



SHENZHEN SOUTH STAR
TECHNOLOGY CO., LTD.

APPROVAL SHEET

客户名称 Customer Name ZHI WEI

产品型号 Product Model 2.4G

客户料号 Customer P/N K4DK-680712-00

南斗星料号 Southstar P/N N12-3353-R0A

制作日期 Date Prepared 2021-12-08

制作版本 Revision A

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

Manufacturer: Shenzhen Nandouxing Technology Co., Ltd. Shenzhen

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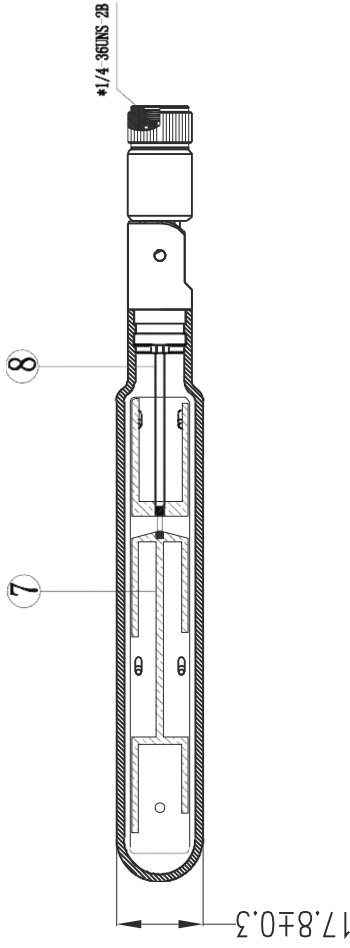
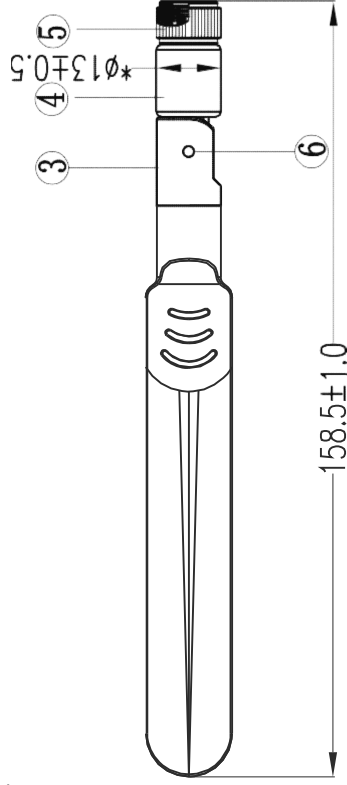
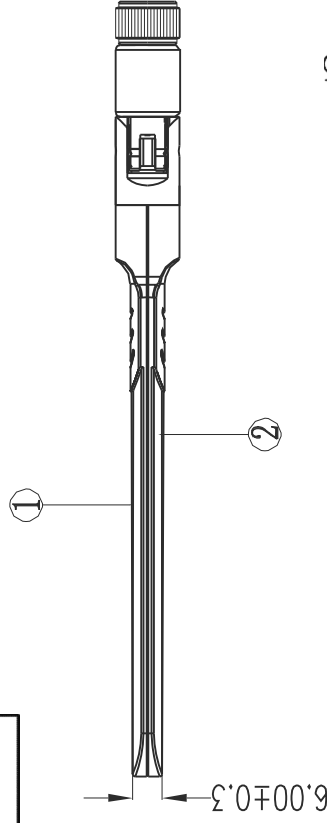
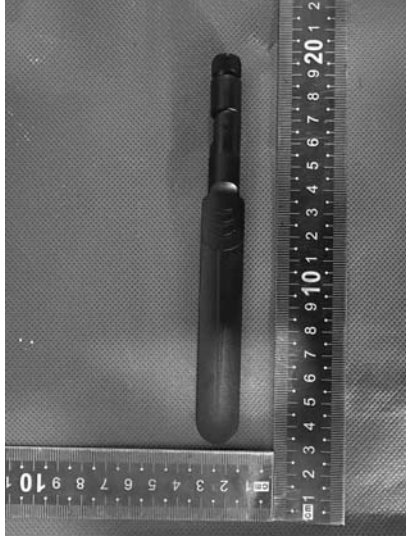
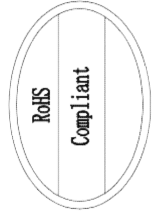
Website: WWW.SZ-SOUTHSTAR.COM

