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

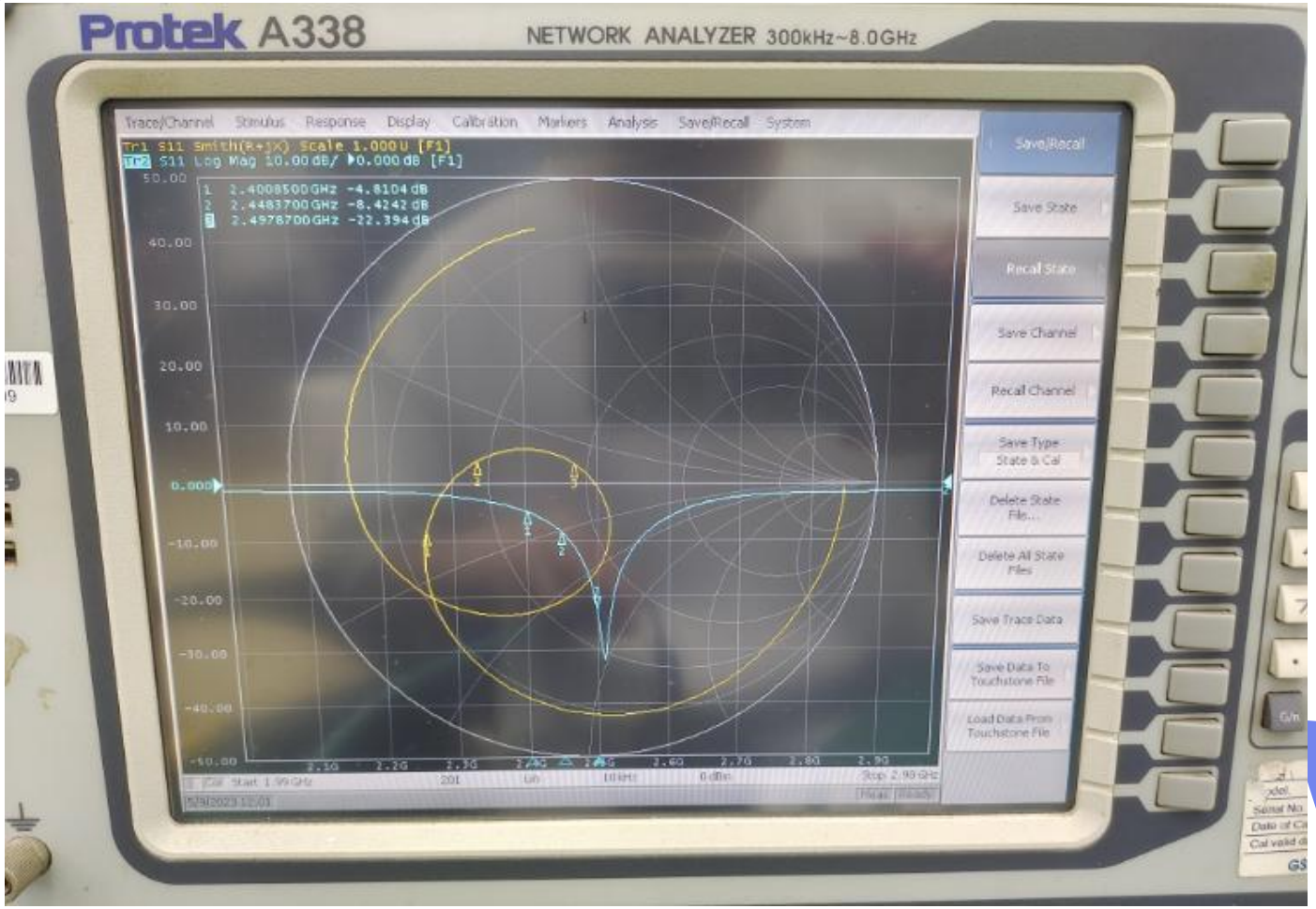
This report is to measure the performance of BT antenna for JPS EC001 .The antenna operating frequency at 2.4~2.5GHz, All test data are showed as below.

