

**Description**: 50x50x15 GNSS+L2L5 Active Antenna

PART NUMBER: ANT4050JB01BGN25A

## **Features:**

- Size: 50x50x15 mm<sup>3</sup>
- High radiation efficiency
- Low noise figure
- · RoHS compliant

# **Applications:**

- Navigation device
- Telematics box
- Fleet management

#### **SPECIFICATIONS**

#### **Ceramic Patch Antenna**

DESCRIPTION	VALUE	
Dimension	50×50×12 mm <sup>3</sup>	
	L2 Band: 1227.6 MHz	
	L5 Band: 1176.45 MHz	
Centre Frequency	BD: 1561 MHz	
	GPS: 1575.42 MHz	
	GLONASS: 1602 MHz	
	L2 Band: 0.57 dBic	
	L5 Band: 3.00 dBic	
Peak Gain	BD: 2.96 dBic	
	GPS: 3.69 dBic	
	GLONASS: 1.71 dBic	
	L2 Band ≦ 5.0 dB	
	L5 Band ≤ 5.0 dB	
Axis Ratio	$BD \le 3.0 dB$	
	$GPS \leqq 3.0 \; dB$	
	GLONASS ≦ 3.0 dB	
VSWR	3.0 Max.	
Polarization	Right Hand Circular Polarization	

In the effort to improve our products, we reserve the right to make changes judged to be necessary. CONFIDENTIAL AND PROPRIETARY INFORMATION

ROHS

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### **SPECIFICATIONS**

LNA	DESCRIPTION		VALUE
j			L2 Band : 1227.6 MHz
			L5 Band: 1176.45 MHz
	Centre Frequency		BD: 1561 MHz
			GPS: 1575.42 MHz
			GLONASS: 1602 MHz
			L2 Band: 38 ± 3 dB
	Gain		L5 Band: $38 \pm 3 \text{ dB}$
			BD: 38 ± 3 dB
			GPS: 38 ± 3 dB
			GLONASS: 38 ± 3 dB
			40dB min 1.0 ~ 960 MHz
	SAW Filter	BD / GPS / GLONASS:	25dB min 1427~1463 MHz 25dB min 1710~1785 MHz
	(Out of Band Attenuation)		25dB min 1850~1980 MHz
			40dB min 2401~2483 MHz
			15dB min 925 ~ 960 MHz
	SAW Filter (Out of Band Attenuation)	L2/L5:	15dB min 1427~1463 MHz
			20dB min 1626~1660 MHz
			20dB min 1695~1785 MHz
			40dB min 1850~2025 MHz
	Output VSWR		2.0 (Max.)
	Noise Figure		< 1.5 dB
	Supply Voltage		3.0 ~ 3.6 V
	Current Consumption		15 mA (Max.)
	Output Impedance		50Ω
	Operating Temperature		-30 ~ +85 °C
	Humidity		< 95%
	Storage Temperature		-40 ~ +90 °C

#### NOTE

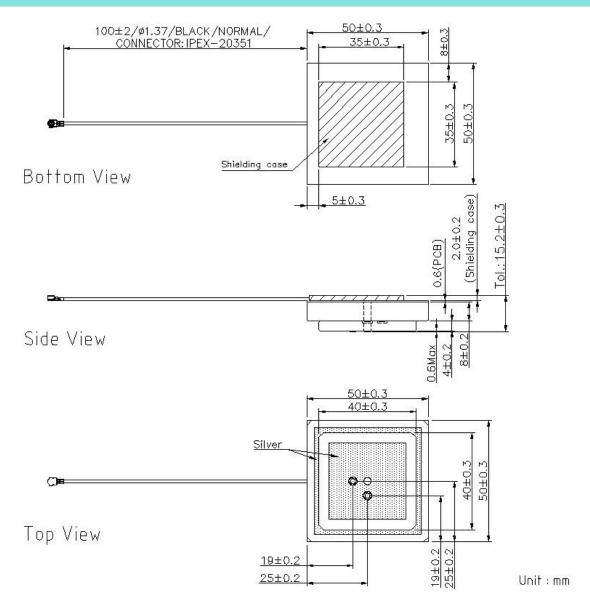
- 1. Based on 50×50 mm² ground plane (free space)
- 2. Centre frequency will be offset to working frequency while changes of customer's housing and ground plane.
- 3. Please contact local sales if you need customized design to gain optimum antenna performance.



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### **MECHANICAL DRAWING**



Length	50.0 ± 0.3 mm	
Width	50.0 ± 0.3 mm	
Thickness	15.2 ± 0.3 mm	
Cable	Diameter = 1.37 mm ; Length = 100 mm ± 2 mm ; Black	
Connector	I-PEX Connector 20351	

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#### **TECHNICAL DATA SHEET**

Description: 50x50x15 GNSS+L2L5 Active Antenna

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### **REVISION HISTORY**

Revision	Date	Description
Version 1	Feb. 9. 2021	- New issue for Pulse version