

Antenna 0:

Appendix A: Conducted Output Power

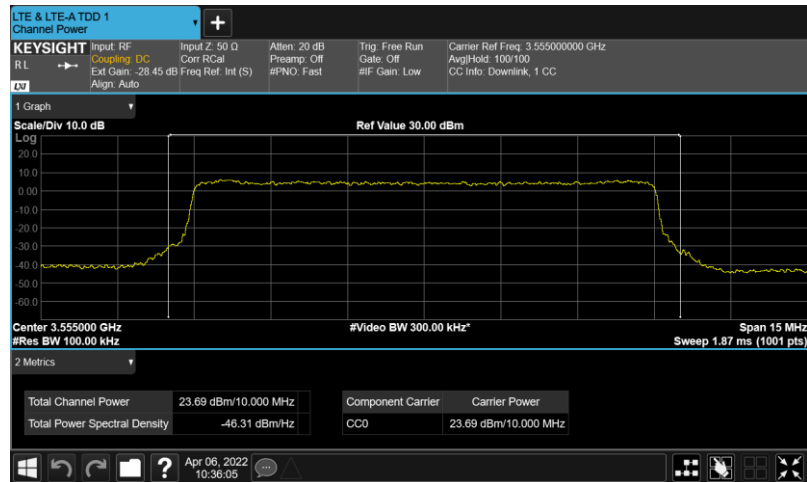
Test Result

Band	Bandwidth	Modulation	Channel	Mode	Power (dBm/10MHz)
Band48	10MHz	64QAM	55290	E-TM3.1	23.69
Band48	10MHz	64QAM	55990	E-TM3.1	23.24
Band48	10MHz	64QAM	56690	E-TM3.1	23.17
Band48	10MHz	QPSK	55290	E-TM1.1	23.52
Band48	10MHz	QPSK	55990	E-TM1.1	23.15
Band48	10MHz	QPSK	56690	E-TM1.1	23.21
Band48	20MHz	64QAM	55340	E-TM3.1	21.14
Band48	20MHz	64QAM	55990	E-TM3.1	20.76
Band48	20MHz	64QAM	56640	E-TM3.1	20.80
Band48	20MHz	QPSK	55340	E-TM1.1	20.63
Band48	20MHz	QPSK	55990	E-TM1.1	20.45
Band48	20MHz	QPSK	56640	E-TM1.1	20.85

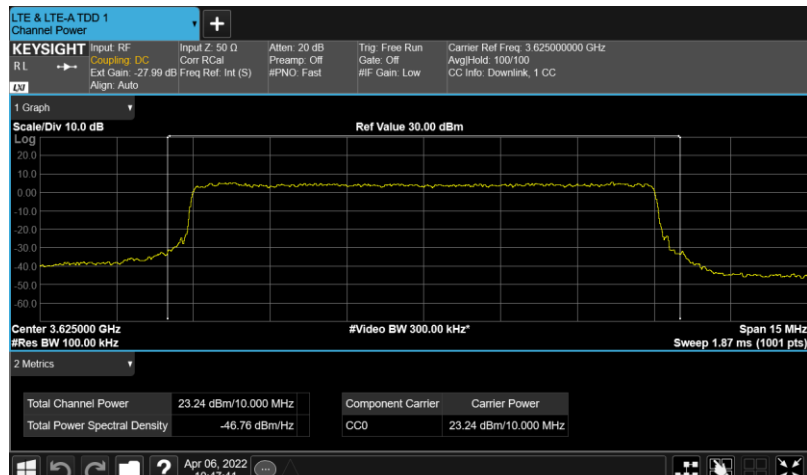
Band	Bandwidth	Modulation	Channel	Mode	Power (dBm/20MHz)
Band48	20MHz	64QAM	55340	E-TM3.1	23.65
Band48	20MHz	64QAM	55990	E-TM3.1	23.46
Band48	20MHz	64QAM	56640	E-TM3.1	23.38
Band48	20MHz	QPSK	55340	E-TM1.1	23.44
Band48	20MHz	QPSK	55990	E-TM1.1	23.15
Band48	20MHz	QPSK	56640	E-TM1.1	23.52

