Product Specification

Number: L-KLS1-C2520-1575/1602

Name: 25*25*2 mm^3
SMD Antenna

Customer:

Date: 2025-08-12

Customer Signature:

NINGBO KLS ELECTRONIC CO; LTD

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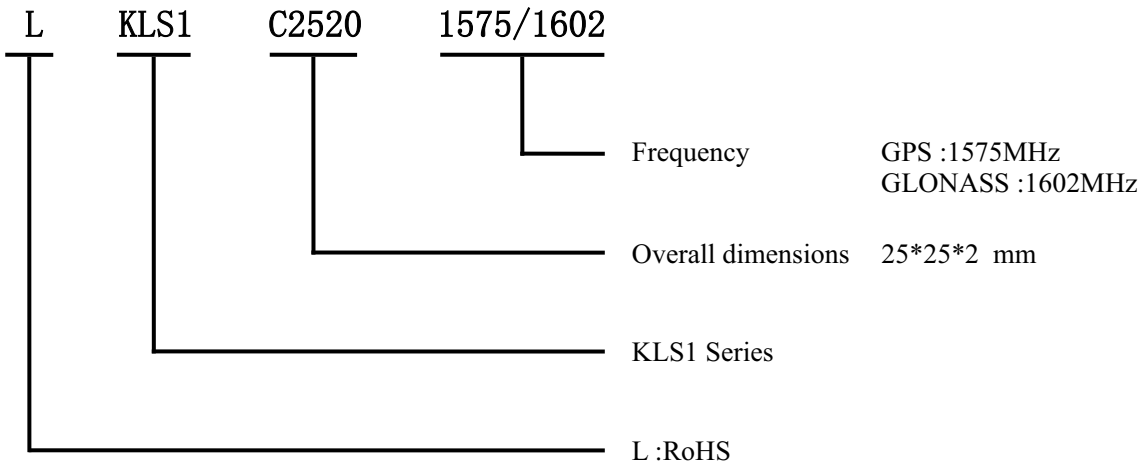
Compi	Check	Review	Approva
Jenny	Jack.C		

Contents

1. Introduction

"KLS" microwave dielectric antenna and its series are designed to be used for GPS and WLAN. The patch antenna with compact size adopts a rectangular micro-strip design for GPS C/A right-hand circular polarization wave reception, featuring low RL, low Axial Ratio but high gain, etc.

