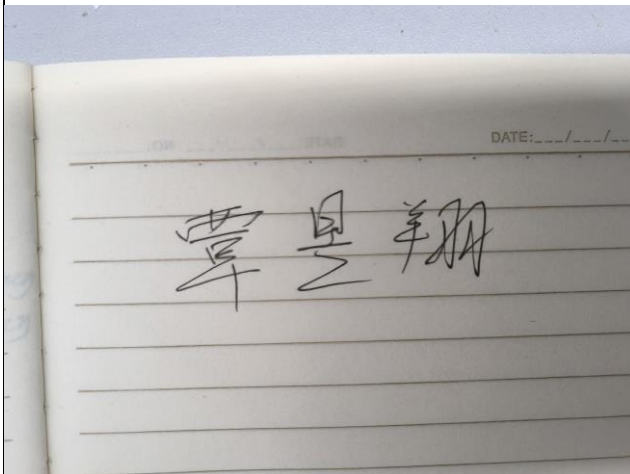


## JBL GO4 Antenna Report

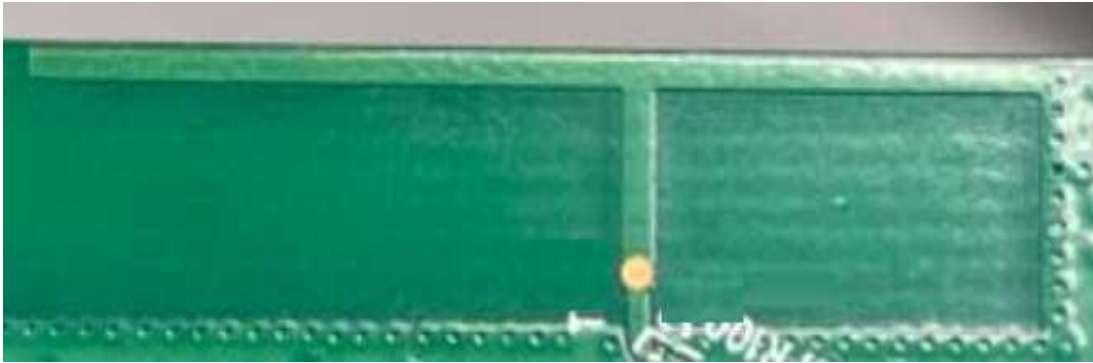
Applicant	Tonly Technology Co., Ltd.
Address	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guangdong Province, 516006 China

Manufacturer or Supplier	Tonly Technology Co., Ltd.
Address	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guangdong Province, 516006 China
Product	Wireless SPK
Brand Name	JBL
Model	GO4
Max. Peak Gain	2.10dBi
Date of tests	2023-6-25

