

## Appendix for Band 5

Product Name: 4G Vehicle GPS Tracker

Model No: JM-VL01

### Appendix A: Average Power Output Data

#### Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	23.36	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.34	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.32	PASS
Band5	1.4MHz	QPSK	20407	3RB#0	23.36	PASS
Band5	1.4MHz	QPSK	20407	3RB#1	23.36	PASS
Band5	1.4MHz	QPSK	20407	3RB#3	23.27	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.19	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.26	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.34	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.24	PASS
Band5	1.4MHz	QPSK	20525	3RB#0	23.33	PASS
Band5	1.4MHz	QPSK	20525	3RB#1	23.30	PASS
Band5	1.4MHz	QPSK	20525	3RB#3	23.32	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.15	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.39	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	23.39	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	23.34	PASS
Band5	1.4MHz	QPSK	20643	3RB#0	23.43	PASS
Band5	1.4MHz	QPSK	20643	3RB#1	23.47	PASS
Band5	1.4MHz	QPSK	20643	3RB#3	23.43	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	22.36	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.83	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.76	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.87	PASS
Band5	1.4MHz	16QAM	20407	3RB#0	22.10	PASS

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Band5	1.4MHz	16QAM	20407	3RB#1	22.09	PASS
Band5	1.4MHz	16QAM	20407	3RB#3	22.12	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.41	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.72	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.73	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.69	PASS
Band5	1.4MHz	16QAM	20525	3RB#0	22.04	PASS
Band5	1.4MHz	16QAM	20525	3RB#1	22.00	PASS
Band5	1.4MHz	16QAM	20525	3RB#3	22.04	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.46	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.90	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	22.86	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.83	PASS
Band5	1.4MHz	16QAM	20643	3RB#0	22.27	PASS
Band5	1.4MHz	16QAM	20643	3RB#1	22.25	PASS
Band5	1.4MHz	16QAM	20643	3RB#3	22.22	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.64	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.33	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.20	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.34	PASS
Band5	3MHz	QPSK	20415	8RB#0	22.26	PASS
Band5	3MHz	QPSK	20415	8RB#4	22.26	PASS
Band5	3MHz	QPSK	20415	8RB#7	22.32	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.26	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.16	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.10	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.17	PASS
Band5	3MHz	QPSK	20525	8RB#0	22.27	PASS
Band5	3MHz	QPSK	20525	8RB#4	22.27	PASS
Band5	3MHz	QPSK	20525	8RB#7	22.24	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.24	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.38	PASS
Band5	3MHz	QPSK	20635	1RB#8	23.29	PASS
Band5	3MHz	QPSK	20635	1RB#14	23.37	PASS
Band5	3MHz	QPSK	20635	8RB#0	22.43	PASS
Band5	3MHz	QPSK	20635	8RB#4	22.44	PASS
Band5	3MHz	QPSK	20635	8RB#7	22.48	PASS

Band5	3MHz	QPSK	20635	15RB#0	22.40	PASS
Band5	3MHz	16QAM	20415	1RB#0	21.81	PASS
Band5	3MHz	16QAM	20415	1RB#8	21.67	PASS
Band5	3MHz	16QAM	20415	1RB#14	21.64	PASS
Band5	3MHz	16QAM	20415	8RB#0	21.34	PASS
Band5	3MHz	16QAM	20415	8RB#4	21.28	PASS
Band5	3MHz	16QAM	20415	8RB#7	21.49	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.00	PASS
Band5	3MHz	16QAM	20525	1RB#0	21.87	PASS
Band5	3MHz	16QAM	20525	1RB#8	21.78	PASS
Band5	3MHz	16QAM	20525	1RB#14	21.85	PASS
Band5	3MHz	16QAM	20525	8RB#0	21.43	PASS
Band5	3MHz	16QAM	20525	8RB#4	21.42	PASS
Band5	3MHz	16QAM	20525	8RB#7	21.39	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.25	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.54	PASS
Band5	3MHz	16QAM	20635	1RB#8	22.63	PASS
Band5	3MHz	16QAM	20635	1RB#14	22.48	PASS
Band5	3MHz	16QAM	20635	8RB#0	21.51	PASS
Band5	3MHz	16QAM	20635	8RB#4	21.51	PASS
Band5	3MHz	16QAM	20635	8RB#7	21.71	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.32	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.26	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.34	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.32	PASS
Band5	5MHz	QPSK	20425	12RB#0	22.18	PASS
Band5	5MHz	QPSK	20425	12RB#6	22.19	PASS
Band5	5MHz	QPSK	20425	12RB#13	22.32	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.41	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.36	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.31	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.42	PASS
Band5	5MHz	QPSK	20525	12RB#0	22.19	PASS
Band5	5MHz	QPSK	20525	12RB#6	22.19	PASS
Band5	5MHz	QPSK	20525	12RB#13	22.28	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.17	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.59	PASS

Band5	5MHz	QPSK	20625	1RB#12	23.55	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.61	PASS
Band5	5MHz	QPSK	20625	12RB#0	22.50	PASS
Band5	5MHz	QPSK	20625	12RB#6	22.50	PASS
Band5	5MHz	QPSK	20625	12RB#13	22.52	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.42	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.29	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.34	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.23	PASS
Band5	5MHz	16QAM	20425	12RB#0	21.33	PASS
Band5	5MHz	16QAM	20425	12RB#6	21.33	PASS
Band5	5MHz	16QAM	20425	12RB#13	21.35	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.33	PASS
Band5	5MHz	16QAM	20525	1RB#0	21.62	PASS
Band5	5MHz	16QAM	20525	1RB#12	21.67	PASS
Band5	5MHz	16QAM	20525	1RB#24	21.74	PASS
Band5	5MHz	16QAM	20525	12RB#0	21.20	PASS
Band5	5MHz	16QAM	20525	12RB#6	21.16	PASS
Band5	5MHz	16QAM	20525	12RB#13	21.29	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.33	PASS
Band5	5MHz	16QAM	20625	1RB#0	21.97	PASS
Band5	5MHz	16QAM	20625	1RB#12	21.91	PASS
Band5	5MHz	16QAM	20625	1RB#24	21.89	PASS
Band5	5MHz	16QAM	20625	12RB#0	21.41	PASS
Band5	5MHz	16QAM	20625	12RB#6	21.39	PASS
Band5	5MHz	16QAM	20625	12RB#13	21.37	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.49	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.33	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.31	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.34	PASS
Band5	10MHz	QPSK	20450	25RB#0	22.30	PASS
Band5	10MHz	QPSK	20450	25RB#12	22.36	PASS
Band5	10MHz	QPSK	20450	25RB#25	22.19	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.16	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.35	PASS
Band5	10MHz	QPSK	20525	1RB#24	23.34	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.42	PASS

Band5	10MHz	QPSK	20525	25RB#0	22.22	PASS
Band5	10MHz	QPSK	20525	25RB#12	22.22	PASS
Band5	10MHz	QPSK	20525	25RB#25	22.44	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.32	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.49	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.39	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.46	PASS
Band5	10MHz	QPSK	20600	25RB#0	22.48	PASS
Band5	10MHz	QPSK	20600	25RB#12	22.44	PASS
Band5	10MHz	QPSK	20600	25RB#25	22.51	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.48	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.18	PASS
Band5	10MHz	16QAM	20450	1RB#24	22.05	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.06	PASS
Band5	10MHz	16QAM	20450	25RB#0	21.47	PASS
Band5	10MHz	16QAM	20450	25RB#12	21.47	PASS
Band5	10MHz	16QAM	20450	25RB#25	21.31	PASS
Band5	10MHz	16QAM	20450	50RB#0	21.31	PASS
Band5	10MHz	16QAM	20525	1RB#0	22.31	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.31	PASS
Band5	10MHz	16QAM	20525	1RB#49	22.46	PASS
Band5	10MHz	16QAM	20525	25RB#0	21.29	PASS
Band5	10MHz	16QAM	20525	25RB#12	21.31	PASS
Band5	10MHz	16QAM	20525	25RB#25	21.28	PASS
Band5	10MHz	16QAM	20525	50RB#0	21.20	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.09	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.13	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.19	PASS
Band5	10MHz	16QAM	20600	25RB#0	21.27	PASS
Band5	10MHz	16QAM	20600	25RB#12	21.32	PASS
Band5	10MHz	16QAM	20600	25RB#25	21.32	PASS
Band5	10MHz	16QAM	20600	50RB#0	21.29	PASS

