

7. Radiated Spurious Emissions

7.1 Test Result

QPSK 20MHz 2506.02MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
299.49	Horizontal	-74.06	-13.00	-61.06	Pass
416.32	Horizontal	-70.44	-13.00	-57.44	Pass
603.03	Horizontal	-74.33	-13.00	-61.33	Pass
2207.66	Horizontal	-54.97	-13.00	-41.97	Pass
5166.66	Horizontal	-59.27	-13.00	-46.27	Pass
8333.76	Horizontal	-58.73	-13.00	-45.73	Pass
179.18	Vertical	-72.91	-13.00	-59.91	Pass
397.08	Vertical	-71.77	-13.00	-58.77	Pass
642.81	Vertical	-73.04	-13.00	-60.04	Pass
1833.64	Vertical	-55.54	-13.00	-42.54	Pass
6253.98	Vertical	-53.98	-13.00	-40.98	Pass
8730.01	Vertical	-60.31	-13.00	-47.31	Pass

QPSK 20MHz 2592.99MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
267.43	Horizontal	-71.80	-13.00	-58.80	Pass
437.74	Horizontal	-72.44	-13.00	-59.44	Pass
626.35	Horizontal	-71.78	-13.00	-58.78	Pass
3168.11	Horizontal	-60.57	-13.00	-47.57	Pass
6213.46	Horizontal	-59.08	-13.00	-46.08	Pass
9078.30	Horizontal	-55.20	-13.00	-42.20	Pass
147.67	Vertical	-71.71	-13.00	-58.71	Pass
328.88	Vertical	-67.00	-13.00	-54.00	Pass
652.29	Vertical	-69.67	-13.00	-56.67	Pass
3087.16	Vertical	-57.82	-13.00	-44.82	Pass
6869.65	Vertical	-58.45	-13.00	-45.45	Pass
9236.98	Vertical	-53.65	-13.00	-40.65	Pass

QPSK 20MHz 2679.99MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
145.40	Horizontal	-69.36	-13.00	-56.36	Pass
301.00	Horizontal	-67.19	-13.00	-54.19	Pass
680.41	Horizontal	-69.41	-13.00	-56.41	Pass
2850.92	Horizontal	-54.65	-13.00	-41.65	Pass
5473.56	Horizontal	-56.05	-13.00	-43.05	Pass
9044.56	Horizontal	-58.14	-13.00	-45.14	Pass
161.07	Vertical	-70.74	-13.00	-57.74	Pass
365.51	Vertical	-67.31	-13.00	-54.31	Pass
723.82	Vertical	-72.88	-13.00	-59.88	Pass
1616.14	Vertical	-54.37	-13.00	-41.37	Pass
4672.19	Vertical	-57.91	-13.00	-44.91	Pass
10547.28	Vertical	-60.45	-13.00	-47.45	Pass

QPSK 40MHz 2516.01MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
111.56	Horizontal	-68.74	-13.00	-55.74	Pass
403.63	Horizontal	-68.83	-13.00	-55.83	Pass
653.82	Horizontal	-70.46	-13.00	-57.46	Pass
3074.98	Horizontal	-58.17	-13.00	-45.17	Pass
4520.38	Horizontal	-58.33	-13.00	-45.33	Pass
9734.98	Horizontal	-57.99	-13.00	-44.99	Pass
288.86	Vertical	-72.85	-13.00	-59.85	Pass
544.06	Vertical	-74.90	-13.00	-61.90	Pass
810.59	Vertical	-72.79	-13.00	-59.79	Pass
3503.47	Vertical	-59.35	-13.00	-46.35	Pass
5061.63	Vertical	-61.60	-13.00	-48.60	Pass
8926.20	Vertical	-57.00	-13.00	-44.00	Pass