Test Graphs

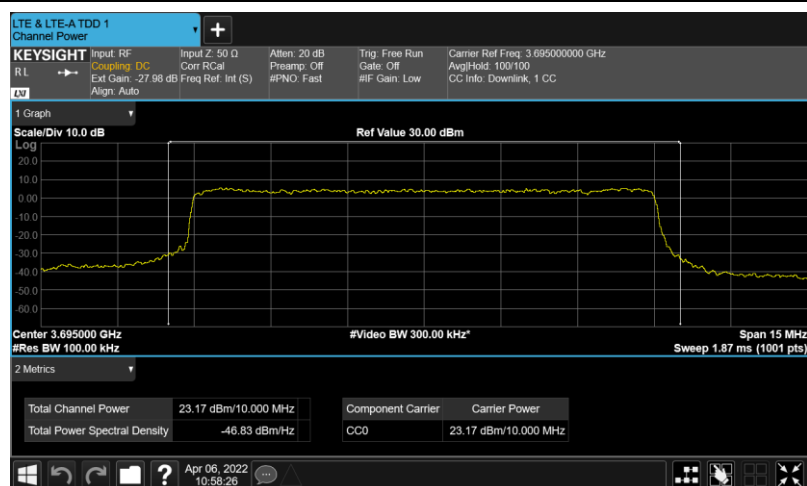
Band48-10MHz-64QAM-55290-E-TM3.1-10



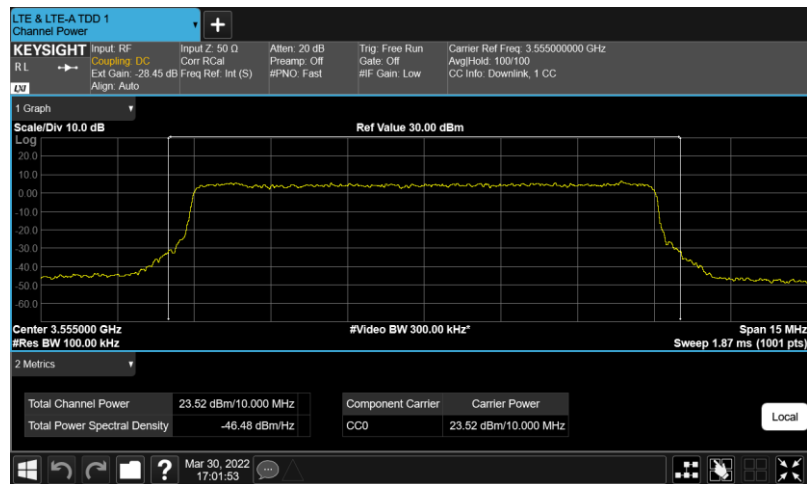
Band48-10MHz-64QAM-55990-E-TM3.1-10



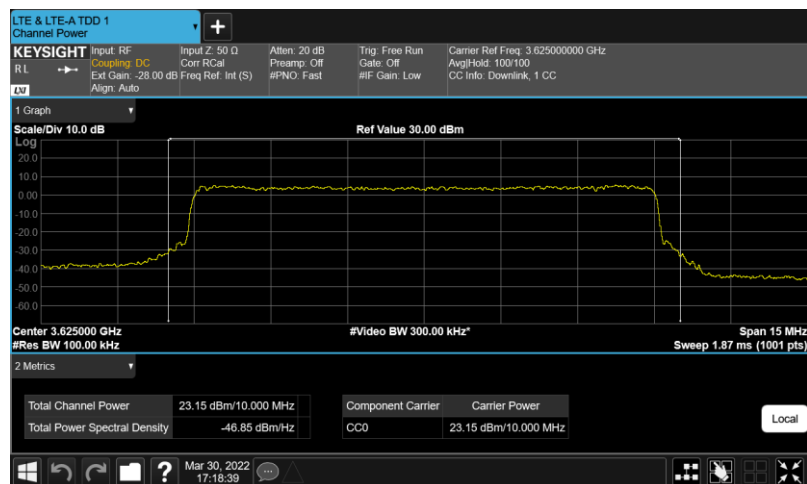
Band48-10MHz-64QAM-56690-E-TM3.1-10



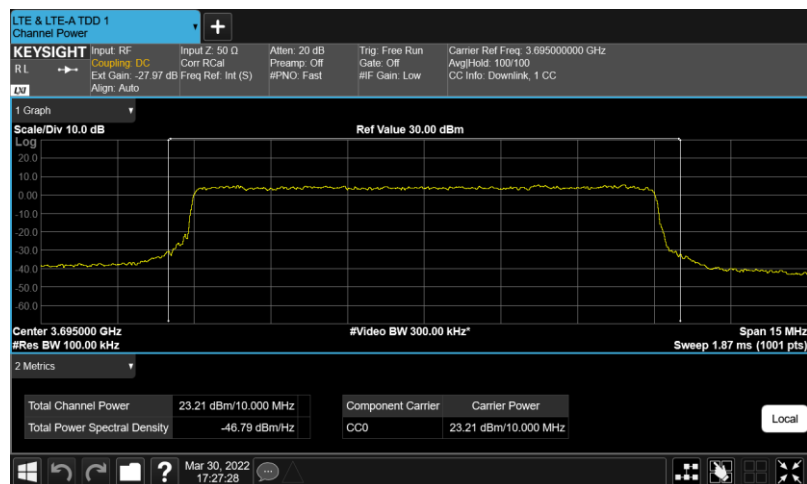
Band48-10MHz-QPSK-55290-E-TM1.1-10



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



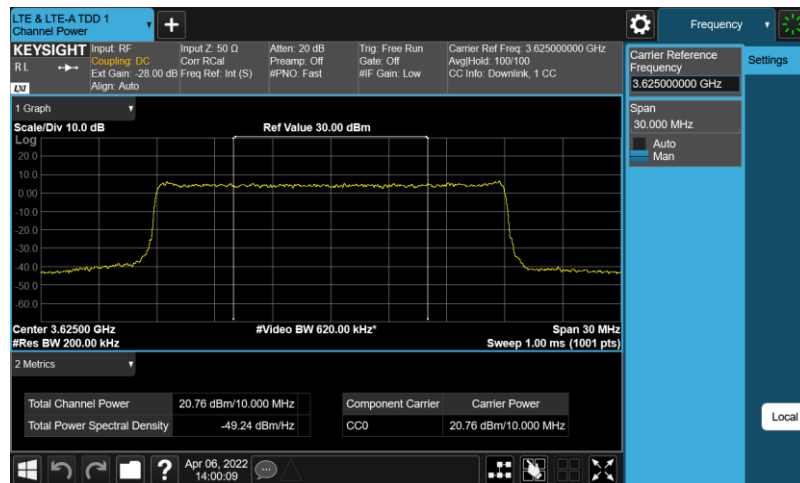
Band48-10MHz-QPSK-56690-E-TM1.1-10



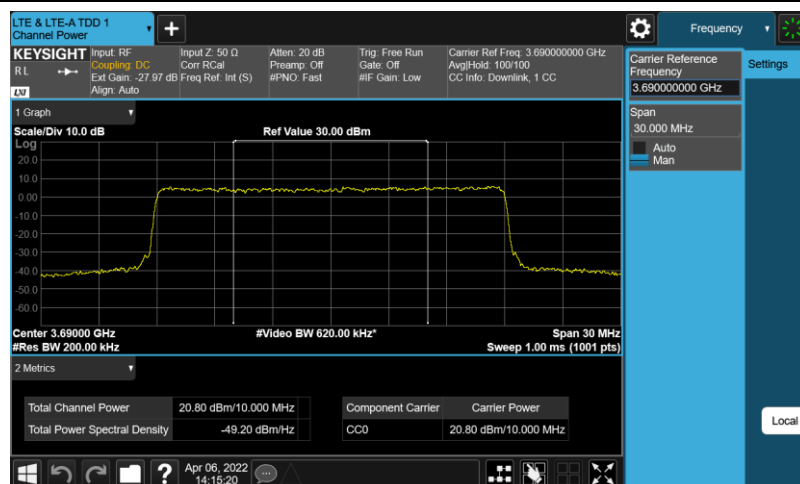
Band48-20MHz-64QAM-55340-E-TM3.1-10



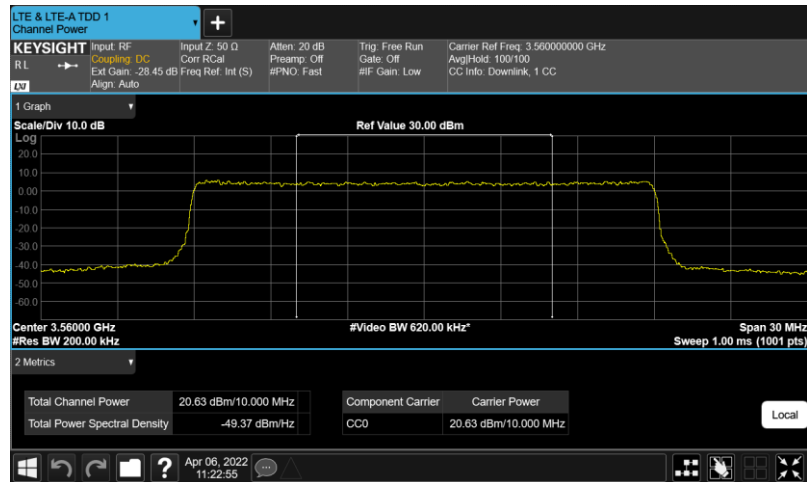
Band48-20MHz-64QAM-55990-E-TM3.1-10



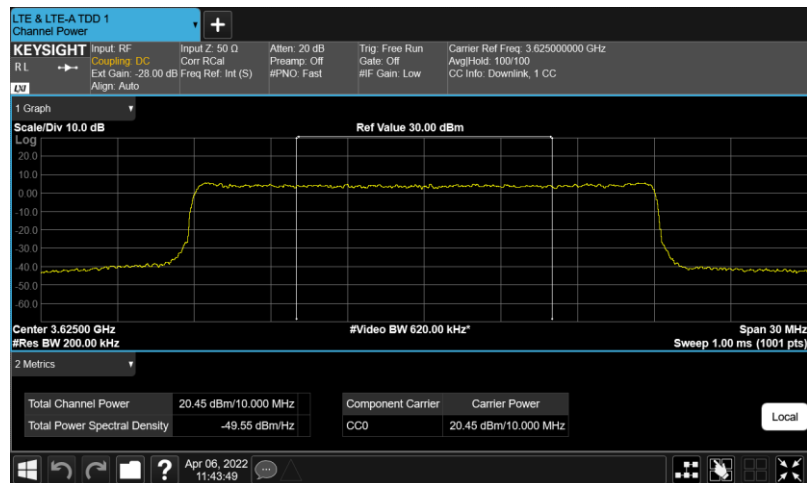
Band48-20MHz-64QAM-56640-E-TM3.1-10



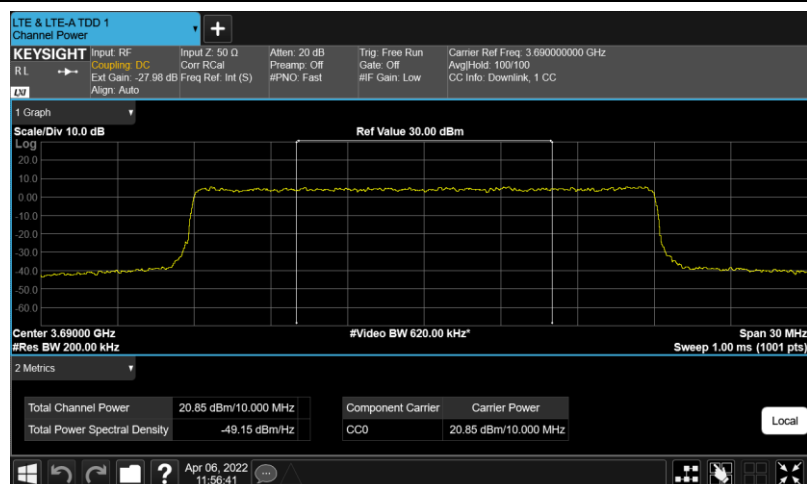
Band48-20MHz-QPSK-55340-E-TM1.1-10



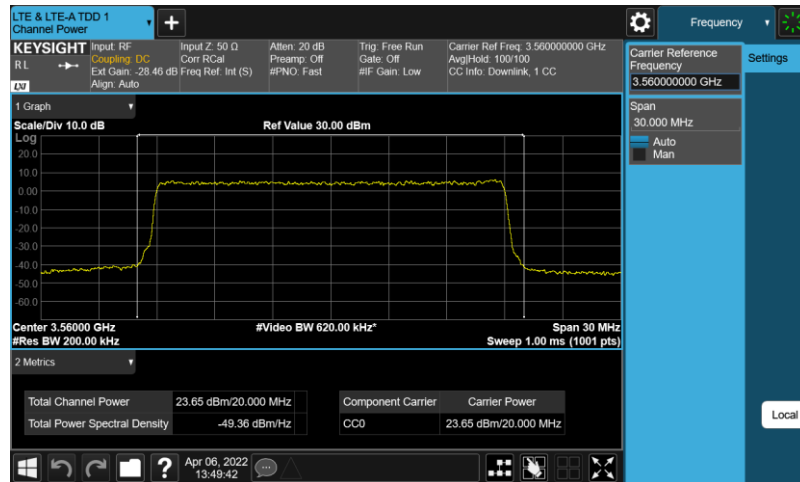
Band48-20MHz-QPSK-55990-E-TM1.1-10



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



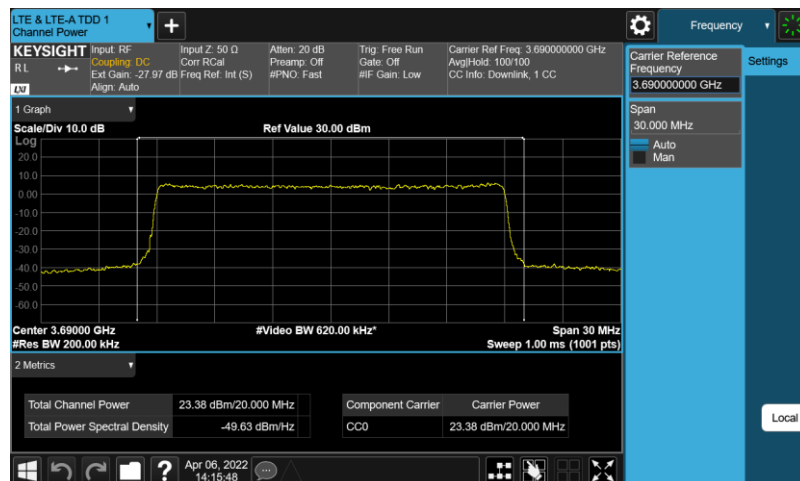
Band48-20MHz-64QAM-55340-E-TM3.1-20



