



天线性能测试报告

| | | | |
|------|--|----------|-----|
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| 项目名称 | Y6601A | 结构工程师 | 黄振明 |
| 天线频段 | <p>WCDMA+850/900/1700/1900/2100 LTE-FDD-B1/2/3/4/5/7/8/12/13/17/18/19/20/25/26/28/30/66/71 LTE-TDD-B34/38/39/40/41+WIFI/BT</p> | | |
| 报告版本 | 时间 | 内容概括 | |
| V1.0 | 2025-1-16 | 天线性能测试报告 | |

测试报告目录

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- VI. 环境处理
- VII. 备注

一 整机效果图

整机正反面，如图：



三 天线逻辑

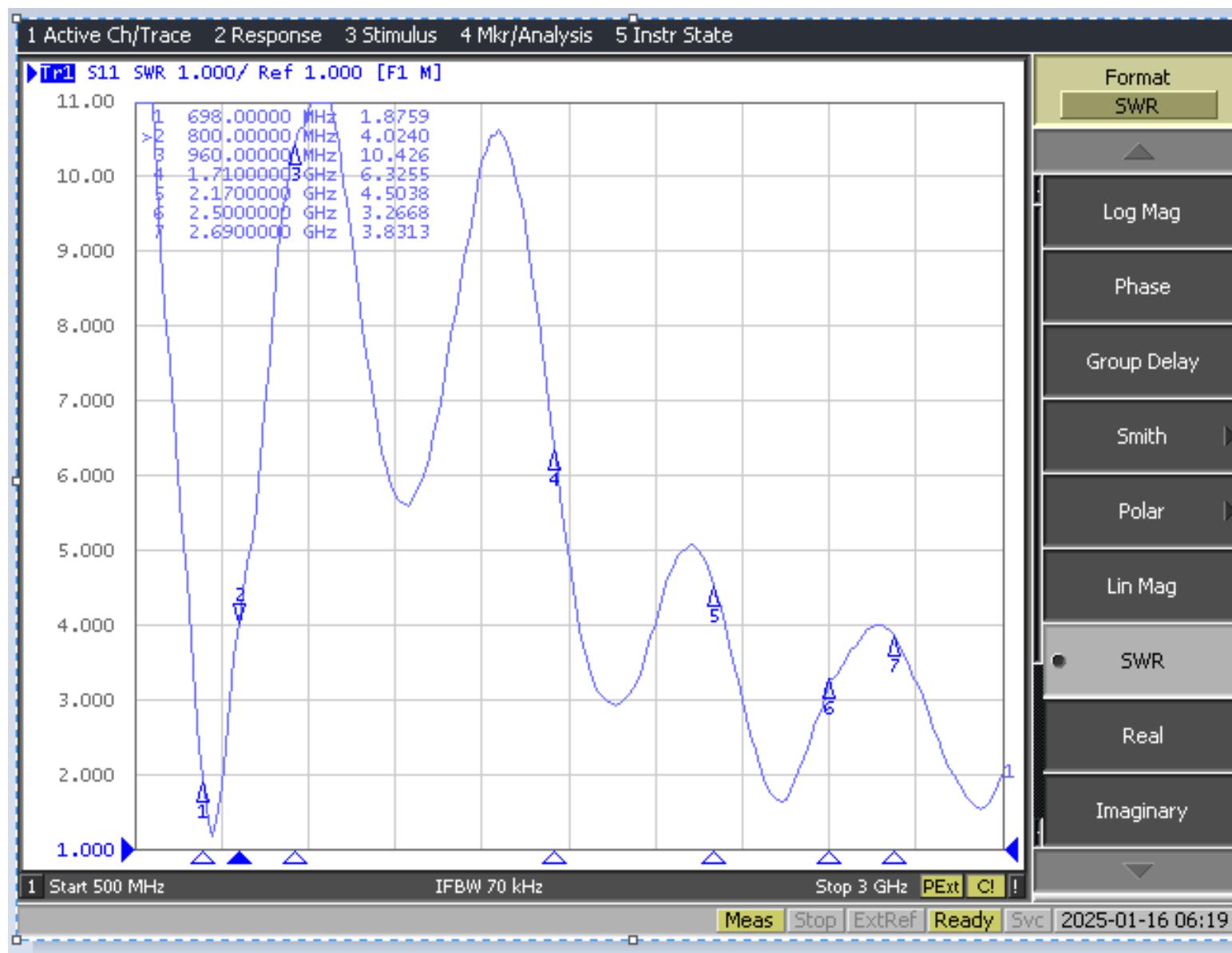
主天线射频调谐开关逻辑

| | |
|--------------|---|
| RF1 : 0 Ω | WCDMA-B1/2+LTE-B1/2/12/13/17/28/25/30/34/39 |
| RF2 : 10NH | LTE- B71 |
| RF3 : 3. 9NH | LTE-B7/38/40/41 |
| RF4 : | |

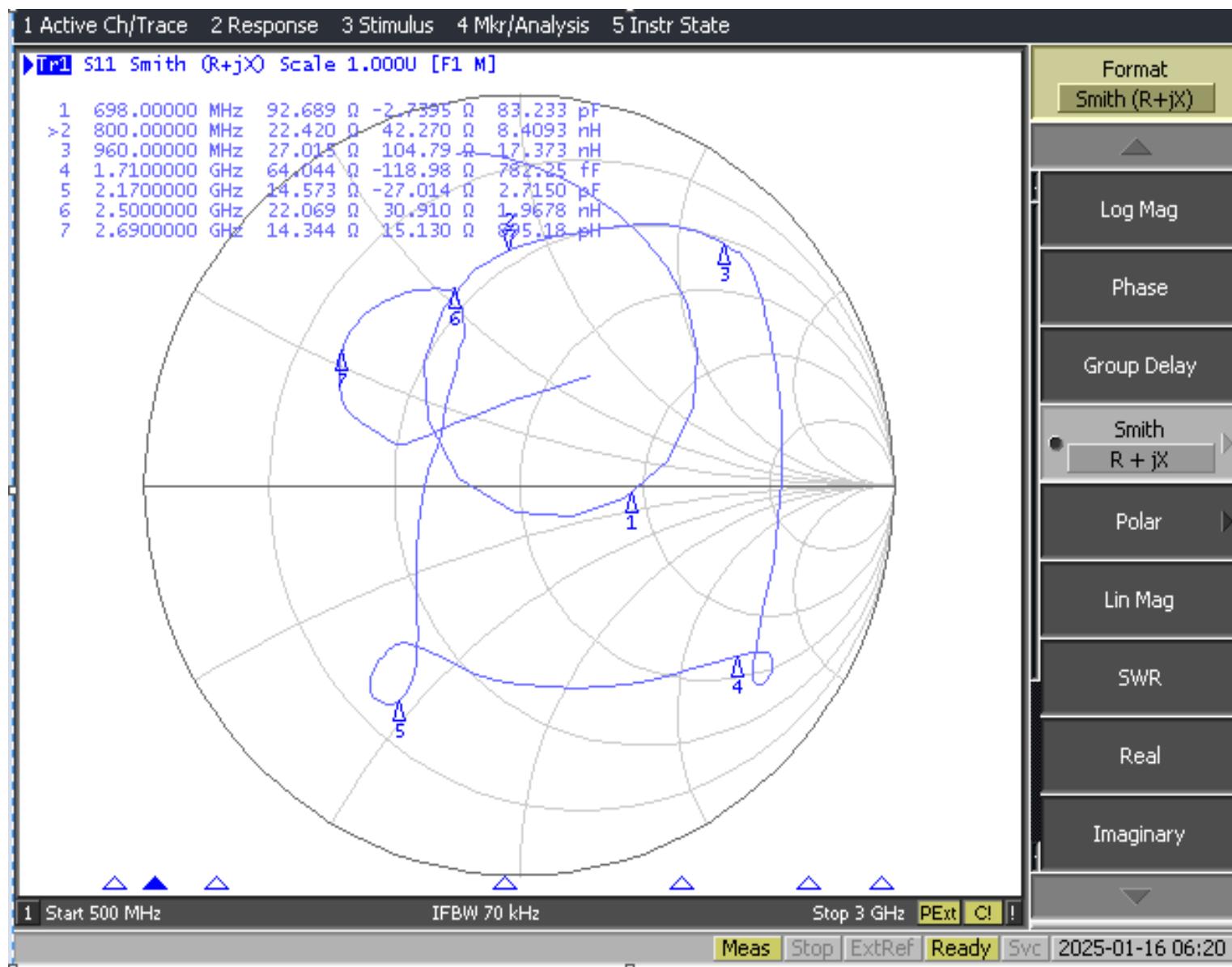
分集天线射频调谐开关逻辑

| | |
|--------------|-----------------------------|
| RF1 : 0 Ω | WCDMA-B8+LTE-B8 |
| RF2 : 4. 3NH | WCDMA-B5+LTE-B5/18/19/20/26 |
| RF3 : 0 Ω | WCDMA-B4+LTE-B3/4/66 |
| RF4 : | |

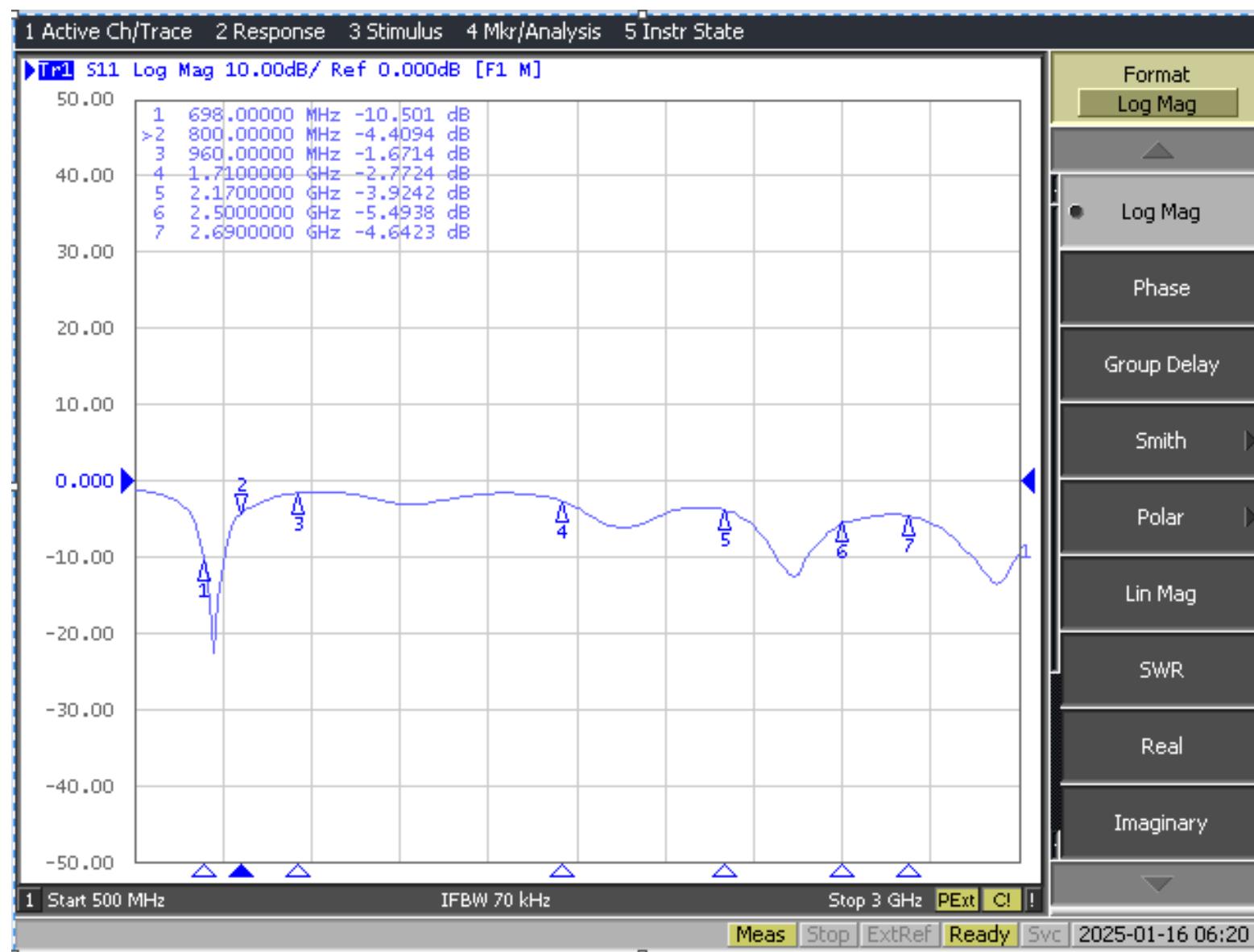
四 主天线RF1无源驻波图



五 主天线RF1无源史密斯圆图



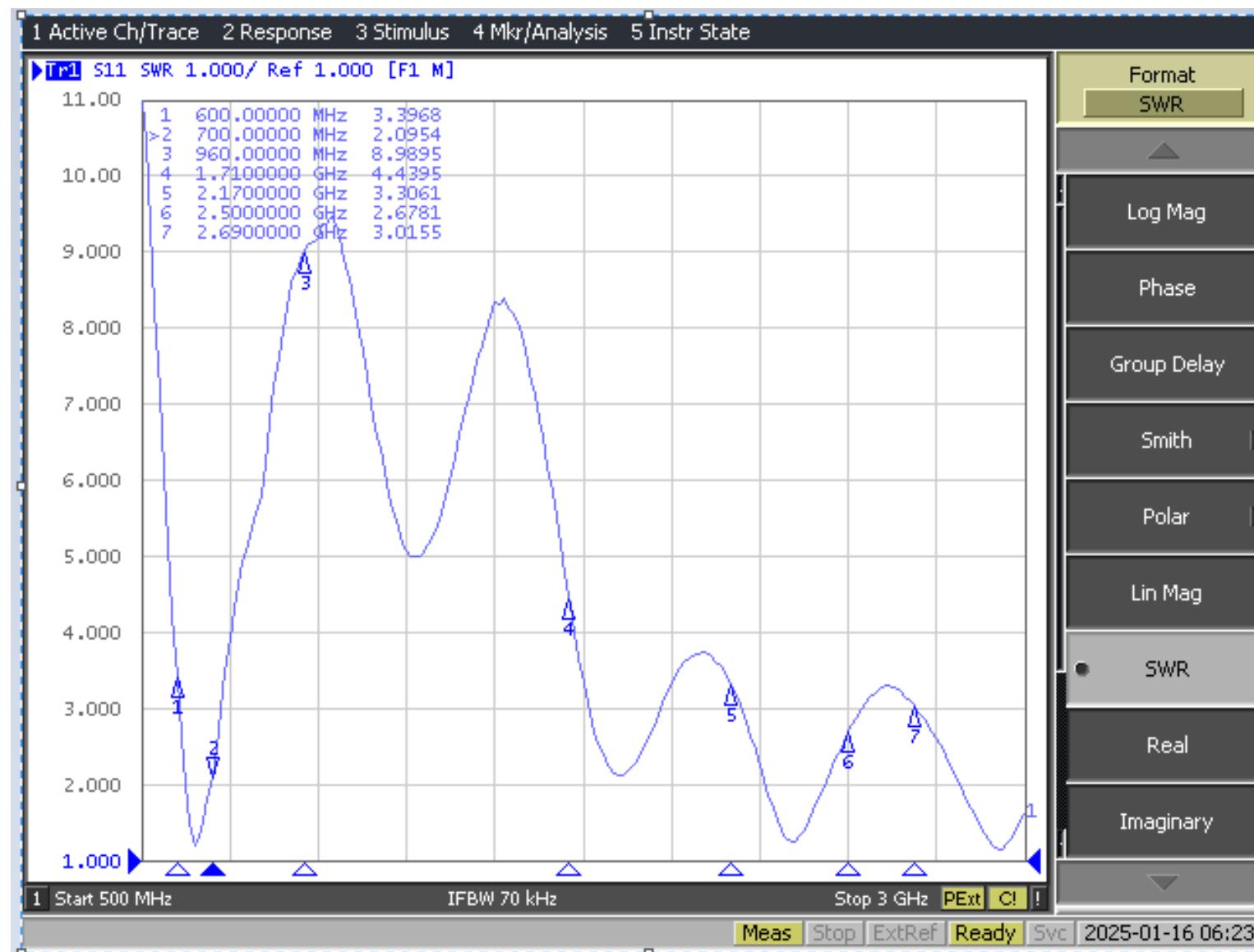
六 主天线RF1无源回波损耗图



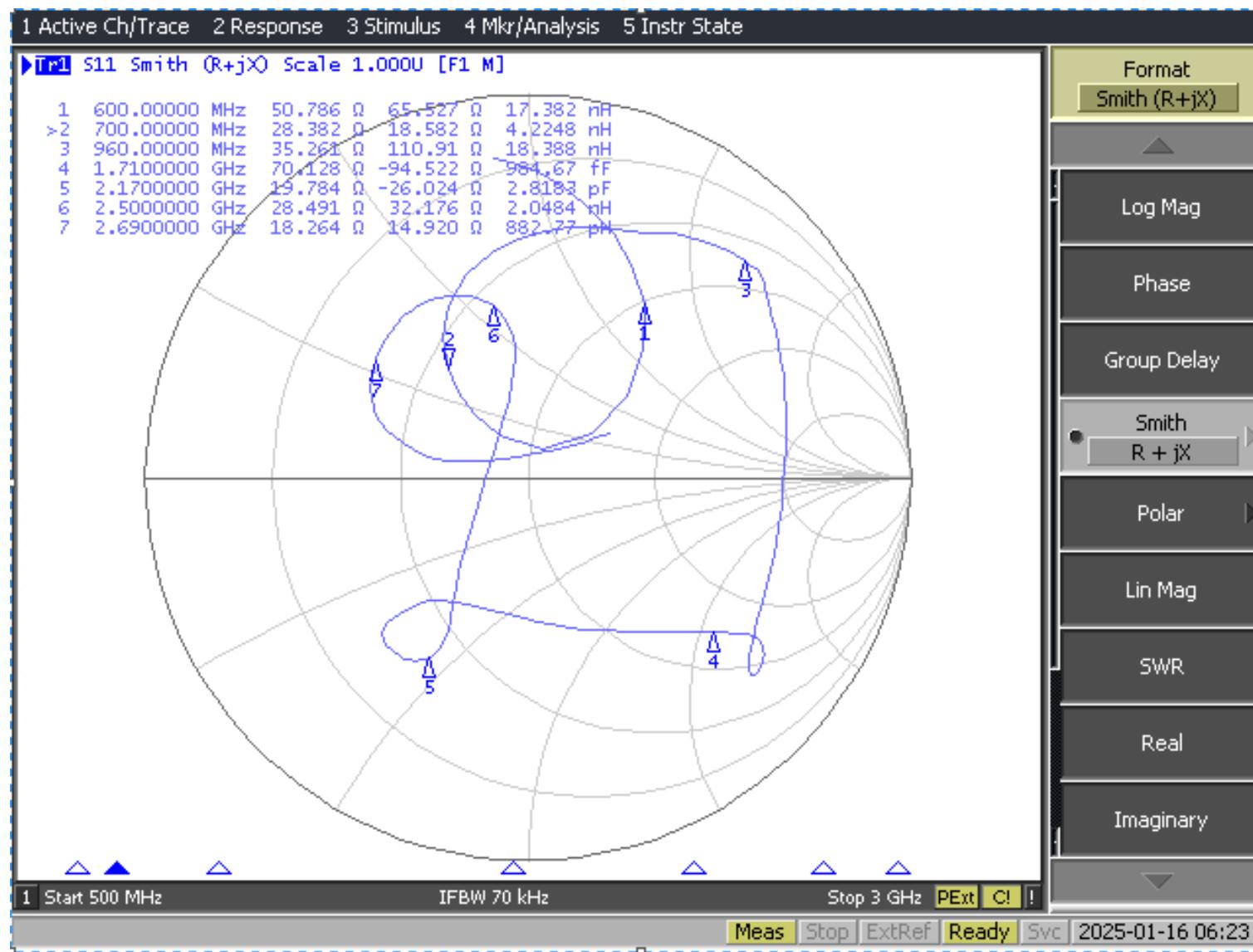
七 主天线RF1无源增益效率

| Freq (MHz) | Effi (%) | Gain (dBi) | Freq (MHz) | Effi (%) | Gain (dBi) | Freq (MHz) | Effi (%) | Gain (dBi) |
|---------------|-------------|---------------|---------------|-------------|---------------|---------------|-------------|---------------|
| 690 | 17.33 | -3.62 | 1860 | 39.69 | 0.6 | 2020 | 36.12 | -1.29 |
| 700 | 18.68 | -4.09 | 1870 | 41.42 | 0.78 | 2030 | 37.14 | -1.3 |
| 710 | 21.67 | -3.08 | 1880 | 40.98 | 0.54 | 2040 | 36.16 | -1.57 |
| 720 | 32.32 | 1.8 | 1890 | 44.12 | 0.75 | 2050 | 36.88 | -1.41 |
| 730 | 26.3 | -1.57 | 1900 | 48.54 | 1.09 | 2060 | 37.79 | -1.16 |
| 740 | 26.04 | -1.88 | 1910 | 46.81 | 0.65 | 2070 | 38.35 | -0.78 |
| 750 | 24.84 | -2.25 | 1920 | 48.21 | 0.76 | 2080 | 34.59 | -1.38 |
| 760 | 24.55 | -1.91 | 1930 | 50.25 | 0.84 | 2090 | 34.01 | -1.45 |
| 770 | 21.99 | -1.67 | 1940 | 48.76 | 0.63 | 2100 | 35.31 | -1.19 |
| 780 | 18.41 | -1.7 | 1950 | 47.35 | 0.44 | 2110 | 34.84 | -1.36 |
| 790 | 16.18 | -1.78 | 1960 | 46.14 | 0.14 | 2120 | 33.16 | -1.65 |
| 800 | 17.23 | -1.77 | 1970 | 47 | 0.2 | 2130 | 34.16 | -1.36 |
| | | | 1980 | 43.28 | -0.26 | 2140 | 35.19 | -1.02 |
| | | | 1990 | 41.4 | -0.35 | 2150 | 33.99 | -1.34 |
| | | | 2000 | 42.42 | -0.08 | 2160 | 34.14 | -1.38 |
| | | | 2010 | 39.01 | -0.6 | 2170 | 36.38 | -0.91 |

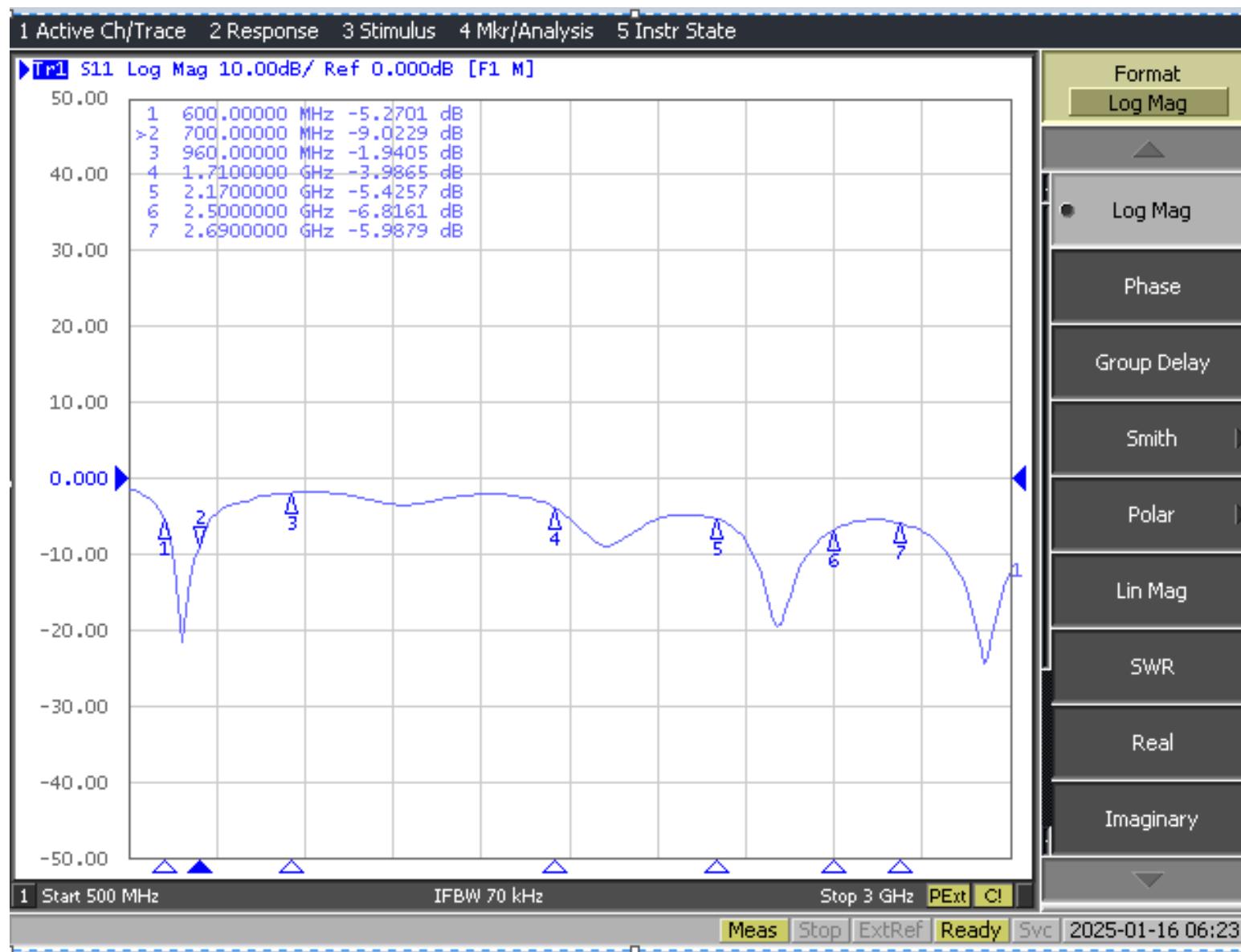
八 主天线RF2无源驻波图



九 主天线RF2无源史密斯圆图



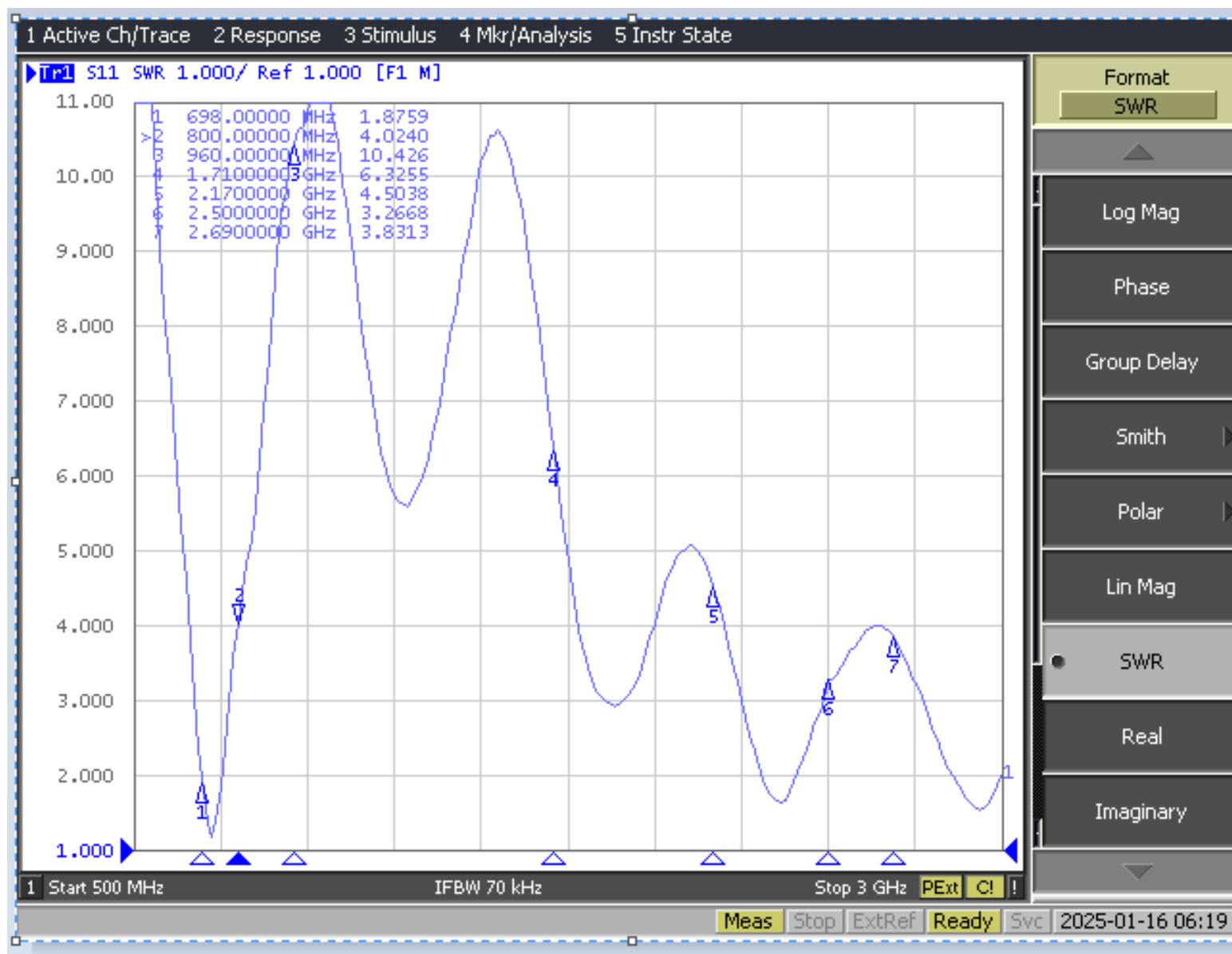
十 主天线RF2无源回波损耗图



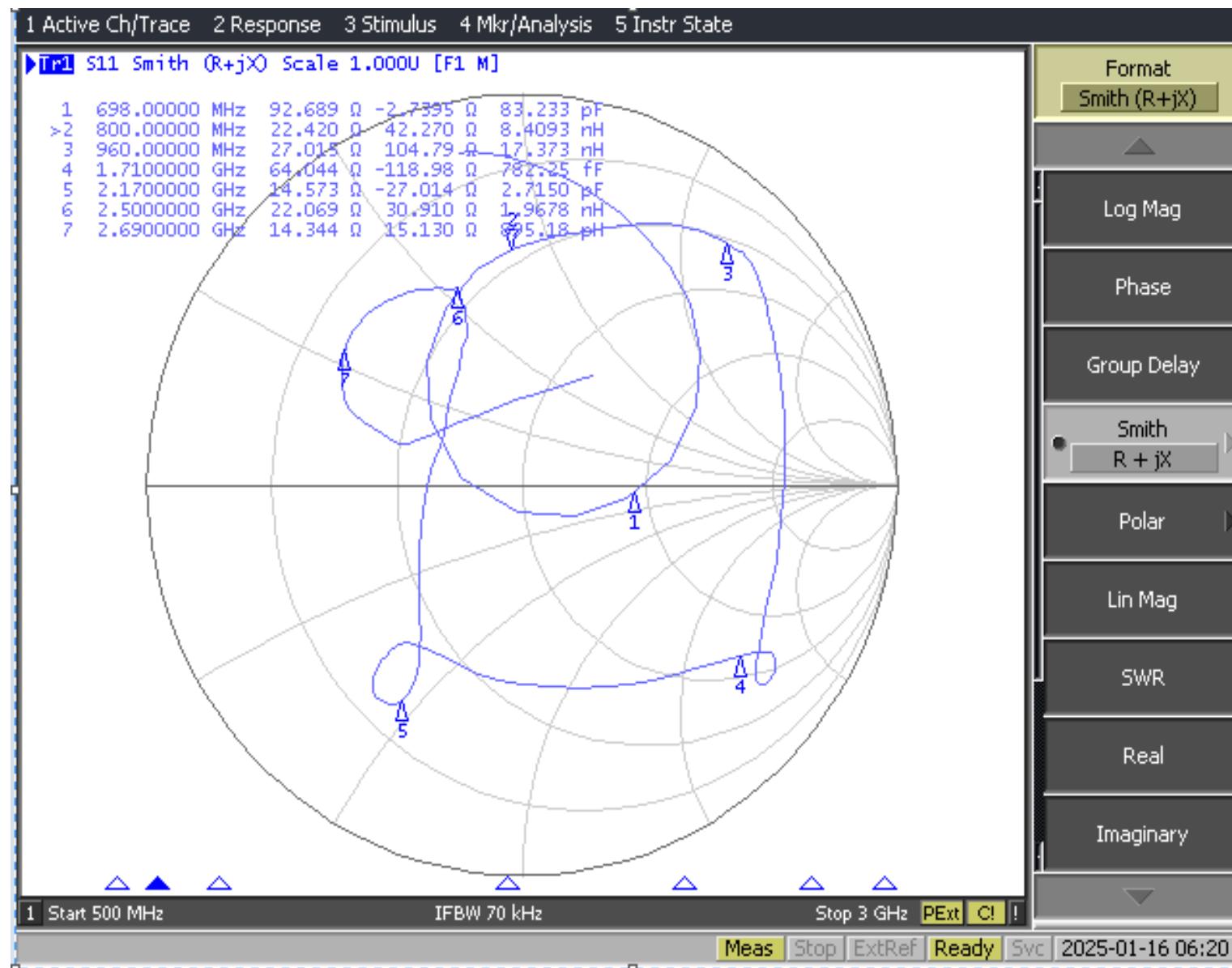
十一 主天线RF2无源增益效率

| | A | B | C |
|----|-------|--------|--------|
| 1 | Freq | Effi | Gain |
| 2 | (MHz) | (%) | (dBd) |
| 3 | 570 | 19. 97 | -2. 96 |
| 4 | 580 | 20. 65 | -2. 46 |
| 5 | 590 | 21. 2 | -2. 3 |
| 6 | 600 | 22. 99 | -1. 75 |
| 7 | 610 | 27. 64 | -1. 63 |
| 8 | 620 | 27. 62 | -1. 52 |
| 9 | 630 | 27. 36 | -1. 67 |
| 10 | 640 | 26. 16 | -1. 79 |
| 11 | 650 | 25. 87 | -1. 93 |
| 12 | 660 | 23. 31 | -2. 14 |
| 13 | 670 | 20. 77 | -2. 55 |