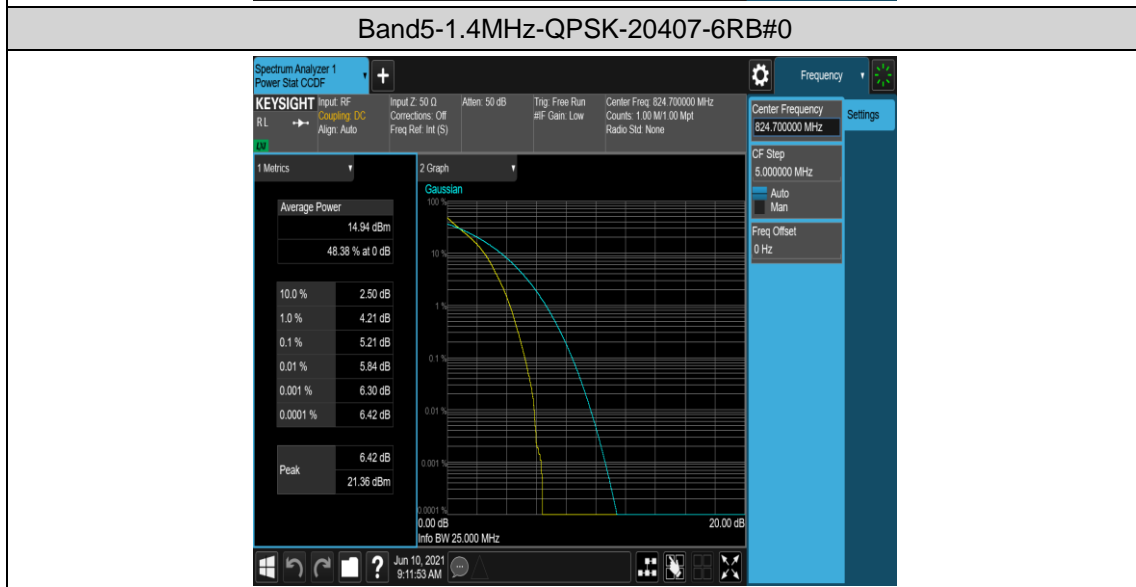
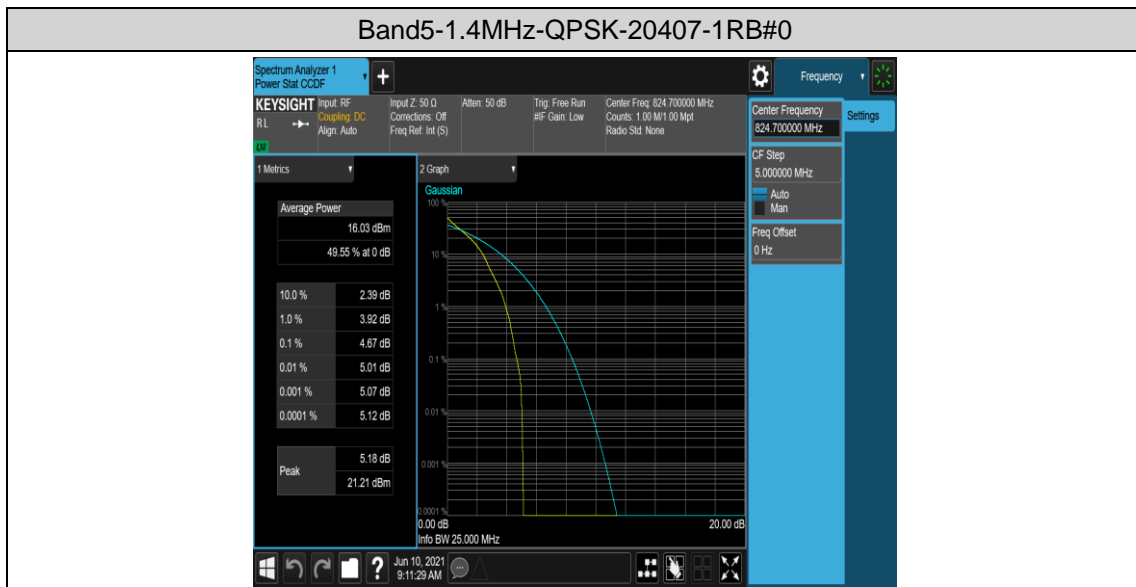
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	4.67	13	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	5.21	13	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	5.26	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	5.59	13	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	4.61	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	5.23	13	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	5.61	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	6.01	13	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	6.33	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	6.29	13	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	5.73	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	5.92	13	PASS
Band5	3MHz	QPSK	20415	1RB#0	4.82	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	5.23	13	PASS
Band5	3MHz	QPSK	20525	1RB#0	5.39	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	5.67	13	PASS
Band5	3MHz	QPSK	20635	1RB#0	4.70	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	5.28	13	PASS
Band5	3MHz	16QAM	20415	1RB#0	5.71	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	6.00	13	PASS
Band5	3MHz	16QAM	20525	1RB#0	6.39	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	6.41	13	PASS
Band5	3MHz	16QAM	20635	1RB#0	5.63	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	6.05	13	PASS
Band5	5MHz	QPSK	20425	1RB#0	4.82	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	5.22	13	PASS
Band5	5MHz	QPSK	20525	1RB#0	5.36	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	5.62	13	PASS
Band5	5MHz	QPSK	20625	1RB#0	4.99	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	5.28	13	PASS
Band5	5MHz	16QAM	20425	1RB#0	5.53	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	5.95	13	PASS
Band5	5MHz	16QAM	20525	1RB#0	6.16	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	6.27	13	PASS
Band5	5MHz	16QAM	20625	1RB#0	5.79	13	PASS

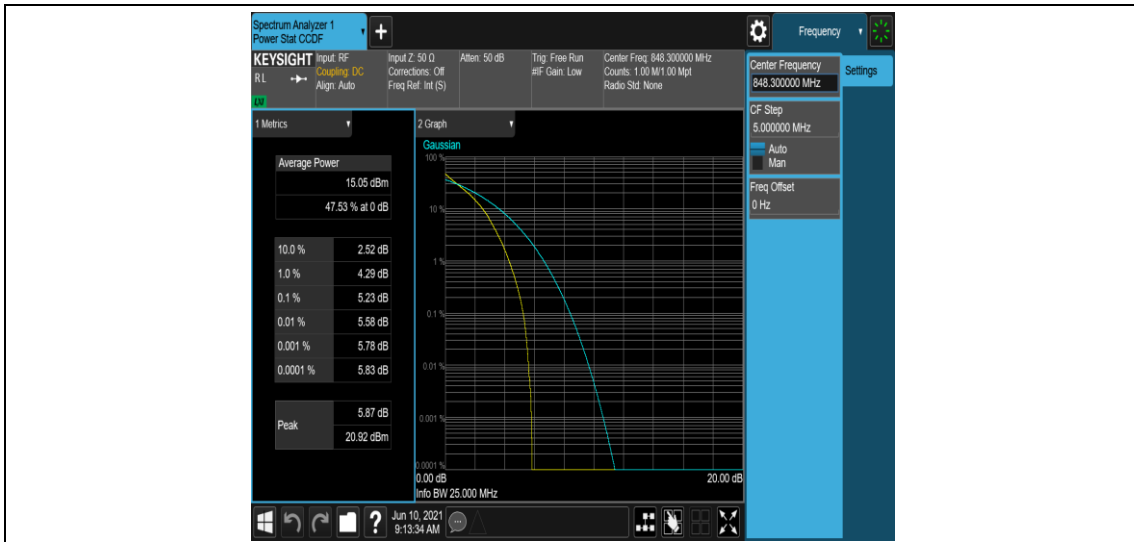
Band5	5MHz	16QAM	20625	25RB#0	6.02	13	PASS
Band5	10MHz	QPSK	20450	1RB#0	4.70	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.37	13	PASS
Band5	10MHz	QPSK	20525	1RB#0	5.22	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.64	13	PASS
Band5	10MHz	QPSK	20600	1RB#0	5.23	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.42	13	PASS
Band5	10MHz	16QAM	20450	1RB#0	5.65	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	6.09	13	PASS
Band5	10MHz	16QAM	20525	1RB#0	6.21	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	6.33	13	PASS
Band5	10MHz	16QAM	20600	1RB#0	5.93	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	6.14	13	PASS

