

Appendix test data for LTE band 5

Temperature:	25 ° C
Humidity:	44 %
Atmospheric pressure:	950-1050mbar
Test Engineer:	Aaron Tan

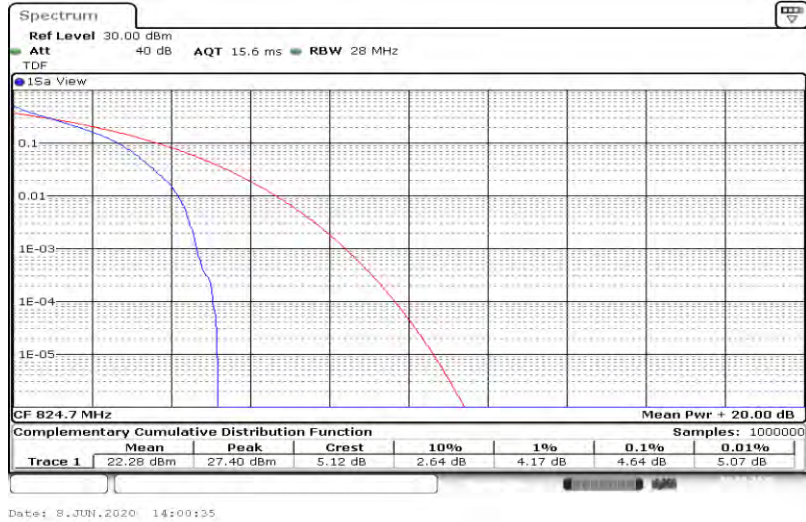
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	4.64	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	5.36	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	4.96	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	5.62	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	6.32	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	5.94	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	4.78	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	5.48	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	5.07	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	5.68	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	6.35	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	5.97	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.87	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	5.51	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	5.10	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	5.80	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	6.32	13	PASS
Band5	5MHz	16QAM	20625	25RB#0	5.97	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.04	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.45	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.13	13	PASS
Band5	10MHz	16QAM	20450	50RB#0	6.03	13	PASS
Band5	10MHz	16QAM	20525	50RB#0	6.32	13	PASS
Band5	10MHz	16QAM	20600	50RB#0	6.06	13	PASS

