

Appendix G.1: RF Power Output and Effective (Isotropic) Radiated Power Output Data for M1

Test Result

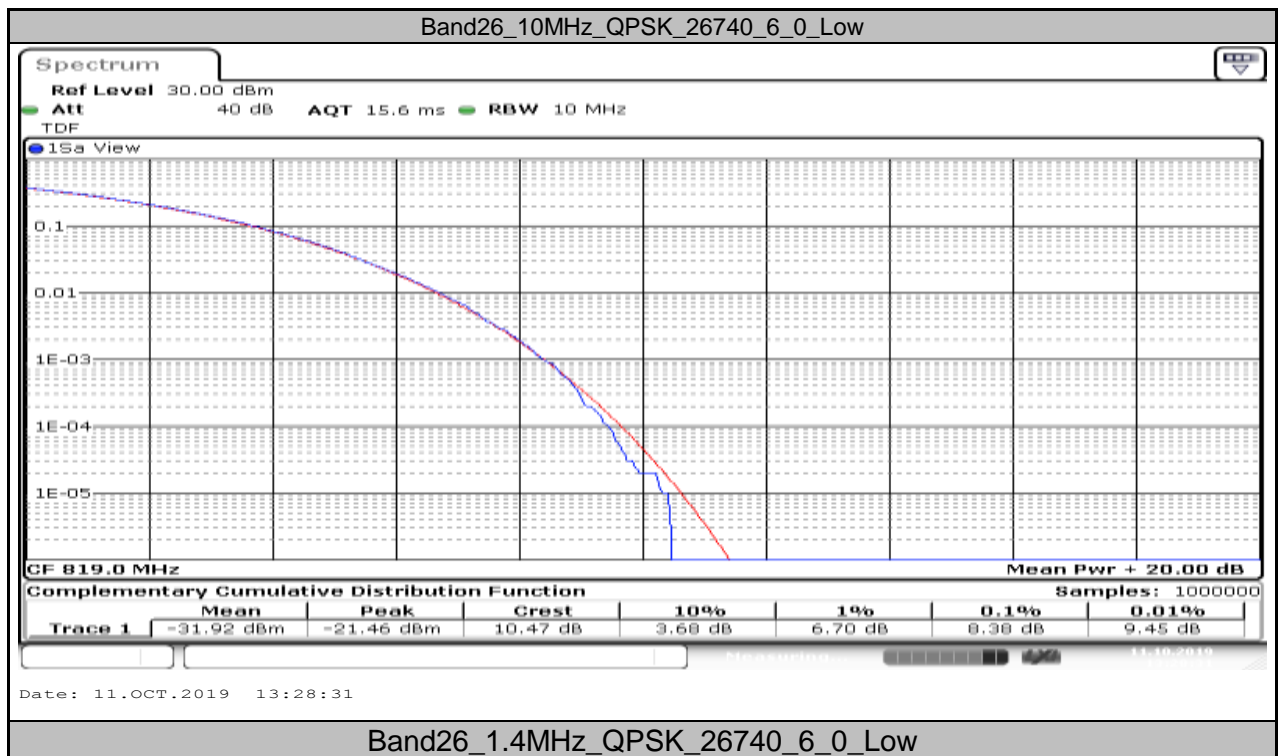
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	Power (watts)	Limit (watts)	Verdict
Band26	1.4MHz	QPSK	26697	1	0	Low	21	0.126	100	PASS
Band26	1.4MHz	QPSK	26697	6	0	Low	19.13	0.082	100	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	21.6	0.145	100	PASS
Band26	1.4MHz	QPSK	26740	6	0	Low	19.2	0.083	100	PASS
Band26	1.4MHz	QPSK	26783	6	0	Low	19.17	0.083	100	PASS
Band26	1.4MHz	QPSK	26783	1	5	Low	21.38	0.137	100	PASS
Band26	1.4MHz	16QAM	26697	6	0	Low	19.13	0.082	100	PASS
Band26	1.4MHz	16QAM	26697	1	0	Low	20.2	0.105	100	PASS
Band26	1.4MHz	16QAM	26740	6	0	Low	19.2	0.083	100	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	20.26	0.106	100	PASS
Band26	1.4MHz	16QAM	26783	6	0	Low	19.08	0.081	100	PASS
Band26	1.4MHz	16QAM	26783	1	5	Low	20.27	0.106	100	PASS
Band26	3MHz	QPSK	26705	6	0	Low	19	0.079	100	PASS
Band26	3MHz	QPSK	26705	1	0	Low	21.21	0.132	100	PASS
Band26	3MHz	QPSK	26740	1	0	Low	21.29	0.135	100	PASS
Band26	3MHz	QPSK	26740	6	0	Low	19.18	0.083	100	PASS
Band26	3MHz	QPSK	26775	1	5	High	21.22	0.132	100	PASS
Band26	3MHz	QPSK	26775	6	0	High	19.18	0.083	100	PASS
Band26	3MHz	16QAM	26705	1	0	Low	20.3	0.107	100	PASS
Band26	3MHz	16QAM	26705	6	0	Low	18.99	0.079	100	PASS
Band26	3MHz	16QAM	26740	1	0	Low	20.46	0.111	100	PASS
Band26	3MHz	16QAM	26740	6	0	Low	19.19	0.083	100	PASS
Band26	3MHz	16QAM	26775	6	0	High	19.09	0.081	100	PASS
Band26	3MHz	16QAM	26775	1	5	High	20.26	0.106	100	PASS
Band26	5MHz	QPSK	26715	1	0	Low	21.2	0.132	100	PASS
Band26	5MHz	QPSK	26715	6	0	Low	20.02	0.100	100	PASS
Band26	5MHz	QPSK	26740	1	0	Low	21.22	0.132	100	PASS
Band26	5MHz	QPSK	26740	6	0	Low	20.04	0.101	100	PASS
Band26	5MHz	QPSK	26765	1	5	High	21.27	0.134	100	PASS
Band26	5MHz	QPSK	26765	3	3	High	21.05	0.127	100	PASS
Band26	5MHz	16QAM	26715	6	0	Low	20.02	0.100	100	PASS
Band26	5MHz	16QAM	26715	1	0	Low	20.53	0.113	100	PASS
Band26	5MHz	16QAM	26740	1	0	Low	20.54	0.113	100	PASS
Band26	5MHz	16QAM	26740	6	0	Low	20.03	0.101	100	PASS
Band26	5MHz	16QAM	26765	3	3	High	20.72	0.118	100	PASS
Band26	5MHz	16QAM	26765	1	5	High	20.59	0.115	100	PASS
Band26	10MHz	QPSK	26740	1	0	Low	21.26	0.134	100	PASS
Band26	10MHz	QPSK	26740	5	0	Low	21.12	0.129	100	PASS
Band26	10MHz	QPSK	26740	1	5	High	21.23	0.133	100	PASS
Band26	10MHz	QPSK	26740	5	1	High	21.3	0.135	100	PASS
Band26	10MHz	16QAM	26740	5	0	Low	20.95	0.124	100	PASS
Band26	10MHz	16QAM	26740	1	5	High	20.57	0.114	100	PASS
Band26	10MHz	16QAM	26740	5	1	High	21.02	0.126	100	PASS
Band26	10MHz	16QAM	26740	1	0	Low	20.58	0.114	100	PASS

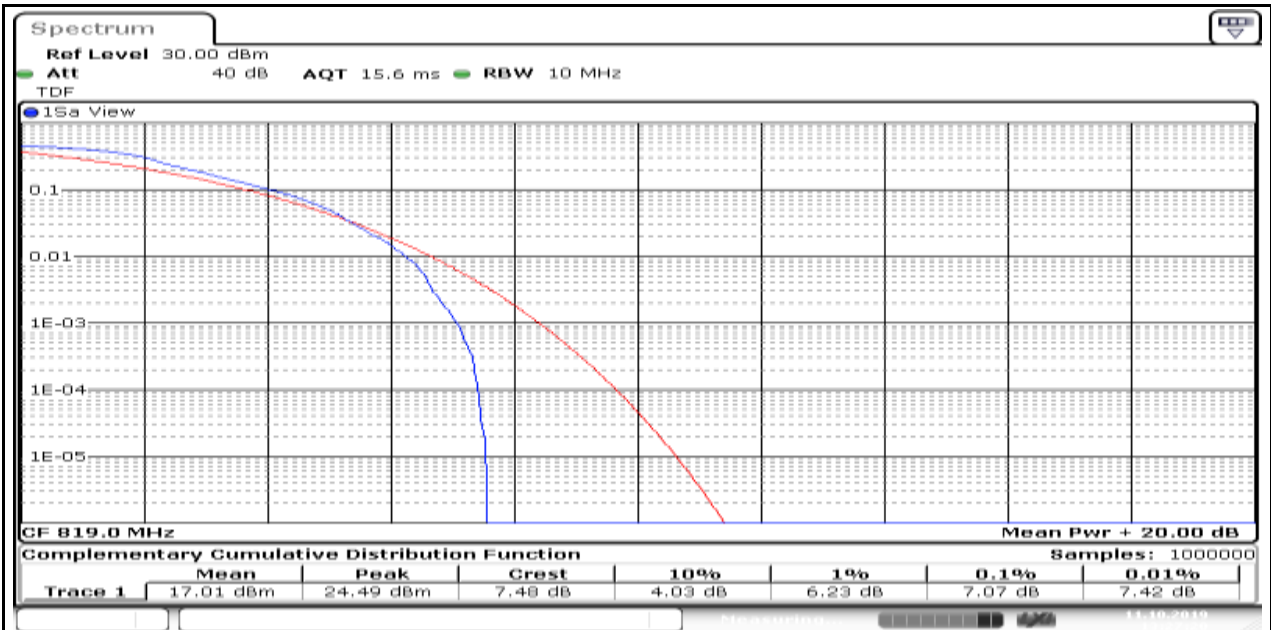
Appendix G.2: Peak-to-Average Ratio (CCDF) for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band26	10MHz	QPSK	26740	6	0	Low	8.38	<=13	PASS
Band26	1.4MHz	QPSK	26740	6	0	Low	7.07	<=13	PASS
Band26	5MHz	QPSK	26740	6	0	Low	5.86	<=13	PASS
Band26	3MHz	QPSK	26740	6	0	Low	8.55	<=13	PASS
Band26	10MHz	16QAM	26740	6	0	Low	10.64	<=13	PASS
Band26	1.4MHz	16QAM	26740	6	0	Low	9.80	<=13	PASS
Band26	5MHz	16QAM	26740	6	0	Low	11.77	<=13	PASS
Band26	3MHz	16QAM	26740	6	0	Low	11.97	<=13	PASS

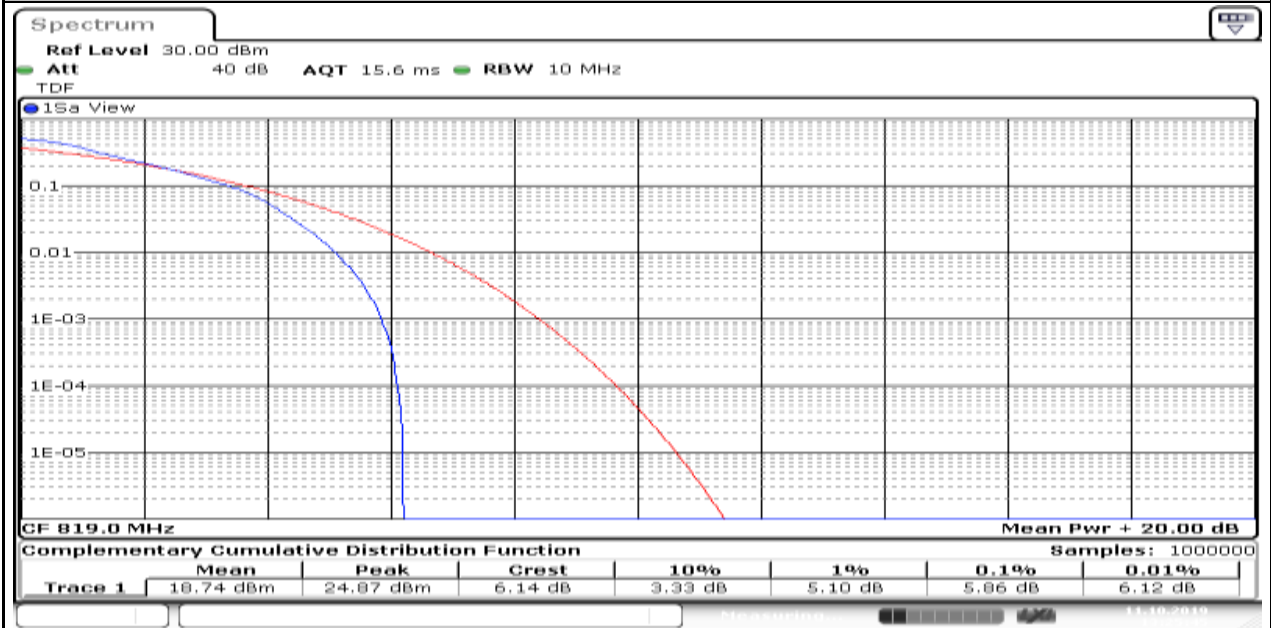
Test Graphs





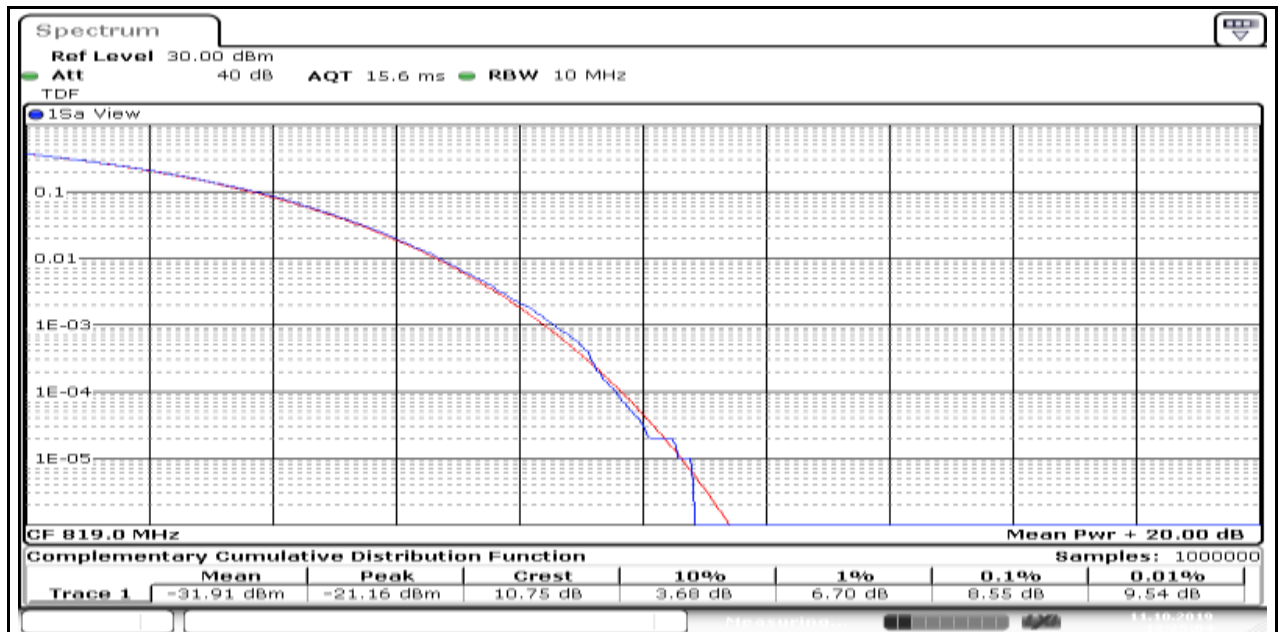
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Band26_5MHz_QPSK_26740_6_0_Low

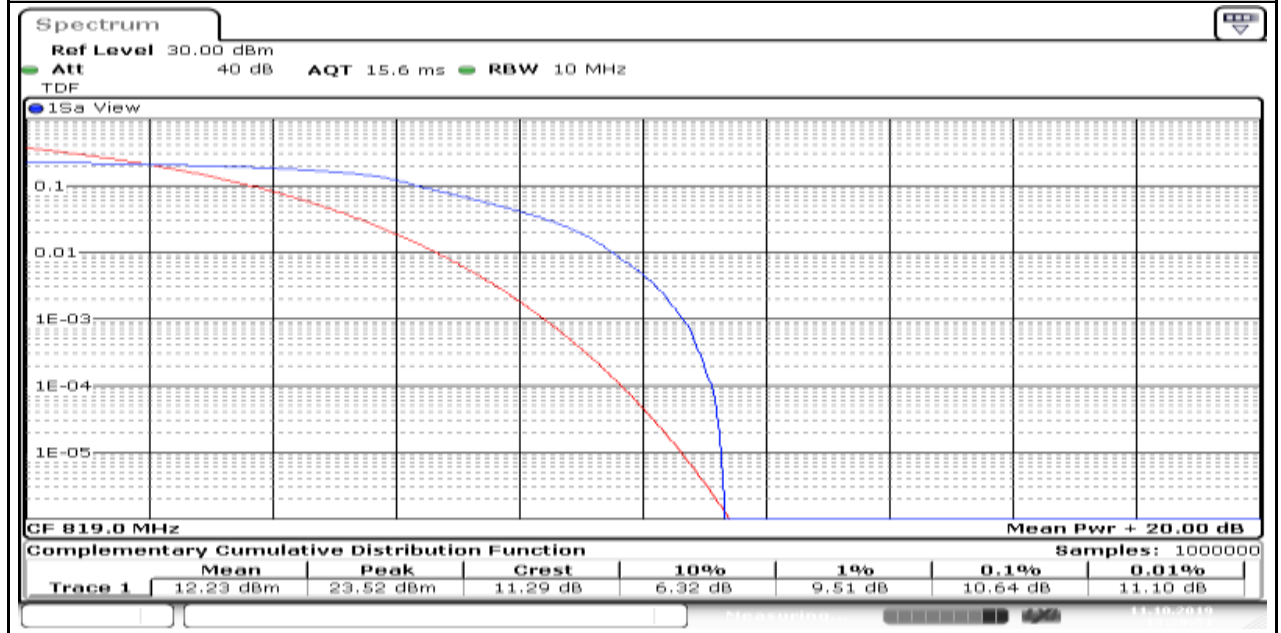


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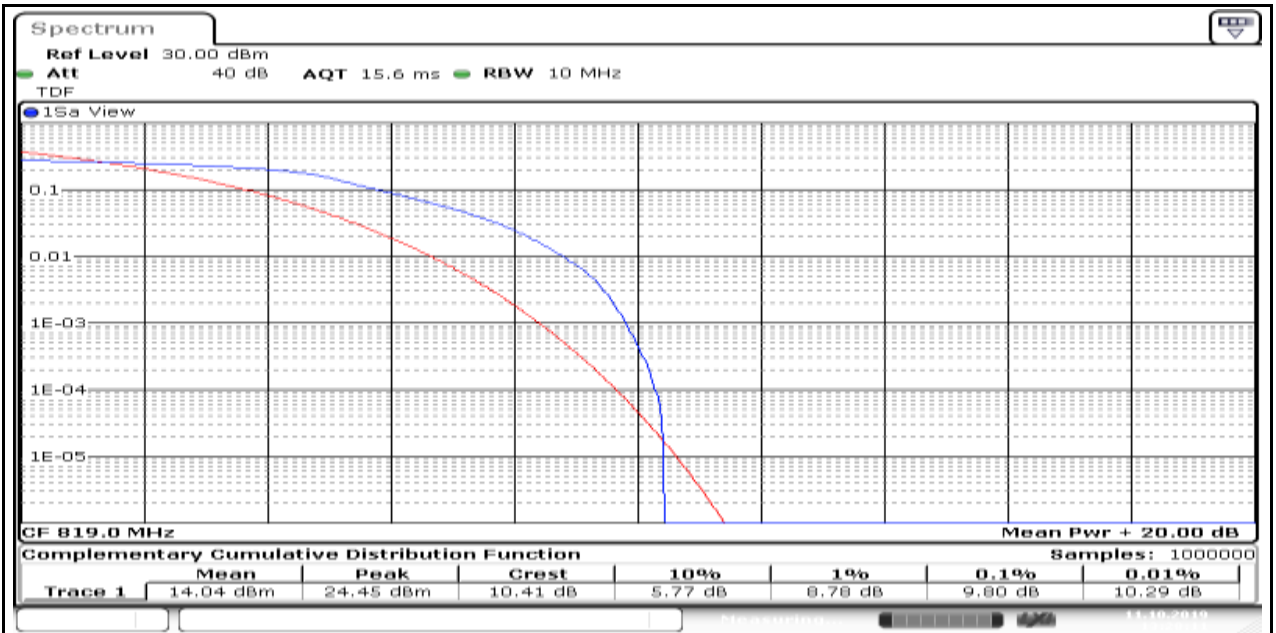
Band26_3MHz_QPSK_26740_6_0_Low



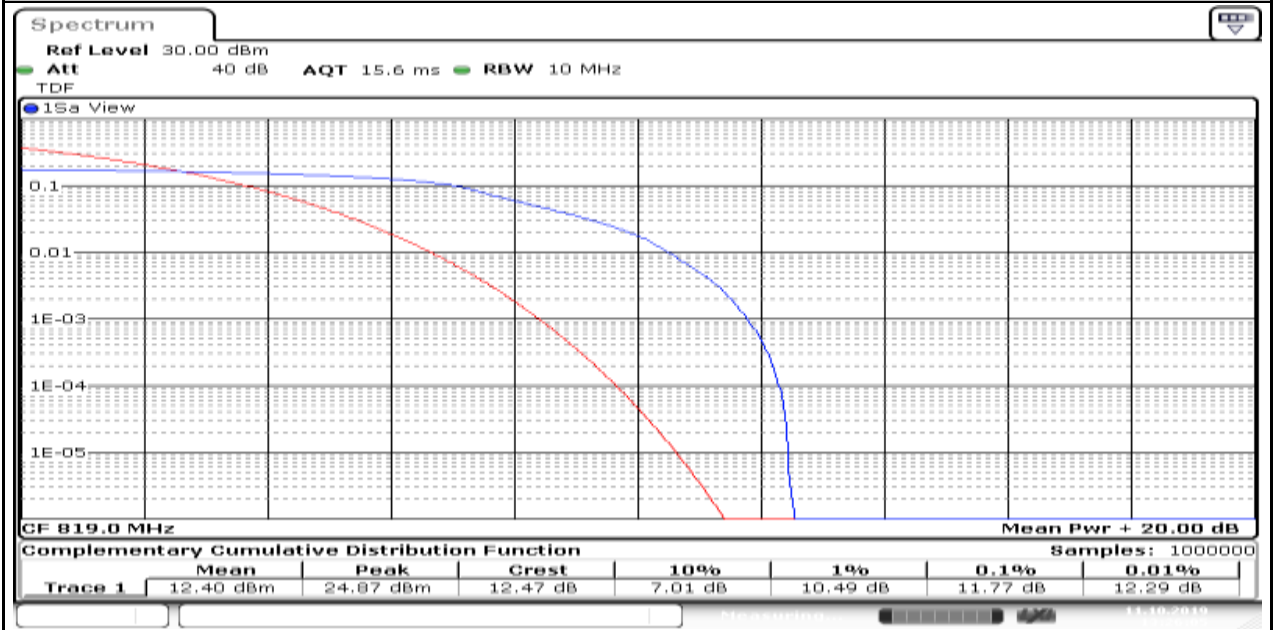
Band26_10MHz_16QAM_26740_6_0_Low



Band26_1.4MHz_16QAM_26740_6_0_Low

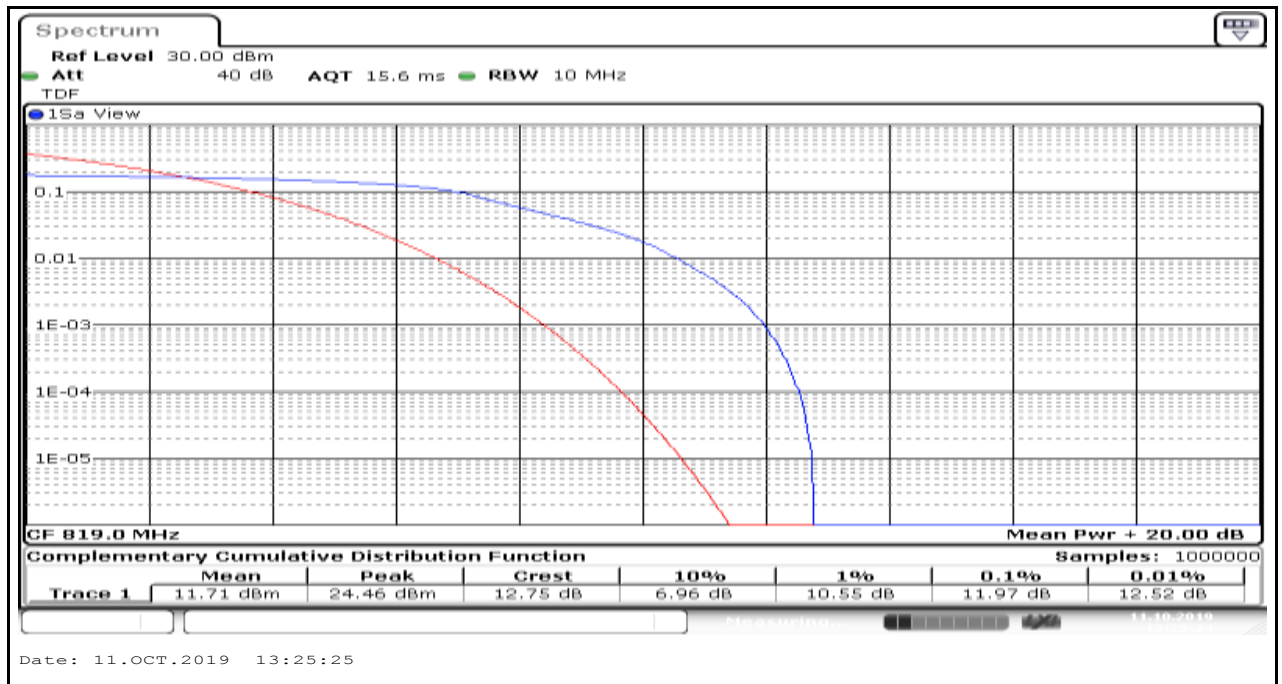


Band26_5MHz_16QAM_26740_6_0_Low



Band26_3MHz_16QAM_26740_6_0_Low

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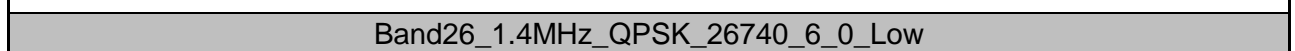
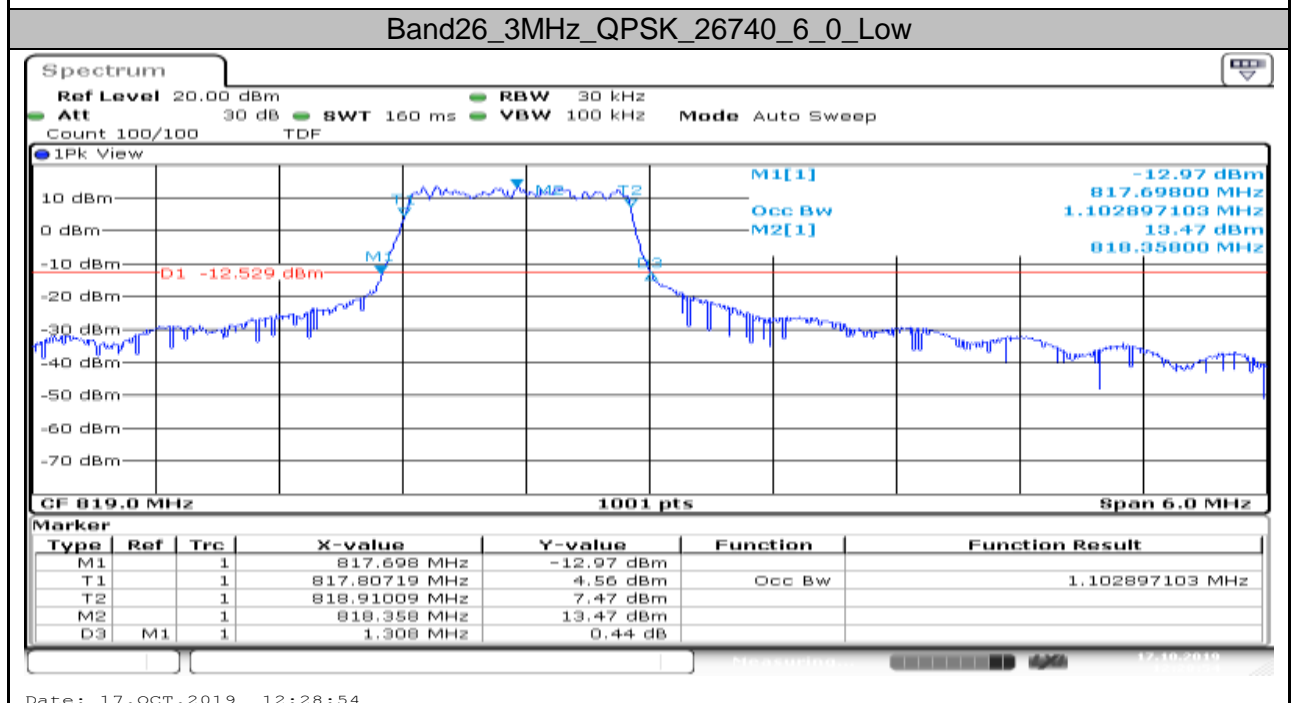
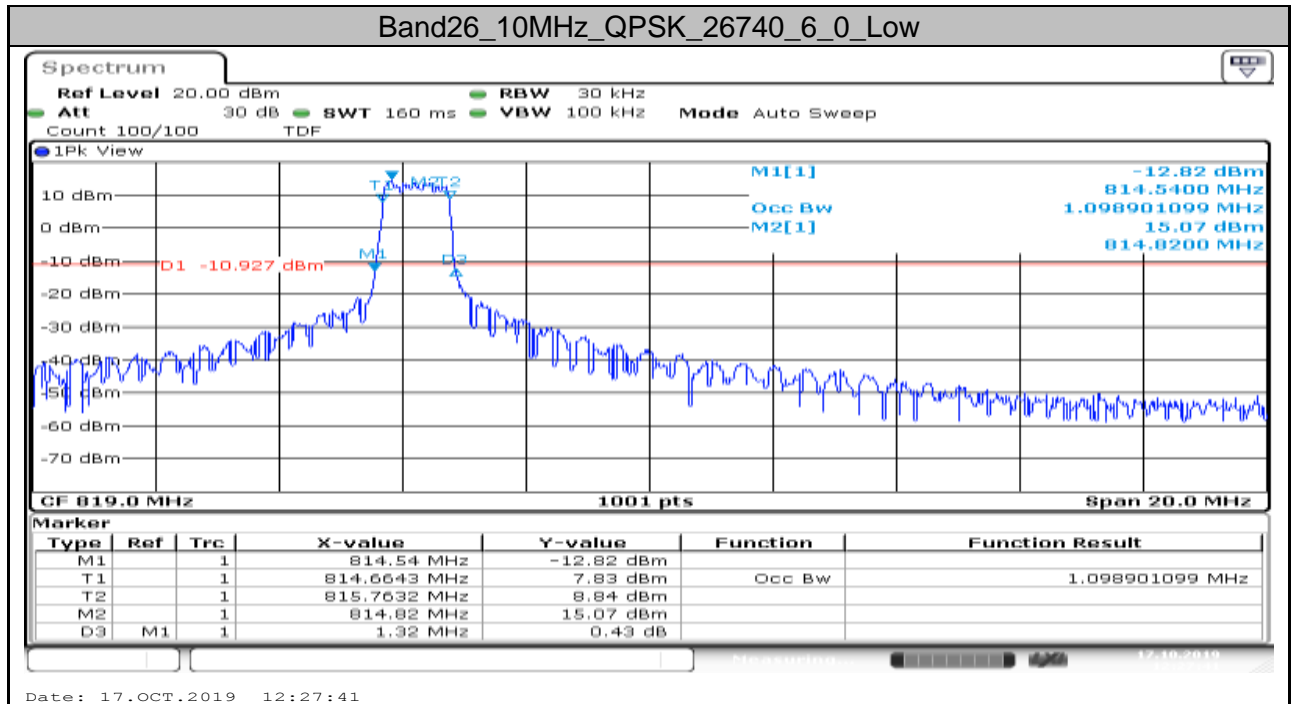


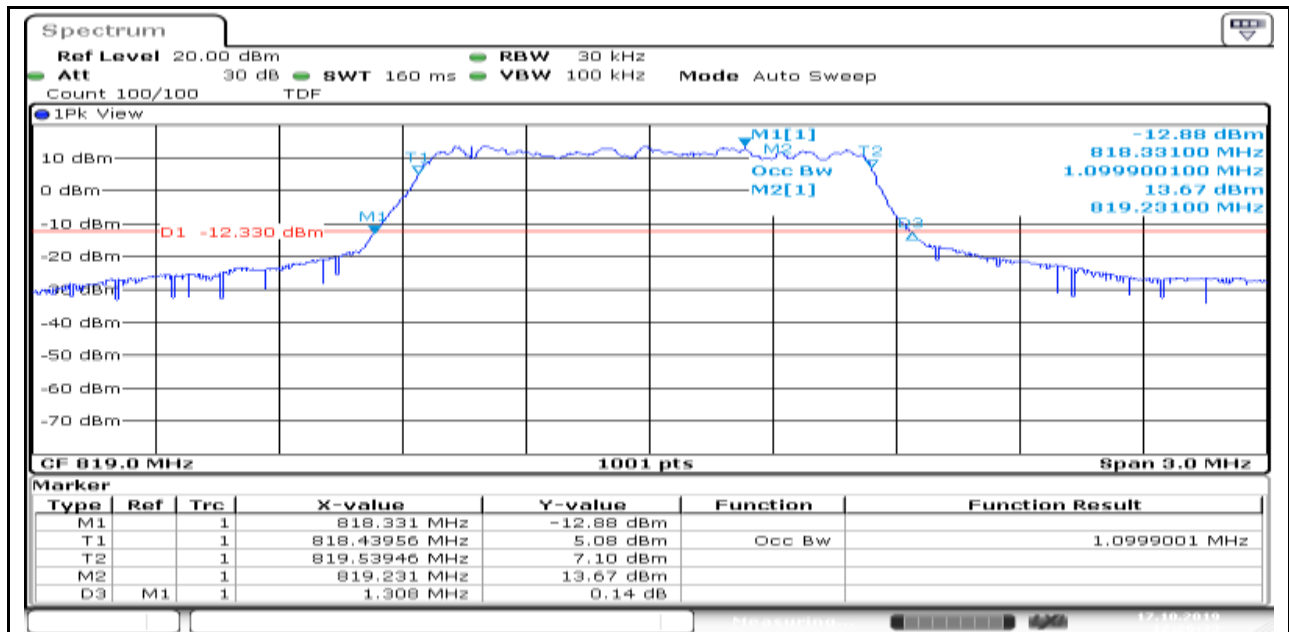
Appendix G.3: 26dB Bandwidth and Occupied Bandwidth for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band26	10MHz	QPSK	26740	6	0	Low	1.099	1.320	PASS
Band26	3MHz	QPSK	26740	6	0	Low	1.103	1.308	PASS
Band26	1.4MHz	QPSK	26740	6	0	Low	1.1	1.308	PASS
Band26	5MHz	QPSK	26740	6	0	Low	1.099	1.330	PASS
Band26	1.4MHz	16QAM	26740	6	0	Low	1.091	1.275	PASS
Band26	10MHz	16QAM	26740	6	0	Low	1.099	1.320	PASS
Band26	3MHz	16QAM	26740	6	0	Low	1.103	1.296	PASS
Band26	5MHz	16QAM	26740	6	0	Low	1.099	1.330	PASS

Test Graphs

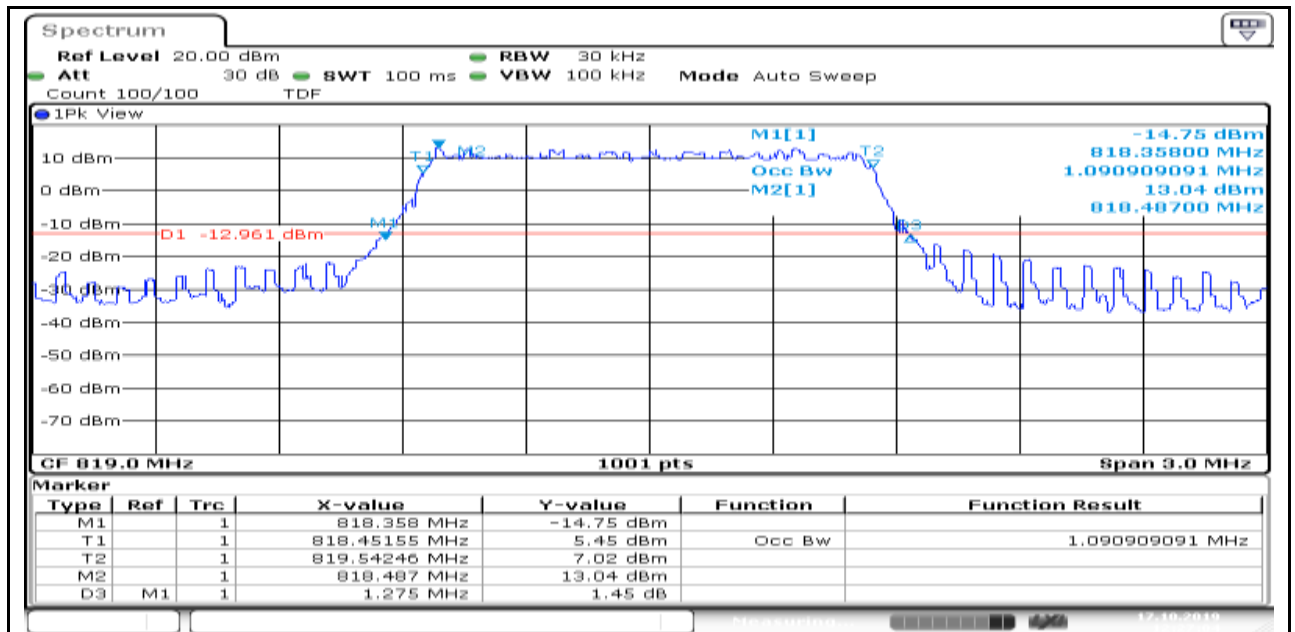




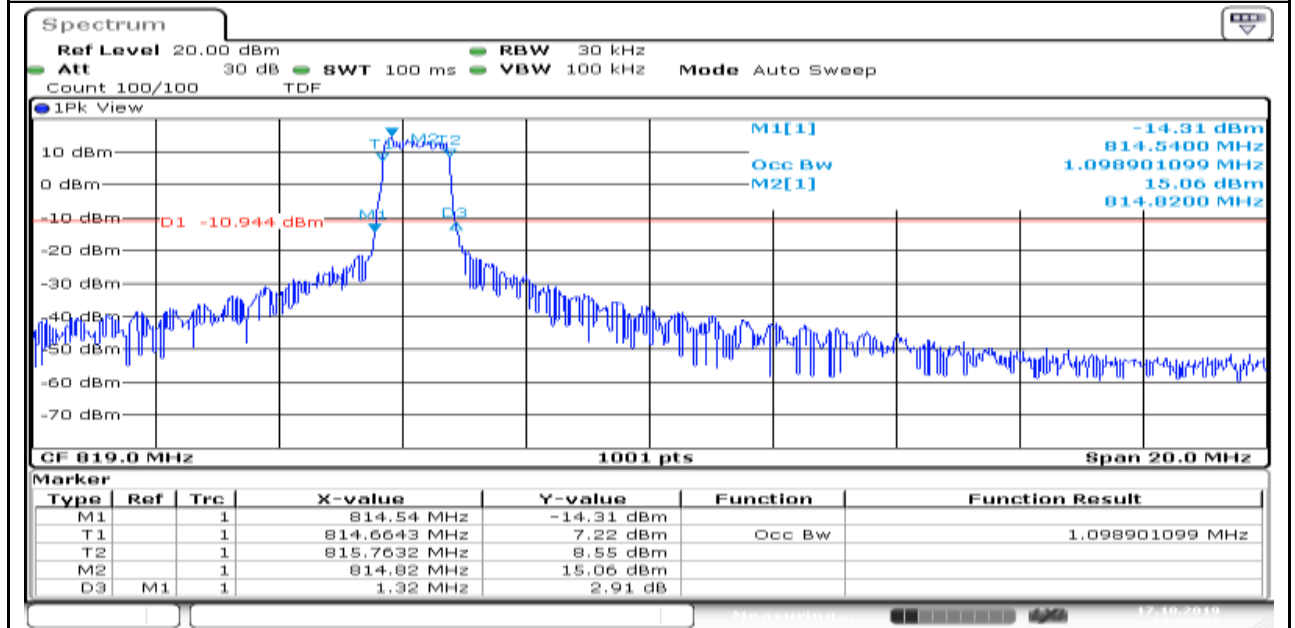
Band26_5MHz_QPSK_26740_6_0_Low



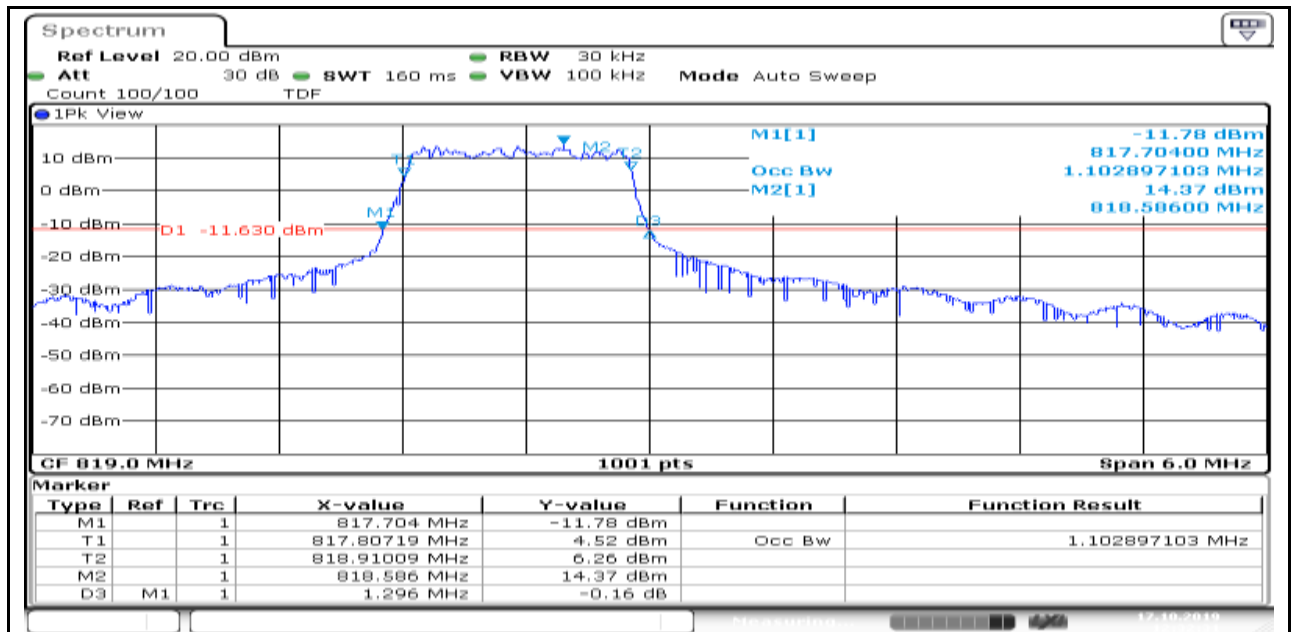
Band26_1.4MHz_16QAM_26740_6_0_Low



Band26_10MHz_16QAM_26740_6_0_Low

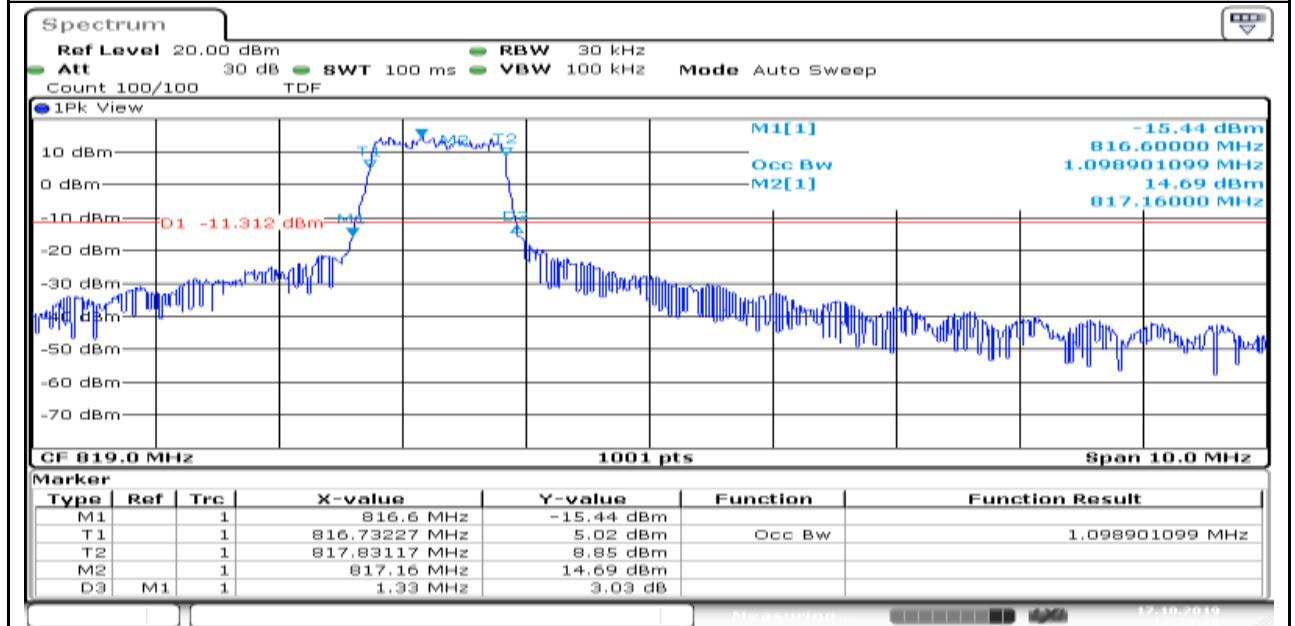


Band26_3MHz_16QAM_26740_6_0_Low



Date: 17.OCT.2019 12:32:32

Band26_5MHz_16QAM_26740_6_0_Low



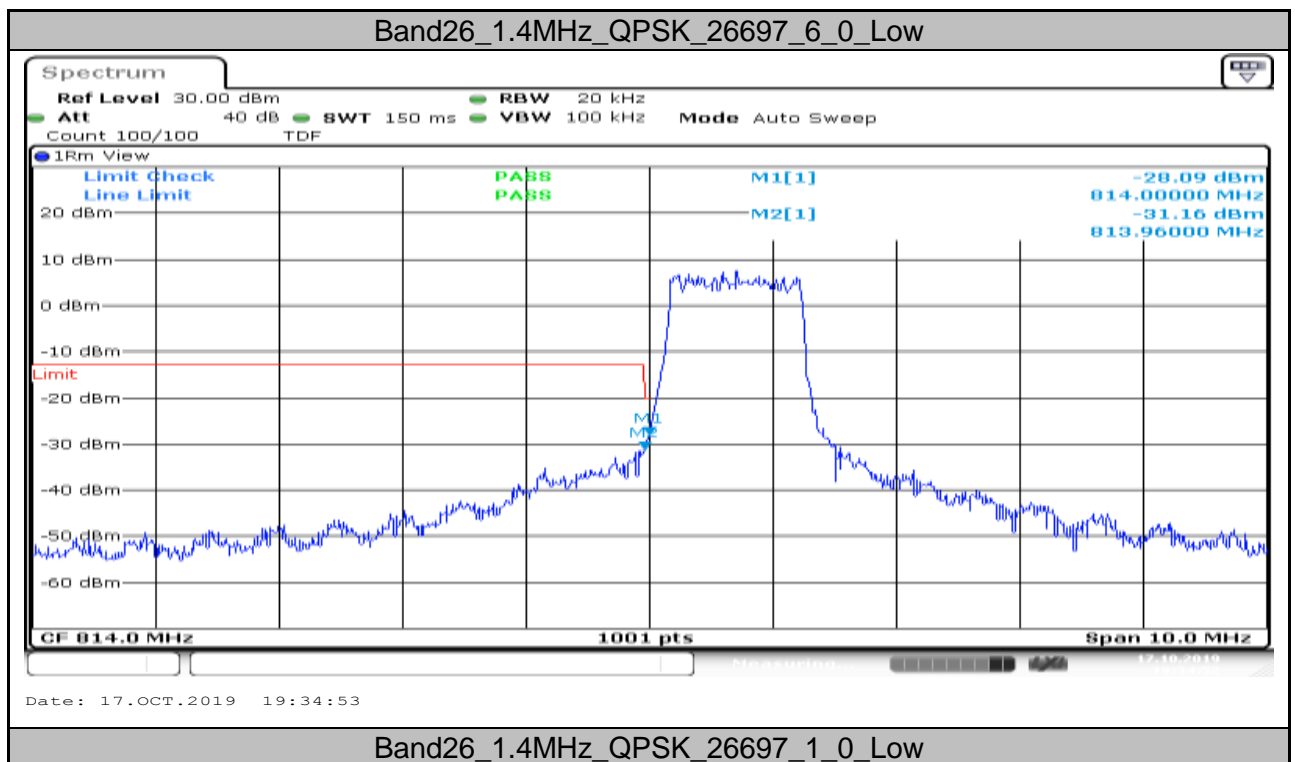
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Appendix G.4: Band Edge for M1

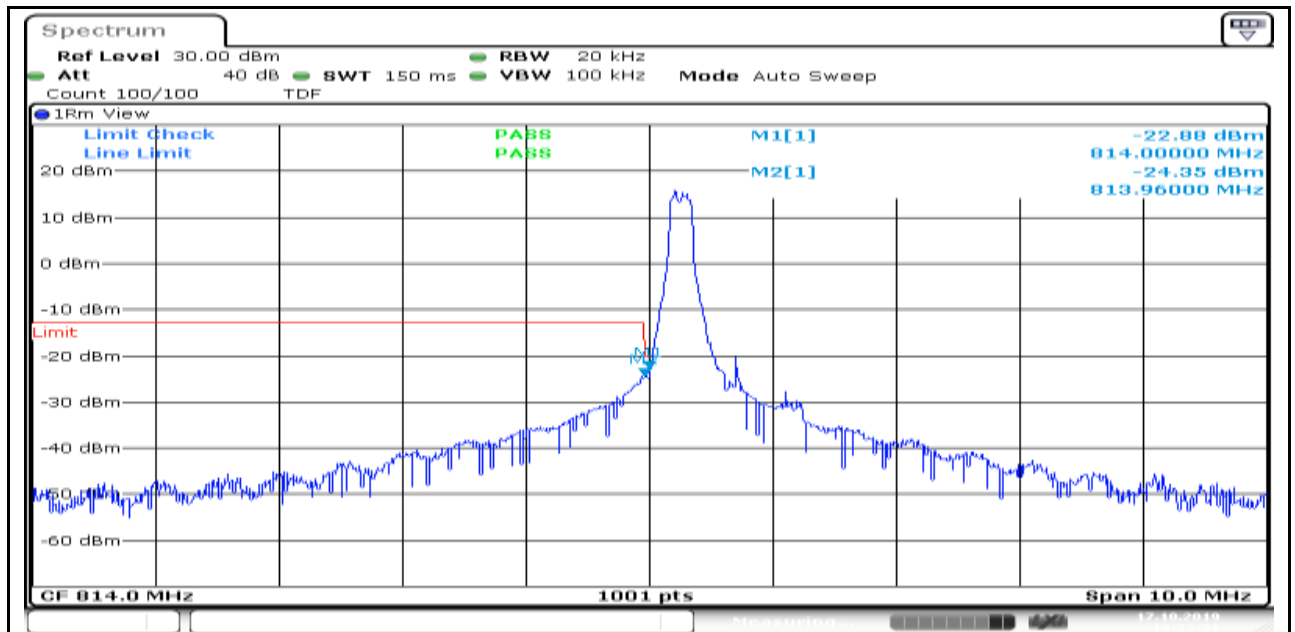
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Result (dBm)	Verdict
Band26	1.4MHz	QPSK	26697	6	0	Low	-28.09,-31.16	PASS
Band26	1.4MHz	QPSK	26697	1	0	Low	-22.88,-24.35	PASS
Band26	1.4MHz	QPSK	26783	6	0	Low	-27.32,-28.77	PASS
Band26	1.4MHz	QPSK	26783	1	5	Low	-21.01,-25.64	PASS
Band26	1.4MHz	16QAM	26697	6	0	Low	-29.97,-31.98	PASS
Band26	1.4MHz	16QAM	26697	1	0	Low	-20.68,-21.75	PASS
Band26	1.4MHz	16QAM	26783	6	0	Low	-27.41,-28.66	PASS
Band26	1.4MHz	16QAM	26783	1	5	Low	-20.84,-23.16	PASS

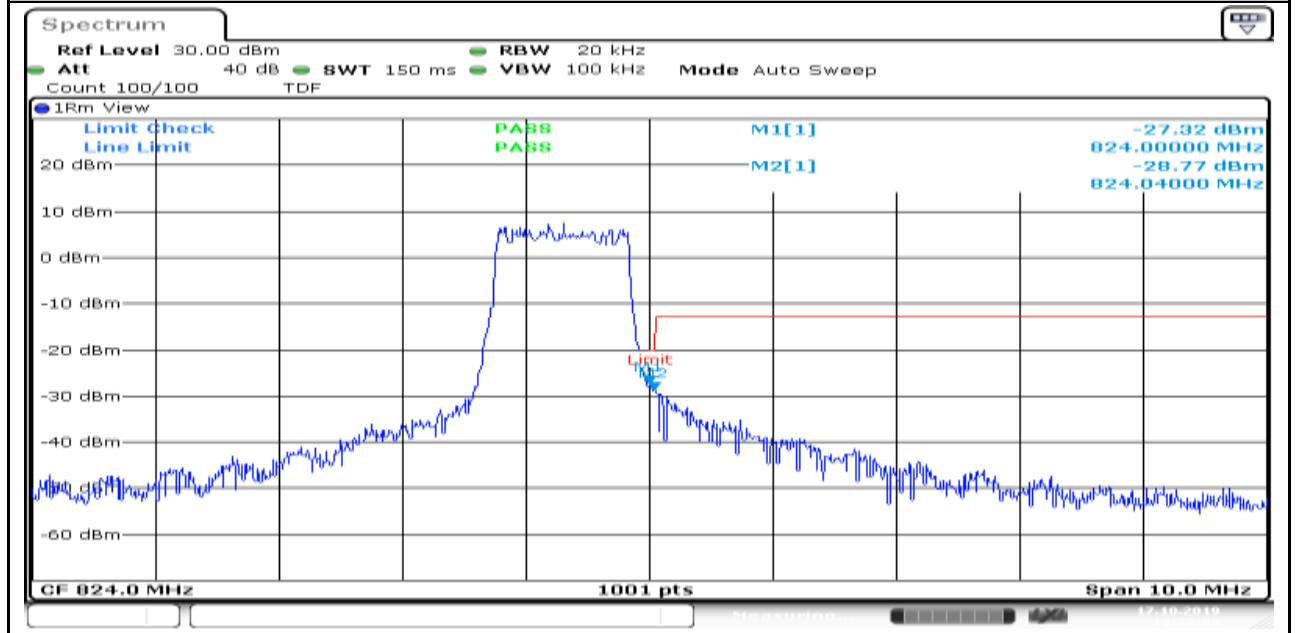
Test Graphs



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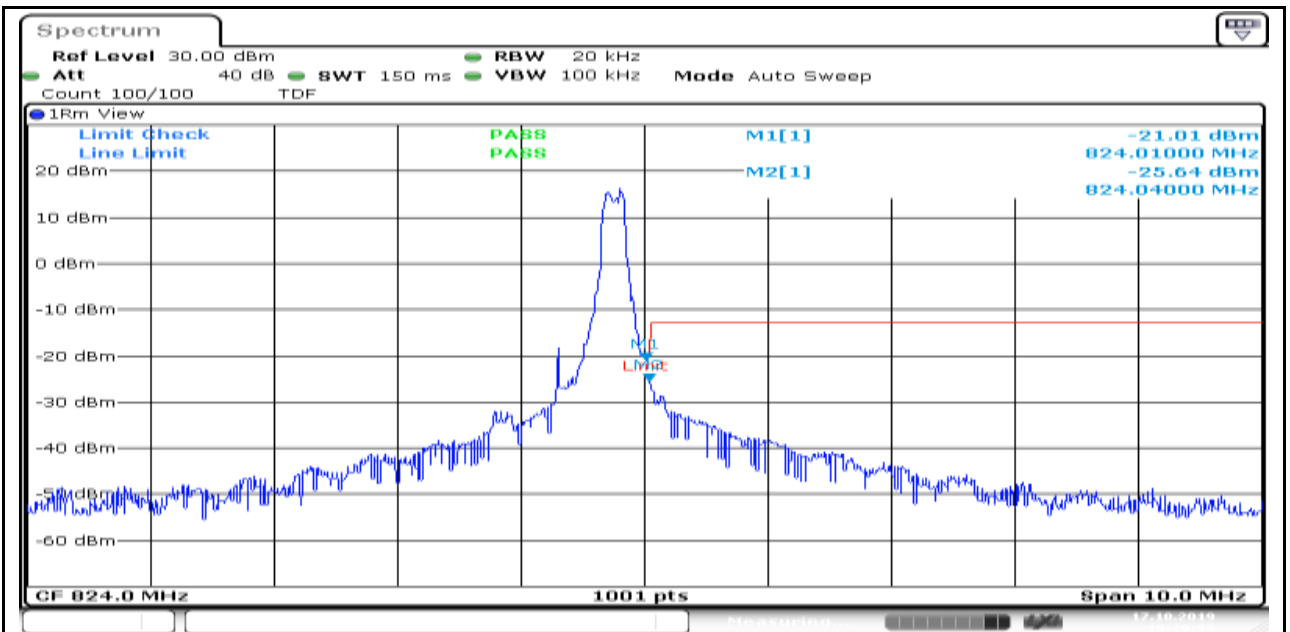


Band26_1.4MHz_QPSK_26783_6_0_Low



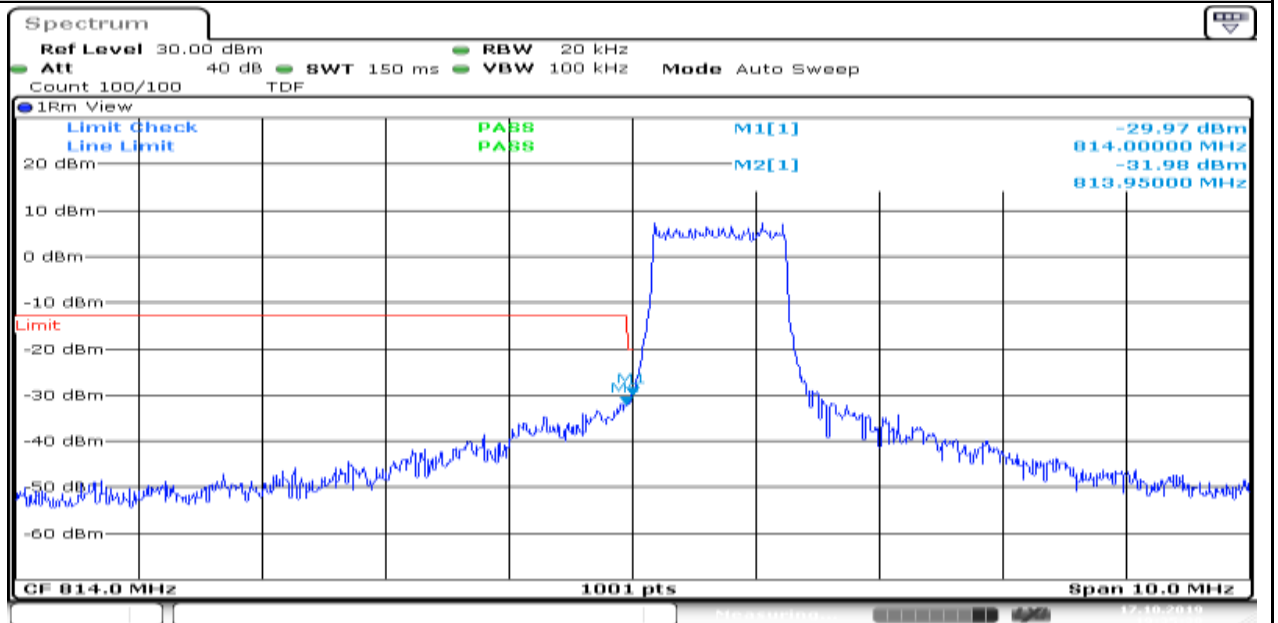
Band26_1.4MHz_QPSK_26783_1_5_Low

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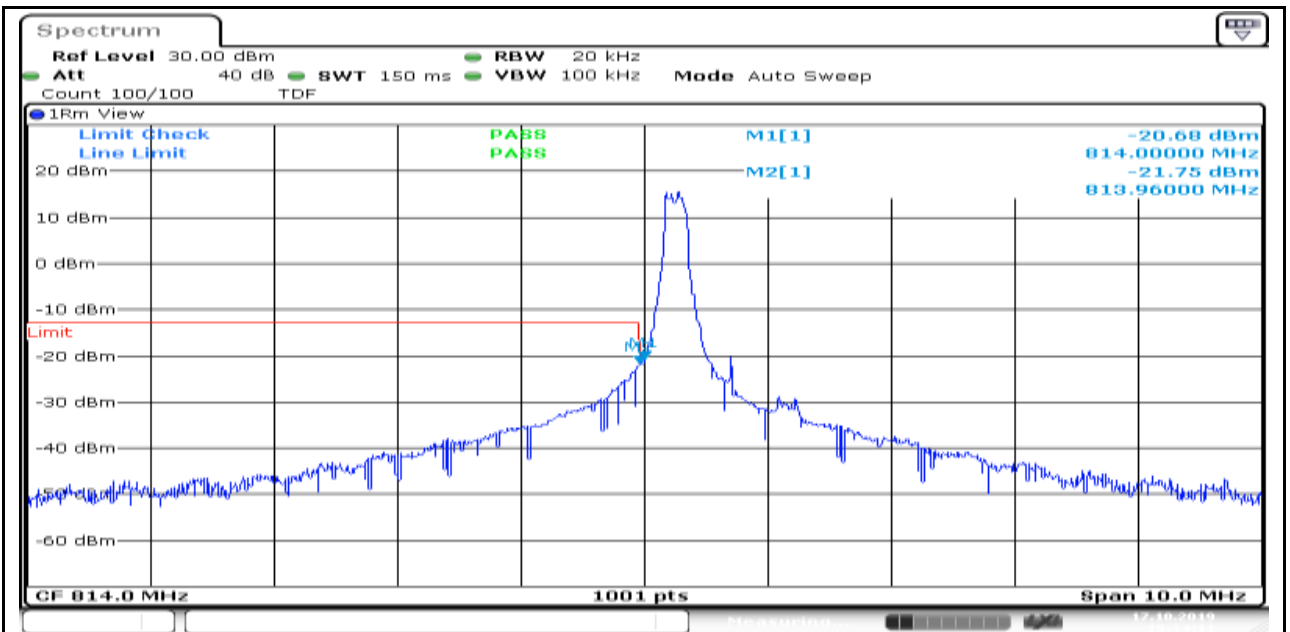
Band26_1.4MHz_16QAM_26697_6_0_Low_-29.97,-31.98_PASS_123\B26\Band26\NTNV-band_edges_compliance_for_m1-Band26-1.4MHz-26697-6RB#0@Low-16QAM-20191017062719.Gif



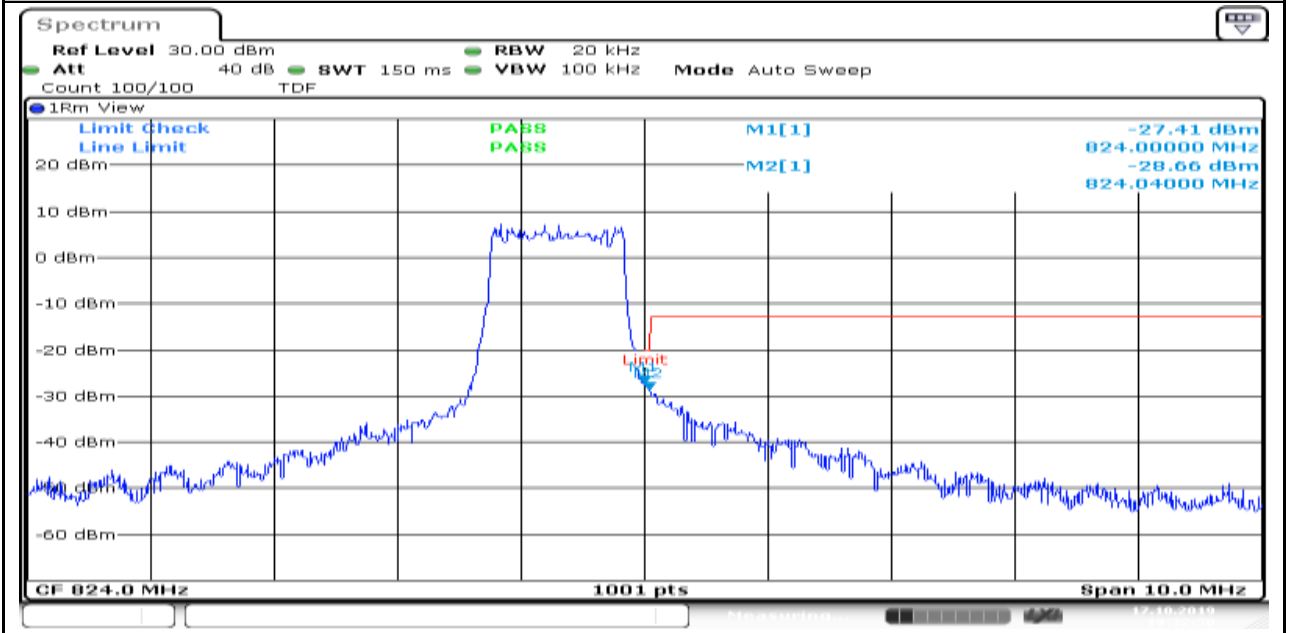
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Band26_1.4MHz_16QAM_26697_1_0_Low

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Band26_1.4MHz_16QAM_26783_6_0_Low



Band26_1.4MHz_16QAM_26783_1_5_Low

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Appendix G.5: Conducted Spurious Emission for M1

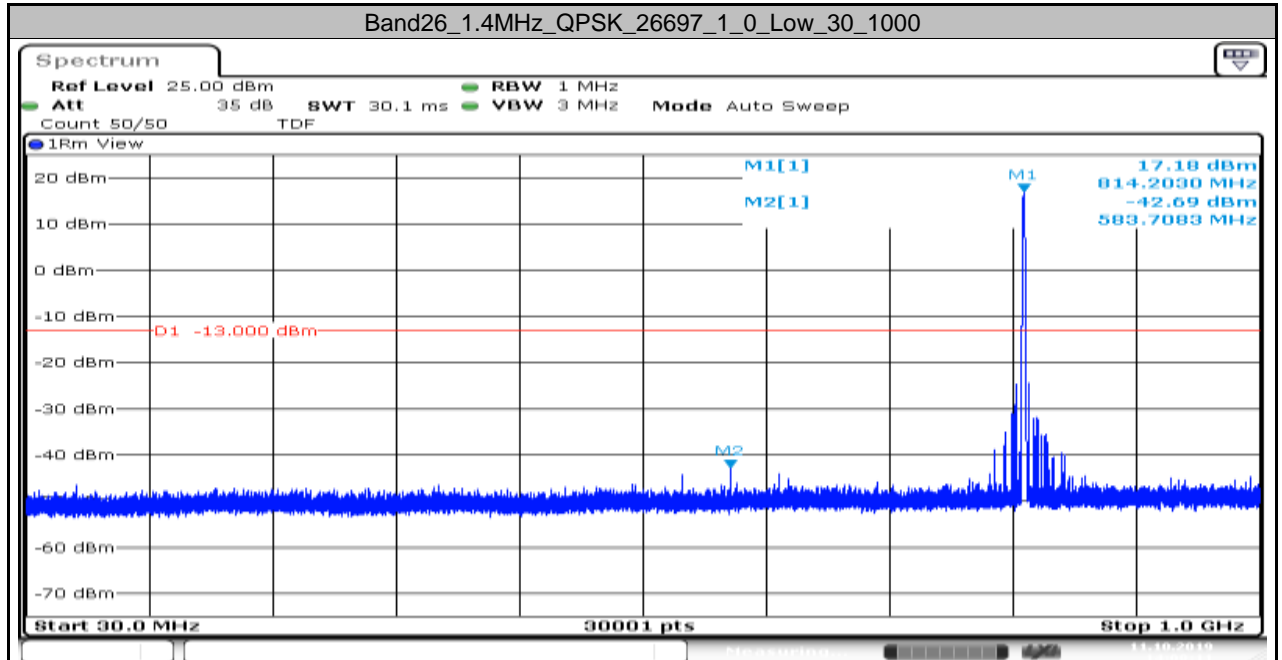
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Start Freq	Stop Freq	Result (dBm)	Verdict
Band26	1.4MHz	QPSK	26697	1	0	Low	30	1000	-42.69	PASS
Band26	1.4MHz	QPSK	26697	6	0	Low	1000	5000	-50.37	PASS
Band26	1.4MHz	QPSK	26697	6	0	Low	5000	12000	-63.2	PASS
Band26	1.4MHz	QPSK	26697	6	0	Low	12000	26500	-59.24	PASS
Band26	1.4MHz	QPSK	26697	6	0	Low	30	1000	-43.66	PASS
Band26	1.4MHz	QPSK	26697	1	0	Low	5000	12000	-63.34	PASS
Band26	1.4MHz	QPSK	26697	1	0	Low	1000	5000	-50.29	PASS
Band26	1.4MHz	QPSK	26697	1	0	Low	12000	26500	-59.37	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	30	1000	-43.32	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	1000	5000	-50.31	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	5000	12000	-63.32	PASS
Band26	1.4MHz	QPSK	26740	6	0	Low	30	1000	-42.12	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	12000	26500	-59.49	PASS
Band26	1.4MHz	QPSK	26740	6	0	Low	1000	5000	-50.5	PASS
Band26	1.4MHz	QPSK	26740	6	0	Low	5000	12000	-63.33	PASS
Band26	1.4MHz	QPSK	26740	6	0	Low	12000	26500	-59.51	PASS
Band26	1.4MHz	QPSK	26783	6	0	Low	1000	5000	-50.28	PASS
Band26	1.4MHz	QPSK	26783	1	5	Low	5000	12000	-63.3	PASS
Band26	1.4MHz	QPSK	26783	6	0	Low	12000	26500	-59.56	PASS
Band26	1.4MHz	QPSK	26783	1	5	Low	1000	5000	-50.42	PASS
Band26	1.4MHz	QPSK	26783	1	5	Low	30	1000	-42.69	PASS
Band26	1.4MHz	QPSK	26783	1	5	Low	12000	26500	-59.4	PASS
Band26	1.4MHz	QPSK	26783	6	0	Low	30	1000	-45.2	PASS
Band26	1.4MHz	QPSK	26783	6	0	Low	5000	12000	-63.41	PASS
Band26	1.4MHz	16QAM	26697	6	0	Low	12000	26500	-59.56	PASS
Band26	1.4MHz	16QAM	26697	1	0	Low	1000	5000	-50.53	PASS
Band26	1.4MHz	16QAM	26697	1	0	Low	5000	12000	-63.31	PASS
Band26	1.4MHz	16QAM	26697	1	0	Low	12000	26500	-59.55	PASS
Band26	1.4MHz	16QAM	26697	6	0	Low	30	1000	-40.23	PASS
Band26	1.4MHz	16QAM	26697	1	0	Low	30	1000	-41.94	PASS
Band26	1.4MHz	16QAM	26697	6	0	Low	5000	12000	-63.31	PASS
Band26	1.4MHz	16QAM	26697	6	0	Low	1000	5000	-50.34	PASS
Band26	1.4MHz	16QAM	26740	6	0	Low	5000	12000	-63.27	PASS
Band26	1.4MHz	16QAM	26740	6	0	Low	1000	5000	-50.39	PASS
Band26	1.4MHz	16QAM	26740	6	0	Low	30	1000	-44.67	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	5000	12000	-63.33	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	1000	5000	-50.33	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	30	1000	-43.48	PASS
Band26	1.4MHz	16QAM	26740	6	0	Low	12000	26500	-59.52	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	12000	26500	-59.47	PASS
Band26	1.4MHz	16QAM	26783	1	5	Low	30	1000	-44.96	PASS
Band26	1.4MHz	16QAM	26783	1	5	Low	1000	5000	-50.5	PASS
Band26	1.4MHz	16QAM	26783	1	5	Low	12000	26500	-59.53	PASS
Band26	1.4MHz	16QAM	26783	6	0	Low	30	1000	-42.26	PASS
Band26	1.4MHz	16QAM	26783	6	0	Low	1000	5000	-50.49	PASS
Band26	1.4MHz	16QAM	26783	6	0	Low	5000	12000	-63.29	PASS
Band26	1.4MHz	16QAM	26783	6	0	Low	12000	26500	-59.58	PASS

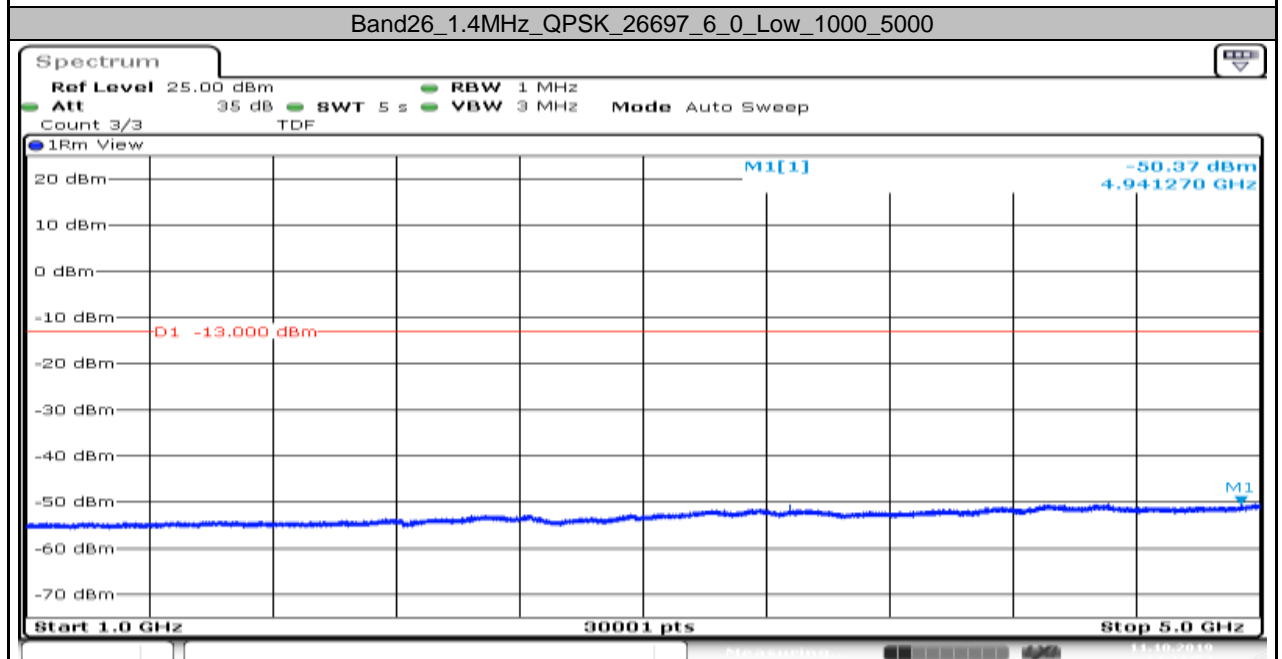
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Band26	1.4MHz	16QAM	26783	1	5	Low	5000	12000	-63.38	PASS
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Test Graphs



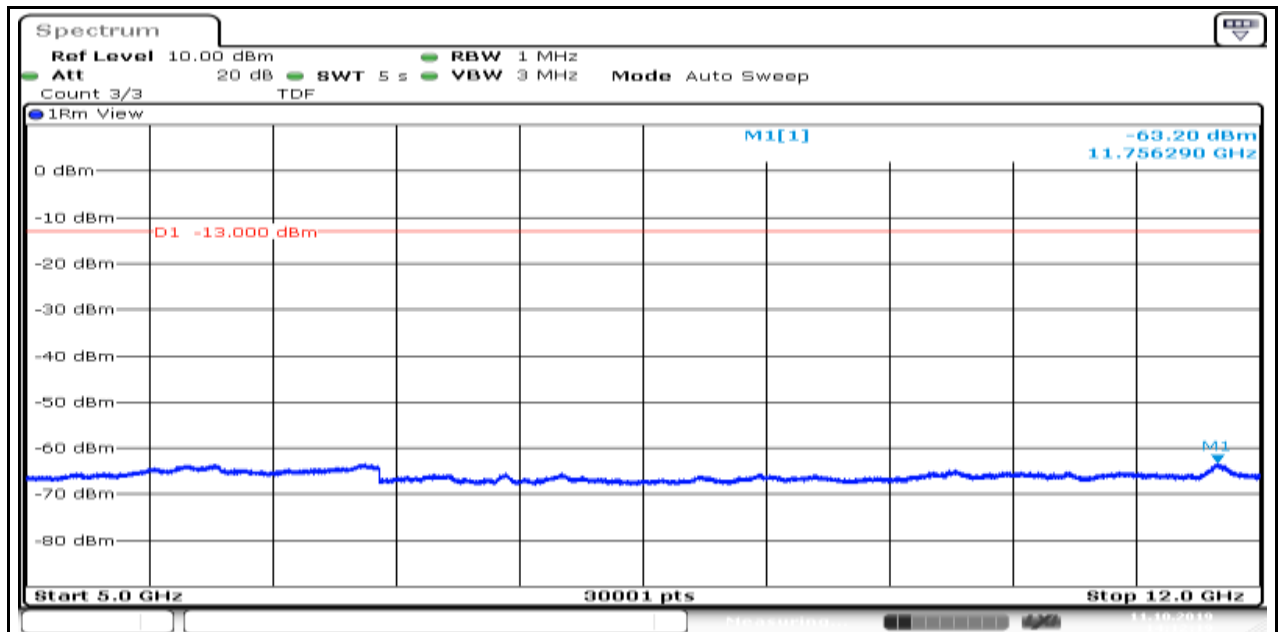
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Date: 11.OCT.2019 14:11:53

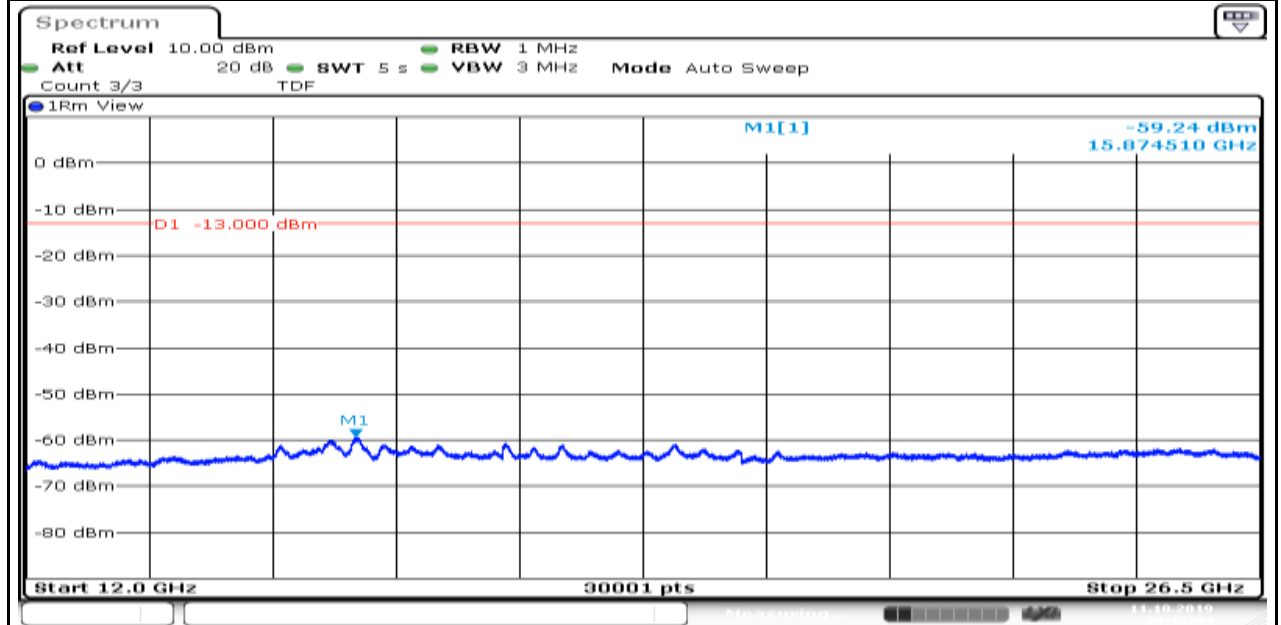
Band26_1.4MHz_QPSK_26697_6_0_Low_5000_12000

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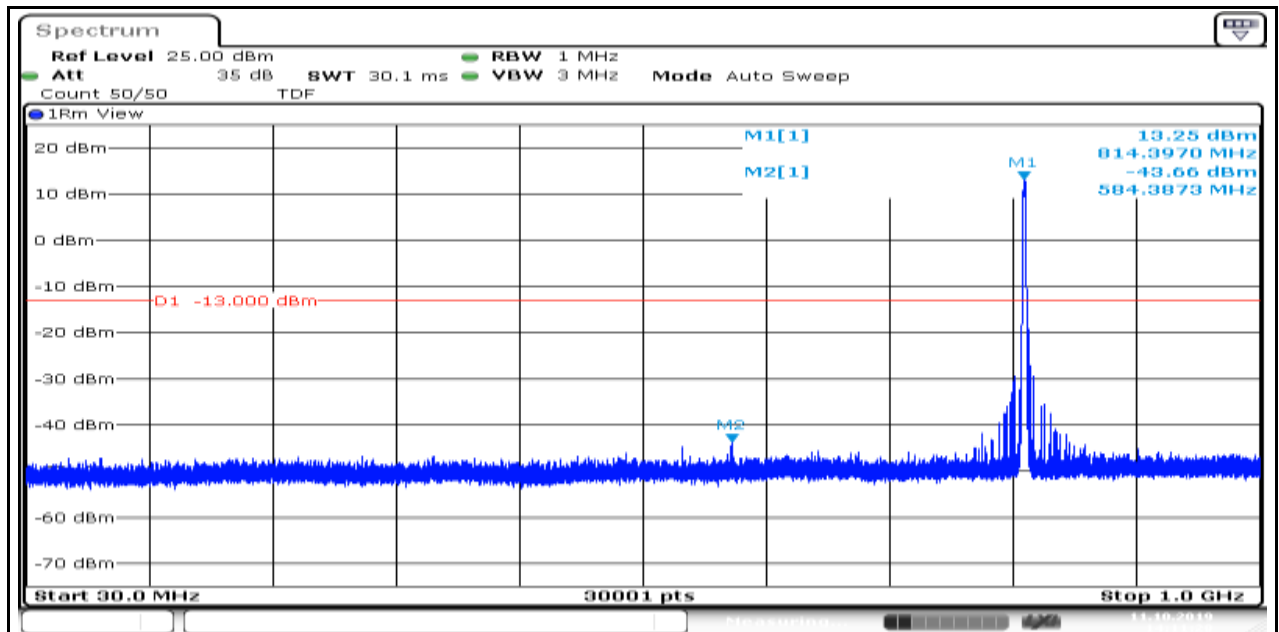
Band26_1.4MHz_QPSK_26697_6_0_Low_12000_26500



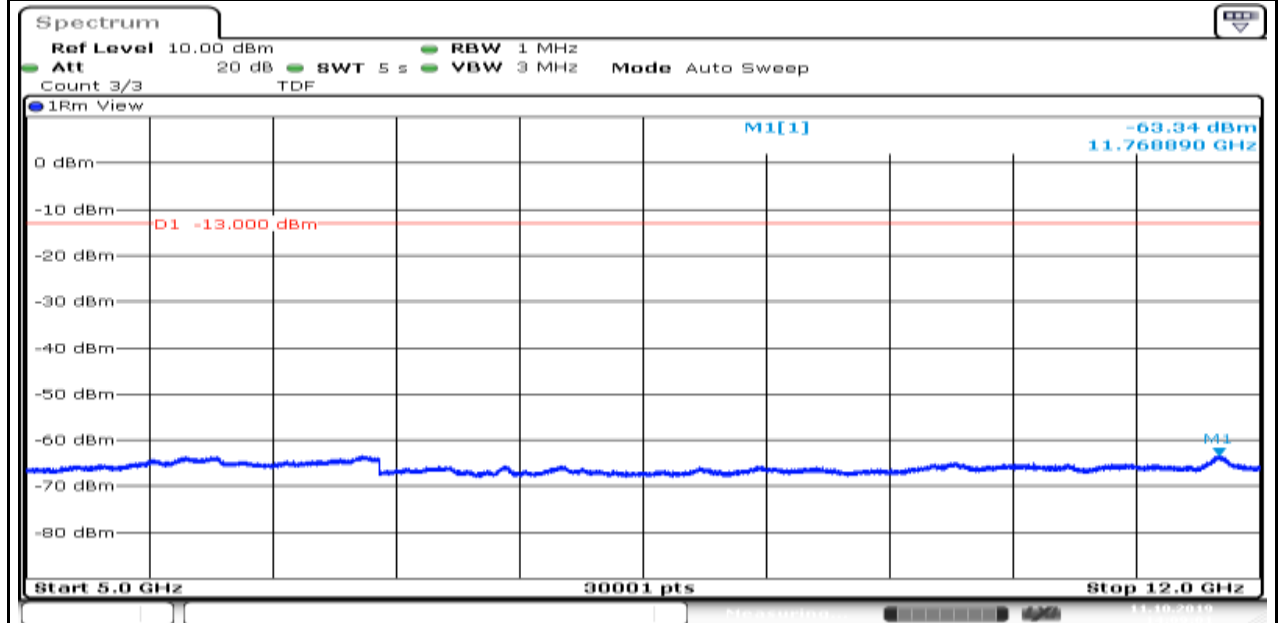
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Band26_1.4MHz_QPSK_26697_6_0_Low_30_1000

