



SHENZHEN ATN COMMUNICATION TECHNOLOGY CO., LTD.
SPECIFICATION FOR APPROVL

CUSTOMER:	SiXing
CUSTOMER PRJ:	lmini-7006 (R)
OUR MODEL NO:	ATN79029 (R)
SPECIFICATIONS:	2. 4-2. 48GHz
Q' TY:	1 pcs
DATE:	2024. 10. 9

A T N			CUSTOMER		
make	examine	Approver	Structure	Electronics	Approver

Address: 504-505, XiaGu, Wonderful life creative valley, Xinan, Baoan, ShenZhen.
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Record			
Date	Content	version	notes
2024.10.9	Initial release	A0	

1、 Test Equipment&Conditions

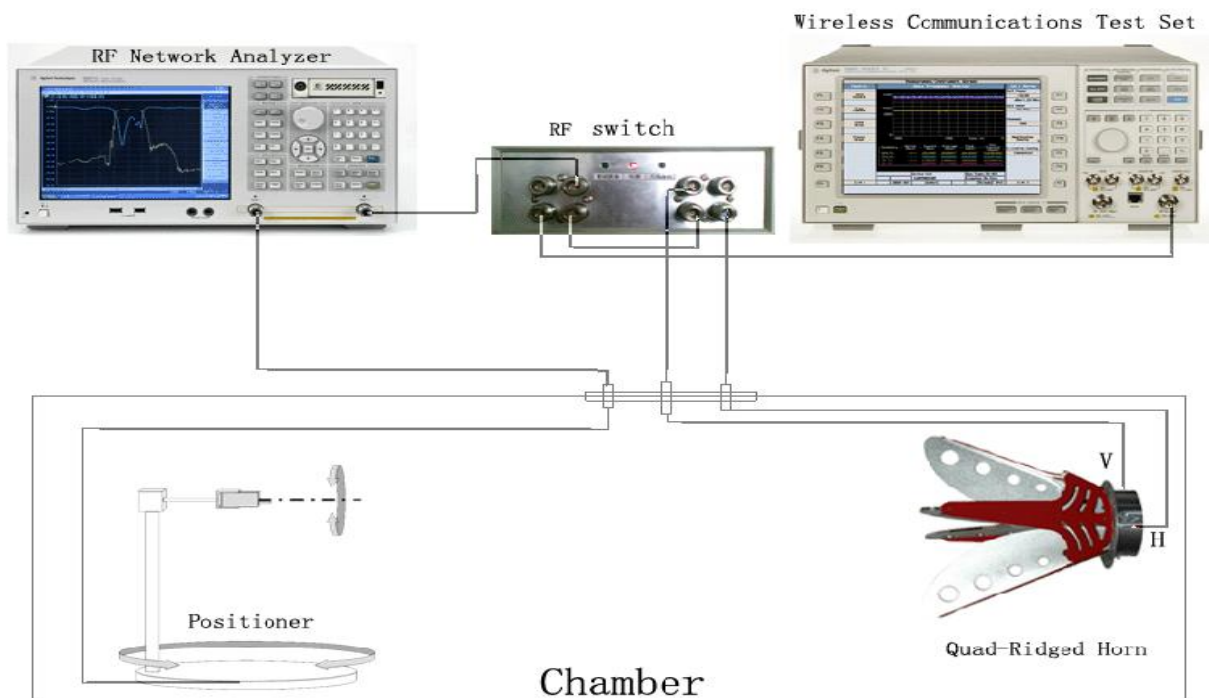
1.1 Network Analyzers

Agilent Technologies E5071B

1.2 Communications Test Set

CMW500

1.3 Test System



2、Product Specification

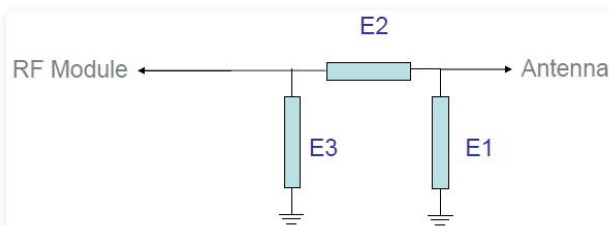
2.1、Material&Mechanical Characteristics

Material	FPC
Dimension	mm

2.2、Storage conditions

Storage Temperature	22℃±5℃
relative humidity	35-65%
Storage life	360 day

3、Matching circuit

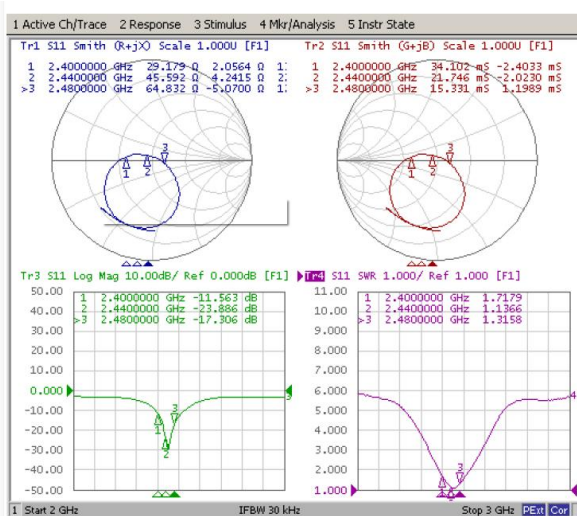


Element	Value
E1(0201)	NC
E2(0201)	1.5nH(LQP03TN1N5B02D)
E3(0201)	1.0pF(GRM0335C1H1R0BA01D)