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Product Specification

A. Electrical Characteristics	
Frequency	2400MHz ~2500MHz ;
VSWR	< 3
Efficiency	>45%
Impedance	50 ± 25 Ohm
Polarization	Linear
Peak Gain	2.4G: 4.46 dBi
Note	
B. Material & Mechanical Characteristics	
Material of Radiator	
Cable Type	ϕ 1.78
Connector Type	
Dimension	
C. Environmental	
Operation Temperature	- 30 °C ~ + 80 °C
Storage Temperature	- 30 °C ~ + 85 °C



運
備

1. 标注“*”为重点尺寸, 未标公差尺寸按照 ± 0.20 检测
2. 未标注尺寸请依图纸。
3. 符合ROHS

8	1.78线			棕色		1	1
7	PCB		FR-4	绿色		1	1
6	销钉		POM	黑色		2	2
5	SMA-j-母针		黄铜	黑色		1	1
4	下固定座		PC+PBT	黑色		1	1
3	上固定座		PC	黑色		1	1
2	主体下盖		ABS	黑色		1	1
1	主体上盖		ABS	黑色		1	1
No.	Name		Material	Color	Treatment	Amount	Remark

深圳南斗星科技有限公司
SHEN ZHEN SOUTHWESTAR CO., LTD

		Third Angle	Project	K4DK-680712-00	Date	2021-12-08
0~10	± 0.2		Part Name	2.4G/WIFI	Designed by	
10~18	± 0.5		Part No.	N12 3353 ROA	Checked by	雷双露张
18~30	± 0.8		Material	N/A		锦江
30~40	± 1.0					
40~	± 2.0	Angle $\pm 0.5^\circ$	DWG NO.	N12 3353 ROA	Approved by	
Location	N/A		Unit	mm	Scale	1:1
					Rev	A

Test Equipment & Conditions

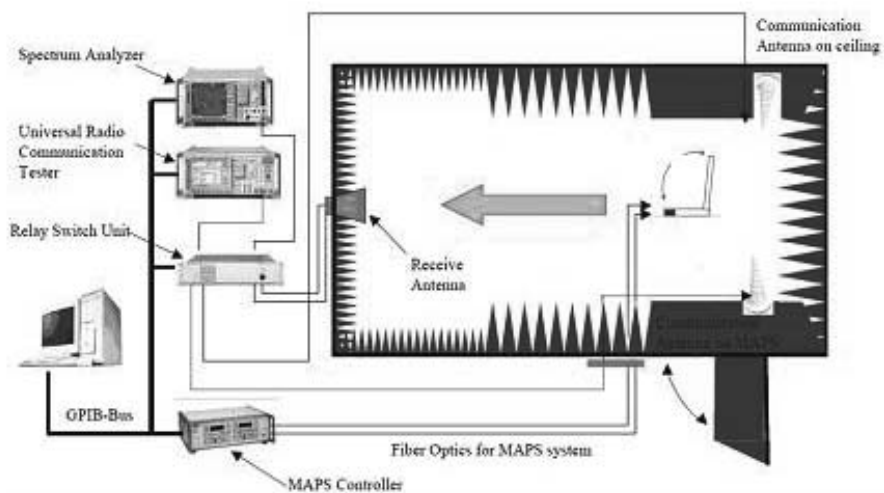
1. Network Analyzers :

Agilent 8753D 5071B

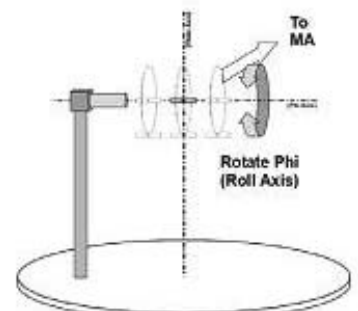
2. Communications Test Set:

Agilent E5515C

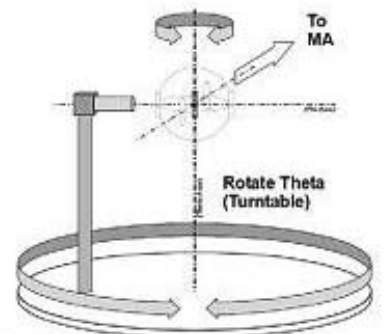
3. 3D Chamber Test System



(Testing by 3D anechoic chamber)



