



Shenzhen Shuodian Electronic Technology Co.,Ltd

Datasheet

for

2.4G-5.8G dual-band glue stick antenna

Customer No.

Product No.

SD0623-2.4G-5.8G dual-band glue stick antenna

Author: XiaofengZeng Review: Liming

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1. Bilateral Confirmation page

1.1 Customer signature

Customer:

Seapartment/post	Sign	Date
Hardware Engineer/RD		
Mechanical/MD		
Project Manager/PM		
Commercial/Puchasing		
Checker		

1.2 Signature of ShuoDian Technology company

Seapartment/post	Sign	Date
Antenna Engineer/RD	何进东	
Mechanical/MD	丁涛	
Project Manager/PM		
QA	李鸣	
Checker	李鸣	



2. General

2.1 Scope of application

This specification is only applicable to Glue stick WIFI antenna

2.2 Operating temperature range

Temperature range of this product: -20 ~ +65 °C

2.3 Storage temperature range:

This product is stored at - 30 ~ + 75 °C

3. General product specifications

NO.	ITEMS	DETAILS
1	Type	Glue stick WIFI antenna
2	Operating Frequency Band	2.4~2.5G/5.1~5.9G
3	VSWR	≤ 2.0
4	Gain	$3.0 \pm 0.5\text{dBi}$
5	Radiation Efficiency	$\geq 50\%$
6	Impedance	50Ω
7	Antenna Type	dipole
8	Antenna composition	glue stick antenna



4. Specification Detials

4.1 Mechanical Properties

4.11 Product Composition:

No.	Material	Size (MM)
1	glue stick	Φ 10*110MM

4.12 Apperance

Good appearance without scars 、dirts、protuberances, etc.

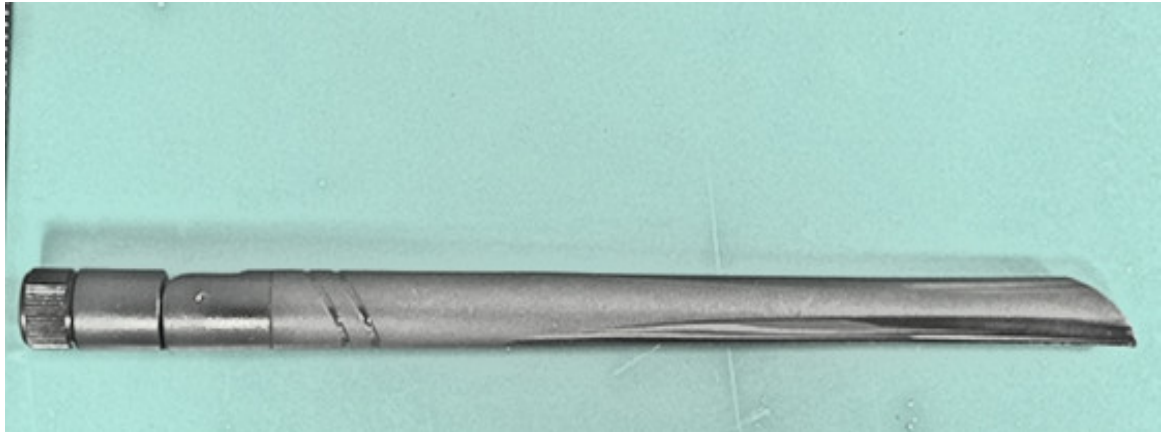
4.13 Antenna Picture and Structure Dimension

Product drawings:



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Antenna picture





4.2 Electric Performance

4.21 Test condition

Environment:	Equipment:
Temperature: 10℃——+30℃	Network Analyzer: KEYSIGHT E5071C
Humidity: ≤80% (+40℃)	Anechior Chamber: ETS
Atmospher: 750mmkg ±30mmkg	

多探头天线测试暗室

系统简介

使用多探头电子切换的测量方式可以实现快速的天线测量，相比较传统的机械旋转方式，测试速度可提高一个数量级。

使用垂直安装的多探头切换架构可以使待测天线直接水平方式放置在待测台上，具有承重大，待测物转动的时候不受重力方向变化影响，摆放简单方便等优点。针对测试距离限制，使用近场测量方式可以直接得到近场条件下的幅相分布，经过严格的数学变换可以得到精确的远场辐射方向图。

技术参数

暗室尺寸：暗室外尺寸为4m*4m*4m（不计波导窗）
探头数量：24（其中23个双极化探头，1个透波探头）
阵列直径：内径2.60m，测试距离1.30m
探头间隔：15度，可实现15/30/45/60/90间隔测试
屏蔽效能：工作频段内100dB
测量频率：400M-8.5GHz全模式
测试方式：近场远场复合式（球面近场）
最大待测物重量：50kg
最大待测物口径：0.6-1.2m按不同频段

