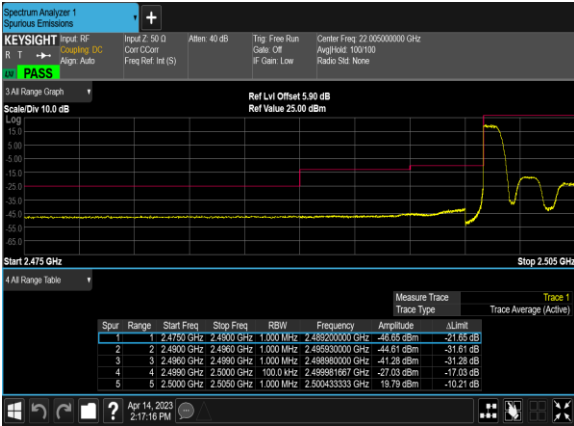
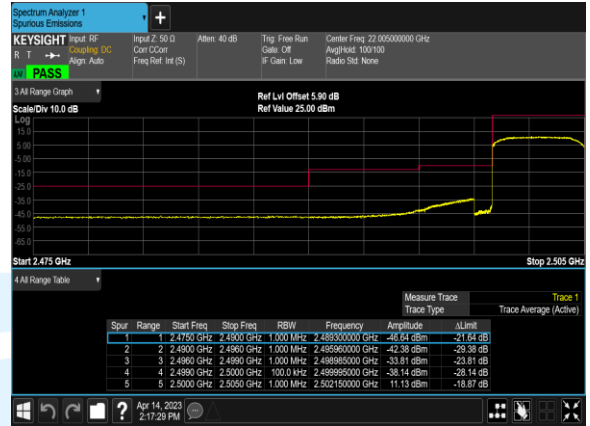


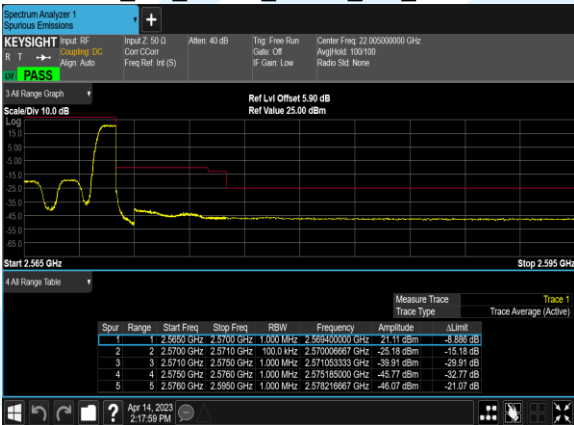
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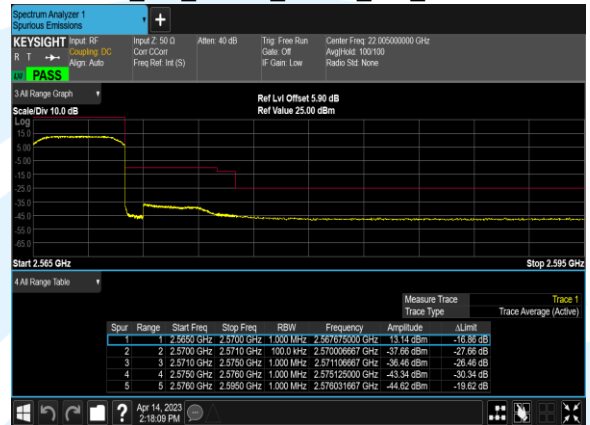
B7\_5M\_16QAM\_25@0\_CH\_20775



B7\_5M\_QPSK\_1@24\_CH\_21425



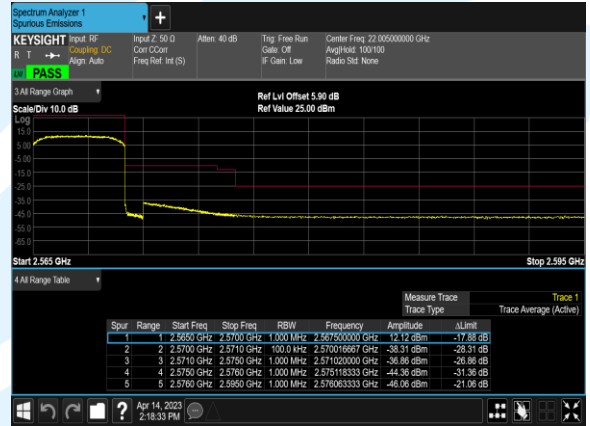
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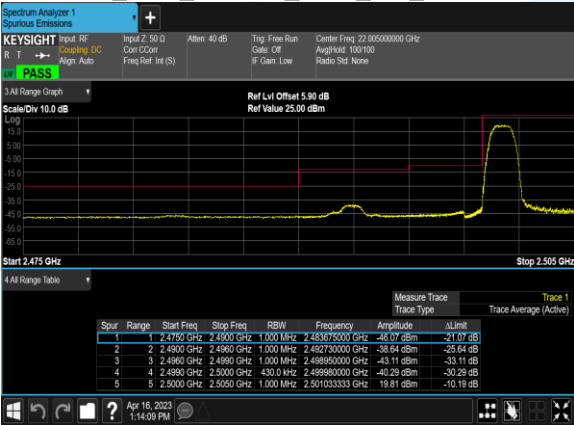
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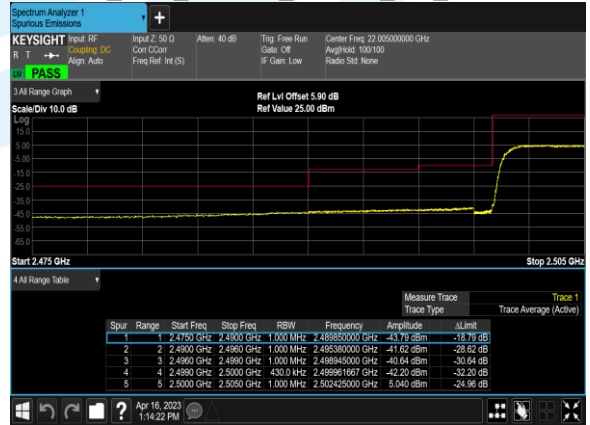
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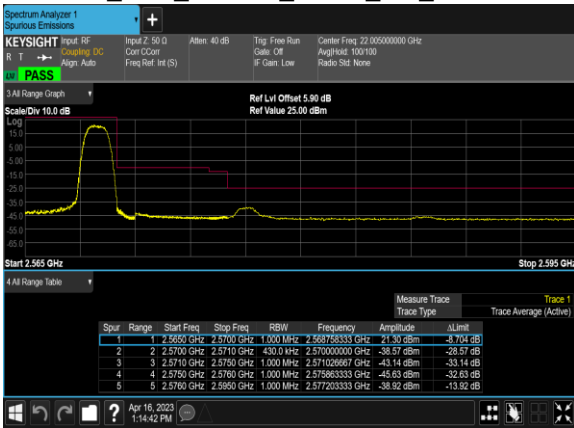
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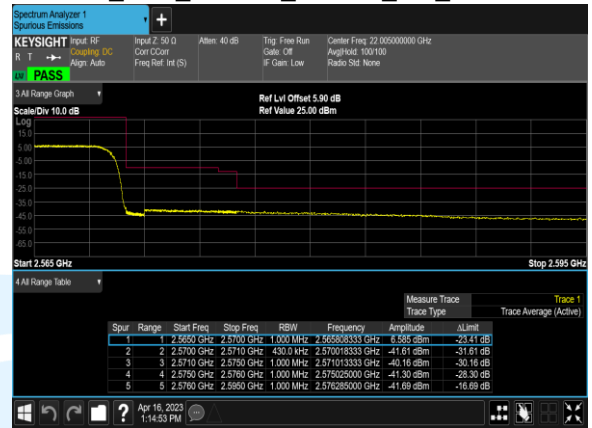
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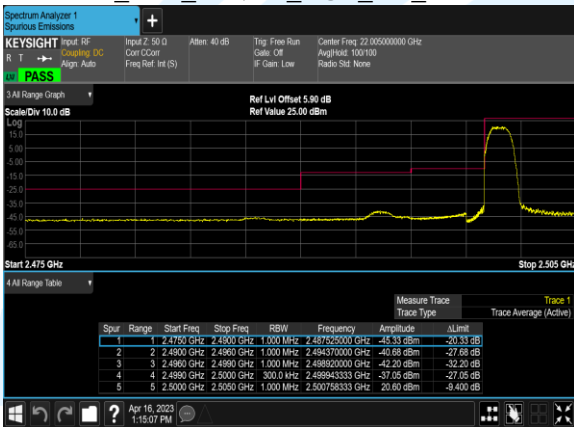
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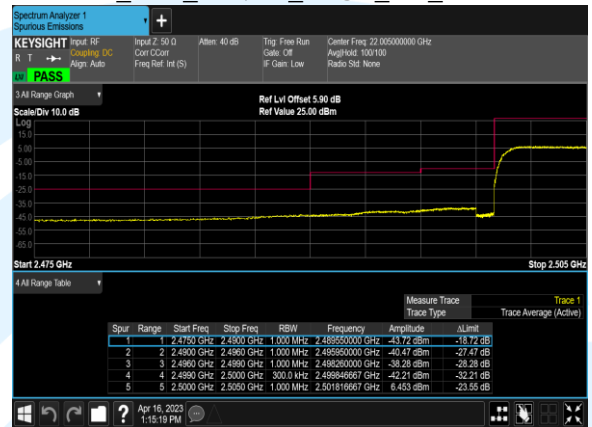
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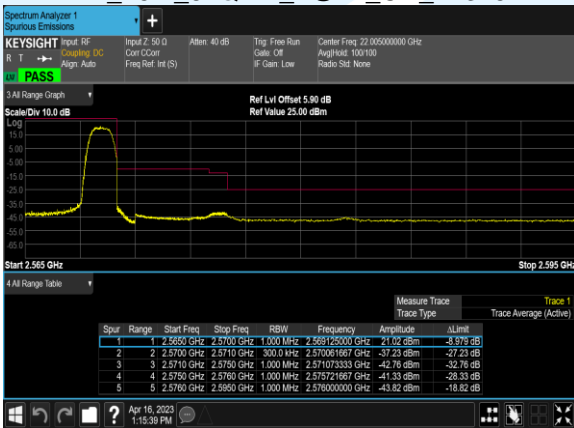
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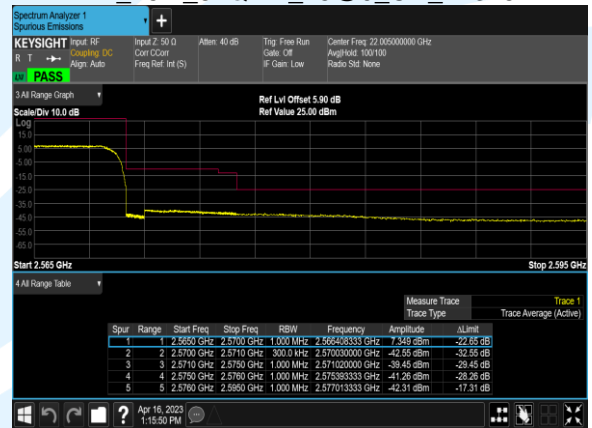
B7\_15M\_64QAM\_75@0\_CH\_20825



