

LTE Band13

QPSK/16QAM Test Data

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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	22.90	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.07	PASS
Band13	5MHz	QPSK	23205	1RB#24	22.93	PASS
Band13	5MHz	QPSK	23205	12RB#0	21.85	PASS
Band13	5MHz	QPSK	23205	12RB#6	21.87	PASS
Band13	5MHz	QPSK	23205	12RB#13	21.91	PASS
Band13	5MHz	QPSK	23205	25RB#0	21.84	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.01	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.05	PASS
Band13	5MHz	QPSK	23230	1RB#24	22.97	PASS
Band13	5MHz	QPSK	23230	12RB#0	21.98	PASS
Band13	5MHz	QPSK	23230	12RB#6	21.96	PASS
Band13	5MHz	QPSK	23230	12RB#13	21.92	PASS
Band13	5MHz	QPSK	23230	25RB#0	21.92	PASS
Band13	5MHz	QPSK	23255	1RB#0	23.04	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.06	PASS
Band13	5MHz	QPSK	23255	1RB#24	22.93	PASS
Band13	5MHz	QPSK	23255	12RB#0	21.92	PASS
Band13	5MHz	QPSK	23255	12RB#6	21.93	PASS
Band13	5MHz	QPSK	23255	12RB#13	21.93	PASS
Band13	5MHz	QPSK	23255	25RB#0	21.90	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.03	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.08	PASS
Band13	5MHz	16QAM	23205	1RB#24	22.17	PASS
Band13	5MHz	16QAM	23205	12RB#0	20.86	PASS
Band13	5MHz	16QAM	23205	12RB#6	20.91	PASS
Band13	5MHz	16QAM	23205	12RB#13	20.95	PASS
Band13	5MHz	16QAM	23205	25RB#0	21.07	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.23	PASS
Band13	5MHz	16QAM	23230	1RB#12	22.30	PASS
Band13	5MHz	16QAM	23230	1RB#24	22.21	PASS
Band13	5MHz	16QAM	23230	12RB#0	21.00	PASS
Band13	5MHz	16QAM	23230	12RB#6	20.95	PASS

Band13	5MHz	16QAM	23230	12RB#13	21.00	PASS
Band13	5MHz	16QAM	23230	25RB#0	20.94	PASS
Band13	5MHz	16QAM	23255	1RB#0	22.01	PASS
Band13	5MHz	16QAM	23255	1RB#12	22.09	PASS
Band13	5MHz	16QAM	23255	1RB#24	22.00	PASS
Band13	5MHz	16QAM	23255	12RB#0	20.99	PASS
Band13	5MHz	16QAM	23255	12RB#6	20.95	PASS
Band13	5MHz	16QAM	23255	12RB#13	20.92	PASS
Band13	5MHz	16QAM	23255	25RB#0	20.95	PASS
Band13	10MHz	QPSK	23230	1RB#0	22.81	PASS
Band13	10MHz	QPSK	23230	1RB#24	22.91	PASS
Band13	10MHz	QPSK	23230	1RB#49	22.90	PASS
Band13	10MHz	QPSK	23230	25RB#0	22.00	PASS
Band13	10MHz	QPSK	23230	25RB#12	22.03	PASS
Band13	10MHz	QPSK	23230	25RB#25	21.93	PASS
Band13	10MHz	QPSK	23230	50RB#0	22.00	PASS
Band13	10MHz	16QAM	23230	1RB#0	22.03	PASS
Band13	10MHz	16QAM	23230	1RB#24	22.18	PASS
Band13	10MHz	16QAM	23230	1RB#49	22.06	PASS
Band13	10MHz	16QAM	23230	25RB#0	20.97	PASS
Band13	10MHz	16QAM	23230	25RB#12	21.02	PASS
Band13	10MHz	16QAM	23230	25RB#25	20.89	PASS
Band13	10MHz	16QAM	23230	50RB#0	20.92	PASS

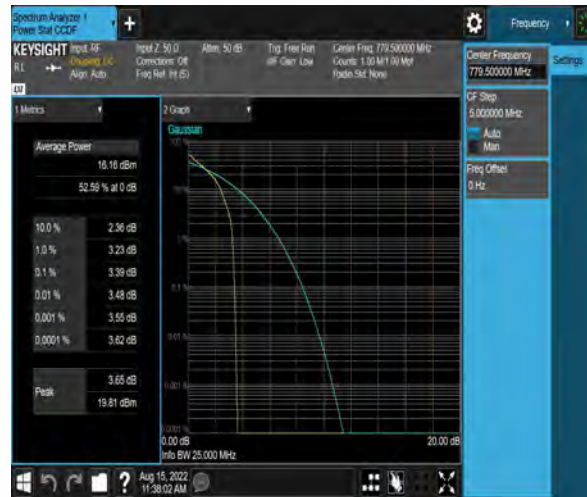
Appendix B: Peak-to-Average Ratio (CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	3.39	13	PASS
Band13	5MHz	QPSK	23205	25RB#0	4.87	13	PASS
Band13	5MHz	QPSK	23230	1RB#0	4.06	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.03	13	PASS
Band13	5MHz	QPSK	23255	1RB#0	4.07	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.36	13	PASS
Band13	5MHz	16QAM	23205	1RB#0	4.29	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.69	13	PASS
Band13	5MHz	16QAM	23230	1RB#0	4.72	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	5.86	13	PASS
Band13	5MHz	16QAM	23255	1RB#0	4.82	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.12	13	PASS
Band13	10MHz	QPSK	23230	1RB#0	3.31	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	4.89	13	PASS
Band13	10MHz	16QAM	23230	1RB#0	4.08	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	5.86	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



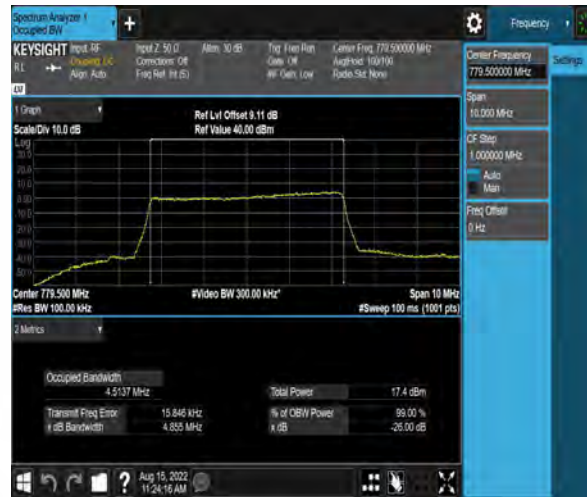
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

