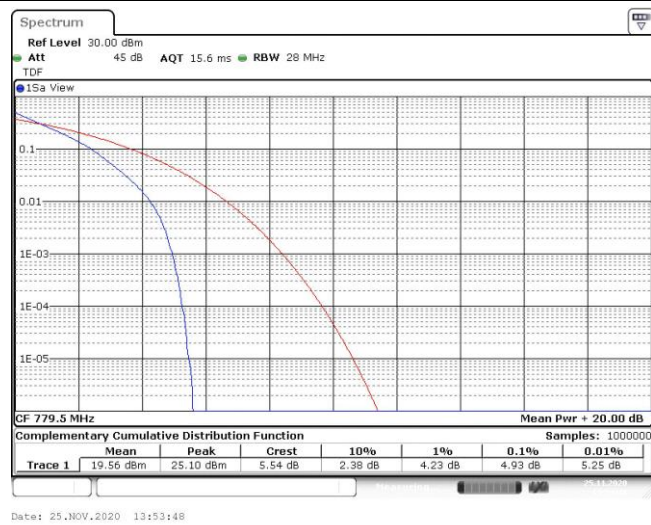


Product Name: GEM-OX-GU**Model: TE-304B-A12****Appendix B: Peak-to-Average Ratio(CCDF)****Test Result**

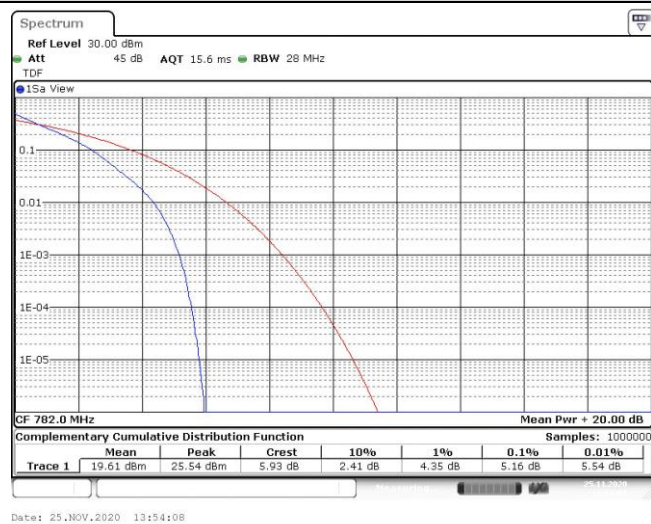
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.93	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.16	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.36	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.74	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	5.91	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	8.43	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.22	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.00	13	PASS

