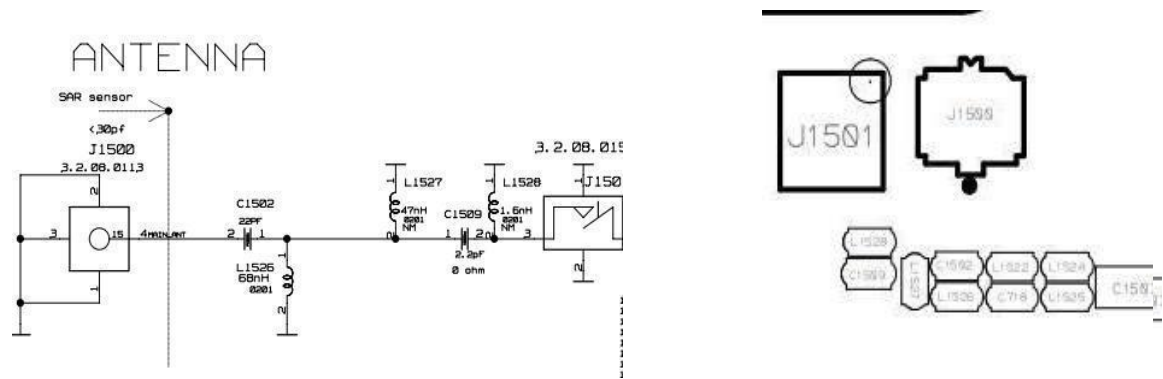




Antenna Passive Test Report

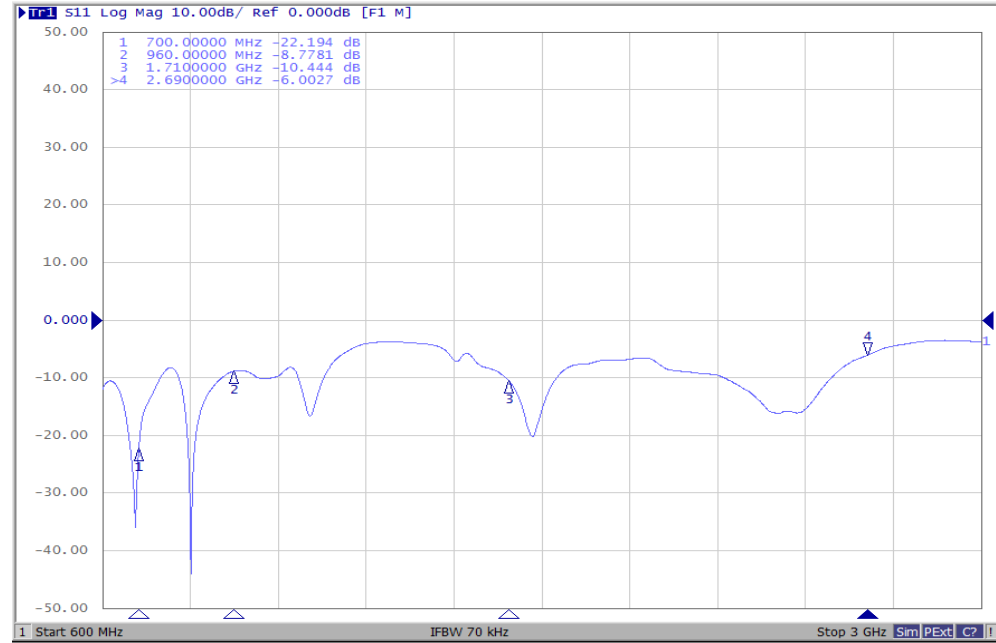
Project Name	XQT530		Engineer	wuqingjie	Checker	
HW Version	V00		Prototype(S/N)	VE03E28100041	Software Version	00.00.20220728 test-ke
Temperature/Humidit	25°C/50%		Test Equipment	OTA	Test Date	2022.09.08
Conclusion:			Remarks			
Standard	Fre(Mhz)	Effi(%) (Min~Max)	Probiem Description and Next Step Plan			
Main Antenna	690~800	27%-39%				
	800~960	30%-42%				
	1700~2170	37%-51%				
	2300~2400	41%-50%				
	2500~2700	35%-55%				
Div Antenna	690~800	1%-23%				
	800~960	24%-45%				
	1700~2170	30%-42%				
	2300~2400	18%-23%				
	2500~2700	18%-22%				
WiFi	2.4G	40%-46%				
	5G	31%-45%				
GPS	L5	35%				

Matching Circuit, Switch Logic Schematic(CAD and Tag Number Diagram)



Element	Matching
L1527	NM
C1509	0ohm
L1528	NM

S Parameter (Return Loss, Smith)



Passive Performance (Efficiency, Gain)

frequency (MHz)	Gain (dB)	Efficiency (dB)	Efficiency (%)
690	-0.31	-3.99	39.86%
700	-0.48	-4.20	37.97%
710	-0.52	-4.21	37.86%
720	-1.06	-4.72	33.66%
730	-0.84	-4.55	35.00%
740	-1.04	-4.58	34.79%
750	-1.38	-4.99	31.63%
760	-1.56	-5.43	28.64%
770	-1.75	-5.61	27.44%
780	-1.48	-4.70	33.86%
790	-1.51	-4.83	32.86%
800	-1.26	-4.70	33.88%
810	-1.05	-4.35	36.69%
820	-1.27	-5.19	30.22%
830	-1.11	-4.83	32.88%
840	-0.73	-4.41	36.17%
850	-0.55	-4.30	37.08%
860	-0.48	-4.28	37.27%
870	-0.39	-4.20	37.95%
880	-0.19	-4.00	39.73%
890	0.15	-3.85	41.15%
900	0.25	-3.85	41.18%
910	0.03	-4.13	38.60%
920	-0.12	-4.42	36.13%
930	-0.25	-4.47	35.68%
940	-0.24	-4.32	36.95%
950	-0.04	-4.11	38.73%
960	0.05	-4.09	38.95%
970	0.04	-4.09	38.97%
980	-0.18	-4.25	37.53%
1700	-0.35	-3.81	41.60%
1710	-0.12	-3.57	44.00%
1720	0.18	-3.27	47.14%
1730	0.46	-3.12	48.77%
1740	0.79	-2.92	51.09%

