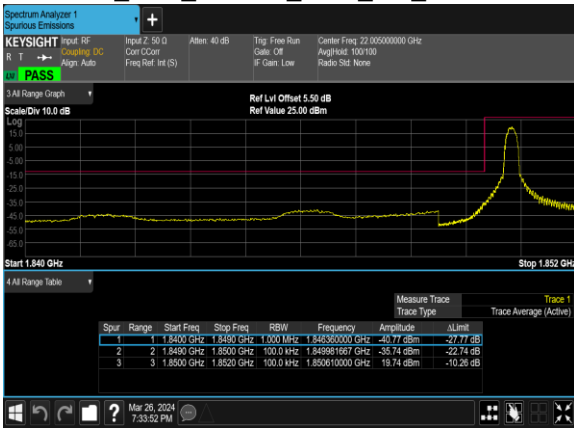
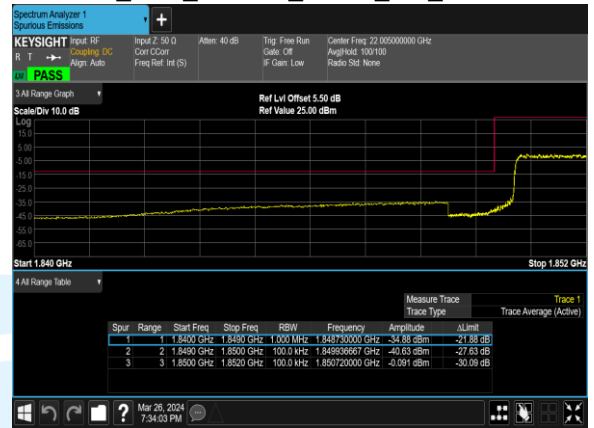


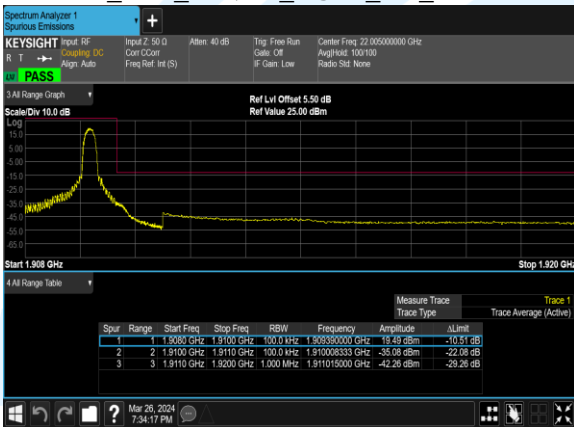
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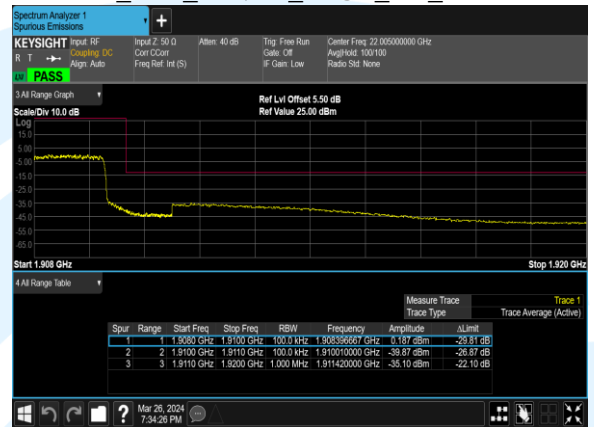
B2_10M_64QAM_50@0_CH_18650



