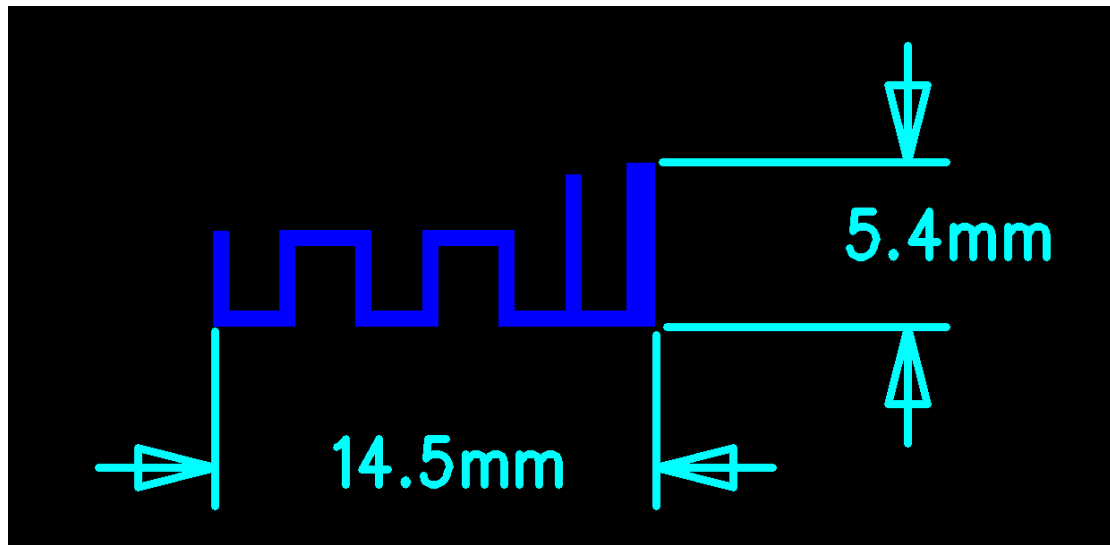


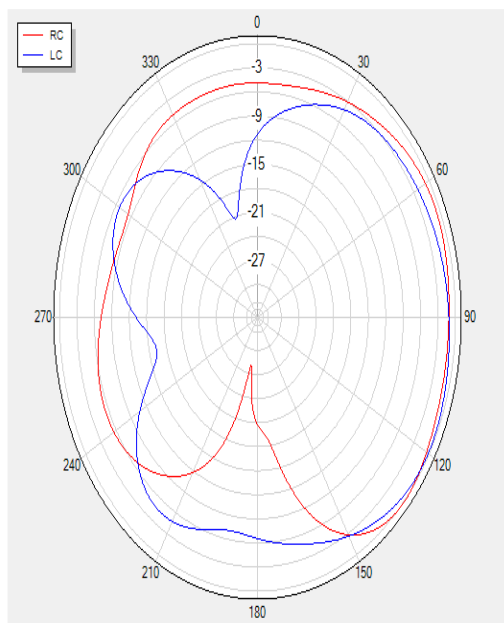
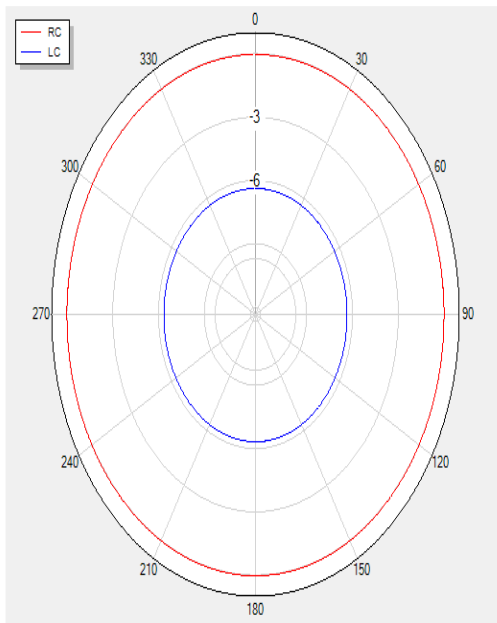
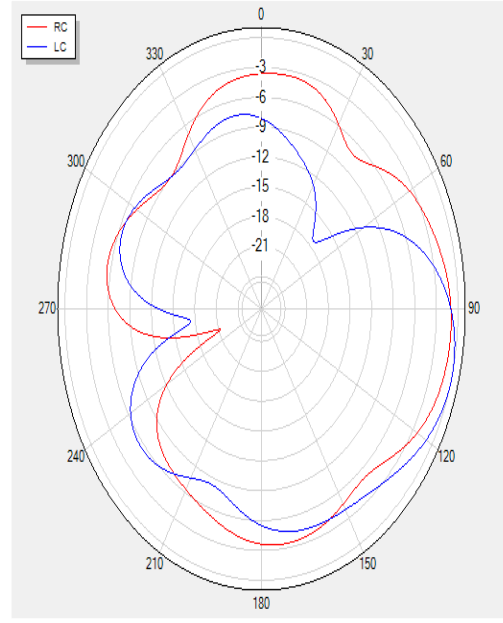
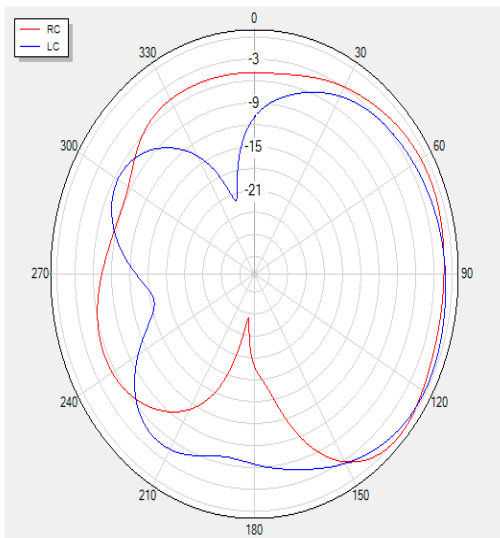