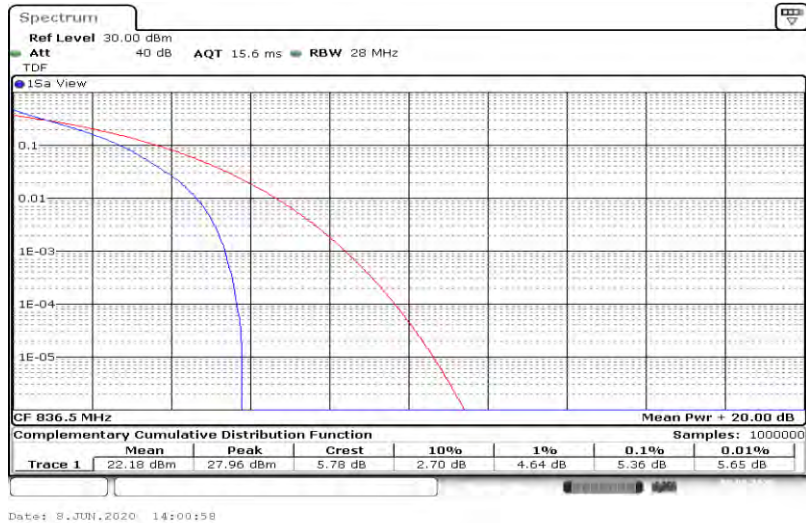
Test Graphs

Band5-1.4MHz-QPSK-20407-6RB#0



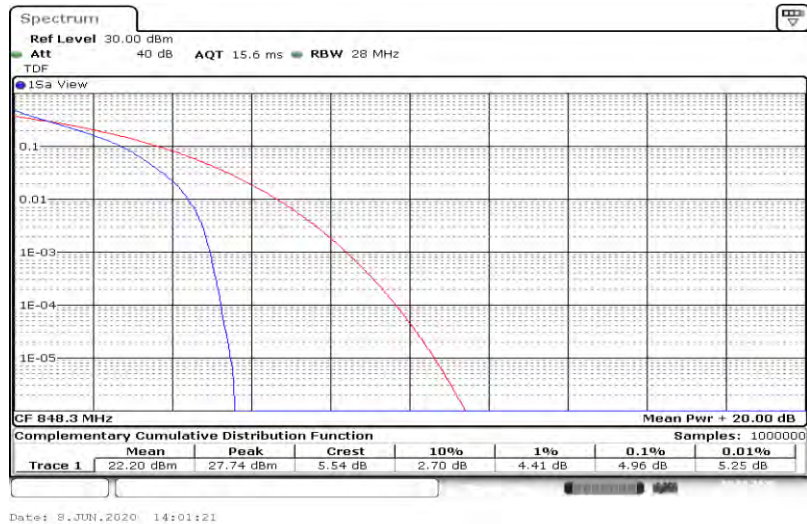
Date: 8 JUN 2020 14:00:35

Band5-1.4MHz-QPSK-20525-6RB#0

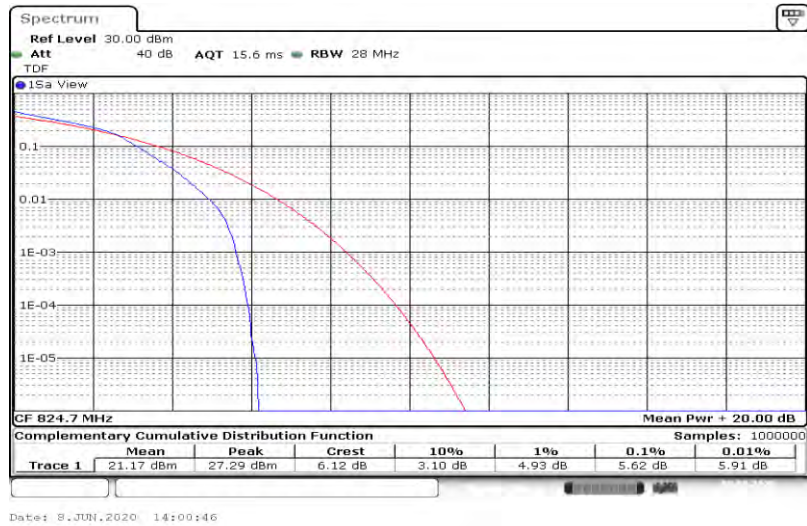


Date: 8 JUN 2020 14:00:58

Band5-1.4MHz-QPSK-20643-6RB#0



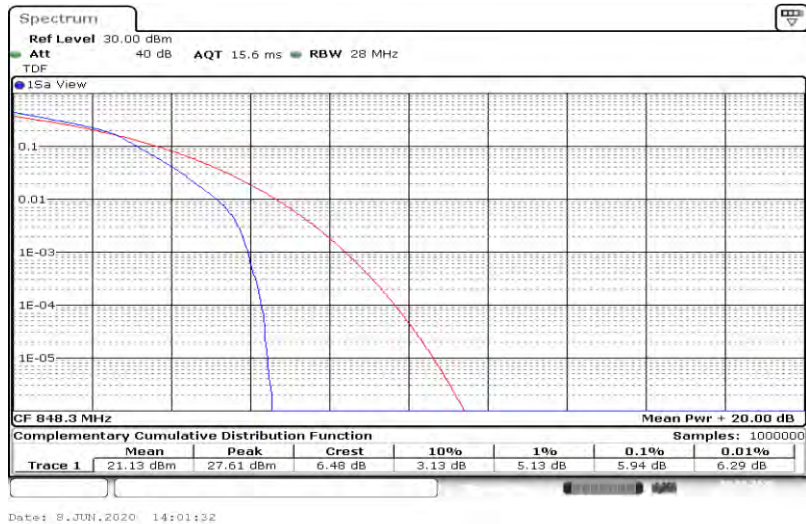
Band5-1.4MHz-16QAM-20407-6RB#0



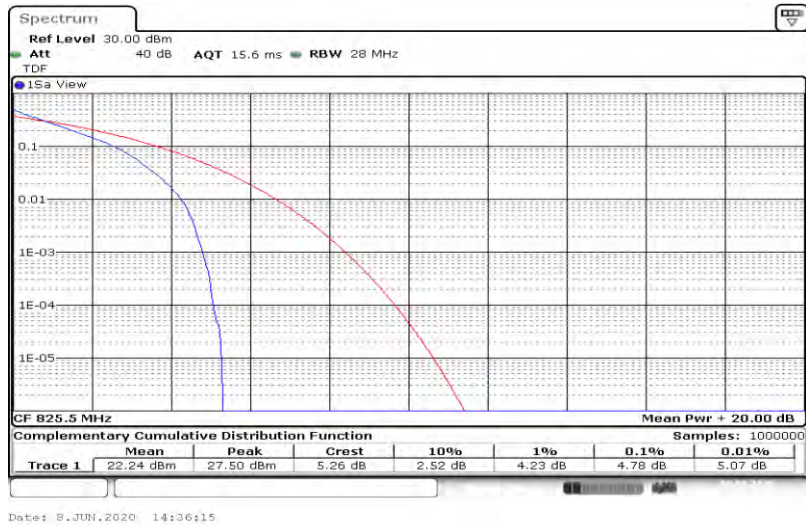
Band5-1.4MHz-16QAM-20525-6RB#0



Band5-1.4MHz-16QAM-20643-6RB#0



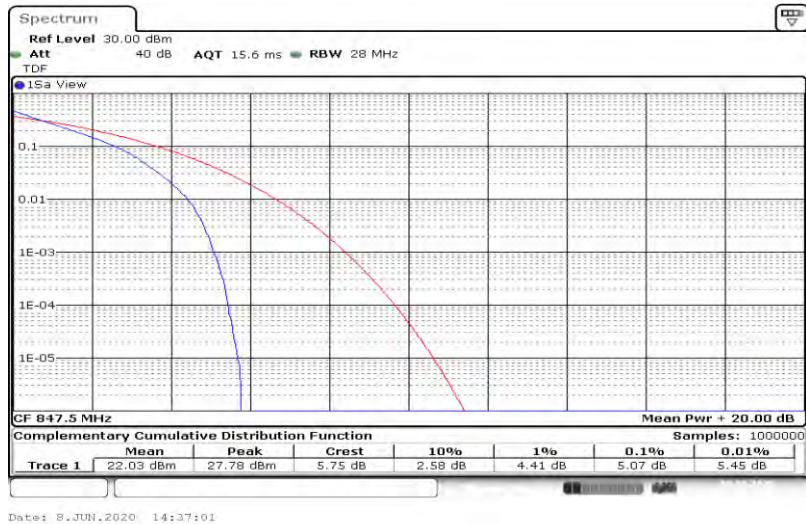
Band5-3MHz-QPSK-20415-15RB#0



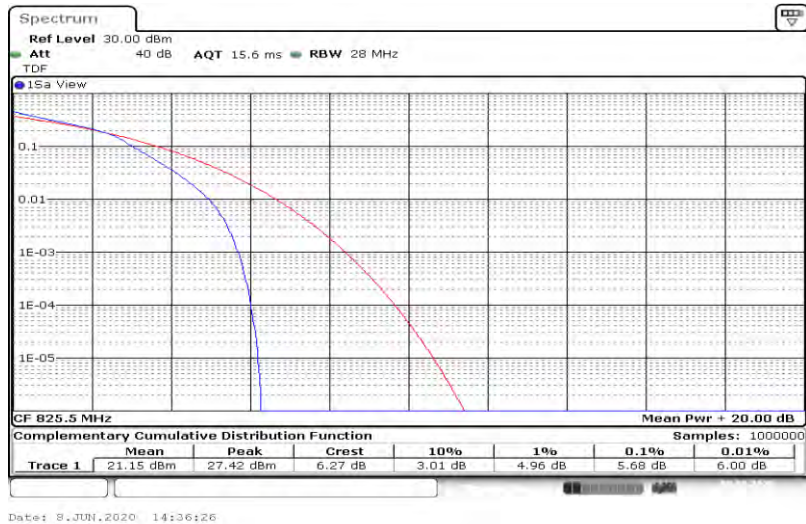
Band5-3MHz-QPSK-20525-15RB#0



Band5-3MHz-QPSK-20635-15RB#0



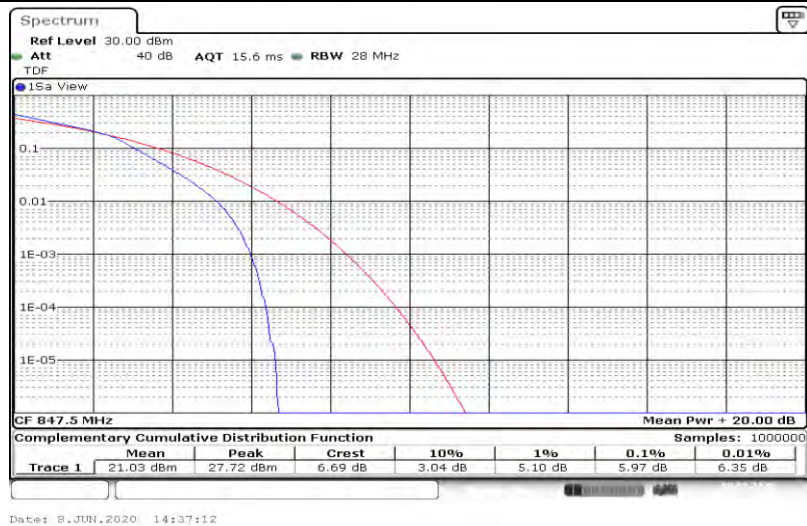
Band5-3MHz-16QAM-20415-15RB#0



Band5-3MHz-16QAM-20525-15RB#0



Band5-3MHz-16QAM-20635-15RB#0



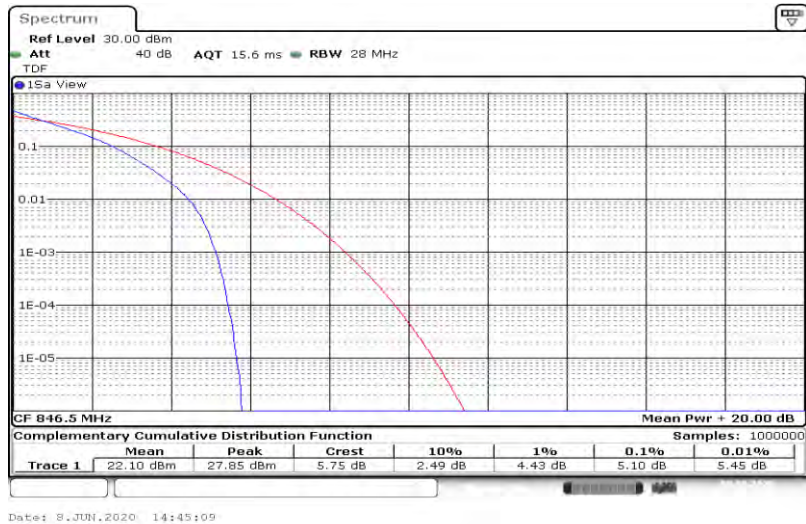
Band5-5MHz-QPSK-20425-25RB#0



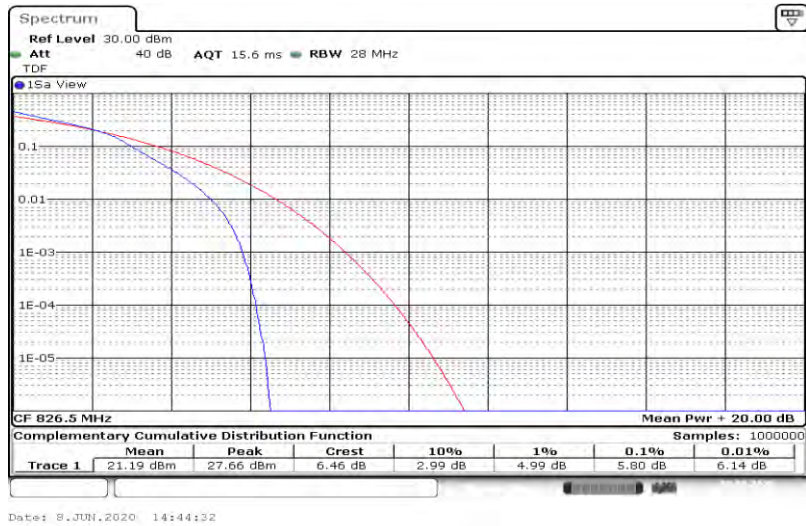
Band5-5MHz-QPSK-20525-25RB#0



Band5-5MHz-QPSK-20625-25RB#0



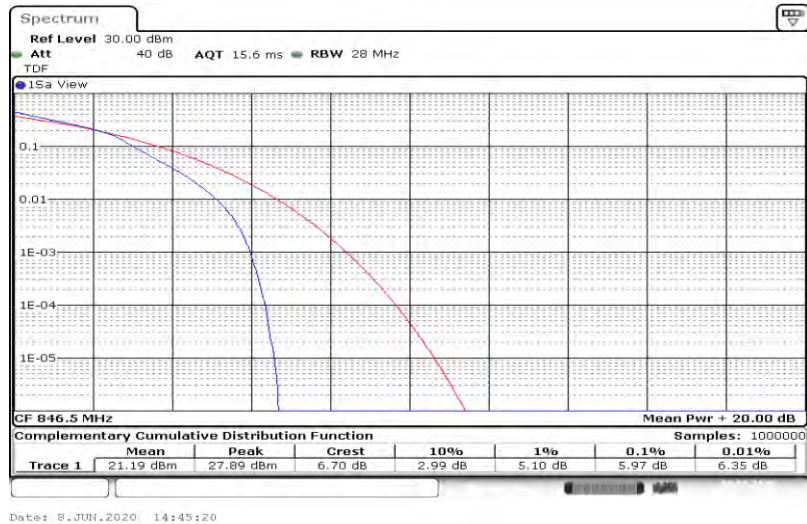
Band5-5MHz-16QAM-20425-25RB#0



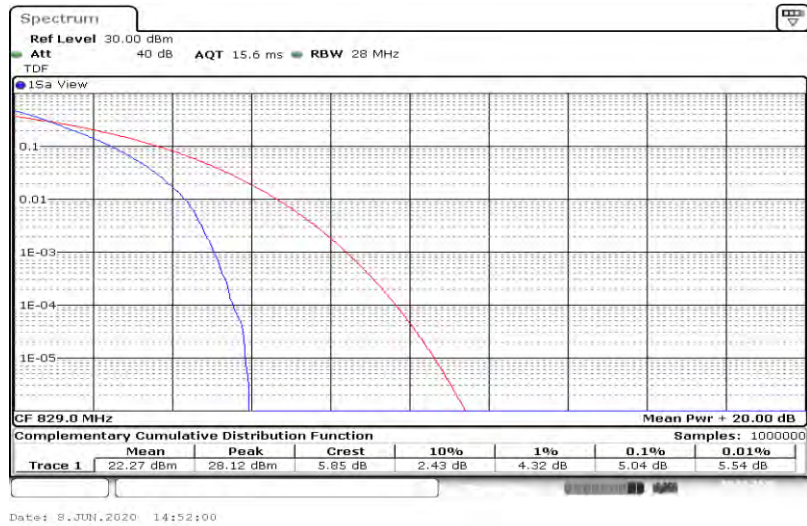
Band5-5MHz-16QAM-20525-25RB#0



Band5-5MHz-16QAM-20625-25RB#0



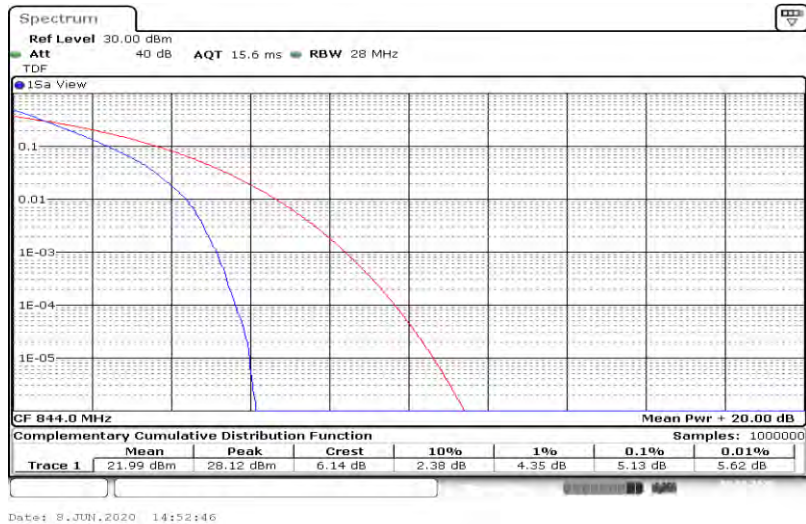
Band5-10MHz-QPSK-20450-50RB#0



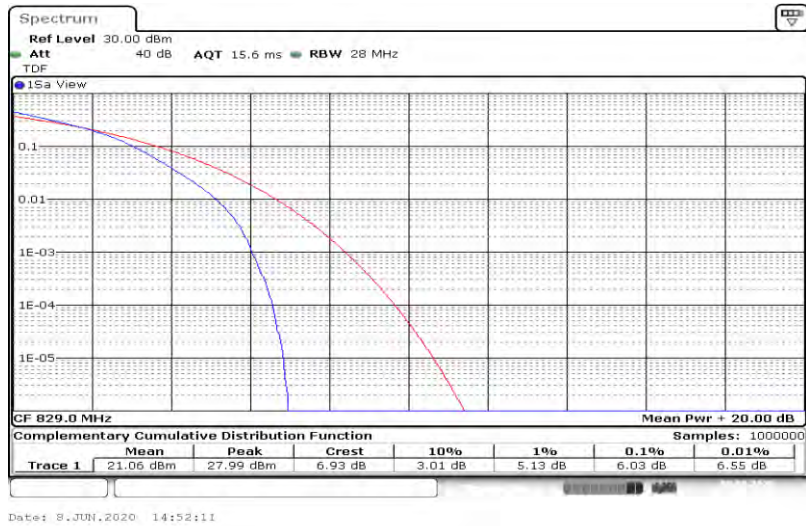
Band5-10MHz-QPSK-20525-50RB#0



Band5-10MHz-QPSK-20600-50RB#0



Band5-10MHz-16QAM-20450-50RB#0



Band5-10MHz-16QAM-20525-50RB#0



Band5-10MHz-16QAM-20600-50RB#0



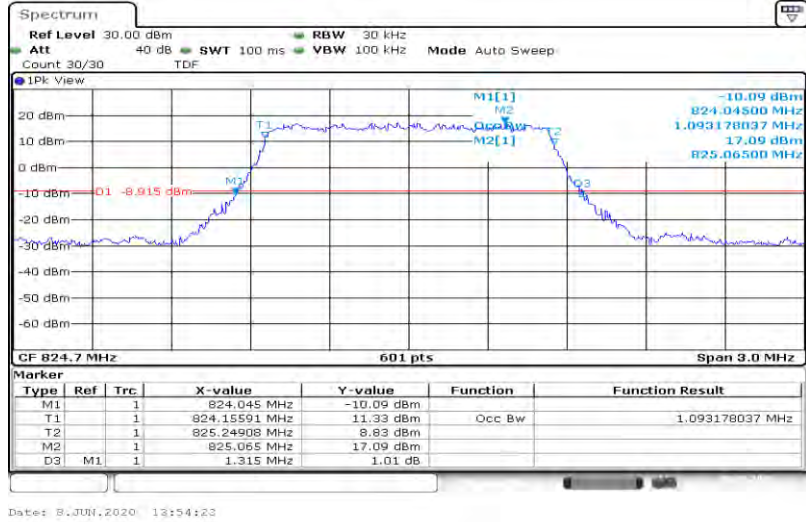
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

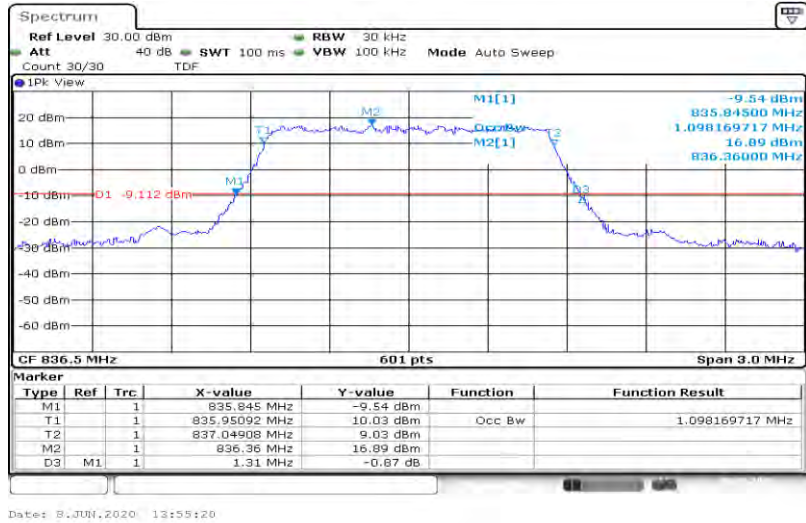
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.093	1.315	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.098	1.310	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.098	1.315	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.103	1.315	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.103	1.320	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.098	1.310	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.696	2.980	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.705	2.980	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.715	2.990	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.696	2.980	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.696	2.990	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.696	2.980	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.496	5.030	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.525	5.070	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.525	5.060	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.515	5.070	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.515	5.030	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.515	5.010	PASS
Band5	10MHz	QPSK	20450	50RB#0	9.018	9.967	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.985	10.000	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.952	9.967	PASS
Band5	10MHz	16QAM	20450	50RB#0	8.985	9.833	PASS
Band5	10MHz	16QAM	20525	50RB#0	9.018	10.000	PASS
Band5	10MHz	16QAM	20600	50RB#0	8.952	9.933	PASS

