

Antenna 0:

Appendix A: Effective (Isotropic) Radiated Power Output Data

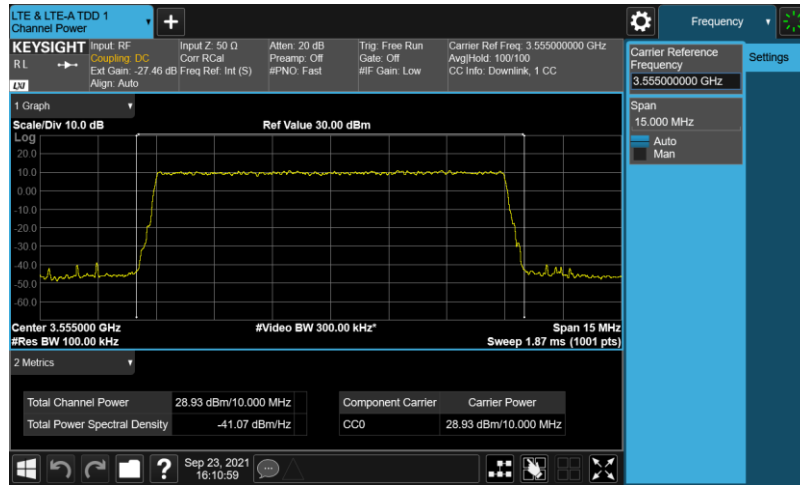
Test Result

Band	Bandwidth	Modulation	Channel	Mode	Power (dBm/10MHz)
Band48	10MHz	256QAM	55290	E-TM3.1A	28.93
Band48	10MHz	256QAM	55990	E-TM3.1A	27.78
Band48	10MHz	256QAM	56690	E-TM3.1A	28.17
Band48	10MHz	QPSK	55290	E-TM1.1	28.83
Band48	10MHz	QPSK	55990	E-TM1.1	28.13
Band48	10MHz	QPSK	56690	E-TM1.1	27.89
Band48	20MHz	256QAM	55340	E-TM3.1A	26.46
Band48	20MHz	256QAM	55990	E-TM3.1A	26.21
Band48	20MHz	256QAM	56640	E-TM3.1A	26.06
Band48	20MHz	QPSK	55340	E-TM1.1	26.21
Band48	20MHz	QPSK	55990	E-TM1.1	25.34
Band48	20MHz	QPSK	56640	E-TM1.1	25.52

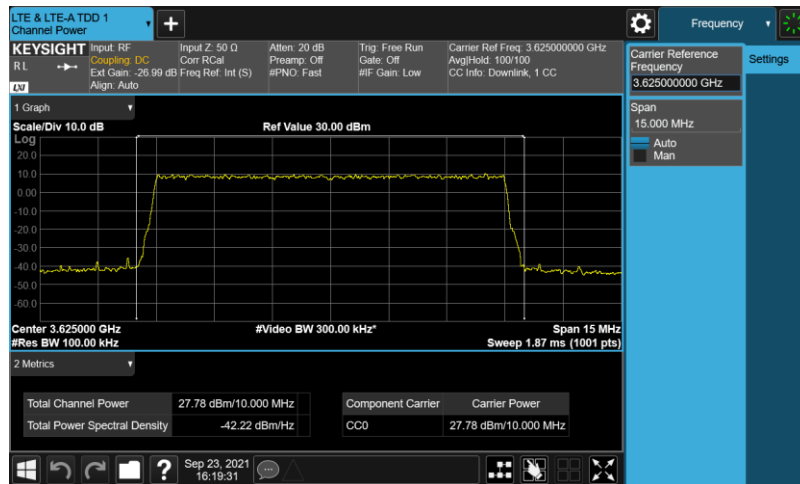
Band	Bandwidth	Modulation	Channel	Mode	Power (dBm/20MHz)
Band48	20MHz	256QAM	55340	E-TM3.1A	28.80
Band48	20MHz	256QAM	55990	E-TM3.1A	28.93
Band48	20MHz	256QAM	56640	E-TM3.1A	28.63
Band48	20MHz	QPSK	55340	E-TM1.1	28.75
Band48	20MHz	QPSK	55990	E-TM1.1	28.12
Band48	20MHz	QPSK	56640	E-TM1.1	28.16