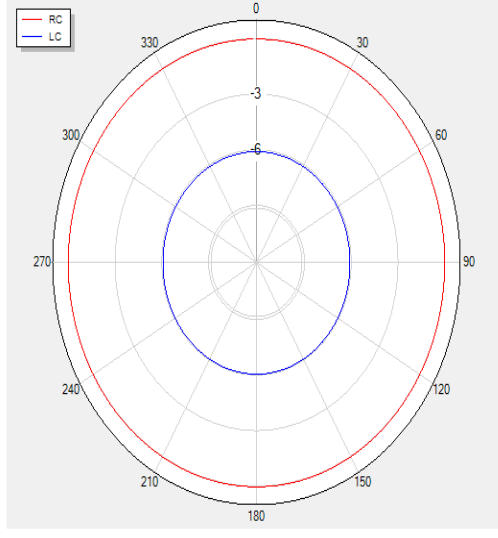
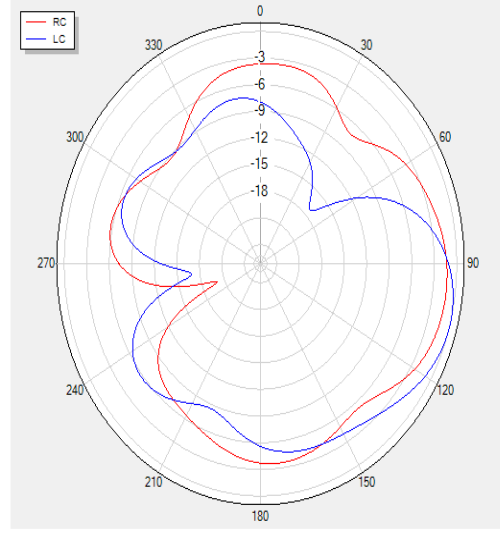
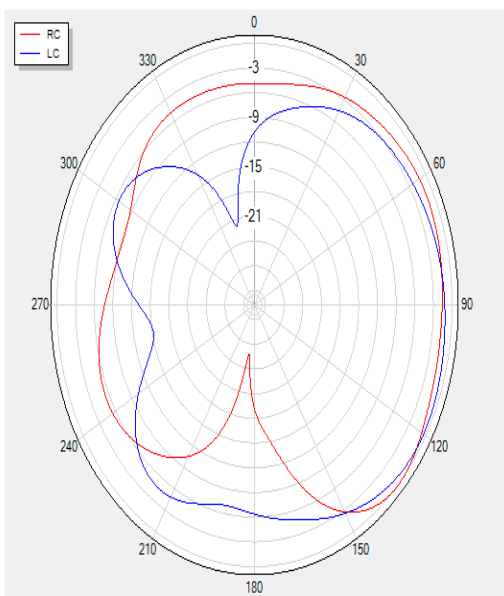
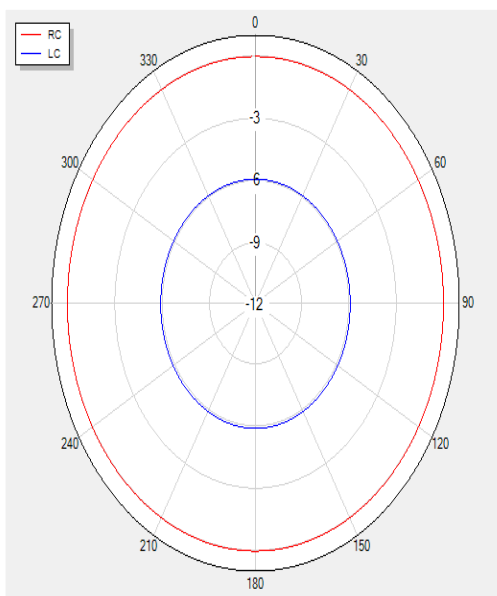
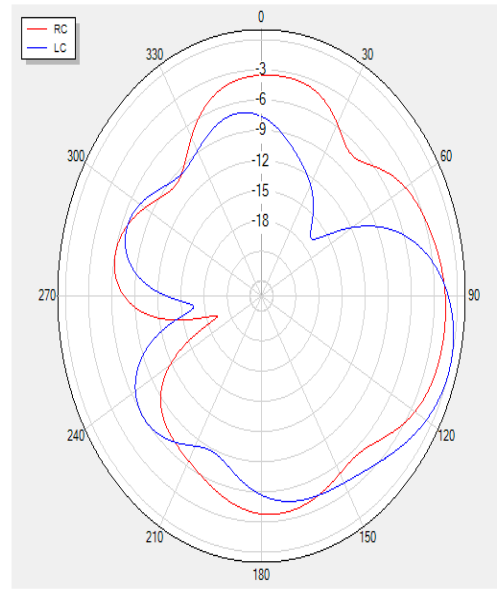
Inverted F PCB antenna specification