Test Graphs

Band5-1.4MHz-QPSK-20407-6RB#0-1.093



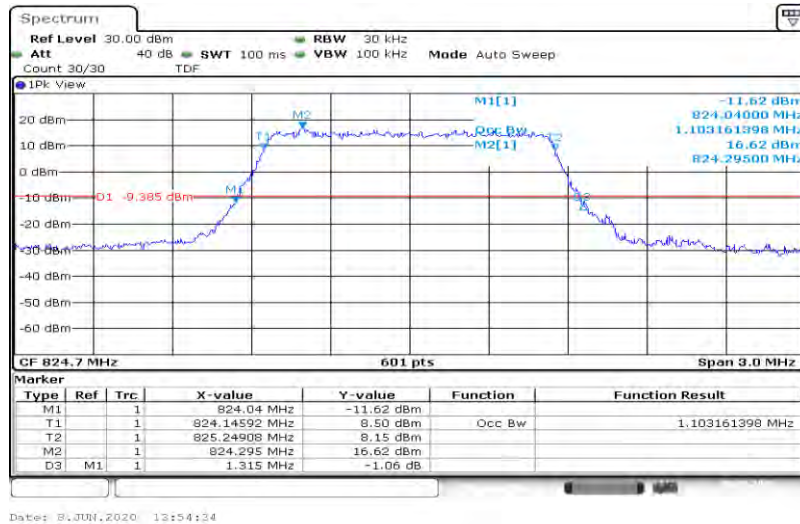
Band5-1.4MHz-QPSK-20525-6RB#0-1.098



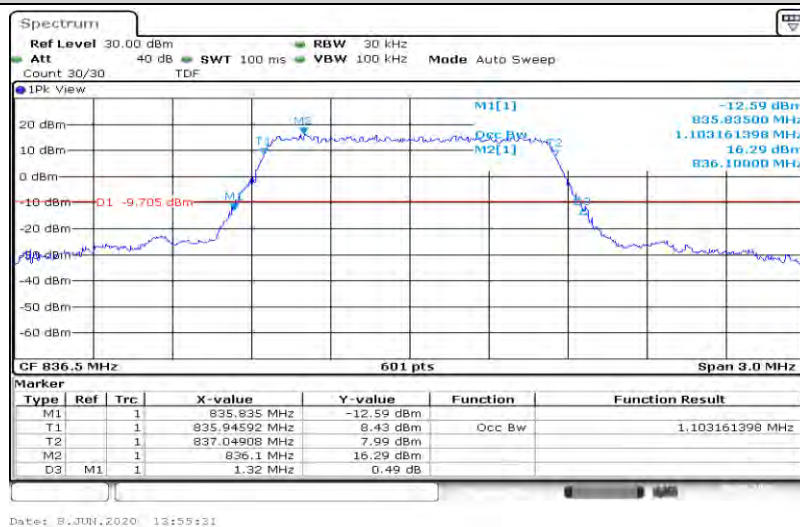
Band5-1.4MHz-QPSK-20643-6RB#0-1.098



Band5-1.4MHz-16QAM-20407-6RB#0-1.103



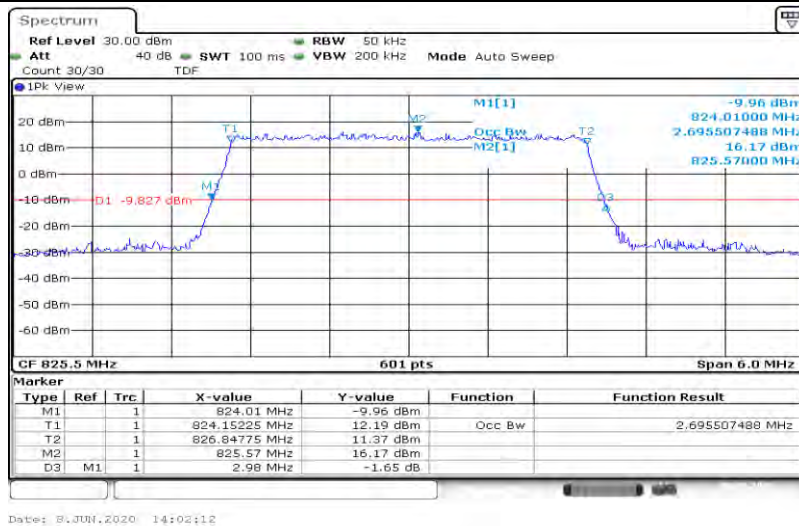
Band5-1.4MHz-16QAM-20525-6RB#0-1.103



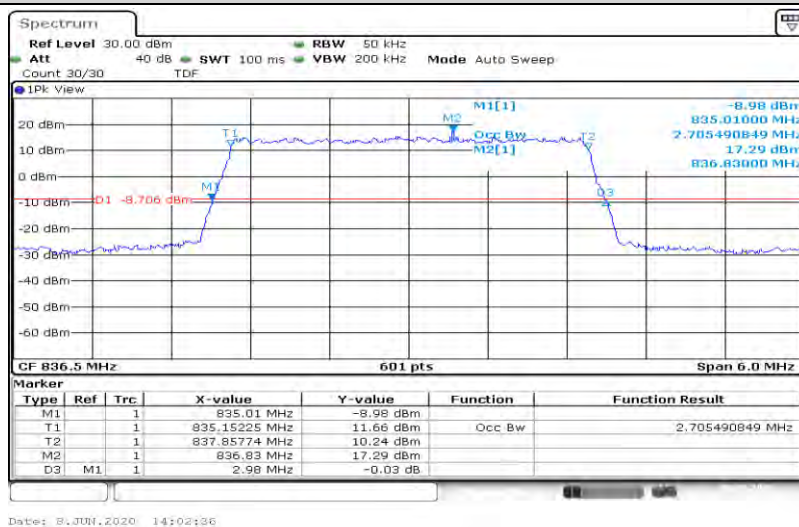
Band5-1.4MHz-16QAM-20643-6RB#0-1.098



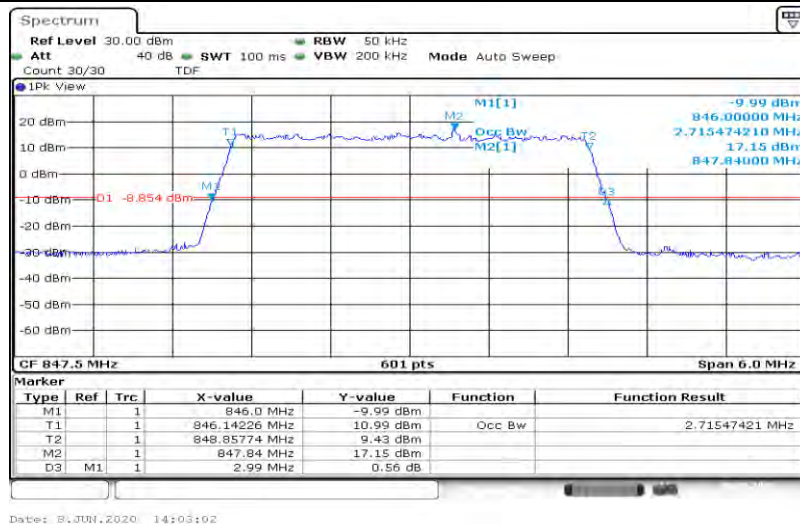
Band5-3MHz-QPSK-20415-15RB#0-2.696



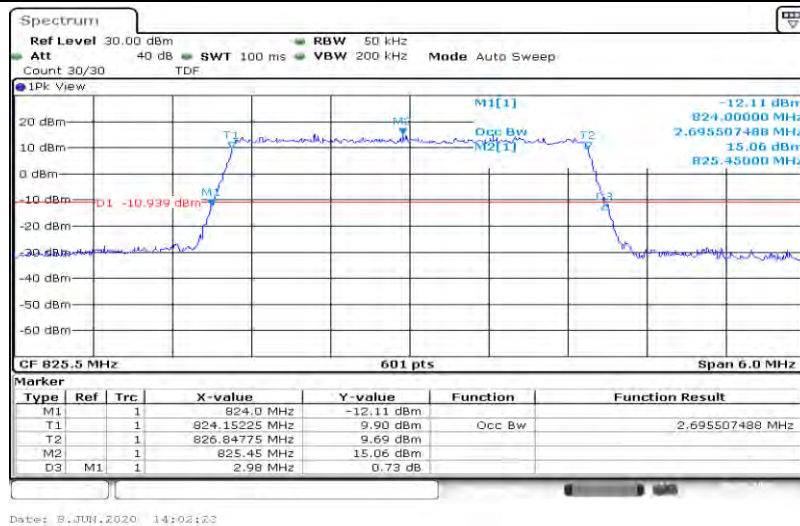
Band5-3MHz-QPSK-20525-15RB#0-2.705



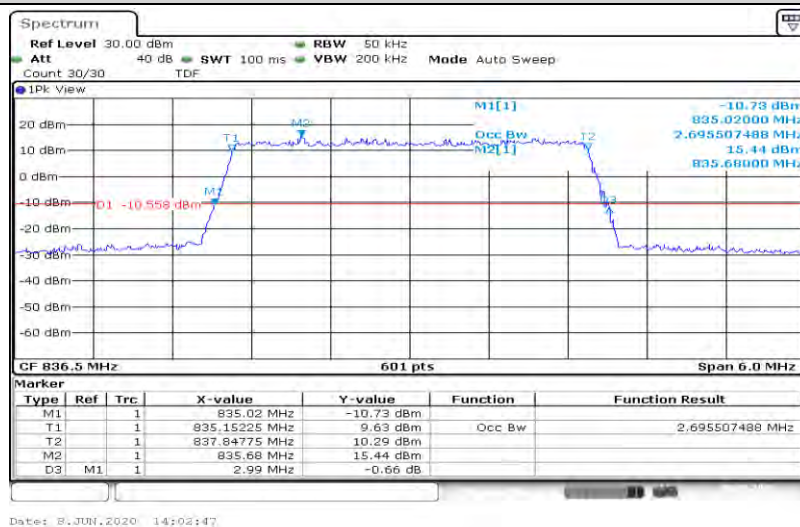
Band5-3MHz-QPSK-20635-15RB#0-2.715



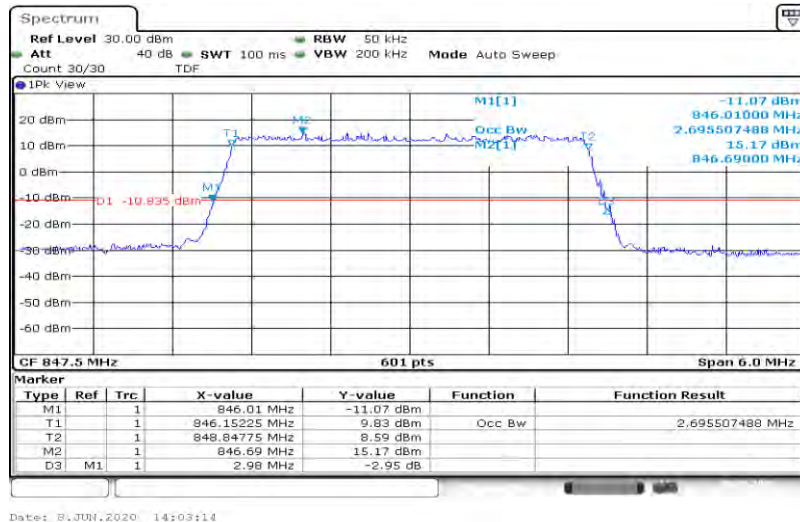
Band5-3MHz-16QAM-20415-15RB#0-2.696



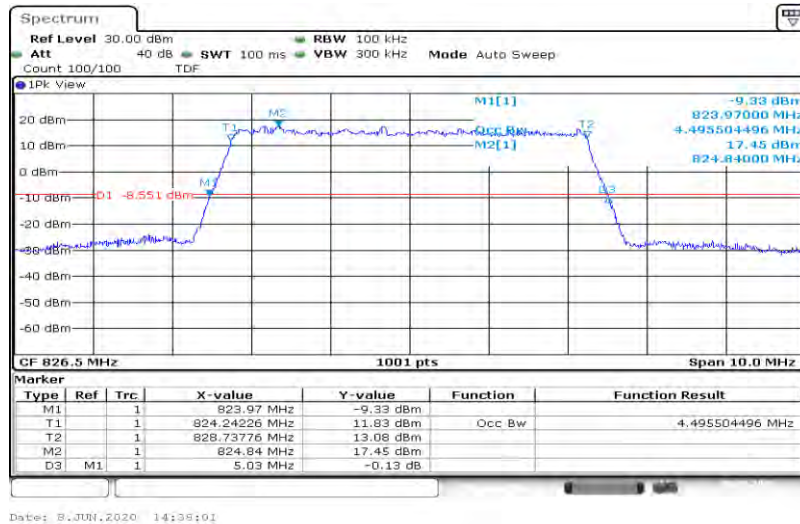
Band5-3MHz-16QAM-20525-15RB#0-2.696



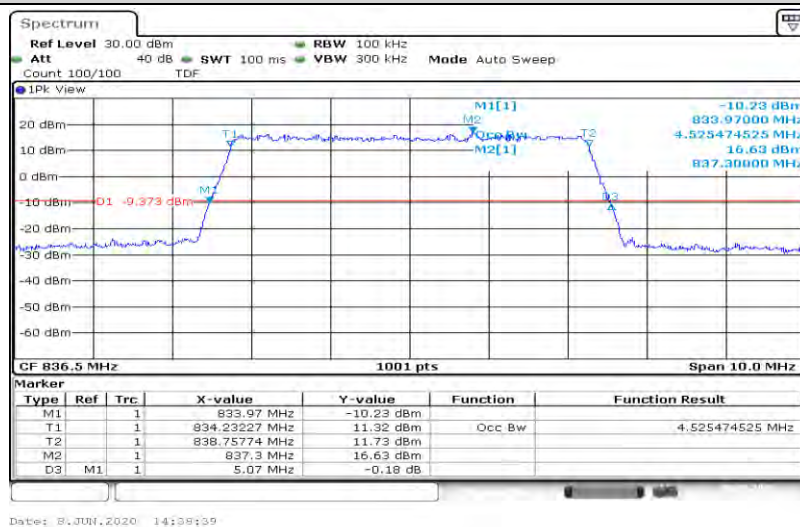
Band5-3MHz-16QAM-20635-15RB#0-2.696



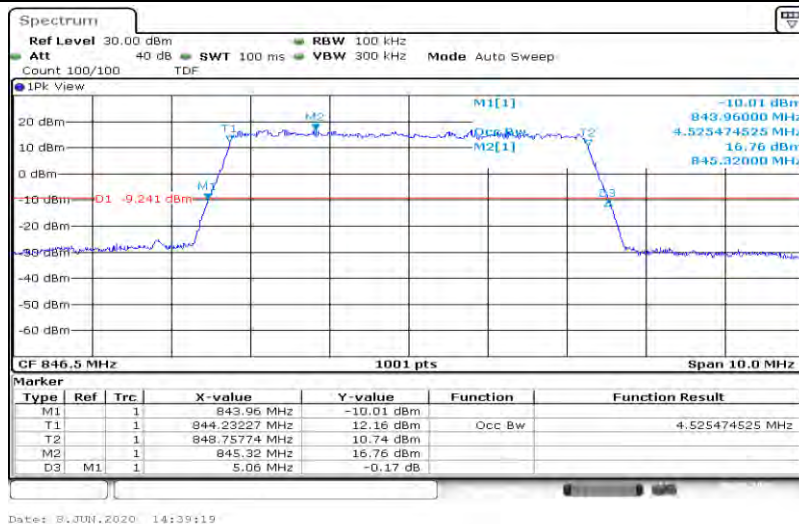
Band5-5MHz-QPSK-20425-25RB#0-4.496



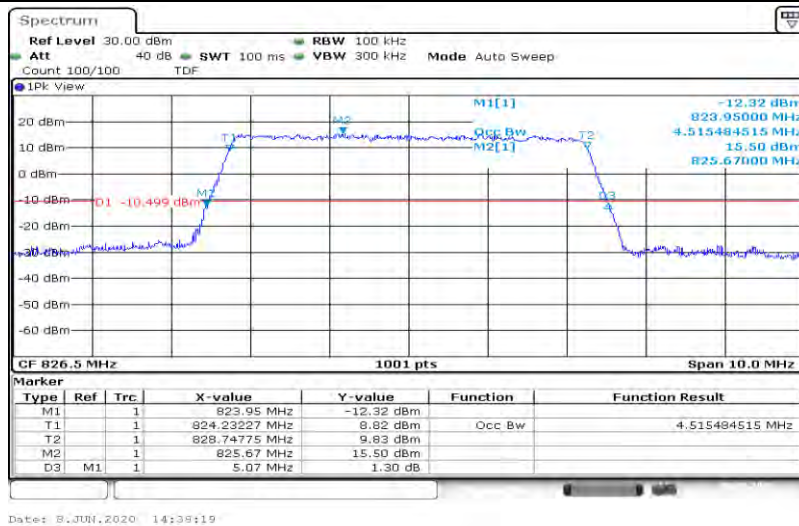
Band5-5MHz-QPSK-20525-25RB#0-4.525



Band5-5MHz-QPSK-20625-25RB#0-4.525



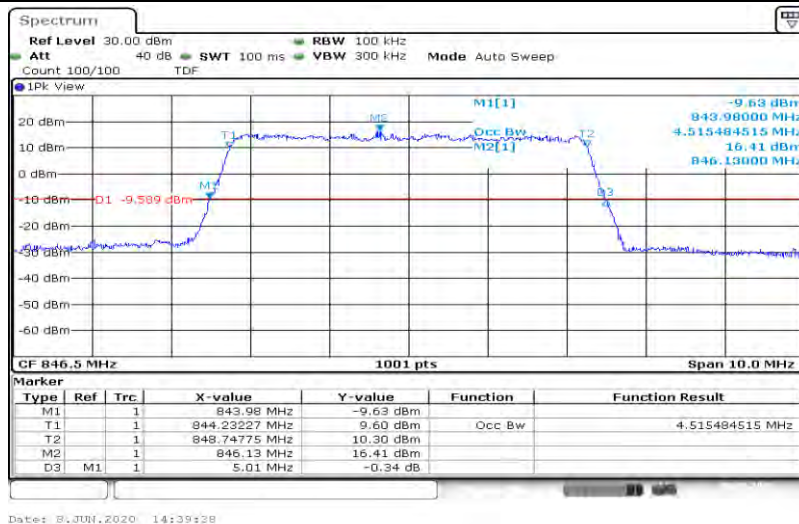
Band5-5MHz-16QAM-20425-25RB#0-4.515



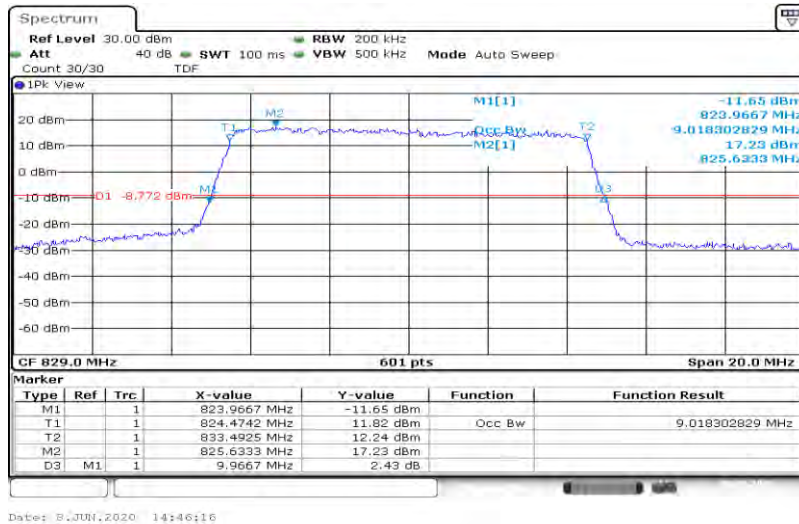
Band5-5MHz-16QAM-20525-25RB#0-4.515



Band5-5MHz-16QAM-20625-25RB#0-4.515



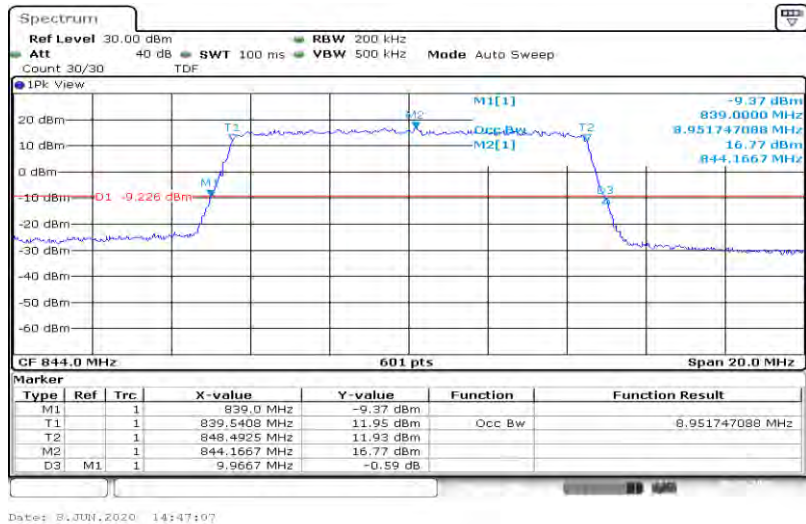
Band5-10MHz-QPSK-20450-50RB#0-9.018



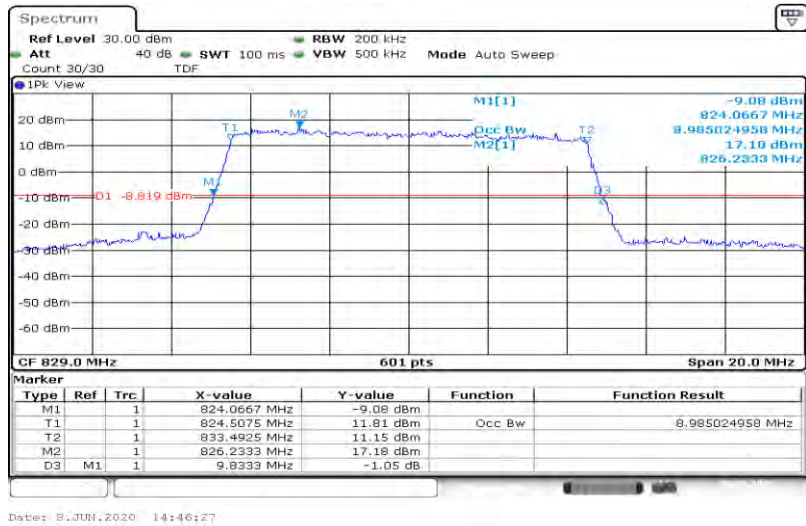
Band5-10MHz-QPSK-20525-50RB#0-8.985



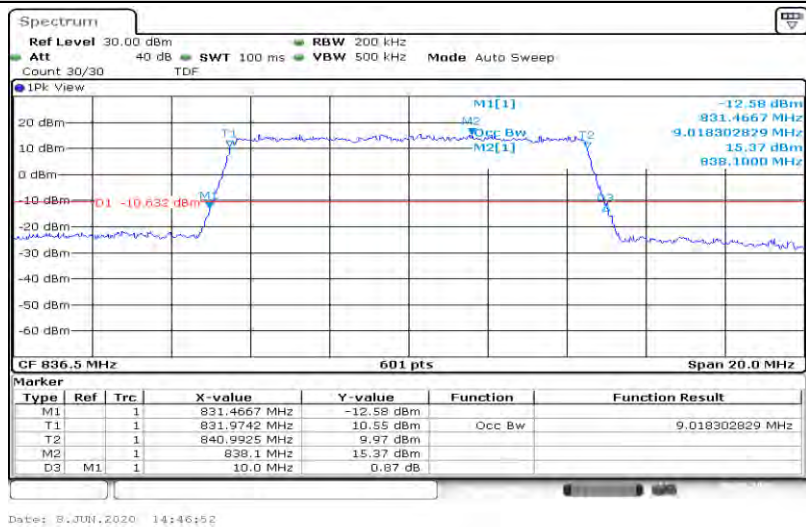
Band5-10MHz-QPSK-20600-50RB#0-8.952



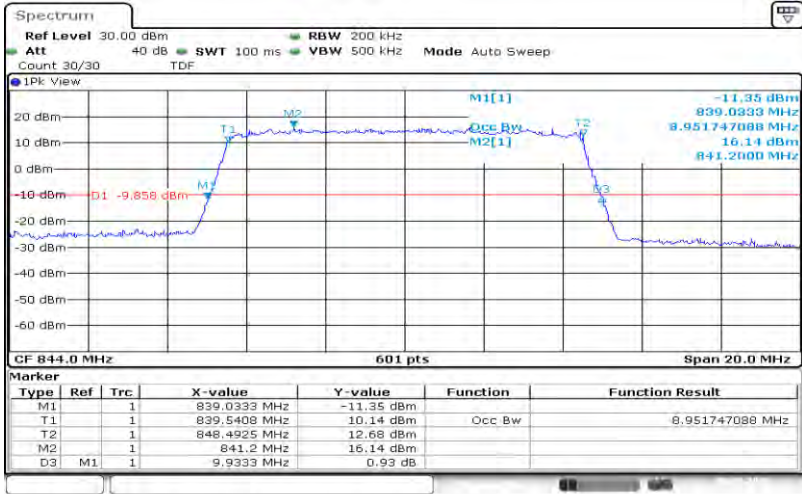
Band5-10MHz-16QAM-20450-50RB#0-8.985



Band5-10MHz-16QAM-20525-50RB#0-9.018



Band5-10MHz-16QAM-20600-50RB#0-8.952



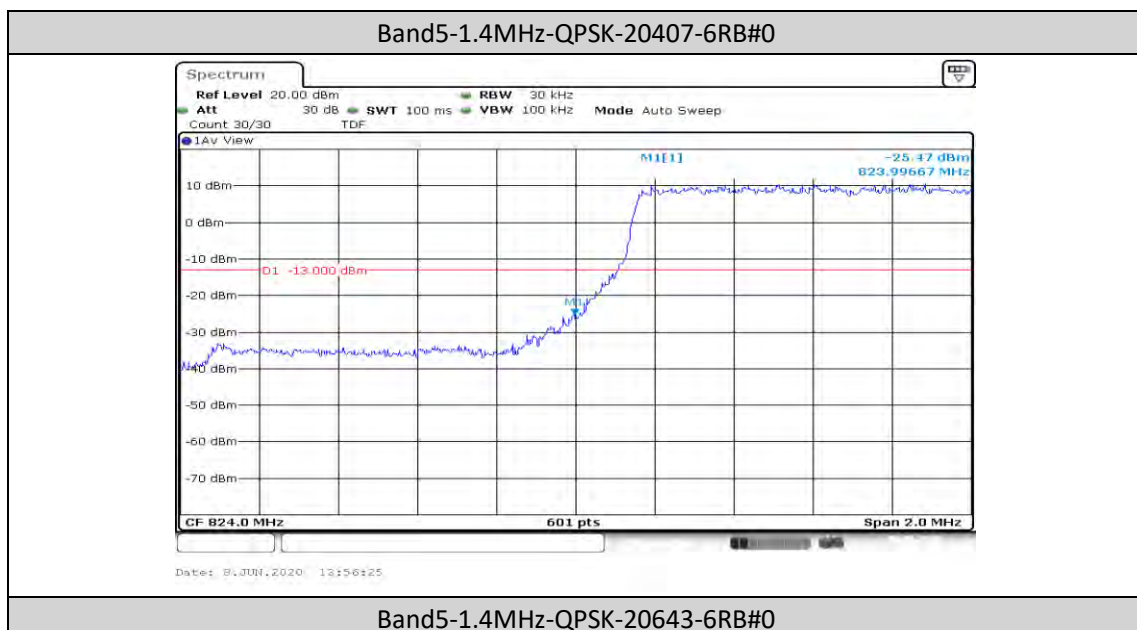
Date: 8 JUN 2020 14:47:18

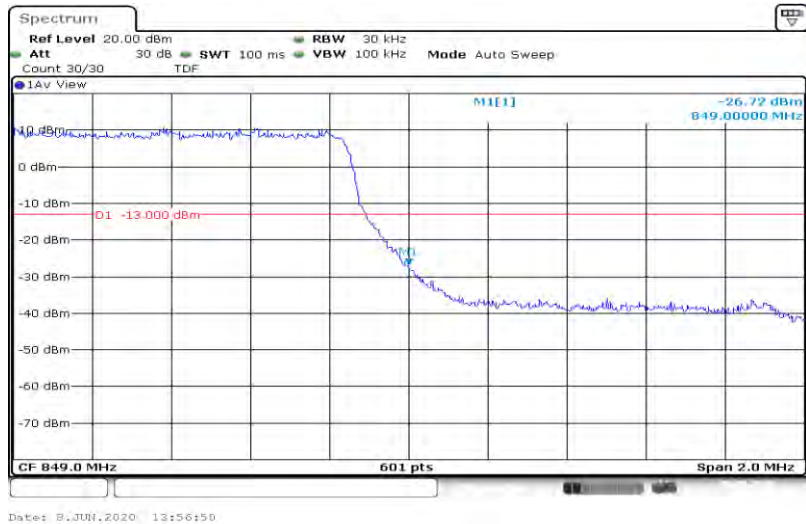
Appendix D: Band Edge

Test Result

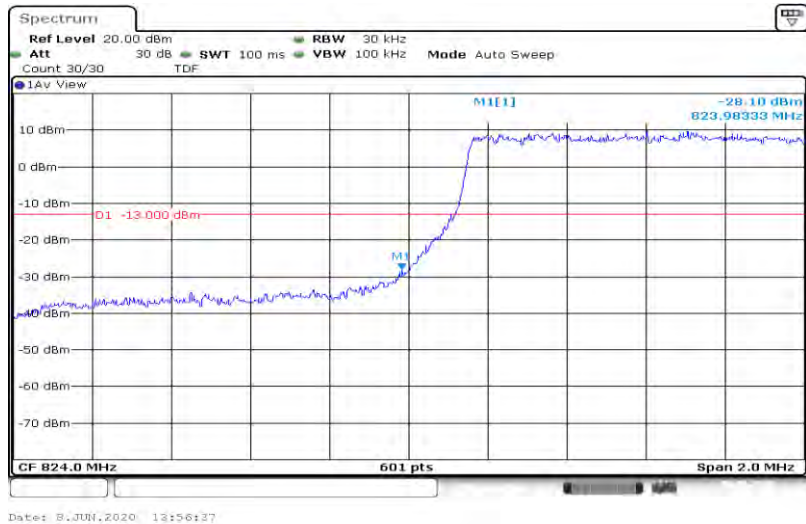
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	-25.47	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	-26.72	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	-28.10	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	-26.43	PASS
Band5	3MHz	QPSK	20415	15RB#0	-24.70	PASS
Band5	3MHz	QPSK	20635	15RB#0	-26.94	PASS
Band5	3MHz	16QAM	20415	15RB#0	-26.15	PASS