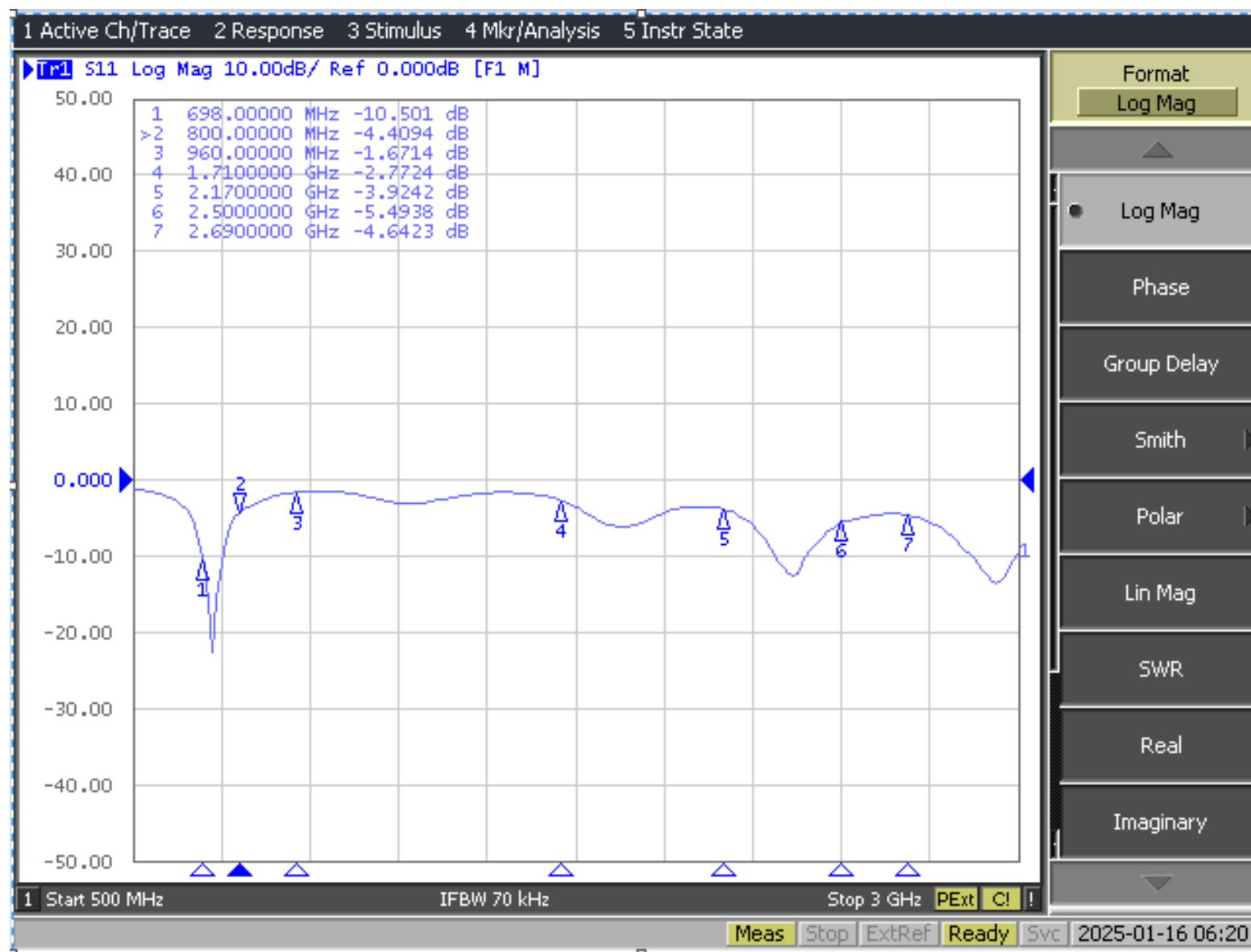
十二 主天线RF3无源驻波图



十三 主天线RF3无源史密斯圆图



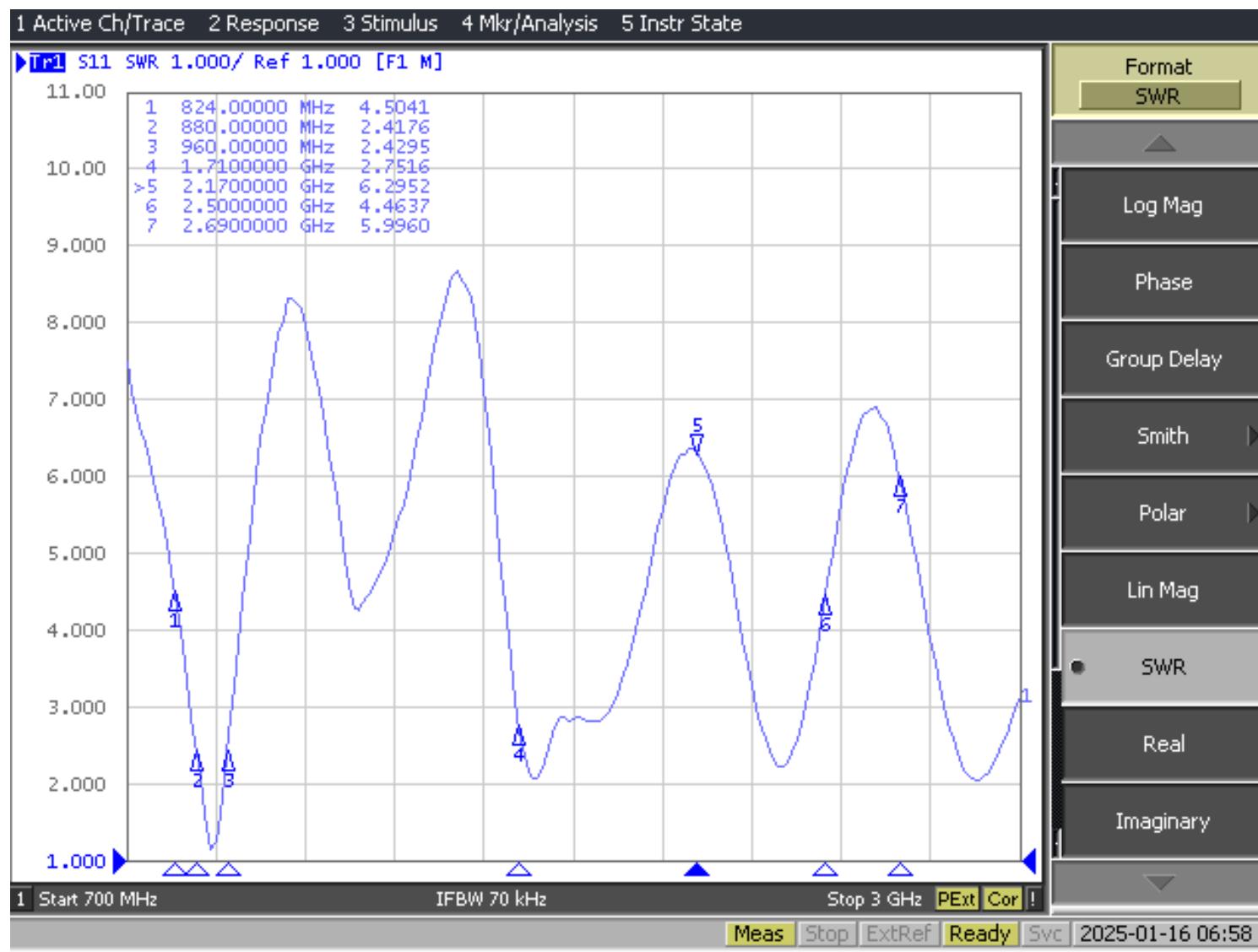
十四 主天线RF3无源回波损耗图



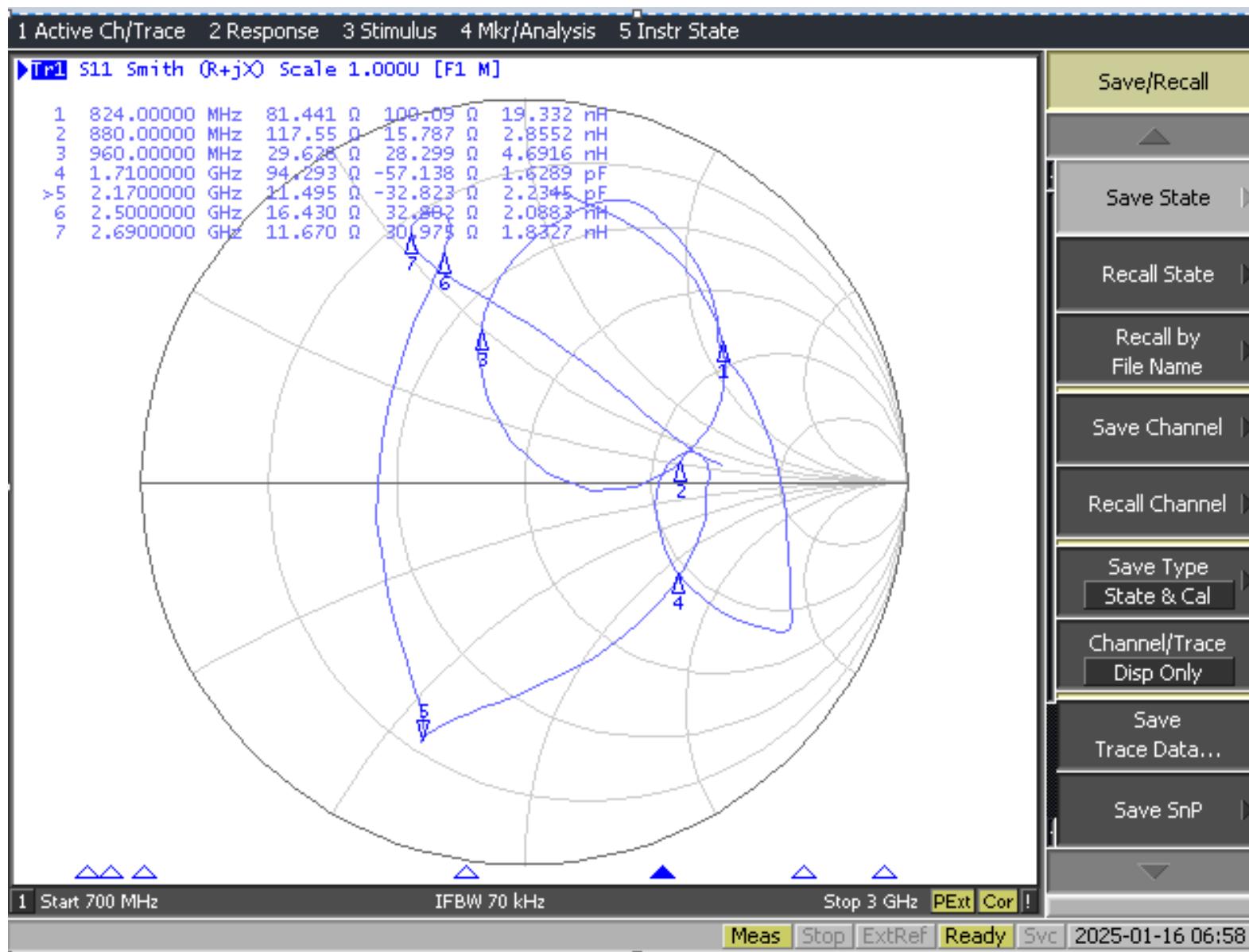
十五 主天线RF3无源增益效率

| 1 | Freq (MHz) | Effi (%) | Gain (dBi) | Freq (MHz) | Effi (%) | Gain (dBi) |
|----|---------------|-------------|---------------|---------------|-------------|---------------|
| 2 | | | | | | |
| 3 | 2300 | 30. 8 | -1. 71 | 2510 | 39. 65 | 0. 19 |
| 4 | 2310 | 31. 89 | -1. 24 | 2520 | 38. 59 | 0. 15 |
| 5 | 2320 | 31. 94 | -1. 28 | 2530 | 41. 1 | 0. 58 |
| 6 | 2330 | 32. 91 | -1. 23 | 2540 | 43. 09 | 0. 94 |
| 7 | 2340 | 33. 76 | -1. 29 | 2550 | 45. 84 | 1. 25 |
| 8 | 2350 | 34. 39 | -1. 28 | 2560 | 46. 36 | 1. 28 |
| 9 | 2360 | 32 | -1. 67 | 2570 | 45. 03 | 1. 09 |
| 10 | 2370 | 34. 01 | -1. 03 | 2580 | 49. 06 | 1. 55 |
| 11 | 2380 | 35. 42 | -0. 7 | 2590 | 49. 98 | 1. 7 |
| 12 | 2390 | 34. 39 | -0. 85 | 2600 | 49. 31 | 1. 63 |
| 13 | 2400 | 33. 41 | -0. 99 | 2610 | 52. 47 | 1. 8 |
| 14 | 2410 | 33. 26 | -1. 16 | 2620 | 53. 76 | 1. 86 |
| 15 | 2420 | 35. 58 | -0. 63 | 2630 | 50. 77 | 1. 54 |
| 16 | 2430 | 36. 34 | -0. 63 | 2640 | 51. 15 | 1. 65 |
| 17 | 2440 | 37. 07 | 0. 15 | 2650 | 54. 13 | 1. 99 |
| 18 | 2450 | 39. 98 | 0. 22 | 2660 | 56. 68 | 2. 23 |
| 19 | 2460 | 38. 13 | -0. 92 | 2670 | 52. 6 | 2. 04 |
| 20 | 2470 | 36. 77 | -1. 16 | 2680 | 53. 07 | 2. 13 |
| 21 | 2480 | 36. 28 | -0. 35 | 2690 | 53. 86 | 2. 23 |
| 22 | 2490 | 38. 57 | 0. 12 | 2700 | 47. 97 | 1. 76 |
| 23 | 2500 | 38. 19 | -0. 14 | | | |

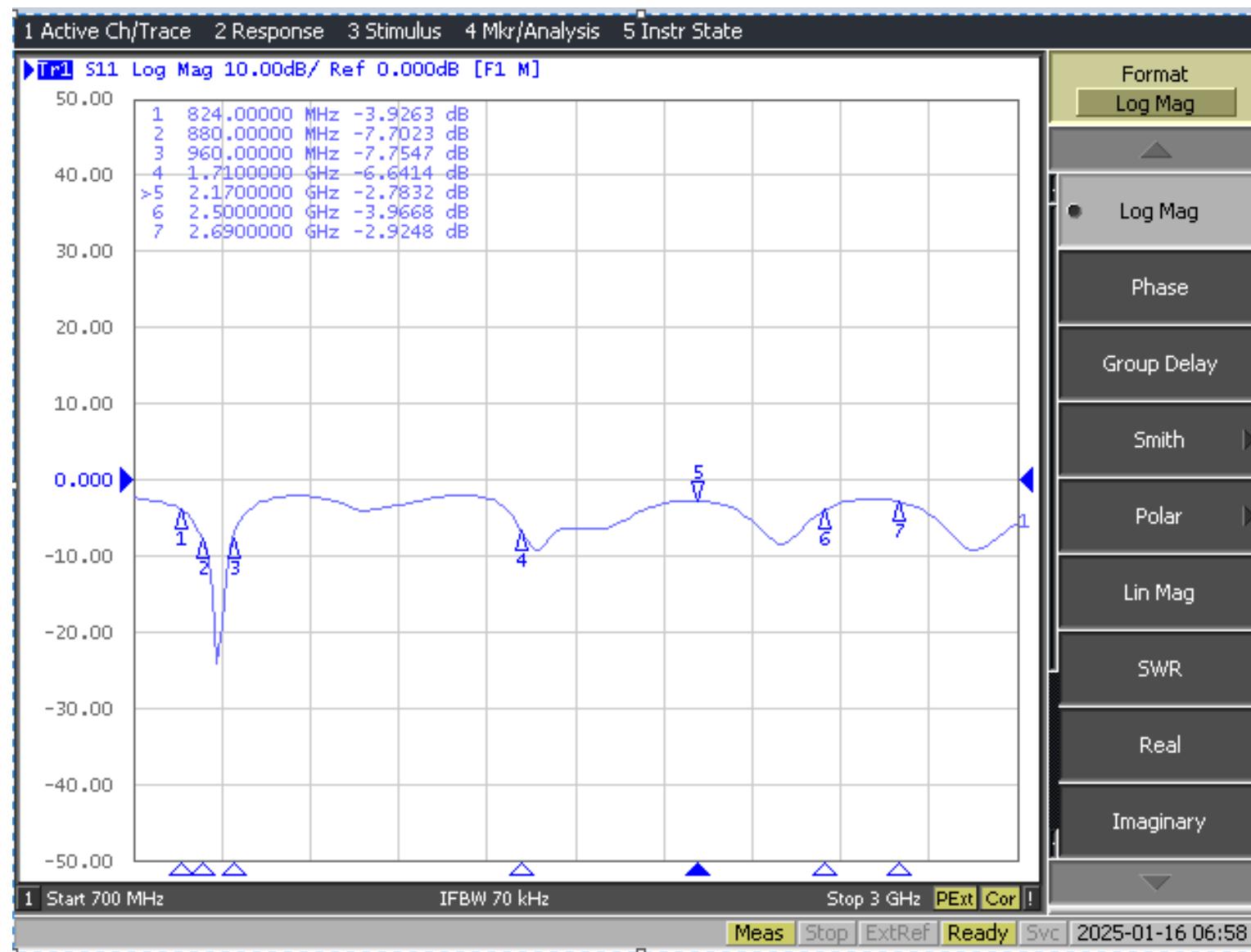
十六 分集天线RF1无源驻波图



十七 分集天线RF1无源史密斯圆图



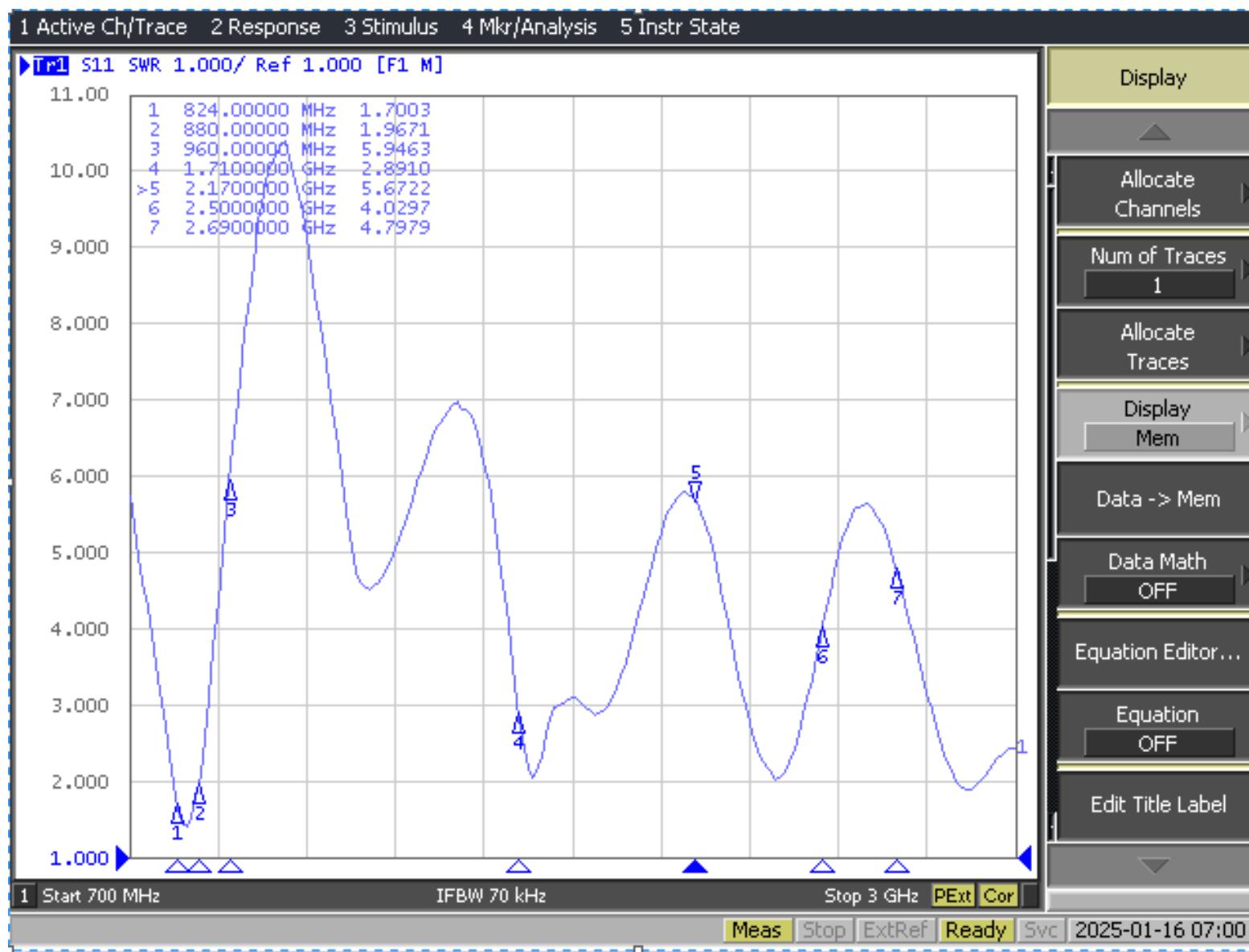
十八 分集天线RF1无源回波损耗图



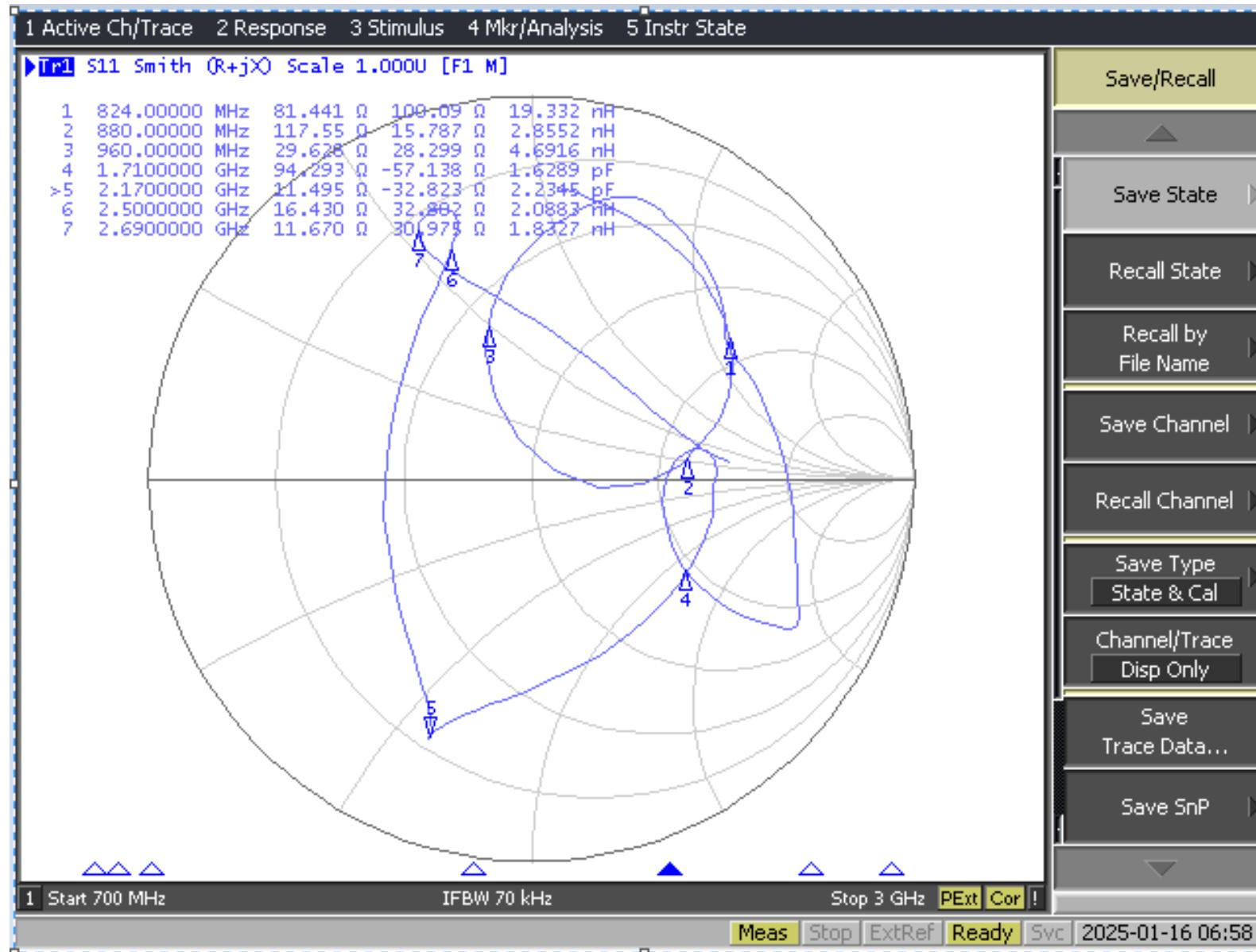
十九 分集天线RF1无源增益效率

| 1 | Freq (MHz) | Effi (%) | Gain (dBi) |
|----|---------------|-------------|---------------|
| 2 | 870 | 15. 86 | -5. 62 |
| 4 | 880 | 17. 91 | -4. 09 |
| 5 | 890 | 23. 15 | -2. 5 |
| 6 | 900 | 23. 89 | -1. 54 |
| 7 | 910 | 26. 55 | -0. 75 |
| 8 | 920 | 28. 22 | -0. 3 |
| 9 | 930 | 30. 93 | -0. 06 |
| 10 | 940 | 33. 52 | -0. 24 |
| 11 | 950 | 31. 6 | -0. 58 |
| 12 | 960 | 31. 45 | -0. 87 |
| 13 | 970 | 28. 45 | -1. 09 |
| 14 | 980 | 26. 71 | -1. 57 |

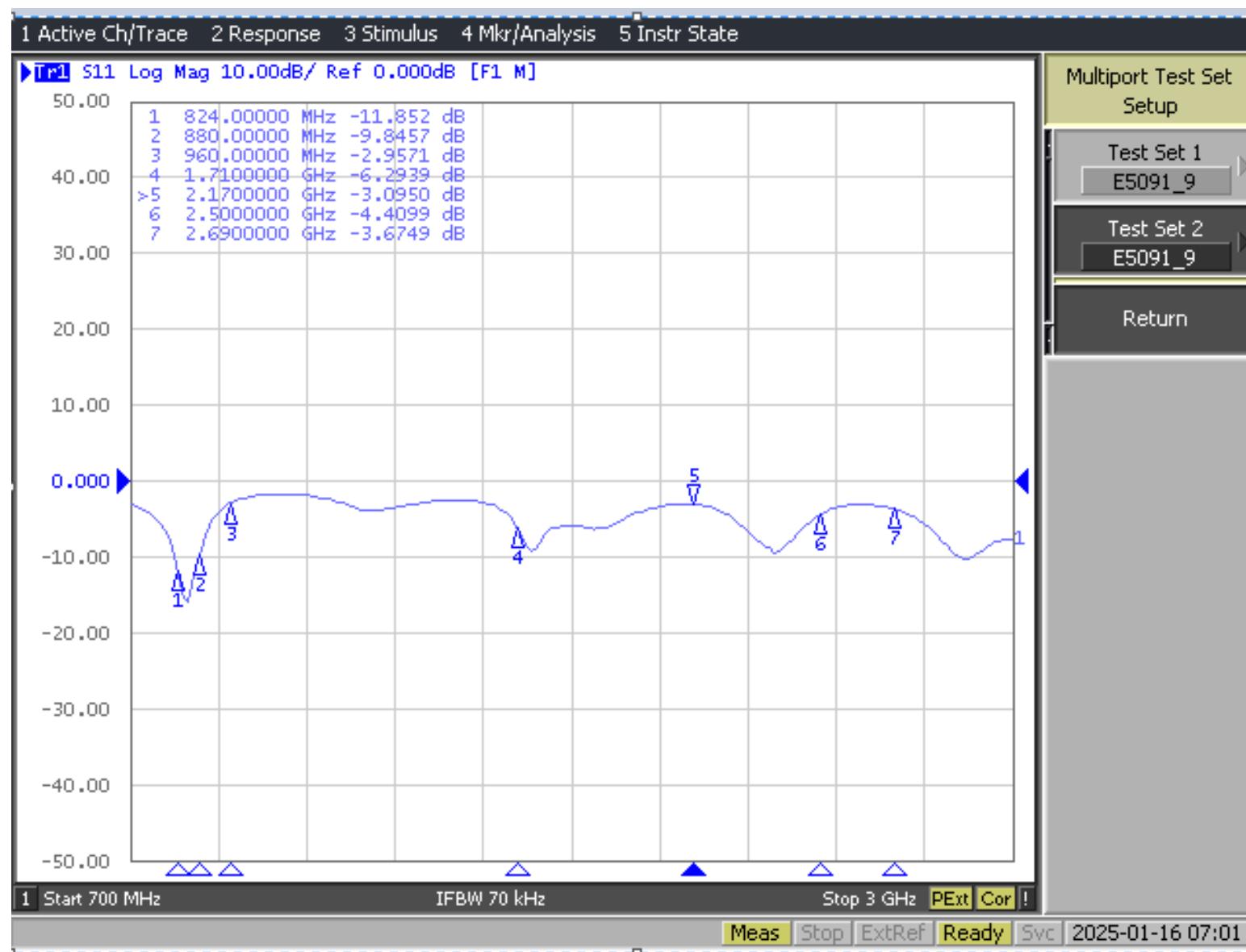
二十 分集天线RF2无源驻波图



二十一 分集天线RF2无源史密斯圆图



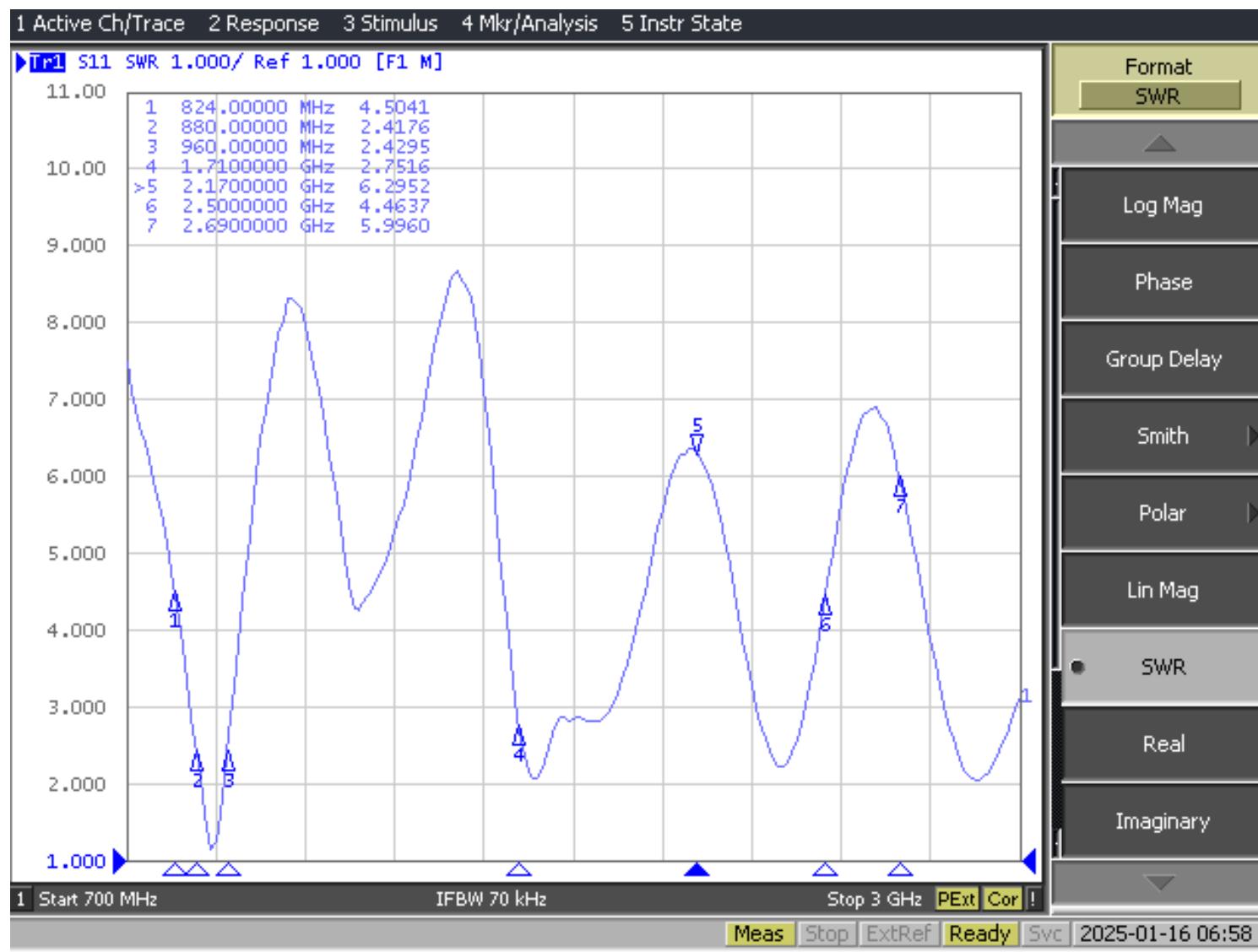
二十二 分集天线RF2无源回波损耗图



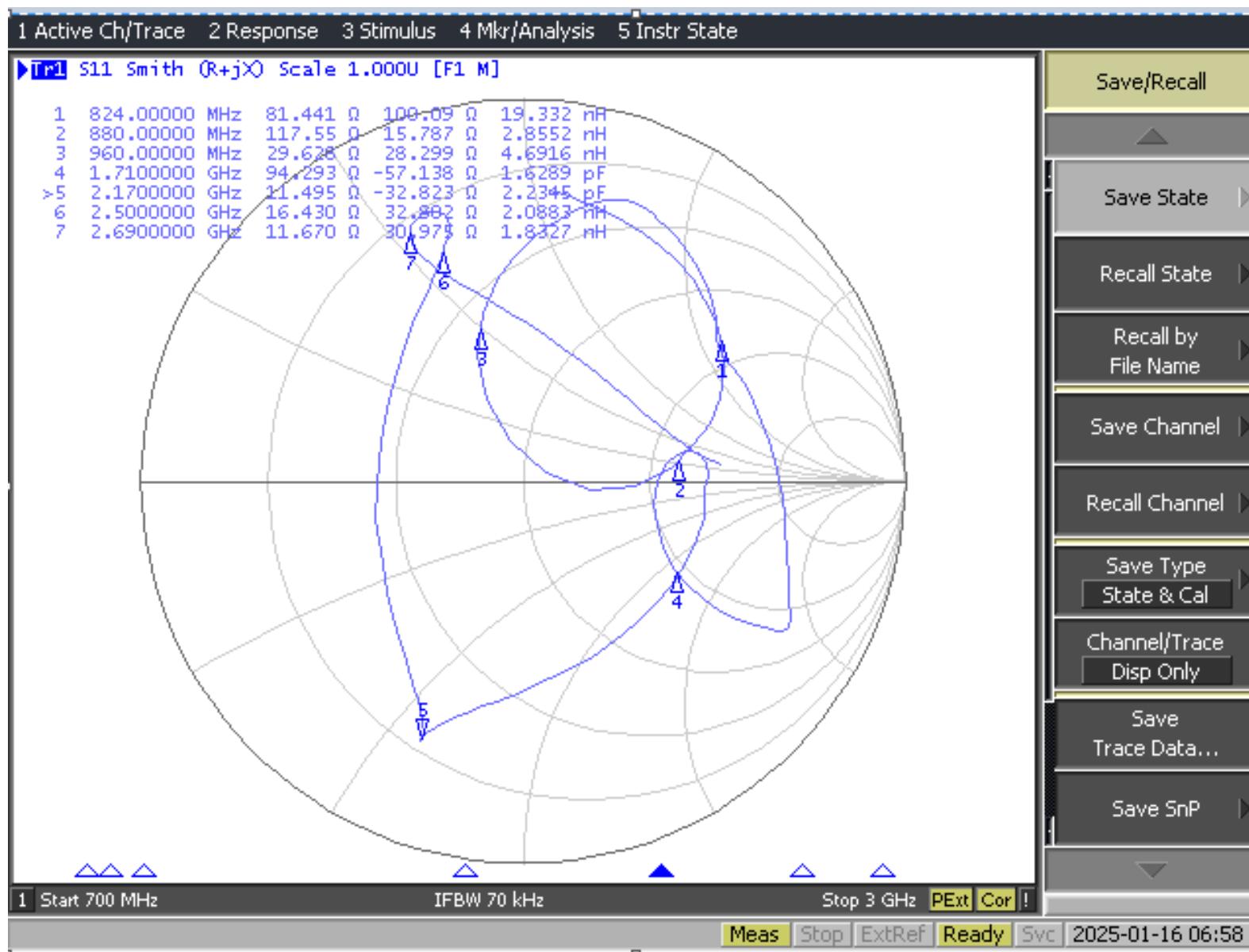
二十三 分集天线RF2无源增益效率

| | A | B | C |
|----|---------------|-------------|---------------|
| 1 | Freq (MHz) | Effi (%) | Gain (dBi) |
| 3 | 810 | 25. 99 | -2. 27 |
| 4 | 820 | 28. 89 | -1. 55 |
| 5 | 830 | 30. 67 | -1. 23 |
| 6 | 840 | 31. 69 | -0. 94 |
| 7 | 850 | 32. 46 | -0. 95 |
| 8 | 860 | 31. 88 | -1. 26 |
| 9 | 870 | 31. 76 | -0. 99 |
| 10 | 880 | 32. 4 | -0. 52 |
| 11 | 890 | 30. 29 | -0. 56 |
| 12 | 900 | 29. 71 | -0. 39 |