### Test Graphs

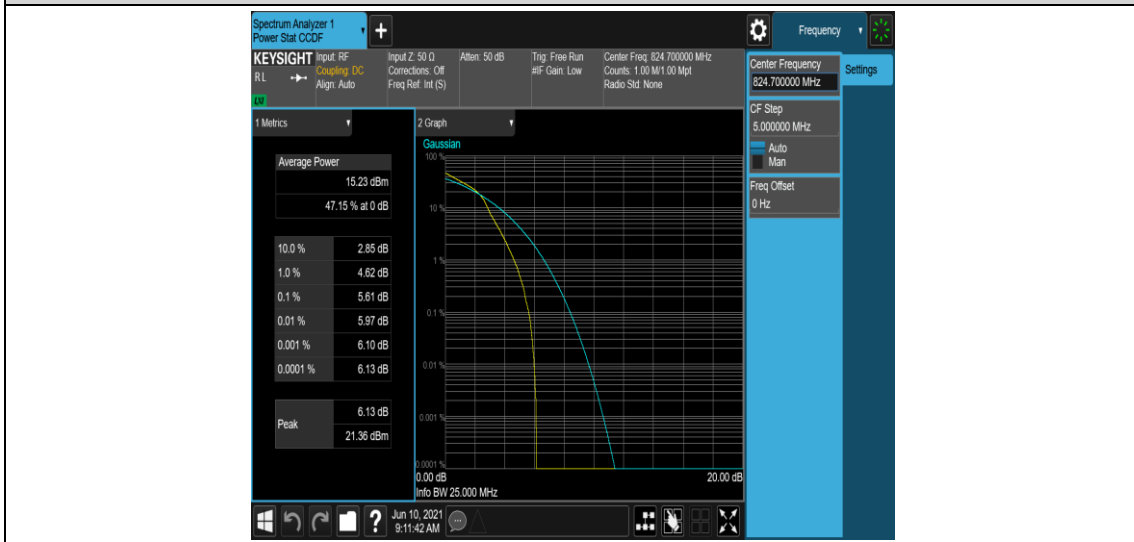








Band5-1.4MHz-16QAM-20407-1RB#0



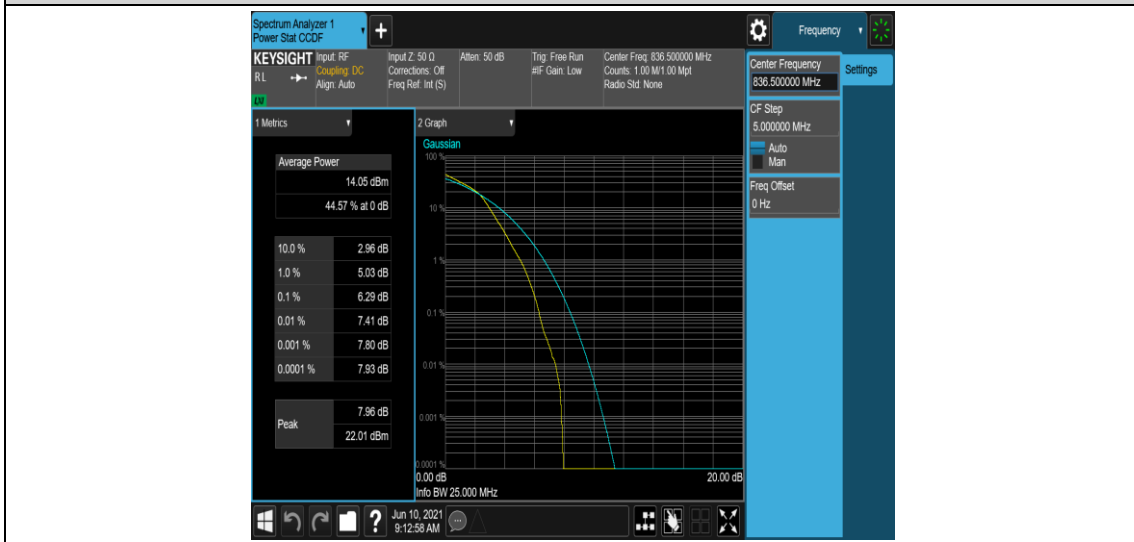
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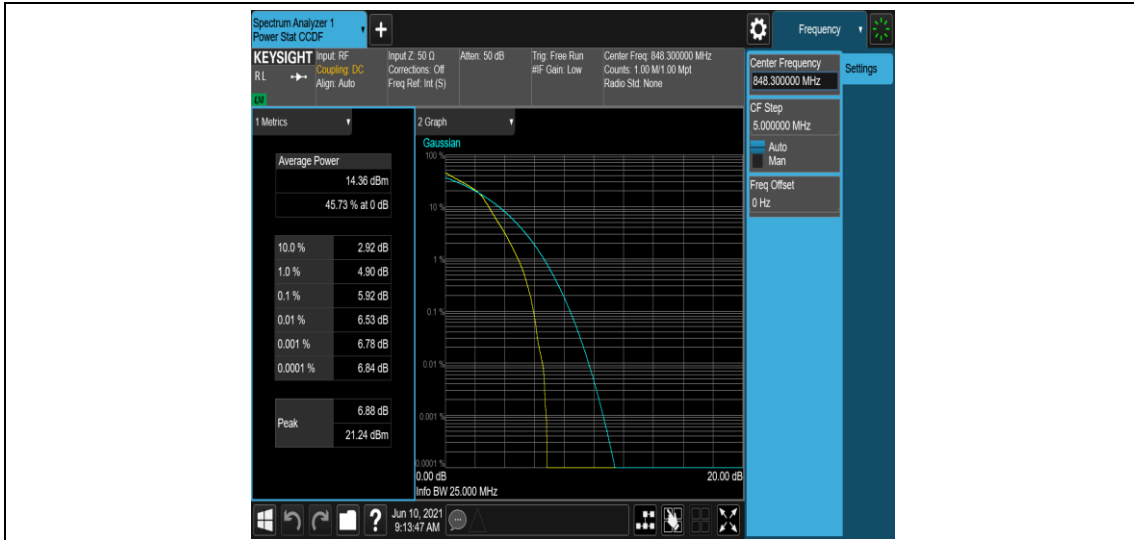
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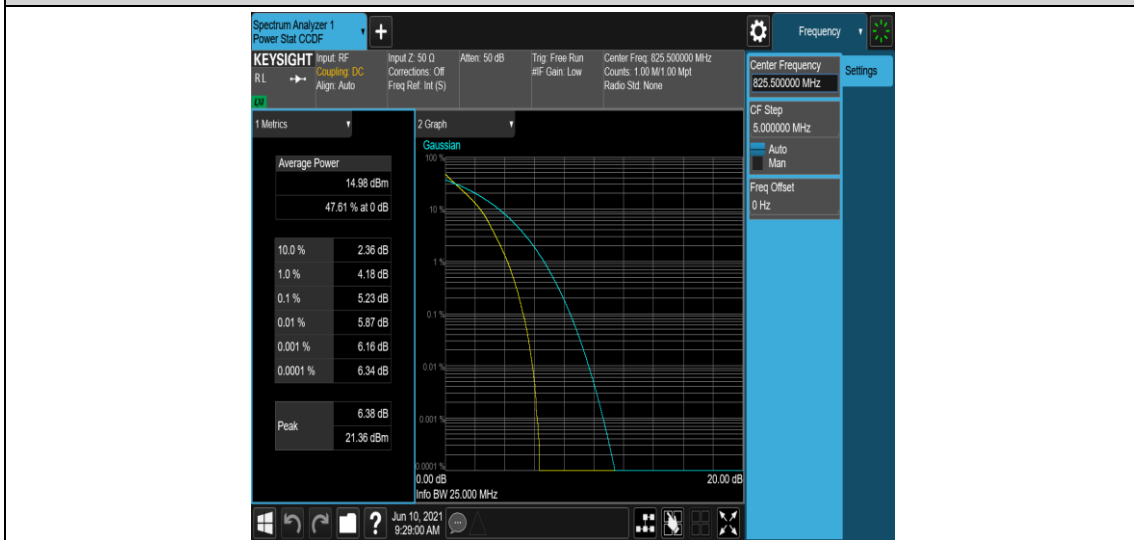
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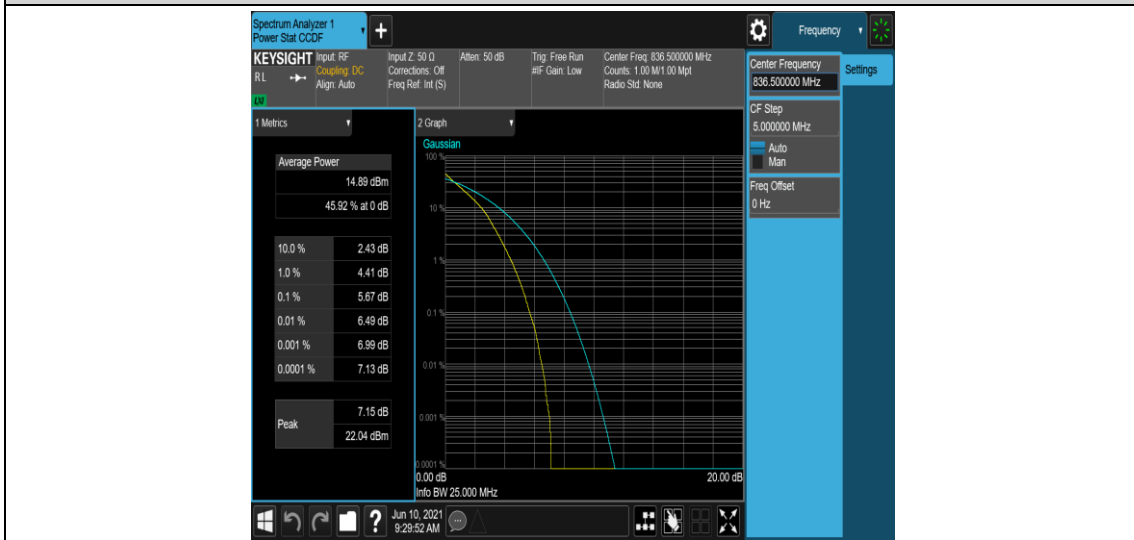
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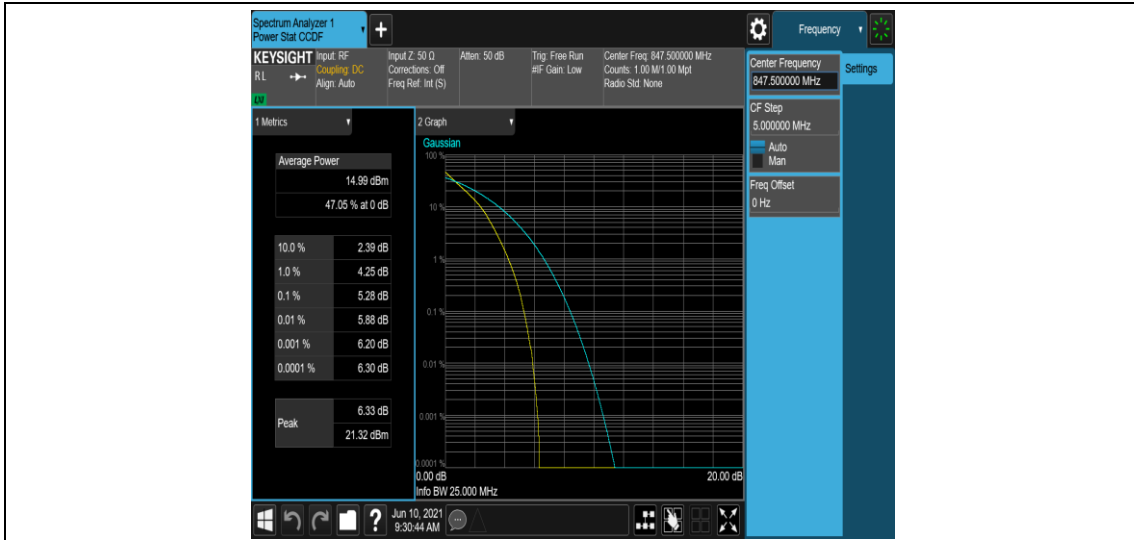
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Band5-3MHz-16QAM-20415-15RB#0

