



Appendix B

E-UTRA Band 41

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1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	24.74	25.92	33.00	PASS
Band41	5MHz	QPSK	39675	1RB#12	24.81	25.99	33.00	PASS
Band41	5MHz	QPSK	39675	1RB#24	24.91	26.09	33.00	PASS
Band41	5MHz	QPSK	39675	12RB#0	23.79	24.97	33.00	PASS
Band41	5MHz	QPSK	39675	12RB#6	23.72	24.90	33.00	PASS
Band41	5MHz	QPSK	39675	12RB#13	23.82	25.00	33.00	PASS
Band41	5MHz	QPSK	39675	25RB#0	23.65	24.83	33.00	PASS
Band41	5MHz	QPSK	40620	1RB#0	24.46	25.64	33.00	PASS
Band41	5MHz	QPSK	40620	1RB#12	24.71	25.89	33.00	PASS
Band41	5MHz	QPSK	40620	1RB#24	24.52	25.70	33.00	PASS
Band41	5MHz	QPSK	40620	12RB#0	23.63	24.81	33.00	PASS
Band41	5MHz	QPSK	40620	12RB#6	23.91	25.09	33.00	PASS
Band41	5MHz	QPSK	40620	12RB#13	23.86	25.04	33.00	PASS
Band41	5MHz	QPSK	40620	25RB#0	23.84	25.02	33.00	PASS
Band41	5MHz	QPSK	41565	1RB#0	24.82	26.00	33.00	PASS
Band41	5MHz	QPSK	41565	1RB#12	24.97	26.15	33.00	PASS
Band41	5MHz	QPSK	41565	1RB#24	24.80	25.98	33.00	PASS
Band41	5MHz	QPSK	41565	12RB#0	23.99	25.17	33.00	PASS
Band41	5MHz	QPSK	41565	12RB#6	24.01	25.19	33.00	PASS
Band41	5MHz	QPSK	41565	12RB#13	24.01	25.19	33.00	PASS
Band41	5MHz	QPSK	41565	25RB#0	23.92	25.10	33.00	PASS
Band41	5MHz	16QAM	39675	1RB#0	23.40	24.58	33.00	PASS
Band41	5MHz	16QAM	39675	1RB#12	23.55	24.73	33.00	PASS
Band41	5MHz	16QAM	39675	1RB#24	23.63	24.81	33.00	PASS
Band41	5MHz	16QAM	39675	12RB#0	22.84	24.02	33.00	PASS
Band41	5MHz	16QAM	39675	12RB#6	22.84	24.02	33.00	PASS
Band41	5MHz	16QAM	39675	12RB#13	22.86	24.04	33.00	PASS
Band41	5MHz	16QAM	39675	25RB#0	22.85	24.03	33.00	PASS
Band41	5MHz	16QAM	40620	1RB#0	23.34	24.52	33.00	PASS
Band41	5MHz	16QAM	40620	1RB#12	23.51	24.69	33.00	PASS
Band41	5MHz	16QAM	40620	1RB#24	23.66	24.84	33.00	PASS
Band41	5MHz	16QAM	40620	12RB#0	22.56	23.74	33.00	PASS
Band41	5MHz	16QAM	40620	12RB#6	22.91	24.09	33.00	PASS
Band41	5MHz	16QAM	40620	12RB#13	22.47	23.65	33.00	PASS
Band41	5MHz	16QAM	40620	25RB#0	22.85	24.03	33.00	PASS

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Band41	5MHz	16QAM	41565	1RB#0	23.36	24.54	33.00	PASS
Band41	5MHz	16QAM	41565	1RB#12	23.66	24.84	33.00	PASS
Band41	5MHz	16QAM	41565	1RB#24	23.33	24.51	33.00	PASS
Band41	5MHz	16QAM	41565	12RB#0	22.87	24.05	33.00	PASS
Band41	5MHz	16QAM	41565	12RB#6	22.92	24.10	33.00	PASS
Band41	5MHz	16QAM	41565	12RB#13	22.88	24.06	33.00	PASS
Band41	5MHz	16QAM	41565	25RB#0	23.18	24.36	33.00	PASS
Band41	10MHz	QPSK	39700	1RB#0	24.77	25.95	33.00	PASS
Band41	10MHz	QPSK	39700	1RB#24	25.09	26.27	33.00	PASS
Band41	10MHz	QPSK	39700	1RB#49	25.00	26.18	33.00	PASS
Band41	10MHz	QPSK	39700	25RB#0	23.86	25.04	33.00	PASS
Band41	10MHz	QPSK	39700	25RB#12	23.95	25.13	33.00	PASS
Band41	10MHz	QPSK	39700	25RB#25	23.99	25.17	33.00	PASS
Band41	10MHz	QPSK	39700	50RB#0	23.87	25.05	33.00	PASS
Band41	10MHz	QPSK	40620	1RB#0	24.84	26.02	33.00	PASS
Band41	10MHz	QPSK	40620	1RB#24	24.98	26.16	33.00	PASS
Band41	10MHz	QPSK	40620	1RB#49	24.76	25.94	33.00	PASS
Band41	10MHz	QPSK	40620	25RB#0	23.79	24.97	33.00	PASS
Band41	10MHz	QPSK	40620	25RB#12	24.00	25.18	33.00	PASS
Band41	10MHz	QPSK	40620	25RB#25	23.81	24.99	33.00	PASS
Band41	10MHz	QPSK	40620	50RB#0	23.91	25.09	33.00	PASS
Band41	10MHz	QPSK	41540	1RB#0	25.01	26.19	33.00	PASS
Band41	10MHz	QPSK	41540	1RB#24	25.16	26.34	33.00	PASS
Band41	10MHz	QPSK	41540	1RB#49	25.01	26.19	33.00	PASS
Band41	10MHz	QPSK	41540	25RB#0	24.05	25.23	33.00	PASS
Band41	10MHz	QPSK	41540	25RB#12	24.09	25.27	33.00	PASS
Band41	10MHz	QPSK	41540	25RB#25	24.00	25.18	33.00	PASS
Band41	10MHz	QPSK	41540	50RB#0	23.97	25.15	33.00	PASS
Band41	10MHz	16QAM	39700	1RB#0	24.01	25.19	33.00	PASS
Band41	10MHz	16QAM	39700	1RB#24	23.77	24.95	33.00	PASS
Band41	10MHz	16QAM	39700	1RB#49	23.54	24.72	33.00	PASS
Band41	10MHz	16QAM	39700	25RB#0	23.15	24.33	33.00	PASS
Band41	10MHz	16QAM	39700	25RB#12	23.05	24.23	33.00	PASS
Band41	10MHz	16QAM	39700	25RB#25	23.12	24.30	33.00	PASS
Band41	10MHz	16QAM	39700	50RB#0	22.98	24.16	33.00	PASS
Band41	10MHz	16QAM	40620	1RB#0	23.75	24.93	33.00	PASS
Band41	10MHz	16QAM	40620	1RB#24	23.68	24.86	33.00	PASS
Band41	10MHz	16QAM	40620	1RB#49	23.66	24.84	33.00	PASS
Band41	10MHz	16QAM	40620	25RB#0	23.06	24.24	33.00	PASS
Band41	10MHz	16QAM	40620	25RB#12	23.18	24.36	33.00	PASS
Band41	10MHz	16QAM	40620	25RB#25	22.97	24.15	33.00	PASS
Band41	10MHz	16QAM	40620	50RB#0	22.75	23.93	33.00	PASS

