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Appendix for LTE Band 19

**Applicant: HONGKONG U-CLOUDLINK NETWORK TECHNOLOGY
LIMITED**

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Product Name: LTE Module

Model: GLMM20A01

FCC ID: 2AC88-GLMM20A01

TABLE OF CONTENTS

1	Summary of Test Results Data and Graph	3
1.1.	Appendix A: Conducted Power Output Data	3
1.2.	Appendix B: Peak-to-Average Ratio(CCDF)	6
1.3.	Appendix C: 26dB Bandwidth and Occupied Bandwidth	17
1.4.	Appendix D: Band Edge	23
1.5.	Appendix E: Conducted Spurious Emission	32
1.6.	Appendix F: Frequency Stability	43

1 Summary of Test Results Data and Graph

1.1. Appendix A: Conducted Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band19	5MHz	QPSK	24025	1RB#0	24.11	PASS
Band19	5MHz	QPSK	24025	1RB#12	24.83	PASS
Band19	5MHz	QPSK	24025	1RB#24	24.87	PASS
Band19	5MHz	QPSK	24025	12RB#0	23.83	PASS
Band19	5MHz	QPSK	24025	12RB#6	23.76	PASS
Band19	5MHz	QPSK	24025	12RB#13	23.83	PASS
Band19	5MHz	QPSK	24025	25RB#0	23.85	PASS
Band19	5MHz	QPSK	24075	1RB#0	24.97	PASS
Band19	5MHz	QPSK	24075	1RB#12	24.95	PASS
Band19	5MHz	QPSK	24075	1RB#24	25.04	PASS
Band19	5MHz	QPSK	24075	12RB#0	23.78	PASS
Band19	5MHz	QPSK	24075	12RB#6	23.81	PASS
Band19	5MHz	QPSK	24075	12RB#13	23.90	PASS
Band19	5MHz	QPSK	24075	25RB#0	23.98	PASS
Band19	5MHz	QPSK	24125	1RB#0	24.98	PASS
Band19	5MHz	QPSK	24125	1RB#12	24.96	PASS
Band19	5MHz	QPSK	24125	1RB#24	24.91	PASS
Band19	5MHz	QPSK	24125	12RB#0	23.84	PASS
Band19	5MHz	QPSK	24125	12RB#6	23.92	PASS
Band19	5MHz	QPSK	24125	12RB#13	23.97	PASS
Band19	5MHz	QPSK	24125	25RB#0	23.89	PASS
Band19	5MHz	16QAM	24025	1RB#0	23.78	PASS
Band19	5MHz	16QAM	24025	1RB#12	23.77	PASS
Band19	5MHz	16QAM	24025	1RB#24	23.82	PASS
Band19	5MHz	16QAM	24025	12RB#0	23.78	PASS
Band19	5MHz	16QAM	24025	12RB#6	23.85	PASS
Band19	5MHz	16QAM	24025	12RB#13	23.86	PASS
Band19	5MHz	16QAM	24025	25RB#0	22.76	PASS
Band19	5MHz	16QAM	24075	1RB#0	24.03	PASS
Band19	5MHz	16QAM	24075	1RB#12	23.81	PASS
Band19	5MHz	16QAM	24075	1RB#24	23.70	PASS
Band19	5MHz	16QAM	24075	12RB#0	23.81	PASS
Band19	5MHz	16QAM	24075	12RB#6	23.82	PASS

Band19	5MHz	16QAM	24075	12RB#13	23.88	PASS
Band19	5MHz	16QAM	24075	25RB#0	22.83	PASS
Band19	5MHz	16QAM	24125	1RB#0	23.93	PASS
Band19	5MHz	16QAM	24125	1RB#12	23.91	PASS
Band19	5MHz	16QAM	24125	1RB#24	23.79	PASS
Band19	5MHz	16QAM	24125	12RB#0	23.93	PASS
Band19	5MHz	16QAM	24125	12RB#6	23.92	PASS
Band19	5MHz	16QAM	24125	12RB#13	23.94	PASS
Band19	5MHz	16QAM	24125	25RB#0	22.85	PASS
Band19	10MHz	QPSK	24050	1RB#0	24.26	PASS
Band19	10MHz	QPSK	24050	1RB#24	24.60	PASS
Band19	10MHz	QPSK	24050	1RB#49	24.93	PASS
Band19	10MHz	QPSK	24050	25RB#0	24.01	PASS
Band19	10MHz	QPSK	24050	25RB#12	23.96	PASS
Band19	10MHz	QPSK	24050	25RB#25	24.00	PASS
Band19	10MHz	QPSK	24050	50RB#0	23.94	PASS
Band19	10MHz	QPSK	24075	1RB#0	24.97	PASS
Band19	10MHz	QPSK	24075	1RB#24	24.87	PASS
Band19	10MHz	QPSK	24075	1RB#49	24.16	PASS
Band19	10MHz	QPSK	24075	25RB#0	24.00	PASS
Band19	10MHz	QPSK	24075	25RB#12	24.07	PASS
Band19	10MHz	QPSK	24075	25RB#25	23.99	PASS
Band19	10MHz	QPSK	24075	50RB#0	24.01	PASS
Band19	10MHz	QPSK	24100	1RB#0	24.79	PASS
Band19	10MHz	QPSK	24100	1RB#24	24.07	PASS
Band19	10MHz	QPSK	24100	1RB#49	24.89	PASS
Band19	10MHz	QPSK	24100	25RB#0	23.97	PASS
Band19	10MHz	QPSK	24100	25RB#12	24.04	PASS
Band19	10MHz	QPSK	24100	25RB#25	23.94	PASS
Band19	10MHz	QPSK	24100	50RB#0	23.93	PASS
Band19	10MHz	16QAM	24050	1RB#0	24.05	PASS
Band19	10MHz	16QAM	24050	1RB#24	24.40	PASS
Band19	10MHz	16QAM	24050	1RB#49	23.64	PASS
Band19	10MHz	16QAM	24050	25RB#0	23.98	PASS
Band19	10MHz	16QAM	24050	25RB#12	23.95	PASS
Band19	10MHz	16QAM	24050	25RB#25	24.04	PASS
Band19	10MHz	16QAM	24050	50RB#0	22.85	PASS
Band19	10MHz	16QAM	24075	1RB#0	24.50	PASS

Band19	10MHz	16QAM	24075	1RB#24	24.41	PASS
Band19	10MHz	16QAM	24075	1RB#49	24.42	PASS
Band19	10MHz	16QAM	24075	25RB#0	24.06	PASS
Band19	10MHz	16QAM	24075	25RB#12	24.08	PASS
Band19	10MHz	16QAM	24075	25RB#25	23.97	PASS
Band19	10MHz	16QAM	24075	50RB#0	22.91	PASS
Band19	10MHz	16QAM	24100	1RB#0	23.90	PASS
Band19	10MHz	16QAM	24100	1RB#24	24.16	PASS
Band19	10MHz	16QAM	24100	1RB#49	23.85	PASS
Band19	10MHz	16QAM	24100	25RB#0	24.03	PASS
Band19	10MHz	16QAM	24100	25RB#12	24.05	PASS
Band19	10MHz	16QAM	24100	25RB#25	24.05	PASS
Band19	10MHz	16QAM	24100	50RB#0	22.74	PASS
Band19	15MHz	QPSK	24075	1RB#0	24.77	PASS
Band19	15MHz	QPSK	24075	1RB#38	24.68	PASS
Band19	15MHz	QPSK	24075	1RB#74	24.63	PASS
Band19	15MHz	QPSK	24075	38RB#0	23.56	PASS
Band19	15MHz	QPSK	24075	38RB#18	23.64	PASS
Band19	15MHz	QPSK	24075	38RB#37	23.41	PASS
Band19	15MHz	QPSK	24075	75RB#0	23.98	PASS
Band19	15MHz	16QAM	24075	1RB#0	23.48	PASS
Band19	15MHz	16QAM	24075	1RB#38	23.86	PASS
Band19	15MHz	16QAM	24075	1RB#74	23.40	PASS
Band19	15MHz	16QAM	24075	38RB#0	24.00	PASS
Band19	15MHz	16QAM	24075	38RB#18	23.62	PASS
Band19	15MHz	16QAM	24075	38RB#37	23.44	PASS
Band19	15MHz	16QAM	24075	75RB#0	22.89	PASS

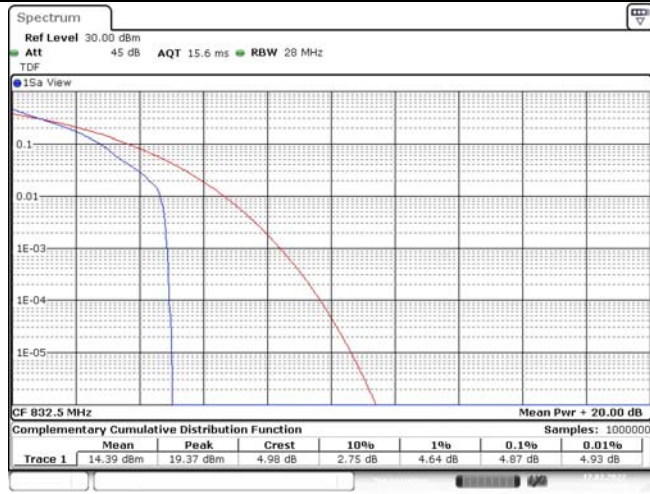
1.2. Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band19	5MHz	QPSK	24025	1RB#0	4.87	13	PASS
Band19	5MHz	QPSK	24025	25RB#0	4.67	13	PASS
Band19	5MHz	QPSK	24075	1RB#0	2.70	13	PASS
Band19	5MHz	QPSK	24075	25RB#0	3.74	13	PASS
Band19	5MHz	QPSK	24125	1RB#0	4.17	13	PASS
Band19	5MHz	QPSK	24125	25RB#0	5.33	13	PASS
Band19	5MHz	16QAM	24025	1RB#0	5.74	13	PASS
Band19	5MHz	16QAM	24025	25RB#0	5.62	13	PASS
Band19	5MHz	16QAM	24075	1RB#0	3.65	13	PASS
Band19	5MHz	16QAM	24075	25RB#0	4.64	13	PASS
Band19	5MHz	16QAM	24125	1RB#0	5.10	13	PASS
Band19	5MHz	16QAM	24125	25RB#0	6.17	13	PASS
Band19	10MHz	QPSK	24050	1RB#0	4.84	13	PASS
Band19	10MHz	QPSK	24050	50RB#0	4.23	13	PASS
Band19	10MHz	QPSK	24075	1RB#0	3.74	13	PASS
Band19	10MHz	QPSK	24075	50RB#0	4.29	13	PASS
Band19	10MHz	QPSK	24100	1RB#0	2.72	13	PASS
Band19	10MHz	QPSK	24100	50RB#0	4.70	13	PASS
Band19	10MHz	16QAM	24050	1RB#0	5.91	13	PASS
Band19	10MHz	16QAM	24050	50RB#0	5.19	13	PASS
Band19	10MHz	16QAM	24075	1RB#0	4.38	13	PASS
Band19	10MHz	16QAM	24075	50RB#0	5.16	13	PASS
Band19	10MHz	16QAM	24100	1RB#0	3.62	13	PASS
Band19	10MHz	16QAM	24100	50RB#0	5.59	13	PASS
Band19	15MHz	QPSK	24075	1RB#0	4.75	13	PASS
Band19	15MHz	QPSK	24075	75RB#0	4.64	13	PASS
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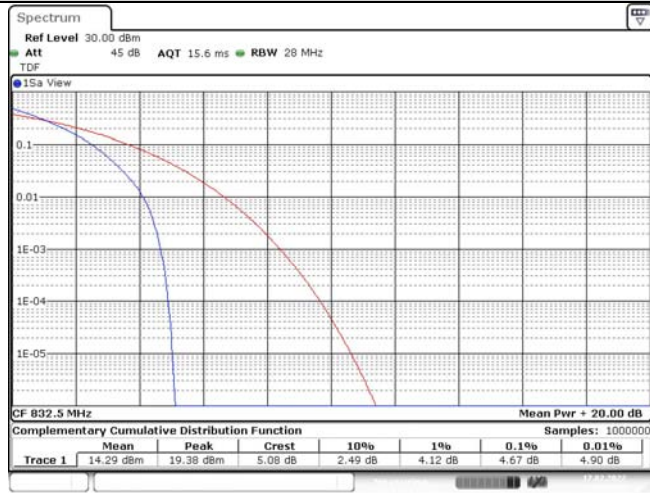
Test Graphs

Band19-5MHz-QPSK-24025-1RB#0



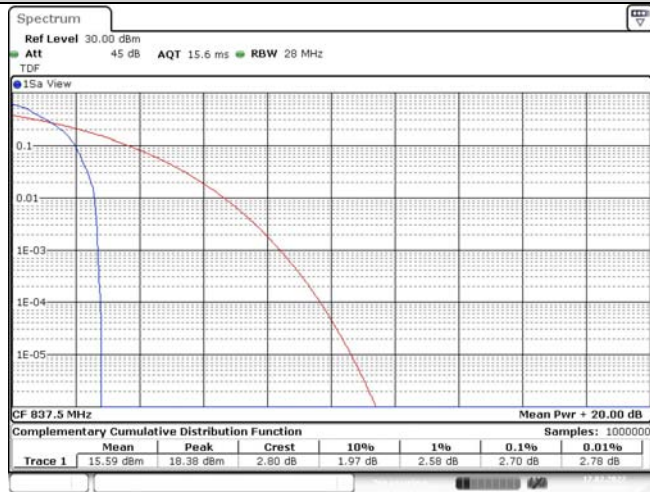
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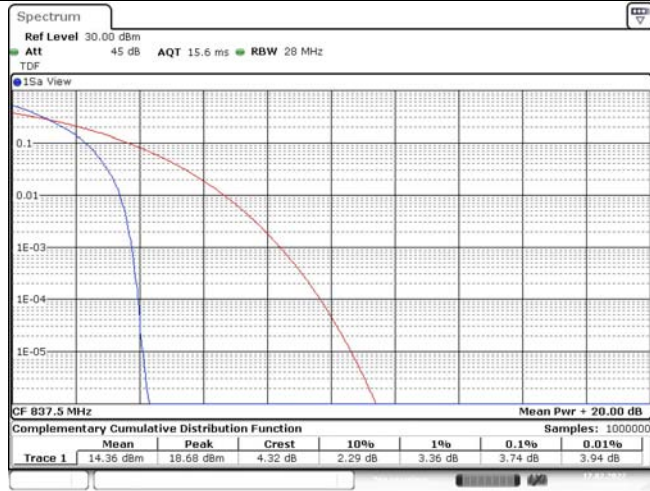
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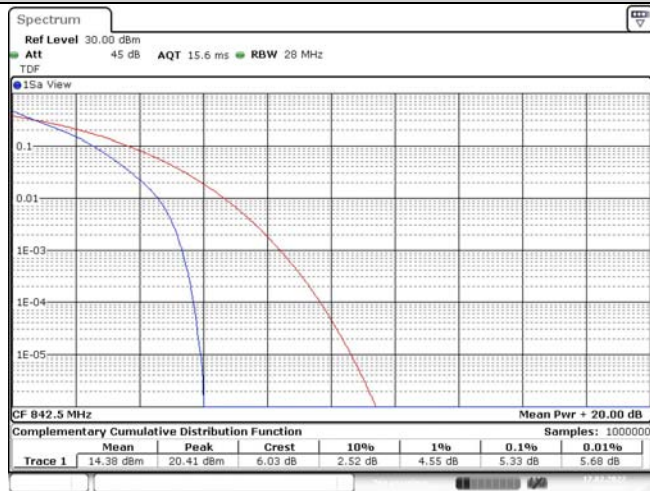
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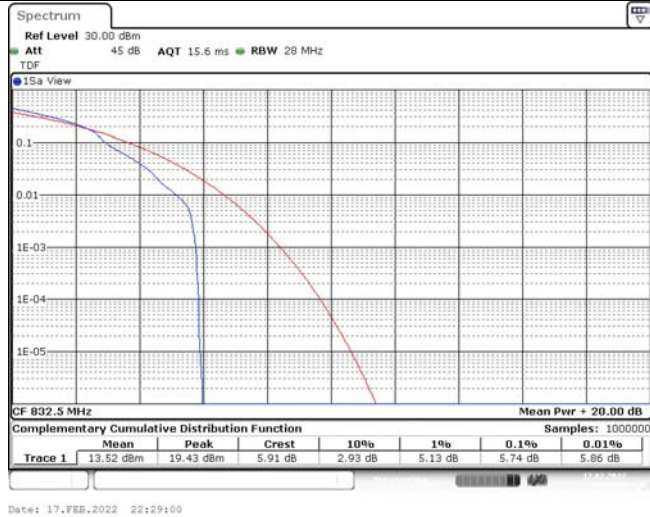
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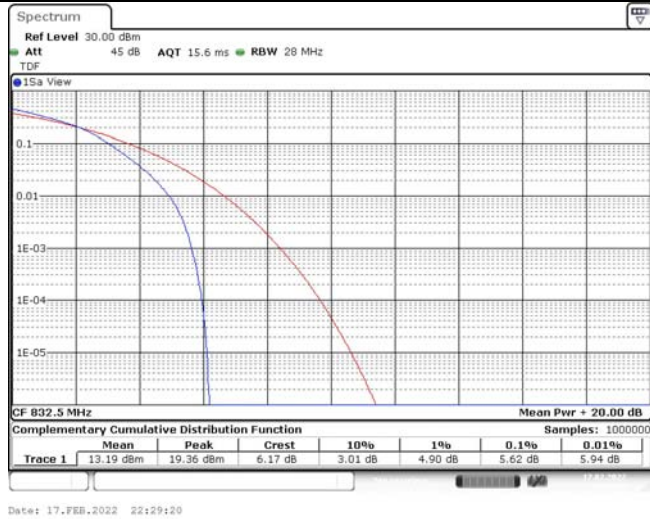