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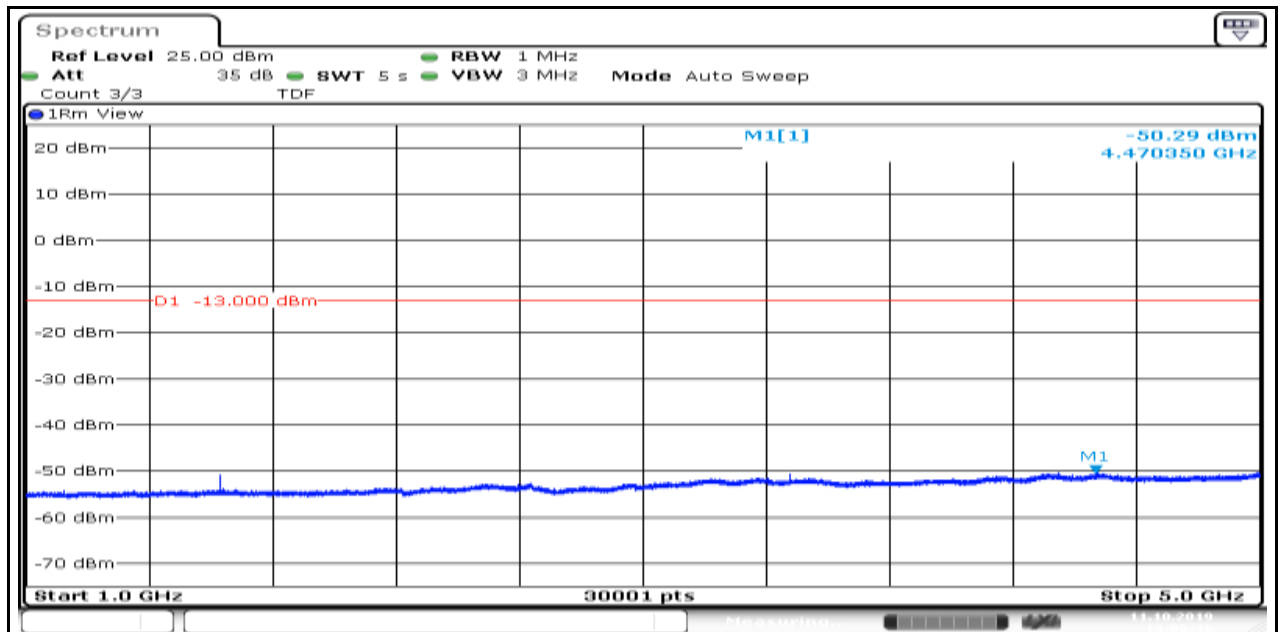


Band26_1.4MHz_QPSK_26697_1_0_Low_5000_12000

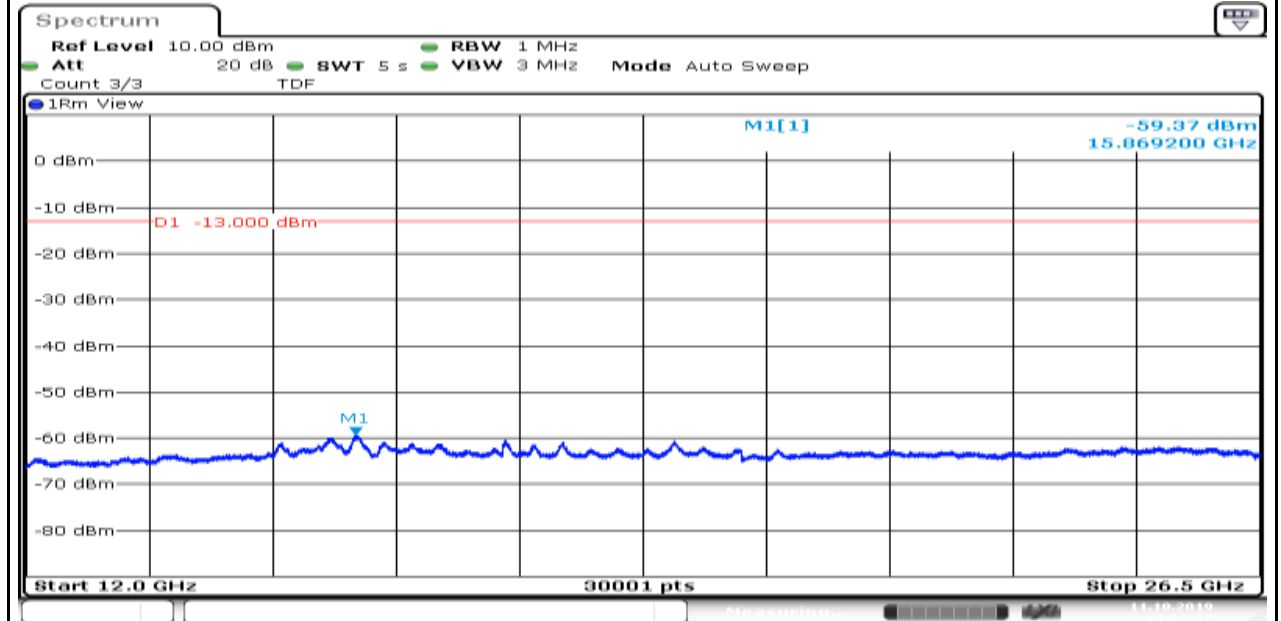


Band26_1.4MHz_QPSK_26697_1_0_Low_1000_5000

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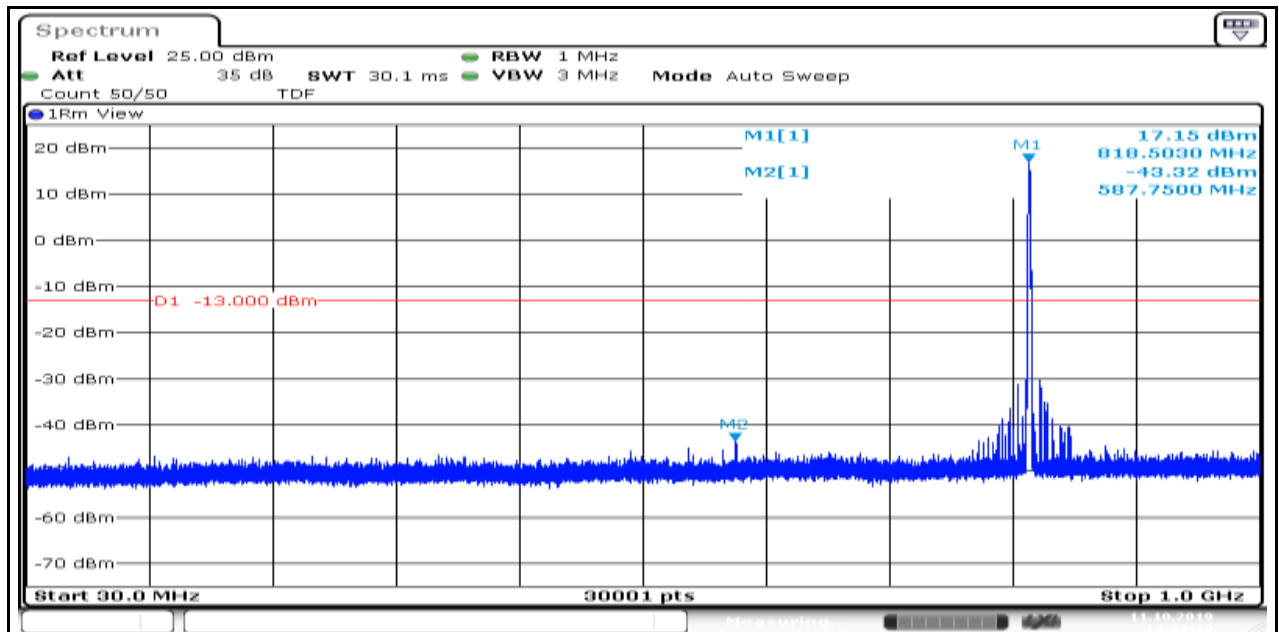


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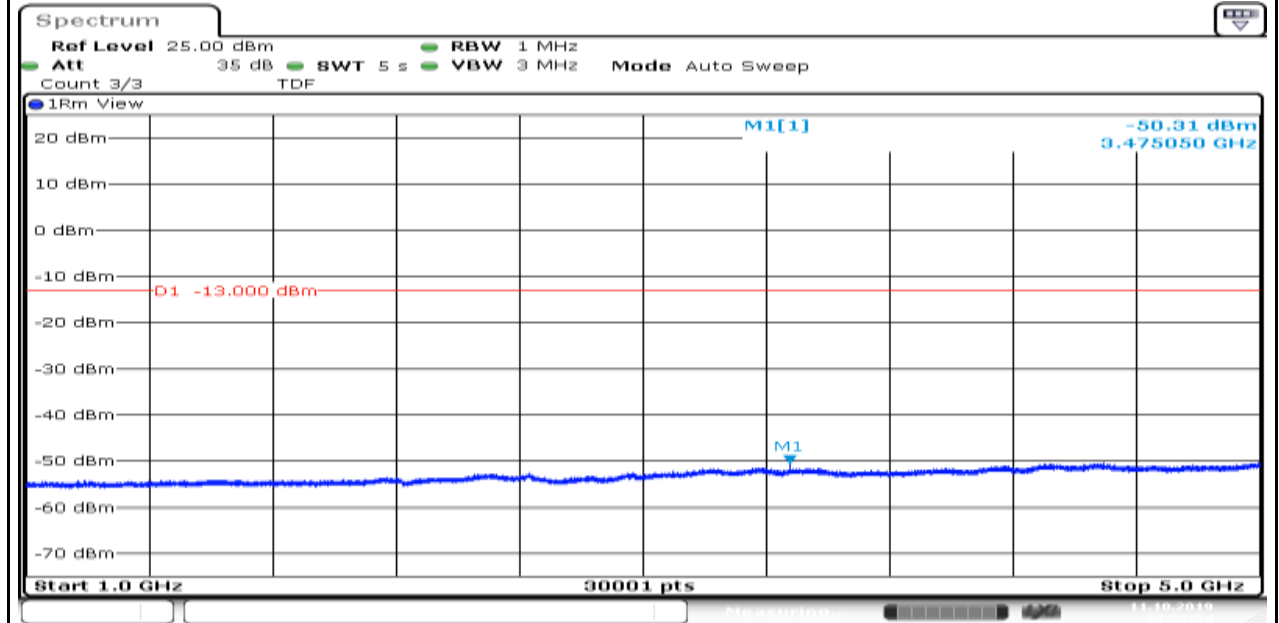


Band26_1.4MHz_QPSK_26740_1_0_Low_30_1000

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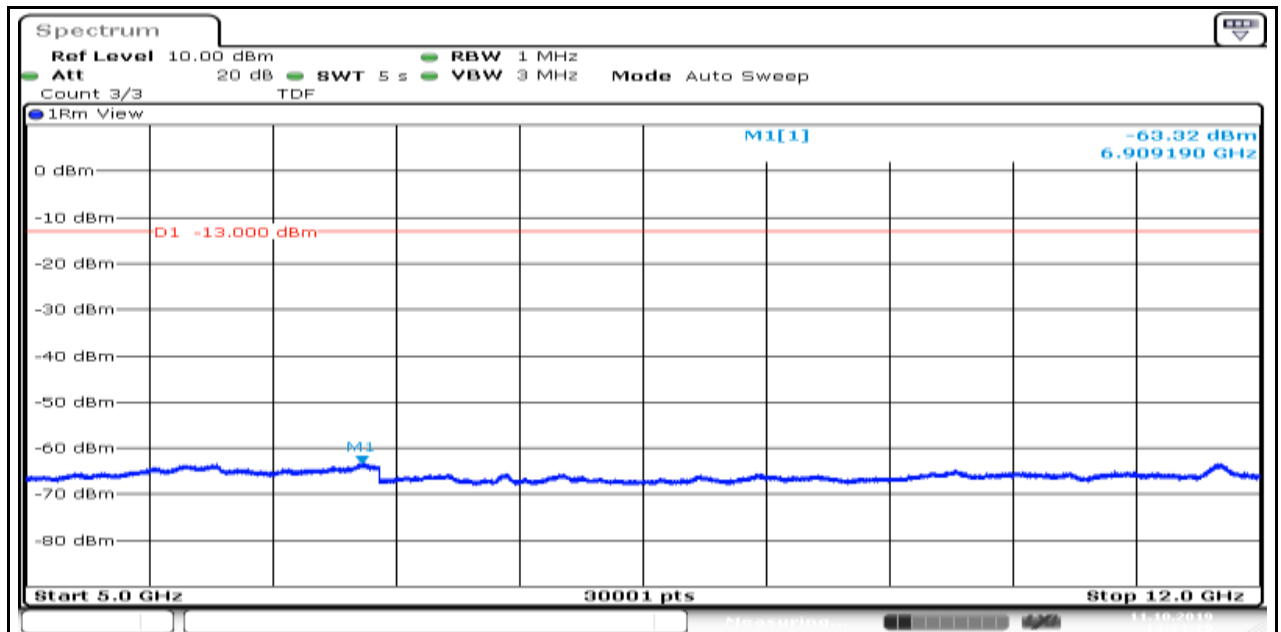


Band26_1.4MHz_QPSK_26740_1_0_Low_1000_5000

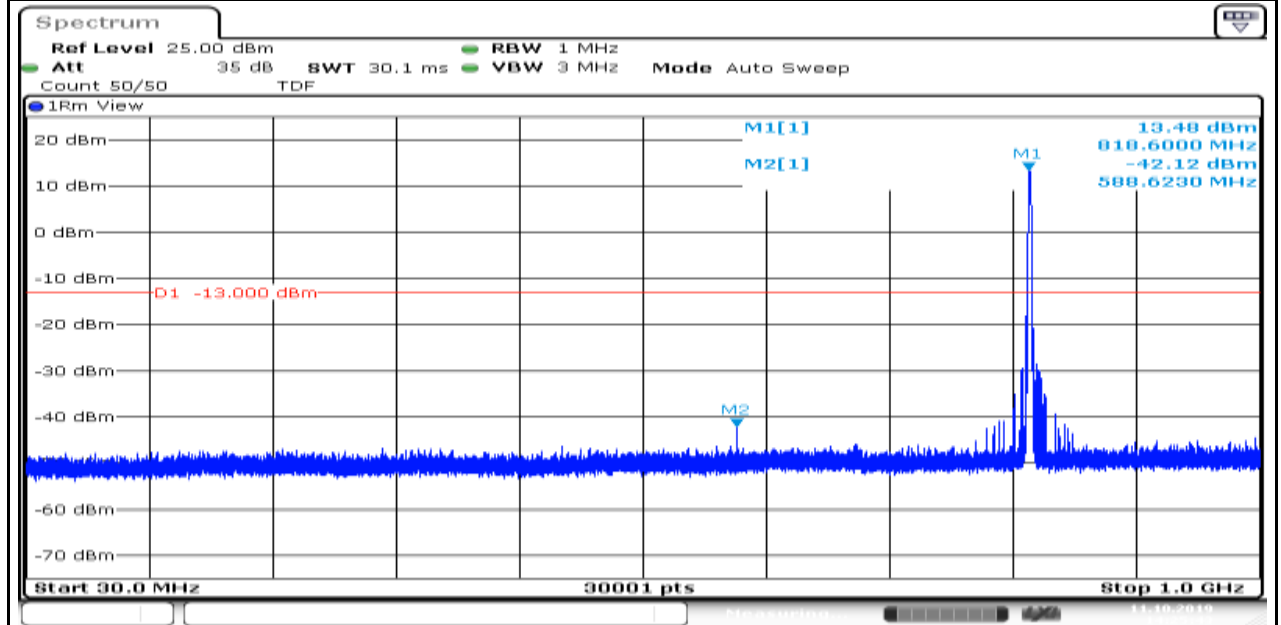


Band26_1.4MHz_QPSK_26740_1_0_Low_5000_12000

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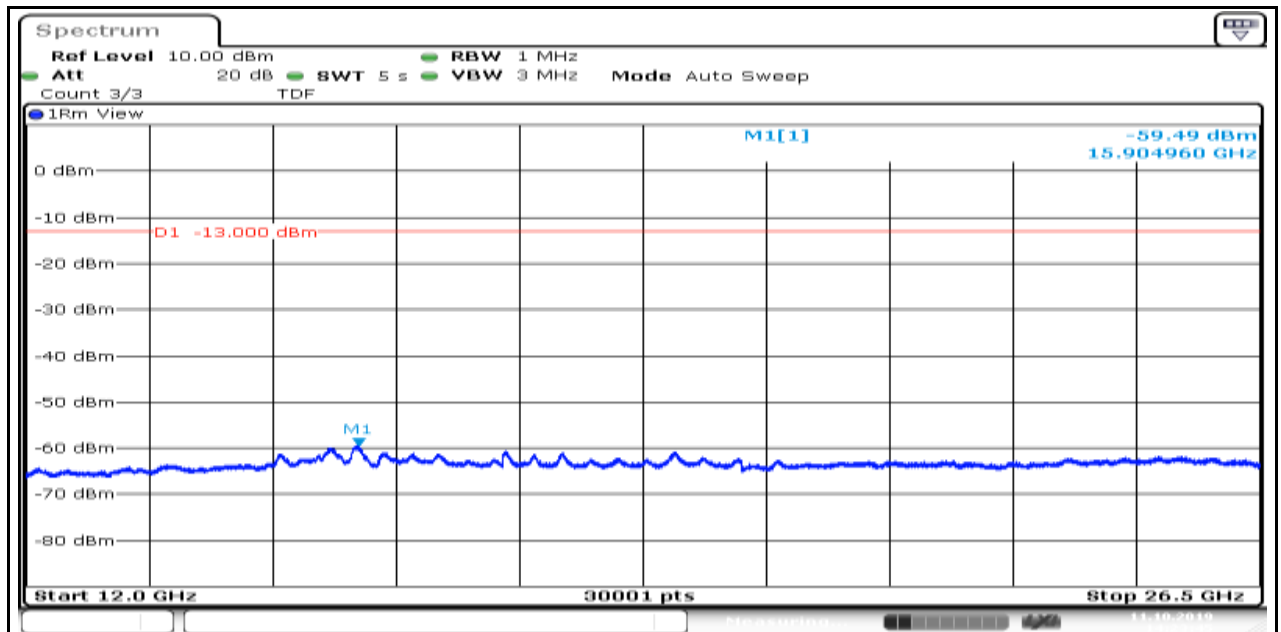


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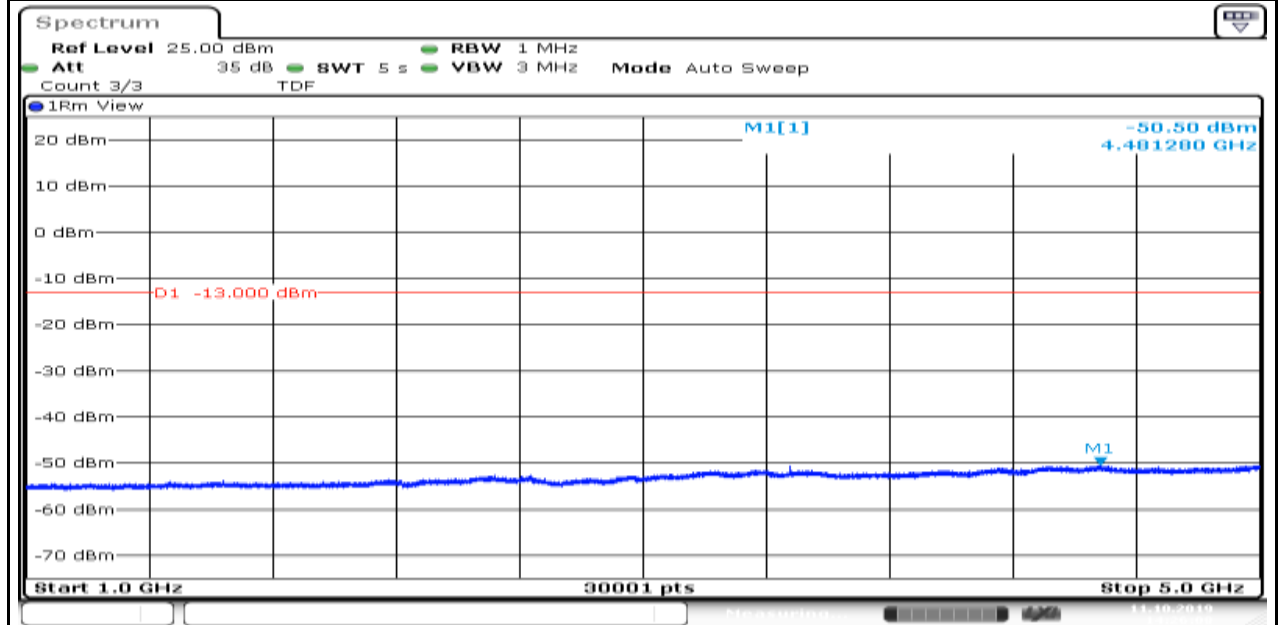
Band26_1.4MHz_QPSK_26740_1_0_Low_12000_26500

Produkte
Products



Date: 11.OCT.2019 14:23:45

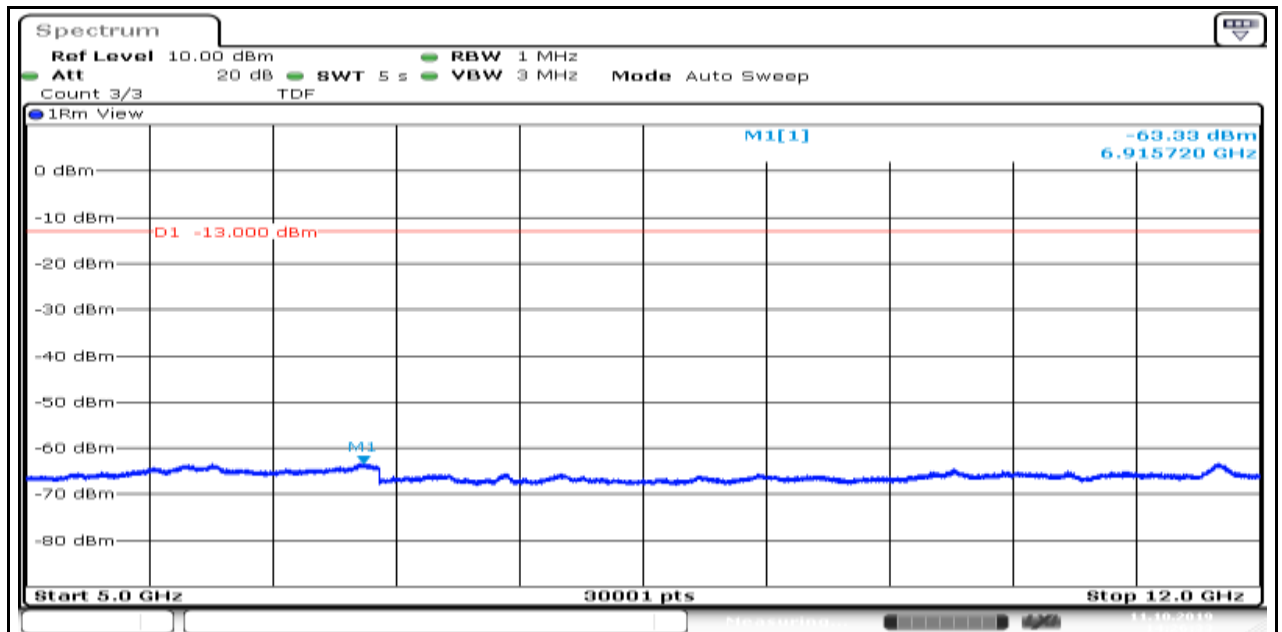
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Date: 11.OCT.2019 14:26:08

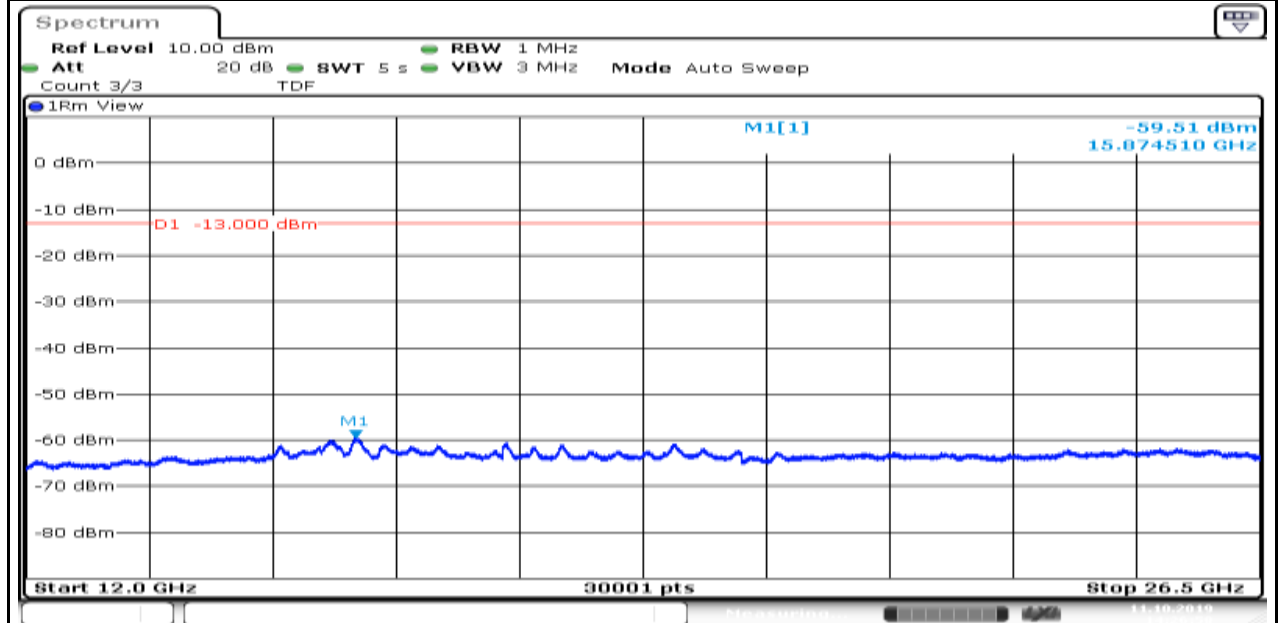
Band26_1.4MHz_QPSK_26740_6_0_Low_5000_12000

Produkte
Products



Date: 11.OCT.2019 14:26:33

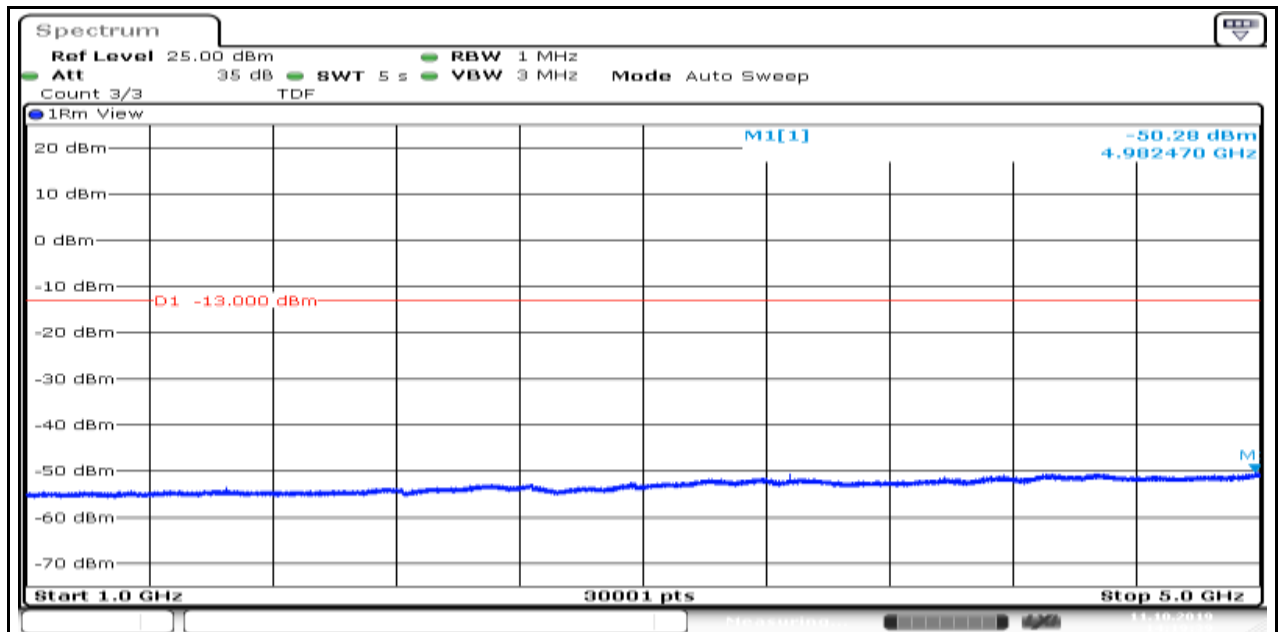
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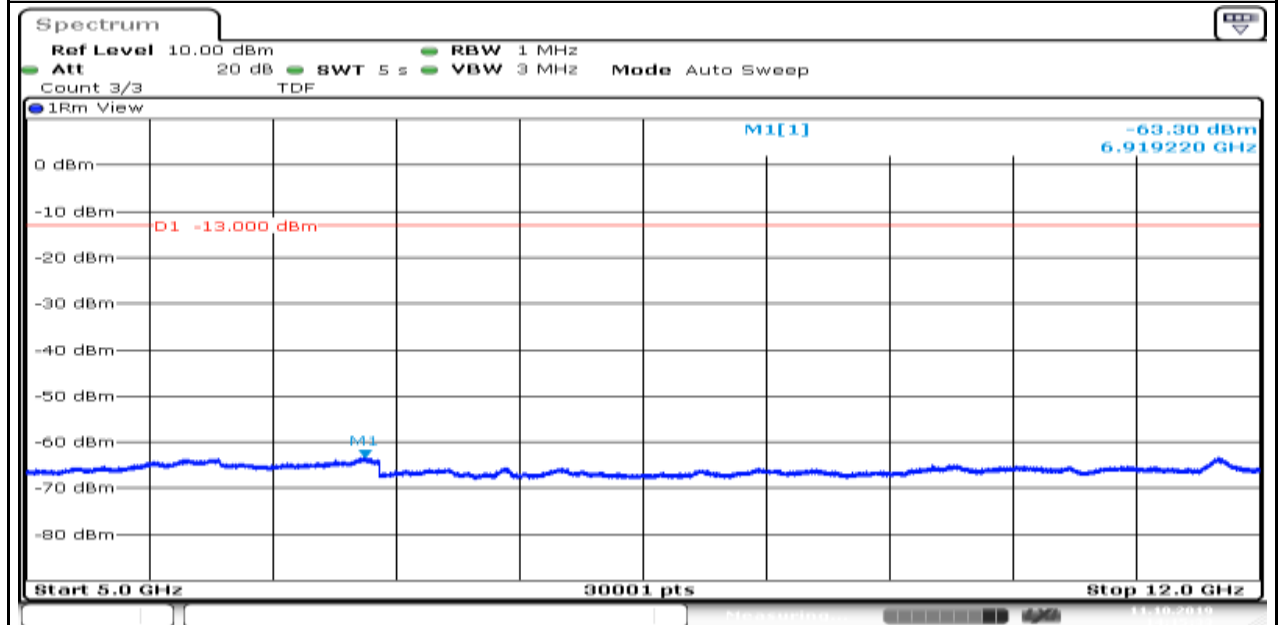
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Produkte
Products



Date: 11.OCT.2019 14:19:39

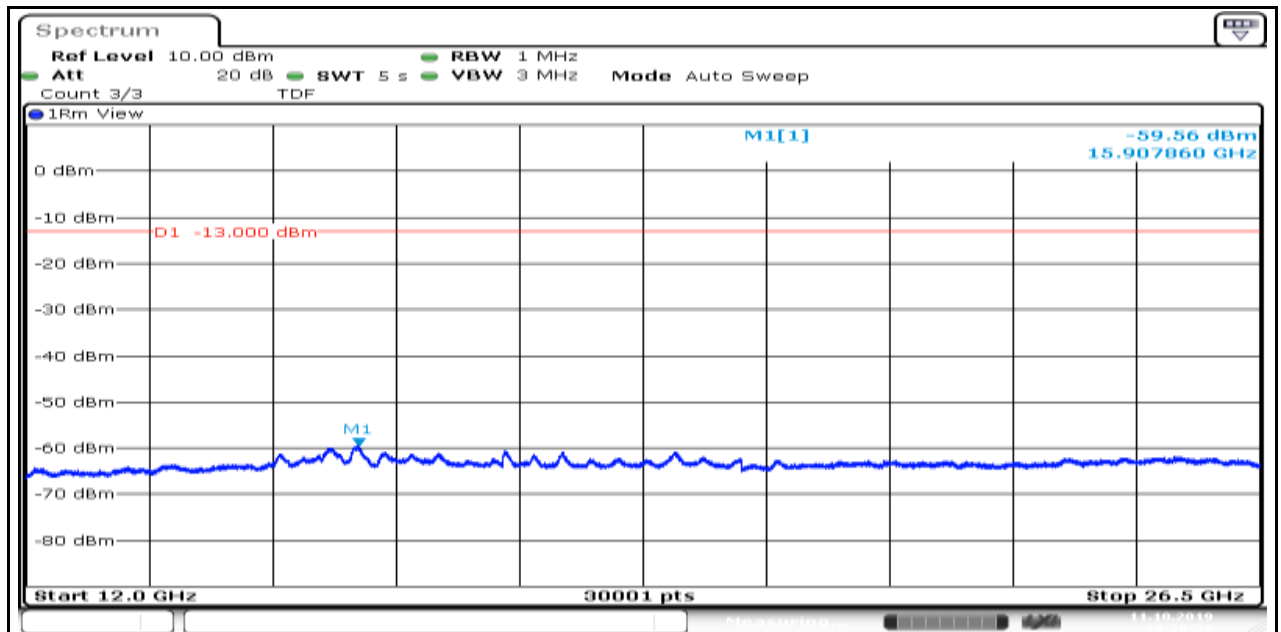
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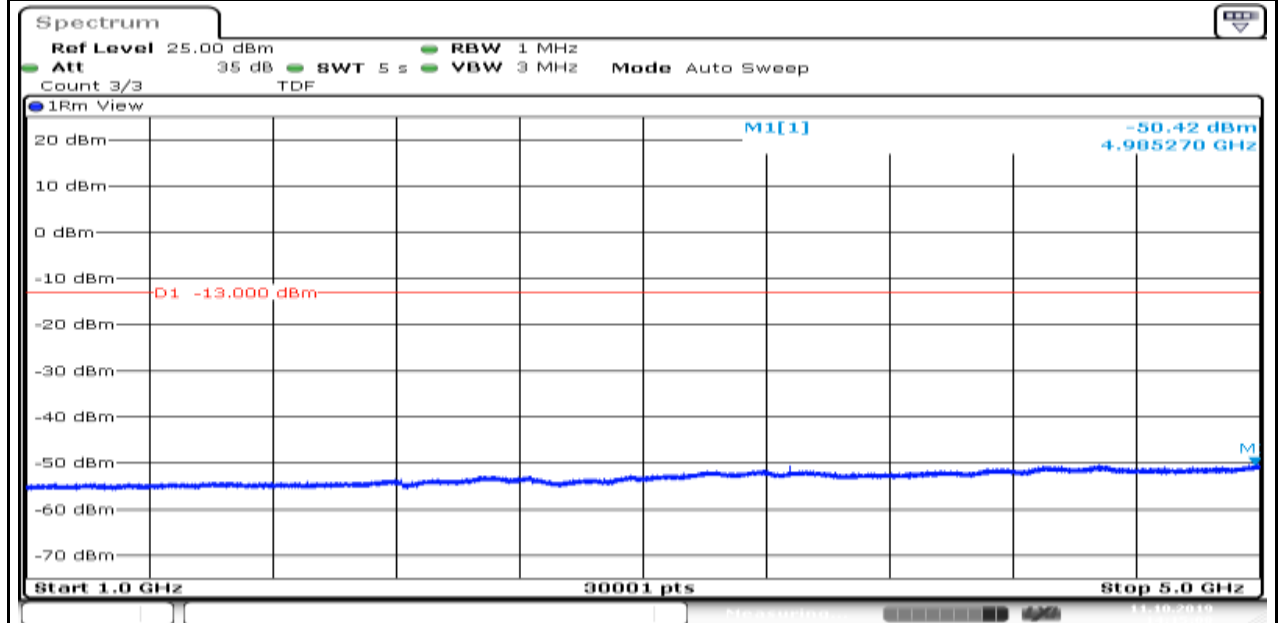
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Produkte
Products

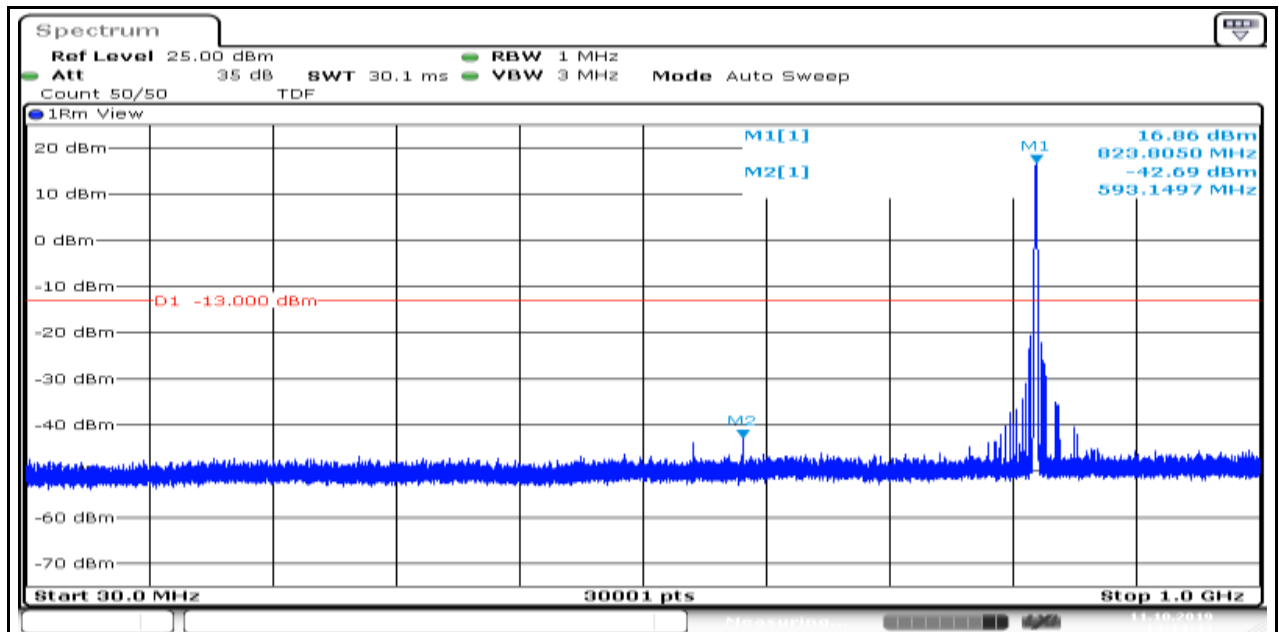


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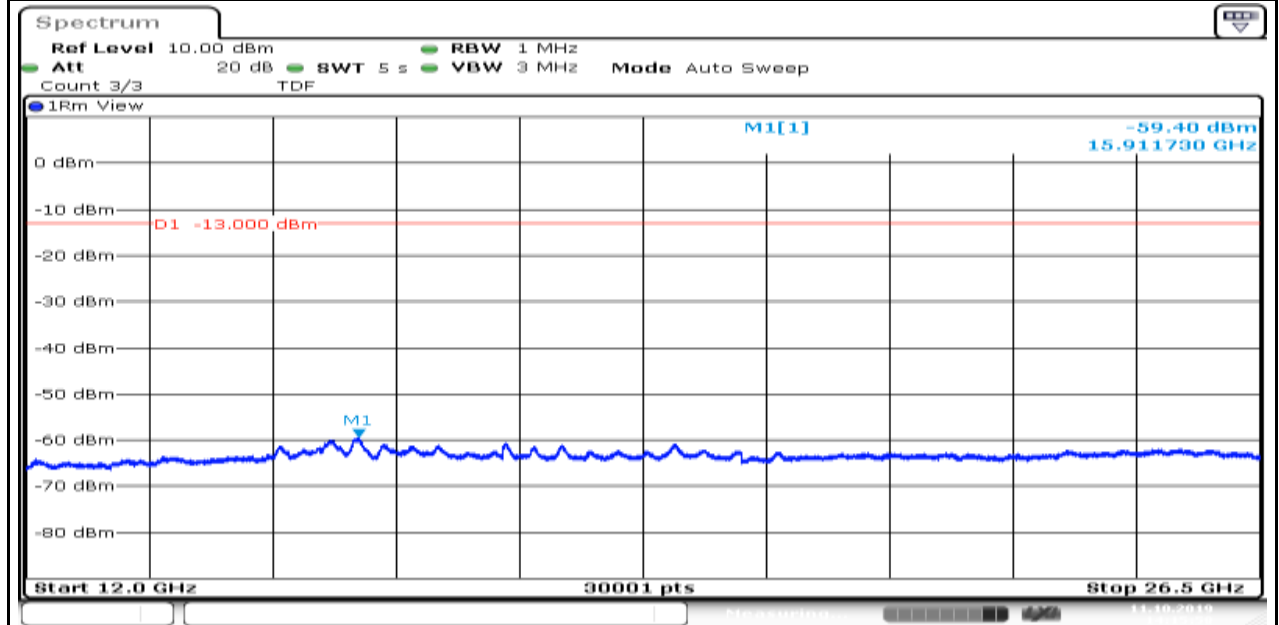


Band26_1.4MHz_QPSK_26783_1_5_Low_30_1000

Produkte
Products

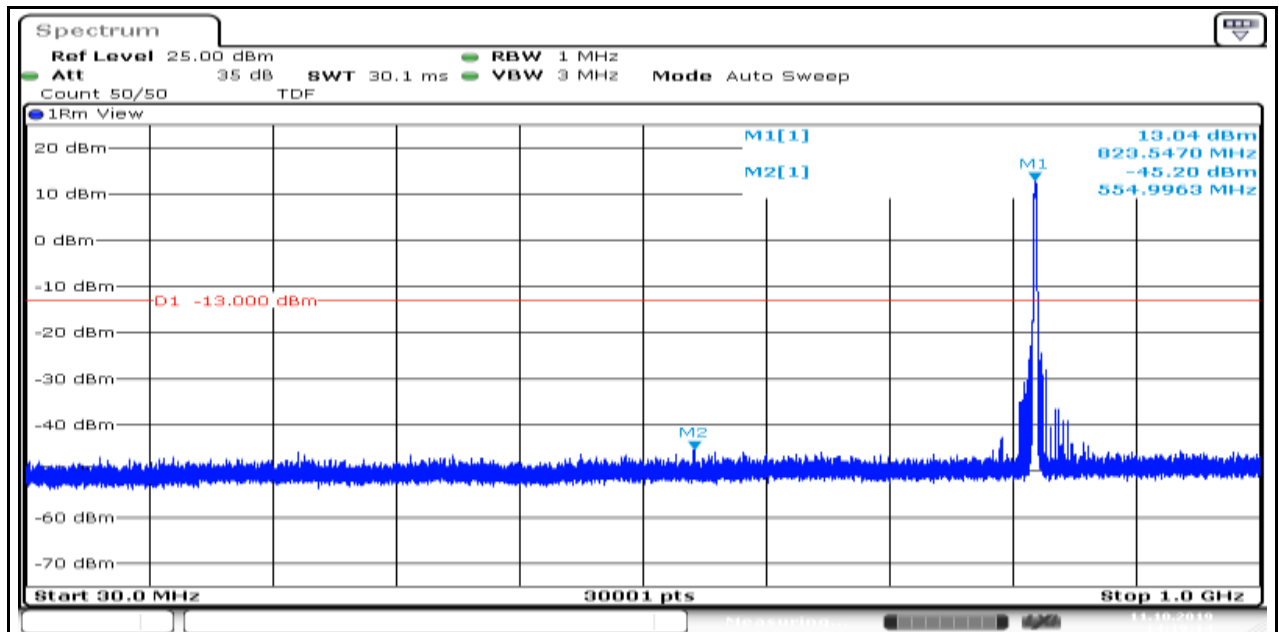


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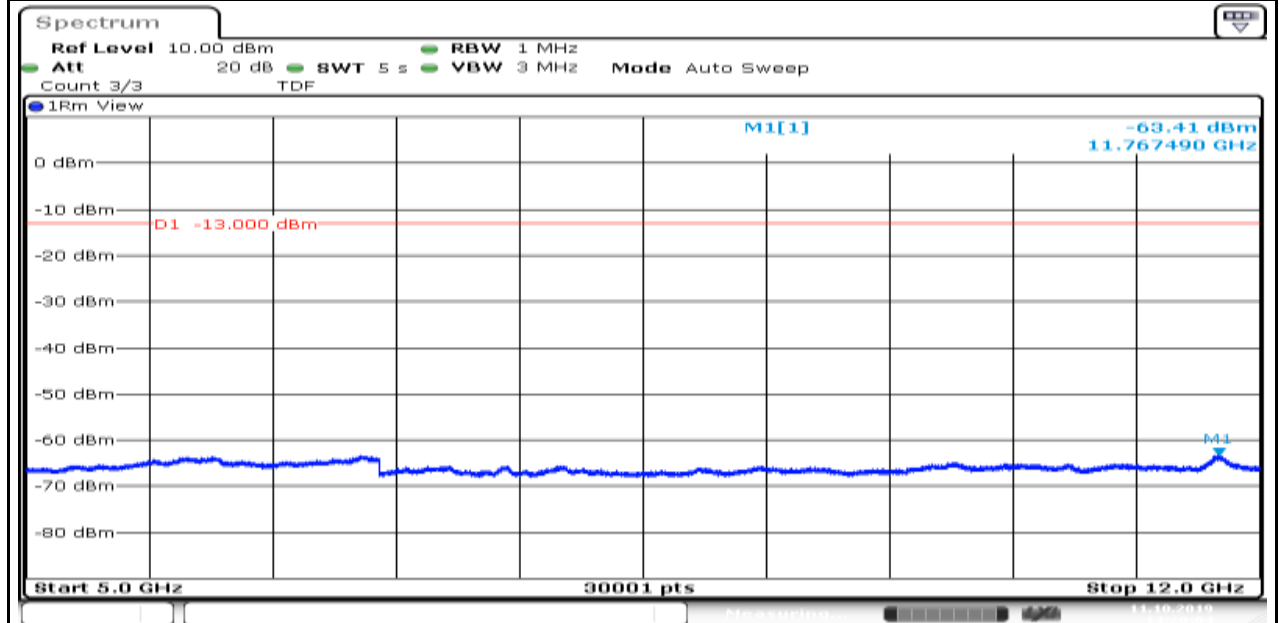


Band26_1.4MHz_QPSK_26783_6_0_Low_30_1000

Produkte
Products

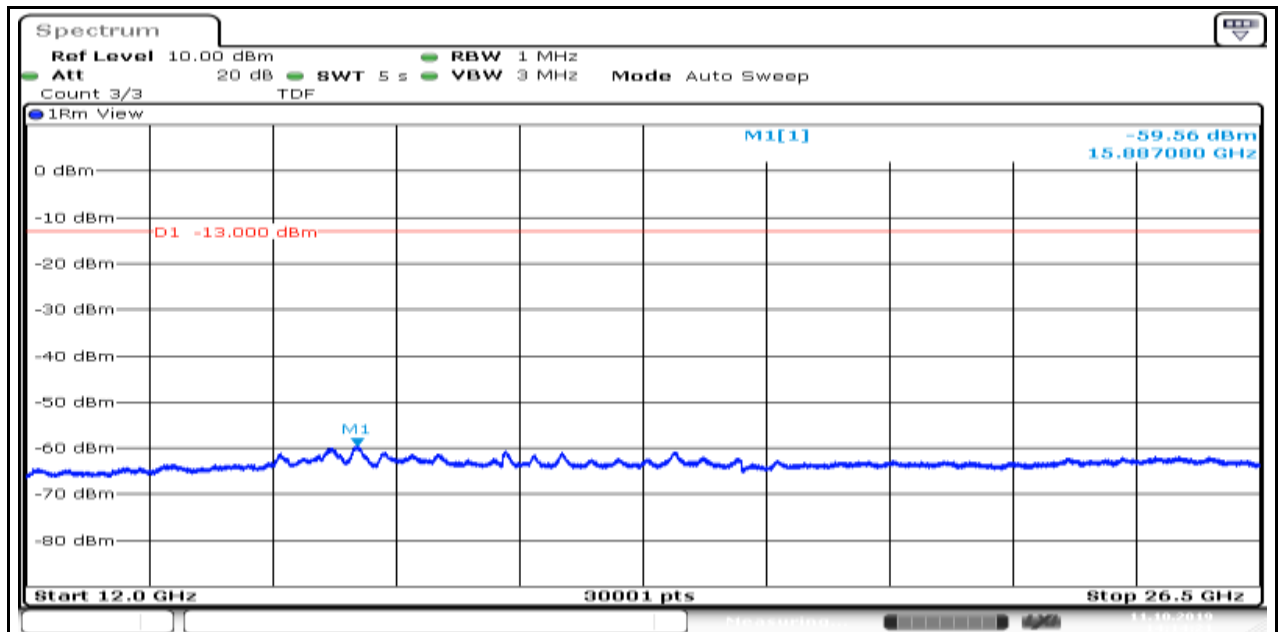


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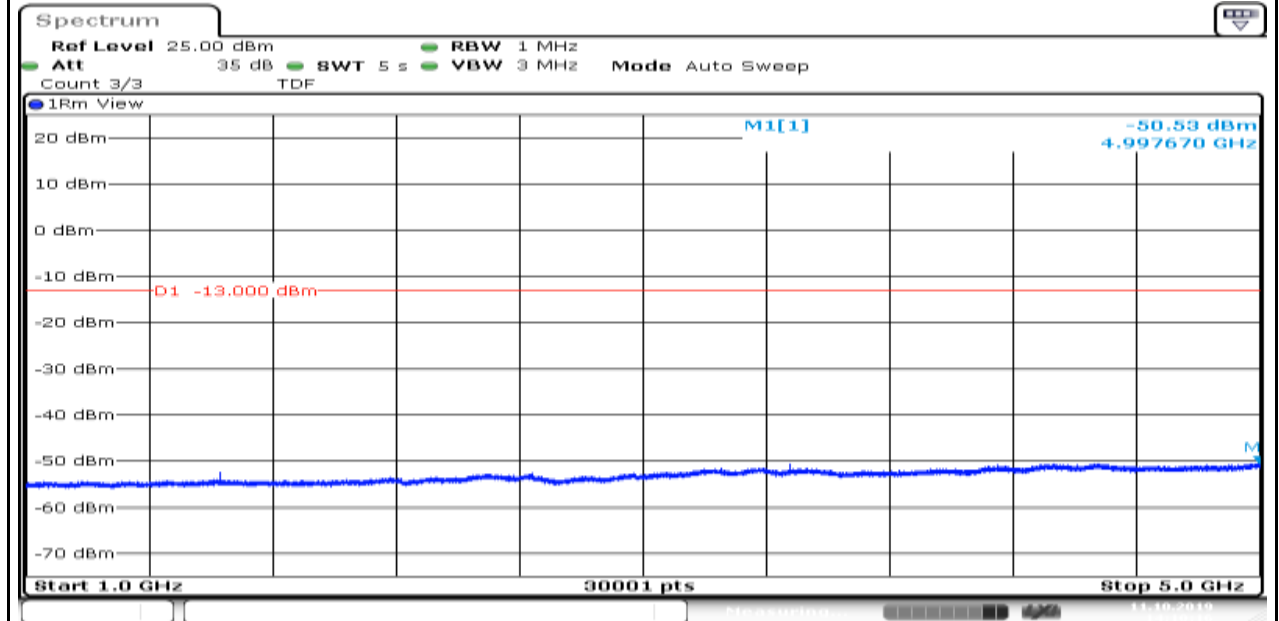


Band26_1.4MHz_16QAM_26697_6_0_Low_12000_26500

Produkte
Products

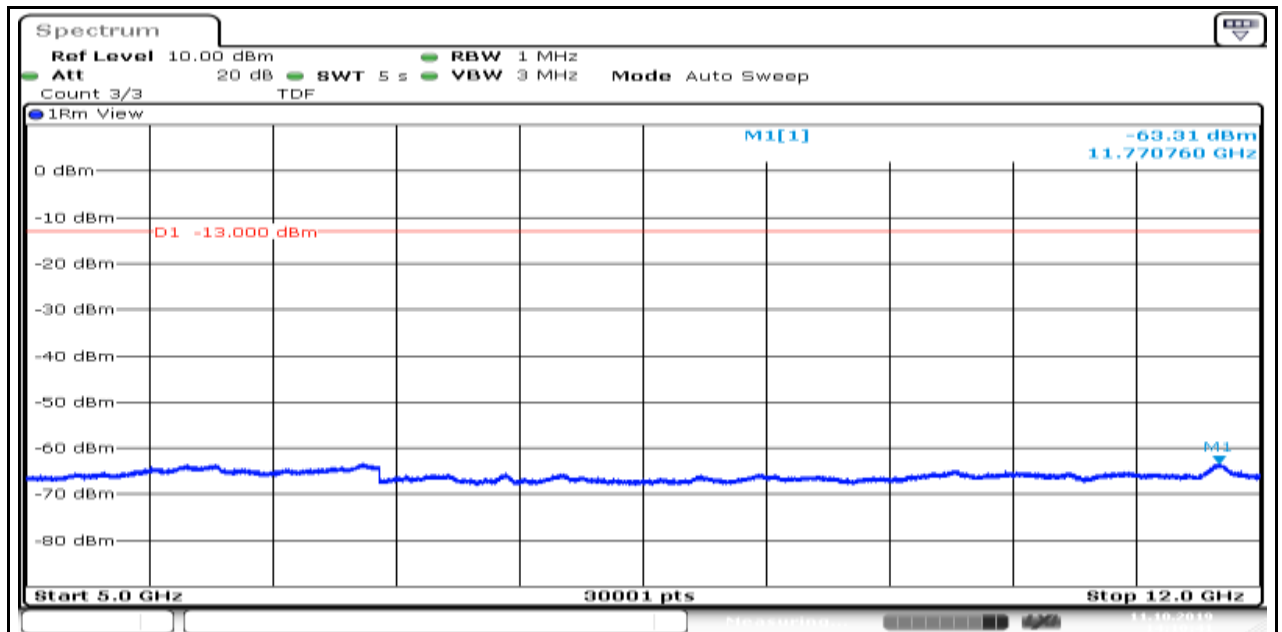


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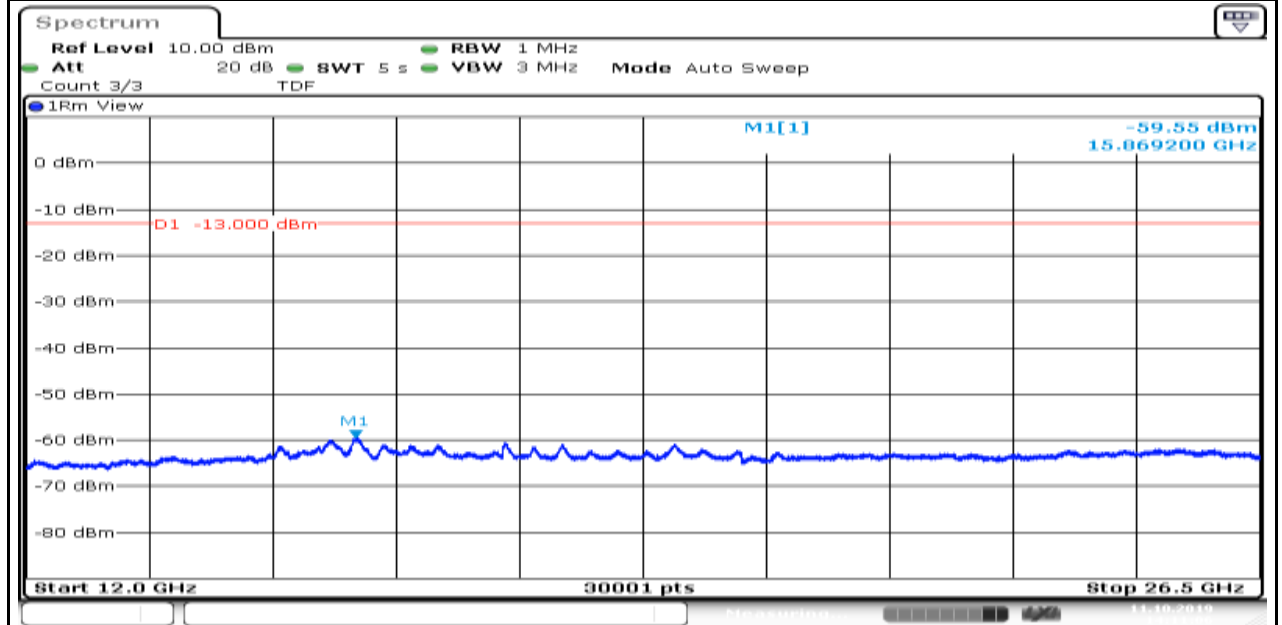
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Produkte
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Date: 11.OCT.2019 14:10:41

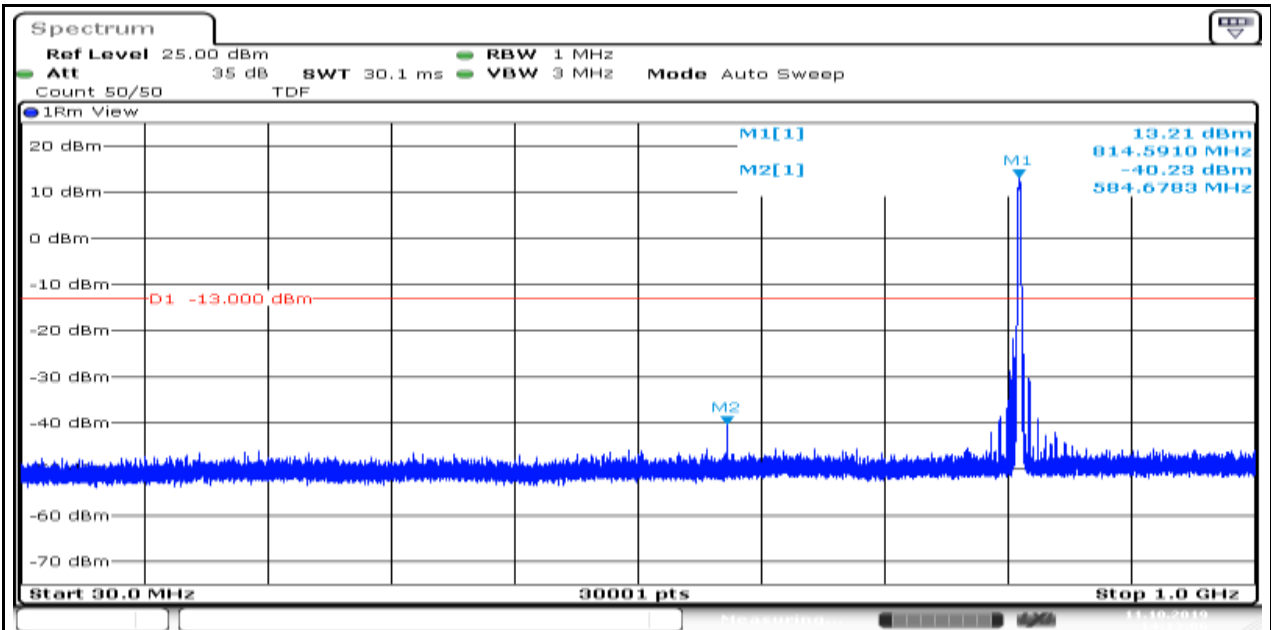
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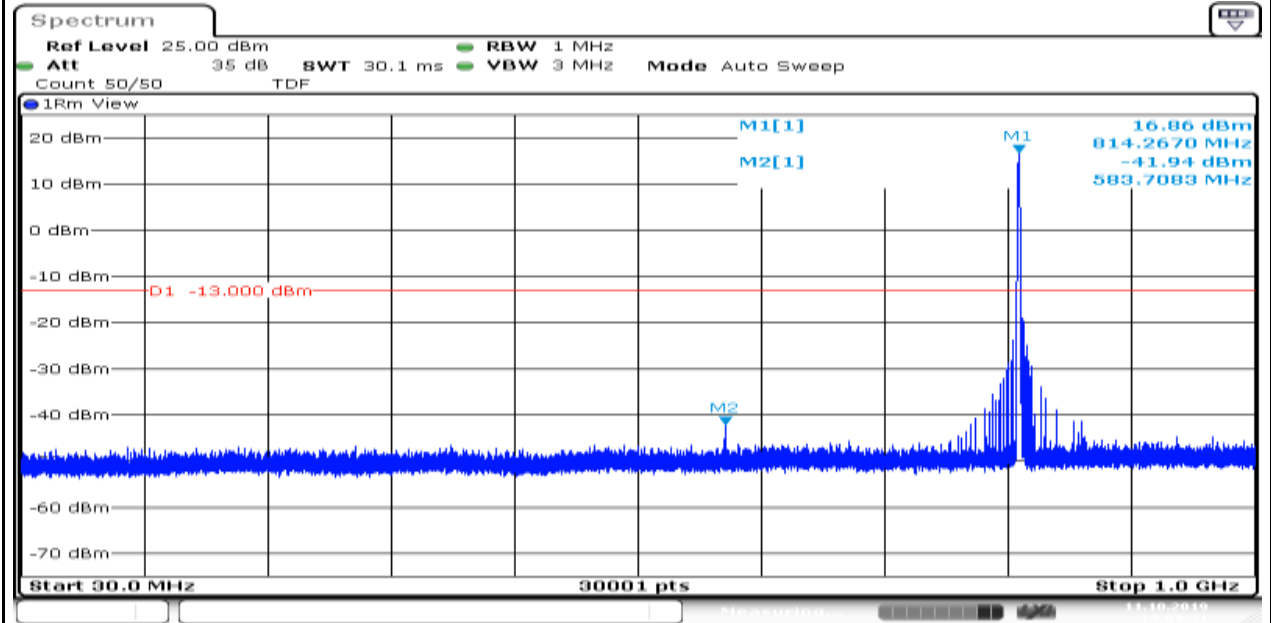
Date: 11.OCT.2019 14:11:06

Band26_1.4MHz_16QAM_26697_6_0_Low_30_1000

Produkte
 Products

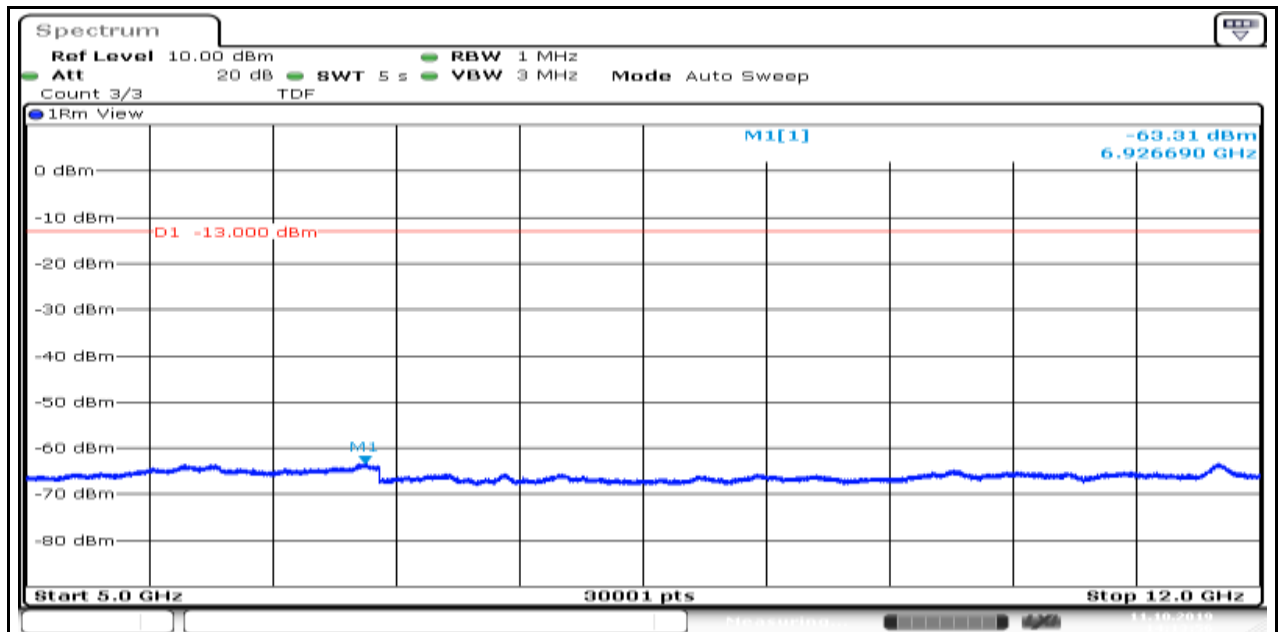


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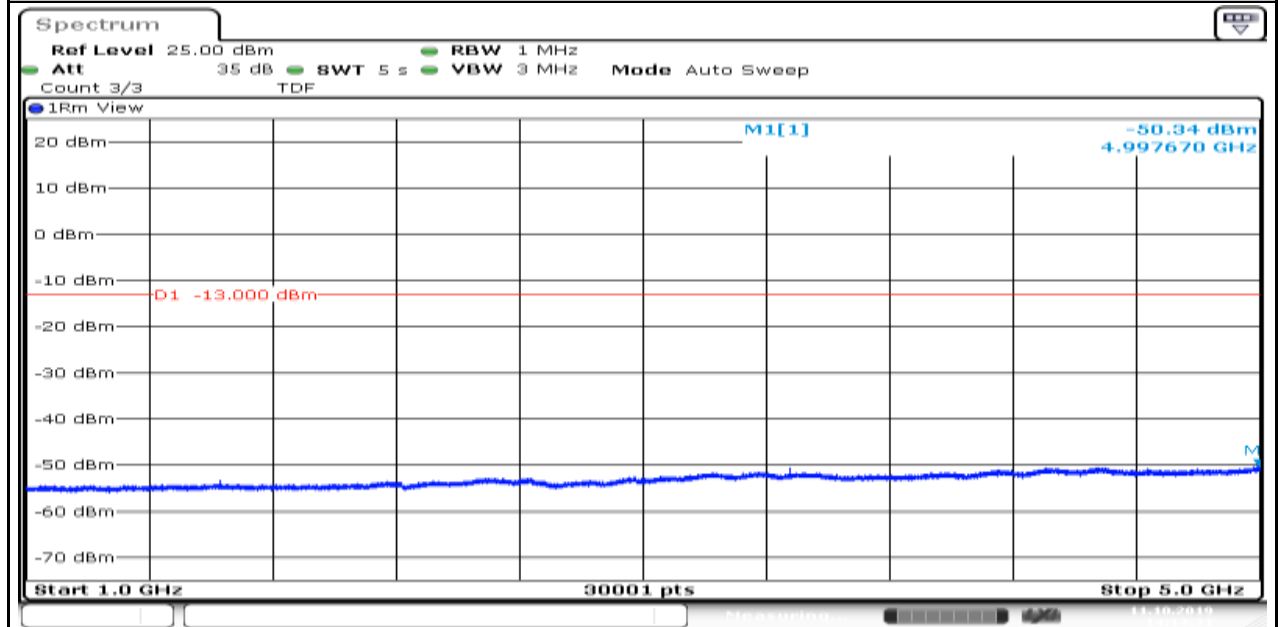


Band26_1.4MHz_16QAM_26697_6_0_Low_5000_12000

Produkte
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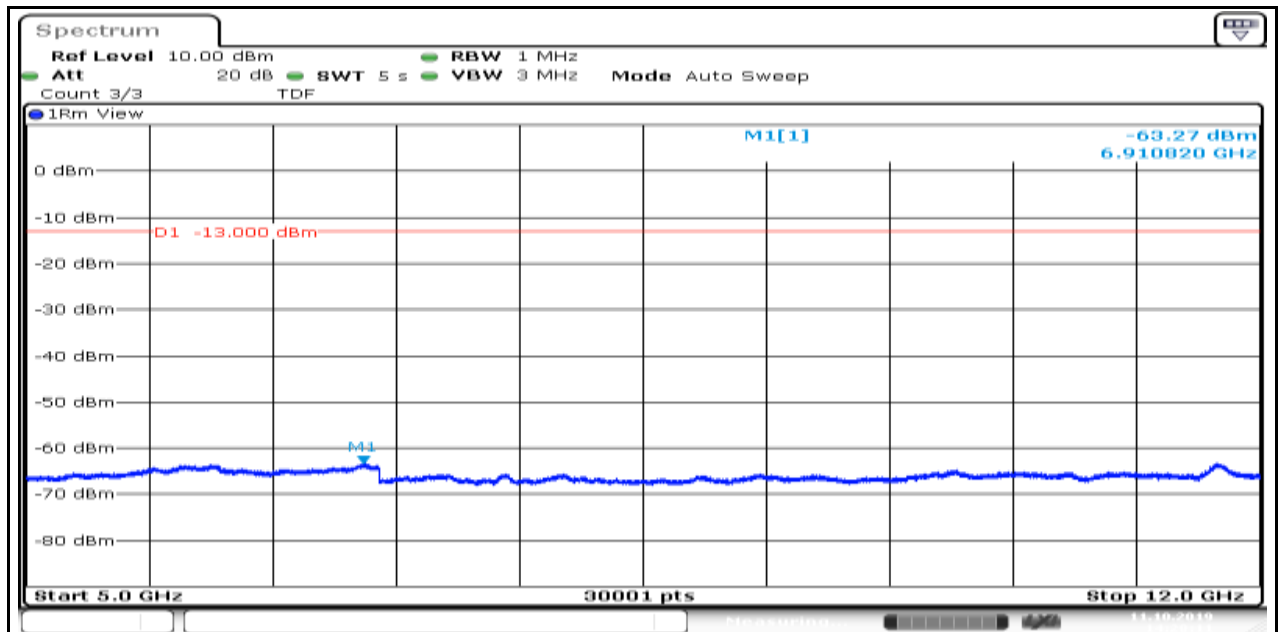


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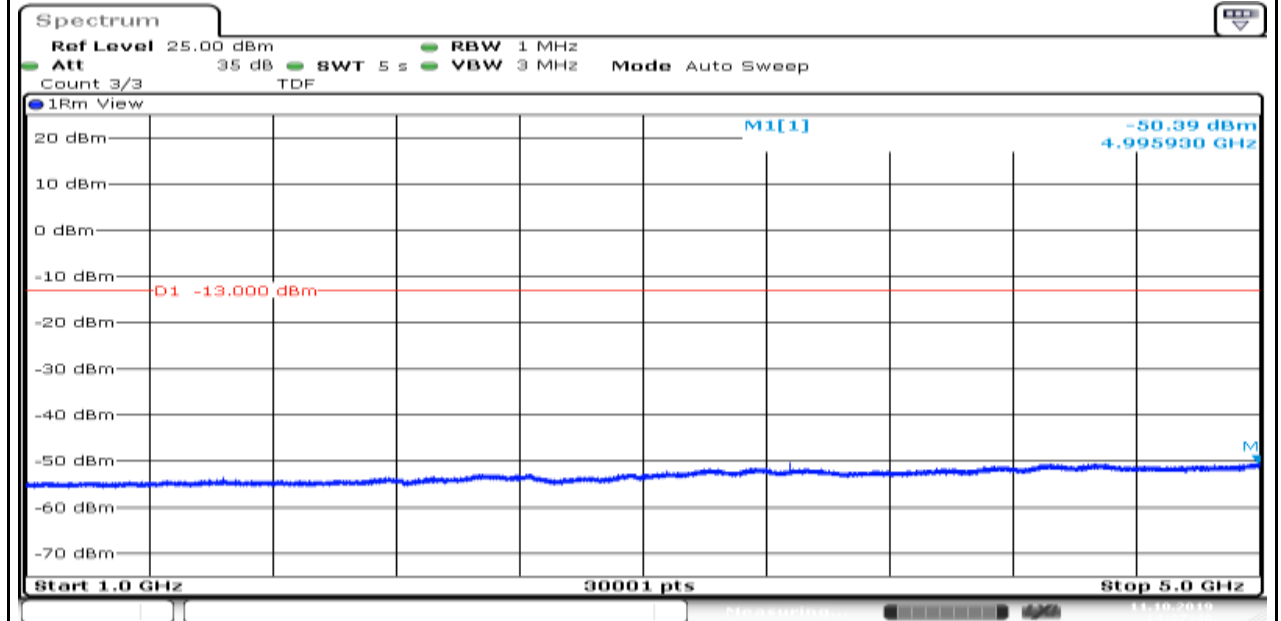


Band26_1.4MHz_16QAM_26740_6_0_Low_5000_12000

Produkte
Products

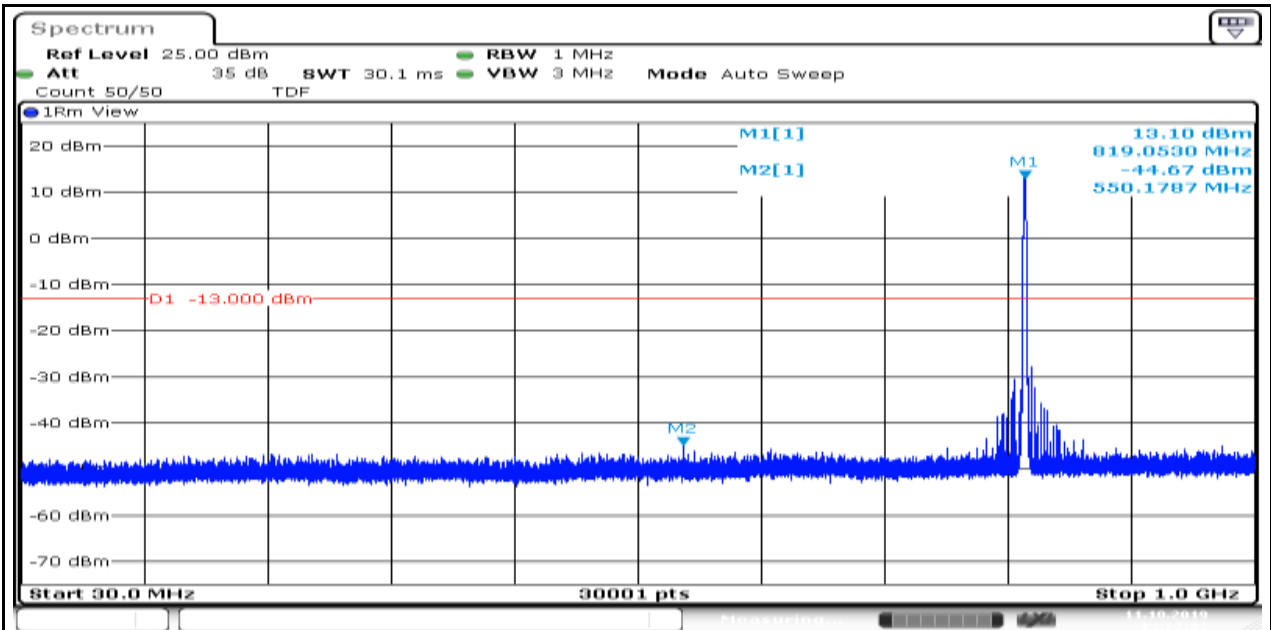


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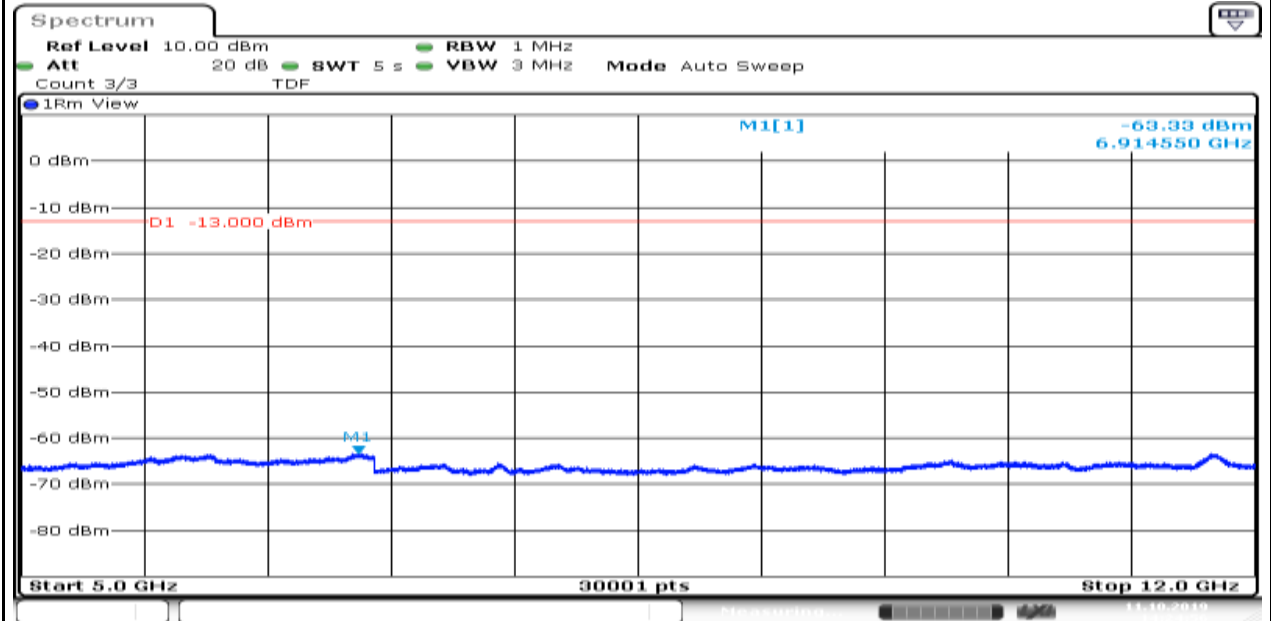
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Produkte
 Products



Date: 11.OCT.2019 14:27:20

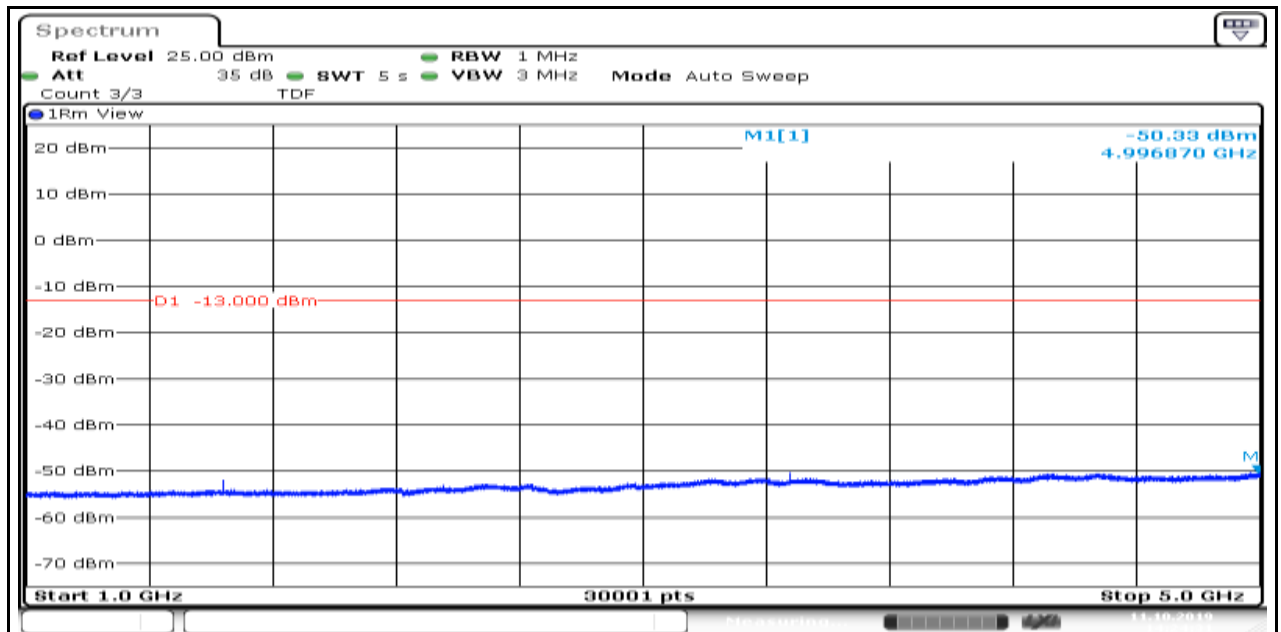
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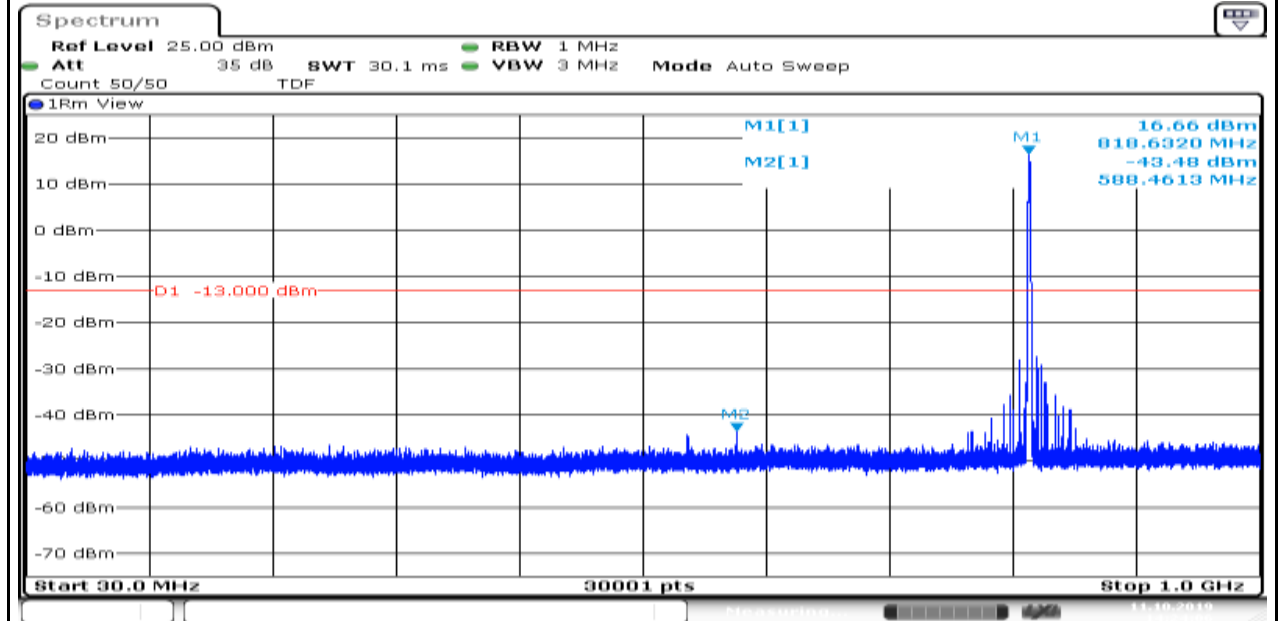
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Produkte
 Products



Date: 11.OCT.2019 14:24:31

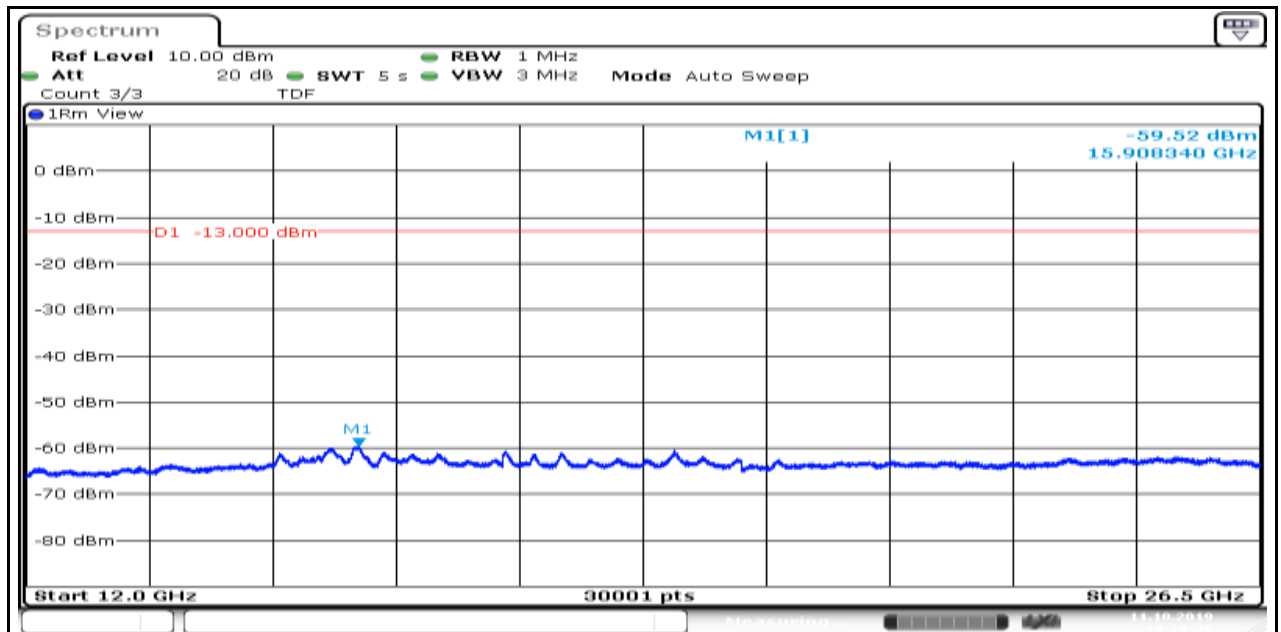
Band26_1.4MHz_16QAM_26740_1_0_Low_30_1000