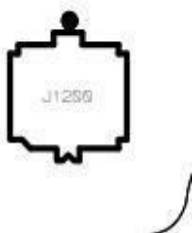
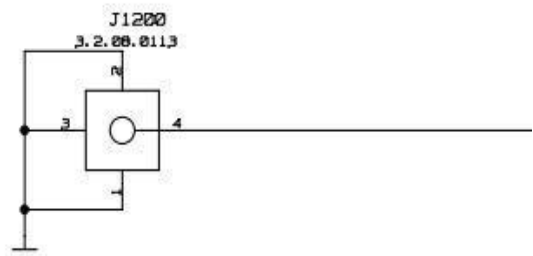
1750	0.85	-2.95	50.72%
1760	1.00	-2.98	50.39%
1770	1.10	-3.12	48.80%
1780	1.24	-3.26	47.20%
1790	1.40	-3.38	45.95%
1800	1.58	-3.36	46.16%
1810	1.67	-3.33	46.50%
1820	1.77	-3.19	48.00%
1830	1.47	-3.30	46.79%
1840	1.05	-3.56	44.08%
1850	0.92	-3.60	43.63%
1860	0.90	-3.58	43.86%
1870	1.27	-3.63	43.36%
1880	1.83	-3.44	45.28%
1890	2.00	-3.47	44.94%
1900	2.02	-3.59	43.74%
1910	1.86	-3.68	42.88%
1920	1.77	-3.72	42.46%
1930	1.57	-3.87	41.04%
1940	1.26	-4.07	39.16%
1950	1.11	-4.18	38.15%
1960	0.99	-4.22	37.80%
1970	1.19	-4.03	39.54%
1980	1.22	-4.03	39.58%
1990	0.89	-4.16	38.39%
2000	0.86	-4.06	39.29%
2010	0.90	-4.03	39.52%
2020	0.93	-3.94	40.39%
2030	0.90	-3.89	40.81%
2040	0.95	-3.98	39.98%
2050	1.01	-4.06	39.30%
2060	1.03	-4.01	39.75%
2070	0.87	-4.02	39.62%
2080	0.84	-4.07	39.22%
2090	1.07	-4.16	38.37%
2100	1.33	-4.11	38.78%
2110	1.71	-3.65	43.17%
2120	1.48	-3.58	43.85%
2130	0.82	-3.89	40.86%

2140	0.58	-3.93	40.50%
2150	0.94	-3.67	42.94%
2160	1.02	-3.54	44.31%
2170	1.02	-3.38	45.95%
2180	0.86	-3.45	45.19%
2190	0.73	-3.73	42.33%
2200	0.94	-3.63	43.31%
2210	1.11	-3.55	44.13%
2220	0.98	-3.70	42.66%
2230	1.06	-3.66	43.09%
2240	0.83	-3.89	40.82%
2250	0.94	-3.78	41.88%
2260	1.25	-3.50	44.71%
2270	1.09	-3.69	42.73%
2280	0.88	-3.99	39.88%
2290	0.95	-3.93	40.45%
2300	1.07	-3.77	41.96%
2310	1.18	-3.62	43.43%
2320	1.28	-3.46	45.12%
2330	1.36	-3.35	46.19%
2340	1.41	-3.25	47.34%
2350	1.67	-2.96	50.64%
2360	1.63	-2.99	50.27%
2370	1.31	-3.29	46.92%
2380	1.43	-3.11	48.89%
2390	1.28	-3.12	48.74%
2400	1.28	-3.04	49.71%
2410	1.31	-3.04	49.63%
2420	1.19	-3.15	48.43%
2430	1.38	-3.11	48.87%
2440	1.59	-3.02	49.90%
2450	1.61	-3.20	47.90%
2460	2.08	-2.99	50.20%
2470	2.31	-2.95	50.69%
2480	2.64	-2.81	52.39%
2490	2.99	-2.57	55.32%
2500	2.96	-2.59	55.10%
2510	2.96	-2.58	55.14%
2520	2.90	-2.60	54.95%

2530	2.80	-2.66	54.17%
2540	2.47	-2.87	51.59%
2550	2.35	-2.83	52.13%
2560	2.19	-2.86	51.71%
2570	2.04	-2.86	51.71%
2580	1.62	-3.13	48.67%
2590	1.16	-3.35	46.25%
2600	1.21	-3.09	49.08%
2610	1.16	-2.97	50.43%
2620	0.74	-3.23	47.50%
2630	0.47	-3.48	44.88%
2640	0.32	-3.64	43.28%
2650	0.40	-3.69	42.71%
2660	0.67	-3.66	43.10%
2670	0.68	-3.91	40.62%
2680	0.65	-4.13	38.62%
2690	0.73	-4.28	37.33%
2700	0.76	-4.44	35.93%

