

TCL C31 Shaking Machine Project Antenna Debugging Report

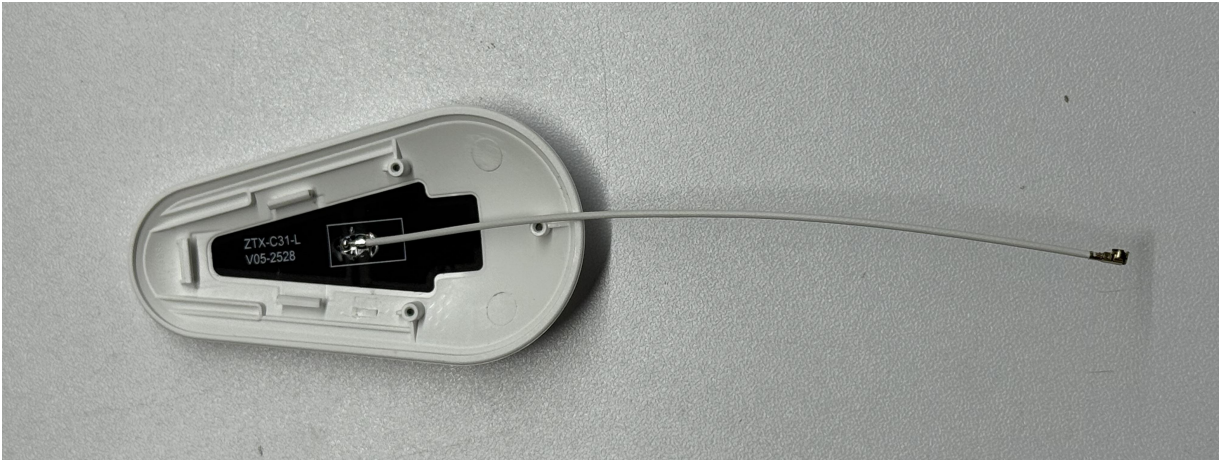
catalogue

- ☐ Project requirements
- ☐ Overall scheme design
- ☐ Unpowered test data
- ☐ Source test data
- ☐ Summary of recommendations

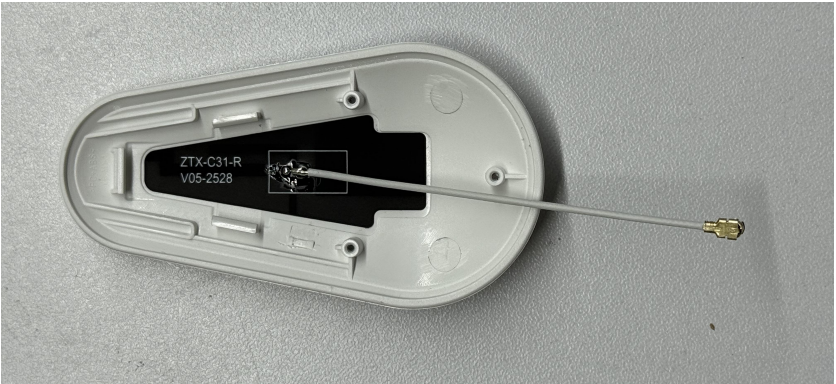
Zhongtianxun			
radio frequ- ency	Wei Jin	structure	Qin Le
examine and verify	Huang Lieyun	vocational work	Ye Hang
Company address	34 Shilong Avenue, Baoan district, Shenzhen		
Item information			
project name	C31 Shaking Machine	Model version	
Type of antenna		Programme compa nies	
Radio frequency bands	2400-2500MHz	Date	2025.6.23