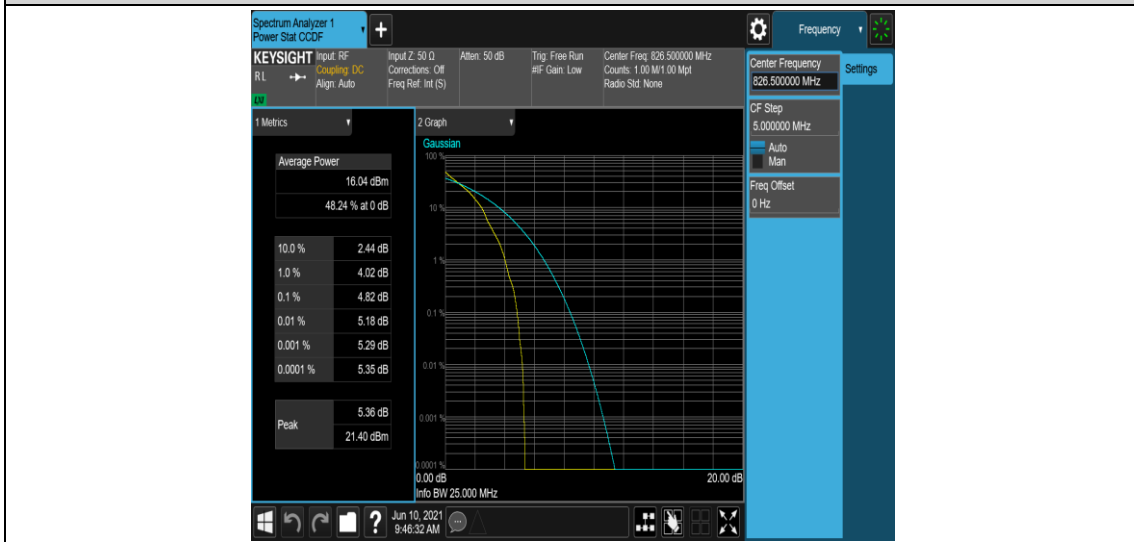


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Band5-5MHz-QPSK-20425-1RB#0



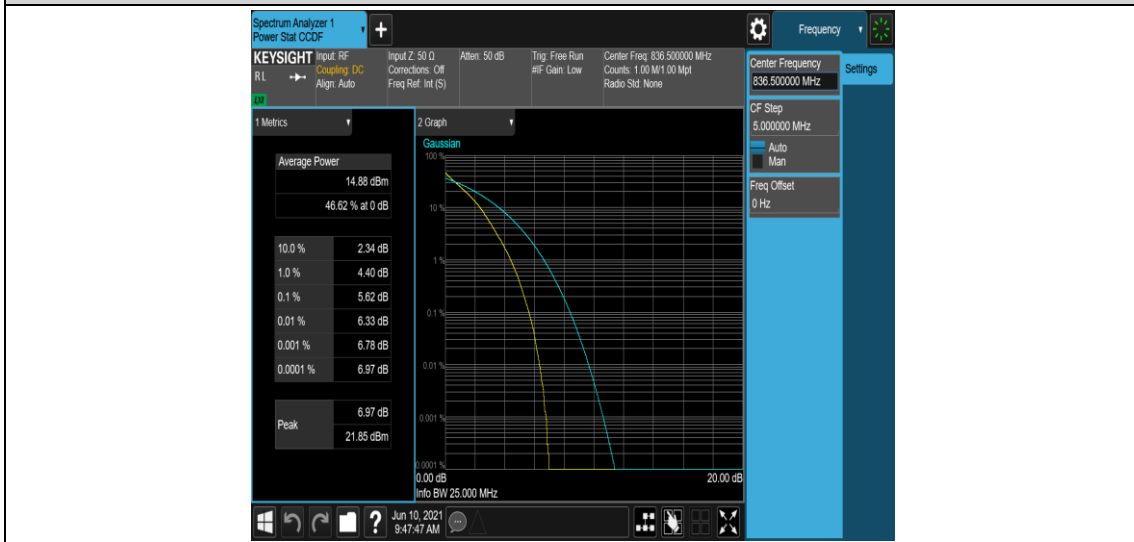
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Band5-5MHz-QPSK-20525-1RB#0



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Band5-5MHz-QPSK-20625-25RB#0





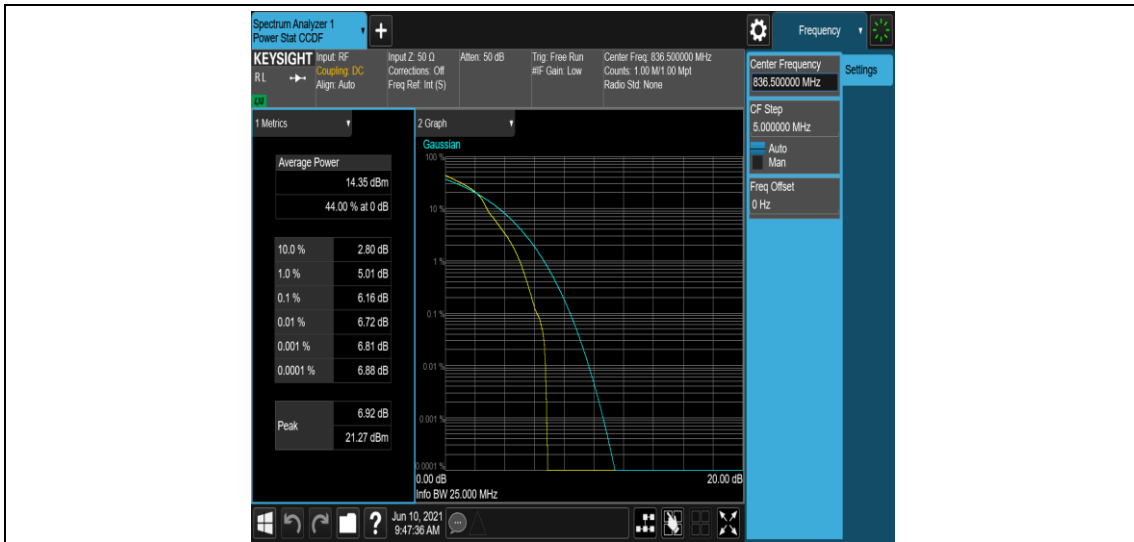
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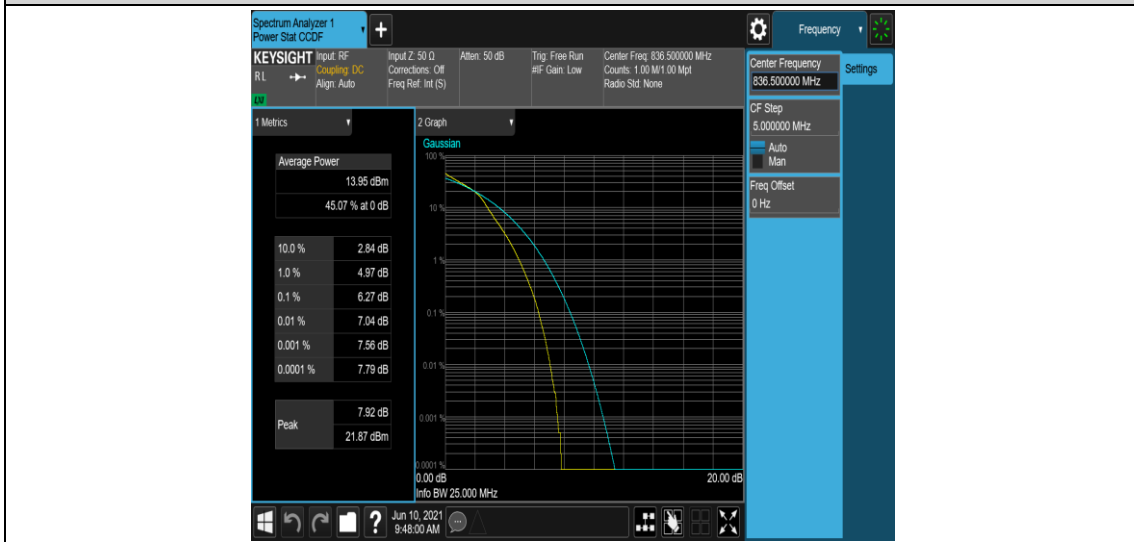
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**Band5-5MHz-16QAM-20525-25RB#0**



