



Shenzhen Yimingyuan Technology Co., Ltd

One stop communication RF antenna solution manufacturer

Antenna test report

Shenzhen Yimingyuan Technology Co., Ltd

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tester: Huang He

TEL: 134 2435 5302

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One stop communication RF antenna solution manufacturer

Information of Antenna

Customer information:

Customer: DongGuan City Heatmoving Electronic Technology Co.,Ltd

Customer Address: No.28 Jinyuling Road, Dongcheng Street, Dongguan City, Guangdong Province, P.R. China

Project name: BenQ mouse

Antenna manufacture information:

Antenna manufacture: DongGuan City Xi Yu Plastics & Electronics Co.Ltd

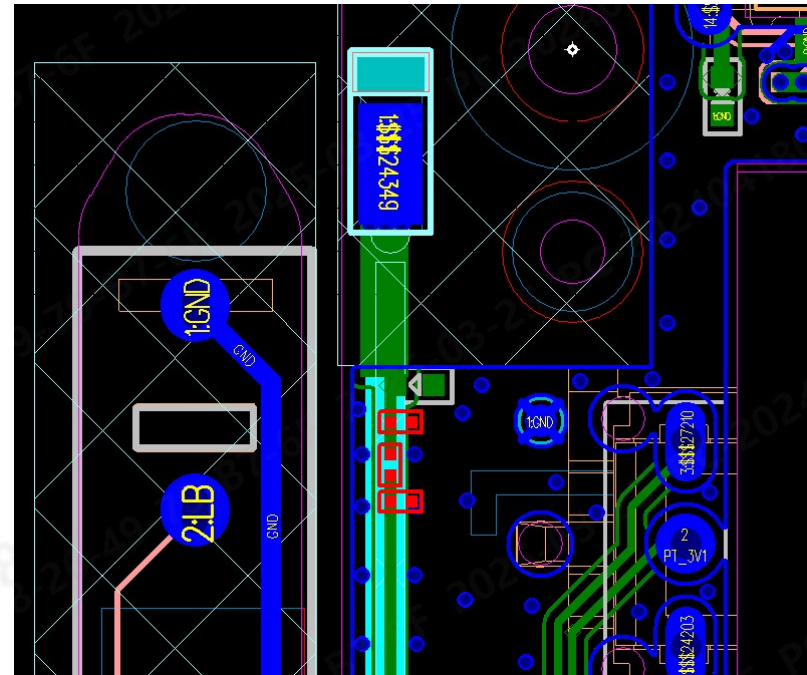
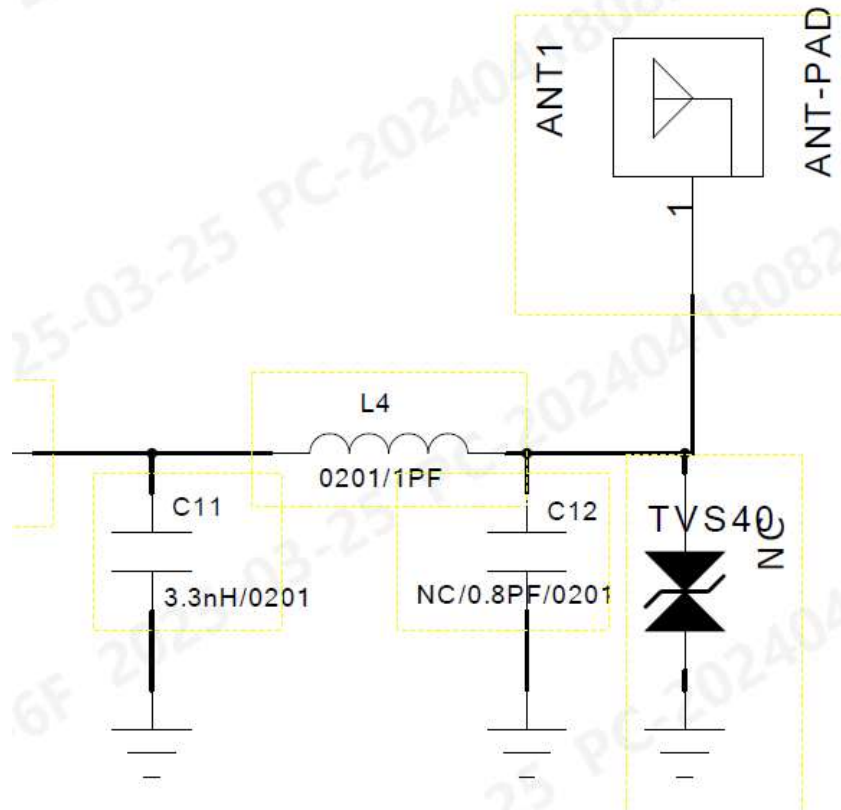
Antenna model: U2-DW-RX

Antenna Type: metal antenna

Antenna Gain: 2.5 dBi

Antenna manufacture Address: East Jinsha Avenue, Sha Jiao Village, Shipai Town, Dongguan City

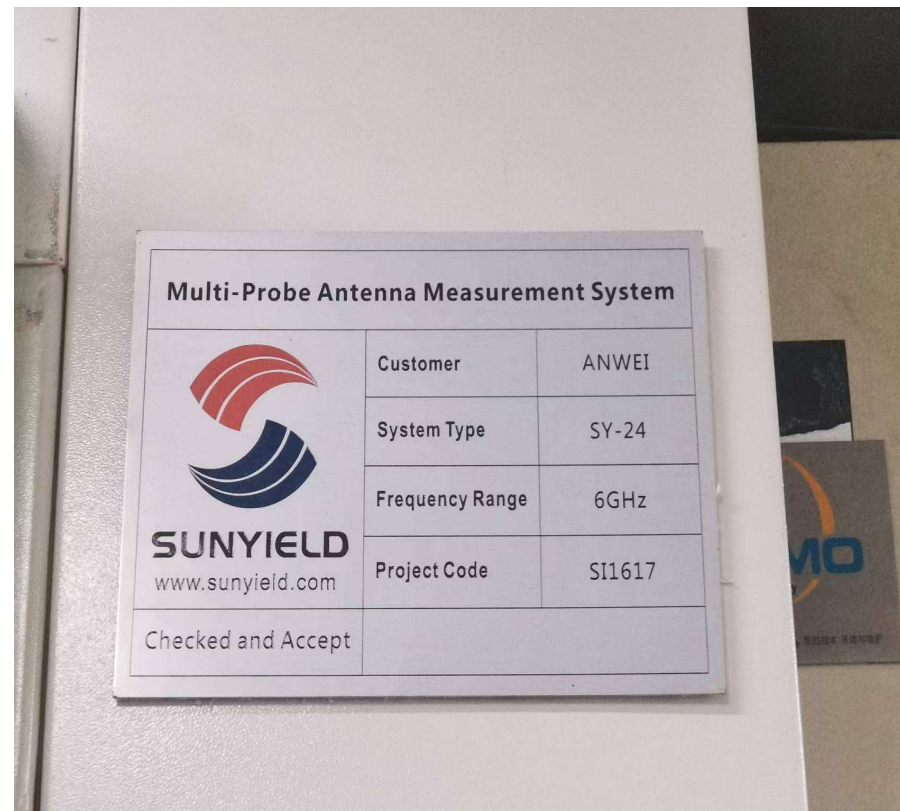
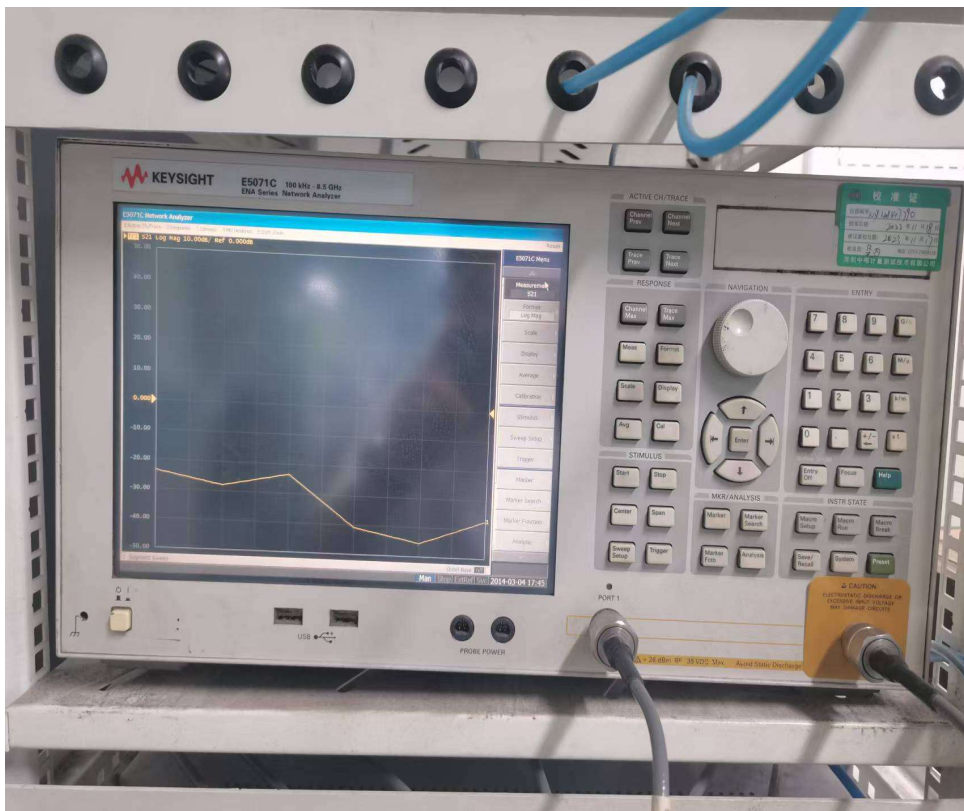
Main antenna matching circuit



