Appendix A: Test Results of Band 787-788 MHz for NB-IoT operation

Appendix A.1: RF Power Output and Effective (Isotropic) Radiated Power Output Data for NB

Test Result

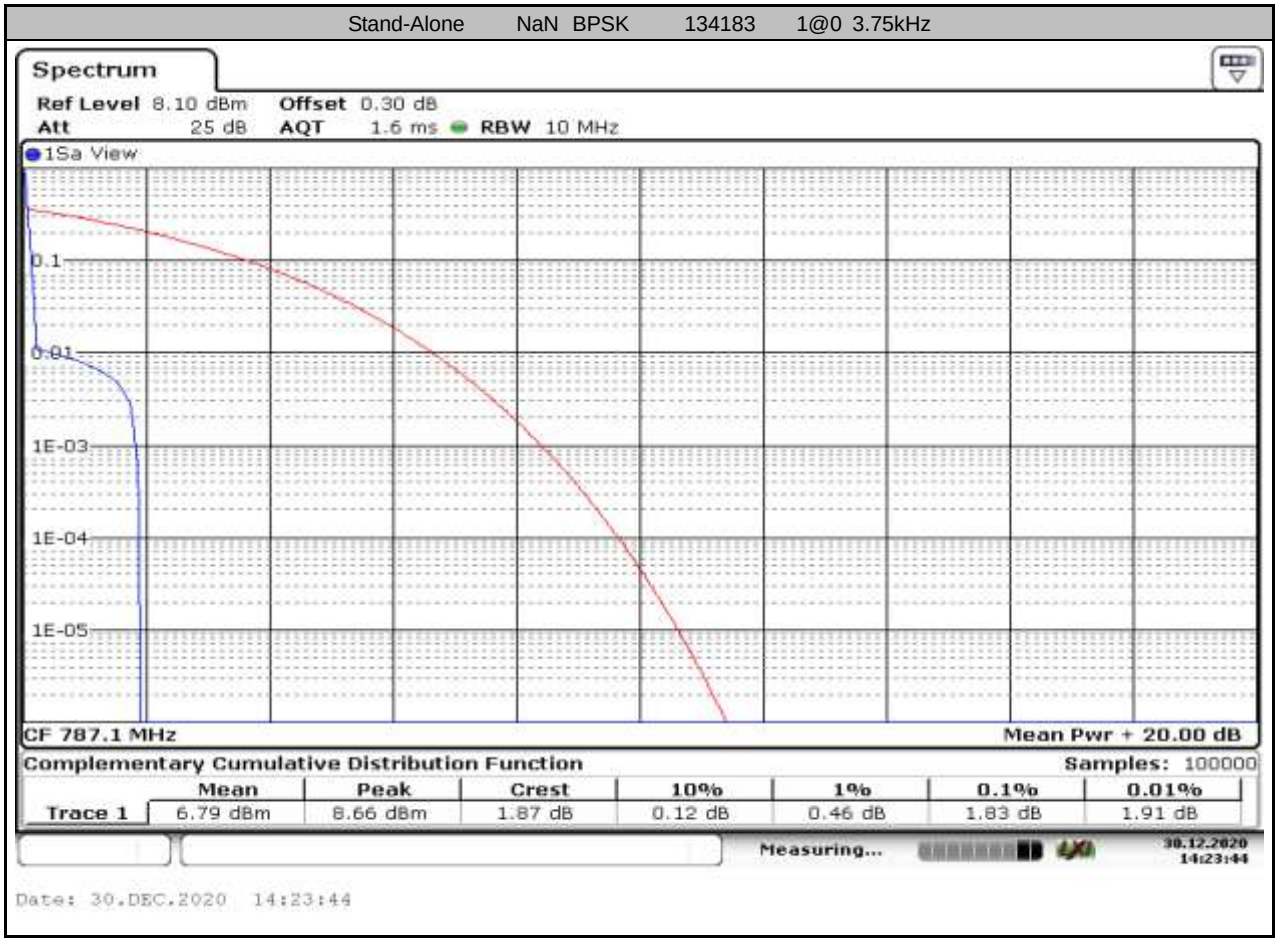
Test Configuration		EARFCN	Frequency (MHz)	EARFCN	Frequency (MHz)	EARFCN	Frequency (MHz)	EARFCN	Frequency (MHz)
		134183	787.1	134184	787.2	134190	787.8	134191	787.9
Modulation: BPSK		Conducted Power (dBm)	E.R.P (dBm)	Conducted Power (dBm)	E.R.P (dBm)	Conducted Power (dBm)	E.R.P (dBm)	Conducted Power (dBm)	E.R.P (dBm)
3.75kHz	1RB0	6.08	6.07	20.31	20.3	20.3	20.29	6.08	6.07
	1RB47	6.02	6.01	20.39	20.38	20.27	20.26	6	5.99
15kHz	1RB0	6.41	6.4	20.28	20.27	20.24	20.23	6.4	6.39
	1RB11	6.34	6.33	20.25	20.24	20.16	20.15	6.35	6.34
Modulation: QPSK		Conducted Power (dBm)	E.R.P (dBm)	Conducted Power (dBm)	E.R.P (dBm)	Conducted Power (dBm)	E.R.P (dBm)	Conducted Power (dBm)	E.R.P (dBm)
3.75kHz	1RB0	6.07	6.06	20.46	20.45	20.38	20.37	6.07	6.06
	1RB47	6.01	6	20.32	20.31	20.3	20.29	6.03	6.02
15kHz	1RB0	6.37	6.36	20.74	20.73	20.53	20.52	6.41	6.4
	1RB11	6.35	6.34	20.36	20.35	20.36	20.35	6.39	6.38
	3RB3	6.48	6.47	20.37	20.36	20.37	20.36	6.57	6.56

Appendix A.2: Peak-to-Average Ratio(CCDF) for NB

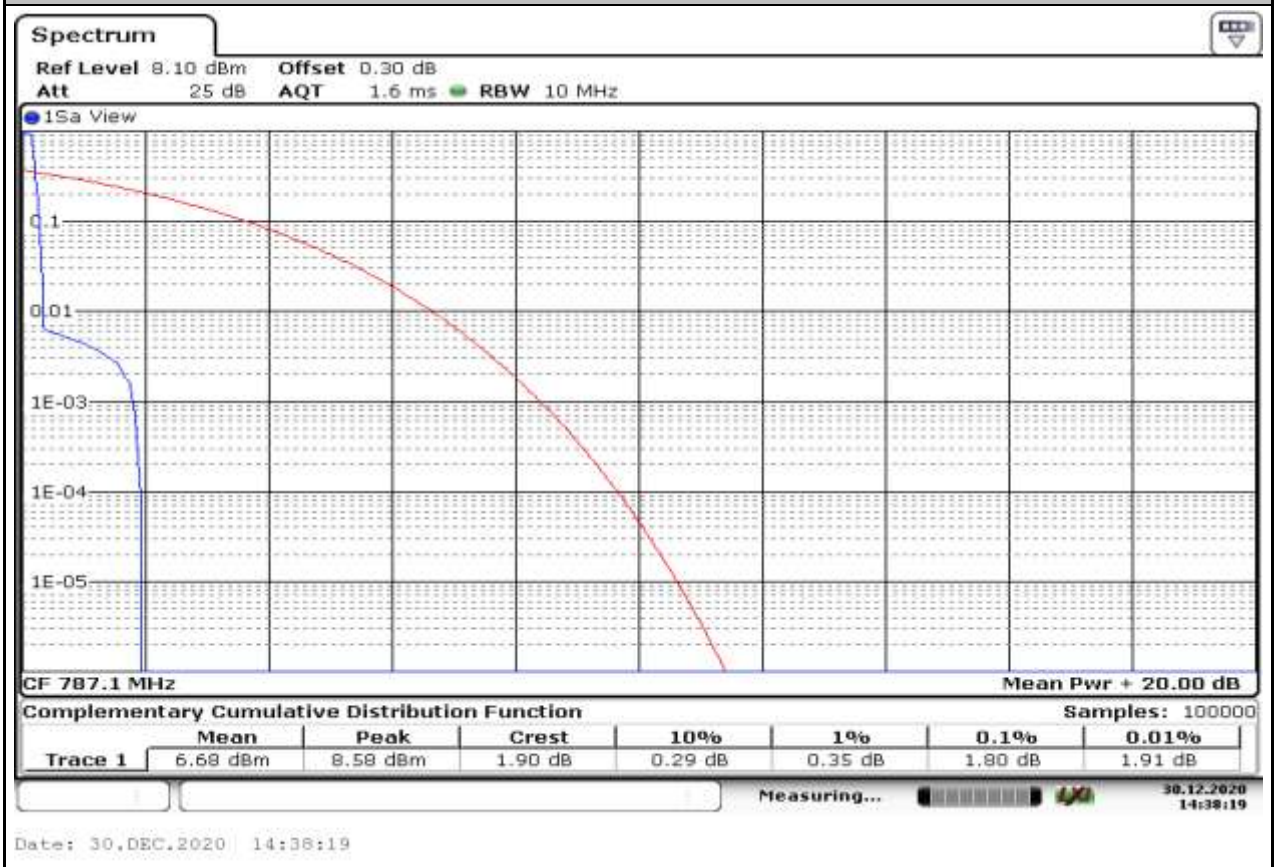
Test Result

Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	Result (dB)	Limit (dB)	Verdict
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	3.75kHz	1.83	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	3.75kHz	1.80	<=13	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@47	3.75kHz	2.09	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@47	3.75kHz	1.74	<=13	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	15kHz	1.51	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	15kHz	1.57	<=13	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@11	15kHz	1.54	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@11	15kHz	1.57	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	3@3	15kHz	3.88	<=13	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	3.75kHz	1.86	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	3.75kHz	1.80	<=13	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@47	3.75kHz	2.09	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@47	3.75kHz	1.97	<=13	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	15kHz	1.48	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	15kHz	1.57	<=13	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@11	15kHz	1.51	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@11	15kHz	1.62	<=13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	3@3	15kHz	3.91	<=13	PASS

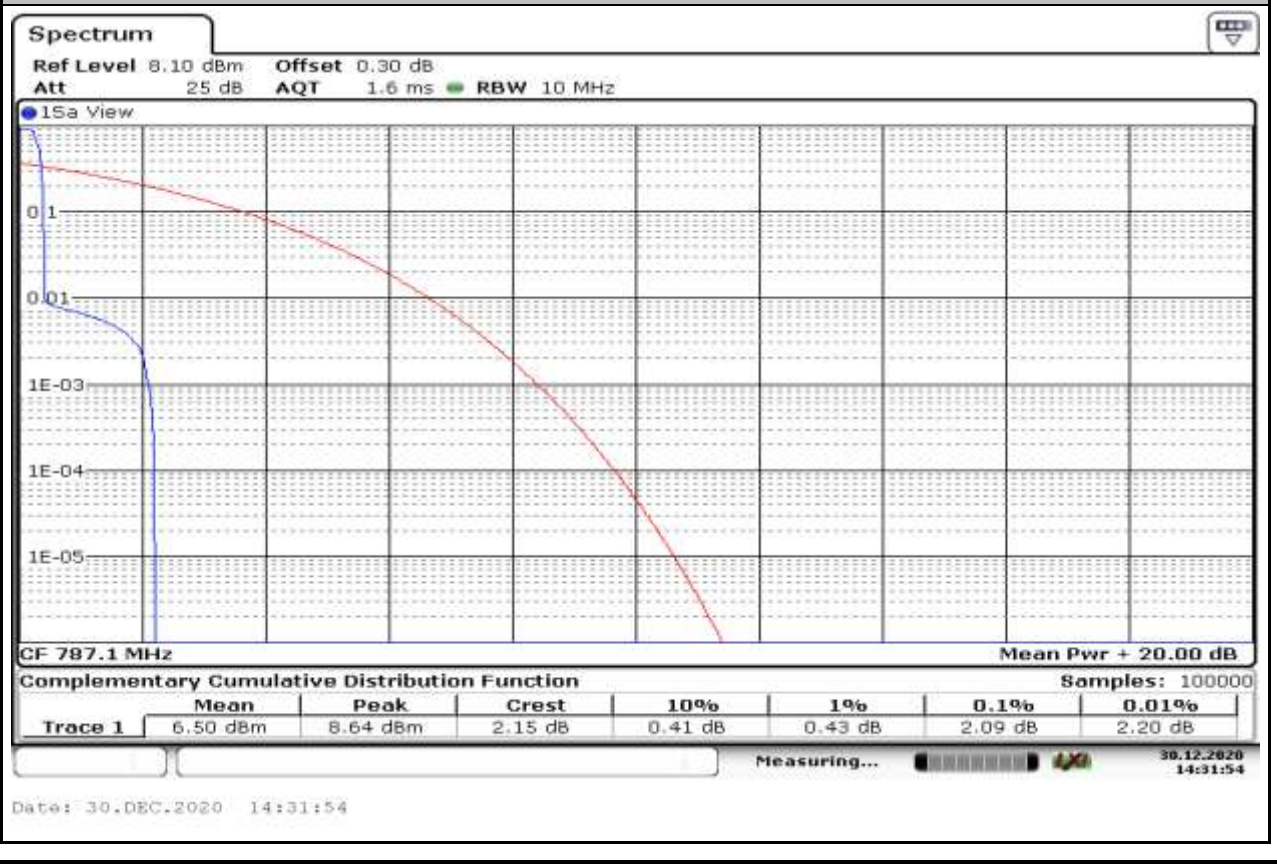
Test Graphs



Stand-Alone NaN QPSK 134183 1@0 3.75kHz



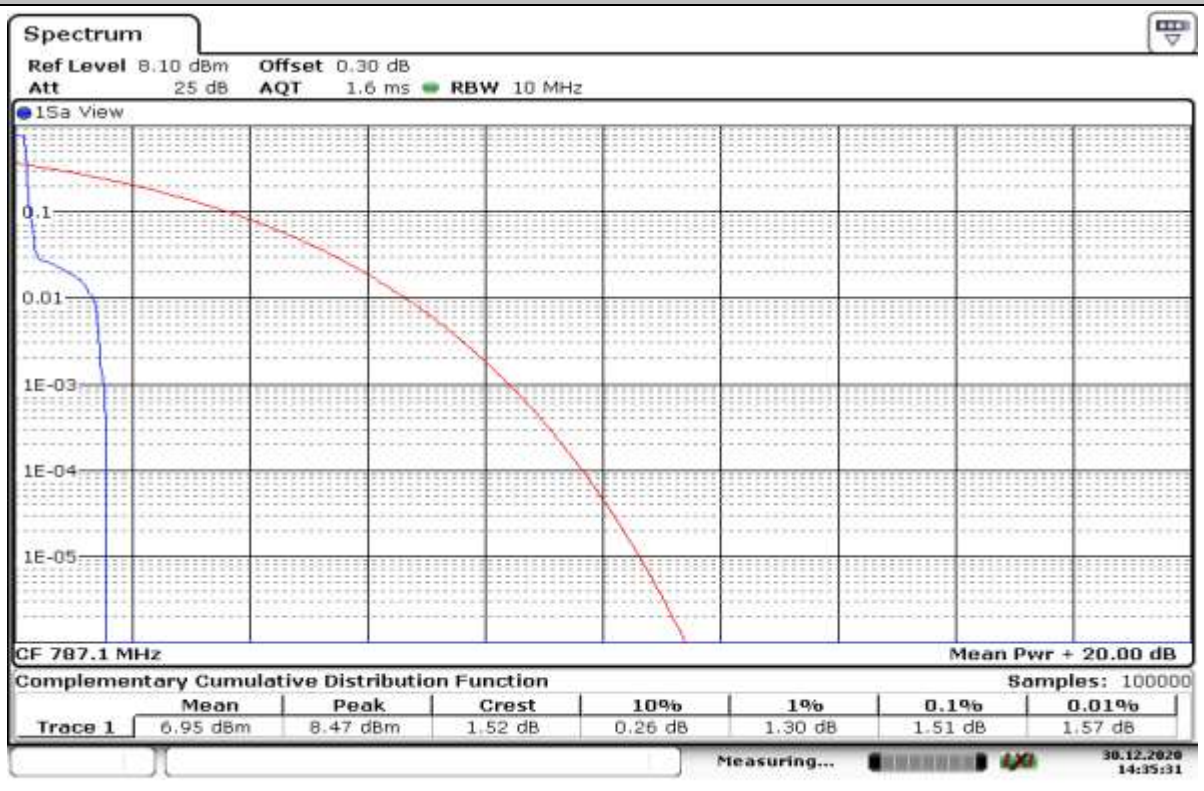
Stand-Alone NaN BPSK 134183 1@47 3.75kHz



Stand-Alone NaN QPSK 134183 1@47 3.75kHz

Date: 30.DEC.2020 14:40:30

Stand-Alone NaN BPSK 134183 1@0 15kHz



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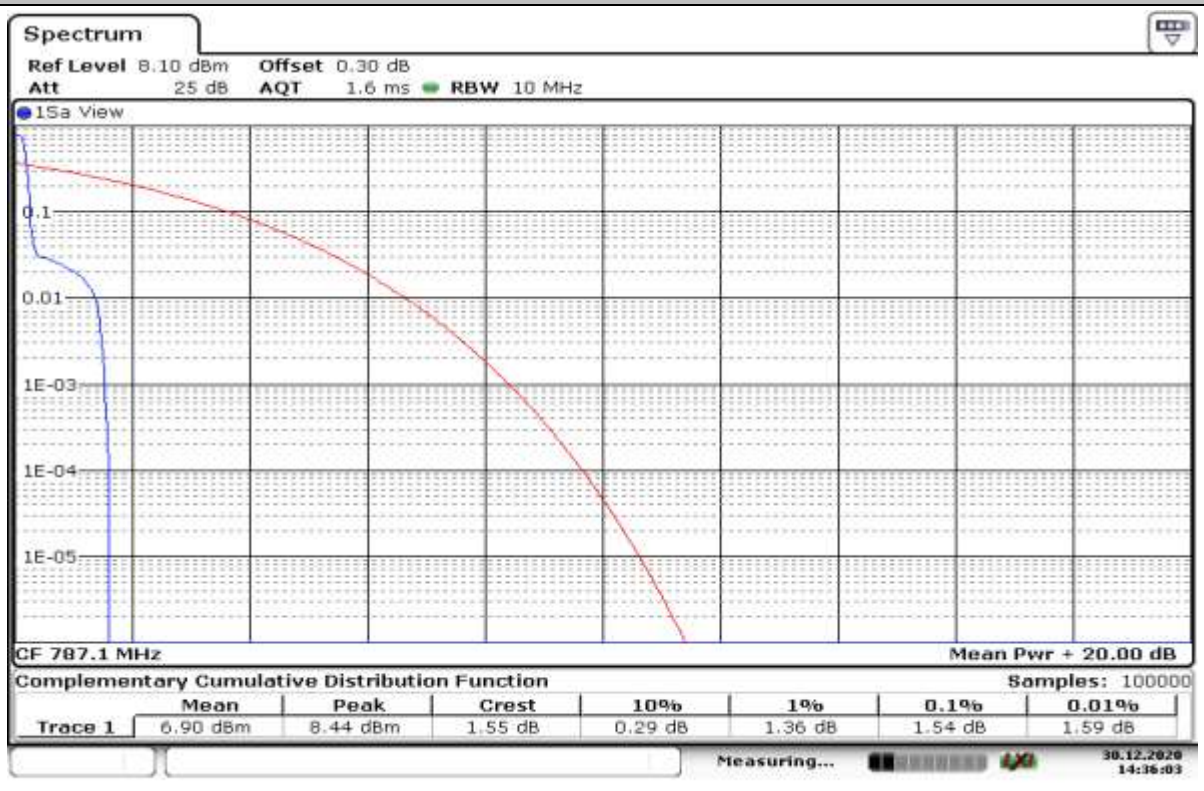
Stand-Alone NaN QPSK 134183 1@0 15kHz

Date: 30.DEC.2020 14:41:07

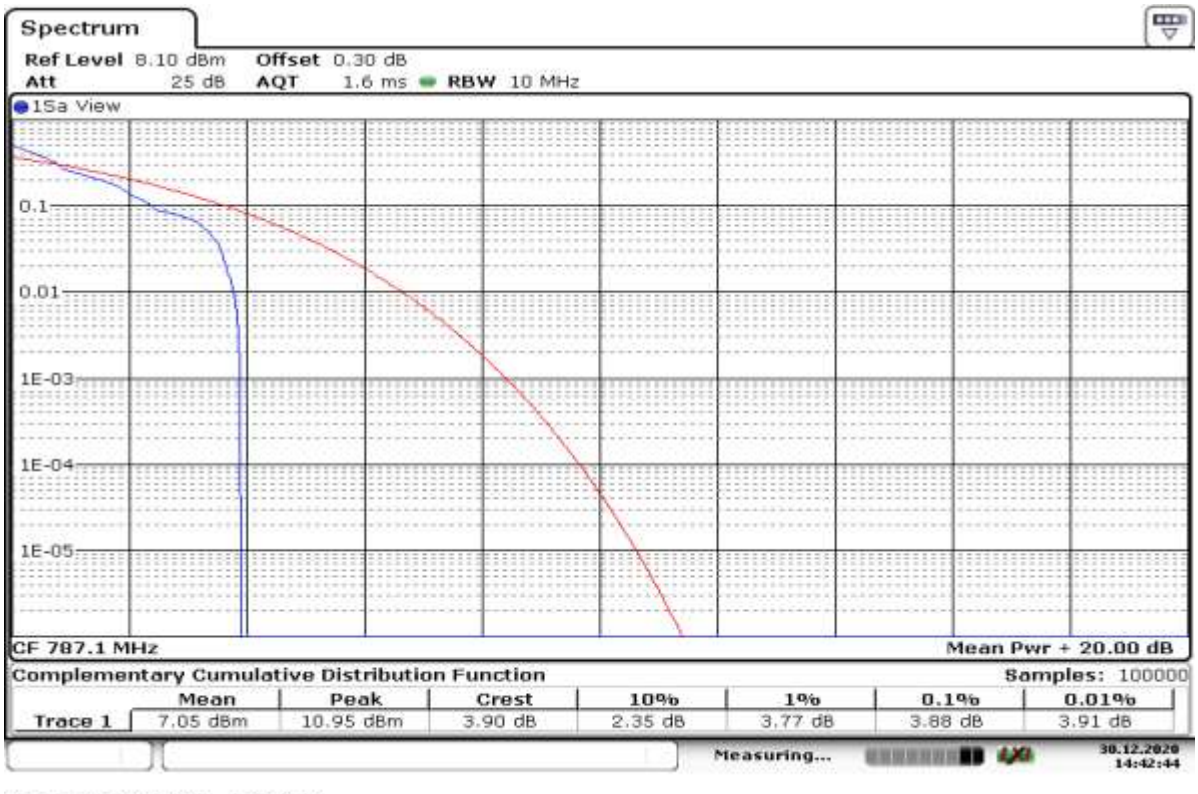
Stand-Alone NaN BPSK 134183 1@11 15kHz



Date: 30.DEC.2020 14:36:03

Stand-Alone NaN QPSK 134183 1@11 15kHz

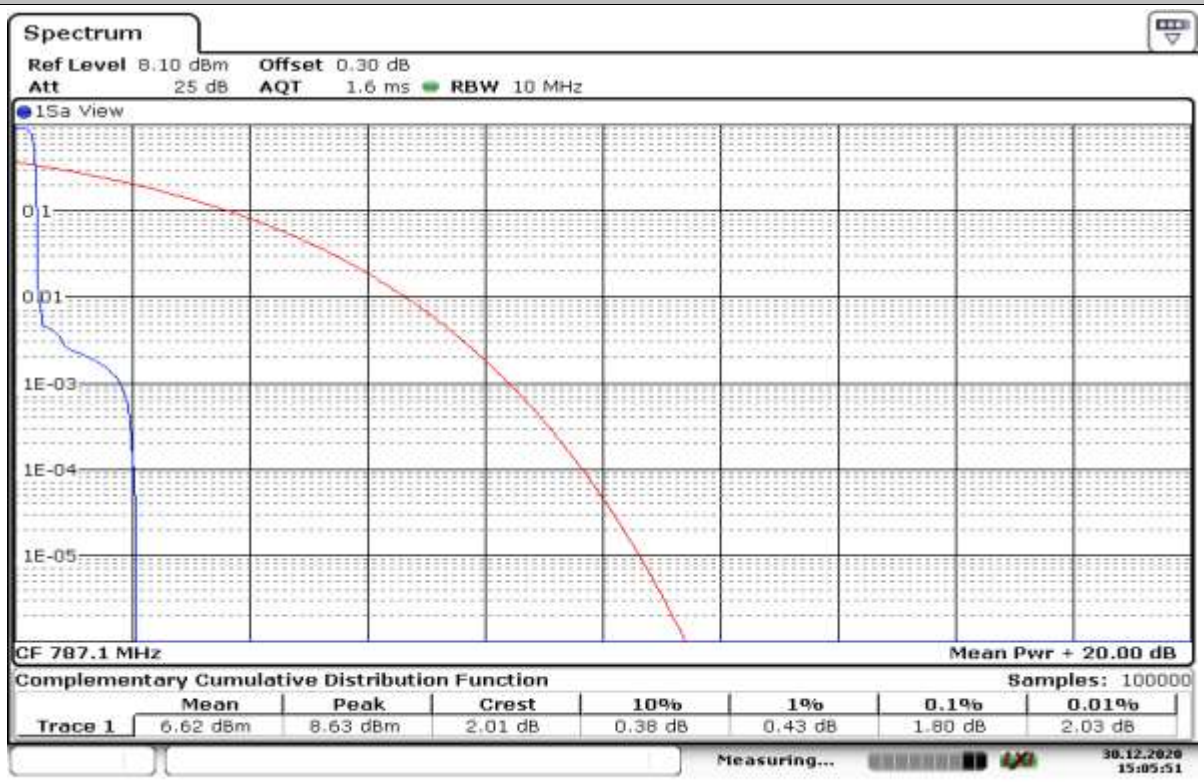
Stand-Alone NaN QPSK 134183 3@3 15kHz



Stand-Alone NaN BPSK 134191 1@0 3.75kHz

Date: 30.DEC.2020 14:44:37

Stand-Alone NaN QPSK 134191 1@0 3.75kHz



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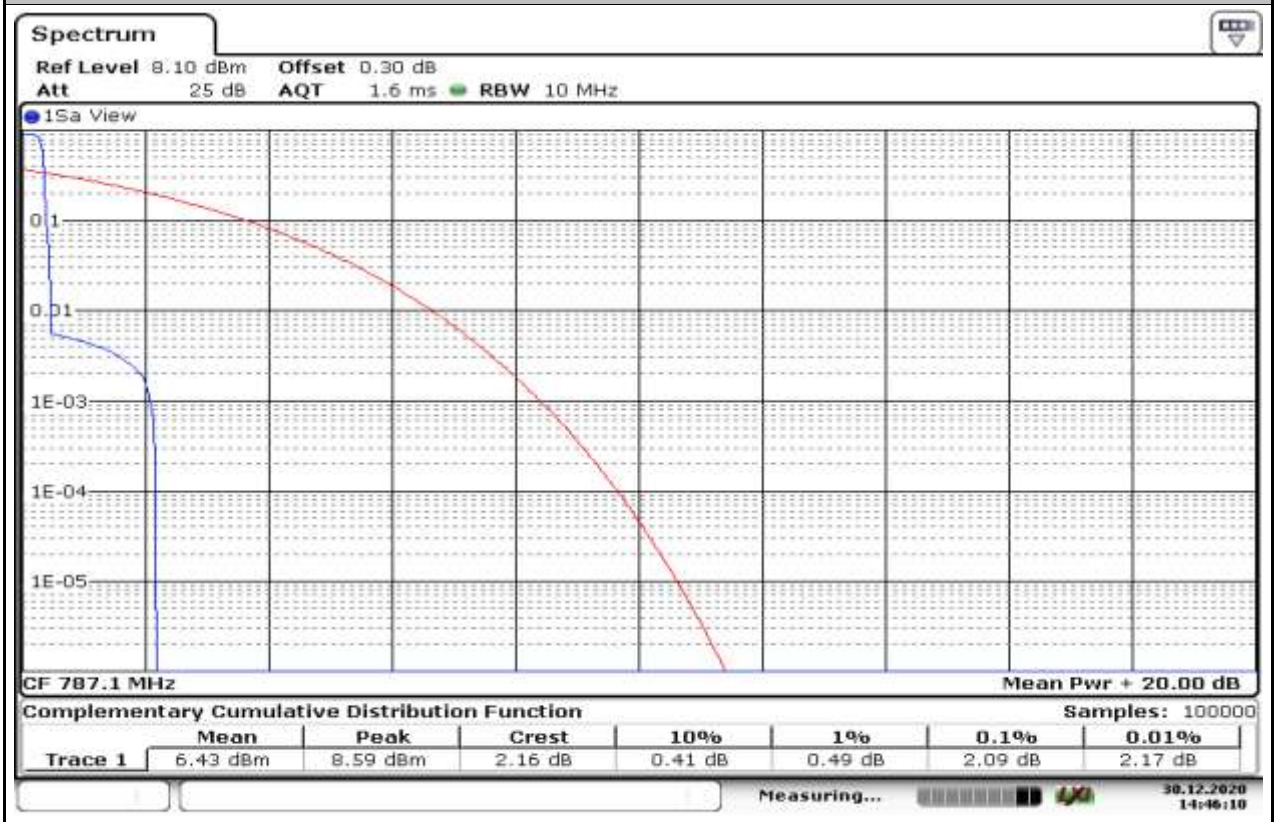
Stand-Alone	NaN	BPSK	134191	1@47	3.75kHz



Stand-Alone	NaN	QPSK	134191	1@47	3.75kHz

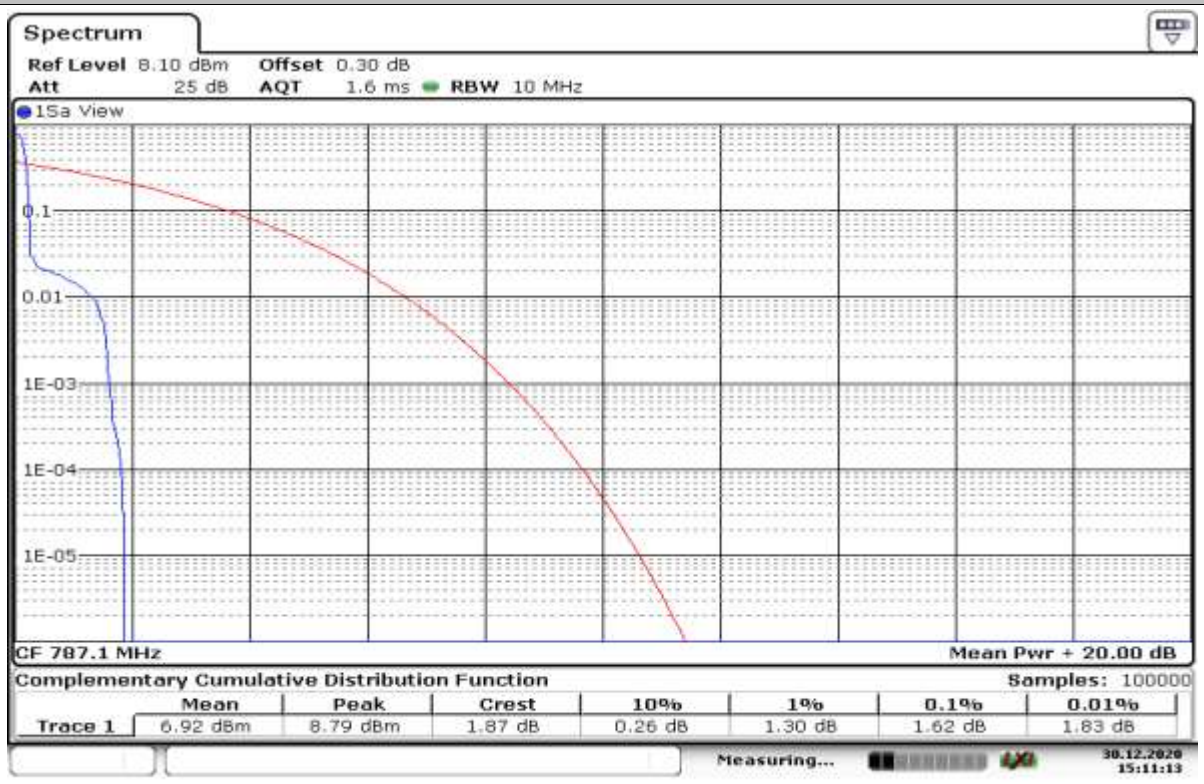
Stand-Alone NaN BPSK 134191 1@0 15kHz

Stand-Alone NaN QPSK 134191 1@0 15kHz

Stand-Alone	NaN	BPSK	134191	1@11 15kHz

Date: 30.DEC.2020 15:03:37

Stand-Alone	NaN	QPSK	134191	1@11 15kHz



Date: 30.DEC.2020 15:11:13

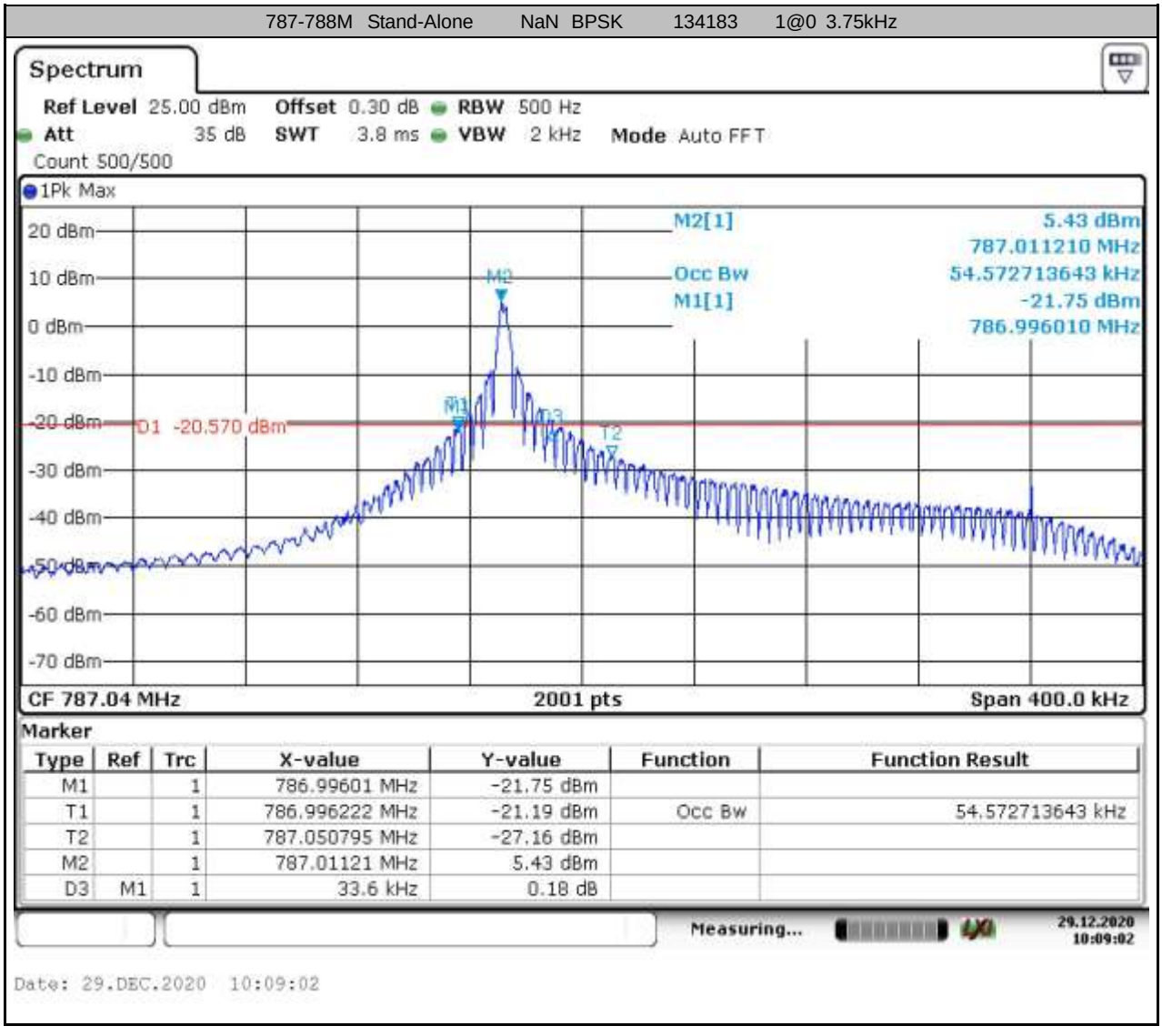
Stand-Alone NaN QPSK 134191 3@3 15kHz

Appendix A.3: 26dB Emission Bandwidth and Occupied Bandwidth for NB

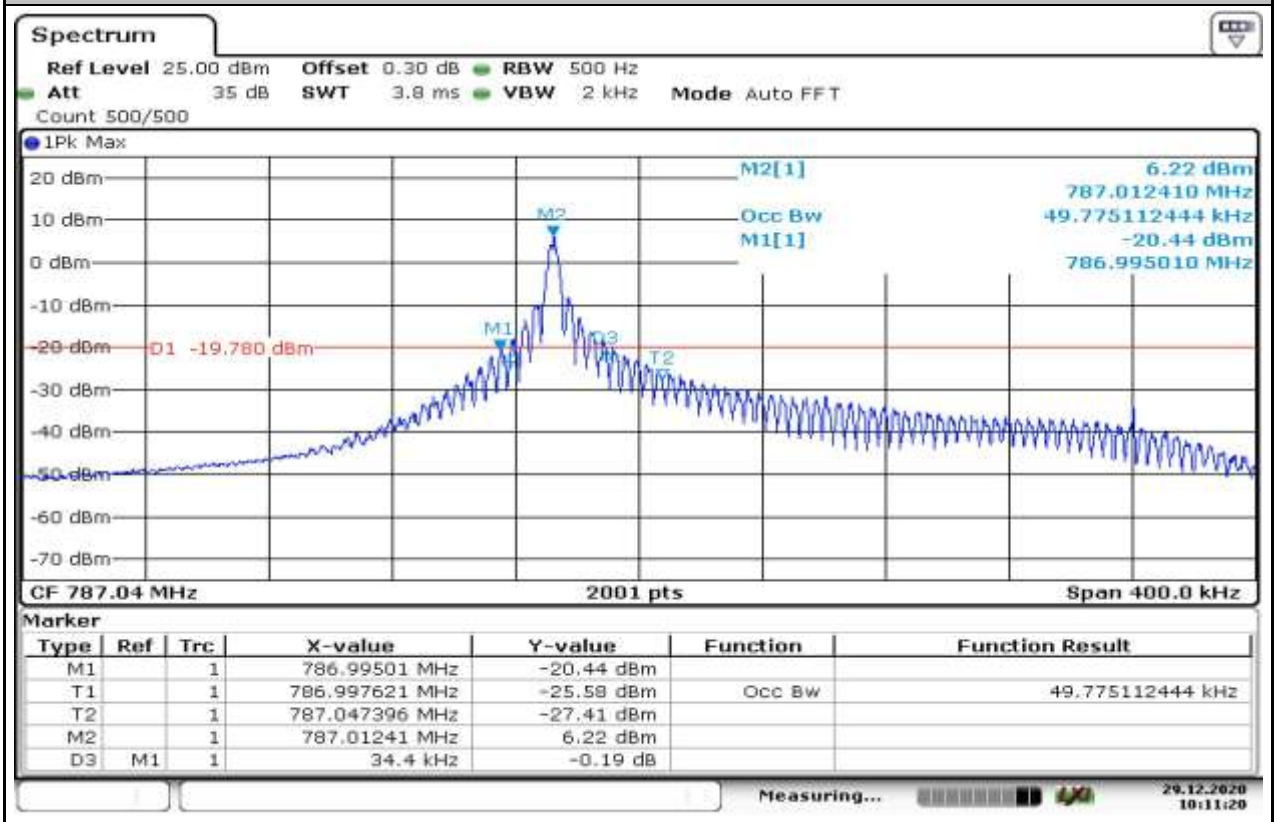
Test Result

Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	26dB Bandwidth (MHz)	Occupied Bandwidth (MHz)	Verdict
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	3.75kHz	0.0336	0.0546	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	3.75kHz	0.0344	0.0500	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	15kHz	0.117	0.126	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	15kHz	0.129	0.127	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	12@0	15kHz	0.244	0.186	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	3.75kHz	0.0372	0.0530	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	3.75kHz	0.0412	0.0530	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	15kHz	0.117	0.130	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	15kHz	0.131	0.128	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	12@0	15kHz	0.247	0.184	PASS