L/R matching circuit is the same

4 、Test Data Report

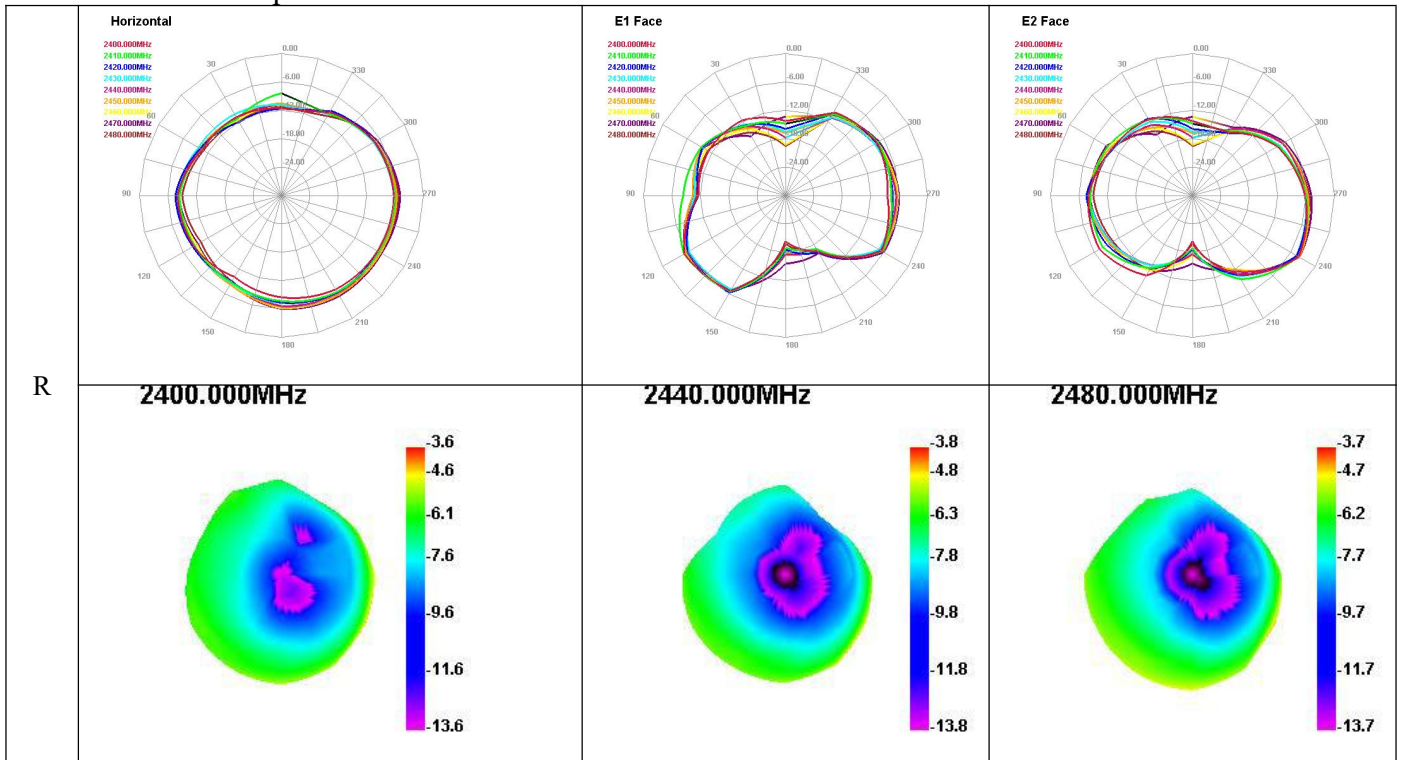
4.1 S11 Parameter



4.2 Gain & Efficiency

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	14.57	-8.37	-3.61
2410	15.03	-8.23	-3.66
2420	14.1	-8.51	-3.92
2430	13.51	-8.69	-4.07
2440	13.68	-8.64	-3.79
2450	14.94	-8.26	-3.17
2460	14.86	-8.28	-3.19
