

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	6.12	13	PASS
4	20.0	20050	1720.0	16QAM	100@0	6.11	13	PASS
4	20.0	20175	1732.5	QPSK	100@0	6.10	13	PASS
4	20.0	20175	1732.5	16QAM	100@0	6.17	13	PASS
4	20.0	20300	1745.0	QPSK	100@0	5.53	13	PASS
4	20.0	20300	1745.0	16QAM	100@0	5.03	13	PASS
4	15.0	20025	1717.5	QPSK	75@0	5.65	13	PASS
4	15.0	20025	1717.5	16QAM	75@0	5.87	13	PASS
4	15.0	20175	1732.5	QPSK	75@0	5.80	13	PASS
4	15.0	20175	1732.5	16QAM	75@0	6.21	13	PASS
4	15.0	20325	1747.5	QPSK	75@0	5.27	13	PASS
4	15.0	20325	1747.5	16QAM	75@0	5.16	13	PASS
4	10.0	20000	1715.0	QPSK	50@0	5.80	13	PASS
4	10.0	20000	1715.0	16QAM	50@0	5.28	13	PASS
4	10.0	20175	1732.5	QPSK	50@0	6.05	13	PASS
4	10.0	20175	1732.5	16QAM	50@0	6.36	13	PASS
4	10.0	20350	1750.0	QPSK	50@0	5.66	13	PASS
4	10.0	20350	1750.0	16QAM	50@0	4.83	13	PASS
4	5.0	19975	1712.5	QPSK	25@0	5.66	13	PASS
4	5.0	19975	1712.5	16QAM	25@0	4.48	13	PASS
4	5.0	20175	1732.5	QPSK	25@0	6.04	13	PASS
4	5.0	20175	1732.5	16QAM	25@0	6.34	13	PASS
4	5.0	20375	1752.5	QPSK	25@0	5.69	13	PASS
4	5.0	20375	1752.5	16QAM	25@0	5.07	13	PASS
4	3.0	19965	1711.5	QPSK	15@0	5.70	13	PASS
4	3.0	19965	1711.5	16QAM	15@0	4.41	13	PASS
4	3.0	20175	1732.5	QPSK	15@0	6.05	13	PASS
4	3.0	20175	1732.5	16QAM	15@0	6.38	13	PASS
4	3.0	20385	1753.5	QPSK	15@0	5.67	13	PASS
4	3.0	20385	1753.5	16QAM	15@0	5.39	13	PASS
4	1.4	19957	1710.7	QPSK	6@0	5.65	13	PASS
4	1.4	19957	1710.7	16QAM	6@0	3.92	13	PASS
4	1.4	20175	1732.5	QPSK	6@0	6.04	13	PASS
4	1.4	20175	1732.5	16QAM	6@0	6.31	13	PASS
4	1.4	20393	1754.3	QPSK	6@0	5.80	13	PASS
4	1.4	20393	1754.3	16QAM	6@0	5.38	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



