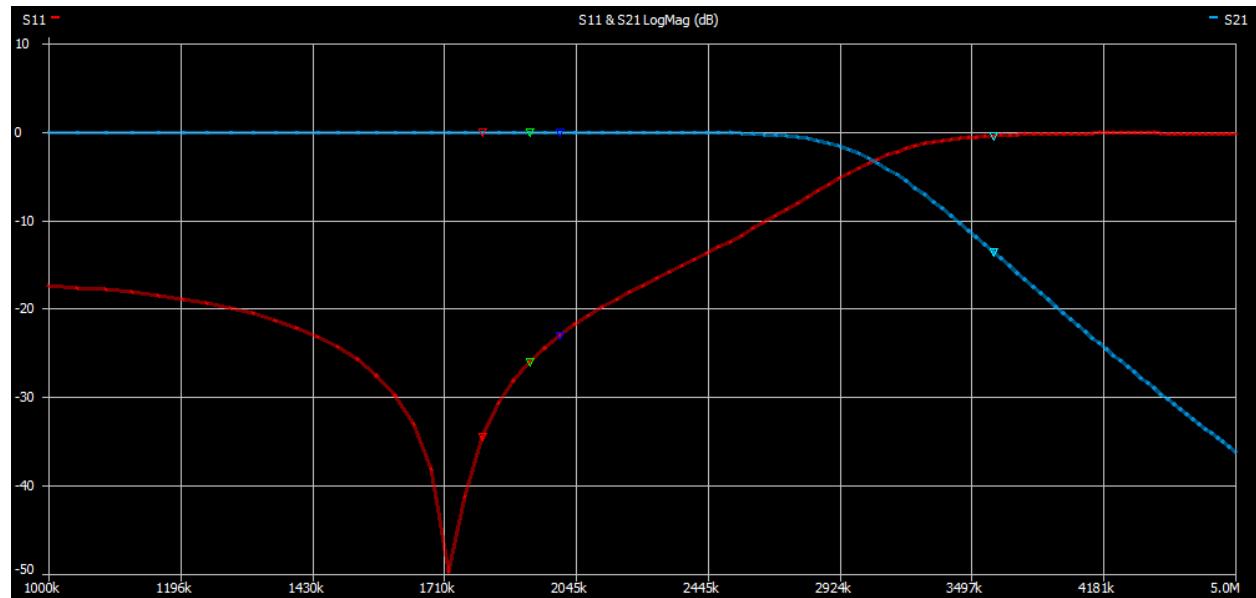


160m



Marker 1

Frequency: 1.80000 MHz	VSWR: 1.038
Impedance: $49.7+j1.85 \Omega$	Return loss: -34.478 dB
Series L: 163.73 nH	Quality factor: 0.037
Series C: -47.749 nF	S11 Phase: 99.28°
Parallel R: 49.731 Ω	S21 Gain: -0.092 dB
Parallel X: 117.93 μH	S21 Phase: 176.23°

Marker 3

Frequency: 2.00000 MHz	VSWR: 1.152
Impedance: $52+j6.96 \Omega$	Return loss: -23.006 dB
Series L: 553.53 nH	Quality factor: 0.134
Series C: -11.44 nF	S11 Phase: 70.25°
Parallel R: 52.906 Ω	S21 Gain: -0.074 dB
Parallel X: 31.458 μH	S21 Phase: 153.07°