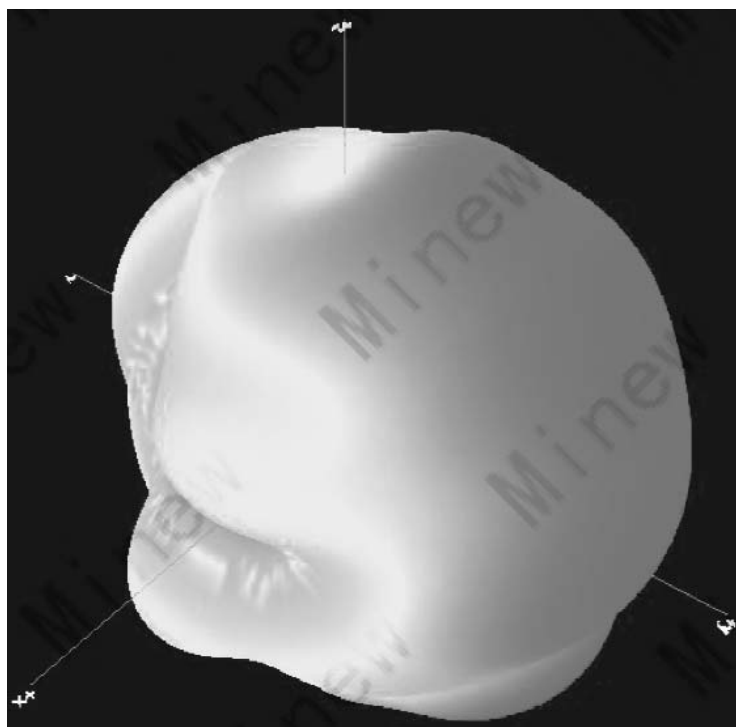
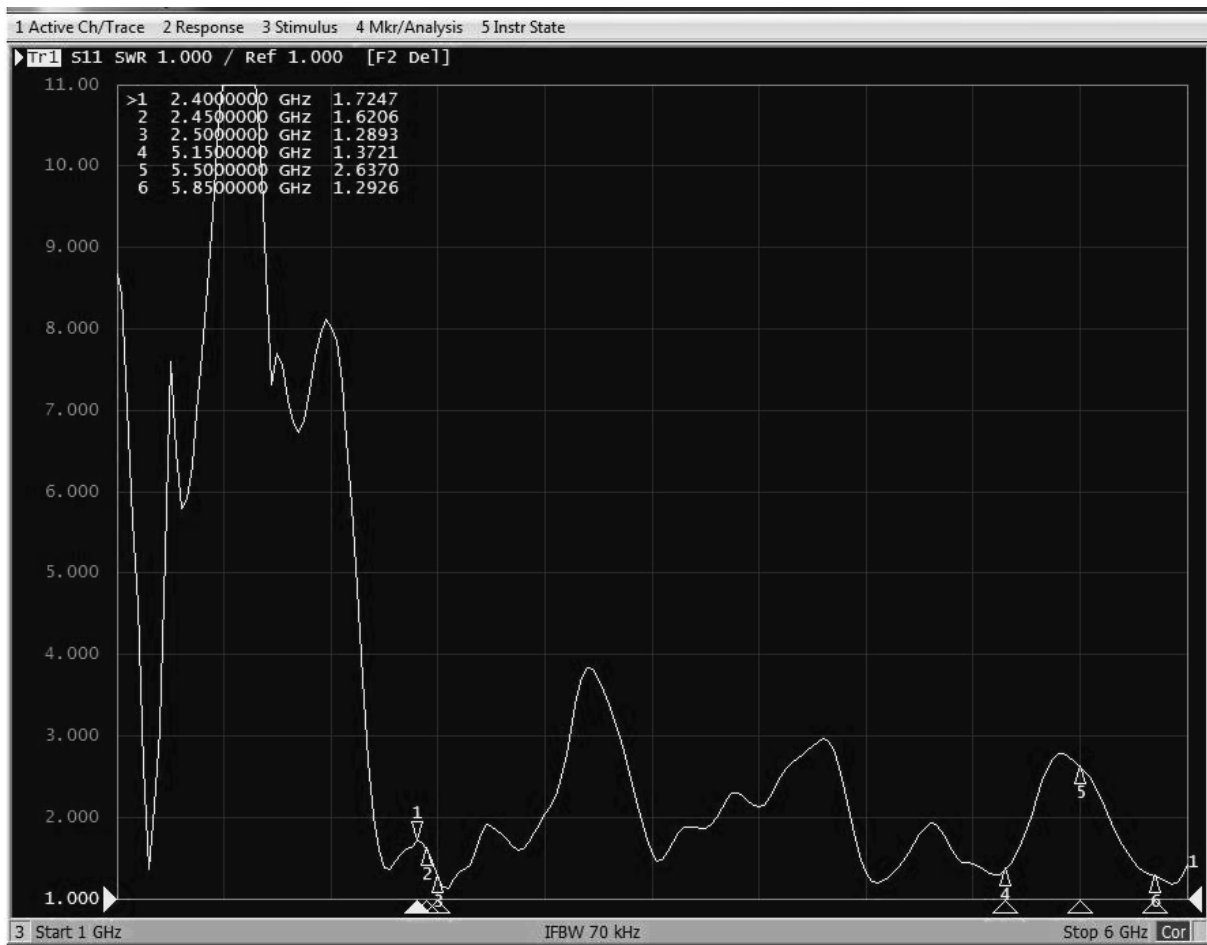
Phi axis test