Test Graphs

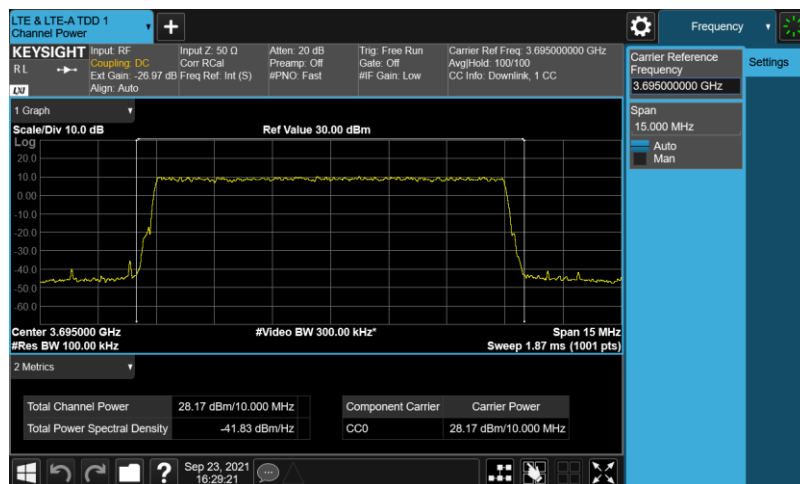
Band48-10MHz-256QAM-55290-E-TM3.1A-10



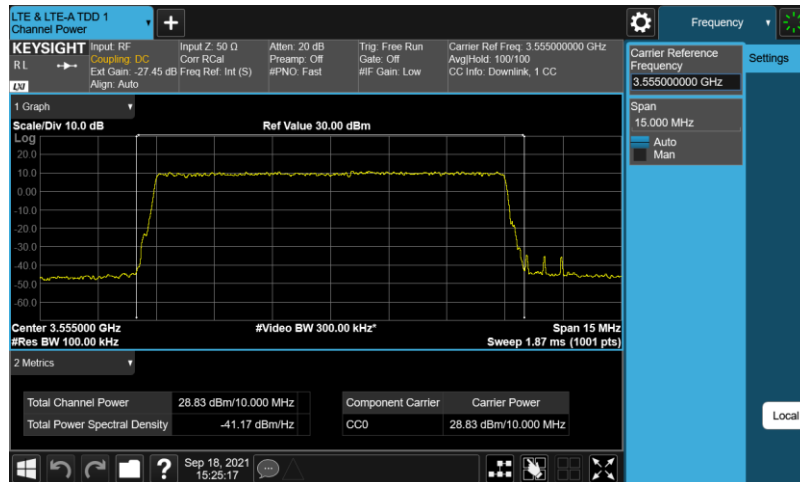
Band48-10MHz-256QAM-55990-E-TM3.1A-10



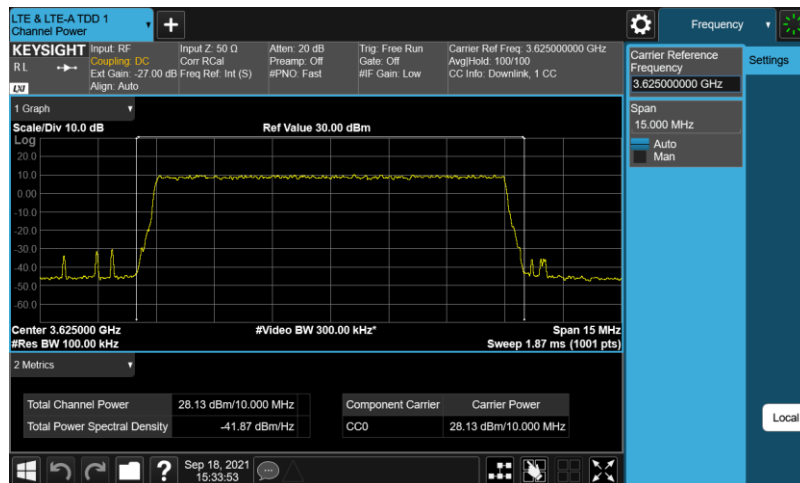
Band48-10MHz-256QAM-56690-E-TM3.1A-10



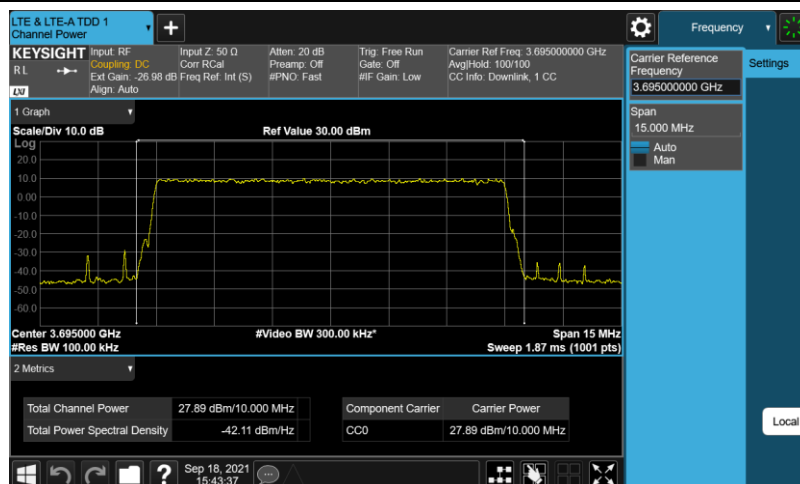
Band48-10MHz-QPSK-55290-E-TM1.1-10



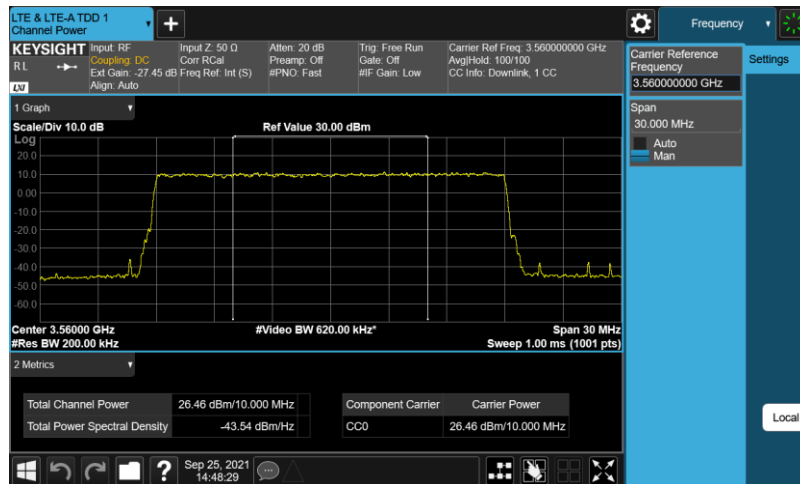
Band48-10MHz-QPSK-55990-E-TM1.1-10



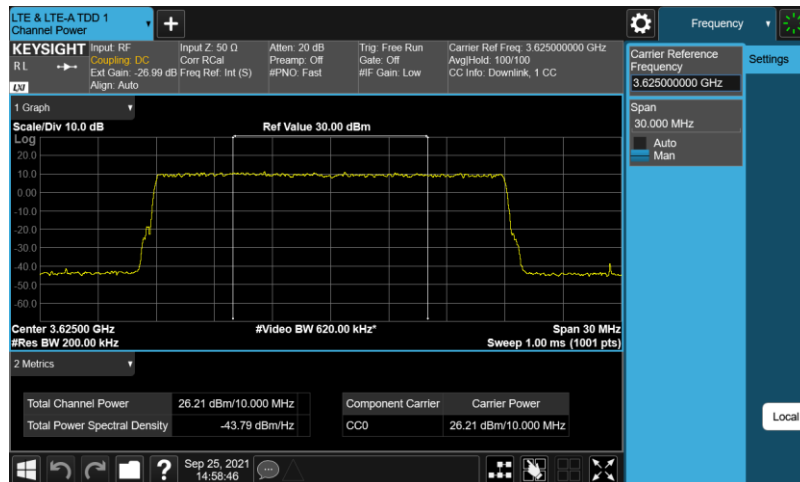
Band48-10MHz-QPSK-56690-E-TM1.1-10



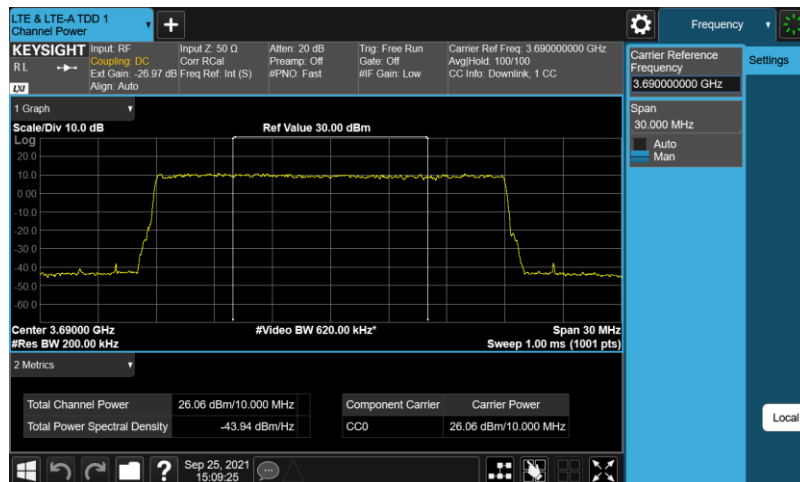
Band48-20MHz-256QAM-55340-E-TM3.1A-10



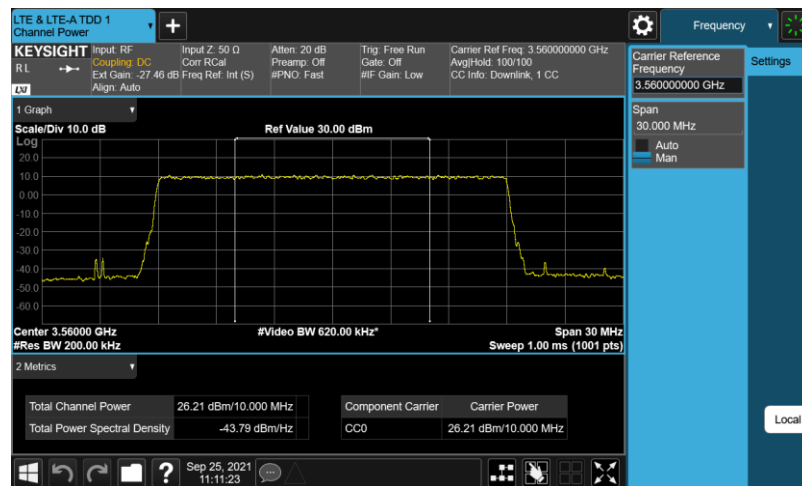
Band48-20MHz-256QAM-55990-E-TM3.1A-10



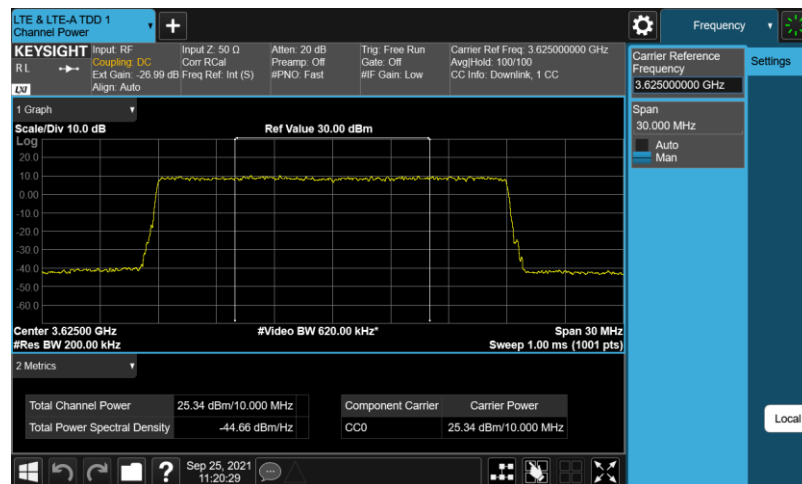
Band48-20MHz-256QAM-56640-E-TM3.1A-10



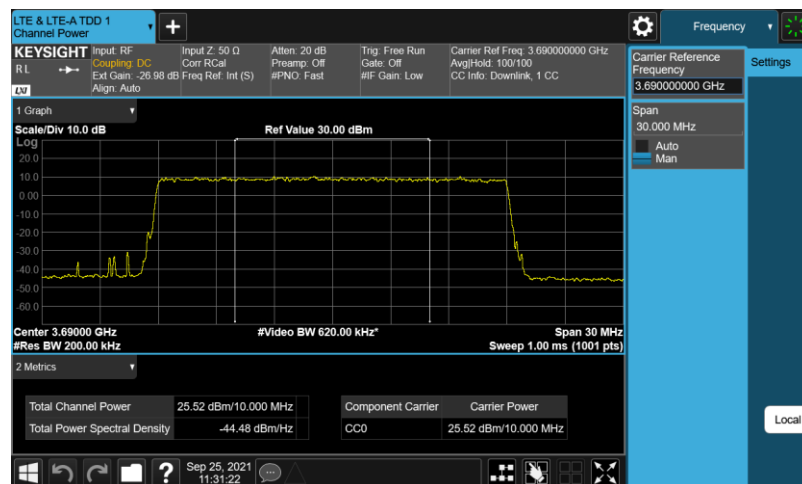
Band48-20MHz-QPSK-55340-E-TM1.1-10



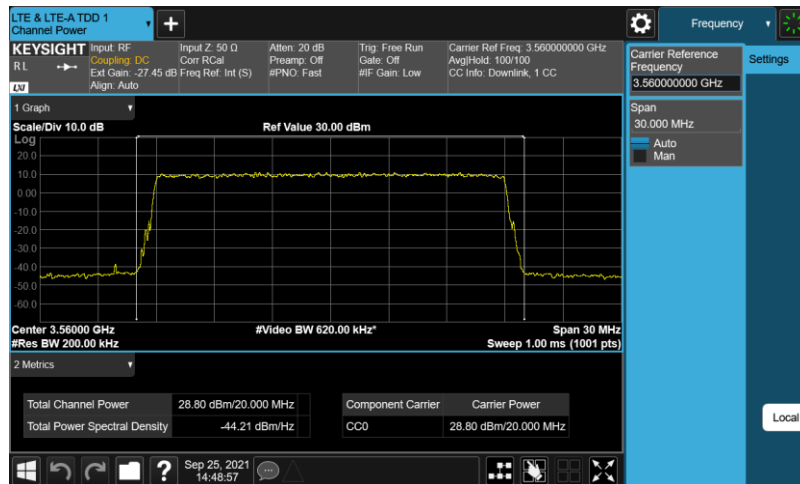
Band48-20MHz-QPSK-55990-E-TM1.1-10



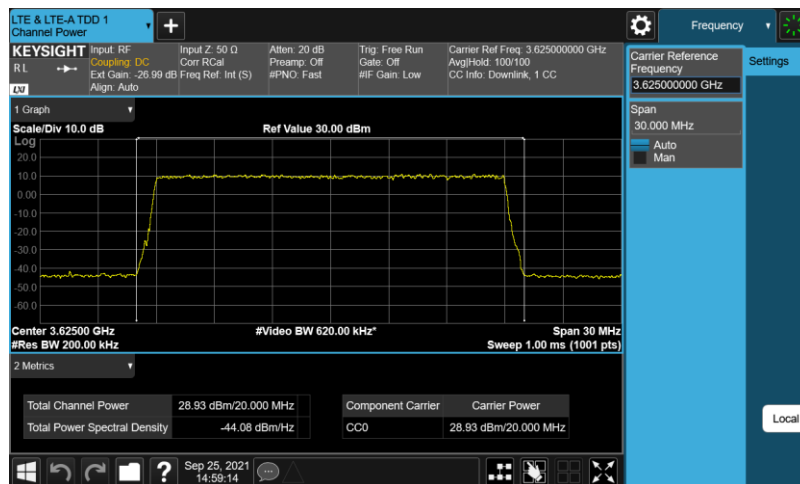
Band48-20MHz-QPSK-56640-E-TM1.1-10



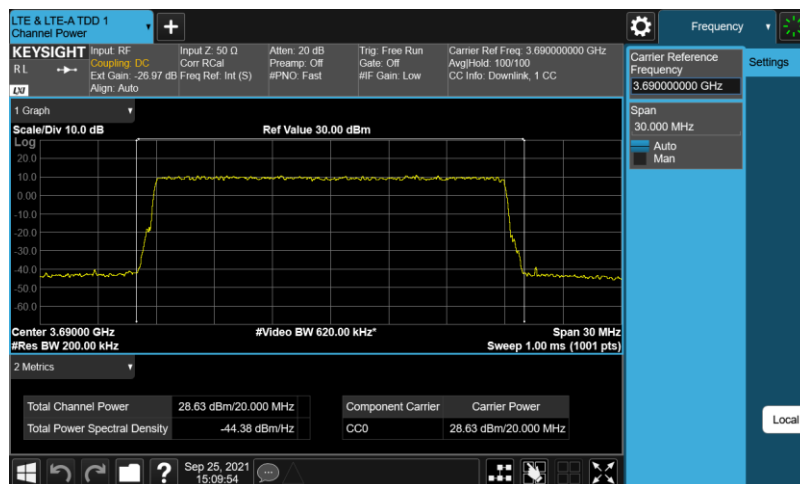
