

APPROVAL SHEET

Customer Name XIAOMI

Product Model RD23

Customer P/N L530100074721

Specifications 2/5G, 5dBi, White housing, 2G:1.37Gray, cable, 130mm, 5G:1.37Black, cable, 200mm

Southstar P/N 3.N102.1053

Production date 2024-03-15

Revision 1.0

Southstar		
FICTION	DQE	R&D
Customer		
PUR	QC	R&D

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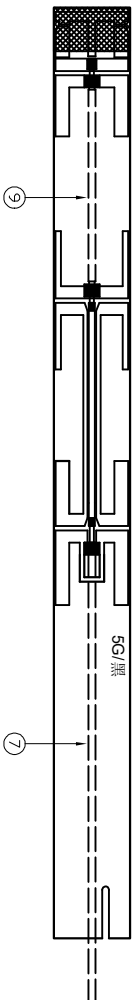
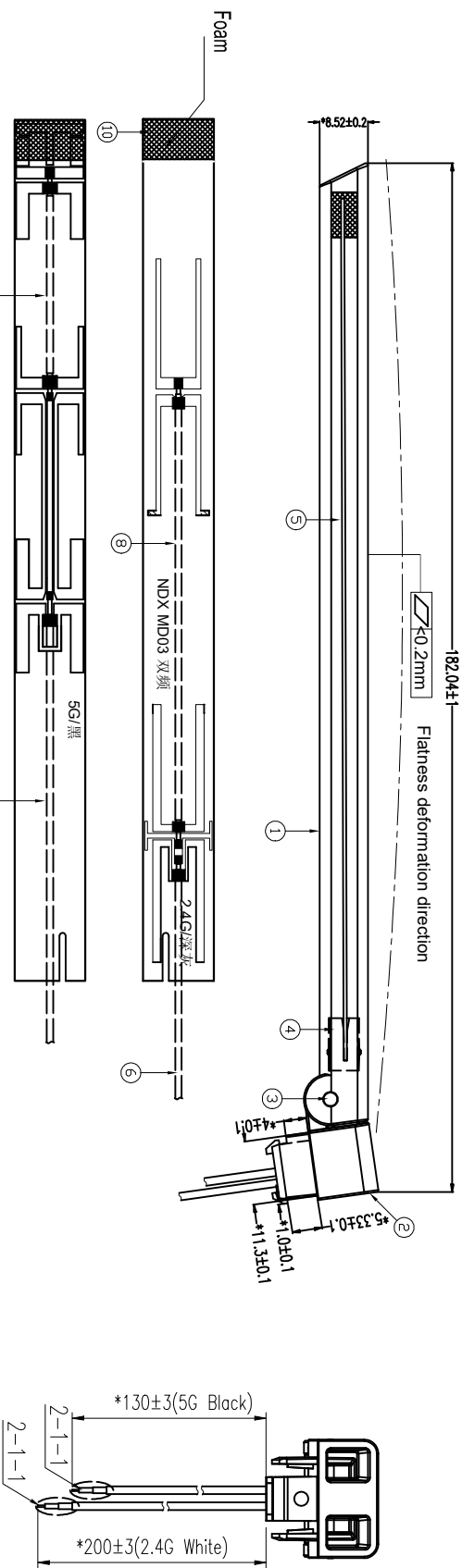
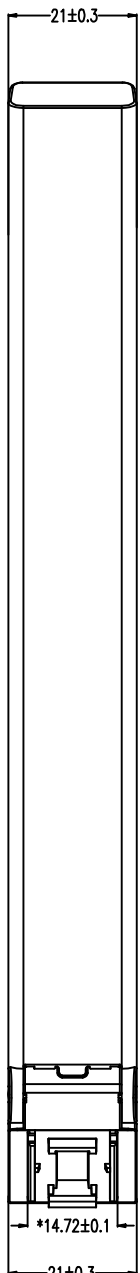
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Antenna Specification

