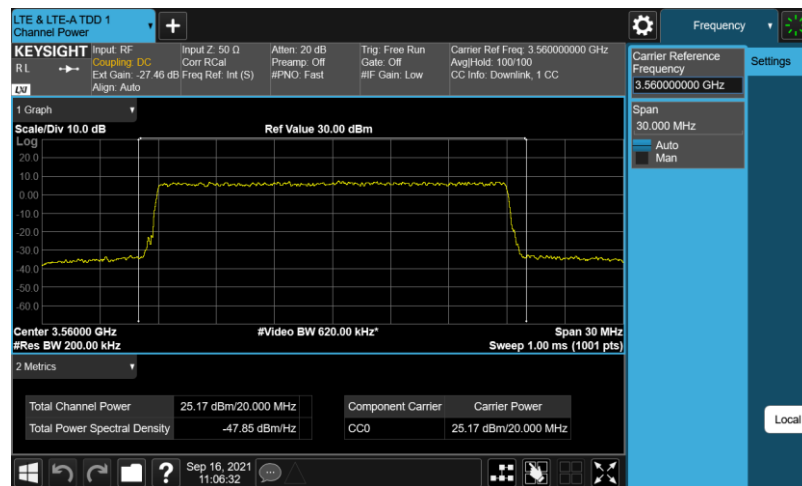
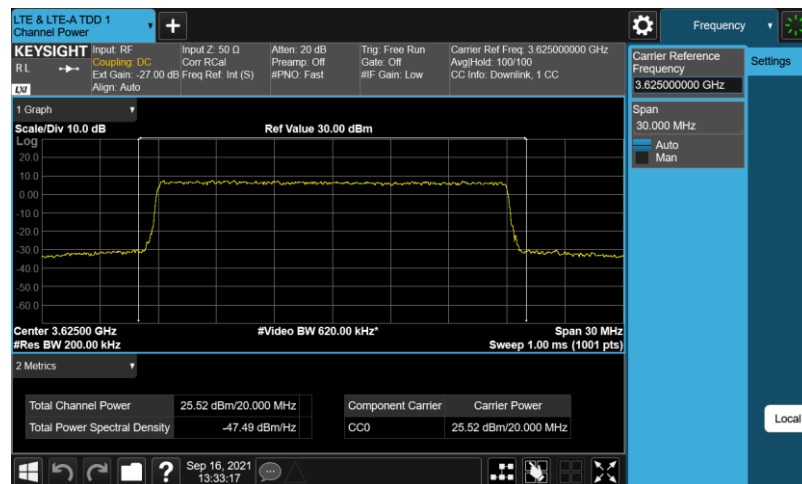


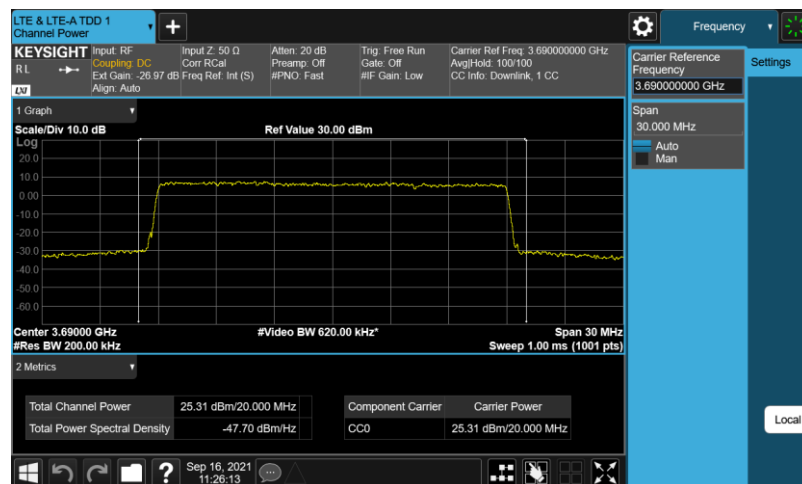
Band48-20MHz-QPSK-55340-E-TM1.1-20



Band48-20MHz-QPSK-55990-E-TM1.1-20



Band48-20MHz-QPSK-56640-E-TM1.1-20



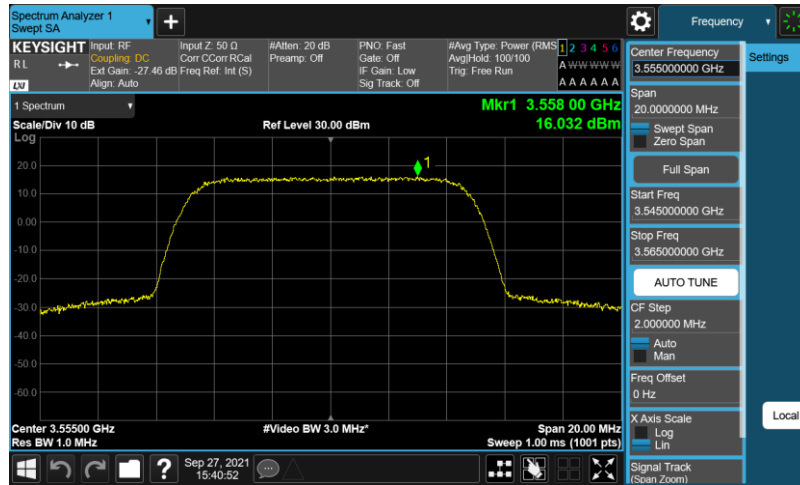
Appendix B: Power Spectral Density

Test Result

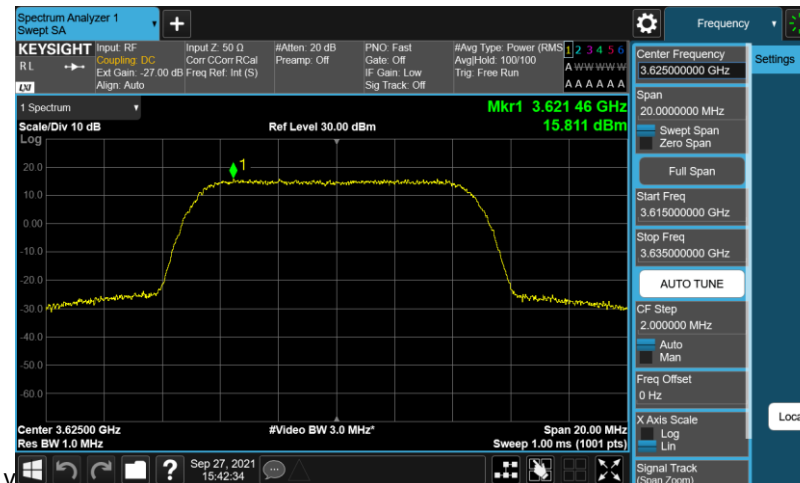
Band	Bandwidth	Modulation	Channel	Mode	PSD (dBm/MHz)
Band48	10MHz	256QAM	55290	E-TM3.1A	16.03
Band48	10MHz	256QAM	55990	E-TM3.1A	15.81
Band48	10MHz	256QAM	56690	E-TM3.1A	15.11
Band48	10MHz	QPSK	55290	E-TM1.1	15.80
Band48	10MHz	QPSK	55990	E-TM1.1	15.47
Band48	10MHz	QPSK	56690	E-TM1.1	15.18
Band48	20MHz	256QAM	55340	E-TM3.1A	12.83
Band48	20MHz	256QAM	55990	E-TM3.1A	12.95
Band48	20MHz	256QAM	56640	E-TM3.1A	12.83
Band48	20MHz	QPSK	55340	E-TM1.1	12.78
Band48	20MHz	QPSK	55990	E-TM1.1	12.84
Band48	20MHz	QPSK	56640	E-TM1.1	12.61

