



深圳市海德门电子有限公司

ShenZhen Deman Electronics Technology Co., Ltd

Antenna Test Report

For

Project R010-NA 3IN1 Antenna

Customer	Beijing Wiseasy Technology Co.,Ltd.	Project	R010
Band	GPS L1/WIFI2.4/5G	Color	Black
PRS PN	ShenZhen Deman Electronics Technology Co., Ltd	Version	V1.0
Model name	R010-3IN1-H3772	Antenna type	FPC
		Date	2025.09.18

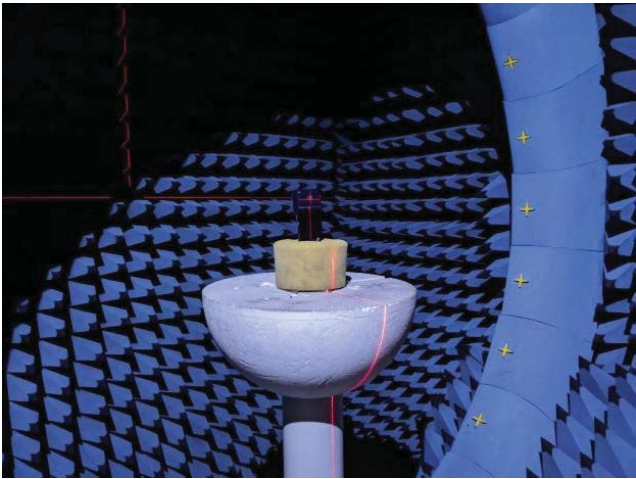
ShenZhen Deman Electronics Technology Co., Ltd

Address: Sunlord Industrial Park, No. 1 Fengtai Road, Tangxia Town, Dongguan City, Guangdong

This test report belongs to ShenZhen Deman Electronics Technology Co., Ltd and related clients to file, please keeping it properly, without our company and related clients allowed, anybody has no rights to reveal it to public.

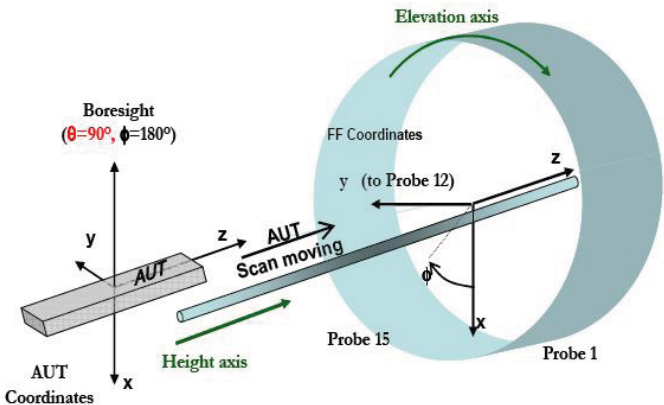
A.TEST INSTRUMENTATION

CHAMBER	SATIMO Chamber
Wireless Networking Test Set	Agilent 8960 5515C
NETWORK ANALYZER	Agilent 5072AD
COMPREHENSIVE TESTER	R&S CMW500
TEMPERATURE	20±2℃
HUMIDITY	50±20%rh
Antenna Types	Loop

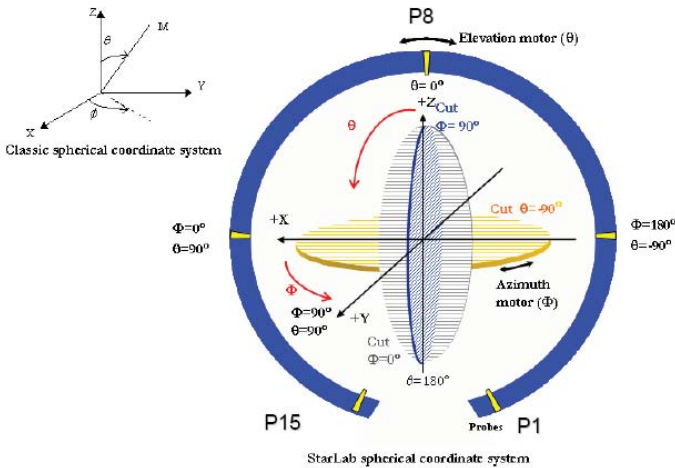


This test report belongs to ShenZhen Deman Electronics Technology Co., Ltd and related clients to file,please keeping it propely,without our company and related clients allowed,anybody has no rights to reval it to public.