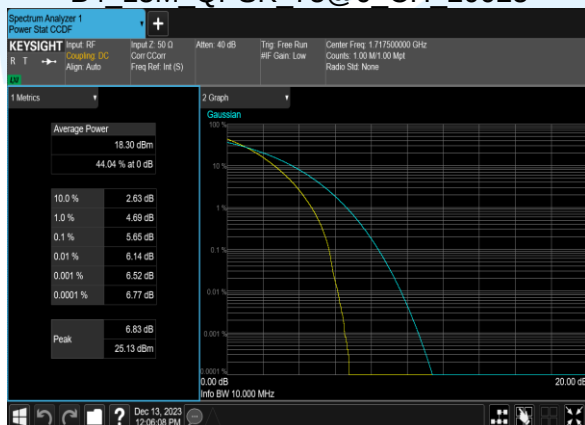
B4 20M QPSK 100@0 CH 20300



B4 20M 16QAM 100@0 CH 20300



B4 15M QPSK 75@0 CH 20025



B4 15M 16QAM 75@0 CH 20025



B4 15M QPSK 75@0 CH 20175



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



B4 10M QPSK 50@0 CH 20175



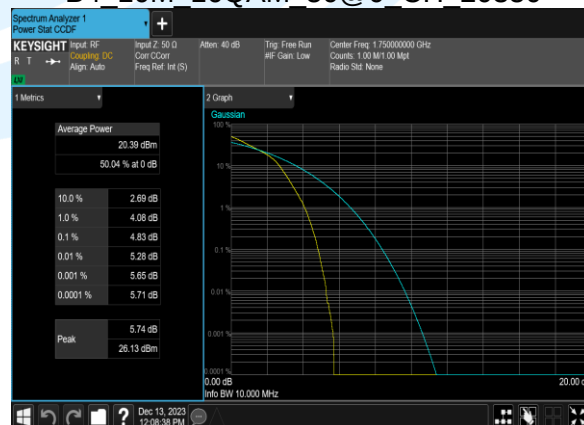
B4 10M 16QAM 50@0 CH 20175



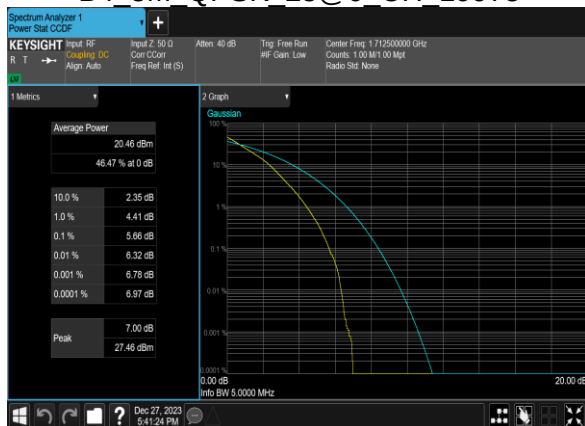
B4 10M QPSK 50@0 CH 20350



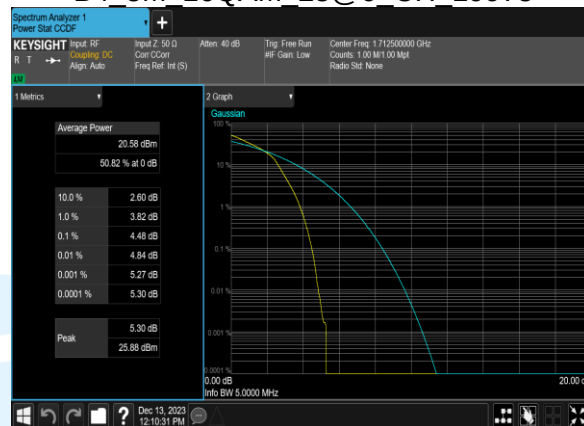
B4 10M 16QAM 50@0 CH 20350



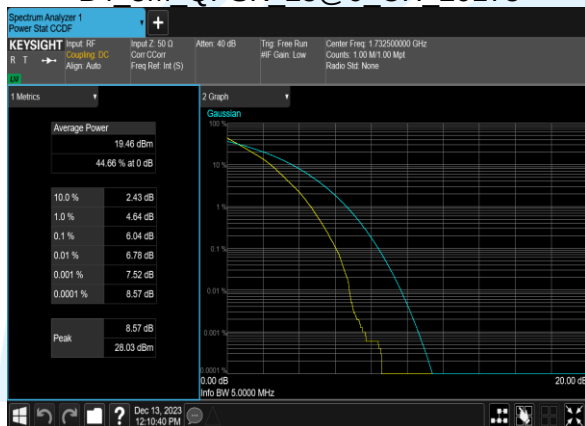
B4 5M QPSK 25@0 CH 19975



B4 5M 16QAM 25@0 CH 19975



B4 5M QPSK 25@0 CH 20175



B4 5M 16QAM 25@0 CH 20175



B4 5M QPSK 25@0 CH 20375



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



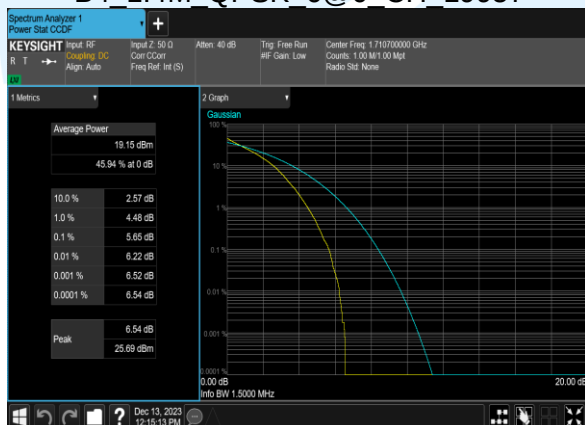
B4 3M QPSK 15@0 CH 20385



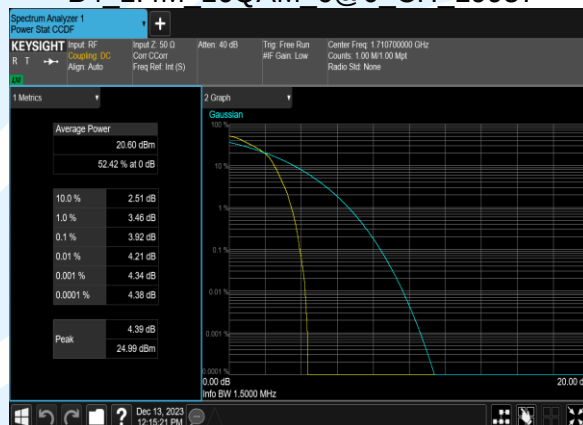
B4 3M 16QAM 15@0 CH 20385



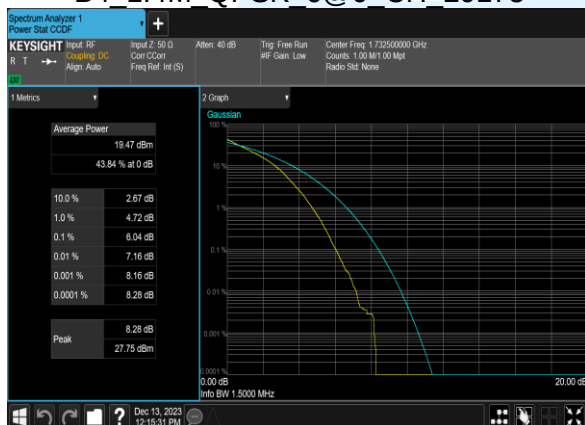
B4 1.4M QPSK 6@0 CH 19957



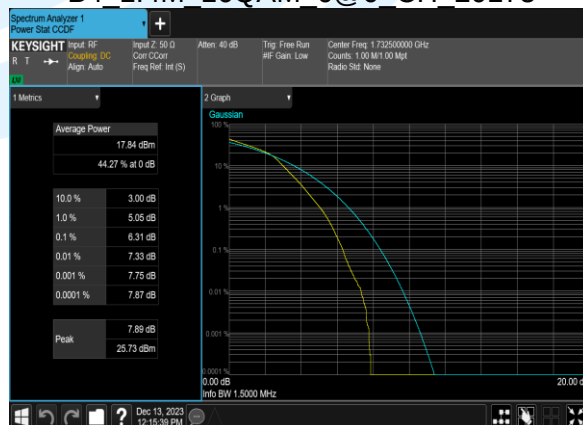
B4 1.4M 16QAM 6@0 CH 19957



B4 1.4M QPSK 6@0 CH 20175



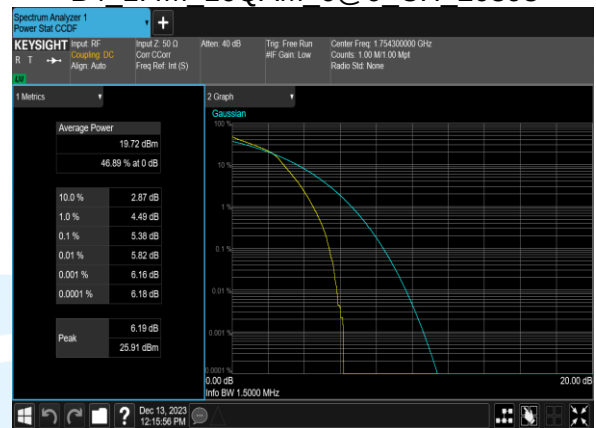
B4 1.4M 16QAM 6@0 CH 20175



B4 1.4M QPSK 6@0 CH 20393



B4 1.4M 16QAM 6@0 CH 20393

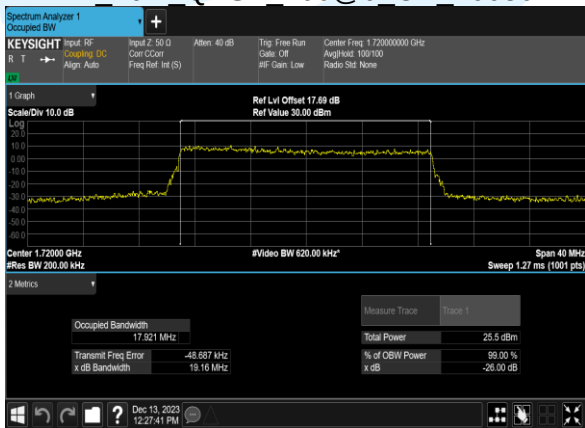


Occupied Bandwidth

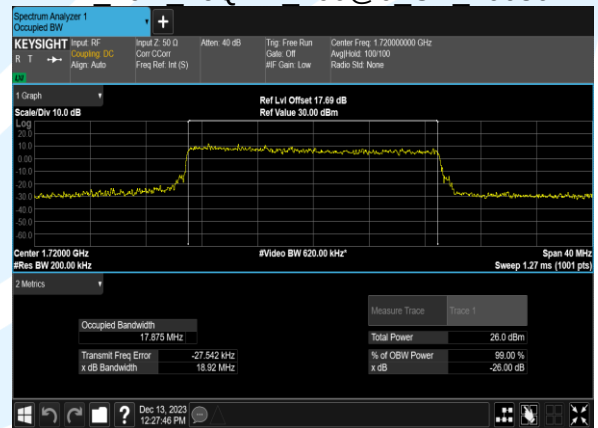
Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
4	20.0	20050	1720.0	QPSK	100@0	17.921	19.16
4	20.0	20050	1720.0	16QAM	100@0	17.875	18.92
4	20.0	20175	1732.5	QPSK	100@0	17.914	19.30
4	20.0	20175	1732.5	16QAM	100@0	17.911	19.13
4	20.0	20300	1745.0	QPSK	100@0	17.780	19.01
4	20.0	20300	1745.0	16QAM	100@0	17.898	19.28
4	15.0	20025	1717.5	QPSK	75@0	13.389	14.40
4	15.0	20025	1717.5	16QAM	75@0	13.417	14.40
4	15.0	20175	1732.5	QPSK	75@0	13.474	14.50
4	15.0	20175	1732.5	16QAM	75@0	13.441	14.57
4	15.0	20325	1747.5	QPSK	75@0	13.386	14.31
4	15.0	20325	1747.5	16QAM	75@0	13.373	14.55
4	10.0	20000	1715.0	QPSK	50@0	8.9013	9.683
4	10.0	20000	1715.0	16QAM	50@0	8.9541	9.610
4	10.0	20175	1732.5	QPSK	50@0	8.9477	9.620
4	10.0	20175	1732.5	16QAM	50@0	8.9307	9.657
4	10.0	20350	1750.0	QPSK	50@0	8.9300	9.627
4	10.0	20350	1750.0	16QAM	50@0	8.9273	9.639
4	5.0	19975	1712.5	QPSK	25@0	4.4570	4.852
4	5.0	19975	1712.5	16QAM	25@0	4.4759	5.337
4	5.0	20175	1732.5	QPSK	25@0	4.4587	4.881
4	5.0	20175	1732.5	16QAM	25@0	4.4487	4.884
4	5.0	20375	1752.5	QPSK	25@0	4.4575	4.842
4	5.0	20375	1752.5	16QAM	25@0	4.4806	4.909
4	3.0	19965	1711.5	QPSK	15@0	2.6851	2.969
4	3.0	19965	1711.5	16QAM	15@0	2.6943	3.474
4	3.0	20175	1732.5	QPSK	15@0	2.6925	2.997
4	3.0	20175	1732.5	16QAM	15@0	2.6820	2.946
4	3.0	20385	1753.5	QPSK	15@0	2.6949	2.977
4	3.0	20385	1753.5	16QAM	15@0	2.6762	2.979
4	1.4	19957	1710.7	QPSK	6@0	1.0800	1.224
4	1.4	19957	1710.7	16QAM	6@0	1.0884	1.810
4	1.4	20175	1732.5	QPSK	6@0	1.0789	1.220
4	1.4	20175	1732.5	16QAM	6@0	1.0824	1.227
4	1.4	20393	1754.3	QPSK	6@0	1.0809	1.215
4	1.4	20393	1754.3	16QAM	6@0	1.0755	1.216