Band5	3MHz	16QAM	20635	15RB#0	-26.74	PASS
Band5	5MHz	QPSK	20425	25RB#0	-23.88	PASS
Band5	5MHz	QPSK	20625	25RB#0	-27.65	PASS
Band5	5MHz	16QAM	20425	25RB#0	-27.92	PASS
Band5	5MHz	16QAM	20625	25RB#0	-28.58	PASS
Band5	10MHz	QPSK	20450	50RB#0	-27.10	PASS
Band5	10MHz	QPSK	20600	50RB#0	-31.49	PASS
Band5	10MHz	16QAM	20450	50RB#0	-29.01	PASS
Band5	10MHz	16QAM	20600	50RB#0	-32.18	PASS

Test Graphs





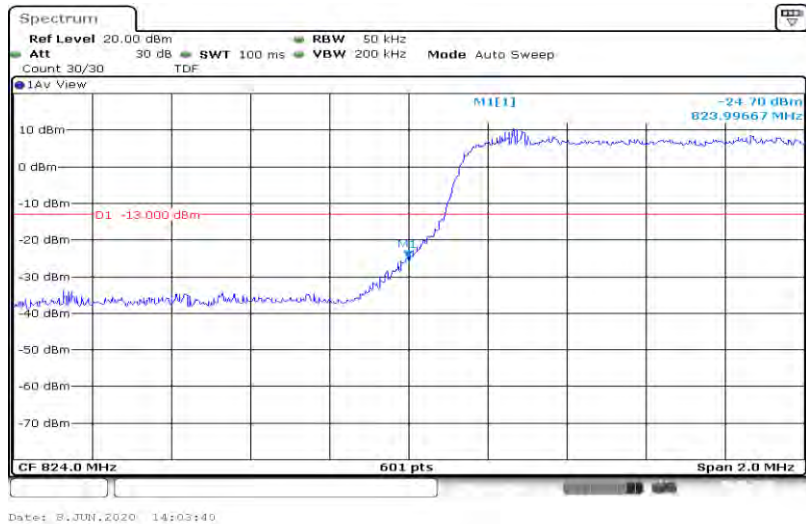
Band5-1.4MHz-16QAM-20407-6RB#0



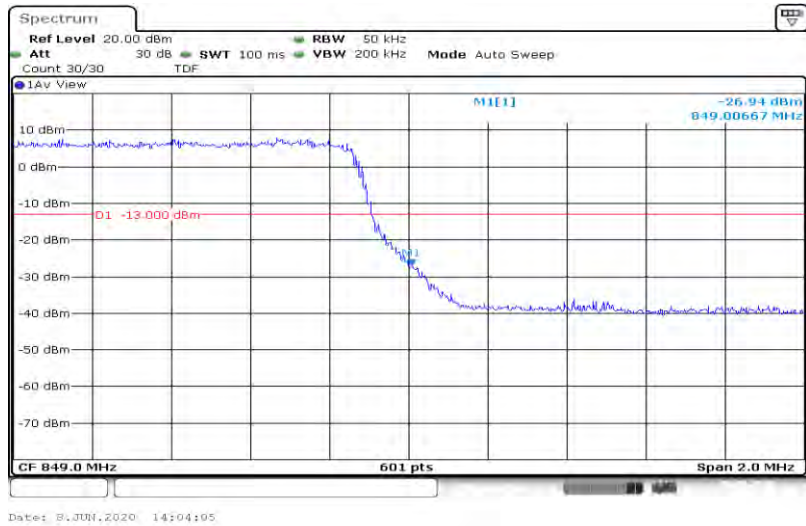
Band5-1.4MHz-16QAM-20643-6RB#0



Band5-3MHz-QPSK-20415-15RB#0



Band5-3MHz-QPSK-20635-15RB#0



Band5-3MHz-16QAM-20415-15RB#0



Band5-3MHz-16QAM-20635-15RB#0



Band5-5MHz-QPSK-20425-25RB#0



Band5-5MHz-QPSK-20625-25RB#0



Band5-5MHz-16QAM-20425-25RB#0



Band5-5MHz-16QAM-20625-25RB#0



Band5-10MHz-QPSK-20450-50RB#0



Band5-10MHz-QPSK-20600-50RB#0



Band5-10MHz-16QAM-20450-50RB#0



Band5-10MHz-16QAM-20600-50RB#0



Appendix E: Conducted Spurious Emission

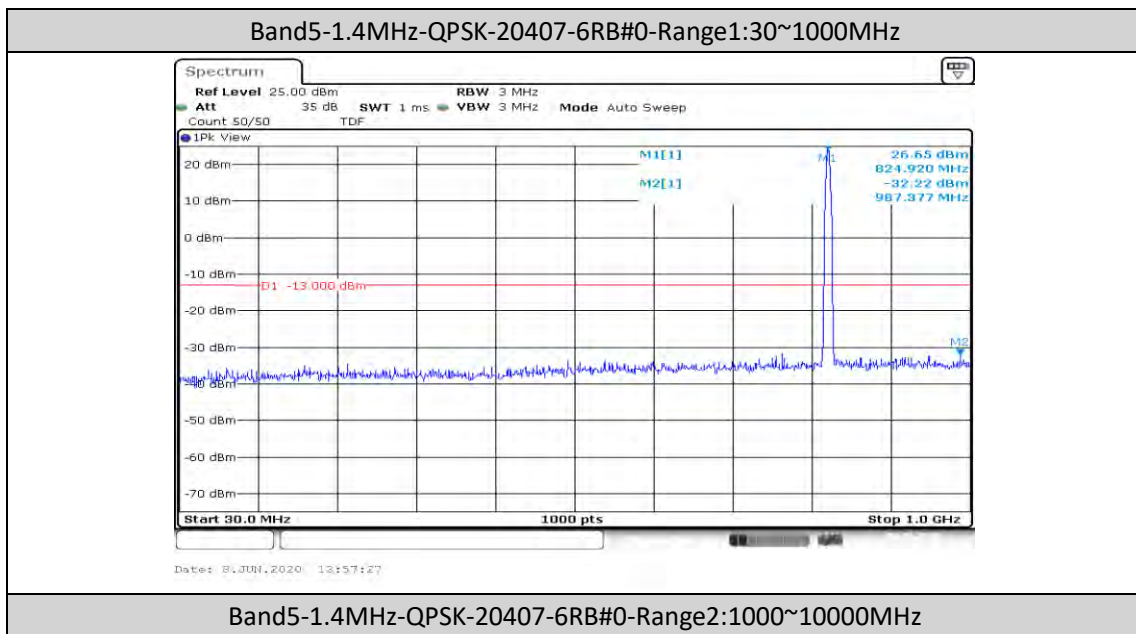
Test Result

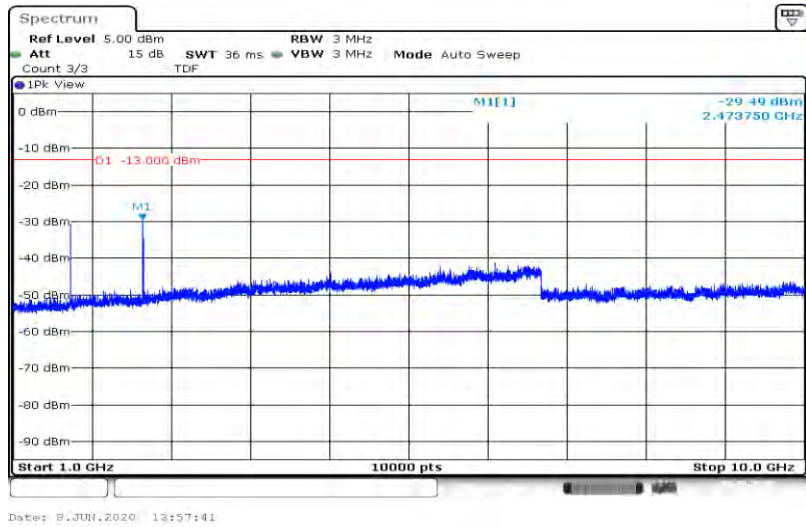
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band 5	1.4MHz	QPSK	20407	6RB#0	Range1:30~1000MHz	-32.22	PASS
Band 5	1.4MHz	QPSK	20407	6RB#0	Range2:1000~10000MHz	-29.49	PASS
Band 5	1.4MHz	QPSK	20525	6RB#0	Range1:30~1000MHz	-36.88	PASS
Band 5	1.4MHz	QPSK	20525	6RB#0	Range2:1000~10000MHz	-29.19	PASS
Band 5	1.4MHz	QPSK	20643	6RB#0	Range1:30~1000MHz	-36.87	PASS
Band 5	1.4MHz	QPSK	20643	6RB#0	Range2:1000~10000MHz	-31.4	PASS
Band 5	1.4MHz	16QAM	20407	6RB#0	Range1:30~1000MHz	-36.68	PASS
Band 5	1.4MHz	16QAM	20407	6RB#0	Range2:1000~10000MHz	-31.52	PASS
Band 5	1.4MHz	16QAM	20525	6RB#0	Range1:30~1000MHz	-36.76	PASS
Band 5	1.4MHz	16QAM	20525	6RB#0	Range2:1000~10000MHz	-28.57	PASS
Band 5	1.4MHz	16QAM	20643	6RB#0	Range1:30~1000MHz	-36.62	PASS
Band 5	1.4MHz	16QAM	20643	6RB#0	Range2:1000~10000MHz	-32.21	PASS
Band 5	3MHz	QPSK	20415	15RB#0	Range1:30~1000MHz	-33.22	PASS
Band 5	3MHz	QPSK	20415	15RB#0	Range2:1000~10000MHz	-31.76	PASS
Band 5	3MHz	QPSK	20525	15RB#0	Range1:30~1000MHz	-36.32	PASS
Band 5	3MHz	QPSK	20525	15RB#0	Range2:1000~10000MHz	-33.05	PASS
Band 5	3MHz	QPSK	20635	15RB#0	Range1:30~1000MHz	-36.88	PASS
Band 5	3MHz	QPSK	20635	15RB#0	Range2:1000~10000MHz	-37.6	PASS

