

APPENDIX I: TEST RESULTS OF BAND 85 FOR CAT-M OPERATION

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APPENDIX I.1: EFFECTIVE (ISOTROPIC) RADIATED POWER OUTPUT DATA FOR M1

Test Result

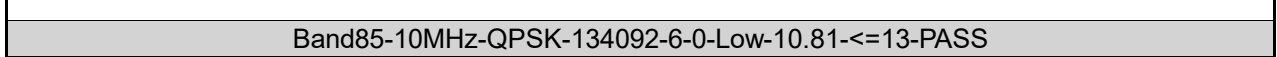
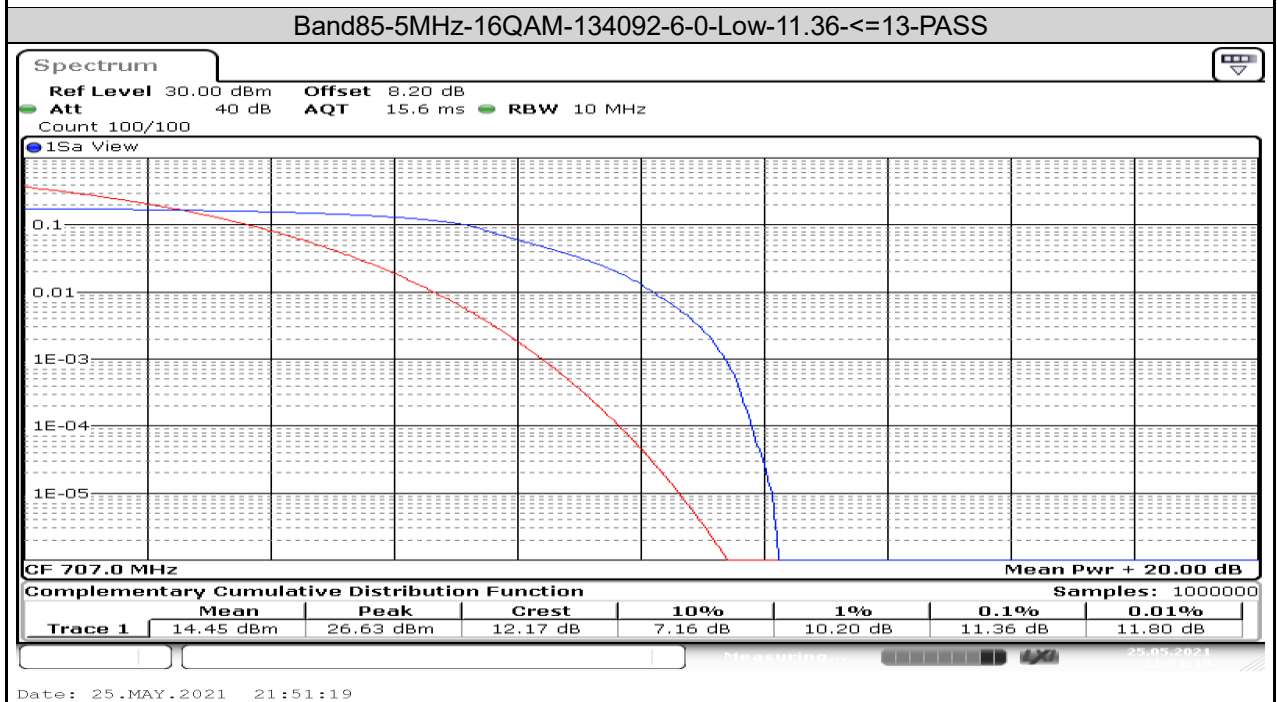
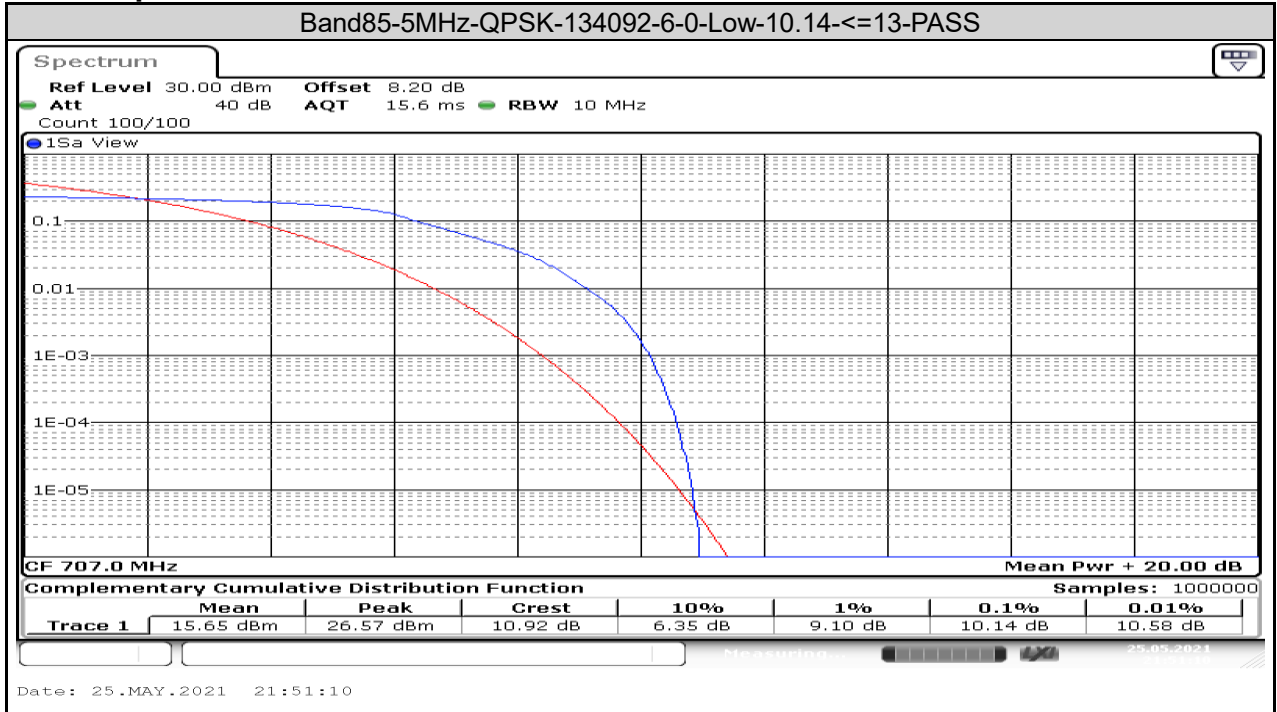
Band	Bandwidth	Channel	Modulation	RB Size	RB Start	NBIndex	Measure Result (dBm)	ERP		Limit (watts)	Verdict
								dBm	Watts		
Band85	5MHz	134027	QPSK	1	0	Low	23.05	23.04	0.201	3	PASS
Band85	5MHz	134027	QPSK	6	0	Low	22.11	22.10	0.162	3	PASS
Band85	5MHz	134092	QPSK	1	0	Low	23.13	23.12	0.205	3	PASS
Band85	5MHz	134092	QPSK	6	0	Low	22.07	22.06	0.161	3	PASS
Band85	5MHz	134157	QPSK	1	5	High	22.94	22.93	0.196	3	PASS
Band85	5MHz	134157	QPSK	3	3	High	21.83	21.82	0.152	3	PASS
Band85	5MHz	134027	16QAM	1	0	Low	23.29	23.28	0.213	3	PASS
Band85	5MHz	134027	16QAM	6	0	Low	21.81	21.80	0.151	3	PASS
Band85	5MHz	134092	16QAM	1	0	Low	23.41	23.40	0.219	3	PASS
Band85	5MHz	134092	16QAM	6	0	Low	21.61	21.60	0.145	3	PASS
Band85	5MHz	134157	16QAM	1	5	High	23.21	23.20	0.209	3	PASS
Band85	5MHz	134157	16QAM	3	3	High	21.79	21.78	0.151	3	PASS
Band85	10MHz	134092	QPSK	1	0	Low	23.16	23.15	0.207	3	PASS
Band85	10MHz	134092	QPSK	1	5	High	22.94	22.93	0.196	3	PASS
Band85	10MHz	134092	QPSK	5	0	Low	21.76	21.75	0.150	3	PASS
Band85	10MHz	134092	QPSK	5	1	High	21.86	21.85	0.153	3	PASS
Band85	10MHz	134092	16QAM	1	0	Low	23.3	23.29	0.213	3	PASS
Band85	10MHz	134092	16QAM	1	5	High	23.24	23.23	0.210	3	PASS
Band85	10MHz	134092	16QAM	5	0	Low	21.84	21.83	0.152	3	PASS
Band85	10MHz	134092	16QAM	5	1	High	21.82	21.81	0.152	3	PASS

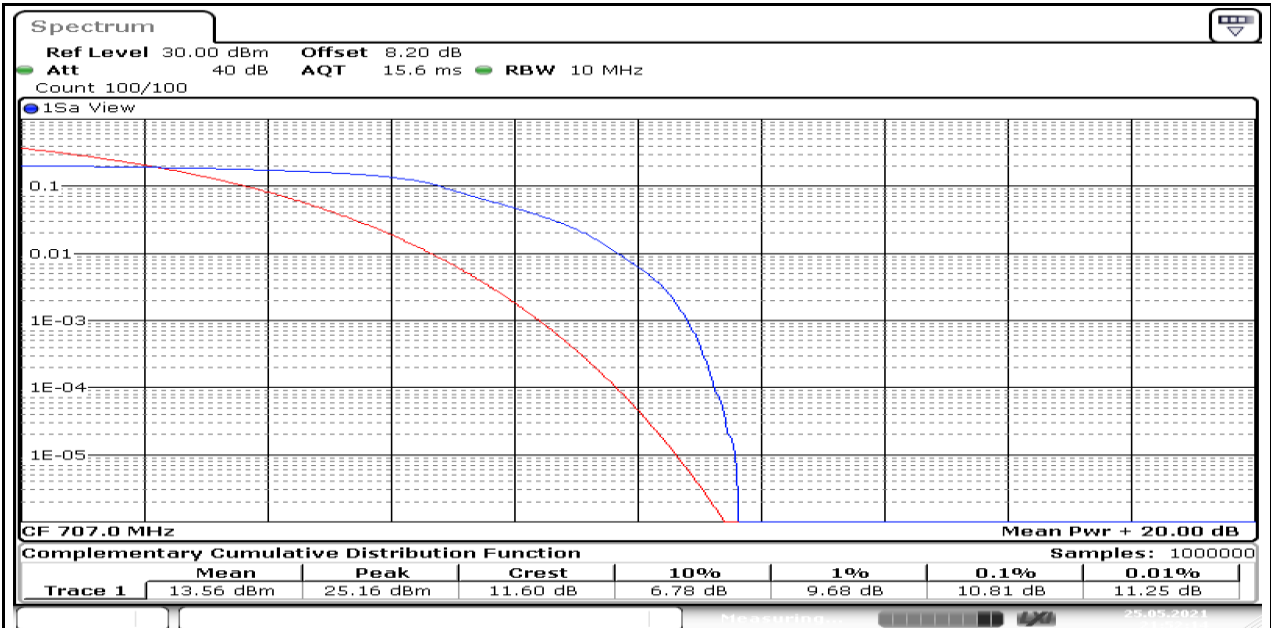
APPENDIX I.2: PEAK-TO-AVERAGE RATIO (CCDF) FOR M1

Test Result

Band	Bandwidth	Channel	Modulation	RB Size	RB Start	Index	Result (dB)	Limit (dB)	Verdict
Band85	5MHz	134092	QPSK	6	0	Low	10.14	<=13	PASS
Band85	5MHz	134092	16QAM	6	0	Low	11.36	<=13	PASS
Band85	10MHz	134092	QPSK	6	0	Low	10.81	<=13	PASS
Band85	10MHz	134092	16QAM	6	0	Low	10.72	<=13	PASS

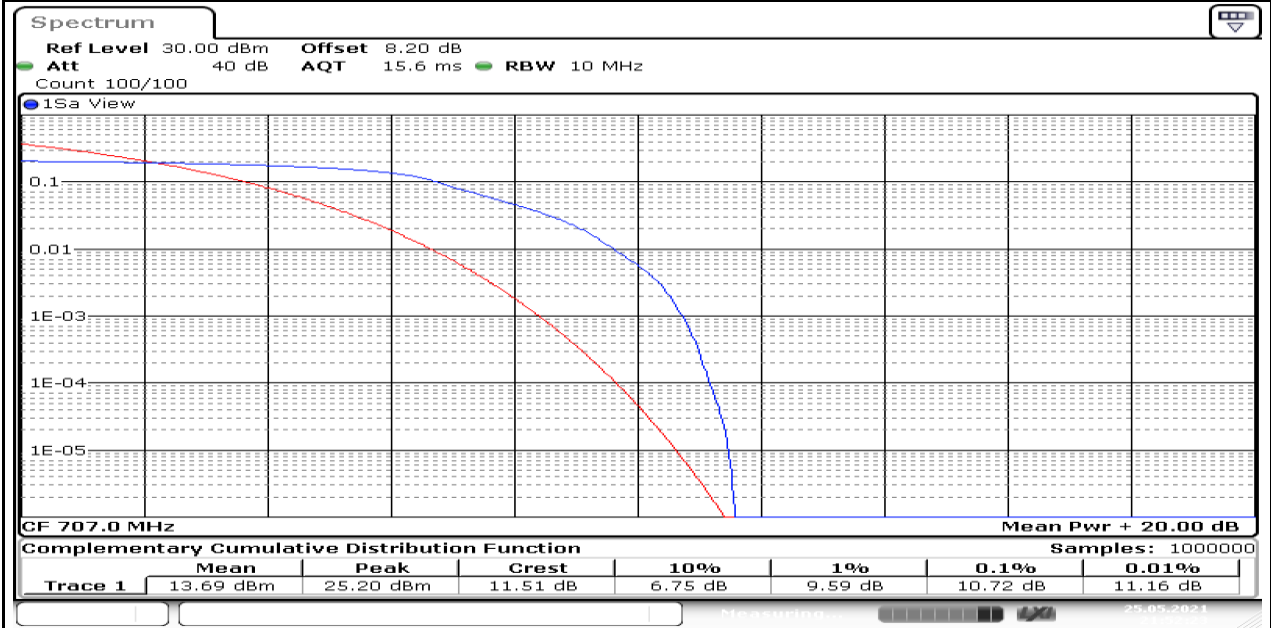
Test Graphs





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Band85-10MHz-16QAM-134092-6-0-Low-10.72-<=13-PASS



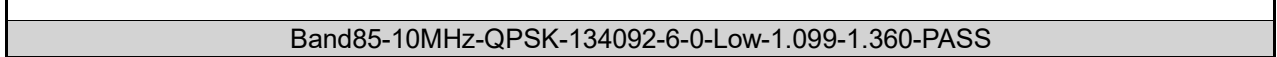
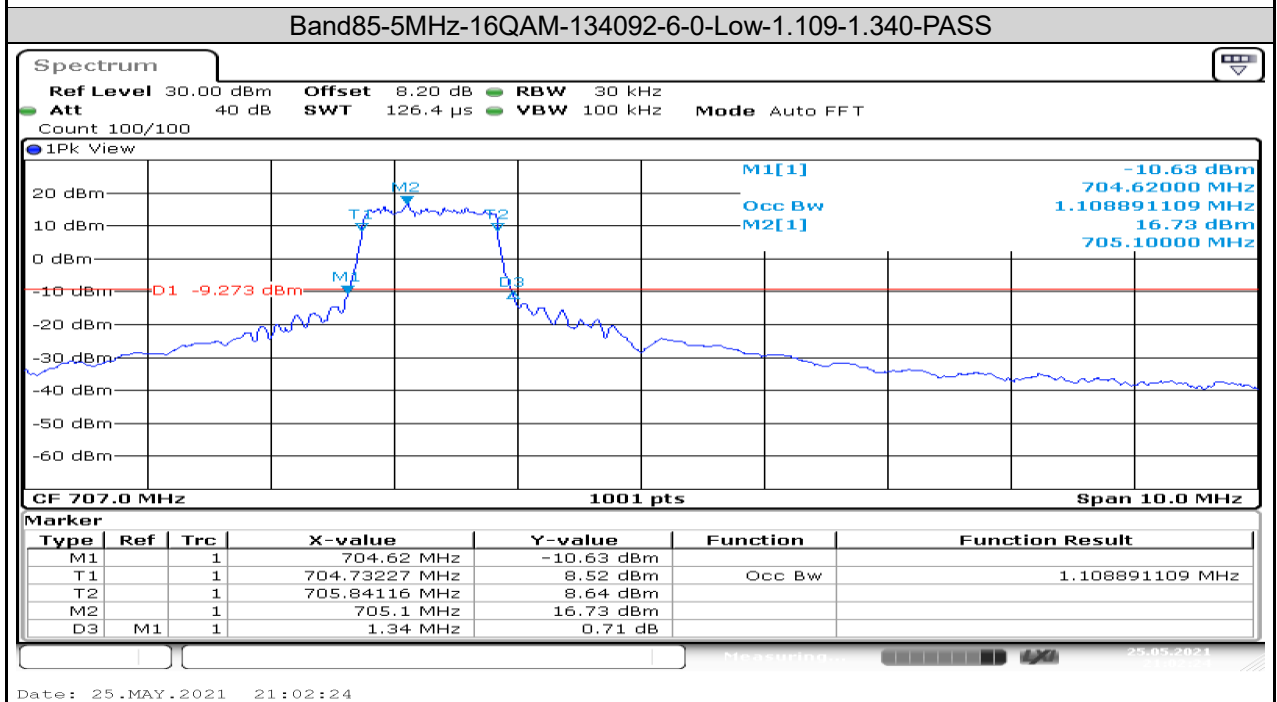
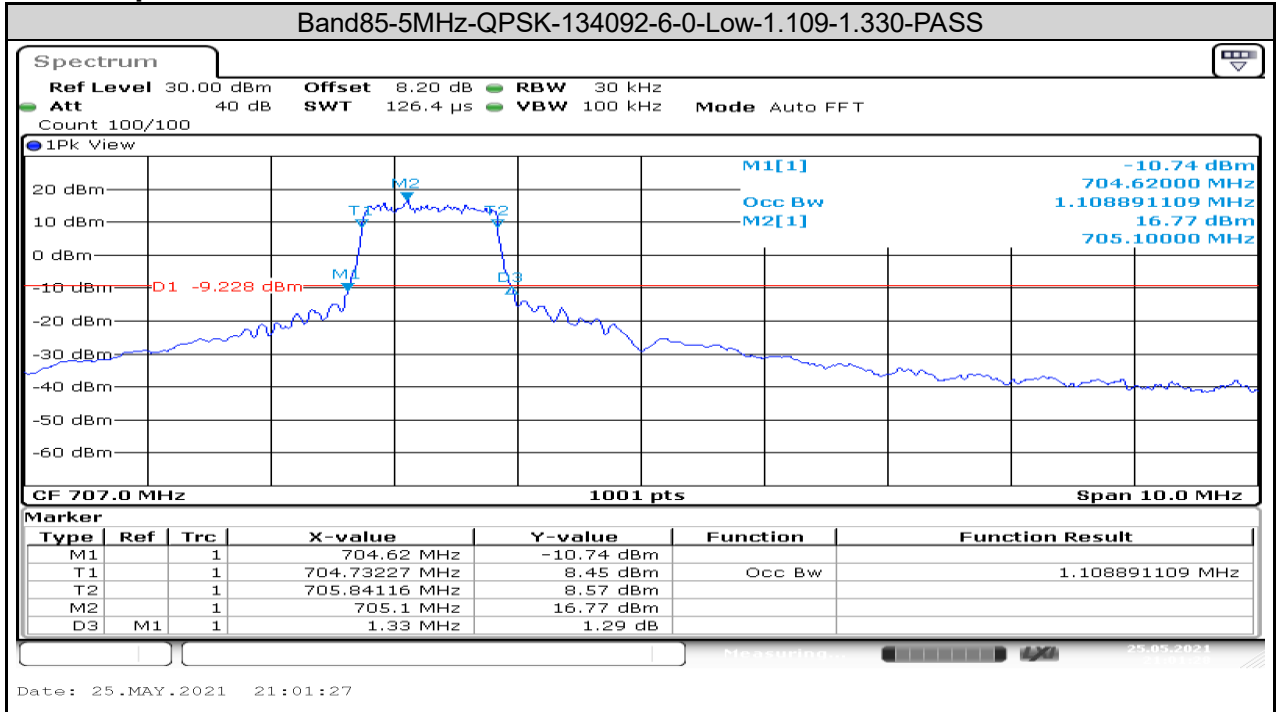
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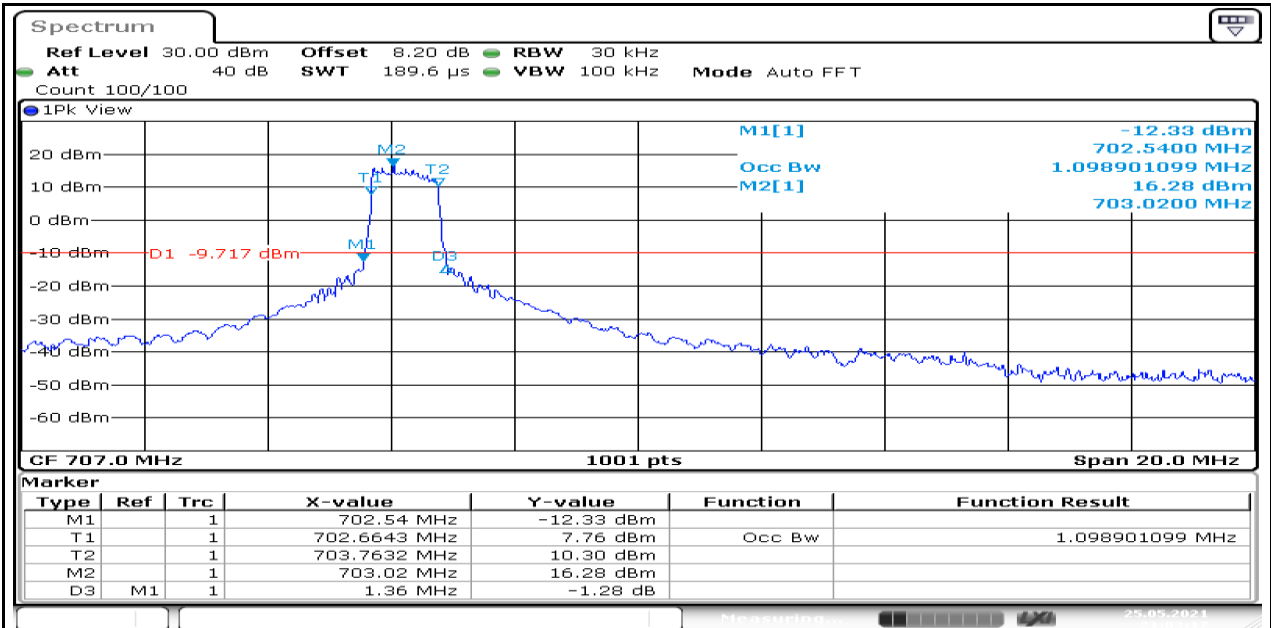
APPENDIX I.3: 26dB BANDWIDTH AND OCCUPIED BANDWIDTH FOR M1