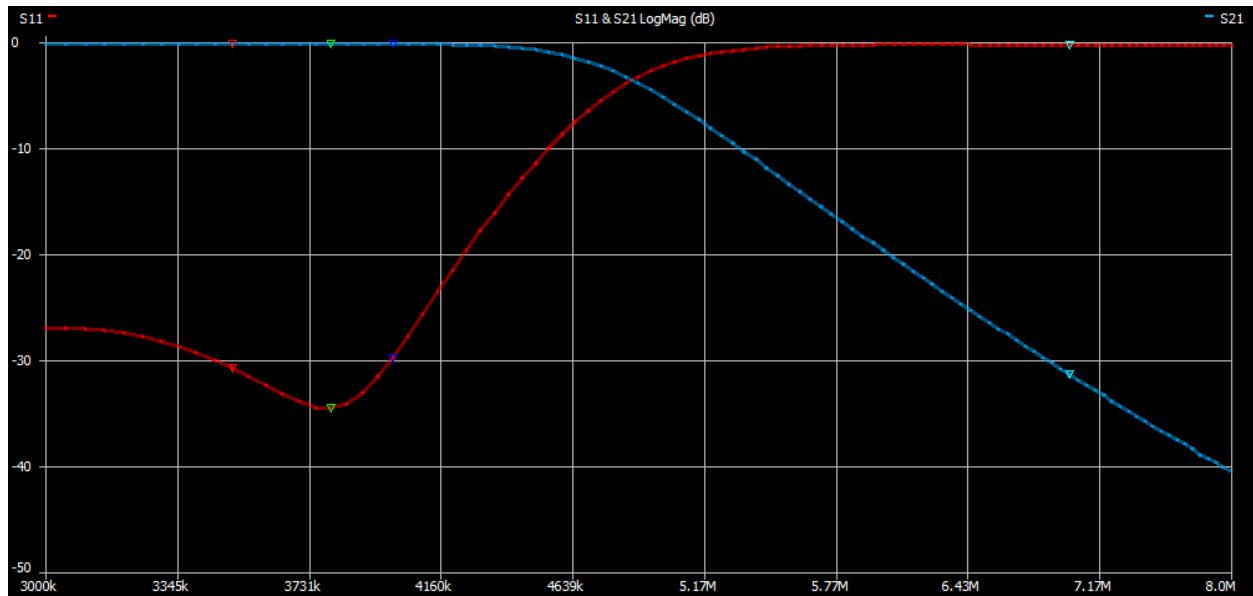
Marker 2

Frequency: 1.92000 MHz	VSWR: 1.105
Impedance: $50.6+j4.99 \Omega$	Return loss: -26.035 dB
Series L: 413.87 nH	Quality factor: 0.099
Series C: -16.603 nF	S11 Phase: 80.48°
Parallel R: 51.077 Ω	S21 Gain: -0.084 dB
Parallel X: 42.897 μH	S21 Phase: 162.49°

Marker 4

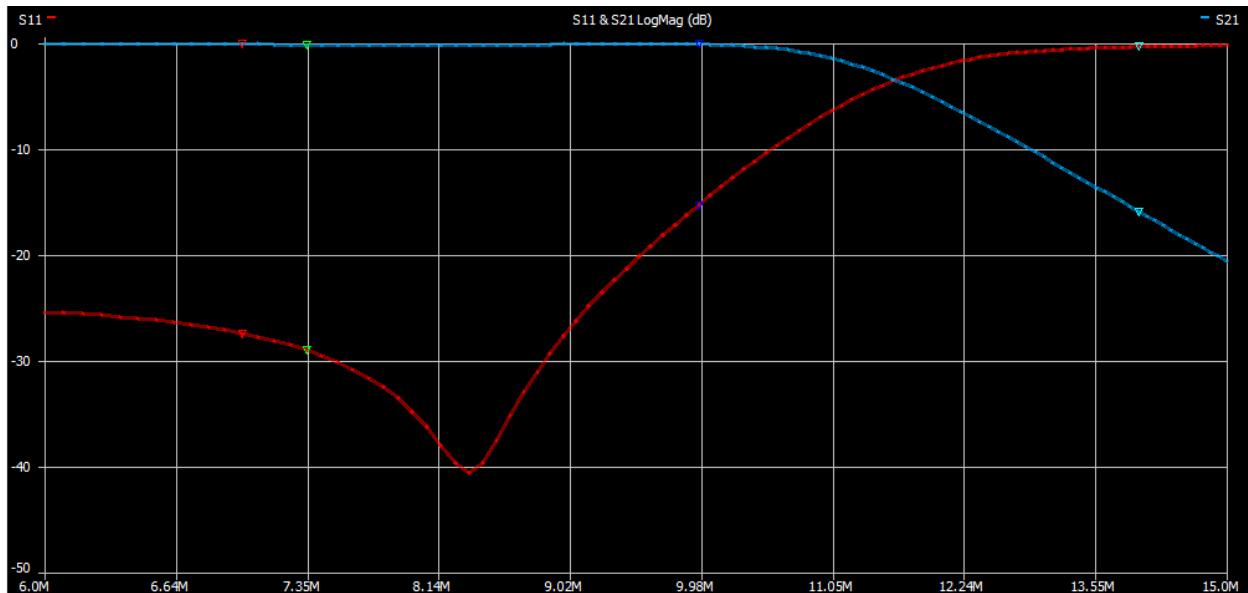
Frequency: 3.60000 MHz	VSWR: 44.221
Impedance: $1.13-j242m \Omega$	Return loss: -0.393 dB
Series L: -10.683 nH	Quality factor: 0.214
Series C: 182.95 nF	S11 Phase: -179.45°
Parallel R: 1.1824 Ω	S21 Gain: -13.548 dB
Parallel X: 7.9913 nF	S21 Phase: -89.29°