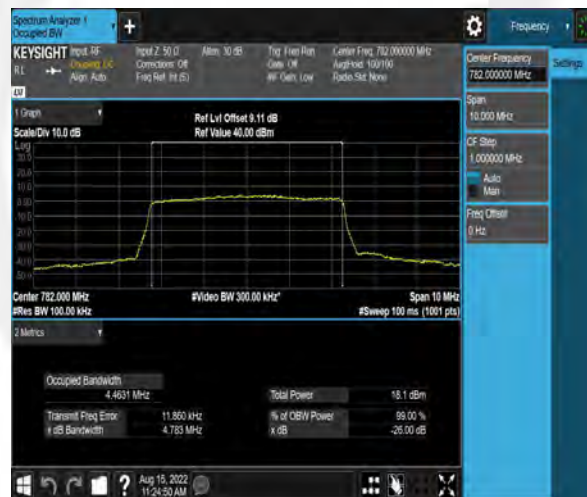
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5137	4.855	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.4631	4.783	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5047	4.832	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5150	4.809	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.4688	4.803	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5109	4.859	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9065	9.461	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9037	9.445	PASS

Test Graphs

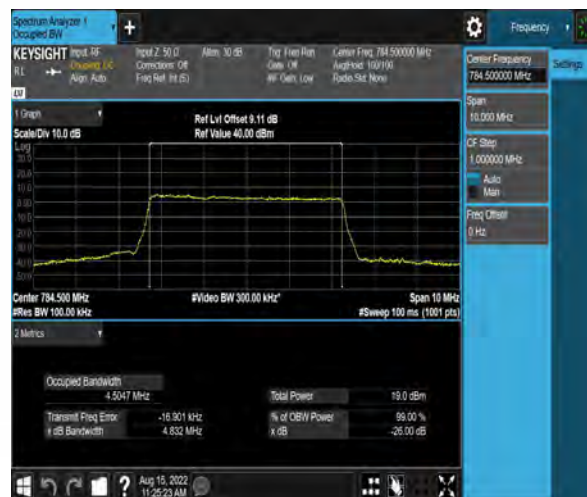
Band13-5MHz-QPSK-23205-25RB#0



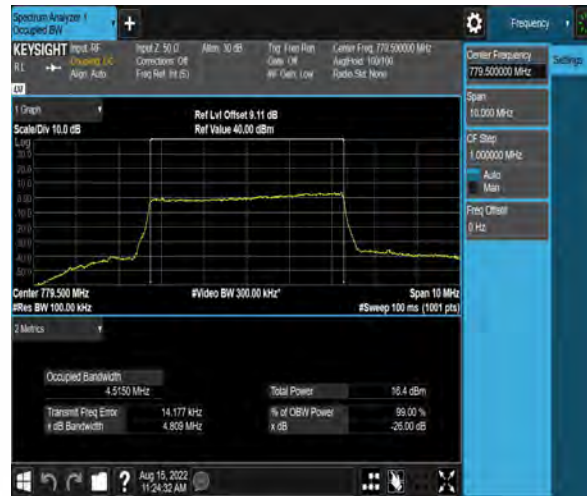
Band13-5MHz-QPSK-23230-25RB#0



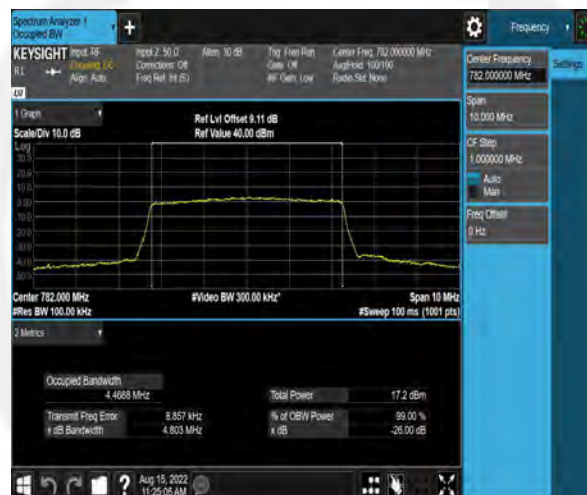
Band13-5MHz-QPSK-23255-25RB#0



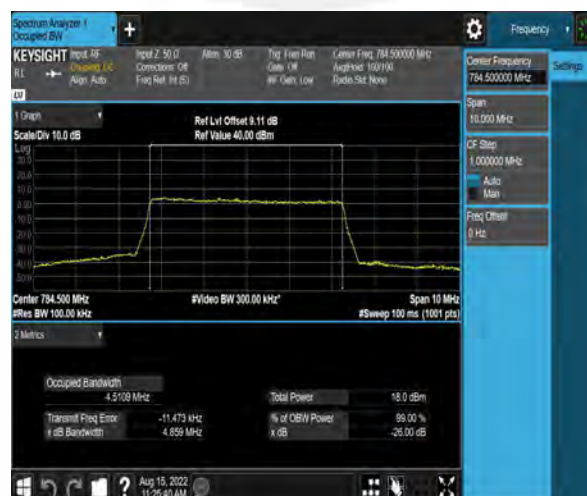
Band13-5MHz-16QAM-23205-25RB#0



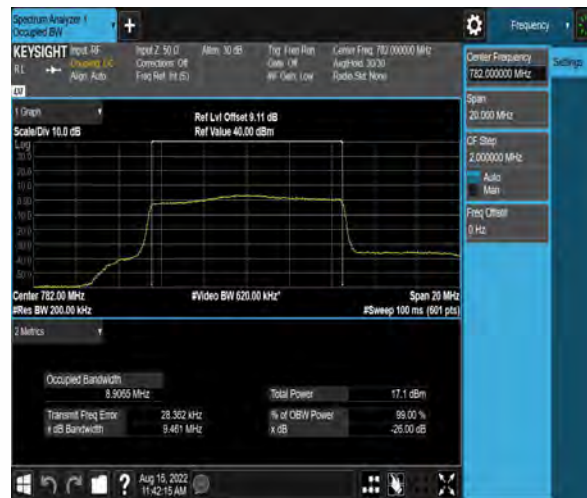
Band13-5MHz-16QAM-23230-25RB#0



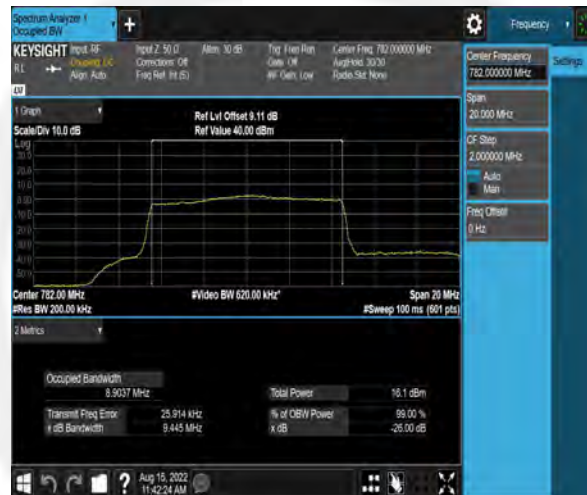
Band13-5MHz-16QAM-23255-25RB#0



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



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



Appendix D: Band Edge

Test Result

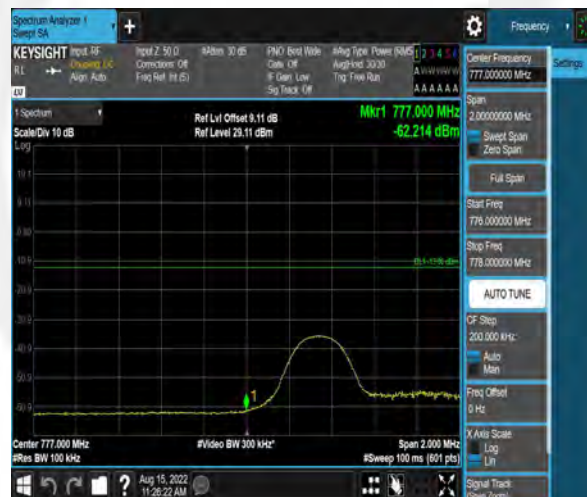
Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	-24.21	PASS
Band13	5MHz	QPSK	23205	1RB#24	-62.21	PASS
Band13	5MHz	QPSK	23205	25RB#0	-36.55	PASS
Band13	5MHz	QPSK	23255	1RB#0	-62.02	PASS
Band13	5MHz	QPSK	23255	1RB#24	-23.14	PASS
Band13	5MHz	QPSK	23255	25RB#0	-33.34	PASS
Band13	5MHz	16QAM	23205	1RB#0	-25.17	PASS
Band13	5MHz	16QAM	23205	1RB#24	-62.39	PASS
Band13	5MHz	16QAM	23205	25RB#0	-36.84	PASS
Band13	5MHz	16QAM	23255	1RB#0	-62.31	PASS
Band13	5MHz	16QAM	23255	1RB#24	-24.73	PASS
Band13	5MHz	16QAM	23255	25RB#0	-34.11	PASS
Band13	10MHz	QPSK	23230	1RB#0	-32.14,-49.05	PASS
Band13	10MHz	QPSK	23230	1RB#49	-57.59,-33.61	PASS
Band13	10MHz	QPSK	23230	50RB#0	-35.25,-33.66	PASS
Band13	10MHz	16QAM	23230	1RB#0	-33.47,-48.90	PASS
Band13	10MHz	16QAM	23230	1RB#49	-57.66,-34.34	PASS
