

KT-1 Antenna Test Report

Customer	
Project	Freego1 Air
Antenna Revision	A1
Product Description	PCB
Product No	
DATE	2023. 06. 02

Product Overview & Dimension

Front



Purpose

This report is to measure the performance of BT antenna for JPS EC001 .The antenna operating frequency at 2.4~2.5GHz, All test data are showed asbelow.

Content

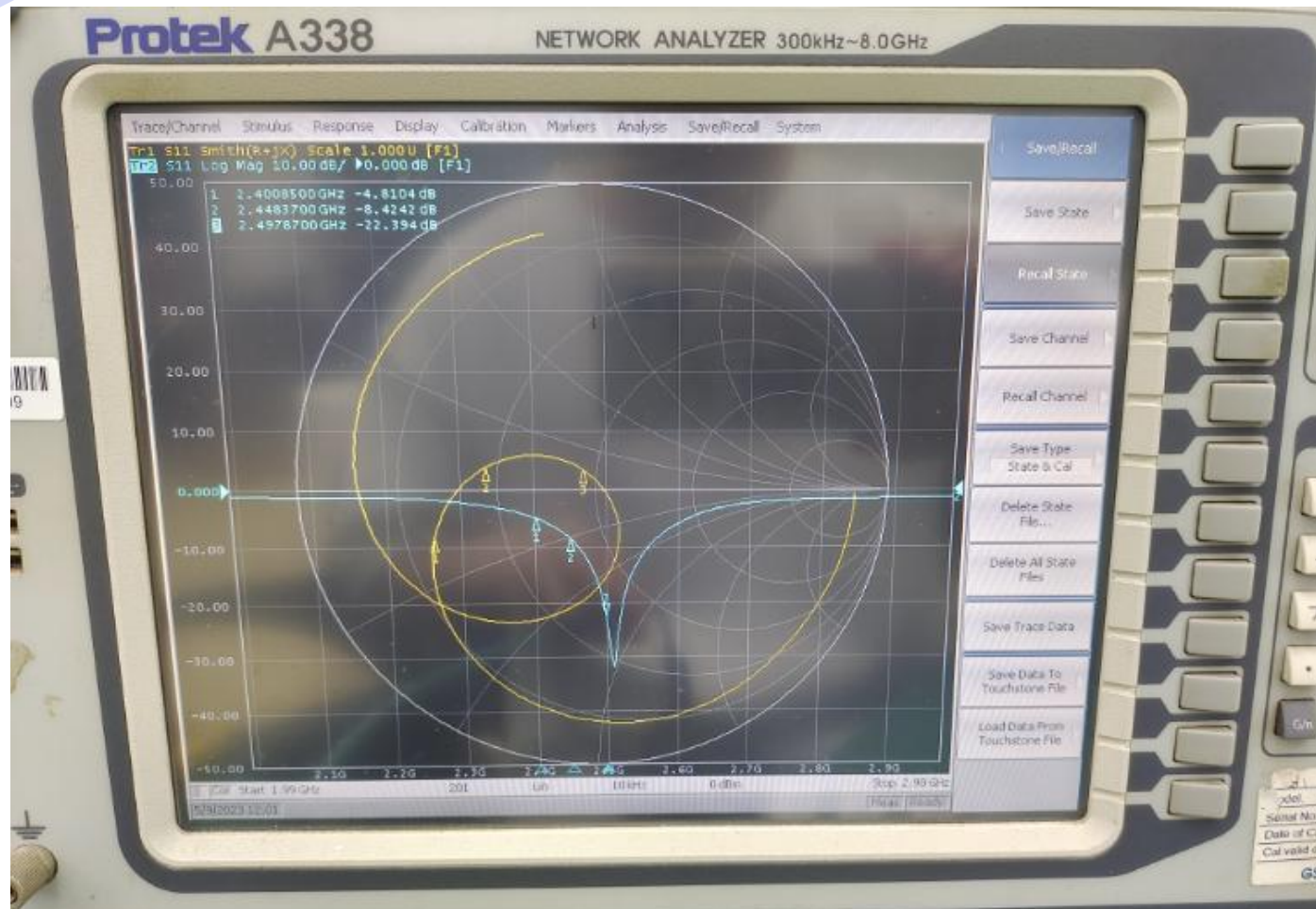
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2 Test System