80m



Marker 1		Marker 3	
Frequency:	3.50000 MHz	VSWR:	1.060
Impedance:	$52.3+j1.93\ \Omega$	Return loss:	-30.740 dB
Series L:	87.866 nH	Quality factor:	0.037
Series C:	-23.533 nF	S11 Phase:	39.50°
Parallel R:	52.327 Ω	S21 Gain:	-0.098 dB
Parallel X:	64.349 μH	S21 Phase:	108.20°
Marker 2		Marker 4	
Frequency:	3.80000 MHz	VSWR:	1.038
Impedance:	$51.9+j156m\ \Omega$	Return loss:	-34.491 dB
Series L:	6.5143 nH	Quality factor:	0.003
Series C:	-269.28 nF	S11 Phase:	4.56°
Parallel R:	51.916 Ω	S21 Gain:	-0.122 dB
Parallel X:	725.78 μH	S21 Phase:	80.93°
Frequency:	4.00000 MHz	VSWR:	1.068
Impedance:	$52.7-j2.04\ \Omega$	Return loss:	-29.717 dB
Series L:	-81.337 nH	Quality factor:	0.039
Series C:	19.464 nF	S11 Phase:	-36.40°
Parallel R:	52.739 Ω	S21 Gain:	-0.137 dB
Parallel X:	29.287 pF	S21 Phase:	61.20°
Frequency:	7.00000 MHz	VSWR:	78.337
Impedance:	$1.81+j67.8\ \Omega$	Return loss:	-0.222 dB
Series L:	1.5426 μH	Quality factor:	37.4
Series C:	-335.11 pF	S11 Phase:	72.75°
Parallel R:	2.5394 kΩ	S21 Gain:	-31.330 dB
Parallel X:	1.5437 μH	S21 Phase:	178.25°

40m + 30m (capacitive input)



Marker 1

Frequency: 6.99000 MHz
Impedance: 53.3-j2.9 Ω
Series L: -66.09 nH
Series C: 7.8442 nF
Parallel R: 53.469 Ω
Parallel X: 23.186 pF

Marker 3

VSWR: 1.089
Return loss: -27.411 dB
Quality factor: 0.054
S11 Phase: -39.63°
S21 Gain: -0.052 dB
S21 Phase: 165.37°

Frequency: 9.96000 MHz
Impedance: 69.5+j6.59 Ω
Series L: 105.29 nH
Series C: -2.4251 nF
Parallel R: 70.112 Ω
Parallel X: 11.815 μH

