

承認書

SPECIFICATION FOR APPROVAL

客 戶: Shenzhen lihang automobile electrics co., ltd
Customer

項目名:
Project

品 名: 2. 4G天线+5G天线
Description

料 號: AN2450-Z55A50WBX
Part Number

日 期: 2024 年 8 月 25 日
Date Year Month Day

承認人簽章

Signature

制定 Responsible

审核 Approve

客户确认 Confirm

UNLESS OTHER SPECIFIED TOLERANCES ON:

X=±1

X.X=±0.1

X.XX=±0.01

ANGLES=±

HOLE DIA=±

SCALE:

UNIT: mm

DRAWN BY:

CHECKED BY:

DESIGNED BY:

APPROVED BY:

TITLE: AN2450-Z55A50WBX Specification

DOCUMENT
NO.

PAGE REV.
P0

Product Number:AN2450-Z55A50WBX
Product Name:2.4G Ant+5G Ant

Index:

- 1. Revision History / Page 3**
- 2. Specification / Page 4**
- 3. Characteristics and Reliability Test / Page 5**
- 4. Antenna - S Parameter Test Data / Page 6**
- 5. Antenna - Radiation Pattern Test Data / Page 7 ~ 8**

Product Number:AN2450-Z55A50WBX
Product Name:2.4G Ant+5G Ant

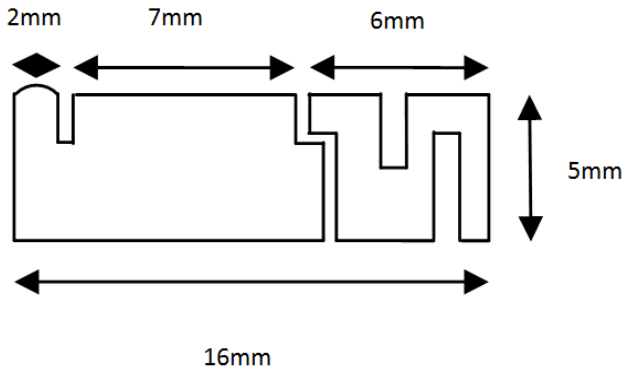
1. Revision History

Revision	Date	Change Notification	Description
1.0	2024.08.25	初版	

Product Number:AN2450-Z55A50WBX

Product Name:2.4G Ant+5G Ant

2. Specification

Sample Photo	
 2.4G - 5.85G Ant	
A. Electrical Characteristics	
Frequency	2400 ~ 2500 MHz 5150 ~ 5850 MHz
S.W.R.	<= 2.0 @ 2400 ~ 2500 MHz <= 2.5 @ 5150 ~ 5850 MHz
Peak Gain	2.4G Ant:1.07 dBi @ 2400 ~ 2500 MHz 5G Ant:1.37 dBi @ 5150 ~ 5850 MHz
Polarization	Linear
Impedance	50 Ohm
B. Material & Mechanical Characteristics	
Material of Radiator	CU
Material of Plastic	TPEE / ABS / PC
Antenna plate	PCB
Connector Type	Mini Connector
C. Environmental	
Operation Temperature	- 40 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 80 °C
Antenna Color Storage life	< 2 year

