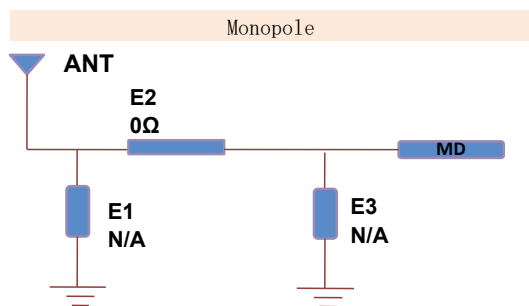




Camping Light Antenna R&D Report V1

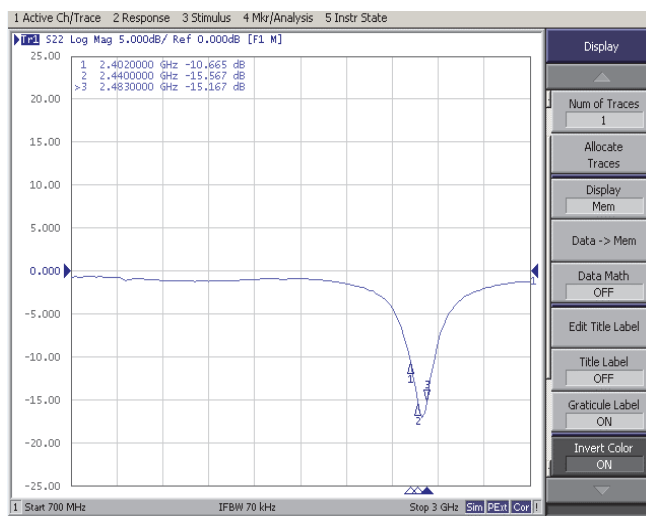
Project Description: Camping Light	
Current Debugging Requirement: Passive debugging	
Key Focus of This Report: FPC Antenna	
Debugging Conclusion:	
Test Standards	ANSI/IEEE 149-2021
Address:	Longgang Software Town, Shenzhen
Test location	ATWE-55
Tester:	yanghua
Equipment	Test Systems and Equipment (555 TEM24 Multi-Probe Test System, Agilent 5071 Series Network Analyzer, Agilent 8960, RS-CMW500)

Antenna Matching Circuit Modification Schematic



Monopole	
Original Matching Circuit	
E1- (0201)	N/A
E2- (0201)	0 Ω
E3- (0201)	N/A

Passive Test Data (Free Space) - Return Loss

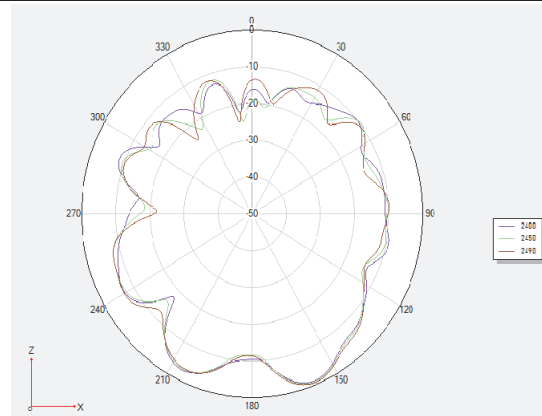


Antenna Efficiency Test

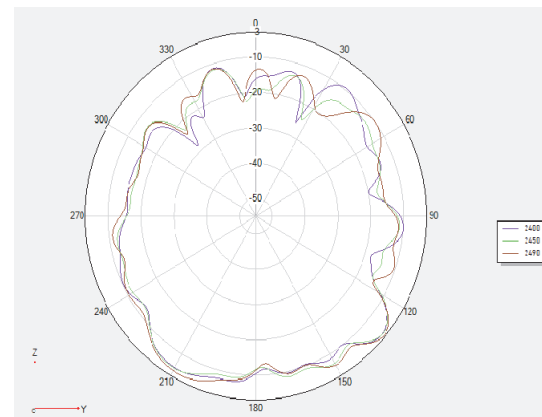
2.4G Antenna		
Frequency / MHz	Efficiency / %	Gain
2400	15.03	0.02 dBi
2410	18.07	0.43 dBi
2430	19.28	0.81 dBi
2450	19.5	0.68 dBi
2460	17.99	0.31 dBi
2470	16	-0.12 dBi
2480	16.52	-0.74 dBi
2490	16.18	-0.28 dBi

3.4 Measurement Uncertainty
 methods suggested in the "Guide to the Expression of Uncertainty in The uncertainty is calculated using the Measurement" (GUMy published by ISc When the test result is a critical value, we will use the measurement uncertainty give the judgment result based on the 95% Confidence intervals.