Test Graphs

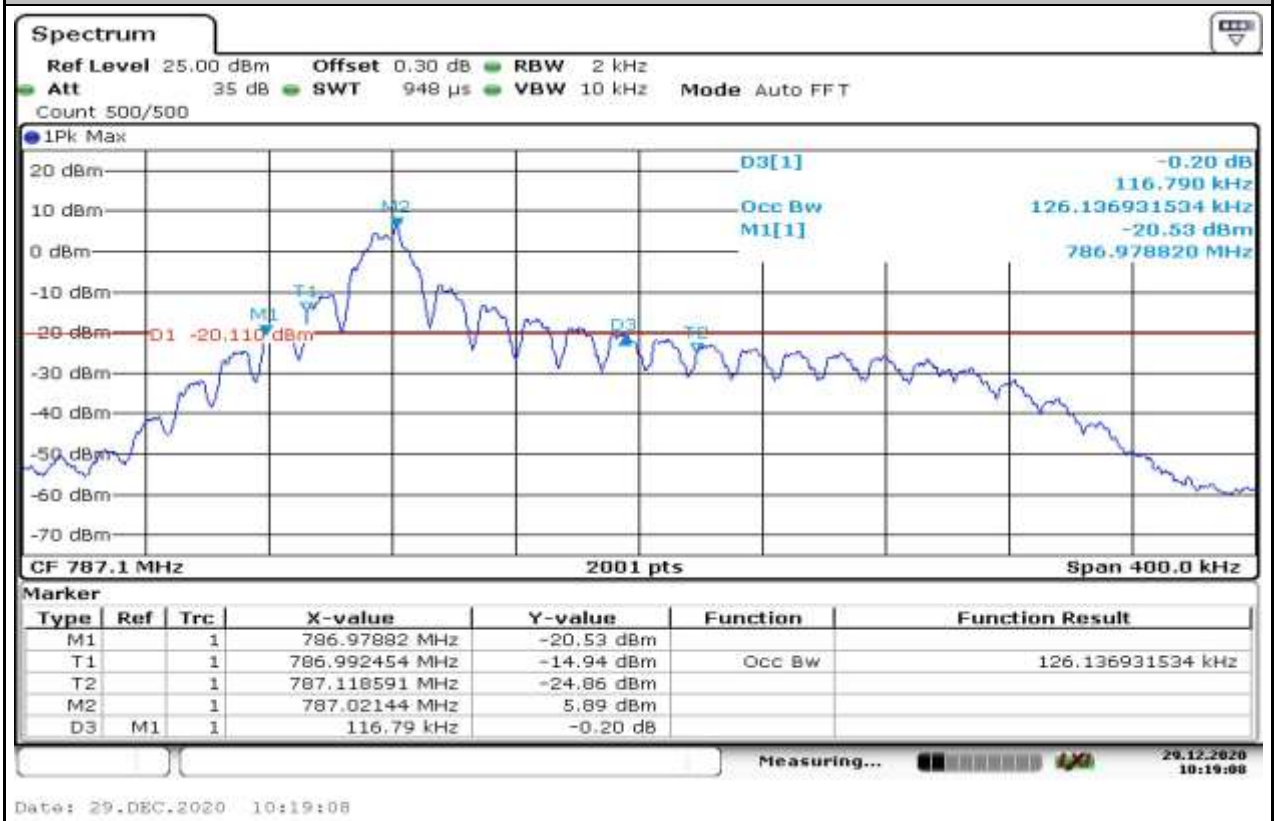


787-788M Stand-Alone NaN QPSK 134183 1@0 3.75kHz



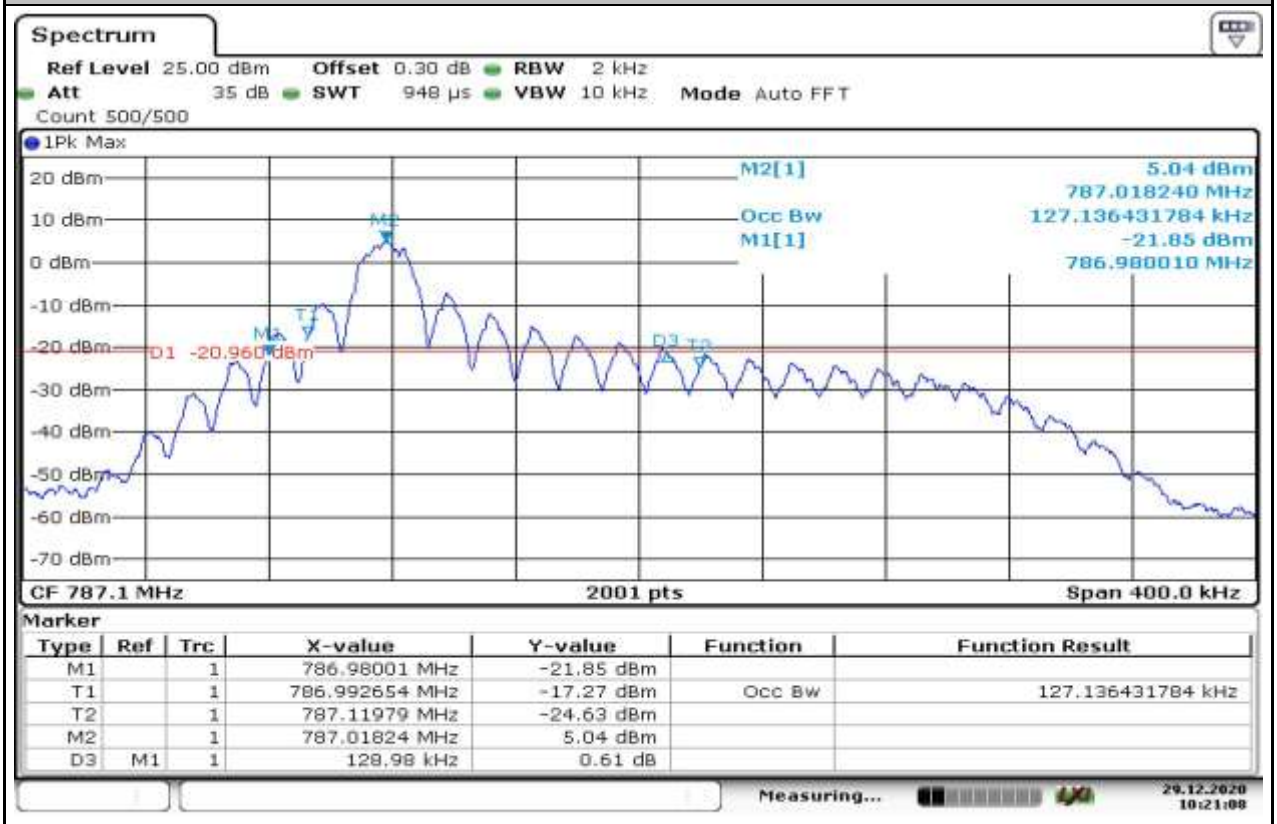
Date: 29.DEC.2020 10:11:20

787-788M Stand-Alone NaN BPSK 134183 1@0 15kHz



Date: 29.DEC.2020 10:19:08

787-788M Stand-Alone NaN QPSK 134183 1@0 15kHz



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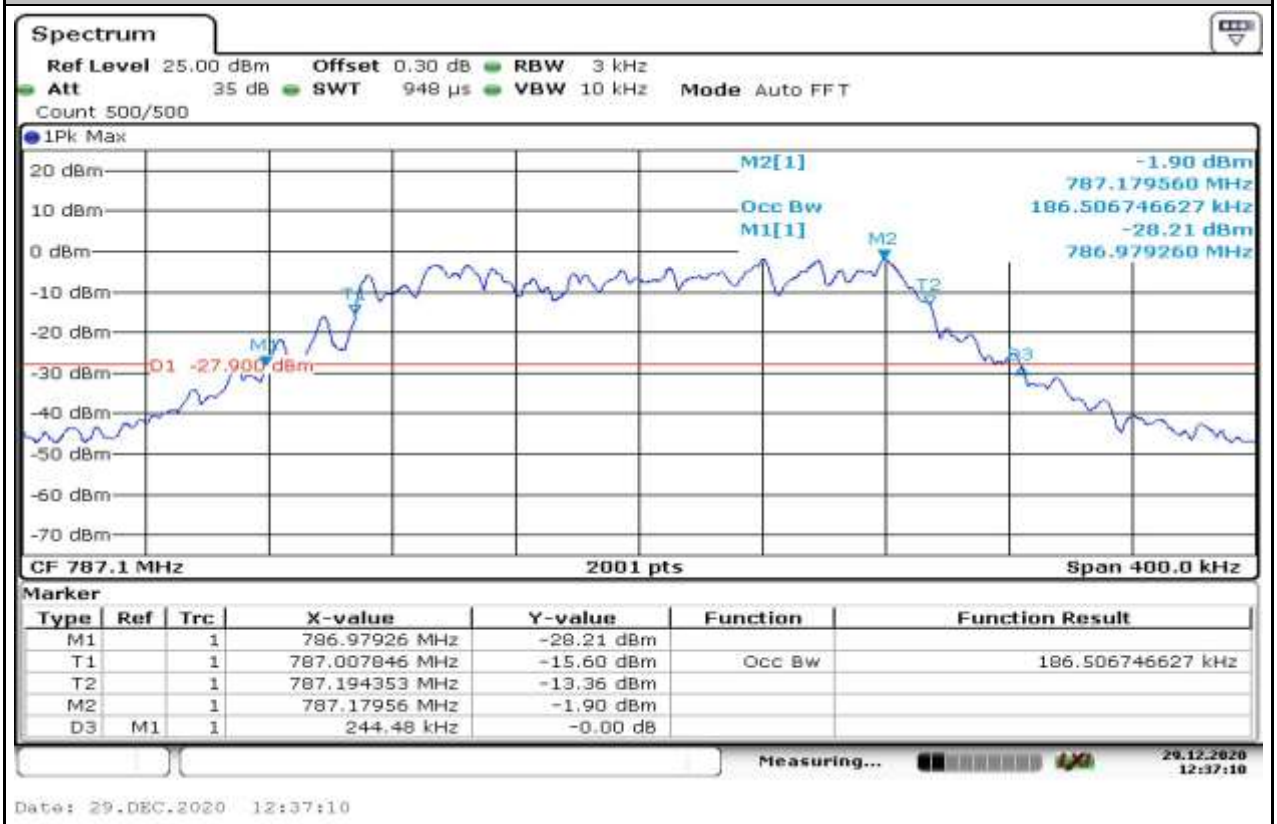
787-788M Stand-Alone NaN QPSK 134183 12@0 15kHz



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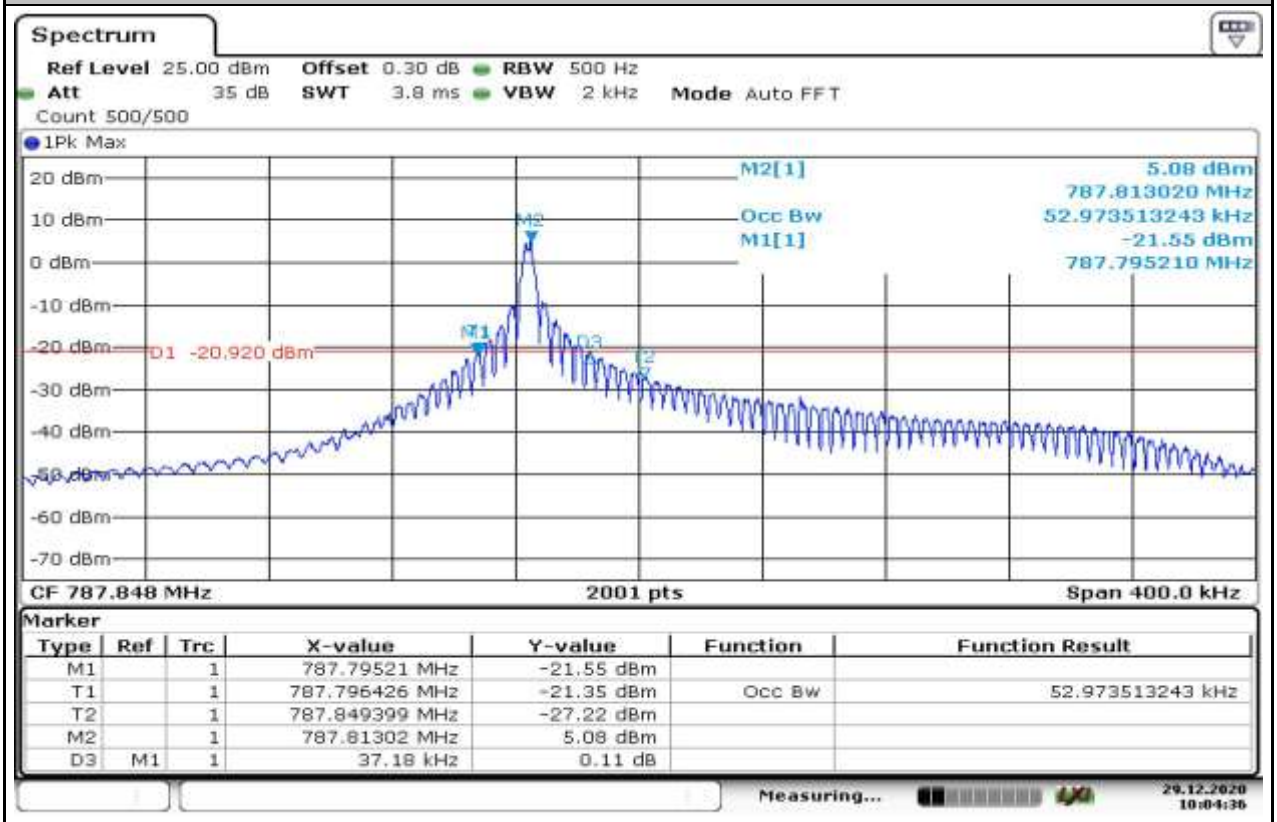
787-788M Stand-Alone NaN BPSK 134191 1@0 3.75kHz



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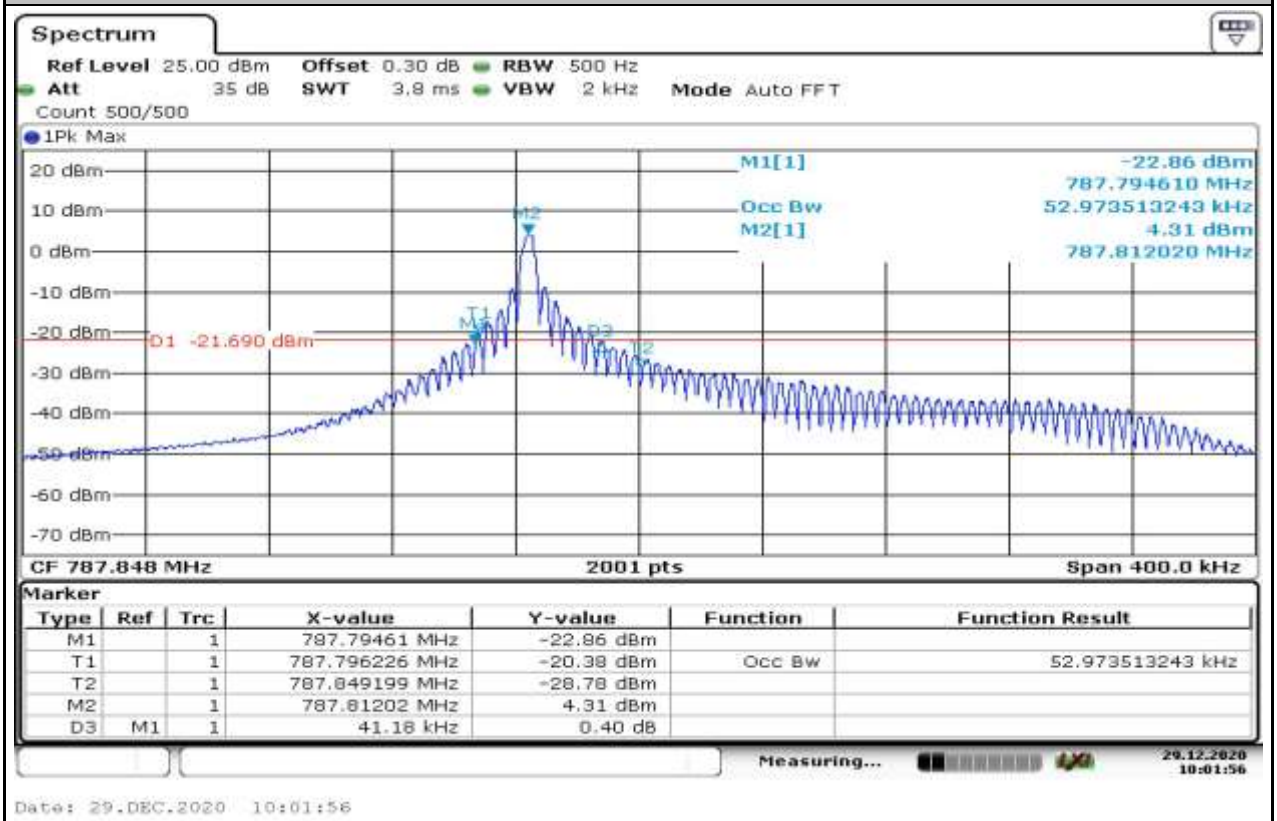
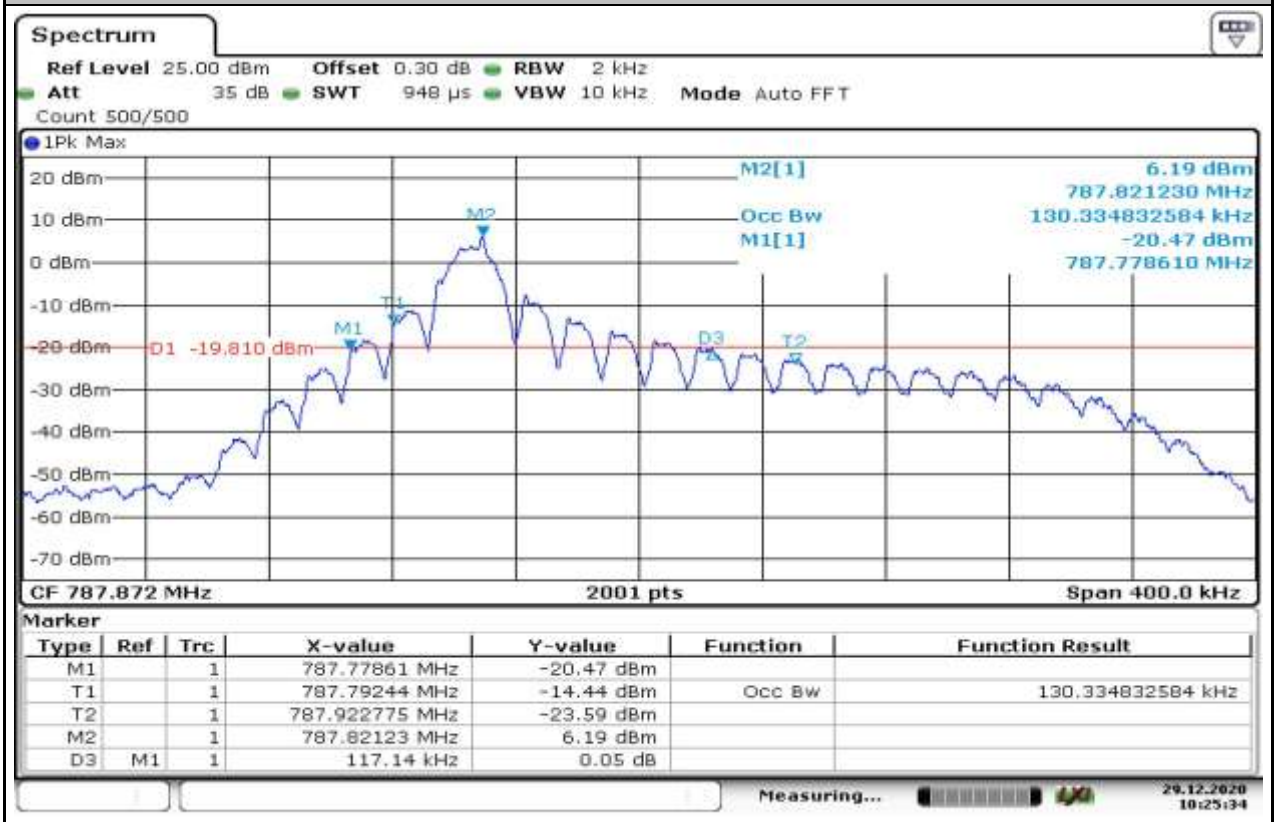
787-788M Stand-Alone NaN QPSK 134191 1@0 3.75kHz



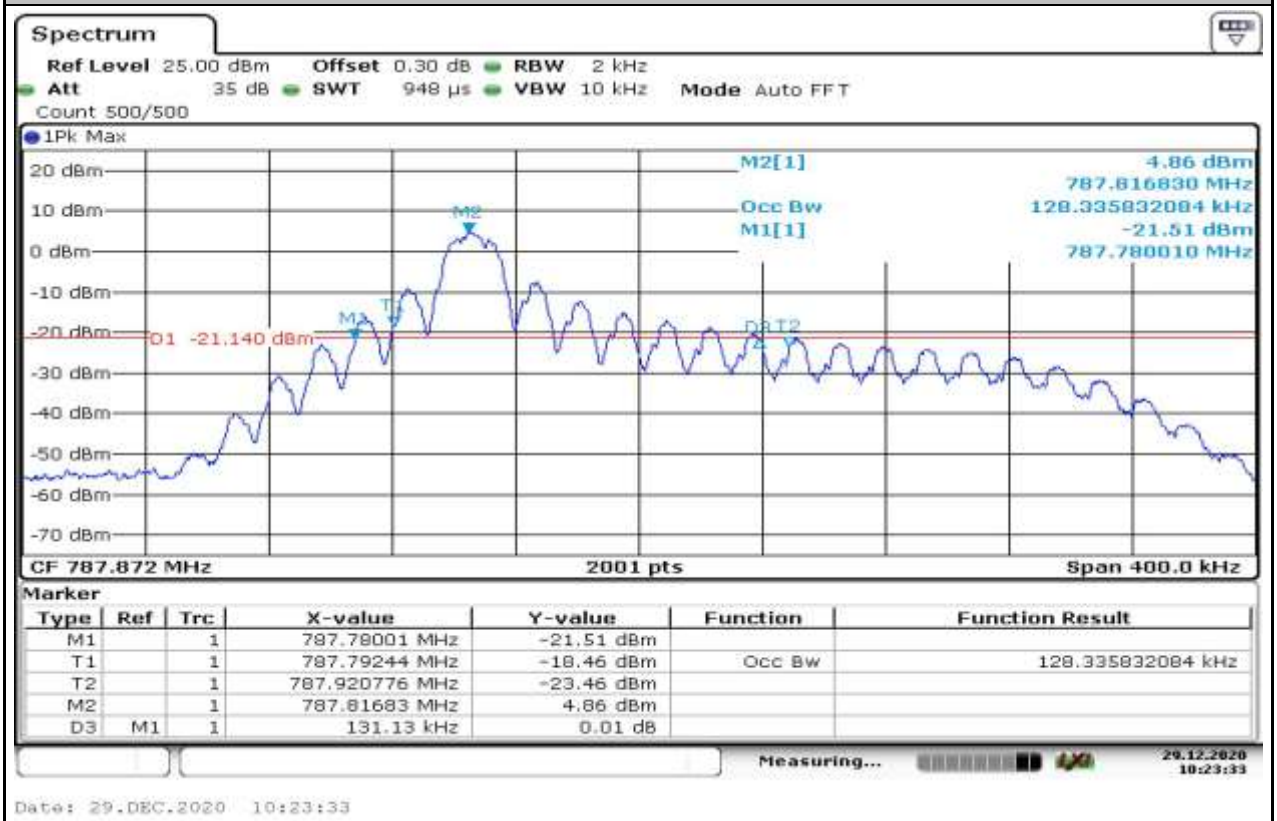
Date: 29.DEC.2020 10:01:56

787-788M Stand-Alone NaN BPSK 134191 1@0 15kHz



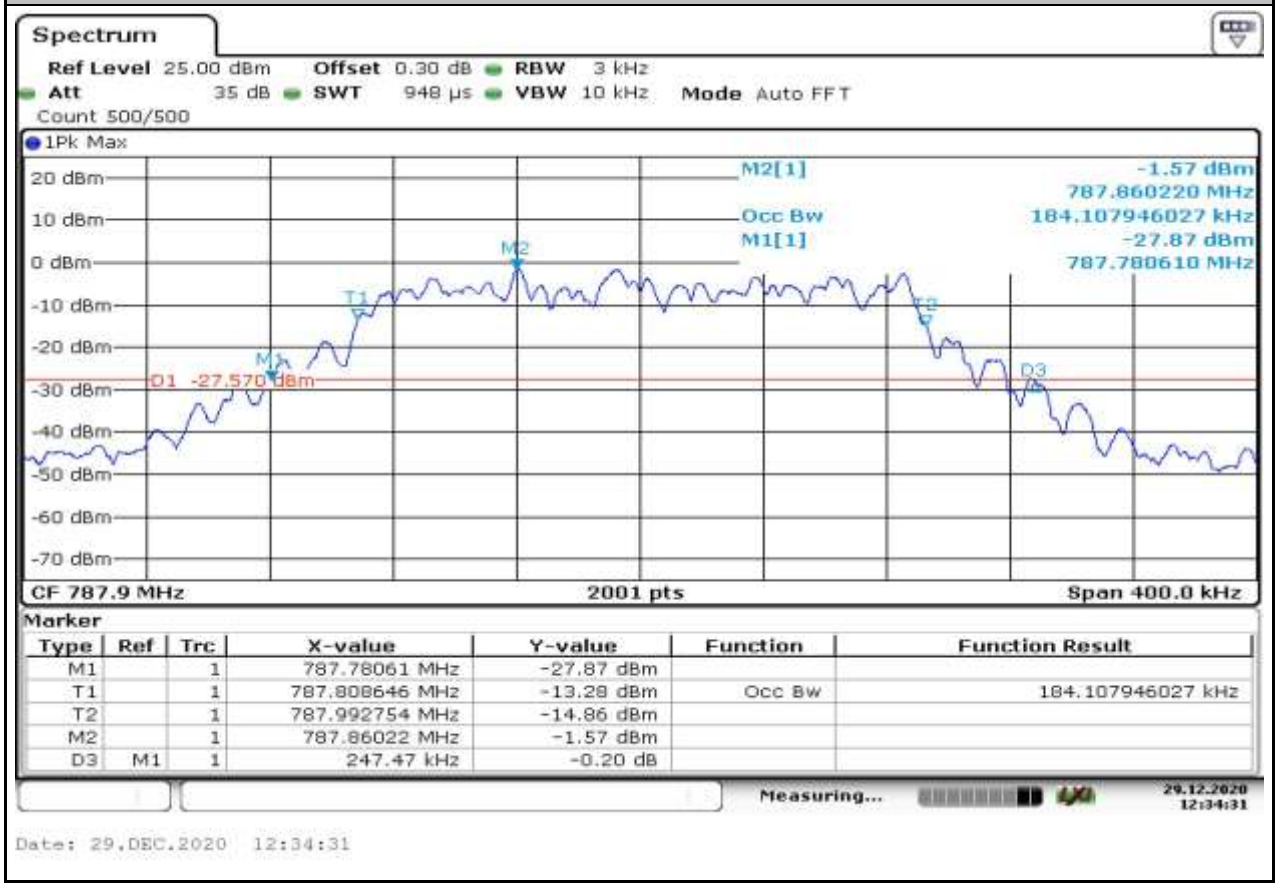
Date: 29.DEC.2020 10:25:34

787-788M Stand-Alone NaN QPSK 134191 1@0 15kHz



Date: 29.DEC.2020 10:23:33

787-788M	Stand-Alone	NaN	QPSK	134191	12@0	15kHz

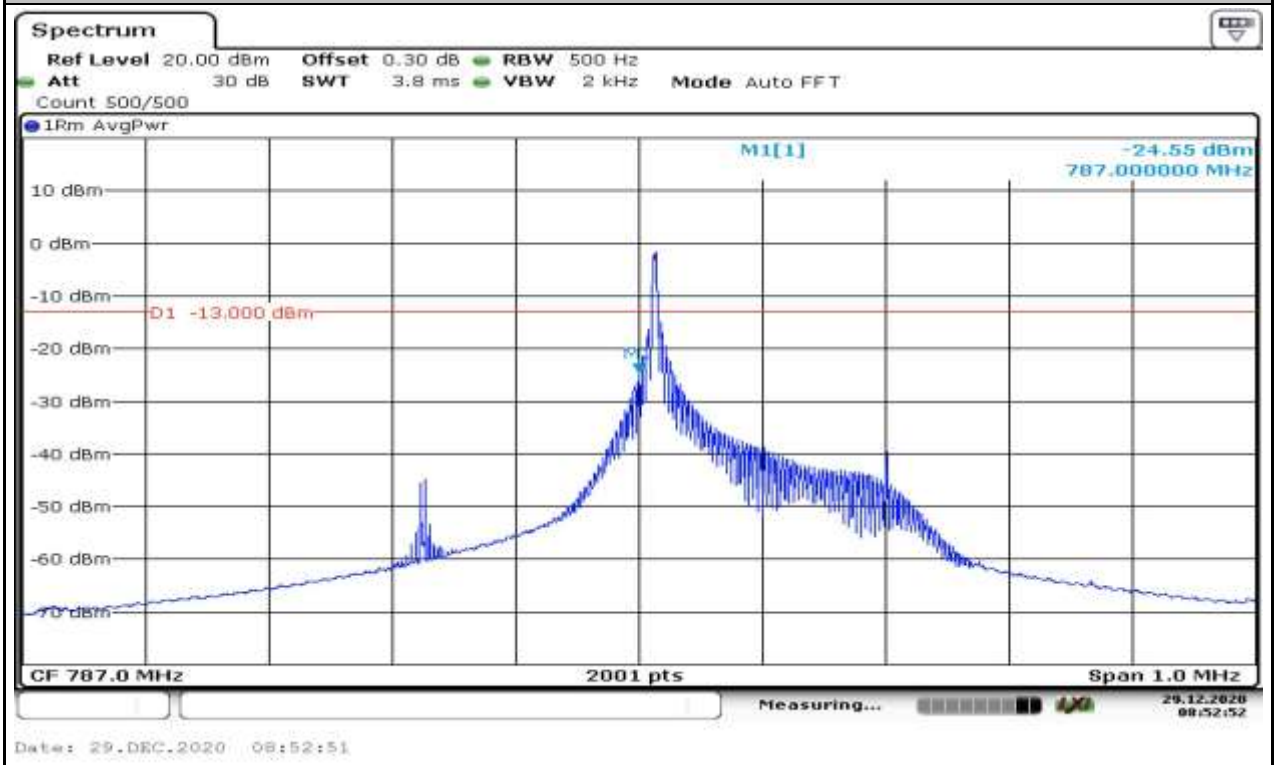


Appendix A.4: Band Edge for NB
Test Result

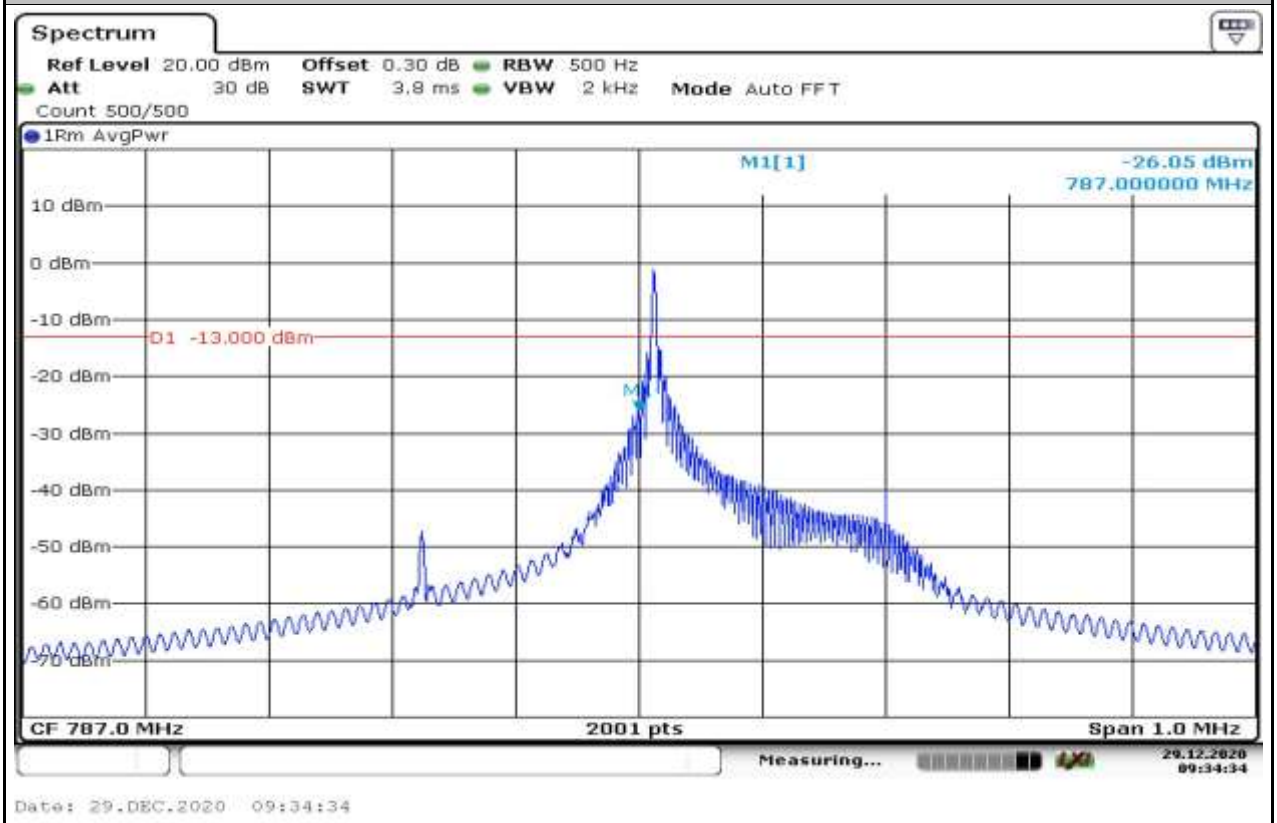
Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	Result (dBm)	Verdict
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	3.75kHz	-24.55	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	3.75kHz	-26.05	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@47	3.75kHz	-52.92	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@47	3.75kHz	-47.41	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	15kHz	-16.36	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	15kHz	-17.50	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@11	15kHz	-39.31	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@11	15kHz	-38.86	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	12@0	15kHz	-25.64	PASS
787-788M	Stand-Alone	NaN	BPSK	134184	1@0	3.75kHz	-40.89	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	-40.31	PASS
787-788M	Stand-Alone	NaN	BPSK	134184	1@47	3.75kHz	-47.77	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@47	3.75kHz	-47.47	PASS
787-788M	Stand-Alone	NaN	BPSK	134184	1@0	15kHz	-45.95	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	-50.74	PASS
787-788M	Stand-Alone	NaN	BPSK	134184	1@11	15kHz	-58.60	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@11	15kHz	-57.92	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	12@0	15kHz	-43.21	PASS
787-788M	Stand-Alone	NaN	BPSK	134190	1@0	3.75kHz	-48.20	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	-48.22	PASS
787-788M	Stand-Alone	NaN	BPSK	134190	1@47	3.75kHz	-41.04	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@47	3.75kHz	-42.64	PASS
787-788M	Stand-Alone	NaN	BPSK	134190	1@0	15kHz	-58.34	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	-58.57	PASS
787-788M	Stand-Alone	NaN	BPSK	134190	1@11	15kHz	-53.11	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@11	15kHz	-53.73	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	12@0	15kHz	-46.69	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	3.75kHz	-46.73	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	3.75kHz	-46.01	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@47	3.75kHz	-29.28	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@47	3.75kHz	-27.30	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	15kHz	-38.27	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	15kHz	-40.28	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@11	15kHz	-18.55	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@11	15kHz	-19.89	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	12@0	15kHz	-25.89	PASS

Test Graphs

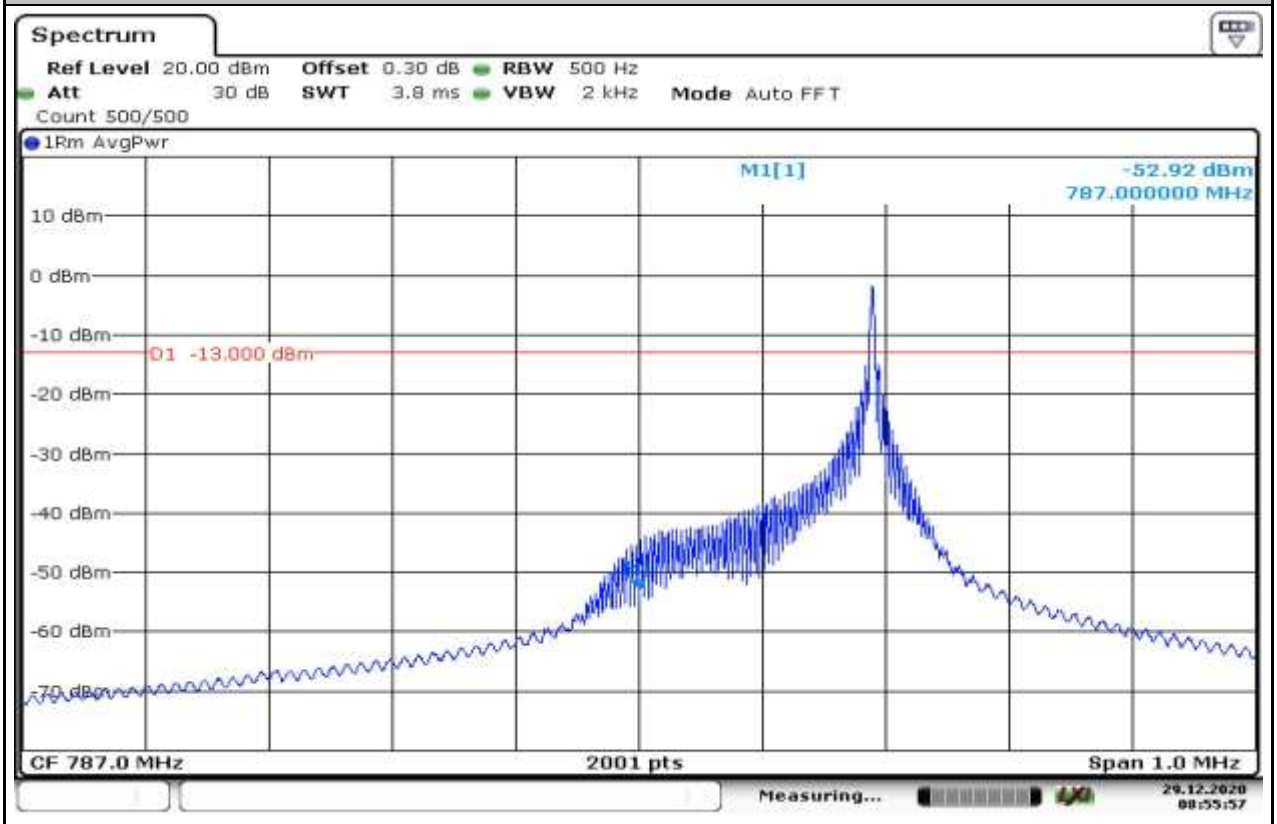
Stand-Alone NaN BPSK 134183 1@0 3.75kHz



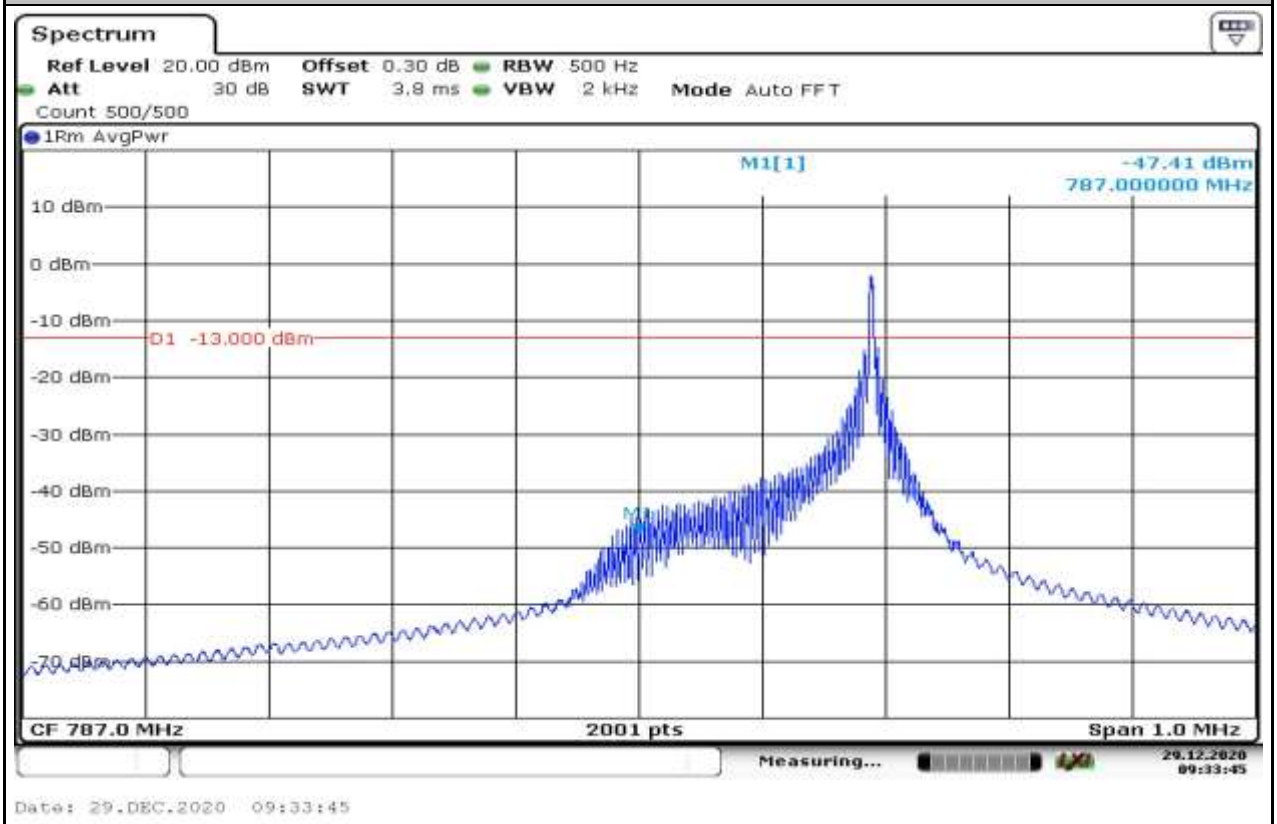
Stand-Alone NaN QPSK 134183 1@0 3.75kHz



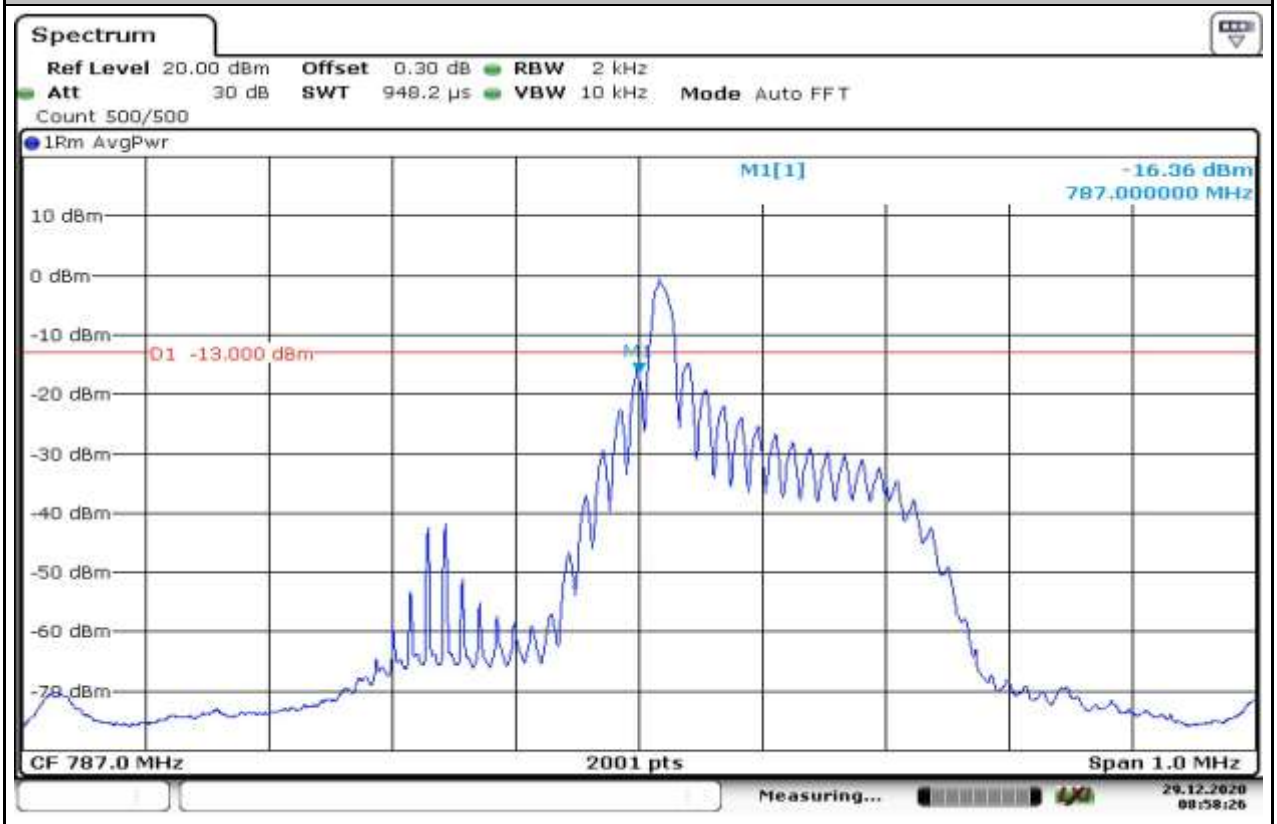
Stand-Alone	NaN	BPSK	134183	1@47	3.75kHz