Band13	10MHz	16QAM	23230	50RB#0	-37.05,-34.75	PASS

Test Graphs

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



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



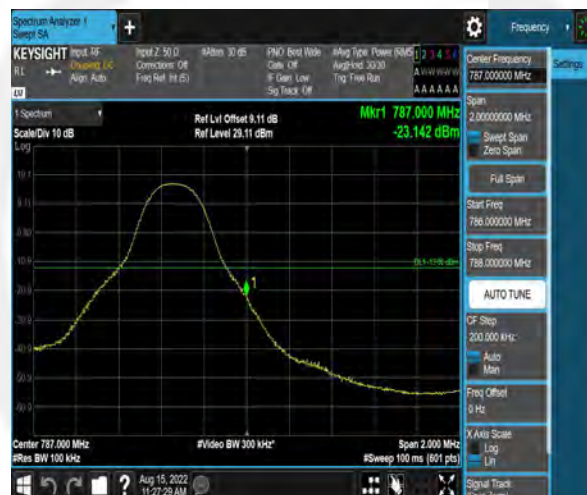
Band13-5MHz-QPSK-23205-25RB#0



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



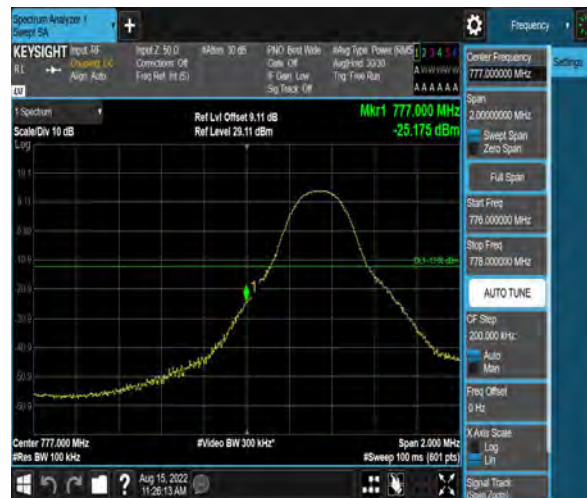
Band13-5MHz-QPSK-23255-1RB#24



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



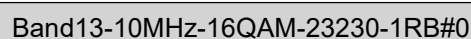
Band13-5MHz-16QAM-23255-1RB#24



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



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





Band13-10MHz-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	-46.49	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range3:763~775MHz	-71.77	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range4:793~805MHz	-74.37	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range2:1000~10000MHz	-36.63	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range5:1559~1610MHz	-61.41	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range1:30~1000MHz	-45.56	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range3:763~775MHz	-75.01	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range4:793~805MHz	-72.66	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range2:1000~10000MHz	-35.96	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range5:1559~1610MHz	-60.34	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range1:30~1000MHz	-45.78	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range3:763~775MHz	-74.77	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range4:793~805MHz	-66.64	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range2:1000~10000MHz	-35.85	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range5:1559~1610MHz	-62.01	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range1:30~1000MHz	-46.19	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range3:763~775MHz	-73.36	PASS