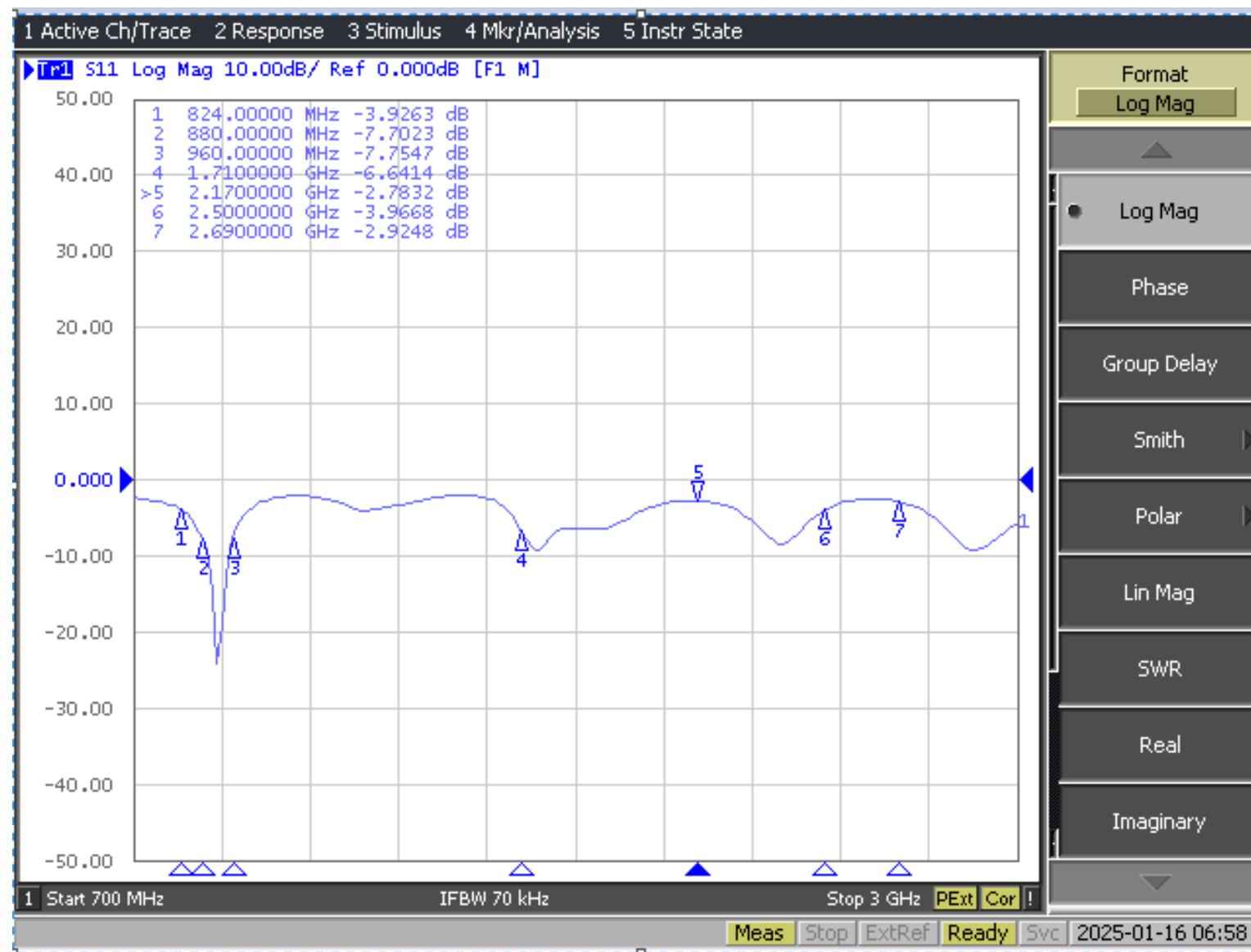
二十四 分集天线RF3无源驻波图



二十五 分集天线RF3无源史密斯圆图



二十六 分集天线RF3无源回波损耗图



二十七 分集天线RF3无源增益效率

| 1 | Freq (MHz) | Effi (%) | Gain (dBi) |
|----|---------------|-------------|---------------|
| 3 | 1700 | 30. 36 | -0. 42 |
| 4 | 1710 | 31. 31 | -0. 56 |
| 5 | 1720 | 31. 45 | -0. 72 |
| 6 | 1730 | 32. 17 | -0. 61 |
| 7 | 1740 | 35. 13 | 0. 05 |
| 8 | 1750 | 38. 26 | 0. 71 |
| 9 | 1760 | 39. 96 | 0. 87 |
| 10 | 1770 | 39. 36 | 0. 65 |
| 11 | 1780 | 42. 37 | 0. 85 |
| 12 | 1790 | 41. 42 | 0. 68 |
| 13 | 1800 | 37. 35 | -0. 01 |
| 14 | 1810 | 35. 81 | -0. 11 |
| 15 | 1820 | 34. 34 | -0. 34 |
| 16 | 1830 | 32. 52 | -0. 94 |
| 17 | 1840 | 31. 36 | -1. 35 |
| 18 | 1850 | 31. 91 | -1. 27 |
| 19 | 1860 | 31. 02 | -1. 41 |
| 20 | 1870 | 28. 58 | -2. 26 |
| 21 | 1880 | 28. 78 | -2. 45 |
| 22 | 1890 | 30. 66 | -2. 02 |
| 23 | 1900 | 29. 25 | -2. 28 |

二十八 天线测试数据

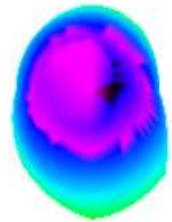
| Band | TRP/TIS | L | M | H | Band | TRP/TIS | L | M | H |
|-----------|---------|-------|-------|---------|---------|---------|-------|-------|--------|
| WCDMA850 | TRP | 18.19 | 18.26 | 18.32 | LTE-B7 | TRP | 18.89 | 19.12 | 19.25 |
| | TIS | | | -104.49 | | TIS | | | -93.82 |
| WCDMA900 | TRP | 18.03 | 18.15 | 18.18 | LTE-B8 | TRP | 18.27 | 18.31 | 18.45 |
| | TIS | | | -104.62 | | TIS | | | -93.14 |
| WCDMA1700 | TRP | 19.96 | 19.71 | 19.68 | LTE-B12 | TRP | 17.46 | 17.43 | 17.33 |
| | TIS | | | -106.03 | | TIS | | | -91.98 |
| WCDMA1900 | TRP | 19.85 | 20.15 | 20.42 | LTE-B17 | TRP | 17.63 | 17.74 | 17.79 |
| | TIS | | | -106.18 | | TIS | | | -92.14 |
| WCDMA2100 | TRP | 20.31 | 20.22 | 20.16 | LTE-B18 | TRP | 18.09 | 18.17 | 18.14 |
| | TIS | | | -106.57 | | TIS | | | -92.79 |
| LTE-B1 | TRP | 20.43 | 20.35 | 20.24 | LTE-B19 | TRP | 18.27 | 18.29 | 18.12 |
| | TIS | | | -95.33 | | TIS | | | -92.88 |
| LTE-B2 | TRP | 20.37 | 20.19 | 20.06 | LTE-B20 | TRP | 18.24 | 18.19 | 18.27 |
| | TIS | | | -94.39 | | TIS | | | -92.74 |
| LTE-B3 | TRP | 20.23 | 19.58 | 18.99 | LTE-B25 | TRP | 19.71 | 19.79 | 19.81 |
| | TIS | | | -94.43 | | TIS | | | -93.65 |
| LTE-B4 | TRP | 20.02 | 19.67 | 19.23 | LTE-B26 | TRP | 18.06 | 18.14 | 18.13 |
| | TIS | | | -94.17 | | TIS | | | -92.71 |
| LTE-B5 | TRP | 18.15 | 18.18 | 18.22 | LTE-B28 | TRP | 17.6 | 17.79 | 17.64 |
| | TIS | | | -93.11 | | TIS | | | -92.17 |

二十八 天线测试数据

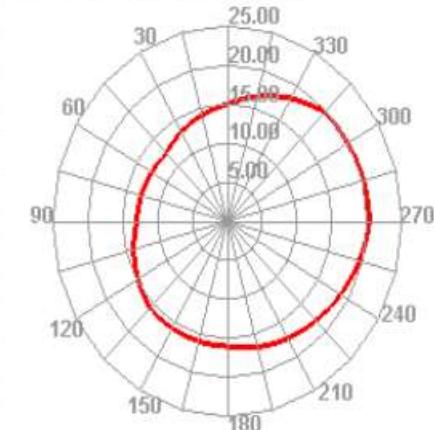
| Band | TRP/TIS | L | M | H |
|---------|---------|-------|--------|--------|
| LTE-B30 | TRP | 20.16 | 20.03 | 19.87 |
| | TIS | | | -93.75 |
| LTE-B34 | TRP | 19.69 | 19.74 | 19.88 |
| | TIS | | | -93.51 |
| LTE-B38 | TRP | 19.41 | 19.78 | 20.1 |
| | TIS | | | -90.28 |
| LTE-B39 | TRP | 19.72 | 19.69 | 19.78 |
| | TIS | | | -92.19 |
| LTE-B40 | TRP | 19.05 | 18.89 | / |
| | TIS | | -90.38 | / |
| LTE-B41 | TRP | 19.61 | 19.83 | 20.02 |
| | TIS | | | -90.51 |
| LTE-B66 | TRP | 19.76 | 19.58 | 19.13 |
| | TIS | | | -93.68 |
| LTE-B71 | TRP | 16.57 | 16.51 | 16.45 |
| | TIS | | | -90.29 |

二十九 天线辐射苹果图

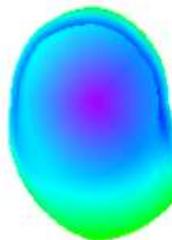
LTE1 18050 TRP



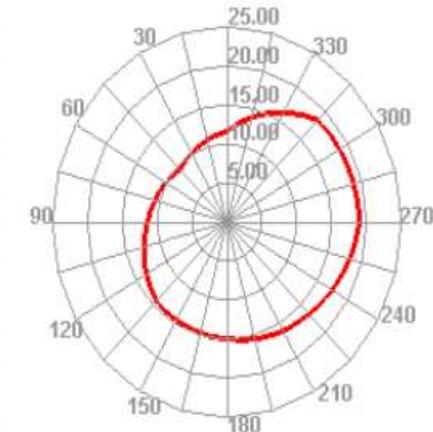
LTE1 18050 TRP H



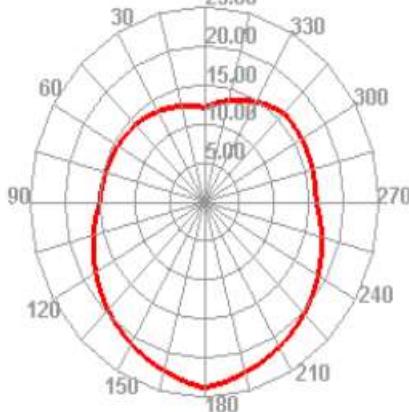
LTE1 18550 TRP



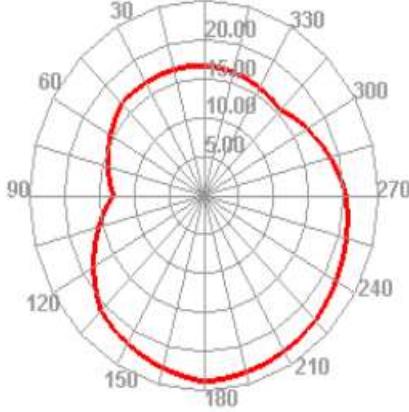
LTE1 18550 TRP H



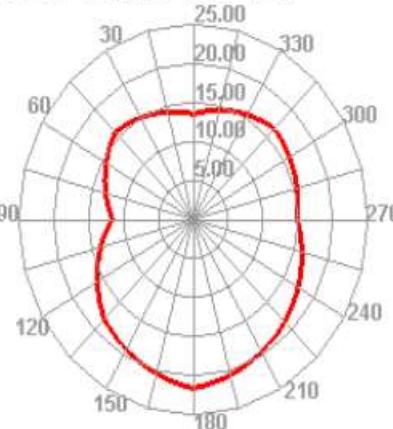
LTE1 18050 TRP E1



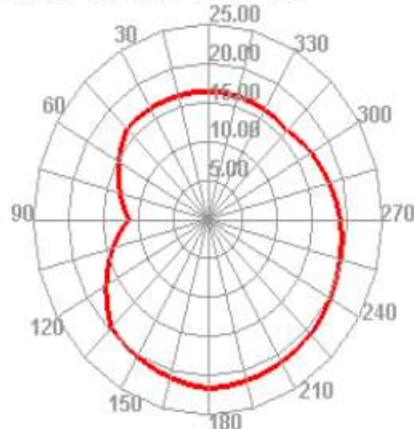
LTE1 18050 TRP E2



LTE1 18550 TRP E1

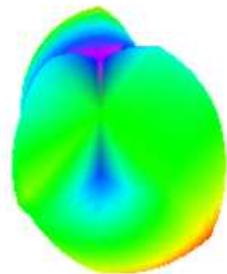


LTE1 18550 TRP E2

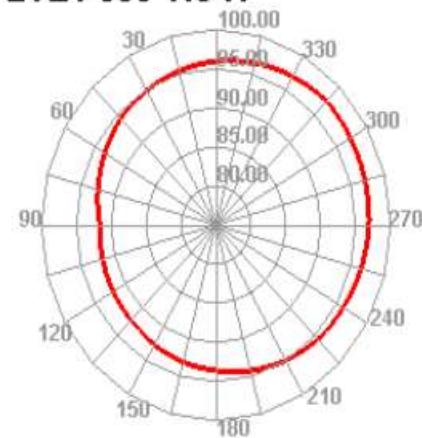
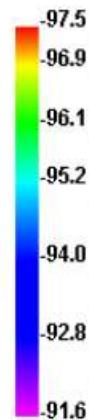


二十九 天线辐射苹果图

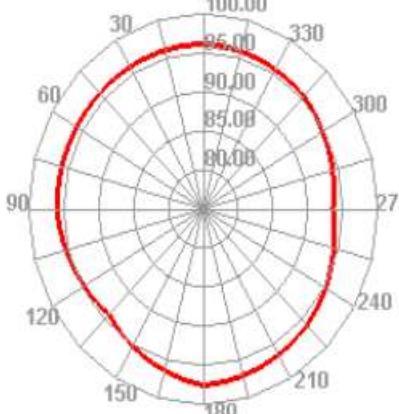
LTE1 550 TIS



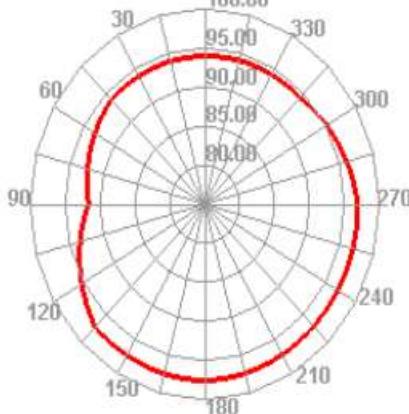
LTE1 550 TIS H



LTE1 550 TIS E1



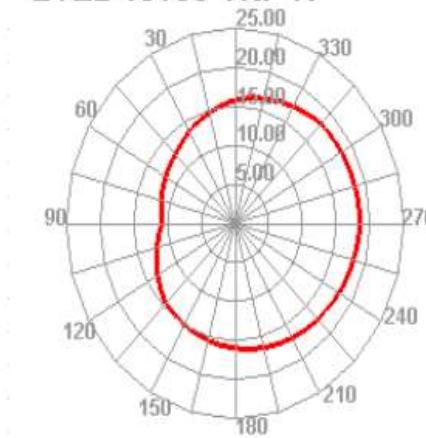
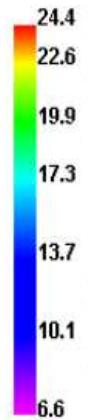
LTE1 550 TIS E2



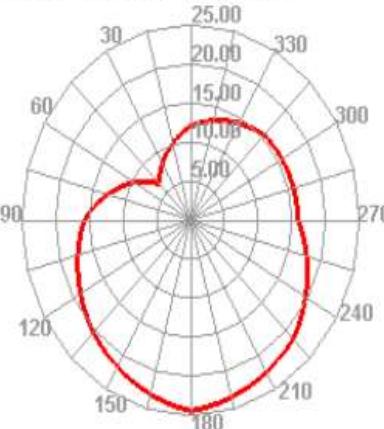
LTE2 18650 TRP



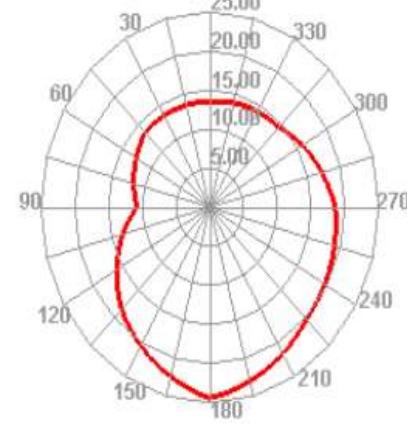
LTE2 18650 TRP H



LTE2 18650 TRP E1



LTE2 18650 TRP E2

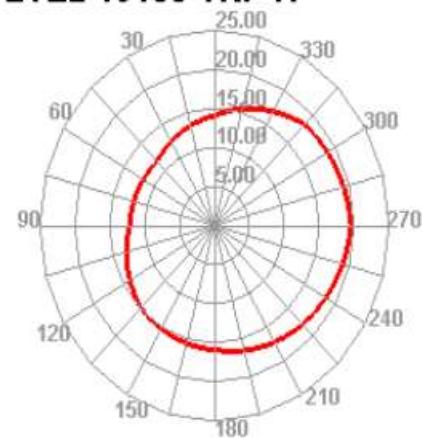
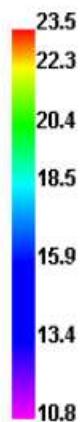


二十九 天线辐射苹果图

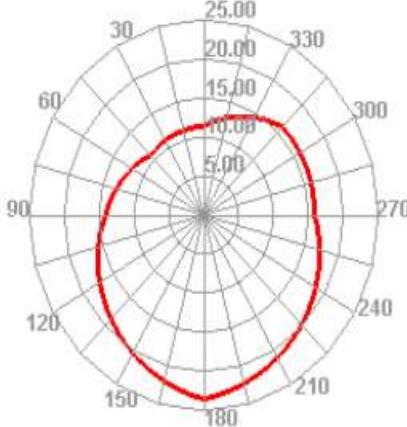
LTE2 19150 TRP



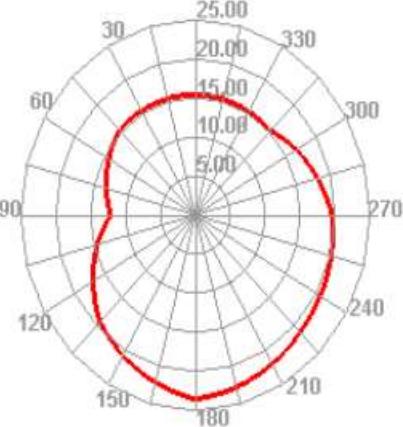
LTE2 19150 TRP H



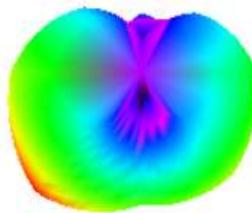
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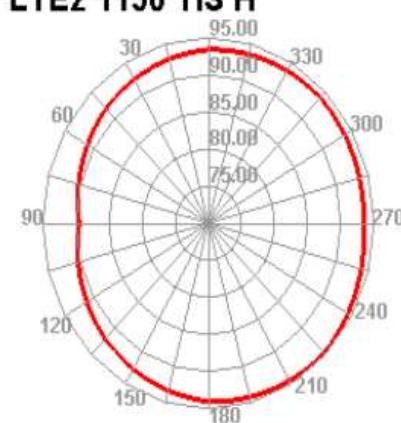
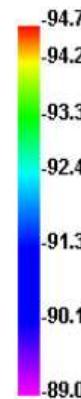
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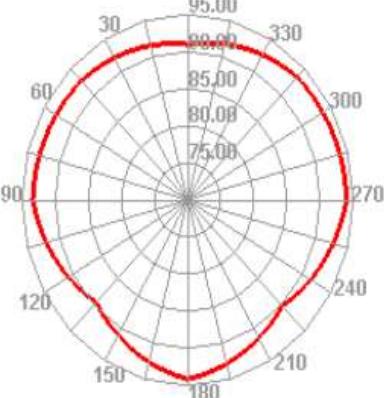
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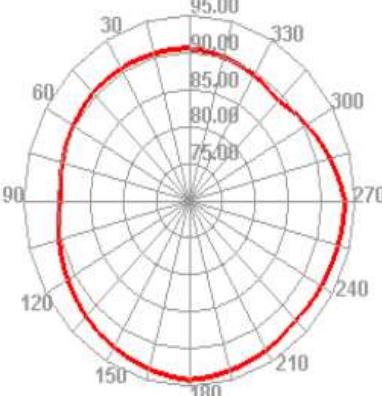
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LTE2 1150 TIS E1

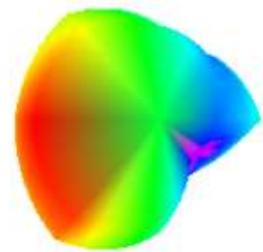


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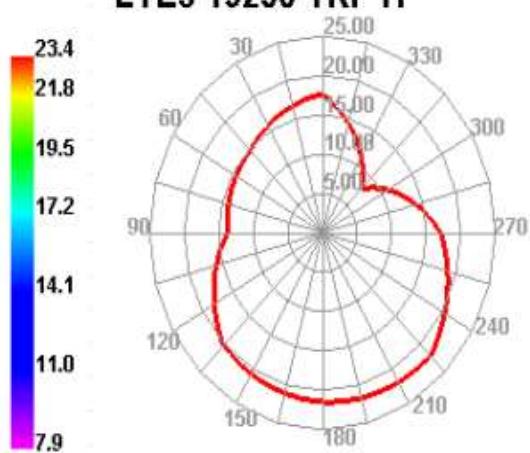


二十九 天线辐射苹果图

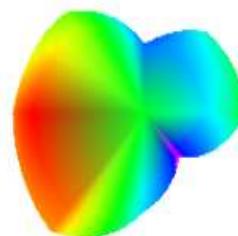
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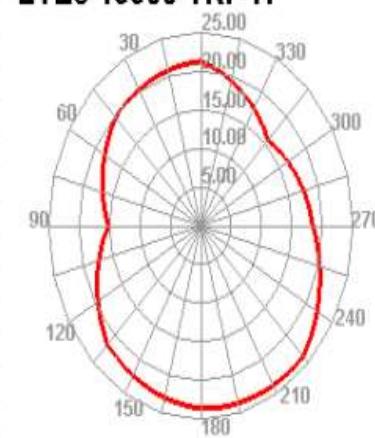
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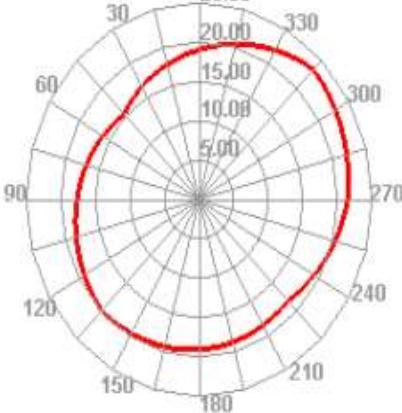
LTE3 19900 TRP



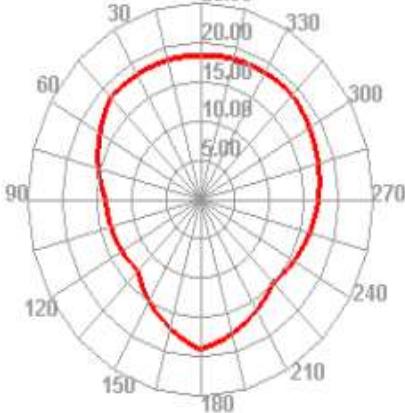
LTE3 19900 TRP H



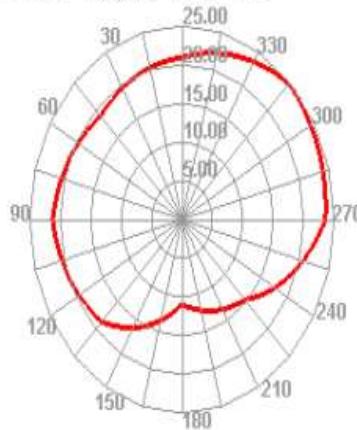
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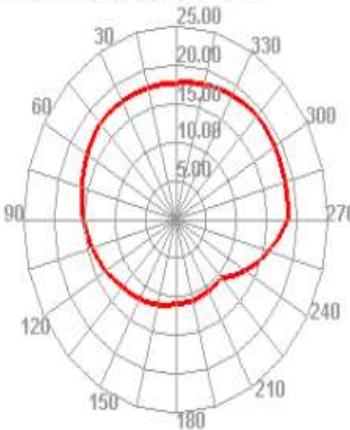
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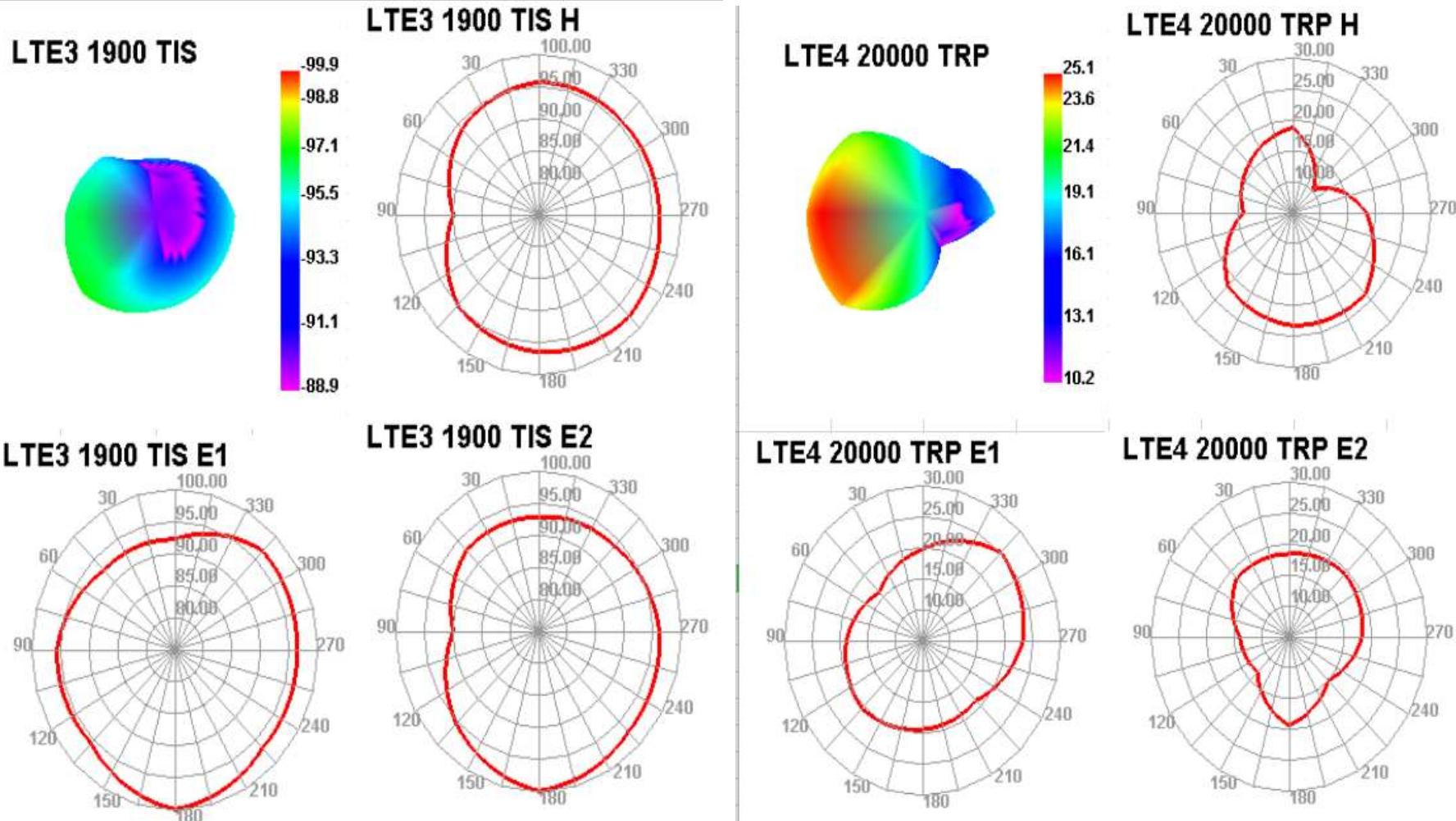
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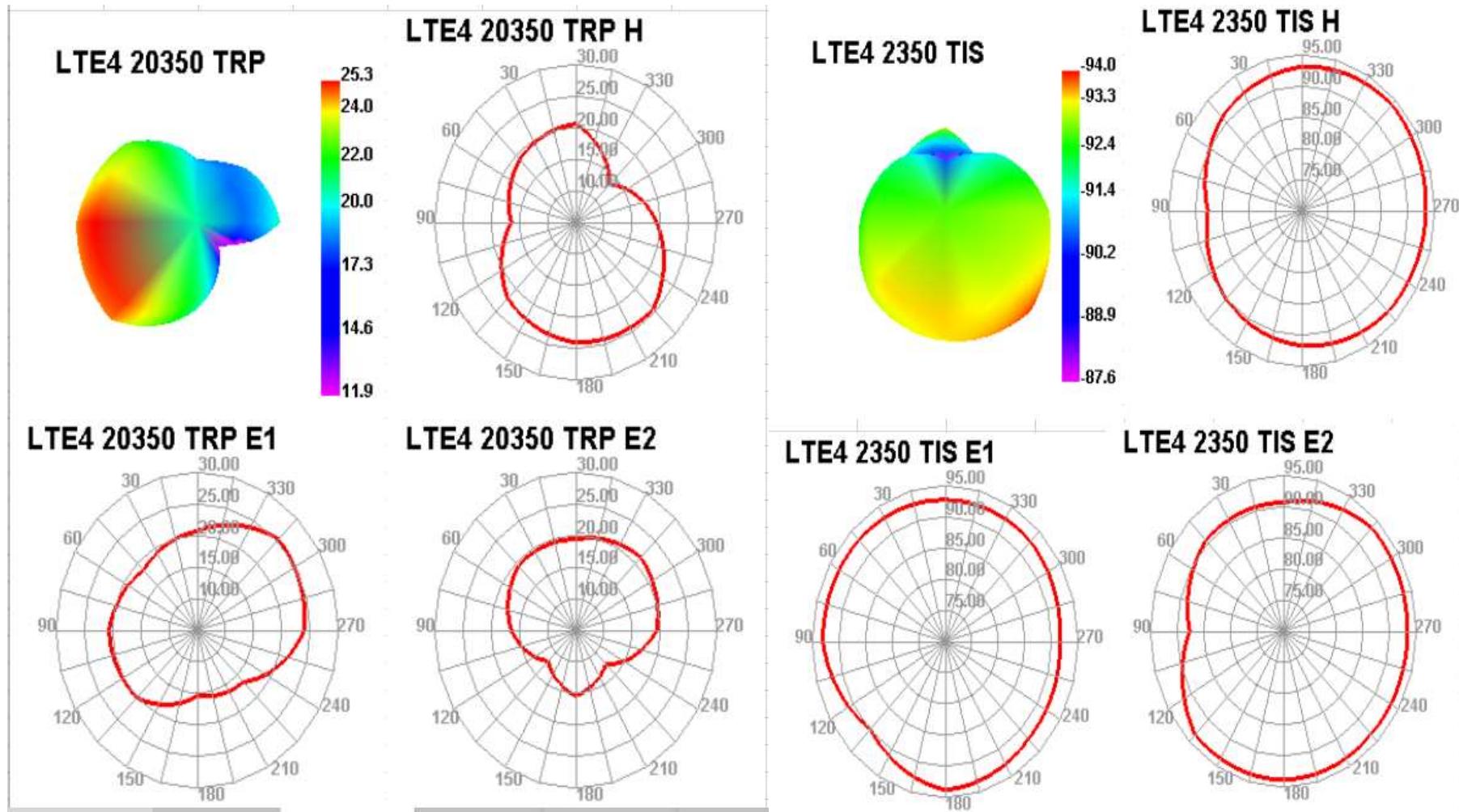
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二十九 天线辐射苹果图