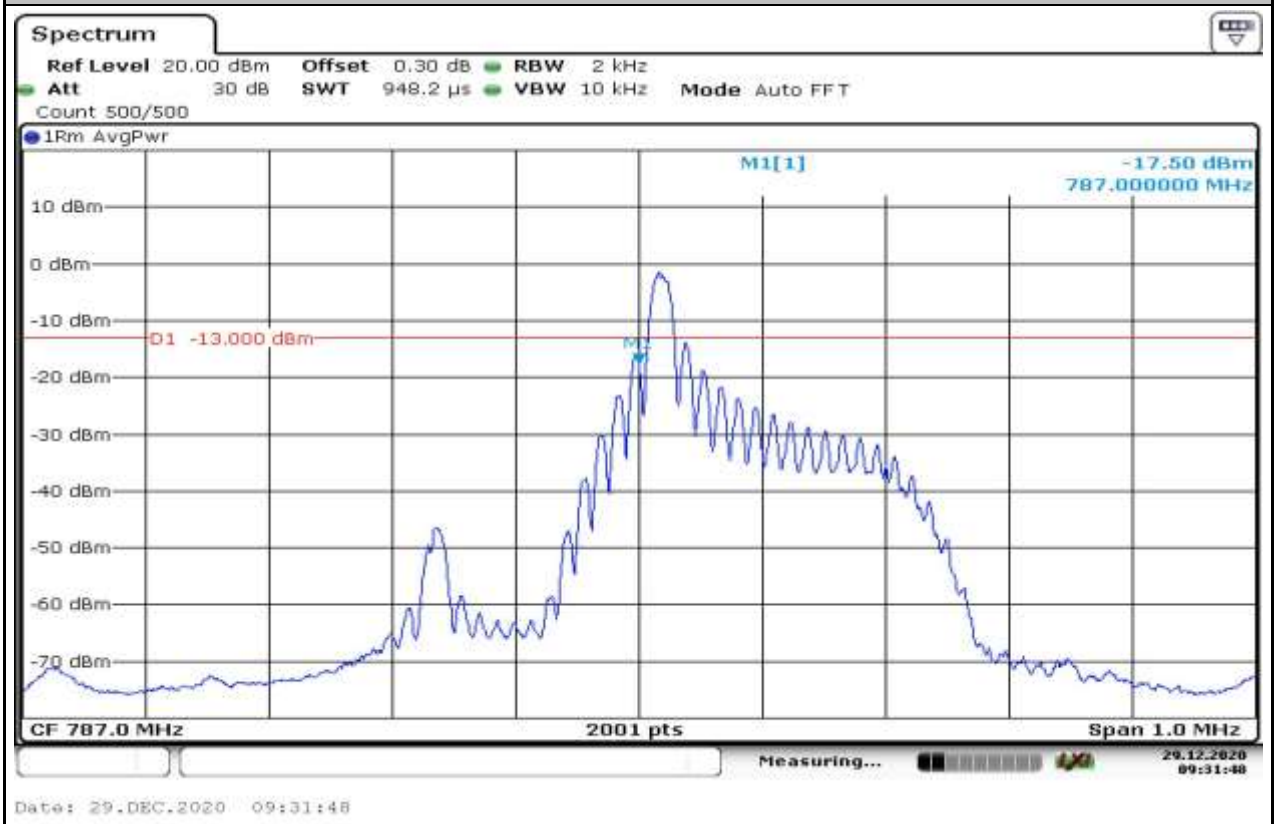
Stand-Alone	NaN	QPSK	134183	1@47	3.75kHz



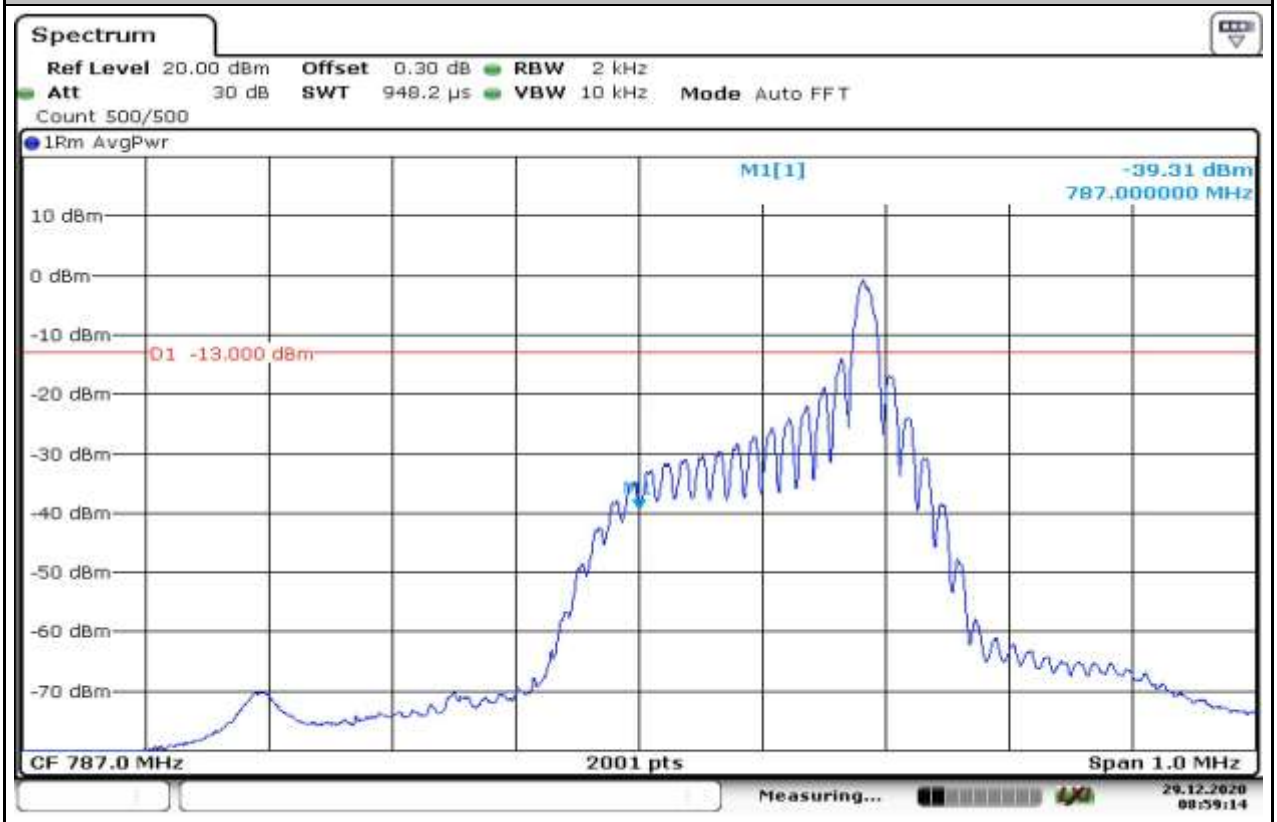
Stand-Alone	NaN	BPSK	134183	1@0 15kHz



Stand-Alone	NaN	QPSK	134183	1@0 15kHz



Stand-Alone	NaN	BPSK	134183	1@11 15kHz

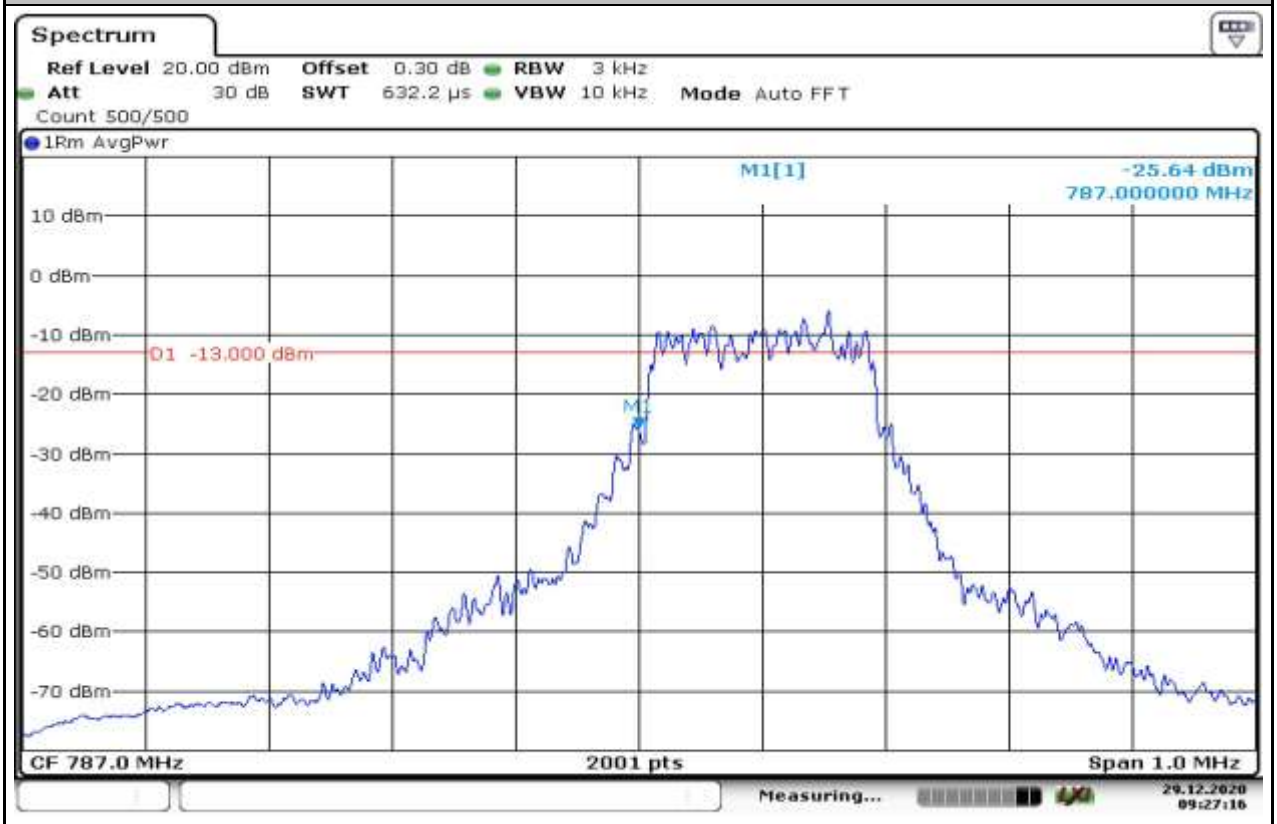


Date: 29.DEC.2020 08:59:14

Stand-Alone	NaN	QPSK	134183	1@11 15kHz

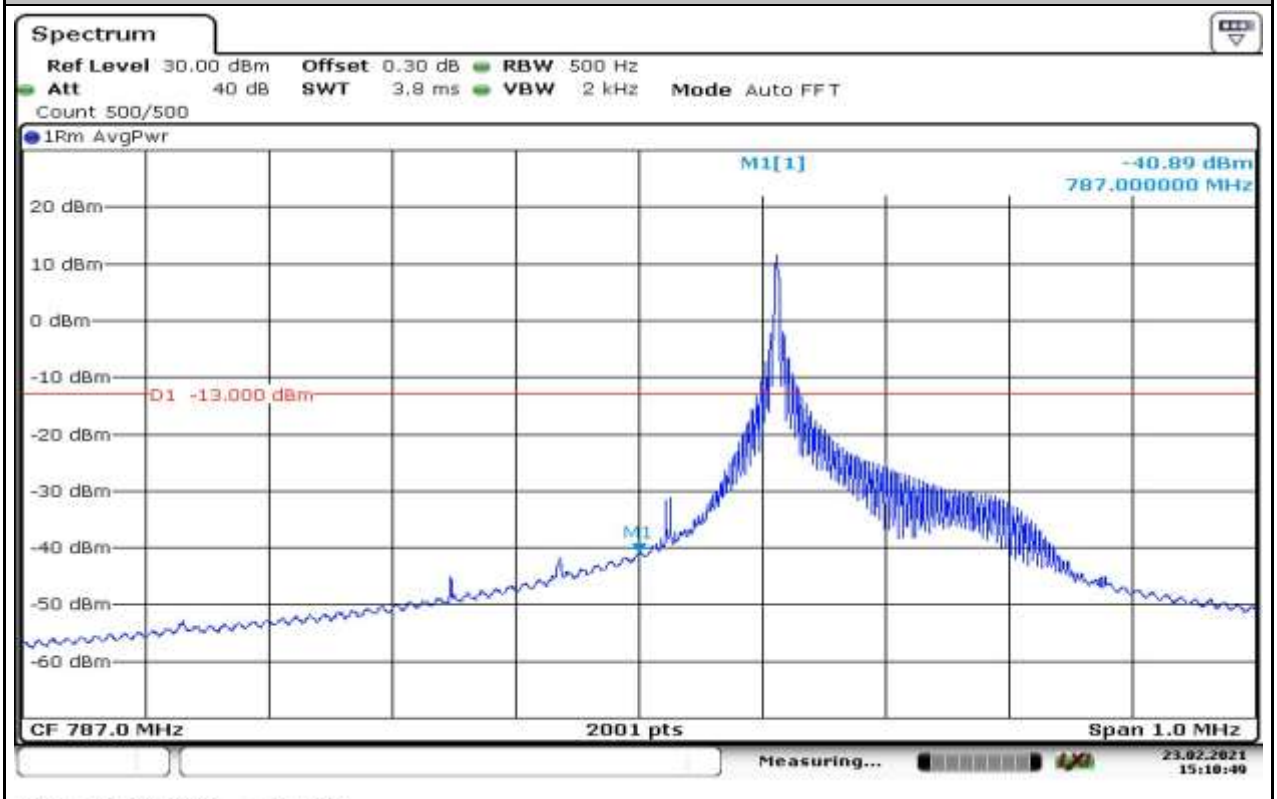
Date: 29.DEC.2020 09:32:36

Stand-Alone	NaN	QPSK	134183	12@0	15kHz



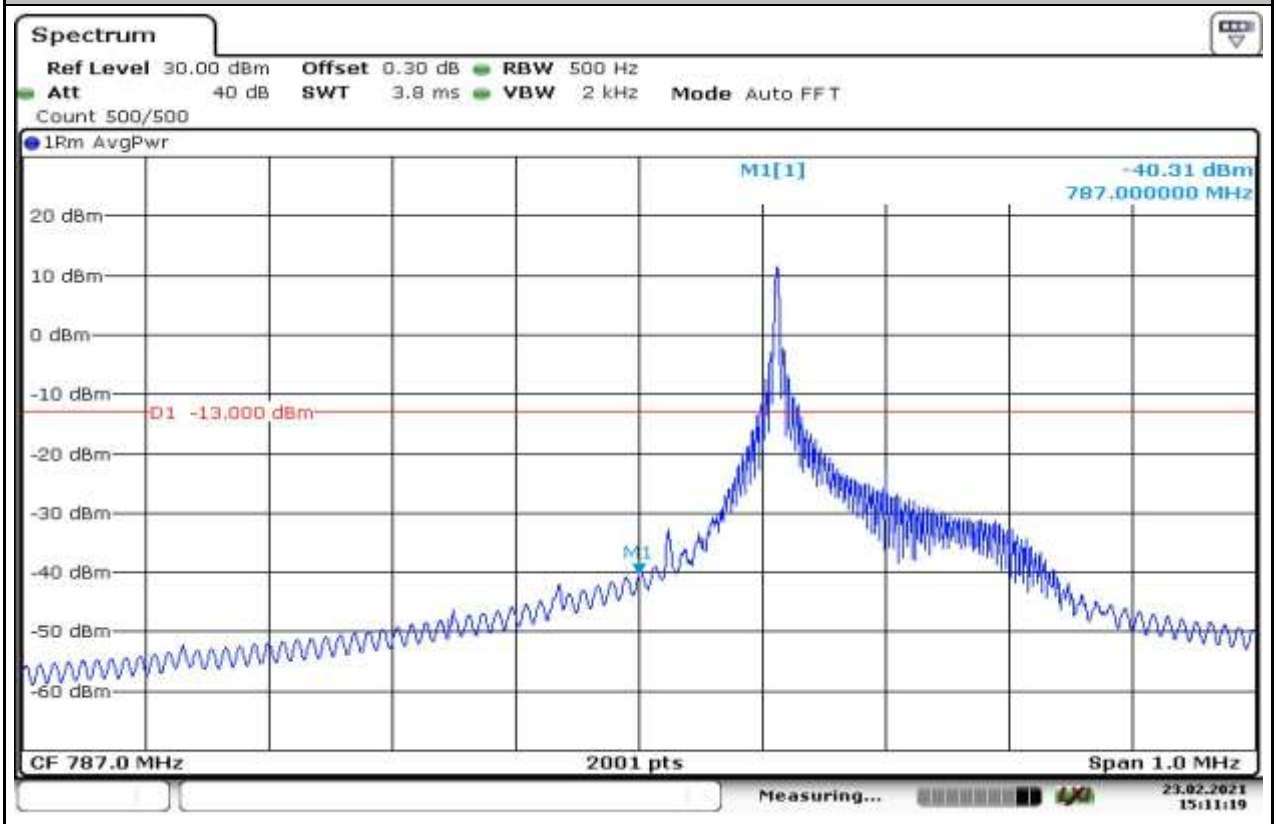
Date: 29.DEC.2020 09:27:16

Stand-Alone	NaN	BPSK	134184	1@0	3.75kHz

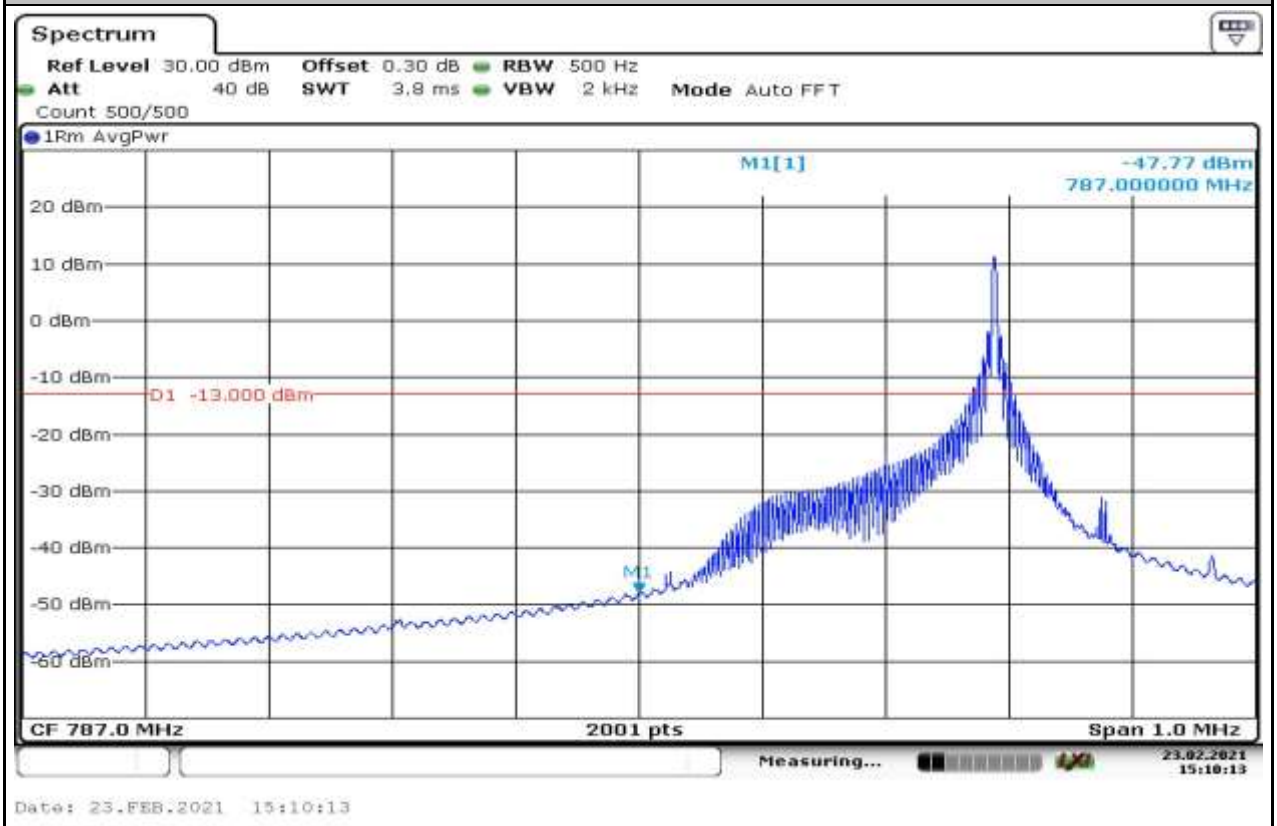


Date: 23.FEB.2021 15:10:50

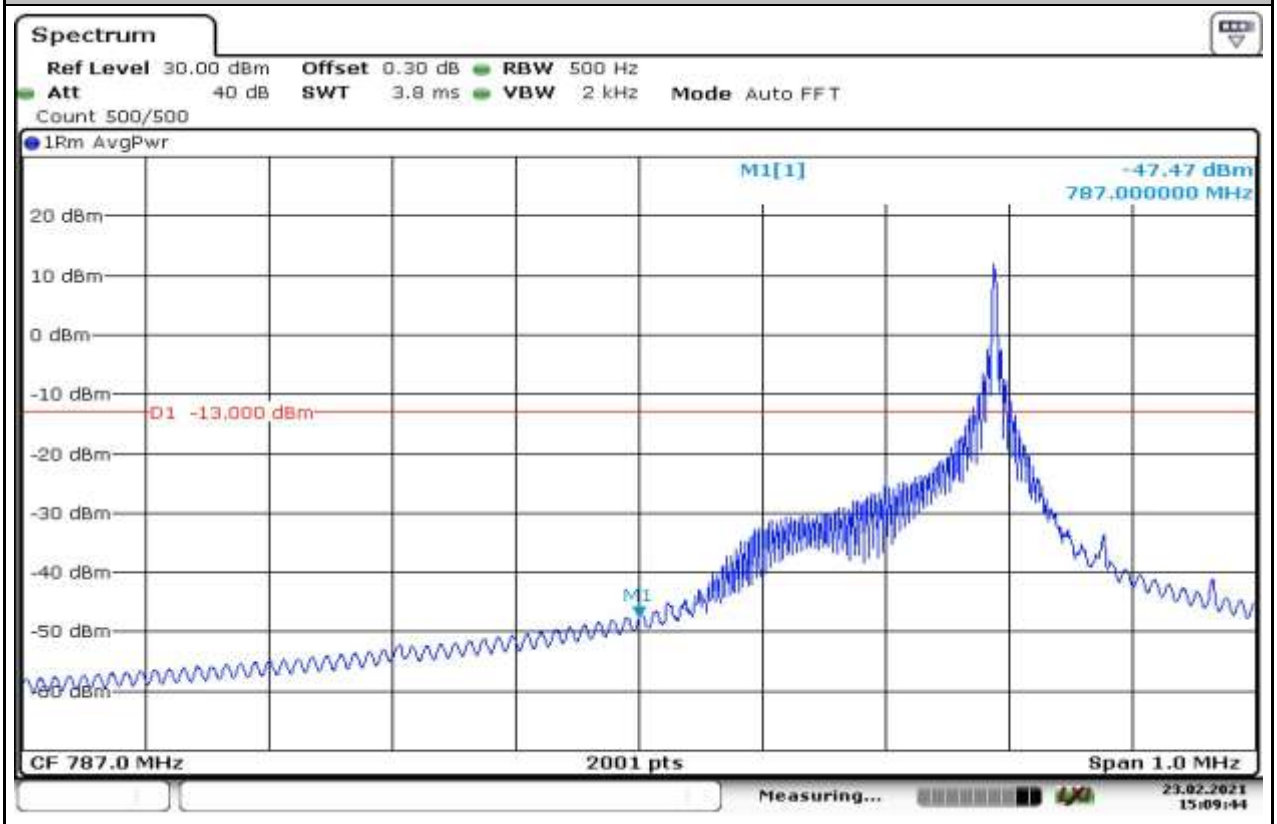
Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz



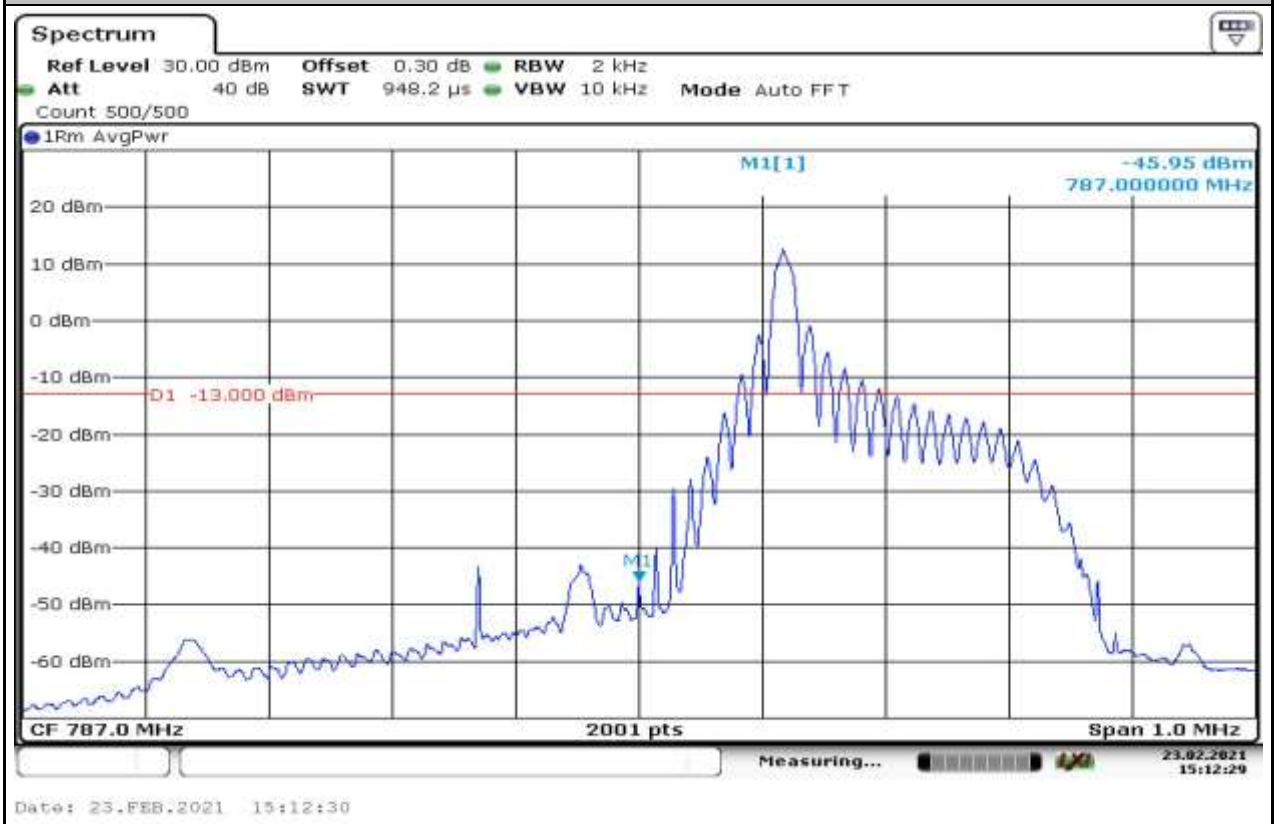
Stand-Alone	NaN	BPSK	134184	1@47	3.75kHz



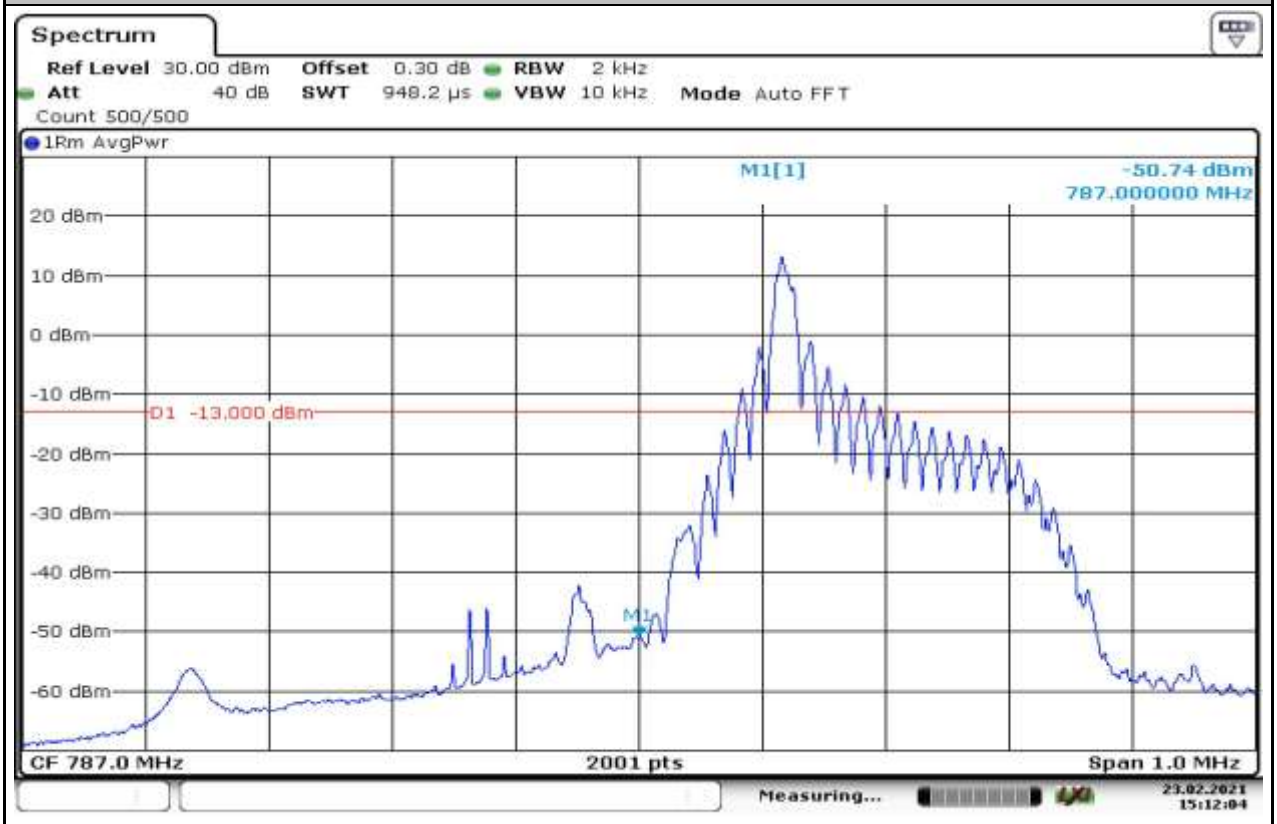
Stand-Alone	NaN	QPSK	134184	1@47	3.75kHz



