

Appendix:LTE Band13

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## Appendix A: Effective (Isotropic) Radiated Power Output Data

### Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Power(dBm)	ERP/EIRP (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	24.62	22.47	PASS
Band13	5MHz	QPSK	23205	1RB#12	24.55	22.4	PASS
Band13	5MHz	QPSK	23205	1RB#24	24.44	22.29	PASS
Band13	5MHz	QPSK	23205	12RB#0	23.52	21.37	PASS
Band13	5MHz	QPSK	23205	12RB#6	23.42	21.27	PASS
Band13	5MHz	QPSK	23205	12RB#13	23.38	21.23	PASS
Band13	5MHz	QPSK	23205	25RB#0	23.39	21.24	PASS
Band13	5MHz	16QAM	23205	1RB#0	23.63	21.48	PASS
Band13	5MHz	16QAM	23205	1RB#12	23.57	21.42	PASS
Band13	5MHz	16QAM	23205	1RB#24	23.53	21.38	PASS
Band13	5MHz	16QAM	23205	12RB#0	22.66	20.51	PASS
Band13	5MHz	16QAM	23205	12RB#6	22.58	20.43	PASS
Band13	5MHz	16QAM	23205	12RB#13	22.44	20.29	PASS
Band13	5MHz	16QAM	23205	25RB#0	22.41	20.26	PASS
Band13	5MHz	QPSK	23230	1RB#0	24.47	22.32	PASS
Band13	5MHz	QPSK	23230	1RB#12	24.36	22.21	PASS
Band13	5MHz	QPSK	23230	1RB#24	24.28	22.13	PASS
Band13	5MHz	QPSK	23230	12RB#0	23.42	21.27	PASS
Band13	5MHz	QPSK	23230	12RB#6	23.40	21.25	PASS
Band13	5MHz	QPSK	23230	12RB#13	23.33	21.18	PASS
Band13	5MHz	QPSK	23230	25RB#0	23.35	21.2	PASS
Band13	5MHz	16QAM	23230	1RB#0	23.34	21.19	PASS
Band13	5MHz	16QAM	23230	1RB#12	23.37	21.22	PASS
Band13	5MHz	16QAM	23230	1RB#24	23.26	21.11	PASS
Band13	5MHz	16QAM	23230	12RB#0	22.46	20.31	PASS
Band13	5MHz	16QAM	23230	12RB#6	22.41	20.26	PASS
Band13	5MHz	16QAM	23230	12RB#13	22.41	20.26	PASS
Band13	5MHz	16QAM	23230	25RB#0	22.46	20.31	PASS
Band13	5MHz	QPSK	23255	1RB#0	24.33	22.18	PASS
Band13	5MHz	QPSK	23255	1RB#12	24.05	21.9	PASS
Band13	5MHz	QPSK	23255	1RB#24	23.88	21.73	PASS
Band13	5MHz	QPSK	23255	12RB#0	23.28	21.13	PASS
Band13	5MHz	QPSK	23255	12RB#6	23.21	21.06	PASS
Band13	5MHz	QPSK	23255	12RB#13	23.00	20.85	PASS
Band13	5MHz	QPSK	23255	25RB#0	23.12	20.97	PASS

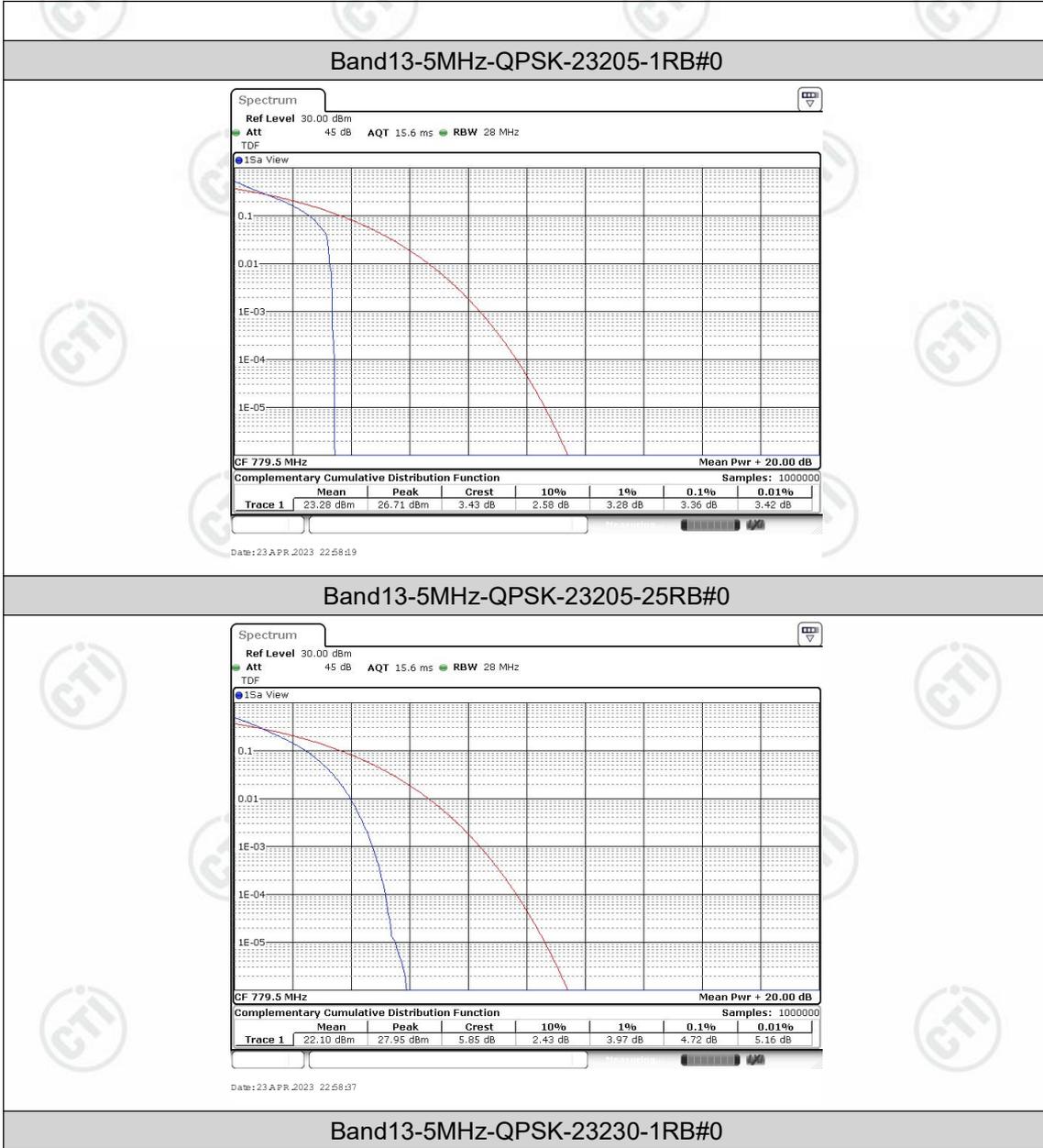
Band13	5MHz	16QAM	23255	1RB#0	23.35	21.2	PASS
Band13	5MHz	16QAM	23255	1RB#12	23.03	20.88	PASS
Band13	5MHz	16QAM	23255	1RB#24	22.91	20.76	PASS
Band13	5MHz	16QAM	23255	12RB#0	22.30	20.15	PASS
Band13	5MHz	16QAM	23255	12RB#6	22.27	20.12	PASS
Band13	5MHz	16QAM	23255	12RB#13	22.09	19.94	PASS
Band13	5MHz	16QAM	23255	25RB#0	22.22	20.07	PASS
Band13	10MHz	QPSK	23230	1RB#0	24.58	22.43	PASS
Band13	10MHz	QPSK	23230	1RB#24	24.39	22.24	PASS
Band13	10MHz	QPSK	23230	1RB#49	24.03	21.88	PASS
Band13	10MHz	QPSK	23230	25RB#0	23.40	21.25	PASS
Band13	10MHz	QPSK	23230	25RB#12	23.38	21.23	PASS
Band13	10MHz	QPSK	23230	25RB#25	23.24	21.09	PASS
Band13	10MHz	QPSK	23230	50RB#0	23.37	21.22	PASS
Band13	10MHz	16QAM	23230	1RB#0	23.31	21.16	PASS
Band13	10MHz	16QAM	23230	1RB#24	23.38	21.23	PASS
Band13	10MHz	16QAM	23230	1RB#49	22.83	20.68	PASS
Band13	10MHz	16QAM	23230	25RB#0	22.45	20.3	PASS
Band13	10MHz	16QAM	23230	25RB#12	22.44	20.29	PASS
Band13	10MHz	16QAM	23230	25RB#25	22.27	20.12	PASS
Band13	10MHz	16QAM	23230	50RB#0	22.43	20.28	PASS

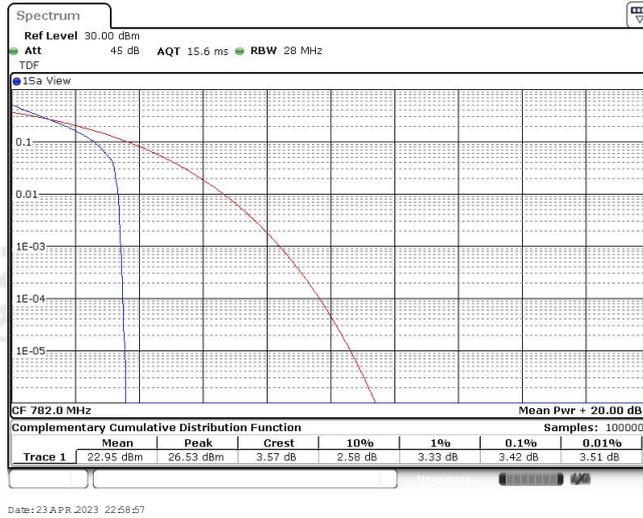
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

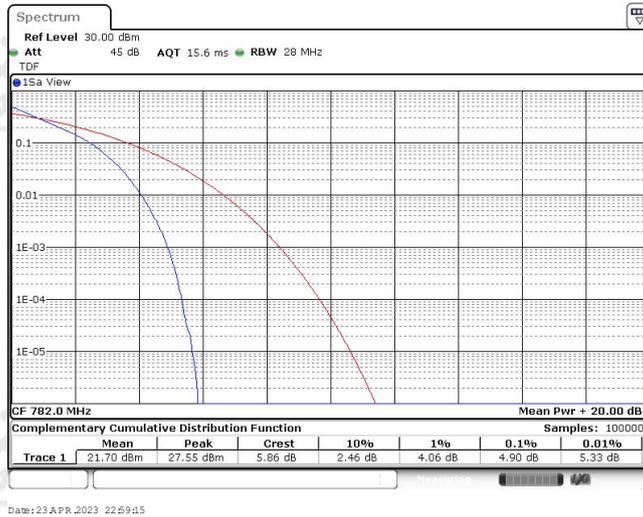
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	3.36	13	PASS
Band13	5MHz	QPSK	23205	25RB#0	4.72	13	PASS
Band13	5MHz	QPSK	23230	1RB#0	3.42	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.90	13	PASS
Band13	5MHz	QPSK	23255	1RB#0	3.57	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.93	13	PASS
Band13	5MHz	16QAM	23205	1RB#0	5.01	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.88	13	PASS
Band13	5MHz	16QAM	23230	1RB#0	5.16	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	6.00	13	PASS
Band13	5MHz	16QAM	23255	1RB#0	5.28	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.06	13	PASS
Band13	10MHz	QPSK	23230	1RB#0	3.33	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	4.93	13	PASS
Band13	10MHz	16QAM	23230	1RB#0	4.96	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.09	13	PASS

