



SHENZHEN ATN COMMUNICATION TECHNOLOGY CO.,LTD.

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

CUSTOMER: Dongguan Jiahe Electronic Technology Co., Ltd.

CUSTOMER PRJ CA-7580B

CUSTOMER P/N: 300199900208C00

OUR MODEL NO: ATN66005

SPECIFICATIONS: 13.56MHz ,NFC coil

Q'TY: 1 PCS

DATE: 2025.05.12

A T N			CUSTOMER		
make	examine	Approver	Structure	Electronics	Approver

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change record

Date	Version	VersionContent	Notes
2025.05.07	A0	Initial release	
2025.05.12	A1	Add: 8 Reliability test	

1、 Test Equipment&Conditions

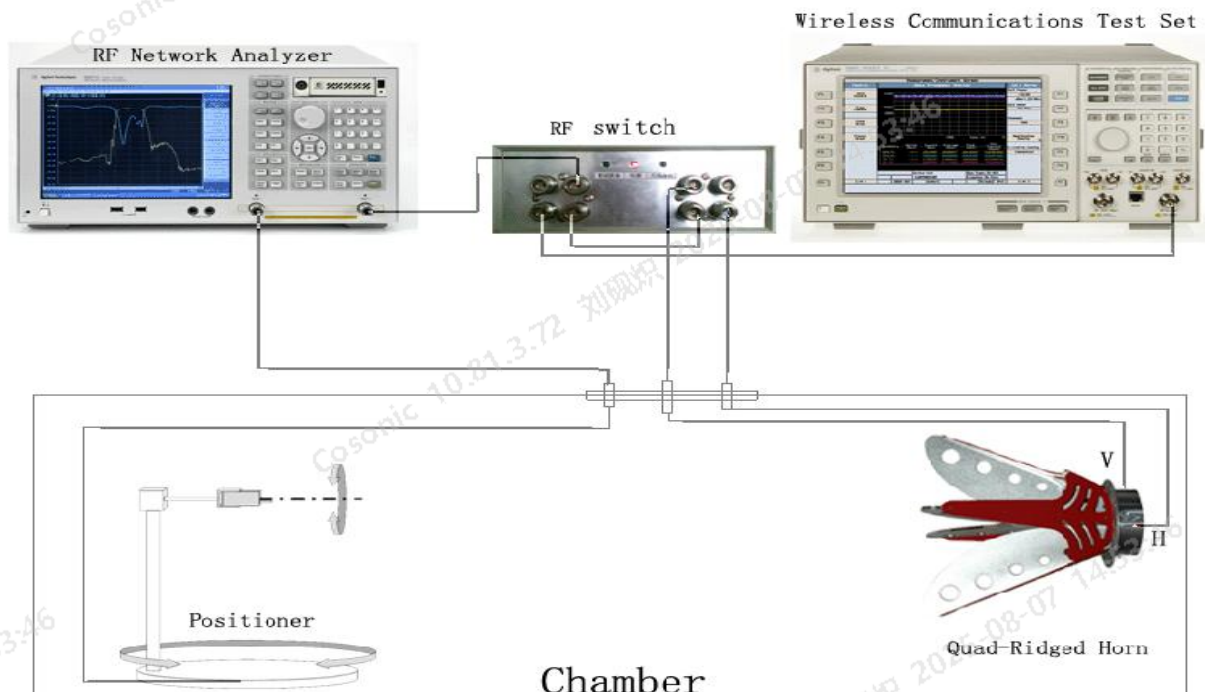
1.1 Network Analyzers

Agilent Technologies E5071B

1.2 Communications Test Set

CMW500

1.3 3D Chanber Test System



2、Product Specification

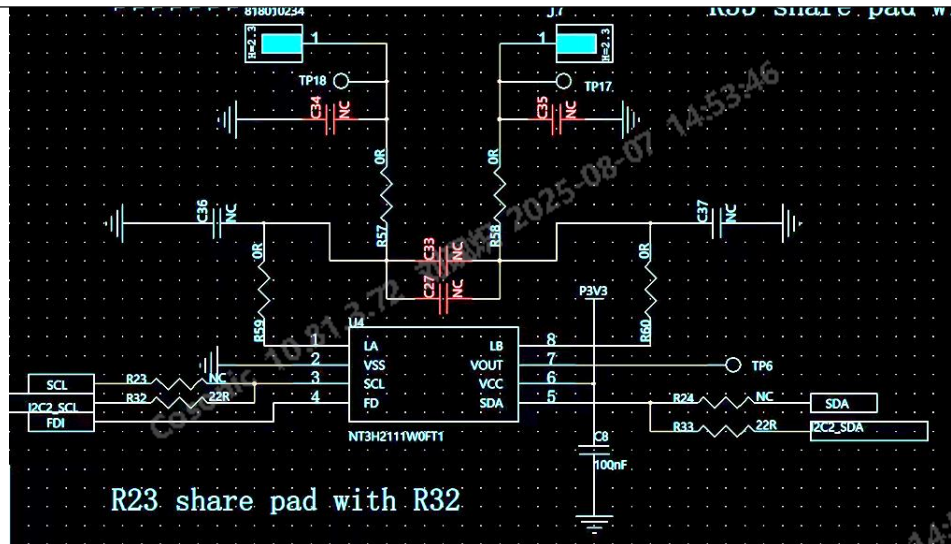
2.1、Material&Mechanical Characteristics