Test Result

Band	Bandwidth	Channel	Modulation	RB Size	RB Start	Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band85	5MHz	134092	QPSK	6	0	Low	1.109	1.330	PASS
Band85	5MHz	134092	16QAM	6	0	Low	1.109	1.340	PASS
Band85	10MHz	134092	QPSK	6	0	Low	1.099	1.360	PASS
Band85	10MHz	134092	16QAM	6	0	Low	1.099	1.340	PASS

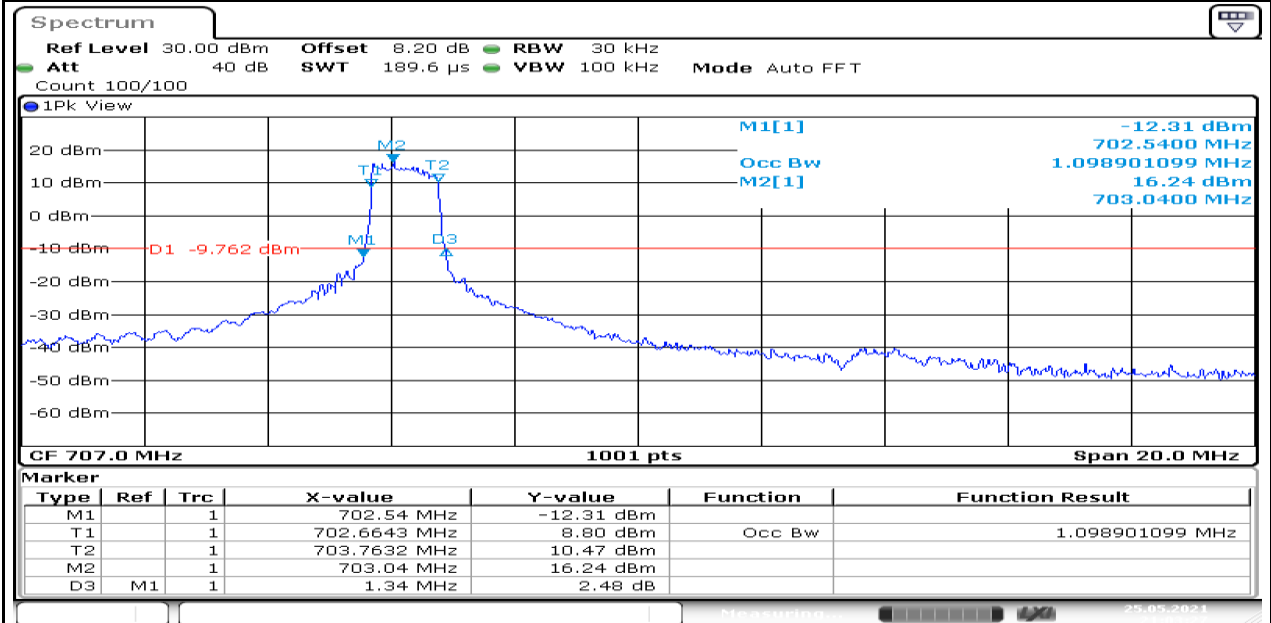
Test Graphs





Date: 25.MAY.2021 21:03:17

Band85-10MHz-16QAM-134092-6-0-Low-1.099-1.340-PASS



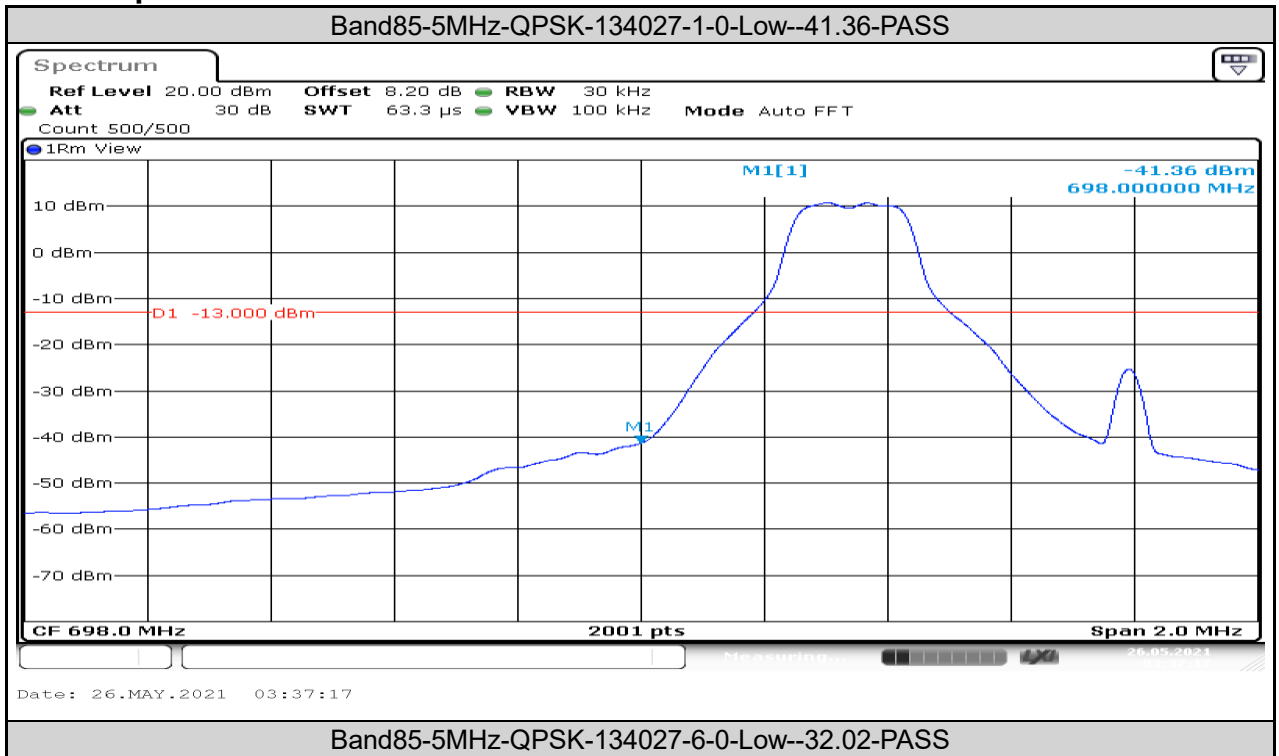
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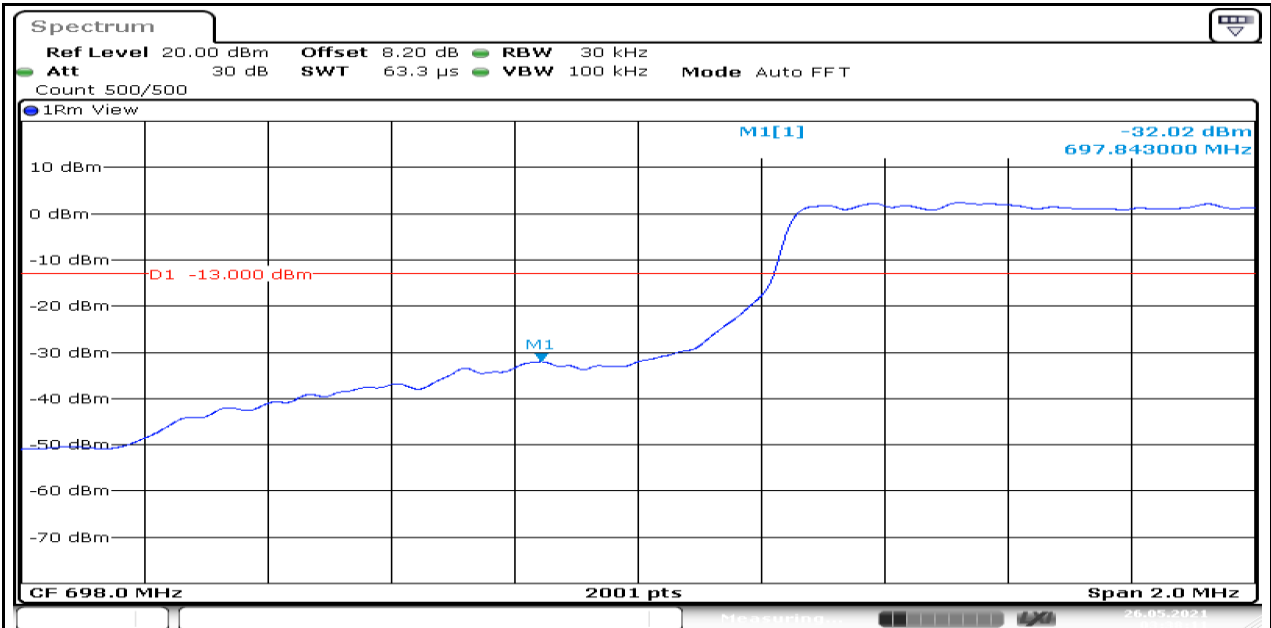
APPENDIX I.4: BAND EDGE FOR M1

Test Result

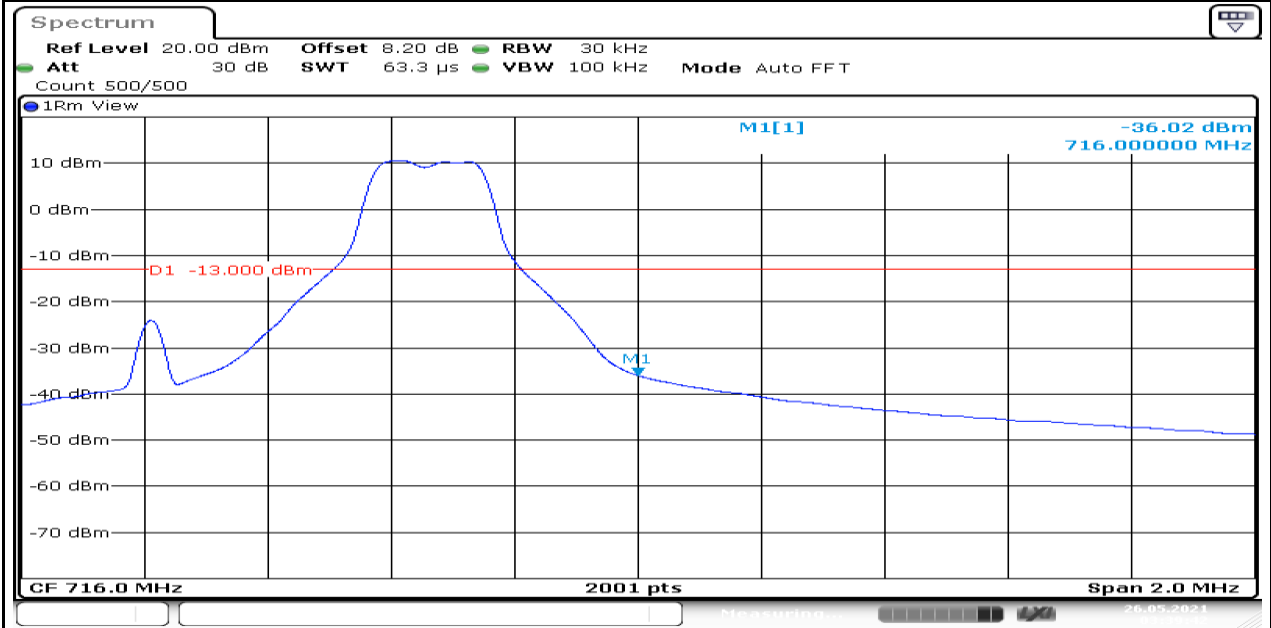
Band	Bandwidth	Channel	Modulation	RB Size	RB Start	NB Index	Result(dBm)	Verdict
Band85	5MHz	134027	QPSK	1	0	Low	-41.36	PASS
Band85	5MHz	134027	QPSK	6	0	Low	-32.02	PASS
Band85	5MHz	134157	QPSK	1	5	High	-36.02	PASS
Band85	5MHz	134157	QPSK	3	3	High	-31.06	PASS
Band85	5MHz	134027	16QAM	1	0	Low	-38.24	PASS
Band85	5MHz	134027	16QAM	6	0	Low	-32.57	PASS
Band85	5MHz	134157	16QAM	1	5	High	-39.11	PASS
Band85	5MHz	134157	16QAM	3	3	High	-31.46	PASS

Test Graphs

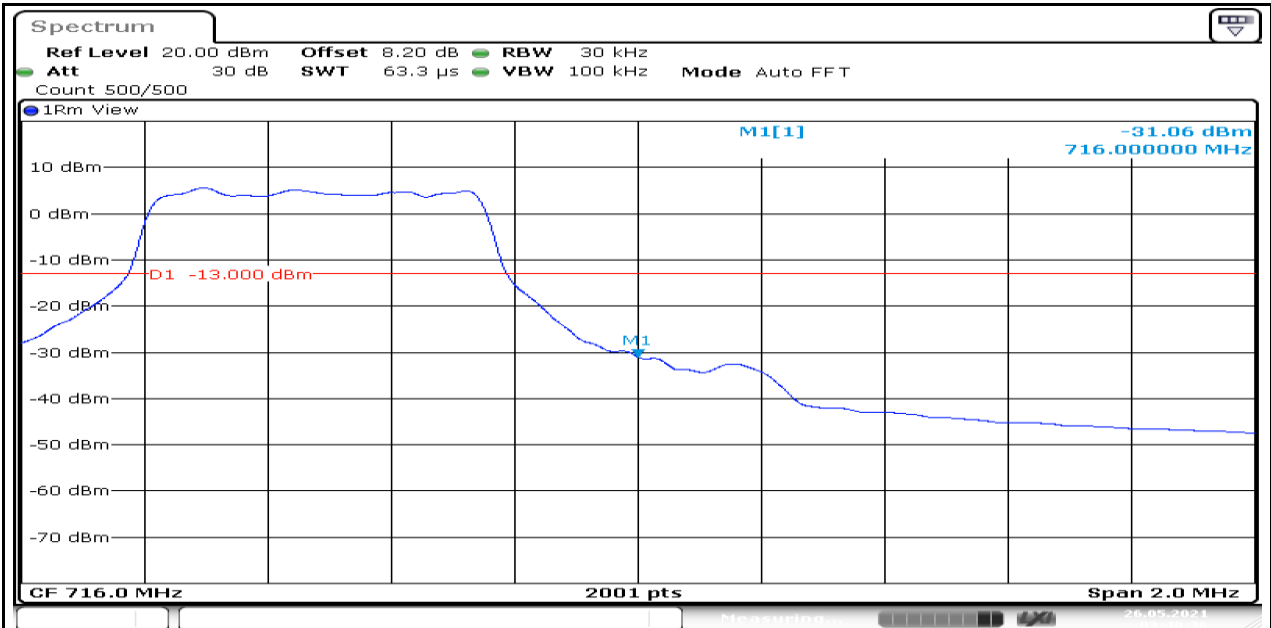




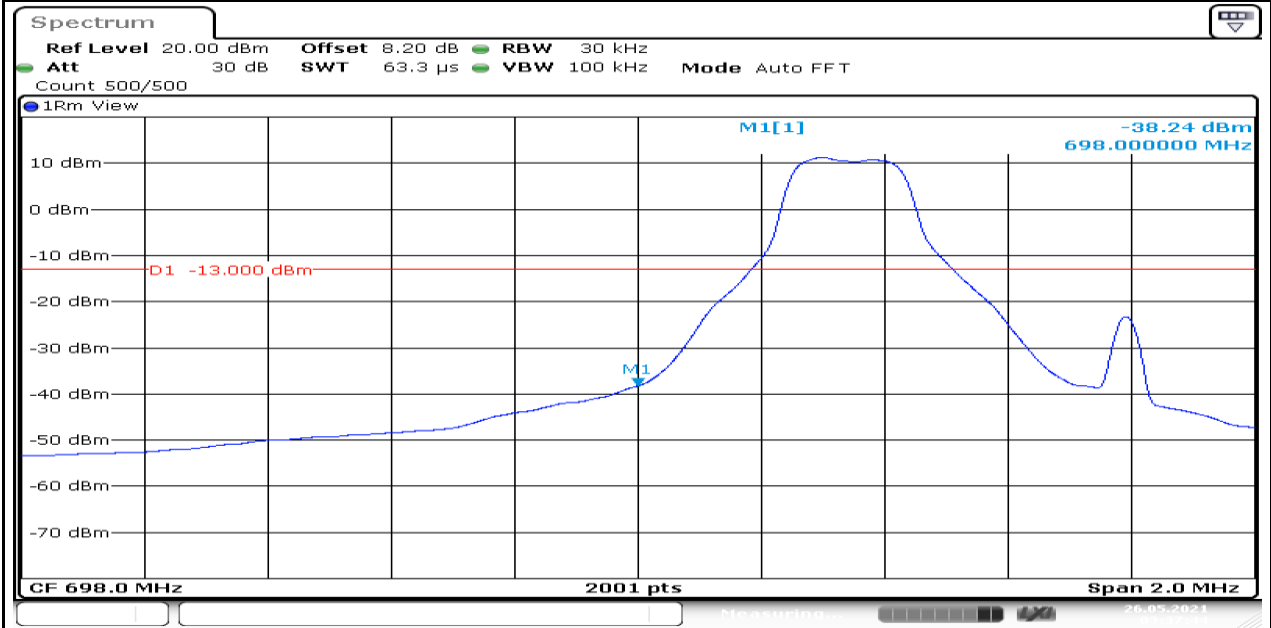
Band85-5MHz-QPSK-134157-1-5-High--36.02-PASS



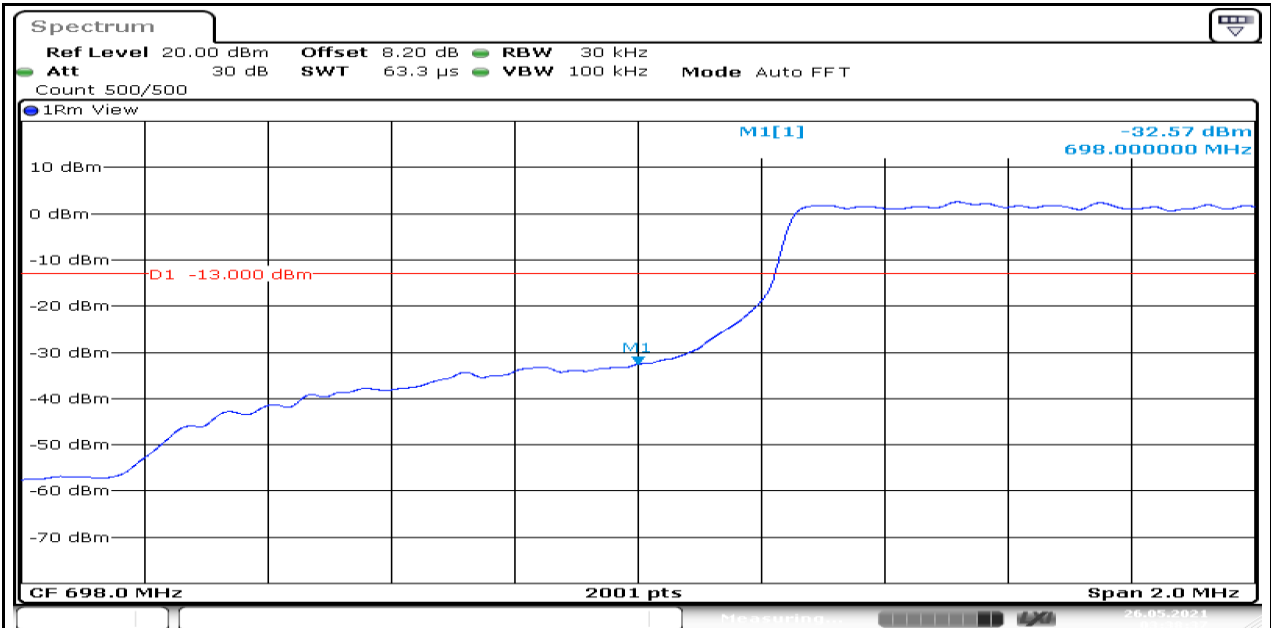
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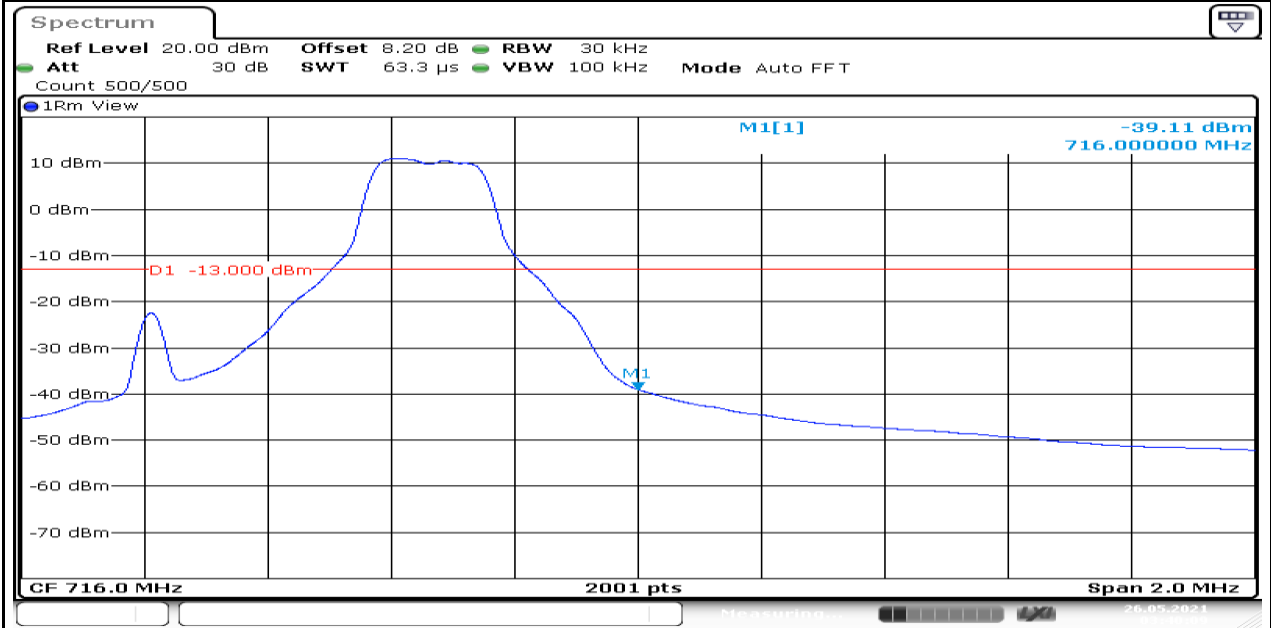
Band85-5MHz-16QAM-134027-1-0-Low--38.24-PASS



