power: 5 W. Note: All performance stated is measured on 2.0 mm ABS plastic, RF chokes used to prevent cable radiation.

4 Environmental

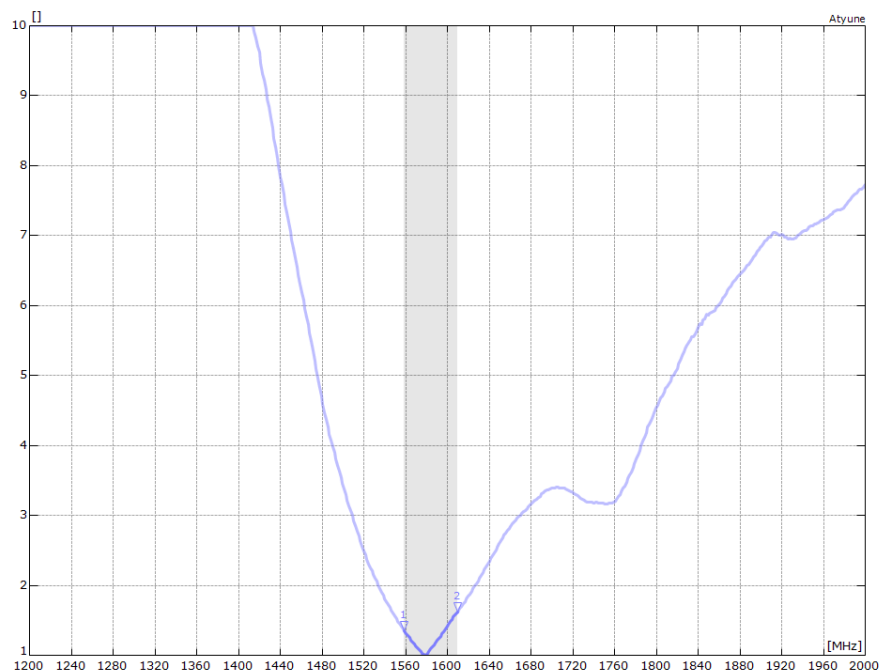
Operational Temperature	-40 to +85°C
Storage Temperature	-10 to +40°C
Relative Humidity	≤75%

