Antenna

YLY001CA Datasheet

Antenna Services

Version: 1.3

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About the Document

Revision History

Version	Date	Author	Note
1.0	2020-07-28	Kenny YIN	Initial
1.1	2020-11-19	Kenny YIN	Added the mounting method in Chapter 3.
1.2	2020-12-11	Kenny YIN	Updated the antenna picture in Chapter 2.
1.3	2021-01-27	Kenny YIN	1. Added IP rating description 2. Updated the drawing and product size description in Chapter 5.

Contents

1 Product Description

The antenna is designed for superior performance, and can be widely used for wireless applications.

We provide comprehensive antenna design support such as simulation, testing and manufacturing for custom antenna solutions to meet your specific application needs.

2 Product Features

- GPS & BD
- High efficiency
- Excellent performance

3 Product Specifications

Electrical Specifications	
Nominal Frequency	1568 ±10 MHz
10 dB Bandwidth	≥ 20 MHz
Output VSWR	≤ 2.0
Efficiency	≥ 60 %
Elevation 0° Gain	3 dBi type
Elevation 100° Gain	-5 dBi type
Polarization Type	RHCP
Axial Ratio	≤ 5
Impedance	50 Ω
LNA Electrical Properties	
Center Frequency	1568 MHz
Gain	28 ±2 dB
Noise Figure	≤ 1.5 dB
Output VSWR	≤ 1.5
Passband Ripple	≤ 1 dB
Voltage	DC 3.3 ±0.3 V
Current	≤ 15 mA
Impedance	50 Ω
Mechanical Specifications	
Antenna Size	45.7 mm × 38.3 mm × 12.99 mm
Casing	Plastic PC + ABS
Connector Type	SMA Male (center pin)
Working Temperature	-20 °C to +85 °C

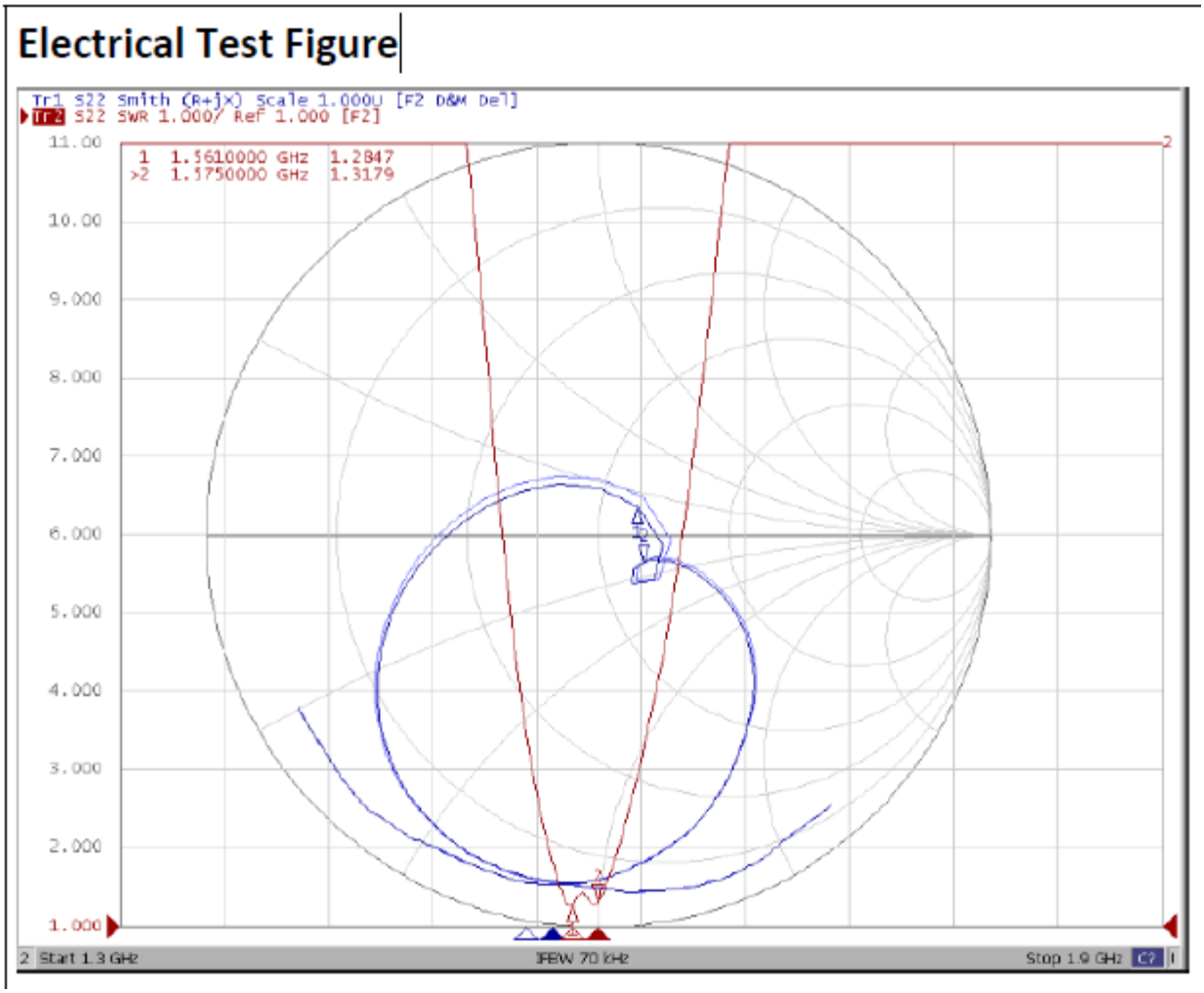
Radom Color	Black
Mounting Method	Magnet
IP Rating	IP66

4 Overall Performance

4.1. Test Environment

- KEYSIGHT VNA Network Analyzer E5063A 100 KHz – 6.5 GHz.
- RayZone®2800 Chamber 5G (FR1) SISO/MIMO, 400 MHz – 6.0 GHz.

4.2. VSWR


Electrical Test Figure
Tr1 S22 Smith (R+jX) Scale 1.000U [F2 D&M Del]
Tr2 S22 SWR 1.000/ Ref 1.000 [F2]
1 1.5610000 GHz 1.2847
>2 1.5750000 GHz 1.3179
11.00
10.00
9.000
8.000
7.000
6.000
5.000
4.000
3.000
2.000
1.000
2
Start 1.3 GHz
IFBW 70 kHz
Stop 1.9 GHz

5 Product Size