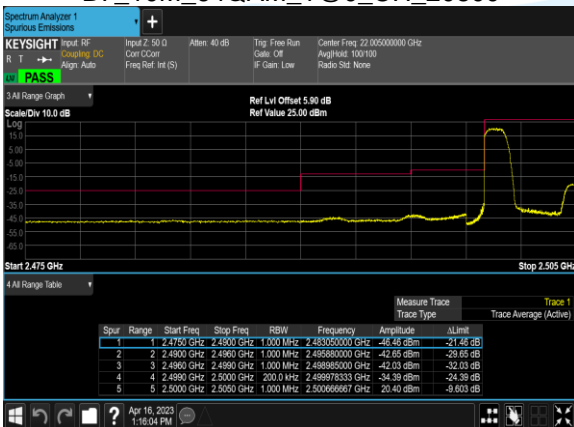
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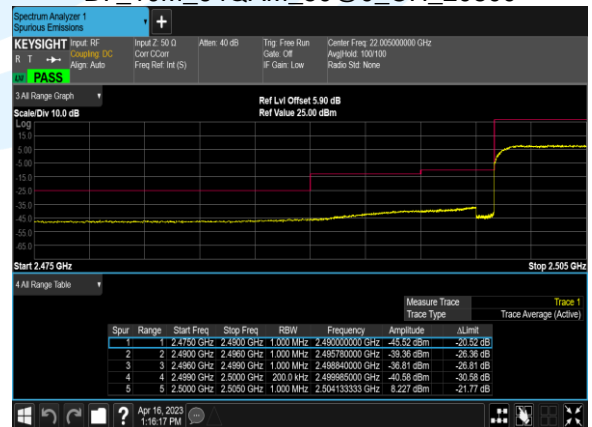
B7\_15M\_64QAM\_75@0\_CH\_21375



B7\_10M\_64QAM\_1@0\_CH\_20800



B7\_10M\_64QAM\_50@0\_CH\_20800



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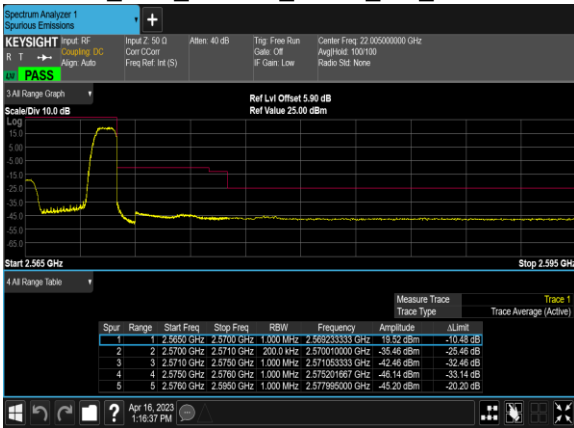
Fax: +86-755-28230886

E-mail: info@uttlab.com

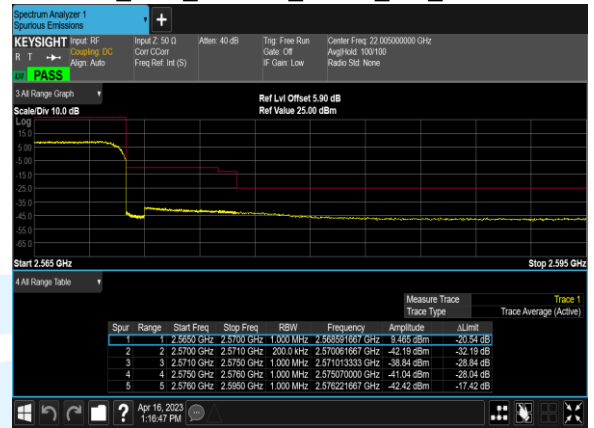
<http://www.uttlab.com>

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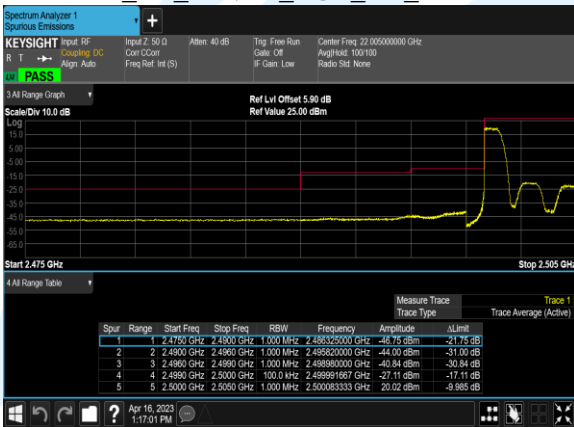
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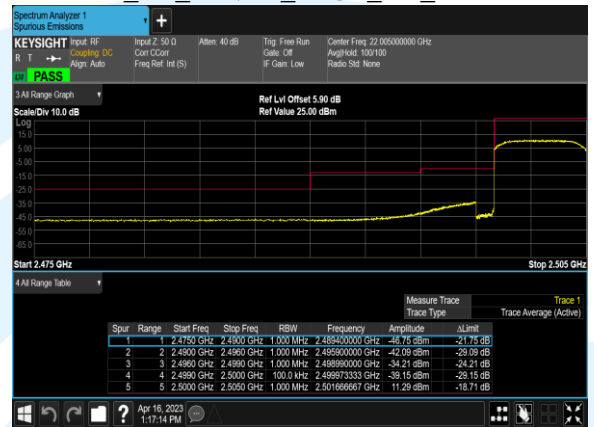
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B7\_5M\_64QAM\_1@0\_CH\_20775



