Appendix for LTE Band 13

CONTENTS

Appendix A: Effective (Isotropic) Radiated Power Output Data 3
Test Result 3
Appendix B: Peak-to-Average Ratio(CCDF) 5
Test Result 5
Test Graphs 6
Appendix C: 26dB Bandwidth and Occupied Bandwidth 12
Test Result 12
Test Graphs 13
Appendix D: Band Edge 16
Test Result 16
Test Graphs 16
Appendix E: Conducted Spurious Emission 23
Test Result 23
Test Graphs 26
Appendix F: Frequency Stability 40
Test Result 40

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	23.46	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.42	PASS
Band13	5MHz	QPSK	23205	1RB#24	23.60	PASS
Band13	5MHz	QPSK	23205	12RB#0	23.20	PASS
Band13	5MHz	QPSK	23205	12RB#6	23.16	PASS
Band13	5MHz	QPSK	23205	12RB#13	23.04	PASS
Band13	5MHz	QPSK	23205	25RB#0	23.17	PASS
Band13	5MHz	QPSK	23230	1RB#0	22.73	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.93	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.59	PASS
Band13	5MHz	QPSK	23230	12RB#0	22.94	PASS
Band13	5MHz	QPSK	23230	12RB#6	22.93	PASS
Band13	5MHz	QPSK	23230	12RB#13	22.62	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.86	PASS
Band13	5MHz	QPSK	23255	1RB#0	22.44	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.43	PASS
Band13	5MHz	QPSK	23255	1RB#24	23.01	PASS
Band13	5MHz	QPSK	23255	12RB#0	22.59	PASS
Band13	5MHz	QPSK	23255	12RB#6	22.62	PASS
Band13	5MHz	QPSK	23255	12RB#13	22.22	PASS
Band13	5MHz	QPSK	23255	25RB#0	22.53	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.99	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.96	PASS
Band13	5MHz	16QAM	23205	1RB#24	22.38	PASS
Band13	5MHz	16QAM	23205	12RB#0	22.04	PASS
Band13	5MHz	16QAM	23205	12RB#6	22.10	PASS
Band13	5MHz	16QAM	23205	12RB#13	22.09	PASS
Band13	5MHz	16QAM	23205	25RB#0	22.05	PASS
Band13	5MHz	16QAM	23230	1RB#0	21.73	PASS
Band13	5MHz	16QAM	23230	1RB#12	22.72	PASS
Band13	5MHz	16QAM	23230	1RB#24	22.42	PASS

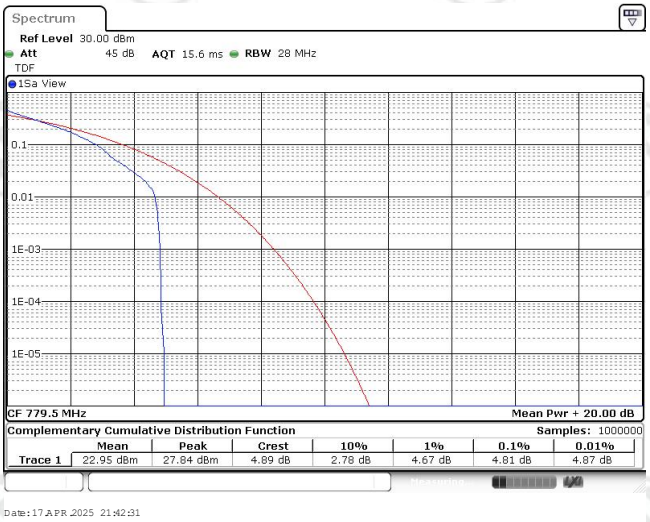
Band13	5MHz	16QAM	23230	12RB#0	21.97	PASS
Band13	5MHz	16QAM	23230	12RB#6	21.86	PASS
Band13	5MHz	16QAM	23230	12RB#13	21.46	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.60	PASS
Band13	5MHz	16QAM	23255	1RB#0	21.26	PASS
Band13	5MHz	16QAM	23255	1RB#12	22.37	PASS
Band13	5MHz	16QAM	23255	1RB#24	21.77	PASS
Band13	5MHz	16QAM	23255	12RB#0	21.43	PASS
Band13	5MHz	16QAM	23255	12RB#6	21.40	PASS
Band13	5MHz	16QAM	23255	12RB#13	21.11	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.42	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.14	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.00	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.11	PASS
Band13	10MHz	QPSK	23230	25RB#0	23.22	PASS
Band13	10MHz	QPSK	23230	25RB#12	23.21	PASS
Band13	10MHz	QPSK	23230	25RB#25	22.48	PASS
Band13	10MHz	QPSK	23230	50RB#0	22.80	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.82	PASS
Band13	10MHz	16QAM	23230	1RB#24	23.08	PASS
Band13	10MHz	16QAM	23230	1RB#49	21.68	PASS
Band13	10MHz	16QAM	23230	25RB#0	21.93	PASS
Band13	10MHz	16QAM	23230	25RB#12	22.01	PASS
Band13	10MHz	16QAM	23230	25RB#25	21.51	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.61	PASS

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

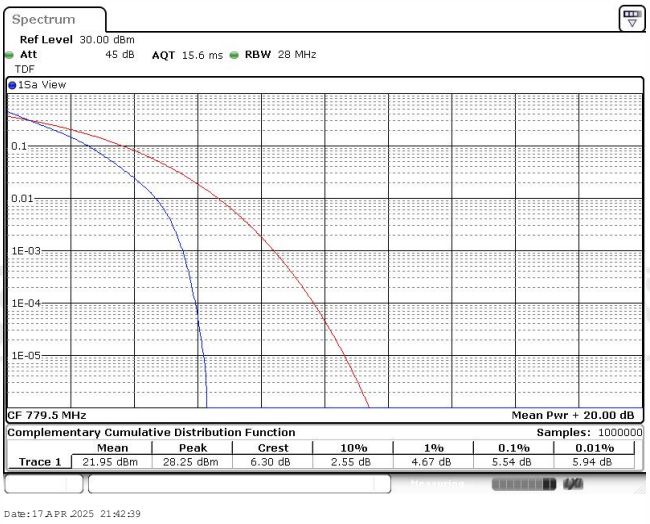
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	4.81	13	PASS
Band13	5MHz	QPSK	23205	25RB#0	5.54	13	PASS
Band13	5MHz	QPSK	23230	1RB#0	4.90	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.51	13	PASS
Band13	5MHz	QPSK	23255	1RB#0	4.81	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.54	13	PASS
Band13	5MHz	16QAM	23205	1RB#0	5.80	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	6.41	13	PASS
Band13	5MHz	16QAM	23230	1RB#0	5.83	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	6.38	13	PASS
Band13	5MHz	16QAM	23255	1RB#0	5.86	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.38	13	PASS
Band13	10MHz	QPSK	23230	1RB#0	4.81	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.36	13	PASS
Band13	10MHz	16QAM	23230	1RB#0	5.71	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.29	13	PASS

