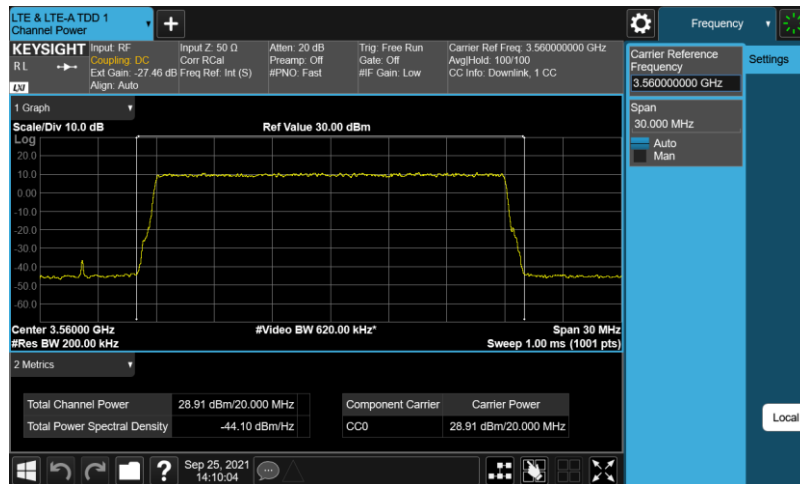
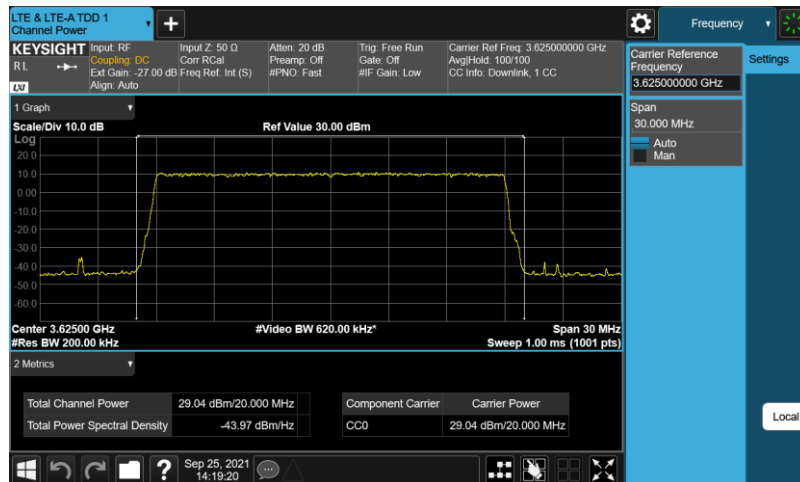


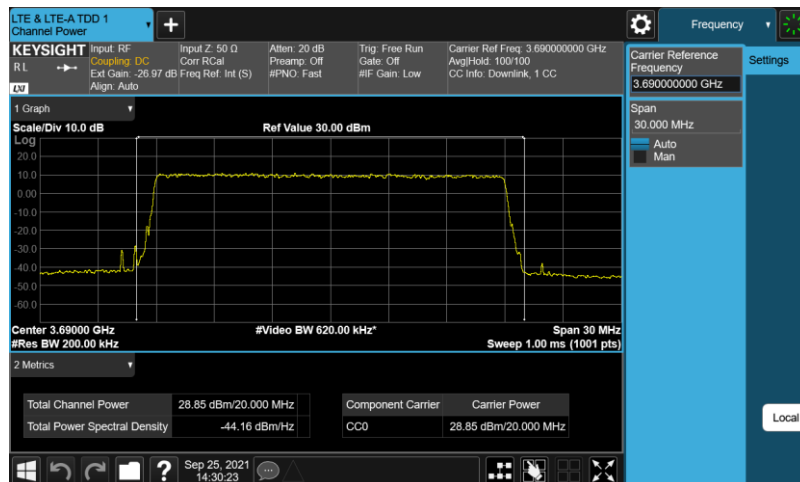
Band48-20MHz-QPSK-55340-E-TM1.1-20



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



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



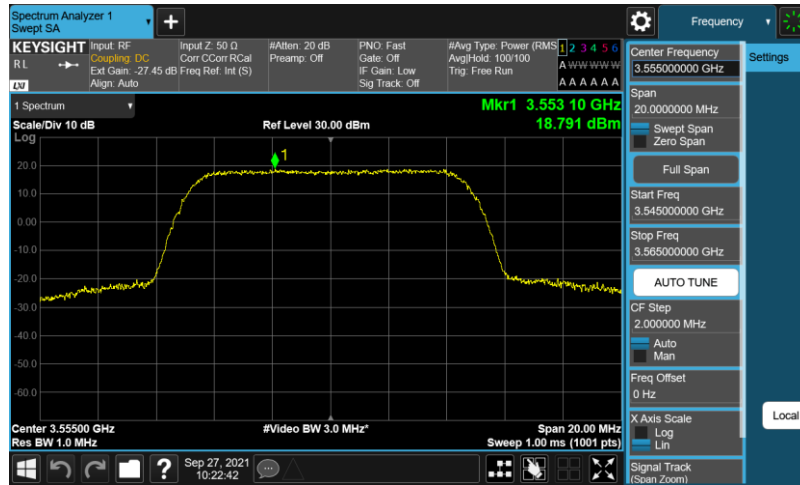
Appendix B: Power Spectral Density

Test Result

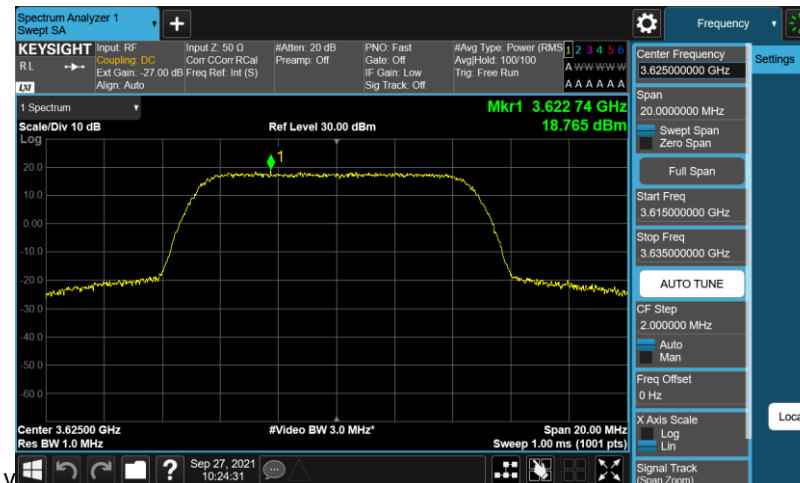
Band	Bandwidth	Modulation	Channel	Mode	PSD (dBm/MHz)
Band48	10MHz	256QAM	55290	E-TM3.1A	18.79
Band48	10MHz	256QAM	55990	E-TM3.1A	18.77
Band48	10MHz	256QAM	56690	E-TM3.1A	18.68
Band48	10MHz	QPSK	55290	E-TM1.1	18.80
Band48	10MHz	QPSK	55990	E-TM1.1	18.68
Band48	10MHz	QPSK	56690	E-TM1.1	18.43
Band48	20MHz	256QAM	55340	E-TM3.1A	15.94
Band48	20MHz	256QAM	55990	E-TM3.1A	16.18
Band48	20MHz	256QAM	56640	E-TM3.1A	15.62
Band48	20MHz	QPSK	55340	E-TM1.1	15.88
Band48	20MHz	QPSK	55990	E-TM1.1	15.70
Band48	20MHz	QPSK	56640	E-TM1.1	16.20