Test Graphs

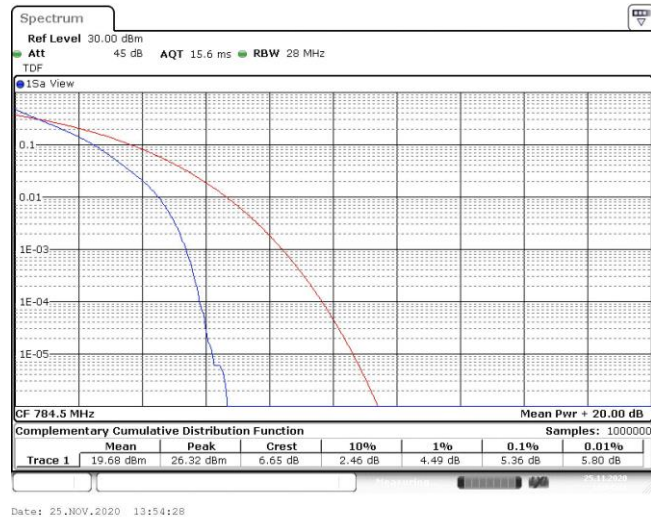
Band13-5MHz-QPSK-23205-25RB#0



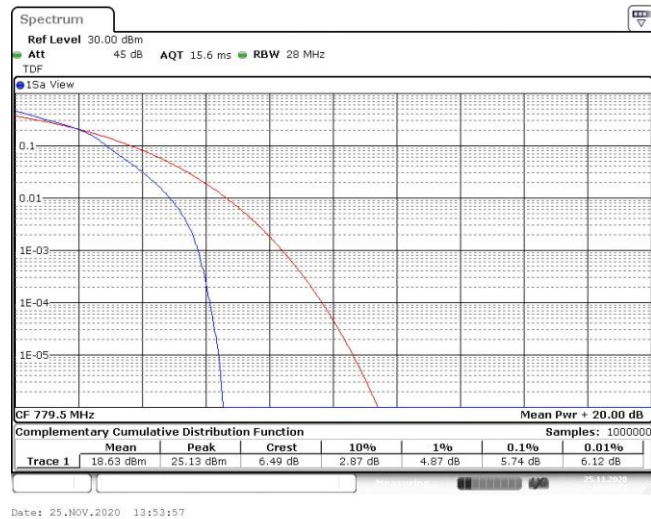
Band13-5MHz-QPSK-23230-25RB#0



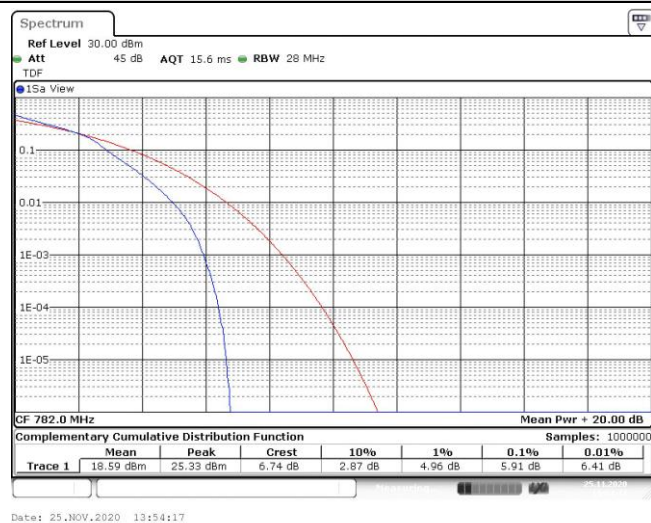
Band13-5MHz-QPSK-23255-25RB#0



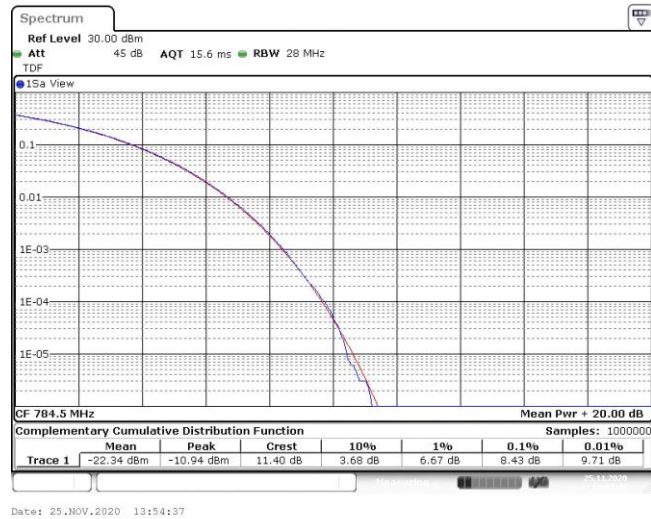
Band13-5MHz-16QAM-23205-25RB#0



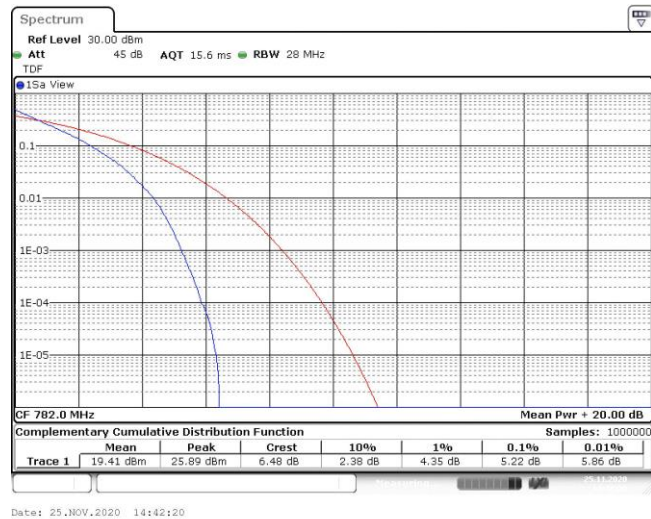
Band13-5MHz-16QAM-23230-25RB#0



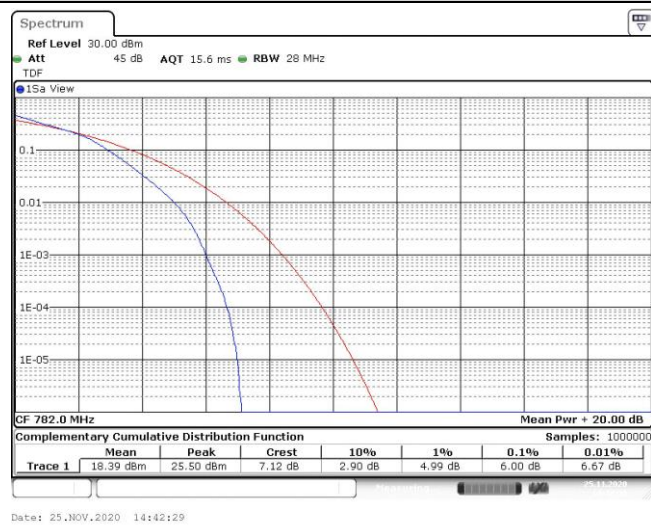
Band13-5MHz-16QAM-23255-25RB#0



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



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



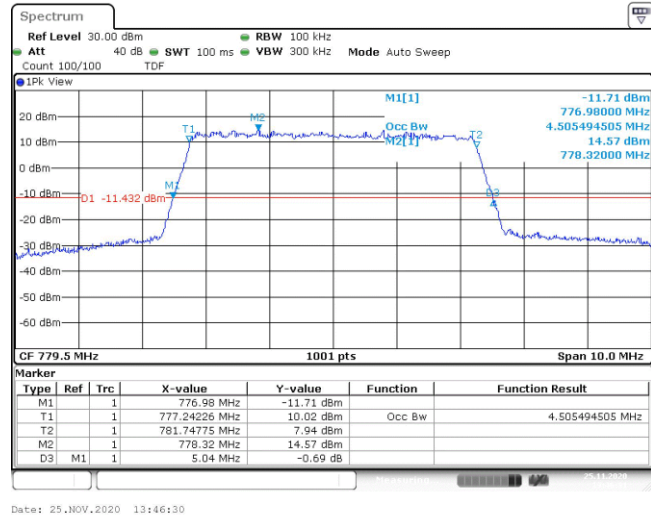
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

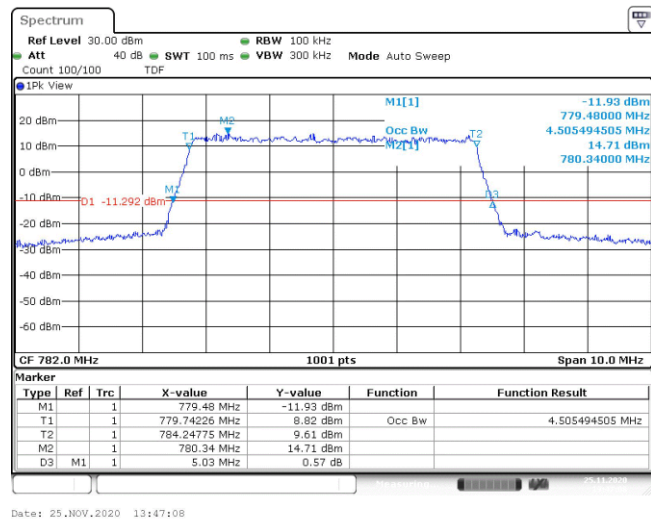
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.505	5.040	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.505	5.030	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.505	5.030	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.505	5.020	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.525	5.070	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.535	5.100	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.985	10.033	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.985	9.867	PASS