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

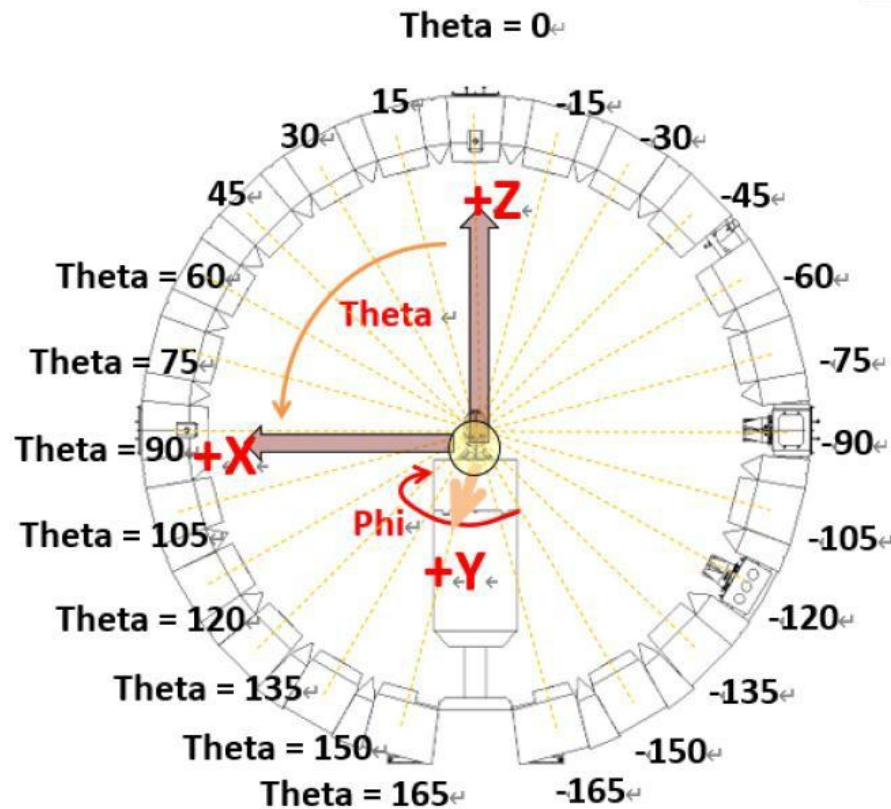


S11—(BT ANT)



Test Result

Sample status & coordinates



Test Result

Gain & Efficiency—**BT- ANT**



深圳市合拓科技有限公司

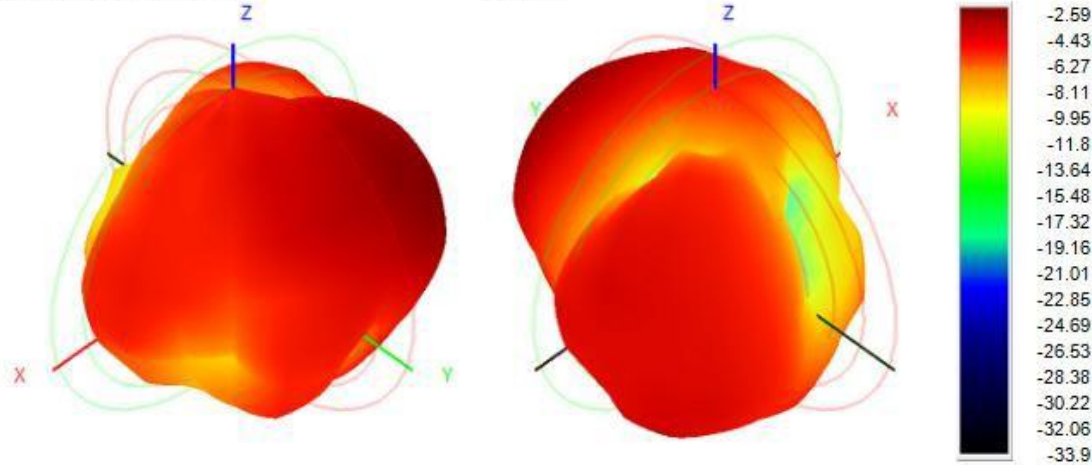
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-8.57	-7.95	-7.57	-7.04	-6.73	-6.35	-6.22	-6.08	-6.10	-6.21	-6.31
Gain (dBi)	-2.59	-1.85	-1.54	-1.20	-0.95	-0.84	-0.68	-0.58	-0.52	-0.75	-0.93
Efficiency (%)	13.91	16.03	17.51	19.76	21.21	23.17	23.86	24.67	24.53	23.96	23.41
Directivity (dB)	5.98	6.10	6.02	5.85	5.79	5.51	5.55	5.50	5.58	5.46	5.37
Peak Gain Position (Theta)	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00	60.00
Peak Gain Position (Phi)	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00	120.00
Efficiency ThetaPol (%)	5.63	6.45	6.78	7.45	7.90	8.65	8.98	9.40	9.70	9.68	9.56
Efficiency PhiPol (%)	8.28	9.58	10.73	12.31	13.31	14.52	14.88	15.27	14.83	14.28	13.85
Upper Hem. Efficiency (%)	7.79	8.89	9.73	10.98	11.92	13.02	13.55	14.11	14.18	13.71	13.40
Lower Hem. Efficiency (%)	6.12	7.14	7.78	8.78	9.30	10.16	10.31	10.56	10.35	10.25	10.01