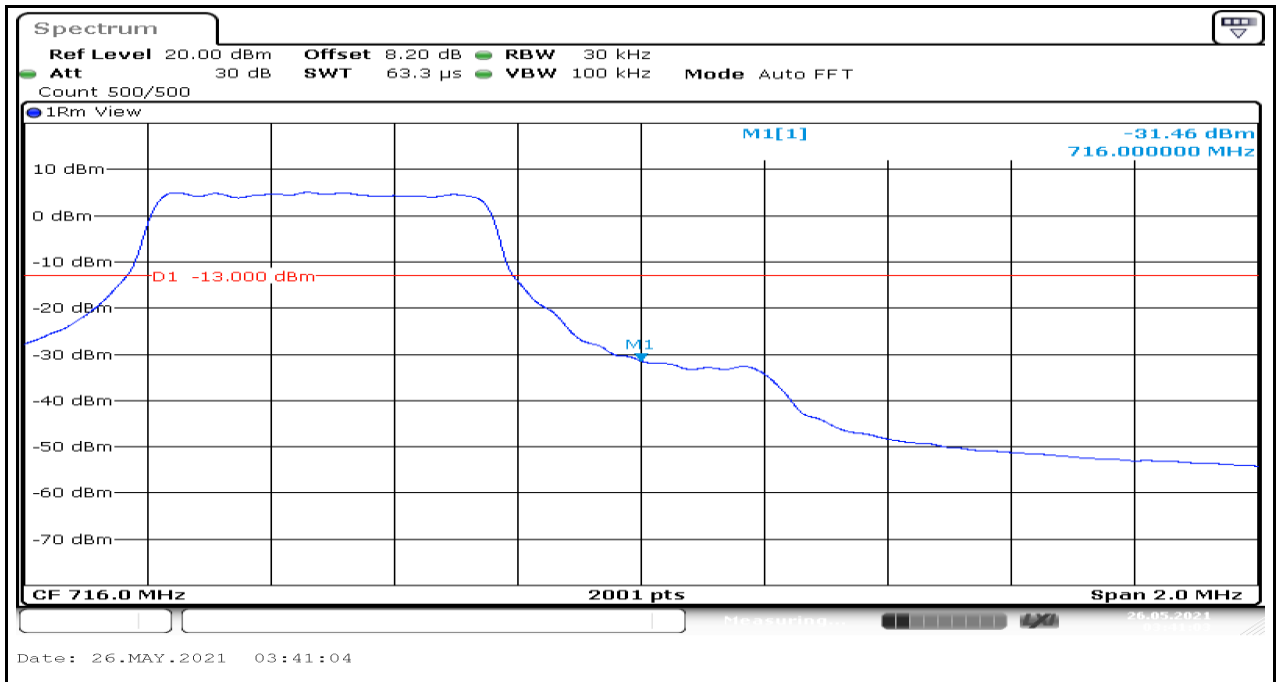
Band85-5MHz-16QAM-134027-6-0-Low--32.57-PASS



Band85-5MHz-16QAM-134157-1-5-High--39.11-PASS



Band85-5MHz-16QAM-134157-3-3-High--31.46-PASS



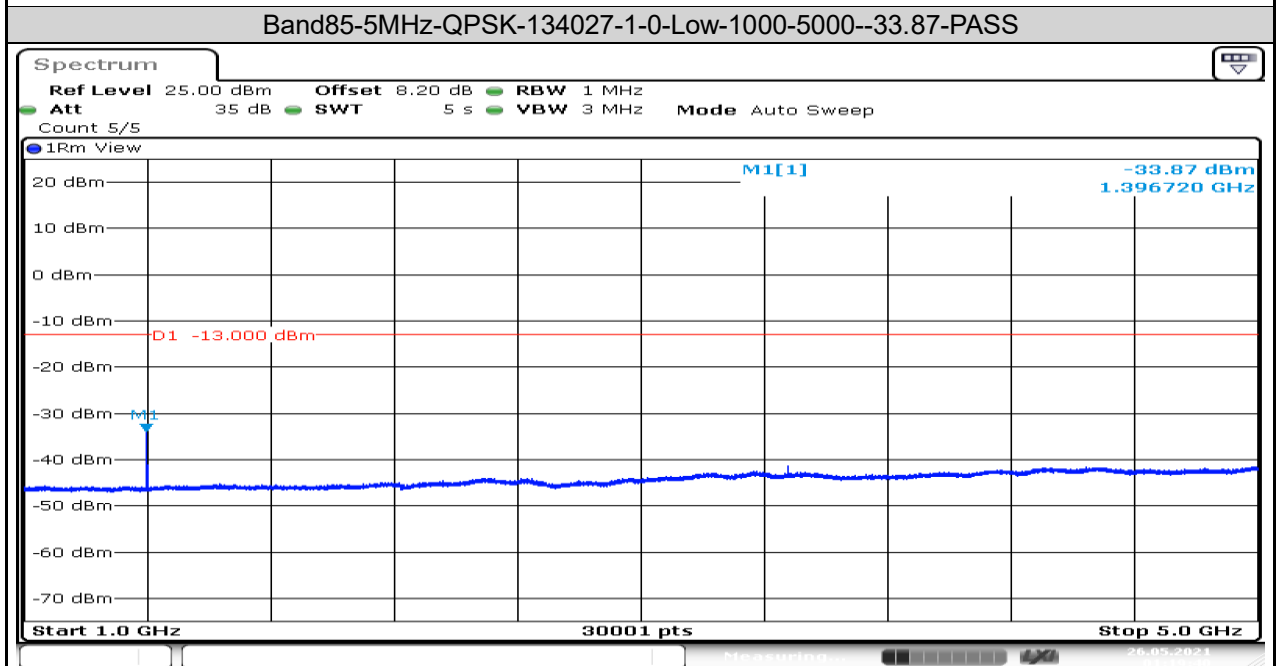
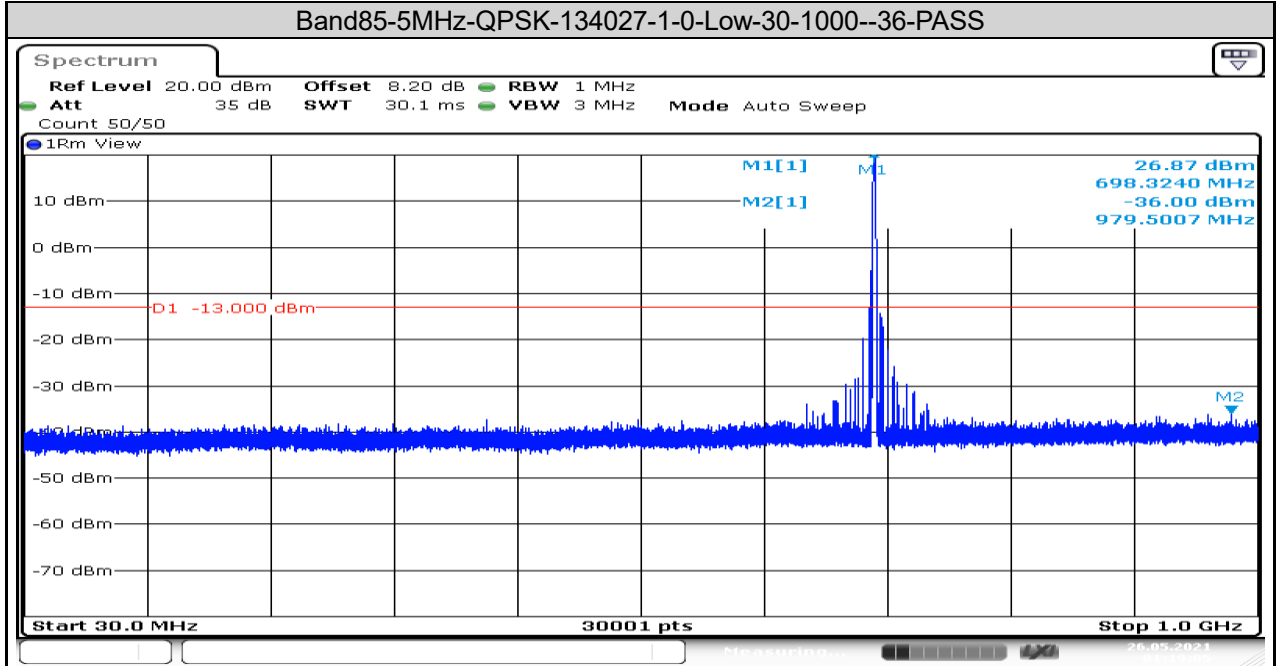
APPENDIX I.5: CONDUCTED SPURIOUS EMISSION FOR M1

Test Result

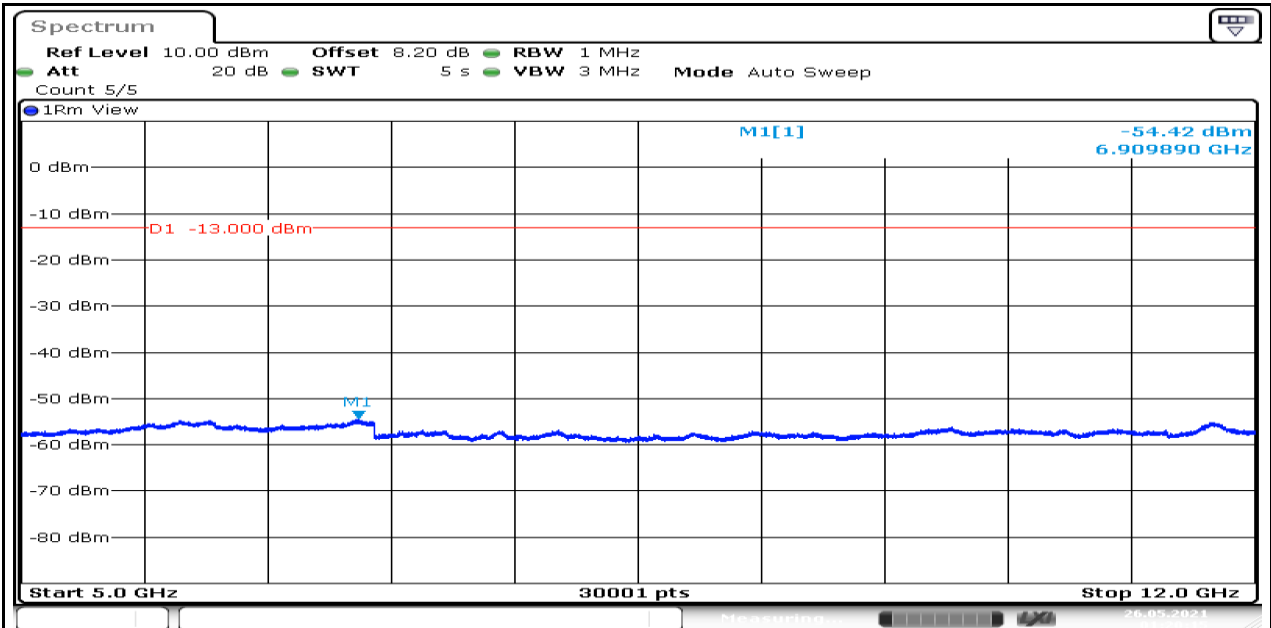
Band	Bandwidth	Channel	Modulation	RB Size	RB Start	Index	Start Freq	Stop Freq	Result (dBm)	Verdict
Band85	5MHz	134027	QPSK	1	0	Low	30	1000	-36	PASS
Band85	5MHz	134027	QPSK	1	0	Low	1000	5000	-33.87	PASS
Band85	5MHz	134027	QPSK	1	0	Low	5000	12000	-54.42	PASS
Band85	5MHz	134027	QPSK	1	0	Low	12000	26500	-50.63	PASS
Band85	5MHz	134027	QPSK	6	0	Low	30	1000	-36.46	PASS
Band85	5MHz	134027	QPSK	6	0	Low	1000	5000	-38.36	PASS
Band85	5MHz	134027	QPSK	6	0	Low	5000	12000	-54.56	PASS
Band85	5MHz	134027	QPSK	6	0	Low	12000	26500	-50.65	PASS
Band85	5MHz	134092	QPSK	1	0	Low	30	1000	-36.54	PASS
Band85	5MHz	134092	QPSK	1	0	Low	1000	5000	-35.91	PASS
Band85	5MHz	134092	QPSK	1	0	Low	5000	12000	-54.46	PASS
Band85	5MHz	134092	QPSK	1	0	Low	12000	26500	-50.55	PASS
Band85	5MHz	134092	QPSK	6	0	Low	30	1000	-36.31	PASS
Band85	5MHz	134092	QPSK	6	0	Low	1000	5000	-40.03	PASS
Band85	5MHz	134092	QPSK	6	0	Low	5000	12000	-54.53	PASS
Band85	5MHz	134092	QPSK	6	0	Low	12000	26500	-50.69	PASS
Band85	5MHz	134157	QPSK	1	5	High	30	1000	-34.85	PASS
Band85	5MHz	134157	QPSK	1	5	High	1000	5000	-39.3	PASS
Band85	5MHz	134157	QPSK	1	5	High	5000	12000	-54.53	PASS
Band85	5MHz	134157	QPSK	1	5	High	12000	26500	-50.54	PASS
Band85	5MHz	134157	QPSK	3	3	High	30	1000	-36.68	PASS
Band85	5MHz	134157	QPSK	3	3	High	1000	5000	-41.32	PASS
Band85	5MHz	134157	QPSK	3	3	High	5000	12000	-54.5	PASS
Band85	5MHz	134157	QPSK	3	3	High	12000	26500	-50.35	PASS
Band85	5MHz	134027	16QAM	1	0	Low	30	1000	-36.43	PASS
Band85	5MHz	134027	16QAM	1	0	Low	1000	5000	-32.33	PASS
Band85	5MHz	134027	16QAM	1	0	Low	5000	12000	-54.58	PASS
Band85	5MHz	134027	16QAM	1	0	Low	12000	26500	-50.72	PASS
Band85	5MHz	134027	16QAM	6	0	Low	30	1000	-36.69	PASS
Band85	5MHz	134027	16QAM	6	0	Low	1000	5000	-38.37	PASS
Band85	5MHz	134027	16QAM	6	0	Low	5000	12000	-54.6	PASS
Band85	5MHz	134027	16QAM	6	0	Low	12000	26500	-50.63	PASS
Band85	5MHz	134092	16QAM	1	0	Low	30	1000	-36.53	PASS
Band85	5MHz	134092	16QAM	1	0	Low	1000	5000	-34.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	5000	12000	-54.4	PASS
Band85	5MHz	134092	16QAM	1	0	Low	12000	26500	-50.63	PASS
Band85	5MHz	134092	16QAM	6	0	Low	30	1000	-35.49	PASS
Band85	5MHz	134092	16QAM	6	0	Low	1000	5000	-39.78	PASS
Band85	5MHz	134092	16QAM	6	0	Low	5000	12000	-54.61	PASS
Band85	5MHz	134092	16QAM	6	0	Low	12000	26500	-50.65	PASS
Band85	5MHz	134157	16QAM	1	5	High	30	1000	-35.43	PASS
Band85	5MHz	134157	16QAM	1	5	High	1000	5000	-37.4	PASS
Band85	5MHz	134157	16QAM	1	5	High	5000	12000	-54.58	PASS
Band85	5MHz	134157	16QAM	1	5	High	12000	26500	-50.59	PASS
Band85	5MHz	134157	16QAM	3	3	High	30	1000	-36.15	PASS

Band85	5MHz	134157	16QAM	3	3	High	1000	5000	-41.06	PASS
Band85	5MHz	134157	16QAM	3	3	High	5000	12000	-54.47	PASS
Band85	5MHz	134157	16QAM	3	3	High	12000	26500	-50.49	PASS