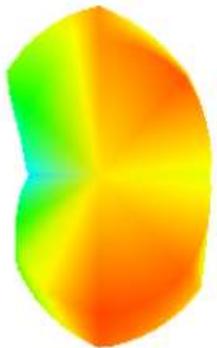


二十九 天线辐射苹果图

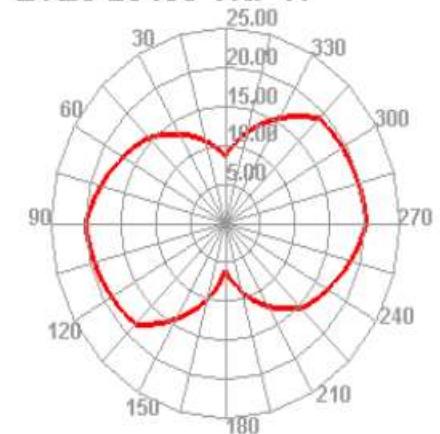


二十九 天线辐射苹果图

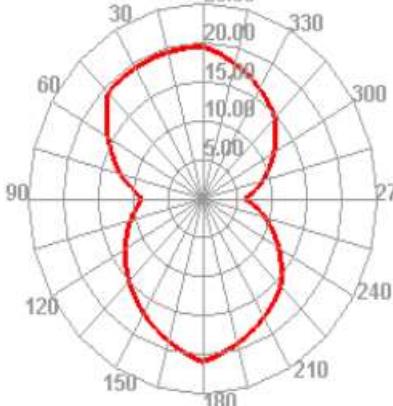
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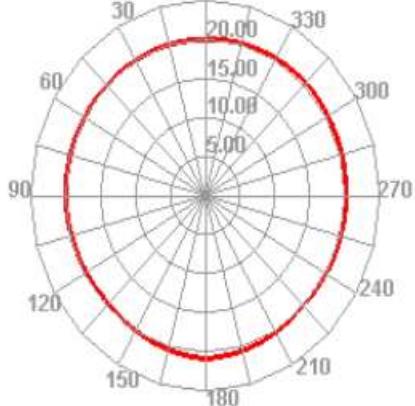
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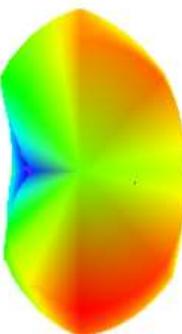
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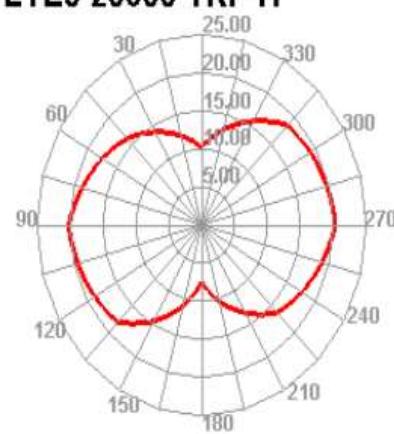
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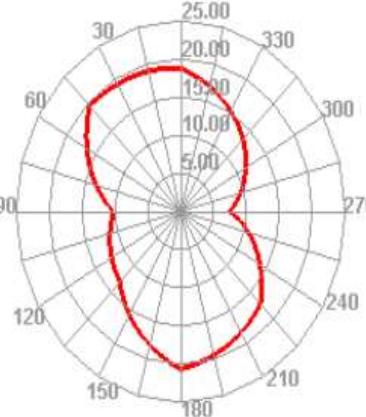
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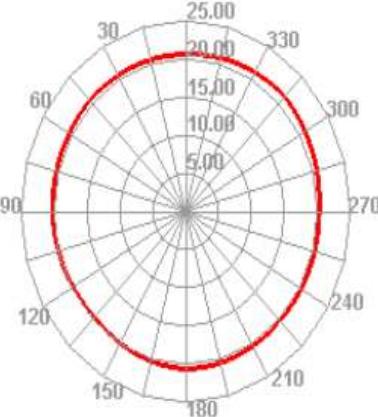
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LTE5 20600 TRP E1



LTE5 20600 TRP E2

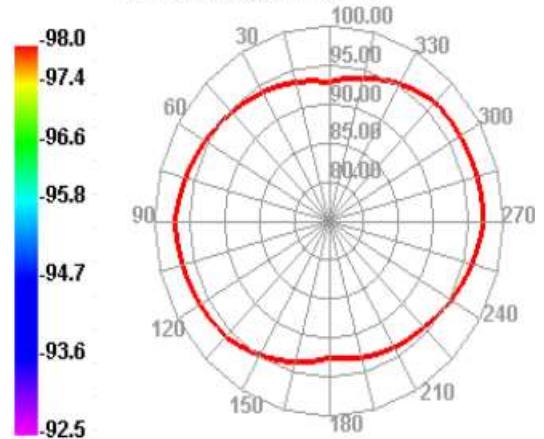


二十九 天线辐射苹果图

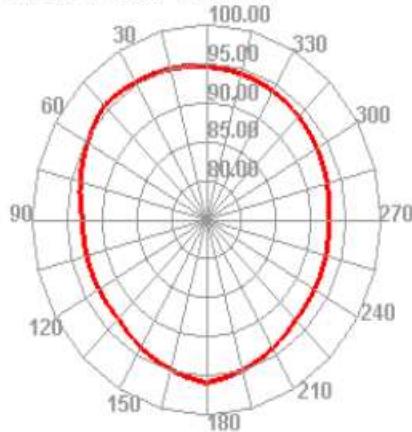
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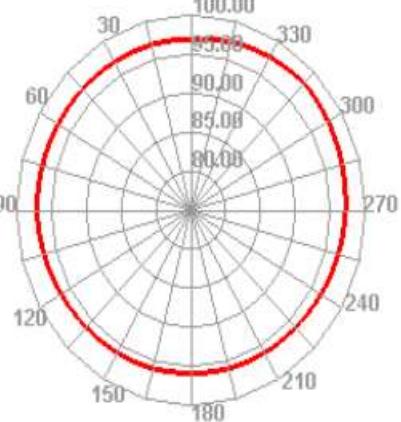
LTE5 2600 TIS H



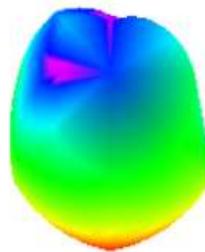
LTE5 2600 TIS E1



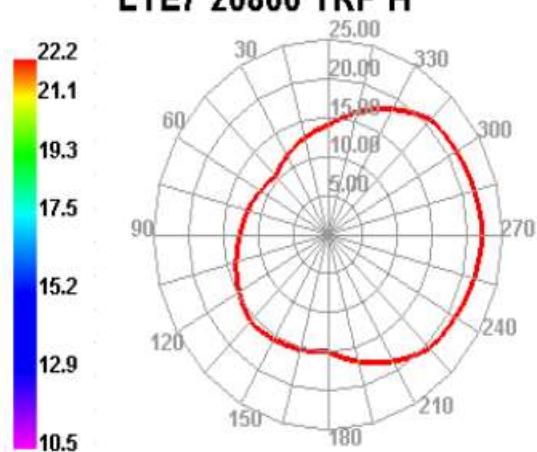
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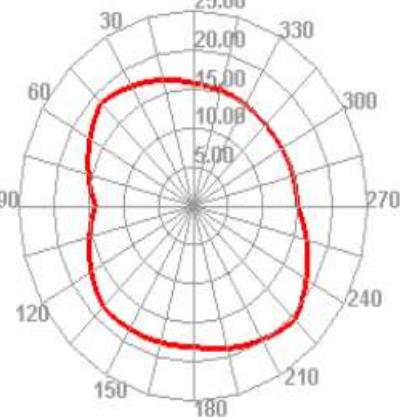
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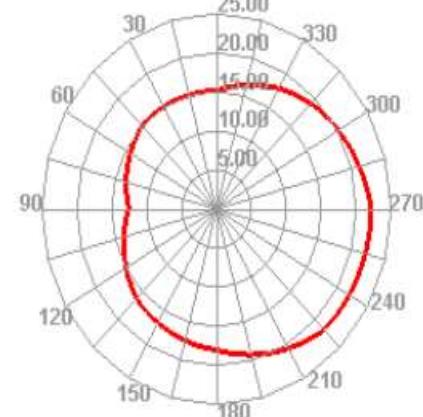
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LTE7 20800 TRP E1

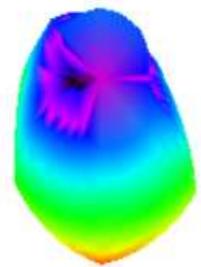


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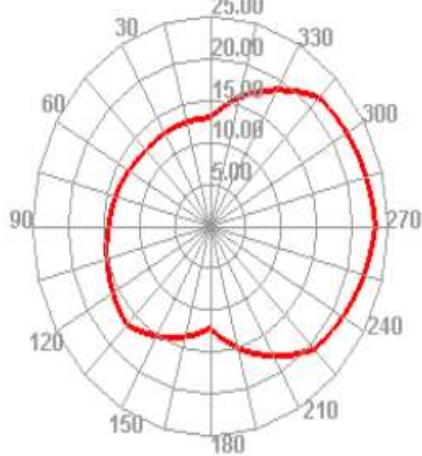
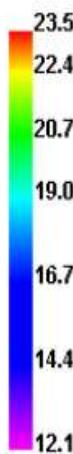


二十九 天线辐射苹果图

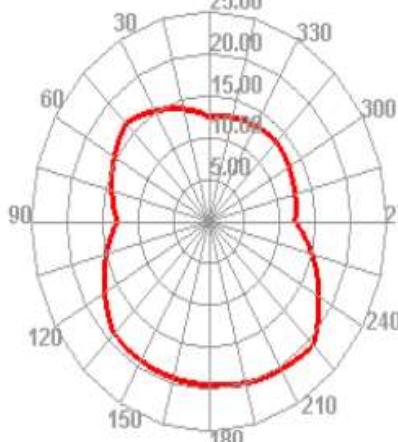
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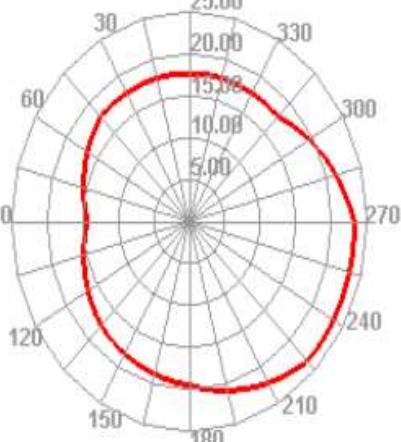
LTE7 21400 TRP H



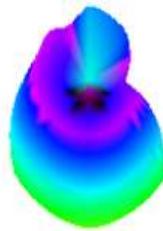
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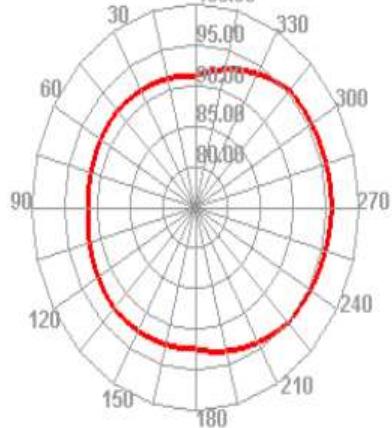
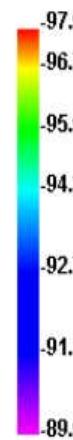
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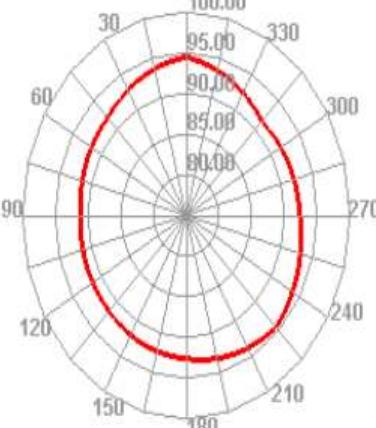
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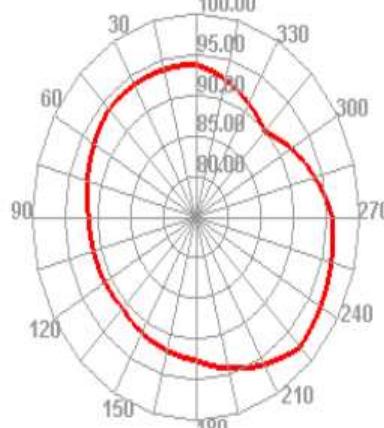
LTE7 3400 TIS H



LTE7 3400 TIS E1

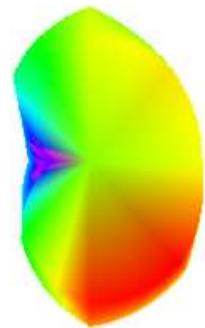


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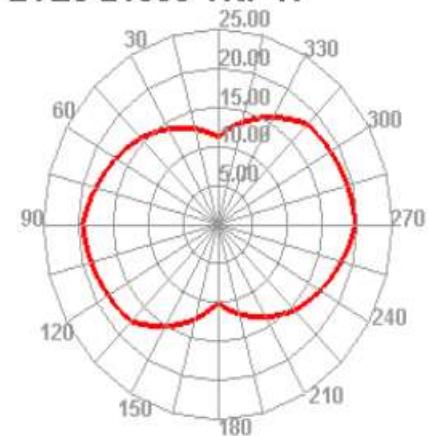
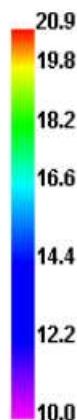


二十九 天线辐射苹果图

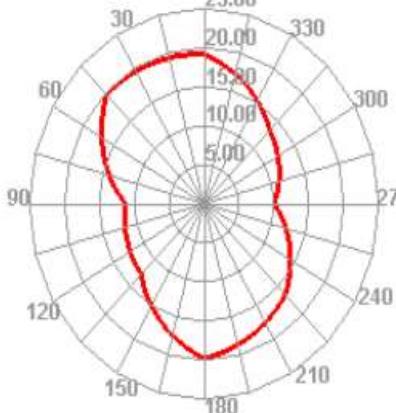
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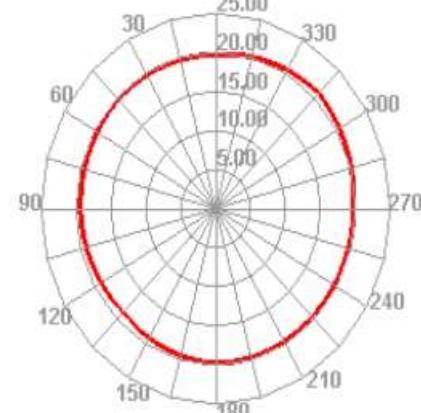
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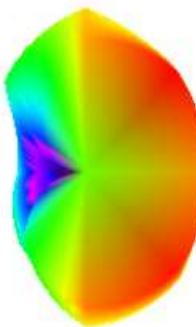
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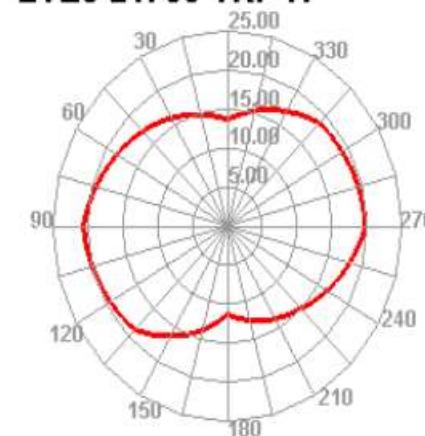
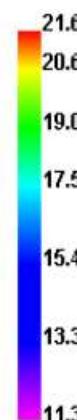
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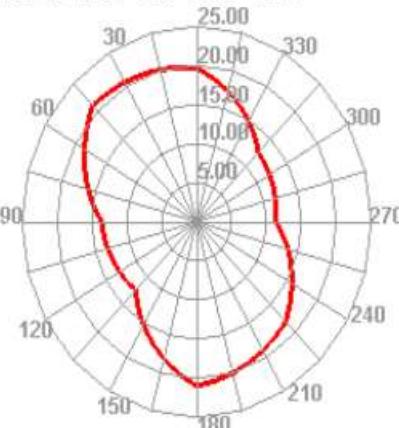
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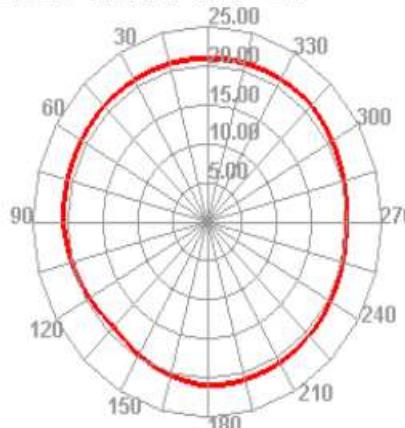
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LTE8 21750 TRP E1

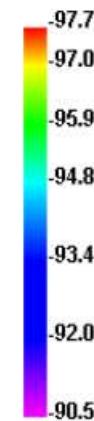
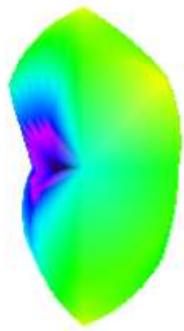


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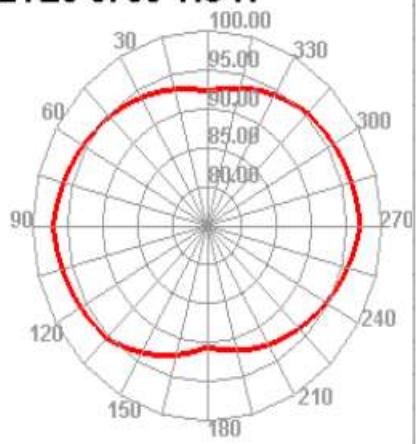


二十九 天线辐射苹果图

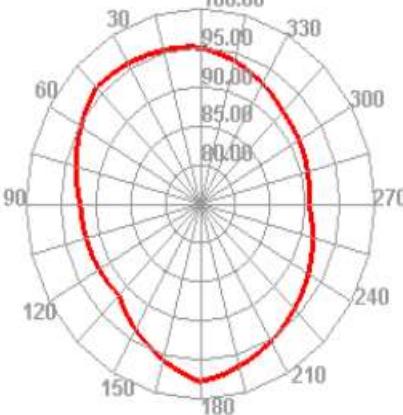
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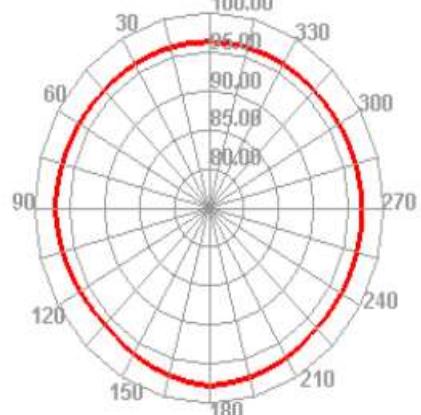
LTE8 3750 TIS H



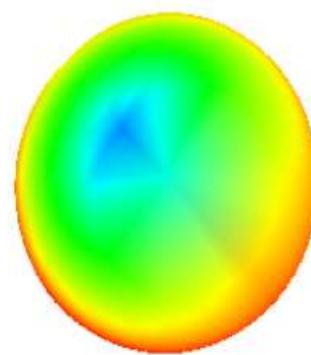
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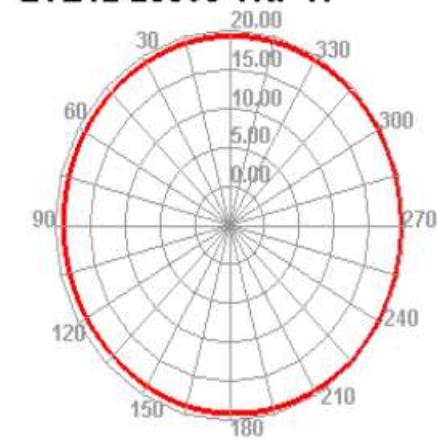
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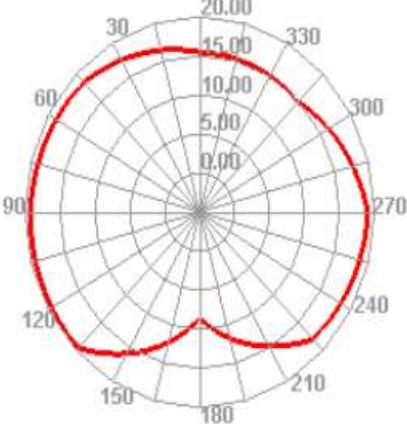
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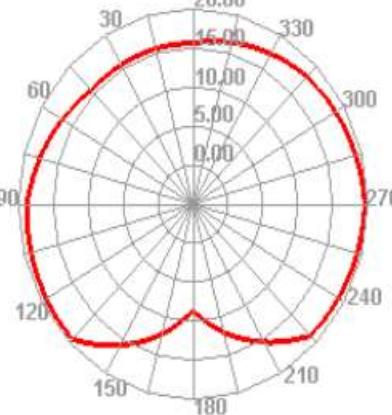
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LTE12 23060 TRP E1

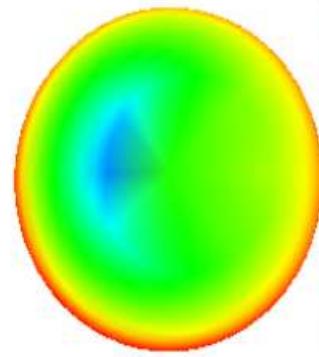


LTE12 23060 TRP E2

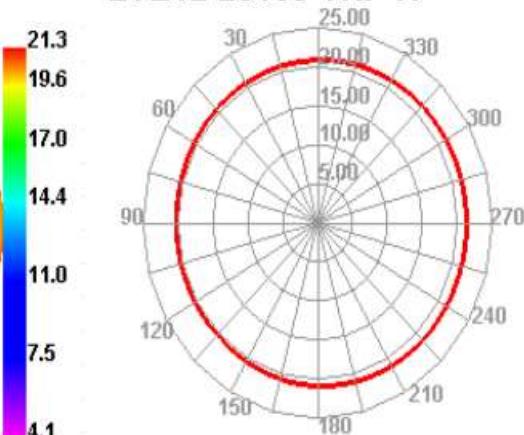


三十四 天线辐射苹果图

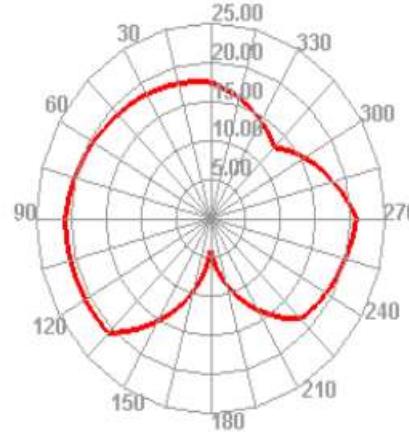
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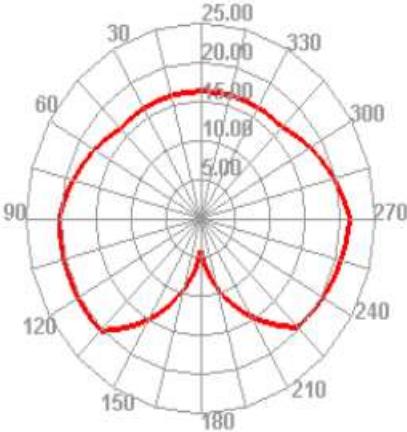
LTE12 23130 TRP H



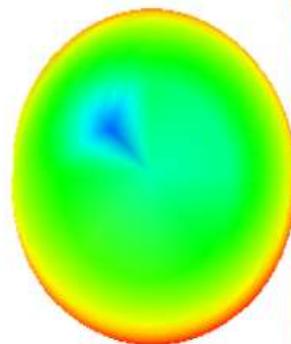
LTE12 23130 TRP E1



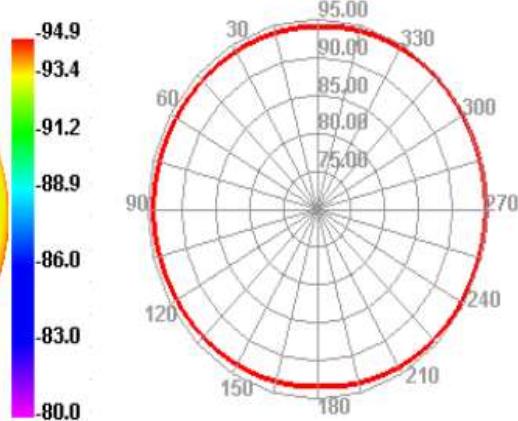
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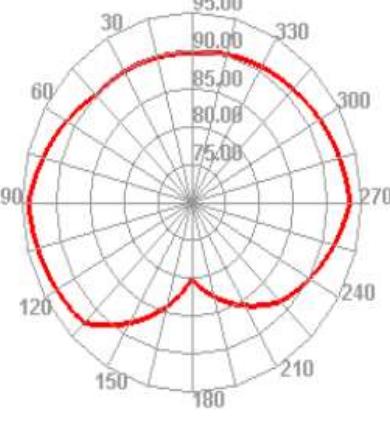
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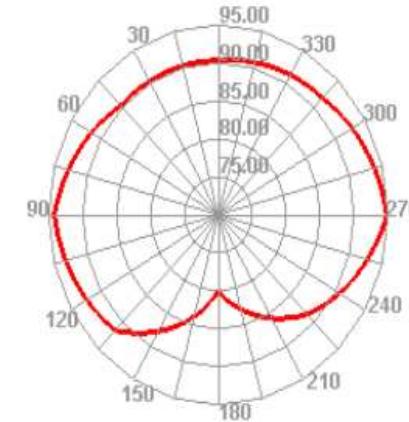
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LTE12 5130 TIS E1

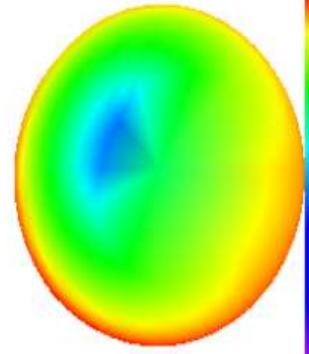


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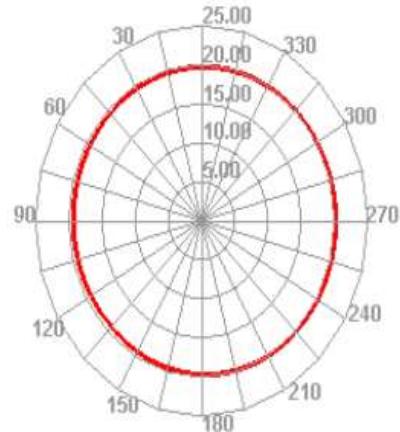


二十九 天线辐射苹果图

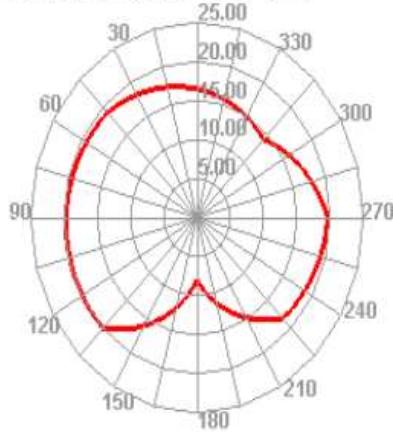
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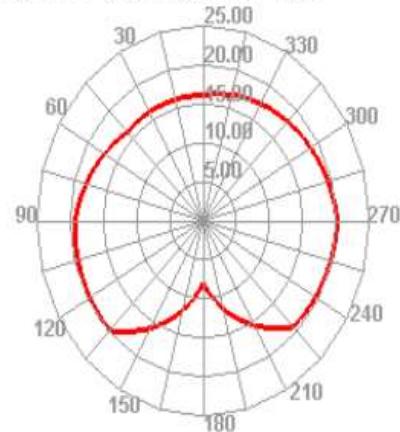
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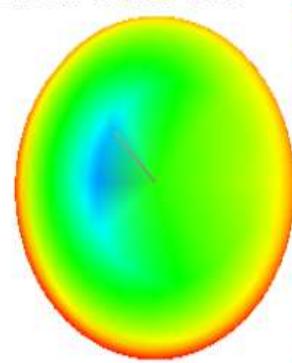
LTE17 23780 TRP E1



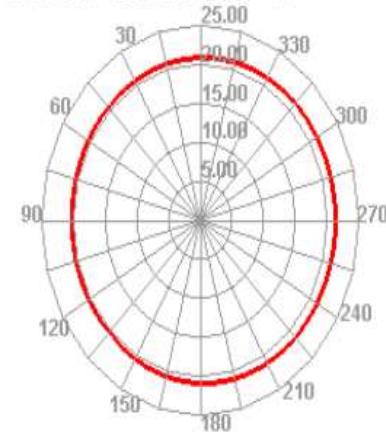
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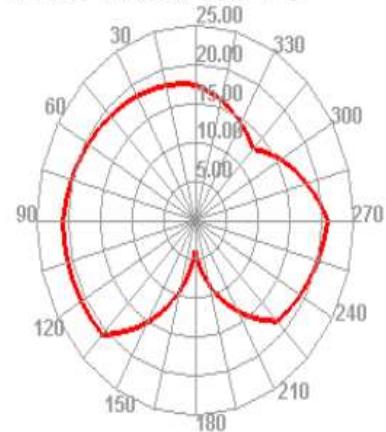
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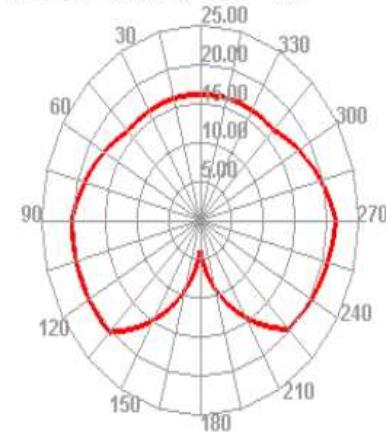
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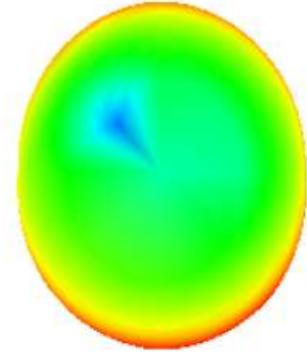


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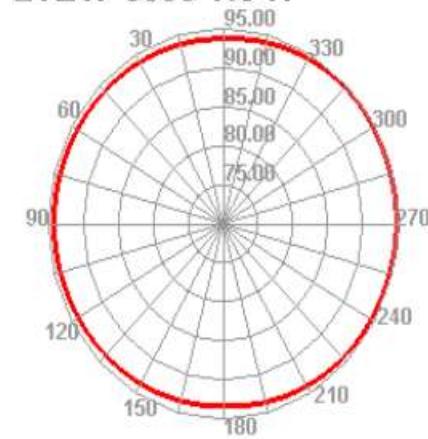


二十九 天线辐射苹果图

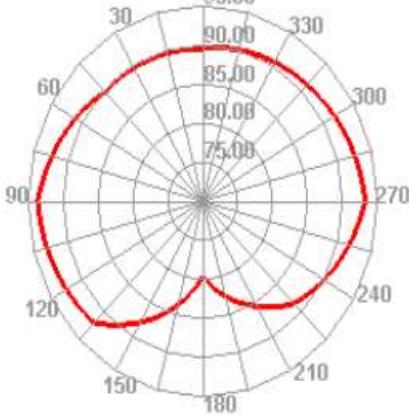
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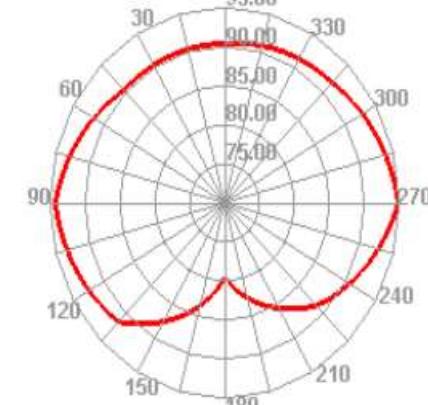
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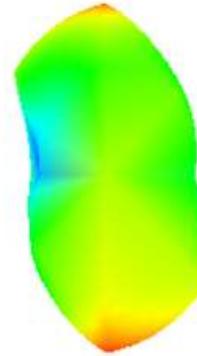
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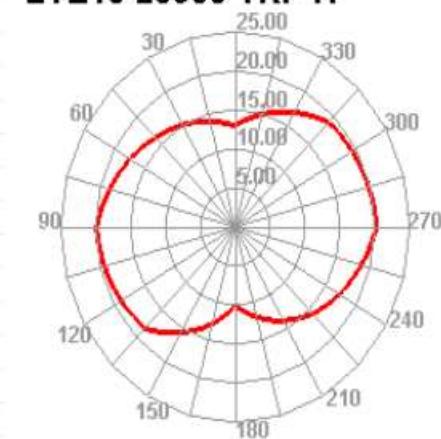
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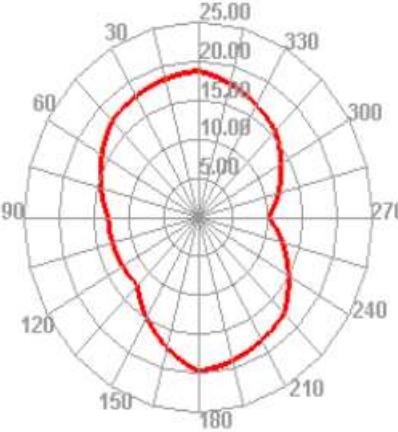
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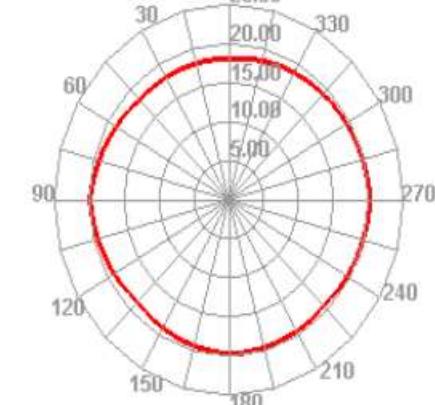
LTE18 23900 TRP H