Test Graphs

B4 20M QPSK 100@0 CH 20050



B4 20M 16QAM 100@0 CH 20050



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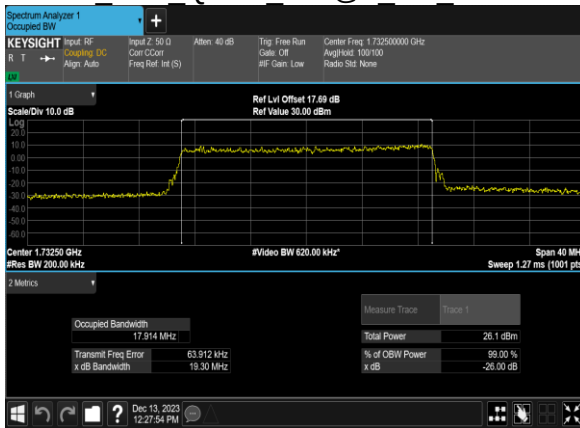
Fax: +86-755-28230886

E-mail: info@uttlab.com

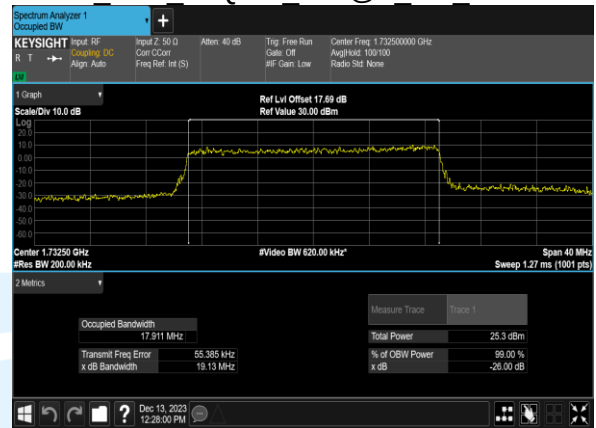
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UTTR-RF-FCC4G-V1.1