Product Number:AN2450-Z55A50WBX
Product Name:2.4G Ant+5G Ant

3. Characteristics and Reliability Test

Test Items		Test Condition and Procedure	Requirements
C1	S.W.R.	Set DUT on Network Analyzer; make individual calibration to test	Directive DUT specification
C2	Antenna Gain	Set DUT on Antenna Chamber; make individual calibration to test	Directive DUT specification
M1	Vibration	GB / T2423 . 48-1997 Amplitude: 0.03 inch (1.5mm); Freq: 20 to 80 to 20 Hz 3 directions; 2 hours for each direction	1. No Visual Damage 2. Frequency Tol.<= 5%
M2	Random Drop	GB / T2423.8-1995 Height: 1.0 Meter; 3 directions; 1 time for each direction	1. No parts separated 2. Frequency Tol.<= 5%
M3	Solderability	GB 2423 . 28- 82 Solder iron: 260±5°C; Duration: 5 seconds	1. Mounted on PCB 2. No Visual Damage
M4	Terminal-Pull Test	Holding with individual specification; force applied to axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M5	Terminal-Torque Test	Holding with individual specification; applied clockwise and counterclockwise to the axis of terminal	1. Directive DUT specification 2. Frequency Tol.<= 5%
M6	Dimension	Inspection of dimension, color, material, package, surface process	Directive DUT specification
E1	Salt Spray	GB / T 2423 . 17- 93 Temp: 35°C; RH: >= 95%; NaCl solution: >= 5%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E2	Humidity	GB / T 2423 . 4 - 93 Temp: 80°C / 12 H; -40°C / 12H RH: >= 90%; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
E3	Thermal Shock	GB / T 2423 . 22 - 87 1 Cycle: - 40°C (30 minutes) to + 80°C (30 minutes)	After 2 Hours Recovery 1. No Visual Damage

Product Number:AN2450-Z55A50WBX
Product Name: Antenna

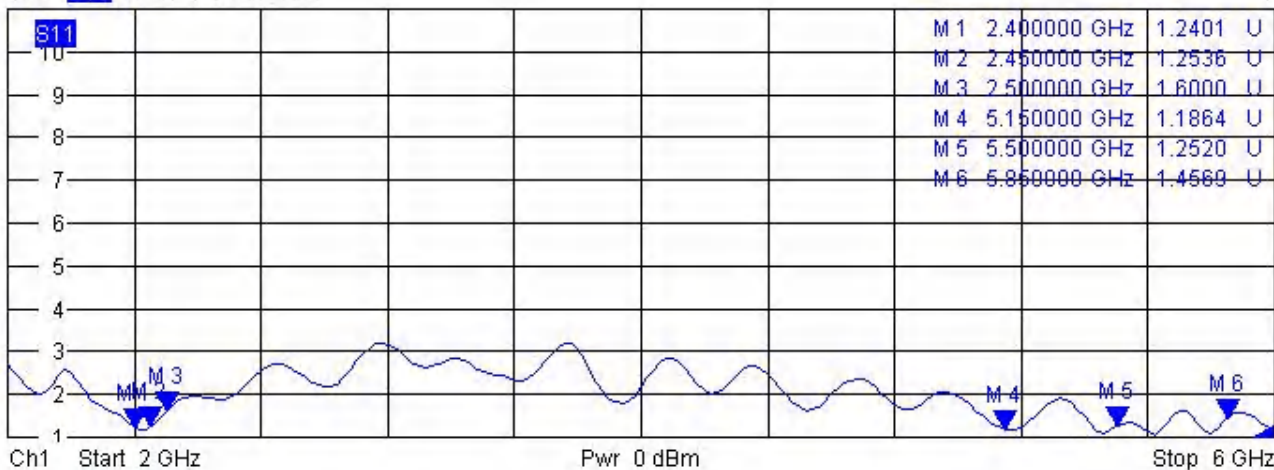
		Cycles: 24	2. Frequency Tol.<= 5%
E4	Life (High Temp.)	GB /T 2423 . 2 - 89 Temp: 80°C; Time: 24 hours	After 2 Hours Recovery 1. No Visual Damage 2. Frequency Tol.<= 5%
R1	RoHS	With Reference to IEC 62321:2008 with flow chart	Directive RoHS 2002/95/EC
R2	PFOS	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC
R3	PFOA	With Reference to USA EPA 3540C:1996 by LC/MS	Directive RoHS 2006/122/EC