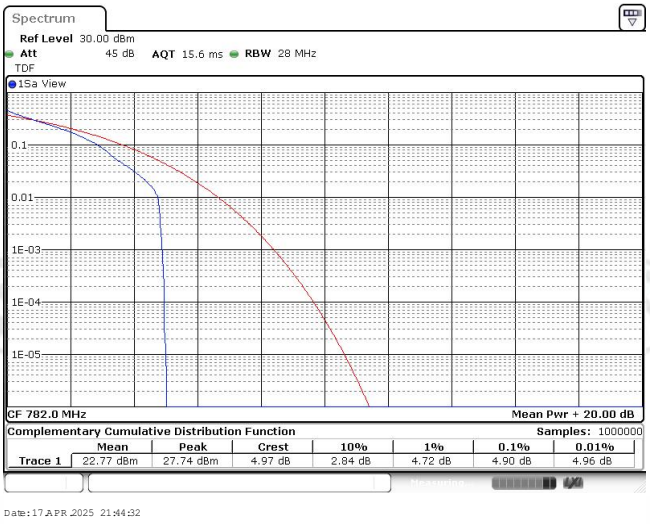
Test Graphs



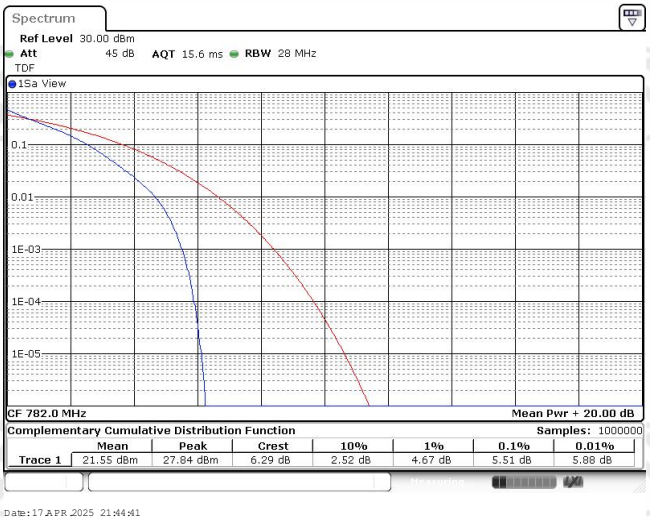
Band13-5MHz-QPSK-23205-1RB#0



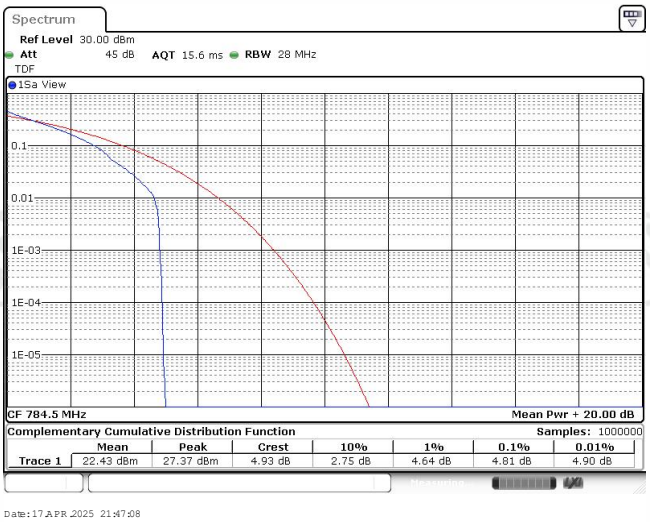
Band13-5MHz-QPSK-23205-25RB#0



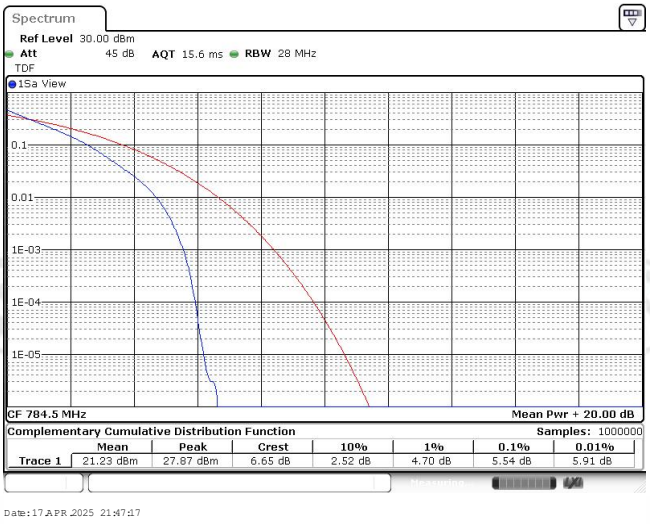
Band13-5MHz-QPSK-23230-1RB#0



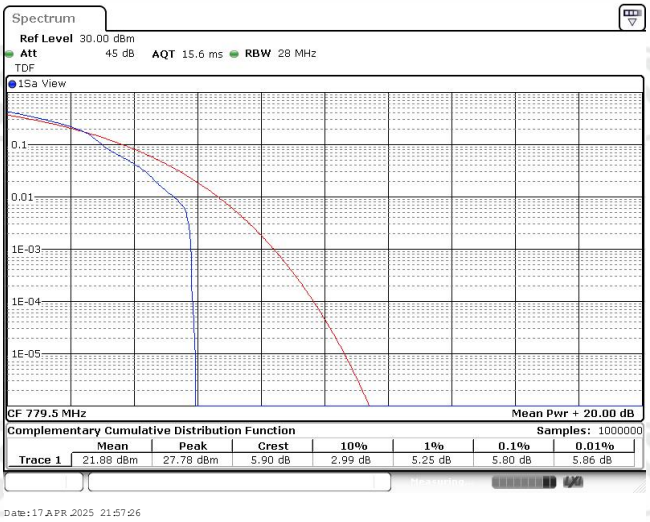
Band13-5MHz-QPSK-23230-25RB#0



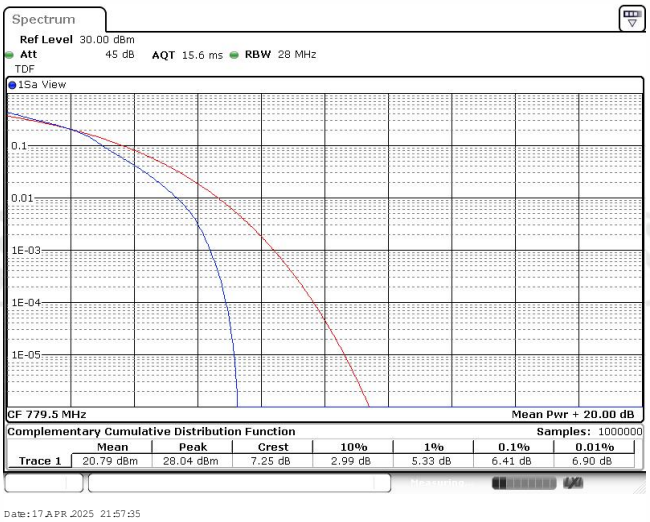
Band13-5MHz-QPSK-23255-1RB#0



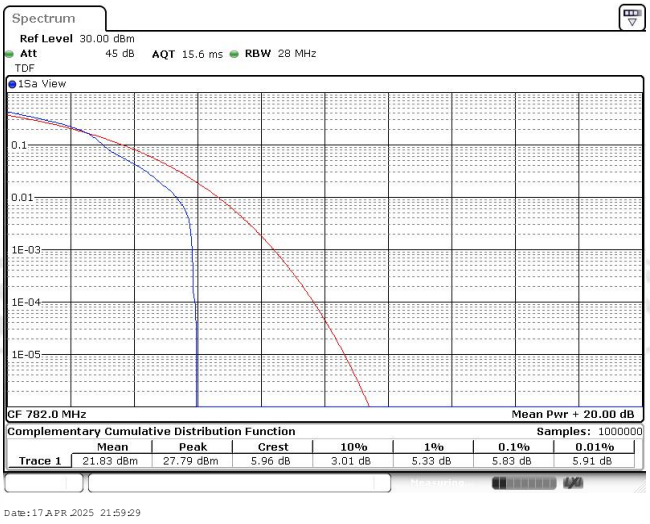
Band13-5MHz-QPSK-23255-25RB#0



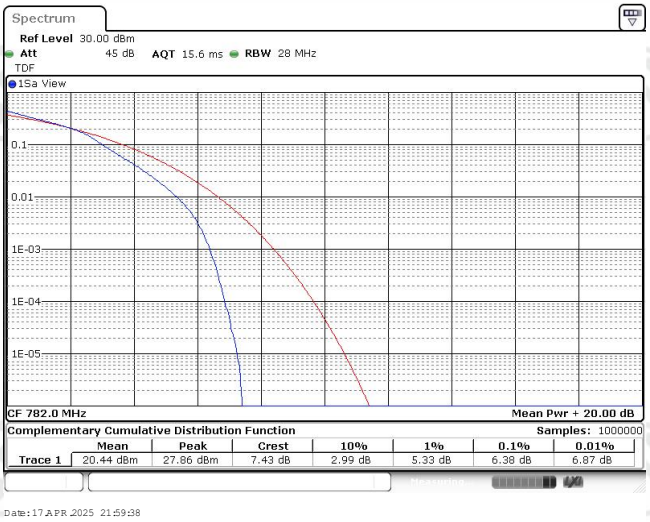
Band13-5MHz-16QAM-23205-1RB#0



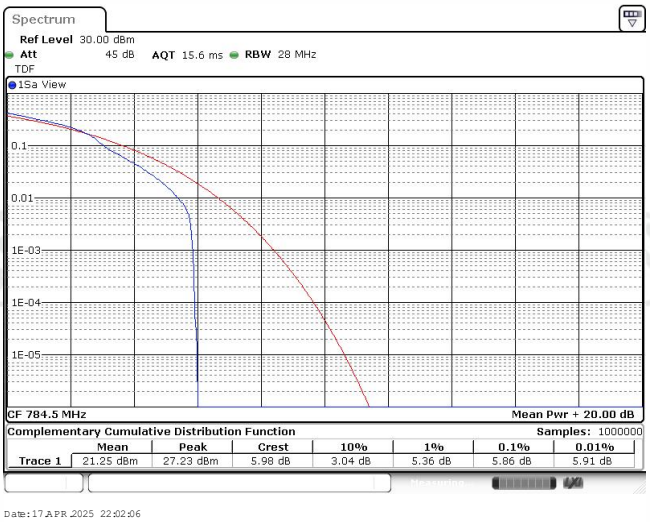
Band13-5MHz-16QAM-23205-25RB#0



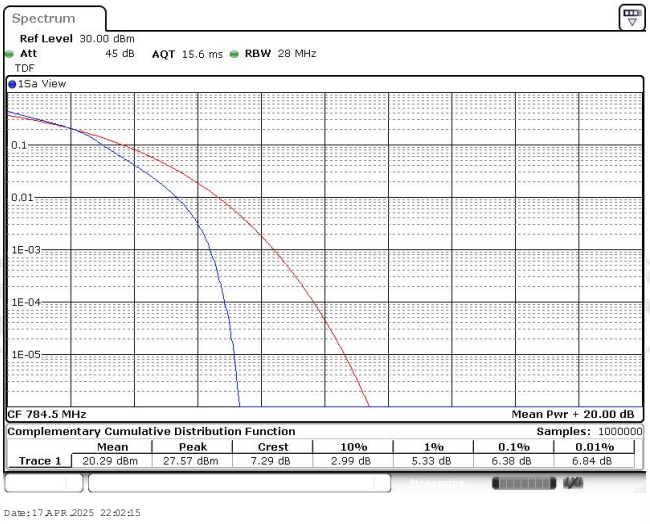
Band13-5MHz-16QAM-23230-1RB#0



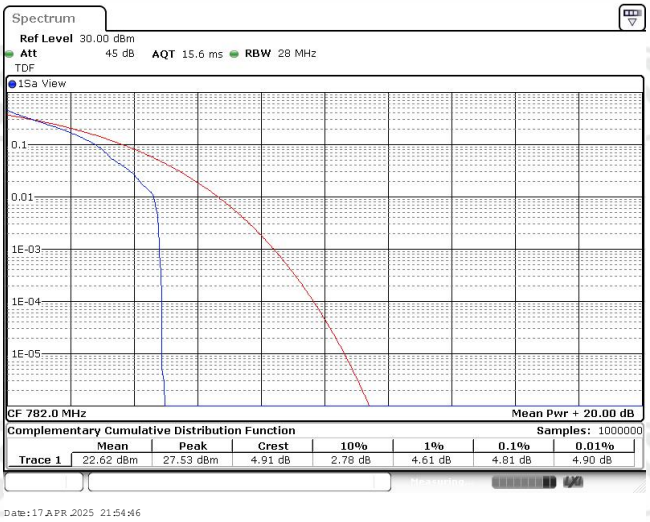
Band13-5MHz-16QAM-23230-25RB#0



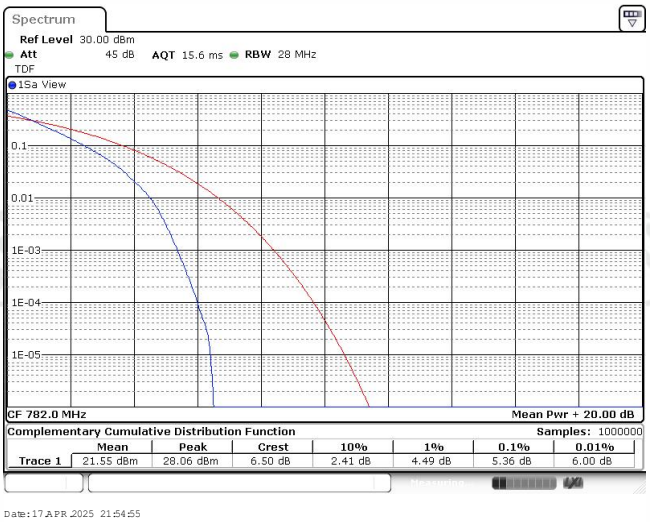
Band13-5MHz-16QAM-23255-1RB#0



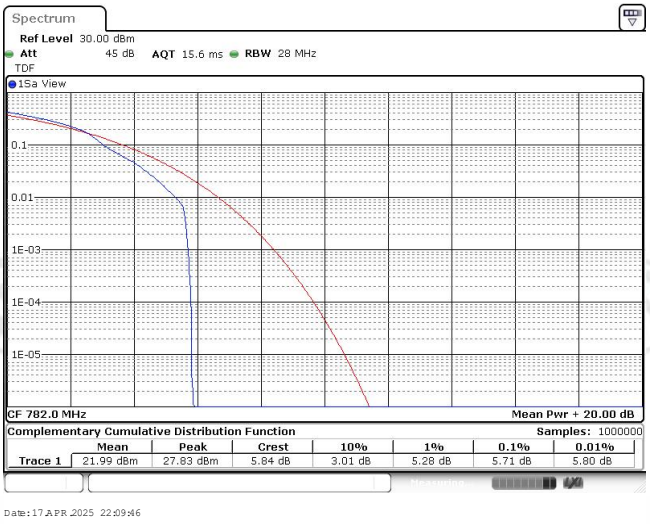