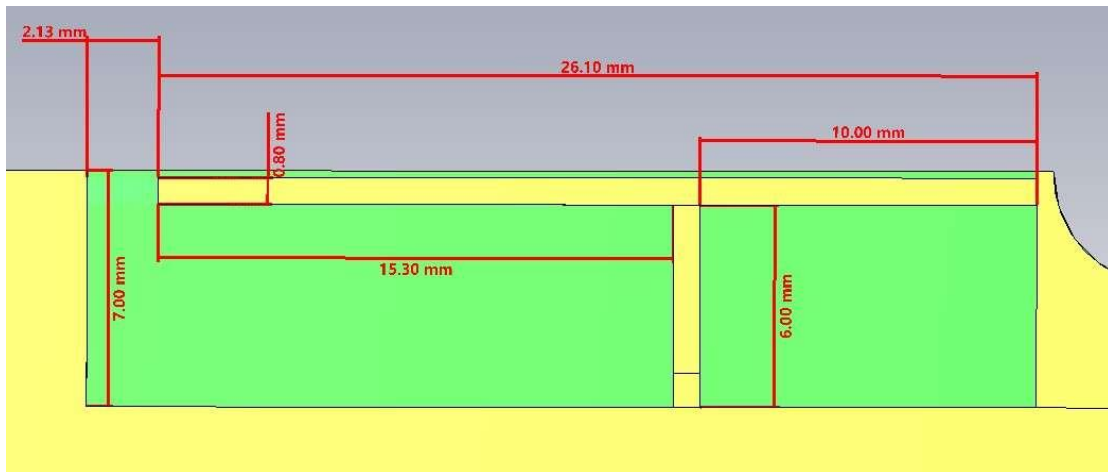
Tested and Approved by Yuxiang Qin



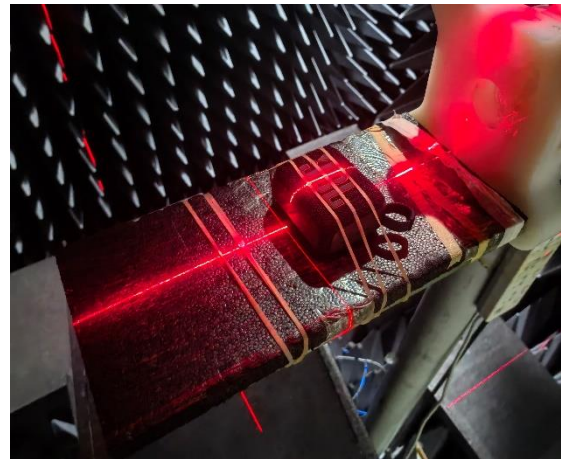
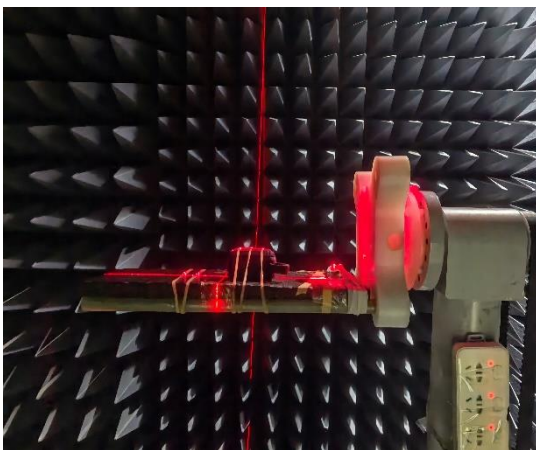
### 1. Antenna Overview



### 2. Antenna size



### 3. Test setup photo



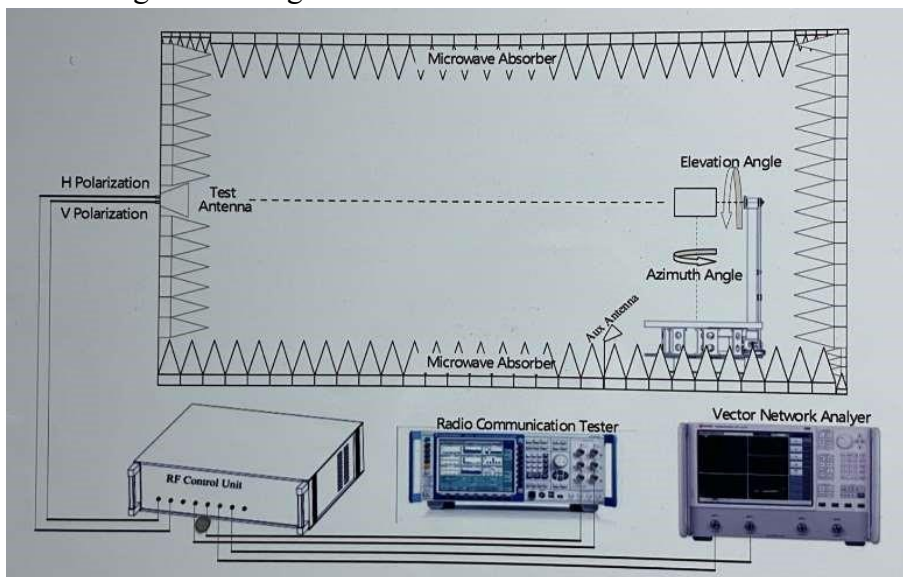
4. Test standard

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

5. Equipment list

Equipment	Manufacturer	Model No	Serial No.	Last Cal.	Due Date
Network Analyzer	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

6. Test configuration diagram



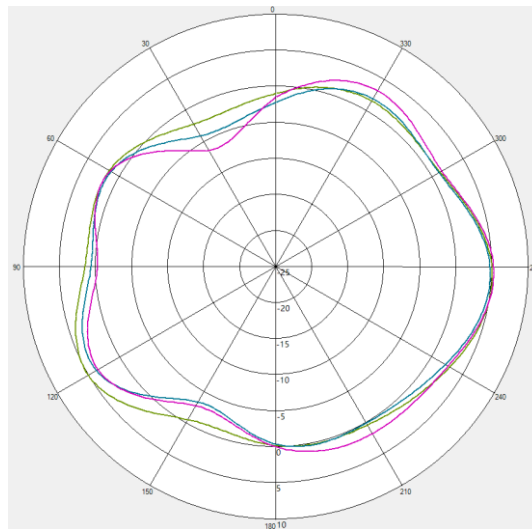
Test step flow:

- 1) Maintain the test ambient temperature of  $23 \pm 2$  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.

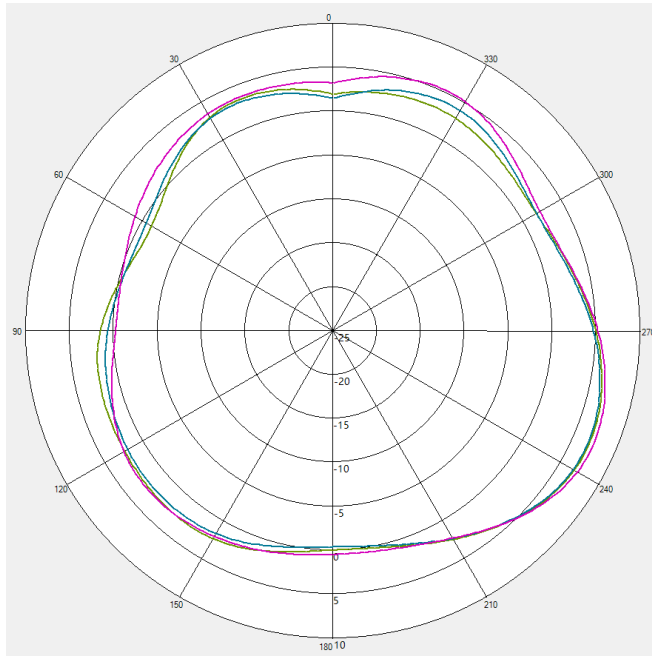
7. Antenna gain

Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)
2400	2.096783648	-2.632035731	54.55021002
2410	1.995935361	-2.70898892	53.59214108
2420	1.989190206	-2.891581265	51.38565225
2430	1.719190206	-3.070059217	49.31670795
2440	1.696373301	-2.941847174	50.79433543
2450	1.973293855	-2.641687558	54.42911141
2460	1.669268494	-2.615954839	54.75257088
2470	1.485375179	-2.769472125	52.8509487
2480	1.507098603	-2.80491539	52.42138138

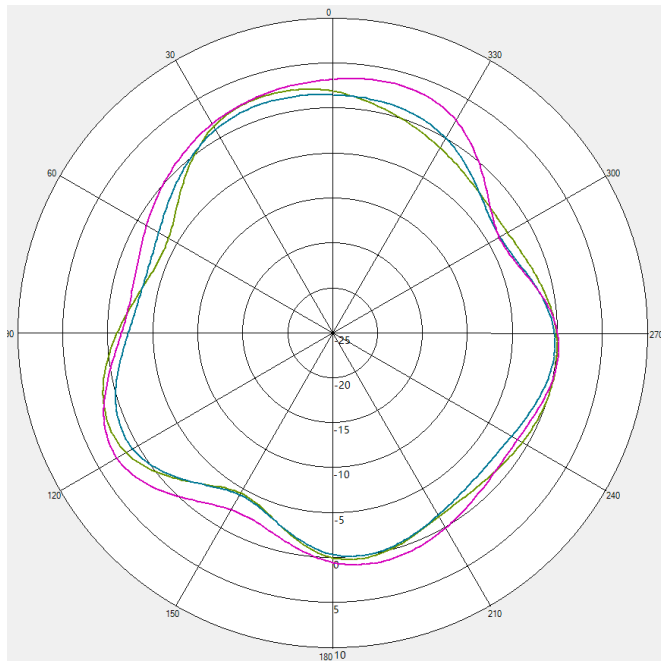
8. Antenna test data



Channel(MHz)	Max.(dB)	Ave.(dB)
2400	5.07331	1.822987
2440	4.678231	1.1696
2480	5.180368	1.564731



Channel(MHz)	Max.(dB)	Ave.(dB)
2400	7.14453	3.55112
2440	6.594228	2.850549
2480	7.14453	3.55112



Channel(MHz)	Max.(dB)	Ave.(dB)
2400	1.987225	-0.21478
2440	1.483922	-0.58327
2480	3.235209	0.848908