Overall Scheme Design

WIFI-L →

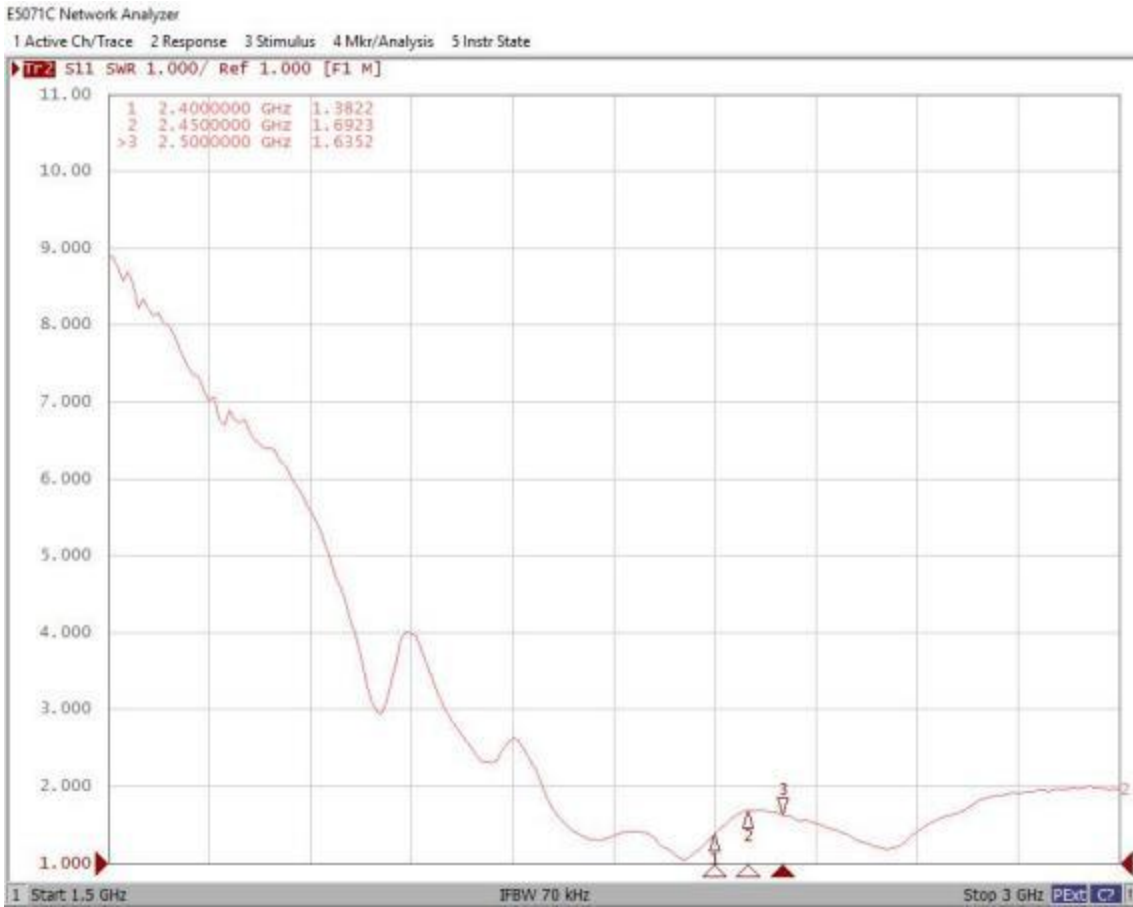


WIFI-R →

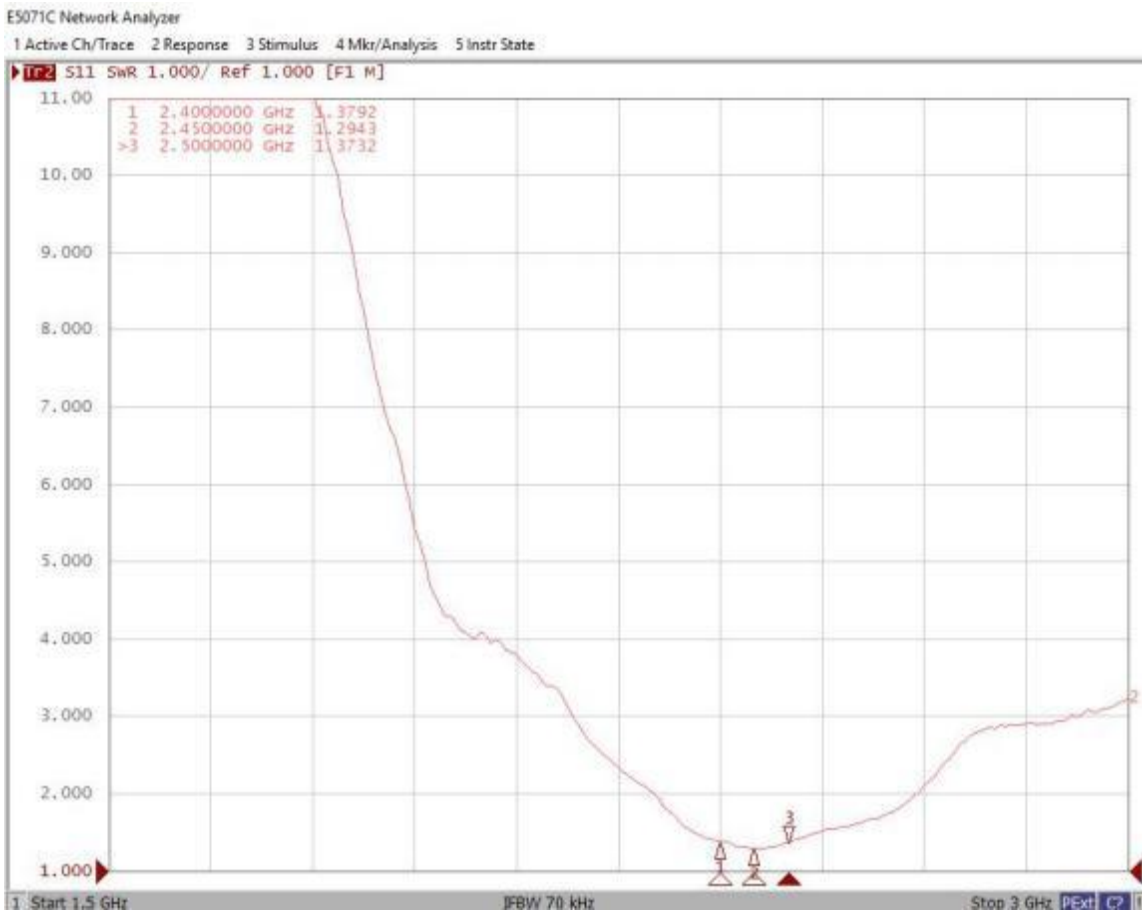


Unpowered test data: VSWR

WIFI-L

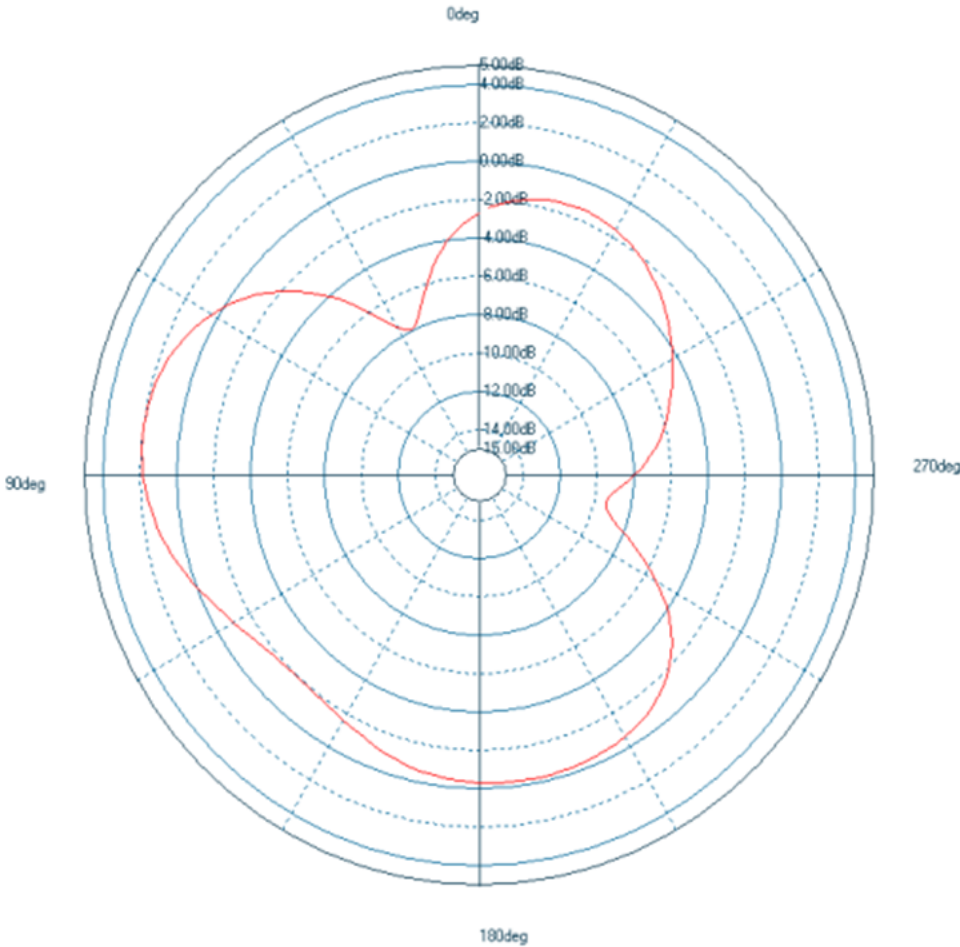


WIFI-R