Antenna smith circle chart and S11 parameters

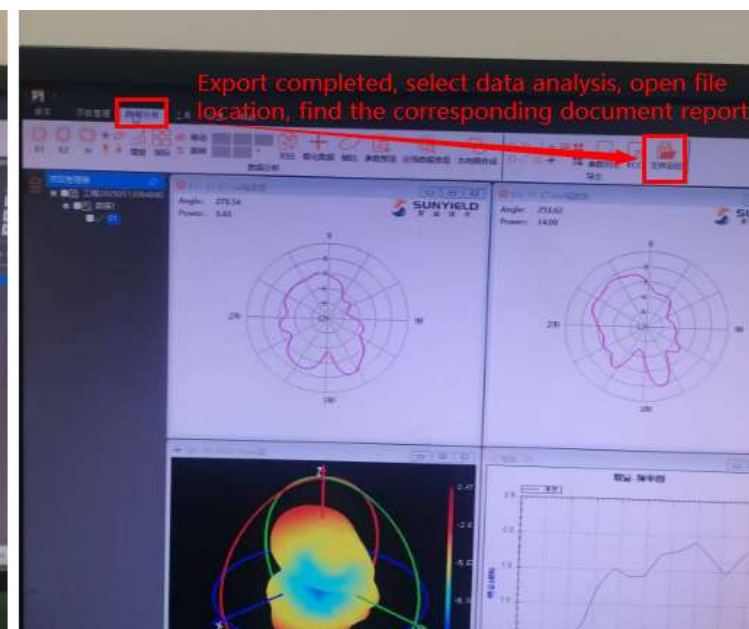
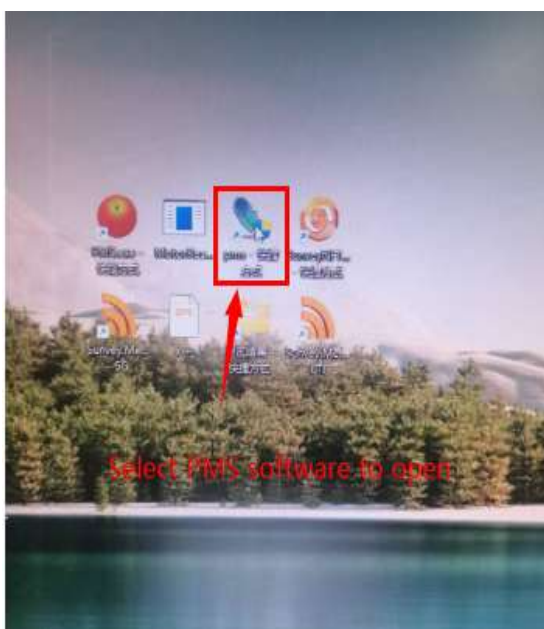
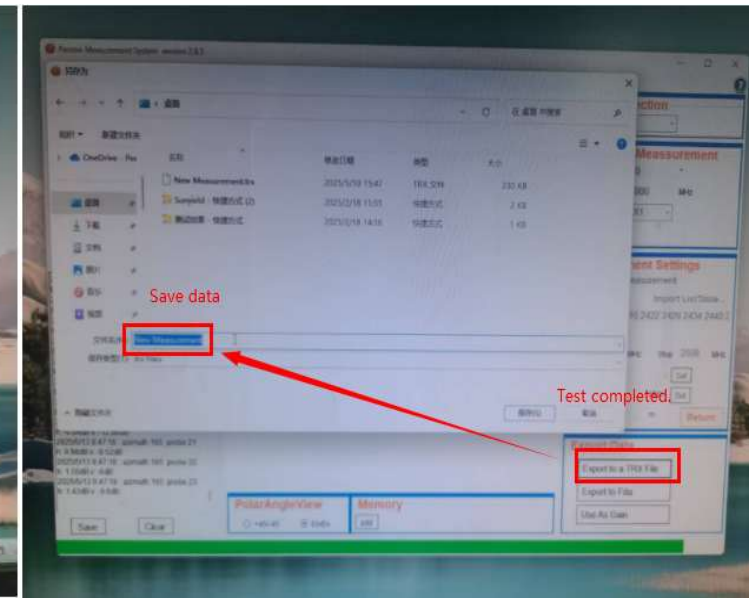
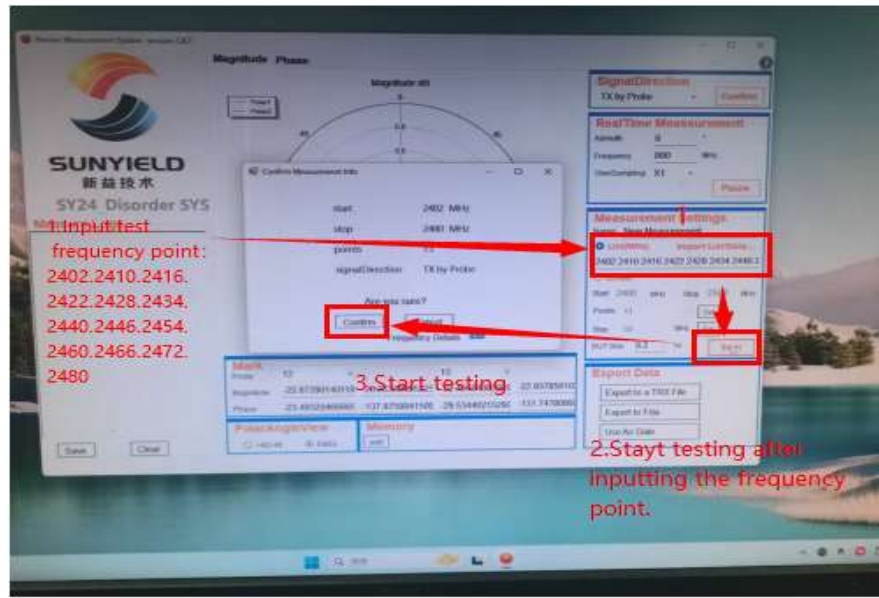


Testing instruments and software



name	network analyzer
brand	Agilent Technologies
model	E5071C
serial number	MY46104453
calibration time	2024/8/25
Next calibration time	2025/8/24

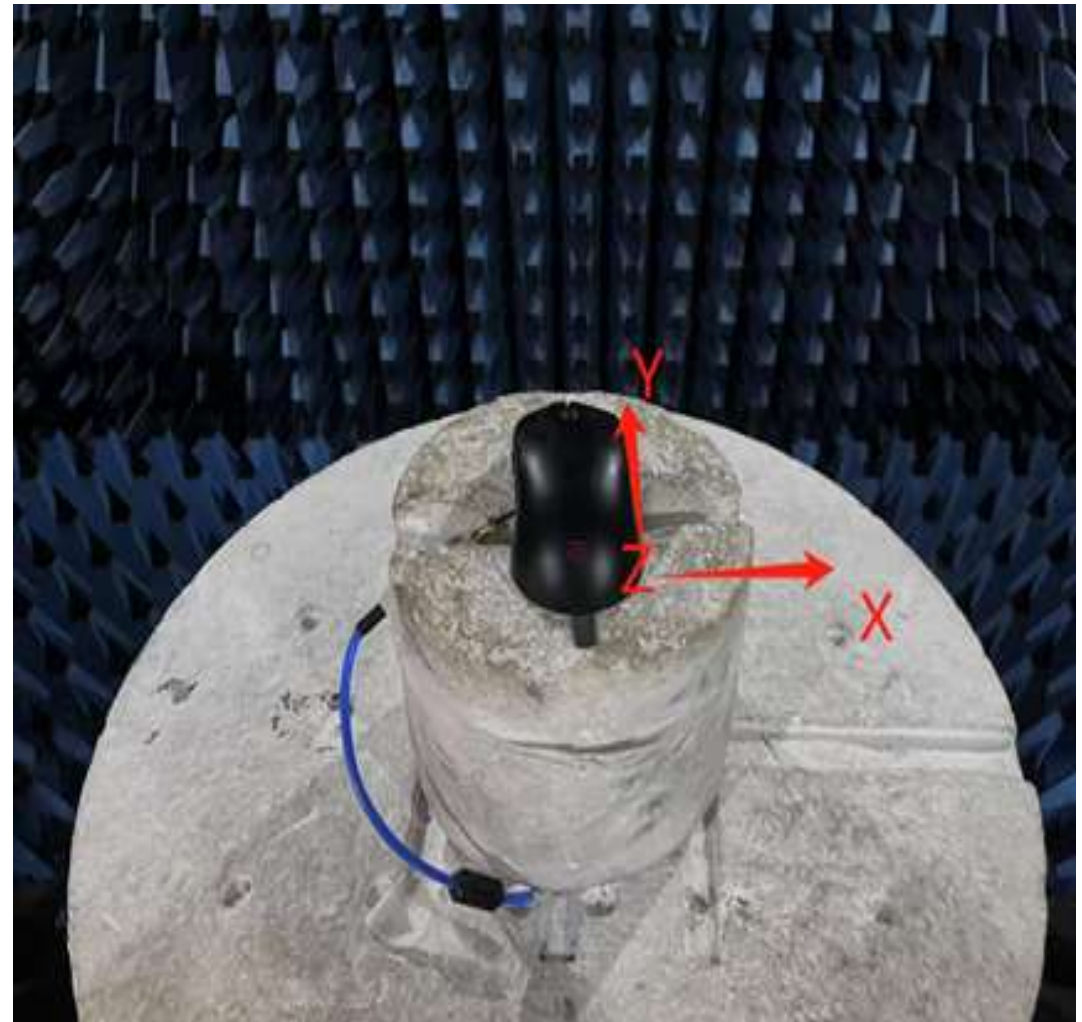
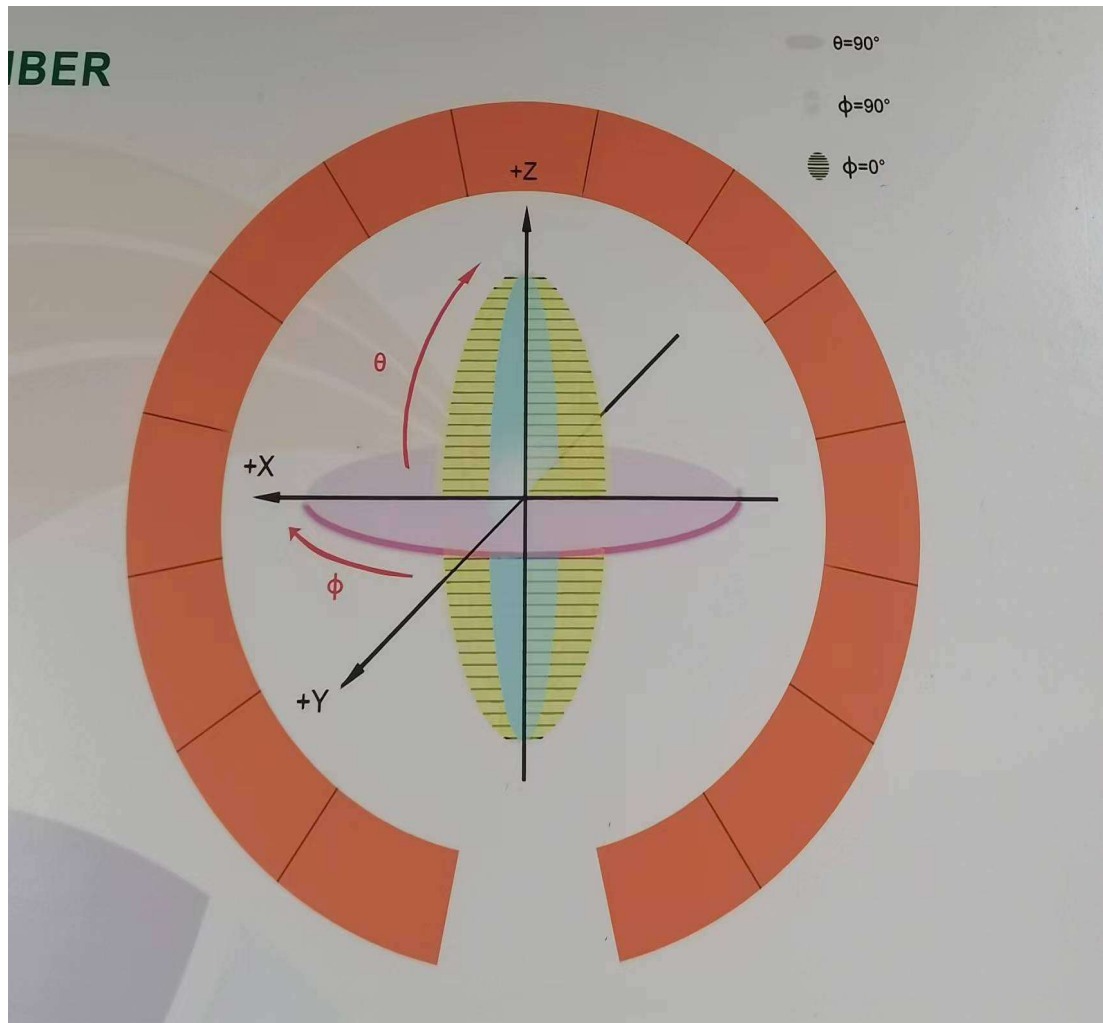
Test steps and data export



Antenna efficiency

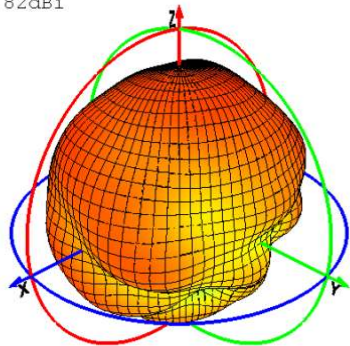
Shenzhen Yimingyuan Technology Co., Ltd									make:DongGuan City Xi Yu Plastics & Electronics Co.Ltd model:U2-DW-RX AntennaType: metal antenna Antenna Gain: 2.5 dBi address: East Jinsha Avenue, Sha Jiao Village, Shipai Town, Dongguan City					
Test data report	Address: 2nd Floor, Building 5, Yifenghua Innovation Industrial Park, Dalang Street, Longhua District, Shenzhen													
Software Version: SNF V2.4.3 Export time: 2025/3/21 11:31:35														
Frequency ID	1	2	3	4	5	6	7	8	9	10	11	12	13	PEAK 2.5 -2.25 59.62
Frequency (MHz)	2402	2410	2416	2422	2428	2434	2440	2446	2454	2460	2466	2472	2480	
Gain (dBi)	2.19	2.11	1.86	2.04	2.18	2.14	1.97	2.28	2.44	2.43	2.15	2.16	2.50	
Efficiency (dB)	-2.74	-2.53	-2.88	-2.87	-2.72	-2.67	-2.66	-2.44	-2.43	-2.54	-2.75	-2.60	-2.25	
Efficiency (%)	53.21	55.89	51.57	51.60	53.49	54.06	54.15	56.96	57.16	55.74	53.07	54.91	59.62	
Plane: Phi=0	2402	2410	2416	2422	2428	2434	2440	2446	2454	2460	2466	2472	2480	
Plane: Phi=90	2402	2410	2416	2422	2428	2434	2440	2446	2454	2460	2466	2472	2480	
Plane: Theta=90	2402	2410	2416	2422	2428	2434	2440	2446	2454	2460	2466	2472	2480	

