



天线型号 (Antenna Version): ANT-BBNCNC22016
产品型号 (Model of the DUT): MSR01
PCB 编号及版本 (PCB number and version): MS169F6_V2.1
责任硬件工程师 (Hardware Engineer): Jovan
测试日期 (Test Data): 2025/3/20

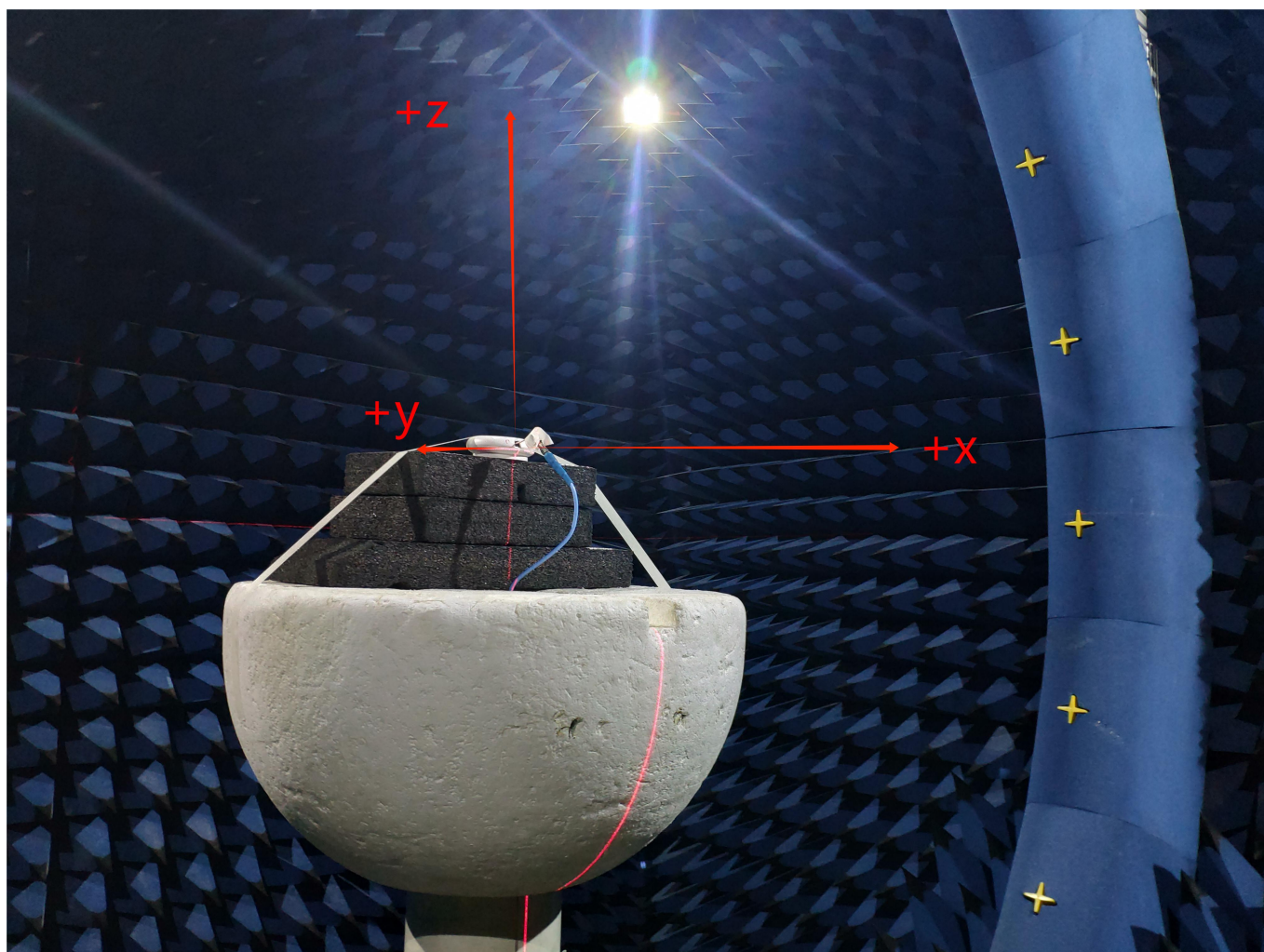
1、技术指标 (Technical Specification)