Content

2. Test System

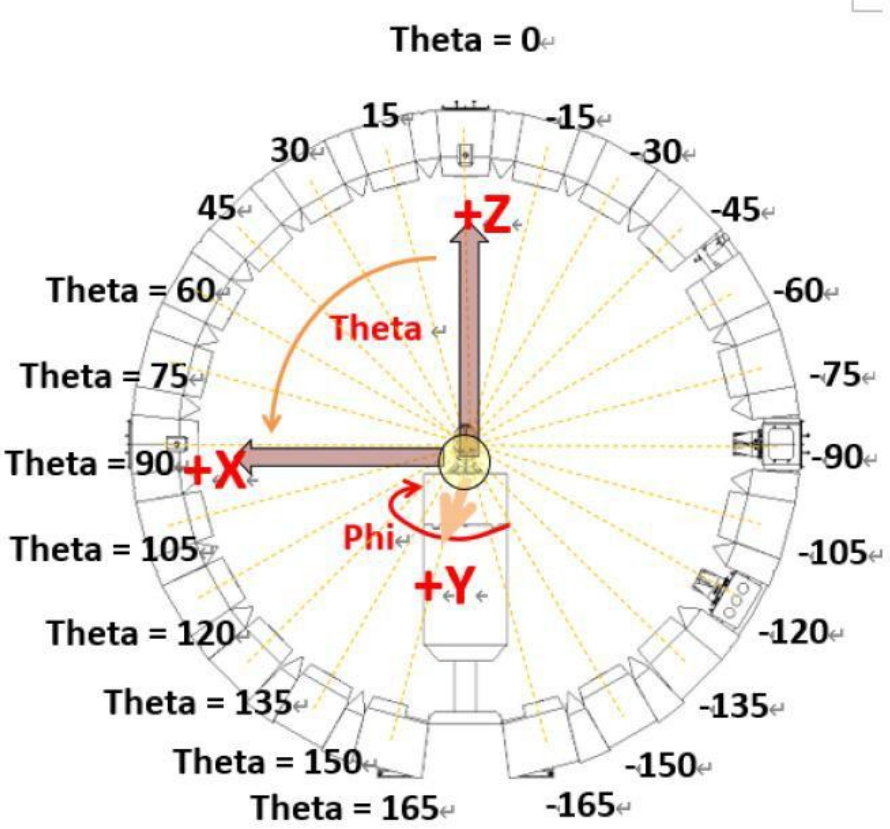
Sequence Number	Test Item	equipment
S parameter	VSWR	Agilent 5071C & Agilent 5062A
OTA Test	TRP&TIS	CMW500 &CMW270 ETS&SATIMO
Gain & Efficiency	Gain & Efficiency	ETS&SATIMO Agilent 5071C

S11—**(BT ANT)**


Protek A338
NETWORK ANALYZER 300kHz~8.0GHz
Trace/Channel
Stimulus
Response
Display
Calibration
Markers
Analysis
Save/Recall
System
Tr1 S11 Smith(R+jX) Scale 1.000U [F1]
Tr2 S11 Log Mag 10.00dB/ 0.000dB [F1]
1 2.4008500GHz -4.8104dB
2 2.4483700GHz -8.4242dB
3 2.4978700GHz -22.394dB
50.00
40.00
30.00
20.00
10.00
0.000
-10.00
-20.00
-30.00
-40.00
-50.00
Save/Recall
Save State
Recall State
Save Channel
Recall Channel
Save Type
State & Cal
Delete State File...
Delete All State Files
Save Trace Data
Save Data To Touchstone File
Load Data From Touchstone File