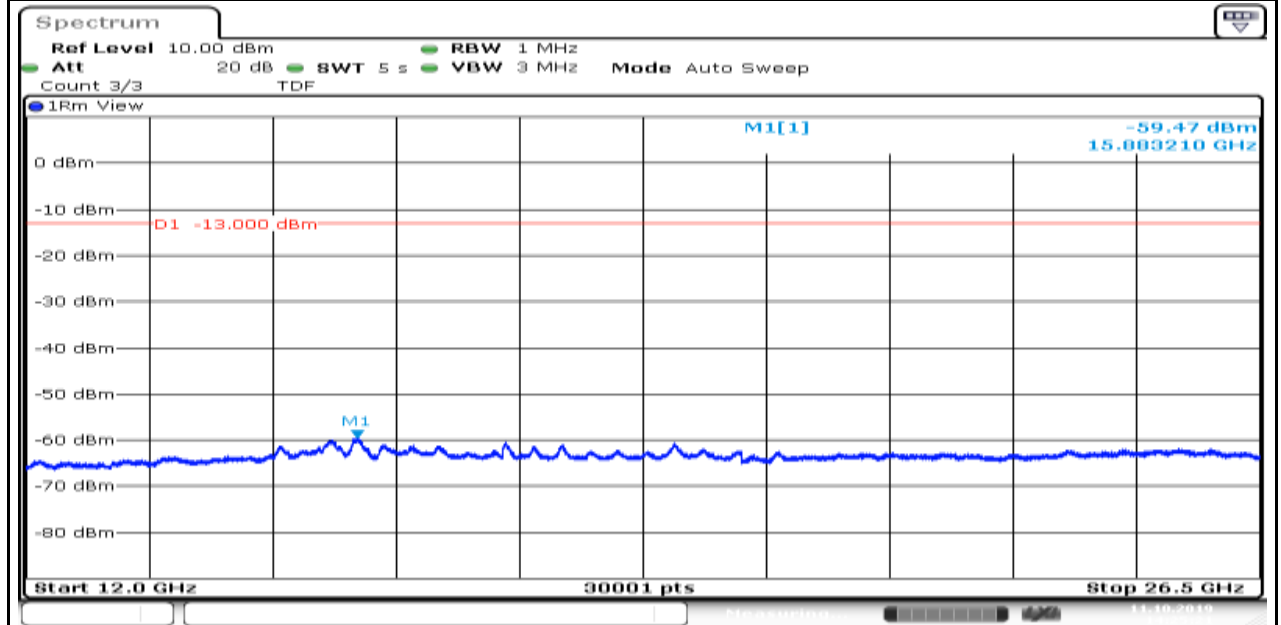
Date: 11.OCT.2019 14:24:06

Band26_1.4MHz_16QAM_26740_6_0_Low_12000_26500

Produkte
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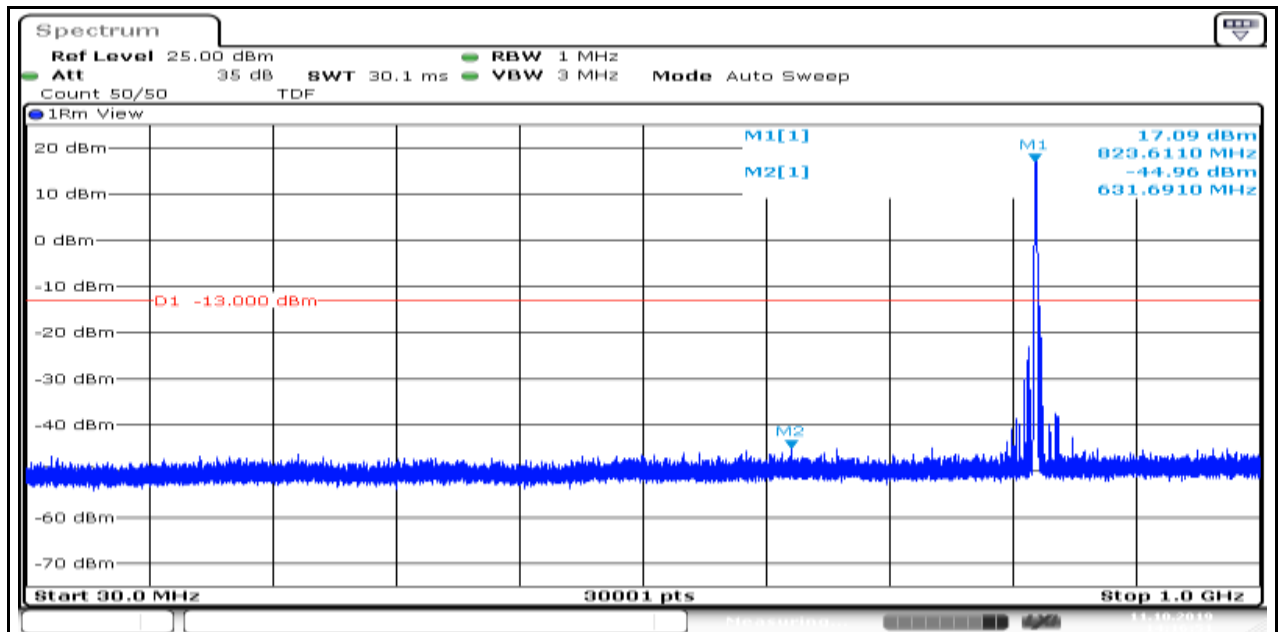


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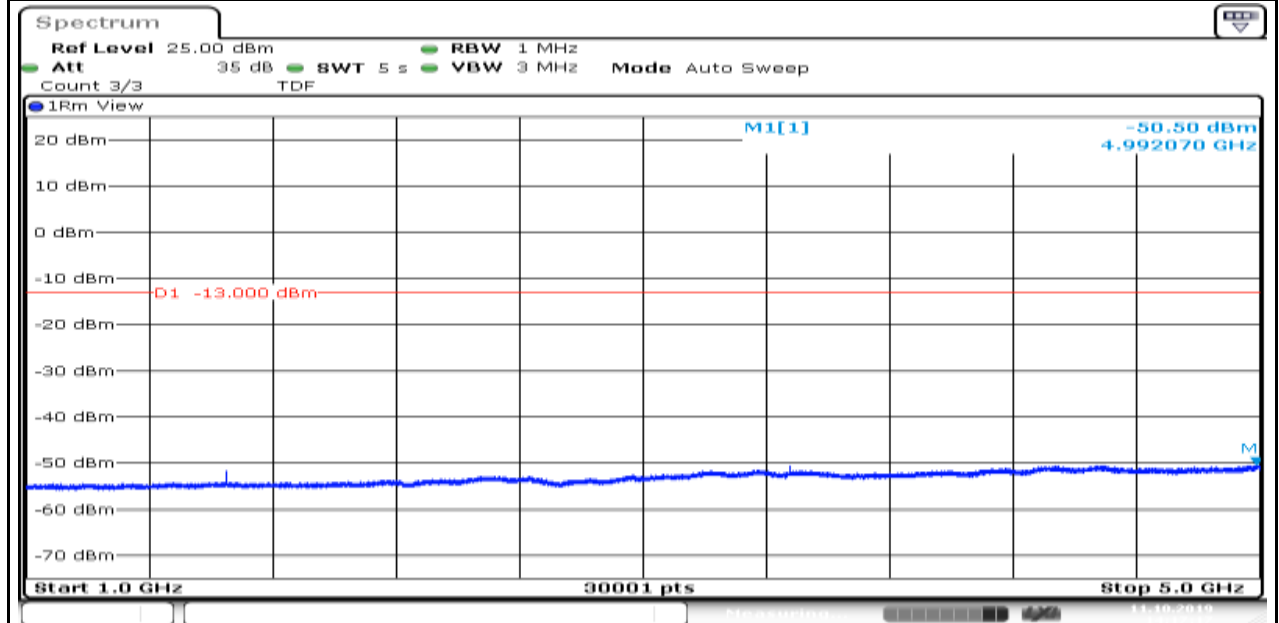


Band26_1.4MHz_16QAM_26783_1_5_Low_30_1000

Produkte
Products

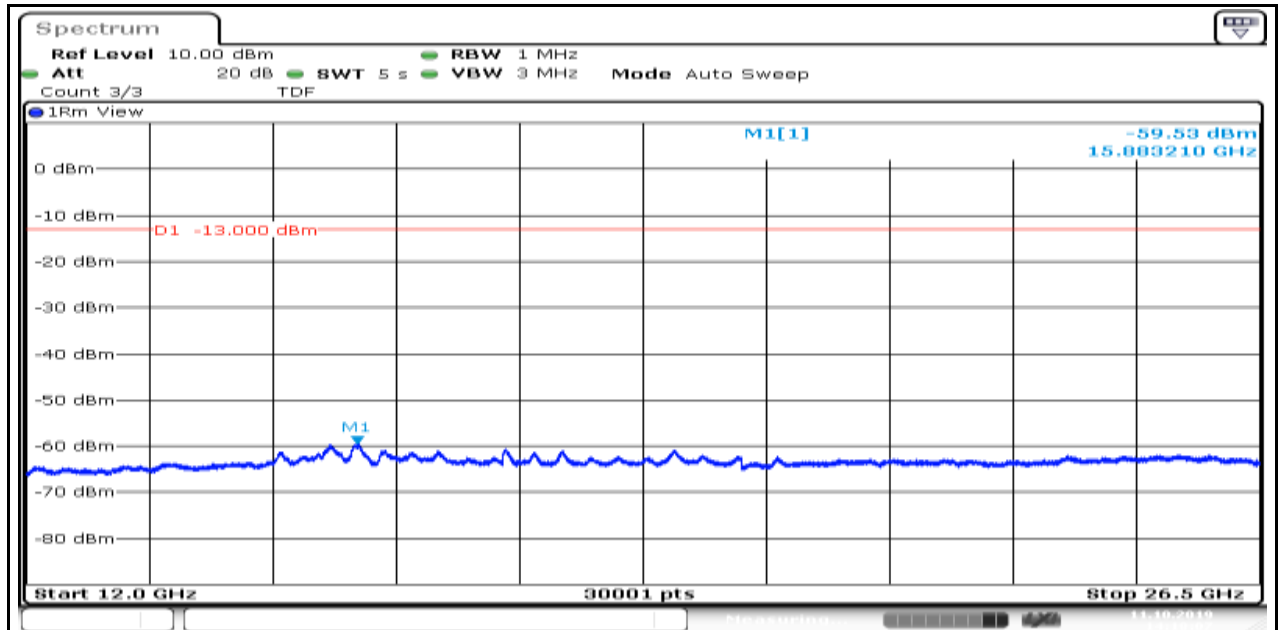


Band26_1.4MHz_16QAM_26783_1_5_Low_1000_5000

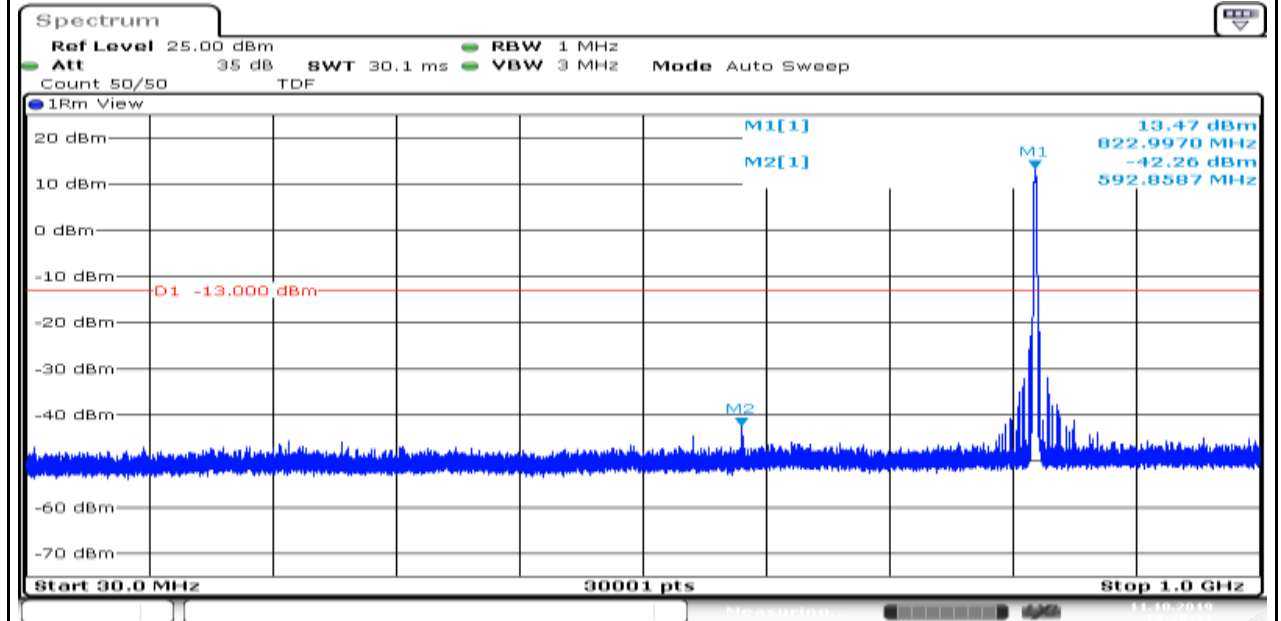


Band26_1.4MHz_16QAM_26783_1_5_Low_12000_26500

Produkte
Products

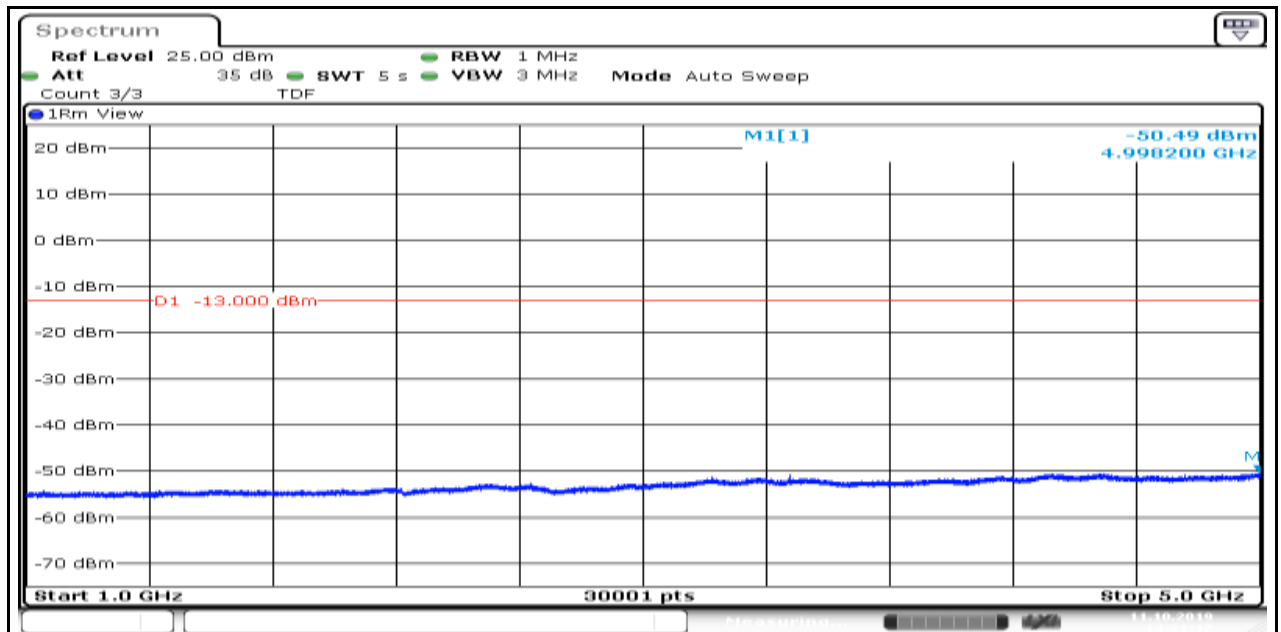


Band26_1.4MHz_16QAM_26783_6_0_Low_30_1000

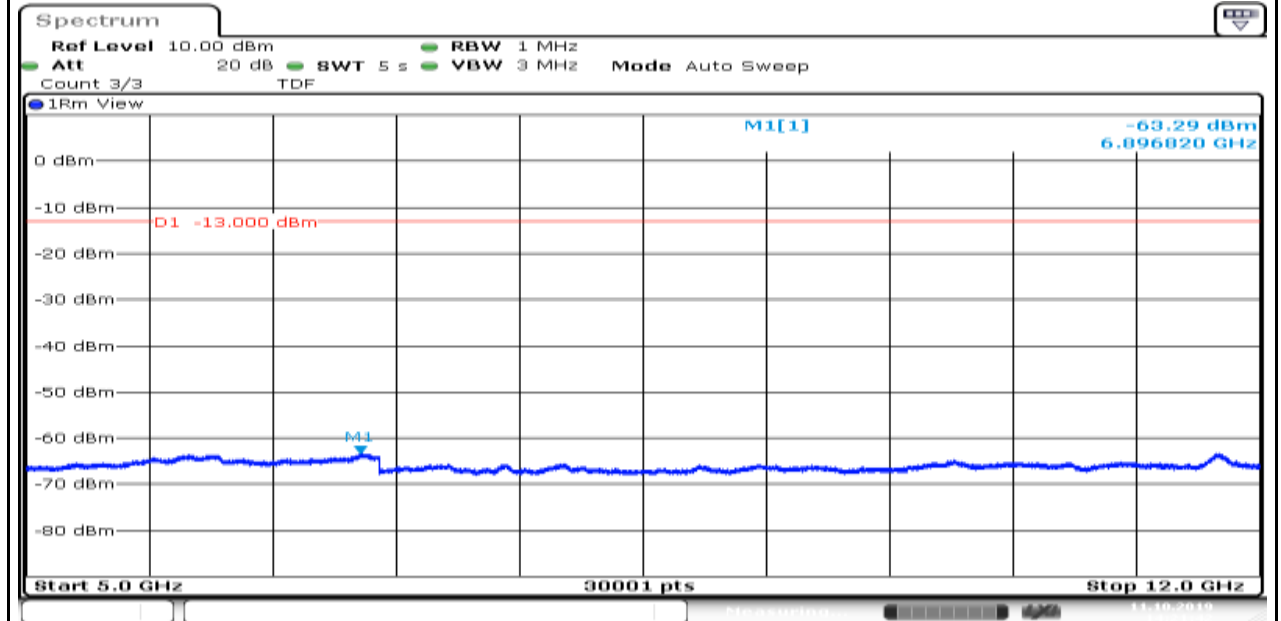


Band26_1.4MHz_16QAM_26783_6_0_Low_1000_5000

Produkte
Products

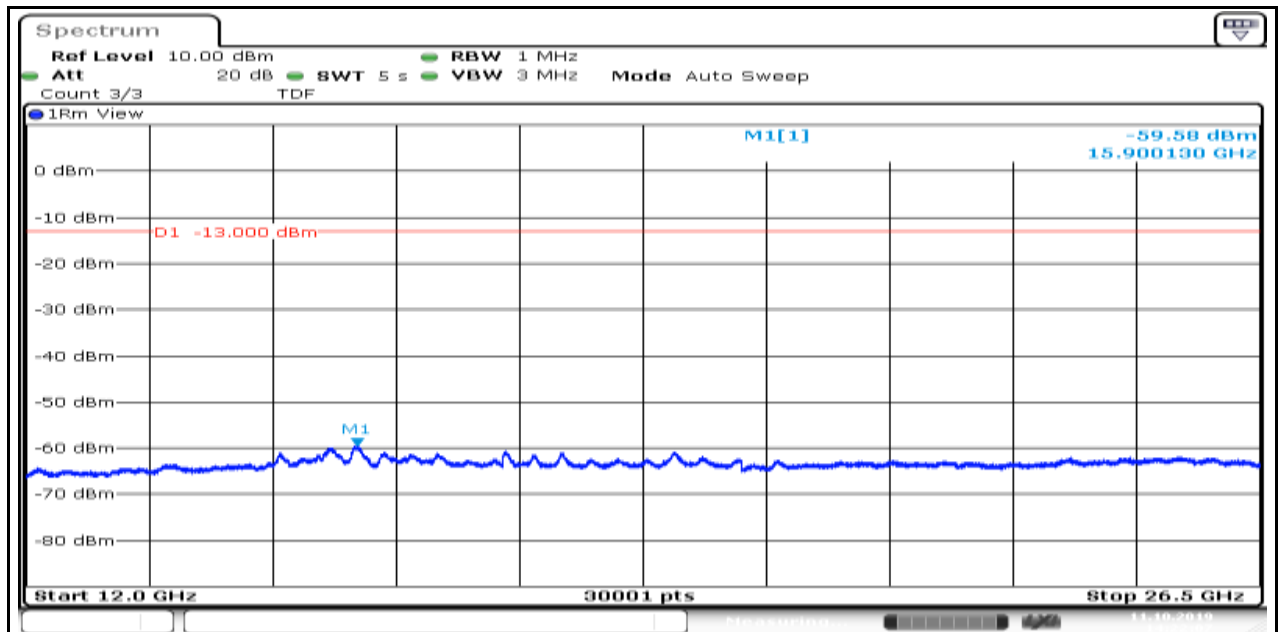


Band26_1.4MHz_16QAM_26783_6_0_Low_5000_12000



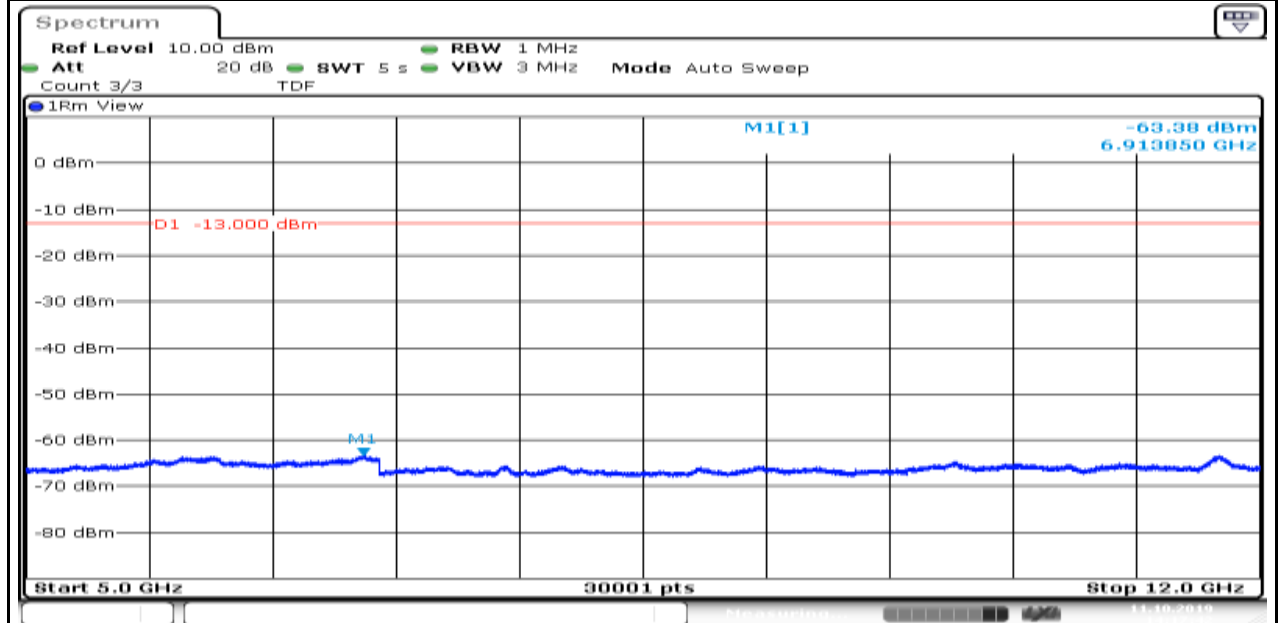
Band26_1.4MHz_16QAM_26783_6_0_Low_12000_26500

Produkte
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Date: 11.OCT.2019 14:22:07

Band26_1.4MHz_16QAM_26783_1_5_Low_5000_12000



Date: 11.OCT.2019 14:17:41

Appendix G.6: Frequency Stability for M1 Test Result

Voltage												
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band26	1.4MHz	QPSK	26740	1	0	Low	HV	NT	-33.75	-0.041209	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	LV	NT	-36.12	-0.044103	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	NT	-32.22	-0.039341	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	HV	NT	-23.82	-0.029084	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	LV	NT	-23.59	-0.028803	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	NT	-21.46	-0.026203	±2.5	PASS

Temperature												
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	-20	-34.85	-0.042552	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	-10	-33.65	-0.041087	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	0	-34.15	-0.041697	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	10	-33.97	-0.041477	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	20	-34.75	-0.042430	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	30	-35.55	-0.043407	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	40	-35.51	-0.043358	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	50	-31.69	-0.038694	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	-30	-32.93	-0.040208	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	0	-26.28	-0.032088	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	-30	-25.79	-0.031490	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	-20	-26.39	-0.032222	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	-10	-27.17	-0.033175	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	10	-28.44	-0.034725	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	20	-27.67	-0.033785	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	30	-26.89	-0.032833	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	50	-29.08	-0.035507	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	40	-27.07	-0.033053	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	60	-36.08	-0.044054	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	70	-36.19	-0.044188	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	80	-36.54	-0.044615	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	85	-34.45	-0.042063	±2.5	PASS
Band26	1.4MHz	QPSK	26740	1	0	Low	NV	-40	-34.46	-0.042076	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	-40	-36.56	-0.044640	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	60	-10.03	-0.012247	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	70	-35.15	-0.042918	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	85	-38.05	-0.046459	±2.5	PASS
Band26	1.4MHz	16QAM	26740	1	0	Low	NV	80	-36.65	-0.044750	±2.5	PASS

Appendix H: Test Results of Band 26 Upper Band for eMTC operation

APPENDIX H: TEST RESULTS OF BAND 26 UPPER BAND FOR EMTC OPERATION	1
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Appendix H.1: RF Power Output and Effective (Isotropic) Radiated Power Output Data for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	ERP		Limit (watts)		Verdict
								dBm	watts	FCC	ISED	
Band26	1.4MHz	QPSK	26797	6	0	Low	19.2	19.19	0.083	7	11.5	PASS
Band26	1.4MHz	QPSK	26797	1	0	Low	21.07	21.06	0.128	7	11.5	PASS
Band26	1.4MHz	QPSK	26915	6	0	Low	19.29	19.28	0.085	7	11.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	21.37	21.36	0.137	7	11.5	PASS
Band26	1.4MHz	QPSK	27033	1	5	Low	21.42	21.41	0.138	7	11.5	PASS
Band26	1.4MHz	QPSK	27033	6	0	Low	19.16	19.15	0.082	7	11.5	PASS
Band26	1.4MHz	16QAM	26797	1	0	Low	20.27	20.26	0.106	7	11.5	PASS
Band26	1.4MHz	16QAM	26797	6	0	Low	19.2	19.19	0.083	7	11.5	PASS
Band26	1.4MHz	16QAM	26915	6	0	Low	19.29	19.28	0.085	7	11.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	20.23	20.22	0.105	7	11.5	PASS
Band26	1.4MHz	16QAM	27033	1	5	Low	20.11	20.1	0.102	7	11.5	PASS
Band26	1.4MHz	16QAM	27033	6	0	Low	19.16	19.15	0.082	7	11.5	PASS
Band26	3MHz	QPSK	26805	6	0	Low	19.1	19.09	0.081	7	11.5	PASS
Band26	3MHz	QPSK	26805	1	0	Low	21.37	21.36	0.137	7	11.5	PASS
Band26	3MHz	QPSK	26915	6	0	Low	19.11	19.1	0.081	7	11.5	PASS
Band26	3MHz	QPSK	26915	1	0	Low	21.21	21.2	0.132	7	11.5	PASS
Band26	3MHz	QPSK	27025	1	5	High	21.21	21.2	0.132	7	11.5	PASS
Band26	3MHz	QPSK	27025	6	0	High	19.1	19.09	0.081	7	11.5	PASS
Band26	3MHz	16QAM	26805	1	0	Low	20.42	20.41	0.110	7	11.5	PASS
Band26	3MHz	16QAM	26805	6	0	Low	19.1	19.09	0.081	7	11.5	PASS
Band26	3MHz	16QAM	26915	1	0	Low	20.46	20.45	0.111	7	11.5	PASS
Band26	3MHz	16QAM	26915	6	0	Low	19.12	19.11	0.081	7	11.5	PASS
Band26	3MHz	16QAM	27025	1	5	High	20.33	20.32	0.108	7	11.5	PASS
Band26	3MHz	16QAM	27025	6	0	High	18.99	18.98	0.079	7	11.5	PASS
Band26	5MHz	QPSK	26815	1	0	Low	21.37	21.36	0.137	7	11.5	PASS
Band26	5MHz	QPSK	26815	6	0	Low	20.11	20.1	0.102	7	11.5	PASS
Band26	5MHz	QPSK	26915	6	0	Low	20.11	20.1	0.102	7	11.5	PASS
Band26	5MHz	QPSK	26915	1	0	Low	21.27	21.26	0.134	7	11.5	PASS
Band26	5MHz	QPSK	27015	3	3	High	21.06	21.05	0.127	7	11.5	PASS
Band26	5MHz	QPSK	27015	1	5	High	21.17	21.16	0.131	7	11.5	PASS
Band26	5MHz	16QAM	26815	6	0	Low	20.17	20.16	0.104	7	11.5	PASS
Band26	5MHz	16QAM	26815	1	0	Low	20.66	20.65	0.116	7	11.5	PASS
Band26	5MHz	16QAM	26915	1	0	Low	20.67	20.66	0.116	7	11.5	PASS
Band26	5MHz	16QAM	26915	6	0	Low	20.11	20.1	0.102	7	11.5	PASS
Band26	5MHz	16QAM	27015	3	3	High	20.74	20.73	0.118	7	11.5	PASS
Band26	5MHz	16QAM	27015	1	5	High	20.45	20.44	0.111	7	11.5	PASS
Band26	10MHz	QPSK	26840	1	0	Low	21.36	21.35	0.136	7	11.5	PASS
Band26	10MHz	QPSK	26840	5	0	Low	21.22	21.21	0.132	7	11.5	PASS
Band26	10MHz	QPSK	26915	1	0	Low	21.3	21.29	0.135	7	11.5	PASS
Band26	10MHz	QPSK	26915	5	0	Low	21.16	21.15	0.130	7	11.5	PASS
Band26	10MHz	QPSK	26990	1	5	High	21.21	21.2	0.132	7	11.5	PASS
Band26	10MHz	QPSK	26990	5	1	High	21.25	21.24	0.133	7	11.5	PASS
Band26	10MHz	16QAM	26840	5	0	Low	20.95	20.94	0.124	7	11.5	PASS
Band26	10MHz	16QAM	26840	1	0	Low	20.64	20.63	0.116	7	11.5	PASS
Band26	10MHz	16QAM	26915	1	0	Low	20.5	20.49	0.112	7	11.5	PASS

Produkte
Products

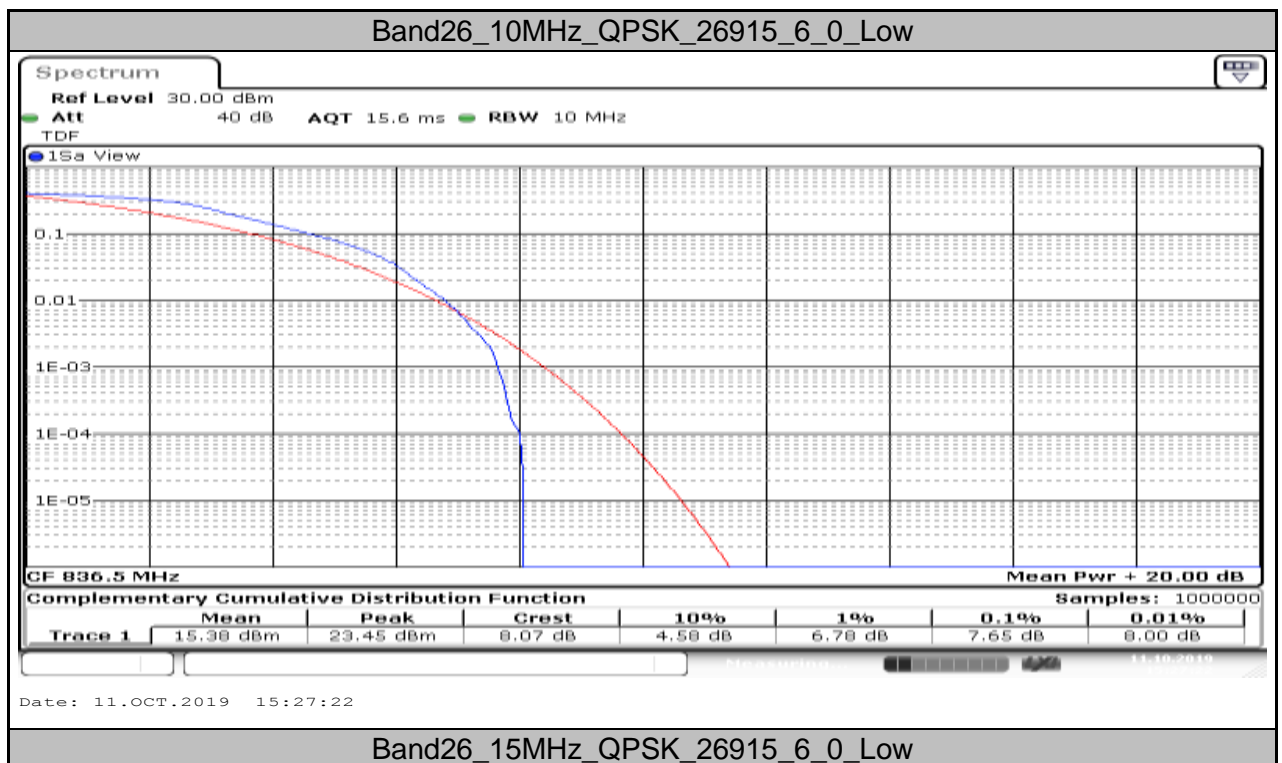
Band26	10MHz	16QAM	26915	5	0	Low	20.9	20.89	0.123	7	11.5	PASS
Band26	10MHz	16QAM	26990	5	1	High	21.18	21.17	0.131	7	11.5	PASS
Band26	10MHz	16QAM	26990	1	5	High	20.48	20.47	0.111	7	11.5	PASS
Band26	15MHz	QPSK	26865	1	0	Low	21.28	21.27	0.134	7	11.5	PASS
Band26	15MHz	QPSK	26865	6	0	Low	21.38	21.37	0.137	7	11.5	PASS
Band26	15MHz	QPSK	26915	1	0	Low	21.13	21.12	0.129	7	11.5	PASS
Band26	15MHz	QPSK	26915	6	0	Low	21.24	21.23	0.133	7	11.5	PASS
Band26	15MHz	QPSK	26965	6	0	High	21.22	21.21	0.132	7	11.5	PASS
Band26	15MHz	QPSK	26965	1	5	High	21.23	21.22	0.132	7	11.5	PASS
Band26	15MHz	16QAM	26865	1	0	Low	20.68	20.67	0.117	7	11.5	PASS
Band26	15MHz	16QAM	26865	6	0	Low	21.38	21.37	0.137	7	11.5	PASS
Band26	15MHz	16QAM	26915	6	0	Low	21.25	21.24	0.133	7	11.5	PASS
Band26	15MHz	16QAM	26915	1	0	Low	20.68	20.67	0.117	7	11.5	PASS
Band26	15MHz	16QAM	26965	6	0	High	21.22	21.21	0.132	7	11.5	PASS
Band26	15MHz	16QAM	26965	1	5	High	20.52	20.51	0.112	7	11.5	PASS

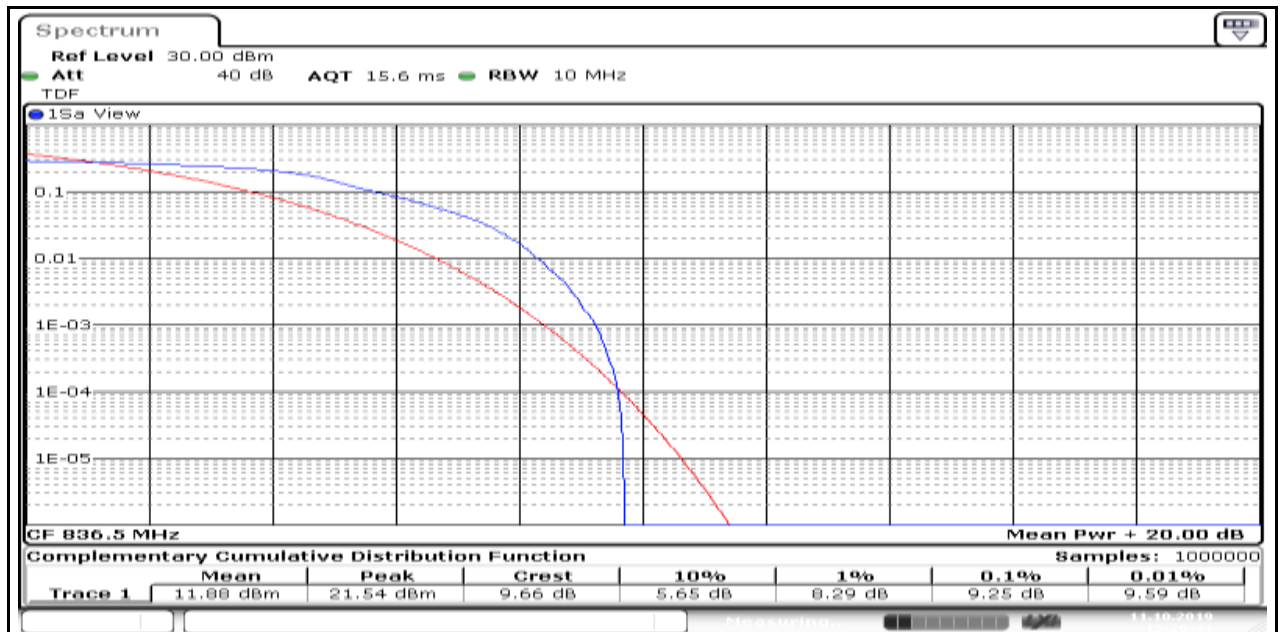
Appendix H.2: Peak-to-Average Ratio(CCDF) for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band26	10MHz	QPSK	26915	6	0	Low	7.65	<=13	PASS
Band26	15MHz	QPSK	26915	6	0	Low	9.25	<=13	PASS
Band26	3MHz	QPSK	26915	6	0	Low	8.58	<=13	PASS
Band26	5MHz	QPSK	26915	6	0	Low	8.35	<=13	PASS
Band26	1.4MHz	QPSK	26915	6	0	Low	5.13	<=13	PASS
Band26	10MHz	16QAM	26915	6	0	Low	11.16	<=13	PASS
Band26	15MHz	16QAM	26915	6	0	Low	8.93	<=13	PASS
Band26	3MHz	16QAM	26915	6	0	Low	11.30	<=13	PASS
Band26	5MHz	16QAM	26915	6	0	Low	11.39	<=13	PASS
Band26	1.4MHz	16QAM	26915	6	0	Low	9.07	<=13	PASS

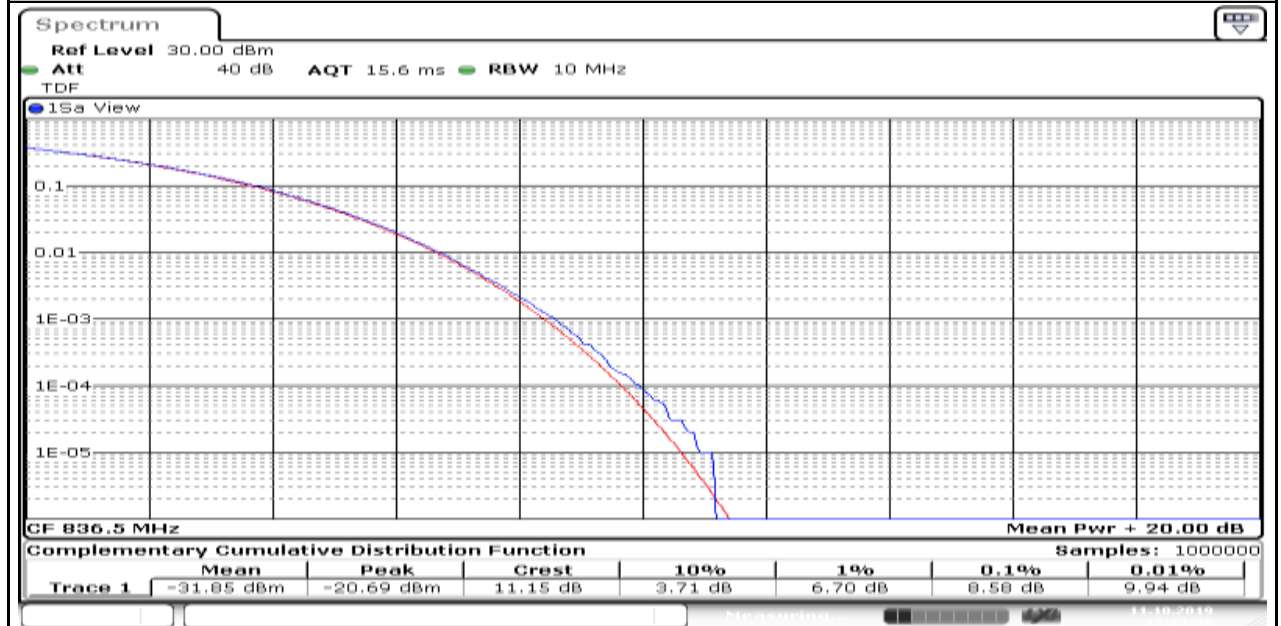
Test Graphs





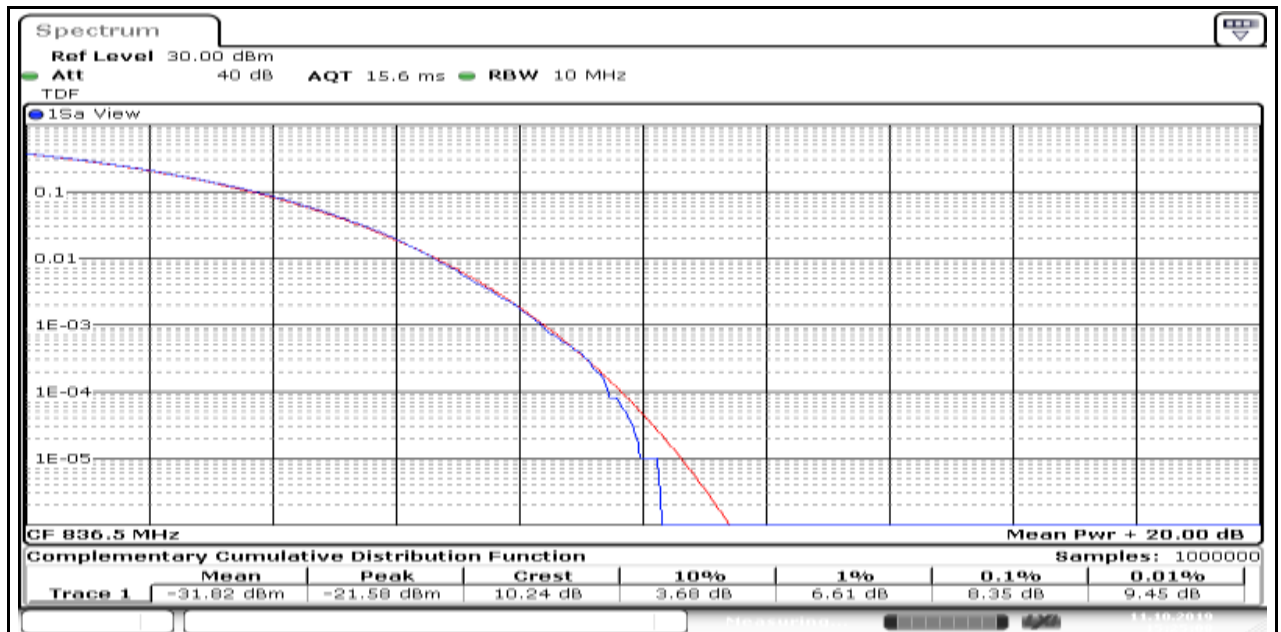
Date: 11.OCT.2019 15:26:41

Band26_3MHz_QPSK_26915_6_0_Low



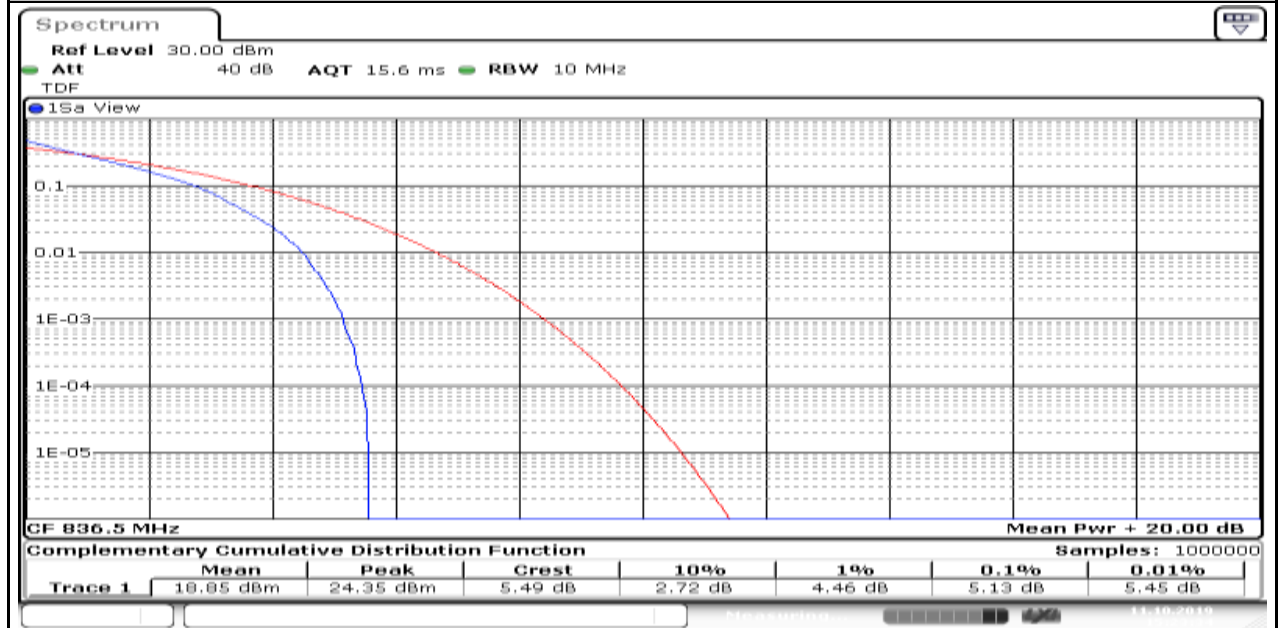
Date: 11.OCT.2019 15:25:59

Band26_5MHz_QPSK_26915_6_0_Low



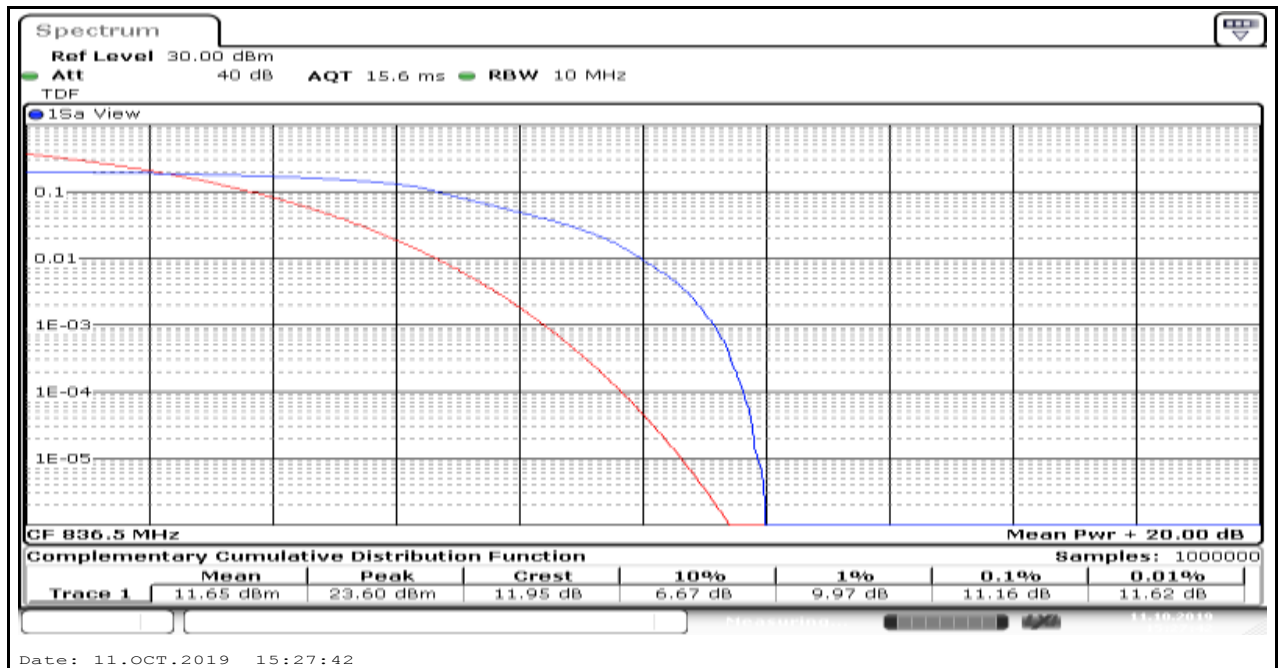
Date: 11.OCT.2019 15:25:08

Band26_1.4MHz_QPSK_26915_6_0_Low

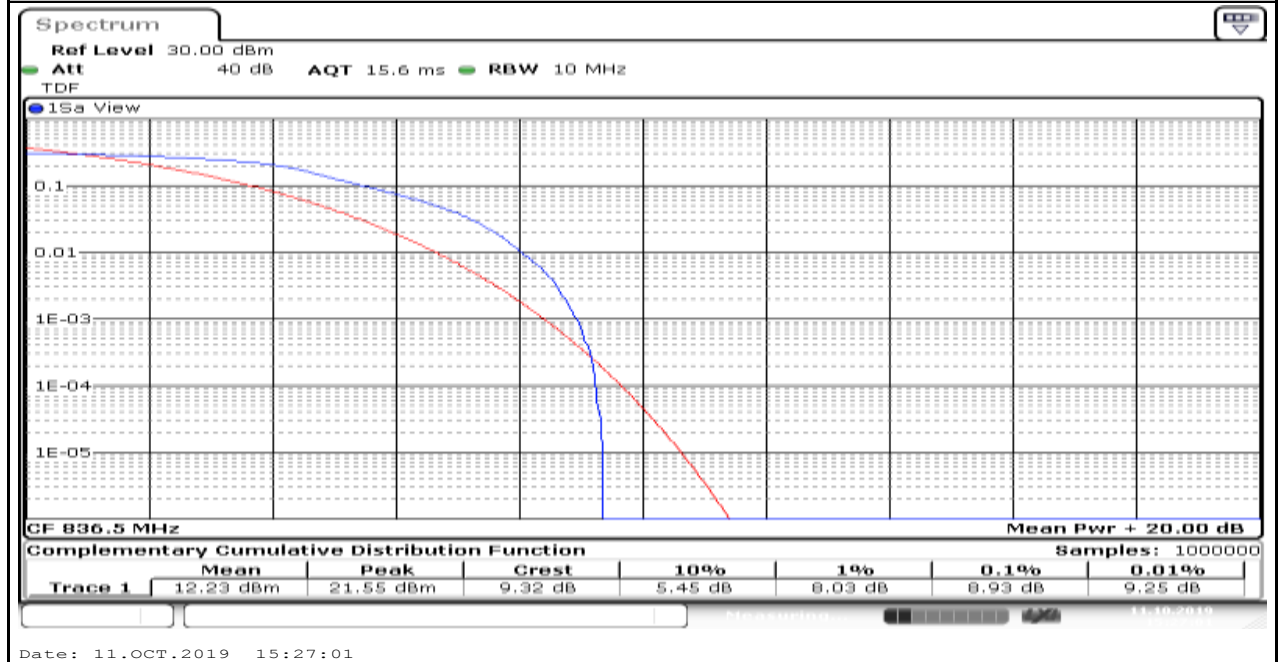


Date: 11.OCT.2019 15:23:34

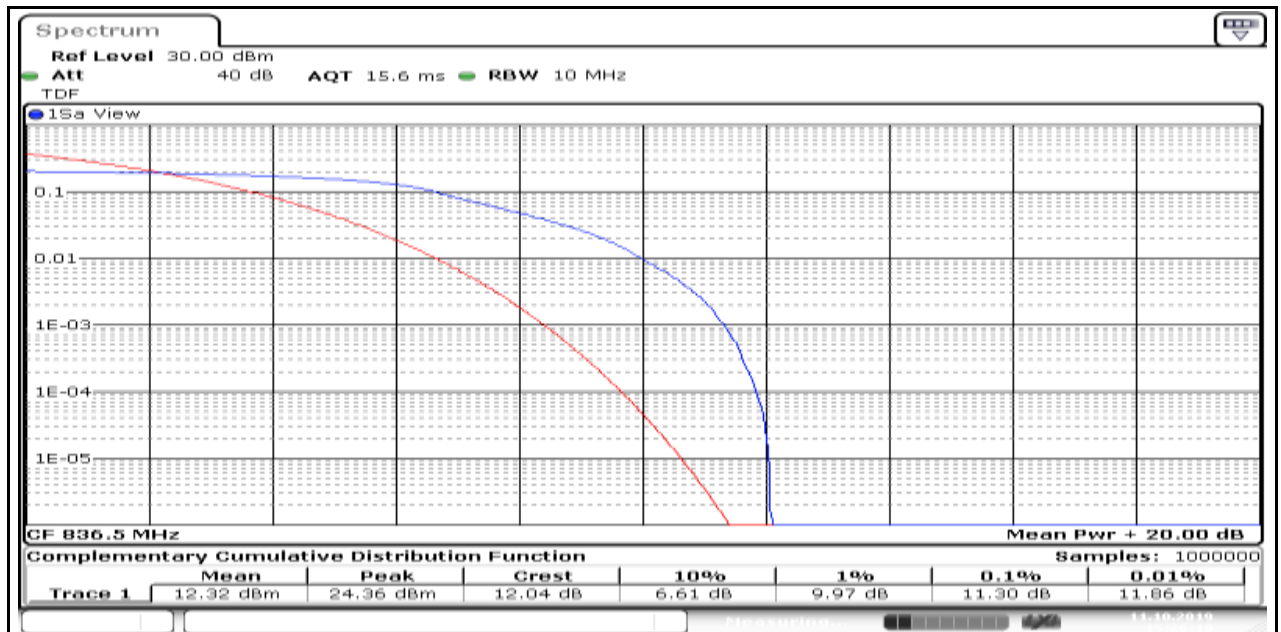
Band26_10MHz_16QAM_26915_6_0_Low



Band26_15MHz_16QAM_26915_6_0_Low

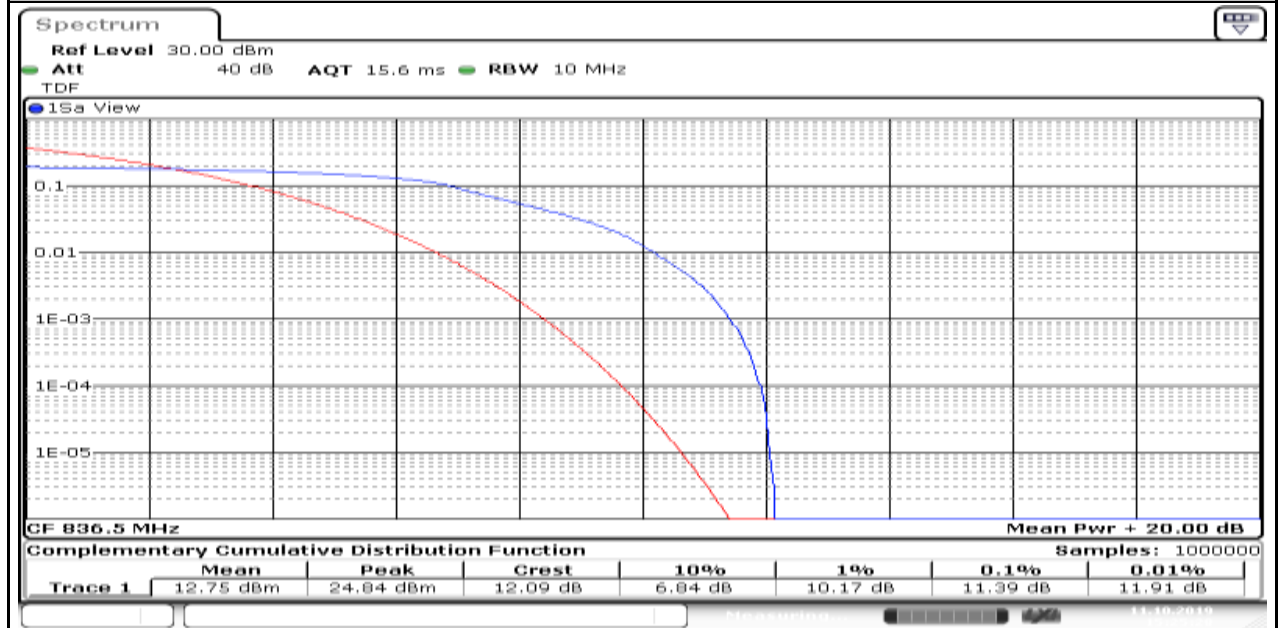


Band26_3MHz_16QAM_26915_6_0_Low



Date: 11.OCT.2019 15:26:19

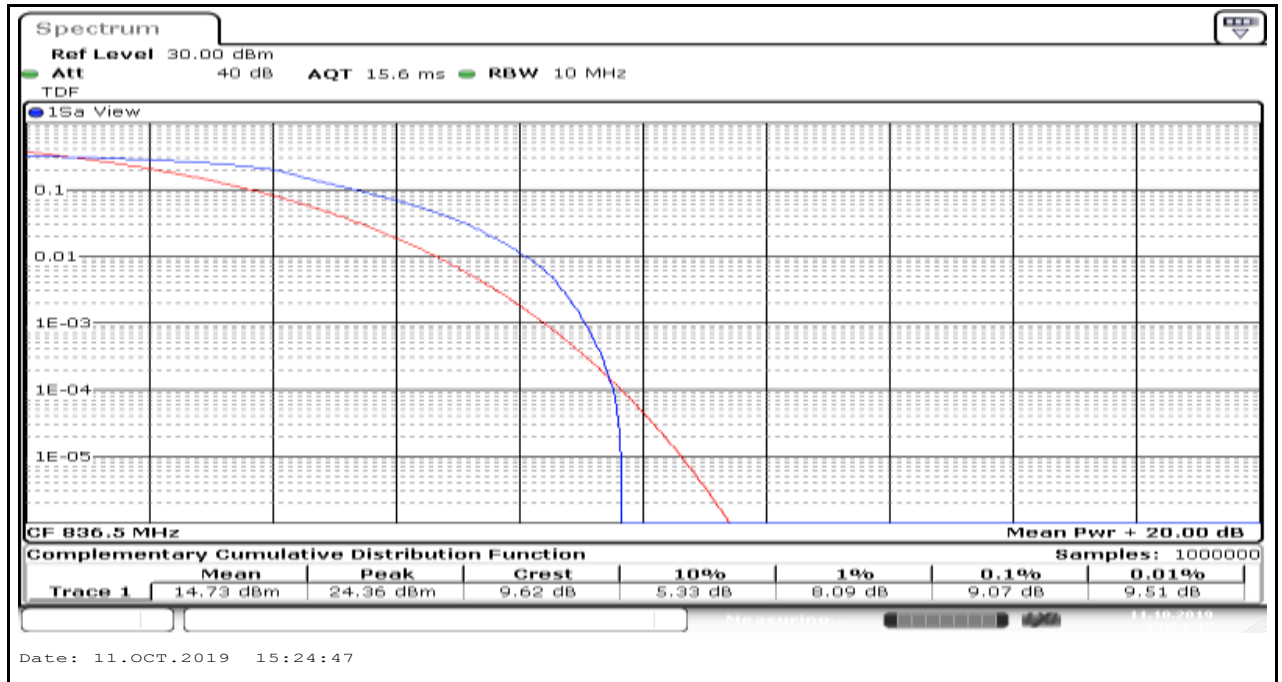
Band26_5MHz_16QAM_26915_6_0_Low



Date: 11.OCT.2019 15:25:28

Band26_1.4MHz_16QAM_26915_6_0_Low

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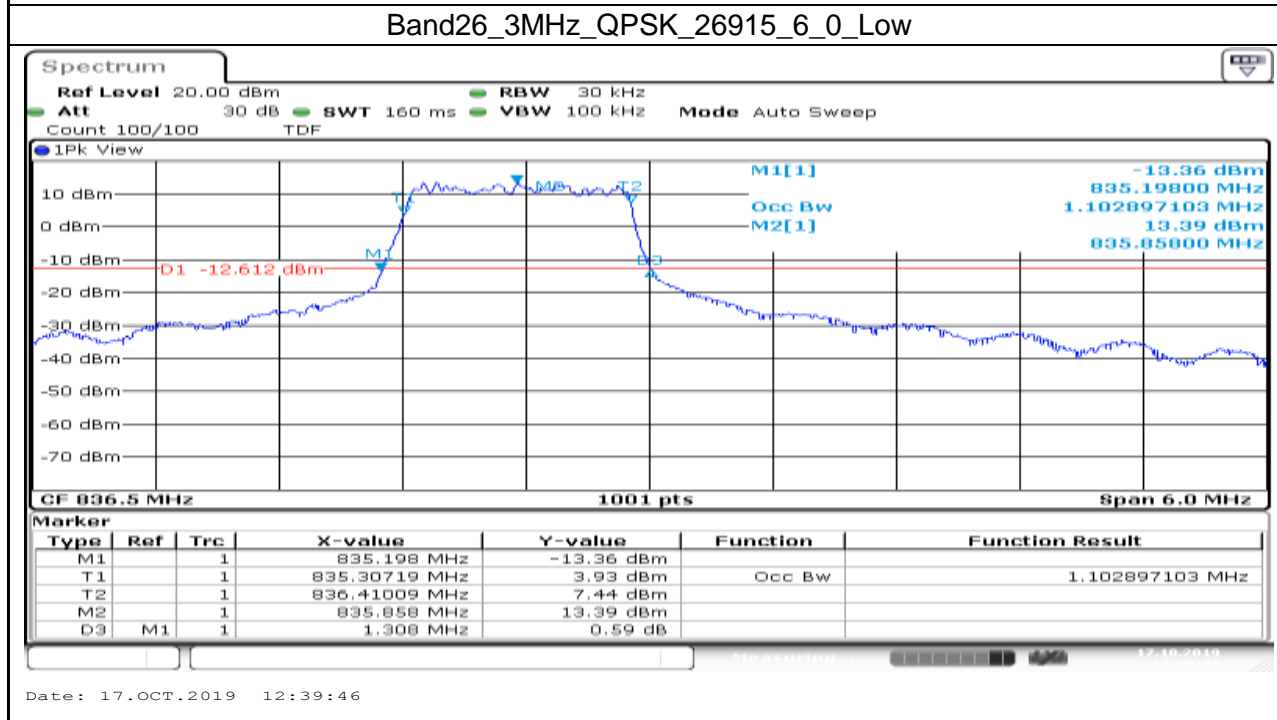
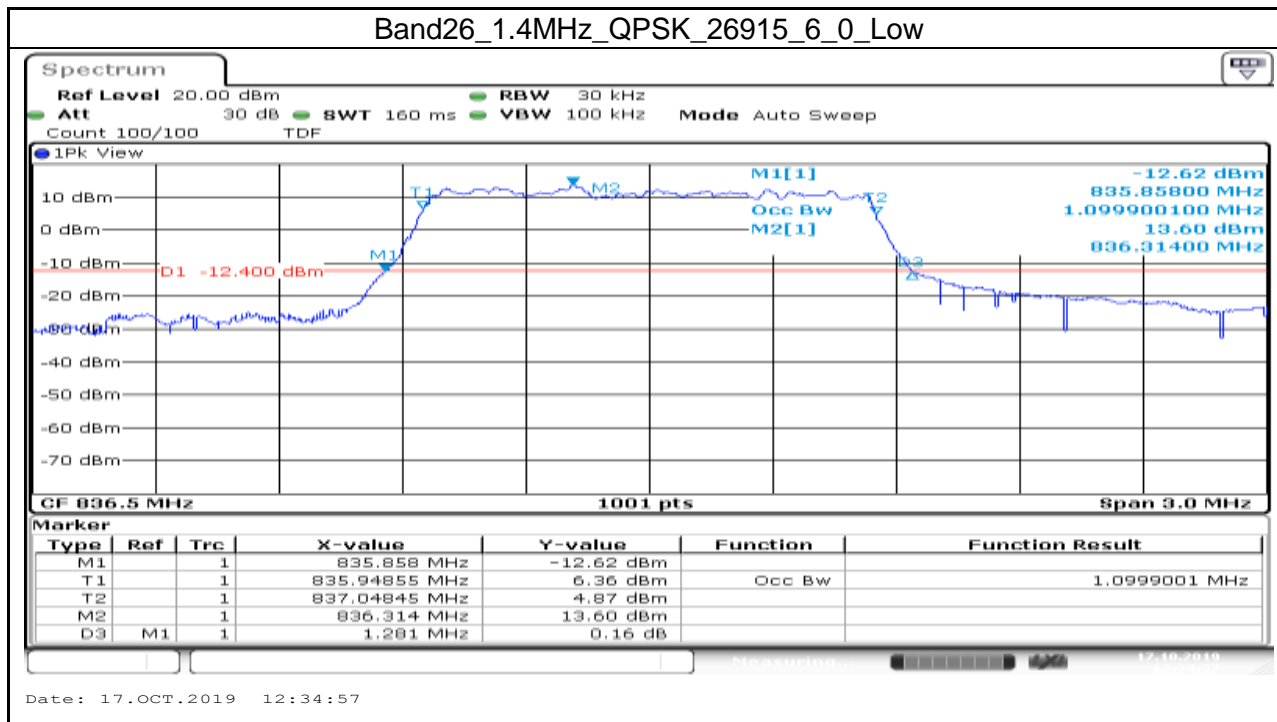


Appendix H.3: 26dB Bandwidth and Occupied Bandwidth for M1

Test Result

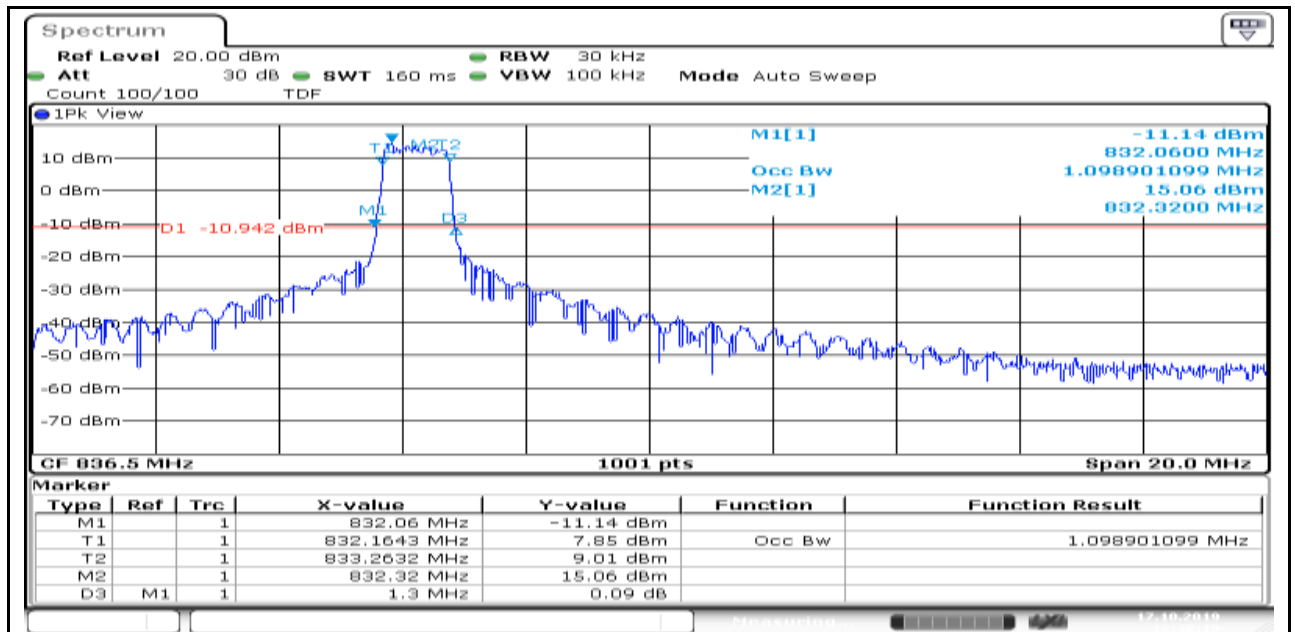
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band26	1.4MHz	QPSK	26915	6	0	Low	1.1	1.281	PASS
Band26	3MHz	QPSK	26915	6	0	Low	1.103	1.308	PASS
Band26	10MHz	QPSK	26915	6	0	Low	1.099	1.300	PASS
Band26	5MHz	QPSK	26915	6	0	Low	1.099	1.330	PASS
Band26	15MHz	QPSK	26915	6	0	Low	1.109	1.380	PASS
Band26	3MHz	16QAM	26915	6	0	Low	1.103	1.308	PASS
Band26	15MHz	16QAM	26915	6	0	Low	1.109	1.320	PASS
Band26	5MHz	16QAM	26915	6	0	Low	1.099	1.320	PASS
Band26	10MHz	16QAM	26915	6	0	Low	1.099	1.320	PASS
Band26	1.4MHz	16QAM	26915	6	0	Low	1.1	1.305	PASS

Test Graphs



Band26_10MHz_QPSK_26915_6_0_Low

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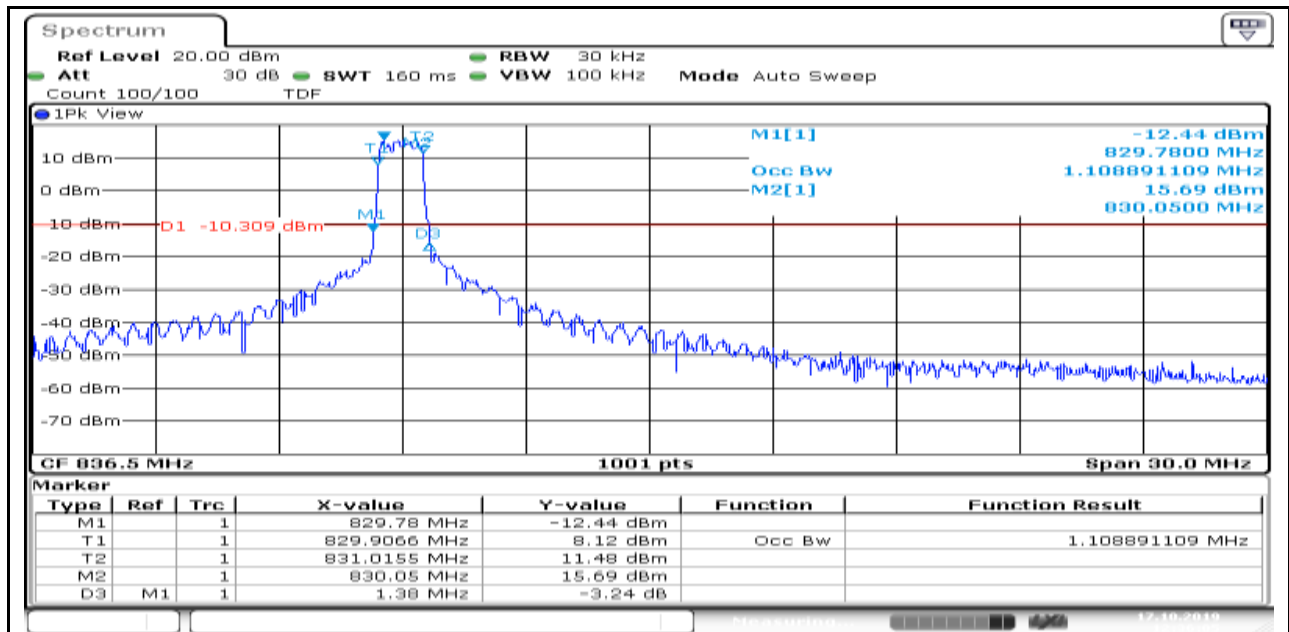


Band26_5MHz_QPSK_26915_6_0_Low



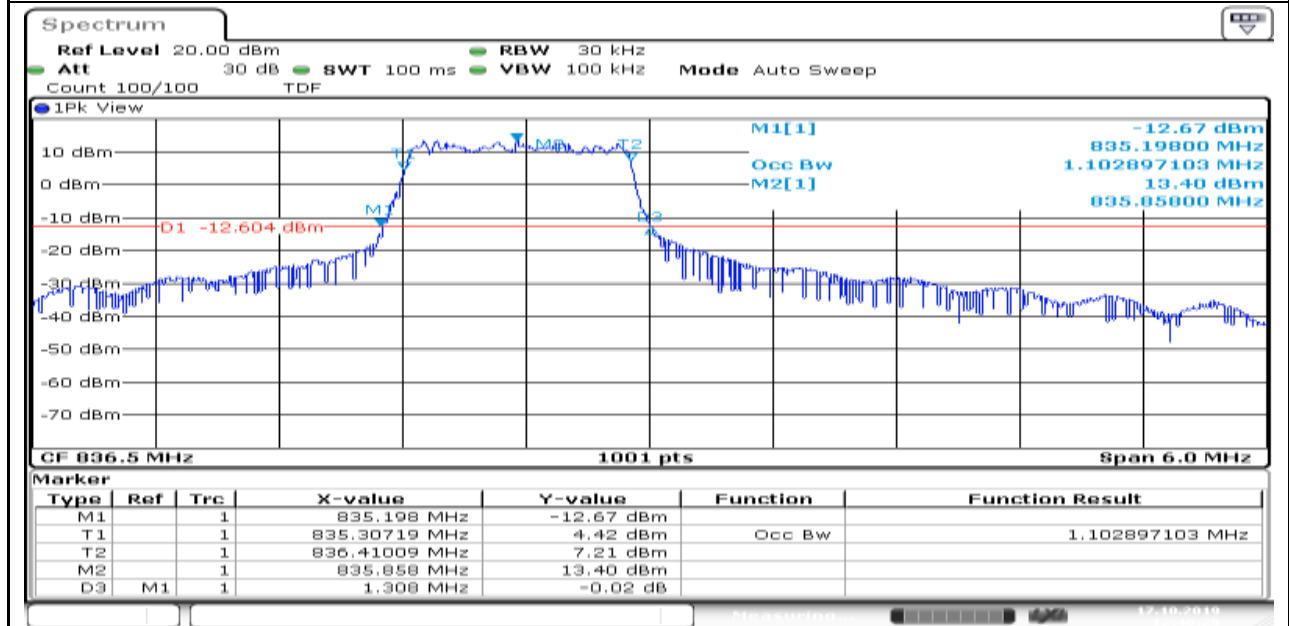
Band26_15MHz_QPSK_26915_6_0_Low

Produkte
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Date: 17.OCT.2019 12:36:06

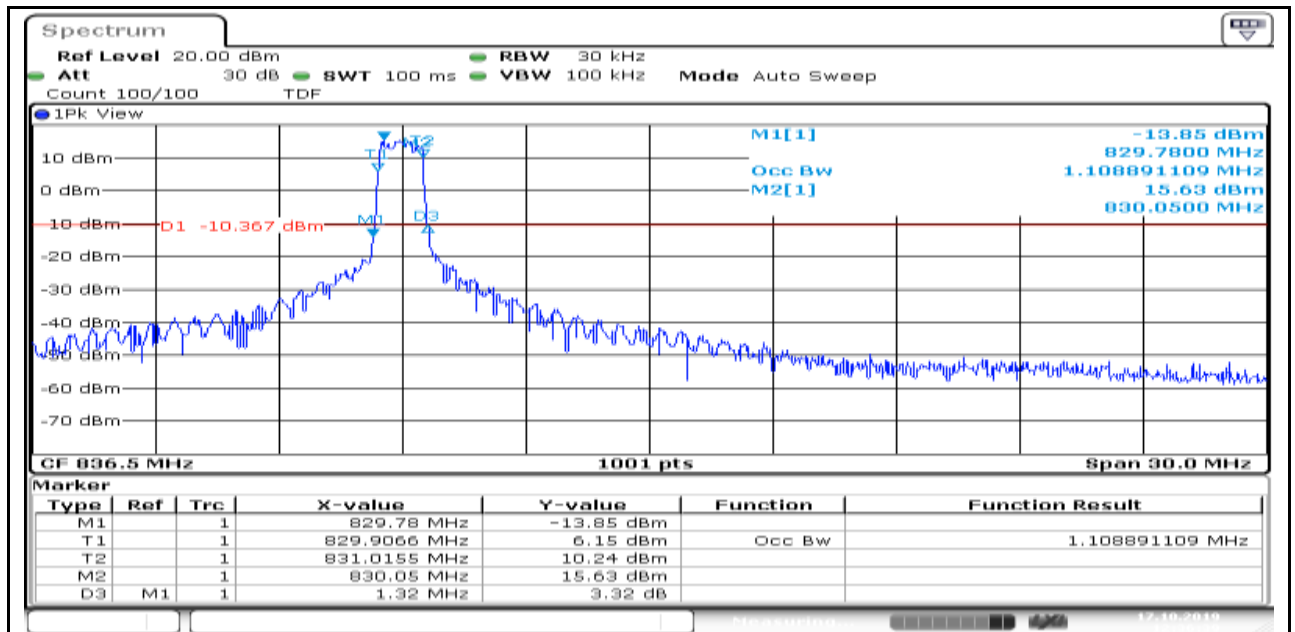
Band26_3MHz_16QAM_26915_6_0_Low



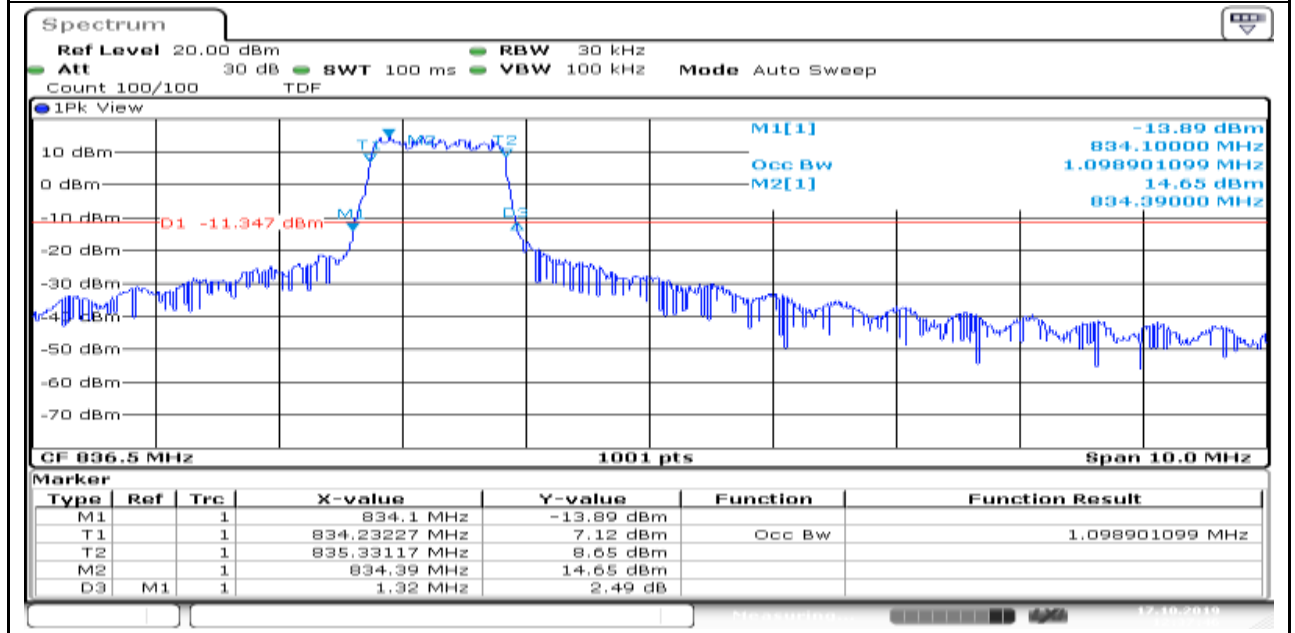
Date: 17.OCT.2019 12:40:29

Band26_15MHz_16QAM_26915_6_0_Low

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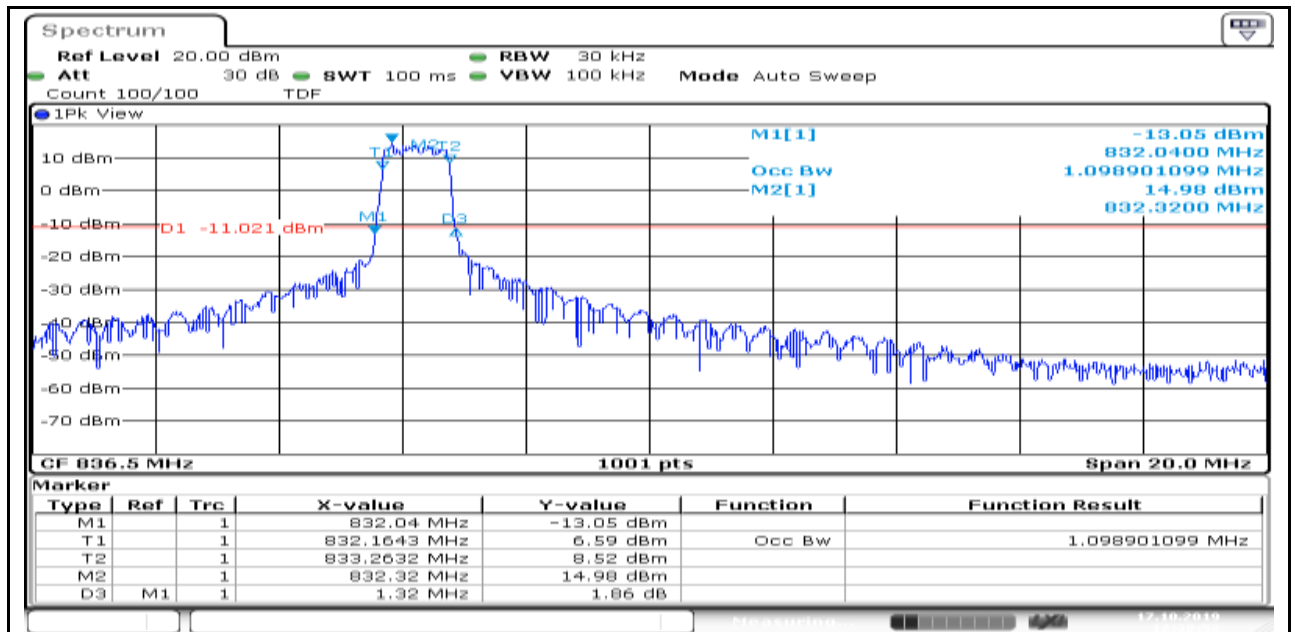