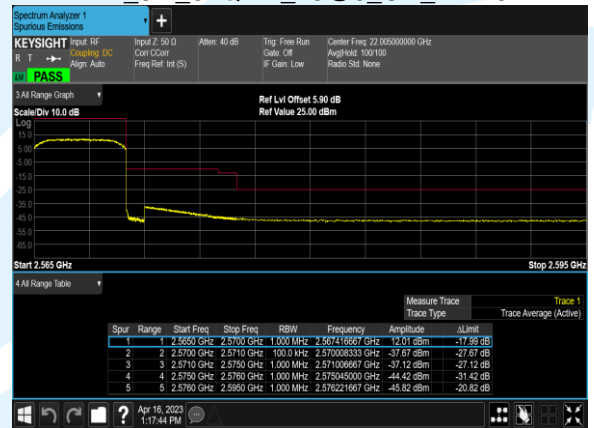
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B7\_5M\_64QAM\_1@24\_CH\_21425



B7\_5M\_64QAM\_25@0\_CH\_21425



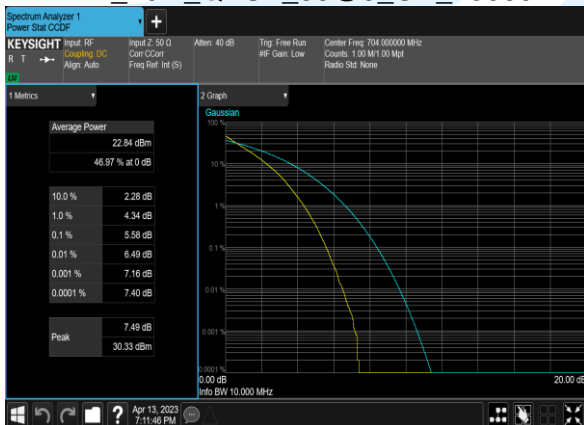
### A.5 LTE BAND 12

#### Peak to Average Ratio

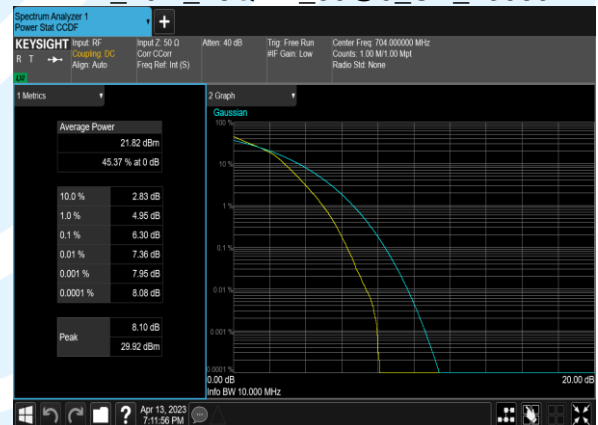
Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Result (dB)	Limit (dB)	Verdict
12	10.0	23060	704.0	QPSK	50@0	5.58	13	PASS
12	10.0	23060	704.0	16QAM	50@0	6.30	13	PASS
12	10.0	23095	707.5	QPSK	50@0	5.61	13	PASS
12	10.0	23095	707.5	16QAM	50@0	6.35	13	PASS
12	10.0	23130	711.0	QPSK	50@0	5.74	13	PASS
12	10.0	23130	711.0	16QAM	50@0	6.39	13	PASS
12	5.0	23035	701.5	QPSK	25@0	5.59	13	PASS
12	5.0	23035	701.5	16QAM	25@0	6.24	13	PASS
12	5.0	23095	707.5	QPSK	25@0	5.66	13	PASS
12	5.0	23095	707.5	16QAM	25@0	6.29	13	PASS
12	5.0	23155	713.5	QPSK	25@0	5.66	13	PASS
12	5.0	23155	713.5	16QAM	25@0	6.32	13	PASS
12	3.0	23025	700.5	QPSK	15@0	5.64	13	PASS
12	3.0	23025	700.5	16QAM	15@0	6.35	13	PASS
12	3.0	23095	707.5	QPSK	15@0	5.57	13	PASS
12	3.0	23095	707.5	16QAM	15@0	6.39	13	PASS
12	3.0	23165	714.5	QPSK	15@0	5.68	13	PASS
12	3.0	23165	714.5	16QAM	15@0	6.36	13	PASS
12	1.4	23017	699.7	QPSK	6@0	5.61	13	PASS
12	1.4	23017	699.7	16QAM	6@0	6.33	13	PASS
12	1.4	23095	707.5	QPSK	6@0	5.65	13	PASS
12	1.4	23095	707.5	16QAM	6@0	6.41	13	PASS
12	1.4	23173	715.3	QPSK	6@0	5.61	13	PASS
12	1.4	23173	715.3	16QAM	6@0	6.37	13	PASS
12	10.0	23060	704.0	64QAM	50@0	6.29	13	PASS
12	10.0	23095	707.5	64QAM	50@0	6.35	13	PASS
12	10.0	23130	711.0	64QAM	50@0	6.41	13	PASS
12	5.0	23035	701.5	64QAM	25@0	6.24	13	PASS
12	5.0	23095	707.5	64QAM	25@0	6.29	13	PASS
12	5.0	23155	713.5	64QAM	25@0	6.33	13	PASS
12	3.0	23025	700.5	64QAM	15@0	6.33	13	PASS
12	3.0	23095	707.5	64QAM	15@0	6.38	13	PASS
12	3.0	23165	714.5	64QAM	15@0	6.39	13	PASS
12	1.4	23017	699.7	64QAM	6@0	6.28	13	PASS
12	1.4	23095	707.5	64QAM	6@0	6.42	13	PASS
12	1.4	23173	715.3	64QAM	6@0	6.36	13	PASS

#### Test Graphs

B12\_10M\_QPSK\_50@0\_CH\_23060



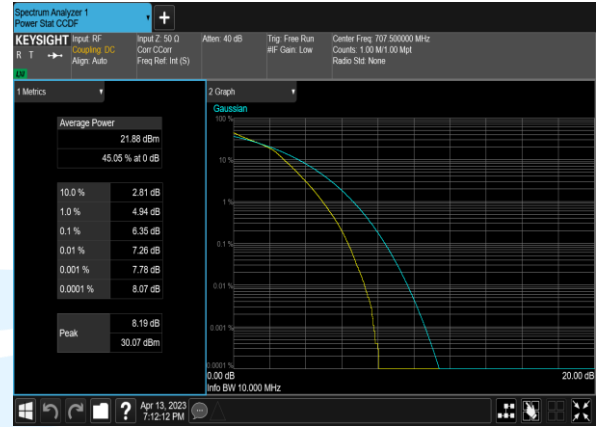
B12\_10M\_16QAM\_50@0\_CH\_23060



B12\_10M\_QPSK\_50@0\_CH\_23095



B12\_10M\_16QAM\_50@0\_CH\_23095



B12\_10M\_QPSK\_50@0\_CH\_23130



B12\_10M\_16QAM\_50@0\_CH\_23130



B12\_5M\_QPSK\_25@0\_CH\_23035



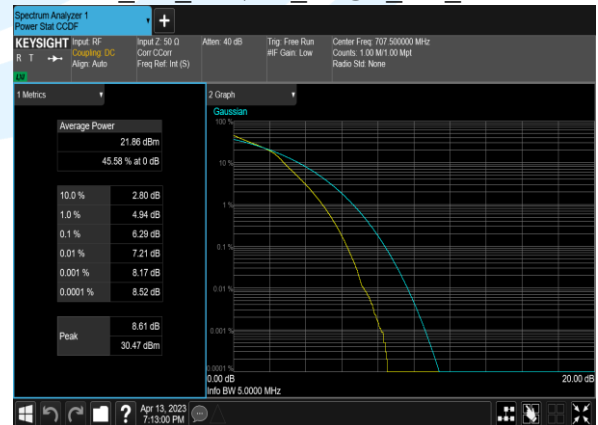
B12\_5M\_16QAM\_25@0\_CH\_23035



B12\_5M\_QPSK\_25@0\_CH\_23095



B12\_5M\_16QAM\_25@0\_CH\_23095



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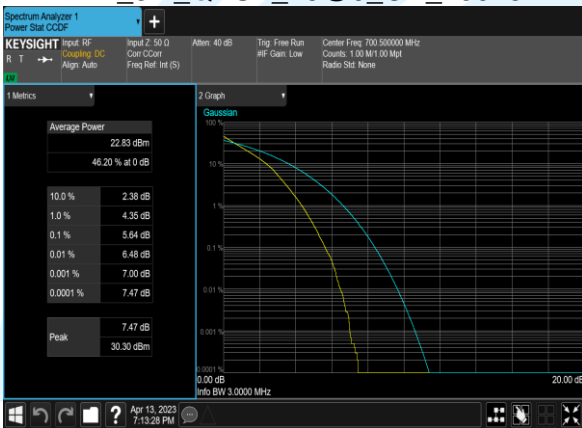
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B12\_5M\_16QAM\_25@0\_CH\_23155



