



Appendix B.12

LTE Band 19



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Effective (Isotropic) Radiated Power Output Data

Test Result

Ant13:

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	ERP(dBm)	Limit(dBm)	Verdict
Band19	5MHz	QPSK	24025	1RB#0	23.82	17.07	38.45	PASS
Band19	5MHz	QPSK	24025	1RB#12	23.61	16.86	38.45	PASS
Band19	5MHz	QPSK	24025	1RB#24	23.58	16.83	38.45	PASS
Band19	5MHz	QPSK	24025	25RB#0	22.61	15.86	38.45	PASS
Band19	5MHz	QPSK	24075	1RB#0	23.65	16.90	38.45	PASS
Band19	5MHz	QPSK	24075	1RB#12	23.58	16.83	38.45	PASS
Band19	5MHz	QPSK	24075	1RB#24	23.46	16.71	38.45	PASS
Band19	5MHz	QPSK	24075	25RB#0	22.48	15.73	38.45	PASS
Band19	5MHz	QPSK	24125	1RB#0	23.50	16.75	38.45	PASS
Band19	5MHz	QPSK	24125	1RB#12	23.46	16.71	38.45	PASS
Band19	5MHz	QPSK	24125	1RB#24	23.56	16.81	38.45	PASS
Band19	5MHz	QPSK	24125	25RB#0	22.60	15.85	38.45	PASS
Band19	5MHz	16QAM	24025	1RB#0	23.02	16.27	38.45	PASS
Band19	5MHz	16QAM	24025	1RB#12	22.94	16.19	38.45	PASS
Band19	5MHz	16QAM	24025	1RB#24	22.91	16.16	38.45	PASS
Band19	5MHz	16QAM	24025	25RB#0	21.67	14.92	38.45	PASS
Band19	5MHz	16QAM	24075	1RB#0	22.84	16.09	38.45	PASS
Band19	5MHz	16QAM	24075	1RB#12	22.73	15.98	38.45	PASS
Band19	5MHz	16QAM	24075	1RB#24	22.95	16.20	38.45	PASS
Band19	5MHz	16QAM	24075	25RB#0	21.51	14.76	38.45	PASS
Band19	5MHz	16QAM	24125	1RB#0	22.90	16.15	38.45	PASS
Band19	5MHz	16QAM	24125	1RB#12	22.55	15.80	38.45	PASS
Band19	5MHz	16QAM	24125	1RB#24	22.92	16.17	38.45	PASS
Band19	5MHz	16QAM	24125	25RB#0	21.63	14.88	38.45	PASS
Band19	5MHz	64QAM	24025	1RB#0	21.82	15.07	38.45	PASS
Band19	5MHz	64QAM	24025	1RB#12	21.62	14.87	38.45	PASS
Band19	5MHz	64QAM	24025	1RB#24	21.70	14.95	38.45	PASS
Band19	5MHz	64QAM	24025	25RB#0	20.66	13.91	38.45	PASS
Band19	5MHz	64QAM	24075	1RB#0	21.70	14.95	38.45	PASS
Band19	5MHz	64QAM	24075	1RB#12	21.73	14.98	38.45	PASS



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Band19	5MHz	64QAM	24075	1RB#24	21.64	14.89	38.45	PASS
Band19	5MHz	64QAM	24075	25RB#0	20.50	13.75	38.45	PASS
Band19	5MHz	64QAM	24125	1RB#0	21.66	14.91	38.45	PASS
Band19	5MHz	64QAM	24125	1RB#12	21.75	15.00	38.45	PASS
Band19	5MHz	64QAM	24125	1RB#24	21.61	14.86	38.45	PASS
Band19	5MHz	64QAM	24125	25RB#0	20.54	13.79	38.45	PASS
Band19	10MHz	QPSK	24050	1RB#0	23.73	16.98	38.45	PASS
Band19	10MHz	QPSK	24050	1RB#24	23.67	16.92	38.45	PASS
Band19	10MHz	QPSK	24050	1RB#49	23.84	17.09	38.45	PASS
Band19	10MHz	QPSK	24050	50RB#0	22.78	16.03	38.45	PASS
Band19	10MHz	QPSK	24075	1RB#0	23.77	17.02	38.45	PASS
Band19	10MHz	QPSK	24075	1RB#24	23.63	16.88	38.45	PASS
Band19	10MHz	QPSK	24075	1RB#49	23.88	17.13	38.45	PASS
Band19	10MHz	QPSK	24075	50RB#0	22.72	15.97	38.45	PASS
Band19	10MHz	QPSK	24100	1RB#0	23.82	17.07	38.45	PASS
Band19	10MHz	QPSK	24100	1RB#24	23.56	16.81	38.45	PASS
Band19	10MHz	QPSK	24100	1RB#49	23.93	17.18	38.45	PASS
Band19	10MHz	QPSK	24100	50RB#0	22.50	15.75	38.45	PASS
Band19	10MHz	16QAM	24050	1RB#0	23.05	16.30	38.45	PASS
Band19	10MHz	16QAM	24050	1RB#24	22.79	16.04	38.45	PASS
Band19	10MHz	16QAM	24050	1RB#49	23.28	16.53	38.45	PASS
Band19	10MHz	16QAM	24050	50RB#0	21.72	14.97	38.45	PASS
Band19	10MHz	16QAM	24075	1RB#0	22.95	16.20	38.45	PASS
Band19	10MHz	16QAM	24075	1RB#24	22.77	16.02	38.45	PASS
Band19	10MHz	16QAM	24075	1RB#49	23.19	16.44	38.45	PASS
Band19	10MHz	16QAM	24075	50RB#0	21.65	14.90	38.45	PASS
Band19	10MHz	16QAM	24100	1RB#0	23.00	16.25	38.45	PASS
Band19	10MHz	16QAM	24100	1RB#24	22.70	15.95	38.45	PASS
Band19	10MHz	16QAM	24100	1RB#49	23.07	16.32	38.45	PASS
Band19	10MHz	16QAM	24100	50RB#0	21.52	14.77	38.45	PASS
Band19	10MHz	64QAM	24050	1RB#0	21.79	15.04	38.45	PASS
Band19	10MHz	64QAM	24050	1RB#24	21.64	14.89	38.45	PASS
Band19	10MHz	64QAM	24050	1RB#49	21.98	15.23	38.45	PASS
Band19	10MHz	64QAM	24050	50RB#0	20.57	13.82	38.45	PASS
Band19	10MHz	64QAM	24075	1RB#0	21.79	15.04	38.45	PASS
Band19	10MHz	64QAM	24075	1RB#24	21.73	14.98	38.45	PASS
Band19	10MHz	64QAM	24075	1RB#49	22.04	15.29	38.45	PASS
Band19	10MHz	64QAM	24075	50RB#0	20.47	13.72	38.45	PASS



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Band19	10MHz	64QAM	24100	1RB#0	21.80	15.05	38.45	PASS
Band19	10MHz	64QAM	24100	1RB#24	21.55	14.80	38.45	PASS
Band19	10MHz	64QAM	24100	1RB#49	21.92	15.17	38.45	PASS
Band19	10MHz	64QAM	24100	50RB#0	20.45	13.70	38.45	PASS
Band19	15MHz	QPSK	24075	1RB#0	23.44	16.69	38.45	PASS
Band19	15MHz	QPSK	24075	1RB#38	23.09	16.34	38.45	PASS
Band19	15MHz	QPSK	24075	1RB#74	22.50	15.75	38.45	PASS
Band19	15MHz	QPSK	24075	75RB#0	21.80	15.05	38.45	PASS
Band19	15MHz	16QAM	24075	1RB#0	22.45	15.70	38.45	PASS
Band19	15MHz	16QAM	24075	1RB#38	22.33	15.58	38.45	PASS
Band19	15MHz	16QAM	24075	1RB#74	21.79	15.04	38.45	PASS
Band19	15MHz	16QAM	24075	75RB#0	20.78	14.03	38.45	PASS
Band19	15MHz	64QAM	24075	1RB#0	21.49	14.74	38.45	PASS
Band19	15MHz	64QAM	24075	1RB#38	21.35	14.60	38.45	PASS
Band19	15MHz	64QAM	24075	1RB#74	20.68	13.93	38.45	PASS
Band19	15MHz	64QAM	24075	75RB#0	19.79	13.04	38.45	PASS