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Band41	10MHz	16QAM	41540	1RB#0	23.87	25.05	33.00	PASS
Band41	10MHz	16QAM	41540	1RB#24	23.65	24.83	33.00	PASS
Band41	10MHz	16QAM	41540	1RB#49	23.56	24.74	33.00	PASS
Band41	10MHz	16QAM	41540	25RB#0	23.08	24.26	33.00	PASS
Band41	10MHz	16QAM	41540	25RB#12	23.32	24.50	33.00	PASS
Band41	10MHz	16QAM	41540	25RB#25	23.14	24.32	33.00	PASS
Band41	10MHz	16QAM	41540	50RB#0	22.94	24.12	33.00	PASS
Band41	15MHz	QPSK	39725	1RB#0	24.83	26.01	33.00	PASS
Band41	15MHz	QPSK	39725	1RB#38	24.80	25.98	33.00	PASS
Band41	15MHz	QPSK	39725	1RB#74	25.04	26.22	33.00	PASS
Band41	15MHz	QPSK	39725	36RB#0	23.69	24.87	33.00	PASS
Band41	15MHz	QPSK	39725	36RB#18	23.99	25.17	33.00	PASS
Band41	15MHz	QPSK	39725	36RB#39	23.83	25.01	33.00	PASS
Band41	15MHz	QPSK	39725	75RB#0	23.61	24.79	33.00	PASS
Band41	15MHz	QPSK	40620	1RB#0	24.70	25.88	33.00	PASS
Band41	15MHz	QPSK	40620	1RB#38	24.77	25.95	33.00	PASS
Band41	15MHz	QPSK	40620	1RB#74	24.76	25.94	33.00	PASS
Band41	15MHz	QPSK	40620	36RB#0	24.00	25.18	33.00	PASS
Band41	15MHz	QPSK	40620	36RB#18	23.91	25.09	33.00	PASS
Band41	15MHz	QPSK	40620	36RB#39	23.82	25.00	33.00	PASS
Band41	15MHz	QPSK	40620	75RB#0	23.88	25.06	33.00	PASS
Band41	15MHz	QPSK	41515	1RB#0	25.01	26.19	33.00	PASS
Band41	15MHz	QPSK	41515	1RB#38	25.05	26.23	33.00	PASS
Band41	15MHz	QPSK	41515	1RB#74	25.08	26.26	33.00	PASS
Band41	15MHz	QPSK	41515	36RB#0	24.12	25.30	33.00	PASS
Band41	15MHz	QPSK	41515	36RB#18	24.04	25.22	33.00	PASS
Band41	15MHz	QPSK	41515	36RB#39	24.02	25.20	33.00	PASS
Band41	15MHz	QPSK	41515	75RB#0	23.85	25.03	33.00	PASS
Band41	15MHz	16QAM	39725	1RB#0	23.58	24.76	33.00	PASS
Band41	15MHz	16QAM	39725	1RB#38	23.28	24.46	33.00	PASS
Band41	15MHz	16QAM	39725	1RB#74	23.48	24.66	33.00	PASS
Band41	15MHz	16QAM	39725	36RB#0	22.77	23.95	33.00	PASS
Band41	15MHz	16QAM	39725	36RB#18	22.87	24.05	33.00	PASS
Band41	15MHz	16QAM	39725	36RB#39	22.74	23.92	33.00	PASS
Band41	15MHz	16QAM	39725	75RB#0	22.81	23.99	33.00	PASS
Band41	15MHz	16QAM	40620	1RB#0	23.87	25.05	33.00	PASS
Band41	15MHz	16QAM	40620	1RB#38	23.81	24.99	33.00	PASS
Band41	15MHz	16QAM	40620	1RB#74	23.56	24.74	33.00	PASS
Band41	15MHz	16QAM	40620	36RB#0	22.78	23.96	33.00	PASS
Band41	15MHz	16QAM	40620	36RB#18	23.03	24.21	33.00	PASS
Band41	15MHz	16QAM	40620	36RB#39	22.58	23.76	33.00	PASS
Band41	15MHz	16QAM	40620	75RB#0	22.42	23.60	33.00	PASS