Test Graphs

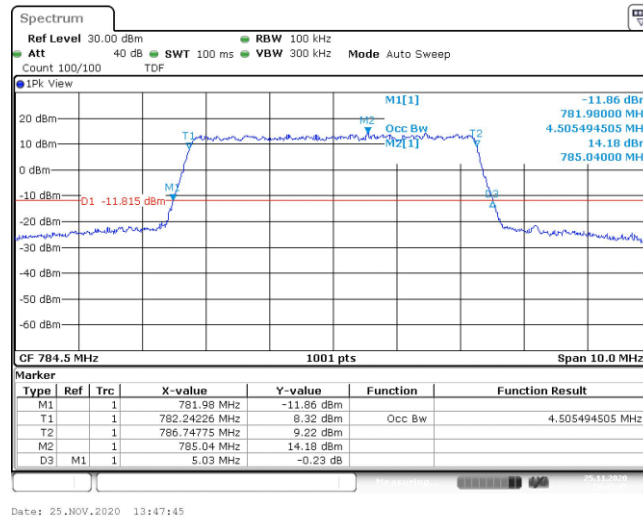
Band13-5MHz-QPSK-23205-25RB#0-4.505



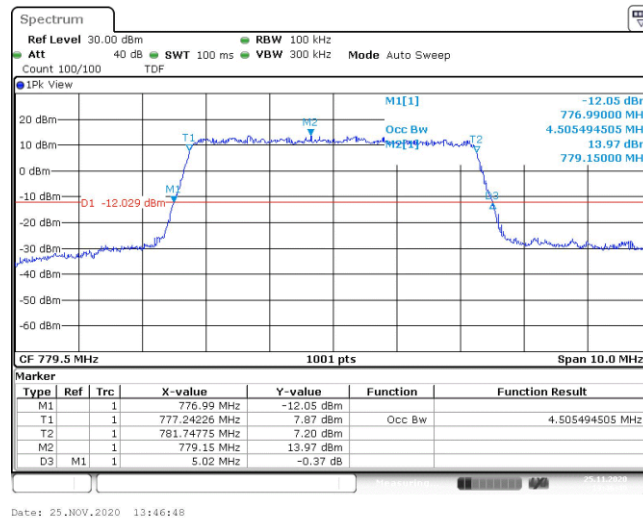
Band13-5MHz-QPSK-23230-25RB#0-4.505



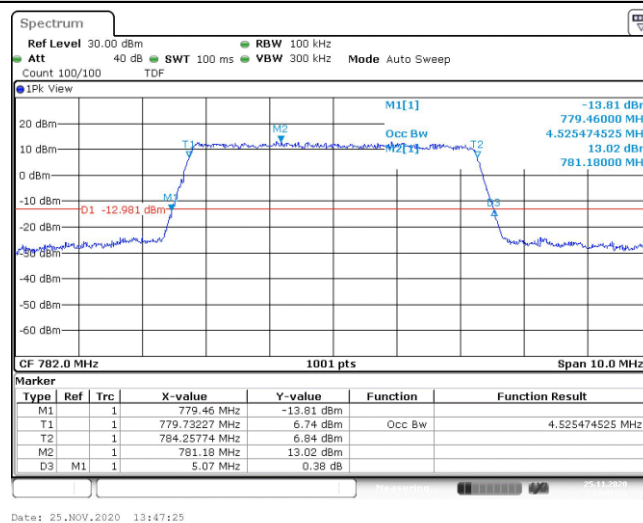
Band13-5MHz-QPSK-23255-25RB#0-4.505



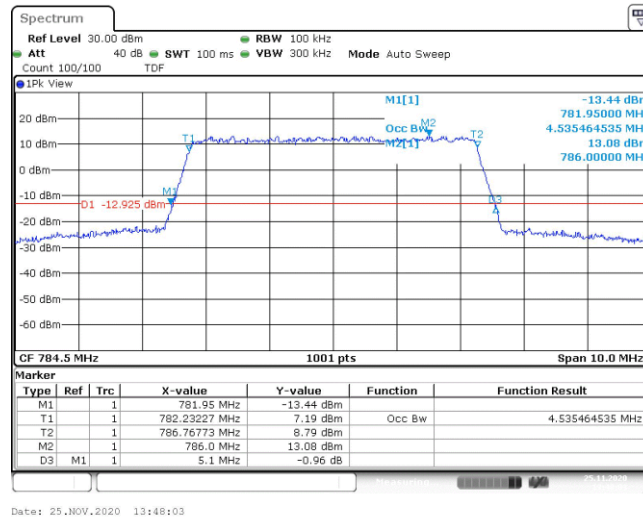
Band13-5MHz-16QAM-23205-25RB#0-4.505



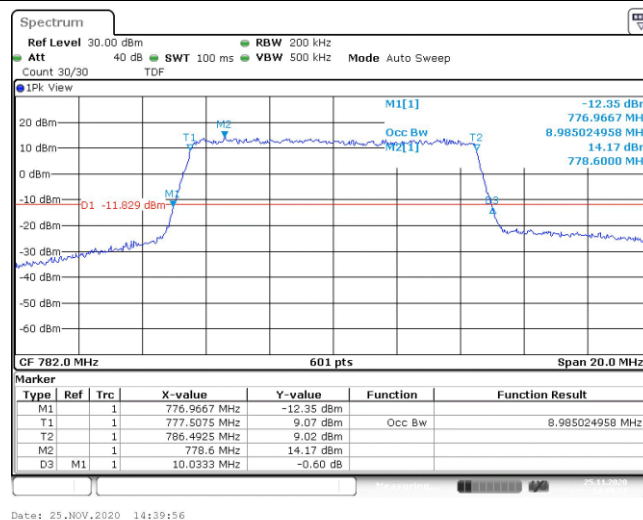
Band13-5MHz-16QAM-23230-25RB#0-4.525



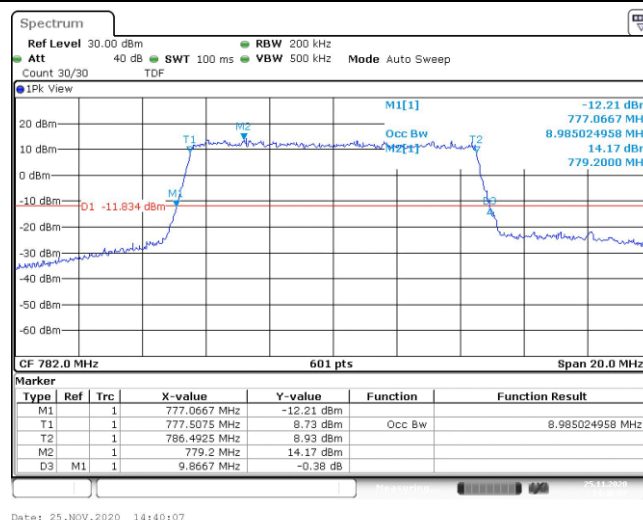
Band13-5MHz-16QAM-23255-25RB#0-4.535