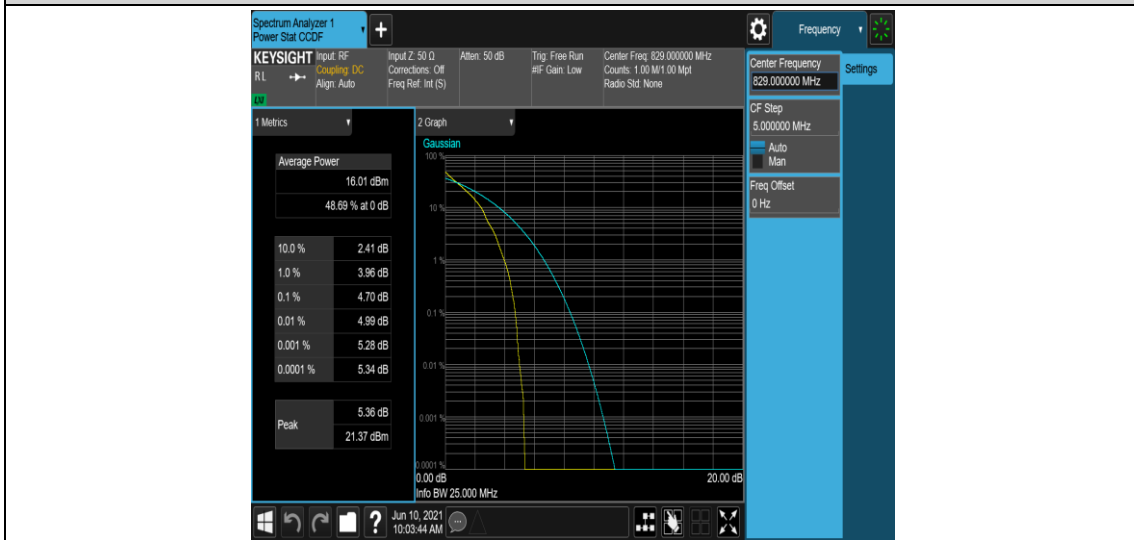
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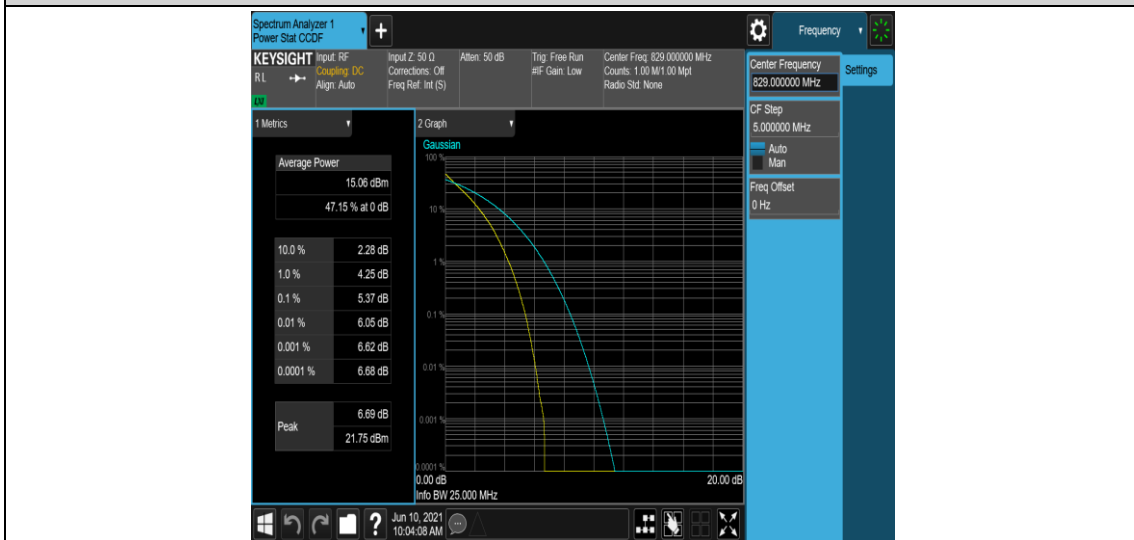
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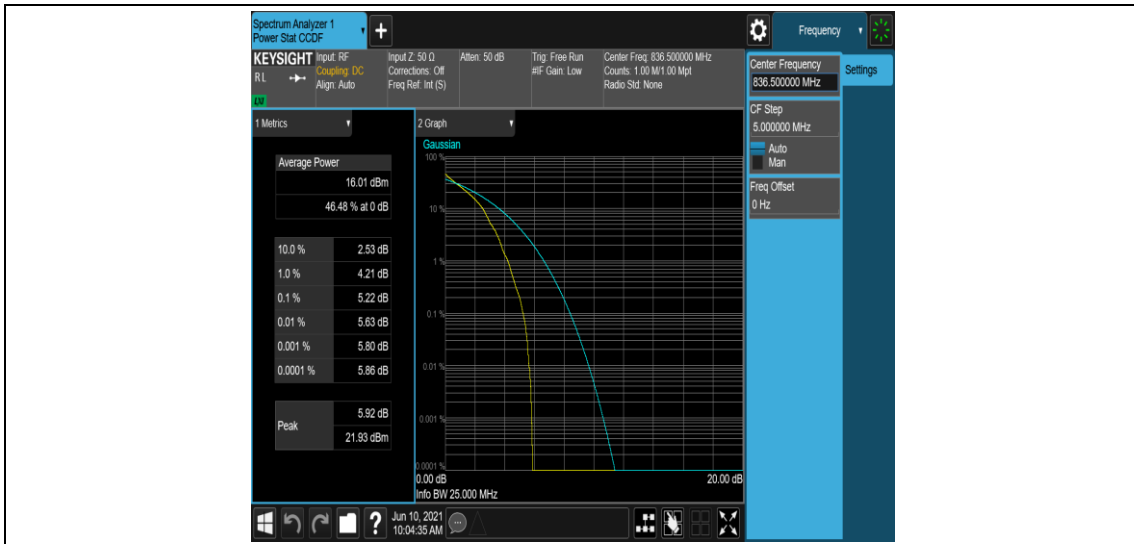
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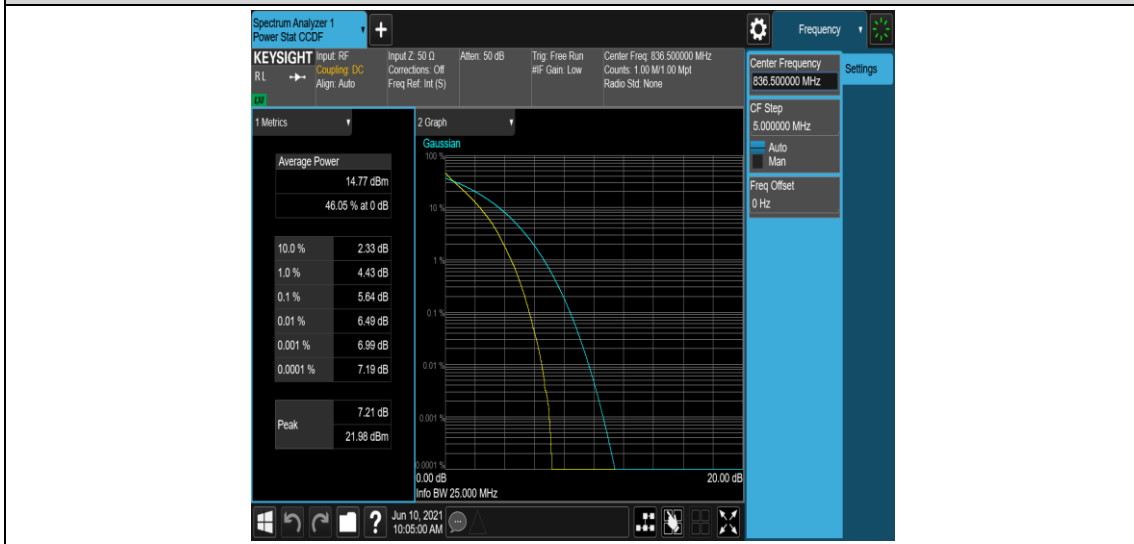
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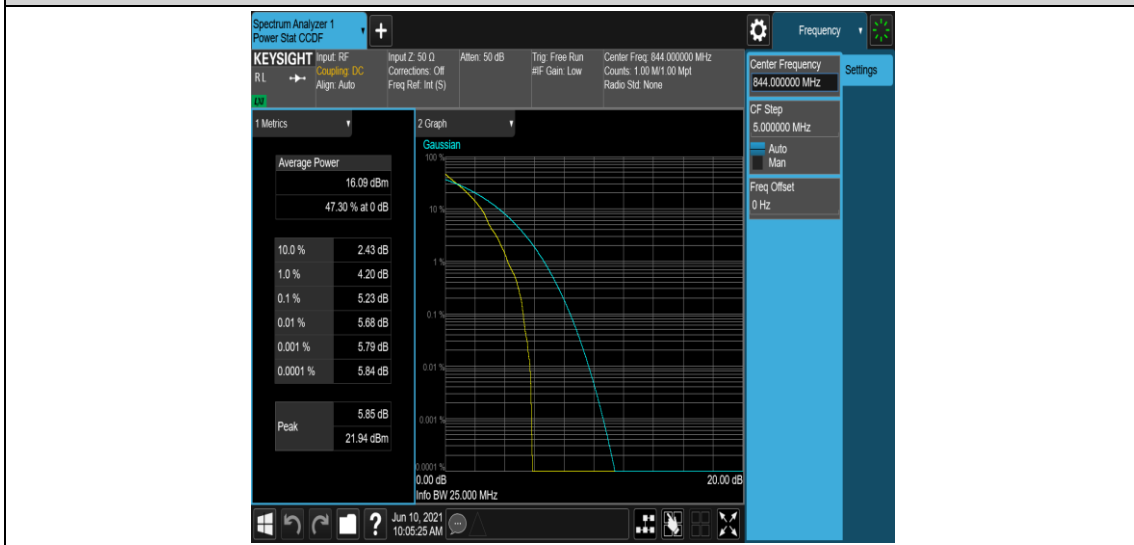
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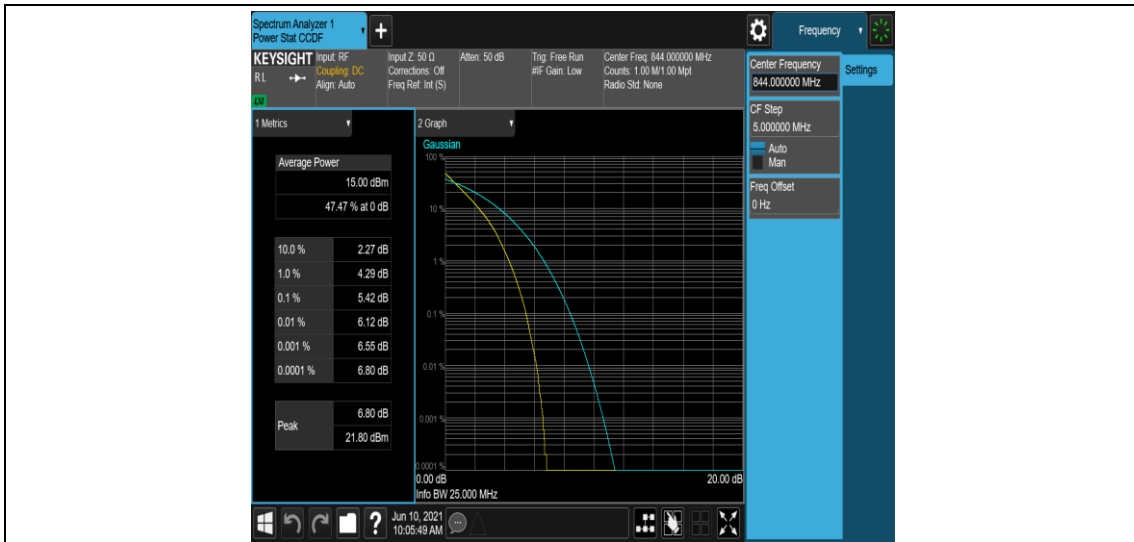
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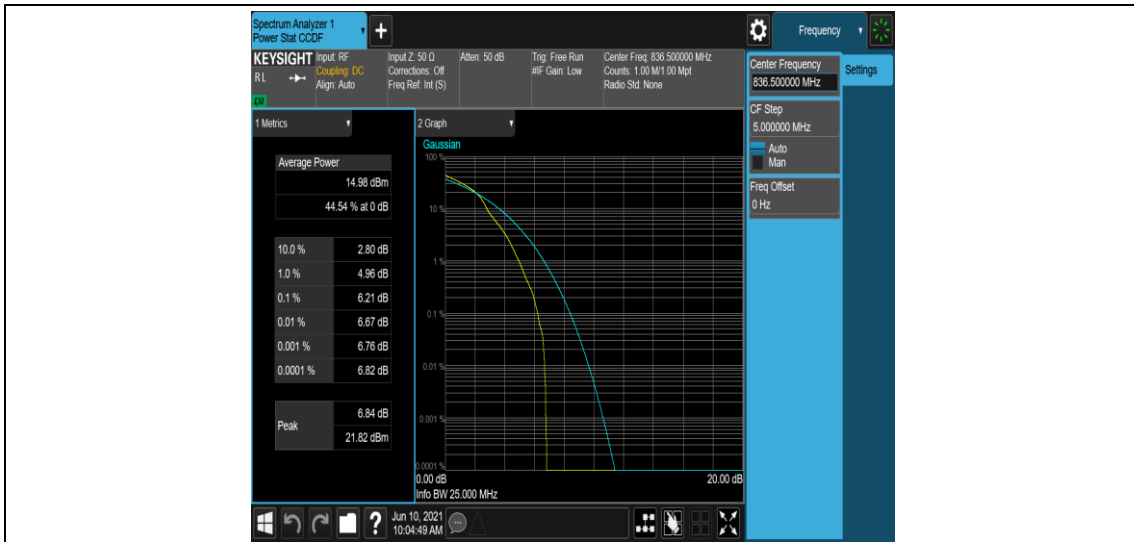
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Band5-10MHz-16QAM-20525-1RB#0



