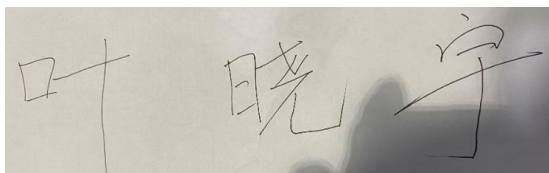
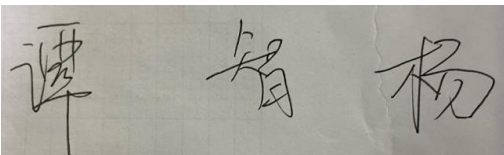
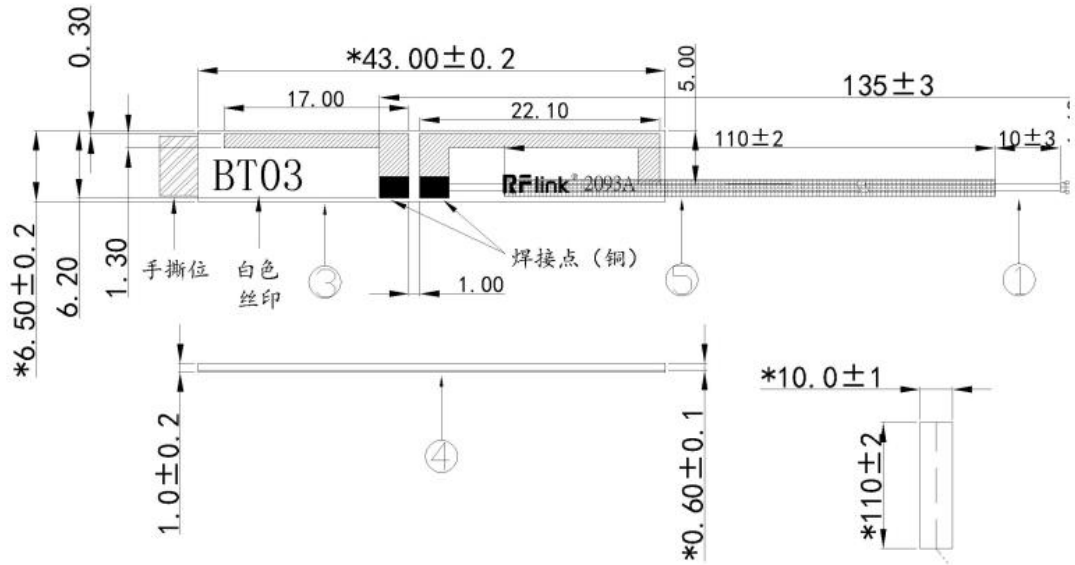


Sony BM82A Antenna report

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	IFA
Brand Name	sony
Model	BM82A ANT
Max. Peak Gain	4.11dBi
Date of tests	2023-1-16
Tested by Xiaoyu ye	Approved by zhiyang tan
	

1. Antenna Size (mm)



Exegesis: 手撕位 (Hand tear bit) 白色丝印 (White silk screen)
焊接点 (铜) (Welding points (copper))

2. Antenna photo (Please refer to Antena photos document)

3. Test setup photo (Please refer to Antena photos document)

4. Test standard

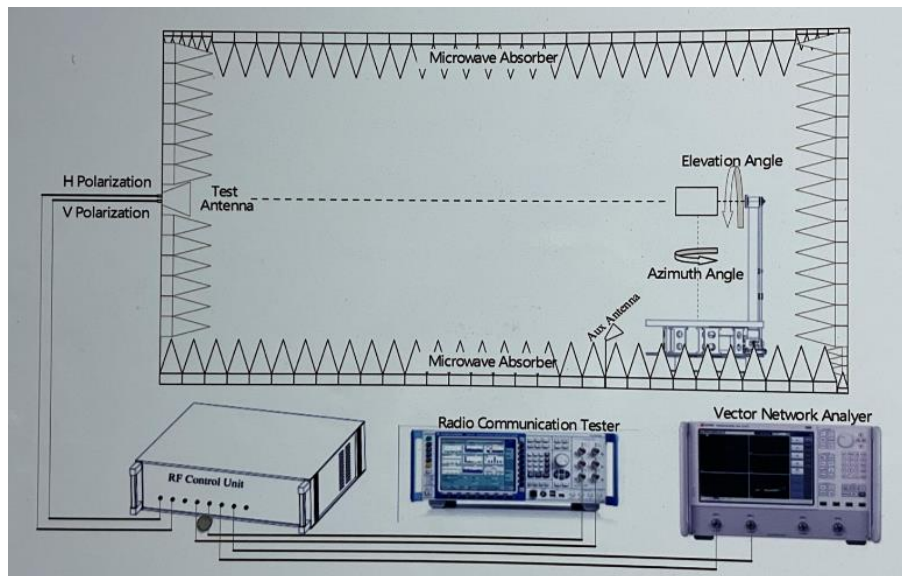
Name	Parameter	Method	Standard no.
Antenna performance	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149-1979