5					Hz	3	
Band 5	3MHz	16QAM	20415	15RB#0	Range1:30~1000MHz	-37.0 2	PASS
Band 5	3MHz	16QAM	20415	15RB#0	Range2:1000~10000M Hz	-36.0 9	PASS
Band 5	3MHz	16QAM	20525	15RB#0	Range1:30~1000MHz	-36.8 5	PASS
Band 5	3MHz	16QAM	20525	15RB#0	Range2:1000~10000M Hz	-33.1 7	PASS
Band 5	5MHz	QPSK	20425	25RB#0	Range1:30~1000MHz	-32.7	PASS
Band 5	5MHz	QPSK	20425	25RB#0	Range2:1000~10000M Hz	-33.8 8	PASS
Band 5	5MHz	QPSK	20525	25RB#0	Range1:30~1000MHz	-36.1 7	PASS
Band 5	5MHz	QPSK	20525	25RB#0	Range2:1000~10000M Hz	-35.5 2	PASS
Band 5	5MHz	QPSK	20625	25RB#0	Range1:30~1000MHz	-36.3	PASS
Band 5	5MHz	QPSK	20625	25RB#0	Range2:1000~10000M Hz	-38.5 6	PASS
Band 5	5MHz	16QAM	20425	25RB#0	Range1:30~1000MHz	-37.2	PASS
Band 5	5MHz	16QAM	20425	25RB#0	Range2:1000~10000M Hz	-37.3 4	PASS
Band 5	5MHz	16QAM	20525	25RB#0	Range1:30~1000MHz	-36.7 5	PASS
Band 5	5MHz	16QAM	20525	25RB#0	Range2:1000~10000M Hz	-34.0 2	PASS
Band 5	5MHz	16QAM	20625	25RB#0	Range1:30~1000MHz	-37.4 6	PASS
Band 5	5MHz	16QAM	20625	25RB#0	Range2:1000~10000M Hz	-38.6 1	PASS
Band 5	10MHz	QPSK	20450	50RB#0	Range1:30~1000MHz	-32.4 7	PASS
Band 5	10MHz	QPSK	20450	50RB#0	Range2:1000~10000M Hz	-35.8	PASS
Band 5	10MHz	QPSK	20525	50RB#0	Range1:30~1000MHz	-37.6 1	PASS
Band 5	10MHz	QPSK	20525	50RB#0	Range2:1000~10000M Hz	-36.8 5	PASS
Band 5	10MHz	QPSK	20600	50RB#0	Range1:30~1000MHz	-37.0 8	PASS

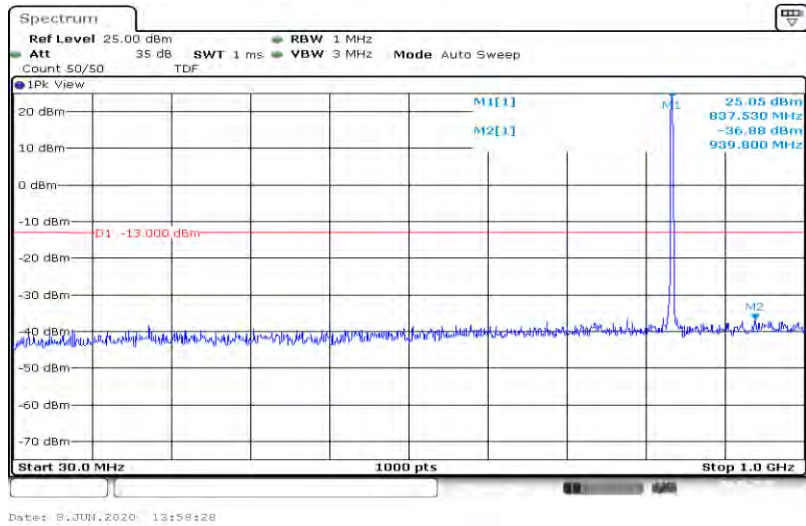
Band 5	10MHz	QPSK	20600	50RB#0	Range2:1000~10000M Hz	-40.8 2	PASS
Band 5	10MHz	16QAM	20450	50RB#0	Range1:30~1000MHz	-37.0 5	PASS
Band 5	10MHz	16QAM	20450	50RB#0	Range2:1000~10000M Hz	-41.8 8	PASS
Band 5	10MHz	16QAM	20525	50RB#0	Range1:30~1000MHz	-37.2	PASS
Band 5	10MHz	16QAM	20525	50RB#0	Range2:1000~10000M Hz	-37.1 1	PASS
Band 5	10MHz	16QAM	20600	50RB#0	Range1:30~1000MHz	-36.6	PASS
Band 5	10MHz	16QAM	20600	50RB#0	Range2:1000~10000M Hz	-41.2 9	PASS

Test Graphs

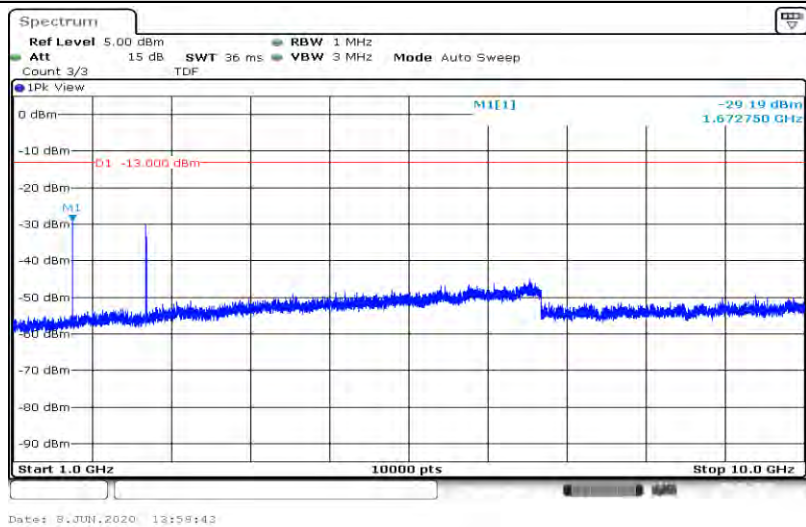




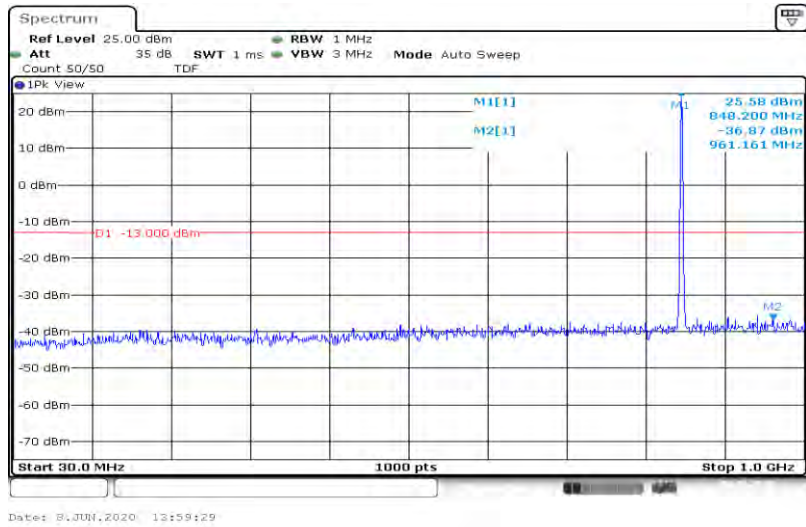
Band5-1.4MHz-QPSK-20525-6RB#0-Range1:30~1000MHz



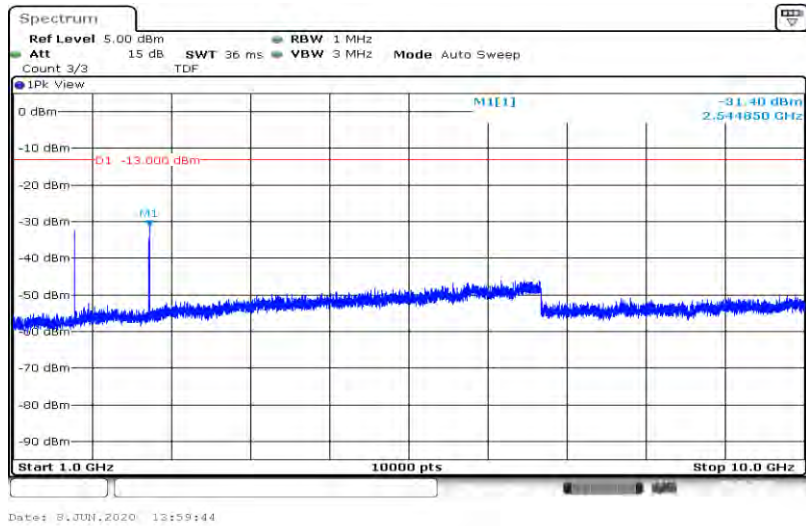
Band5-1.4MHz-QPSK-20525-6RB#0-Range2:1000~10000MHz



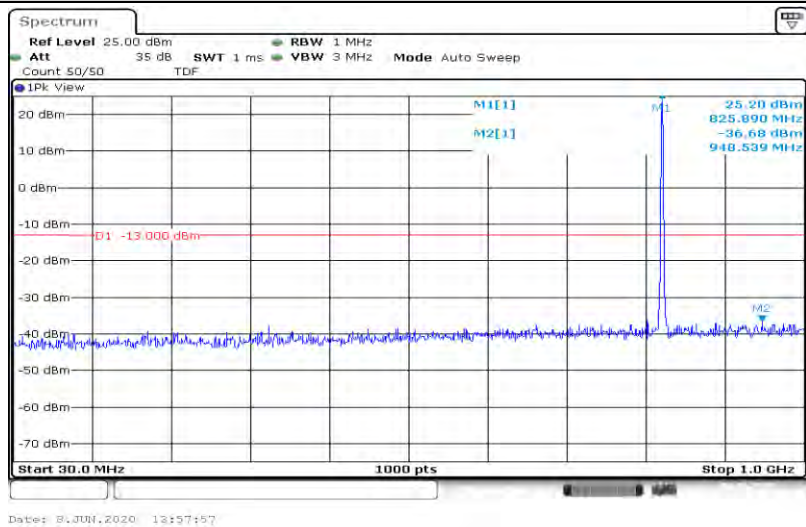
Band5-1.4MHz-QPSK-20643-6RB#0-Range1:30~1000MHz



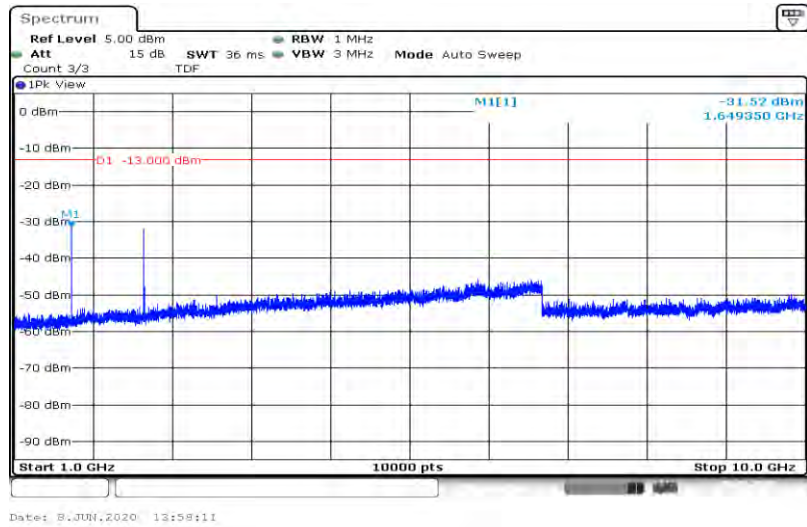
Band5-1.4MHz-QPSK-20643-6RB#0-Range2:1000~10000MHz



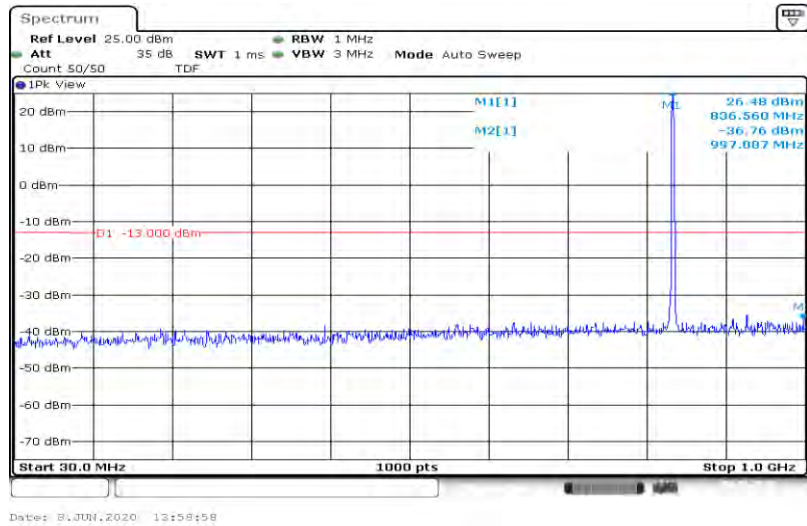
Band5-1.4MHz-16QAM-20407-6RB#0-Range1:30~1000MHz



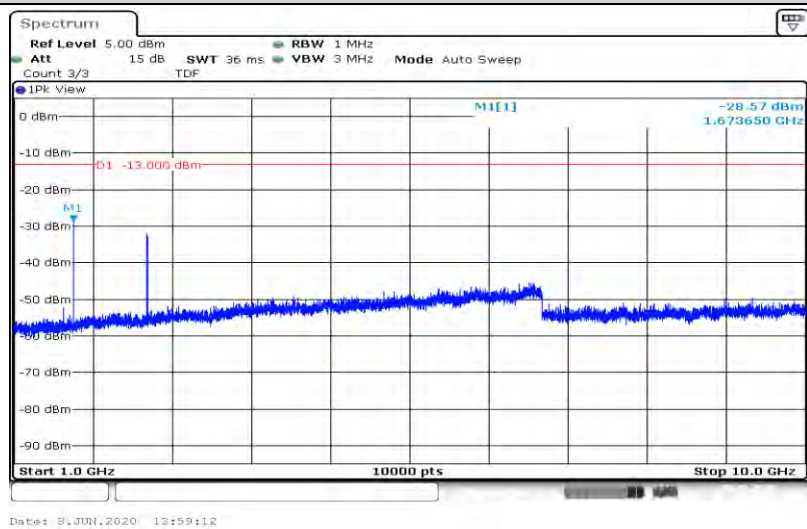
Band5-1.4MHz-16QAM-20407-6RB#0-Range2:1000~10000MHz



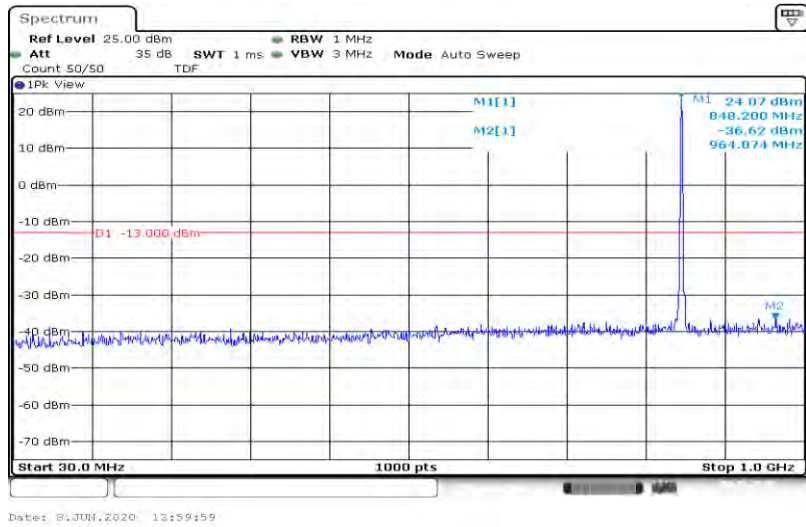
Band5-1.4MHz-16QAM-20525-6RB#0-Range1:30~1000MHz