Material	FPC+Absorbent material
Antenna type	NFC coil

2.2、Storage conditions

Storage Temperature	22°C±5°C
relative humidity	35-65%
Storage life	360 Day

3、Matching

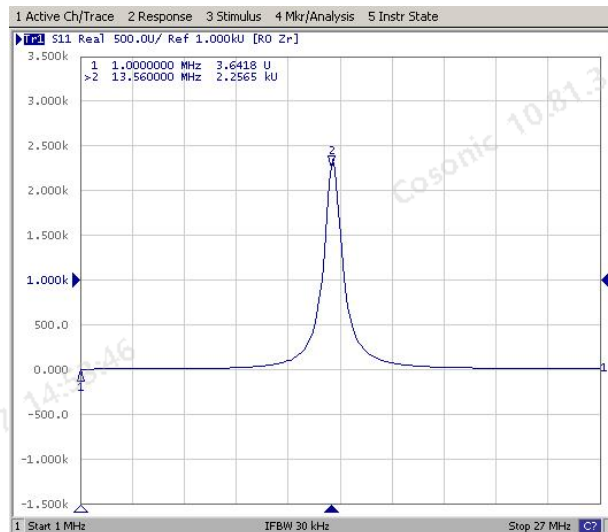


Parameter

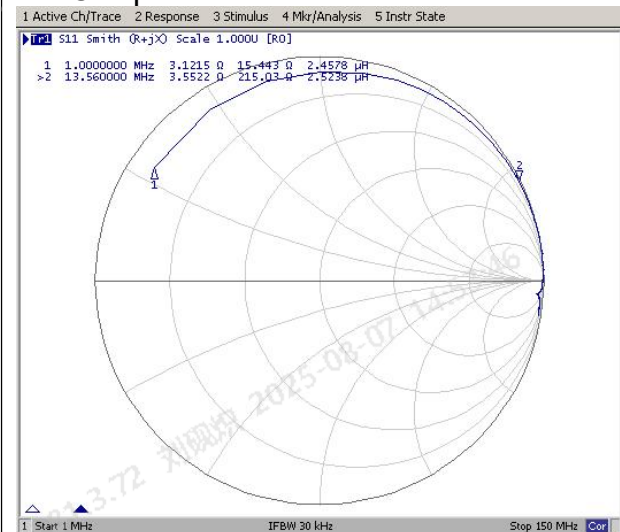
R57=R58=R59=R60=0R
C34=C35=C36=C37=NC
C27=13pF
C33=NC

4、Test Data Report

4.1 S11 Parameter



4.2 Coil parameters



Inductance	2.5μH@13.56MHz
Loss resistance	3.5Ω@13.56MHz



4.3 Measured data

Test mobile	Iphone15	Moto S30
sense distance (CM)	1.2	2.8

5、Assembly requirements

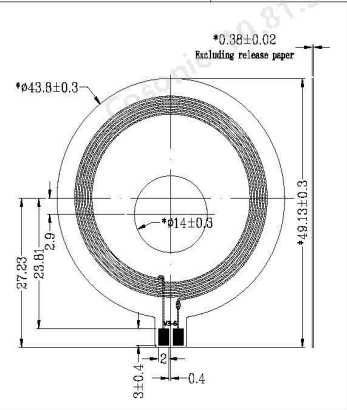
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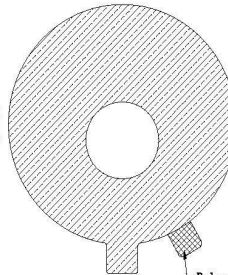
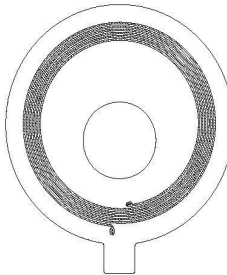
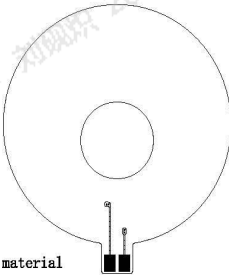
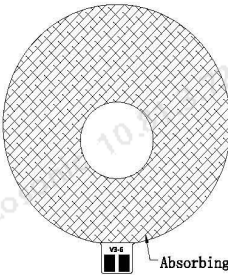
Assembly position