Test Graphs

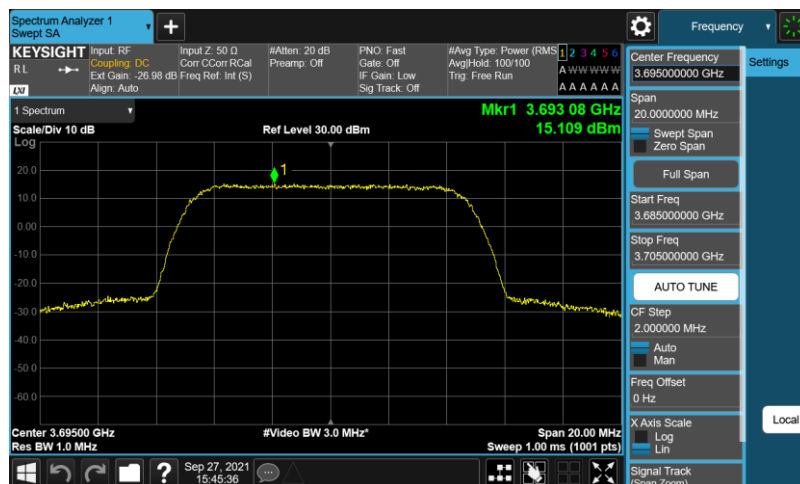
Band48-10MHz-256QAM-55290-E-TM3.1A



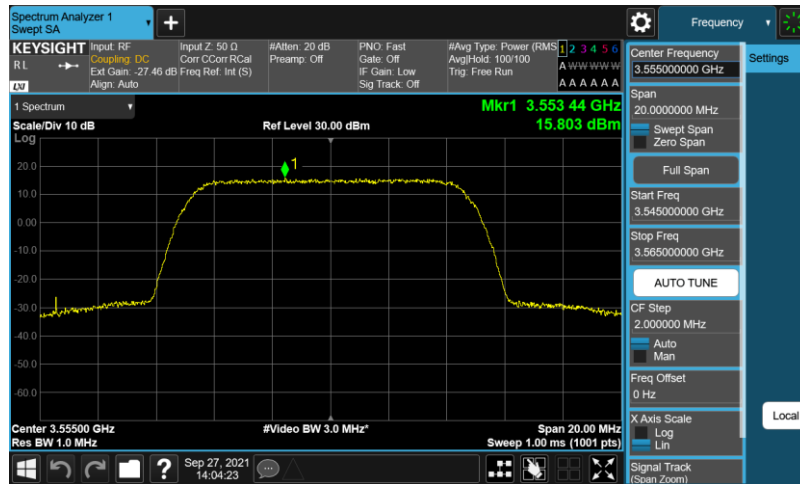
Band48-10MHz-256QAM-55990-E-TM3.1A



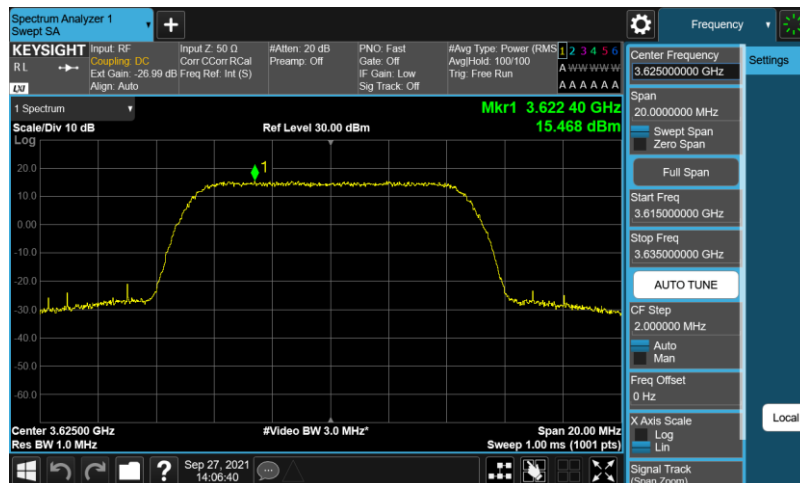
Band48-10MHz-256QAM-56690-E-TM3.1A



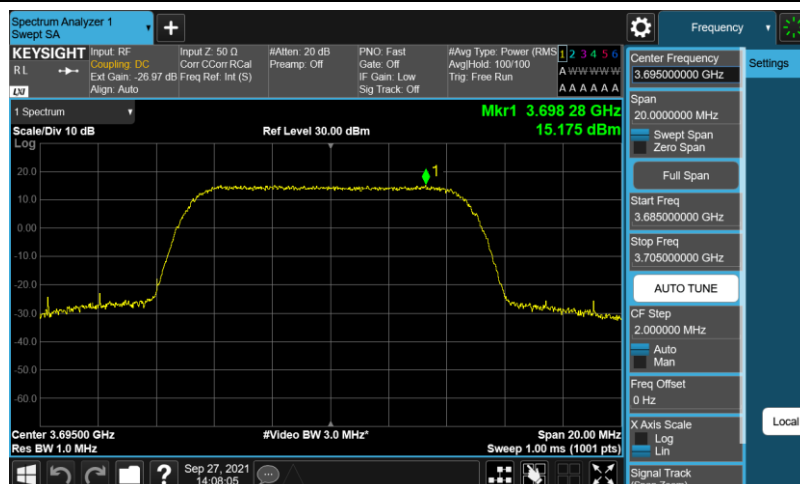
Band48-10MHz-QPSK-55290-E-TM1.1



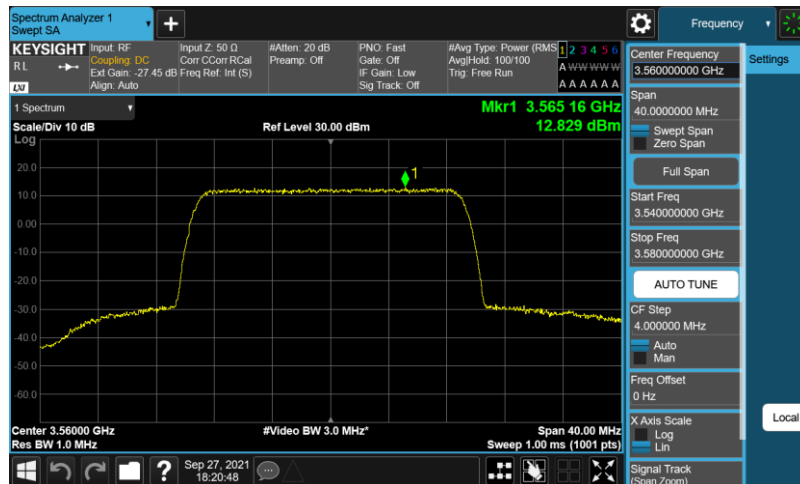
Band48-10MHz-QPSK-55990-E-TM1.1



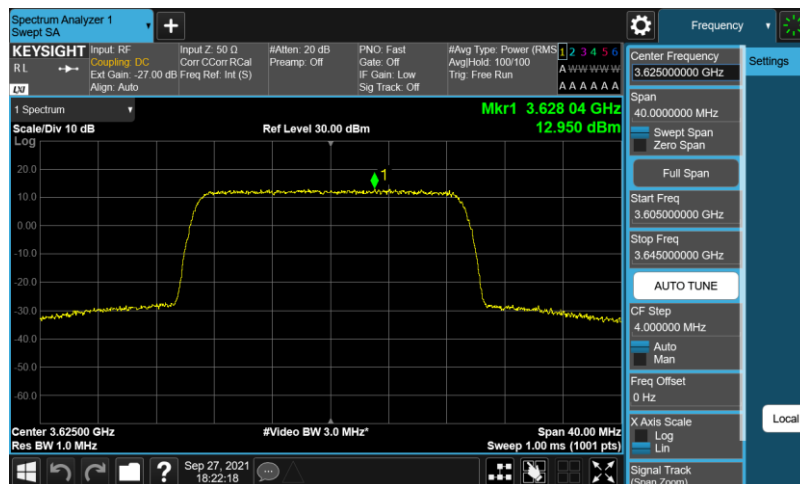
Band48-10MHz-QPSK-56690-E-TM1.1



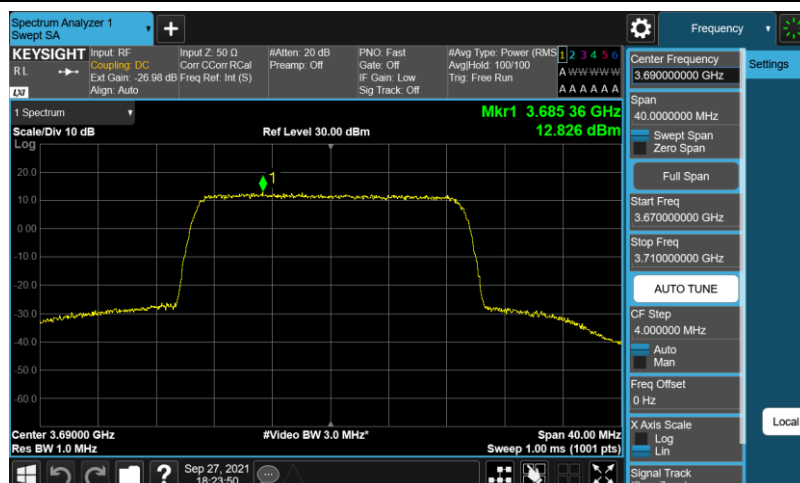
Band48-20MHz-256QAM-55340-E-TM3.1A



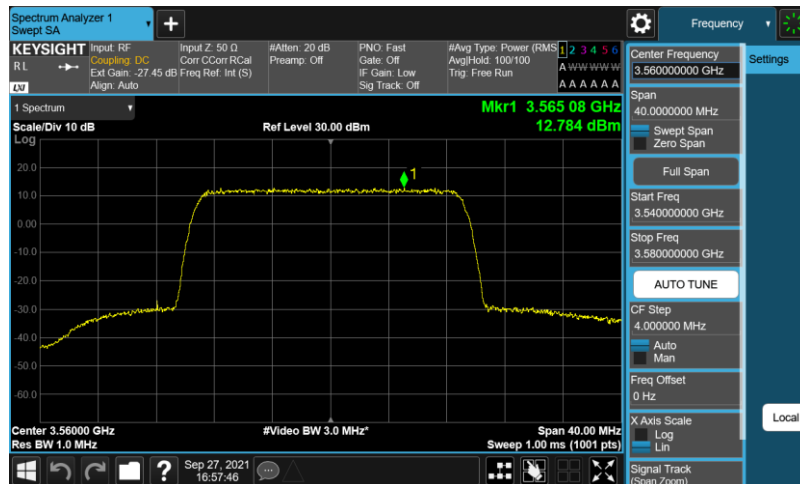
Band48-20MHz-256QAM-55990-E-TM3.1A



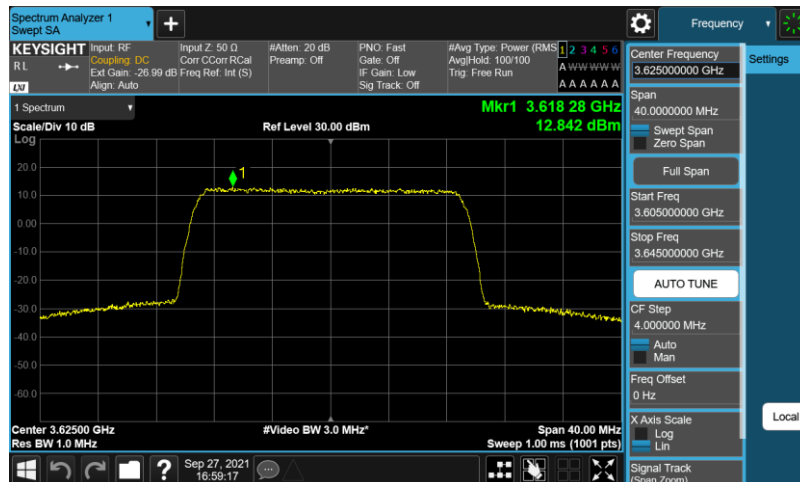
Band48-20MHz-256QAM-56640-E-TM3.1A



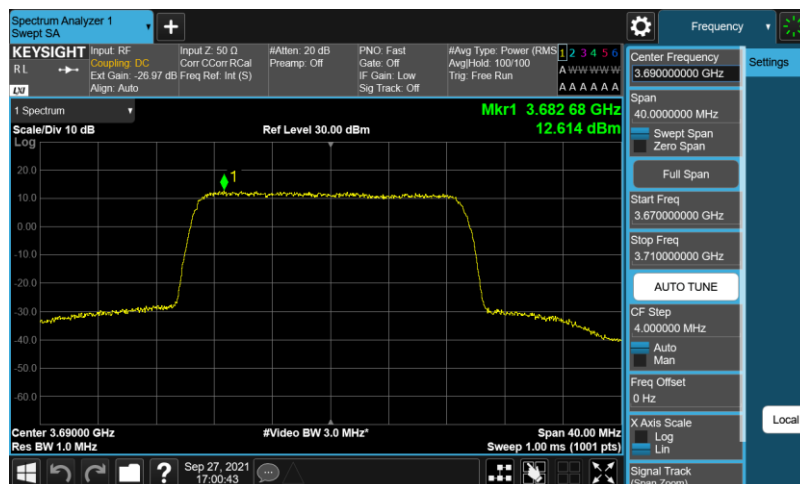
Band48-20MHz-QPSK-55340-E-TM1.1