Test Result

Sample status & coordinates



Test Result

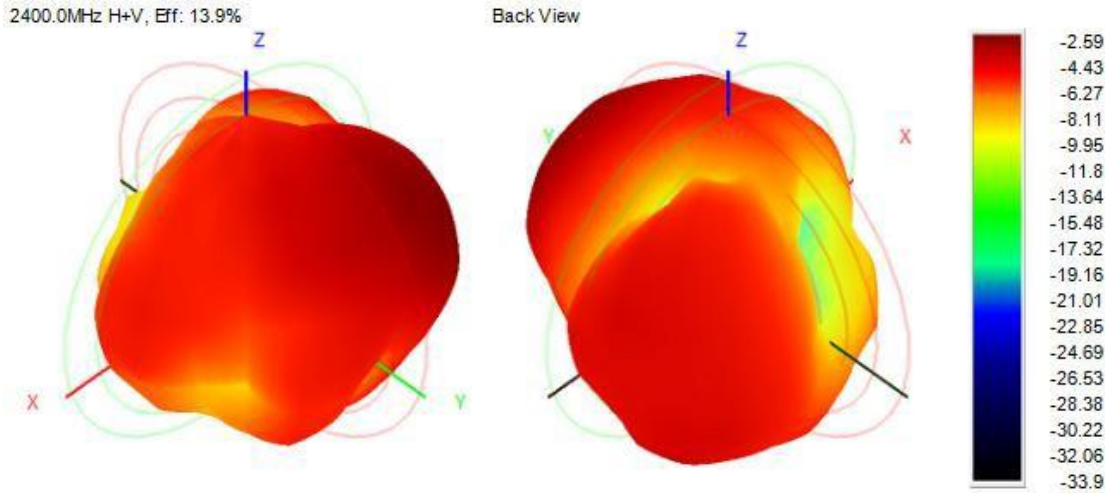
Gain & Efficiency——BT- ANT

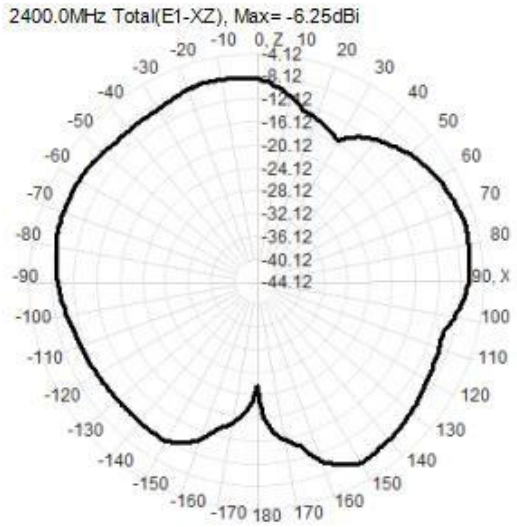
深圳市合拓科技有限公司

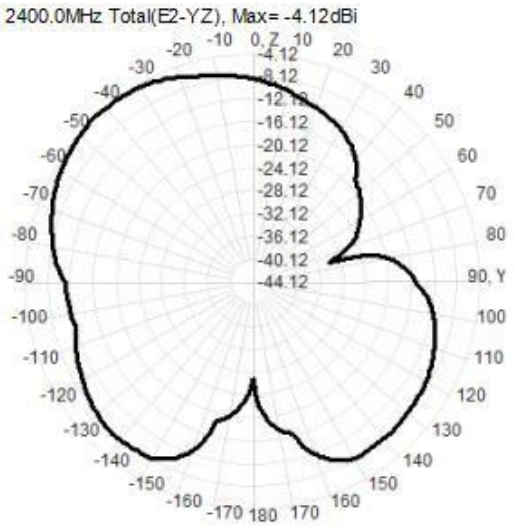
Frequency ID	1	2	3	4	5	6	7	8	9	10	11
Frequency (MHz)	2400.0	2410.0	2420.0	2430.0	2440.0	2450.0	2460.0	2470.0	2480.0	2490.0	2500.0
Efficiency (dBi)	-8.57	-7.95	-7.57	-7.04	-6.73	-6.35	-6.22	-6.08	-6.10	-6.21	-6.31
Gain (dBi)	-2.59	-1.85	-1.54	-1.20	-0.95	-0.84	-0.68	-0.58	-0.52	-0.75	-0.93
Efficiency (%)	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

