

Антенa RADION multi band v4

варіант 20240517 (дивіться на зворотній стороні антени)

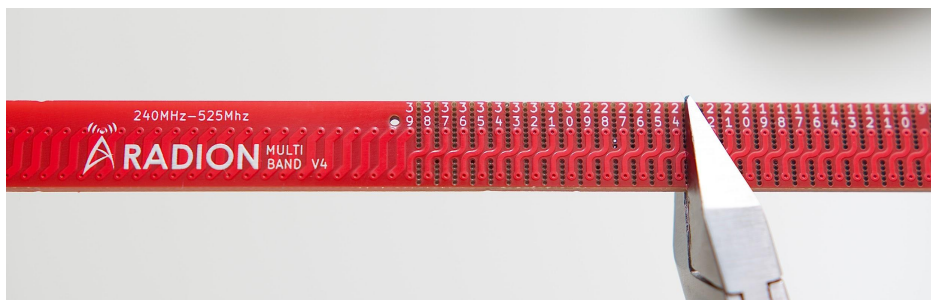
VSWR 1.01..1.07 Ширина діапазону: 5..7 Mhz

Таблиця відповідності частоти та узгодження

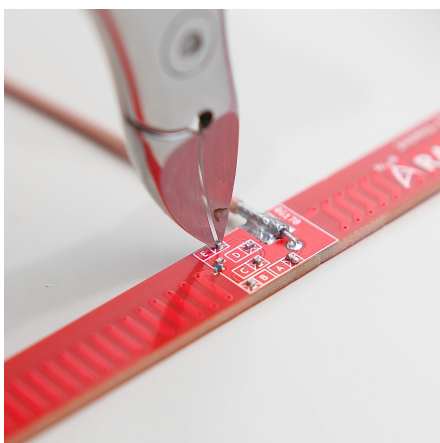
Частота	Відріз	A	B	C	D	E
240	0					
243	1					
247	2					
250	3					
253	4					
257	5					
261	6					
265	7					
270	8					
274	9					
279	10					
283	11					
288	12		X			
293	13		X			
299	14		X			
304	16		X			
310	17	X	X			

Частота	Відріз	A	B	C	D	E
316	18		X	X		
322	19		X	X		
328	20		X	X		
335	21		X	X		
342	22		X	X		
349	23		X	X		
356	24		X	X	X	
364	25		X	X	X	
372	26		X	X	X	
381	27		X	X	X	
390	28		X	X	X	
399	29		X	X	X	X
409	30		X	X	X	X
419	31		X	X	X	X
430	32	X	X	X	X	X
455	34	X	X	X	X	X
468	35	X	X	X	X	X

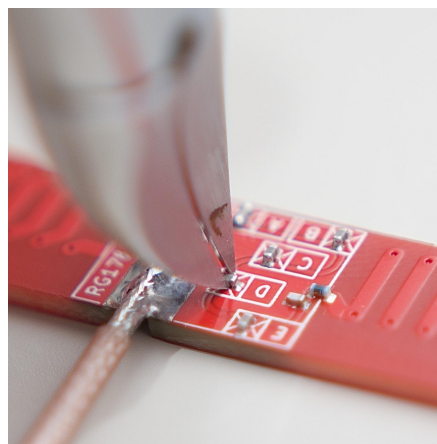
- 1) Знайдіть потрібну частоту та обріжте антену згідно вказаної відмітки. Відмітка має залишитись на антені.
- 2) Якщо в полі A,B,C,D,E стоїть хрестик - за допомогою тонких бокорізів обережно перекусіть керамічний конденсатор. Якщо стоїть хрестик в декількох полях - перекусіть всі відмічені.



Для прикладу, на малюнку - відріз на відмітці 24



Використовуйте прецизійні бокорізи



Для прикладу, перекусити D

Radion Dipole LF V4

Версія 20240517 (дивіться на зворотній стороні антени)

Заміри зроблені з антени, встановленої на дроні. Поляризація вертикальна. Кабель RG316 SMA, довжина 15см

Характеристики антени можуть мінятися в залежності від конструкції дрона, способу встановлення, поляризації, типу конектора, довжини та типу кабелю.

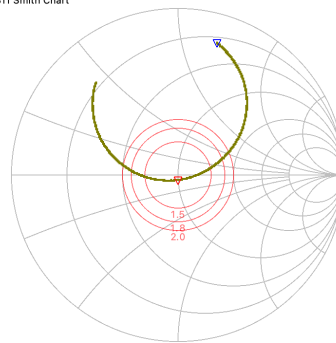
Label 0

Marker 1

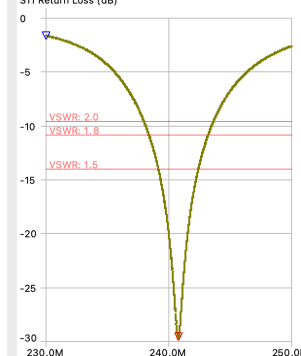
Frequency: 240.794 MHz
Impedance: $49.9-j3.32 \Omega$
Series L: -2.1943 nH
Series C: 199.1 pF
Parallel R: 50.141Ω
Parallel X: 876.65 fF

VSWR: 1.069
Return loss: -29.573 dB
Quality factor: 0.067
S11 Phase: -89.48°
S21 Gain: -84.338 dB
S21 Phase: -68.17°

S11 Smith Chart



S11 Return Loss (dB)



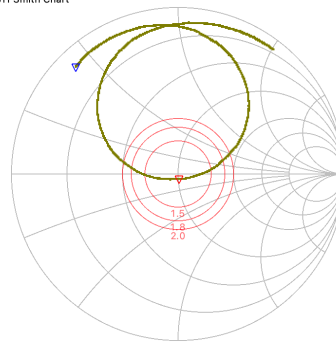
Label 1

Marker 1

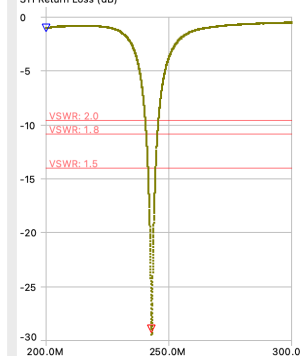
Frequency: 242.999 MHz
Impedance: $50.7-j3.51 \Omega$
Series L: -2.297 nH
Series C: 186.75 pF
Parallel R: 50.959Ω
Parallel X: 888.78 fF

