



深圳市南斗星科技有限公司
SHENZHEN SOUTH STAR TECHNOLOGY CO., LTD.

承认书

APPROVAL SHEET

产品型号 Product Model T13

客户型号 Customer Model Asivio Vybe

南斗星料号 Southstar P/N F01-6470-R0A



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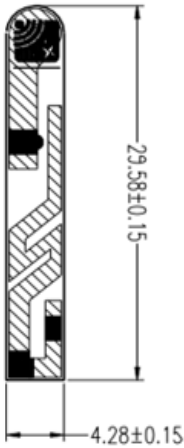
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产品规格 Product Specification

A. 电性能 Electrical Characteristics	
Frequency 频率	2400MHz ~2500 MHz
VSWR 电压驻波比	< 2
Efficiency 效率	>25%
Impedance 阻抗	50 Ohm
Polarization 极化	线性 Linear
Gain 增益	Peak:-0.71dBi
Note 备注:	
B. 材料&物理性能 Material & Mechanical Characteristics	
射频材料 Material of Radiator	FPC
射频线类型 Cable Type	
接头类型 Connector Type	
尺寸 Dimension	
C. 环境 Environmental	
工作温度 Operation Temperature	- 30 °C ~ + 80 °C
存放温度 Storage Temperature	- 30 °C ~ + 85 °C

Rev	Description	Date	Remark
A	New drawing		



Back glue cutting line



Technical Requirements:

1. FPC material: 1mil Pi basic material, 1/2oz electrolytic copper, single-sided panel;
2. Weld point area: gold plating, 0.013um thickness;
3. Surface treatment: printed ink, black matte;
4. Back glue: 3M 300 (9471) hot packaging method, single film;
5. Print logo character: white;
6. The size with an important control size, and the size of the tolerance is not marked according to the standard tolerance of the drawing;
7. Safety requirements: ROHS;
8. The quality requirements shall be in accordance with the IQC Incoming Inspection Specification of South Star.

South Star		深圳市南斗星科技有限公司		SHEN ZHEN SOUTHSTAR CO., LTD	
	Third Angle	Project	T13	Date	2020-01-04
		Part Name	BT FPC	Designed by	陈阳辉
		Part No.	F01-6470-ROA	Checked by	谈子瑜
		Material	PI/电解铜	PE	
0°~10°	±0.05	0.02		Approved by	
10°~18°	±0.10	Φ0.03		Unit	mm
18°~30°	±0.12	0.02		Scale	1:1
30°~40°	±0.15	0.04		Rev	A
40°	±0.20	Angle			
Location		DMG No.	F01-6470-ROA		

