



深圳云里物里科技股份有限公司

产品天线测试报告 (The Antenna Test Report)

Y-YB-CR-089

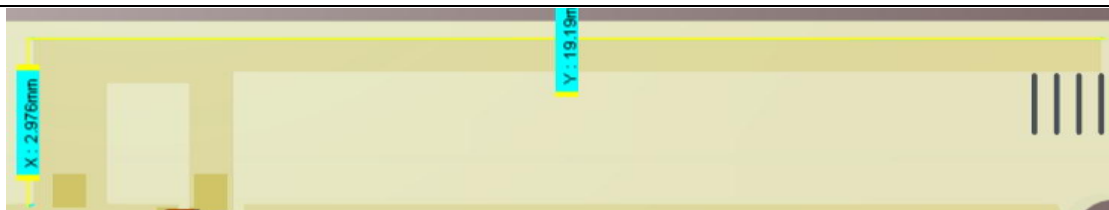
V003

密级：绝密 /confidentiality

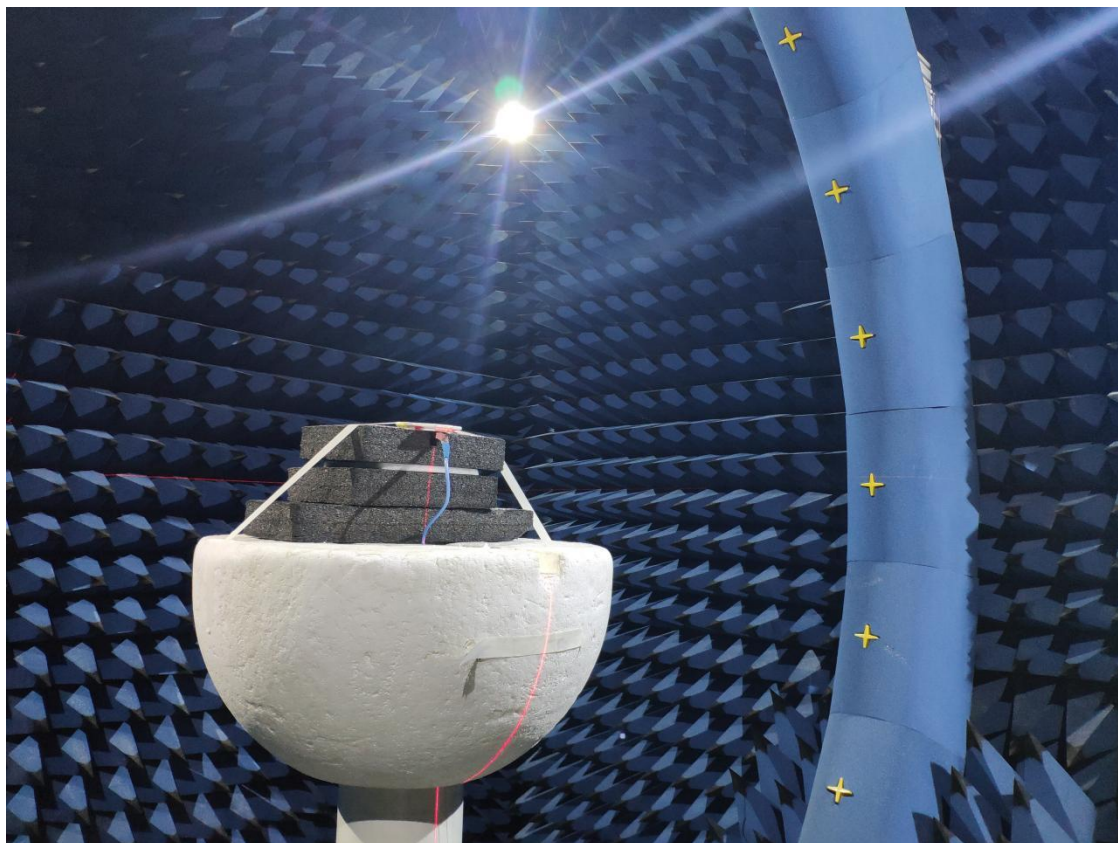
天线型号 (Antenna Version) : ANT-BBNCNC21019
产品型号 (Model of the DUT) : DS035
PCB 编号及版本 (PCB number and version) : MS164F6_V1.0
责任硬件工程师 (Hardware Engineer) : 窦淼全
测试日期 (Test Data) : 2023.4.6
1、技术指标 (Technical Specification)

