

**SHEN DA CHENG ELECTRONICS CO., LTD**

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**SPECIFICATION FOR APPROVAL**

<b>Customer Name</b>			
<b>Customer Project Name</b>	F215Q	<b>SDC Project Name</b>	F215Q
<b>Customer P/N</b>	CZ.0215.A012 CZ.0215.A013	<b>SDC P/N</b>	PCB2202-1131R-305 PCB2202-1131R-190
<b>Band</b>			
<b>Version</b>	A0		
<b>Designer Information</b>			
<b>RF Engineer</b>	Fu Xuerong	<b>R&amp;D Director</b>	Xia Chenglei
<b>ME Engineer</b>	Huang Zongbao		

<b>Approval</b>				<b>Customer Approval</b>	
	<b>Prepared By</b>	<b>Checked By</b>	<b>Approval By</b>	<b>Checked By</b>	<b>Approval By</b>
<b>Signature</b>	Huang Zongbao	Fu Xuerong	Xia Chenglei		
<b>Date</b>	2025.05.06	2025.05.06	2025.05.06		

<b>Change Log</b>				
<b>Version</b>	<b>Change Description</b>	<b>Person in Charge</b>	<b>Approval By</b>	<b>Date</b>



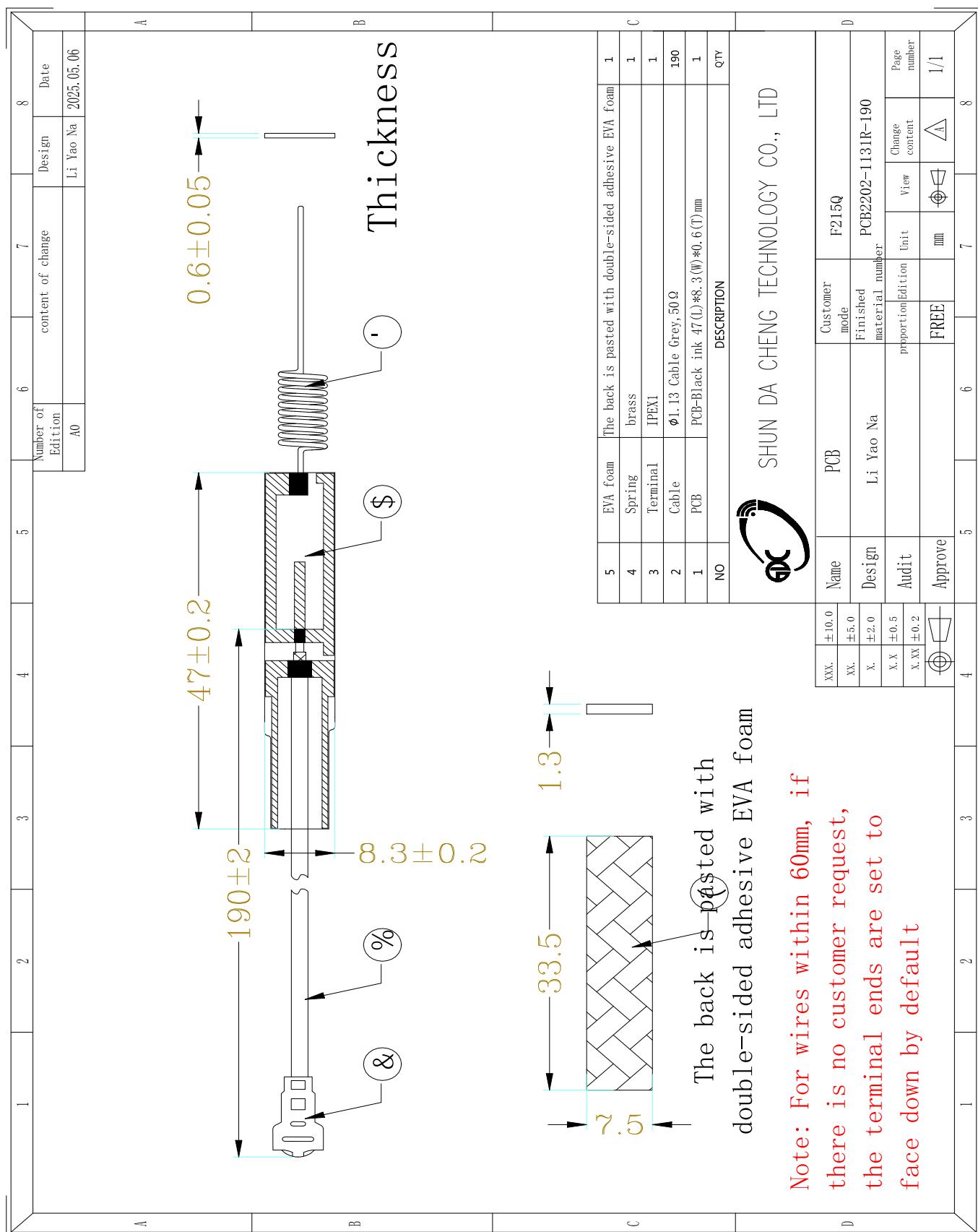
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Drawing or Product Image