Band48-20MHz-QPSK-55990-E-TM1.1



Band48-20MHz-QPSK-56640-E-TM1.1



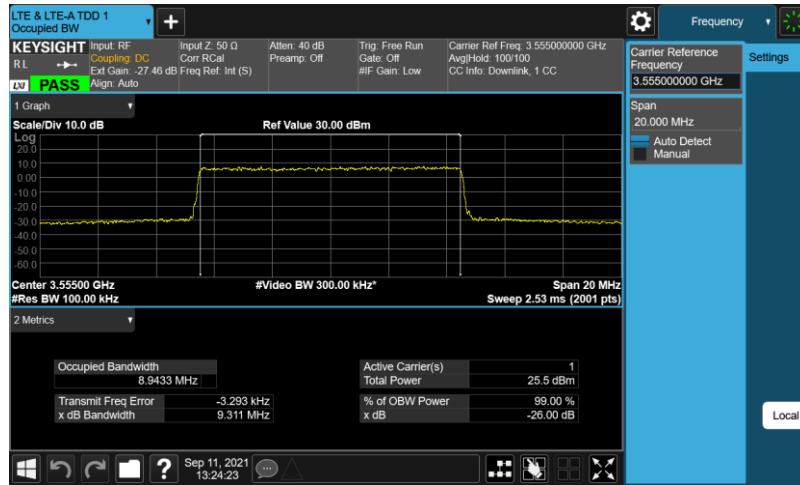
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

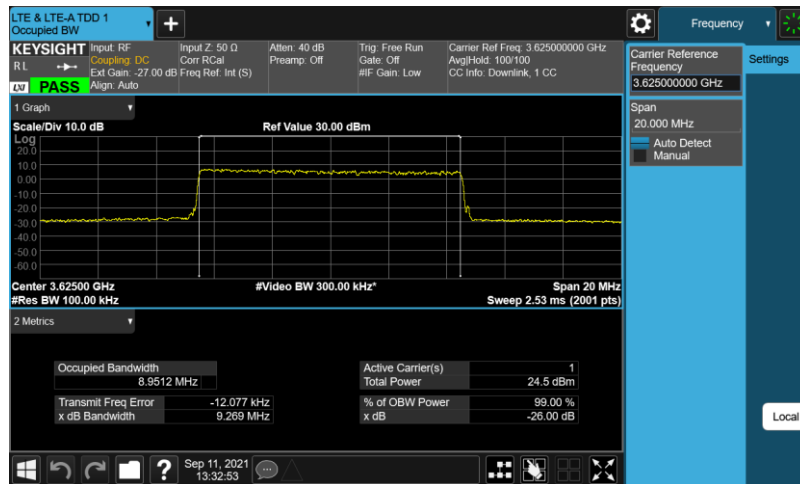
Band	Bandwidth	Modulation	Channel	Mode	99%(MHz)	EBW(MHz)
Band48	10MHz	256QAM	55290	E-TM3.1A	8.9433	9.311
Band48	10MHz	256QAM	55990	E-TM3.1A	8.9512	9.269
Band48	10MHz	256QAM	56690	E-TM3.1A	8.9435	9.345
Band48	10MHz	QPSK	55290	E-TM1.1	8.9410	9.364
Band48	10MHz	QPSK	55990	E-TM1.1	8.9240	9.298
Band48	10MHz	QPSK	56690	E-TM1.1	8.9312	9.370
Band48	20MHz	256QAM	55340	E-TM3.1A	17.876	18.52
Band48	20MHz	256QAM	55990	E-TM3.1A	17.860	18.52
Band48	20MHz	256QAM	56640	E-TM3.1A	17.861	18.67
Band48	20MHz	QPSK	55340	E-TM1.1	17.852	18.53
Band48	20MHz	QPSK	55990	E-TM1.1	17.873	18.59
Band48	20MHz	QPSK	56640	E-TM1.1	17.866	18.59