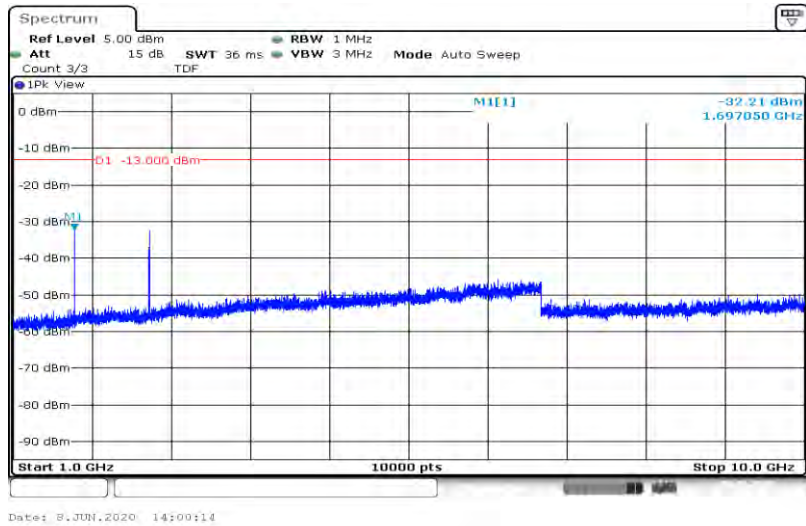
Band5-1.4MHz-16QAM-20525-6RB#0-Range2:1000~10000MHz



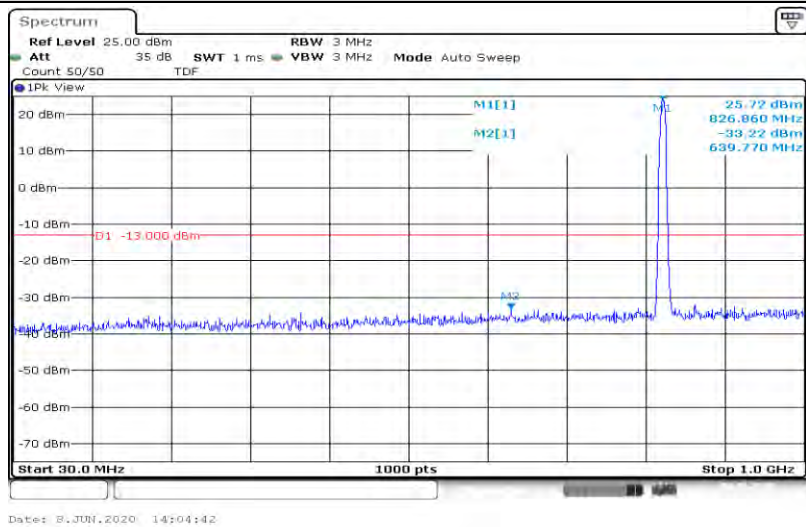
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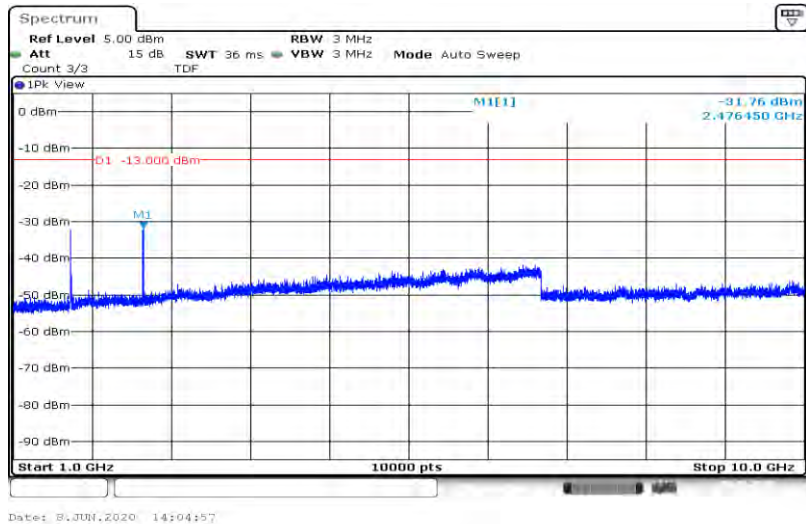
Band5-1.4MHz-16QAM-20643-6RB#0-Range2:1000~10000MHz



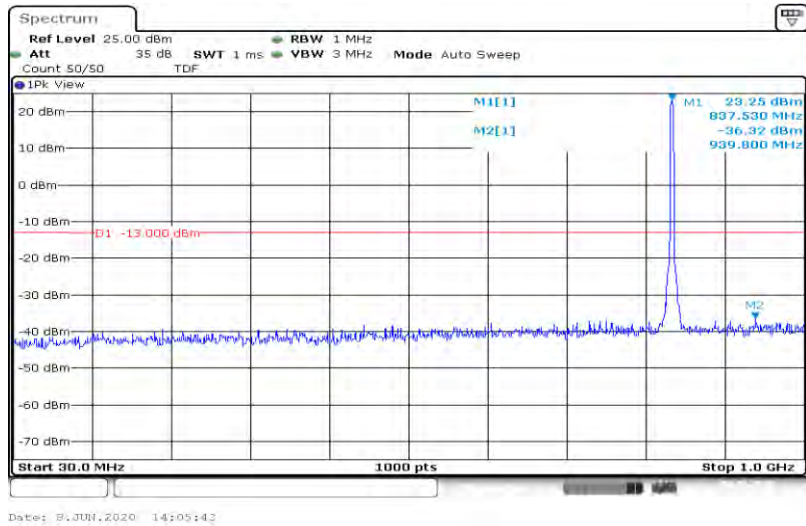
Band5-3MHz-QPSK-20415-15RB#0-Range1:30~1000MHz



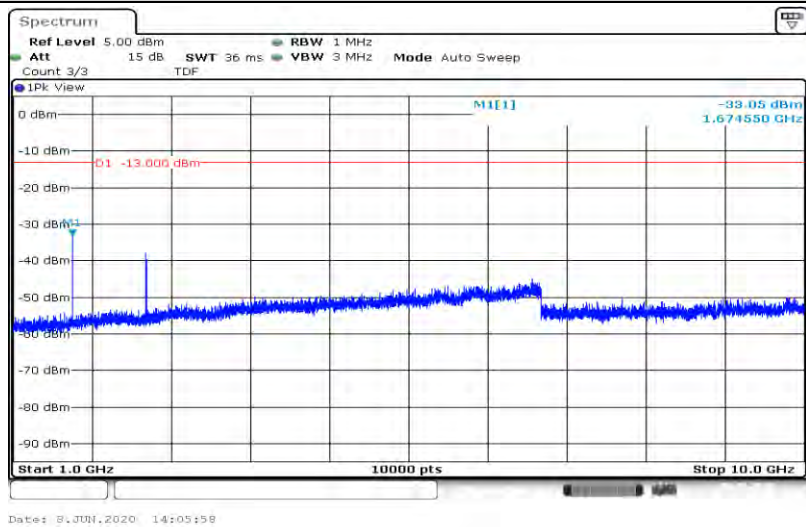
Band5-3MHz-QPSK-20415-15RB#0-Range2:1000~10000MHz



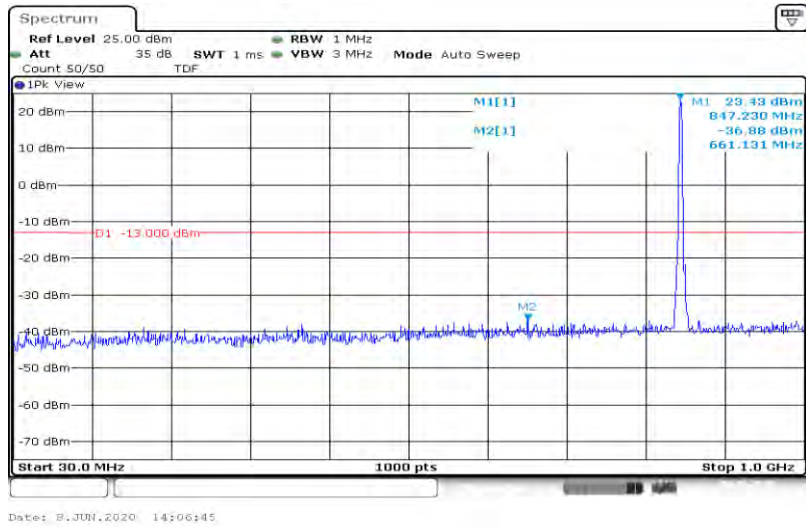
Band5-3MHz-QPSK-20525-15RB#0-Range1:30~1000MHz



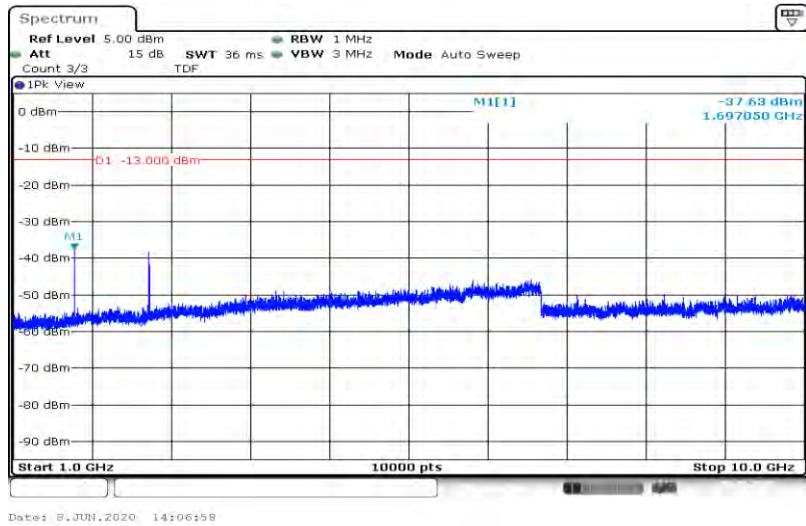
Band5-3MHz-QPSK-20525-15RB#0-Range2:1000~10000MHz



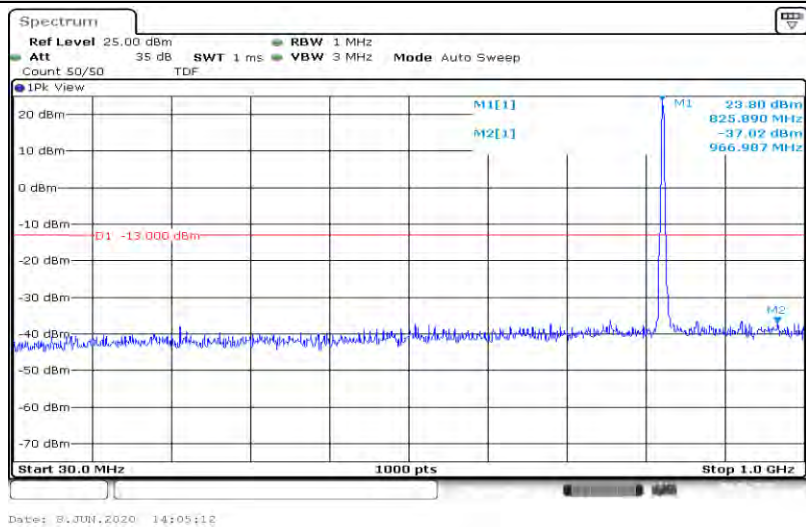
Band5-3MHz-QPSK-20635-15RB#0-Range1:30~1000MHz



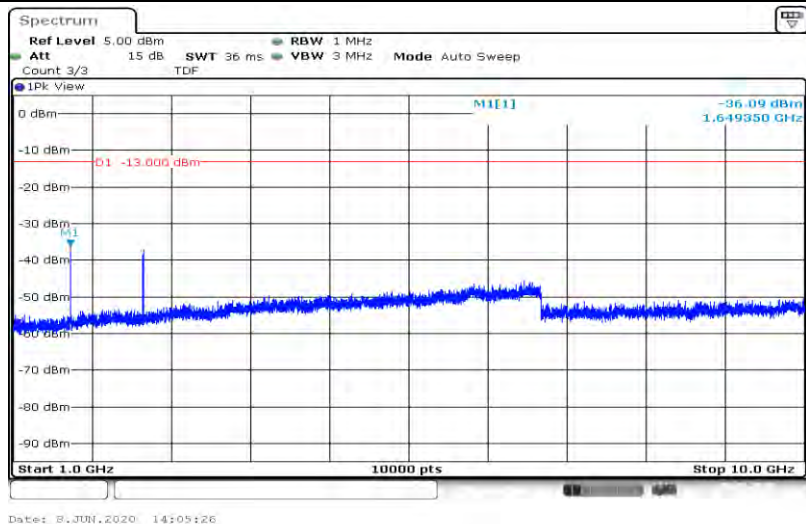
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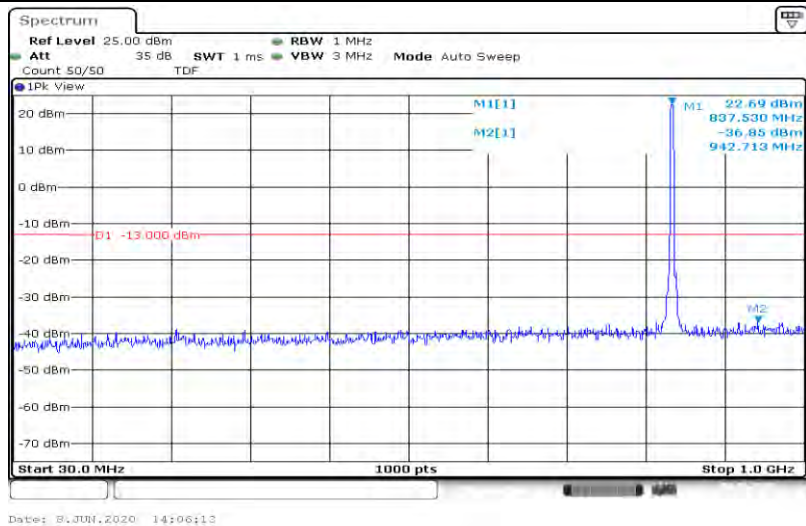
Band5-3MHz-16QAM-20415-15RB#0-Range1:30~1000MHz