Z、X、Y Physical drawing

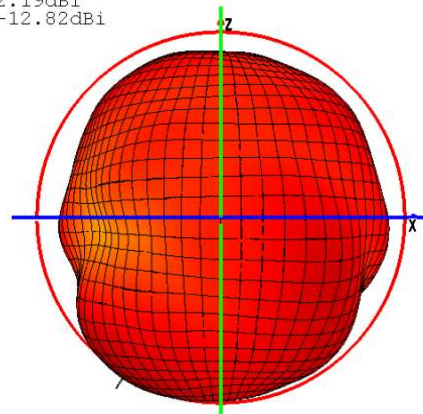


Antenna apple diagram and pattern

MAX: 2.19dBi
MIN: -12.82dBi

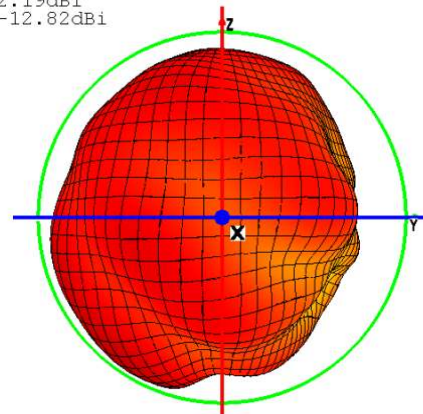


MAX: 2.19dBi
MIN: -12.82dBi

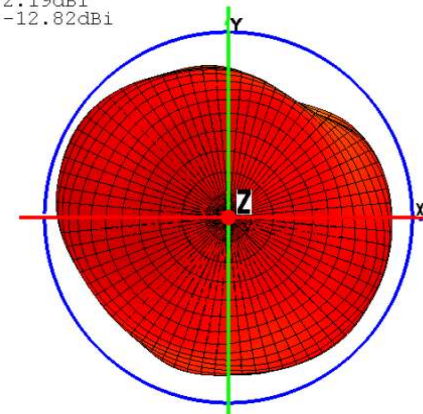


2402MHz

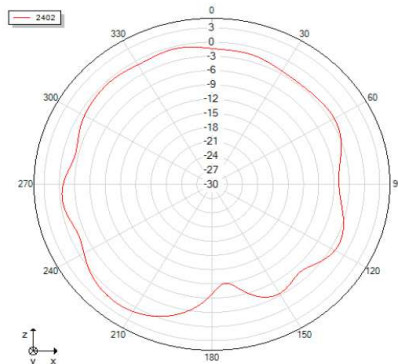
MAX: 2.19dBi
MIN: -12.82dBi



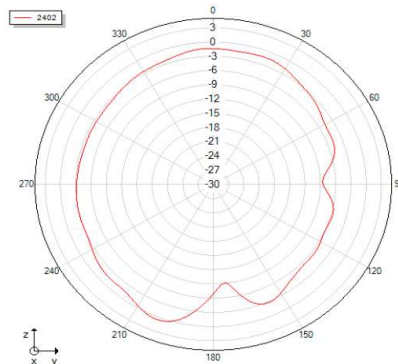
MAX: 2.19dBi
MIN: -12.82dBi



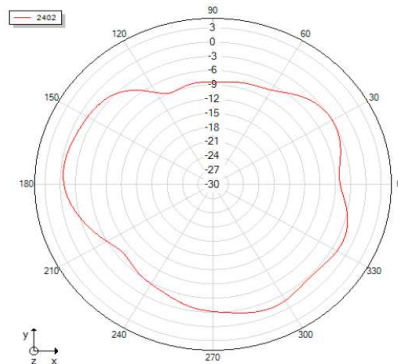
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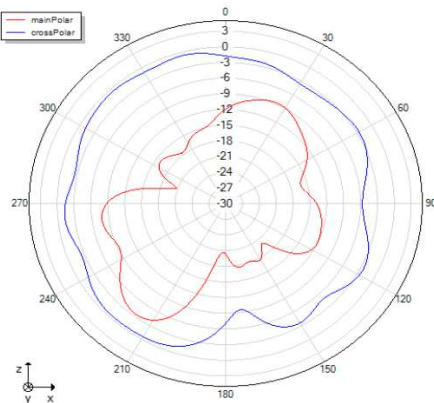
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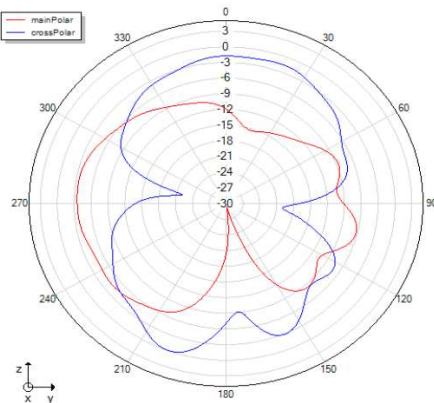
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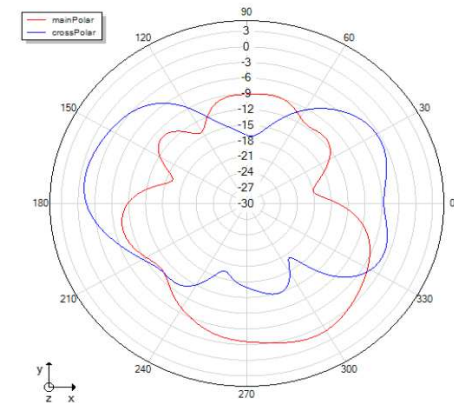
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Phi=90 freq=2402MHz



Theta=90 freq=2402MHz



Antenna apple diagram and pattern

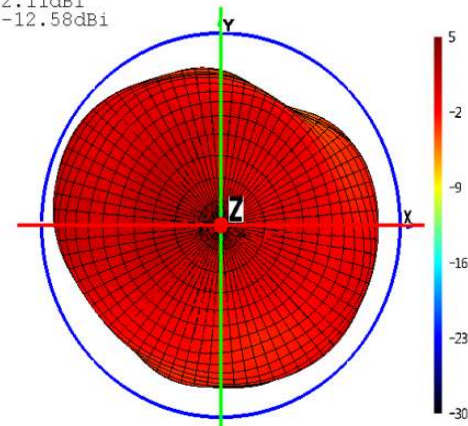
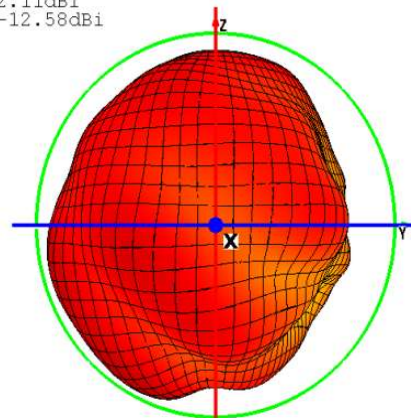
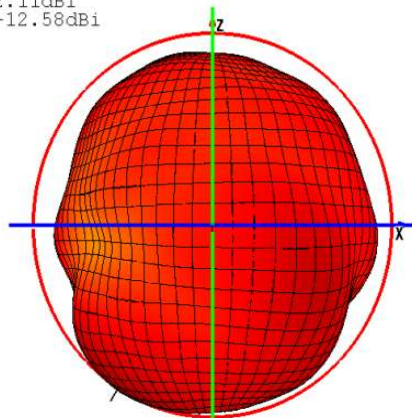
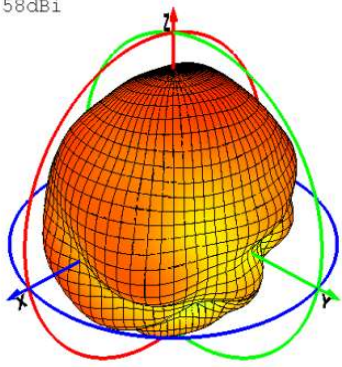
2410MHz

MAX:2.11dBi
MIN:-12.58dBi

MAX:2.11dBi
MIN:-12.58dBi

MAX:2.11dBi
MIN:-12.58dBi

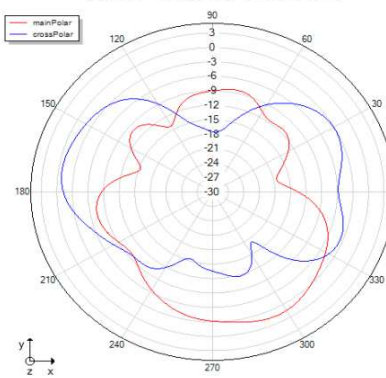
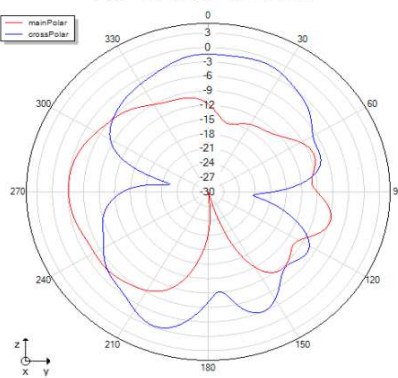
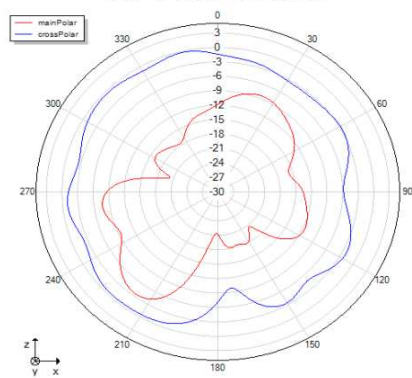
MAX:2.11dBi
MIN:-12.58dBi



