



Holatek Technology Sample Recognition Letter

Supplier Name: Shenzhen ZOHNGTIANXUN Communication Technology
Shares Co., LTD.

Product Name: S70A (TS70A) BT&WiFi-1 FPC Antenna

Material P/N: /

Material quality:

Approval Version: V1

Drawing Version: V1

Supplier Approved			Shenzhen Holatek Approved		
R&D/Engineering	quality	Approved	Industrial Design Department	R&D	Quality Management Department
Wang Pei Chen ZhengWei	Yang DengShan	Zou Guohua			

Supplier Address:

No. 34 Shilong Avenue, Shiyan Town, Bao'an District, Shenzhen (Tengda Industrial Park)

Tel: 0755-27588320

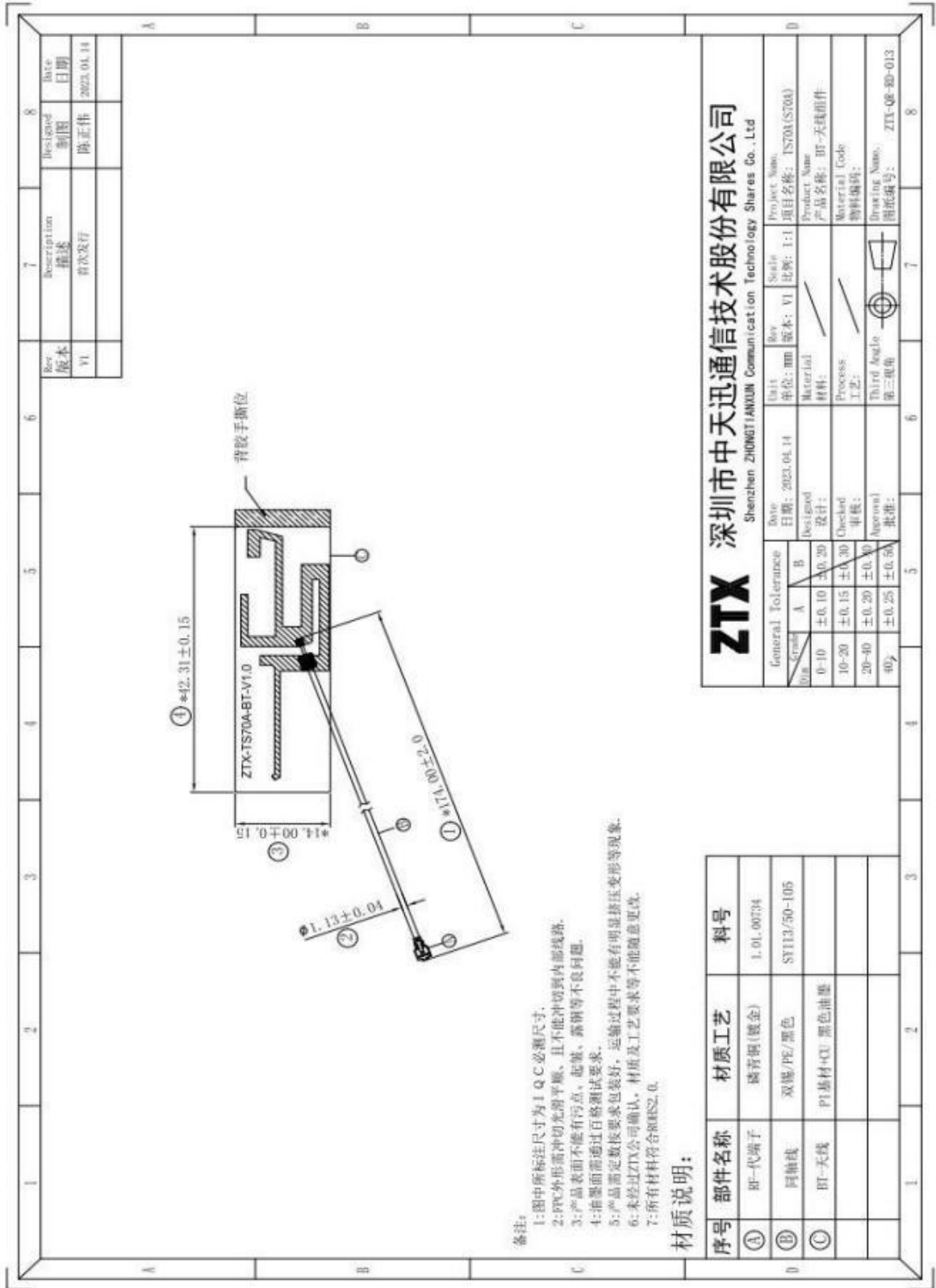
FAX:0755-27588045



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BT Antenna



- 备注:**
- 1: 图中标注尺寸为1QC必测尺寸。
 - 2: PVC外形需冲切光滑平顺, 且不能冲切到内部线路。
 - 3: 产品表面不能有污点, 毛刺, 露铜等不良问题。
 - 4: 油墨面需通过百格测试要求。
 - 5: 产品需定数按要求包装好, 运输过程中不能有明显挤压变形等现象。
 - 6: 未经过ZTX公司确认, 材质及工艺要求等不能随意更改。
 - 7: 所有材料符合RoHS2.0。