电性能指标 Electrical Specifications	
频率范围 Frequency Range (MHz)	2400-2480
频带宽度 Bandwidth (-10dB) (MHz)	0.3
输入阻抗 Input Impedance (Ω)	50
回波损耗 Return Loss (dB)	<-13
电压驻波比 VSWR	<1.56
增益 Gain (@2.44GHz) (dBi)	4.95
峰值增益 Peak Gain (dBi)	5.32
极化形式 Polarization Type	线极化 (Linear polarization)
雷电保护 Lightning Protection	直流接地 (DC grounding)
功率容量 Power Capacity (mW)	1000
机械指标 Mechanical Specifications	
天线尺寸 Antenna Size (mm)	20.745*8.365
辐射体 Radiator	铜 Cuprum
连接器型号 Connect Type	无
工作温度 Working Temperature ($^{\circ}\text{C}$)	-20~60 $^{\circ}\text{C}$
存储温度 Storage Temperature ($^{\circ}\text{C}$)	-20~60 $^{\circ}\text{C}$

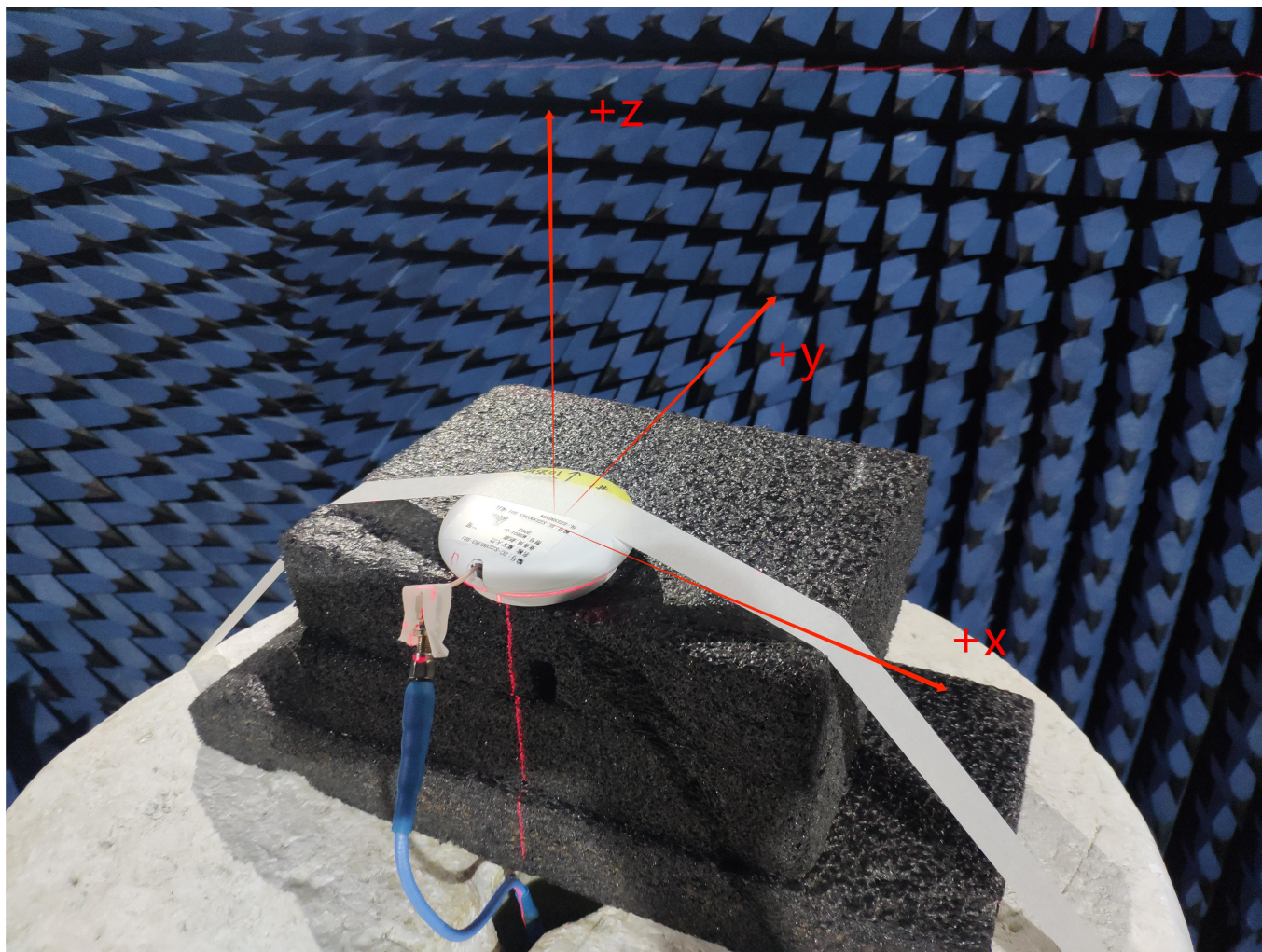
2、天线外形和尺寸 (the shape and size of the antenna)



