



Antenna

Customer Name	SHENZHEN GAT-IoT TECHNOLOGY CO., LTD		
Customer Project Name	915 HMz Spring	SDC Project Name	915 HMz Spring
Customer Code Customer P/N		Shuncheng Material Number: SDC P/N	TH7072B-A
Frequency range Band	915Mhz		
Version Number	A0		
Designer Information			
Radio Frequency Engineer (RF Engineer)	Yang Yonghui	R&D Director R&D Director	Fu Xuerong
Structural Engineer (ME Engineer)	Li Yaona		

Approval				Customer Approval	
	Fabrication Prepared By	Examine and verify Checked By	Ratify Approval By	Examine and verify Checked By	Ratify Approval By
Signature Signature	Li Yaona	Yang Yonghui	Fu Xuerong		
Date Date	2026. 6. 2	2026. 6. 2	2026. 6. 2		

Revise Resume / Change Log				
Version	Revision Details Change Description	Person liable Person in Charge	Approval Approval By	Date Date



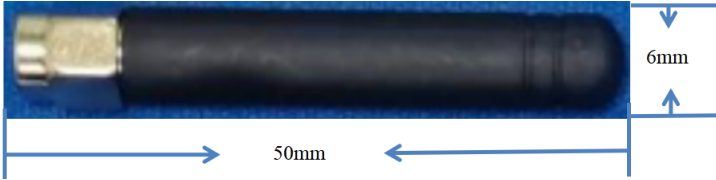
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Product drawings or physical images

Drawing or Product Image

		G		F		E		D		C		B		A	
		DESCRIPTION		DATE											
		New Issue		2026.06.02											
		REV		A0											
															



Sample Dimension Measurement Report

Sample Dimensions Test Report

Test Date	2026. 6. 2	Sample Quantity (Sample Qty.)	3	Inspector	Xu Yanfang
Size Number Dimension No.	Standard Standard	Sample 1 (Samp 1)	Sample 2: Samp le 2	Sample 3: Sample 3	Pass/NG
①diameter	0. 8±0. 05mm	0. 8	0. 8	0. 8	Pass
②diameter	5. 5±0. 05mm	5. 5	5. 5	5. 6	Pass
③Total Length	29±0. 3mm	29	29. 1	29	Pass
Final Conclusion					PASS
Tester&Date Inspector & Date	Xu Yanfang 2026. 6. 2		Approval&Date Approval Date		



Radio Frequency Performance Measurement Report

RF Performance Test Report

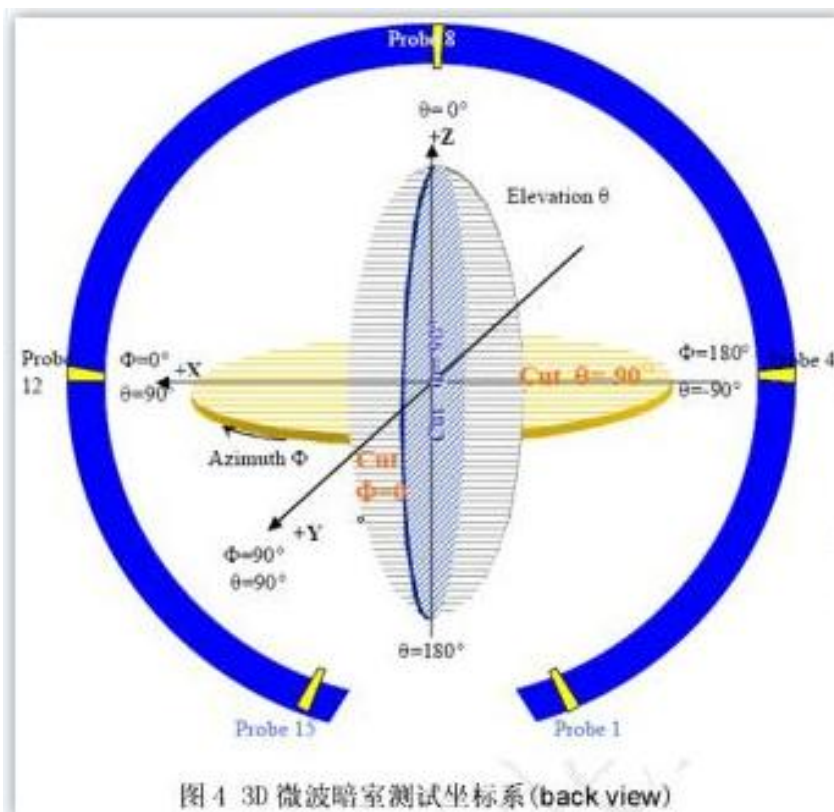
Introduction to Antenna Testing Equipment