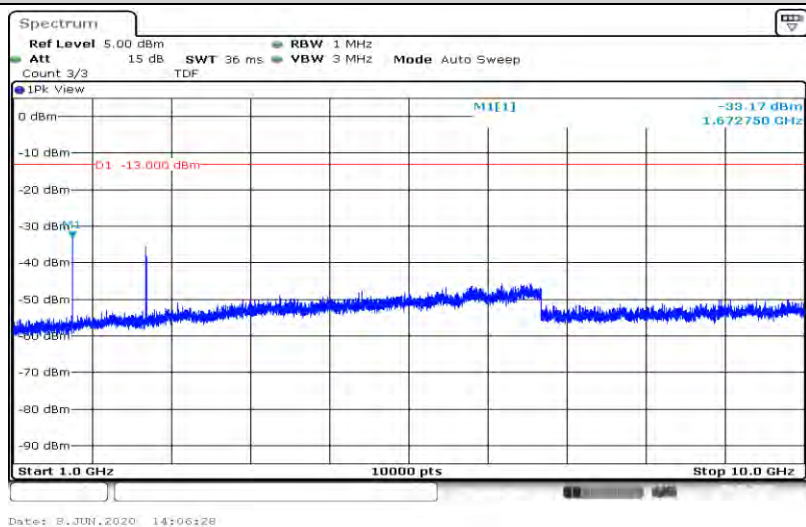
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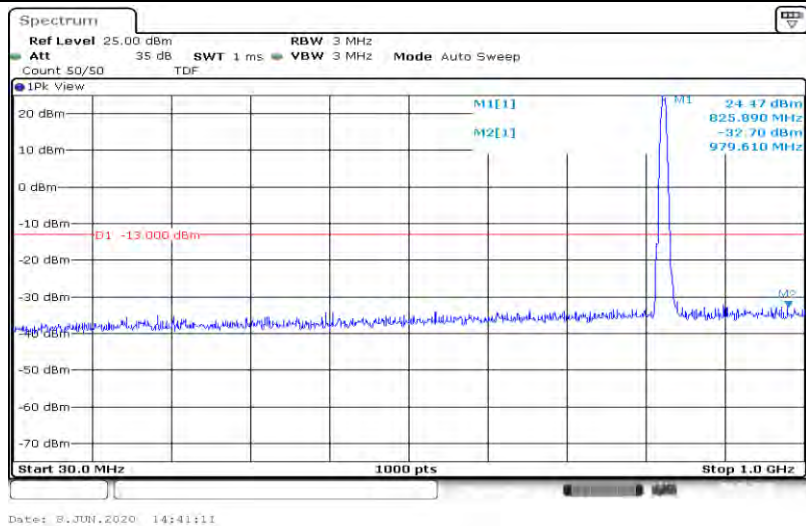
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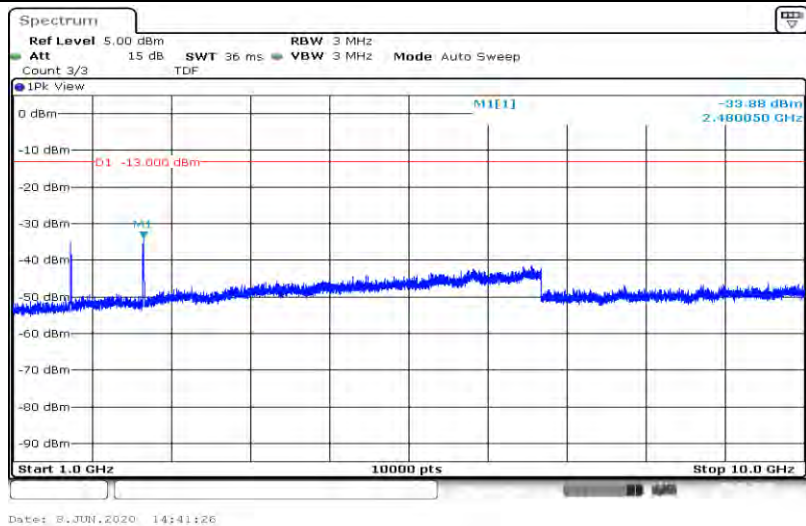
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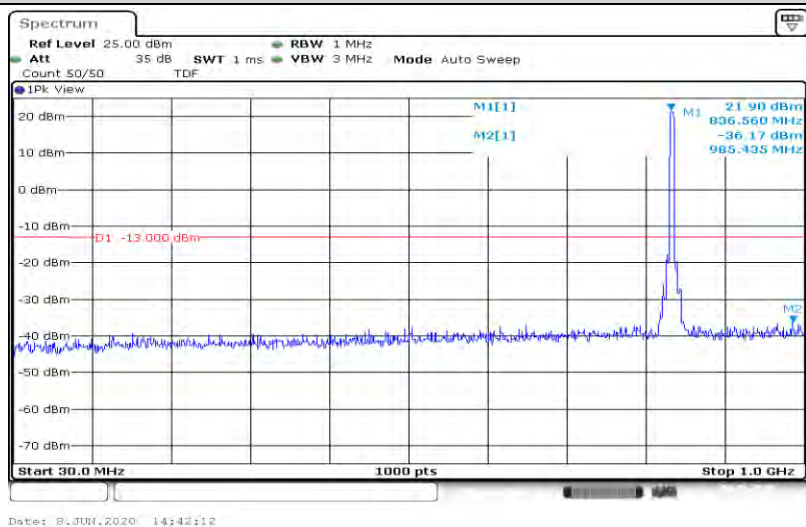
Band5-5MHz-QPSK-20425-25RB#0-Range1:30~1000MHz



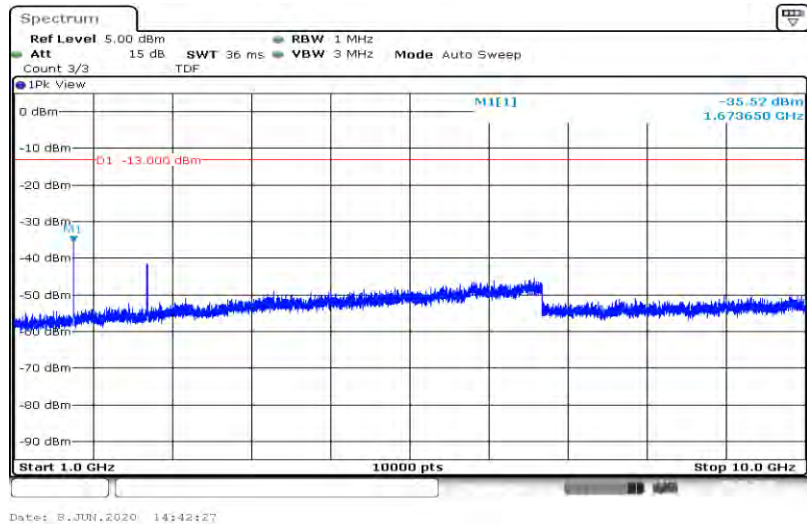
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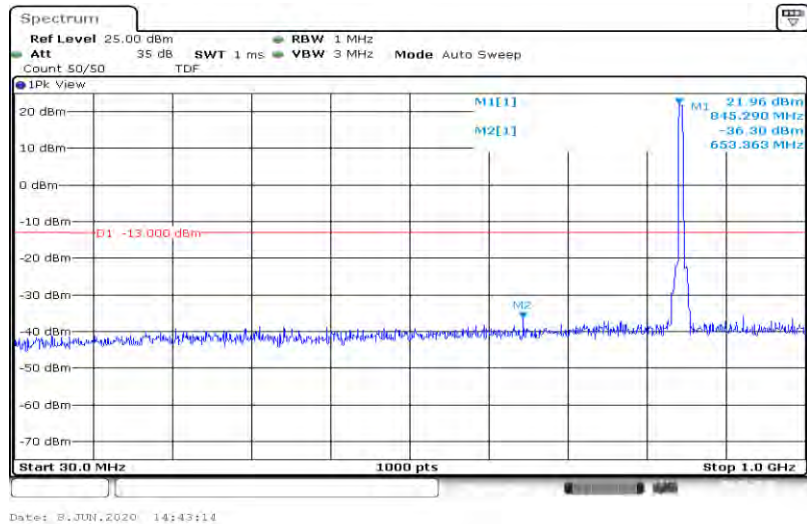
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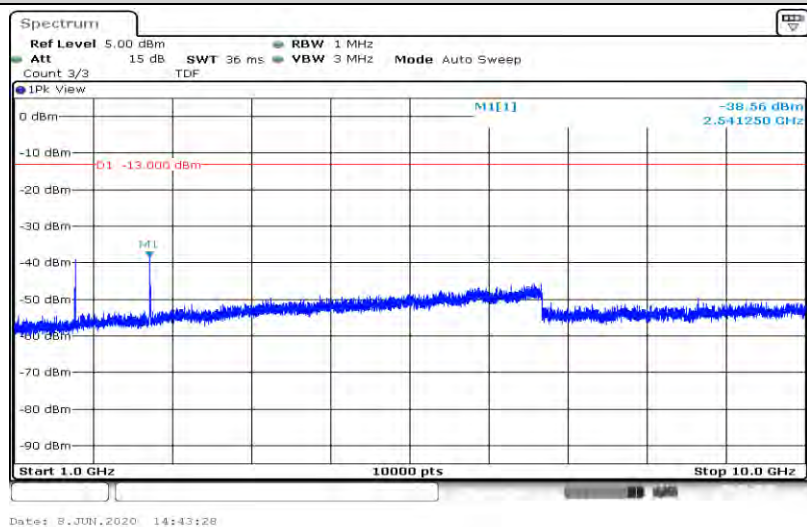
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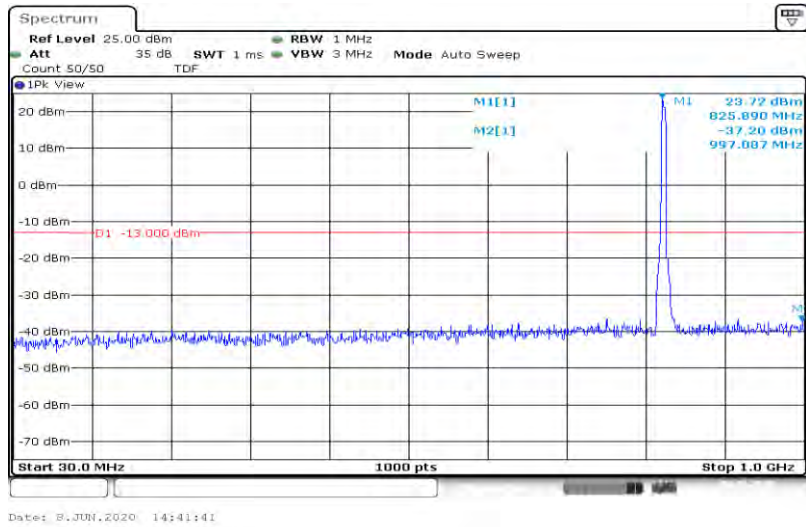
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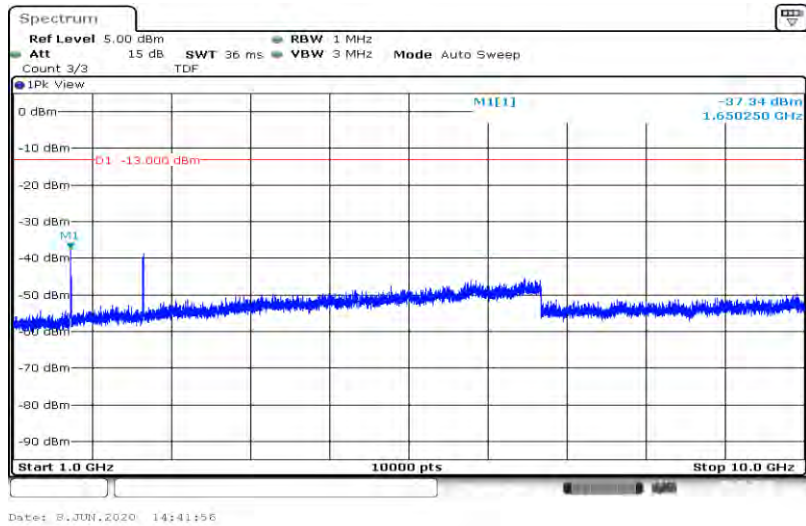
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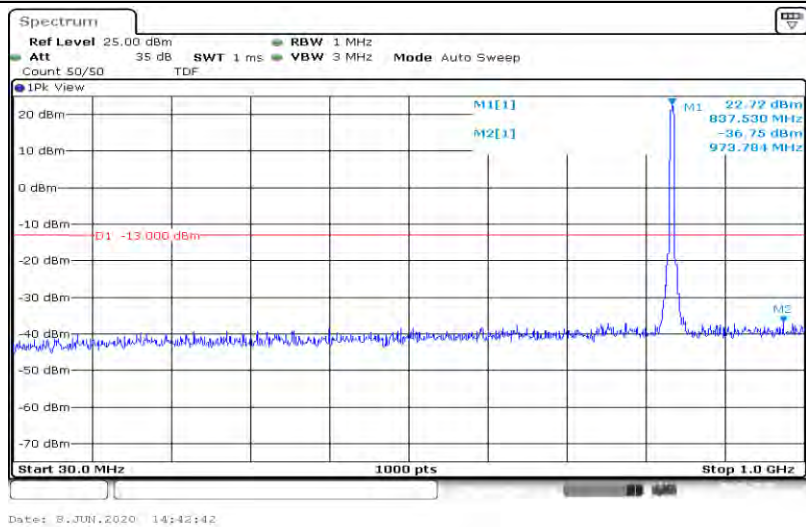
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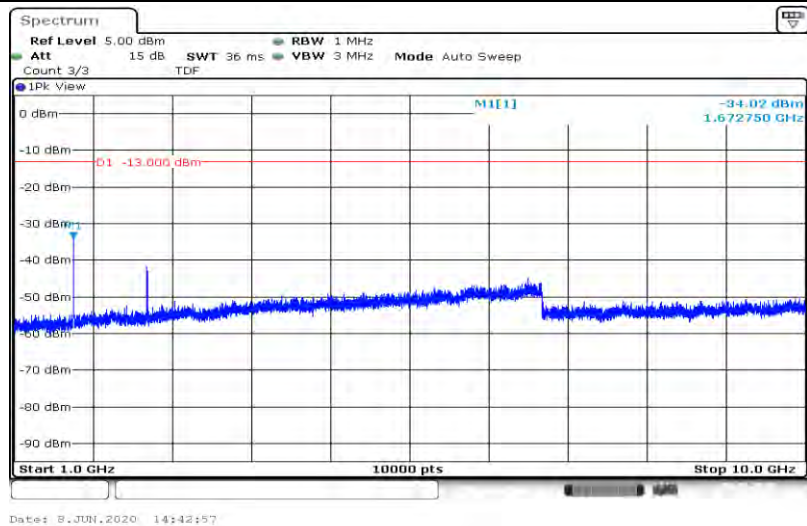
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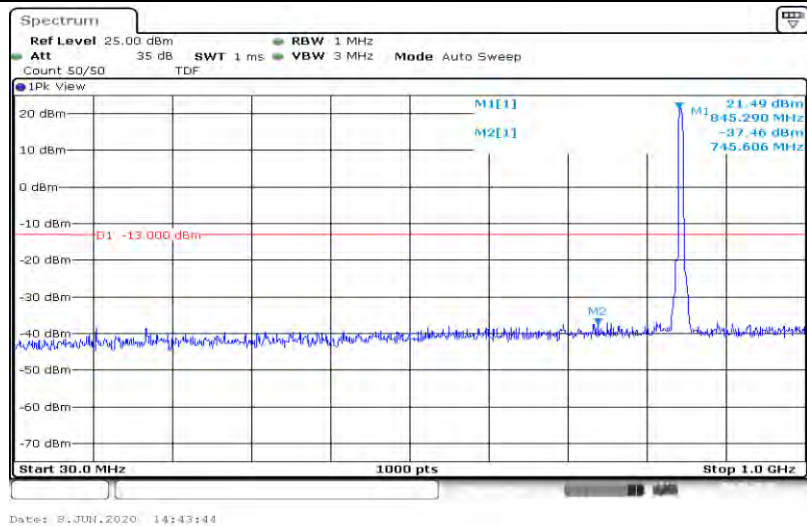
Band5-5MHz-16QAM-20525-25RB#0-Range1:30~1000MHz



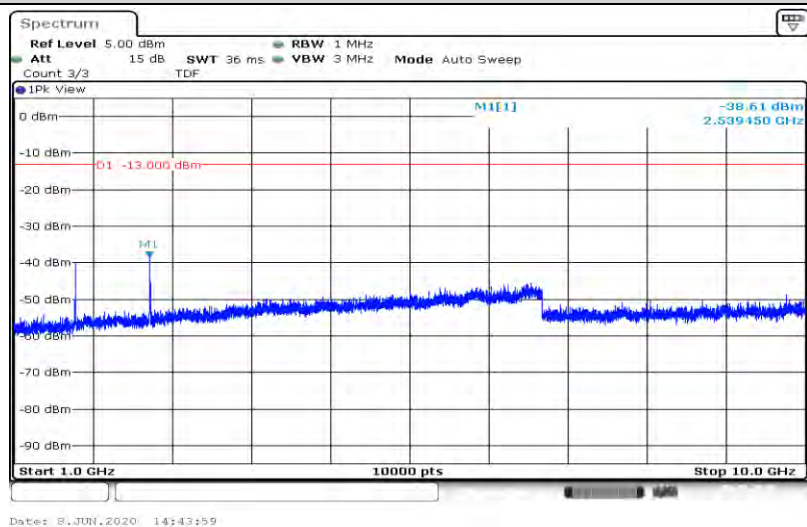
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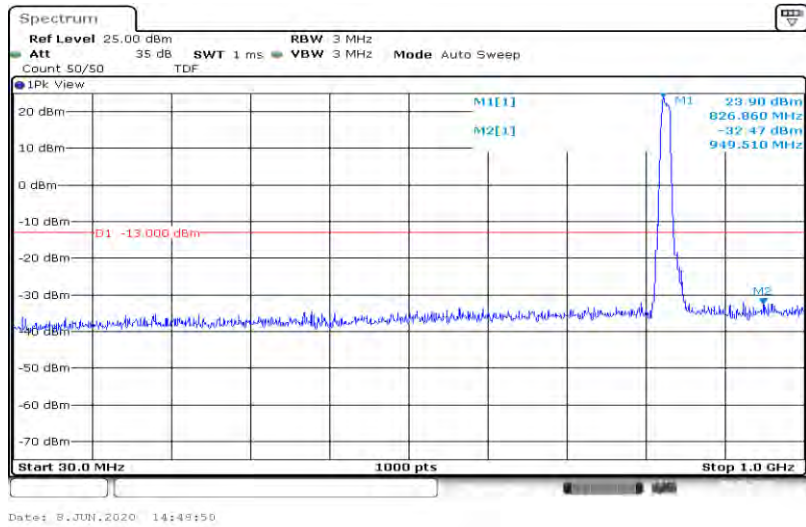
Band5-5MHz-16QAM-20625-25RB#0-Range1:30~1000MHz