Band48-20MHz-256QAM-55340-E-TM3.1A-20



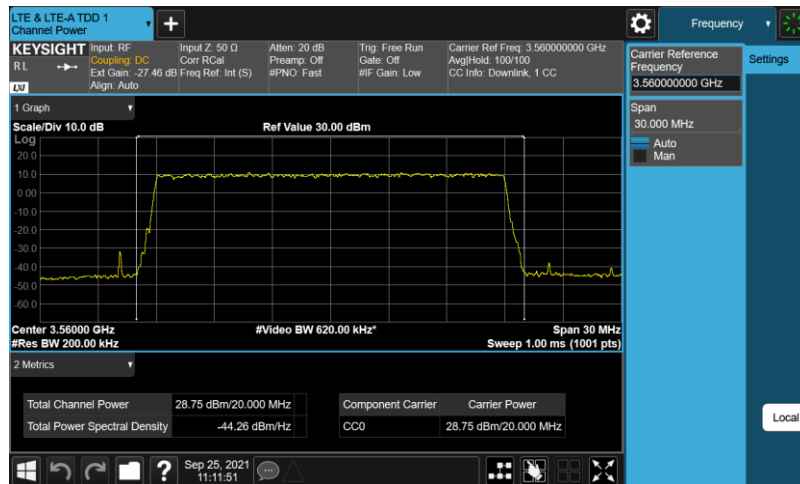
Band48-20MHz-256QAM-55990-E-TM3.1A-20



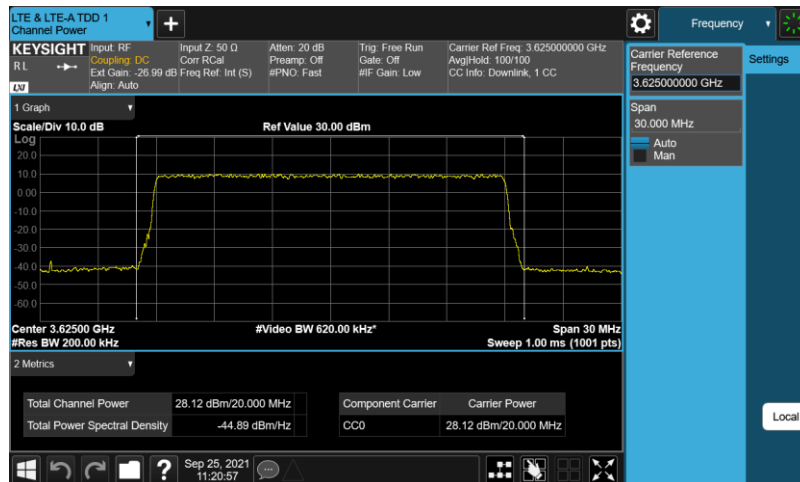
Band48-20MHz-256QAM-56640-E-TM3.1A-20



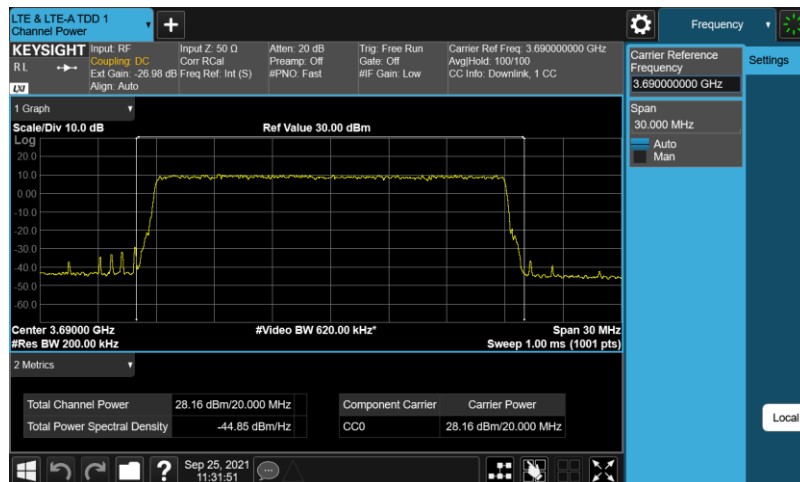
Band48-20MHz-QPSK-55340-E-TM1.1-20



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



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



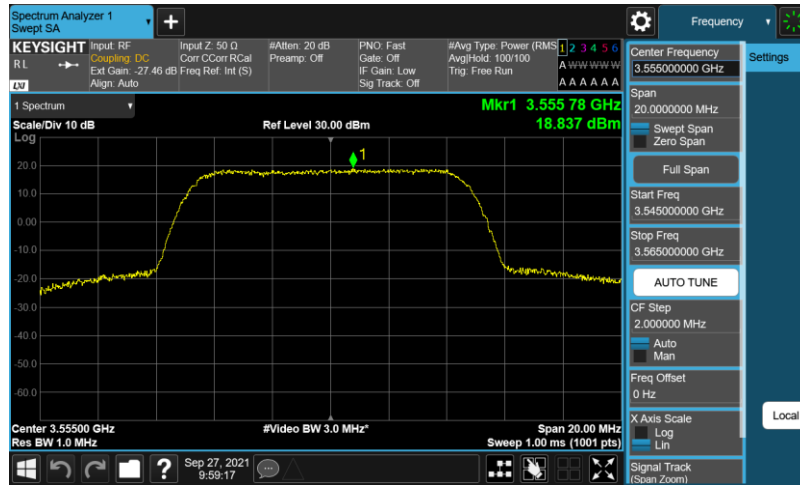
Appendix B: Power Spectral Density

Test Result

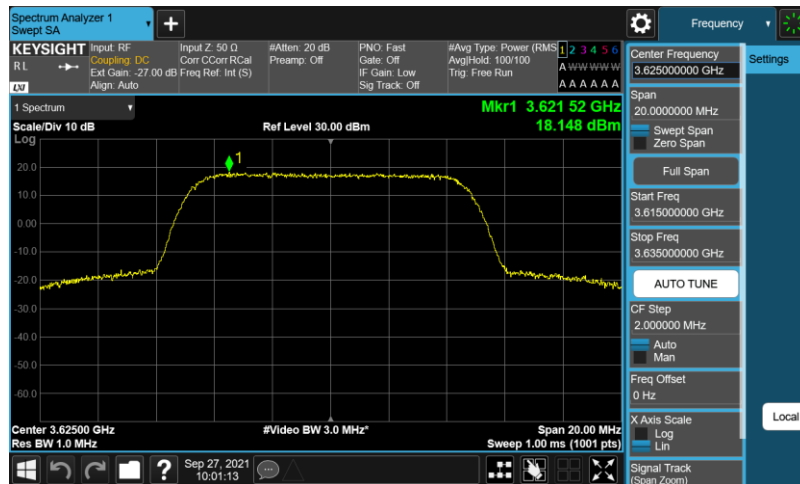
Band	Bandwidth	Modulation	Channel	Mode	PSD (dBm/MHz)
Band48	10MHz	256QAM	55290	E-TM3.1A	18.84
Band48	10MHz	256QAM	55990	E-TM3.1A	18.15
Band48	10MHz	256QAM	56690	E-TM3.1A	18.50
Band48	10MHz	QPSK	55290	E-TM1.1	18.69
Band48	10MHz	QPSK	55990	E-TM1.1	18.18
Band48	10MHz	QPSK	56690	E-TM1.1	18.37
Band48	20MHz	256QAM	55340	E-TM3.1A	16.25
Band48	20MHz	256QAM	55990	E-TM3.1A	15.95
Band48	20MHz	256QAM	56640	E-TM3.1A	16.20
Band48	20MHz	QPSK	55340	E-TM1.1	16.15
Band48	20MHz	QPSK	55990	E-TM1.1	15.66
Band48	20MHz	QPSK	56640	E-TM1.1	15.95