QPSK 40MHz 2592.99MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
143.37	Horizontal	-72.85	-13.00	-59.85	Pass
555.43	Horizontal	-73.04	-13.00	-60.04	Pass
803.38	Horizontal	-73.25	-13.00	-60.25	Pass
1983.23	Horizontal	-57.02	-13.00	-44.02	Pass
4033.89	Horizontal	-61.73	-13.00	-48.73	Pass
7022.74	Horizontal	-58.96	-13.00	-45.96	Pass
178.30	Vertical	-69.47	-13.00	-56.47	Pass
508.35	Vertical	-74.93	-13.00	-61.93	Pass
938.71	Vertical	-71.23	-13.00	-58.23	Pass
3500.28	Vertical	-57.07	-13.00	-44.07	Pass
4747.77	Vertical	-59.64	-13.00	-46.64	Pass
7125.44	Vertical	-59.99	-13.00	-46.99	Pass

QPSK 40MHz 2670MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
214.33	Horizontal	-68.07	-13.00	-55.07	Pass
436.69	Horizontal	-73.10	-13.00	-60.10	Pass
895.72	Horizontal	-68.38	-13.00	-55.38	Pass
2132.38	Horizontal	-59.09	-13.00	-46.09	Pass
6593.22	Horizontal	-53.61	-13.00	-40.61	Pass
10298.65	Horizontal	-61.95	-13.00	-48.95	Pass
228.23	Vertical	-72.01	-13.00	-59.01	Pass
515.44	Vertical	-68.06	-13.00	-55.06	Pass
873.10	Vertical	-69.22	-13.00	-56.22	Pass
3869.24	Vertical	-61.29	-13.00	-48.29	Pass
5568.53	Vertical	-58.10	-13.00	-45.10	Pass
8856.50	Vertical	-61.01	-13.00	-48.01	Pass

QPSK 50MHz 2521.02MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
281.28	Horizontal	-68.53	-13.00	-55.53	Pass
467.74	Horizontal	-70.26	-13.00	-57.26	Pass
787.99	Horizontal	-70.35	-13.00	-57.35	Pass
2201.91	Horizontal	-57.56	-13.00	-44.56	Pass
4400.88	Horizontal	-53.33	-13.00	-40.33	Pass
10252.07	Horizontal	-57.33	-13.00	-44.33	Pass
149.05	Vertical	-72.08	-13.00	-59.08	Pass
353.41	Vertical	-70.18	-13.00	-57.18	Pass
943.11	Vertical	-71.82	-13.00	-58.82	Pass
2242.87	Vertical	-53.43	-13.00	-40.43	Pass
4644.07	Vertical	-58.59	-13.00	-45.59	Pass
10376.69	Vertical	-57.59	-13.00	-44.59	Pass

QPSK 50MHz 2592.99MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
132.66	Horizontal	-72.95	-13.00	-59.95	Pass
415.42	Horizontal	-68.40	-13.00	-55.40	Pass
800.80	Horizontal	-70.39	-13.00	-57.39	Pass
1808.52	Horizontal	-60.80	-13.00	-47.80	Pass
4164.78	Horizontal	-60.80	-13.00	-47.80	Pass
7444.93	Horizontal	-56.03	-13.00	-43.03	Pass
232.58	Vertical	-71.79	-13.00	-58.79	Pass
448.21	Vertical	-68.42	-13.00	-55.42	Pass
706.86	Vertical	-68.45	-13.00	-55.45	Pass
3727.07	Vertical	-54.05	-13.00	-41.05	Pass
6951.82	Vertical	-59.02	-13.00	-46.02	Pass
9851.63	Vertical	-56.73	-13.00	-43.73	Pass



QPSK 50MHz 2664.99MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
186.32	Horizontal	-74.25	-13.00	-61.25	Pass
377.32	Horizontal	-70.16	-13.00	-57.16	Pass
844.33	Horizontal	-69.13	-13.00	-56.13	Pass
2839.79	Horizontal	-56.78	-13.00	-43.78	Pass
5138.52	Horizontal	-56.20	-13.00	-43.20	Pass
9029.28	Horizontal	-56.75	-13.00	-43.75	Pass
281.61	Vertical	-72.29	-13.00	-59.29	Pass
550.32	Vertical	-67.87	-13.00	-54.87	Pass
735.26	Vertical	-68.39	-13.00	-55.39	Pass
3898.81	Vertical	-59.02	-13.00	-46.02	Pass
6788.64	Vertical	-56.23	-13.00	-43.23	Pass
9884.83	Vertical	-60.84	-13.00	-47.84	Pass