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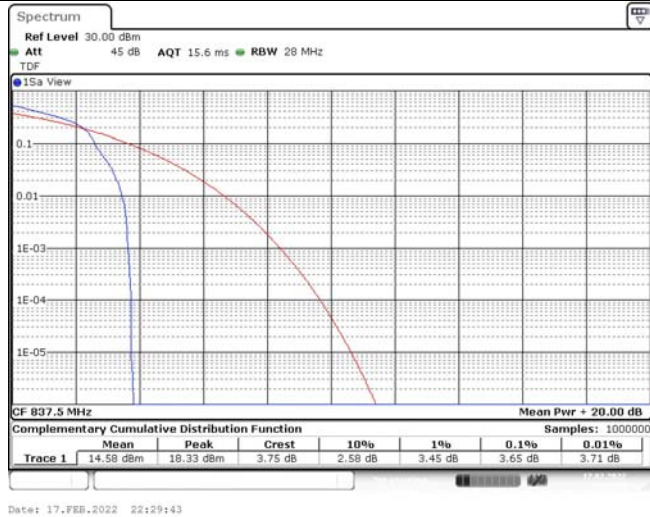
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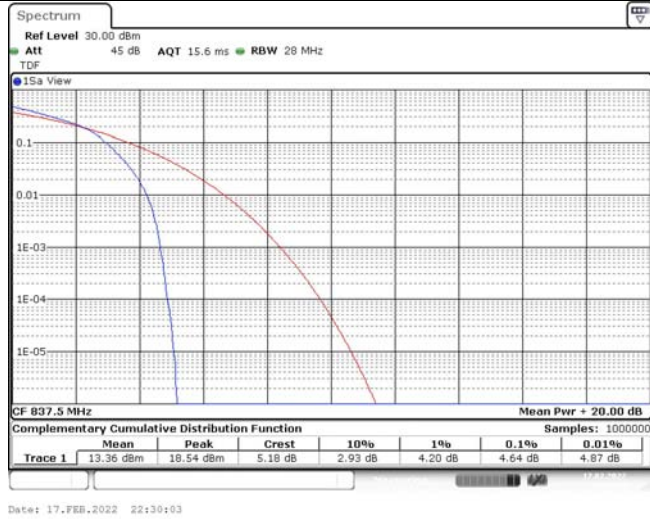
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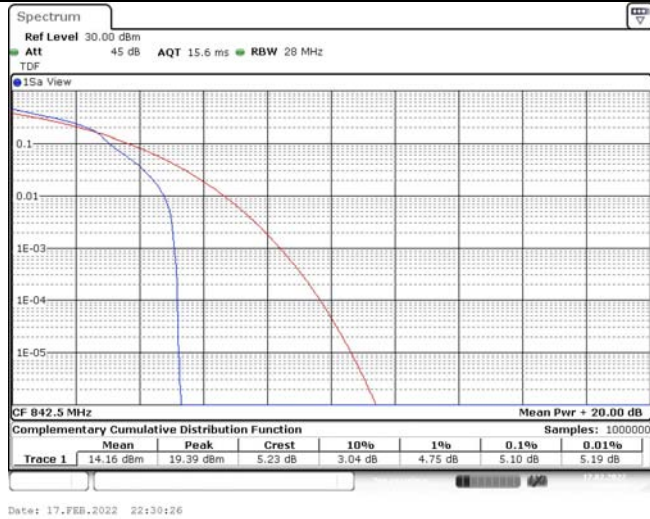
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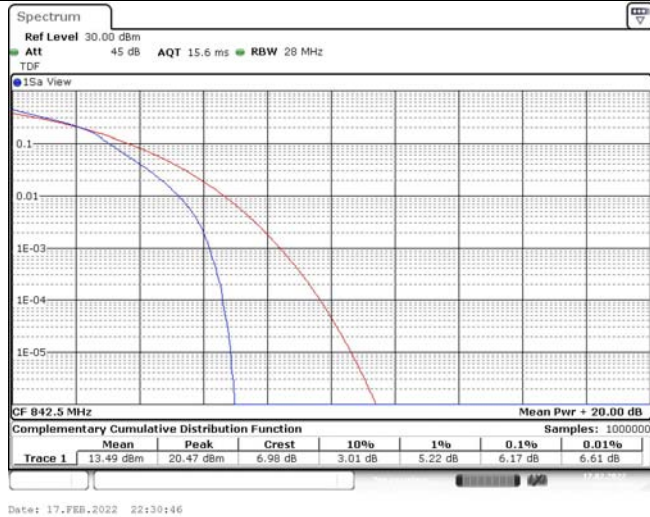
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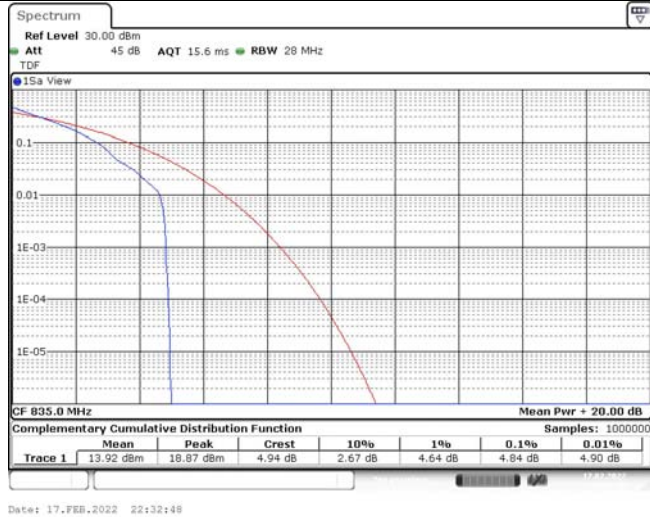
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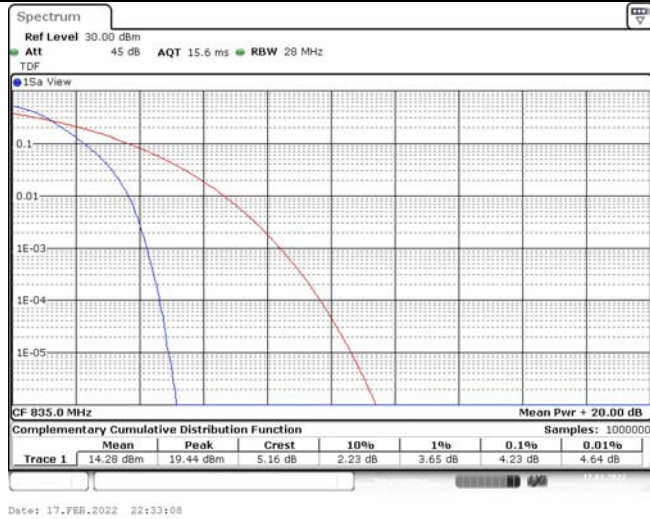
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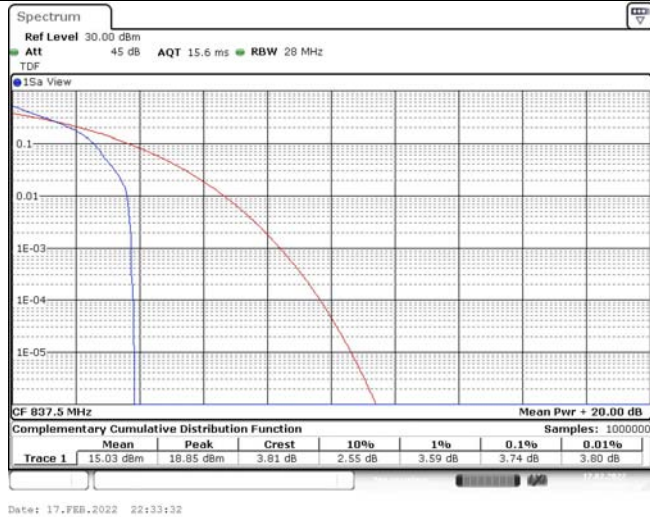
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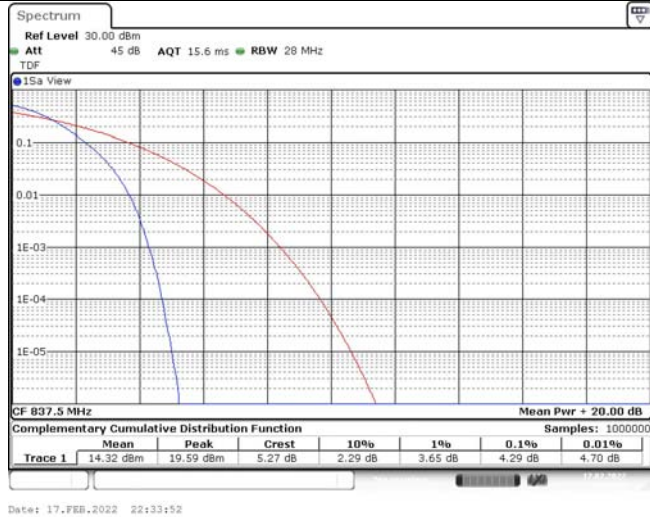
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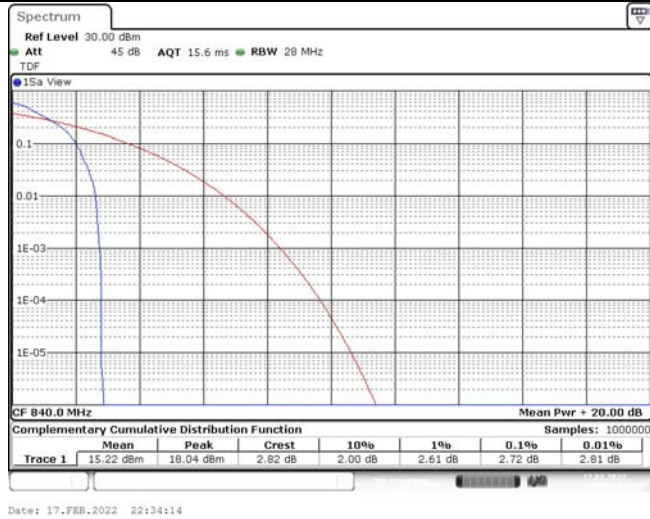
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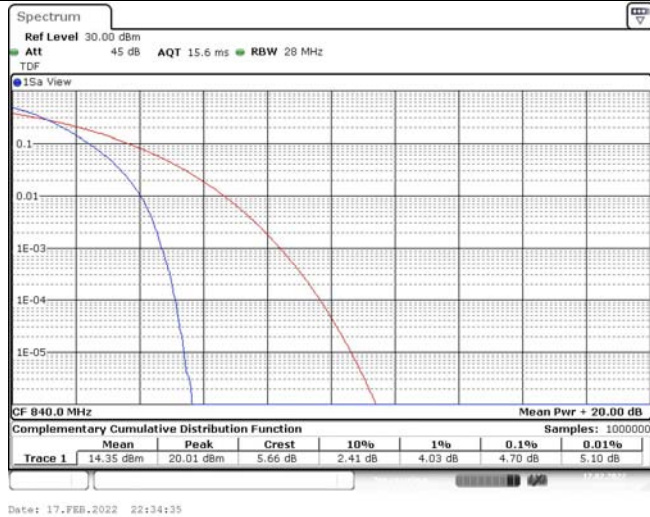
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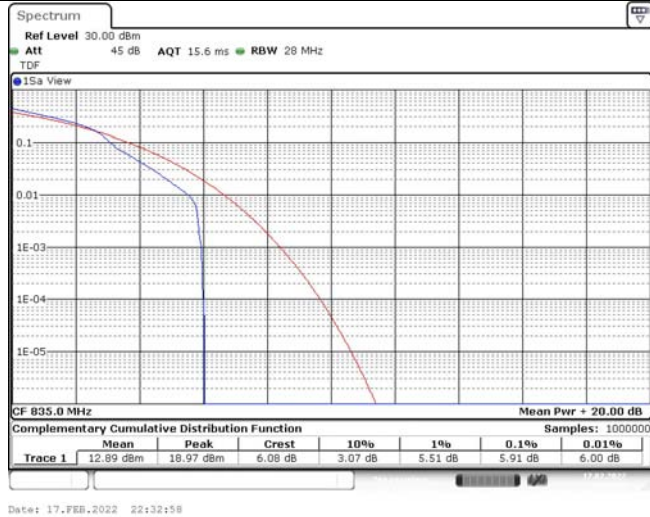
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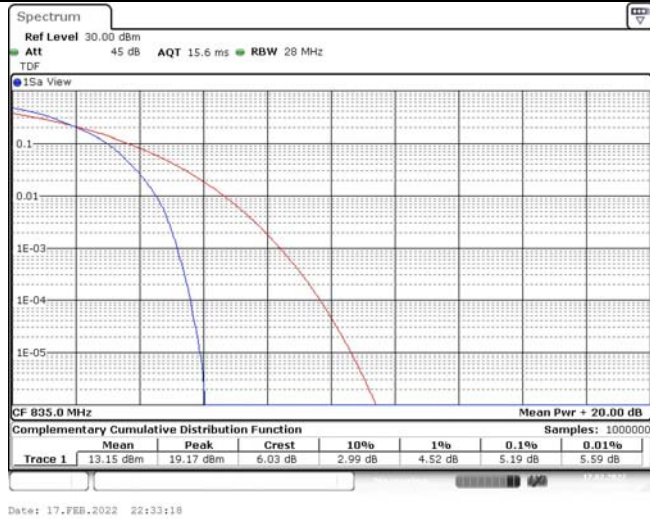
Band19-10MHz-QPSK-24100-50RB#0



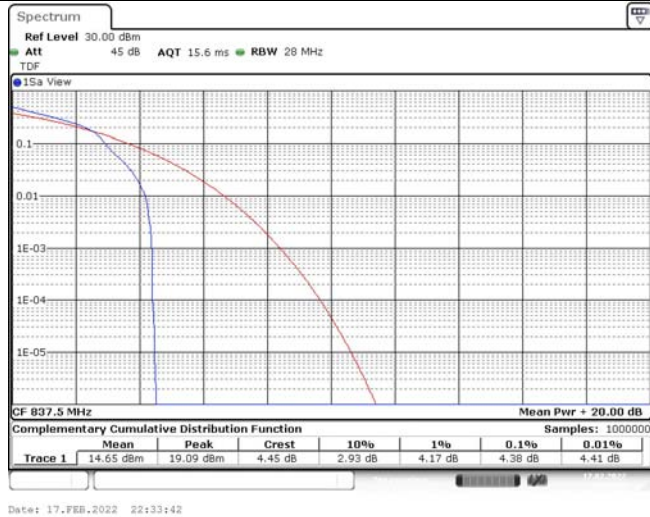
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Band19-10MHz-16QAM-24050-50RB#0