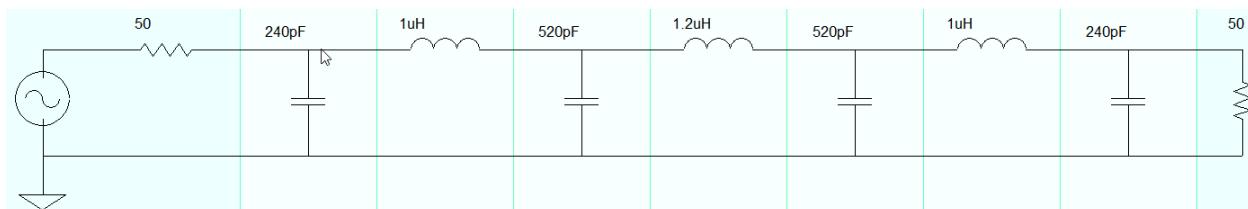
Marker 2

Frequency: 7.35000 MHz
Impedance: 52-j3.01 Ω
Series L: -65.204 nH
Series C: 7.191 nF
Parallel R: 52.201 Ω
Parallel X: 24.009 pF

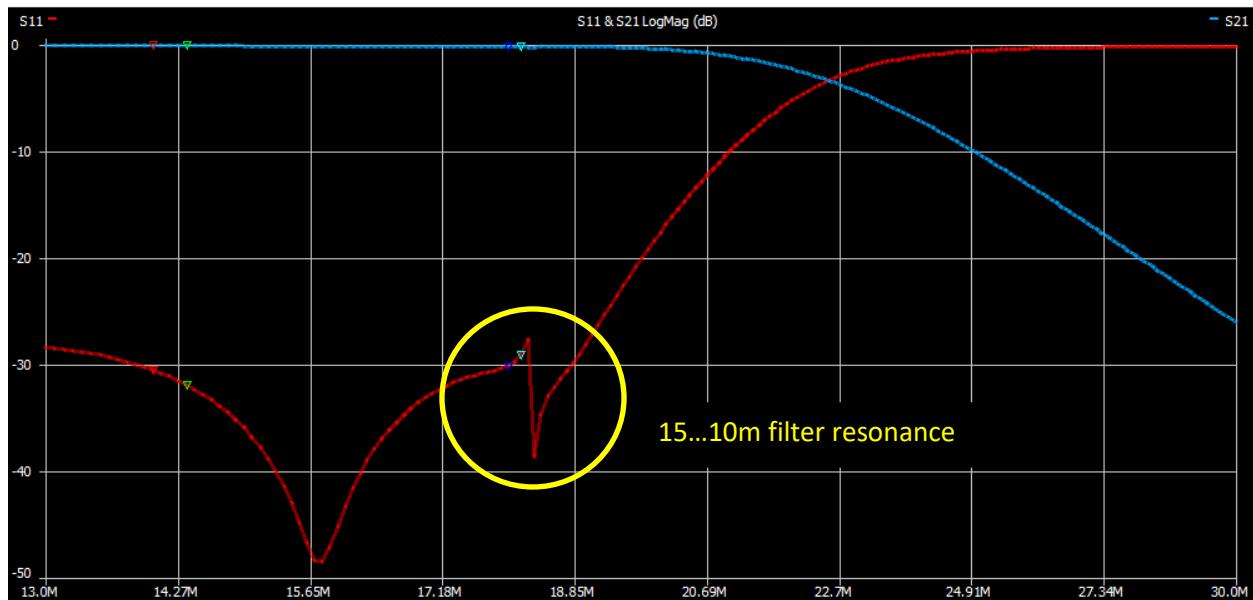
Marker 4

VSWR: 1.074
Return loss: -28.981 dB
Quality factor: 0.058
S11 Phase: -54.37°
S21 Gain: -0.074 dB
S21 Phase: 154.03°

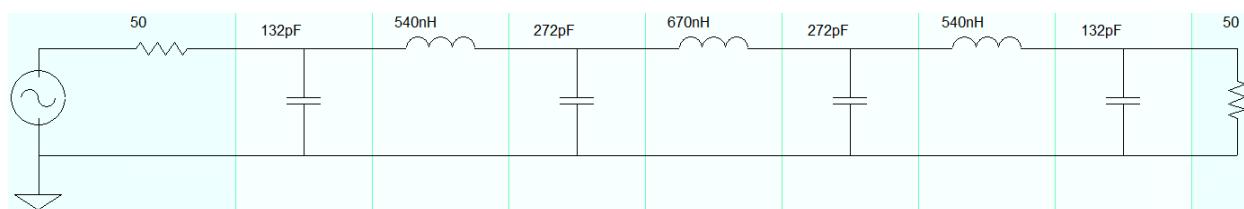
Frequency: 14.0100 MHz
Impedance: 818m+j6.09 Ω
Series L: 69.155 nH
Series C: -1.8661 nF
Parallel R: 46.117 Ω
Parallel X: 70.403 nH