VSWR: 1.074
Return loss: -28.991 dB
Quality factor: 0.069
S11 Phase: -76.46°
S21 Gain: -94.095 dB
S21 Phase: 142.59°

S11 Smith Chart



S11 Return Loss (dB)



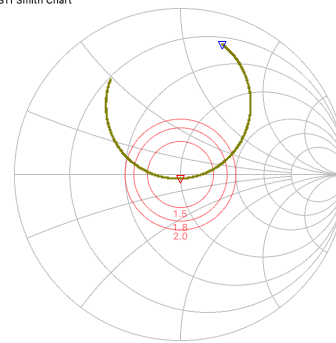
Label 2

Marker 1

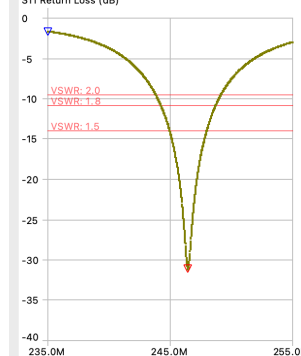
Frequency: 246.432 MHz
Impedance: $50.2-j2.75 \Omega$
Series L: -1.7781 nH
Series C: 234.58 pF
Parallel R: 50.367Ω
Parallel X: 703 fF

VSWR: 1.057
Return loss: -31.199 dB
Quality factor: 0.055
S11 Phase: -83.93°
S21 Gain: -86.658 dB
S21 Phase: 131.36°

S11 Smith Chart



S11 Return Loss (dB)



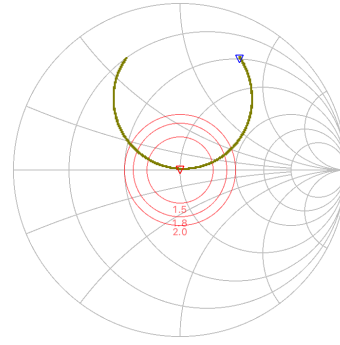
Label 3

Marker 1

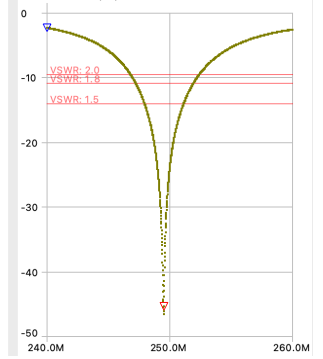
Frequency: 249.490 MHz
 Impedance: $50.1 + j521\text{m } \Omega$
 Series L: 332.63 pH
 Series C: -1.2234 nF
 Parallel R: 50.118Ω
 Parallel X: 3.0726 μH

VSWR: 1.011
 Return loss: -45.469 dB
 Quality factor: 0.01
 S11 Phase: 77.55°
 S21 Gain: -86.982 dB
 S21 Phase: -25.25°

S11 Smith Chart



S11 Return Loss (dB)



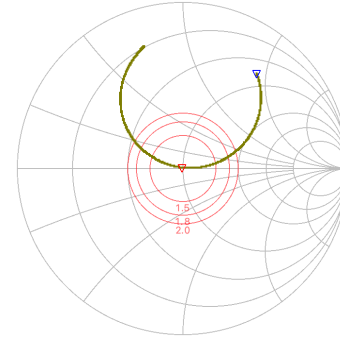
Label 4

Marker 1

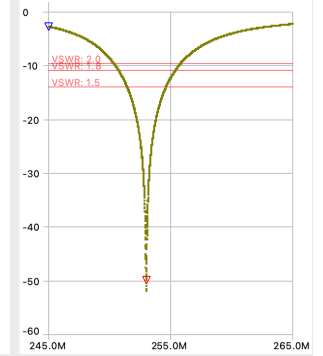
Frequency: 253.003 MHz
 Impedance: $50 + j318\text{m } \Omega$
 Series L: 200.15 pH
 Series C: -1.9771 nF
 Parallel R: 49.997Ω
 Parallel X: 4.9421 μH

VSWR: 1.006
 Return loss: -49.946 dB
 Quality factor: 0.006
 S11 Phase: 90.66°
 S21 Gain: -84.269 dB
 S21 Phase: 66.03°

S11 Smith Chart



S11 Return Loss (dB)



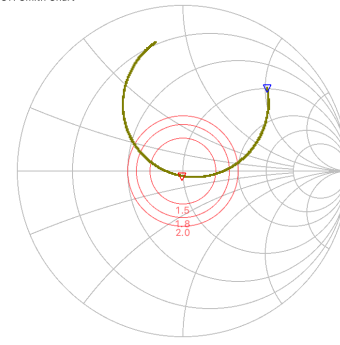
Label 5

Marker 1

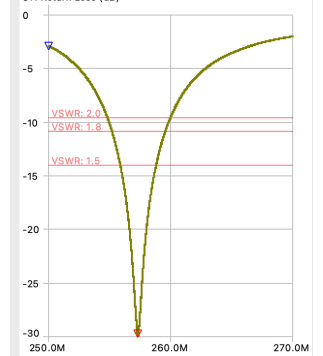
Frequency: 257.300 MHz
 Impedance: $49.4 - j3.18 \Omega$
 Series L: -1.9691 nH
 Series C: 194.31 pF
 Parallel R: 49.637Ω
 Parallel X: 802.52 fF

VSWR: 1.067
 Return loss: -29.761 dB
 Quality factor: 0.064
 S11 Phase: -98.29°
 S21 Gain: -100.664 dB
 S21 Phase: -54.28°

S11 Smith Chart



S11 Return Loss (dB)