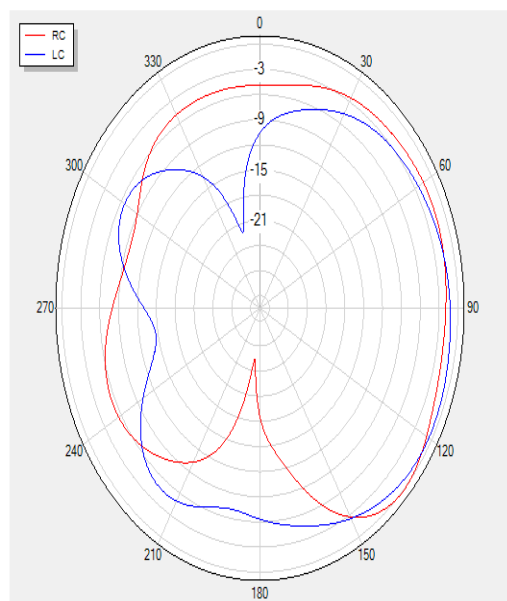
- 1: Dimension L x W : 14.5mm*5.4mm
- 2: Working Frequency : 2400MHZ-2500MHZ
- 3: Central Frequency: 2450MHZ
- 4: Bandwidth : 100MHZ (Min)
- 5: Return Loss : -10dB (Max)
- 6: Impedance : 50Ω
- 7: Peak Gain: 2.55 dBi
- 8: Operating Temperature : $-40\sim+85\text{ }^{\circ}\text{C}$
- 9: Polarization : Linear
- 10: Azimuth Beamwidth : Omni-directional
- 11: Model Type: CSIG F-2 Antenna
- 12: Manufacturer: CSIG Network Technology Co.ltd
- 13: Manufacturer Addr: Room 1701, Building 4#, No 4567 GaoQing Road, Pudong, Shanghai, China

Gain&Efficiency&PhaseCenter

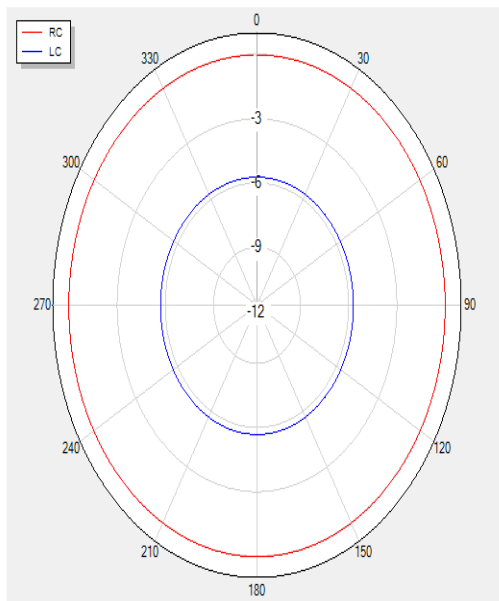
Gain&Efficiency&PhaseCenter 增益、效率和相位中心						
frequency 频率(MHz)	gain 增益(dBi)	gain 增益对应角度 (°)	CO Gain 主极化最大增益 (dBi)	CP Gain 交叉极化最大增益 (dBi)	efficiency 效率(dB)	efficiency 效率(%)
2400	2.55	$\psi=89, \theta=128$	0	0	-2.05	62.33
2410	1.84	$\psi=89, \theta=129$	0	0	-2.5	56.17
2420	2.37	$\psi=89, \theta=130$	0	0	-2.3	58.87
2430	2.23	$\psi=89, \theta=130$	0	0	-2.55	55.62
2440	1.46	$\psi=90, \theta=131$	0	0	-2.8	52.52
2450	1.74	$\psi=90, \theta=132$	0	0	-2.83	52.06
2460	1.57	$\psi=91, \theta=132$	0	0	-3.1	48.96
2470	1.17	$\psi=91, \theta=133$	0	0	-3.17	48.23
2480	1.48	$\psi=92, \theta=133$	0	0	-3.12	48.8
2490	0.73	$\psi=92, \theta=133$	0	0	-3.77	41.97
2500	0.79	$\psi=126, \theta=42$	0	0	-3.61	43.55
2510	1.05	$\psi=93, \theta=133$	0	0	-3.66	43.04
2520	0.52	$\psi=94, \theta=133$	0	0	-3.9	40.78
2530	0.69	$\psi=95, \theta=133$	0	0	-3.85	41.18
2540	0.67	$\psi=127, \theta=43$	0	0	-4.09	39.01
2550	0.18	$\psi=127, \theta=44$	0	0	-4.31	37.08
2560	0.29	$\psi=129, \theta=44$	0	0	-4.38	36.44
2570	0.17	$\psi=131, \theta=44$	0	0	-4.65	34.28
2580	-0.71	$\psi=134, \theta=44$	0	0	-5.24	29.93
2590	-0.36	$\psi=150, \theta=45$	0	0	-5.18	30.31
2600	-0.79	$\psi=154, \theta=46$	0	0	-5.64	27.27

Phi=90 freq=2400MHz**Theta=0 freq=2400MHz****Theta=90 freq=2400MHz****Phi=90 freq=2410MHz****Theta=0 freq=2410MHz****Theta=90 freq=2410MHz****Phi=90 freq=2420MHz****Theta=0 freq=2420MHz****Theta=90 freq=2420MHz**