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Band41	15MHz	16QAM	41515	1RB#0	23.98	25.16	33.00	PASS
Band41	15MHz	16QAM	41515	1RB#38	24.08	25.26	33.00	PASS
Band41	15MHz	16QAM	41515	1RB#74	23.79	24.97	33.00	PASS
Band41	15MHz	16QAM	41515	36RB#0	22.93	24.11	33.00	PASS
Band41	15MHz	16QAM	41515	36RB#18	22.97	24.15	33.00	PASS
Band41	15MHz	16QAM	41515	36RB#39	22.93	24.11	33.00	PASS
Band41	15MHz	16QAM	41515	75RB#0	23.08	24.26	33.00	PASS
Band41	20MHz	QPSK	39750	1RB#0	24.92	26.10	33.00	PASS
Band41	20MHz	QPSK	39750	1RB#49	25.48	26.66	33.00	PASS
Band41	20MHz	QPSK	39750	1RB#99	24.66	25.84	33.00	PASS
Band41	20MHz	QPSK	39750	50RB#0	23.84	25.02	33.00	PASS
Band41	20MHz	QPSK	39750	50RB#25	23.75	24.93	33.00	PASS
Band41	20MHz	QPSK	39750	50RB#50	23.87	25.05	33.00	PASS
Band41	20MHz	QPSK	39750	100RB#0	24.07	25.25	33.00	PASS
Band41	20MHz	QPSK	40620	1RB#0	24.69	25.87	33.00	PASS
Band41	20MHz	QPSK	40620	1RB#49	25.02	26.20	33.00	PASS
Band41	20MHz	QPSK	40620	1RB#99	24.79	25.97	33.00	PASS
Band41	20MHz	QPSK	40620	50RB#0	23.86	25.04	33.00	PASS
Band41	20MHz	QPSK	40620	50RB#25	23.77	24.95	33.00	PASS
Band41	20MHz	QPSK	40620	50RB#50	23.65	24.83	33.00	PASS
Band41	20MHz	QPSK	40620	100RB#0	23.94	25.12	33.00	PASS
Band41	20MHz	QPSK	41490	1RB#0	24.90	26.08	33.00	PASS
Band41	20MHz	QPSK	41490	1RB#49	25.56	26.74	33.00	PASS
Band41	20MHz	QPSK	41490	1RB#99	24.77	25.95	33.00	PASS
Band41	20MHz	QPSK	41490	50RB#0	24.14	25.32	33.00	PASS
Band41	20MHz	QPSK	41490	50RB#25	24.07	25.25	33.00	PASS
Band41	20MHz	QPSK	41490	50RB#50	24.09	25.27	33.00	PASS
Band41	20MHz	QPSK	41490	100RB#0	23.88	25.06	33.00	PASS
Band41	20MHz	16QAM	39750	1RB#0	23.66	24.84	33.00	PASS
Band41	20MHz	16QAM	39750	1RB#49	23.74	24.92	33.00	PASS
Band41	20MHz	16QAM	39750	1RB#99	23.48	24.66	33.00	PASS
Band41	20MHz	16QAM	39750	50RB#0	23.14	24.32	33.00	PASS
Band41	20MHz	16QAM	39750	50RB#25	22.83	24.01	33.00	PASS
Band41	20MHz	16QAM	39750	50RB#50	22.79	23.97	33.00	PASS
Band41	20MHz	16QAM	39750	100RB#0	22.02	23.20	33.00	PASS
Band41	20MHz	16QAM	40620	1RB#0	23.65	24.83	33.00	PASS
Band41	20MHz	16QAM	40620	1RB#49	23.72	24.90	33.00	PASS
Band41	20MHz	16QAM	40620	1RB#99	23.47	24.65	33.00	PASS
Band41	20MHz	16QAM	40620	50RB#0	23.03	24.21	33.00	PASS
Band41	20MHz	16QAM	40620	50RB#25	23.10	24.28	33.00	PASS
Band41	20MHz	16QAM	40620	50RB#50	23.03	24.21	33.00	PASS
Band41	20MHz	16QAM	40620	100RB#0	23.04	24.22	33.00	PASS

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Band41	20MHz	16QAM	41490	1RB#0	23.80	24.98	33.00	PASS
Band41	20MHz	16QAM	41490	1RB#49	23.67	24.85	33.00	PASS
Band41	20MHz	16QAM	41490	1RB#99	23.45	24.63	33.00	PASS
Band41	20MHz	16QAM	41490	50RB#0	23.18	24.36	33.00	PASS
Band41	20MHz	16QAM	41490	50RB#25	23.11	24.29	33.00	PASS
Band41	20MHz	16QAM	41490	50RB#50	22.91	24.09	33.00	PASS
Band41	20MHz	16QAM	41490	100RB#0	22.89	24.07	33.00	PASS

Note:

a: For getting the EIRP (Efficient Isotropic Radiated Power) in substitution method, the following formula should be taken to calculate it,