Test Graphs

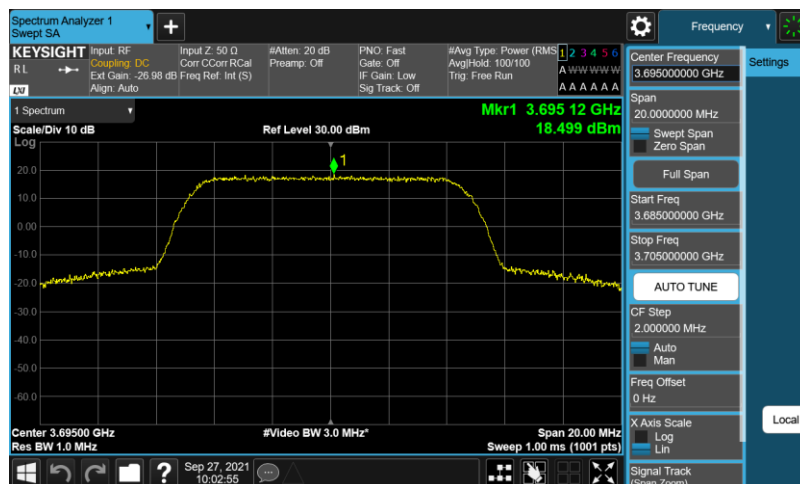
Band48-10MHz-256QAM-55290-E-TM3.1A



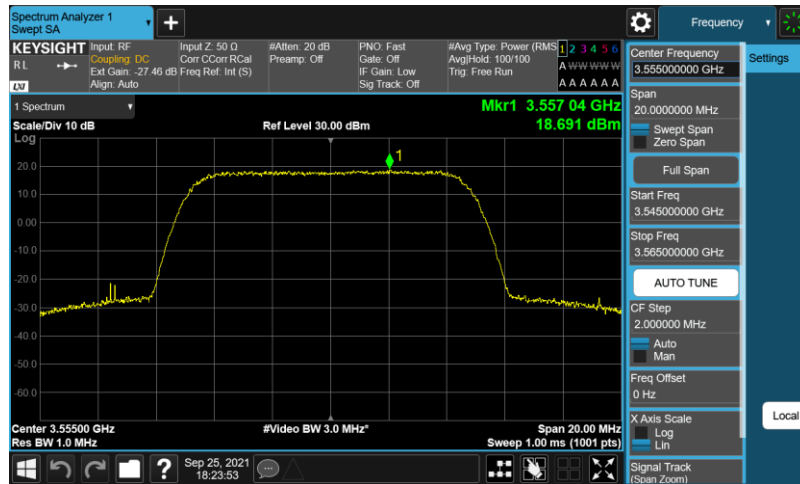
Band48-10MHz-256QAM-55990-E-TM3.1A



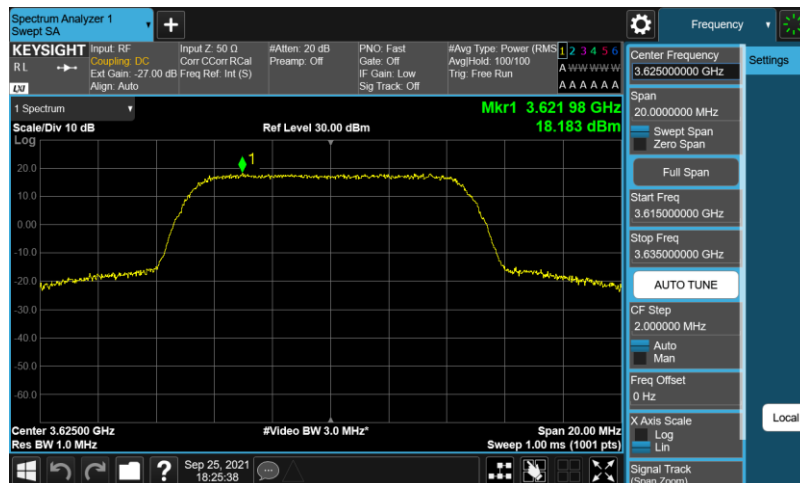
Band48-10MHz-256QAM-56690-E-TM3.1A



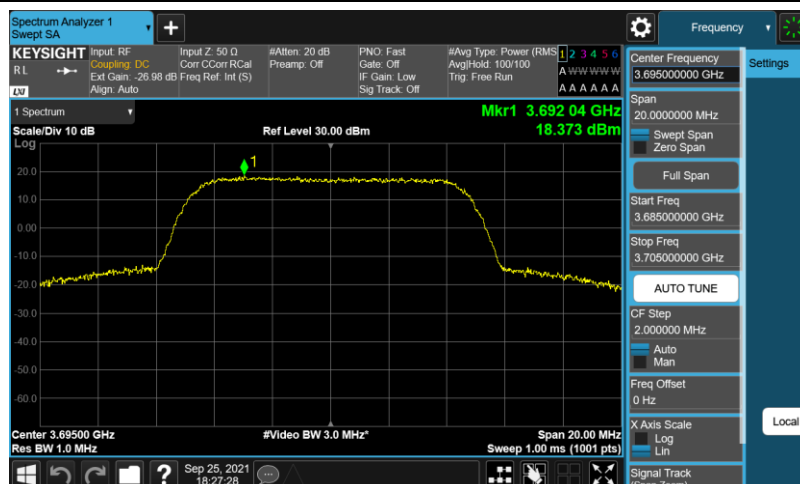
Band48-10MHz-QPSK-55290-E-TM1.1



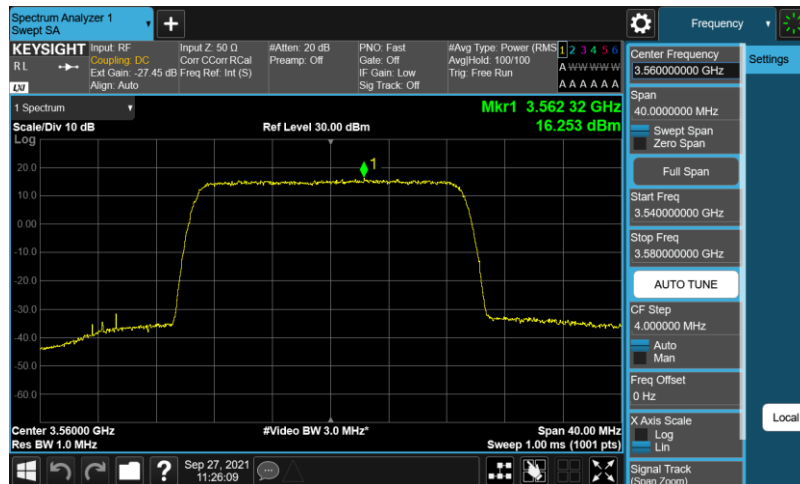
Band48-10MHz-QPSK-55990-E-TM1.1



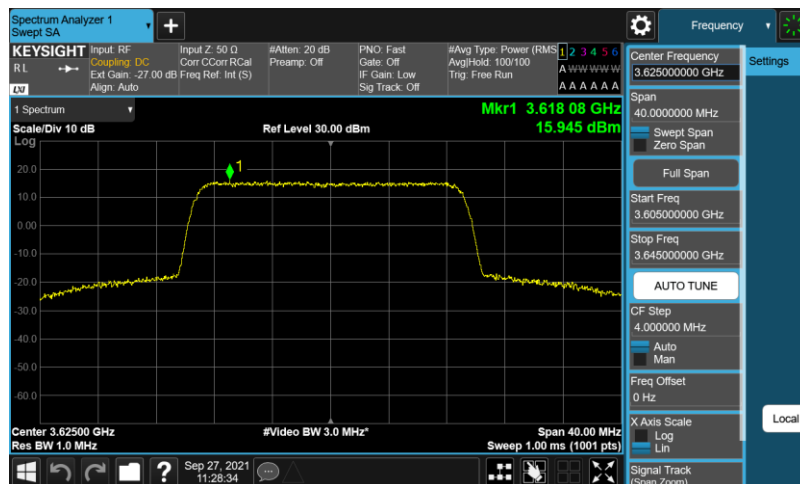
Band48-10MHz-QPSK-56690-E-TM1.1



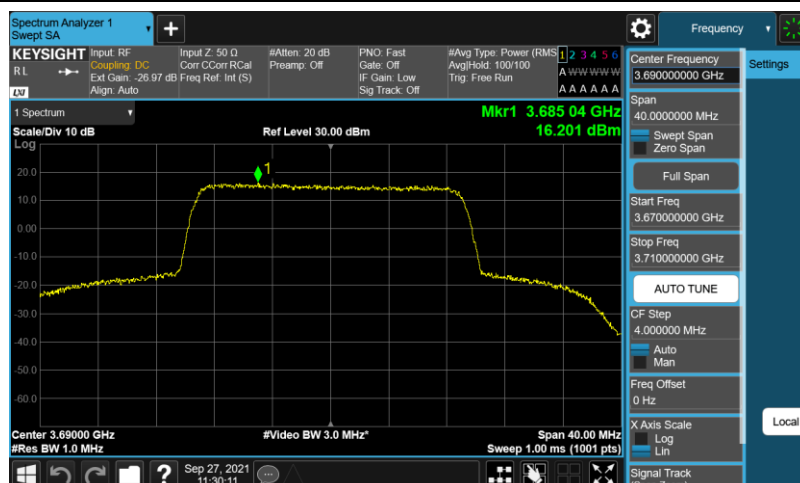
Band48-20MHz-256QAM-55340-E-TM3.1A



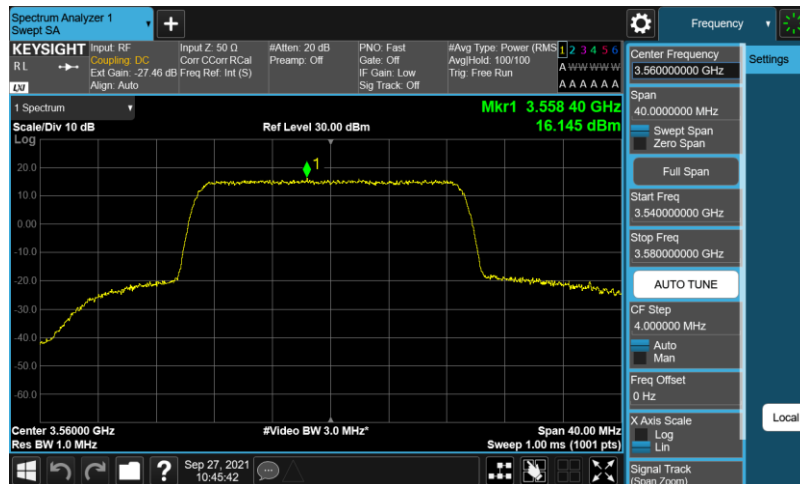
Band48-20MHz-256QAM-55990-E-TM3.1A



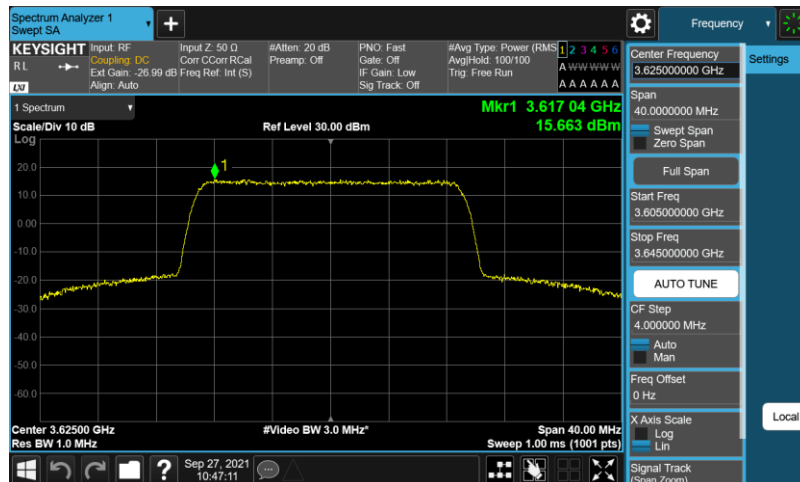
Band48-20MHz-256QAM-56640-E-TM3.1A



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



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