## Test Graphs

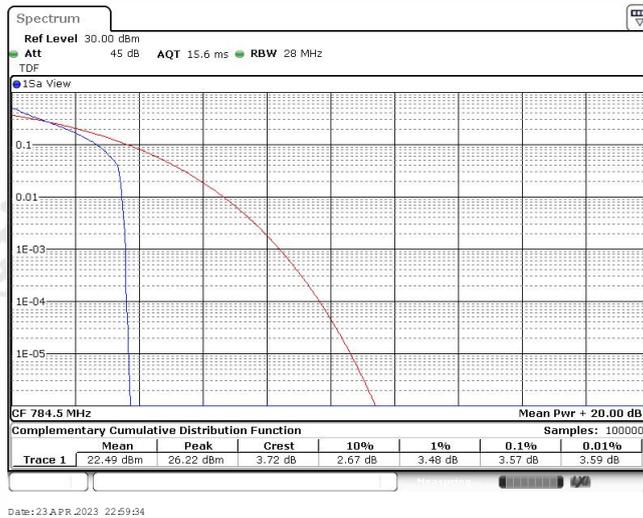




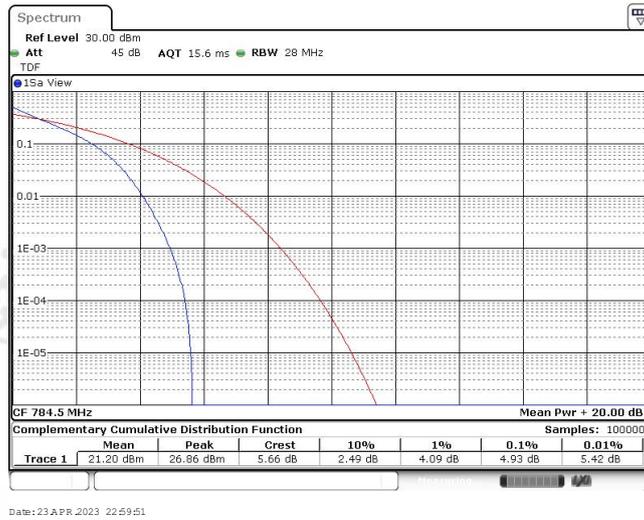
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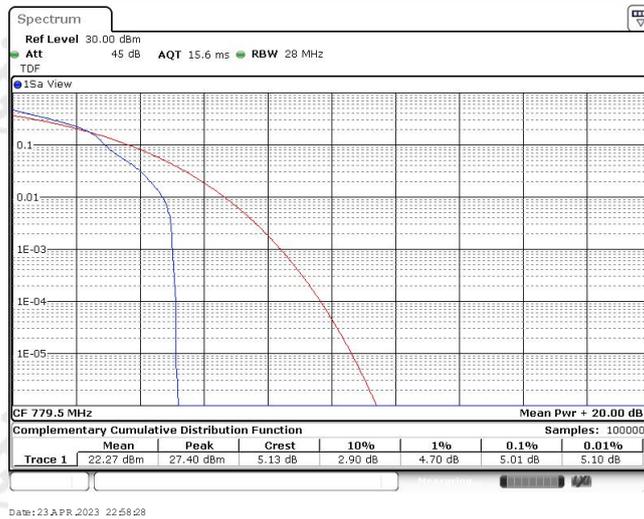
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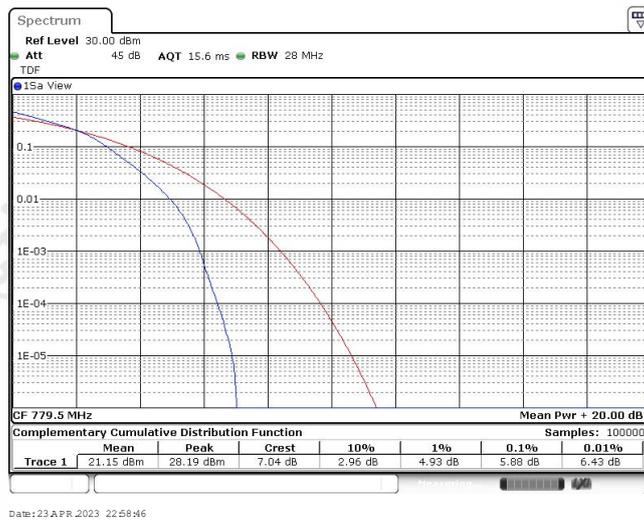
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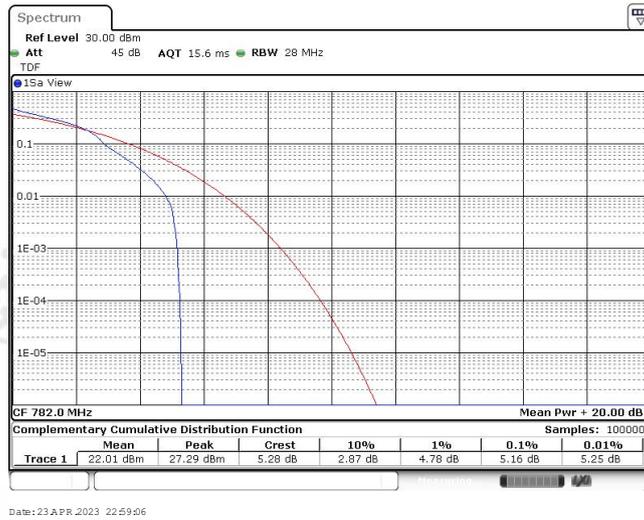
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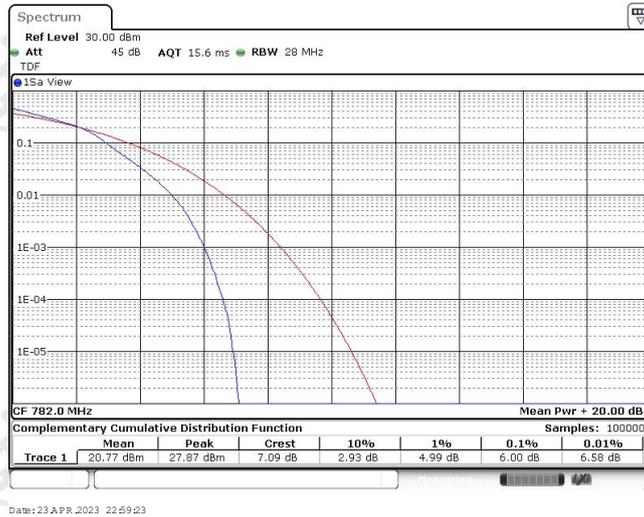
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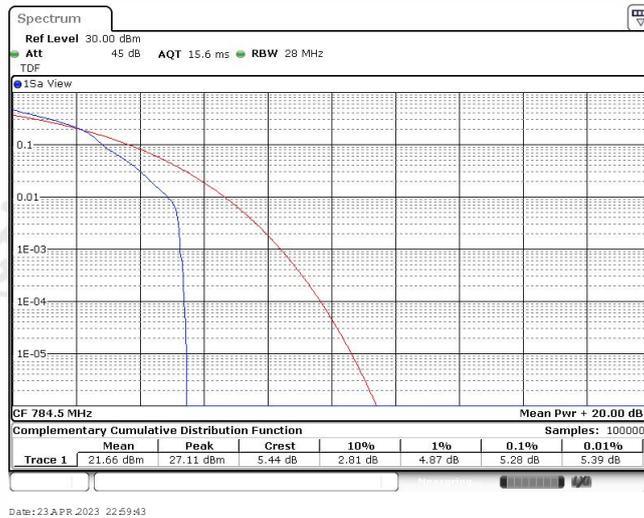
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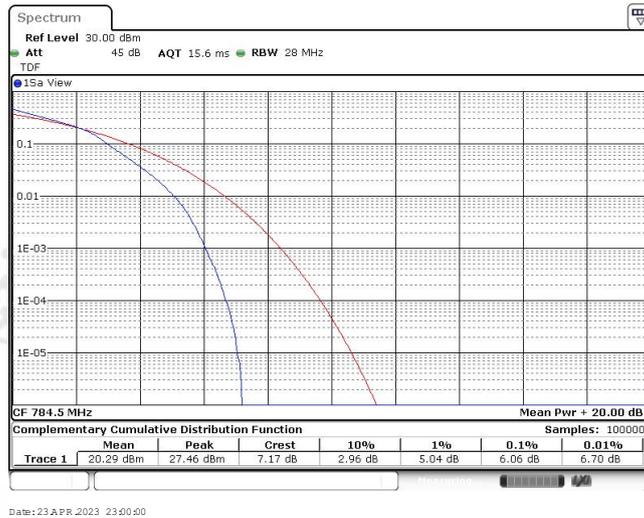
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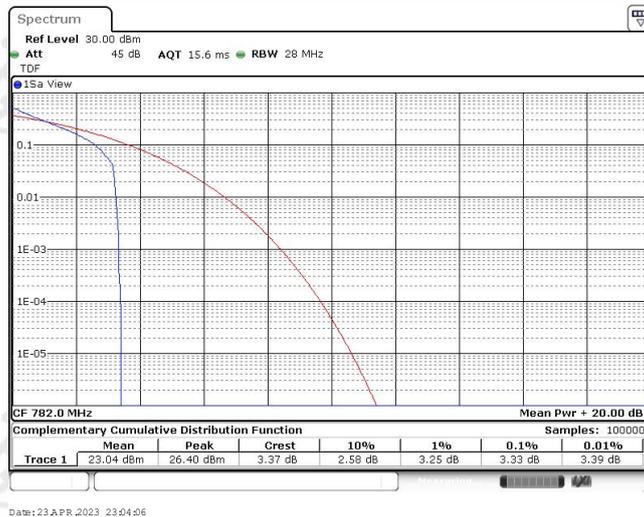
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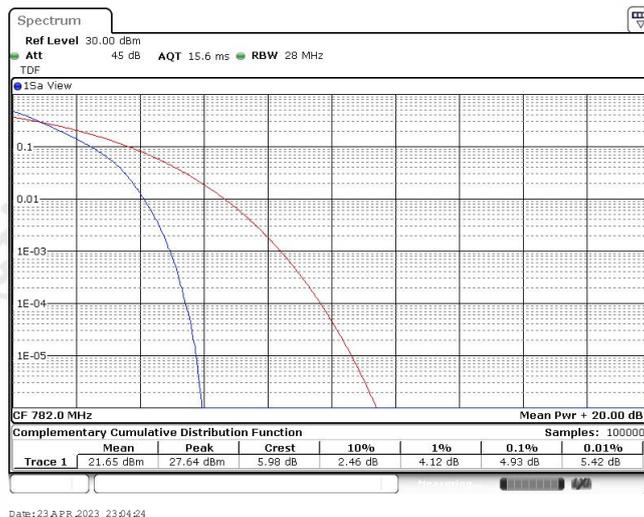
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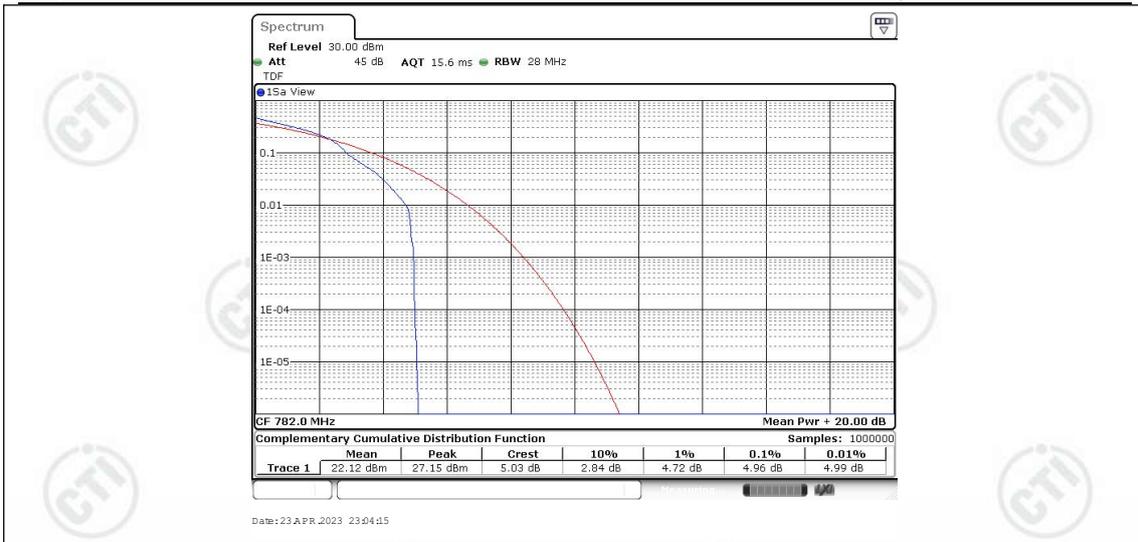
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Band13-10MHz-QPSK-23230-50RB#0