Band19-10MHz-16QAM-24075-1RB#0



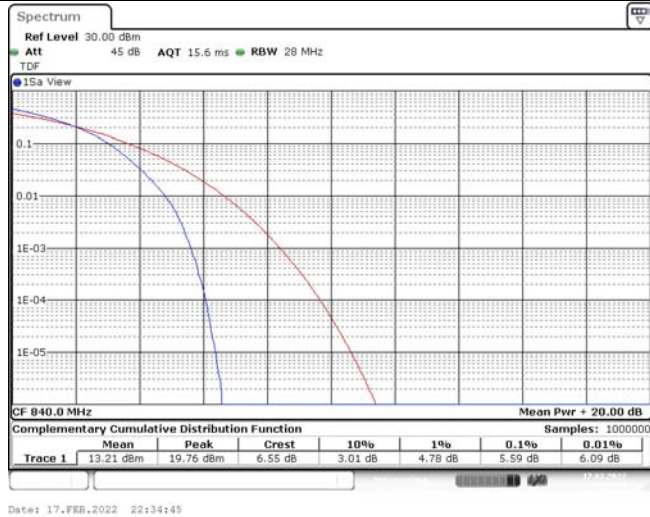
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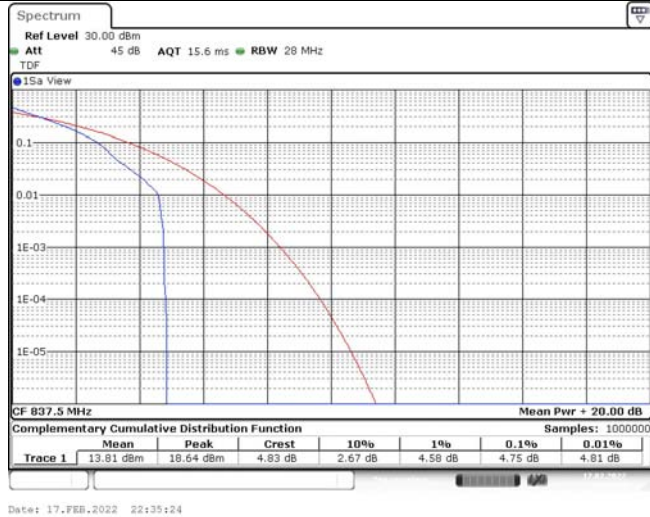
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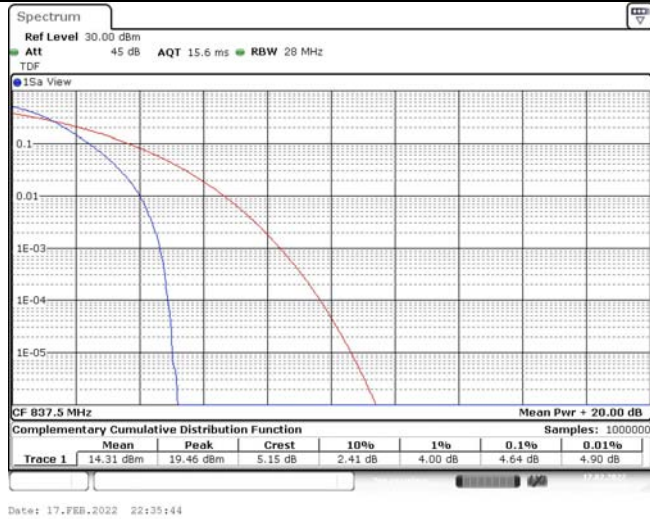
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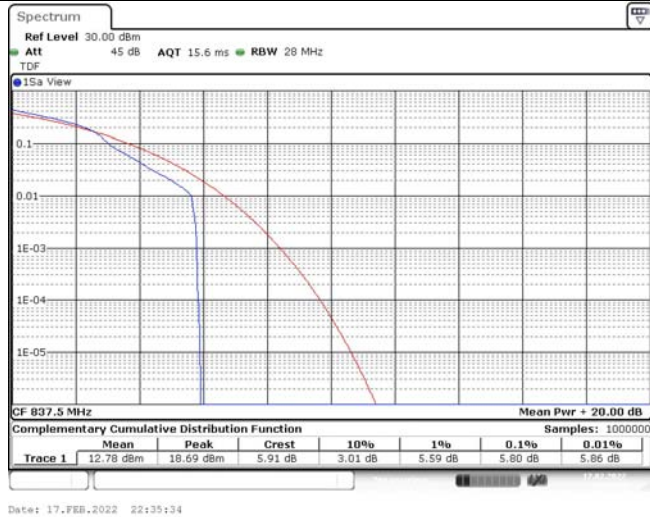
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Band19-15MHz-QPSK-24075-75RB#0



Band19-15MHz-16QAM-24075-1RB#0



Band19-15MHz-16QAM-24075-75RB#0



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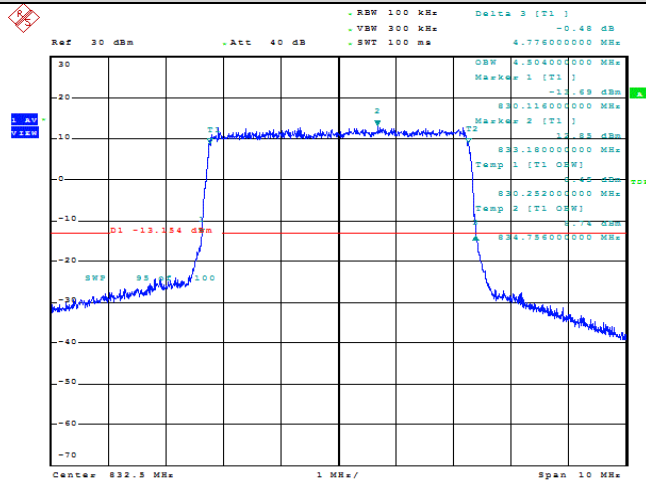
1.3. Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band19	5MHz	QPSK	24025	25RB#0	4.504	4.776	PASS
Band19	5MHz	QPSK	24075	25RB#0	4.504	4.776	PASS
Band19	5MHz	QPSK	24125	25RB#0	4.52	4.784	PASS
Band19	5MHz	16QAM	24025	25RB#0	4.512	4.776	PASS
Band19	5MHz	16QAM	24075	25RB#0	4.496	4.760	PASS
Band19	5MHz	16QAM	24125	25RB#0	4.512	4.776	PASS
Band19	10MHz	QPSK	24050	50RB#0	8.974	9.615	PASS
Band19	10MHz	QPSK	24075	50RB#0	8.974	9.647	PASS
Band19	10MHz	QPSK	24100	50RB#0	8.974	9.679	PASS
Band19	10MHz	16QAM	24050	50RB#0	8.974	9.615	PASS
Band19	10MHz	16QAM	24075	50RB#0	8.942	9.615	PASS
Band19	10MHz	16QAM	24100	50RB#0	8.974	9.647	PASS
Band19	15MHz	QPSK	24075	75RB#0	13.413	14.471	PASS
Band19	15MHz	16QAM	24075	75RB#0	13.413	14.423	PASS

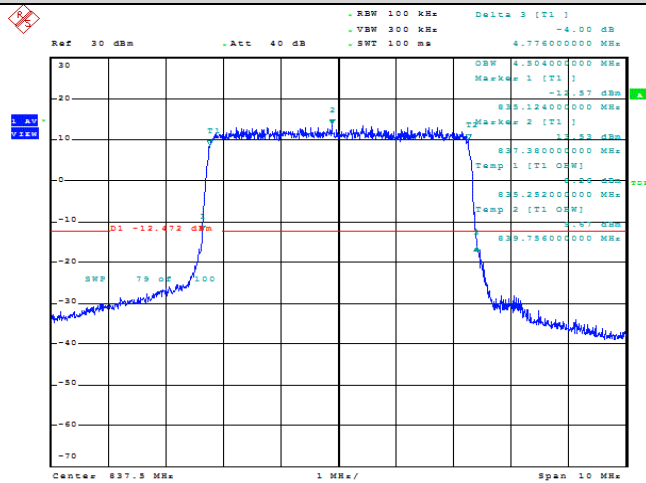
Test Graphs

Band19-5MHz-QPSK-24025-25RB#0-4.504



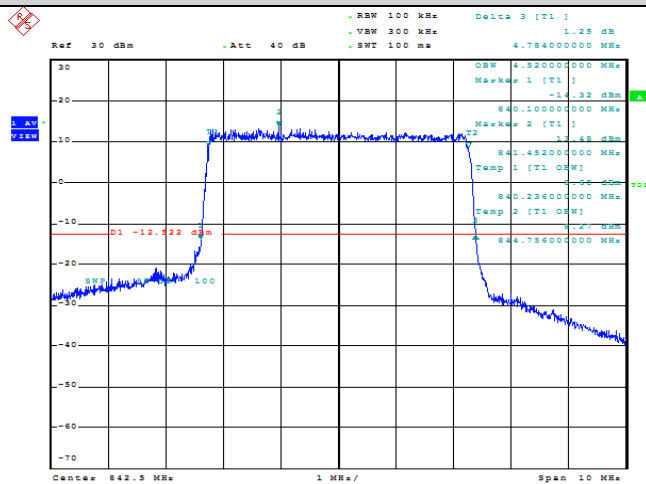
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Band19-5MHz-QPSK-24075-25RB#0-4.504



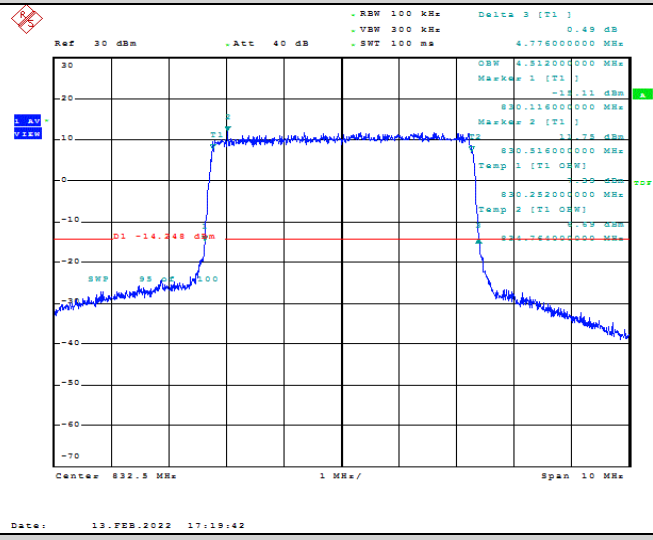
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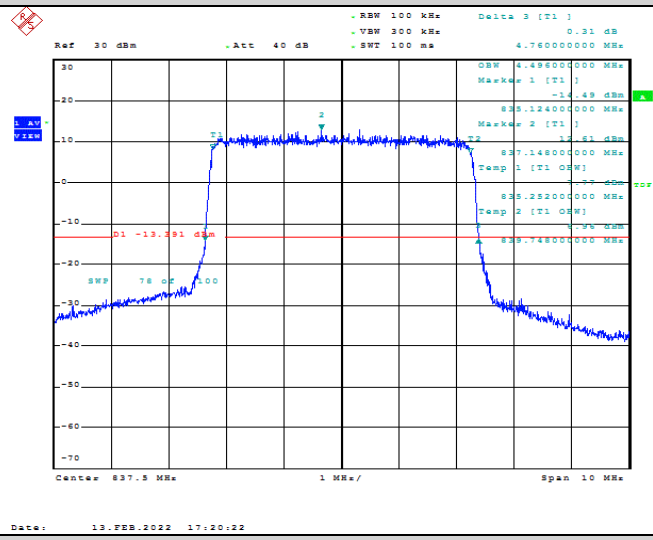


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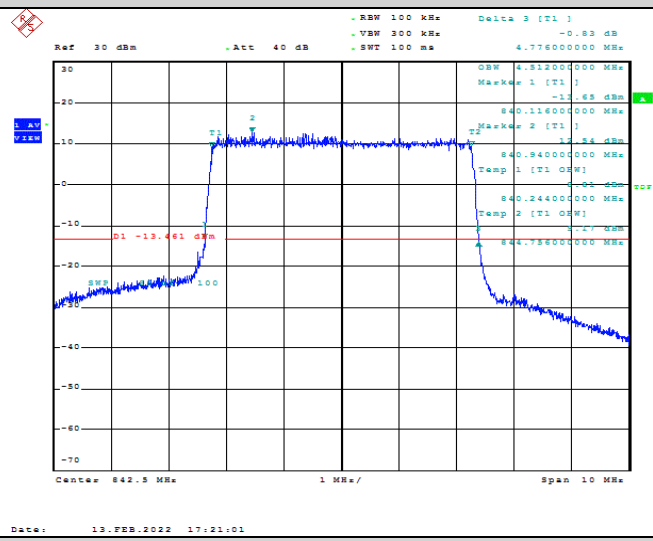
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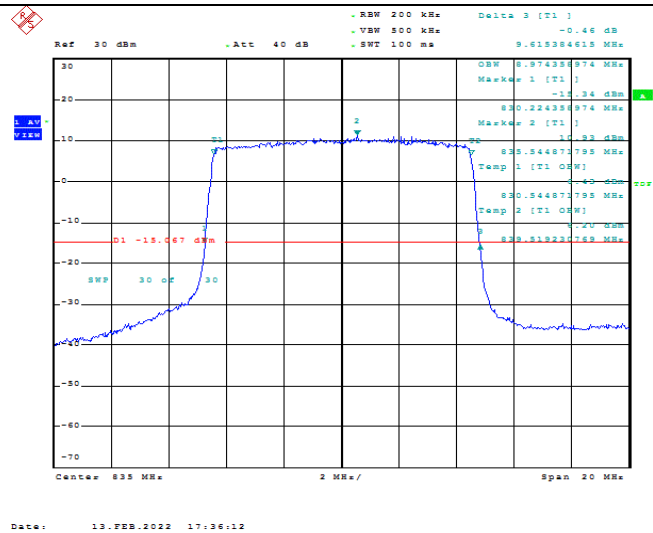
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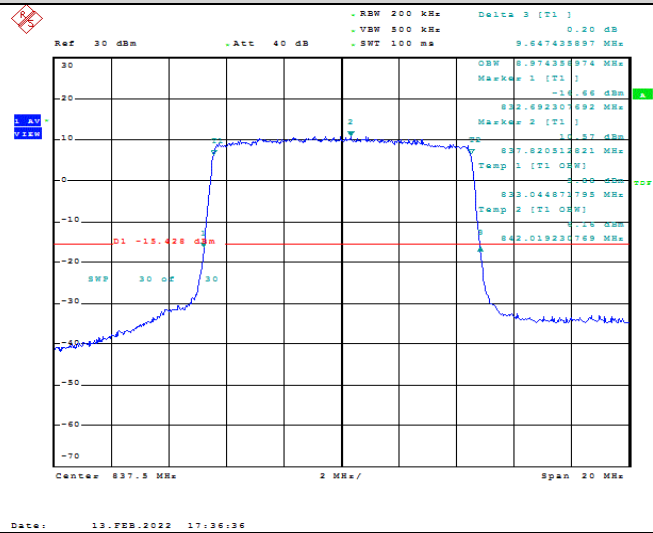
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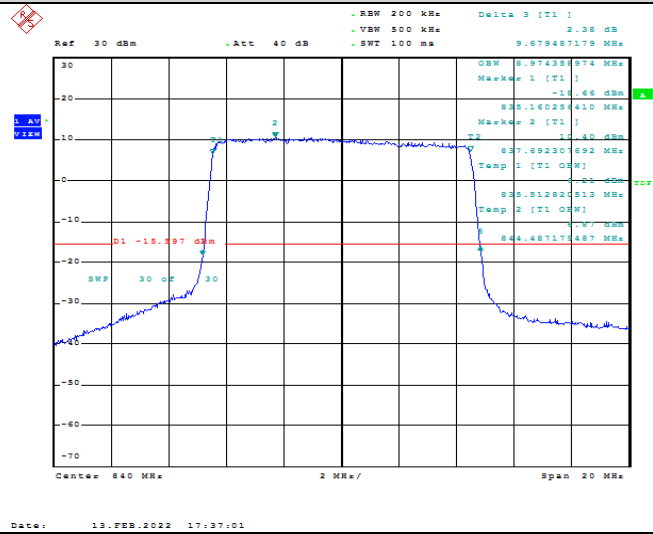
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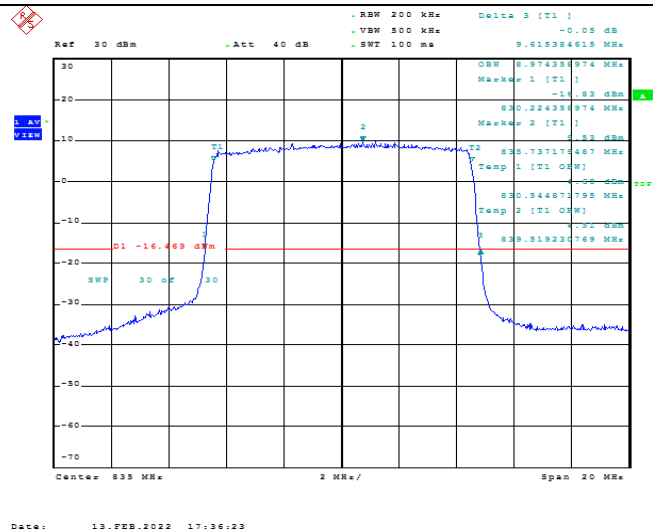
Band19-10MHz-QPSK-24075-50RB#0-8.974



