

# SPECIFICATION

Shenzhen Strongpower Communication Co., Ltd

**Shenzhen Strongpower Communication Co.,Ltd.**

## KP100-NFC Antenna

Guest	ATEL	Frequency	NFC:13.56MHz
Name	KP100		
ID	RQ03B140753B-NFC	Colour	Black
RF Design	宋旭辉	Structure	周 俊
Technical director	傅以成	Date	2024.08.16

Customer confirmation:

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## 一、NFC Antenna

### 1. Specification

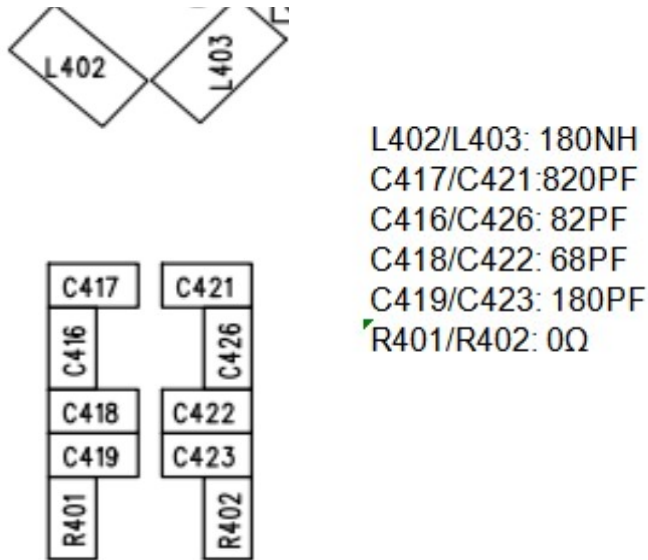
This report mainly provides the test status of various electrical and structural performance parameters of KP100 NFC antenna.

#### 1.1 Electrical specification standard

##### 1.1.1 Electrical performance index

Antenna operating band: 13.56MHz. The following table is an indicator of the electrical performance of Ruiqiang designed and mass-produced antennas

##### 1.1.2 Match the circuit diagram..



#### 1.2 Antenna composition: Black FPC composition.

## 2. The Equipment of Active Test (Test environment)

Multi-Probe OTA Measurement System 4×4×4( m )

CMW500 E5071B

network analyzer-R&S ZVL

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### 3. Test

#### 3.1 Passive (Smith) Test

**3.1.1 Test connection:** The VSWR test device is connected as follows: R&S ZVL network analyzer → test line → test machine  
Actual measurement (see next page for drawings)



#### 3.2 Active (swipe distance) Test



Frequency point of whole machine	Test card	Card swiping distance (10MM)
13.56	Tag4-A	28MM
	14443-4A	

### 4. Conclusion

This antenna is designed on the basis of the prototype provided by the customer, the electrical parameters and structural performance have reached the technical requirements, please confirm!

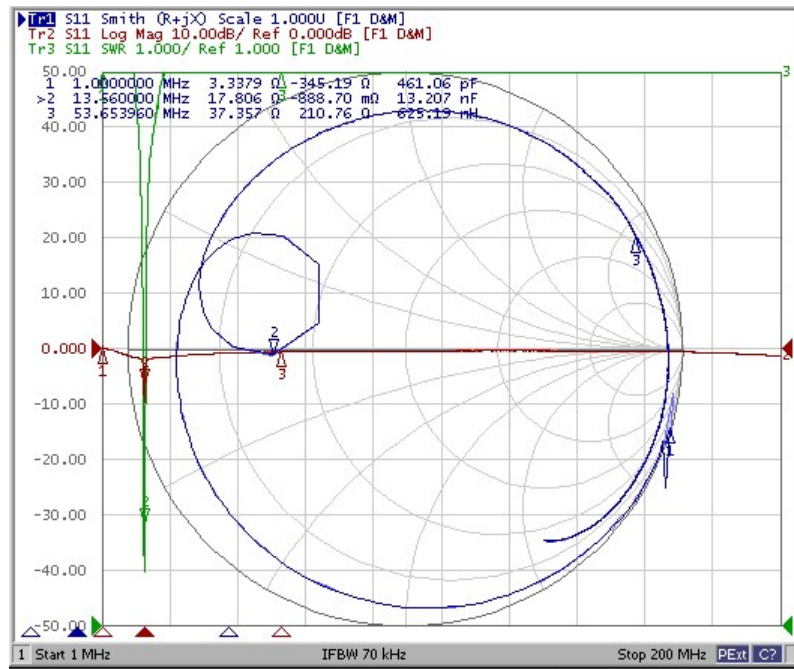
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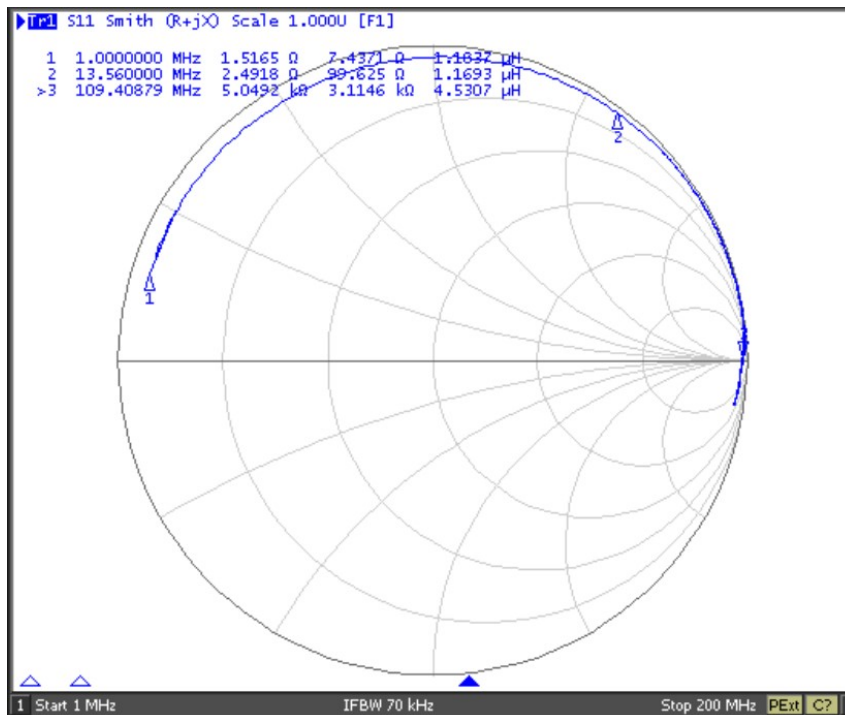
## 5. Attached chart