测试设备及条件 **Test Equipment & Conditions**

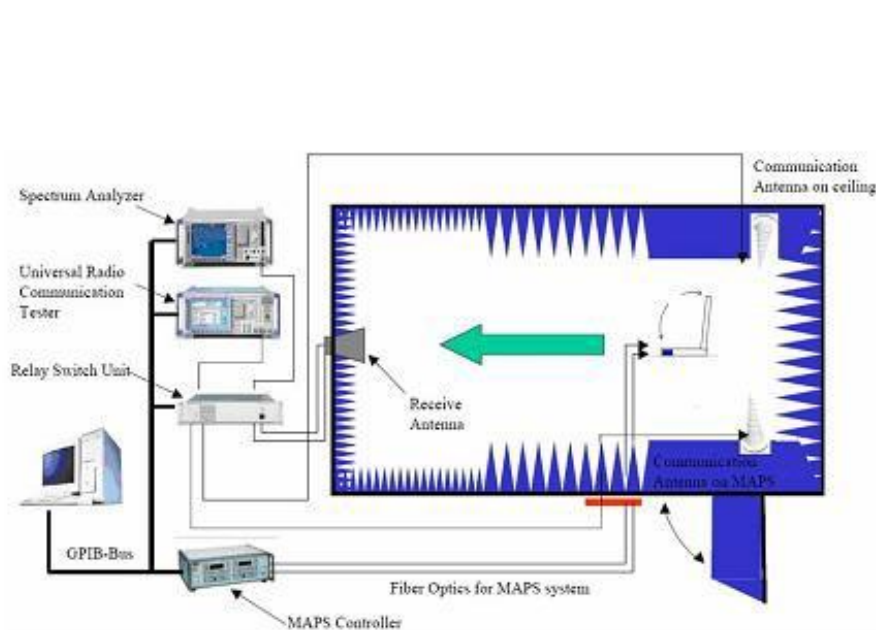
1. 网络分析仪 **Network Analyzers :**

Agilent 8753D 5071B

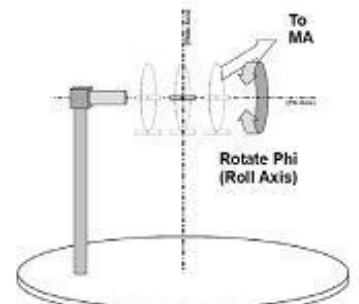
2. 综合测试仪 **Communications Test Set:**

Agilent E5515C

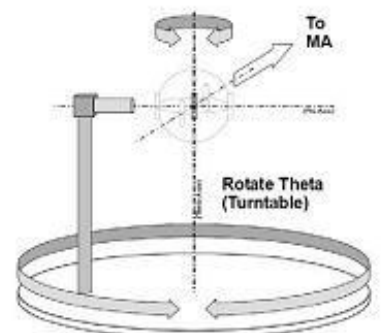
3. 3D 暗室测试系统 **3D Chamber Test System**



(Testing by 3D anechoic chamber)