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Peak-to-Average Ratio(CCDF)

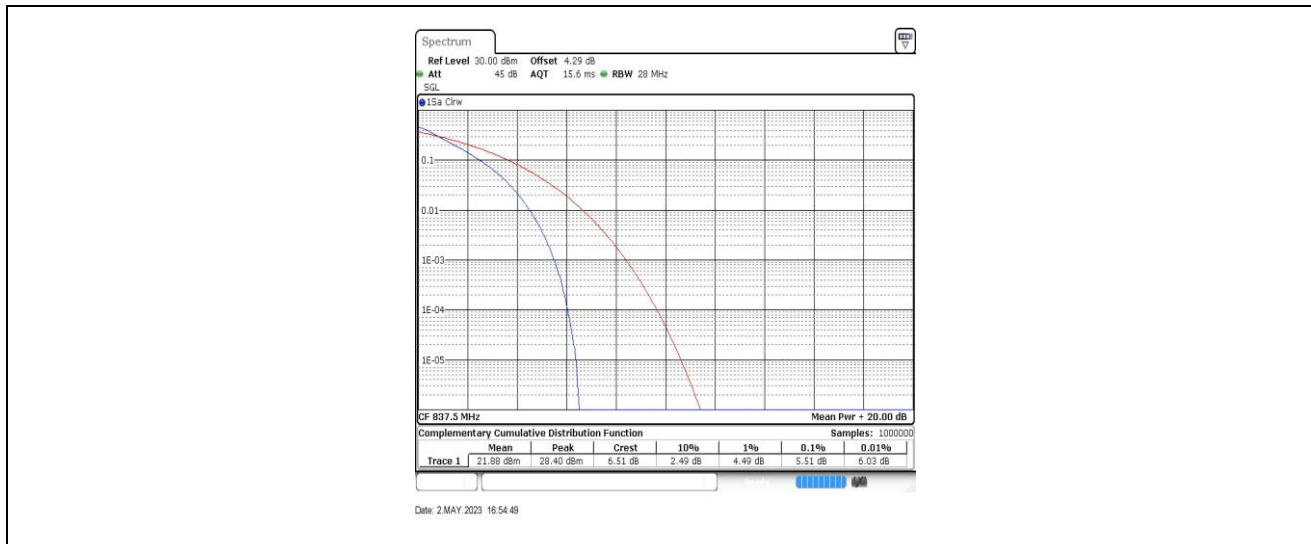
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band19	15MHz	QPSK	24075	75RB#0	5.51	13	PASS
Band19	15MHz	16QAM	24075	75RB#0	6.32	13	PASS
Band19	15MHz	64QAM	24075	75RB#0	6.67	13	PASS

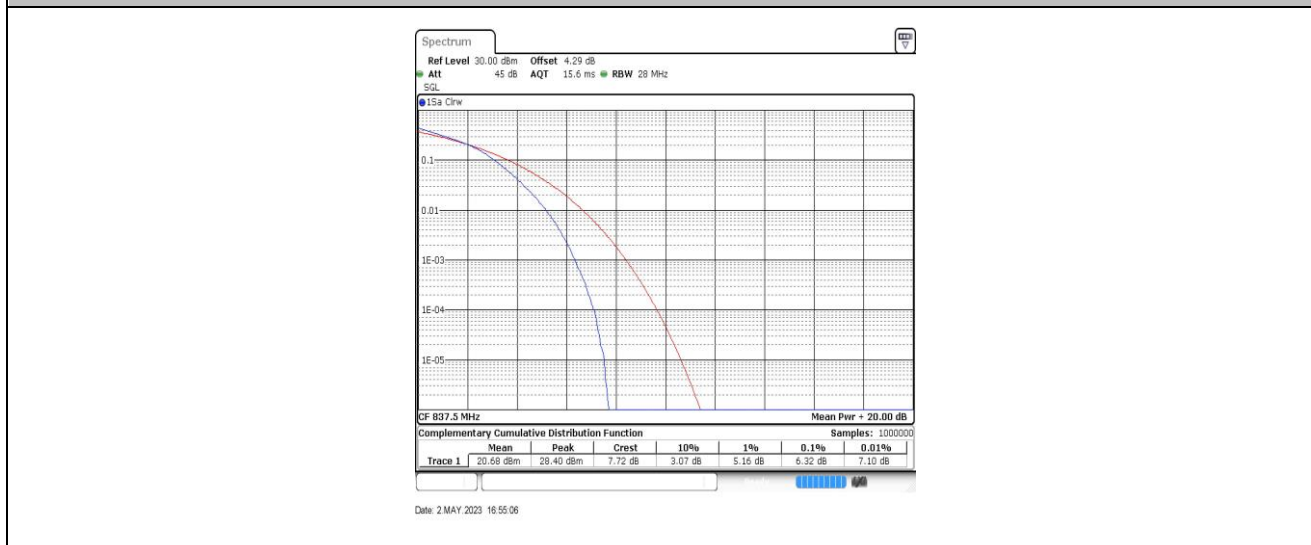


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Test Graphs



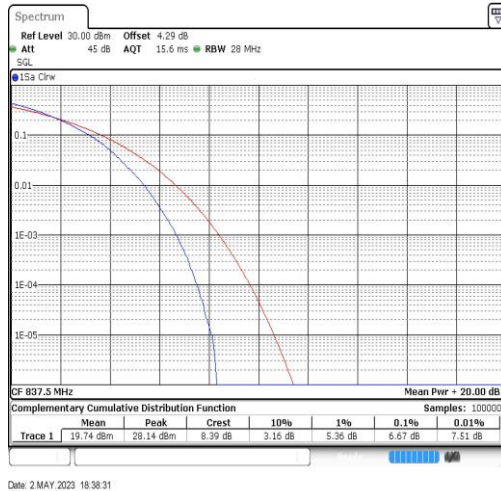
Band19-15MHz-QPSK-24075-75RB#0



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



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Band19-15MHz-64QAM-24075-75RB#0



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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	4.466	4.91	PASS
Band19	5MHz	QPSK	24075	25RB#0	4.476	4.91	PASS
Band19	5MHz	QPSK	24125	25RB#0	4.476	4.91	PASS
Band19	5MHz	16QAM	24025	25RB#0	4.466	4.97	PASS
Band19	5MHz	16QAM	24075	25RB#0	4.466	4.94	PASS
Band19	5MHz	16QAM	24125	25RB#0	4.466	4.94	PASS
Band19	5MHz	64QAM	24025	25RB#0	4.476	4.90	PASS
Band19	5MHz	64QAM	24075	25RB#0	4.486	4.93	PASS
Band19	5MHz	64QAM	24125	25RB#0	4.486	4.95	PASS
Band19	10MHz	QPSK	24050	50RB#0	8.918	9.70	PASS
Band19	10MHz	QPSK	24075	50RB#0	8.918	9.70	PASS
Band19	10MHz	QPSK	24100	50RB#0	8.952	9.70	PASS
Band19	10MHz	16QAM	24050	50RB#0	8.918	9.73	PASS
Band19	10MHz	16QAM	24075	50RB#0	8.918	9.63	PASS
Band19	10MHz	16QAM	24100	50RB#0	8.918	9.73	PASS
Band19	10MHz	64QAM	24050	50RB#0	8.918	9.67	PASS
Band19	10MHz	64QAM	24075	50RB#0	8.918	9.70	PASS
Band19	10MHz	64QAM	24100	50RB#0	8.918	9.70	PASS
Band19	15MHz	QPSK	24075	75RB#0	13.478	14.90	PASS
Band19	15MHz	16QAM	24075	75RB#0	13.478	14.85	PASS
Band19	15MHz	64QAM	24075	75RB#0	13.428	14.90	PASS