Band13-5MHz-16QAM-23255-25RB#0



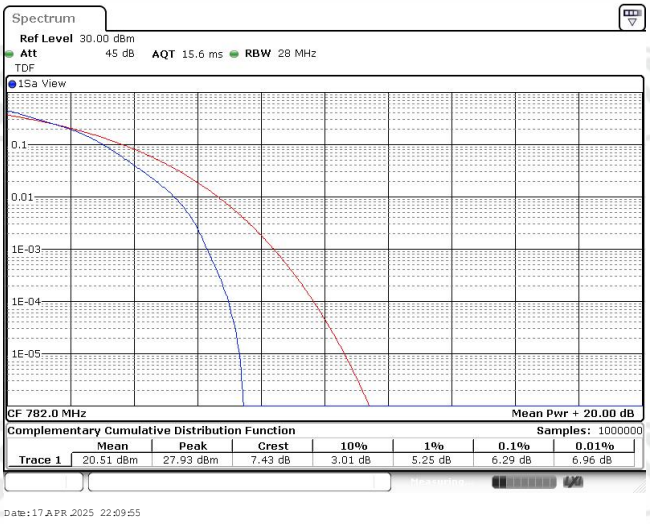
Band13-10MHz-QPSK-23230-1RB#0



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



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



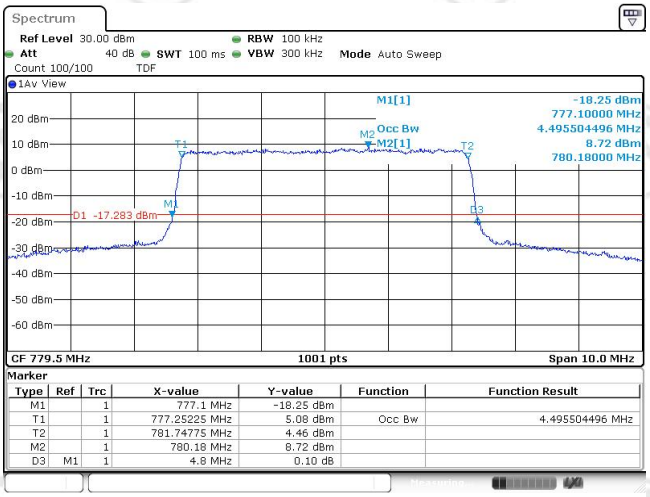
Band13-10MHz-16QAM-23230-50RB#0

Appendix C: 26dB Bandwidth and Occupied Bandwidth

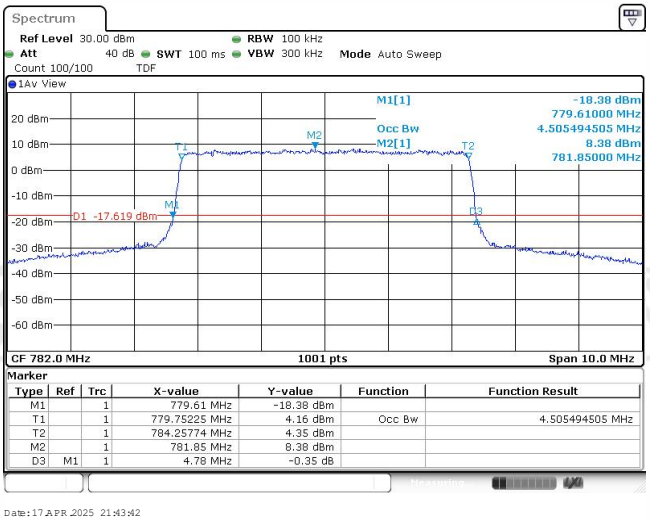
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.496	4.800	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.505	4.780	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.496	4.770	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.496	4.780	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.505	4.780	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.505	4.780	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.918	9.533	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.918	9.533	PASS