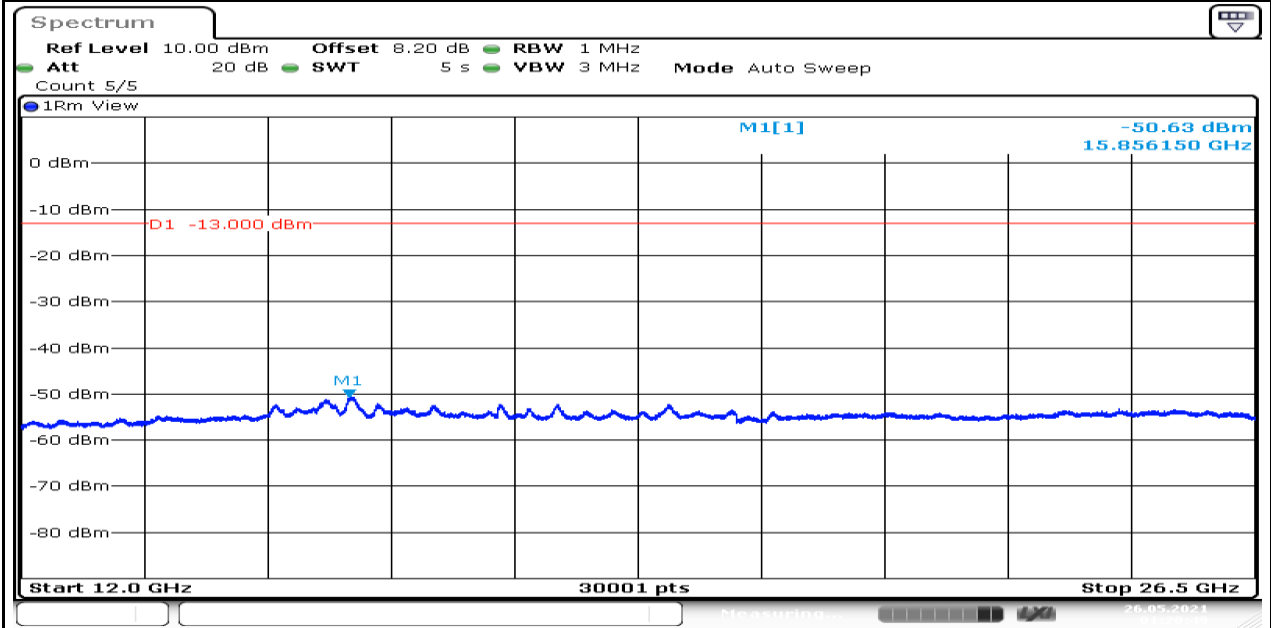
Test Graphs



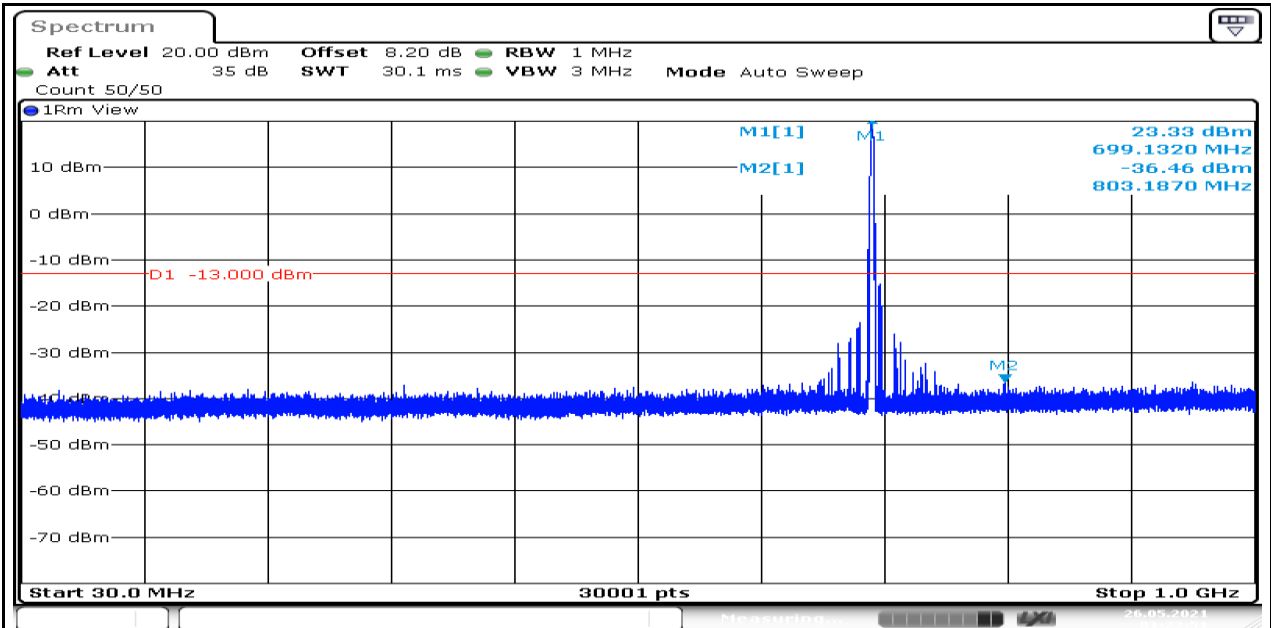
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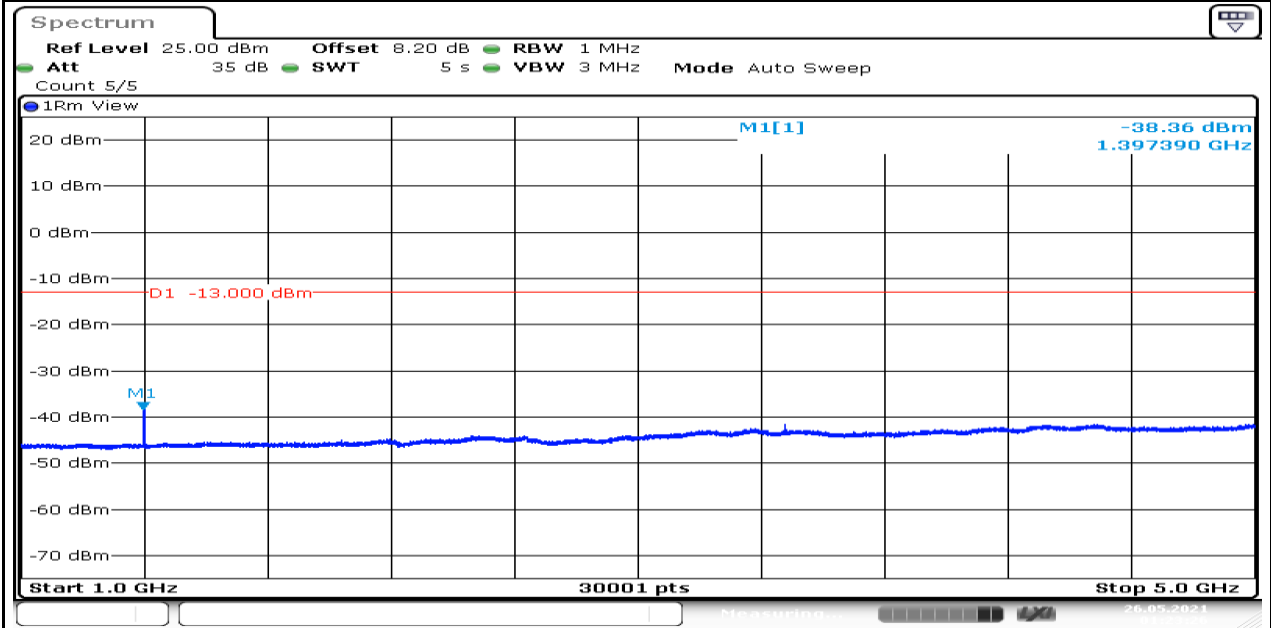
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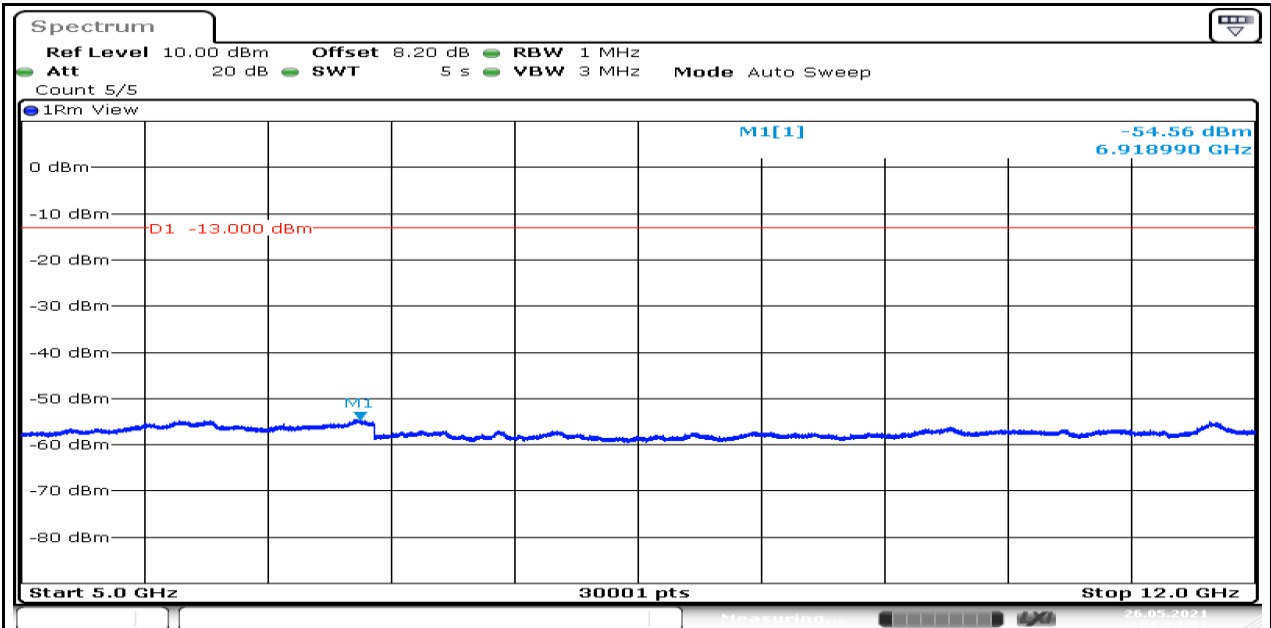
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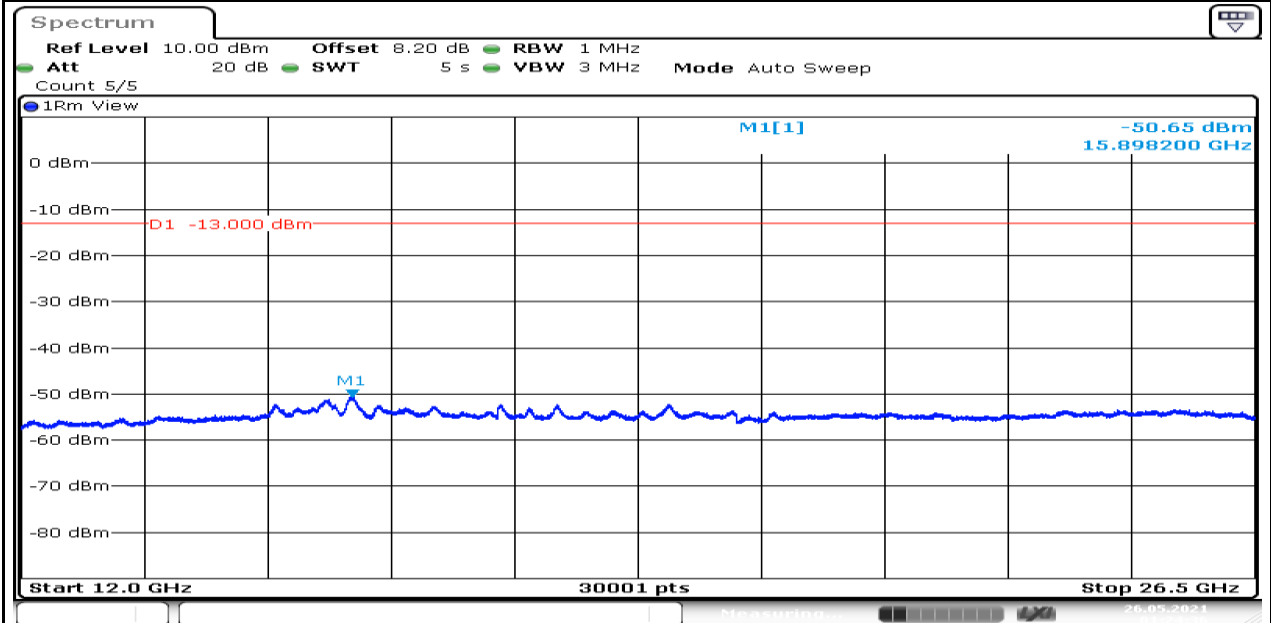
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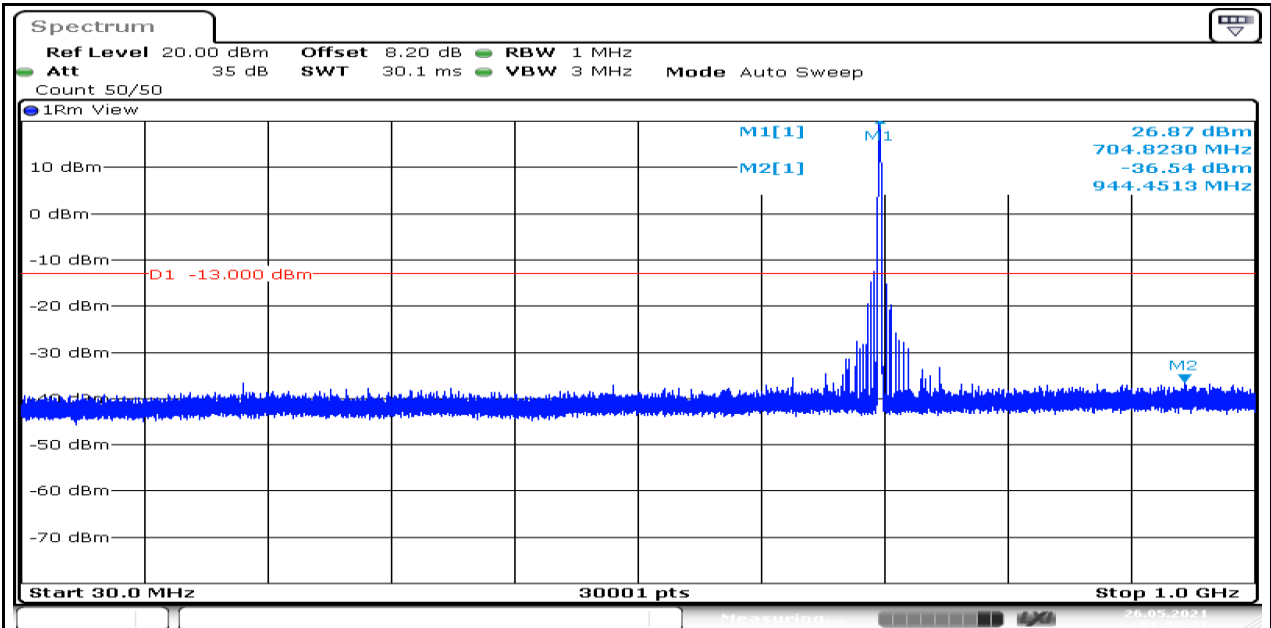
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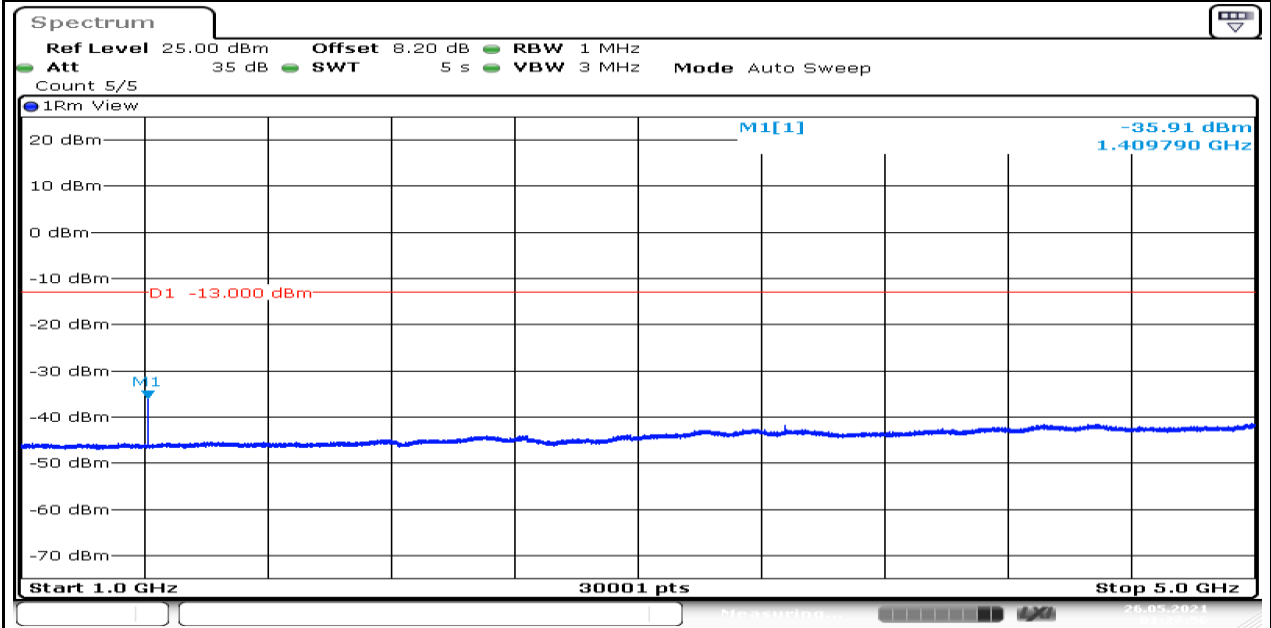
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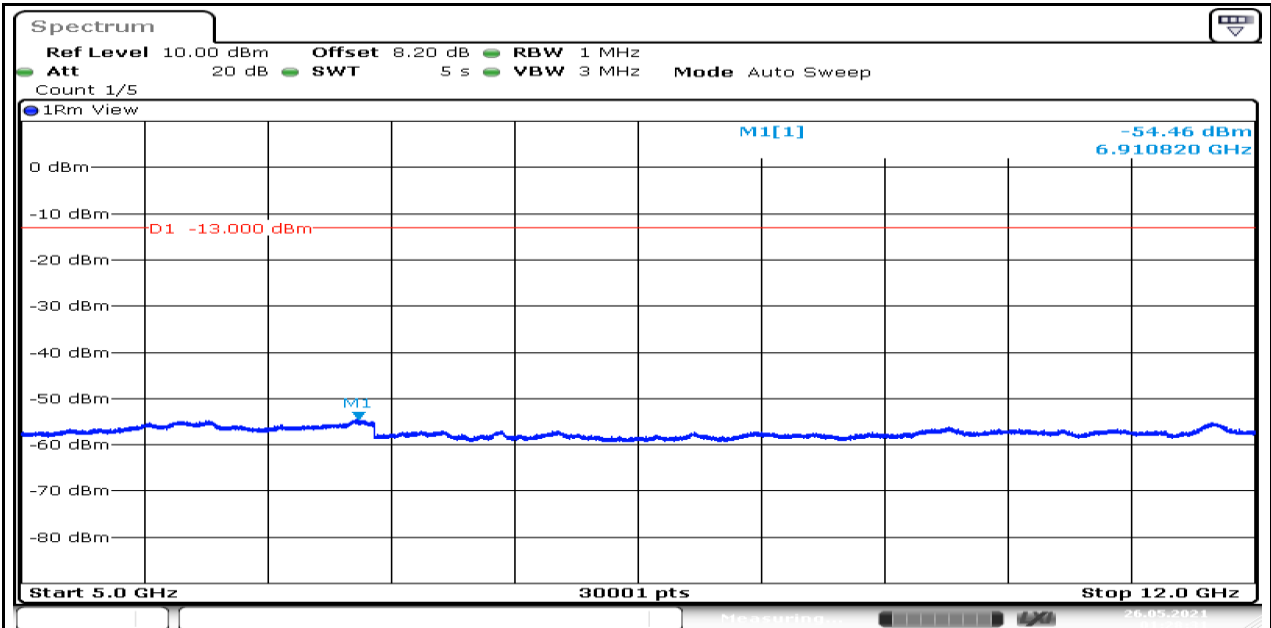
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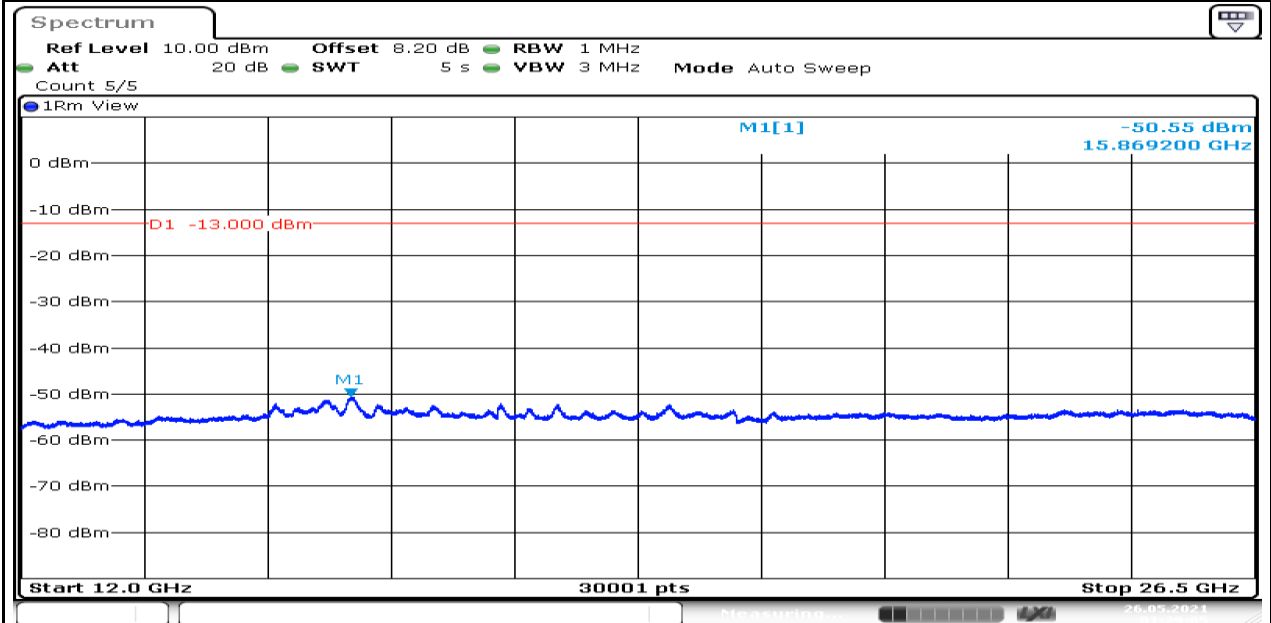
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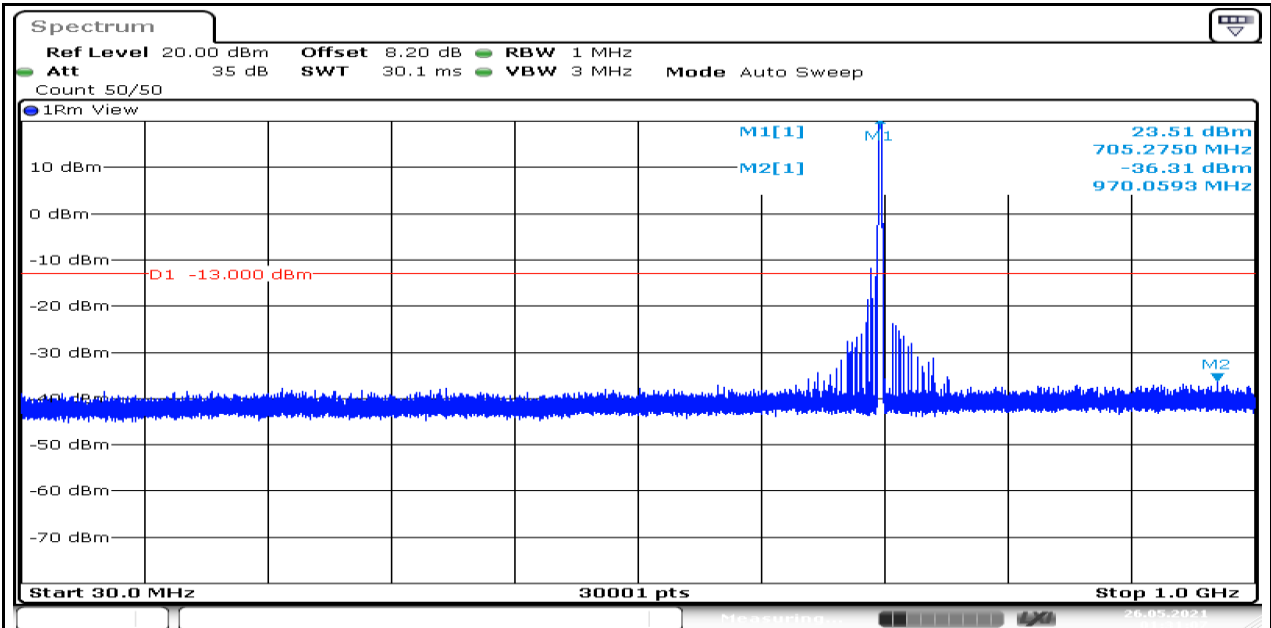
Band85-5MHz-QPSK-134092-1-0-Low-5000-12000--54.46-PASS