2470	15.5	-8.1	-3.14
2480	13.97	-8.55	-3.65

4.3 Radiation pattern



4.4 Test Data Report

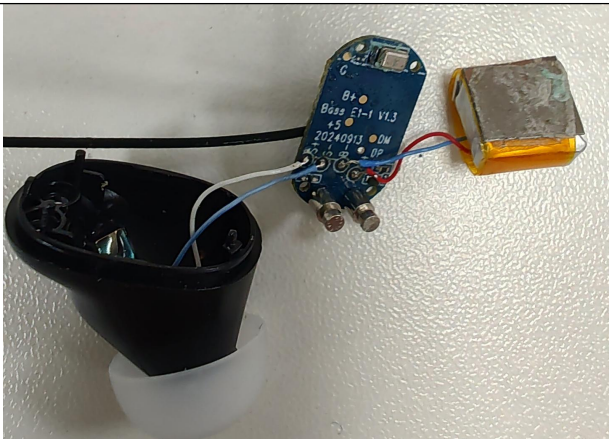
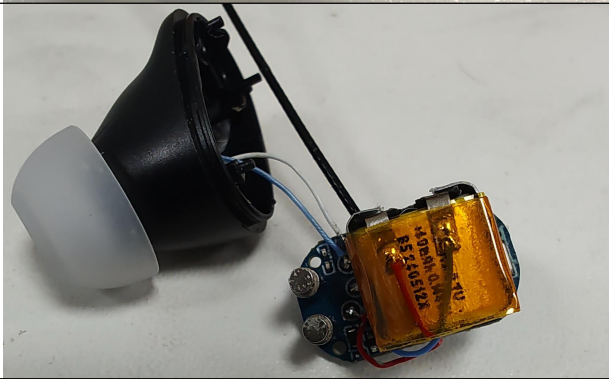
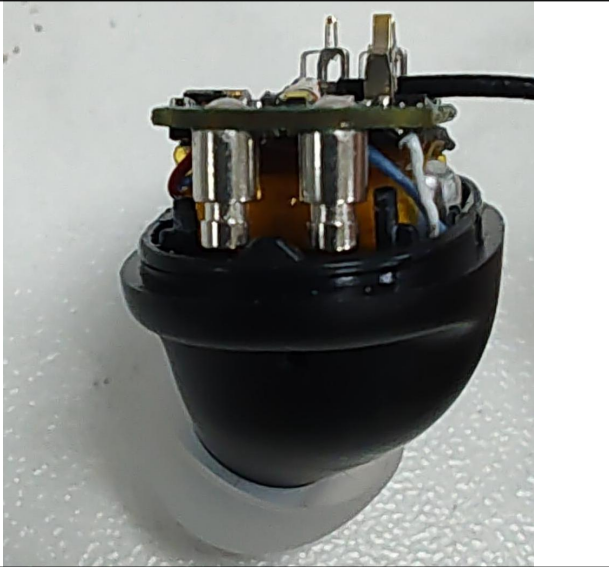
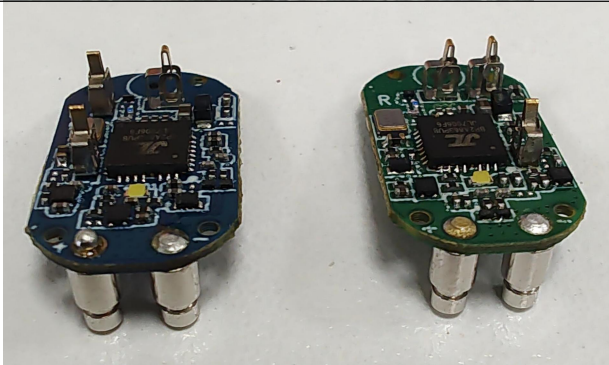
band	channel	TRP (dBm)	TIS (dBm)
Bluetooth BR (R) Head phantom	0	-3.1	-81.3
	39	-3.0	-81.4
	78	-3.6	-80.5