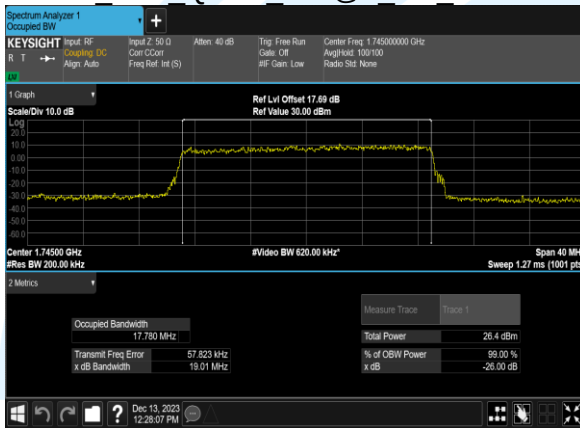
B4_20M_QPSK_100@0_CH_20175



B4_20M_16QAM_100@0_CH_20175



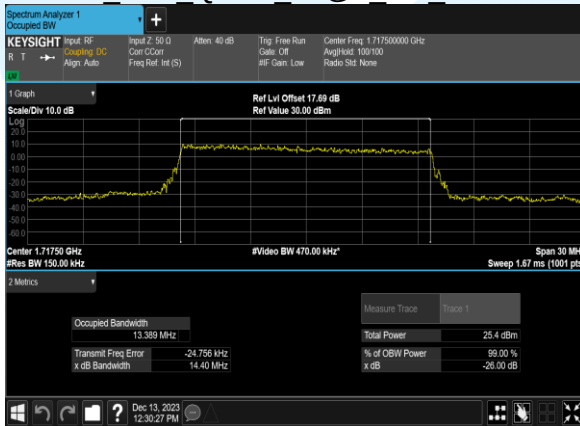
B4_20M_QPSK_100@0_CH_20300



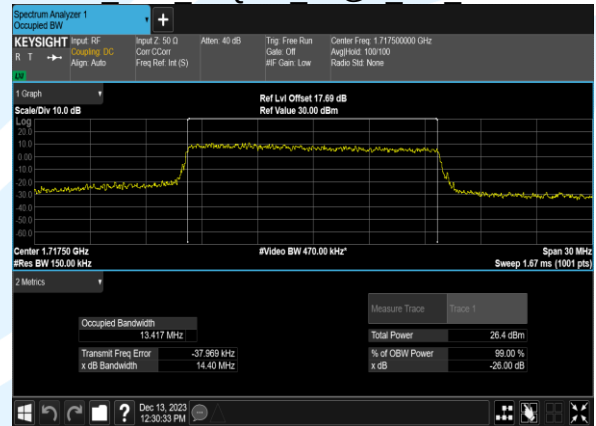
B4_20M_16QAM_100@0_CH_20300



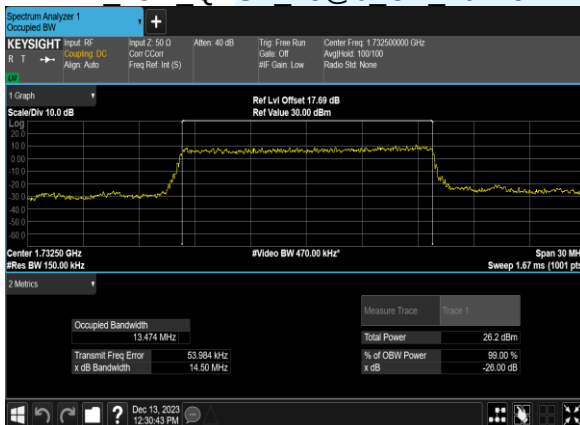
B4_15M_QPSK_75@0_CH_20025



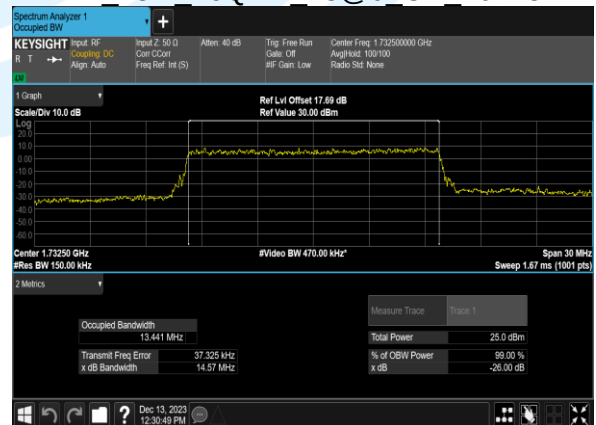
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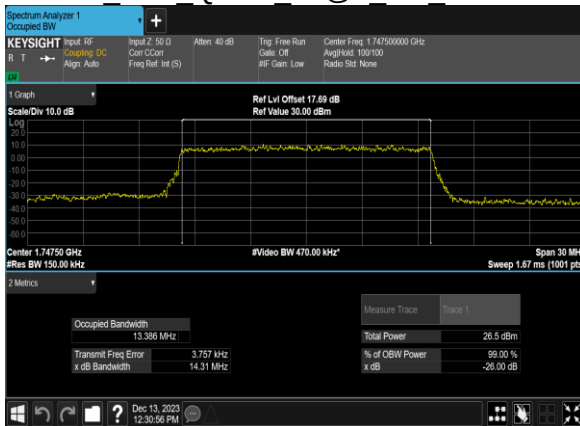
B4_15M_QPSK_75@0_CH_20175



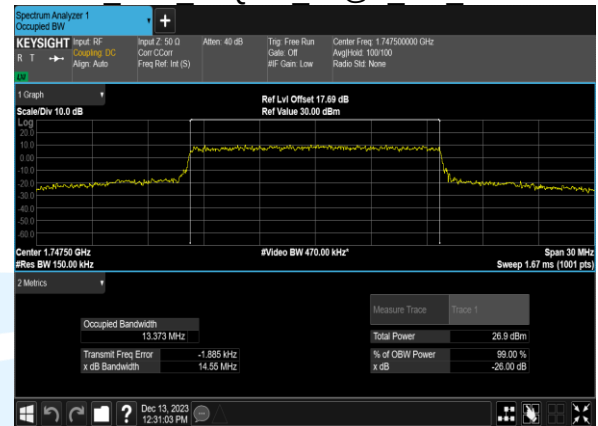
B4_15M_16QAM_75@0_CH_20175



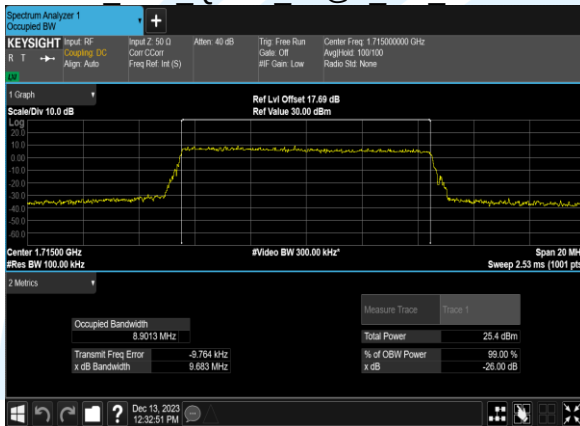
B4 15M QPSK 75@0 CH 20325



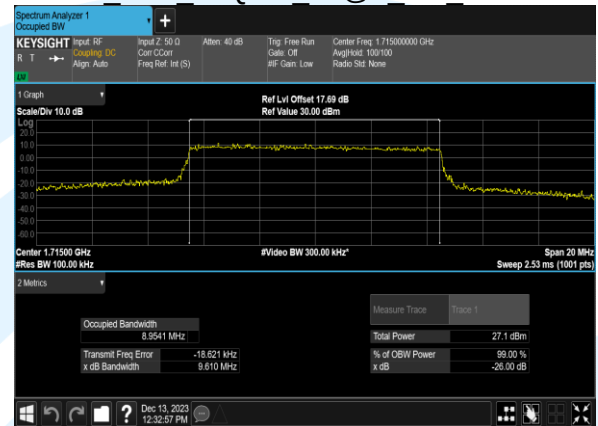
B4 15M 16QAM 75@0 CH 20325



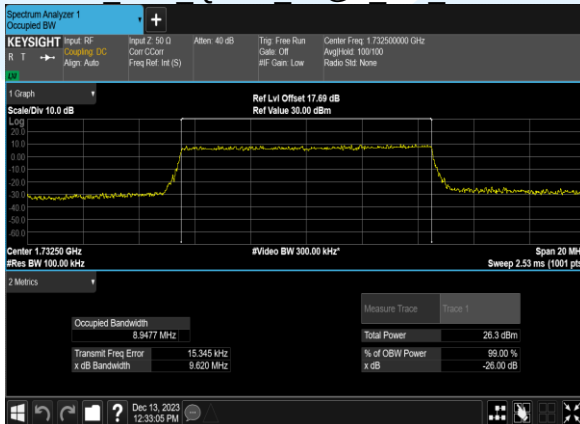
B4 10M QPSK 50@0 CH 20000



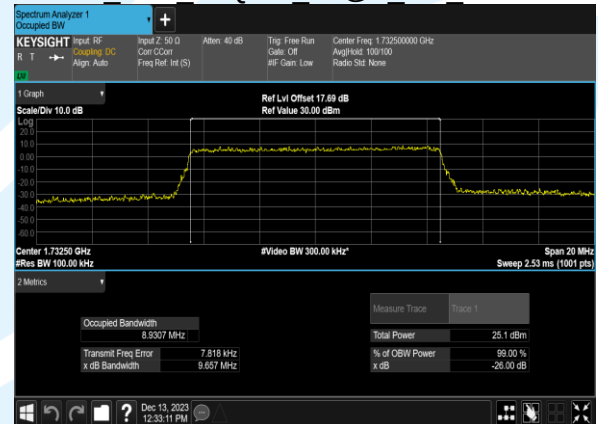
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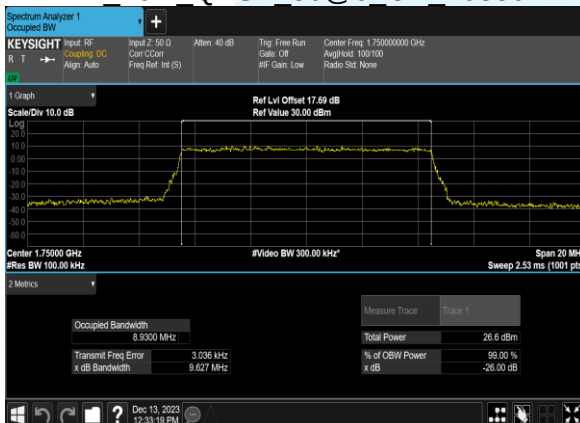
B4 10M QPSK 50@0 CH 20175



