



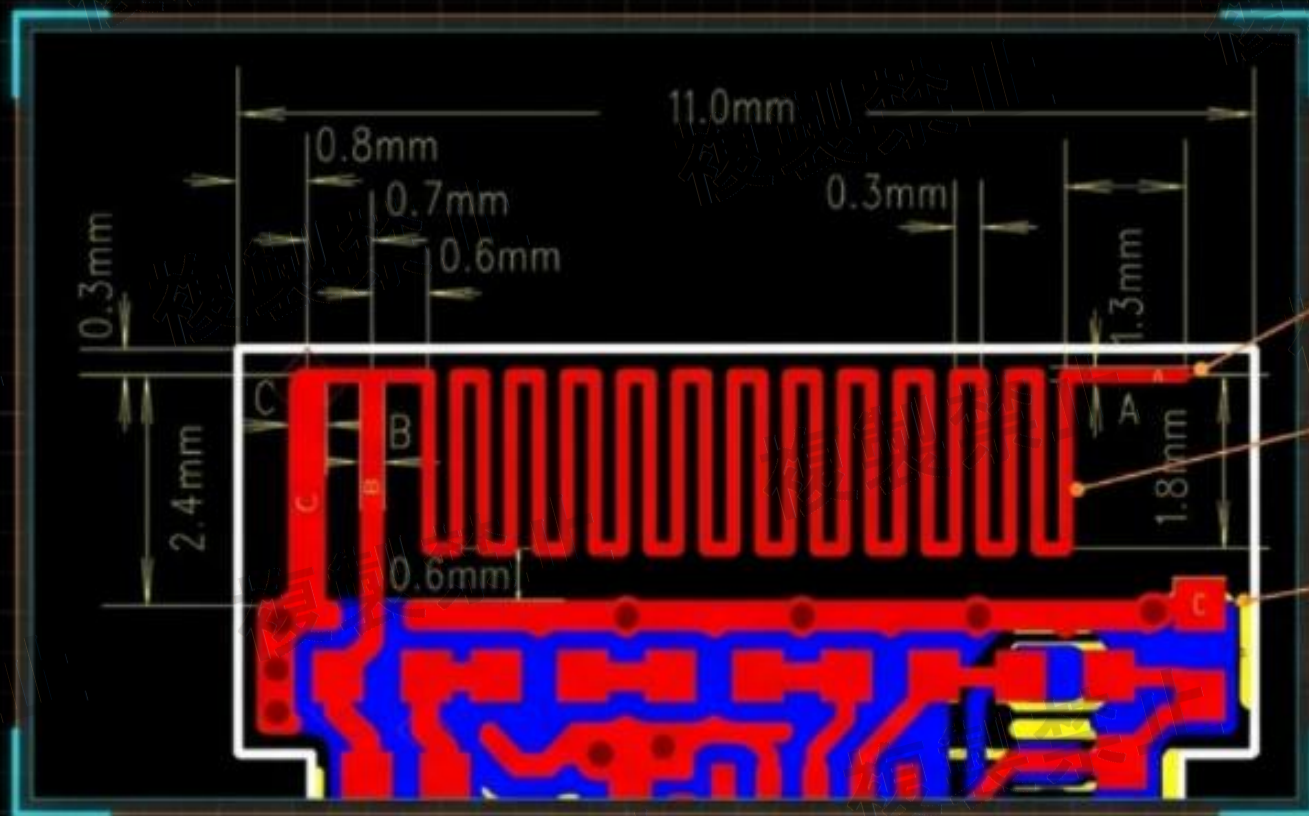
2.4GHz Remote Control PCB Antenna Specification

SHENZHEN SHINETEK TECHNOLOGY

深圳芯耀科技

High-Efficiency, Compact On-Board Antenna Solutions.