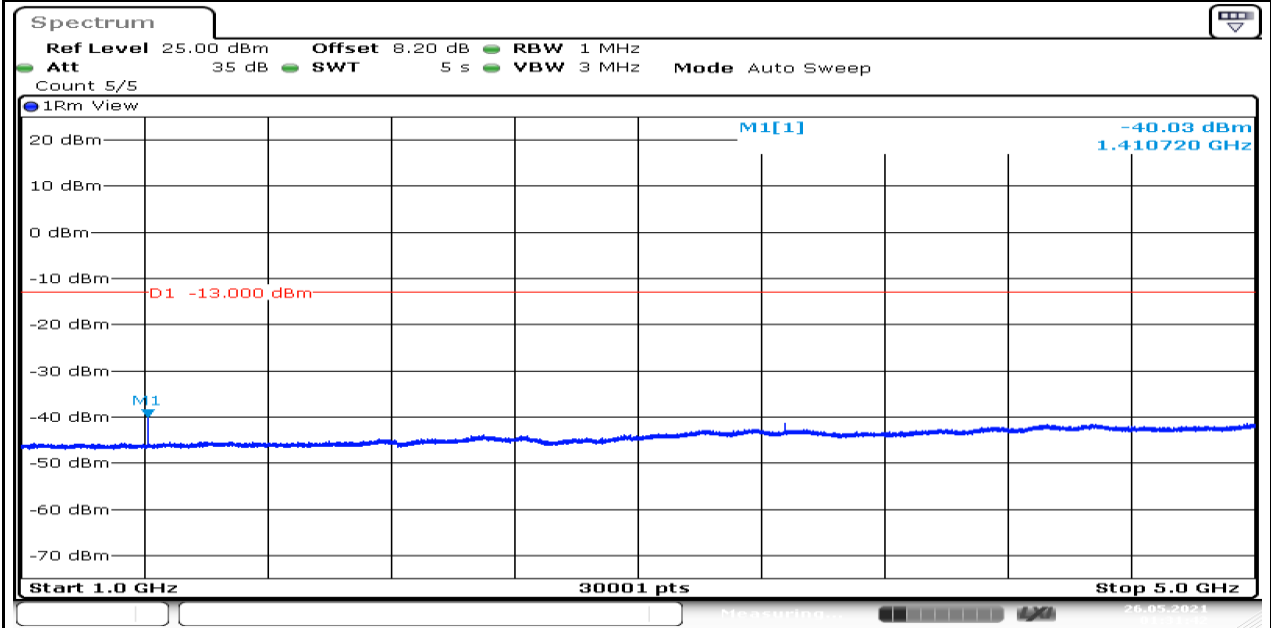
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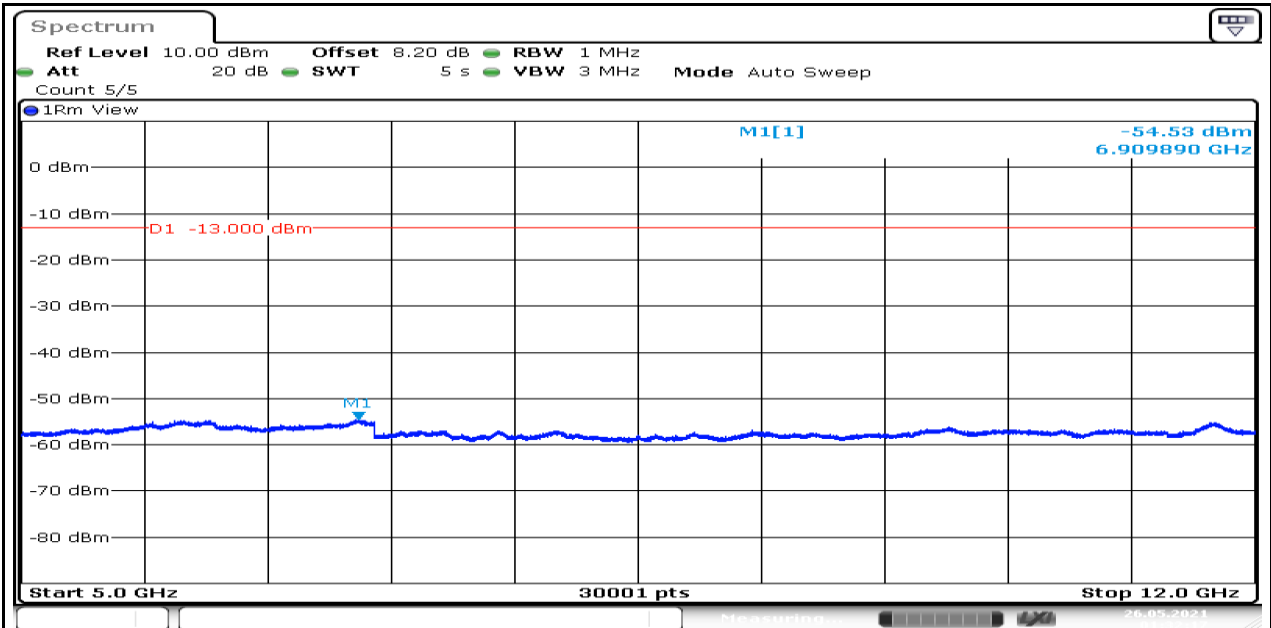
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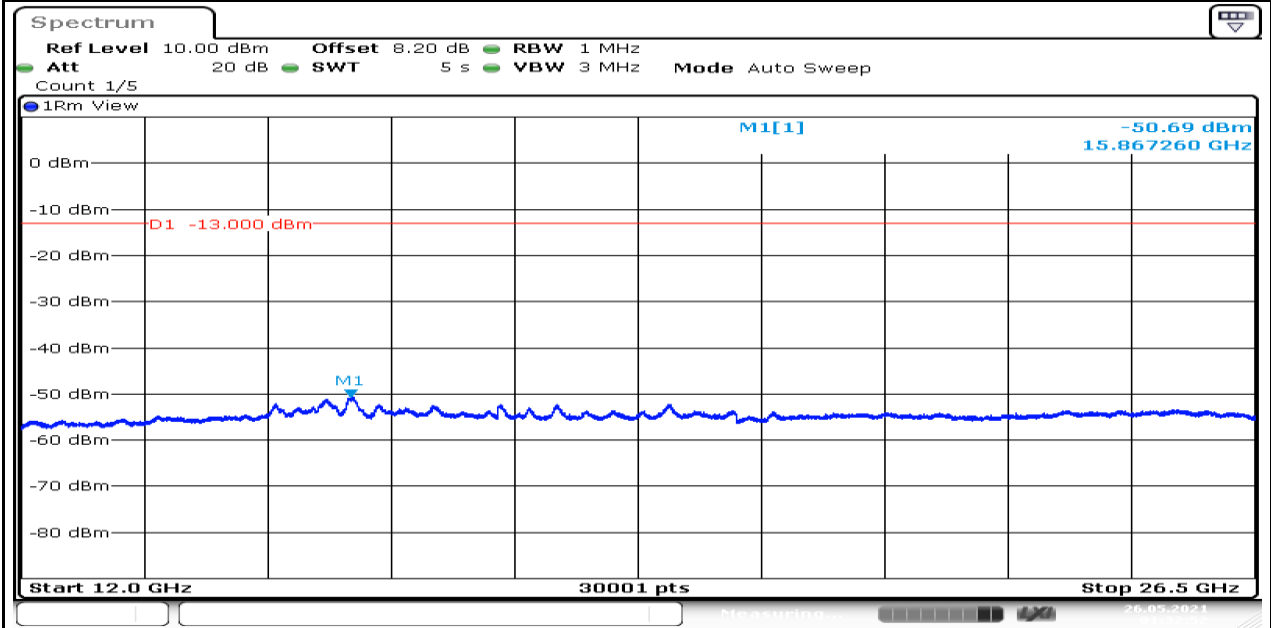
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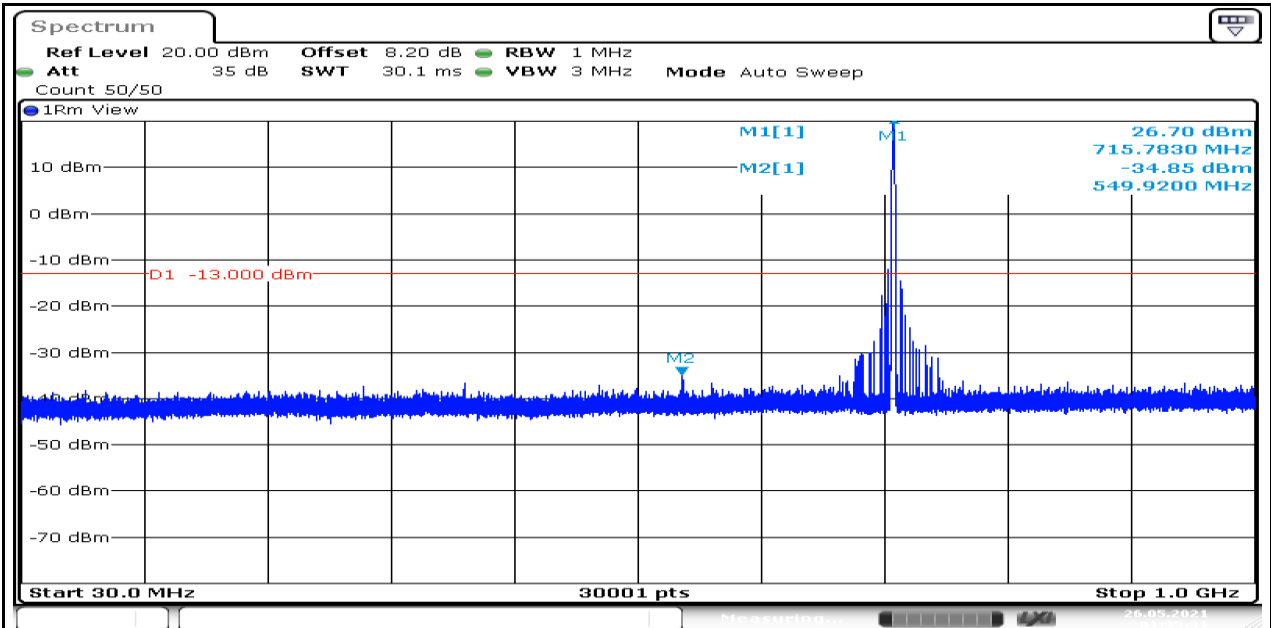
Band85-5MHz-QPSK-134092-6-0-Low-5000-12000--54.53-PASS



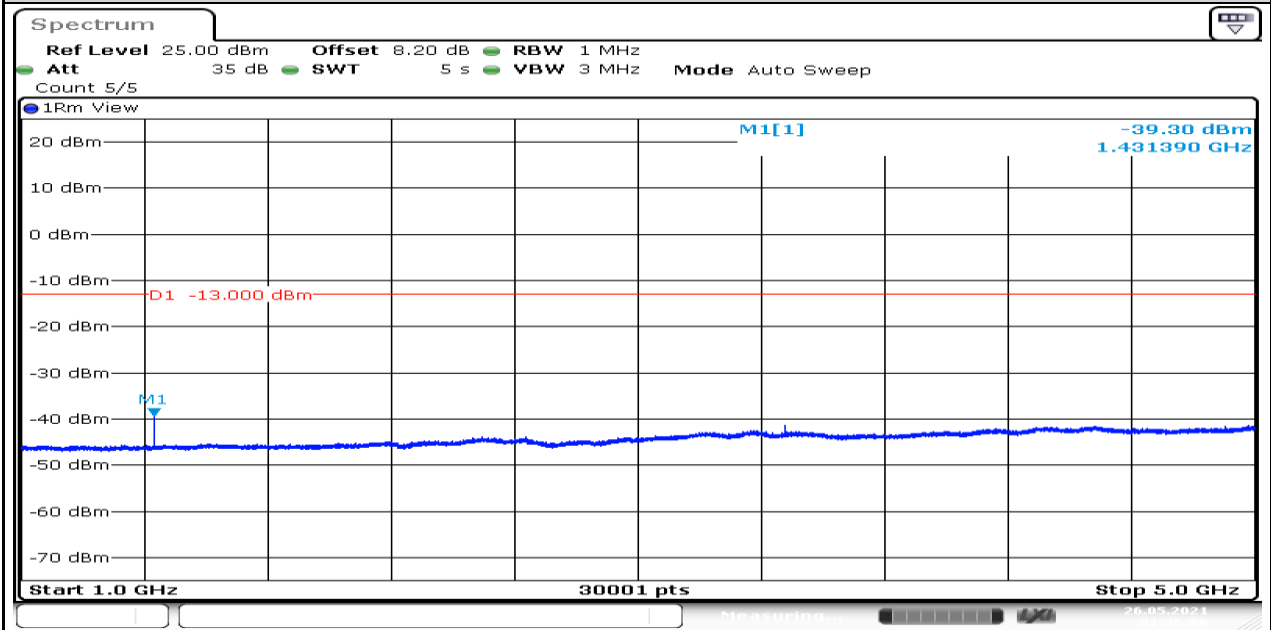
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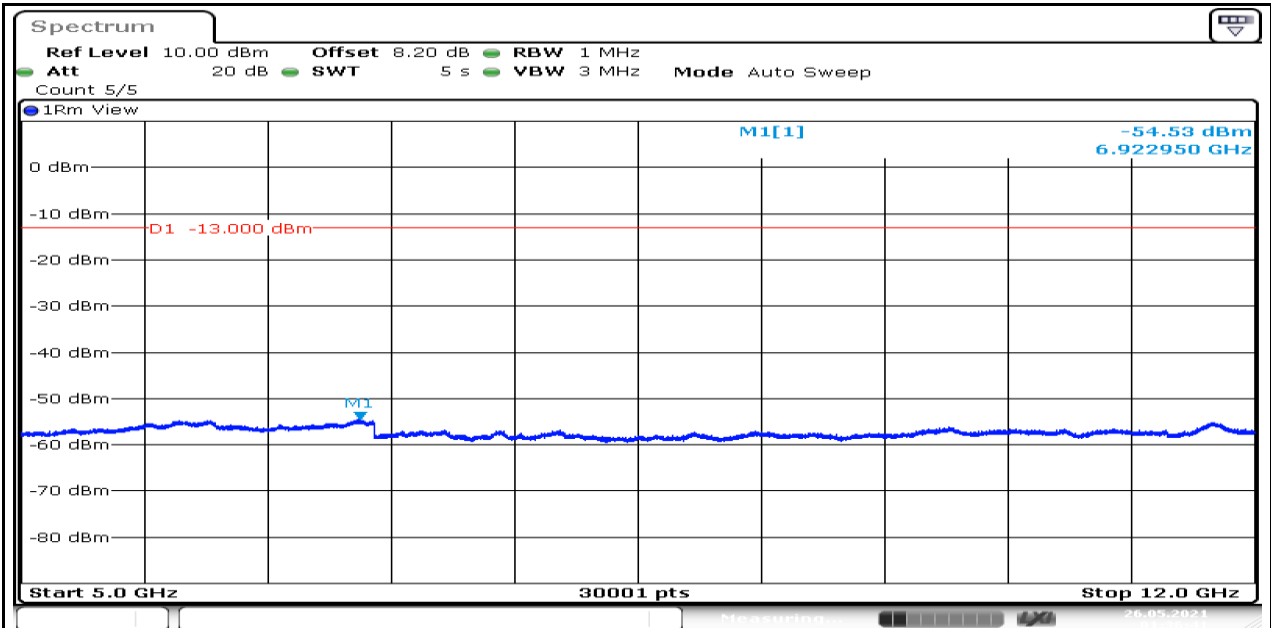
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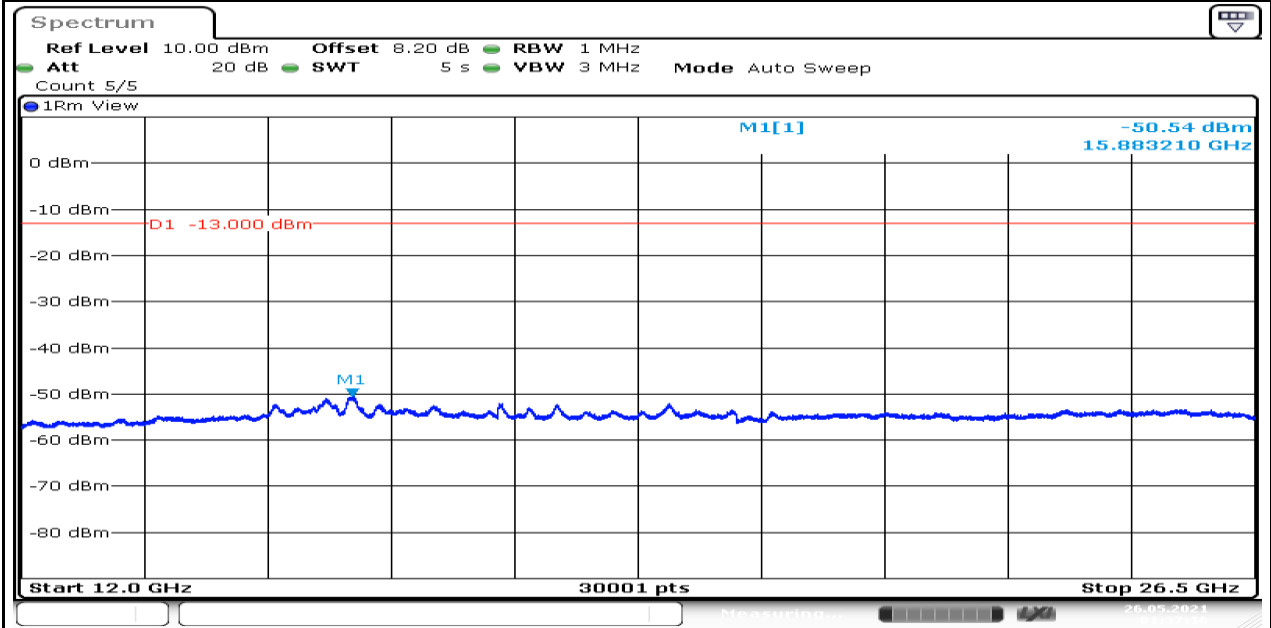


Band85-5MHz-QPSK-134157-1-5-High-5000-12000--54.53-PASS



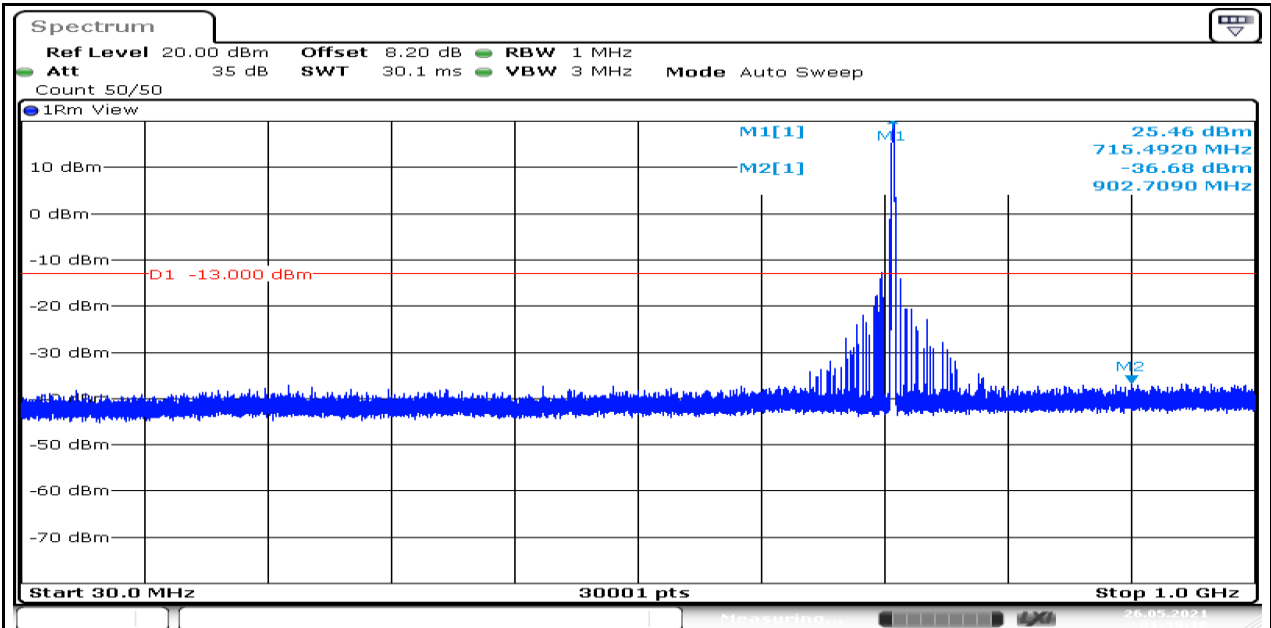
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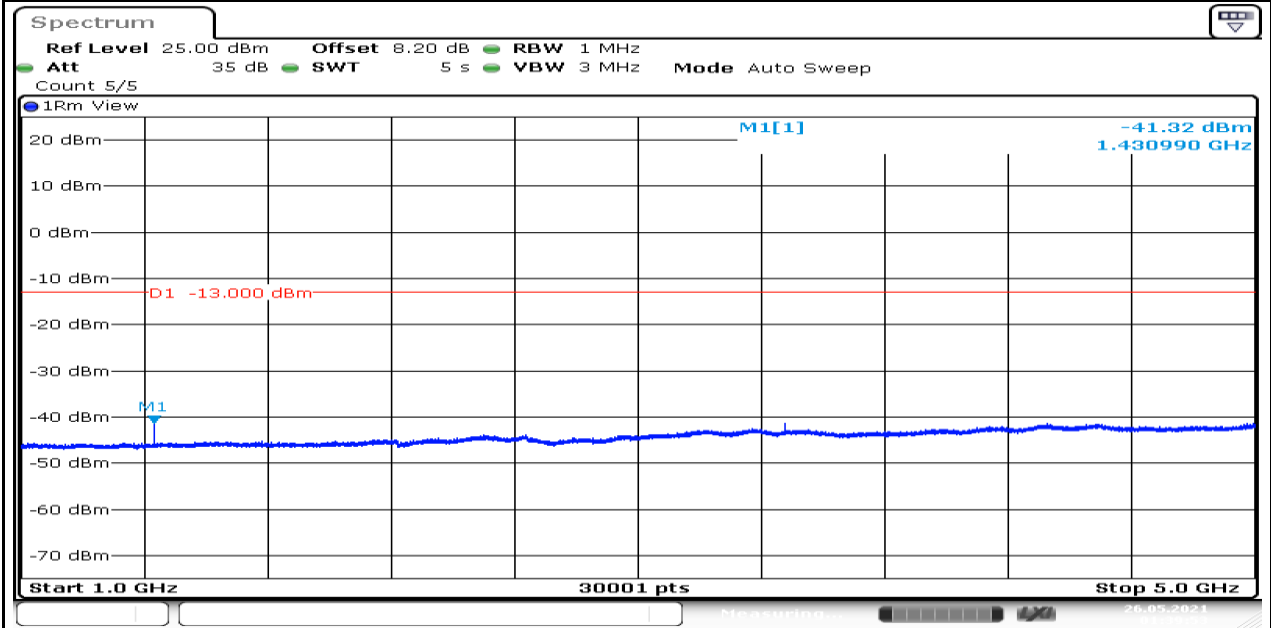