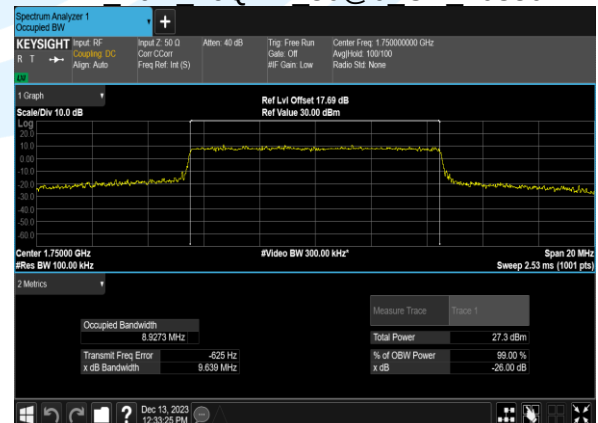
B4 10M 16QAM 50@0 CH 20175



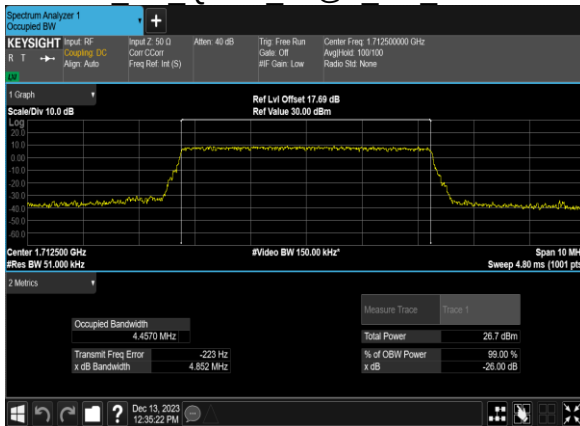
B4 10M QPSK 50@0 CH 20350



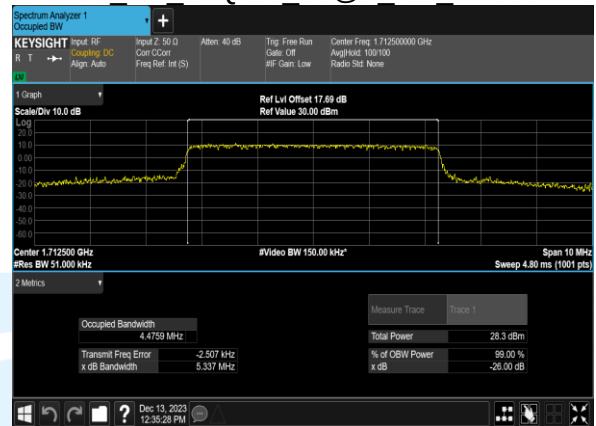
B4 10M 16QAM 50@0 CH 20350



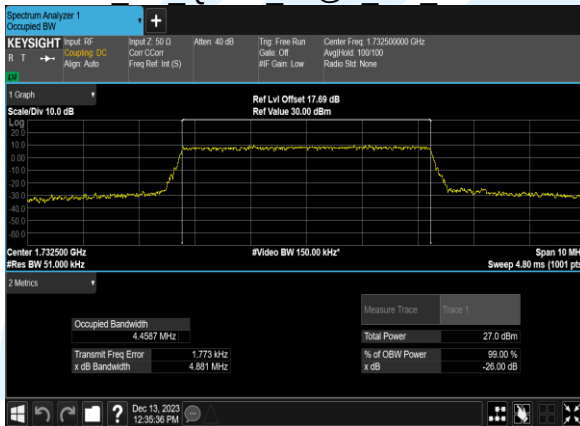
B4 5M QPSK 25@0 CH 19975



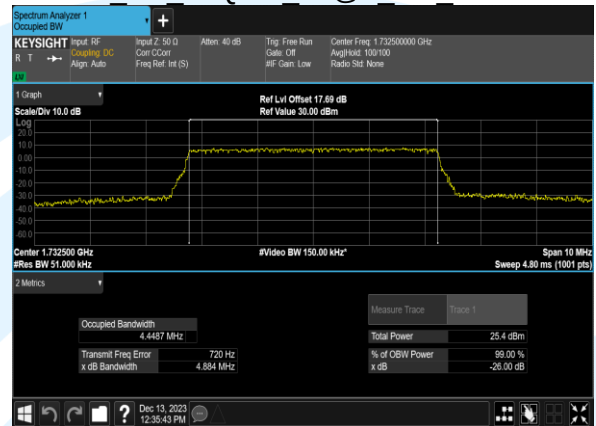
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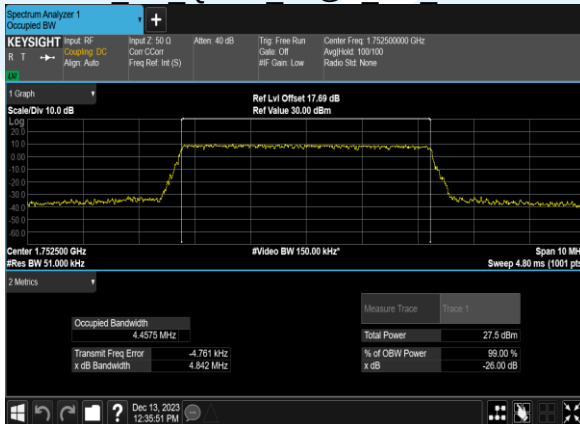
B4 5M QPSK 25@0 CH 20175