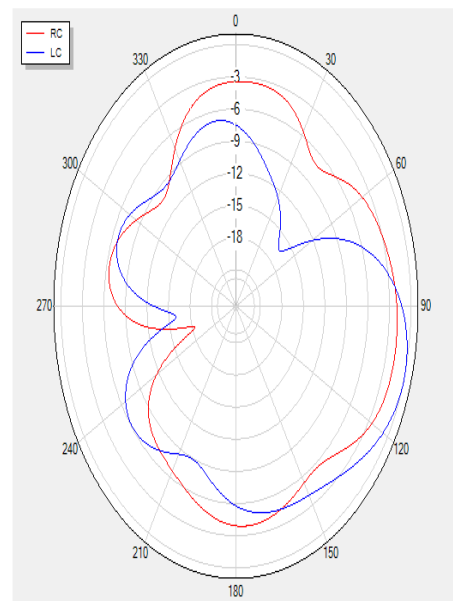
Phi=90 freq=2430MHz



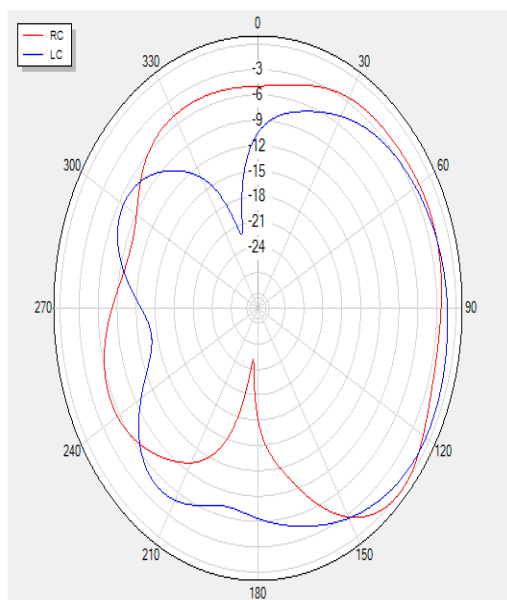
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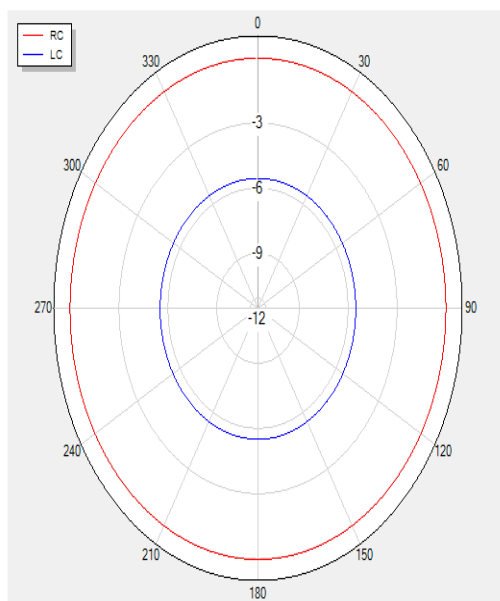
Theta=90 freq=2430MHz



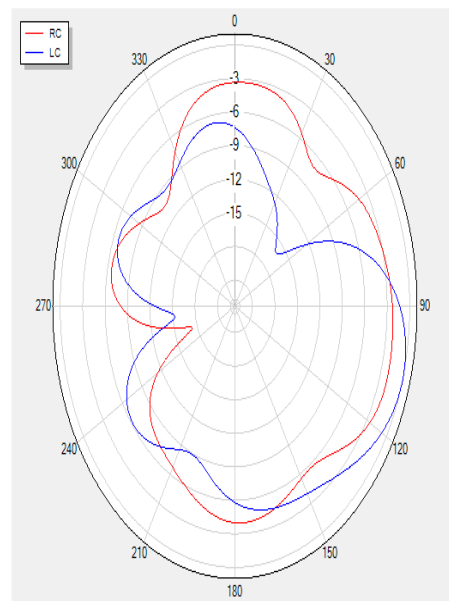
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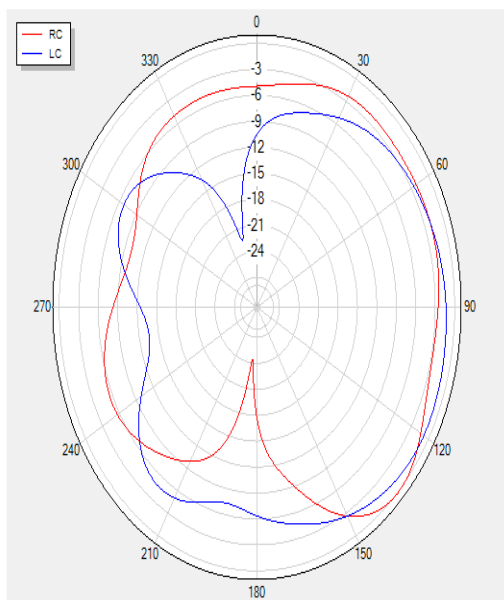
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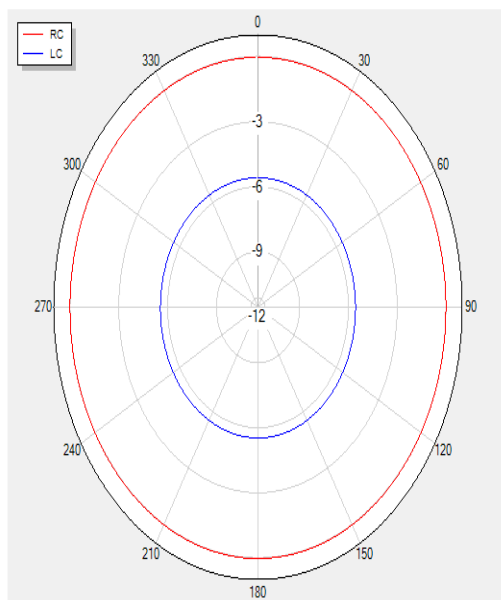
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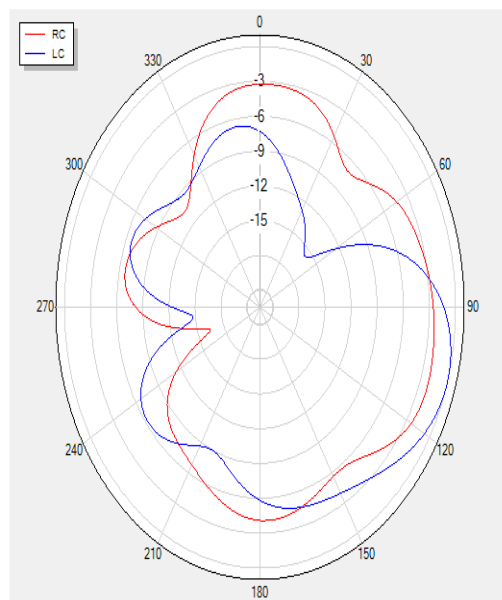
Phi=90 freq=2450MHz