Test Graphs

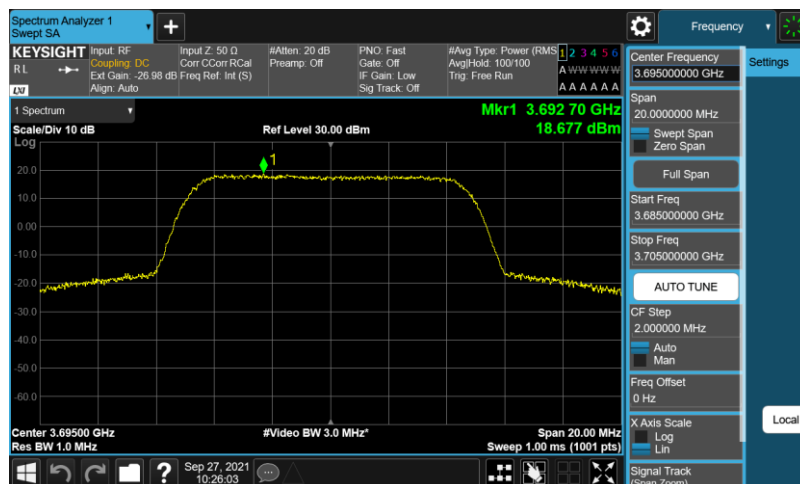
Band48-10MHz-256QAM-55290-E-TM3.1A



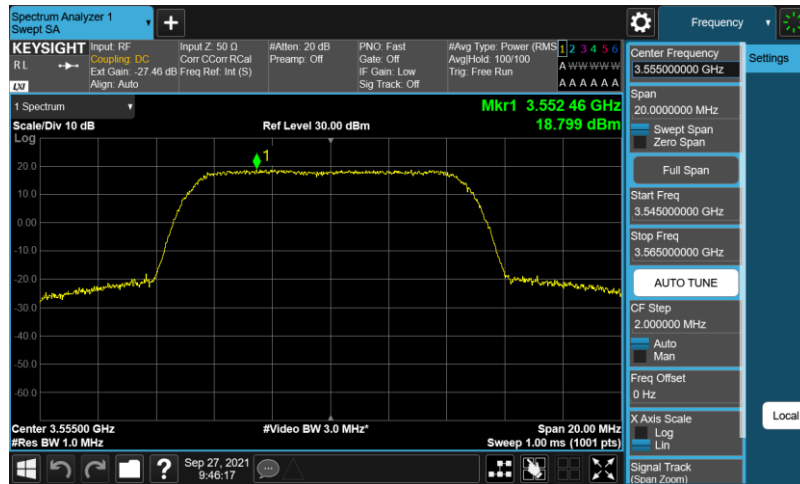
Band48-10MHz-256QAM-55990-E-TM3.1A



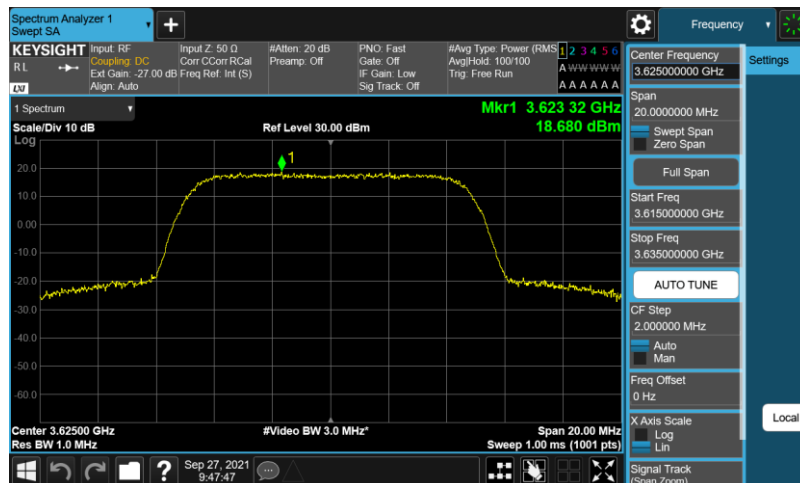
Band48-10MHz-256QAM-56690-E-TM3.1A



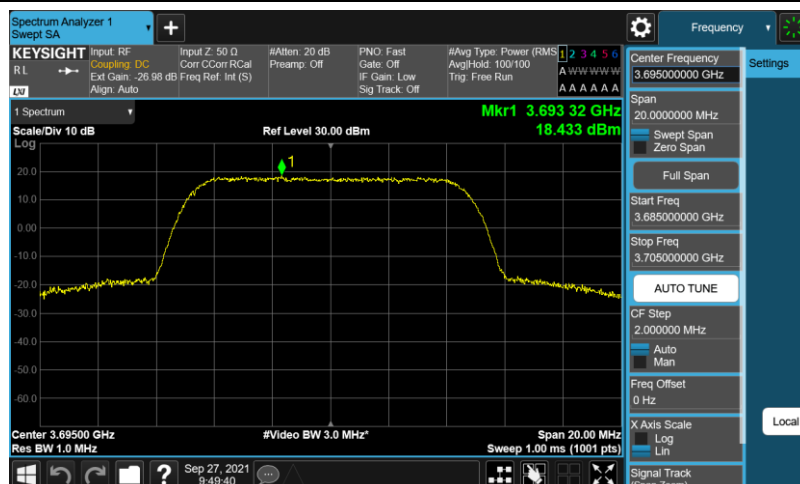
Band48-10MHz-QPSK-55290-E-TM1.1



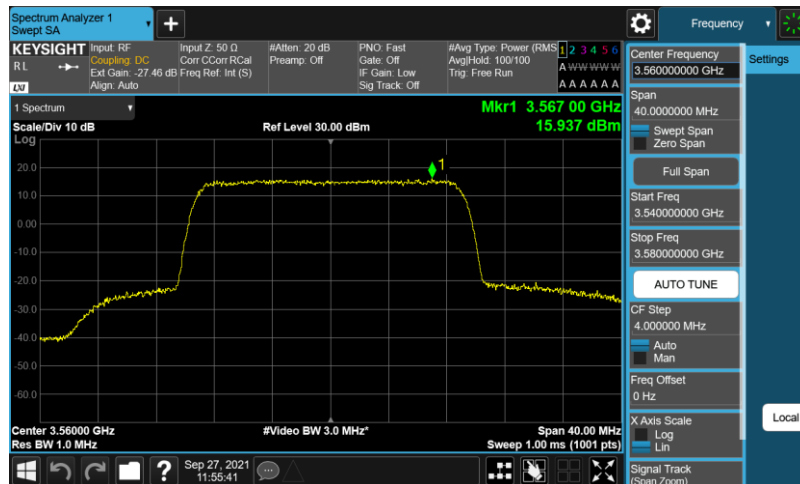
Band48-10MHz-QPSK-55990-E-TM1.1



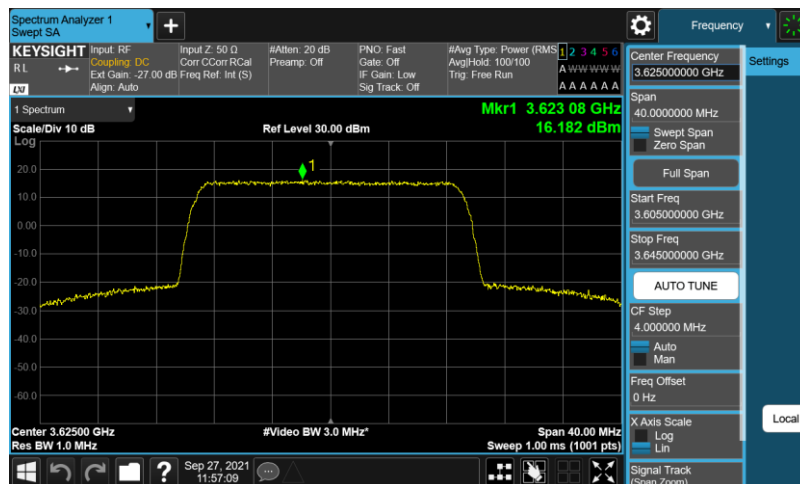
Band48-10MHz-QPSK-56690-E-TM1.1



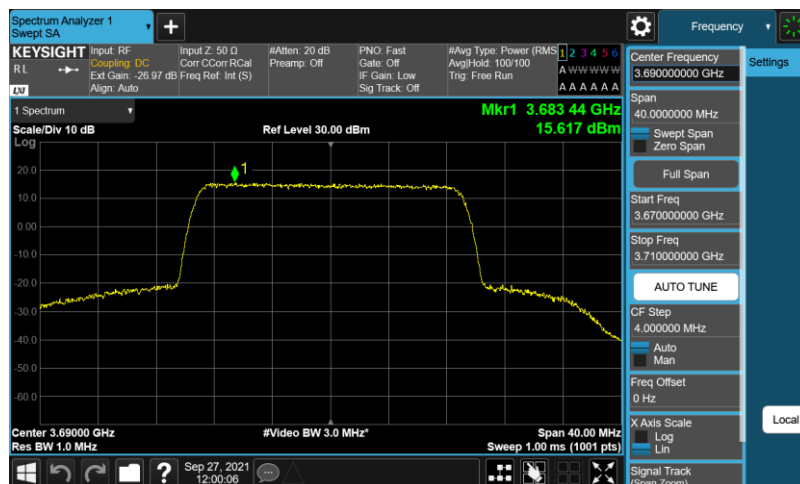
Band48-20MHz-256QAM-55340-E-TM3.1A



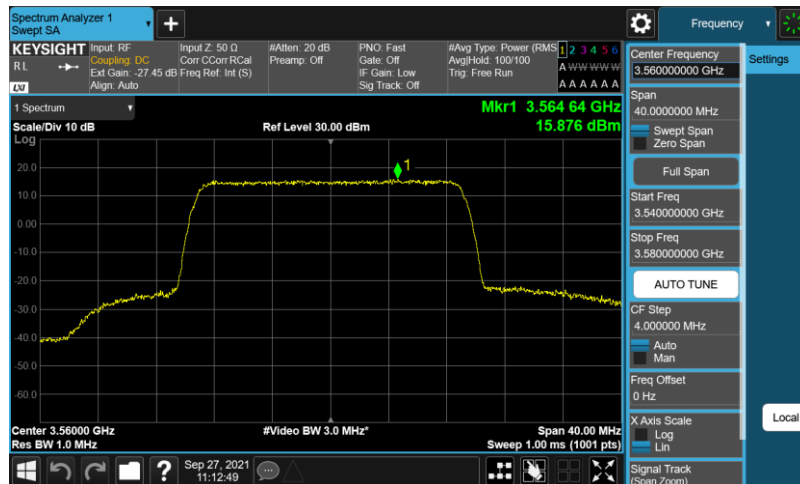
Band48-20MHz-256QAM-55990-E-TM3.1A



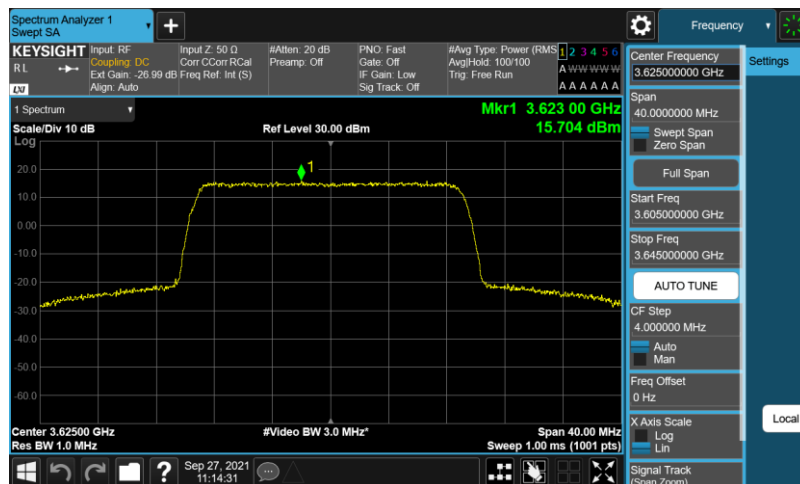
Band48-20MHz-256QAM-56640-E-TM3.1A



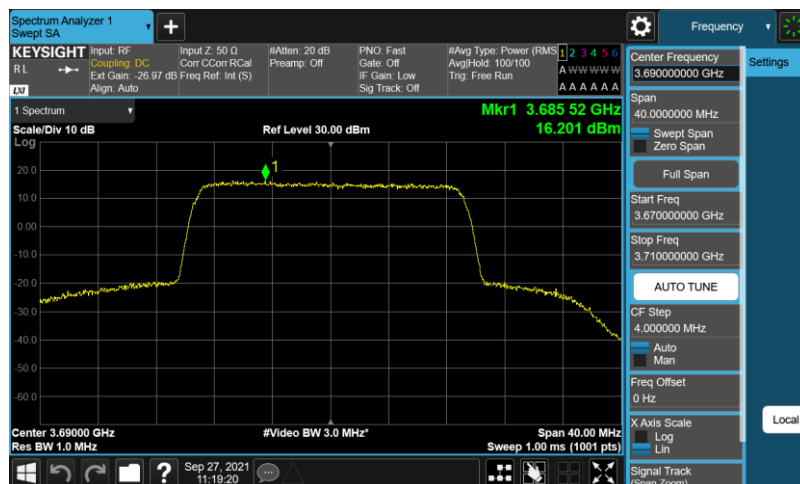
Band48-20MHz-QPSK-55340-E-TM1.1



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