Band5-10MHz-16QAM-20525-50RB#0



Band5-10MHz-16QAM-20600-1RB#0



Band5-10MHz-16QAM-20600-50RB#0



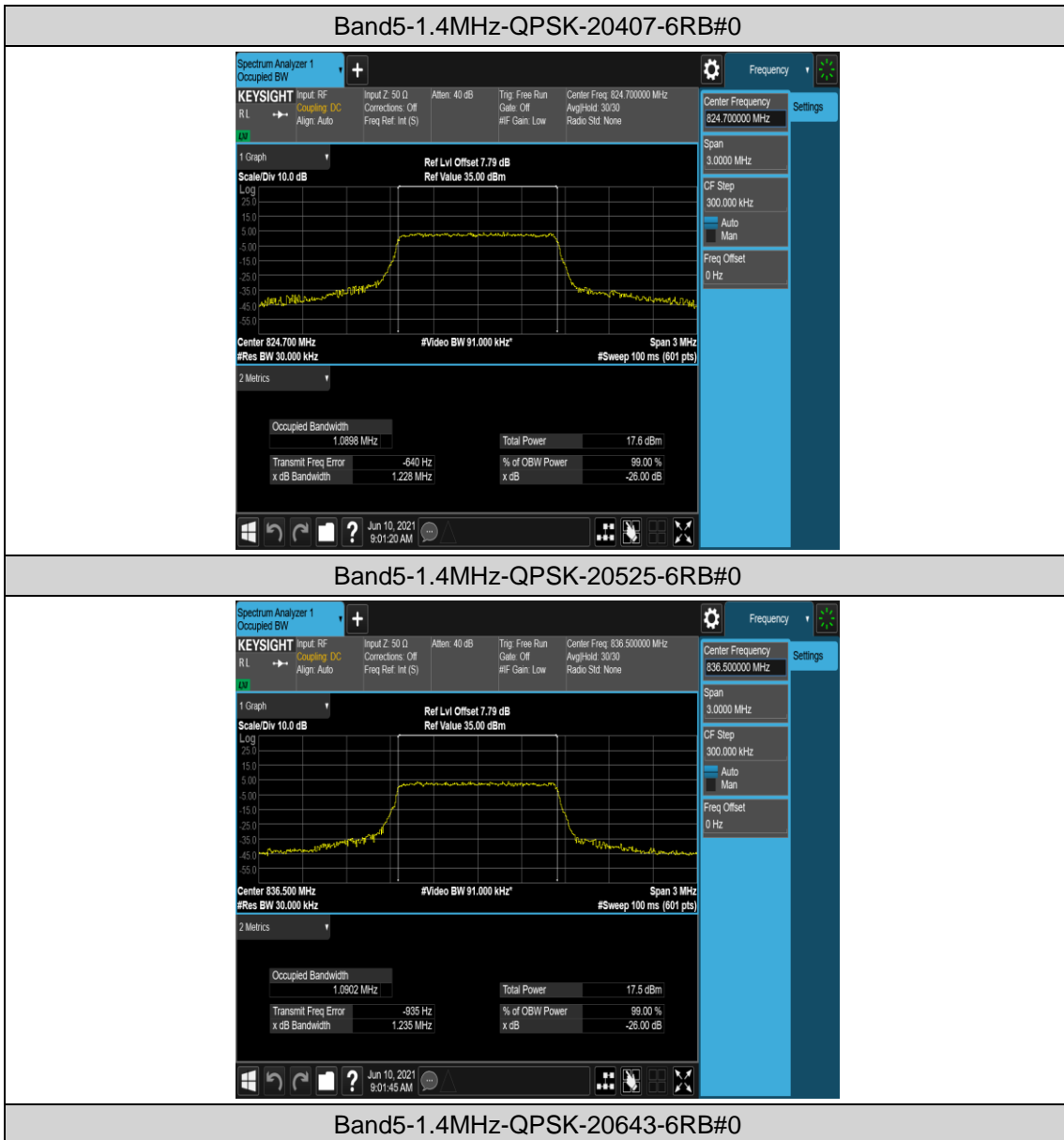
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