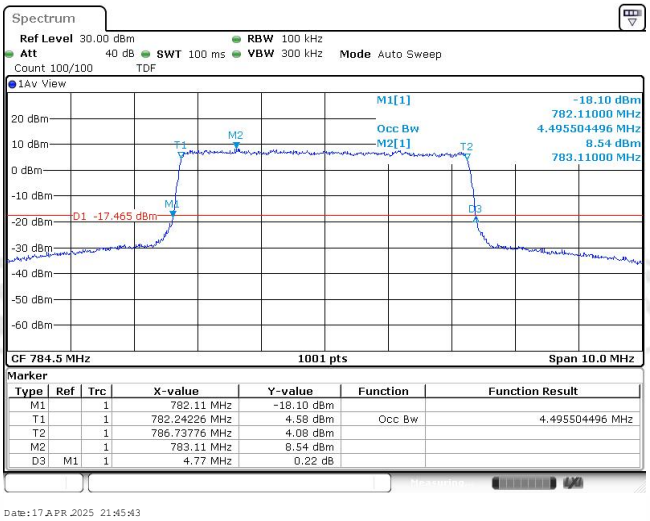
Test Graphs



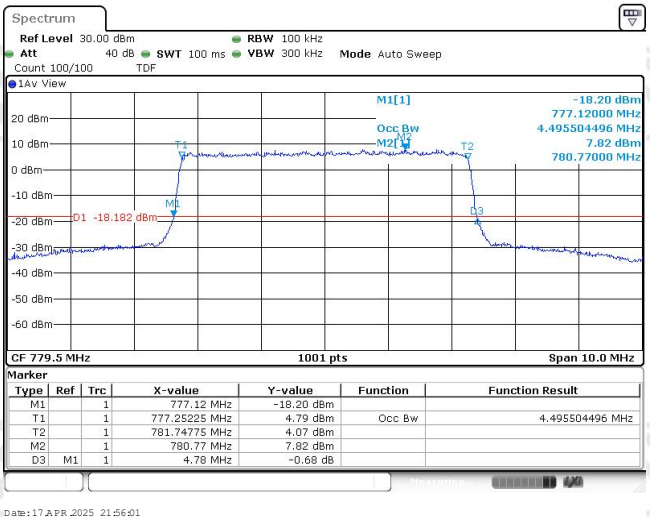
Band13-5MHz-QPSK-23205-25RB#0-4.496



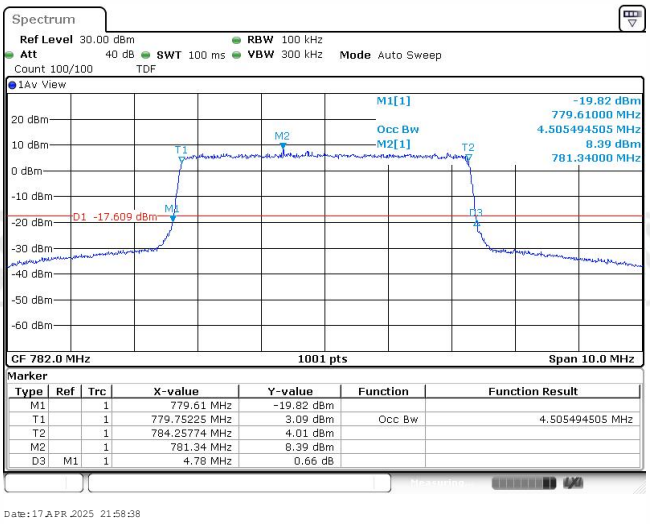
Band13-5MHz-QPSK-23230-25RB#0-4.505



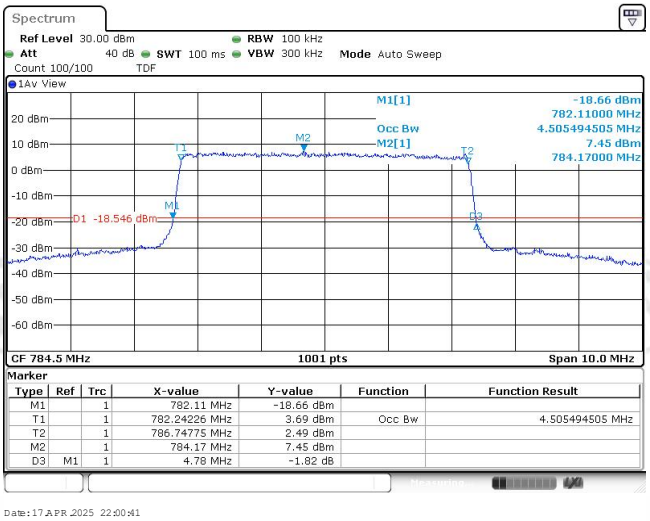
Band13-5MHz-QPSK-23255-25RB#0-4.496



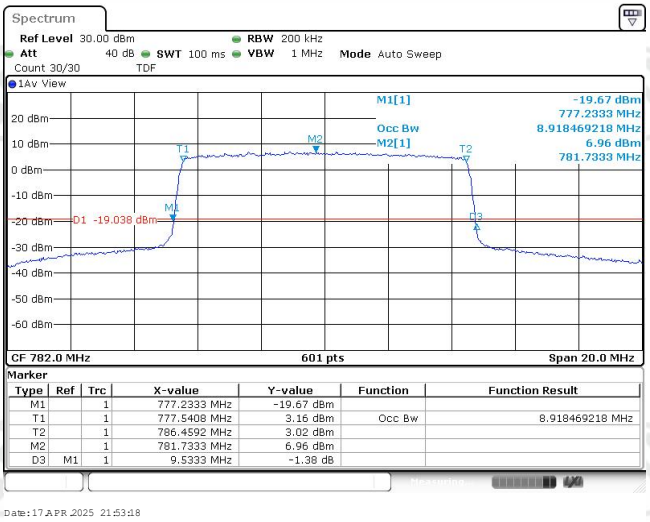
Band13-5MHz-16QAM-23205-25RB#0-4.496



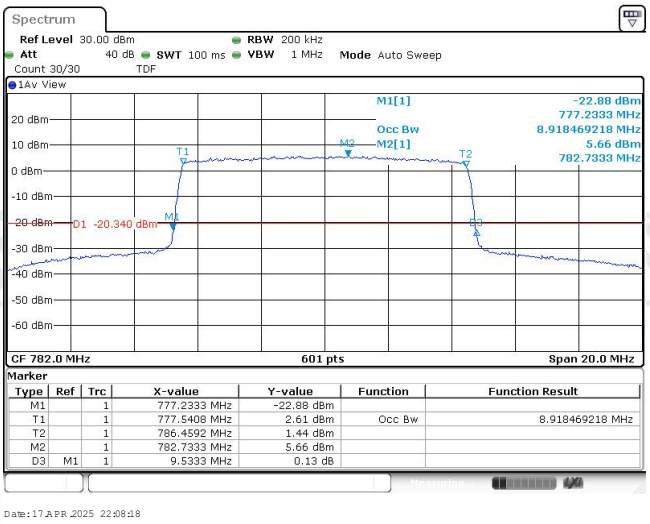
Band13-5MHz-16QAM-23230-25RB#0-4.505



Band13-5MHz-16QAM-23255-25RB#0-4.505



Band13-10MHz-QPSK-23230-50RB#0-8.918



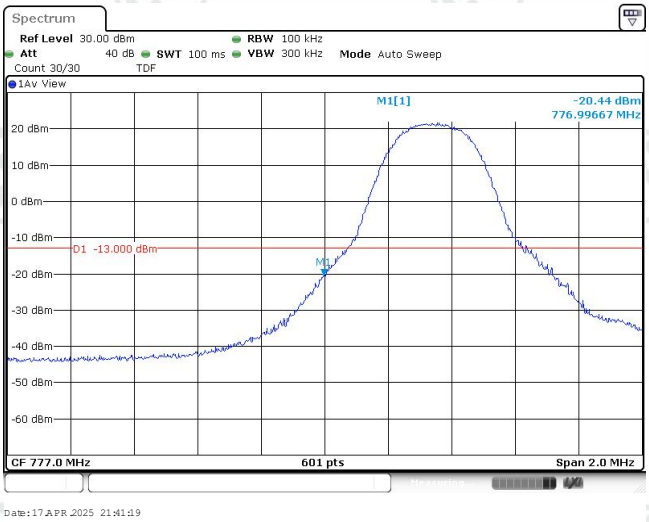
Band13-10MHz-16QAM-23230-50RB#0-8.918

Appendix D: Band Edge

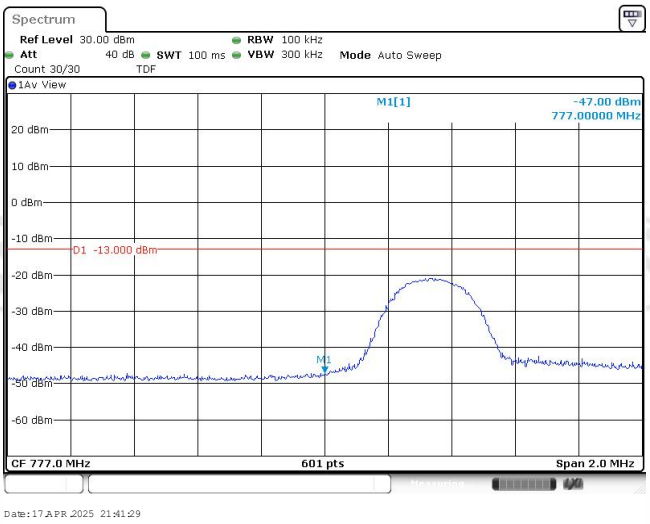
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	-20.44	PASS
Band13	5MHz	QPSK	23205	1RB#24	-47.00	PASS
Band13	5MHz	QPSK	23205	25RB#0	-25.26	PASS
Band13	5MHz	QPSK	23255	1RB#0	-47.08	PASS
Band13	5MHz	QPSK	23255	1RB#24	-22.21	PASS
Band13	5MHz	QPSK	23255	25RB#0	-26.62	PASS
Band13	5MHz	16QAM	23205	1RB#0	-21.15	PASS
Band13	5MHz	16QAM	23205	1RB#24	-47.31	PASS
Band13	5MHz	16QAM	23205	25RB#0	-26.73	PASS
Band13	5MHz	16QAM	23255	1RB#0	-47.17	PASS
Band13	5MHz	16QAM	23255	1RB#24	-22.06	PASS
Band13	5MHz	16QAM	23255	25RB#0	-28.09	PASS
Band13	10MHz	QPSK	23230	1RB#0	-28.64,-44.72	PASS
Band13	10MHz	QPSK	23230	1RB#49	-44.50,-31.62	PASS
Band13	10MHz	QPSK	23230	50RB#0	-27.50,-28.93	PASS
Band13	10MHz	16QAM	23230	1RB#0	-28.60,-43.92	PASS
Band13	10MHz	16QAM	23230	1RB#49	-42.92,-31.06	PASS
Band13	10MHz	16QAM	23230	50RB#0	-30.01,-30.69	PASS