Theta=0 freq=2450MHz



Theta=90 freq=2450MHz



A polar plot comparing the RC (red line) and LC (blue line) admittance functions. The plot is on a circular grid with radial lines every 30 degrees (0, 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330) and concentric circles representing constant values from 0 to -21 in increments of 3. The RC curve starts at 0 dB at 0 degrees, reaches a minimum of approximately -18 dB at 90 degrees, and returns to 0 dB at 180 degrees. The LC curve starts at 0 dB at 0 degrees, reaches a minimum of approximately -21 dB at 90 degrees, and returns to 0 dB at 180 degrees. Both curves show a sharp resonance peak at 180 degrees.

A polar plot comparing the RC (red line) and LC (blue line) admittance functions. The plot is on a circular grid with radial lines every 30 degrees (0, 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330) and concentric circles representing constant values (3, 6, 9, 12, 15). The RC curve starts at 3 on the 0-degree axis, peaks at approximately 18 on the 30-degree axis, and has a minimum near 12 on the 180-degree axis. The LC curve starts at 6 on the 0-degree axis, peaks at approximately 15 on the 30-degree axis, and has a minimum near 9 on the 180-degree axis. Both curves are symmetric about the 0/180-degree axis.

A polar plot comparing the RC (red line) and LC (blue line) admittance functions. The plot is on a circular grid with radial lines every 30 degrees (0 to 330) and concentric circles representing constant values from 3 to 21. The RC curve starts at approximately 3 on the 0-degree axis, reaches a minimum near 180 degrees, and returns to 3. The LC curve starts at approximately 21 on the 0-degree axis, reaches a minimum near 180 degrees, and returns to 21. Both curves are symmetric about the 0/180 degree axis.

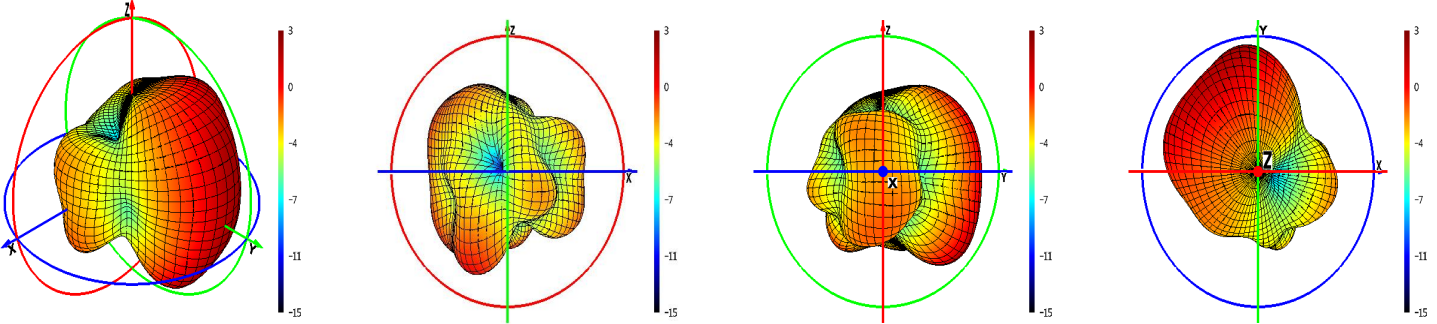
A polar plot showing the magnitude and phase of the admittance functions $Y_{RC}(j\omega)$ (red line) and $Y_{LC}(j\omega)$ (blue line) as a function of frequency ω . The plot is a circle with radial lines every 30 degrees and concentric circles representing constant magnitudes. The radial axis is labeled with values 0, 3, 6, 9, and 12. The red curve (Y_{RC}) starts at a magnitude of 12 at 0 degrees and decreases as frequency increases. The blue curve (Y_{LC}) starts at a magnitude of 6 at 0 degrees and increases as frequency increases.

A polar plot comparing the magnitude of the RC (red line) and LC (blue line) admittance functions. The plot is on a circular grid with radial lines every 30 degrees (0, 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330) and concentric circles representing magnitude levels at 3, 6, 9, and 12. The RC curve (red) starts at a magnitude of 3 at 0 degrees, peaks at approximately 10 at 30 degrees, and has a sharp peak at 180 degrees. The LC curve (blue) starts at a magnitude of 6 at 0 degrees, peaks at approximately 10 at 30 degrees, and has a sharp peak at 180 degrees. Both curves show a minimum magnitude near 90 degrees.

