Appendix for 5A_N66A

Product Name: Smart Phone

Model No: K50

Appendix A: Average Power Output

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Power (dBm)	Power Class	Verdict
DC_5A_n66A	15	5+5	DFT-QPSK	M+L	Outer_Full	22.57	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+L	Inner_Full	23.48	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Left	22.54	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+L	Edge_1RB_Right	22.93	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+L	Outer_Full	21.58	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+L	Inner_Full	22.83	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Left	21.77	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+L	Edge_1RB_Right	21.94	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+M	Outer_Full	22.64	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+M	Inner_Full	23.42	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Left	22.48	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+M	Edge_1RB_Right	22.54	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+M	Outer_Full	21.44	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+M	Inner_Full	22.42	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Left	21.59	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+M	Edge_1RB_Right	21.82	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+H	Outer_Full	22.00	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+H	Inner_Full	22.69	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Left	21.80	PC3	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+H	Edge_1RB_Right	21.89	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+H	Outer_Full	20.76	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+H	Inner_Full	21.99	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Left	20.66	PC3	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+H	Edge_1RB_Right	20.66	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+L	Outer_Full	22.60	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+L	Inner_Full	23.80	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Left	22.58	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+L	Edge_1RB_Right	22.84	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+L	Outer_Full	21.65	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+L	Inner_Full	22.59	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Left	21.33	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+L	Edge_1RB_Right	22.05	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+M	Outer_Full	22.63	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+M	Inner_Full	23.64	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Left	22.35	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+M	Edge_1RB_Right	22.86	PC3	PASS

DC_5A_n66A	15	5+10	DFT-16QAM	M+M	Outer_Full	21.42	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+M	Inner_Full	22.63	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Left	21.62	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+M	Edge_1RB_Right	21.83	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+H	Outer_Full	21.70	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+H	Inner_Full	22.66	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Left	21.68	PC3	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+H	Edge_1RB_Right	21.93	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+H	Outer_Full	20.70	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+H	Inner_Full	21.71	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Left	20.94	PC3	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+H	Edge_1RB_Right	21.15	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+L	Outer_Full	22.63	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+L	Inner_Full	23.58	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Left	22.53	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+L	Edge_1RB_Right	22.82	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+L	Outer_Full	21.69	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+L	Inner_Full	22.99	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Left	21.68	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+L	Edge_1RB_Right	21.39	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+M	Outer_Full	22.40	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+M	Inner_Full	23.36	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Left	22.38	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+M	Edge_1RB_Right	22.82	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+M	Outer_Full	21.42	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+M	Inner_Full	22.45	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Left	21.09	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+M	Edge_1RB_Right	21.34	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+H	Outer_Full	21.94	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+H	Inner_Full	22.62	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+H	Edge_1RB_Left	21.84	PC3	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+H	Edge_1RB_Right	21.89	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+H	Outer_Full	20.71	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+H	Inner_Full	21.92	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+H	Edge_1RB_Left	21.07	PC3	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+H	Edge_1RB_Right	21.14	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+L	Outer_Full	22.59	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+L	Inner_Full	23.88	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+L	Edge_1RB_Left	22.54	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+L	Edge_1RB_Right	22.48	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+L	Outer_Full	21.57	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+L	Inner_Full	22.59	PC3	PASS

DC_5A_n66A	15	5+20	DFT-16QAM	M+L	Edge_1RB_Left	21.25	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+L	Edge_1RB_Right	21.86	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+M	Outer_Full	22.39	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+M	Inner_Full	23.41	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+M	Edge_1RB_Left	22.56	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+M	Edge_1RB_Right	22.56	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+M	Outer_Full	21.40	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+M	Inner_Full	22.42	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+M	Edge_1RB_Left	21.27	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+M	Edge_1RB_Right	21.40	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+H	Outer_Full	21.76	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+H	Inner_Full	22.69	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+H	Edge_1RB_Left	22.20	PC3	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+H	Edge_1RB_Right	21.93	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+H	Outer_Full	20.94	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+H	Inner_Full	21.66	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+H	Edge_1RB_Left	21.42	PC3	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+H	Edge_1RB_Right	21.16	PC3	PASS

Appendix B: Peak-to-Average Ratio for NSA

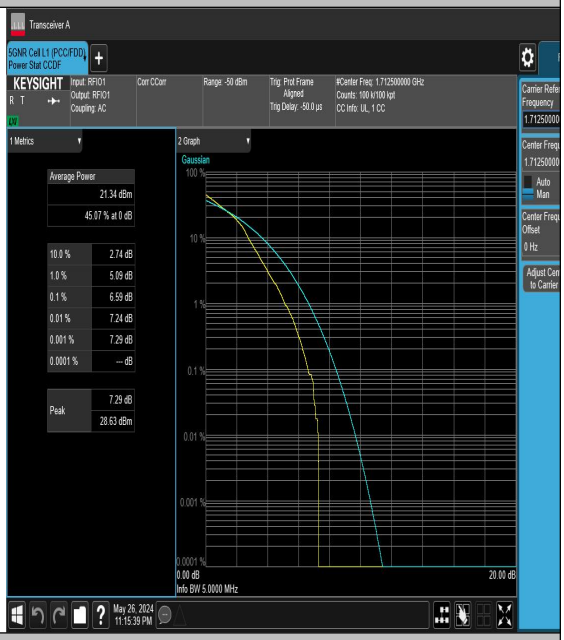
Peak-to-Average Ratio(CCDF)