B2_10M_64QAM_1@49_CH_19150



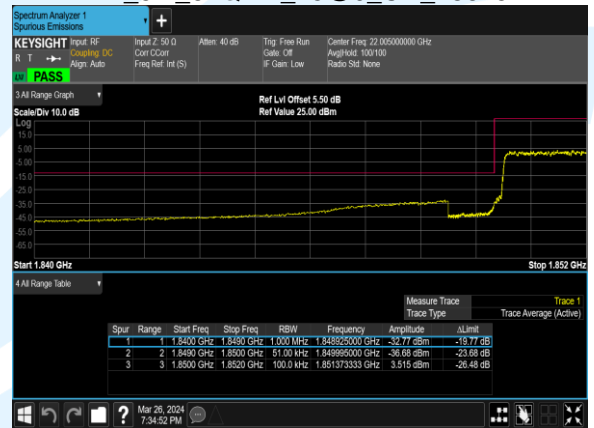
B2_10M_64QAM_50@0_CH_19150



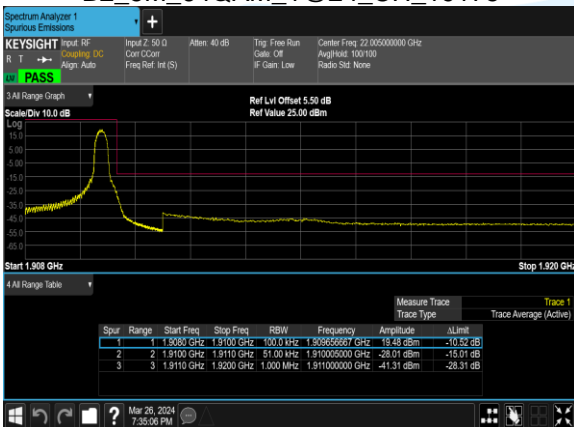
B2_5M_64QAM_1@0_CH_18625



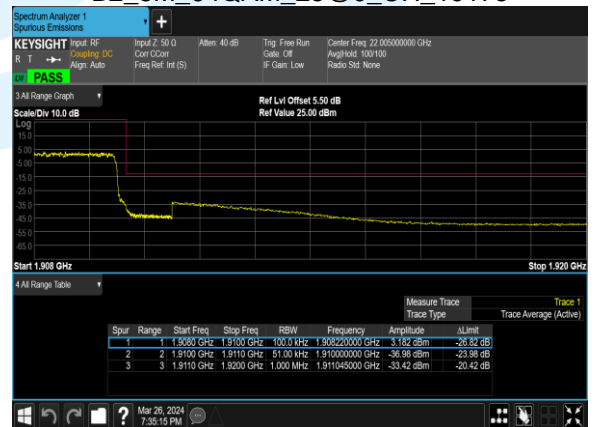
B2_5M_64QAM_25@0_CH_18625



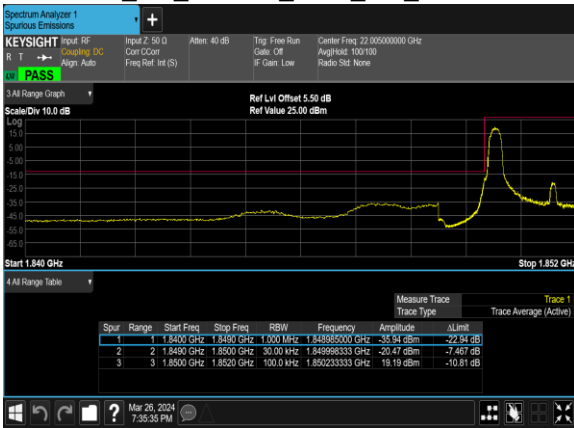
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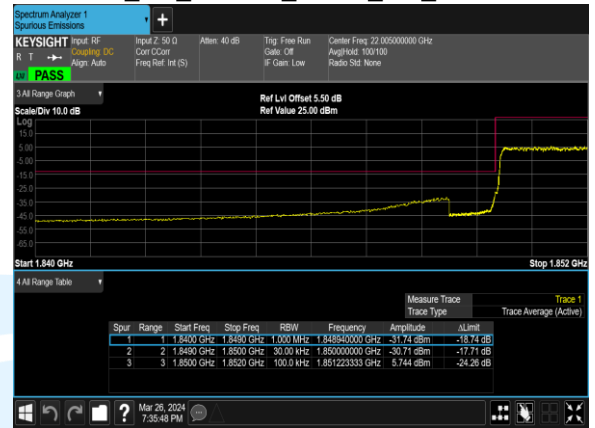
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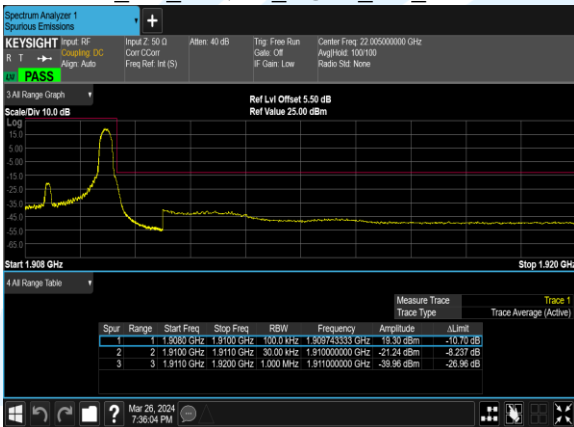
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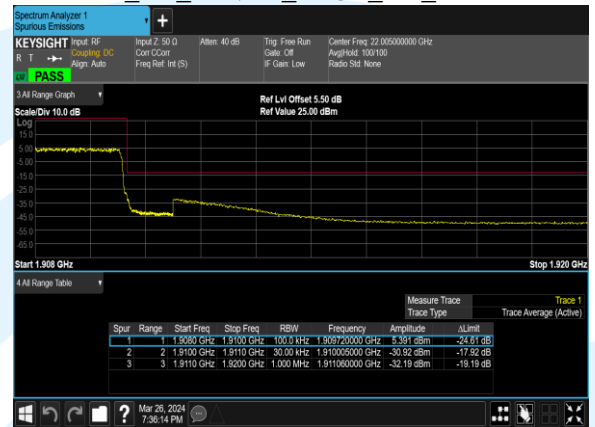
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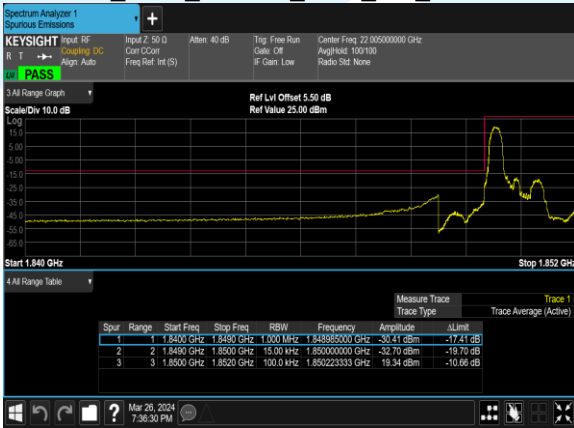
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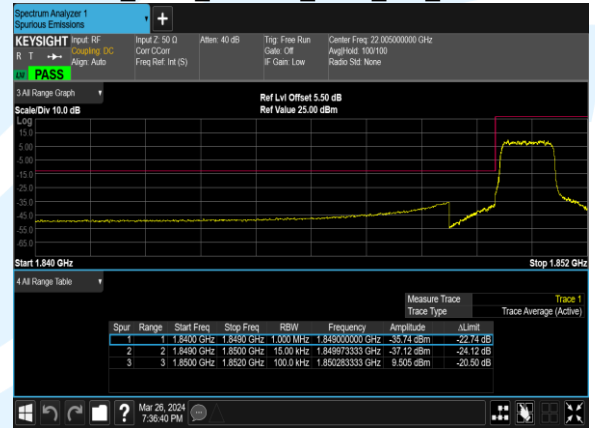
B2_3M_64QAM_15@0_CH_19185



B2_1.4M_64QAM_1@0_CH_18607



B2_1.4M_64QAM_6@0_CH_18607



B2_1.4M_64QAM_1@5_CH_19193



B2_1.4M_64QAM_6@0_CH_19193



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UTTR-RF-FCC4G-V1.1

A.2 LTE BAND 4

Peak to Average Ratio

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
4	20.0	20050	1720.0	QPSK	100@0	5.88	13	PASS
4	20.0	20050	1720.0	16QAM	100@0	6.62	13	PASS
4	20.0	20175	1732.5	QPSK	100@0	5.80	13	PASS
4	20.0	20175	1732.5	16QAM	100@0	6.47	13	PASS
4	20.0	20300	1745.0	QPSK	100@0	5.71	13	PASS
4	20.0	20300	1745.0	16QAM	100@0	6.39	13	PASS
4	15.0	20025	1717.5	QPSK	75@0	5.61	13	PASS
4	15.0	20025	1717.5	16QAM	75@0	6.40	13	PASS
4	15.0	20175	1732.5	QPSK	75@0	5.54	13	PASS
4	15.0	20175	1732.5	16QAM	75@0	6.30	13	PASS
4	15.0	20325	1747.5	QPSK	75@0	5.44	13	PASS
4	15.0	20325	1747.5	16QAM	75@0	6.21	13	PASS
4	10.0	20000	1715.0	QPSK	50@0	5.81	13	PASS
4	10.0	20000	1715.0	16QAM	50@0	6.54	13	PASS
4	10.0	20175	1732.5	QPSK	50@0	5.78	13	PASS
4	10.0	20175	1732.5	16QAM	50@0	6.51	13	PASS
4	10.0	20350	1750.0	QPSK	50@0	5.69	13	PASS
4	10.0	20350	1750.0	16QAM	50@0	6.40	13	PASS
4	5.0	19975	1712.5	QPSK	25@0	5.78	13	PASS
4	5.0	19975	1712.5	16QAM	25@0	6.47	13	PASS
4	5.0	20175	1732.5	QPSK	25@0	5.75	13	PASS
4	5.0	20175	1732.5	16QAM	25@0	6.44	13	PASS
4	5.0	20375	1752.5	QPSK	25@0	5.65	13	PASS
4	5.0	20375	1752.5	16QAM	25@0	6.37	13	PASS
4	3.0	19965	1711.5	QPSK	15@0	5.76	13	PASS
4	3.0	19965	1711.5	16QAM	15@0	6.57	13	PASS
4	3.0	20175	1732.5	QPSK	15@0	5.67	13	PASS
4	3.0	20175	1732.5	16QAM	15@0	6.52	13	PASS
4	3.0	20385	1753.5	QPSK	15@0	5.72	13	PASS
4	3.0	20385	1753.5	16QAM	15@0	6.47	13	PASS
4	1.4	19957	1710.7	QPSK	6@0	5.71	13	PASS
4	1.4	19957	1710.7	16QAM	6@0	6.46	13	PASS
4	1.4	20175	1732.5	QPSK	6@0	5.74	13	PASS
4	1.4	20175	1732.5	16QAM	6@0	6.54	13	PASS
4	1.4	20393	1754.3	QPSK	6@0	5.72	13	PASS
4	1.4	20393	1754.3	16QAM	6@0	6.40	13	PASS

