



2.4G Antenna Test Report

***This report is classified as confidential documentation between Zhejiang Zhongke Xinlian Wireless Technology Co., Ltd. and relevant clients. Please store it securely and do not disclose without authorization.**



CUSTOMER NAME:	Hangzhou DENGHONG Technology Co.,Ltd.
PRODUCT NAME:	FPC built-in antenna
SinLen P/N:	2.4G antenna (FPC)
WRITED:	Liu Yu
DATE:	2025/06/26
VERSIONS:	V1.0

2.4G antenna (FPC)



Antenna image



2.4G antenna (FPC)



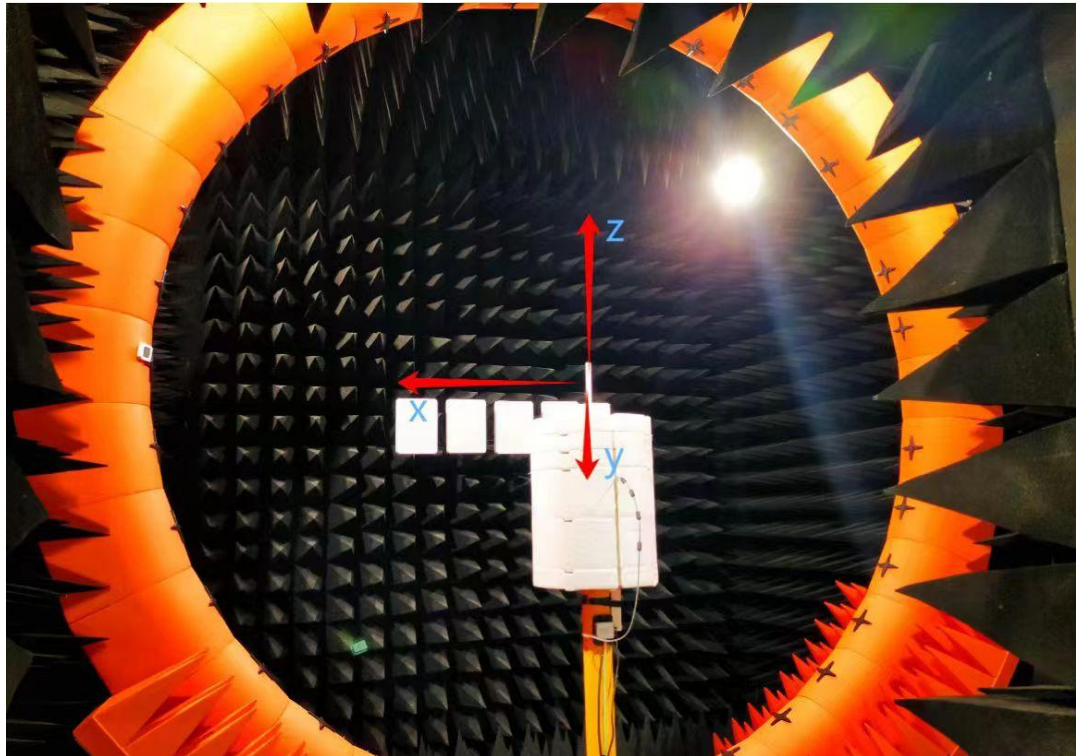
Antenna parameters

Physical properties			
Antenna size(mm)	34*10*0.12	Feeder length (mm)	100
Interface	First generation terminal	Connection line type	RF1.13 black wire
Antenna material	FPC	Antenna solder mask	Black oil
Operating temperature (°C)	-30~70	Storage temperature (°C)	-20~55

Electrical parameters			
Operating frequency (MHz)	2400-2500	Gain (dBi)	2~4
Antenna efficiency(%)	50~60	Voltage Standing Wave Ratio	≤2
Feed impedance (Ω)	50	polarization method	Linear polarization

2.4G antenna (FPC)

Coordinate system



H surface: XY (Horizontal plane)

E1 surface: XZ

E1 surface: YZ

2.4G antenna (FPC)