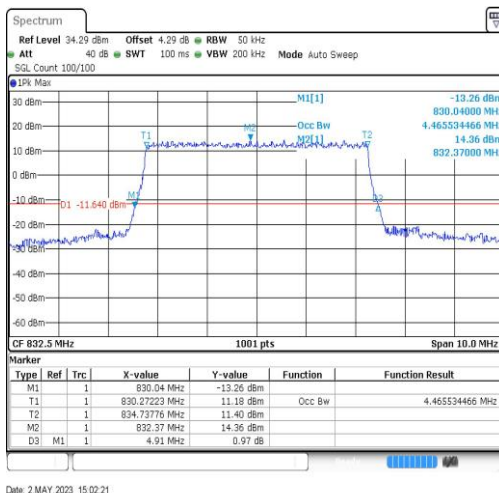


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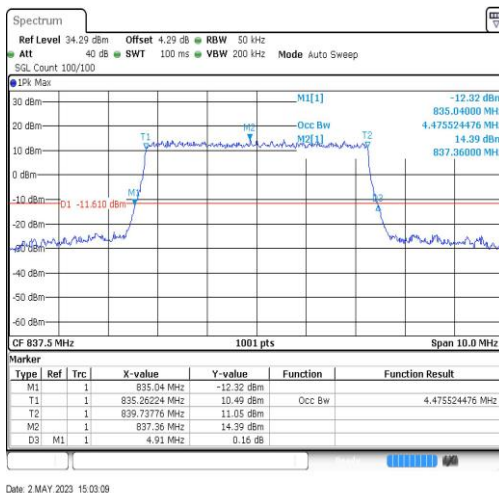
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Test Graphs



Band19-5MHz-QPSK-24025-25RB#0-4.466

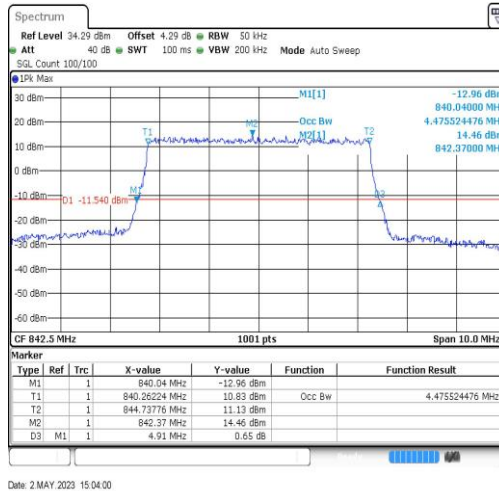


Band19-5MHz-QPSK-24075-25RB#0-4.476

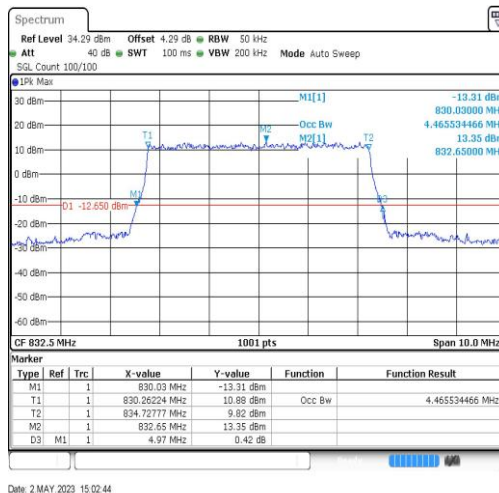


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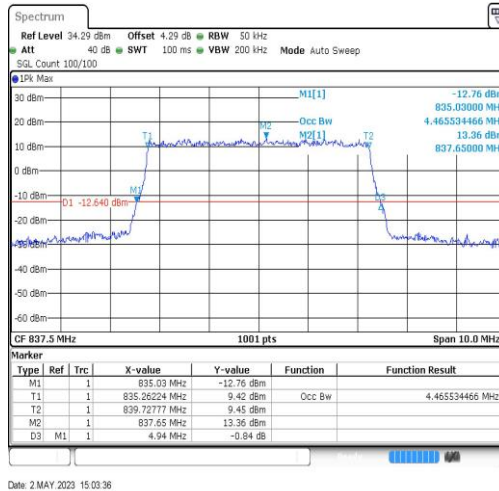
Band19-5MHz-QPSK-24125-25RB#0-4.476



Band19-5MHz-16QAM-24025-25RB#0-4.466

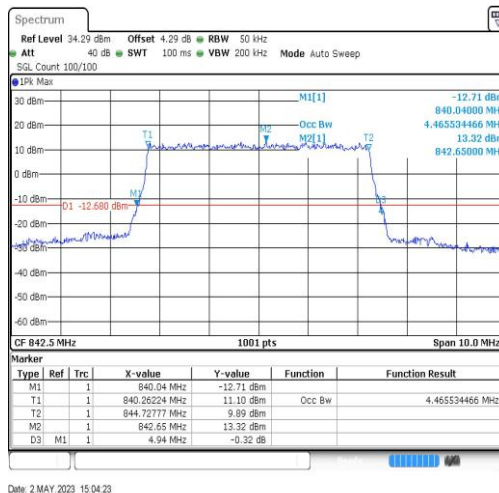


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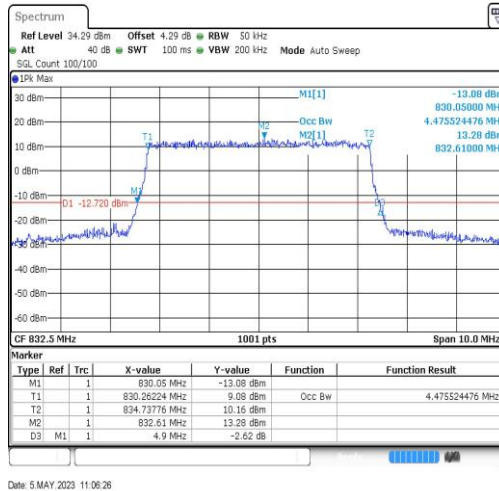
Band19-5MHz-16QAM-24075-25RB#0-4.466



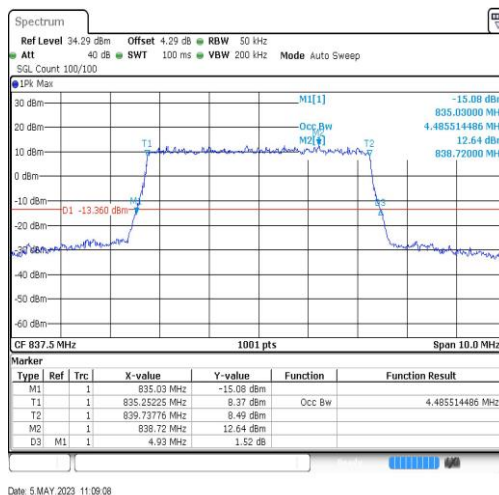
Date: 2 MAY 2023 15:04:23

Band19-5MHz-16QAM-24125-25RB#0-4.466





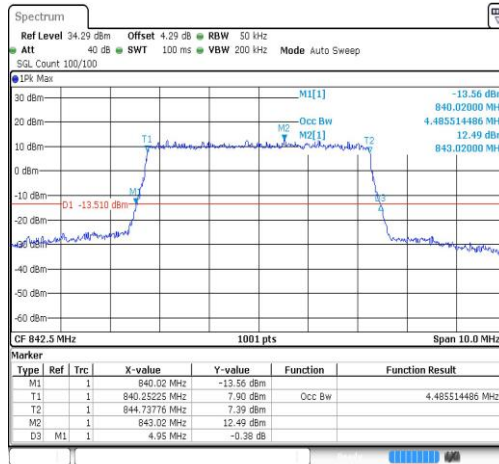
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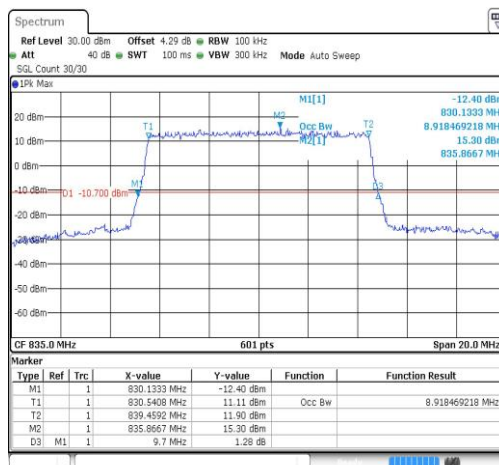