Band13-10MHz-QPSK-23230-50RB#0-8.985



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

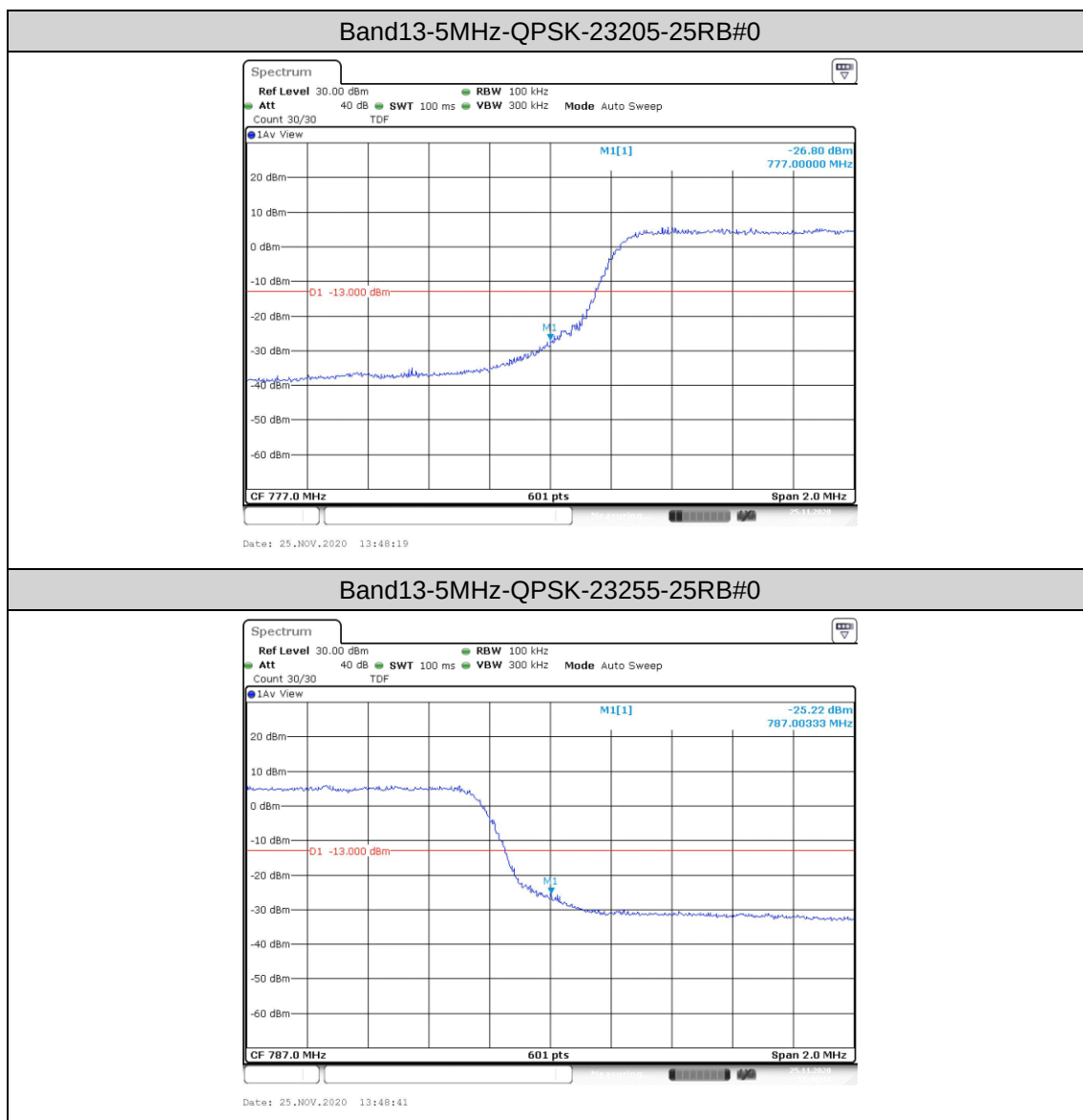


Appendix D: Band Edge

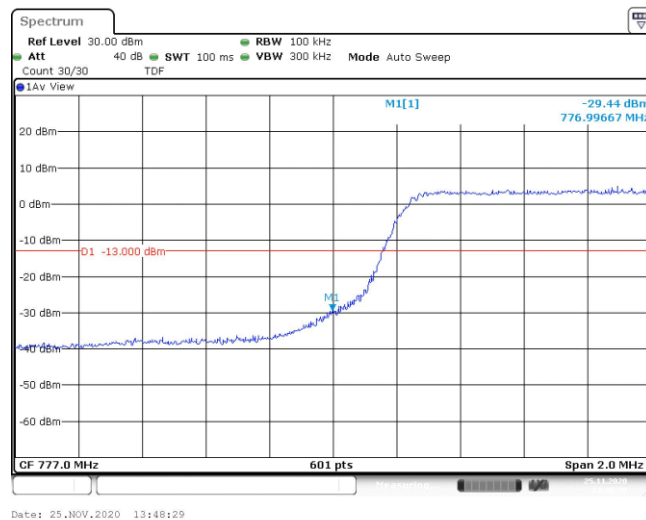
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	-26.80	PASS
Band13	5MHz	QPSK	23255	25RB#0	-25.22	PASS
Band13	5MHz	16QAM	23205	25RB#0	-29.44	PASS
Band13	5MHz	16QAM	23255	25RB#0	-27.51	PASS
Band13	10MHz	QPSK	23230	50RB#0	-30.20,-29.35	PASS
Band13	10MHz	16QAM	23230	50RB#0	-32.43,-31.56	PASS