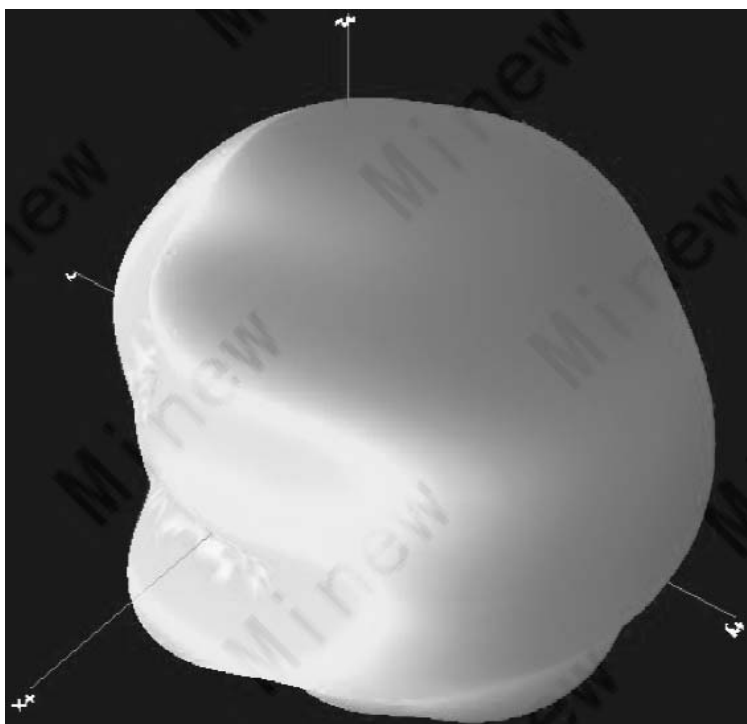
Theta axis test

Antenna Impedance:

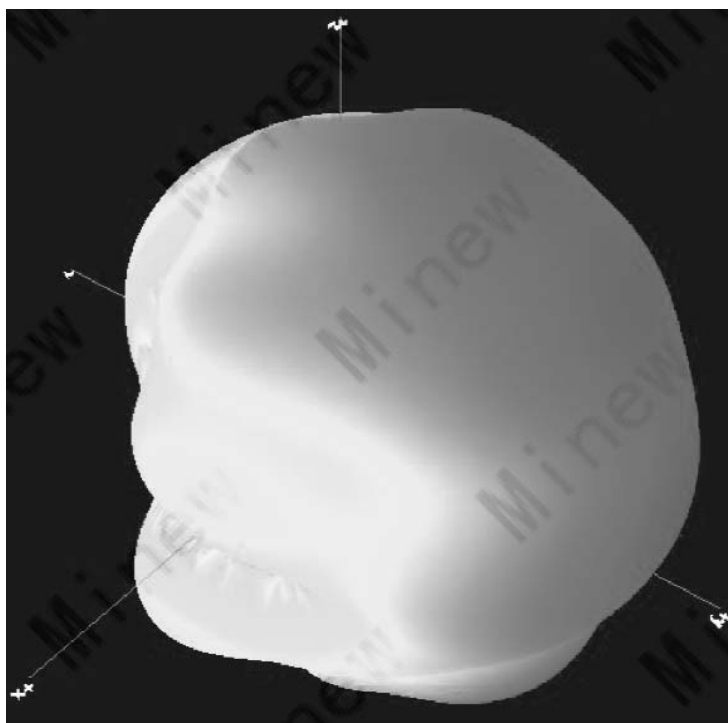
VSWR & Smith



2402MHz



2240MHz

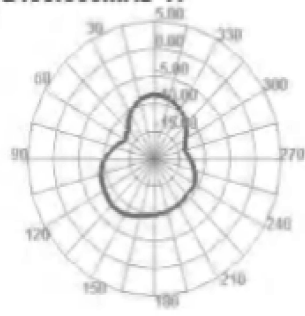


2480MHz

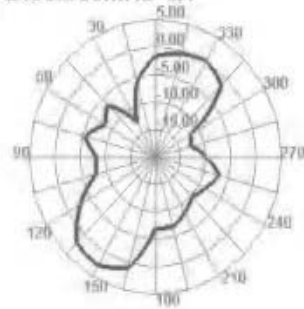
2400.000MHz



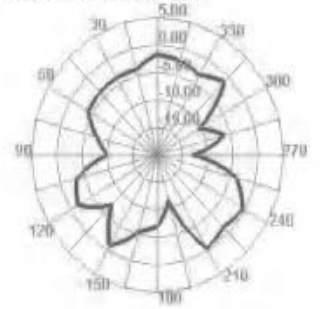
2400.000MHz H



2400.000MHz E1



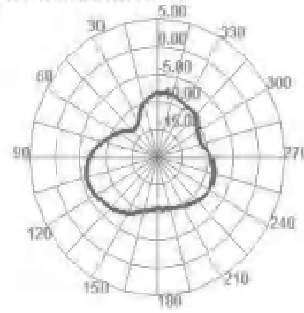
2400.000MHz E2



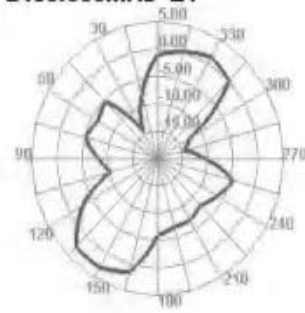
2450.000MHz



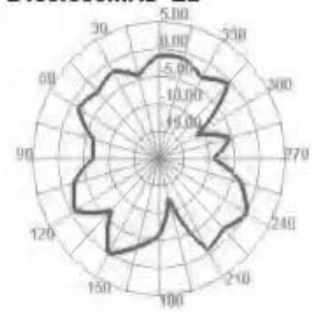
2450.000MHz H



2450.000MHz E1



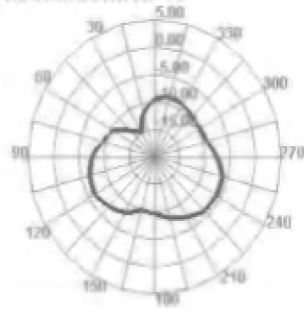
2450.000MHz E2



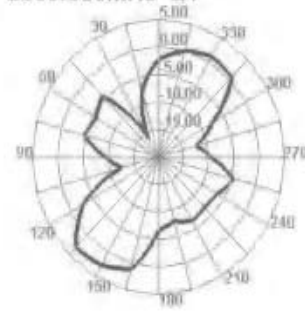
2500.000MHz



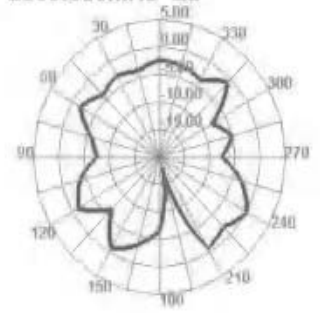
2500.000MHz H



2500.000MHz E1



2500.000MHz E2



Total Efficiency& GAIN:

Freq (MHz)	Effi (%)	Gain (dBi)
2400	67.53	4.46
2410	66.9	3.92
2420	67.03	4.04
2430	71.15	4.27
2440	68.03	4.06
2450	65.4	3.95
2460	62.82	3.88
2470	64.41	4.09
2480	66.85	4.28
2490	66.74	4.35
2500	66.34	4.33
	66.65454545	4.148181818