

Product Specification

Number: L-KLS1-C1840-1575/1602

Name: 18*18*4 mm³
SMD Antenna

Customer: _____

Date: 2025-08-20

Customer Signature:



WWW.KLSELE.COM

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**ADD : NO. 8-1, RONGXIA RD. XIAPU SHANQIAN
INDUSTRIAL ZONE BEILUN NINGBO ZHEJIANG.**

Compi	Check	Review	Approva
Jenny	Jack.C		

Part name	18*18*4 mm ³ SMD Antenna	Date	2025-08-20
Part number	L-KLS1-C1840-1575/1602	Edition	V1
Department		Page	2 / 7



Features:

- Frequency bands: 1575.42/1602MHz.
- Ceramic patch antenna.
- 2.5dBi+ GPS/GLONASS/GALILEO.
- Impedance 50 ohm.
- Size: 18.0 x 18.0 x 4.0mm.

Applications:

- Solution for all global public constellations:
GPS/GLONASS/GALILEO.

1. Electrical Specifications

Standards	GPS/GLONASS/GALILEO	
Frequency range(MHz)	1575.42MHz	1602MHz
Peak Gain (dBi)	2.7	2.5
Average Gain (dB)	-1.8	-2.0
VSWR	1.09	1.46
Return Loss (dB)	-26.95	-14.50
Efficiency (%)	66.5	63.5
Polarization mode	RHCP	
Output impedance (Ω)	50	
Ground plane (mm)	50x50	

Note: All parameters are measured with KLS's EVK which size is 50*50mm

2. Mechanical and Environmental Specification

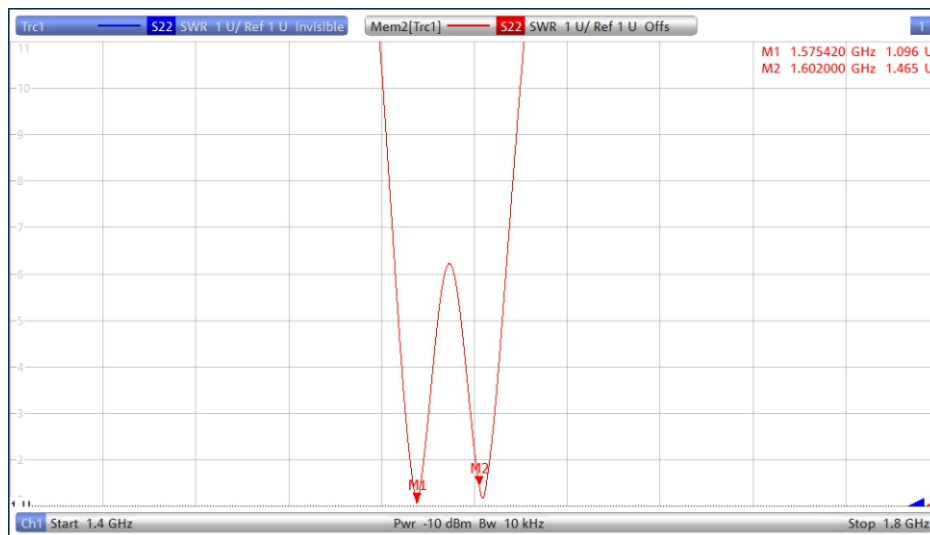
Mounting Type	SMD
Adhesive Type	/
Connector Type	/
Antenna size(mm)	18mm (L) x18mm (W) x 4mm (H)
Material	Ceramic
Operating Temperature (°C)	-40 °C ~ +85 °C
Storage Temperature(°C)	-40 °C ~ +85 °C