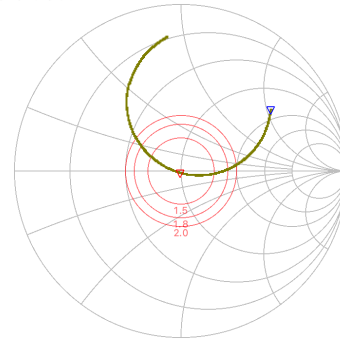
Label 6

Marker 1

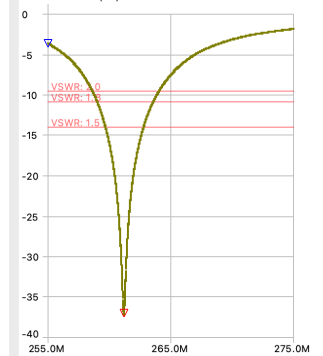
Frequency: 261.189 MHz
 Impedance: $49.5 - j1.28 \Omega$
 Series L: -781.22 pH
 Series C: 475.29 pF
 Parallel R: 49.493Ω
 Parallel X: 319.14 fF

VSWR: 1.028
 Return loss: -37.086 dB
 Quality factor: 0.026
 S11 Phase: -112.11°
 S21 Gain: -87.375 dB
 S21 Phase: 177.26°

S11 Smith Chart



S11 Return Loss (dB)



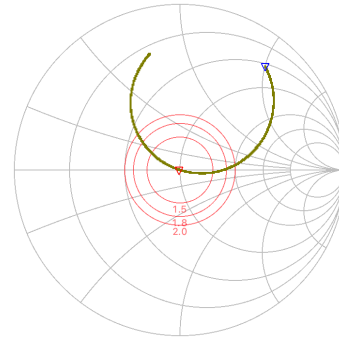
Label 7

Marker 1

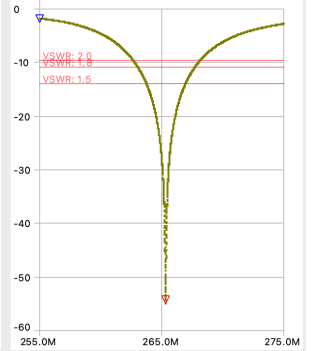
Frequency: 265.312 MHz
Impedance: $50-j189\text{m}\ \Omega$
Series L: $-113.49\ \text{pH}$
Series C: $3.1709\ \text{nF}$
Parallel R: $49.958\ \Omega$
Parallel X: $45.47\ \text{fF}$

VSWR: 1.004
Return loss: $-54.247\ \text{dB}$
Quality factor: 0.004
S11 Phase: -102.50°
S21 Gain: $-83.090\ \text{dB}$
S21 Phase: -104.95°

S11 Smith Chart



S11 Return Loss (dB)



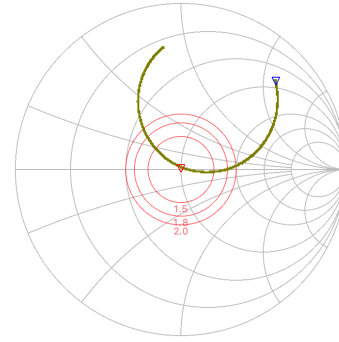
Label 8

Marker 1

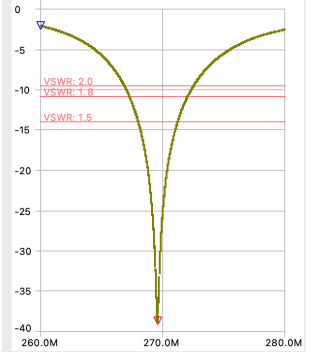
Frequency: 269.563 MHz
Impedance: $50.5+j1.05\ \Omega$
Series L: $621.74\ \text{pH}$
Series C: $-560.68\ \text{pF}$
Parallel R: $50.524\ \Omega$
Parallel X: $1.4306\ \mu\text{H}$

VSWR: 1.023
Return loss: $-38.706\ \text{dB}$
Quality factor: 0.021
S11 Phase: 63.92°
S21 Gain: $-94.688\ \text{dB}$
S21 Phase: -88.93°

S11 Smith Chart



S11 Return Loss (dB)



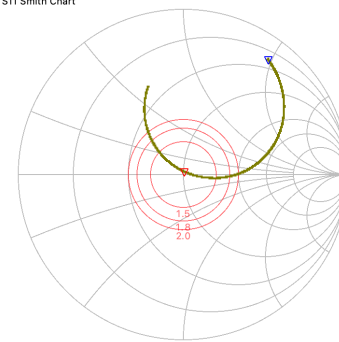
Label 9

Marker 1

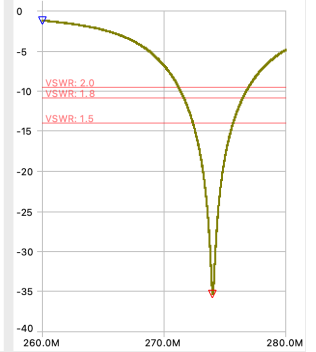
Frequency: 274.001 MHz
Impedance: $50.7+j1.58\ \Omega$
Series L: $917.21\ \text{pH}$
Series C: $-367.85\ \text{pF}$
Parallel R: $50.72\ \Omega$
Parallel X: $945.38\ \text{nH}$

VSWR: 1.035
Return loss: $-35.371\ \text{dB}$
Quality factor: 0.031
S11 Phase: 66.09°
S21 Gain: $-84.607\ \text{dB}$
S21 Phase: -70.24°

S11 Smith Chart



S11 Return Loss (dB)



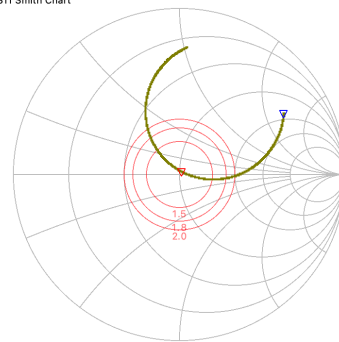
Label 10

Marker 1

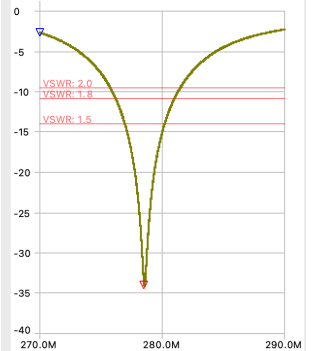
Frequency: 278.528 MHz
Impedance: $51.2+j1.65\ \Omega$
Series L: $944.1\ \text{pH}$
Series C: $-345.85\ \text{pF}$
Parallel R: $51.22\ \Omega$
Parallel X: $906.39\ \text{nH}$