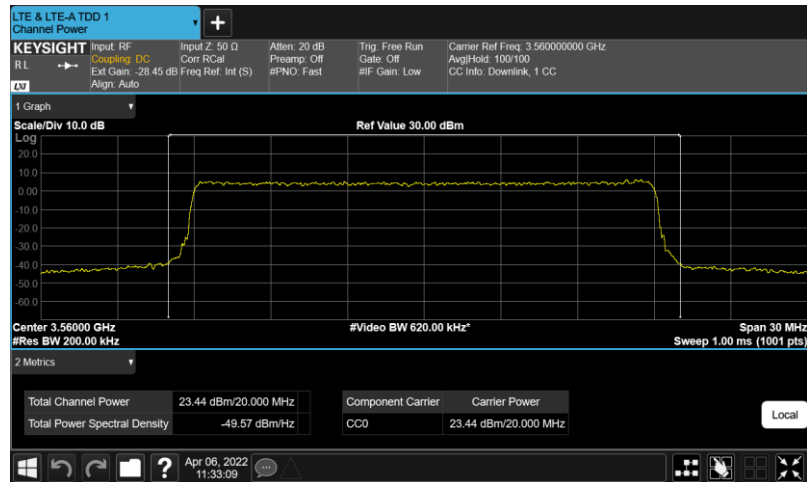
Band48-20MHz-64QAM-55990-E-TM3.1-20



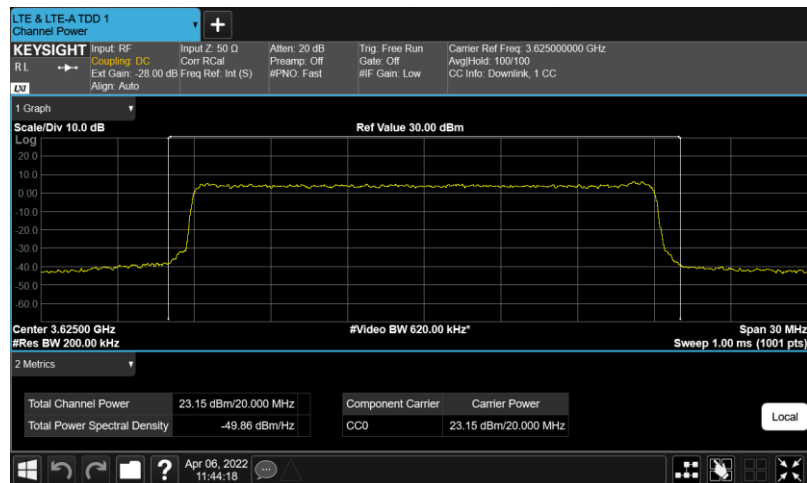
Band48-20MHz-64QAM-56640-E-TM3.1-20



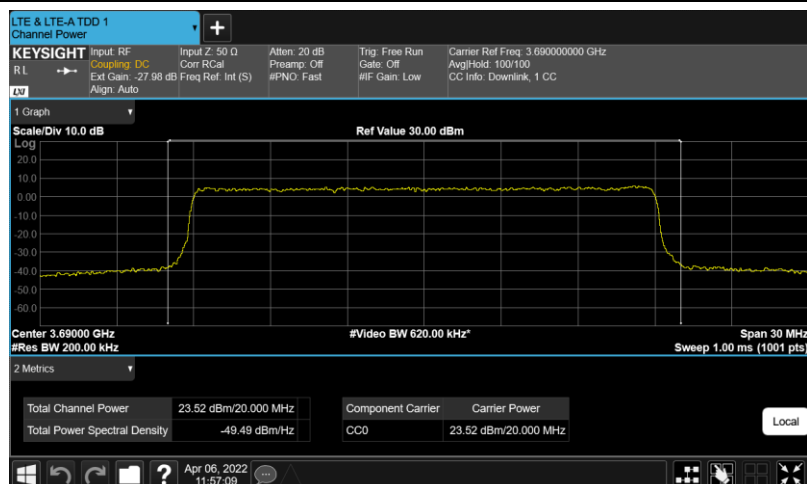
Band48-20MHz-QPSK-55340-E-TM1.1-20



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



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



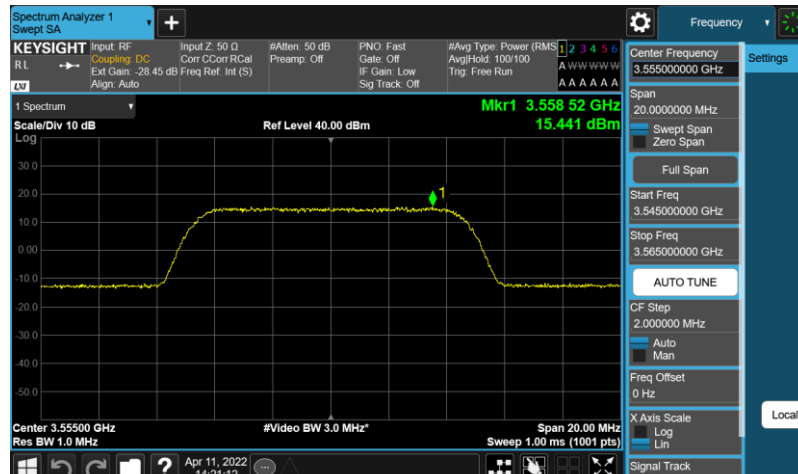
Appendix B: Power Spectral Density

Test Result

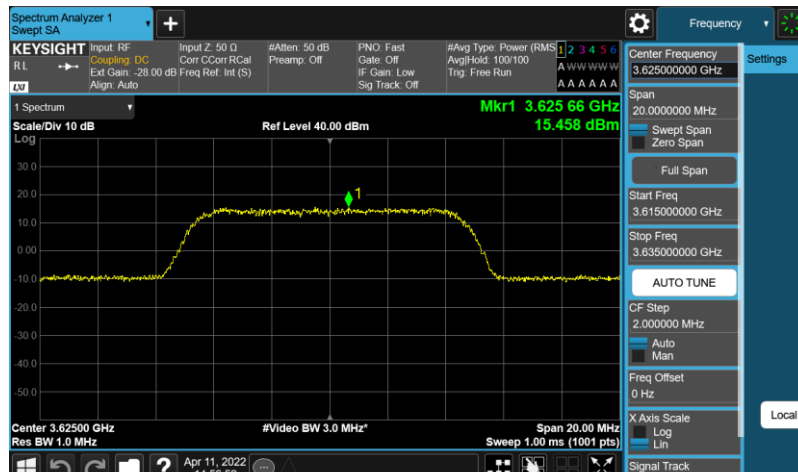
Band	Bandwidth	Modulation	Channel	Mode	PSD (dBm/MHz)
Band48	10MHz	64QAM	55290	E-TM3.1	15.44
Band48	10MHz	64QAM	55990	E-TM3.1	15.46
Band48	10MHz	64QAM	56690	E-TM3.1	14.96
Band48	10MHz	QPSK	55290	E-TM1.1	15.59
Band48	10MHz	QPSK	55990	E-TM1.1	14.81
Band48	10MHz	QPSK	56690	E-TM1.1	15.30
Band48	20MHz	64QAM	55340	E-TM3.1	12.57
Band48	20MHz	64QAM	55990	E-TM3.1	12.85
Band48	20MHz	64QAM	56640	E-TM3.1	13.25
Band48	20MHz	QPSK	55340	E-TM1.1	12.23
Band48	20MHz	QPSK	55990	E-TM1.1	12.89
Band48	20MHz	QPSK	56640	E-TM1.1	13.01