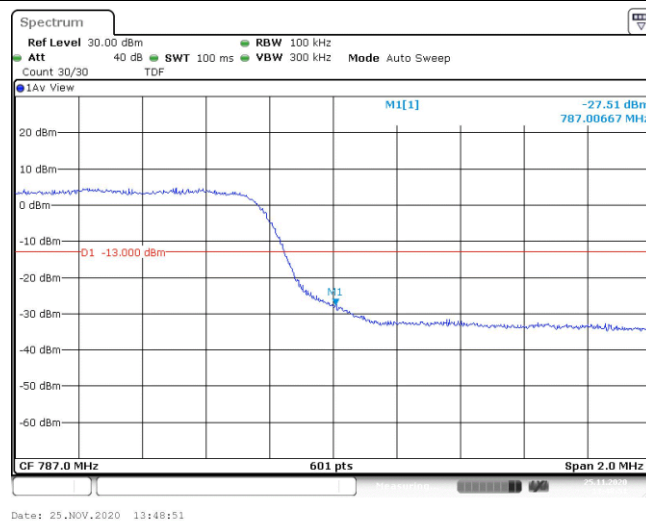
Test Graphs



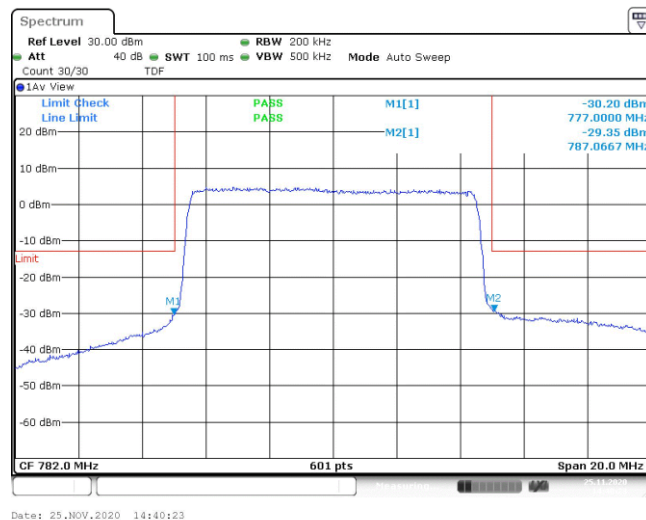
Band13-5MHz-16QAM-23205-25RB#0



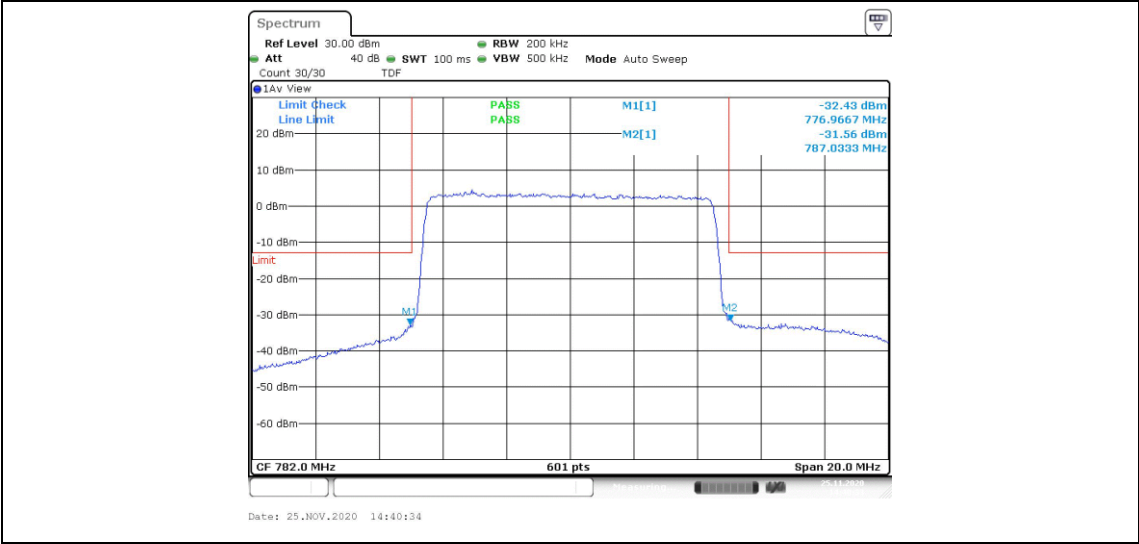
Band13-5MHz-16QAM-23255-25RB#0



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



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



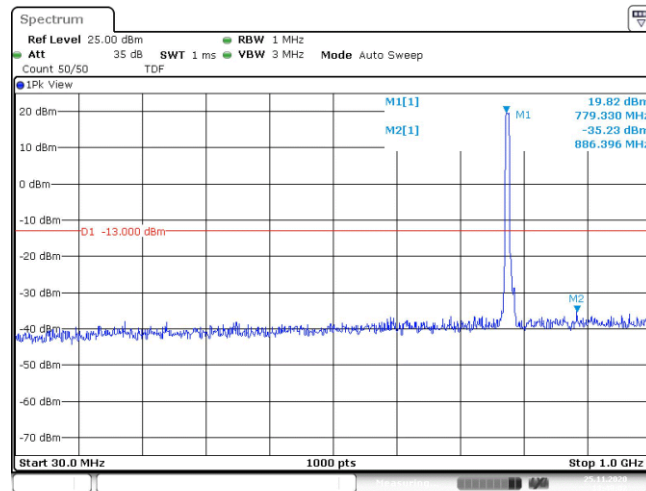
Appendix E: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band1 3	5MHz	QPSK	23205	25RB#0	Range1:30~1000MHz	-35.2 3	PAS S
Band1 3	5MHz	QPSK	23205	25RB#0	Range2:1000~10000M Hz	-44.7	PAS S
Band1 3	5MHz	QPSK	23230	25RB#0	Range1:30~1000MHz	-36.3 3	PAS S
Band1 3	5MHz	QPSK	23230	25RB#0	Range2:1000~10000M Hz	-44.6 5	PAS S
Band1 3	5MHz	QPSK	23255	25RB#0	Range1:30~1000MHz	-35.6 7	PAS S
Band1 3	5MHz	QPSK	23255	25RB#0	Range2:1000~10000M Hz	-44.3 1	PAS S
Band1 3	5MHz	16QAM	23205	25RB#0	Range1:30~1000MHz	-34.9 9	PAS S
Band1 3	5MHz	16QAM	23205	25RB#0	Range2:1000~10000M Hz	-44.1 6	PAS S
Band1 3	5MHz	16QAM	23230	25RB#0	Range1:30~1000MHz	-34.8 3	PAS S
Band1 3	5MHz	16QAM	23230	25RB#0	Range2:1000~10000M Hz	-44.2 8	PAS S
Band1 3	5MHz	16QAM	23255	25RB#0	Range1:30~1000MHz	-35.5 1	PAS S
Band1 3	5MHz	16QAM	23255	25RB#0	Range2:1000~10000M Hz	-43.1	PAS S
Band1 3	10MHz	QPSK	23230	50RB#0	Range1:30~1000MHz	-34.7	PAS S
Band1 3	10MHz	QPSK	23230	50RB#0	Range2:1000~10000M Hz	-44.5 5	PAS S
Band1 3	10MHz	16QAM	23230	50RB#0	Range1:30~1000MHz	-35.7 6	PAS S
Band1 3	10MHz	16QAM	23230	50RB#0	Range2:1000~10000M Hz	-44.6 2	PAS S