测试能力

无源模式：支持无源天线和有源天线的无源模式测量，可测试增益，效率，波束宽度，前后比，零点深度，波束偏移角，交叉极化比，轴比，线极化分量测量，圆极化分量测量，±45度斜极化测量，相位中心测量，相关性系数ECC测量，多端口天线测量等参数。支持使用RS ZND, ZNB, 8753, 5071, 5230, 3672等各厂家各系列网络分析仪。

有源模式：支持2345G全制式多模式测量以及NB-IoT, eMTC, CAT-1, Bluetooth 1-5, GPS/Beidou/Glonass, WLAN802.11abgnacax6E 数字对讲机等制式的接收和发射测量。可测量TRP, TIS, EIRP, EIS, 吞吐量，发射平坦度，接收平坦度等的测量。





The instrument used in this test: E5071C

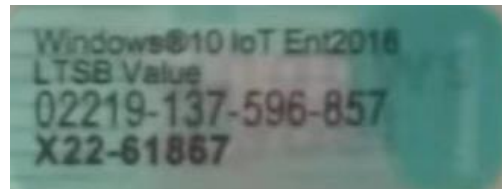




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The E5071C calibration time stamp:

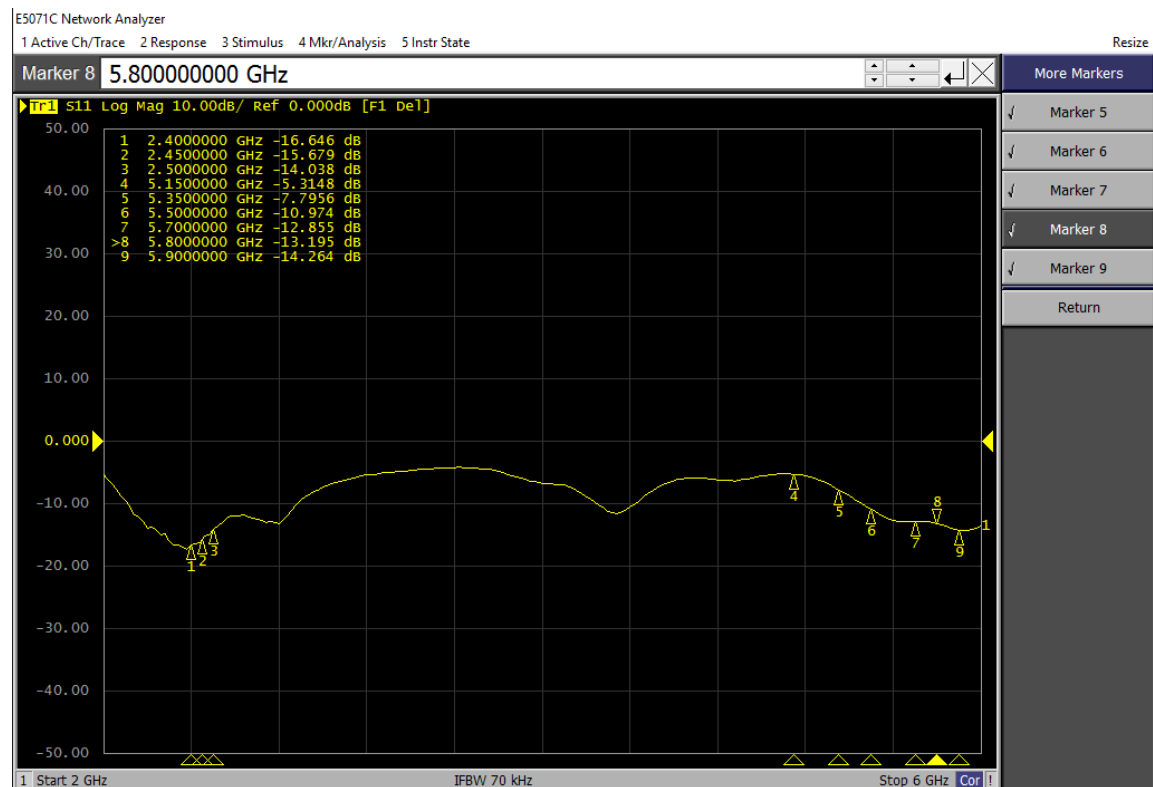
Please refer to the picture for SW version:



4.22 Test Data for Electrical Performance:

4.22.1 S11 of the Antenna:

Frequency (MHz)	2400	2450	2500	5150	5350	5500	5700	5800	5900
ReturnLoss	-16.65	-15.67	-14.03	-5.31	-7.79	-10.97	-12.85	-13.19	-14.26
VSWR	1.33	1.39	1.48	3.29	2.32	1.82	1.59	1.51	1.44