Band13-10MHz-16QAM-23230-1RB#0



## Band13-10MHz-16QAM-23230-50RB#0

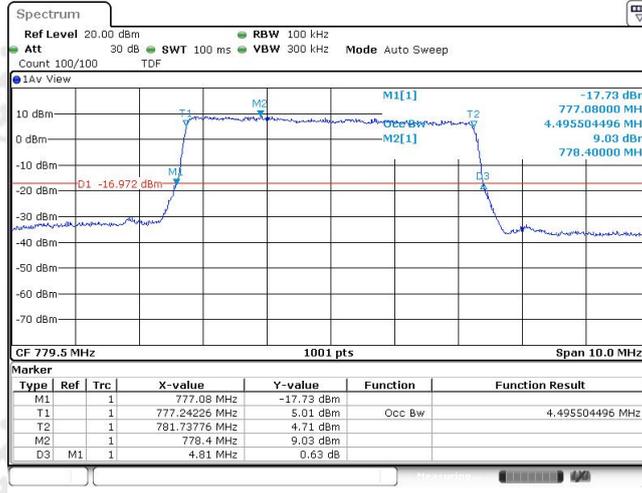


**Appendix C: 26dB Bandwidth and Occupied Bandwidth****Test Result**

Band	Bandwidth h	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.496	4.810	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.505	4.780	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.515	4.800	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.505	4.780	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.505	4.790	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.525	4.790	PASS
Band13	10MHz	QPSK	23230	50RB#0	9.018	9.567	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.985	9.533	PASS

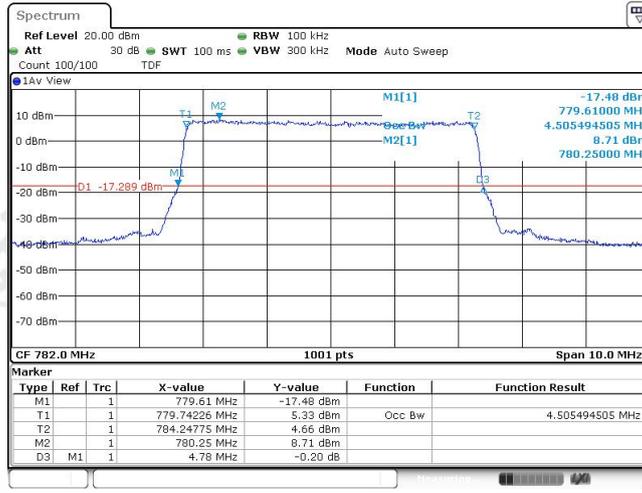
## Test Graphs

Band13-5MHz-QPSK-23205-25RB#0-4.496



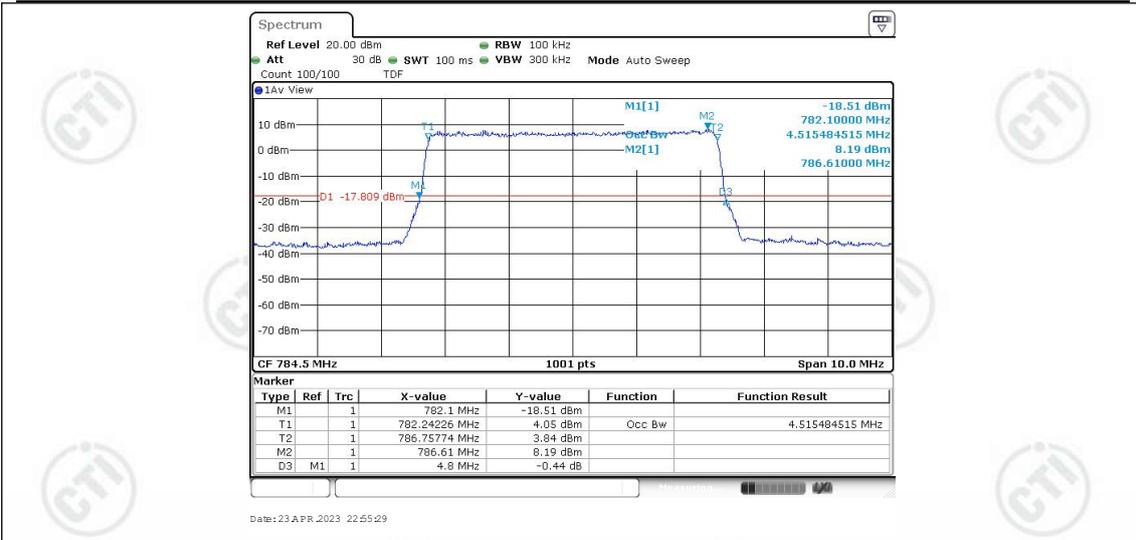
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Band13-5MHz-QPSK-23230-25RB#0-4.505

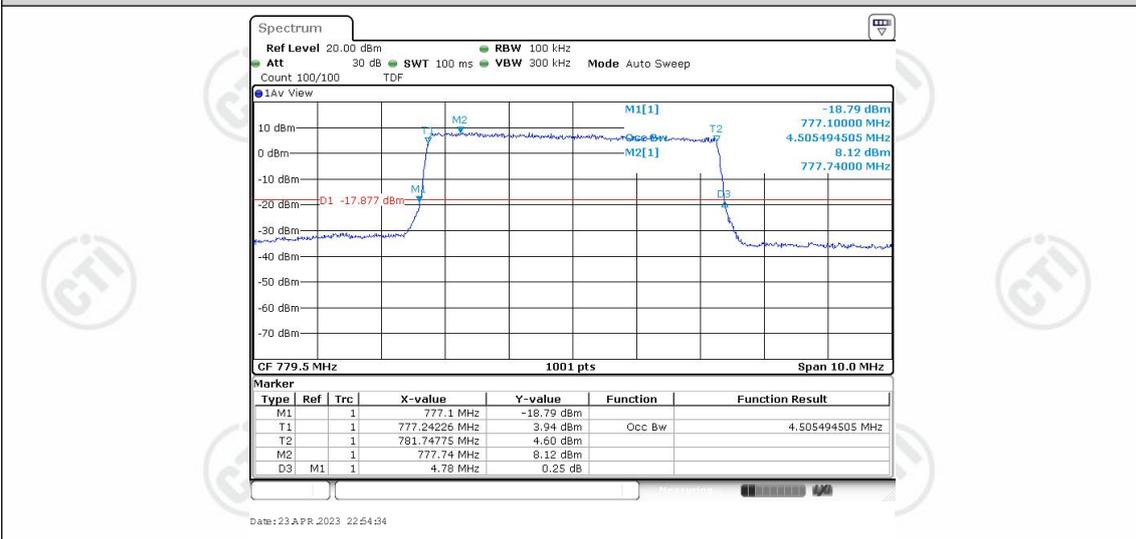


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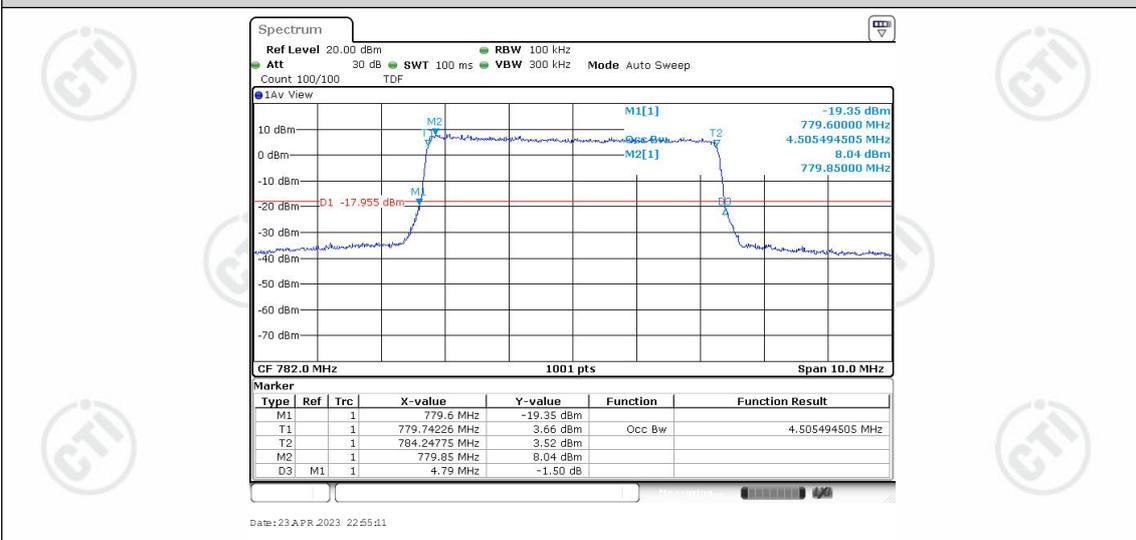
Band13-5MHz-QPSK-23255-25RB#0-4.515