Band26_5MHz_16QAM_26915_6_0_Low



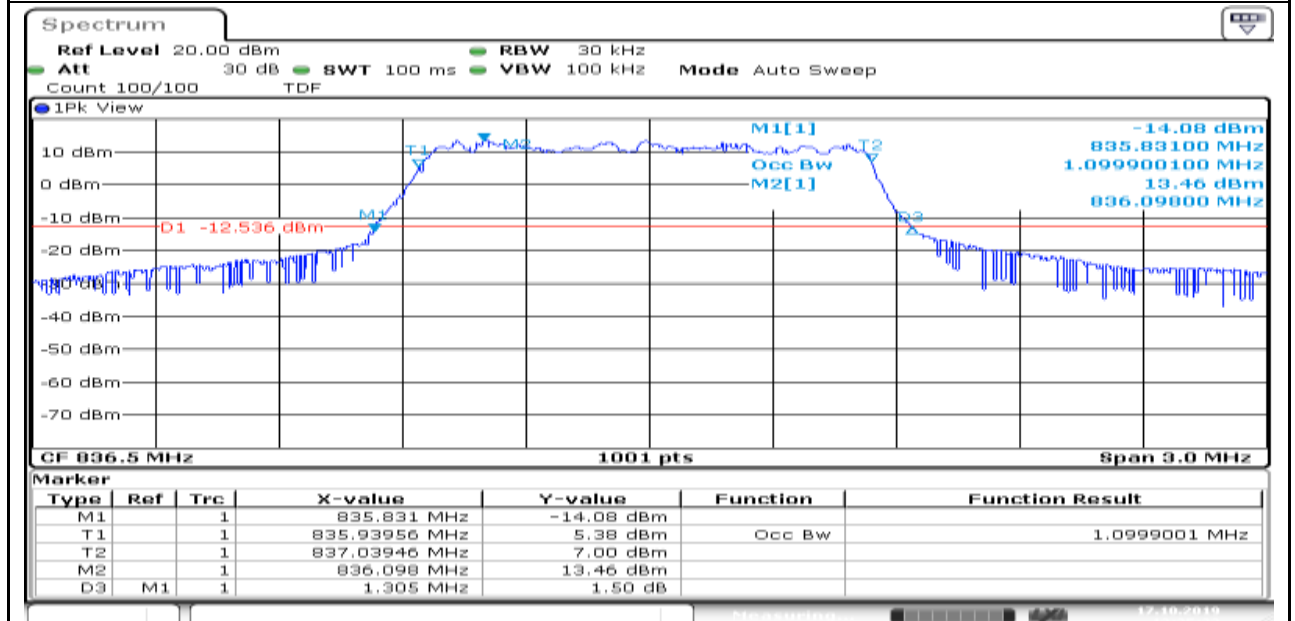
Band26_10MHz_16QAM_26915_6_0_Low

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Date: 17.OCT.2019 12:38:53

Band26_1.4MHz_16QAM_26915_6_0_Low



Date: 17.OCT.2019 12:35:32

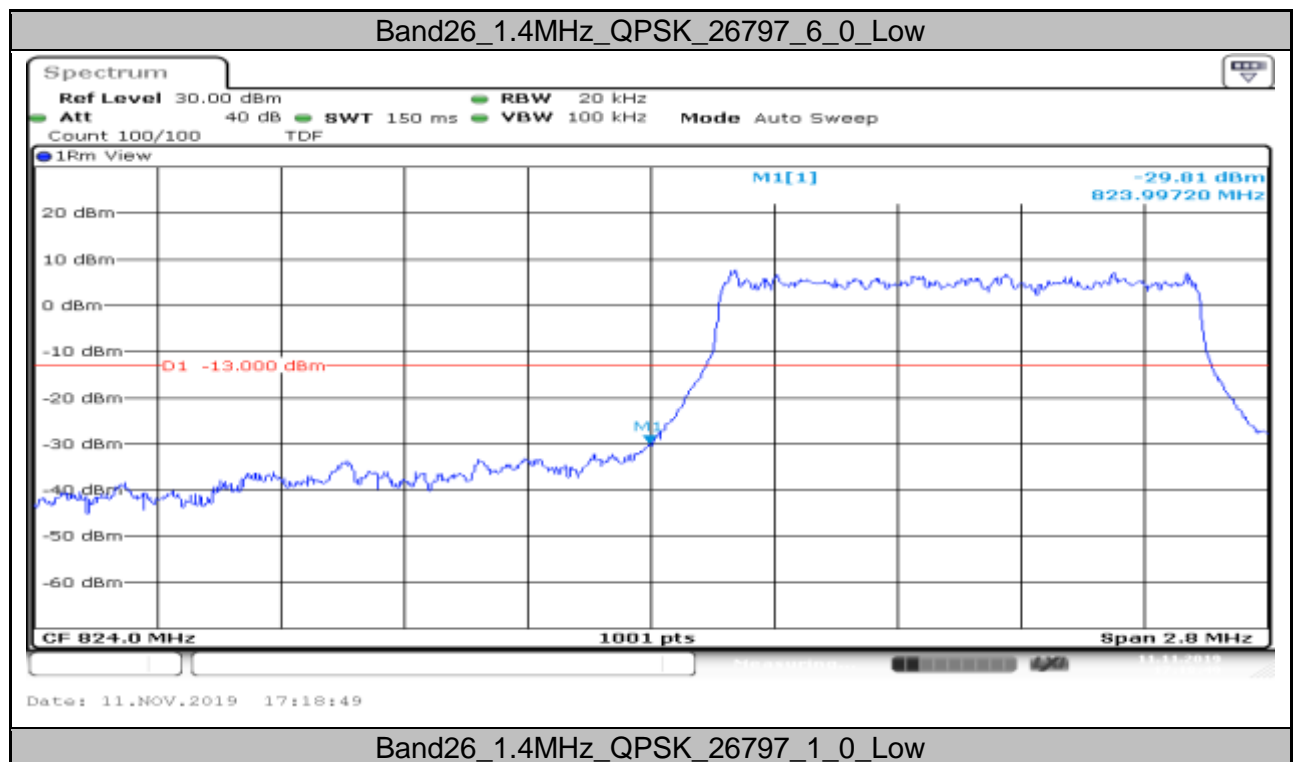
Produkte
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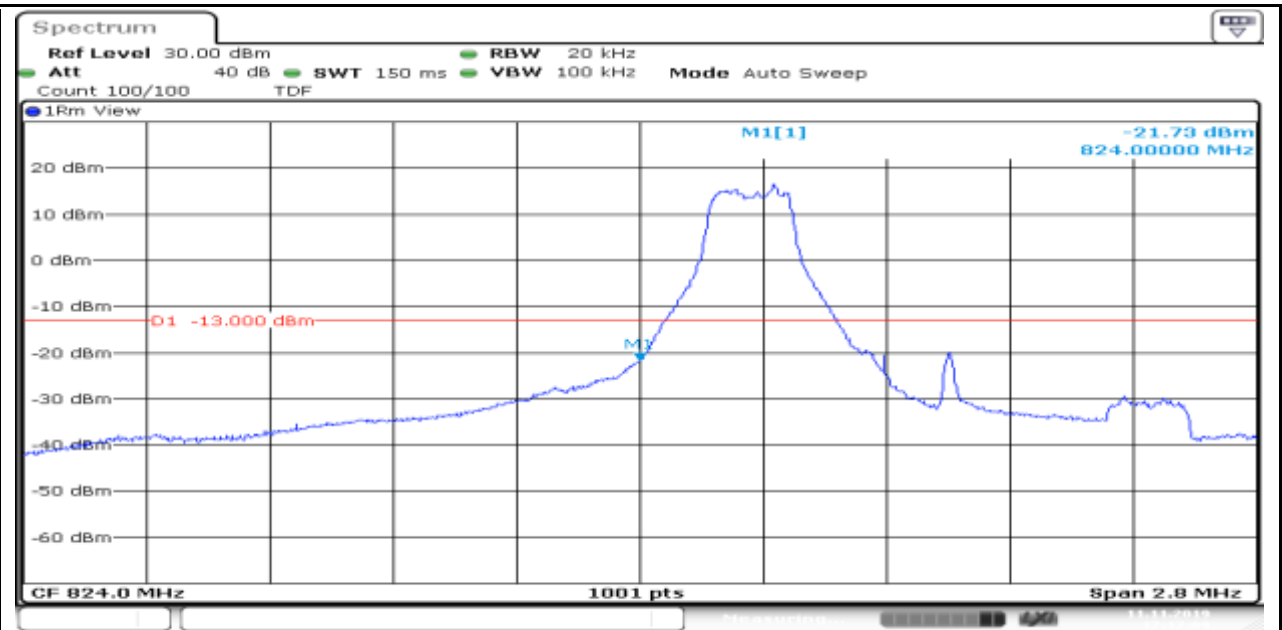
Appendix H.4: Band Edge for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Result (dBm)	Verdict
Band26	1.4MHz	QPSK	26797	6	0	Low	-29.81	PASS
Band26	1.4MHz	QPSK	26797	1	0	Low	-21.73	PASS
Band26	1.4MHz	QPSK	27033	6	0	High	-26.44	PASS
Band26	1.4MHz	QPSK	27033	1	5	High	-28.65	PASS
Band26	1.4MHz	16QAM	26797	6	0	Low	-29.82	PASS
Band26	1.4MHz	16QAM	26797	1	0	Low	-24.95	PASS
Band26	1.4MHz	16QAM	27033	6	0	High	-26.26	PASS
Band26	1.4MHz	16QAM	27033	1	5	High	-27.46	PASS

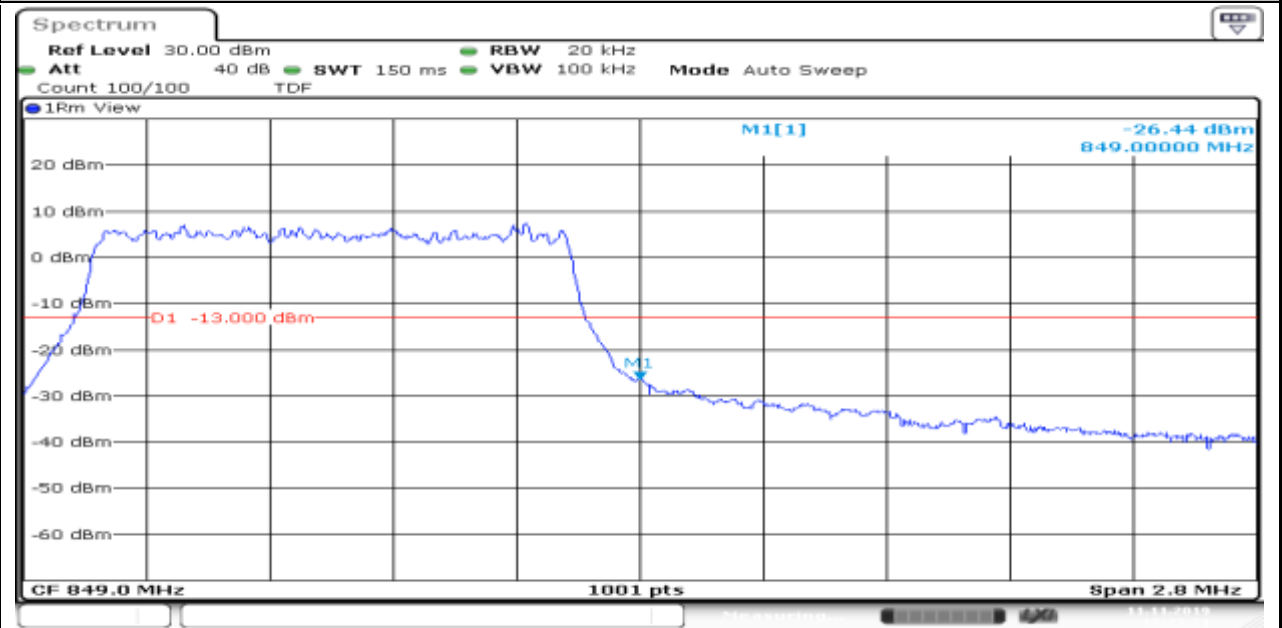
Test Graphs





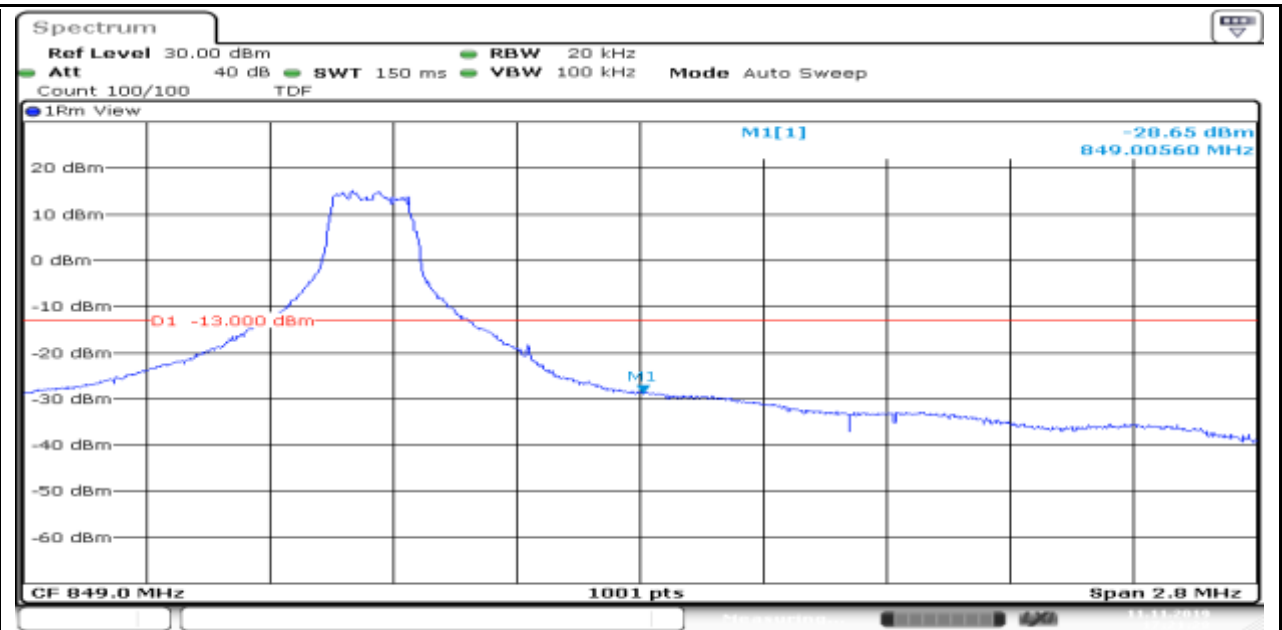
Date: 11.NOV.2019 17:17:09

Band26_1.4MHz_QPSK_27033_6_0_High



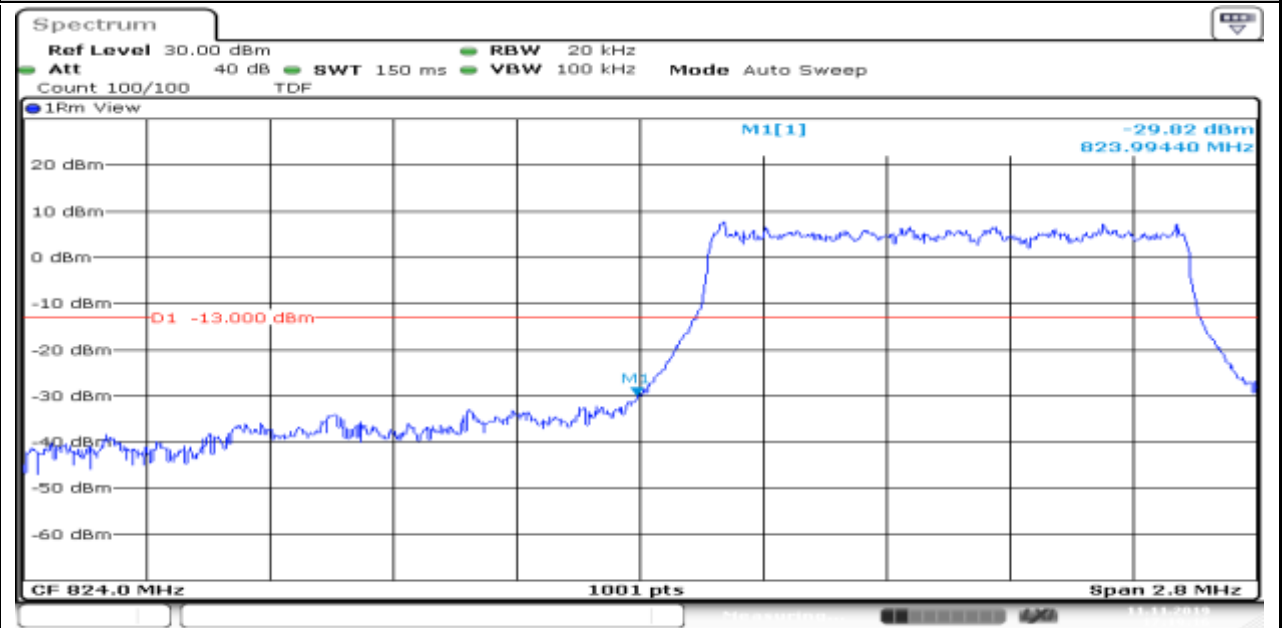
Date: 11.NOV.2019 17:23:21

Band26_1.4MHz_QPSK_27033_1_5_High



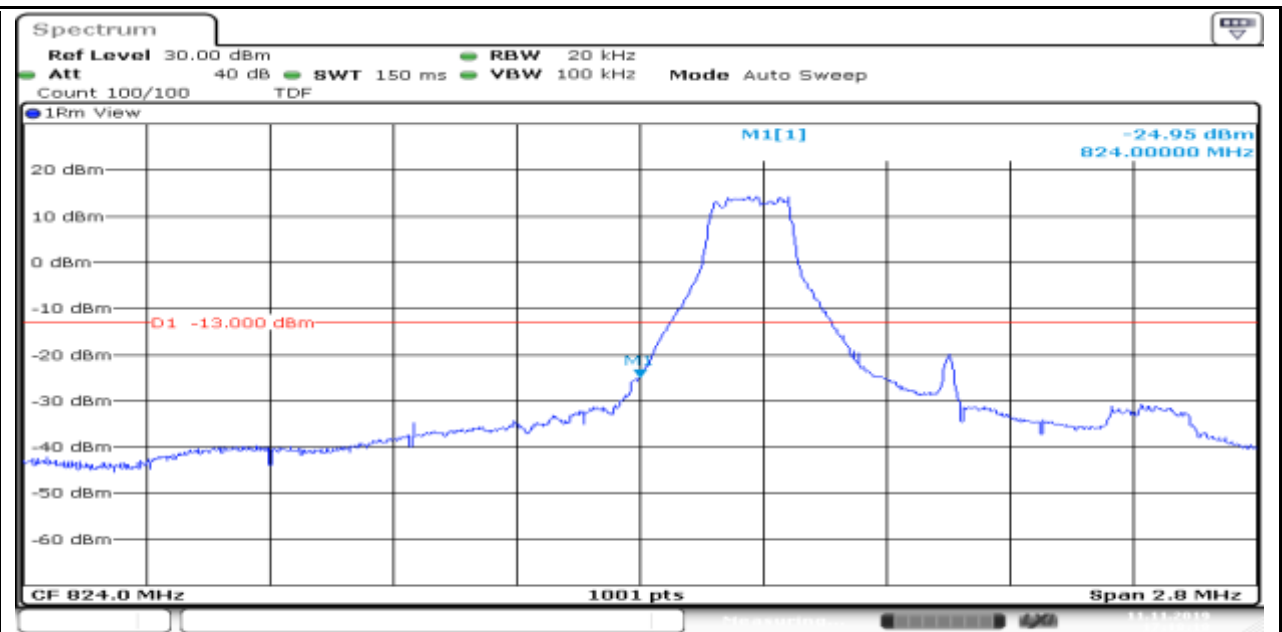
Date: 11.NOV.2019 17:21:27

Band26_1.4MHz_16QAM_26797_6_0_Low



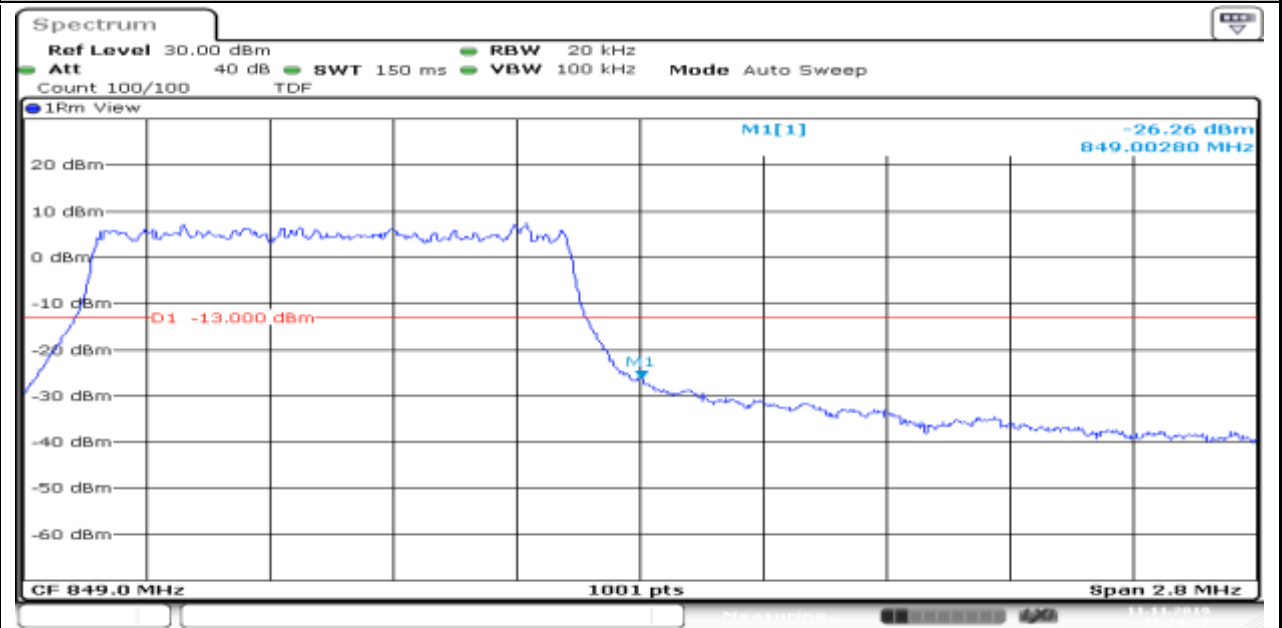
Date: 11.NOV.2019 17:19:16

Band26_1.4MHz_16QAM_26797_1_0_Low



Date: 11.NOV.2019 17:18:17

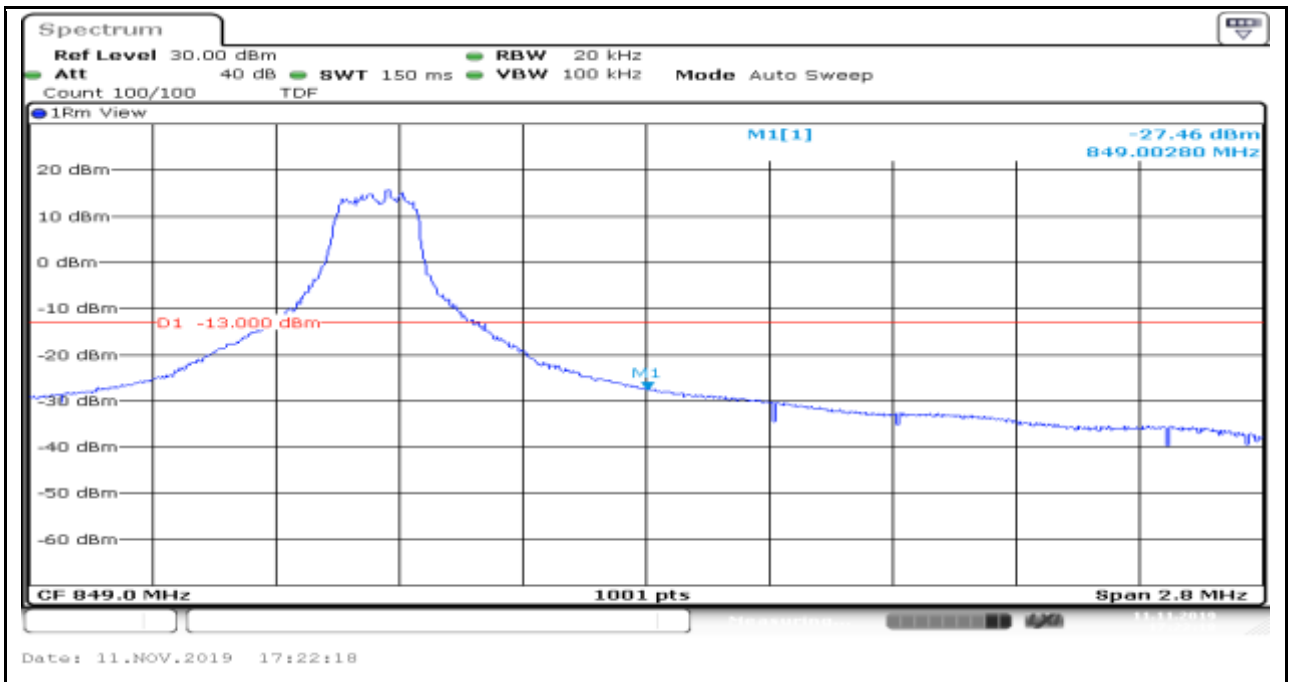
Band26_1.4MHz_16QAM_27033_6_0_High



Date: 11.NOV.2019 17:24:27

Band26_1.4MHz_16QAM_27033_1_5_High

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Appendix H.5: Conducted Spurious Emission for M1

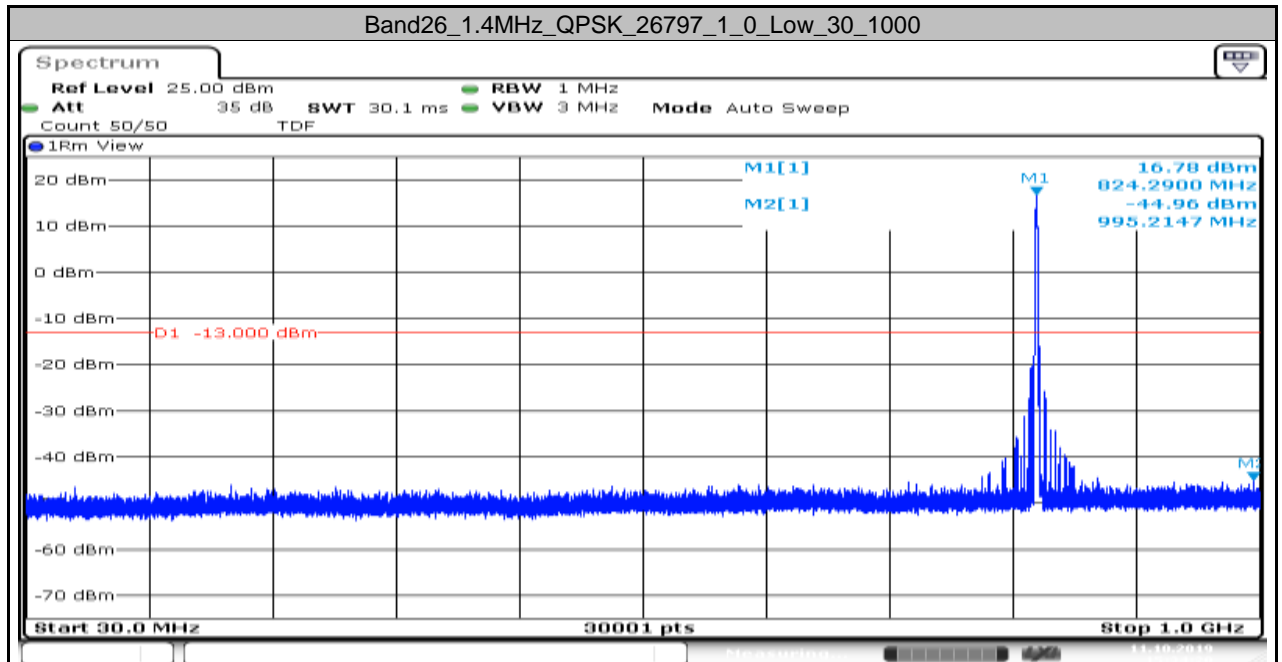
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Start Freq	Stop Freq	Result (dBm)	Verdict
Band26	1.4MHz	QPSK	26797	1	0	Low	30	1000	-44.96	PASS
Band26	1.4MHz	QPSK	26797	6	0	Low	1000	5000	-50.45	PASS
Band26	1.4MHz	QPSK	26797	6	0	Low	5000	12000	-63.25	PASS
Band26	1.4MHz	QPSK	26797	6	0	Low	12000	26500	-59.58	PASS
Band26	1.4MHz	QPSK	26797	6	0	Low	30	1000	-44.19	PASS
Band26	1.4MHz	QPSK	26797	1	0	Low	5000	12000	-63.18	PASS
Band26	1.4MHz	QPSK	26797	1	0	Low	1000	5000	-50.44	PASS
Band26	1.4MHz	QPSK	26797	1	0	Low	12000	26500	-59.7	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	30	1000	-45	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	1000	5000	-50.28	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	5000	12000	-63.27	PASS
Band26	1.4MHz	QPSK	26915	6	0	Low	30	1000	-40.28	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	12000	26500	-59.39	PASS
Band26	1.4MHz	QPSK	26915	6	0	Low	1000	5000	-50.28	PASS
Band26	1.4MHz	QPSK	26915	6	0	Low	5000	12000	-63.24	PASS
Band26	1.4MHz	QPSK	26915	6	0	Low	12000	26500	-59.63	PASS
Band26	1.4MHz	QPSK	27033	6	0	Low	1000	5000	-50.35	PASS
Band26	1.4MHz	QPSK	27033	1	5	Low	5000	12000	-63.34	PASS
Band26	1.4MHz	QPSK	27033	6	0	Low	12000	26500	-59.64	PASS
Band26	1.4MHz	QPSK	27033	1	5	Low	1000	5000	-50.34	PASS
Band26	1.4MHz	QPSK	27033	1	5	Low	30	1000	-45.15	PASS
Band26	1.4MHz	QPSK	27033	1	5	Low	12000	26500	-59.56	PASS
Band26	1.4MHz	QPSK	27033	6	0	Low	30	1000	-43.98	PASS
Band26	1.4MHz	QPSK	27033	6	0	Low	5000	12000	-63.23	PASS
Band26	1.4MHz	16QAM	26797	6	0	Low	12000	26500	-59.5	PASS
Band26	1.4MHz	16QAM	26797	1	0	Low	1000	5000	-50.41	PASS
Band26	1.4MHz	16QAM	26797	1	0	Low	5000	12000	-63.34	PASS
Band26	1.4MHz	16QAM	26797	1	0	Low	12000	26500	-59.63	PASS
Band26	1.4MHz	16QAM	26797	6	0	Low	30	1000	-45.38	PASS
Band26	1.4MHz	16QAM	26797	1	0	Low	30	1000	-44.95	PASS
Band26	1.4MHz	16QAM	26797	6	0	Low	5000	12000	-63.2	PASS
Band26	1.4MHz	16QAM	26797	6	0	Low	1000	5000	-50.39	PASS
Band26	1.4MHz	16QAM	26915	6	0	Low	5000	12000	-63.39	PASS
Band26	1.4MHz	16QAM	26915	6	0	Low	1000	5000	-50.25	PASS
Band26	1.4MHz	16QAM	26915	6	0	Low	30	1000	-42.35	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	5000	12000	-63.1	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	1000	5000	-50.43	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	30	1000	-42.06	PASS
Band26	1.4MHz	16QAM	26915	6	0	Low	12000	26500	-59.45	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	12000	26500	-59.63	PASS
Band26	1.4MHz	16QAM	27033	1	5	Low	30	1000	-42.49	PASS
Band26	1.4MHz	16QAM	27033	1	5	Low	1000	5000	-50.48	PASS
Band26	1.4MHz	16QAM	27033	1	5	Low	12000	26500	-59.58	PASS
Band26	1.4MHz	16QAM	27033	6	0	Low	30	1000	-45.34	PASS
Band26	1.4MHz	16QAM	27033	6	0	Low	1000	5000	-50.37	PASS
Band26	1.4MHz	16QAM	27033	6	0	Low	5000	12000	-63.23	PASS
Band26	1.4MHz	16QAM	27033	6	0	Low	12000	26500	-59.39	PASS

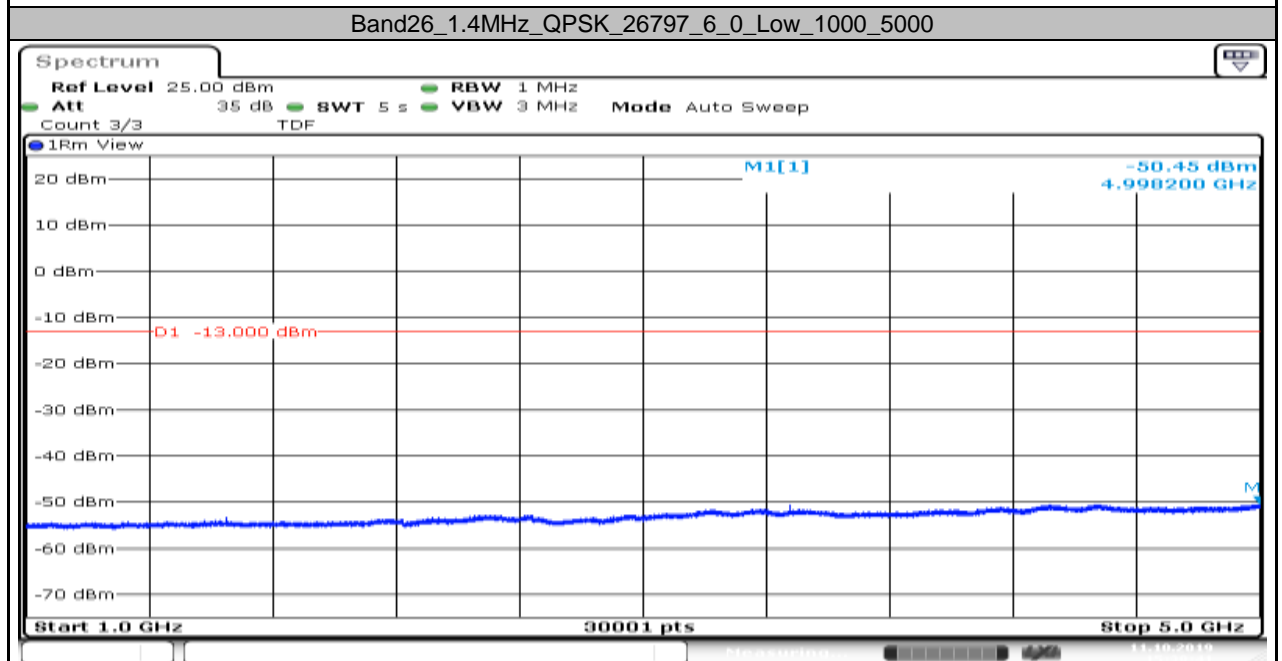
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Band26	1.4MHz	16QAM	27033	1	5	Low	5000	12000	-63.41	PASS
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Test Graphs



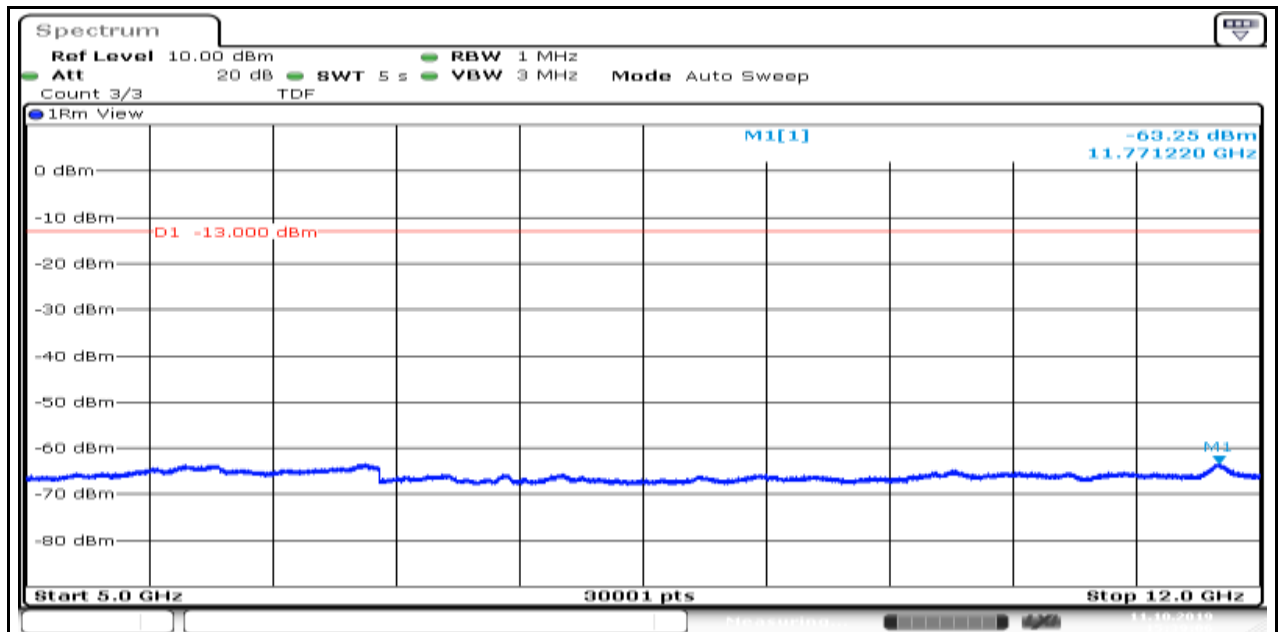
Date: 11.OCT.2019 15:34:20



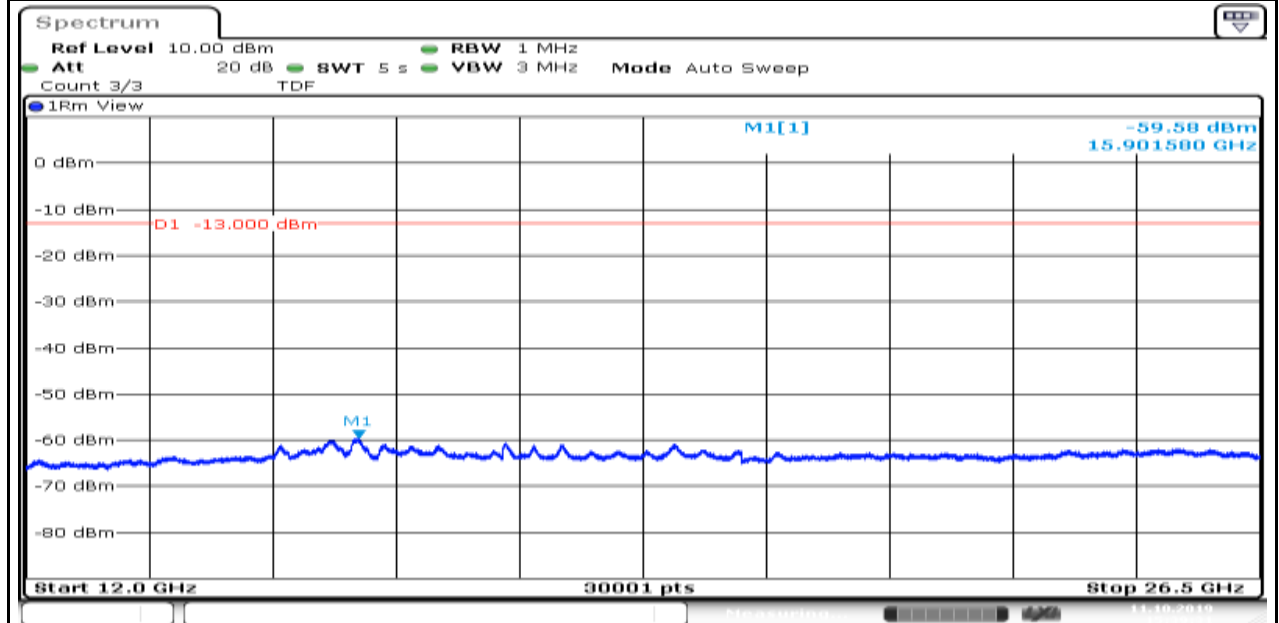
Date: 11.OCT.2019 15:38:41

Band26_1.4MHz_QPSK_26797_6_0_Low_5000_12000

Produkte
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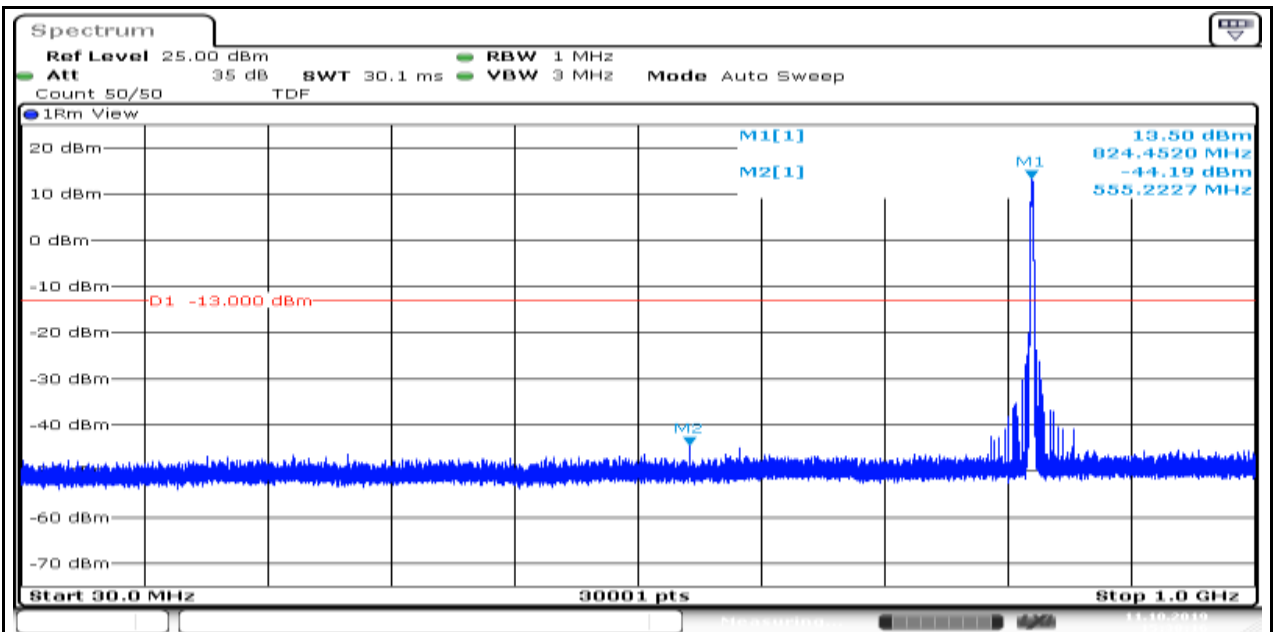


Band26_1.4MHz_QPSK_26797_6_0_Low_12000_26500

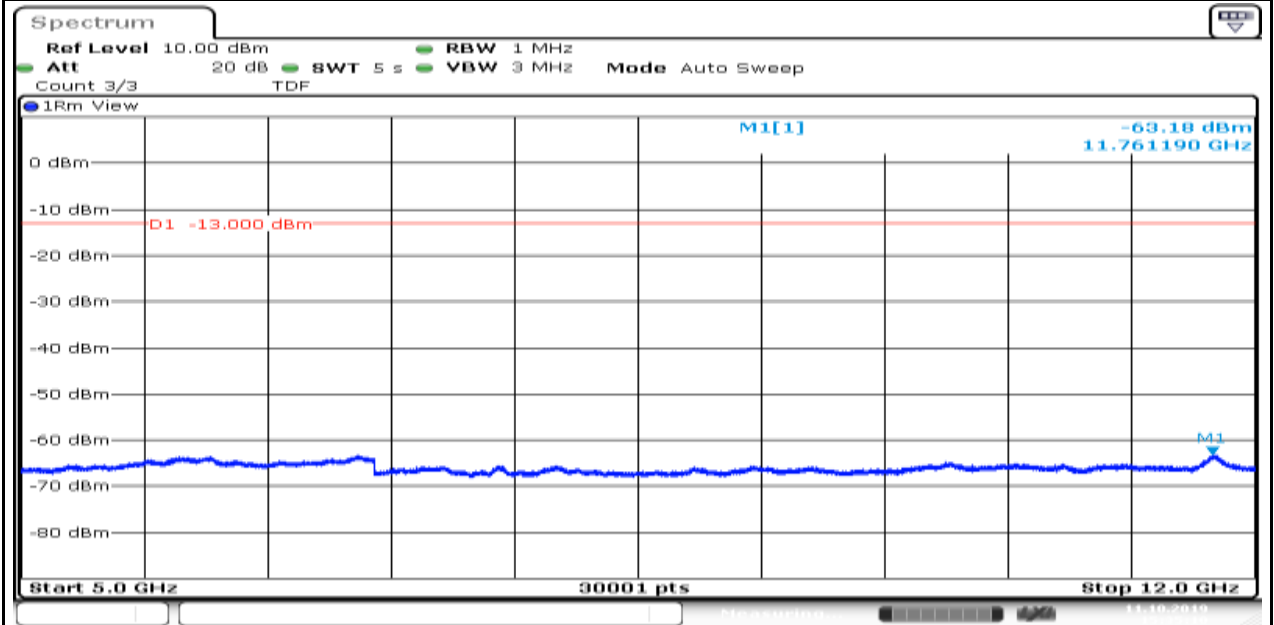


Band26_1.4MHz_QPSK_26797_6_0_Low_30_1000

Produkte
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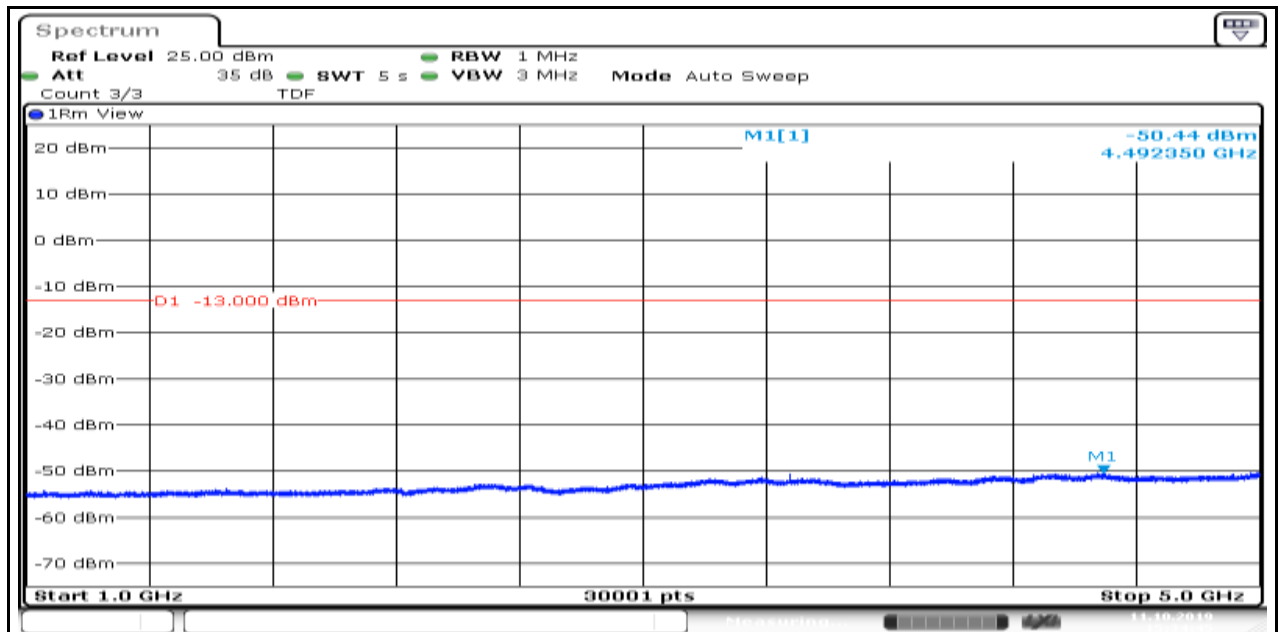


Band26_1.4MHz_QPSK_26797_1_0_Low_5000_12000

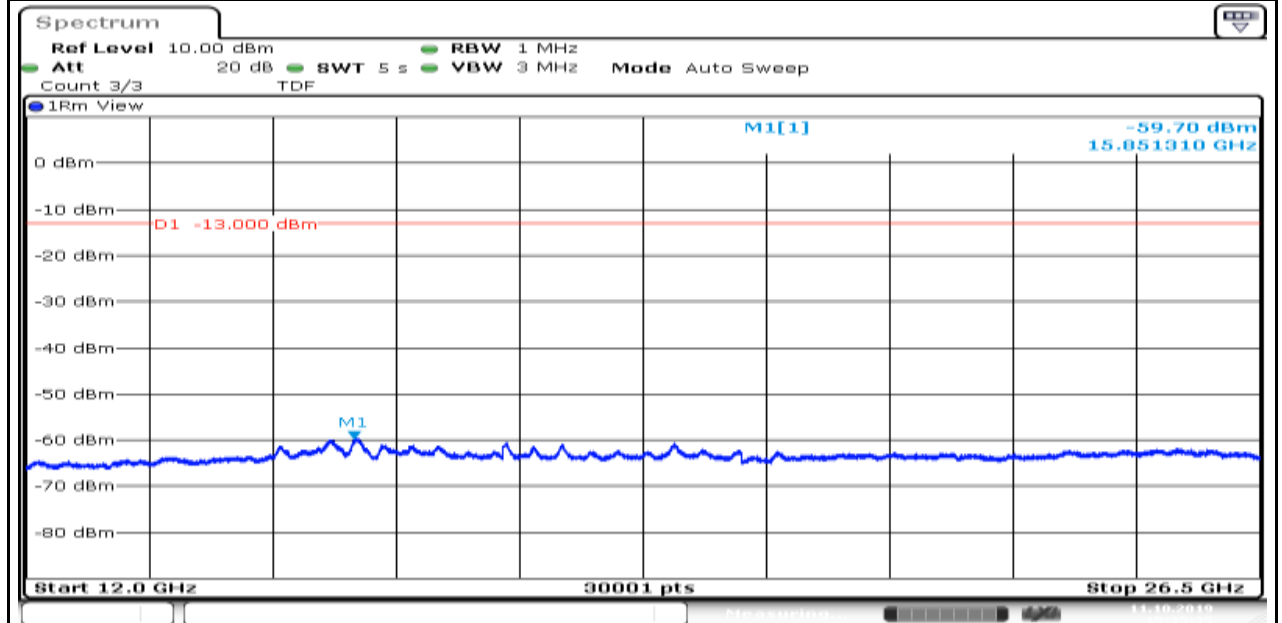


Band26_1.4MHz_QPSK_26797_1_0_Low_1000_5000

Produkte
Products

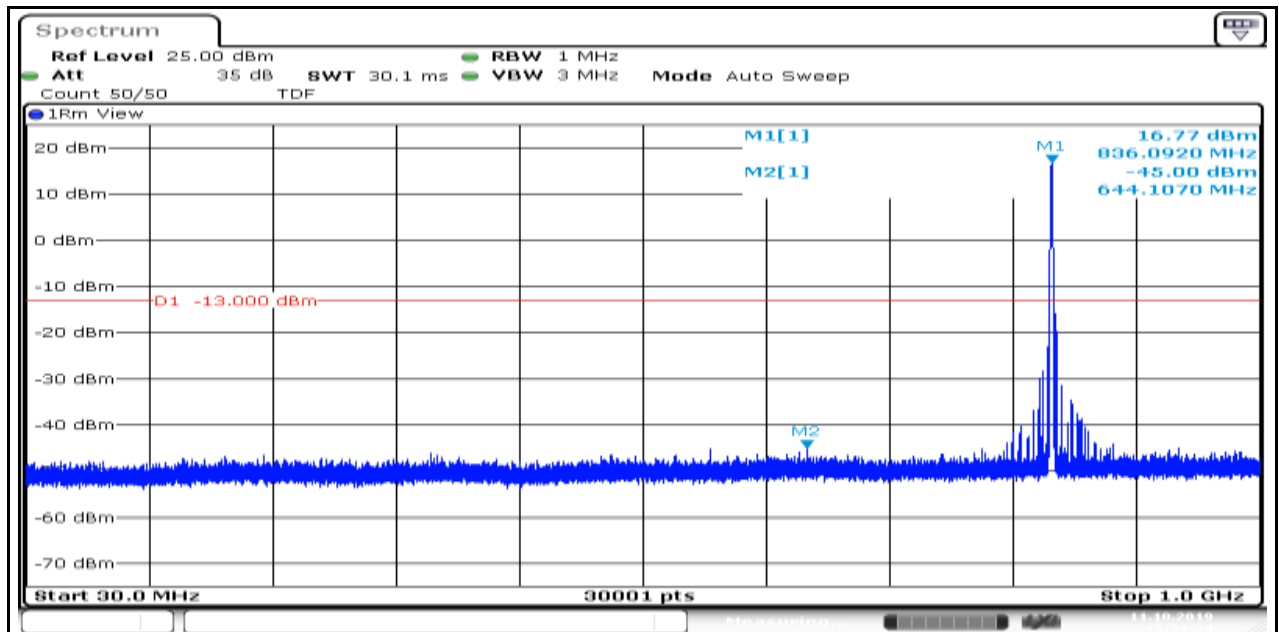


Band26_1.4MHz_QPSK_26797_1_0_Low_12000_26500

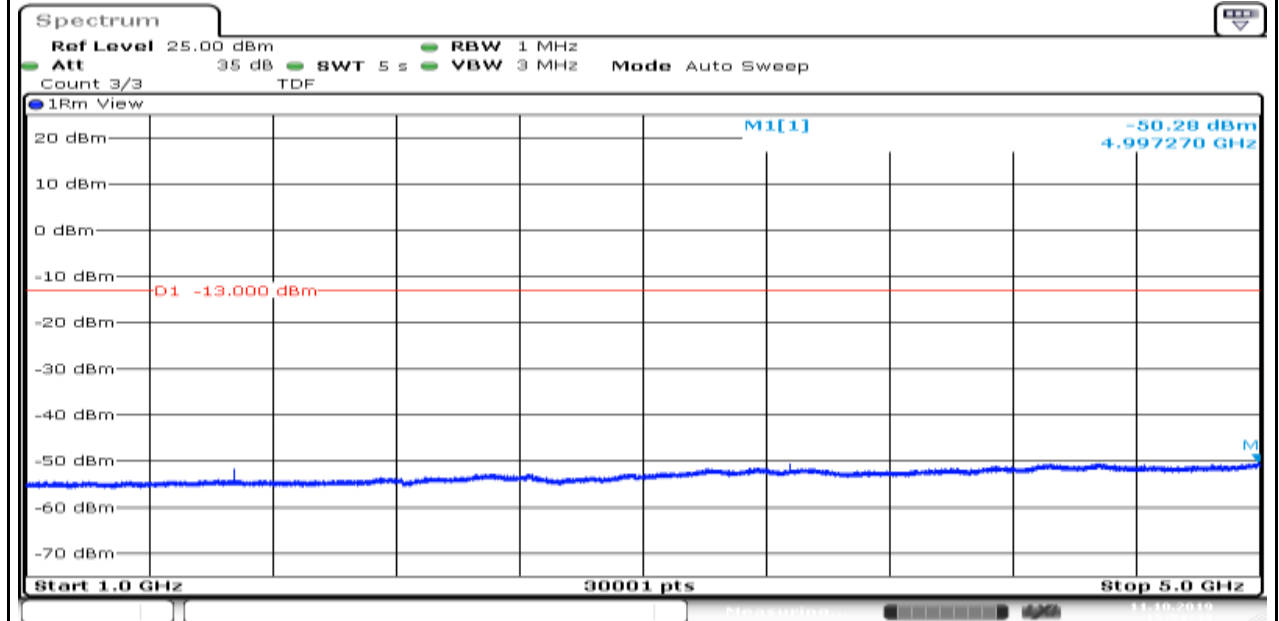


Band26_1.4MHz_QPSK_26915_1_0_Low_30_1000

Produkte
Products

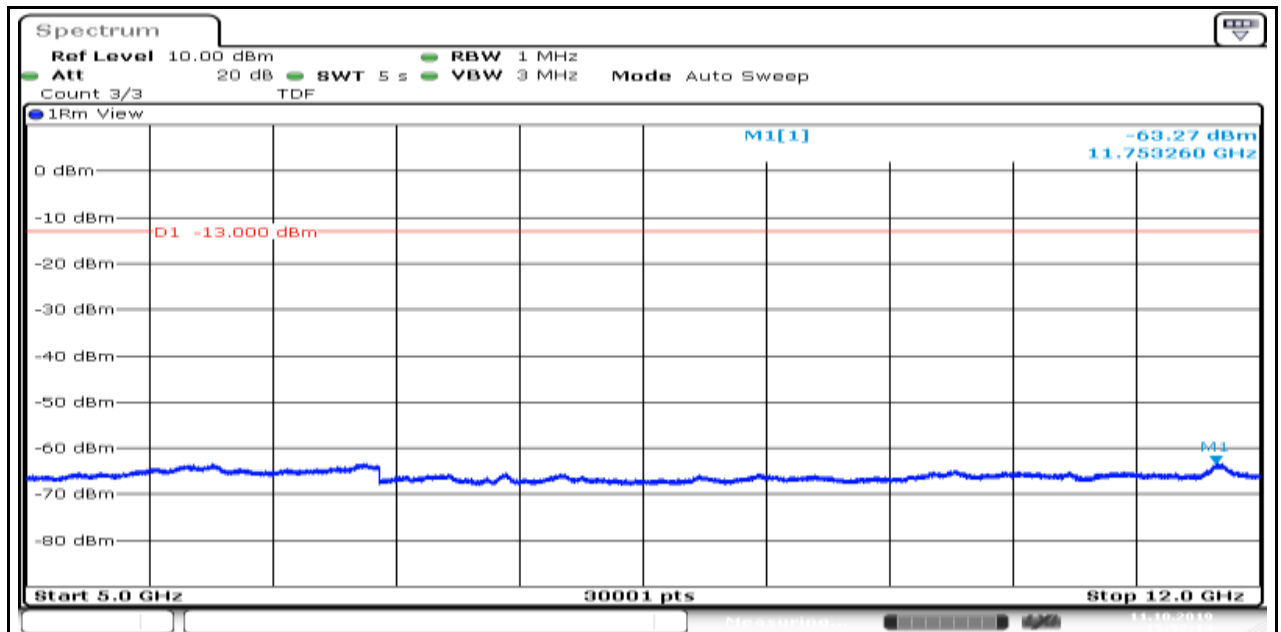


Band26_1.4MHz_QPSK_26915_1_0_Low_1000_5000

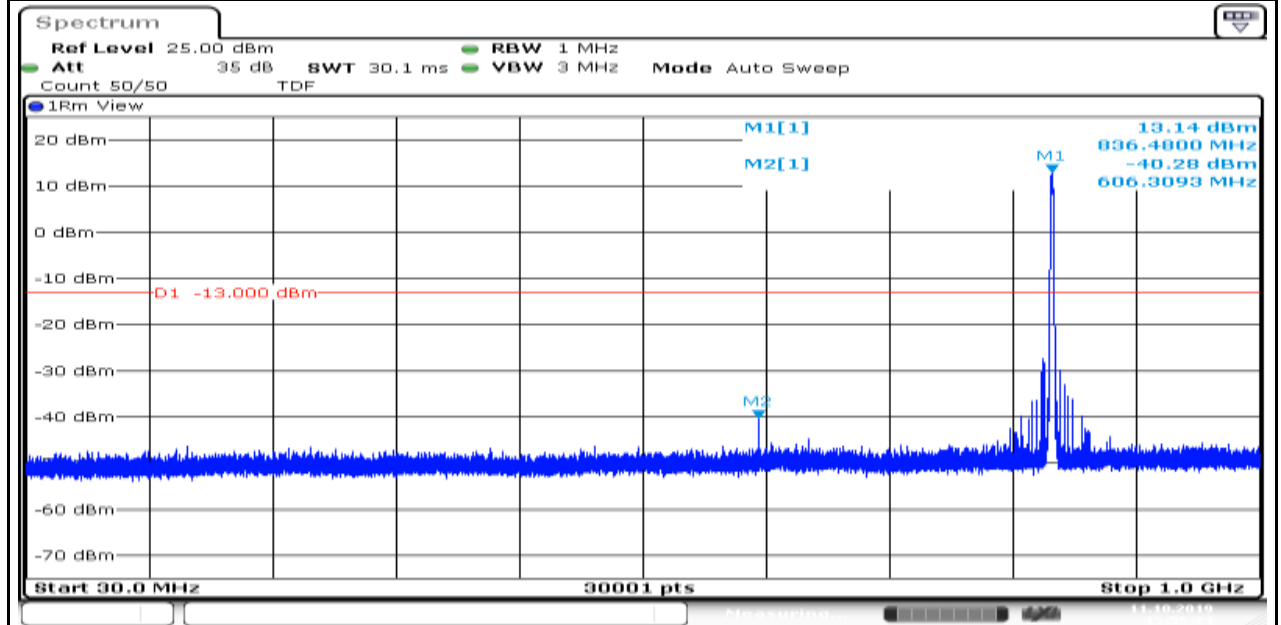


Band26_1.4MHz_QPSK_26915_1_0_Low_5000_12000

Produkte
Products

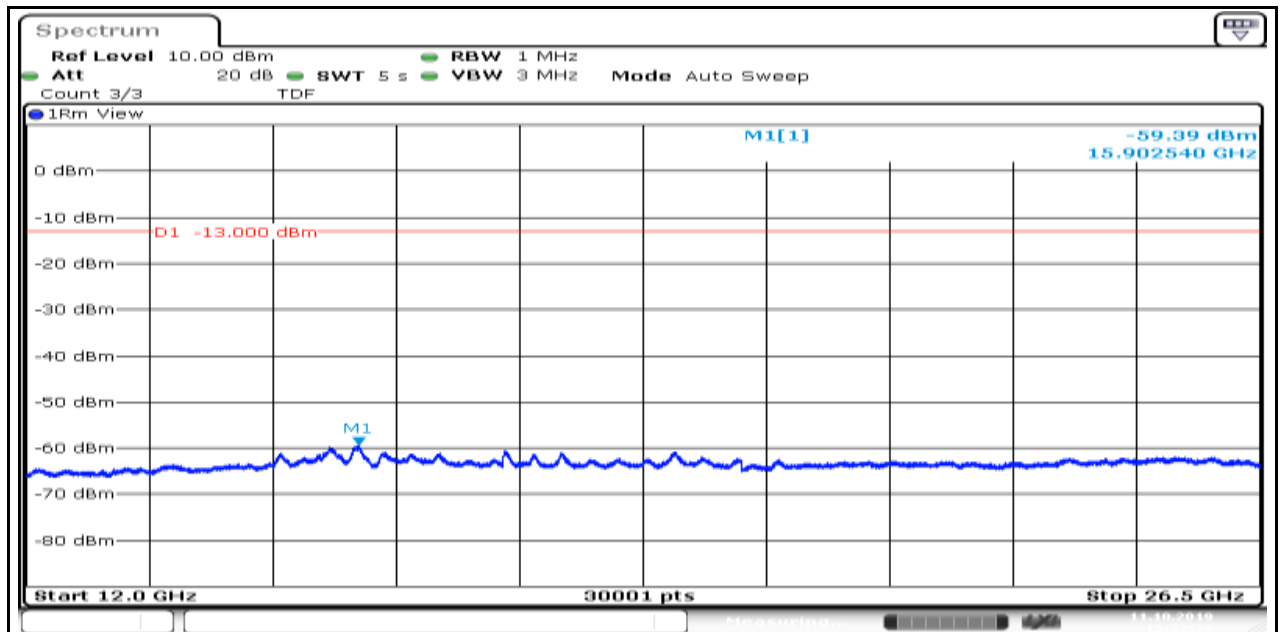


Band26_1.4MHz_QPSK_26915_6_0_Low_30_1000

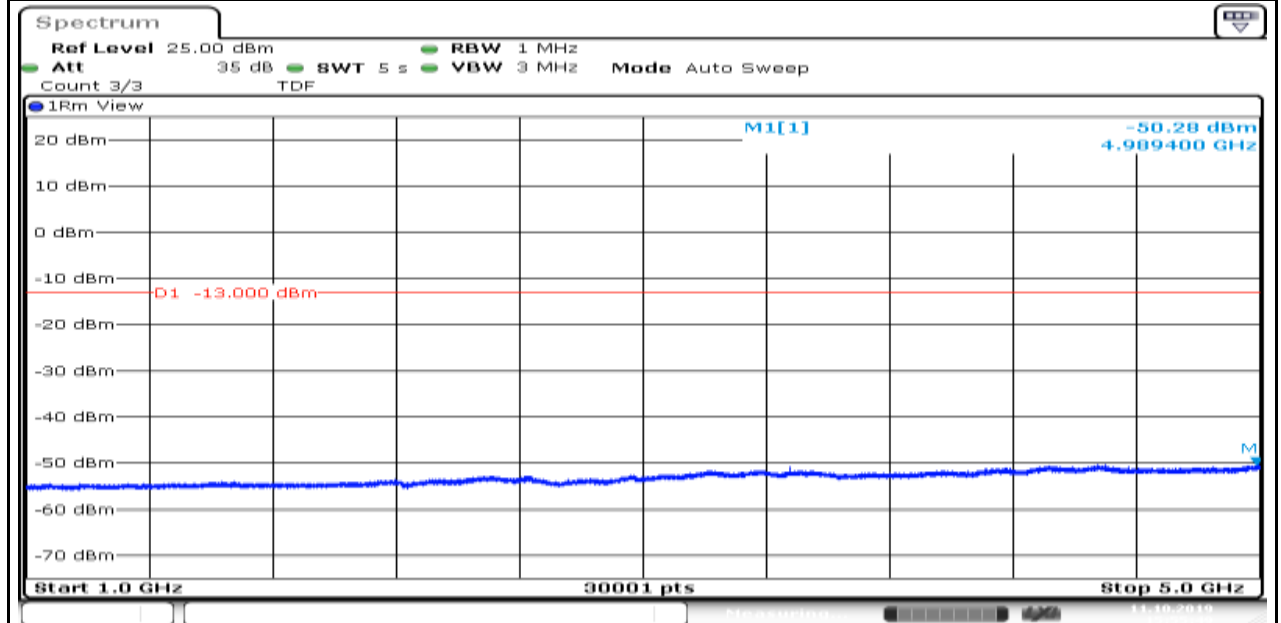


Band26_1.4MHz_QPSK_26915_1_0_Low_12000_26500

Produkte
Products

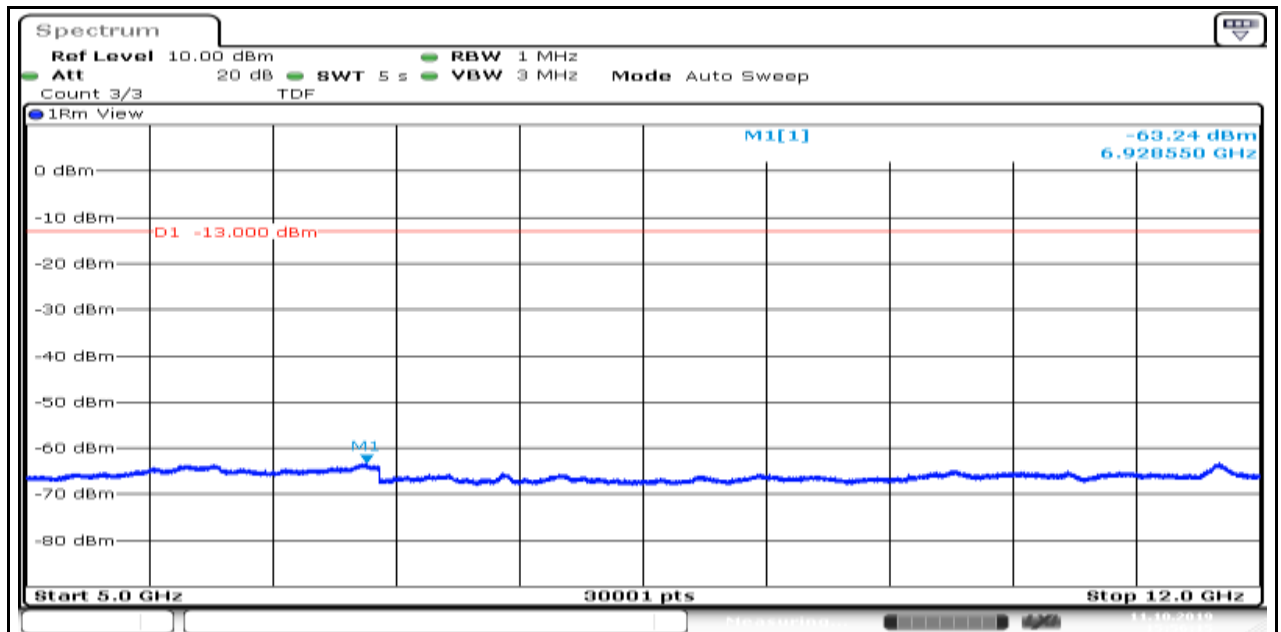


Band26_1.4MHz_QPSK_26915_6_0_Low_1000_5000



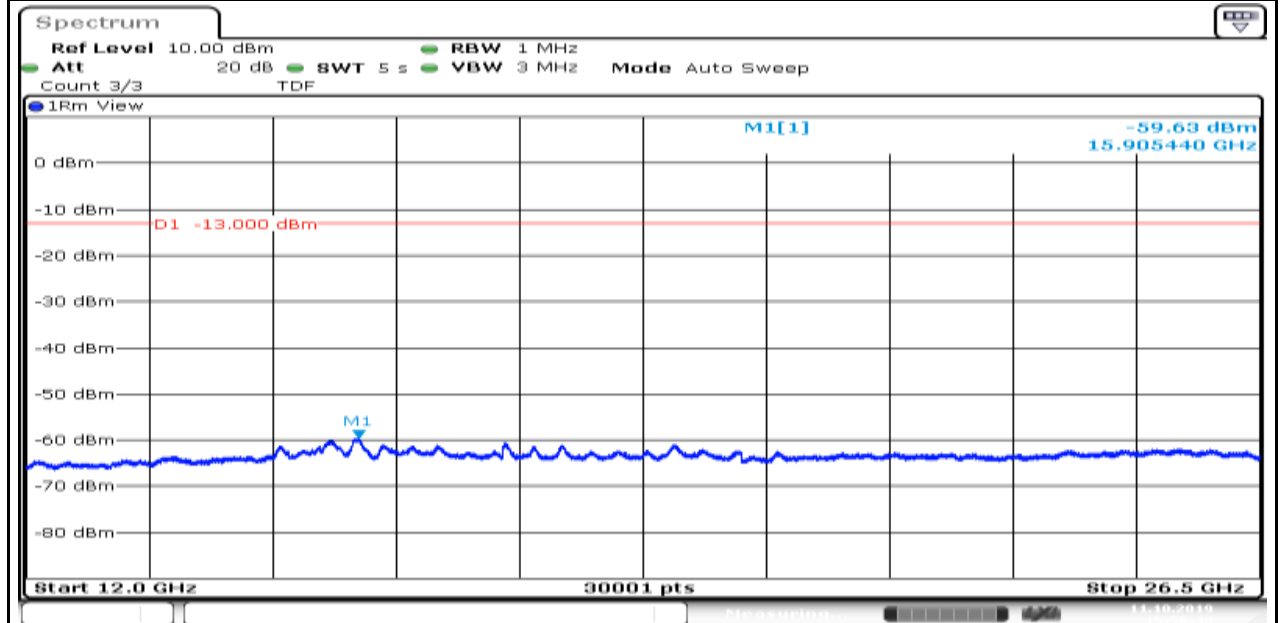
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Produkte
Products



Date: 11.OCT.2019 15:56:15

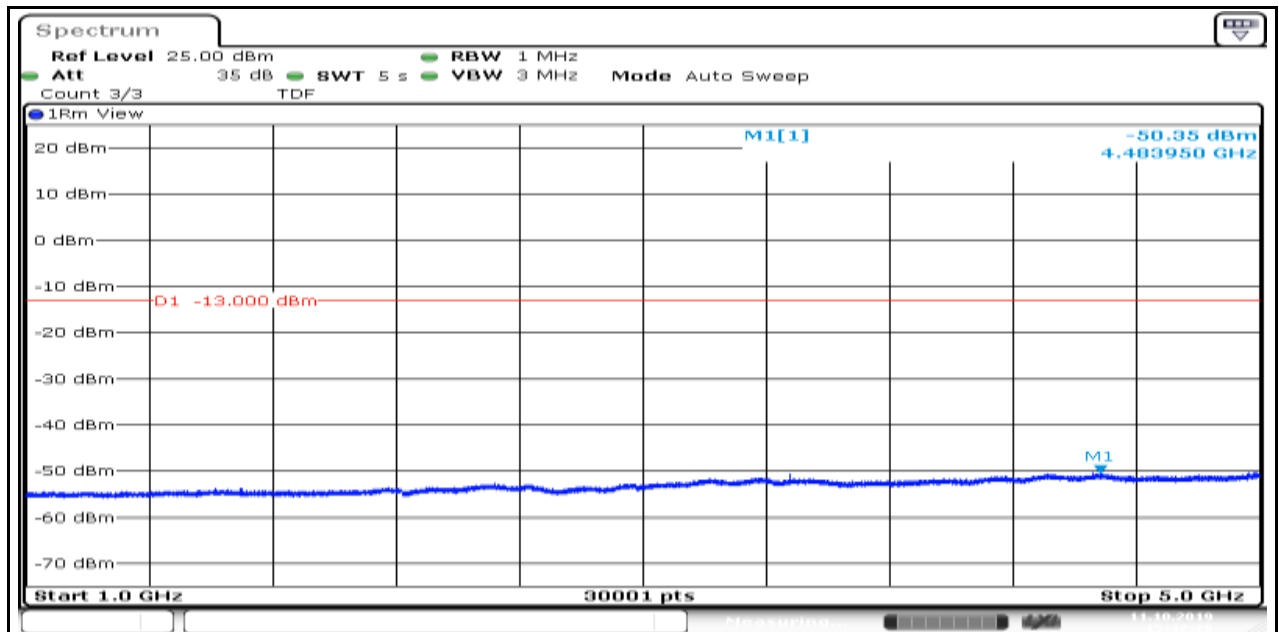
Band26_1.4MHz_QPSK_26915_6_0_Low_12000_26500



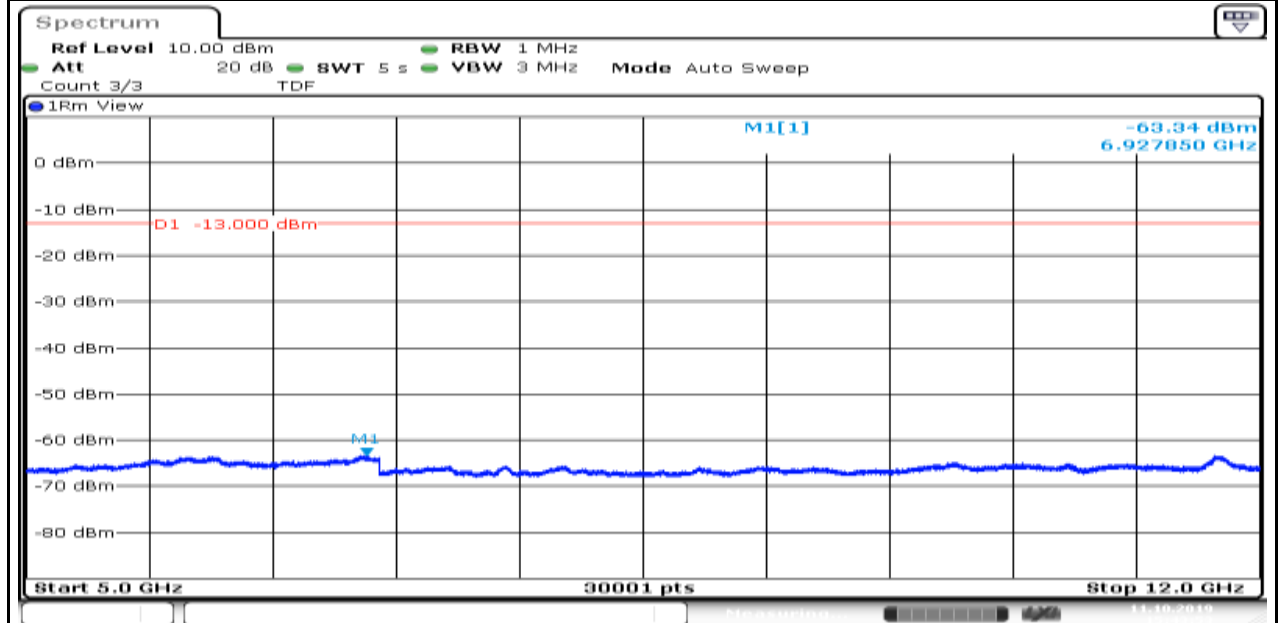
Date: 11.OCT.2019 15:56:40

Band26_1.4MHz_QPSK_27033_6_0_Low_1000_5000

Produkte
Products

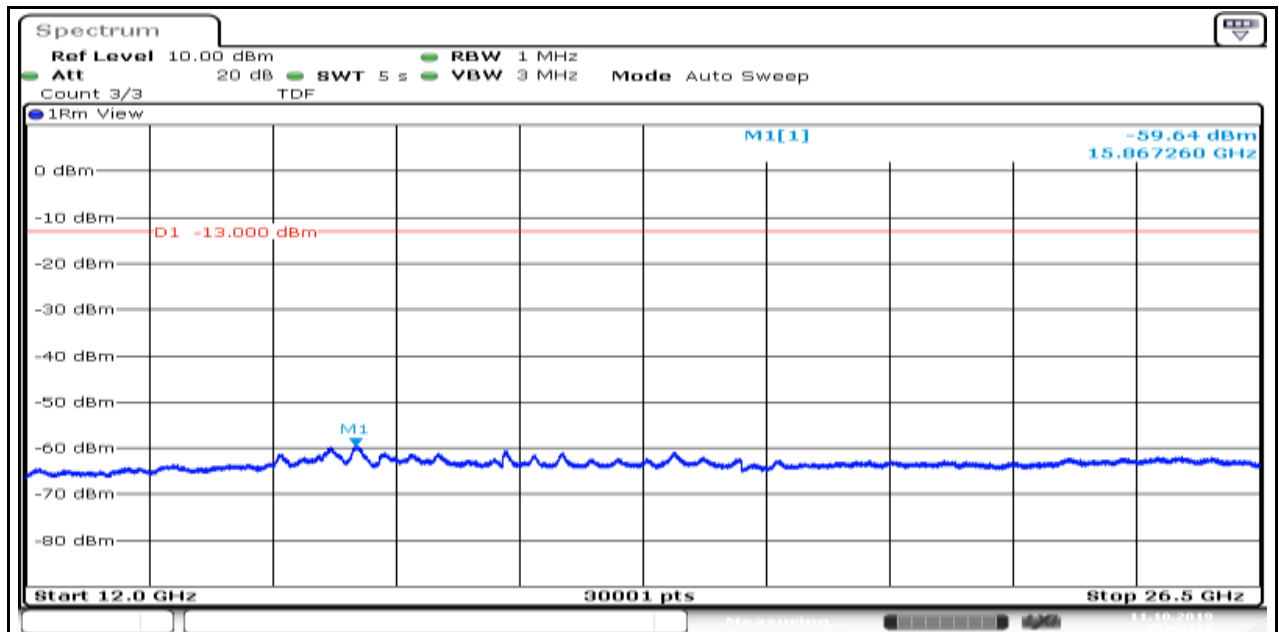


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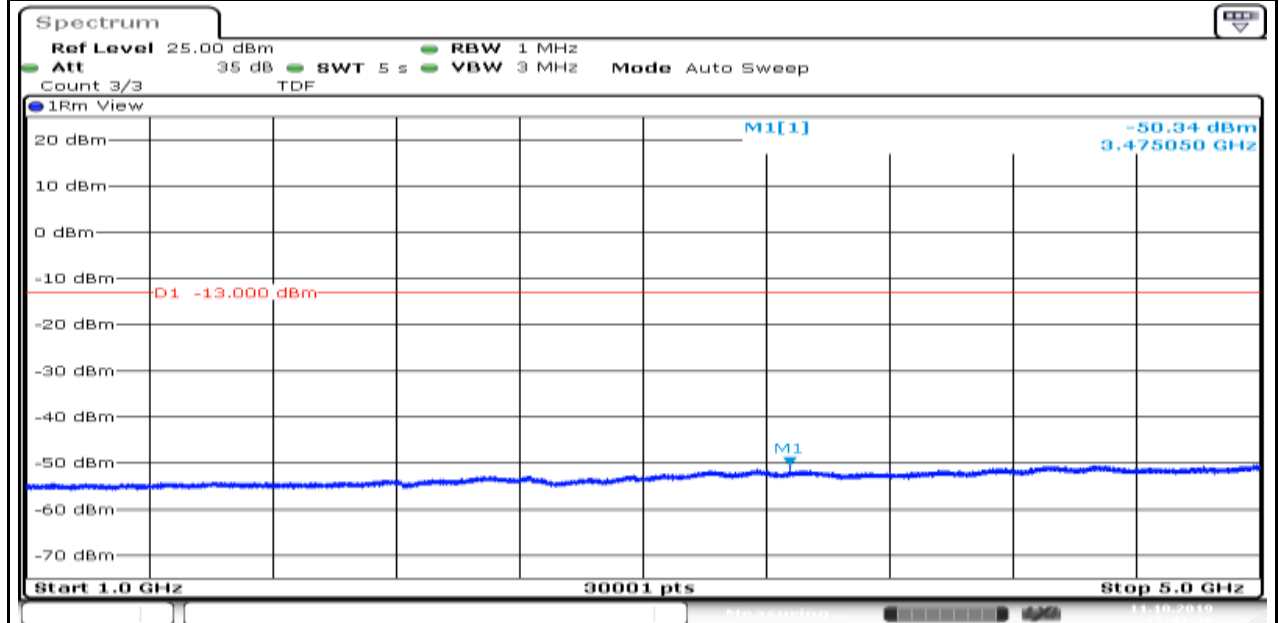


Band26_1.4MHz_QPSK_27033_6_0_Low_12000_26500

Produkte
Products

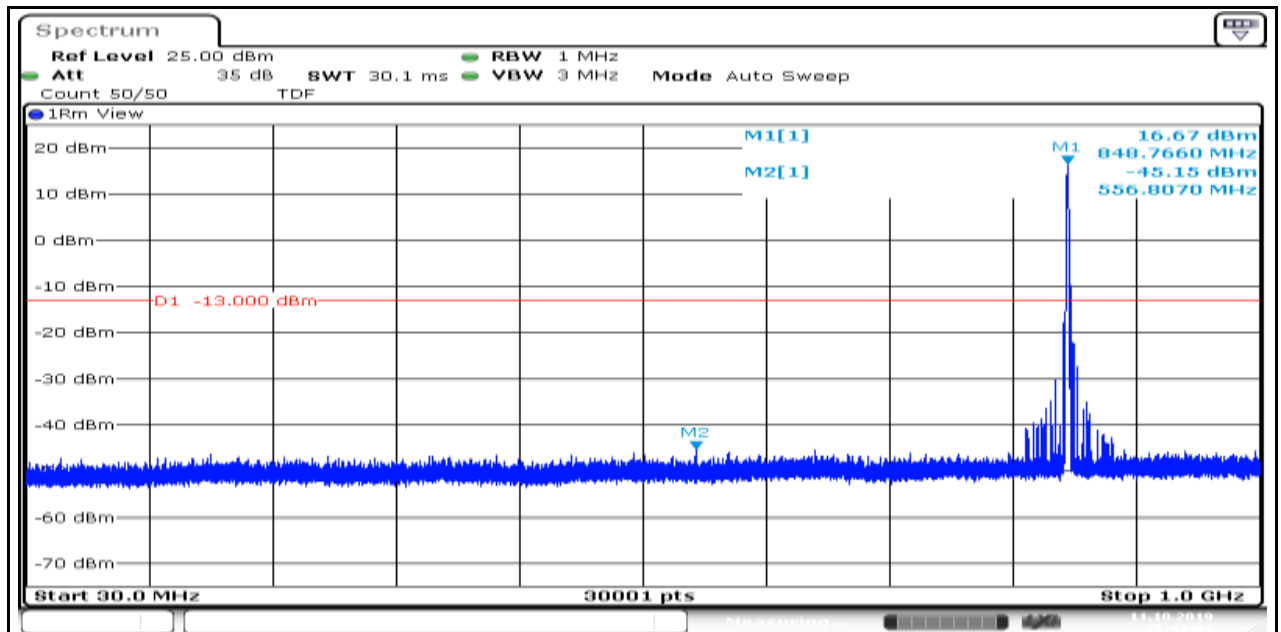


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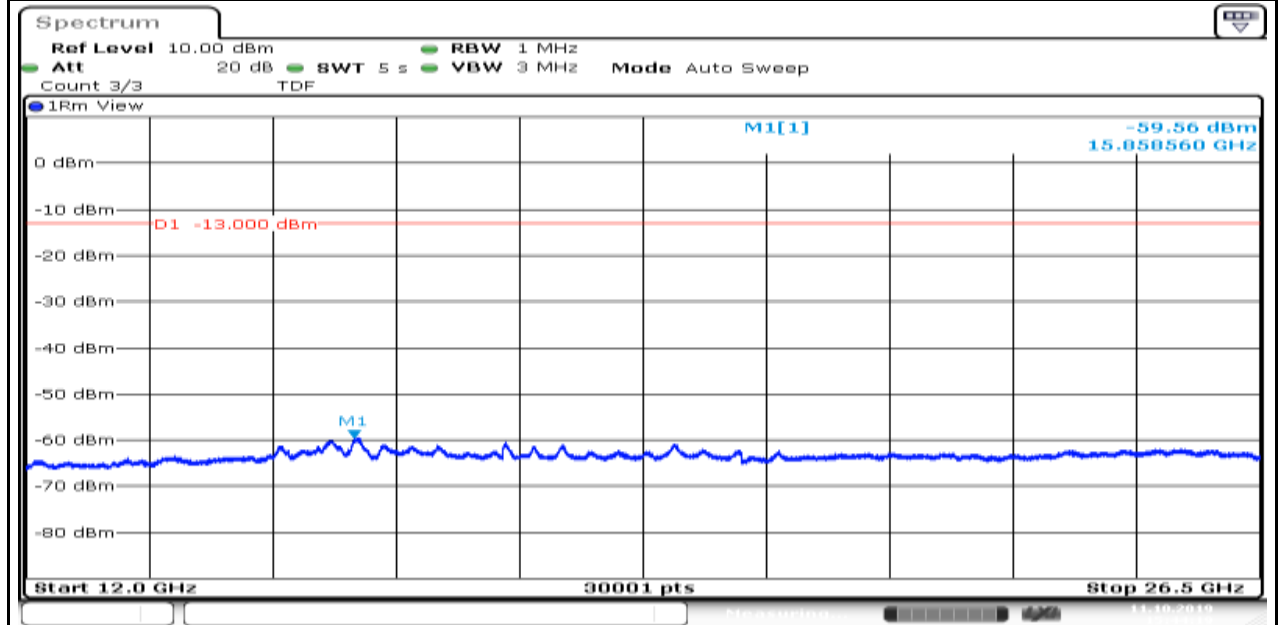


Band26_1.4MHz_QPSK_27033_1_5_Low_30_1000

Produkte
Products

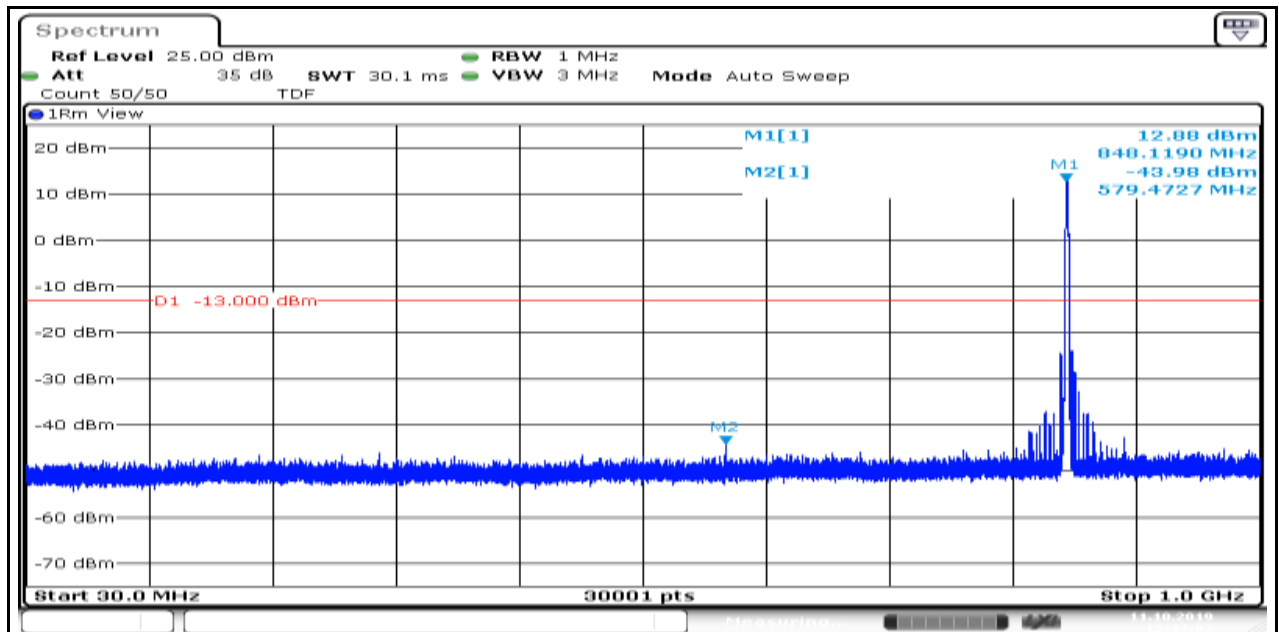


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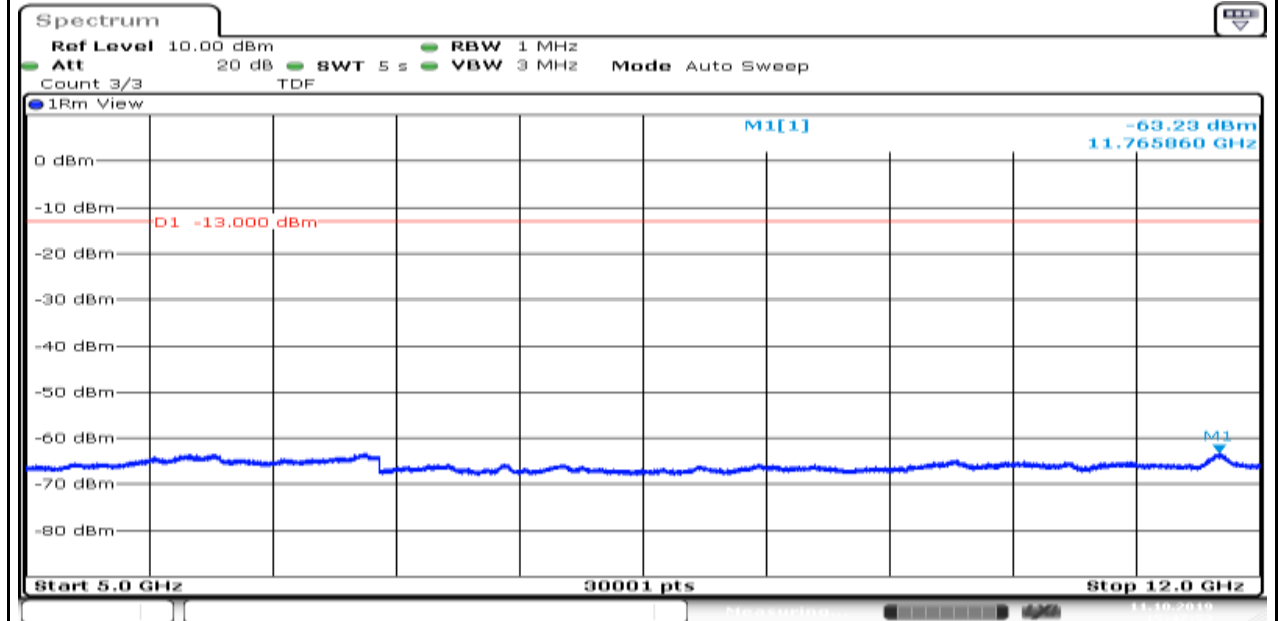