A. Electrical Characteristics	
Frequency	2400MHz~2500 MHz/5150MHz~5850 MHz
VSWR	≤ 2
Efficiency	>60%
Impedance	50 Ohm
Polarization	Linear
Gain	2400MHz@5.24dBi ; 5850 MHz@5.15dBi
Note	
B. Material & Mechanical Characteristics	
Material of Radiator	
Cable Type	2G: 1.37 Gray 5G: 1.37 Black
Connector Type	soldering
C. Environmental	
Operation Temperature	- 30 °C ~ + 65 °C
Storage Temperature	- 40 °C ~ + 70 °C

1	2	3	4	5	6	7	8
Rev	Description		Date	Remark			
△	New drawing		2024-03-15				



- Note:
1. Marked "*" is the key size, and Marking "CpK" requires process capability analysis;
 2. Unmarked tolerance refer to the Undeclared tolerance table;
 3. The electrical property meets the requirements of the specification;
 4. All parts shall meet the requirements of RoHS2.0 and REACH。

10	1	2.0Z.0391	2.4G Foam	EVA Black, 12.5*15*2.5mm	1	
9	2	2.A02.1480	5G/Cable	φ1.37 Black	1	
8	2	2.A02.1479	2.4G/Cable	φ1.37 Dark Gray	1	
7	2	2.A02.1476	5G/Cable	φ1.37 Black	1	
6	2	2.A02.1476	2.4G/Cable	φ1.37 Dark Gray	1	
5	2	2.A21.0464	PCB	FR4 Green T=0.6mm	1	
4	2	2.A07.0558	Plug	ABS White	1	
3	2	2.A07.0123	Rivet	POM White	2	
2	2	2.A07.0557	Base	PC+ABS White	1	
1	2	2.A07.0547	Body	ABS White	1	

No.	Part NO.	Name	Specification	Amount	Remark
1	2.A07.0547	Body	ABS White	1	

		深圳市南斗星科技有限公司 Dongguan South Star Technology Co., Ltd		Shenzhen South Star Technology Co., Ltd Dongguan South Star Technology Co., Ltd	
Undeclared tolerance table		Project	MD03	Designed by	梅海金 2024-03-15
0.5~6	±0.1	Part Name	Dual Antenna	RF by	张锦江 2024-03-15
>6~30	±0.2	Part No.	3.N102.1053	Approved by	张辉 2024-03-15
>30~120	±0.3	Customer	L530100074721	Unit	mm
>120~400	±0.5	Page	1 of 1	Scale	FIT
>400~1000	±0.8	Third Angle		Rev	A
>1000	±1.2	Angle	±1.0°		