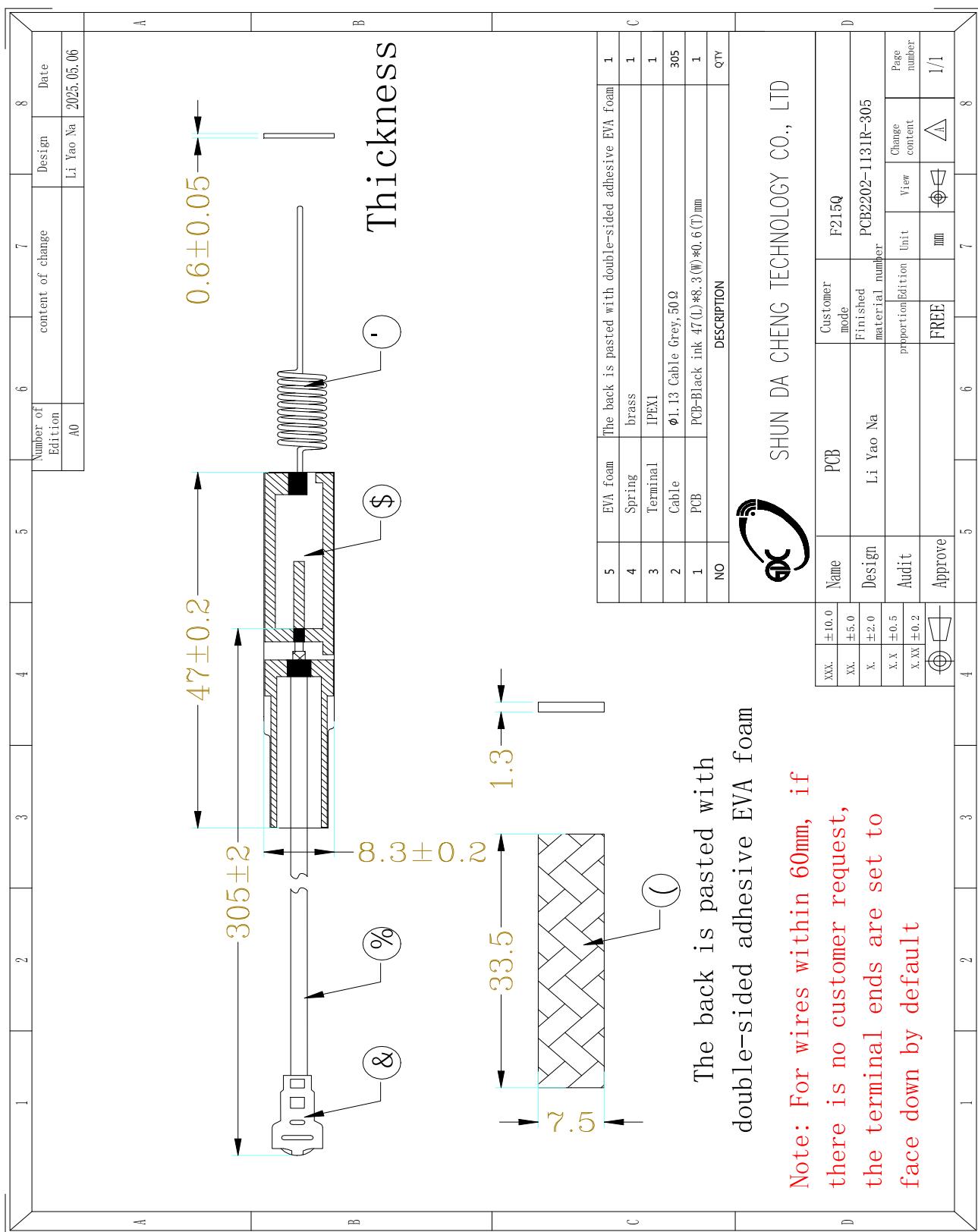


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Drawing or Product Image





## Sample Dimensions Test Report

Test Date	2025. 05. 06	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	47±0. 2mm	47	47. 1	47	Pass
②width	8. 3±0. 2mm	8. 3	8. 3	8. 4	Pass
③thickness	0. 6±0. 05mm	0. 6	0. 6	0. 6	Pass
④Line length	305±2mm	305	306	306	Pass
Conclusion					PASS
Inspector & Date	Xu Yanfang 2025. 05. 06	Approval & Date			



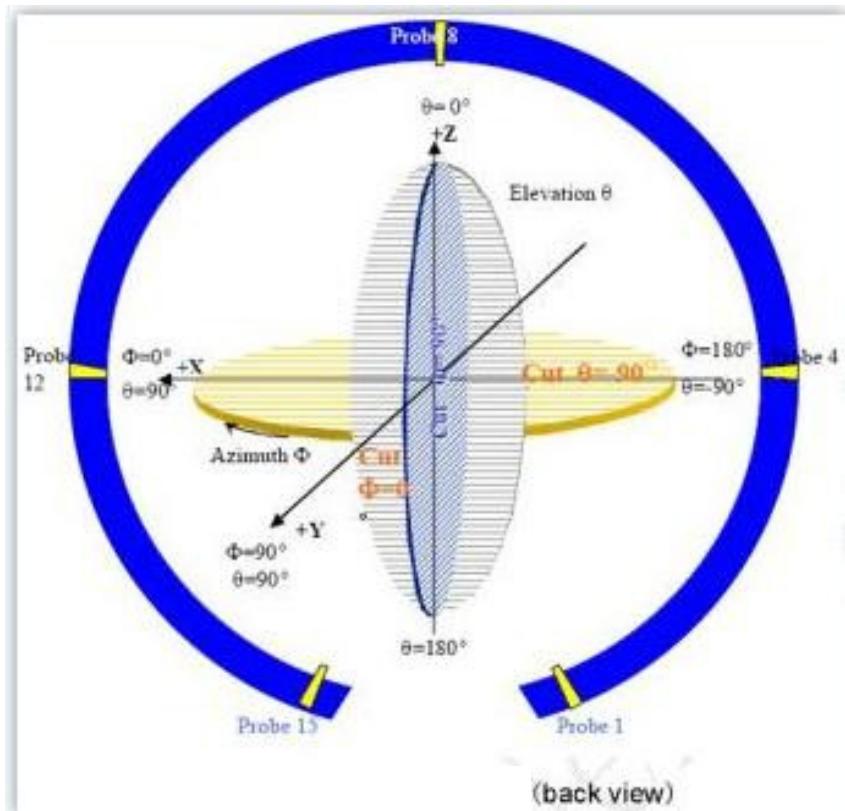
## Sample Dimensions Test Report

Test Date	2025. 05. 06	Sample Qty.	3	Inspector	Xu Yanfang
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①length	47±0. 2mm	47	47. 1	47	Pass
②width	8. 3±0. 2mm	8. 3	8. 3	8. 4	Pass
③thickness	0. 6±0. 05mm	0. 6	0. 6	0. 6	Pass
④Line length	190±2mm	190	191	190	Pass
Conclusion					PASS
Inspector & Date	Xu Yanfang 2025. 05. 06	Approval & Date			

## RF Performance Test Report

### Antenna Test Equipment Introduction

Test of antenna input characteristics using **Agilent E5071C** and **Agilent 5062A** vector network analyzer; The radiation pattern of the antenna are tested using the guangping 3D near field Anechoic Chamber, and the instrument is used to agilent8960 E5515 and Agilent E4438C. The test coordinates of the darkroom are as follows:



### 1. S11 Parameter-VSWR

Measuring Method is a  $50\Omega$  coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the S11 parameter, Keeping this fixture away from metal at least 20cm.