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



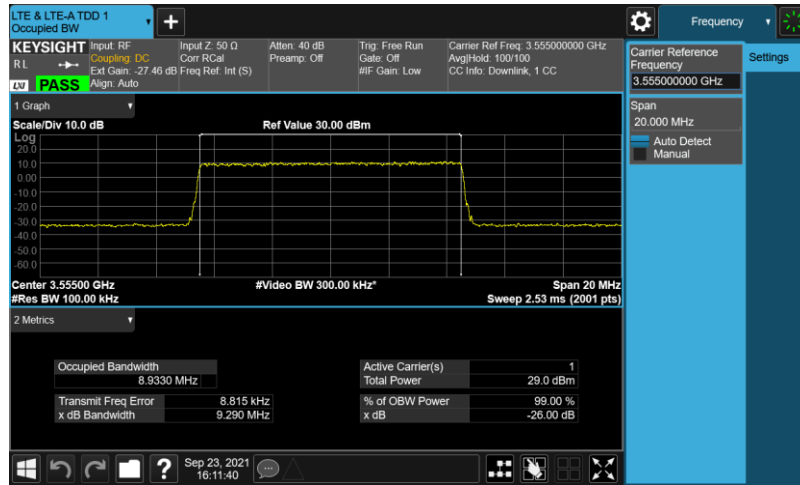
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

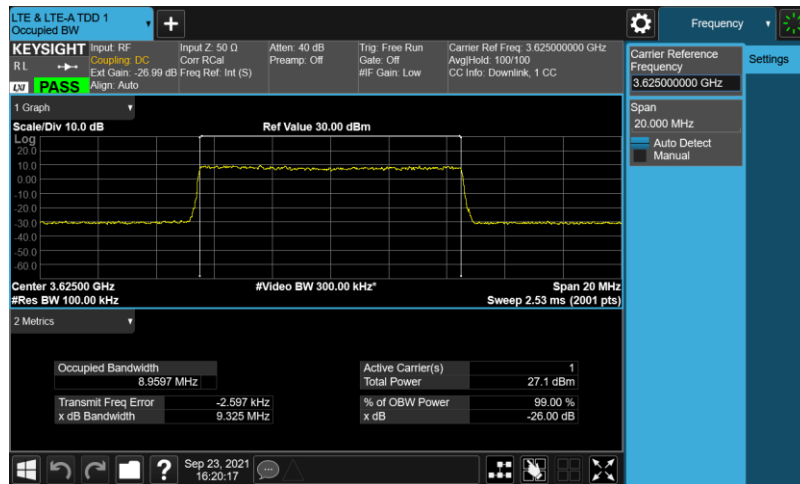
Band	Bandwidth	Modulation	Channel	Mode	99%(MHz)	EBW(MHz)
Band48	10MHz	256QAM	55290	E-TM3.1A	8.9330	9.290
Band48	10MHz	256QAM	55990	E-TM3.1A	8.9597	9.325
Band48	10MHz	256QAM	56690	E-TM3.1A	8.9339	9.349
Band48	10MHz	QPSK	55290	E-TM1.1	8.9251	9.349
Band48	10MHz	QPSK	55990	E-TM1.1	8.9498	9.360
Band48	10MHz	QPSK	56690	E-TM1.1	8.9343	9.346
Band48	20MHz	256QAM	55340	E-TM3.1A	17.833	18.57
Band48	20MHz	256QAM	55990	E-TM3.1A	17.863	18.48
Band48	20MHz	256QAM	56640	E-TM3.1A	17.886	18.55
Band48	20MHz	QPSK	55340	E-TM1.1	17.847	18.49
Band48	20MHz	QPSK	55990	E-TM1.1	17.843	18.53
Band48	20MHz	QPSK	56640	E-TM1.1	17.878	18.52