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result	Limit	Verdict
DC_5A_n66A	15	5+5	DFT-QPSK	M+L	Outer_Full	6.15	≤13	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+L	Outer_Full	6.59	≤13	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+M	Outer_Full	5.94	≤13	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+M	Outer_Full	6.53	≤13	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+H	Outer_Full	6.09	≤13	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+H	Outer_Full	6.82	≤13	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+L	Outer_Full	6.16	≤13	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+L	Outer_Full	6.59	≤13	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+M	Outer_Full	5.91	≤13	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+M	Outer_Full	6.42	≤13	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+H	Outer_Full	5.96	≤13	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+H	Outer_Full	6.51	≤13	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+L	Outer_Full	5.87	≤13	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+L	Outer_Full	6.59	≤13	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+M	Outer_Full	5.64	≤13	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+M	Outer_Full	6.66	≤13	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+H	Outer_Full	5.65	≤13	PASS

DC_5A_n66A	15	5+15	DFT-16QAM	M+H	Outer_Full	6.58	≤13	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+L	Outer_Full	5.95	≤13	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+L	Outer_Full	6.63	≤13	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+M	Outer_Full	5.81	≤13	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+M	Outer_Full	6.46	≤13	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+H	Outer_Full	5.60	≤13	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+H	Outer_Full	6.24	≤13	PASS

Test Graphs

NTNV_DC_5A_n66A_PC3_15_5+5_M+L_TID2_#1	NTNV_DC_5A_n66A_PC3_15_5+5_M+L_TID3_#1
	
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	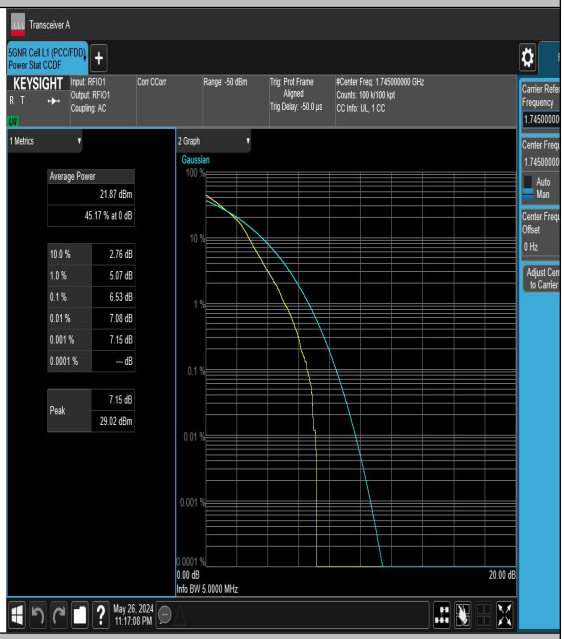
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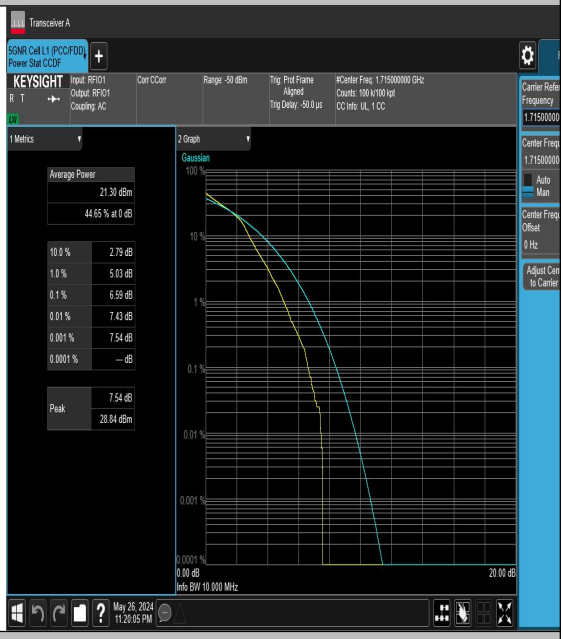
NTNV_DC_5A_n66A_PC3_15_5+10_M+L_TID2_#1

NTNV_DC_5A_n66A_PC3_15_5+10_M+L_TID3_#1

NTNV_DC_5A_n66A_PC3_15_5+10_M+M_TID2_#1



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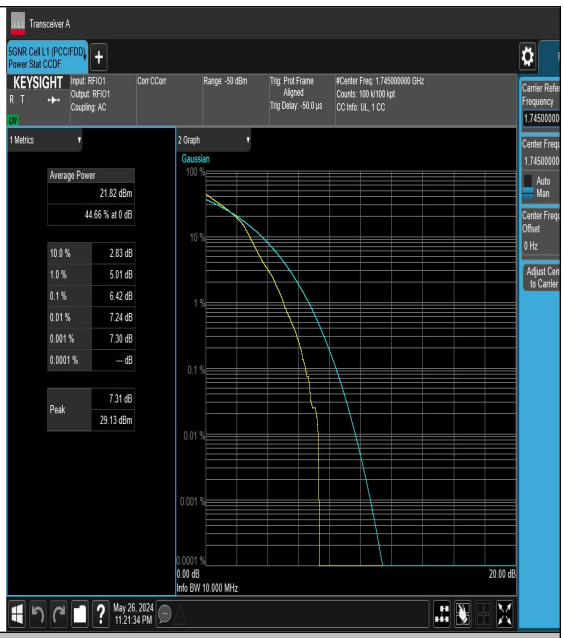