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
4	20.0	20050	1720.0	64QAM	100@0	6.53	13	PASS
4	20.0	20175	1732.5	64QAM	100@0	6.37	13	PASS
4	20.0	20300	1745.0	64QAM	100@0	6.35	13	PASS
4	15.0	20025	1717.5	64QAM	75@0	6.29	13	PASS
4	15.0	20175	1732.5	64QAM	75@0	6.22	13	PASS
4	15.0	20325	1747.5	64QAM	75@0	6.15	13	PASS
4	10.0	20000	1715.0	64QAM	50@0	6.50	13	PASS
4	10.0	20175	1732.5	64QAM	50@0	6.40	13	PASS
4	10.0	20350	1750.0	64QAM	50@0	6.35	13	PASS
4	5.0	19975	1712.5	64QAM	25@0	6.41	13	PASS
4	5.0	20175	1732.5	64QAM	25@0	6.38	13	PASS
4	5.0	20375	1752.5	64QAM	25@0	6.26	13	PASS
4	3.0	19965	1711.5	64QAM	15@0	6.48	13	PASS
4	3.0	20175	1732.5	64QAM	15@0	6.36	13	PASS
4	3.0	20385	1753.5	64QAM	15@0	6.39	13	PASS
4	1.4	19957	1710.7	64QAM	6@0	6.38	13	PASS
4	1.4	20175	1732.5	64QAM	6@0	6.39	13	PASS
4	1.4	20393	1754.3	64QAM	6@0	6.30	13	PASS

Test Graphs

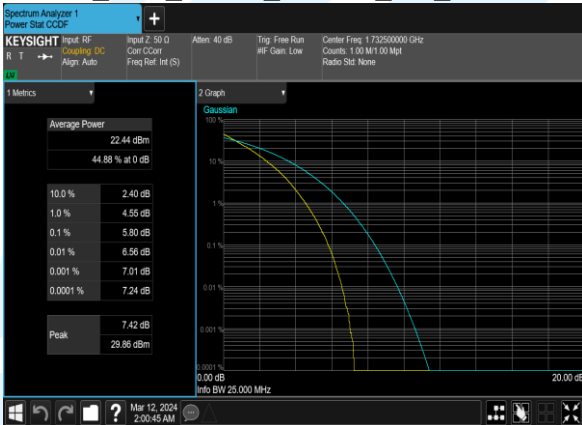
B4_20M_QPSK_100@0_CH_20050



B4_20M_16QAM_100@0_CH_20050



B4_20M_QPSK_100@0_CH_20175



B4_20M_16QAM_100@0_CH_20175



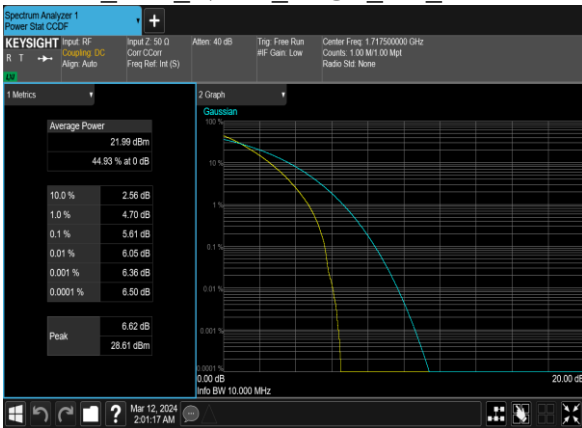
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B4_20M_16QAM_100@0_CH_20300



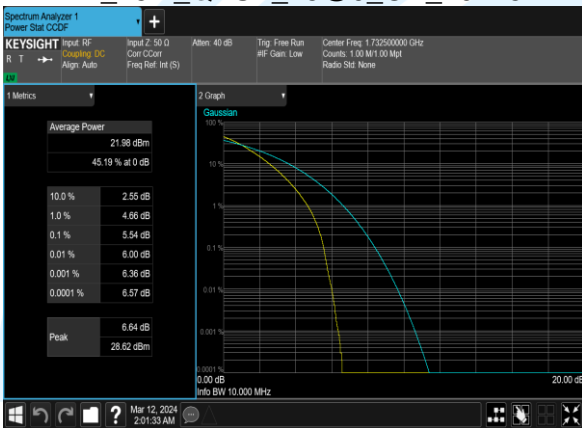
B4_15M_QPSK_75@0_CH_20025



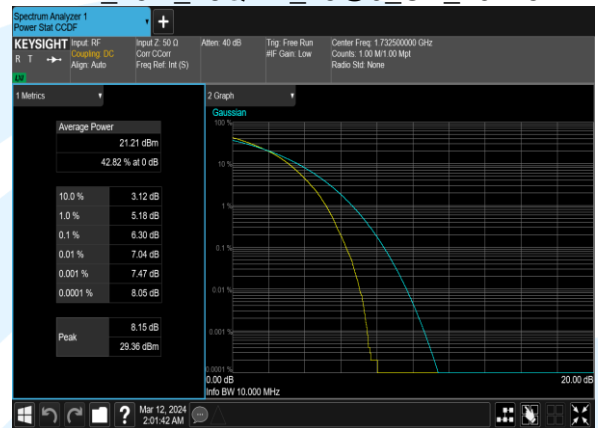
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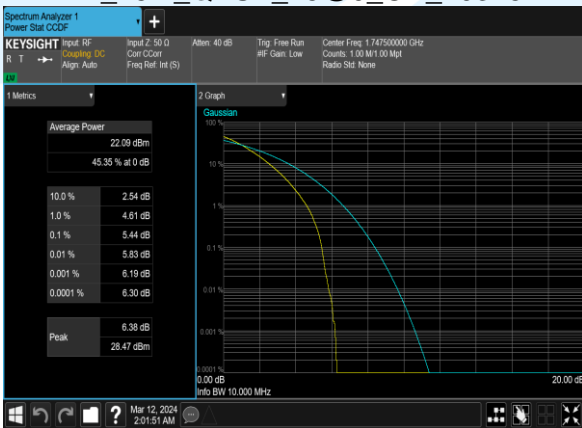
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B4_15M_16QAM_75@0_CH_20175



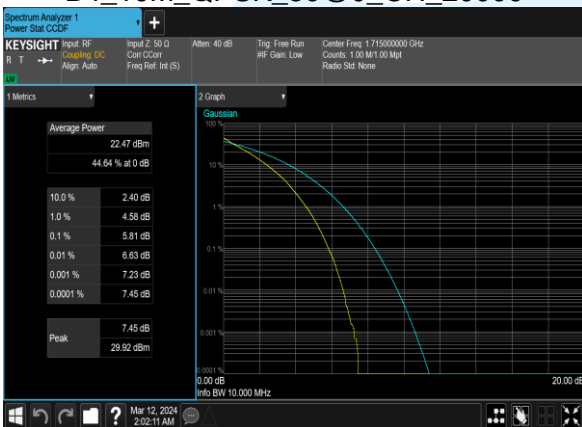
B4_15M_QPSK_75@0_CH_20325



B4_15M_16QAM_75@0_CH_20325



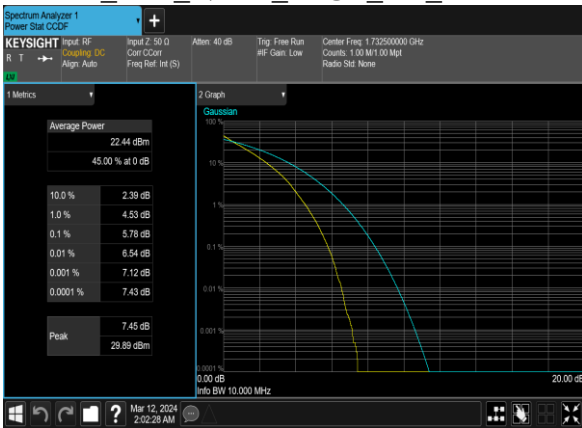
B4_10M_QPSK_50@0_CH_20000



B4_10M_16QAM_50@0_CH_20000



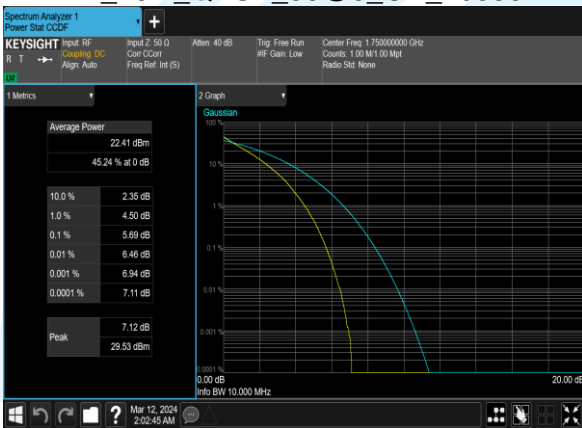
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B4_10M_16QAM_50@0_CH_20175