紧凑的物理尺寸确保高密度电路板的灵活布线



核心线宽规范 (Core Trace Specs)

线宽 A (Trace A): 0.15mm

线宽 B (Trace B): 0.25mm

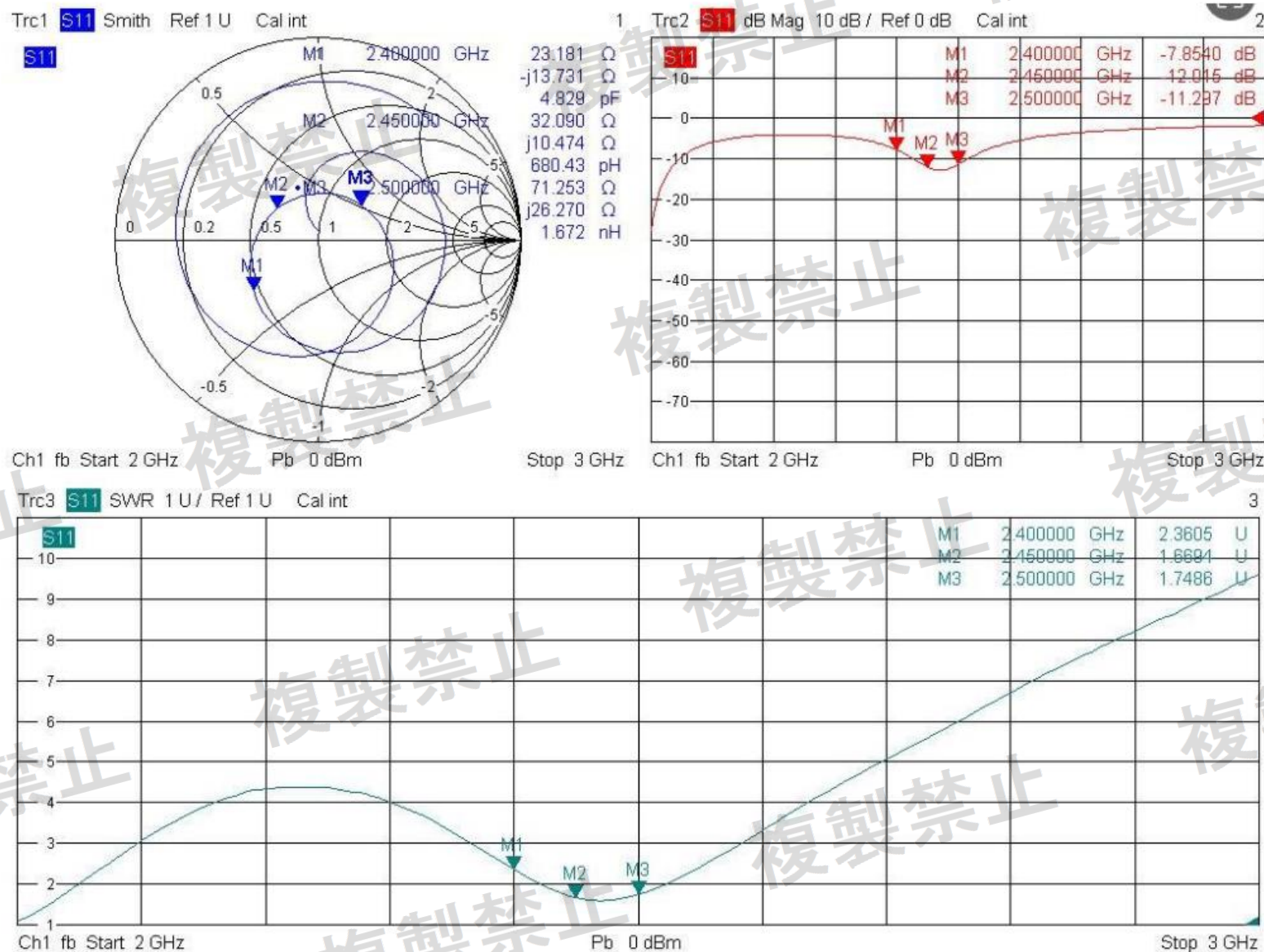
线宽 C (Trace C): 0.4mm

空间占用评估: 天线区域总跨度为 11.0mm x 2.4mm, 极小的净空区需求 (Clearance Area), 为高密度元器件排布预留最大空间。

Instrumentation: Agilent E5071B Network Analyzer / R&S CMW500

Environment: Fully Anechoic Chamber ensuring zero RF interference.