Test Graphs

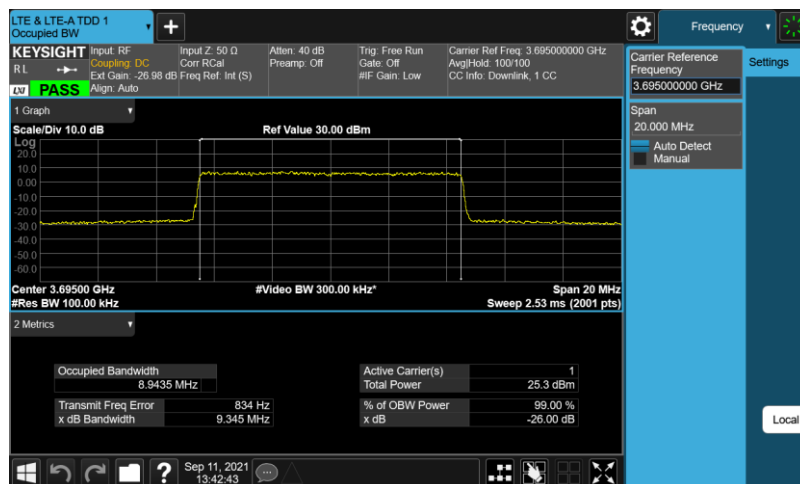
Band48-10MHz-256QAM-55290-E-TM3.1A



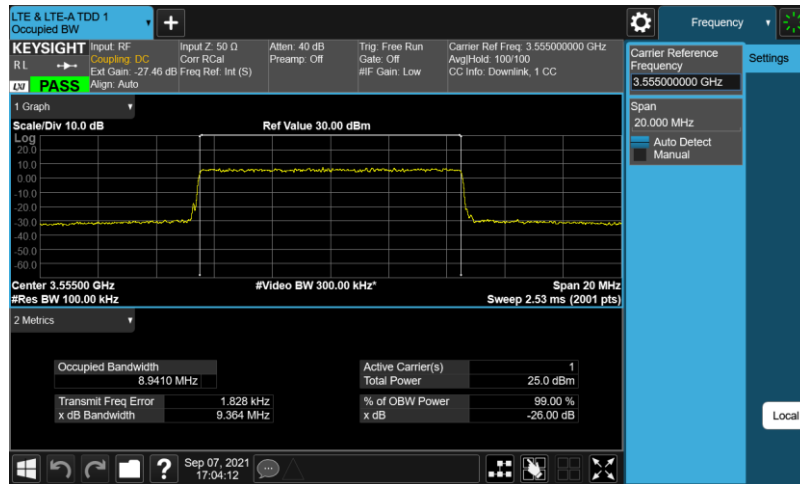
Band48-10MHz-256QAM-55990-E-TM3.1A



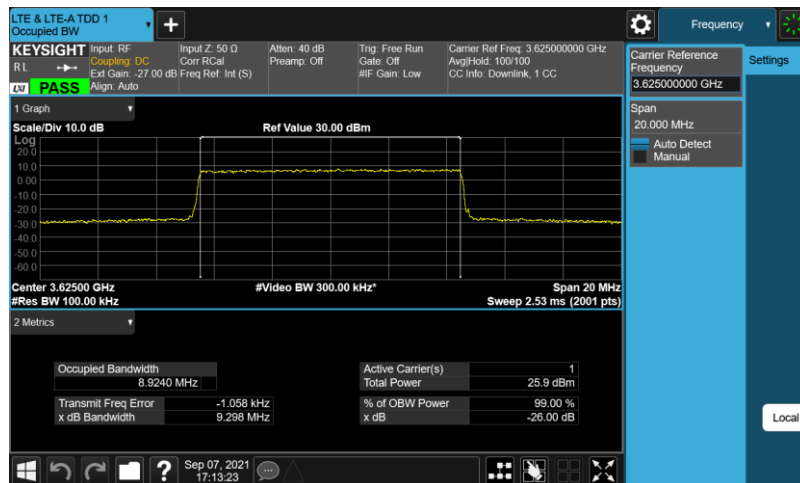
Band48-10MHz-256QAM-56690-E-TM3.1A



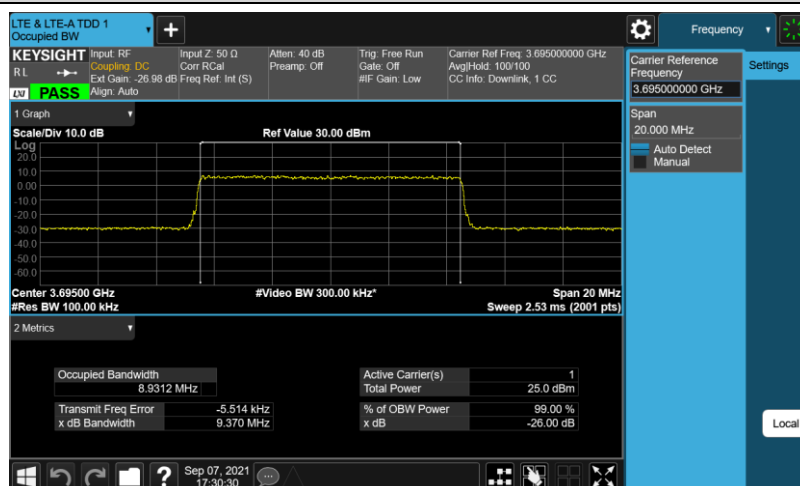
Band48-10MHz-QPSK-55290-E-TM1.1



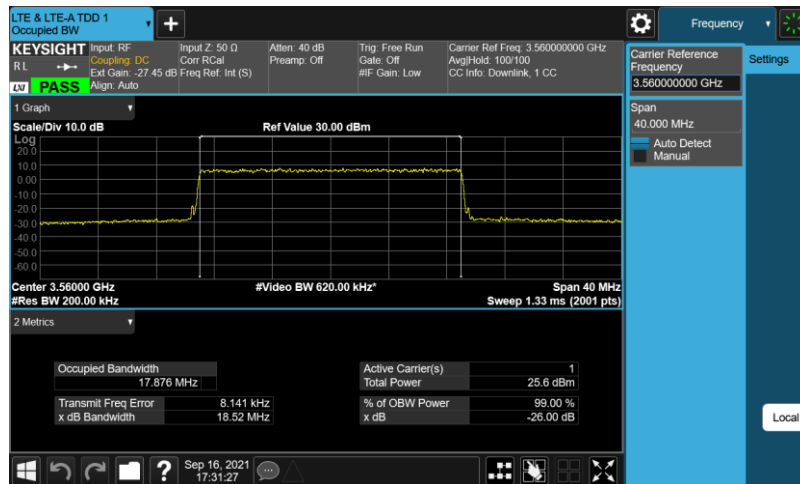
Band48-10MHz-QPSK-55990-E-TM1.1



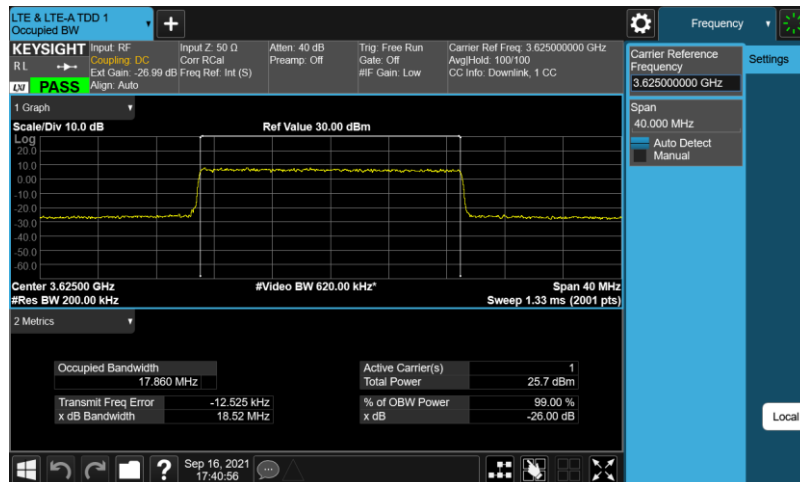
Band48-10MHz-QPSK-56690-E-TM1.1



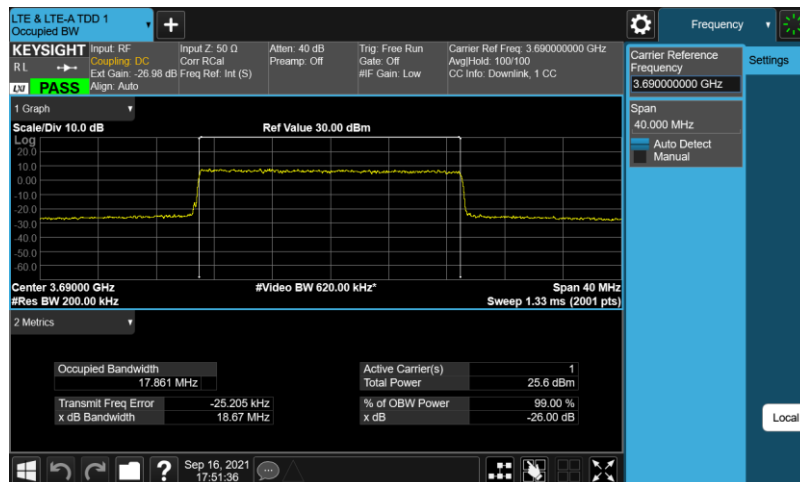
Band48-20MHz-256QAM-55340-E-TM3.1A



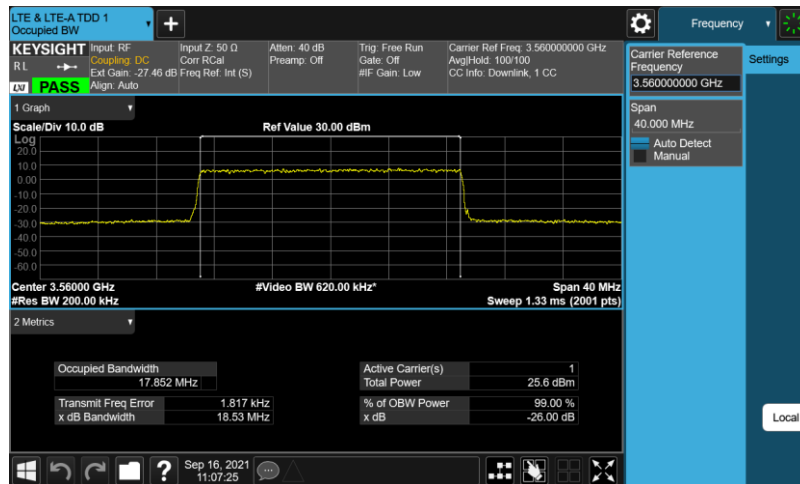
Band48-20MHz-256QAM-55990-E-TM3.1A



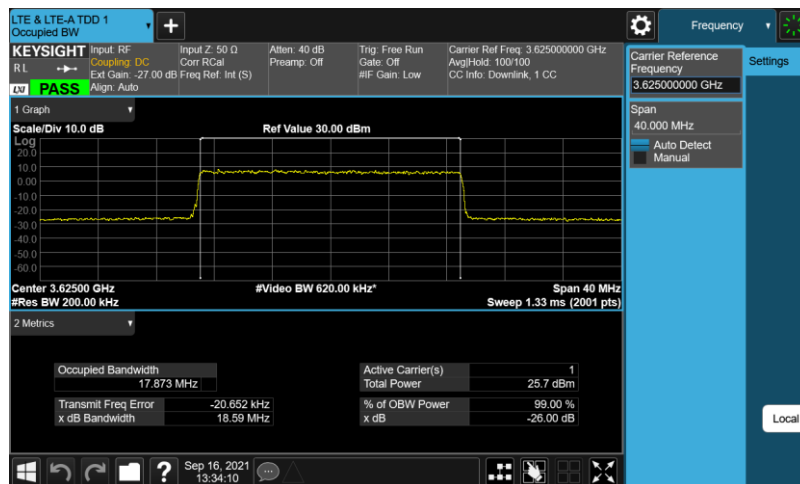
Band48-20MHz-256QAM-56640-E-TM3.1A



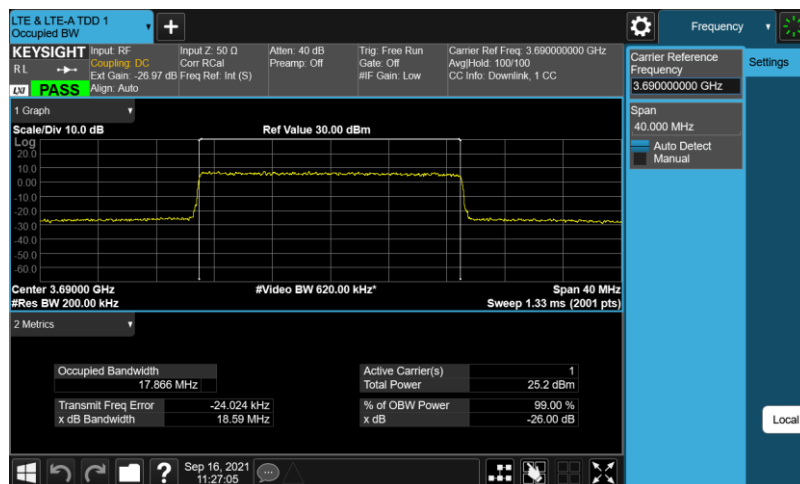
Band48-20MHz-QPSK-55340-E-TM1.1



Band48-20MHz-QPSK-55990-E-TM1.1



Band48-20MHz-QPSK-56640-E-TM1.1



Appendix D: Frequency Stability

Test Result

Voltage measurement									
Band	Bandwidth	Modulation	Channel	Mode	Voltage [Vac]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)
Band48	10MHz	256QAM	55990	E-TM3.1A	102	25	66	0.018	within the authorized bands
Band48	10MHz	256QAM	55990	E-TM3.1A	120	25	68	0.019	
Band48	10MHz	256QAM	55990	E-TM3.1A	138	25	60	0.017	
Band48	10MHz	QPSK	55990	E-TM1.1	102	25	65	0.018	
Band48	10MHz	QPSK	55990	E-TM1.1	120	25	67	0.018	
Band48	10MHz	QPSK	55990	E-TM1.1	138	25	66	0.018	
Band48	20MHz	256QAM	55990	E-TM3.1A	102	25	68	0.019	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	25	66	0.018	
Band48	20MHz	256QAM	55990	E-TM3.1A	138	25	64	0.018	
Band48	20MHz	QPSK	55990	E-TM1.1	102	25	70	0.019	
Band48	20MHz	QPSK	55990	E-TM1.1	120	25	72	0.020	
Band48	20MHz	QPSK	55990	E-TM1.1	138	25	72	0.020	

