

Shenzhen Yingjia Chuang electronic technology Co., LTD http://www.szsyjc.com

APPROVAL

CUSTOMER NAME		
CUSTOMER P/N		
PART NAME	BT onboard antenna	
P/ N		
APPROVAL REV.	АО	
DELIVERY DATE	November 29, 2024	
PREPARED BY	Yin Feijie	
CHECKED BY	Fang Wenfeng	
APPROVED BY	Chauhan	
Customer Approved		
Approved By	Checked By	Prepared By

Address: Building C, Hongyu Guangming Valley, No. 11, Youma Gang Road, Ma Tian Street, Guangming District, ShenzhenDongguan Branch: Yingjiachuang Industrial Park, No. 2 Yinhe 3rd Road, Shishuikou, Qiaotou Town, Dongguan CityHangzhou Office: 212, Building B, Dahua Jianghong International Innovation Park, 369 Internet of Things Street, Binjiang District, HangzhouMianyang Office: No. 4F-34 Wanxiang High-tech International, No.

35 Mianxing East Road, Mianyang High-tech Zone, Sichuan Province**telephone**:

0755-27810060 fax: 0755-27810057 website: http://www.szsyjc.com



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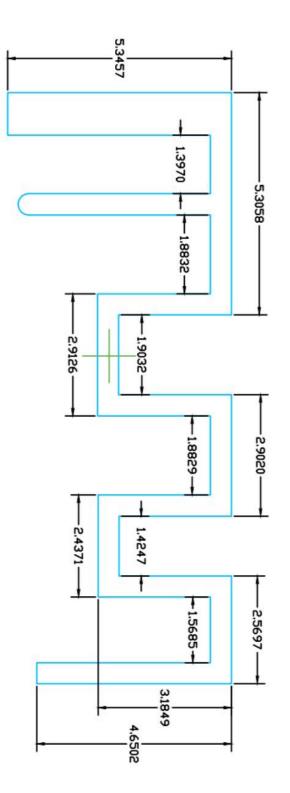


resume:

Version	Changes and reasons	date	publish
A/0	Initial release	November 29, 2024	



Product plan:





Antenna technical parameters and environmental testing:

Electrical technical parameter			
Electrical Specifications		Mechanical Specifications	
Frequency Range	2400-2500MHz	Working Temperature	−20°C~+70°C
VSWR	<1.92	Working Humidity	20%~80%
Input Impedance	50 Ω		
Direction	A11		
Gain	1.5±1dBi		

Envionmental performance test:

Project	Test condition	Standard
Storage Conditions	In the absence of specified test temperature, humidity, air pressure is as follows:: 1. Temperature is - 30 °C $^{\sim}$ + 80 °C 2. Relative humidity of 45% to 45% 3. Air pressure is 86 kpa to 106 kpa	Electrical and mechanical performace is normal
High and low temperature test	Between 70 $^{\circ}$ C and -20 $^{\circ}$ C for 5 loops, then 1-2 h under normal conditions, check the appearance quality.	Size should meet the requirements and meet the performance of mechinery and electric.
Constant damp and hot resistance test	95 + / - 3% relative humidity, temperature test: 40 °C. Lasts 2 h after, try to take out the determination of electrical properties, within 5 min after try 1-2 h under article normal thing, check the appearance quality	Size should meet the requirements and meet the performance of mechinery and electric.
vibration test	10-55 hz, vibration frequency range of displacement amplitude: 0.35 MM, acceleration amplitude: 50.0 M/S, sweep cycles: 30 times	Electrical and mechanical performace is normal
Fall down test	1 m high altitude in accordance with the perpendicular axis free drop 3 times	Electrical and mechanical performace is normal



Antenna diagram:



Antenna performance test diagram:

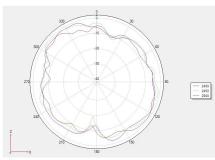




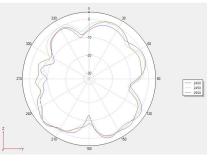
2D and 3D test data (2.4G):

Frequency	Efficiency (%)	Gain. (dBi)
2400MHz	52.36	1.88
2410MHz	55.08	1.65
2420MHz	54.33	1.75
2430MHz	47.75	1.73
2440MHz	49.89	1.59
2450MHz	48.31	1.62
2460MHz	50.12	1.69
2470MHz	48.35	1.47
2480MHz	47.27	1.55
2490MHz	45.36	1.41
2500MHz	46.88	1.65

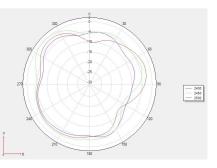
Phi 0 2D:



Phi 90 2D



Theta 90 2D



3D 2400:

3D 2450:

3D 2500:

