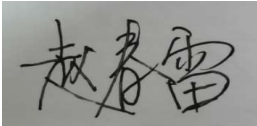
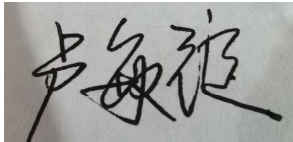
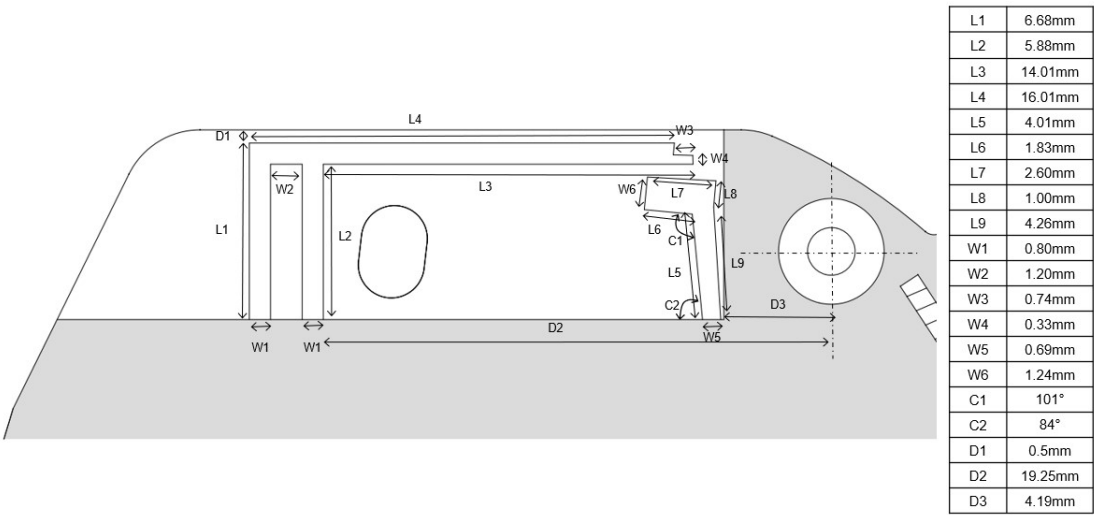
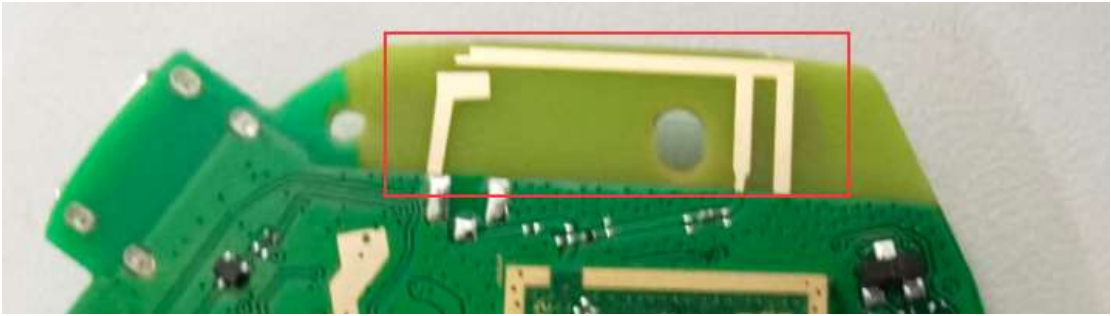


JBL TUNE670NC Antenna report

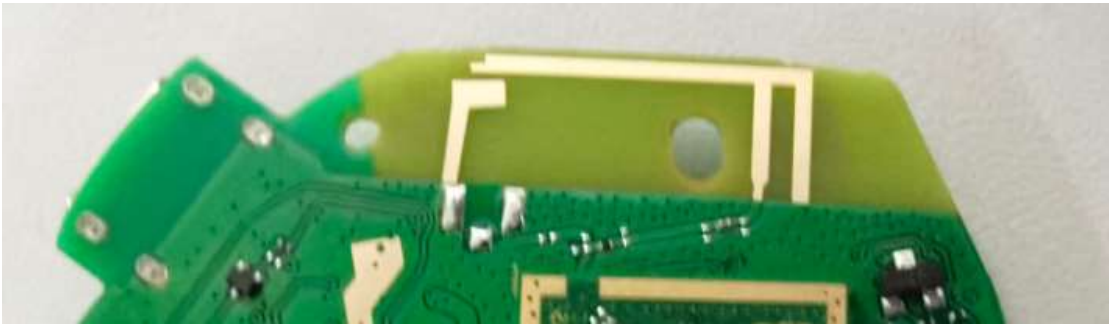
Applicant	Tonly Technology Co., Ltd.
Address	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guangdong Province, 516006 China

Manufacturer or Supplier	Tonly Technology Co., Ltd.
Address	Section 37, Zhongkai High-tech Development Zone, Huizhou City, Guangdong Province, 516006 China
Product	Bluetooth Headset
Brand Name	JBL
Model	TUNE670NC
Max. Peak Gain	2.88dBi
Date of tests	2022-12-13
Tested by chunlei zhao	Approved by Minding Lu
	

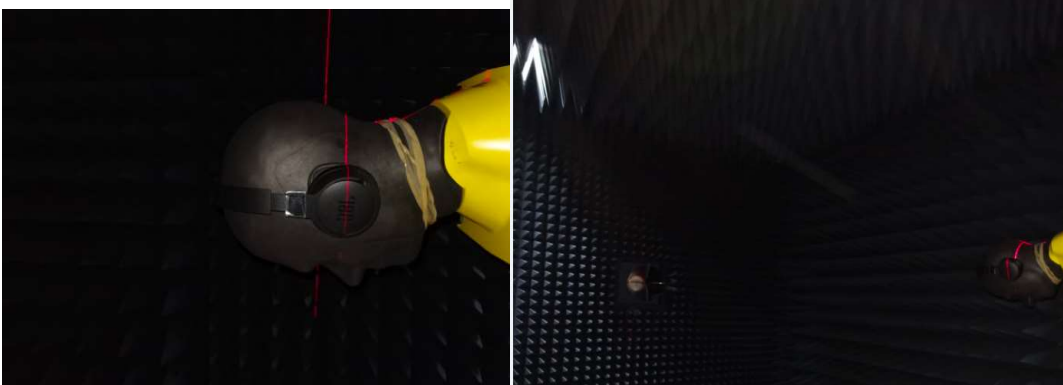
一、 Antenna Size



二、 Antenna photo



三、 Test setup photo



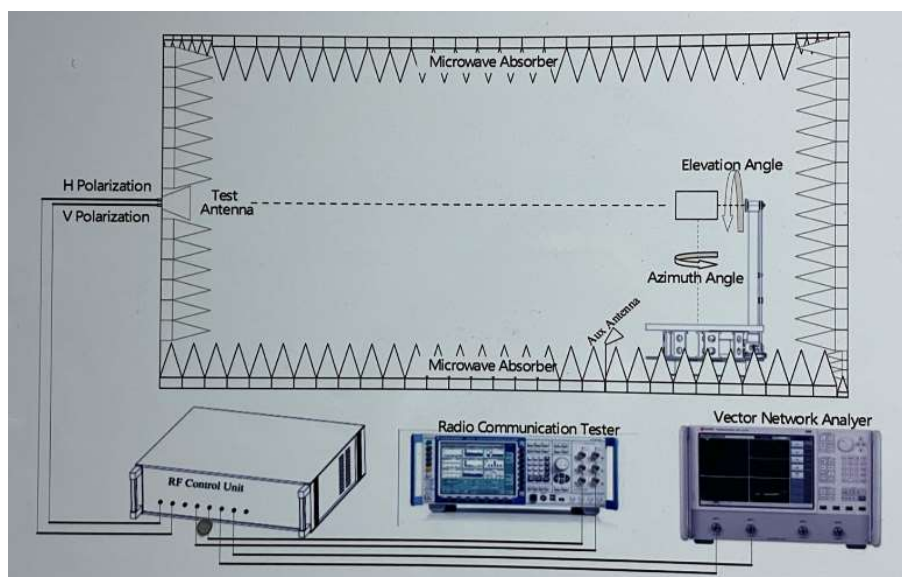
四、 Test standard

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

五、 Equipment list

Equipment	Manufacturer	Model No	Serial No.	Last Cal.	Due Date
Network Aanlyzer	Agilent	E5071C	MY46630767	2022. 4. 28	2023. 4. 27
Microwave chamber	GTS	GTS Maxsign-Dart7000		2022. 4. 28	2023. 4. 27
Turn table	GTS	Dart-700 turn table		2022. 4. 28	2023. 4. 27
turn table controller	GTS	Dart-700 turn table controller		2022. 4. 28	2023. 4. 27
Broad-Band Horn Antenna	GTS	AT-6000	MA-D0460	2022. 4. 28	2023. 4. 27
Test Software	GTS	Libra Version-3.0.3.1		2022. 4. 28	2023. 4. 27

六、 Test configuration diagram



Test step flow:

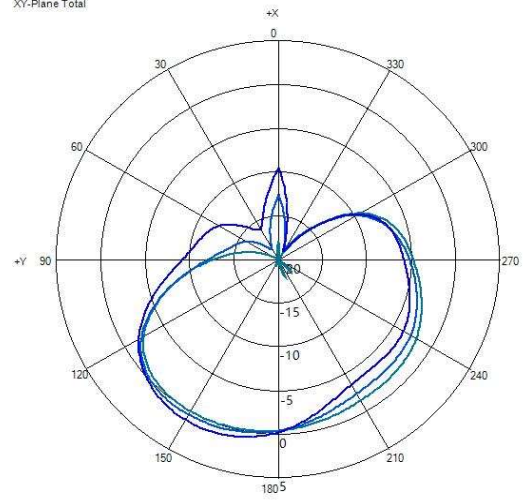