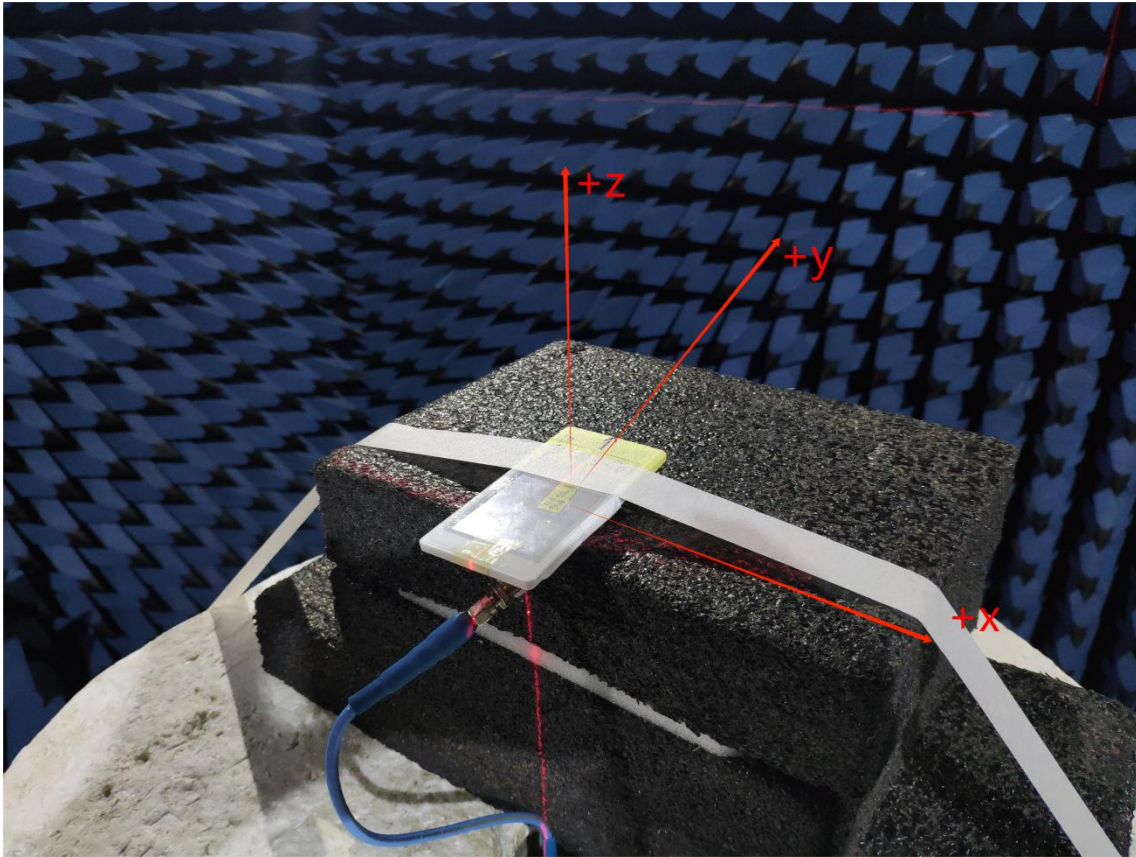
电性能指标 Electrical Specifications	
频率范围 Frequency Range (MHz)	2400-2480
频带宽度 Bandwidth (-10dB) (MHz)	150MHZ
输入阻抗 Input Impedance (Ω)	50
回波损耗 Return Loss (dB)	<-13
电压驻波比 VSWR	<1.48
增益 Gain (@2.44GHz) (dBi)	-0.12
峰值增益 (Peak Gain) (dBi)	-0.01
极化形式 Polarization Type	线极化 Linear polarization
雷电保护 Lightning Protection	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)	19.1mm*2.97mm
辐射体 Radiator	铜 Cuprum
连接器型号 Connect Type	无
工作温度 Working Temperature ($^{\circ}\text{C}$)	-20~50
存储温度 Storage Temperature ($^{\circ}\text{C}$)	-40~65