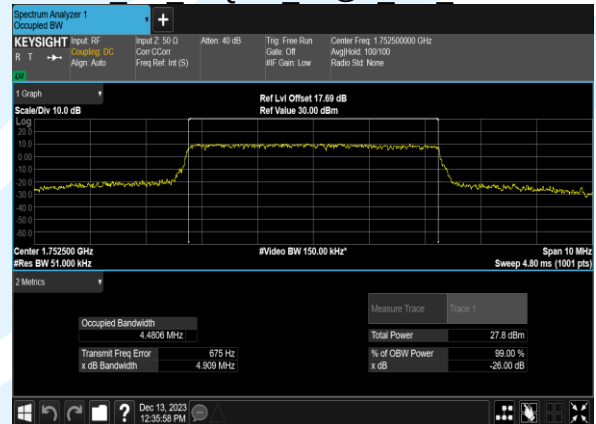
B4 5M 16QAM 25@0 CH 20175



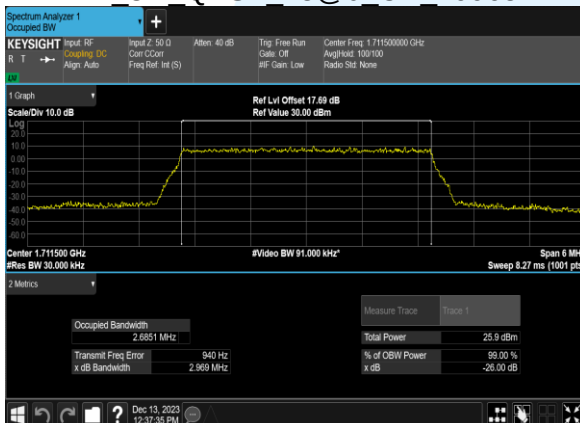
B4 5M QPSK 25@0 CH 20375



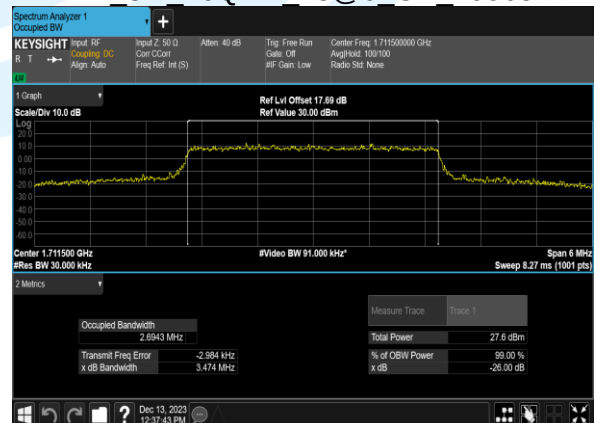
B4 5M 16QAM 25@0 CH 20375



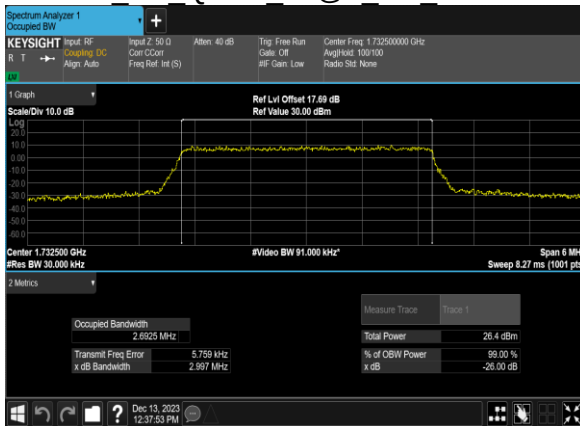
B4 3M QPSK 15@0 CH 19965



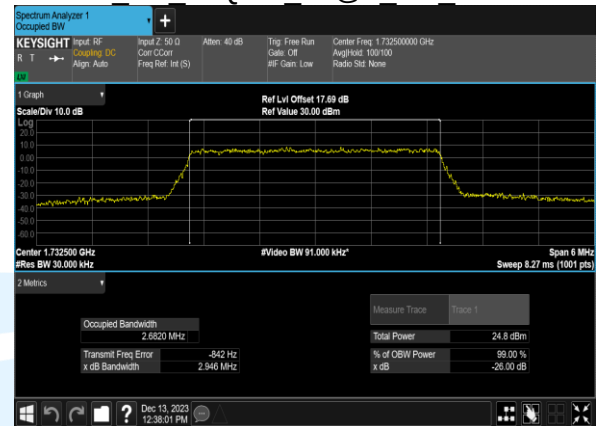
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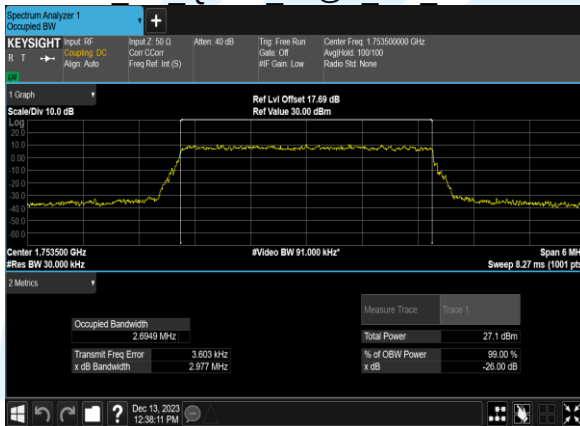
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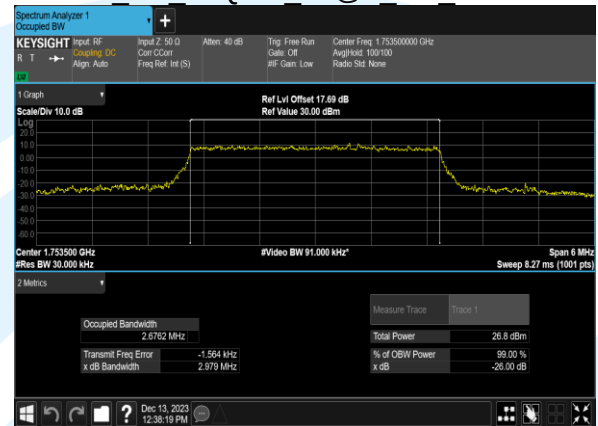
B4 3M 16QAM 15@0 CH 20175



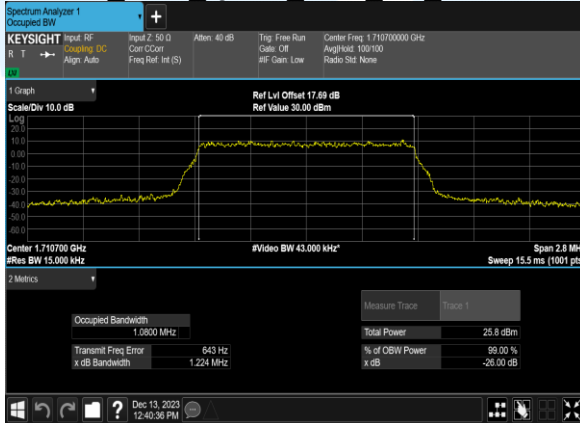
B4 3M QPSK 15@0 CH 20385



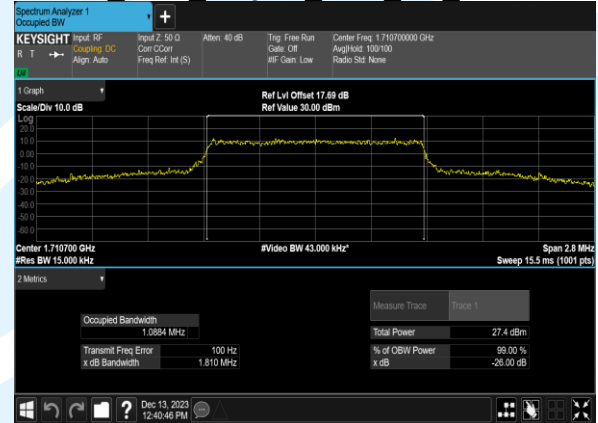
B4 3M 16QAM 15@0 CH 20385



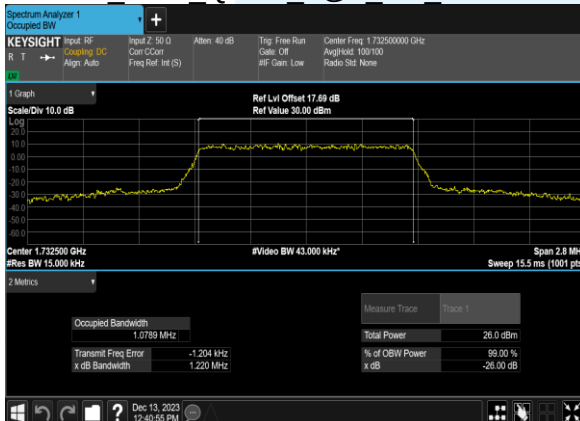
B4 1.4M QPSK 6@0 CH 19957



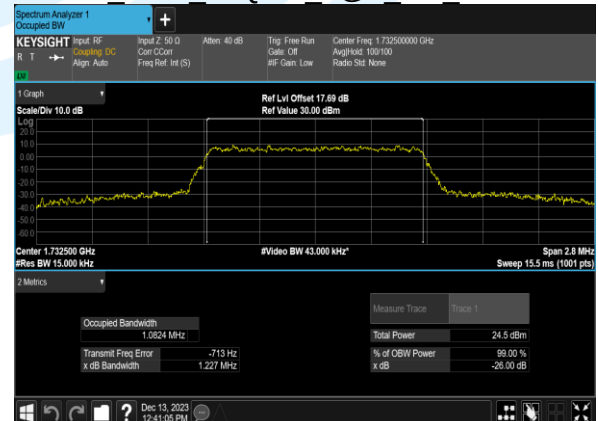
B4 1.4M 16QAM 6@0 CH 19957



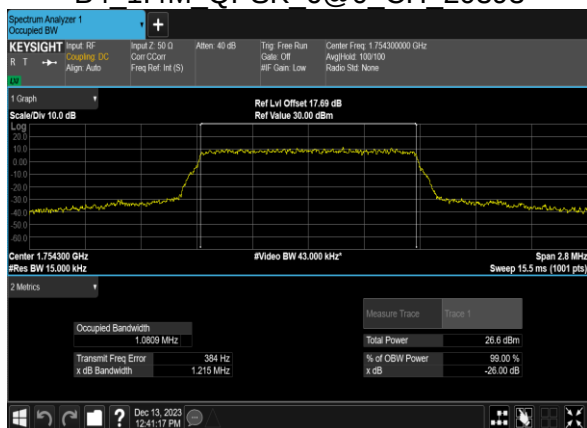
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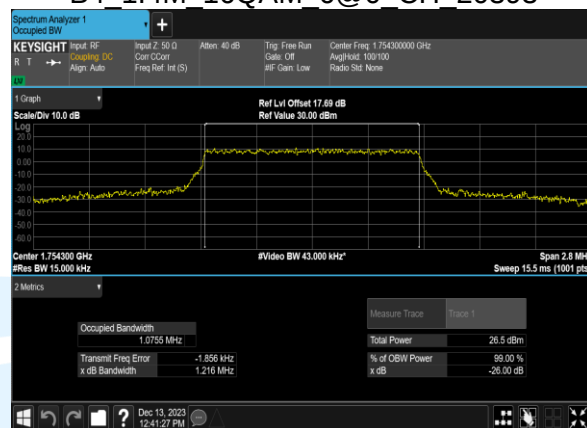
B4 1.4M 16QAM 6@0 CH 20175