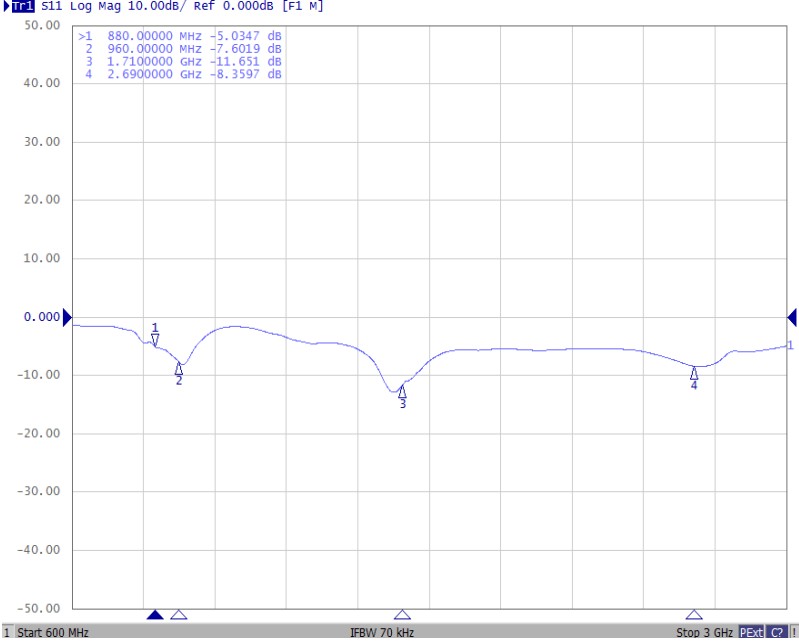
Matching Circuit, Switch Logic Schematic(CAD and Tag Number Diagram)

LTE DRX



Element	Matching
NM	NM

S Parameter (Return Loss, Smith)



Passive Performance (Efficiency, Gain)

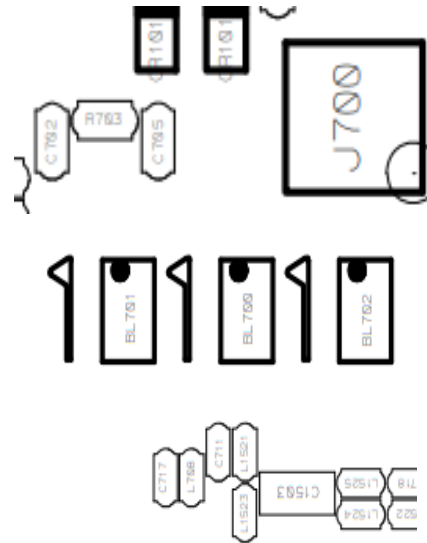
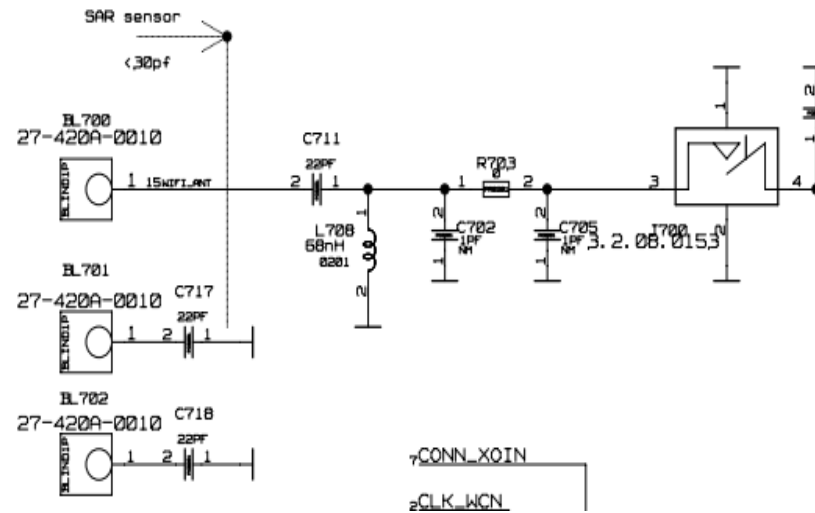
frequency (MHz)	Gain (dB)	Efficiency (dB)	Efficiency (%)
690	-14.56	-18.25	1.50%
700	-13.38	-16.93	2.03%
710	-12.17	-15.69	2.70%
720	-10.85	-14.46	3.58%
730	-9.36	-13.01	5.00%
740	-7.87	-11.66	6.82%
750	-6.80	-10.96	8.01%
760	-6.20	-10.15	9.65%
770	-5.42	-9.18	12.08%
780	-4.69	-8.13	15.37%
790	-2.58	-6.50	22.37%
800	-2.29	-6.30	23.43%
810	-2.13	-6.07	24.69%
820	-1.88	-5.96	25.35%
830	-1.38	-5.69	26.95%
840	-1.54	-5.61	27.46%
850	-1.12	-5.33	29.29%
860	-0.81	-4.87	32.51%
870	-0.76	-4.70	33.88%
880	-0.64	-4.11	38.74%
890	-0.53	-4.01	39.69%
900	-0.42	-3.68	42.78%
910	-0.35	-3.61	43.47%
920	-0.21	-3.52	44.43%
930	-0.12	-3.44	45.21%
940	0.10	-3.56	43.98%
950	0.25	-3.75	42.15%
960	-0.24	-4.02	39.60%
970	-0.45	-4.61	34.56%
980	-0.69	-4.78	33.21%
1700	0.42	-4.37	36.55%
1710	1.08	-4.06	39.30%
1720	1.63	-3.82	41.45%
1730	1.93	-3.77	42.00%
1740	2.28	-3.70	42.63%
1750	2.24	-3.94	40.39%