					75MHz		
Band13	5MHz	16QAM	23205	1RB#0	Range4:793~805MHz	-73.61	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range2:1000~10000MHz	-35.98	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range5:1559~1610MHz	-61.36	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range1:30~1000MHz	-45.89	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range3:763~775MHz	-75.92	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range4:793~805MHz	-73.98	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range2:1000~10000MHz	-35.52	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range5:1559~1610MHz	-61.42	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range1:30~1000MHz	-46.38	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range3:763~775MHz	-74.89	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range4:793~805MHz	-66.44	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range2:1000~10000MHz	-36.24	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range5:1559~1610MHz	-60.6	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range1:30~1000MHz	-45.21	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range3:763~775MHz	-70.95	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range4:793~805MHz	-60.78	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range2:1000~10000MHz	-34.77	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range5:1559~1610MHz	-59.89	PASS

Band13	10MHz	16QAM	23230	1RB#0	Range1:30~1000MHz	-45.62	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range3:763~775MHz	-69.02	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range4:793~805MHz	-61.66	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range2:1000~10000MHz	-35.98	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range5:1559~1610MHz	-60	PASS



Test Graphs

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



Band13-5MHz-QPSK-23205-1RB#0-Range3:763~775MHz



Band13-5MHz-QPSK-23205-1RB#0-Range4:793~805MHz



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



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



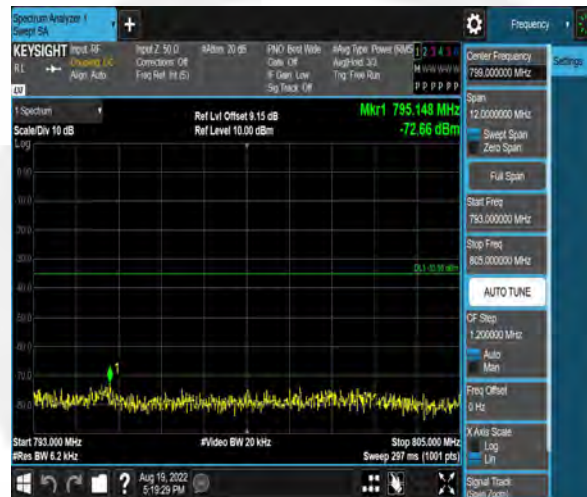
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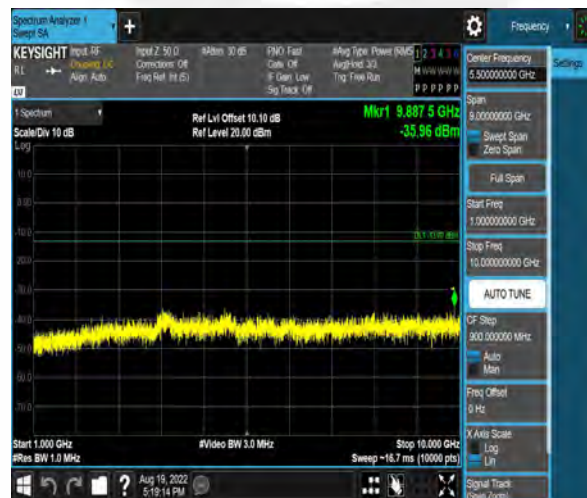
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Band13-5MHz-QPSK-23230-1RB#0-Range4:793~805MHz



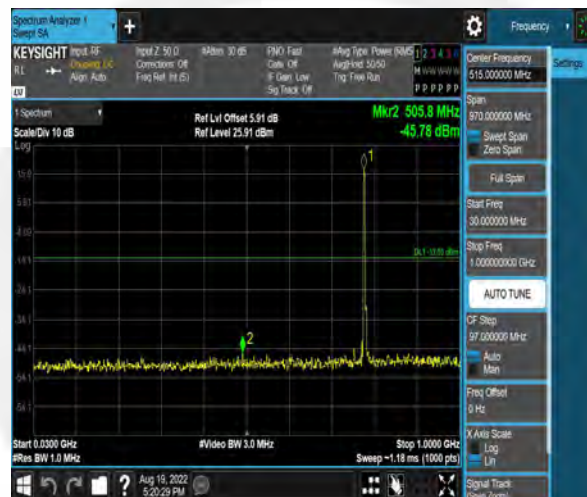
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Band13-5MHz-QPSK-23230-1RB#0-Range5:1559~1610MHz



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



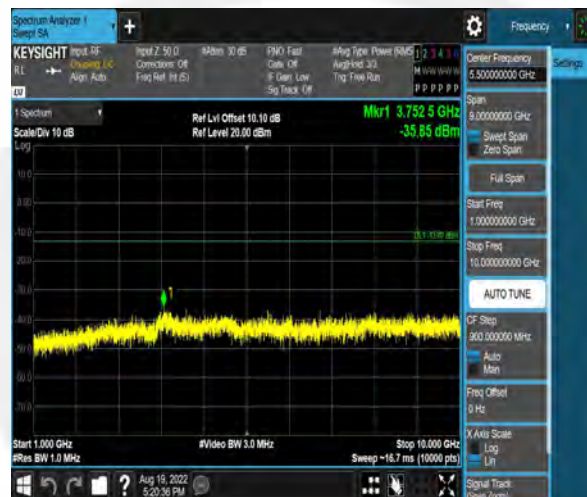
Band13-5MHz-QPSK-23255-1RB#0-Range3:763~775MHz



Band13-5MHz-QPSK-23255-1RB#0-Range4:793~805MHz



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



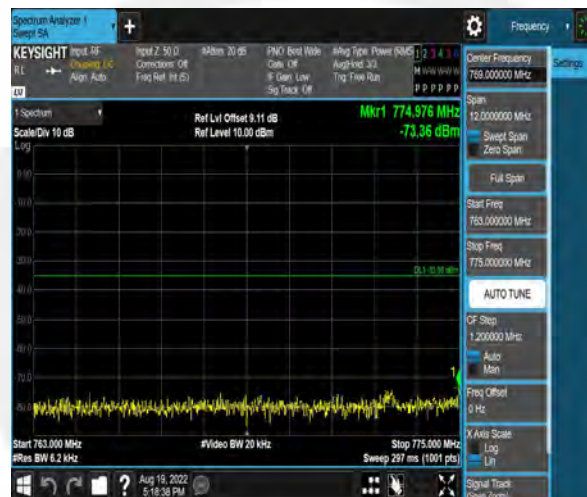
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Band13-5MHz-16QAM-23205-1RB#0-Range1:30~1000MHz