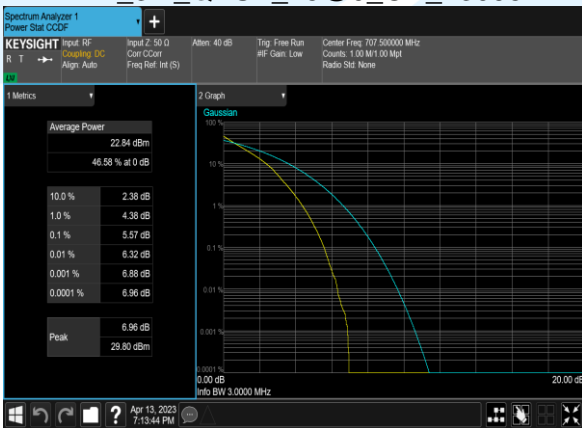
B12\_3M\_QPSK\_15@0\_CH\_23025



B12\_3M\_16QAM\_15@0\_CH\_23025



B12\_3M\_QPSK\_15@0\_CH\_23095



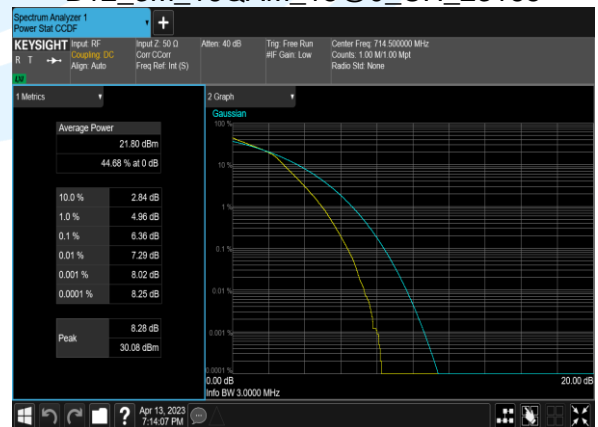
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B12\_3M\_QPSK\_15@0\_CH\_23165



B12\_3M\_16QAM\_15@0\_CH\_23165



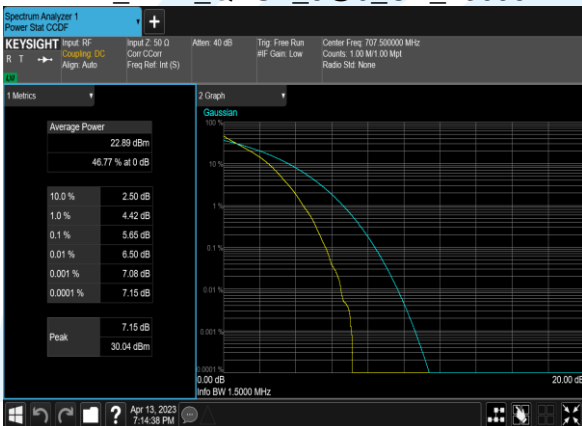
B12\_1.4M\_QPSK\_6@0\_CH\_23017



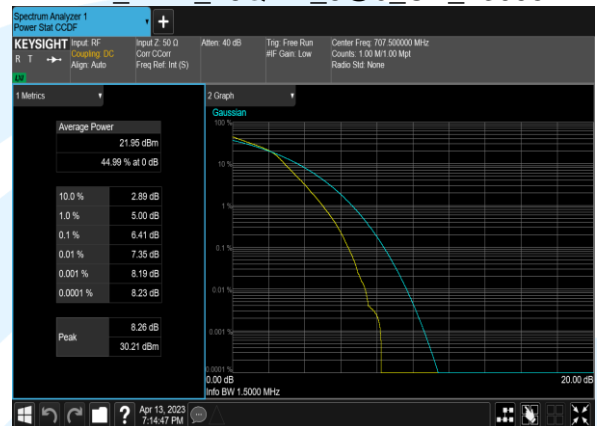
B12\_1.4M\_16QAM\_6@0\_CH\_23017



B12\_1.4M\_QPSK\_6@0\_CH\_23095



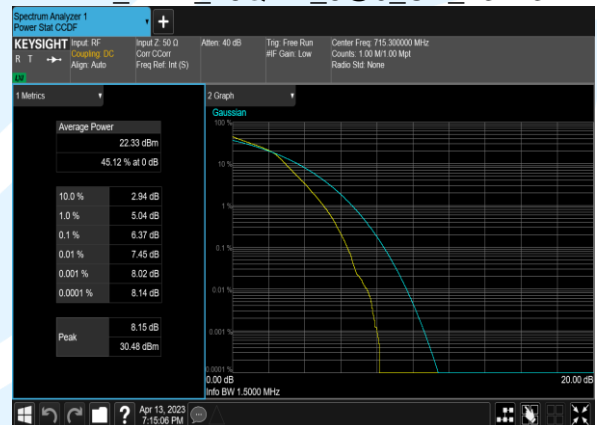
B12\_1.4M\_16QAM\_6@0\_CH\_23095



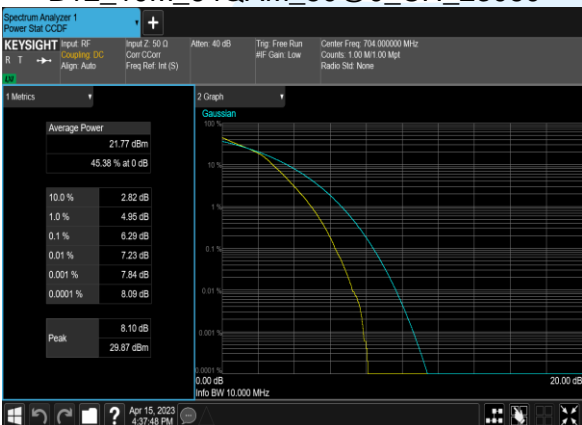
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B12\_1.4M\_16QAM\_6@0\_CH\_23173



B12\_10M\_64QAM\_50@0\_CH\_23060



B12\_10M\_64QAM\_50@0\_CH\_23095



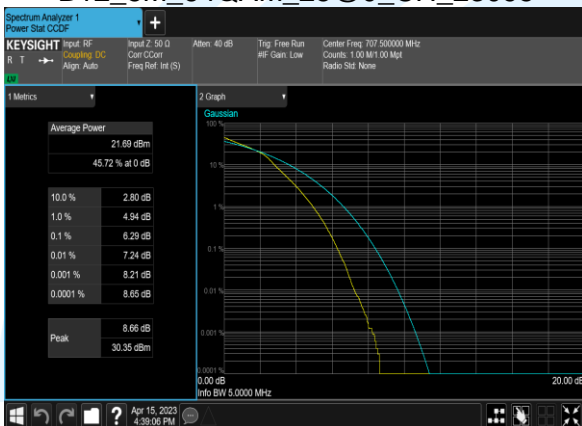
B12\_10M\_64QAM\_50@0\_CH\_23130



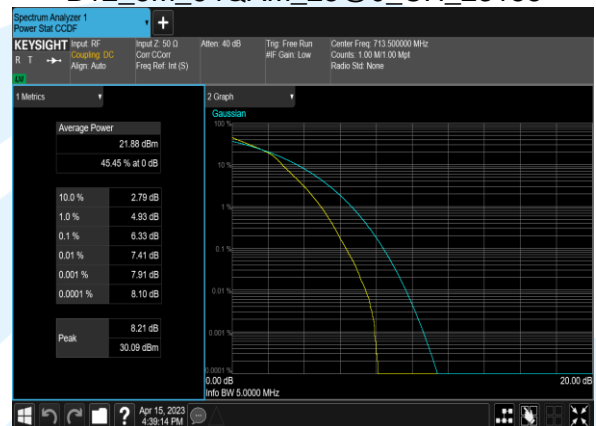
B12\_5M\_64QAM\_25@0\_CH\_23035



B12\_5M\_64QAM\_25@0\_CH\_23095



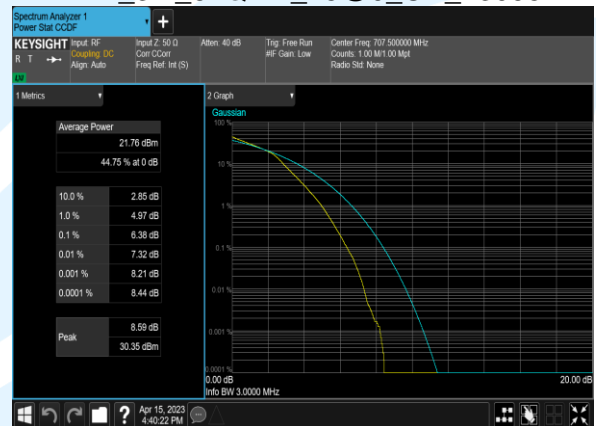
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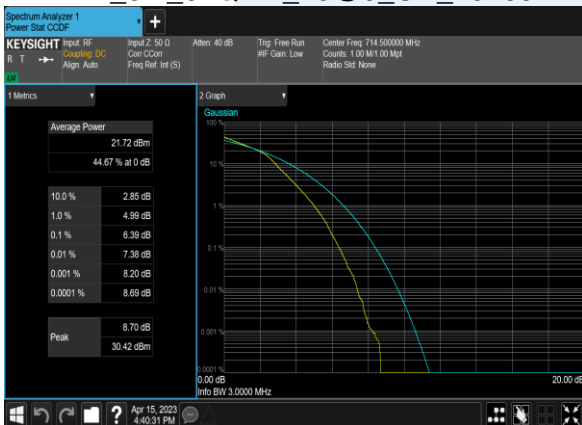
B12\_3M\_64QAM\_15@0\_CH\_23025