Test Graphs

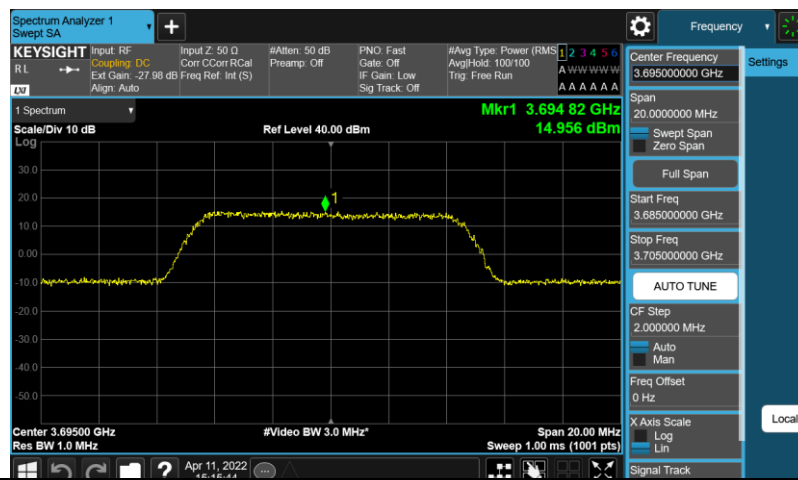
Band48-10MHz-64QAM-55290-E-TM3.1



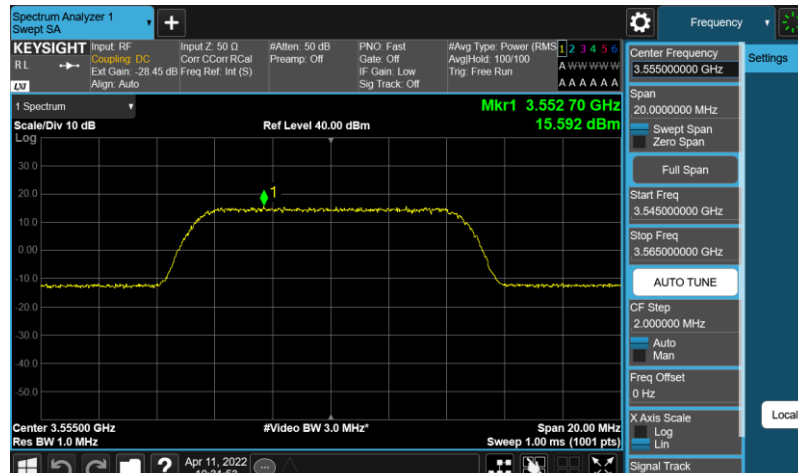
Band48-10MHz-64QAM-55990-E-TM3.1



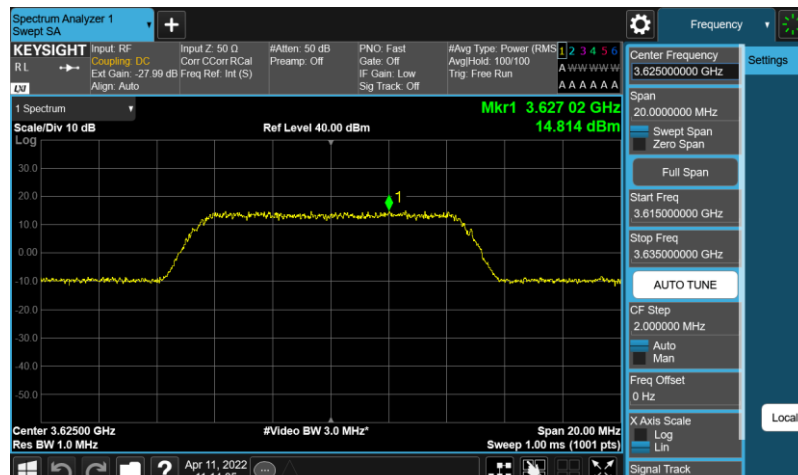
Band48-10MHz-64QAM-56690-E-TM3.1



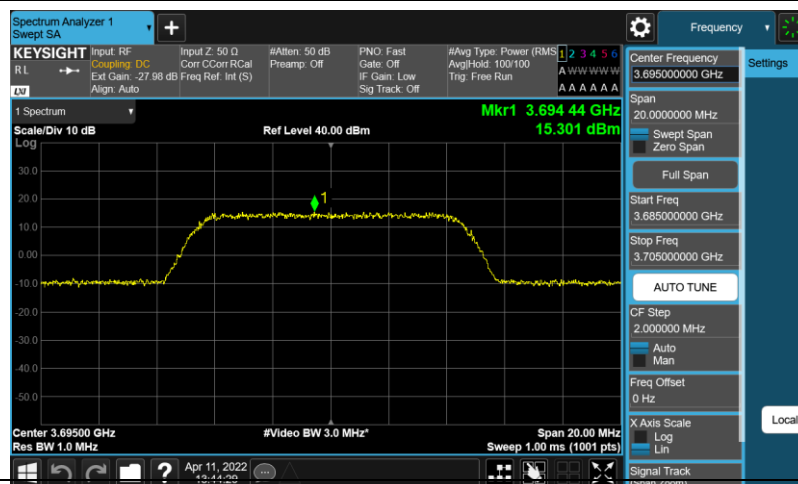
Band48-10MHz-QPSK-55290-E-TM1.1



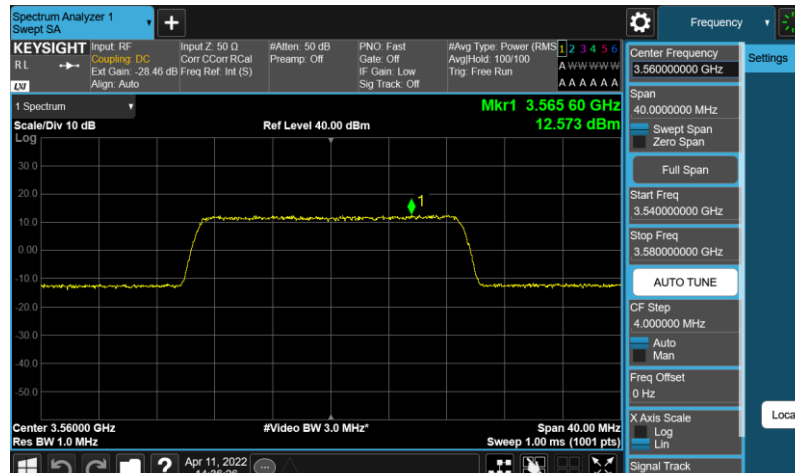
Band48-10MHz-QPSK-55990-E-TM1.1



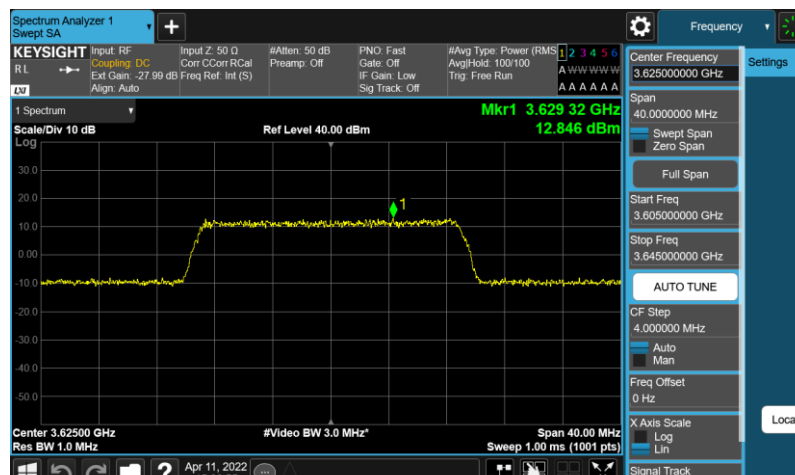
Band48-10MHz-QPSK-56690-E-TM1.1



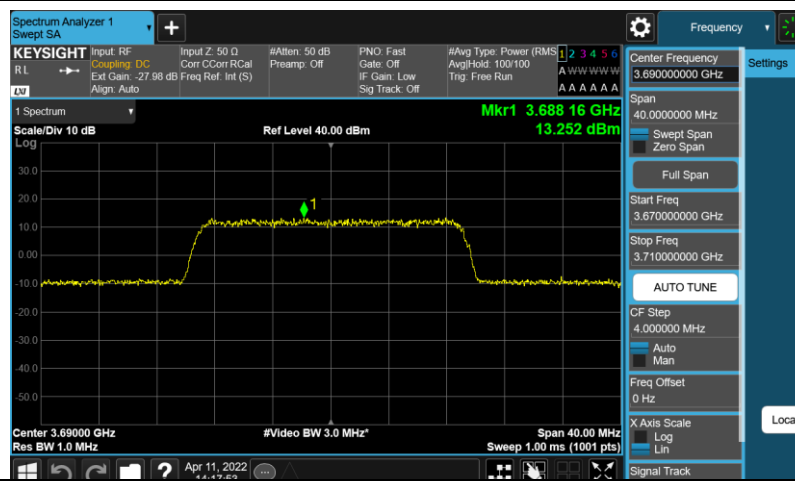
Band48-20MHz-64QAM-55340-E-TM3.1



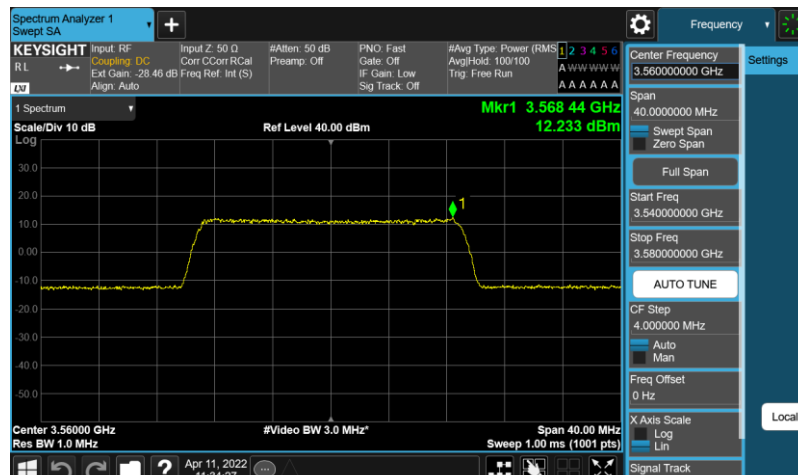
Band48-20MHz-64QAM-55990-E-TM3.1



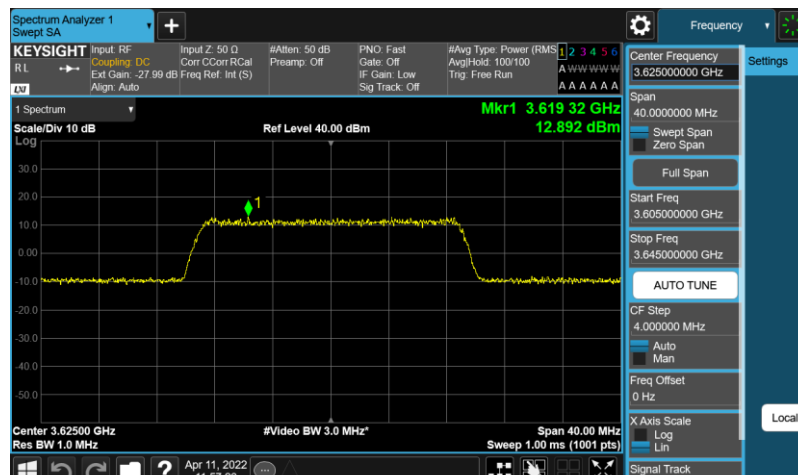
Band48-20MHz-64QAM-56640-E-TM3.1



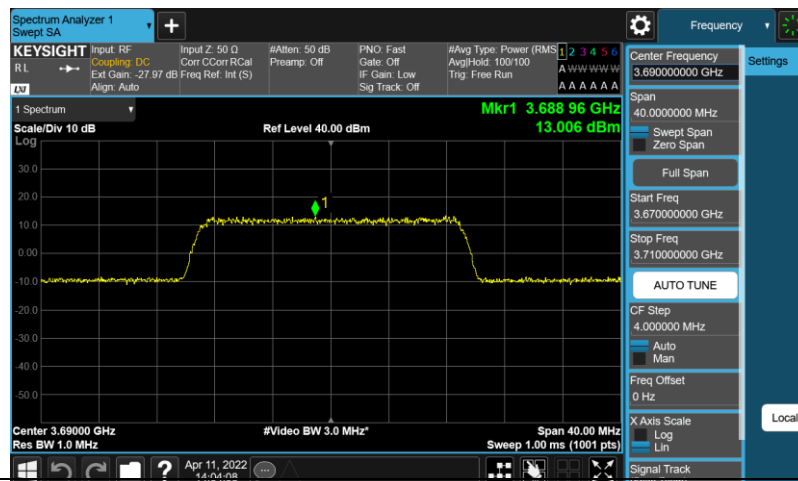
Band48-20MHz-QPSK-55340-E-TM1.1



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



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



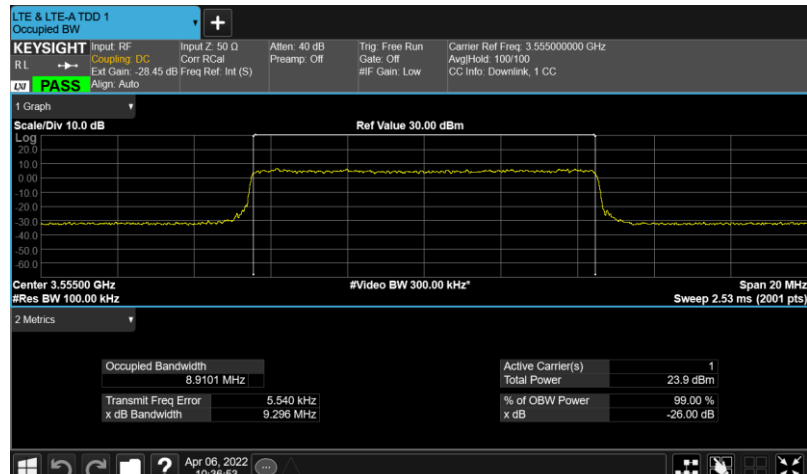
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

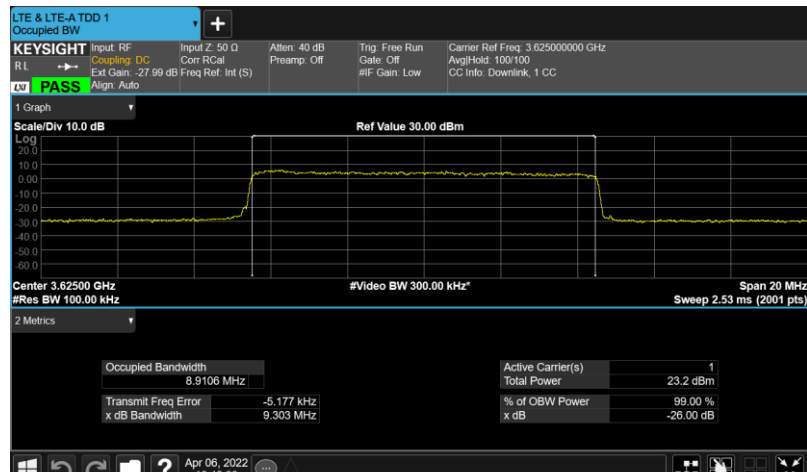
Band	Bandwidth	Modulation	Channel	Mode	99%(MHz)	EBW(MHz)
Band48	10MHz	64QAM	55290	E-TM3.1	8.9101	9.296
Band48	10MHz	64QAM	55990	E-TM3.1	8.9106	9.303
Band48	10MHz	64QAM	56690	E-TM3.1	8.9228	9.333
Band48	10MHz	QPSK	55290	E-TM1.1	8.9198	9.277
Band48	10MHz	QPSK	55990	E-TM1.1	8.9233	9.258
Band48	10MHz	QPSK	56690	E-TM1.1	8.9157	9.275
Band48	20MHz	64QAM	55340	E-TM3.1	17.822	18.47
Band48	20MHz	64QAM	55990	E-TM3.1	17.829	18.48
Band48	20MHz	64QAM	56640	E-TM3.1	17.809	18.47
Band48	20MHz	QPSK	55340	E-TM1.1	17.834	18.48
Band48	20MHz	QPSK	55990	E-TM1.1	17.834	18.47
Band48	20MHz	QPSK	56640	E-TM1.1	17.828	18.49