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## S11 Parameter-VSWR

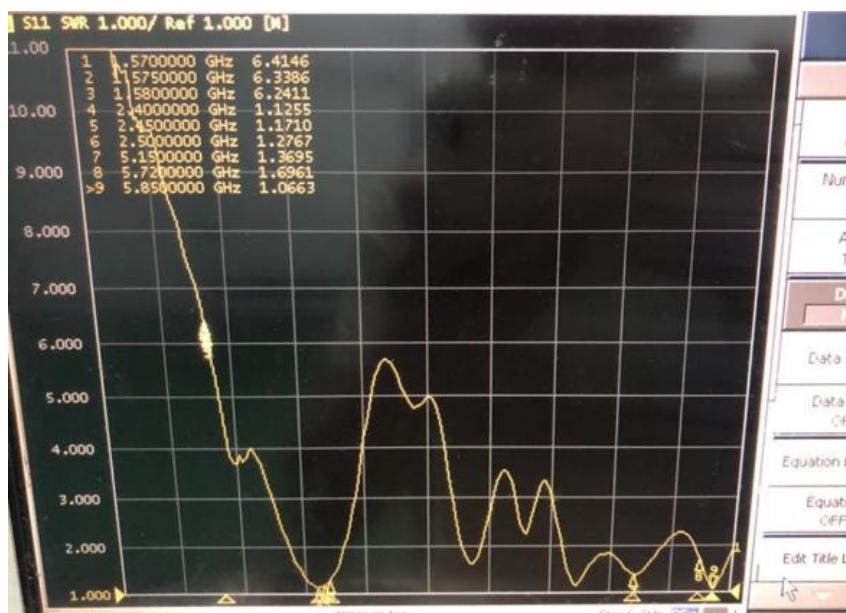
## WIFI MAIN

frequency (MHZ)	2400	2450	2500	5150	5720	5850
SWR	1.30	1.38	1.65	1.45	1.95	1.22



## WIFI AUX

frequency (MHZ)	2400	2450	2500	5150	5720	5850
SWR	1.12	1.17	1.27	1.36	1.69	1.06

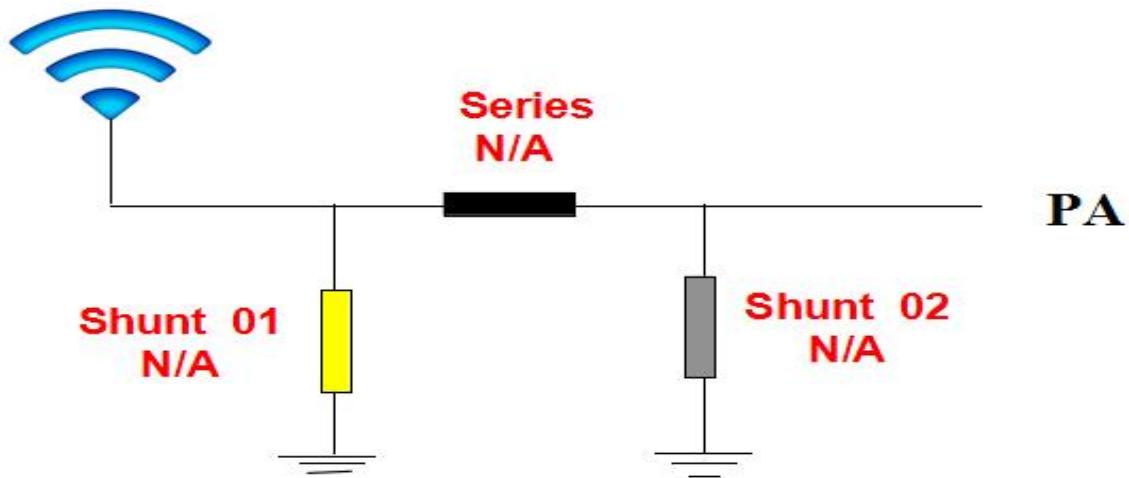


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## 2. Antenna Matching Network

### Antenna



## 3. Gain & Efficiency

WIFI MAIN

Passive Test For 2.4G

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBD)	UHIS (%)	DHIS (%)	Max (dB)	Min (dB)	irectivit (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	43.54	-3.61	1.03	-1.12	20.581	22.962	1.03	-15.9	4.64	15	48.93	49.09
2425	45.48	-2.97	1.96	-0.19	23.926	26.555	1.96	-16.48	4.93	15	49.09	49.22
2450	36.53	-4.37	0.87	-1.28	17.136	19.397	0.87	-19.74	5.24	15	49.25	49.27
2475	35.97	-4.44	0.52	-1.63	17.205	18.763	0.52	-23.22	4.96	75	49.98	49.91
2500	36.94	-4.32	0.32	-1.83	17.676	19.267	0.32	-18.36	4.64	75	49.71	49.62

