



SPECIFICATION FOR APPROVAL

Customer Project Name	YD-AX03	SDC Project Name	YD-AX03
Customer P/N		SDC P/N	WF6035B-1131R-160(Black)
Band	<u>WiFi2. 4G/5. 8G/BT</u>		
Version	A0		
Designer Information			
RF Engineer	Xuerong Fu	R&D Director	Chenglei Xia
ME Engineer	Chung-po Wong		

Approval				Customer Approval	
	Prepared By	Checked By	Approval By	Checked By	Approval By
Signature	Chung-po Won	Chenglei Xia	Huaming Chen		
Date	2024. 11. 13	2024. 11. 13	2024. 11. 13		

Change Log				
Version	Change Description	Person in Charge	Approval By	Date

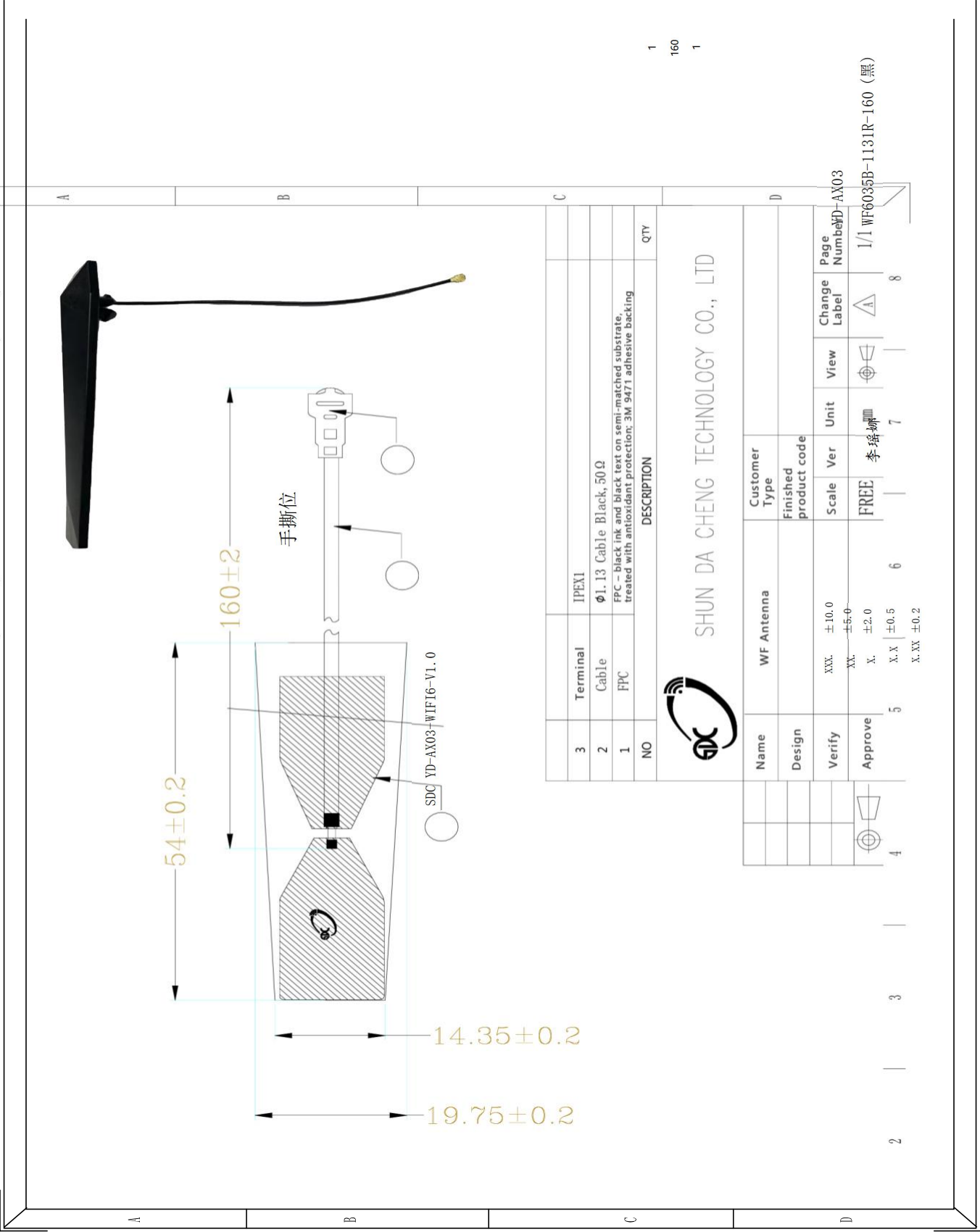


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Drawing or Product Image





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Sample Dimensions Test Report