LTE18 23900 TRP E1

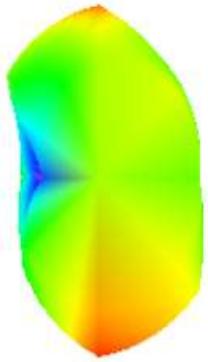


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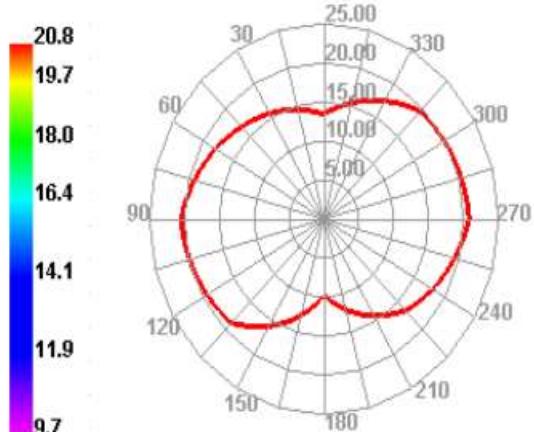


二十九 天线辐射苹果图

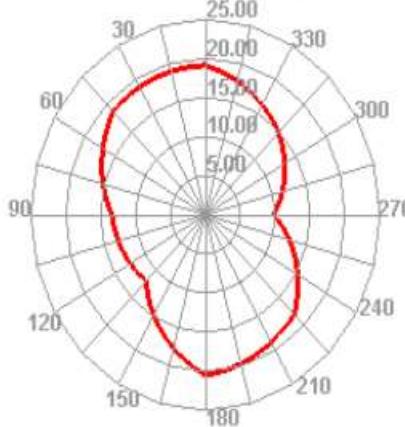
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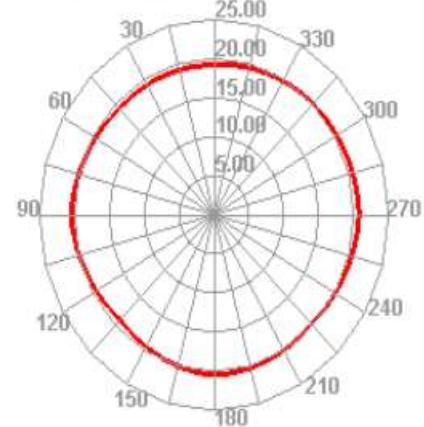
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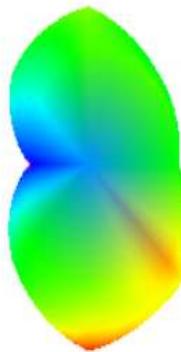
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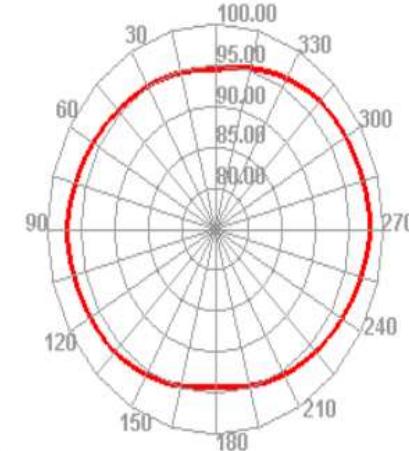
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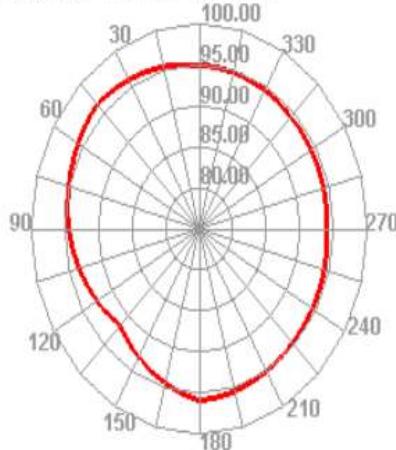
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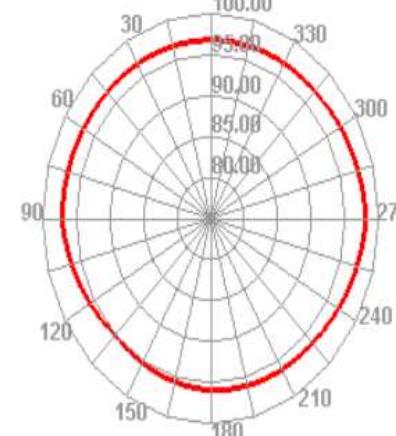
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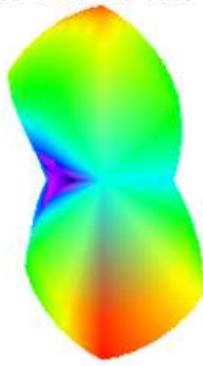


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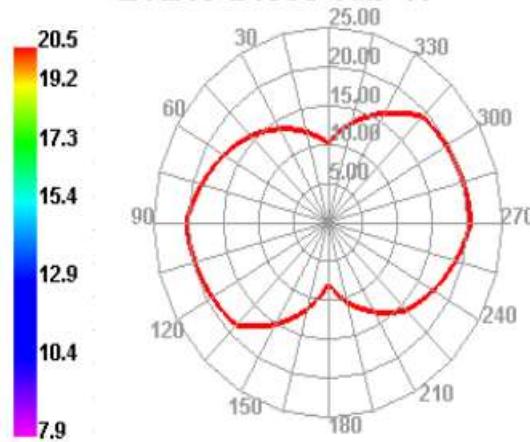


二十九 天线辐射苹果图

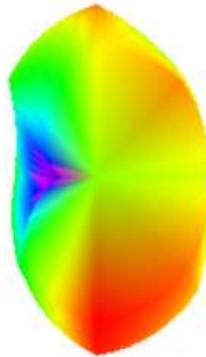
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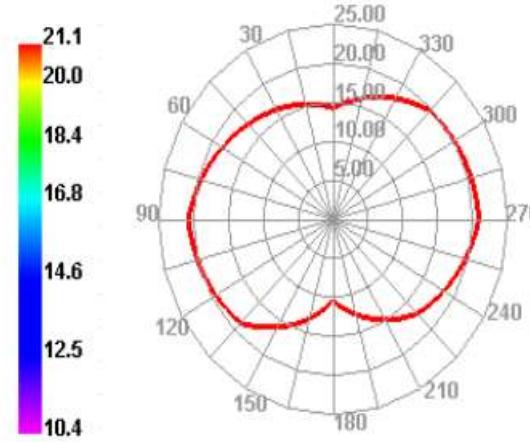
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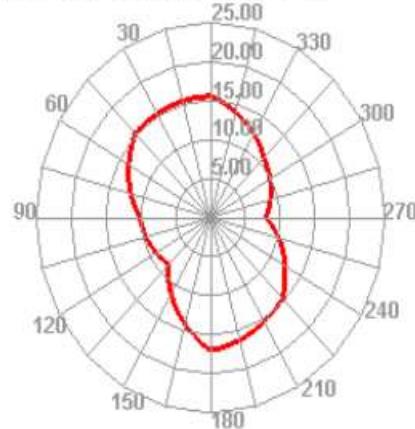
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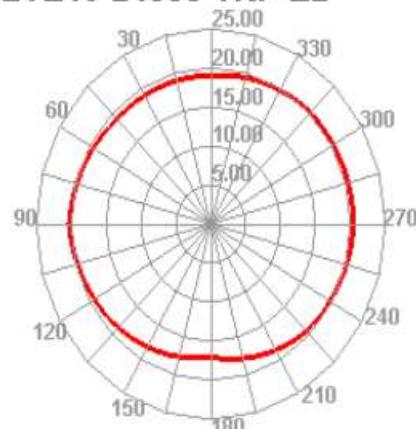
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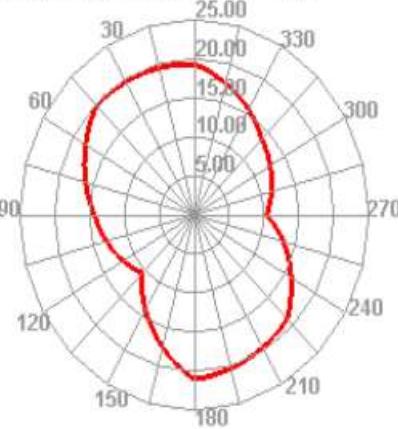
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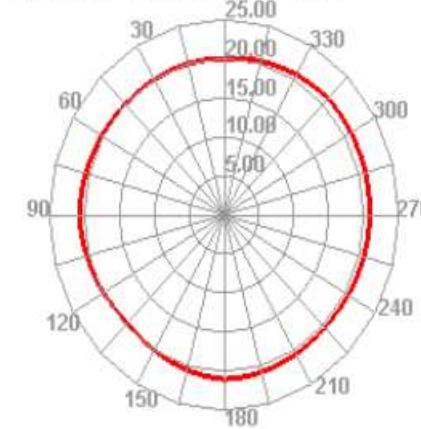
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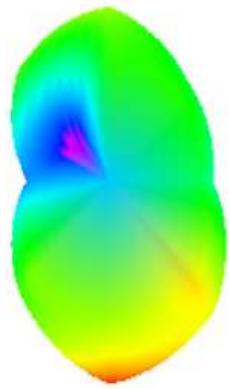


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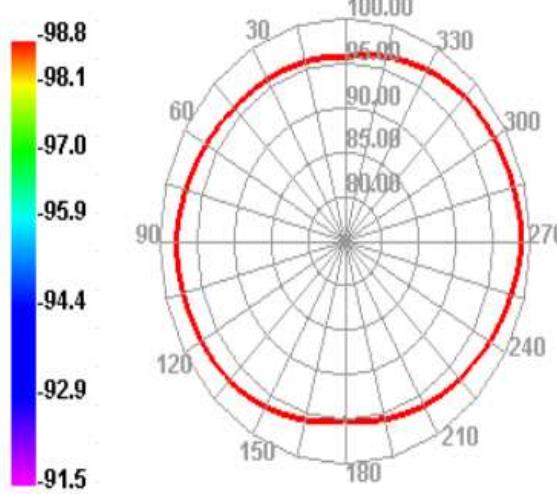


二十九 天线辐射苹果图

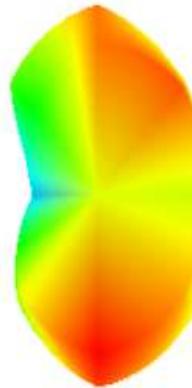
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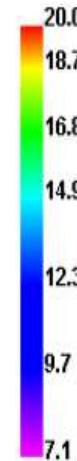
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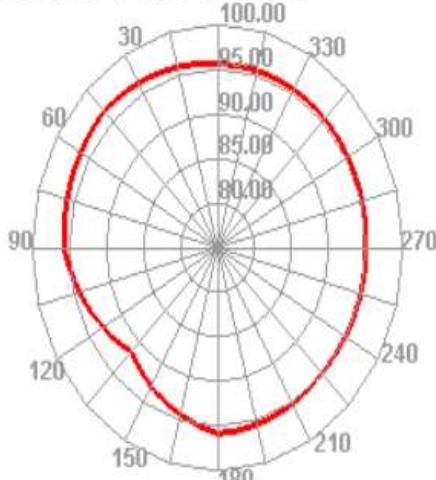
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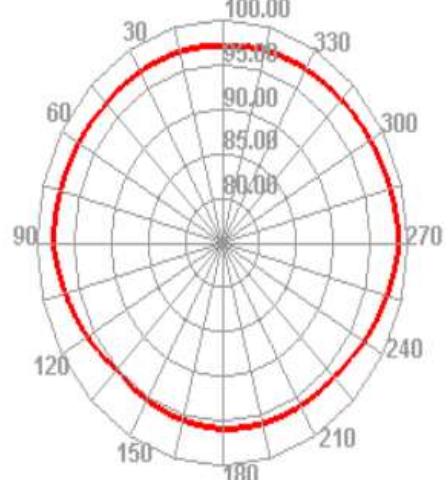
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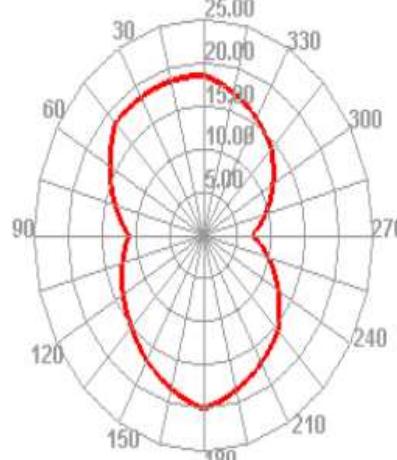
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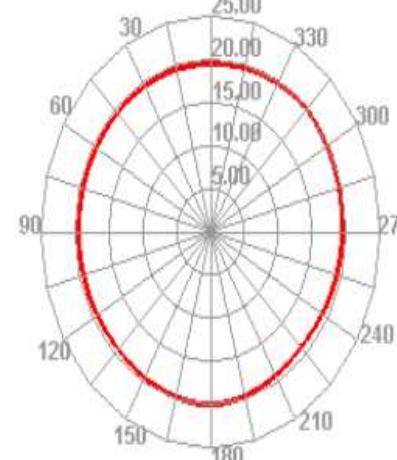
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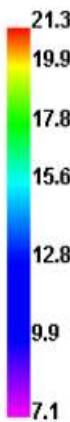
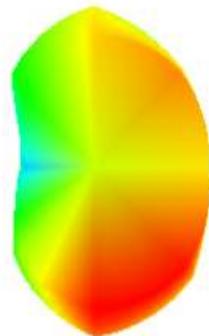


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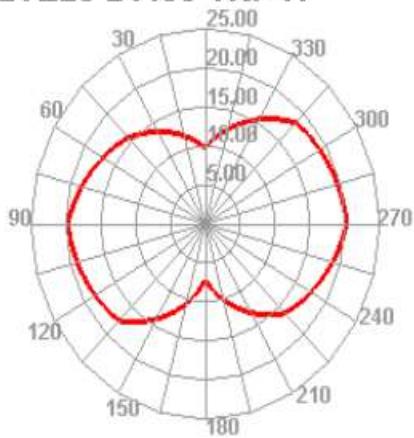


二十九 天线辐射苹果图

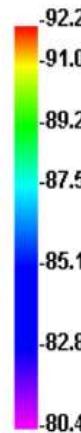
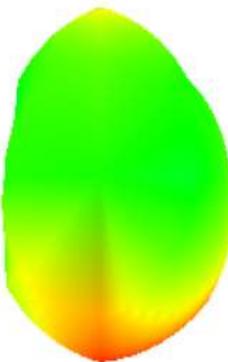
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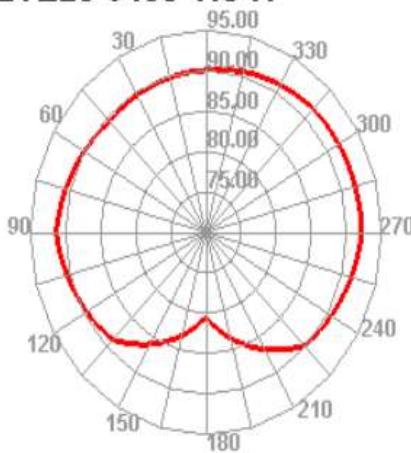
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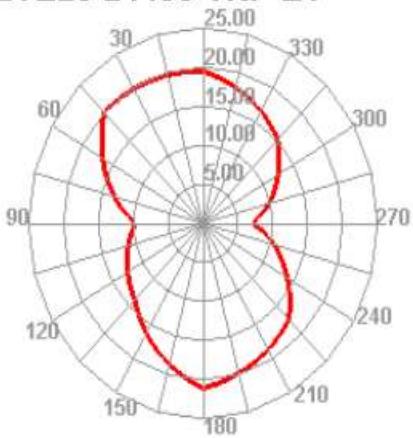
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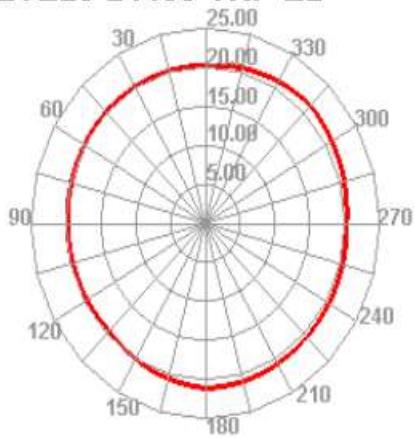
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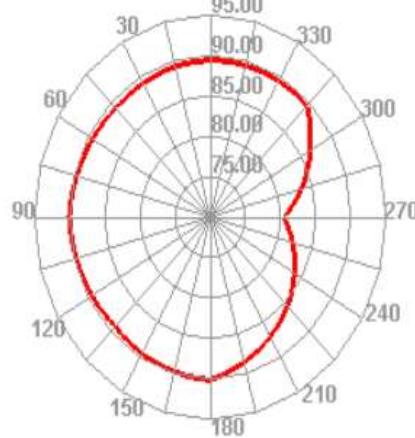
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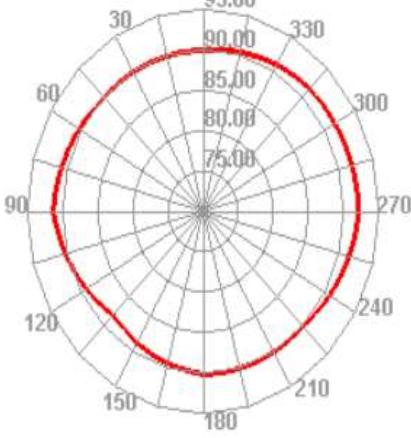
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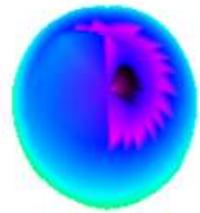


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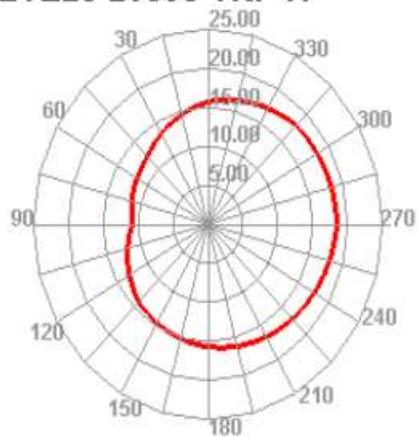
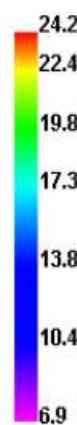


二十九 天线辐射苹果图

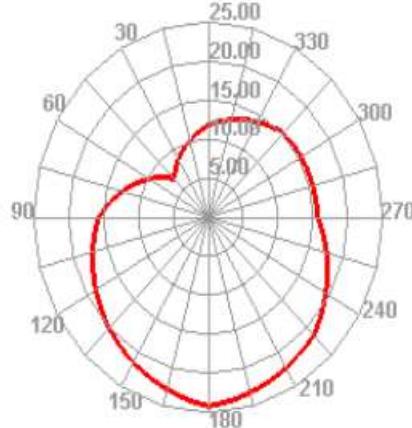
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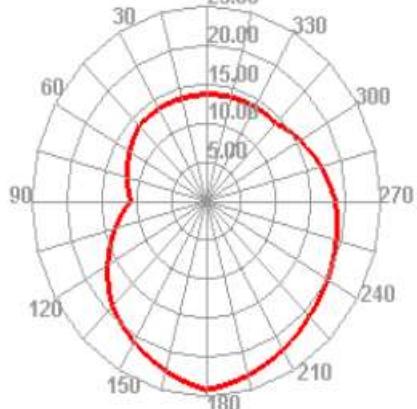
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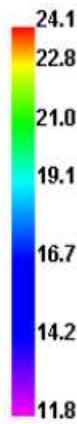
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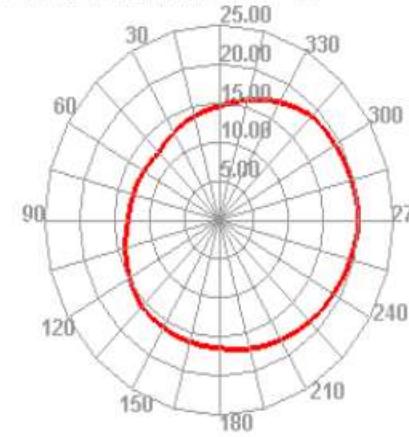
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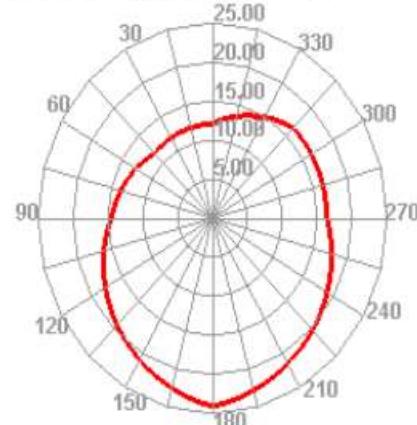
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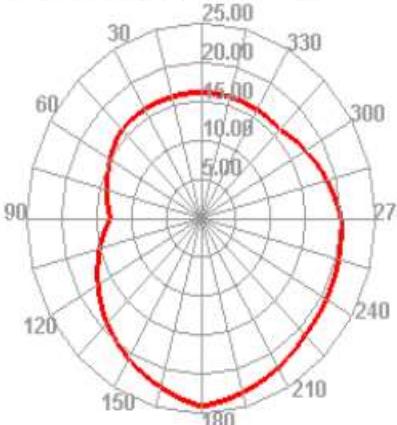
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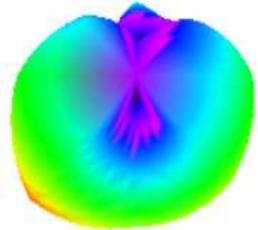


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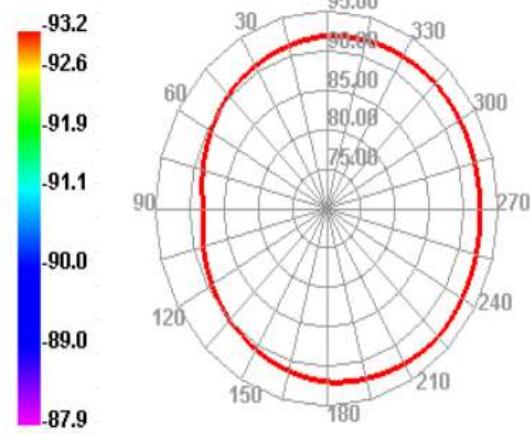


二十九 天线辐射苹果图

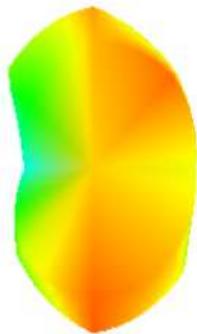
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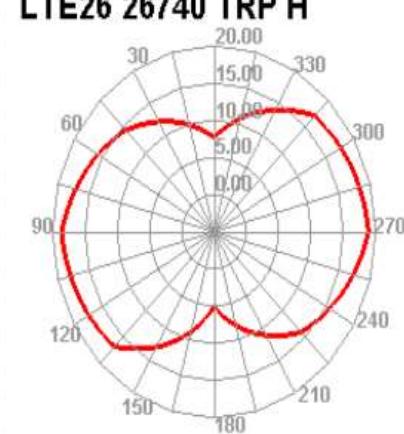
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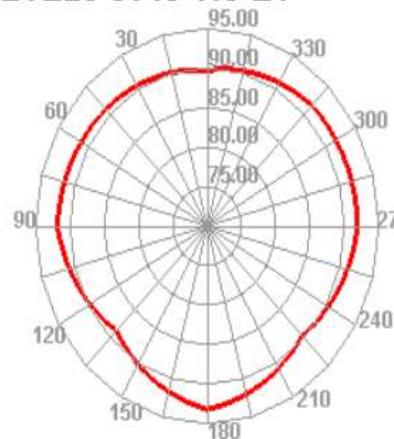
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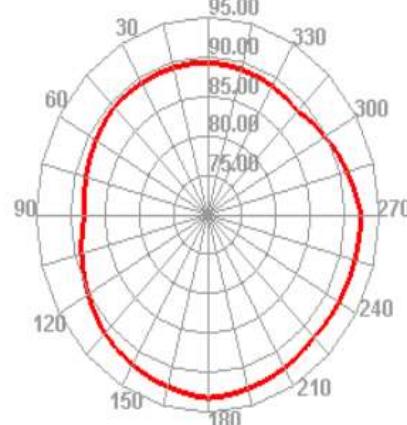
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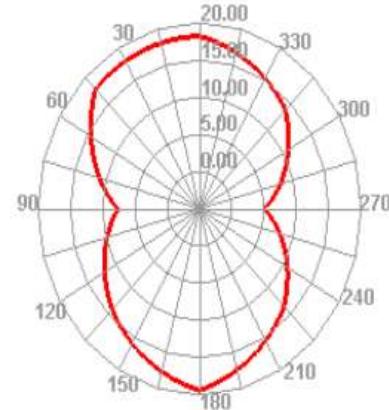
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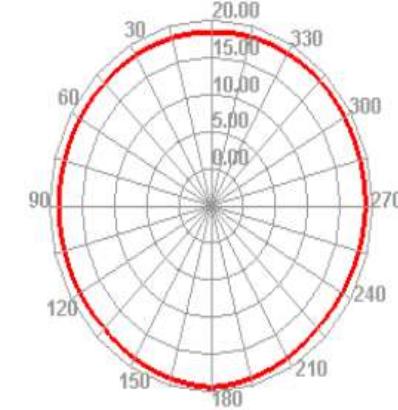
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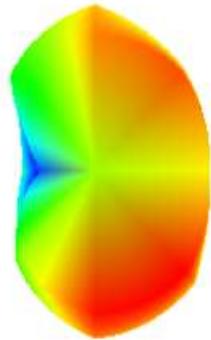


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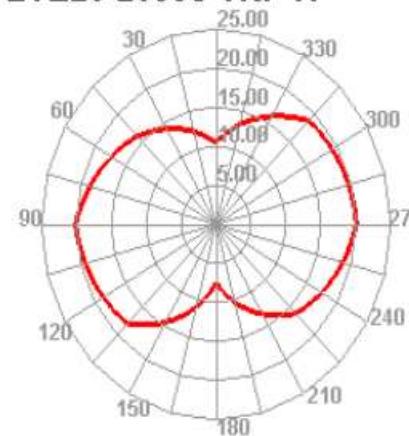
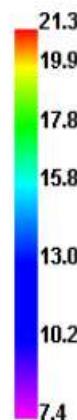


二十九 天线辐射苹果图

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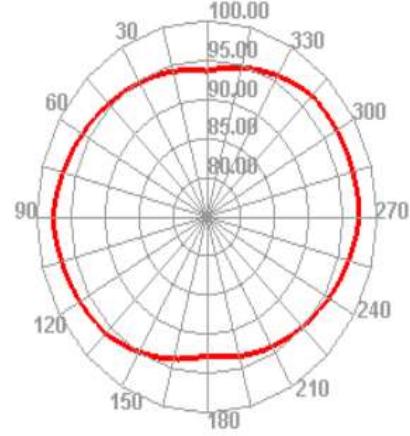
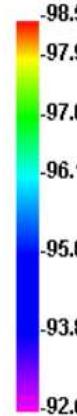
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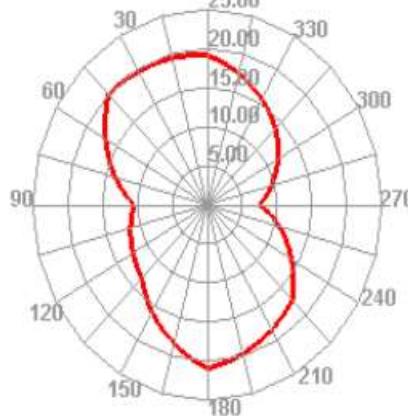
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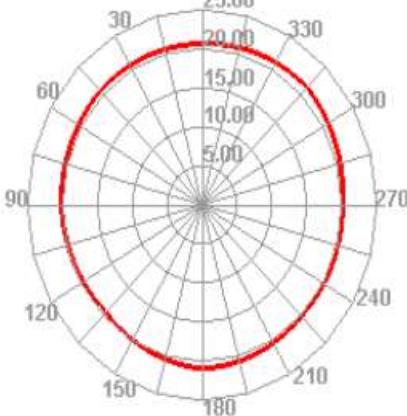
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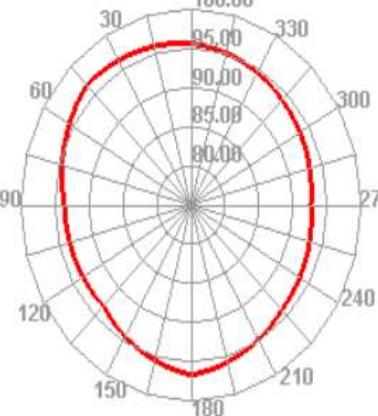
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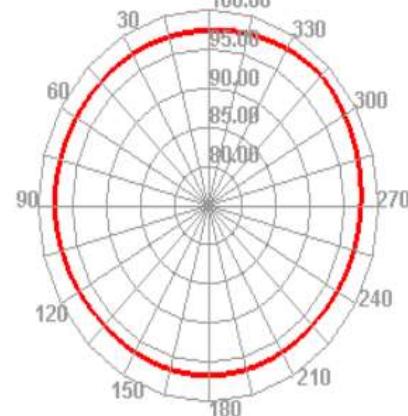
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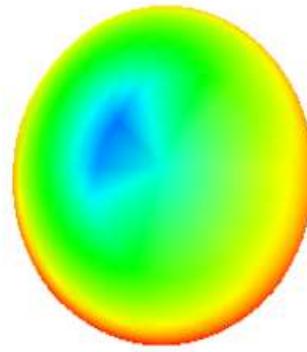


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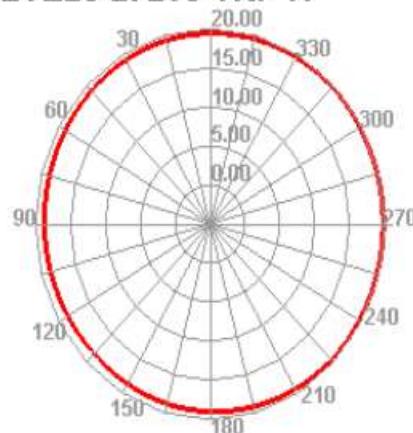


二十九 天线辐射苹果图

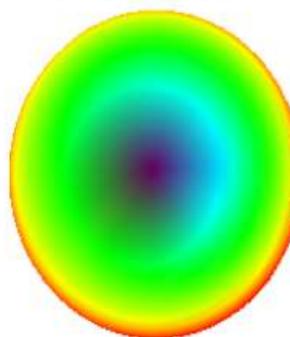
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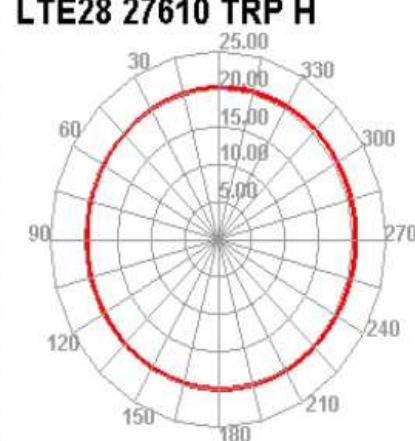
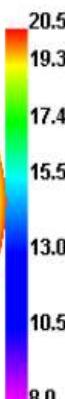
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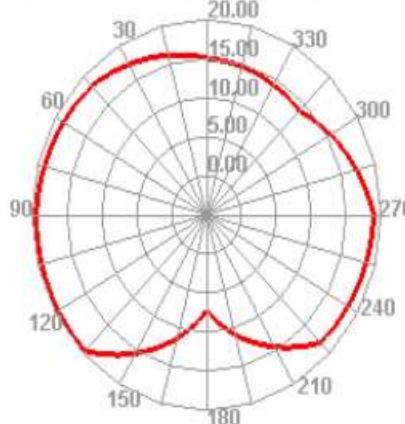
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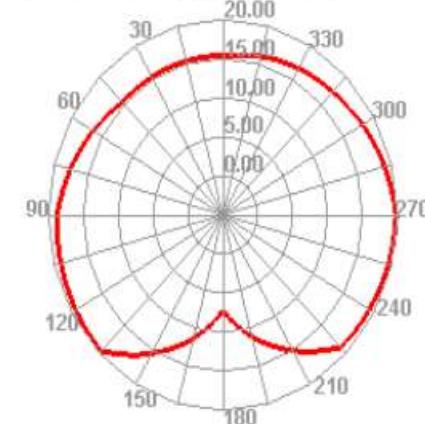
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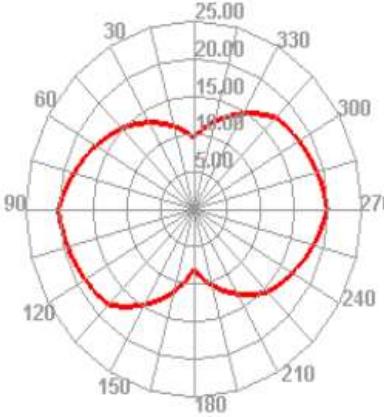
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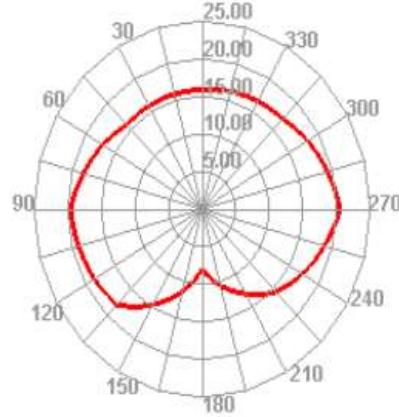
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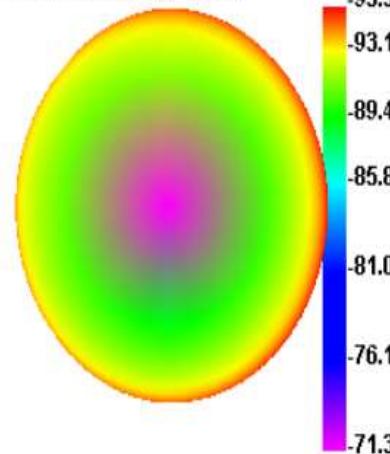


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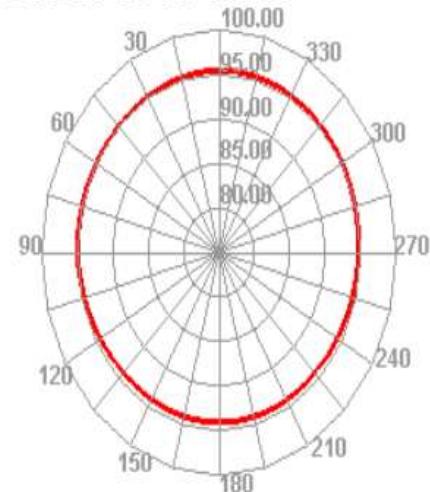