Coordinate system – Cylindrical geometry

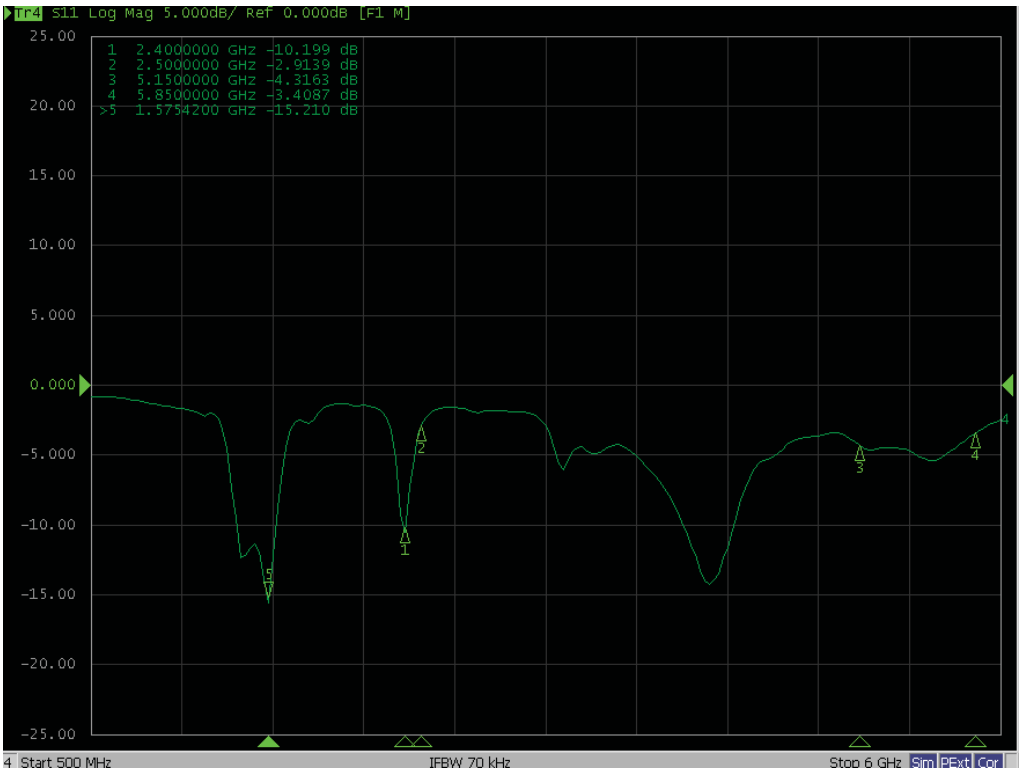


Coordinate system – Spherical geometry



B. Definitions

VSWR: Voltage Standing Wave Rate



This test report belongs to ShenZhen Deman Electronics Technology Co., Ltd and related clients to file, please keep it properly, without our company and related clients allowed, anybody has no rights to reveal it to public.

