
Shenzhen Hengbo Communication Technology

Co., Ltd.

specification

Customer Name:Shenzhen Tilta Technology Co., Ltd.

Project Name: PJ2413 Handle

Product Specification: Features a built-in 2.4-FPC antenna.

Material Number Customer P/N:

Version REV: V1.0 Version REV: V1.0

Date: 2025.12.26 2025.12.26

fabrication drawing	examine and verify check	ratify approved

Customer Acknowledges

examine and verify check	ratify approved	admit approval

Address: 1102, Building C2, No.30 Tangqian Road, Tangwei Community,
Guangming District, Shenzhen

catalogue

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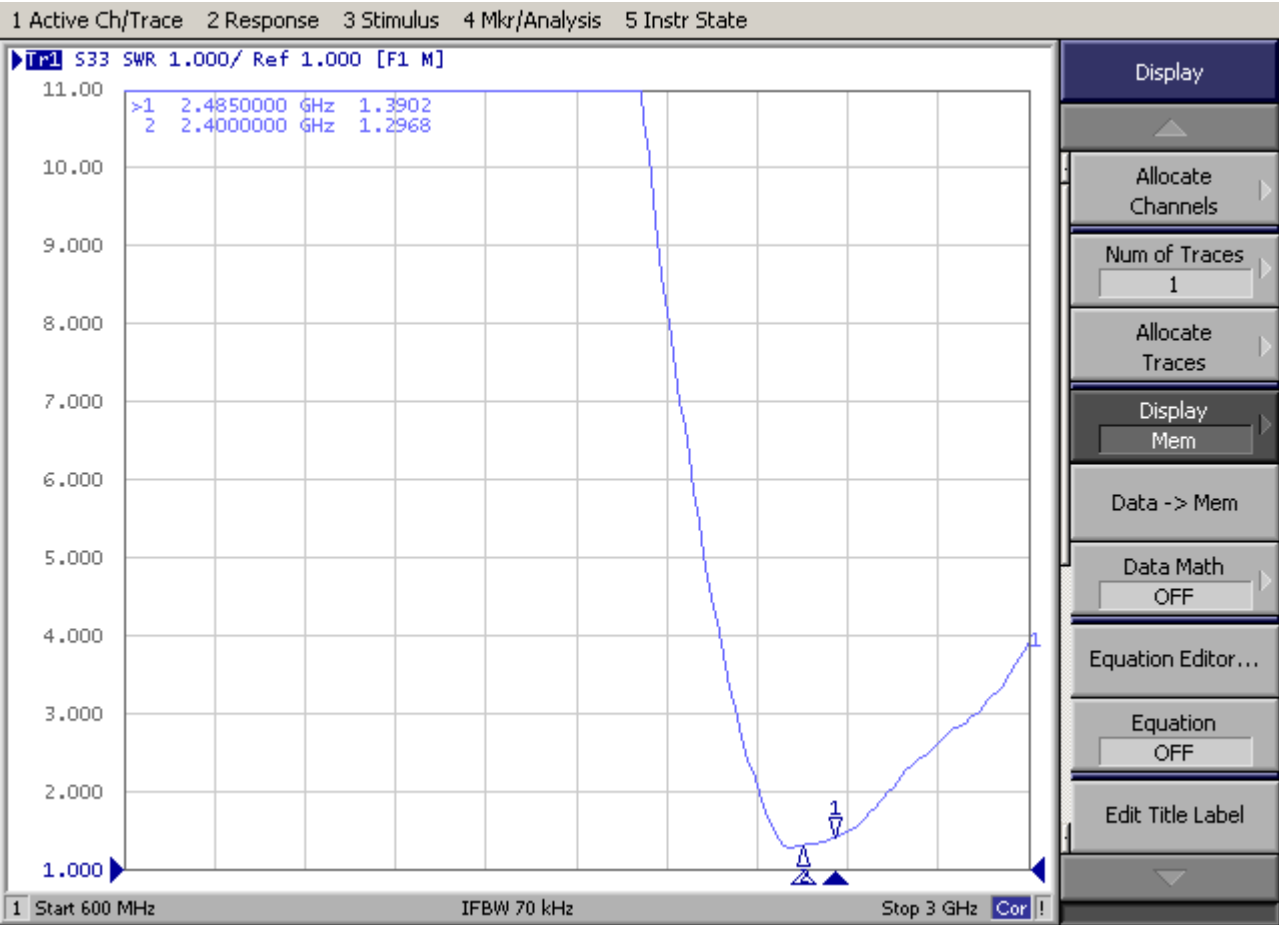
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III. Electrical Performance Index

electrical PERFORMANCE INDICATORS		Electrical Specifications	
Frequency range: 2400-2500 MHz		2400-2500MHZ	
voltage standing-wave ratio	≤ 2.0	VSWR	≤ 2.0
gain	≤ 1.6 DBI	GAIN	≤ 1.6 DBI
radiation mode	omnidirectional	Radiation	OMNI
polarization mode	linear polarization	Polarizatin	LINEAR
input impedance	50 Ω	Input Impedance	50 Ω
mechanical PERFORMANCE INDICATORS		Mechanical Specifications	
interface form	IPEX-3 generation	Input connector	IPEX-3 generation
antenna material	FPC	Antenna materia	FPC
working temperature	-30°C~+80°C	Working Temperature	-30°C~+80°C
working humidity	40~85%	Working Humidity	40~85%