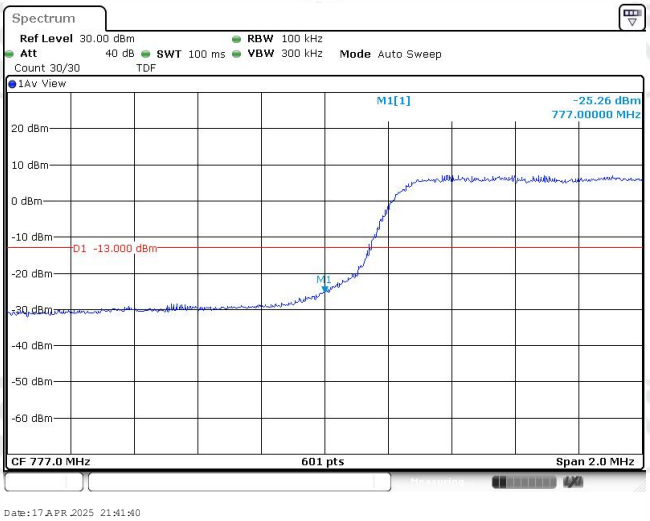
Test Graphs



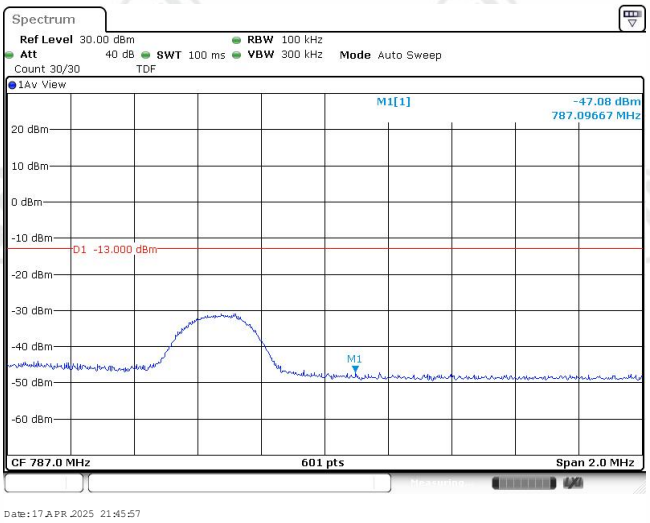
Band13-5MHz-QPSK-23205-1RB#0



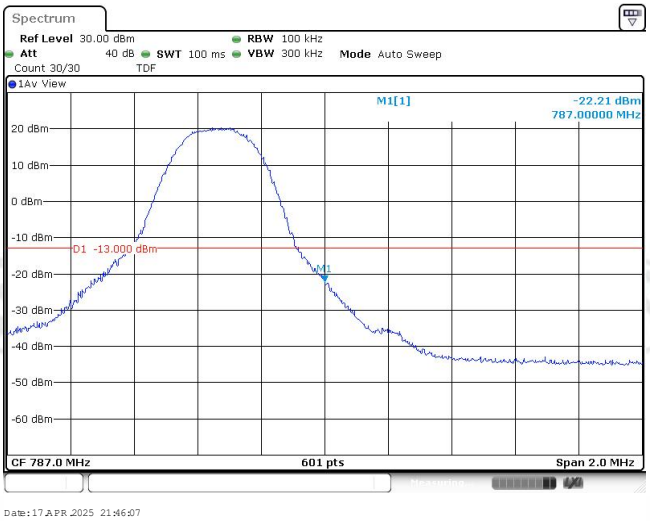
Band13-5MHz-QPSK-23205-1RB#24



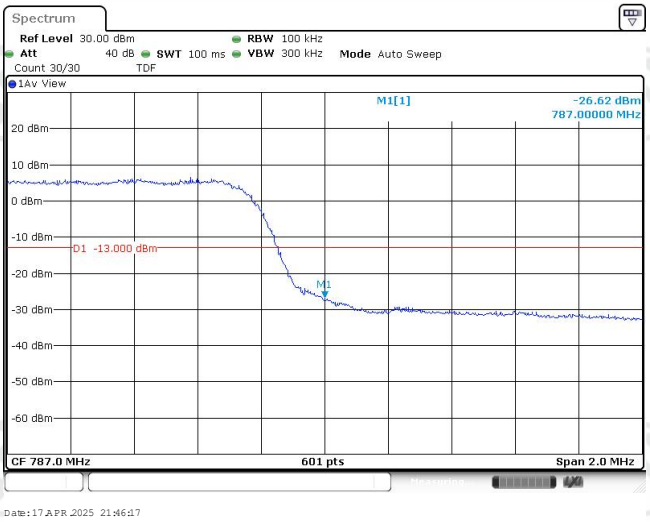
Band13-5MHz-QPSK-23205-25RB#0



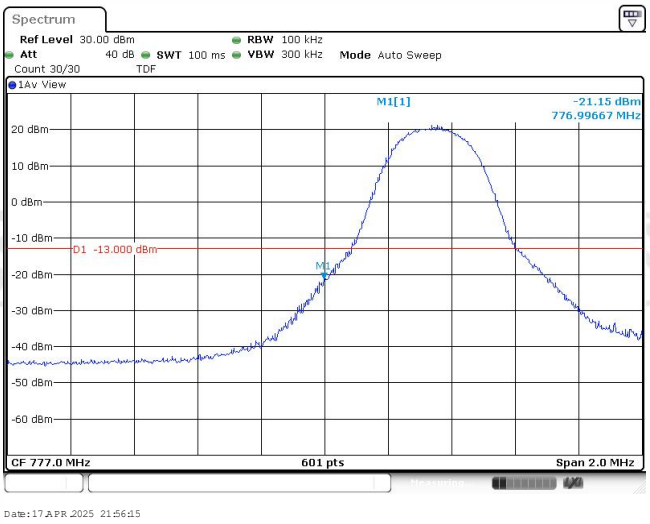
Band13-5MHz-QPSK-23255-1RB#0



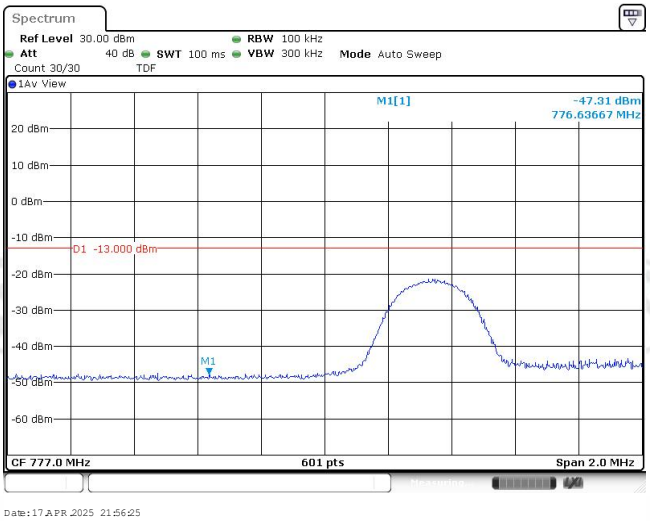
Band13-5MHz-QPSK-23255-1RB#24



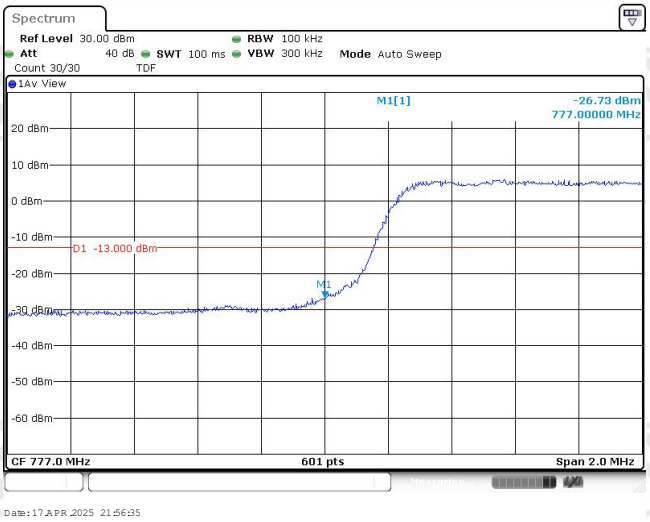
Band13-5MHz-QPSK-23255-25RB#0



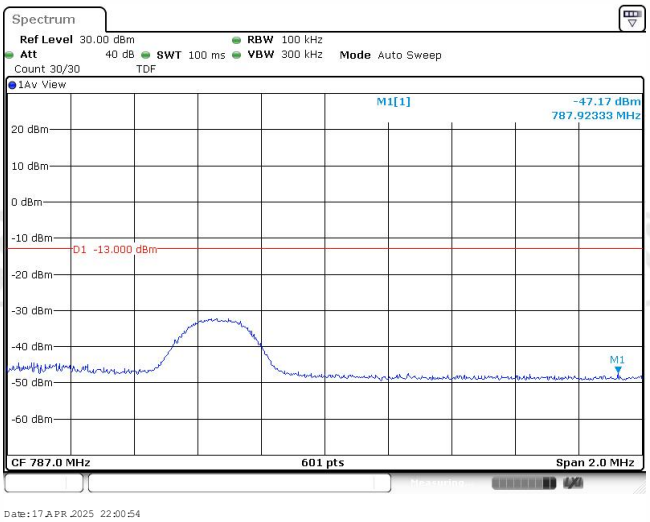
Band13-5MHz-16QAM-23205-1RB#0



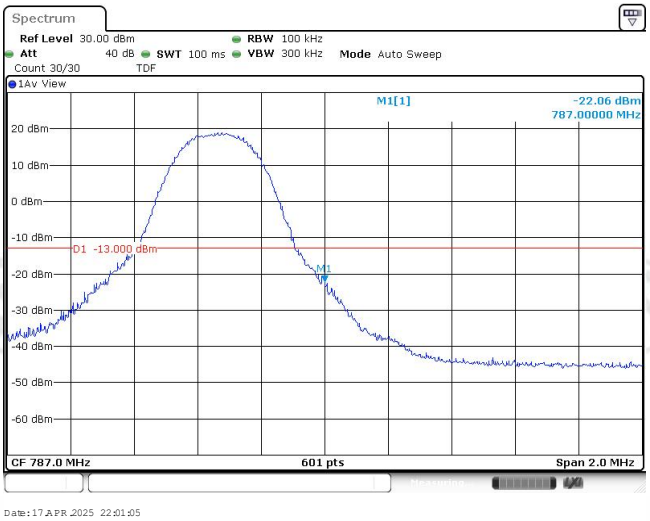
Band13-5MHz-16QAM-23205-1RB#24



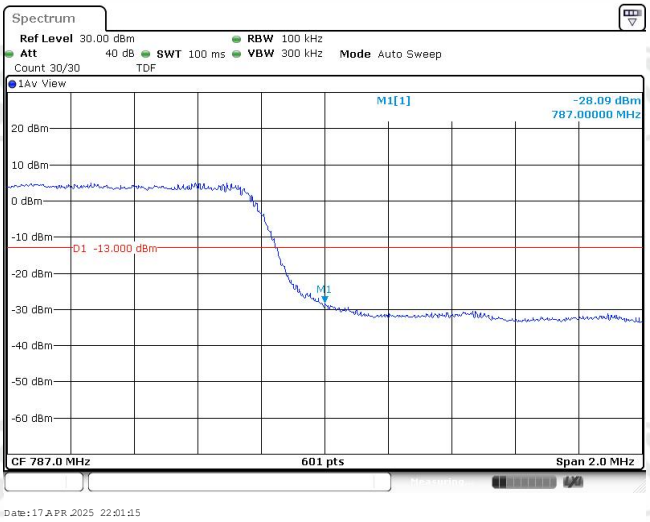
Band13-5MHz-16QAM-23205-25RB#0



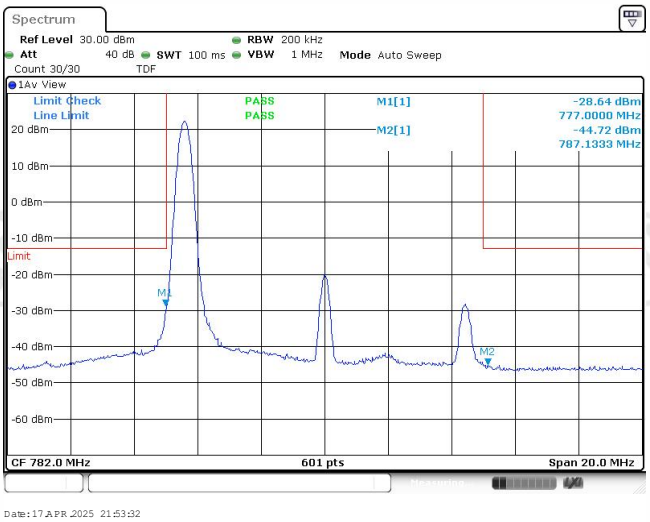
Band13-5MHz-16QAM-23255-1RB#0



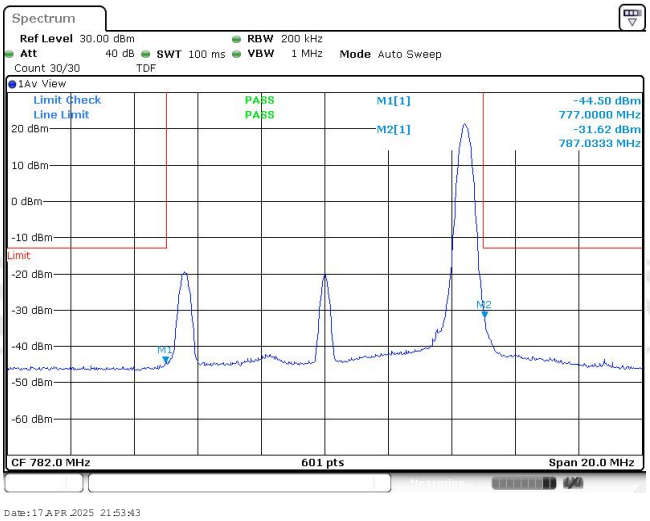
Band13-5MHz-16QAM-23255-1RB#24



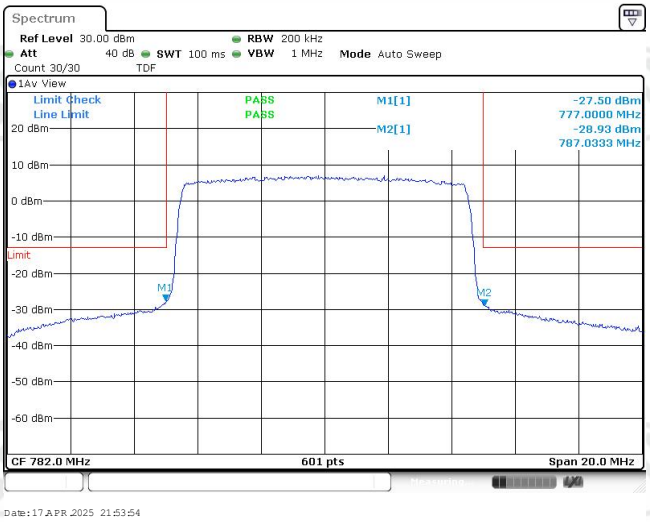