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

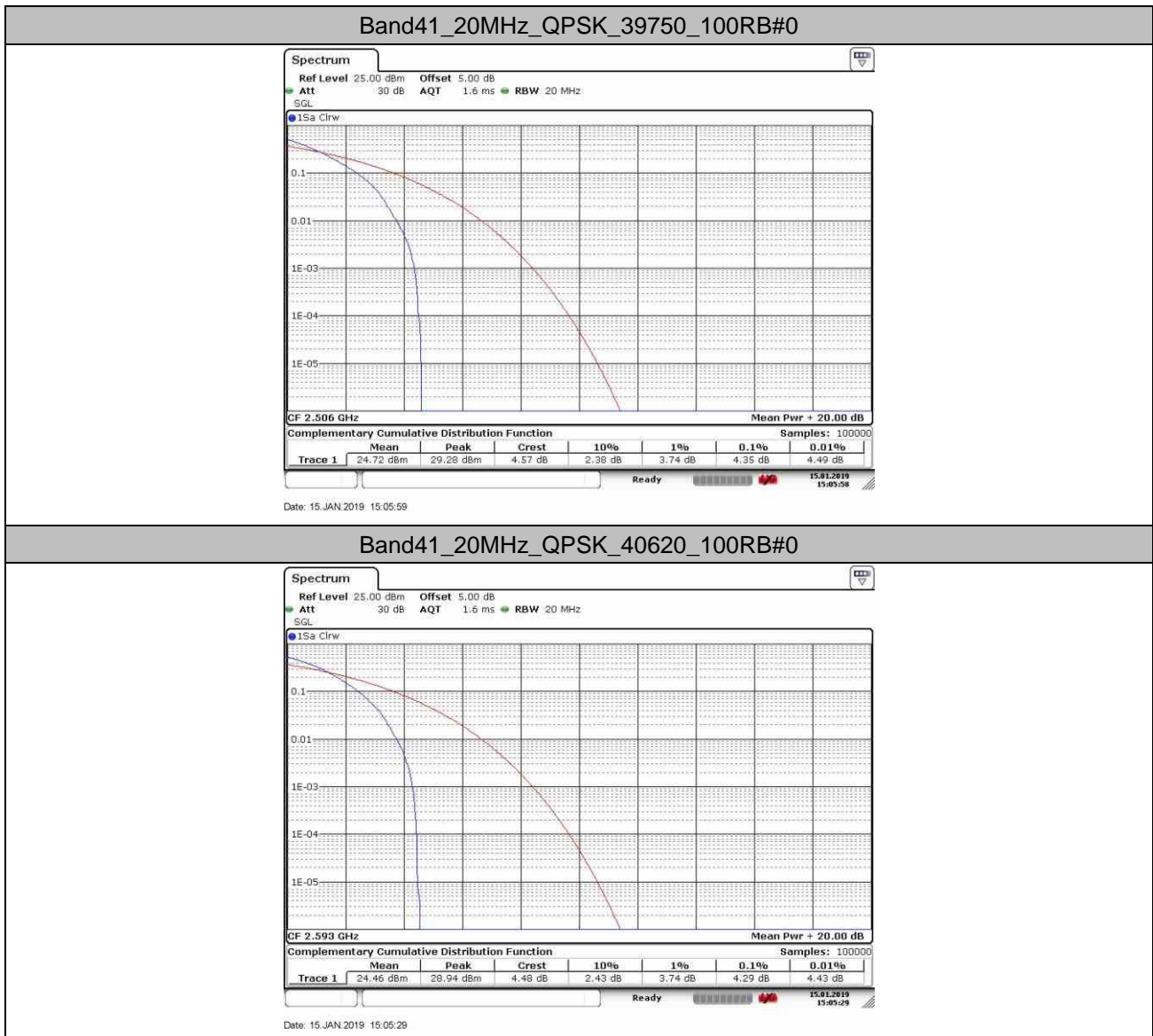
b: SGP=Signal Generator Level

2. Peak-to-Average Ratio(CCDFF)

2.1. Test Result

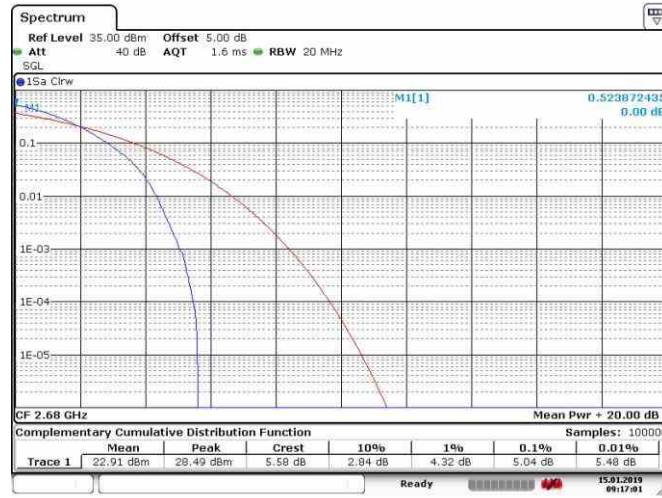
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band41	20MHz	QPSK	39750	100RB#0	4.35	13	PASS
Band41	20MHz	QPSK	40620	100RB#0	4.29	13	PASS
Band41	20MHz	QPSK	41490	100RB#0	5.04	13	PASS
Band41	20MHz	16QAM	39750	100RB#0	5.88	13	PASS
Band41	20MHz	16QAM	40620	100RB#0	5.22	13	PASS
Band41	20MHz	16QAM	41490	100RB#0	5.36	13	PASS