Temperature measurement									
Band	Bandwidth	Modulation	Channel	Mode	Voltage [Vac]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)
Band48	10MHz	256QAM	55990	E-TM3.1A	120	-30	62	0.017	within the authorized bands
Band48	10MHz	256QAM	55990	E-TM3.1A	120	-20	59	0.016	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	-10	64	0.018	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	0	66	0.018	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	10	59	0.016	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	20	62	0.017	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	30	60	0.017	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	40	61	0.017	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	50	58	0.016	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-30	72	0.020	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-20	68	0.019	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-10	73	0.020	
Band48	10MHz	QPSK	55990	E-TM1.1	120	0	66	0.018	
Band48	10MHz	QPSK	55990	E-TM1.1	120	10	68	0.019	
Band48	10MHz	QPSK	55990	E-TM1.1	120	20	70	0.019	
Band48	10MHz	QPSK	55990	E-TM1.1	120	30	70	0.019	

Band48	10MHz	QPSK	55990	E-TM1.1	120	40	72	0.020	
Band48	10MHz	QPSK	55990	E-TM1.1	120	50	67	0.018	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	-30	78	0.022	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	-20	80	0.022	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	-10	77	0.021	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	0	76	0.021	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	10	78	0.022	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	20	80	0.022	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	30	77	0.021	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	40	75	0.021	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	50	72	0.020	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-30	80	0.022	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-20	81	0.022	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-10	78	0.022	
Band48	20MHz	QPSK	55990	E-TM1.1	120	0	76	0.021	
Band48	20MHz	QPSK	55990	E-TM1.1	120	10	78	0.022	
Band48	20MHz	QPSK	55990	E-TM1.1	120	20	80	0.022	
Band48	20MHz	QPSK	55990	E-TM1.1	120	30	82	0.023	
Band48	20MHz	QPSK	55990	E-TM1.1	120	40	78	0.022	
Band48	20MHz	QPSK	55990	E-TM1.1	120	50	76	0.021	

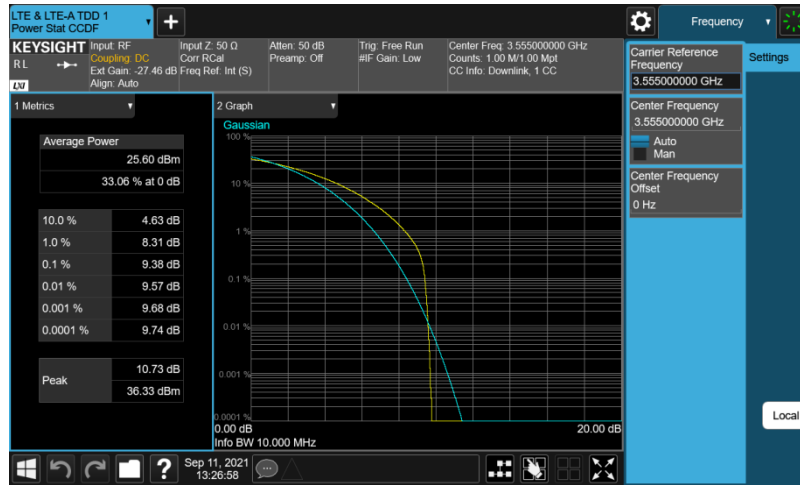
Appendix E: Peak-to-Average Ratio(CCDF)

Test Result

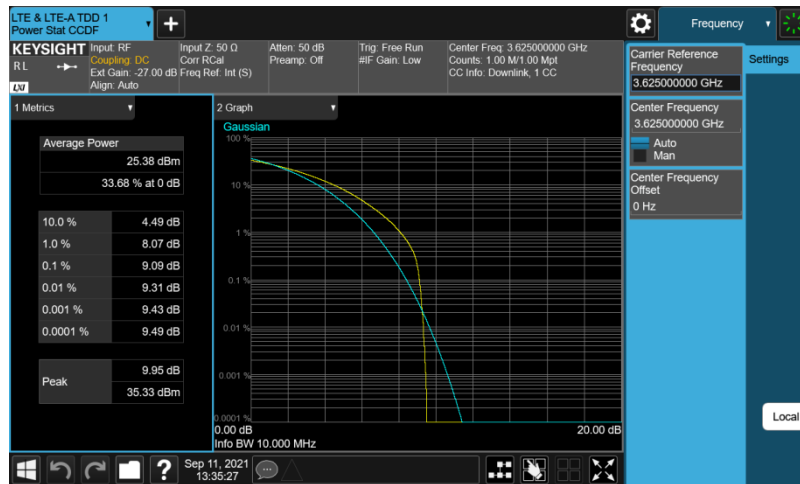
Band	Bandwidth	Modulation	Channel	Mode	Result(dBm)
Band48	10MHz	256QAM	55290	E-TM3.1A	9.38
Band48	10MHz	256QAM	55990	E-TM3.1A	9.09
Band48	10MHz	256QAM	56690	E-TM3.1A	9.33
Band48	10MHz	QPSK	55290	E-TM1.1	9.30
Band48	10MHz	QPSK	55990	E-TM1.1	9.35
Band48	10MHz	QPSK	56690	E-TM1.1	9.09
Band48	20MHz	256QAM	55340	E-TM3.1A	8.91
Band48	20MHz	256QAM	55990	E-TM3.1A	10.48
Band48	20MHz	256QAM	56640	E-TM3.1A	9.51
Band48	20MHz	QPSK	55340	E-TM1.1	9.11
Band48	20MHz	QPSK	55990	E-TM1.1	9.44
Band48	20MHz	QPSK	56640	E-TM1.1	9.17