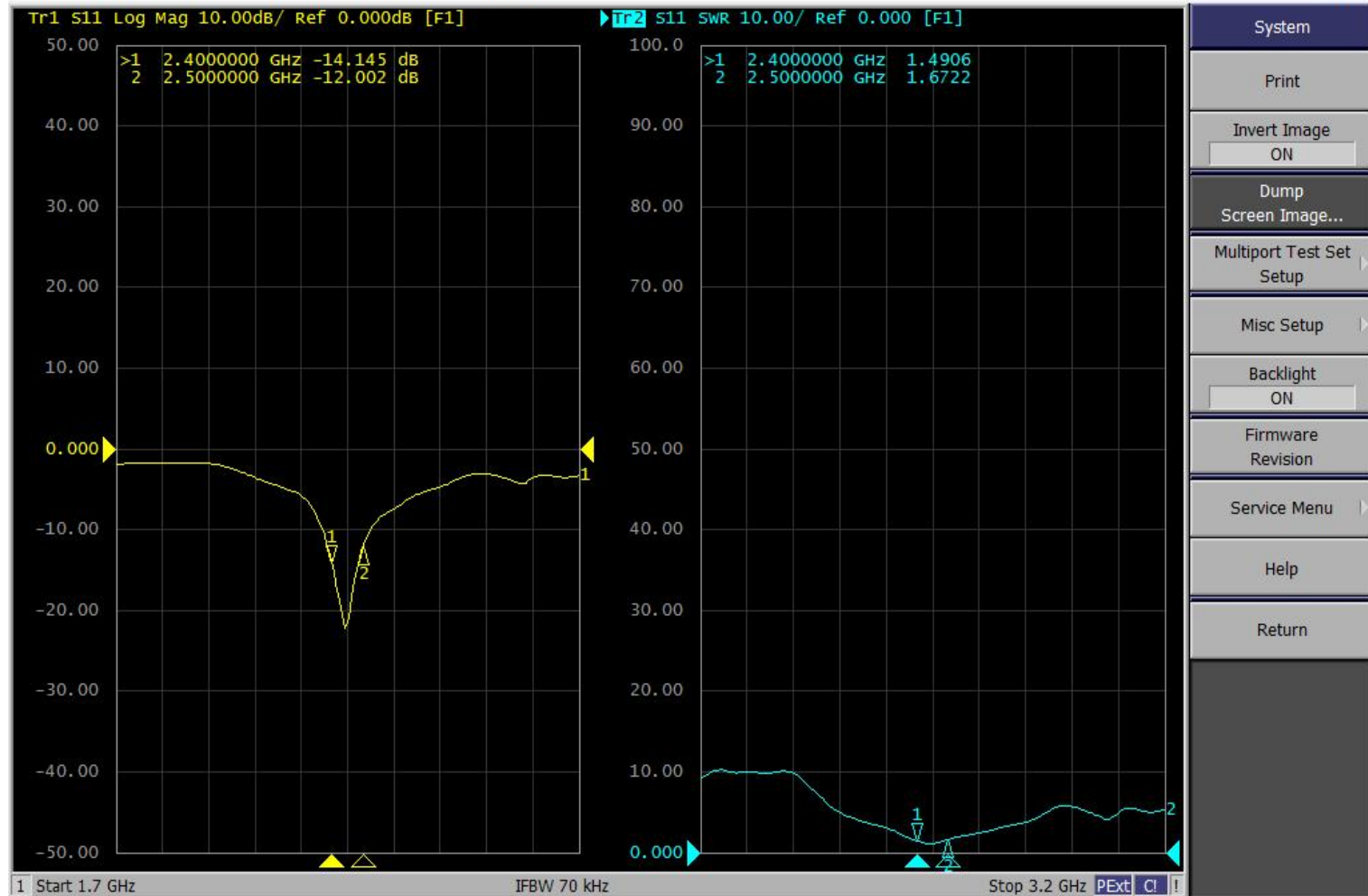
Return Loss and Standing Wave Ratio

RL-VSWR



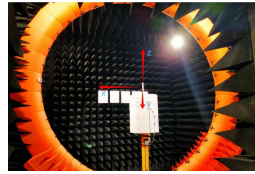
E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State



2.4G antenna (FPC)

