

Antenna Test Report

For

Project AC7923A

Test lab:ShenZhen NQI network communication ltd.

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Longgang District, Shenzhen

Test personal :Fang fang

Test date:2026.08.01

一. Test Instrumentation and item (测试设备及项目)

类别 (Class)	测试项目 (Test item)	设备 (Equipment)
1. S parameter	1. 回波损耗(RL) 2. 驻波比 (VSWR) 3. 史密斯原图 (Smith chart)	网分 (VNA) : Agilent E5071B R&S ZVB8 Protek A333
2. 耦合测试 (Coupling testing)	1. 发射功率 (MAX Power) 2. 接收灵敏度 (MIN Sens)	1. 2G/3G Tester: Agilent 8960 2. The coupling box: TESCO TC-5060A 3. 3D Chamber: ETS 3D Chamber (5x3x3)
3. 3D 无源测试 (Passive Test)	1. 效率 (Effeciency) 2. 增益 (Gain) 3. 辐射方向图 (radiation pattern)	1. 3D Chamber: TEM24 3D Chamber (5x5x5) ETS 3D Chamber (5x3x3) 2. 网分 (VNA) : Agilent E5071B R&S ZVB8
4. 3D 有源测试 (Active Test)	1. 3D 功率 (TRP) 2. 3D 灵敏度 (TIS) 3. 吞吐率 (Throughput rate)	1. 3D Chamber: TEM24 3D Chamber (5x5x5) ETS 3D Chamber (5x3x3) 2. 2G/3G Tester: Agilent 8960 3. 4G Tester: MT8820C/CMW500 4. WIFI/BT/NB-iot Tester: CMW500 5. 5G Tester: SP9500-CTS 6. Head: HEAD-P10 (FACE-P10)

Antenna Type: PCB Antenna

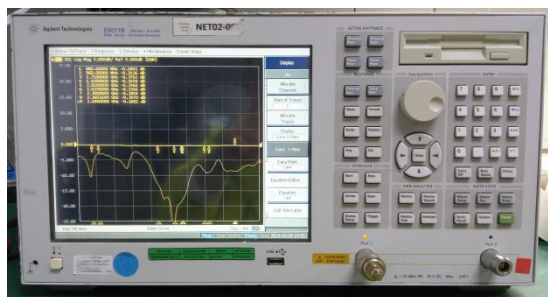
Test Standard

Name	Parameter	Method	Standard no.
Antenna performance	Radiation efficiency	IEEE Standard Test Procedures for Antennas	ANSI/IEEE Std 149- 2021

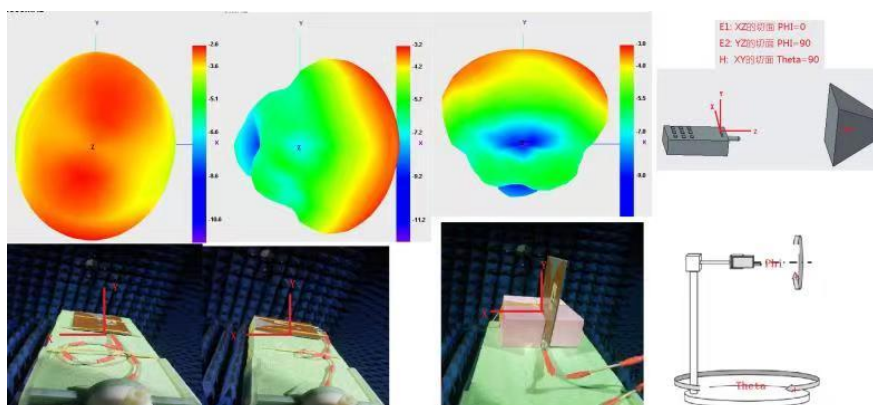
Test equipment list

Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Due Date
Network Analyzer	Keysight (Agilent)	E5071B	MY54320001	2025. 08. 15	2026. 08. 14
Antenna (Std Gain)	ETS-Lindgren	AC7923A_RF	LJX-01	2025. 08. 10	2026. 08. 09
Anechoic Chamber	ETS-Lindgren	AR-10	CH-2023-01	2025. 09. 01	2026. 08. 31
Signal Generator	Rohde & Schwarz	SMBV100A	10056789	2025. 10. 20	2026. 10. 19
Power Sensor	Keysight	U2021XA	MY54320002	2025. 08. 15	2026. 08. 14

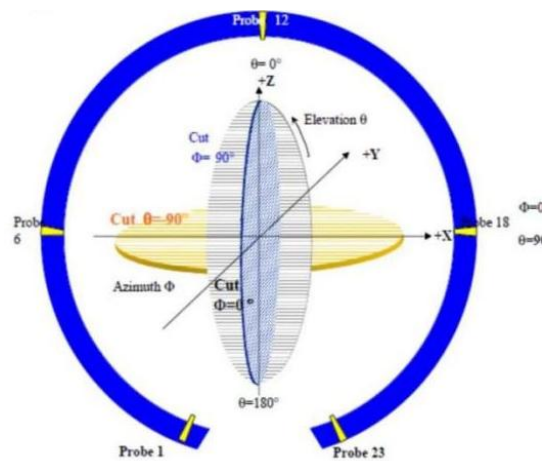
For antenna setup photo, please refer to antenna photo PDF.