二十九 天线辐射苹果图

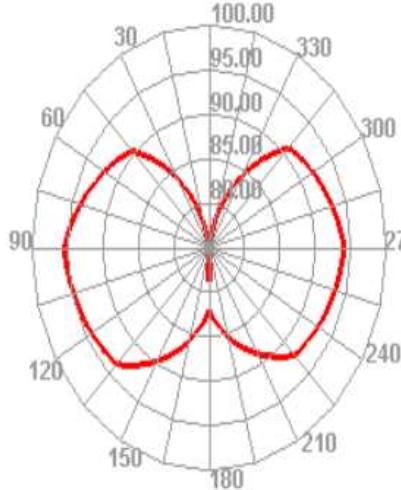
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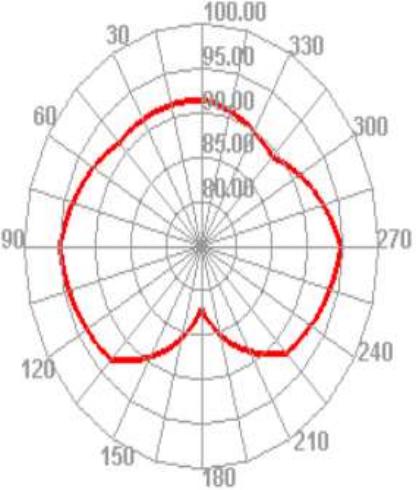
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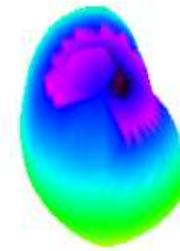
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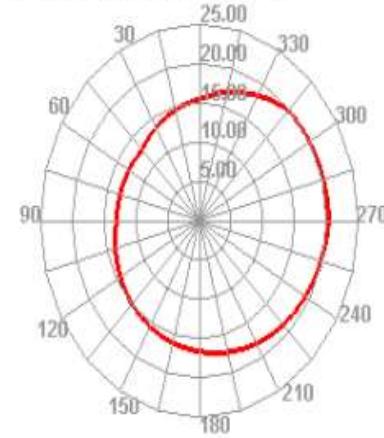
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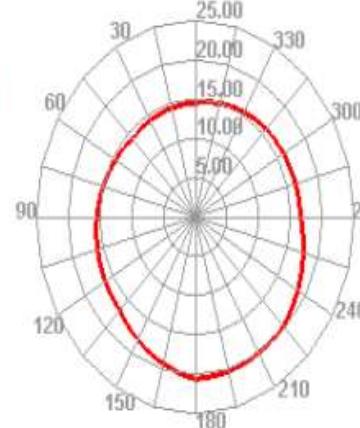
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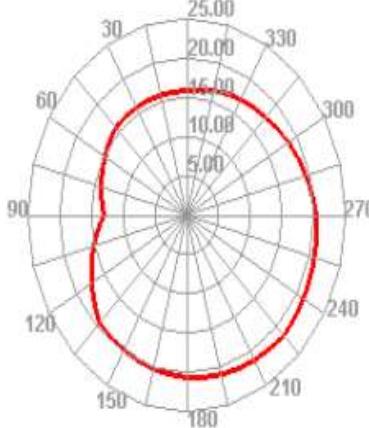
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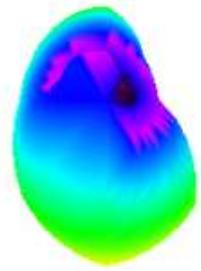


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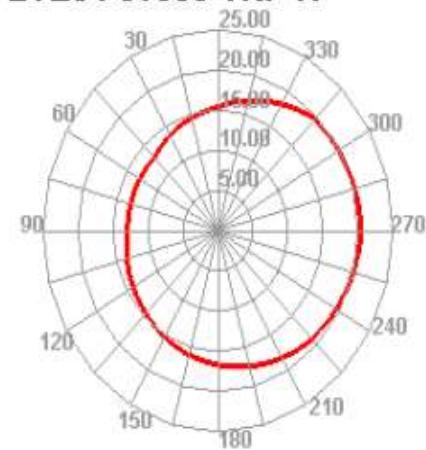
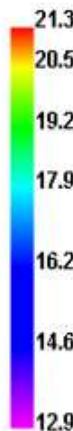


二十九 天线辐射苹果图

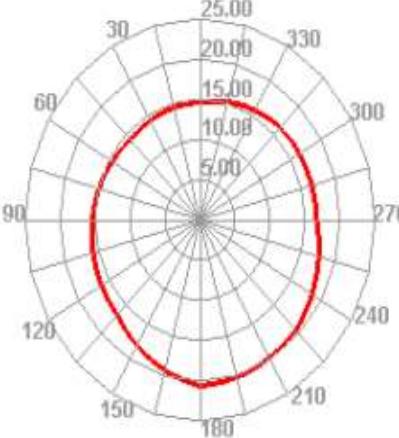
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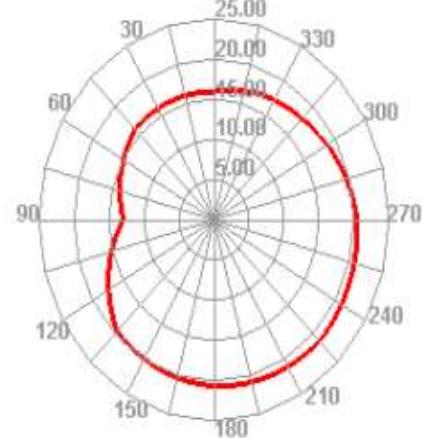
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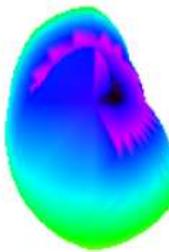
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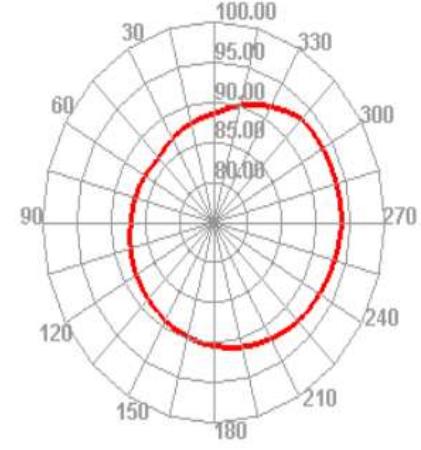
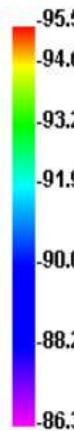
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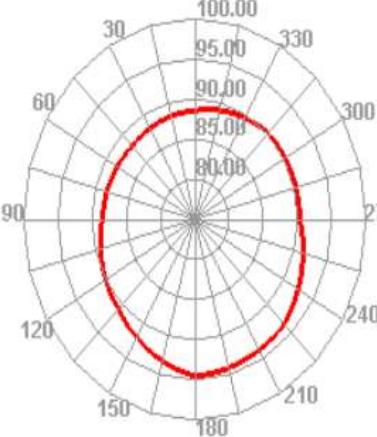
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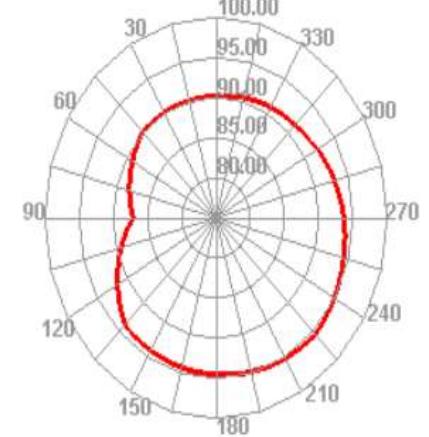
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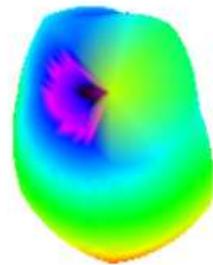


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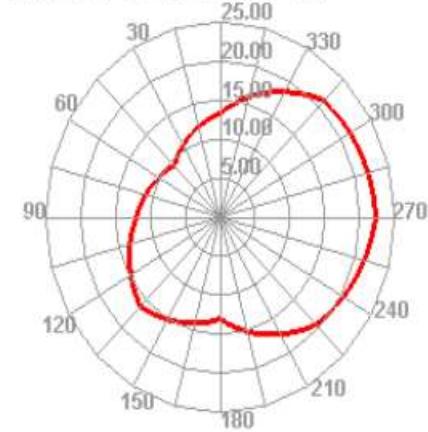


二十九 天线辐射苹果图

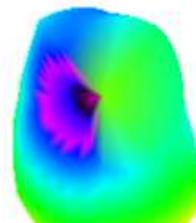
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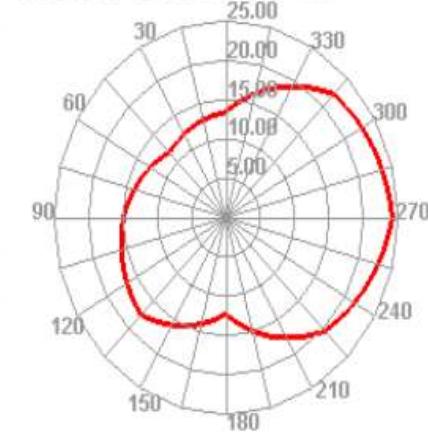
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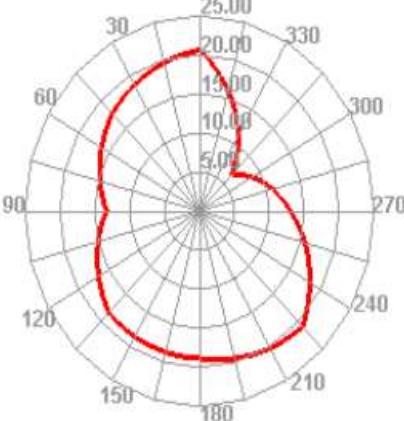
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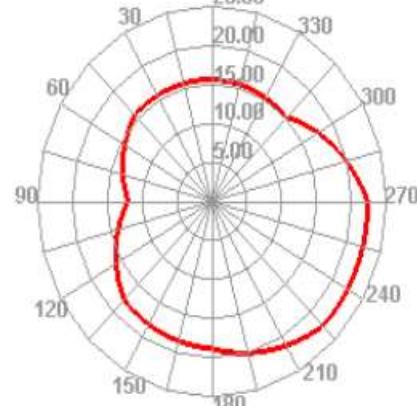
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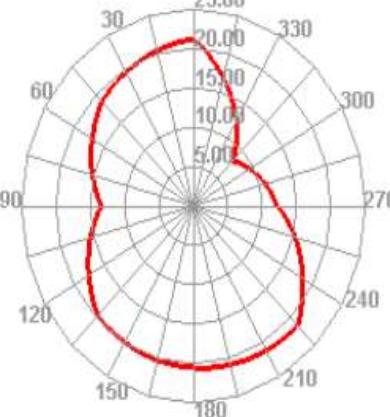
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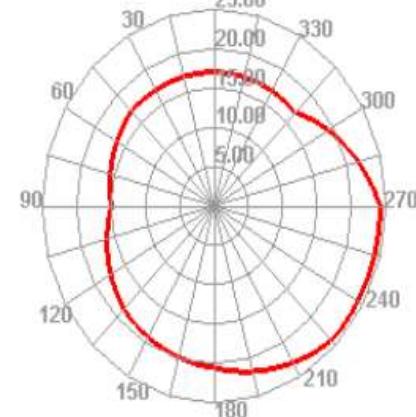
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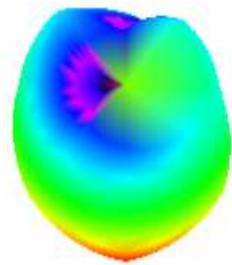


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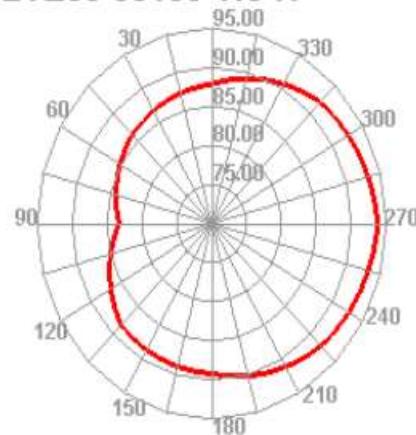
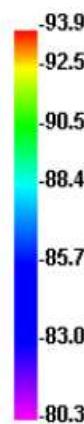


二十九 天线辐射苹果图

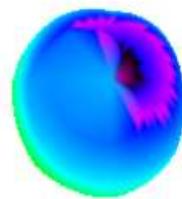
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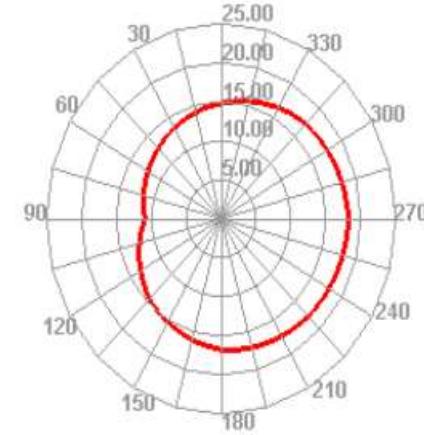
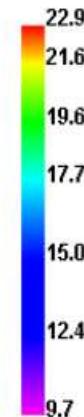
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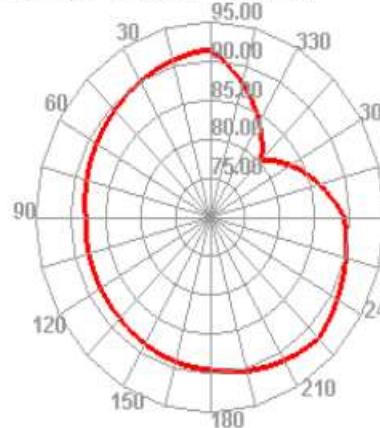
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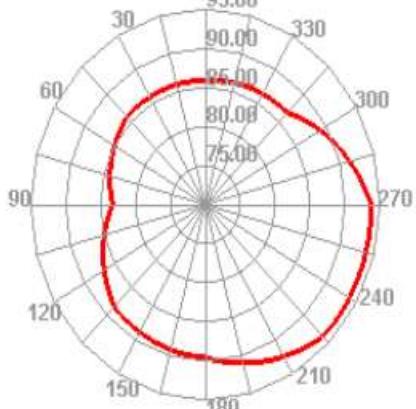
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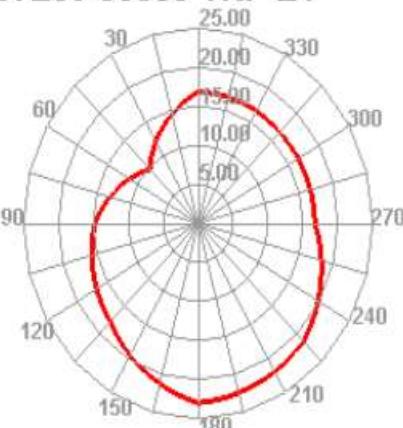
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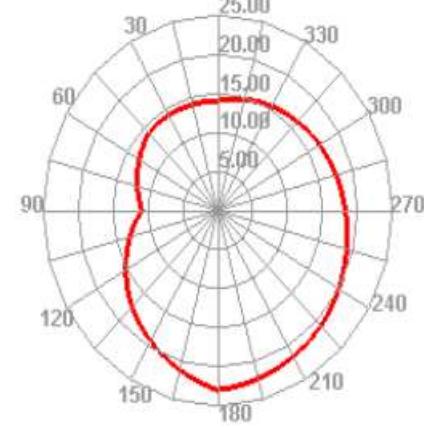
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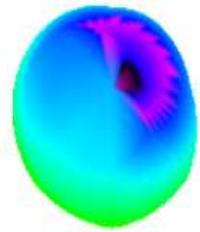


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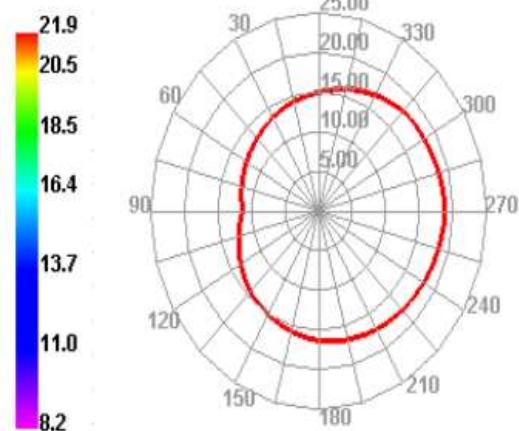


二十九 天线辐射苹果图

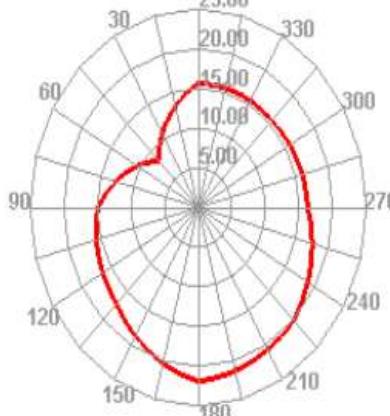
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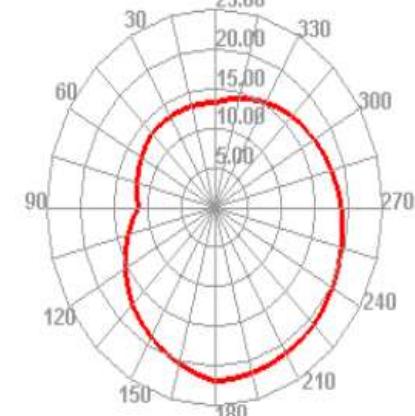
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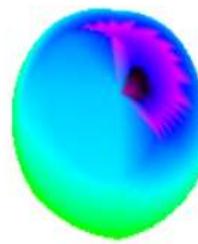
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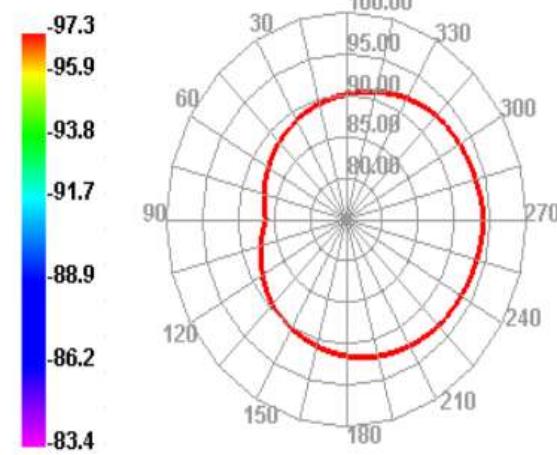
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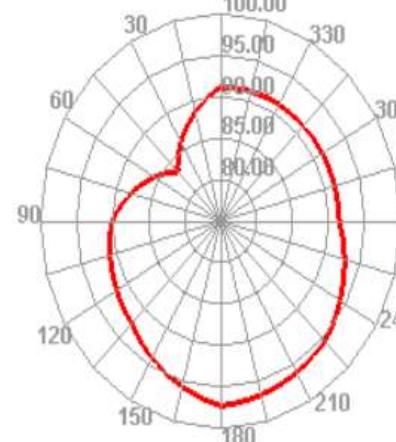
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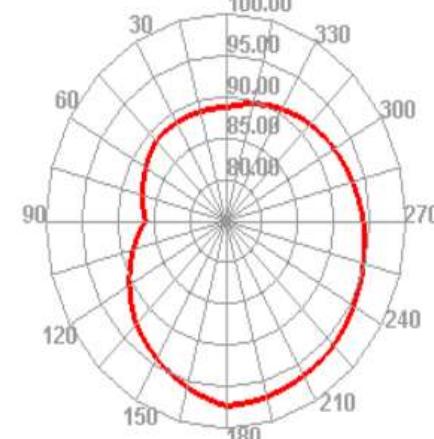
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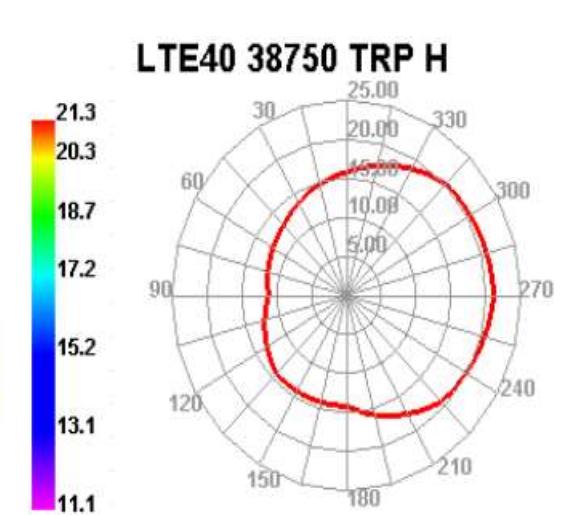
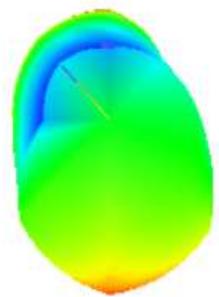


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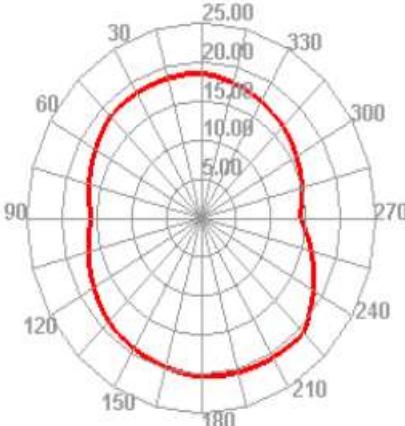


二十九 天线辐射苹果图

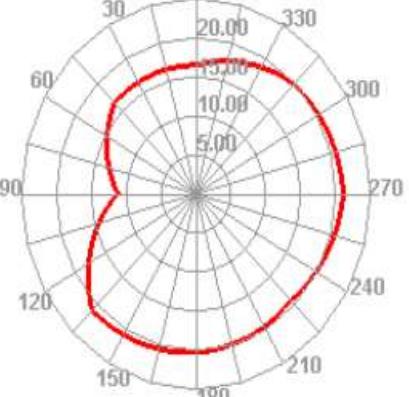
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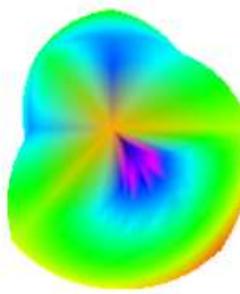
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LTE40 38750 TRP E2



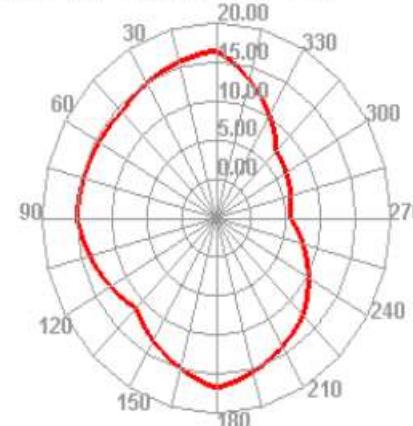
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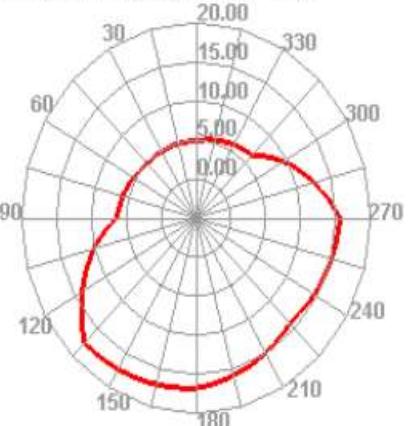
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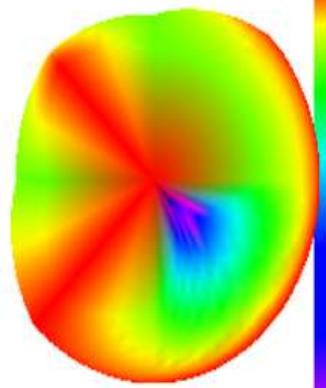


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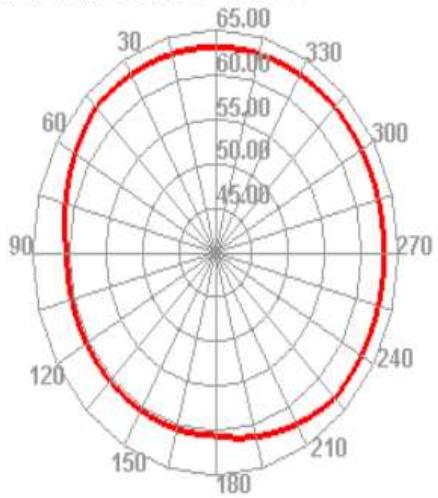


二十九 天线辐射苹果图

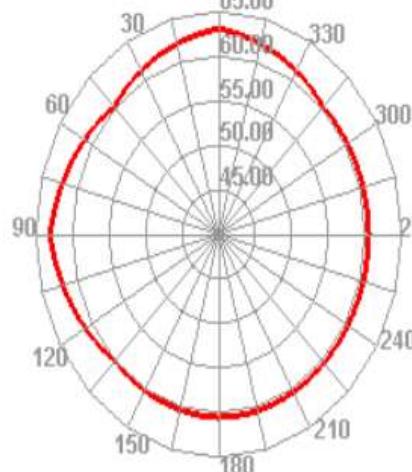
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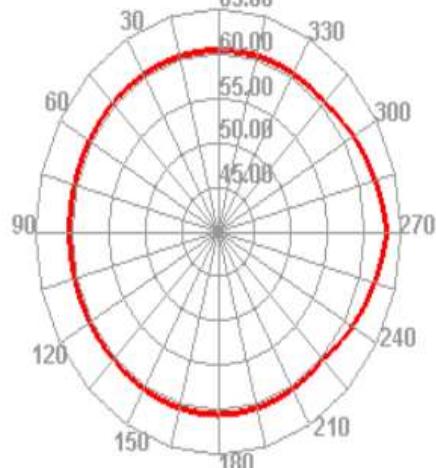
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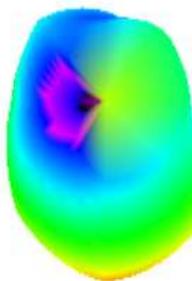
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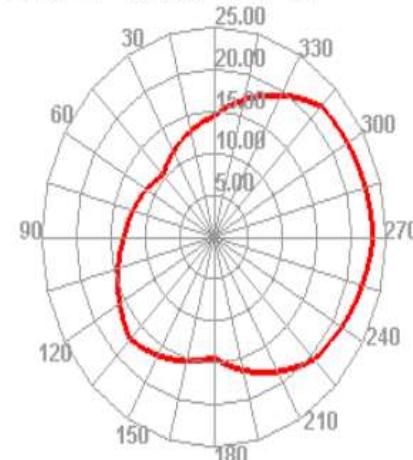
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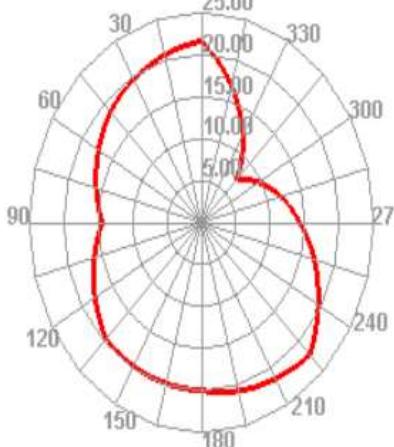
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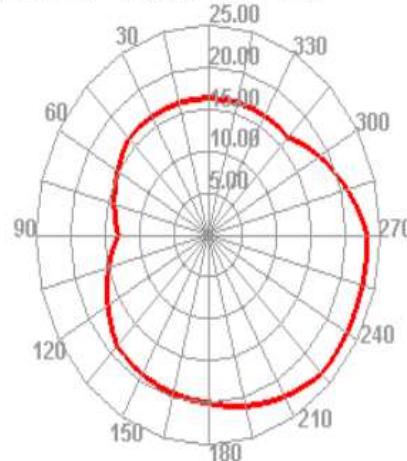
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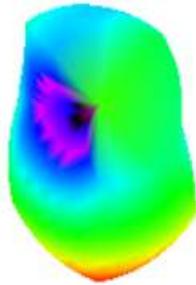


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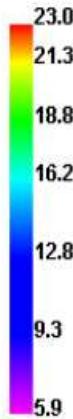


二十九 天线辐射苹果图

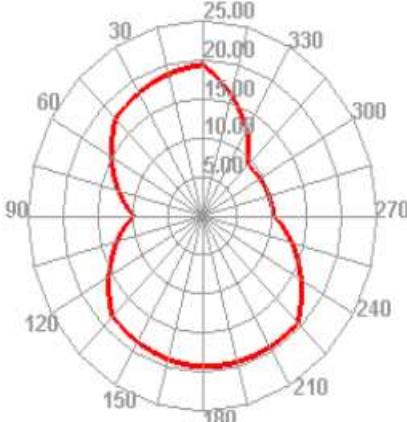
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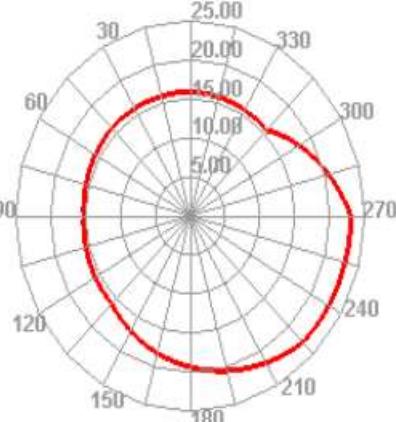
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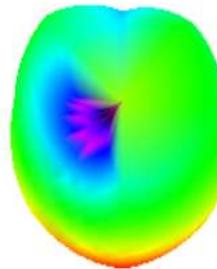
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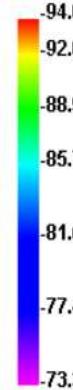
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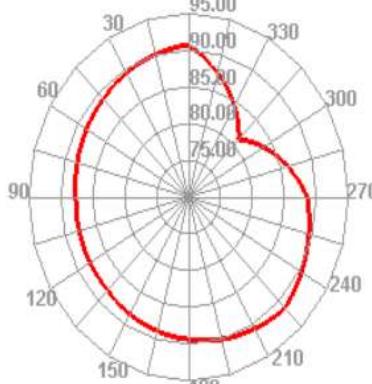
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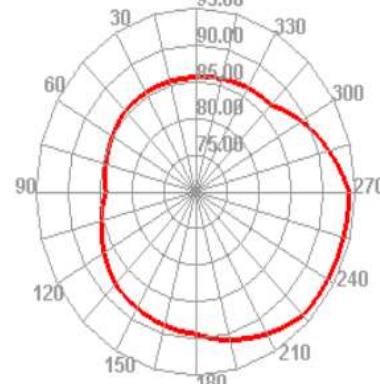
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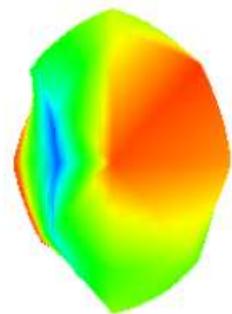


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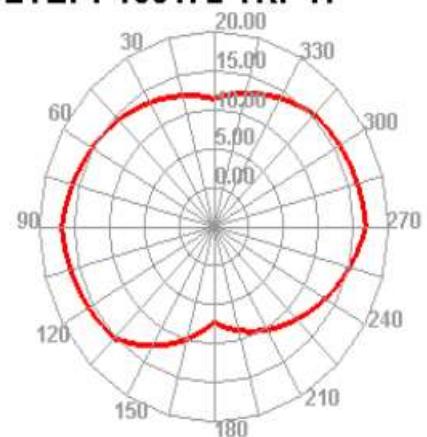


二十九 天线辐射苹果图

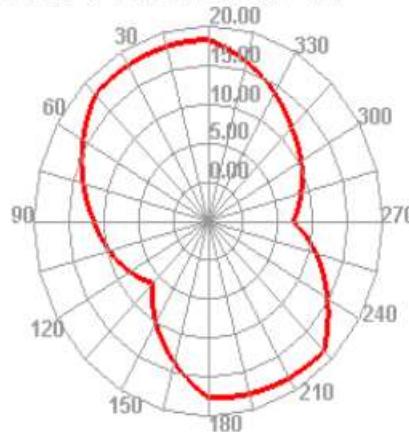
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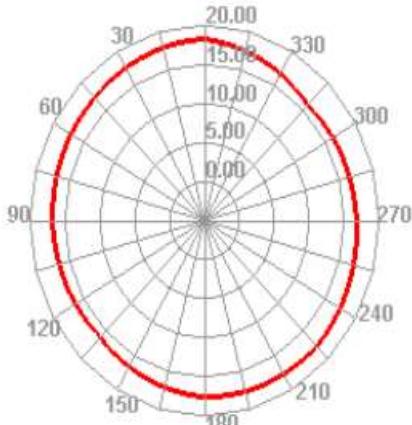
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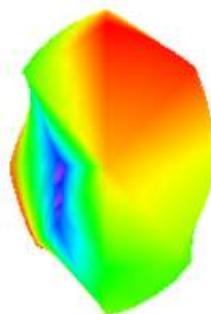
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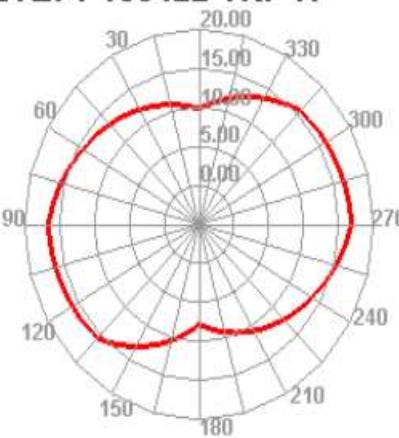
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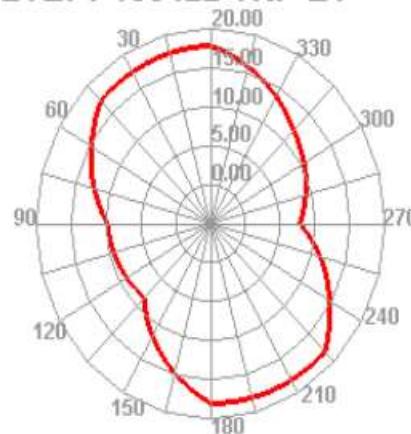
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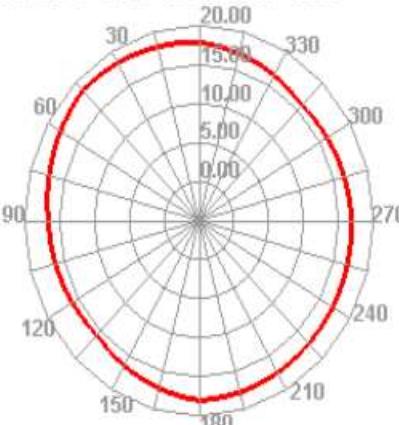
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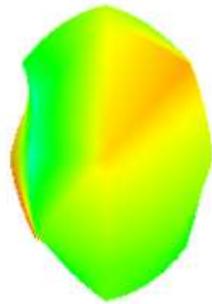