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Produkte
Products

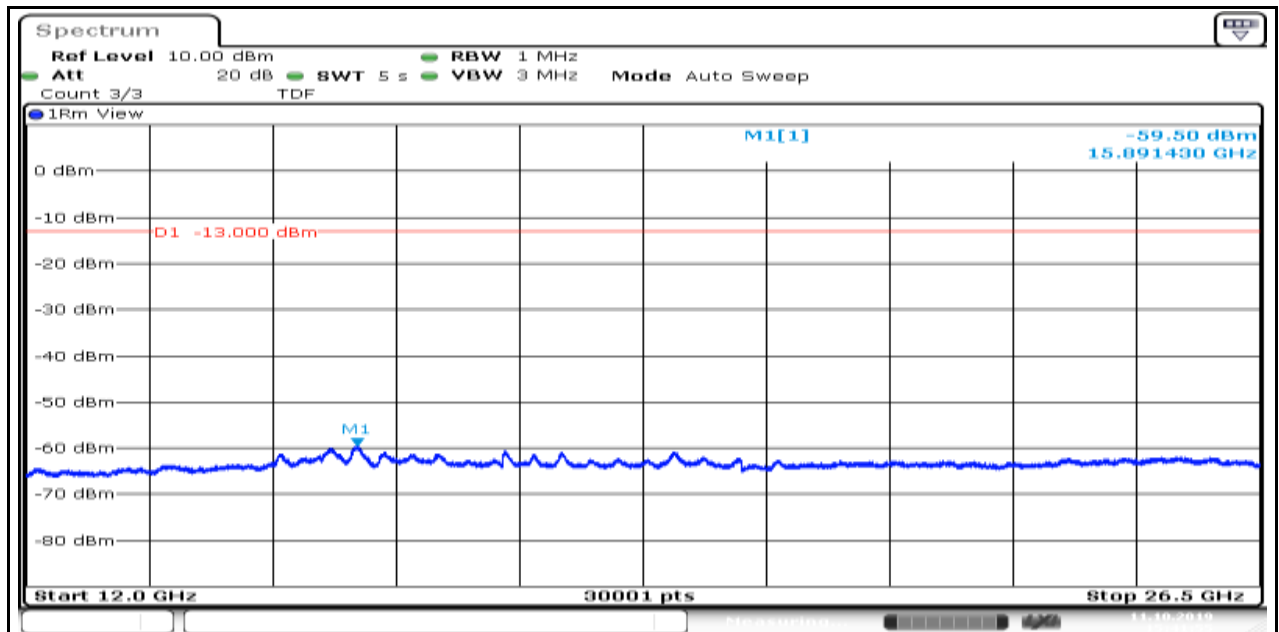


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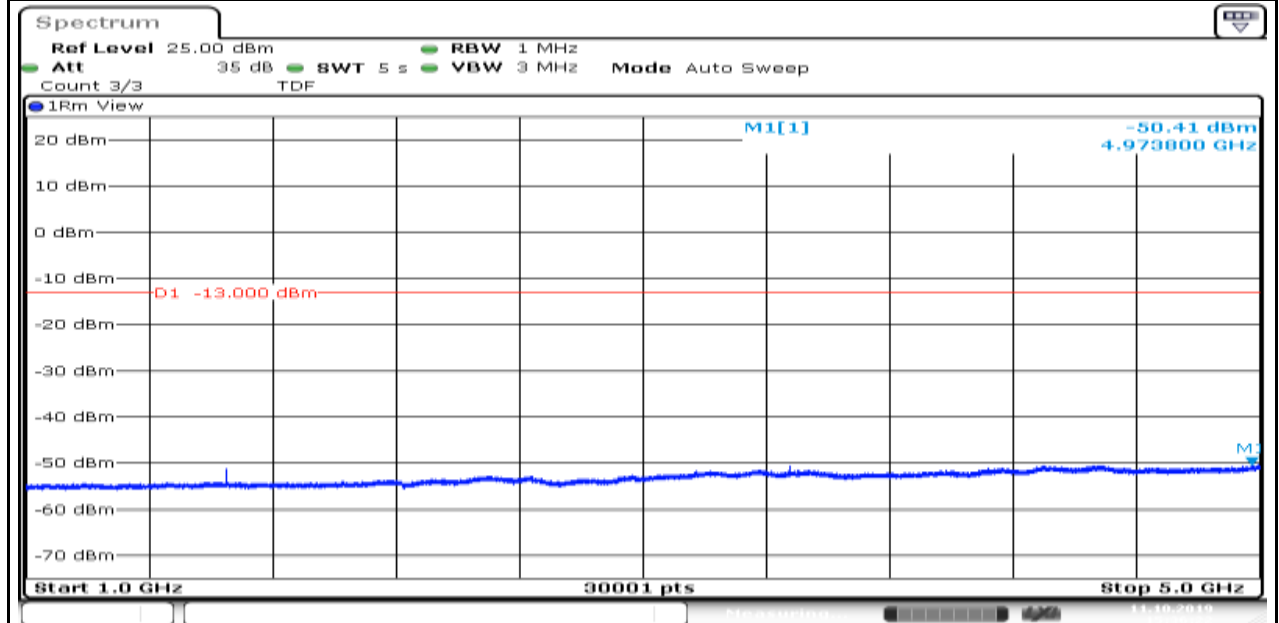
Band26_1.4MHz_16QAM_26797_6_0_Low_12000_26500

Produkte
Products



Date: 11.OCT.2019 15:41:55

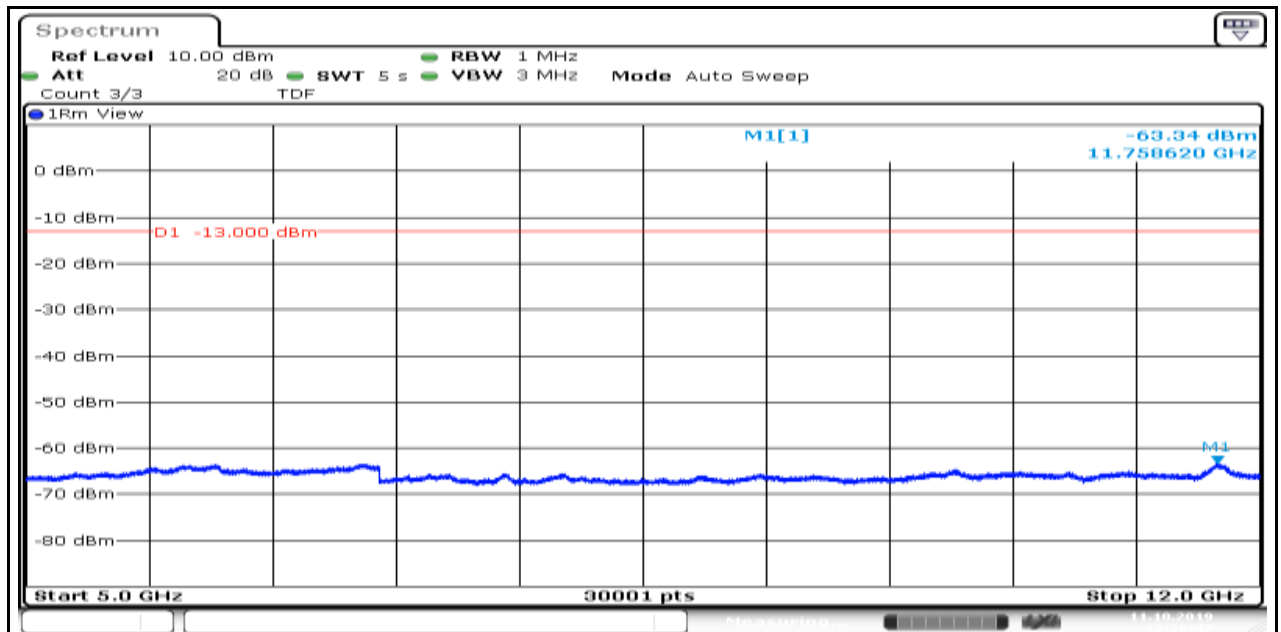
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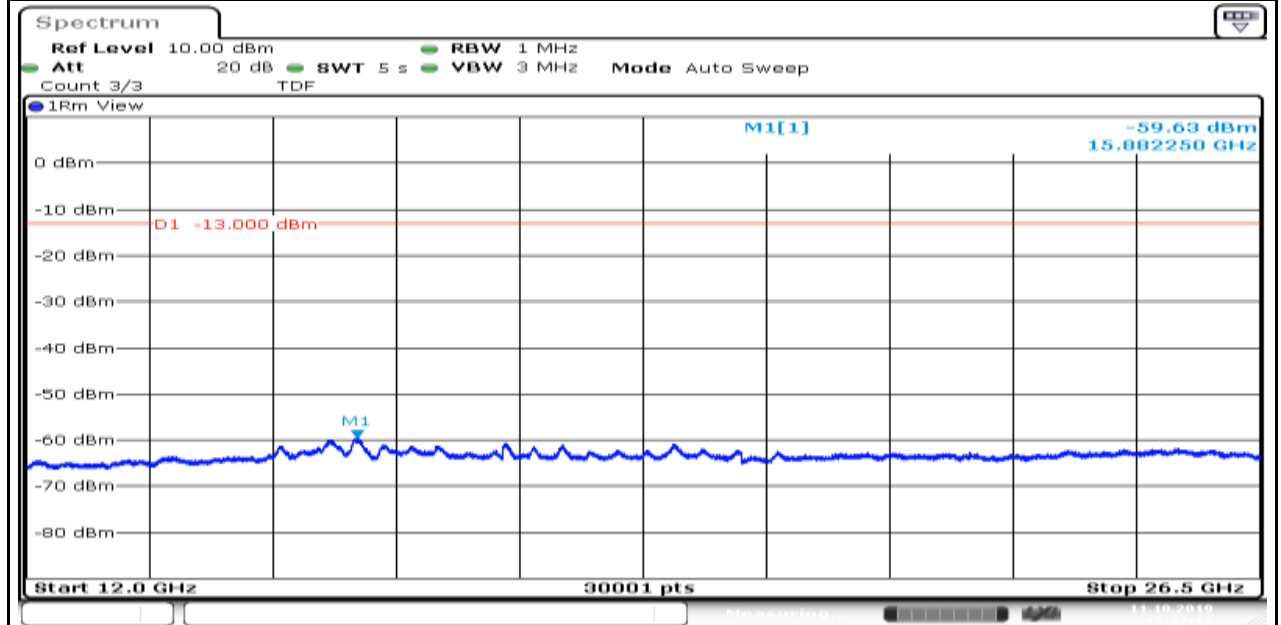
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Produkte
Products



Date: 11.OCT.2019 15:36:47

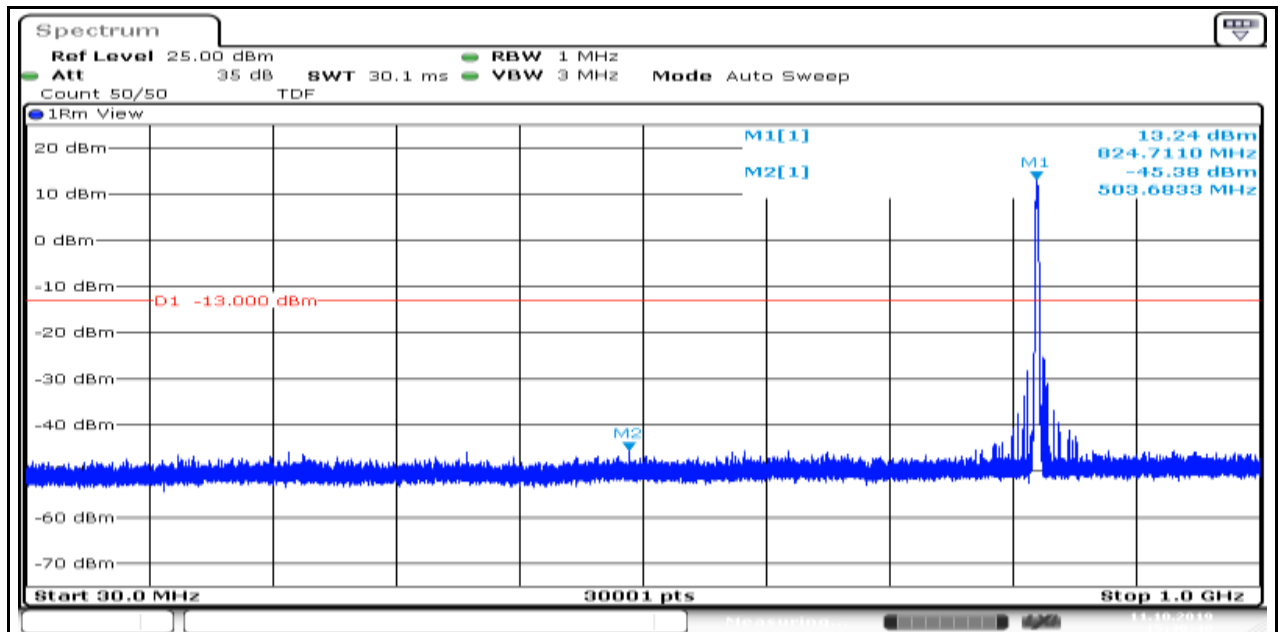
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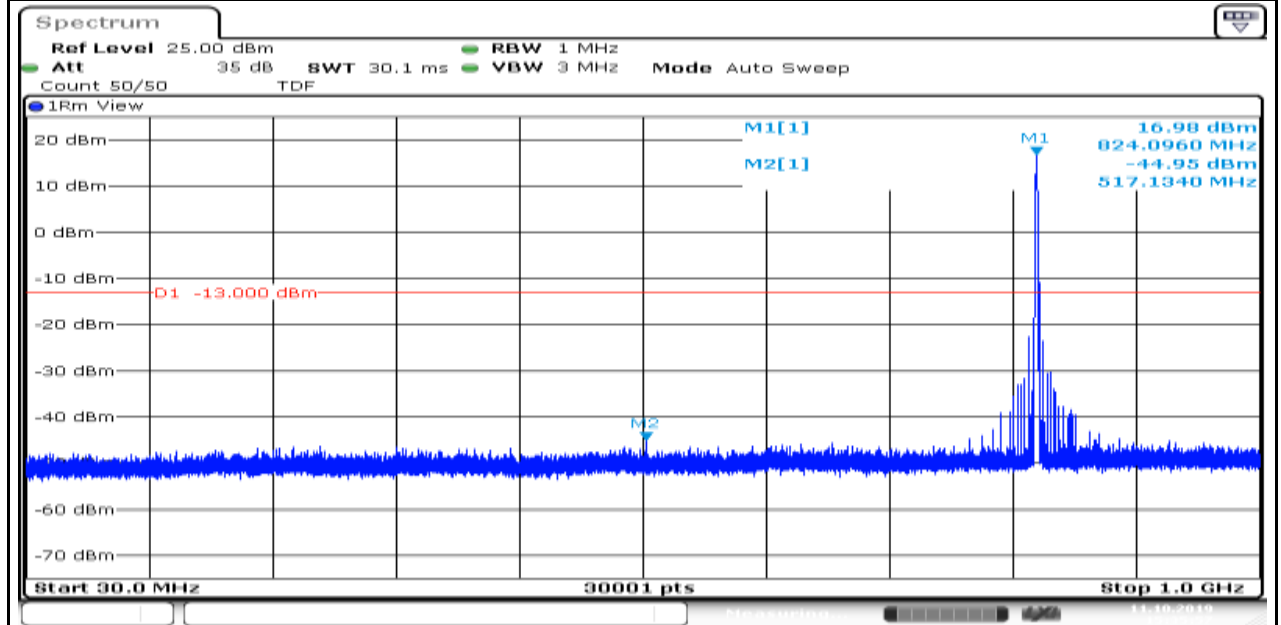
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Produkte
Products

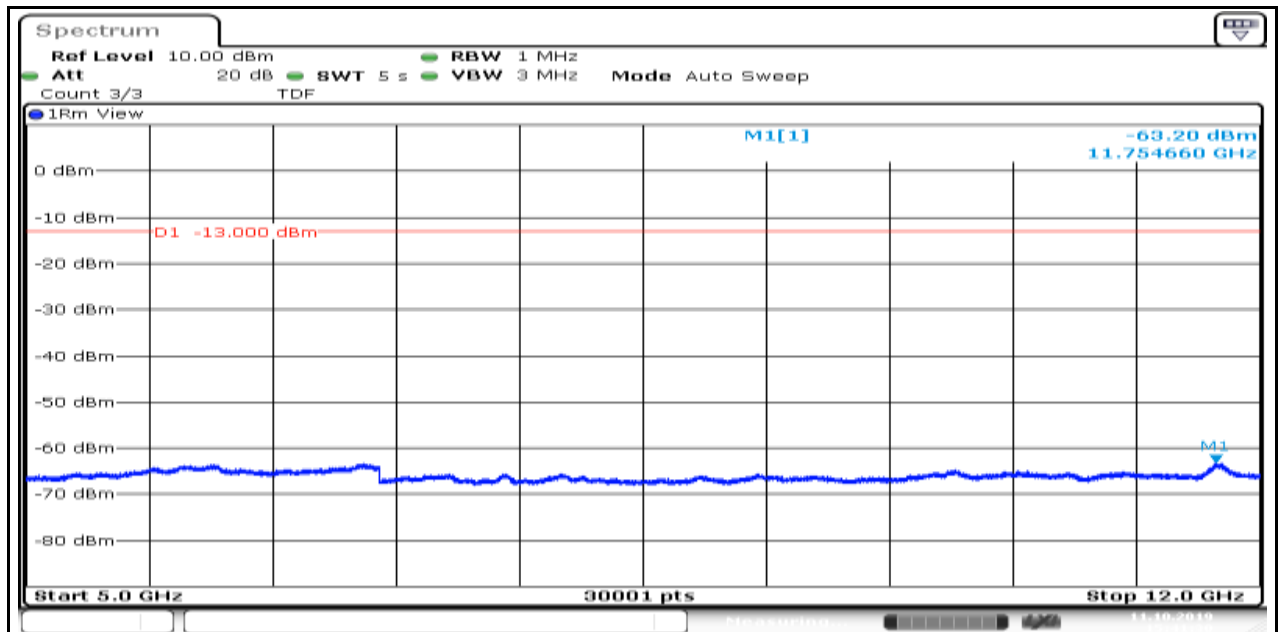


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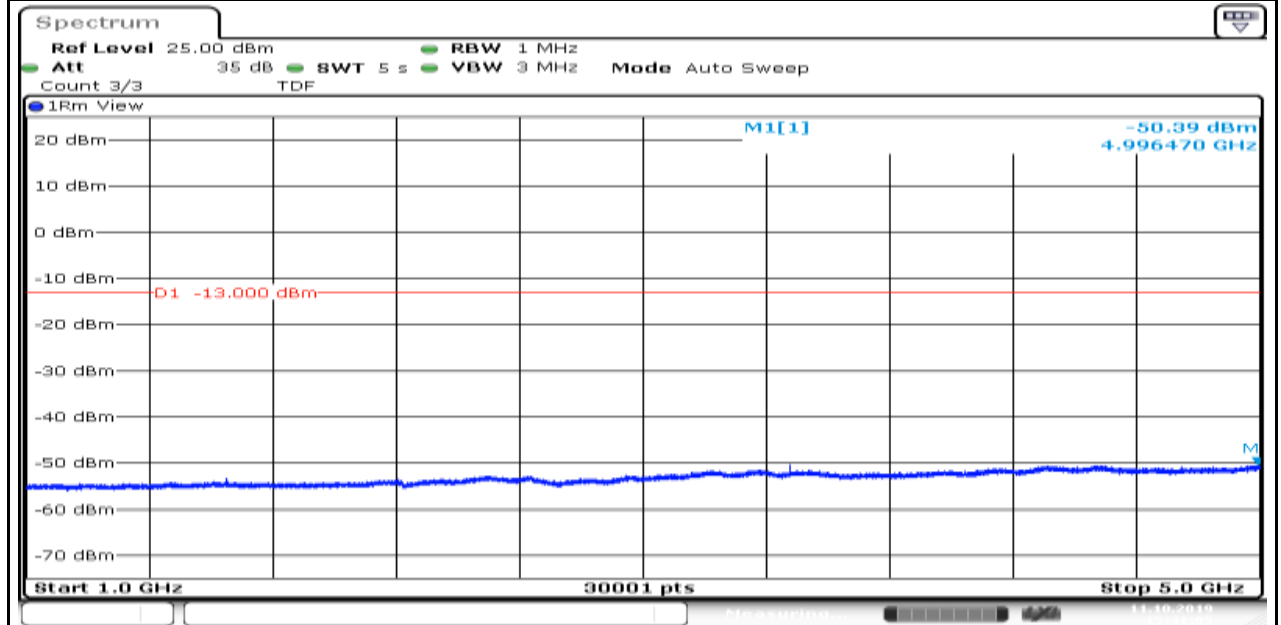
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Produkte
Products



Date: 11.OCT.2019 15:41:30

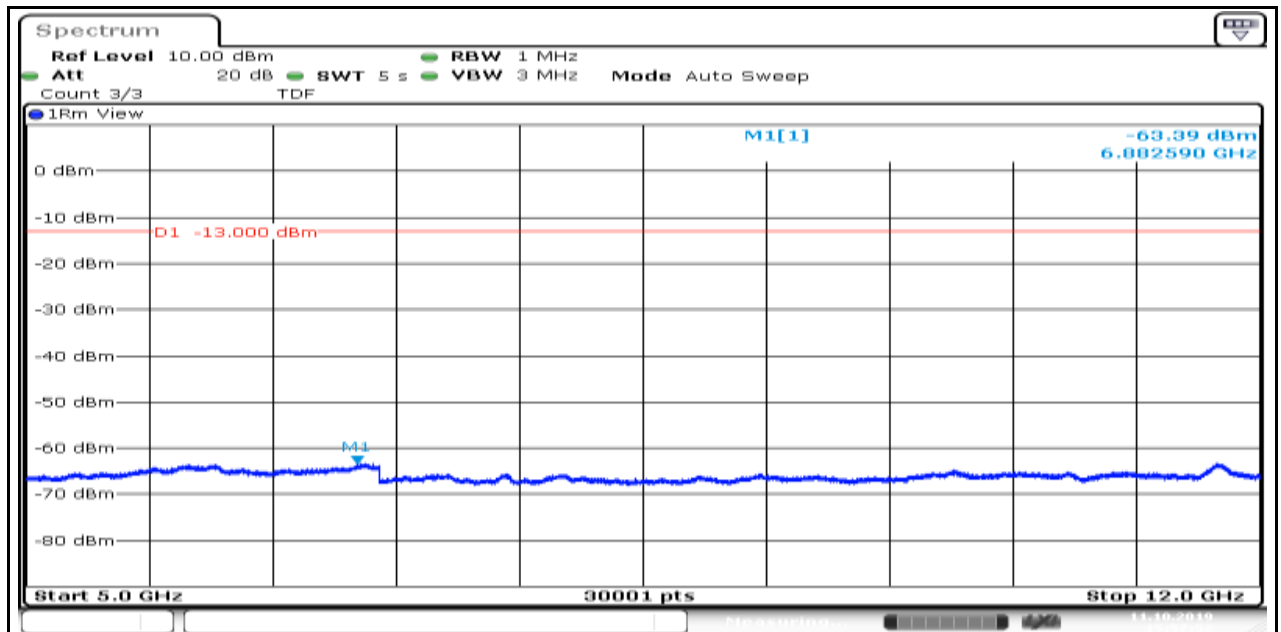
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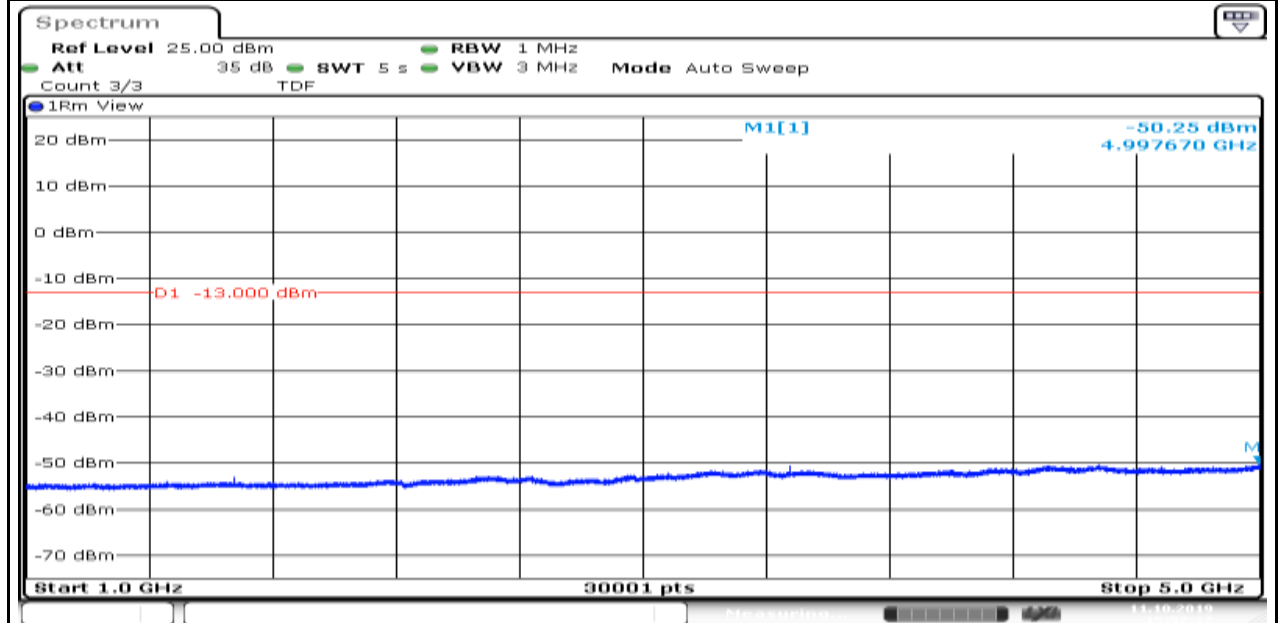
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Produkte
Products



Date: 11.OCT.2019 15:57:52

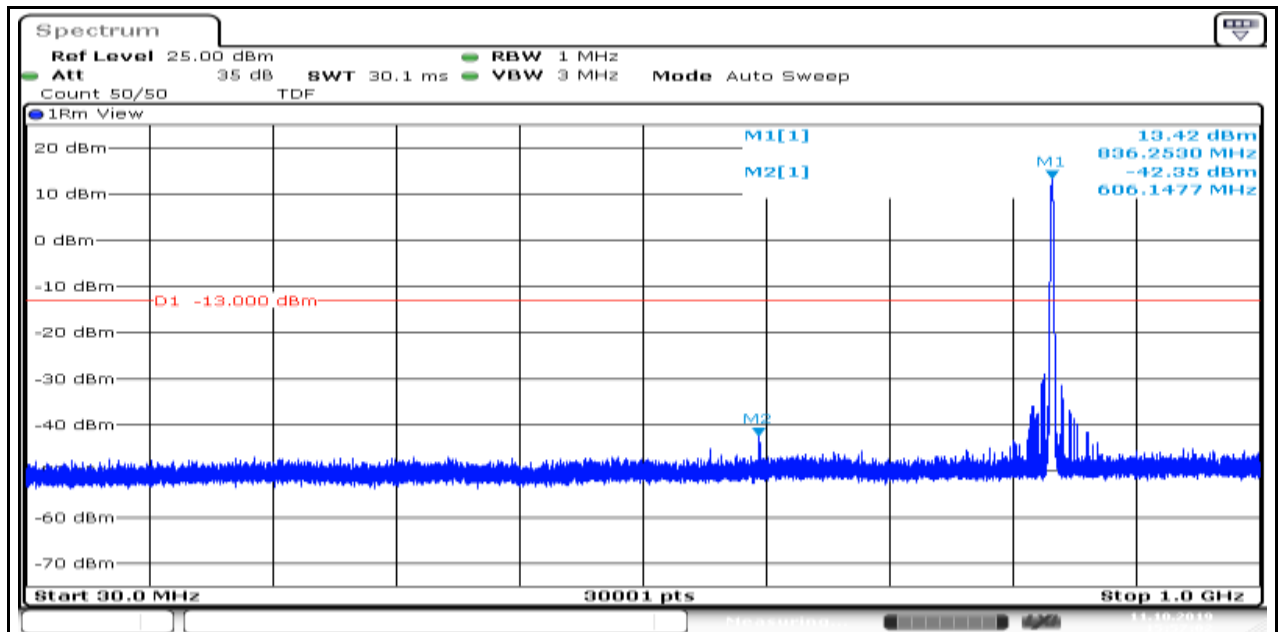
Band26_1.4MHz_16QAM_26915_6_0_Low_1000_5000



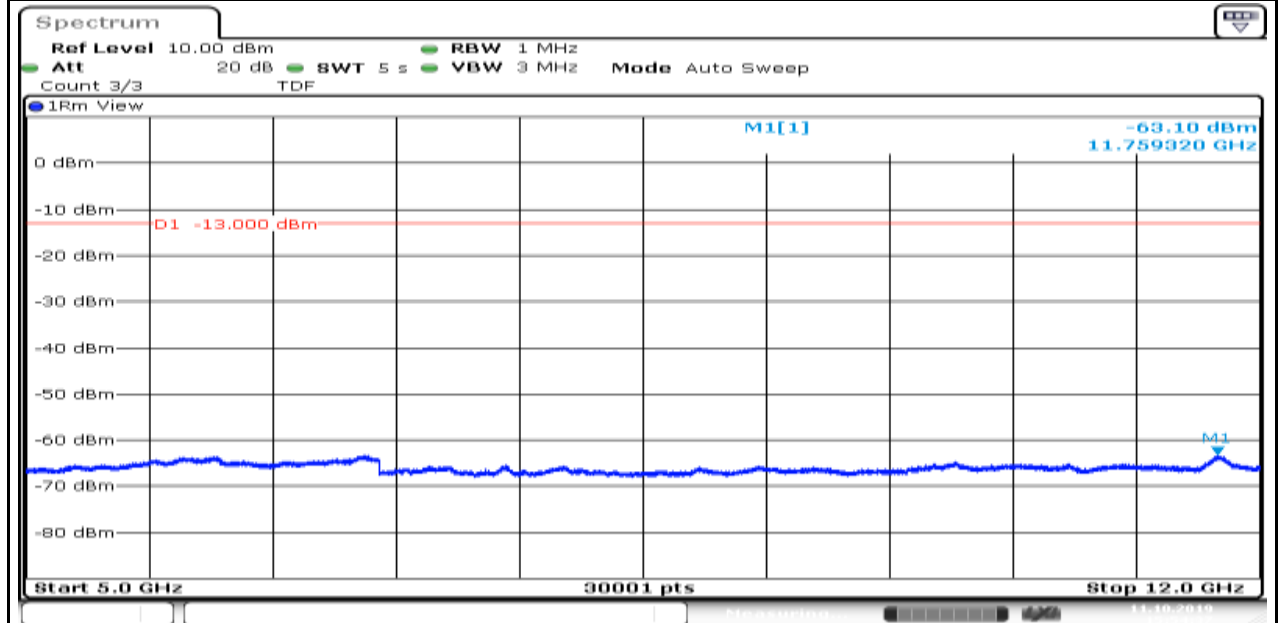
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Band26_1.4MHz_16QAM_26915_6_0_Low_30_1000

Produkte
Products

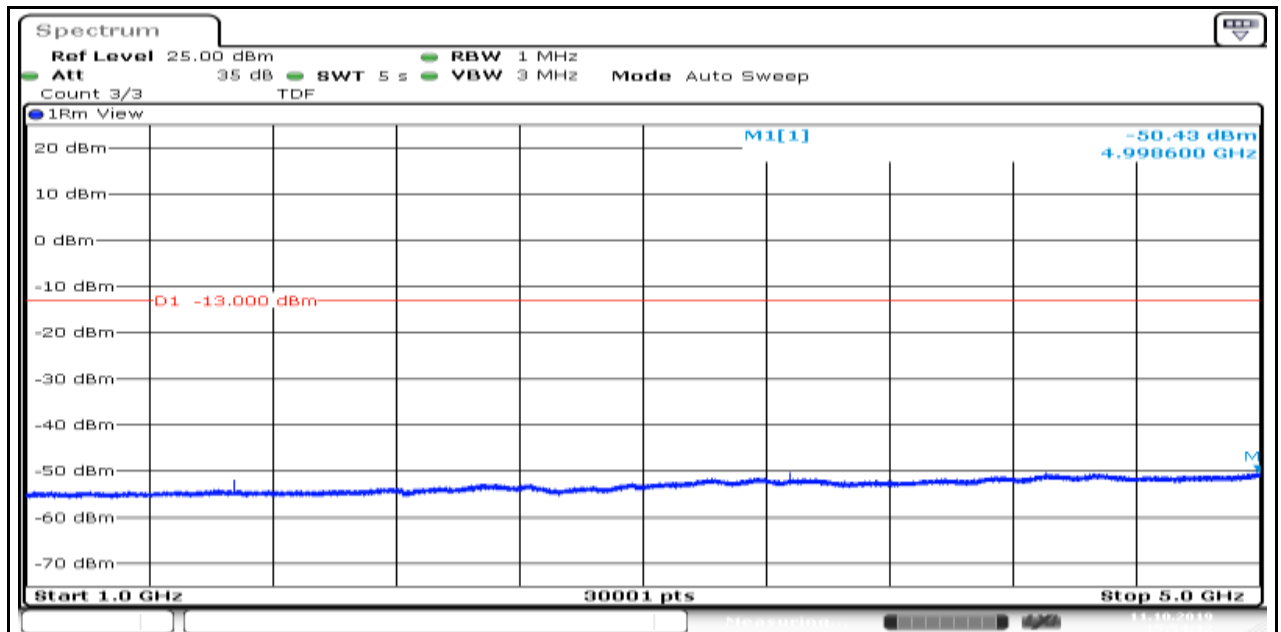


Band26_1.4MHz_16QAM_26915_1_0_Low_5000_12000

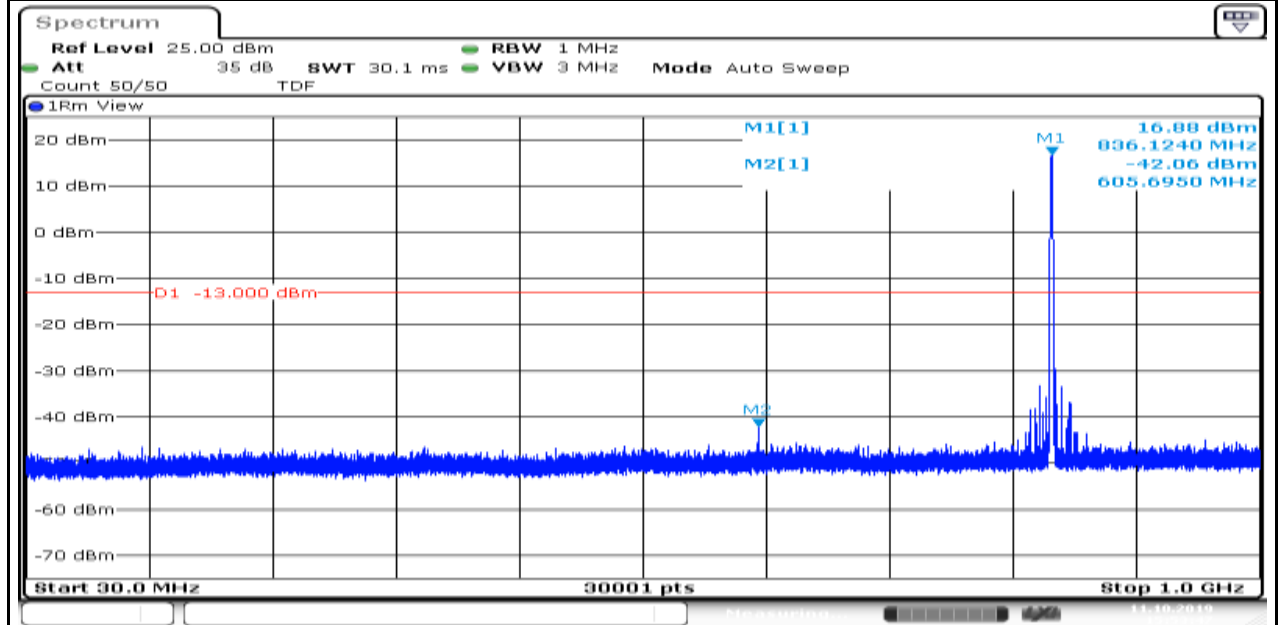


Band26_1.4MHz_16QAM_26915_1_0_Low_1000_5000

Produkte
Products

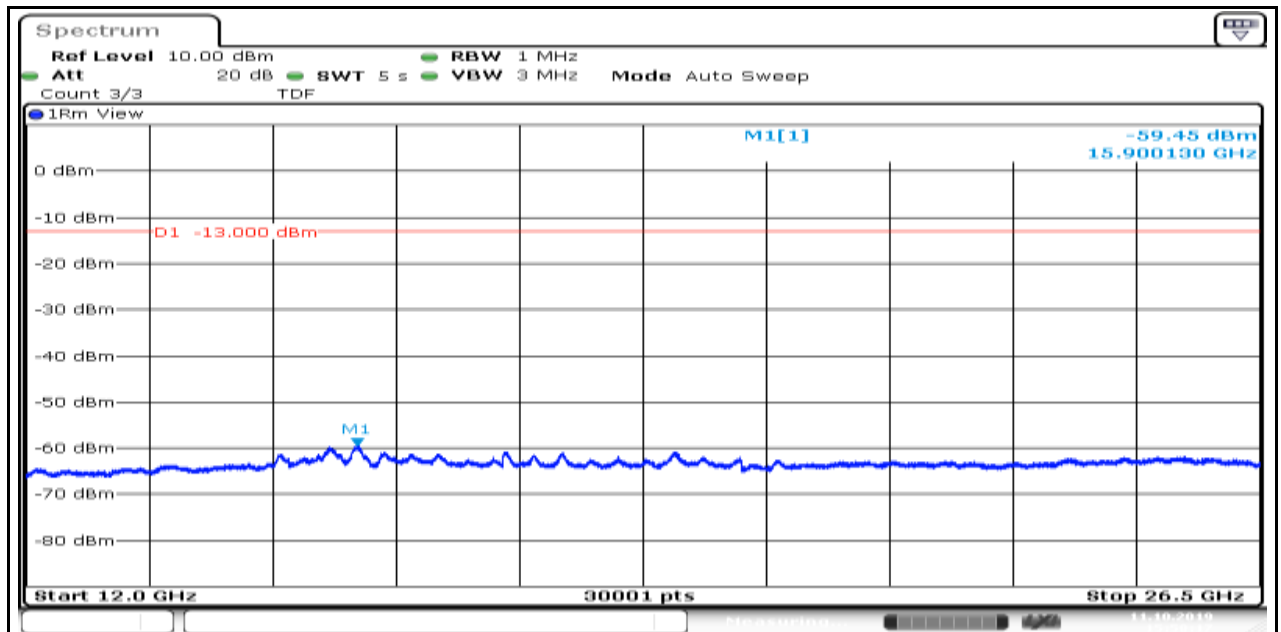


Band26_1.4MHz_16QAM_26915_1_0_Low_30_1000



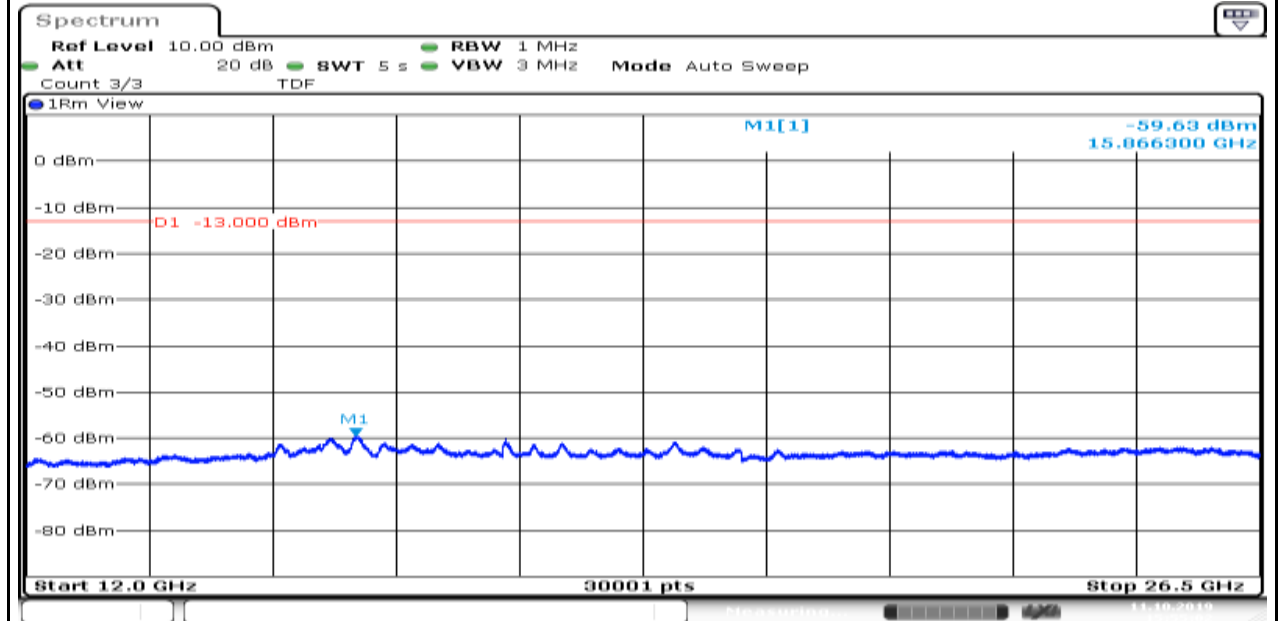
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Produkte
Products



Date: 11.OCT.2019 15:58:17

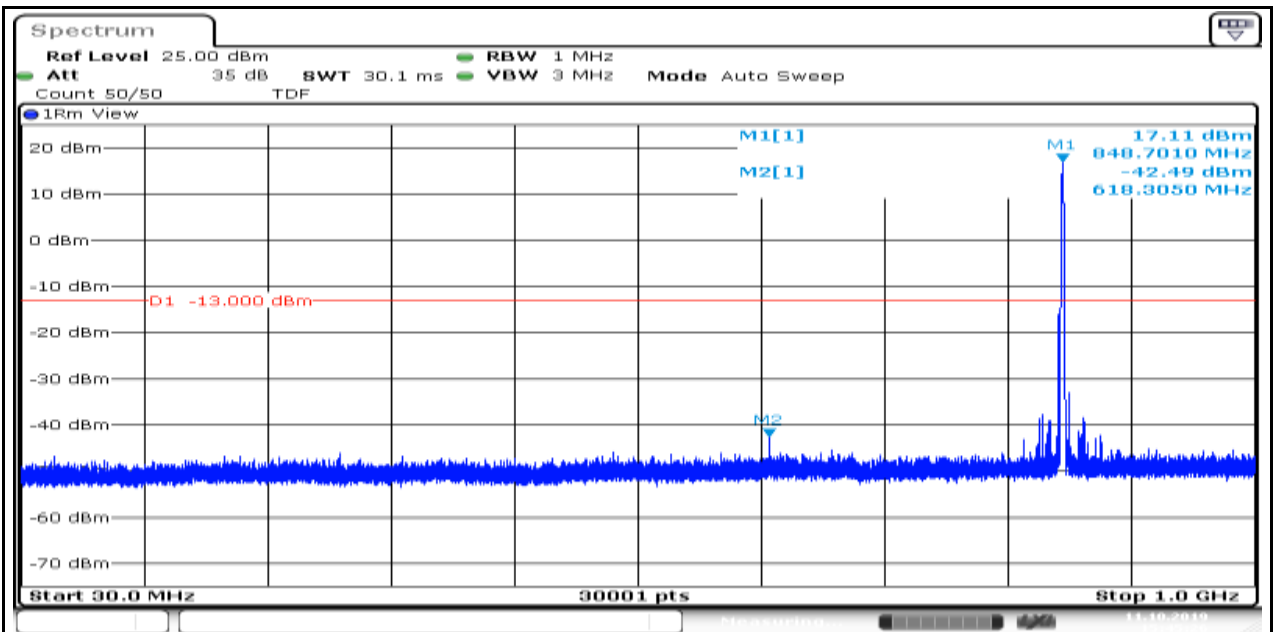
Band26_1.4MHz_16QAM_26915_1_0_Low_12000_26500



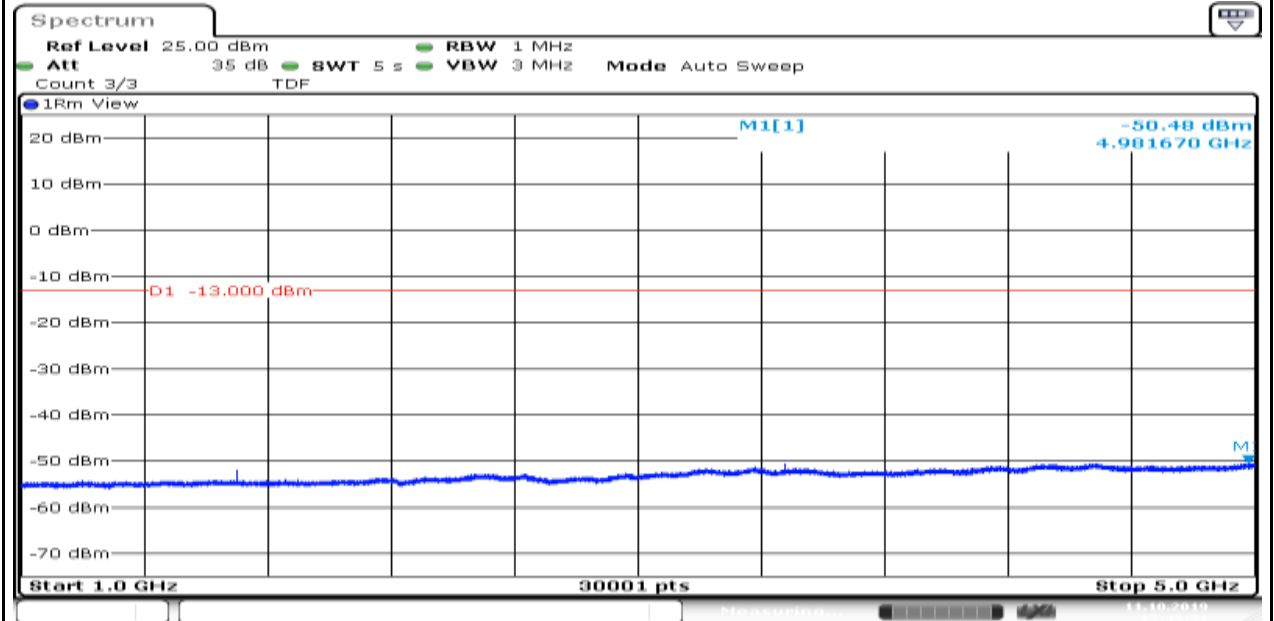
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Band26_1.4MHz_16QAM_27033_1_5_Low_30_1000

Produkte
Products

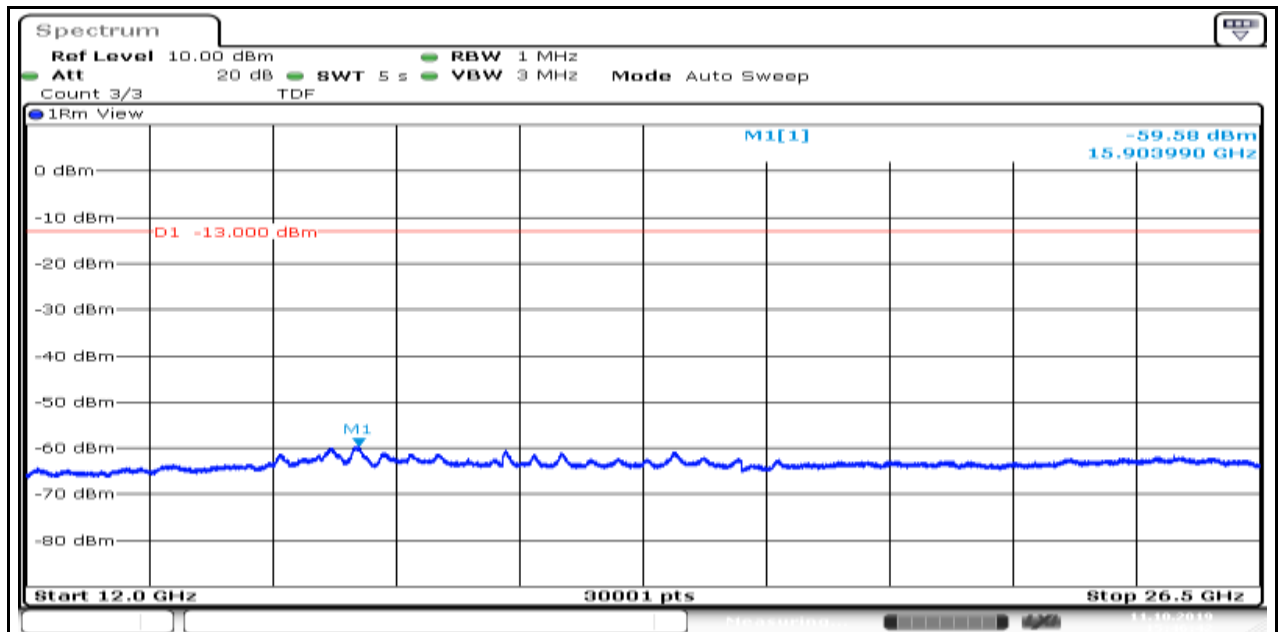


Band26_1.4MHz_16QAM_27033_1_5_Low_1000_5000



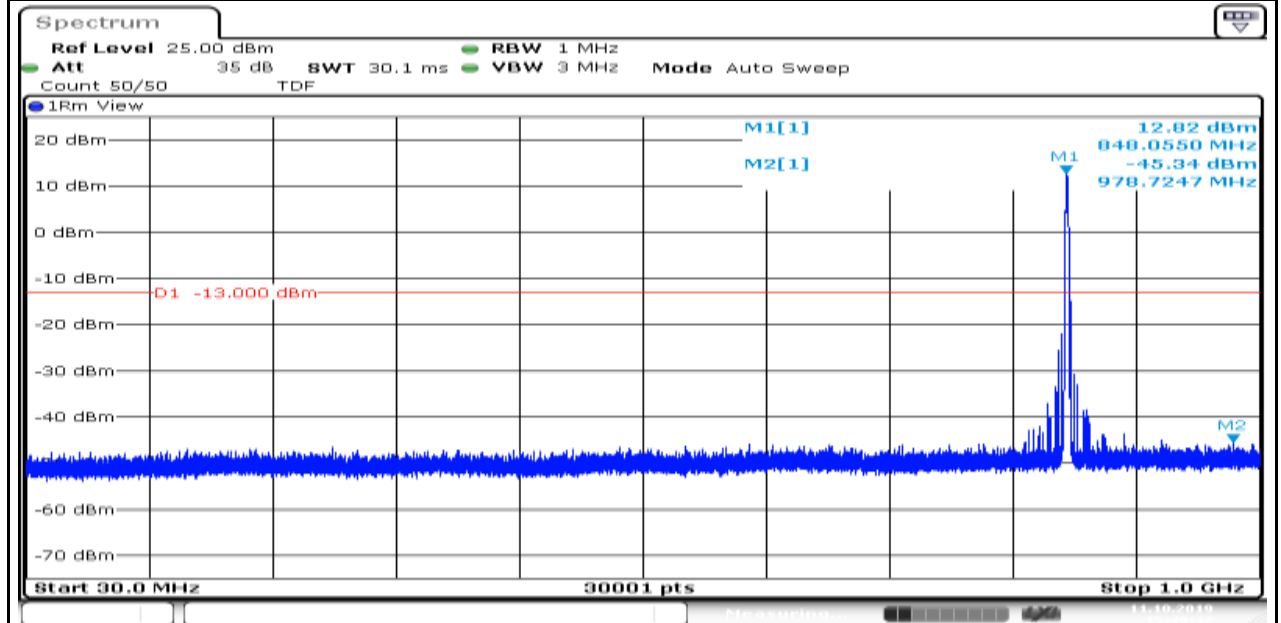
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Produkte
Products



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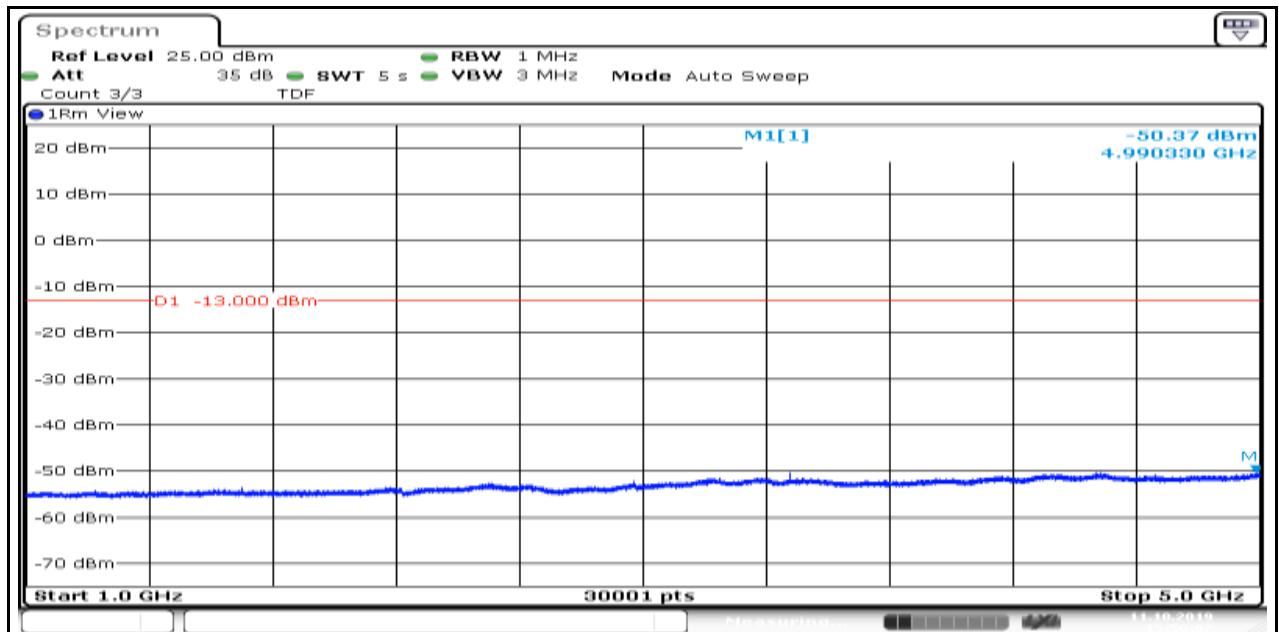
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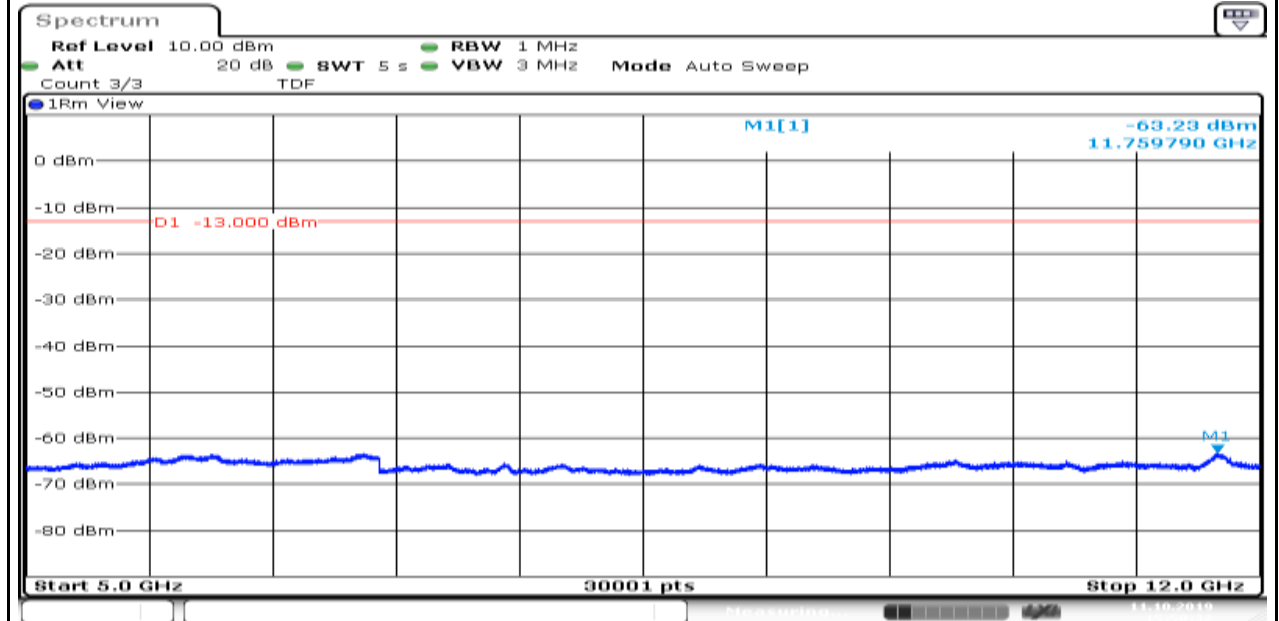
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Band26_1.4MHz_16QAM_27033_6_0_Low_1000_5000

Produkte
Products

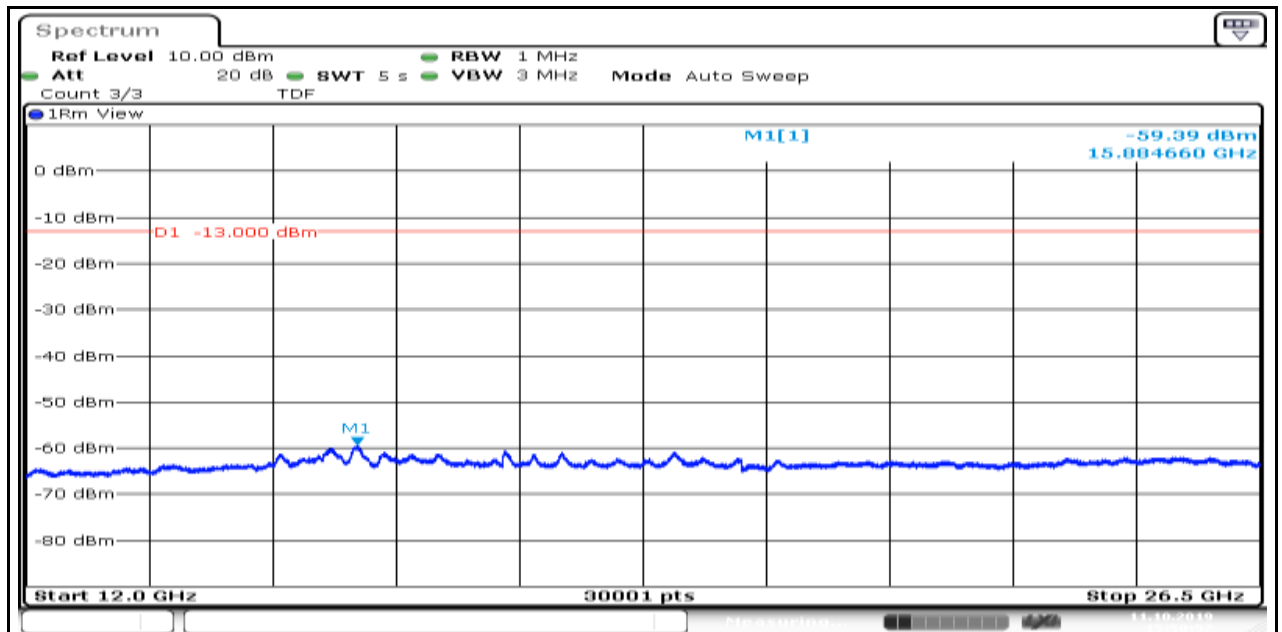


Band26_1.4MHz_16QAM_27033_6_0_Low_5000_12000



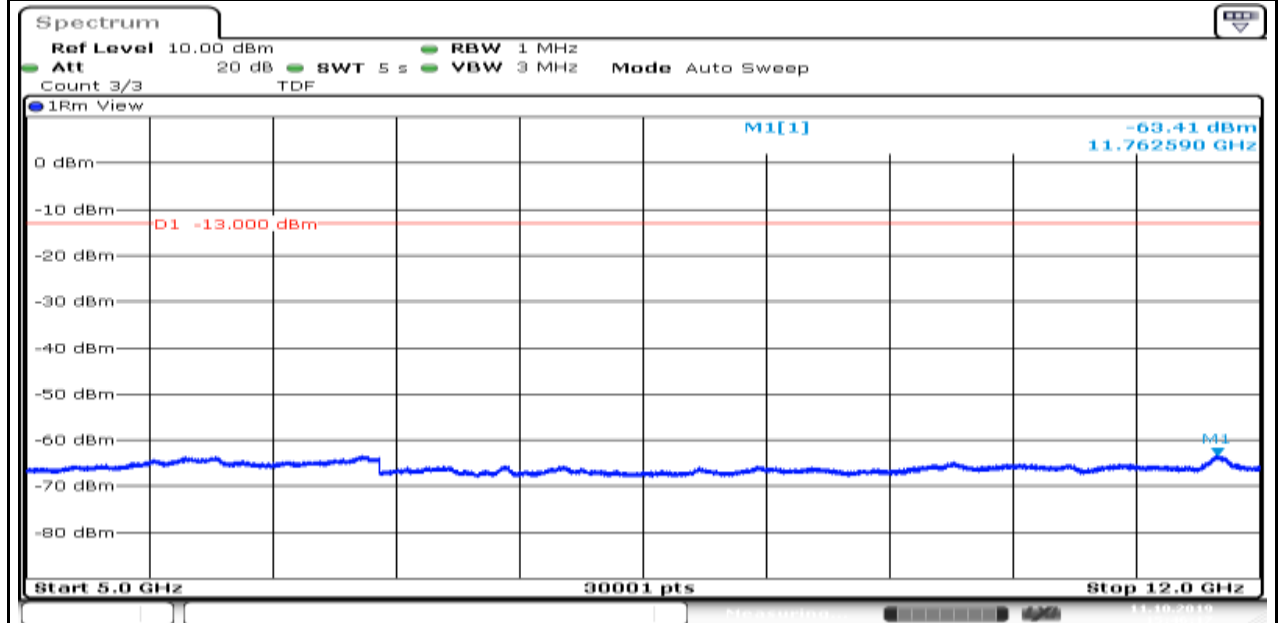
Band26_1.4MHz_16QAM_27033_6_0_Low_12000_26500

Produkte
Products



Date: 11.OCT.2019 15:50:57

Band26_1.4MHz_16QAM_27033_1_5_Low_5000_12000



Date: 11.OCT.2019 15:46:16

Appendix H.6: Frequency Stability for M1

Test Result

Voltage												
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band26	1.4MHz	QPSK	26915	1	0	Low	HV	NT	-7.90	-0.009444	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	LV	NT	-6.54	-0.007818	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	NT	-7.87	-0.009408	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	HV	NT	-6.25	-0.007472	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	LV	NT	-6.17	-0.007376	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	NT	-6.04	-0.007221	±2.5	PASS

Temperature												
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	40	-7.57	-0.009050	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	-20	-8.68	-0.010377	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	-10	-7.62	-0.009109	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	0	-7.70	-0.009205	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	10	-7.45	-0.008906	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	30	-8.37	-0.010006	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	-30	-7.62	-0.009109	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	50	-6.37	-0.007615	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	20	-9.44	-0.011285	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	50	-7.22	-0.008631	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	-30	-7.82	-0.009348	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	-20	-7.17	-0.008571	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	-10	-7.01	-0.008380	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	0	-7.12	-0.008512	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	10	-7.93	-0.009480	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	20	-6.21	-0.007424	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	30	-5.89	-0.007041	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	40	-6.07	-0.007256	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	-40	-10.11	-0.012086	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	85	-9.58	-0.011452	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	80	-11.74	-0.014035	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	70	-8.50	-0.010161	±2.5	PASS
Band26	1.4MHz	QPSK	26915	1	0	Low	NV	60	-9.23	-0.011034	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	85	-6.71	-0.008022	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	-40	-8.18	-0.009779	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	60	-7.55	-0.009026	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	70	-8.77	-0.010484	±2.5	PASS
Band26	1.4MHz	16QAM	26915	1	0	Low	NV	80	-6.84	-0.008177	±2.5	PASS

Appendix I: Test Results of Band 66 for eMTC operation

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Appendix I.1: RF Power Output and Effective (Isotropic) Radiated Power Output Data for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	EIRP		Limit (watts)	Verdict
								dBm	Watts		
Band66	1.4MHz	QPSK	131979	1	0	Low	20.61	22.75	0.188	1	PASS
Band66	1.4MHz	QPSK	131979	6	0	Low	18.37	20.51	0.112	1	PASS
Band66	1.4MHz	QPSK	132322	6	0	Low	18.44	20.58	0.114	1	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	20.68	22.82	0.191	1	PASS
Band66	1.4MHz	QPSK	132665	6	0	Low	19.86	22	0.158	1	PASS
Band66	1.4MHz	QPSK	132665	1	5	Low	21.91	24.05	0.254	1	PASS
Band66	1.4MHz	16QAM	131979	1	0	Low	19.5	21.64	0.146	1	PASS
Band66	1.4MHz	16QAM	131979	6	0	Low	18.35	20.49	0.112	1	PASS
Band66	1.4MHz	16QAM	132322	6	0	Low	18.44	20.58	0.114	1	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	19.49	21.63	0.146	1	PASS
Band66	1.4MHz	16QAM	132665	6	0	Low	19.76	21.9	0.155	1	PASS
Band66	1.4MHz	16QAM	132665	1	5	Low	20.73	22.87	0.194	1	PASS
Band66	3MHz	QPSK	131987	6	0	Low	18.33	20.47	0.111	1	PASS
Band66	3MHz	QPSK	131987	1	0	Low	20.34	22.48	0.177	1	PASS
Band66	3MHz	QPSK	132322	6	0	Low	18.37	20.51	0.112	1	PASS
Band66	3MHz	QPSK	132322	1	0	Low	20.45	22.59	0.182	1	PASS
Band66	3MHz	QPSK	132657	1	5	High	21.6	23.74	0.237	1	PASS
Band66	3MHz	QPSK	132657	6	0	High	19.65	21.79	0.151	1	PASS
Band66	3MHz	16QAM	131987	1	0	Low	19.77	21.91	0.155	1	PASS
Band66	3MHz	16QAM	131987	6	0	Low	18.37	20.51	0.112	1	PASS
Band66	3MHz	16QAM	132322	1	0	Low	19.68	21.82	0.152	1	PASS
Band66	3MHz	16QAM	132322	6	0	Low	18.36	20.5	0.112	1	PASS
Band66	3MHz	16QAM	132657	1	5	High	20.94	23.08	0.203	1	PASS
Band66	3MHz	16QAM	132657	6	0	High	19.71	21.85	0.153	1	PASS
Band66	5MHz	QPSK	131997	1	0	Low	20.54	22.68	0.185	1	PASS
Band66	5MHz	QPSK	131997	6	0	Low	19.31	21.45	0.140	1	PASS
Band66	5MHz	QPSK	132322	1	0	Low	20.57	22.71	0.187	1	PASS
Band66	5MHz	QPSK	132322	6	0	Low	19.34	21.48	0.141	1	PASS
Band66	5MHz	QPSK	132647	3	3	High	21.52	23.66	0.232	1	PASS
Band66	5MHz	QPSK	132647	1	5	High	21.68	23.82	0.241	1	PASS
Band66	5MHz	16QAM	131997	6	0	Low	19.31	21.45	0.140	1	PASS
Band66	5MHz	16QAM	131997	1	0	Low	20.14	22.28	0.169	1	PASS
Band66	5MHz	16QAM	132322	1	0	Low	20.36	22.5	0.178	1	PASS
Band66	5MHz	16QAM	132322	6	0	Low	19.34	21.48	0.141	1	PASS
Band66	5MHz	16QAM	132647	3	3	High	21.53	23.67	0.233	1	PASS
Band66	5MHz	16QAM	132647	1	5	High	21.16	23.3	0.214	1	PASS
Band66	10MHz	QPSK	132022	1	0	Low	20.53	22.67	0.185	1	PASS
Band66	10MHz	QPSK	132022	5	0	Low	20.33	22.47	0.177	1	PASS
Band66	10MHz	QPSK	132322	5	0	Low	20.42	22.56	0.180	1	PASS
Band66	10MHz	QPSK	132322	1	0	Low	20.64	22.78	0.190	1	PASS
Band66	10MHz	QPSK	132622	5	1	High	21.74	23.88	0.244	1	PASS
Band66	10MHz	QPSK	132622	1	5	High	21.72	23.86	0.243	1	PASS
Band66	10MHz	16QAM	132022	5	0	Low	20.2	22.34	0.171	1	PASS
Band66	10MHz	16QAM	132022	1	0	Low	20.25	22.39	0.173	1	PASS
Band66	10MHz	16QAM	132322	1	0	Low	20.23	22.37	0.173	1	PASS
Band66	10MHz	16QAM	132322	5	0	Low	20.33	22.47	0.177	1	PASS
Band66	10MHz	16QAM	132622	1	5	High	21.11	23.25	0.211	1	PASS
Band66	10MHz	16QAM	132622	5	1	High	21.42	23.56	0.227	1	PASS
Band66	15MHz	QPSK	132047	1	0	Low	20.52	22.66	0.185	1	PASS
Band66	15MHz	QPSK	132047	6	0	Low	20.35	22.49	0.177	1	PASS

Produkte
Products

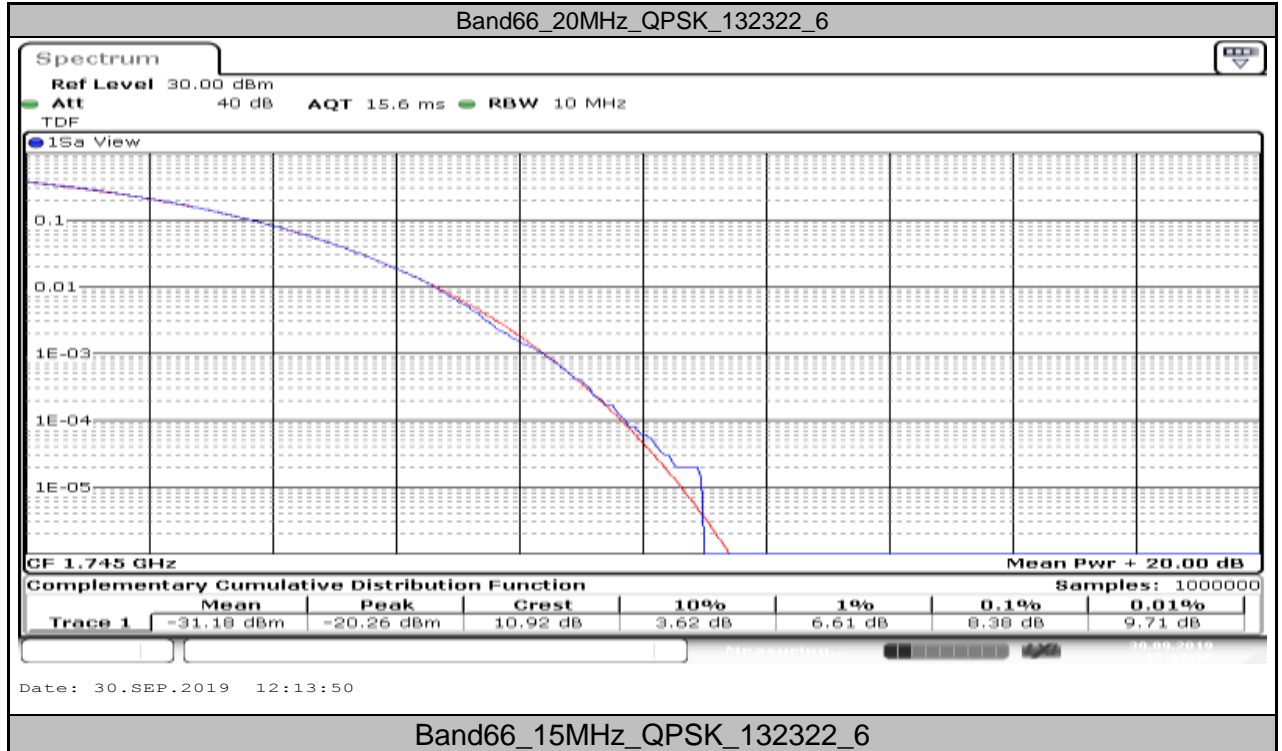
Band66	15MHz	QPSK	132322	1	0	Low	20.73	22.87	0.194	1	PASS
Band66	15MHz	QPSK	132322	6	0	Low	20.53	22.67	0.185	1	PASS
Band66	15MHz	QPSK	132597	1	5	High	21.73	23.87	0.244	1	PASS
Band66	15MHz	QPSK	132597	6	0	High	21.71	23.85	0.243	1	PASS
Band66	15MHz	16QAM	132047	6	0	Low	20.35	22.49	0.177	1	PASS
Band66	15MHz	16QAM	132047	1	0	Low	20.15	22.29	0.169	1	PASS
Band66	15MHz	16QAM	132322	6	0	Low	20.53	22.67	0.185	1	PASS
Band66	15MHz	16QAM	132322	1	0	Low	20.44	22.58	0.181	1	PASS
Band66	15MHz	16QAM	132597	1	5	High	21.69	23.83	0.242	1	PASS
Band66	15MHz	16QAM	132597	6	0	High	21.8	23.94	0.248	1	PASS
Band66	20MHz	QPSK	132072	6	0	Low	20.4	22.54	0.179	1	PASS
Band66	20MHz	QPSK	132072	1	0	Low	20.44	22.58	0.181	1	PASS
Band66	20MHz	QPSK	132322	1	0	Low	20.62	22.76	0.189	1	PASS
Band66	20MHz	QPSK	132322	6	0	Low	20.45	22.59	0.182	1	PASS
Band66	20MHz	QPSK	132572	6	0	High	21.89	24.03	0.253	1	PASS
Band66	20MHz	QPSK	132572	1	5	High	21.74	23.88	0.244	1	PASS
Band66	20MHz	16QAM	132072	1	0	Low	20.12	22.26	0.168	1	PASS
Band66	20MHz	16QAM	132072	6	0	Low	20.39	22.53	0.179	1	PASS
Band66	20MHz	16QAM	132322	1	0	Low	20.29	22.43	0.175	1	PASS
Band66	20MHz	16QAM	132322	6	0	Low	20.45	22.59	0.182	1	PASS
Band66	20MHz	16QAM	132572	1	5	High	21.14	23.28	0.213	1	PASS
Band66	20MHz	16QAM	132572	6	0	High	21.71	23.85	0.243	1	PASS

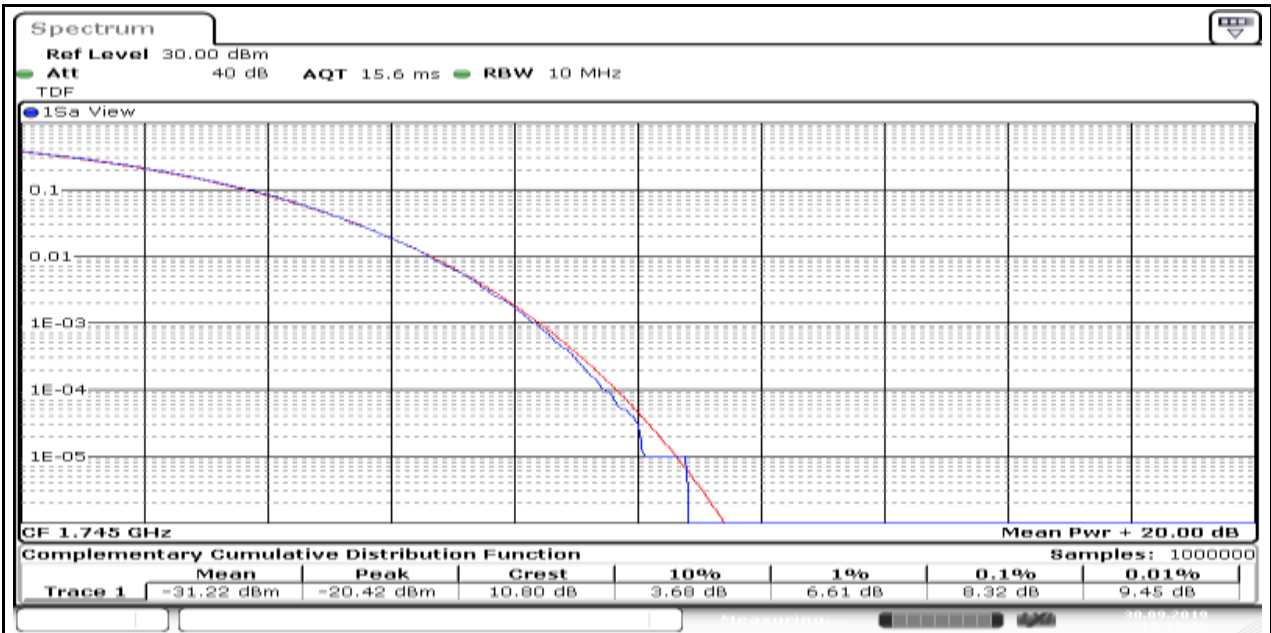
Appendix I.2: Peak-to-Average Ratio (CCDF) for M1

Test Result

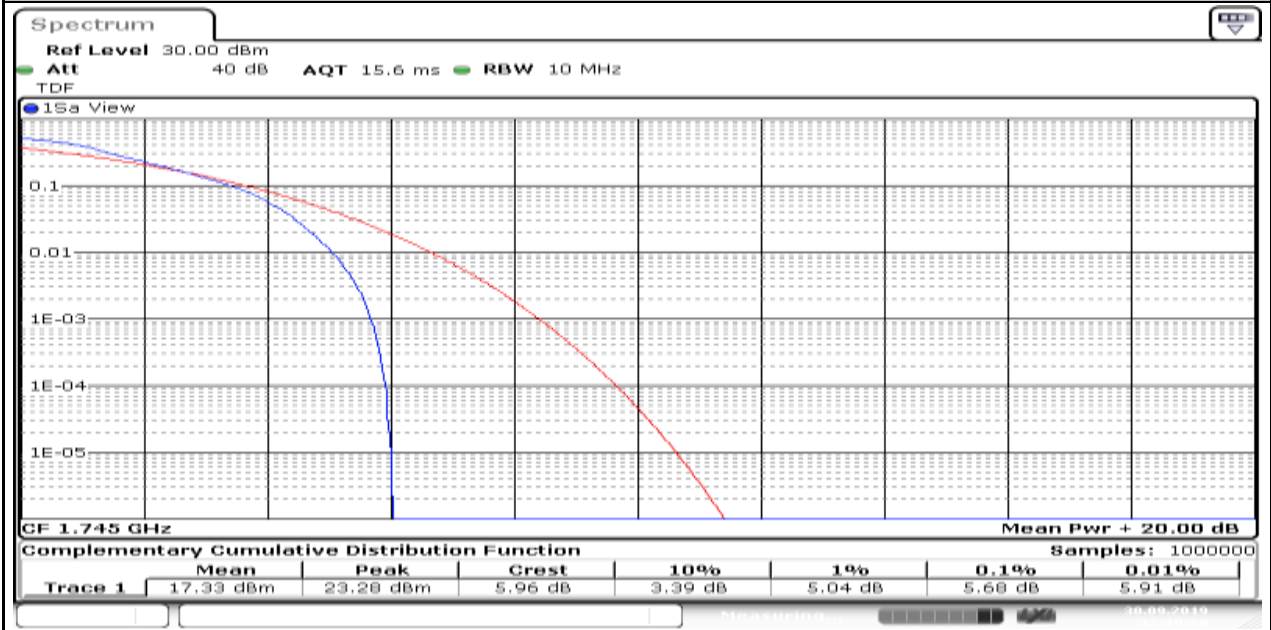
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band66	20MHz	QPSK	132322	6	0	Low	8.38	<=13	PASS
Band66	15MHz	QPSK	132322	6	0	Low	8.32	<=13	PASS
Band66	10MHz	QPSK	132322	6	0	Low	5.68	<=13	PASS
Band66	5MHz	QPSK	132322	6	0	Low	8.43	<=13	PASS
Band66	3MHz	QPSK	132322	6	0	Low	10.61	<=13	PASS
Band66	1.4MHz	QPSK	132322	6	0	Low	7.86	<=13	PASS
Band66	20MHz	16QAM	132322	6	0	Low	9.51	<=13	PASS
Band66	15MHz	16QAM	132322	6	0	Low	8.41	<=13	PASS
Band66	10MHz	16QAM	132322	6	0	Low	11.30	<=13	PASS
Band66	5MHz	16QAM	132322	6	0	Low	9.97	<=13	PASS
Band66	3MHz	16QAM	132322	6	0	Low	9.36	<=13	PASS
Band66	1.4MHz	16QAM	132322	6	0	Low	9.25	<=13	PASS