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)





3.1 增益和效率 (Gain and Efficiency)



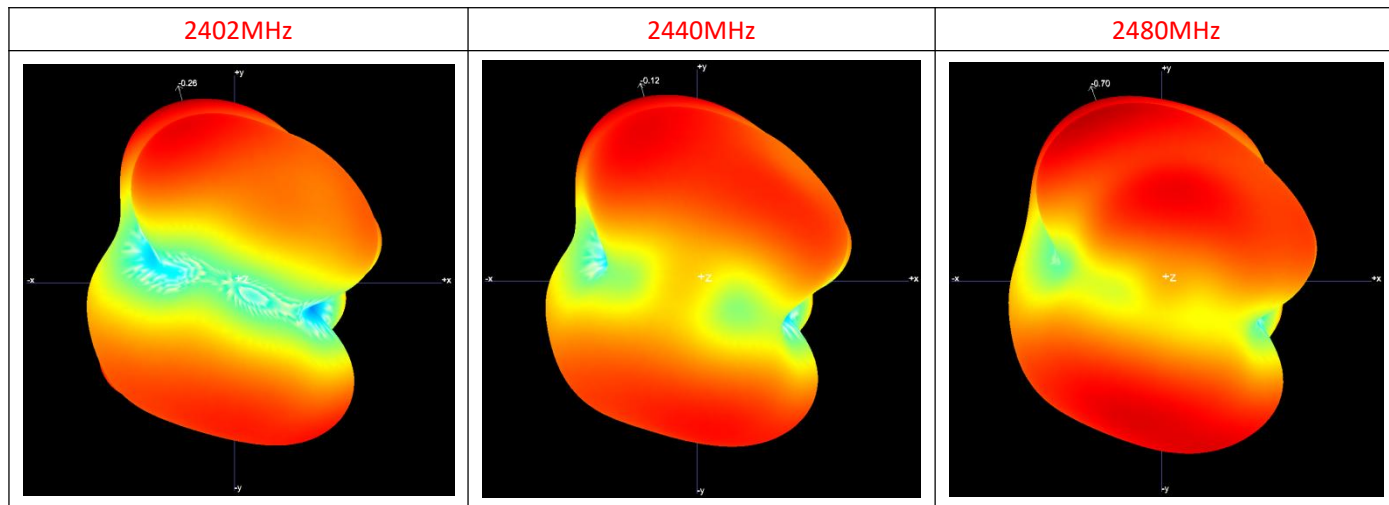
样品编号	SC-SZ2340161-S01	
EUT型号	1#-DS03501	
备注	1#	
Frequency	Gain (dBi)	Efficiency()
2400MHz	-0.27	42%
2402MHz	-0.26	42%
2404MHz	-0.27	42%
2406MHz	-0.31	42%
2408MHz	-0.30	42%
2410MHz	-0.29	43%
2412MHz	-0.31	43%
2414MHz	-0.31	42%
2416MHz	-0.33	42%
2418MHz	-0.31	42%
2420MHz	-0.32	42%
2422MHz	-0.32	42%
2424MHz	-0.30	42%
2426MHz	-0.31	42%
2428MHz	-0.29	42%
2430MHz	-0.29	41%
2432MHz	-0.27	41%
2434MHz	-0.23	41%
2436MHz	-0.15	41%
2438MHz	-0.14	41%
2440MHz	-0.12	41%
2442MHz	-0.07	41%
2444MHz	-0.05	41%
2446MHz	-0.02	41%