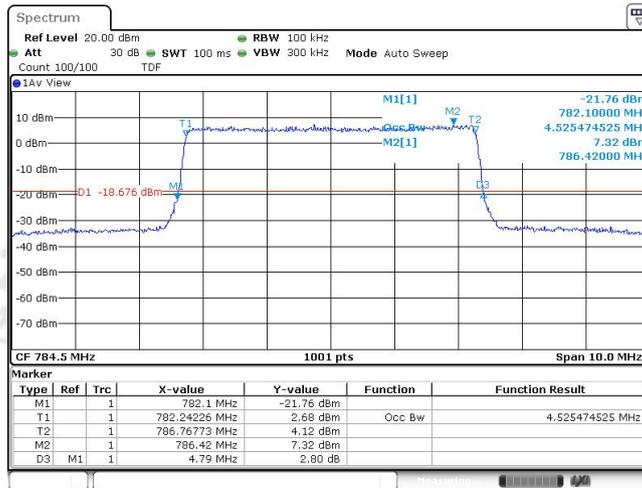
Band13-5MHz-16QAM-23205-25RB#0-4.505



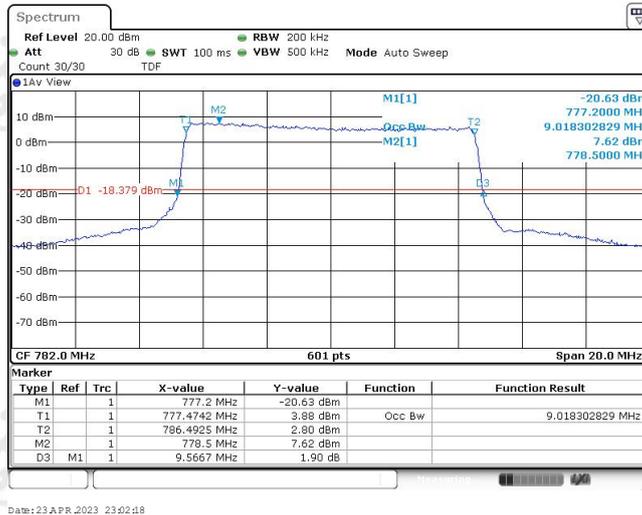
Band13-5MHz-16QAM-23230-25RB#0-4.505



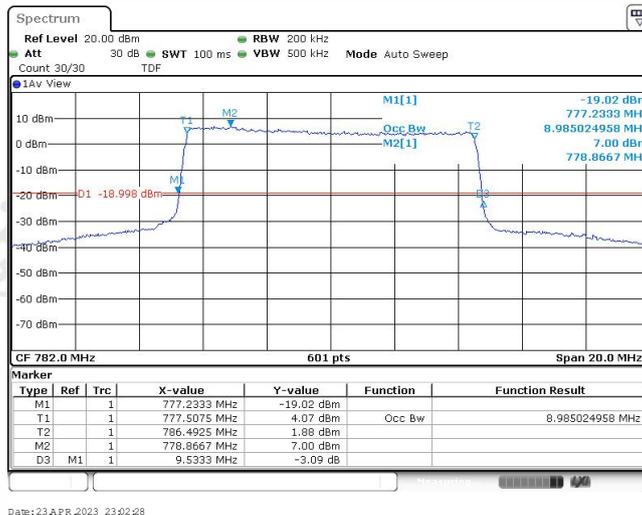
Band13-5MHz-16QAM-23255-25RB#0-4.525



## Band13-10MHz-QPSK-23230-50RB#0-9.018



## Band13-10MHz-16QAM-23230-50RB#0-8.985



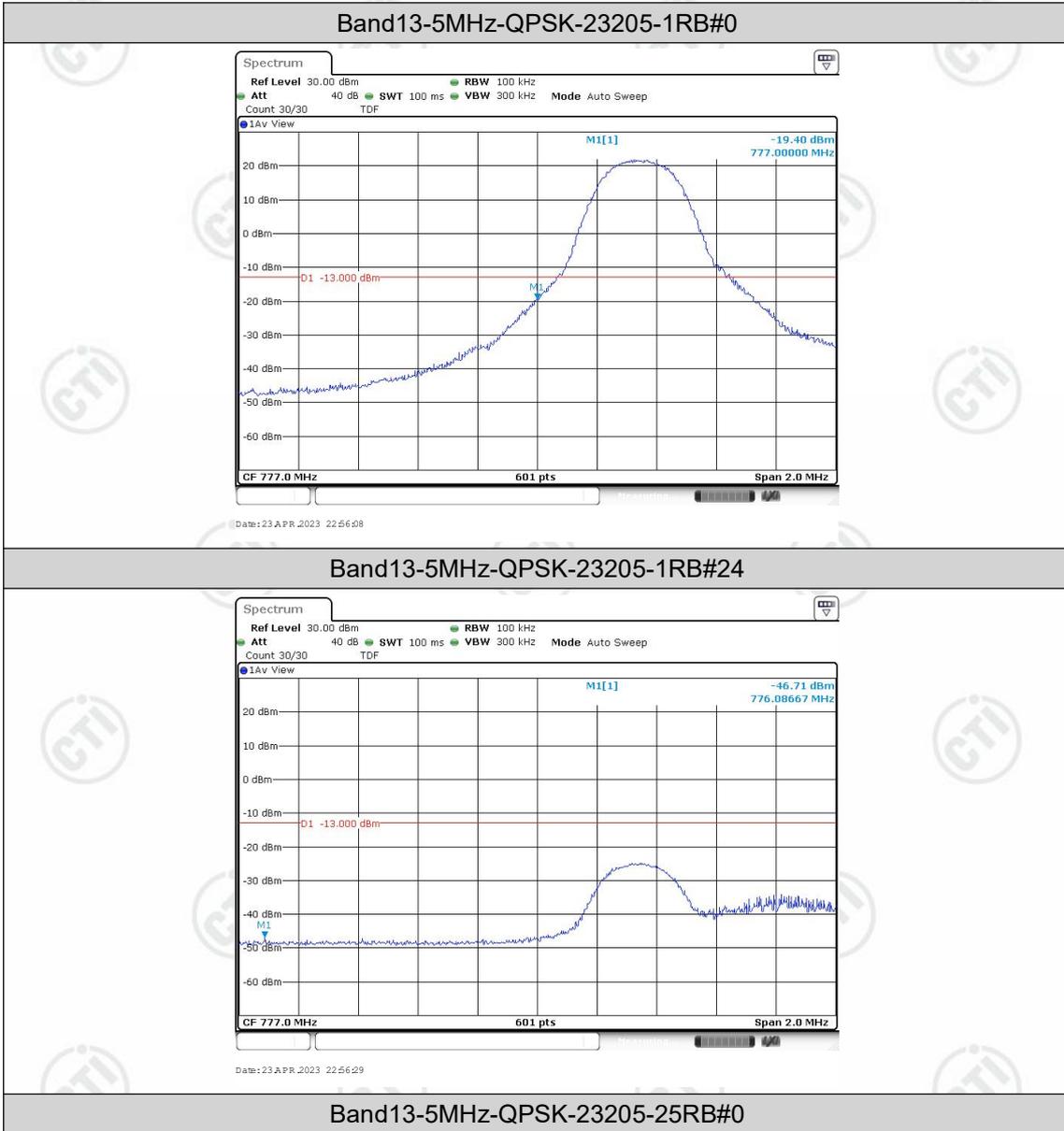


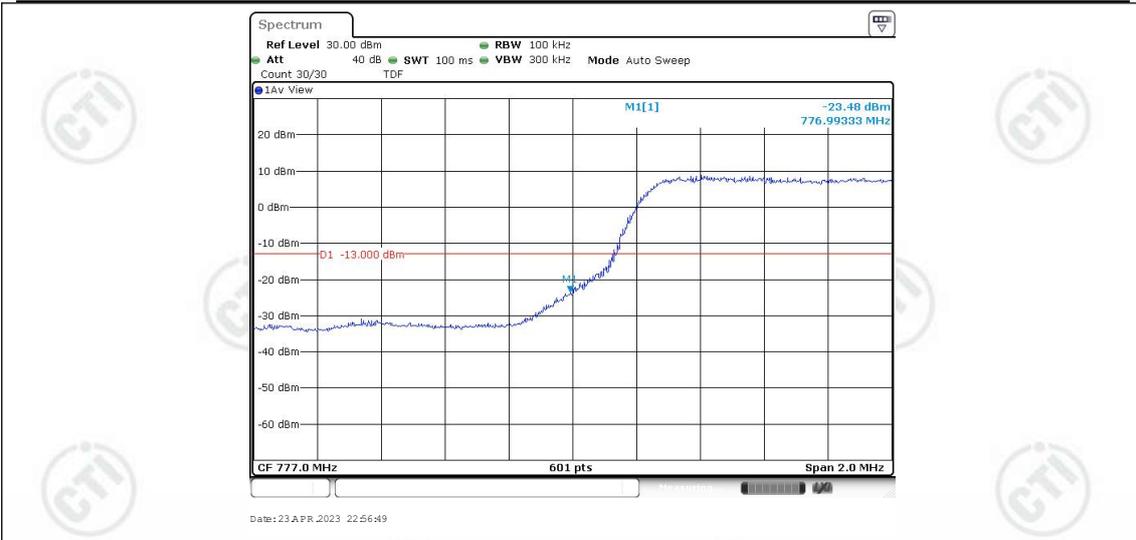
## Appendix D: Band Edge

### Test Result

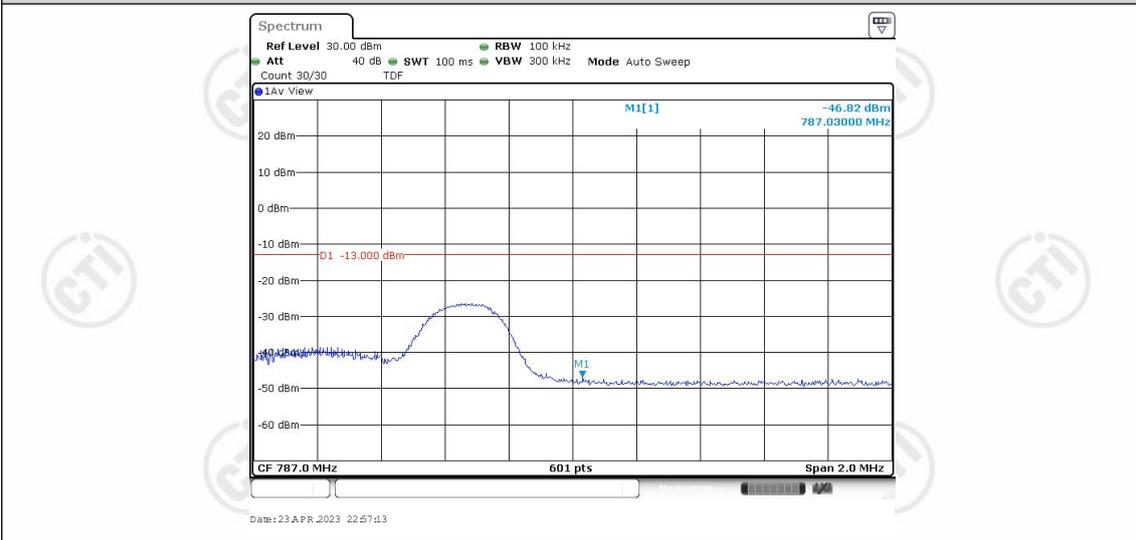
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	-19.40	PASS
Band13	5MHz	QPSK	23205	1RB#24	-46.71	PASS
Band13	5MHz	QPSK	23205	25RB#0	-23.48	PASS
Band13	5MHz	QPSK	23255	1RB#0	-46.82	PASS
Band13	5MHz	QPSK	23255	1RB#24	-19.46	PASS
Band13	5MHz	QPSK	23255	25RB#0	-24.25	PASS
Band13	5MHz	16QAM	23205	1RB#0	-20.11	PASS
Band13	5MHz	16QAM	23205	1RB#24	-47.09	PASS