材质说明:

序号	部件名称	材质工艺	料号
A	BT-代端子	磷青铜(镀金)	1.0L.007/4
B	同轴线	双频/PE/黑色	SF113/50-105
C	BT-天线	P1基材+CU 黑色油墨	

ZTX 深圳市中天迅通信技术股份有限公司

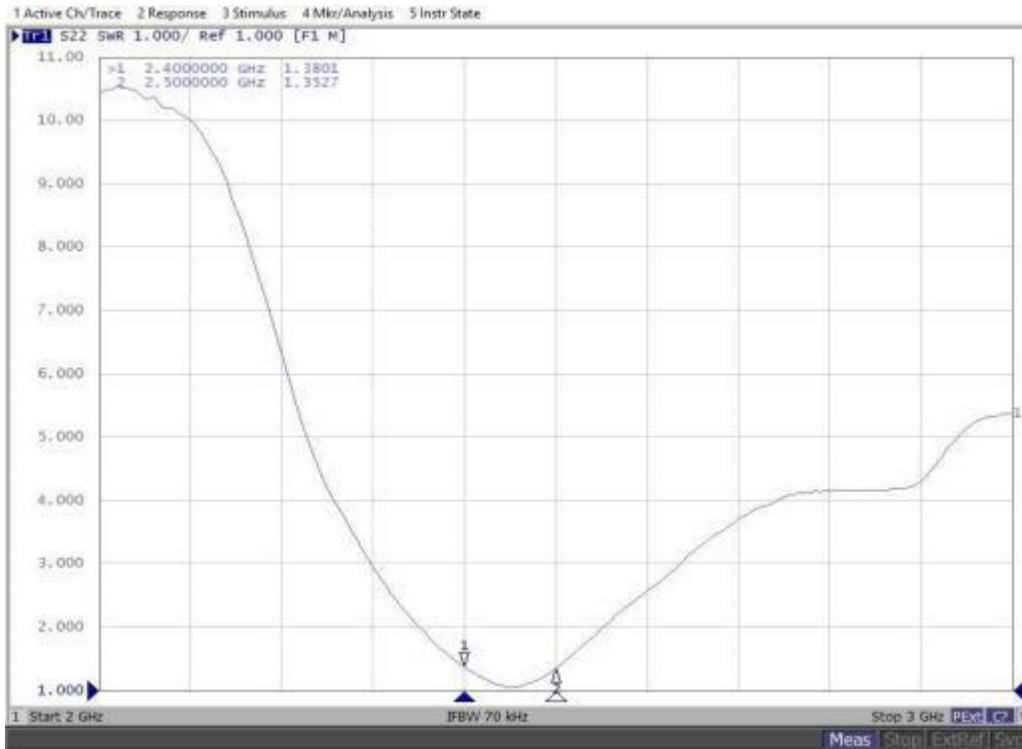
Shenzhen ZHONGTIANXUN Communication Technology Shares Co., Ltd

Unit	Rev	Scale	Project Name
单位: mm	版本: V1	比例: 1:1	项目名称: TS70A(S70A)
Date	Rev	Scale	Project Name
日期: 2023.04.14	版本: V1	比例: 1:1	项目名称: TS70A(S70A)
General Tolerance	Material	Process	Material Code
0-10 ±0.10 A, ±0.20 B	材料:	工艺:	物料编码:
10-20 ±0.15 ±0.30	10-20 审核:	20-40 批准:	Third Angle 第三视图
20-40 ±0.20 ±0.40	40± ±0.25 ±0.50	批准:	图档编号: ZTX-Q6-BD-013

BT 4 - 1 Active Test

DH5			2DH5			3DH5		
Channels	TRP	TIS	Channels	TRP	TIS	Channels	TRP	TIS
0	3.04	-85.12	0	2.32	-85.29	0	3.12	-79.16
39	2.02	-85.64	39	2.28	-85.68	39	2.46	-79.86
78	2.76	-85.29	78	2.26	-85.18	78	2.18	-79.25