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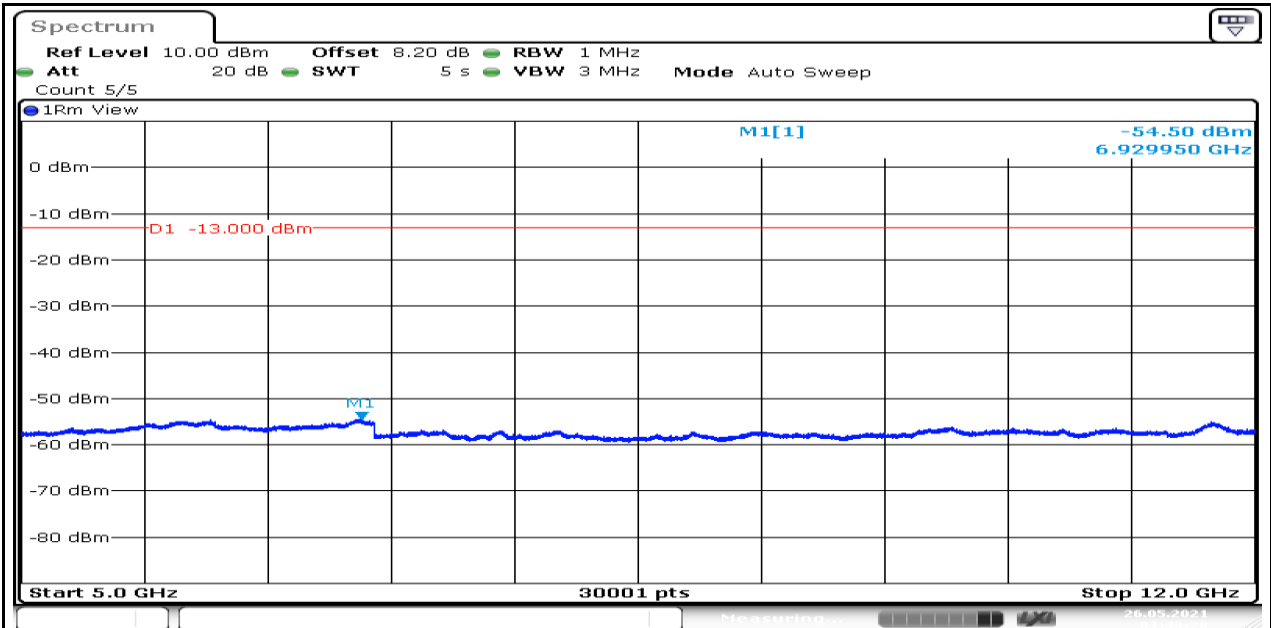
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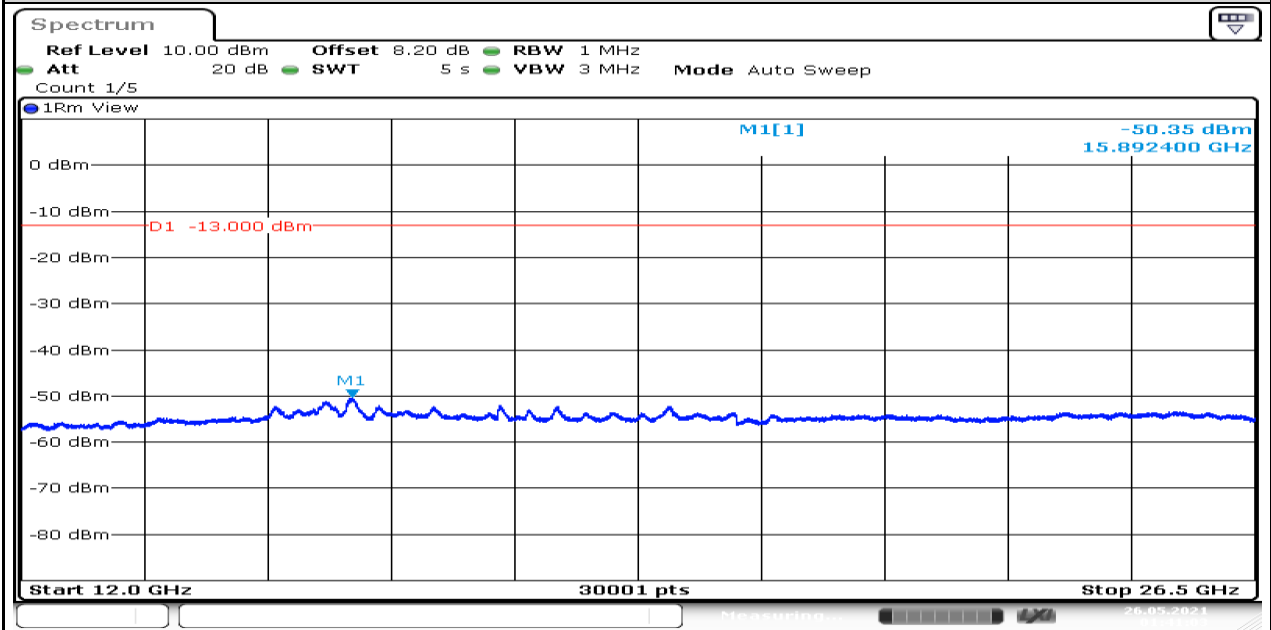
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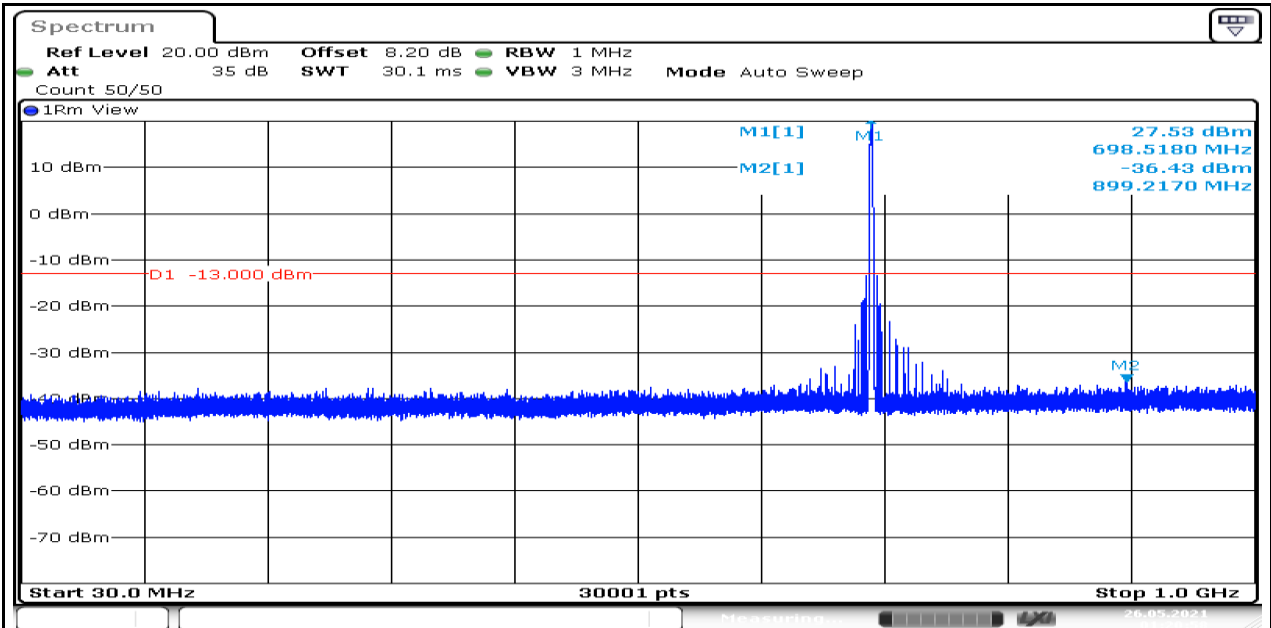
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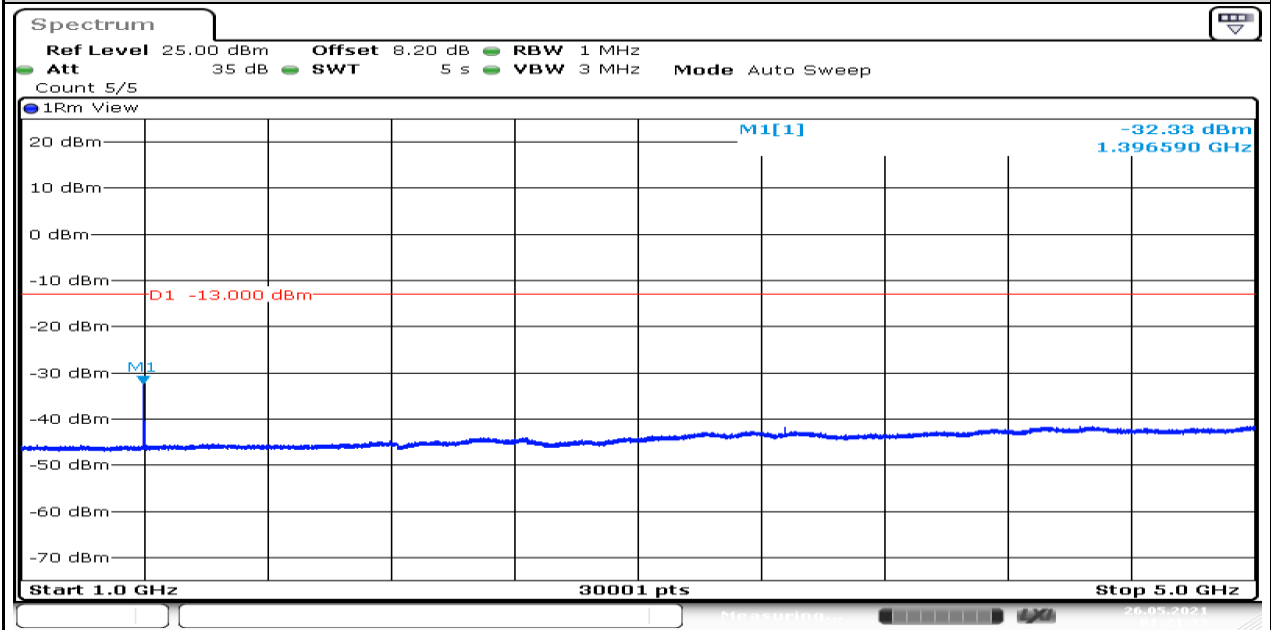
Band85-5MHz-QPSK-134157-3-3-High-12000-26500--50.35-PASS



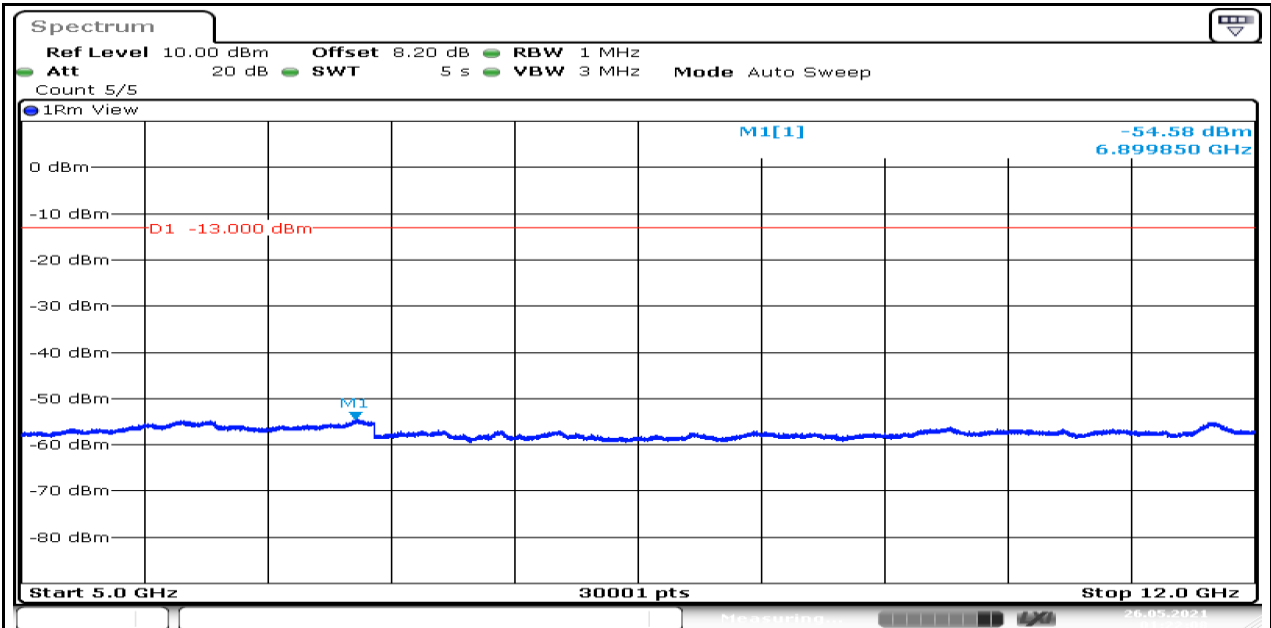
Band85-5MHz-16QAM-134027-1-0-Low-30-1000--36.43-PASS



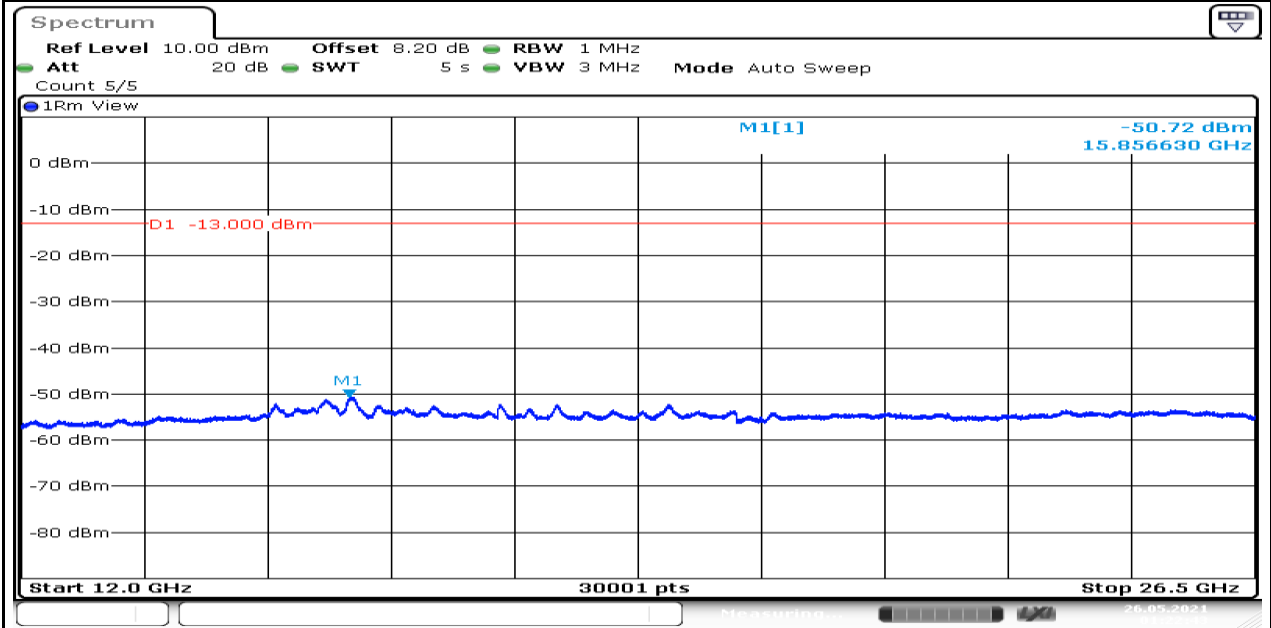
Band85-5MHz-16QAM-134027-1-0-Low-1000-5000--32.33-PASS



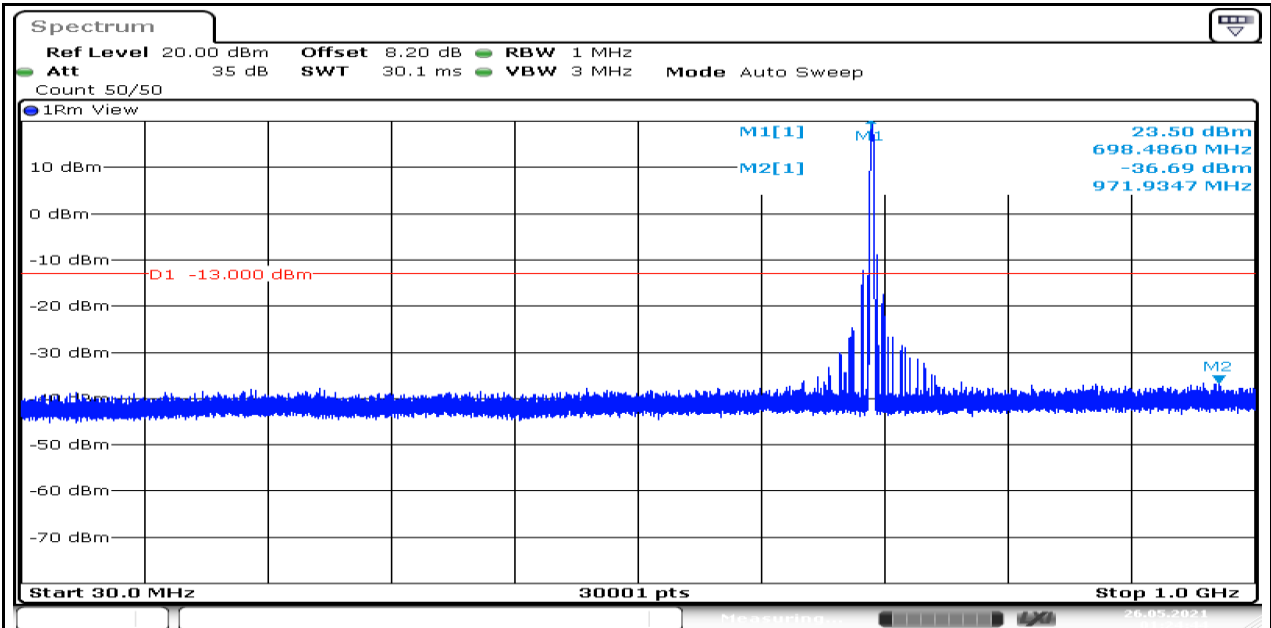
Band85-5MHz-16QAM-134027-1-0-Low-5000-12000--54.58-PASS



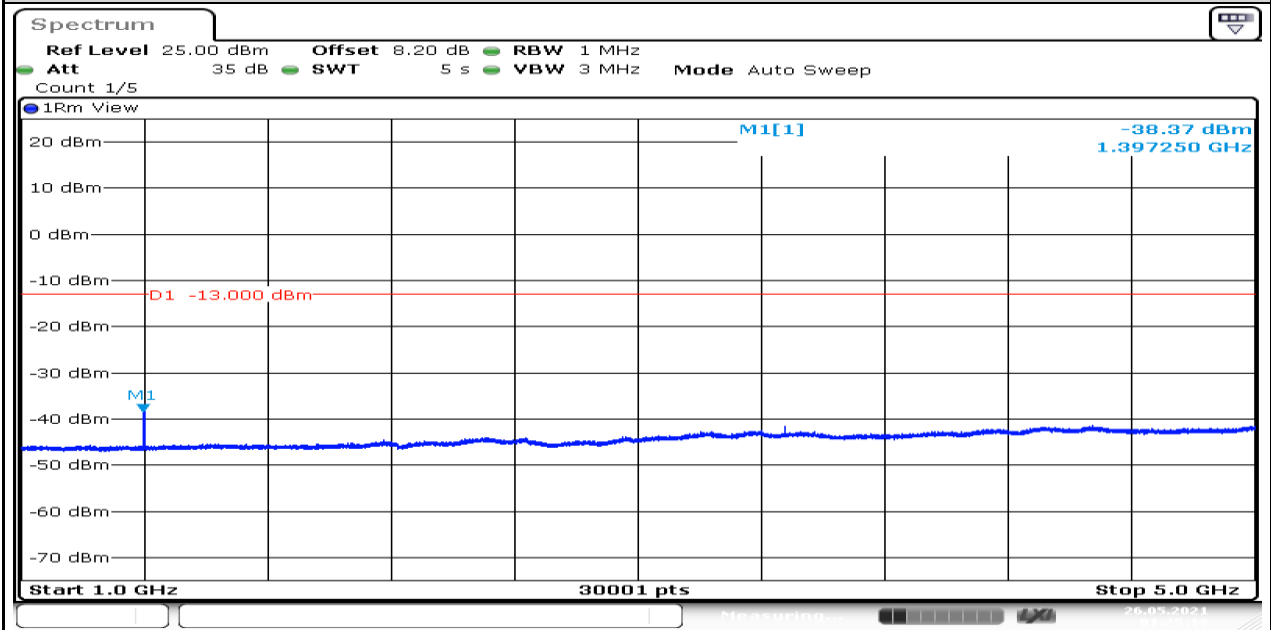
Band85-5MHz-16QAM-134027-1-0-Low-12000-26500--50.72-PASS



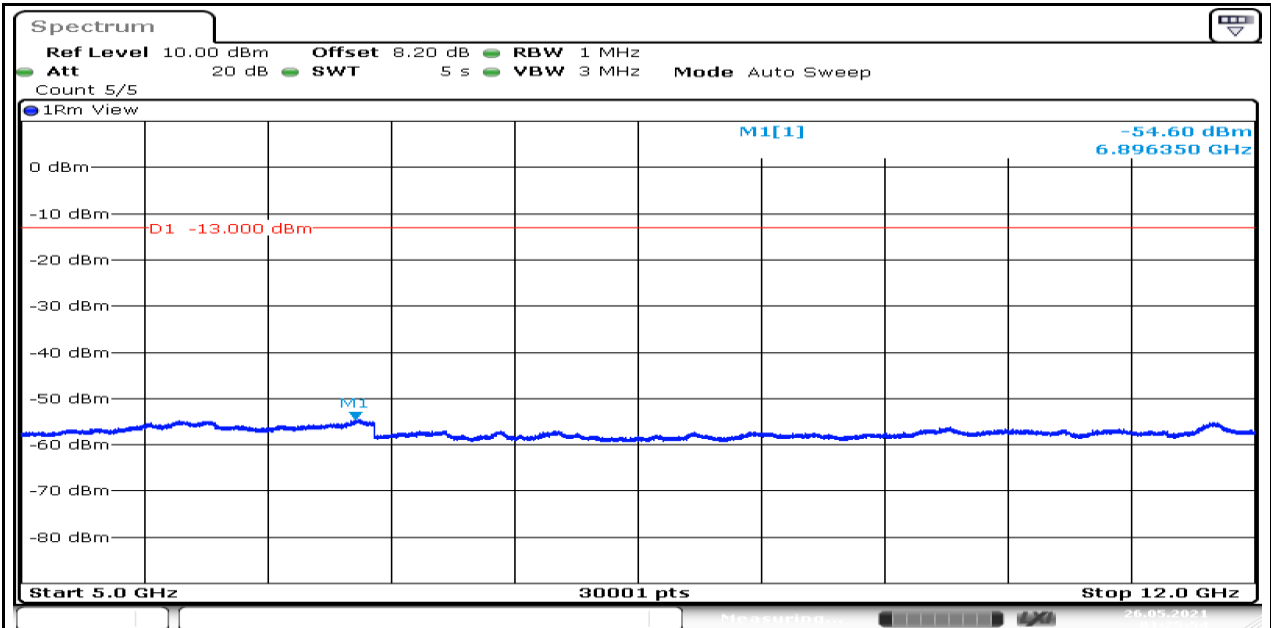
Band85-5MHz-16QAM-134027-6-0-Low-30-1000--36.69-PASS



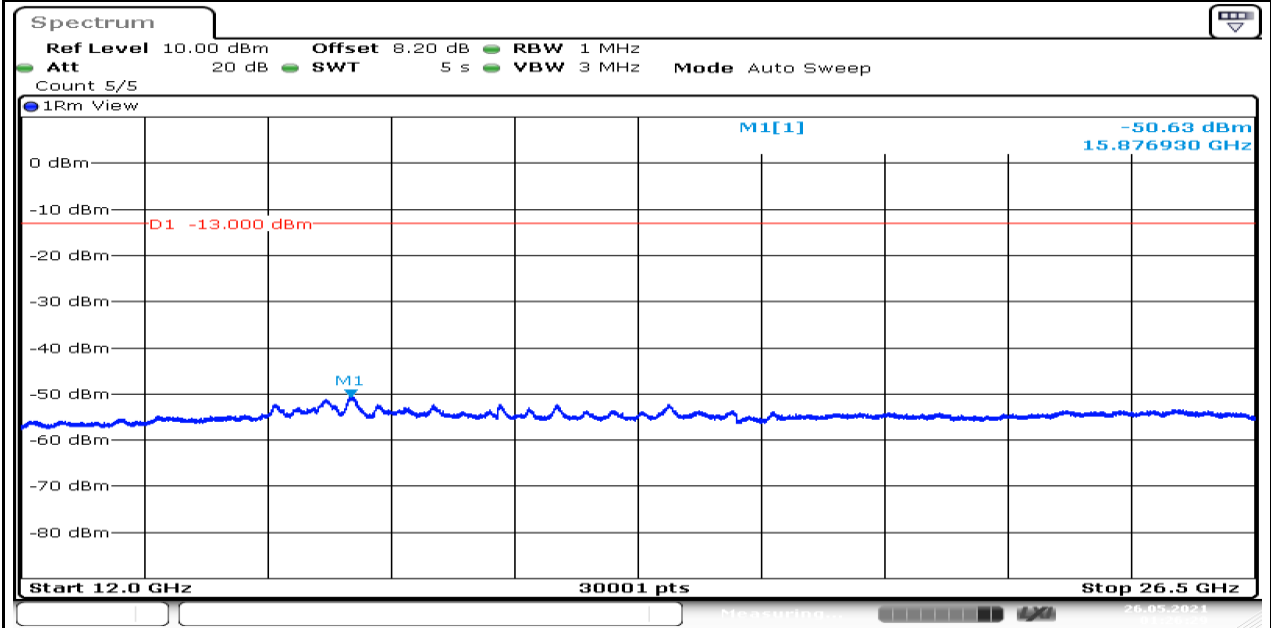
Band85-5MHz-16QAM-134027-6-0-Low-1000-5000--38.37-PASS