二. Chamber coordinate axis (暗室坐标)



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三. Definitions (定义)

VSWR: Voltage Standing Wave Ratio

RL: Return loss

TRP: total radiated power

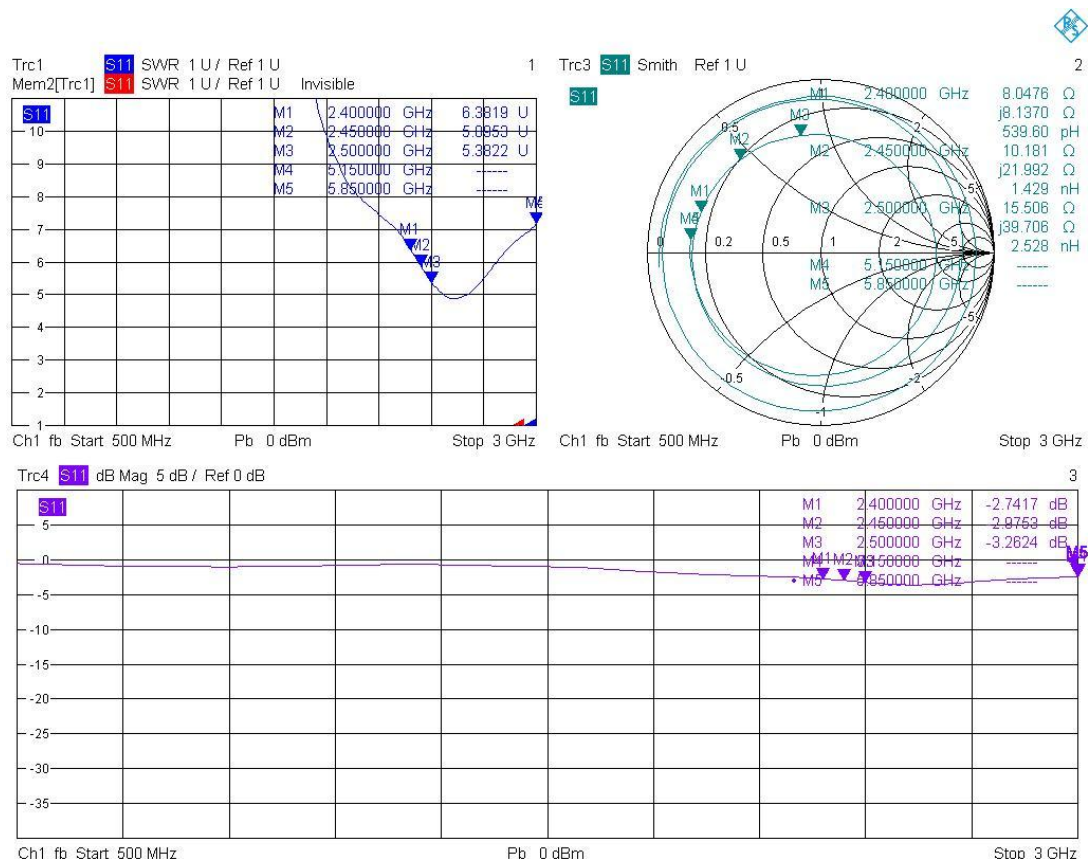
TIS: total isotropic sensitivity

四. Antenna Photo

Please refer to antenna photo PDF

六. 天线电性能测试数据

5.1 回波损耗/驻波比/Smith



7/28/2004, 1:27 AM

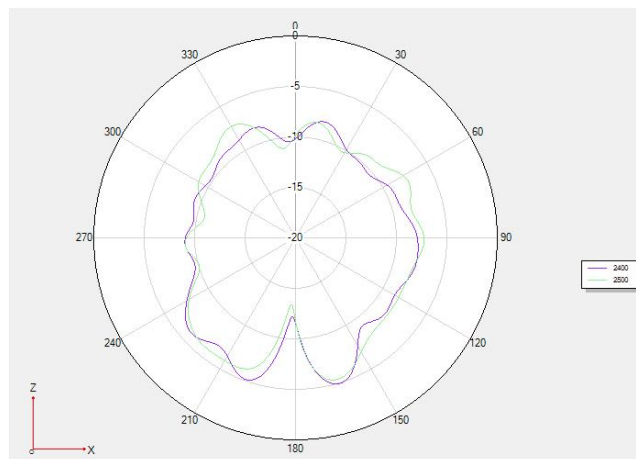
5.2 增益及效率

Frequency	MaxGain/	Efficiency / %
2400	-4.67	9.95
2410	-5.12	9.71
2420	-4.61	10.52
2430	-4.76	10.23
2440	-4.63	10.45
2450	-4.56	10.4
2460	-4.48	10.64
2470	-4.71	10.59
2480	-5.26	10.16
2490	-4.93	10.96
2500	-5.06	10.81