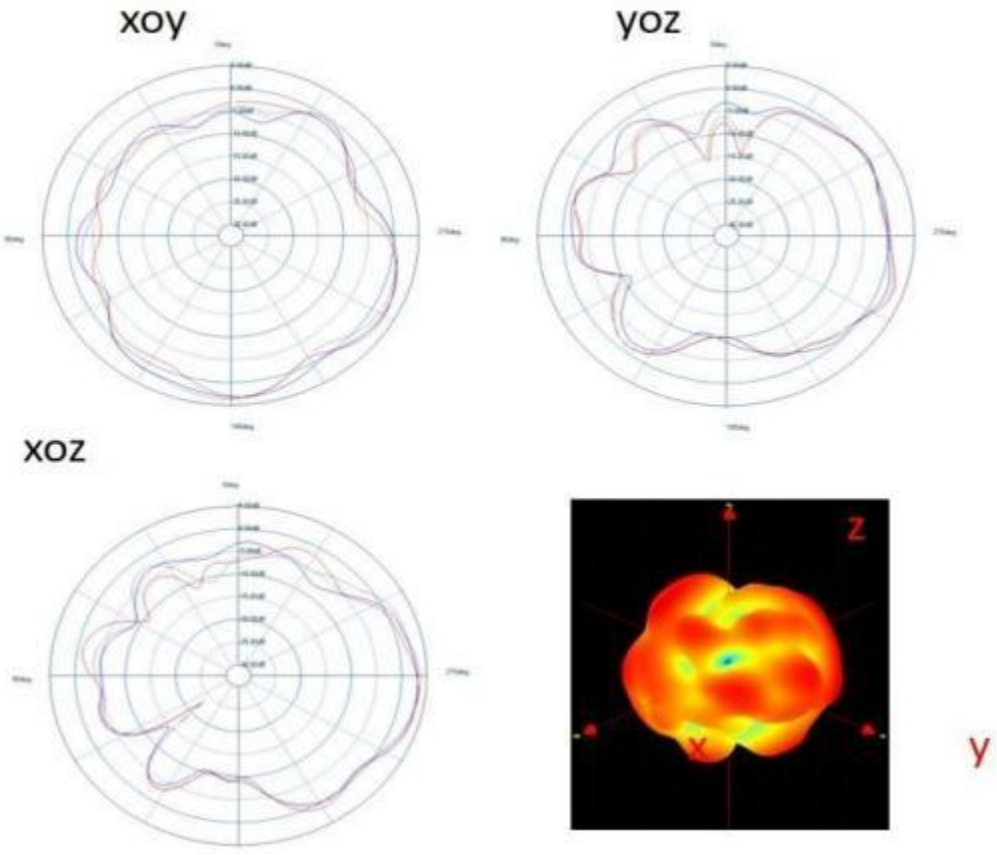
BT 4 -2 VSWR



BT 4 -3 Passive Test

Frequency	Efficiency	Efficiency .dB	Gain .dB
2400MHz	49%	-2.30	2.56
2410MHz	50%	-2.21	2.49
2420MHz	51%	-2.17	2.22
2430MHz	53%	-1.99	2.79
2440MHz	55%	-1.90	2.27
2450MHz	52%	-2.09	1.73
2460MHz	52%	-2.05	2.64
2470MHz	51%	-2.14	2.65
2480MHz	51%	-2.14	1.82
2490MHz	50%	-2.20	1.89
2500MHz	53%	-2.03	2.23

BT 4 -4 2D/3D Radiation Pattern Results



Antenna technology parameters:

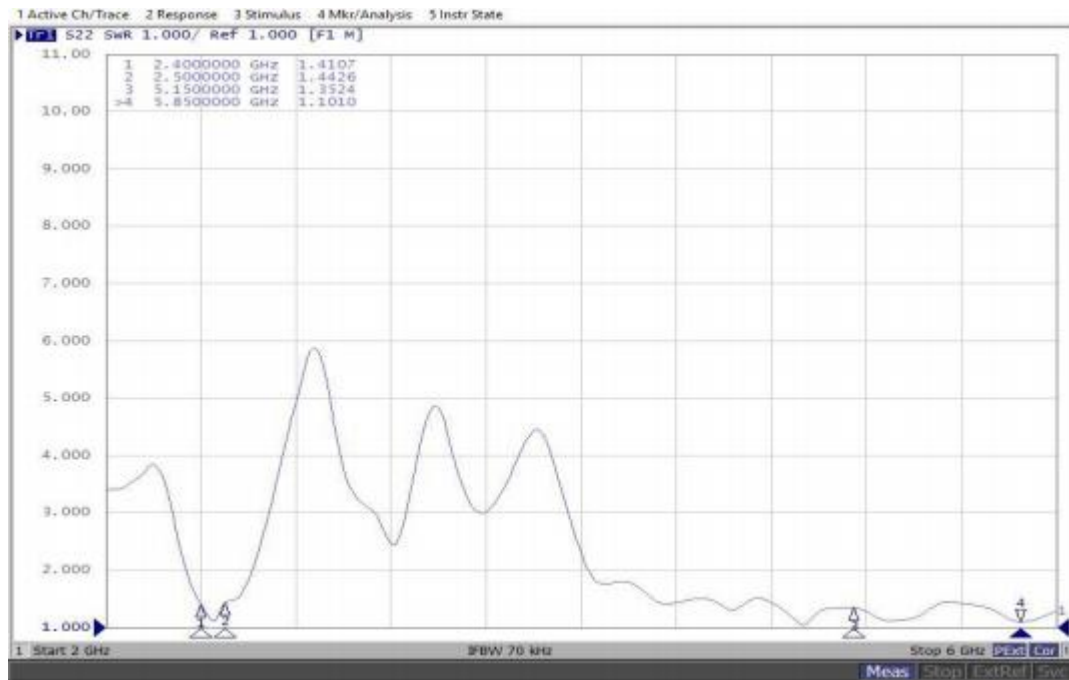
Electrical Specifications	
Frequency Range	2400–2500/5150–5850MHz
VSWR	<1.92
Input Impedance	50 Ω
Direction	All
Cable Color	Black