Test Equipment & Conditions

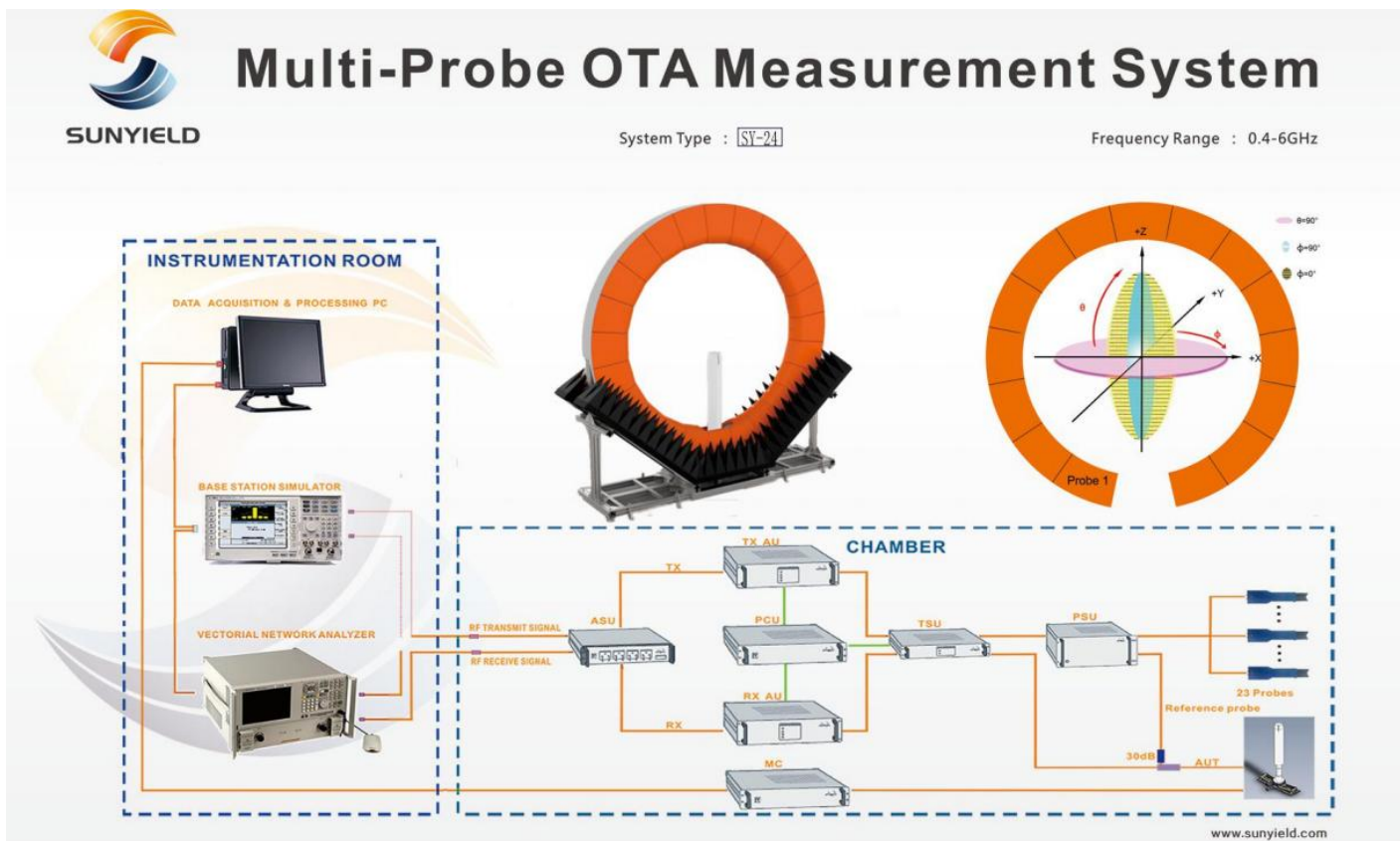
1. Network Analyzers:

Keysight E5071C

2. Comprehensive tester:

CMW500 、 MT8000A、 MT8862A

3. 3D Chamber Test System:





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Antenna Impedance:

S11

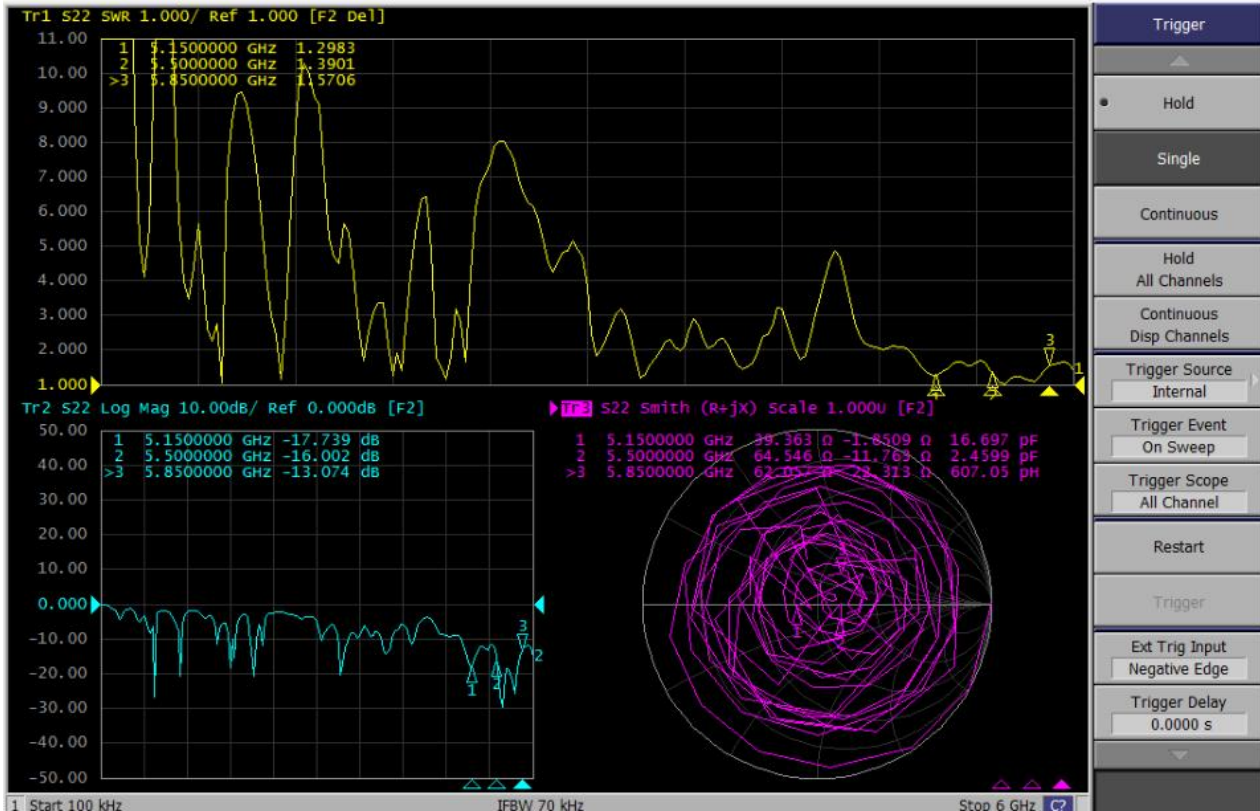
E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State



