

GNSS Passive Antenna

AP20

Datasheet

V 1.0.0

Applicable Product Model
AP20

Version Note

Version	Details	Contributor(s)	Date	Notes
1.0.0	First edit	Michelle	2024.03.04	

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1 Product Introduction

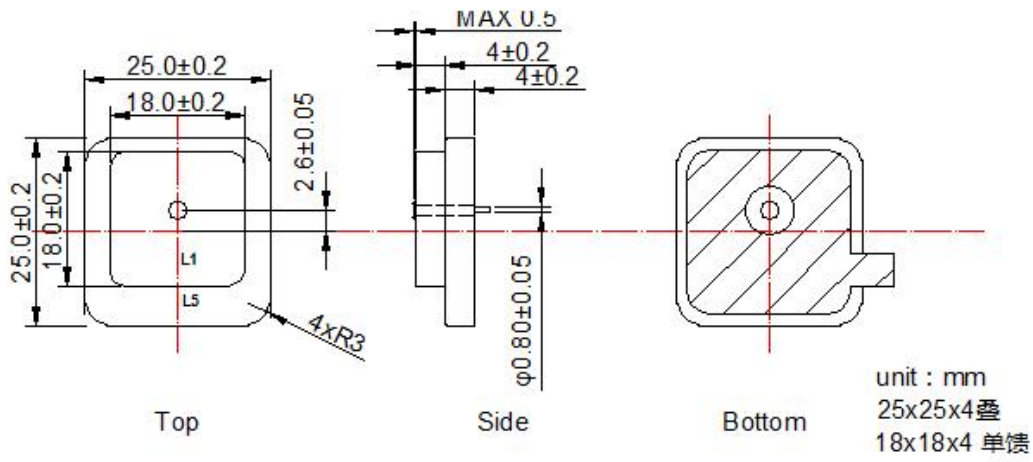
1.1 Overview

AP20 is a passive antenna that realizes the antenna reception of GPS (L1,L5) signals, and the output is a GNSS antenna in the form of a single probe.

1.2 Key Technical Indicators

GPS L1 Frequency Point	
Operating Frequency and Bandwidth	L1: 1575.42±1.023MHz
Polarization Mode	Right-handed circular polarization
Antenna Beam	Azimuth 0° to 360°; Elevation 20° to 90°
Standing Wave Ratio	≤1.5
Gear Ratio	≤6dB (Azimuth 60°~90°)
Polarization Gain	≥1dBic (Elevation angle 50°~90°, center frequency, gain fluctuation in the band is less than 1.0dB); ≥-2dBic (Elevation angle 20°~50° or less, center frequency, gain fluctuation in the frequency band is less than 1.0dB).
GPS L5 Frequency Point	
Operating Frequency and Bandwidth	L5: 1176.45±1.023MHz
Polarization Mode	Right-handed circular polarization
Antenna Beam	Azimuth 0° to 360°; Elevation 20° to 90°.
Standing Wave Ratio	≤1.5
Gear Ratio	≤6dB (azimuth 60°~90°)
Polarization Gain	≥1dBic (Elevation angle 50°~90°, center frequency, gain fluctuation in the band is less than 1.0dB); ≥-2dBic (Elevation angle 20°~50° or less, center frequency, gain fluctuation in the frequency band is less than 1.0dB).
Reliability Testing	
PIN Needle Thrust	>5kg
Waterproof Performance	IP67

2 Structural Dimensions

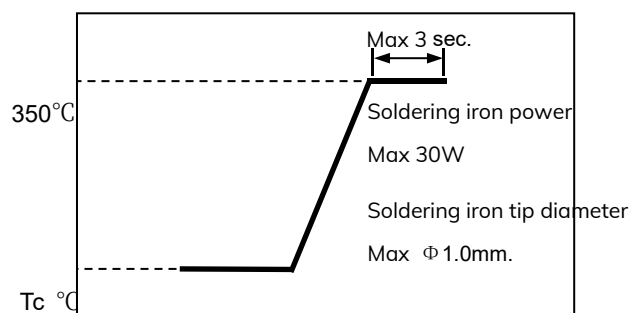


tolerance ± 0.3 mm

3 Storage Methods and Lifetime

Storage Methods and Lifetime	
Temperature Range	-10°C-40°C
Humidity Range	Relative humidity <70%, recommended to be stored in vacuum packaging
Product Life	3 Years

4 Recommended Welding Conditions (Manual Welding)



Soldering Iron Power	Maximum 30W
Preheating	150 °C / 60 sec
Soldering Iron Head Temperature	Maximum 30W
Welding Time	Maximum 3 sec
Soldering Tin	Sn/3.0Ag/0.5Cu
Manual Welding	at most once

● Quality

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● Contact Us

Shenzhen Minewsemi Co., Ltd. is committed to swiftly delivering top-quality connectivity modules to our customers. For assistance and support, please feel free to contact our relevant personnel, or contact us as follows:

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