2.2. Test Plots



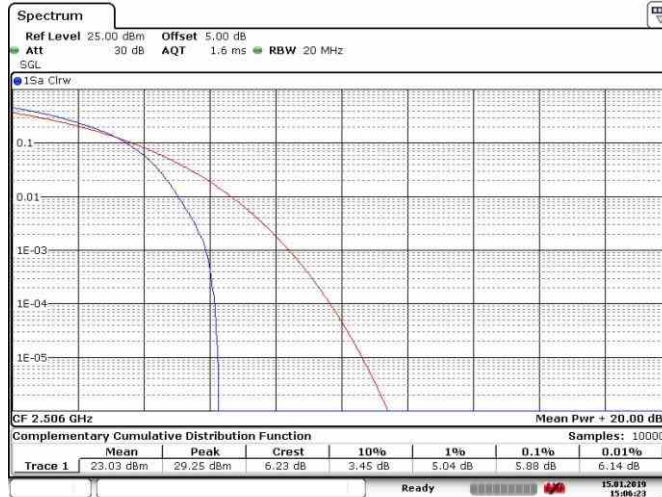
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Band41_20MHz_QPSK_41490_100RB#0



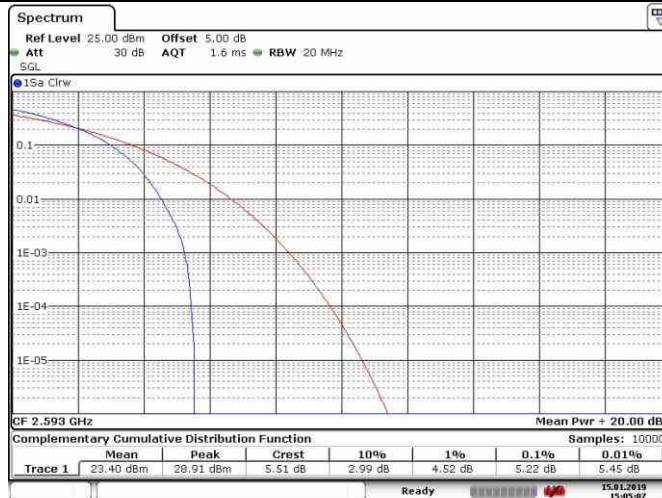
Date: 15 JAN 2019 09:17:02

Band41_20MHz_16QAM_39750_100RB#0



Date: 15 JAN 2019 15:08:24

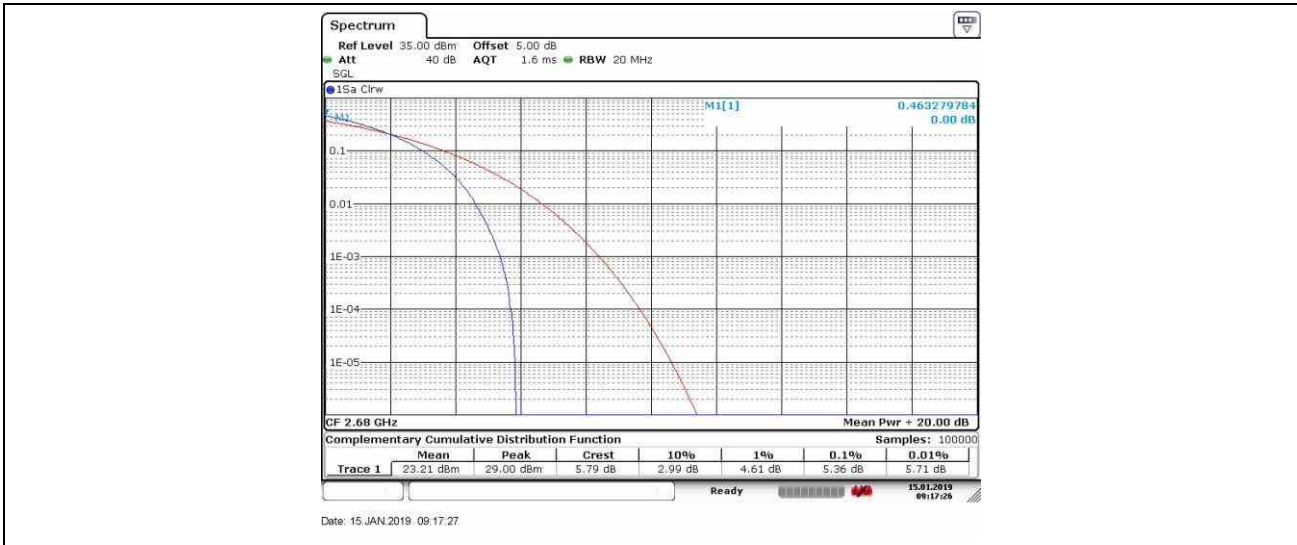
Band41_20MHz_16QAM_40620_100RB#0



Date: 15 JAN 2019 15:05:08

Band41_20MHz_16QAM_41490_100RB#0

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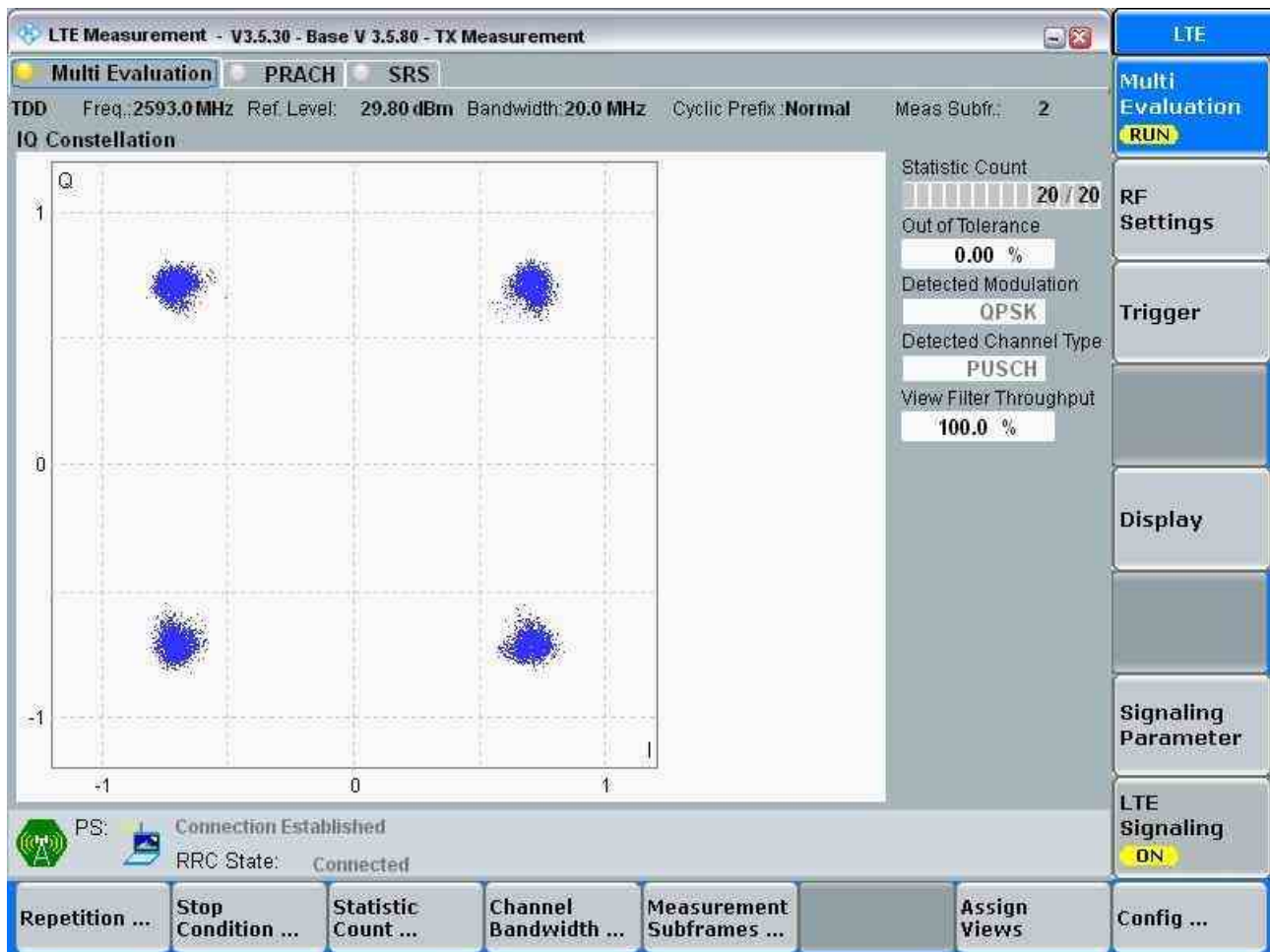
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3. Modulation Characteristics