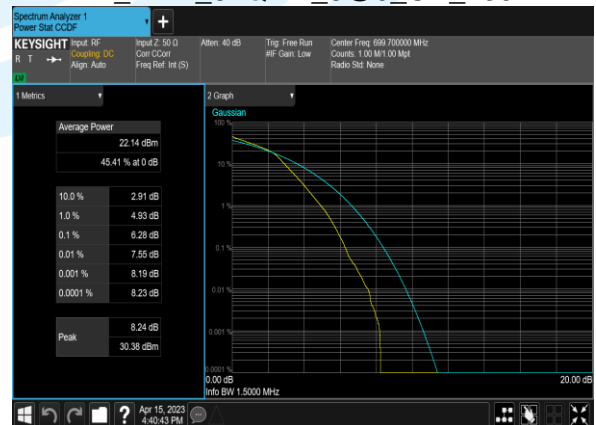
B12\_3M\_64QAM\_15@0\_CH\_23095



B12\_3M\_64QAM\_15@0\_CH\_23165



B12\_1.4M\_64QAM\_6@0\_CH\_23017

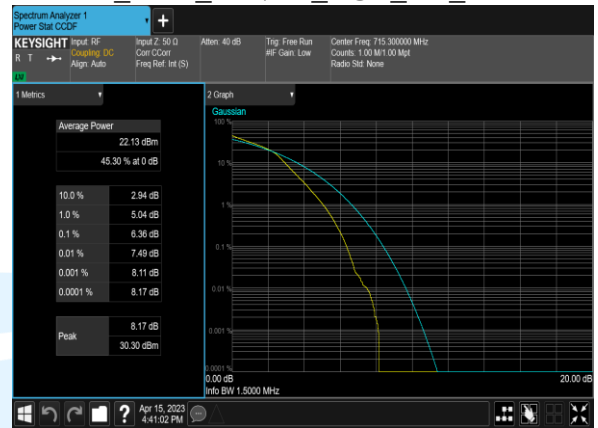




B12\_1.4M\_64QAM\_6@0\_CH\_23095



B12\_1.4M\_64QAM\_6@0\_CH\_23173



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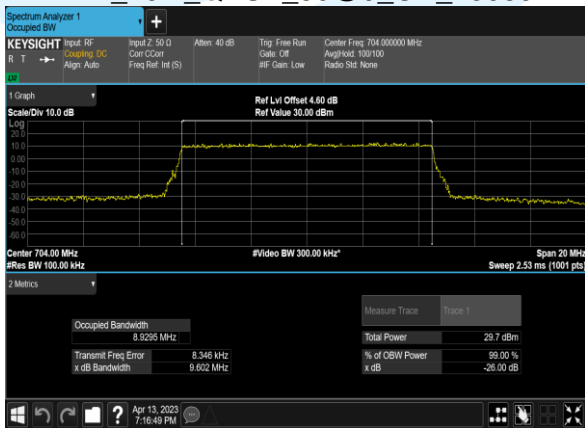
UTTR-RF-FCC4G-V1.1

## Occupied Bandwidth

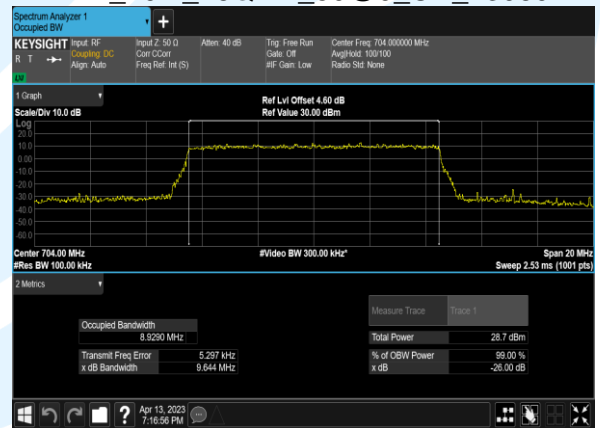
Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	OBW (MHz)	26dB BW (MHz)
12	10.0	23060	704.0	QPSK	50@0	8.9295	9.602
12	10.0	23060	704.0	16QAM	50@0	8.9290	9.644
12	10.0	23095	707.5	QPSK	50@0	8.9340	9.594
12	10.0	23095	707.5	16QAM	50@0	8.9486	9.670
12	10.0	23130	711.0	QPSK	50@0	8.9543	9.663
12	10.0	23130	711.0	16QAM	50@0	8.9453	9.674
12	5.0	23035	701.5	QPSK	25@0	4.4633	4.890
12	5.0	23035	701.5	16QAM	25@0	4.4586	4.875
12	5.0	23095	707.5	QPSK	25@0	4.4744	4.851
12	5.0	23095	707.5	16QAM	25@0	4.4669	4.860
12	5.0	23155	713.5	QPSK	25@0	4.4610	4.881
12	5.0	23155	713.5	16QAM	25@0	4.4618	4.905
12	3.0	23025	700.5	QPSK	15@0	2.6799	2.953
12	3.0	23025	700.5	16QAM	15@0	2.6773	2.970
12	3.0	23095	707.5	QPSK	15@0	2.6887	2.996
12	3.0	23095	707.5	16QAM	15@0	2.6797	2.970
12	3.0	23165	714.5	QPSK	15@0	2.6838	2.976
12	3.0	23165	714.5	16QAM	15@0	2.6903	2.983
12	1.4	23017	699.7	QPSK	6@0	1.0768	1.214
12	1.4	23017	699.7	16QAM	6@0	1.0807	1.225
12	1.4	23095	707.5	QPSK	6@0	1.0793	1.220
12	1.4	23095	707.5	16QAM	6@0	1.0754	1.216
12	1.4	23173	715.3	QPSK	6@0	1.0785	1.216
12	1.4	23173	715.3	16QAM	6@0	1.0816	1.218
12	10.0	23060	704.0	64QAM	50@0	8.9287	9.667
12	10.0	23095	707.5	64QAM	50@0	8.9344	9.715
12	10.0	23130	711.0	64QAM	50@0	8.9346	9.609
12	5.0	23035	701.5	64QAM	25@0	4.4525	4.874
12	5.0	23095	707.5	64QAM	25@0	4.4568	4.882
12	5.0	23155	713.5	64QAM	25@0	4.4548	4.898
12	3.0	23025	700.5	64QAM	15@0	2.6764	2.992
12	3.0	23095	707.5	64QAM	15@0	2.6852	2.972
12	3.0	23165	714.5	64QAM	15@0	2.6818	2.977
12	1.4	23017	699.7	64QAM	6@0	1.0766	1.213
12	1.4	23095	707.5	64QAM	6@0	1.0743	1.216
12	1.4	23173	715.3	64QAM	6@0	1.0779	1.219