WIFI 1

WIFI 4 - 1 Active Test

B			G			N			A		
Channels	TRP	TIS	Channels	TRP	TIS	Channels	TRP	TIS	Channels	TRP	TIS
1	12.67	-81.26	1	13.82	-71.6	1	13.74	-67.86	36	14.8	-73.27
6	12.54	-82.14	6	13.67	-72.45	6	13.84	-67.74	149	14.91	-73.43
11	12.47	-81.56	11	13.79	-72.23	11	13.76	-67.58	165	15.37	-73.13

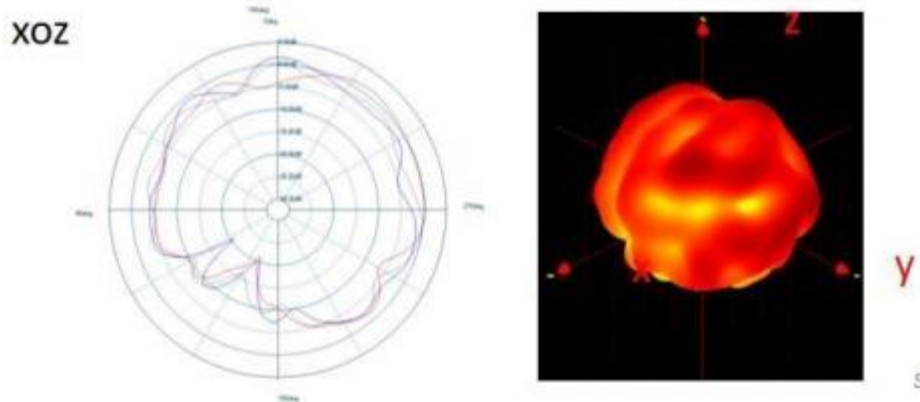
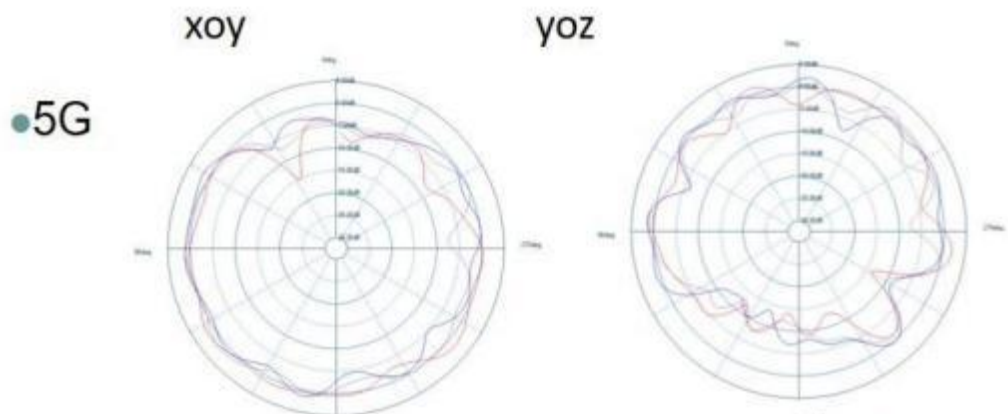
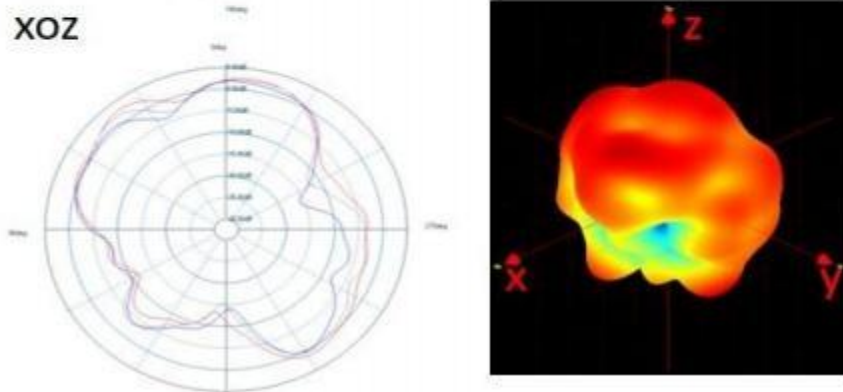
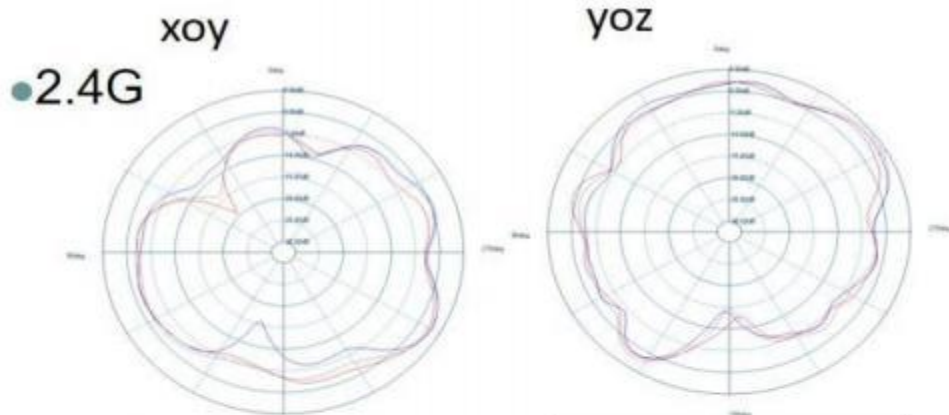
WIFI 4 -2 VSWR



