

Specification for Approval

CONTENTS

Customer:	N/A	Vendor:	N/A
Customer P/N:	N/A	HL P/N:	N/A
Product model:	HSELAQ_03_50MGF_70	HL Device Name:	N/A
Pcb antenna brand:	XUSHENG	Approval Date:	2026-4-25

Internal Approval		
Approved By:	Checked By:	Prepared By:
		Zhang Bin
Customer Approval		

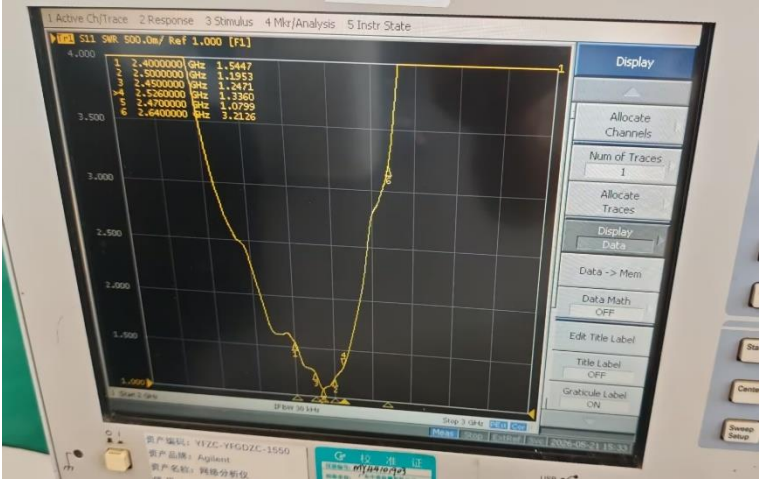
Revision:

Date	Rev	Description of Changes
2023-9-22	A	Initial Release

1、Products Electrical		
PCB Antenna		
1	Antenna Model	PCB IFA Antenna
2	Frequency Range	2400-2500MHz
3	VSWR (or return loss)	<2 (<-9.5dB)
4	Broadband	>100MHz
5	Impedance	50 ohm
6	Gain	-1.3dBi
7	Polarization	LP

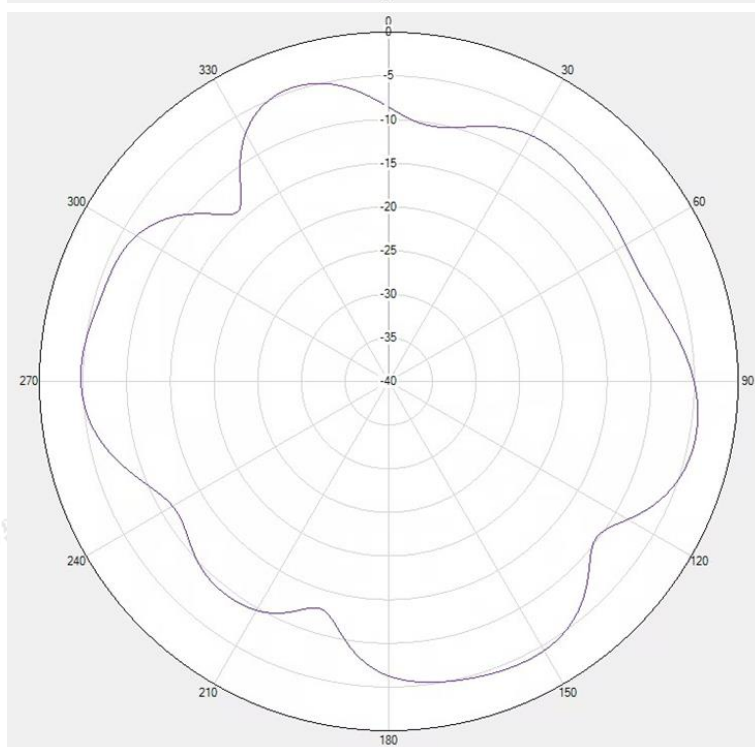
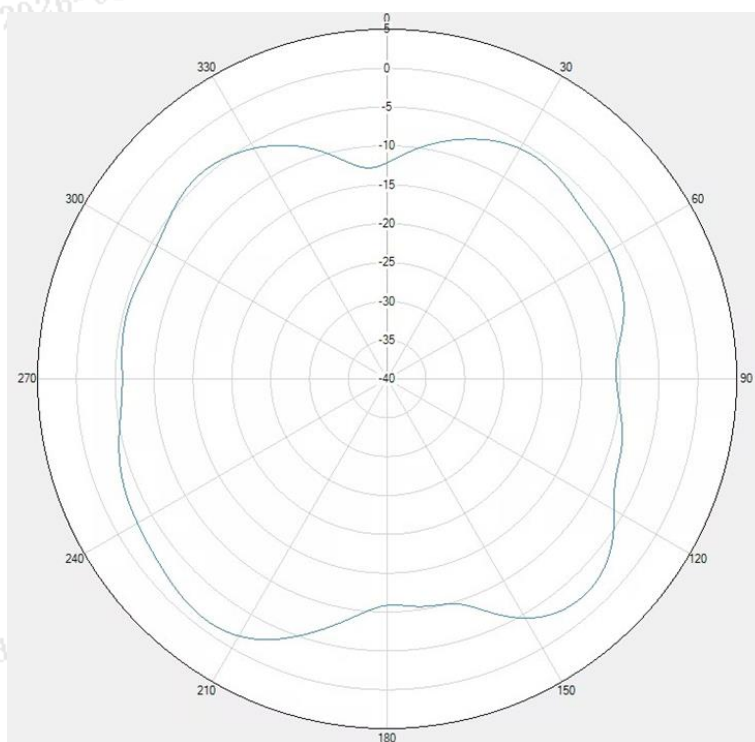
2、Antenna Test Data