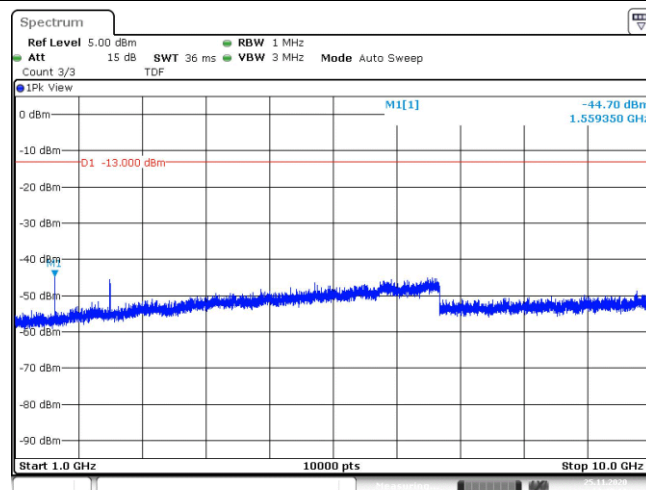
Test Graphs

Band13-5MHz-QPSK-23205-25RB#0-Range1:30~1000MHz



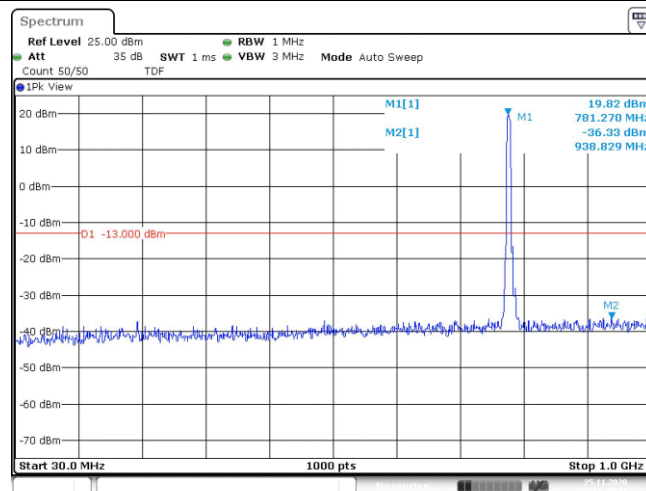
Date: 25.NOV.2020 13:49:02

Band13-5MHz-QPSK-23205-25RB#0-Range2:1000~10000MHz



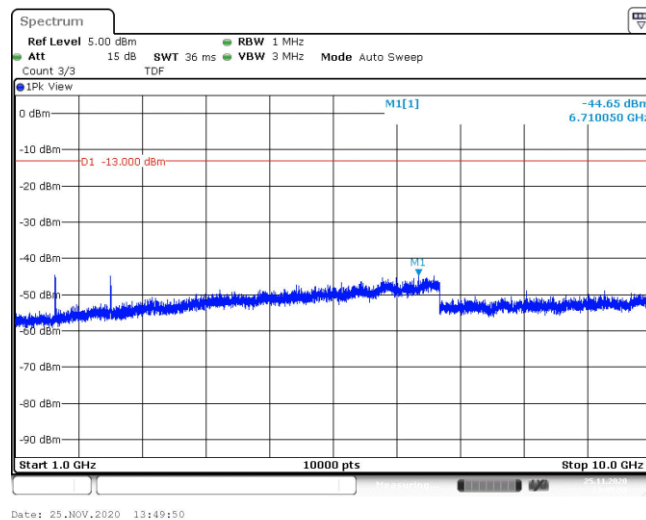
Date: 25.NOV.2020 13:49:11

Band13-5MHz-QPSK-23230-25RB#0-Range1:30~1000MHz

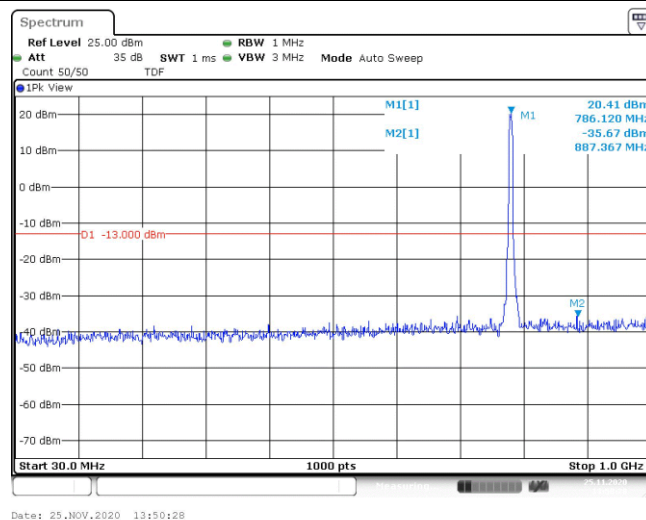


Date: 25.NOV.2020 13:49:41

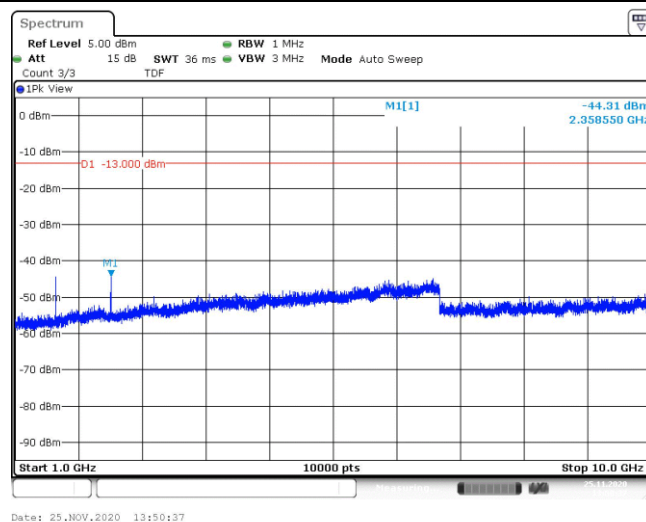
Band13-5MHz-QPSK-23230-25RB#0-Range2:1000~10000MHz



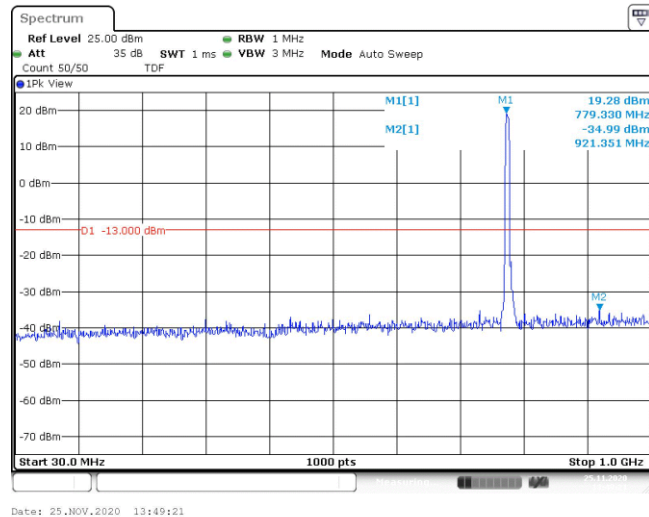
Band13-5MHz-QPSK-23255-25RB#0-Range1:30~1000MHz



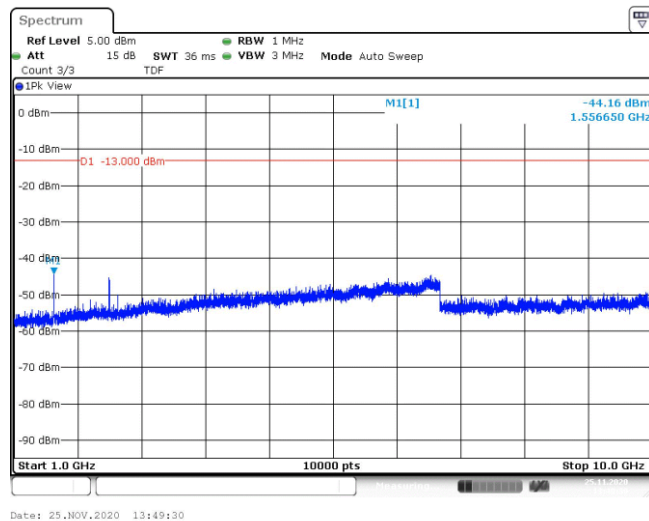
Band13-5MHz-QPSK-23255-25RB#0-Range2:1000~10000MHz



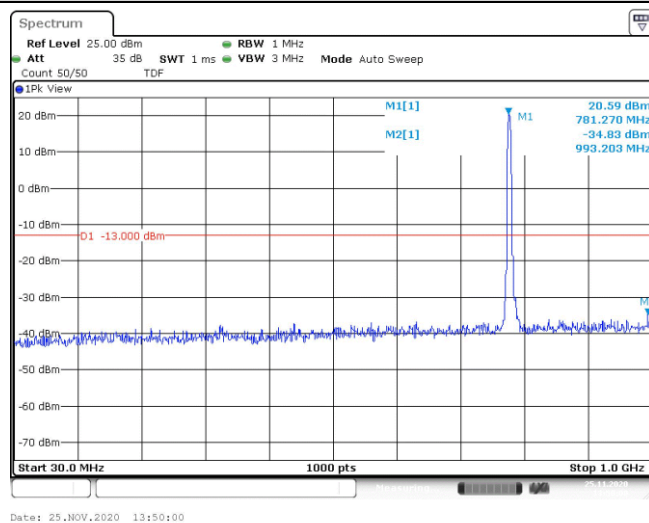
Band13-5MHz-16QAM-23205-25RB#0-Range1:30~1000MHz