3. Antenna parameters

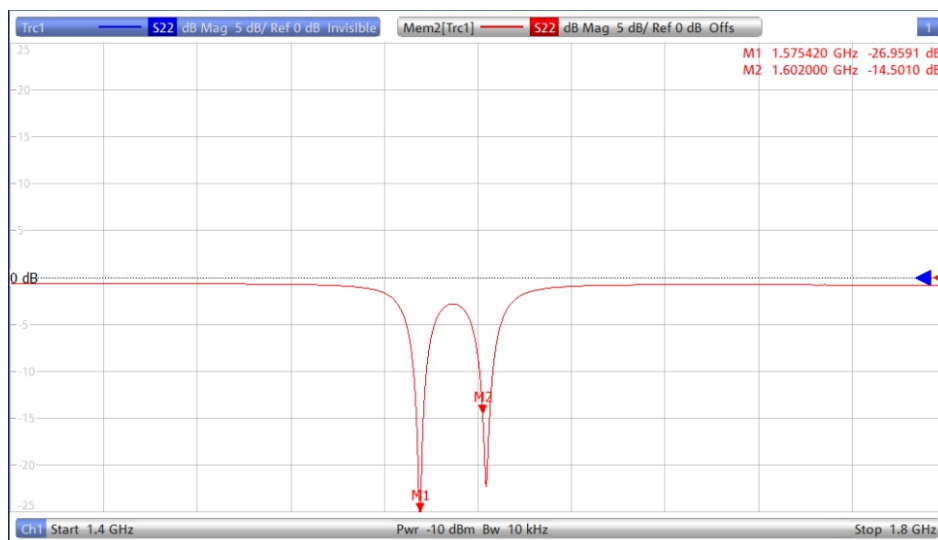
3.1 General Data

FRE (MHz)	1575.42	1602
VSWR	1.09	1.46
Return Loss (dB)	-26.95	-14.50
Eff (%)	66.5	63.5
Average Gain(dB)	-1.8	-2.0