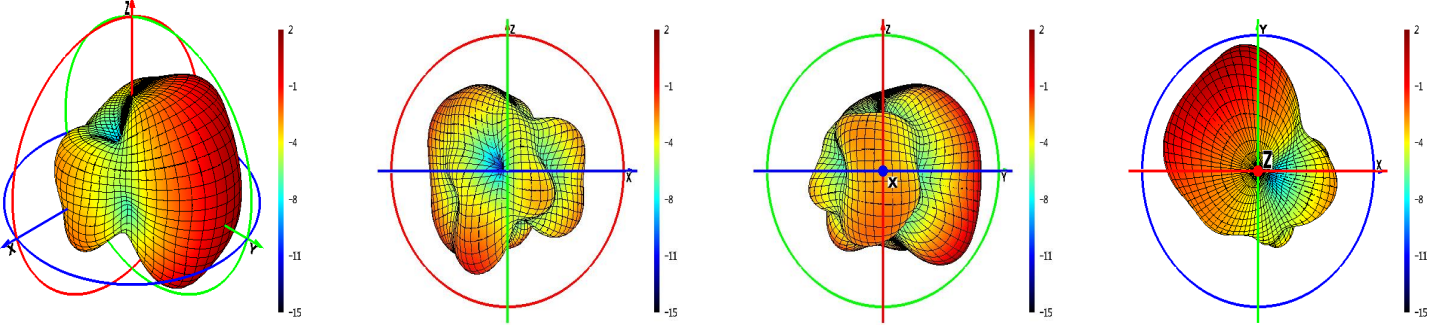
A polar plot comparing the RC (red line) and LC (blue line) admittance functions. The plot is on a circular grid with radial lines every 30 degrees (0, 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330) and concentric circles representing constant values from 3 to 21. The RC curve starts at approximately 6 on the 0-degree axis, dips to a minimum near 180 degrees, and returns to 6. The LC curve starts at approximately 9 on the 0-degree axis, dips to a minimum near 180 degrees, and returns to 9. Both curves exhibit a sharp inward spike towards the center at approximately 180 degrees.

A polar plot showing the admittance of a resistor-capacitor (RC) network (red line) and an inductor-capacitor (LC) network (blue line). The plot is on a circular grid with radial lines every 30 degrees (0, 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330) and concentric circles representing admittance magnitudes of 3, 6, 9, and 12. The RC curve is a red circle with a radius of 12, centered at the origin. The LC curve is a blue circle with a radius of 6, also centered at the origin. A legend in the top-left corner identifies the red line as RC and the blue line as LC.