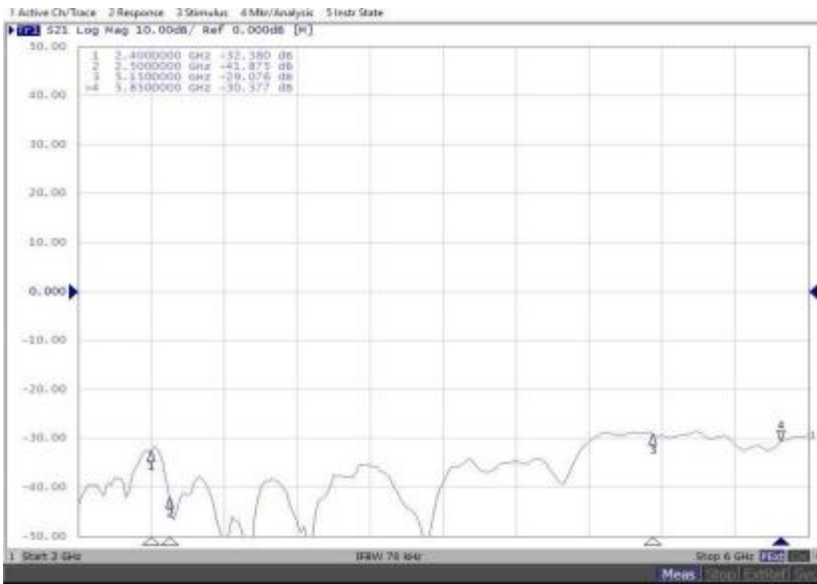
WIFI 4 -3 Passive Test

Frequency	Efficiency	Efficiency .dB	Gain .dB
2400MHz	54%	-2.66	2.39
2410MHz	54%	-2.69	2.74
2420MHz	53%	-2.78	2.17
2430MHz	54%	-2.70	3.18
2440MHz	54%	-2.65	2.56
2450MHz	56%	-2.49	2.51
2460MHz	53%	-2.74	3.14
2470MHz	56%	-2.51	3.14
2480MHz	55%	-2.63	2.07
2490MHz	54%	-2.66	2.78
2500MHz	52%	-2.83	2.75
5150MHz	57%	-2.41	2.32
5200MHz	55%	-2.56	2.30
5250MHz	57%	-2.41	3.25
5750MHz	53%	-2.76	2.69
5800MHz	59%	-2.26	2.77
5850MHz	59%	-2.26	3.19