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



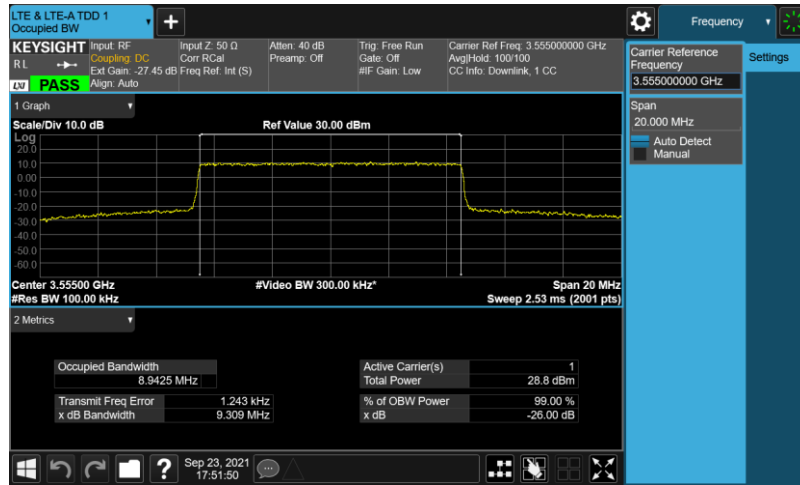
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

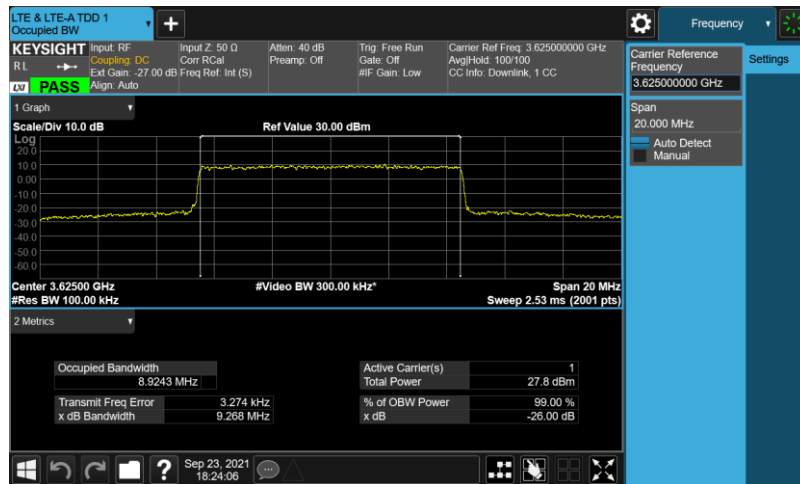
Band	Bandwidth	Modulation	Channel	Mode	99%(MHz)	EBW(MHz)
Band48	10MHz	256QAM	55290	E-TM3.1A	8.9425	9.309
Band48	10MHz	256QAM	55990	E-TM3.1A	8.9243	9.268
Band48	10MHz	256QAM	56690	E-TM3.1A	8.9524	9.336
Band48	10MHz	QPSK	55290	E-TM1.1	8.9262	9.435
Band48	10MHz	QPSK	55990	E-TM1.1	8.9320	9.355
Band48	10MHz	QPSK	56690	E-TM1.1	8.9434	9.393
Band48	20MHz	256QAM	55340	E-TM3.1A	17.822	18.59
Band48	20MHz	256QAM	55990	E-TM3.1A	17.848	18.55
Band48	20MHz	256QAM	56640	E-TM3.1A	17.845	18.53
Band48	20MHz	QPSK	55340	E-TM1.1	17.839	18.48
Band48	20MHz	QPSK	55990	E-TM1.1	17.851	18.52
Band48	20MHz	QPSK	56640	E-TM1.1	17.842	18.67