3、测试结果 (The result of the test)



暗室内部图



待测产品放置图



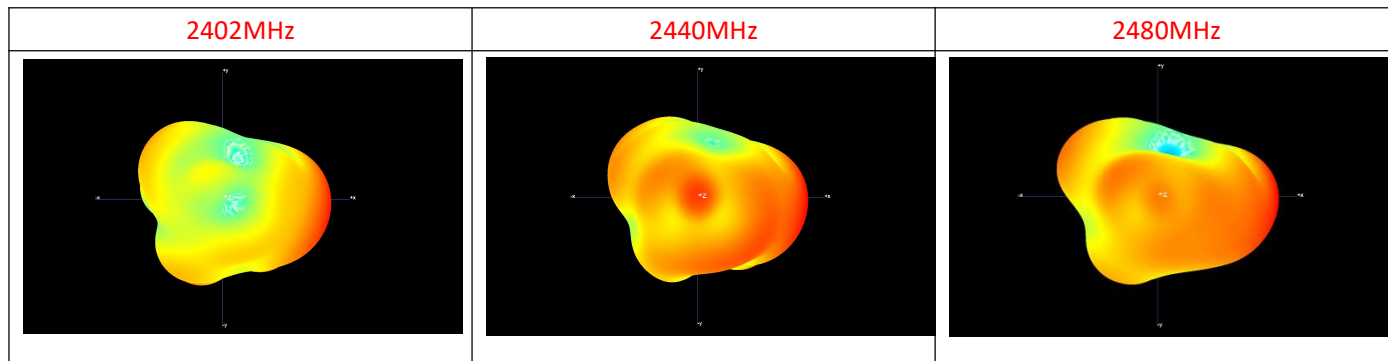
3.1 增益和效率 (Gain and Efficiency)

EUT型号 备注	1#-MSR01-62002 1#	
Frequency	Gain (dBi)	Efficiency()
2400MHz	4.87	67%
2402MHz	4.90	67%
2404MHz	4.91	67%
2406MHz	4.91	68%
2408MHz	4.93	68%
2410MHz	4.93	68%
2412MHz	4.88	69%
2414MHz	4.84	69%
2416MHz	4.88	69%
2418MHz	4.83	69%
2420MHz	4.73	70%
2422MHz	4.70	70%
2424MHz	4.72	71%
2426MHz	4.76	72%
2428MHz	4.75	72%
2430MHz	4.73	73%
2432MHz	4.73	74%
2434MHz	4.74	74%
2436MHz	4.84	75%
2438MHz	4.81	76%
2440MHz	4.87	76%
2442MHz	4.92	77%
2444MHz	4.96	77%
2446MHz	5.03	77%
2448MHz	5.09	77%
2450MHz	5.15	77%
2452MHz	5.21	77%
2454MHz	5.24	76%
2456MHz	5.29	76%
2458MHz	5.32	76%
2460MHz	5.30	76%
2462MHz	5.28	76%
2464MHz	5.27	75%
2466MHz	5.22	76%
2468MHz	5.18	76%
2470MHz	5.14	76%
2472MHz	5.11	76%
2474MHz	5.09	77%
2476MHz	5.00	77%
2478MHz	4.97	78%
2480MHz	4.95	78%
2482MHz	4.93	78%