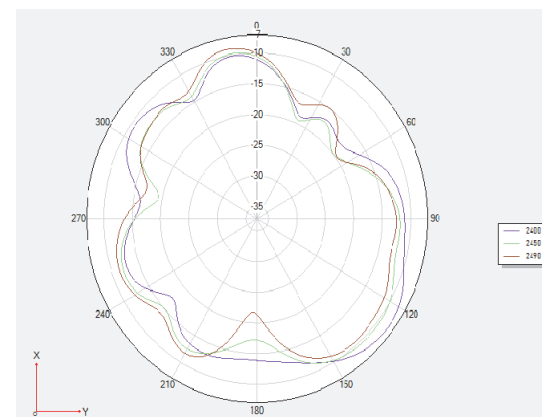
2D Radiation Pattern



Phi 0 2D Photo

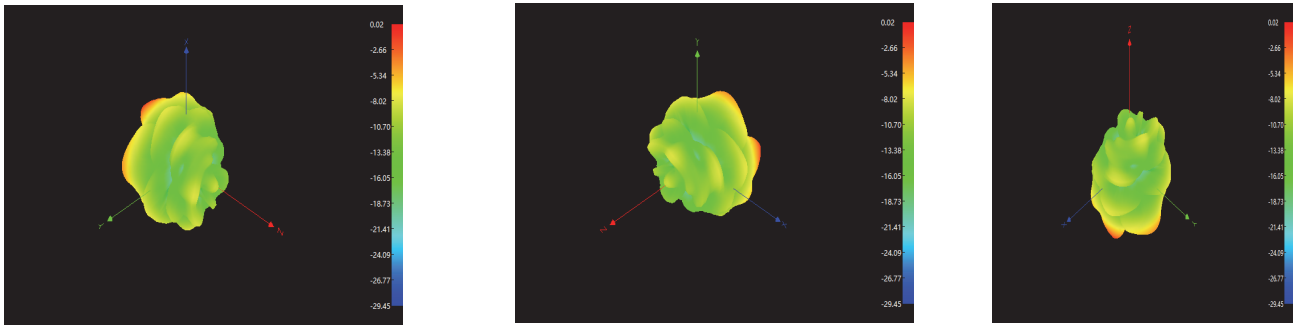


Phi 90 2D Photo

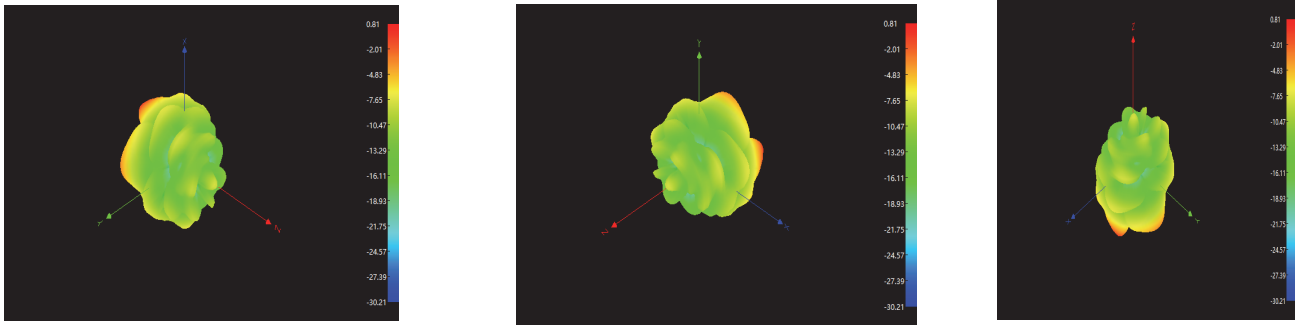


Theta 90 2D Photo

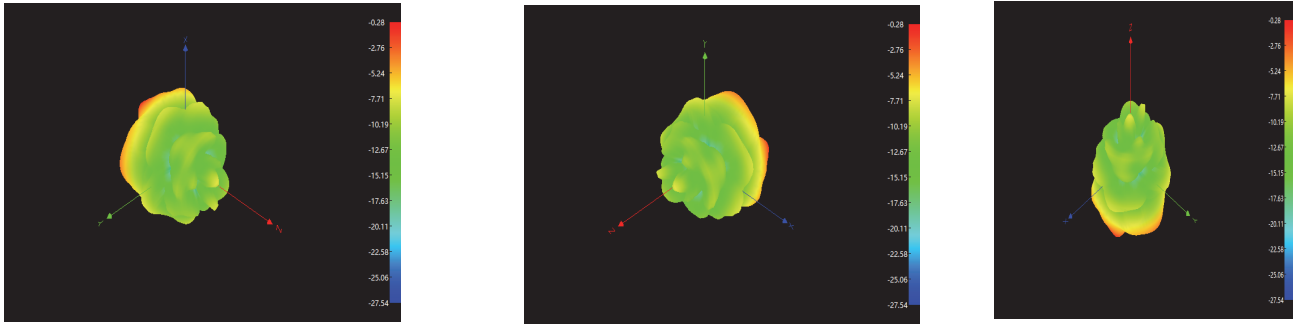
3D Radiation Pattern



2400MHz



2430MHz



2490MHz

Antenna Photos



Antenna size diagram(unit:mm)