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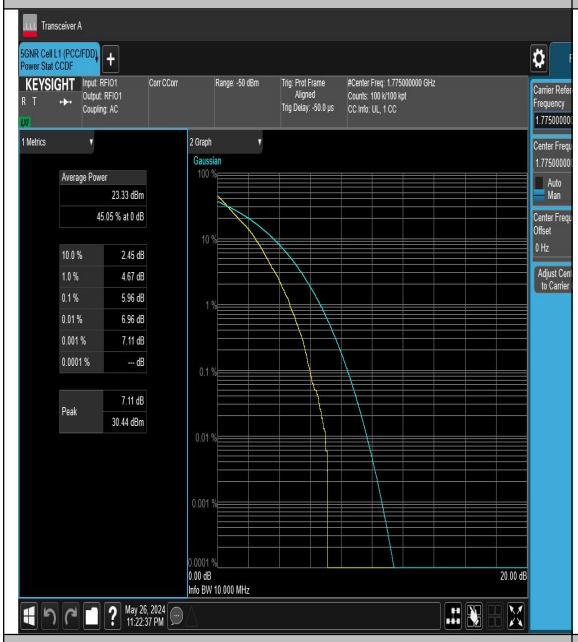

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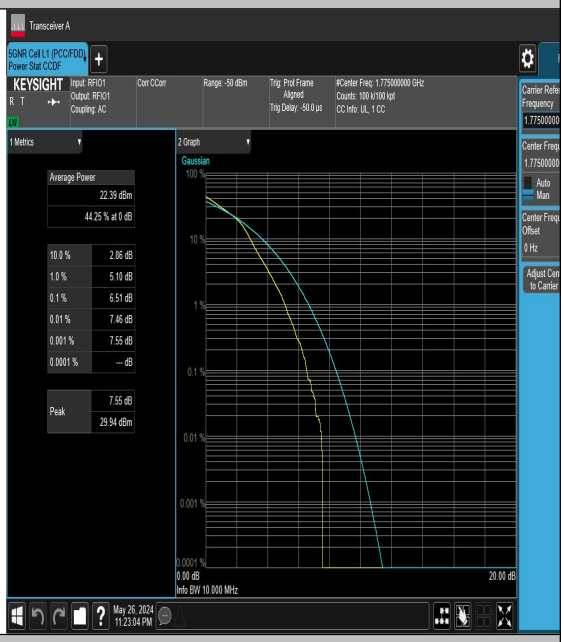

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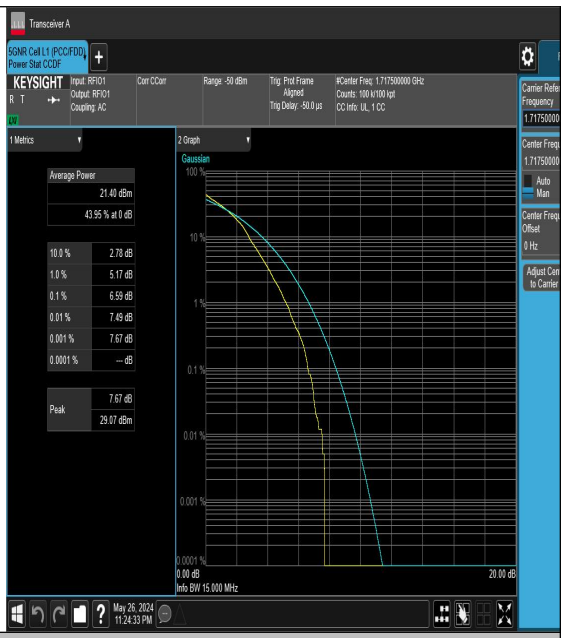
NTNV_DC_5A_n66A_PC3_15_5+15_M+M_TID2_#1



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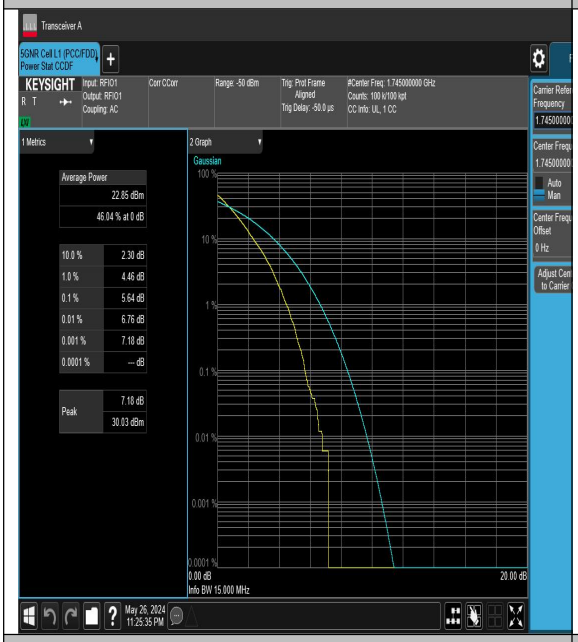