B4_10M_QPSK_50@0_CH_20350



B4_10M_16QAM_50@0_CH_20350



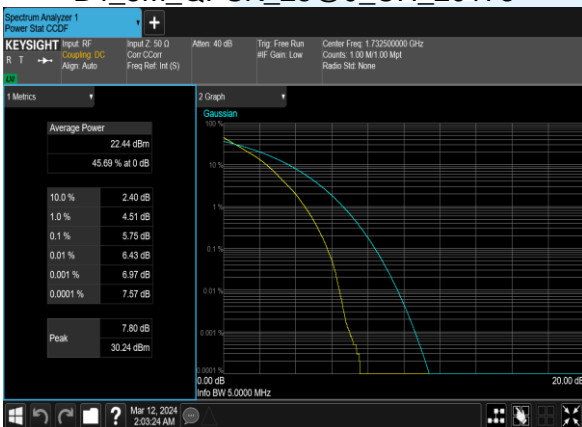
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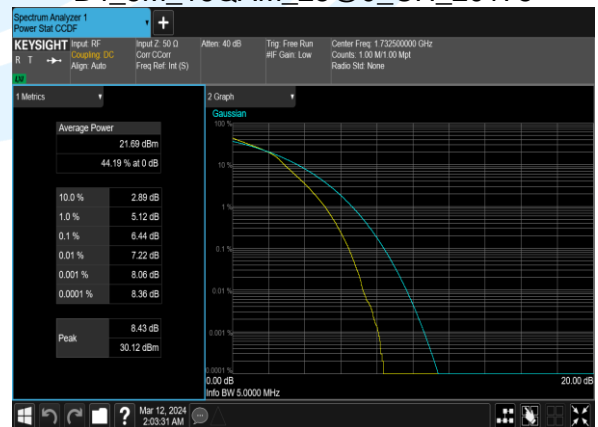
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B4_5M_QPSK_25@0_CH_20175



B4_5M_16QAM_25@0_CH_20175



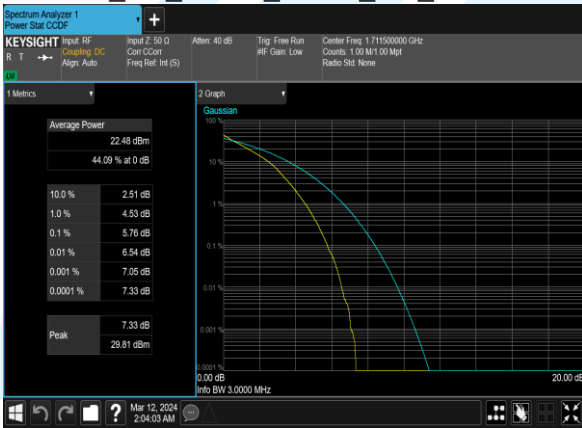
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B4_5M_16QAM_25@0_CH_20375



B4_3M_QPSK_15@0_CH_19965



B4_3M_16QAM_15@0_CH_19965



B4_3M_QPSK_15@0_CH_20175



B4_3M_16QAM_15@0_CH_20175



B4_3M_QPSK_15@0_CH_20385



B4_3M_16QAM_15@0_CH_20385



B4_1.4M_QPSK_6@0_CH_19957



B4_1.4M_16QAM_6@0_CH_19957



B4_1.4M_QPSK_6@0_CH_20175



B4_1.4M_16QAM_6@0_CH_20175



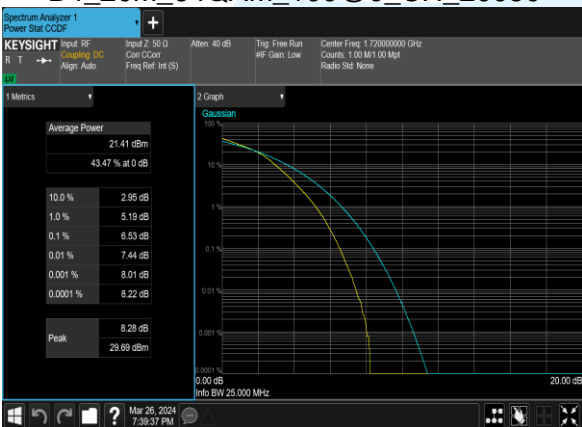
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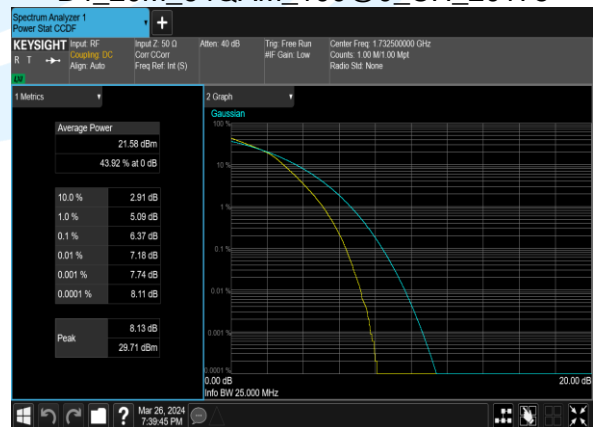
B4_1.4M_16QAM_6@0_CH_20393



B4_20M_64QAM_100@0_CH_20050



B4_20M_64QAM_100@0_CH_20175



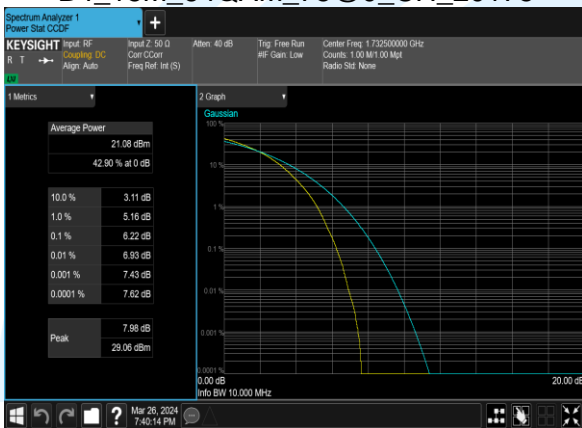
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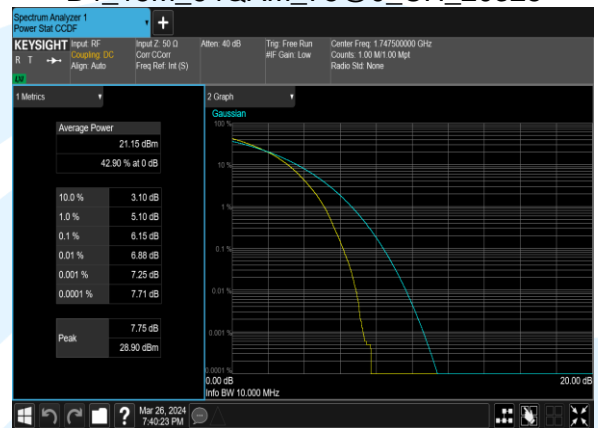
B4_15M_64QAM_75@0_CH_20025