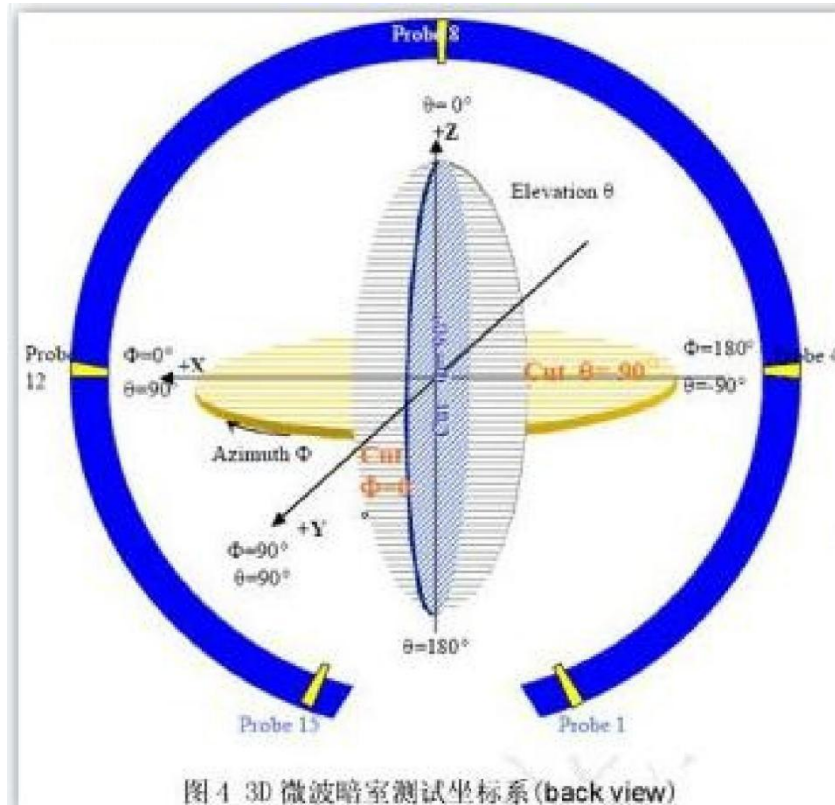
Test Date	2024. 11. 13	Sample Qty.	3	Inspector	Yanfang Xu
Dimension No.	Standard	Sample 1	Sample 2	Sample 3	Pass/NG
①Length	54±0. 2mm	54	54	54. 1	Pass
②Width	19. 75±0. 2mm	19. 75	19. 85	19. 8	Pass
③Thickness	0. 1 ±0. 03mm	0. 1	0. 1	0. 1	Pass
④Wire Length	160±2mm	160	161	160	Pass
Conclusion					PASS
Inspector & Date	Yanfang Xu 2024. 11. 13		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 :