Stand-Alone	NaN	BPSK	134184	1@0	15kHz

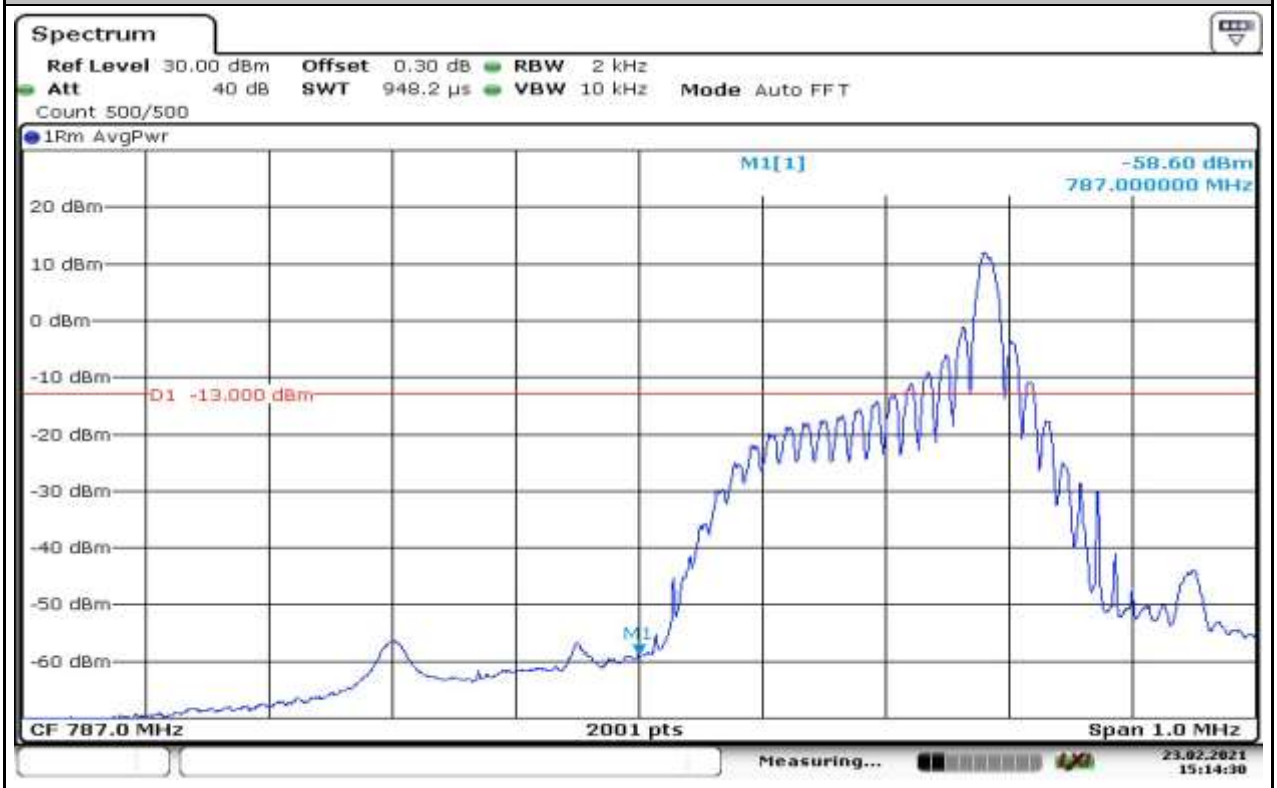


Stand-Alone	NaN	QPSK	134184	1@0	15kHz



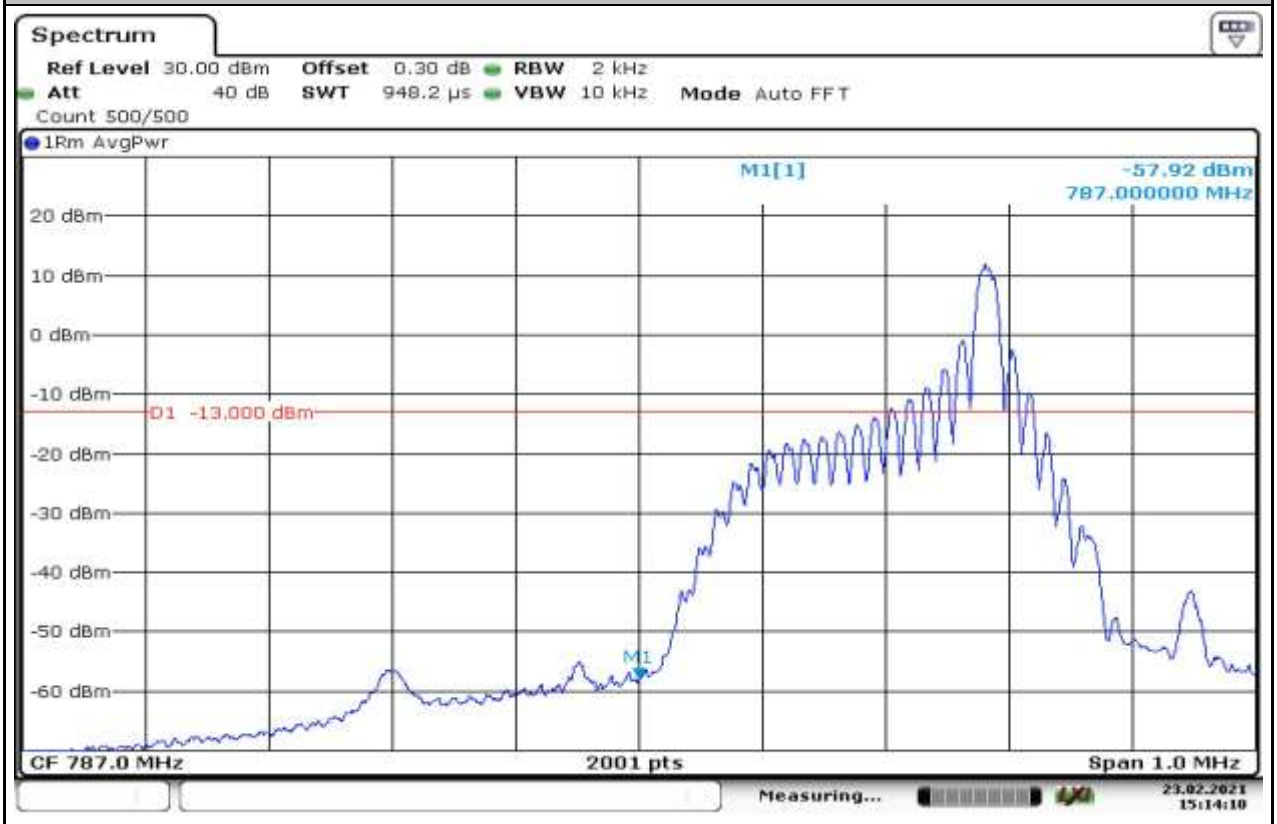
Date: 23.FEB.2021 15:12:04

Stand-Alone	NaN	BPSK	134184	1@11	15kHz



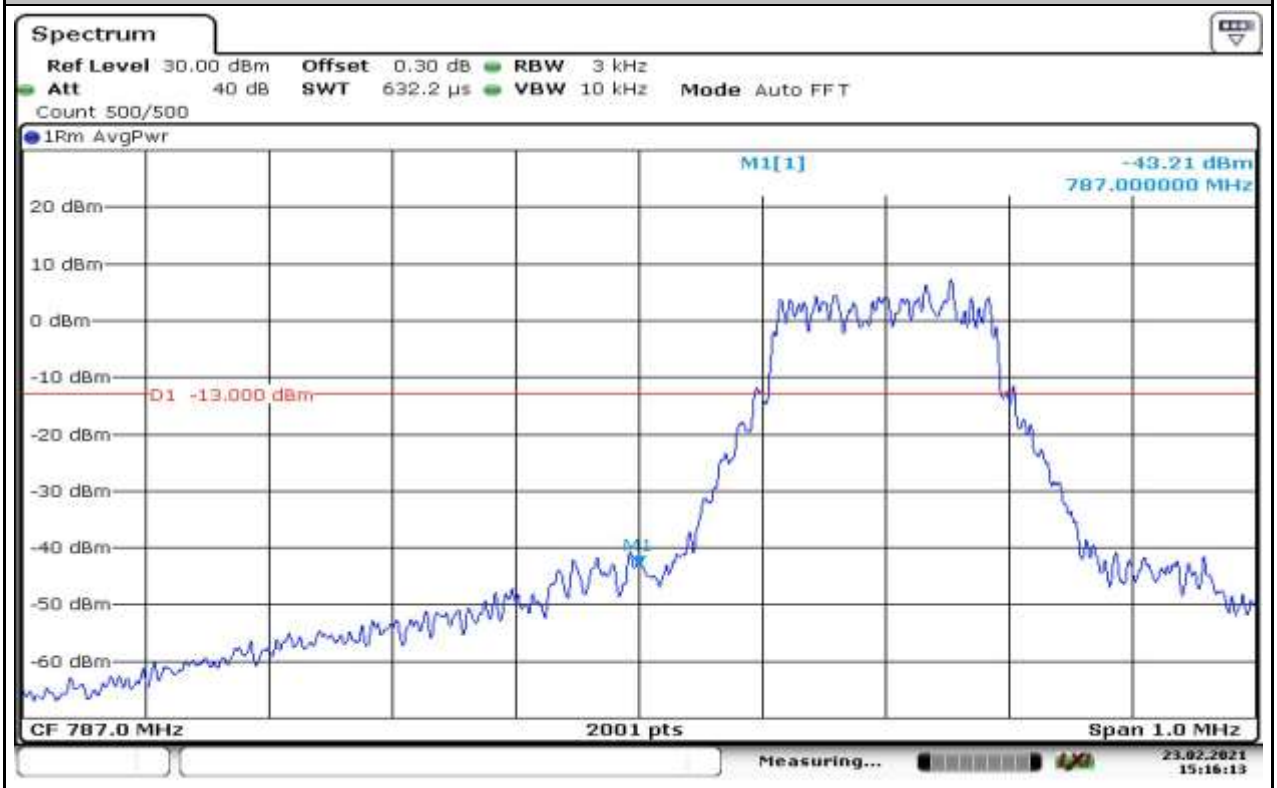
Date: 23.FEB.2021 15:14:31

Stand-Alone NaN QPSK 134184 1@11 15kHz



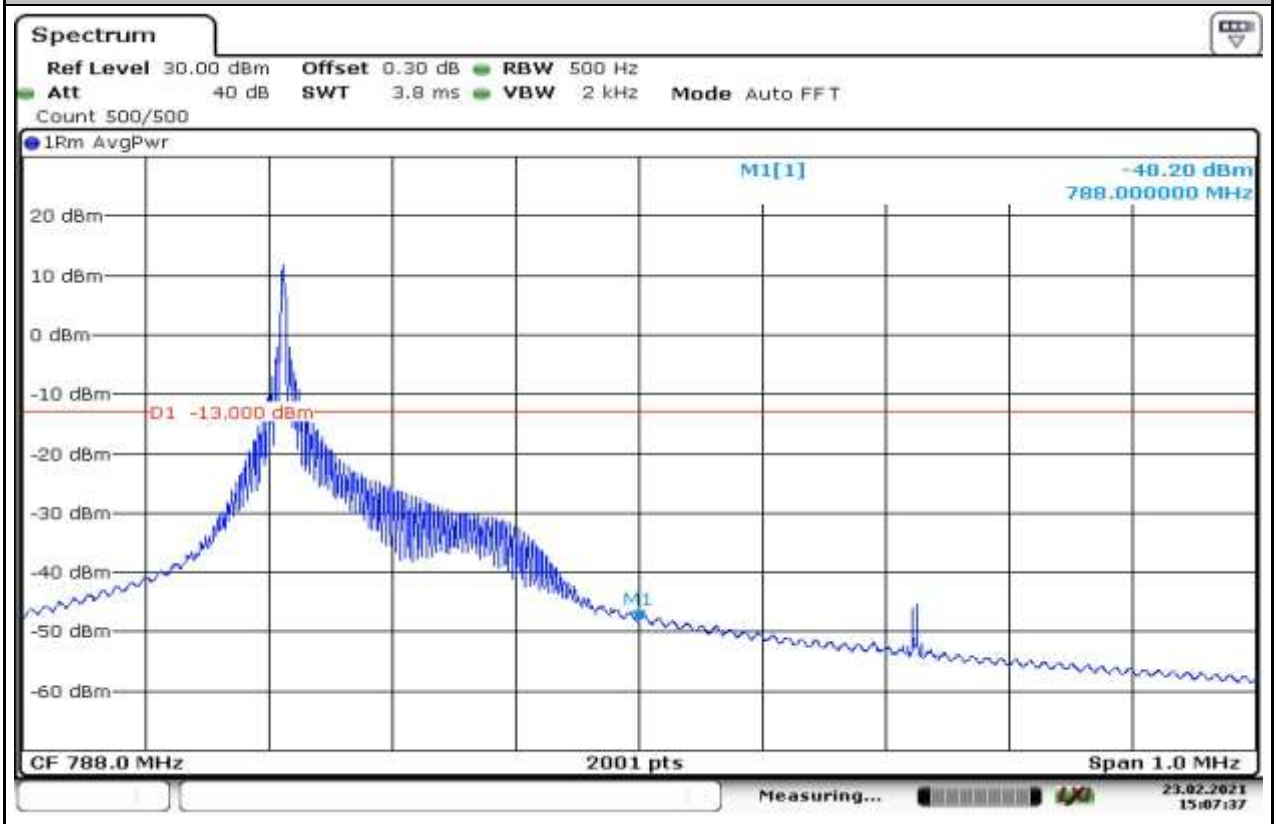
Date: 23.FEB.2021 15:14:11

Stand-Alone NaN QPSK 134184 12@0 15kHz



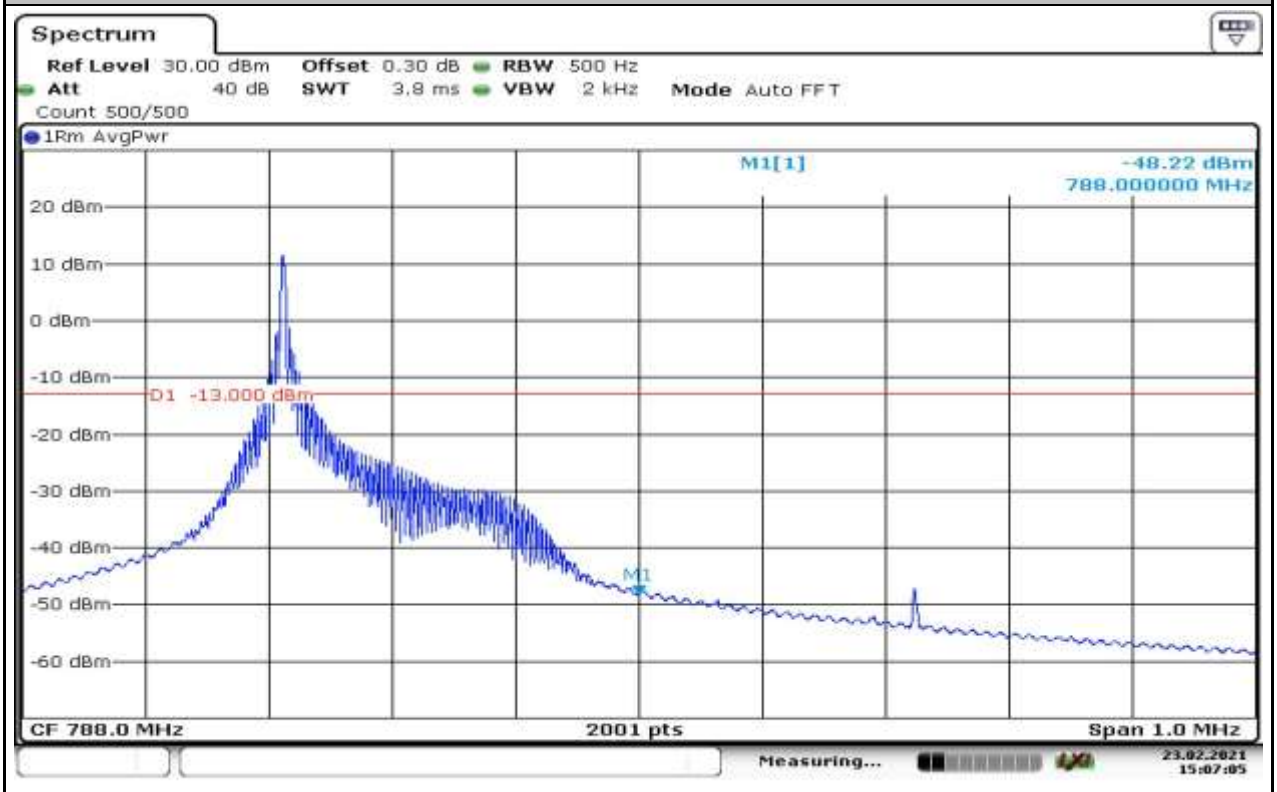
Date: 23.FEB.2021 15:16:14

Stand-Alone NaN BPSK 134190 1@0 3.75kHz



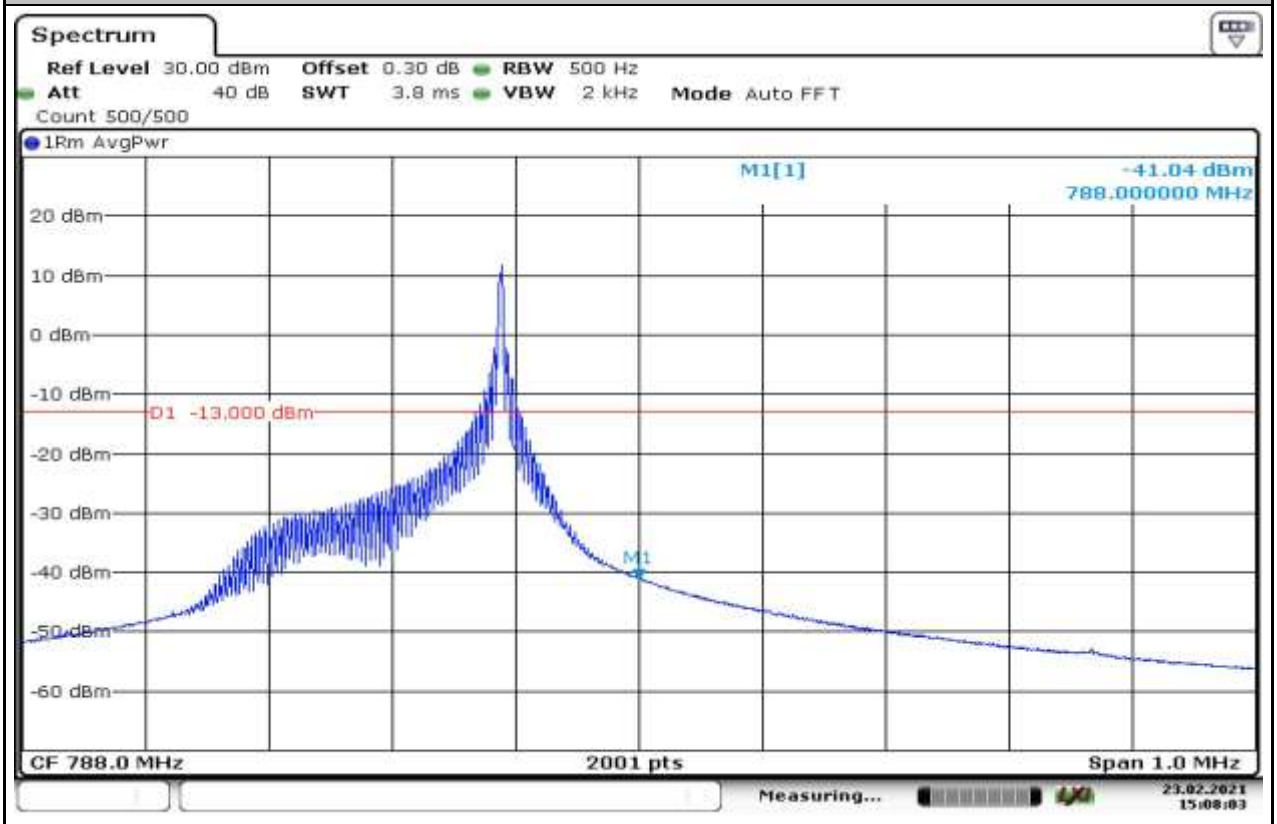
Date: 23.FEB.2021 15:07:37

Stand-Alone NaN QPSK 134190 1@0 3.75kHz



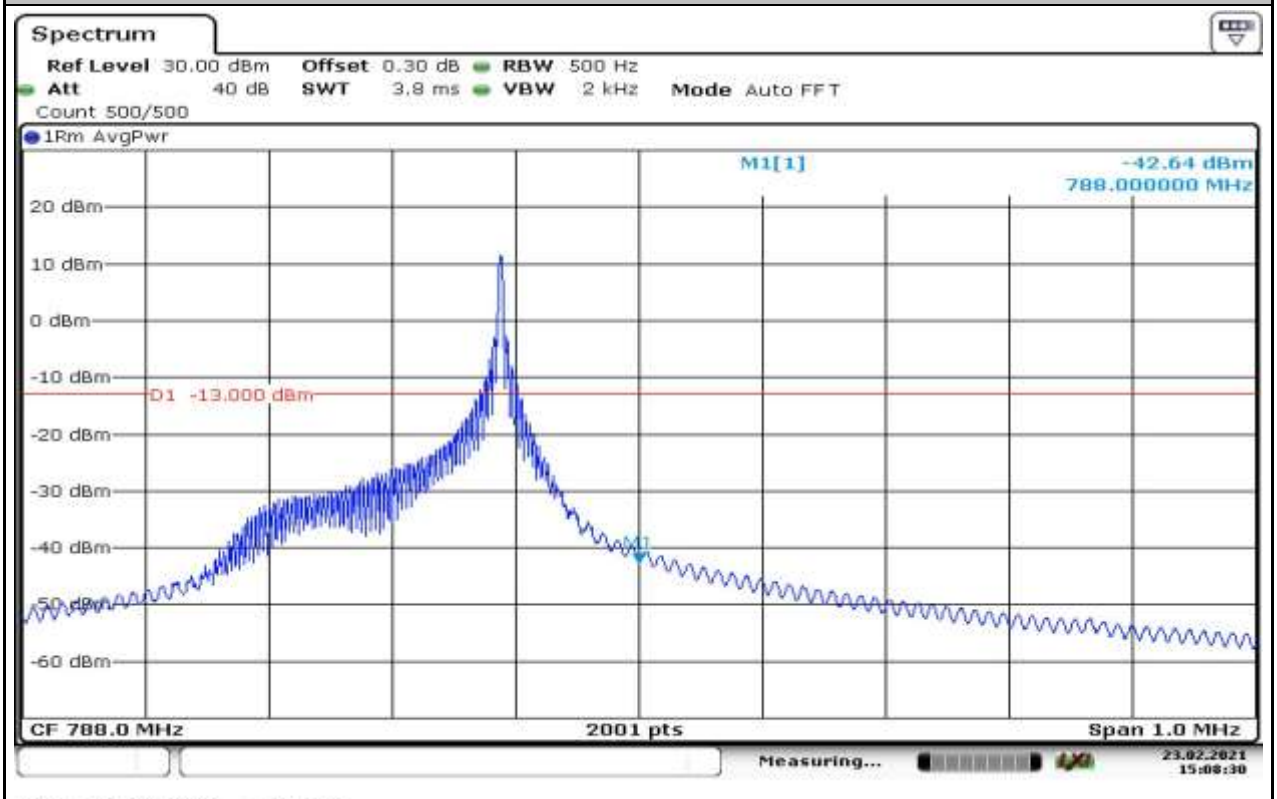
Date: 23.FEB.2021 15:07:06

Stand-Alone	NaN	BPSK	134190	1@47	3.75kHz



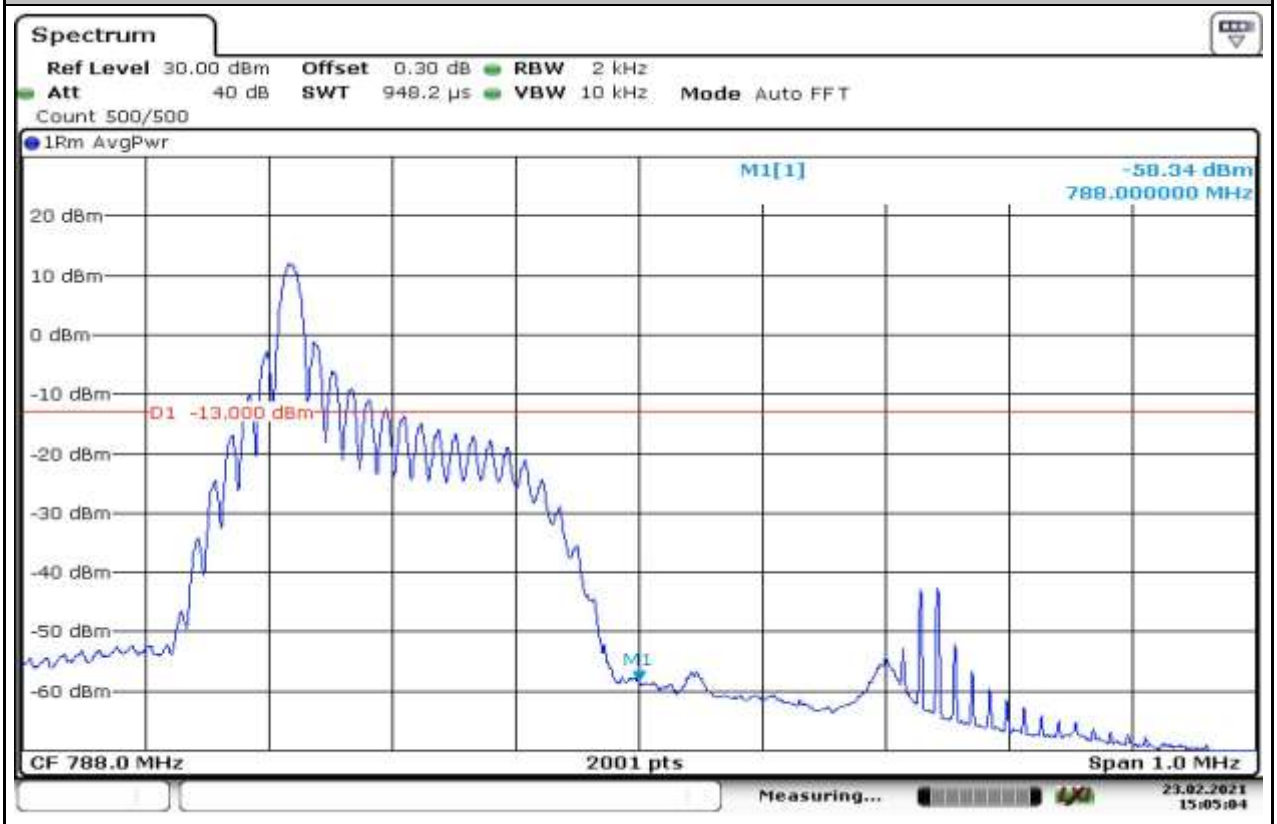
Date: 23.FEB.2021 15:08:04

Stand-Alone	NaN	QPSK	134190	1@47	3.75kHz



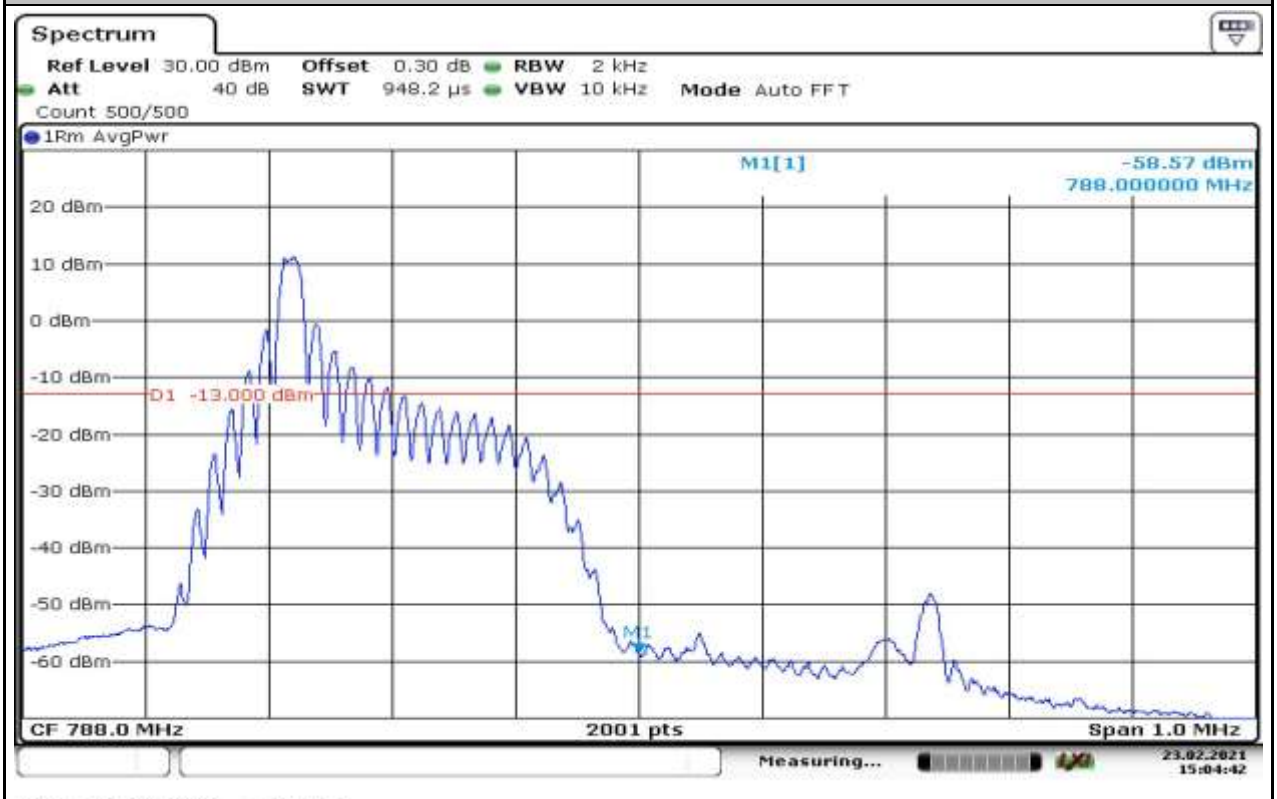
Date: 23.FEB.2021 15:08:31

Stand-Alone	NaN	BPSK	134190	1@0 15kHz



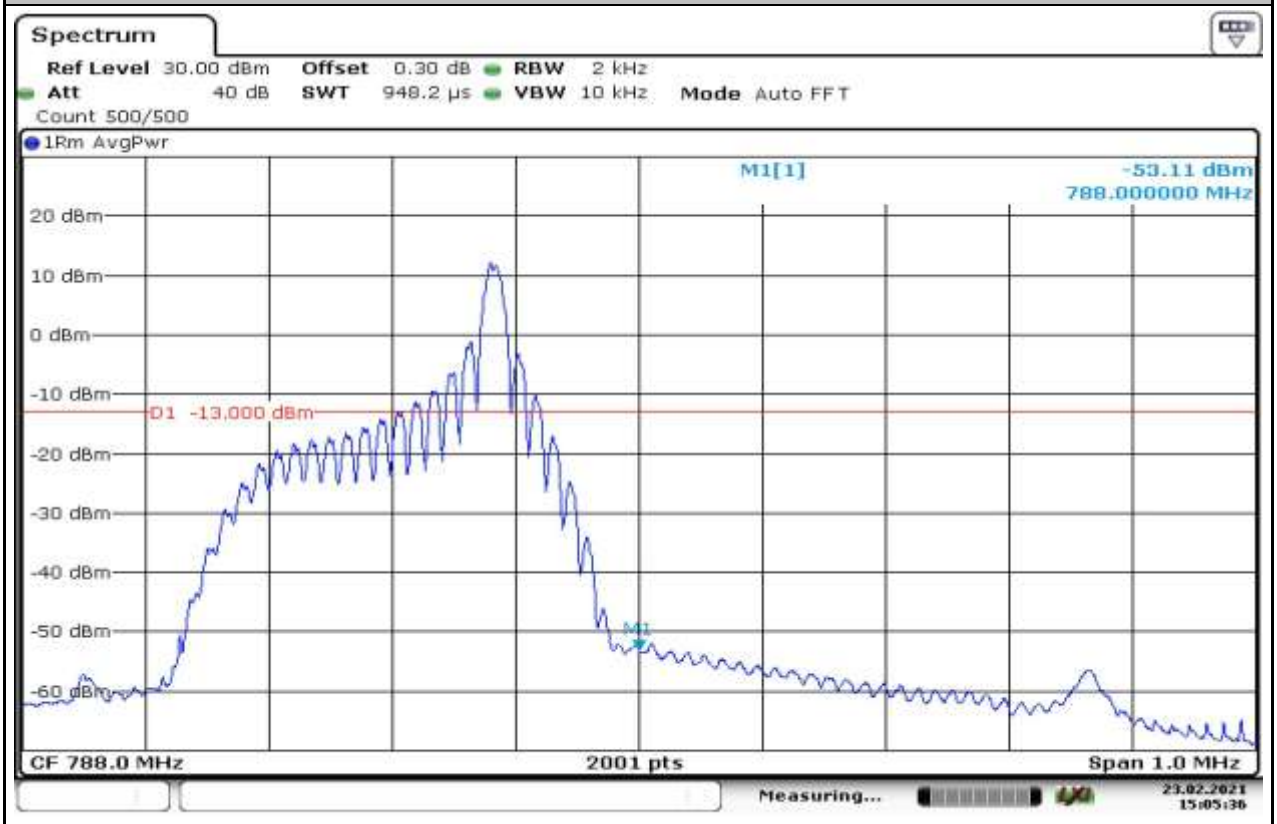
Date: 23.FEB.2021 15:05:05

Stand-Alone	NaN	QPSK	134190	1@0 15kHz



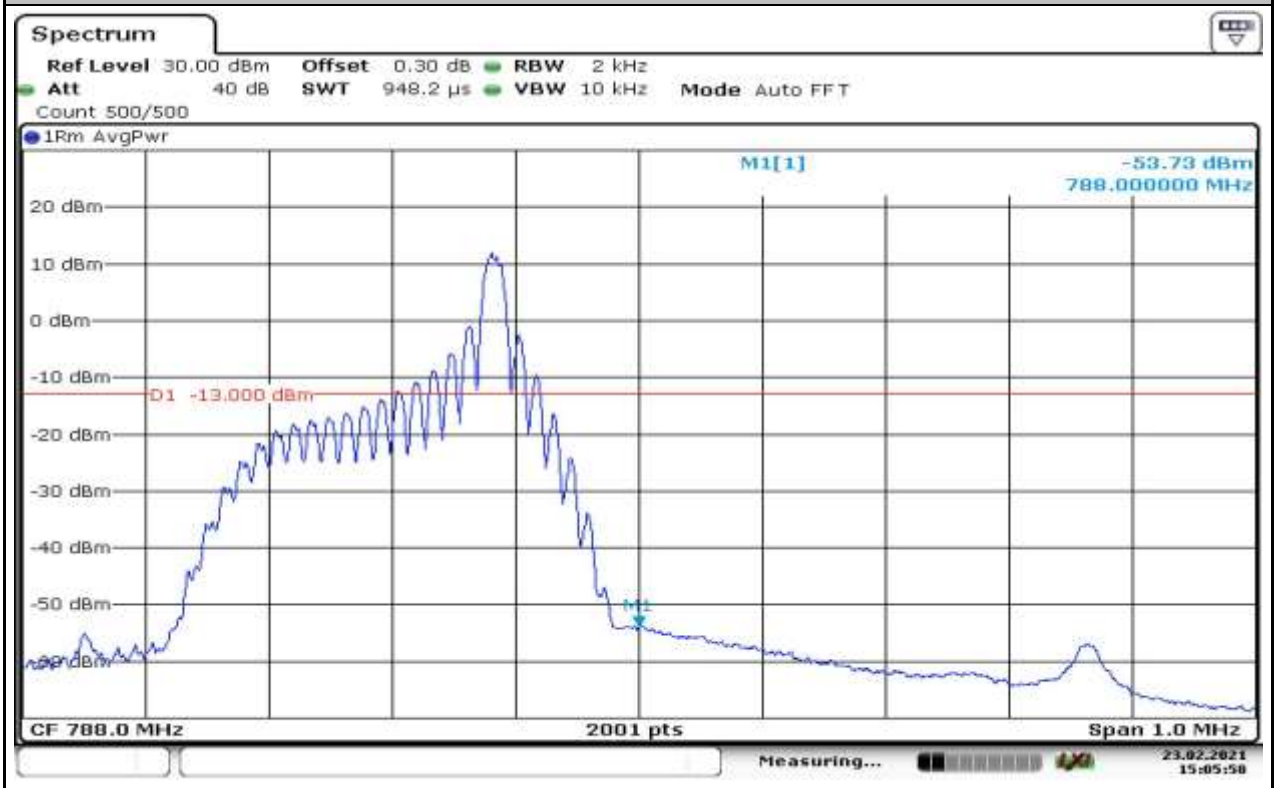
Date: 23.FEB.2021 15:04:43

Stand-Alone	NaN	BPSK	134190	1@11 15kHz



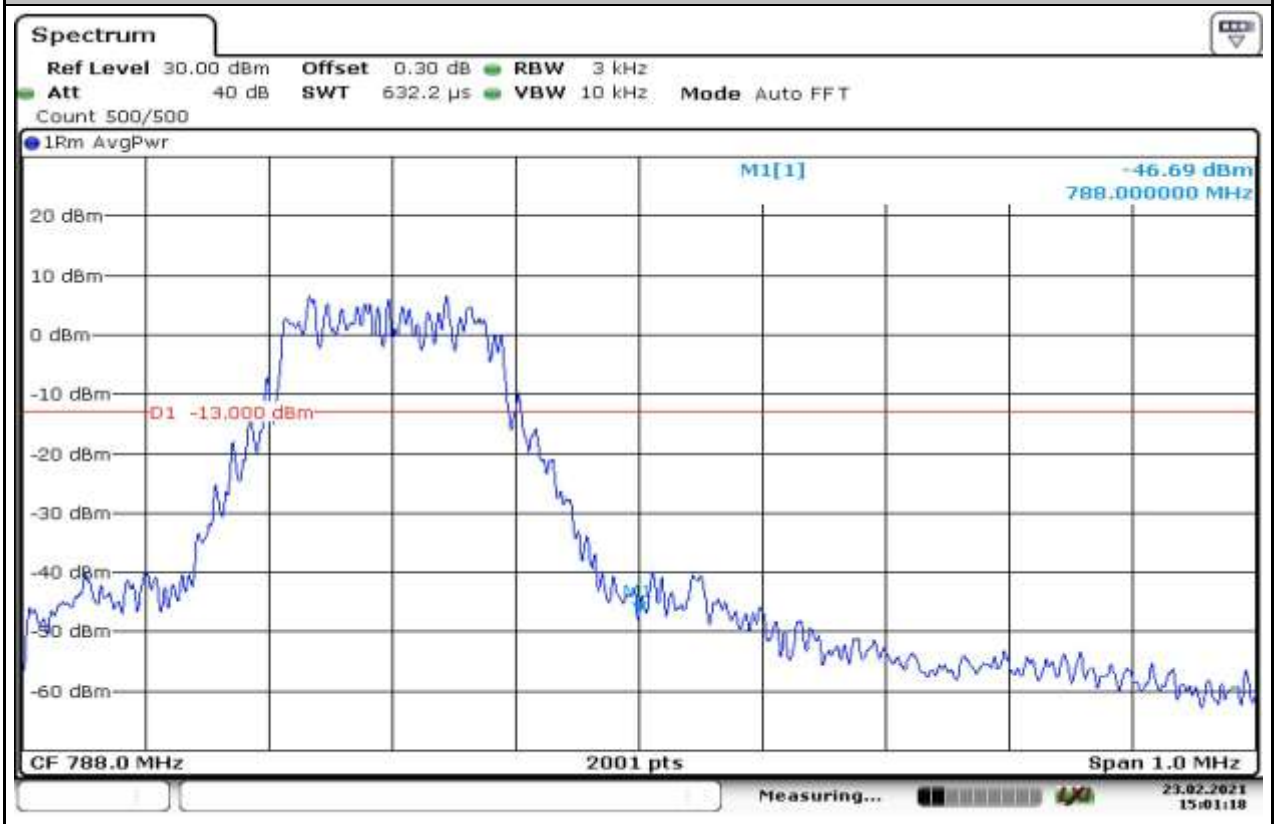
Date: 23.FEB.2021 15:05:37

Stand-Alone	NaN	QPSK	134190	1@11 15kHz

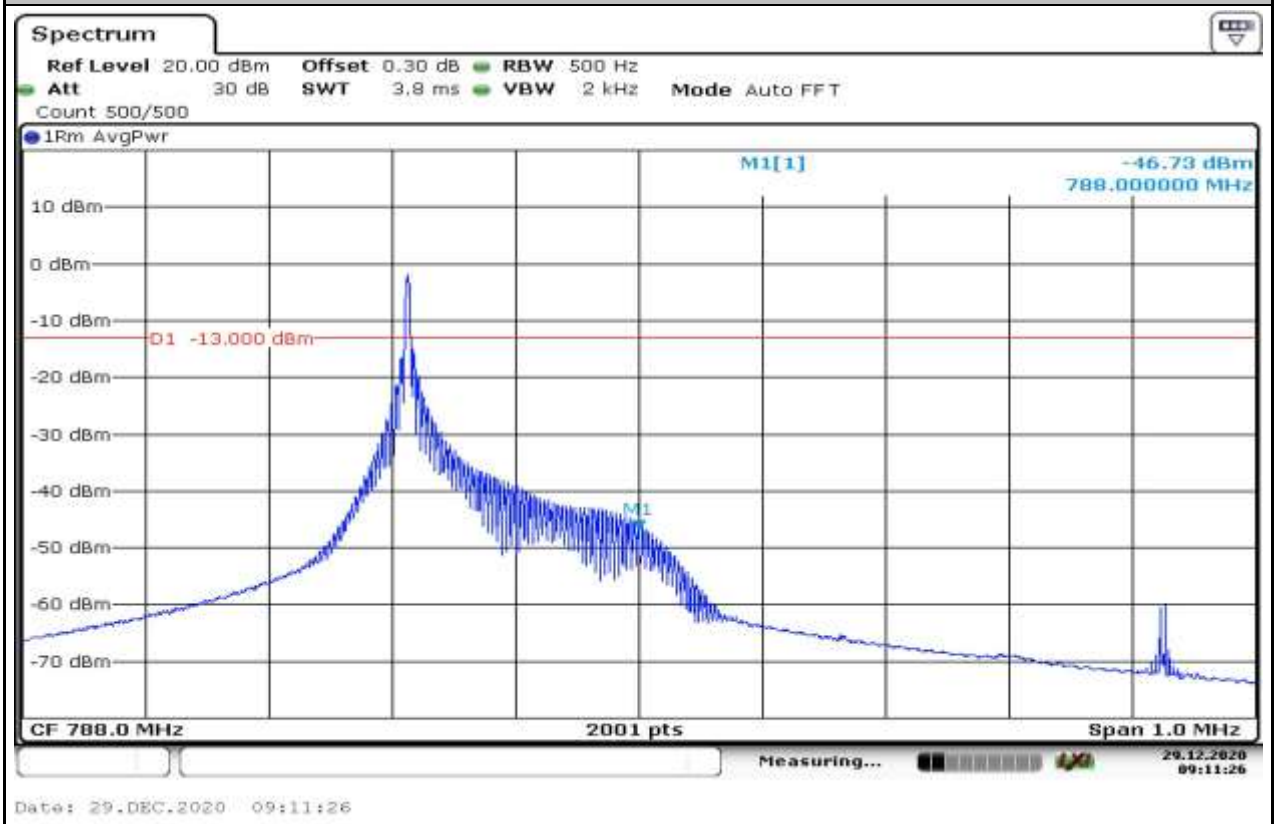


Date: 23.FEB.2021 15:05:58

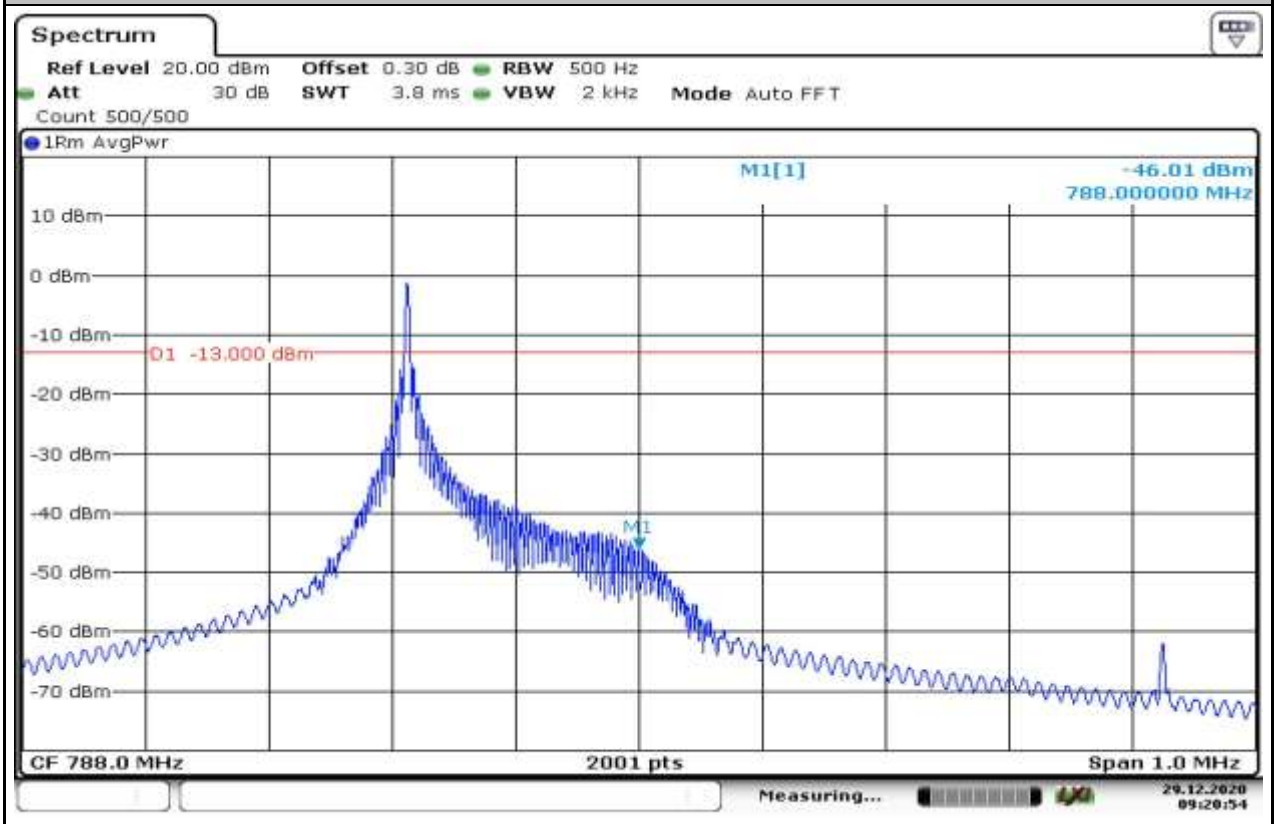
Stand-Alone	NaN	QPSK	134190	12@0	15kHz



Stand-Alone	NaN	BPSK	134191	1@0	3.75kHz

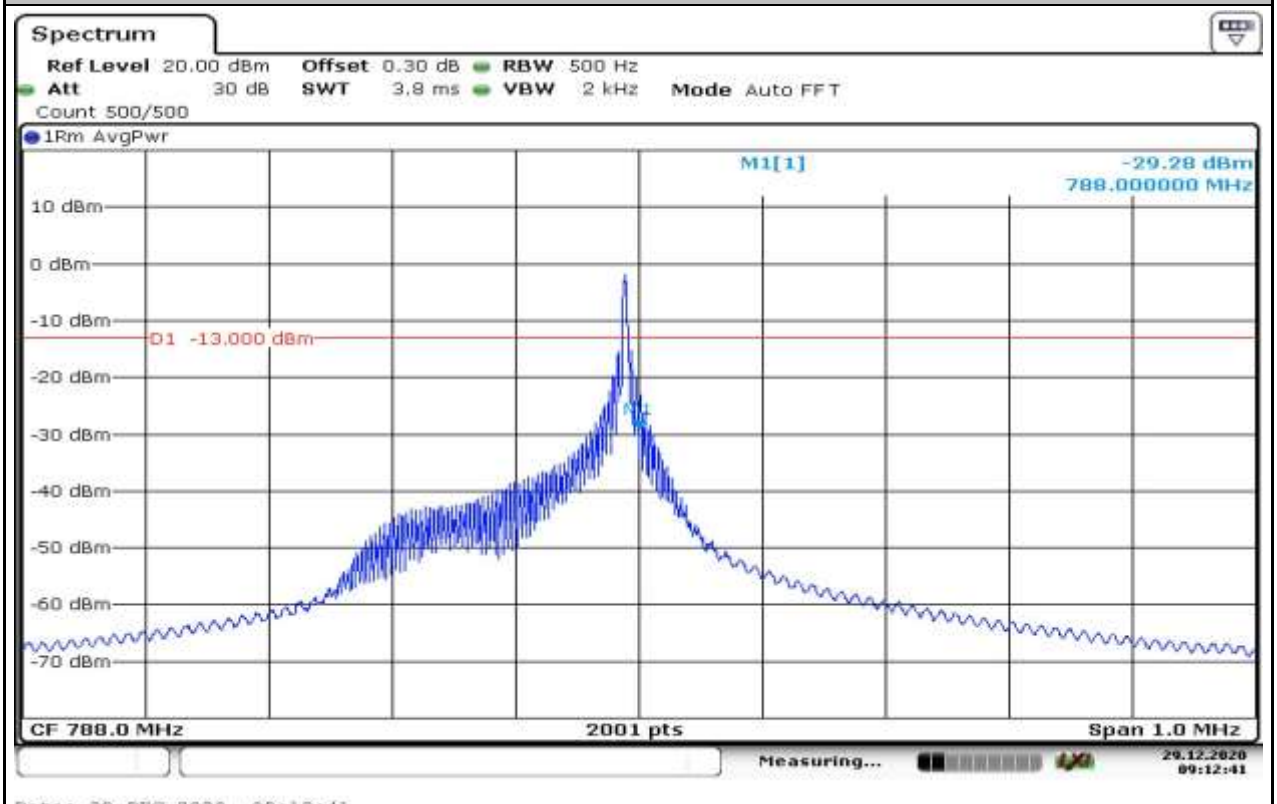


Stand-Alone	NaN	QPSK	134191	1@0	3.75kHz



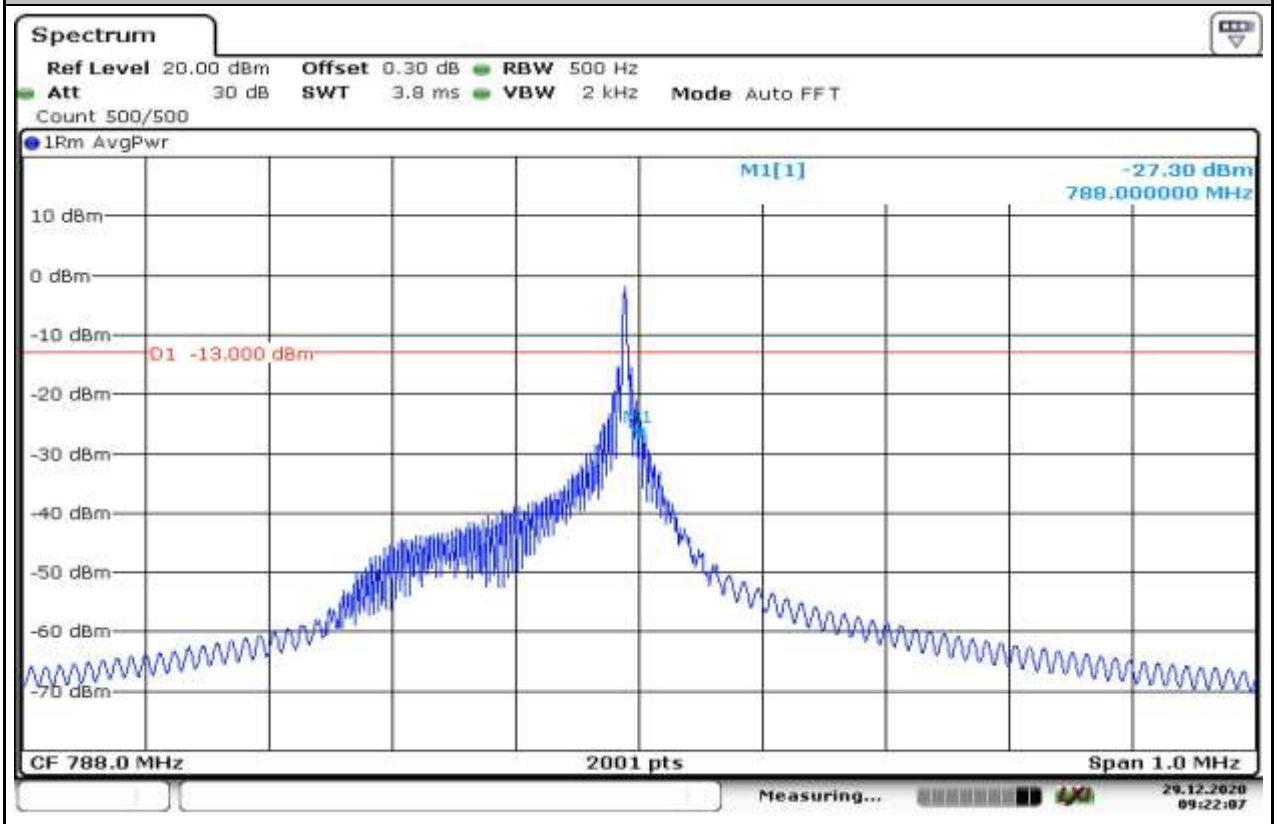
Date: 29.DEC.2020 09:20:54

Stand-Alone	NaN	BPSK	134191	1@47	3.75kHz



Date: 29.DEC.2020 09:12:41

Stand-Alone	NaN	QPSK	134191	1@47	3.75kHz

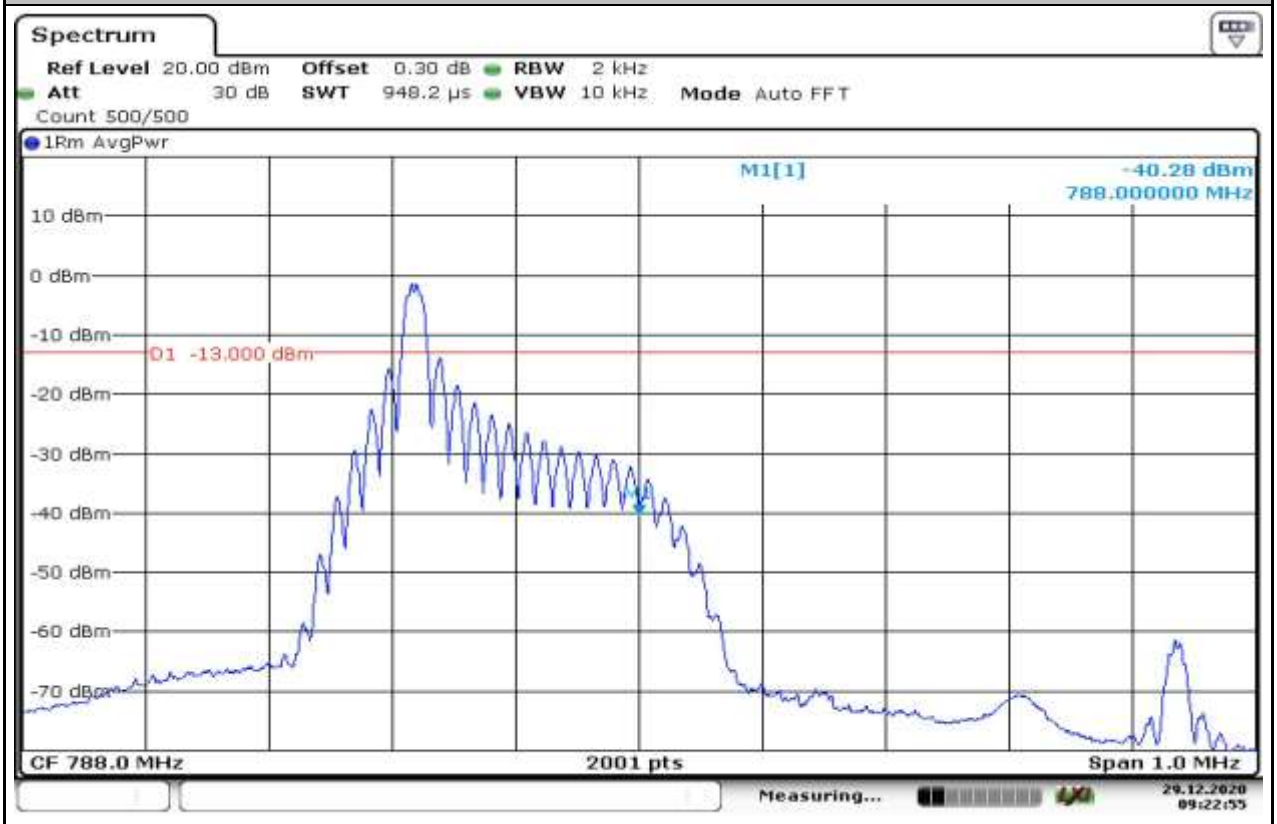


Date: 29.DEC.2020 09:22:07

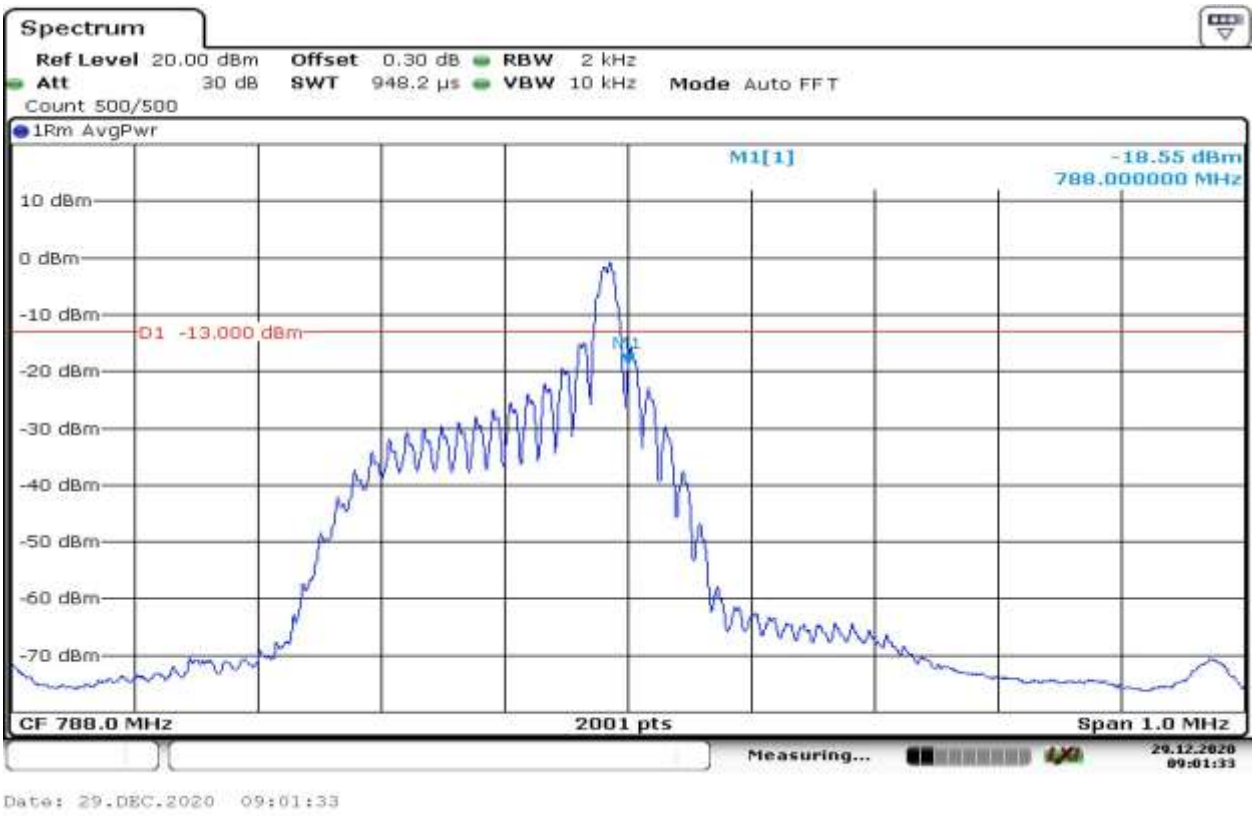
Stand-Alone	NaN	BPSK	134191	1@0	15kHz

Date: 29.DEC.2020 09:00:43

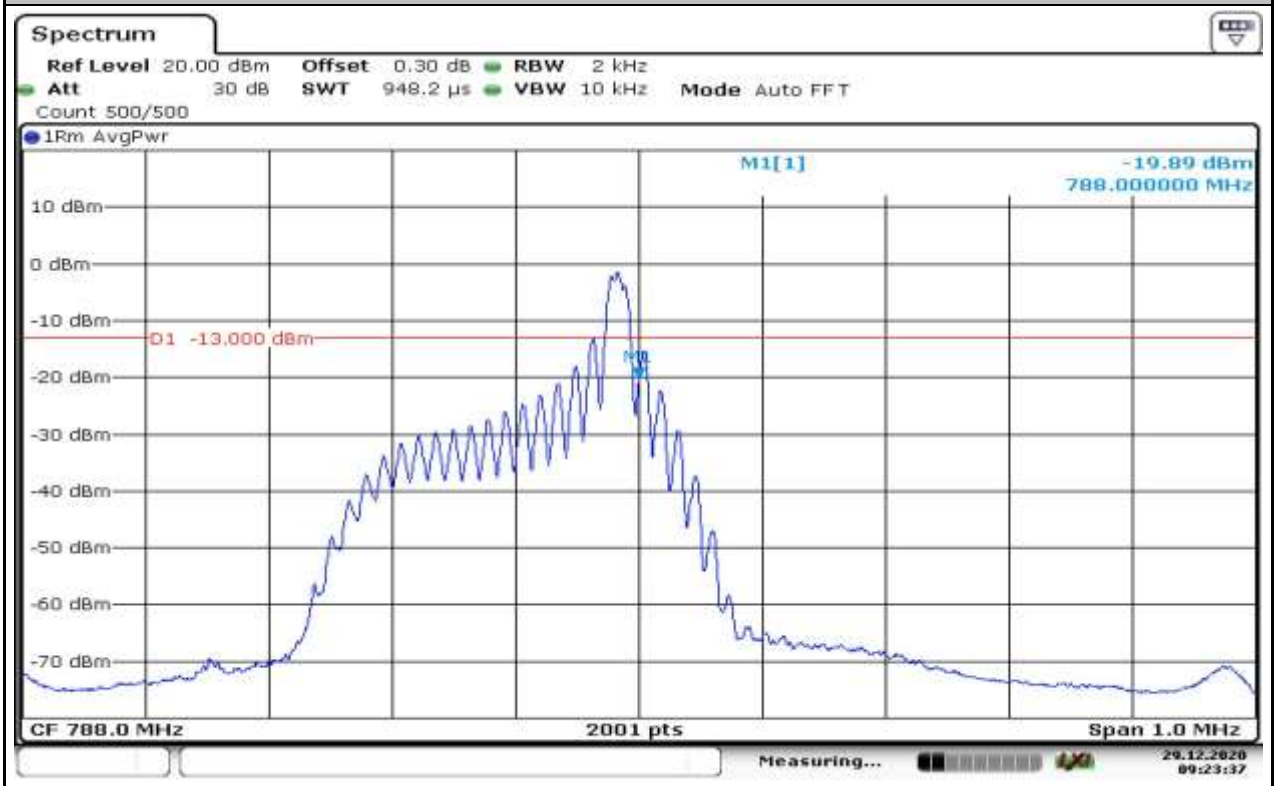
Stand-Alone	NaN	QPSK	134191	1@0 15kHz



Stand-Alone	NaN	BPSK	134191	1@11 15kHz

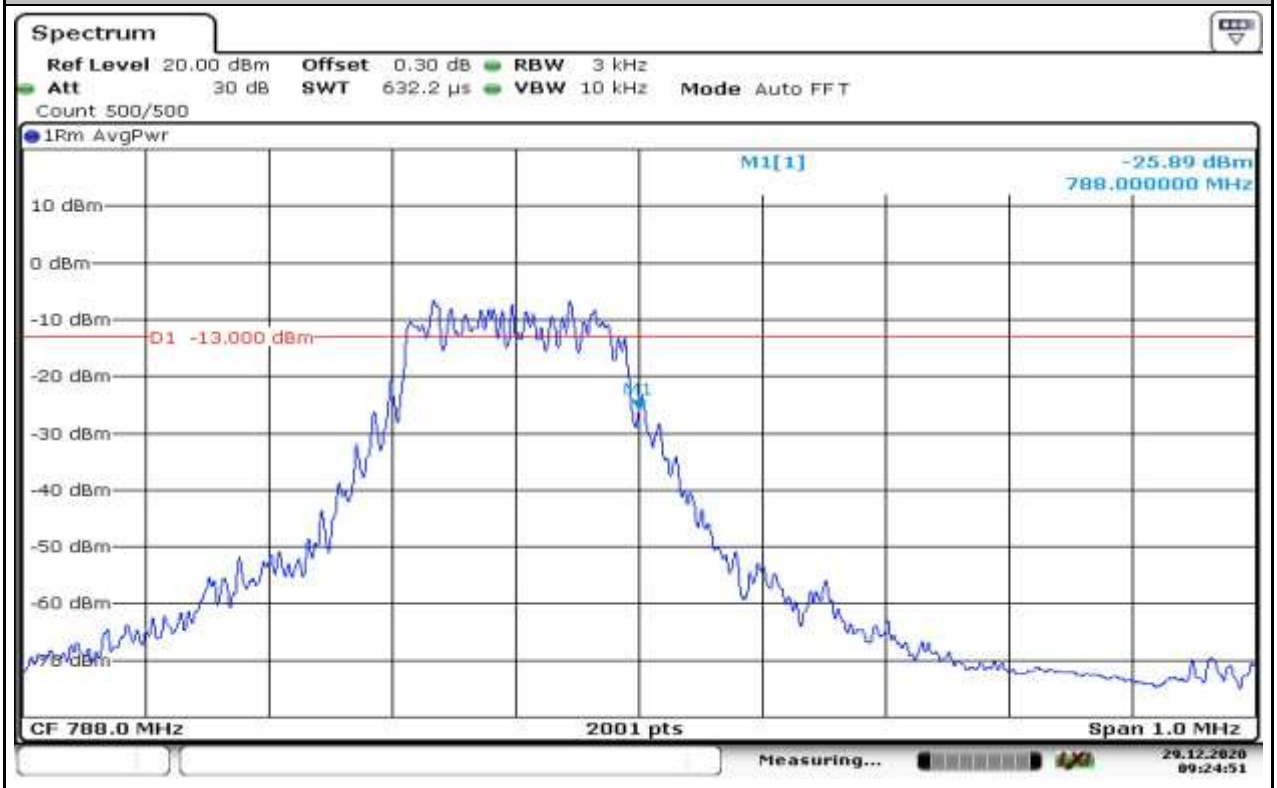


Stand-Alone	NaN	QPSK	134191	1@11 15kHz



Date: 29.DEC.2020 09:23:37

Stand-Alone	NaN	QPSK	134191	12@0	15kHz



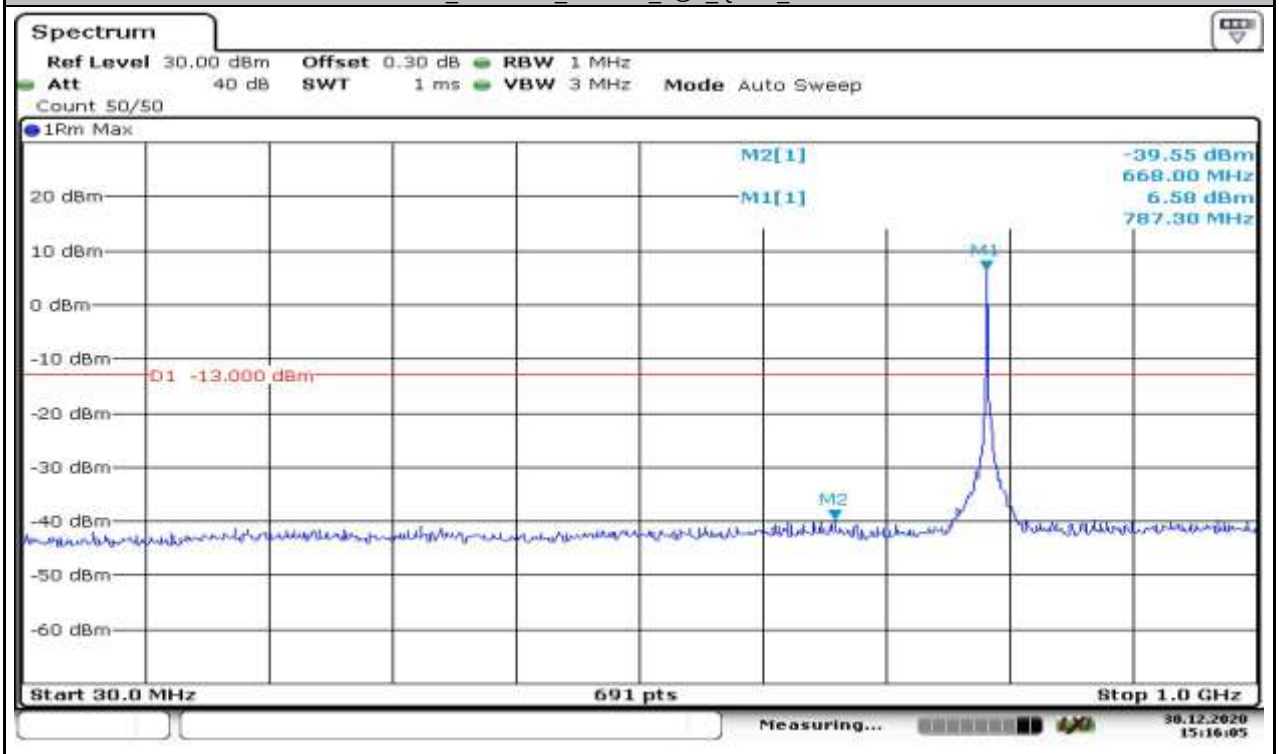
Date: 29.DEC.2020 09:24:51

Appendix A.5: Conducted Spurious Emission for NB
Test Result

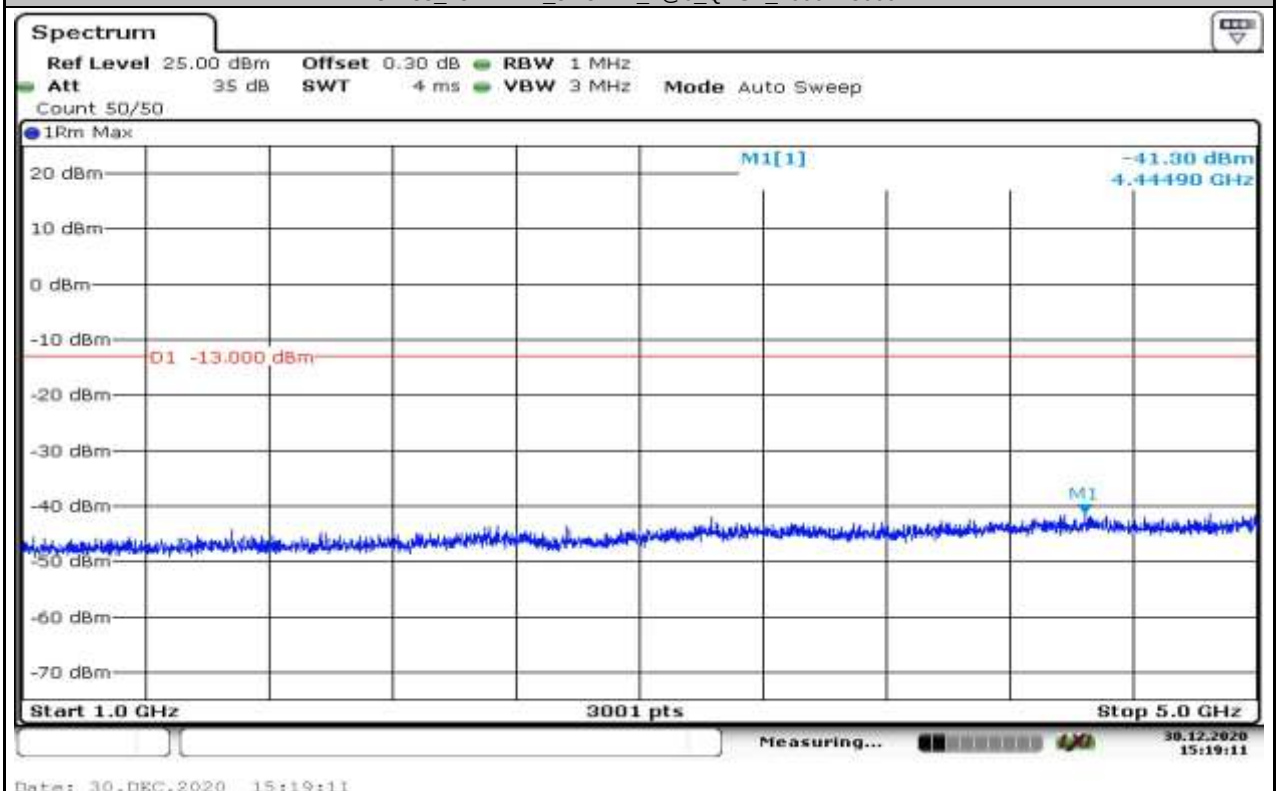
Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	StartFreq (MHz)	StopFreq (MHz)	Result (dBm)	Limit (dBm)	Verdict