5 RF Characteristics

S11 Parameter



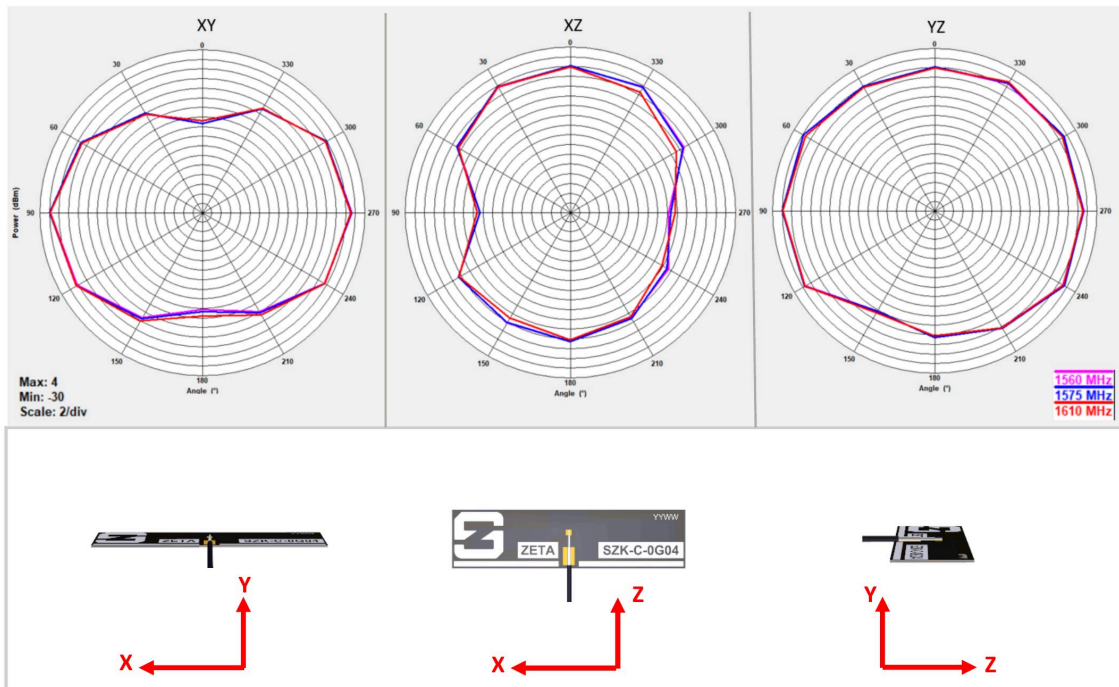
VSWR / Smith Chart



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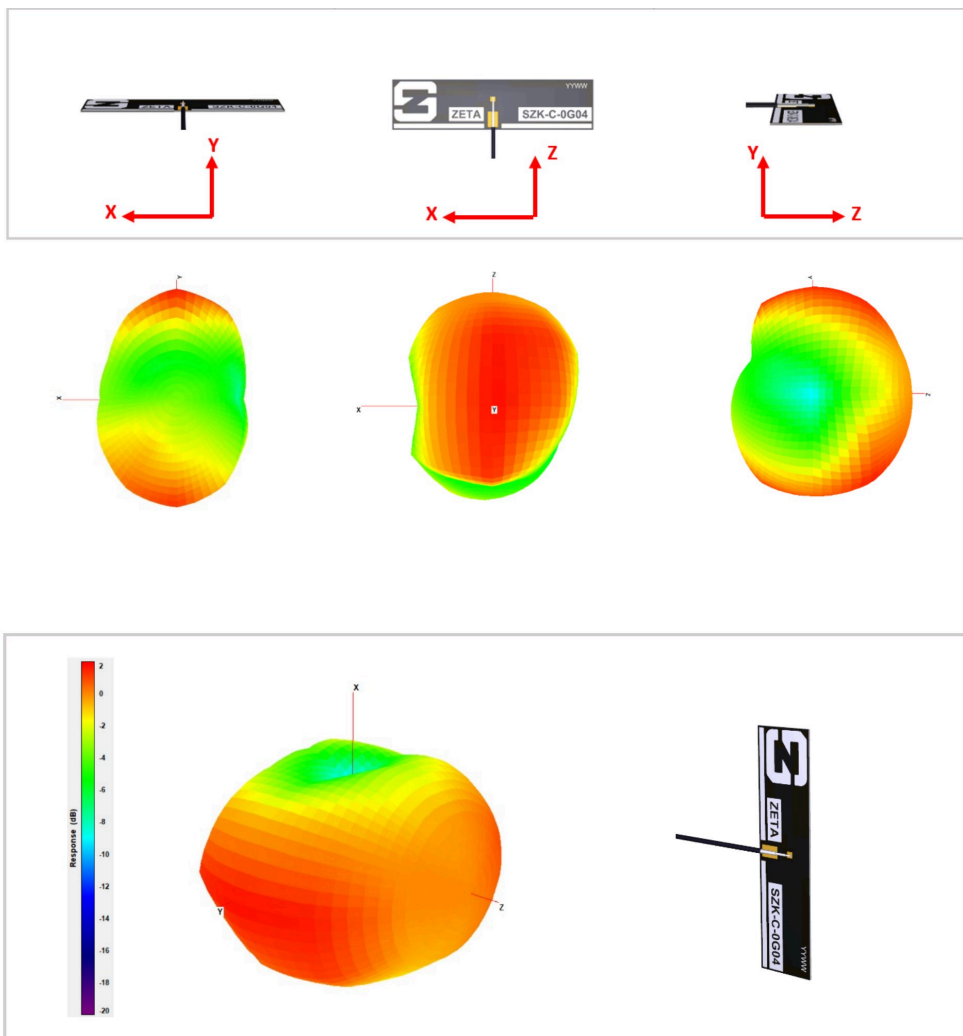
2D Polar Plot

