Antenna acknowledgment

Customer name: Link Chuangxun Technology Co.,LTD

Antenna band: **2.4-2.5**

Antenna type: LCX-ZJ1200-003 Onboard antenna

manufacturer: Link Chuangxun Technology Co., LTD

Address: 6th Floor, Building C, Gate 2, Northwest Edimonto Industrial Park, Songbai Road, Guangming District, Shenzhen

Date of issue: October 9, 2023

Manufacturer acknowledges column:

fiction	examine	Give permission to

Customer recognition field:

verify	examine	Give permission to

一、Antenna specification sheet

Specification

1.Electrical Properties

1.1 Frequency Range----------2.4-2.5GHz

1.2 Impedance---------- 50Ω

1.3 VSWR---------- 2.0

1.4 Return Loss---------- 5dB or Less

1.5 Radiation---------- Omni-directional

1.6 Gain ---------- 2dBi

1.7 Polarization ---------- Linear polarization

1.8 Admitted Power---------- 1W

2．Physical Properties

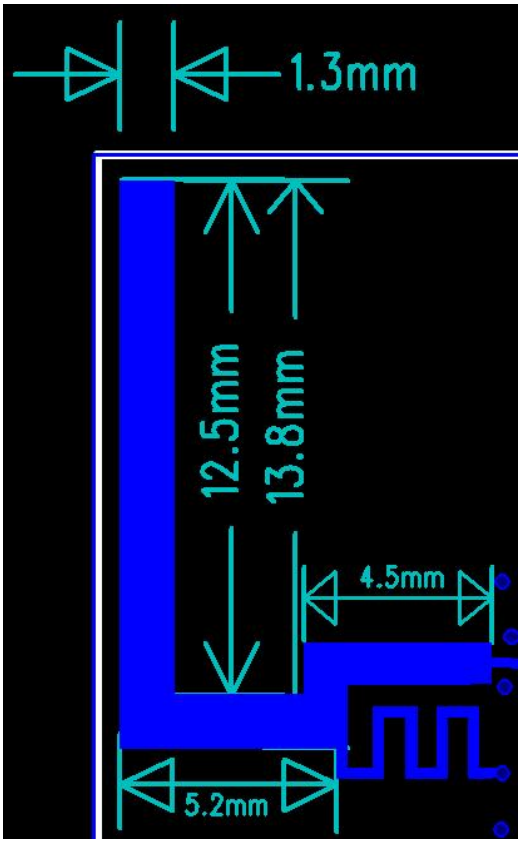
2.1 Antenna material----------FR-4

2.2 Operating Temp---------- -10℃~+60℃

2.3 Storage Temp---------- -10℃~+70℃

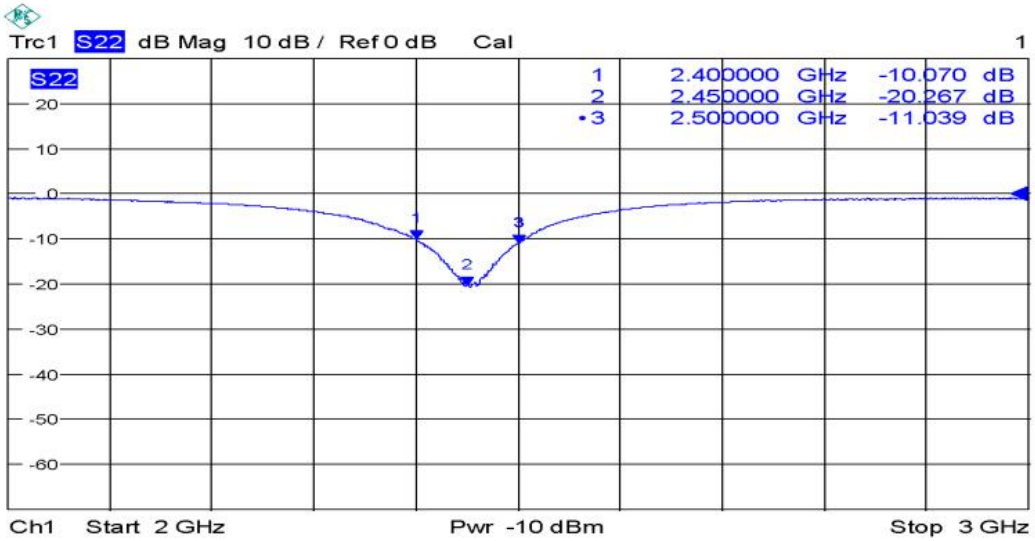
2.4 Color---------- black

二、Antenna drawing:

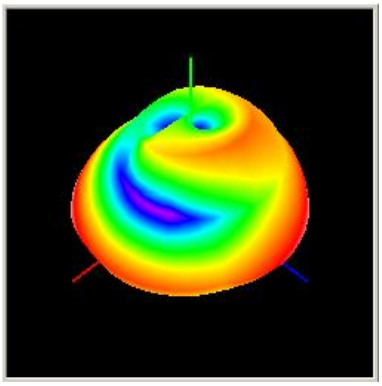


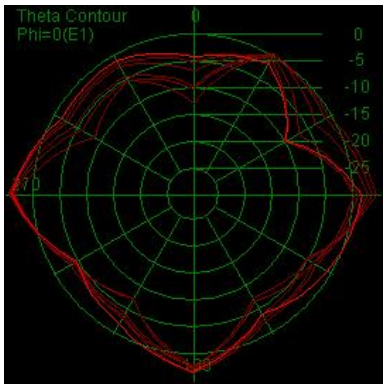
三、Test report

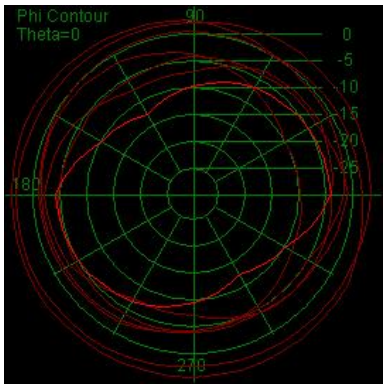
Return loss:



2D、3DRaditation Pattern:







2.4GHz Gain: 2.21dBi Efficiency:64.5%

四、Material requirement

1.Ontology Body: ■FR-4			
2.Rf line impedance：50 ohms			
item	Test methods and conditions	Specifications and requirements	Experimental result
1.Characteristic impedance	The antenna characteristic impedance was measured by TDR	Impedance 50 EUR ±10 EUR	OK
2.Standing-wave ratio	At 2.4-2.5GHz, the standing wave ratio is tested with a network analyzer	VSWR standing wave ratio 2.0MAX	OK
3.Return loss	At 2.4-2.5GHz, test return	Return loss -10dB	OK

	loss with a network analyzer	MAX	
4. gain	The gain and field pattern were tested in a 2.4-2.5GHz microwave darkroom	The gain of the field graph meets the specifications	OK

七、Reliability test

item	Test methods and conditions	Specifications and requirements	Experimental result
Salt spray test	Brine concentration 50+/-10g/l (about 5%); PH6.5-7.2;Test temperature 35+/-1 degrees; Corrosion time 16H.	Determination method: observation with 20x magnifying glass after test; No adverse oxidation; Instant acceptance	OK
Vibration test	Frequency 10-2000-10Hz Amplitude 1.52mm 10 times in each X.Y.Z direction	There is no obvious change in appearance The electrical parameters meet the specification error	OK
Drop test	Fell about 1 meter onto the board	There is no obvious change in appearance The electrical parameters	OK

		meet the specification error	
Temperature cycle test	High temperature: 70℃; Low temperature: -20℃ Duration: Each temperature lasts 30 minutes Transfer time: 10 minutes Number of cycles: 5 Recovery time: 4 to 6hrs	There is no obvious change in appearance The electrical parameters meet the specification error	OK
Constant temperature and humidity test	Temperature and humidity: 40 ° C ± 2° C,90-95%RH Duration: 500hrs Recovery time: 4 to 6hrs Test time: 240 & 500hrs	There is no obvious change in appearance The electrical parameters meet the specification error	OK
High temperature test	Temperature: 85° C Duration: 240hrs Recovery time: 4 to 6hrs Test time: 240 hrs	There is no obvious change in appearance The electrical parameters meet the specification error	OK
Low temperature test	Temperature: -20° C Duration: 240hrs Recovery time: 4 to 6hrs Test time: 240 hrs	There is no obvious change in appearance The electrical parameters meet the specification error	OK