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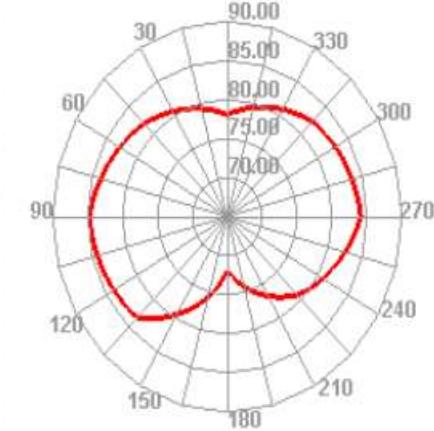


二十九 天线辐射苹果图

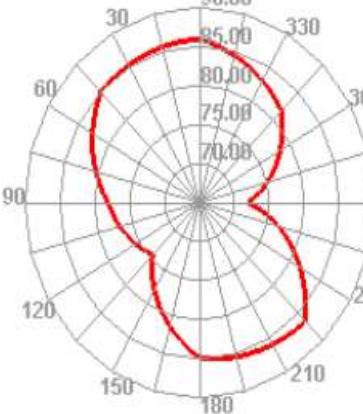
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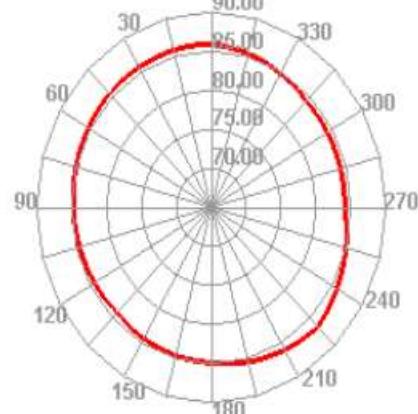
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LTE71 68886 TIS E1



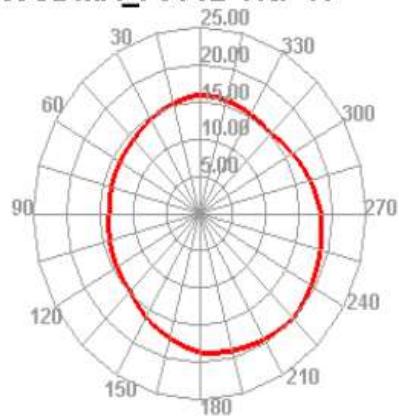
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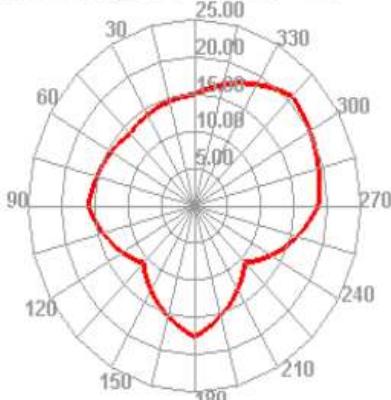
WCDMA_I 9612 TRP



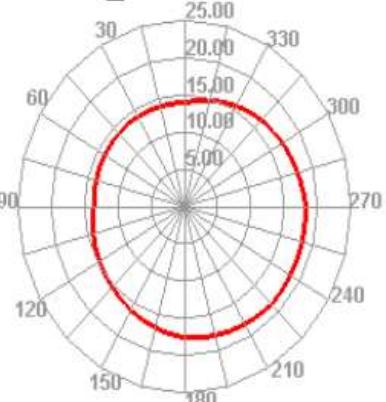
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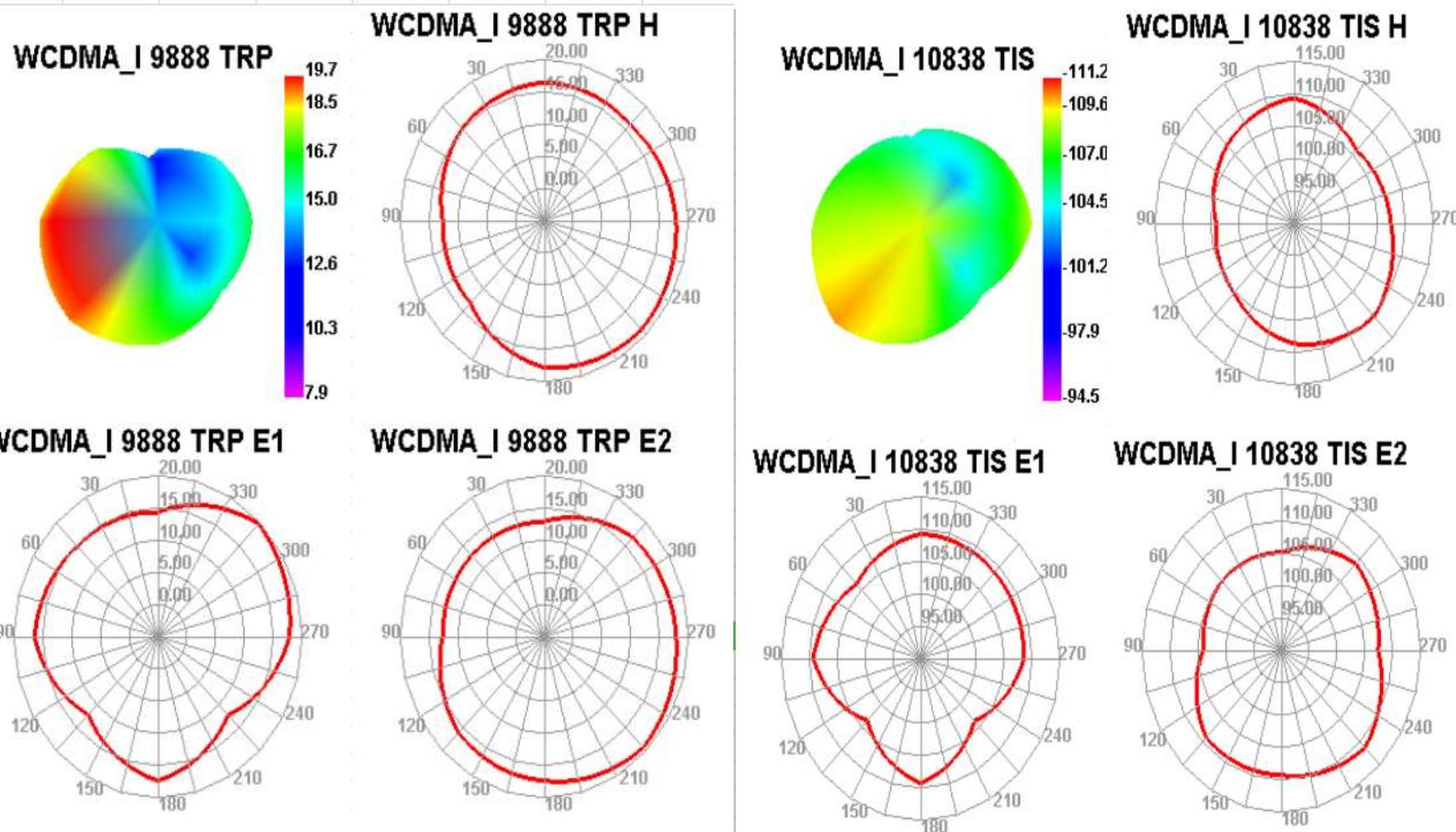
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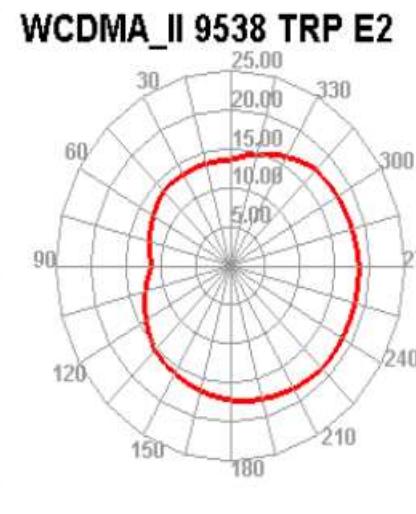
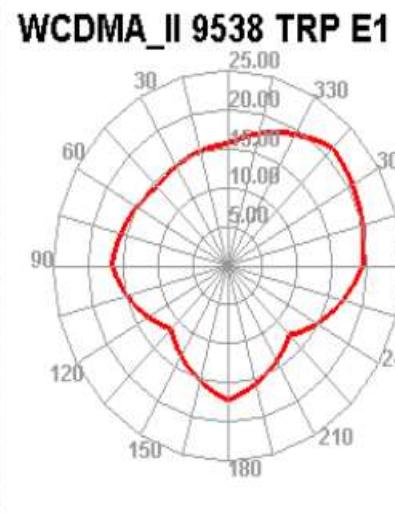
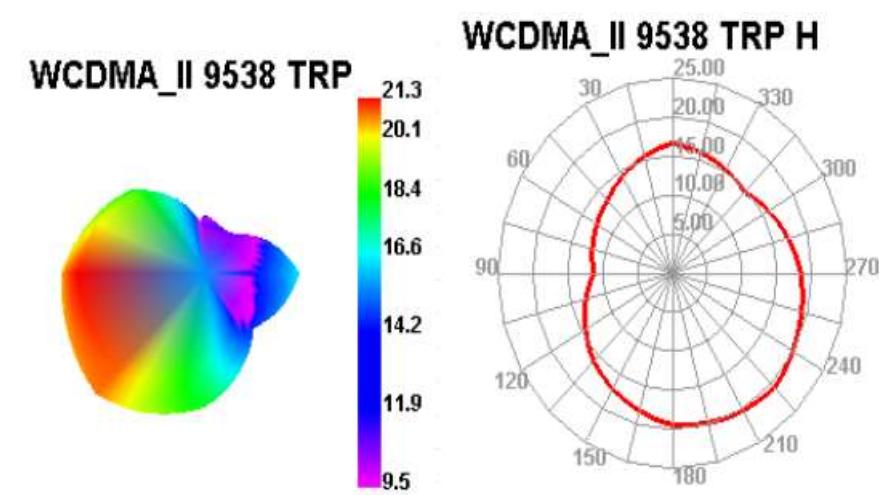
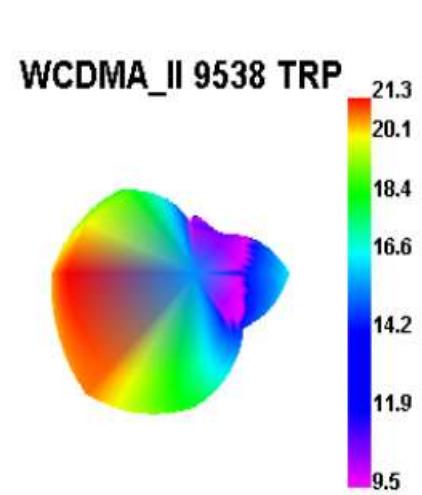
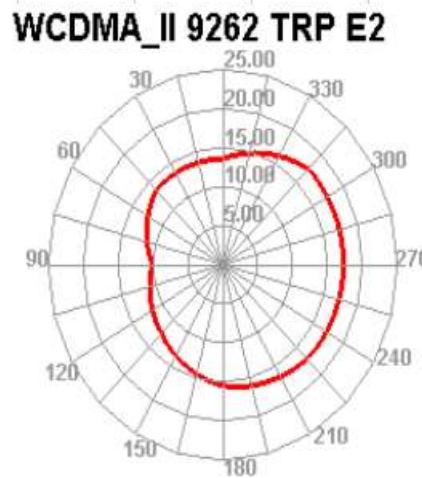
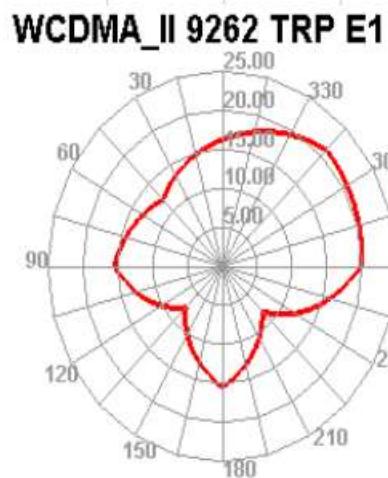
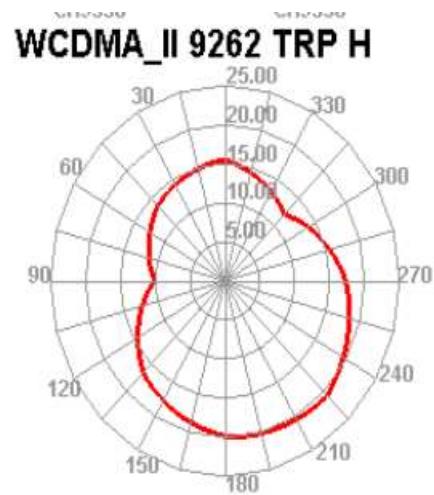
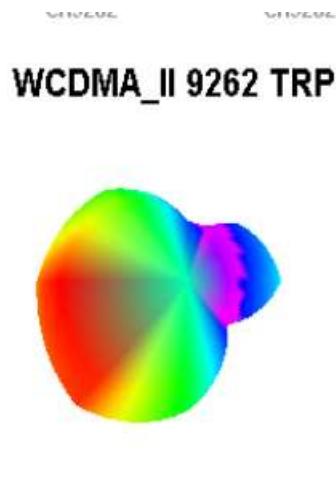
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二十九 天线辐射苹果图

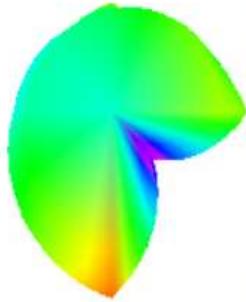


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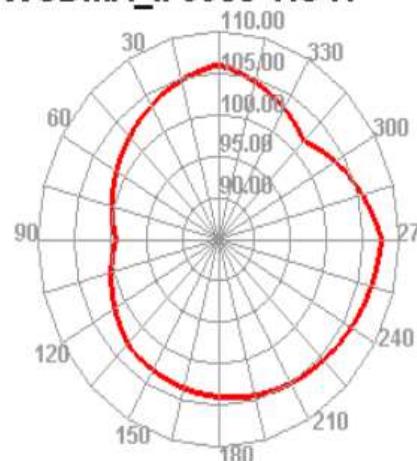
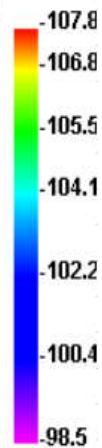


二十九 天线辐射苹果图

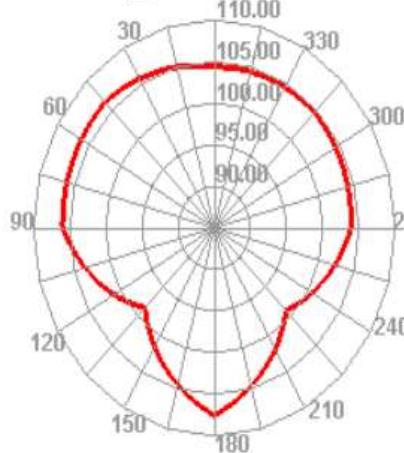
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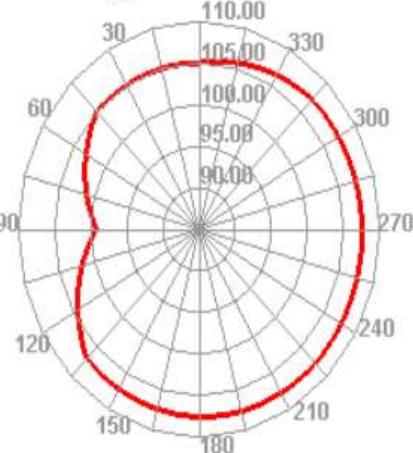
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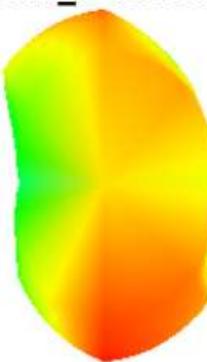
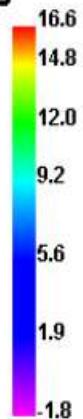
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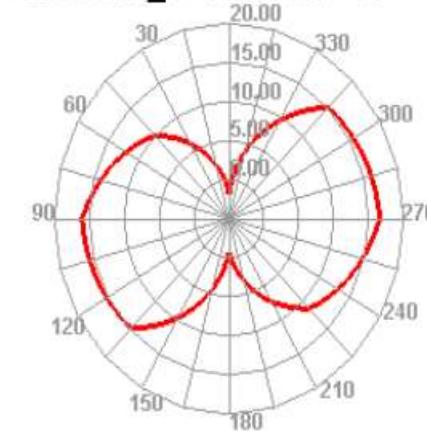
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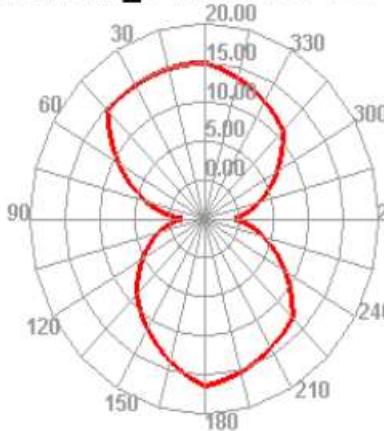
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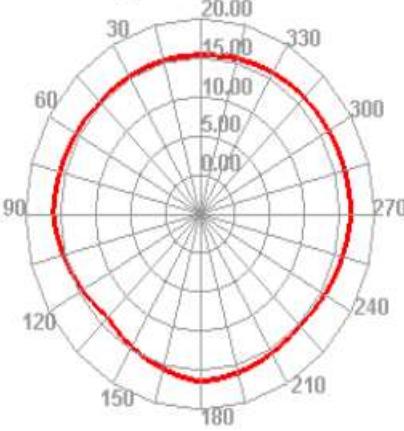
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WCDMA_V 4132 TRP E1

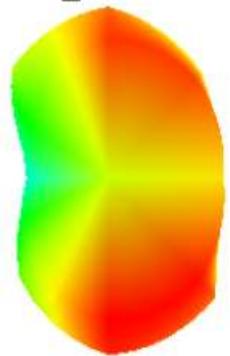


WCDMA_V 4132 TRP E2

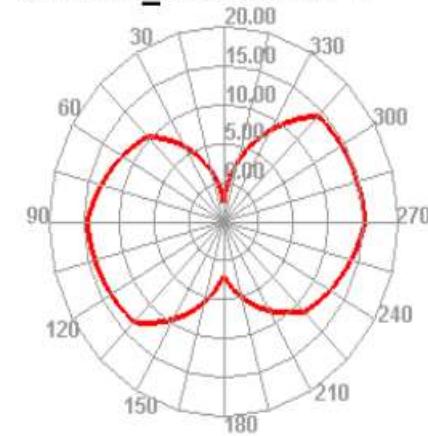


二十九 天线辐射苹果图

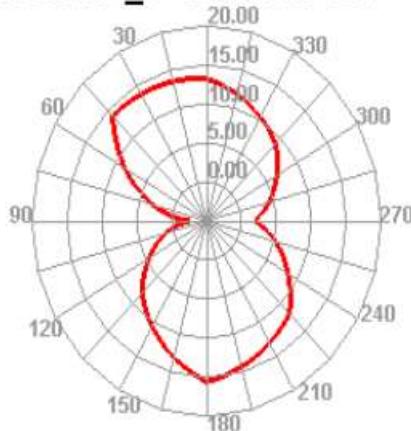
WCDMA_V 4233 TRP



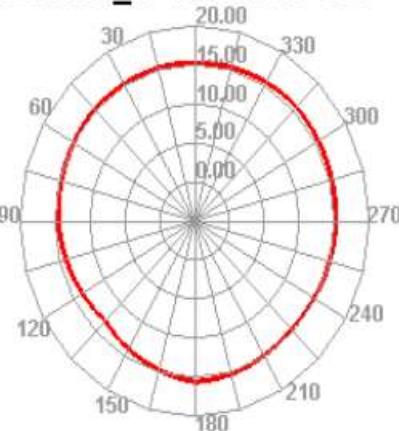
WCDMA_V 4233 TRP H



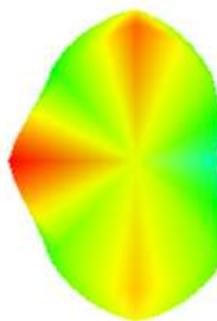
WCDMA_V 4233 TRP E1



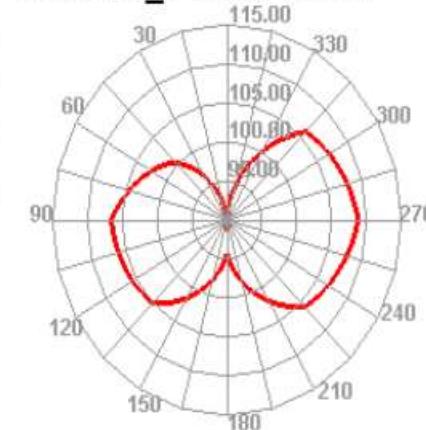
WCDMA_V 4233 TRP E2



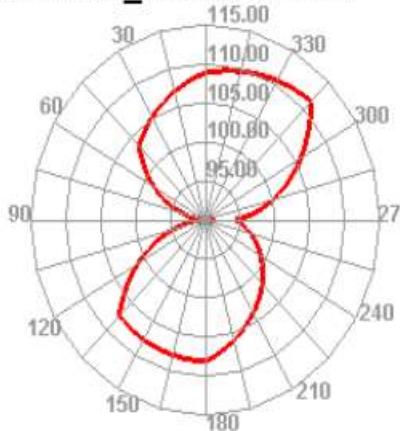
WCDMA_V 4458 TIS



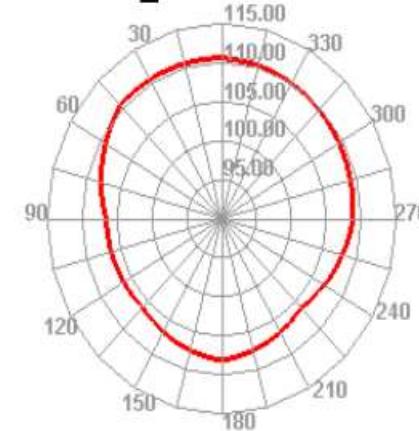
WCDMA_V 4458 TIS H



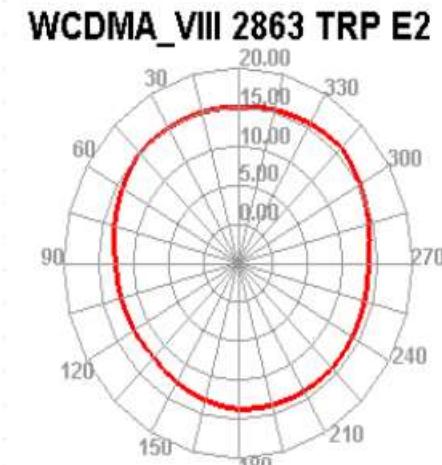
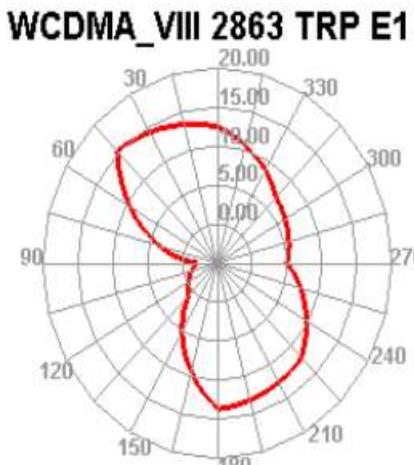
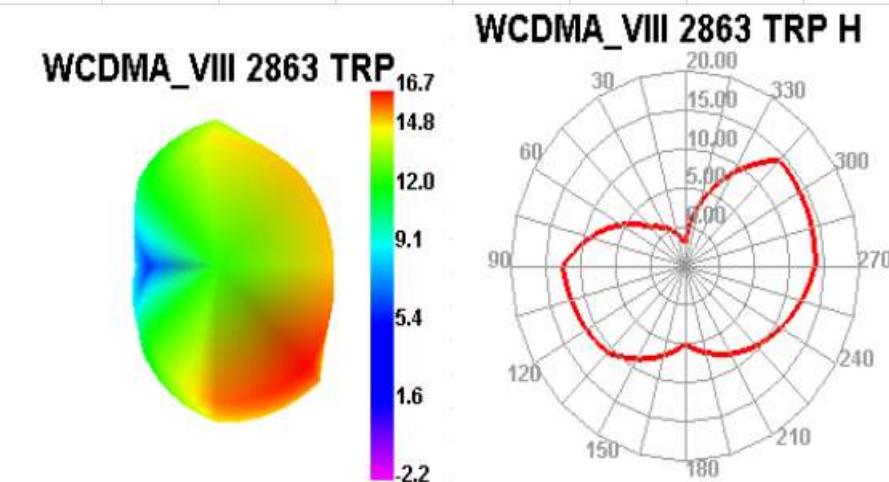
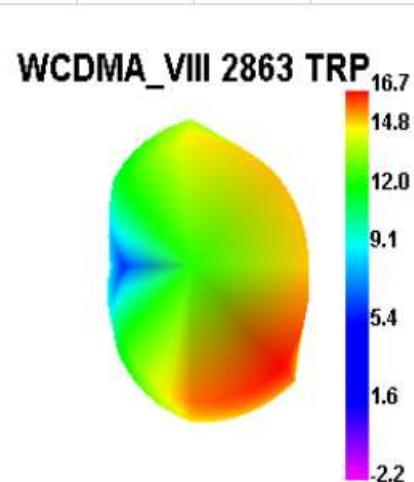
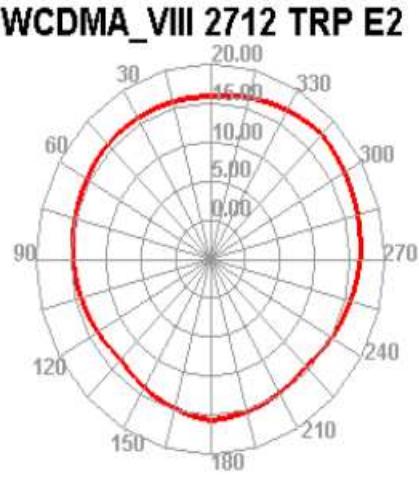
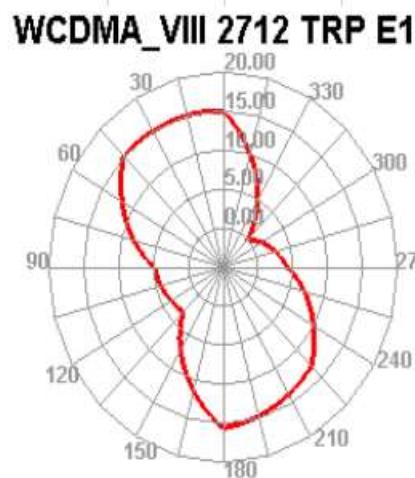
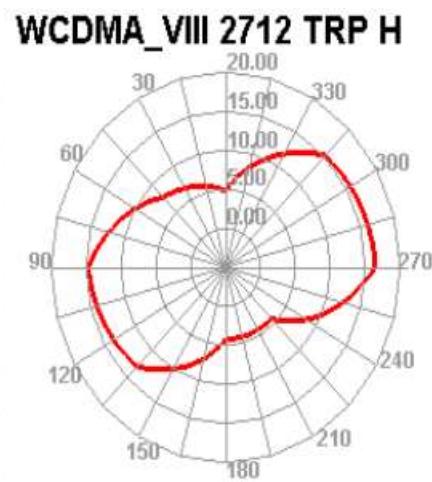
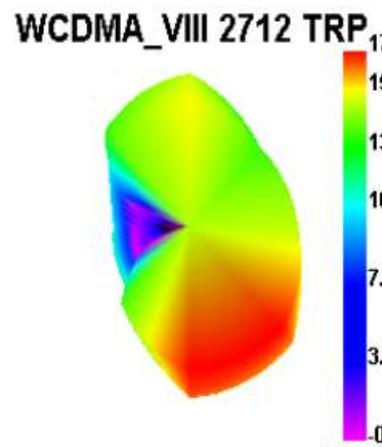
WCDMA_V 4458 TIS E1



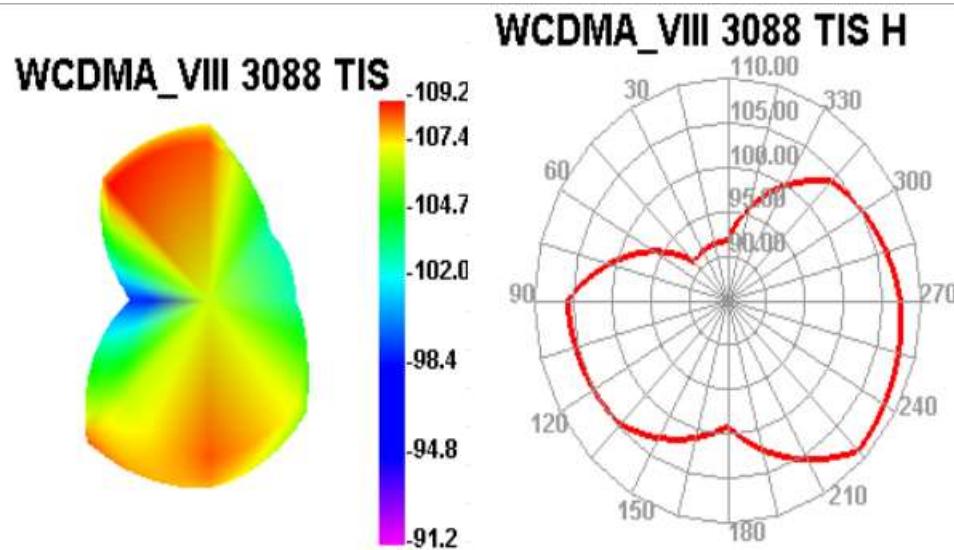
WCDMA_V 4458 TIS E2



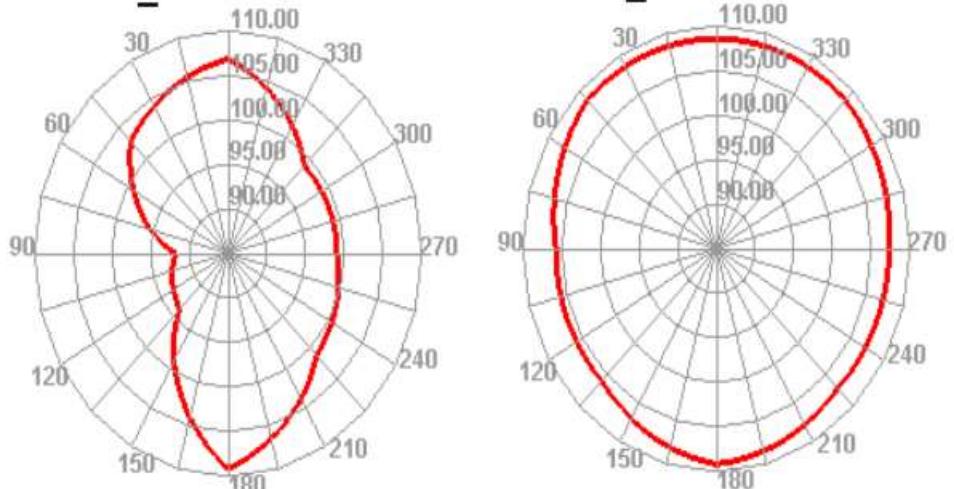
二十九 天线辐射苹果图



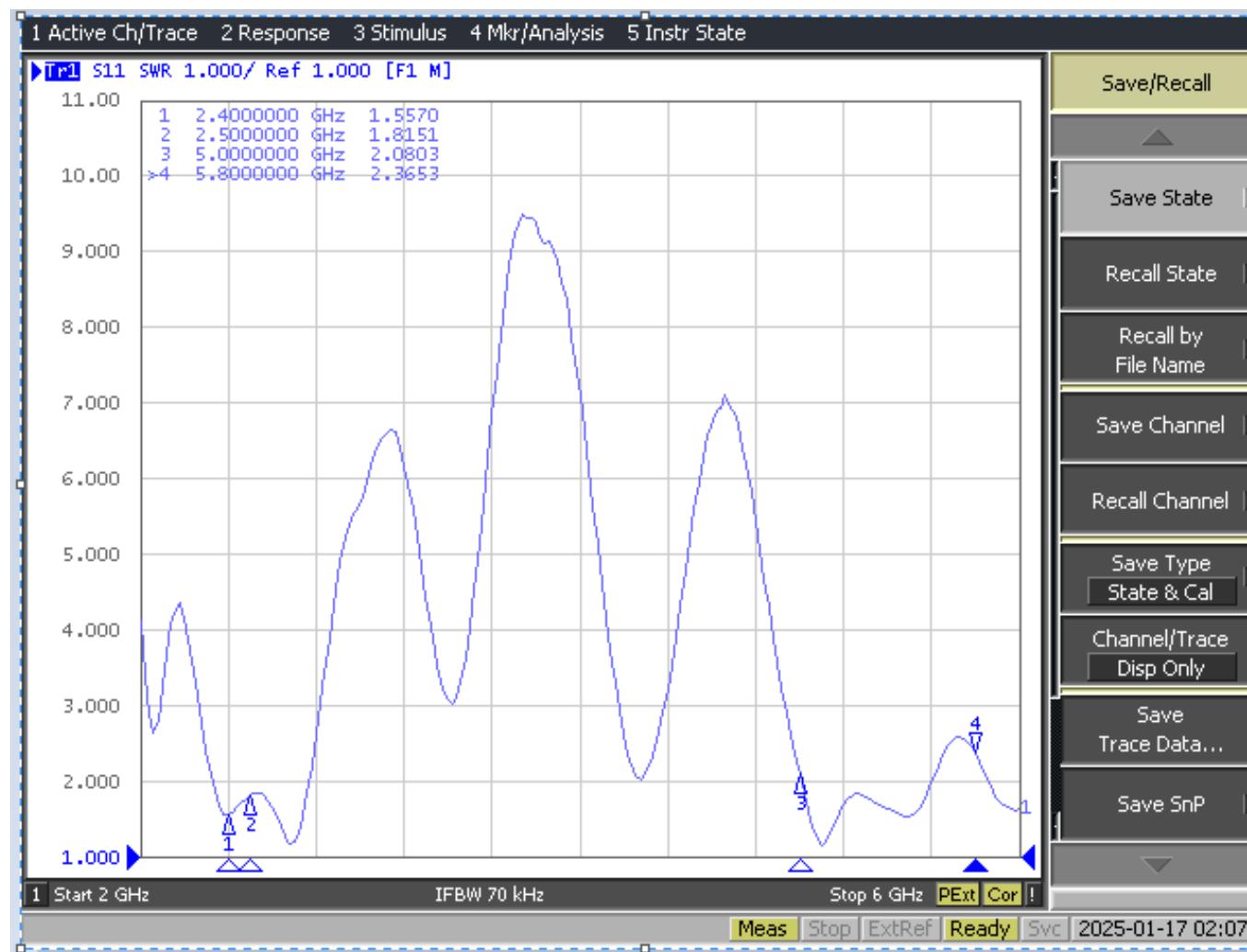
二十九 天线辐射苹果图



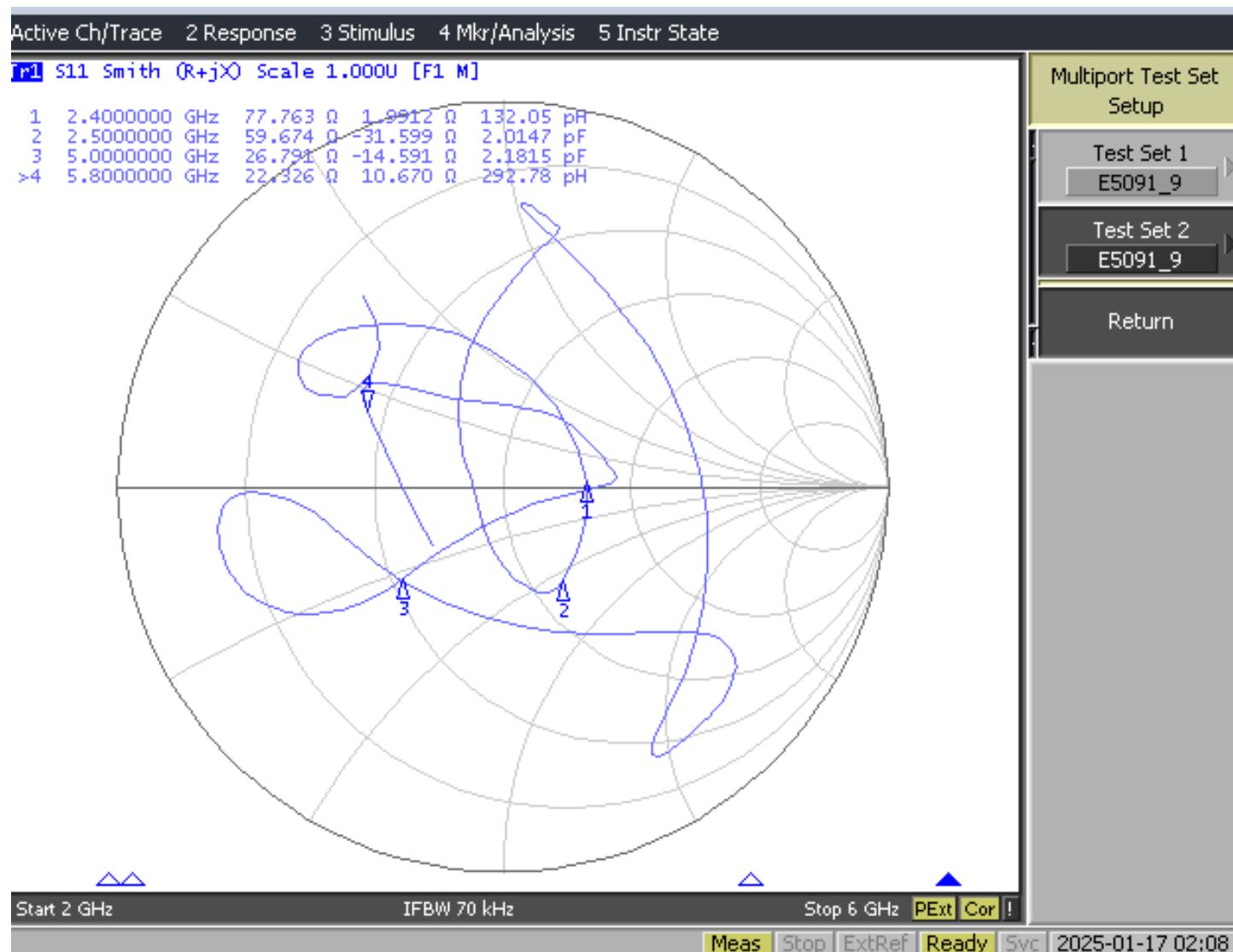
WCDMA_VIII 3088 TIS E1 WCDMA_VIII 3088 TIS E2