VSWR: 1.041
Return loss: $-33.983\ \text{dB}$
Quality factor: 0.032
S11 Phase: 53.83°
S21 Gain: $-90.915\ \text{dB}$
S21 Phase: 131.87°

S11 Smith Chart



S11 Return Loss (dB)



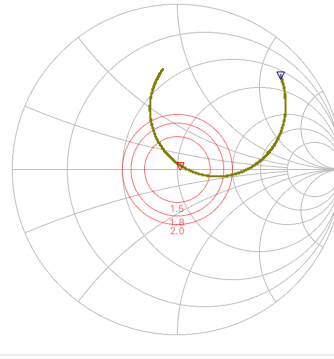
Label 11

Marker 1

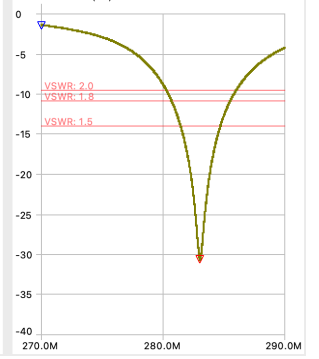
Frequency: 283.013 MHz
Impedance: $51.8 + j2.37 \Omega$
Series L: 1.3314 nH
Series C: -237.53 pF
Parallel R: 51.928Ω
Parallel X: 639.17 nH

VSWR: 1.060
Return loss: -30.656 dB
Quality factor: 0.046
S11 Phase: 51.12°
S21 Gain: -89.088 dB
S21 Phase: 42.77°

S11 Smith Chart



S11 Return Loss (dB)



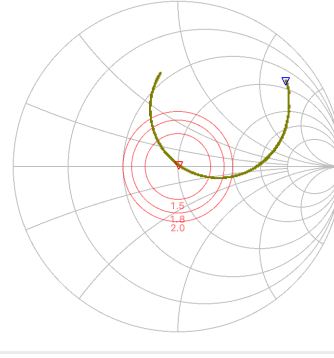
Label 12

Marker 1

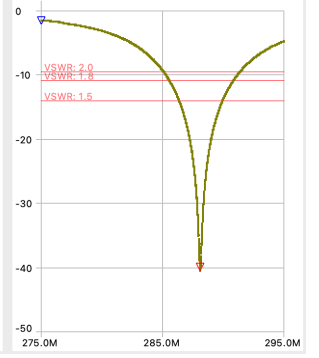
Frequency: 288.082 MHz
Impedance: $50.8 + j664m \Omega$
Series L: 366.62 pH
Series C: -832.51 pF
Parallel R: 50.763Ω
Parallel X: 2.1449 μ H

VSWR: 1.020
Return loss: -40.025 dB
Quality factor: 0.013
S11 Phase: 40.96°
S21 Gain: -87.326 dB
S21 Phase: 127.72°

S11 Smith Chart



S11 Return Loss (dB)



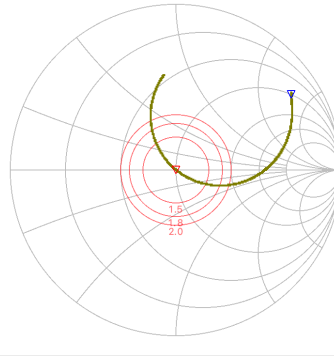
Label 13

Marker 1

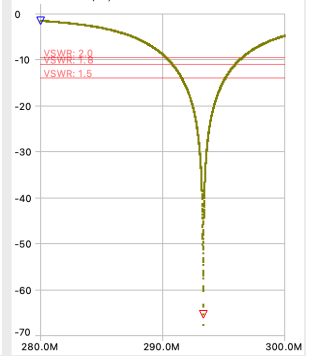
Frequency: 293.312 MHz
Impedance: $50 + j33.3m \Omega$
Series L: 18.073 pH
Series C: -16.291 nF
Parallel R: 50.042Ω
Parallel X: 40.796 μ H

VSWR: 1.001
Return loss: -65.376 dB
Quality factor: 0.001
S11 Phase: 38.17°
S21 Gain: -83.053 dB
S21 Phase: -27.95°

S11 Smith Chart



S11 Return Loss (dB)



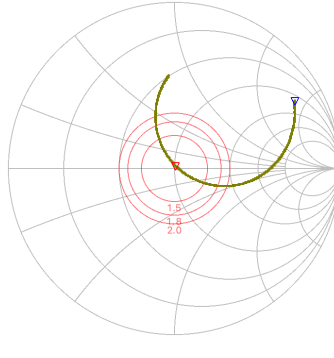
Label 14

Marker 1

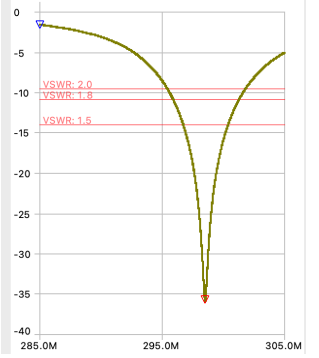
Frequency: 298.512 MHz
Impedance: $51.1 + j1.28 \Omega$
Series L: 684.8 pH
Series C: -415.1 pF
Parallel R: 51.083Ω
Parallel X: 1.0825 μ H

VSWR: 1.033
Return loss: -35.691 dB
Quality factor: 0.025
S11 Phase: 49.98°
S21 Gain: -89.503 dB
S21 Phase: 115.99°

S11 Smith Chart



S11 Return Loss (dB)