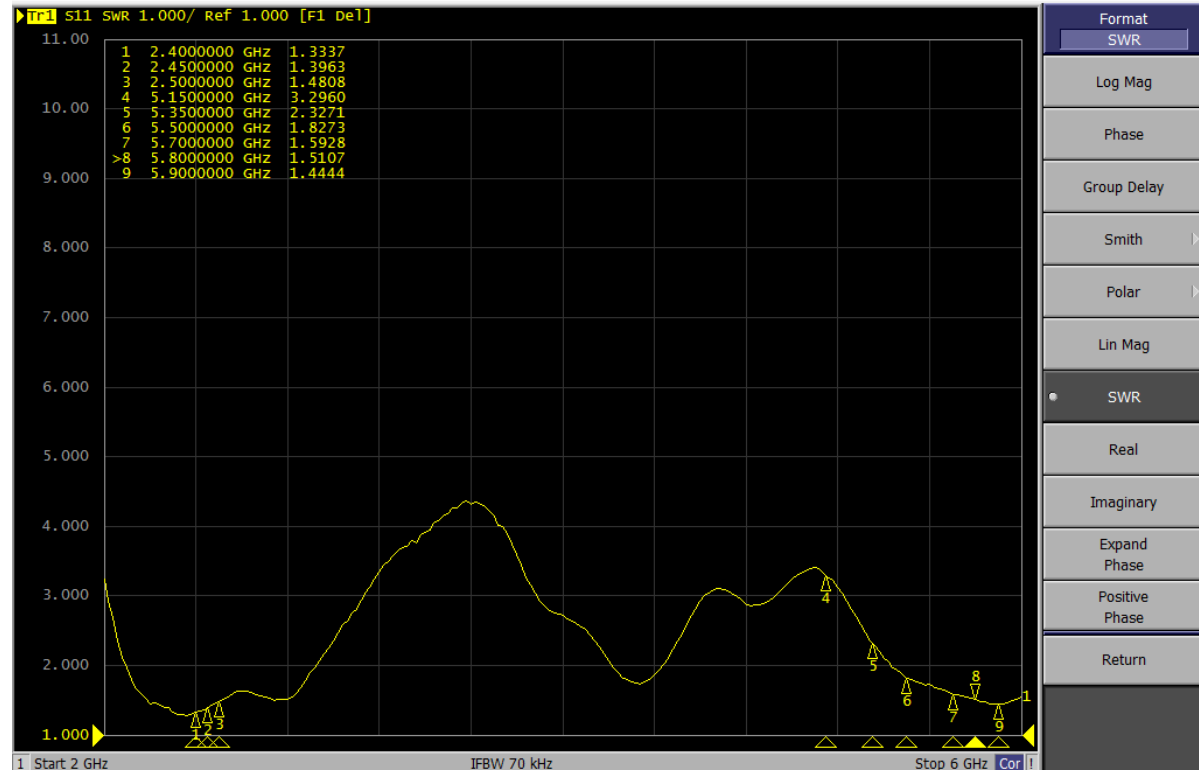


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E5071C Network Analyzer

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

Resize



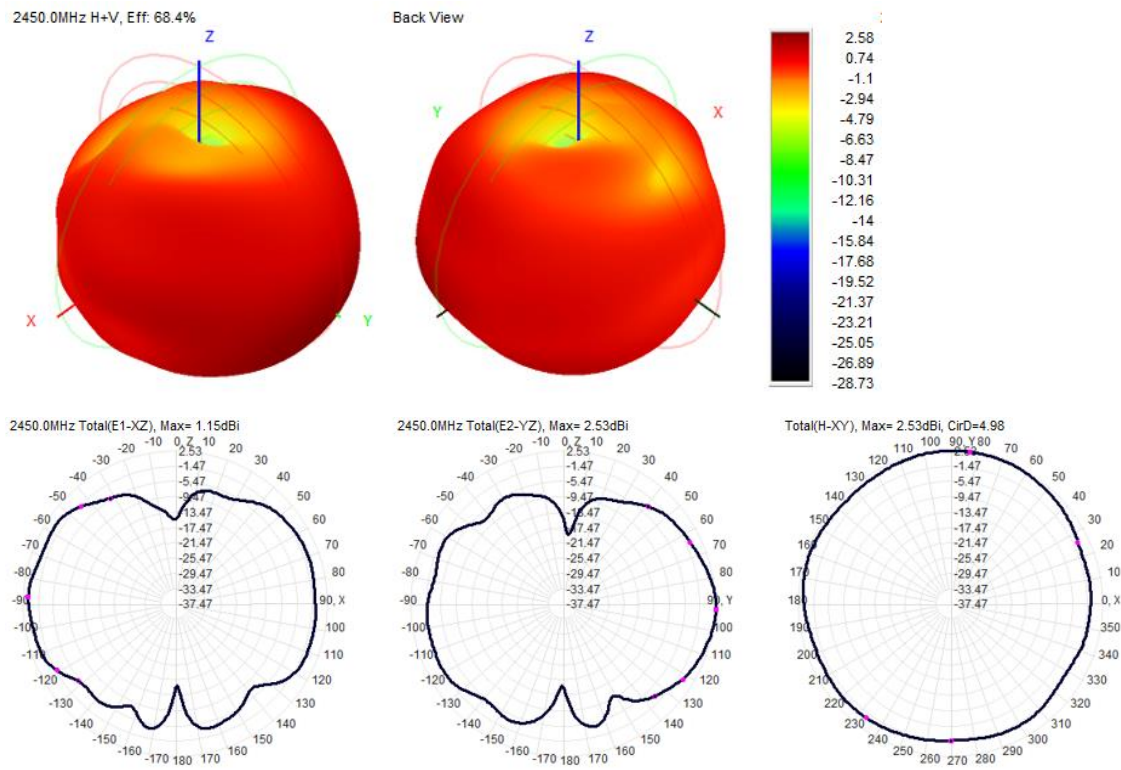
4. 22. 2 Passive gain、 efficiency and Radiation Pattern:

FrQ (MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490	2500
Gain (dBi)	2.04	2.03	2.09	2.02	2.25	2.58	2.69	3.02	2.93	3.01	3.17
Effic (%)	70.1	68.9	68.8	67.2	68.3	68.4	67.1	68.1	65.9	67.2	68.7
FrQ (MHz)	5125	5150	5175	5200	5225	5250	5275	5300	5325	5350	5375
Gain (dBi)	1.95	1.72	1.54	2.03	2.20	2.34	2.06	1.96	2.32	2.66	2.39
Effic (%)	54.0	52.8	50.8	55.5	56.3	57.4	56.7	55.1	61.0	65.2	61.9
FrQ (MHz)	5650	5675	5700	5725	5750	5775	5800	5825	5850	5875	5900
Gain (dBi)	2.01	2.31	2.40	2.39	2.37	2.57	2.53	2.54	2.55	2.72	2.78
Effic (%)	65.8	67.1	67.8	67.5	67.0	67.9	68.8	70.2	67.3	66.0	68.4

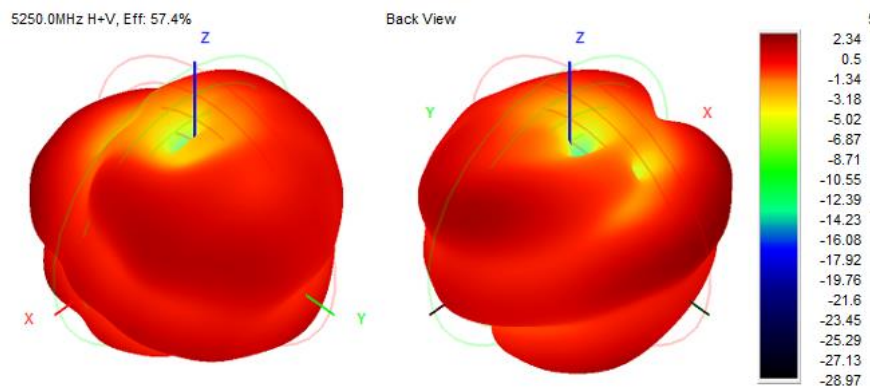


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Frequency: 2450MHz

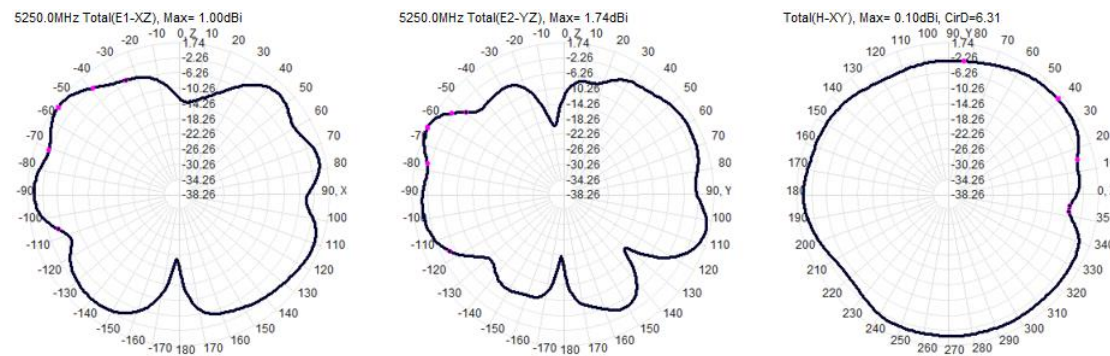


Frequency: 5250MHz





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Frequency: 5800MHz