(Return loss, Smith chart and VSWR parameter chart)

NFC antenna debugging status



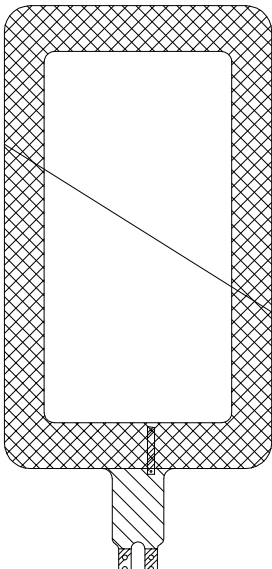
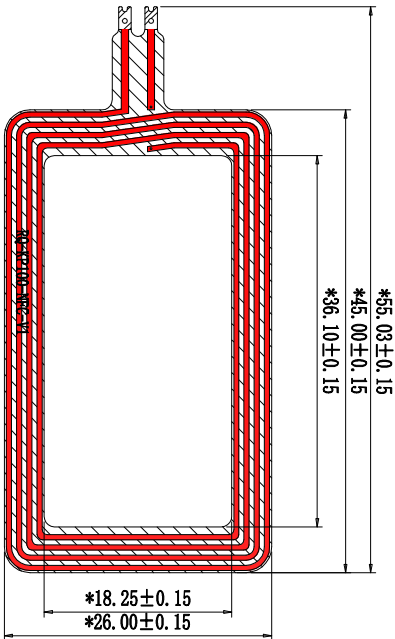
NFC antenna original state



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黑色哑光油墨印刷白色字体  
Black matte ink prints white lettering  
整版出货  
Full page shipment



This antenna is printed with  
black ink on both sides



NOTES:

1. Copper; Base material; Gilded Area; Adhesive backing;
2. The knife mold should not hurt the line, and the gold-plated area should be connected to the line;
3. The surface should not have dirt, abrasions, black spots, fracture and falling off after gold plating;
4. Material: FPC single sideboard[PI(EP)A pair and a half of Base material + Adhesive (3M467 0.15mm)+Surface Black ink (新韩) (>0.01mm)];
5. Reverse adhesive backing 3M467;
6. The surface of the gold finger is gilded(Thickness: 0.5u"-1.5u") ,

There should be no oxidation(Salt spray test is required) ;After 48±1 hours of salt spray experiment, there were no corrosion spots on the surface and the coating fell off;  
7. \* is the key size, and the tolerance is not marked,  
please check according to the B-level tolerance.

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<p>There should be no oxidation(Salt spray test is required): After 48±1 hours of salt spray experiment, there were no corrosion spots on the surface and the coating fell off;</p> <p>7.* is the key size, and the tolerance is not marked,</p> <p>please check according to the B-level tolerance.</p>										<div><p>深圳市瑞强通信有限公司</p></div>																	
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										0~10		±0.10		○		0.02		Product name		NFC-FPC-V1.0		Design					
										10~20		±0.12		◎		ø0.03		Part number		RQ03B140753B-NFC		ME					
										20~40		±0.15		⊥		0.02		Material		PI Electrolytic copper		RF					
										40~50		±0.20		∠		0.04		Die face									
										location				treatment		Confirm											
Date										Revise the contents		Version		Revisions		location		mm		proportion		FIT		version		V1	
1										2		3		4		5		6		7		8					