Band13-5MHz-16QAM-23205-1RB#0-Range3:763~775MHz



Band13-5MHz-16QAM-23205-1RB#0-Range4:793~805MHz



Band13-5MHz-16QAM-23205-1RB#0-Range2:1000~10000MHz



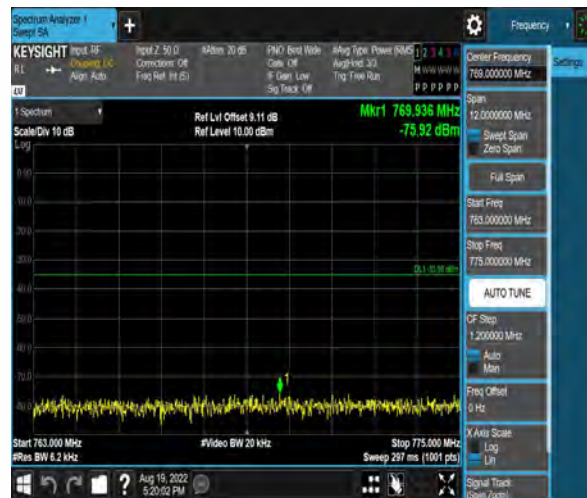
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Band13-5MHz-16QAM-23230-1RB#0-Range1:30~1000MHz



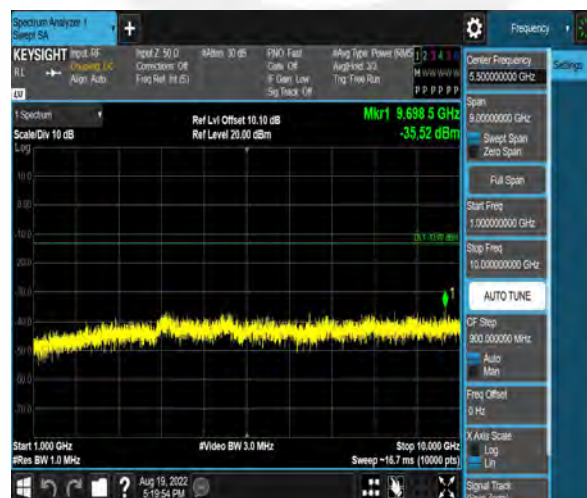
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Band13-5MHz-16QAM-23230-1RB#0-Range4:793~805MHz



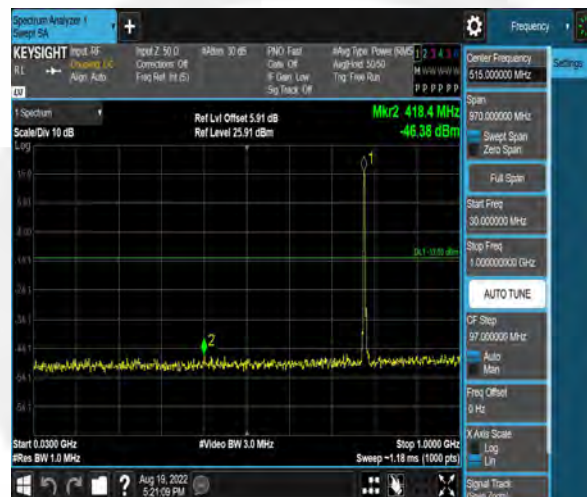
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Band13-5MHz-16QAM-23230-1RB#0-Range5:1559~1610MHz



Band13-5MHz-16QAM-23255-1RB#0-Range1:30~1000MHz



Band13-5MHz-16QAM-23255-1RB#0-Range3:763~775MHz



Band13-5MHz-16QAM-23255-1RB#0-Range4:793~805MHz



Band13-5MHz-16QAM-23255-1RB#0-Range2:1000~10000MHz



Band13-5MHz-16QAM-23255-1RB#0-Range5:1559~1610MHz



Band13-10MHz-QPSK-23230-1RB#0-Range1:30~1000MHz



Band13-10MHz-QPSK-23230-1RB#0-Range3:763~775MHz



Band13-10MHz-QPSK-23230-1RB#0-Range4:793~805MHz



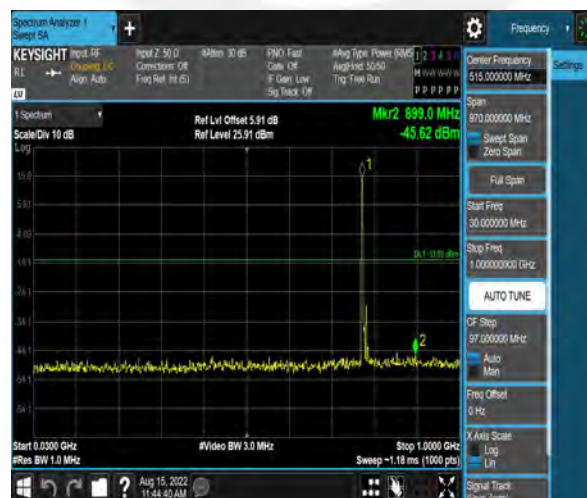
Band13-10MHz-QPSK-23230-1RB#0-Range2:1000~10000MHz



Band13-10MHz-QPSK-23230-1RB#0-Range5:1559~1610MHz



Band13-10MHz-16QAM-23230-1RB#0-Range1:30~1000MHz



Band13-10MHz-16QAM-23230-1RB#0-Range3:763~775MHz



Band13-10MHz-16QAM-23230-1RB#0-Range4:793~805MHz



Band13-10MHz-16QAM-23230-1RB#0-Range2:1000~10000MHz



Band13-10MHz-16QAM-23230-1RB#0-Range5:1559~1610MHz



Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	VL	NT	5.26	0.006748	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	VN	NT	-4.23	-0.005427	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	VH	NT	6.39	0.008198	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VL	NT	-4.79	-0.006125	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VN	NT	-3.18	-0.004066	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VH	NT	-6.58	-0.008414	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VL	NT	3.30	0.004207	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VN	NT	5.94	0.007572	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VH	NT	-2.07	-0.002639	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VL	NT	7.91	0.010148	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VN	NT	5.51	0.007069	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VH	NT	2.76	0.003541	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VL	NT	-11.29	-0.014437	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VN	NT	-5.92	-0.007570	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VH	NT	-8.01	-0.010243	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VL	NT	5.31	0.006769	±2.5	PASS

Band13	5MHz	16QAM	23255	25RB#0	VN	NT	8.11	0.010338	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VH	NT	6.31	0.008043	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VL	NT	-6.57	-0.008402	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VN	NT	2.89	0.003696	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	-8.50	-0.010870	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VL	NT	2.47	0.003159	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VN	NT	1.73	0.002212	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VH	NT	-3.20	-0.004092	±2.5	PASS

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	NV	-30	-4.56	-0.005850	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	-20	-2.15	-0.002758	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	-10	5.46	0.007004	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	0	3.29	0.004221	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	10	-7.20	-0.009237	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	20	4.68	0.006004	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	30	3.18	0.004080	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	40	-3.30	-0.004233	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	50	7.04	0.009031	±2.5	PASS

Band13	5MHz	QPSK	23230	25RB#0	NV	-30	3.00	0.00383 6	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	-20	3.62	0.00462 9	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	-10	-4.86	-0.0062 15	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	0	-2.89	-0.0036 96	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	10	-3.18	-0.0040 66	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	20	-5.16	-0.0065 98	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	30	-4.28	-0.0054 73	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	40	-4.81	-0.0061 51	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	50	-5.49	-0.0070 20	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-30	4.08	0.00520 1	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-20	10.37	0.01321 9	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-10	6.97	0.00888 5	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	0	3.79	0.00483 1	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	10	7.24	0.00922 9	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	20	7.65	0.00975 1	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	30	6.51	0.00829 8	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	40	5.06	0.00645 0	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	50	2.13	0.00271 5	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	-30	2.16	0.00277	±2.5	PASS

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Band13	5MHz	16QAM	23205	25RB#0	NV	-20	4.16	0.00533 7	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	-10	4.63	0.00594 0	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	0	6.81	0.00873 6	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	10	-6.11	-0.0078 38	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	20	-6.44	-0.0082 62	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	30	-4.66	-0.0059 78	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	40	-5.64	-0.0072 35	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	50	-6.52	-0.0083 64	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-30	-6.09	-0.0077 88	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-20	-2.57	-0.0032 86	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-10	-8.30	-0.0106 14	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	0	-6.77	-0.0086 57	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	10	-6.25	-0.0079 92	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	20	-5.35	-0.0068 41	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	30	-3.43	-0.0043 86	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	40	3.22	0.00411 8	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	50	-9.88	-0.0126 34	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	-30	8.90	0.01134 5	±2.5	PASS

Band13	5MHz	16QAM	23255	25RB#0	NV	-20	10.06	0.01282 3	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	-10	-2.72	-0.0034 67	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	0	1.76	0.00224 3	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	10	3.92	0.00499 7	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	20	4.26	0.00543 0	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	30	4.58	0.00583 8	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	40	5.91	0.00753 3	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	50	6.42	0.00818 4	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-30	-5.31	-0.0067 90	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	2.39	0.00305 6	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-10	-2.12	-0.00271 1	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	-8.74	-0.01117 6	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	10	-6.54	-0.0083 63	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	1.53	0.00195 7	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	30	-3.06	-0.0039 13	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	-5.97	-0.0076 34	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	50	4.28	0.00547 3	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-30	-2.59	-0.0033 12	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-20	-4.39	-0.0056	±2.5	PASS

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Band13	10MHz	16QAM	23230	50RB#0	NV	-10	-3.66	-0.0046 80	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	0	-3.63	-0.0046 42	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	10	-3.98	-0.0050 90	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	20	-1.79	-0.0022 89	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	30	2.37	0.00303 1	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	40	3.58	0.00457 8	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	50	3.38	0.00432 2	±2.5	PASS

LTE Band13

64QAM Test Data

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	64QAM	23205	1RB#0	23.03	PASS
Band13	5MHz	64QAM	23205	1RB#12	22.96	PASS
Band13	5MHz	64QAM	23205	1RB#24	22.98	PASS
Band13	5MHz	64QAM	23205	12RB#0	21.98	PASS
Band13	5MHz	64QAM	23205	12RB#6	21.92	PASS
Band13	5MHz	64QAM	23205	12RB#13	21.85	PASS
Band13	5MHz	64QAM	23205	25RB#0	21.78	PASS
Band13	5MHz	64QAM	23230	1RB#0	23.04	PASS
Band13	5MHz	64QAM	23230	1RB#12	23.07	PASS
Band13	5MHz	64QAM	23230	1RB#24	23.00	PASS
Band13	5MHz	64QAM	23230	12RB#0	21.79	PASS
Band13	5MHz	64QAM	23230	12RB#6	21.82	PASS
Band13	5MHz	64QAM	23230	12RB#13	21.71	PASS
Band13	5MHz	64QAM	23230	25RB#0	21.76	PASS
Band13	5MHz	64QAM	23255	1RB#0	23.04	PASS
Band13	5MHz	64QAM	23255	1RB#12	23.05	PASS
Band13	5MHz	64QAM	23255	1RB#24	23.05	PASS
Band13	5MHz	64QAM	23255	12RB#0	21.80	PASS
Band13	5MHz	64QAM	23255	12RB#6	21.84	PASS
Band13	5MHz	64QAM	23255	12RB#13	21.79	PASS
Band13	5MHz	64QAM	23255	25RB#0	21.73	PASS
Band13	10MHz	64QAM	23230	1RB#0	23.04	PASS
Band13	10MHz	64QAM	23230	1RB#24	23.00	PASS
Band13	10MHz	64QAM	23230	1RB#49	23.01	PASS
Band13	10MHz	64QAM	23230	25RB#0	21.83	PASS
Band13	10MHz	64QAM	23230	25RB#12	21.72	PASS
Band13	10MHz	64QAM	23230	25RB#25	21.73	PASS

Band13	10MHz	64QAM	23230	50RB#0	21.70	PASS
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Appendix B: Peak-to-Average Ratio (CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	5.84	13	PASS
Band13	5MHz	64QAM	23230	25RB#0	6.09	13	PASS
Band13	5MHz	64QAM	23255	25RB#0	5.78	13	PASS
Band13	10MHz	64QAM	23230	50RB#0	6.10	13	PASS



Test Graphs

Band13-5MHz-64QAM-23205-25RB#0



Band13-5MHz-64QAM-23230-25RB#0



Band13-5MHz-64QAM-23255-25RB#0



Band13-10MHz-64QAM-23230-50RB#0



Appendix C: 26dB Bandwidth and Occupied Bandwidth

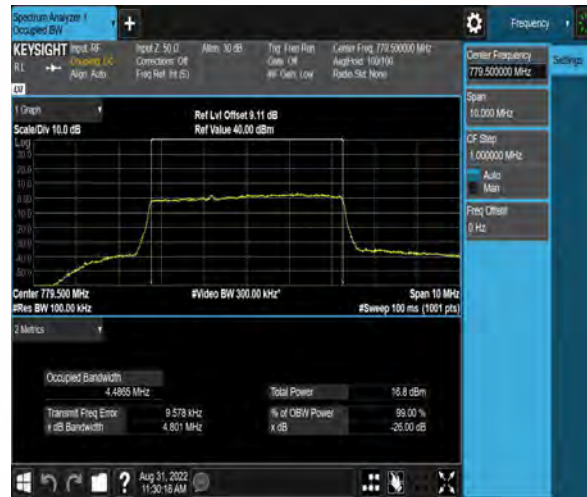
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	4.4865	4.801	PASS
Band13	5MHz	64QAM	23230	25RB#0	4.4874	4.835	PASS
Band13	5MHz	64QAM	23255	25RB#0	4.5184	4.872	PASS
Band13	10MHz	64QAM	23230	50RB#0	8.9478	9.503	PASS