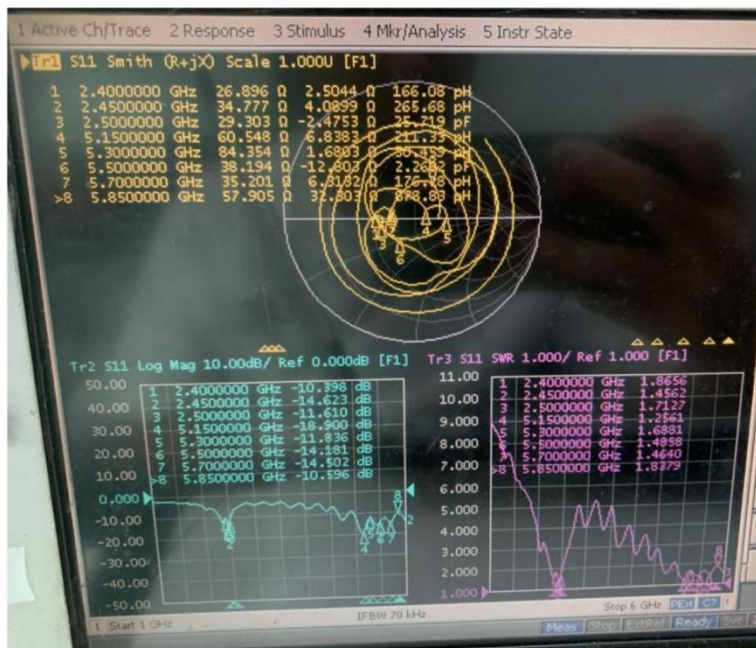


1. S11 Parameter-VSWR

Measuring Method is a 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)	2400	2450	2500	5150	5300	5500	5700	5850
驻波比	1.86	1.45	1.71	1.25	1.68	1.48	1.46	1.83

频率 (MHZ)	2400	2450	2500	5150	5300	5500	5700	5850
阻抗	36.8 Ω	34.7 Ω	29.3 Ω	60.5 Ω	84.3 Ω	38.1 Ω	35.2 Ω	57.9 Ω

频率 (MHZ)	2400	2450	2500	5150	5300	5500	5700	5850
回损	-10.3	-14.6	-11.6	-18.9	-11.8	-14.1	-14.5	-10.5