Test Result

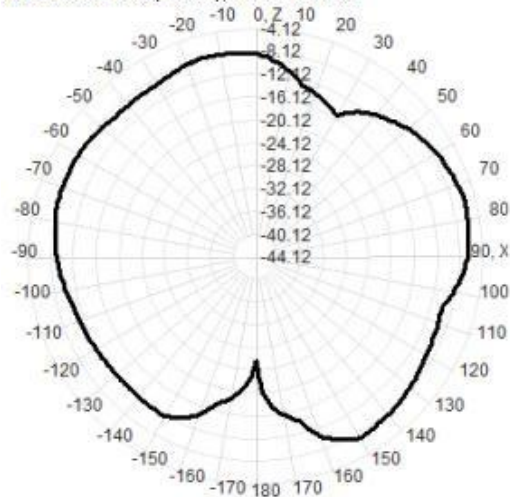
2D&3D — BT- ANT

2400.0MHz H+V, Eff: 13.9%

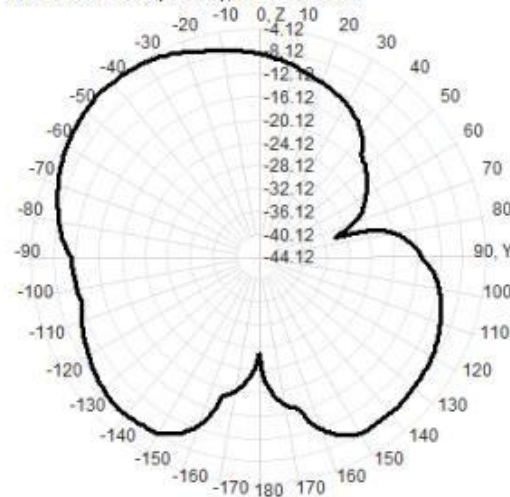
Back View



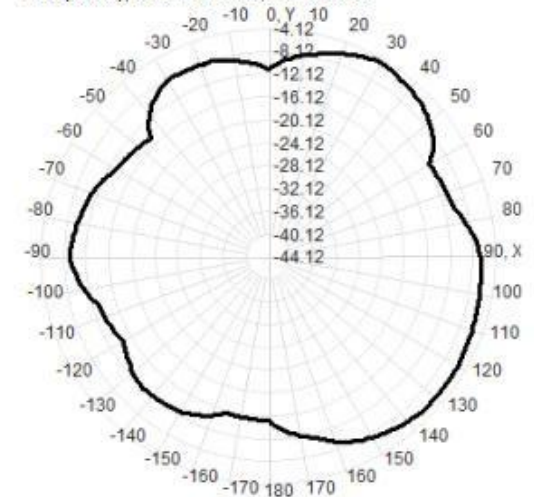
2400.0MHz Total(E1-XZ), Max=-6.25dBi



2400.0MHz Total(E2-YZ), Max=-4.12dBi



Total(H-XY), Max=-4.76dBi, CirD=11.16

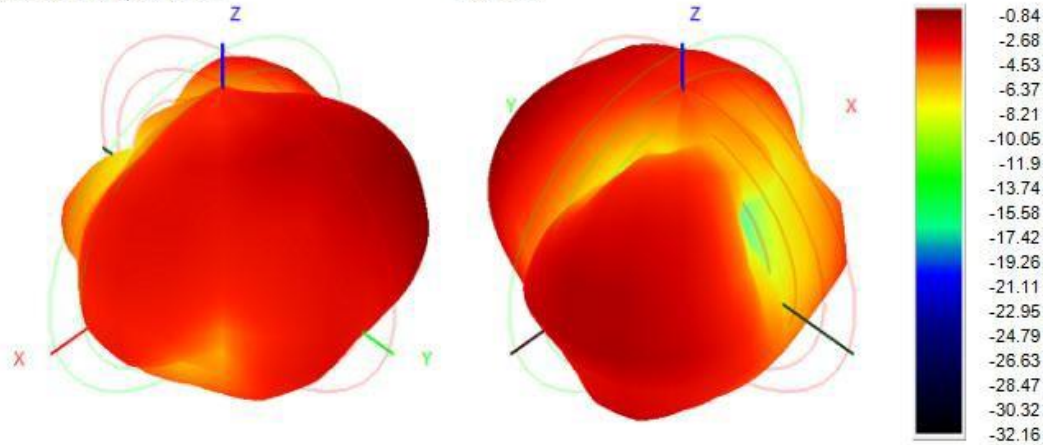


Test Result