3.1. Test BAND = LTE Band 41

3.1.1. Test Mode = LTE /TM1 20MHz

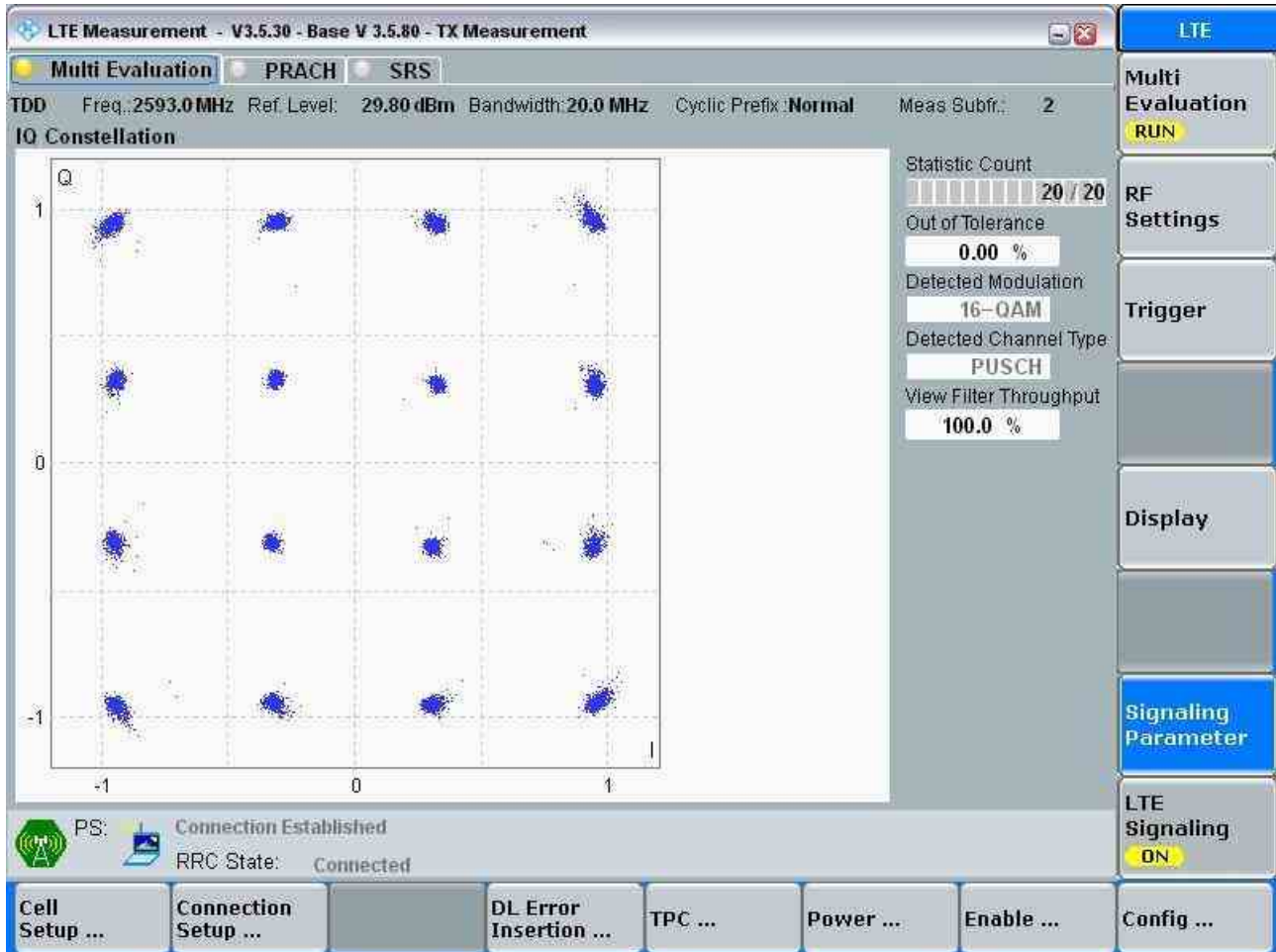
3.1.1.1. Test Channel = MCH



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3.1.2. Test Mode = LTE /TM2 20MHz