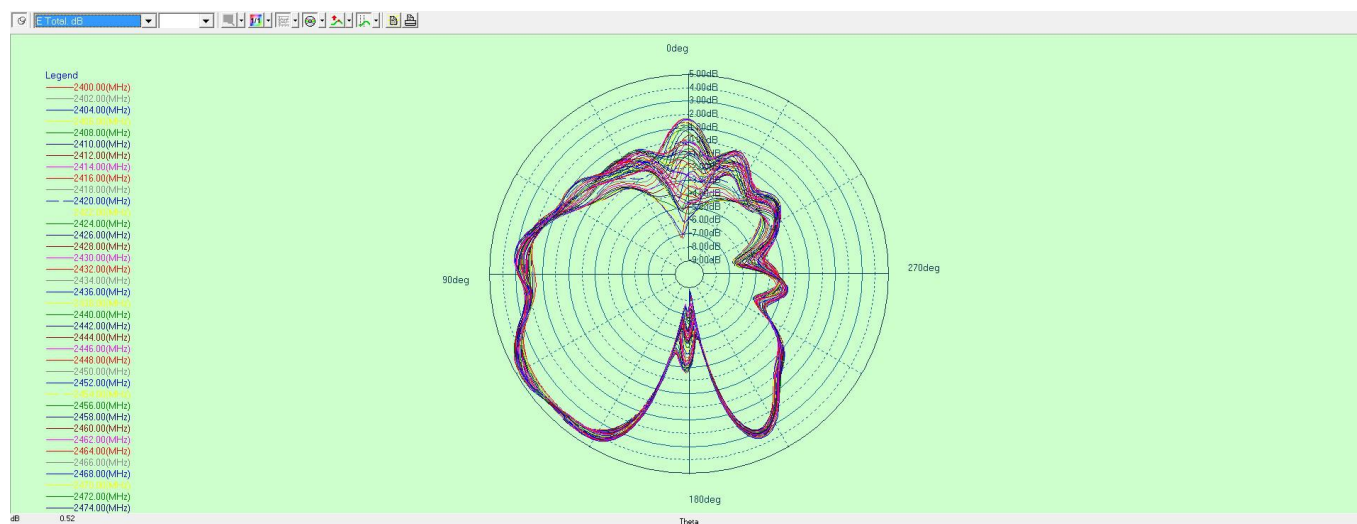
增益和效率的表格

3.2、辐射方向图 (Radiation Pattern)

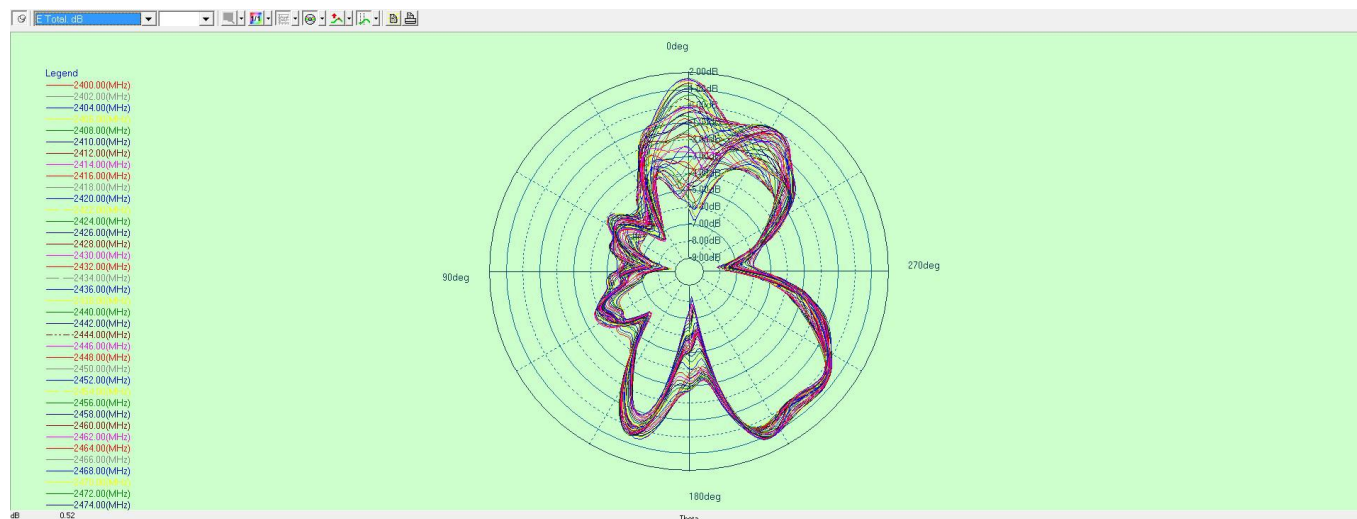
表 3D 方向图



(1) E1, XZ 面, $\phi=0^\circ$; (E1, XZ plane, $\phi=0^\circ$)



(2) E2, YZ 面, $\phi=90^\circ$; (E2, YZ plane, $\phi=90^\circ$)



(3) H, XY 面, $\theta=90^\circ$; (H, XY plane, $\theta=90^\circ$)