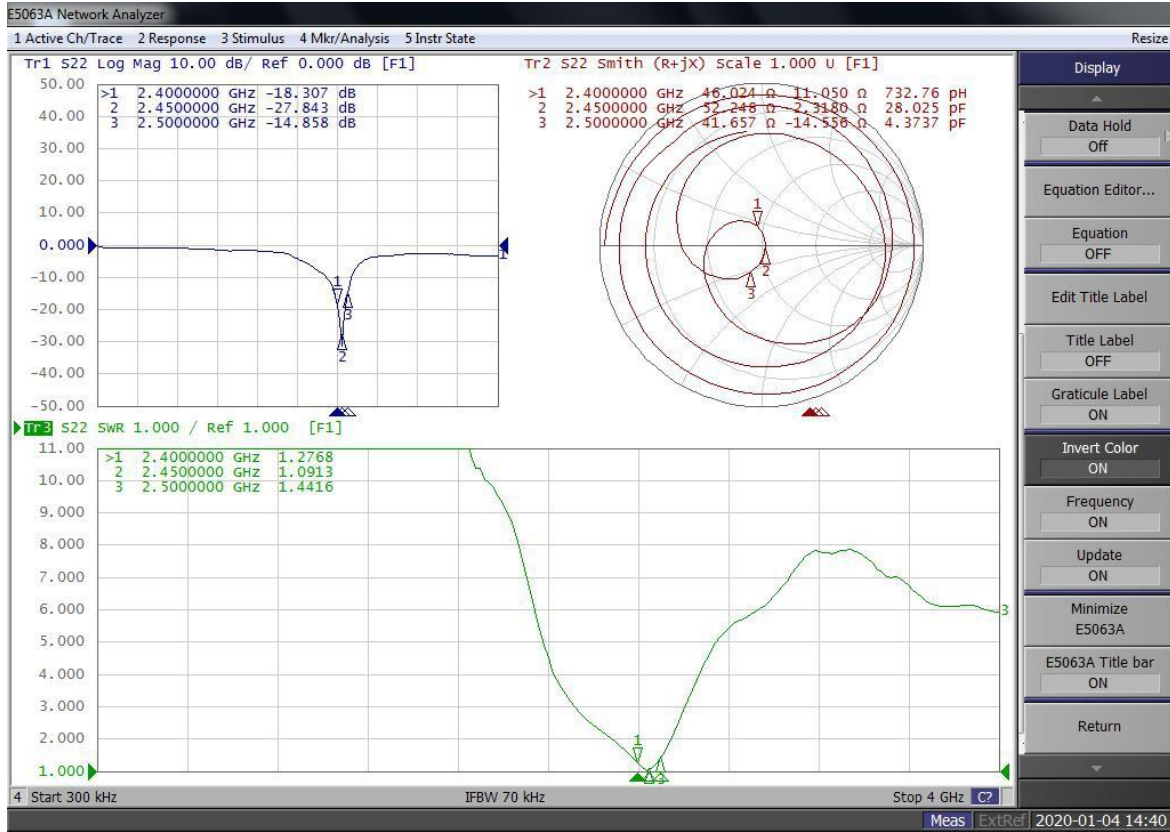
Phi axis test



Theta axis test



天线阻抗 Antenna Impedance: S11

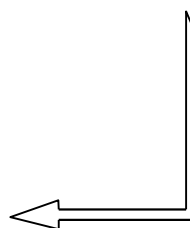
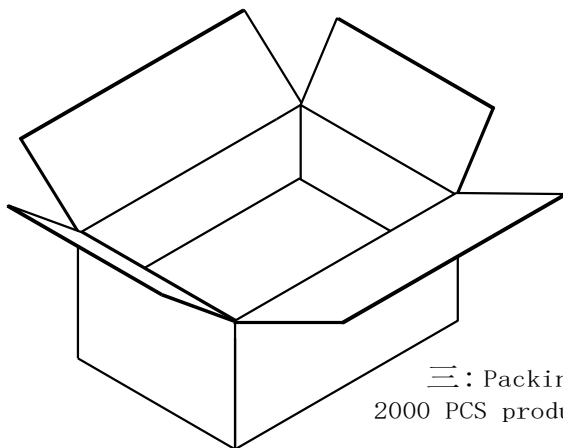
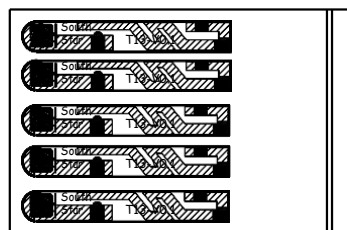
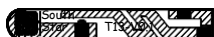


效率&增益 Total Efficiency& GAIN:

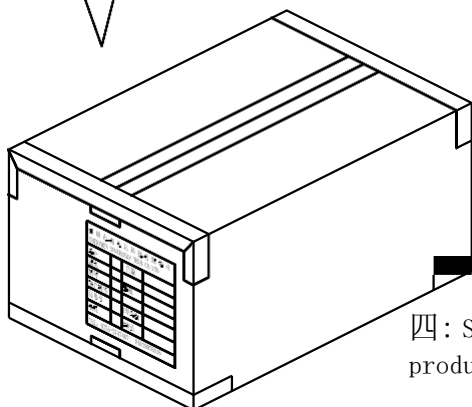
Freq (MHz)	Effi (%)	Gain (dBi)
2400	28.95	-0.99
2410	28.93	-1.01
2420	27.52	-1.29
2430	26.5	-1.33
2440	26.62	-1.31
2450	28.71	-0.99
2460	28.67	-1.06
2470	29.94	-0.88
2480	30.01	-0.79
2490	29.89	-0.84
2500	30.6	-0.71

Finished product name: T13 BT FPC Antenna	Version:A

一:Finished Antenna → 二:Bagging,100pcs products per PE bag,



三: Packing, one box for every 20 bags, one box of 2000 PCS products (subject to the actual packaging).



四: Sealing the box,the outer box is labeled with our production label and ROHS label.

Approval_____

Checked_____

Prepared by 陈阳辉