Test Graphs

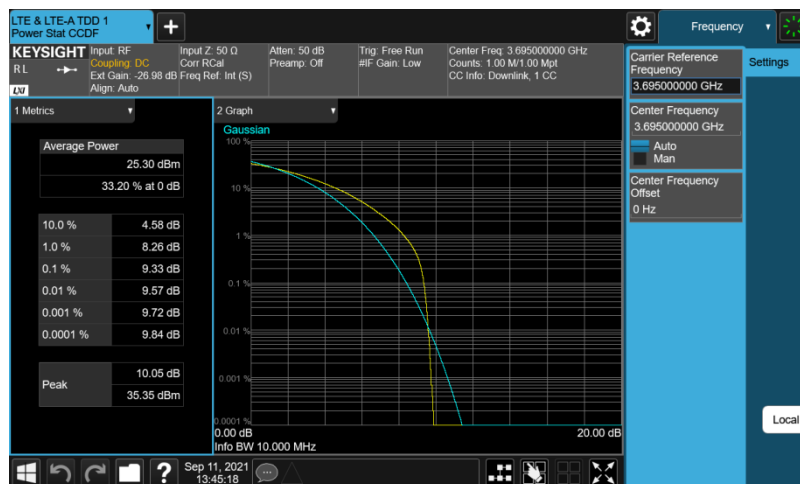
Band48-10MHz-256QAM-55290-E-TM3.1A



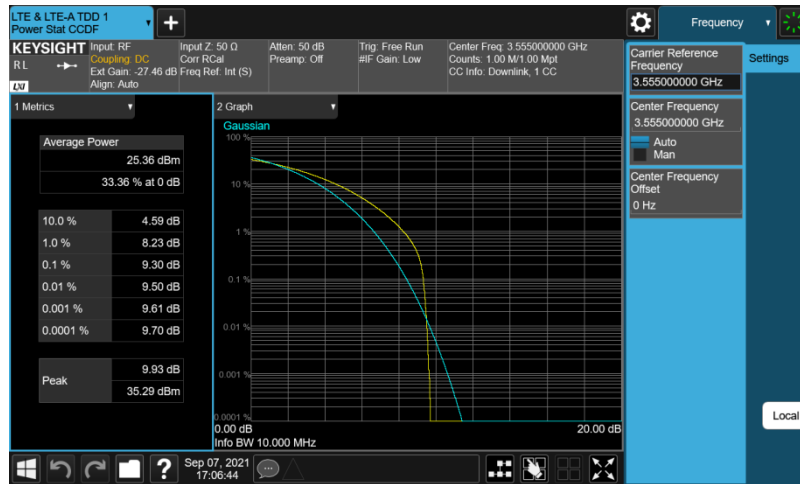
Band48-10MHz-256QAM-55990-E-TM3.1A



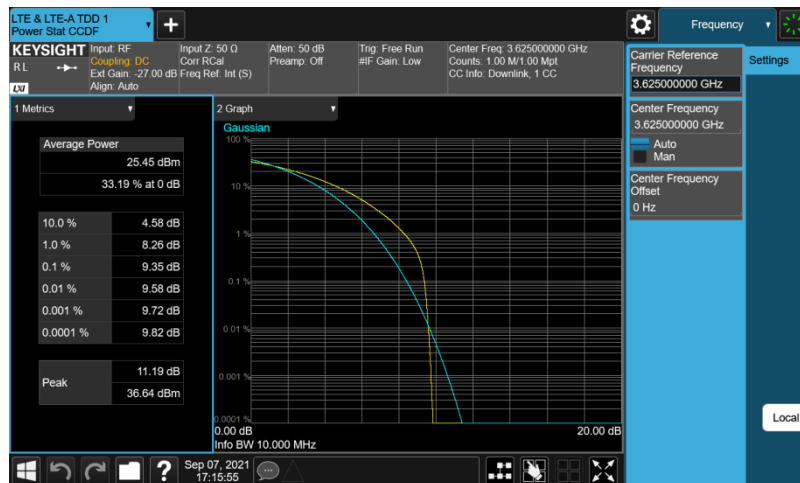
Band48-10MHz-256QAM-56690-E-TM3.1A



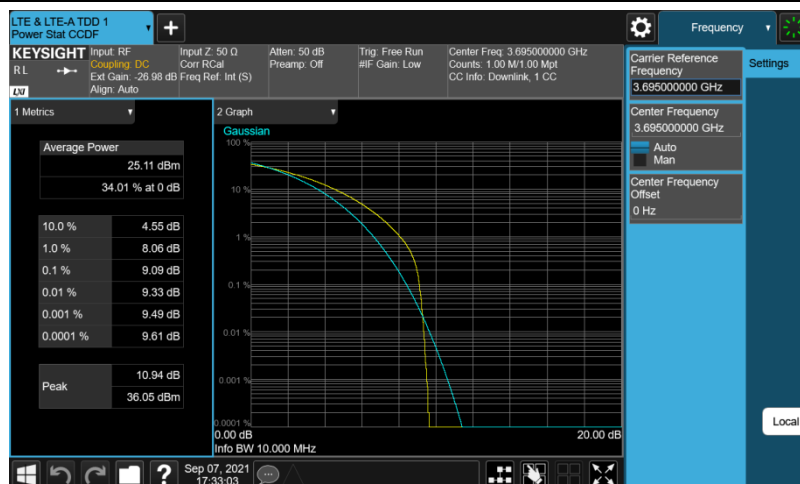
Band48-10MHz-QPSK-55290-E-TM1.1



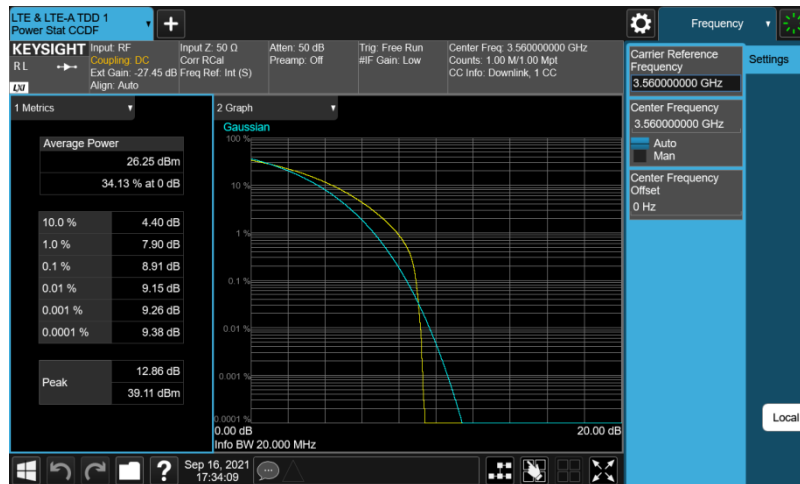
Band48-10MHz-QPSK-55990-E-TM1.1



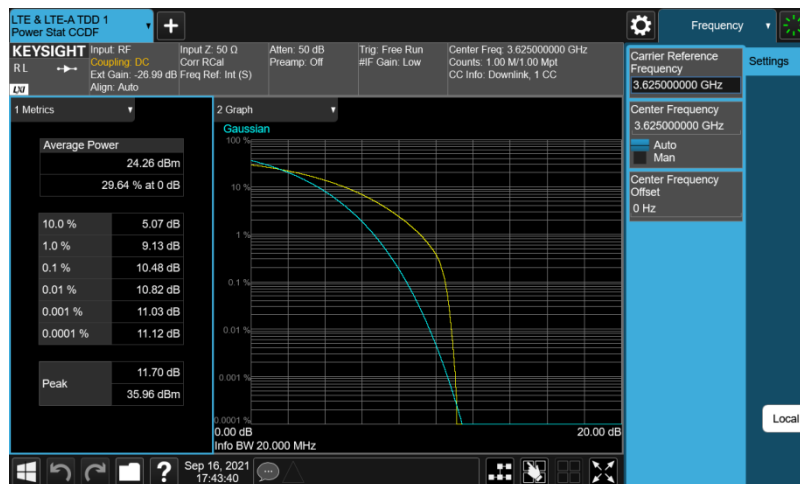
Band48-10MHz-QPSK-56690-E-TM1.1



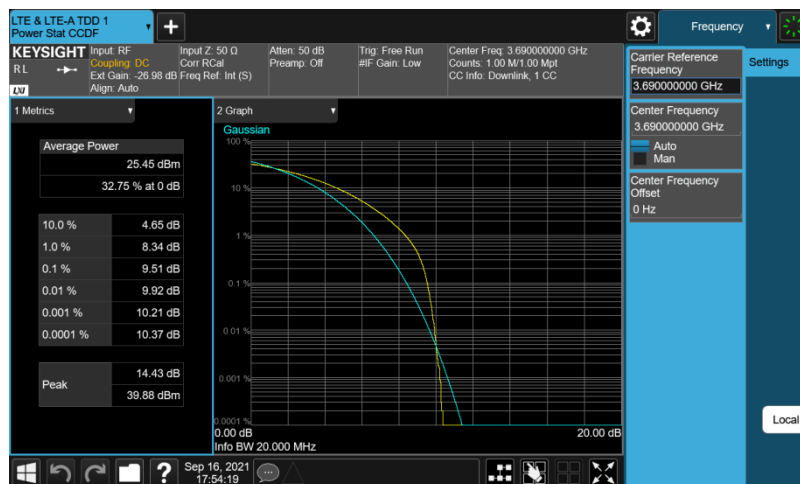
Band48-20MHz-256QAM-55340-E-TM3.1A



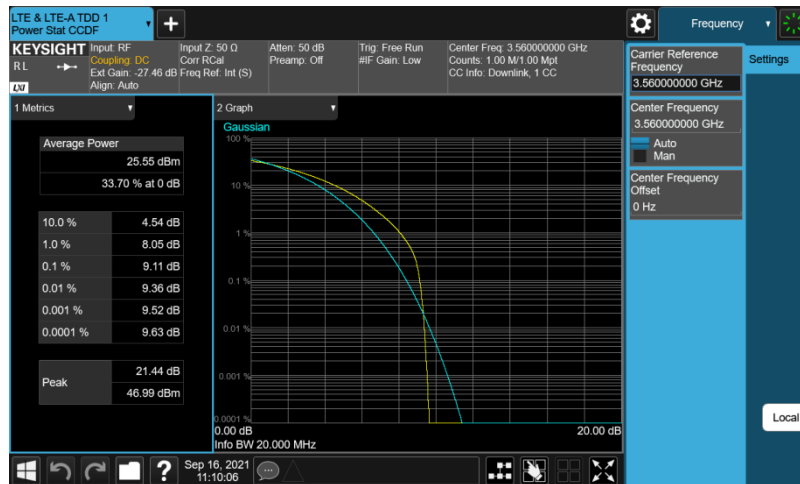
Band48-20MHz-256QAM-55990-E-TM3.1A



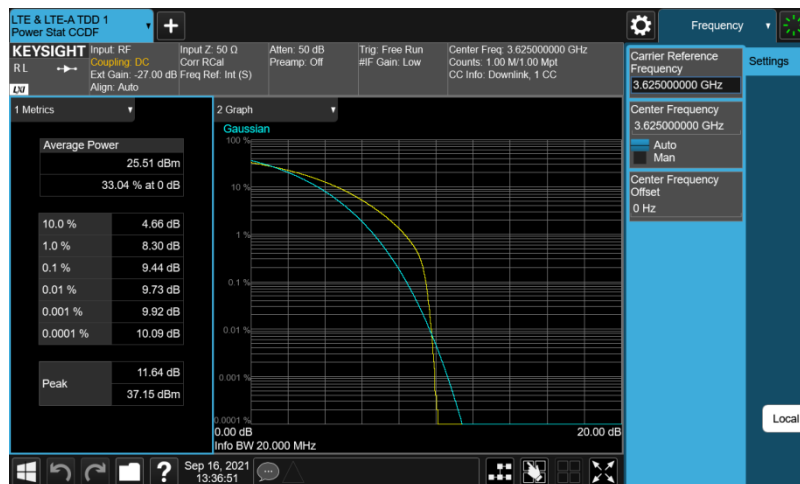
Band48-20MHz-256QAM-56640-E-TM3.1A



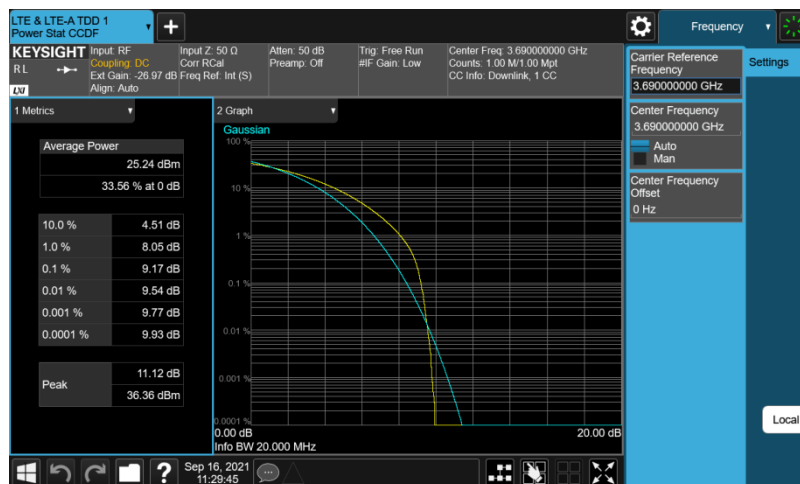
Band48-20MHz-QPSK-55340-E-TM1.1



Band48-20MHz-QPSK-55990-E-TM1.1



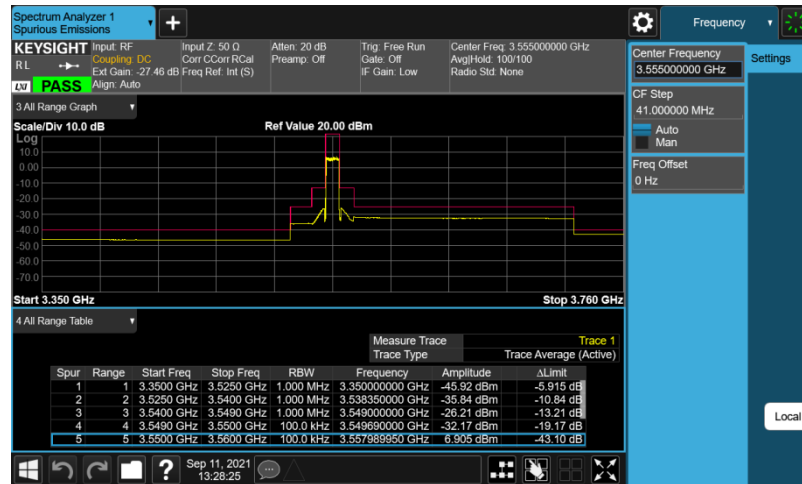
Band48-20MHz-QPSK-56640-E-TM1.1



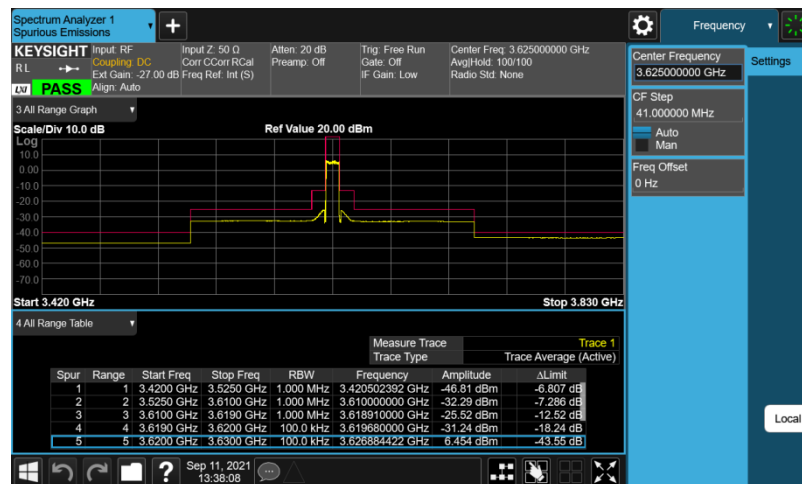
Appendix F: Emission Mask

Test Graphs

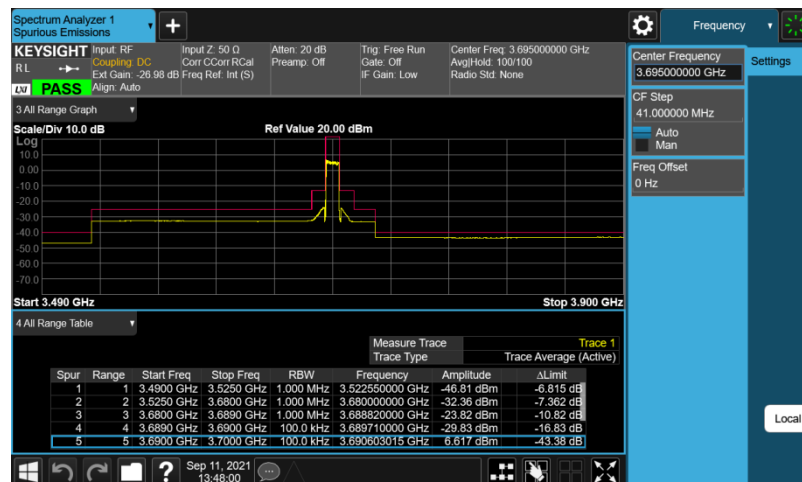
Band48-10MHz-256QAM-55290-E-TM3.1A



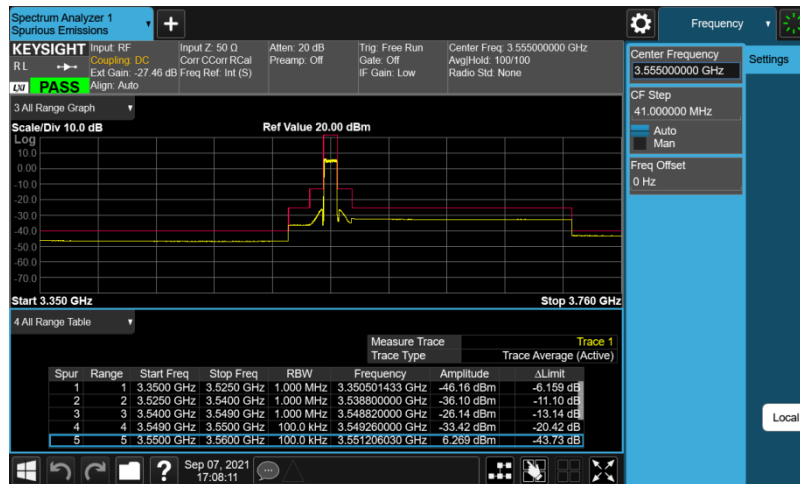
Band48-10MHz-256QAM-55990-E-TM3.1A



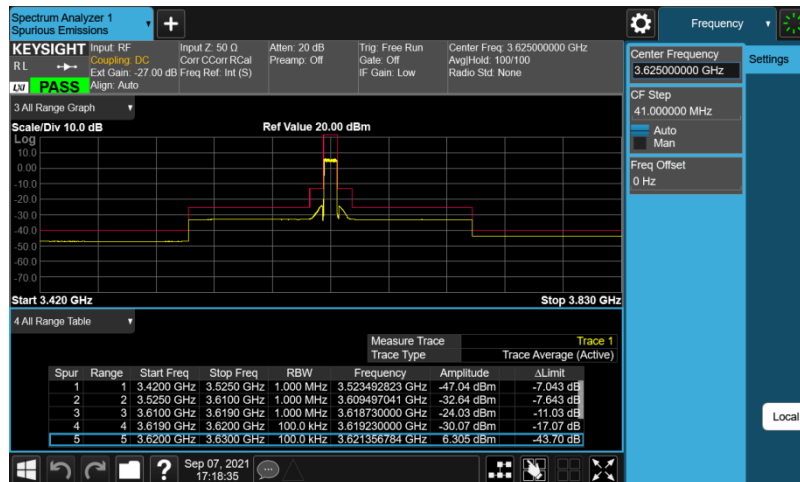
Band48-10MHz-256QAM-56690-E-TM3.1A



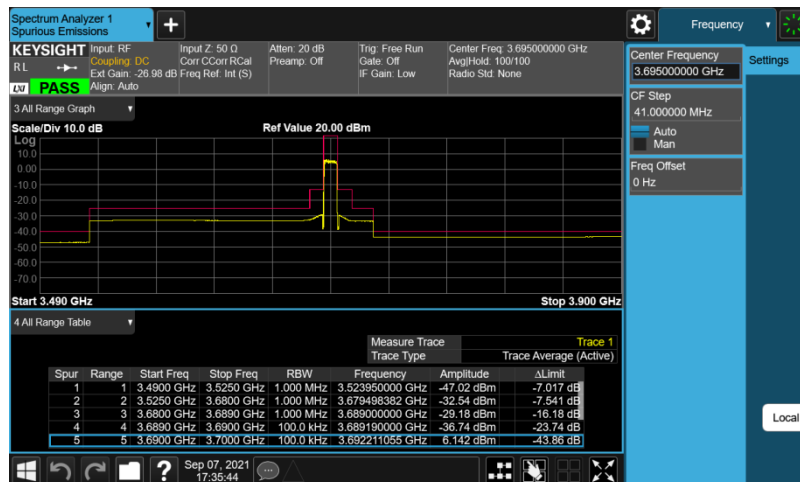
Band48-10MHz-QPSK-55290-E-TM1.1