Phi=0 freq=2410MHz

Phi=90 freq=2410MHz

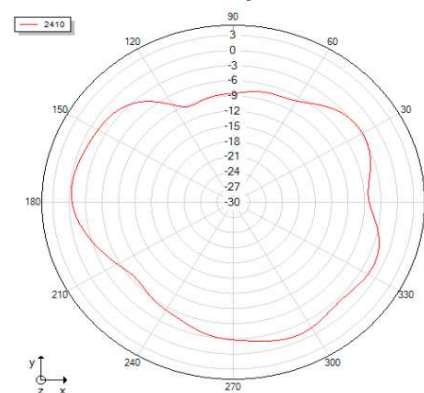
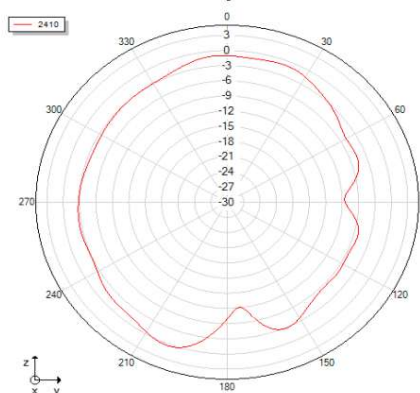
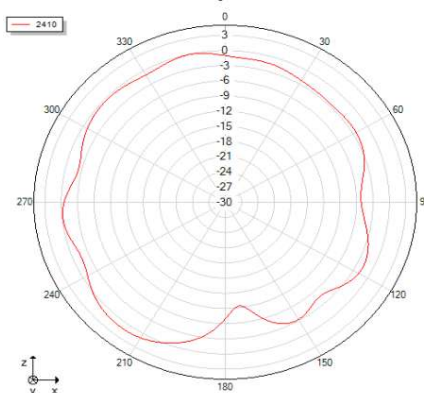
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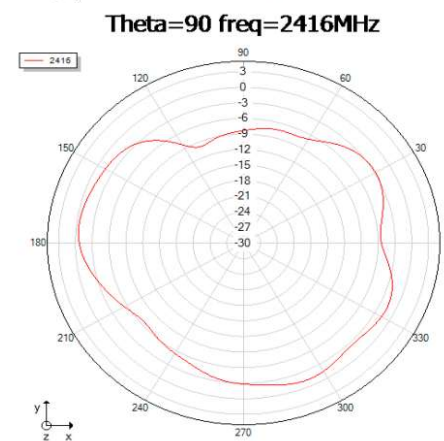
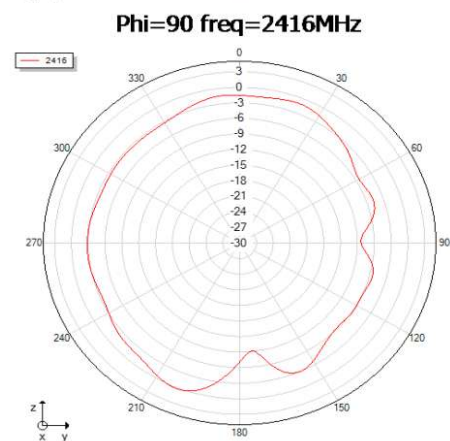
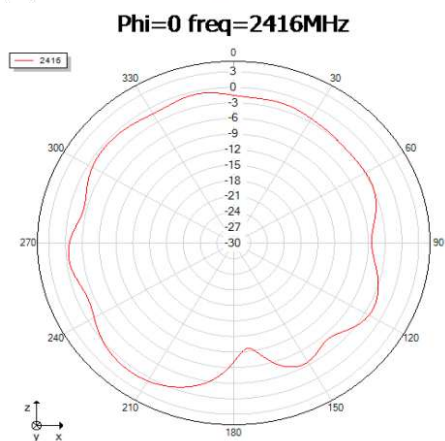
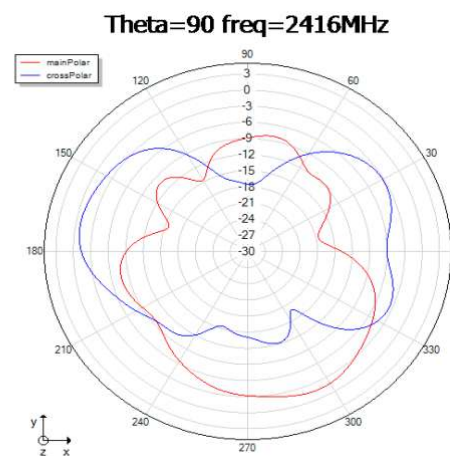
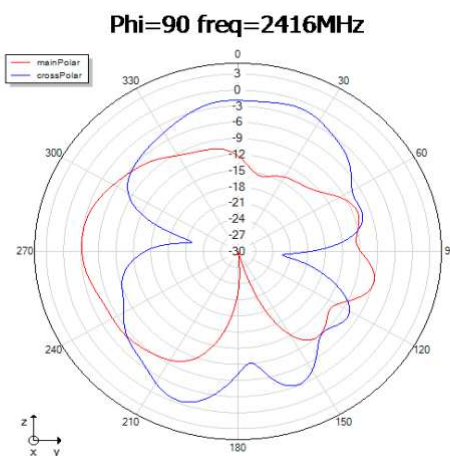
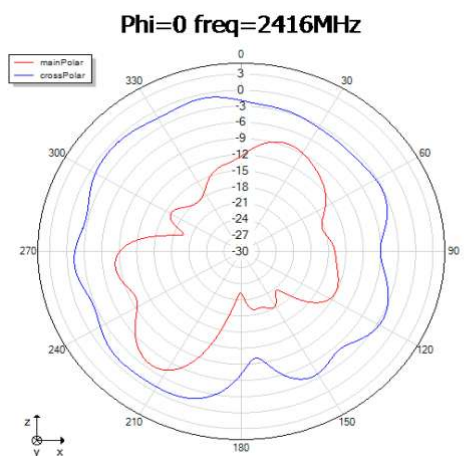
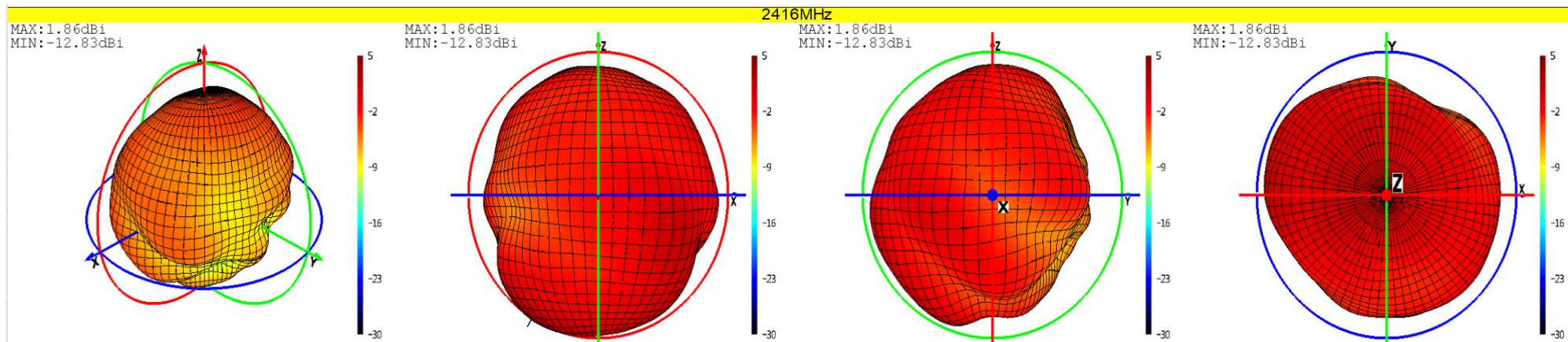
Phi=0 freq=2410MHz

Phi=90 freq=2410MHz

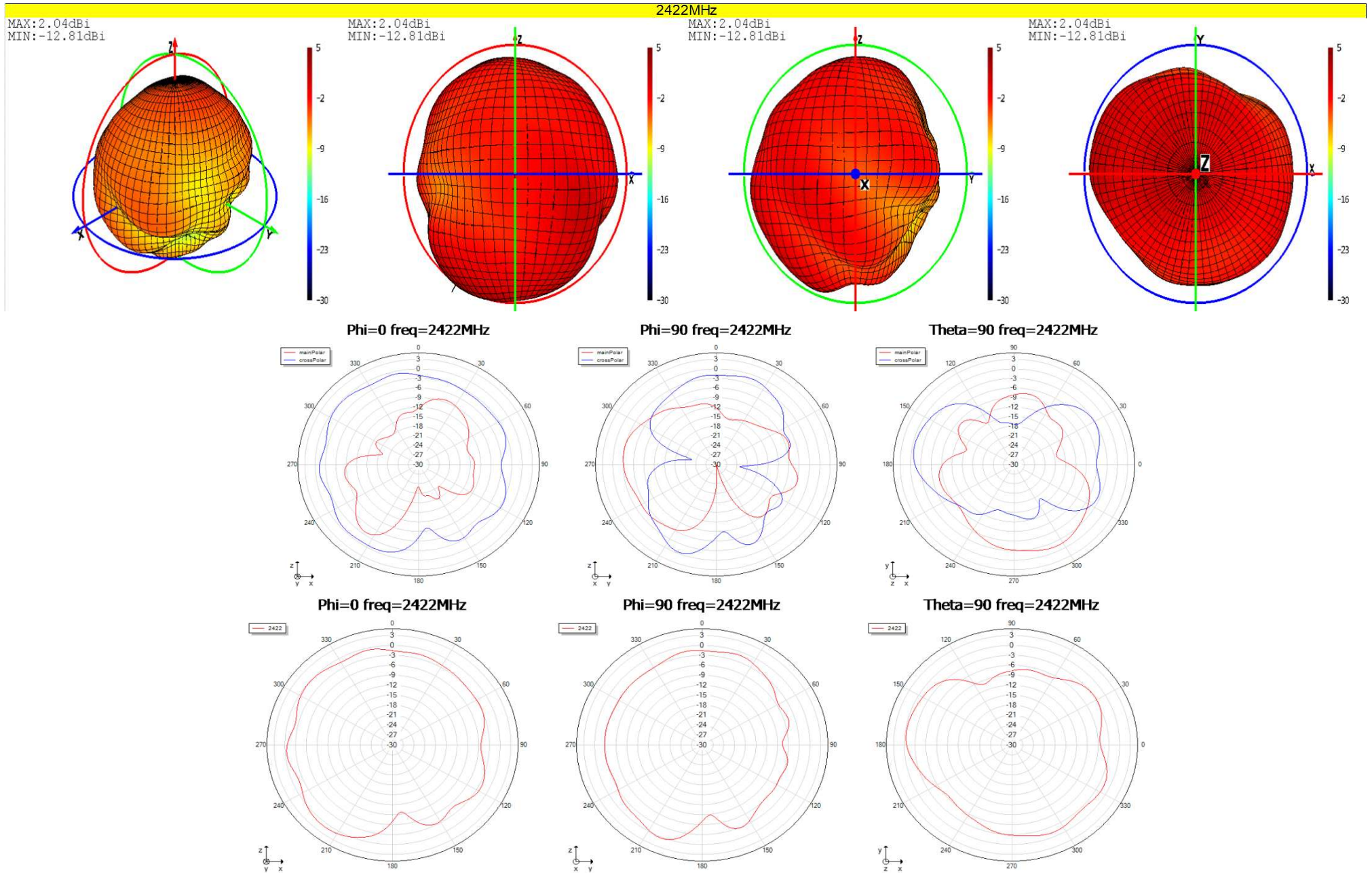
Theta=90 freq=2410MHz



Antenna apple diagram and pattern



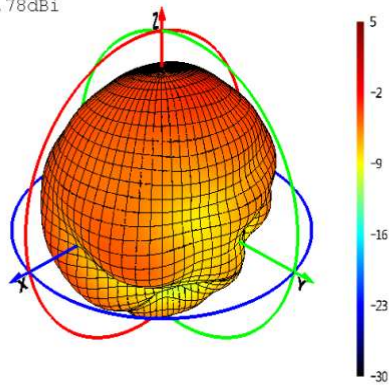
Antenna apple diagram and pattern



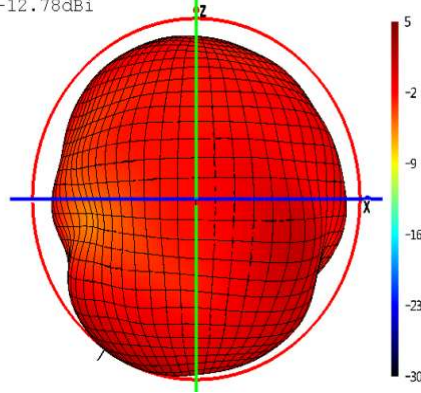
Antenna apple diagram and pattern

2428MHz

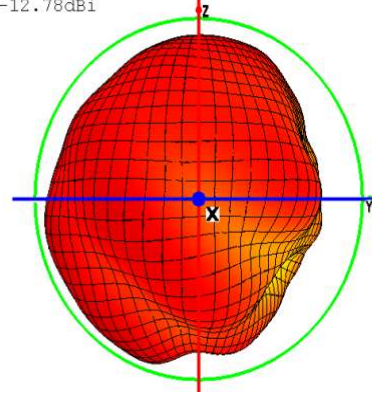
MAX:2.18dBi
MIN:-12.78dBi



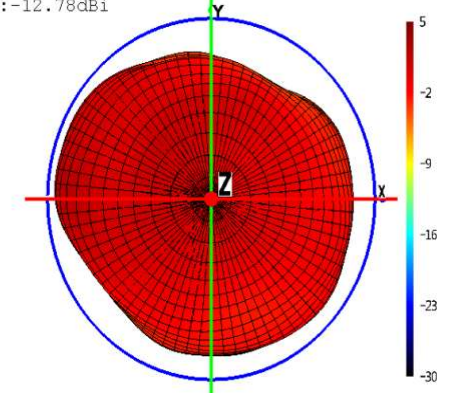
MAX:2.18dBi
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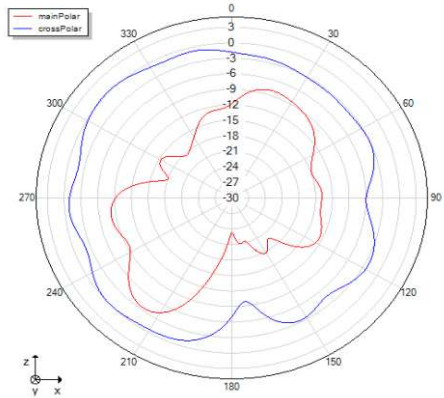
MAX:2.18dBi
MIN:-12.78dBi