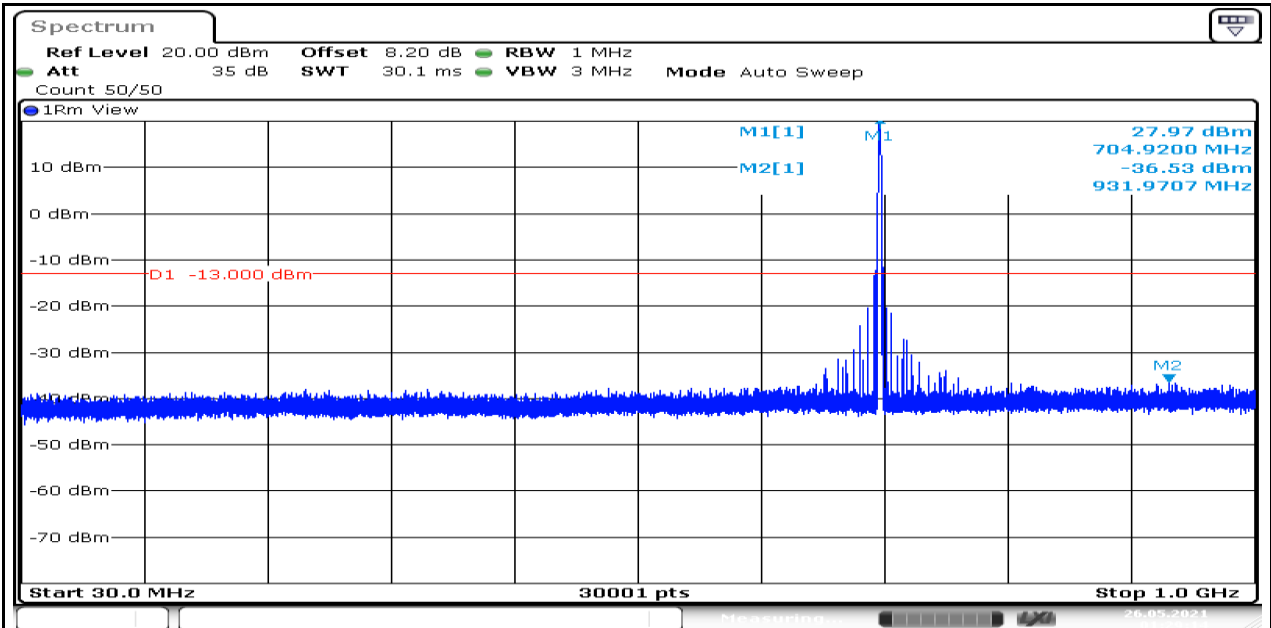
Band85-5MHz-16QAM-134027-6-0-Low-5000-12000--54.6-PASS



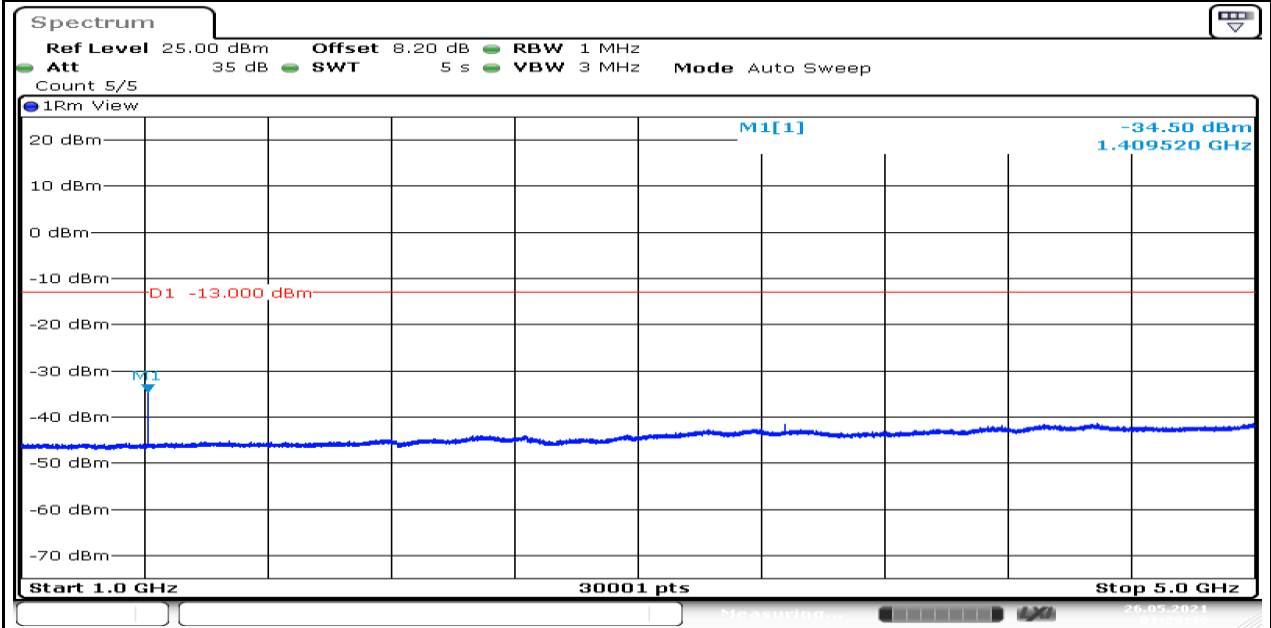
Band85-5MHz-16QAM-134027-6-0-Low-12000-26500--50.63-PASS



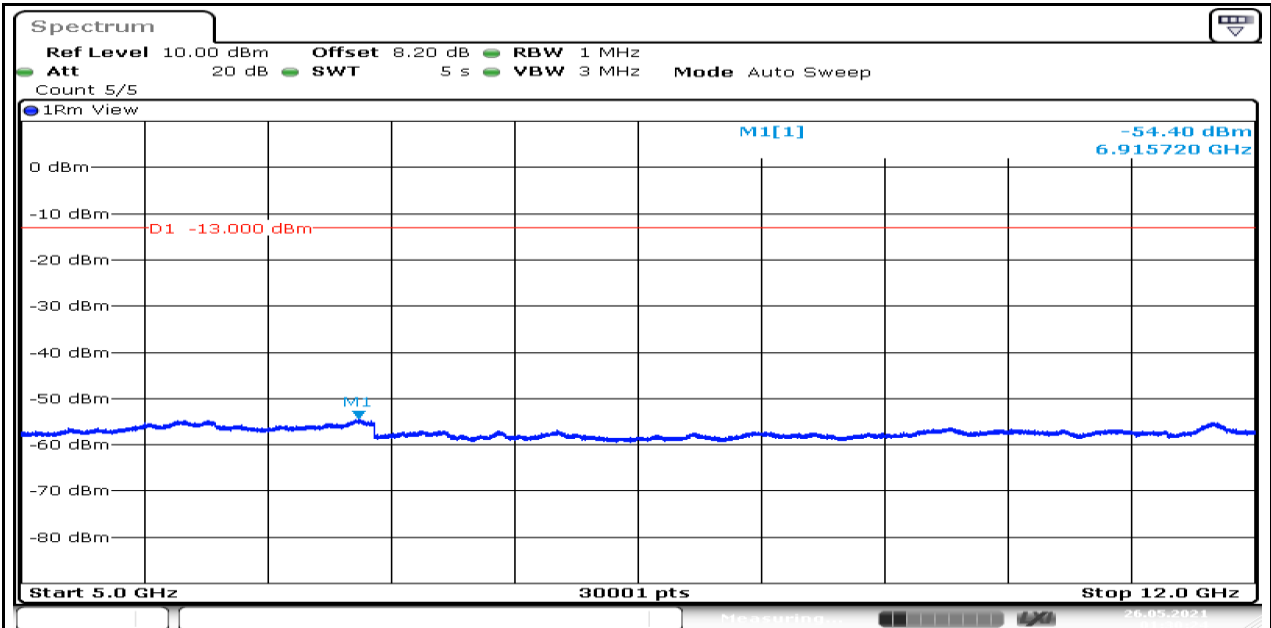
Band85-5MHz-16QAM-134092-1-0-Low-30-1000--36.53-PASS



Band85-5MHz-16QAM-134092-1-0-Low-1000-5000--34.5-PASS

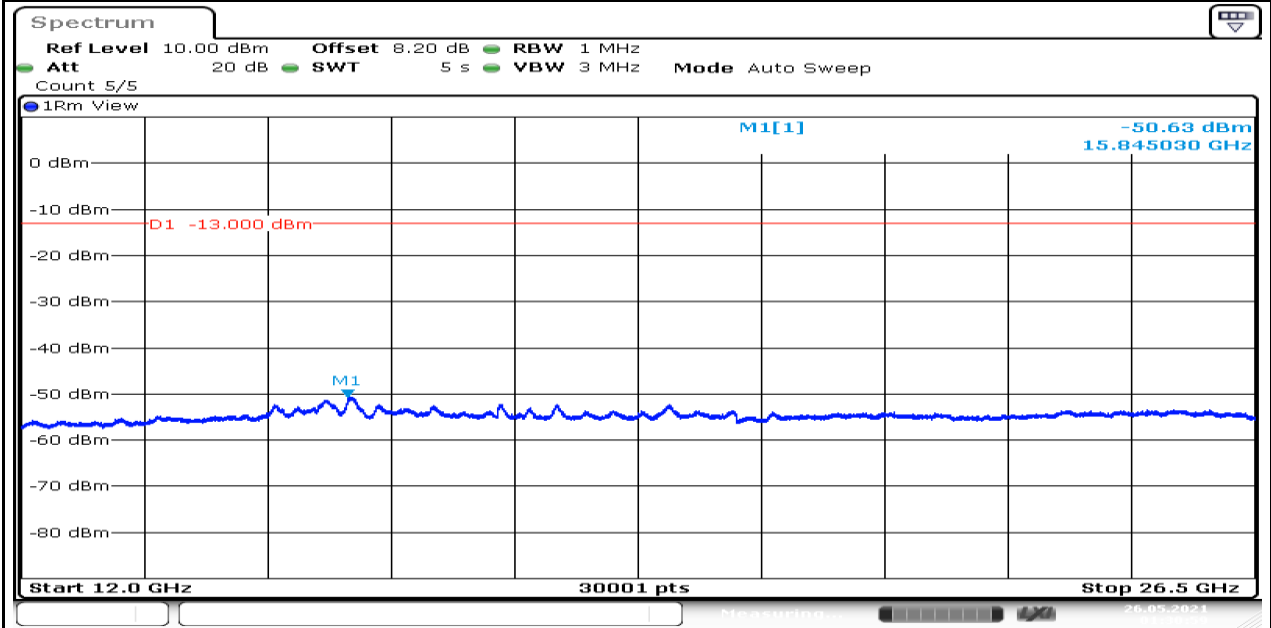


Band85-5MHz-16QAM-134092-1-0-Low-5000-12000--54.4-PASS



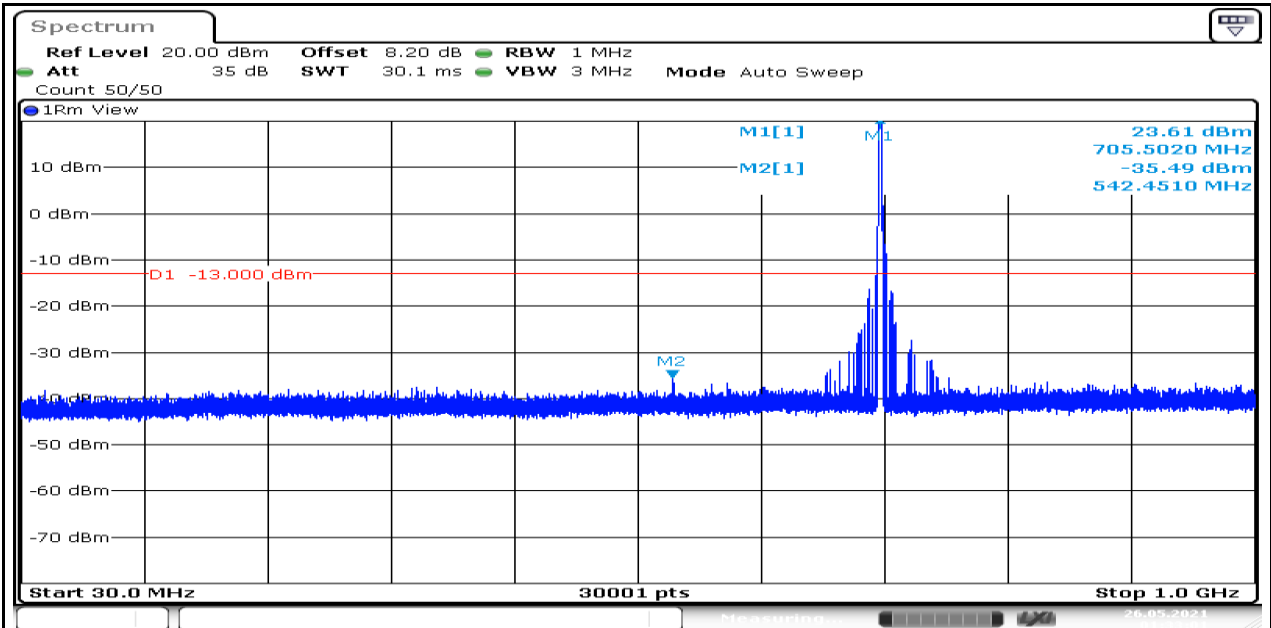
Date: 26.MAY.2021 01:30:24

Band85-5MHz-16QAM-134092-1-0-Low-12000-26500--50.63-PASS

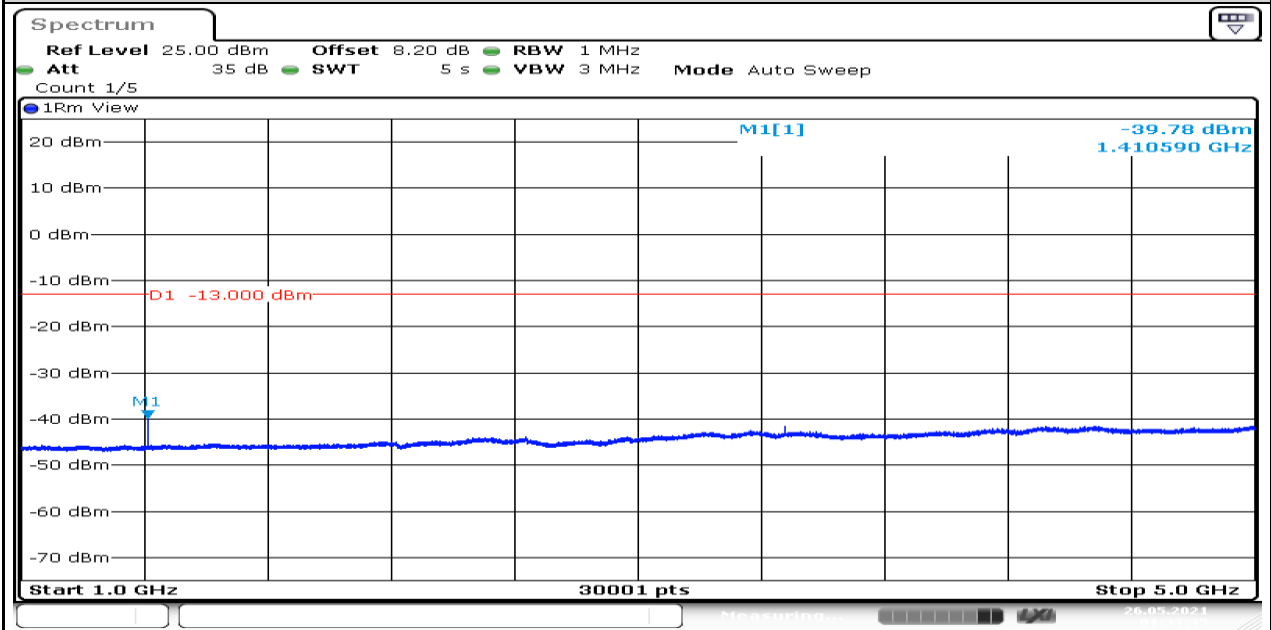


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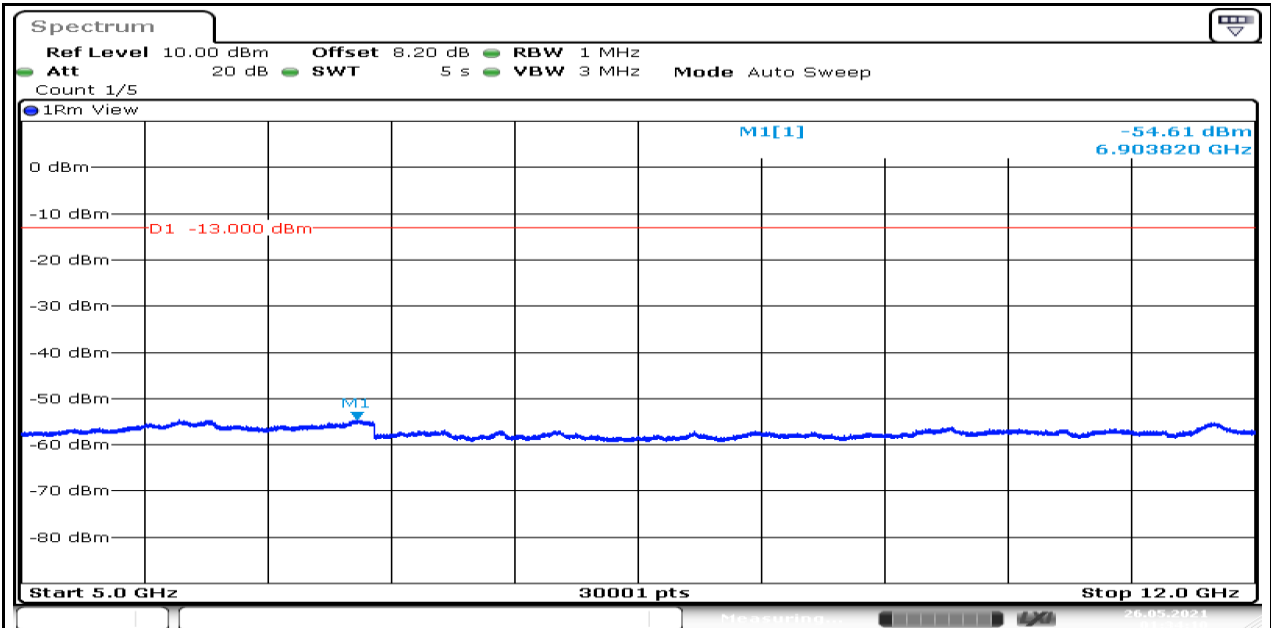
Band85-5MHz-16QAM-134092-6-0-Low-30-1000--35.49-PASS



Band85-5MHz-16QAM-134092-6-0-Low-1000-5000--39.78-PASS

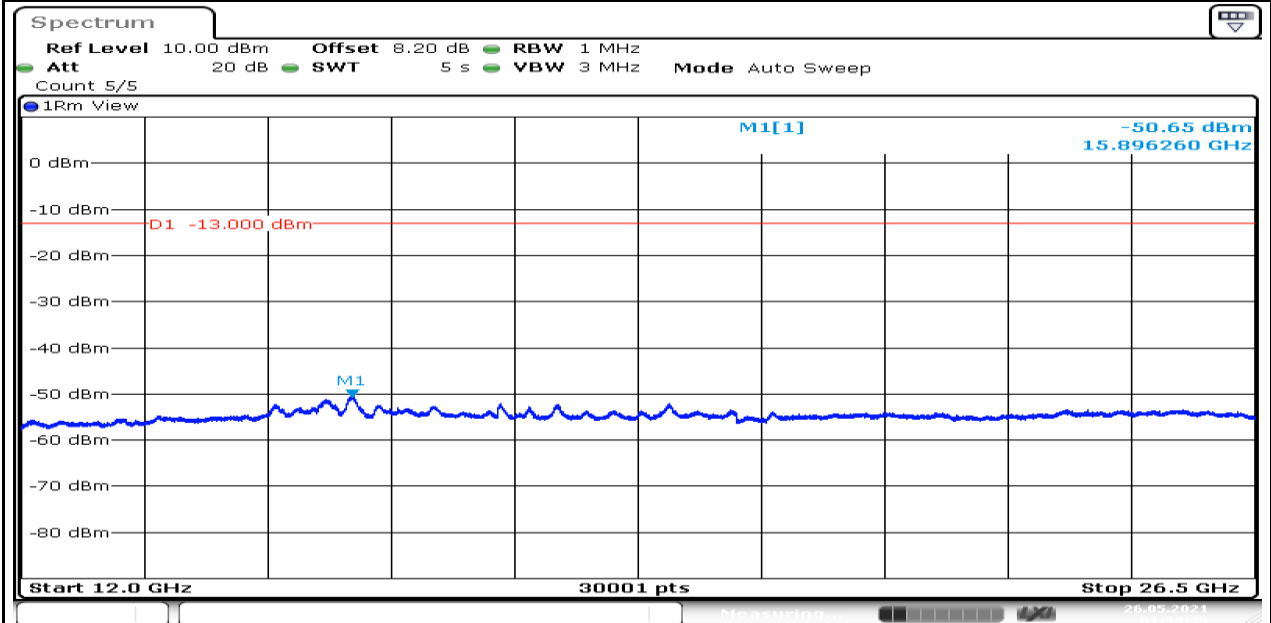


Band85-5MHz-16QAM-134092-6-0-Low-5000-12000--54.61-PASS



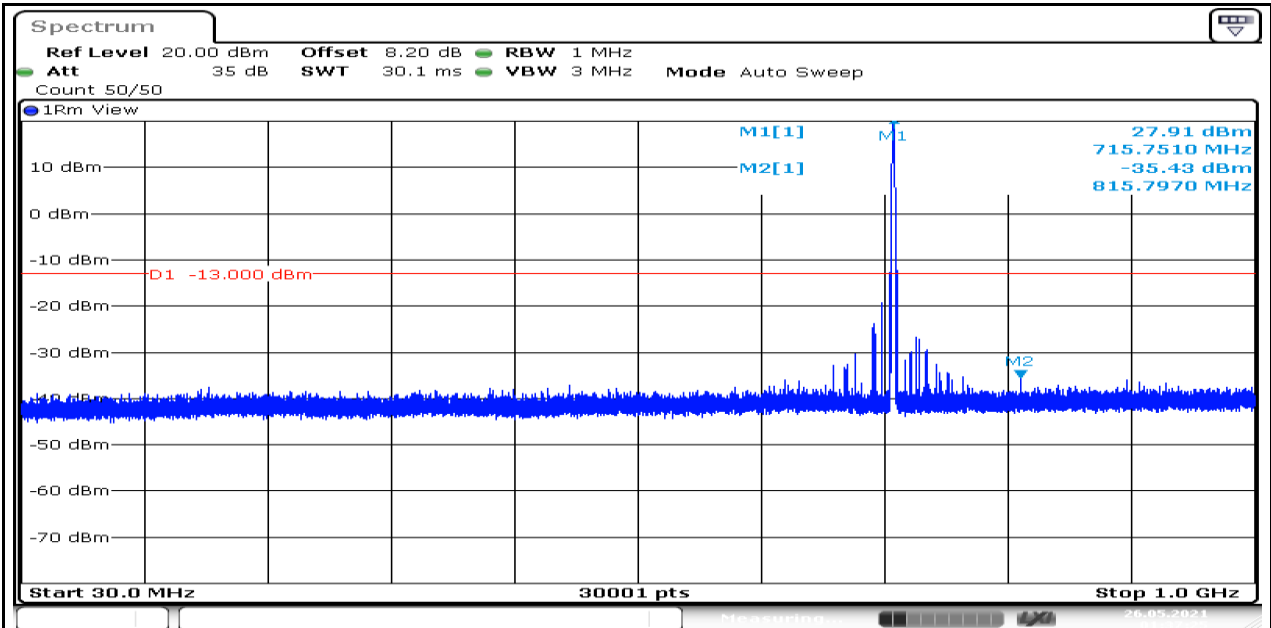
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Band85-5MHz-16QAM-134092-6-0-Low-12000-26500--50.65-PASS