Test Graphs

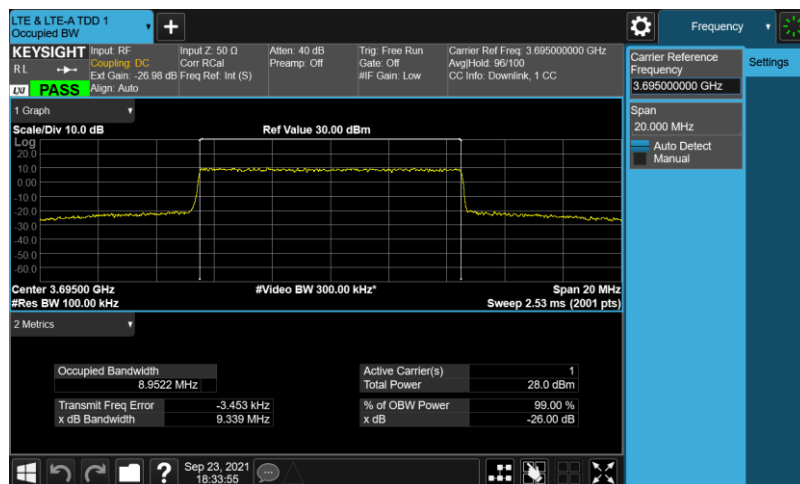
Band48-10MHz-256QAM-55290-E-TM3.1A



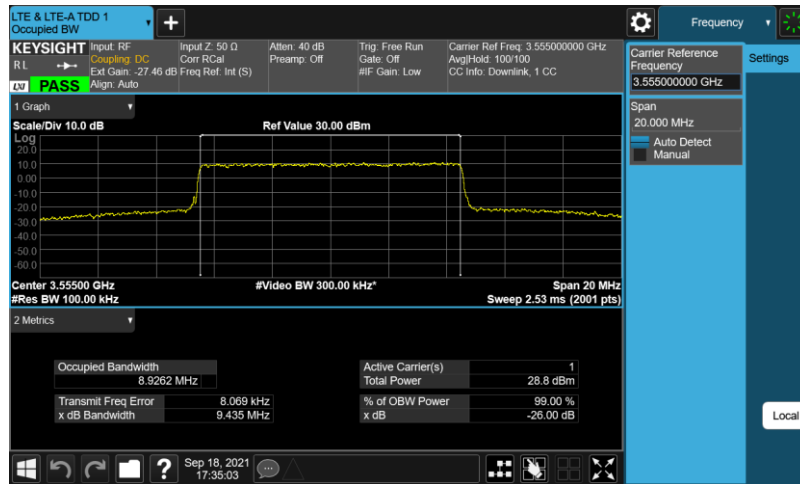
Band48-10MHz-256QAM-55990-E-TM3.1A



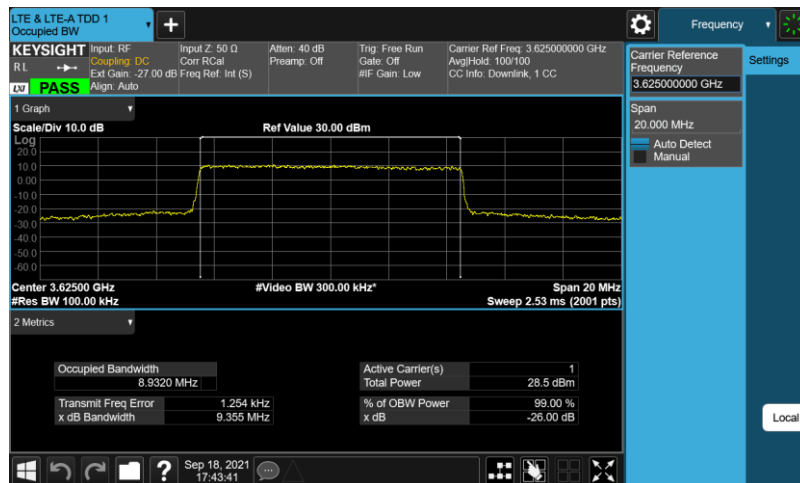
Band48-10MHz-256QAM-56690-E-TM3.1A



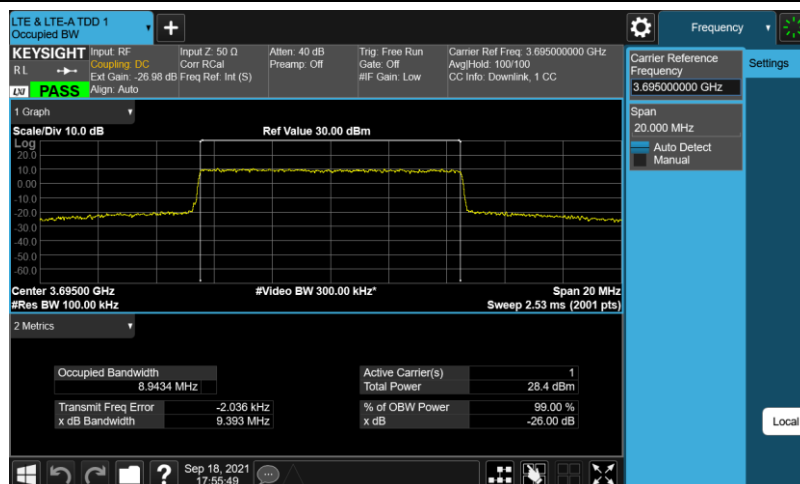
Band48-10MHz-QPSK-55290-E-TM1.1



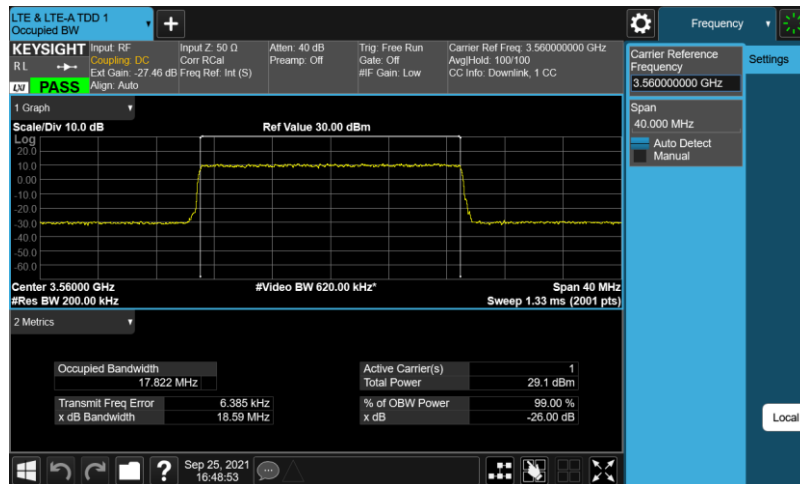
Band48-10MHz-QPSK-55990-E-TM1.1



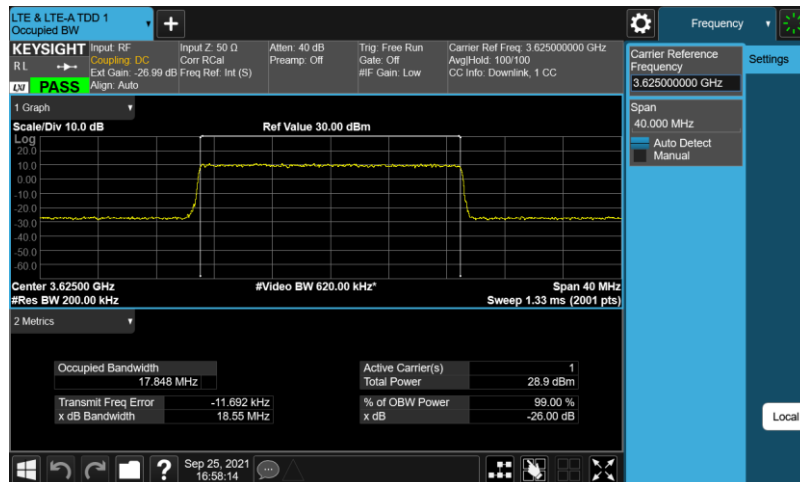
Band48-10MHz-QPSK-56690-E-TM1.1



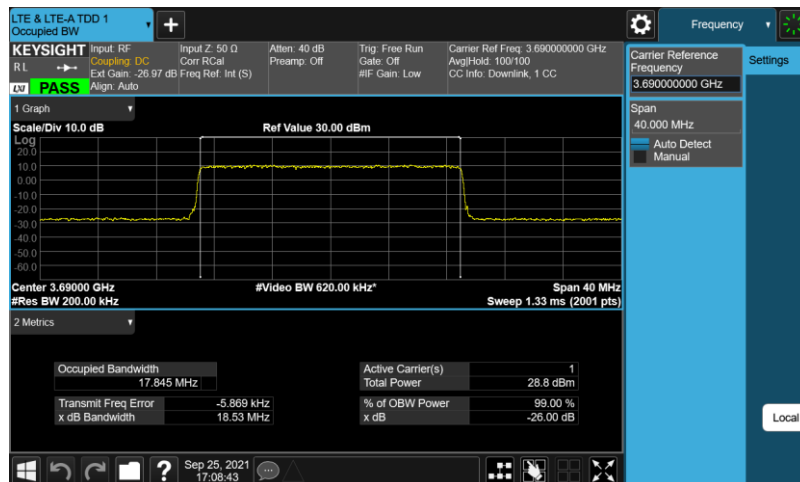
Band48-20MHz-256QAM-55340-E-TM3.1A



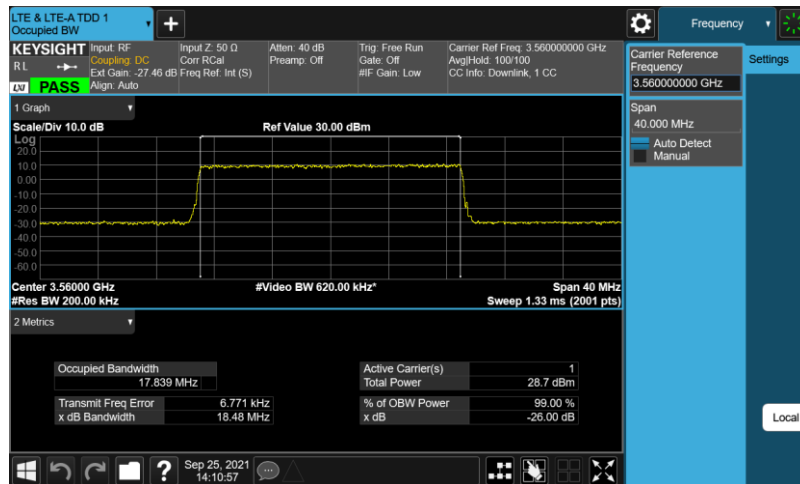
Band48-20MHz-256QAM-55990-E-TM3.1A



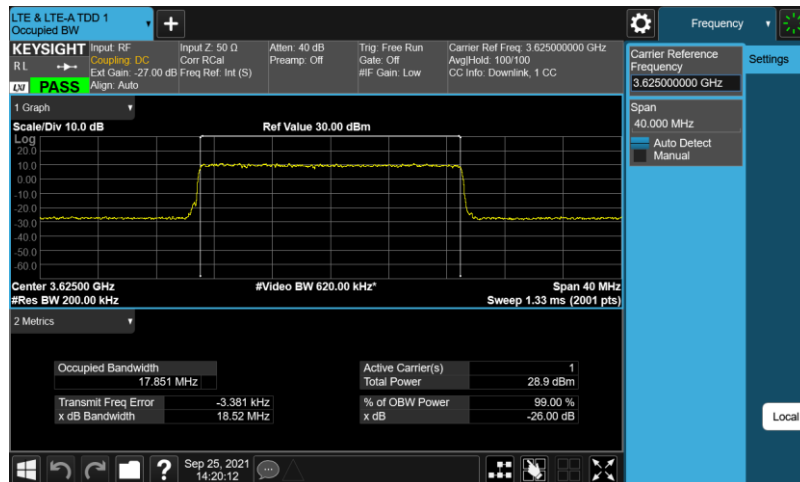
Band48-20MHz-256QAM-56640-E-TM3.1A



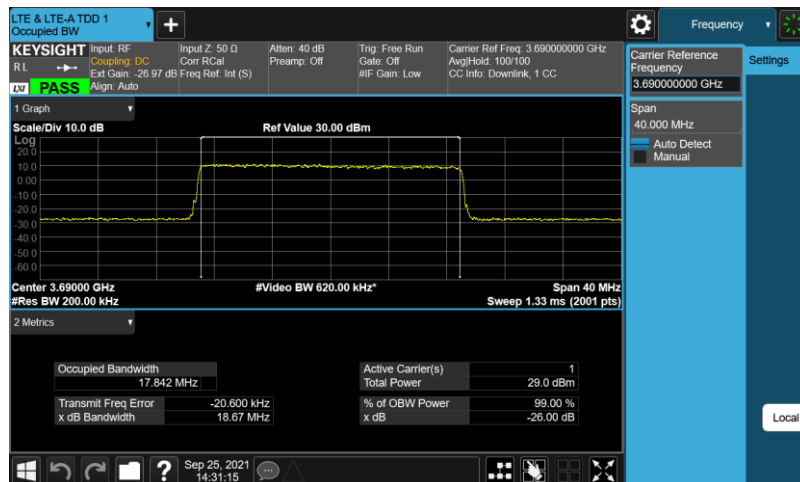
Band48-20MHz-QPSK-55340-E-TM1.1



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	55	0.015	within the authorized bands
Band48	10MHz	256QAM	55990	E-TM3.1A	120	25	54	0.015	
Band48	10MHz	256QAM	55990	E-TM3.1A	138	25	60	0.017	
Band48	10MHz	QPSK	55990	E-TM1.1	102	25	62	0.017	
Band48	10MHz	QPSK	55990	E-TM1.1	120	25	58	0.016	
Band48	10MHz	QPSK	55990	E-TM1.1	138	25	55	0.015	
Band48	20MHz	256QAM	55990	E-TM3.1A	102	25	56	0.015	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	25	62	0.017	
Band48	20MHz	256QAM	55990	E-TM3.1A	138	25	55	0.015	
Band48	20MHz	QPSK	55990	E-TM1.1	102	25	56	0.015	
Band48	20MHz	QPSK	55990	E-TM1.1	120	25	60	0.017	
Band48	20MHz	QPSK	55990	E-TM1.1	138	25	59	0.016	

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	56	0.015	within the authorized bands
Band48	10MHz	256QAM	55990	E-TM3.1A	120	-20	58	0.016	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	-10	51	0.014	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	0	52	0.014	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	10	58	0.016	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	20	56	0.015	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	30	60	0.017	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	40	58	0.016	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	50	62	0.017	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-30	56	0.015	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-20	53	0.015	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-10	53	0.015	