Band13-5MHz-16QAM-23255-25RB#0



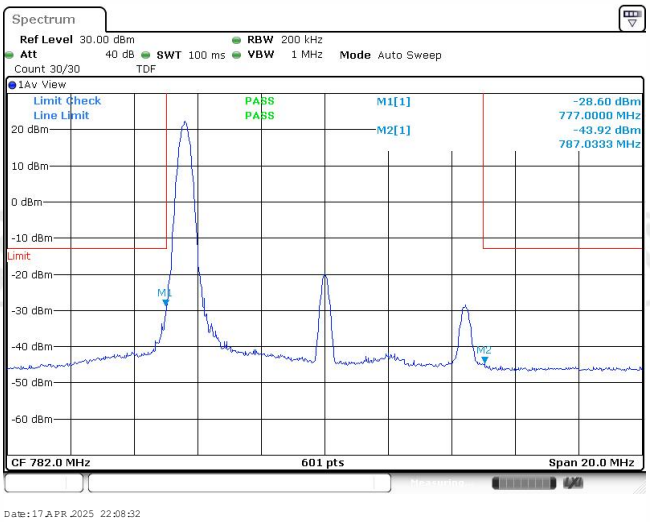
Band13-10MHz-QPSK-23230-1RB#0



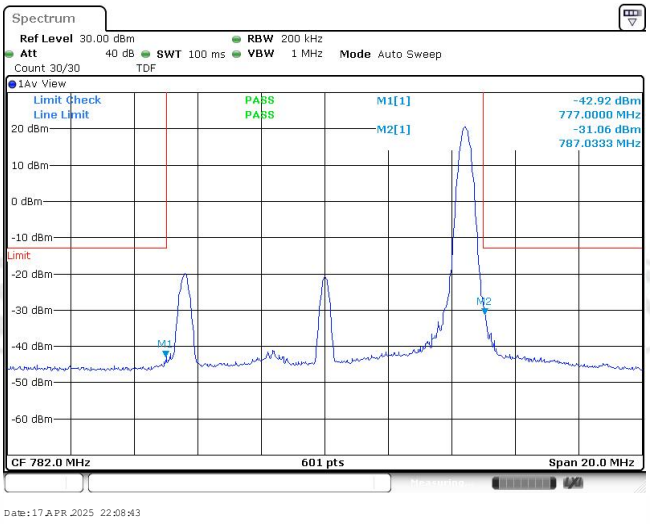
Band13-10MHz-QPSK-23230-1RB#49



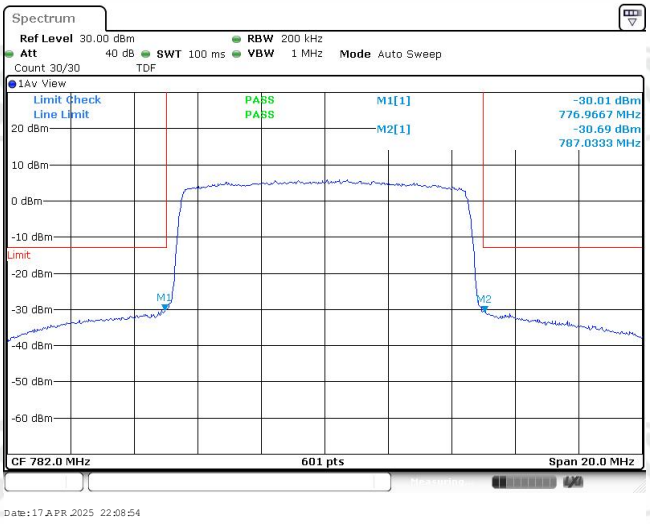
Band13-10MHz-QPSK-23230-50RB#0



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



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



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

Appendix E: Conducted Spurious Emission

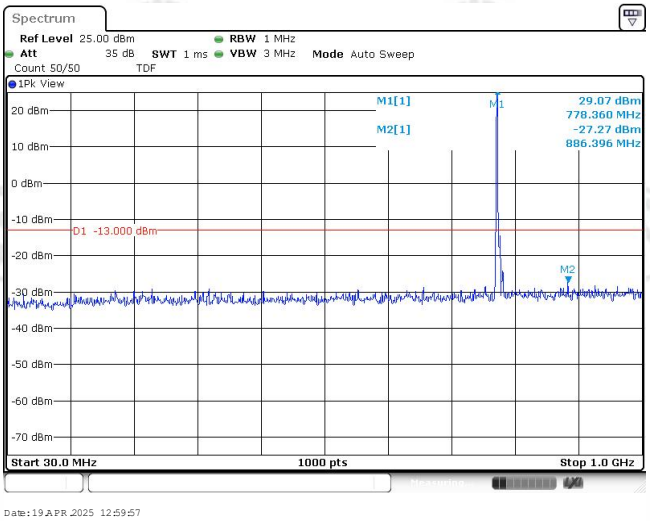
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	Range1:30~1000MHz	-27.27	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range2:1000~10000MHz	-27.47	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range1:30~1000MHz	-28.53	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range2:1000~10000MHz	-24.74	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range1:30~1000MHz	-28.06	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range2:1000~10000MHz	-26.22	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range1:30~1000MHz	-28.25	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range2:1000~10000MHz	-26.22	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range1:30~1000MHz	-28.81	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range2:1000~10000MHz	-29.68	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range1:30~1000MHz	-28.61	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range2:1000~10000MHz	-28.3	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range1:30~1000MHz	-27.57	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range2:1000~10000MHz	-25.68	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range1:30~1000MHz	-28.29	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range2:1000~10000MHz	-26.37	PASS