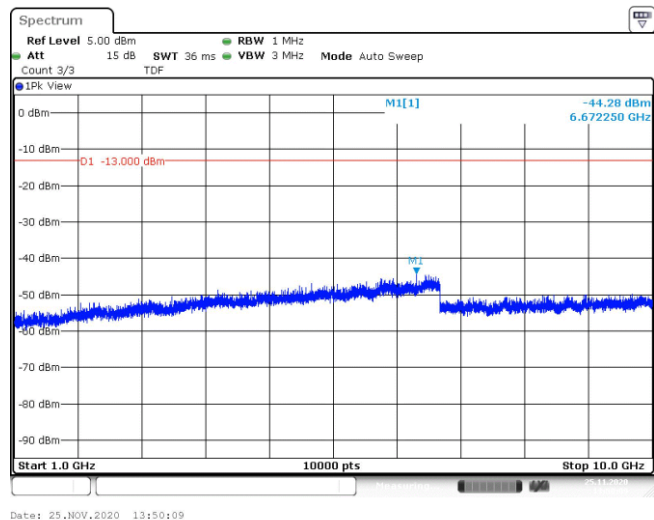
Band13-5MHz-16QAM-23205-25RB#0-Range2:1000~10000MHz



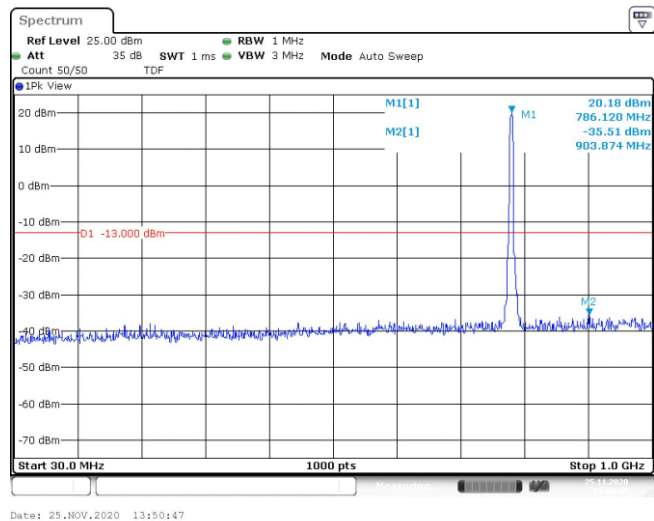
Band13-5MHz-16QAM-23230-25RB#0-Range1:30~1000MHz



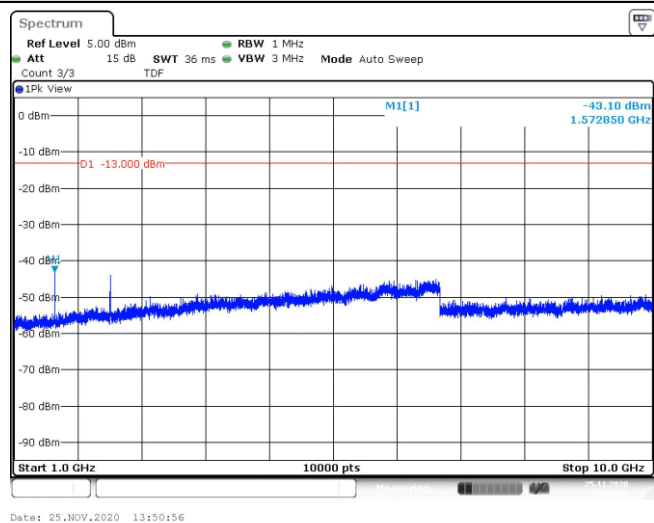
Band13-5MHz-16QAM-23230-25RB#0-Range2:1000~10000MHz



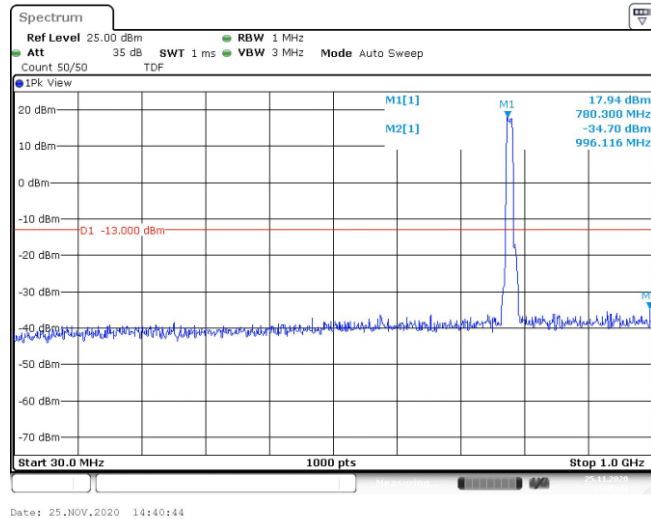
Band13-5MHz-16QAM-23255-25RB#0-Range1:30~1000MHz



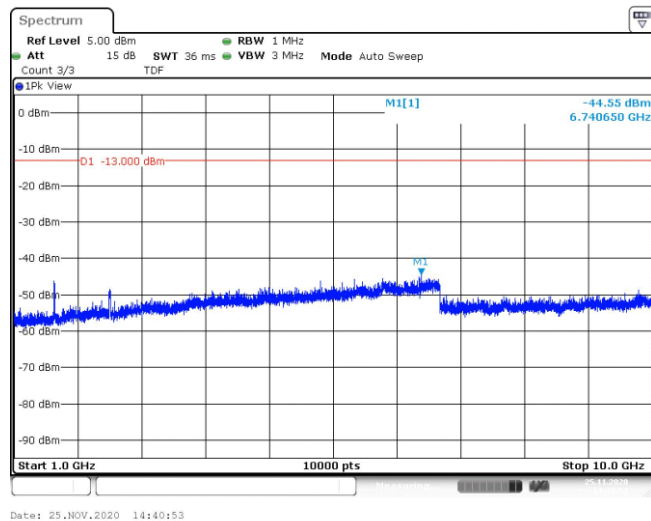
Band13-5MHz-16QAM-23255-25RB#0-Range2:1000~10000MHz



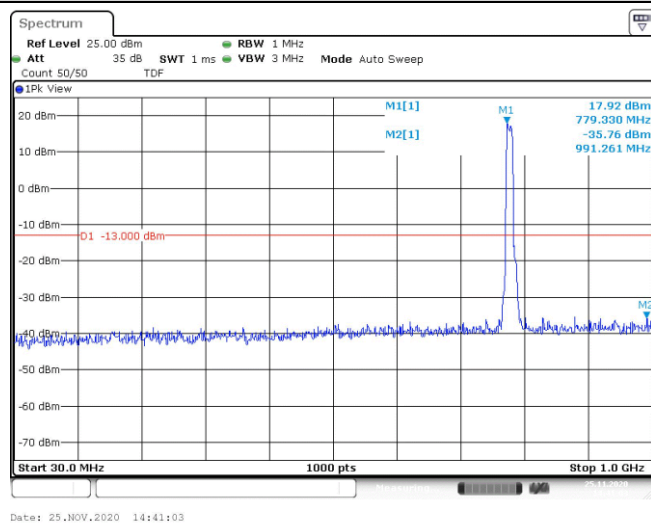
Band13-10MHz-QPSK-23230-50RB#0-Range1:30~1000MHz