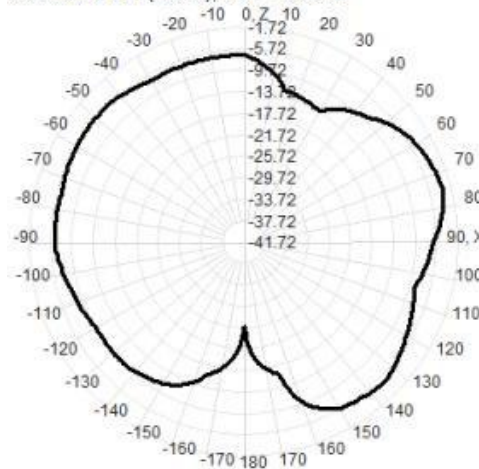
2D&3D—BT- ANT

2450.0MHz H+V, Eff: 23.2%

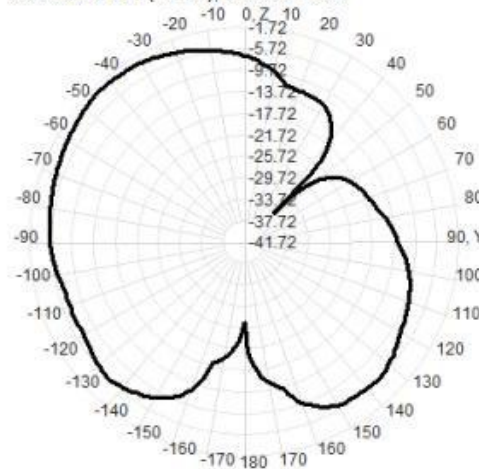
Back View



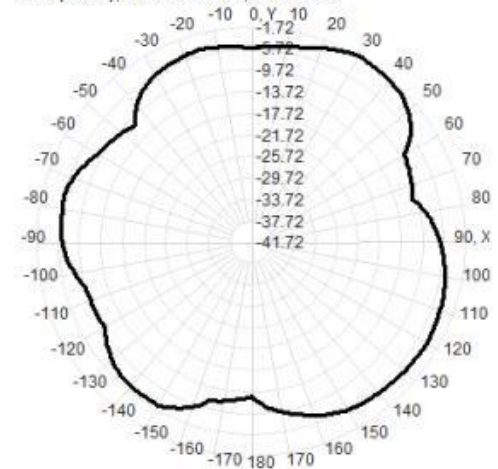
2450.0MHz Total(E1-XZ), Max=-3.45dBi



2450.0MHz Total(E2-YZ), Max=-2.81dBi



Total(H-XY), Max=-1.72dBi, CirD=11.47

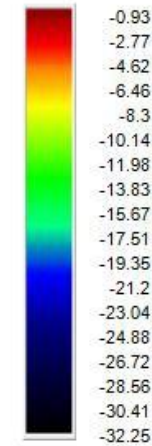
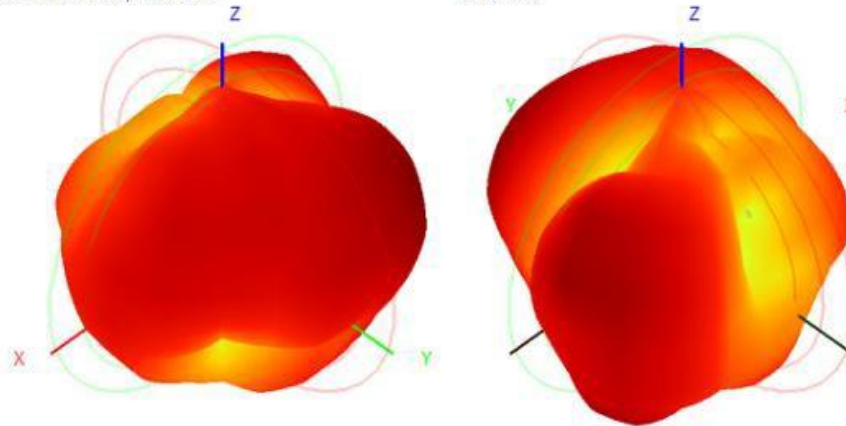