Band48	10MHz	QPSK	55990	E-TM1.1	120	0	58	0.016	
Band48	10MHz	QPSK	55990	E-TM1.1	120	10	52	0.014	
Band48	10MHz	QPSK	55990	E-TM1.1	120	20	58	0.016	
Band48	10MHz	QPSK	55990	E-TM1.1	120	30	58	0.016	

Band48	10MHz	QPSK	55990	E-TM1.1	120	40	55	0.015	
Band48	10MHz	QPSK	55990	E-TM1.1	120	50	56	0.015	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	-30	66	0.018	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	-20	65	0.018	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	-10	68	0.019	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	0	68	0.019	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	10	62	0.017	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	20	65	0.018	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	30	68	0.019	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	40	70	0.019	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	50	64	0.018	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-30	69	0.019	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-20	68	0.019	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-10	70	0.019	
Band48	20MHz	QPSK	55990	E-TM1.1	120	0	72	0.020	
Band48	20MHz	QPSK	55990	E-TM1.1	120	10	74	0.020	
Band48	20MHz	QPSK	55990	E-TM1.1	120	20	77	0.021	
Band48	20MHz	QPSK	55990	E-TM1.1	120	30	71	0.020	
Band48	20MHz	QPSK	55990	E-TM1.1	120	40	75	0.021	
Band48	20MHz	QPSK	55990	E-TM1.1	120	50	77	0.021	

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

Test Result

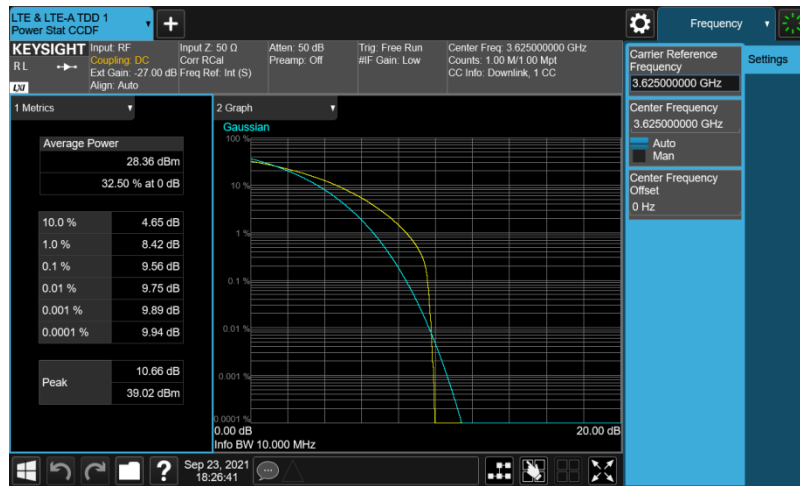
Band	Bandwidth	Modulation	Channel	Mode	Result(dBm)
Band48	10MHz	256QAM	55290	E-TM3.1A	9.40
Band48	10MHz	256QAM	55990	E-TM3.1A	9.56
Band48	10MHz	256QAM	56690	E-TM3.1A	9.38
Band48	10MHz	QPSK	55290	E-TM1.1	9.25
Band48	10MHz	QPSK	55990	E-TM1.1	9.47
Band48	10MHz	QPSK	56690	E-TM1.1	9.48
Band48	20MHz	256QAM	55340	E-TM3.1A	9.22
Band48	20MHz	256QAM	55990	E-TM3.1A	9.06
Band48	20MHz	256QAM	56640	E-TM3.1A	9.39
Band48	20MHz	QPSK	55340	E-TM1.1	9.35
Band48	20MHz	QPSK	55990	E-TM1.1	9.08
Band48	20MHz	QPSK	56640	E-TM1.1	9.00