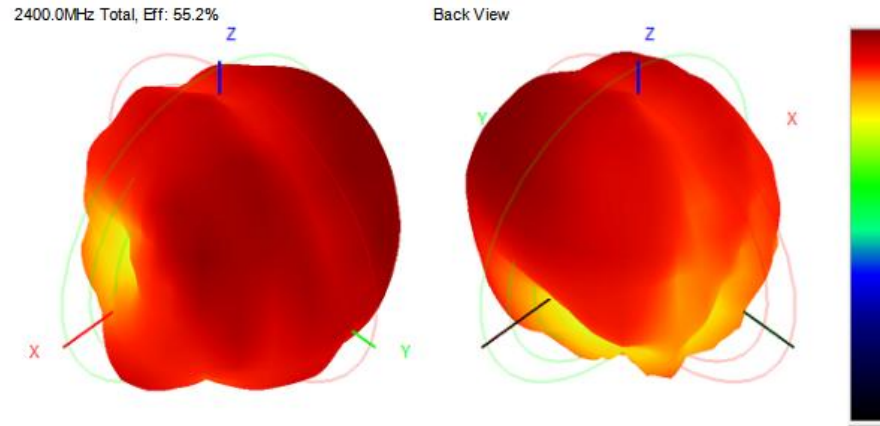
2D/3D Pattern



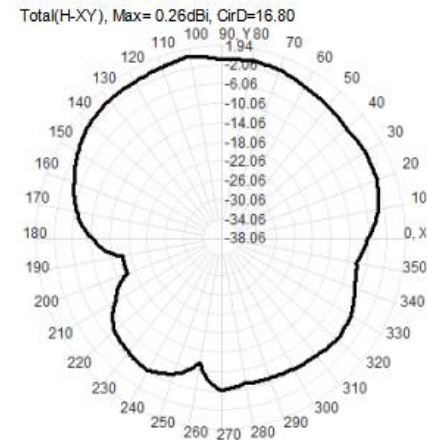
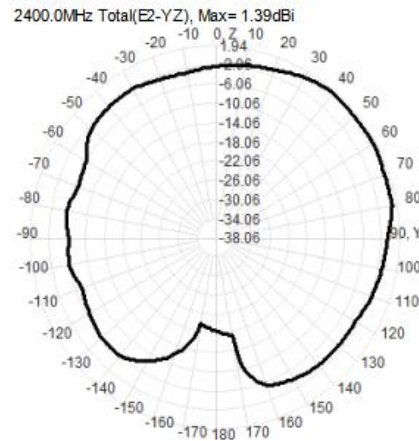
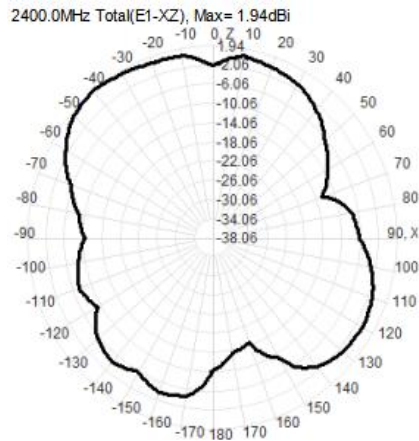
H surface: XY (Horizontal plane)

E1 surface: XZ

E1 surface: YZ

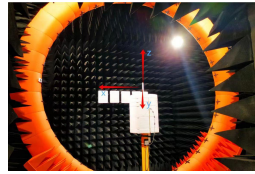


2400MHz



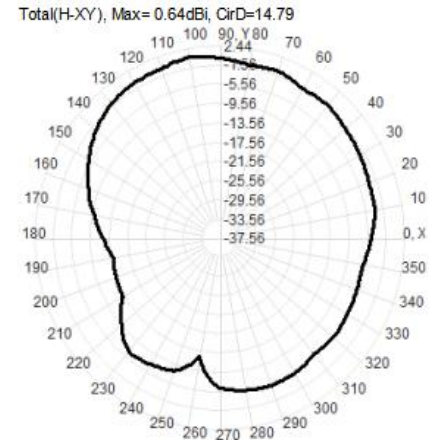
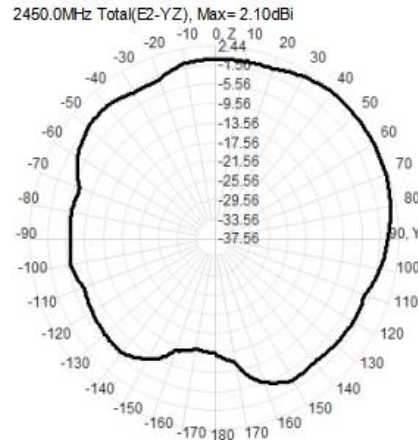
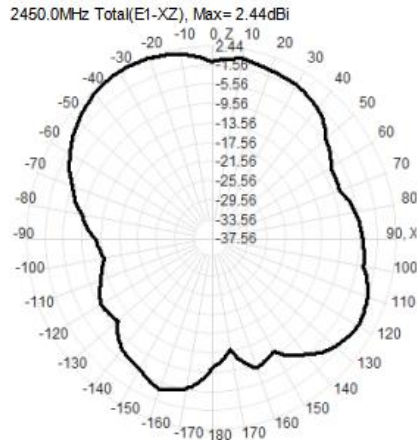
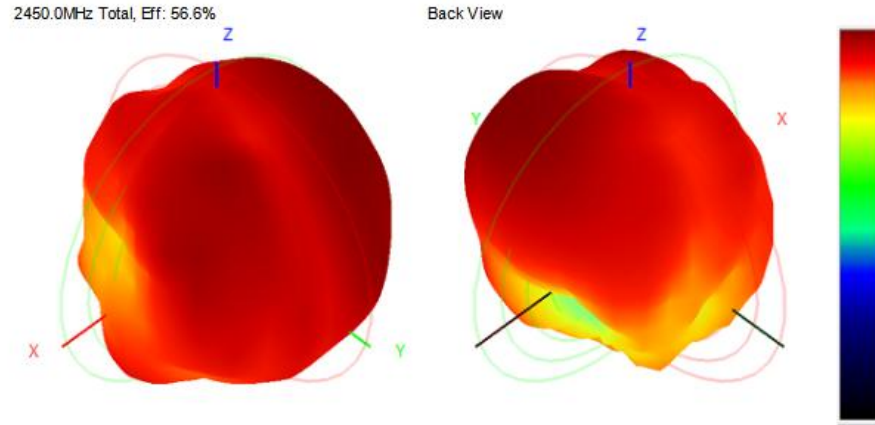
2.4G antenna (FPC)