Band13	5MHz	16QAM	23205	25RB#0	-26.60	PASS
Band13	5MHz	16QAM	23255	1RB#0	-47.18	PASS
Band13	5MHz	16QAM	23255	1RB#24	-21.94	PASS
Band13	5MHz	16QAM	23255	25RB#0	-28.15	PASS
Band13	10MHz	QPSK	23230	1RB#0	-25.92,-44.47	PASS
Band13	10MHz	QPSK	23230	1RB#49	-43.10,-30.28	PASS
Band13	10MHz	QPSK	23230	50RB#0	-24.20,-26.92	PASS
Band13	10MHz	16QAM	23230	1RB#0	-27.75,-44.97	PASS
Band13	10MHz	16QAM	23230	1RB#49	-44.43,-31.14	PASS
Band13	10MHz	16QAM	23230	50RB#0	-27.52,-30.50	PASS

## Test Graphs

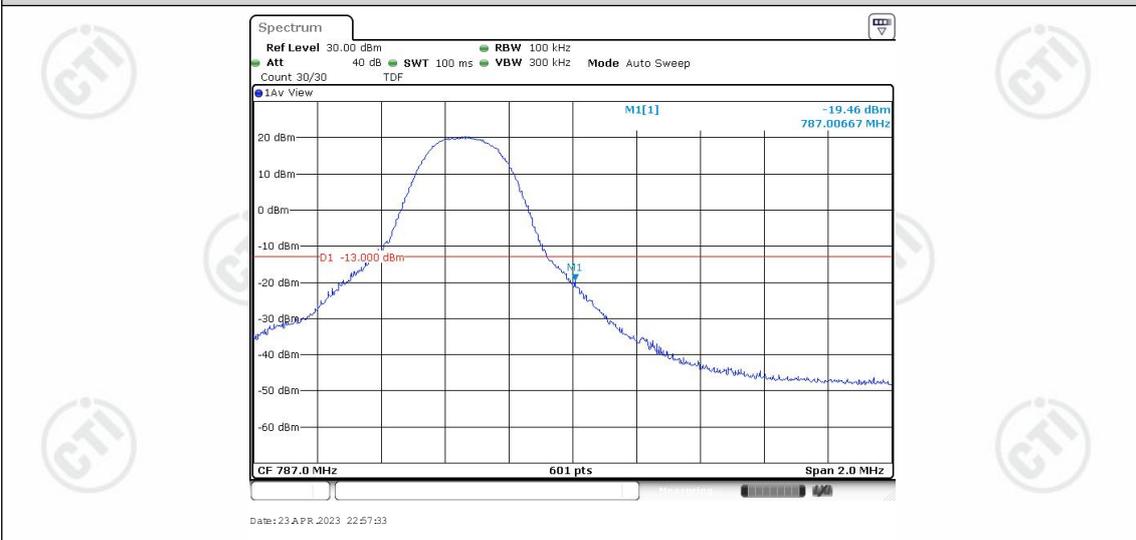




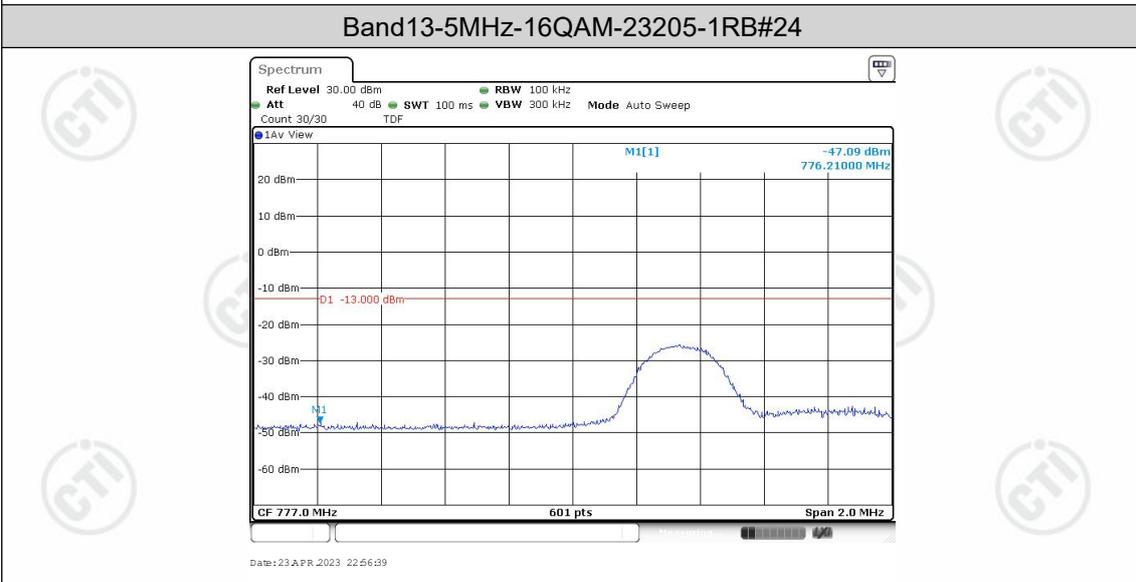
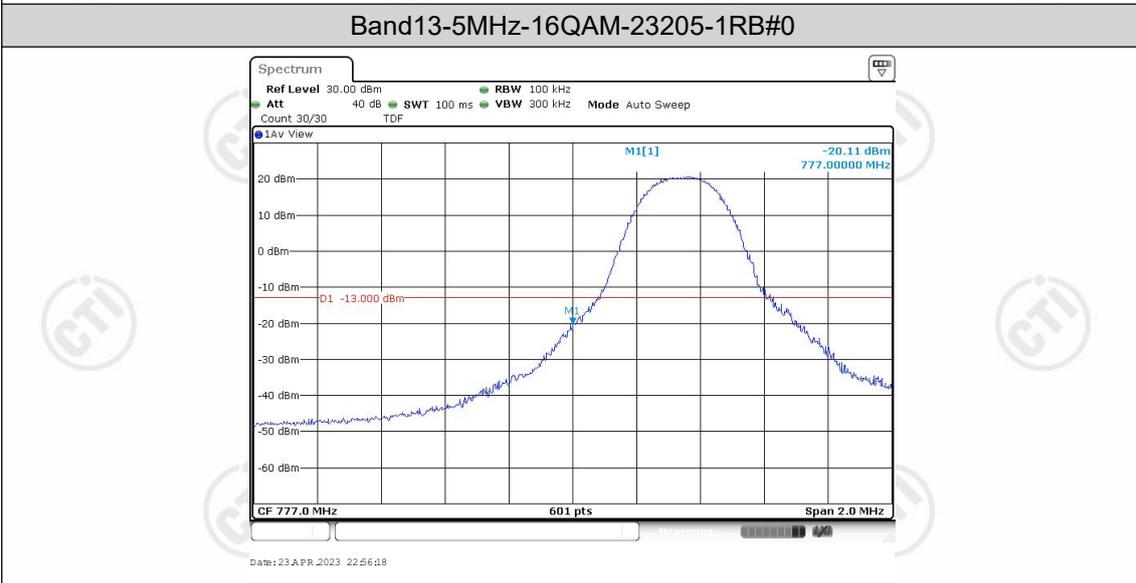
**Band13-5MHz-QPSK-23255-1RB#0**

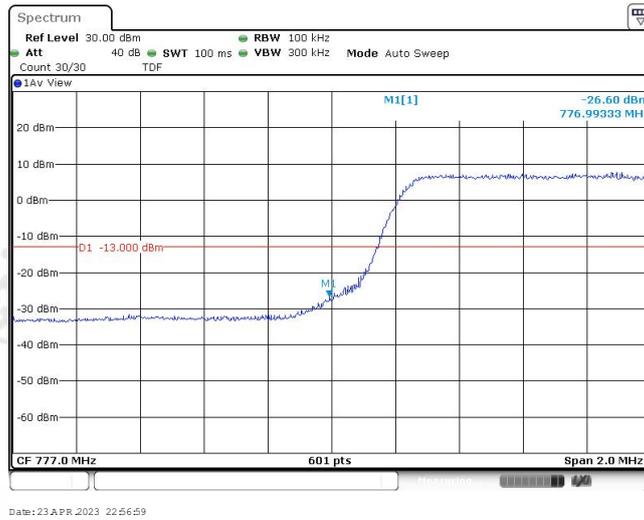


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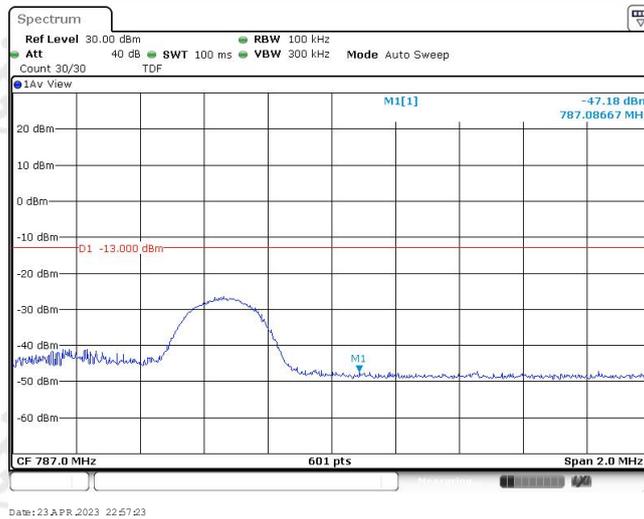


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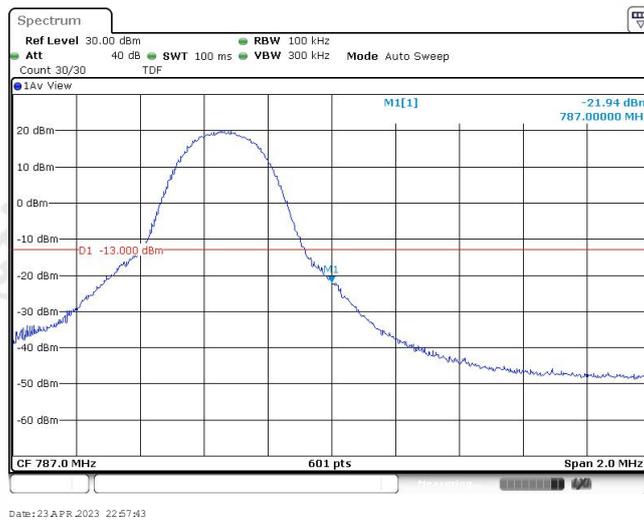