Test Graphs

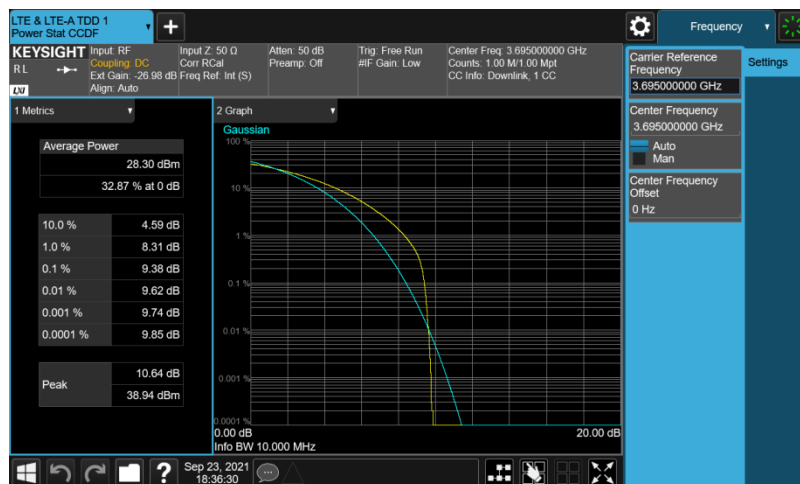
Band48-10MHz-256QAM-55290-E-TM3.1A



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



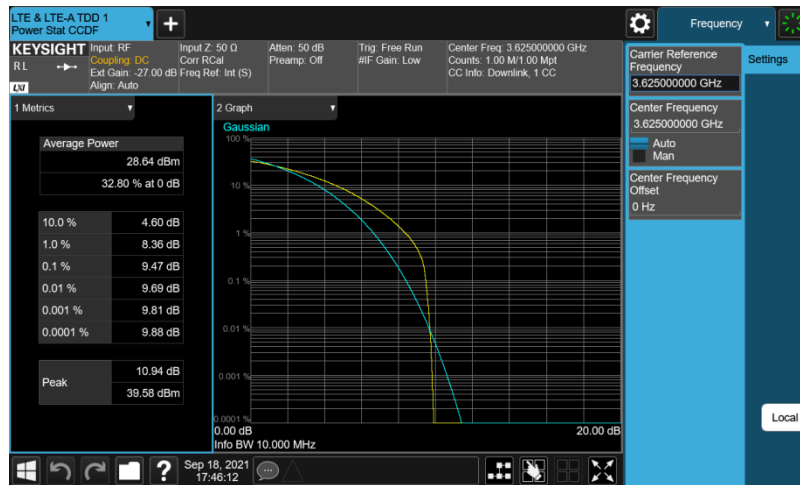
Band48-10MHz-256QAM-56690-E-TM3.1A



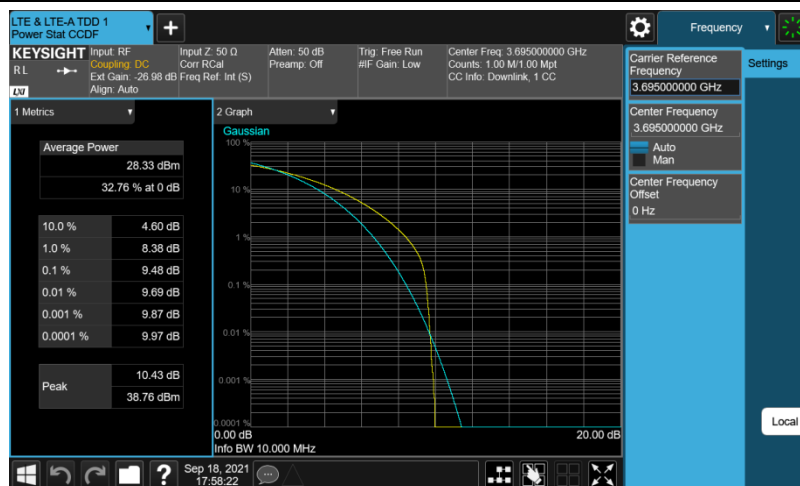
Band48-10MHz-QPSK-55290-E-TM1.1



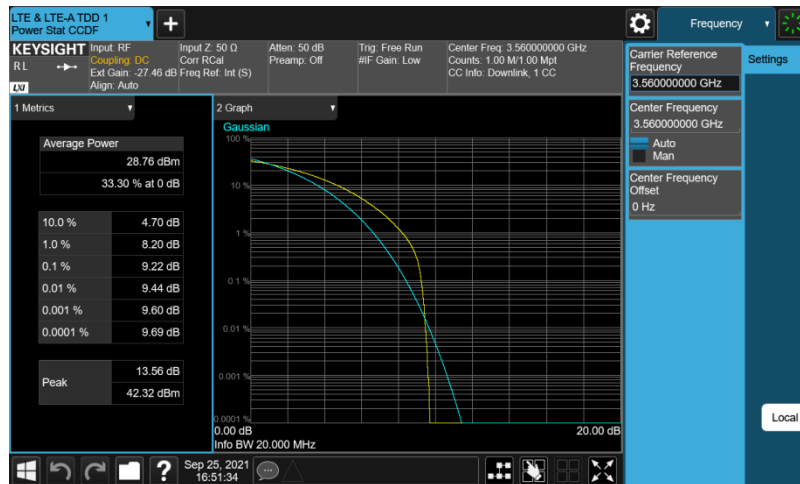
Band48-10MHz-QPSK-55990-E-TM1.1



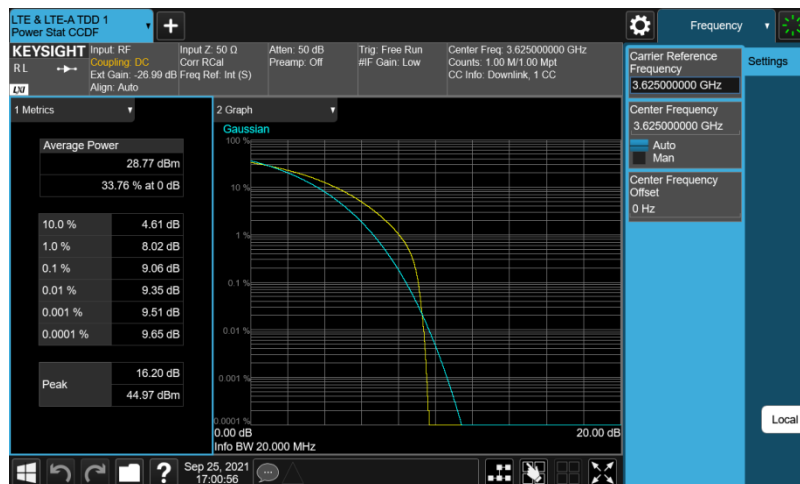
Band48-10MHz-QPSK-56690-E-TM1.1



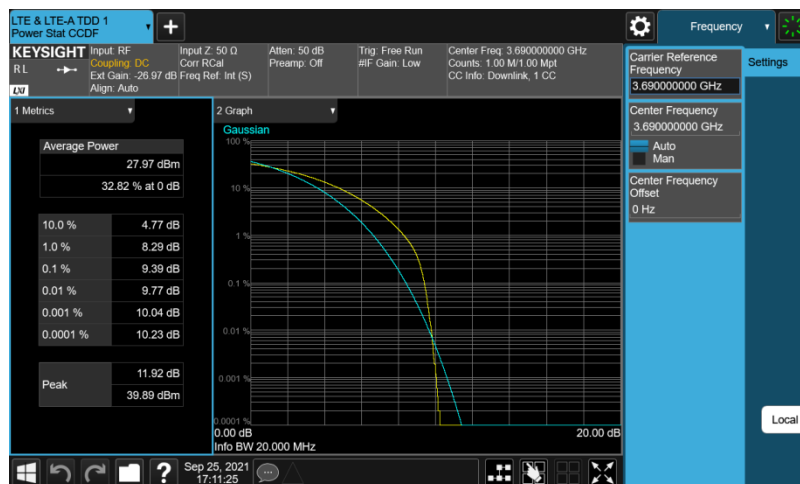
Band48-20MHz-256QAM-55340-E-TM3.1A



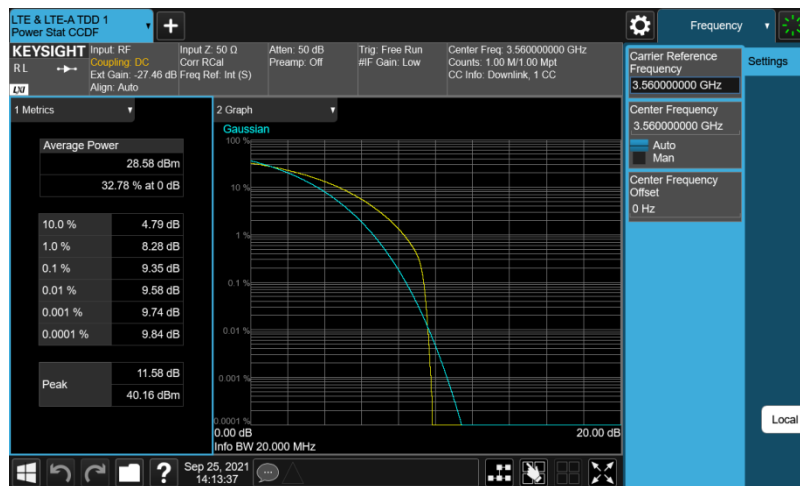
Band48-20MHz-256QAM-55990-E-TM3.1A



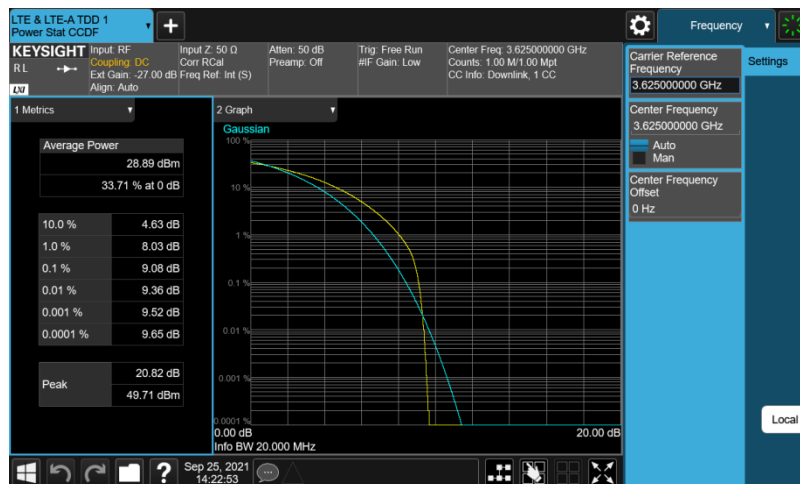
Band48-20MHz-256QAM-56640-E-TM3.1A



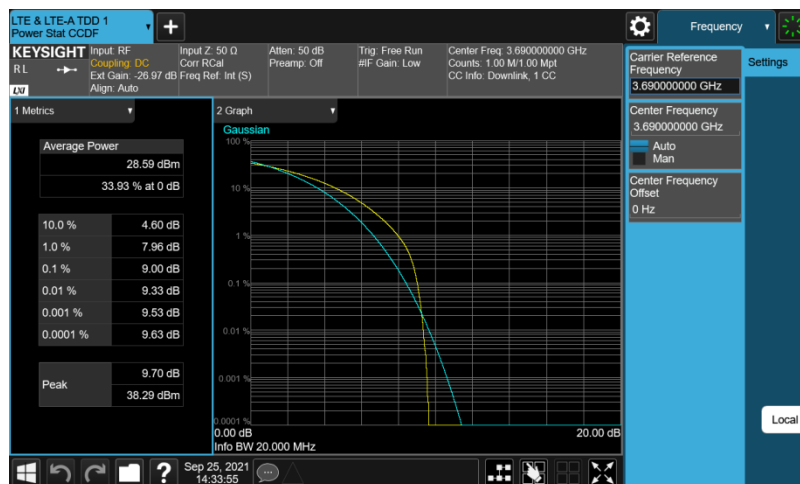
Band48-20MHz-QPSK-55340-E-TM1.1



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



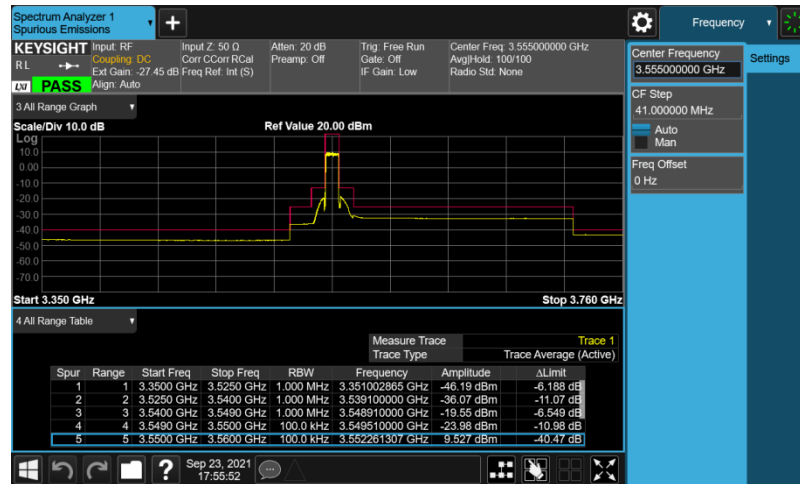
Band48-20MHz-QPSK-56640-E-TM1.1



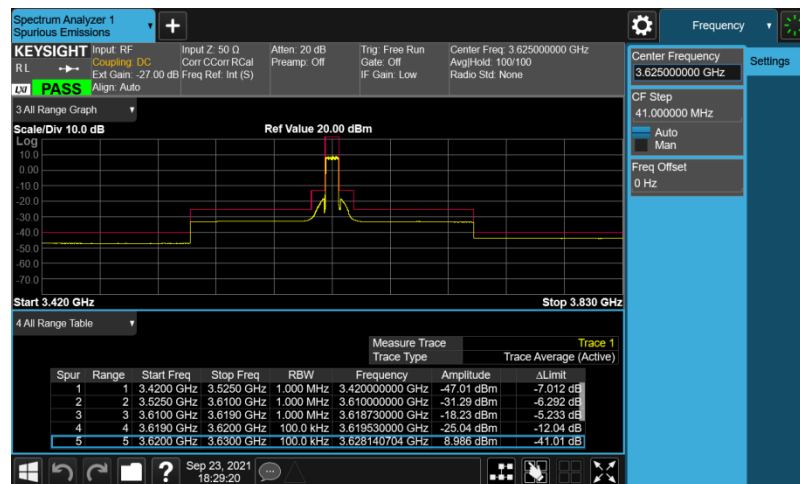
Appendix F: Emission Mask

Test Graphs

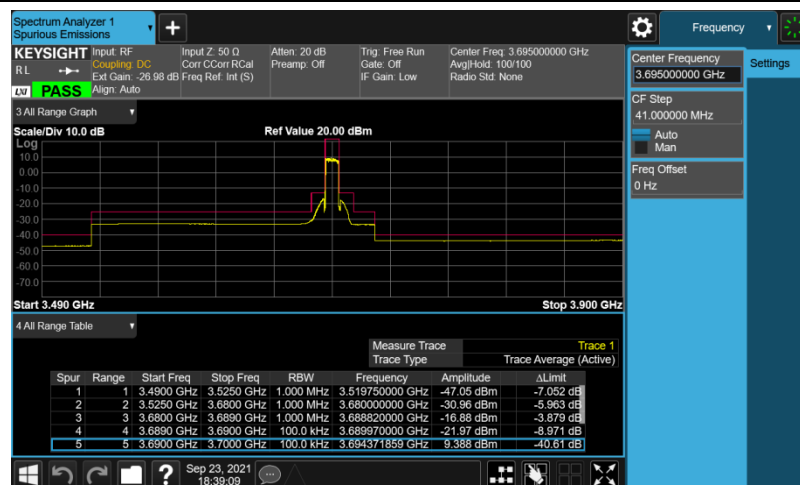
Band48-10MHz-256QAM-55290-E-TM3.1A



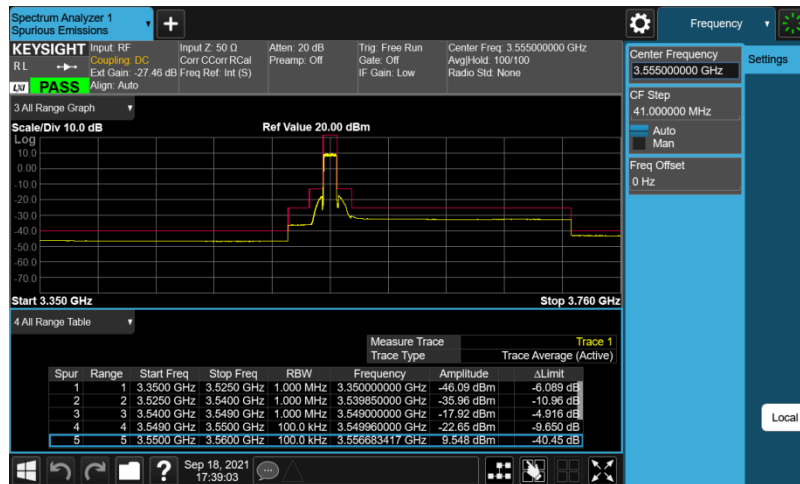
Band48-10MHz-256QAM-55990-E-TM3.1A



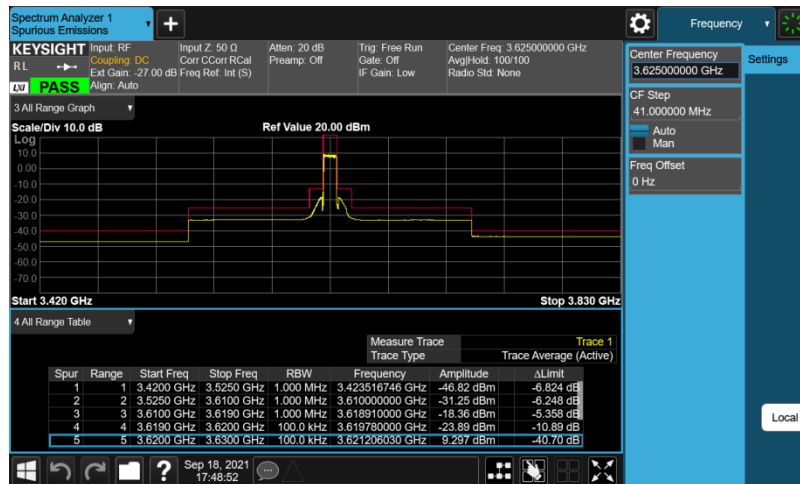
Band48-10MHz-256QAM-56690-E-TM3.1A



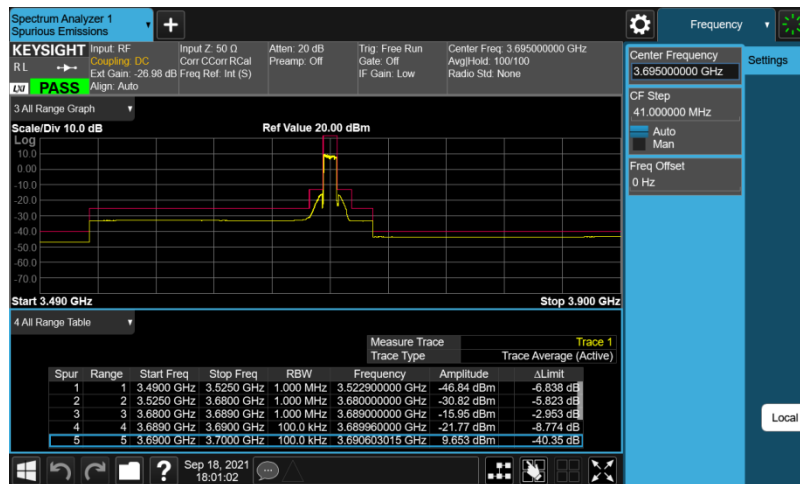