3.1.2.1. Test Channel = MCH

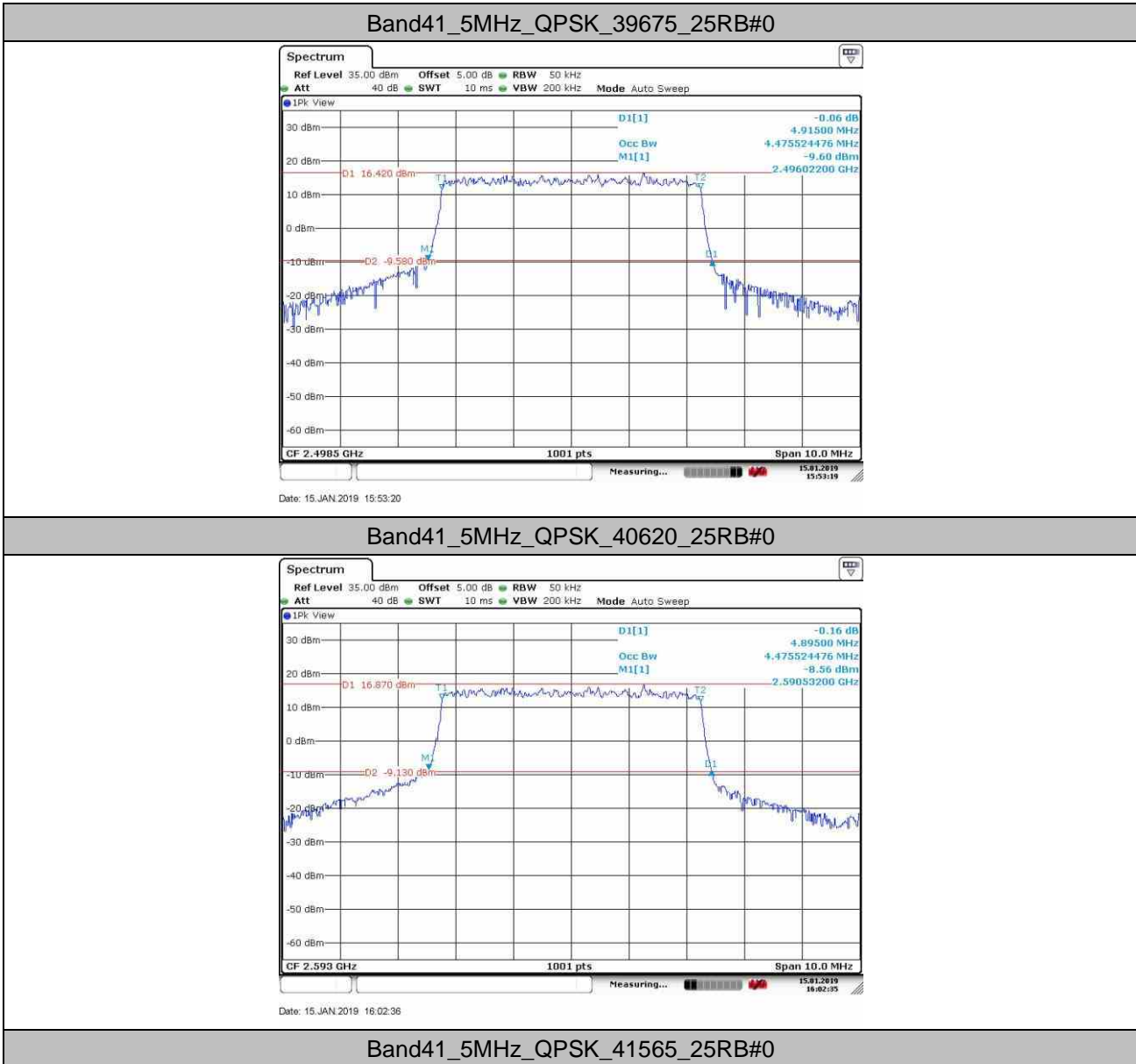


4. 26dB Bandwidth and Occupied Bandwidth

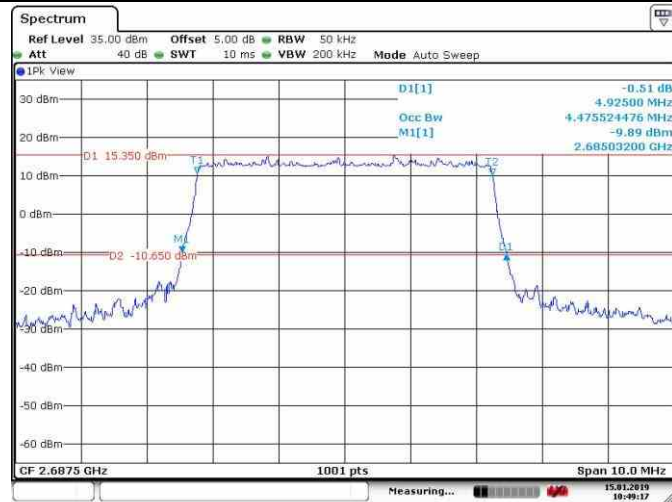
4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	4.476	4.915	PASS
Band41	5MHz	QPSK	40620	25RB#0	4.476	4.895	PASS
Band41	5MHz	QPSK	41565	25RB#0	4.476	4.925	PASS
Band41	5MHz	16QAM	39675	25RB#0	4.476	4.875	PASS
Band41	5MHz	16QAM	40620	25RB#0	4.476	4.905	PASS
Band41	5MHz	16QAM	41565	25RB#0	4.476	4.885	PASS
Band41	10MHz	QPSK	39700	50RB#0	8.911	9.610	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.911	9.620	PASS
Band41	10MHz	QPSK	41540	50RB#0	8.931	9.770	PASS
Band41	10MHz	16QAM	39700	50RB#0	8.911	9.570	PASS
Band41	10MHz	16QAM	40620	50RB#0	8.911	9.541	PASS
Band41	10MHz	16QAM	41540	50RB#0	8.951	9.570	PASS
Band41	15MHz	QPSK	39725	75RB#0	13.456	15.177	PASS