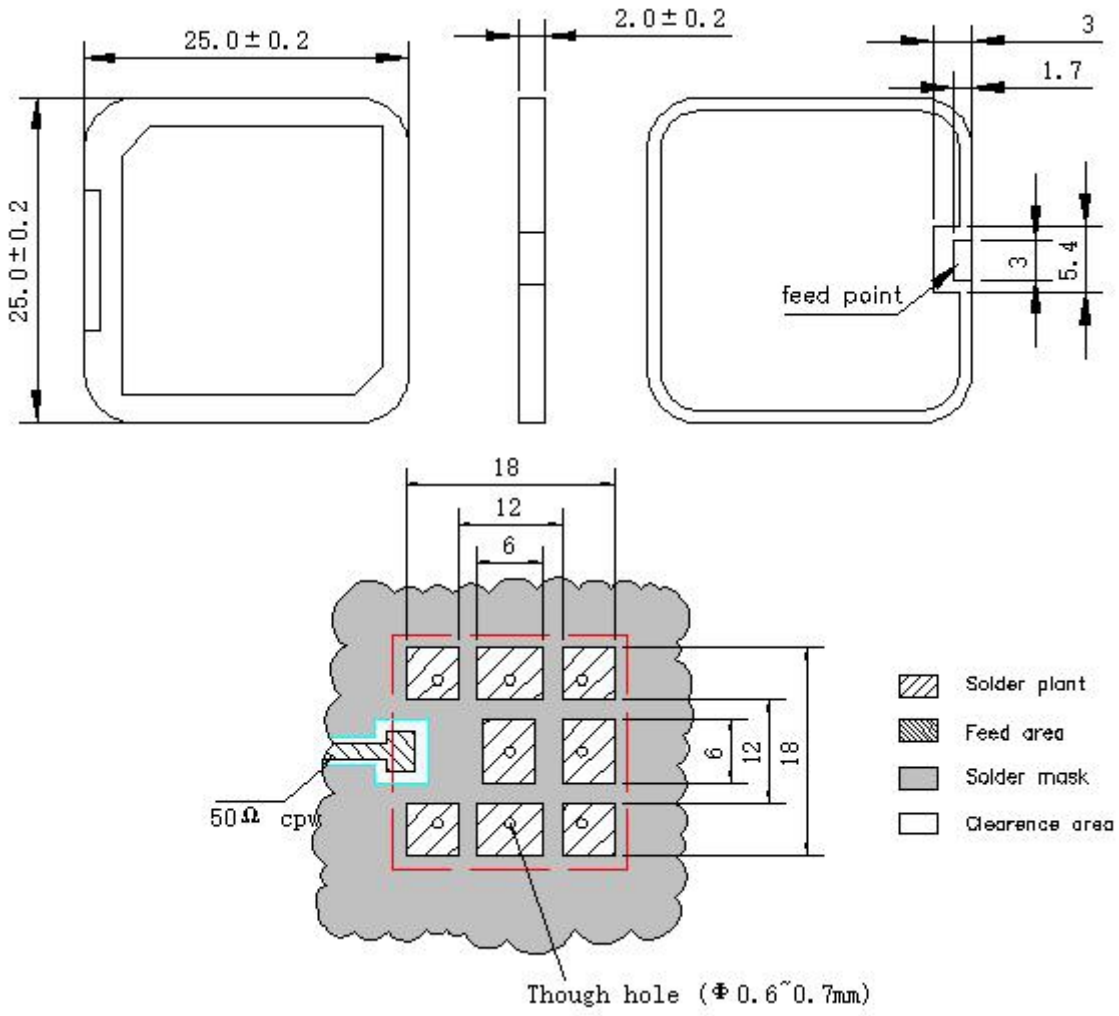
2. Part Number



3. Structure and Material

No.	Description	Structure and Material
4.1	Antenna Substrate	Dielectric Ceramics
4.2	Pin	Copper and tinplated
4.3	Electrode	Ag Plated
4.4	Ground Base	Ag Plated