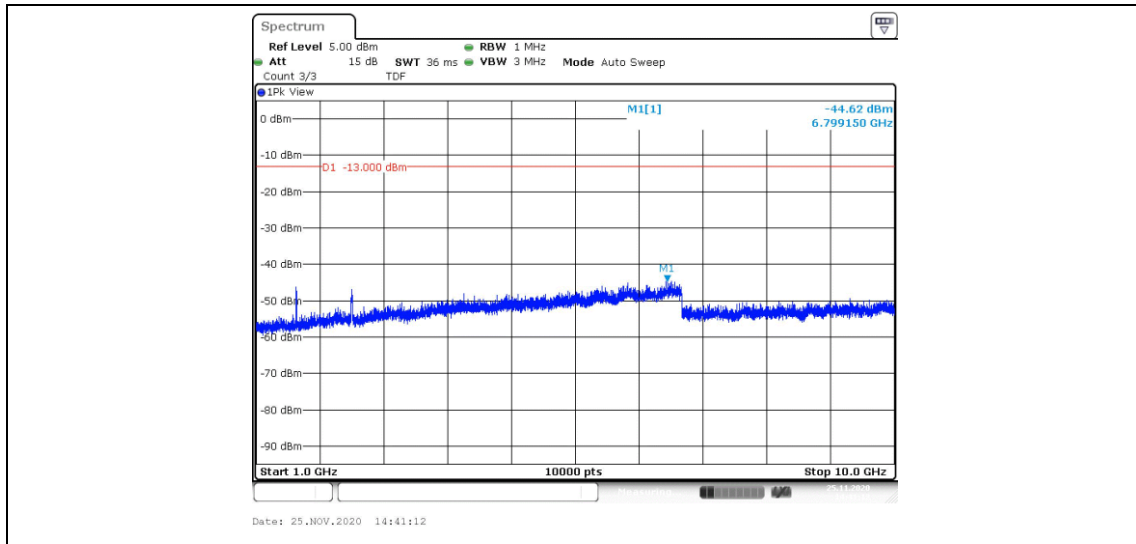
Band13-10MHz-QPSK-23230-50RB#0-Range2:1000~10000MHz



Band13-10MHz-16QAM-23230-50RB#0-Range1:30~1000MHz



Band13-10MHz-16QAM-23230-50RB#0-Range2:1000~10000MHz



Appendix F: Frequency Stability

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Voltage		Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
					Voltage [Vdc]	Temperature (°C)				
Band1_3	5MHz	QPSK	23205	25RB#0	VL	NT	-3.78	-0.004849	±2.5	PASS
Band1_3	5MHz	QPSK	23205	25RB#0	VN	NT	-1.47	-0.001886	±2.5	PASS
Band1_3	5MHz	QPSK	23205	25RB#0	VH	NT	-2.19	-0.002809	±2.5	PASS
Band1_3	5MHz	QPSK	23230	25RB#0	VL	NT	-2.80	-0.003581	±2.5	PASS
Band1_3	5MHz	QPSK	23230	25RB#0	VN	NT	1.85	0.002366	±2.5	PASS
Band1_3	5MHz	QPSK	23230	25RB#0	VH	NT	-2.12	-0.002711	±2.5	PASS
Band1_3	5MHz	QPSK	23255	25RB#0	VL	NT	2.80	0.003569	±2.5	PASS
Band1_3	5MHz	QPSK	23255	25RB#0	VN	NT	-1.44	-0.001836	±2.5	PASS
Band1_3	5MHz	QPSK	23255	25RB#0	VH	NT	-1.23	-0.001568	±2.5	PASS
Band1_3	5MHz	16QAM	23205	25RB#0	VL	NT	-3.91	-0.005016	±2.5	PASS
Band1_3	5MHz	16QAM	23205	25RB#0	VN	NT	-4.79	-0.006145	±2.5	PASS
Band1_3	5MHz	16QAM	23205	25RB#0	VH	NT	-4.13	-0.005298	±2.5	PASS
Band1_3	5MHz	16QAM	23230	25RB#0	VL	NT	-2.33	-0.002980	±2.5	PASS
Band1_3	5MHz	16QAM	23230	25RB#0	VN	NT	-2.69	-0.003440	±2.5	PASS
Band1_3	5MHz	16QAM	23230	25RB#0	VH	NT	3.53	0.004514	±2.5	PASS
Band1_3	5MHz	16QAM	23255	25RB#0	VL	NT	-1.67	-0.002129	±2.5	PASS
Band1_3	5MHz	16QAM	23255	25RB#0	VN	NT	-3.12	-0.003977	±2.5	PASS
Band1_3	5MHz	16QAM	23255	25RB#0	VH	NT	-1.80	-0.002294	±2.5	PASS

3										
Band1 3	10MHz	QPSK	23230	50RB#0	VL	NT	-3.18	-0.004066	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	VN	NT	-1.57	-0.002008	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	VH	NT	-3.83	-0.004898	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	VL	NT	2.32	0.002967	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	VN	NT	-2.62	-0.003350	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	VH	NT	2.79	0.003568	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band1 3	5MHz	QPSK	23205	25RB#0	NV	-30	-3.35	-0.004298	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	-20	-2.66	-0.003412	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	0	-3.33	-0.004272	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	10	-3.50	-0.004490	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	20	-3.26	-0.004182	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	-30	-2.89	-0.003696	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	-20	-3.78	-0.004834	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	0	-2.13	-0.002724	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	10	-1.89	-0.002417	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	20	-1.27	-0.001624	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	-30	-2.00	-0.002549	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	-20	-3.18	-0.004054	±2.5	PASS
Band1	5MHz	QPSK	23255	25RB#0	NV	0	-3.63	-0.004627	±2.5	PASS

3										
Band1 3	5MHz	QPSK	23255	25RB#0	NV	10	-2.20	-0.002804	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	20	-2.42	-0.003085	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	-30	-2.53	-0.003246	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	-20	-1.93	-0.002476	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	0	2.79	0.003579	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	10	-3.49	-0.004477	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	20	-2.68	-0.003438	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	-30	-3.78	-0.004834	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	-20	1.34	0.001714	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	0	2.29	0.002928	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	10	-3.00	-0.003836	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	20	-2.82	-0.003606	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	-30	-1.76	-0.002243	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	-20	2.76	0.003518	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	0	2.25	0.002868	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	10	2.22	0.002830	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	20	-2.92	-0.003722	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	-30	-2.99	-0.003824	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	-20	-4.18	-0.005345	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	0	-1.92	-0.002455	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	10	-2.57	-0.003286	±2.5	PASS

Band1 3	10MHz	QPSK	23230	50RB#0	NV	20	-3.76	-0.004808	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	-30	-2.69	-0.003440	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	-20	-4.16	-0.005320	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	0	2.50	0.003197	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	10	-2.20	-0.002813	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	20	1.79	0.002289	±2.5	PASS