C. TRP&TIS

Band	Channel	TRP(dBm)	TIS(dBm)
2.4G 11b(11M)	1	9.5	
	7	10.08	
	13	9.02	-79.21
2.4G 11g(54M)	1	9.13	
	7	9.51	
	11	9.03	-79.05
5G 11a(54M)	36	7.5	
	64	7.11	
	165	8.31	-66.26
GPS	-147.19		

D. Cell-Phone Photo and Dealing Methord



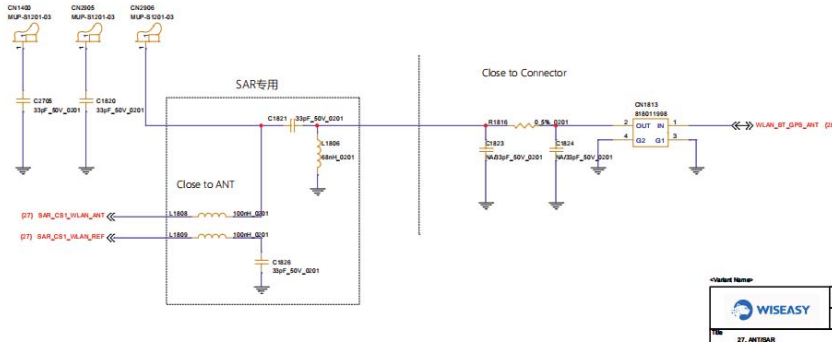
This test report belongs to ShenZhen Deman Electronics Technology Co., Ltd and related clients to file,please keeping it propely,without our company and related clients allowed,anybody has no rights to reval it to public.

E. Matching Circuit Description

WIFI/BT/GPS ANT

WIFI: 2412~2472MHz
5180~5825MHz
BT: 2400~2480MHz
GPS: 1575.42±1.023MHz
Glonass: 1597.5~1605.8MHz

原始匹配未更改



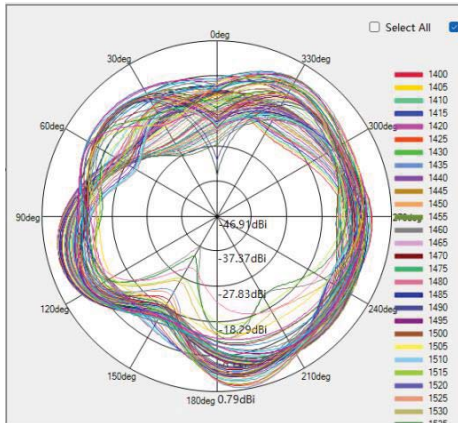
Cell-phone cable test (Conduct at the test hole and set the line loss as 0)

F. Efficiency test results

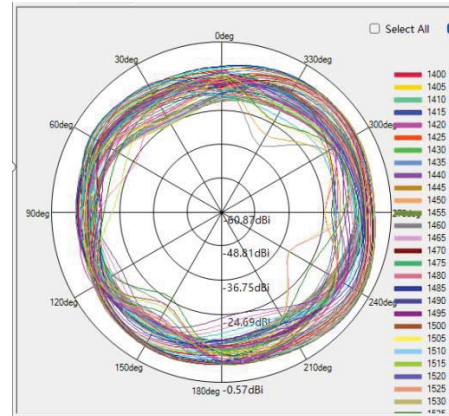
Freq.(MHz)	efficiency (dB)	Gain (dBi)	efficiency (%)
1560	-7.86	-2.99	16.39
1565	-6.67	-2.05	21.55
1570	-6.86	-2.33	20.62
1575	-6.76	-2.26	21.11
1580	-7.18	-2.54	19.13
1585	-7.31	-2.66	18.57
2400	-4.45	0.58	35.9
2410	-4.31	0.78	37.09
2420	-4.21	0.92	37.92
2430	-4.25	0.91	37.57
2440	-4.39	0.64	36.35
2450	-4.64	0.27	34.32
2460	-4.89	-0.05	32.41
2470	-5.05	-0.09	31.26
2480	-5.14	0.08	30.6
2490	-5.53	-0.08	28
2500	-5.81	-0.17	26.26
5150	-6.6	-3.16	21.89
5200	-6.97	-4.02	20.11
5250	-6.55	-3.71	22.14
5300	-6.07	-2.97	24.74
5350	-5.67	-2.06	27.09
5400	-6.42	-2.98	22.79
5450	-6.56	-3.09	22.1
5500	-6.24	-2.15	23.77
5550	-6.46	-1.88	22.62
5600	-7.82	-2.6	16.52
5650	-7.69	-2.4	17.03
5700	-7.22	-3.1	18.99
5750	-7.66	-3.35	17.12
5800	-7.19	-3.51	19.1
5850	-7.21	-3.81	19.01