Band19-10MHz-QPSK-24100-50RB#0-8.974

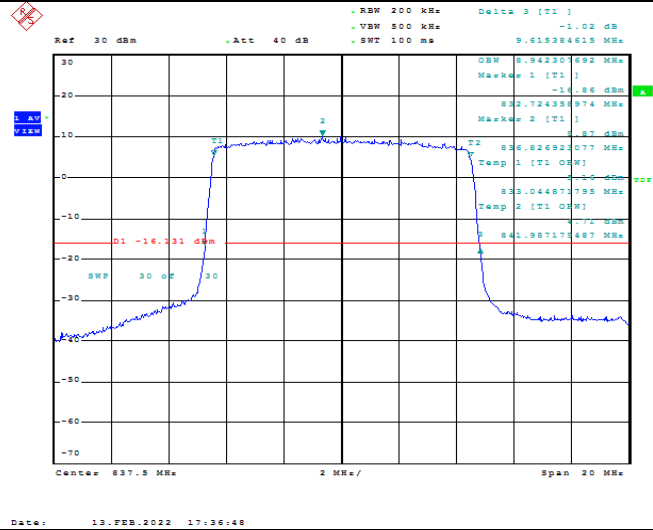


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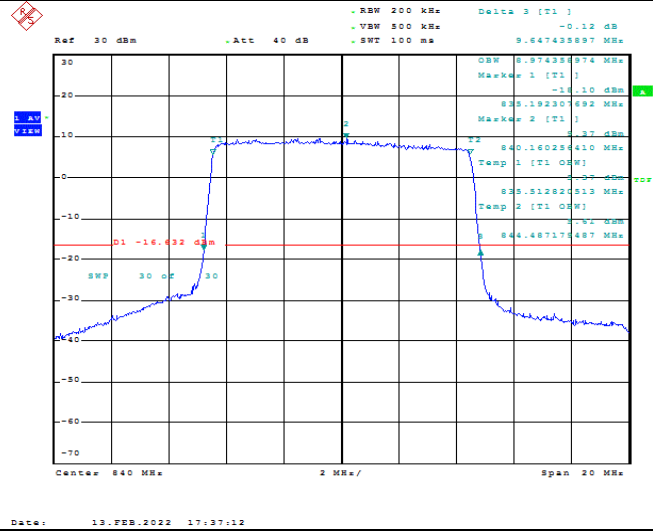
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Band19-10MHz-16QAM-24075-50RB#0-8.942



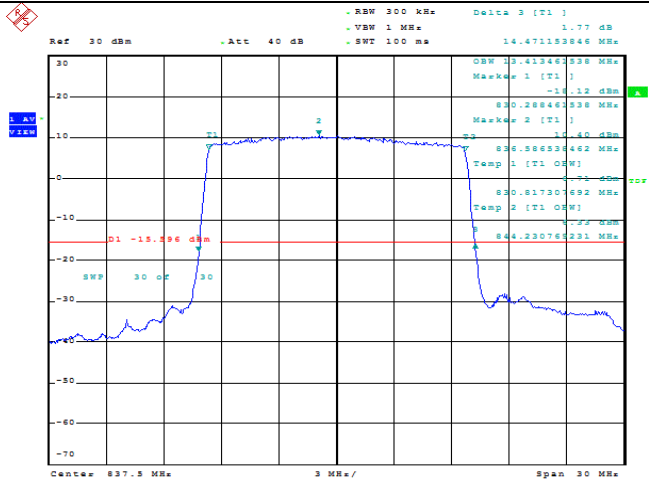
Date: 13.FEB.2022 17:36:48

Band19-10MHz-16QAM-24100-50RB#0-8.974



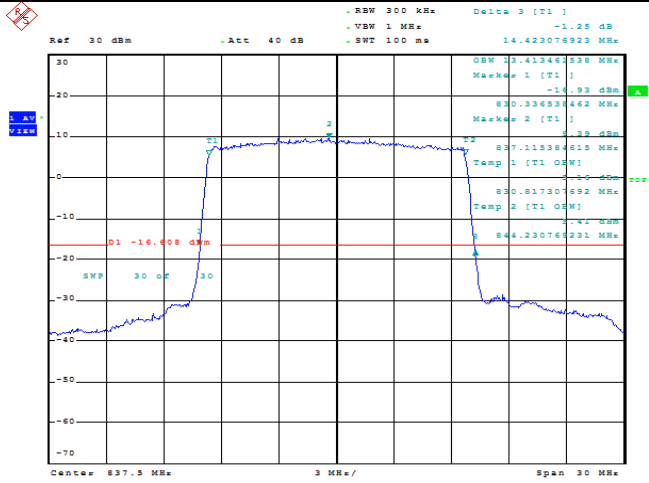
Date: 13.FEB.2022 17:37:12

Band19-15MHz-QPSK-24075-75RB#0-13.413



Date: 13.FEB.2022 17:48:55

Band19-15MHz-16QAM-24075-75RB#0-13.413



Date: 13.FEB.2022 17:49:06

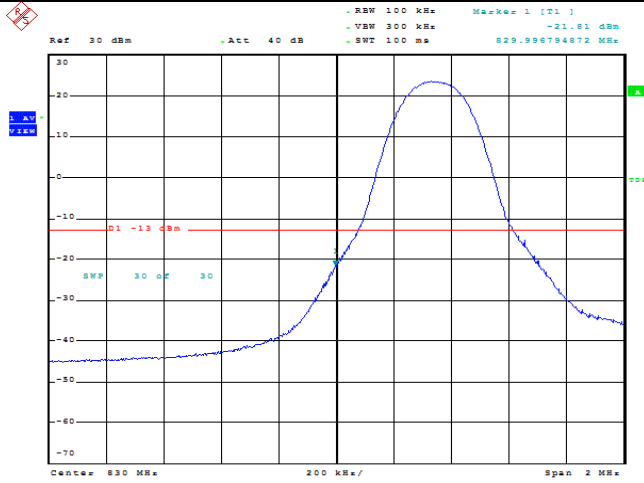
1.4. Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band19	5MHz	QPSK	24025	1RB#0	-21.81	PASS
Band19	5MHz	QPSK	24025	1RB#24	-48.21	PASS
Band19	5MHz	QPSK	24025	25RB#0	-25.28	PASS
Band19	5MHz	QPSK	24125	1RB#0	-48.29	PASS
Band19	5MHz	QPSK	24125	1RB#24	-20.94	PASS
Band19	5MHz	QPSK	24125	25RB#0	-26.34	PASS
Band19	5MHz	16QAM	24025	1RB#0	-23.29	PASS
Band19	5MHz	16QAM	24025	1RB#24	-48.64	PASS
Band19	5MHz	16QAM	24025	25RB#0	-26.33	PASS
Band19	5MHz	16QAM	24125	1RB#0	-48.47	PASS
Band19	5MHz	16QAM	24125	1RB#24	-22.93	PASS
Band19	5MHz	16QAM	24125	25RB#0	-27.32	PASS
Band19	10MHz	QPSK	24050	1RB#0	-34.03	PASS
Band19	10MHz	QPSK	24050	1RB#49	-48.27	PASS
Band19	10MHz	QPSK	24050	50RB#0	-40.89	PASS
Band19	10MHz	QPSK	24100	1RB#0	-47.90	PASS
Band19	10MHz	QPSK	24100	1RB#49	-18.36	PASS
Band19	10MHz	QPSK	24100	50RB#0	-32.95	PASS
Band19	10MHz	16QAM	24050	1RB#0	-34.81	PASS
Band19	10MHz	16QAM	24050	1RB#49	-48.29	PASS
Band19	10MHz	16QAM	24050	50RB#0	-42.70	PASS
Band19	10MHz	16QAM	24100	1RB#0	-47.96	PASS
Band19	10MHz	16QAM	24100	1RB#49	-19.38	PASS
Band19	10MHz	16QAM	24100	50RB#0	-34.28	PASS