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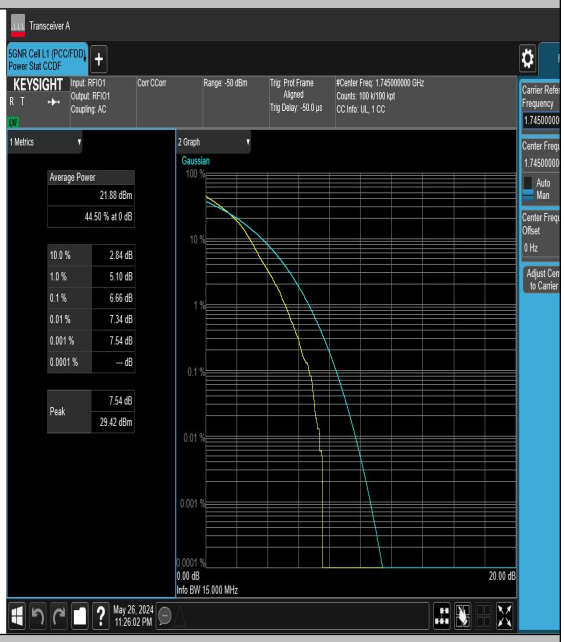
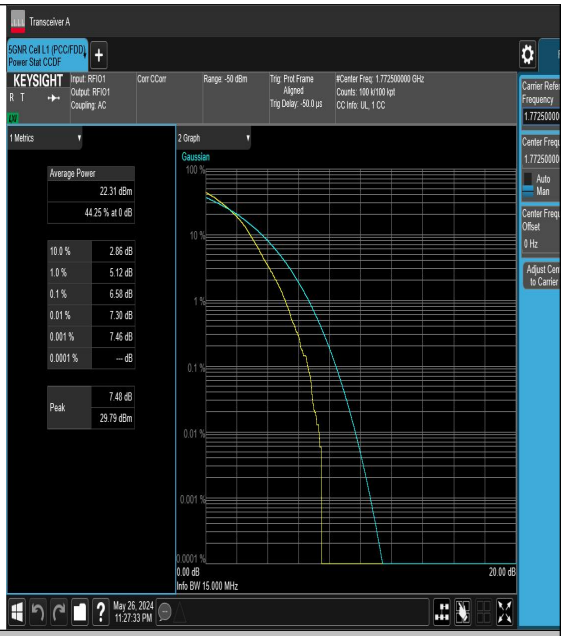