Test Graphs

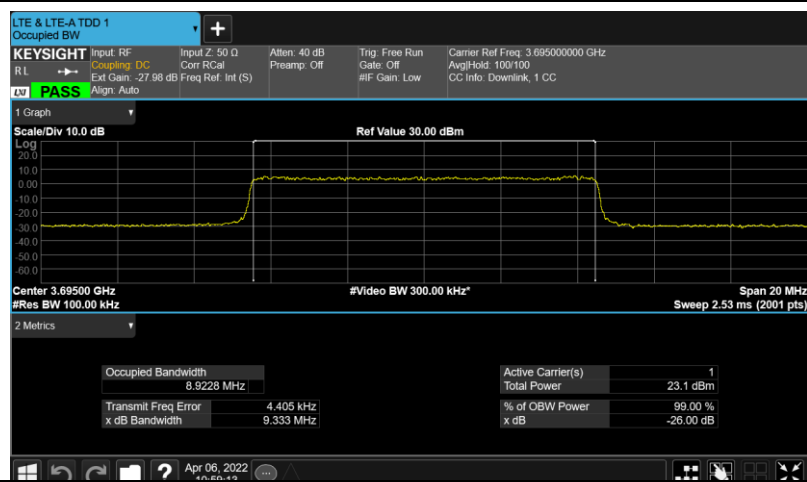
Band48-10MHz-64QAM-55290-E-TM3.1



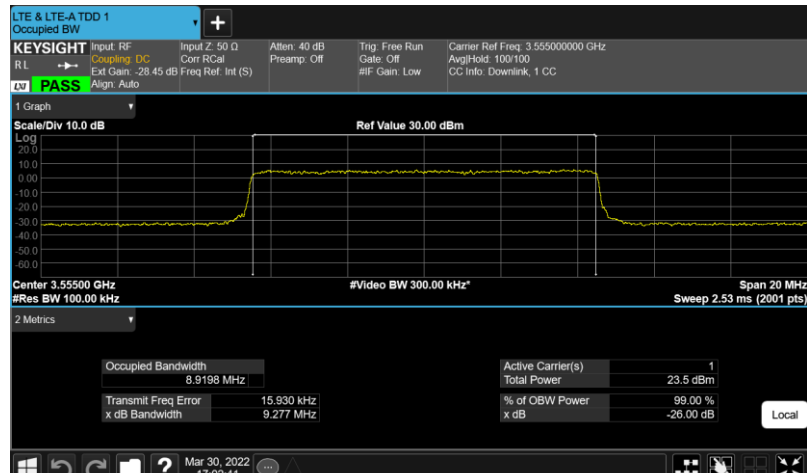
Band48-10MHz-64QAM-55990-E-TM3.1



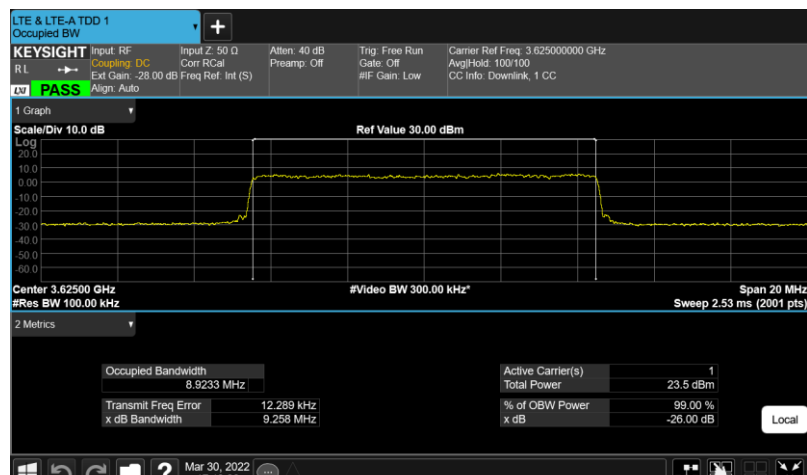
Band48-10MHz-64QAM-56690-E-TM3.1



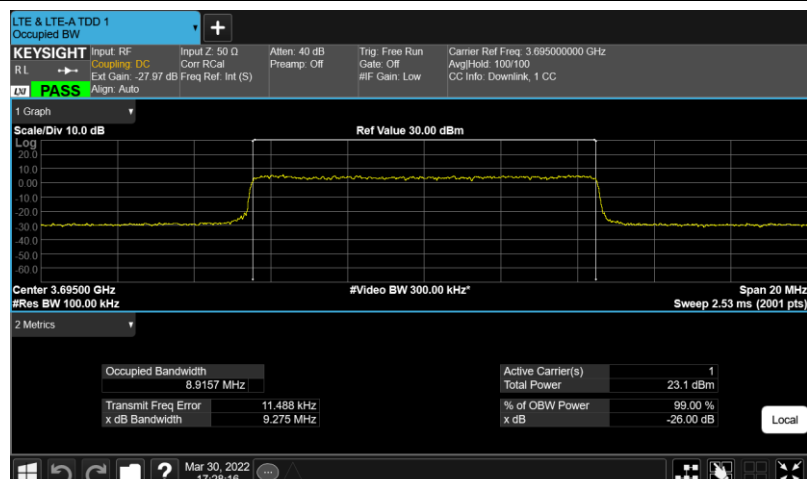
Band48-10MHz-QPSK-55290-E-TM1.1



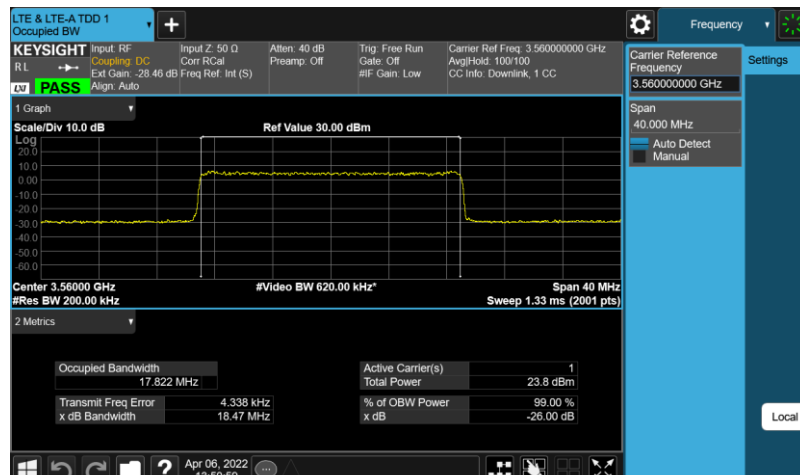
Band48-10MHz-QPSK-55990-E-TM1.1



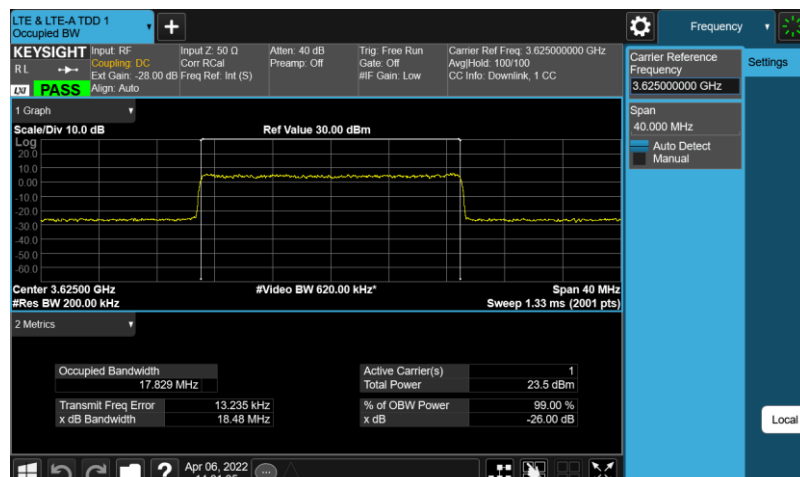
Band48-10MHz-QPSK-56690-E-TM1.1



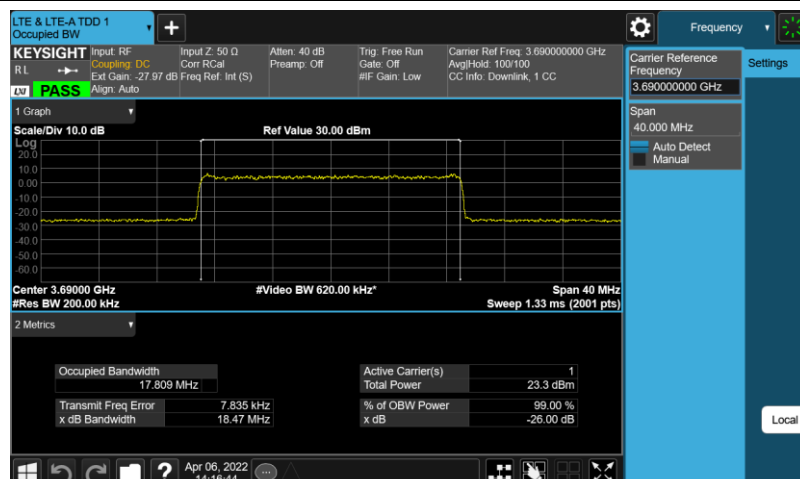
Band48-20MHz-64QAM-55340-E-TM3.1



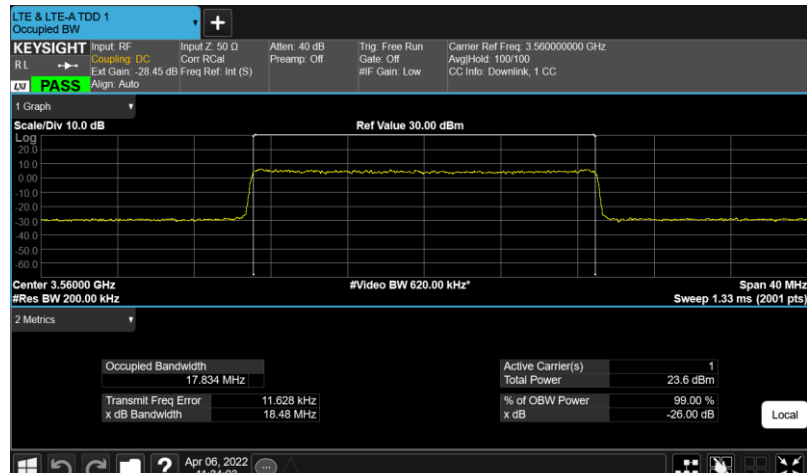
Band48-20MHz-64QAM-55990-E-TM3.1



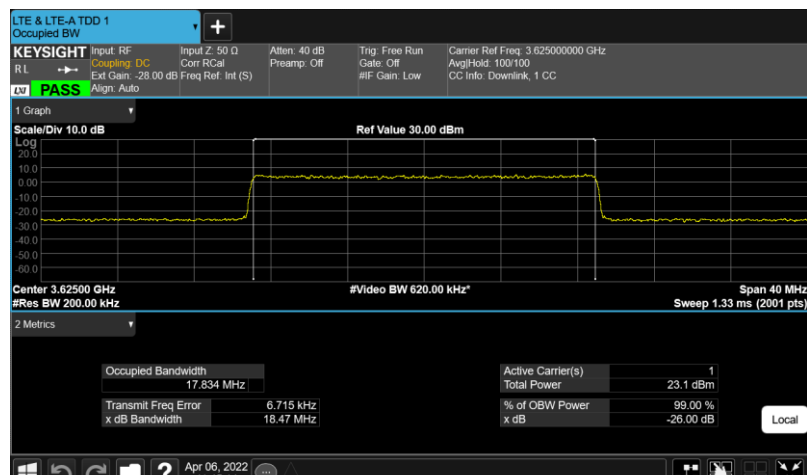
Band48-20MHz-64QAM-56640-E-TM3.1



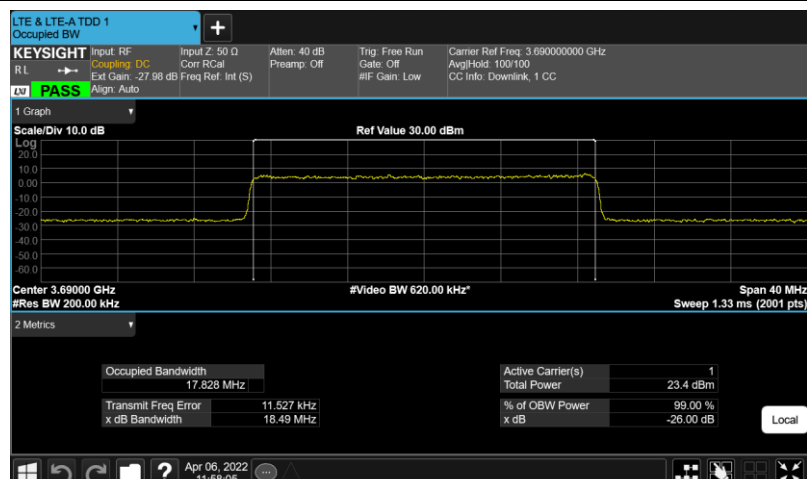
Band48-20MHz-QPSK-55340-E-TM1.1



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	64QAM	55990	E-TM3.1	102	25	83	0.023	within the authorized bands
Band48	10MHz	64QAM	55990	E-TM3.1	120	25	78	0.022	
Band48	10MHz	64QAM	55990	E-TM3.1	138	25	82	0.023	
Band48	10MHz	QPSK	55990	E-TM1.1	102	25	80	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	25	81	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	138	25	75	0.021	
Band48	20MHz	64QAM	55990	E-TM3.1	102	25	74	0.020	
Band48	20MHz	64QAM	55990	E-TM3.1	120	25	76	0.021	
Band48	20MHz	64QAM	55990	E-TM3.1	138	25	79	0.022	
Band48	20MHz	QPSK	55990	E-TM1.1	102	25	82	0.023	
Band48	20MHz	QPSK	55990	E-TM1.1	120	25	83	0.023	
Band48	20MHz	QPSK	55990	E-TM1.1	138	25	74	0.020	