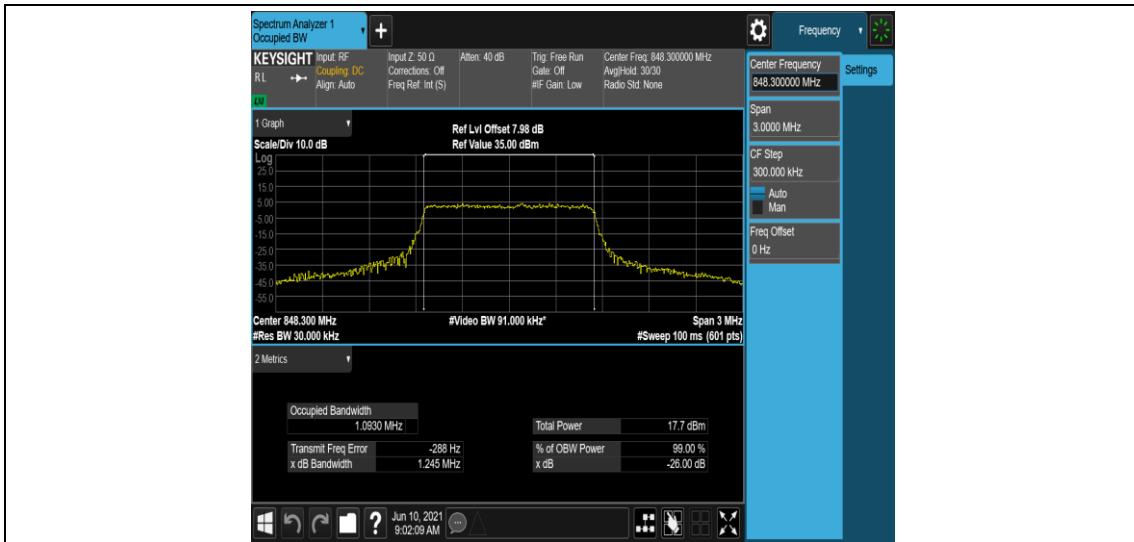
### Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0898	1.228	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0902	1.235	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0930	1.245	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0899	1.238	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0886	1.241	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0872	1.248	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6958	2.956	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6978	2.945	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.7005	2.974	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6914	2.954	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6930	2.962	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6933	2.981	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.4951	4.953	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4947	4.954	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.5007	4.966	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4975	4.921	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.5018	4.931	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.4934	4.969	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9793	9.584	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9933	9.581	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9687	9.587	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.9579	9.567	PASS
Band5	10MHz	16QAM	20525	50RB#0	8.9759	9.624	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.9671	9.573	PASS