IV. Test report

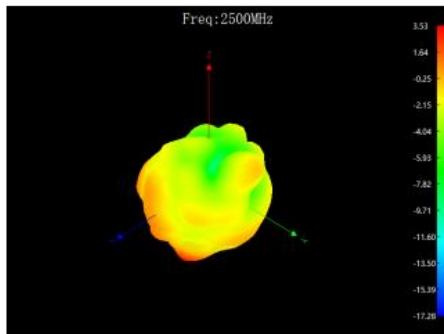
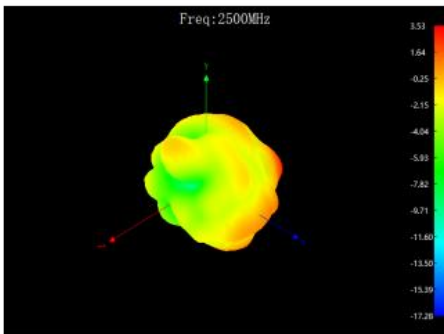
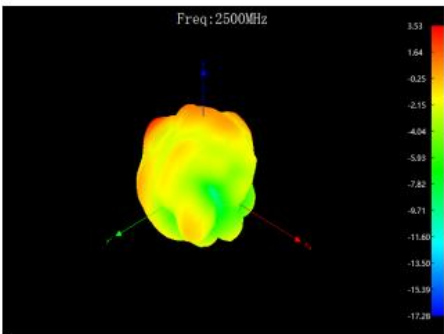
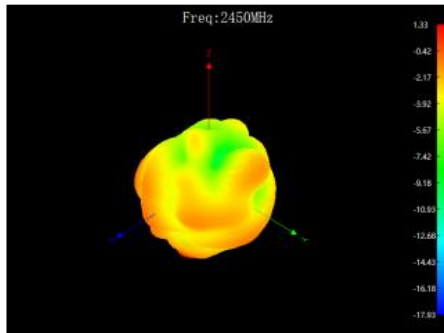
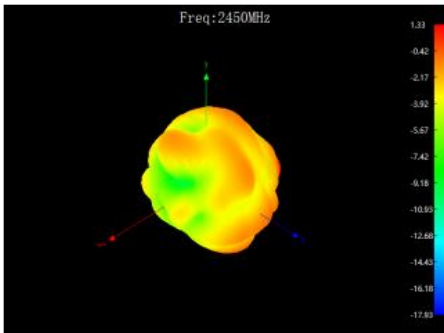
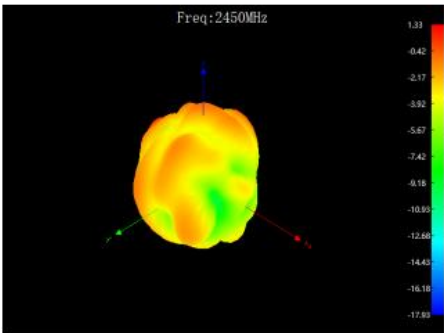
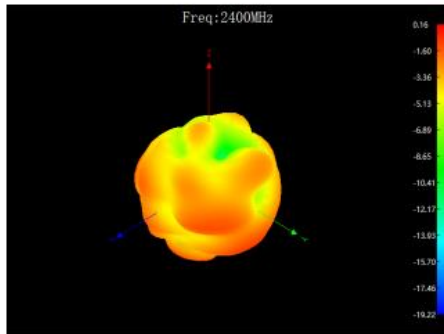
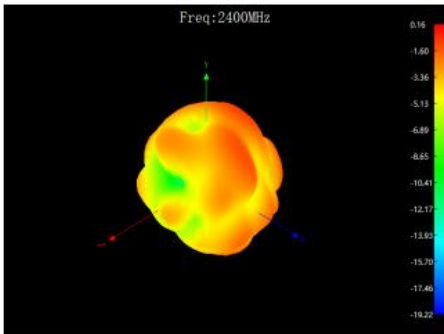
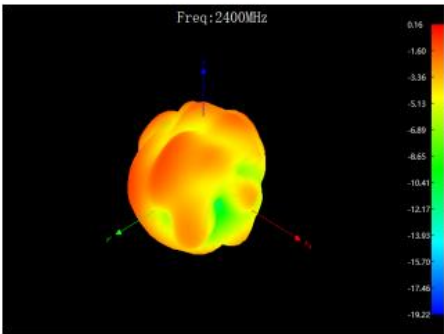
1.S11 Data



2. Antenna gain efficiency

Frequency/Mhz	MaxGain/dBi	Efficiency / %
2400	0.16	36.98
2405	0.43	35.73
2410	0.77	37.33
2415	1.2	39.99
2420	0.98	37.67
2425	0.2	34.12
2430	0.81	38.9
2435	1.25	41.11
2440	1.64	42.66
2445	1.48	41.11
2450	1.33	40.46
2455	1.33	38.64
2460	1.93	45.08
2465	2.6	47.64
2470	1.62	37.93
2475	1.6	39.99
2480	1.59	45.19
2485	1.01	46.99
2490	1.42	43.75
2495	1.69	44.36
2500	1.53	42.46

3. Antenna direction:



5. schedule drawing

Surface coated with black oil, silk screened in white, half base material, gold finger OSP

Welding downwards

50 ± 1mm

25.3 ± 0.2

20 ± 0.1

Hand tear position

Serial Number	material	DESCRIPTION	number
①	FPC	PI	1
②	Coaxial Line	BLACK IPEX-3 RF-90.81	1
③			

Project	Product Name	DATA	2026.01.14
0~10	±0.10	0.02	
10~20	±0.12	0.03	
20~40	±0.15	0.02	
40~	±0.20	0.04	
	material quality	PI	
	appearance		