G. Antenna lobe pattern

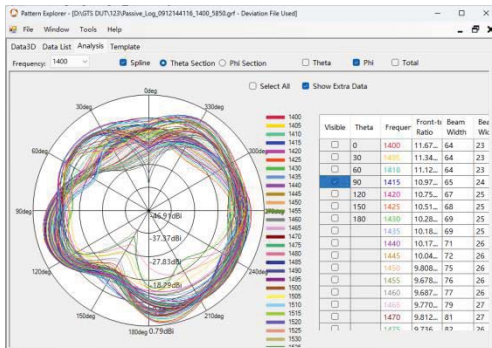
2D Direction diagram



Phi=0

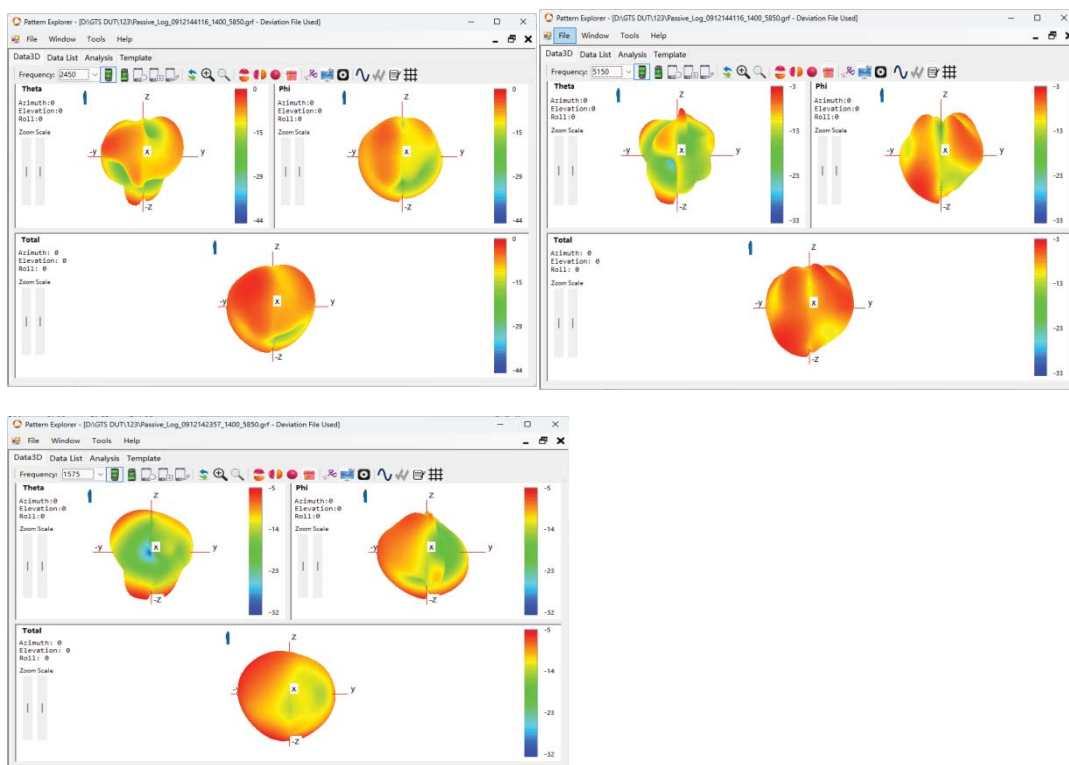


Phi=90



Theta=90

3D apple Map



This test report belongs to ShenZhen Deman Electronics Technology Co., Ltd and related clients to file, please keeping it properly, without our company and related clients allowed, anybody has no rights to reveal it to public.

H. Antenna drawing

3IN1 Antenna(V1.7)

Unit: mm