1760	2.27	-4.06	39.23%
1770	2.32	-4.16	38.35%
1780	2.19	-4.30	37.15%
1790	2.01	-4.50	35.45%
1800	2.00	-4.54	35.13%
1810	1.85	-4.53	35.21%
1820	1.72	-4.57	34.90%
1830	1.62	-4.72	33.73%
1840	1.41	-4.88	32.50%
1850	1.31	-4.90	32.32%
1860	1.32	-4.82	32.95%
1870	1.24	-4.89	32.47%
1880	1.23	-4.86	32.67%
1890	1.15	-4.84	32.85%
1900	0.82	-4.93	32.13%
1910	0.47	-4.95	32.01%
1920	0.12	-4.97	31.87%
1930	-0.32	-5.12	30.73%
1940	-0.69	-5.18	30.37%
1950	-0.80	-5.07	31.13%
1960	-0.79	-5.00	31.62%
1970	-0.64	-4.88	32.50%
1980	-0.58	-4.84	32.78%
1990	-0.62	-4.84	32.83%
2000	-0.23	-4.67	34.11%
2010	0.08	-4.53	35.26%
2020	0.03	-4.67	34.16%
2030	0.01	-4.69	33.95%
2040	0.04	-4.56	35.02%
2050	0.25	-4.52	35.34%
2060	0.55	-4.43	36.07%
2070	0.49	-4.50	35.47%
2080	0.24	-4.54	35.16%
2090	0.34	-4.80	33.05%
2100	0.36	-4.55	35.04%
2110	0.37	-4.57	34.84%
2120	0.31	-4.52	35.29%
2130	0.00	-4.41	36.18%
2140	0.13	-4.31	37.00%

2150	0.50	-4.54	35.12%
2160	0.65	-4.74	33.56%
2170	0.76	-4.87	32.53%
2180	0.90	-4.75	33.47%
2190	0.94	-4.79	33.14%
2200	1.04	-4.74	33.57%
2210	1.02	-4.75	33.48%
2220	0.78	-4.90	32.31%
2230	0.61	-5.03	31.35%
2240	-0.03	-4.42	36.13%
2250	-0.46	-4.81	33.01%
2260	-0.83	-5.17	30.43%
2270	-1.94	-5.25	29.80%
2280	-3.30	-5.59	27.60%
2290	-4.42	-6.18	24.09%
2300	-4.44	-6.25	23.69%
2310	-4.55	-6.42	22.77%
2320	-4.88	-6.55	22.13%
2330	-5.18	-6.60	21.83%
2340	-5.38	-6.74	21.17%
2350	-5.85	-6.83	20.73%
2360	-5.91	-6.87	20.55%
2370	-6.42	-7.03	19.80%
2380	-5.96	-7.33	18.46%
2390	-5.54	-7.23	18.89%
2400	-4.95	-7.07	19.61%
2410	-4.37	-6.86	20.58%
2420	-4.48	-6.68	21.44%
2430	-4.32	-6.97	20.09%
2440	-3.77	-6.92	20.28%
2450	-3.86	-6.98	20.02%
2460	-3.60	-6.84	20.67%
2470	-3.30	-6.80	20.85%
2480	-3.26	-6.82	20.77%
2490	-2.80	-6.58	21.96%
2500	-2.70	-6.48	22.47%
2510	-2.77	-6.52	22.26%
2520	-2.83	-6.60	21.86%
2530	-2.78	-6.61	21.78%

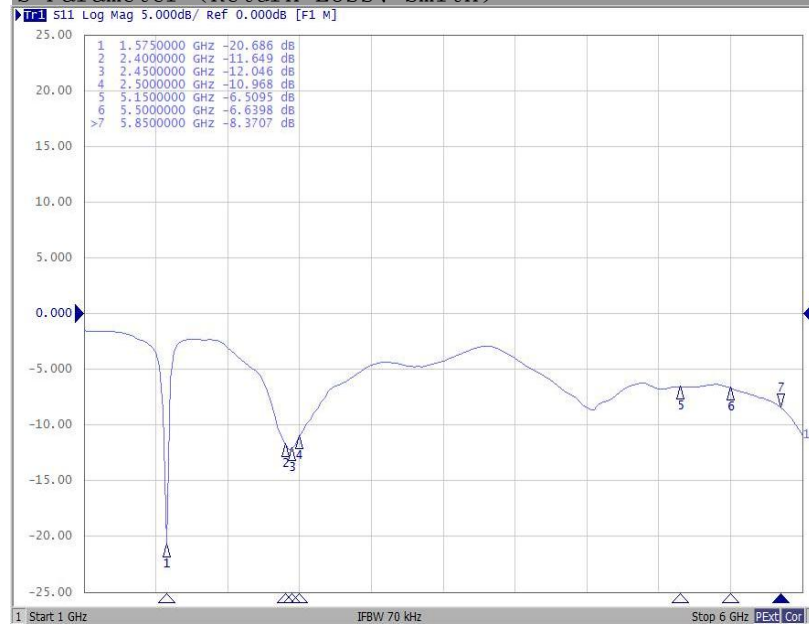
2540	-2.81	-6.69	21.41%
2550	-2.53	-6.55	22.12%
2560	-2.42	-6.52	22.26%
2570	-2.61	-6.65	21.62%
2580	-2.67	-6.67	21.51%
2590	-2.80	-6.75	21.13%
2600	-2.67	-6.70	21.37%
2610	-2.53	-6.66	21.55%
2620	-3.54	-7.15	19.25%
2630	-4.03	-7.31	18.54%
2640	-3.87	-7.12	19.39%
2650	-4.31	-7.20	19.05%
2660	-4.49	-7.14	19.29%
2670	-4.91	-7.23	18.92%
2680	-5.57	-7.42	18.09%
2690	-5.73	-7.41	18.13%
2700	-5.66	-7.30	18.58%