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	3.75kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	3.75kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	3.75kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	1@0	3.75kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	15kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	15kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	15kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134183	1@0	15kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	12@0	15kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	12@0	15kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	12@0	15kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134183	12@0	15kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134184	1@0	15kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134184	1@0	15kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134184	1@0	15kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134184	1@0	15kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	12@0	15kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	12@0	15kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	12@0	15kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	12@0	15kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134190	1@0	15kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134190	1@0	15kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134190	1@0	15kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134190	1@0	15kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	12@0	15kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	12@0	15kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	12@0	15kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	12@0	15kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	3.75kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	3.75kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	3.75kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	1@0	3.75kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	15kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	15kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	15kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	BPSK	134191	1@0	15kHz	12000	26500		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	12@0	15kHz	30	1000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	12@0	15kHz	1000	5000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	12@0	15kHz	5000	12000		-13	PASS
787-788M	Stand-Alone	NaN	QPSK	134191	12@0	15kHz	12000	26500		-13	PASS

Test Graphs

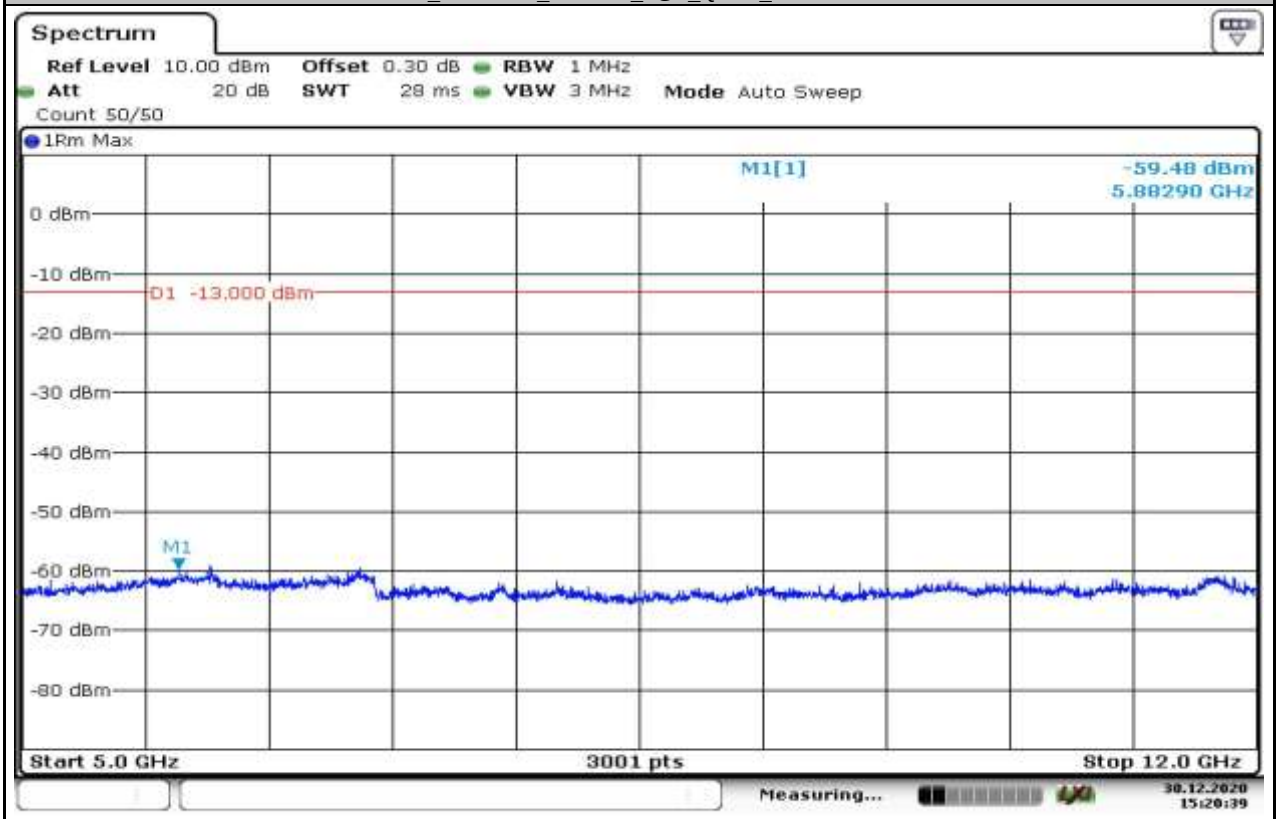
134183_787.1MHz_3.75KHz_1@0_QPSK_30M-1000M