## Test Graphs

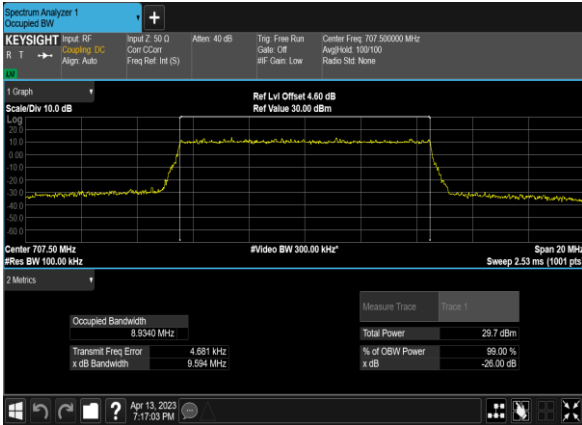
B12\_10M\_QPSK\_50@0\_CH\_23060



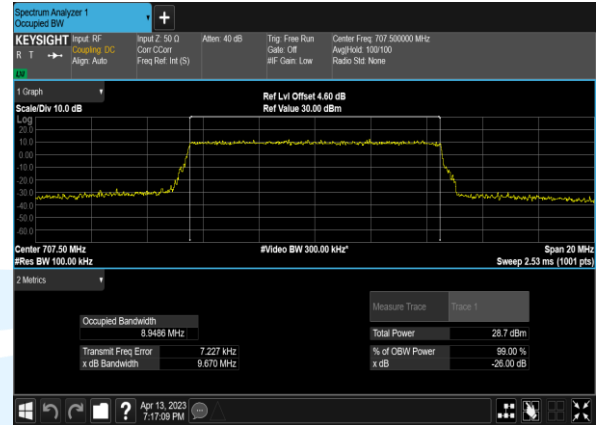
B12\_10M\_16QAM\_50@0\_CH\_23060



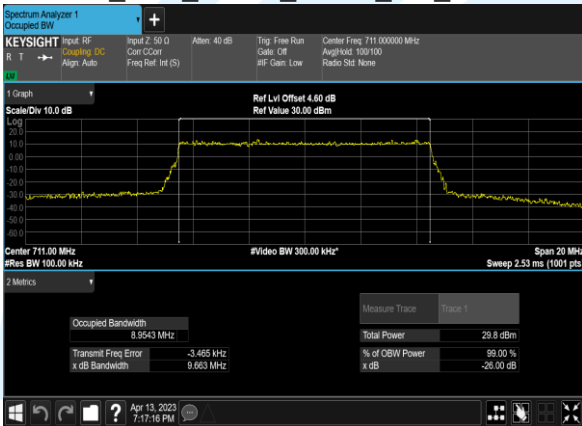
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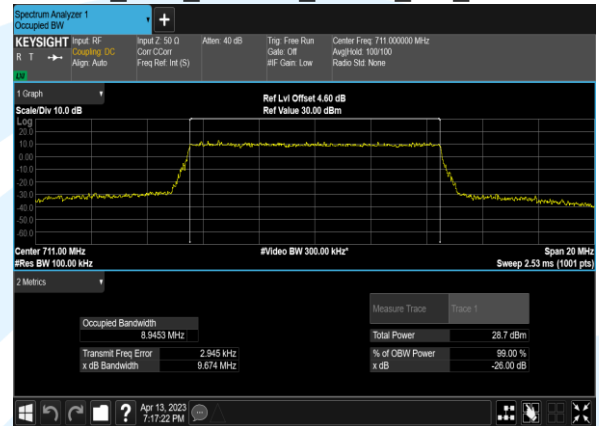
B12\_10M\_16QAM\_50@0\_CH\_23095



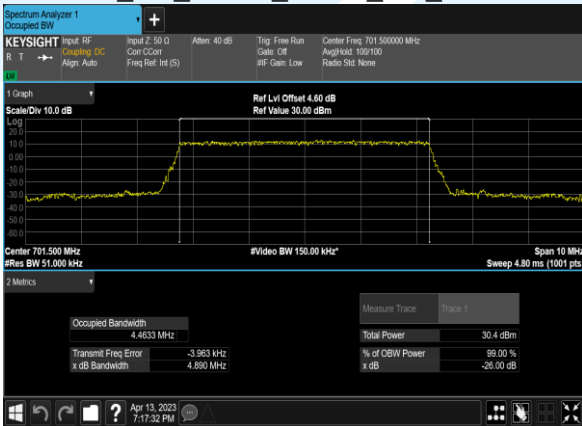
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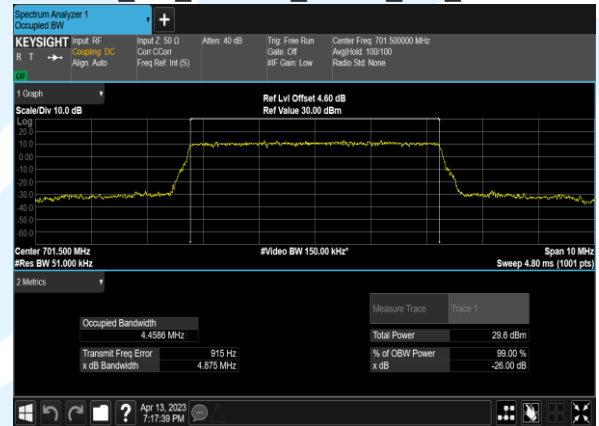
B12\_10M\_16QAM\_50@0\_CH\_23130



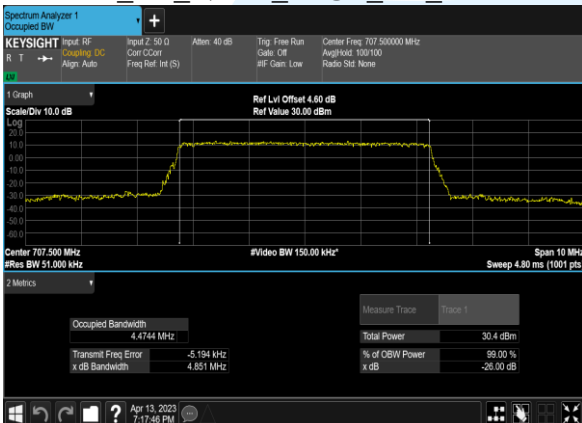
B12\_5M\_QPSK\_25@0\_CH\_23035



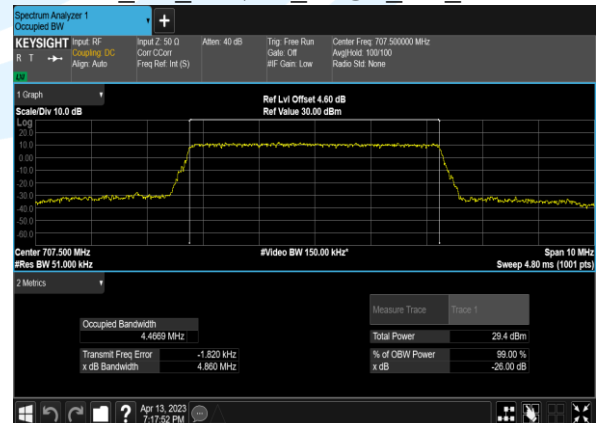
B12\_5M\_16QAM\_25@0\_CH\_23035



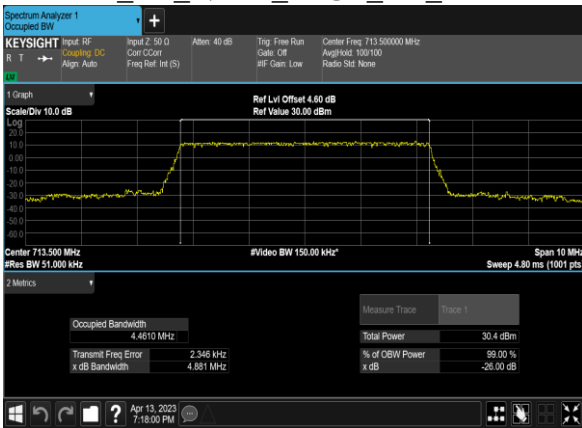
B12\_5M\_QPSK\_25@0\_CH\_23095



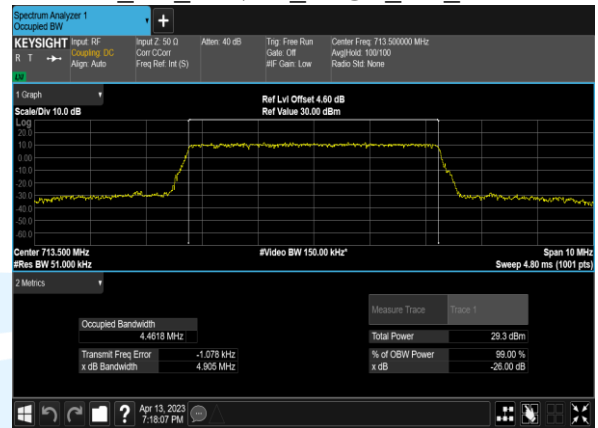
B12\_5M\_16QAM\_25@0\_CH\_23095



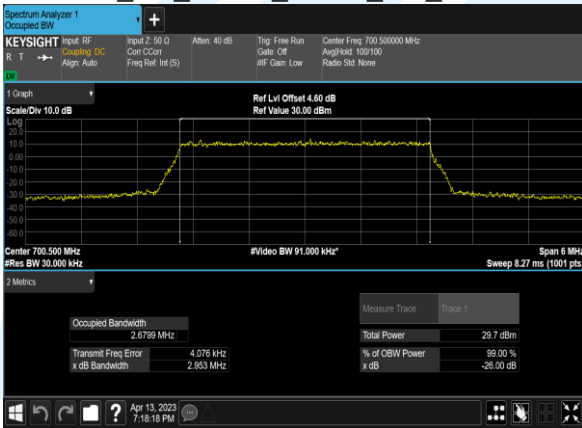
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B12\_5M\_16QAM\_25@0\_CH\_23155