Antenna Test Equipment Introduction

The input characteristics of the test antenna were measured using Agilent E5071C and Agilent 5062A vector network analyzers; the radiation characteristics were measured using.

The tests were conducted using a wide-screen 3D near-field darkroom, with analyses performed separately using the 8960 E5515 and Agilent E4438C instruments. The test coordinates of the darkroom are as follows:

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:



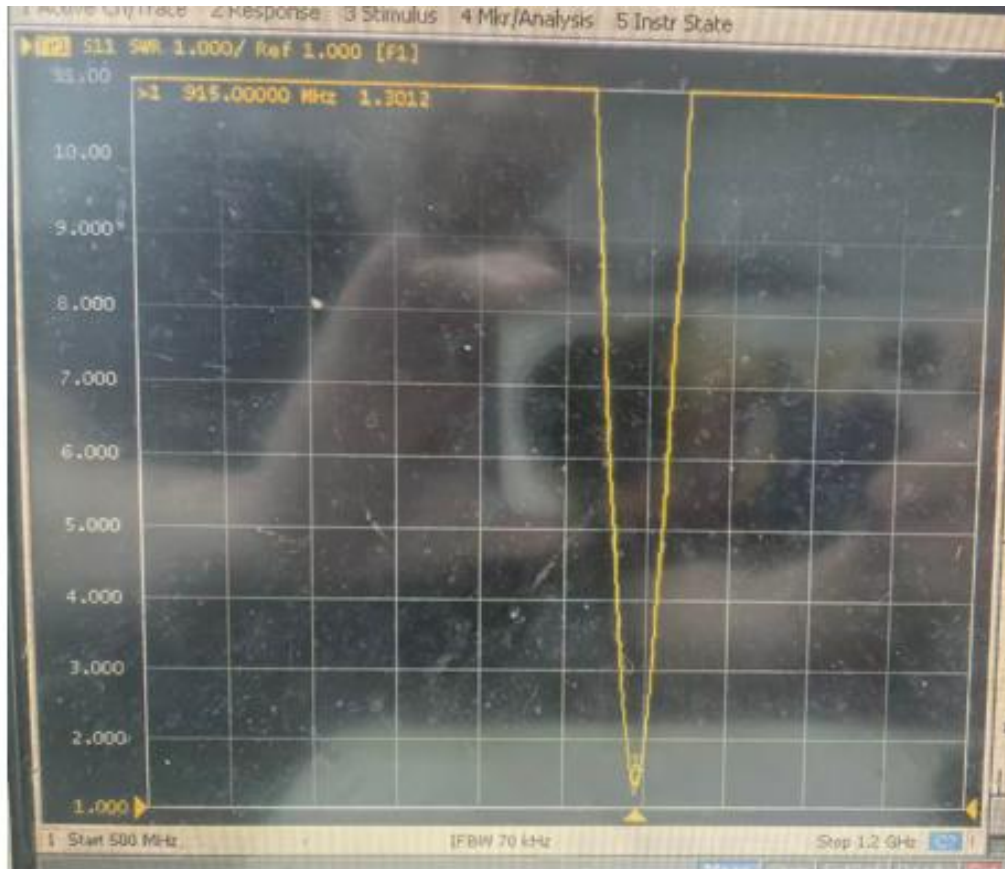
1. S11 Parameter Measurement/*S11 Parameter-VSWR*

Connect a 50Ω coaxial cable to the antenna, then route this cable to the network analyzer to measure the S11 parameter; the tested device must be at least 20 cm away from any metal surfaces.