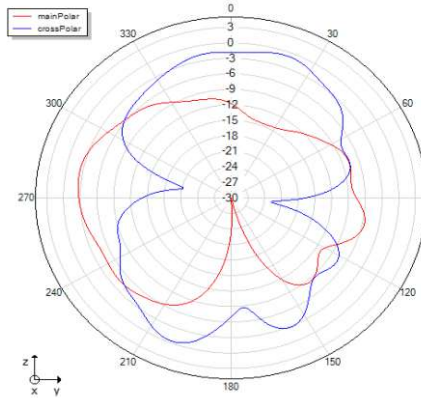
MAX:2.18dBi
MIN:-12.78dBi



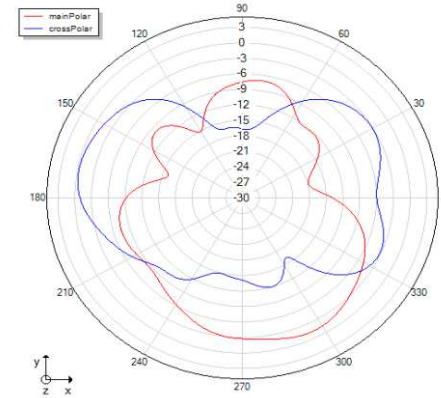
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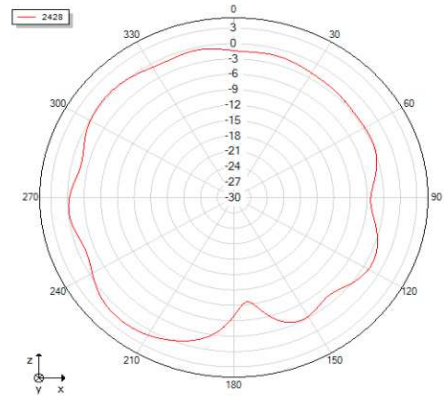
Phi=90 freq=2428MHz



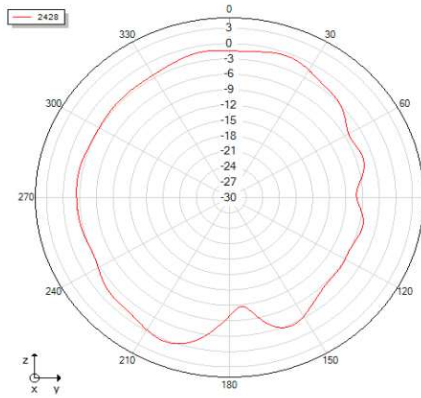
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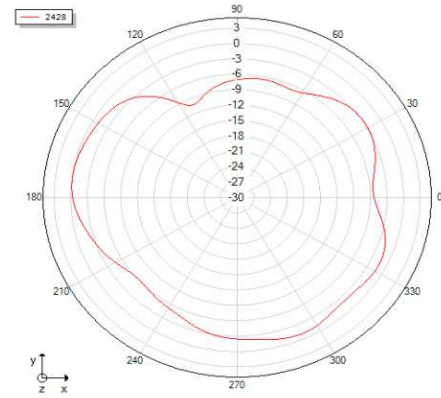
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Phi=90 freq=2428MHz



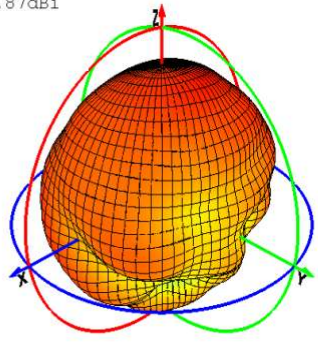
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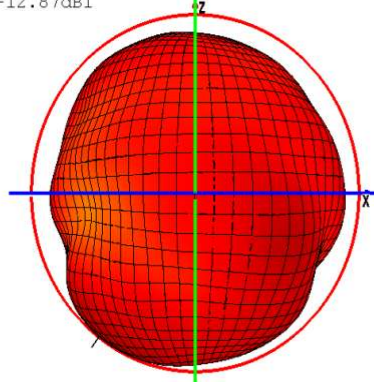
Antenna apple diagram and pattern

2434MHz

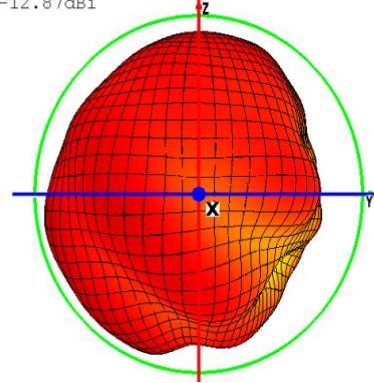
MAX:2.14dBi
MIN:-12.87dBi



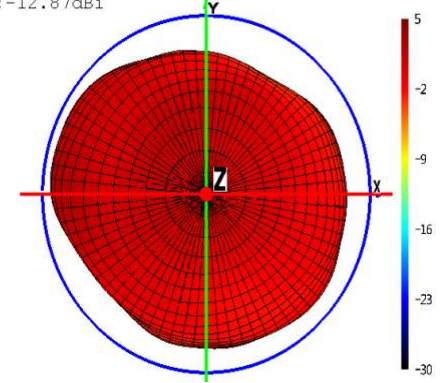
MAX:2.14dBi
MIN:-12.87dBi



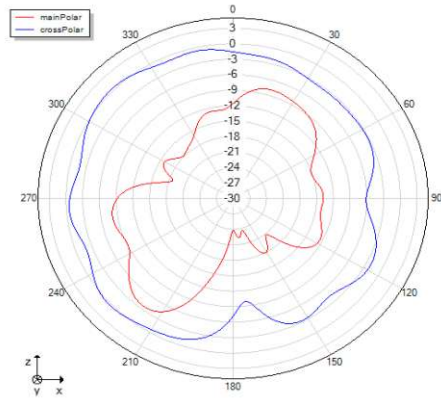
MAX:2.14dBi
MIN:-12.87dBi



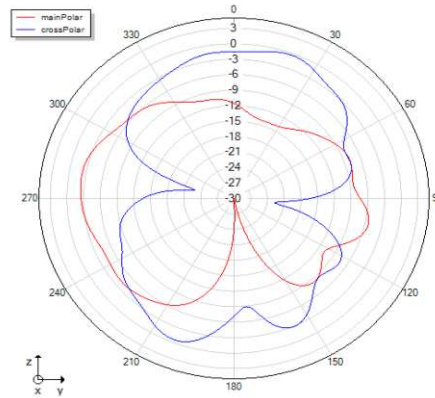
MAX:2.14dBi
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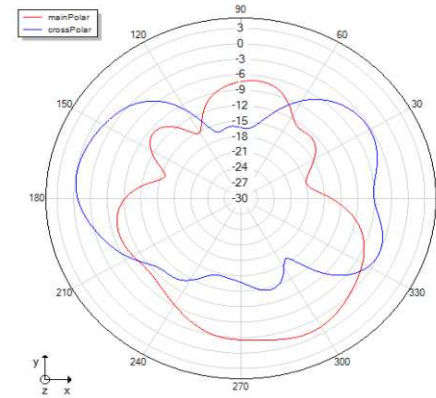
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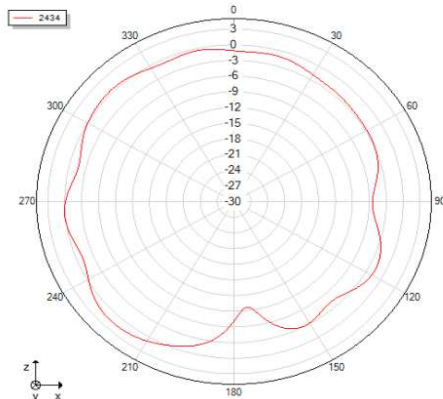
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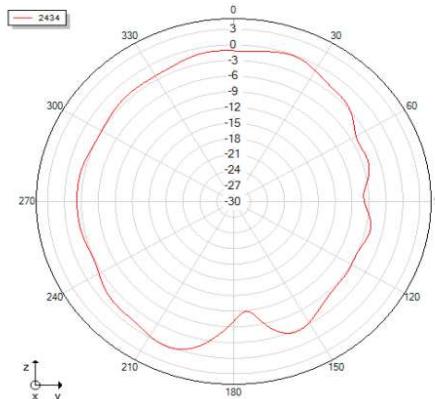
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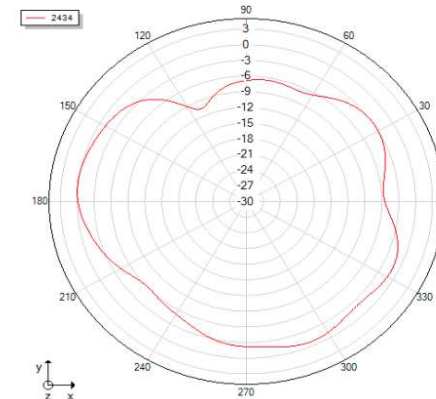
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Phi=90 freq=2434MHz

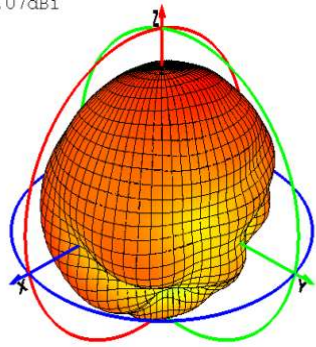


Theta=90 freq=2434MHz



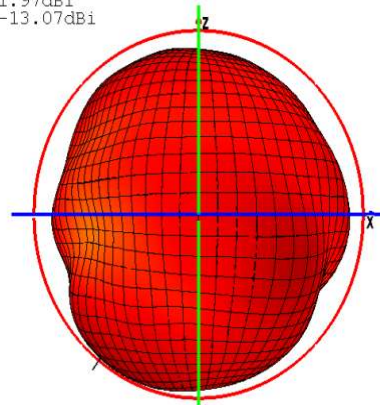
Antenna apple diagram and pattern

MAX:1.97dBi
MIN:-13.07dBi



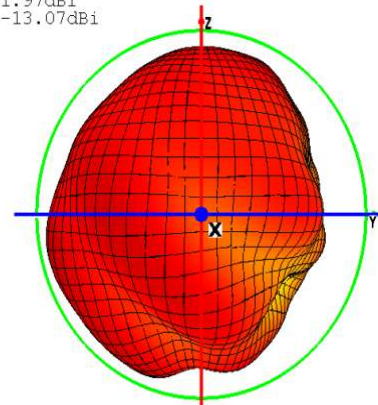
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MAX:1.97dBi
MIN:-13.07dBi



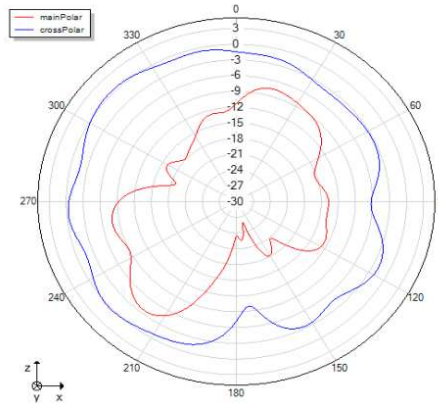
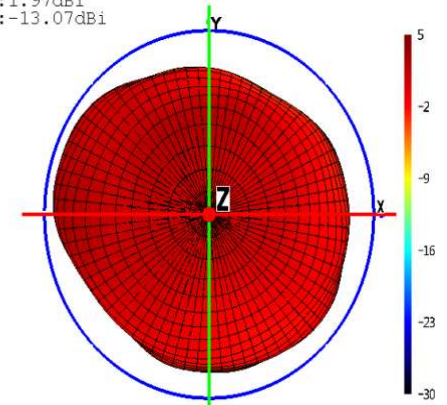
Phi=90 freq=2440MHz

MAX:1.97dBi
MIN:-13.07dBi

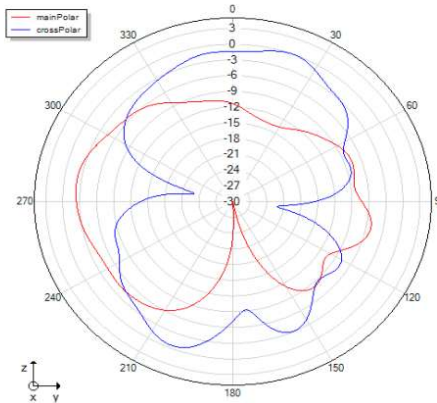


Theta=90 freq=2440MHz

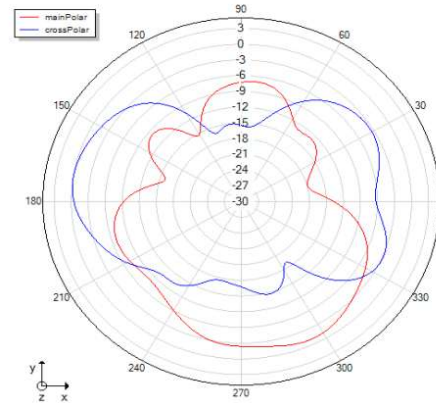
MAX:1.97dBi
MIN:-13.07dBi



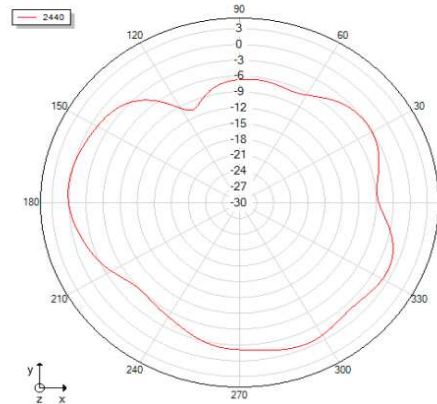
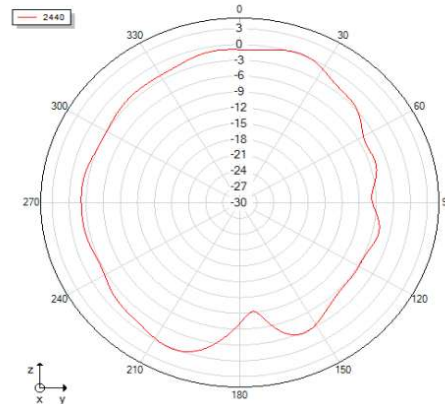
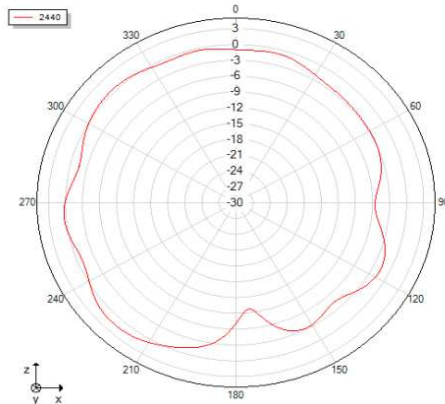
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Phi=90 freq=2440MHz