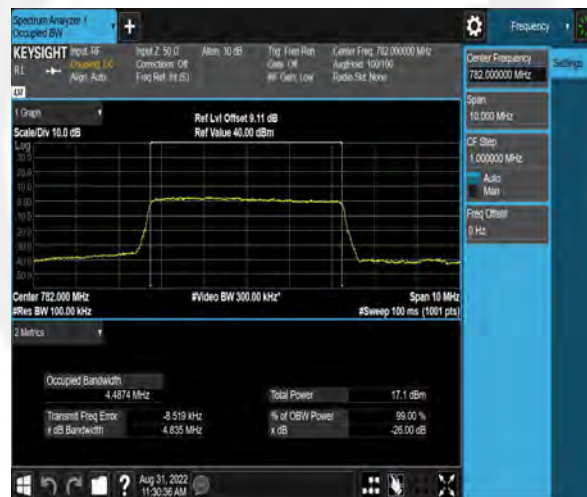


Test Graphs

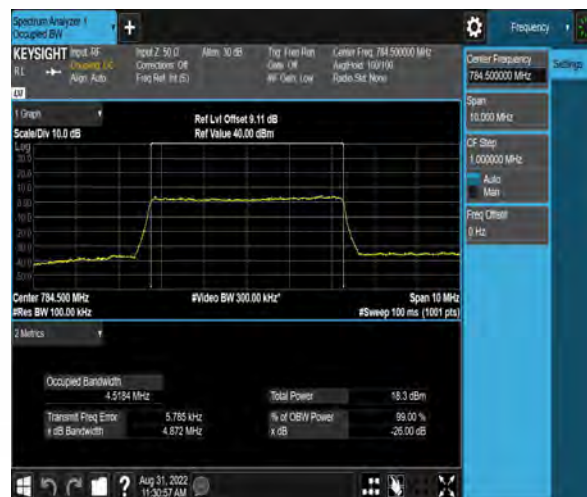
Band13-5MHz-64QAM-23205-25RB#0



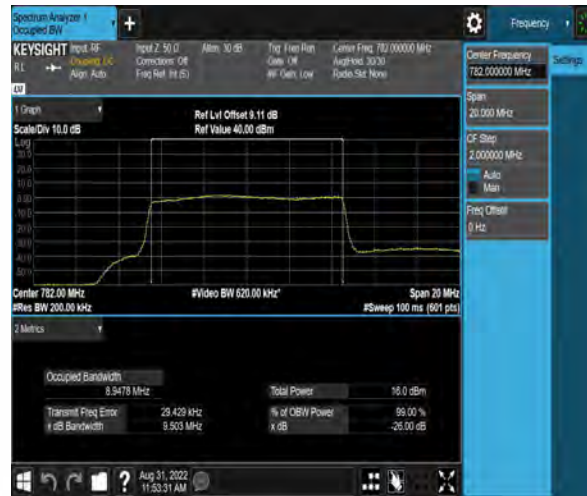
Band13-5MHz-64QAM-23230-25RB#0



Band13-5MHz-64QAM-23255-25RB#0



Band13-10MHz-64QAM-23230-50RB#0



Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	-36.15	PASS
Band13	5MHz	64QAM	23255	25RB#0	-32.81	PASS
Band13	10MHz	64QAM	23230	50RB#0	-38.83,-36.07	PASS



Test Graphs

Band13-5MHz-64QAM-23205-25RB#0



Band13-5MHz-64QAM-23255-25RB#0



Band13-10MHz-64QAM-23230-50RB#0



Appendix E: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	64QAM	23205	1RB#0	Range1:30~1000MHz	-46.28	PASS
Band13	5MHz	64QAM	23205	1RB#0	Range3:763~775MHz	-74.86	PASS
Band13	5MHz	64QAM	23205	1RB#0	Range4:793~805MHz	-73.84	PASS
Band13	5MHz	64QAM	23205	1RB#0	Range2:1000~10000MHz	-36.25	PASS
Band13	5MHz	64QAM	23205	1RB#0	Range5:1559~1610MHz	-60.36	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range1:30~1000MHz	-45.8	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range3:763~775MHz	-74.15	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range4:793~805MHz	-71.38	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range2:1000~10000MHz	-36.3	PASS
Band13	5MHz	64QAM	23230	1RB#0	Range5:1559~1610MHz	-61.38	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range1:30~1000MHz	-44.78	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range3:763~775MHz	-75.26	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range4:793~805MHz	-65.63	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range2:1000~10000MHz	-35.84	PASS
Band13	5MHz	64QAM	23255	1RB#0	Range5:1559~1610MHz	-61.21	PASS
Band13	10MHz	64QAM	23230	1RB#0	Range1:30~1000MHz	-46.28	PASS
Band13	10MHz	64QAM	23230	1RB#0	Range3:763~775MHz	-74.63	PASS

					75MHz		
Band13	10MHz	64QAM	23230	1RB#0	Range4:793~805MHz	-55.98	PASS
Band13	10MHz	64QAM	23230	1RB#0	Range2:1000~10000MHz	-35.75	PASS
Band13	10MHz	64QAM	23230	1RB#0	Range5:1559~1610MHz	-59.83	PASS



Test Graphs

Band13-5MHz-64QAM-23205-1RB#0-Range1:30~1000MHz



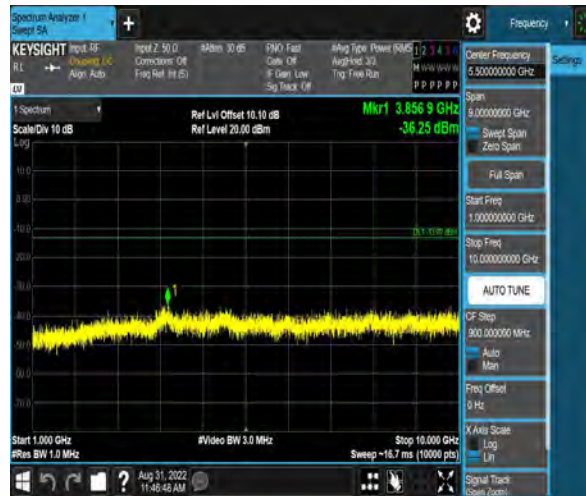
Band13-5MHz-64QAM-23205-1RB#0-Range3:763~775MHz