- 1) Maintain the test ambient temperature of 23 ± 2 C, the instrument is powered on and preheated for more than 30 minutes;
- 2) Turn on the darkroom power supply, connect the test cable, and set up the sample according to the standard;
- 3) Outline sets the test content objectives and conducts calibration tests;
- 4) Run the software, when the test is completed, export the corresponding test diagram and test data, and save to the corresponding directory.

七、 Antenna gain

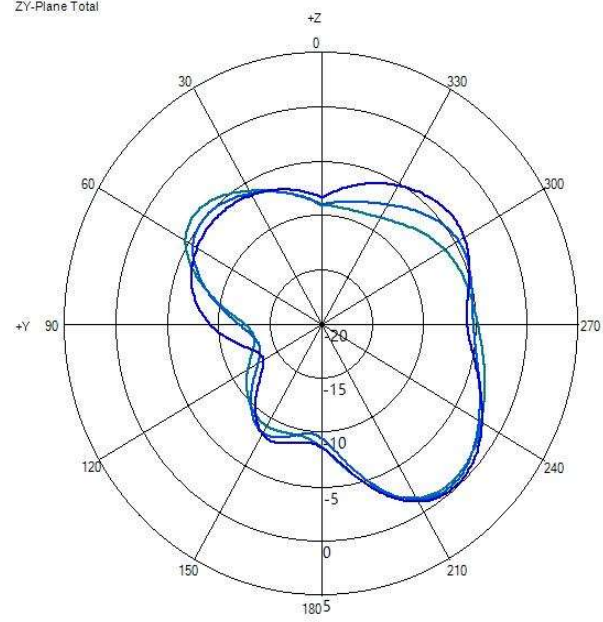
Freq(MHz)	Gain(dB)	Efficiency(dB)	Efficiency(%)
2400	1.62122437	-4.306055483	37.10175487
2410	1.655203652	-4.302965223	37.12816434
2420	1.772781939	-4.241181771	37.6601307
2430	1.871232437	-4.248002199	37.60103333
2440	2.045947527	-4.172961838	38.25637502
2450	2.260484161	-4.114909574	38.77118212
2460	2.442556099	-4.093697643	38.9610126
2470	2.786001063	-3.875734948	40.96627775
2480	2.876955471	-3.858913389	41.12526042
2490	2.751558478	-3.930006036	40.45753294
2500	2.576461954	-3.967340499	40.11122726

八、 Antenna test data

XY-Plane Total



ZY-Plane Total



ZX-Plane Total