Test Result

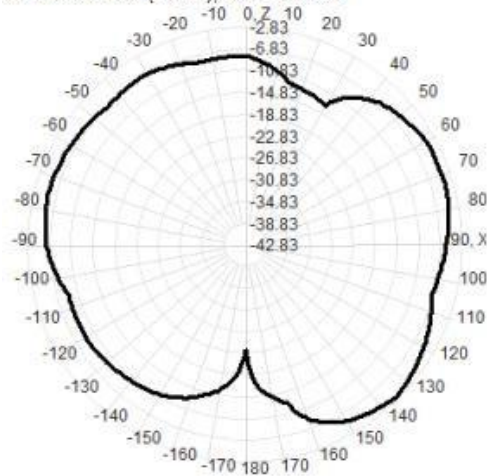
2D&3D — BT- ANT

2500.0MHz H+V, Eff: 23.4%

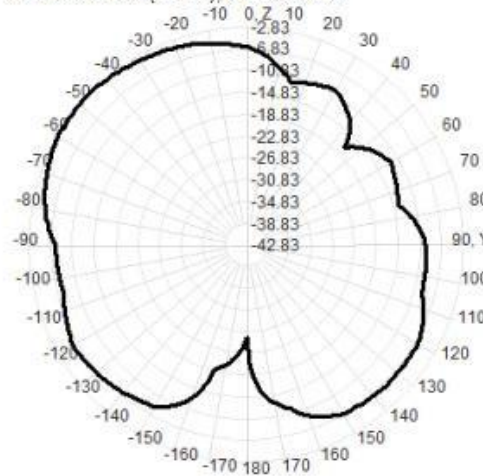
Back View



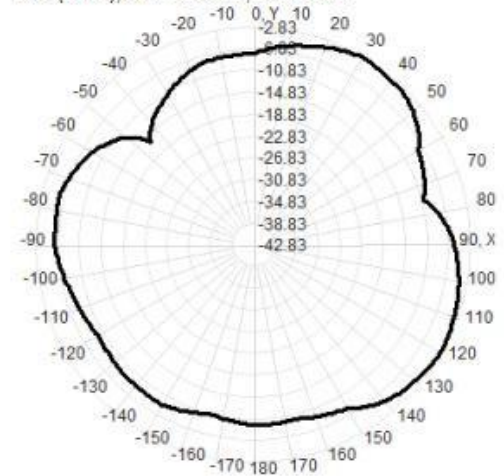
2500.0MHz Total(E1-XZ), Max= -3.61dBi