5. Equipment list

Equipment	Manufacturer	Model No	Serial No.	Last Cal.	Due Date
Network Analyzer	Agilent	E5071C	MY46630767	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

6. Test configuration diagram



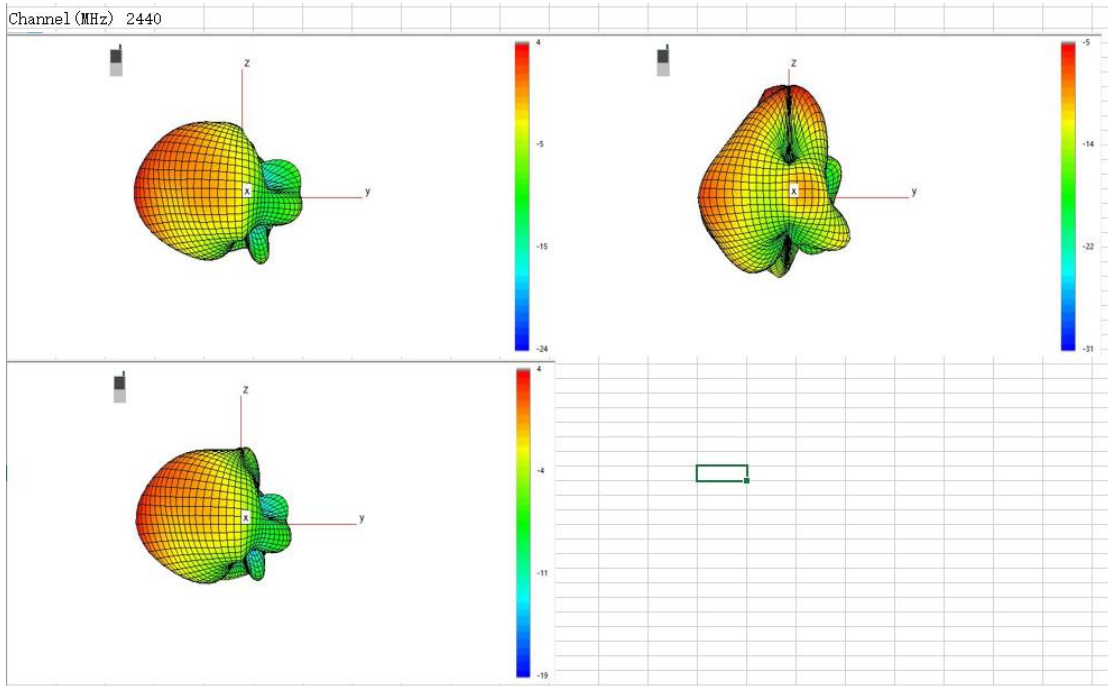
Test step flow:

- 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.