B4_15M_64QAM_75@0_CH_20175



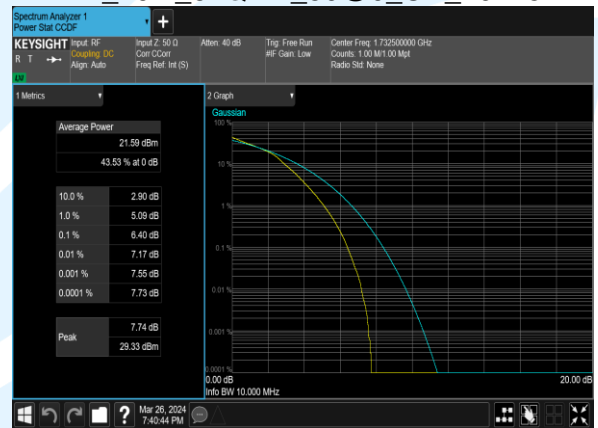
B4_15M_64QAM_75@0_CH_20325



B4_10M_64QAM_50@0_CH_20000



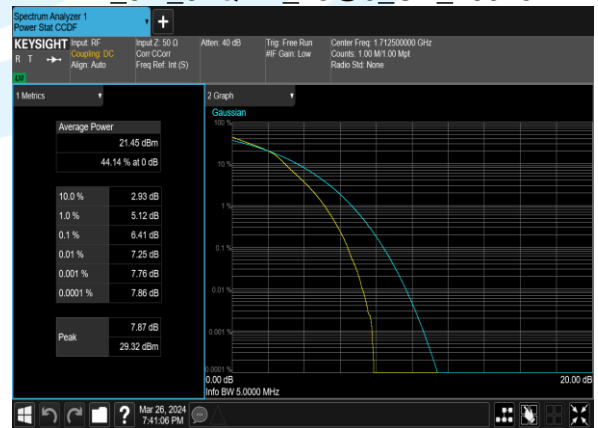
B4_10M_64QAM_50@0_CH_20175



B4_10M_64QAM_50@0_CH_20350



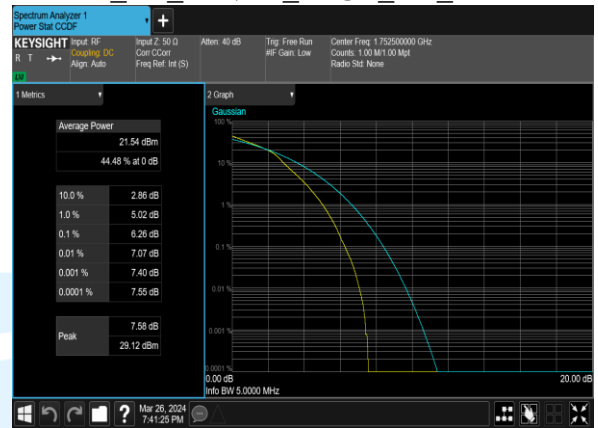
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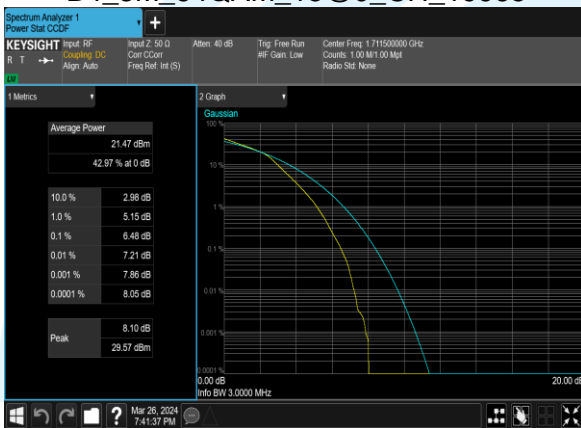
B4_5M_64QAM_25@0_CH_20175



B4_5M_64QAM_25@0_CH_20375



B4_3M_64QAM_15@0_CH_19965



B4_3M_64QAM_15@0_CH_20175



B4_3M_64QAM_15@0_CH_20385



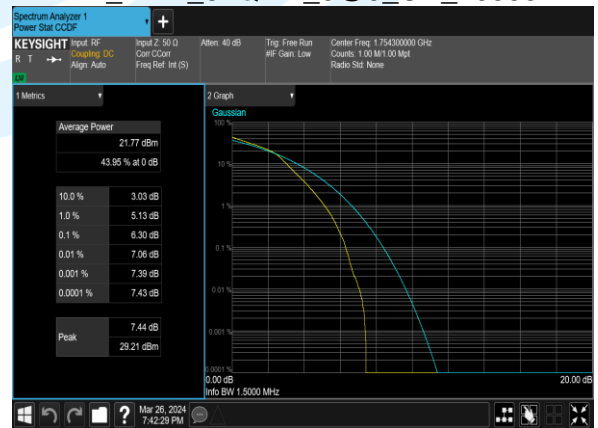
B4_1.4M_64QAM_6@0_CH_19957



B4_1.4M_64QAM_6@0_CH_20175



B4_1.4M_64QAM_6@0_CH_20393



Occupied Bandwidth

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
4	20.0	20050	1720.0	QPSK	100@0	17.890	19.21
4	20.0	20050	1720.0	16QAM	100@0	17.918	19.05
4	20.0	20175	1732.5	QPSK	100@0	17.872	19.16
4	20.0	20175	1732.5	16QAM	100@0	17.891	19.26
4	20.0	20300	1745.0	QPSK	100@0	17.879	19.24
4	20.0	20300	1745.0	16QAM	100@0	17.908	18.93
4	15.0	20025	1717.5	QPSK	75@0	13.397	14.43
4	15.0	20025	1717.5	16QAM	75@0	13.426	14.37
4	15.0	20175	1732.5	QPSK	75@0	13.384	14.31
4	15.0	20175	1732.5	16QAM	75@0	13.423	14.41
4	15.0	20325	1747.5	QPSK	75@0	13.422	14.50
4	15.0	20325	1747.5	16QAM	75@0	13.389	14.59
4	10.0	20000	1715.0	QPSK	50@0	8.9552	9.593
4	10.0	20000	1715.0	16QAM	50@0	8.9534	9.709
4	10.0	20175	1732.5	QPSK	50@0	8.9334	9.631
4	10.0	20175	1732.5	16QAM	50@0	8.9342	9.715
4	10.0	20350	1750.0	QPSK	50@0	8.9395	9.539
4	10.0	20350	1750.0	16QAM	50@0	8.9353	9.647
4	5.0	19975	1712.5	QPSK	25@0	4.4533	4.862
4	5.0	19975	1712.5	16QAM	25@0	4.4595	4.838
4	5.0	20175	1732.5	QPSK	25@0	4.4646	4.852
4	5.0	20175	1732.5	16QAM	25@0	4.4595	4.851
4	5.0	20375	1752.5	QPSK	25@0	4.4620	4.870
4	5.0	20375	1752.5	16QAM	25@0	4.4654	4.878
4	3.0	19965	1711.5	QPSK	15@0	2.6849	3.002
4	3.0	19965	1711.5	16QAM	15@0	2.6819	2.950
4	3.0	20175	1732.5	QPSK	15@0	2.6865	2.967
4	3.0	20175	1732.5	16QAM	15@0	2.6852	2.945
4	3.0	20385	1753.5	QPSK	15@0	2.6808	2.974
4	3.0	20385	1753.5	16QAM	15@0	2.6844	3.021
4	1.4	19957	1710.7	QPSK	6@0	1.0771	1.222
4	1.4	19957	1710.7	16QAM	6@0	1.0814	1.222
4	1.4	20175	1732.5	QPSK	6@0	1.0773	1.214
4	1.4	20175	1732.5	16QAM	6@0	1.0775	1.213
4	1.4	20393	1754.3	QPSK	6@0	1.0823	1.225
4	1.4	20393	1754.3	16QAM	6@0	1.0817	1.220