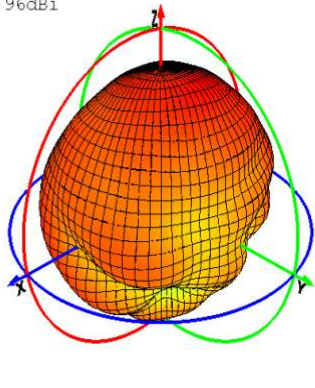


Theta=90 freq=2440MHz

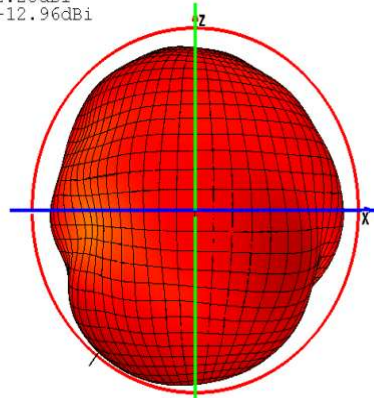


Antenna apple diagram and pattern

MAX:2.28dBi
MIN:-12.96dBi

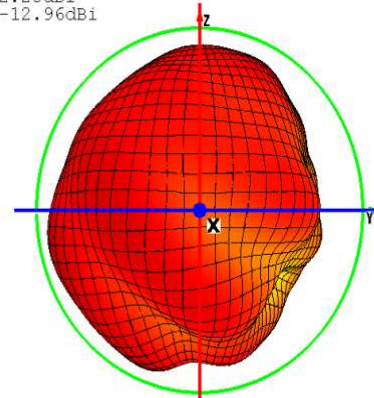


MAX:2.28dBi
MIN:-12.96dBi

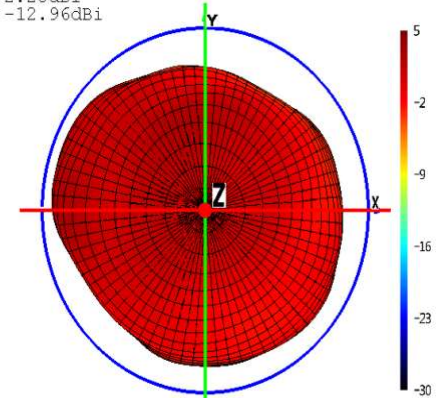


2446MHz

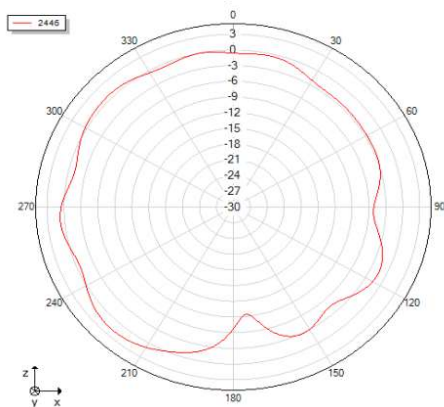
MAX:2.28dBi
MIN:-12.96dBi



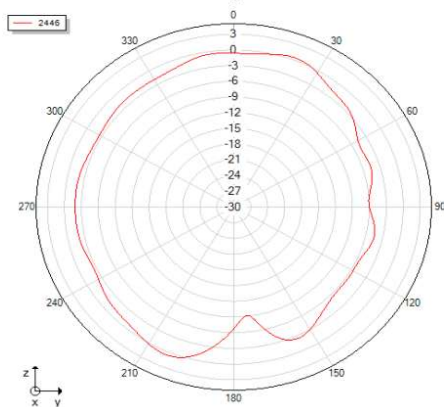
MAX:2.28dBi
MIN:-12.96dBi



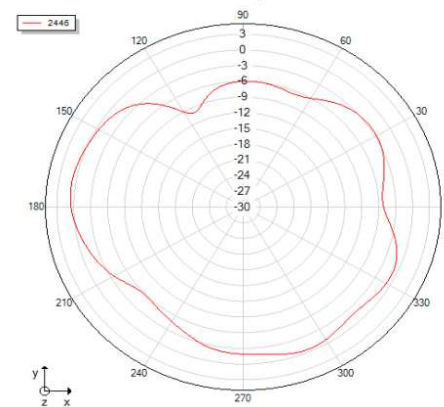
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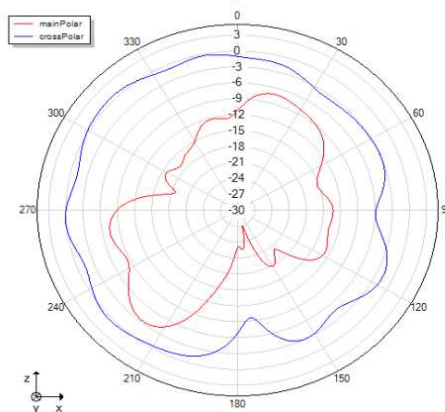
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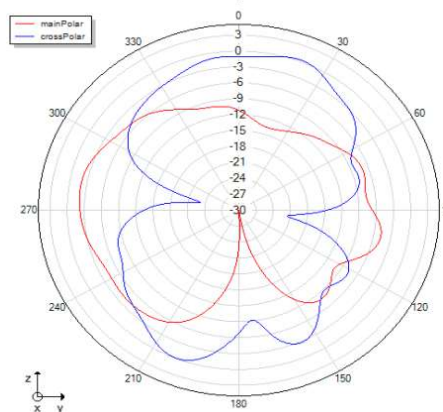
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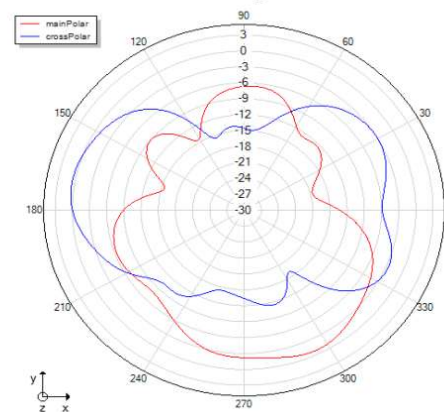
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$\Phi=90$ freq=2446MHz



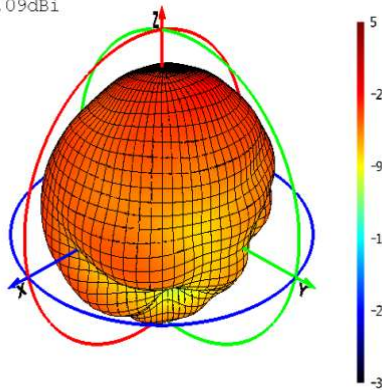
$\Theta=90$ freq=2446MHz



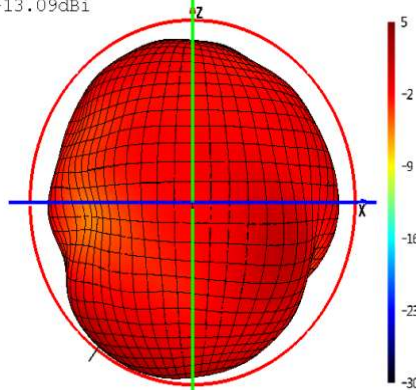
Antenna apple diagram and pattern

2454MHz

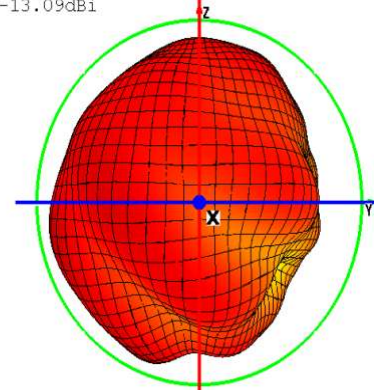
MAX:2.44dBi
MIN:-13.09dBi



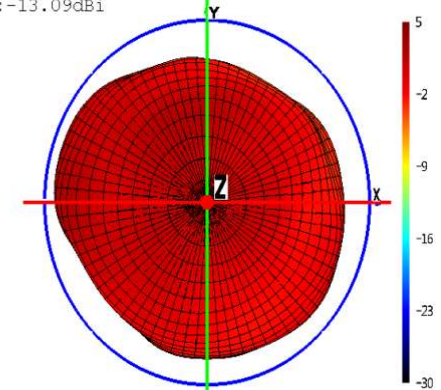
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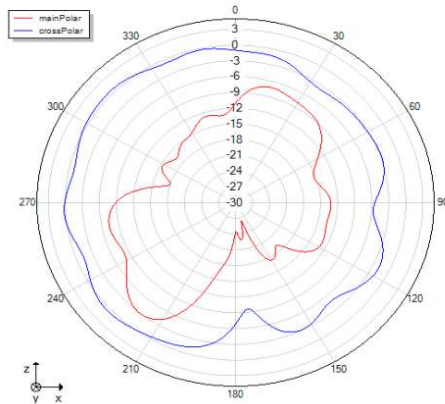
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MIN:-13.09dBi