2D/3D Pattern



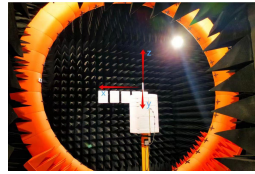
H surface: XY (Horizontal plane)
E1 surface: XZ
E1 surface: YZ

2450MHz



2.4G antenna (FPC)

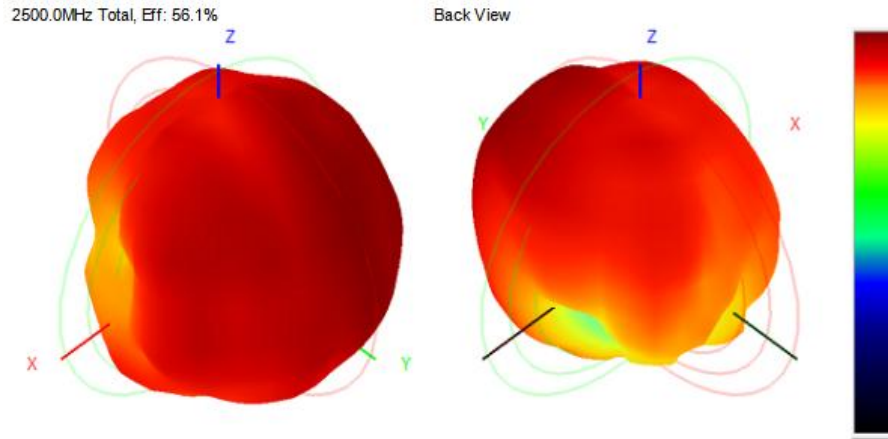
2D/3D Pattern



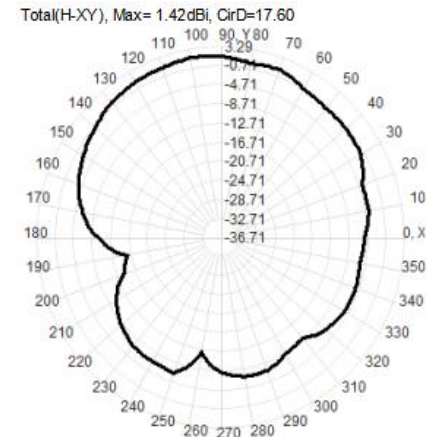
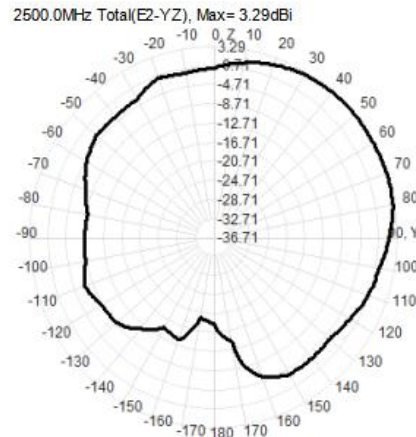
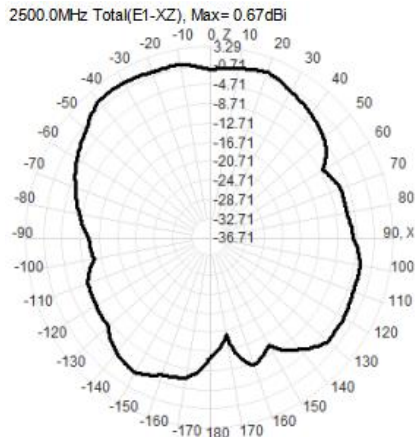
H surface: XY (Horizontal plane)

E1 surface: XZ

E1 surface: YZ



2500MHz



2.4G antenna (FPC)

Gain/Efficiency



2400-2500MHz

Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Gain (dBi)	2.72	2.99	3.16	3.17	3.06	3.05	3.10	3.22	3.24	3.29	3.29
Efficiency (%)	55.17	56.40	56.60	56.98	57.43	56.62	55.91	55.87	55.81	55.79	56.11



**Zhejiang Zhongke Core wireless
Technology Co., LTD**

If you have any questions, feel free to
provide guidance and communicate!

THANKS!