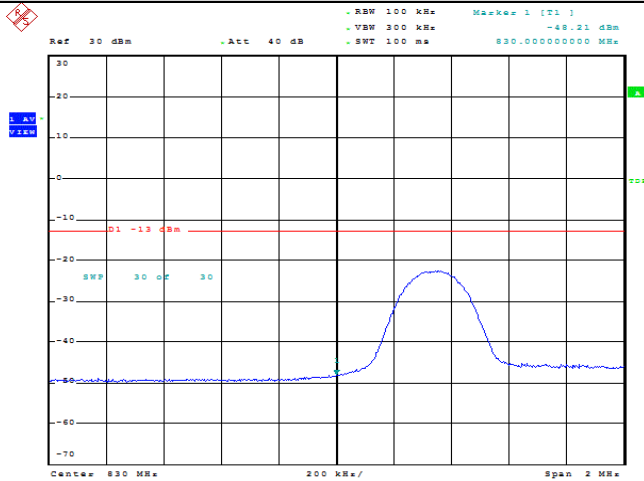
Test Graphs

Band19-5MHz-QPSK-24025-1RB#0



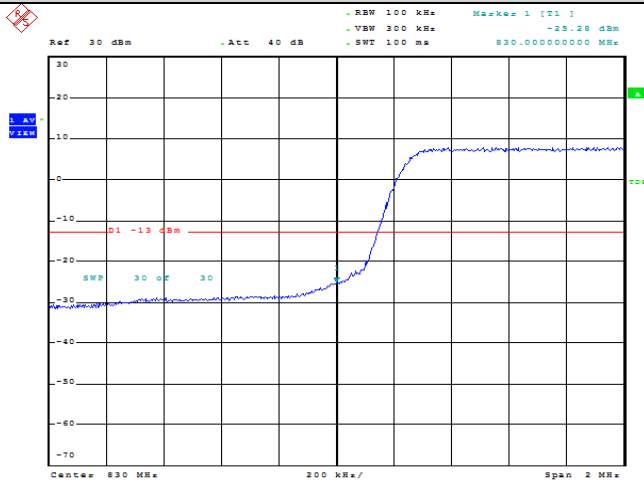
Date: 13.FEB.2022 17:21:19

Band19-5MHz-QPSK-24025-1RB#24



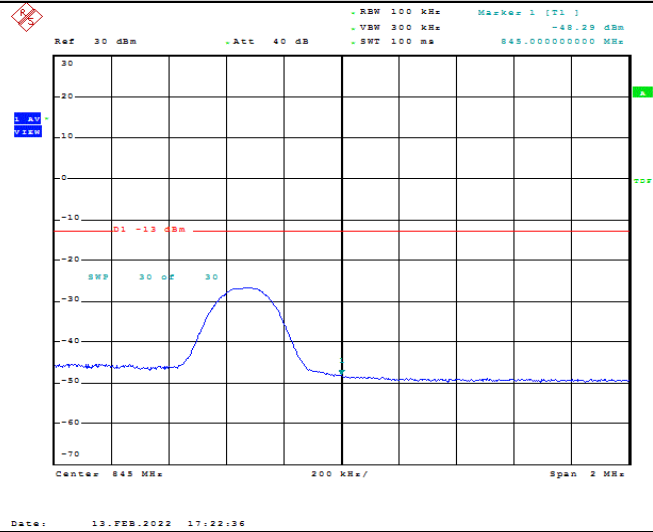
Date: 13.FEB.2022 17:21:40

Band19-5MHz-QPSK-24025-25RB#0

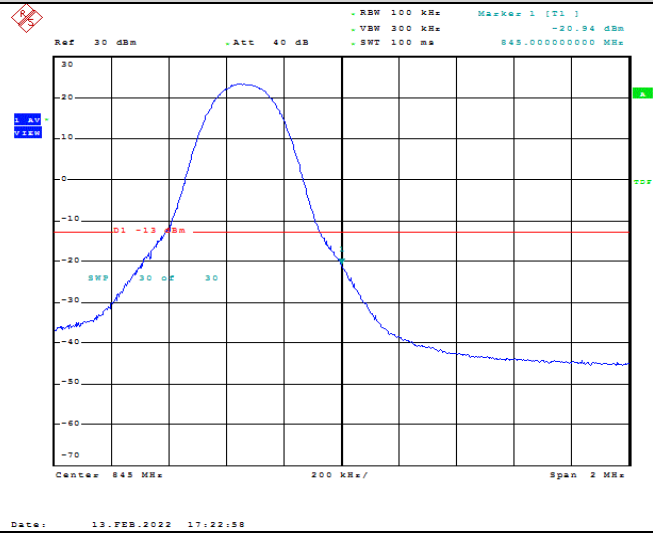


Date: 13.FEB.2022 17:22:01

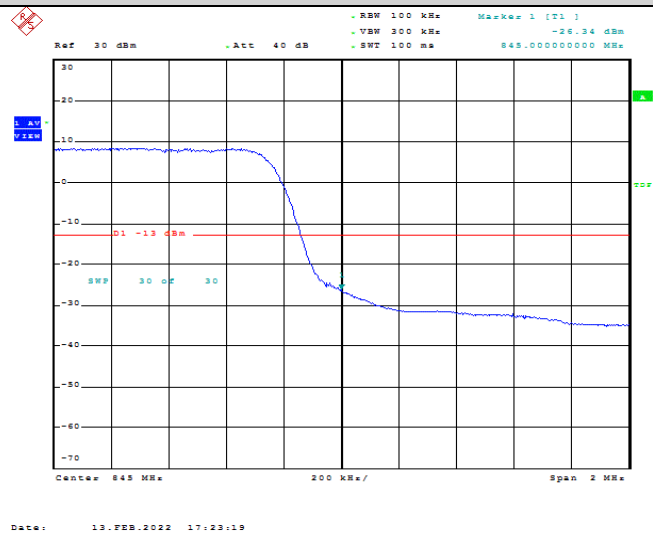
Band19-5MHz-QPSK-24125-1RB#0



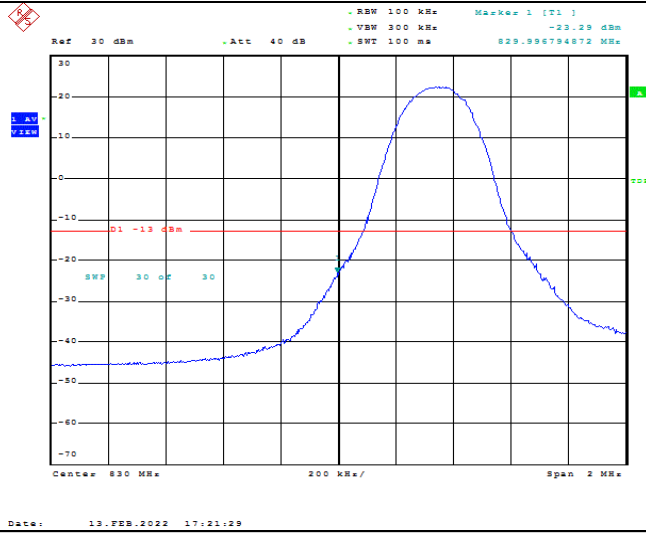
Band19-5MHz-QPSK-24125-1RB#24



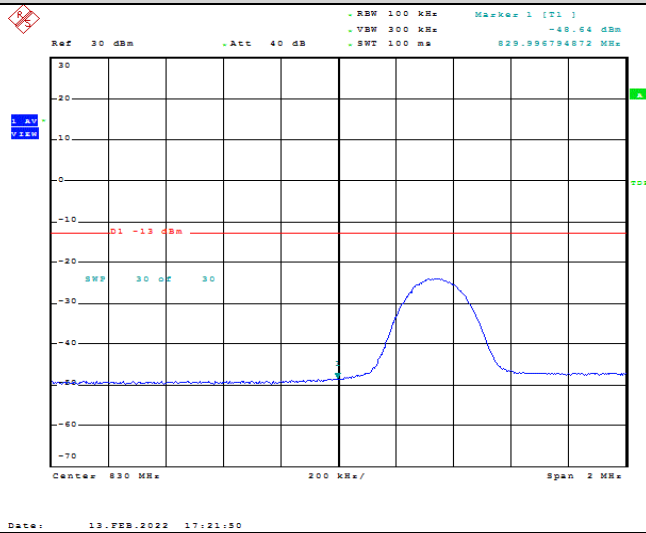
Band19-5MHz-QPSK-24125-25RB#0



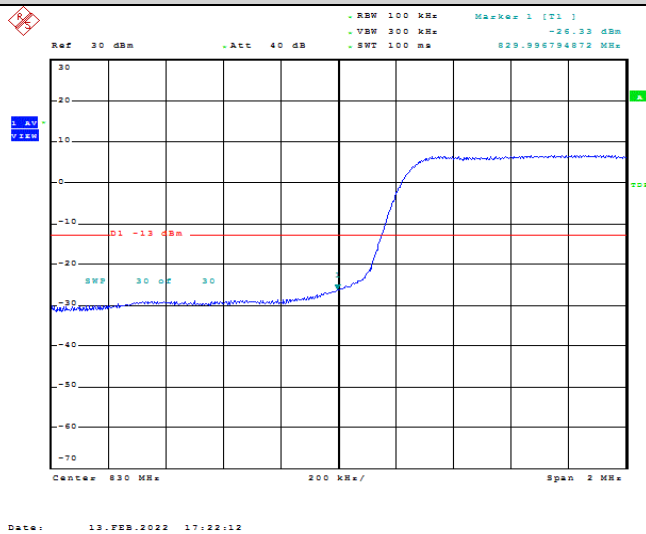
Band19-5MHz-16QAM-24025-1RB#0



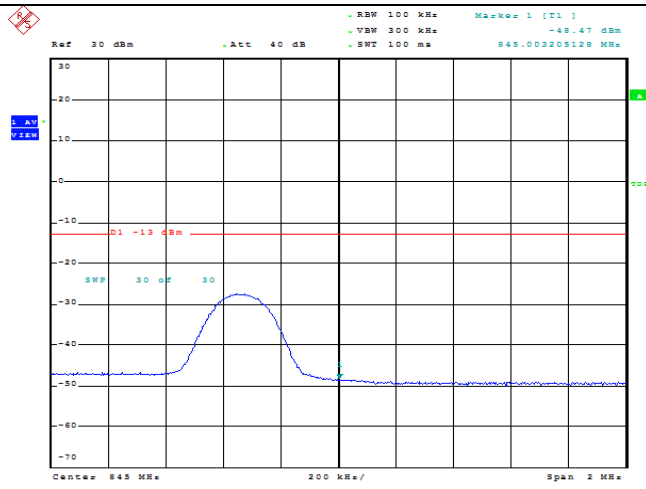
Band19-5MHz-16QAM-24025-1RB#24



Band19-5MHz-16QAM-24025-25RB#0

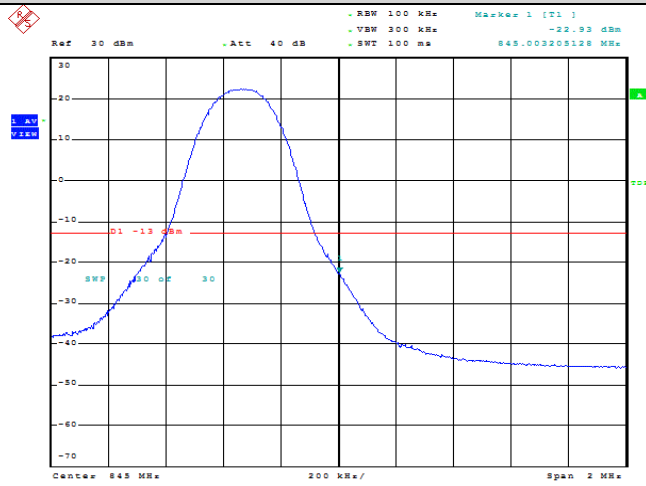


Band19-5MHz-16QAM-24125-1RB#0



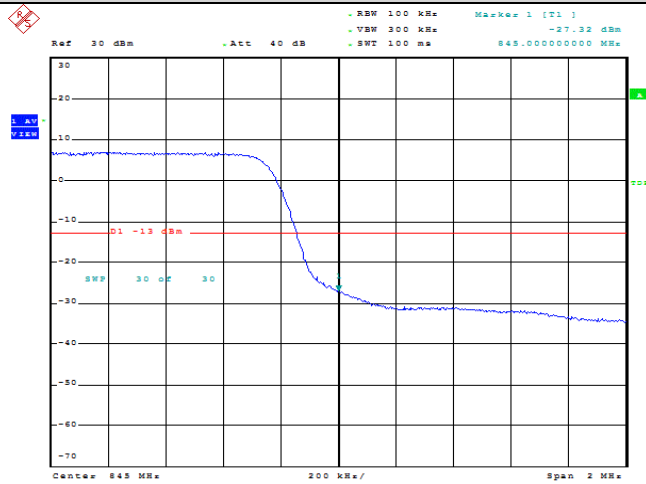
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Band19-5MHz-16QAM-24125-1RB#24