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
4	20.0	20050	1720.0	64QAM	100@0	17.894	19.10
4	20.0	20175	1732.5	64QAM	100@0	17.921	18.98
4	20.0	20300	1745.0	64QAM	100@0	17.901	19.19
4	15.0	20025	1717.5	64QAM	75@0	13.431	14.41
4	15.0	20175	1732.5	64QAM	75@0	13.425	14.58
4	15.0	20325	1747.5	64QAM	75@0	13.440	14.42
4	10.0	20000	1715.0	64QAM	50@0	8.9337	9.511
4	10.0	20175	1732.5	64QAM	50@0	8.9438	9.573
4	10.0	20350	1750.0	64QAM	50@0	8.9500	9.649
4	5.0	19975	1712.5	64QAM	25@0	4.4603	4.882
4	5.0	20175	1732.5	64QAM	25@0	4.4505	4.880
4	5.0	20375	1752.5	64QAM	25@0	4.4619	4.901
4	3.0	19965	1711.5	64QAM	15@0	2.6861	2.977
4	3.0	20175	1732.5	64QAM	15@0	2.6866	2.980
4	3.0	20385	1753.5	64QAM	15@0	2.6846	3.000
4	1.4	19957	1710.7	64QAM	6@0	1.0828	1.230
4	1.4	20175	1732.5	64QAM	6@0	1.0777	1.220
4	1.4	20393	1754.3	64QAM	6@0	1.0783	1.219

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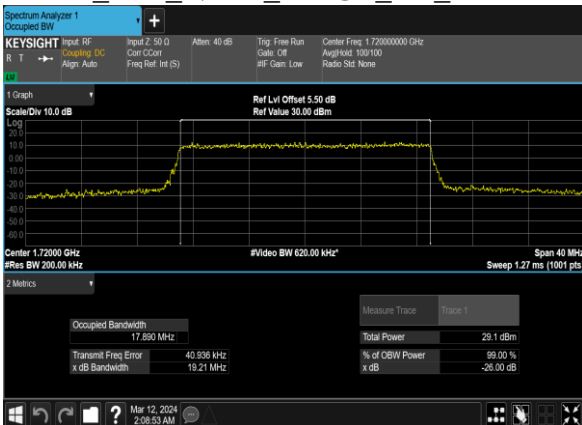
E-mail: info@uttlab.com

<http://www.uttlab.com>

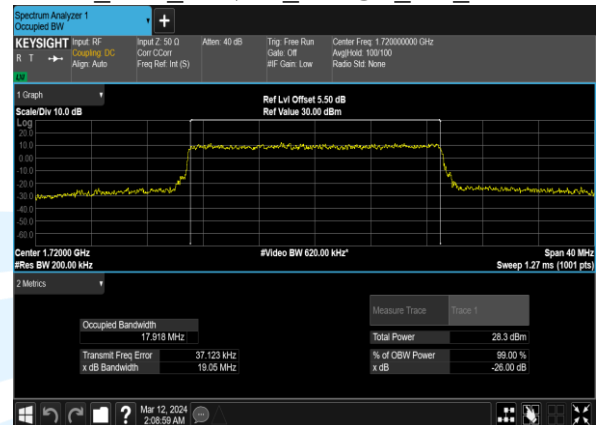
UTTR-RF-FCC4G-V1.1

Test Graphs

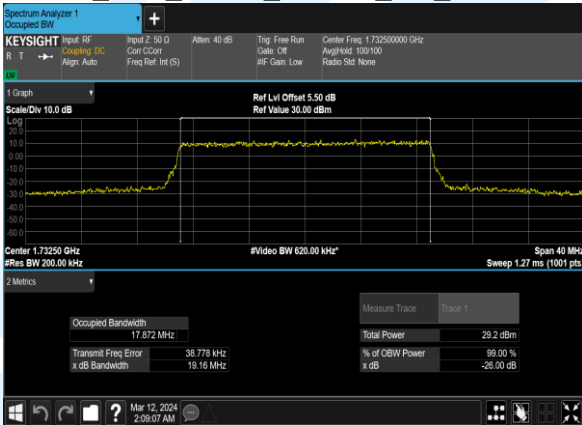
B4_20M_QPSK_100@0_CH_20050



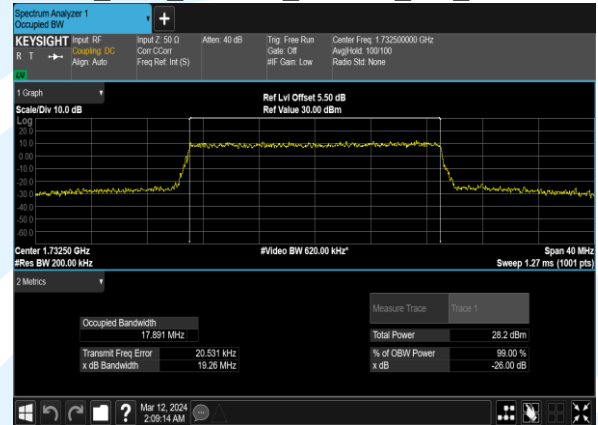
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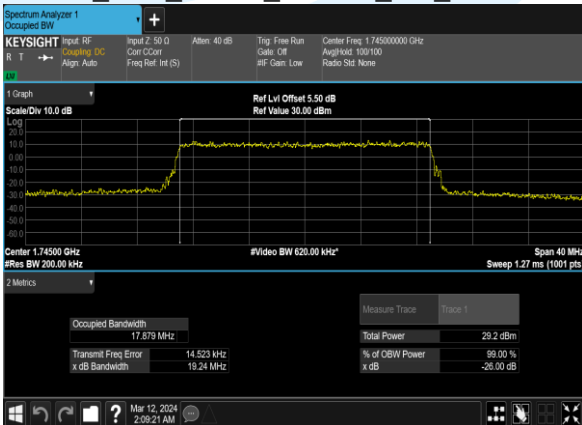
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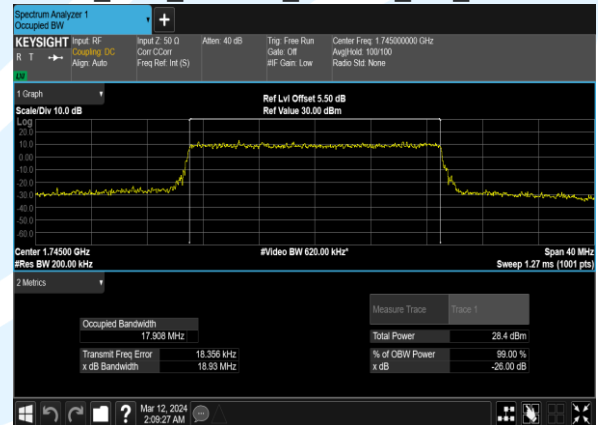
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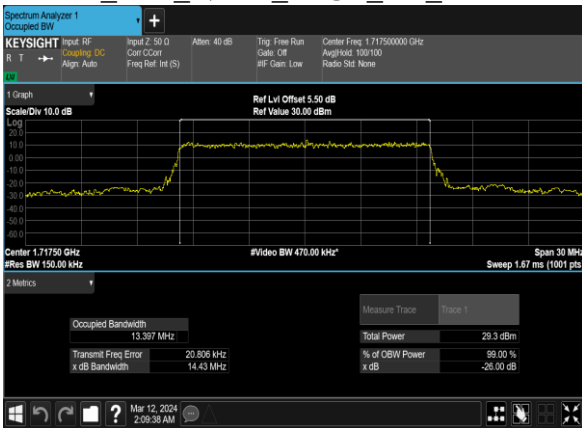
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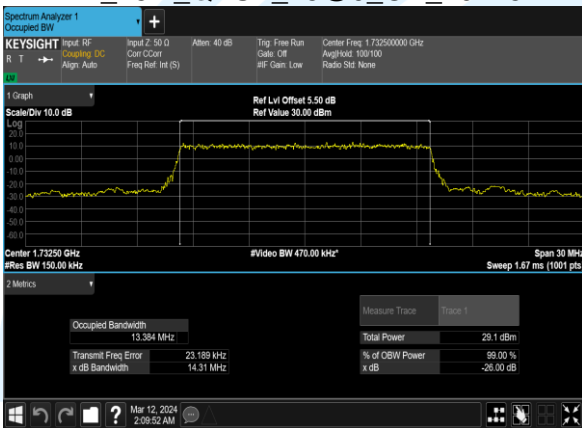
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B4_15M_16QAM_75@0_CH_20025