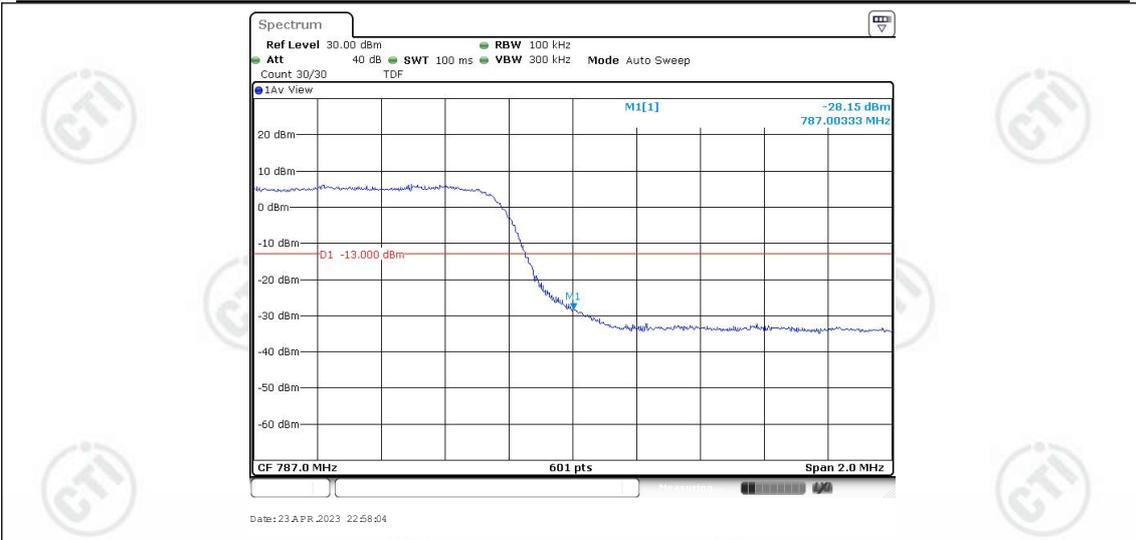
Band13-5MHz-16QAM-23255-1RB#0



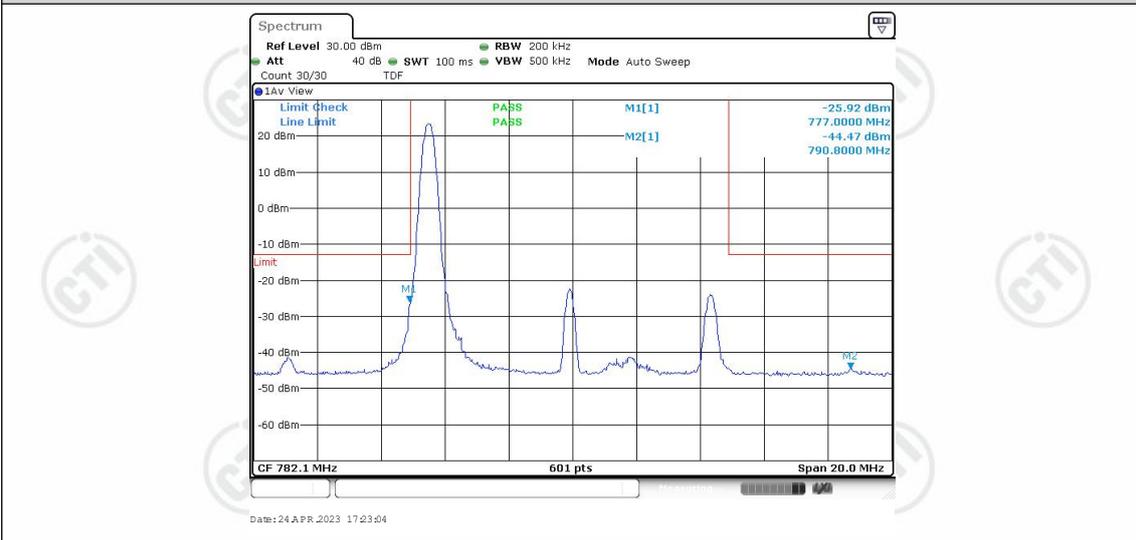
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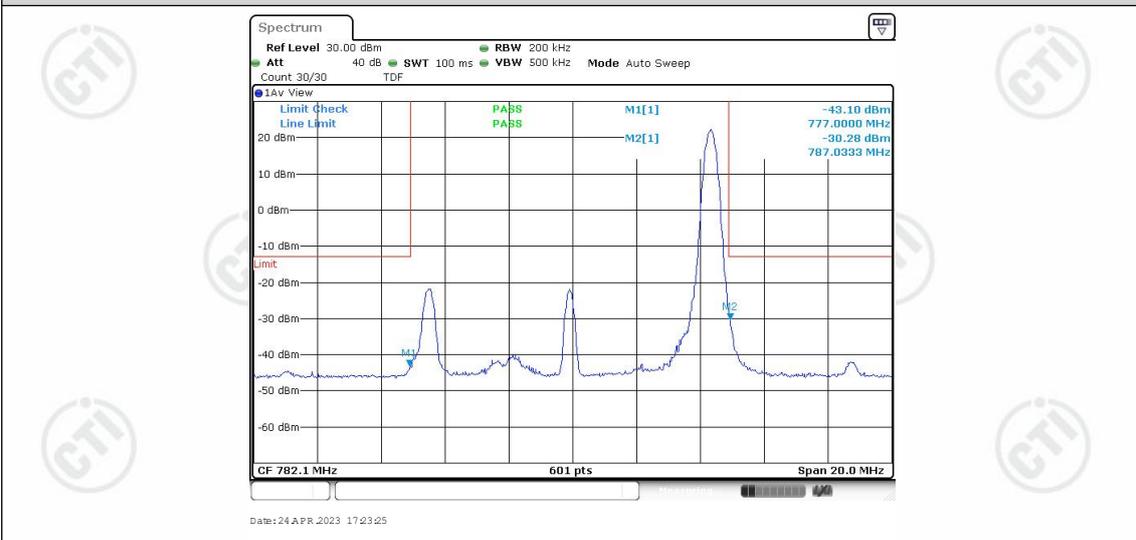
Band13-5MHz-16QAM-23255-25RB#0



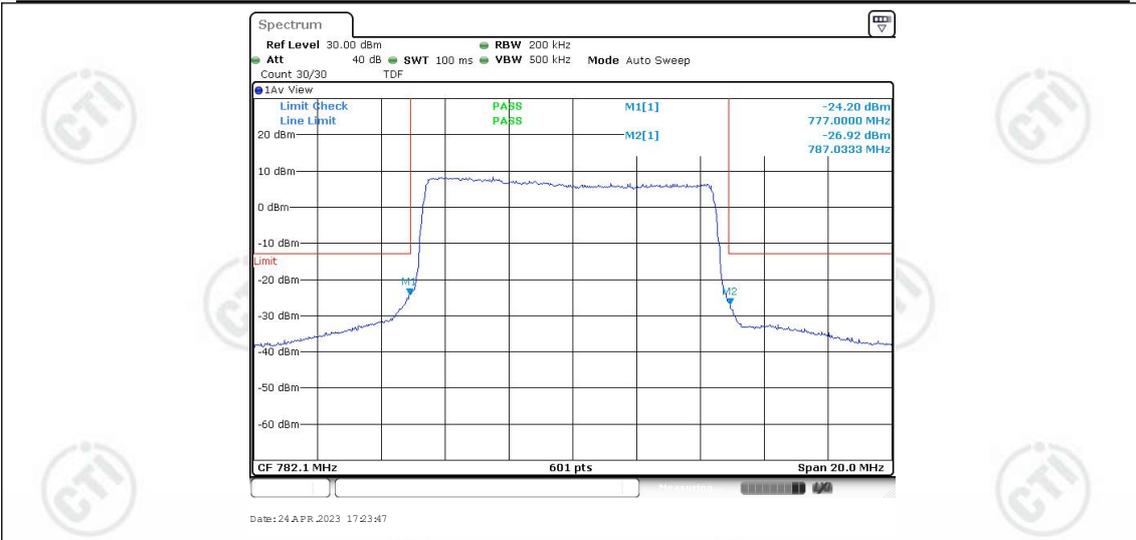
**Band13-10MHz-QPSK-23230-1RB#0**



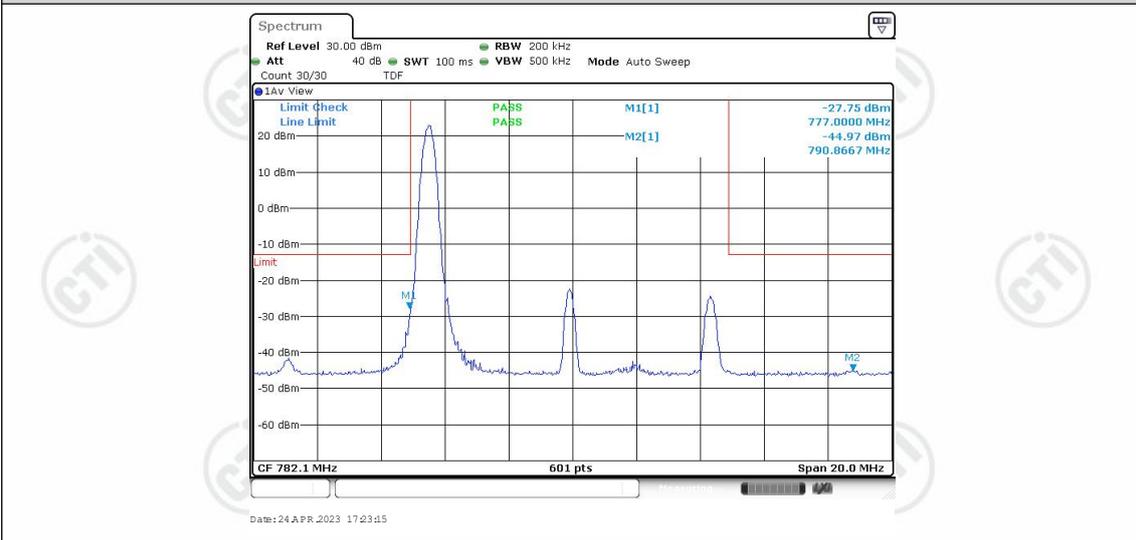
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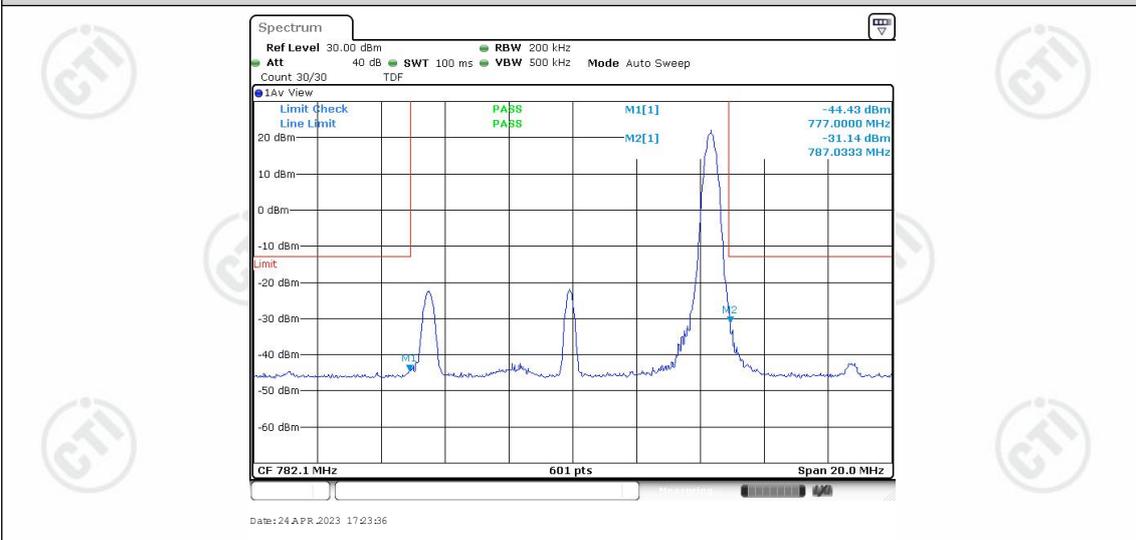
**Band13-10MHz-QPSK-23230-50RB#0**