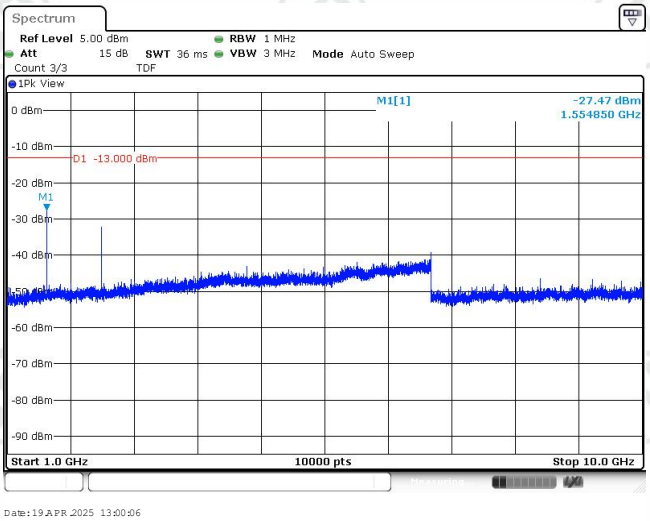
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	Range1:763~775MHz	-46.18	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range2:793~805MHz	-46.21	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range3:1559~1610MHz	-53.44	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range1:763~775MHz	-46.14	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range2:793~805MHz	-46.61	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range3:1559~1610MHz	-52.81	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range1:763~775MHz	-46.06	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range2:793~805MHz	-46.52	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range3:1559~1610MHz	-52.91	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range1:763~775MHz	-46.56	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range2:793~805MHz	-46.97	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range3:1559~1610MHz	-53.17	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range1:763~775MHz	-46.18	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range2:793~805MHz	-46.57	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range3:1559~1610MHz	-52.96	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range1:763~775MHz	-46.14	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range2:793~805MHz	-46.1	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range3:1559~1610MHz	-52.91	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range1:763~775MHz	-46.13	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range2:793~8	-46.4	PASS

					05MHz		
Band13	10MHz	QPSK	23230	1RB#0	Range3:1559~1610MHz	-53.23	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range1:763~775MHz	-46.24	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range2:793~805MHz	-46.39	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range3:1559~1610MHz	-52.7	PASS

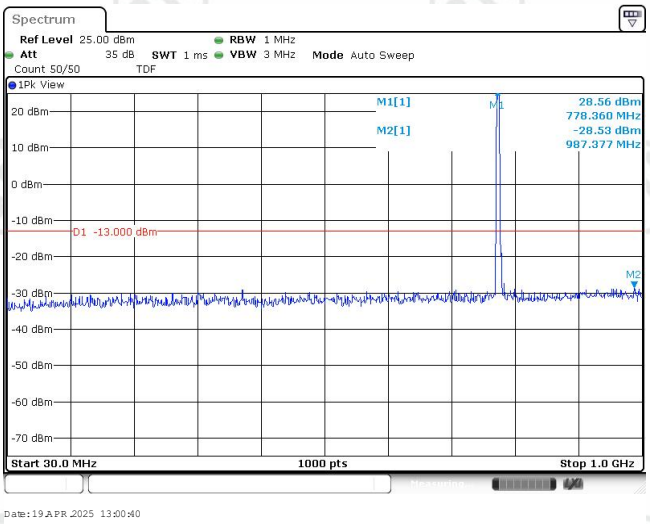
Test Graphs



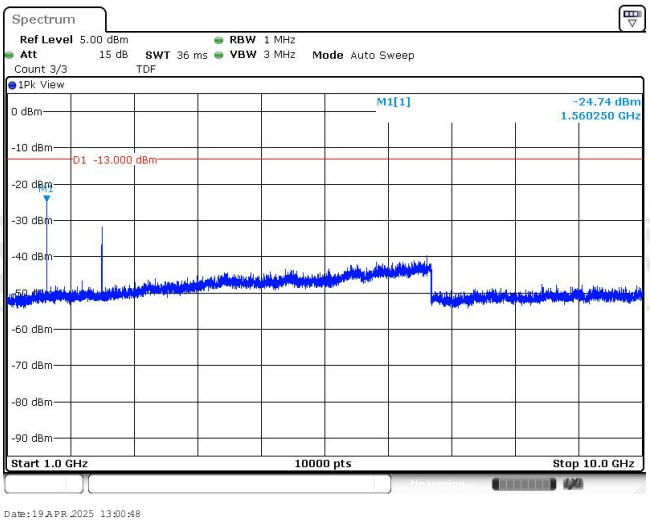
Band13-5MHz-QPSK-23205-1RB#0-Range1:30~1000MHz



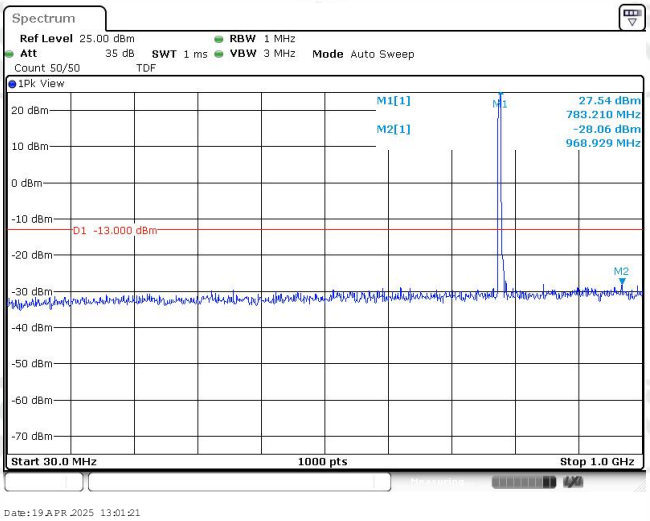
Band13-5MHz-QPSK-23205-1RB#0-Range2:1000~10000MHz



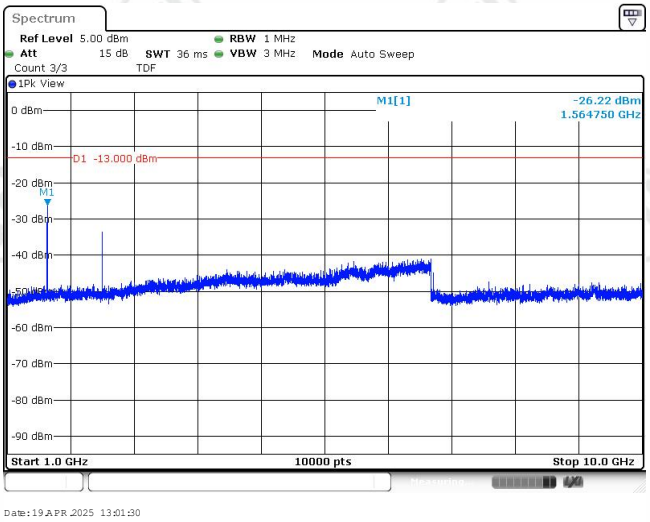
Band13-5MHz-QPSK-23230-1RB#0-Range1:30~1000MHz



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



Band13-5MHz-QPSK-23255-1RB#0-Range1:30~1000MHz



Band13-5MHz-QPSK-23255-1RB#0-Range2:1000~10000MHz