无源测试：驻波比 (Passive test: VSWR)



FinalData RawData

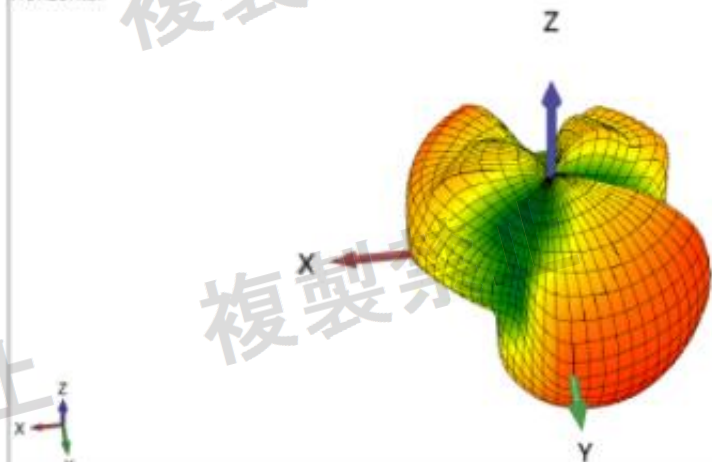
Frequency(MHz)	Gain(dBi)	Efficiency(%)	AverageGain(dBi)	Efficiency(dB)
2400	1.243	32.720%	-5.629	-4.852
2410	1.344	33.143%	-5.630	-4.796
2420	0.826	31.477%	-5.563	-5.020
2430	0.500	29.408%	-5.674	-5.315
2440	0.411	28.536%	-5.690	-5.446
2450	0.672	31.484%	-4.911	-5.019
2460	0.751	32.588%	-4.609	-4.869
2470	0.636	32.193%	-4.434	-4.922
2480	0.584	34.624%	-3.949	-4.606

Theta Min 0 Theta Max 0 Phi Min 0 Phi Max 0 Freq Select 2400 MHz Angular interval 0

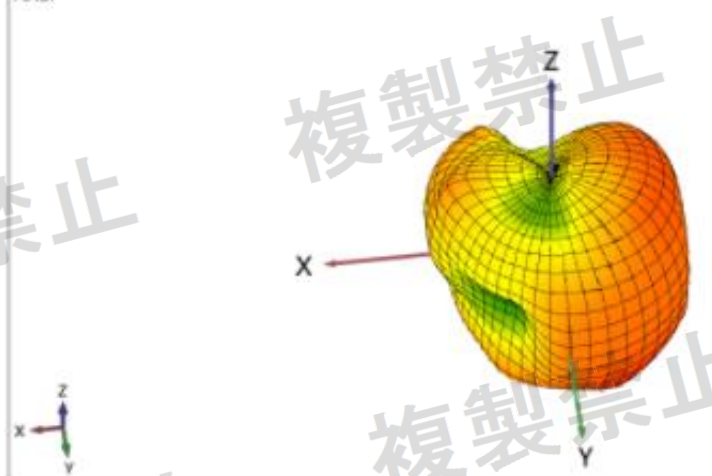
Parameters Graph Table

2D-Theta 2D-Line-Phi 2D-Line-Phi DataLine HeatMap 3D

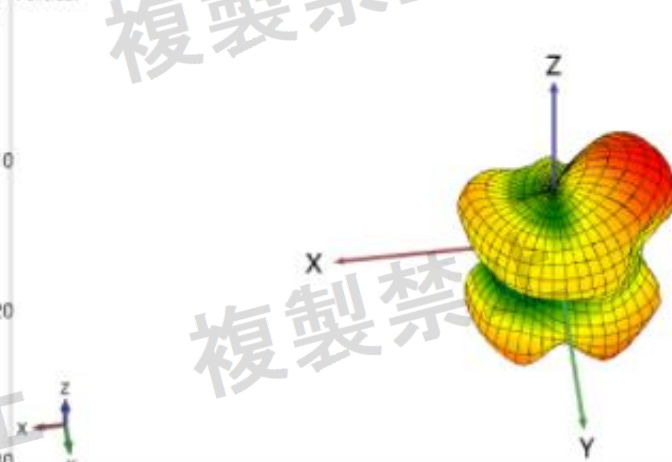
Horizontal



Total



Vertical



Summary

Frequency(MHz): 2400
Ant. Port Input Pwr. (dBm): 0
TRP(dBm): -4.852
NHPRP+/-45°(dBm): 0.000
NHPRP+/-30°(dBm): 0.000
Gain(dBm): 1.243
Directivity(dBi): 6.094
Efficiency(dB): -4.85
Efficiency(%): 32.72%
StartTime: 2026-06-24T15:23:48
StopTime: 2026-06-24T15:24:58
TimeSpan: 00:01:10.2235467