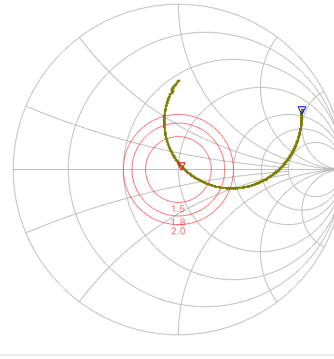
Label 16

Marker 1

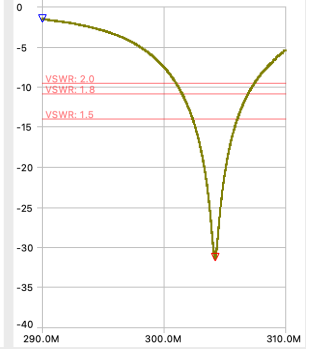
Frequency: 304.183 MHz
Impedance: $52+j1.91 \Omega$
Series L: 1.0007 nH
Series C: -273.57 pF
Parallel R: 52.118Ω
Parallel X: 742.08 nH

VSWR: 1.056
Return loss: -31.228 dB
Quality factor: 0.037
S11 Phase: 41.97°
S21 Gain: -85.303 dB
S21 Phase: -52.64°

S11 Smith Chart



S11 Return Loss (dB)



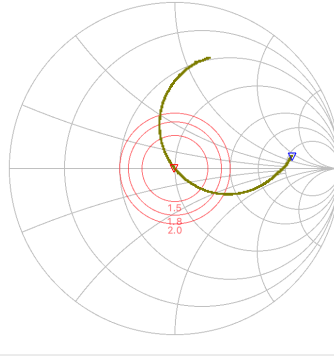
Label 17

Marker 1

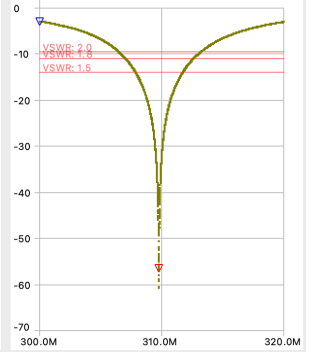
Frequency: 309.773 MHz
Impedance: $49.9+j72.7m \Omega$
Series L: 37.362 pH
Series C: -7.0652 nF
Parallel R: 49.87Ω
Parallel X: 17.571 μ H

VSWR: 1.003
Return loss: -56.521 dB
Quality factor: 0.001
S11 Phase: 150.76°
S21 Gain: -86.832 dB
S21 Phase: -26.21°

S11 Smith Chart



S11 Return Loss (dB)



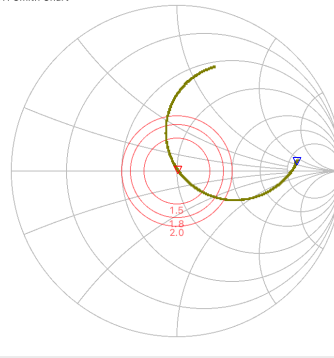
Label 18

Marker 1

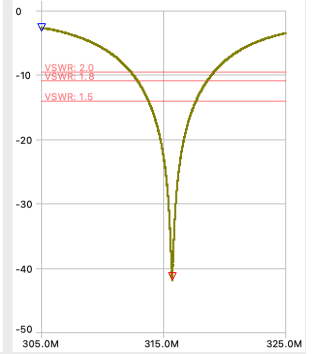
Frequency: 315.712 MHz
Impedance: $50.6+j636m \Omega$
Series L: 320.64 pH
Series C: -792.59 pF
Parallel R: 50.596Ω
Parallel X: 2.0286 μ H

VSWR: 1.017
Return loss: -41.302 dB
Quality factor: 0.013
S11 Phase: 46.90°
S21 Gain: -88.684 dB
S21 Phase: 17.24°

S11 Smith Chart



S11 Return Loss (dB)



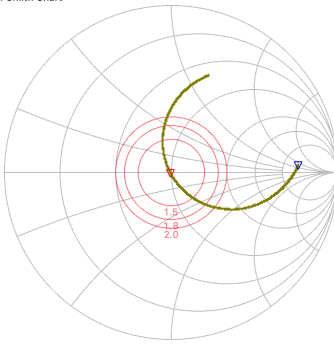
Label 19

Marker 1

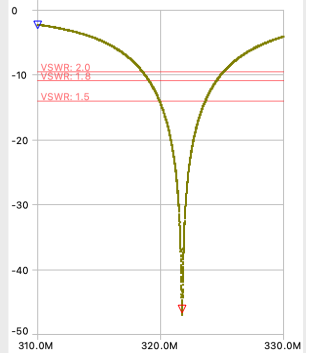
Frequency: 321.743 MHz
Impedance: $49.6-j259m \Omega$
Series L: -127.92 pH
Series C: 1.9129 nF
Parallel R: 49.586Ω
Parallel X: 52.024 fF

VSWR: 1.010
Return loss: -46.180 dB
Quality factor: 0.005
S11 Phase: -147.92°
S21 Gain: -80.879 dB
S21 Phase: -43.48°

S11 Smith Chart



S11 Return Loss (dB)



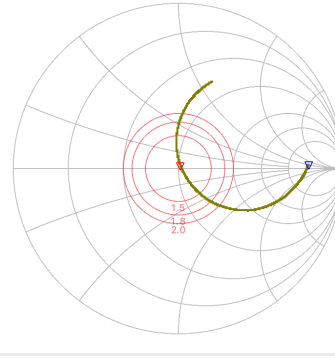
Label 20

Marker 1

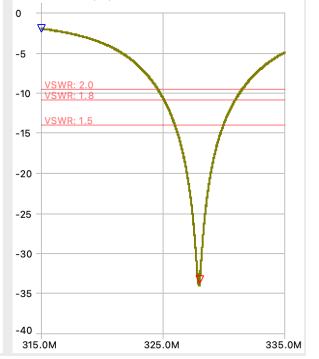
Frequency: 328.013 MHz
Impedance: $51.6 + j1.5 \Omega$
Series L: 727.87 pH
Series C: -323.45 pF
Parallel R: 51.634Ω
Parallel X: 861.6 nH