134183_787.1MHz_3.75KHz_1@0_QPSK_1000M-5000M

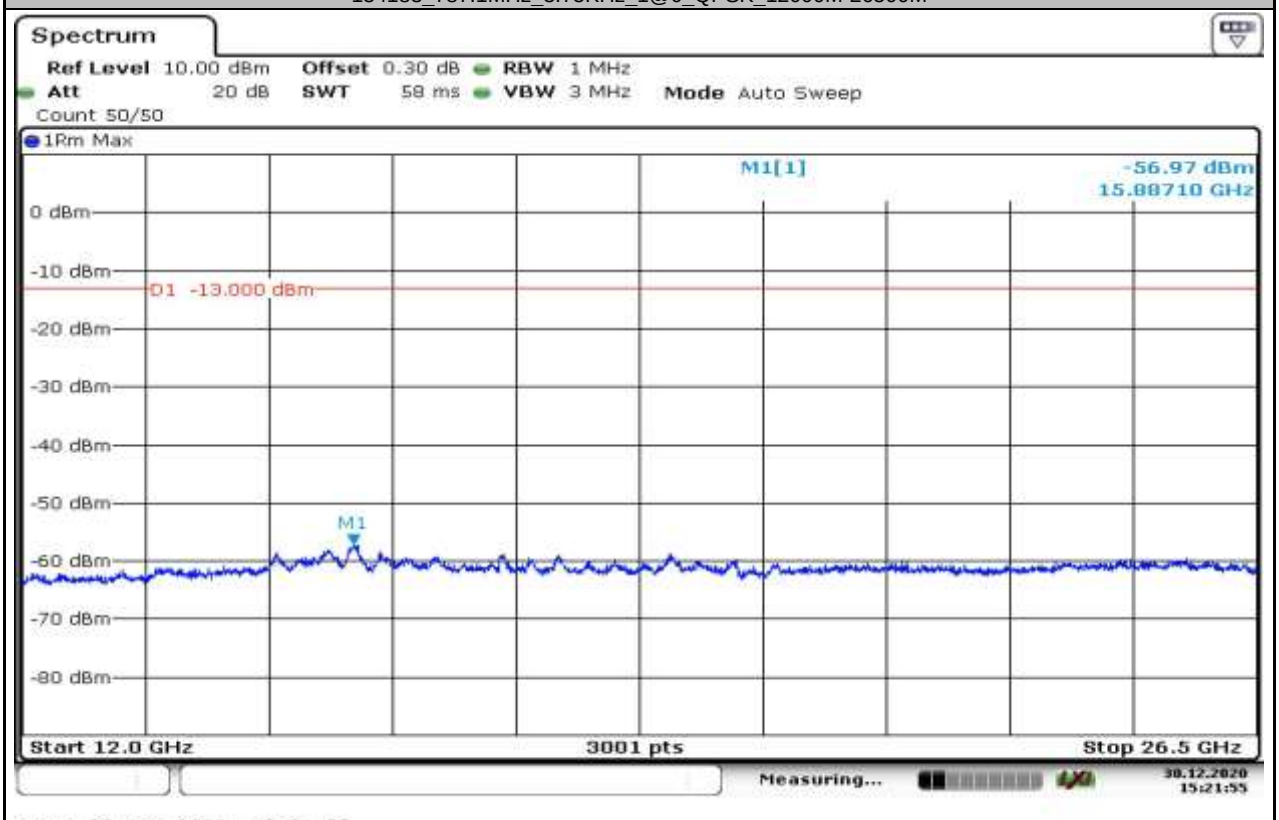


134183_787.1MHz_3.75KHz_1@0_QPSK_5000M-12000M



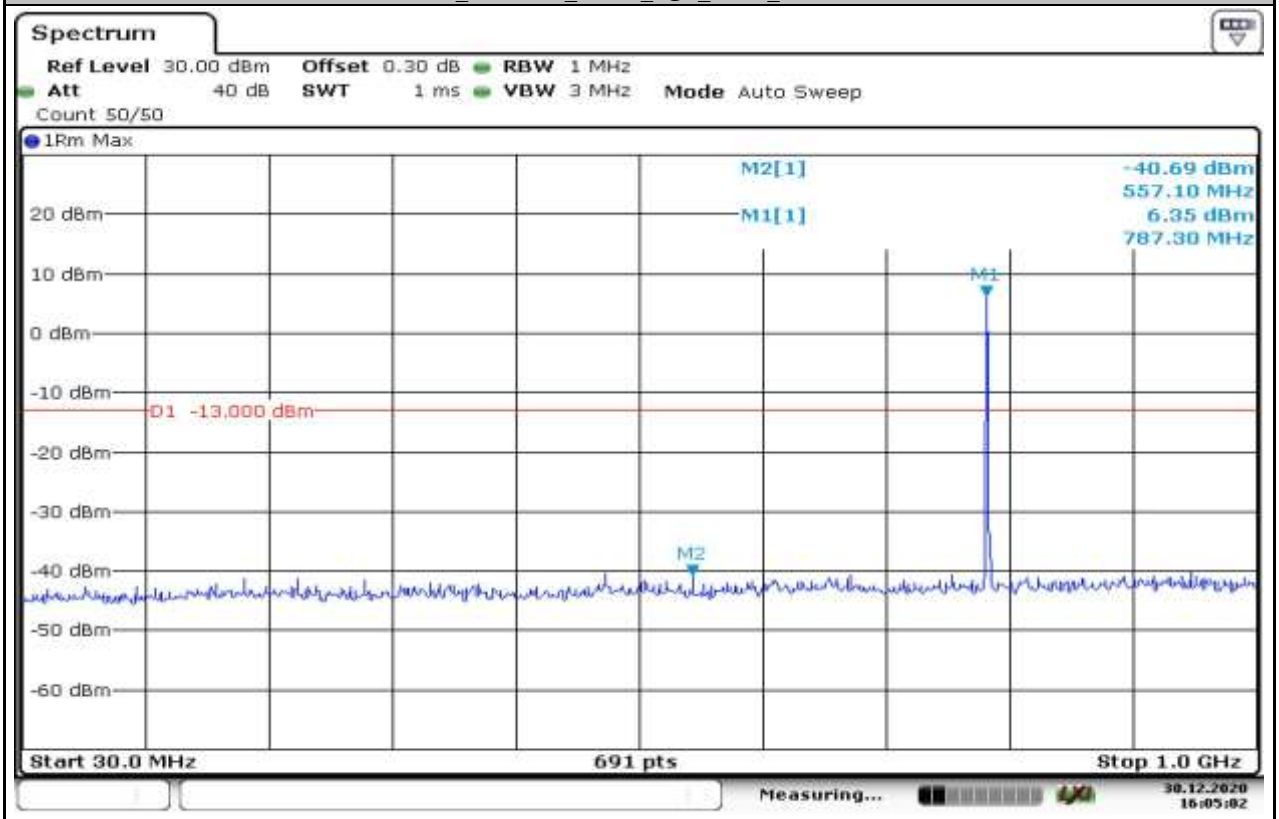
Date: 30.DEC.2020 15:20:39

134183_787.1MHz_3.75KHz_1@0_QPSK_12000M-26500M



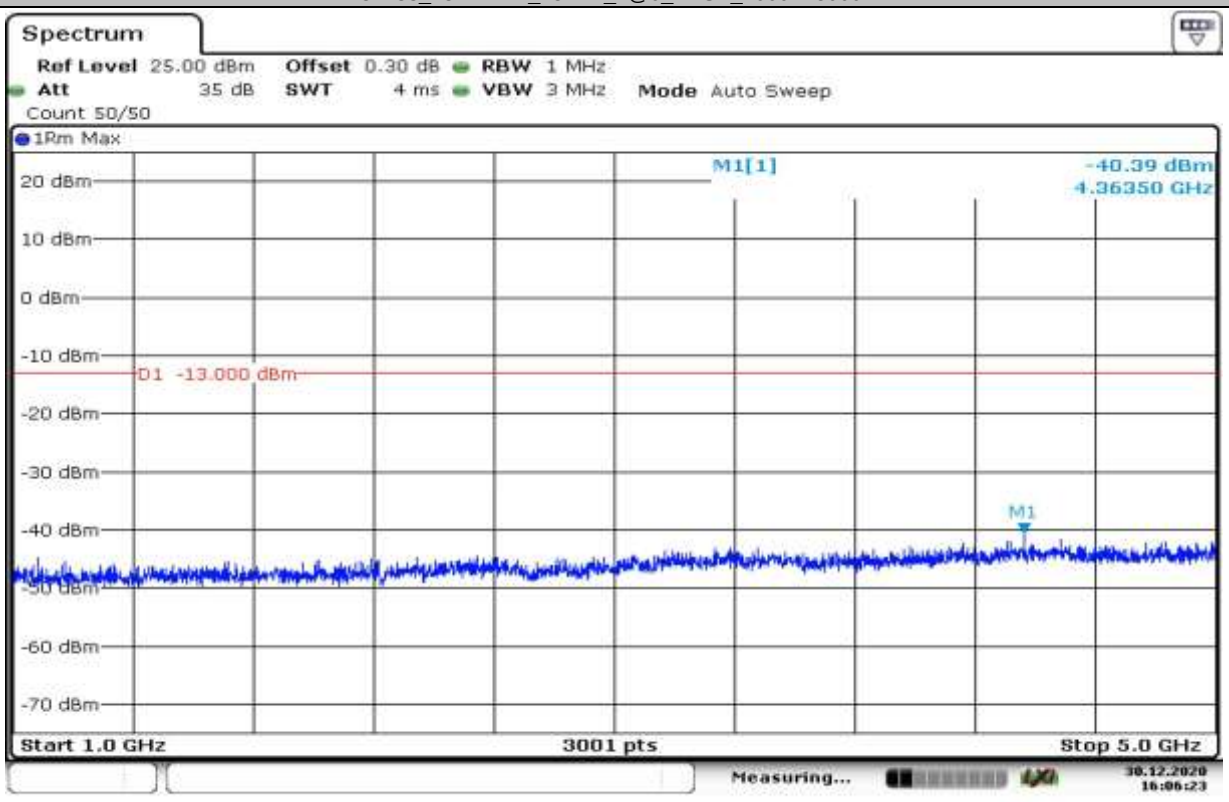
Date: 30.DEC.2020 15:21:55

134183_787.1MHz_15KHz_1@0_BPSK_30M-1000M



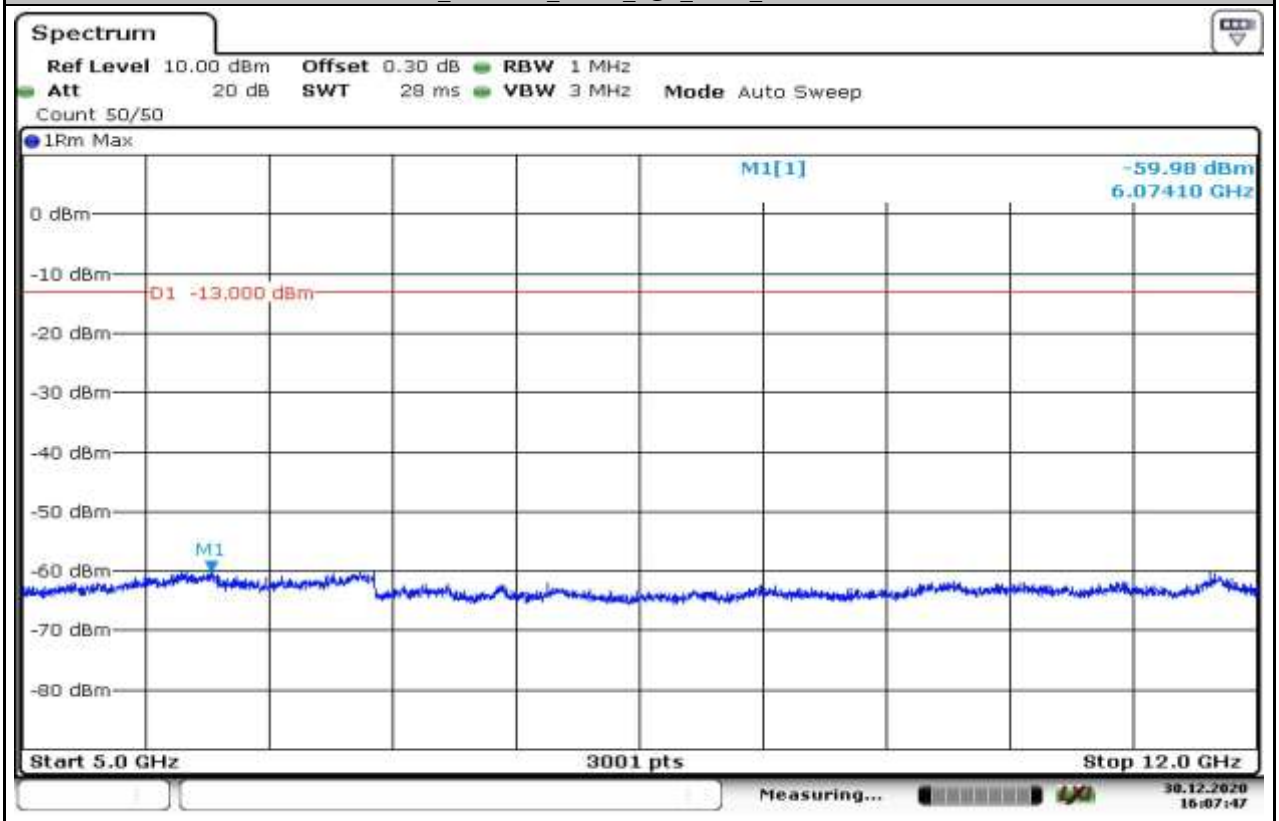
Date: 30.DEC.2020 16:05:03

134183_787.1MHz_15KHz_1@0_BPSK_1000M-5000M



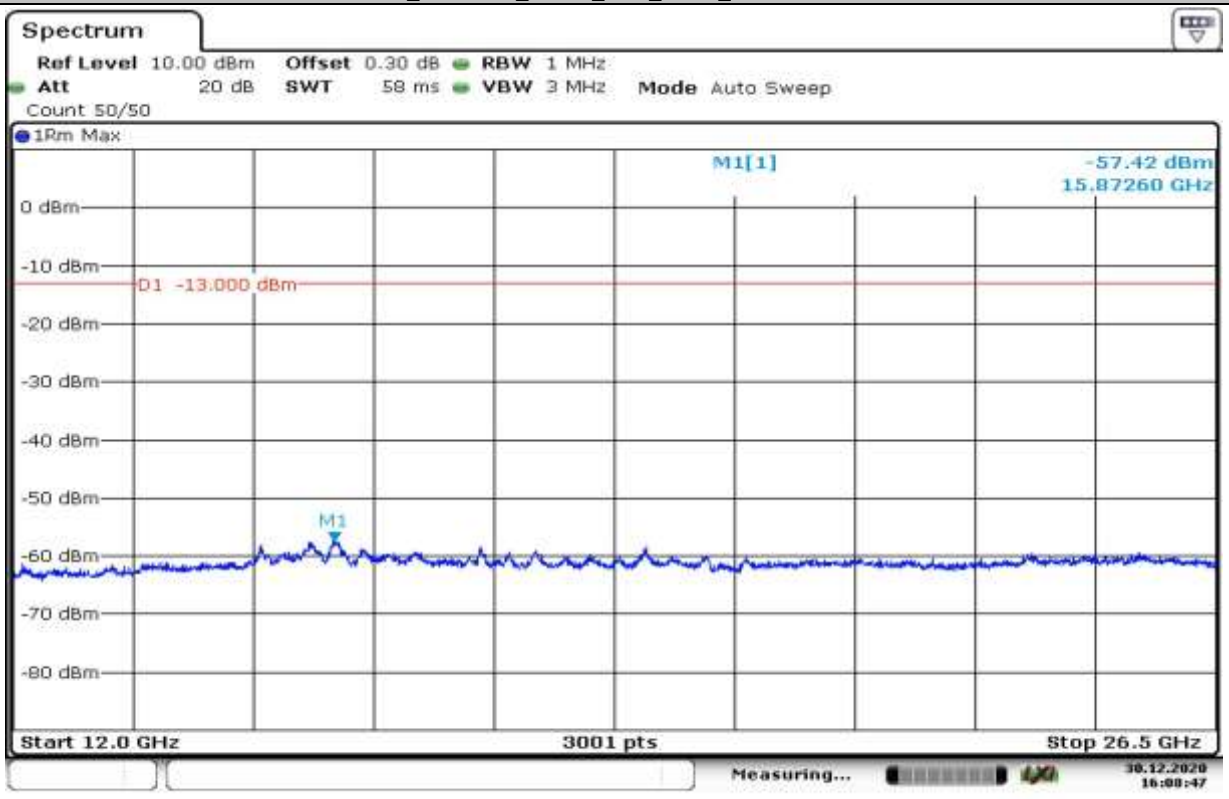
Date: 30.DEC.2020 16:06:23

134183_787.1MHz_15KHz_1@0_BPSK_5000M-12000M



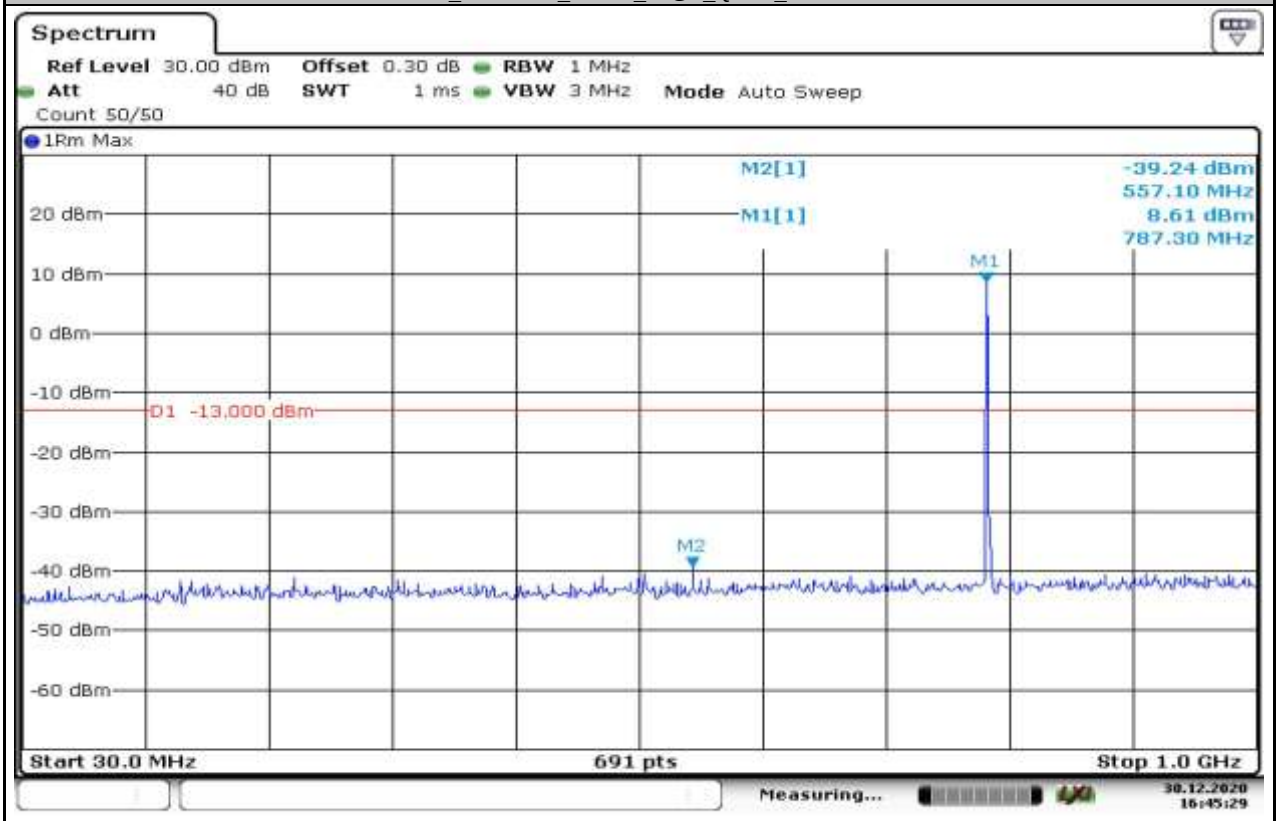
Date: 30.DEC.2020 16:07:48

134183_787.1MHz_15KHz_1@0_BPSK_12000M-26500M



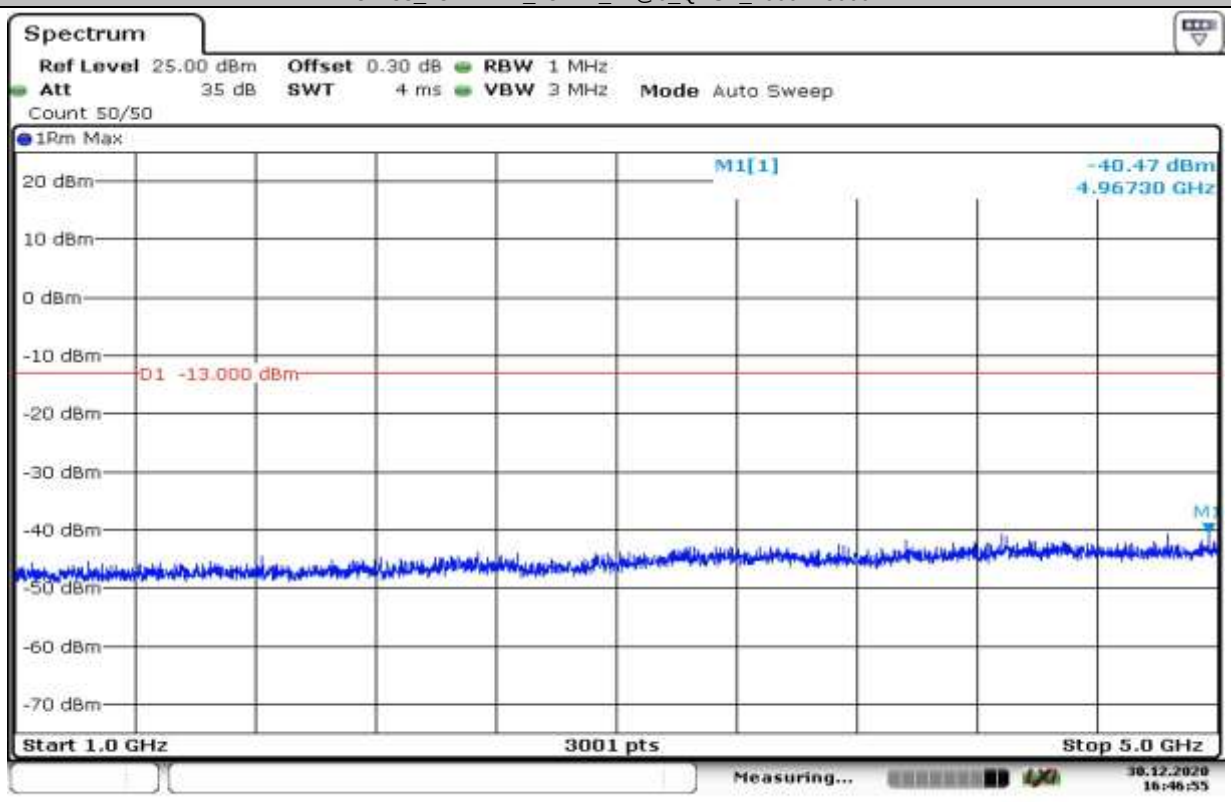
Date: 30.DEC.2020 16:08:47

134183_787.1MHz_15KHz_12@0_QPSK_30M-1000M



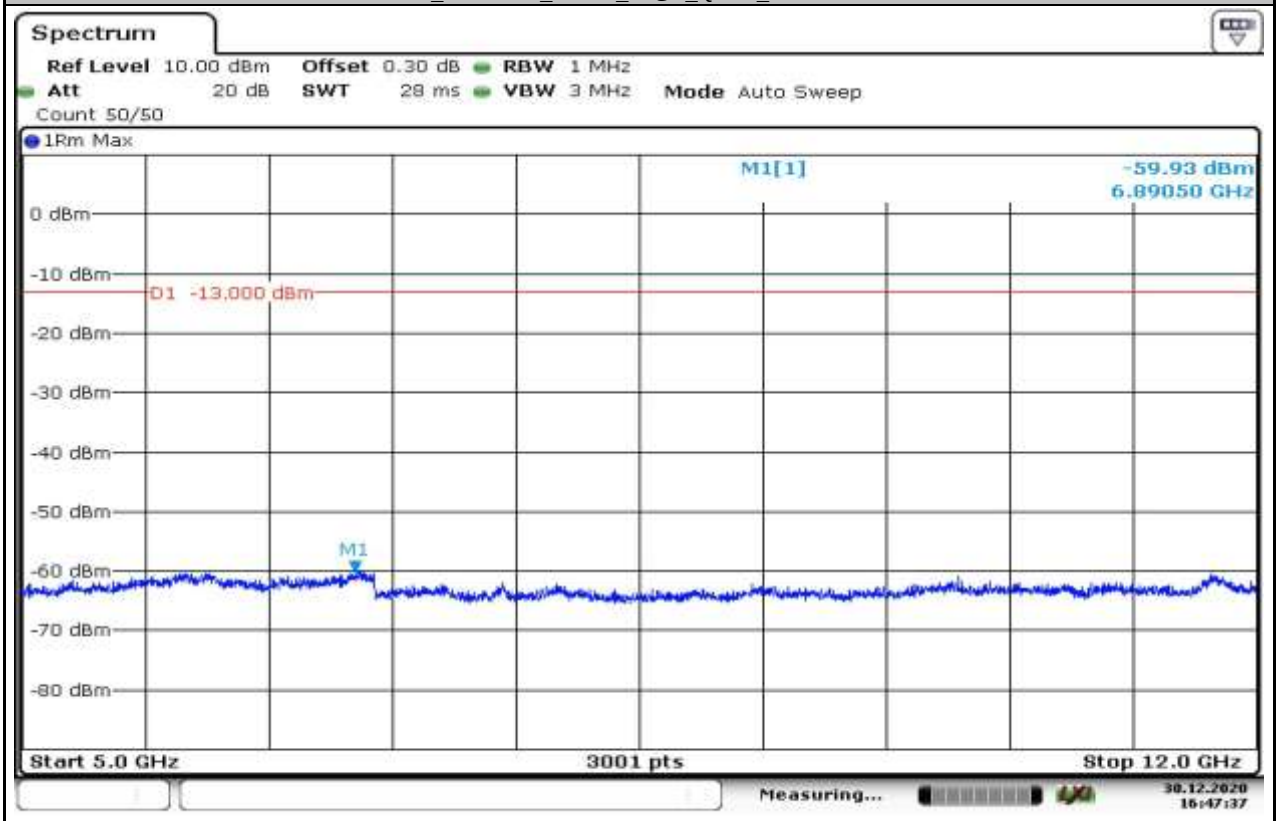
Date: 30.DEC.2020 16:45:29

134183_787.1MHz_15KHz_12@0_QPSK_1000M-5000M



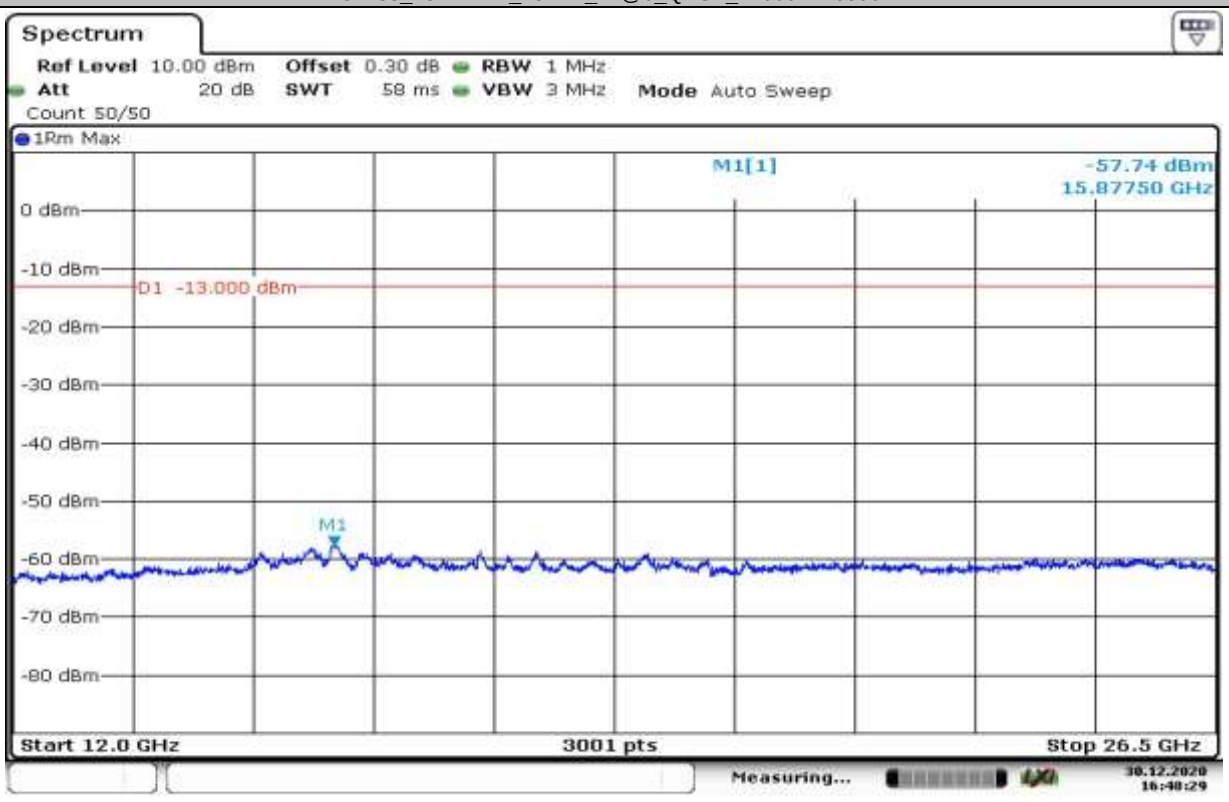
Date: 30.DEC.2020 16:46:55

134183_787.1MHz_15KHz_12@0_QPSK_5000M-12000M



Date: 30.DEC.2020 16:47:37

134183_787.1MHz_15KHz_12@0_QPSK_12000M-26500M



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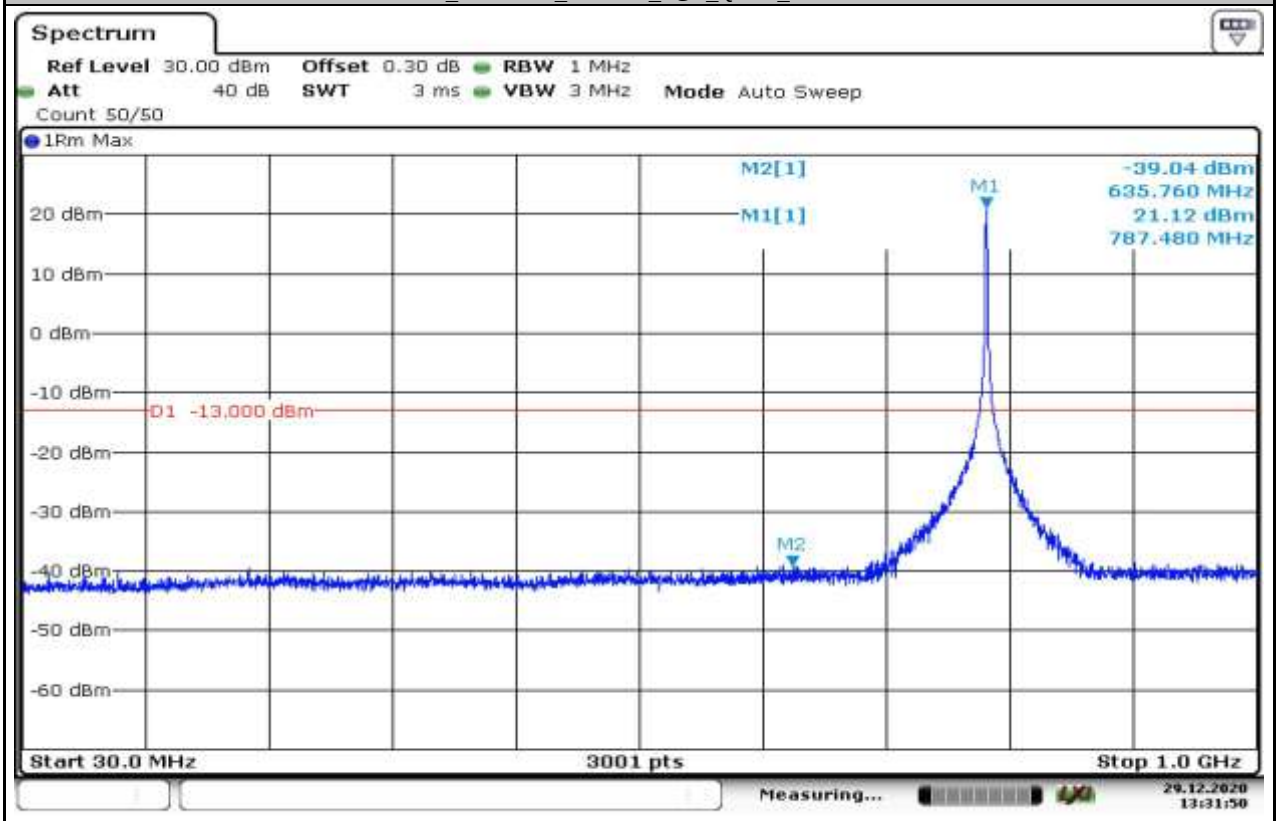
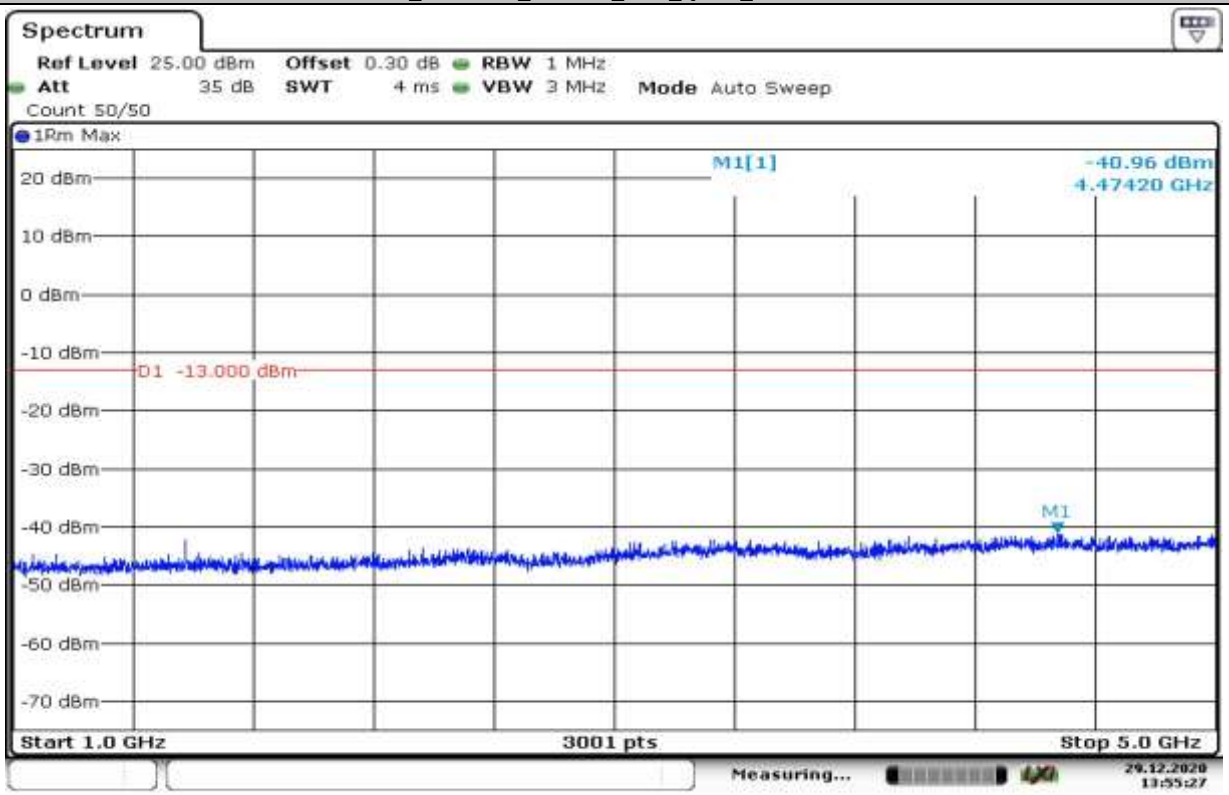
134184_787.2MHz_3.75KHz_1@0_QPSK_30M-1000M



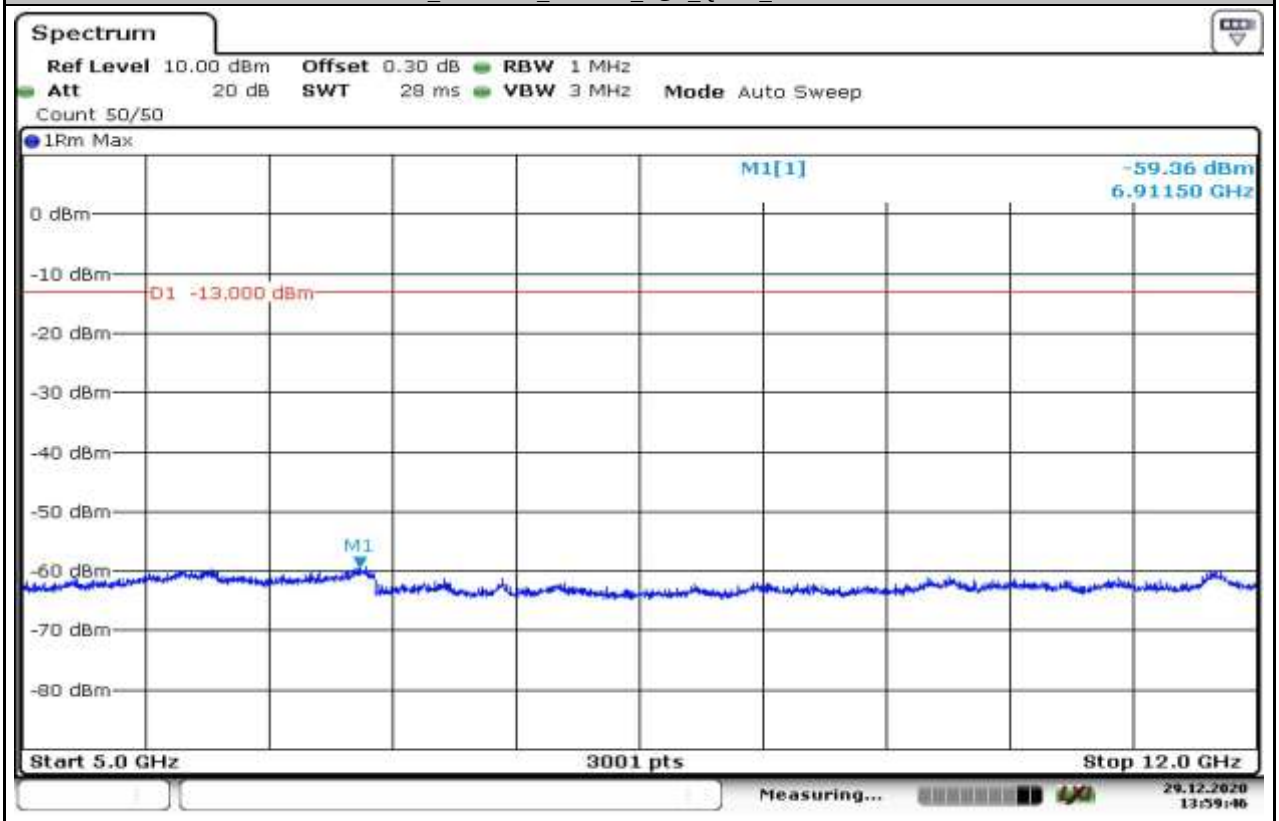
Date: 29.DEC.2020 13:31:51

134184_787.2MHz_3.75KHz_1@0_QPSK_1000M-5000M



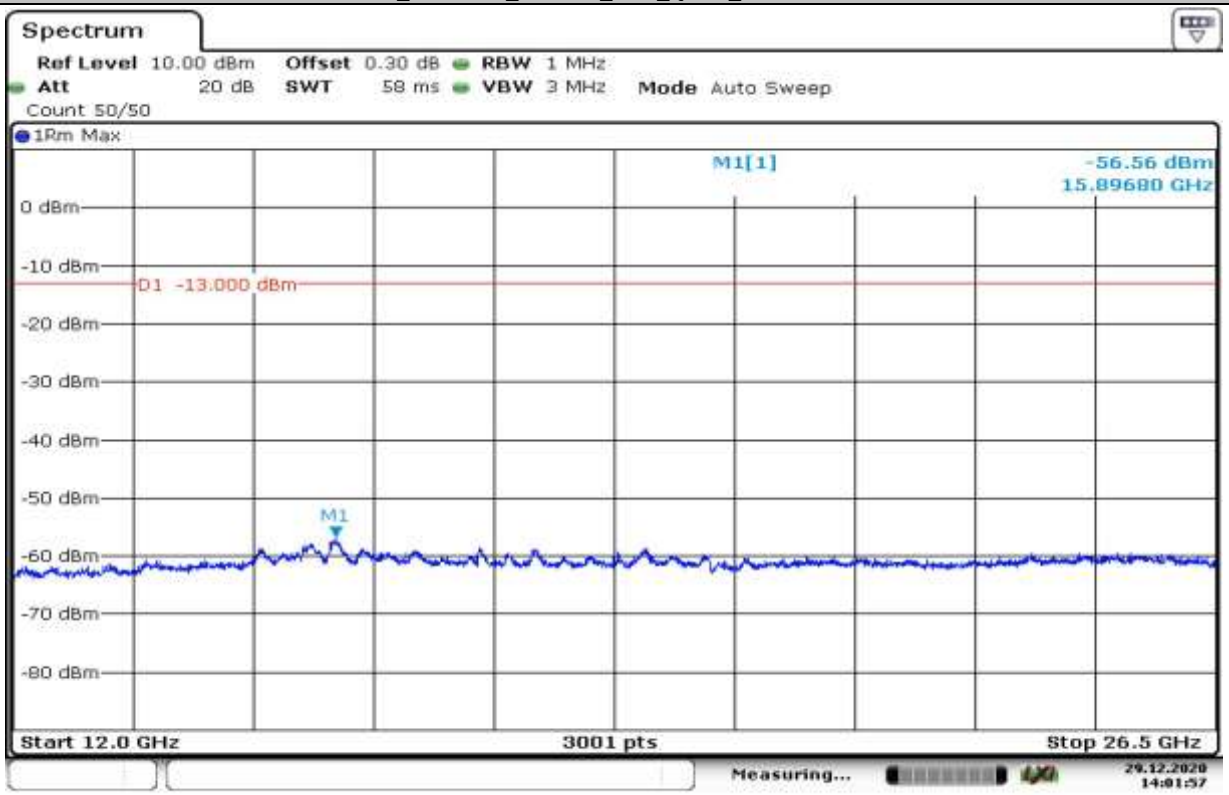
Date: 29.DEC.2020 13:55:27

134184_787.2MHz_3.75KHz_1@0_QPSK_5000M-12000M



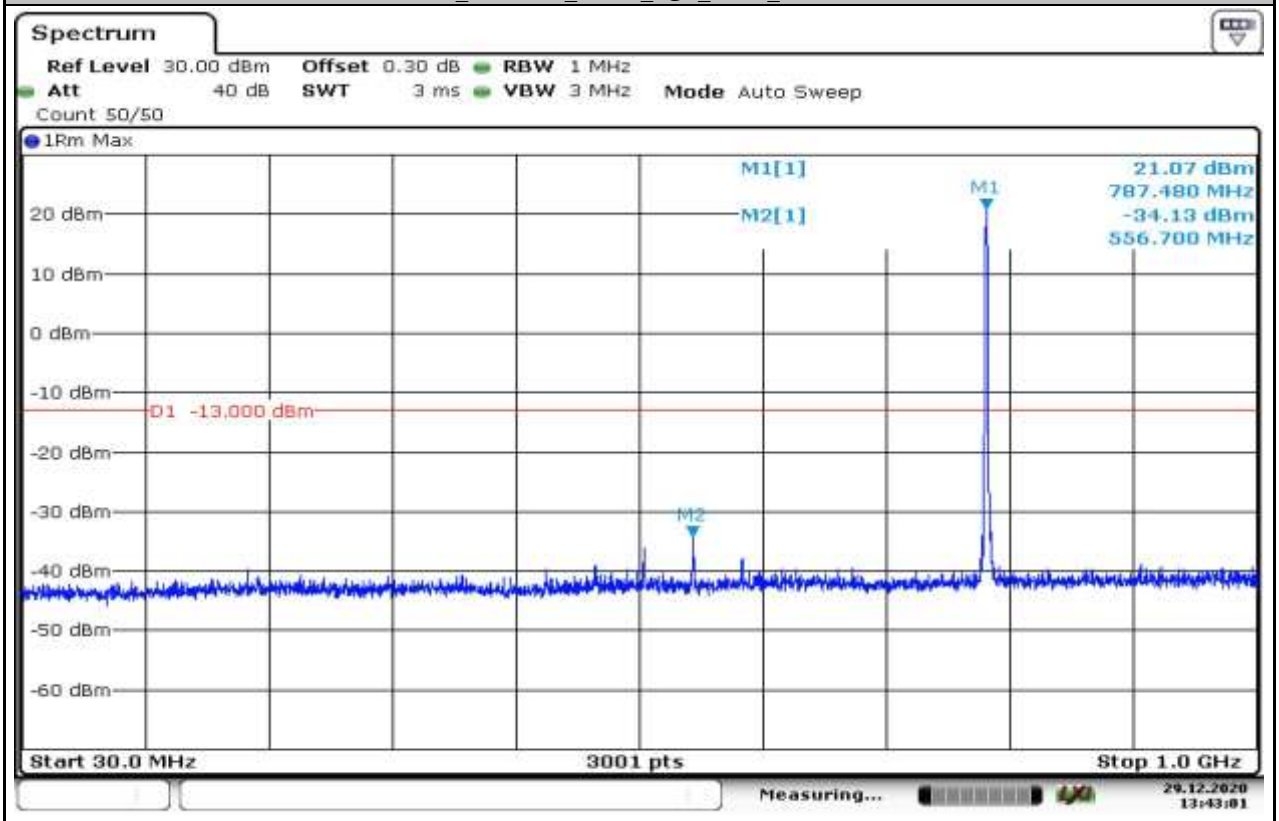
Date: 29.DEC.2020 13:59:46

134184_787.2MHz_3.75KHz_1@0_QPSK_12000M-26500M



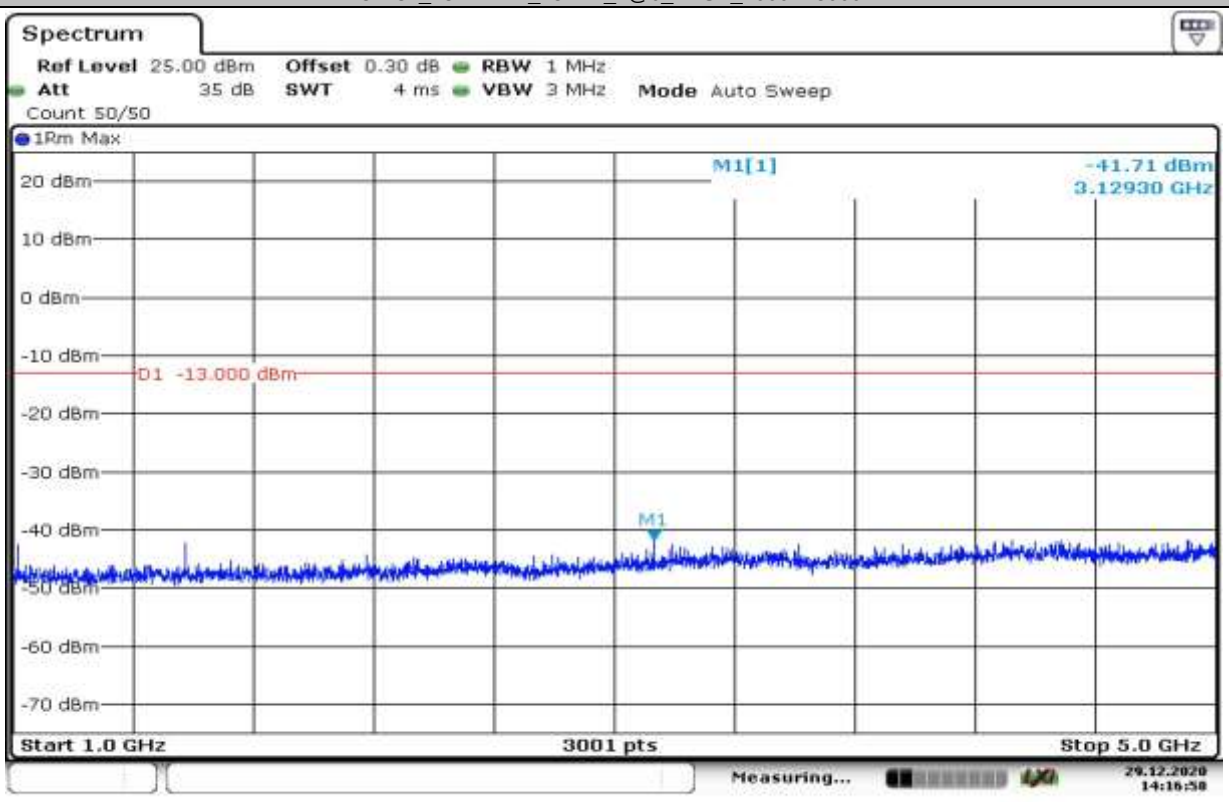
Date: 29.DEC.2020 14:01:57

134184_787.2MHz_15KHz_1@0_BPSK_30M-1000M



Date: 29.DEC.2020 13:43:01

134184_787.2MHz_15KHz_1@0_BPSK_1000M-5000M



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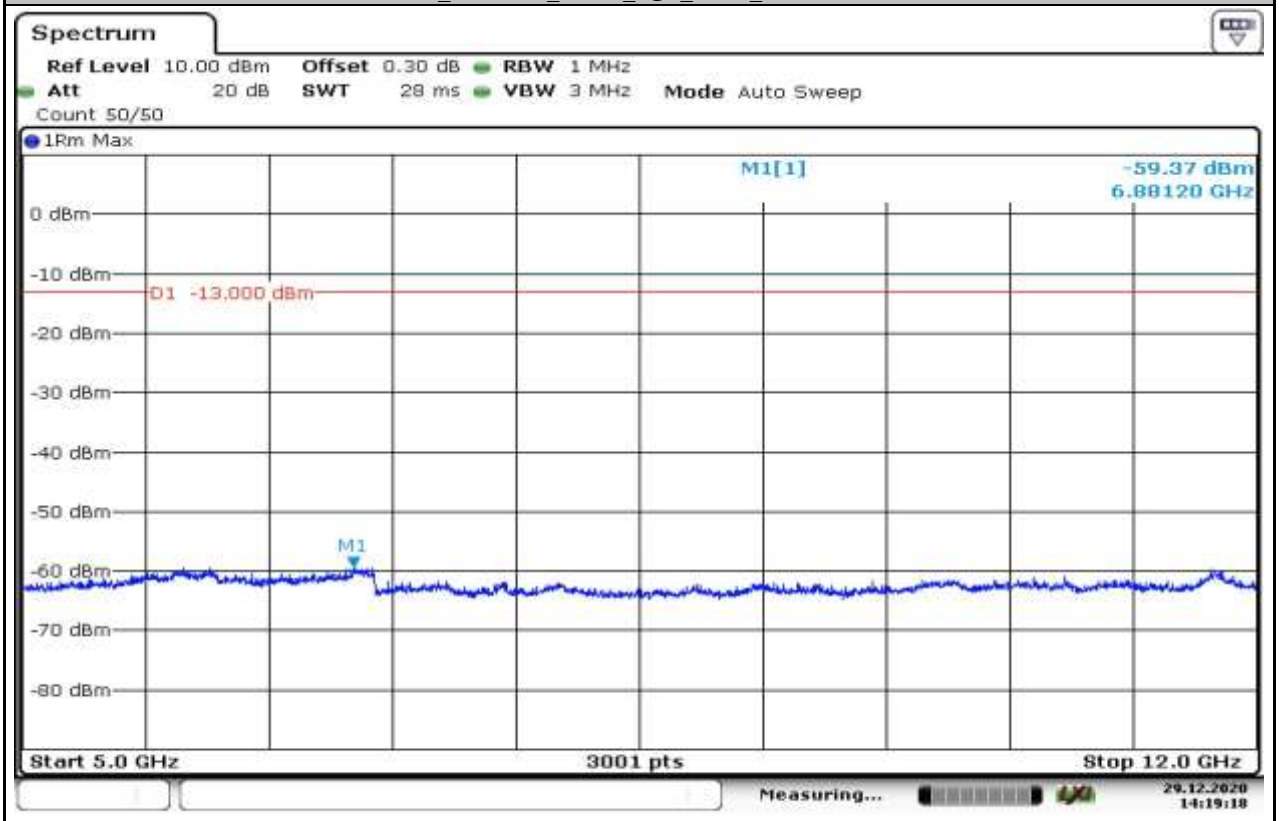
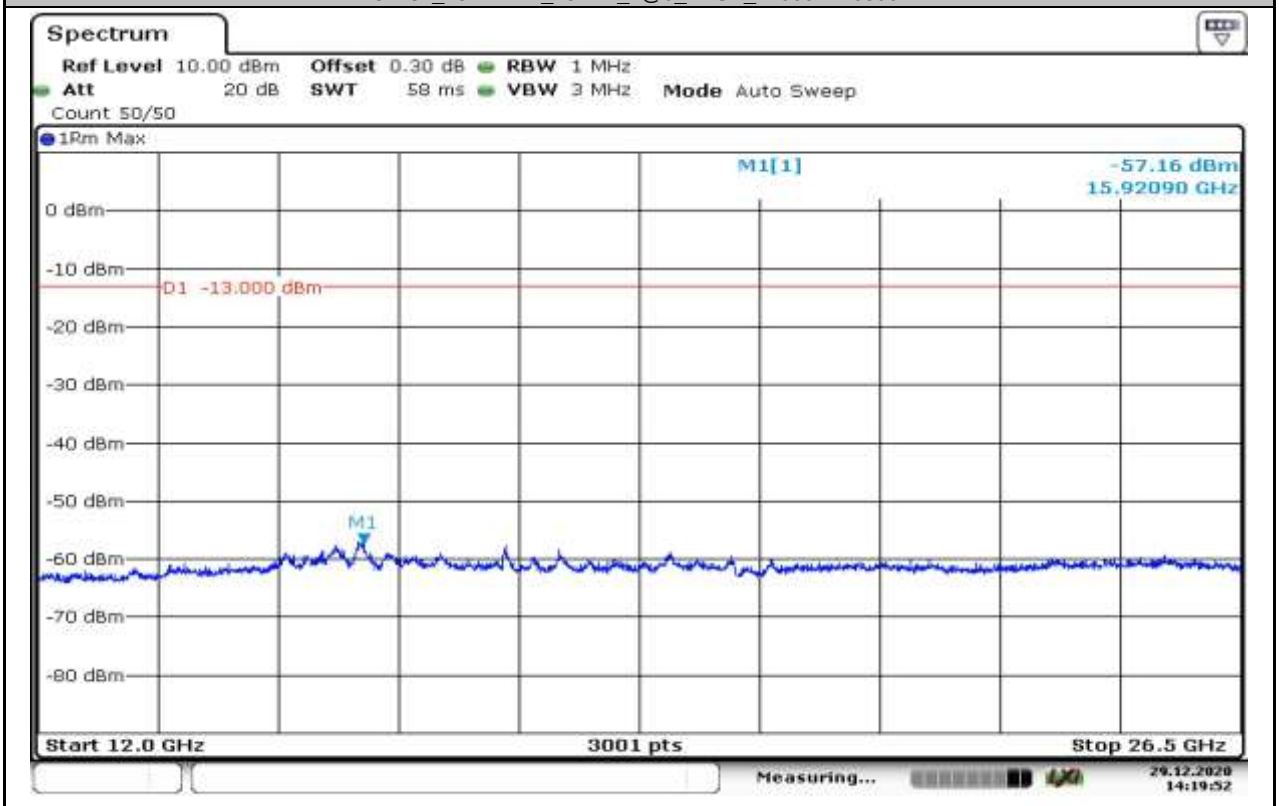
134184_787.2MHz_15KHz_1@0_BPSK_5000M-12000M