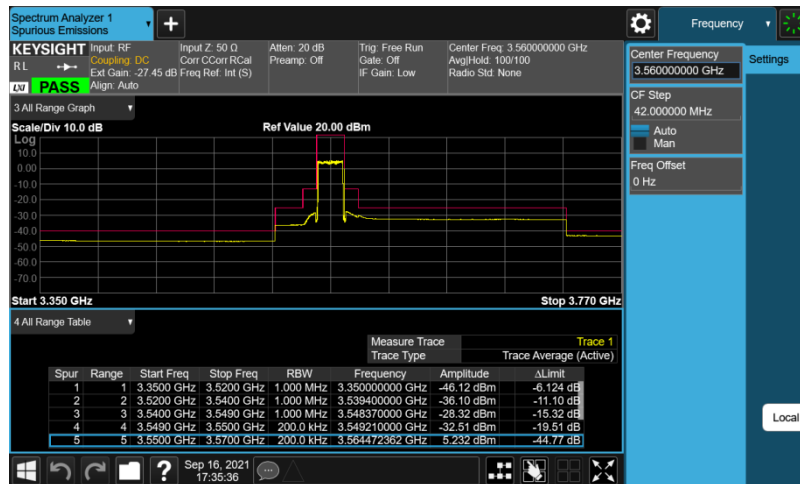
Band48-10MHz-QPSK-55990-E-TM1.1



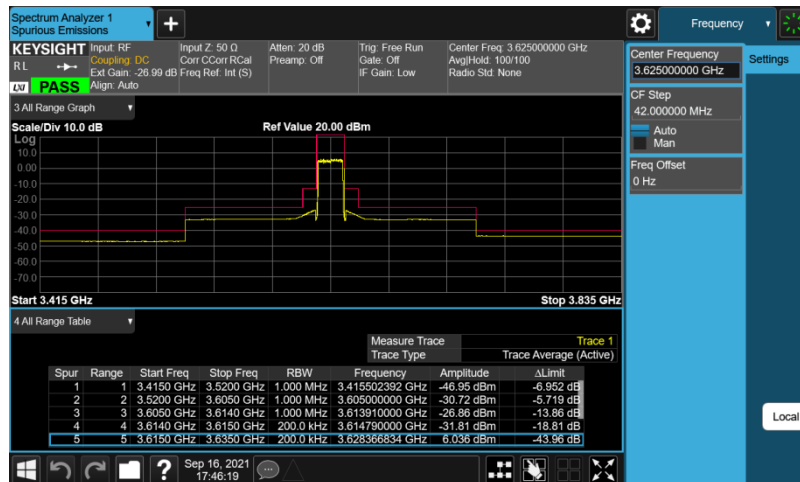
Band48-10MHz-QPSK-56690-E-TM1.1



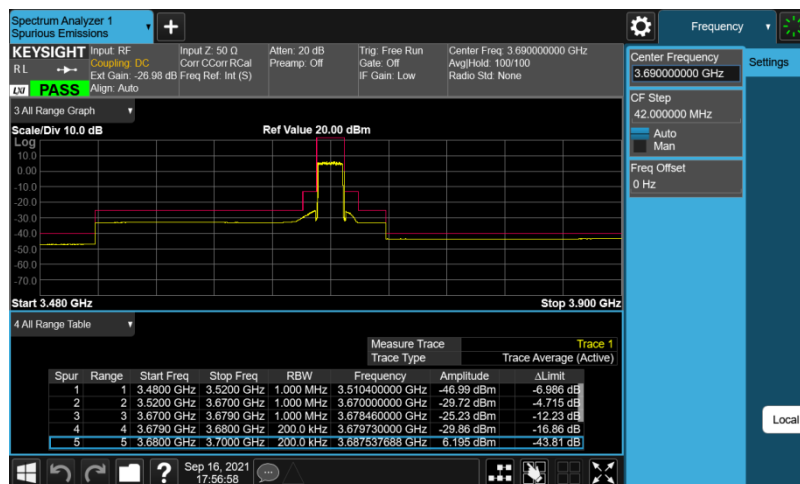
Band48-20MHz-256QAM-55340-E-TM3.1A



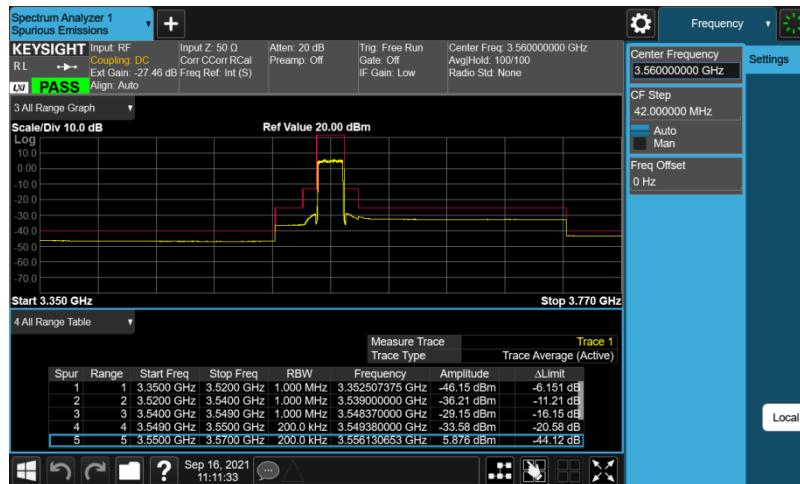
Band48-20MHz-256QAM-55990-E-TM3.1A



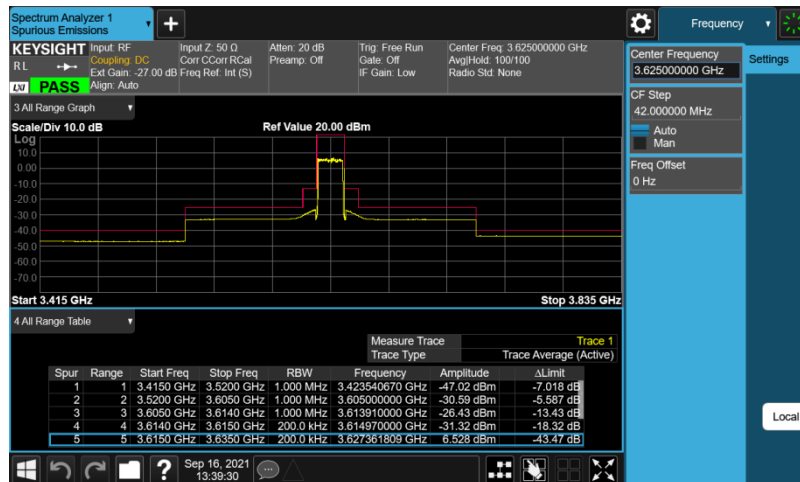
Band48-20MHz-256QAM-56640-E-TM3.1A



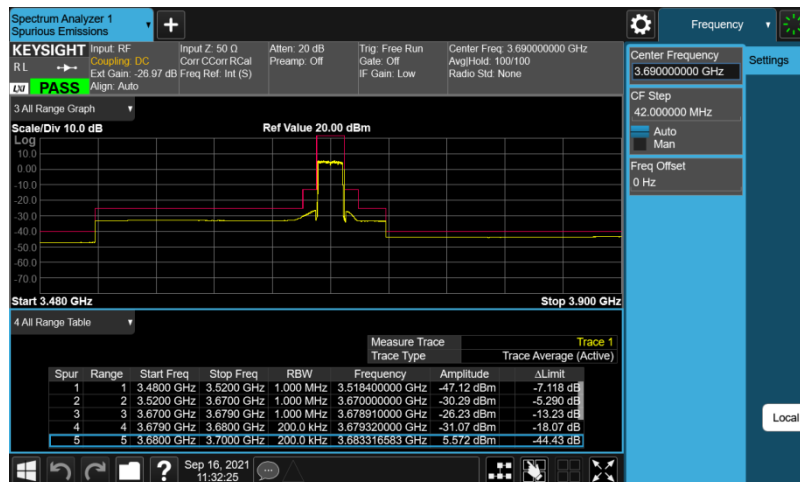
Band48-20MHz-QPSK-55340-E-TM1.1



Band48-20MHz-QPSK-55990-E-TM1.1



Band48-20MHz-QPSK-56640-E-TM1.1



Appendix G: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	Mode	Test Frequency(MHz)	Result (dBm)	Verdict
Band48	10MHz	256QAM	55290	E-TM3.1A	30-3530	-53.62	PASS
Band48	10MHz	256QAM	55290	E-TM3.1A	3720-6000	-52.93	PASS
Band48	10MHz	256QAM	55290	E-TM3.1A	6000-40000	-53.41	PASS
Band48	10MHz	256QAM	55990	E-TM3.1A	30-3530	-53.94	PASS
Band48	10MHz	256QAM	55990	E-TM3.1A	3720-6000	-52.78	PASS
Band48	10MHz	256QAM	55990	E-TM3.1A	6000-40000	-53.37	PASS
Band48	10MHz	256QAM	56690	E-TM3.1A	30-3530	-53.87	PASS
Band48	10MHz	256QAM	56690	E-TM3.1A	3720-6000	-52.98	PASS
Band48	10MHz	256QAM	56690	E-TM3.1A	6000-40000	-53.43	PASS
Band48	10MHz	QPSK	55290	E-TM1.1	30-3530	-53.77	PASS
Band48	10MHz	QPSK	55290	E-TM1.1	3720-6000	-52.82	PASS
Band48	10MHz	QPSK	55290	E-TM1.1	6000-40000	-53.54	PASS