2. Antenna Matching Network

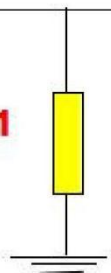
Antenna



**Series
N/A**

PA

**Shunt 01
N/A**

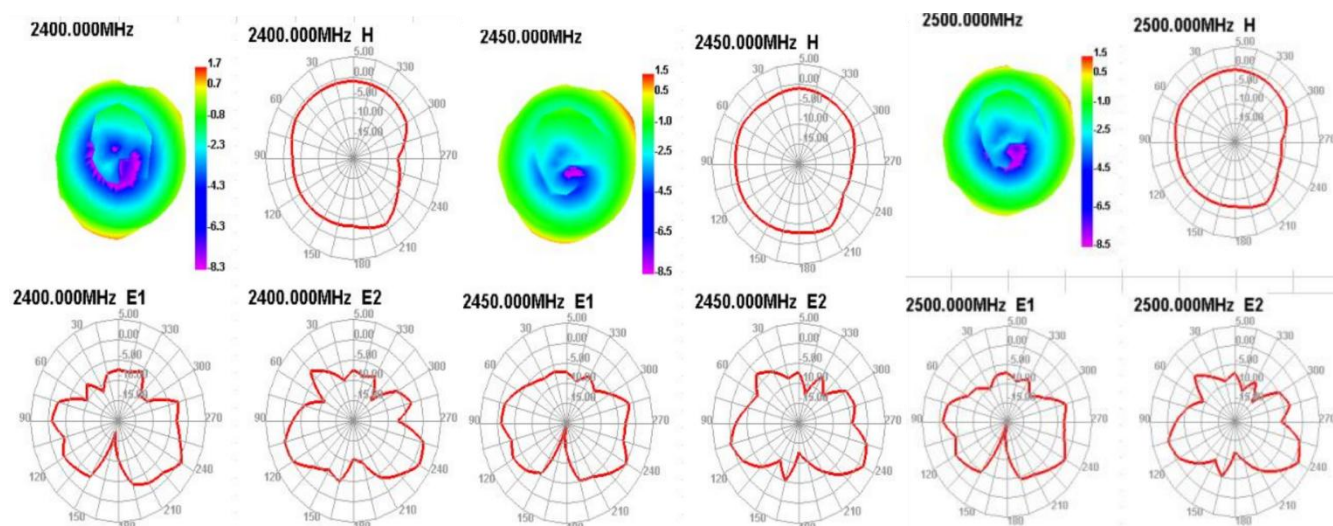


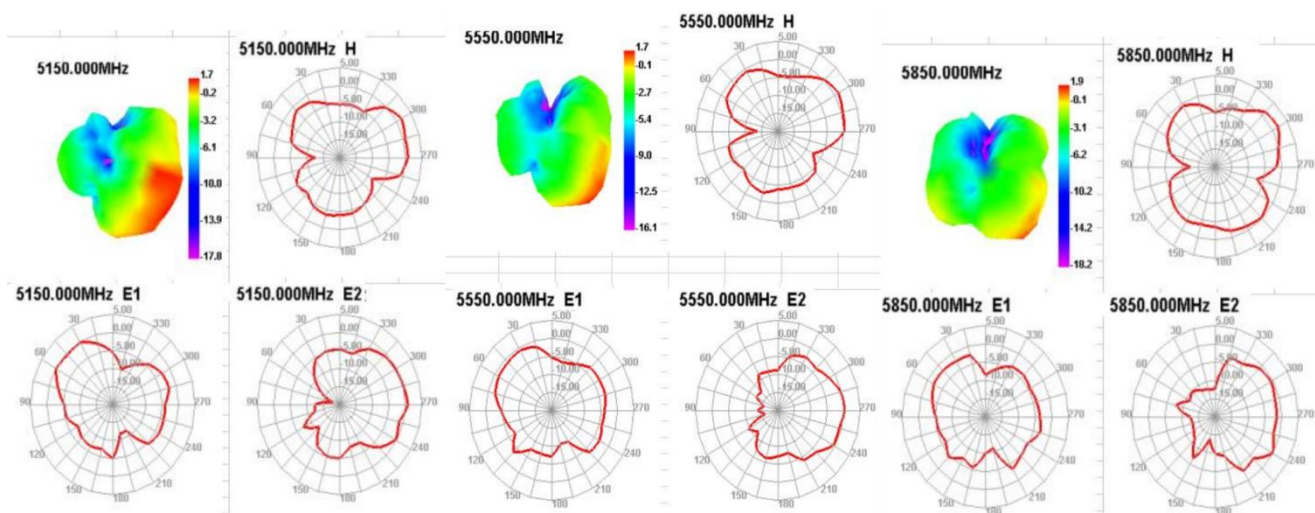
**Shunt 02
N/A**



3.Gain & Efficiency

Frequency (MHz)	Efficiency (%)	Peak GAIN (dBi)
2400	51.6	1.67
2450	53.44	1.51
2500	52.39	1.54
5150	53.23	1.66
5350	54.19	1.86
5550	54.73	1.71
5750	51.65	1.88
5850	52.58	1.85





4. WIFI OTA Data

2.4G WIFI	TRP			TIS		
Channel	CH1	CH6	CH12	CH1	CH6	CH12
802.11b, 11M	13.16	13.37	13.29	-83.56	-83.34	-83.51
802.11g, 54M	12.34	12.49	12.56	-71.44	-71.79	-71.59
802.11n, MCS7 (65M)	12.21	12.36	12.31	-69.28	-69.63	-69.72

5.8G WIFI	TRP			TIS		
Channel	CH36	CH60	CH165	CH36	CH60	CH165
802.11A, 54M	12.25	12.17	12.3	-72.61	-72.14	-71.63
802.11n, MCS7 (65M)	11.13	11.23	11.07	-69.77	-69.26	-69.13



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Reliability Test Report

Test Date	2024. 11. 13	Sample Qty.	3	Inspector	Yanfang Xu	
Test Item	Requirement	testing equipment	Sample 1	Sample 2	Sample 3	PASS/NG
High temperature storage	After exposure at +85° C for 24 hours, test was conducted after a 2-hour recovery period.	Constant Temperature and Humidity Chamber	OK	OK	OK	Pass
Low-temperature storage	After exposure at -40° C for 24 hours, test was conducted after a 2-hour recovery period.	Constant Temperature and Humidity Chamber	OK	OK	OK	Pass
Work under high temperature	Operated under electric power at +60° C for 24 hours.	Constant Temperature and Humidity Chamber	OK	OK	OK	Pass
Low-temperature operation	Operated under an electric current at -20° C for 24 hours.	Constant Temperature and Humidity Chamber	OK	OK	OK	Pass
Salt Spray Test	(5 L of 0.5%) sodium chloride solution with a pH value of 6.5-7.2 and an experimental chamber temperature of $(35 \pm 2)^{\circ} \text{C}$ 24H 48H	Salt Spray Test Machine	OK	OK	OK	Pass
Connector crimping pull-out force	1.13 Wire Diameter $\geq 10\text{N}$ 0.81 Wire Diameter $\geq 8\text{N}$ RG174 $\geq 60\text{N}$ RG178 $\geq 50\text{N}$	pull and push dynamometer	$\geq 10\text{N}$	$\geq 10\text{N}$	$\geq 10\text{N}$	Pass
Conclusion						Pass



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Inspector & Date	Yanfang Xu 2024. 11. 13	Approval & Date	
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