Matching Circuit、Switch Logic Schematic (CAD and Tag Number Diagram)



Element	Matching
C702	NM
R703	00HM
C705	NM
C717	22PF
C718	22PF

S Parameter (Return Loss, Smith)

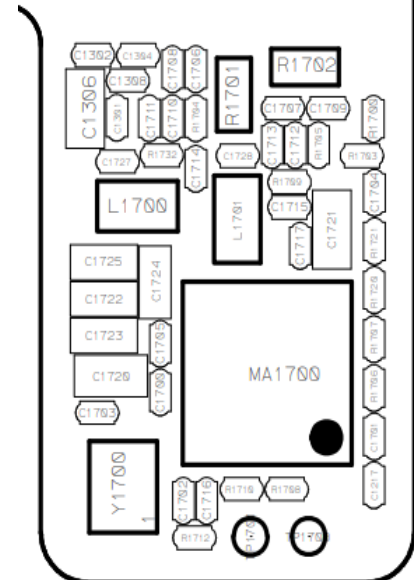
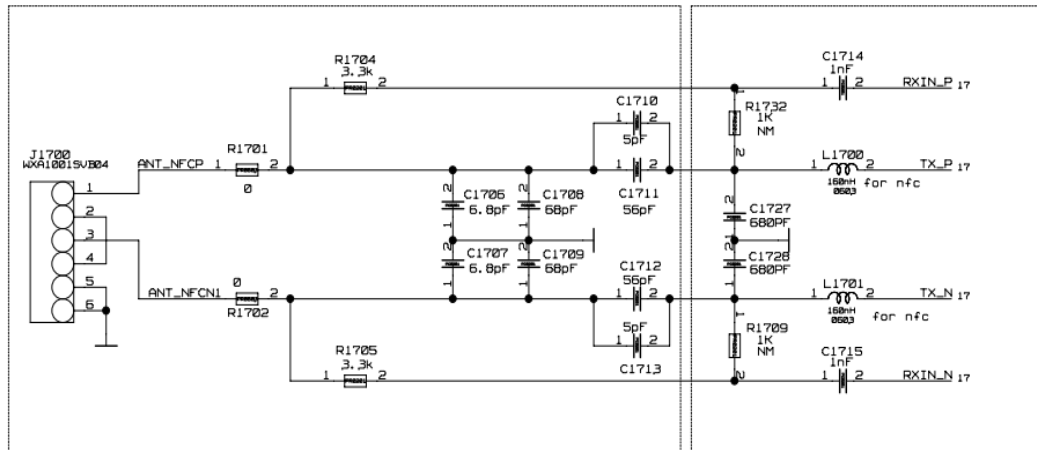


Passive Performance (Efficiency, Gain)

frequency (MHz)	Gain (dB)	Efficiency (dB)	Efficiency (%)
1550	-1.9	-5.28	29.65%
1555	-1.99	-5.28	29.67%
1560	-1.83	-5.04	31.31%
1565	-1.72	-4.85	32.73%
1570	-1.64	-4.68	34.02%
1575	-1.57	-4.55	35.09%
1580	-1.48	-4.50	35.50%
1585	-1.46	-4.52	35.30%
1590	-1.5	-4.59	34.75%
1595	-1.59	-4.70	33.92%
1600	-1.95	-5.02	31.49%
1605	-2.32	-5.33	29.33%
1610	-2.85	-5.76	26.54%
1615	-3.51	-6.28	23.57%
1620	-4.07	-6.71	21.33%
2400	1.69	-3.29	46.86%
2410	1.45	-3.54	44.27%
2420	1.82	-3.48	44.86%
2430	2.06	-3.52	44.42%
2440	2.27	-3.55	44.20%
2450	2.07	-3.84	41.31%
2460	2.05	-3.88	40.96%
2470	1.97	-3.86	41.16%
2480	2.06	-3.66	43.01%
2490	2	-3.62	43.48%
2500	1.79	-3.74	42.24%
5000	2.07	-3.79	41.76%
5050	2.64	-3.74	42.28%
5100	3.31	-3.44	45.33%
5150	3.25	-3.50	44.62%
5200	2.34	-3.74	42.28%
5250	1.47	-4.02	39.66%
5300	0.39	-4.59	34.78%
5350	0.56	-4.78	33.26%
5400	0.56	-4.80	33.09%
5450	0.04	-4.94	32.05%