Measuring Method is a 50Ω 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.



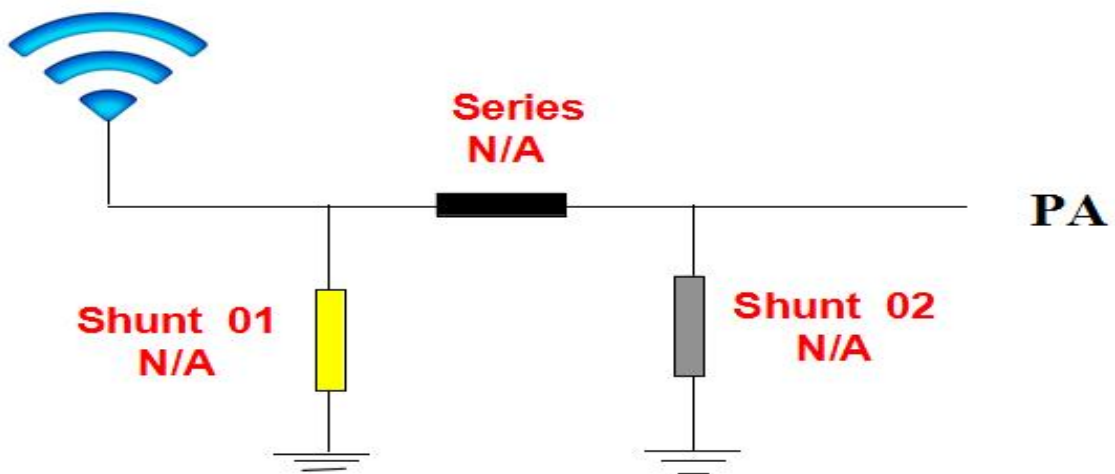
S11 Parameter-VSWR-



频率 (MHZ)	915
驻波比 VSWR	1.3

2. Antenna Matching Network

Antenna





SHUN DA CHENG TECHNOLOGY CO., LTD

3. Gain & Efficiency

Passive Test For 915												
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	irectivit (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
910	27.1	-5.67	-1.37	-3.52	12.28	14.817	-1.37	-15.93	4.3	120	48.15	48.07
911	26.55	-5.76	-1.24	-3.39	11.934	14.614	-1.24	-15.91	4.52	120	48.06	48.11
912	25.75	-5.89	-1.18	-3.33	11.482	14.267	-1.18	-16.78	4.71	120	48.39	48.35
913	24.79	-6.06	-1.37	-3.52	10.911	13.875	-1.37	-18.86	4.68	120	48.37	48.35
914	24.89	-6.04	-1.36	-3.51	10.793	14.101	-1.36	-19.57	4.68	120	48.4	48.36
915	24.62	-6.09	-1.58	-3.73	10.526	14.097	-1.58	-19.85	4.51	120	48.58	48.46
916	23.46	-6.3	-1.89	-4.04	9.957	13.503	-1.89	-19	4.4	120	48.53	48.44
917	22.21	-6.53	-2.2	-4.35	9.449	12.76	-2.2	-18.1	4.33	120	48.86	48.55
918	21.23	-6.73	-2.34	-4.49	9.107	12.12	-2.34	-17.17	4.39	120	48.81	48.71
919	21.51	-6.67	-2.25	-4.4	9.268	12.247	-2.25	-16	4.42	120	49.04	48.75
920	21.22	-6.73	-2.28	-4.43	9.18	12.042	-2.28	-15.82	4.45	120	48.85	48.71