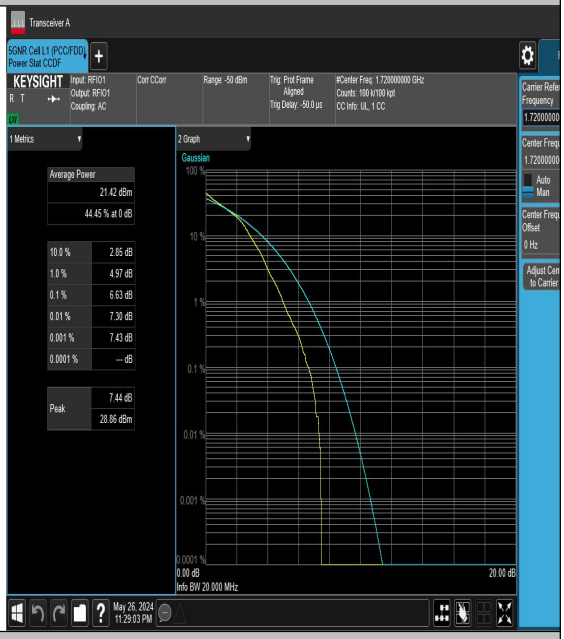
NTNV_DC_5A_n66A_PC3_15_5+15_M+H_TID3_#1

NTNV_DC_5A_n66A_PC3_15_5+20_M+L_TID2_#1



NTNV_DC_5A_n66A_PC3_15_5+20_M+L_TID3_#1

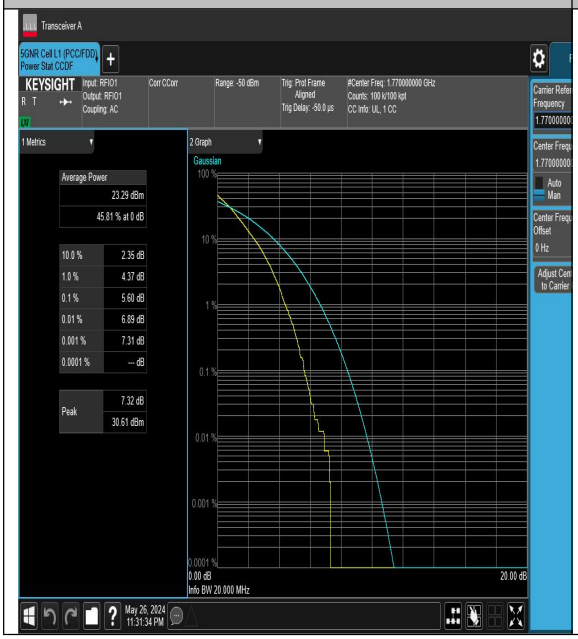
NTNV_DC_5A_n66A_PC3_15_5+20_M+M_TID2_#1

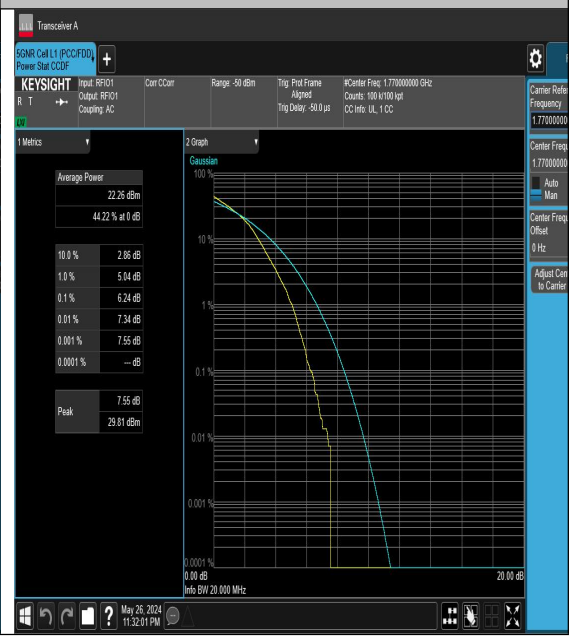


NTNV_DC_5A_n66A_PC3_15_5+20_M+M_TID3_#1

NTNV_DC_5A_n66A_PC3_15_5+20_M+H_TID2_#1

NTNV_DC_5A_n66A_PC3_15_5+20_M+H_TID3_#1





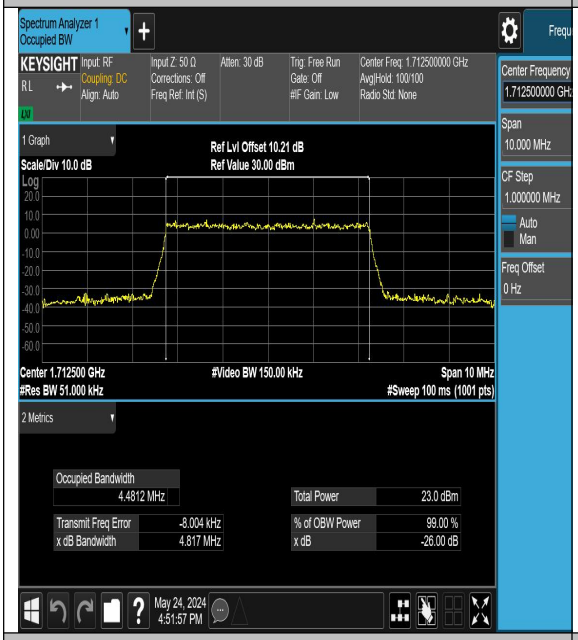
Appendix C: 26dB Bandwidth and Occupied Bandwidth for NSA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	RB Config	Result (99%)	Result (26dB)	Verdict
DC_5A_n66A	15	5+5	DFT-QPSK	M+L	Outer_Full	4.4812	4.817	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+L	Outer_Full	4.4684	4.819	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+M	Outer_Full	4.4808	4.828	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+M	Outer_Full	4.4744	4.808	PASS
DC_5A_n66A	15	5+5	DFT-QPSK	M+H	Outer_Full	4.4720	4.794	PASS
DC_5A_n66A	15	5+5	DFT-16QAM	M+H	Outer_Full	4.4778	4.816	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+L	Outer_Full	8.9375	9.404	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+L	Outer_Full	8.9208	9.360	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+M	Outer_Full	8.9473	9.423	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+M	Outer_Full	8.9227	9.392	PASS
DC_5A_n66A	15	5+10	DFT-QPSK	M+H	Outer_Full	8.9362	9.406	PASS
DC_5A_n66A	15	5+10	DFT-16QAM	M+H	Outer_Full	8.9249	9.356	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+L	Outer_Full	13.401	14.02	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+L	Outer_Full	13.392	14.02	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+M	Outer_Full	13.395	14.02	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+M	Outer_Full	13.392	14.00	PASS
DC_5A_n66A	15	5+15	DFT-QPSK	M+H	Outer_Full	13.388	14.02	PASS
DC_5A_n66A	15	5+15	DFT-16QAM	M+H	Outer_Full	13.398	14.03	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+L	Outer_Full	17.847	18.56	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+L	Outer_Full	17.880	18.69	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+M	Outer_Full	17.845	18.64	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+M	Outer_Full	17.864	18.62	PASS
DC_5A_n66A	15	5+20	DFT-QPSK	M+H	Outer_Full	17.860	18.66	PASS
DC_5A_n66A	15	5+20	DFT-16QAM	M+H	Outer_Full	17.844	18.59	PASS

Test Graphs

NTNV_DC_5A_n66A_PC3_15_5+5_M+L_TID1_Ant1#1



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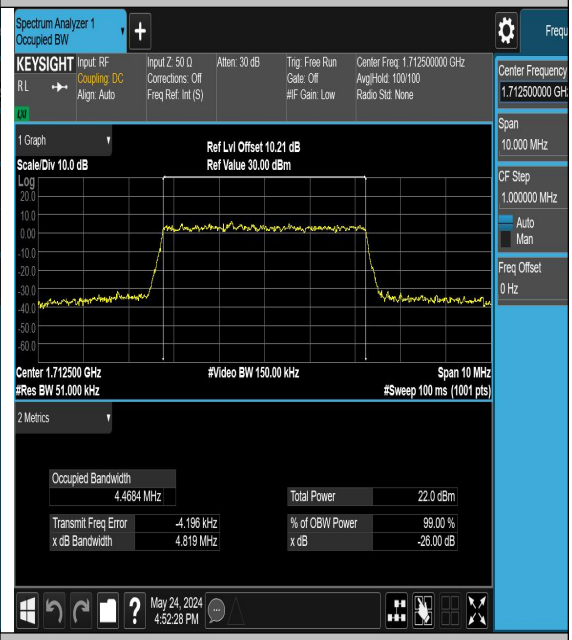