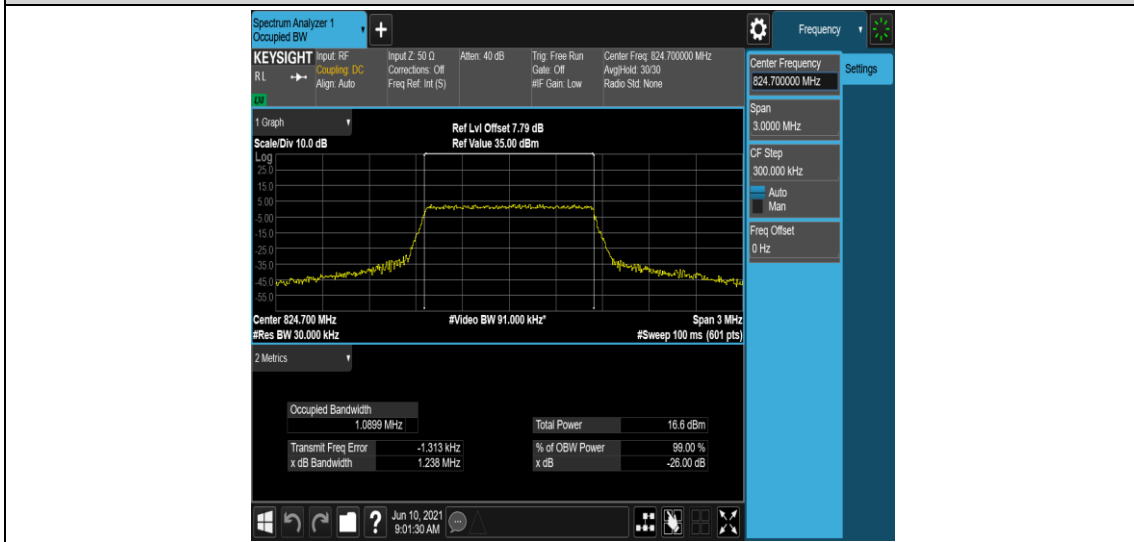


### Test Graphs

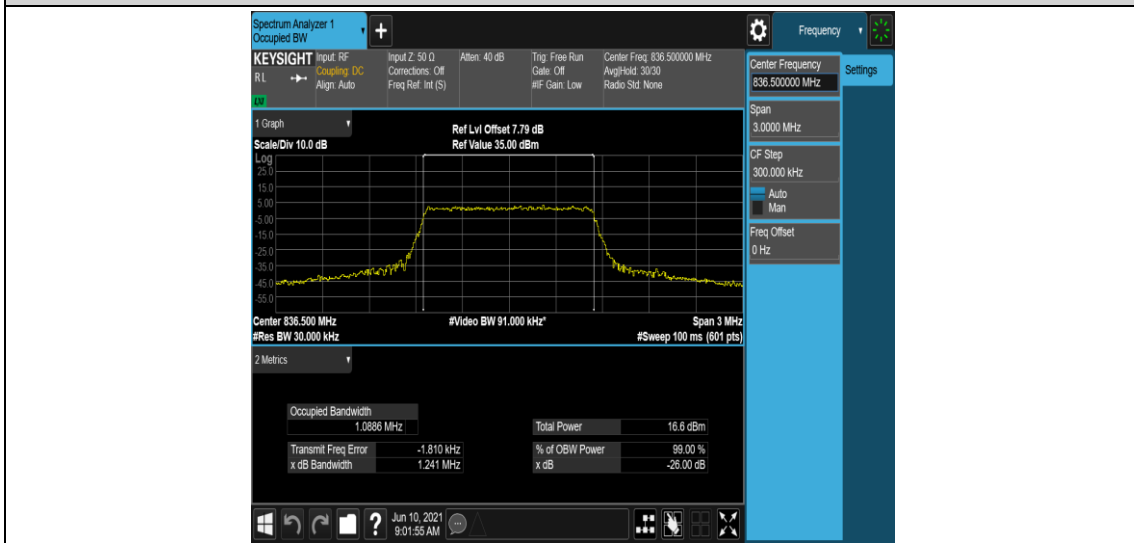




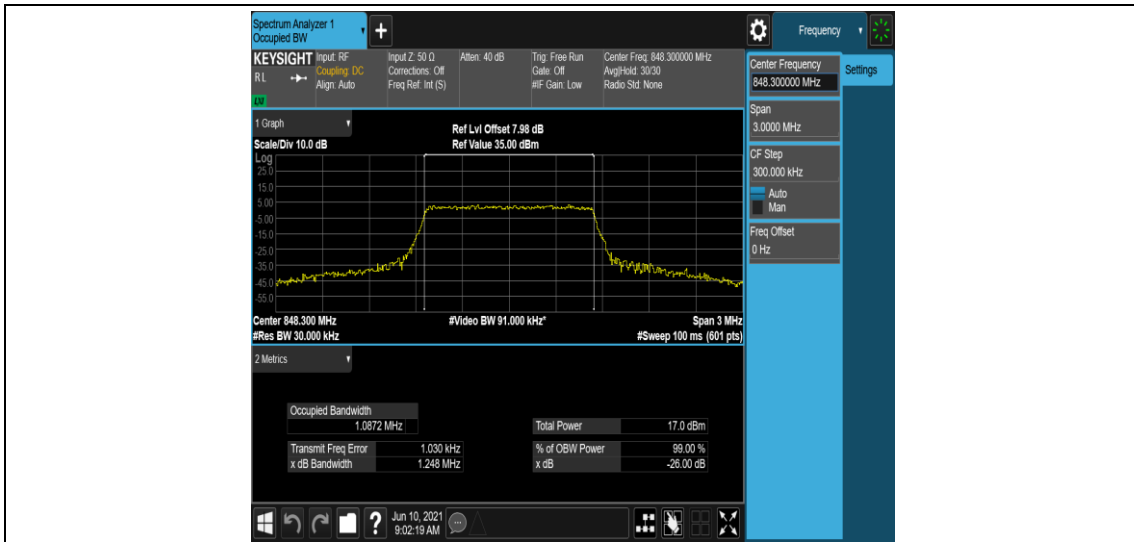
Band5-1.4MHz-16QAM-20407-6RB#0



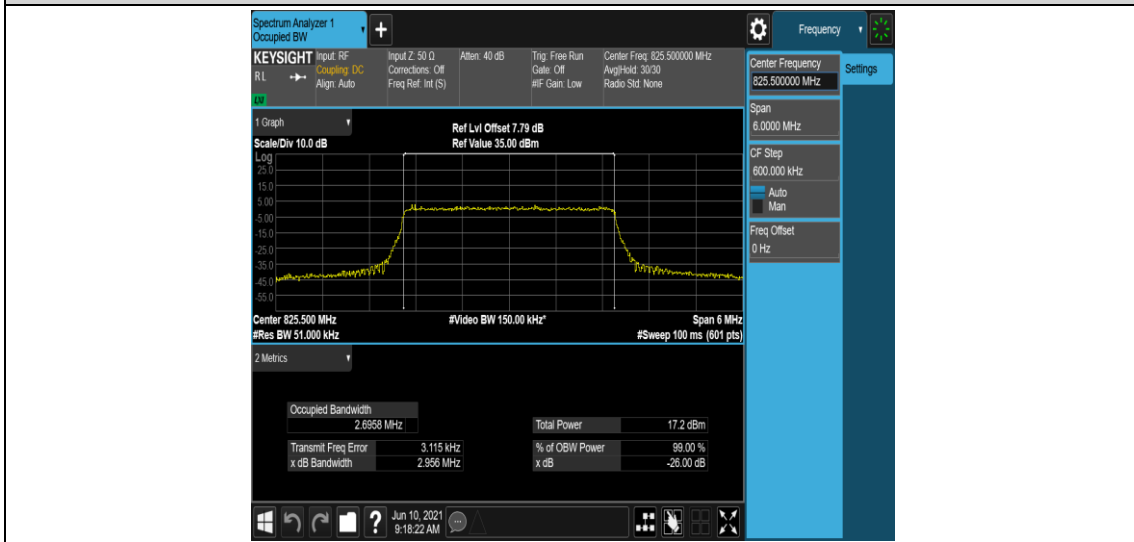
Band5-1.4MHz-16QAM-20525-6RB#0



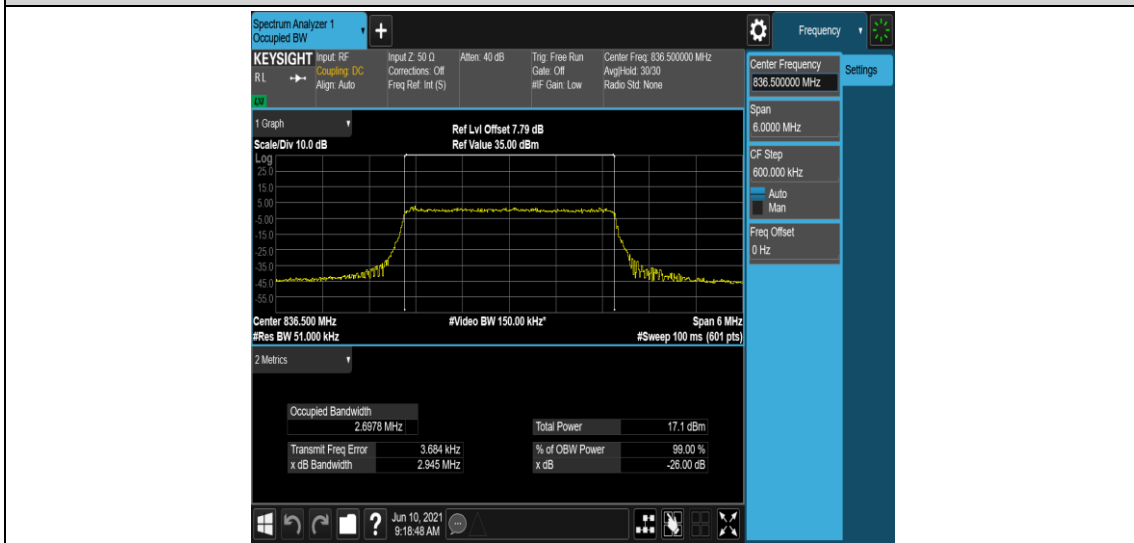
Band5-1.4MHz-16QAM-20643-6RB#0



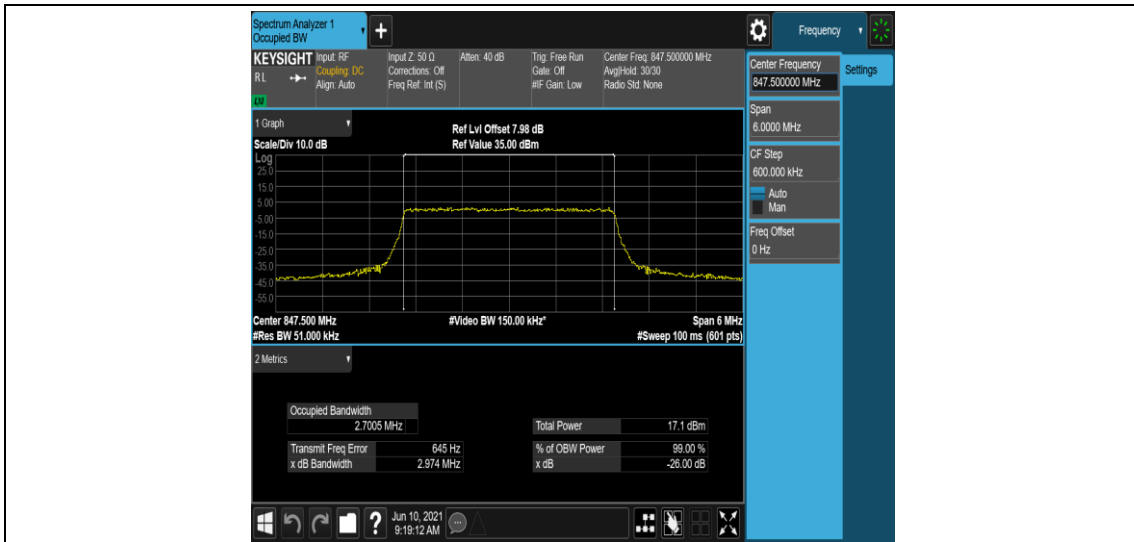
Band5-3MHz-QPSK-20415-15RB#0



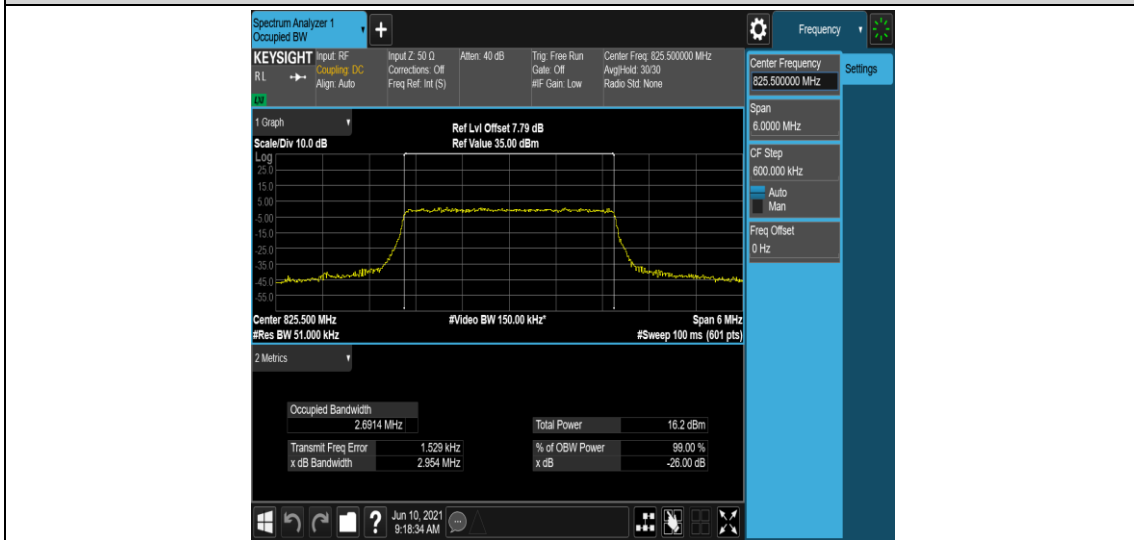
Band5-3MHz-QPSK-20525-15RB#0



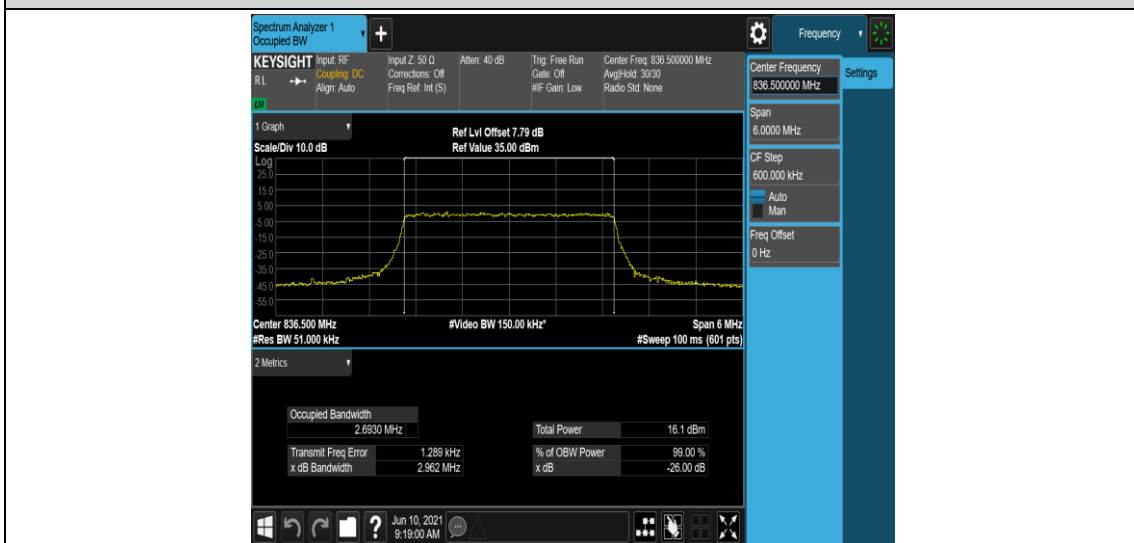
Band5-3MHz-QPSK-20635-15RB#0



**Band5-3MHz-16QAM-20415-15RB#0**



**Band5-3MHz-16QAM-20525-15RB#0**



**Band5-3MHz-16QAM-20635-15RB#0**