Test Graphs

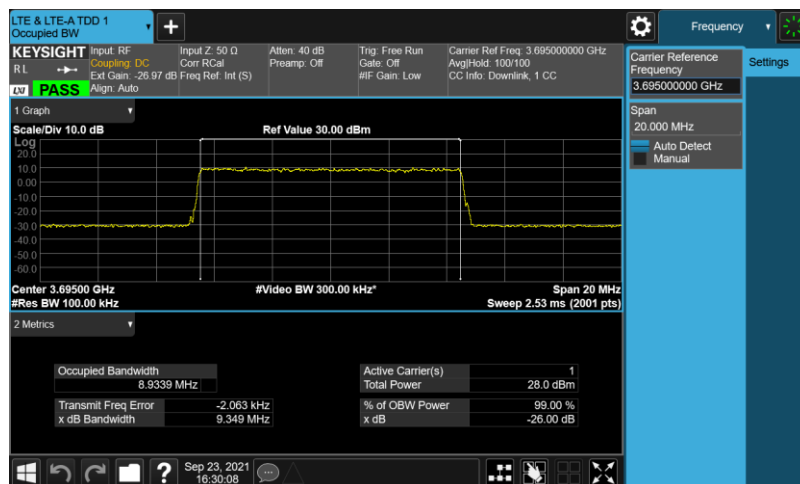
Band48-10MHz-256QAM-55290-E-TM3.1A



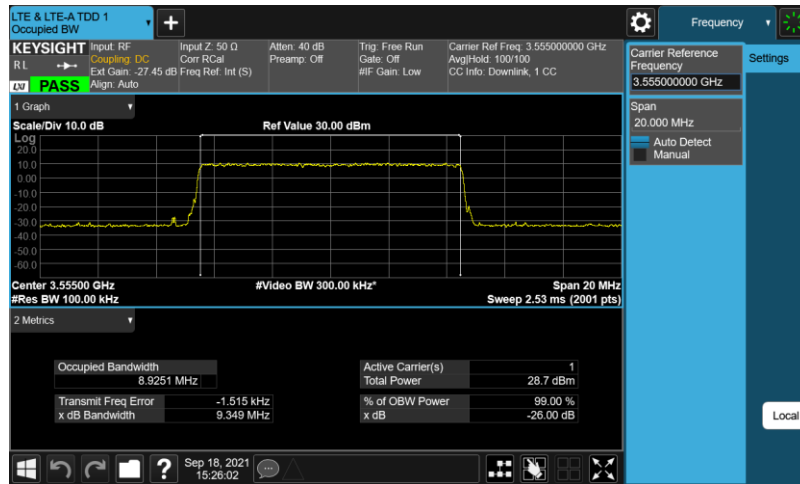
Band48-10MHz-256QAM-55990-E-TM3.1A



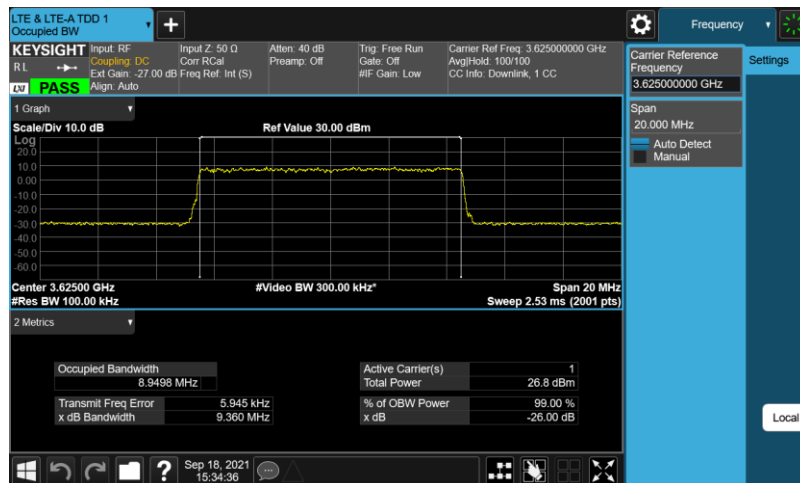
Band48-10MHz-256QAM-56690-E-TM3.1A



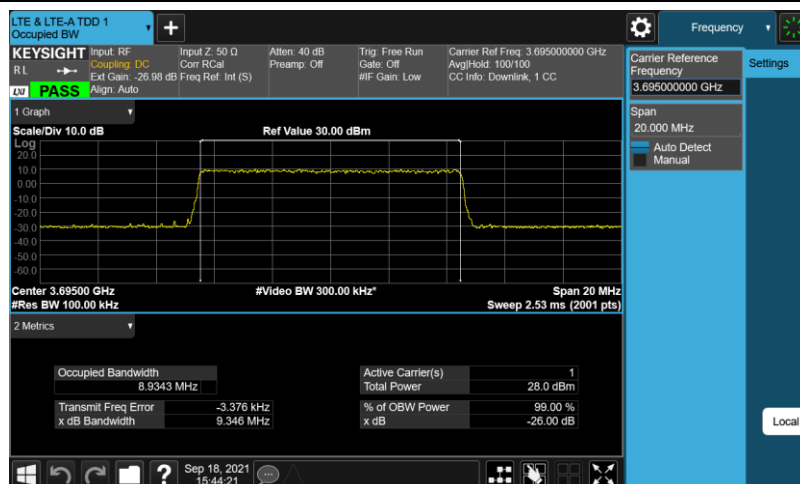
Band48-10MHz-QPSK-55290-E-TM1.1



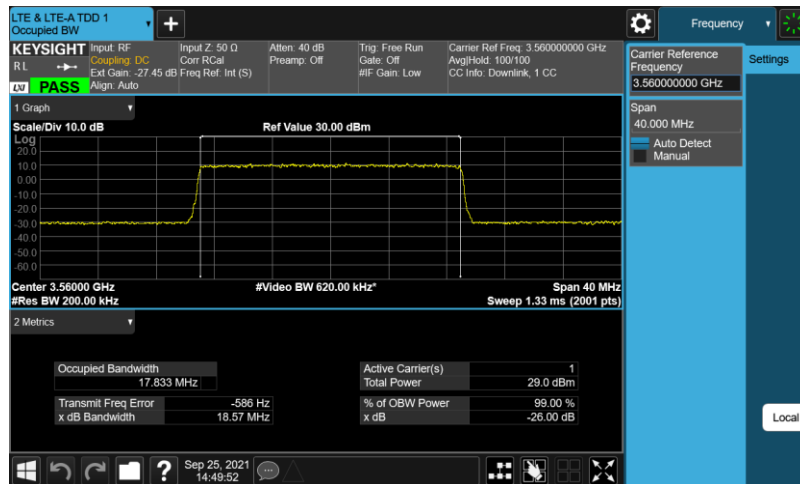
Band48-10MHz-QPSK-55990-E-TM1.1



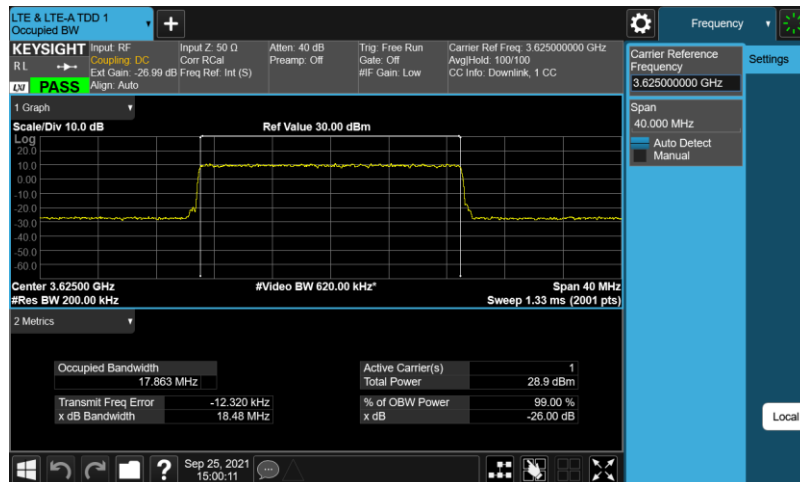
Band48-10MHz-QPSK-56690-E-TM1.1



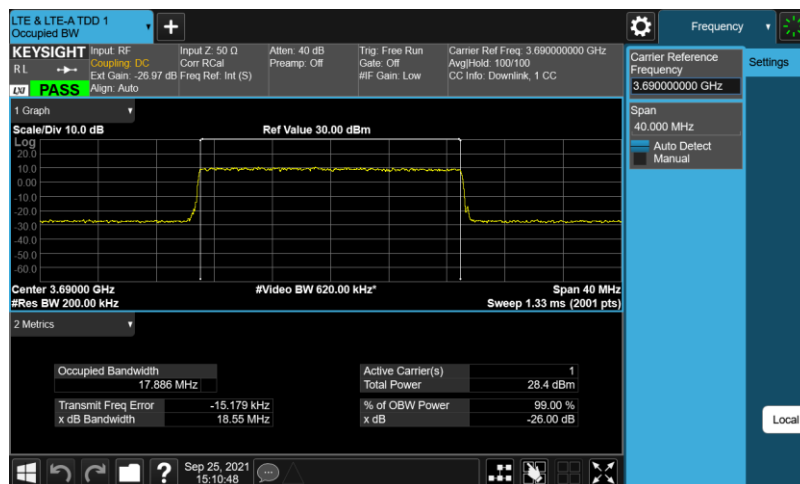
Band48-20MHz-256QAM-55340-E-TM3.1A



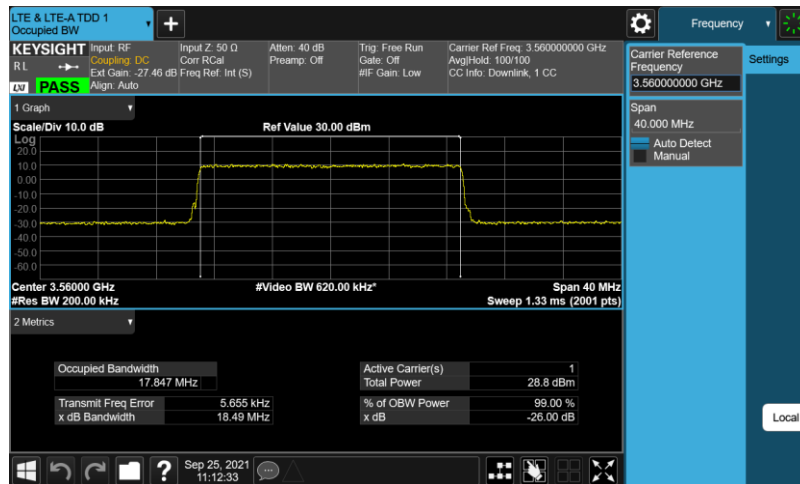
Band48-20MHz-256QAM-55990-E-TM3.1A



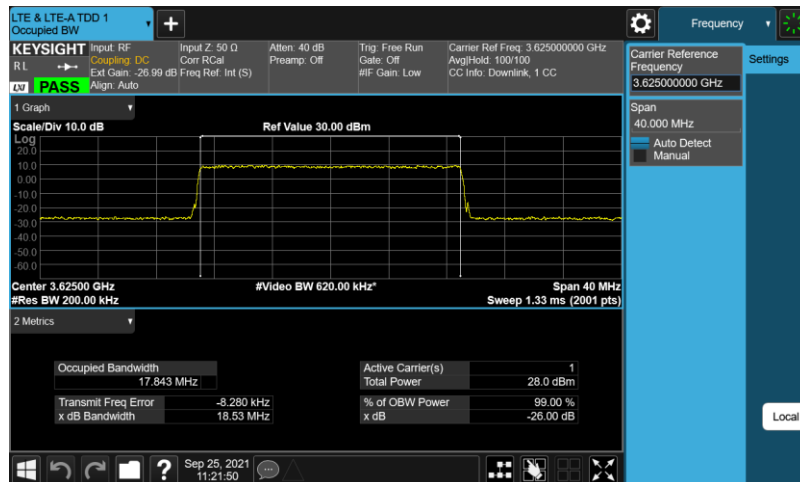
Band48-20MHz-256QAM-56640-E-TM3.1A



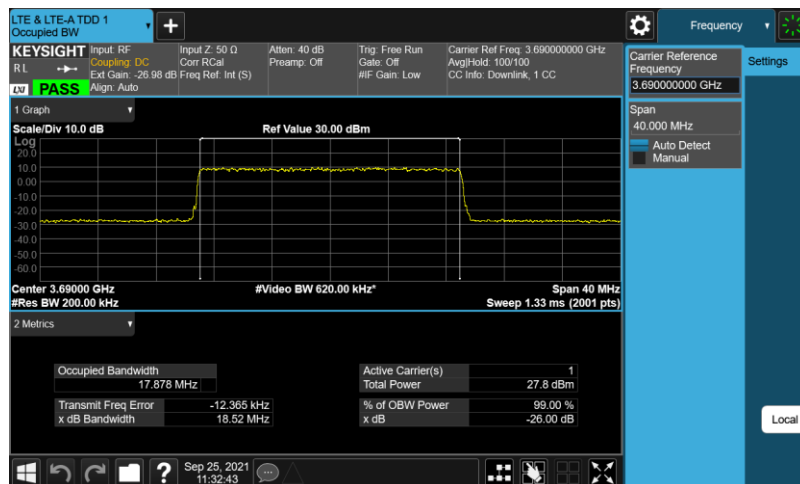
Band48-20MHz-QPSK-55340-E-TM1.1



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	86	0.024	within the authorized bands
Band48	10MHz	256QAM	55990	E-TM3.1A	120	25	85	0.023	
Band48	10MHz	256QAM	55990	E-TM3.1A	138	25	88	0.024	
Band48	10MHz	QPSK	55990	E-TM1.1	102	25	76	0.021	
Band48	10MHz	QPSK	55990	E-TM1.1	120	25	77	0.021	
Band48	10MHz	QPSK	55990	E-TM1.1	138	25	76	0.021	
Band48	20MHz	256QAM	55990	E-TM3.1A	102	25	74	0.020	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	25	77	0.021	
Band48	20MHz	256QAM	55990	E-TM3.1A	138	25	77	0.021	
Band48	20MHz	QPSK	55990	E-TM1.1	102	25	76	0.021	
Band48	20MHz	QPSK	55990	E-TM1.1	120	25	73	0.020	
Band48	20MHz	QPSK	55990	E-TM1.1	138	25	75	0.021	

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	76	0.021	within the authorized bands
Band48	10MHz	256QAM	55990	E-TM3.1A	120	-20	80	0.022	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	-10	80	0.022	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	0	78	0.022	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	10	79	0.022	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	20	81	0.022	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	30	79	0.022	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	40	84	0.023	
Band48	10MHz	256QAM	55990	E-TM3.1A	120	50	79	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-30	79	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-20	81	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-10	80	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	0	81	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	10	84	0.023	
Band48	10MHz	QPSK	55990	E-TM1.1	120	20	81	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	30	82	0.023	