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Date: 5 MAY 2023 11:08:31

Band19-5MHz-64QAM-24125-25RB#0-4.486



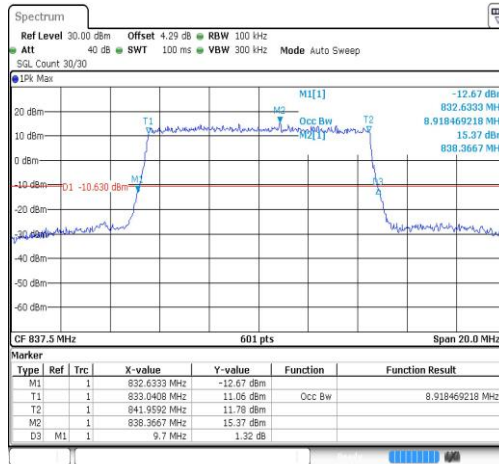
Date: 2 MAY 2023 08:37:43

Band19-10MHz-QPSK-24050-50RB#0-8.918



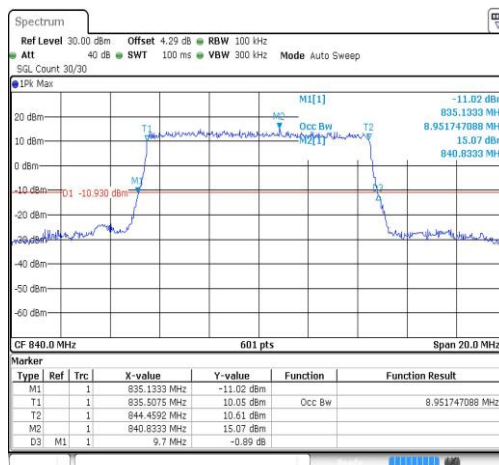
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Date: 2 MAY 2023 08:38:16

Band19-10MHz-QPSK-24075-50RB#0-8.918

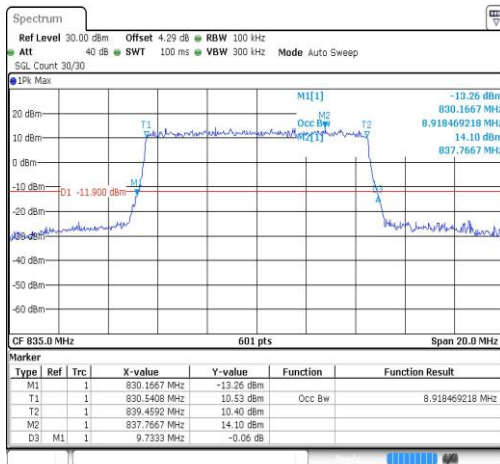


Date: 2 MAY 2023 08:38:50

Band19-10MHz-QPSK-24100-50RB#0-8.952

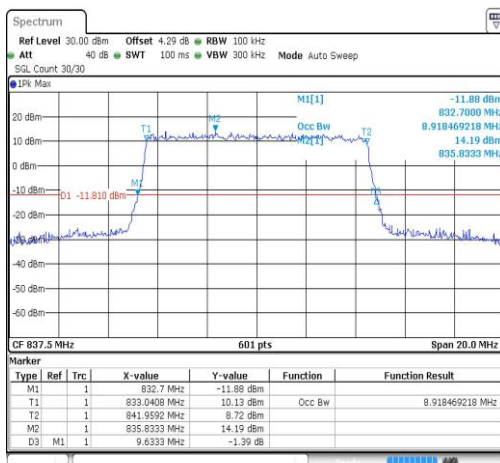


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Date: 2 MAY 2023 08:38:00

Band19-10MHz-16QAM-24050-50RB#0-8.918

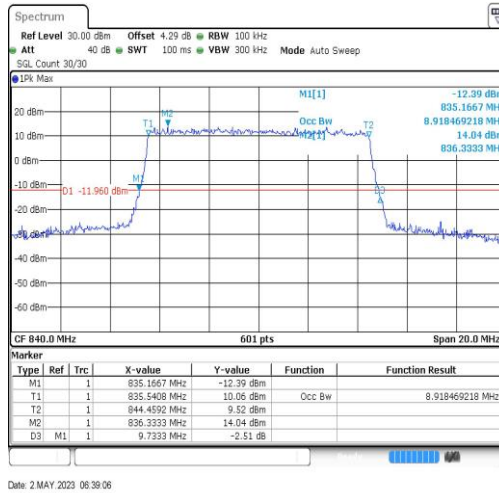


Date: 2 MAY 2023 08:38:33

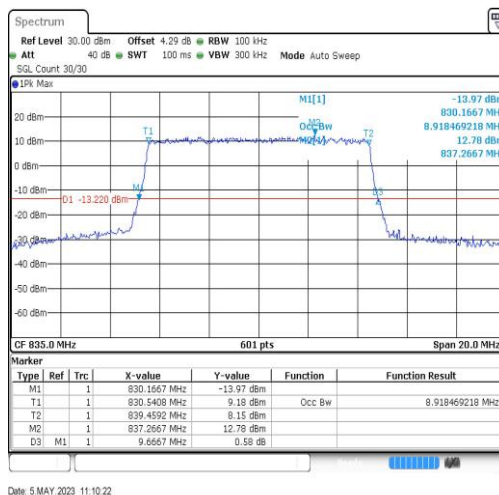
Band19-10MHz-16QAM-24075-50RB#0-8.918



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Band19-10MHz-16QAM-24100-50RB#0-8.918



Band19-10MHz-64QAM-24050-50RB#0-8.918



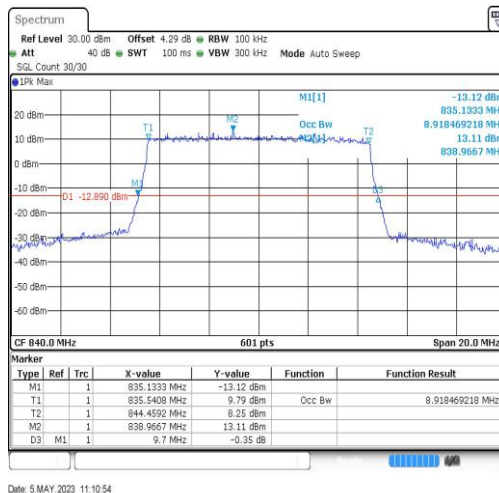
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Date: 5 MAY 2023 11:10:38

Band19-10MHz-64QAM-24075-50RB#0-8.918

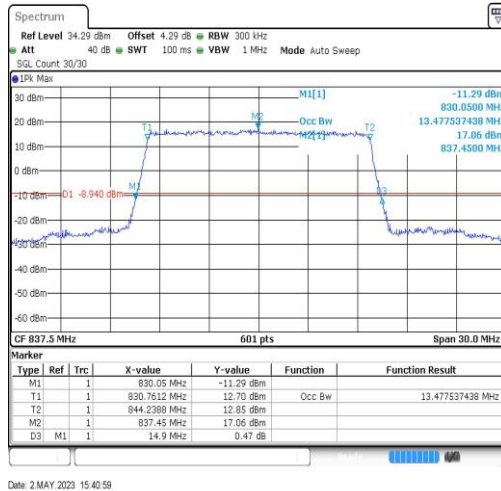


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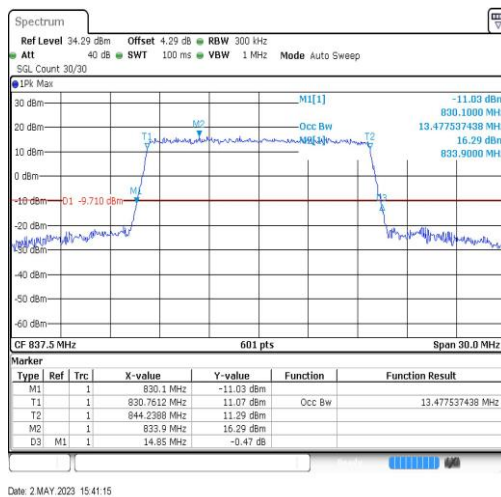
Band19-10MHz-64QAM-24100-50RB#0-8.918