Theta Min 0

Theta Max 0

Phi Min 0

Phi Max 0

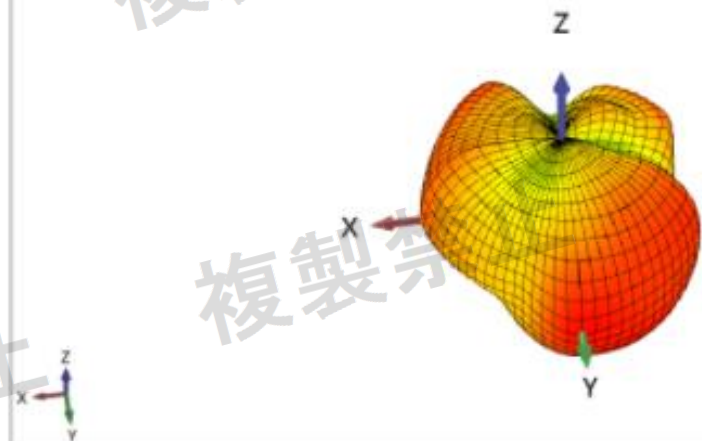
Freq Select 2440

MHz Angular interval 0

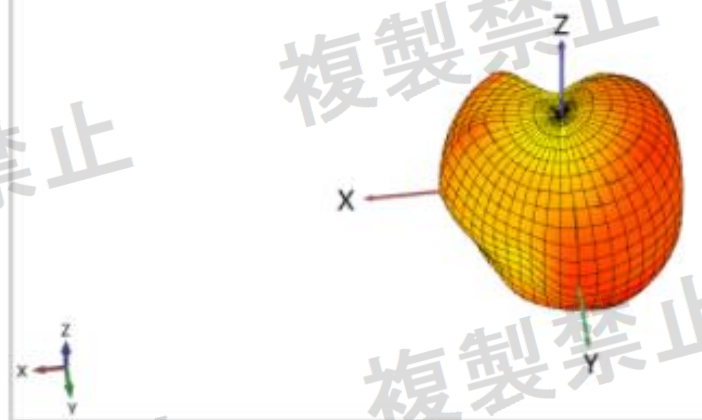
Parameters Graph Table

2D-Theta 2DLine-Theta 2D-Phi 2DLine-Phi DataLine HeatMap 3D

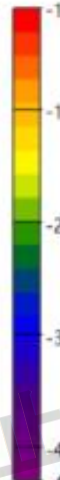
Horizontal



Total

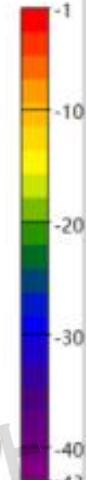
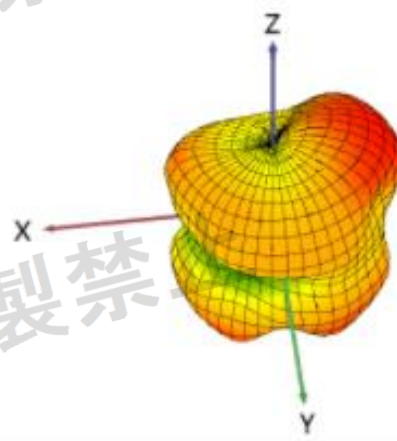
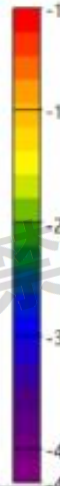


Vertical



Summary

Frequency(MHz): 2440
Ant. Port Input Pwr. (dBm): 0
TRP(dBm): -5.446
NHPRP+/-45°(dBm): 0.000
NHPRP+/-30°(dBm): 0.000
Gain(dBm): 0.411
Directivity(dBi): 5.857
Efficiency(dB): -5.45
Efficiency(%): 28.54%
StartTime: 2026-06-24T15:23:48
StopTime: 2026-06-24T15:24:58
TimeSpan: 00:01:10.2235467