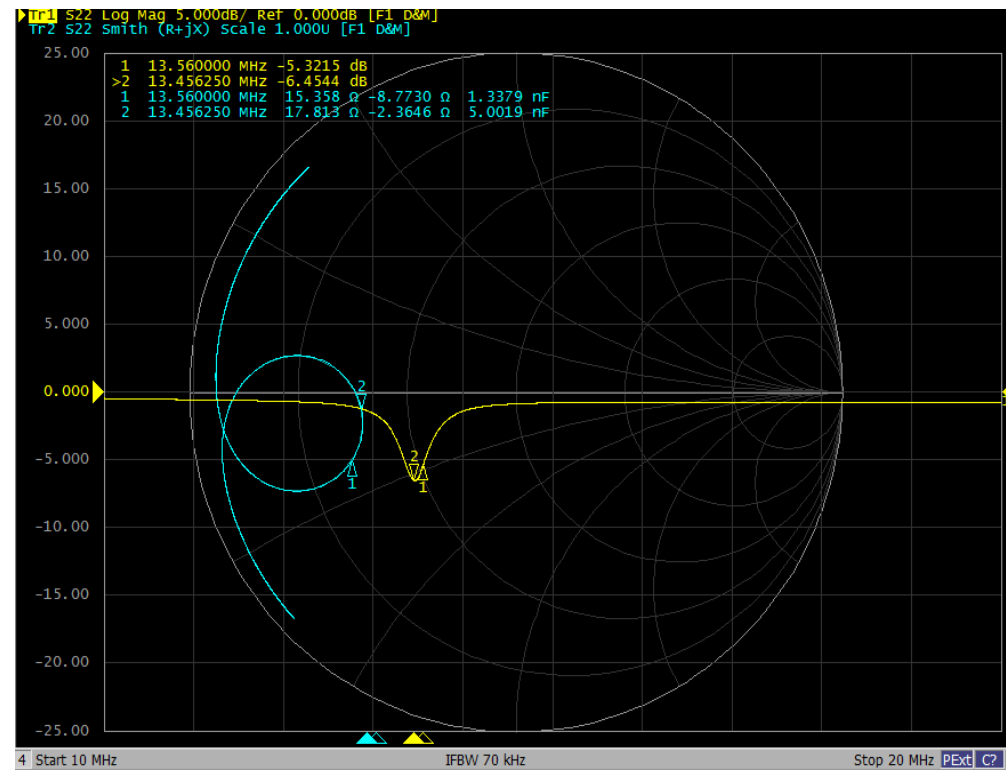
5500	-0.08	-4.93	32.16%
5550	-0.38	-5.07	31.14%
5600	-0.12	-4.86	32.68%
5650	0.14	-4.42	36.14%
5700	1.16	-4.09	39.01%
5750	0.99	-4.24	37.71%
5800	0.73	-4.09	38.99%
5850	1.42	-3.80	41.67%
5900	0.87	-4.28	37.32%
5950	0.65	-4.44	35.98%

Matching Circuit, Switch Logic Schematic (CAD and Tag Number Diagram)



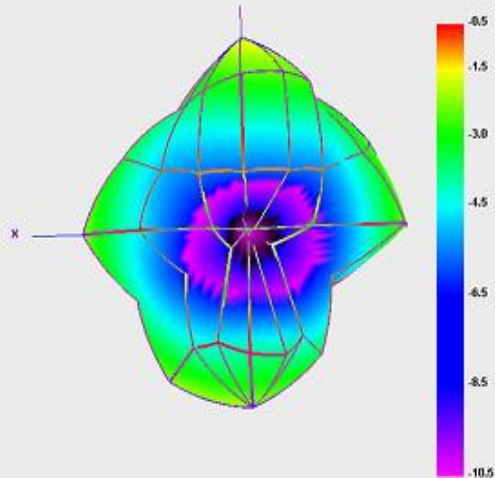
Element	Matching
C1710/C1713	22pF
C1711/C1712	33pF
C1706/C1707	120pF
C1708/C1709	56pF
L1700/L1701	160nH
R1704/R1705	680pF
R1709/R1732	NC
R1709/R1732	560 Ω

S Parameter (Return Loss, Smith)