Band48-10MHz-QPSK-55290-E-TM1.1



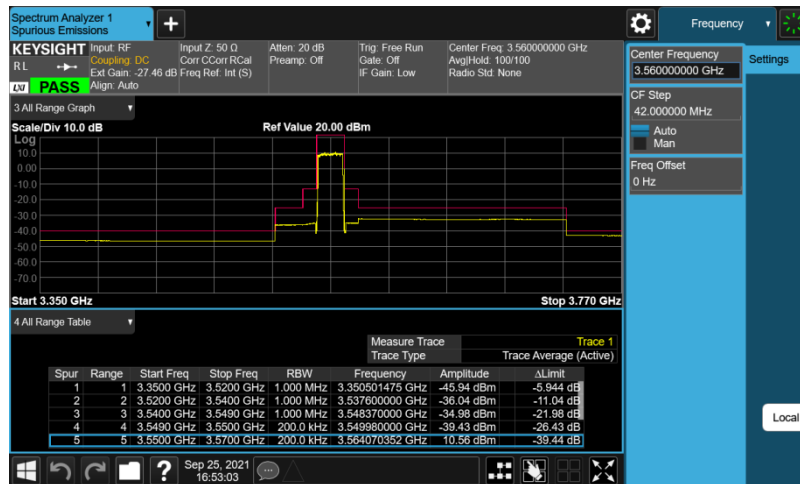
Band48-10MHz-QPSK-55990-E-TM1.1



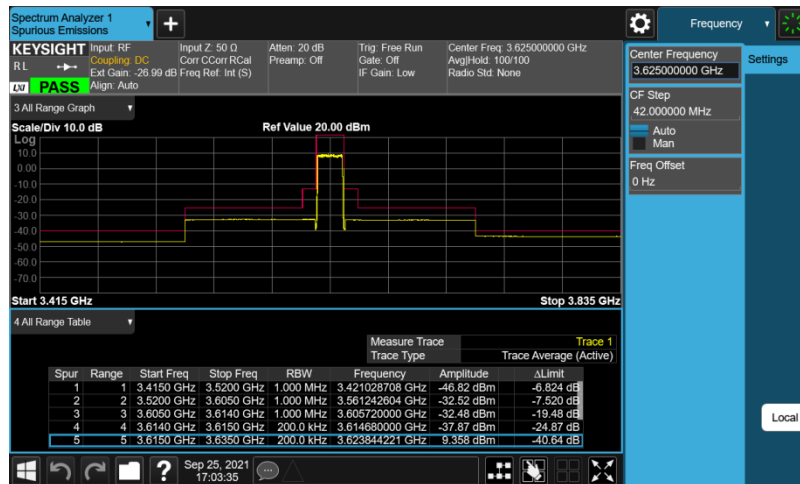
Band48-10MHz-QPSK-56690-E-TM1.1



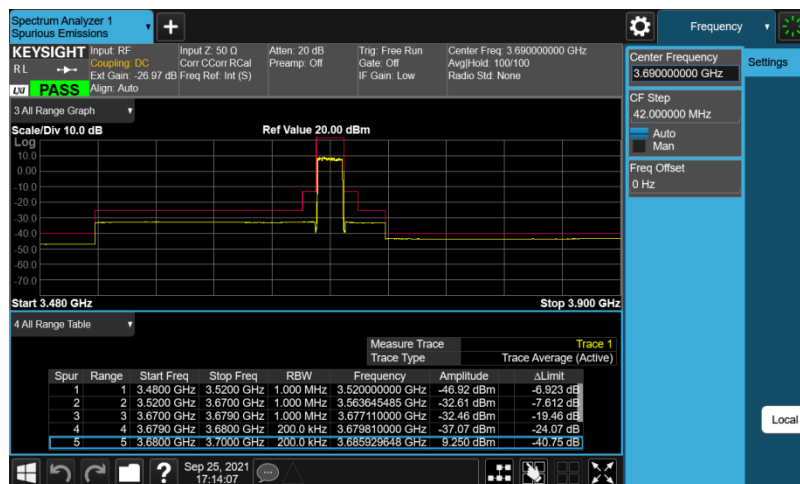
Band48-20MHz-256QAM-55340-E-TM3.1A



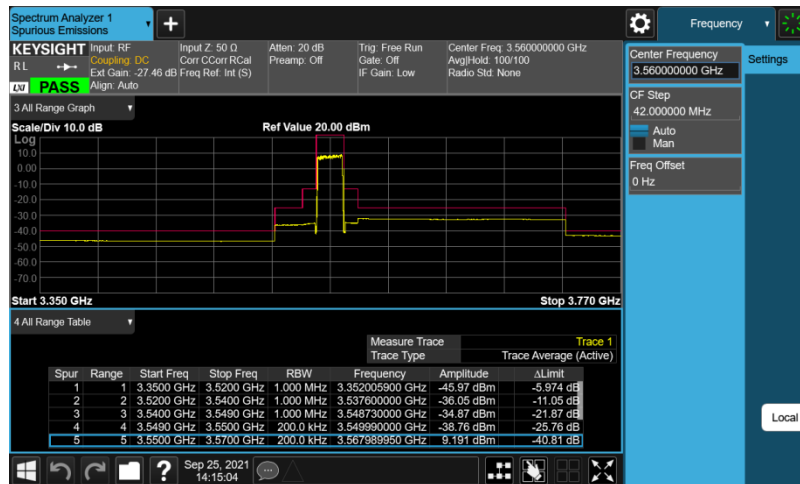
Band48-20MHz-256QAM-55990-E-TM3.1A



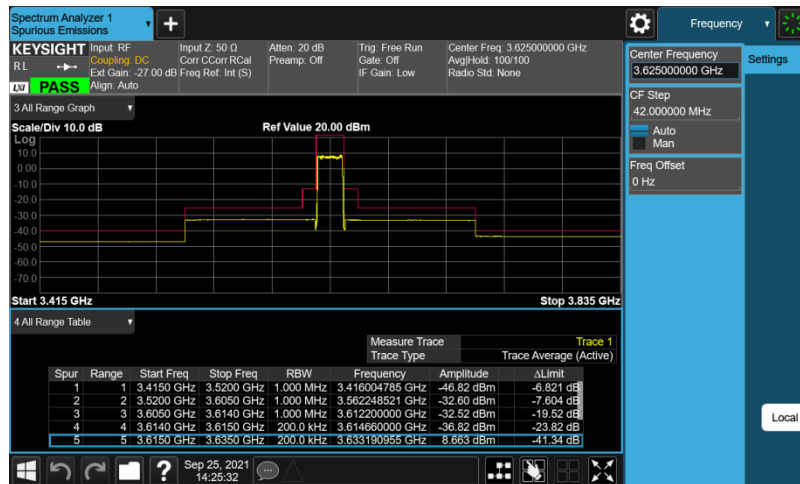
Band48-20MHz-256QAM-56640-E-TM3.1A



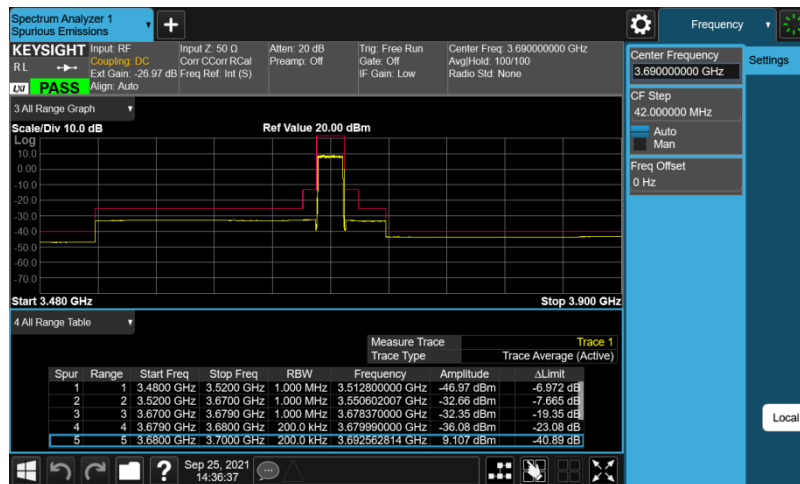
Band48-20MHz-QPSK-55340-E-TM1.1



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	-54.01	PASS
Band48	10MHz	256QAM	55290	E-TM3.1A	3720-6000	-53.14	PASS
Band48	10MHz	256QAM	55290	E-TM3.1A	6000-40000	-53.64	PASS
Band48	10MHz	256QAM	55990	E-TM3.1A	30-3530	-54.37	PASS
Band48	10MHz	256QAM	55990	E-TM3.1A	3720-6000	-53.16	PASS
Band48	10MHz	256QAM	55990	E-TM3.1A	6000-40000	-53.70	PASS
Band48	10MHz	256QAM	56690	E-TM3.1A	30-3530	-54.44	PASS
Band48	10MHz	256QAM	56690	E-TM3.1A	3720-6000	-53.34	PASS
Band48	10MHz	256QAM	56690	E-TM3.1A	6000-40000	-53.63	PASS
Band48	10MHz	QPSK	55290	E-TM1.1	30-3530	-53.93	PASS
Band48	10MHz	QPSK	55290	E-TM1.1	3720-6000	-52.94	PASS
Band48	10MHz	QPSK	55290	E-TM1.1	6000-40000	-53.54	PASS
Band48	10MHz	QPSK	55990	E-TM1.1	30-3530	-54.16	PASS
