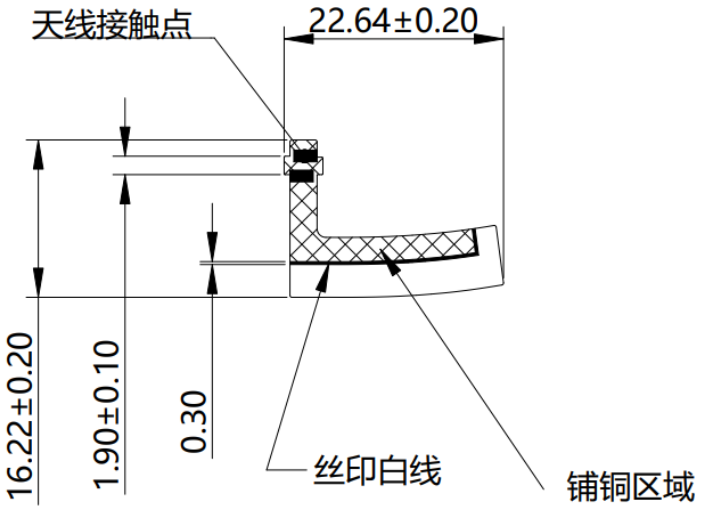
P&S Refresh Antenna Report

Applicant	Tonly Technology Co., Ltd.
Address	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guangdong Province, 516006 China

Manufacturer or Supplier	Tonly Technology Co., Ltd.
Address	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guangdong Province, 516006 China
Product	Charging Box
Brand Name	GN Jabra
Model	P&S Refresh
Max. Peak Gain	-1.84dBi
Date of tests	2024-2-19
Tested and Approved by Yuxiang Qin	

1. Antenna Overview



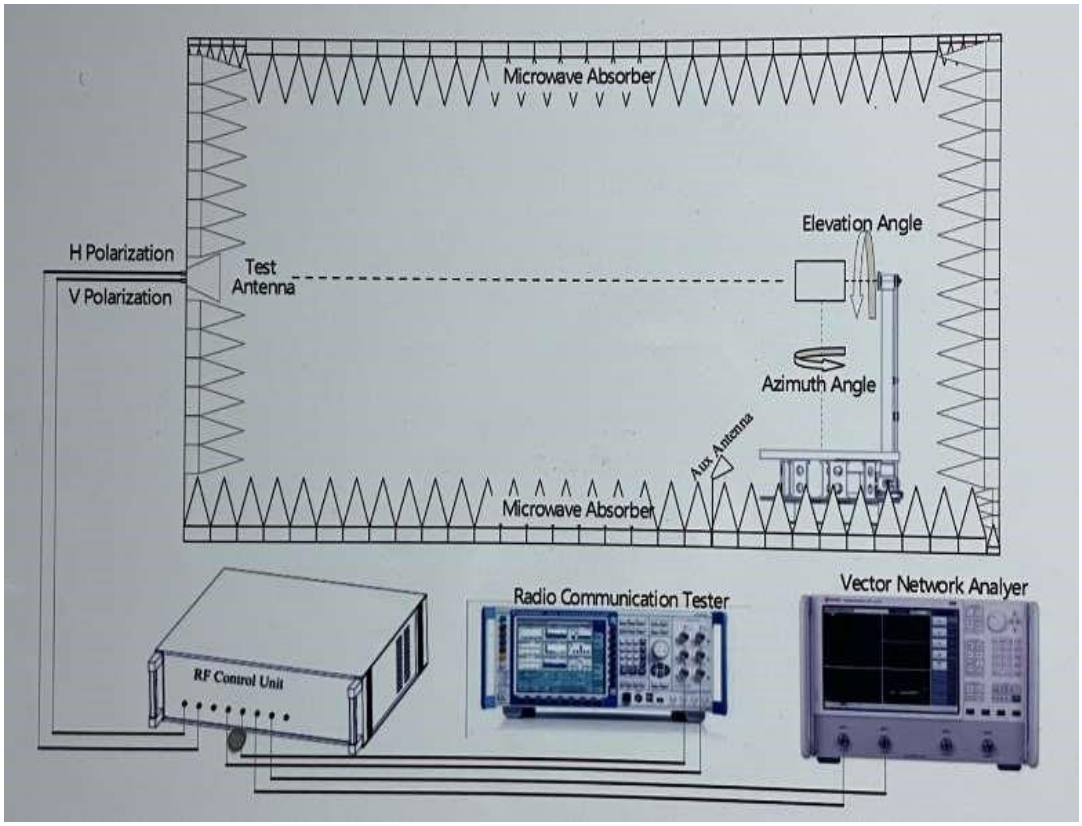
2. Test standard

Name	Parameter	Method	Standard no.
Antenna performance	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-1979

3. Equipment list

Equipment	Manufacturer	Model No	Serial No.	Last Cal.	Due Date
Network Aanlyzer	Agilent	E5071C	MY46630767	2023.4.27	2024.4.26
Microwave chamber	GTS	GTS Maxsign-Dart7000		2023.4.27	2024.4.26
Turn table	GTS	Dart-700 turn table		2023.7.27	2024.7.26
turn table controller	GTS	Dart-700 turn table controller		2023.7.27	2024.7.26
Broad-Band Horn Antenna	GTS	AT-6000	MA-D0460	2023.4.27	2024.4.26
Test Software	GTS	Libra Version-3.0.3.1		2022.8.23	2024.8.23

4. Test Configuration



Test step flow:

1) Maintain the test ambient temperature of 23±2 C, the instrument is powered on and preheated for more than 30 minutes;

2) Turn on the darkroom power supply, connect the test cable, and set up the sample according to the standard;