2D Directional Diagram Matrix

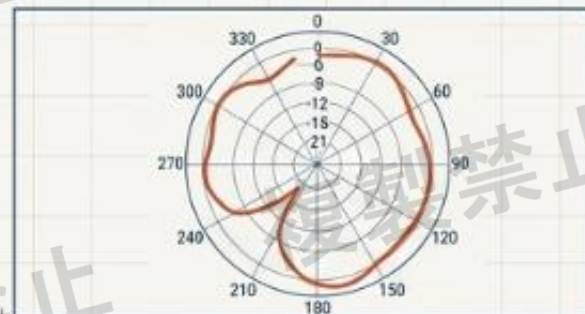
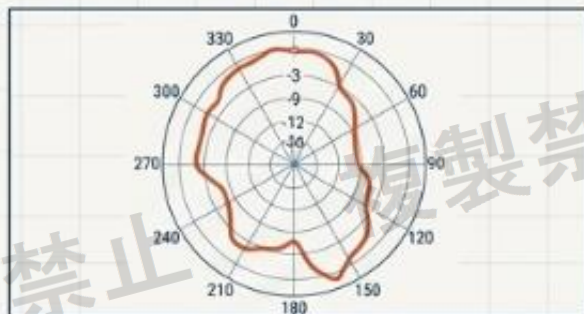
2D 方向性矩阵

Phi=0°

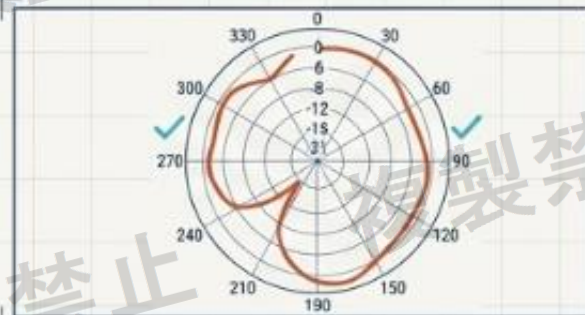
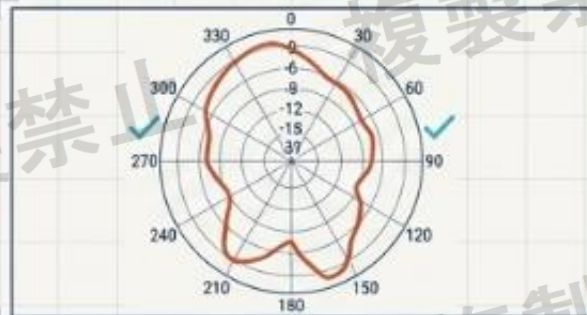
Phi=90°

Theta=90°

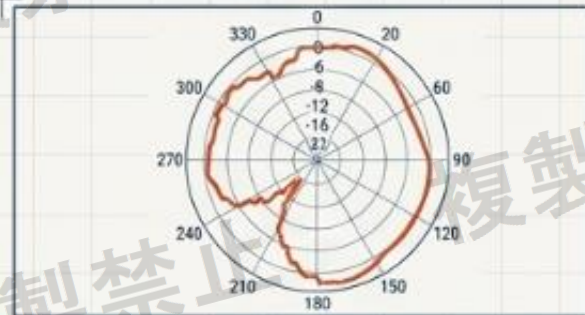
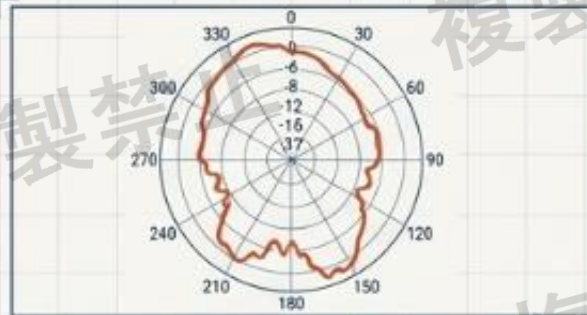
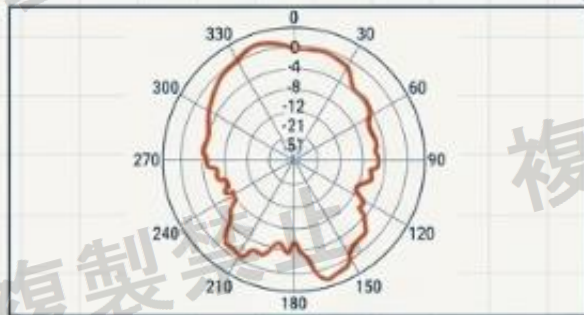
2400 MHz



2450 MHz



2500 MHz



2D 空间覆盖矩阵系统性验证主要轴线上的均匀分布。精确证实工作频段内“零严重信号盲区”，确保遥控指令的绝对送达率。

Uniform spatial coverage validated systematically across all primary axes, confirming zero severe nulls in the operating band for absolute comm

SHENZHEN SHINETEK TECHNOLOGY

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Contact us for complete engineering Gerber files and technical integration guidance.