VSWR: 1.044
Return loss: -33.344 dB
Quality factor: 0.029
S11 Phase: 42.48°
S21 Gain: -83.090 dB
S21 Phase: -39.53°

S11 Smith Chart



S11 Return Loss (dB)



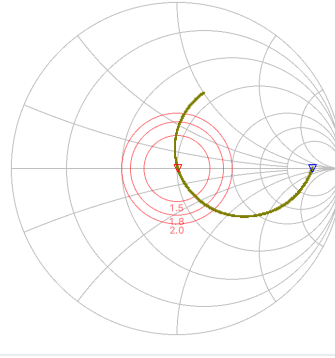
Label 21

Marker 1

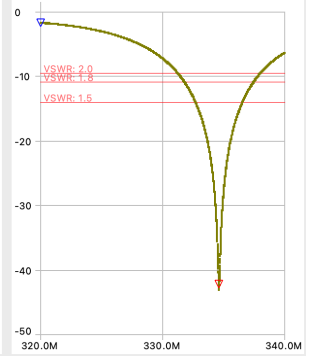
Frequency: 334.601 MHz
Impedance: $50.8 + j100 \text{ m}\Omega$
Series L: 47.579 pH
Series C: -4.7552 nF
Parallel R: 50.774Ω
Parallel X: 12.259 μH

VSWR: 1.016
Return loss: -42.225 dB
Quality factor: 0.002
S11 Phase: 7.31°
S21 Gain: -86.850 dB
S21 Phase: -119.05°

S11 Smith Chart



S11 Return Loss (dB)



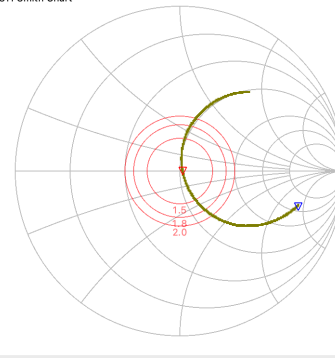
Label 22

Marker 1

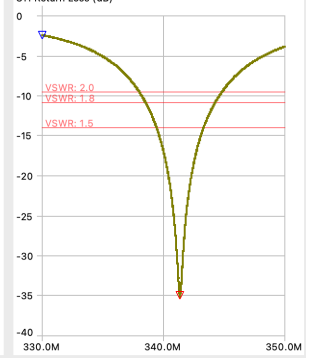
Frequency: 341.347 MHz
Impedance: $51.8 + j228 \text{ m}\Omega$
Series L: 106.4 pH
Series C: -2.0431 nF
Parallel R: 51.806Ω
Parallel X: 5.4833 μH

VSWR: 1.036
Return loss: -34.956 dB
Quality factor: 0.004
S11 Phase: 7.08°
S21 Gain: -86.638 dB
S21 Phase: -67.63°

S11 Smith Chart



S11 Return Loss (dB)



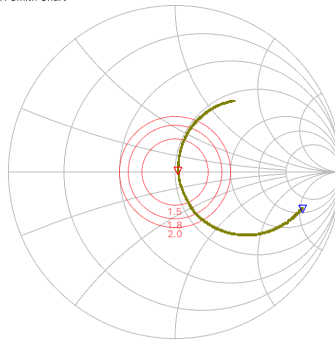
Label 23

Marker 1

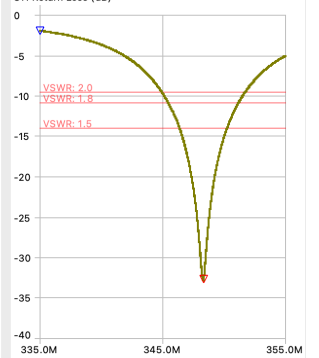
Frequency: 348.331 MHz
Impedance: $52.3 + j707 \text{ m}\Omega$
Series L: 323.13 pH
Series C: -646.06 pF
Parallel R: 52.262Ω
Parallel X: 1.7643 μH

VSWR: 1.047
Return loss: -32.731 dB
Quality factor: 0.014
S11 Phase: 17.03°
S21 Gain: -83.803 dB
S21 Phase: -0.52°

S11 Smith Chart



S11 Return Loss (dB)



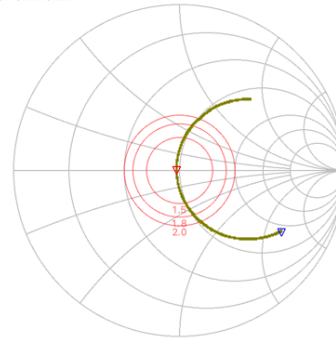
Label 24

Marker 1

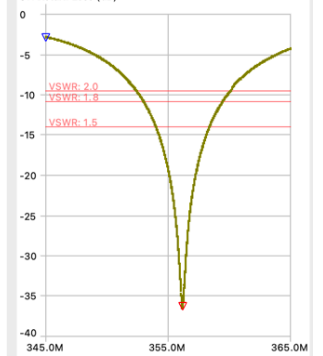
Frequency: 356.189 MHz
Impedance: $48.5+j141m \Omega$
Series L: 63.202 pH
Series C: -3.159 nF
Parallel R: 48.494 Ω
Parallel X: 7.4289 μ H

VSWR: 1.031
Return loss: -36.273 dB
Quality factor: 0.003
S11 Phase: 174.55°
S21 Gain: -81.194 dB
S21 Phase: 29.53°

S11 Smith Chart



S11 Return Loss (dB)



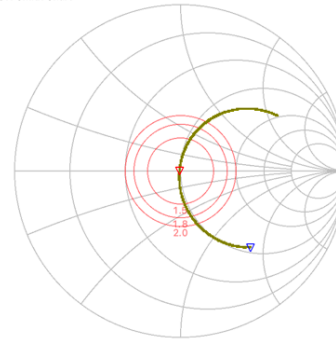
Label 25

Marker 1

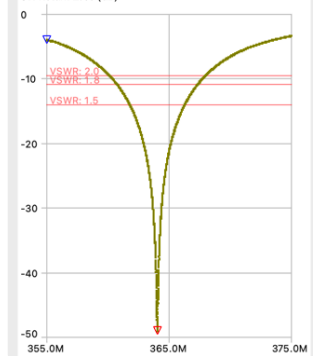
Frequency: 364.035 MHz
Impedance: $49.7+j38.9m \Omega$
Series L: 17.014 pH
Series C: -11.235 nF
Parallel R: 49.65 Ω
Parallel X: 27.695 μ H