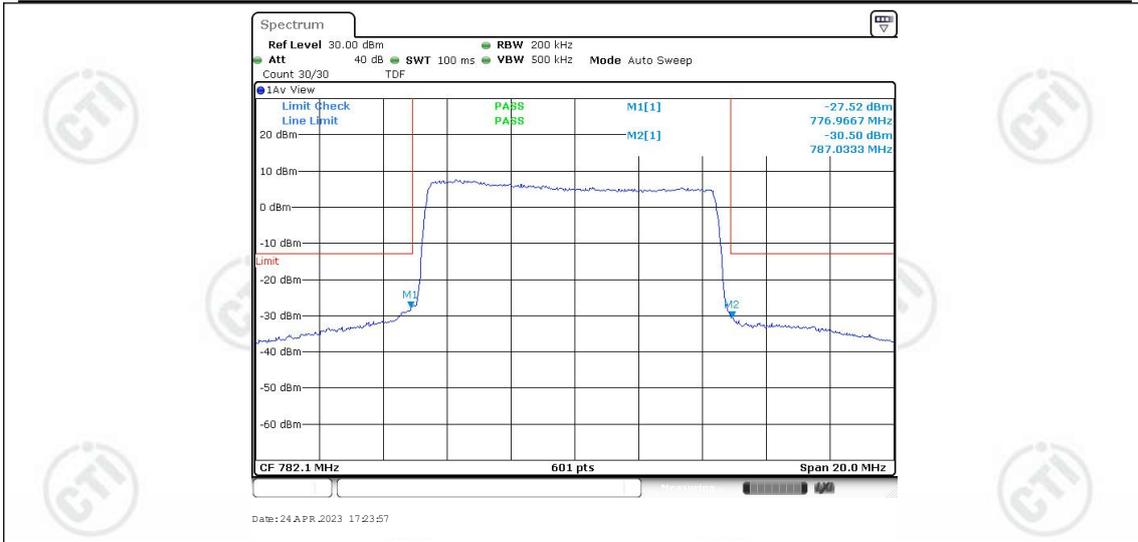
Band13-10MHz-16QAM-23230-1RB#0



Band13-10MHz-16QAM-23230-1RB#49



Band13-10MHz-16QAM-23230-50RB#0



## Appendix E: Conducted Spurious Emission

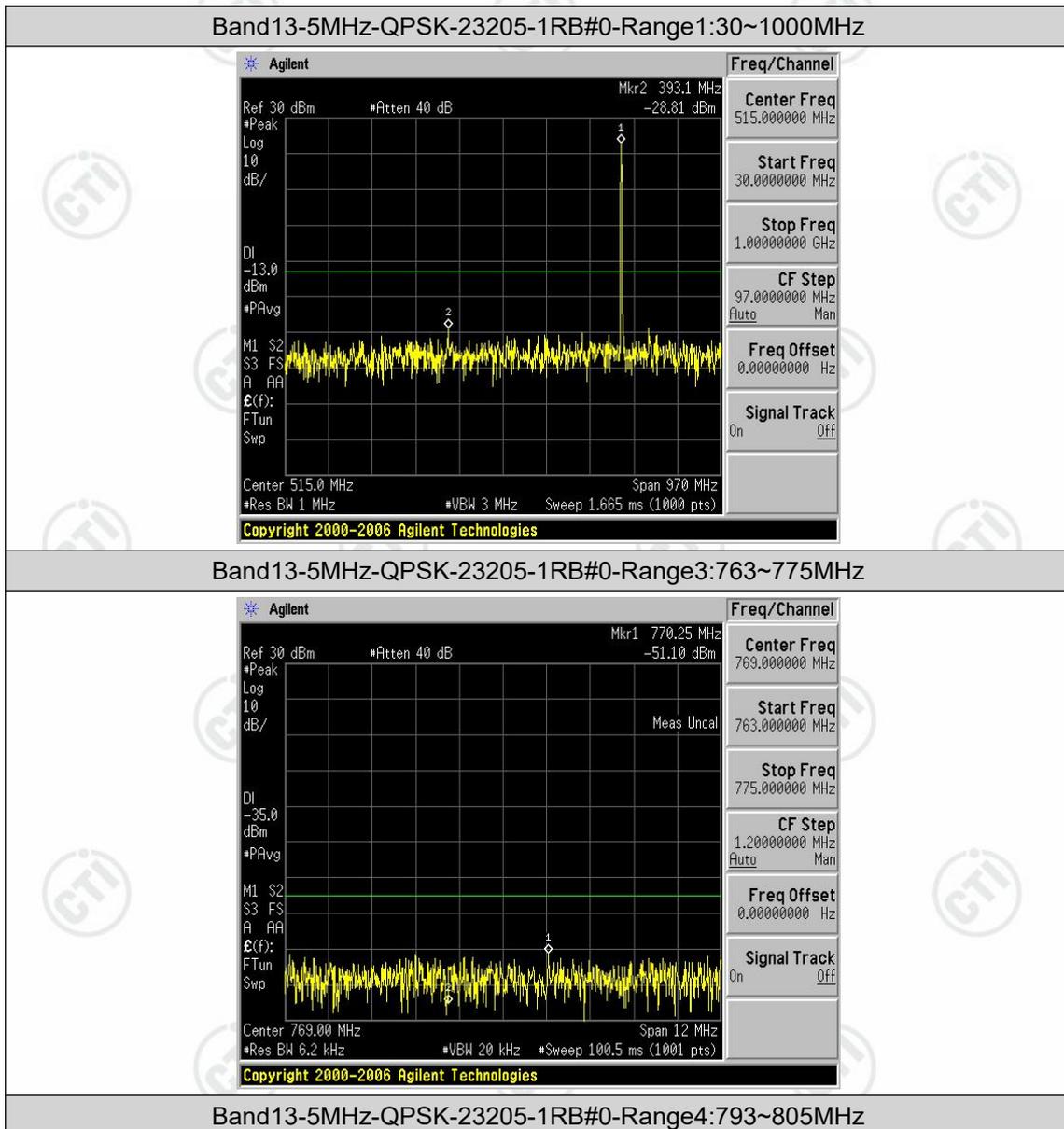
### Test Result

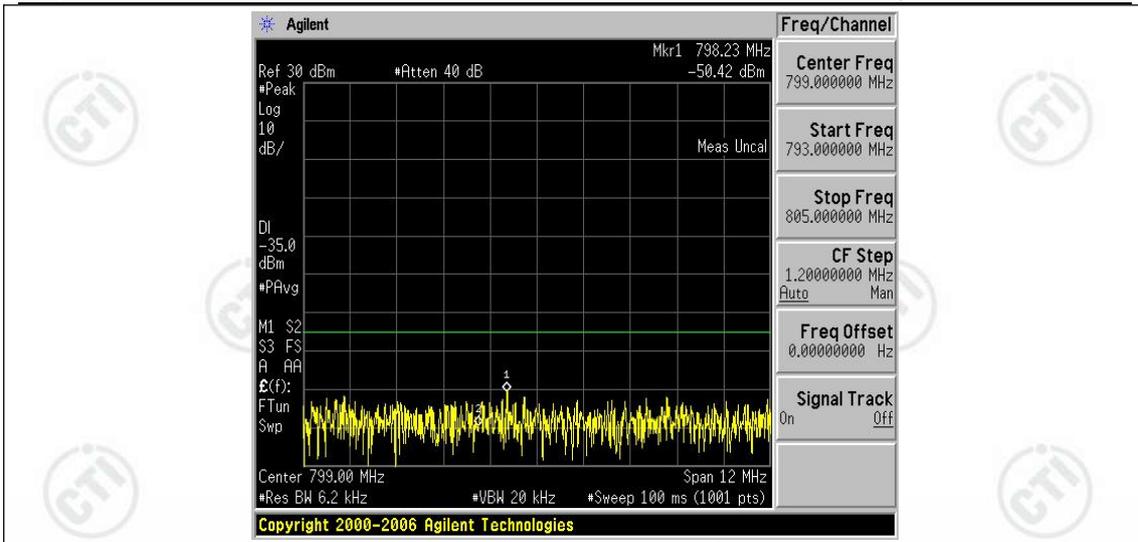
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	Range1:30~1000MHz	-28.8 1	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range3:763~775MHz	-51.1	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range4:793~805MHz	-50.4 2	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range2:1000~10000MHz	-30.5 2	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range5:1559~1610MHz	-58.6 6	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range1:30~1000MHz	-30.0 6	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range3:763~775MHz	-50.1 1	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range4:793~805MHz	-50.5 5	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range2:1000~10000MHz	-29.0 8	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range5:1559~1610MHz	-57.3 8	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range1:30~1000MHz	-30.4	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range3:763~775MHz	-49.5 4	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range4:793~805MHz	-51.5 3	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range2:1000~10000MHz	-33.5	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range5:1559~1610MHz	-58.3 3	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range1:30~1000MHz	-30.6 6	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range3:763~775MHz	-49.3 4	PASS

Band13	5MHz	16QAM	23205	1RB#0	Range4:793~805MHz	-49.3 3	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range2:1000~10000MHz	-30.3 6	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range5:1559~1610MHz	-58.5 3	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range1:30~1000MHz	-30.1 9	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range3:763~775MHz	-50.5 2	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range4:793~805MHz	-50.5 2	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range2:1000~10000MHz	-33.2 2	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range5:1559~1610MHz	-58.2	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range1:30~1000MHz	-29.7 2	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range3:763~775MHz	-50.6 5	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range4:793~805MHz	-50.9 2	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range2:1000~10000MHz	-31.5 3	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range5:1559~1610MHz	-58.3 5	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range1:30~1000MHz	-29.4	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range3:763~775MHz	-100 0	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range4:793~805MHz	-50.7 4	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range2:1000~10000MHz	-38.9 4	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range5:1559~1610MHz	-57.4 3	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range1:30~1000MHz	-29.1 3	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range3:763~775MHz	-48.8 4	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range4:793~805MHz	-51.0 4	PASS

