

原图 **Antenna Test Report**

Customer	原图
Project	PL6-BOX-V4.1
Antenna Revision	V1
Product Description	FPC
Product No	V.0
DATE	2024. 3. 30

Purpose

深圳市合拓科技有限公司

This report is to measure the performance of BT antenna for **PL6-BOX-V4.1**. The antenna operating frequency at **2.4GHz/5.8GHz**, All test data are showed as below.

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2. Test System

Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	CMW500 & CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C



Product Overview & Dimension

Front



原图 PL6-BOX-V4.1

2024.1.26



Test Result

Gain & Efficiency——WIFI- ANT-2.4G



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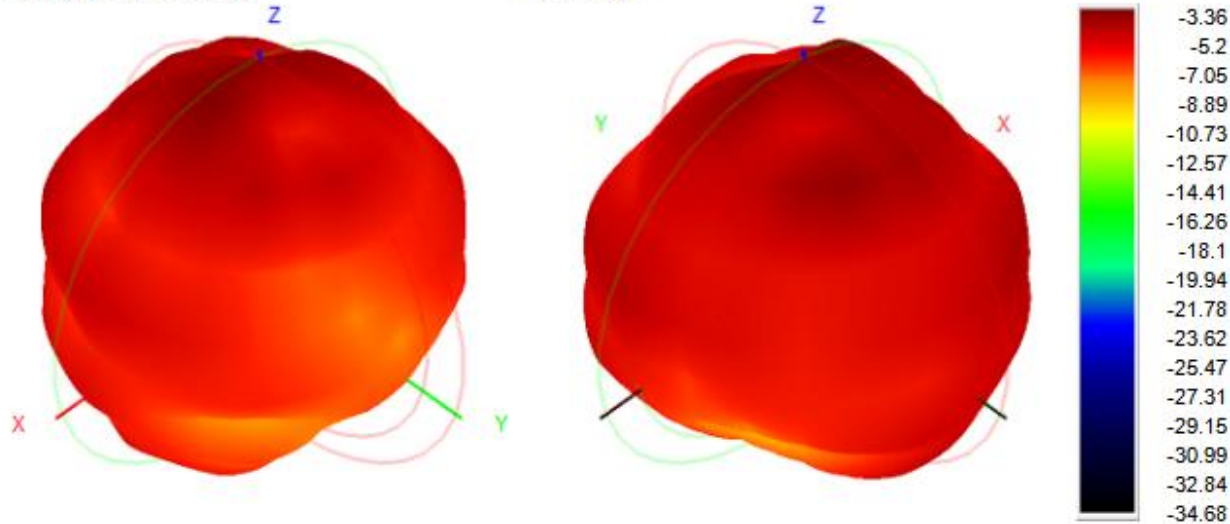
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-7.92	-7.96	-7.99	-8.05	-8.40	-8.54	-9.13	-9.35	-9.82	-10.30	-10.58
Gain (dBi)	-3.36	-3.77	-3.96	-4.21	-4.71	-4.74	-5.28	-5.46	-5.77	-5.72	-6.56
Efficiency (%)	16.14	16.00	15.87	15.66	14.45	13.99	12.21	11.63	11.43	11.34	10.74
Directivity (dB)	4.56	4.19	4.03	3.84	3.69	3.80	3.86	3.88	4.05	4.58	4.03
Peak Gain Position (Theta)	0.00	15.00	15.00	15.00	15.00	135.00	30.00	30.00	135.00	30.00	30.00
Peak Gain Position (Phi)	165.00	345.00	345.00	315.00	315.00	285.00	270.00	285.00	330.00	300.00	255.00
Efficiency ThetaPol (%)	5.37	5.33	5.24	5.08	4.74	4.57	4.12	4.05	3.91	3.56	3.34
Efficiency PhiPol (%)	10.77	10.67	10.63	10.58	9.71	9.42	8.10	7.58	6.51	5.78	5.40
Upper Hem. Efficiency (%)	9.77	9.60	9.51	9.28	8.46	8.10	7.12	6.70	6.09	5.44	5.08
Lower Hem. Efficiency (%)	6.37	6.40	6.36	6.38	5.99	5.88	5.10	4.92	4.33	3.90	3.67