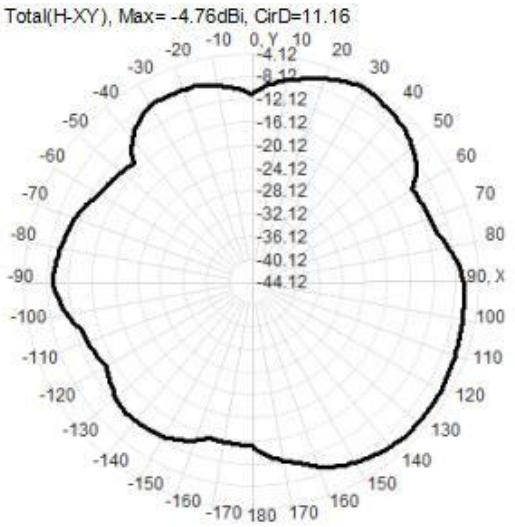
Test Result

2D&3D——BT- ANT



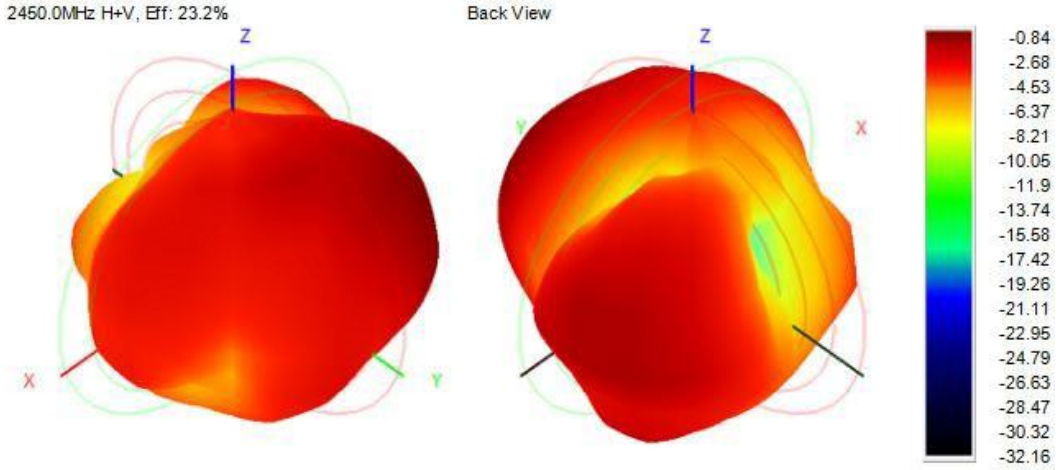


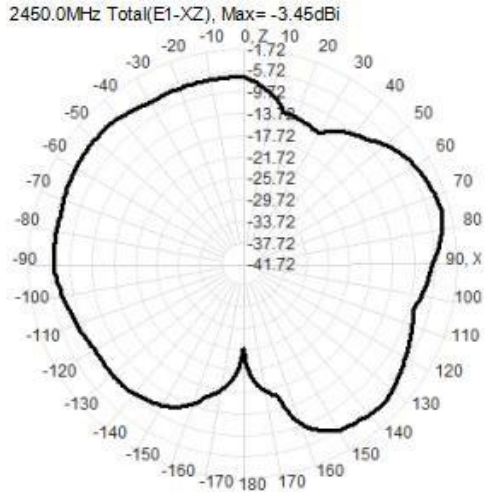


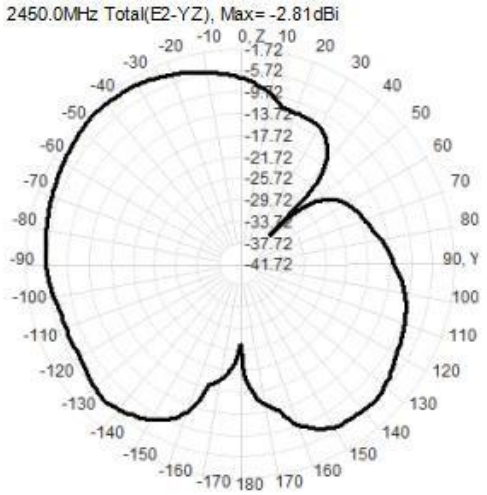


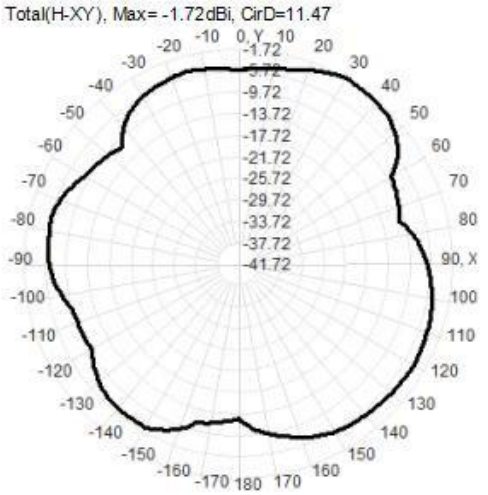
Test Result