WIFI 4 -4 2D/3D Radiation Pattern Results



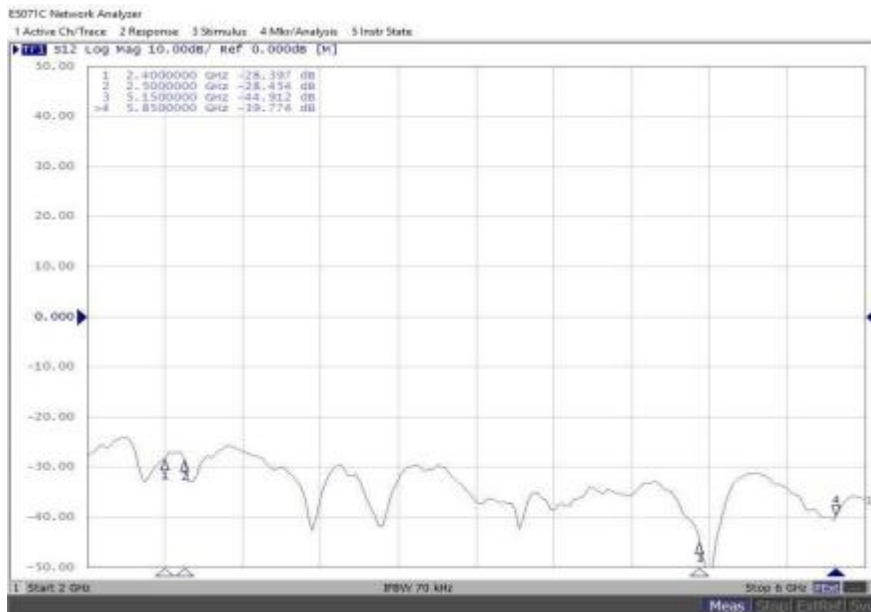
WIFI 4 -5 Isolation test



WiFi



WIFI

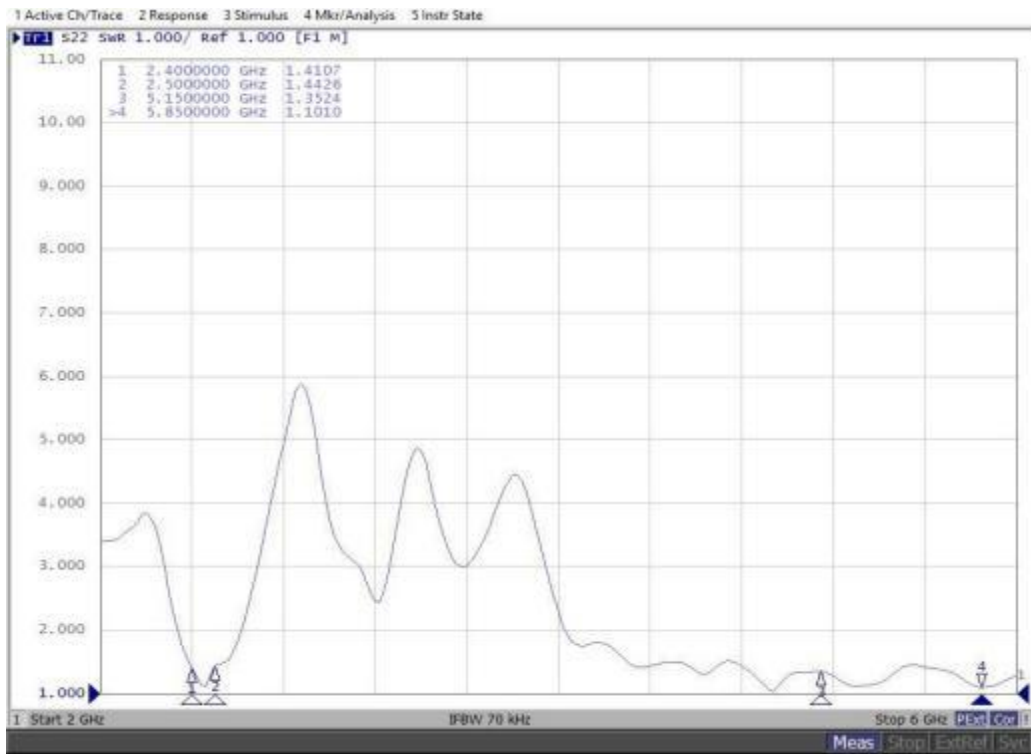


WIFI 2

WIFI 4 - 6 Active Test

B			G			N			A		
Channels	TRP	TIS	Channels	TRP	TIS	Channels	TRP	TIS	Channels	TRP	TIS
1	12.67	-81.26	1	13.82	-71.6	1	13.74	-67.86	36	14.8	-73.27
6	12.54	-82.14	6	13.67	-72.45	6	13.84	-67.74	149	14.91	-73.43
11	12.47	-81.56	11	13.79	-72.23	11	13.76	-67.58	165	15.37	-73.13