B4 1.4M QPSK 6@0 CH 20393



B4 1.4M 16QAM 6@0 CH 20393



Conducted Spurious Emissions

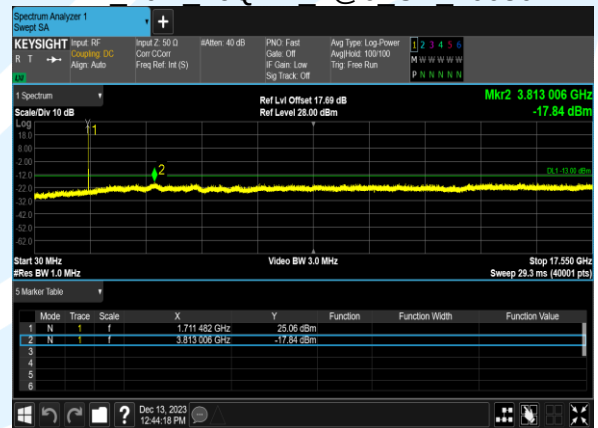
Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Result (dBm)	Limit (dBm)	Verdict
4	20.0	20050	1720.0	QPSK	1@0	-17.57	-13	PASS
4	20.0	20050	1720.0	16QAM	1@0	-17.84	-13	PASS
4	20.0	20175	1732.5	QPSK	1@0	-17.95	-13	PASS
4	20.0	20175	1732.5	16QAM	1@0	-17.6	-13	PASS
4	20.0	20300	1745.0	QPSK	1@0	-17.99	-13	PASS
4	20.0	20300	1745.0	16QAM	1@0	-17.56	-13	PASS
4	15.0	20025	1717.5	QPSK	1@0	-17.66	-13	PASS
4	15.0	20025	1717.5	16QAM	1@0	-17.68	-13	PASS
4	15.0	20175	1732.5	QPSK	1@0	-17.73	-13	PASS
4	15.0	20175	1732.5	16QAM	1@0	-17.57	-13	PASS
4	15.0	20325	1747.5	QPSK	1@0	-17.75	-13	PASS
4	15.0	20325	1747.5	16QAM	1@0	-17.75	-13	PASS
4	10.0	20000	1715.0	QPSK	1@0	-17.84	-13	PASS
4	10.0	20000	1715.0	16QAM	1@0	-17.95	-13	PASS
4	10.0	20175	1732.5	QPSK	1@0	-18.02	-13	PASS
4	10.0	20175	1732.5	16QAM	1@0	-17.76	-13	PASS
4	10.0	20350	1750.0	QPSK	1@0	-17.96	-13	PASS
4	10.0	20350	1750.0	16QAM	1@0	-17.59	-13	PASS
4	5.0	19975	1712.5	QPSK	1@0	-17.91	-13	PASS
4	5.0	19975	1712.5	16QAM	1@0	-18.17	-13	PASS
4	5.0	20175	1732.5	QPSK	1@0	-17.51	-13	PASS
4	5.0	20175	1732.5	16QAM	1@0	-17.49	-13	PASS
4	5.0	20375	1752.5	QPSK	1@0	-16.39	-13	PASS
4	5.0	20375	1752.5	16QAM	1@0	-17.15	-13	PASS
4	3.0	19965	1711.5	QPSK	1@0	-18.23	-13	PASS
4	3.0	19965	1711.5	16QAM	1@0	-18.11	-13	PASS
4	3.0	20175	1732.5	QPSK	1@0	-18.01	-13	PASS
4	3.0	20175	1732.5	16QAM	1@0	-17.95	-13	PASS
4	3.0	20385	1753.5	QPSK	1@0	-17.57	-13	PASS
4	3.0	20385	1753.5	16QAM	1@0	-18.07	-13	PASS
4	1.4	19957	1710.7	QPSK	1@0	-17.77	-13	PASS
4	1.4	19957	1710.7	16QAM	1@0	-17.9	-13	PASS
4	1.4	20175	1732.5	QPSK	1@0	-18.05	-13	PASS
4	1.4	20175	1732.5	16QAM	1@0	-17.58	-13	PASS
4	1.4	20393	1754.3	QPSK	1@0	-17.82	-13	PASS
4	1.4	20393	1754.3	16QAM	1@0	-17.92	-13	PASS

Test Graphs

B4 20M QPSK 1@0 CH 20050



B4 20M 16QAM 1@0 CH 20050



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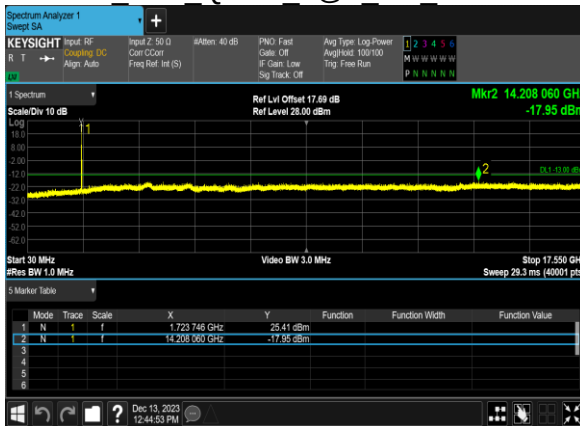
Fax: +86-755-28230886