2D&3D——BT- ANT









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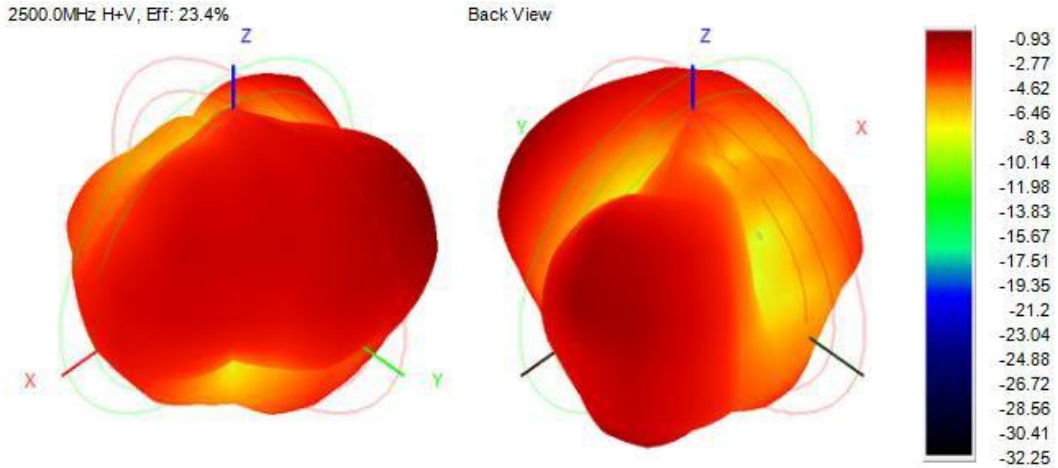
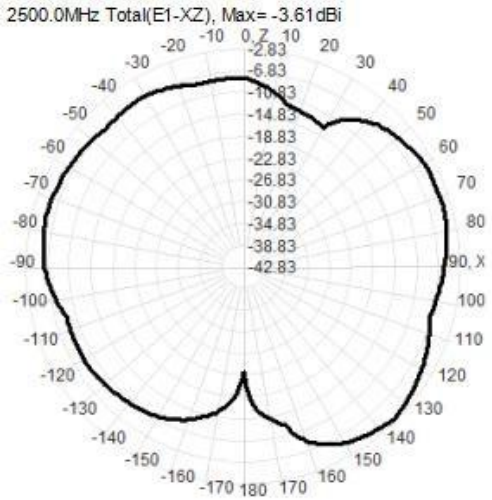
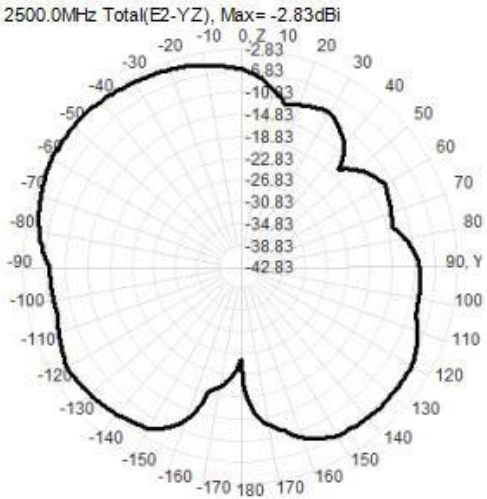
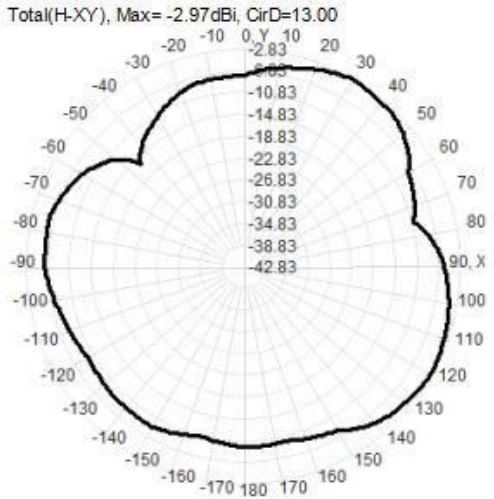
2D&3D——BT- ANT