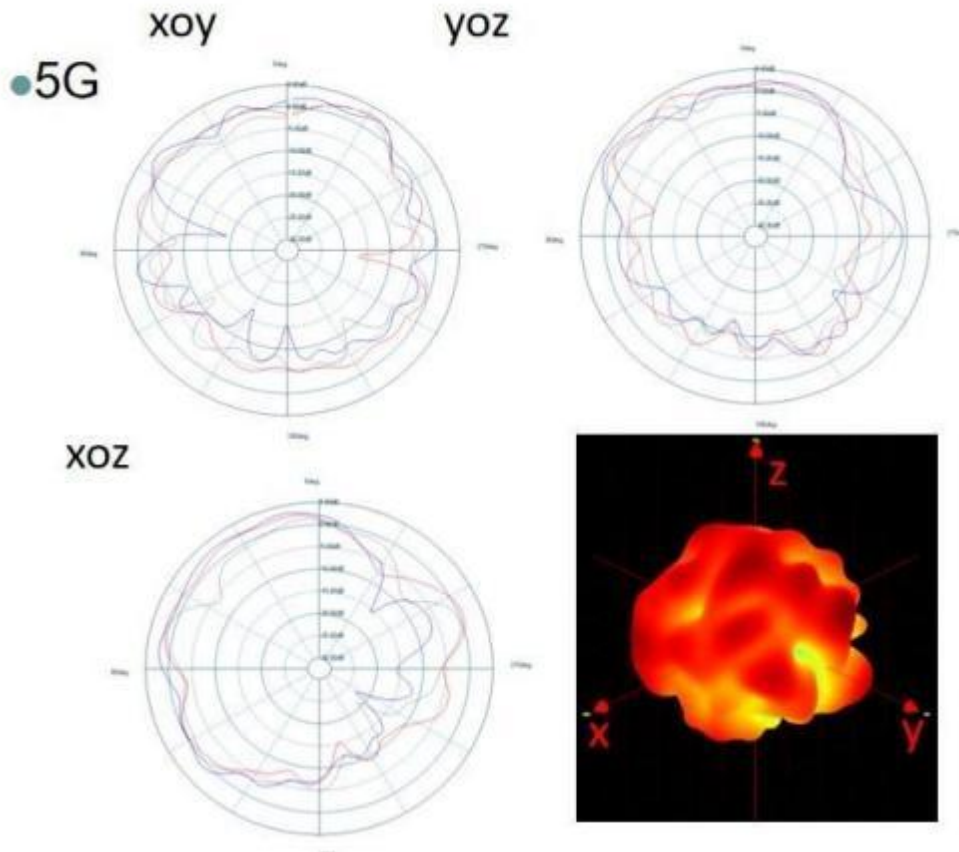
WIFI 4 -7 VSWR



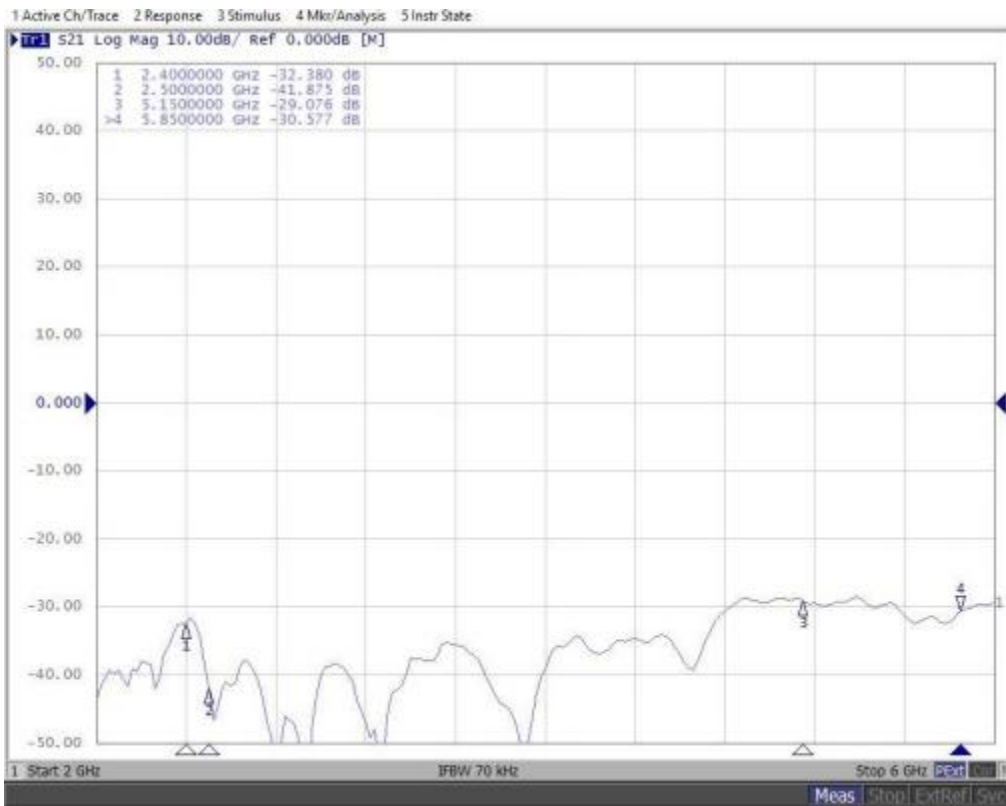
WIFI 4 -8 Passive Test

Frequency	Efficiency	Efficiency .dB	Gain .dB
2400MHz	51%	-2.95	1.72
2410MHz	52%	-2.81	2.53
2420MHz	51%	-2.96	2.61
2430MHz	53%	-2.72	2.30
2440MHz	54%	-2.67	2.10
2450MHz	56%	-2.54	2.89
2460MHz	56%	-2.55	2.54
2470MHz	54%	-2.69	2.01
2480MHz	51%	-2.92	2.83
2490MHz	51%	-2.95	2.13