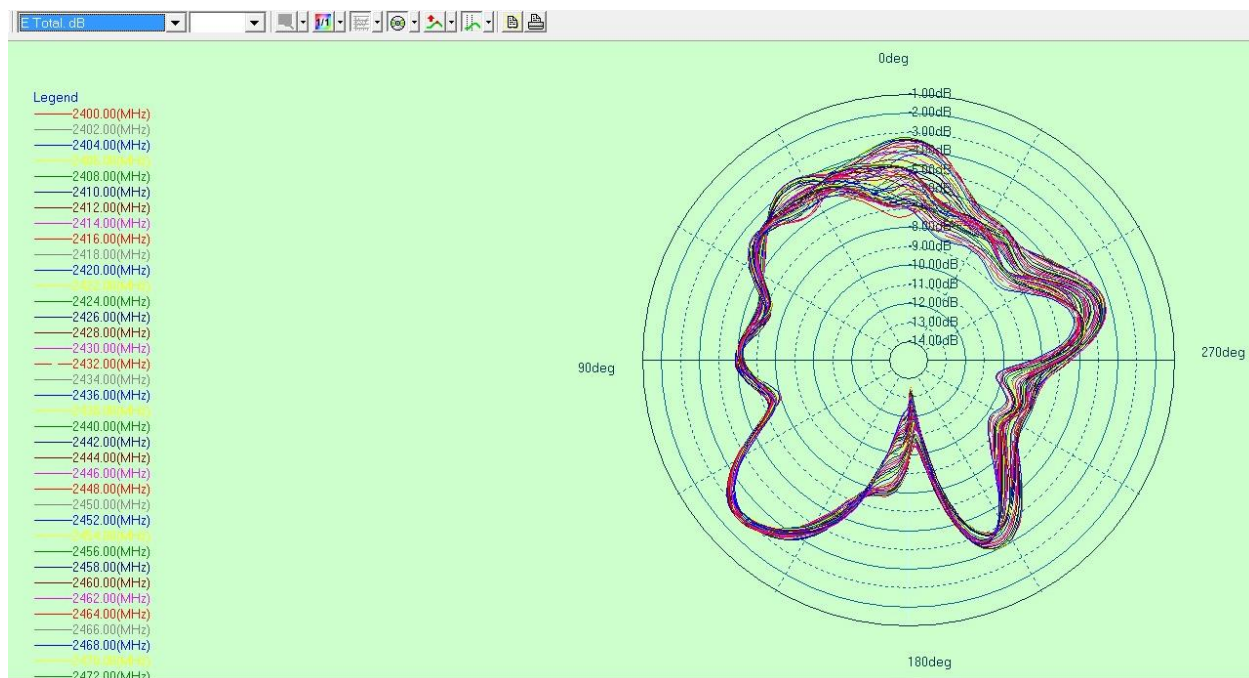
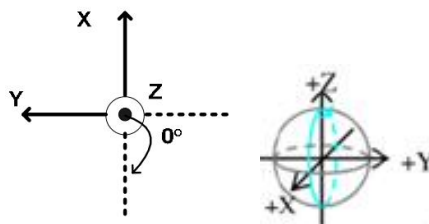
2448MHz	-0.01	41%
2450MHz	-0.01	41%
2452MHz	-0.04	41%
2454MHz	-0.09	40%
2456MHz	-0.12	40%
2458MHz	-0.16	40%
2460MHz	-0.20	40%
2462MHz	-0.28	40%
2464MHz	-0.36	39%
2466MHz	-0.39	39%
2468MHz	-0.43	39%
2470MHz	-0.51	39%
2472MHz	-0.58	38%
2474MHz	-0.59	38%
2476MHz	-0.63	38%
2478MHz	-0.67	38%
2480MHz	-0.70	38%
2482MHz	-0.71	38%
2484MHz	-0.72	38%
2486MHz	-0.63	38%
2488MHz	-0.65	38%
2490MHz	-0.65	38%
2492MHz	-0.66	37%
2494MHz	-0.68	37%
2496MHz	-0.74	37%
2498MHz	-0.78	36%
2500MHz	-0.80	36%