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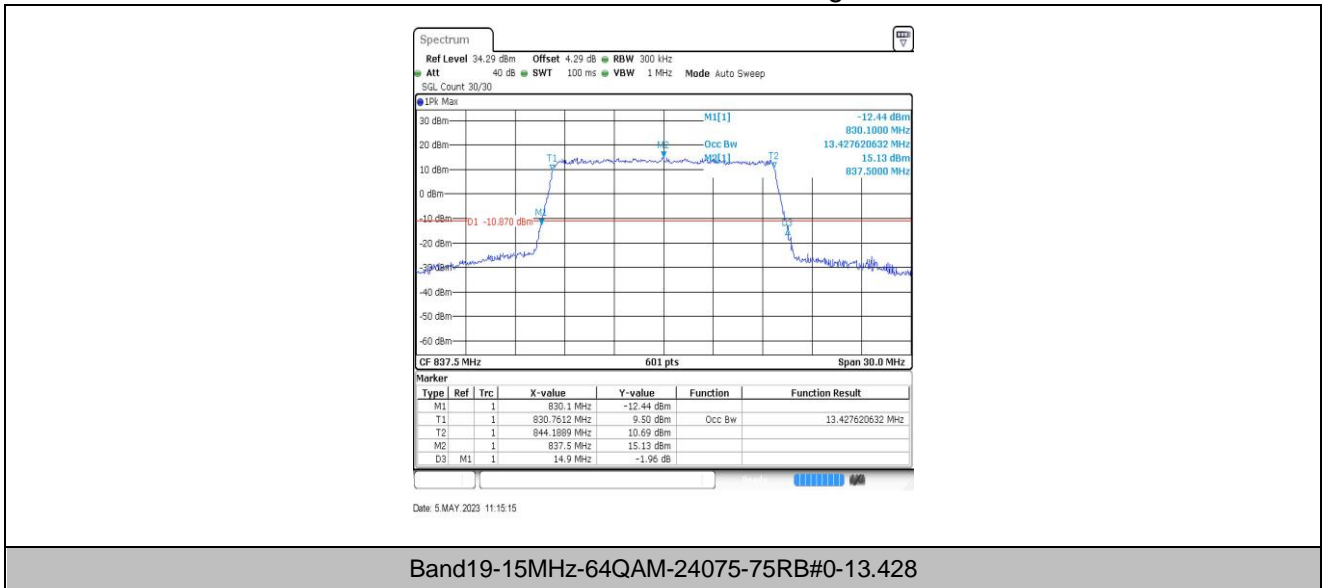
Band19-15MHz-QPSK-24075-75RB#0-13.478



Band19-15MHz-16QAM-24075-75RB#0-13.478



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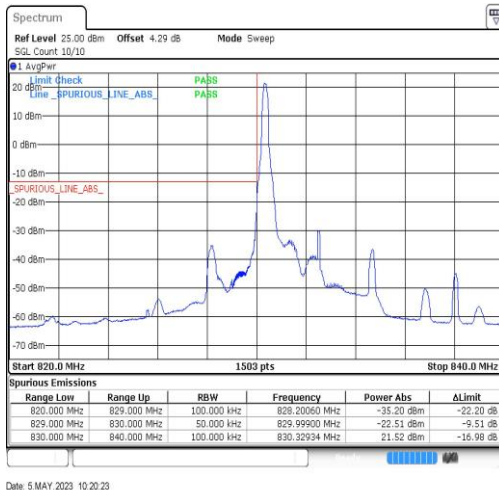
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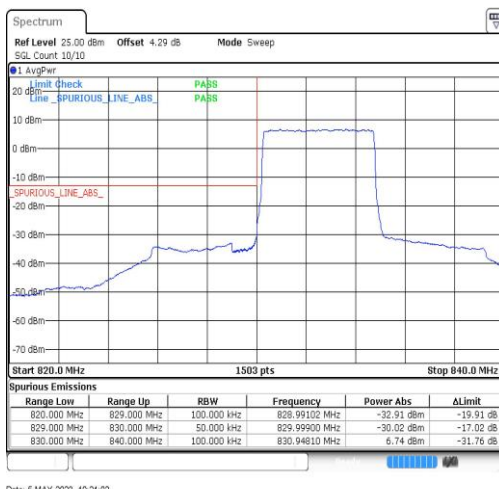
Band Edge

Test Graphs



Date: 5 MAY 2023 10:20:23

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



Date: 5 MAY 2023 10:21:02

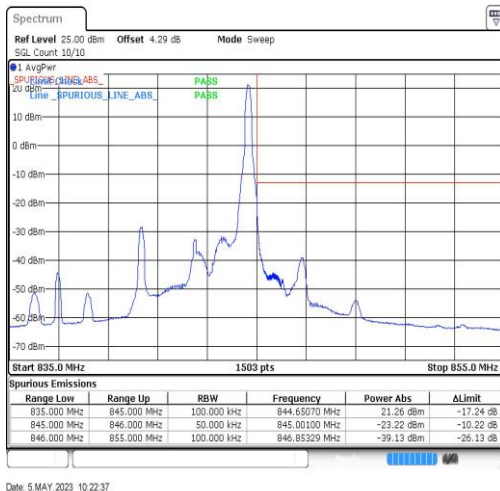
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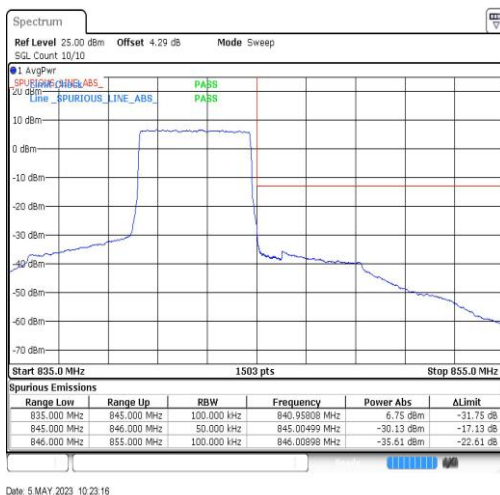
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Band19-5MHz-QPSK-24125-1RB#24



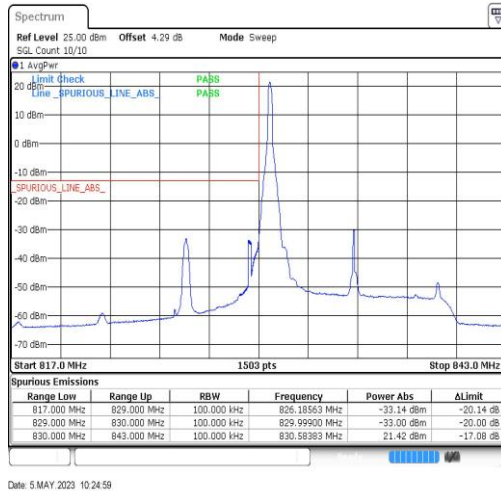
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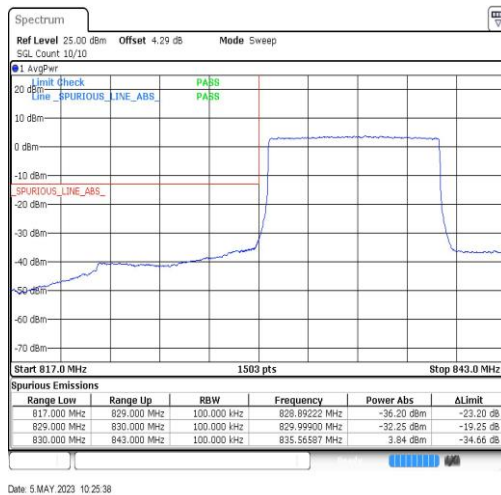
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Band19-10MHz-QPSK-24050-1RB#0