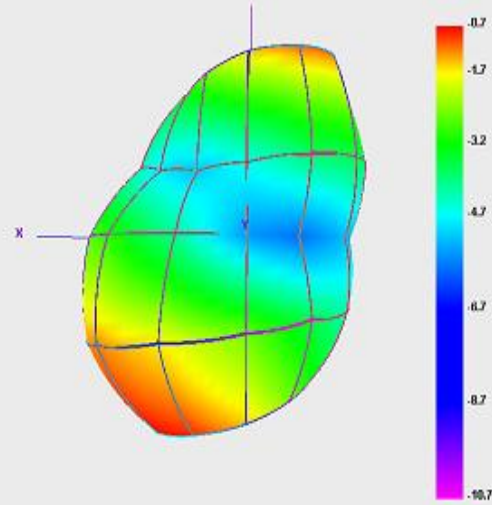


MAIN ANT 3D Pattern

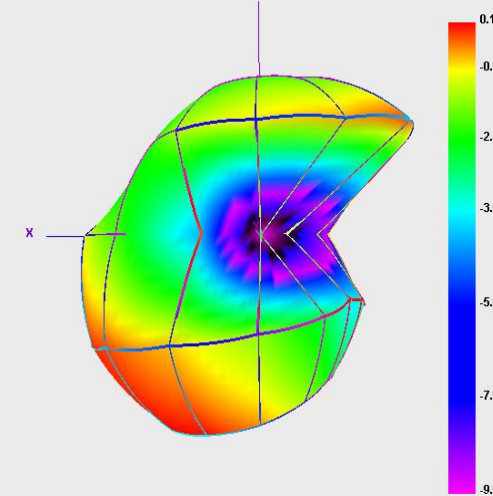
700.000MHz



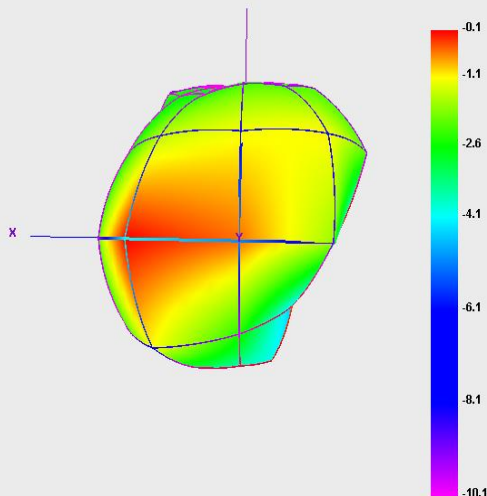
840.000MHz



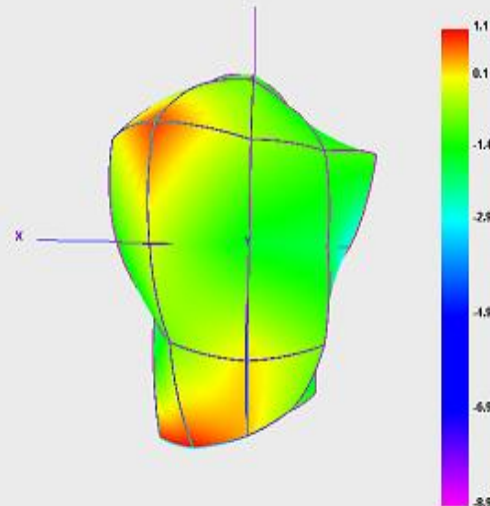
960.000MHz



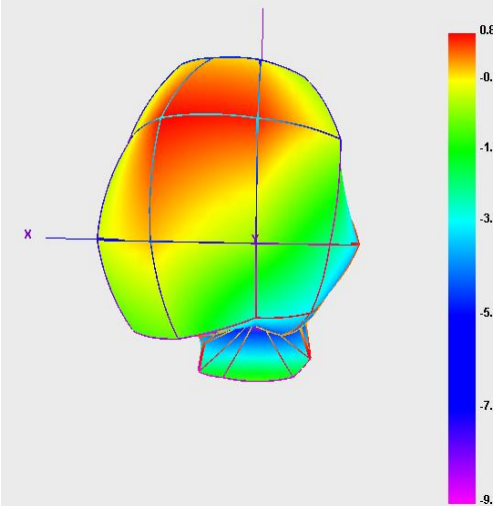
1710.000MHz



2300.000MHz

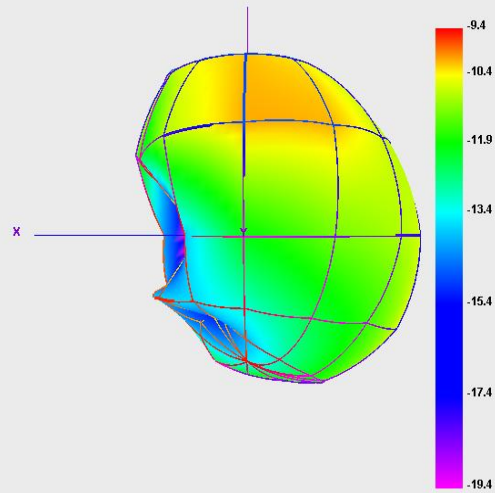


2690.000MHz

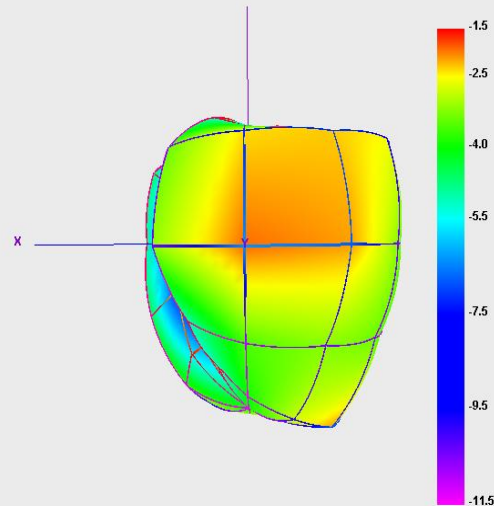


DIVERSITY ANT 3D Pattern

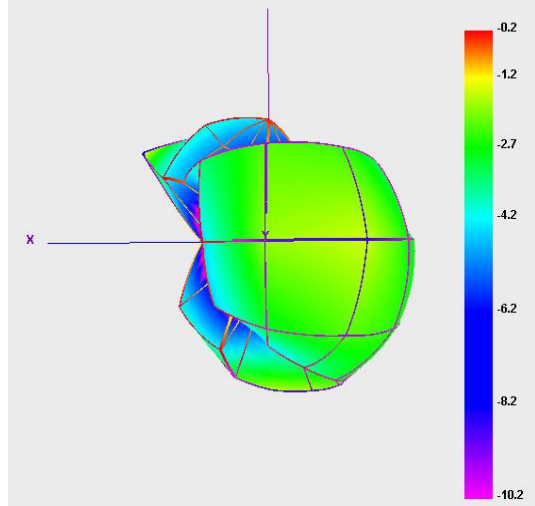
730.000MHz