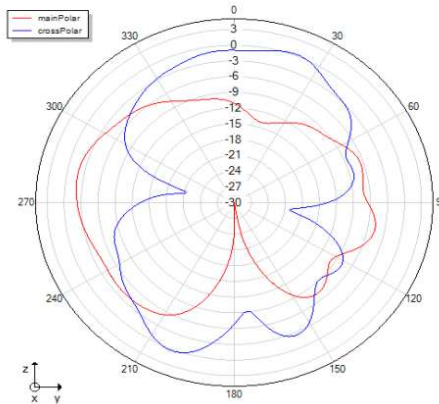
MAX:2.44dBi
MIN:-13.09dBi



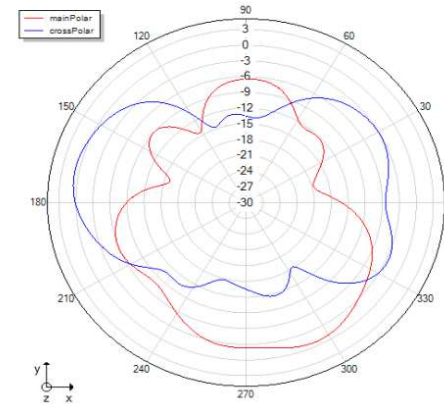
$\Phi=0$ freq=2454MHz



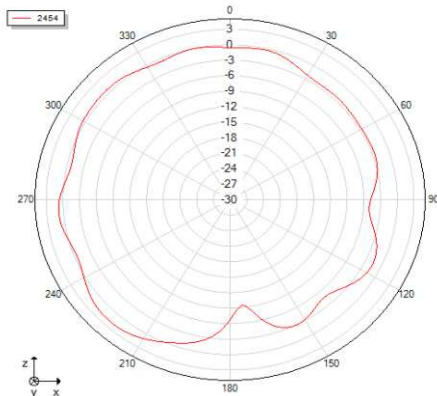
$\Phi=90$ freq=2454MHz



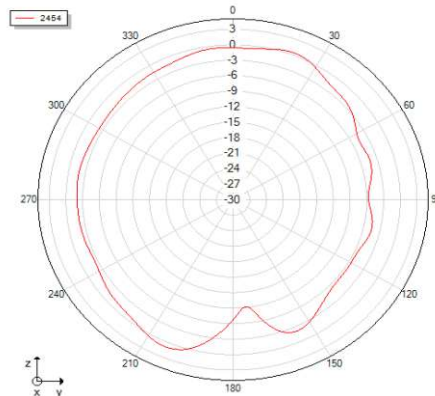
$\Theta=90$ freq=2454MHz



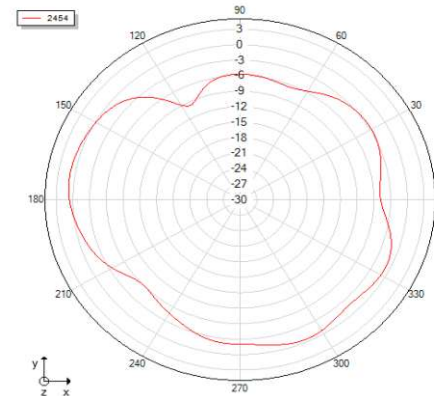
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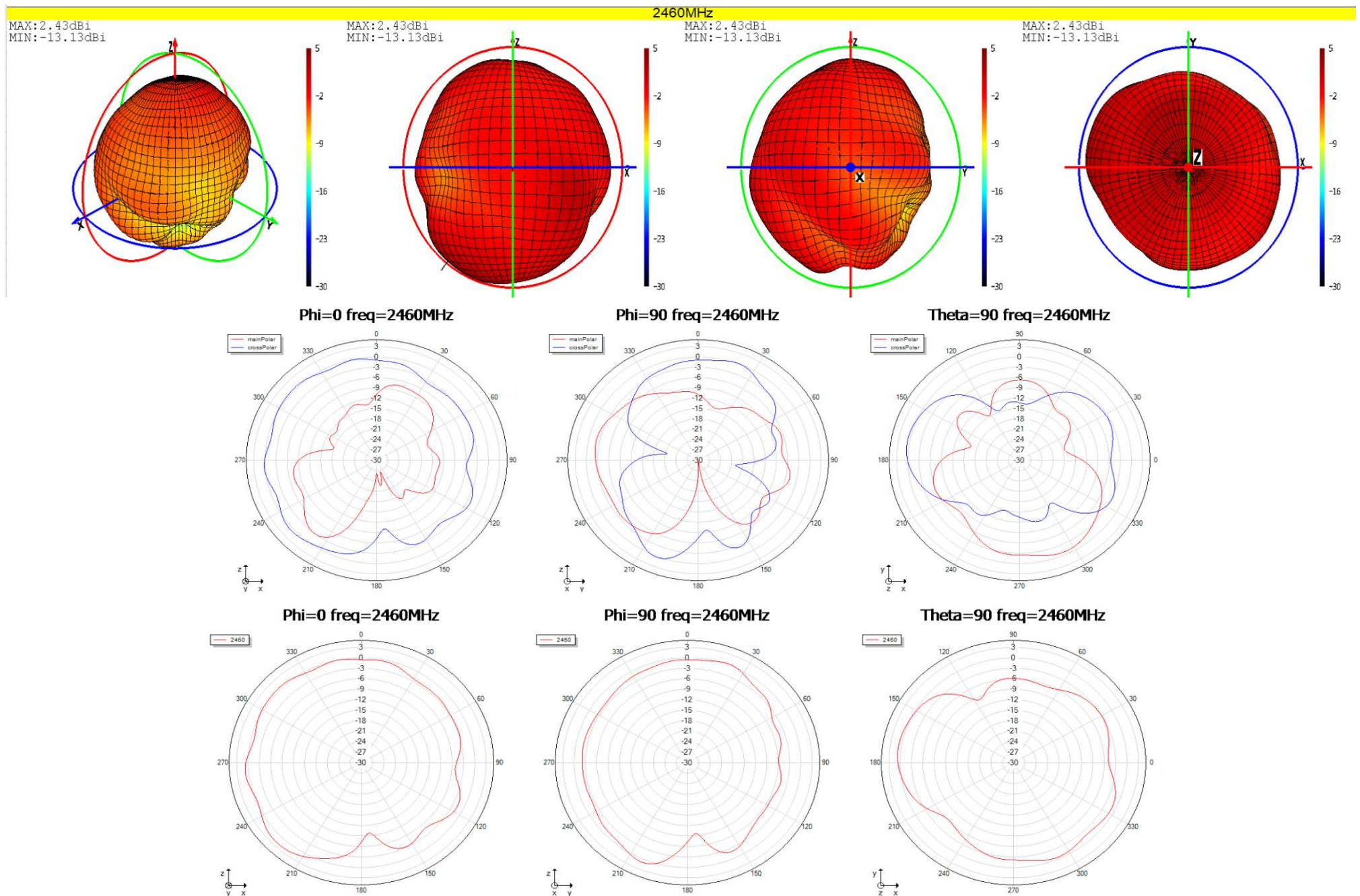
$\Phi=90$ freq=2454MHz



$\Theta=90$ freq=2454MHz

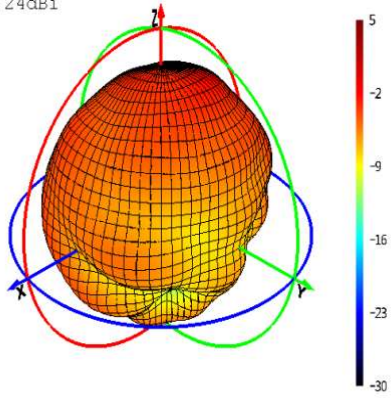


Antenna apple diagram and pattern

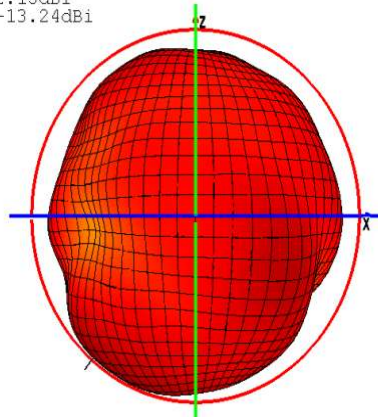


Antenna apple diagram and pattern

MAX:2.15dBi
MIN:-13.24dBi

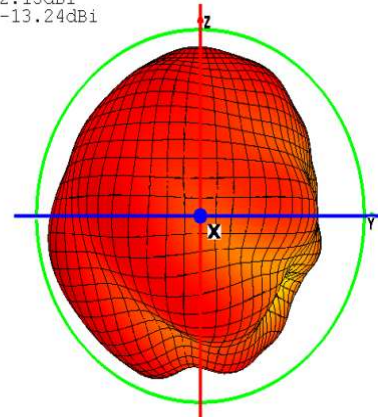


MAX:2.15dBi
MIN:-13.24dBi

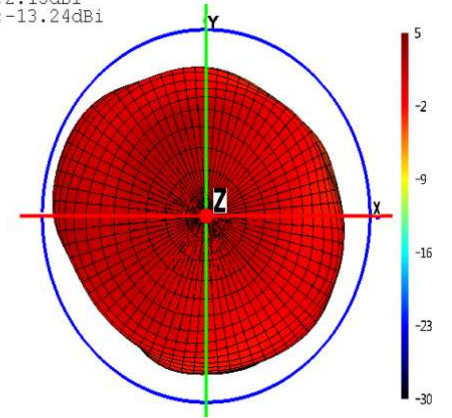


2466MHz

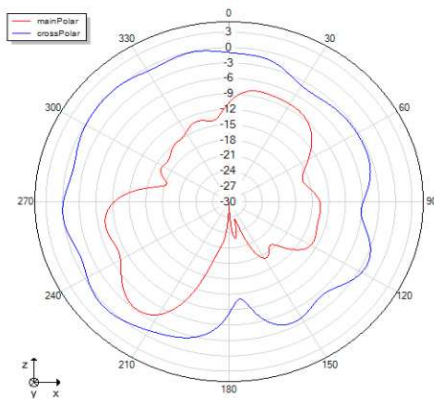
MAX:2.15dBi
MIN:-13.24dBi



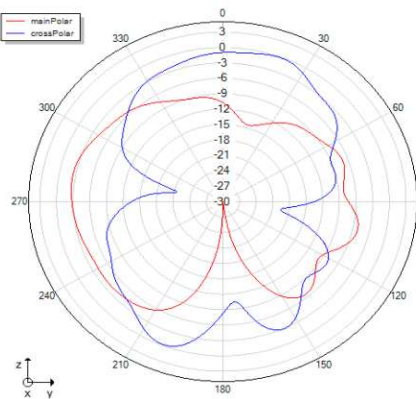
MAX:2.15dBi
MIN:-13.24dBi



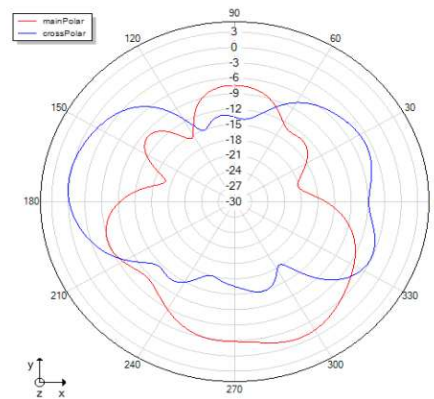
Phi=0 freq=2466MHz



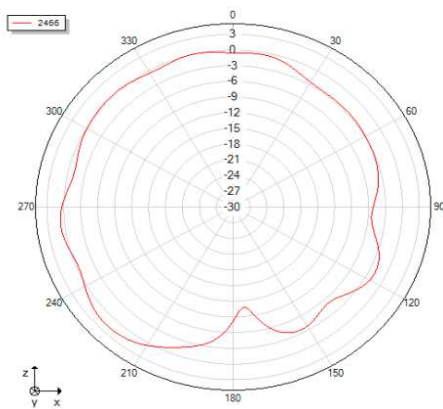
Phi=90 freq=2466MHz



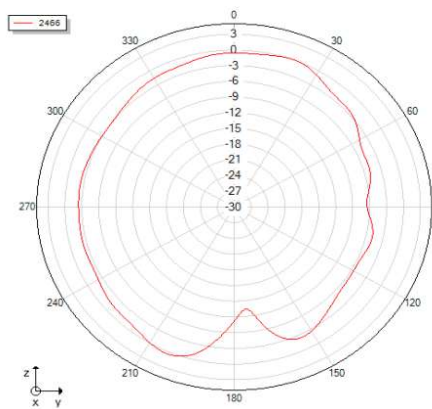
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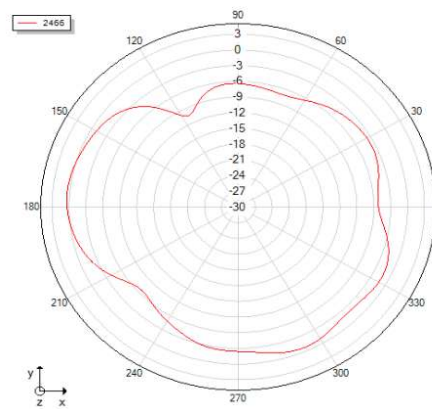
Phi=0 freq=2466MHz