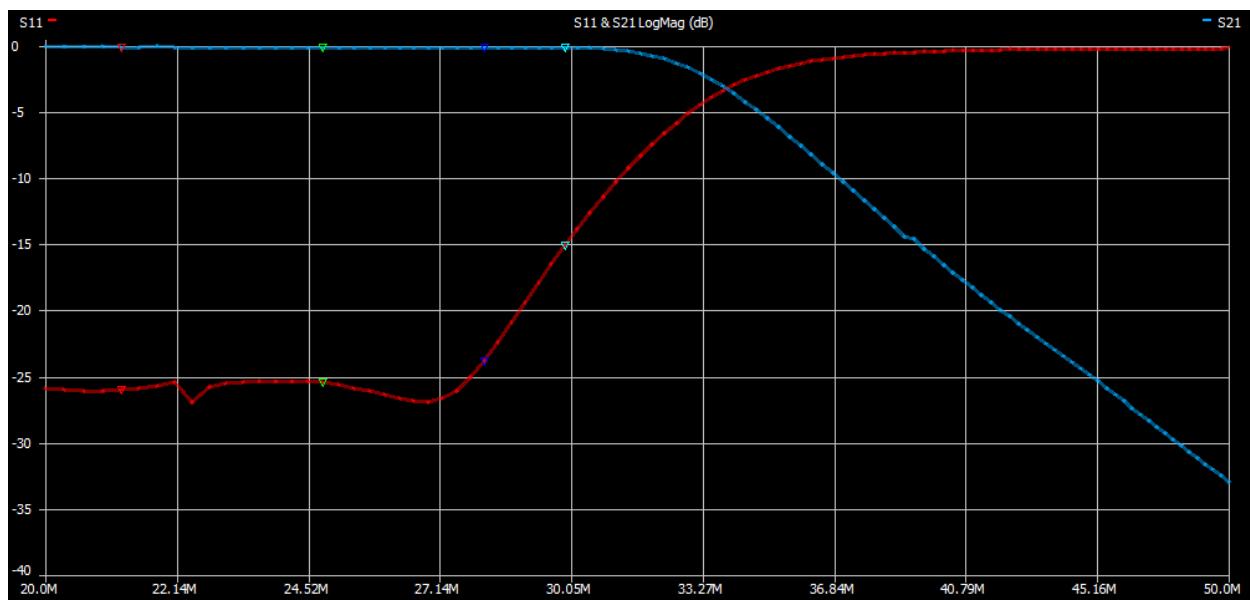
20m + 17m



Marker 1		Marker 3	
Frequency: 14.0149 MHz	VSWR: 1.061	Frequency: 17.9900 MHz	VSWR: 1.064
Impedance: $52.5+j1.78 \Omega$	Return loss: -30.514 dB	Impedance: $49.9+j3.1 \Omega$	Return loss: -30.158 dB
Series L: 20.181 nH	Quality factor: 0.034	Series L: 27.438 nH	Quality factor: 0.062
Series C: -6.3903 nF	S11 Phase: 34.57°	Series C: -2.8525 nF	S11 Phase: 90.24°
Parallel R: 52.545 Ω	S21 Gain: -0.041 dB	Parallel R: 50.084 Ω	S21 Gain: -0.074 dB
Parallel X: 17.623 μH	S21 Phase: 135.45°	Parallel X: 7.1274 μH	S21 Phase: 56.88°
Marker 2		Marker 4	
Frequency: 14.3532 MHz	VSWR: 1.052	Frequency: 18.1592 MHz	VSWR: 1.073
Impedance: $52.2+j1.33 \Omega$	Return loss: -31.875 dB	Impedance: $51+j3.44 \Omega$	Return loss: -29.036 dB
Series L: 14.699 nH	Quality factor: 0.025	Series L: 30.147 nH	Quality factor: 0.068
Series C: -8.3648 nF	S11 Phase: 29.84°	Series C: -2.548 nF	S11 Phase: 72.57°
Parallel R: 52.277 Ω	S21 Gain: -0.051 dB	Parallel R: 51.185 Ω	S21 Gain: -0.096 dB
Parallel X: 22.845 μH	S21 Phase: 129.29°	Parallel X: 6.6453 μH	S21 Phase: 52.73°