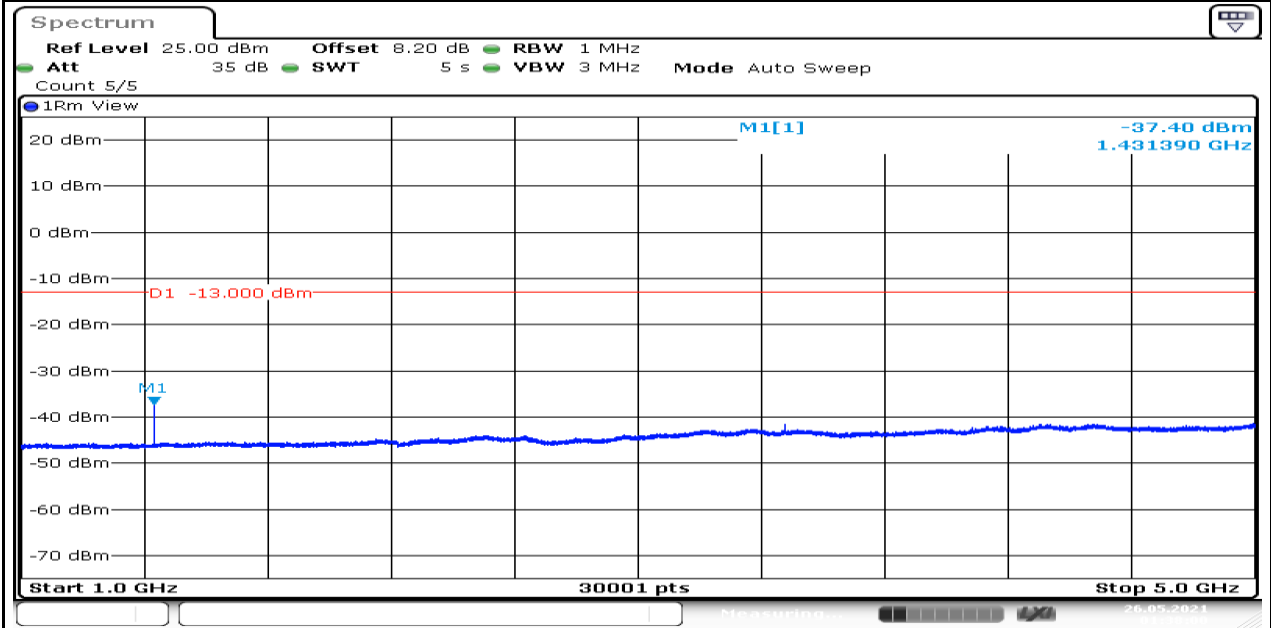


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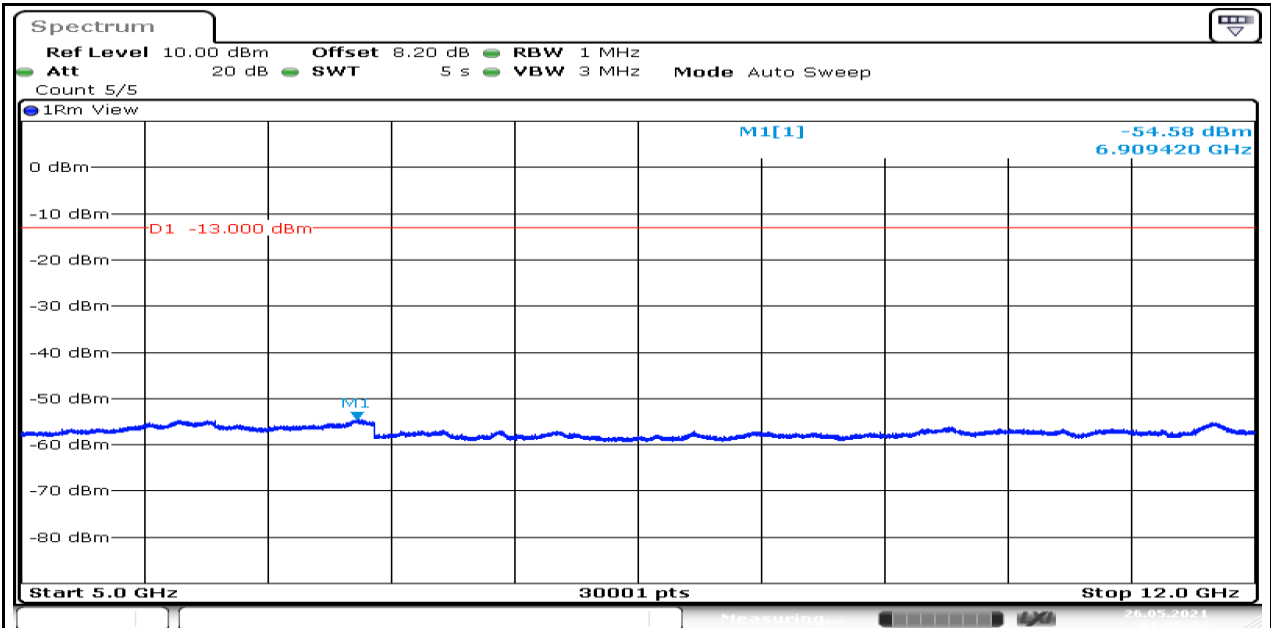
Band85-5MHz-16QAM-134157-1-5-High-30-1000--35.43-PASS



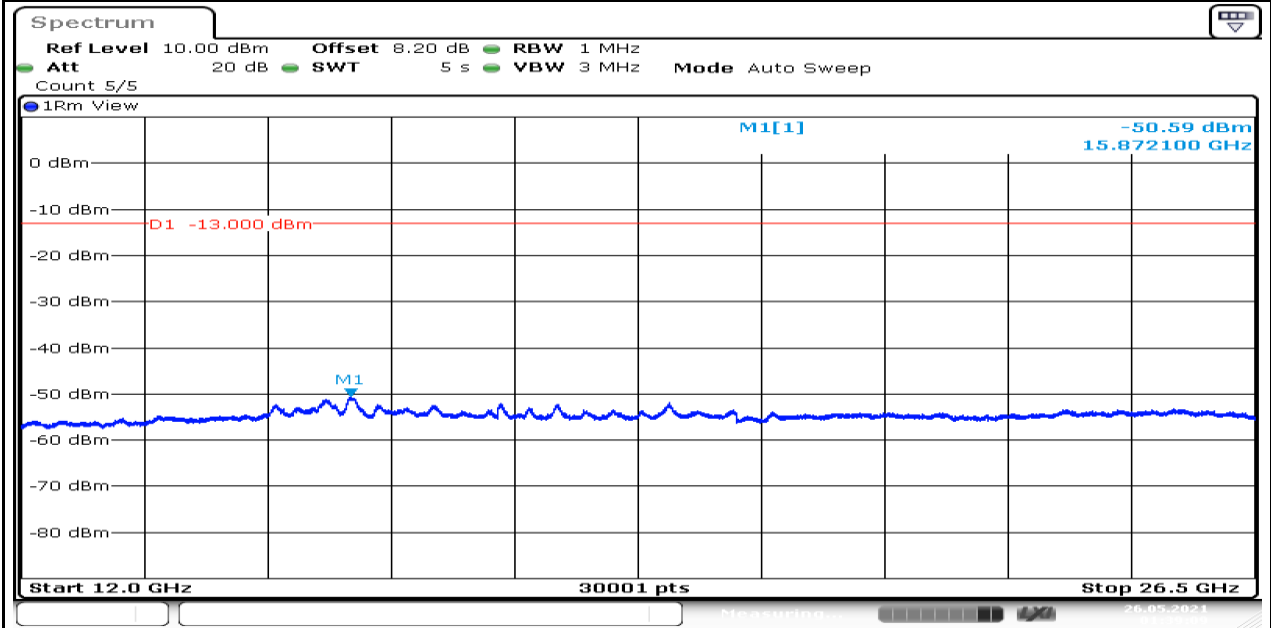
Band85-5MHz-16QAM-134157-1-5-High-1000-5000--37.4-PASS



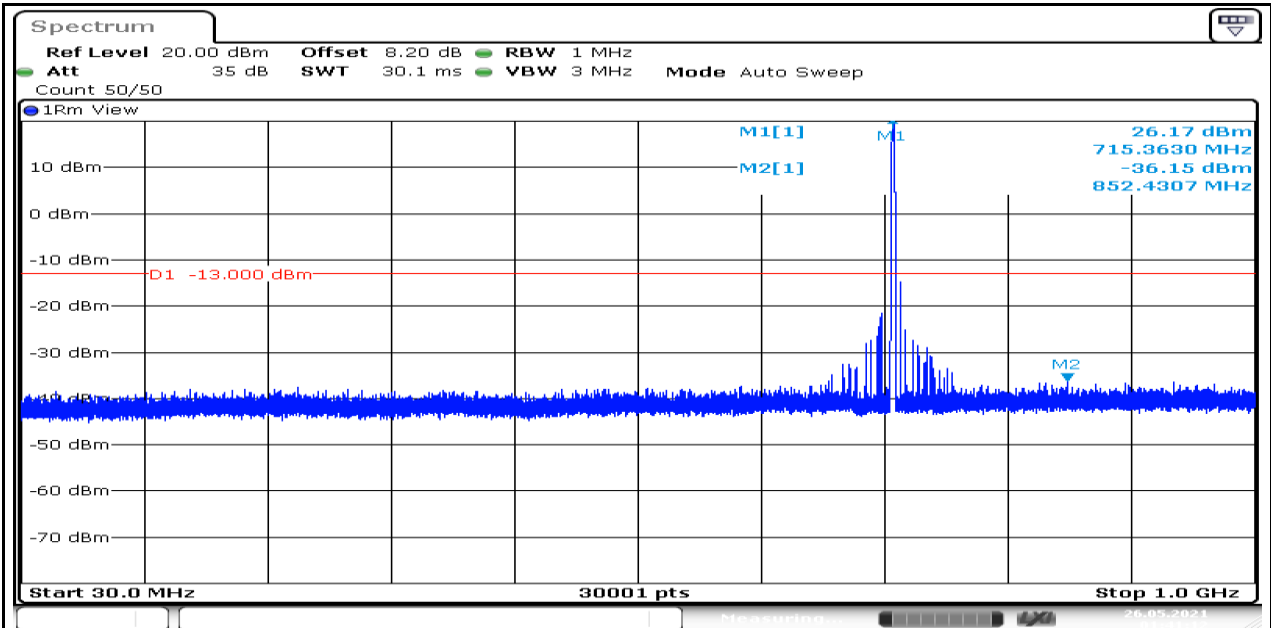
Band85-5MHz-16QAM-134157-1-5-High-5000-12000--54.58-PASS



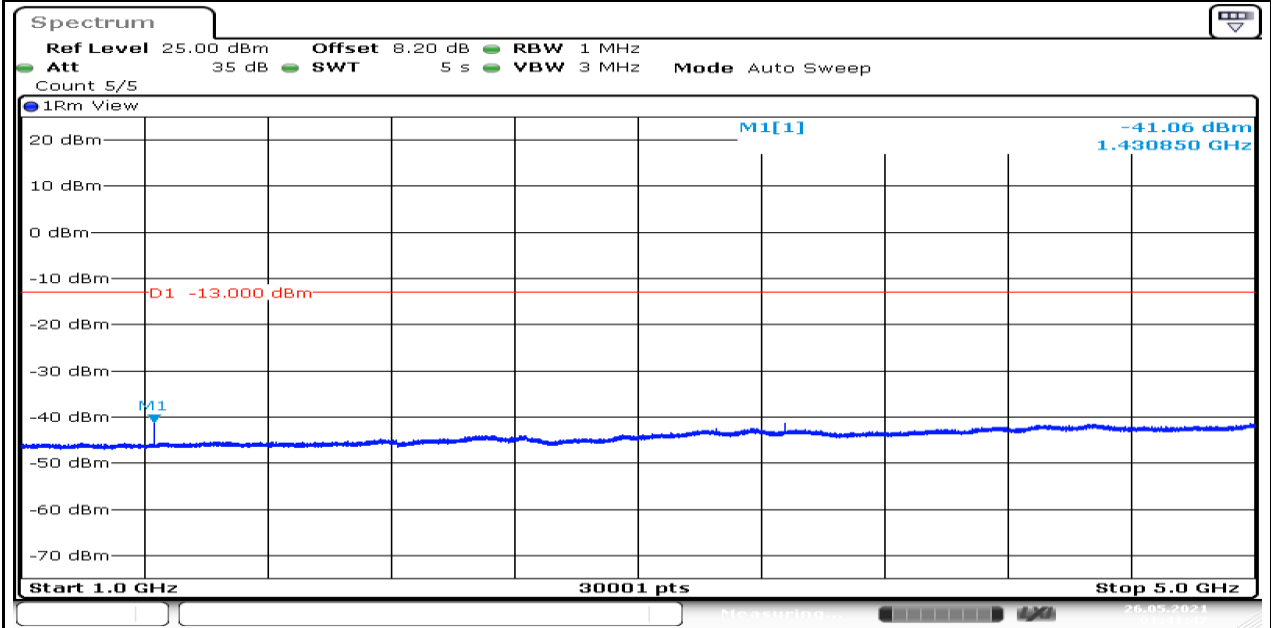
Band85-5MHz-16QAM-134157-1-5-High-12000-26500--50.59-PASS



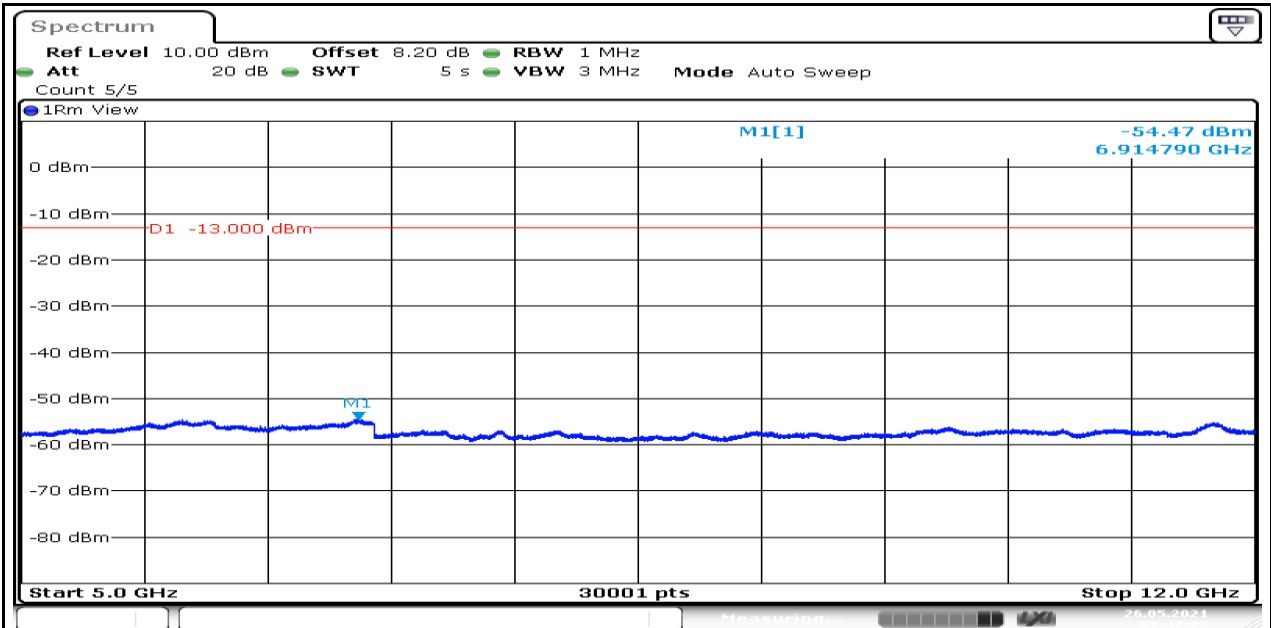
Band85-5MHz-16QAM-134157-3-3-High-30-1000--36.15-PASS



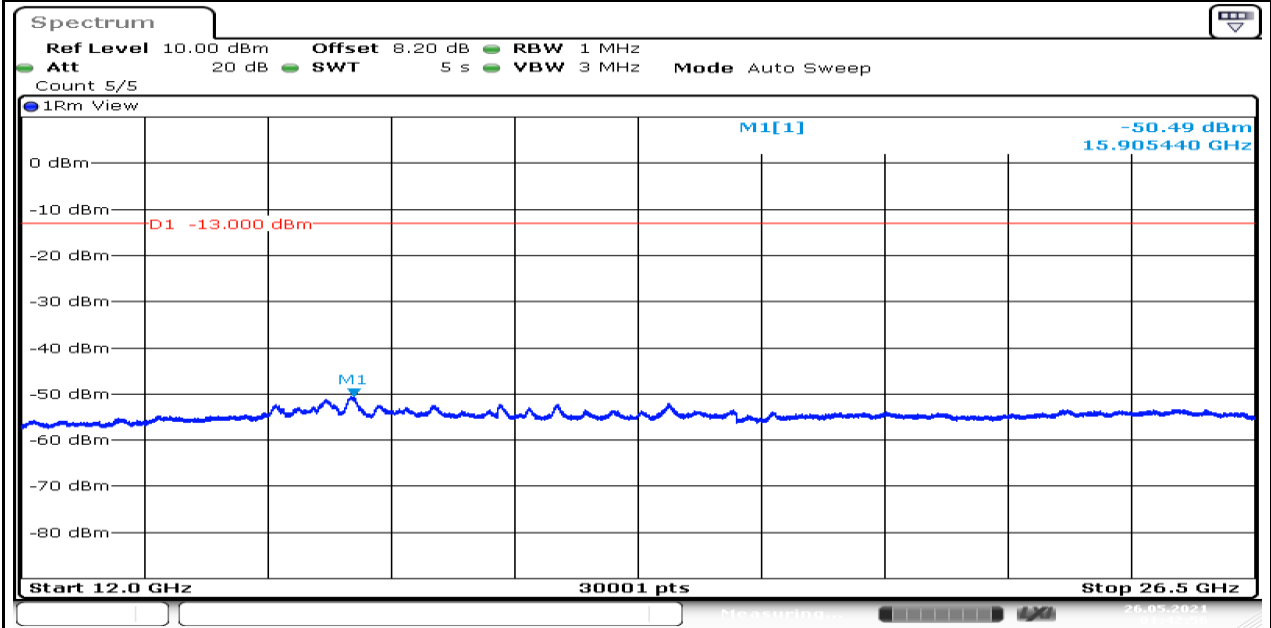
Band85-5MHz-16QAM-134157-3-3-High-1000-5000--41.06-PASS



Band85-5MHz-16QAM-134157-3-3-High-5000-12000--54.47-PASS



Band85-5MHz-16QAM-134157-3-3-High-12000-26500--50.49-PASS



APPENDIX I.6: FREQUENCY STABILITY FOR M1

Test Result

Voltage												
Band	Bandwidth	Channel	Modulation	RB Size	RB Start	Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band85	5MHz	134092	QPSK	1	0	Low	HV	NT	7.02	0.009929	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	LV	NT	6.49	0.009180	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	NT	5.56	0.007864	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	HV	NT	7.31	0.010339	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	LV	NT	4.48	0.006337	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	NT	5.81	0.008218	±2.5	PASS

Temperature												
Band	Bandwidth	Channel	Modulation	RB Size	RB Start	Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band85	5MHz	134092	QPSK	1	0	Low	NV	85	5.92	0.008373	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	-30	6.52	0.009222	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	-20	6.27	0.008868	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	-10	7.31	0.010339	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	0	6.24	0.008826	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	10	5.18	0.007327	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	20	4.99	0.007058	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	30	4.85	0.006860	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	40	5.49	0.007765	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	50	6.48	0.009165	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	60	6.09	0.008614	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	70	5.16	0.007298	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	-40	6.81	0.009632	±2.5	PASS
Band85	5MHz	134092	QPSK	1	0	Low	NV	80	5.94	0.008402	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	85	4.32	0.006110	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	-30	6.67	0.009434	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	-20	6.91	0.009774	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	-10	4.45	0.006294	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	0	5.12	0.007242	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	10	4.85	0.006860	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	20	5.65	0.007992	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	30	4.95	0.007001	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	40	3.29	0.004653	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	50	2.30	0.003253	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	60	5.82	0.008232	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	70	3.40	0.004809	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	80	5.46	0.007723	±2.5	PASS
Band85	5MHz	134092	16QAM	1	0	Low	NV	-40	6.07	0.008586	±2.5	PASS