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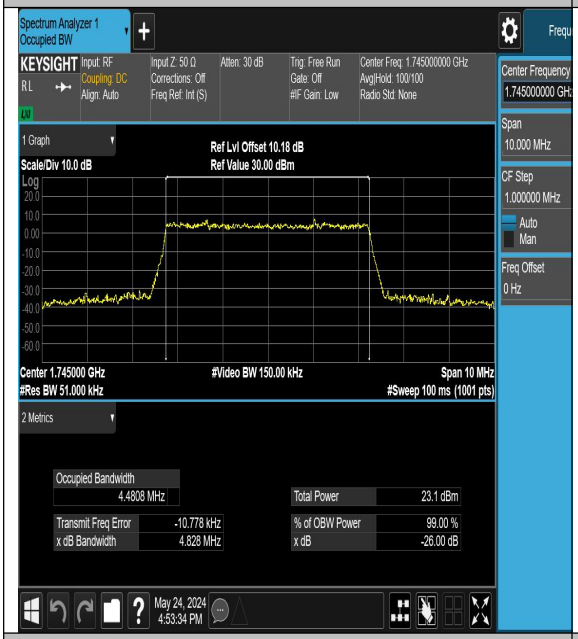

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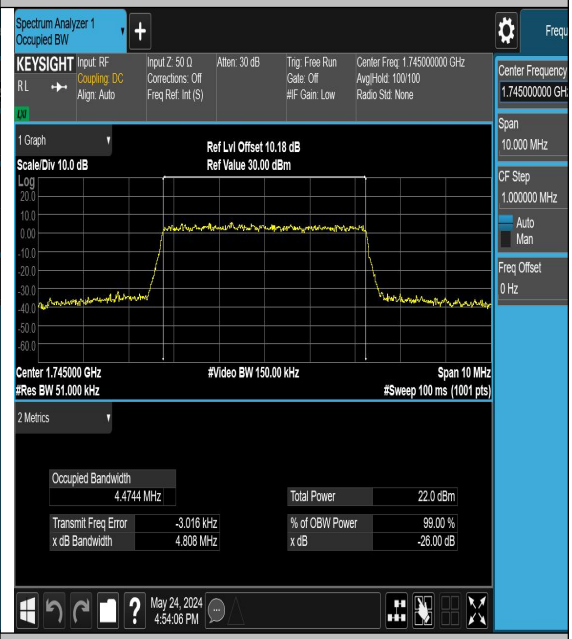

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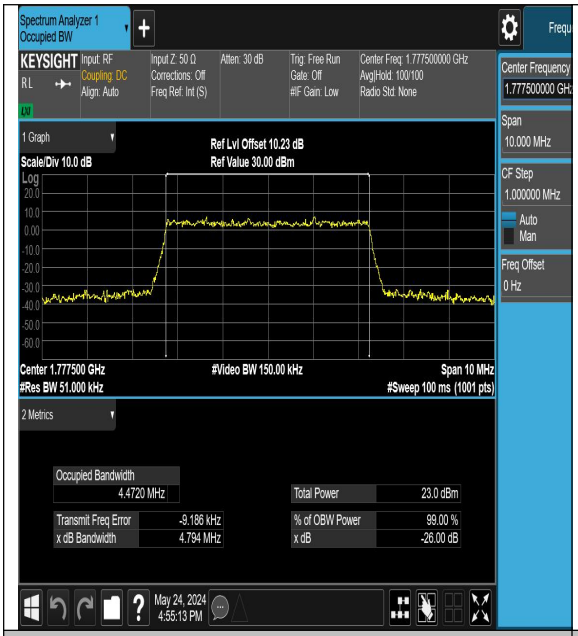

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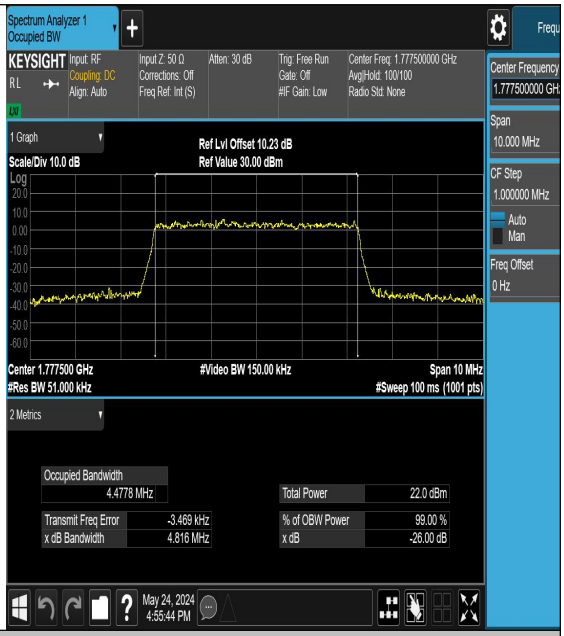

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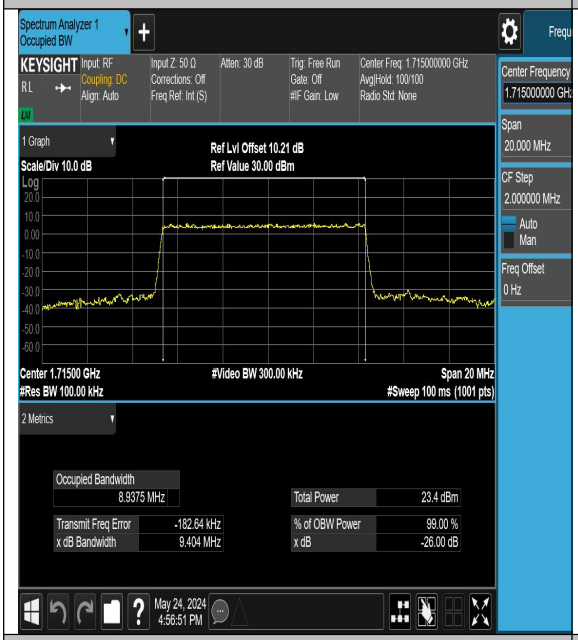