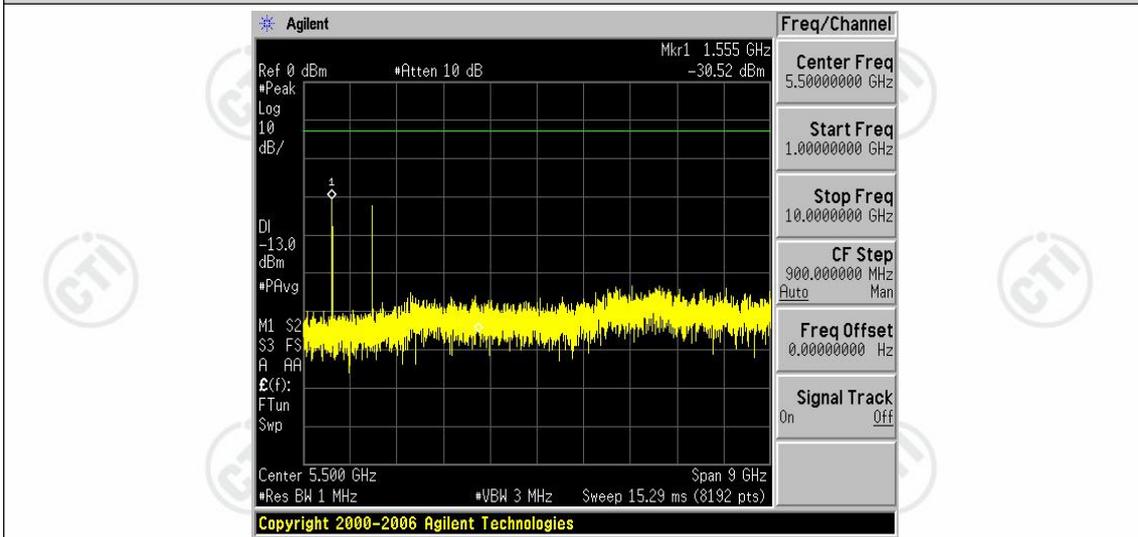
Band13	10MHz	16QAM	23230	1RB#0	Range2:1000~10000MHz	-35.2 6	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range5:1559~1610MHz	-58.0 3	PASS

## Test Graphs

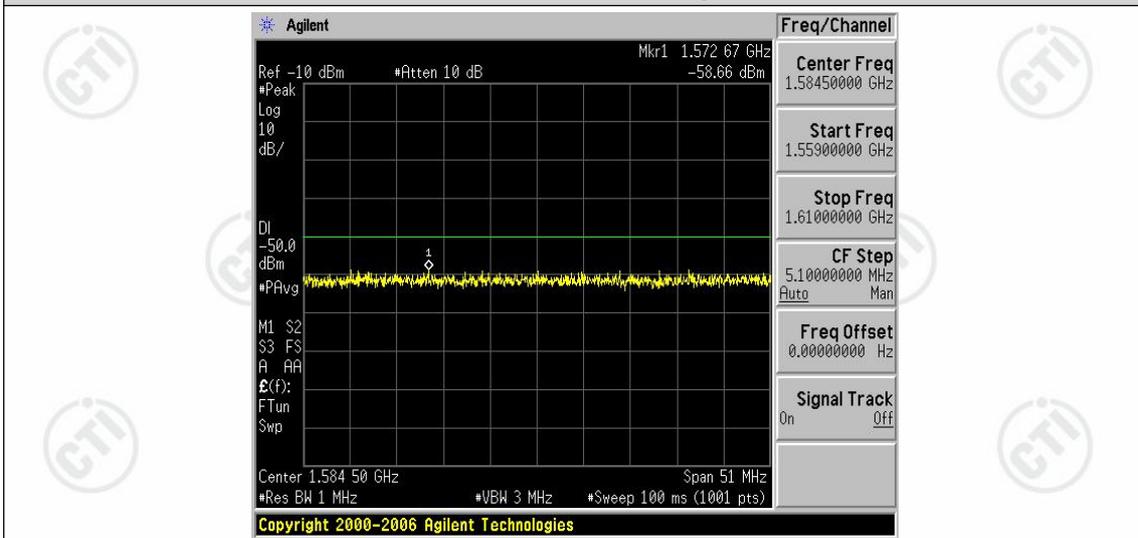




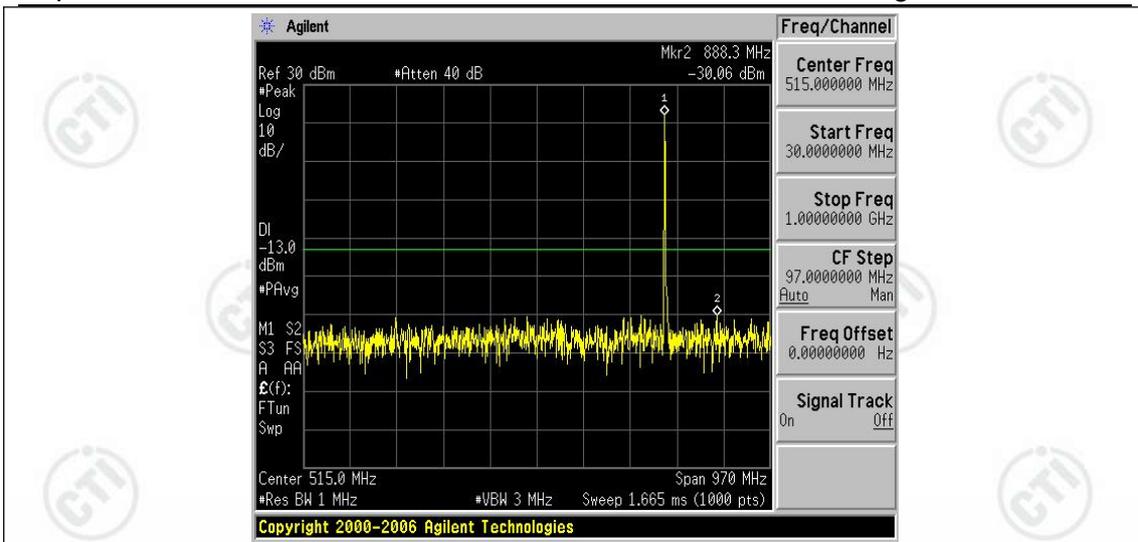
Band13-5MHz-QPSK-23205-1RB#0-Range2:1000~10000MHz



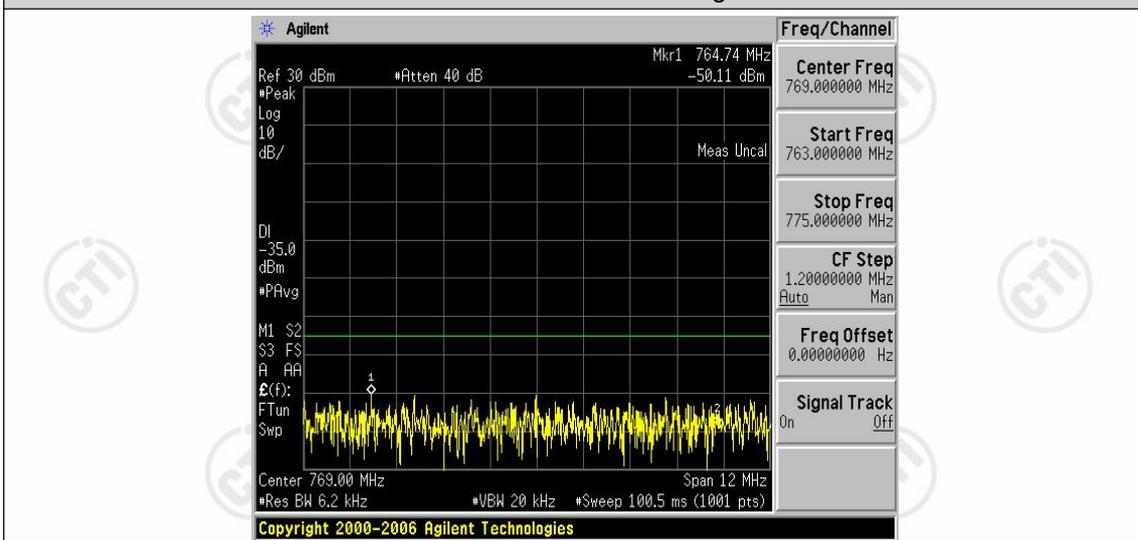
Band13-5MHz-QPSK-23205-1RB#0-Range5:1559~1610MHz



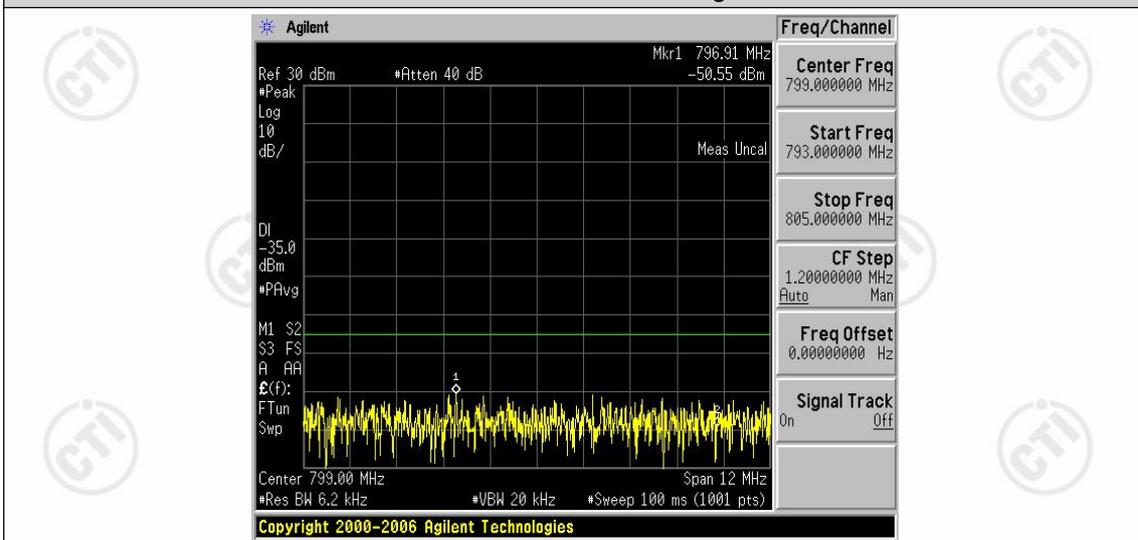
Band13-5MHz-QPSK-23230-1RB#0-Range1:30~1000MHz



Band13-5MHz-QPSK-23230-1RB#0-Range3:763~775MHz



Band13-5MHz-QPSK-23230-1RB#0-Range4:793~805MHz



Band13-5MHz-QPSK-23230-1RB#0-Range2:1000~10000MHz