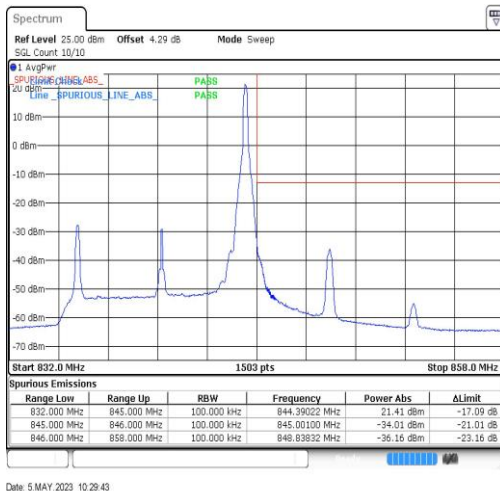


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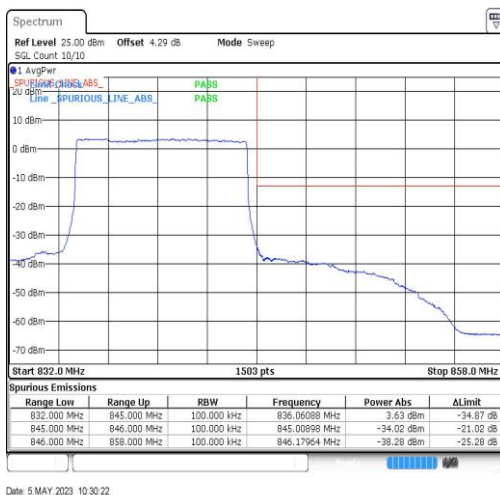


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Band19-10MHz-QPSK-24100-1RB#49



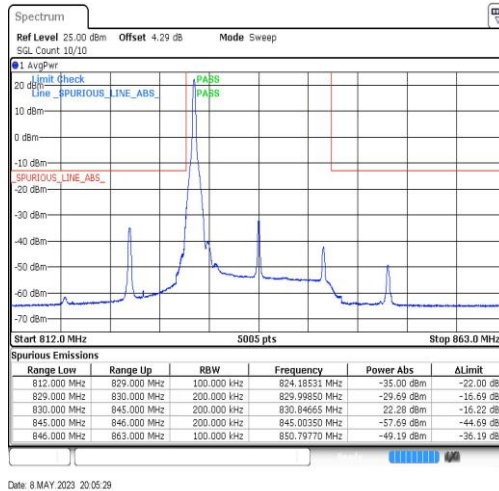
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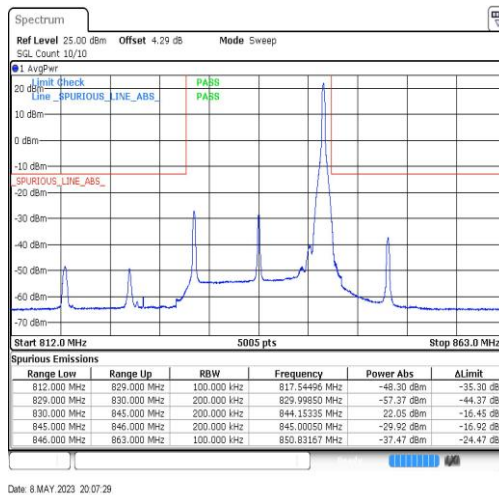
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Band19-15MHz-QPSK-24075-1RB#0



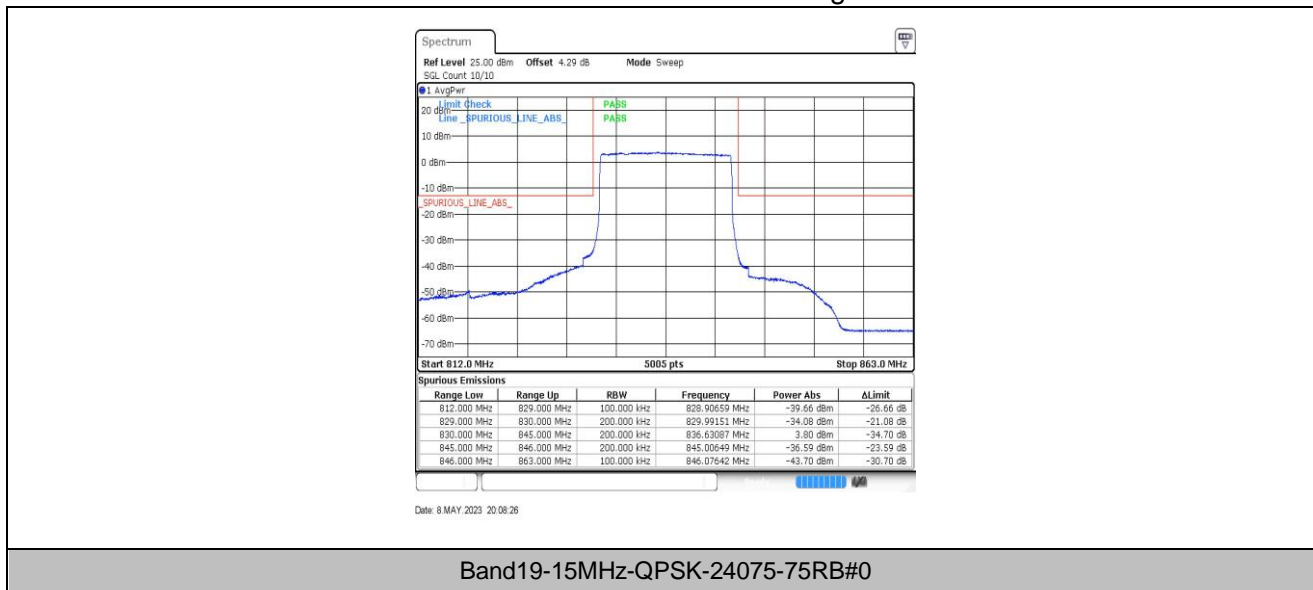
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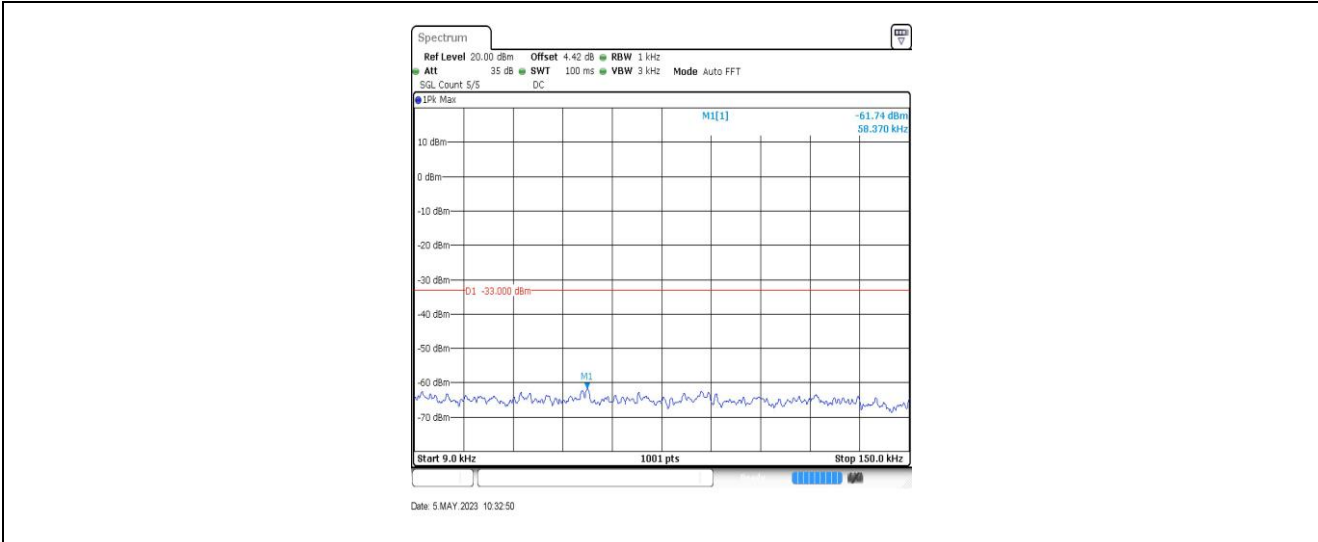