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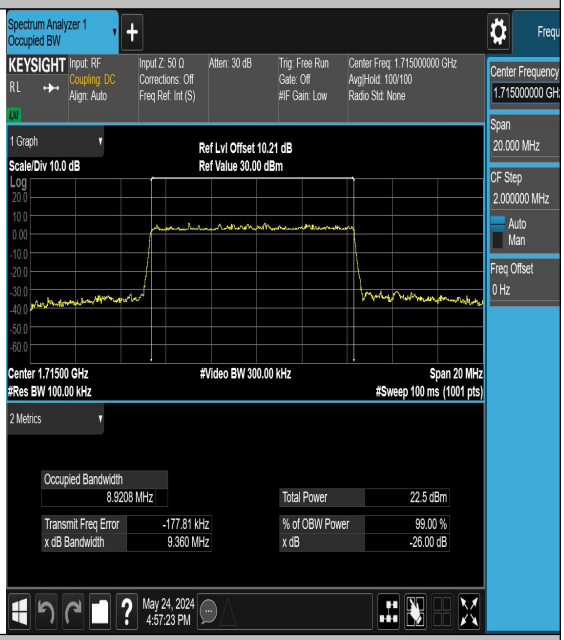

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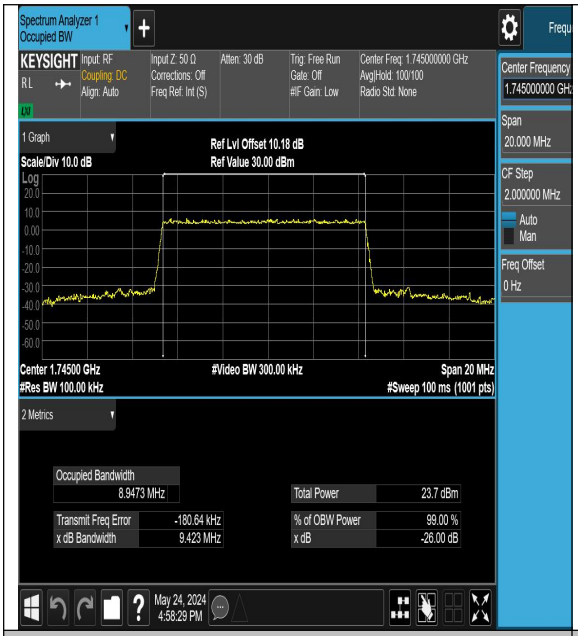

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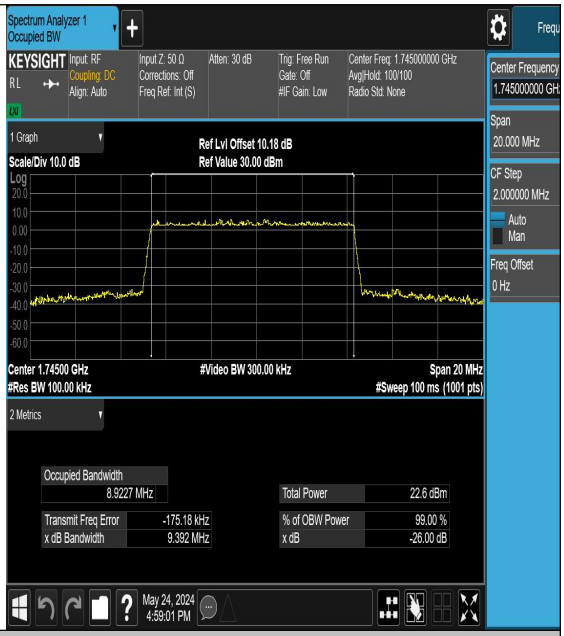

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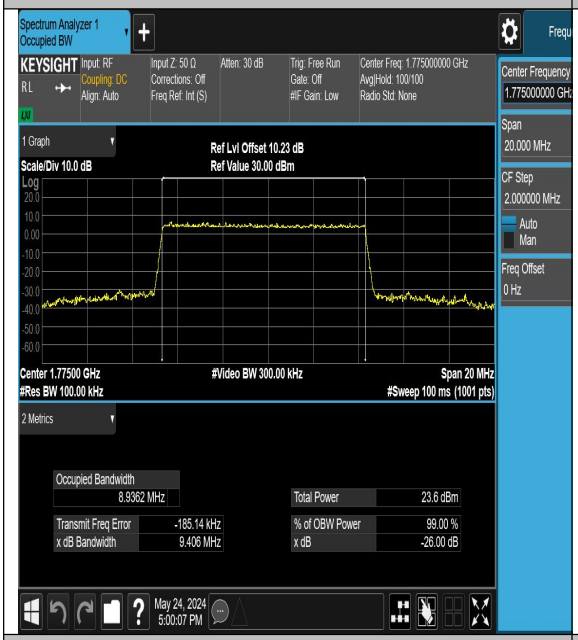