4. Antenna - S Parameter Test Data



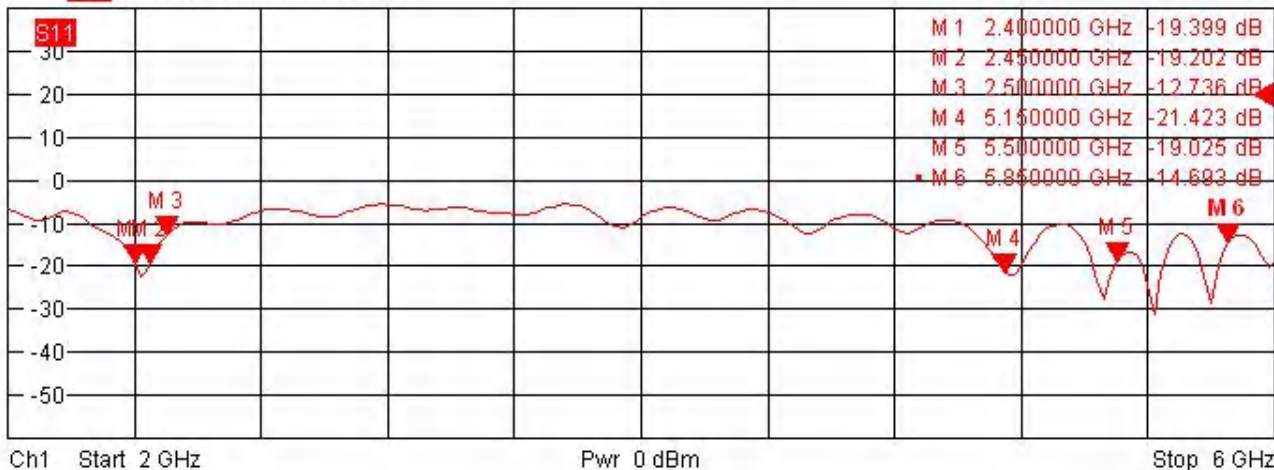
Trc1 S11 SWR 1 U / Ref 1 U

1

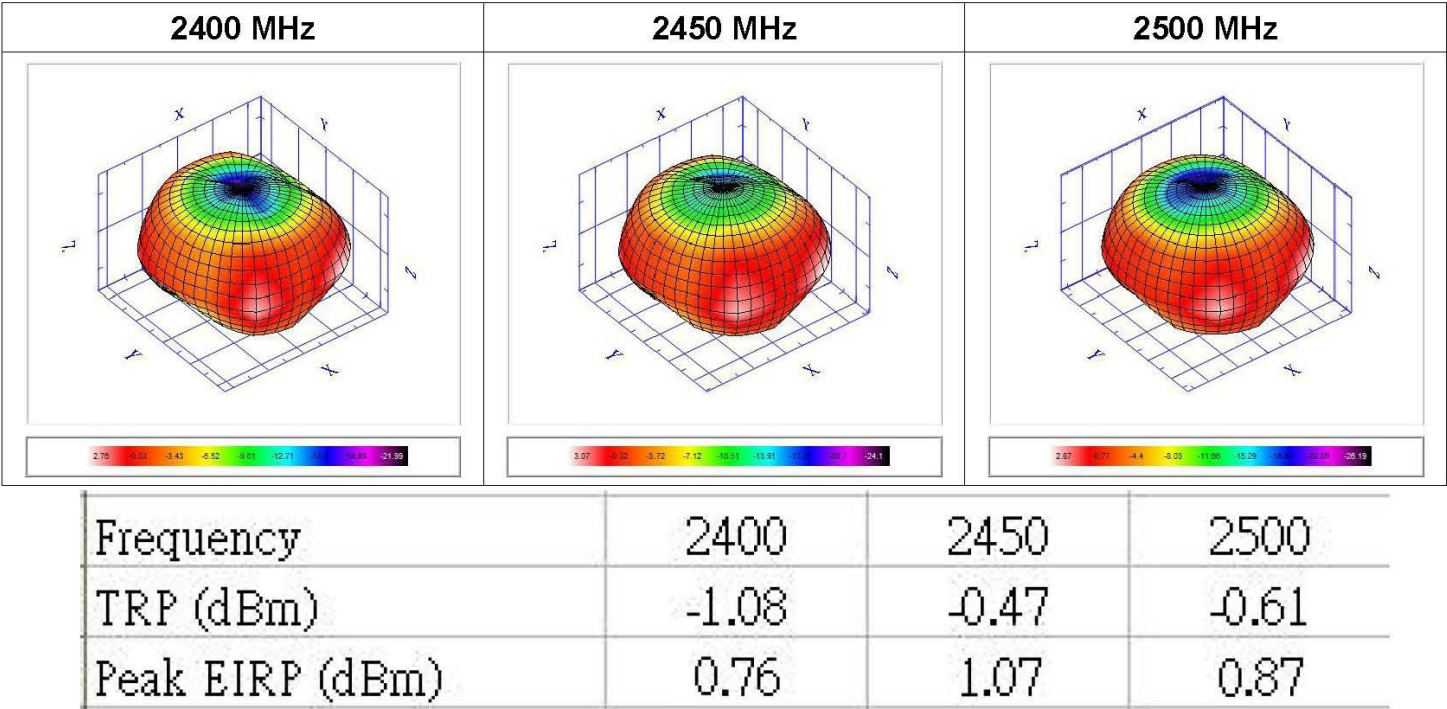


Trc2 S11 dB Mag 10 dB / Ref 20 dB

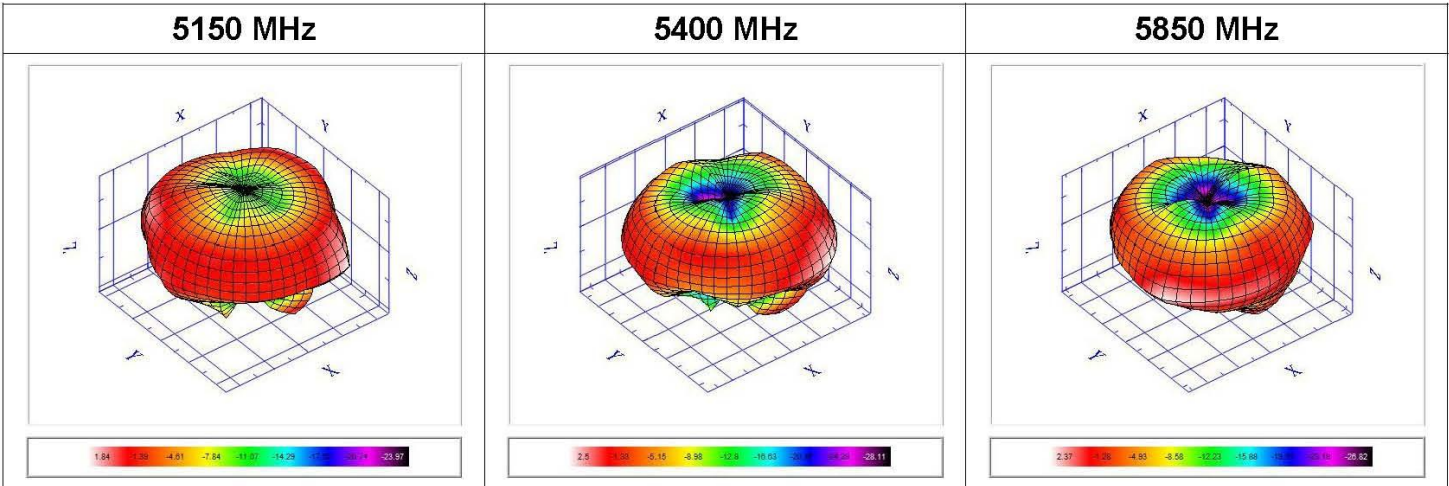
2



5. Antenna - Radiation Pattern Test Data



Product Number: AN2450-Z55A50WBX
Product Name: Antenna



Frequency	5150	5400	5700	5850
TRP (dBm)	-2.43	-2.23	-2.05	-2.33
Peak EIRP (dBm)	1.27	1.25	1.37	1.37