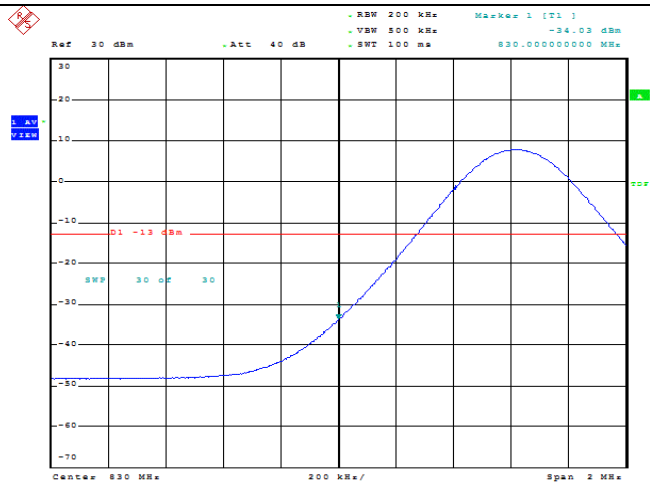
Date: 13.FEB.2022 17:23:08

Band19-5MHz-16QAM-24125-25RB#0



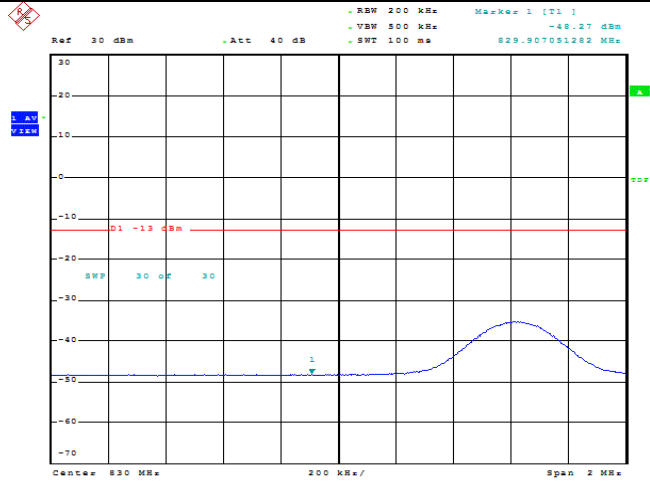
Date: 13.FEB.2022 17:23:30

Band19-10MHz-QPSK-24050-1RB#0



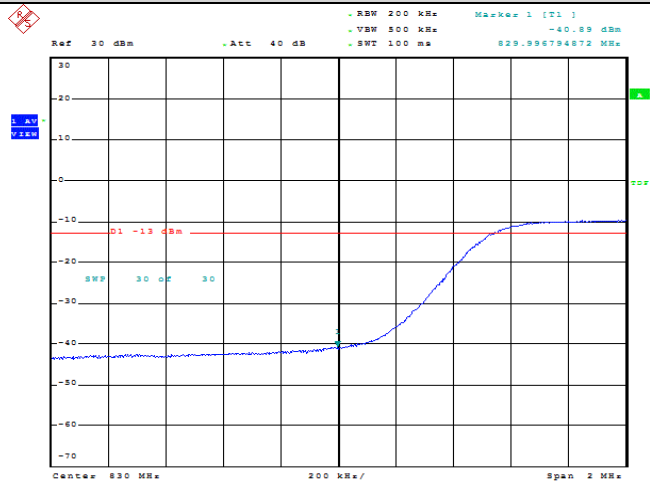
Date: 17.FEB.2022 16:31:44

Band19-10MHz-QPSK-24050-1RB#49



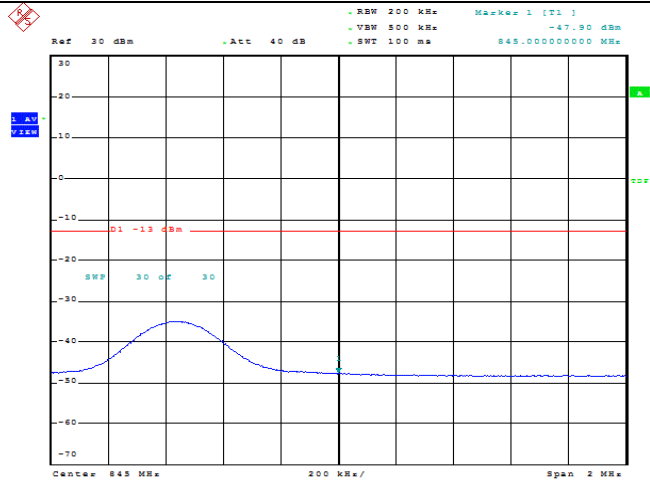
Date: 17.FEB.2022 16:32:05

Band19-10MHz-QPSK-24050-50RB#0



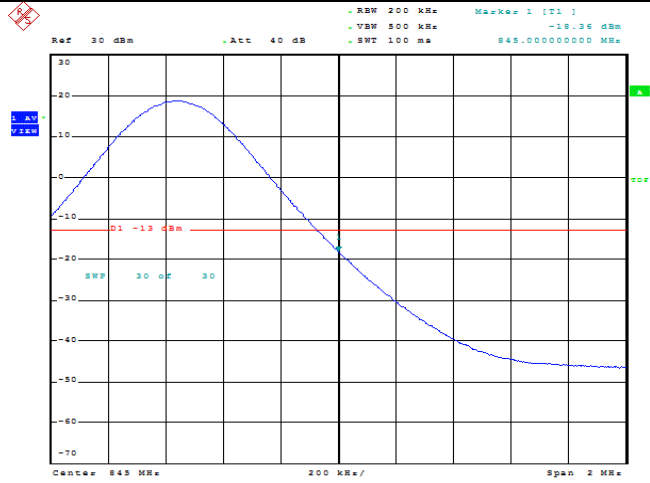
Date: 17.FEB.2022 16:32:26

Band19-10MHz-QPSK-24100-1RB#0



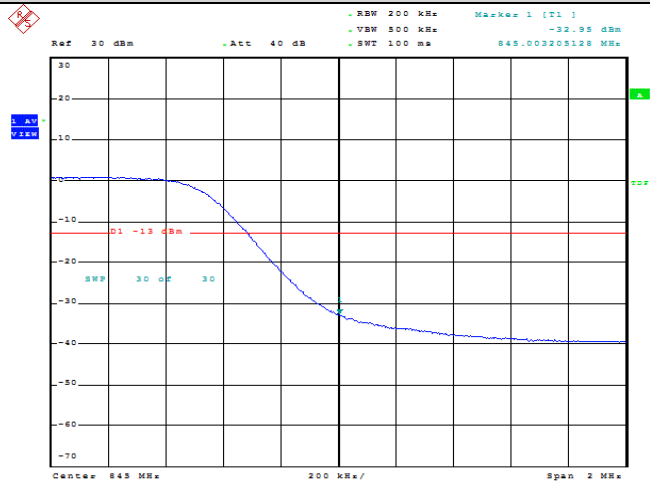
Date: 17.FEB.2022 17:15:47

Band19-10MHz-QPSK-24100-1RB#49



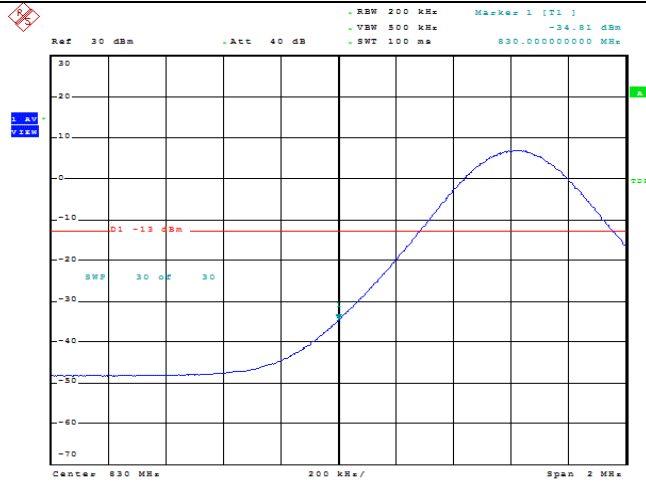
Date: 17.FEB.2022 17:16:08

Band19-10MHz-QPSK-24100-50RB#0



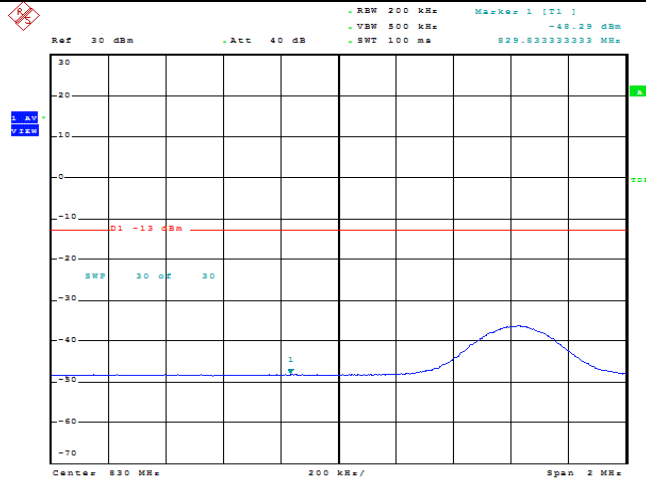
Date: 17.FEB.2022 17:16:29

Band19-10MHz-16QAM-24050-1RB#0



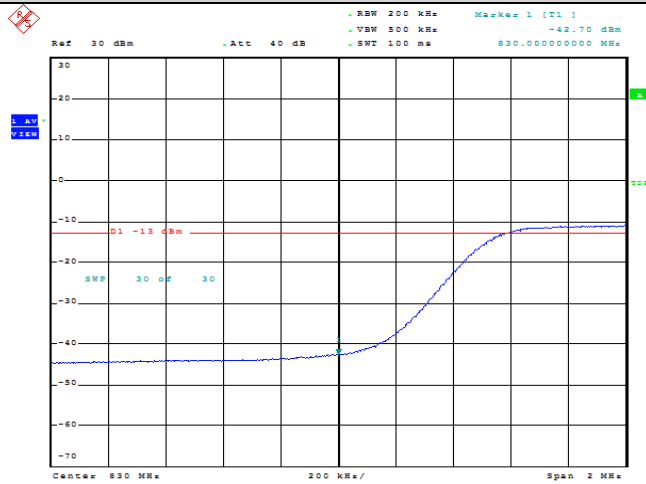
Date: 17.FEB.2022 16:31:54

Band19-10MHz-16QAM-24050-1RB#49



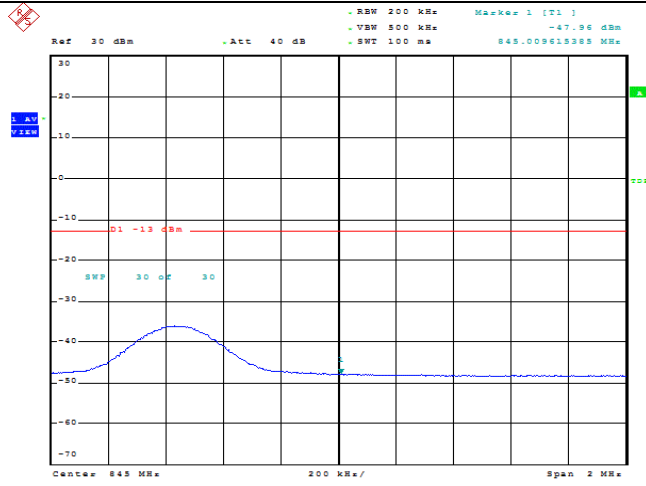
Date: 17.FEB.2022 16:32:15

Band19-10MHz-16QAM-24050-50RB#0



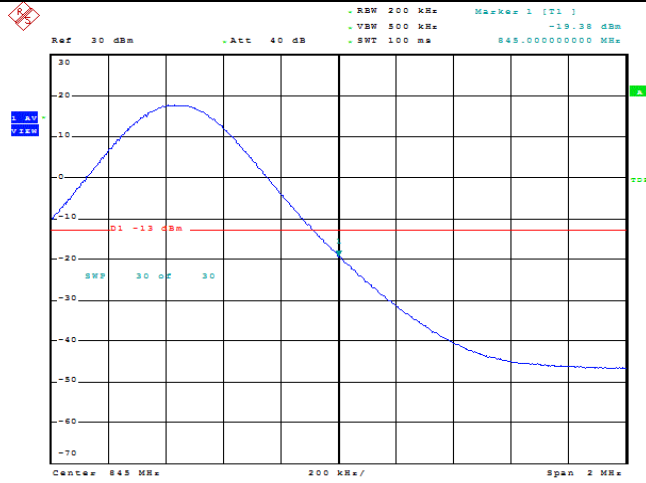
Date: 17.FEB.2022 16:32:37

Band19-10MHz-16QAM-24100-1RB#0



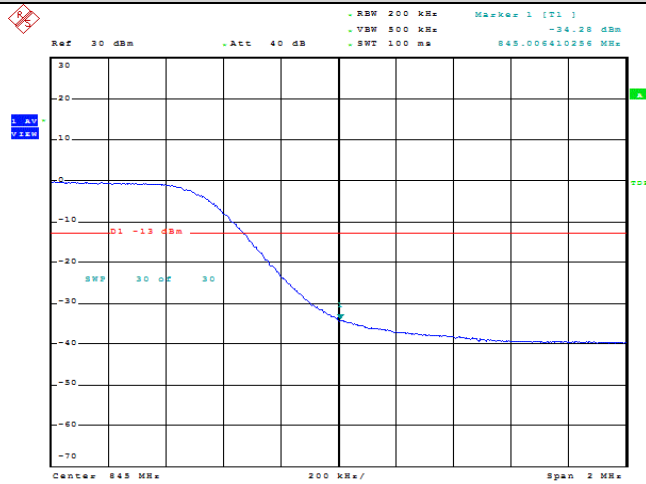
Date: 17.FEB.2022 17:15:57

Band19-10MHz-16QAM-24100-1RB#49



Date: 17.FEB.2022 17:16:18

Band19-10MHz-16QAM-24100-50RB#0



Date: 17.FEB.2022 17:16:40

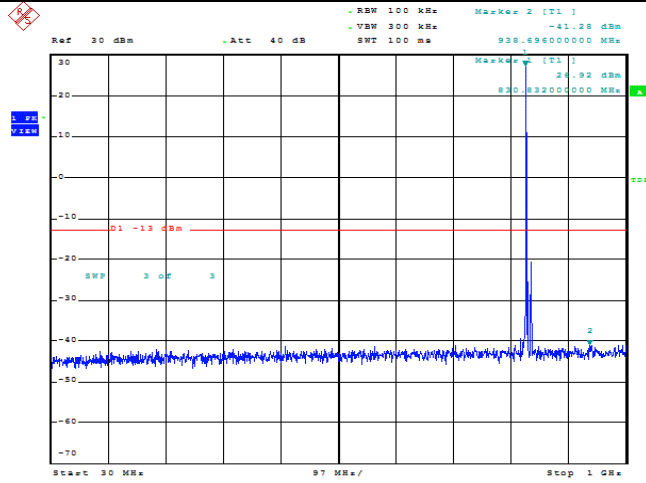
1.5. Appendix E: Conducted Spurious Emission

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band19	5MHz	QPSK	24025	1RB#0	Range1:30~1000MHz	-41.28	PASS
Band19	5MHz	QPSK	24025	1RB#0	Range2:1000~10000MHz	-30.42	PASS
Band19	5MHz	QPSK	24075	1RB#0	Range1:30~1000MHz	-41.04	PASS
Band19	5MHz	QPSK	24075	1RB#0	Range2:1000~10000MHz	-31.3	PASS
Band19	5MHz	QPSK	24125	1RB#0	Range1:30~1000MHz	-41.46	PASS
Band19	5MHz	QPSK	24125	1RB#0	Range2:1000~10000MHz	-31.29	PASS
Band19	5MHz	16QAM	24025	1RB#0	Range1:30~1000MHz	-41.22	PASS
Band19	5MHz	16QAM	24025	1RB#0	Range2:1000~10000MHz	-30.78	PASS
Band19	5MHz	16QAM	24075	1RB#0	Range1:30~1000MHz	-40.95	PASS
Band19	5MHz	16QAM	24075	1RB#0	Range2:1000~10000MHz	-31.64	PASS
Band19	5MHz	16QAM	24125	1RB#0	Range1:30~1000MHz	-41.05	PASS
Band19	5MHz	16QAM	24125	1RB#0	Range2:1000~10000MHz	-34.09	PASS
Band19	10MHz	QPSK	24050	1RB#0	Range1:30~1000MHz	-41.45	PASS
Band19	10MHz	QPSK	24050	1RB#0	Range2:1000~10000MHz	-31.51	PASS
Band19	10MHz	QPSK	24075	1RB#0	Range1:30~1000MHz	-41.32	PASS
Band19	10MHz	QPSK	24075	1RB#0	Range2:1000~10000MHz	-29.57	PASS
Band19	10MHz	QPSK	24100	1RB#0	Range1:30~1000MHz	-41.53	PASS
Band19	10MHz	QPSK	24100	1RB#0	Range2:1000~10000MHz	-30.38	PASS
Band19	10MHz	16QAM	24050	1RB#0	Range1:30~1000MHz	-41.32	PASS
Band19	10MHz	16QAM	24050	1RB#0	Range2:1000~10000MHz	-29.29	PASS
Band19	10MHz	16QAM	24075	1RB#0	Range1:30~1000MHz	-41.18	PASS
Band19	10MHz	16QAM	24075	1RB#0	Range2:1000~10000MHz	-31.95	PASS
Band19	10MHz	16QAM	24100	1RB#0	Range1:30~1000MHz	-41.02	PASS
Band19	10MHz	16QAM	24100	1RB#0	Range2:1000~10000MHz	-31.95	PASS
Band19	15MHz	QPSK	24075	1RB#0	Range1:30~1000MHz	-41.49	PASS
Band19	15MHz	QPSK	24075	1RB#0	Range2:1000~10000MHz	-28.79	PASS
Band19	15MHz	16QAM	24075	1RB#0	Range1:30~1000MHz	-40.68	PASS
Band19	15MHz	16QAM	24075	1RB#0	Range2:1000~10000MHz	-29.87	PASS

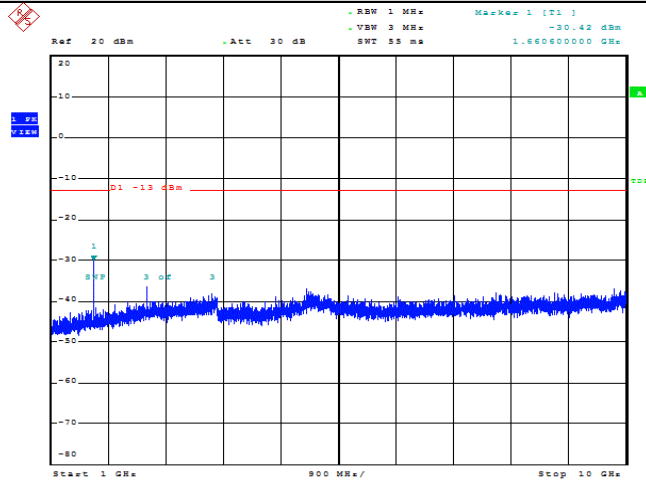
Test Graphs

Band19-5MHz-QPSK-24025-1RB#0-Range1:30~1000MHz



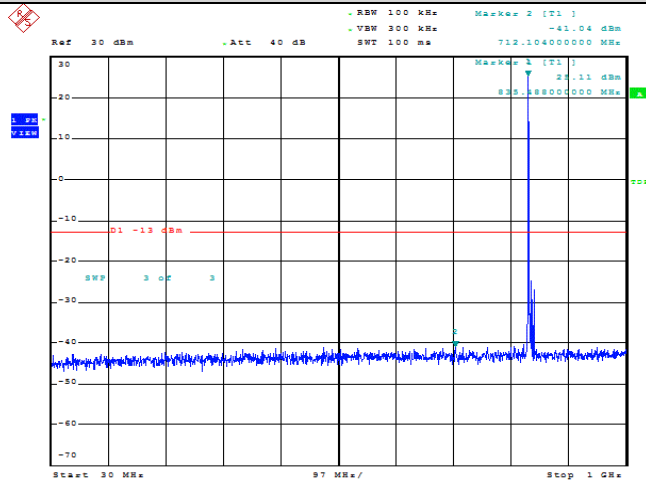
Date: 13.FEB.2022 17:23:44

Band19-5MHz-QPSK-24025-1RB#0-Range2:1000~10000MHz



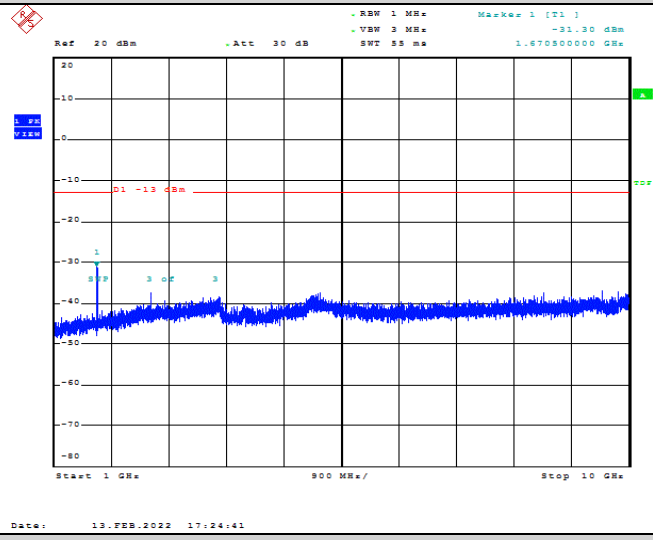
Date: 13.FEB.2022 17:23:53

Band19-5MHz-QPSK-24075-1RB#0-Range1:30~1000MHz

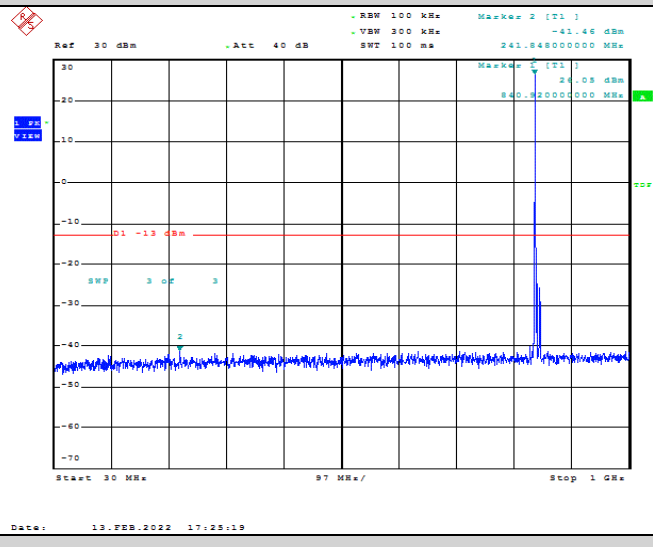


Date: 13.FEB.2022 17:24:31

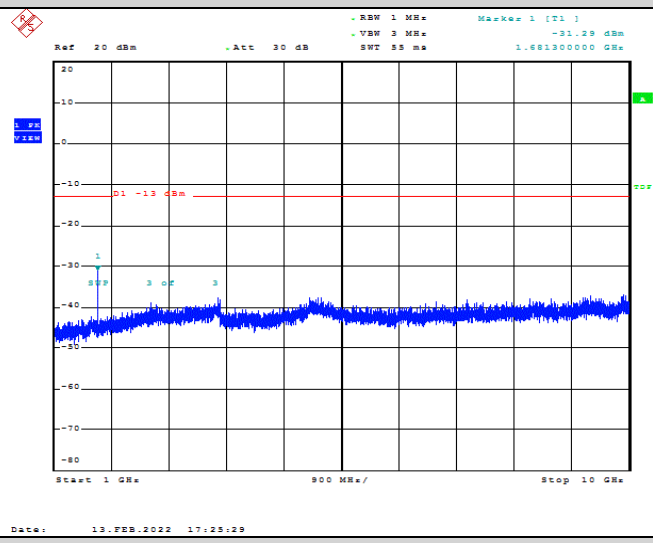
Band19-5MHz-QPSK-24075-1RB#0-Range2:1000~10000MHz



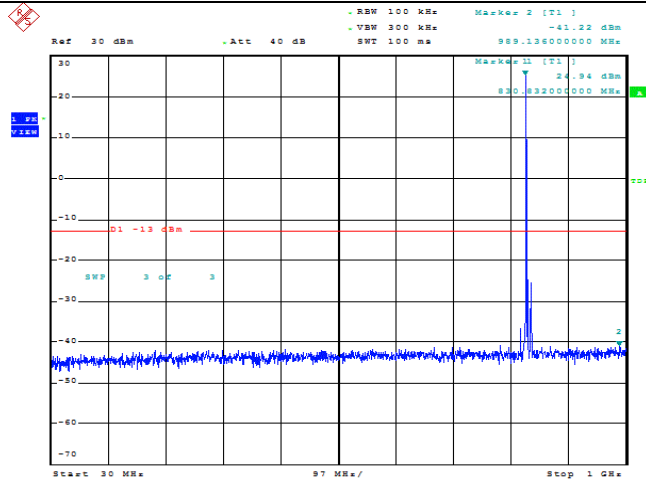
Band19-5MHz-QPSK-24125-1RB#0-Range1:30~1000MHz