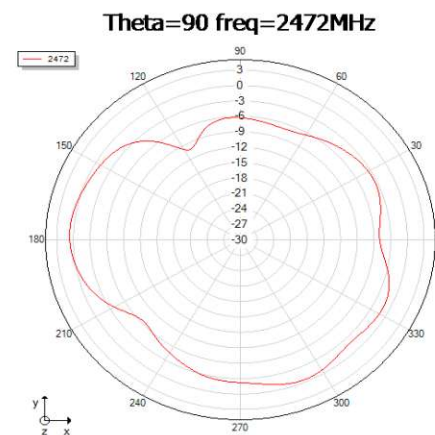
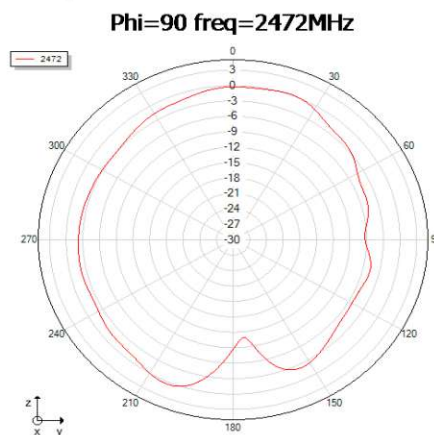
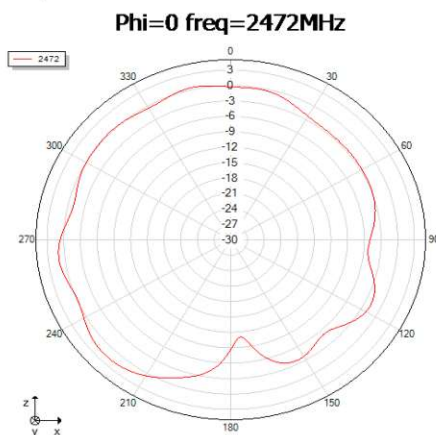
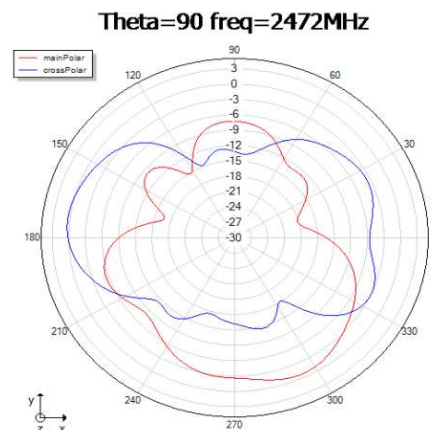
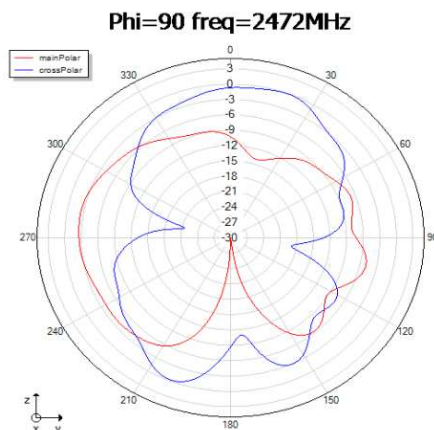
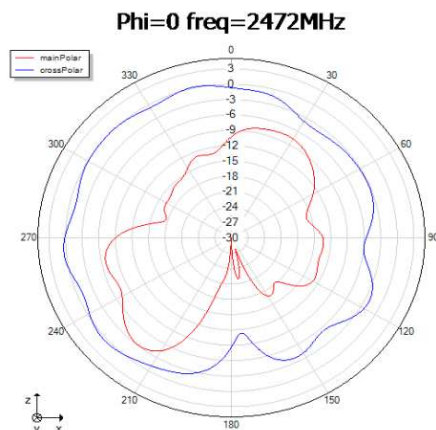
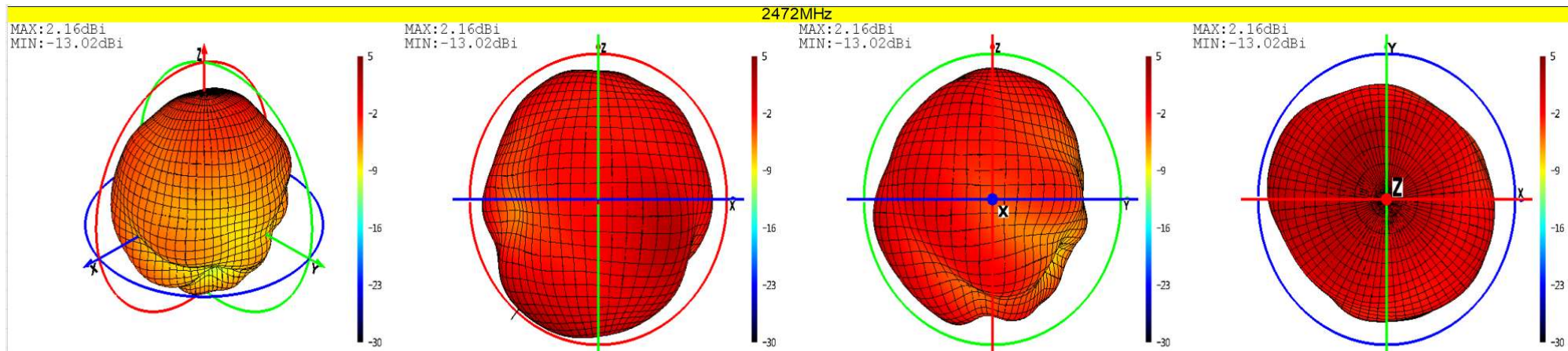
Phi=90 freq=2466MHz



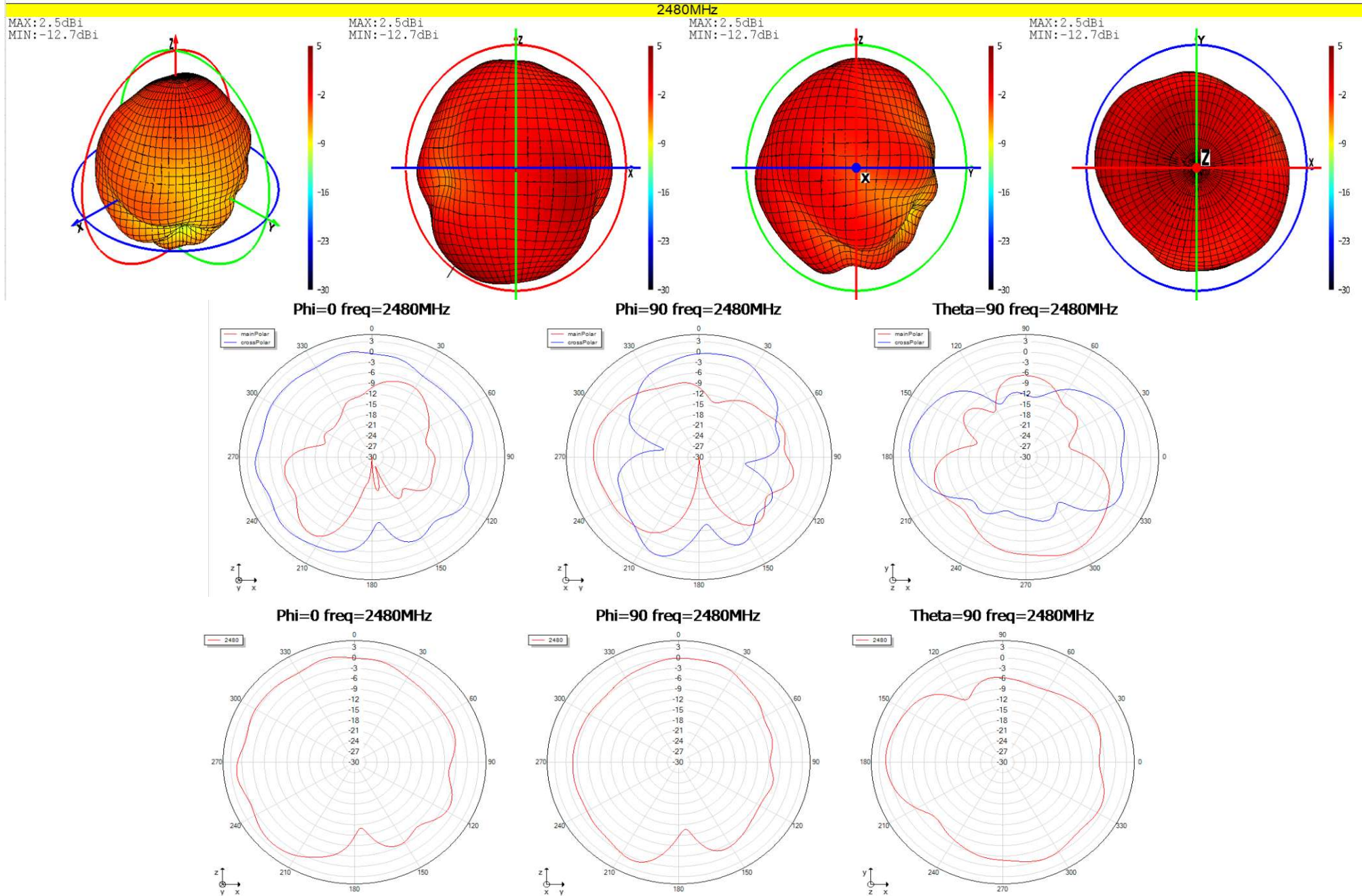
Theta=90 freq=2466MHz



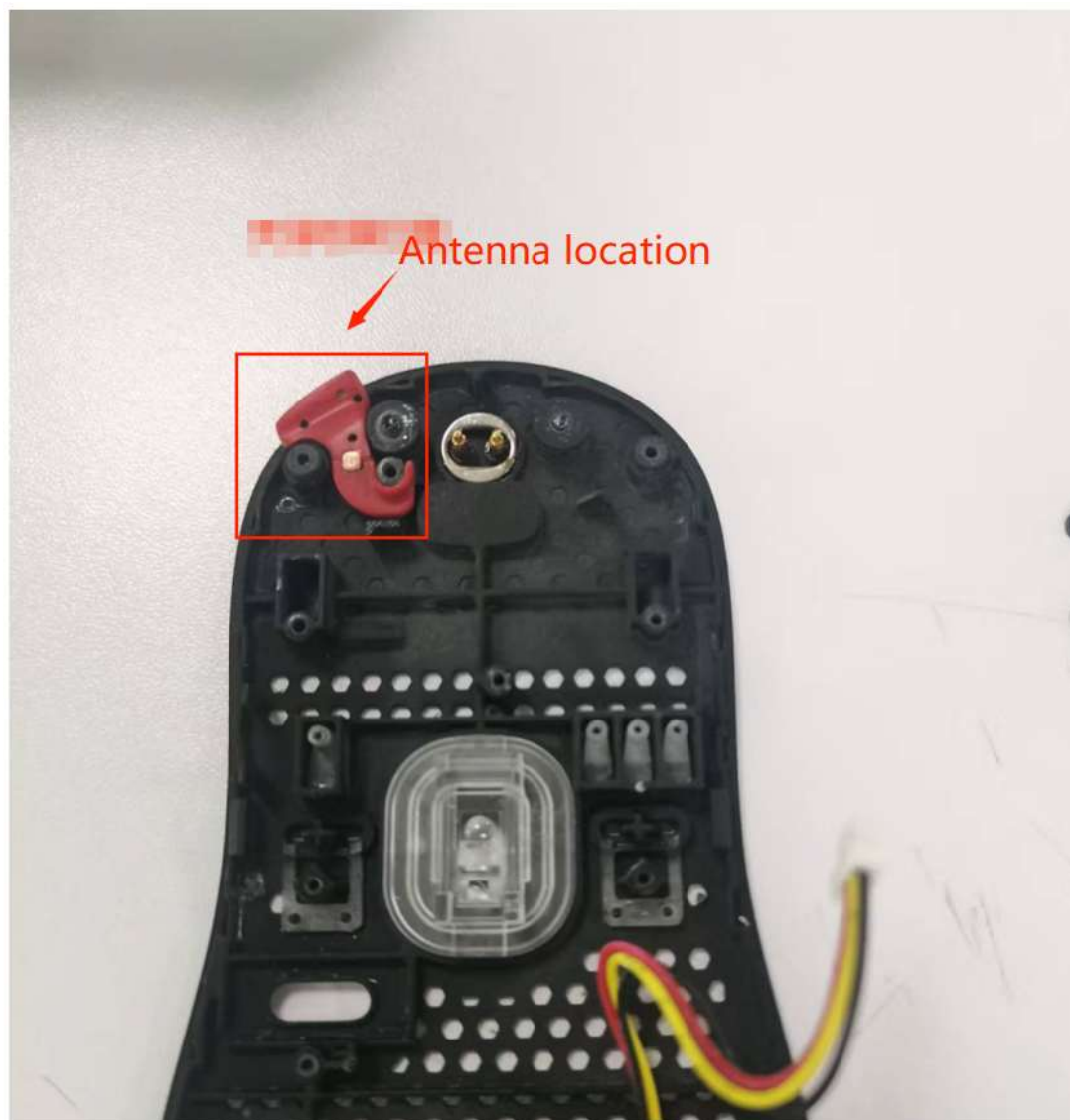
Antenna apple diagram and pattern



Antenna apple diagram and pattern



Antenna sticking position and positioning



Additional notes

- 📶 Please double-check whether the matching circuitry mentioned in the report has been modified and whether environmental treatment has been introduced, which will directly affect the antenna performance.
- 📶 The parameters provided in this report are only the parameters given by the customer to our company's commissioning prototype, and do not represent the final mass production status of your company's final project.
- 📶 If your company has the latest trial production, or updated status (replacement of materials, update software, change of environmental treatment, etc.) of the prototype, please submit it to our company for verification as soon as possible to confirm whether the antenna performance is affected.
- 📶 If your company needs to send it to a third party for re-testing or to the customer for testing, please be sure to hand over the machine to our company for testing and confirmation, because the consistency of the motherboard, the consistency of the assembly, and the difference in antenna assembly and other factors may lead to the deviation of antenna parameters.