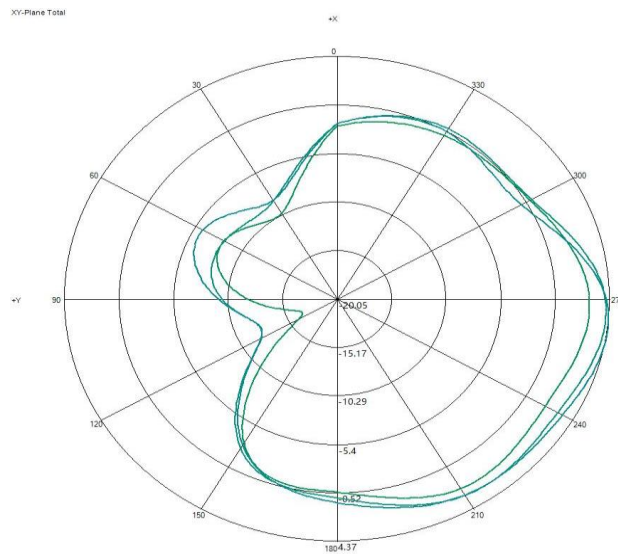
7. Antenna gain

Freq (MHz)	Gain (dB)	Efficiency (dB)	Efficiency (%)
2400	2.532477943	-3.606804072	43.58324803
2410	3.148034038	-3.319971851	46.55891112
2420	3.607639128	-3.104797523	48.92380739
2430	3.801828177	-3.042112409	49.63508376
2440	3.951907275	-3.014752809	49.94876092
2450	4.116267181	-2.966897368	50.50219601

2460	4.101907275	-2.963000406	50.54753241
2470	4.065719933	-3.021455224	49.87173504
2480	4.028693451	-3.117976974	48.7755643

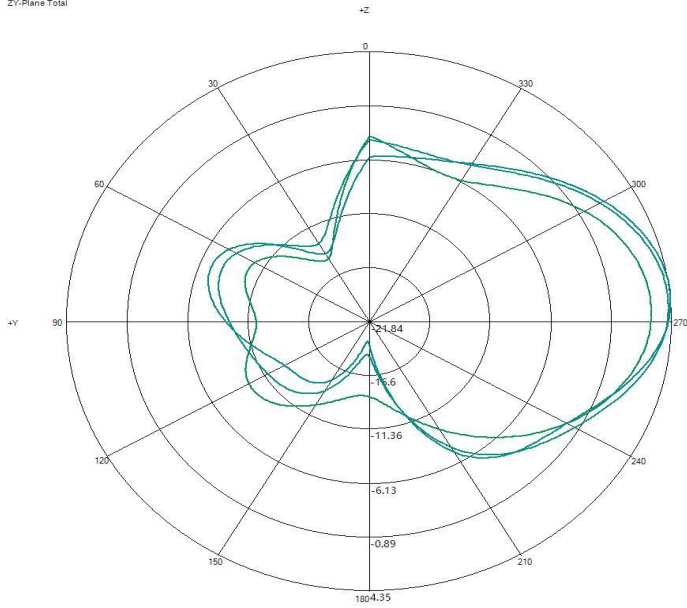


8. Antenna test data



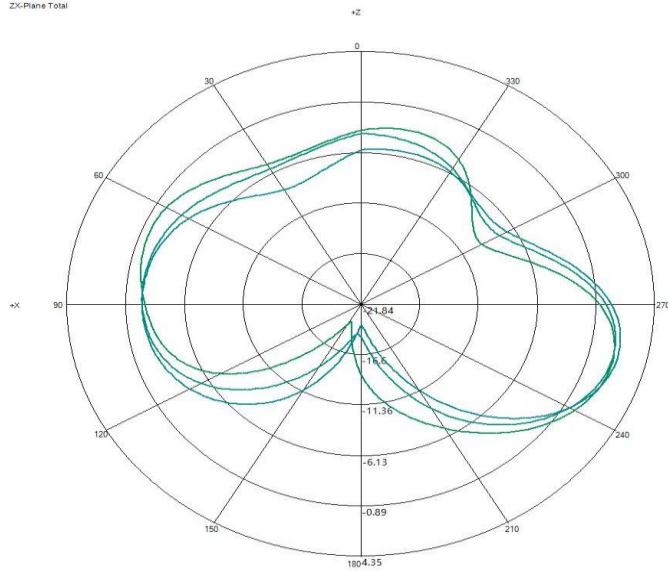
Channel (MHz)	Max. (dB)	Ave. (dB)
2400	2.532478	-1.36426
2440	3.951907	-0.4587
2480	4.028693	-0.39928

ZY-Plane Total



Channel (MHz)	Max. (dB)	Ave. (dB)
2400	2.532478	-3.90692
2440	3.951907	-2.82171
2480	4.028693	-2.94339

ZX-Plane Total



Channel (MHz)	Max. (dB)	Ave. (dB)
2400	0.835599387	-2.333799406
2440	0.933548964	-2.221957277
2480	0.857439468	-2.522495324