VSWR: 1.007
Return loss: -49.036 dB
Quality factor: 0.001
S11 Phase: 173.63°
S21 Gain: -83.861 dB
S21 Phase: -137.67°

S11 Smith Chart



S11 Return Loss (dB)



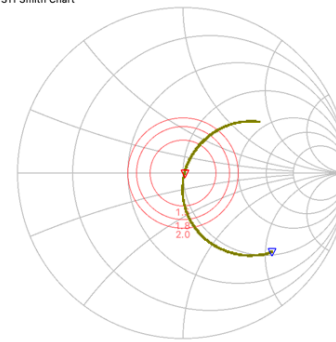
Label 26

Marker 1

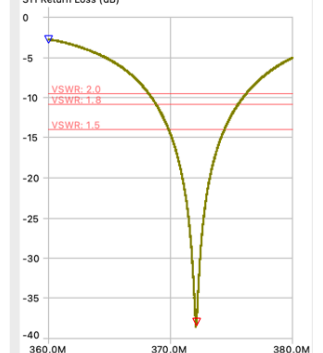
Frequency: 372.102 MHz
Impedance: $51.2-j251m \Omega$
Series L: -107.46 pH
Series C: 1.7025 nF
Parallel R: 51.249 Ω
Parallel X: 40.915 fF

VSWR: 1.025
Return loss: -38.013 dB
Quality factor: 0.005
S11 Phase: -11.24°
S21 Gain: -84.640 dB
S21 Phase: -15.07°

S11 Smith Chart



S11 Return Loss (dB)



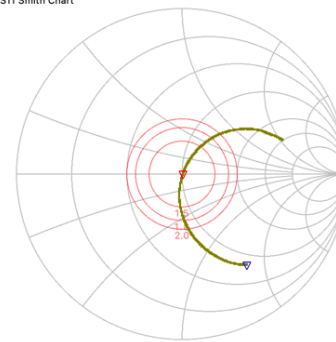
Label 27

Marker 1

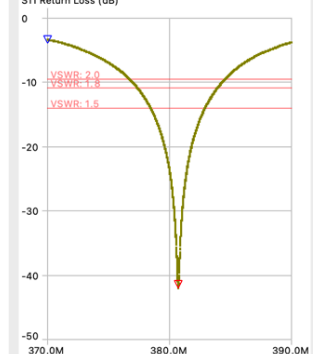
Frequency: 380.712 MHz
Impedance: $50.8-j227m \Omega$
Series L: -94.711 pH
Series C: 1.8452 nF
Parallel R: 50.821 Ω
Parallel X: 36.671 fF

VSWR: 1.017
Return loss: -41.478 dB
Quality factor: 0.004
S11 Phase: -15.32°
S21 Gain: -82.082 dB
S21 Phase: -141.18°

S11 Smith Chart



S11 Return Loss (dB)

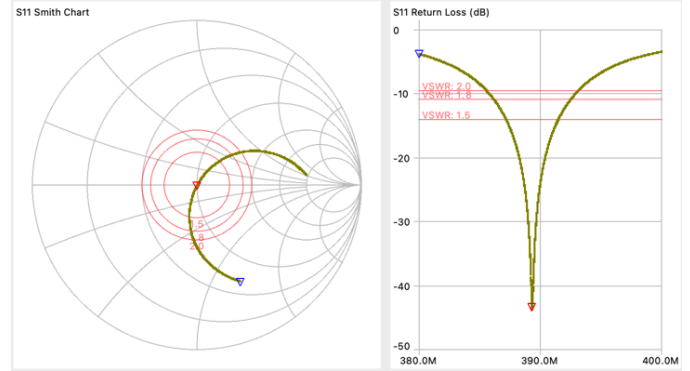


Label 28

Marker 1

Frequency: 389.294 MHz
 Impedance: $50.3-j588m \Omega$
 Series L: -240.31 pH
 Series C: 695.52 pF
 Parallel R: 50.34Ω
 Parallel X: 94.842 fF

VSWR: 1.014
 Return loss: -43.432 dB
 Quality factor: 0.012
 S11 Phase: -60.09°
 S21 Gain: -82.396 dB
 S21 Phase: -71.59°

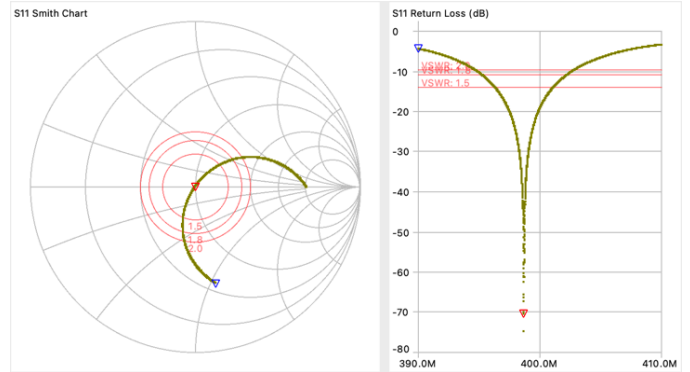


Label 29

Marker 1

Frequency: 398.682 MHz
 Impedance: $50+j17.5m \Omega$
 Series L: 6.9911 pH
 Series C: -22.795 nF
 Parallel R: 50.024Ω
 Parallel X: $57.044 \mu\text{H}$

VSWR: 1.001
 Return loss: -70.439 dB
 Quality factor: 0
 S11 Phase: 35.61°
 S21 Gain: -91.971 dB
 S21 Phase: 61.52°