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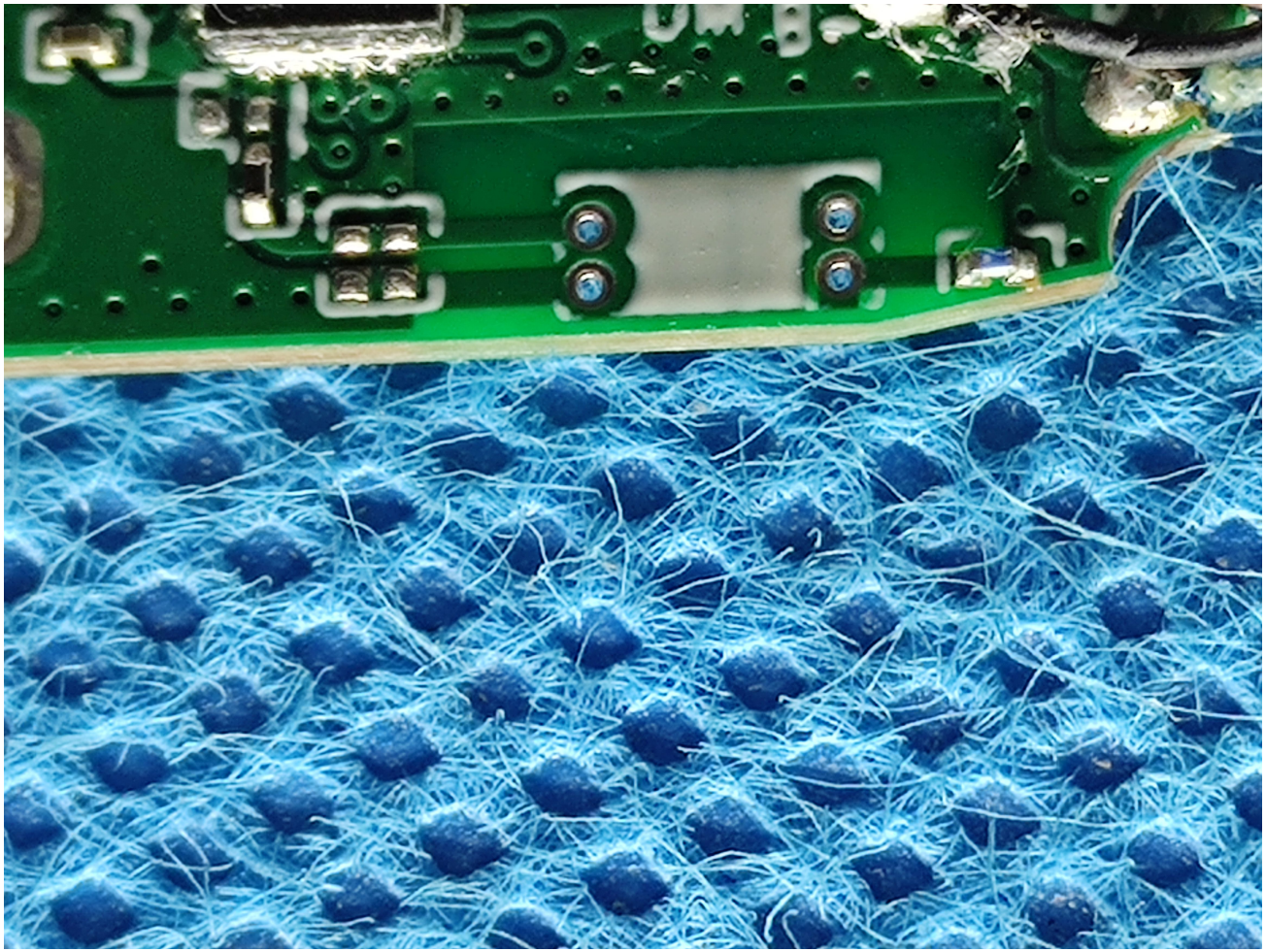
2D&3D——BT- ANT



Thanks for your comment!

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- RF: Hu Xuewen