Band13-5MHz-64QAM-23205-1RB#0-Range4:793~805MHz



Band13-5MHz-64QAM-23205-1RB#0-Range2:1000~10000MHz



Band13-5MHz-64QAM-23205-1RB#0-Range5:1559~1610MHz



Band13-5MHz-64QAM-23230-1RB#0-Range1:30~1000MHz



Band13-5MHz-64QAM-23230-1RB#0-Range3:763~775MHz



Band13-5MHz-64QAM-23230-1RB#0-Range4:793~805MHz



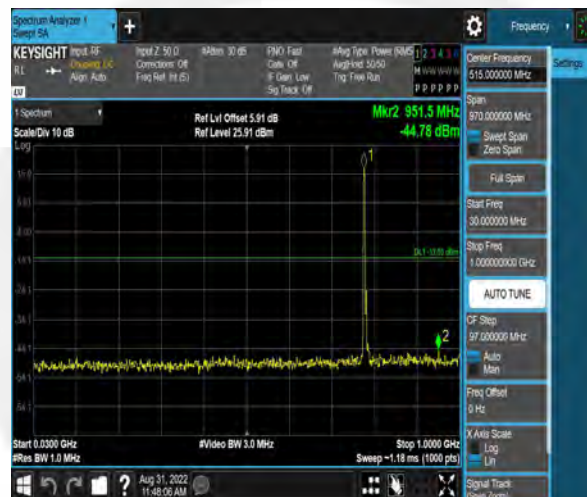
Band13-5MHz-64QAM-23230-1RB#0-Range2:1000~10000MHz



Band13-5MHz-64QAM-23230-1RB#0-Range5:1559~1610MHz



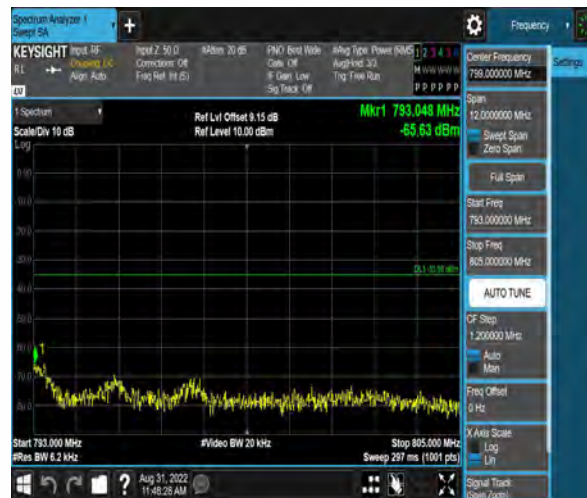
Band13-5MHz-64QAM-23255-1RB#0-Range1:30~1000MHz



Band13-5MHz-64QAM-23255-1RB#0-Range3:763~775MHz



Band13-5MHz-64QAM-23255-1RB#0-Range4:793~805MHz



Band13-5MHz-64QAM-23255-1RB#0-Range2:1000~10000MHz



Band13-5MHz-64QAM-23255-1RB#0-Range5:1559~1610MHz



Band13-10MHz-64QAM-23230-1RB#0-Range1:30~1000MHz



Band13-10MHz-64QAM-23230-1RB#0-Range3:763~775MHz



Band13-10MHz-64QAM-23230-1RB#0-Range4:793~805MHz



Band13-10MHz-64QAM-23230-1RB#0-Range2:1000~10000MHz



Band13-10MHz-64QAM-23230-1RB#0-Range5:1559~1610MHz



Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	VL	NT	2.33	0.002989	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	VN	NT	7.00	0.008980	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	VH	NT	4.25	0.005452	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	VL	NT	-5.95	-0.007609	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	VN	NT	-11.34	-0.014501	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	VH	NT	-5.16	-0.006598	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	VL	NT	5.84	0.007444	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	VN	NT	8.80	0.011217	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	VH	NT	2.75	0.003505	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	VL	NT	-3.33	-0.004258	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	VN	NT	-5.56	-0.007110	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	VH	NT	-4.32	-0.005524	±2.5	PASS

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	64QAM	23205	25RB#0	NV	-30	7.14	0.009160	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	-20	-5.04	-0.006466	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	-10	6.37	0.00817	±2.5	PASS

								2		
Band13	5MHz	64QAM	23205	25RB#0	NV	0	4.94	0.00633 7	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	10	4.62	0.00592 7	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	20	5.18	0.00664 5	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	30	-2.40	-0.0030 79	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	40	4.89	0.00627 3	±2.5	PASS
Band13	5MHz	64QAM	23205	25RB#0	NV	50	-5.11	-0.0065 55	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	-30	-3.91	-0.0050 00	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	-20	-3.13	-0.0040 03	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	-10	-4.06	-0.0051 92	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	0	-10.90	-0.0139 39	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	10	-9.74	-0.0124 55	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	20	-10.06	-0.0128 64	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	30	-7.48	-0.0095 65	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	40	-8.13	-0.0103 96	±2.5	PASS
Band13	5MHz	64QAM	23230	25RB#0	NV	50	-6.98	-0.0089 26	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	-30	4.09	0.00521 4	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	-20	7.37	0.00939 5	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	-10	2.69	0.00342 9	±2.5	PASS

Band13	5MHz	64QAM	23255	25RB#0	NV	0	7.41	0.00944 6	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	10	4.39	0.00559 6	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	20	9.56	0.01218 6	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	30	6.85	0.00873 2	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	40	6.02	0.00767 4	±2.5	PASS
Band13	5MHz	64QAM	23255	25RB#0	NV	50	4.53	0.00577 4	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	-30	-3.88	-0.0049 62	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	-20	-4.12	-0.0052 69	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	-10	-6.90	-0.0088 24	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	0	-5.97	-0.0076 34	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	10	-9.14	-0.01168 8	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	20	-2.16	-0.0027 62	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	30	-5.31	-0.0067 90	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	40	-8.17	-0.0104 48	±2.5	PASS
Band13	10MHz	64QAM	23230	50RB#0	NV	50	-3.96	-0.0050 64	±2.5	PASS