2400



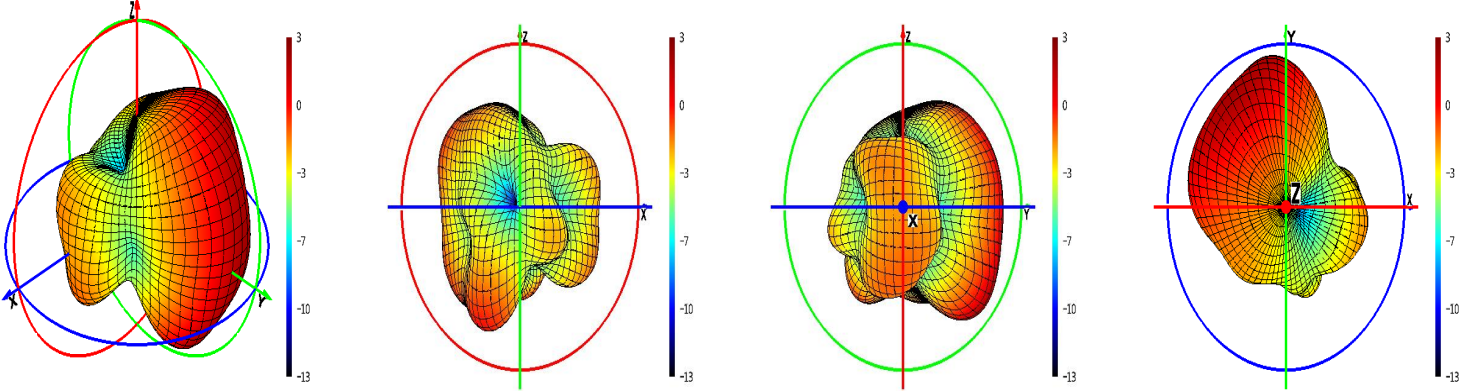
2410



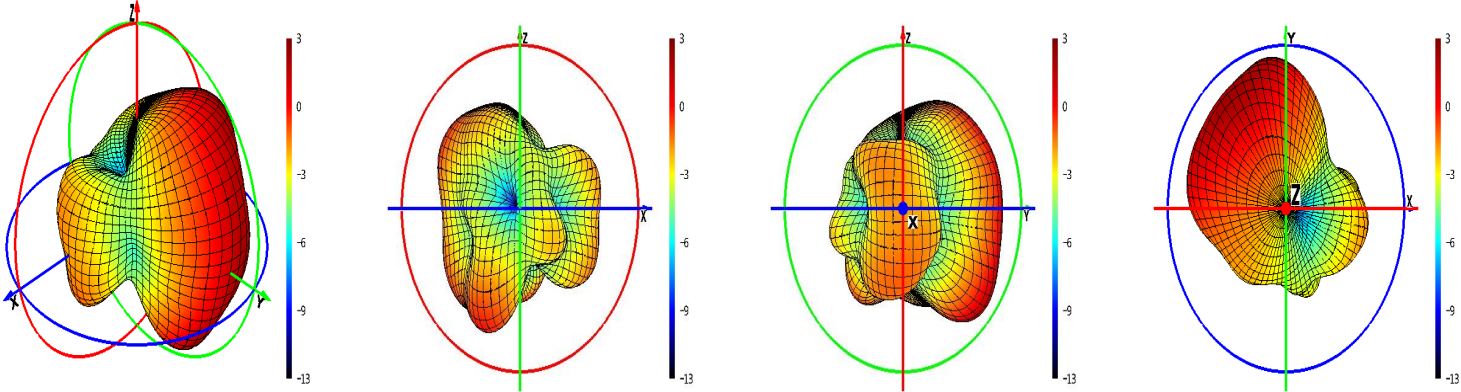
2420

MHz

2420

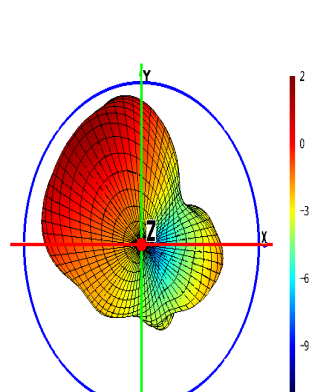
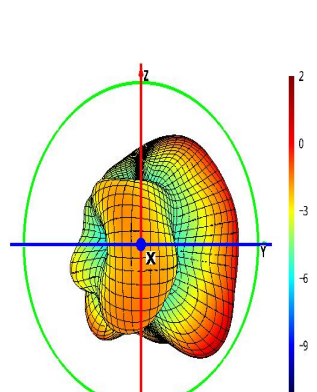
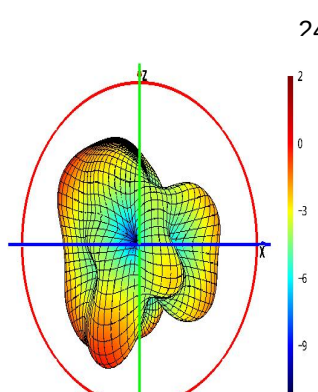
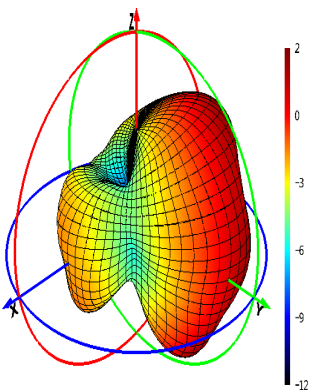
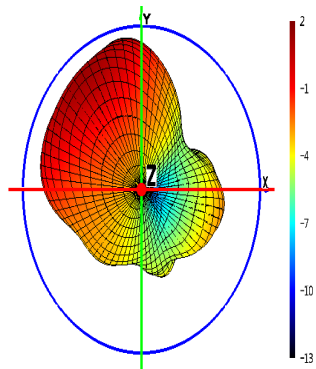
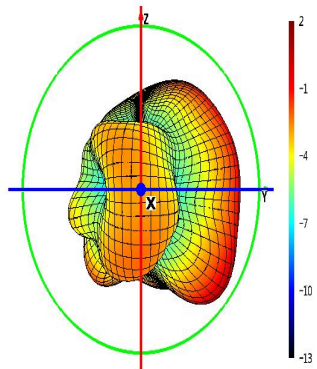
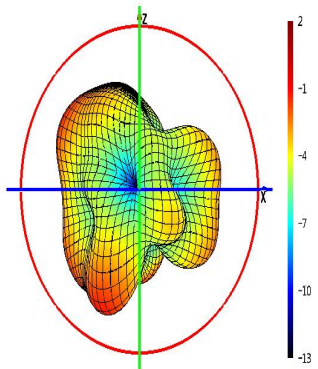
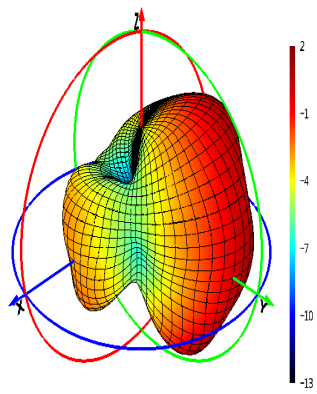


2430

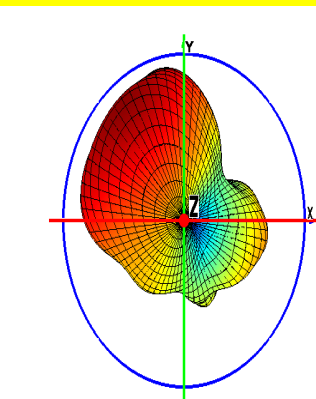
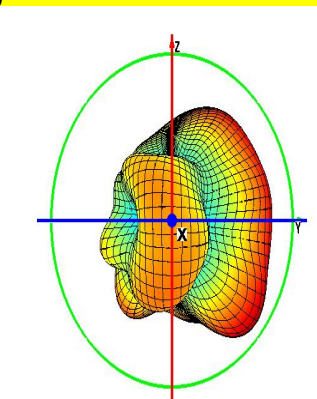
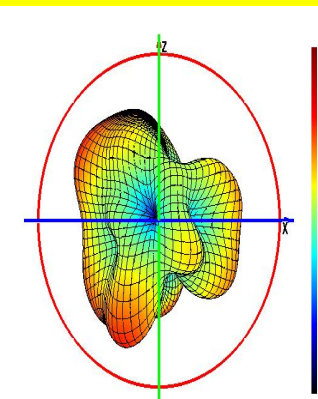
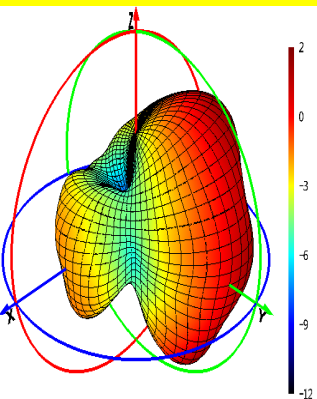
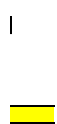