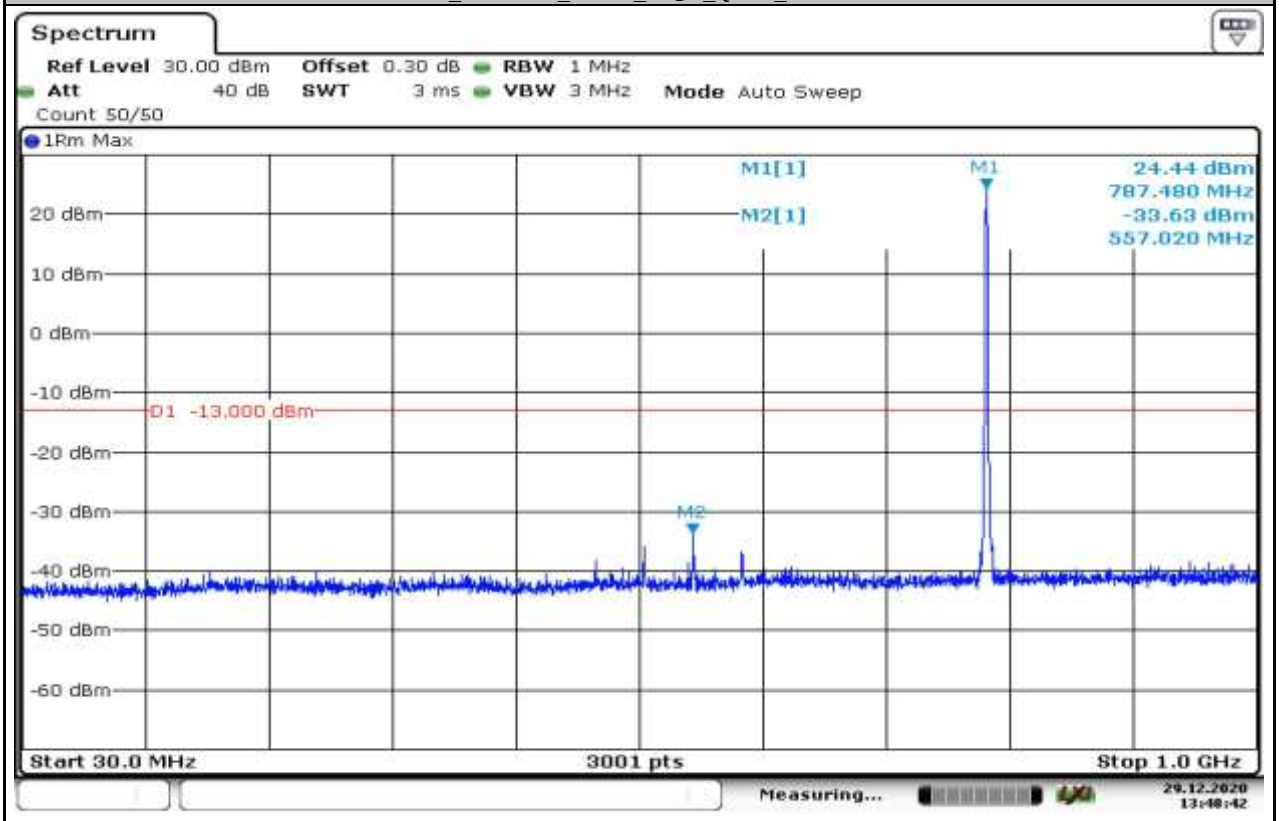
Date: 29.DEC.2020 14:19:19

134184_787.2MHz_15KHz_1@0_BPSK_12000M-26500M



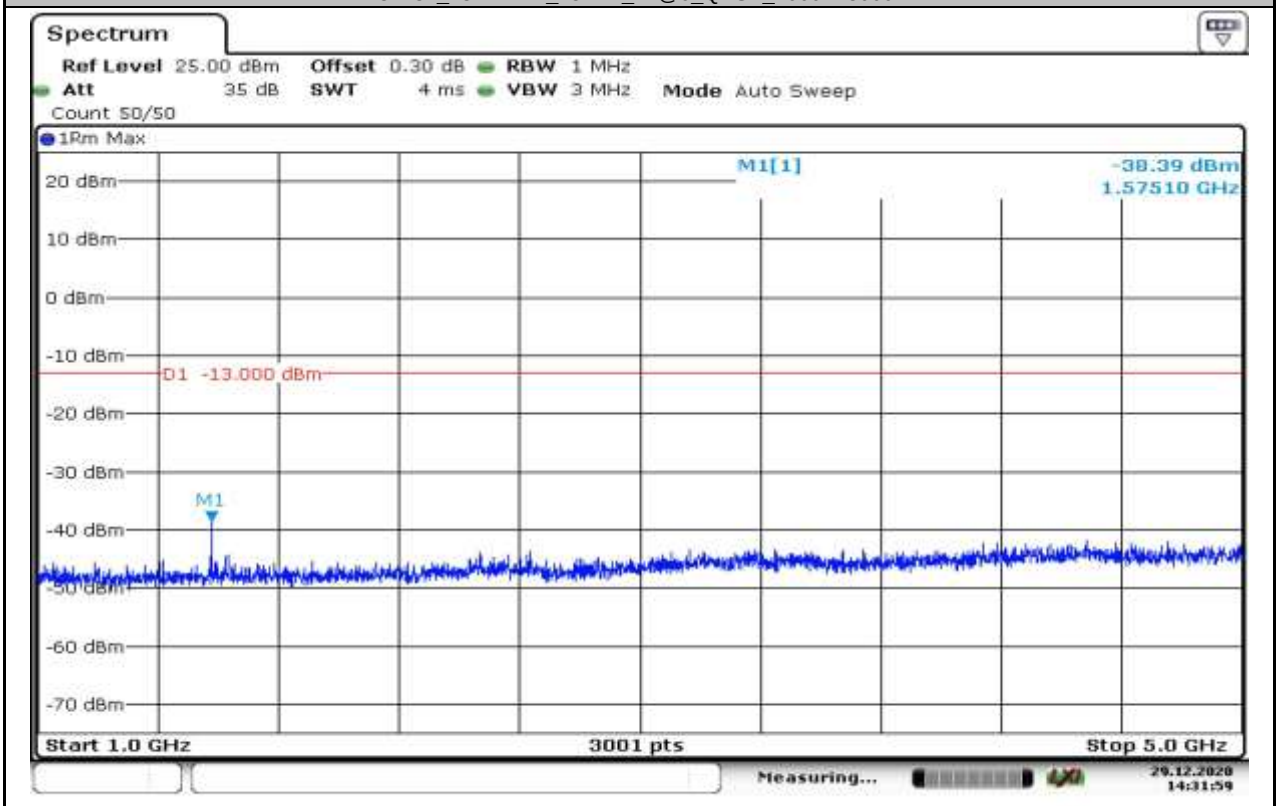
Date: 29.DEC.2020 14:19:52

134184_787.2MHz_15KHz_12@0_QPSK_30M-1000M



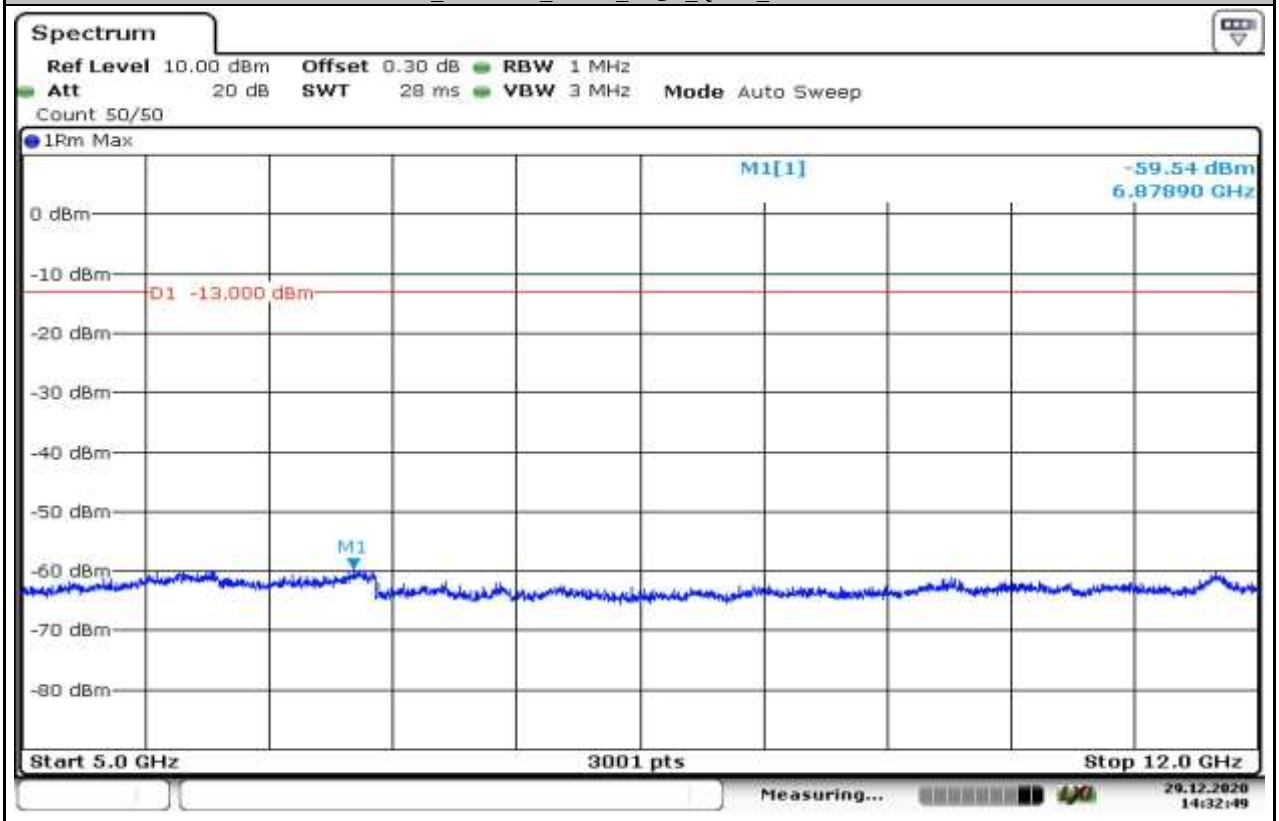
Date: 29.DEC.2020 13:48:43

134184_787.2MHz_15KHz_12@0_QPSK_1000M-5000M



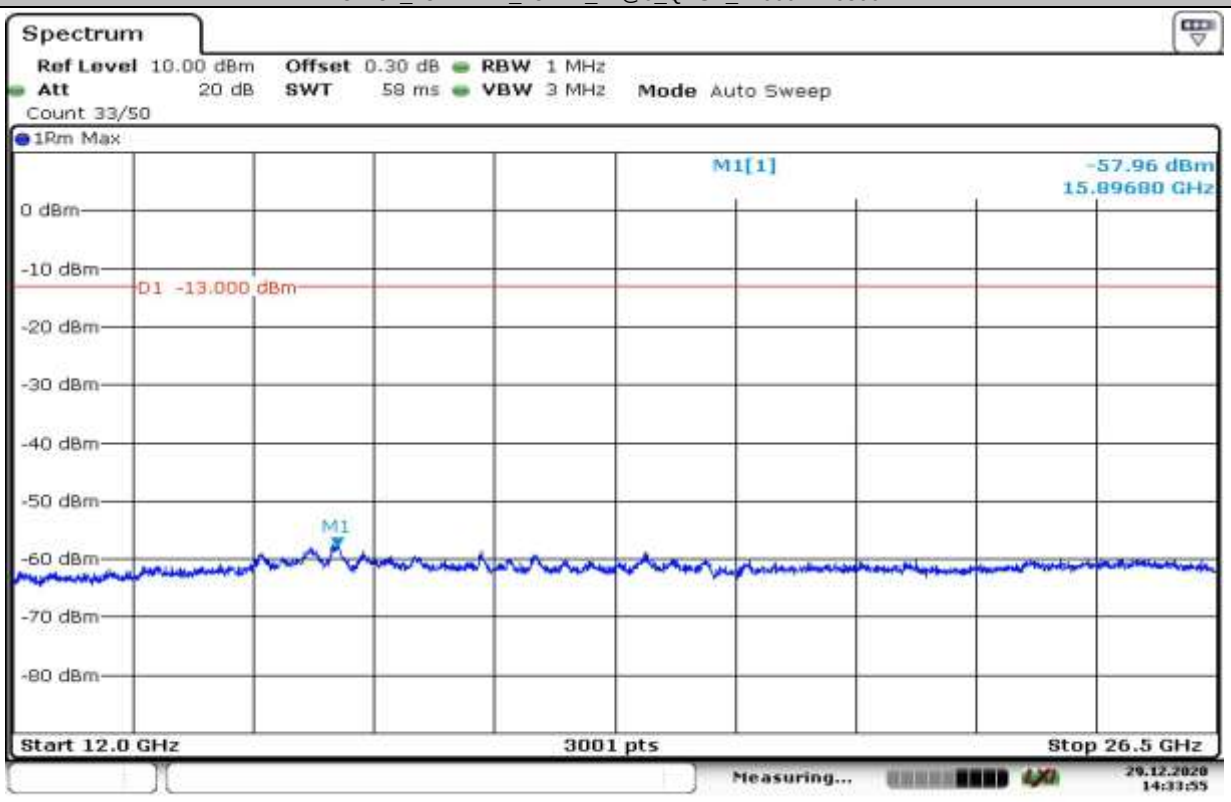
Date: 29.DEC.2020 14:32:00

134184_787.2MHz_15KHz_12@0_QPSK_5000M-12000M



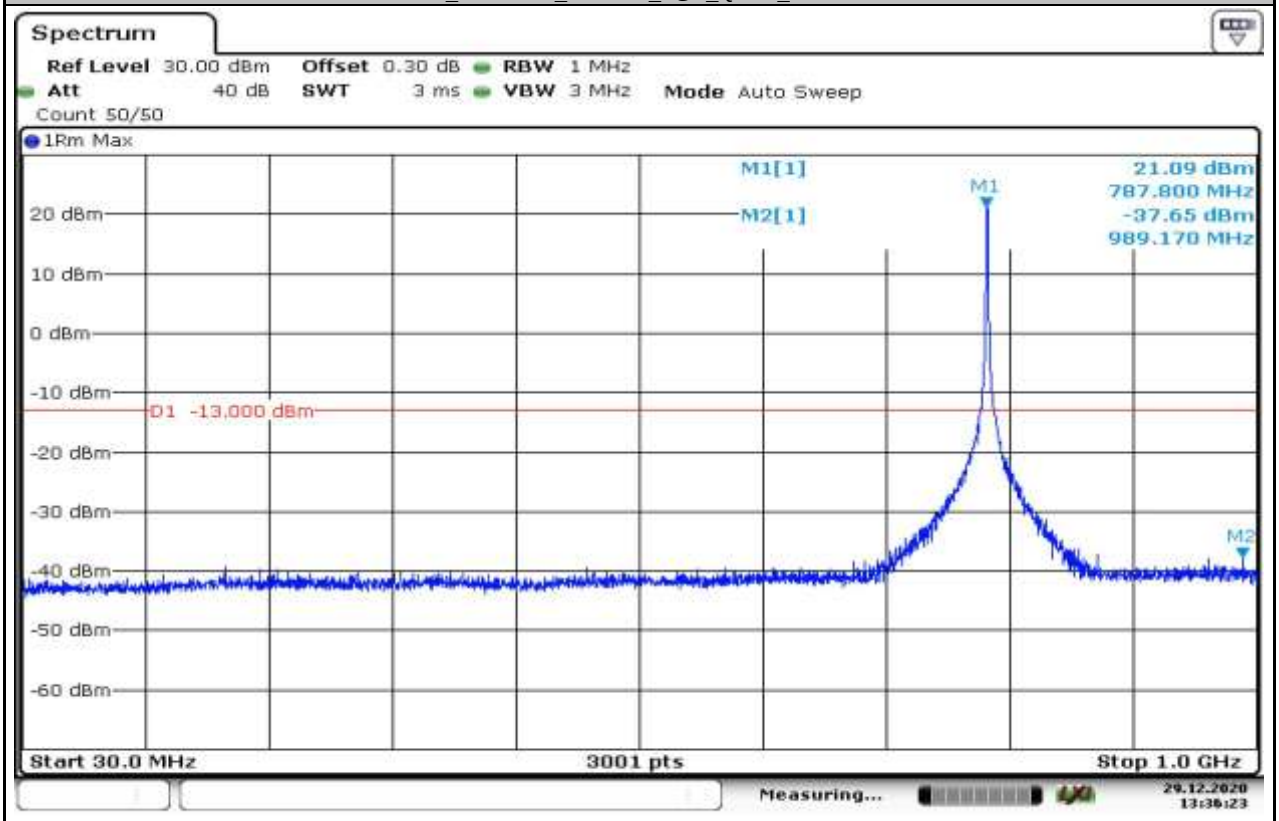
Date: 29.DEC.2020 14:32:50

134184_787.2MHz_15KHz_12@0_QPSK_12000M-26500M



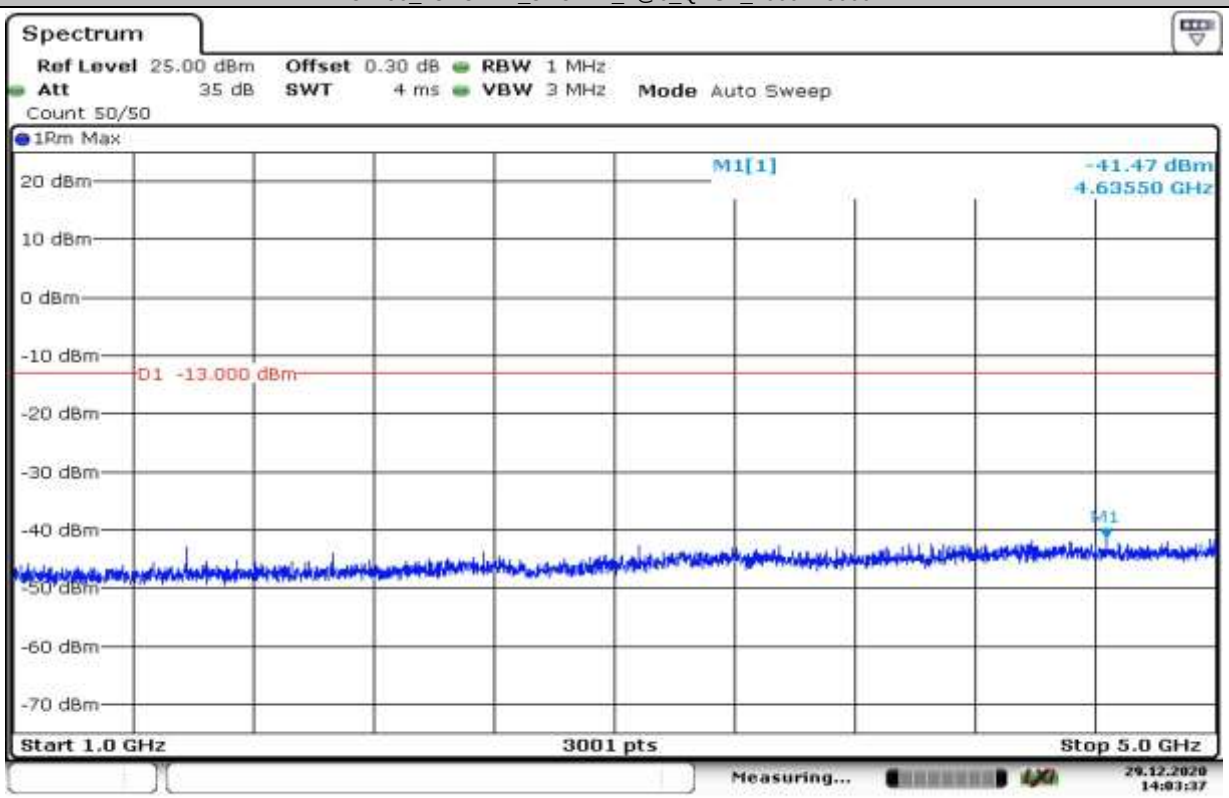
Date: 29.DEC.2020 14:33:56

134190_787.8MHz_3.75KHz_1@0_QPSK_30M-1000M



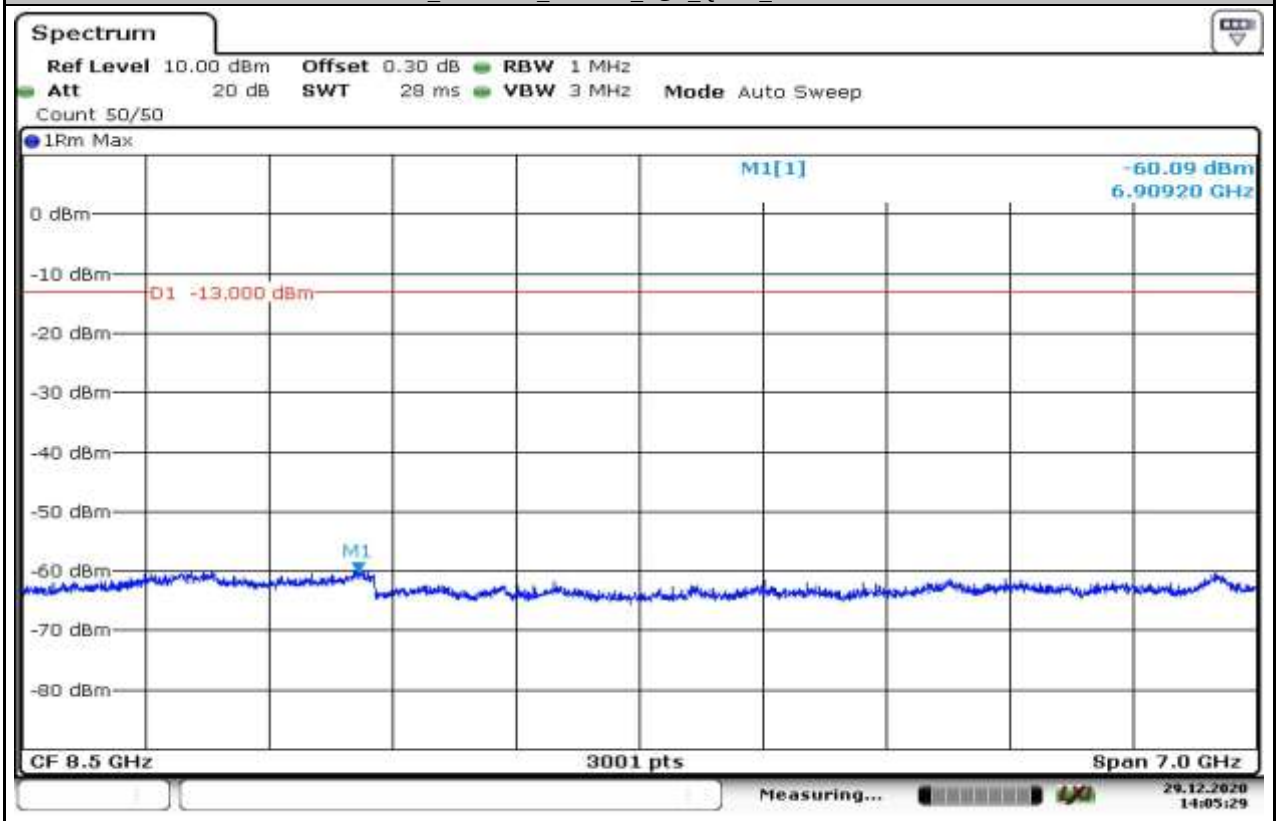
Date: 29.DEC.2020 13:36:23

134190_787.8MHz_3.75KHz_1@0_QPSK_1000M-5000M



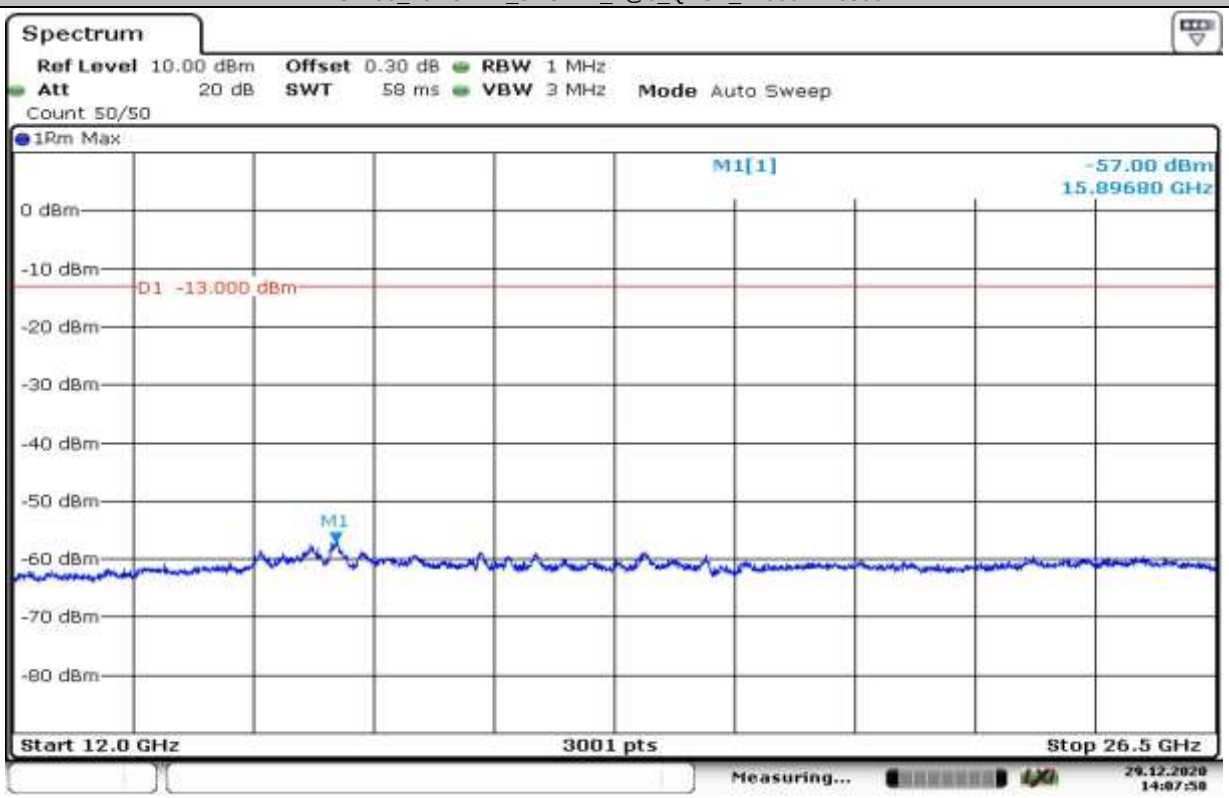
Date: 29.DEC.2020 14:03:37

134190_787.8MHz_3.75KHz_1@0_QPSK_5000M-12000M



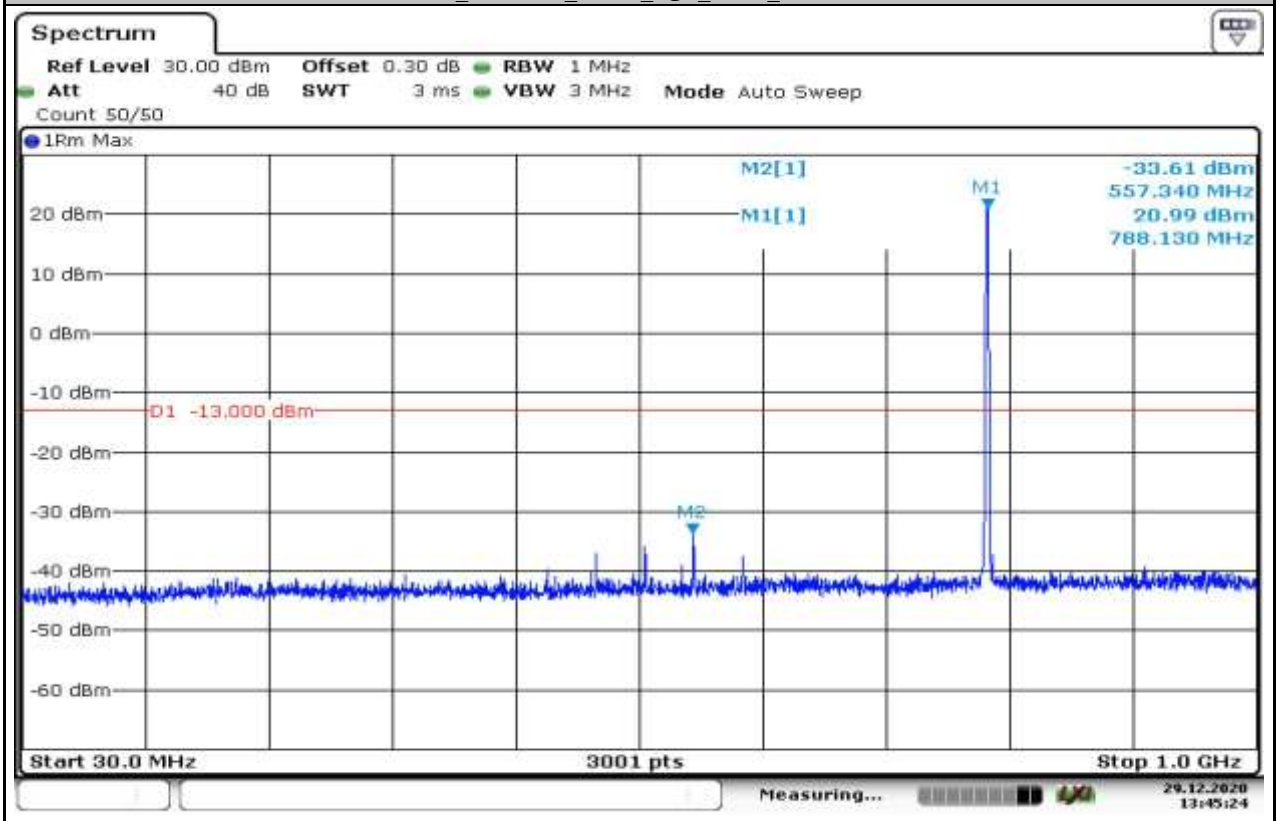
Date: 29.DEC.2020 14:05:30

134190_787.8MHz_3.75KHz_1@0_QPSK_12000M-26500M



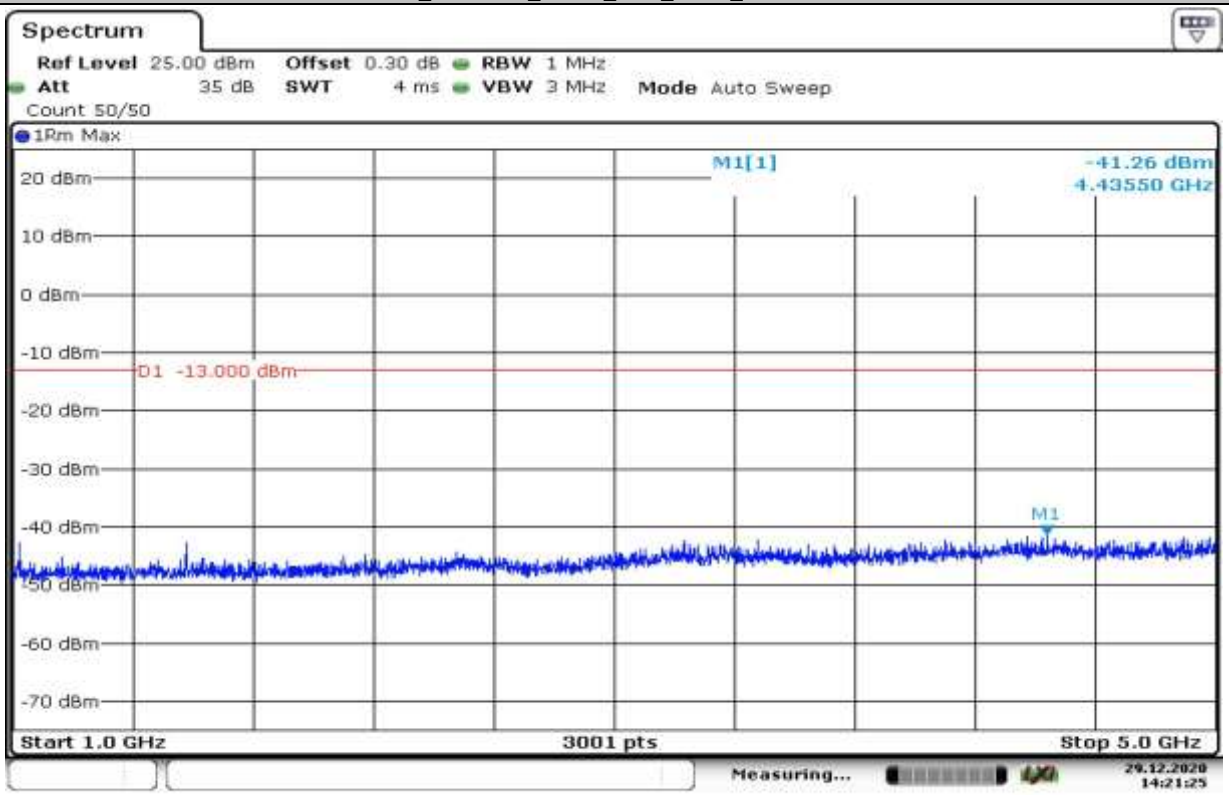
Date: 29.DEC.2020 14:07:58

134190_787.8MHz_15KHz_1@0_BPSK_30M-1000M



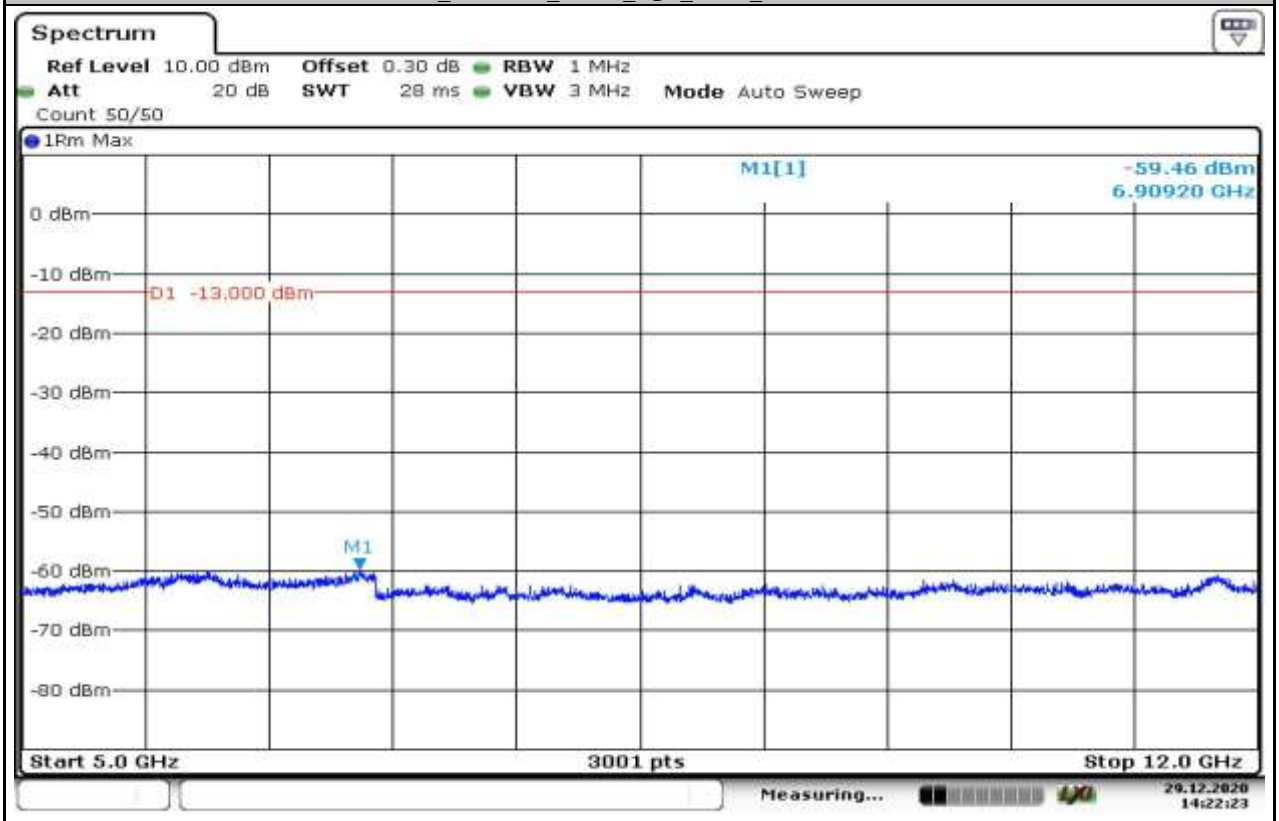
Date: 29.DEC.2020 13:45:24

134190_787.8MHz_15KHz_1@0_BPSK_1000M-5000M



Date: 29.DEC.2020 14:21:26

134190_787.8MHz_15KHz_1@0_BPSK_5000M-12000M



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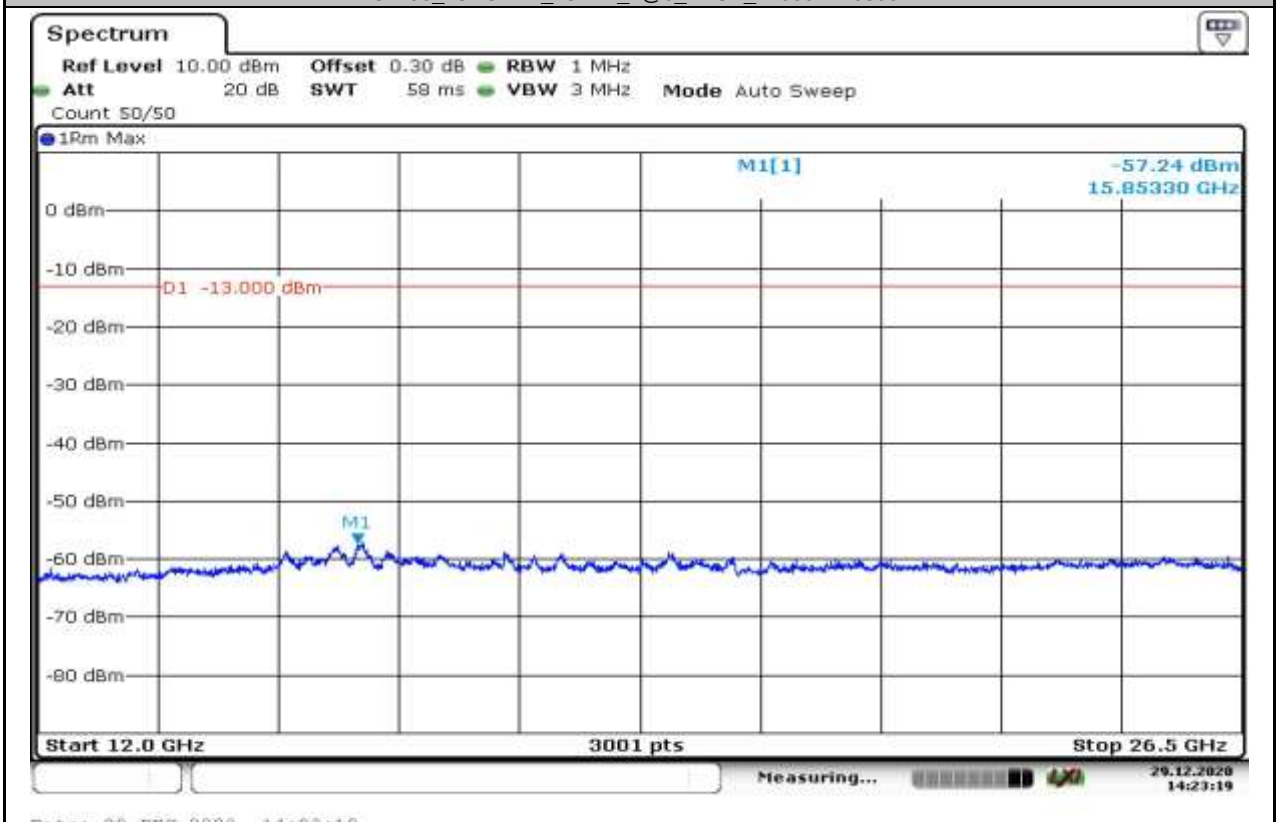

Date: 29.DEC.2020 14:23:19

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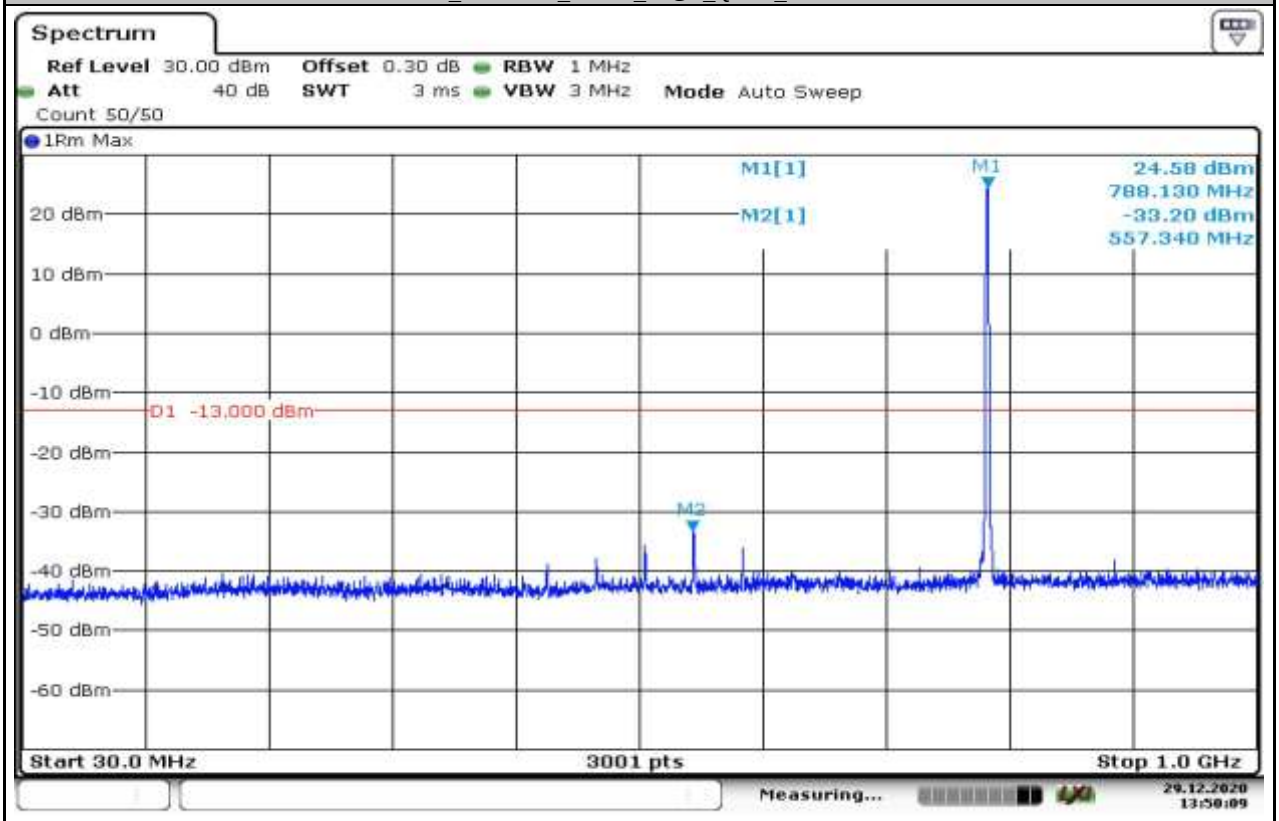

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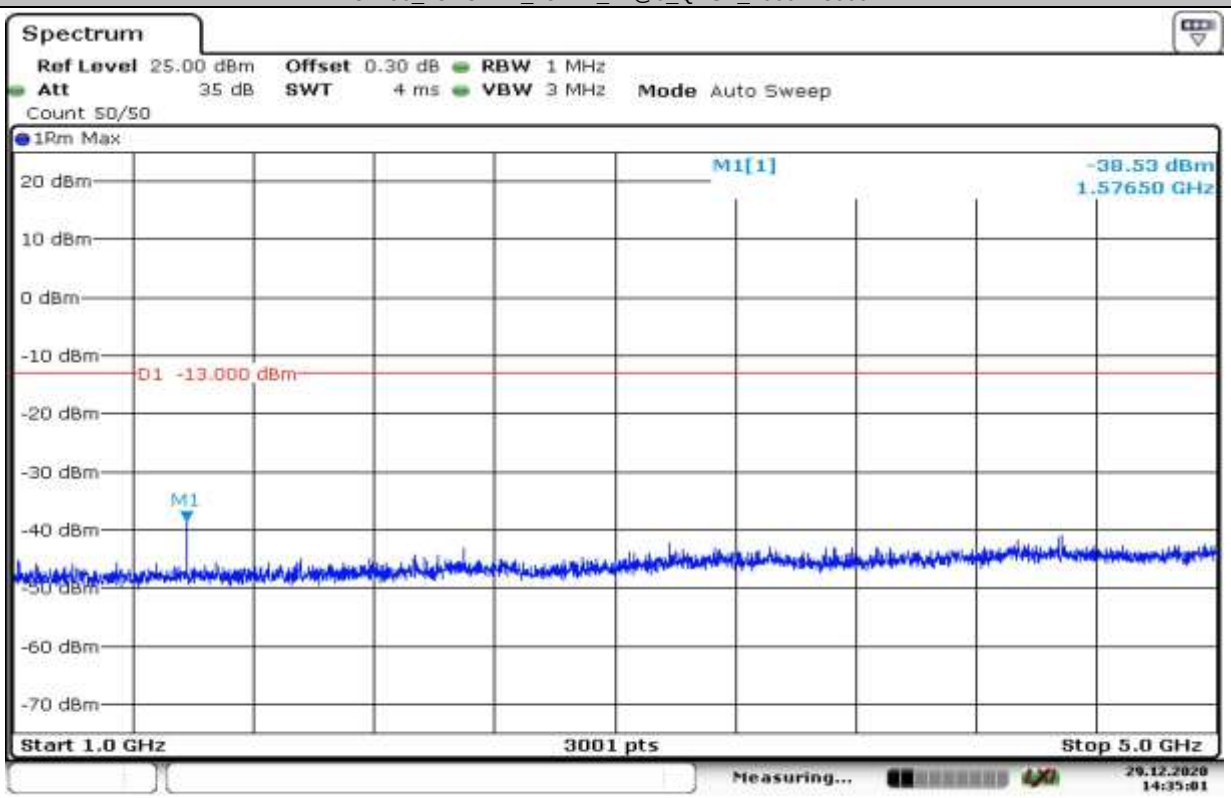

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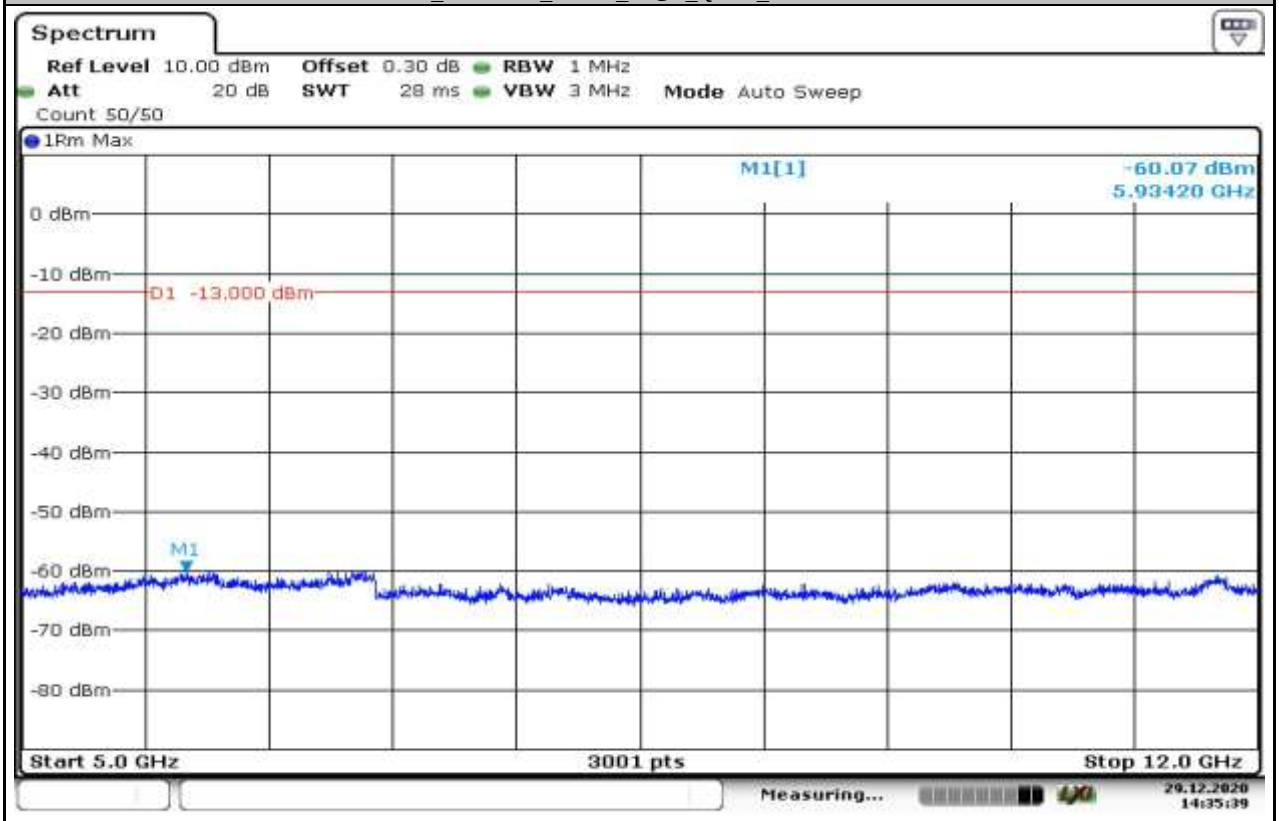
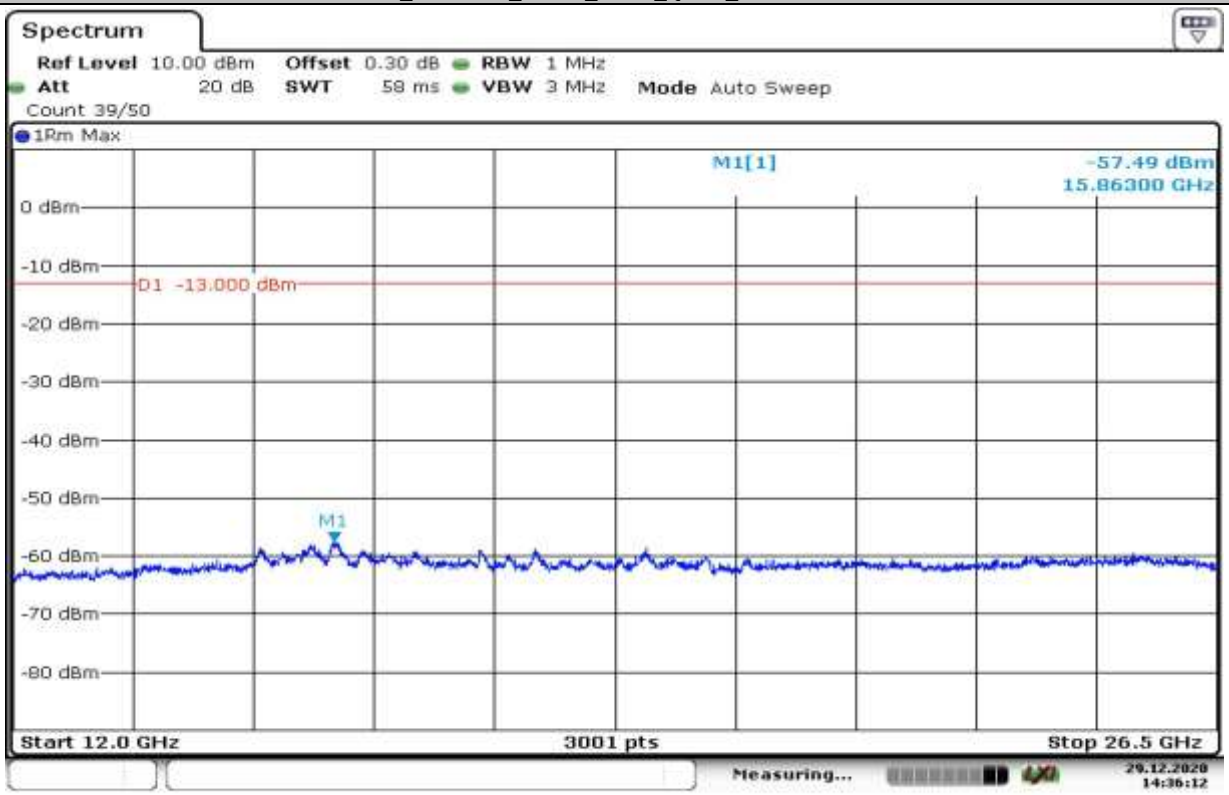
134190_787.8MHz_15KHz_12@0_QPSK_5000M-12000M