Test Graphs

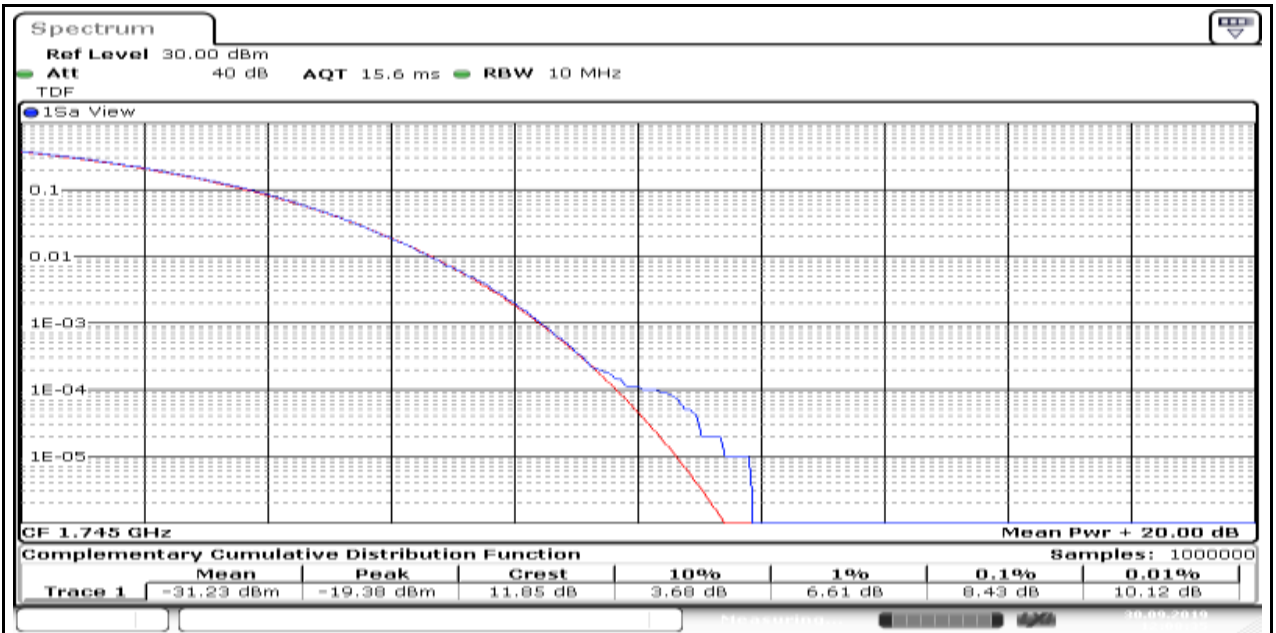




Band66_10MHz_QPSK_132322_6

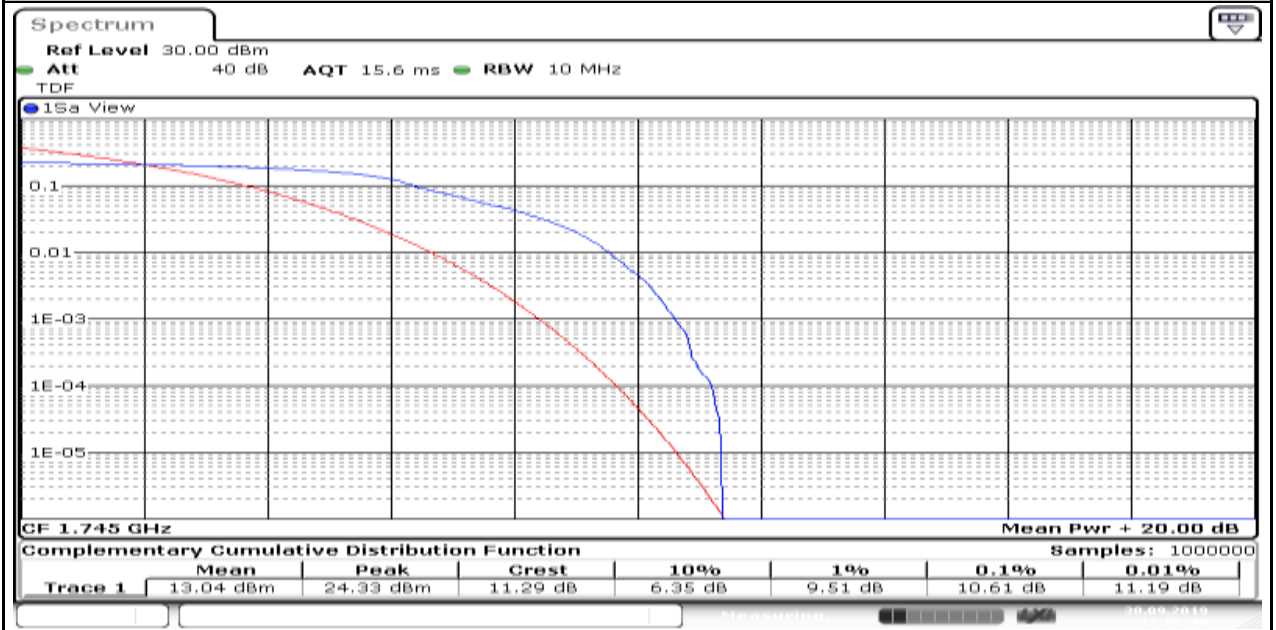


Band66_5MHz_QPSK_132322_6



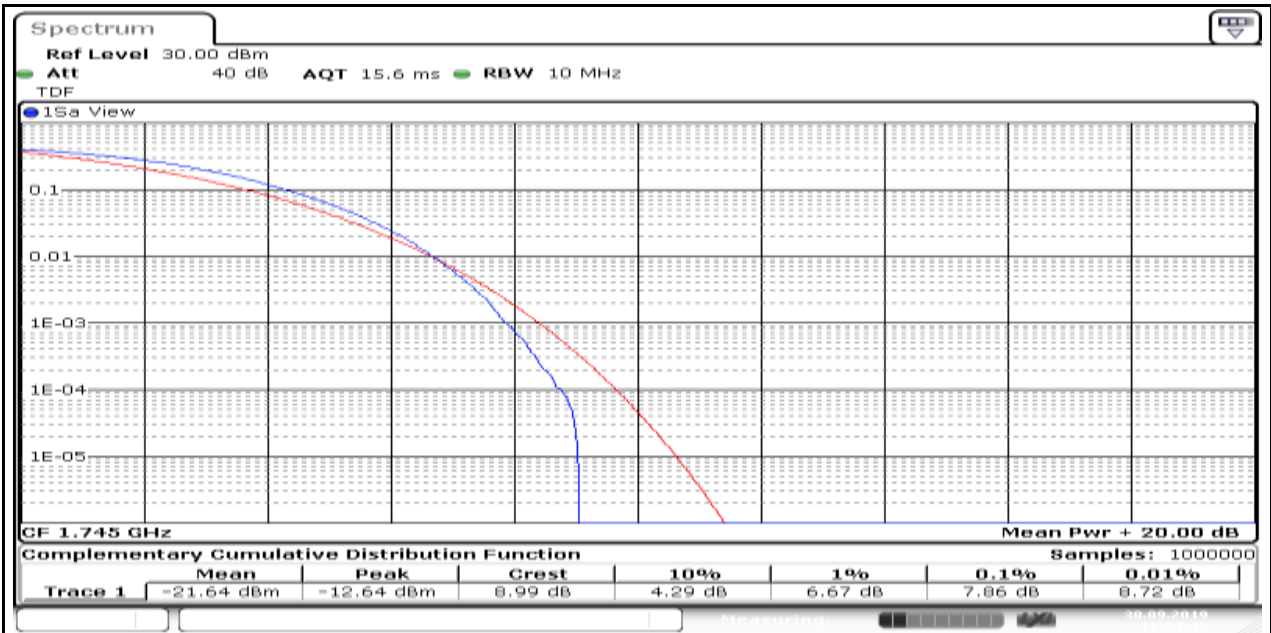
Date: 30.SEP.2019 12:08:35

Band66_3MHz_QPSK_132322_6

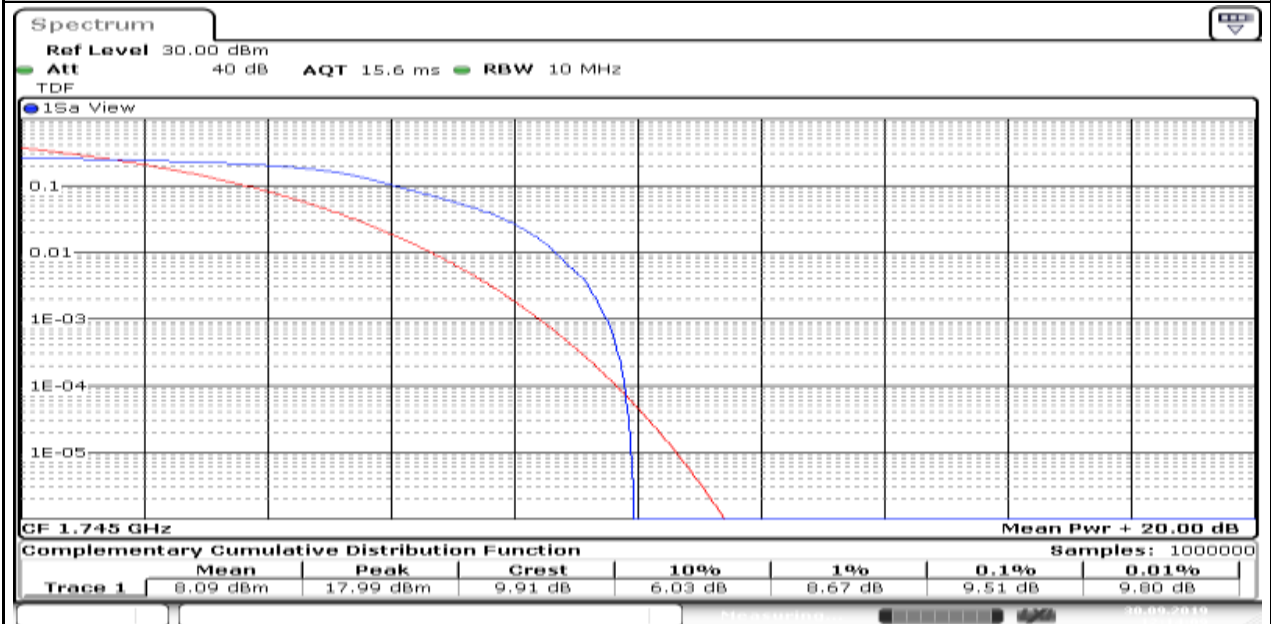


Date: 30.SEP.2019 12:06:41

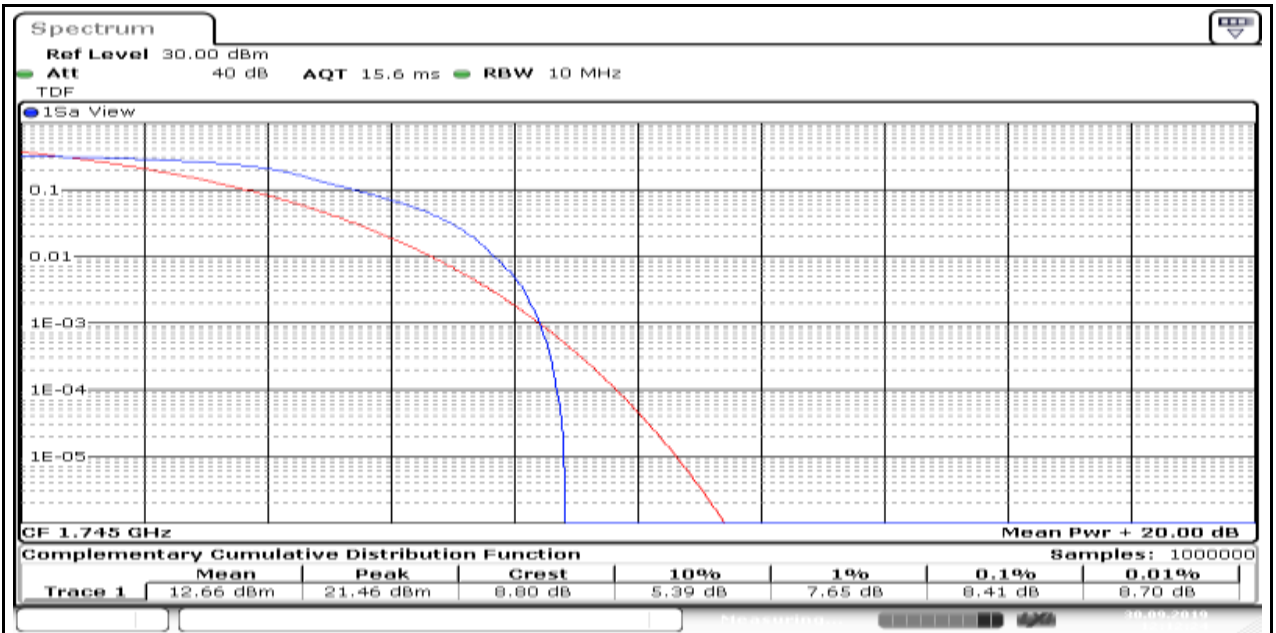
Band66_1.4MHz_QPSK_132322_6



Band66_20MHz_16QAM_132322_6

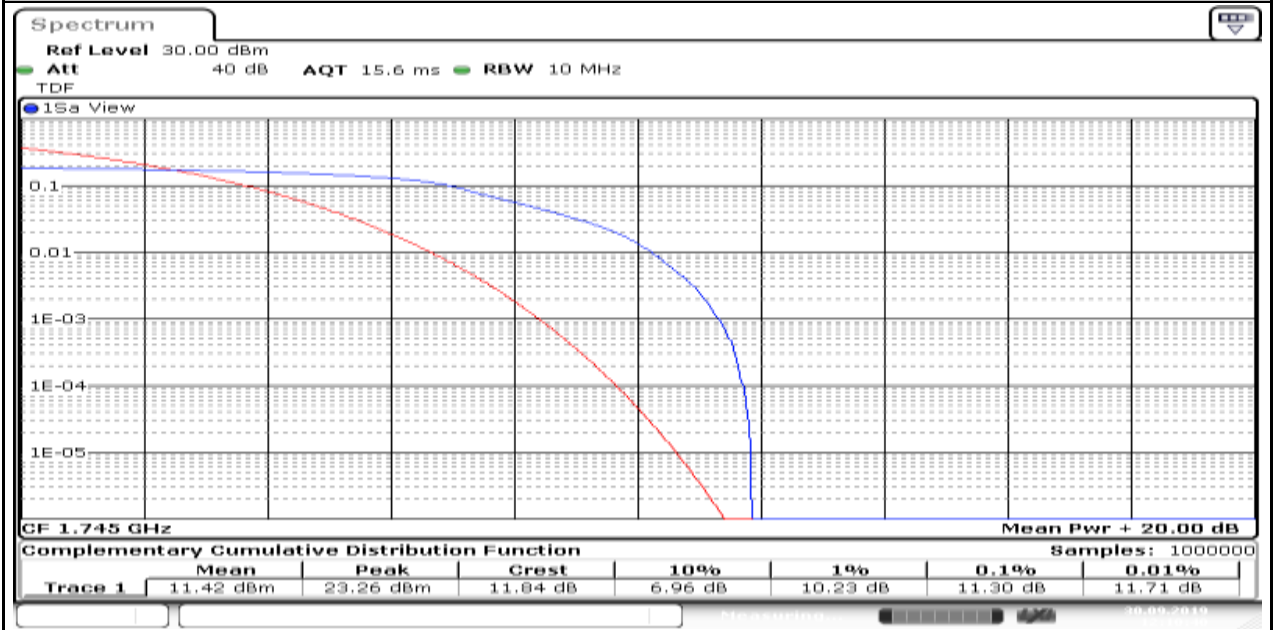


Band66_15MHz_16QAM_132322_6



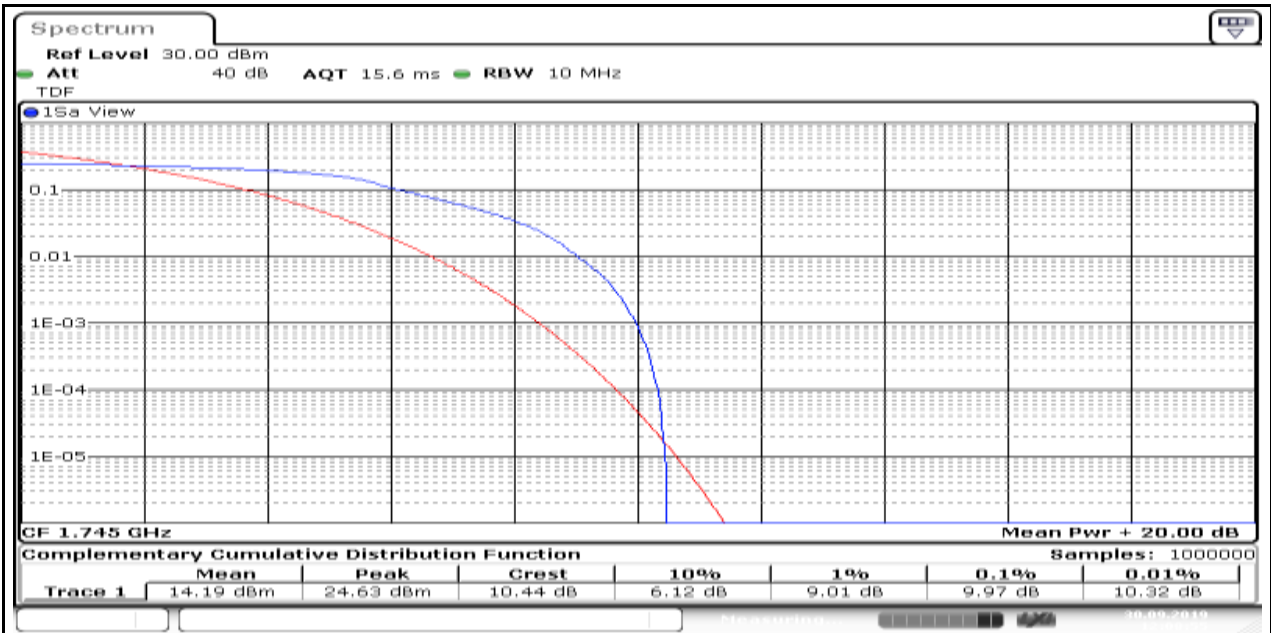
Date: 30.SEP.2019 12:12:24

Band66_10MHz_16QAM_132322_6



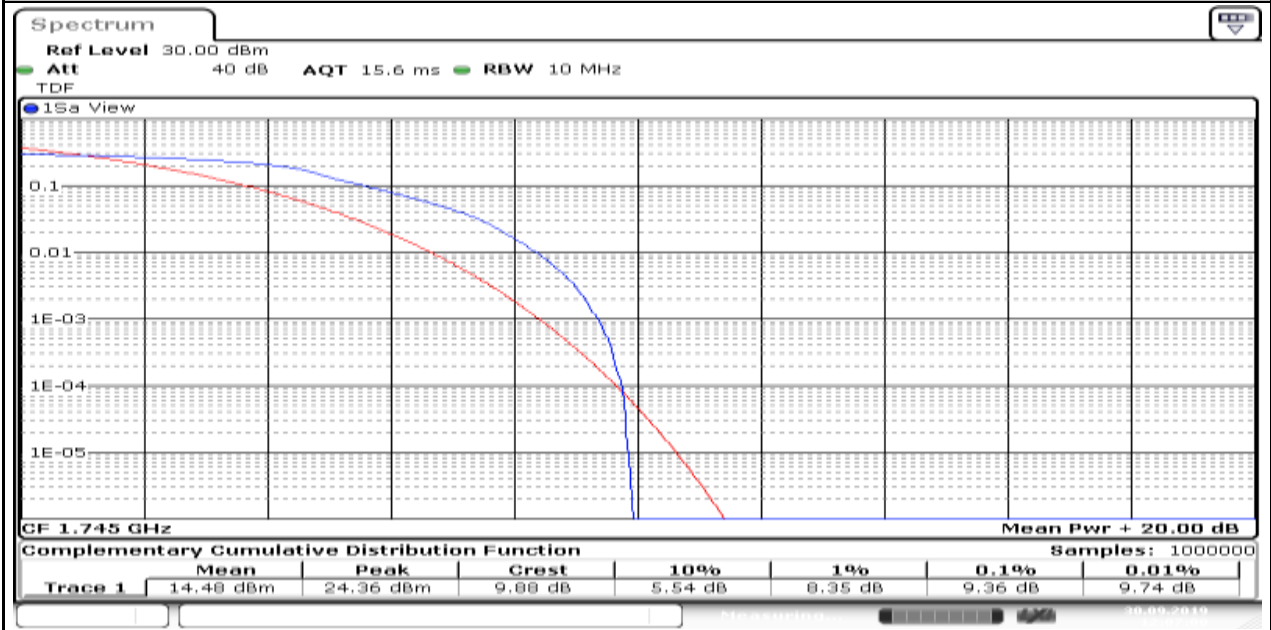
Date: 30.SEP.2019 12:10:40

Band66_5MHz_16QAM_132322_6



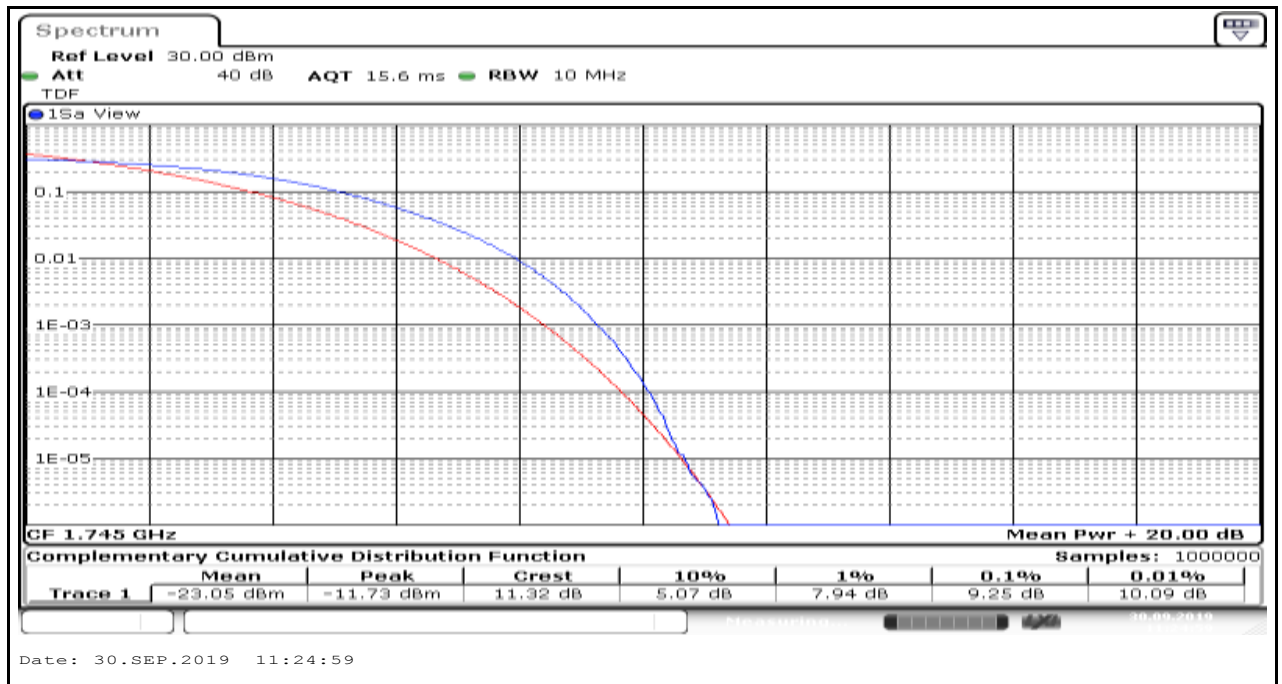
Date: 30.SEP.2019 12:08:55

Band66_3MHz_16QAM_132322_6



Date: 30.SEP.2019 12:07:00

Band66_1.4MHz_16QAM_132322_6

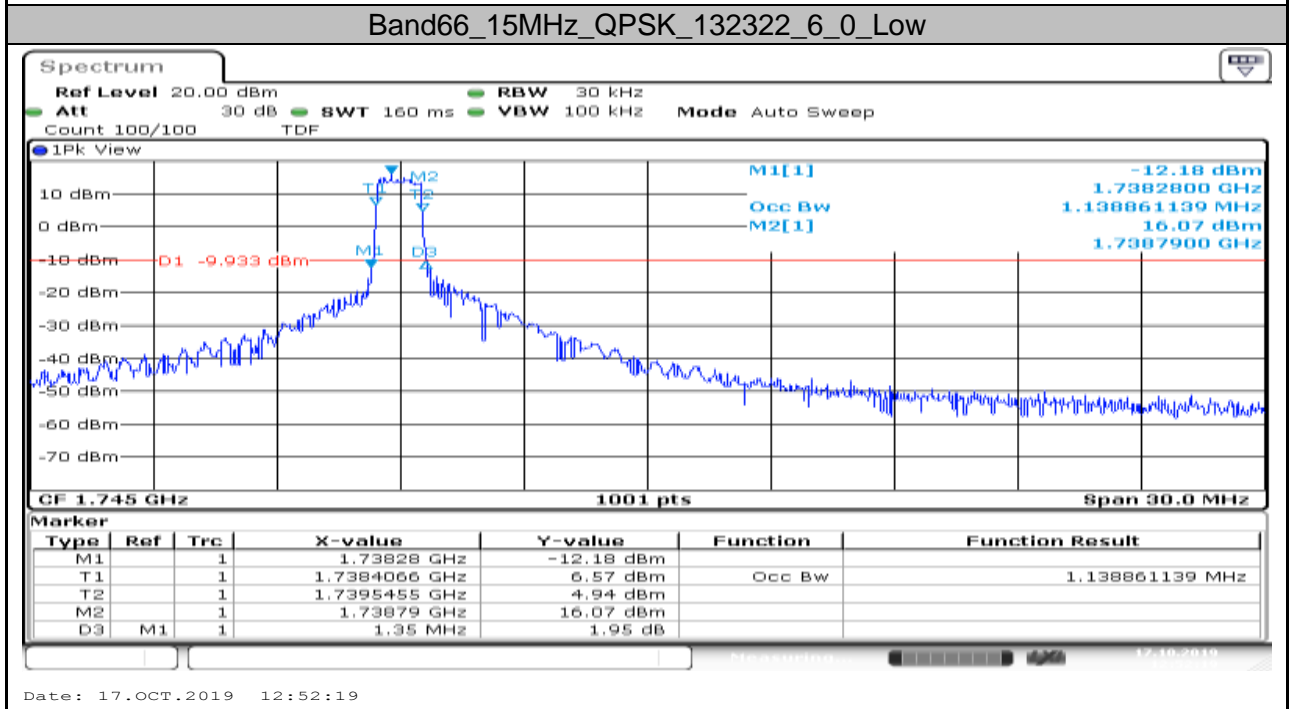
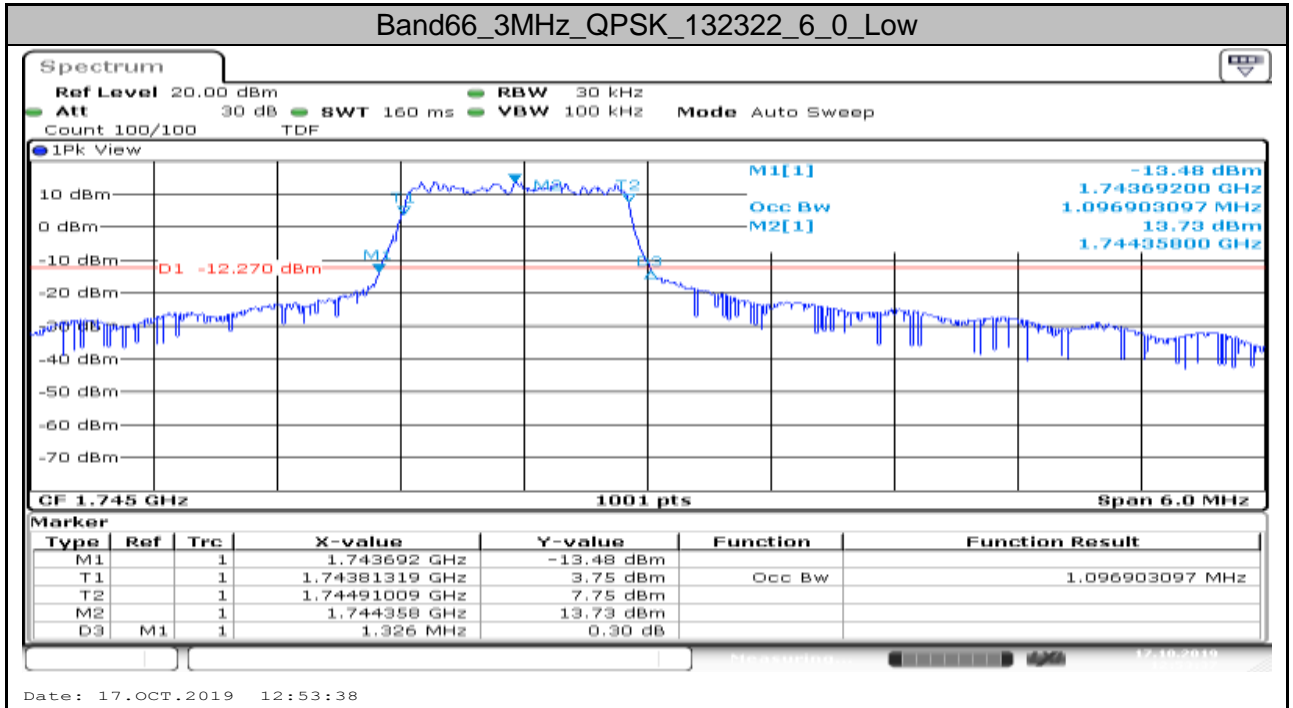


Appendix I.3: 26dB Bandwidth and Occupied Bandwidth for M1

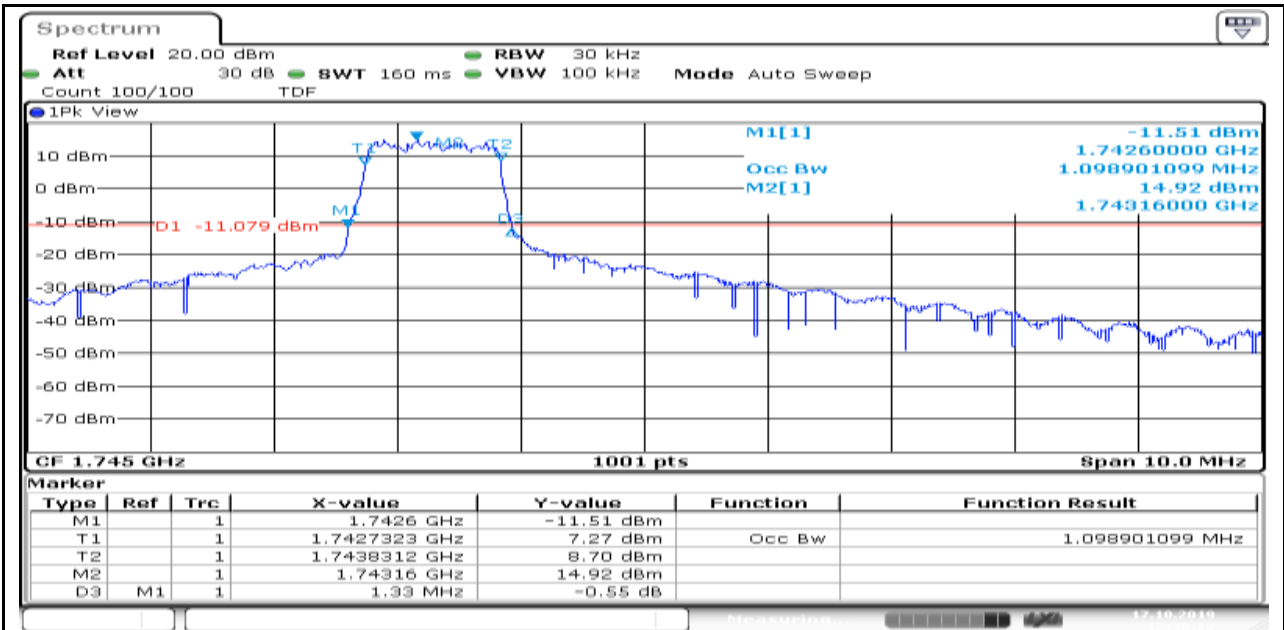
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band66	3MHz	QPSK	132322	6	0	Low	1.097	1.326	PASS
Band66	15MHz	QPSK	132322	6	0	Low	1.139	1.350	PASS
Band66	5MHz	QPSK	132322	6	0	Low	1.099	1.330	PASS
Band66	10MHz	QPSK	132322	6	0	Low	1.099	1.340	PASS
Band66	20MHz	QPSK	132322	6	0	Low	1.119	1.400	PASS
Band66	1.4MHz	QPSK	132322	6	0	Low	1.103	1.305	PASS
Band66	3MHz	16QAM	132322	6	0	Low	1.103	1.320	PASS
Band66	15MHz	16QAM	132322	6	0	Low	1.109	1.380	PASS
Band66	5MHz	16QAM	132322	6	0	Low	1.099	1.330	PASS
Band66	10MHz	16QAM	132322	6	0	Low	1.099	1.340	PASS
Band66	20MHz	16QAM	132322	6	0	Low	1.119	1.400	PASS
Band66	1.4MHz	16QAM	132322	6	0	Low	1.103	1.314	PASS

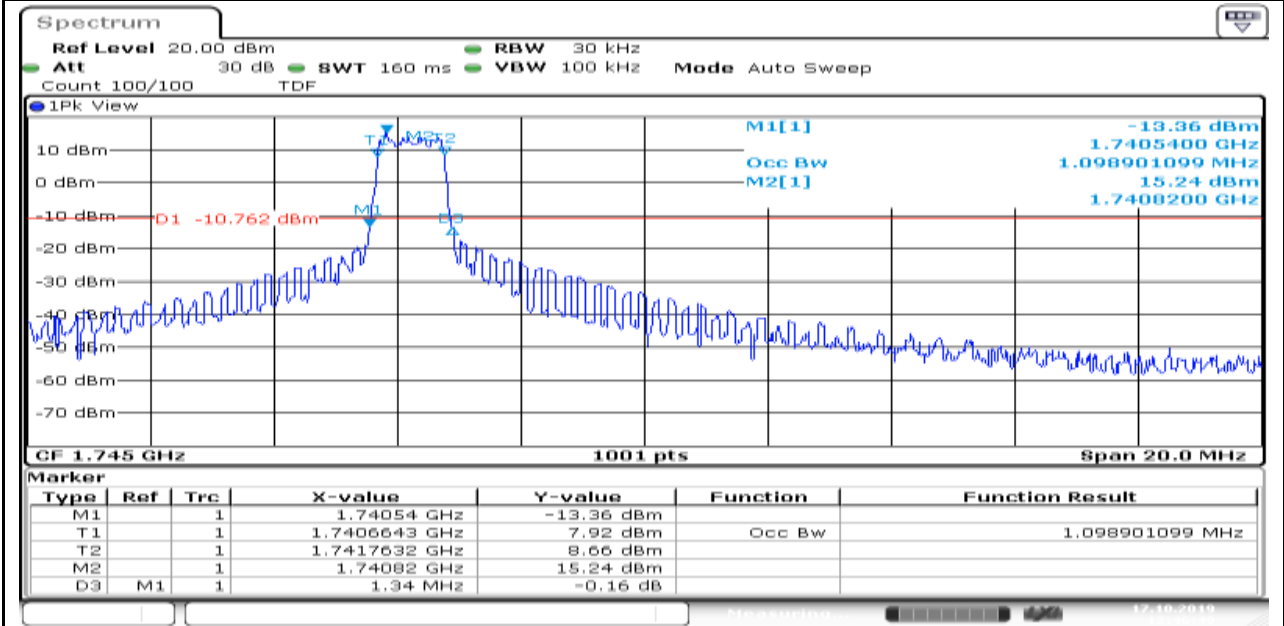
Test Graphs



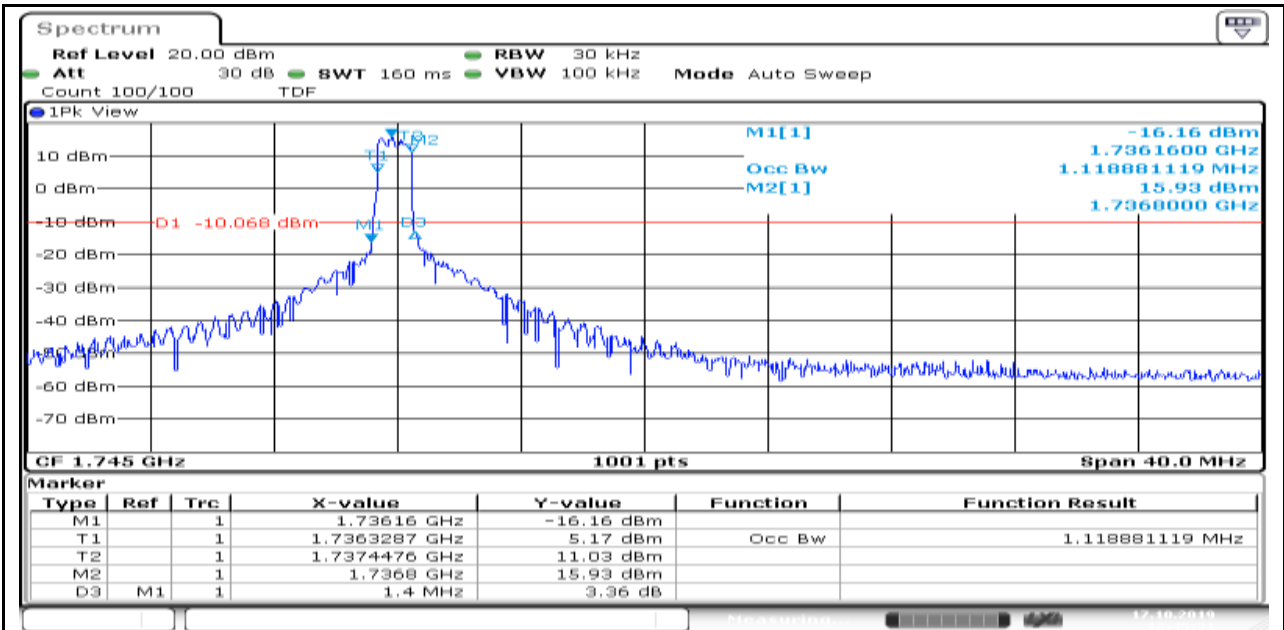
Band66_5MHz_QPSK_132322_6_0_Low



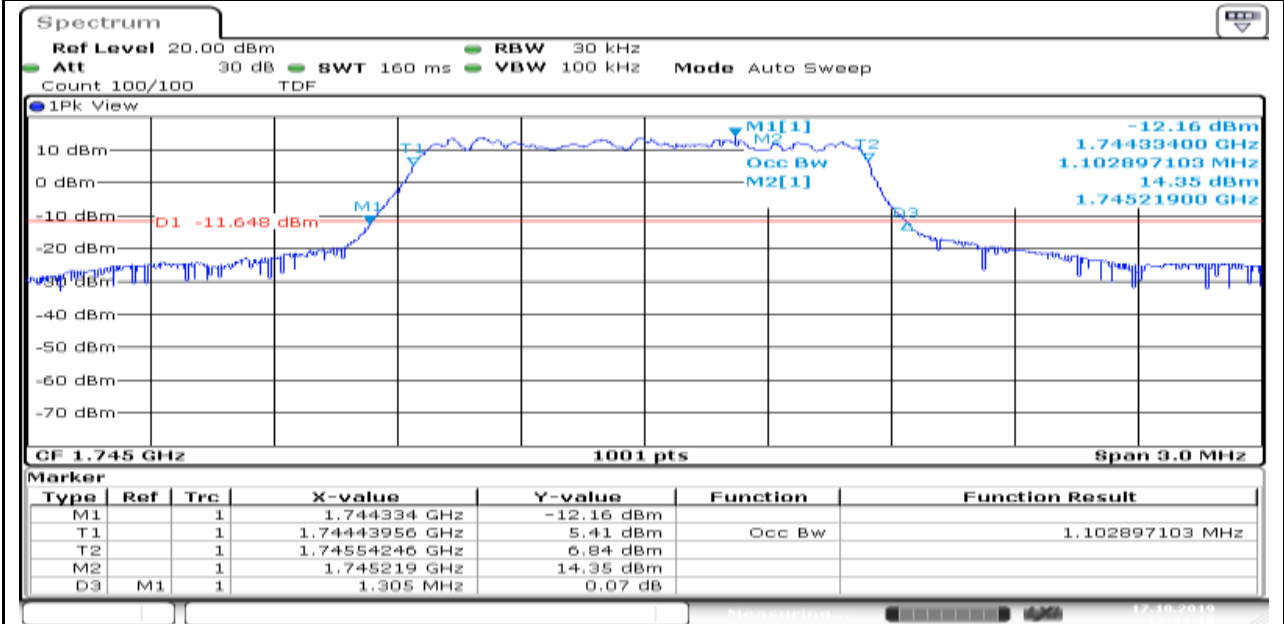
Band66_10MHz_QPSK_132322_6_0_Low



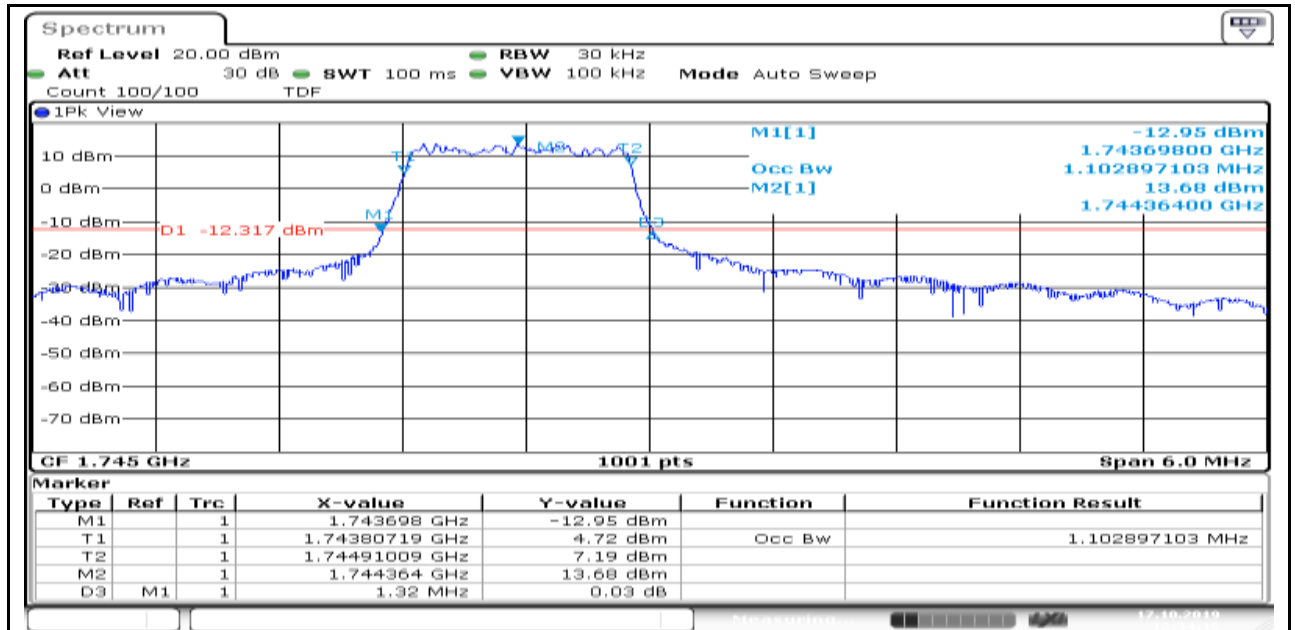
Band66_20MHz_QPSK_132322_6_0_Low



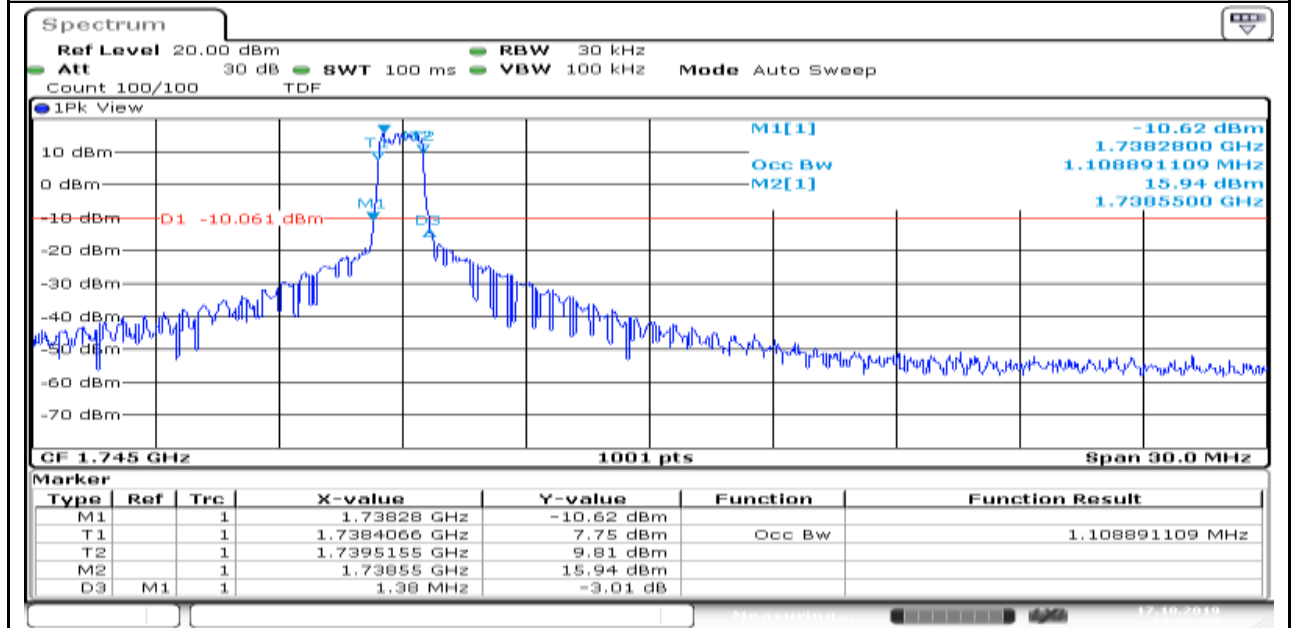
Band66_1.4MHz_QPSK_132322_6_0_Low



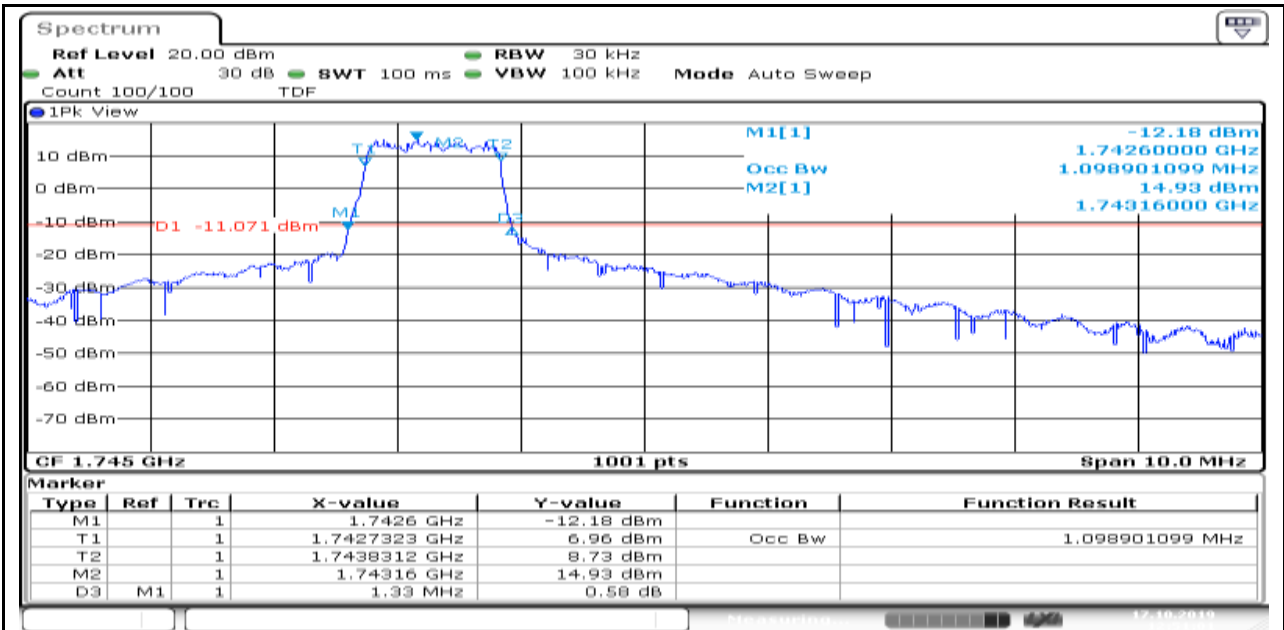
Band66_3MHz_16QAM_132322_6_0_Low



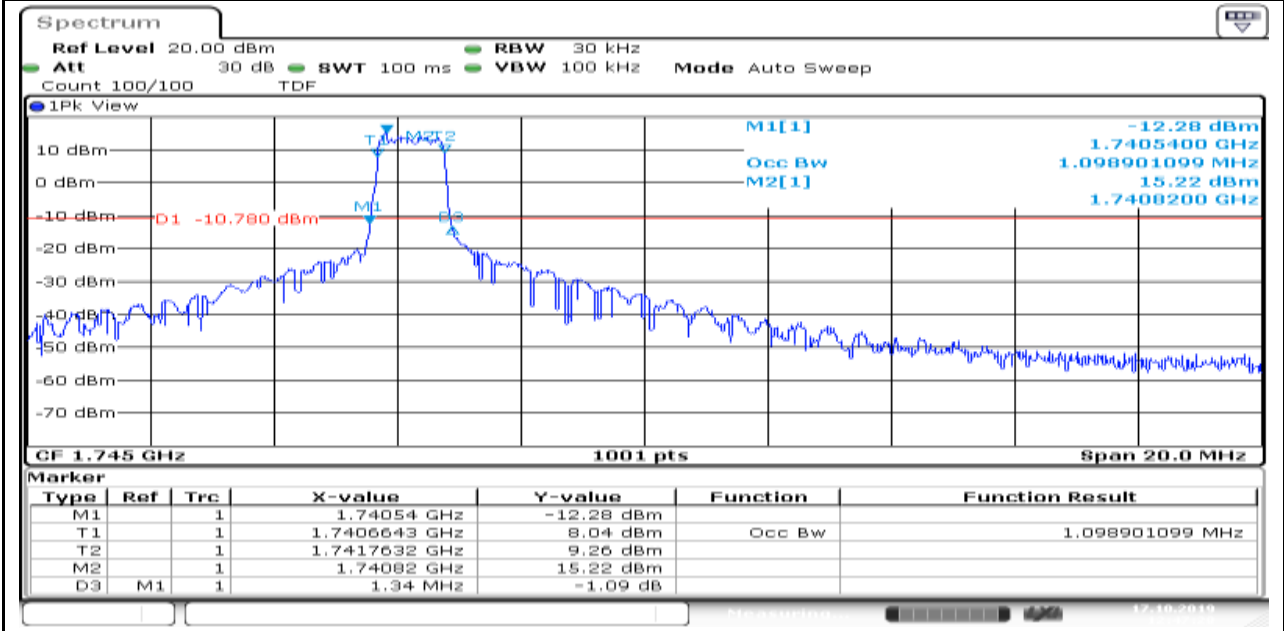
Band66_15MHz_16QAM_132322_6_0_Low



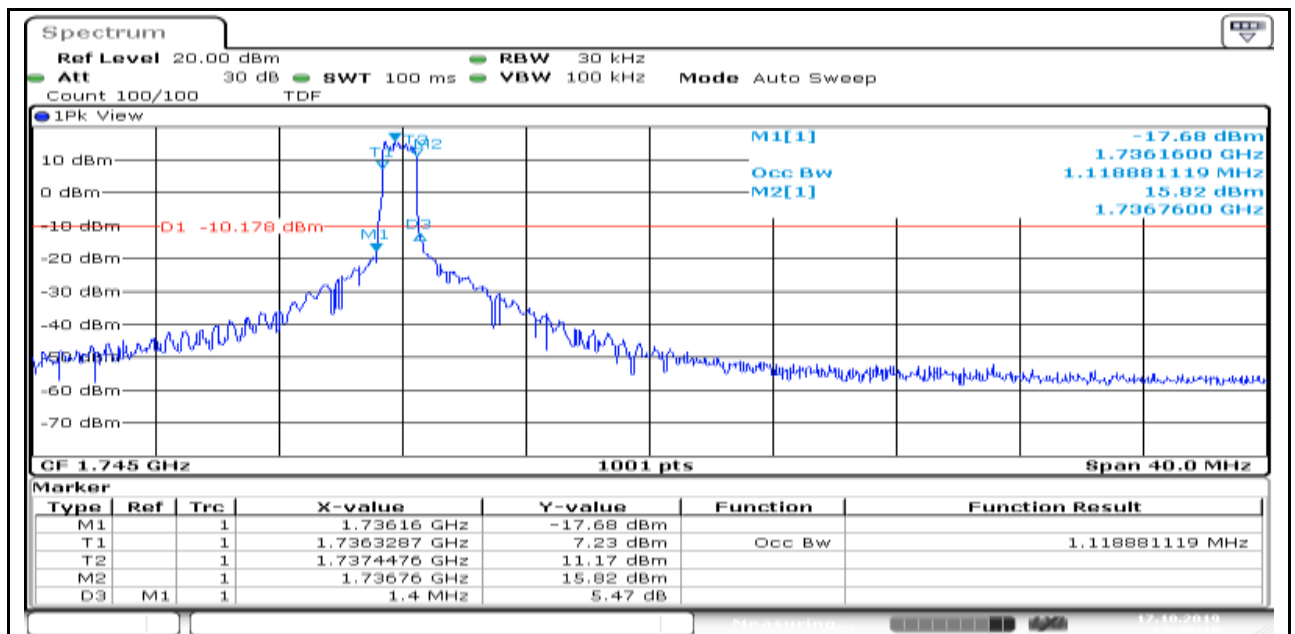
Band66_5MHz_16QAM_132322_6_0_Low



Band66_10MHz_16QAM_132322_6_0_Low

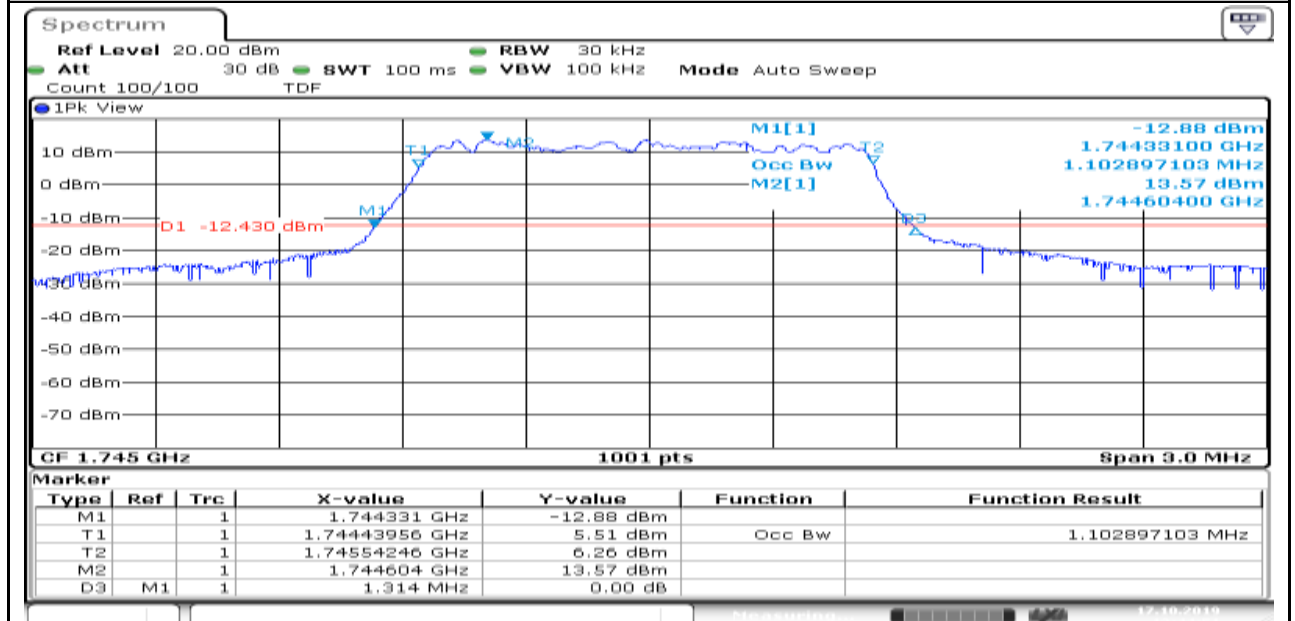


Band66_20MHz_16QAM_132322_6_0_Low



Date: 17.OCT.2019 12:46:10

Band66_1.4MHz_16QAM_132322_6_0_Low



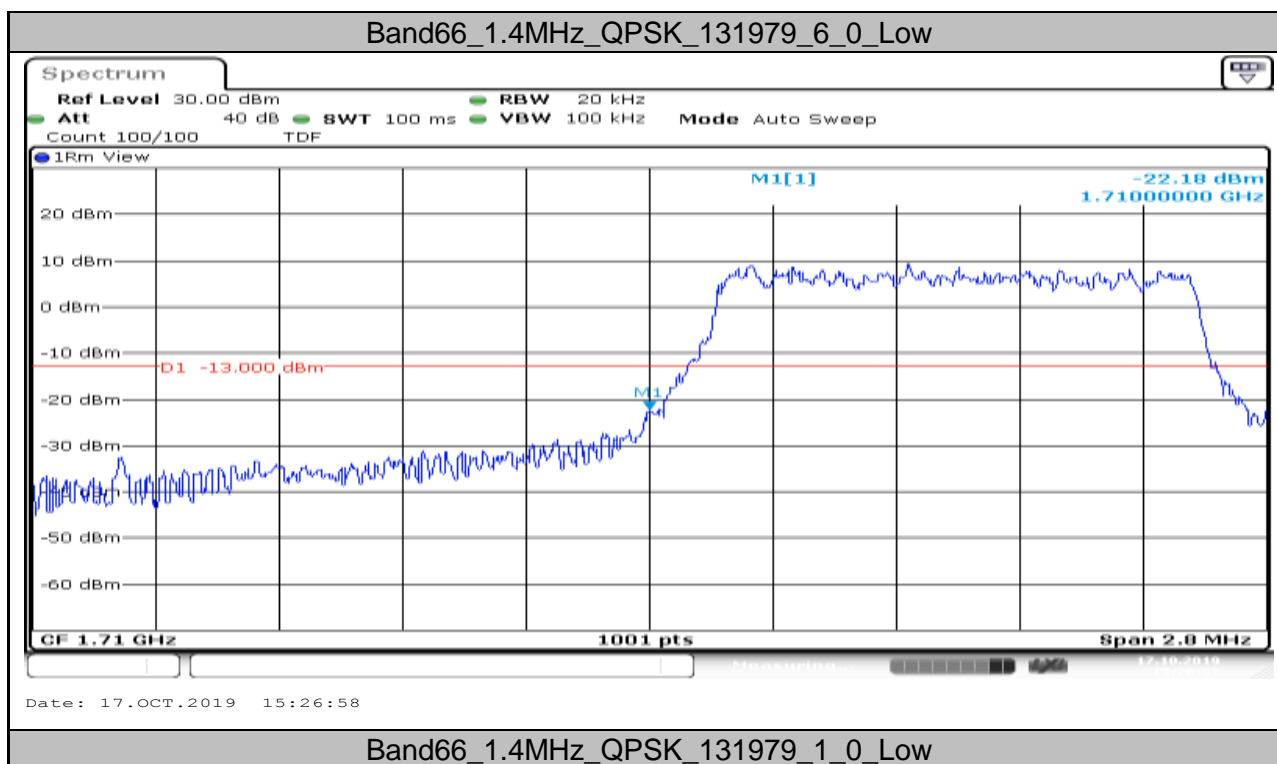
Date: 17.OCT.2019 12:44:51

Appendix I.4: Band Edge for M1

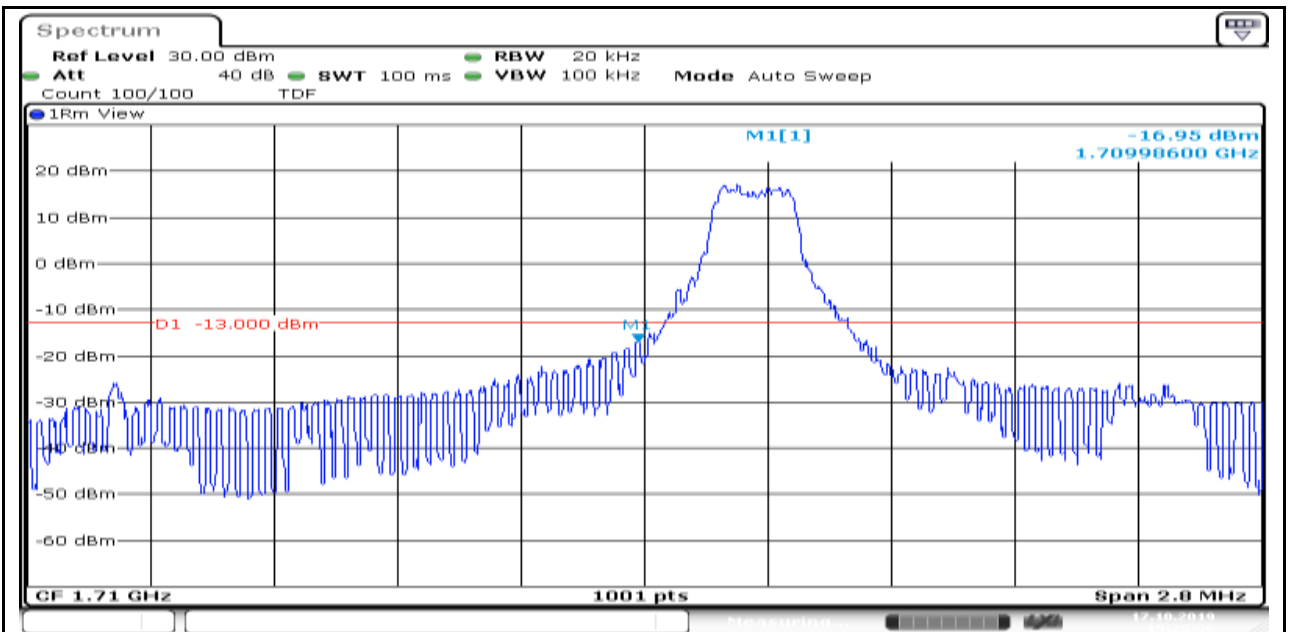
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Result (dBm)	Verdict
Band66	1.4MHz	QPSK	131979	6	0	Low	-22.18	PASS
Band66	1.4MHz	QPSK	131979	1	0	Low	-16.95	PASS
Band66	1.4MHz	QPSK	132665	6	0	Low	-24.41	PASS
Band66	1.4MHz	QPSK	132665	1	5	Low	-20.12	PASS
Band66	1.4MHz	16QAM	131979	6	0	Low	-23.30	PASS
Band66	1.4MHz	16QAM	131979	1	0	Low	-19.24	PASS
Band66	1.4MHz	16QAM	132665	6	0	Low	-23.26	PASS
Band66	1.4MHz	16QAM	132665	1	5	Low	-20.09	PASS

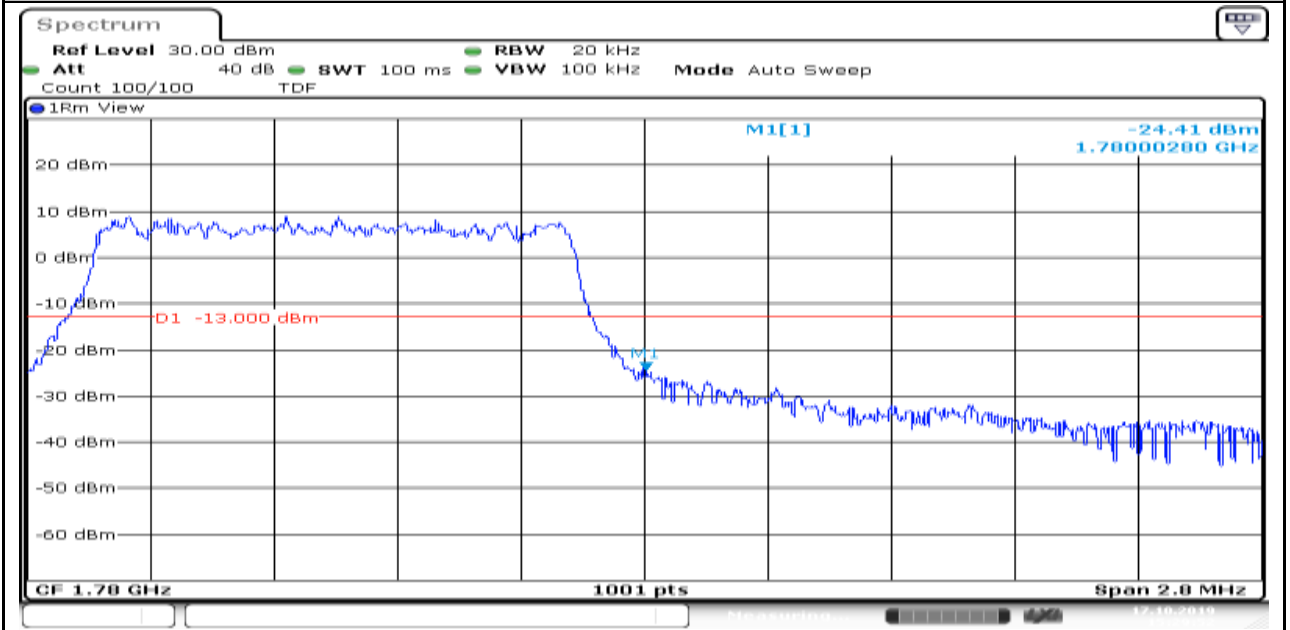
Test Graphs



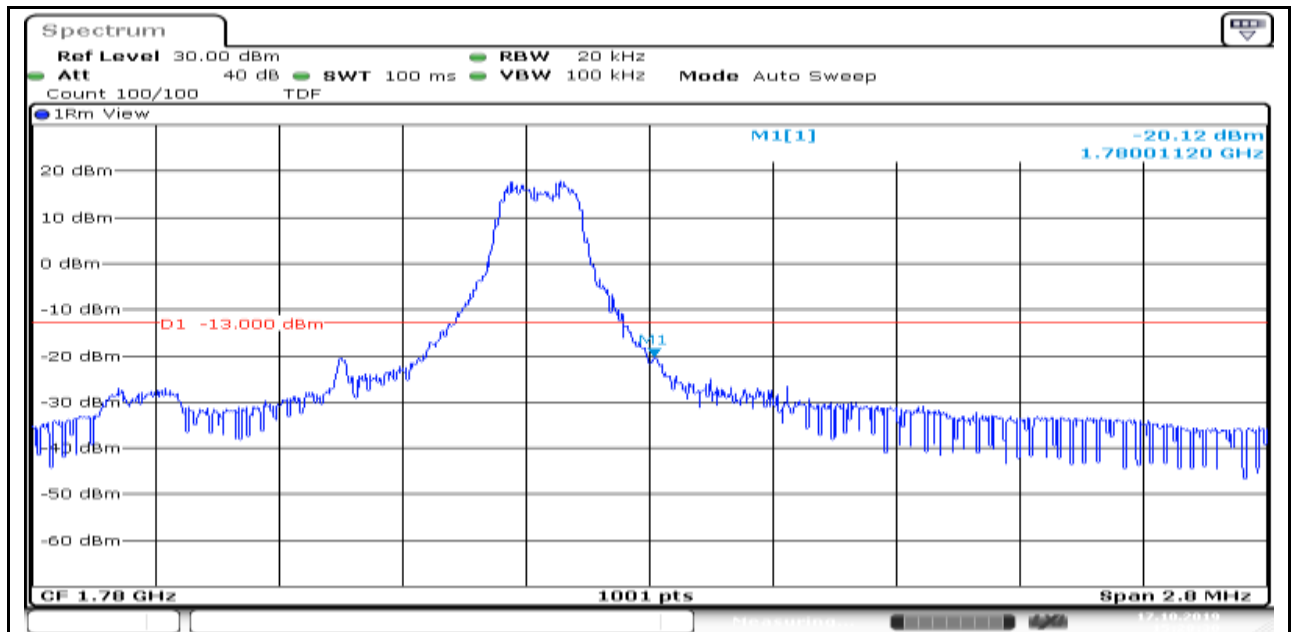
Produkte
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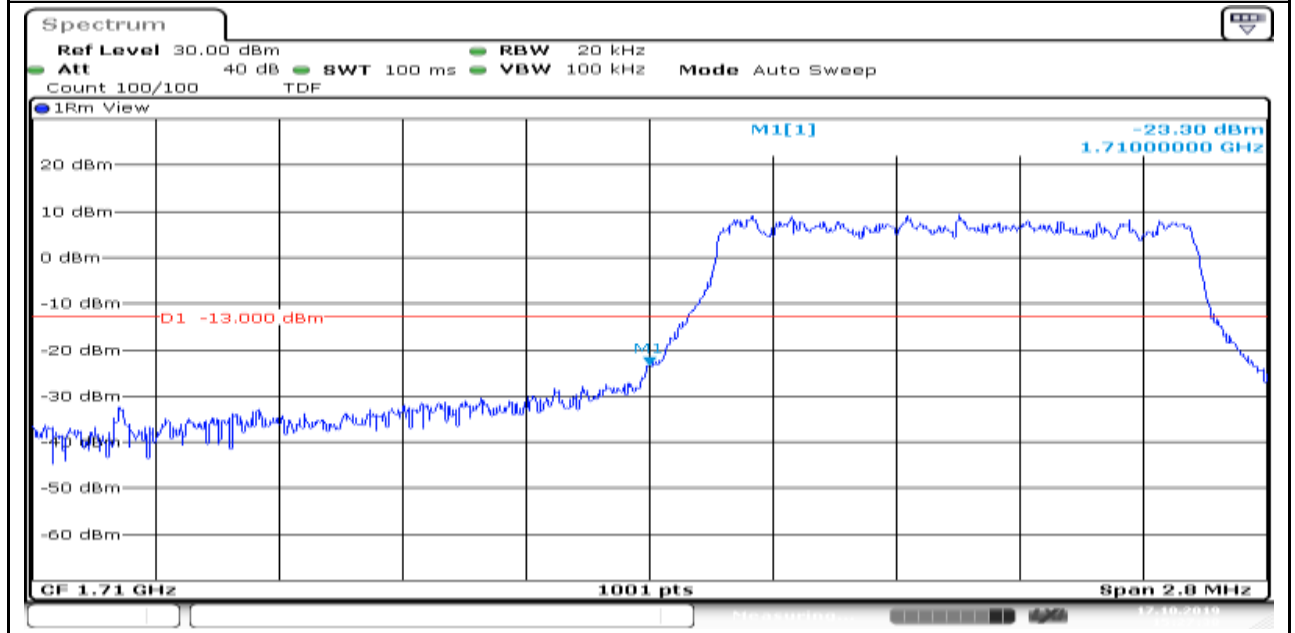
Band66_1.4MHz_QPSK_132665_6_0_Low



Band66_1.4MHz_QPSK_132665_1_5_Low

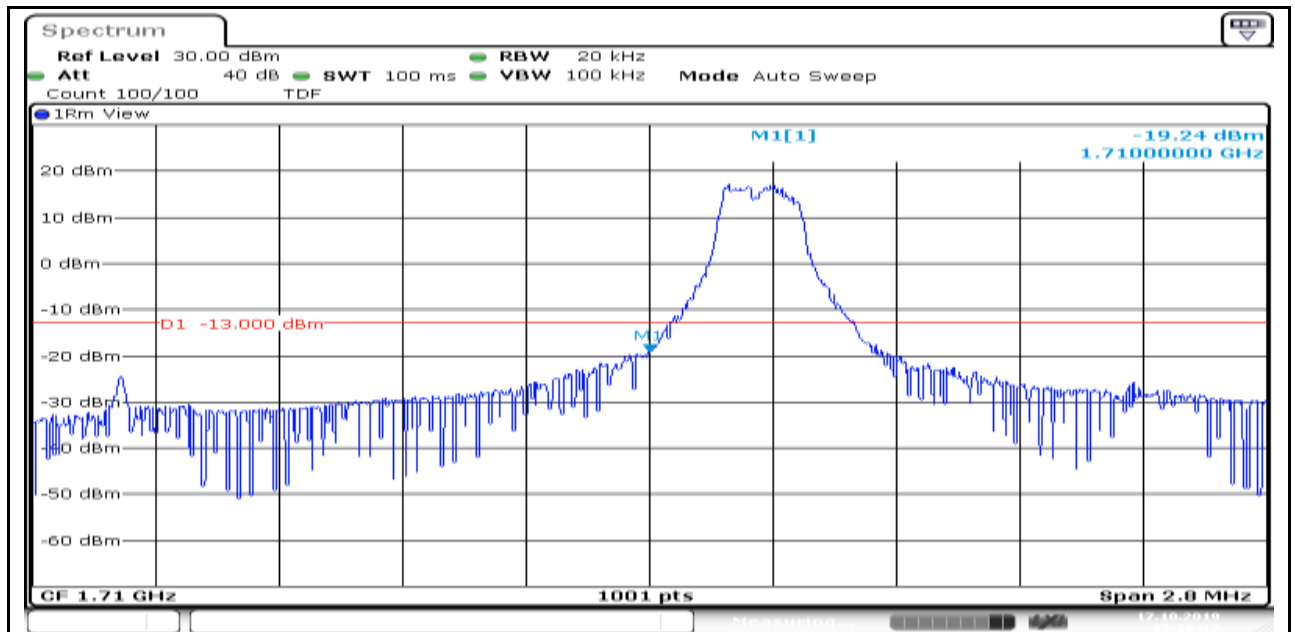


Band66_1.4MHz_16QAM_131979_6_0_Low



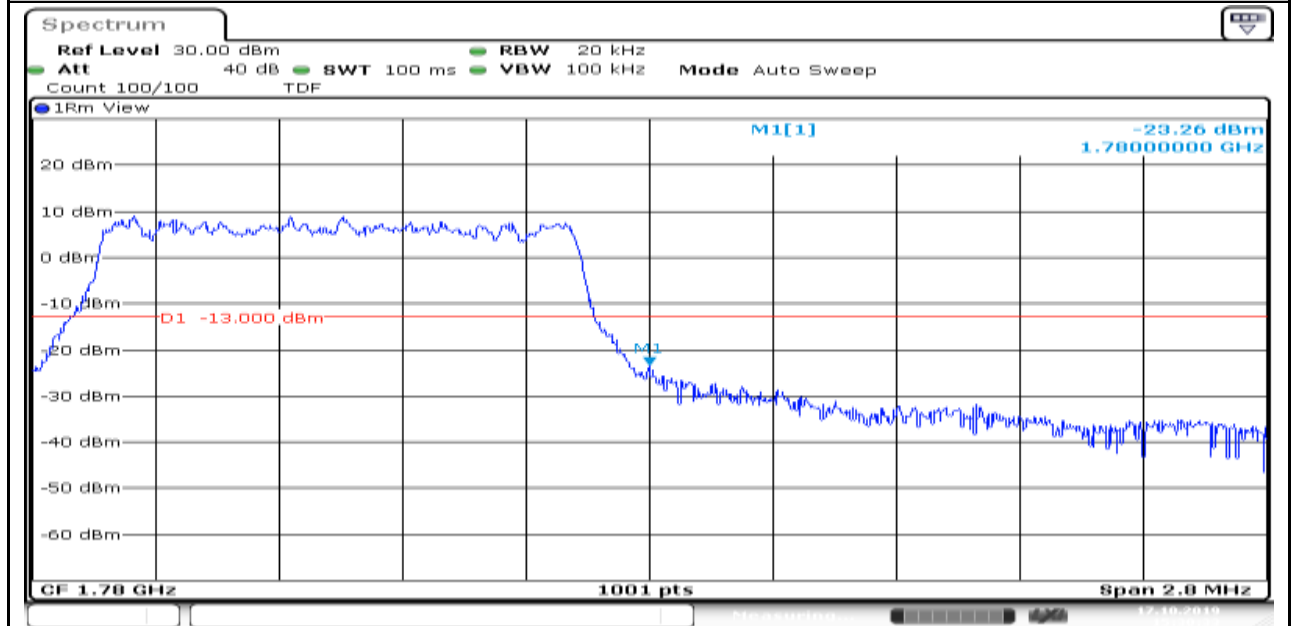
Band66_1.4MHz_16QAM_131979_1_0_Low

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Date: 17.OCT.2019 15:26:17

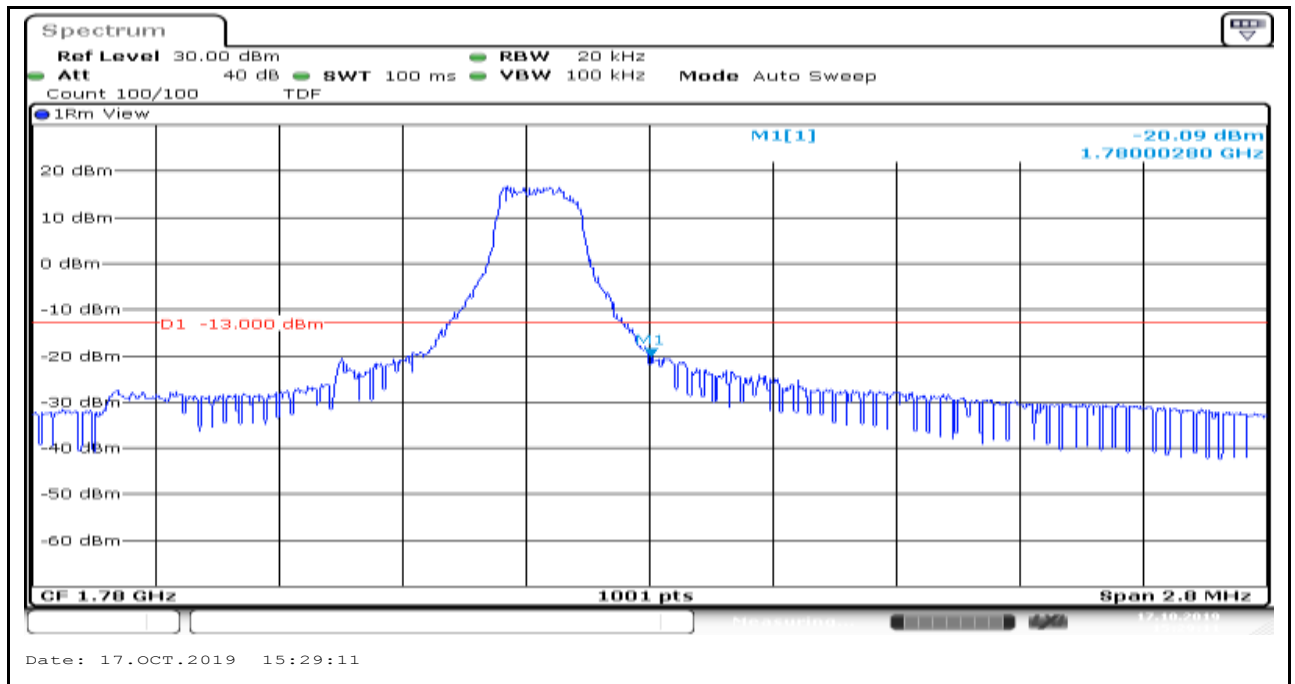
Band66_1.4MHz_16QAM_132665_6_0_Low



Date: 17.OCT.2019 15:30:33

Band66_1.4MHz_16QAM_132665_1_5_Low

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Appendix I.5: Conducted Spurious Emission for M1

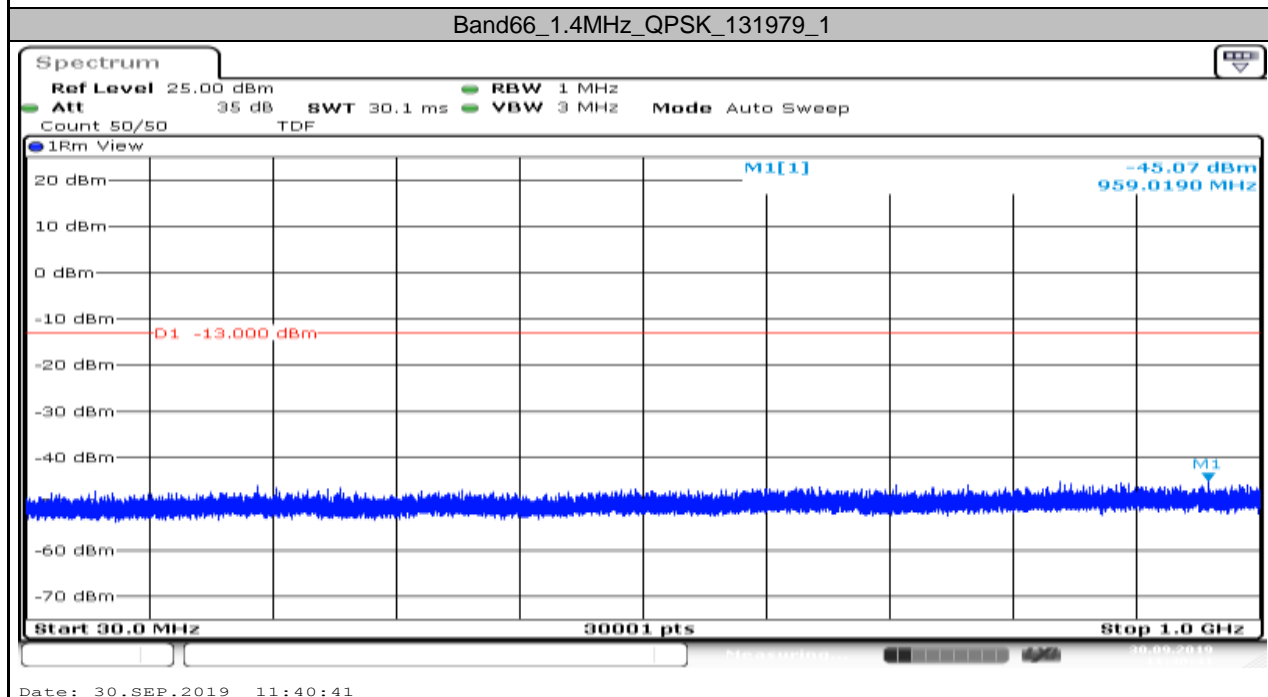
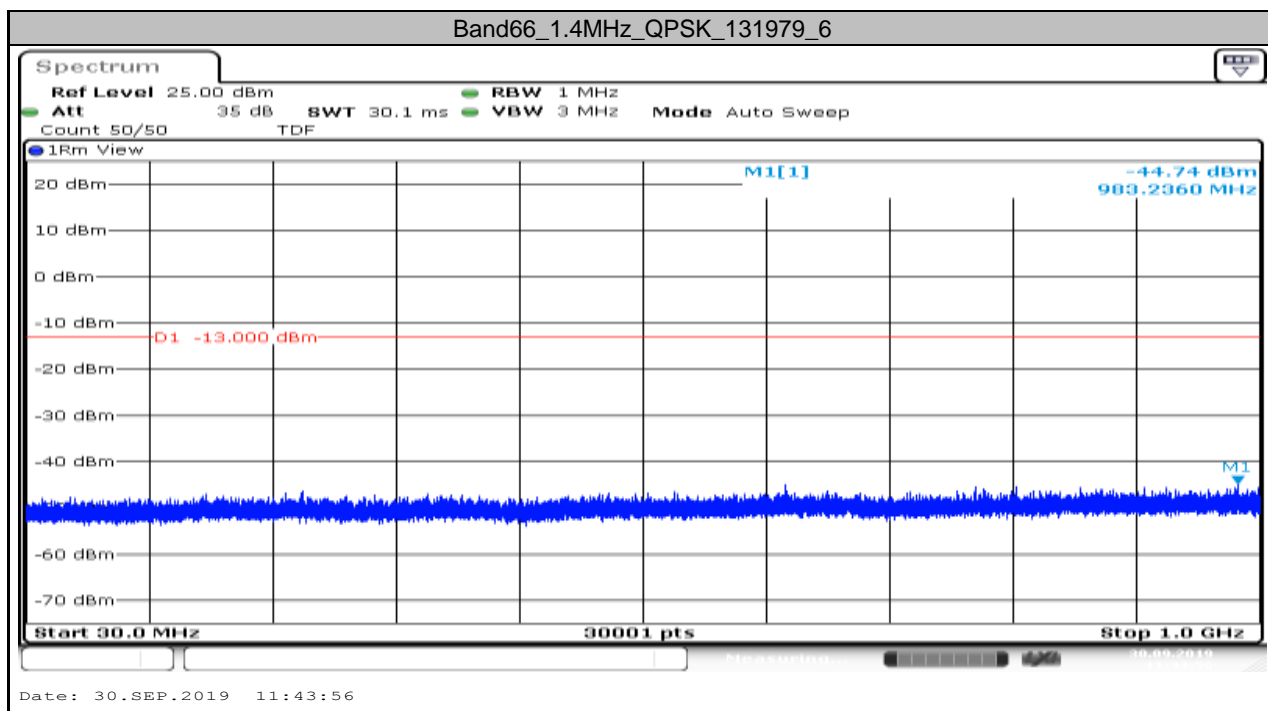
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Start Freq	Stop Freq	Result (dBm)	Verdict
Band66	1.4MHz	QPSK	131979	6	0	Low	30	1000	-44.74	PASS
Band66	1.4MHz	QPSK	131979	1	0	Low	30	1000	-45.07	PASS
Band66	1.4MHz	QPSK	131979	6	0	Low	12000	26500	-59.54	PASS
Band66	1.4MHz	QPSK	131979	6	0	Low	5000	12000	-57.28	PASS
Band66	1.4MHz	QPSK	131979	6	0	Low	1000	5000	-48	PASS
Band66	1.4MHz	QPSK	131979	1	0	Low	12000	26500	-59.58	PASS
Band66	1.4MHz	QPSK	131979	1	0	Low	1000	5000	-45.62	PASS
Band66	1.4MHz	QPSK	131979	1	0	Low	5000	12000	-53.25	PASS
Band66	1.4MHz	QPSK	132322	6	0	Low	12000	26500	-59.52	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	1000	5000	-46.84	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	5000	12000	-57.22	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	12000	26500	-59.64	PASS
Band66	1.4MHz	QPSK	132322	6	0	Low	1000	5000	-42.89	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	30	1000	-43.41	PASS
Band66	1.4MHz	QPSK	132322	6	0	Low	5000	12000	-57.72	PASS
Band66	1.4MHz	QPSK	132322	6	0	Low	30	1000	-45.05	PASS
Band66	1.4MHz	QPSK	132665	1	5	Low	12000	26500	-59.5	PASS
Band66	1.4MHz	QPSK	132665	6	0	Low	12000	26500	-59.66	PASS
Band66	1.4MHz	QPSK	132665	6	0	Low	5000	12000	-56.16	PASS
Band66	1.4MHz	QPSK	132665	6	0	Low	30	1000	-45.24	PASS
Band66	1.4MHz	QPSK	132665	1	5	Low	1000	5000	-39.08	PASS
Band66	1.4MHz	QPSK	132665	1	5	Low	5000	12000	-51.86	PASS
Band66	1.4MHz	QPSK	132665	1	5	Low	30	1000	-45.14	PASS
Band66	1.4MHz	QPSK	132665	6	0	Low	1000	5000	-45.1	PASS
Band66	1.4MHz	16QAM	131979	1	0	Low	1000	5000	-46.9	PASS
Band66	1.4MHz	16QAM	131979	1	0	Low	5000	12000	-53.9	PASS
Band66	1.4MHz	16QAM	131979	1	0	Low	12000	26500	-59.45	PASS
Band66	1.4MHz	16QAM	131979	6	0	Low	12000	26500	-59.68	PASS
Band66	1.4MHz	16QAM	131979	6	0	Low	5000	12000	-57.83	PASS
Band66	1.4MHz	16QAM	131979	6	0	Low	30	1000	-45.33	PASS
Band66	1.4MHz	16QAM	131979	1	0	Low	30	1000	-44.47	PASS
Band66	1.4MHz	16QAM	131979	6	0	Low	1000	5000	-47.92	PASS
Band66	1.4MHz	16QAM	132322	6	0	Low	12000	26500	-59.69	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	1000	5000	-43.62	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	12000	26500	-59.54	PASS
Band66	1.4MHz	16QAM	132322	6	0	Low	30	1000	-44.86	PASS
Band66	1.4MHz	16QAM	132322	6	0	Low	1000	5000	-44.59	PASS
Band66	1.4MHz	16QAM	132322	6	0	Low	5000	12000	-56.99	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	30	1000	-44.88	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	5000	12000	-53.89	PASS
Band66	1.4MHz	16QAM	132665	6	0	Low	5000	12000	-56.14	PASS
Band66	1.4MHz	16QAM	132665	6	0	Low	1000	5000	-40.65	PASS
Band66	1.4MHz	16QAM	132665	6	0	Low	30	1000	-44.88	PASS
Band66	1.4MHz	16QAM	132665	1	5	Low	12000	26500	-59.62	PASS
Band66	1.4MHz	16QAM	132665	1	5	Low	5000	12000	-52.55	PASS
Band66	1.4MHz	16QAM	132665	1	5	Low	30	1000	-45.34	PASS