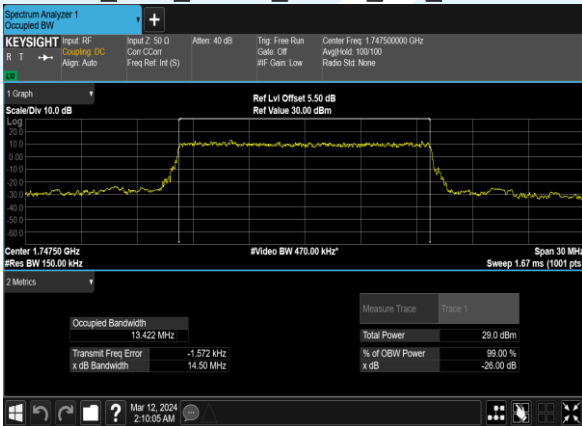
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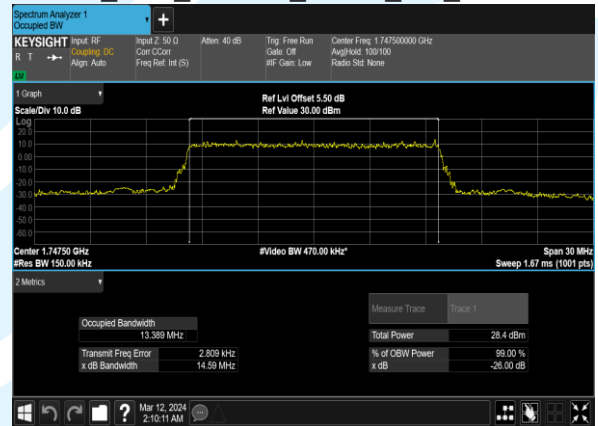
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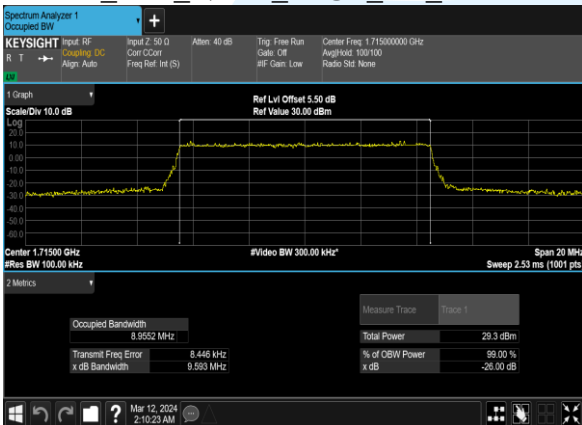
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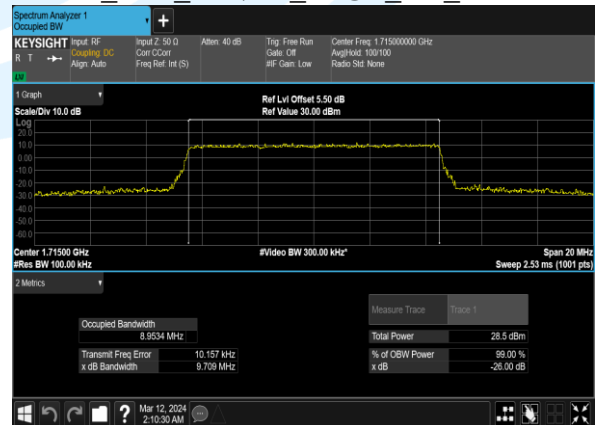
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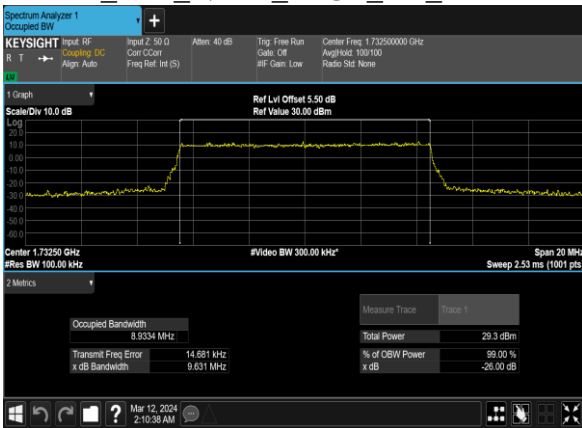
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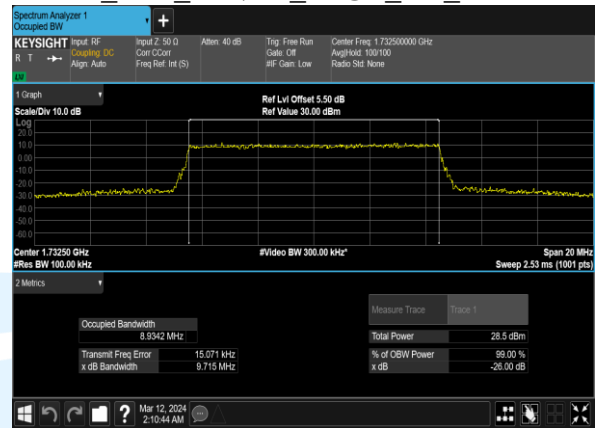
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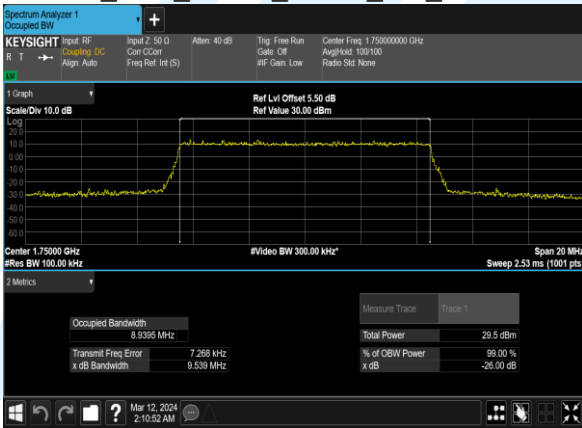
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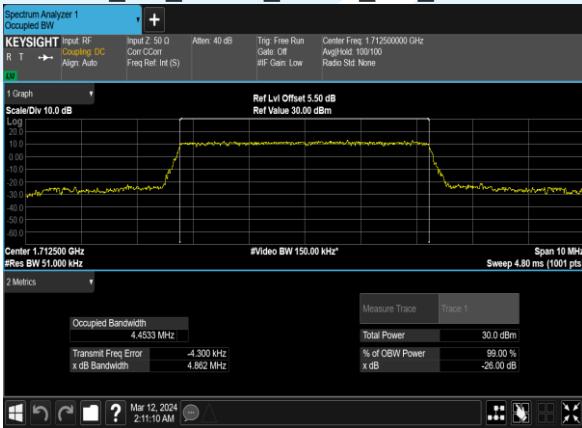
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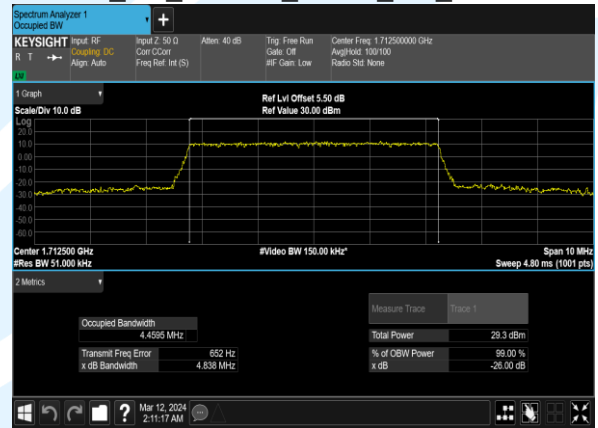
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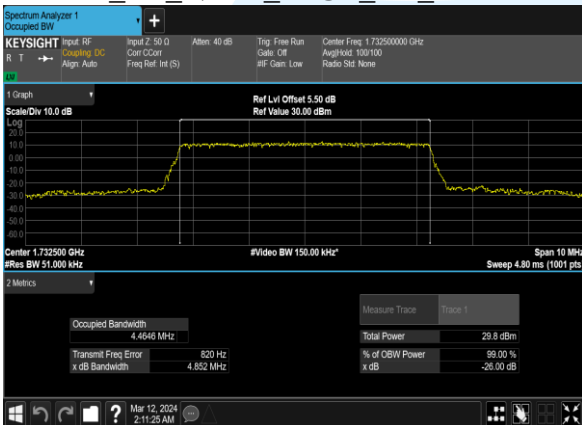
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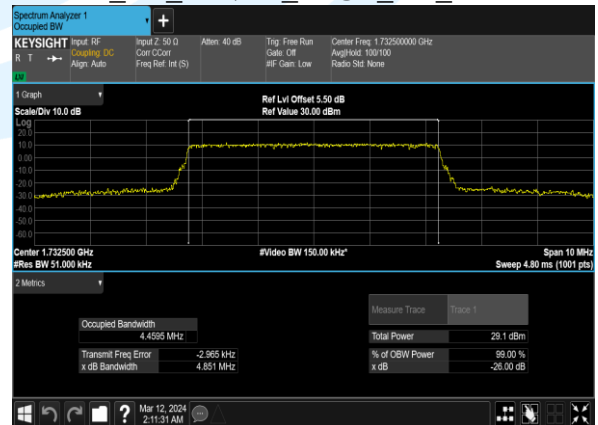
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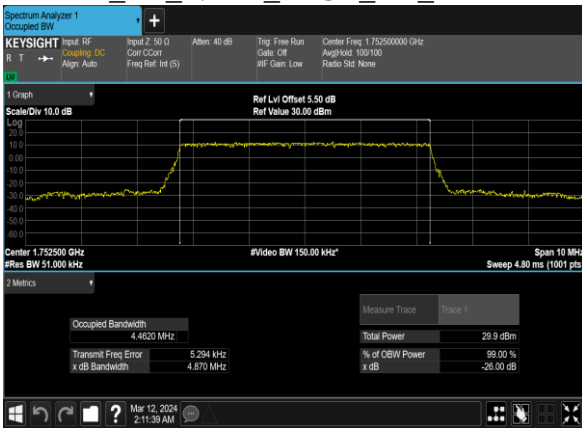
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B4_5M_16QAM_25@0_CH_20175