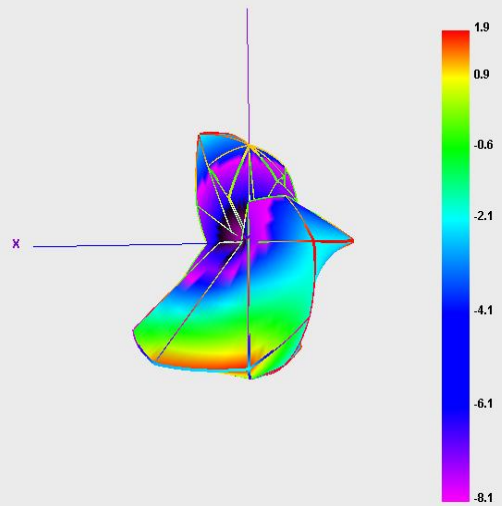
840.000MHz



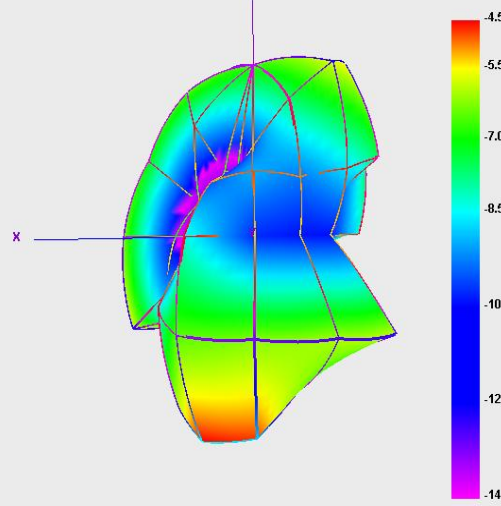
960.000MHz



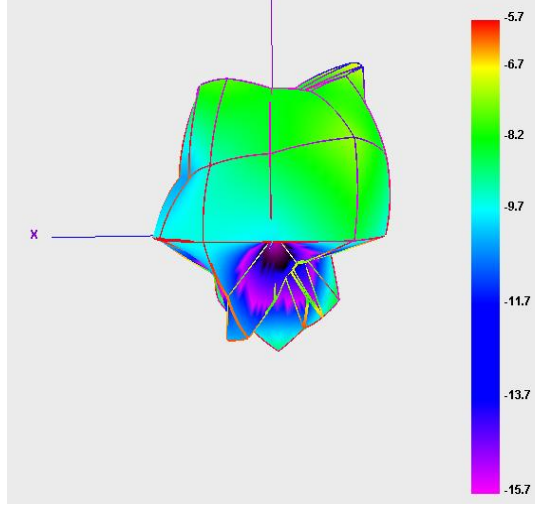
1810.000MHz



2300.000MHz

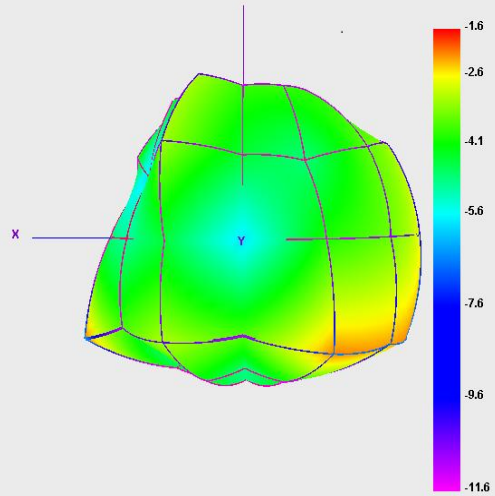


2690.000MHz

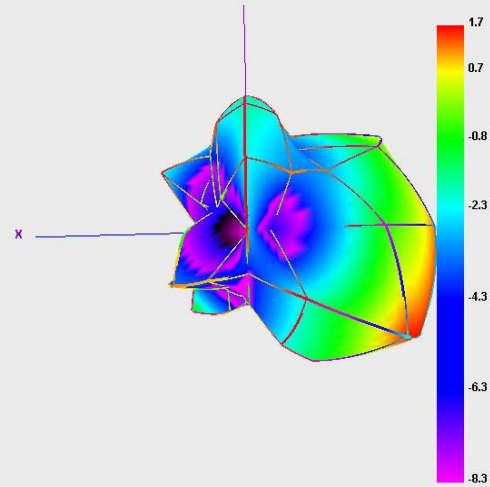


WIFI ANT 3D Pattern

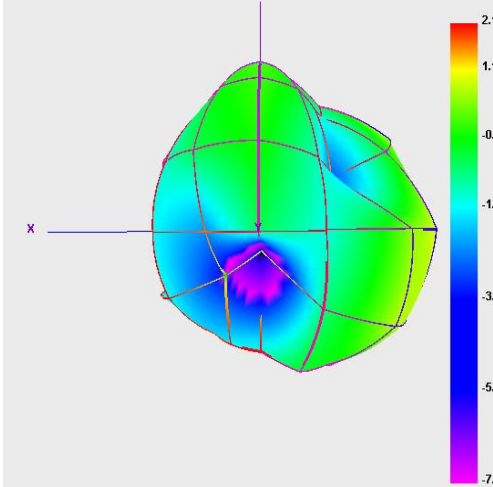
1575.000MHz



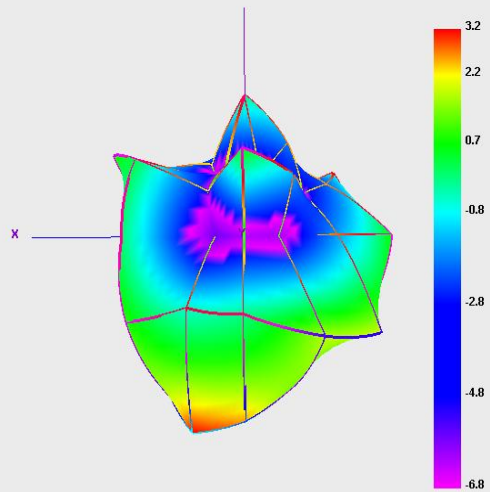
2400.000MHz



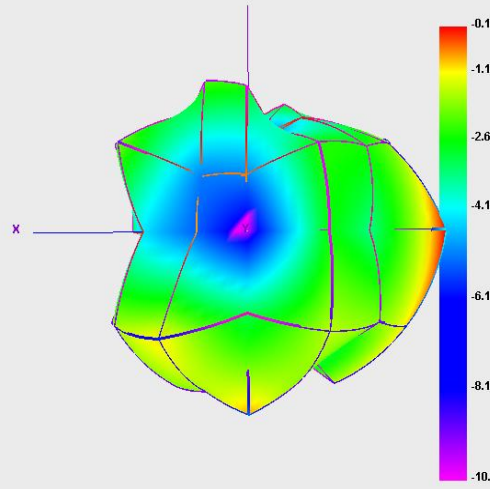
2480.000MHz



5150.000MHz



5500.000MHz



5850.000MHz