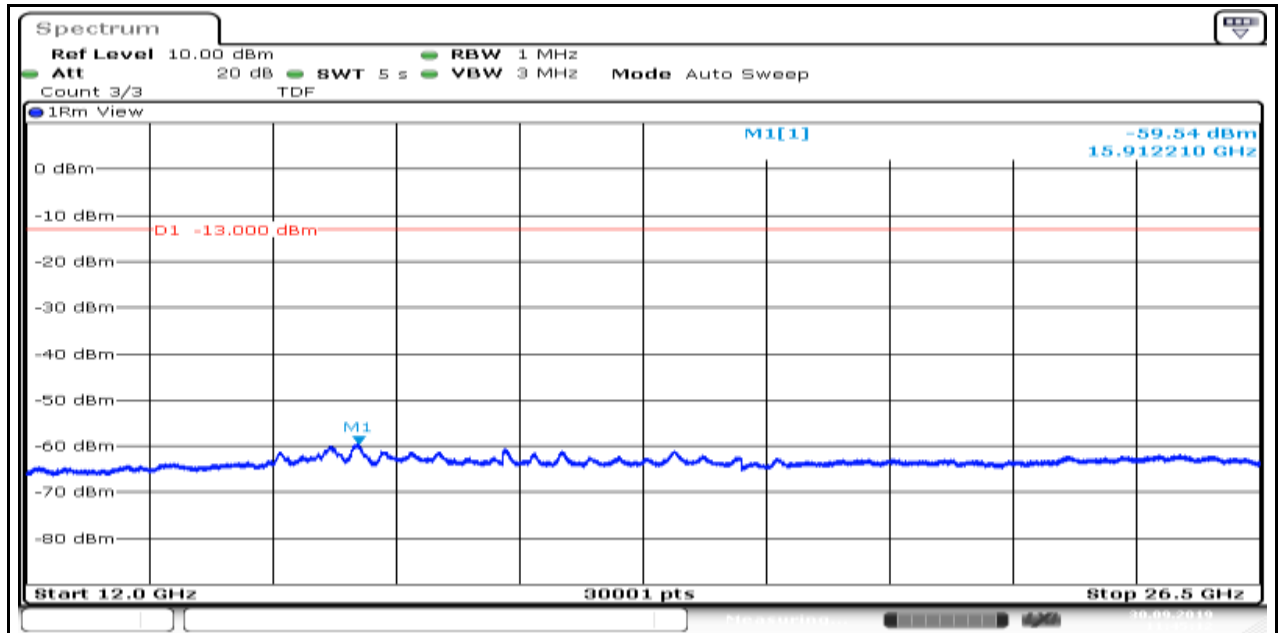
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Band66	1.4MHz	16QAM	132665	6	0	Low	12000	26500	-59.46	PASS
Band66	1.4MHz	16QAM	132665	1	5	Low	1000	5000	-39.5	PASS

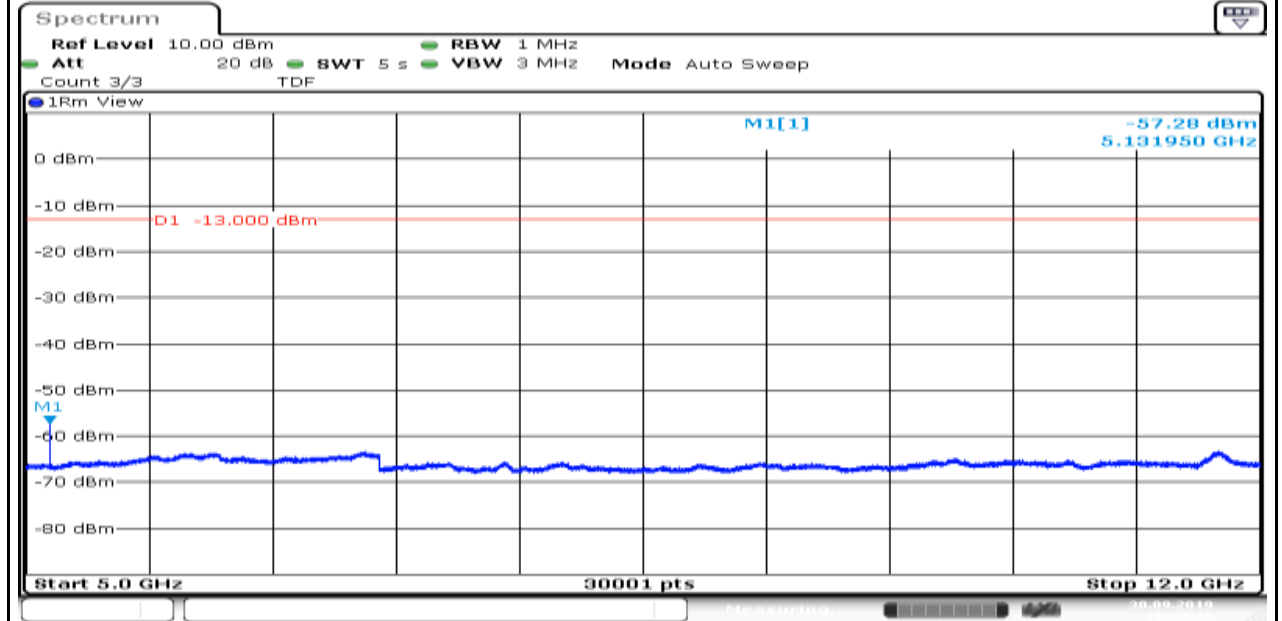
Test Graphs



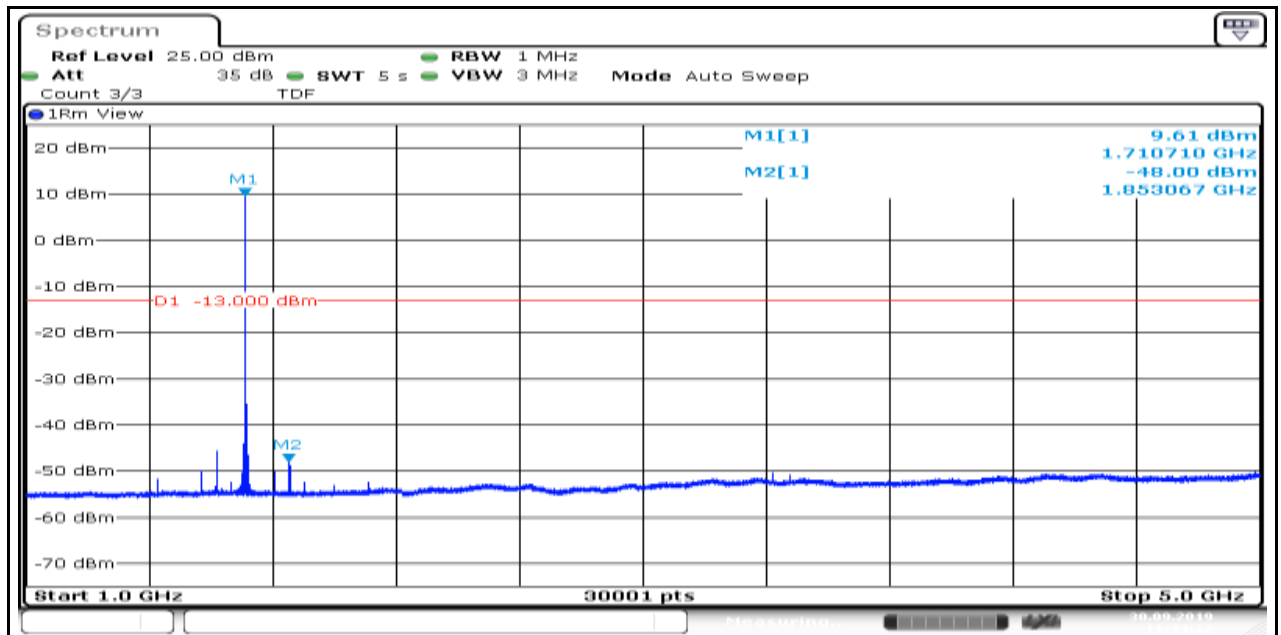
Band66_1.4MHz_QPSK_131979_6



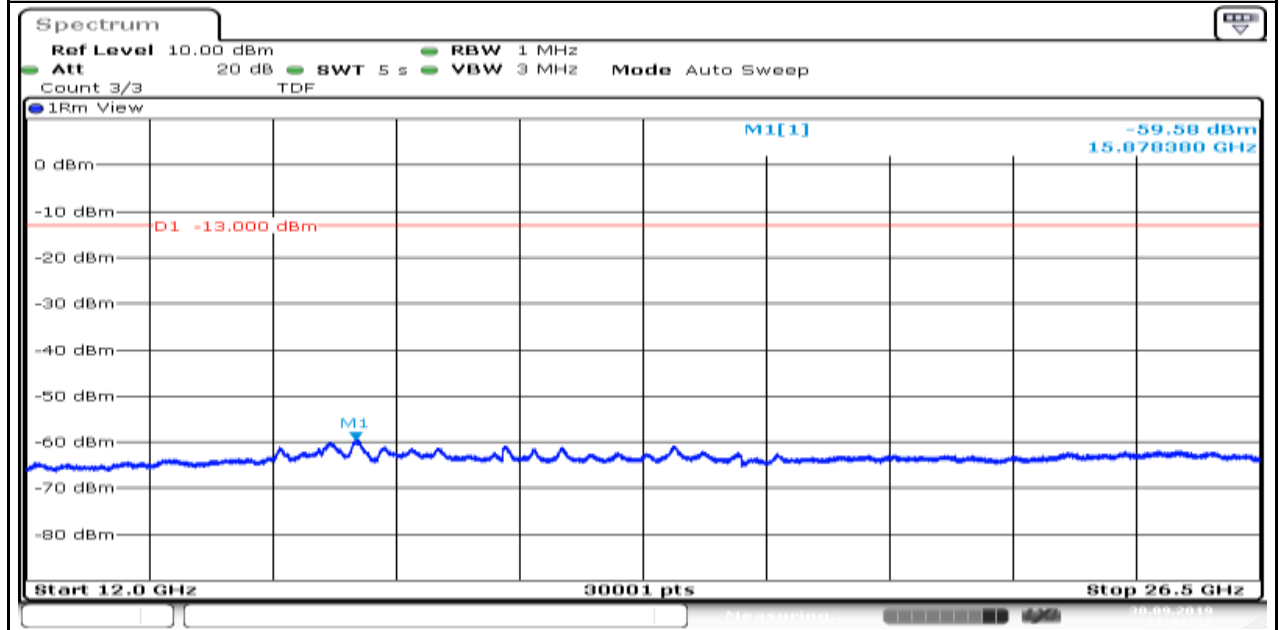
Band66_1.4MHz_QPSK_131979_6



Band66_1.4MHz_QPSK_131979_6

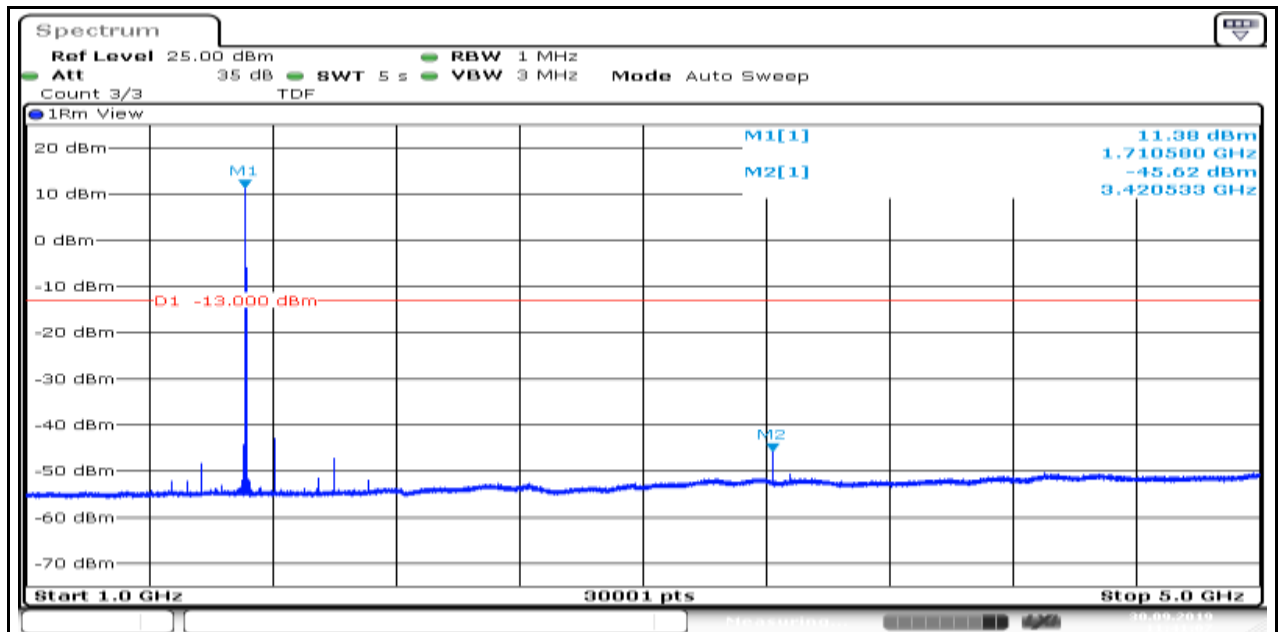


Band66_1.4MHz_QPSK_131979_1

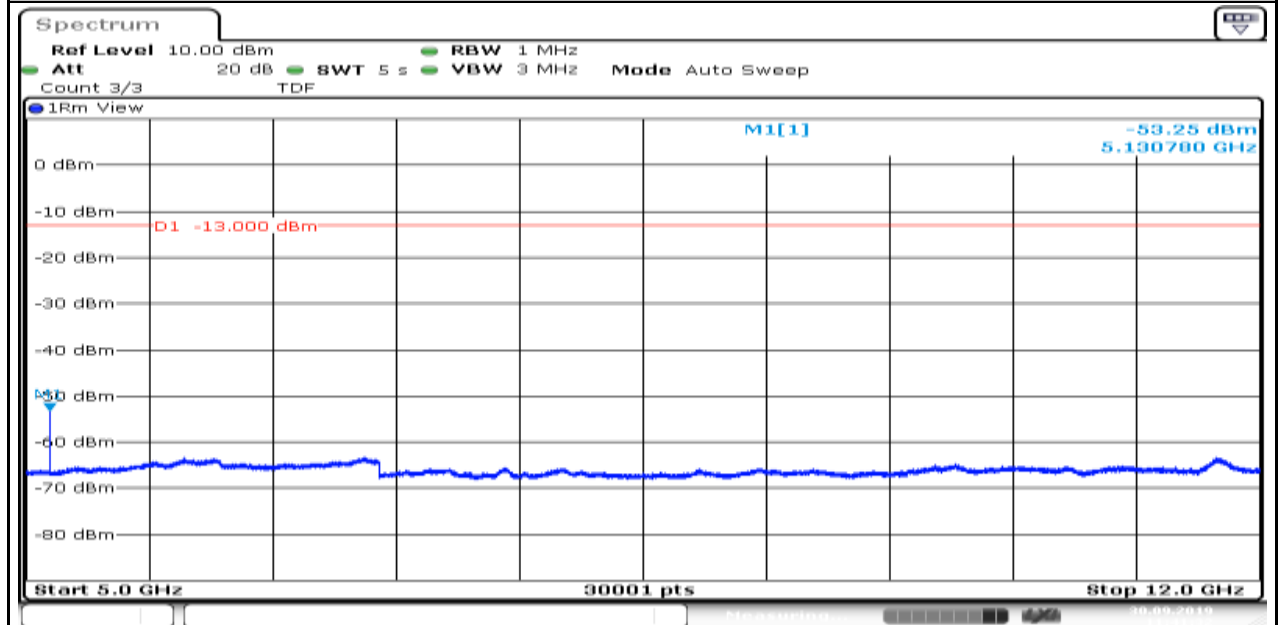


Band66_1.4MHz_QPSK_131979_1

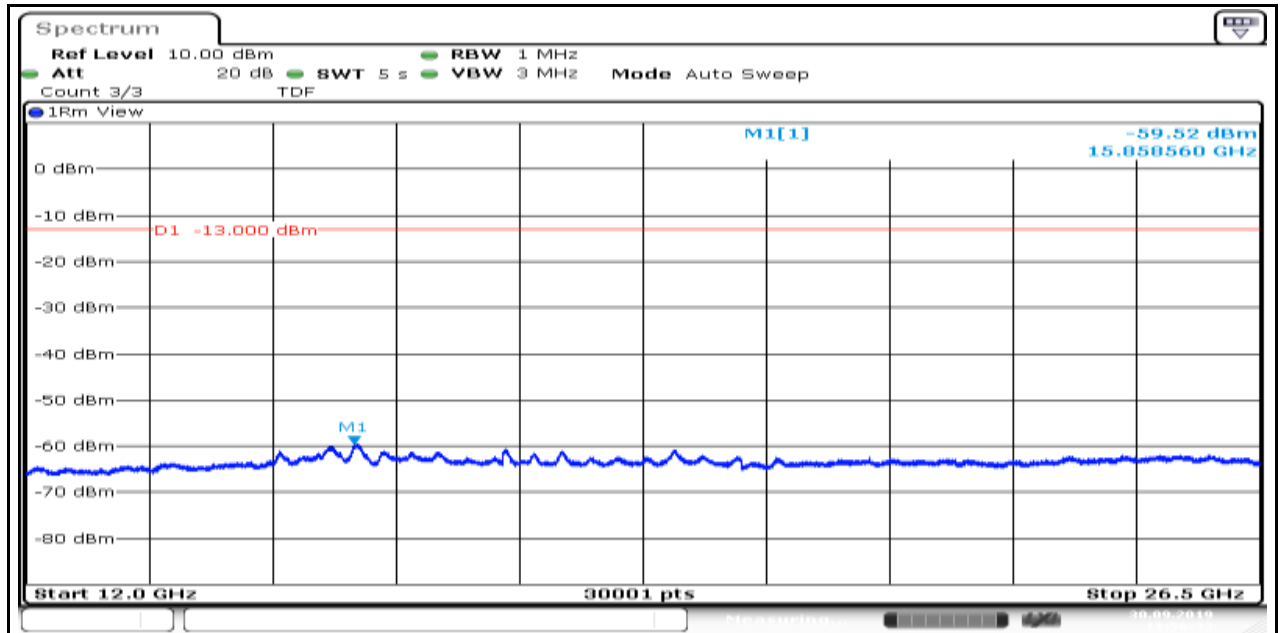
Produkte
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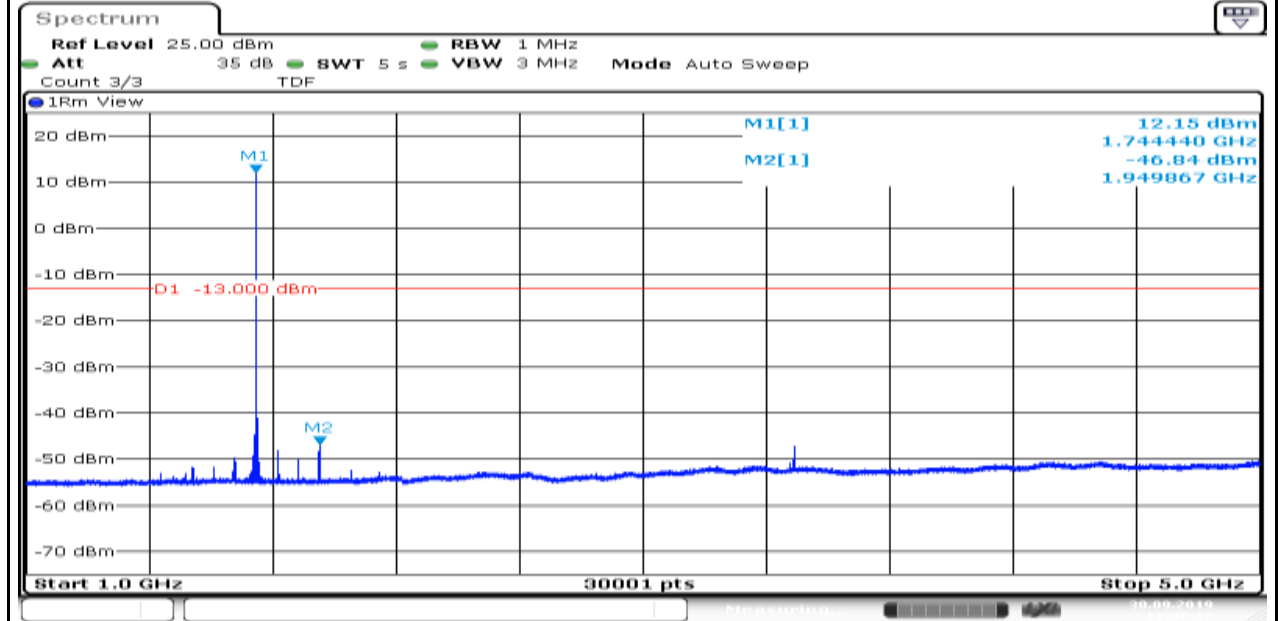
Band66_1.4MHz_QPSK_131979_1



Band66_1.4MHz_QPSK_132322_6

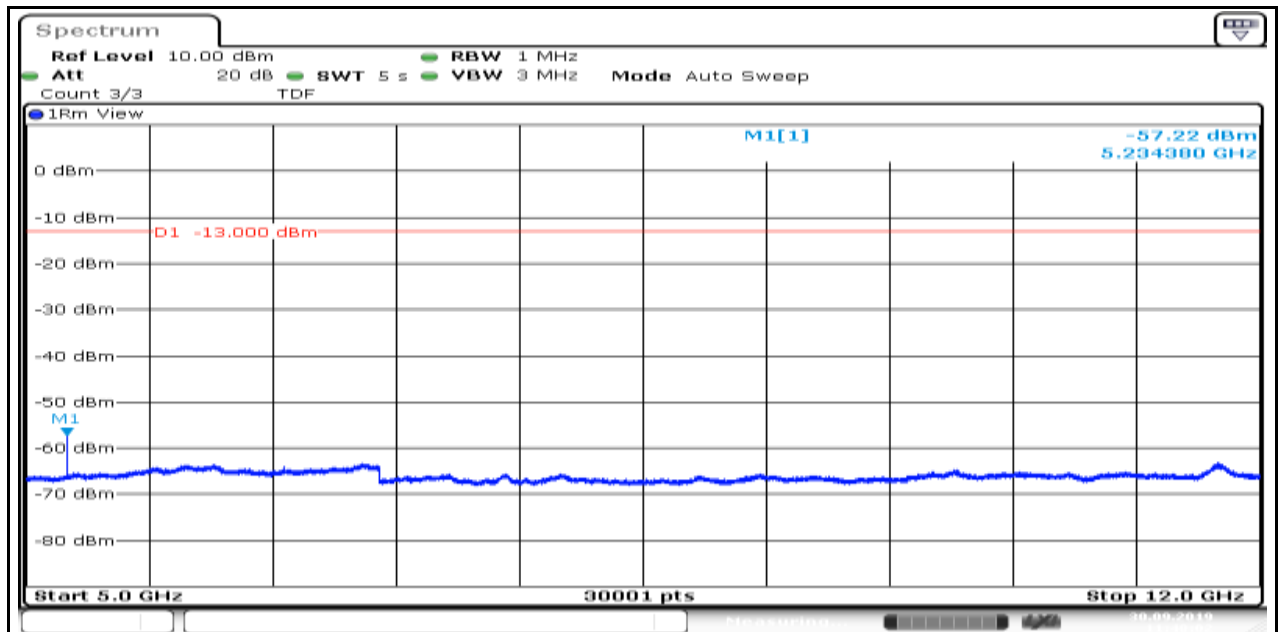


Band66_1.4MHz_QPSK_132322_1



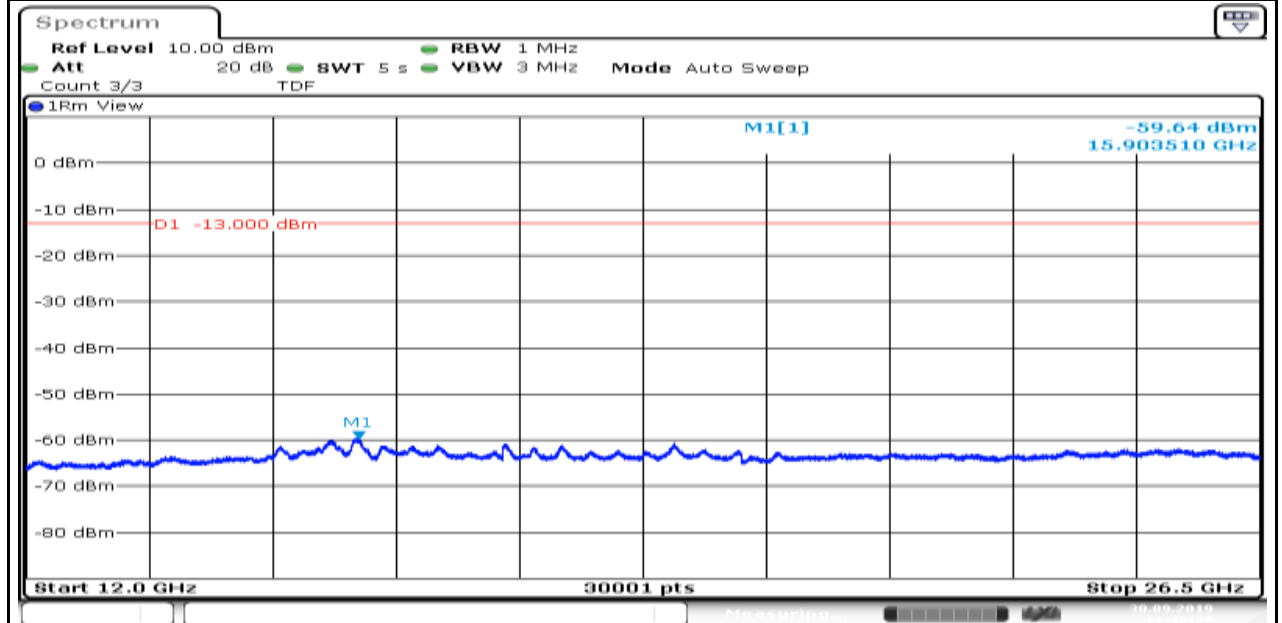
Band66_1.4MHz_QPSK_132322_1

Produkte
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Date: 30.SEP.2019 11:48:02

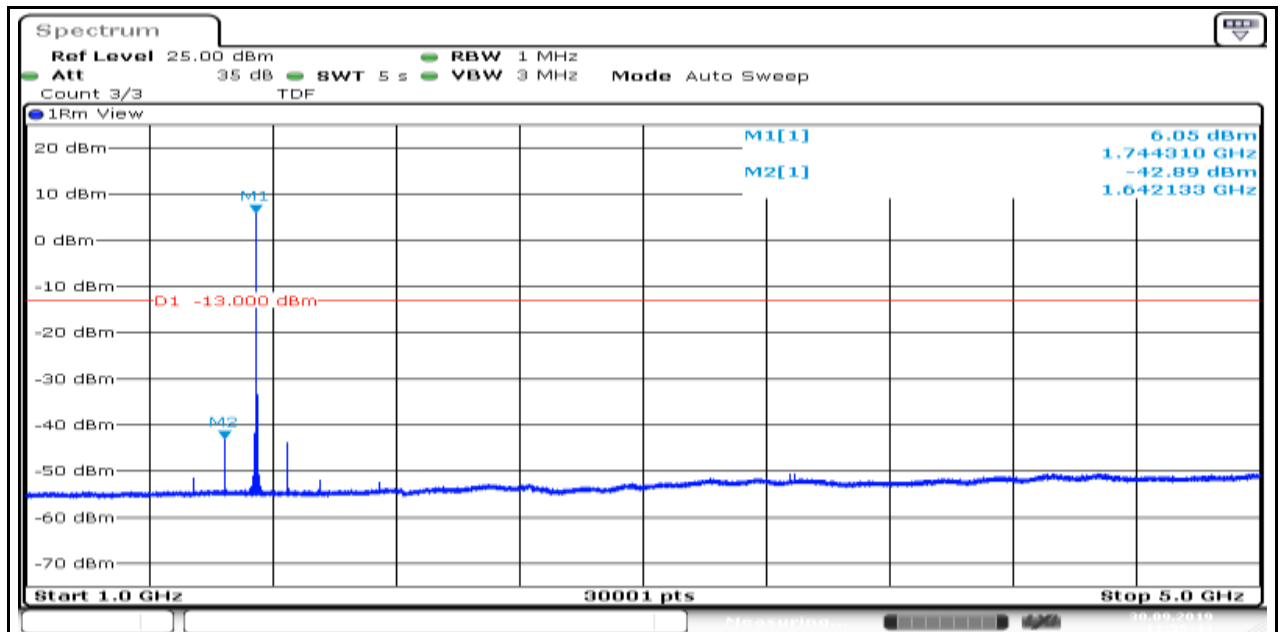
Band66_1.4MHz_QPSK_132322_1



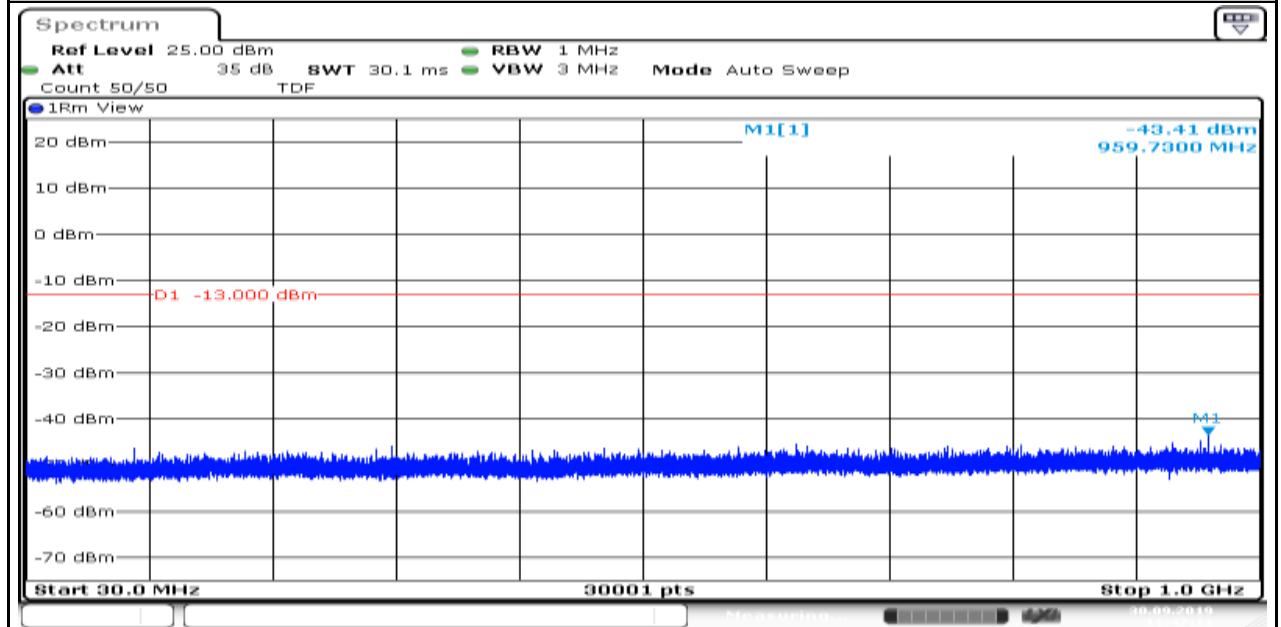
Date: 30.SEP.2019 11:48:27

Band66_1.4MHz_QPSK_132322_6

Produkte
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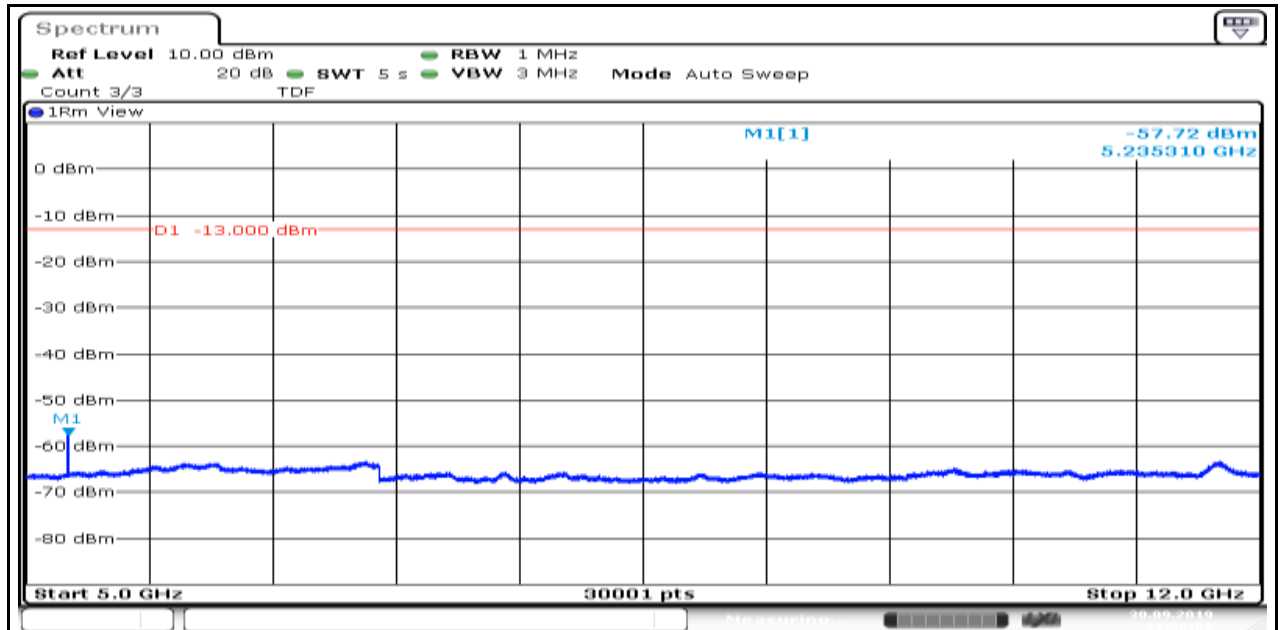


Band66_1.4MHz_QPSK_132322_1

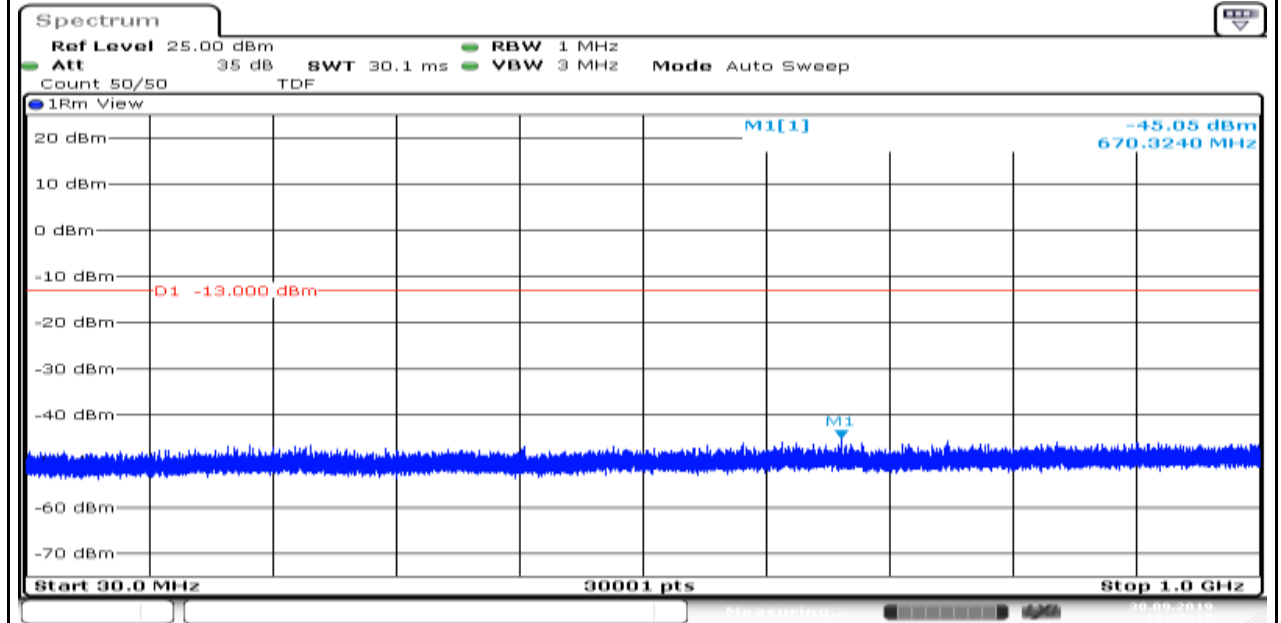


Band66_1.4MHz_QPSK_132322_6

Produkte
Products

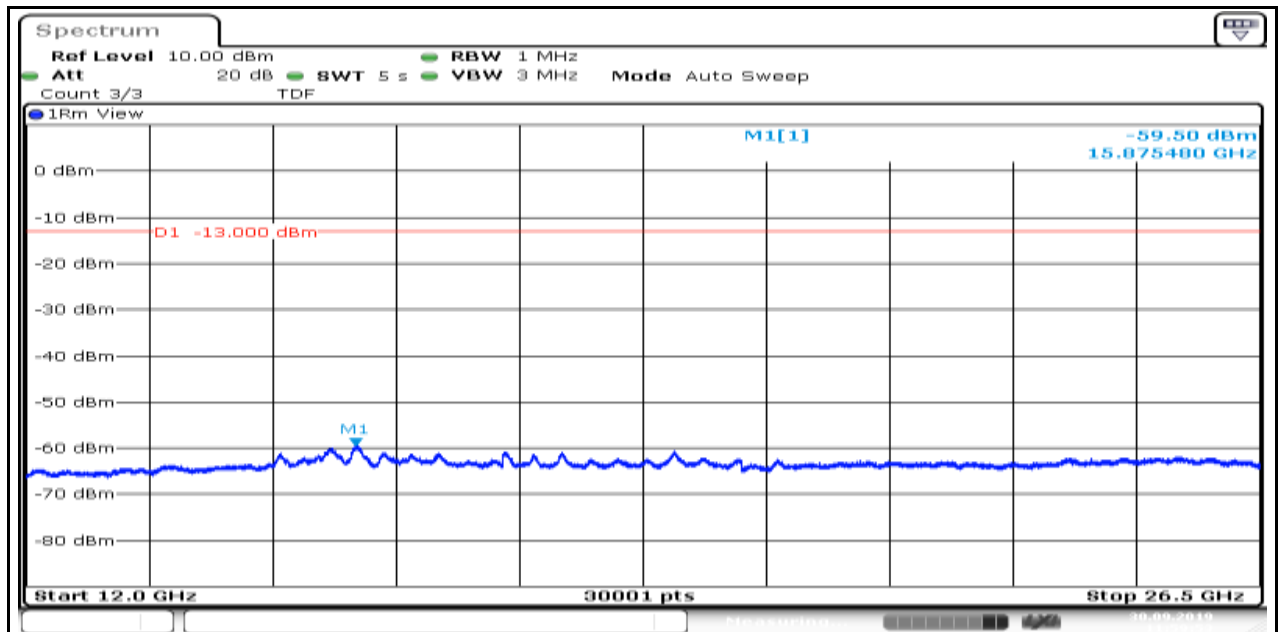


Band66_1.4MHz_QPSK_132322_6

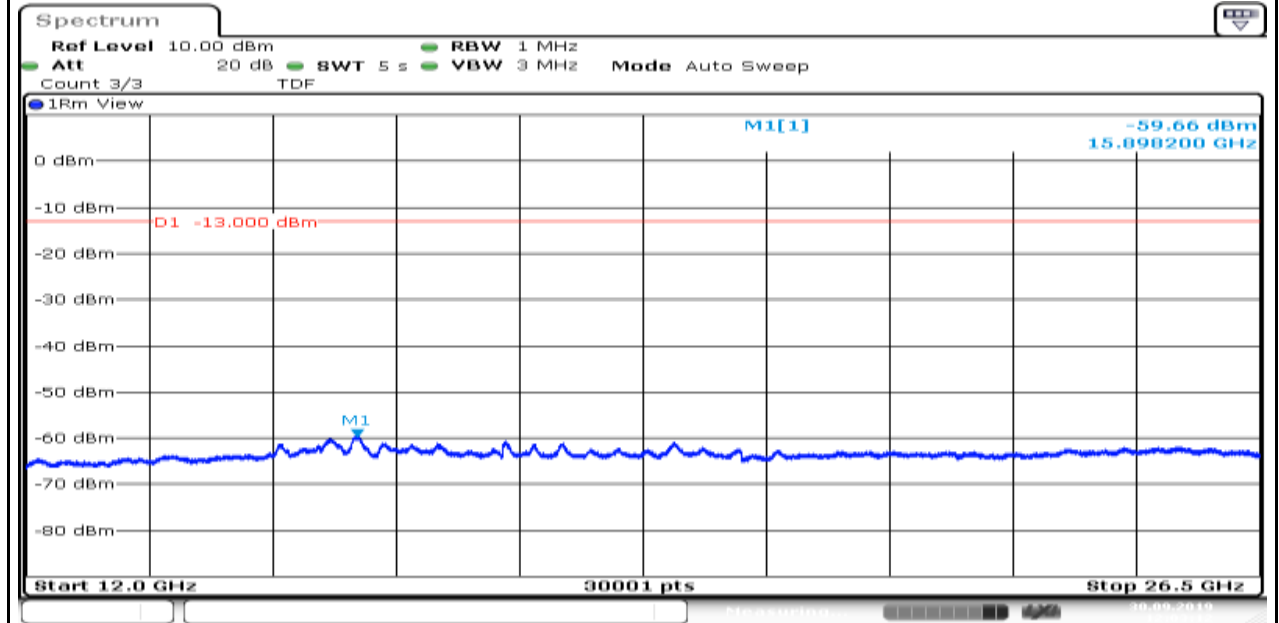


Band66_1.4MHz_QPSK_132665_1

Produkte
Products

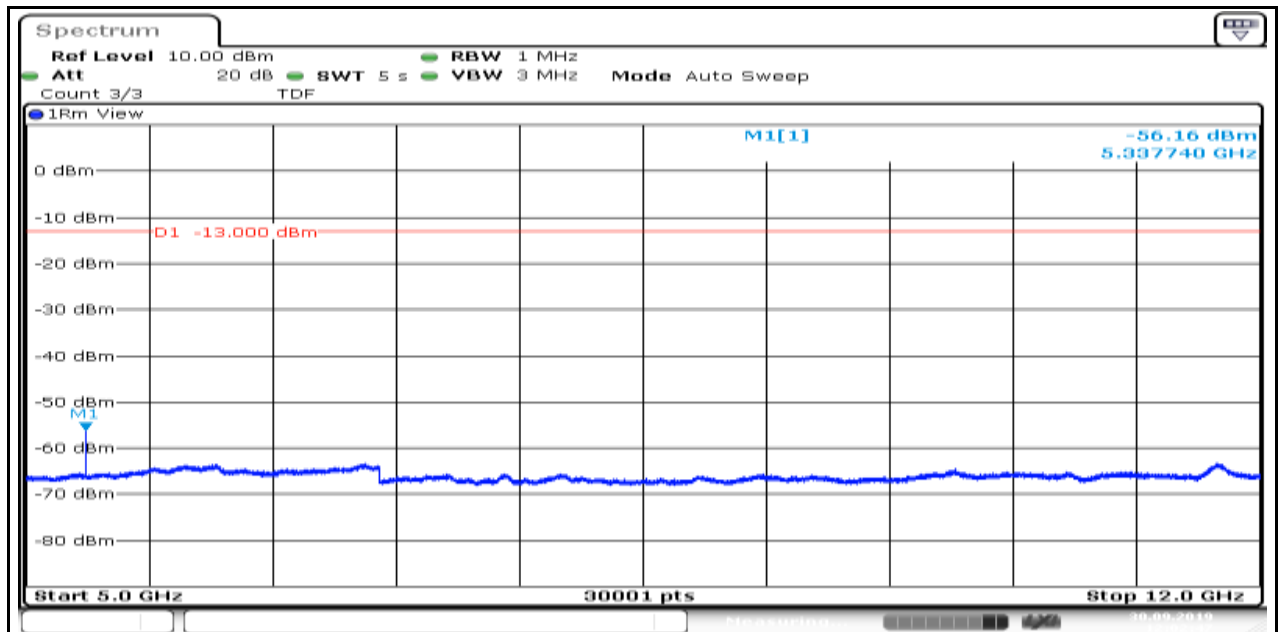


Band66_1.4MHz_QPSK_132665_6



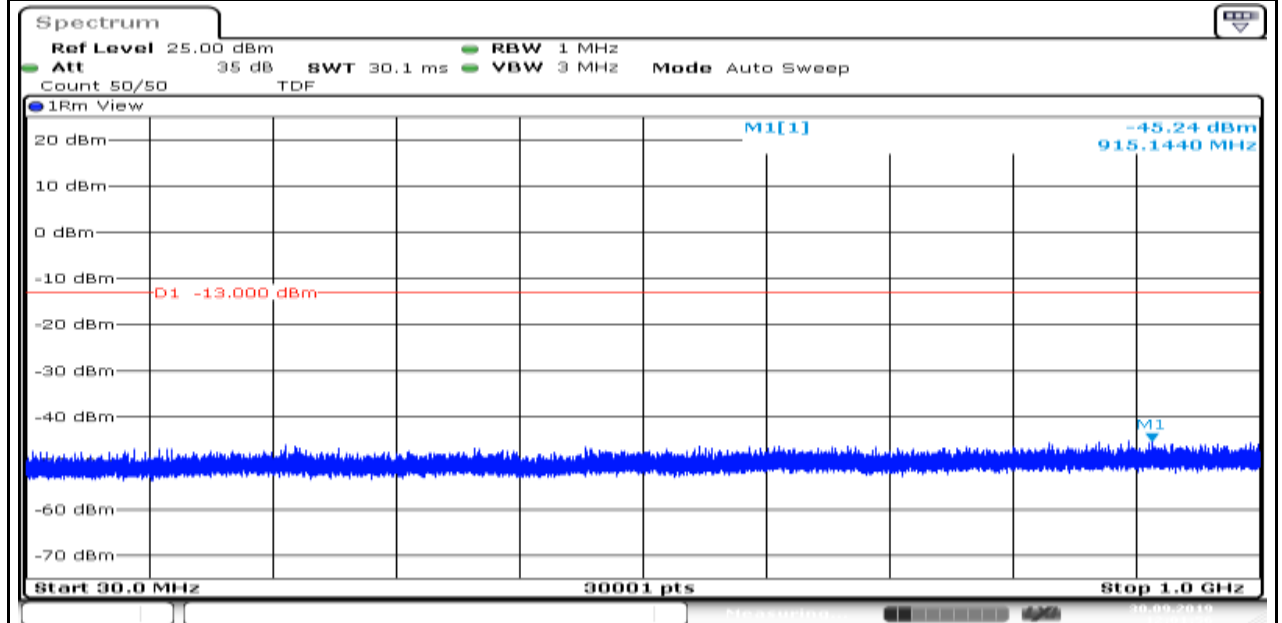
Band66_1.4MHz_QPSK_132665_6

Produkte
Products



Date: 30.SEP.2019 12:02:47

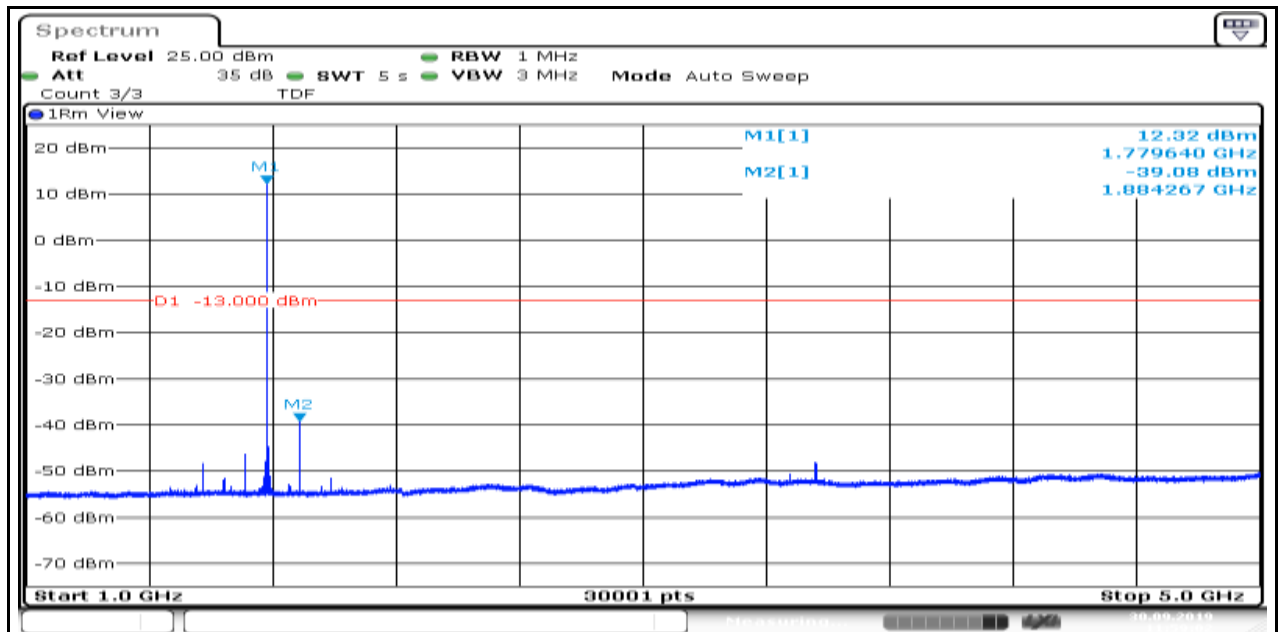
Band66_1.4MHz_QPSK_132665_6



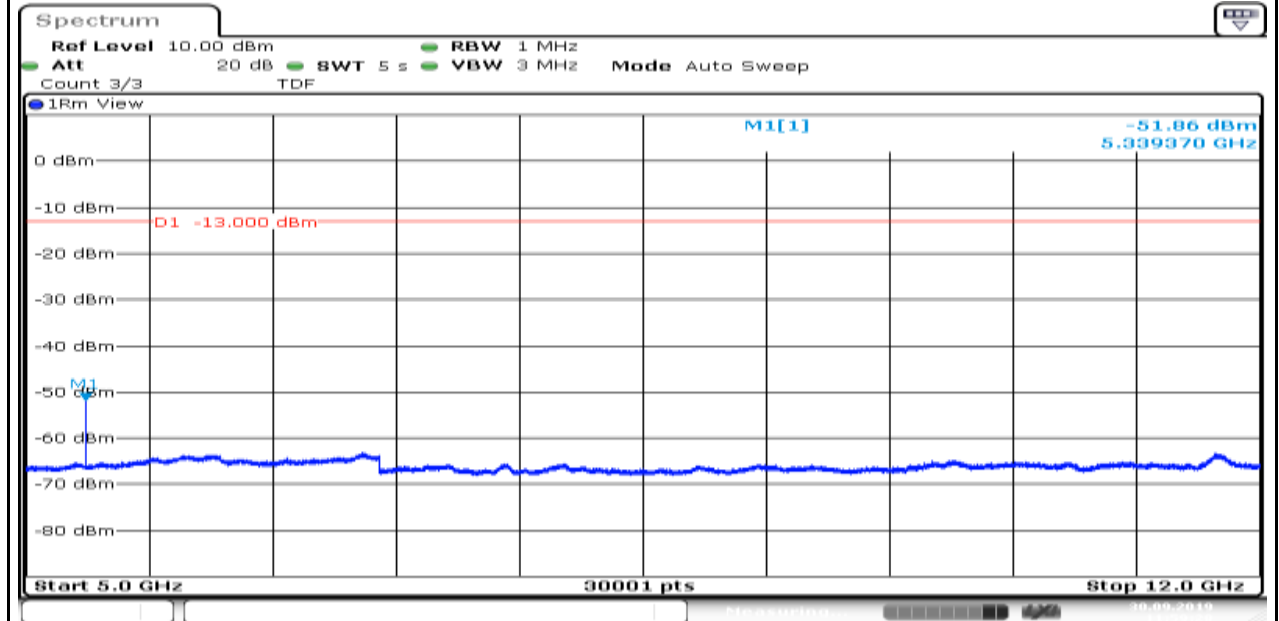
Date: 30.SEP.2019 12:01:56

Band66_1.4MHz_QPSK_132665_1

Produkte
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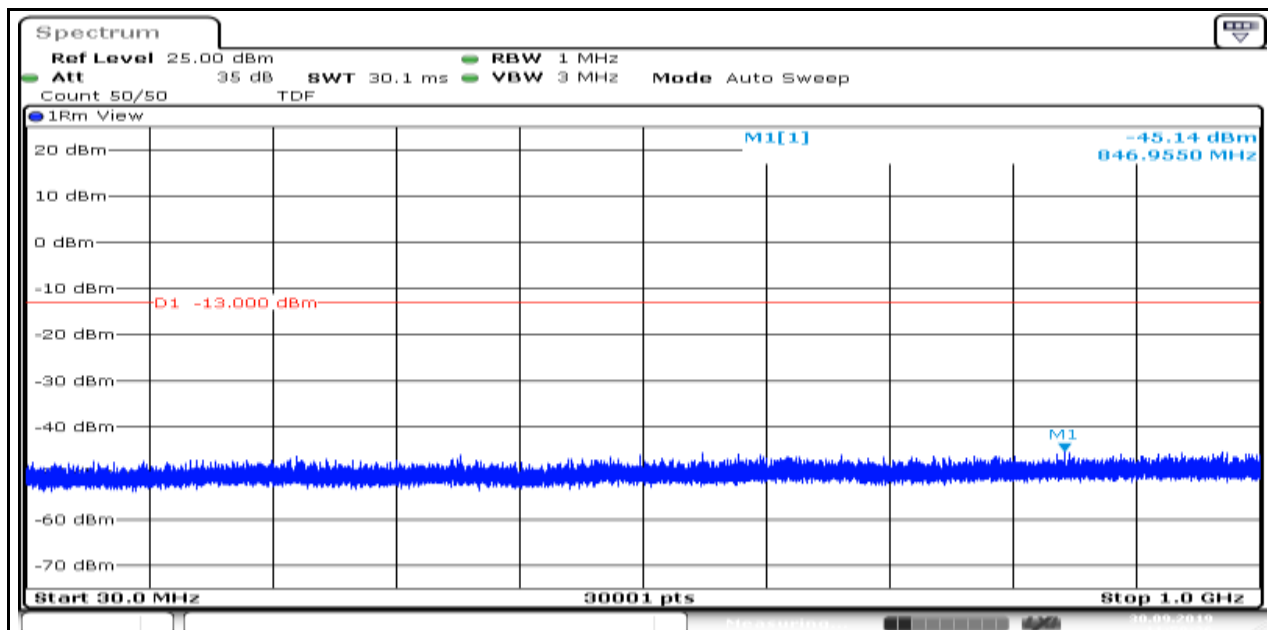


Band66_1.4MHz_QPSK_132665_1

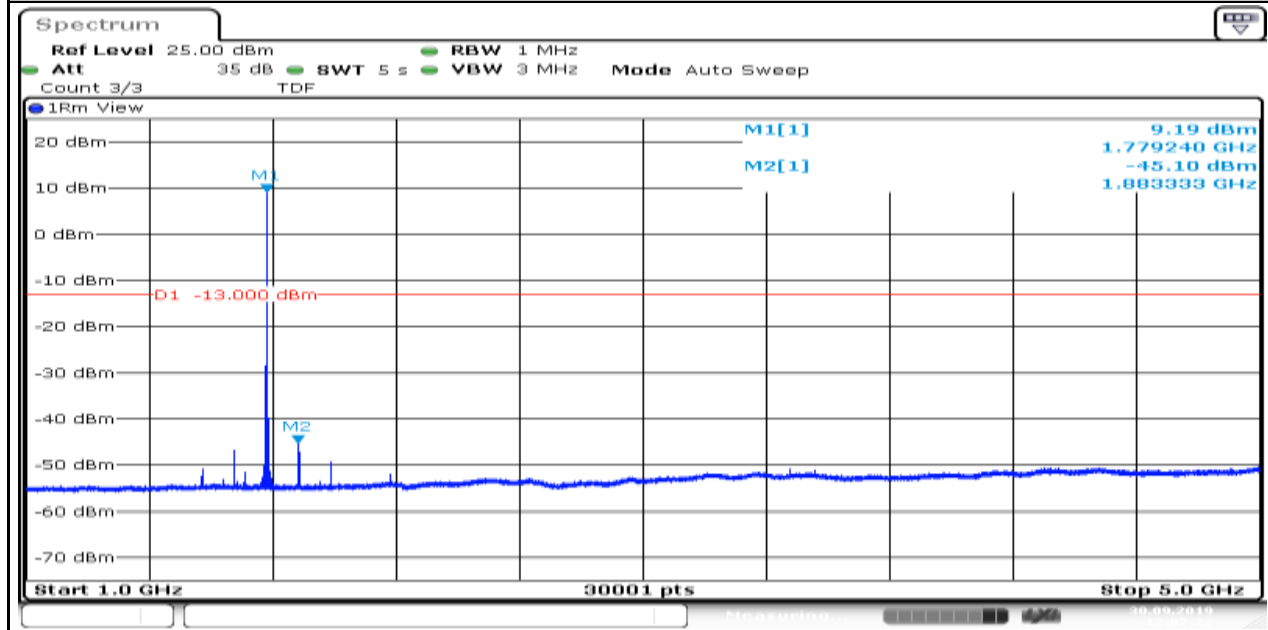


Band66_1.4MHz_QPSK_132665_1

Produkte
Products

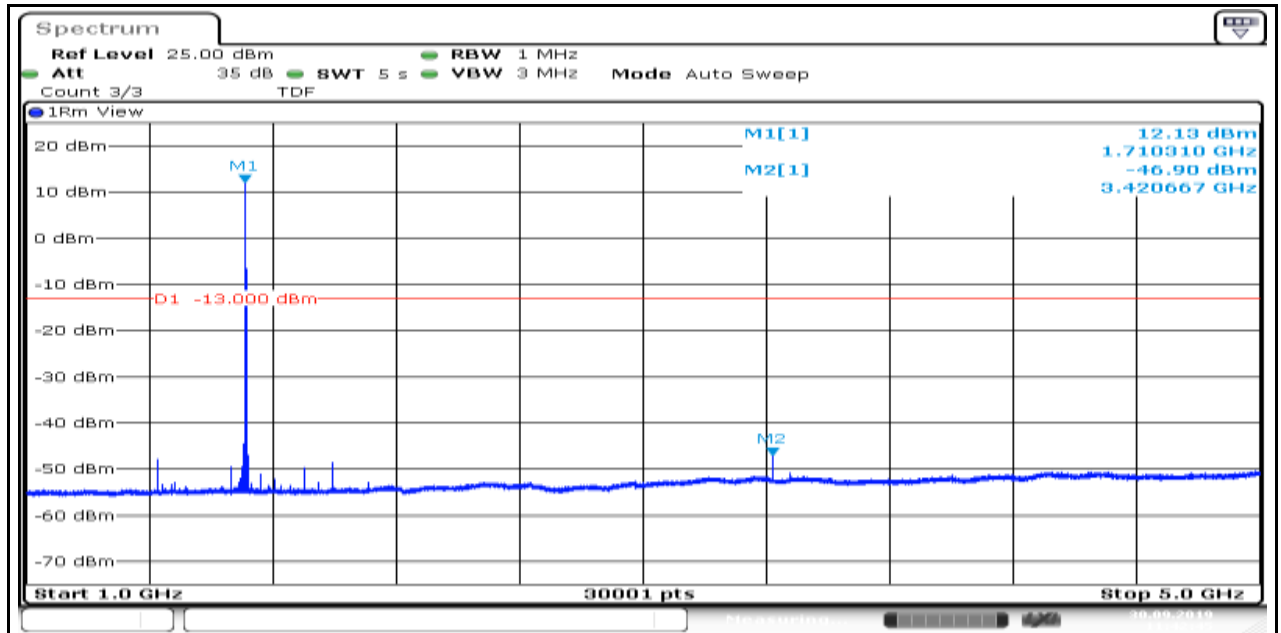


Band66_1.4MHz_QPSK_132665_6

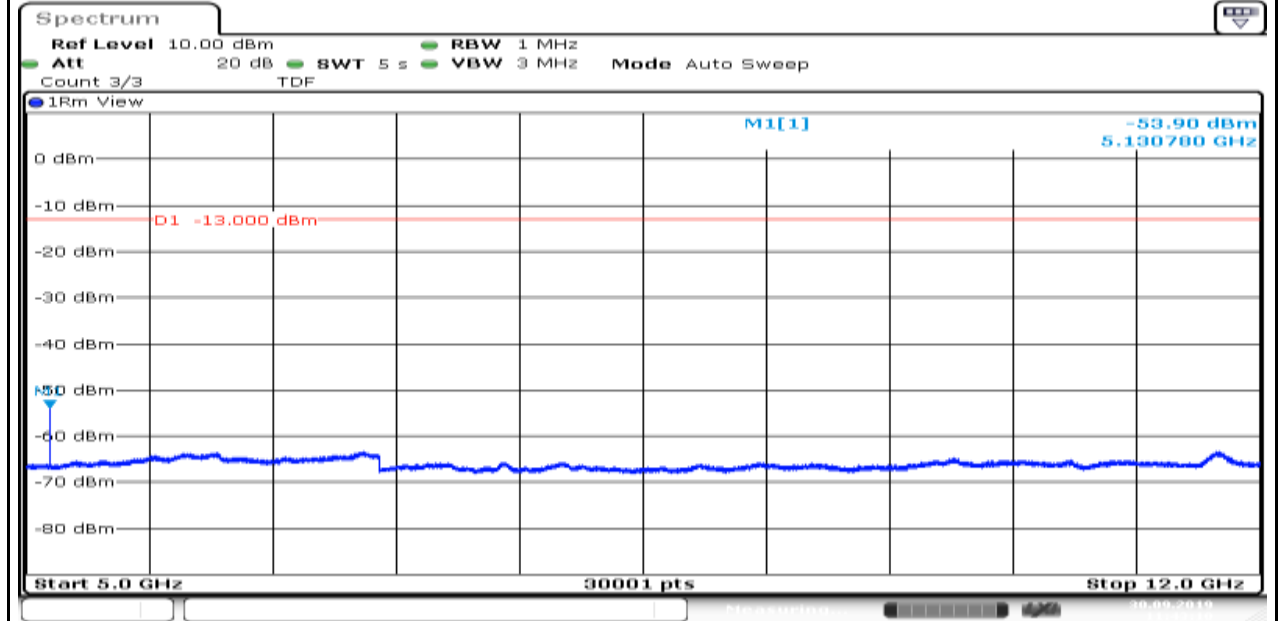


Band66_1.4MHz_16QAM_131979_1

Produkte
Products

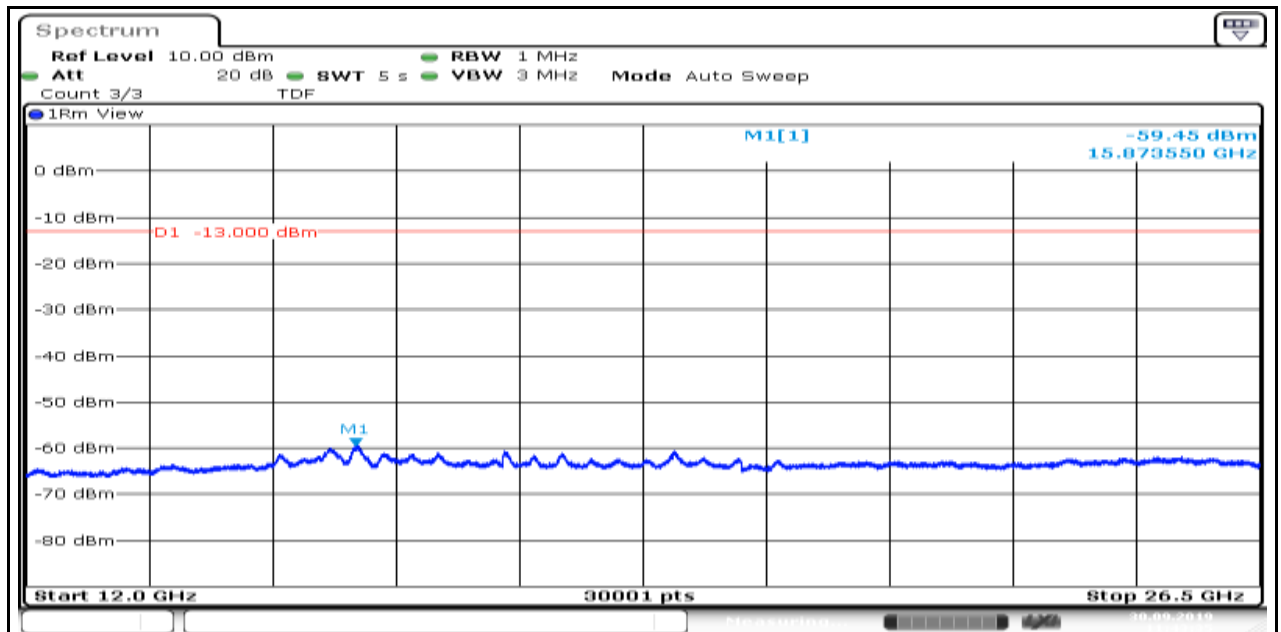


Band66_1.4MHz_16QAM_131979_1

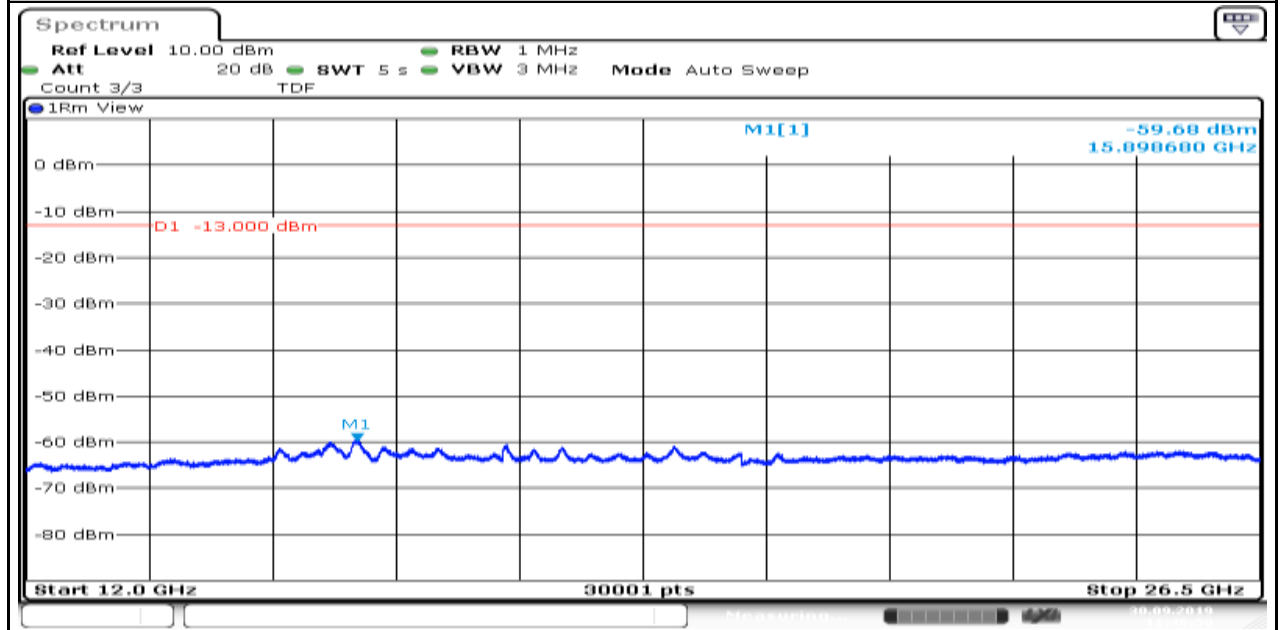


Band66_1.4MHz_16QAM_131979_1

Produkte
Products

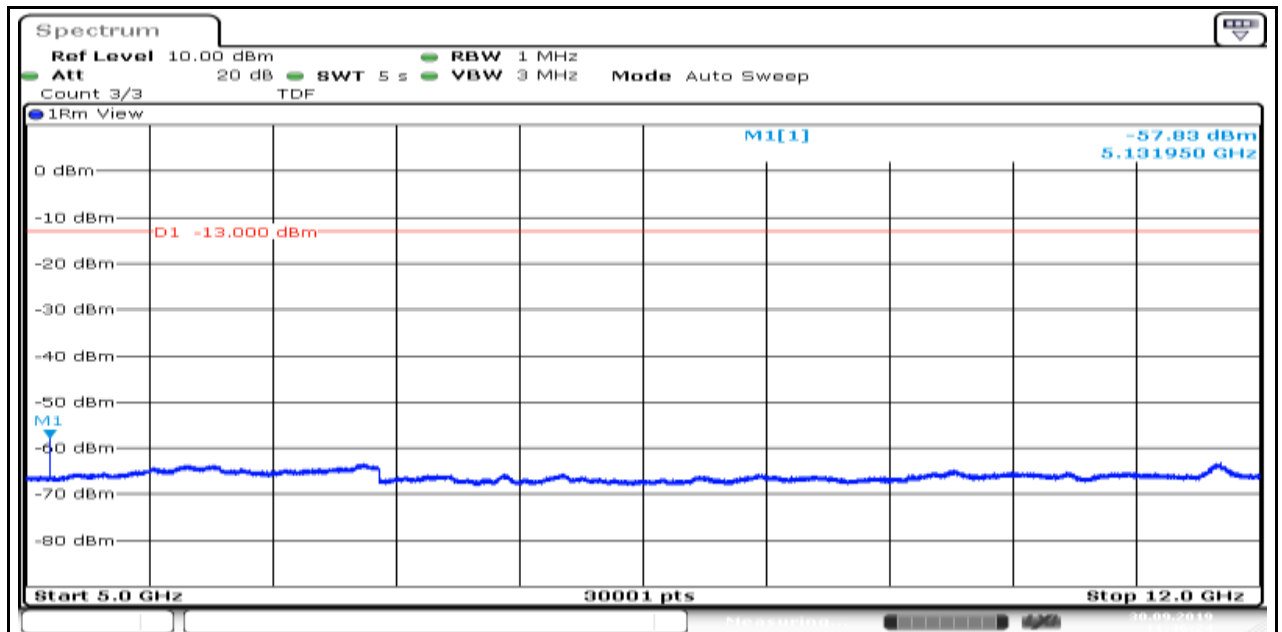


Band66_1.4MHz_16QAM_131979_6



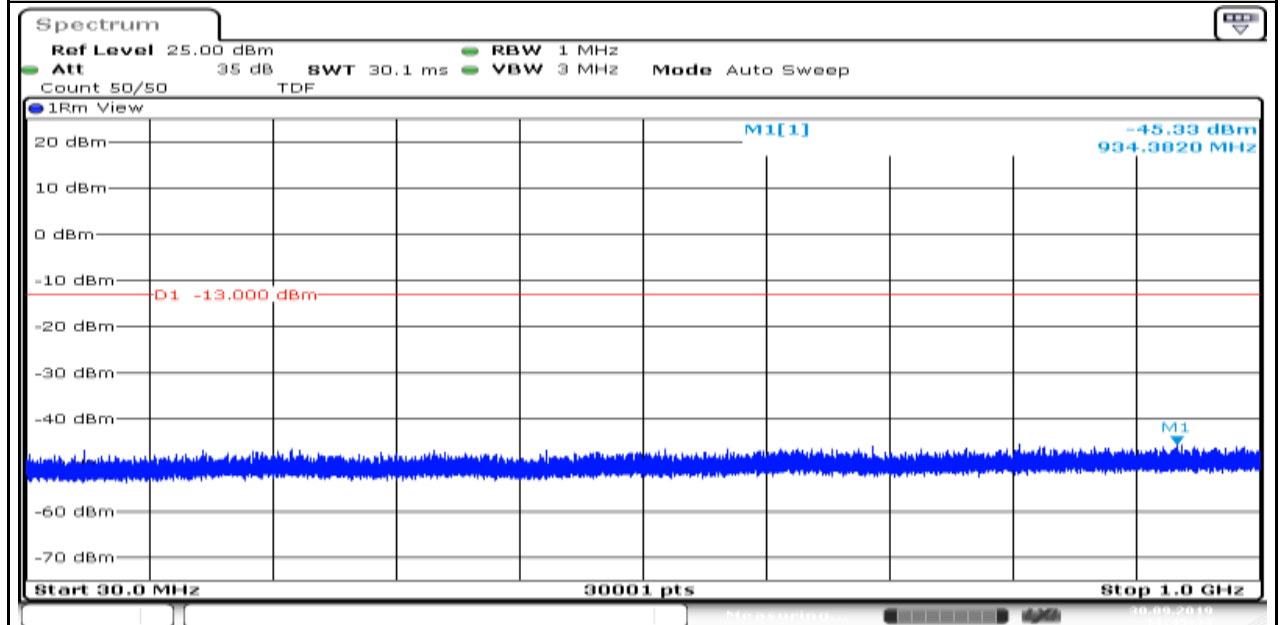
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Produkte
Products



Date: 30.SEP.2019 11:46:25

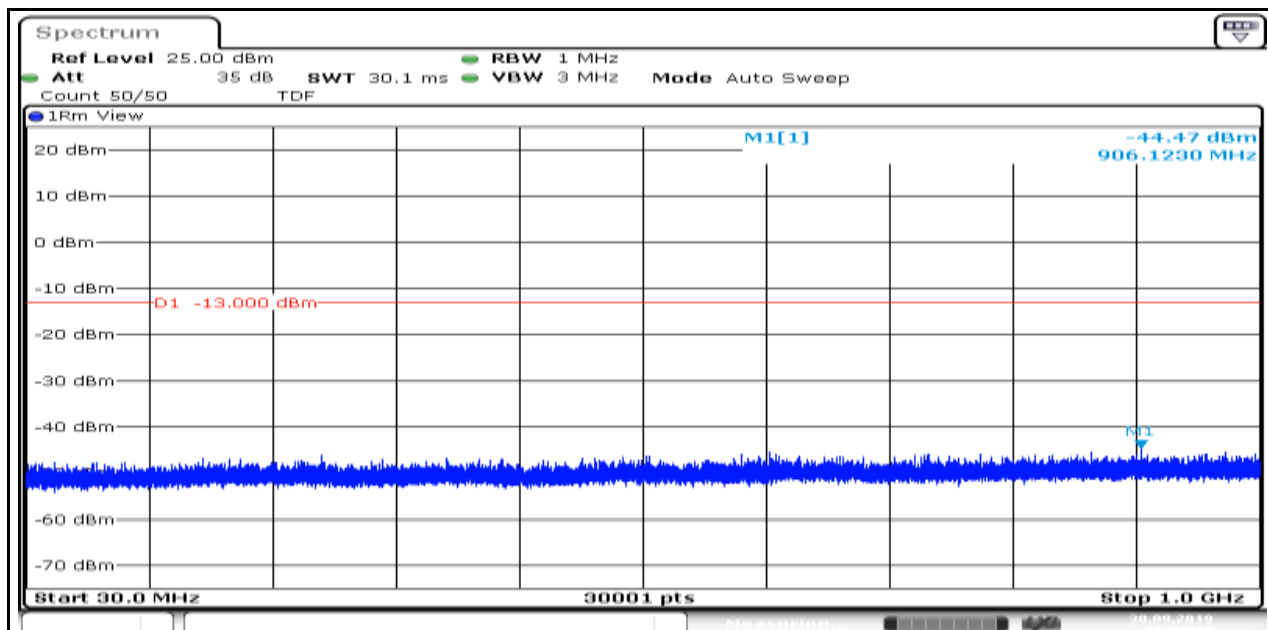
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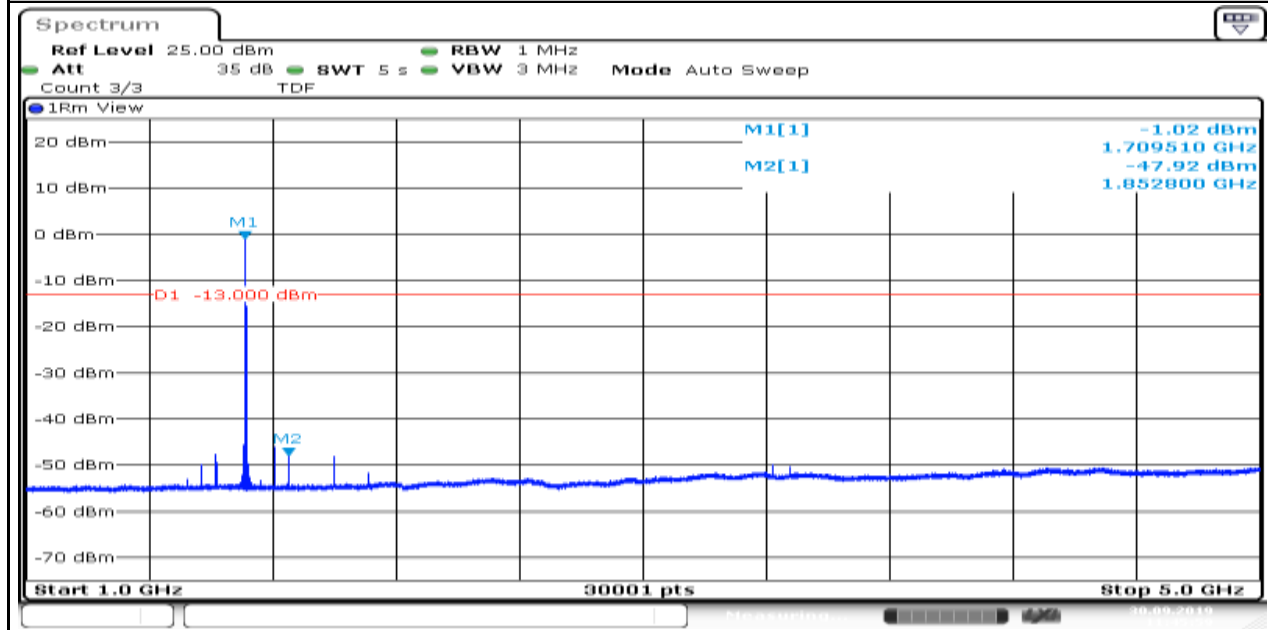
Date: 30.SEP.2019 11:45:33

Band66_1.4MHz_16QAM_131979_1

Produkte
Products

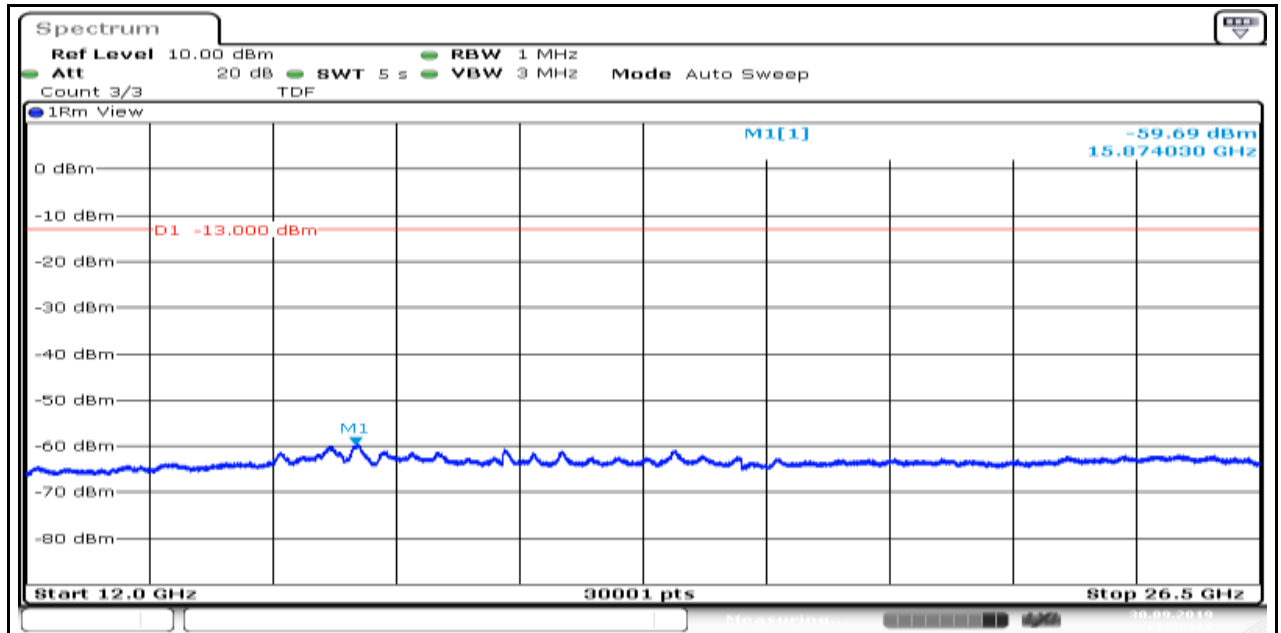


Band66_1.4MHz_16QAM_131979_6

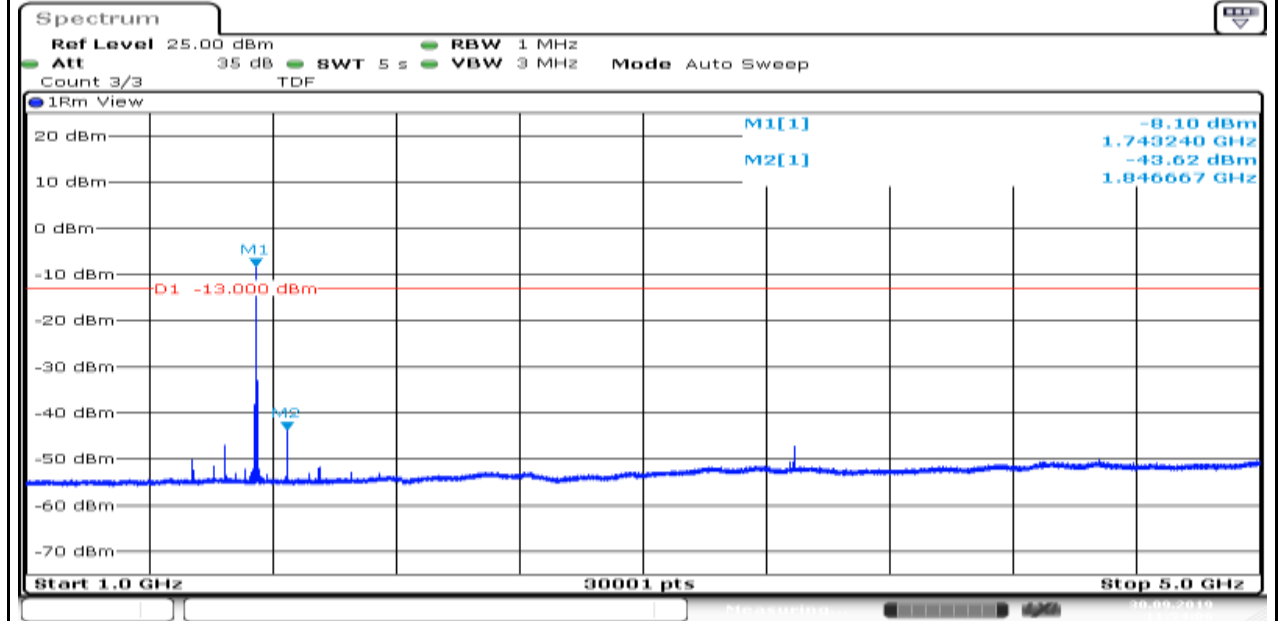


Band66_1.4MHz_16QAM_132322_6

Produkte
Products

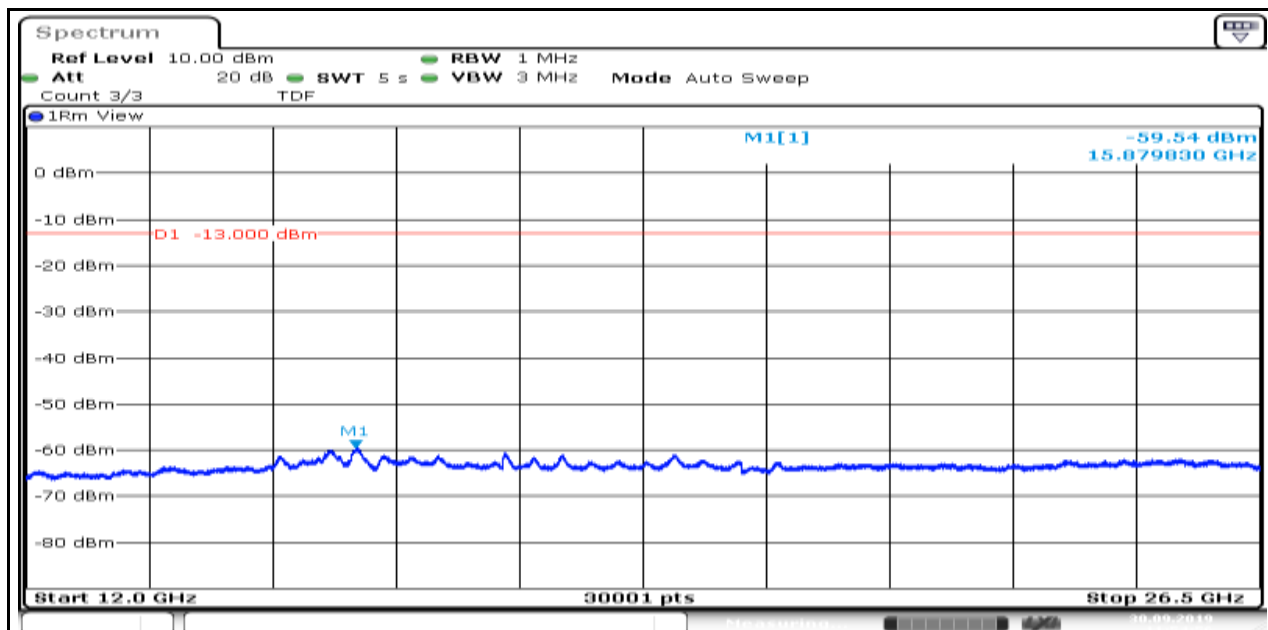


Band66_1.4MHz_16QAM_132322_1

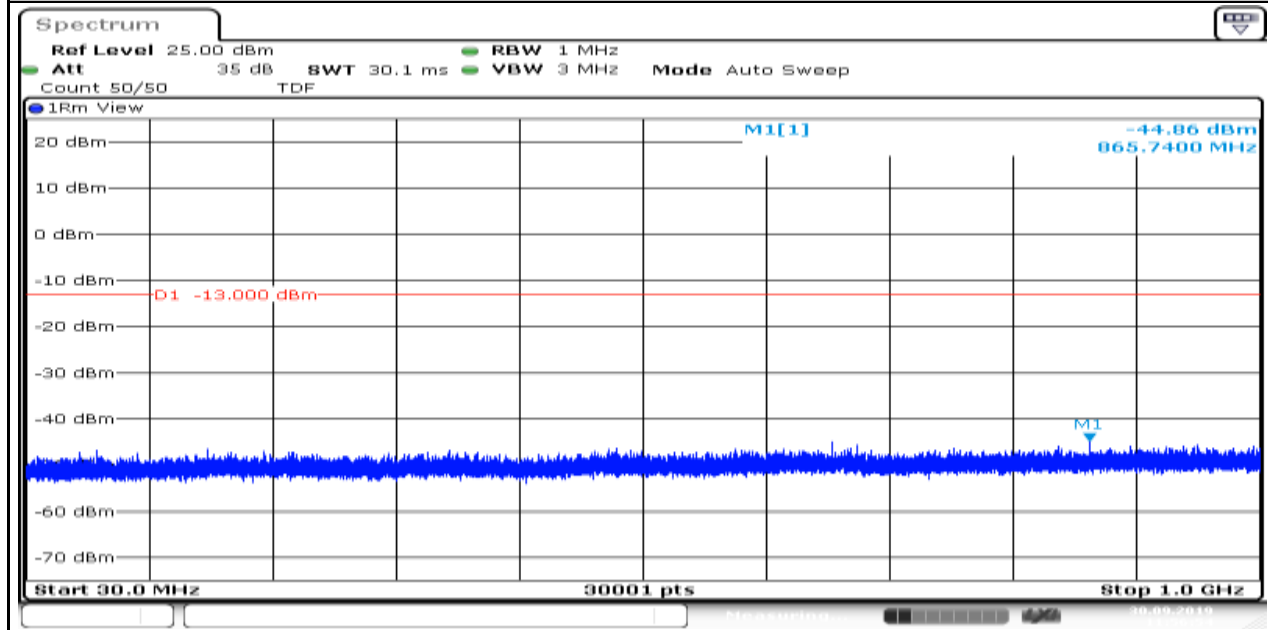


Band66_1.4MHz_16QAM_132322_1

Produkte
Products

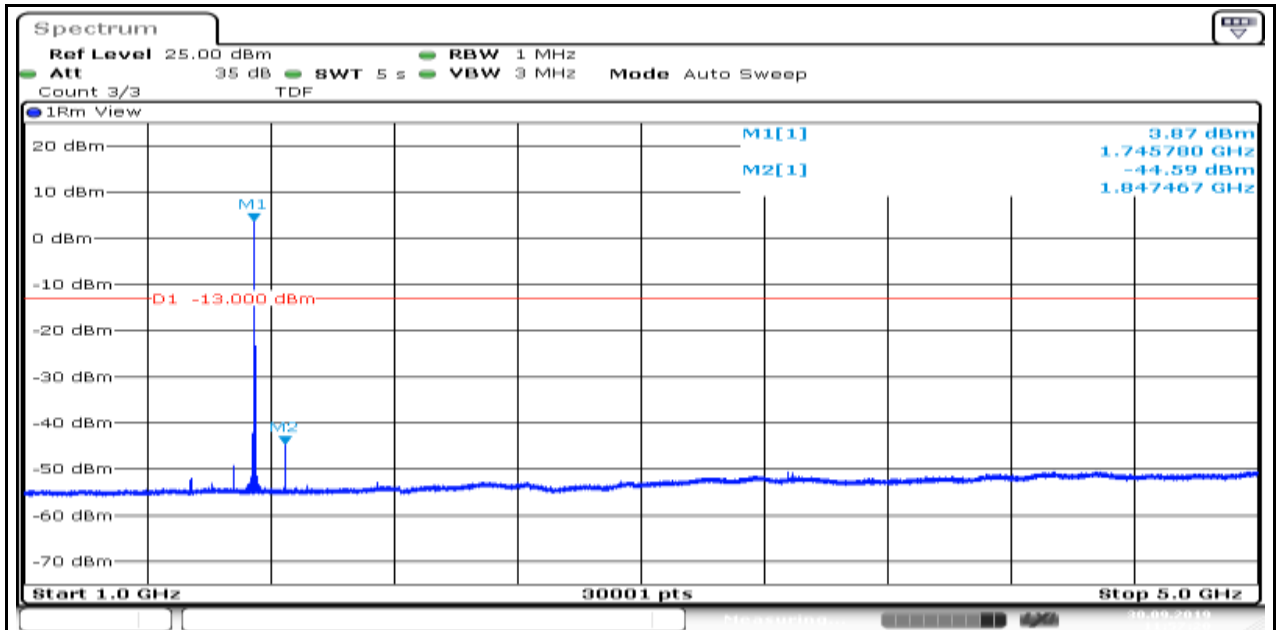


Band66_1.4MHz_16QAM_132322_6



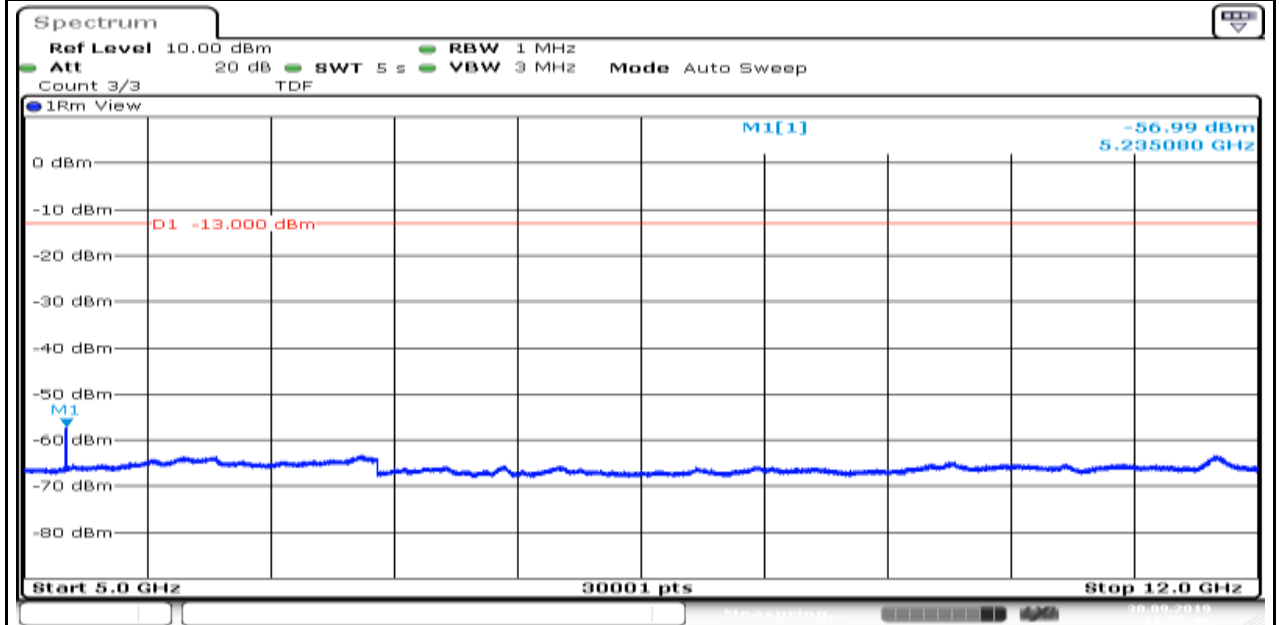
Band66_1.4MHz_16QAM_132322_6

Produkte
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Date: 30.SEP.2019 11:57:21