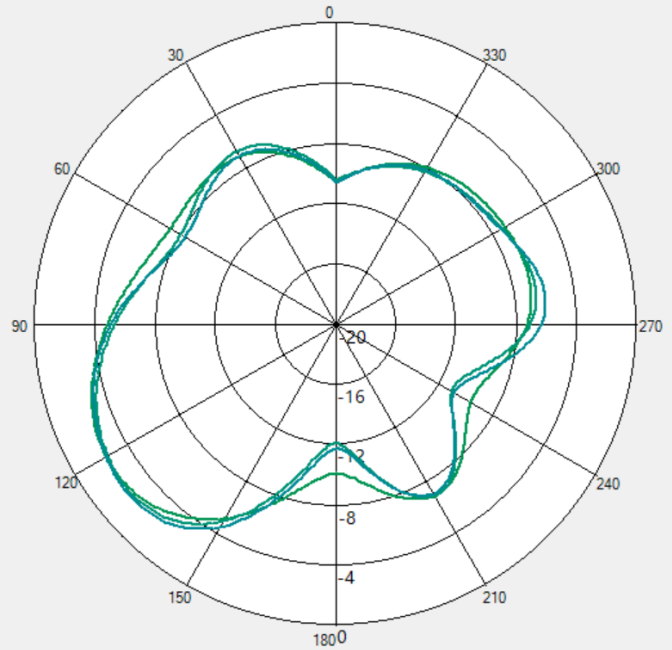
3) Outline sets the test content objectives and conducts calibration tests;

4) Run the software, when the test is completed, export the corresponding test diagram and test data, and save to the corresponding directory.

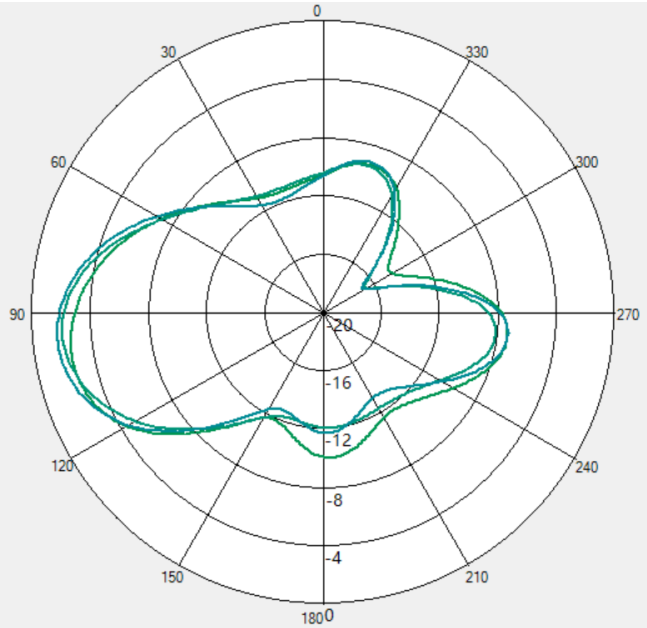
5. Antenna gain

Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)
2400	-2.352028600728	-6.636398789168	21.69502330971
2410	-2.634547901363	-6.840532622426	20.69887480472
2420	-2.453368122430	-6.698592649409	21.38655017896
2430	-2.177147215902	-6.698087000902	21.38904035721
2440	-2.129628618888	-6.866377954978	20.57605937693
2450	-2.121206956316	-7.071205883276	19.62815196307
2460	-2.121144277945	-6.978889825123	20.04984490458
2470	-1.984936782904	-6.767917019438	21.04787704408
2480	-1.849957968101	-6.728557397472	21.23949860464

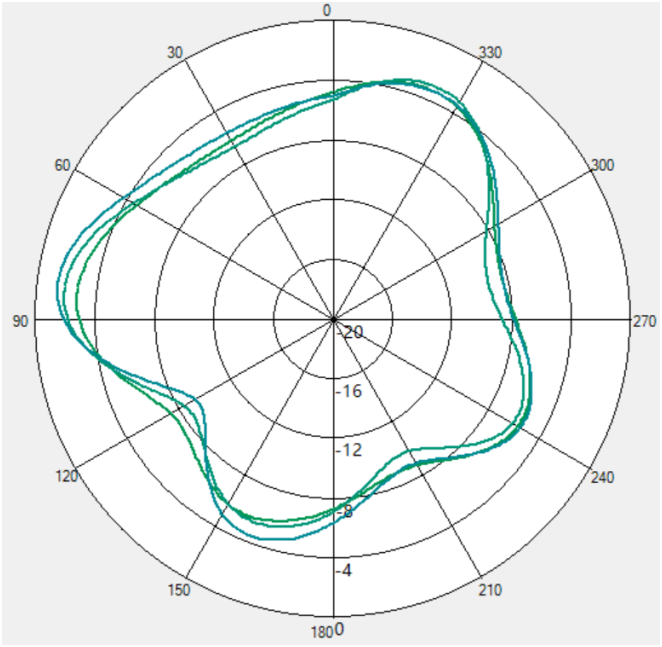
6. Antenna test data



Channel(MHz)	Max.(dB)	Ave.(dB)
2402	-2.35203	-6.57336
2441	-2.46514	-6.7182
2480	-2.36074	-6.61029



Channel(MHz)	Max.(dB)	Ave.(dB)
2402	-2.89104	-8.06849
2441	-2.12963	-8.1594
2480	-1.84996	-7.92935



Channel(MHz)	Max.(dB)	Ave.(dB)
2402	-2.89104	-5.65286
2441	-2.12963	-5.71337
2480	-1.84996	-5.2735