Test Result

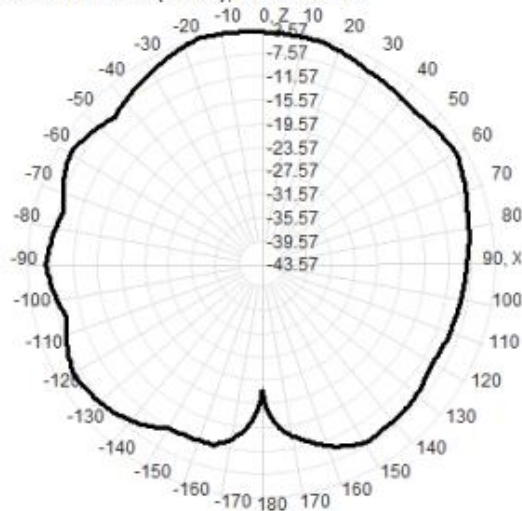
2D&3D — **WIFI- ANT**

2400.0MHz H+V, Eff: 16.1%

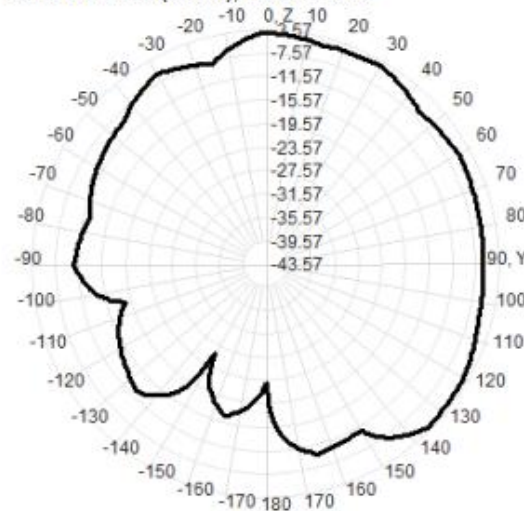
Back View



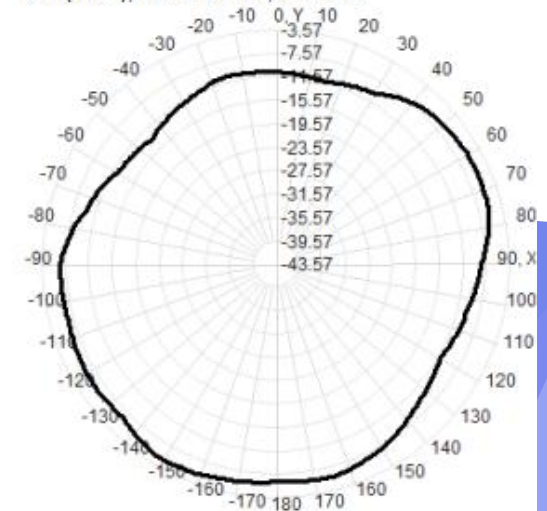
2400.0MHz Total(E1-XZ), Max= -3.57dBi



2400.0MHz Total(E2-YZ), Max= -4.06dBi



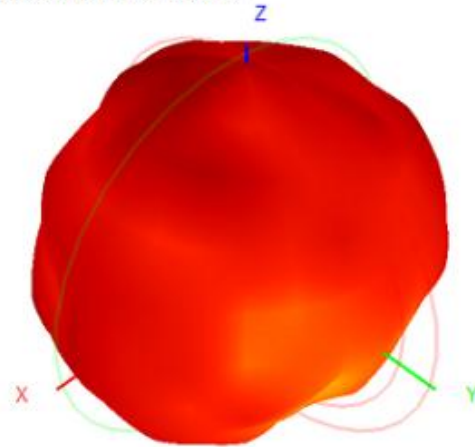
Total(H-XY), Max= -5.03dBi, CirD=8.44



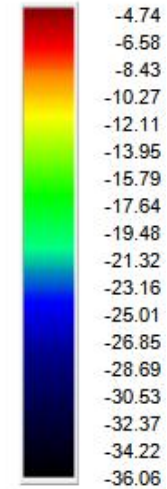
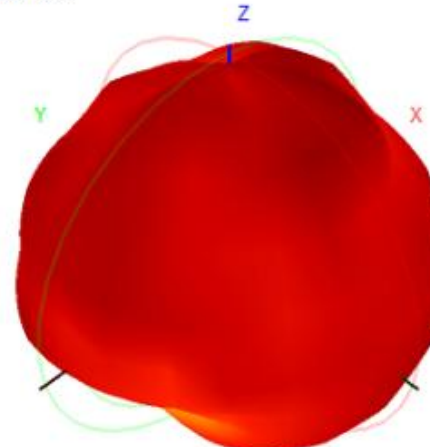
Test Result