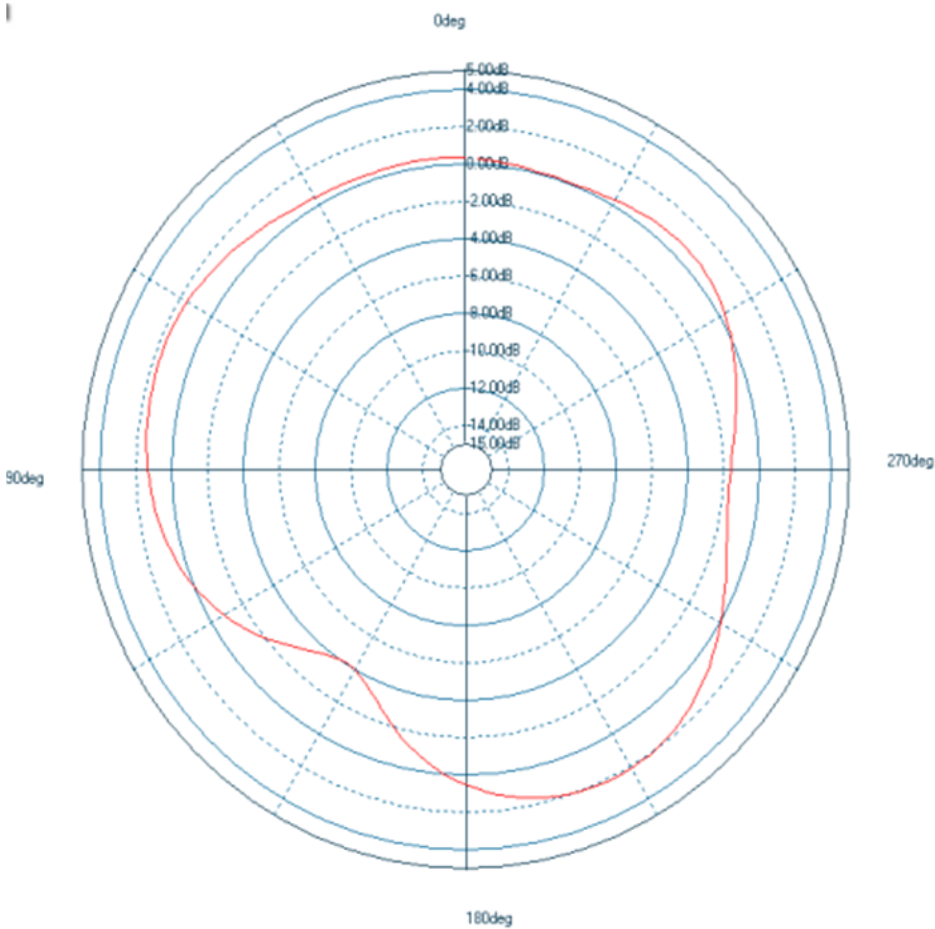


Unpowered Test Data: XOY (horizontal Plane) Diagram

WIFI-L

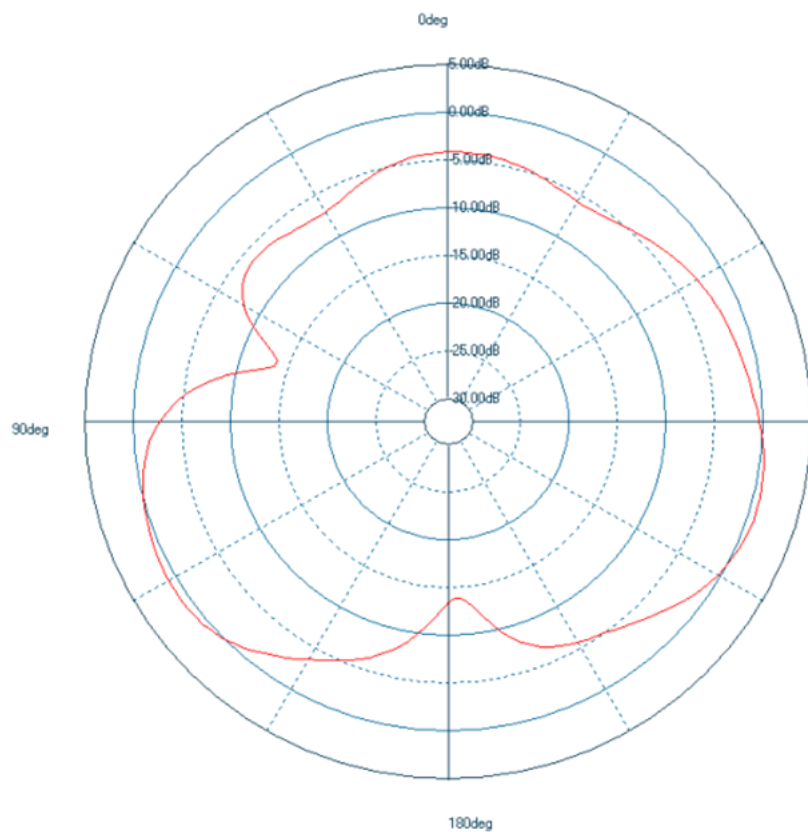


WIFI-R

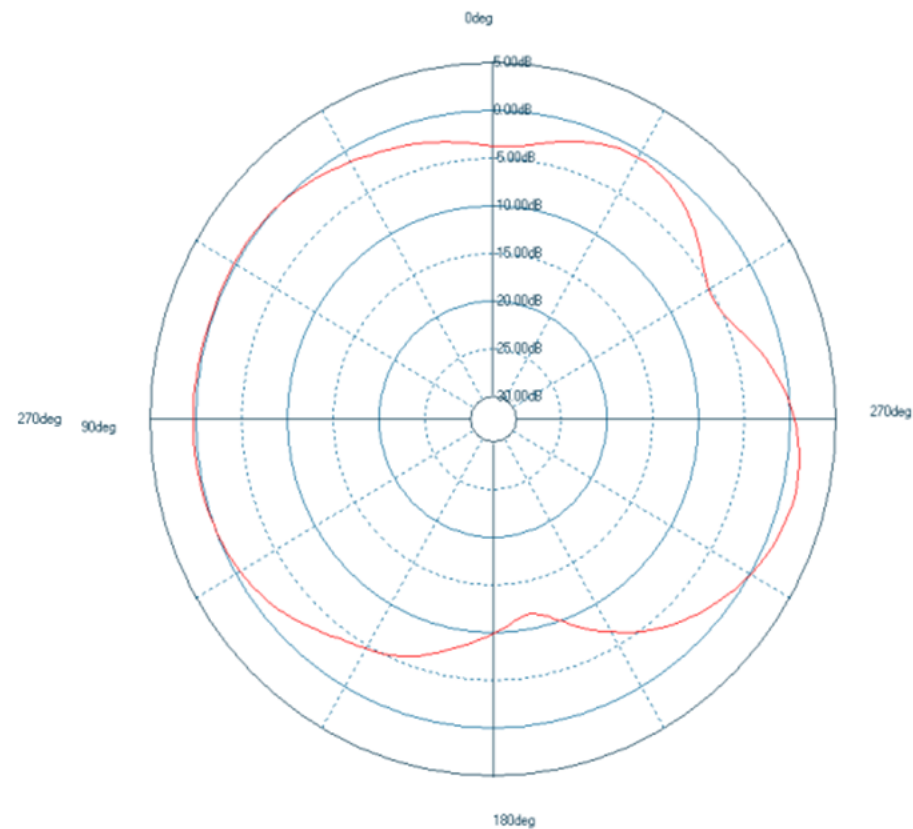


Unpowered test data: XOZ pattern