4.5 Distance of bluetooth

Test location: longchang Road,South gate of meishengchuanggu

Test phone	iphone6s
Listen to music omnidirectional (m)	25

5、Assembly requirements

1		The battery and the horn lines is 20mm long, and the absorbing material is attached to one side of the battery.
2		Battery placement is shown in the figure.
3		As shown: the speaker lines is placed on this side of the speaker pad.
4		The direction of shrapnel patch is shown in the figure above.

6、Product Drawing

	1	2	3	4	5	6	7	8	9	10	11	12
A	E:\ATN\											
B												
C												
D												
E												
F												
G												
H												

TOP

BOTTOM

NOTES:

- Complies with RoHS2.0 environmental requirements.
- Unmarked tolerance dimensions, refer to general tolerances.

SHENZHEN ATN COMMUNICATION TECHNOLOGY CO., LTD.			
DIM	TOL	PRJ	NAME
X.	±0.5	ATN79029	Date 2024.09.27
.X	±0.25	Mat. Electrolytic Copper	P/N. R:79029-0-Z-A0
.XX	±0.2	Adhesive 3M	Gilding IU
.XXX	±0.05	Clr. black	mold Steel Mold
ANGULAR	±0.5°	Scale 1:1	Unit mm

DESIGN DRAWN	DATE
Zxz Lz1	2024.09.27
Lz1	
Lz1	
Lz1	
Lz1	

Rev	DESCRIPTION
A0	Initial release (V7)
A1	
A2	
A3	

Rev.	Design	Drawn	Approved	Rev.
	Zxz	Lz1	Zxf	A0



7、 Size test report

Dimension test report

project: ATN79029			Product Name: ant-R					
category: FPC			Quantity: 5 PCS			Date: 2024.10.09		
Inspection basis and standard			☒ Engineering drawings ☐ Standard template ☐ Other _____					
Measurement equipment & accuracy			Vernier caliper & 0.02mm					
Inspection items			test value					determine
			1	2	3	4	5	
Dimensional inspection	1	14.19±0.15	14.26	14.24	14.24	14.28	14.22	OK
	2	8.81±0.15	8.86	8.82	8.84	8.84	8.88	OK
	3	0.13±0.03	0.12	0.12	0.12	0.12	0.12	OK
	4	/						
	5							
	6							
	7							
	8							

8、Salt spray test report

project	ATN79029	SPECIFICATIONS	FPC
Test information	Number of tests: 5 PCS		
	base material: Electrolytic Copper	Gold plating: 1U"	
Test conditions	salt solution: 5%	PH:7.0	
	Box temperature: 35°C	relative humidity: 5%	
	spray mode: ☒ continuous ☐ intermittence	Compressed air pressure: 1kg/cm²	
	rate of salt spray precipitation:	Mist collection: PH7.0nac	
	Test cycle: __1__cycle	Spray time: 24 h	
test result	Appearance after test: the appearance is intact without obvious change		
	Coating: no peeling and corrosion		
	Surface spraying and silk screen printing: no falling off and bubble		
Test judgment	OK		
notes: 1. The operation standard of salt spray test shall be in accordance with the national standard of the people's Republic of China GB / t2423 17-2008 implementation 2. The judgment standard of test piece results shall be in accordance with the national standard of the people's Republic of China GB / t6461-02			

9、Manner of packing

SHENZHEN ATN COMMUNICATION EQUIPMENT CO.LTD

Product packaging

edition: : A0

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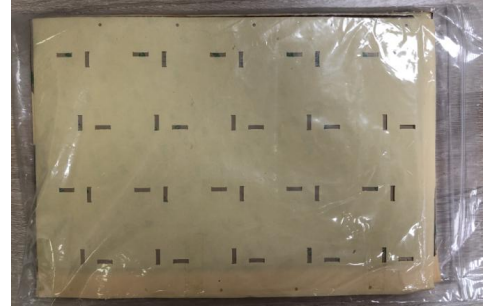
1.

Barrier paper protection products



2.

Sealing bag packaging effect



3. Carton sealing effect