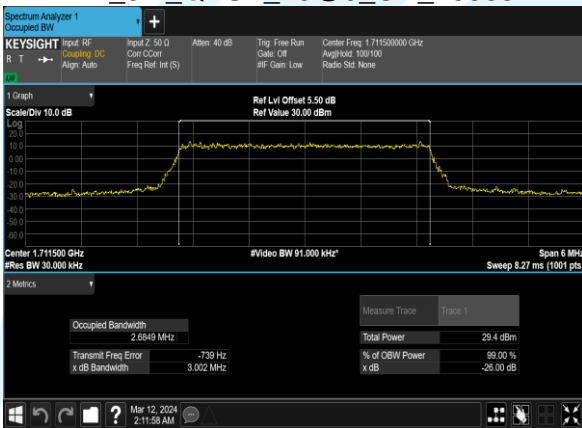
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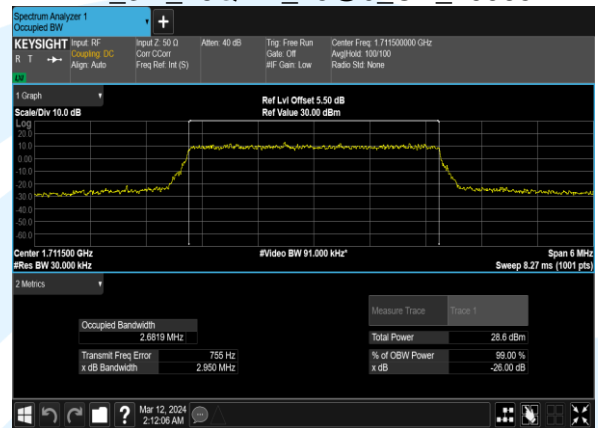
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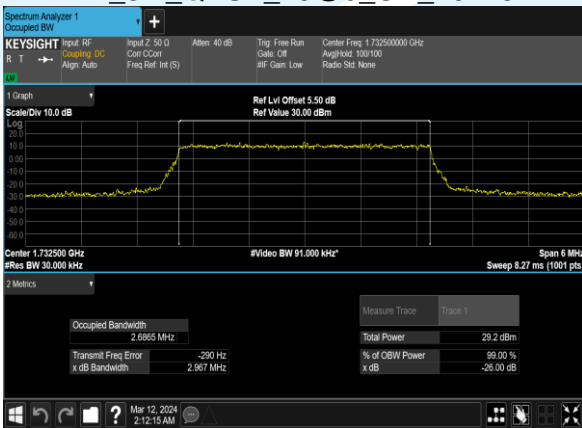
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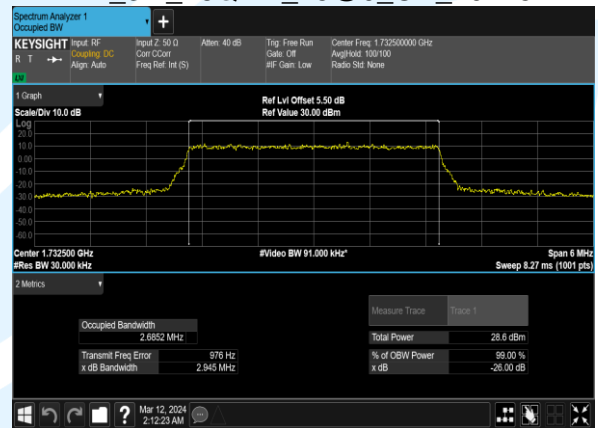
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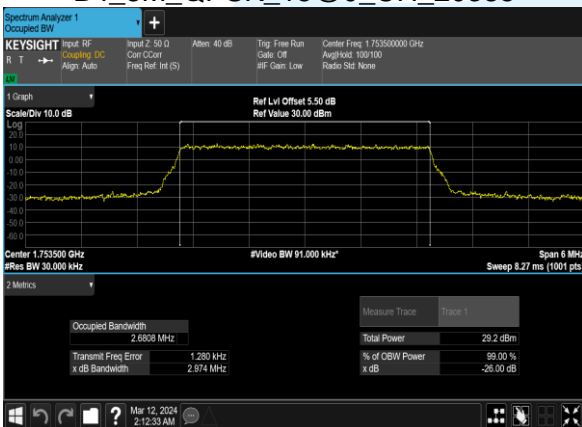
B4_3M_QPSK_15@0_CH_20175



B4_3M_16QAM_15@0_CH_20175



B4_3M_QPSK_15@0_CH_20385



B4_3M_16QAM_15@0_CH_20385