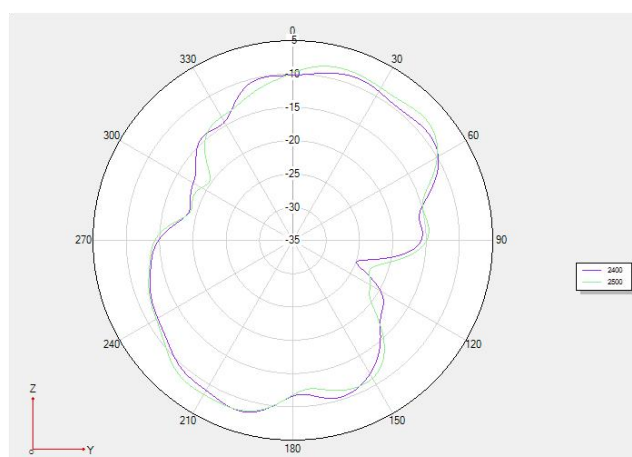
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5.3 2D 图

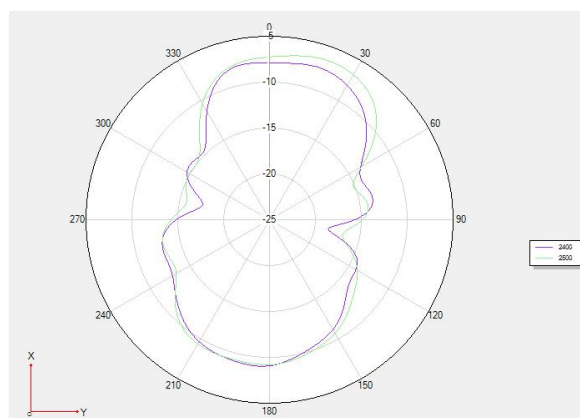
Phi 0 2D



Phi 90 2D

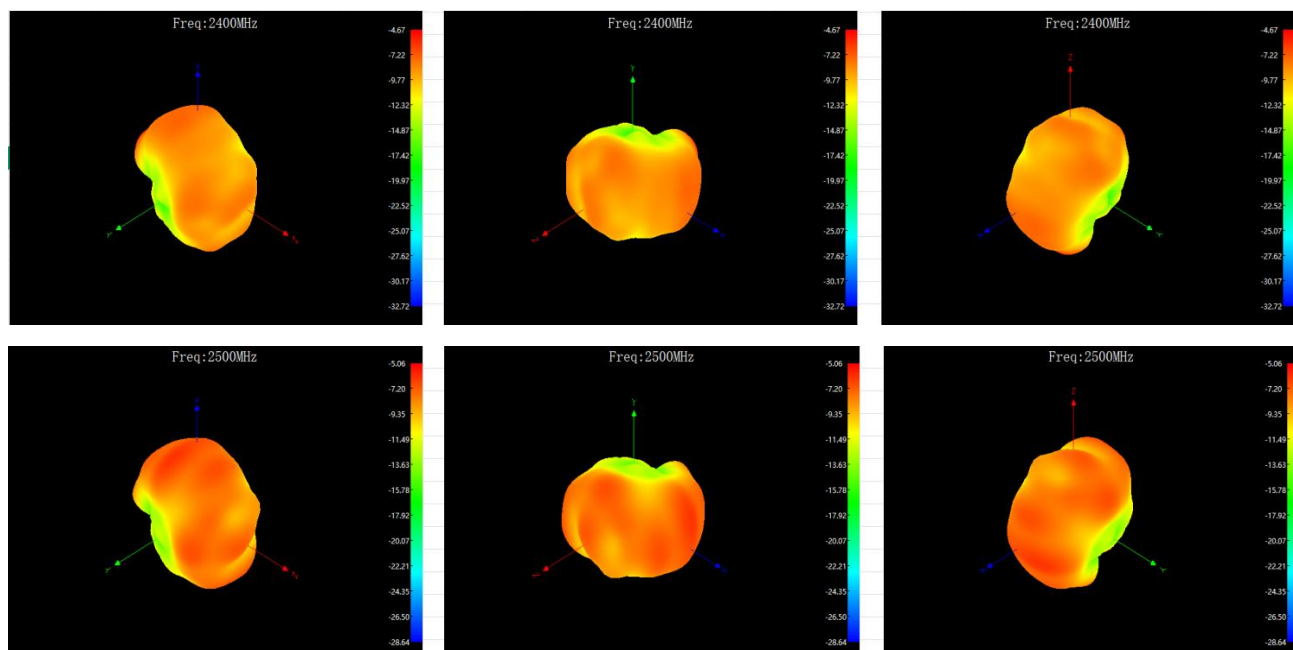


Theta 90 2D



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5.4 3D 图



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