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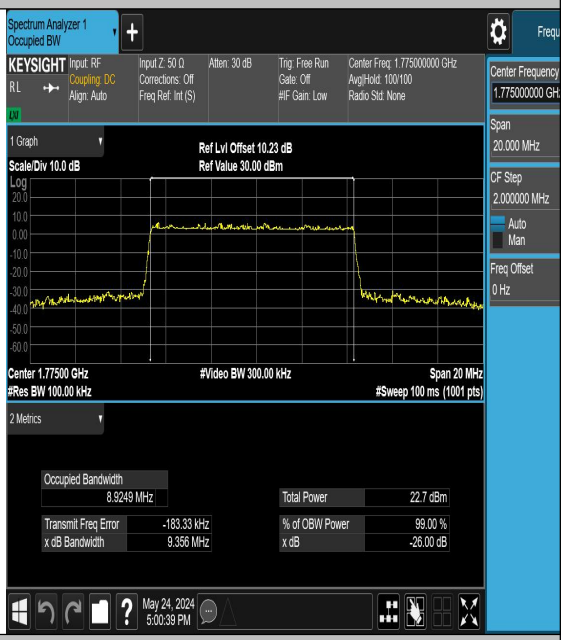

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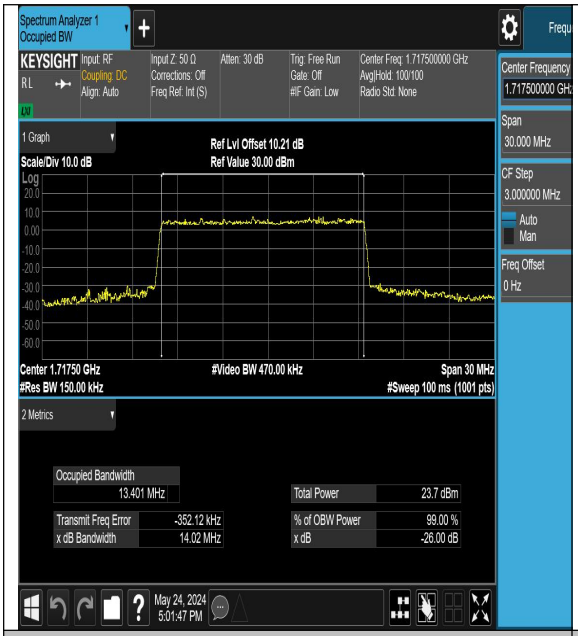

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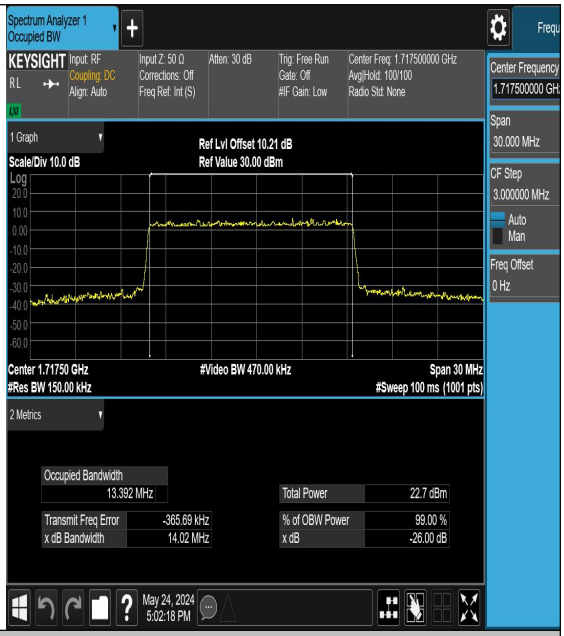

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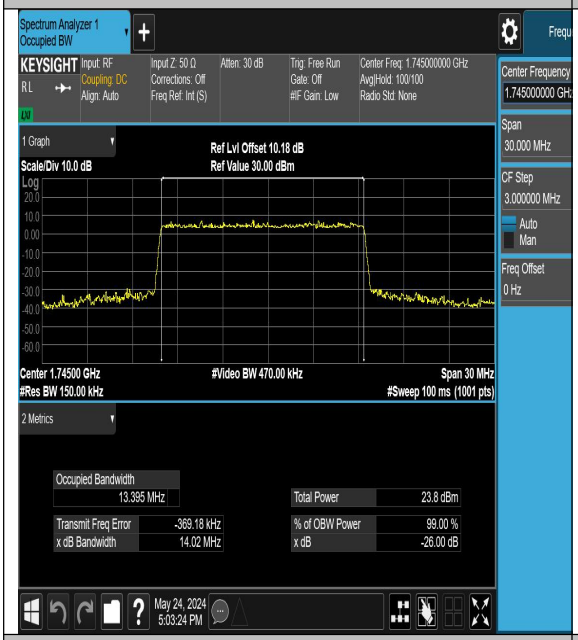

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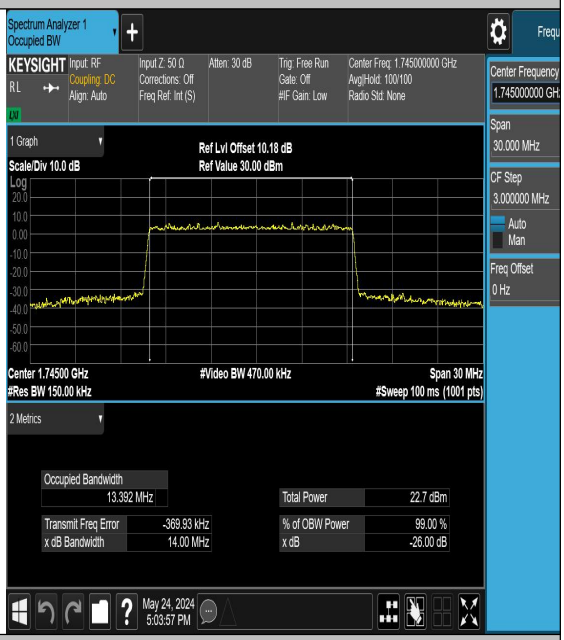

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