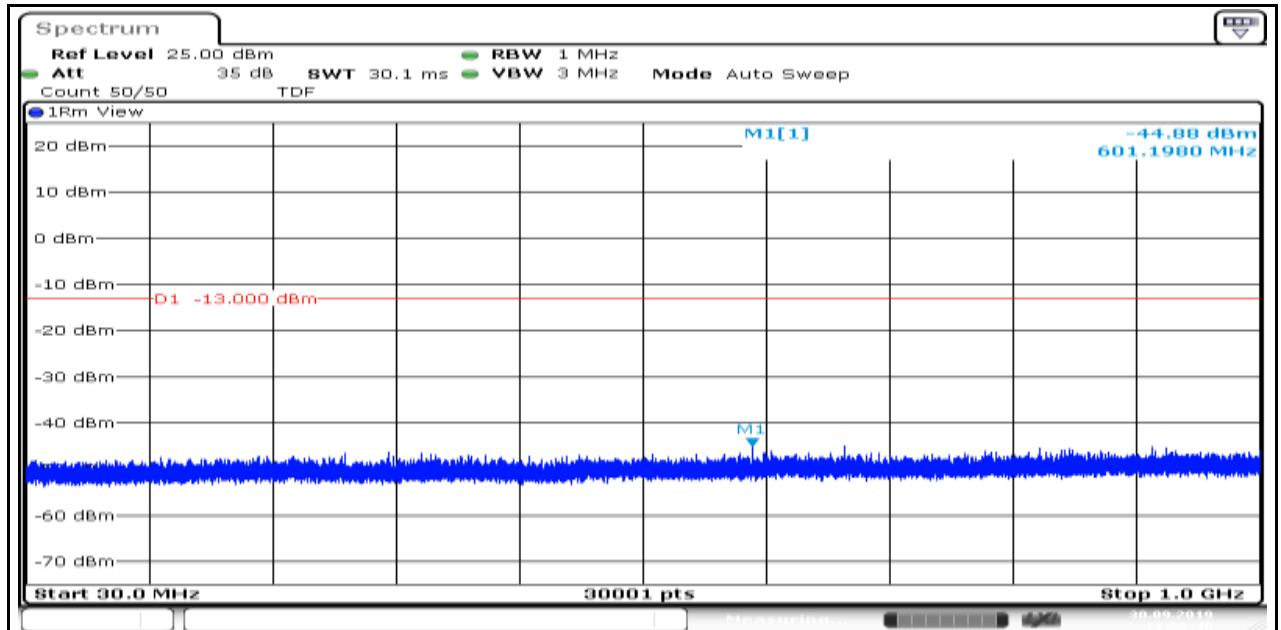
Band66_1.4MHz_16QAM_132322_6



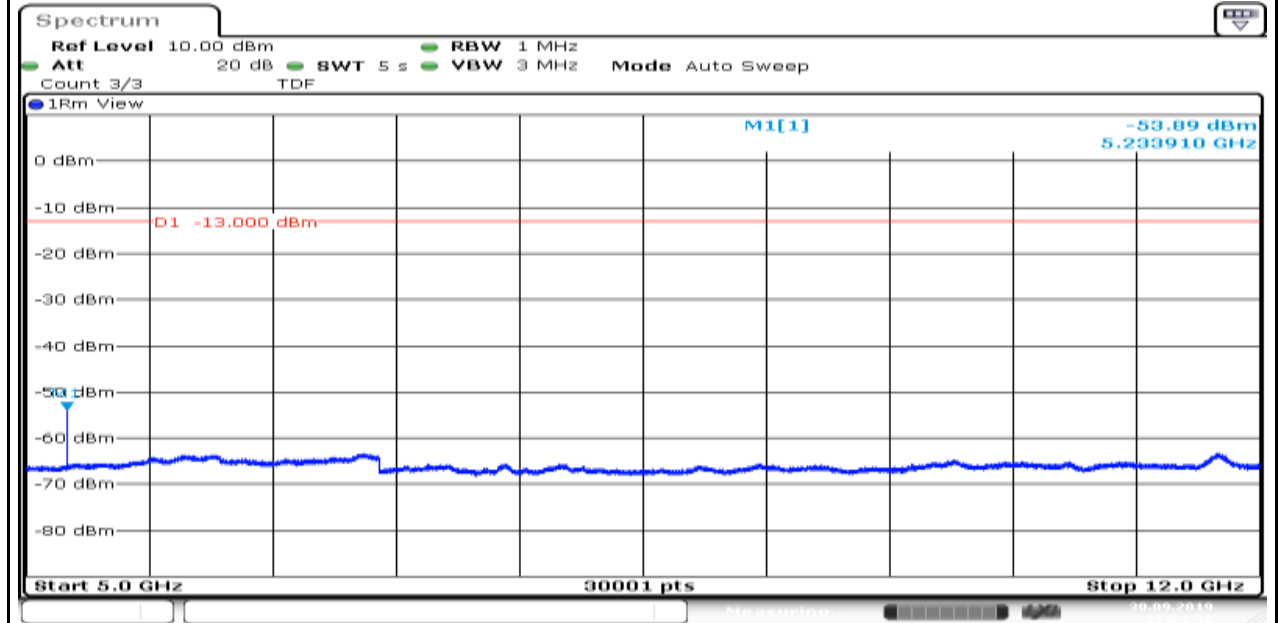
Date: 30.SEP.2019 11:57:46

Band66_1.4MHz_16QAM_132322_1

Produkte
Products

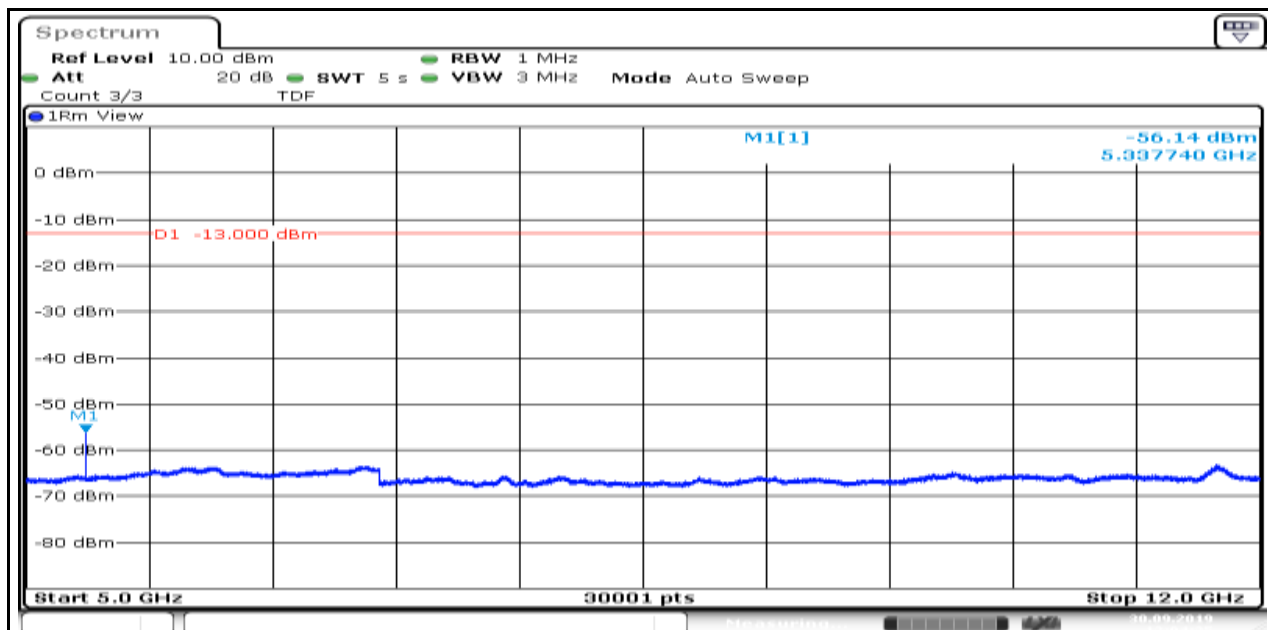


Band66_1.4MHz_16QAM_132322_1

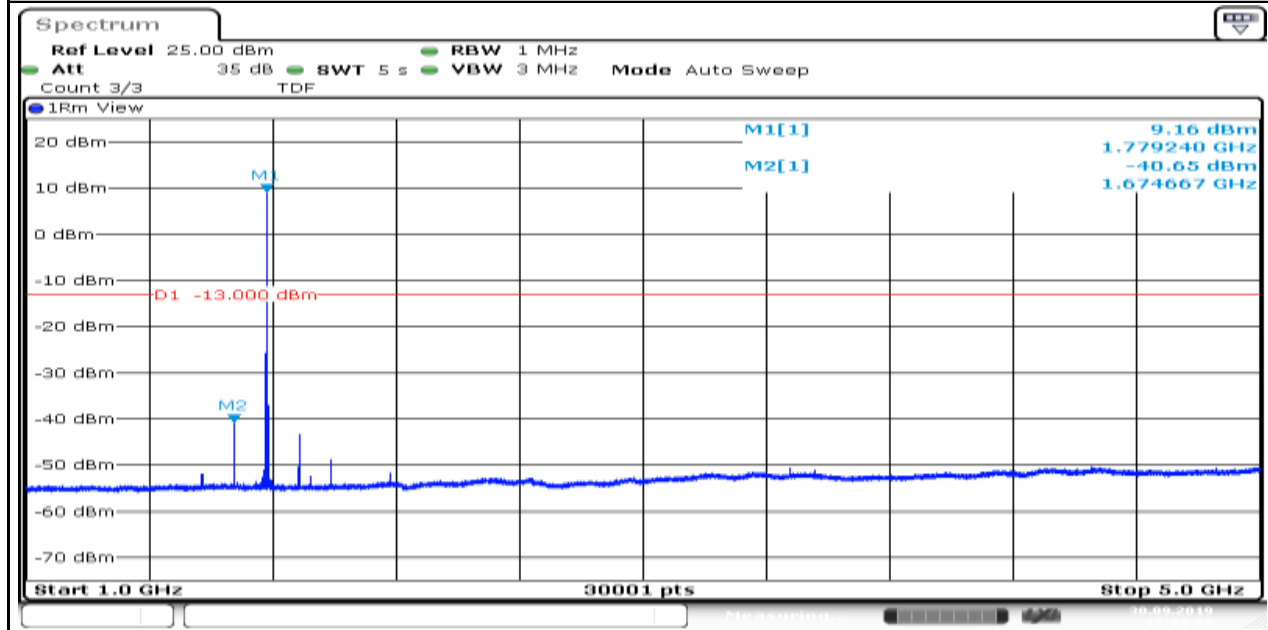


Band66_1.4MHz_16QAM_132665_6

Produkte
Products

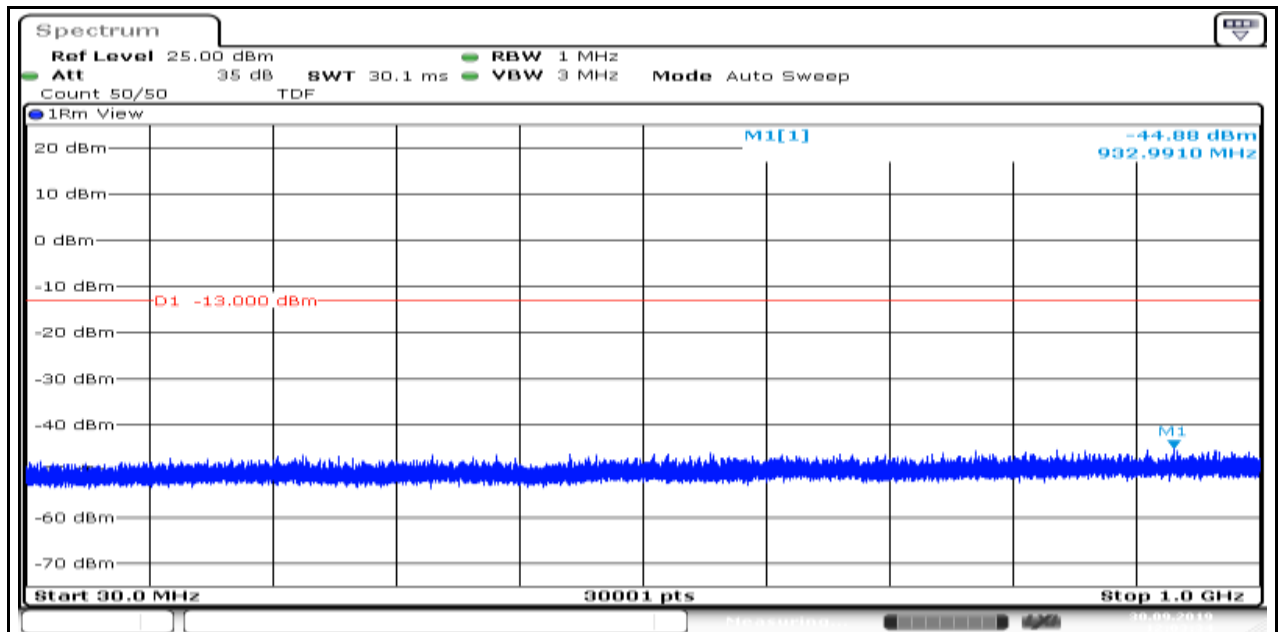


Band66_1.4MHz_16QAM_132665_6

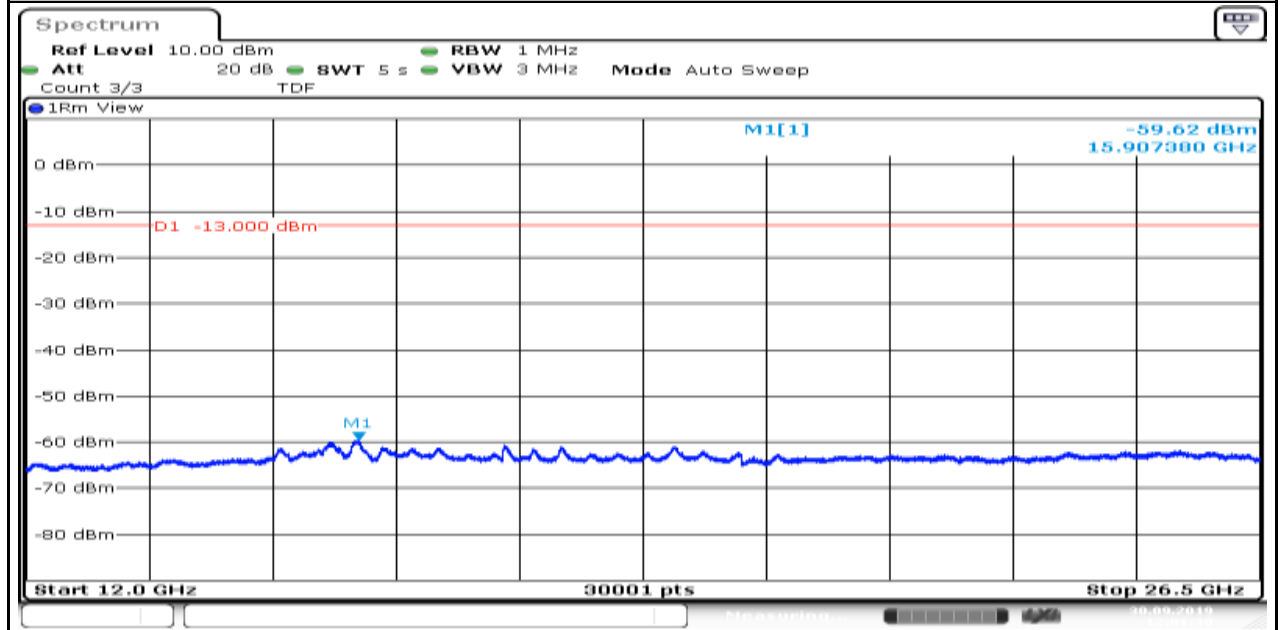


Band66_1.4MHz_16QAM_132665_6

Produkte
Products

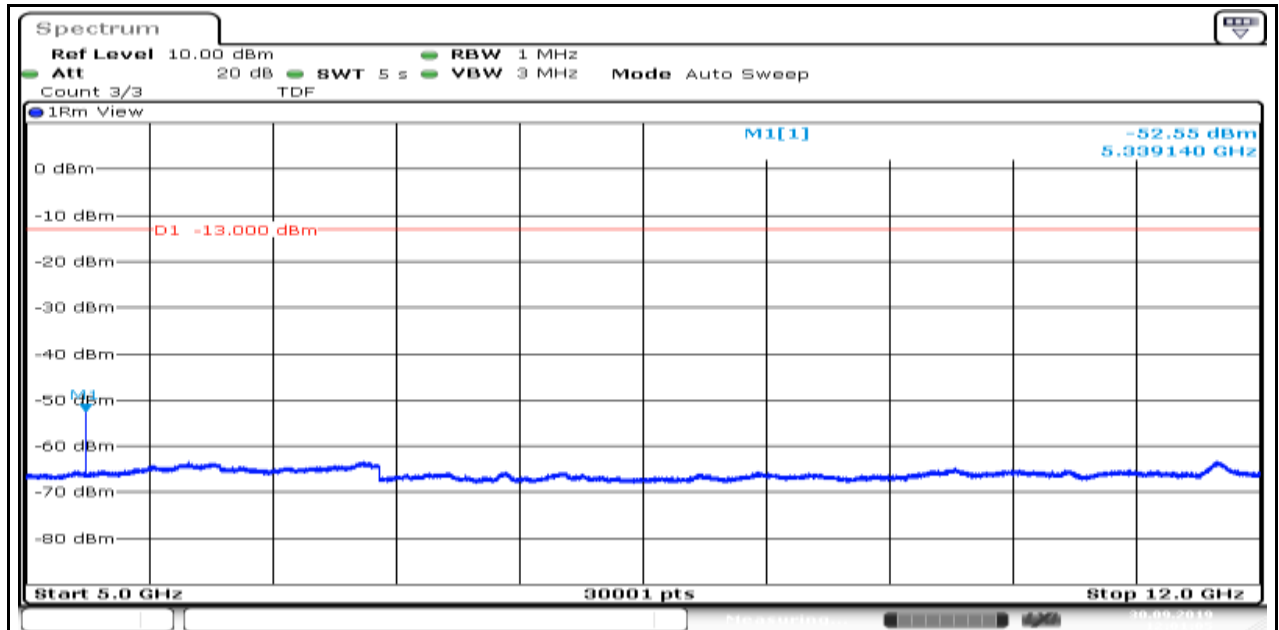


Band66_1.4MHz_16QAM_132665_1

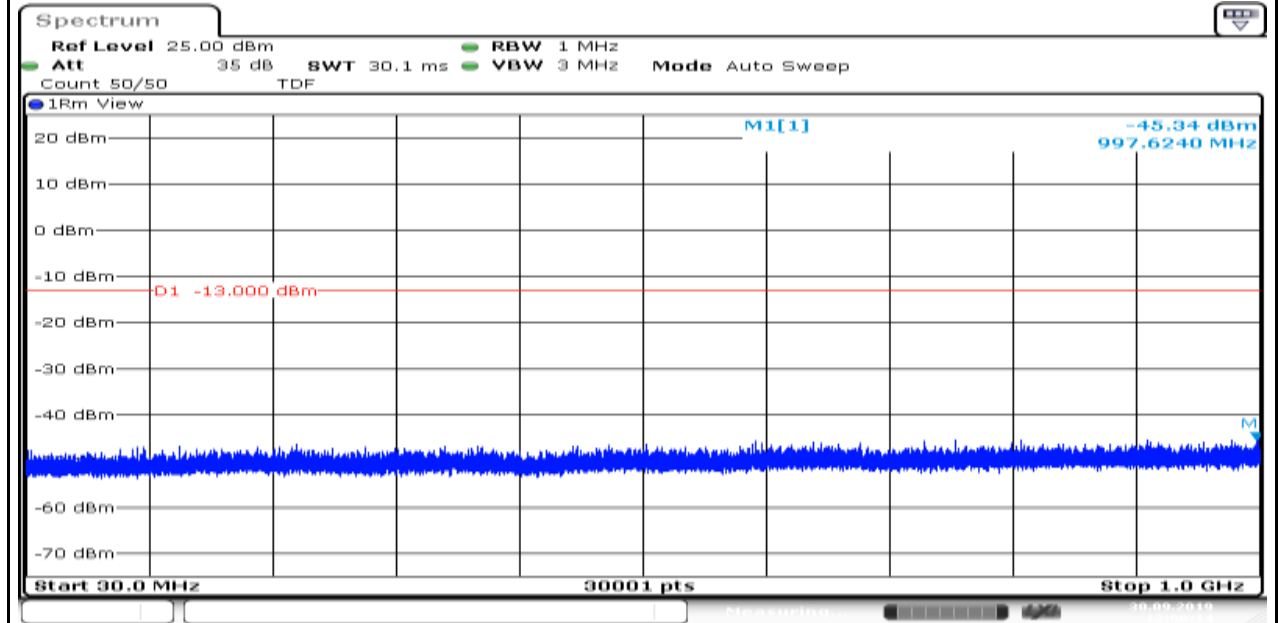


Band66_1.4MHz_16QAM_132665_1

Produkte
Products

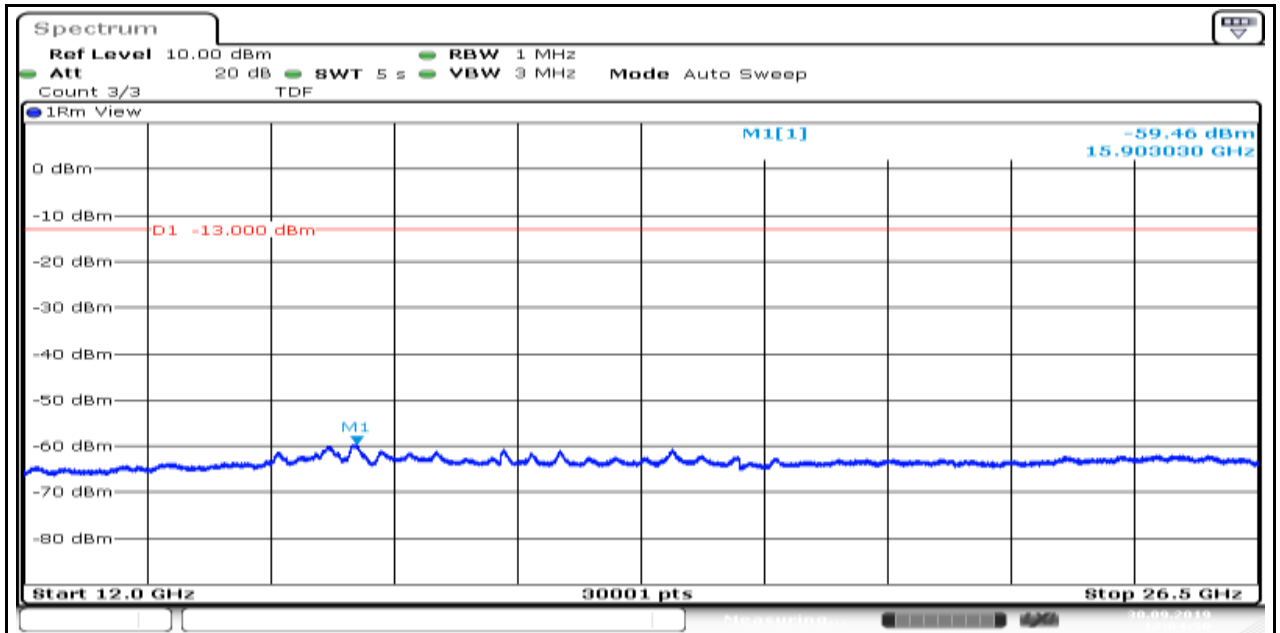


Band66_1.4MHz_16QAM_132665_1

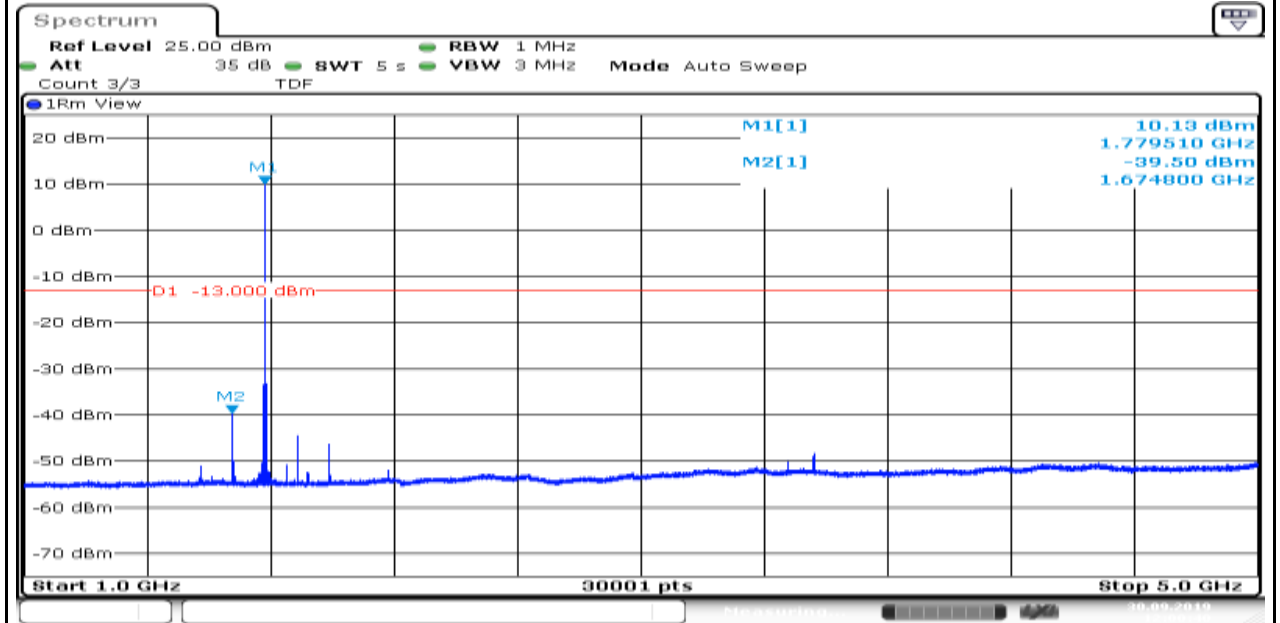


Band66_1.4MHz_16QAM_132665_6

Produkte
Products



Band66_1.4MHz_16QAM_132665_1



Appendix I.6: Frequency Stability for M1

Test Result

Voltage												
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band66	1.4MHz	QPSK	132322	1	0	Low	HV	NT	-27.91	-0.015994	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	LV	NT	-28.57	-0.016372	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	NT	-26.51	-0.015192	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	HV	NT	-20.84	-0.011943	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	LV	NT	-18.04	-0.010338	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	NT	-16.78	-0.009616	±2.5	PASS

Temperature												
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	50	-30.21	-0.017312	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	-20	-31.43	-0.018011	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	-10	-29.04	-0.016642	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	0	-28.05	-0.016074	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	10	-29.03	-0.016636	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	20	-26.34	-0.015095	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	30	-29.30	-0.016791	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	-30	-26.14	-0.014980	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	40	-26.59	-0.015238	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	50	-17.25	-0.009885	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	-20	-18.64	-0.010682	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	-10	-19.83	-0.011364	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	0	-18.58	-0.010648	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	10	-17.77	-0.010183	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	20	-19.08	-0.010934	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	30	-19.11	-0.010951	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	40	-18.34	-0.010510	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	-30	-18.71	-0.010722	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	85	-7.88	-0.004516	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	80	-9.97	-0.005713	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	70	-8.78	-0.005032	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	60	-9.07	-0.005198	±2.5	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	NV	-40	-8.03	-0.004602	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	85	-11.33	-0.006493	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	80	-8.71	-0.004991	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	70	-10.60	-0.006074	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	60	-7.08	-0.004057	±2.5	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	NV	-40	-9.66	-0.005536	±2.5	PASS

Appendix J: Test Results of Band 85 for eMTC operation

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Appendix J.1: RF Power Output and Effective (Isotropic) Radiated Power Output Data for M1

Test Result

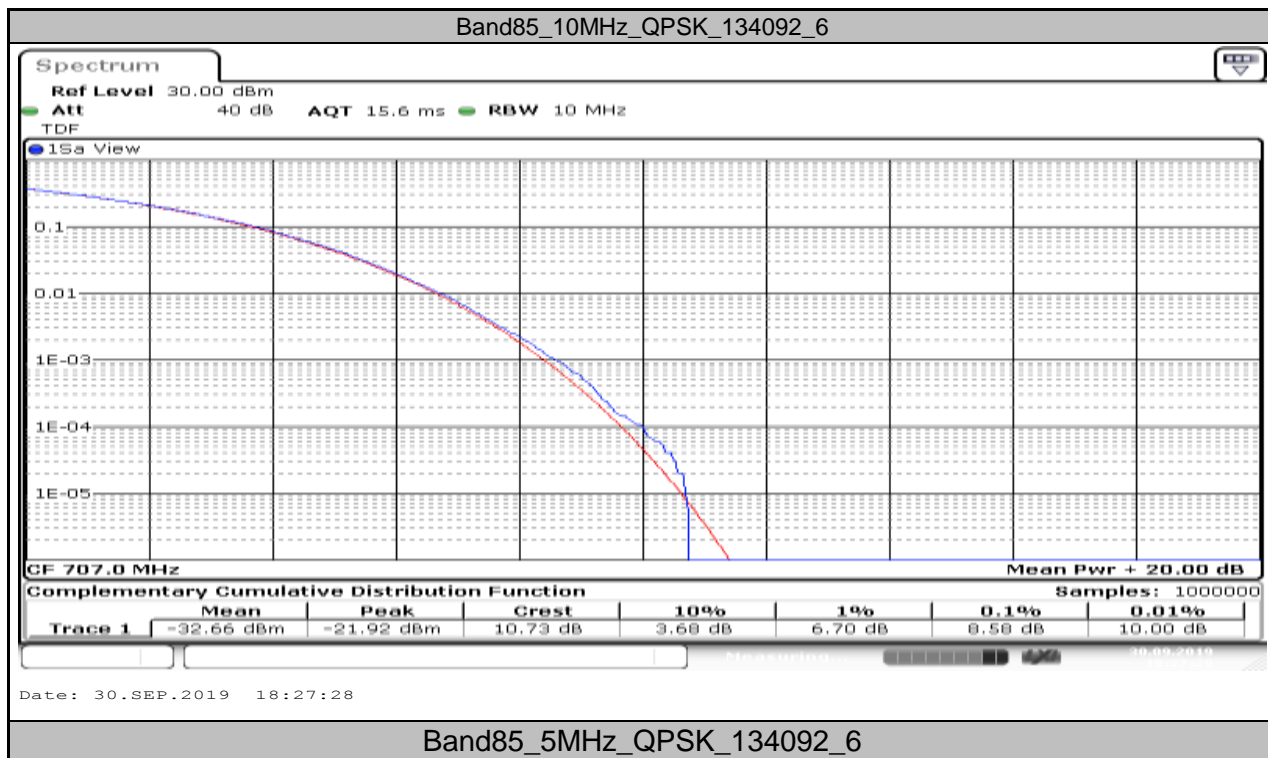
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	ERP		Limit (watts)	Verdict
								dBm	Watts		
Band85	5MHz	QPSK	134027	6	0	Low	20.19	20.18	0.104	3	PASS
Band85	5MHz	QPSK	134027	1	0	Low	21.19	21.18	0.131	3	PASS
Band85	5MHz	QPSK	134092	1	0	Low	21.48	21.47	0.140	3	PASS
Band85	5MHz	QPSK	134092	6	0	Low	20.43	20.42	0.110	3	PASS
Band85	5MHz	QPSK	134157	1	5	High	20.96	20.95	0.124	3	PASS
Band85	5MHz	QPSK	134157	3	3	High	20.92	20.91	0.123	3	PASS
Band85	5MHz	16QAM	134027	6	0	Low	20.19	20.18	0.104	3	PASS
Band85	5MHz	16QAM	134027	1	0	Low	20.76	20.75	0.119	3	PASS
Band85	5MHz	16QAM	134092	1	0	Low	20.91	20.9	0.123	3	PASS
Band85	5MHz	16QAM	134092	6	0	Low	20.43	20.42	0.110	3	PASS
Band85	5MHz	16QAM	134157	1	5	High	20.44	20.43	0.110	3	PASS
Band85	5MHz	16QAM	134157	3	3	High	20.74	20.73	0.118	3	PASS
Band85	10MHz	QPSK	134092	5	0	Low	21.37	21.36	0.137	3	PASS
Band85	10MHz	QPSK	134092	1	0	Low	21.5	21.49	0.141	3	PASS
Band85	10MHz	QPSK	134092	1	5	High	21.29	21.28	0.134	3	PASS
Band85	10MHz	QPSK	134092	5	1	High	21.37	21.36	0.137	3	PASS
Band85	10MHz	16QAM	134092	5	0	Low	21.19	21.18	0.131	3	PASS
Band85	10MHz	16QAM	134092	1	5	High	20.78	20.77	0.119	3	PASS
Band85	10MHz	16QAM	134092	5	1	High	21.18	21.17	0.131	3	PASS
Band85	10MHz	16QAM	134092	1	0	Low	20.99	20.98	0.125	3	PASS

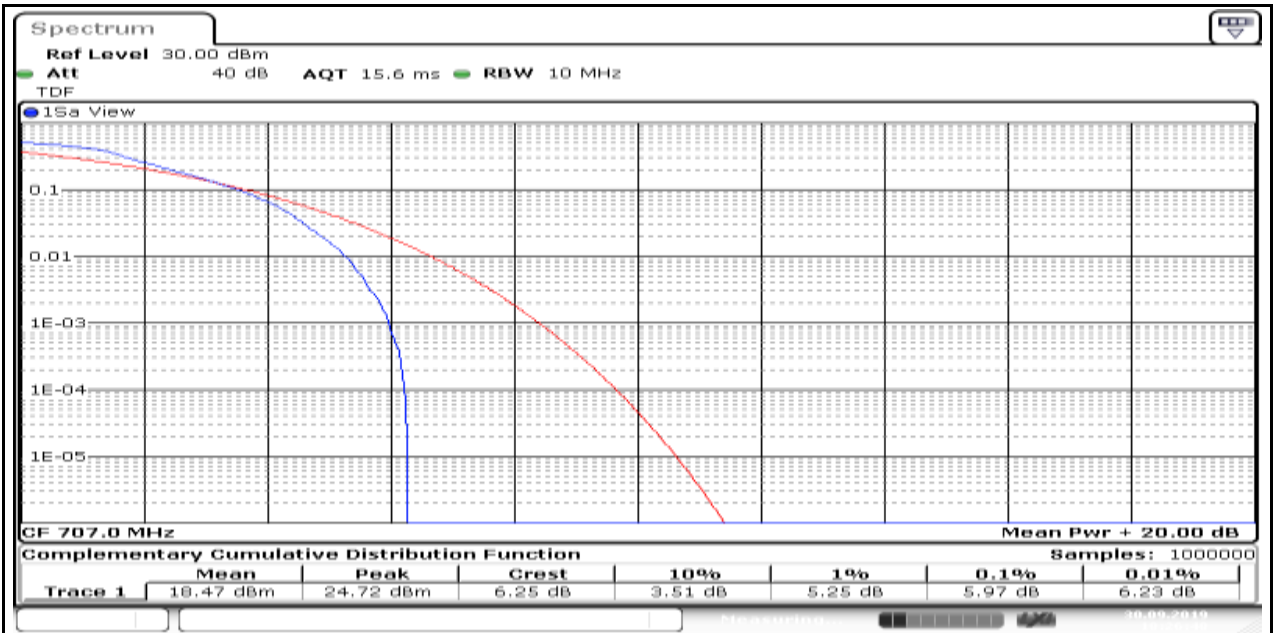
Appendix J.2: Peak-to-Average Ratio (CCDF) for M1

Test Result

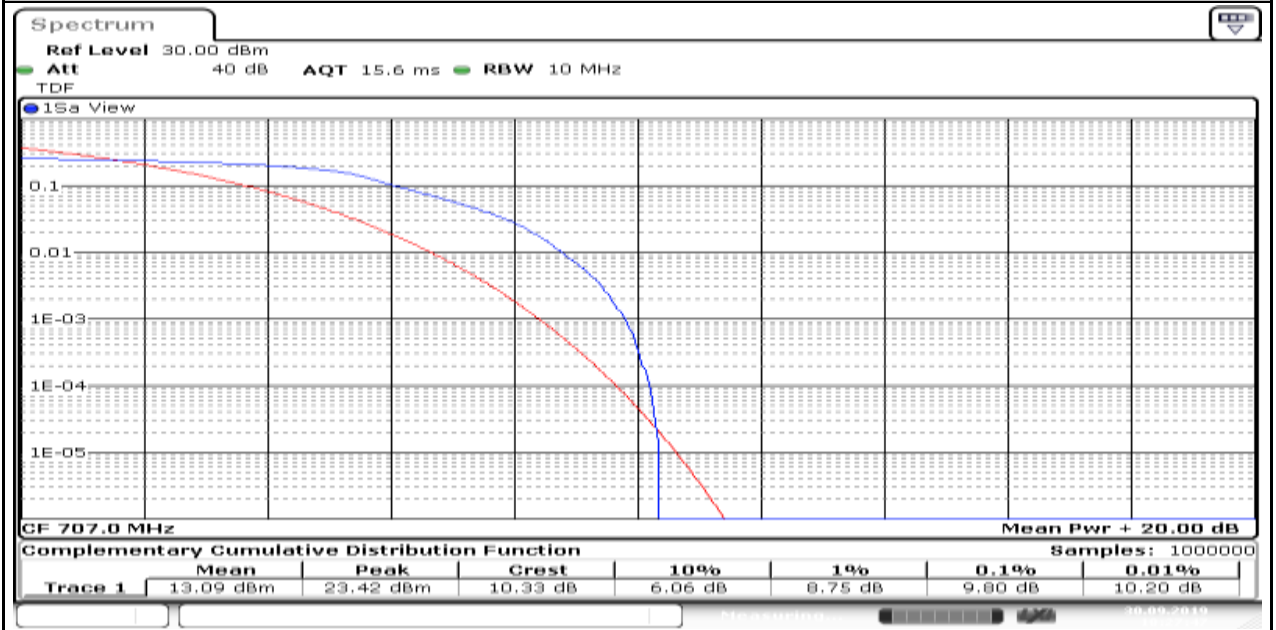
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band85	10MHz	QPSK	134092	6	0	Low	8.58	<=13	PASS
Band85	5MHz	QPSK	134092	6	0	Low	5.97	<=13	PASS
Band85	10MHz	16QAM	134092	6	0	Low	9.80	<=13	PASS
Band85	5MHz	16QAM	134092	6	0	Low	8.87	<=13	PASS

Test Graphs



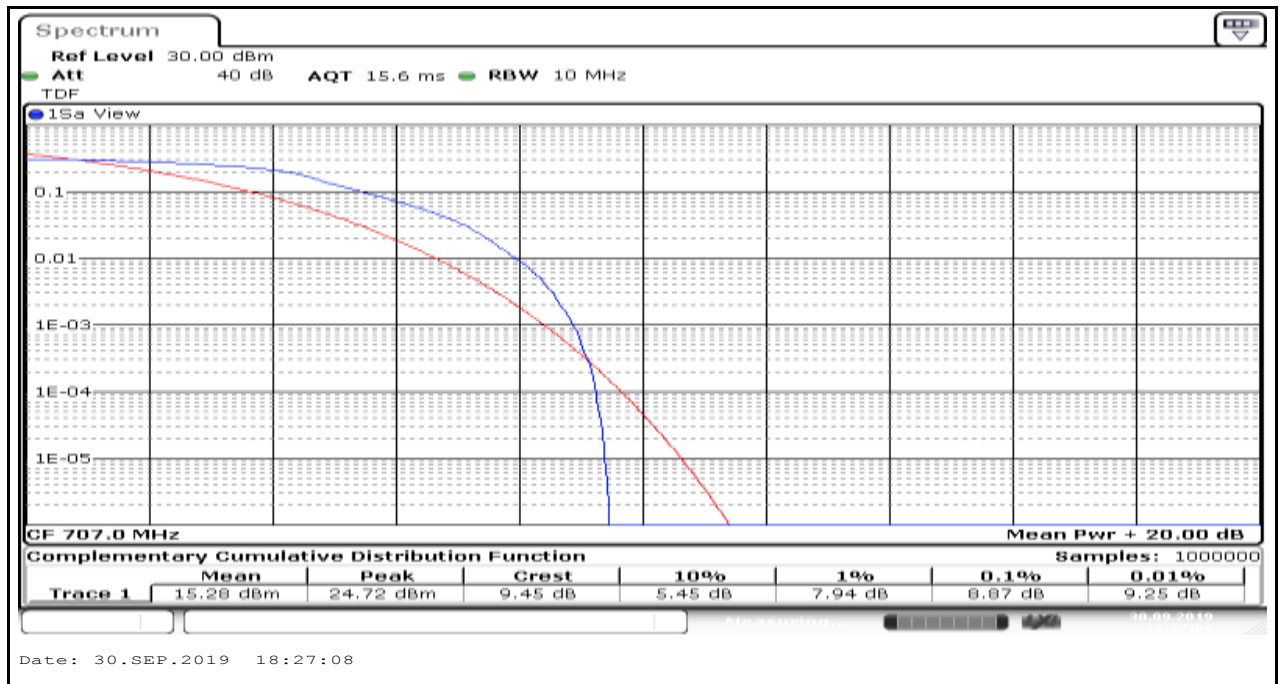


Band85_10MHz_16QAM_134092_6



Band85_5MHz_16QAM_134092_6

Produkte
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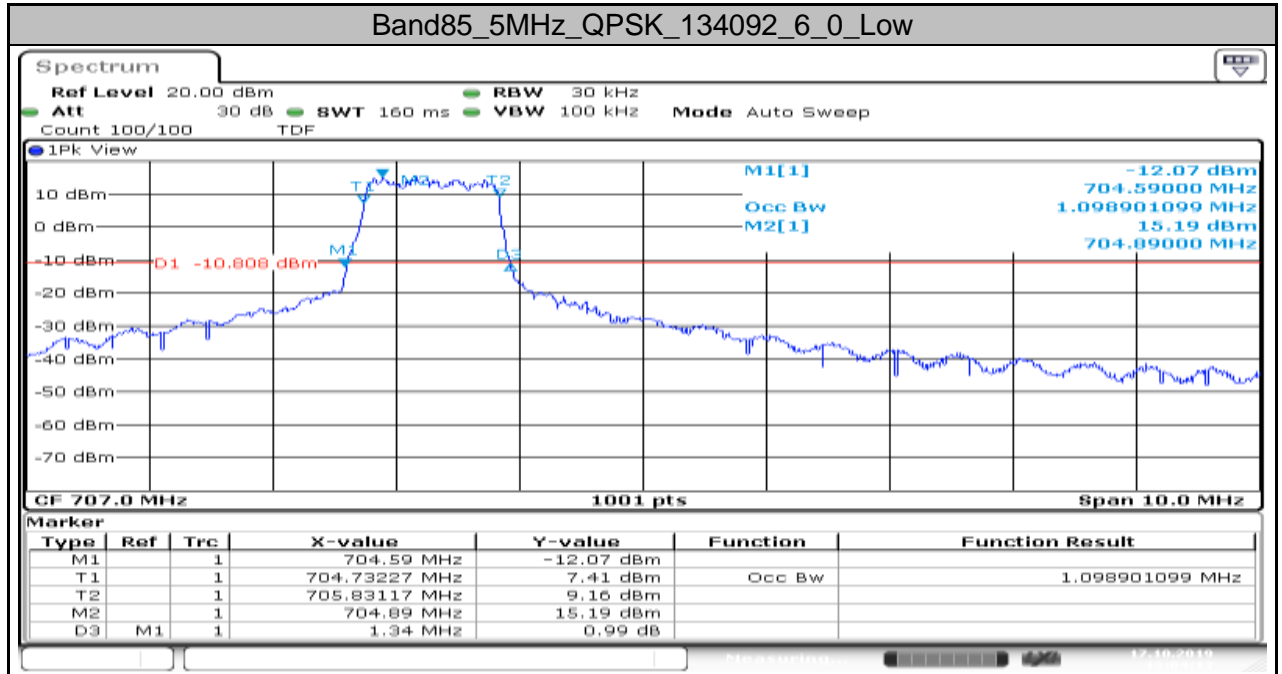


Appendix J.3: 26dB Bandwidth and Occupied Bandwidth for M1

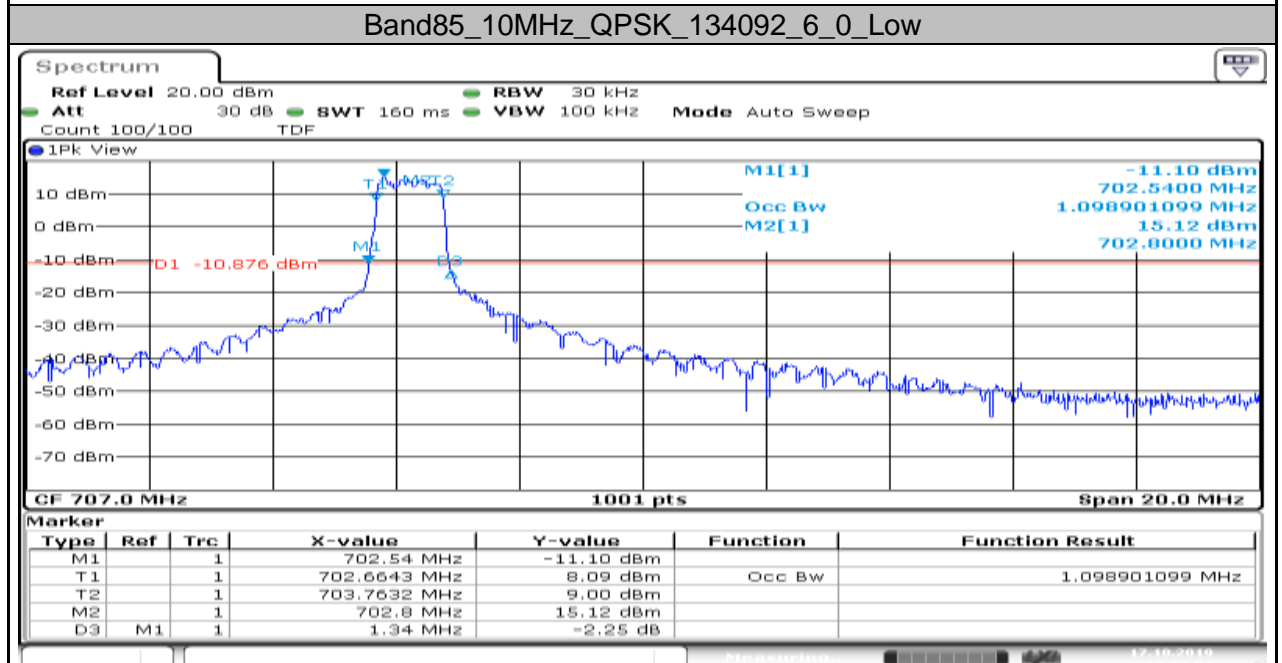
Test Result

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

Test Graphs

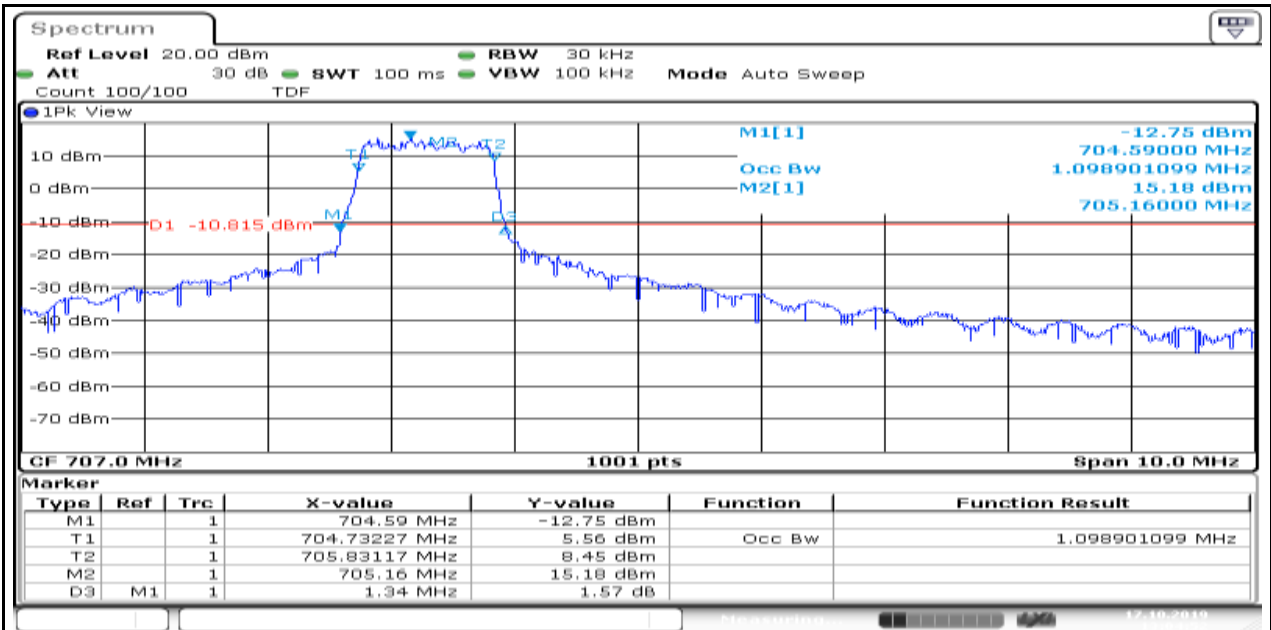


Date: 17.OCT.2019 13:04:13

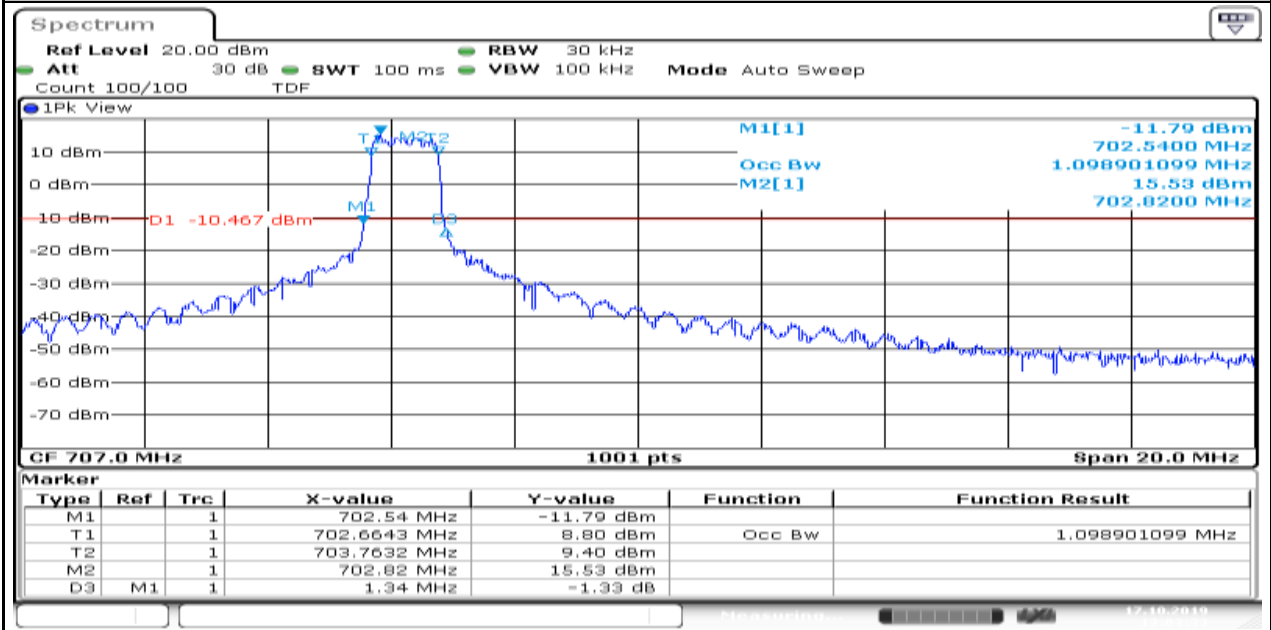


Date: 17.OCT.2019 13:02:55





Band85_10MHz_16QAM_134092_6_0_Low

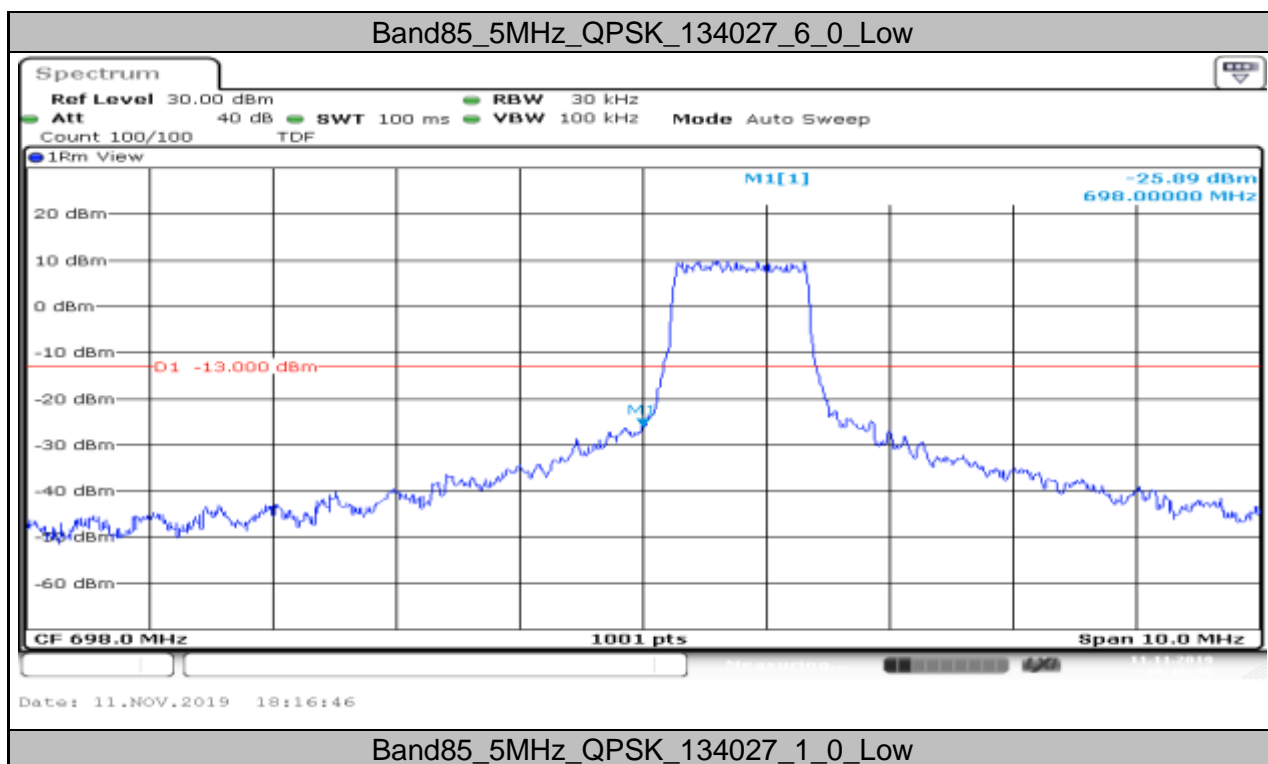


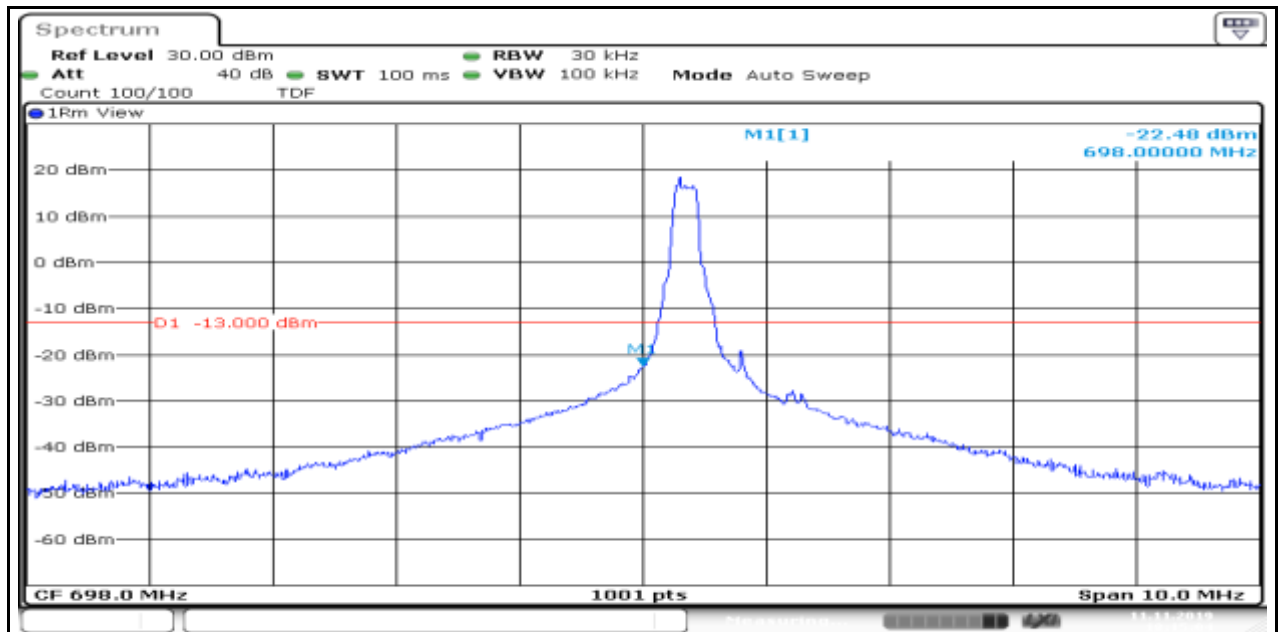
Appendix J.4: Band Edge for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Result (dBm)	Verdict
Band85	5MHz	QPSK	134027	6	0	Low	-25.89	PASS
Band85	5MHz	QPSK	134027	1	0	Low	-22.48	PASS
Band85	5MHz	QPSK	134157	3	3	High	-18.10	PASS
Band85	5MHz	QPSK	134157	1	5	High	-21.95	PASS
Band85	5MHz	16QAM	134027	6	0	Low	-24.94	PASS
Band85	5MHz	16QAM	134027	1	0	Low	-26.02	PASS
Band85	5MHz	16QAM	134157	3	3	High	-20.40	PASS
Band85	5MHz	16QAM	134157	1	5	High	-26.88	PASS

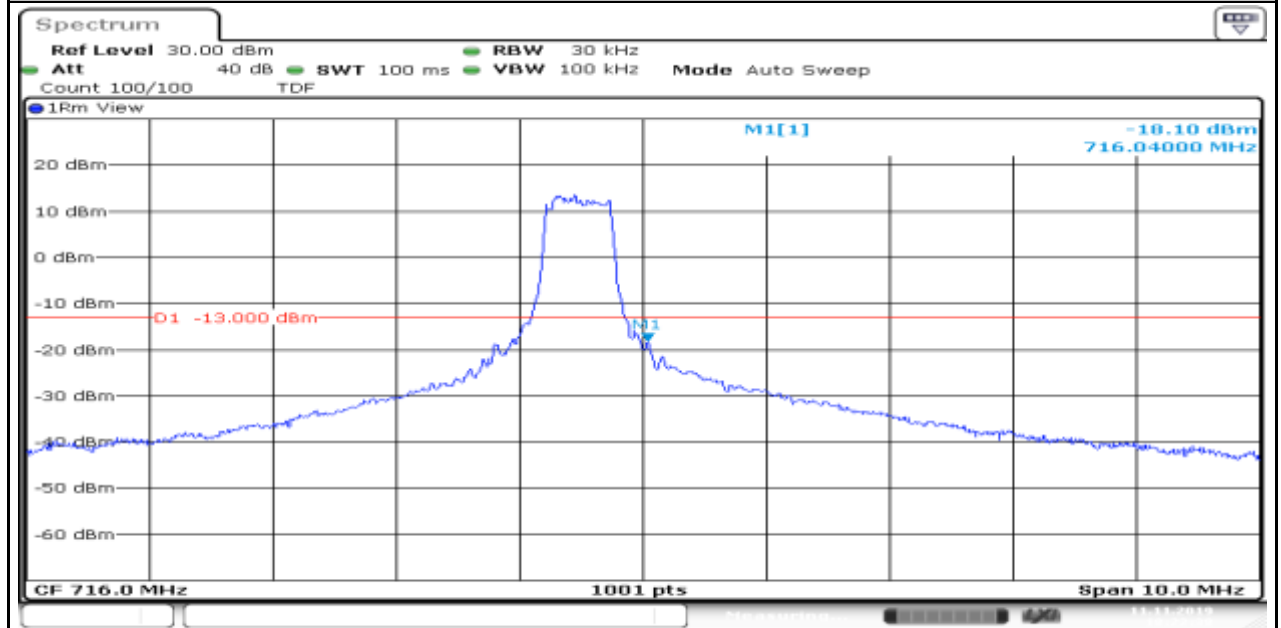
Test Graphs





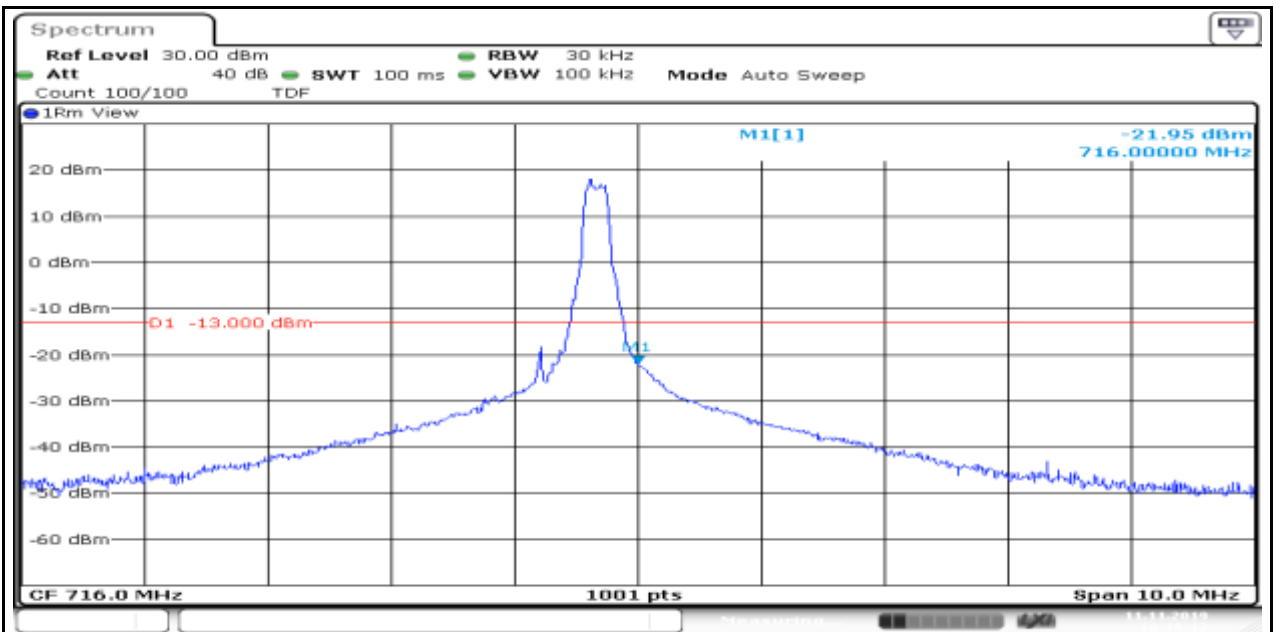
Date: 11.NOV.2019 18:15:04

Band85_5MHz_QPSK_134157_3_3_High

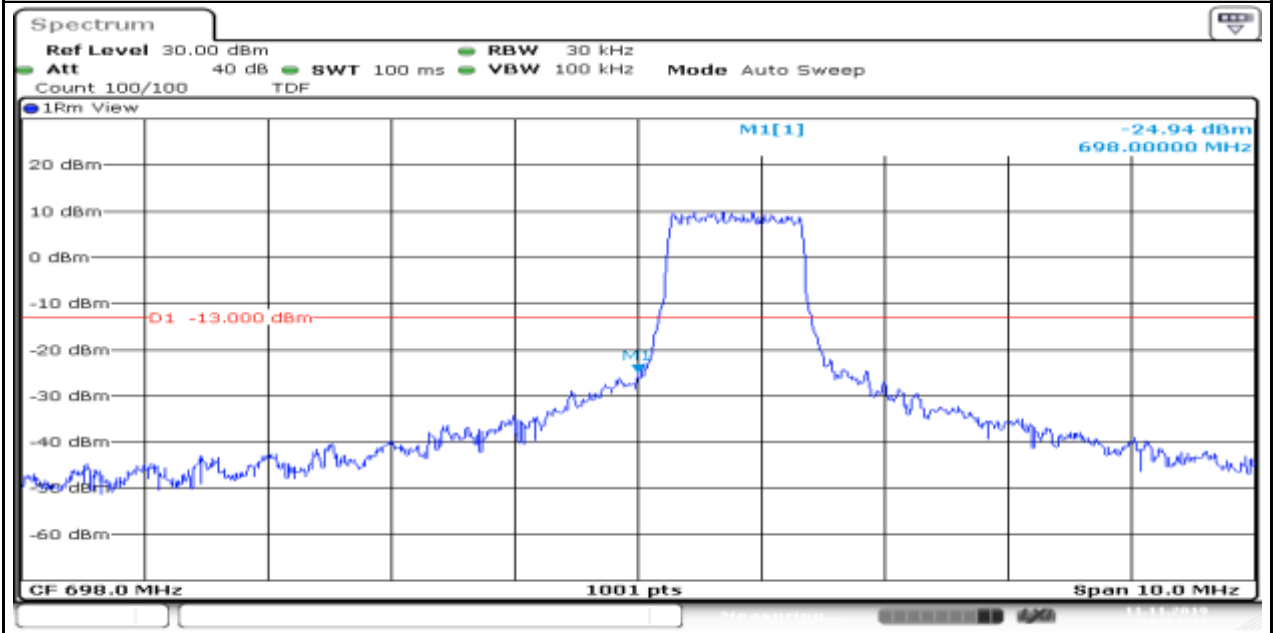


Date: 11.NOV.2019 18:22:38

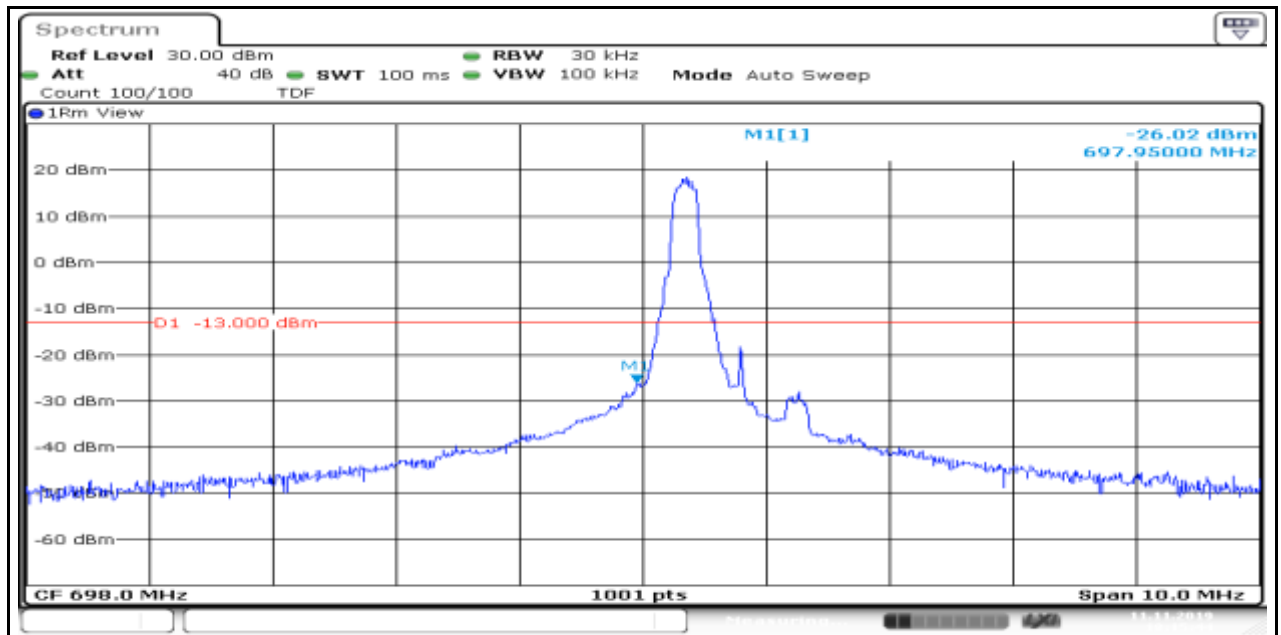
Band85_5MHz_QPSK_134157_1_5_High



Band85_5MHz_16QAM_134027_6_0_Low

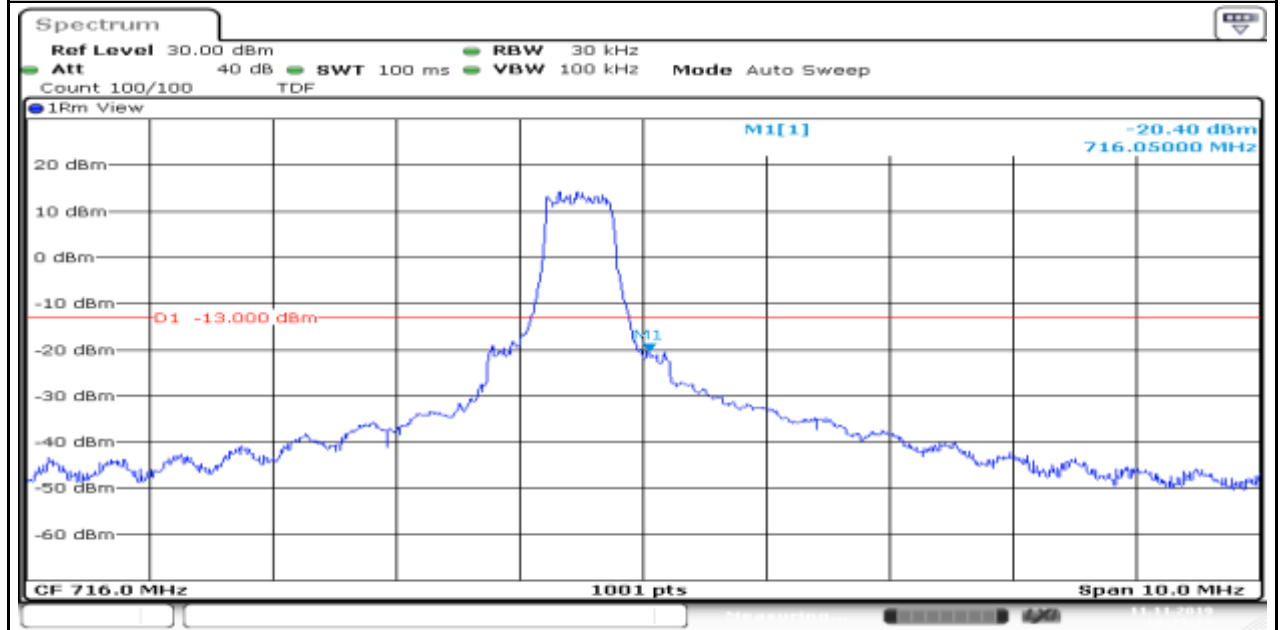


Band85_5MHz_16QAM_134027_1_0_Low



Date: 11.NOV.2019 18:15:44

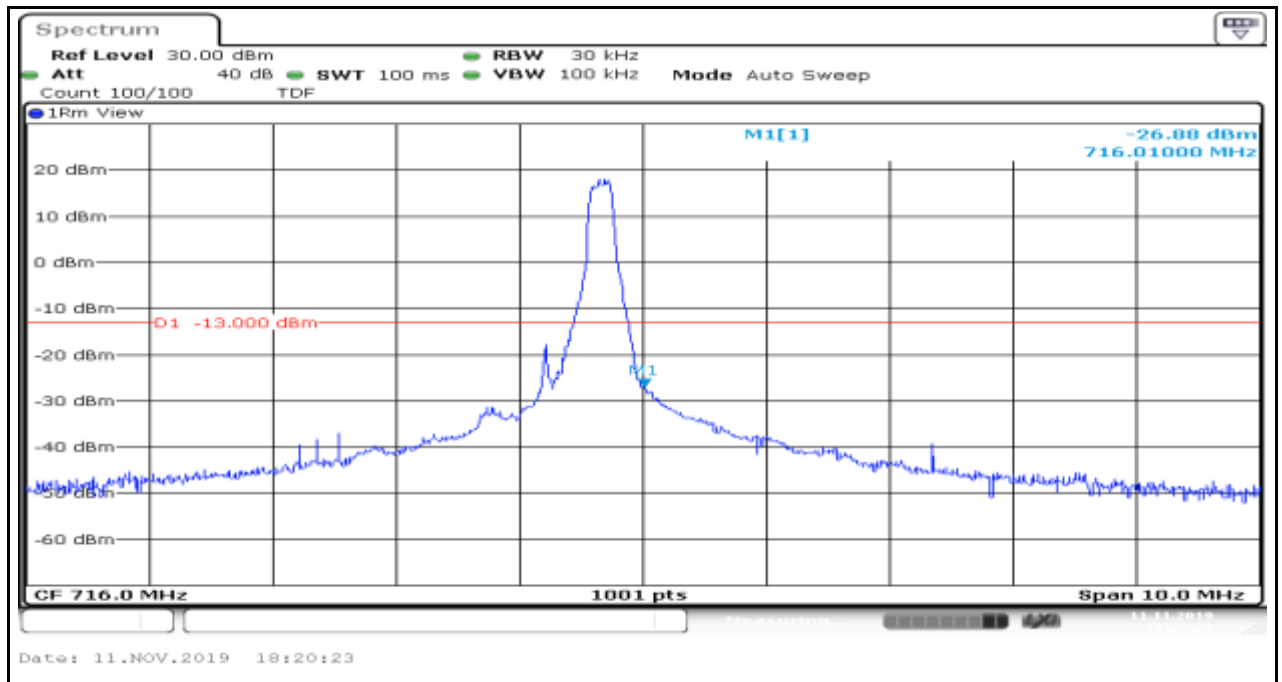
Band85_5MHz_16QAM_134157_3_3_High



Date: 11.NOV.2019 18:23:23

Band85_5MHz_16QAM_134157_1_5_High

Produkte
Products



Appendix J.5: Conducted Spurious Emission for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Start Freq	Stop Freq	Result (dBm)	Verdict
Band85	5MHz	QPSK	134027	6	0	Low	30	1000	-45.36	PASS
Band85	5MHz	QPSK	134027	1	0	Low	30	1000	-44.91	PASS
Band85	5MHz	QPSK	134027	6	0	Low	12000	26500	-59.65	PASS
Band85	5MHz	QPSK	134027	6	0	Low	5000	12000	-63.37	PASS
Band85	5MHz	QPSK	134027	6	0	Low	1000	5000	-50.29	PASS
Band85	5MHz	QPSK	134027	1	0	Low	12000	26500	-59.47	PASS
Band85	5MHz	QPSK	134027	1	0	Low	1000	5000	-50.43	PASS
Band85	5MHz	QPSK	134027	1	0	Low	5000	12000	-63.34	PASS
Band85	5MHz	QPSK	134092	6	0	Low	12000	26500	-59.66	PASS
Band85	5MHz	QPSK	134092	1	0	Low	1000	5000	-49.5	PASS
Band85	5MHz	QPSK	134092	1	0	Low	5000	12000	-63.32	PASS
Band85	5MHz	QPSK	134092	1	0	Low	12000	26500	-59.53	PASS
Band85	5MHz	QPSK	134092	6	0	Low	1000	5000	-50.45	PASS
Band85	5MHz	QPSK	134092	1	0	Low	30	1000	-45.02	PASS
Band85	5MHz	QPSK	134092	6	0	Low	5000	12000	-63.24	PASS
Band85	5MHz	QPSK	134092	6	0	Low	30	1000	-43.22	PASS
Band85	5MHz	QPSK	134157	1	5	High	12000	26500	-59.5	PASS
Band85	5MHz	QPSK	134157	3	3	High	12000	26500	-59.45	PASS
Band85	5MHz	QPSK	134157	3	3	High	5000	12000	-63.17	PASS
Band85	5MHz	QPSK	134157	3	3	High	30	1000	-44.52	PASS
Band85	5MHz	QPSK	134157	1	5	High	1000	5000	-50.01	PASS
Band85	5MHz	QPSK	134157	1	5	High	5000	12000	-63.2	PASS
Band85	5MHz	QPSK	134157	1	5	High	30	1000	-42.93	PASS
Band85	5MHz	QPSK	134157	3	3	High	1000	5000	-50.23	PASS
Band85	5MHz	16QAM	134027	1	0	Low	1000	5000	-47.99	PASS
Band85	5MHz	16QAM	134027	1	0	Low	5000	12000	-63.1	PASS
Band85	5MHz	16QAM	134027	1	0	Low	12000	26500	-59.5	PASS
Band85	5MHz	16QAM	134027	6	0	Low	12000	26500	-59.73	PASS
Band85	5MHz	16QAM	134027	6	0	Low	5000	12000	-63.34	PASS
Band85	5MHz	16QAM	134027	6	0	Low	30	1000	-42.81	PASS
Band85	5MHz	16QAM	134027	1	0	Low	30	1000	-44.78	PASS
Band85	5MHz	16QAM	134027	6	0	Low	1000	5000	-50.37	PASS
Band85	5MHz	16QAM	134092	6	0	Low	12000	26500	-59.47	PASS
Band85	5MHz	16QAM	134092	1	0	Low	1000	5000	-50.38	PASS
Band85	5MHz	16QAM	134092	1	0	Low	12000	26500	-59.58	PASS
Band85	5MHz	16QAM	134092	6	0	Low	30	1000	-44.02	PASS
Band85	5MHz	16QAM	134092	6	0	Low	1000	5000	-50.45	PASS
Band85	5MHz	16QAM	134092	6	0	Low	5000	12000	-63.27	PASS
Band85	5MHz	16QAM	134092	1	0	Low	30	1000	-43.1	PASS
Band85	5MHz	16QAM	134092	1	0	Low	5000	12000	-63.21	PASS
Band85	5MHz	16QAM	134157	3	3	High	5000	12000	-63.26	PASS
Band85	5MHz	16QAM	134157	3	3	High	1000	5000	-50.47	PASS
Band85	5MHz	16QAM	134157	3	3	High	30	1000	-41.52	PASS
Band85	5MHz	16QAM	134157	1	5	High	12000	26500	-59.5	PASS
Band85	5MHz	16QAM	134157	1	5	High	5000	12000	-63.28	PASS
Band85	5MHz	16QAM	134157	1	5	High	30	1000	-42.75	PASS