2500.0MHz Total(E2-YZ), Max= -2.83dBi

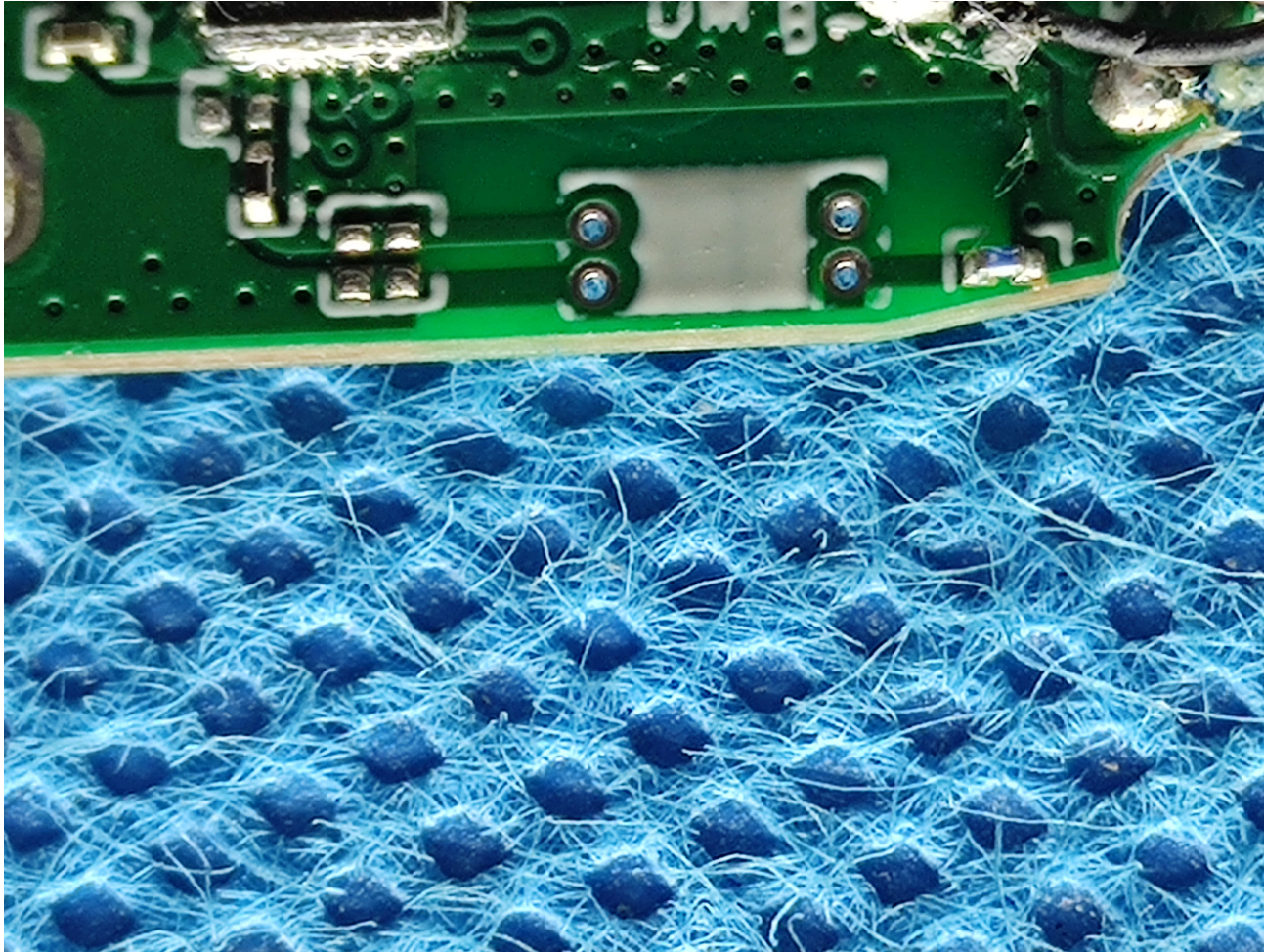


Total(H-XY), Max= -2.97dBi, CirD=13.00



Test Result

2D&3D—**BT- ANT**



Thanks for your comment!

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