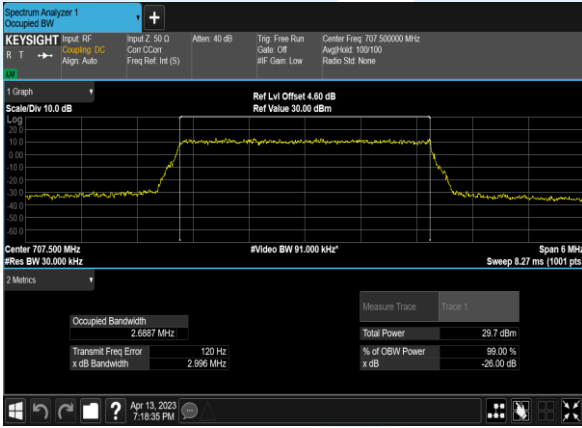
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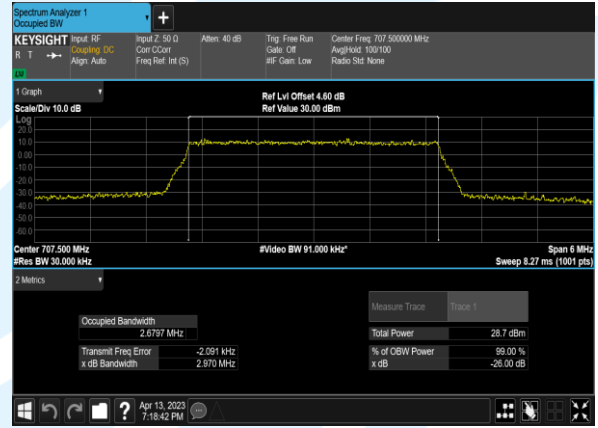
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B12\_3M\_QPSK\_15@0\_CH\_23095



B12\_3M\_16QAM\_15@0\_CH\_23095



B12\_3M\_QPSK\_15@0\_CH\_23165



B12\_3M\_16QAM\_15@0\_CH\_23165



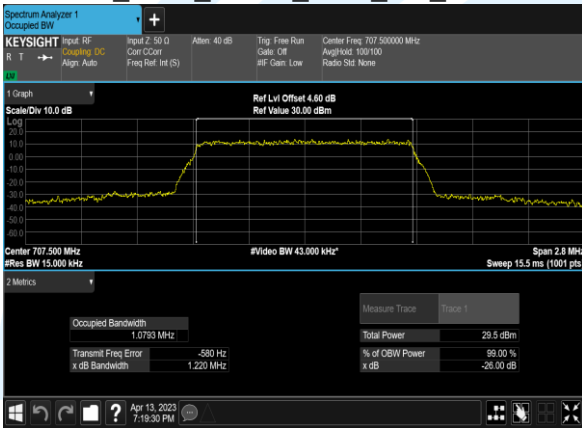
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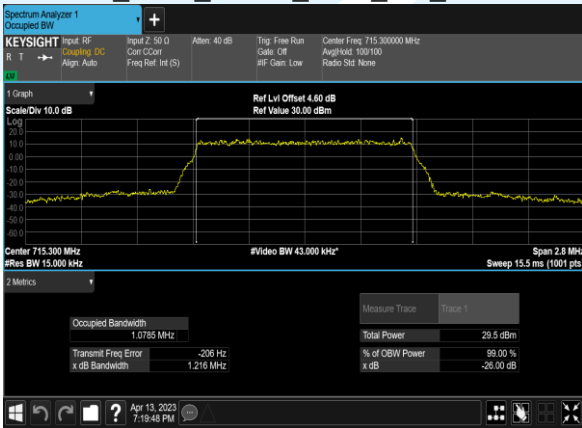
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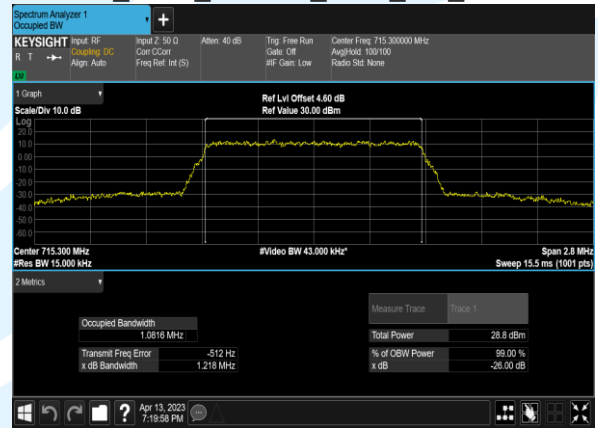
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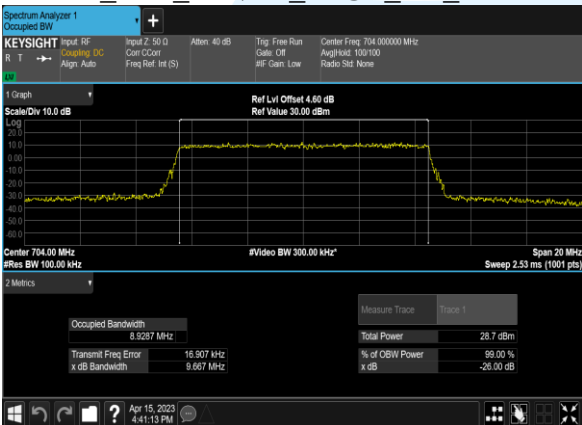
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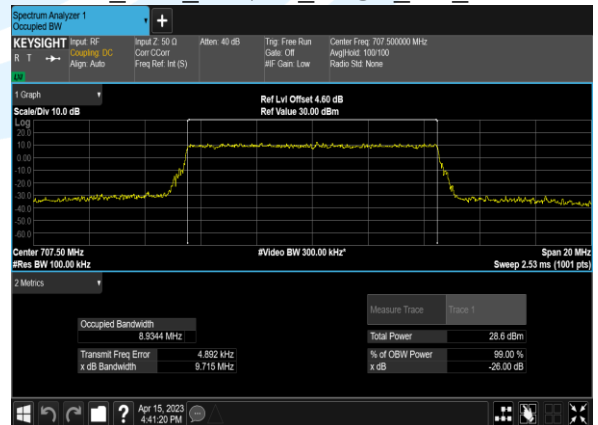
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B12\_10M\_64QAM\_50@0\_CH\_23060