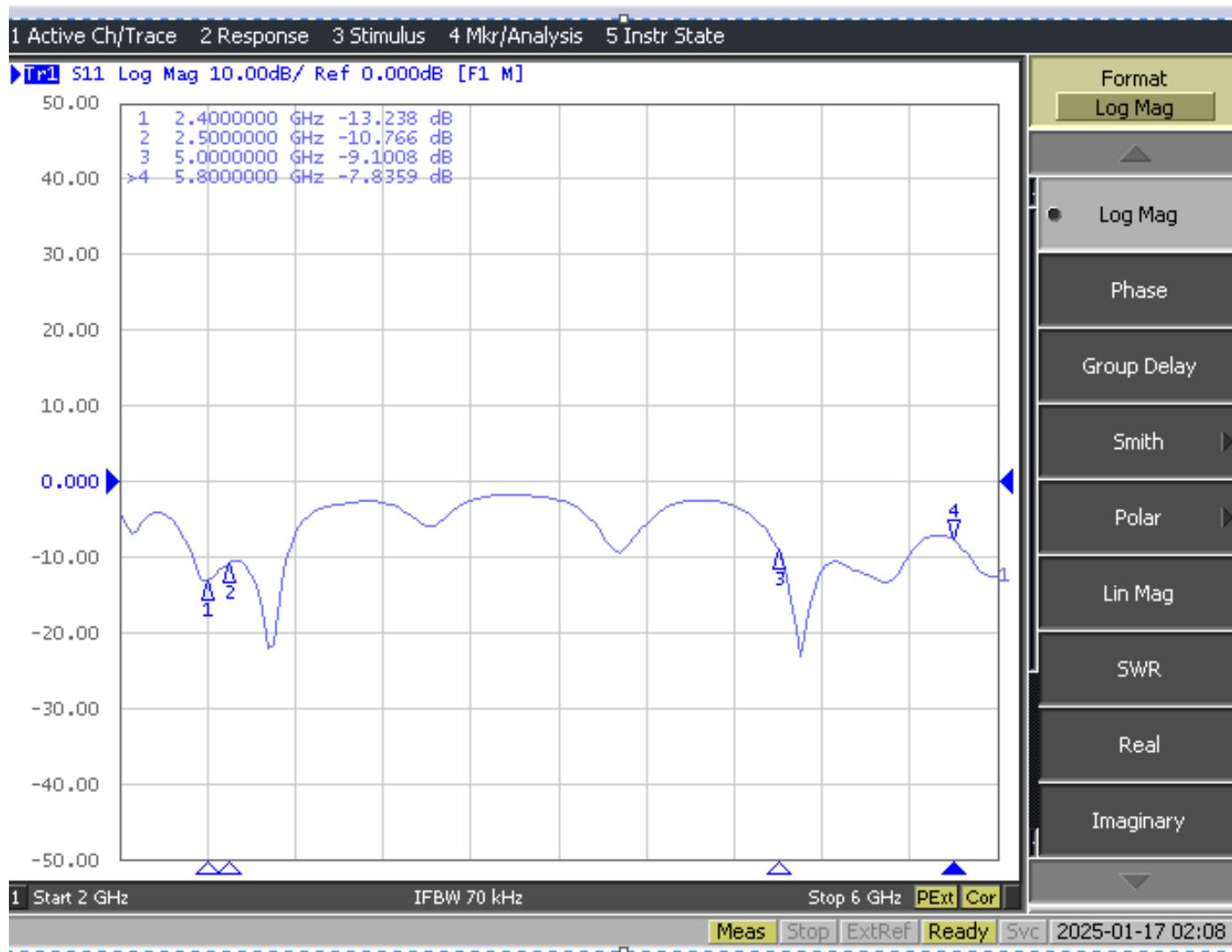
三十 WIFI天线无源驻波图



三十一 WIFI天线无源史密斯圆图



三十二 WIFI天线无源回波损耗图



三十三 WIFI天线无源增益效率

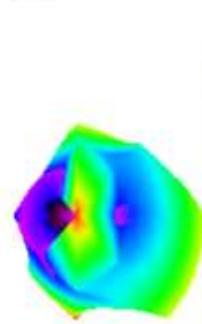
| Freq (MHz) | Effi (%) | Gain (dBi) | Freq (MHz) | Effi (%) | Gain (dBi) |
|---------------|-------------|---------------|---------------|-------------|---------------|
| 2400 | 45.88 | 1.35 | 5000 | 32.3 | 0 |
| 2410 | 45.88 | 1.09 | 5050 | 31.68 | -0.6 |
| 2420 | 48.26 | 1.17 | 5100 | 37.23 | -0.14 |
| 2430 | 50.46 | 1.35 | 5150 | 42.44 | 0.58 |
| 2440 | 53.94 | 1.68 | 5200 | 41.24 | 1.17 |
| 2450 | 58.51 | 2.06 | 5250 | 40.56 | 1.84 |
| 2460 | 58.35 | 2.02 | 5300 | 43.59 | 2.57 |
| 2470 | 56.6 | 1.83 | 5350 | 47.58 | 3.21 |
| 2480 | 62.8 | 2.34 | 5400 | 60.39 | 3.98 |
| 2490 | 66.56 | 2.63 | 5450 | 56.86 | 3.36 |
| 2500 | 68.91 | 2.87 | 5500 | 62.47 | 3.22 |
| | | | 5550 | 55.34 | 2.5 |
| | | | 5600 | 63.55 | 2.97 |
| | | | 5650 | 65.94 | 2.78 |
| | | | 5700 | 64.97 | 2.49 |
| | | | 5750 | 63.38 | 2.47 |
| | | | 5800 | 57.22 | 2.15 |
| | | | 5850 | 64.87 | 3 |
| | | | 5900 | 57.67 | 2.9 |

三十四 WIFI天线测试数据

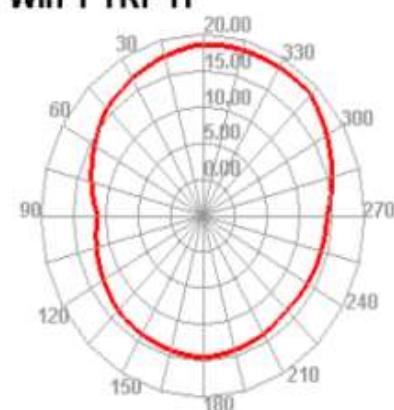
| Band | | TRP/ TIS | L | M | H | |
|-----------------------|------------|-------------|--------|--------|---------|--|
| 2. 4G | 11b (11M) | TRP | 15. 55 | 15. 73 | 16. 01 | |
| | | TIS | | | -83. 27 | |
| | 11g (54M) | TRP | 12. 52 | 12. 64 | 12. 71 | |
| | | TIS | | | -71. 27 | |
| | 11n (MCS7) | TRP | 12. 16 | 12. 23 | 11. 96 | |
| | | TIS | | | -66. 49 | |
| 5. 8G WIFI (A-54M) | | TRP | 12. 39 | 12. 51 | 12. 22 | |
| | | TIS | | | -71. 35 | |

三十五 天线辐射苹果图

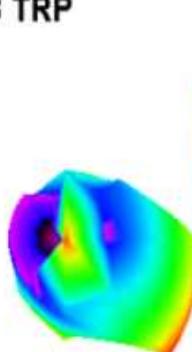
Wifi 1 TRP



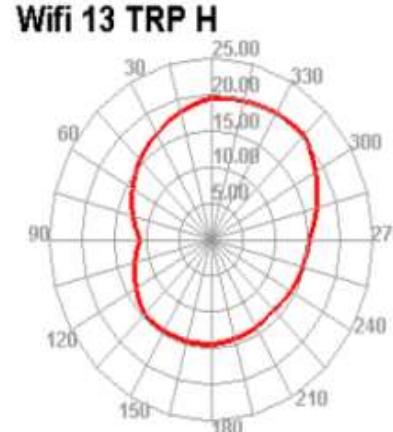
Wifi 1 TRP H



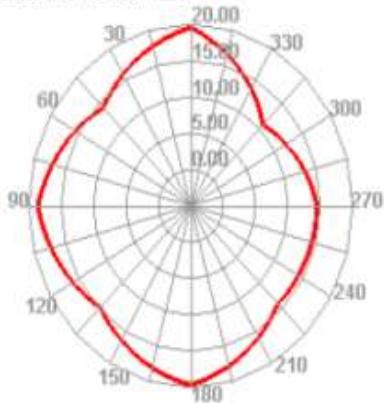
Wifi 13 TRP



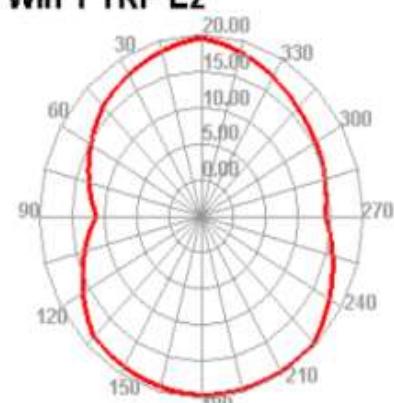
Wifi 13 TRP H



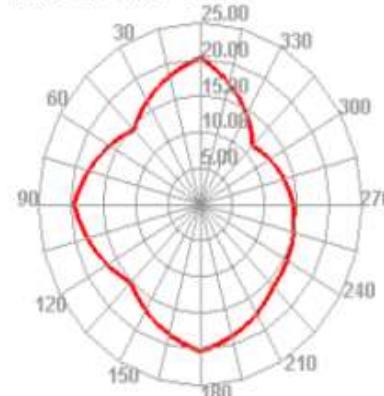
Wifi 1 TRP E1



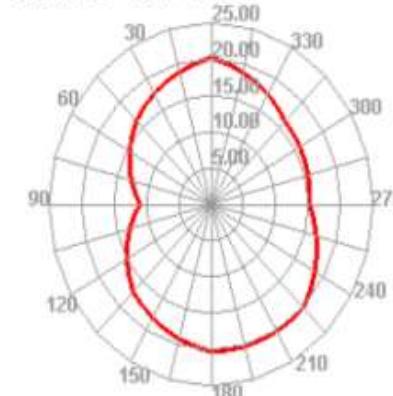
Wifi 1 TRP E2



Wifi 13 TRP E1

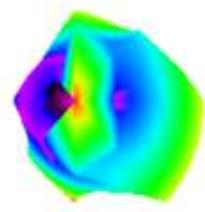


Wifi 13 TRP E2

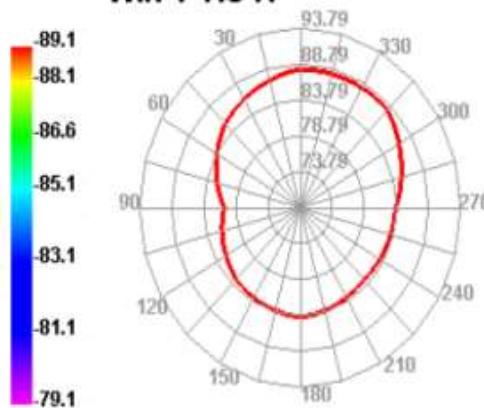


三十五 天线辐射苹果图

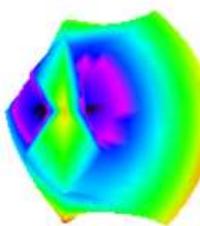
Wifi 1 TIS



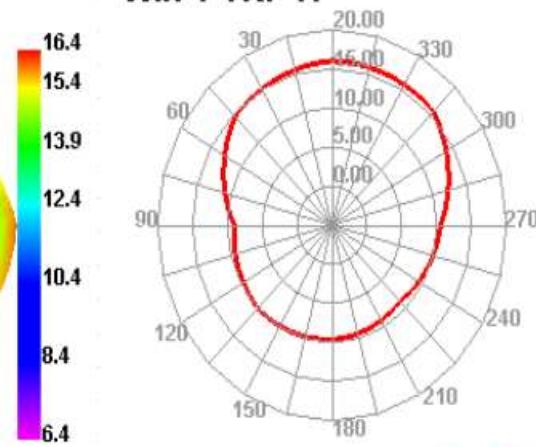
Wifi 1 TIS H



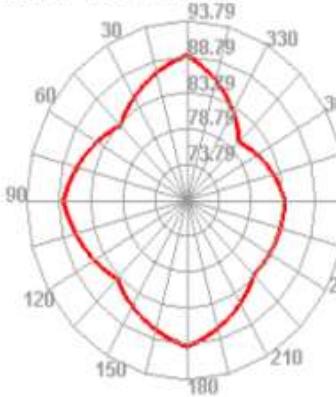
Wifi 1 TRP



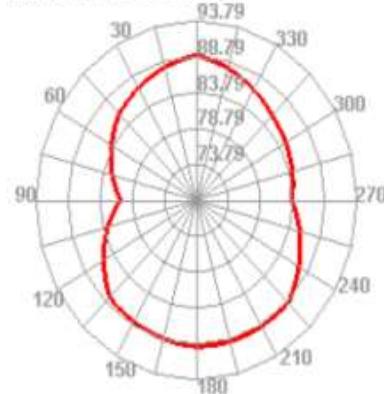
Wifi 1 TRP H



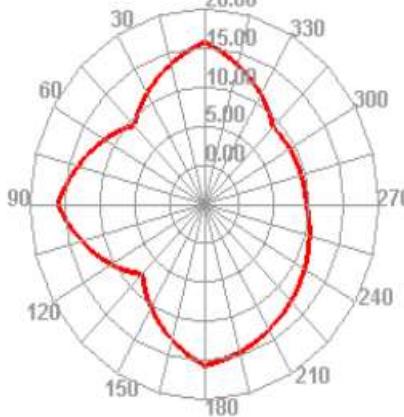
Wifi 1 TIS E1



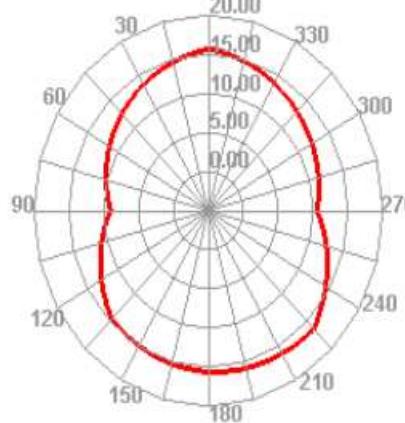
Wifi 1 TIS E2



Wifi 1 TRP E1



Wifi 1 TRP E2

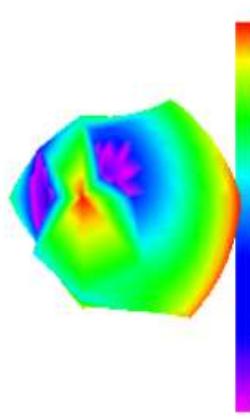


11B

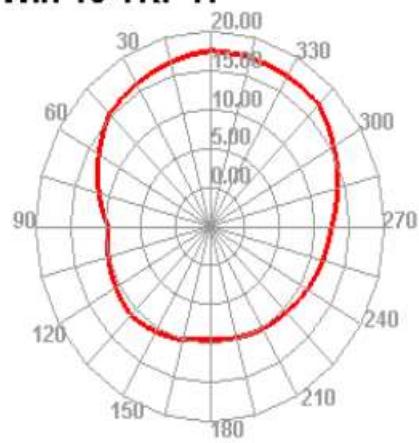
11G

三十五 天线辐射苹果图

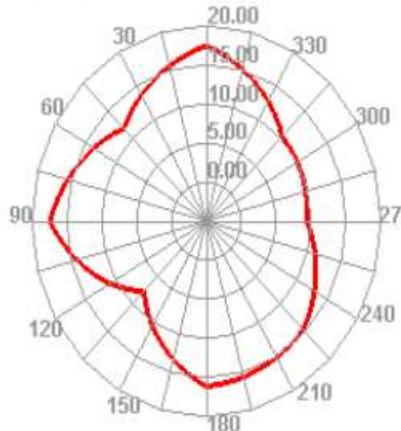
Wifi 13 TRP



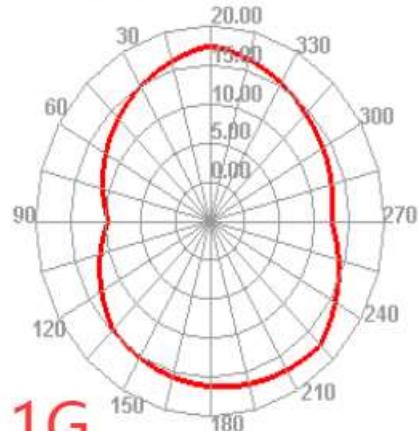
Wifi 13 TRP H



Wifi 13 TRP E1

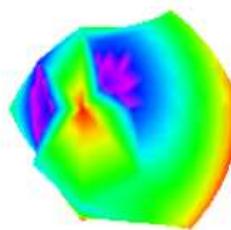


Wifi 13 TRP E2

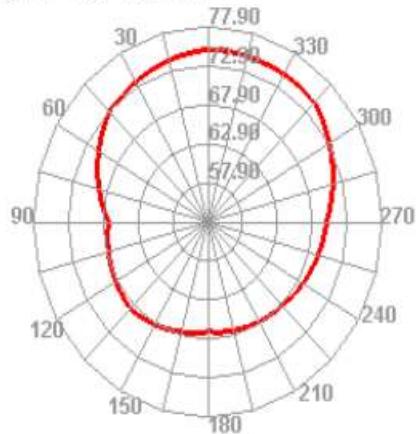


11G

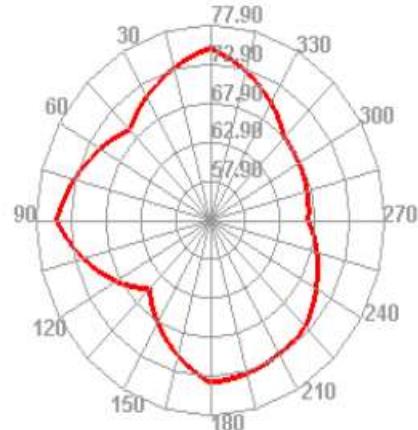
Wifi 13 TIS



Wifi 13 TIS H

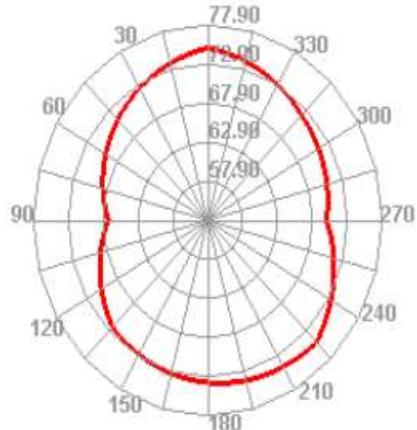


Wifi 13 TIS E1

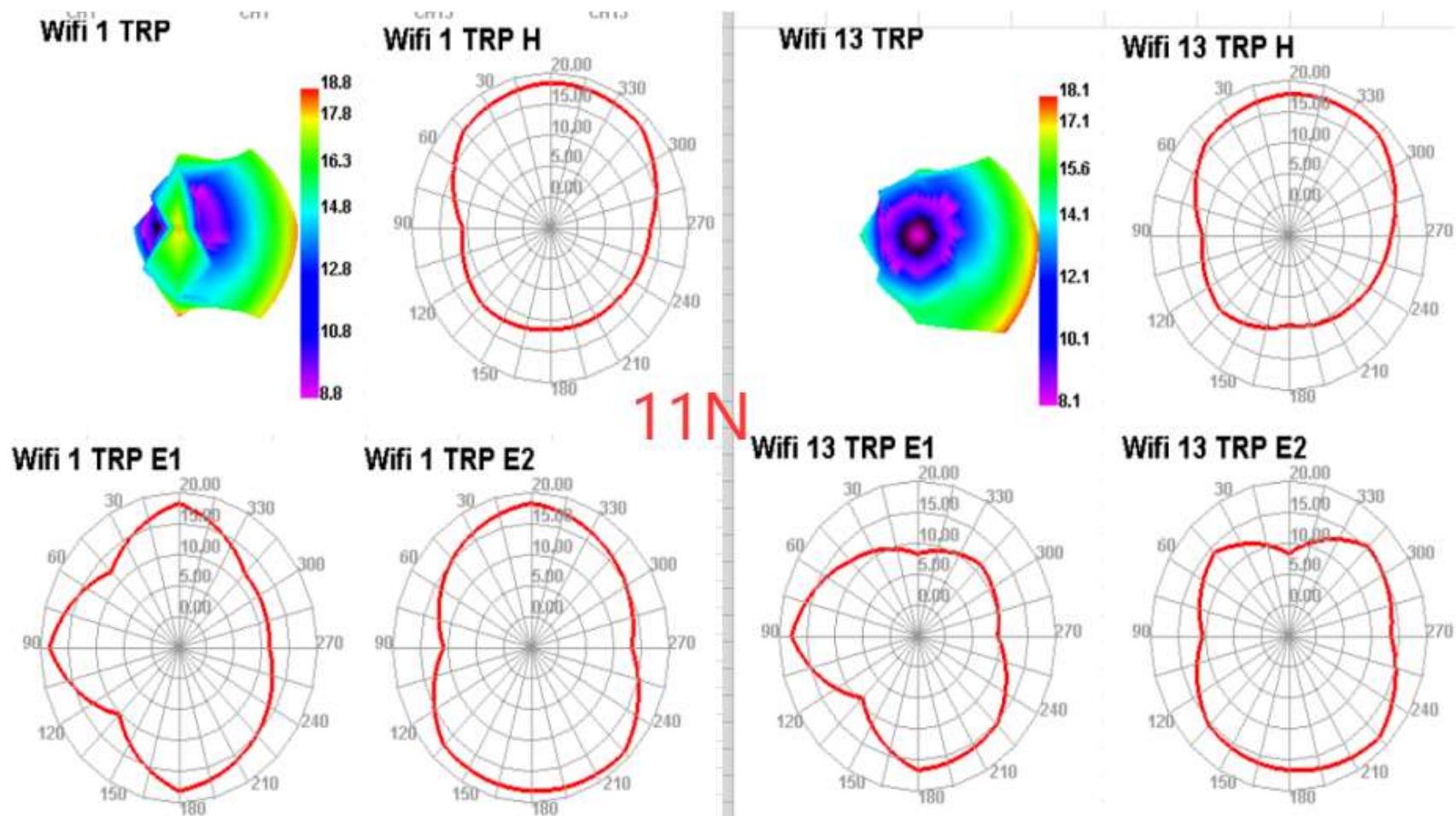


11G

Wifi 13 TIS E2

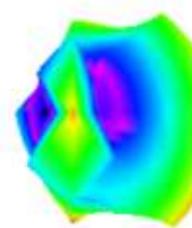


三十五 天线辐射苹果图



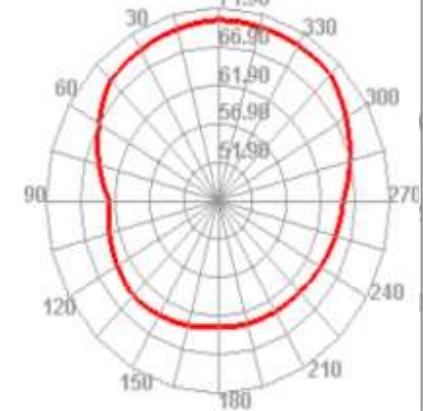
三十五 天线辐射苹果图

Wifi 1 TIS

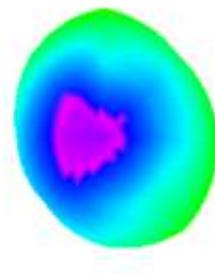


11N

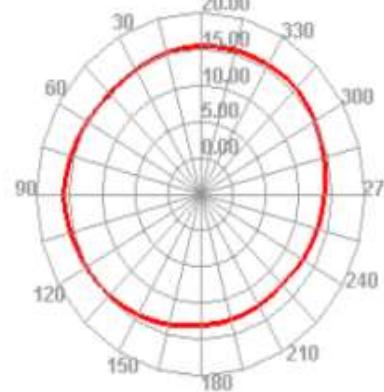
Wifi 1 TIS H



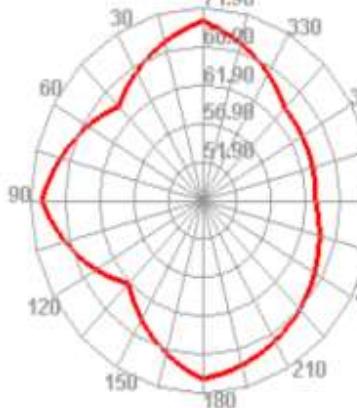
Wifi 36 TRP



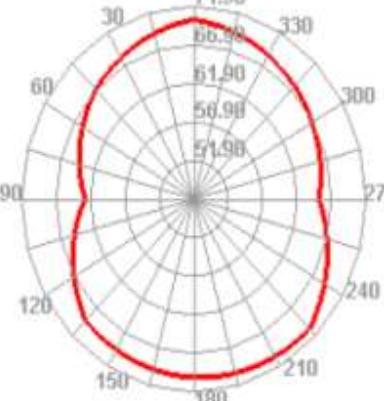
Wifi 36 TRP H



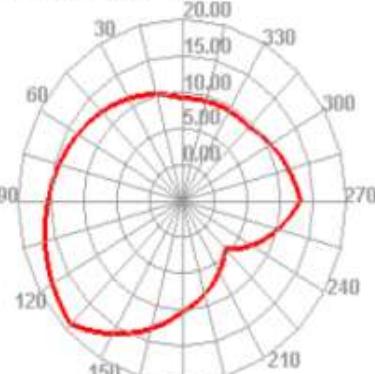
Wifi 1 TIS E1



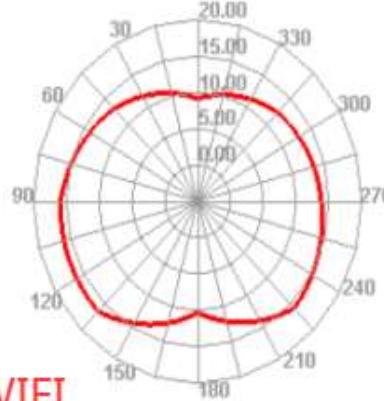
Wifi 1 TIS E2



Wifi 36 TRP E1



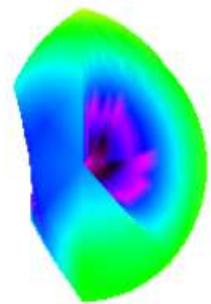
Wifi 36 TRP E2



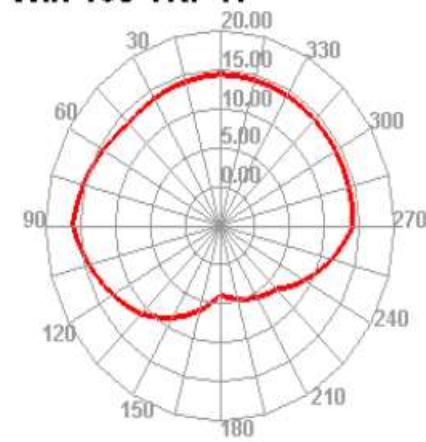
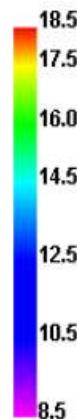
5G WIFI

三十五 天线辐射苹果图

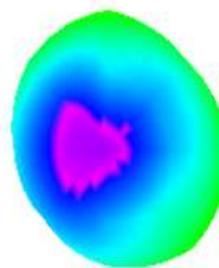
Wifi 165 TRP



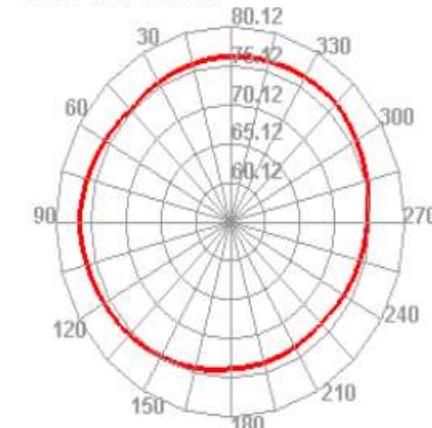
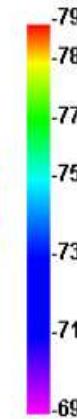
Wifi 165 TRP H



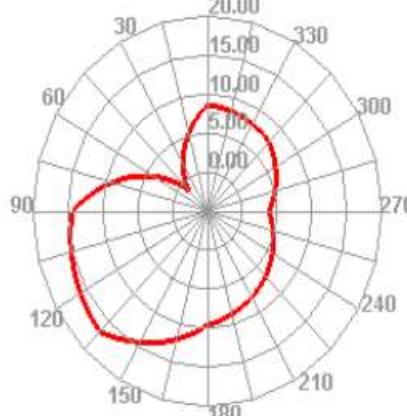
Wifi 36 TIS



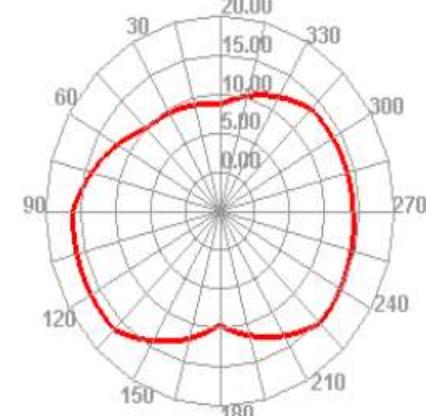
Wifi 36 TIS H



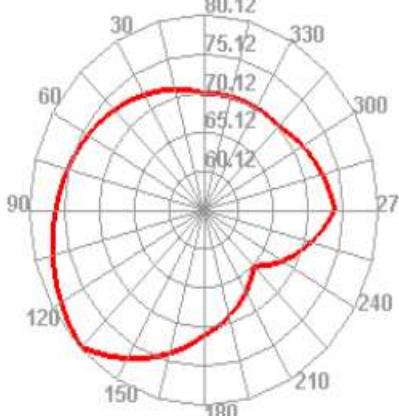
Wifi 165 TRP E1



Wifi 165 TRP E2



Wifi 36 TIS E1



Wifi 36 TIS E2