2500MHz	50%	-2.98	1.92
5150MHz	55%	-2.63	2.52
5200MHz	52%	-2.81	2.18
5250MHz	52%	-2.83	2.69
5750MHz	51%	-2.92	2.44
5800MHz	50%	-3.02	2.46
5850MHz	52%	-2.87	2.53

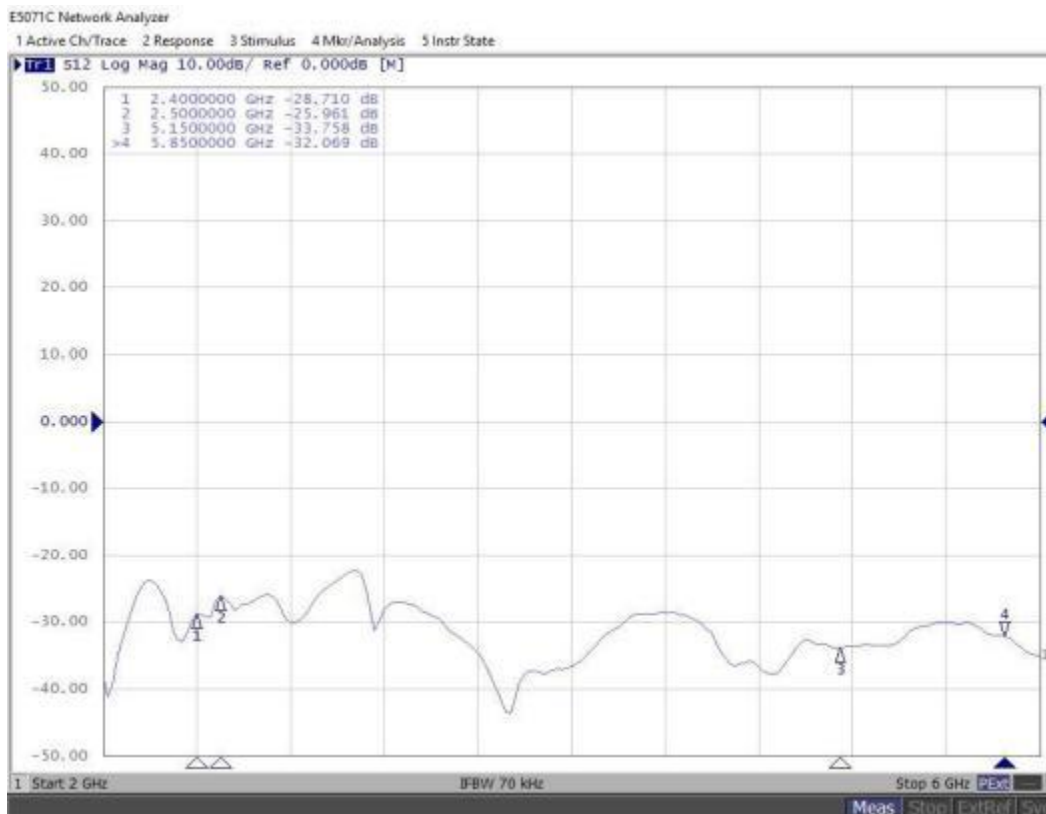
4 -9 2D/3D Radiation Pattern Results



WiFi 4 -10 Isolation test WiFi



WiFi1



WiFi

ES071C Network Analyzer

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

512 Log Mag 10.00dB/ Ref 0.000dB [M]