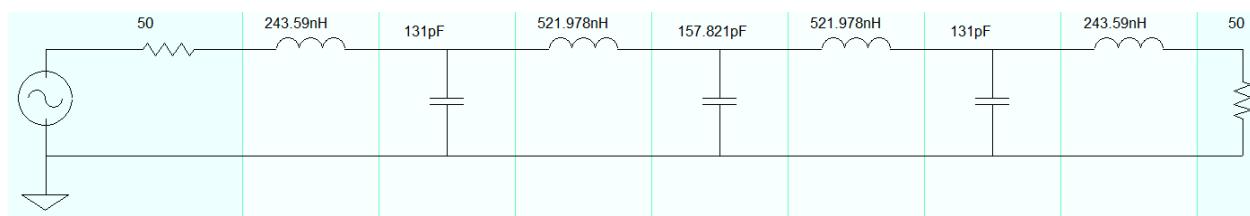


15 – 12 – 10m

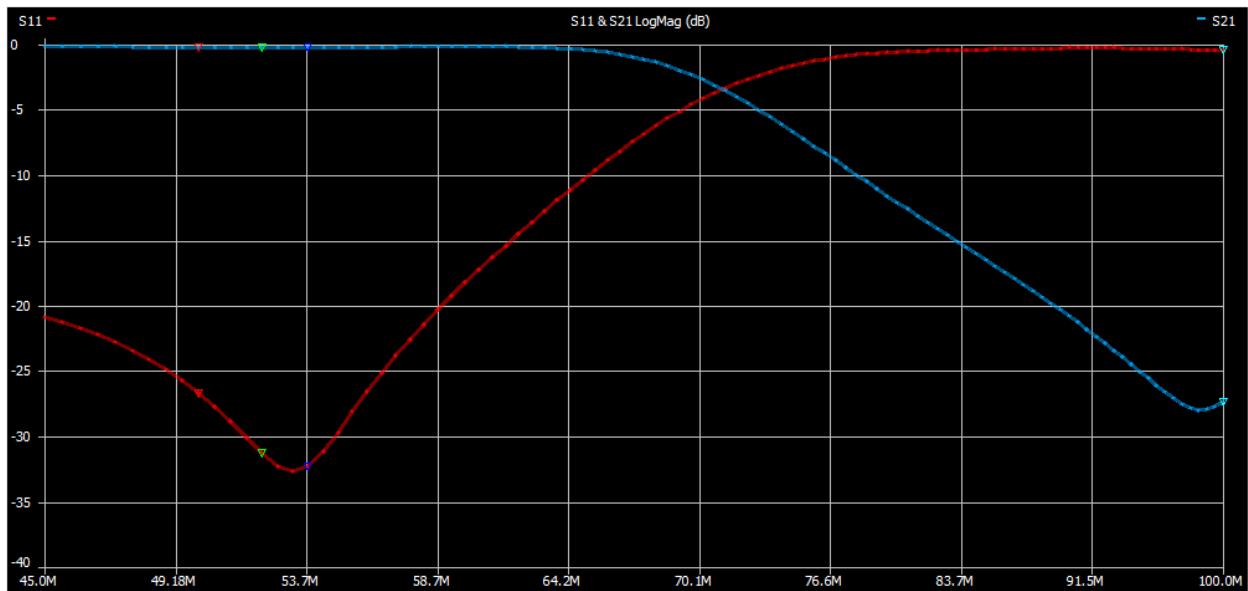


m + 12m + 10m

Marker 1			Marker 3		
Frequency: 21.2000 MHz	Marker 1 VSWR:	1.106	Frequency: 28.1000 MHz	Marker 3 VSWR:	1.138
Impedance: $48.6+j4.75 \Omega$	Marker 1 Return loss:	-25.981 dB	Impedance: $46.8+j5.4 \Omega$	Marker 3 Return loss:	-23.810 dB
Series L: 35.656 nH	Marker 1 Quality factor:	0.098	Series L: 30.599 nH	Marker 3 Quality factor:	0.115
Series C: -1.5807 nF	Marker 1 S11 Phase:	103.88°	Series C: -1.0484 nF	Marker 3 S11 Phase:	117.08°
Parallel R: 49.045 Ω	Marker 1 S21 Gain:	-0.048 dB	Parallel R: 47.47 Ω	Marker 3 S21 Gain:	-0.093 dB
Parallel X: 3.7661 μH	Marker 1 S21 Phase:	137.47°	Parallel X: 2.3314 μH	Marker 3 S21 Phase:	48.66°
Marker 2			Marker 4		
Frequency: 24.8000 MHz	Marker 2 VSWR:	1.113	Frequency: 29.9000 MHz	Marker 4 VSWR:	1.426
Impedance: $50.3+j5.35 \Omega$	Marker 2 Return loss:	-25.452 dB	Impedance: $41+j13.4 \Omega$	Marker 4 Return loss:	-15.106 dB
Series L: 34.356 nH	Marker 2 Quality factor:	0.106	Series L: 71.551 nH	Marker 4 Quality factor:	0.328
Series C: -1.1988 nF	Marker 2 S11 Phase:	83.40°	Series C: -395.99 pF	Marker 4 S11 Phase:	115.34°