Temperature measurement									
Band	Bandwidth	Modulation	Channel	Mode	Voltage [Vac]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)
Band48	10MHz	64QAM	55990	E-TM3.1	120	-30	79	0.022	within the authorized bands
Band48	10MHz	64QAM	55990	E-TM3.1	120	-20	74	0.020	
Band48	10MHz	64QAM	55990	E-TM3.1	120	-10	78	0.022	
Band48	10MHz	64QAM	55990	E-TM3.1	120	0	80	0.022	
Band48	10MHz	64QAM	55990	E-TM3.1	120	10	64	0.018	
Band48	10MHz	64QAM	55990	E-TM3.1	120	20	75	0.021	
Band48	10MHz	64QAM	55990	E-TM3.1	120	30	63	0.017	
Band48	10MHz	64QAM	55990	E-TM3.1	120	40	78	0.022	
Band48	10MHz	64QAM	55990	E-TM3.1	120	50	74	0.020	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-30	73	0.020	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-20	69	0.019	
Band48	10MHz	QPSK	55990	E-TM1.1	120	-10	74	0.020	
Band48	10MHz	QPSK	55990	E-TM1.1	120	0	80	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	10	76	0.021	
Band48	10MHz	QPSK	55990	E-TM1.1	120	20	81	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	30	74	0.020	

Band48	10MHz	QPSK	55990	E-TM1.1	120	40	78	0.022	
Band48	10MHz	QPSK	55990	E-TM1.1	120	50	69	0.019	
Band48	20MHz	64QAM	55990	E-TM3.1	120	-30	72	0.020	
Band48	20MHz	64QAM	55990	E-TM3.1	120	-20	76	0.021	
Band48	20MHz	64QAM	55990	E-TM3.1	120	-10	80	0.022	
Band48	20MHz	64QAM	55990	E-TM3.1	120	0	79	0.022	
Band48	20MHz	64QAM	55990	E-TM3.1	120	10	83	0.023	
Band48	20MHz	64QAM	55990	E-TM3.1	120	20	71	0.020	
Band48	20MHz	64QAM	55990	E-TM3.1	120	30	73	0.020	
Band48	20MHz	64QAM	55990	E-TM3.1	120	40	74	0.020	
Band48	20MHz	64QAM	55990	E-TM3.1	120	50	76	0.021	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-30	80	0.022	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-20	73	0.020	
Band48	20MHz	QPSK	55990	E-TM1.1	120	-10	71	0.020	
Band48	20MHz	QPSK	55990	E-TM1.1	120	0	76	0.021	
Band48	20MHz	QPSK	55990	E-TM1.1	120	10	79	0.022	
Band48	20MHz	QPSK	55990	E-TM1.1	120	20	70	0.019	
Band48	20MHz	QPSK	55990	E-TM1.1	120	30	72	0.020	
Band48	20MHz	QPSK	55990	E-TM1.1	120	40	69	0.019	
Band48	20MHz	QPSK	55990	E-TM1.1	120	50	65	0.018	

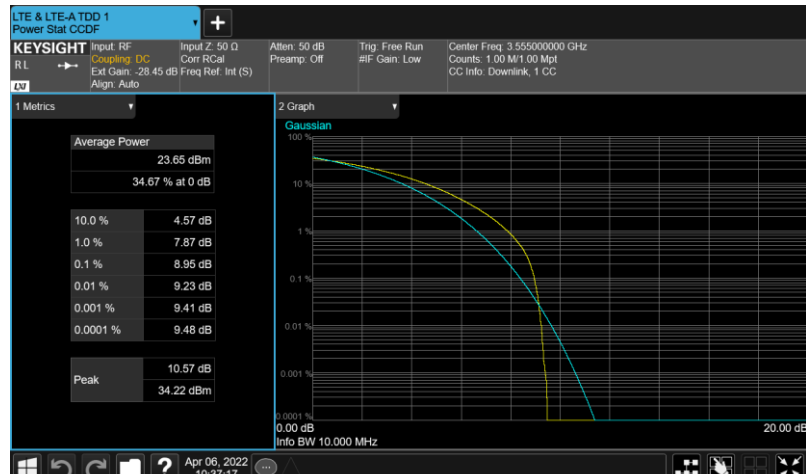
Appendix E: Peak-to-Average Ratio(CCDF)

Test Result

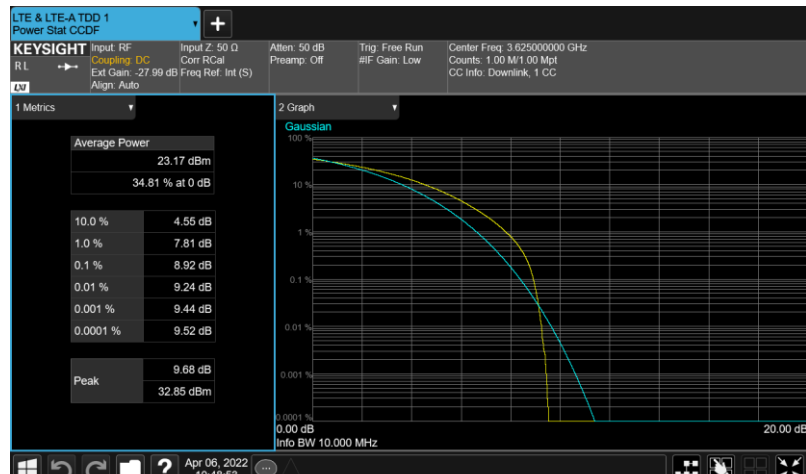
Band	Bandwidth	Modulation	Channel	Mode	Result(dBm)
Band48	10MHz	64QAM	55290	E-TM3.1	8.95
Band48	10MHz	64QAM	55990	E-TM3.1	8.92
Band48	10MHz	64QAM	56690	E-TM3.1	8.90
Band48	10MHz	QPSK	55290	E-TM1.1	8.99
Band48	10MHz	QPSK	55990	E-TM1.1	8.78
Band48	10MHz	QPSK	56690	E-TM1.1	8.98
Band48	20MHz	64QAM	55340	E-TM3.1	8.60
Band48	20MHz	64QAM	55990	E-TM3.1	8.96
Band48	20MHz	64QAM	56640	E-TM3.1	8.87
Band48	20MHz	QPSK	55340	E-TM1.1	9.03
Band48	20MHz	QPSK	55990	E-TM1.1	8.87
Band48	20MHz	QPSK	56640	E-TM1.1	8.72