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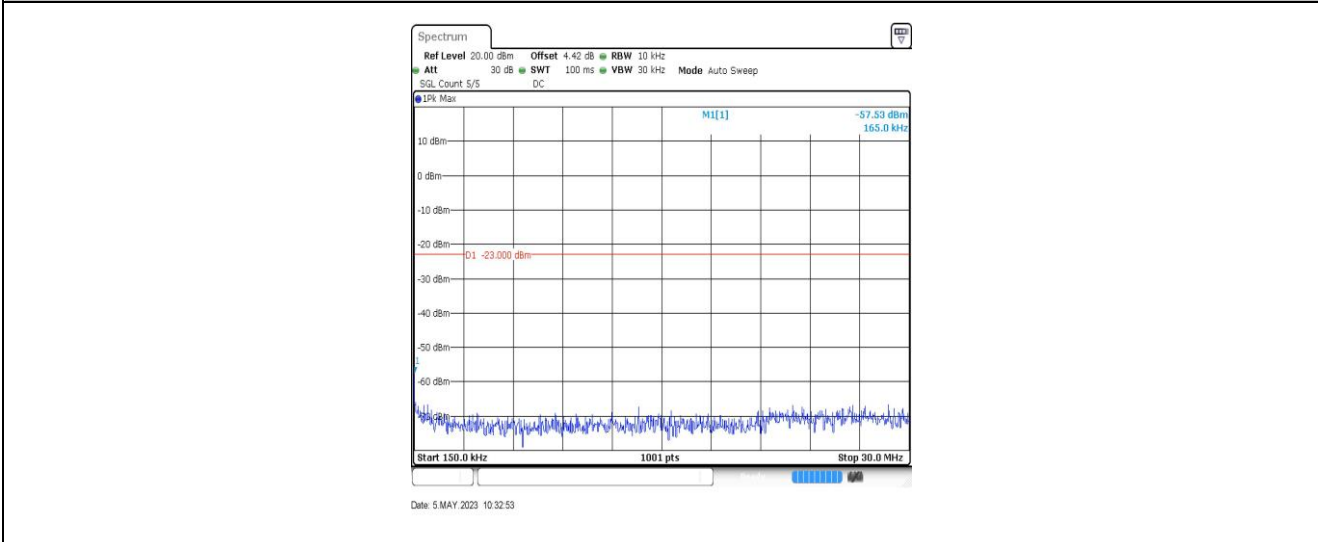
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Conducted Spurious Emission

Test Graphs



Band19-15MHz-QPSK-24075-1RB#0-Range1:0.009~0.15MHz



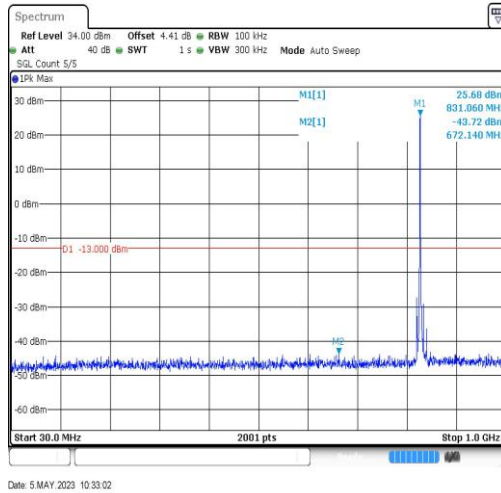
Band19-15MHz-QPSK-24075-1RB#0-Range2:0.15~30MHz



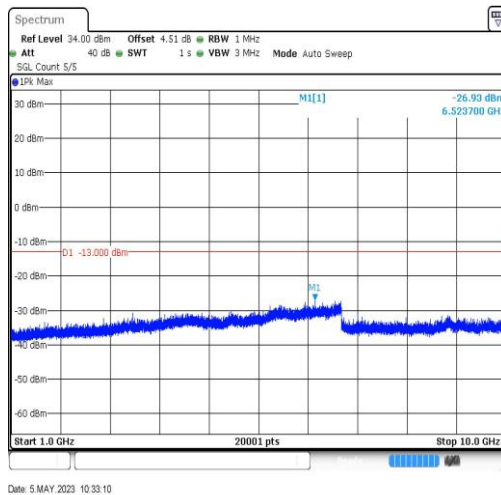
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Band19-15MHz-QPSK-24075-1RB#0-Range3:30~1000MHz



Band19-15MHz-QPSK-24075-1RB#0-Range4:1000~10000MHz



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Field Strength of Spurious Radiation

Test Band = LTE_19 ANT 13 _15MHz_TM1

Test Channel = LCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1438.5548	48.68	-47.48	25.21	-68.85	-13.00	55.85	260	128	Horizontal
2	2491.6865	55.62	-46.68	27.77	-58.55	-13.00	45.55	179	143	Horizontal
3	3715.7858	49.08	-44.58	29.39	-61.37	-13.00	48.37	284	257	Horizontal
4	5575.0788	47.27	-41.54	32.40	-57.13	-13.00	44.13	206	225	Horizontal
5	7457.4729	44.88	-38.29	36.81	-51.86	-13.00	38.86	266	358	Horizontal
6	9885.1943	43.18	-35.07	38.48	-48.67	-13.00	35.67	221	103	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1447.5559	48.72	-47.50	25.28	-68.76	-13.00	55.76	361	331	Vertical
2	2491.9365	55.64	-46.68	27.77	-58.53	-13.00	45.53	264	133	Vertical
3	3686.7343	48.61	-44.49	29.30	-61.84	-13.00	48.84	280	40	Vertical
4	5076.3038	47.88	-42.57	31.55	-58.40	-13.00	45.40	166	141	Vertical
5	7500.175	44.96	-38.29	36.90	-51.69	-13.00	38.69	265	254	Vertical
6	9907.2454	42.86	-35.15	38.61	-48.94	-13.00	35.94	241	244	Vertical



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Test Band = LTE_19 ANT 13 _15MHz_TM1

Test Channel = MCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1425.0531	48.76	-47.45	25.10	-68.85	-13.00	55.85	284	267	Horizontal
2	2499.4374	58.67	-46.69	27.80	-55.48	-13.00	42.48	155	64	Horizontal
3	3721.0361	48.55	-44.60	29.43	-61.88	-13.00	48.88	314	145	Horizontal
4	5682.1841	47.00	-41.19	32.50	-56.95	-13.00	43.95	108	273	Horizontal
5	7448.3724	44.89	-38.28	36.80	-51.85	-13.00	38.85	263	118	Horizontal
6	9905.8453	43.09	-35.11	38.61	-48.67	-13.00	35.67	128	103	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1658.0823	48.38	-47.51	25.44	-68.95	-13.00	55.95	136	105	Vertical
2	2499.4374	55.48	-46.69	27.80	-58.67	-13.00	45.67	149	132	Vertical
3	3908.9954	48.79	-44.20	29.74	-60.93	-13.00	47.93	306	236	Vertical
4	5483.7242	47.32	-41.87	32.33	-57.48	-13.00	44.48	220	289	Vertical
5	7450.8225	45.04	-38.29	36.80	-51.71	-13.00	38.71	105	289	Vertical
6	9891.4946	42.94	-35.03	38.53	-48.82	-13.00	35.82	318	252	Vertical



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Test Band = LTE_19 ANT 13 _15MHz_TM1