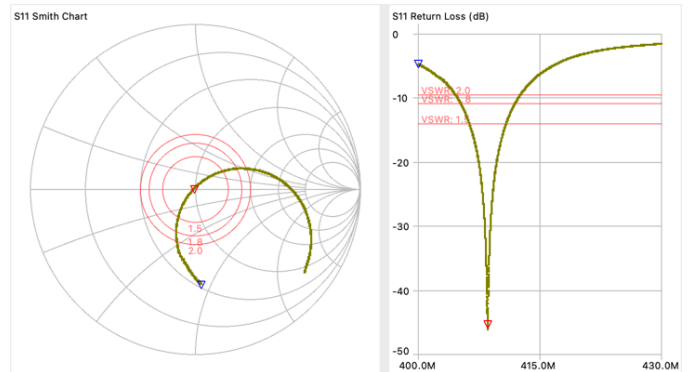


Label 30

Marker 1

Frequency: 408.554 MHz
 Impedance: $49.6+j356m \Omega$
 Series L: 138.87 pH
 Series C: -1.0927 nF
 Parallel R: 49.598Ω
 Parallel X: $2.688 \mu\text{H}$

VSWR: 1.011
 Return loss: -45.335 dB
 Quality factor: 0.007
 S11 Phase: 138.38°
 S21 Gain: -84.927 dB
 S21 Phase: -169.31°

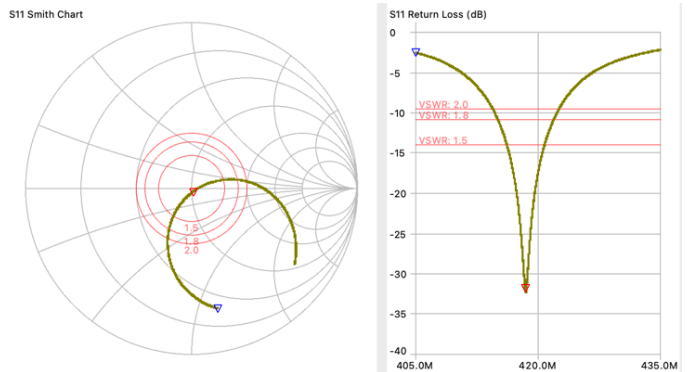


Label 31

Marker 1

Frequency: 418.456 MHz
 Impedance: $51.3-j2.26 \Omega$
 Series L: -859.48 pH
 Series C: 168.31 pF
 Parallel R: 51.36Ω
 Parallel X: 326.46 fF

VSWR: 1.052
 Return loss: -31.853 dB
 Quality factor: 0.044
 S11 Phase: -59.57°
 S21 Gain: -84.863 dB
 S21 Phase: -60.92°



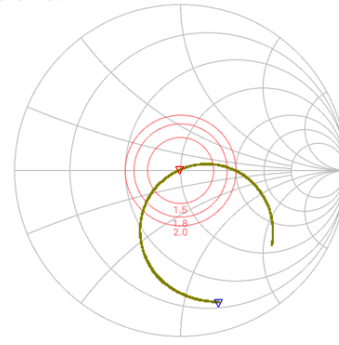
Label 32

Marker 1

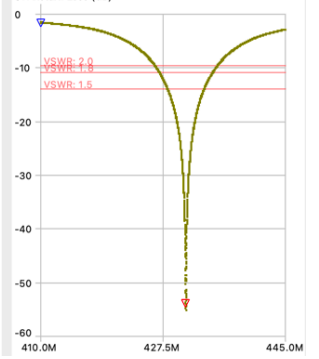
Frequency: 430.765 MHz
 Impedance: $49.9 + j169\text{m}\ \Omega$
 Series L: 62.482 pH
 Series C: -2.1848 nF
 Parallel R: 49.89 Ω
 Parallel X: 5.4379 μH

VSWR: 1.004
 Return loss: -53.890 dB
 Quality factor: 0.003
 S11 Phase: 122.99°
 S21 Gain: -85.783 dB
 S21 Phase: 77.93°

S11 Smith Chart



S11 Return Loss (dB)



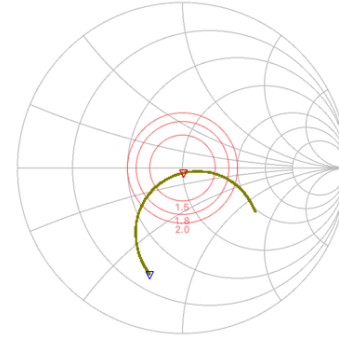
Label 33

Marker 1

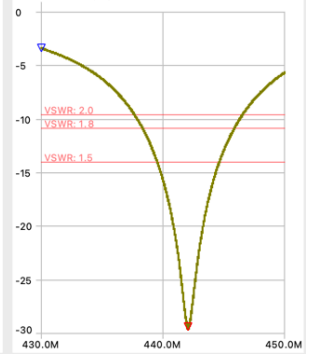
Frequency: 442.060 MHz
 Impedance: $50.5 - j3.37\ \Omega$
 Series L: -1.2135 nH
 Series C: 106.81 pF
 Parallel R: 50.76 Ω
 Parallel X: 473.08 fF

VSWR: 1.070
 Return loss: -29.389 dB
 Quality factor: 0.067
 S11 Phase: -79.05°
 S21 Gain: -84.046 dB
 S21 Phase: 3.61°

S11 Smith Chart



S11 Return Loss (dB)



Label 34

Marker 1

Frequency: 454.759 MHz
 Impedance: $50 - j404\text{m}\ \Omega$
 Series L: -141.54 pH
 Series C: 865.35 pF
 Parallel R: 49.962 Ω
 Parallel X: 56.706 fF

VSWR: 1.008
 Return loss: -47.815 dB
 Quality factor: 0.008
 S11 Phase: -95.55°
 S21 Gain: -89.582 dB
 S21 Phase: 54.29°

Marker 1

Frequency: 467.458 MHz
 Impedance: $49.9 - j3.27\ \Omega$
 Series L: -1.1147 nH
 Series C: 103.99 pF
 Parallel R: 50.112 Ω
 Parallel X: 445.78 fF

VSWR: 1.068
 Return loss: -29.690 dB
 Quality factor: 0.066
 S11 Phase: -89.92°
 S21 Gain: -84.296 dB
 S21 Phase: 70.59°