MEASURED ON 2.0 MM ABS PLASTIC, RF CHOKES USED TO PREVENT CABLE RADIATION

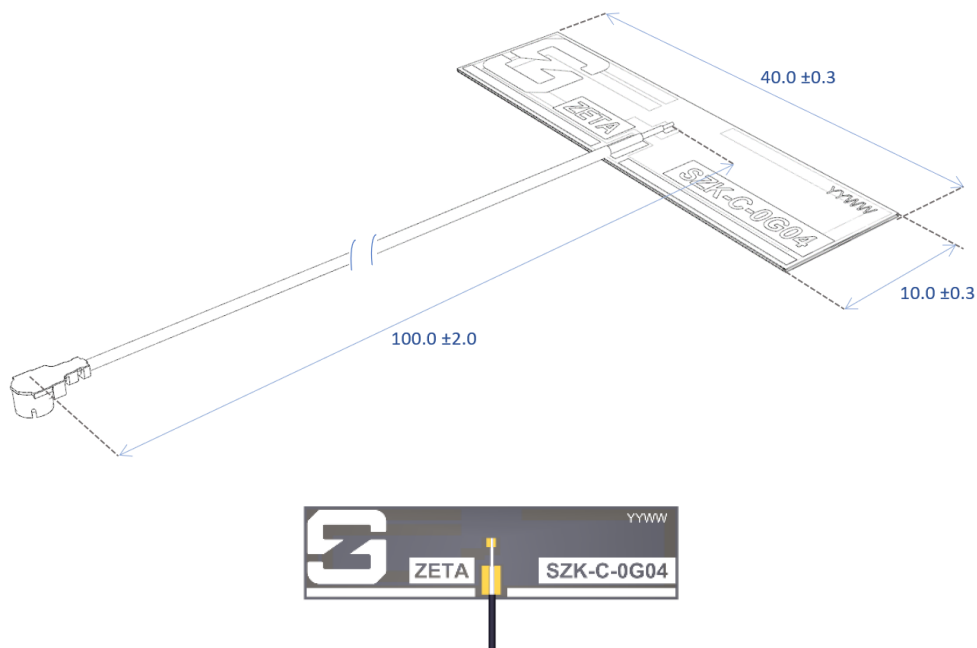


7 3D Radiation Pattern at 1575.42 MHz

MEASURED ON 2.0 MM ABS PLASTIC, RF CHOKES USED TO PREVENT CABLE RADIATION,
FREQUENCY POINT 1575.42 MHZ

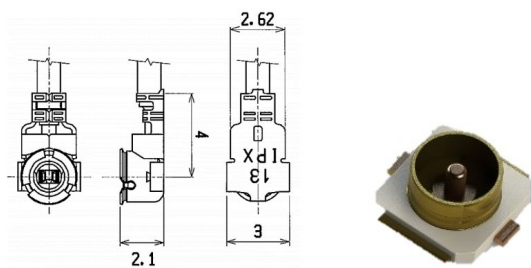


8 Antenna Mechanical Drawing



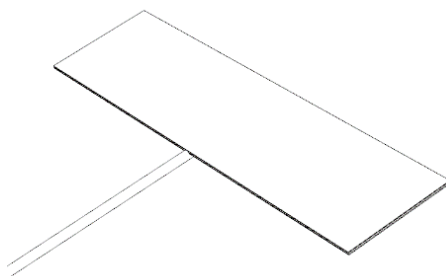
All dimensions in mm. The plug connector on the antenna is an IPEX MHF1.

9 Suitable PCB Mating Connector (U.FL)



Example: Joymax CT-MPB01X (www.joymax.com.tw)

10 Adhesive Backing



The antenna comes with 3M 468 adhesive backing upon a PI Kapton substrate. An easy peel cut is on the back side for easy cover removal.

11 Bag and Packaging Information



Packaging	Quantity	Dimensions
PE bag (individual)	1 pc	
Larger PE bag with product label	100 pcs	180 × 100 mm
Carton	1000 pcs	33.7 × 32.2 × 10 cm

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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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