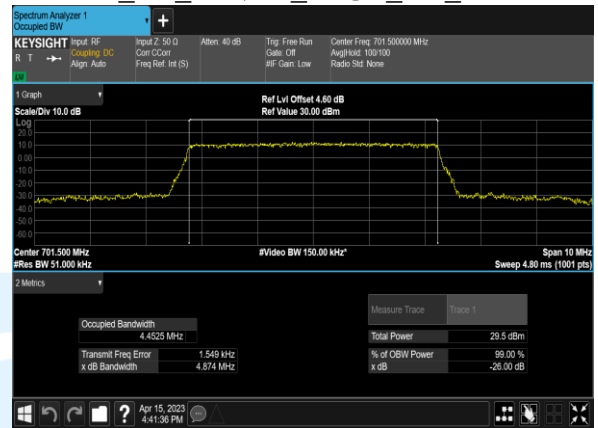
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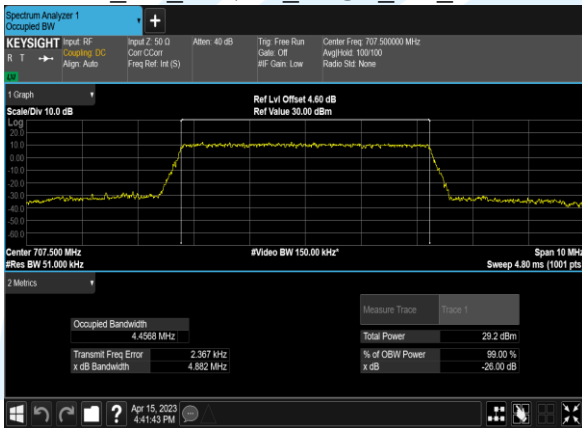
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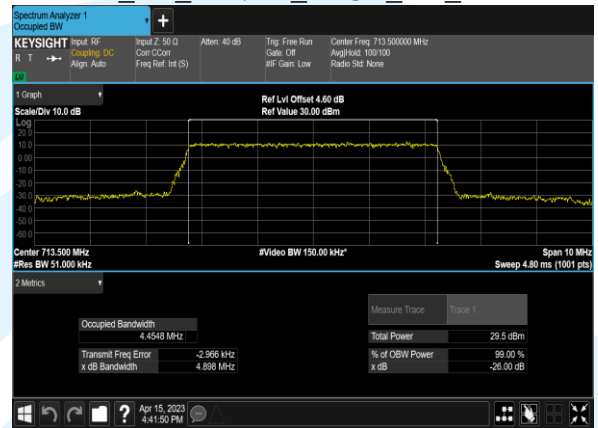
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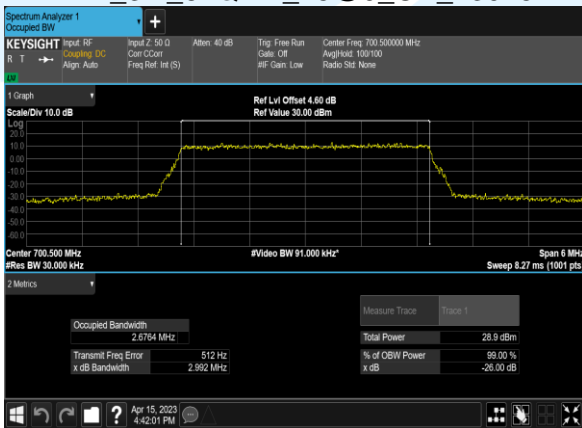
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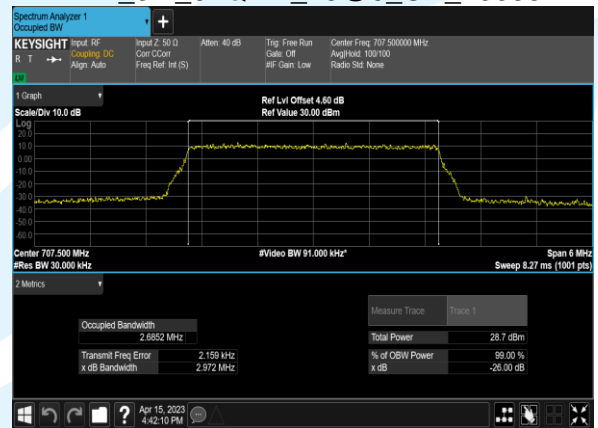
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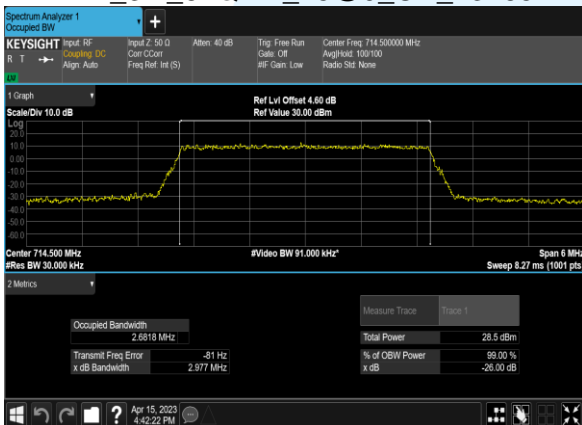
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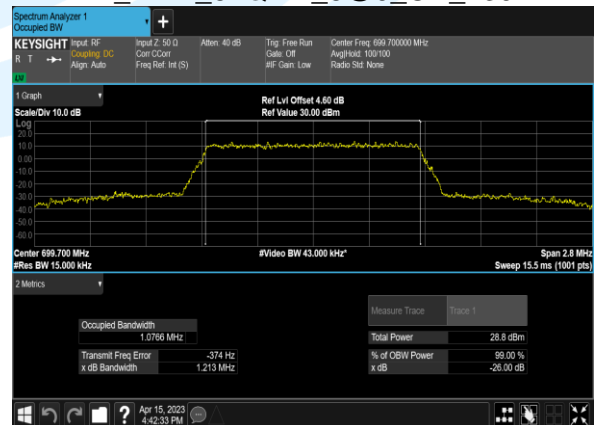
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B12\_3M\_64QAM\_15@0\_CH\_23165



B12\_1.4M\_64QAM\_6@0\_CH\_23017



B12\_1.4M\_64QAM\_6@0\_CH\_23095



B12\_1.4M\_64QAM\_6@0\_CH\_23173



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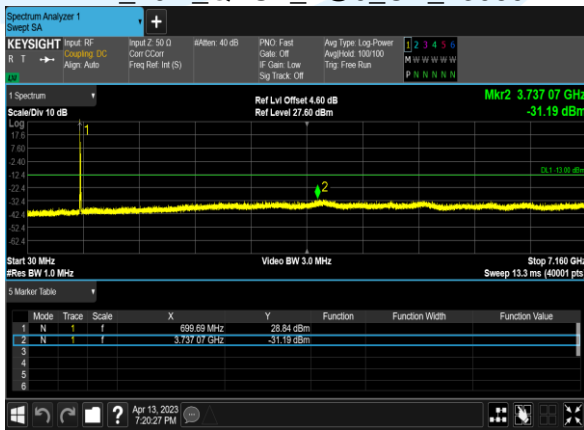
UTTR-RF-FCC4G-V1.1

**Conducted Spurious Emissions**

Band	Bandwidth (MHz)	Channel	Freq (MHz)	Modulation	RB	Result (dBm)	Limit (dBm)	Verdict
12	10.0	23060	704.0	QPSK	1@0	-31.19	-13	PASS
12	10.0	23060	704.0	16QAM	1@0	-31.73	-13	PASS
12	10.0	23095	707.5	QPSK	1@0	-30.88	-13	PASS
12	10.0	23095	707.5	16QAM	1@0	-31.25	-13	PASS
12	10.0	23130	711.0	QPSK	1@0	-31.07	-13	PASS
12	10.0	23130	711.0	16QAM	1@0	-31.25	-13	PASS
12	5.0	23035	701.5	QPSK	1@0	-30.77	-13	PASS
12	5.0	23035	701.5	16QAM	1@0	-30.8	-13	PASS
12	5.0	23095	707.5	QPSK	1@0	-31.22	-13	PASS
12	5.0	23095	707.5	16QAM	1@0	-30.01	-13	PASS
12	5.0	23155	713.5	QPSK	1@0	-30.93	-13	PASS
12	5.0	23155	713.5	16QAM	1@0	-31.09	-13	PASS
12	3.0	23025	700.5	QPSK	1@0	-31.55	-13	PASS
12	3.0	23025	700.5	16QAM	1@0	-31.3	-13	PASS
12	3.0	23095	707.5	QPSK	1@0	-31.06	-13	PASS
12	3.0	23095	707.5	16QAM	1@0	-30.66	-13	PASS
12	3.0	23165	714.5	QPSK	1@0	-31.5	-13	PASS
12	3.0	23165	714.5	16QAM	1@0	-31.23	-13	PASS
12	1.4	23017	699.7	QPSK	1@0	-31.13	-13	PASS
12	1.4	23017	699.7	16QAM	1@0	-30.95	-13	PASS
12	1.4	23095	707.5	QPSK	1@0	-31.46	-13	PASS
12	1.4	23095	707.5	16QAM	1@0	-31.0	-13	PASS
12	1.4	23173	715.3	QPSK	1@0	-29.91	-13	PASS
12	1.4	23173	715.3	16QAM	1@0	-31.14	-13	PASS
12	10.0	23060	704.0	64QAM	1@0	-30.78	-13	PASS
12	10.0	23095	707.5	64QAM	1@0	-31.2	-13	PASS
12	10.0	23130	711.0	64QAM	1@0	-31.14	-13	PASS
12	5.0	23035	701.5	64QAM	1@0	-31.26	-13	PASS
12	5.0	23095	707.5	64QAM	1@0	-31.05	-13	PASS
12	5.0	23155	713.5	64QAM	1@0	-31.1	-13	PASS
12	3.0	23025	700.5	64QAM	1@0	-31.38	-13	PASS
12	3.0	23095	707.5	64QAM	1@0	-30.3	-13	PASS
12	3.0	23165	714.5	64QAM	1@0	-31.28	-13	PASS
12	1.4	23017	699.7	64QAM	1@0	-31.3	-13	PASS
12	1.4	23095	707.5	64QAM	1@0	-31.52	-13	PASS
12	1.4	23173	715.3	64QAM	1@0	-31.58	-13	PASS

**Test Graphs**

B12\_10M\_QPSK\_1@0\_CH\_23060



B12\_10M\_16QAM\_1@0\_CH\_23060