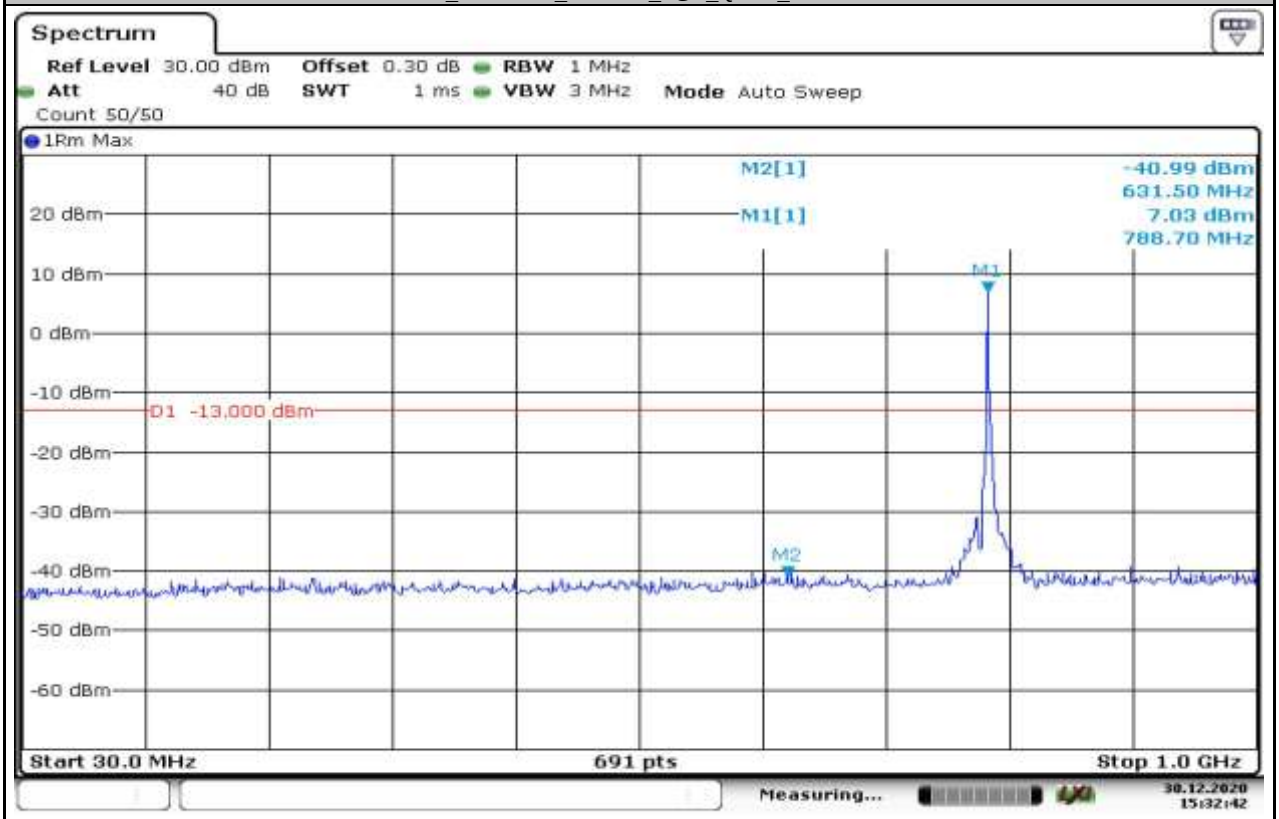
Date: 29.DEC.2020 14:35:40

134190_787.8MHz_15KHz_12@0_QPSK_12000M-26500M



Date: 29.DEC.2020 14:36:13

134191_787.9MHz_3.75KHz_1@0_QPSK_30M-1000M



Date: 30.DEC.2020 15:32:42

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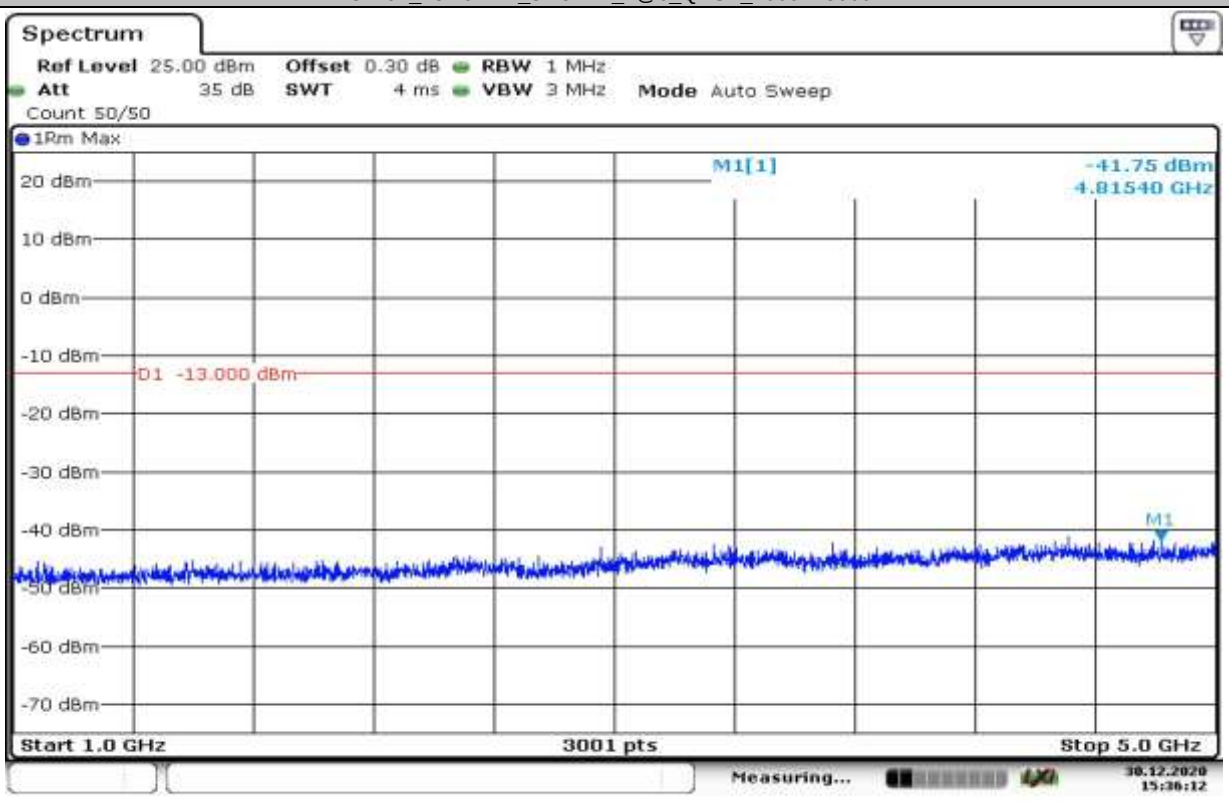
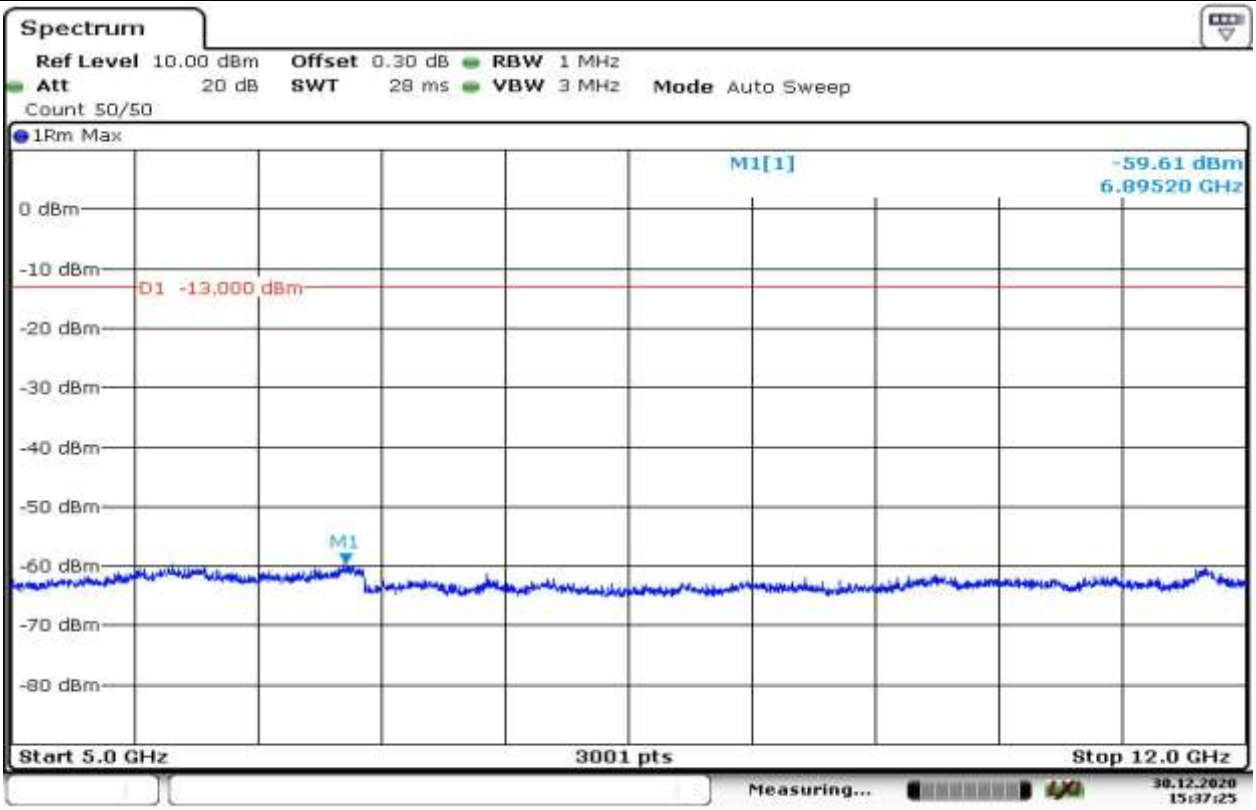


Date: 30.DEC.2020 15:36:12

134191_787.9MHz_3.75KHz_1@0_QPSK_5000M-12000M



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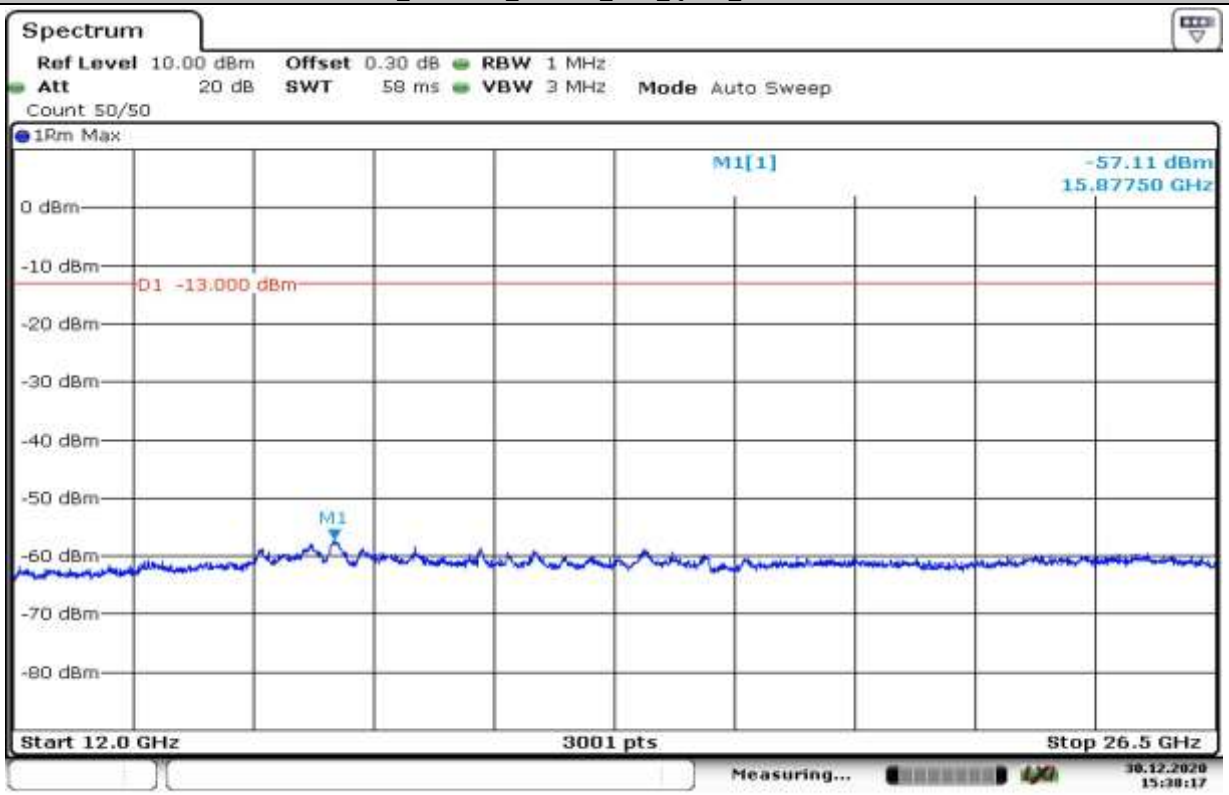
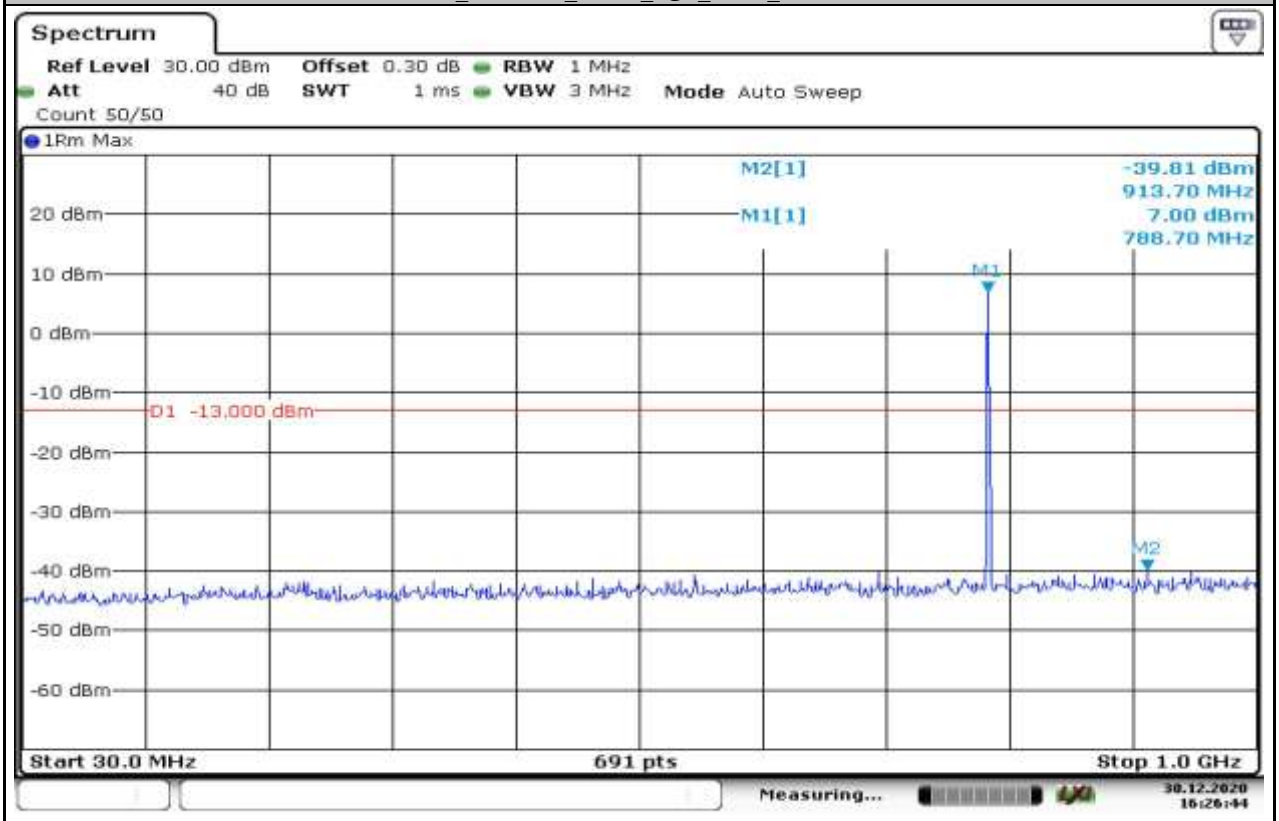
134191_787.9MHz_3.75KHz_1@0_QPSK_12000M-26500M



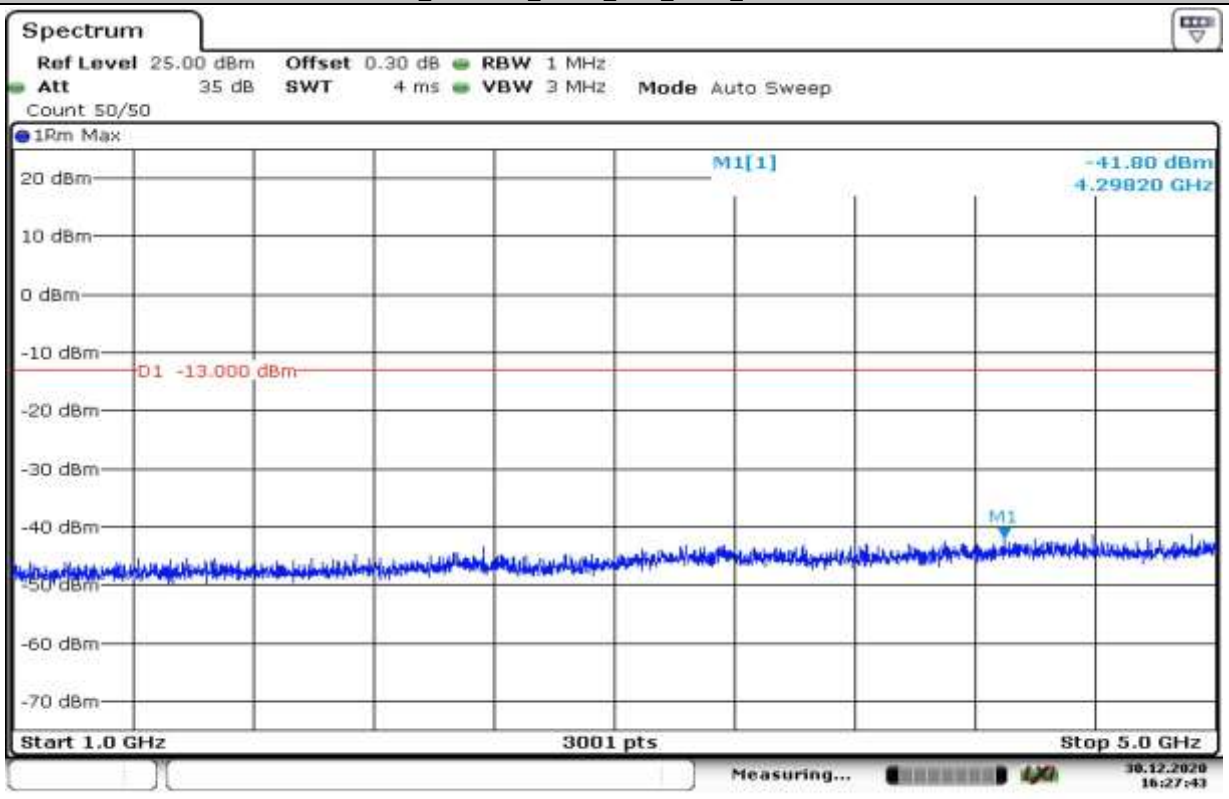
Date: 30.DEC.2020 15:38:17

134191_787.9MHz_15KHz_1@0_BPSK_30M-1000M



Date: 30.DEC.2020 16:26:44

134191_787.9MHz_15KHz_1@0_BPSK_1000M-5000M



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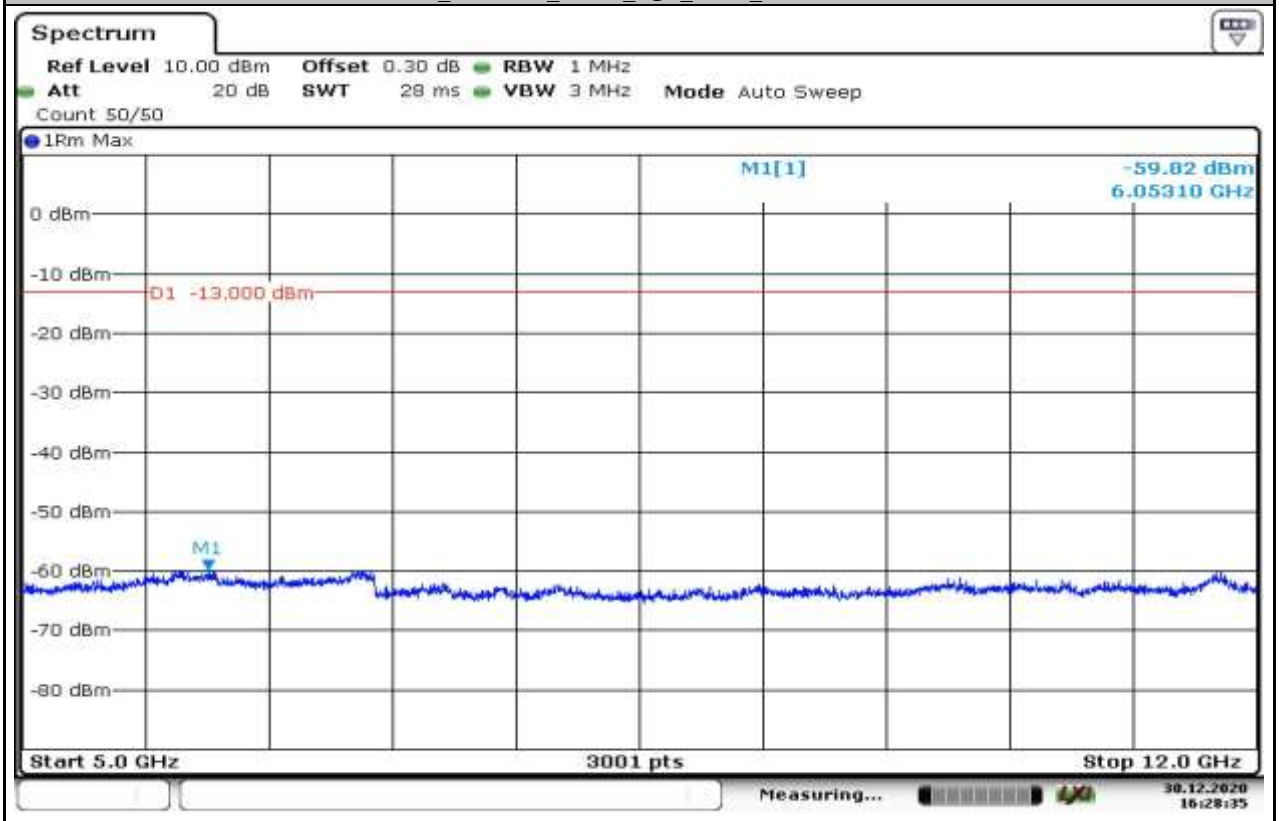

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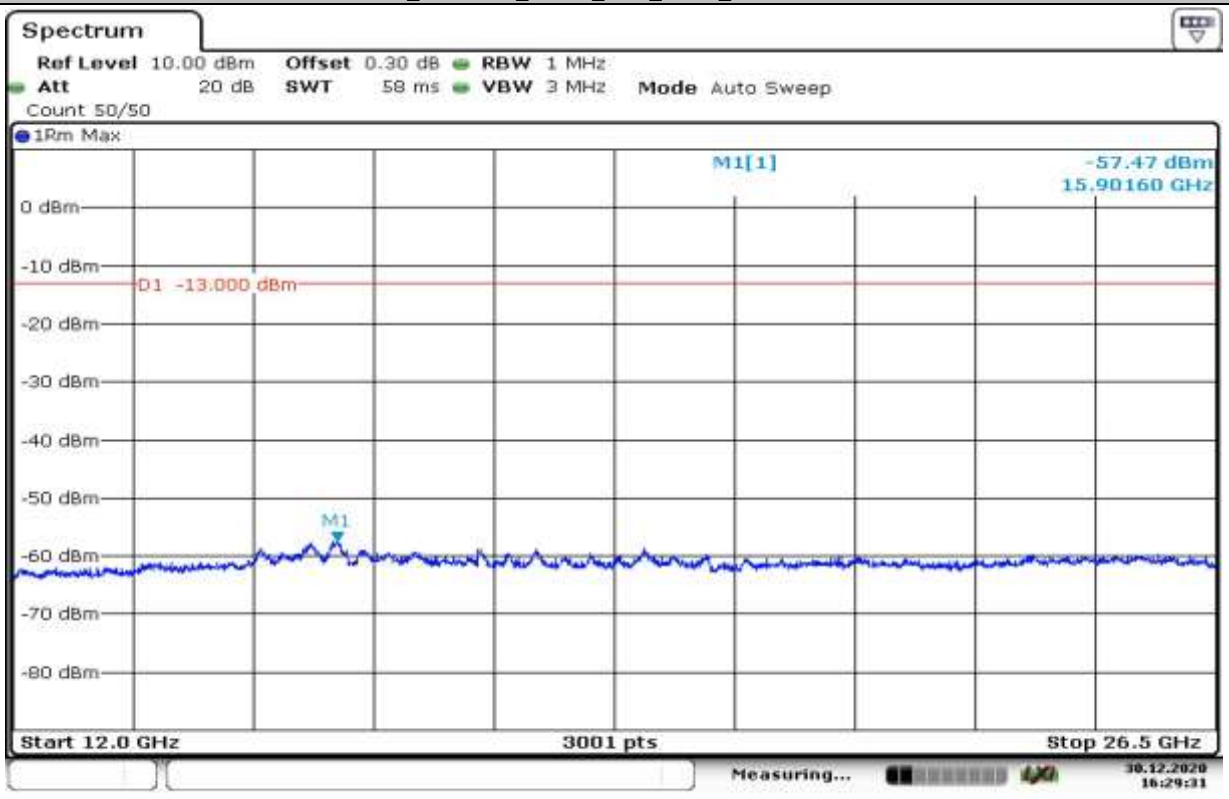
134191_787.9MHz_15KHz_1@0_BPSK_12000M-26500M



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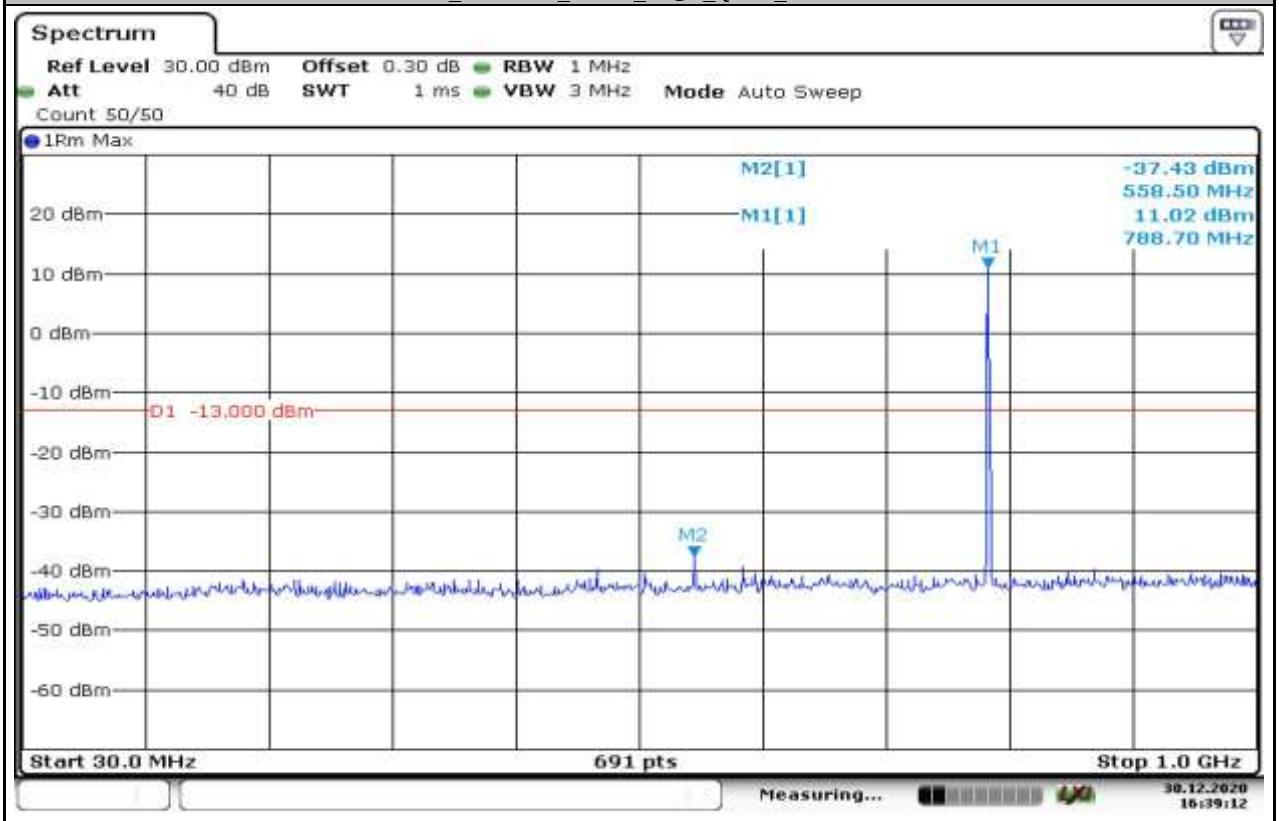
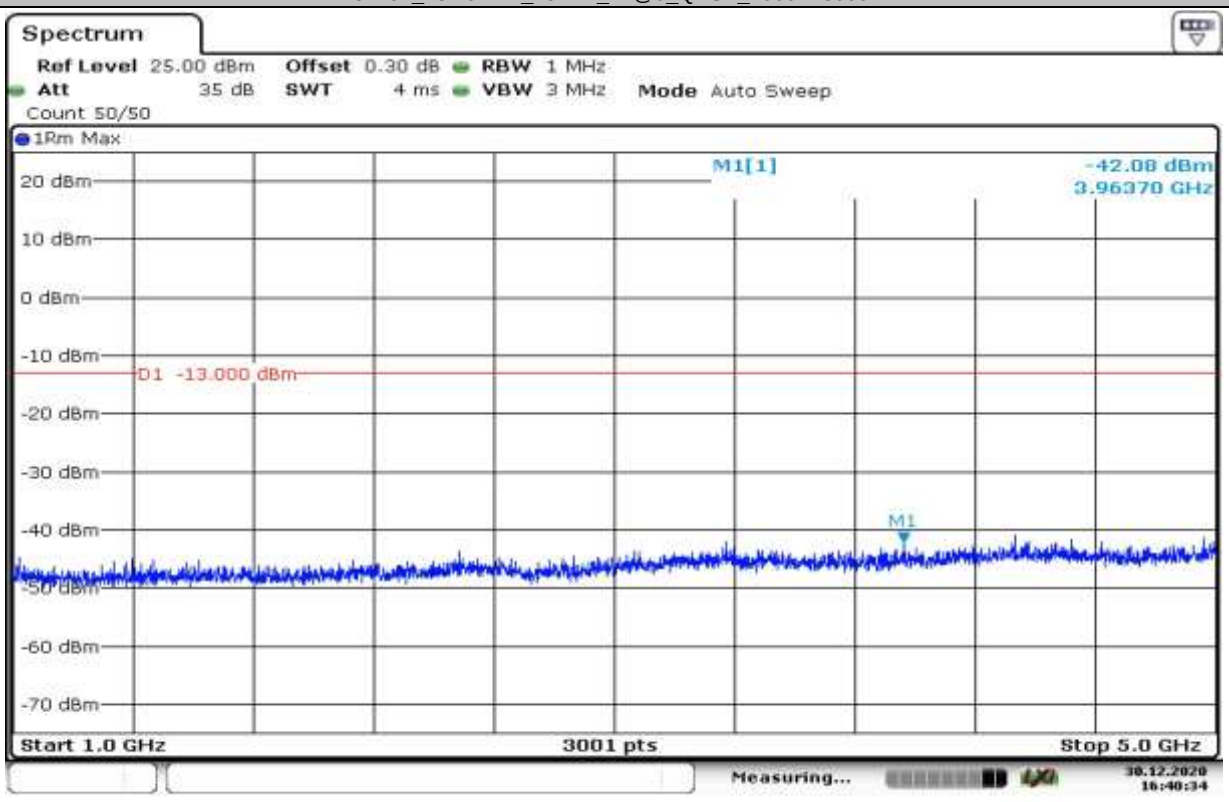
134191_787.9MHz_15KHz_12@0_QPSK_30M-1000M



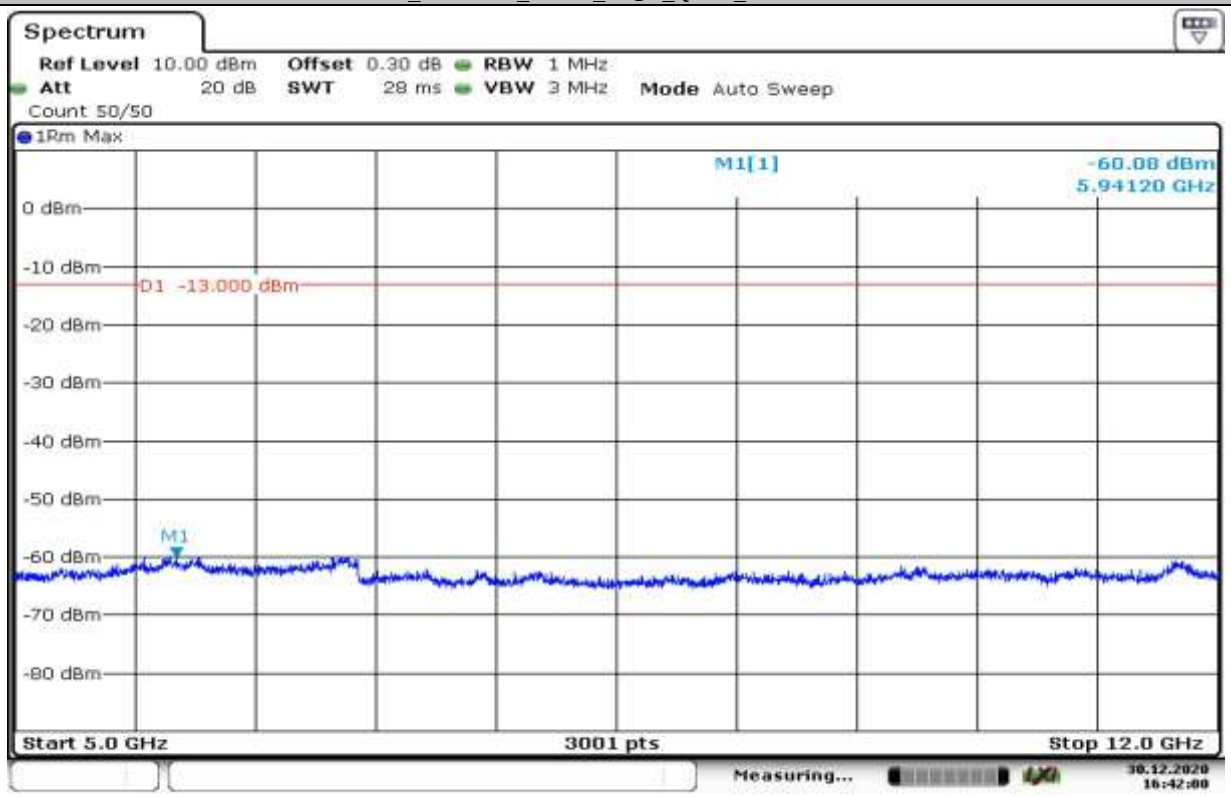
Date: 30.DEC.2020 16:39:13

134191_787.9MHz_15KHz_12@0_QPSK_1000M-5000M

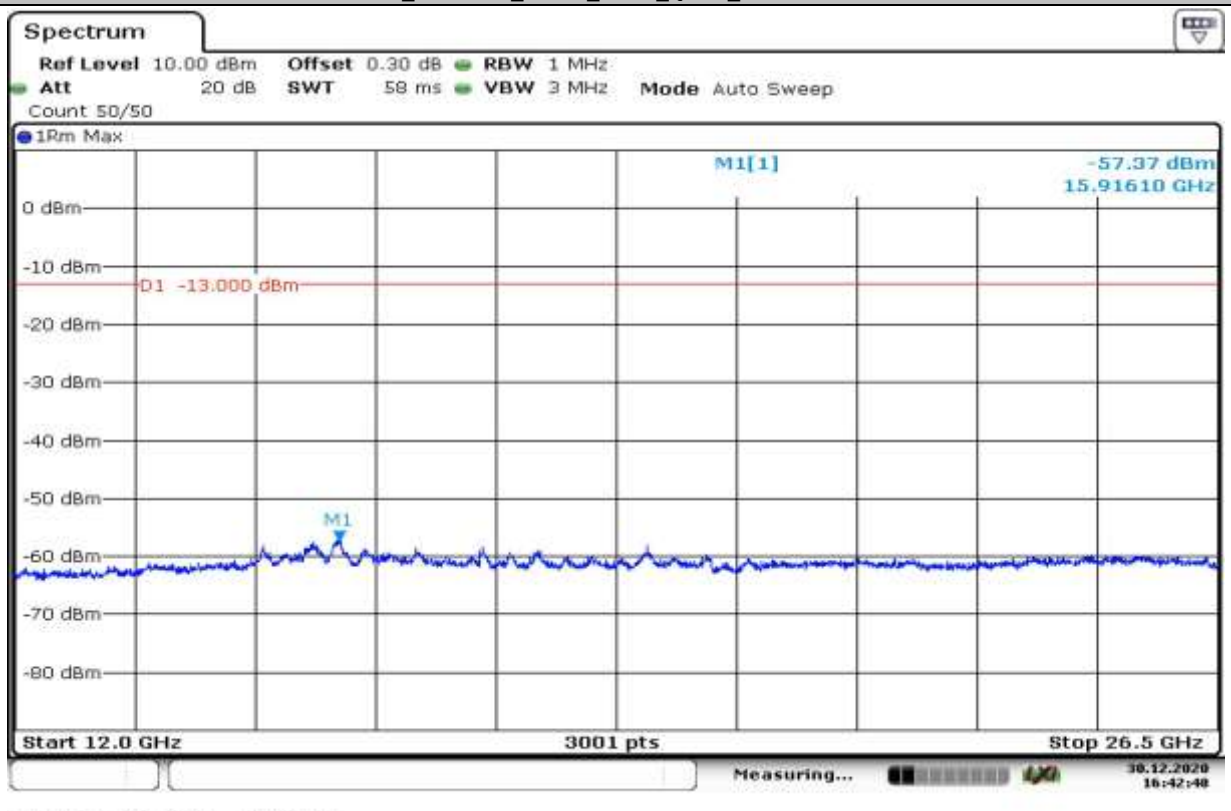


Date: 30.DEC.2020 16:40:34

134191_787.9MHz_15KHz_12@0_QPSK_5000M-12000M



134191_787.9MHz_15KHz_12@0_QPSK_12000M-26500M



Appendix A.6: Frequency Stability for NB
Test Result

Voltage												
Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	HV	NT	4.38	0.005564	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	LV	NT	-8.57	-0.010887	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	NT	-11.97	-0.015206	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	HV	NT	-9.47	-0.012021	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	LV	NT	-15.3	-0.019421	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	NT	-10.08	-0.012795	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	HV	NT	-9.43	-0.011979	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	LV	NT	-9.61	-0.012208	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	NT	-7.23	-0.009184	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	HV	NT	-12.86	-0.016324	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	LV	NT	-8.74	-0.011094	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	NT	8.12	0.010307	±2.5	PASS

Temperature												
Band	OpMode	Bandwidth	Modulation	Channel	Tones	SCS	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	85	-19.27	-0.024479	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	80	-20.54	-0.026092	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	70	-7.07	-0.008981	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	60	-2.46	-0.003125	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	50	-16.56	-0.021037	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	40	-4.68	-0.005945	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	30	-19.5	-0.024771	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	20	-10.38	-0.013186	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	10	-16.06	-0.020401	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	0	-18.02	-0.022891	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	-10	-29.2	-0.037093	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	-20	-20.12	-0.025559	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	-30	-17.28	-0.021951	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	3.75kHz	NV	-40	-18.03	-0.022904	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	85	18.31	0.023260	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	80	-20.38	-0.025889	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	70	-19.83	-0.025191	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	60	-18.85	-0.023946	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	50	-22.12	-0.028100	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	40	-18.12	-0.023018	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	30	-15.77	-0.020033	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	20	-23.31	-0.029611	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	10	-22.04	-0.027998	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	0	-27.67	-0.035150	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	-10	-15.24	-0.019360	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	-20	-33.23	-0.042213	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	-30	-28.51	-0.036217	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134184	1@0	15kHz	NV	-40	-10.46	-0.013288	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	85	-10.1	-0.012830	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	80	-14.85	-0.018864	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	70	-16.39	-0.020821	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	60	-10.04	-0.012754	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	50	-8.82	-0.011204	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	40	-13.72	-0.017429	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	30	-10.21	-0.012970	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	20	-24.71	-0.031390	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	10	-2.29	-0.002909	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	0	-21.6	-0.027439	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	-10	-18.03	-0.022904	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	-20	-8.1	-0.010290	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	-30	-2.27	-0.002884	±2.5	PASS

787-788M	Stand-Alone	NaN	QPSK	134190	1@0	3.75kHz	NV	-40	-3.84	-0.004878	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	85	-7.46	-0.009477	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	80	-20.37	-0.025877	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	70	-10	-0.012703	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	60	-13.02	-0.016540	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	50	-10	-0.012703	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	40	-32.18	-0.040879	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	30	-16.22	-0.020605	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	20	-16.83	-0.021380	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	10	-1.69	-0.002147	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	0	-5.5	-0.006987	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	-10	-19.61	-0.024911	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	-20	-10.98	-0.013948	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	-30	-19.61	-0.024911	±2.5	PASS
787-788M	Stand-Alone	NaN	QPSK	134190	1@0	15kHz	NV	-40	-2.44	-0.003100	±2.5	PASS