Band19-5MHz-QPSK-24125-1RB#0-Range2:1000~10000MHz

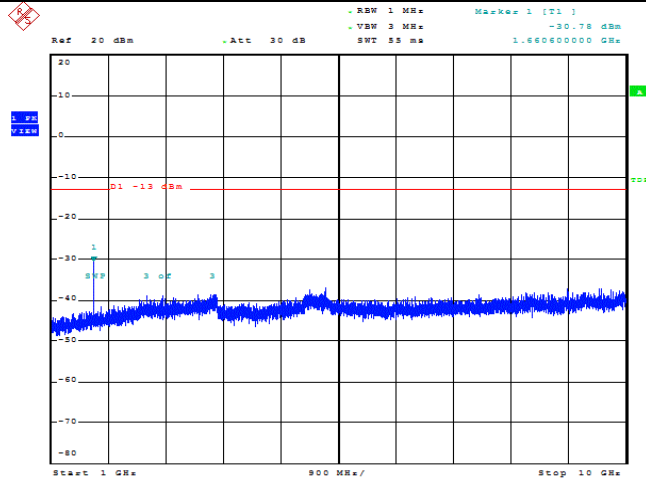


Band19-5MHz-16QAM-24025-1RB#0-Range1:30~1000MHz



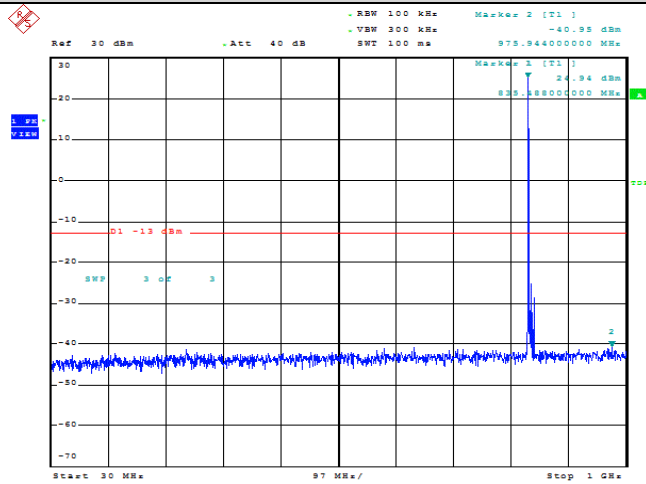
Date: 13.FEB.2022 17:24:06

Band19-5MHz-16QAM-24025-1RB#0-Range2:1000~10000MHz



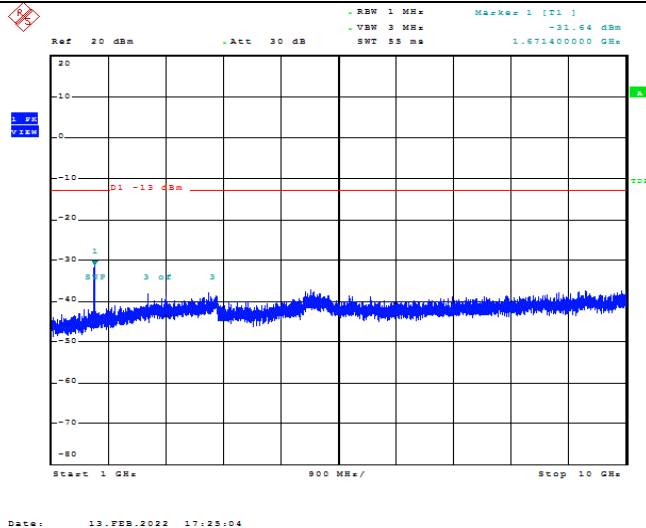
Date: 13.FEB.2022 17:24:16

Band19-5MHz-16QAM-24075-1RB#0-Range1:30~1000MHz

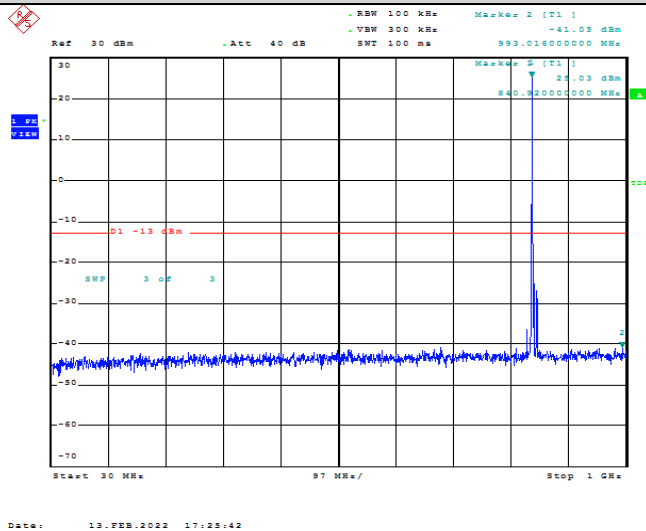


Date: 13.FEB.2022 17:24:54

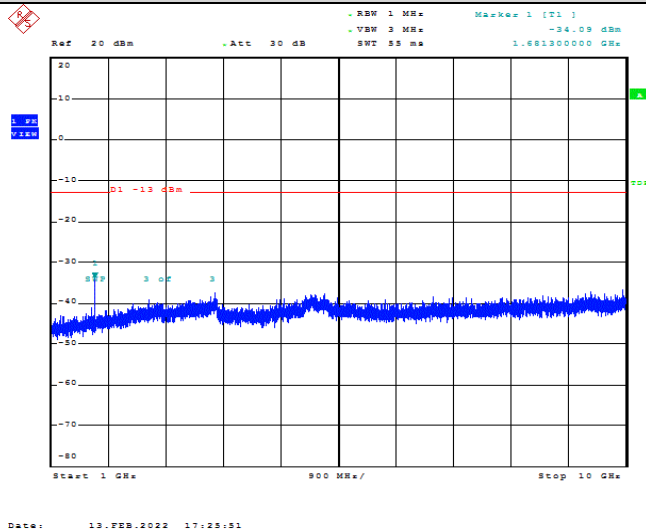
Band19-5MHz-16QAM-24075-1RB#0-Range2:1000~10000MHz



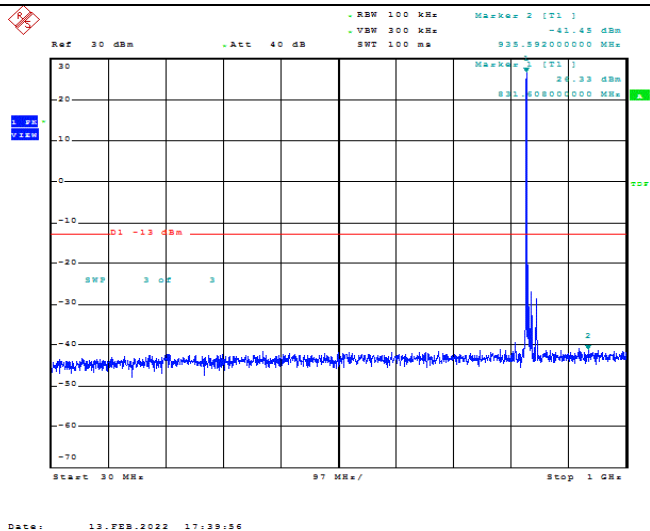
Band19-5MHz-16QAM-24125-1RB#0-Range1:30~1000MHz



Band19-5MHz-16QAM-24125-1RB#0-Range2:1000~10000MHz

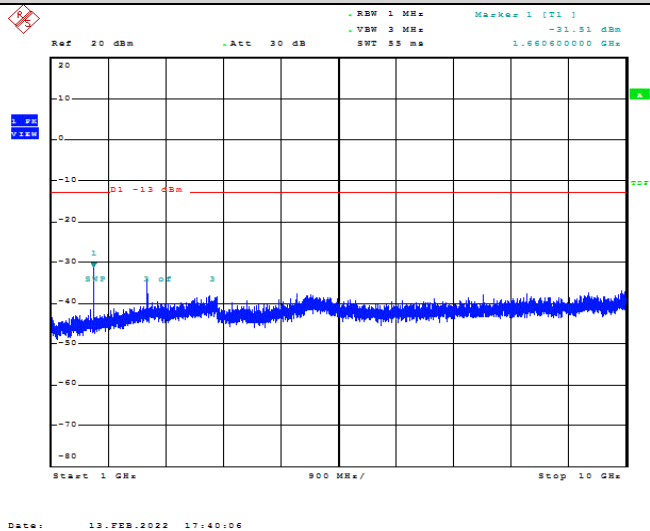


Band19-10MHz-QPSK-24050-1RB#0-Range1:30~1000MHz



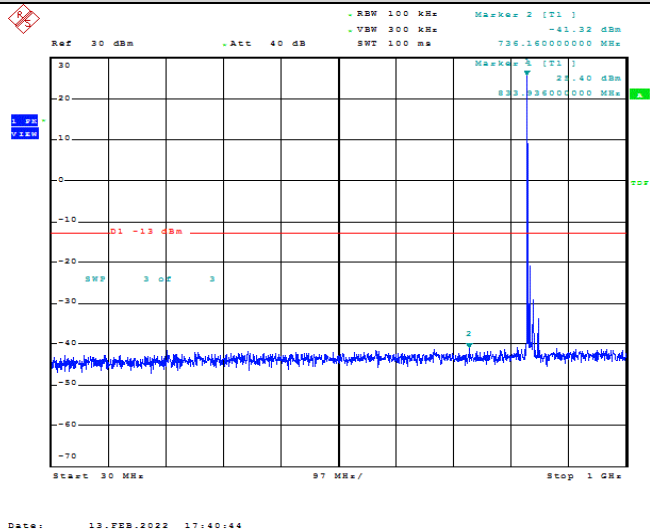
Date: 13.FEB.2022 17:39:56

Band19-10MHz-QPSK-24050-1RB#0-Range2:1000~10000MHz



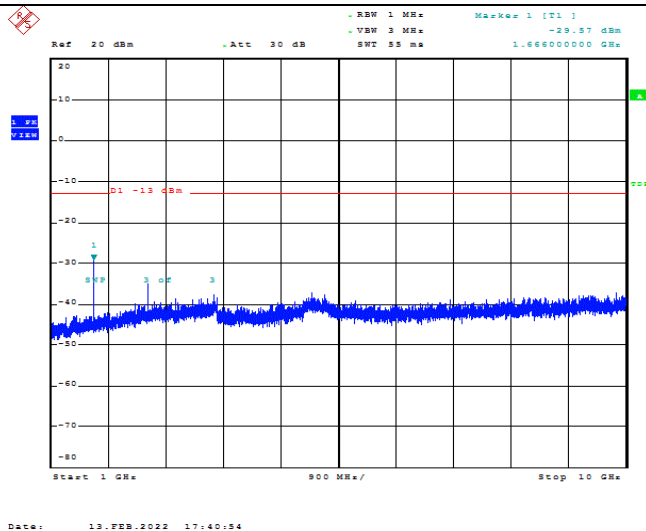
Date: 13.FEB.2022 17:40:06

Band19-10MHz-QPSK-24075-1RB#0-Range1:30~1000MHz

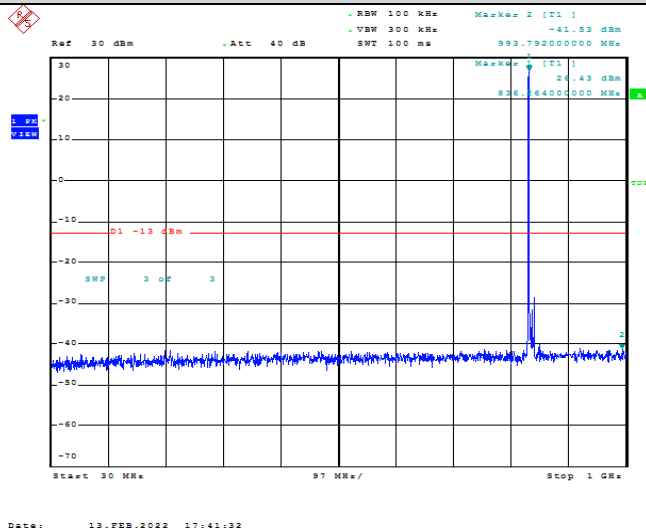


Date: 13.FEB.2022 17:40:44

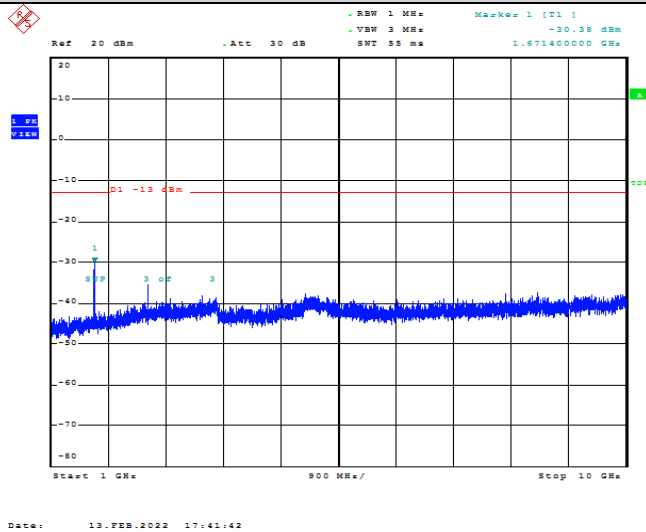
Band19-10MHz-QPSK-24075-1RB#0-Range2:1000~10000MHz



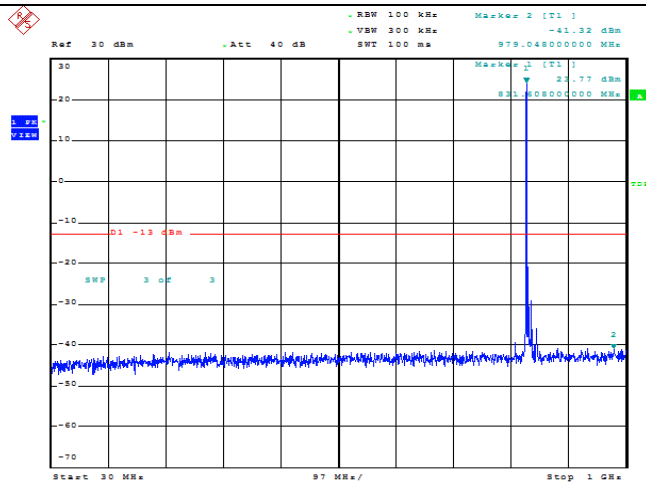
Band19-10MHz-QPSK-24100-1RB#0-Range1:30~1000MHz



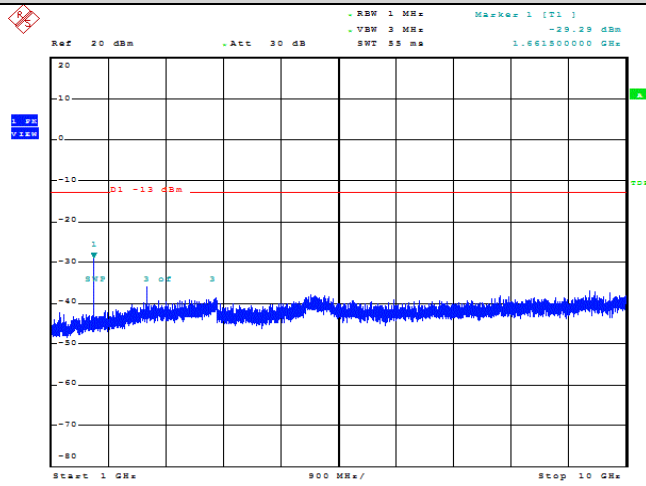
Band19-10MHz-QPSK-24100-1RB#0-Range2:1000~10000MHz



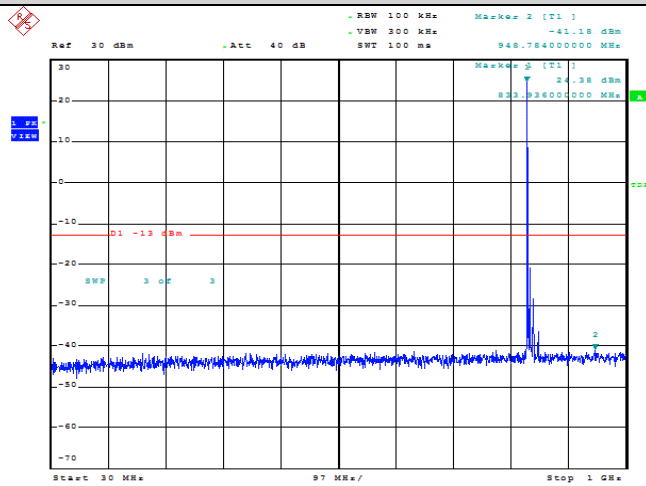
Band19-10MHz-16QAM-24050-1RB#0-Range1:30~1000MHz



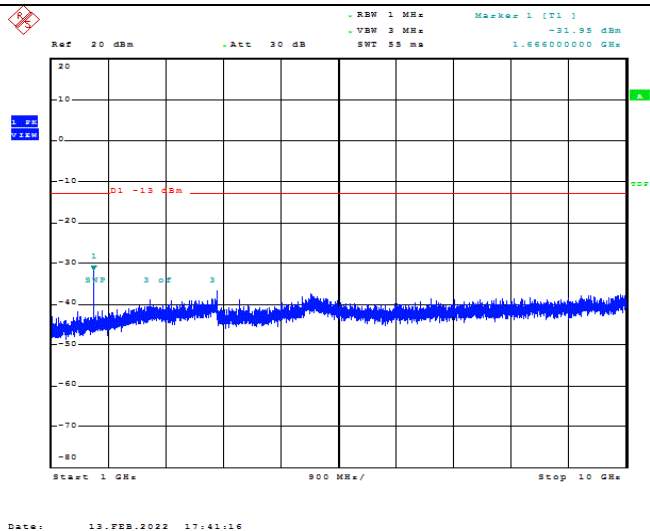
Band19-10MHz-16QAM-24050-1RB#0-Range2:1000~10000MHz



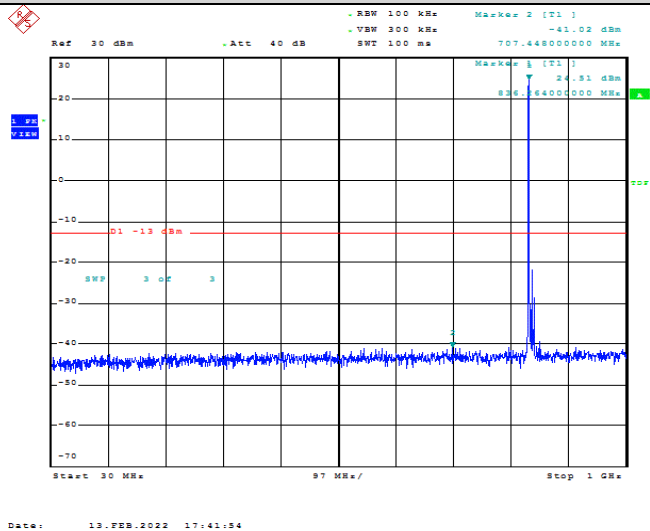
Band19-10MHz-16QAM-24075-1RB#0-Range1:30~1000MHz