Band48	10MHz	QPSK	55990	E-TM1.1	3720-6000	-53.17	PASS
Band48	10MHz	QPSK	55990	E-TM1.1	6000-40000	-53.58	PASS
Band48	10MHz	QPSK	56690	E-TM1.1	30-3530	-54.42	PASS
Band48	10MHz	QPSK	56690	E-TM1.1	3720-6000	-52.91	PASS
Band48	10MHz	QPSK	56690	E-TM1.1	6000-40000	-53.39	PASS
Band48	20MHz	256QAM	55340	E-TM3.1A	30-3530	-53.74	PASS
Band48	20MHz	256QAM	55340	E-TM3.1A	3720-6000	-52.70	PASS
Band48	20MHz	256QAM	55340	E-TM3.1A	6000-40000	-53.60	PASS
Band48	20MHz	256QAM	55990	E-TM3.1A	30-3530	-53.96	PASS
Band48	20MHz	256QAM	55990	E-TM3.1A	3720-6000	-52.80	PASS
Band48	20MHz	256QAM	55990	E-TM3.1A	6000-40000	-53.51	PASS
Band48	20MHz	256QAM	56640	E-TM3.1A	30-3530	-54.14	PASS
Band48	20MHz	256QAM	56640	E-TM3.1A	3720-6000	-52.82	PASS
Band48	20MHz	256QAM	56640	E-TM3.1A	6000-40000	-53.48	PASS
Band48	20MHz	QPSK	55340	E-TM1.1	30-3530	-53.78	PASS
Band48	20MHz	QPSK	55340	E-TM1.1	3720-6000	-52.69	PASS
Band48	20MHz	QPSK	55340	E-TM1.1	6000-40000	-53.63	PASS
Band48	20MHz	QPSK	55990	E-TM1.1	30-3530	-54.11	PASS

Band48	20MHz	QPSK	55990	E-TM1.1	3720-6000	-52.66	PASS
Band48	20MHz	QPSK	55990	E-TM1.1	6000-40000	-53.54	PASS
Band48	20MHz	QPSK	56640	E-TM1.1	30-3530	-54.16	PASS
Band48	20MHz	QPSK	56640	E-TM1.1	3720-6000	-53.10	PASS
Band48	20MHz	QPSK	56640	E-TM1.1	6000-40000	-53.65	PASS

Test Graphs