4. Dimension



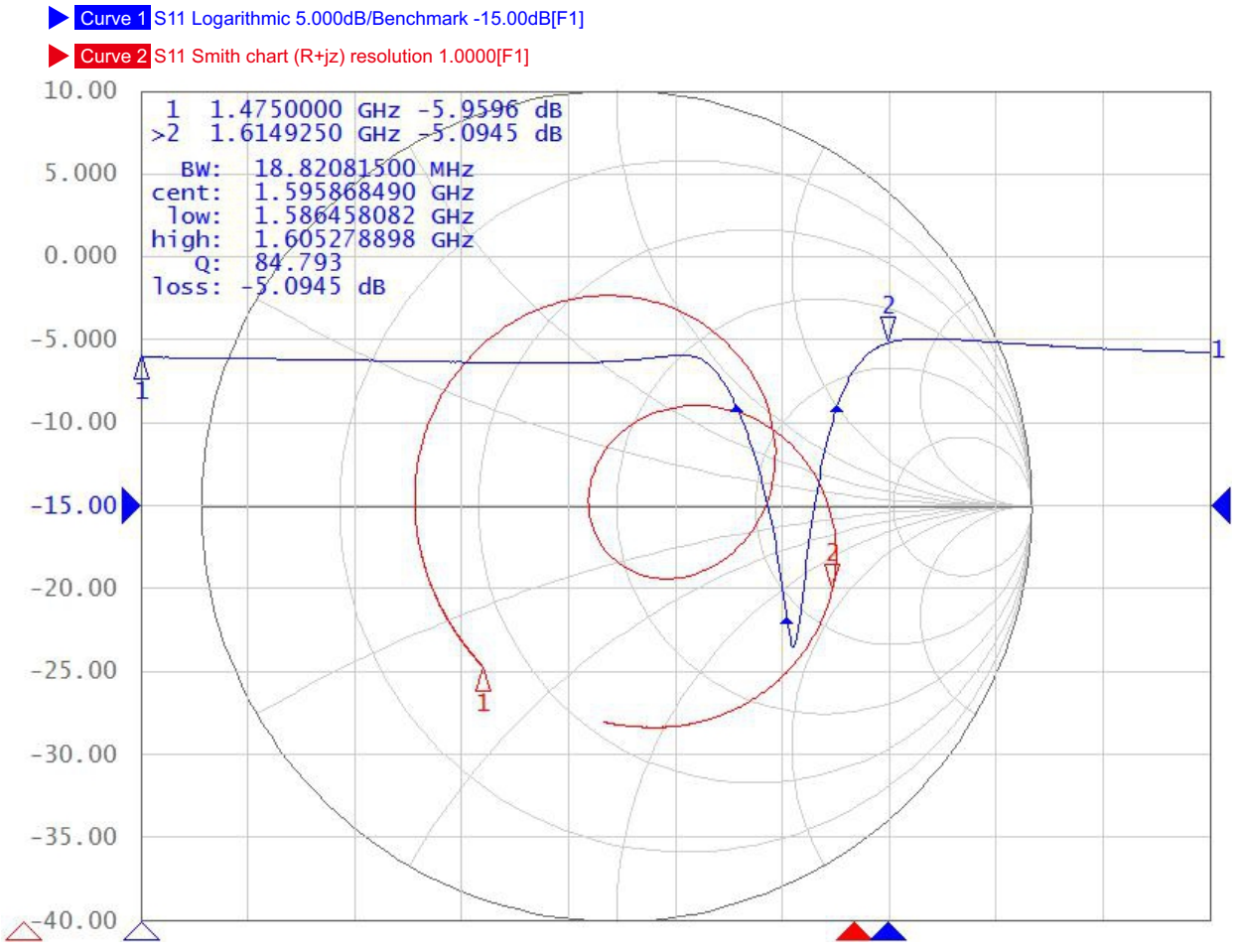
Unit: mm

5. Electrical Characteristics

Table 2

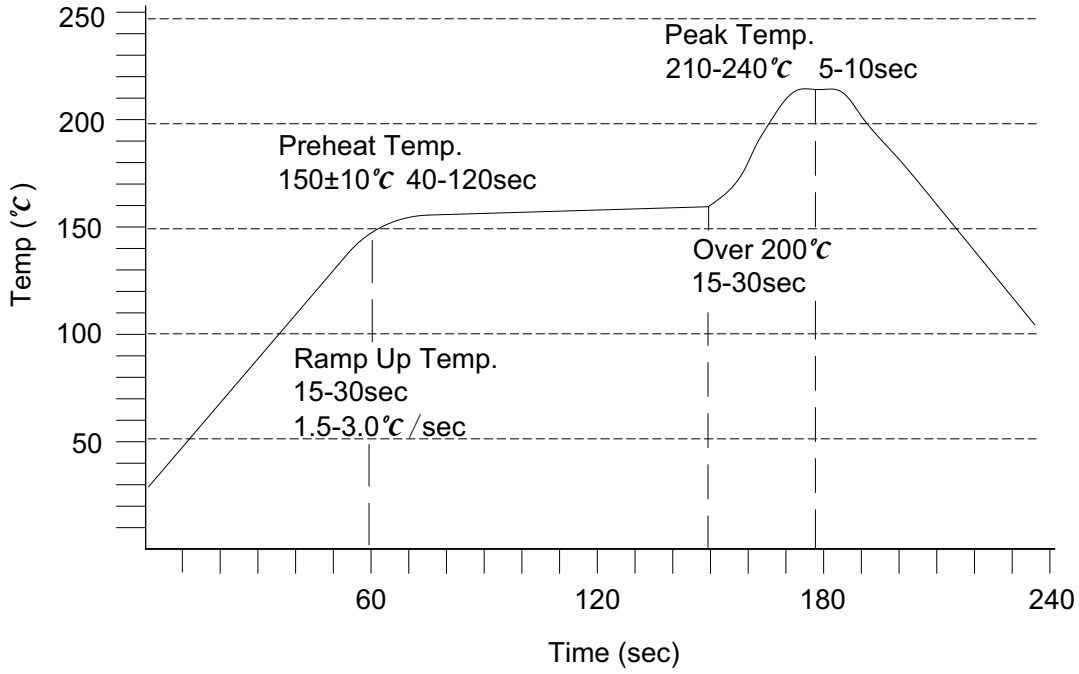
No.	Item	Specifications
5.1	Range of Receiving Frequency (MHz)	GPS：1575.42±1.023 GLONASS:1602±4
5.2	Center Frequency (MHz) (GLEAD GND plane)	1595±3
5.3	Band Width (MHz) (Return loss ≤-10dB)	≥5
5.4	V.S.W.R(in Center Frequency)	≤1.5
5.5	Gain(Zenith) (dBic typ)	1.0
5.6	Axial Ratio	——
5.7	Polarization	Right-Handed Circular polarization
5.8	Impedance（Ω）	50
5.9	Frequency Temperature Coefficient （ppm/℃）	0±10