2440

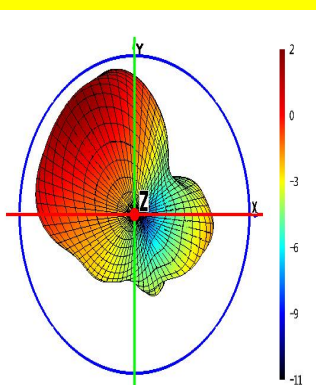
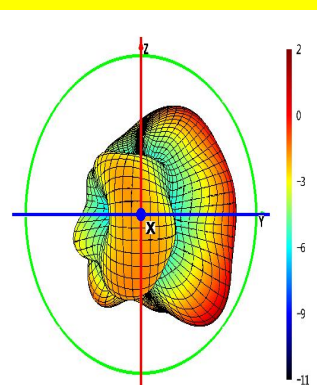
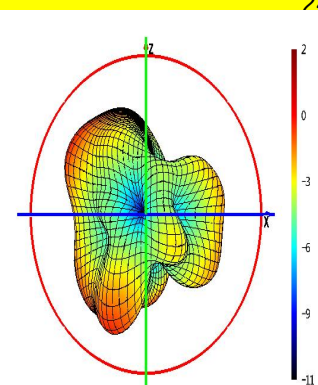
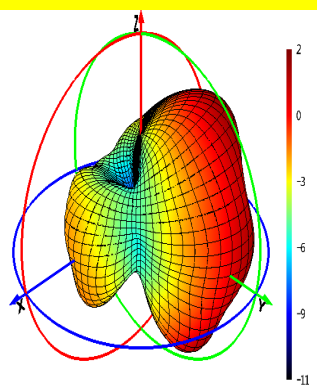
MHz



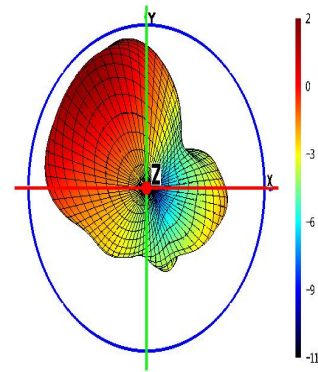
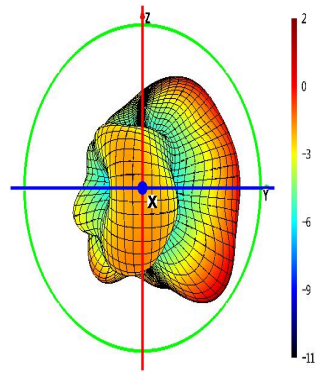
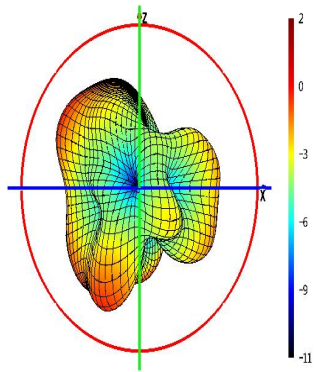
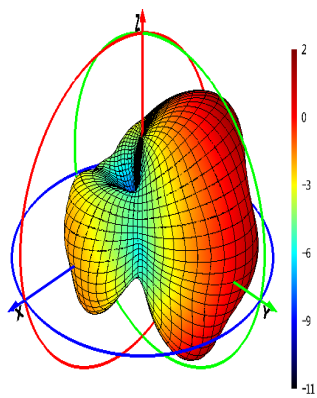
2450



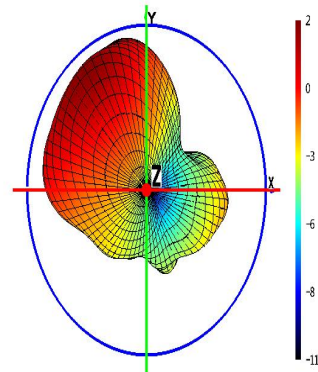
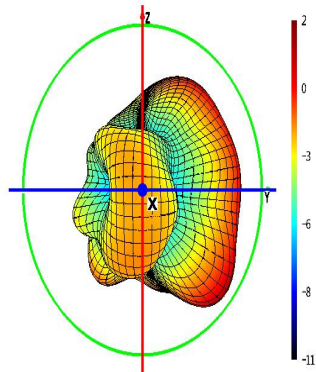
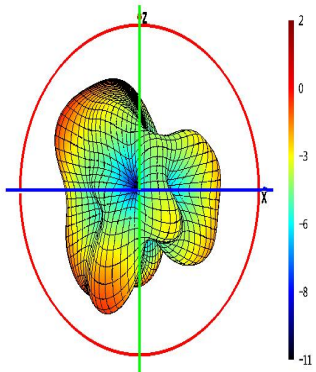
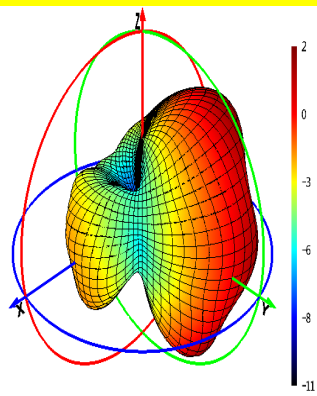
2460



2470



2480



2490
MHz