QPSK 60MHz 2526MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
218.90	Horizontal	-69.28	-13.00	-56.28	Pass
425.60	Horizontal	-71.21	-13.00	-58.21	Pass
874.42	Horizontal	-72.87	-13.00	-59.87	Pass
1806.16	Horizontal	-58.53	-13.00	-45.53	Pass
4431.37	Horizontal	-57.56	-13.00	-44.56	Pass
7259.96	Horizontal	-61.66	-13.00	-48.66	Pass
216.48	Vertical	-69.83	-13.00	-56.83	Pass
392.53	Vertical	-74.56	-13.00	-61.56	Pass
674.22	Vertical	-70.81	-13.00	-57.81	Pass
3298.22	Vertical	-53.07	-13.00	-40.07	Pass
4361.35	Vertical	-60.43	-13.00	-47.43	Pass
10240.73	Vertical	-53.65	-13.00	-40.65	Pass

QPSK 60MHz 2592.99MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
149.55	Horizontal	-73.11	-13.00	-60.11	Pass
533.24	Horizontal	-71.00	-13.00	-58.00	Pass
806.43	Horizontal	-71.59	-13.00	-58.59	Pass
2335.93	Horizontal	-53.99	-13.00	-40.99	Pass
4008.74	Horizontal	-59.52	-13.00	-46.52	Pass
7718.08	Horizontal	-54.24	-13.00	-41.24	Pass
241.18	Vertical	-70.74	-13.00	-57.74	Pass
566.81	Vertical	-73.51	-13.00	-60.51	Pass
788.27	Vertical	-69.79	-13.00	-56.79	Pass
3128.05	Vertical	-54.92	-13.00	-41.92	Pass
4827.25	Vertical	-56.27	-13.00	-43.27	Pass
9884.24	Vertical	-61.13	-13.00	-48.13	Pass

QPSK 60MHz 2659.98MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
298.84	Horizontal	-69.04	-13.00	-56.04	Pass
509.76	Horizontal	-74.66	-13.00	-61.66	Pass
746.89	Horizontal	-67.64	-13.00	-54.64	Pass
3813.93	Horizontal	-56.61	-13.00	-43.61	Pass
6282.45	Horizontal	-61.42	-13.00	-48.42	Pass
10050.25	Horizontal	-61.30	-13.00	-48.30	Pass
178.82	Vertical	-68.86	-13.00	-55.86	Pass
496.91	Vertical	-71.94	-13.00	-58.94	Pass
652.59	Vertical	-73.44	-13.00	-60.44	Pass
3549.78	Vertical	-61.13	-13.00	-48.13	Pass
6626.25	Vertical	-61.59	-13.00	-48.59	Pass
7506.29	Vertical	-59.40	-13.00	-46.40	Pass

QPSK 80MHz 2536.02MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
184.50	Horizontal	-73.82	-13.00	-60.82	Pass
510.25	Horizontal	-74.50	-13.00	-61.50	Pass
738.88	Horizontal	-74.07	-13.00	-61.07	Pass
2944.67	Horizontal	-55.42	-13.00	-42.42	Pass
4792.64	Horizontal	-60.37	-13.00	-47.37	Pass
10984.79	Horizontal	-61.30	-13.00	-48.30	Pass
266.09	Vertical	-67.13	-13.00	-54.13	Pass
462.82	Vertical	-73.54	-13.00	-60.54	Pass
838.89	Vertical	-73.87	-13.00	-60.87	Pass
2912.77	Vertical	-59.60	-13.00	-46.60	Pass
4154.93	Vertical	-56.45	-13.00	-43.45	Pass
10282.78	Vertical	-61.40	-13.00	-48.40	Pass

QPSK 80MHz 2592.99MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
224.70	Horizontal	-71.68	-13.00	-58.68	Pass
392.16	Horizontal	-67.06	-13.00	-54.06	Pass
666.50	Horizontal	-69.14	-13.00	-56.14	Pass
2158.05	Horizontal	-53.05	-13.00	-40.05	Pass
5736.73	Horizontal	-61.08	-13.00	-48.08	Pass
10548.95	Horizontal	-54.59	-13.00	-41.59	Pass
215.29	Vertical	-72.77	-13.00	-59.77	Pass
591.56	Vertical	-67.50	-13.00	-54.50	Pass
892.13	Vertical	-73.07	-13.00	-60.07	Pass
3643.36	Vertical	-54.99	-13.00	-41.99	Pass
5345.93	Vertical	-58.04	-13.00	-45.04	Pass
9630.94	Vertical	-56.88	-13.00	-43.88	Pass