6. Characteristic Curve



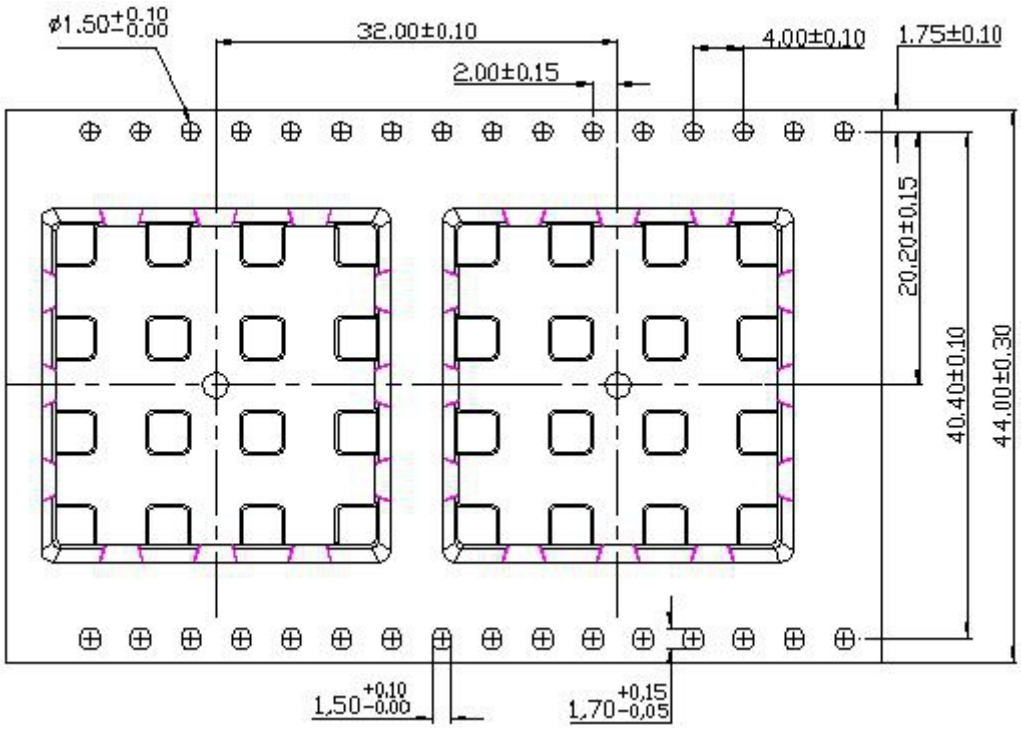
7. Soldering Profile

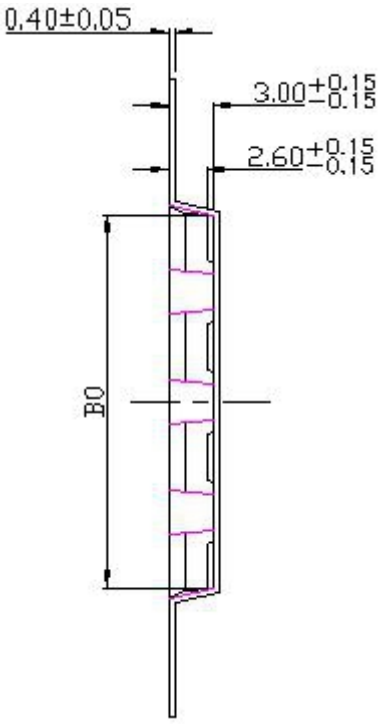
Solder Paste：Ag/Sn/Cu:96.5/3.0/0.5

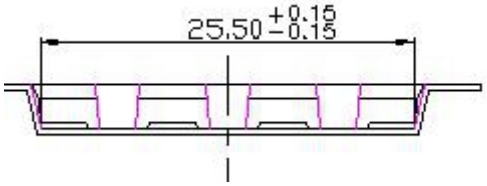


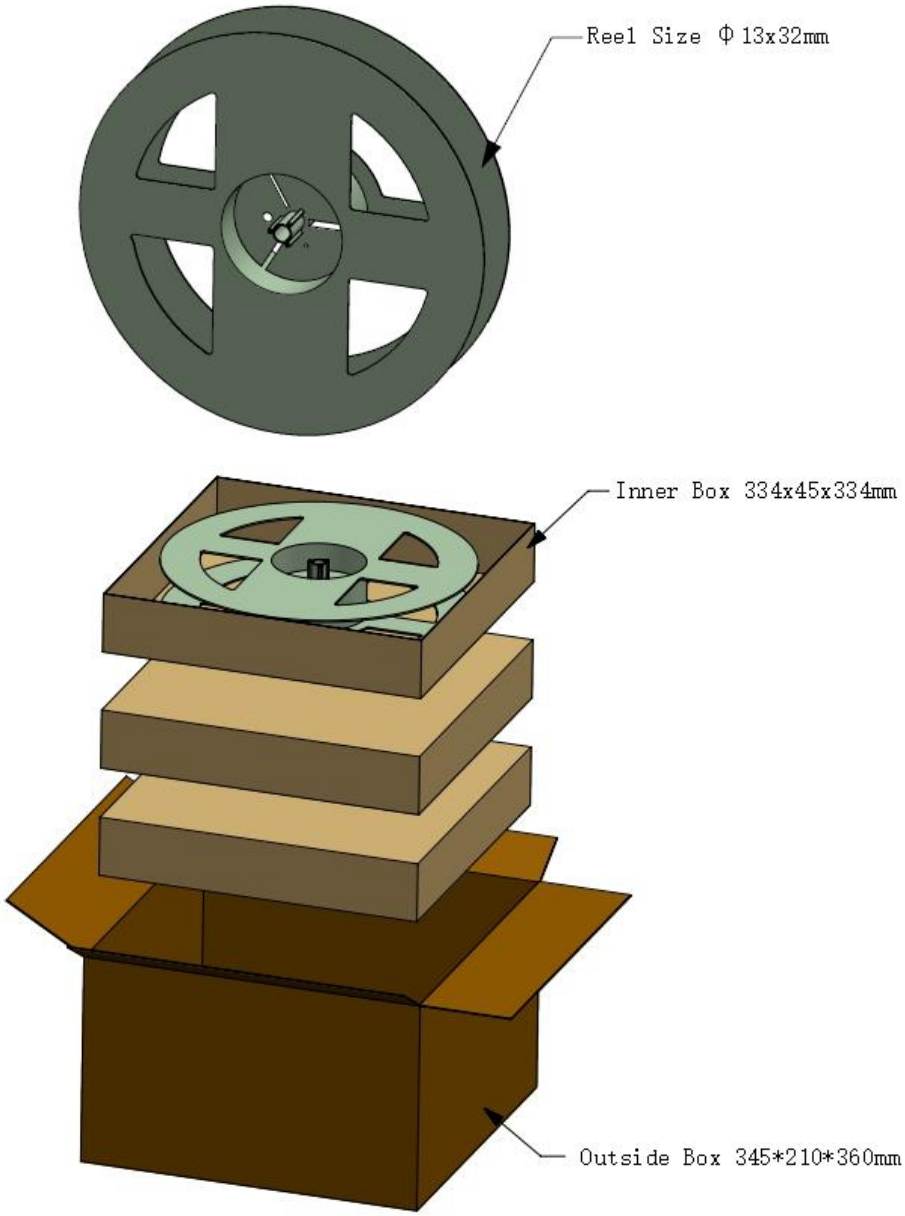
8. Package

Package Name	Quantity
Reel	(500) pcs/ Reel
Inner Box	(500) pcs/box
Outer Box	(1500) pcs/box


φ1.50+0.10 0.00
32.00±0.10
2.00±0.15
4.00±0.10
1.75±0.10
20.20±0.15
40.40±0.10
44.00±0.30
1.50+0.10 0.00
1.70+0.15 0.05


0.40±0.05
3.00+0.15 0.15
2.60+0.15 0.15
B0


25.50+0.15 0.15


Reel Size Φ13x32mm
Inner Box 334x45x334mm
Outside Box 345*210*360mm

9. Environmental Test

Please referring to the table 2 for acceptable difference after environmental tolerance experiment

Basic Environment ：	Temperature	25±3℃
	Relative Humidity	55~75%RH
	Operating Temperature	-40℃~+85℃
	Storage Temperature	-40℃~+85℃

9.1 Moisture Proof

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.8 after exposed to the temperature 40±2℃ and the relative humidity 90~95% RH for 96 hours and 1~2hours recovery time under normal condition.

9. 2 Vibration Resistance

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.8 after rigidly fixed on the test substrate and applied to the vibration of 10 to 55Hz with amplitude of 1.5mm for 2 hours each in X， Y and Z directions

9. 3 High Temperature Endurance

The device should satisfy the electrical characteristics specified in paragraph 5.1~5.8 after exposed to temperature 85±2℃ for 96±2 hours and 1~2hours recovery time under normal temperature.

9. 4 Low Temperature Endurance

The device should also satisfy the electrical characteristics specified in paragraph 5.1~5.8 after exposed to the temperature -40℃±2℃ for 96±2 hours and 1~2hours recovery time under normal temperature.

10. Notice

This product specification guarantees the quality of our product as a single unit. Please make sure that your product is evaluated and confirmed against your specifications when our product is mounted to your product.

If your use of our products exceeds the functionality of the product as defined in this test specification, we do not warrant the resulting failure.

For failures caused by normal use, free repairs will be given within three months from the date of shipment; for repairs beyond this time limit we will charge a certain amount of material costs and maintenance fees.

The surface of this product is easy to oxidize, so please use it up within 24 hours after unpacking. If there is any surplus, it should be vacuum sealed and stored.