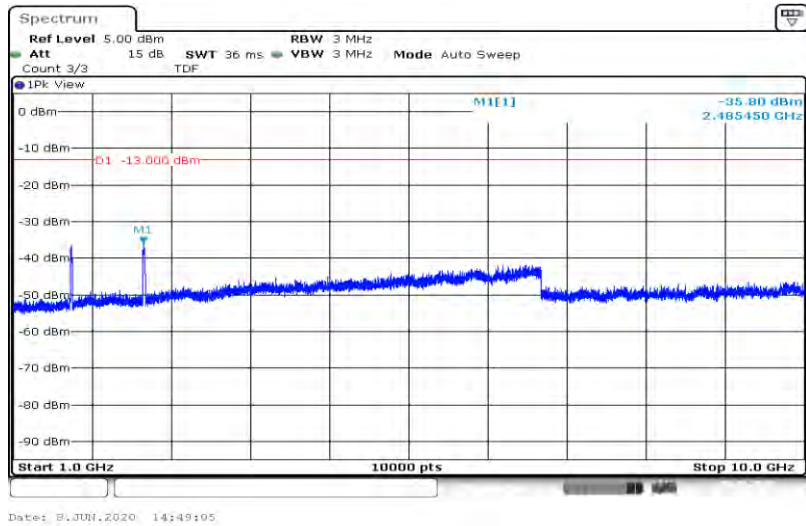
Band5-5MHz-16QAM-20625-25RB#0-Range2:1000~10000MHz



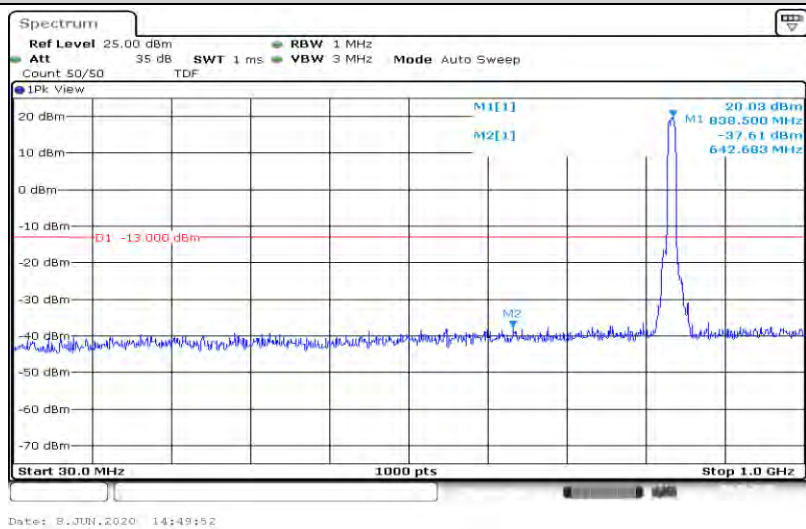
Band5-10MHz-QPSK-20450-50RB#0-Range1:30~1000MHz



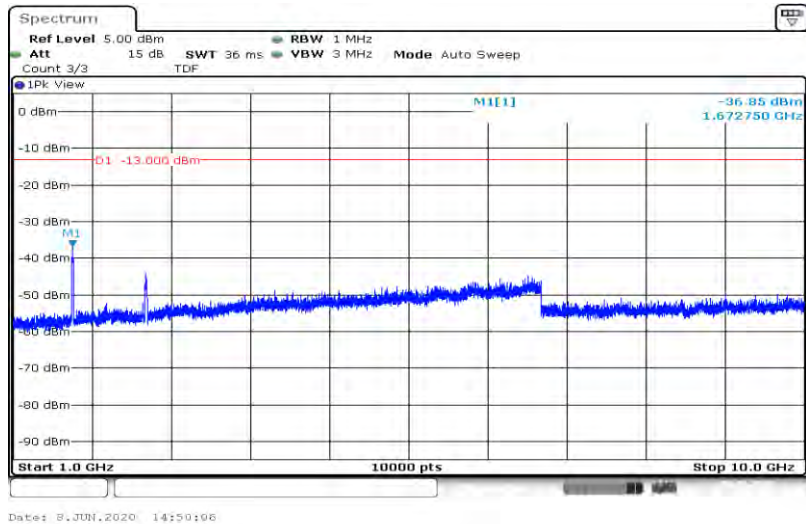
Band5-10MHz-QPSK-20450-50RB#0-Range2:1000~10000MHz



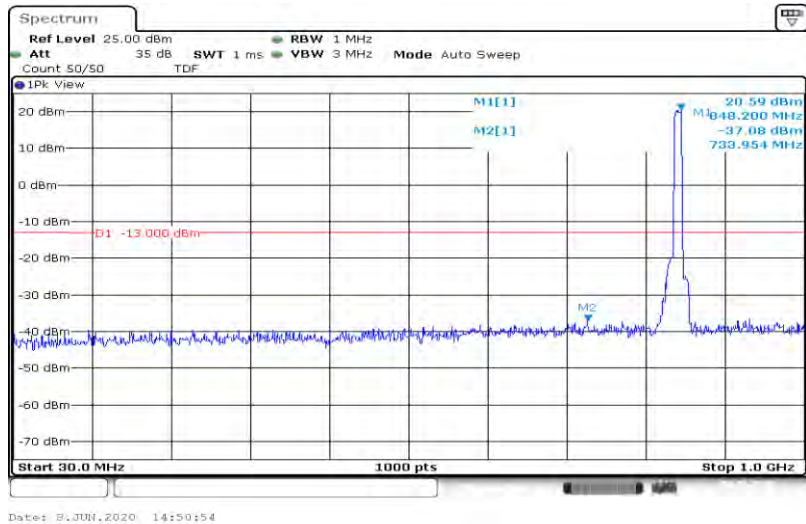
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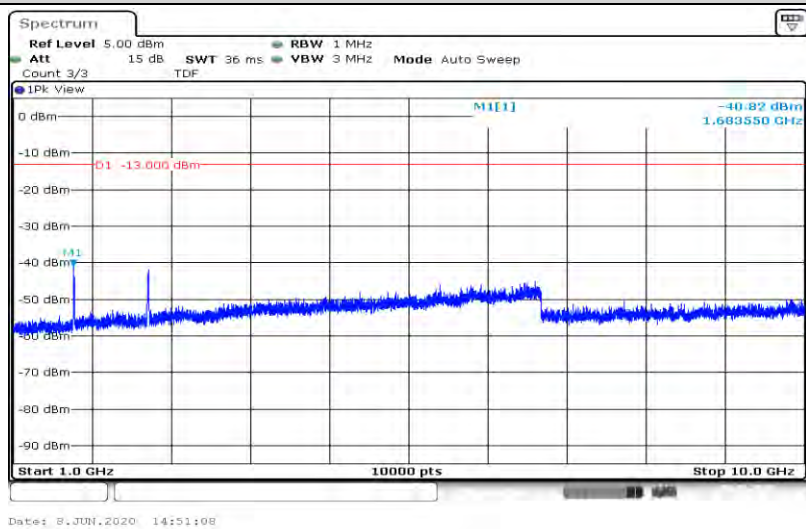
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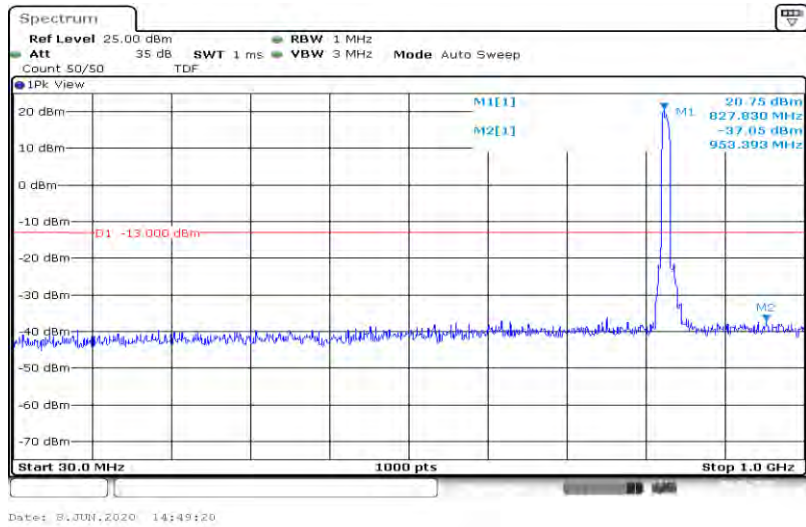
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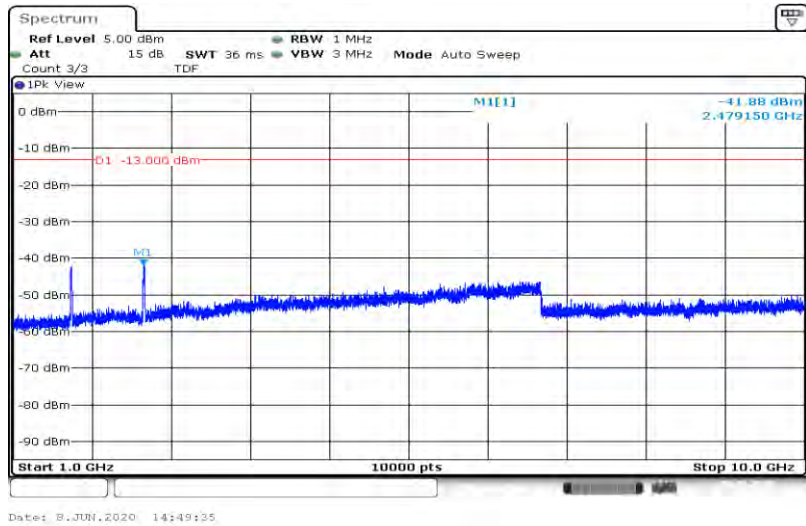
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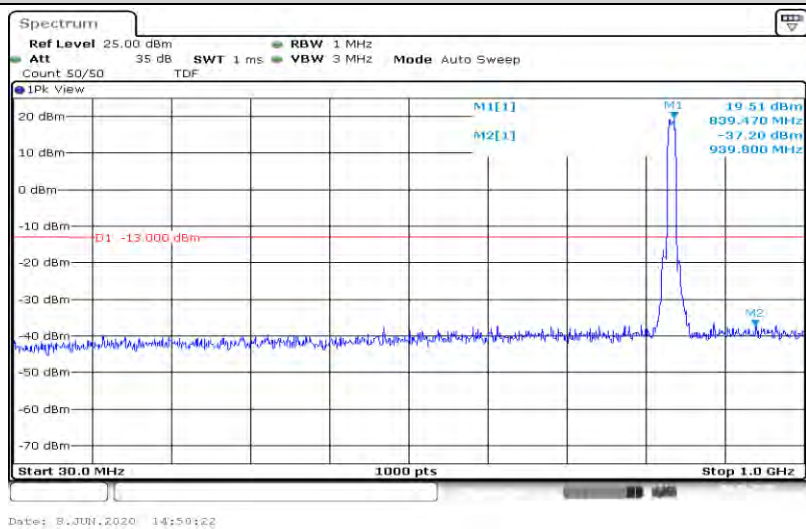
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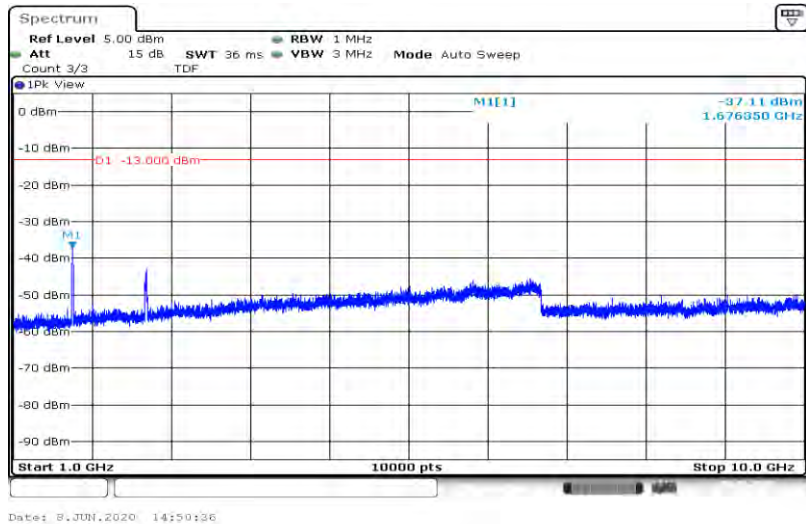
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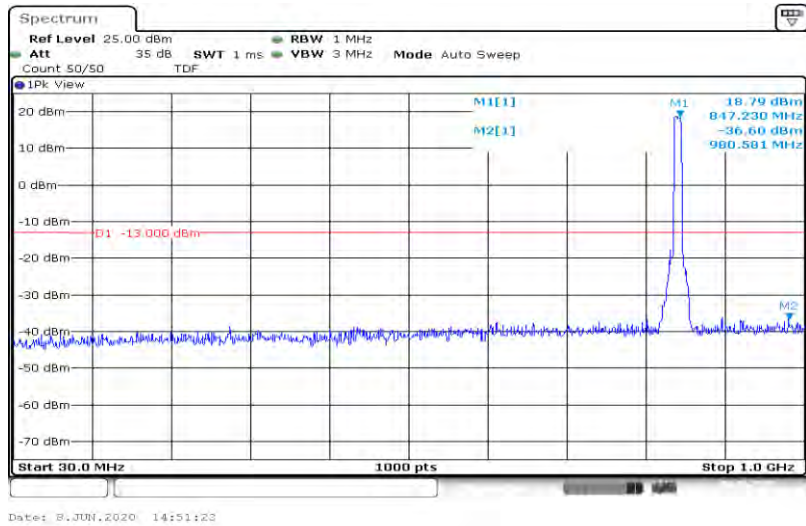
Band5-10MHz-16QAM-20525-50RB#0-Range1:30~1000MHz



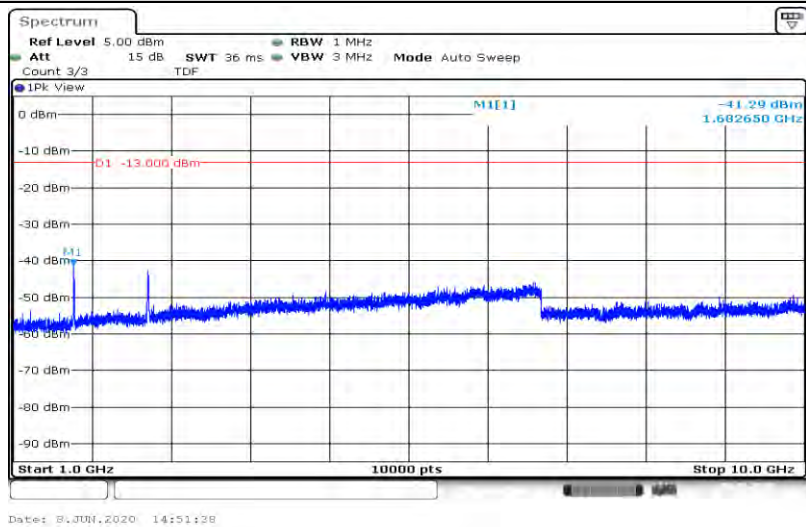
Band5-10MHz-16QAM-20525-50RB#0-Range2:1000~10000MHz



Band5-10MHz-16QAM-20600-50RB#0-Range1:30~1000MHz



Band5-10MHz-16QAM-20600-50RB#0-Range2:1000~10000MHz



Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
@FCC_Frequency_stability@										
BandName	Bandwidth	Modulation	Channel	RBcfg	VolValue	TempValue	ValueHz	ValuePpm	Limit	Verdict

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
@FCC_Frequency_stability_Temperature@										
BandName	Bandwidth	Modulation	Channel	RBcfg	VolValue	TempValue	ValueHz	ValuePpm	Limit	Verdict