WIFI-L



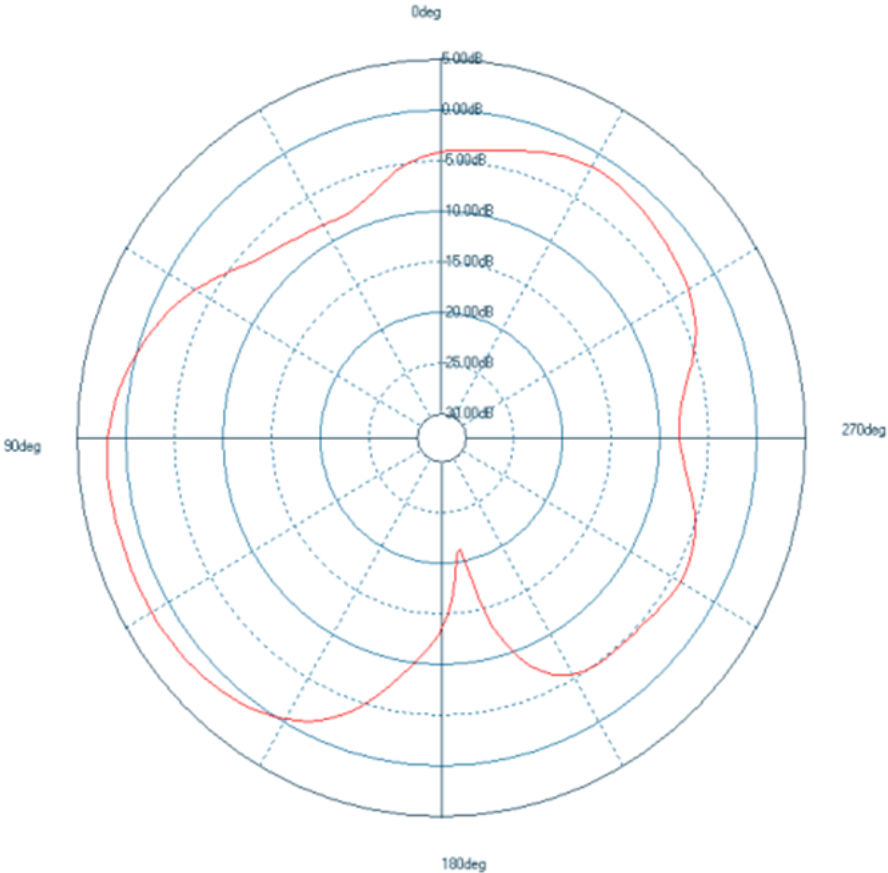
WIFI-R



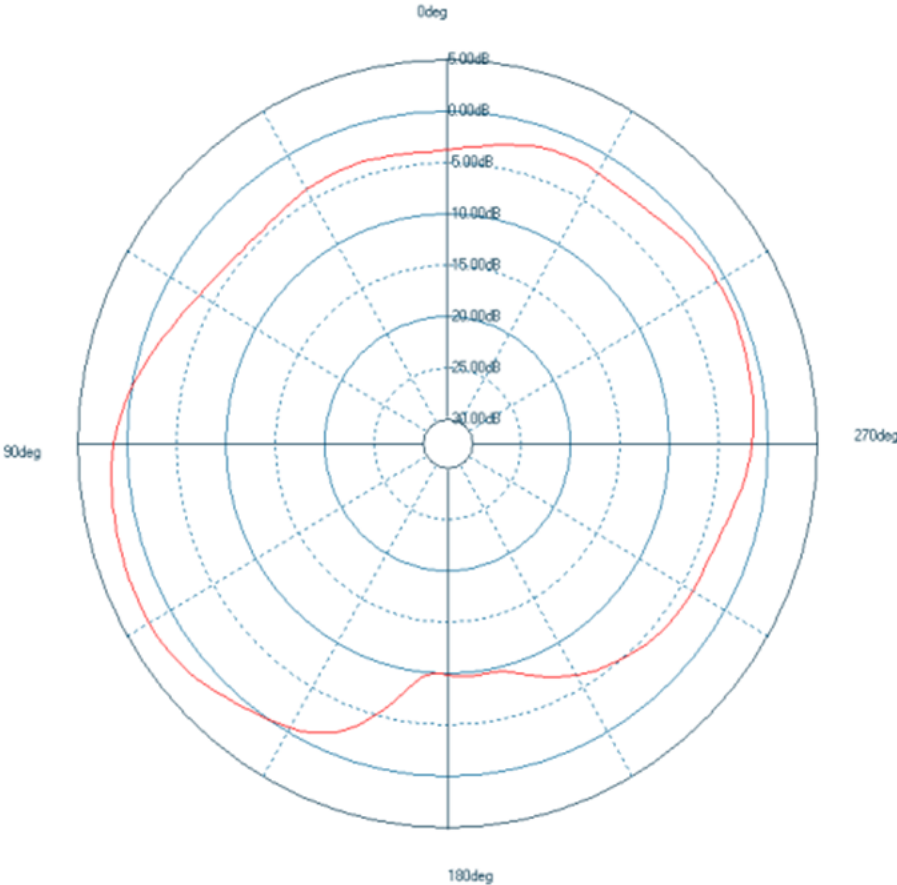
Unpowered test data: YOZ pattern



WIFI-L

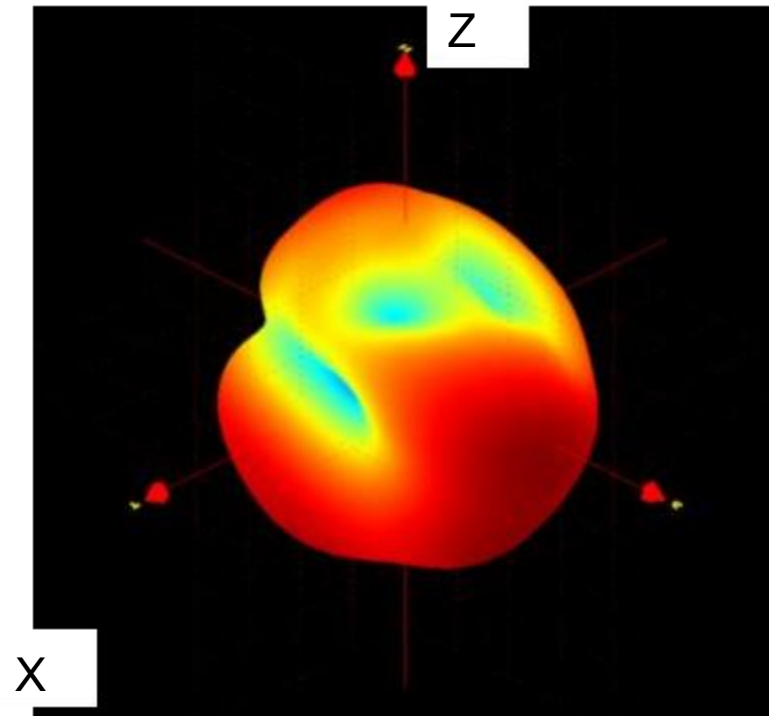


WIFI-R