Test Graphs

Band48-10MHz-64QAM-55290-E-TM3.1



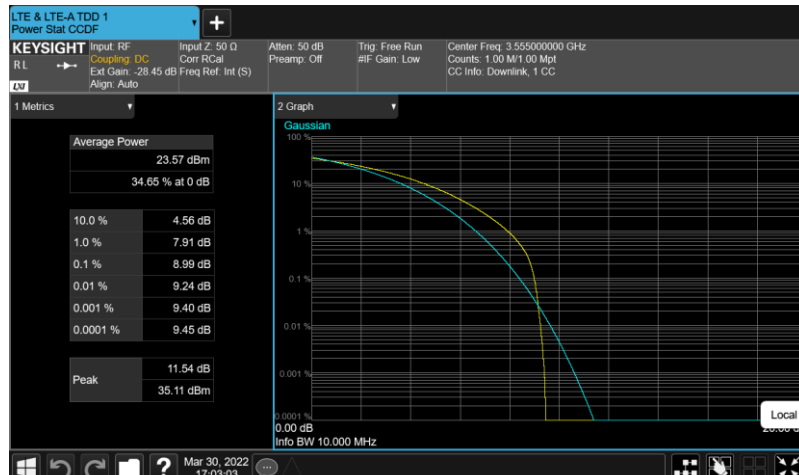
Band48-10MHz-64QAM-55990-E-TM3.1



Band48-10MHz-64QAM-56690-E-TM3.1



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



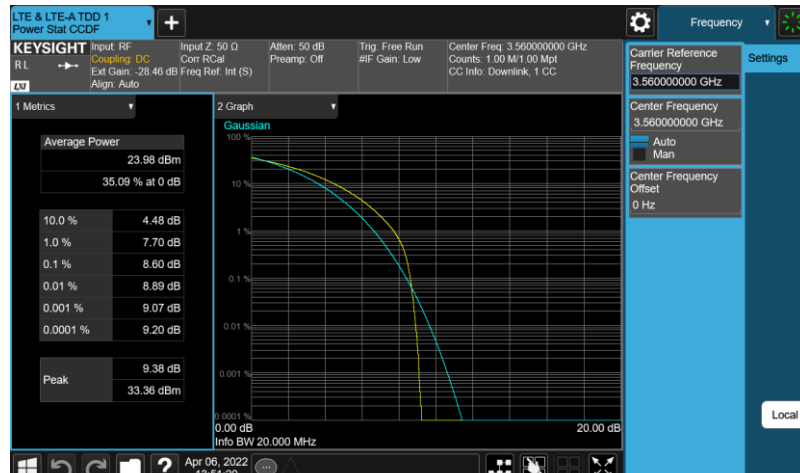
Band48-10MHz-QPSK-55990-E-TM1.1



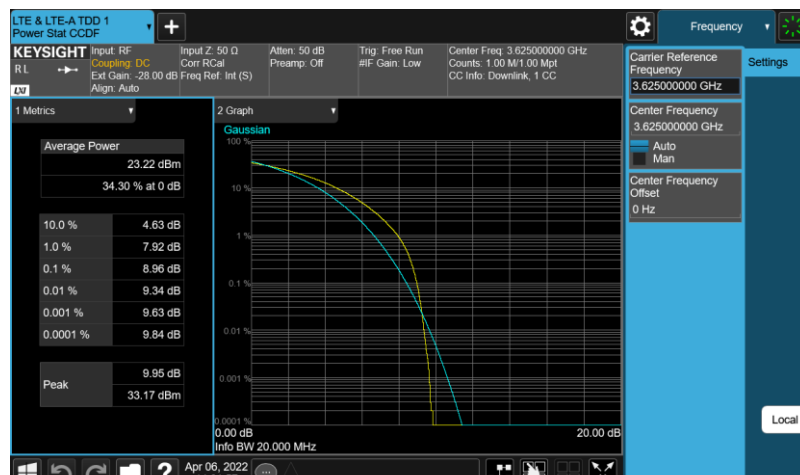
Band48-10MHz-QPSK-56690-E-TM1.1



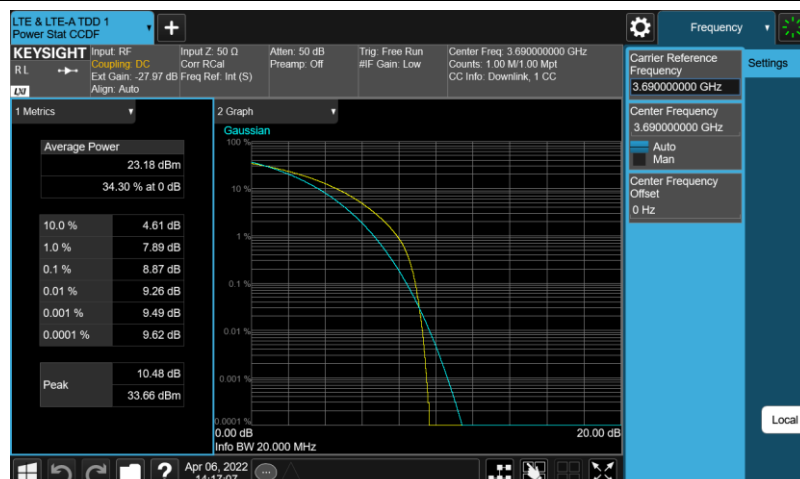
Band48-20MHz-64QAM-55340-E-TM3.1



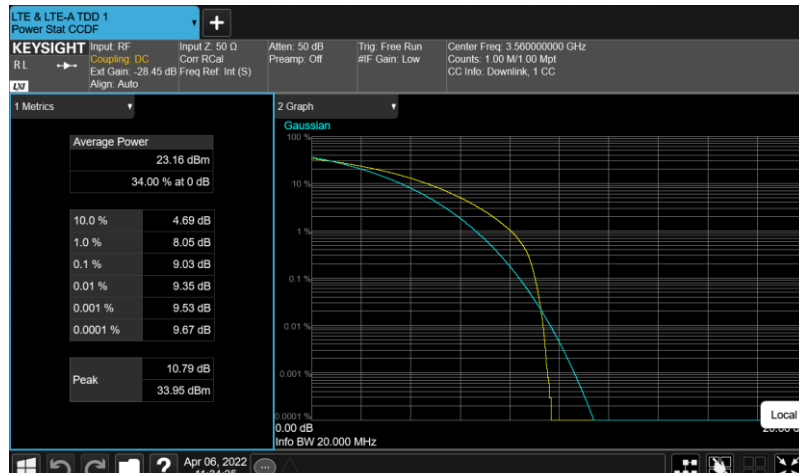
Band48-20MHz-64QAM-55990-E-TM3.1



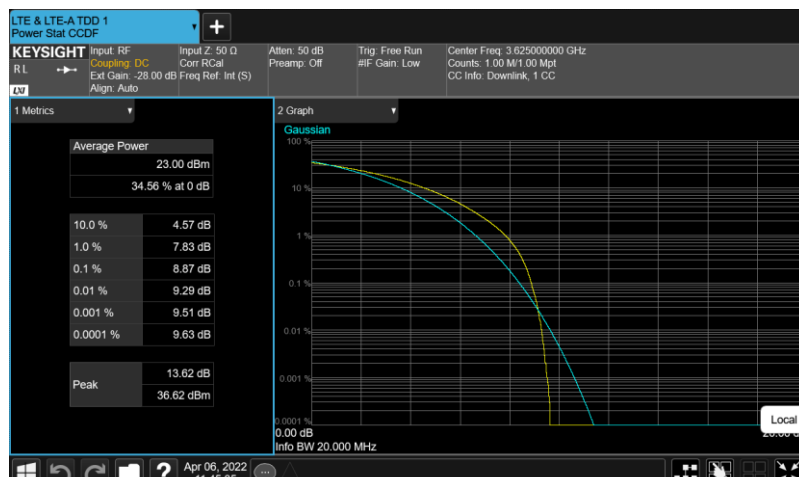
Band48-20MHz-64QAM-56640-E-TM3.1



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



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



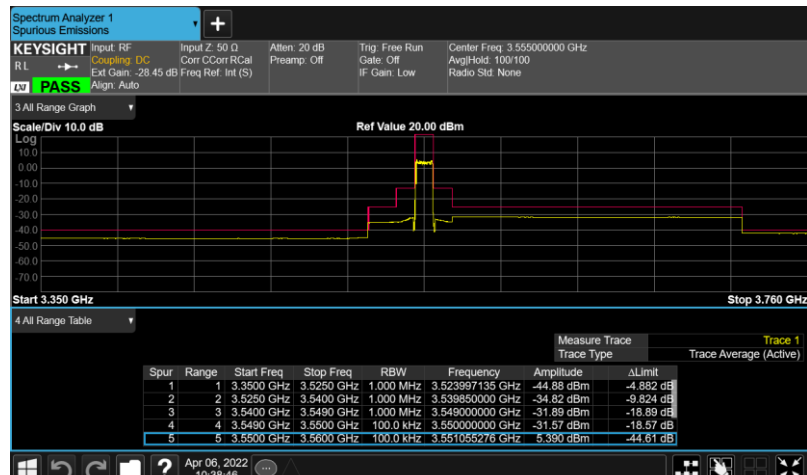
Band48-20MHz-QPSK-56640-E-TM1.1



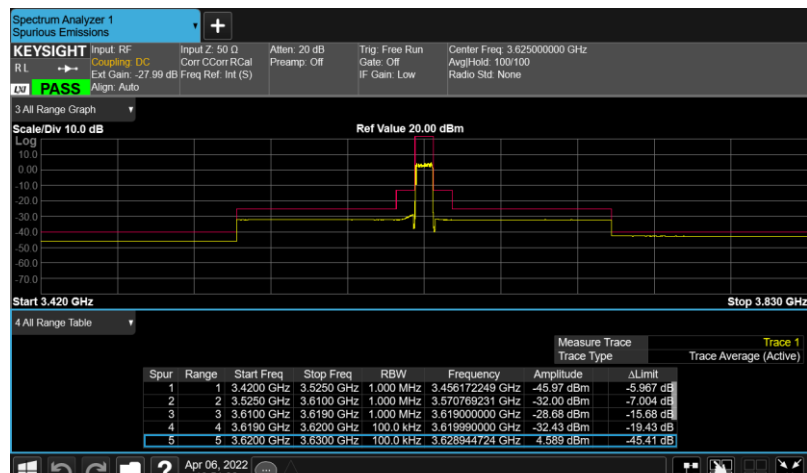
Appendix F: Emission Mask

Test Graphs

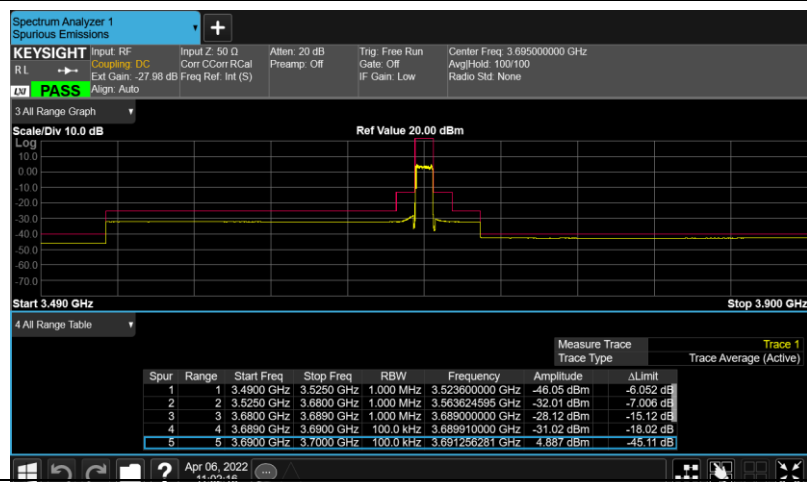
Band48-10MHz-64QAM-55290-E-TM3.1



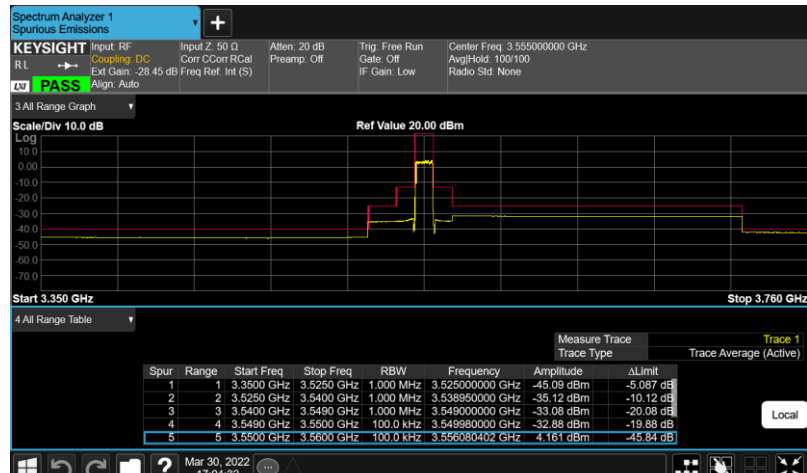
Band48-10MHz-64QAM-55990-E-TM3.1



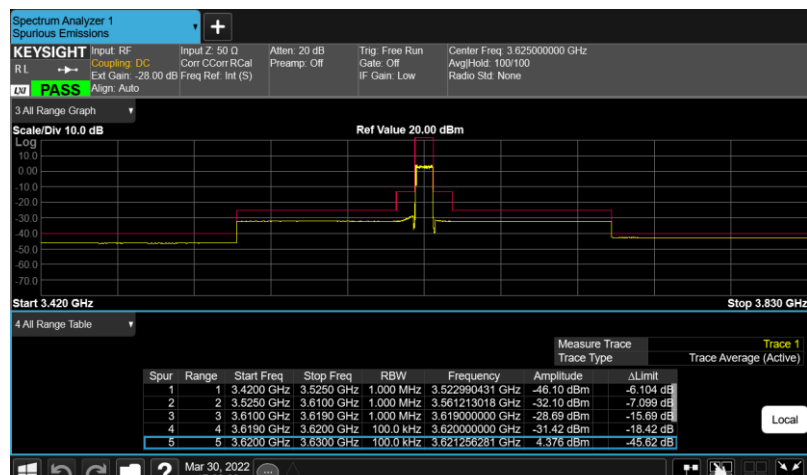
Band48-10MHz-64QAM-56690-E-TM3.1



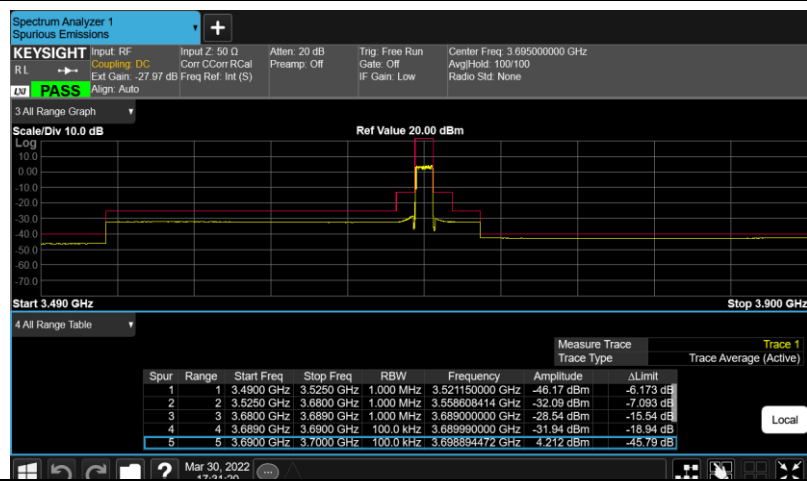
Band48-10MHz-QPSK-55290-E-TM1.1



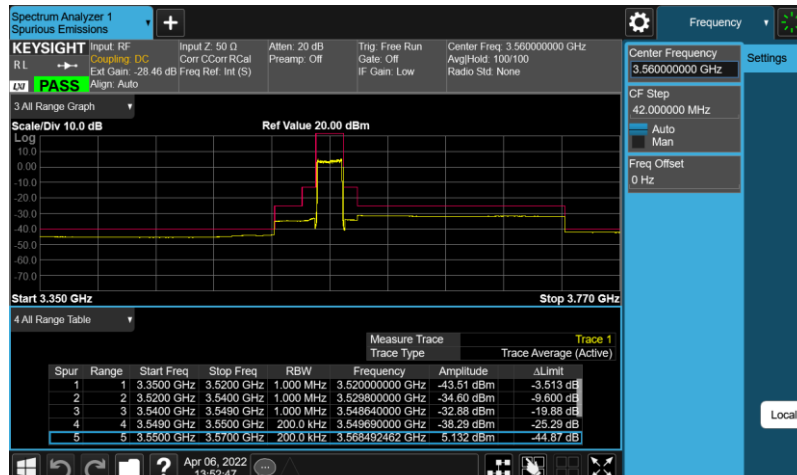
Band48-10MHz-QPSK-55990-E-TM1.1



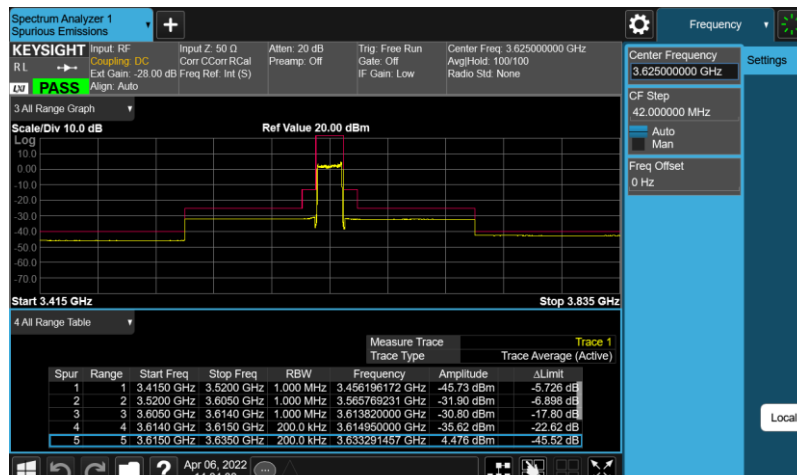
Band48-10MHz-QPSK-56690-E-TM1.1



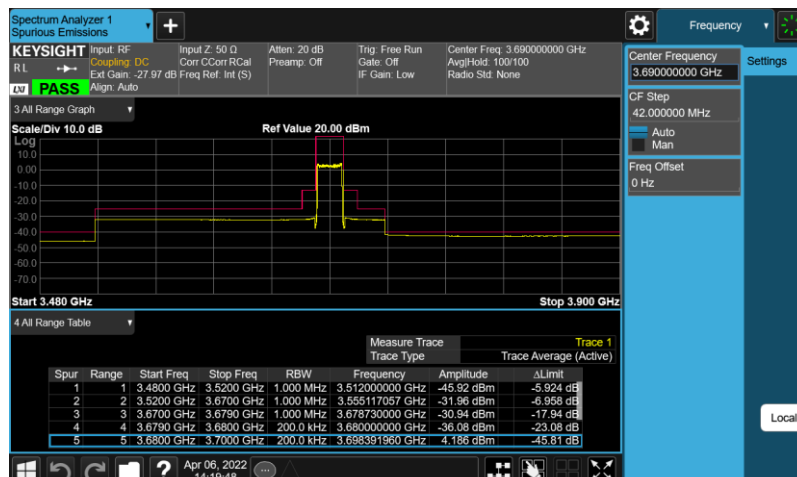
Band48-20MHz-64QAM-55340-E-TM3.1



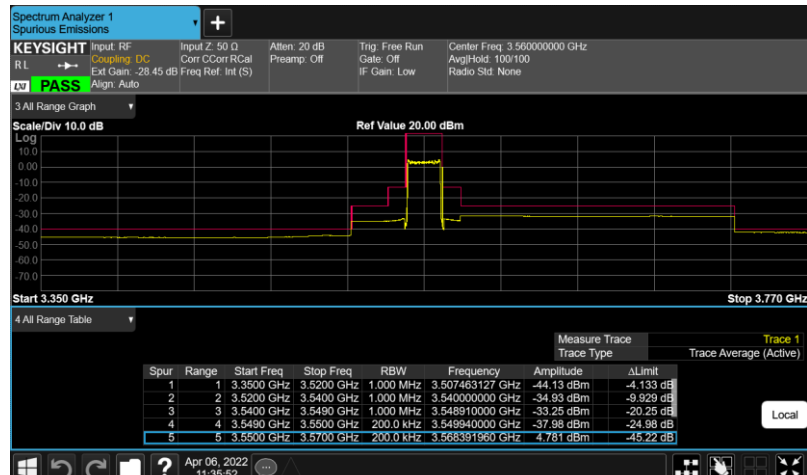
Band48-20MHz-64QAM-55990-E-TM3.1



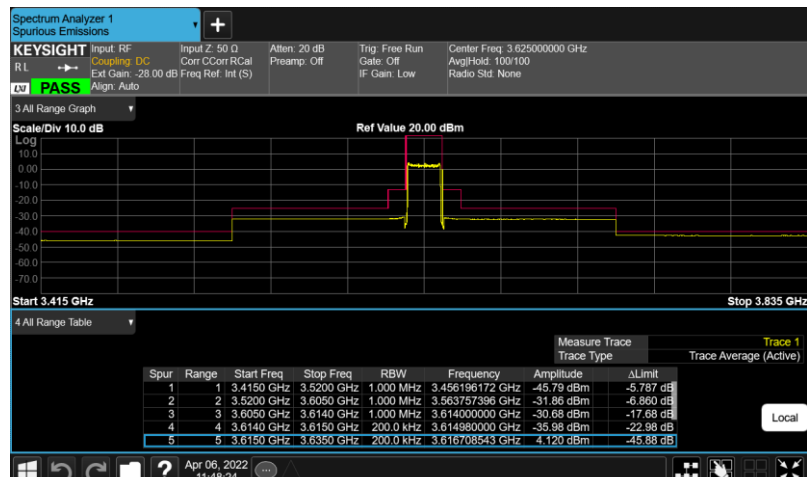
Band48-20MHz-64QAM-56640-E-TM3.1



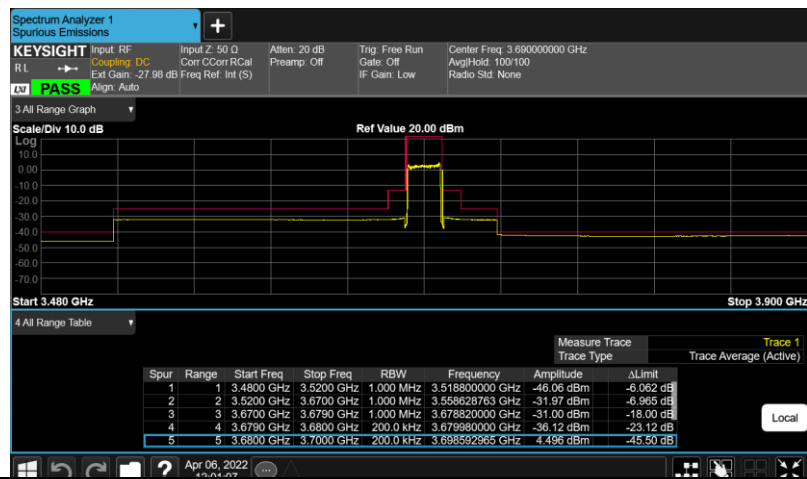
Band48-20MHz-QPSK-55340-E-TM1.1



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	64QAM	55290	E-TM3.1	30-3530	-45.96	PASS
Band48	10MHz	64QAM	55290	E-TM3.1	3720-6000	-52.29	PASS