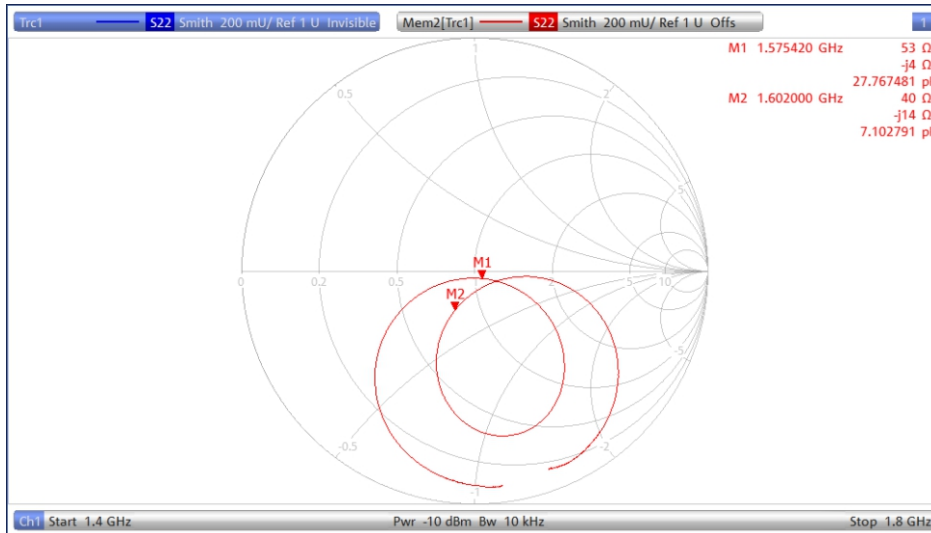
3.2 VSWR



3.3 Return Loss

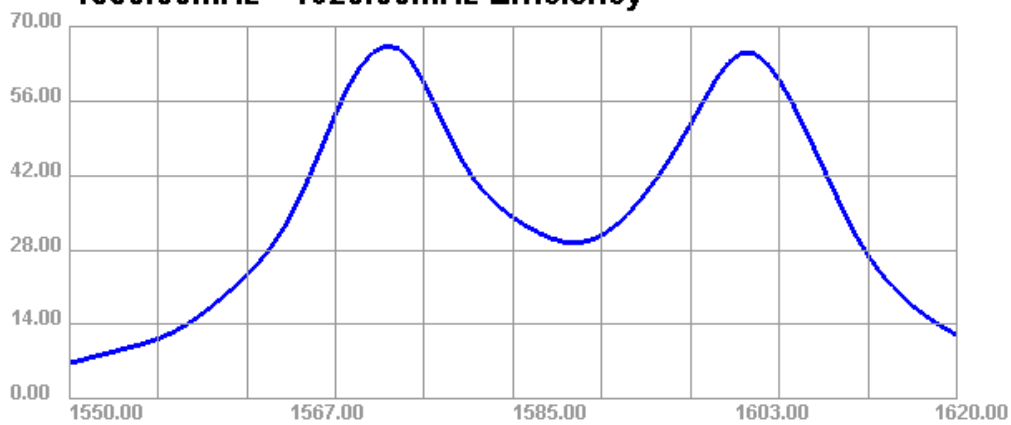


3.4 Smith



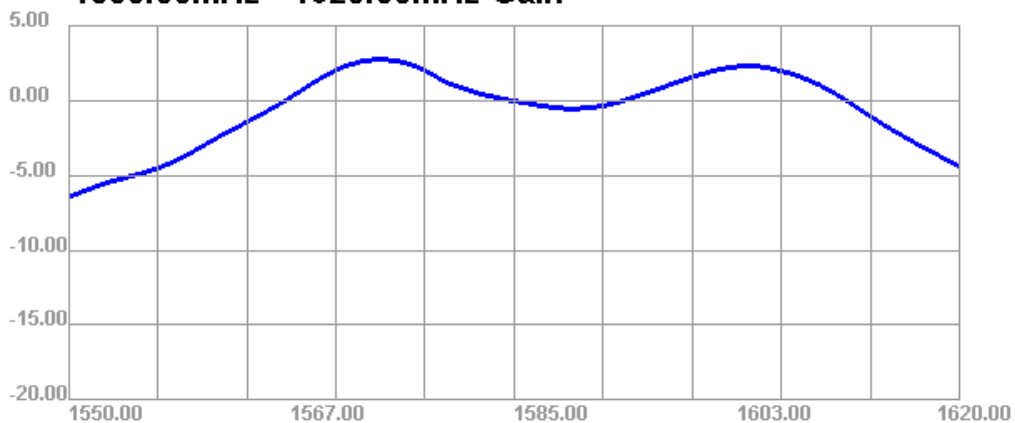
3.5 Efficiency

1550.00MHz - 1620.00MHz Efficiency



3.6 Gain

1550.00MHz - 1620.00MHz Gain

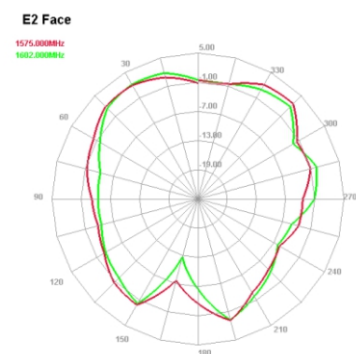
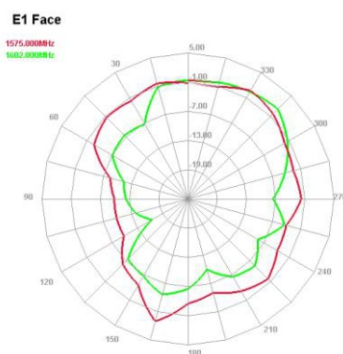
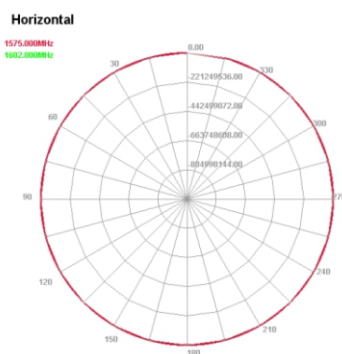
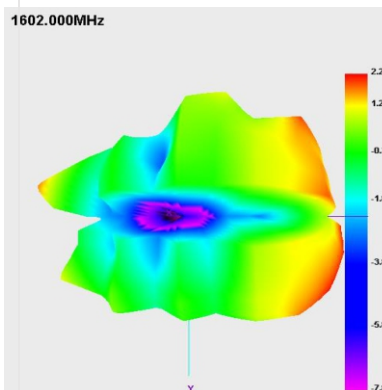
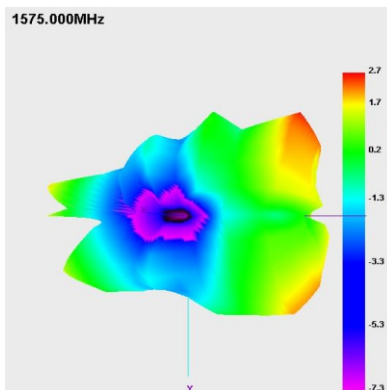