6、Product Drawing

E:\ATN



Rev.	DESCRIPTION	DESIGN	DRAWN	DATE
A0	Initial release	Zxz	Lzl	2024.10.10
A1				
A2	Modify the position of the release paper(V3)	Zxz	Lzl	2025.04.18
A3				
A4				



Top layer absorbing material and silk screen printing

Top level circuit and feeding position

Bottom line

Bottom double-sided tape

Notes:

1. FPC: Black, Character white.
2. Absorbing material: grey.
3. Double-sided tape: tesa.
4. Environment protection : RoHS2.0, HF、Reach.
5. The product meets the requirements of 24-hour salt spray testing and -40~80 ℃ high and low temperature testing.
6. The surface of the product has no defects such as pressure, scratches, stains, etc.

□ GTO

■ GTS

▨ GTL

▨ GBL

■ GBS

□ GKO

● DRILL

▨ tape

▨ Release Paper

sky

0~10 ±0.10

10~30 ±0.15

30~50 ±0.20

50~ ±0.25

ANGULAR ±1°

PRJ 7580

PN NFC Coil

P/N /

MATERIAL FPC+Absorbing material

Scale 1:1

Date 2025.04.18

Drawn LZL

Design Zxz

Approved ZXF

Unit mm

Size 1/1

Rev. A5

Page 5

Version: A1

ATN-PAS-QD-0157



7、Dimensional Inspection Report

project: 7580			Product Name: NFC coil					
category: FPC+Absorbent material			Quantity: 5 pcs				Date: 2025.05.07	
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.	$\phi 43.8 \pm 0.3$	44.02	44.04	44.00	43.96	43.94	ok
	2.	3 ± 0.4	2.76	2.84	3.00	2.88	2.94	ok
	3.	14 ± 0.3	14.20	14.18	14.12	14.14	14.10	ok
	4.	49.13 ± 0.3	49.36	49.30	49.36	49.38	49.34	ok
	5.	0.38 ± 0.02	0.38	0.38	0.38	0.38	0.38	ok
	6.	/						
	7.							
	8.							
	9.							
	10.							
	11.							



8、Reliability test

project:		7580		Product Name:	NFC coil	
Quantity for testing		The quantity used for each test item: 5 pcs				
No.	Test project	Testing instrument	Test method	Judgment criteria	experimental result	notes
1	Salt spray test	Salt spray testing machine	1.test environment: : 35℃; Saturated air tank temperature: 47℃; pressure:1kg/cm²; 2.Place the tested product into a salt spray testing machine containing 5% ± 1 NACL solution, Product placement at a 30 degree angle, Test for 24 hours。 3.After the experiment is completed, Remove the product, Clean and air dry for inspection。	The product coating has no delamination, peeling, or rusting, The surface spraying has no peeling off, judged as OK。	OK	
2	High and low temperature testing	Constant temperature and humidity testing machine	1. Place the product in an environment with a temperature of 80+/-2 ℃ and store it for 24 hours。 2. After being placed in a room temperature environment for 1 hour and cooled down, Store in a low-temperature environment with a temperature of -40+/-2 ℃ for 24 hours。 3. After the experiment is completed, place it in a room temperature environment for 2 hours for inspection。	The product has no cracks, deformations, or detachment, Electrical performance test passed, Judged as OK。	OK	
notes:						



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9、Packaging Information

SHENZHEN ATN COMMUNICATION EQUIPMENT CO.LTD

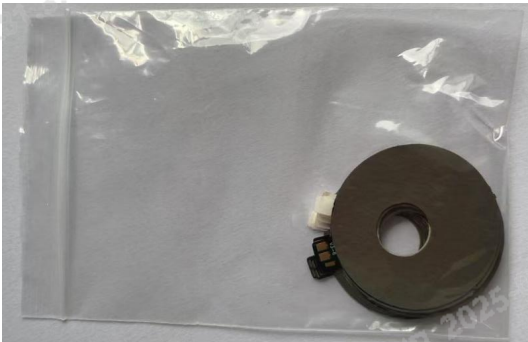
Product packaging

Version: : A0

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1.Put it in a small PE sealed bag.(50~100pcs)

2.Put the small PE bag into the large PE bag.



Put it in a cardboard box for packaging