Band48	10MHz	QPSK	55990	E-TM1.1	120	40	86	0.024	
Band48	10MHz	QPSK	55990	E-TM1.1	120	50	83	0.023	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	-30	59	0.016	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	-20	56	0.015	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	-10	62	0.017	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	0	58	0.016	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	10	61	0.017	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	20	62	0.017	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	30	64	0.018	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	40	61	0.017	
Band48	20MHz	256QAM	55990	E-TM3.1A	120	50	62	0.017	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-30	68	0.019	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-20	66	0.018	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-10	65	0.018	
Band48	20MHz	QPSK	55990	E-TM1.1	120	0	65	0.018	
Band48	20MHz	QPSK	55990	E-TM1.1	120	10	63	0.017	
Band48	20MHz	QPSK	55990	E-TM1.1	120	20	67	0.018	
Band48	20MHz	QPSK	55990	E-TM1.1	120	30	67	0.018	
Band48	20MHz	QPSK	55990	E-TM1.1	120	40	66	0.018	
Band48	20MHz	QPSK	55990	E-TM1.1	120	50	69	0.019	

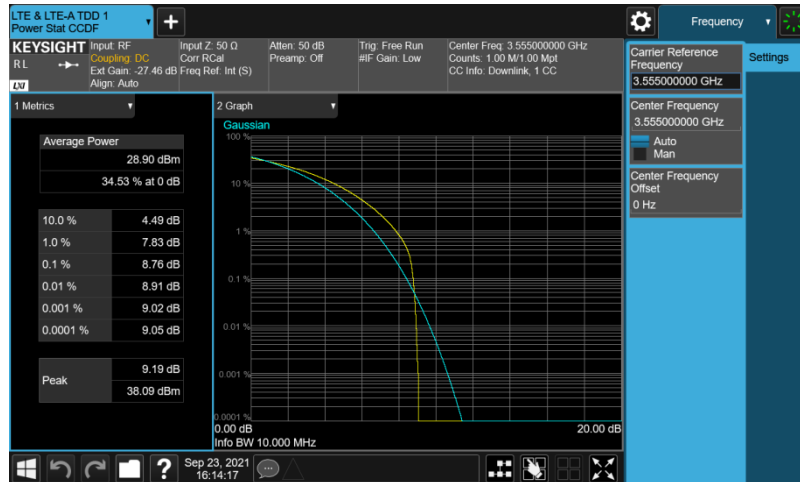
Appendix E: Peak-to-Average Ratio(CCDF)

Test Result

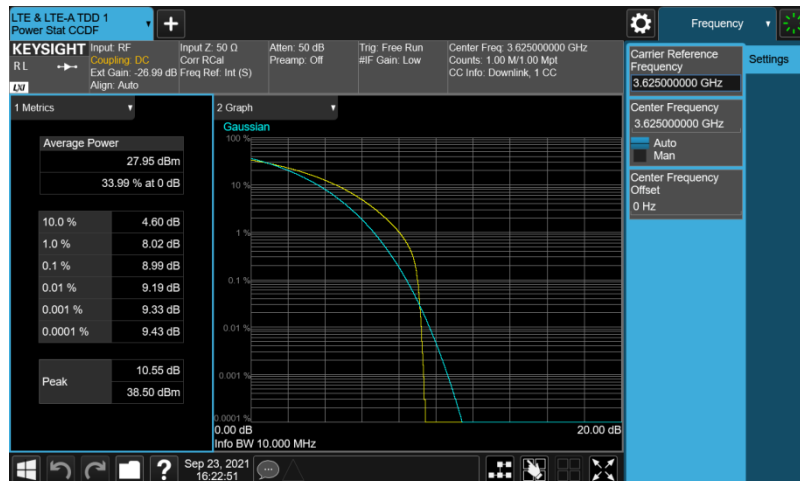
Band	Bandwidth	Modulation	Channel	Mode	Result(dBm)
Band48	10MHz	256QAM	55290	E-TM3.1A	8.76
Band48	10MHz	256QAM	55990	E-TM3.1A	8.99
Band48	10MHz	256QAM	56690	E-TM3.1A	8.96
Band48	10MHz	QPSK	55290	E-TM1.1	9.04
Band48	10MHz	QPSK	55990	E-TM1.1	9.06
Band48	10MHz	QPSK	56690	E-TM1.1	8.95
Band48	20MHz	256QAM	55340	E-TM3.1A	8.99
Band48	20MHz	256QAM	55990	E-TM3.1A	9.73
Band48	20MHz	256QAM	56640	E-TM3.1A	8.50
Band48	20MHz	QPSK	55340	E-TM1.1	8.63
Band48	20MHz	QPSK	55990	E-TM1.1	8.97
Band48	20MHz	QPSK	56640	E-TM1.1	8.63

Test Graphs

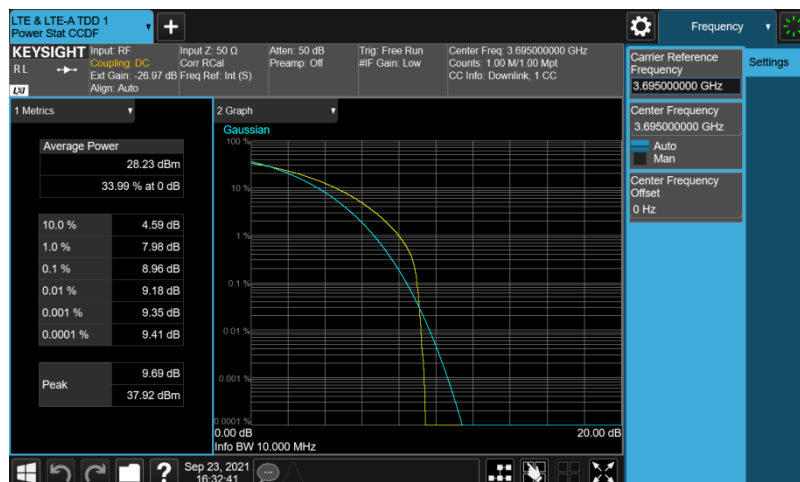
Band48-10MHz-256QAM-55290-E-TM3.1A



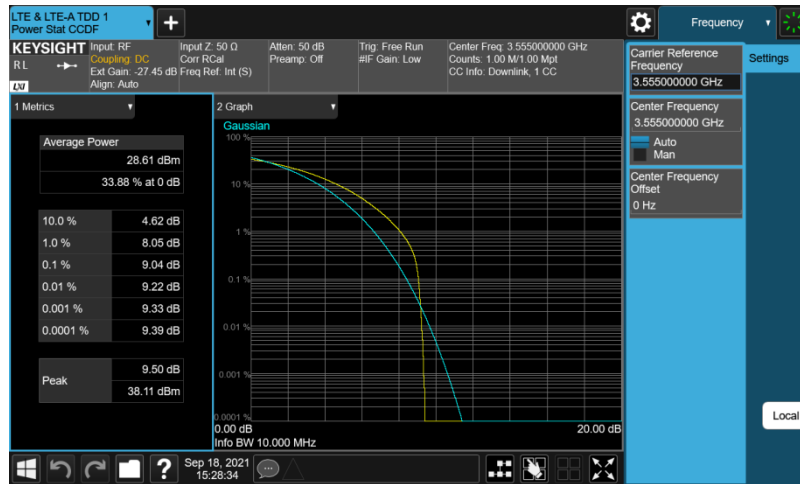
Band48-10MHz-256QAM-55990-E-TM3.1A



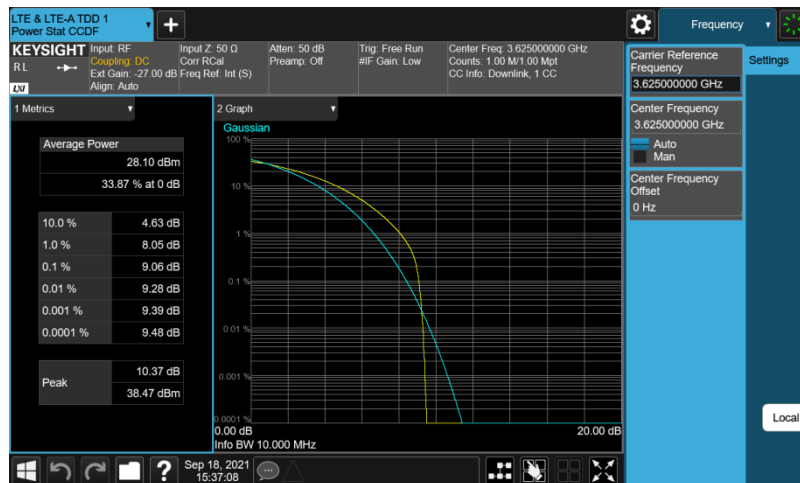
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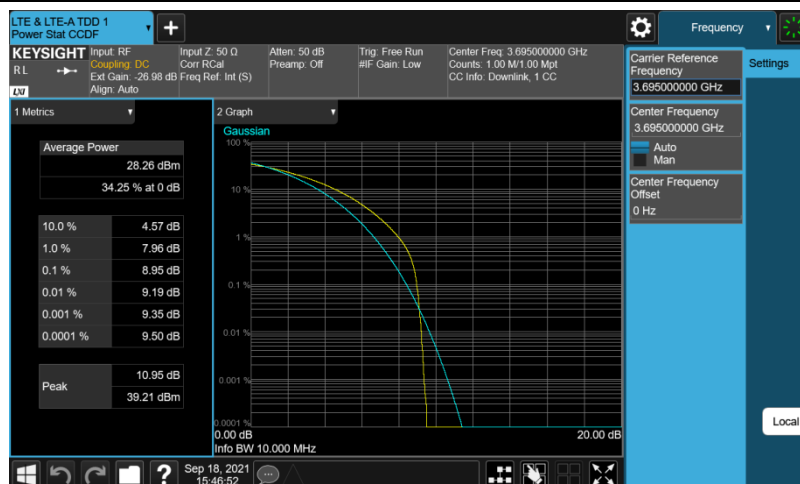
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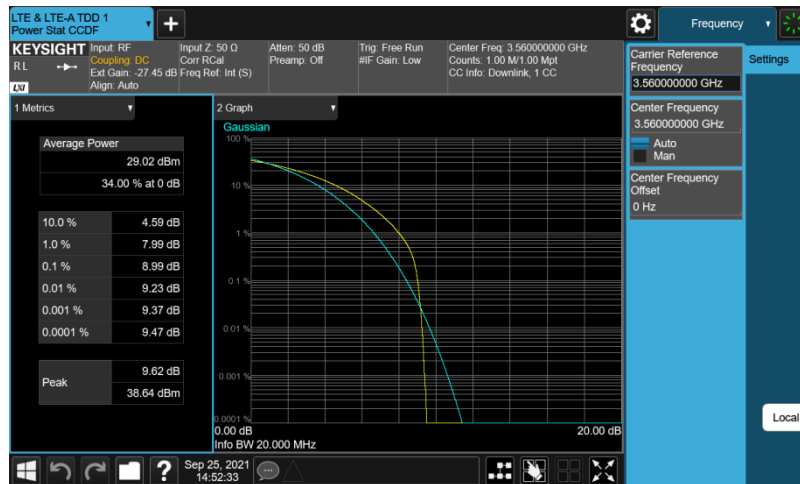
Band48-10MHz-QPSK-55990-E-TM1.1