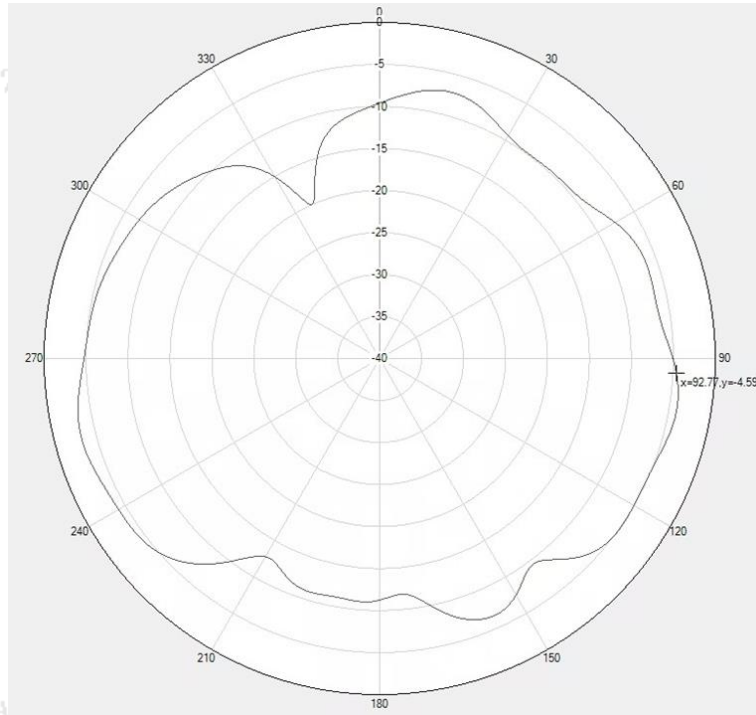
2.1 VSWR （Return Loss）



Frequency (GHz)	VSWR
2.400000	3.5447
2.500000	1.1953
2.550000	1.3471
2.560000	1.3360
2.570000	1.0799
2.640000	3.2125

2.2 RADIATION PATTERNS 2450MHz





2.3 GAIN AND EFFICIENCY

Frequency (MHz)	Efficiency (%)	Gain (dBi)
2400	31.7	-1.4
2410	31.7	-1.6
2420	33.4	-1.5
2430	34.3	-1.5
2440	33.5	-1.3
2450	34.8	-1.3
2460	31.8	-1.6
2470	32.7	-1.4
2480	32.4	-1.6
2490	31.2	-2.0
2500	31.1	-1.6

3、PCB ANTENNA (MM)