Parallel R: 50.901 Ω	Marker 2 S21 Gain:	-0.068 dB	Parallel R: 45.427 Ω	Marker 4 S21 Gain:	-0.087 dB
Parallel X: 3.0712 μH	Marker 2 S21 Phase:	93.47°	Parallel X: 737.94 nH	Marker 4 S21 Phase:	19.79°



6m new



Marker 1

Frequency: 49.9500 MHz	VSWR: 1.098
Impedance: $45.9+j1.83 \Omega$	Return loss: -26.646 dB
Series L: 5.8457 nH	Quality factor: 0.04
Series C: -1.7367 nF	S11 Phase: 154.64°
Parallel R: 46.003 Ω	S21 Gain: -0.177 dB
Parallel X: 3.6696 μH	S21 Phase: 78.55°

Marker 3

Frequency: 53.8000 MHz	VSWR: 1.050
Impedance: $47.9-j1.15 \Omega$	Return loss: -32.278 dB
Series L: -3.4135 nH	Quality factor: 0.024
Series C: 2.5637 nF	S11 Phase: -150.35°
Parallel R: 47.944 Ω	S21 Gain: -0.194 dB
Parallel X: 1.4859 pF	S21 Phase: 53.29°

Marker 2

Frequency: 52.1500 MHz	VSWR: 1.056
Impedance: $47.4+j459 \Omega$	Return loss: -31.273 dB
Series L: 1.3994 nH	Quality factor: 0.01
Series C: -6.6558 nF	S11 Phase: 169.80°
Parallel R: 47.385 Ω	S21 Gain: -0.194 dB
Parallel X: 14.943 μH	S21 Phase: 64.27°

Marker 4

Frequency: 100.000 MHz	VSWR: 44.585
Impedance: $19.4+j201 \Omega$	Return loss: -0.390 dB
Series L: 319.94 nH	Quality factor: 10.36
Series C: -7.9173 pF	S11 Phase: 27.70°
Parallel R: 2.1016 kΩ	S21 Gain: -27.319 dB
Parallel X: 322.92 nH	S21 Phase: 149.93°