E5071C Network Analyzer

1 Active Ch/Trace 2 Response 3 Stimulus 4 Mkr/Analysis 5 Instr State





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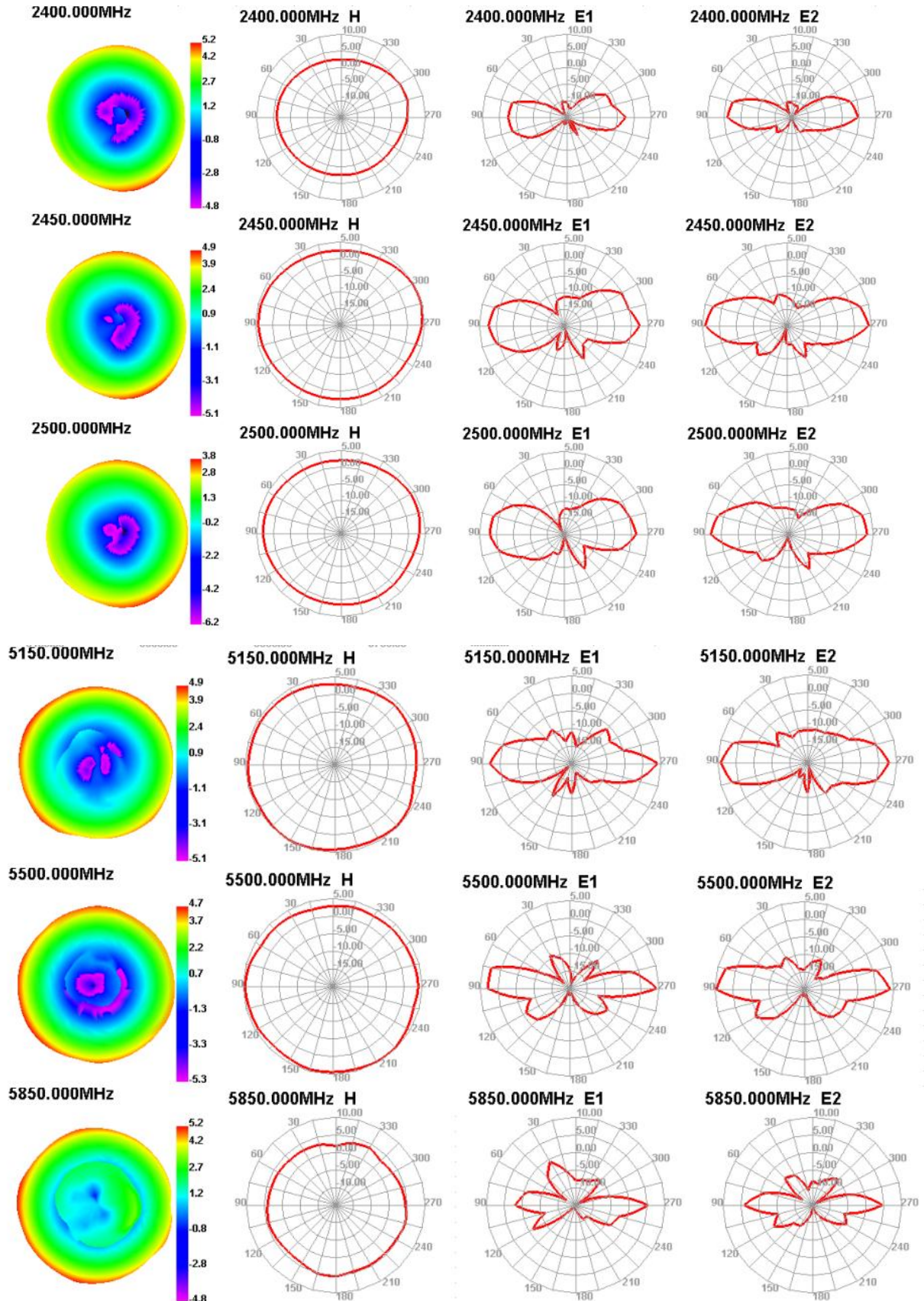
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Efficiency & Gain:

Freq (MHz)	Effi (%)	Gain (dBi)
2400	69.35	5.24
2410	68.2	5.15
2420	67.87	5.03
2430	66.66	4.87
2440	66.13	4.79
2450	66.59	4.86
2460	68	4.96
2470	66.97	4.86
2480	66.11	4.65
2490	67.73	3.98
2500	60.37	3.78

Freq (MHz)	Effi (%)	Gain (dBi)
5150	61.27	4.95
5200	63.46	4.42
5250	63.09	4.13
5300	62.2	3.71
5350	58.85	3.15
5400	58.09	3.51
5450	58.55	4.05
5500	62.39	4.7
5550	63.83	5.01
5600	63.61	5.01
5650	63.37	4.89
5700	63.68	5.07
5750	62.65	4.92
5800	63.19	4.86
5850	61	5.19

Antenna 3D & 2D pattern:



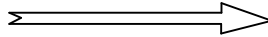


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antenna assembly picture:

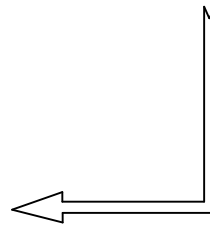
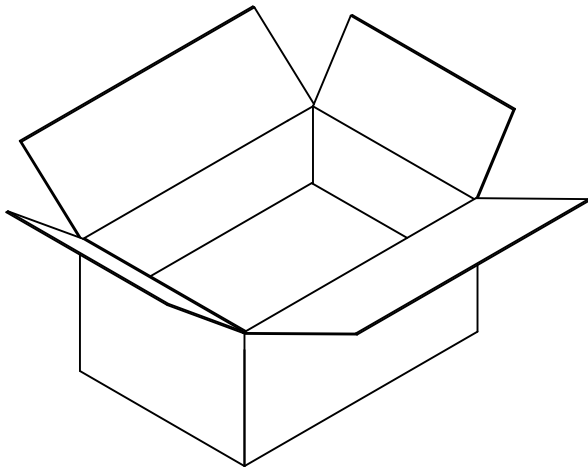
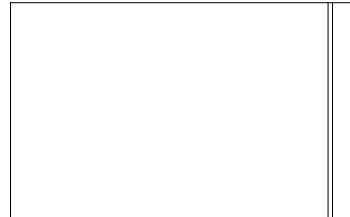


Name : MD03 Antenna	Version: A
	Customer: XIAOMI

1: The product



二: 30PCS/per PE Bag。



3.Packing (according to the actual quantity of packing)