3.2 辐射方向图 (Radiation Pattern)

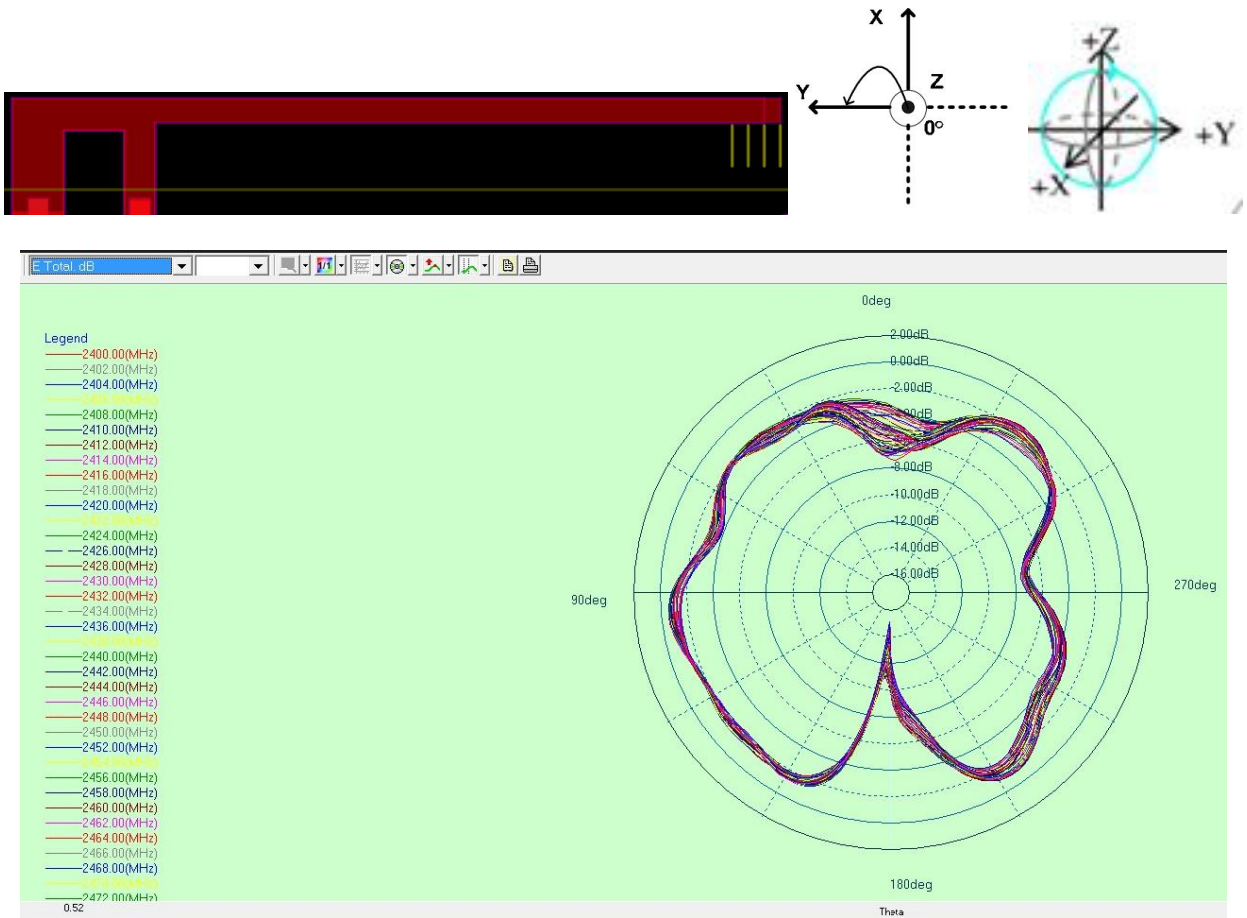
3D 方向图



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



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



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