2D&3D — **WIFI- ANT**

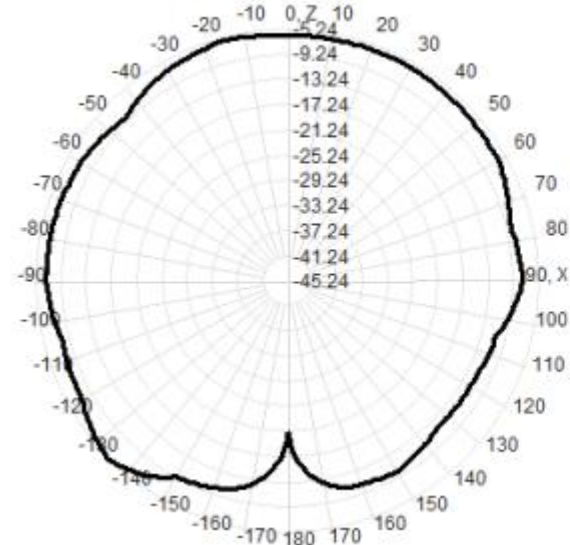
2450.0MHz H+V, Eff: 14.0%



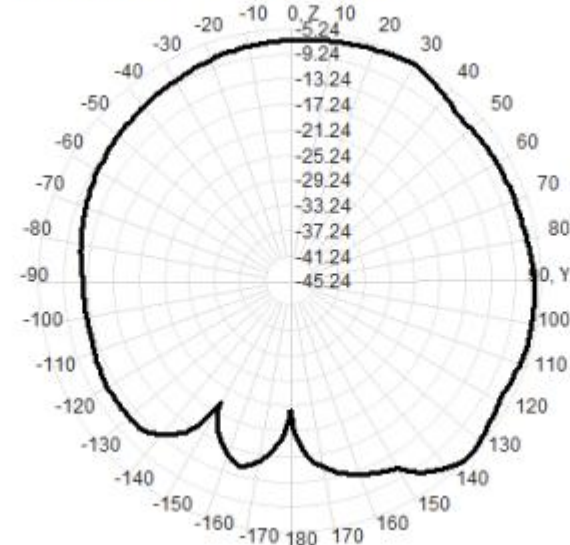
Back View



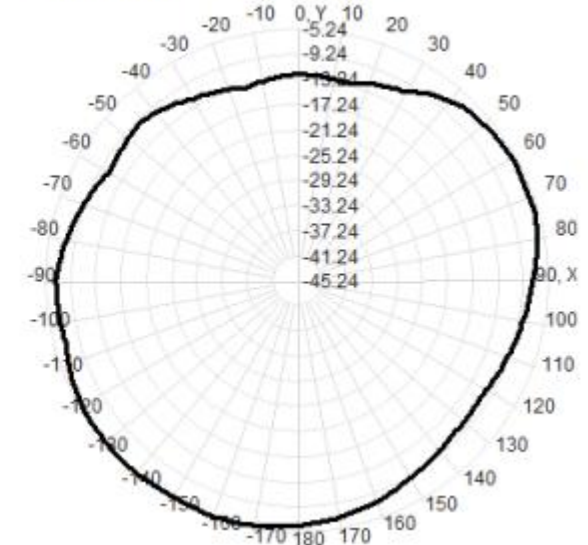
2450.0MHz Total(E1-XZ), Max= -5.24dBi



2450.0MHz Total(E2-YZ), Max= -5.51dBi



Total(H-XY), Max= -5.53dBi, CirD=7.98

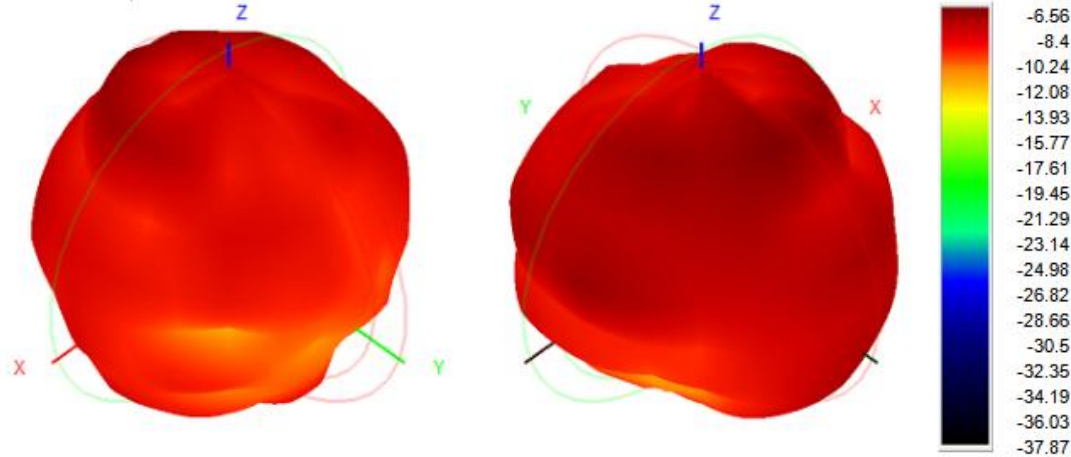


Test Result

2D&3D — **WIFI- ANT**

2500.0MHz H+V, Eff: 10.7%

Back View



2500.0MHz Total(E1-XZ), Max= -7.97dBi

2500.0MHz Total(E2-YZ), Max= -7.25dBi

Total(H-XY), Max= -8.13dBi, CirD=8.04