Band48	10MHz	64QAM	55290	E-TM3.1	6000-40000	-52.77	PASS
Band48	10MHz	64QAM	55990	E-TM3.1	30-3530	-50.25	PASS
Band48	10MHz	64QAM	55990	E-TM3.1	3720-6000	-51.85	PASS
Band48	10MHz	64QAM	55990	E-TM3.1	6000-40000	-52.66	PASS
Band48	10MHz	64QAM	56690	E-TM3.1	30-3530	-51.20	PASS
Band48	10MHz	64QAM	56690	E-TM3.1	3720-6000	-47.62	PASS
Band48	10MHz	64QAM	56690	E-TM3.1	6000-40000	-52.61	PASS
Band48	10MHz	QPSK	55290	E-TM1.1	30-3530	-47.71	PASS
Band48	10MHz	QPSK	55290	E-TM1.1	3720-6000	-52.16	PASS
Band48	10MHz	QPSK	55290	E-TM1.1	6000-40000	-52.60	PASS
Band48	10MHz	QPSK	55990	E-TM1.1	30-3530	-50.46	PASS
Band48	10MHz	QPSK	55990	E-TM1.1	3720-6000	-51.98	PASS
Band48	10MHz	QPSK	55990	E-TM1.1	6000-40000	-52.74	PASS
Band48	10MHz	QPSK	56690	E-TM1.1	30-3530	-51.36	PASS
Band48	10MHz	QPSK	56690	E-TM1.1	3720-6000	-48.36	PASS
Band48	10MHz	QPSK	56690	E-TM1.1	6000-40000	-52.75	PASS
Band48	20MHz	64QAM	55340	E-TM3.1	30-3530	-40.30	PASS
Band48	20MHz	64QAM	55340	E-TM3.1	3720-6000	-52.11	PASS
Band48	20MHz	64QAM	55340	E-TM3.1	6000-40000	-52.64	PASS
Band48	20MHz	64QAM	55990	E-TM3.1	30-3530	-50.46	PASS
Band48	20MHz	64QAM	55990	E-TM3.1	3720-6000	-51.73	PASS
Band48	20MHz	64QAM	55990	E-TM3.1	6000-40000	-52.47	PASS
Band48	20MHz	64QAM	56640	E-TM3.1	30-3530	-50.10	PASS
Band48	20MHz	64QAM	56640	E-TM3.1	3720-6000	-42.94	PASS
Band48	20MHz	64QAM	56640	E-TM3.1	6000-40000	-52.58	PASS
Band48	20MHz	QPSK	55340	E-TM1.1	30-3530	-43.28	PASS
Band48	20MHz	QPSK	55340	E-TM1.1	3720-6000	-51.89	PASS
Band48	20MHz	QPSK	55340	E-TM1.1	6000-40000	-52.60	PASS
Band48	20MHz	QPSK	55990	E-TM1.1	30-3530	-50.21	PASS

Band48	20MHz	QPSK	55990	E-TM1.1	3720-6000	-51.78	PASS
Band48	20MHz	QPSK	55990	E-TM1.1	6000-40000	-52.52	PASS
Band48	20MHz	QPSK	56640	E-TM1.1	30-3530	-50.61	PASS
Band48	20MHz	QPSK	56640	E-TM1.1	3720-6000	-43.28	PASS
Band48	20MHz	QPSK	56640	E-TM1.1	6000-40000	-52.64	PASS