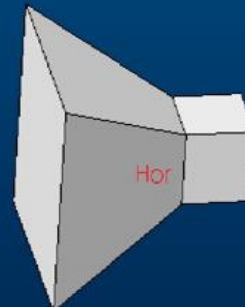
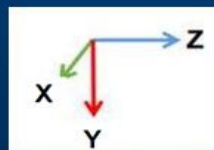


3.7 Directional pattern

H plane: the tangent of XY
E1 plane: the tangent of XZ
E2 plane: the tangent of YZ

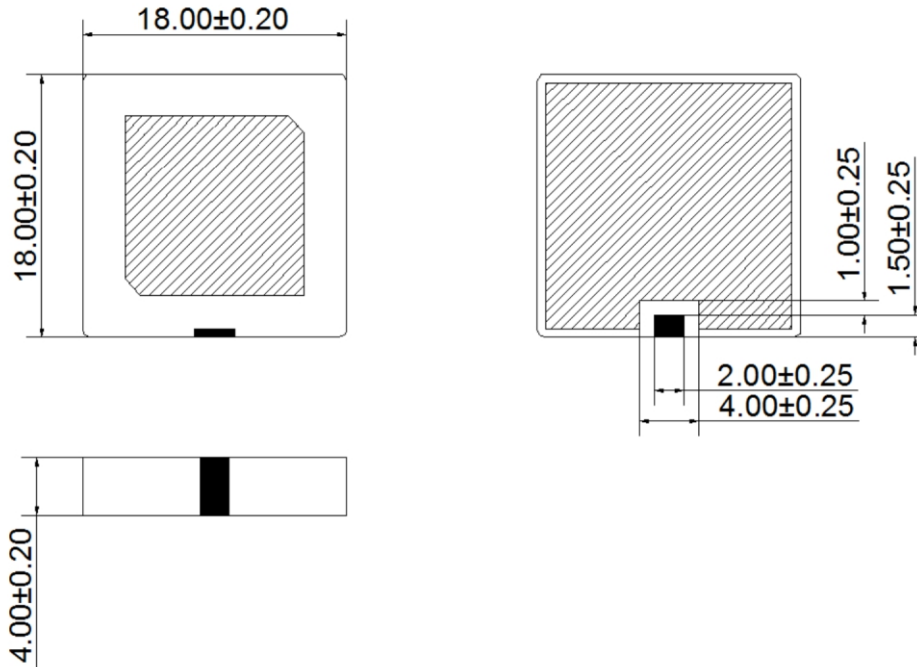


Theta = 0
Phi = 0



Part name	18*18*4 mm ³ SMD Antenna	Date	2025-08-20
Part number	L-KLS1-C1840-1575/1602	Edition	V1
Department		Page	7 / 7

4. Antenna Drawing



Evaluation Board (unit: mm)