QPSK 80MHz 2649.99MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
163.59	Horizontal	-69.72	-13.00	-56.72	Pass
347.04	Horizontal	-73.27	-13.00	-60.27	Pass
794.76	Horizontal	-72.29	-13.00	-59.29	Pass
3207.05	Horizontal	-56.56	-13.00	-43.56	Pass
4869.87	Horizontal	-60.05	-13.00	-47.05	Pass
9923.67	Horizontal	-59.73	-13.00	-46.73	Pass
228.99	Vertical	-70.14	-13.00	-57.14	Pass
369.06	Vertical	-74.32	-13.00	-61.32	Pass
710.93	Vertical	-73.58	-13.00	-60.58	Pass
1614.02	Vertical	-54.68	-13.00	-41.68	Pass
4587.77	Vertical	-60.24	-13.00	-47.24	Pass
7465.39	Vertical	-59.03	-13.00	-46.03	Pass

QPSK 100MHz 2546.01MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
198.02	Horizontal	-74.50	-13.00	-61.50	Pass
392.85	Horizontal	-67.54	-13.00	-54.54	Pass
642.85	Horizontal	-67.79	-13.00	-54.79	Pass
2016.94	Horizontal	-58.87	-13.00	-45.87	Pass
4342.11	Horizontal	-59.03	-13.00	-46.03	Pass
7292.91	Horizontal	-57.55	-13.00	-44.55	Pass
105.11	Vertical	-73.24	-13.00	-60.24	Pass
367.31	Vertical	-73.00	-13.00	-60.00	Pass
870.00	Vertical	-67.25	-13.00	-54.25	Pass
1626.48	Vertical	-55.38	-13.00	-42.38	Pass
5391.10	Vertical	-53.09	-13.00	-40.09	Pass
8046.14	Vertical	-60.07	-13.00	-47.07	Pass

QPSK 100MHz 2592.99MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
240.58	Horizontal	-70.47	-13.00	-57.47	Pass
318.49	Horizontal	-69.77	-13.00	-56.77	Pass
905.45	Horizontal	-74.56	-13.00	-61.56	Pass
1534.46	Horizontal	-55.40	-13.00	-42.40	Pass
4222.82	Horizontal	-56.97	-13.00	-43.97	Pass
8294.57	Horizontal	-54.26	-13.00	-41.26	Pass
107.05	Vertical	-71.13	-13.00	-58.13	Pass
468.64	Vertical	-72.48	-13.00	-59.48	Pass
853.91	Vertical	-70.41	-13.00	-57.41	Pass
1722.66	Vertical	-53.54	-13.00	-40.54	Pass
6526.25	Vertical	-53.29	-13.00	-40.29	Pass
7993.25	Vertical	-59.76	-13.00	-46.76	Pass

QPSK 100MHz 2640MHz					
Frequency	Spurious Emission Polarization and Level		Limit	Over Limit	Verdict
MHz	Polarization	dBm	dBm	dB	
210.27	Horizontal	-68.55	-13.00	-55.55	Pass
373.79	Horizontal	-72.22	-13.00	-59.22	Pass
703.44	Horizontal	-69.45	-13.00	-56.45	Pass
3114.70	Horizontal	-58.48	-13.00	-45.48	Pass
5968.11	Horizontal	-57.78	-13.00	-44.78	Pass
8638.40	Horizontal	-57.21	-13.00	-44.21	Pass
200.10	Vertical	-67.35	-13.00	-54.35	Pass
469.83	Vertical	-68.21	-13.00	-55.21	Pass
845.15	Vertical	-67.52	-13.00	-54.52	Pass
3530.04	Vertical	-53.30	-13.00	-40.30	Pass
6710.11	Vertical	-55.22	-13.00	-42.22	Pass
7607.56	Vertical	-61.44	-13.00	-48.44	Pass

Note: All modes have been tested and only record the worst test result.