E-mail: info@uttlab.com

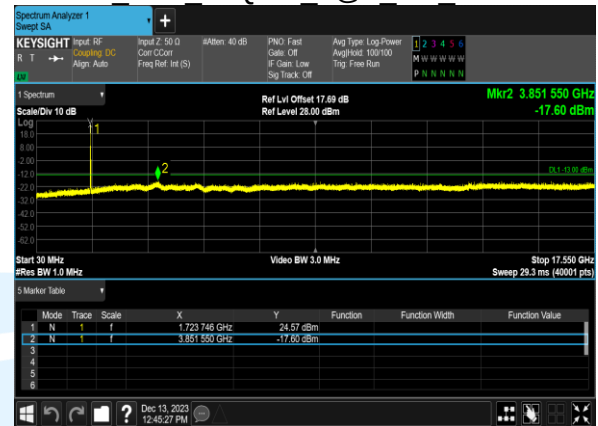
<http://www.uttlab.com>

UTTR-RF-FCC4G-V1.1

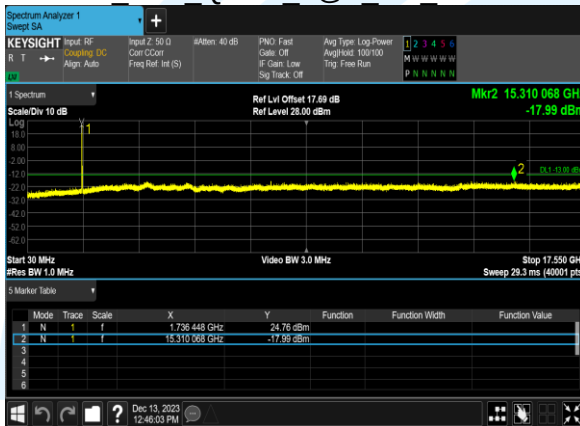
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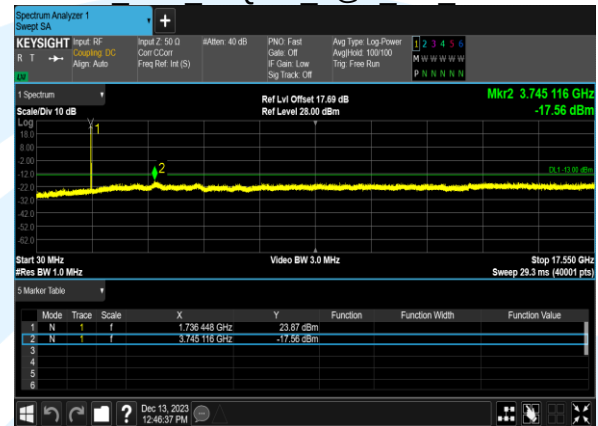
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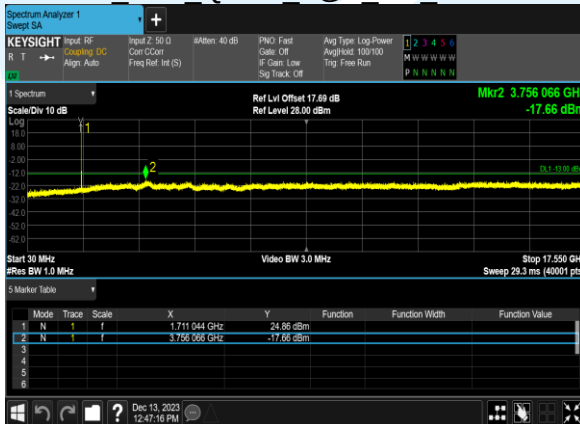
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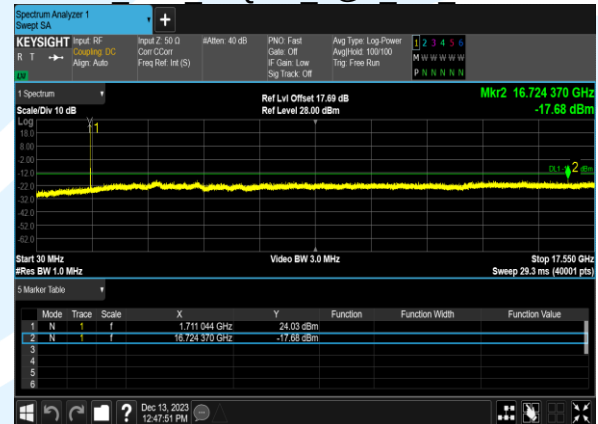
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B4_15M_16QAM_1@0_CH_2025



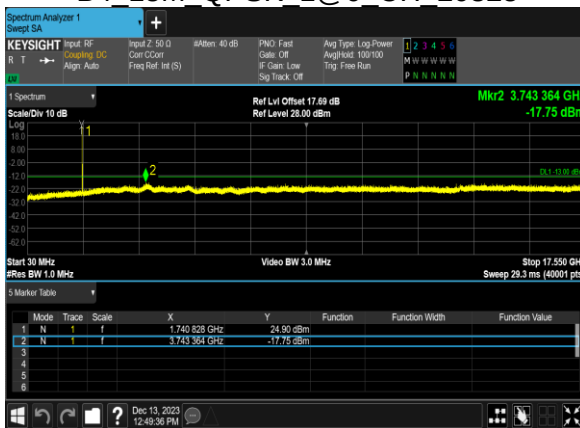
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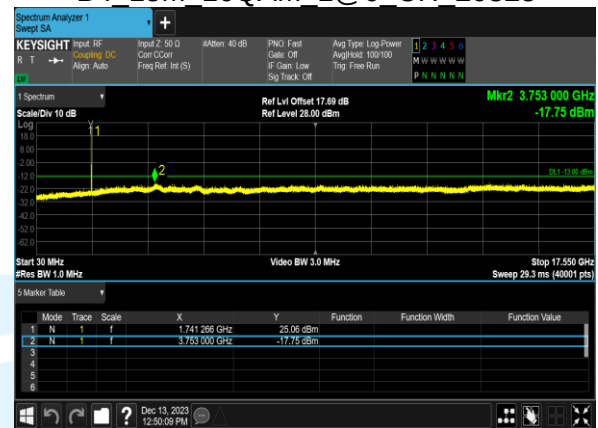
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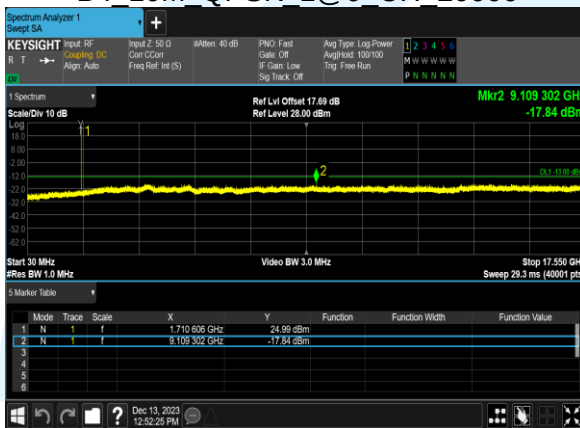
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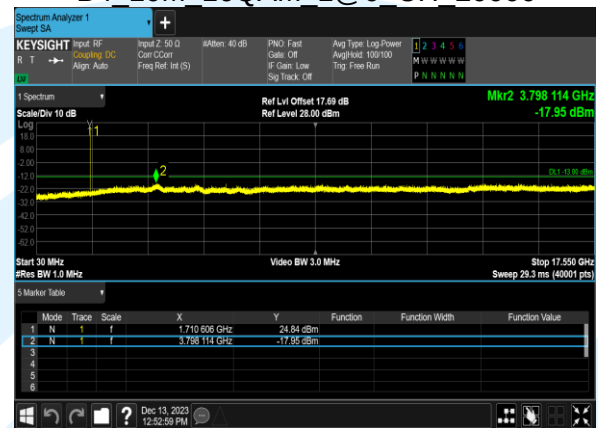
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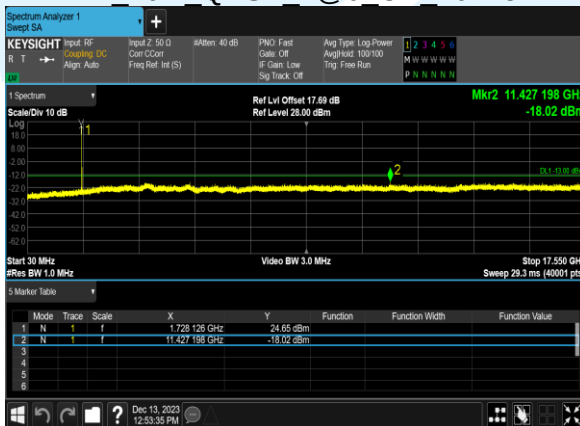
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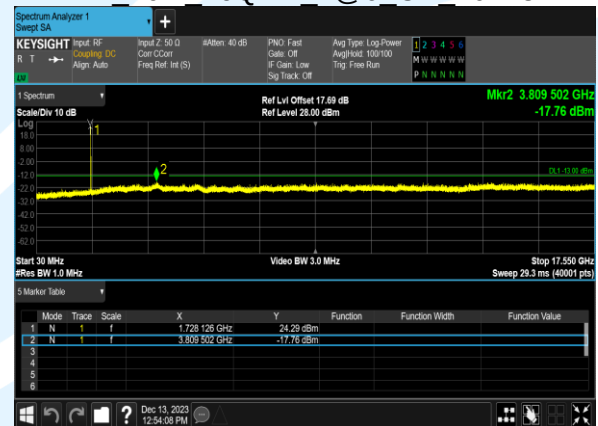
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B4_10M QPSK 1@0 CH 20175



B4_10M 16QAM 1@0 CH 20175



B4_10M QPSK 1@0 CH 20350



B4_10M 16QAM 1@0 CH 20350