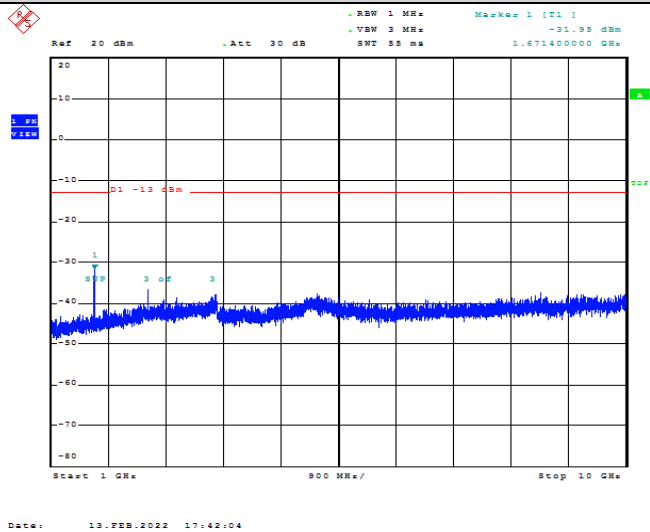
Band19-10MHz-16QAM-24075-1RB#0-Range2:1000~10000MHz



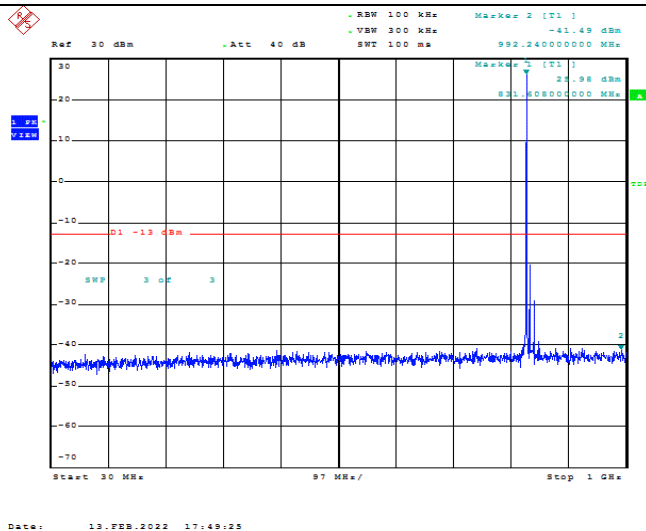
Band19-10MHz-16QAM-24100-1RB#0-Range1:30~1000MHz



Band19-10MHz-16QAM-24100-1RB#0-Range2:1000~10000MHz

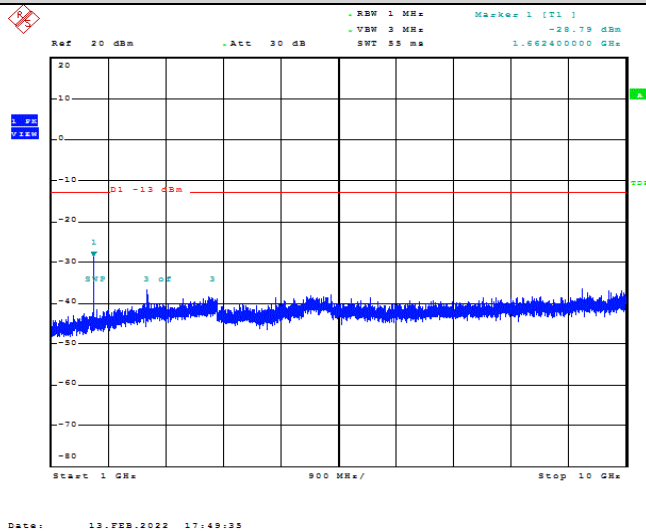


Band19-15MHz-QPSK-24075-1RB#0-Range1:30~1000MHz



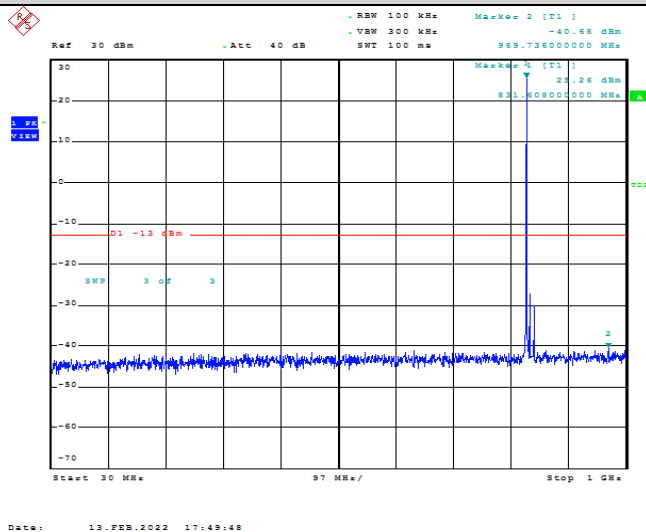
Date: 13.FEB.2022 17:49:25

Band19-15MHz-QPSK-24075-1RB#0-Range2:1000~10000MHz



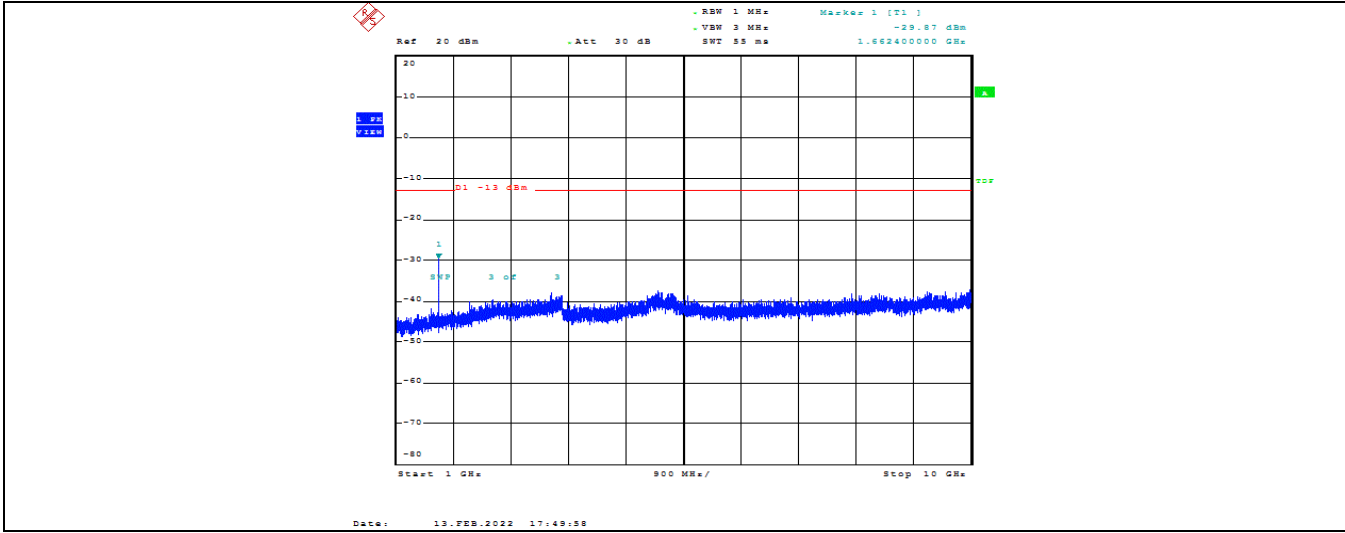
Date: 13.FEB.2022 17:49:35

Band19-15MHz-16QAM-24075-1RB#0-Range1:30~1000MHz



Date: 13.FEB.2022 17:49:48

Band19-15MHz-16QAM-24075-1RB#0-Range2:1000~10000MHz



1.6. Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band19	5MHz	QPSK	24025	25RB#0	VL	NT	-2.96	-0.003556	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	VN	NT	-4.15	-0.004985	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	VH	NT	-2.85	-0.003423	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	VL	NT	-2.49	-0.002973	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	VN	NT	2.90	0.003463	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	VH	NT	2.65	0.003164	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	VL	NT	-2.78	-0.003300	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	VN	NT	1.97	0.002338	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	VH	NT	-2.29	-0.002718	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	VL	NT	-3.62	-0.004348	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	VN	NT	-2.96	-0.003556	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	VH	NT	-3.35	-0.004024	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	VL	NT	-2.57	-0.003069	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	VN	NT	-1.99	-0.002376	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	VH	NT	-2.60	-0.003104	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	VL	NT	-1.59	-0.001887	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	VN	NT	-2.33	-0.002766	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	VH	NT	-1.83	-0.002172	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	VL	NT	1.30	0.001557	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	VN	NT	-2.57	-0.003078	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	VH	NT	-3.69	-0.004419	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	VL	NT	-3.50	-0.004179	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	VN	NT	-0.97	-0.001158	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	VH	NT	-2.43	-0.002901	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	VL	NT	-2.26	-0.002690	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	VN	NT	-3.39	-0.004036	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	VH	NT	-2.23	-0.002655	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	VL	NT	1.56	0.001868	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	VN	NT	-1.89	-0.002263	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	VH	NT	-3.08	-0.003689	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	VL	NT	1.96	0.002340	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	VN	NT	1.20	0.001433	±2.5	PASS

Band19	10MHz	16QAM	24075	50RB#0	VH	NT	-1.95	-0.002328	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	VL	NT	-3.52	-0.004190	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	VN	NT	-1.90	-0.002262	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	VH	NT	-3.30	-0.003929	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	VL	NT	2.19	0.002615	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	VN	NT	-1.70	-0.002030	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	VH	NT	-2.89	-0.003451	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	VL	NT	1.36	0.001624	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	VN	NT	-2.17	-0.002591	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	VH	NT	-2.83	-0.003379	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band19	5MHz	QPSK	24025	25RB#0	NV	-20	-2.27	-0.002727	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	NV	-10	-3.10	-0.003724	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	NV	0	-4.02	-0.004829	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	NV	10	-2.10	-0.002523	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	NV	20	-2.99	-0.003592	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	NV	30	-3.93	-0.004721	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	NV	40	-2.02	-0.002426	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	NV	50	-1.73	-0.002078	±2.5	PASS
Band19	5MHz	QPSK	24025	25RB#0	NV	65	-2.88	-0.003459	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	NV	-20	1.37	0.001636	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	NV	-10	-1.37	-0.001636	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	NV	0	-1.34	-0.001600	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	NV	10	1.99	0.002376	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	NV	20	-2.68	-0.003200	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	NV	30	1.82	0.002173	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	NV	40	2.13	0.002543	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	NV	50	-1.40	-0.001672	±2.5	PASS
Band19	5MHz	QPSK	24075	25RB#0	NV	65	1.26	0.001504	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	NV	-20	-1.36	-0.001614	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	NV	-10	-1.47	-0.001745	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	NV	0	-2.73	-0.003240	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	NV	10	-1.04	-0.001234	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	NV	20	-2.63	-0.003122	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	NV	30	-1.70	-0.002018	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	NV	40	-1.57	-0.001864	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	NV	50	-1.49	-0.001769	±2.5	PASS
Band19	5MHz	QPSK	24125	25RB#0	NV	65	-2.10	-0.002493	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	NV	-20	-2.27	-0.002727	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	NV	-10	-3.53	-0.004240	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	NV	0	-2.29	-0.002751	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	NV	10	-3.39	-0.004072	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	NV	20	-4.01	-0.004817	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	NV	30	-2.89	-0.003471	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	NV	40	-2.56	-0.003075	±2.5	PASS
Band19	5MHz	16QAM	24025	25RB#0	NV	50	-3.06	-0.003676	±2.5	PASS

Band19	5MHz	16QAM	24025	25RB#0	NV	65	-2.59	-0.003111	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	NV	-20	1.62	0.001934	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	NV	-10	-1.96	-0.002340	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	NV	0	0.70	0.000836	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	NV	10	-2.88	-0.003439	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	NV	20	-1.82	-0.002173	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	NV	30	-2.06	-0.002460	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	NV	40	-2.05	-0.002448	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	NV	50	-3.59	-0.004287	±2.5	PASS
Band19	5MHz	16QAM	24075	25RB#0	NV	65	-1.26	-0.001504	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	NV	-20	-3.03	-0.003596	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	NV	-10	-2.23	-0.002647	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	NV	0	-2.72	-0.003228	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	NV	10	-1.65	-0.001958	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	NV	20	-1.83	-0.002172	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	NV	30	-1.53	-0.001816	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	NV	40	-3.05	-0.003620	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	NV	50	-2.33	-0.002766	±2.5	PASS
Band19	5MHz	16QAM	24125	25RB#0	NV	65	-2.95	-0.003501	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	NV	-20	-2.09	-0.002503	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	NV	-10	-1.44	-0.001725	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	NV	0	-2.03	-0.002431	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	NV	10	-1.56	-0.001868	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	NV	20	-1.62	-0.001940	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	NV	30	-0.83	-0.000994	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	NV	40	-2.73	-0.003269	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	NV	50	2.10	0.002515	±2.5	PASS
Band19	10MHz	QPSK	24050	50RB#0	NV	65	-2.49	-0.002982	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	NV	-20	-1.70	-0.002030	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	NV	-10	-1.29	-0.001540	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	NV	0	2.16	0.002579	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	NV	10	-1.96	-0.002340	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	NV	20	1.70	0.002030	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	NV	30	-2.33	-0.002782	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	NV	40	2.46	0.002937	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	NV	50	-3.13	-0.003737	±2.5	PASS
Band19	10MHz	QPSK	24075	50RB#0	NV	65	-1.62	-0.001934	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	NV	-20	-3.08	-0.003667	±2.5	PASS

Band19	10MHz	QPSK	24100	50RB#0	NV	-10	-3.30	-0.003929	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	NV	0	-4.46	-0.005310	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	NV	10	-2.10	-0.002500	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	NV	20	-2.35	-0.002798	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	NV	30	-2.85	-0.003393	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	NV	40	2.33	0.002774	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	NV	50	-2.69	-0.003202	±2.5	PASS
Band19	10MHz	QPSK	24100	50RB#0	NV	65	-2.80	-0.003333	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	NV	-20	2.53	0.003030	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	NV	-10	1.89	0.002263	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	NV	0	-3.81	-0.004563	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	NV	10	1.80	0.002156	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	NV	20	-1.83	-0.002192	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	NV	30	-1.90	-0.002275	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	NV	40	-2.49	-0.002982	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	NV	50	-2.78	-0.003329	±2.5	PASS
Band19	10MHz	16QAM	24050	50RB#0	NV	65	-2.83	-0.003389	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	NV	-20	-2.05	-0.002448	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	NV	-10	-2.72	-0.003248	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	NV	0	-1.99	-0.002376	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	NV	10	1.44	0.001719	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	NV	20	-1.40	-0.001672	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	NV	30	-1.86	-0.002221	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	NV	40	-2.13	-0.002543	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	NV	50	1.76	0.002101	±2.5	PASS
Band19	10MHz	16QAM	24075	50RB#0	NV	65	-2.66	-0.003176	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	NV	-20	-1.53	-0.001821	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	NV	-10	-3.00	-0.003571	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	NV	0	-1.99	-0.002369	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	NV	10	-3.05	-0.003631	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	NV	20	-3.73	-0.004440	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	NV	30	-3.65	-0.004345	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	NV	40	-3.83	-0.004560	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	NV	50	-4.92	-0.005857	±2.5	PASS
Band19	10MHz	16QAM	24100	50RB#0	NV	65	-3.93	-0.004679	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	-20	-1.79	-0.002137	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	-10	-2.50	-0.002985	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	0	2.59	0.003093	±2.5	PASS

Band19	15MHz	QPSK	24075	75RB#0	NV	10	1.85	0.002209	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	20	1.34	0.001600	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	30	1.50	0.001791	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	40	-3.12	-0.003725	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	50	-1.66	-0.001982	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	65	1.63	0.001946	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	NV	-20	2.33	0.002782	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	NV	-10	-3.03	-0.003618	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	NV	0	-2.76	-0.003296	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	NV	10	-2.05	-0.002448	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	NV	20	-0.84	-0.001003	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	NV	30	-2.72	-0.003248	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	NV	40	-2.82	-0.003367	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	NV	50	-2.90	-0.003463	±2.5	PASS
Band19	15MHz	16QAM	24075	75RB#0	NV	65	-2.82	-0.003367	±2.5	PASS

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