Band48	10MHz	QPSK	55990	E-TM1.1	30-3530	-53.92	PASS
Band48	10MHz	QPSK	55990	E-TM1.1	3720-6000	-53.25	PASS
Band48	10MHz	QPSK	55990	E-TM1.1	6000-40000	-53.58	PASS
Band48	10MHz	QPSK	56690	E-TM1.1	30-3530	-54.27	PASS
Band48	10MHz	QPSK	56690	E-TM1.1	3720-6000	-53.18	PASS
Band48	10MHz	QPSK	56690	E-TM1.1	6000-40000	-53.63	PASS
Band48	20MHz	256QAM	55340	E-TM3.1A	30-3530	-53.72	PASS
Band48	20MHz	256QAM	55340	E-TM3.1A	3720-6000	-52.93	PASS
Band48	20MHz	256QAM	55340	E-TM3.1A	6000-40000	-53.55	PASS
Band48	20MHz	256QAM	55990	E-TM3.1A	30-3530	-54.36	PASS
Band48	20MHz	256QAM	55990	E-TM3.1A	3720-6000	-52.94	PASS
Band48	20MHz	256QAM	55990	E-TM3.1A	6000-40000	-53.47	PASS
Band48	20MHz	256QAM	56640	E-TM3.1A	30-3530	-54.25	PASS
Band48	20MHz	256QAM	56640	E-TM3.1A	3720-6000	-52.97	PASS
Band48	20MHz	256QAM	56640	E-TM3.1A	6000-40000	-53.57	PASS
Band48	20MHz	QPSK	55340	E-TM1.1	30-3530	-53.83	PASS
Band48	20MHz	QPSK	55340	E-TM1.1	3720-6000	-52.90	PASS
Band48	20MHz	QPSK	55340	E-TM1.1	6000-40000	-53.76	PASS
Band48	20MHz	QPSK	55990	E-TM1.1	30-3530	-54.32	PASS

Band48	20MHz	QPSK	55990	E-TM1.1	3720-6000	-53.14	PASS
Band48	20MHz	QPSK	55990	E-TM1.1	6000-40000	-53.58	PASS
Band48	20MHz	QPSK	56640	E-TM1.1	30-3530	-54.09	PASS
Band48	20MHz	QPSK	56640	E-TM1.1	3720-6000	-53.08	PASS
Band48	20MHz	QPSK	56640	E-TM1.1	6000-40000	-53.69	PASS

Test Graphs