Test Channel = HCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1671.0839	48.79	-47.48	25.33	-68.62	-13.00	55.62	261	72	Horizontal
2	2506.6883	59.71	-46.66	27.80	-54.41	-13.00	41.41	268	64	Horizontal
3	3711.5856	48.50	-44.56	29.37	-61.95	-13.00	48.95	116	253	Horizontal
4	5401.4701	47.12	-41.99	32.49	-57.64	-13.00	44.64	226	98	Horizontal
5	7445.9223	44.91	-38.28	36.79	-51.84	-13.00	38.84	236	290	Horizontal
6	9892.8946	43.04	-35.01	38.54	-48.69	-13.00	35.69	269	50	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1646.5808	48.44	-47.53	25.47	-68.88	-13.00	55.88	261	104	Vertical
2	2506.9384	56.43	-46.65	27.80	-57.68	-13.00	44.68	257	301	Vertical
3	3949.5975	48.51	-44.19	29.90	-61.04	-13.00	48.04	184	279	Vertical
4	5731.1866	47.39	-41.23	32.50	-56.60	-13.00	43.60	164	258	Vertical
5	7688.4844	44.39	-37.70	36.75	-51.82	-13.00	38.82	265	295	Vertical
6	9856.4928	43.40	-35.30	38.25	-48.91	-13.00	35.91	263	65	Vertical



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Test Band = LTE_ 19 ANT 31 _15MHz_TM1
Test Channel = LCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1661.0826	50.91	-47.50	25.41	-66.44	-13.00	53.44	331	103	Horizontal
2	2491.6865	48.93	-46.68	27.77	-65.24	-13.00	52.24	272	39	Horizontal
3	3604.4802	48.70	-44.36	28.94	-61.98	-13.00	48.98	138	228	Horizontal
4	5697.9349	47.35	-41.15	32.50	-56.56	-13.00	43.56	246	81	Horizontal
5	7430.8715	44.96	-38.28	36.76	-51.82	-13.00	38.82	132	18	Horizontal
6	9911.0956	43.20	-35.25	38.61	-48.70	-13.00	35.70	184	280	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1661.0826	48.76	-47.50	25.41	-68.59	-13.00	55.59	371	114	Vertical
2	2334.9169	48.27	-46.63	27.45	-66.17	-13.00	53.17	304	149	Vertical
3	3001.0501	47.59	-45.01	28.60	-64.08	-13.00	51.08	109	285	Vertical
4	3898.1449	48.73	-44.21	29.70	-61.04	-13.00	48.04	159	59	Vertical
5	5591.5296	47.40	-41.47	32.53	-56.80	-13.00	43.80	399	180	Vertical
6	7401.4701	45.05	-38.28	36.70	-51.79	-13.00	38.79	264	22	Vertical



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Test Band = LTE_ 19 ANT 31 _15MHz_TM1
Test Channel = MCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1666.0833	52.42	-47.49	25.37	-64.96	-13.00	51.96	223	197	Horizontal
2	2499.4374	49.90	-46.69	27.80	-64.25	-13.00	51.25	242	46	Horizontal
3	3907.2454	48.54	-44.20	29.73	-61.19	-13.00	48.19	205	301	Horizontal
4	5682.5341	47.02	-41.19	32.50	-56.93	-13.00	43.93	337	296	Horizontal
5	7420.371	45.17	-38.28	36.74	-51.63	-13.00	38.63	121	106	Horizontal
6	9884.8442	42.97	-35.08	38.48	-48.89	-13.00	35.89	141	232	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1383.0479	48.66	-47.47	24.97	-69.10	-13.00	56.10	396	258	Vertical
2	1666.0833	49.10	-47.49	25.37	-68.28	-13.00	55.28	254	254	Vertical
3	2499.4374	49.14	-46.69	27.80	-65.01	-13.00	52.01	103	142	Vertical
4	3632.8316	48.61	-44.40	29.16	-61.89	-13.00	48.89	269	322	Vertical
5	5586.6293	47.49	-41.49	32.49	-56.77	-13.00	43.77	122	153	Vertical
6	7441.0221	44.98	-38.28	36.78	-51.78	-13.00	38.78	364	233	Vertical



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Test Band = LTE_ 19 ANT 31 _15MHz_TM1

Test Channel = HCH

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1671.3339	52.23	-47.48	25.33	-65.18	-13.00	52.18	142	201	Horizontal
2	2506.6883	51.48	-46.66	27.80	-62.64	-13.00	49.64	210	51	Horizontal
3	3644.3822	48.54	-44.42	29.26	-61.88	-13.00	48.88	285	120	Horizontal
4	6062.6531	46.31	-40.81	33.47	-56.29	-13.00	43.29	213	237	Horizontal
5	7371.0186	45.25	-38.45	36.58	-51.88	-13.00	38.88	235	200	Horizontal
6	9888.6944	42.81	-35.05	38.51	-48.99	-13.00	35.99	266	125	Horizontal

Final Data List										
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF [dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	1671.0839	50.00	-47.48	25.33	-67.41	-13.00	54.41	224	242	Vertical
2	2506.9384	48.89	-46.65	27.80	-65.22	-13.00	52.22	218	2	Vertical
3	3689.5345	48.50	-44.49	29.30	-61.95	-13.00	48.95	373	125	Vertical
4	5281.4141	47.45	-42.35	31.79	-58.37	-13.00	45.37	354	184	Vertical
5	7405.6703	45.02	-38.28	36.71	-51.81	-13.00	38.81	281	252	Vertical
6	9910.0455	43.13	-35.22	38.61	-48.74	-13.00	35.74	244	194	Vertical



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Test on the worst case:

Test Band = LTE_19 ANT 13 _15MHz_TM1

Test Channel = MCH

Final Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1661.5	65.45	-52.82	25.88	-56.75	-13.00	43.75	Horizontal
2	2540	53.34	-50.96	28.24	-64.64	-13.00	51.64	Horizontal
3	3735	53.89	-48.98	30.44	-59.91	-13.00	46.91	Horizontal
4	5118	51.95	-44.14	33.54	-53.91	-13.00	40.91	Horizontal
5	7082.5	50.08	-43.36	36.69	-51.85	-13.00	38.85	Horizontal
6	9518	48.94	-40.05	39.16	-47.21	-13.00	34.21	Horizontal

Final Data List								
NO.	Freq. [MHz]	Reading [dBμV]	Factor [dB]	AF[dB/m]	Level [dBm]	Limit [dBm]	Margin [dB]	Polarity
1	1661.5	63.87	-52.82	25.88	-58.33	-13.00	45.33	Vertical
2	2463	55.34	-51.26	27.93	-63.25	-13.00	50.25	Vertical
3	3893.5	53.47	-48.54	30.57	-59.76	-13.00	46.76	Vertical
4	5141.5	52.29	-44.27	33.58	-53.66	-13.00	40.66	Vertical
5	7536.5	49.63	-42.22	36.75	-51.10	-13.00	38.10	Vertical
6	9488.5	49.09	-40.15	39.15	-47.17	-13.00	34.17	Vertical

Remark:

1) The field strength is calculated by adding the Antenna Factor, Cable Factor & AMP. The basic equation with a sample calculation is as follows:

AF = Antenna Factor(dB/m)

Factor = Cable Factor(dB) - Pre-amplifier (dB)

Level = Reading Level + AF + Factor -95.26

Margin = Limit – Level



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Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band19	15MHz	QPSK	24075	75RB#0	VN	NT	-0.20	-0.000239	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	VL	NT	0.70	0.000836	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	VH	NT	2.70	0.003224	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band19	15MHz	QPSK	24075	75RB#0	NV	-30	1.00	0.001194	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	-20	-1.10	-0.001313	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	-10	-0.50	-0.000597	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	0	1.20	0.001433	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	10	0.70	0.000836	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	20	-1.00	-0.001194	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	30	-0.30	-0.000358	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	40	0.00	0.000000	±2.5	PASS
Band19	15MHz	QPSK	24075	75RB#0	NV	50	0.80	0.000955	±2.5	PASS

---End of Attachment---



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