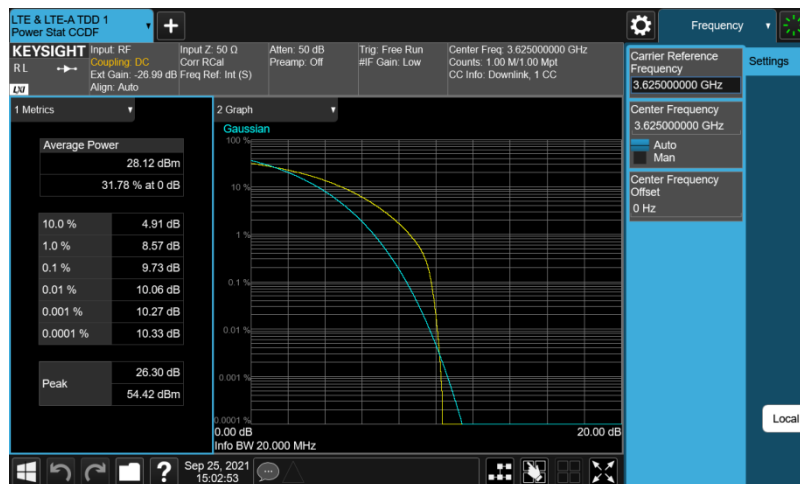
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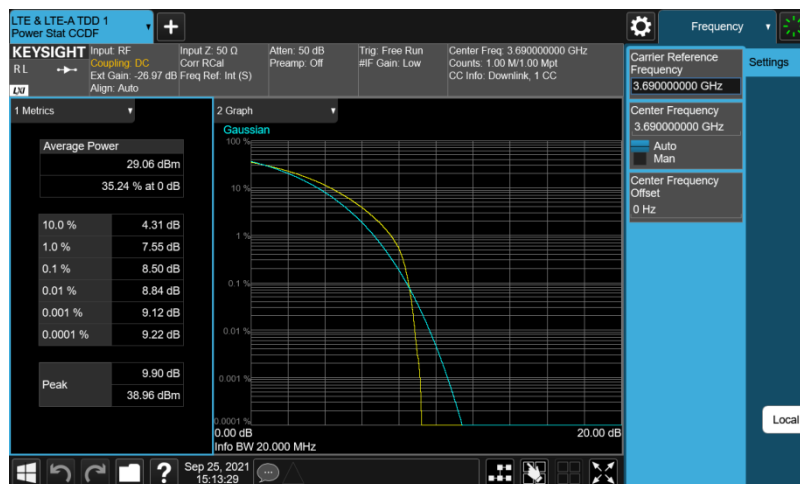
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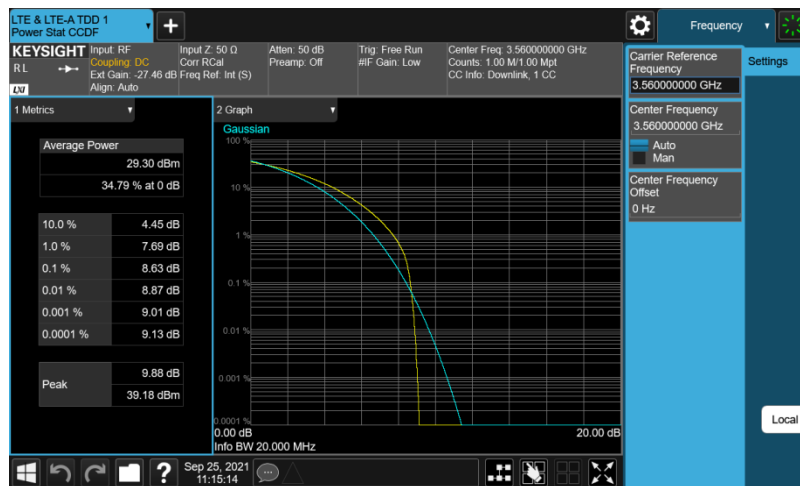
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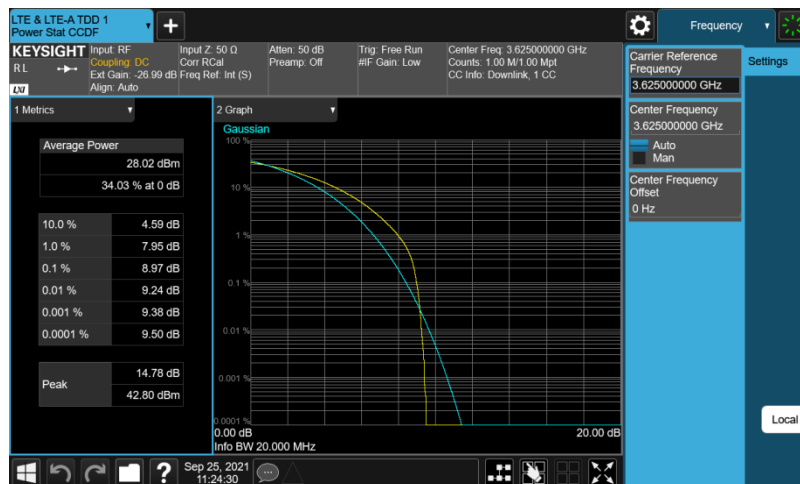
Band48-20MHz-256QAM-56640-E-TM3.1A



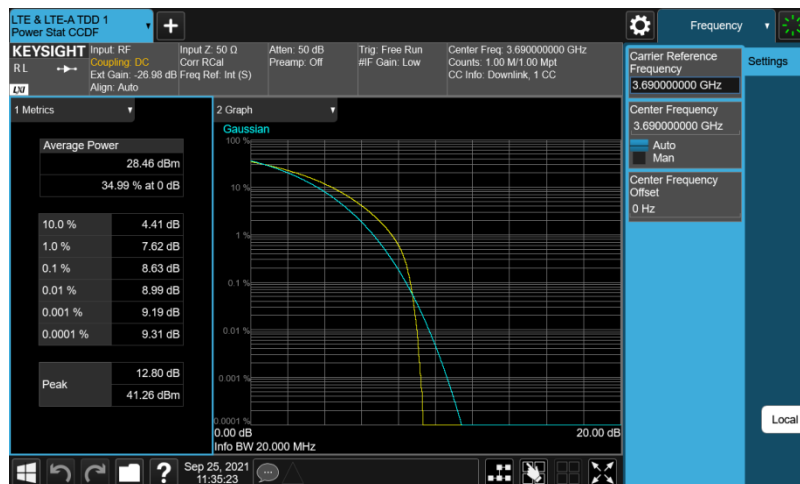
Band48-20MHz-QPSK-55340-E-TM1.1



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



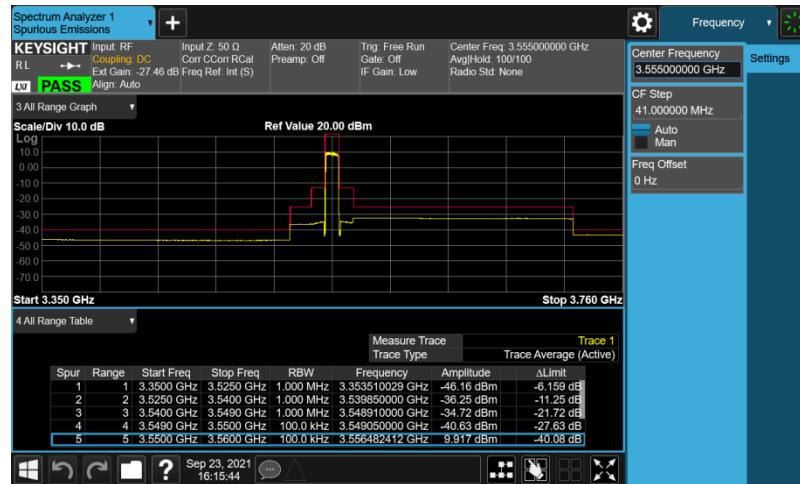
Band48-20MHz-QPSK-56640-E-TM1.1



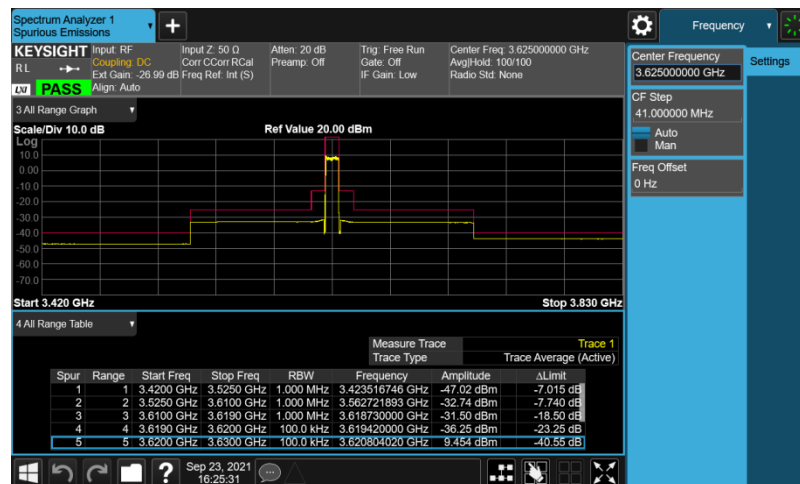
Appendix F: Emission Mask

Test Graphs

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



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



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