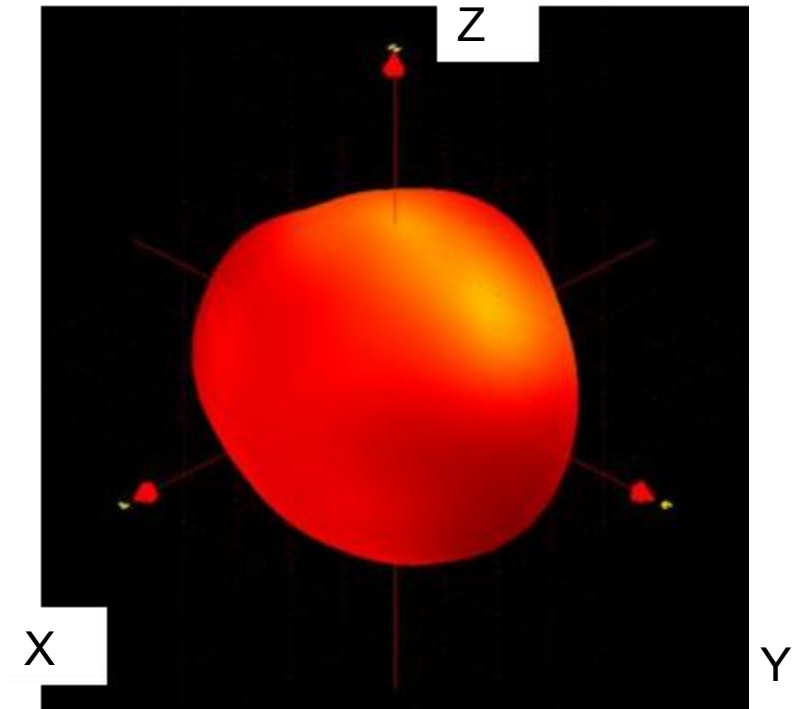


Unpowered Test Data: 3D Directional Chart

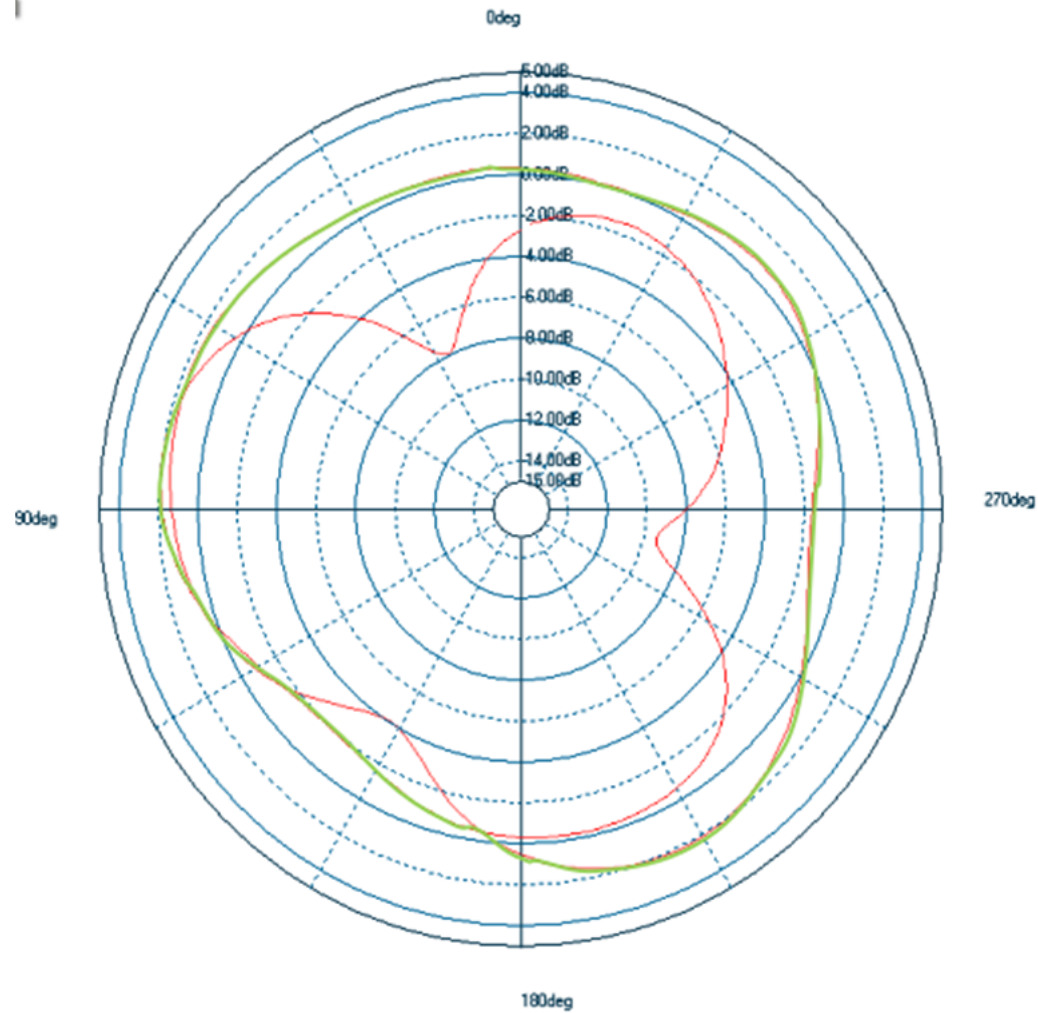
WIFI-L



WIFI-R



Sourceless test data: Green line in XOY horizontal plane synthesis



Unpowered test data: efficiency/gain WIFI-L/WIFI-R 中天迅

WIFI-L			
Frequency	Efficiency	Efficiency (dB)	Gain (dBi)
2400MHz	60%	-2.23	3.47
2410MHz	60%	-2.21	3.50
2420MHz	61%	-2.18	3.49
2430MHz	61%	-2.18	3.45
2440MHz	62%	-2.09	3.38
2450MHz	62%	-2.05	3.08
2460MHz	64%	-1.97	3.45
2470MHz	62%	-2.06	3.40
2480MHz	61%	-2.12	3.17
2490MHz	60%	-2.19	3.30
2500MHz	60%	-2.25	3.17

WIFI-R			
Frequency	Efficiency	Efficiency (dB)	Gain (dBi)
2400MHz	66%	-1.80	2.68
2410MHz	64%	-1.94	2.57
2420MHz	64%	-1.91	2.69
2430MHz	67%	-1.77	2.86
2440MHz	66%	-1.78	2.63
2450MHz	65%	-1.84	2.57
2460MHz	63%	-1.99	2.30
2470MHz	64%	-1.92	2.25
2480MHz	63%	-1.98	2.30
2490MHz	63%	-2.00	2.46
2500MHz	64%	-1.92	2.75

Thank You