Band41	15MHz	QPSK	40620	75RB#0	13.456	15.435	PASS
Band41	15MHz	QPSK	41515	75RB#0	13.516	15.944	PASS
Band41	15MHz	16QAM	39725	75RB#0	13.487	15.657	PASS
Band41	15MHz	16QAM	40620	75RB#0	13.457	15.315	PASS
Band41	15MHz	16QAM	41515	75RB#0	13.487	15.644	PASS
Band41	20MHz	QPSK	39750	100RB#0	17.862	19.461	PASS
Band41	20MHz	QPSK	40620	100RB#0	17.862	19.301	PASS
Band41	20MHz	QPSK	41490	100RB#0	17.862	19.500	PASS
Band41	20MHz	16QAM	39750	100RB#0	17.862	19.500	PASS
Band41	20MHz	16QAM	40620	100RB#0	17.862	19.381	PASS
Band41	20MHz	16QAM	41490	100RB#0	17.822	19.780	PASS

4.2. Test Plots

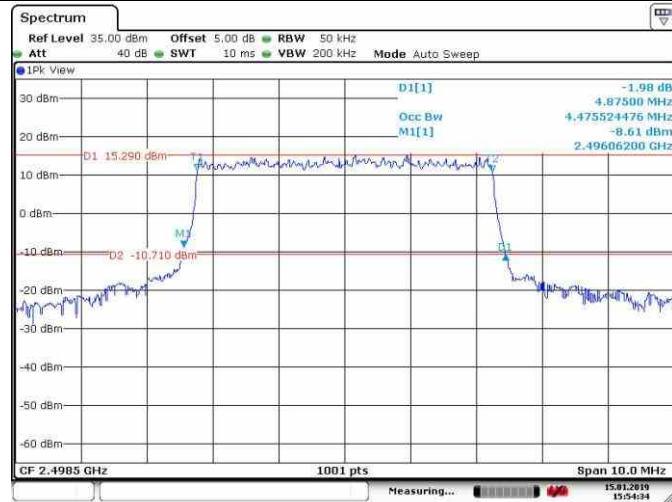


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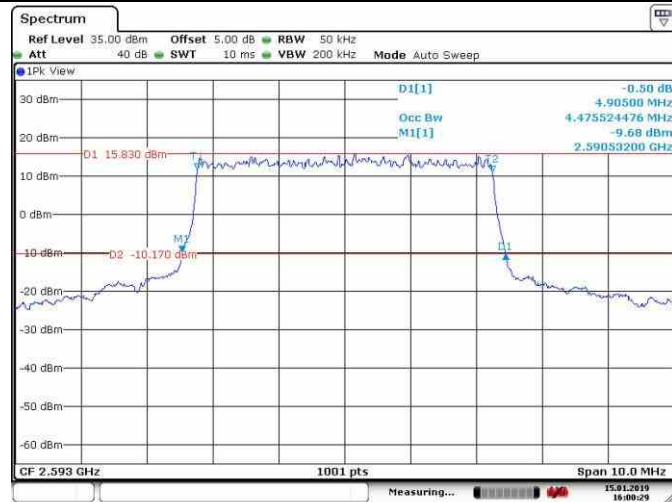
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Band41_5MHz_16QAM_39675_25RB#0



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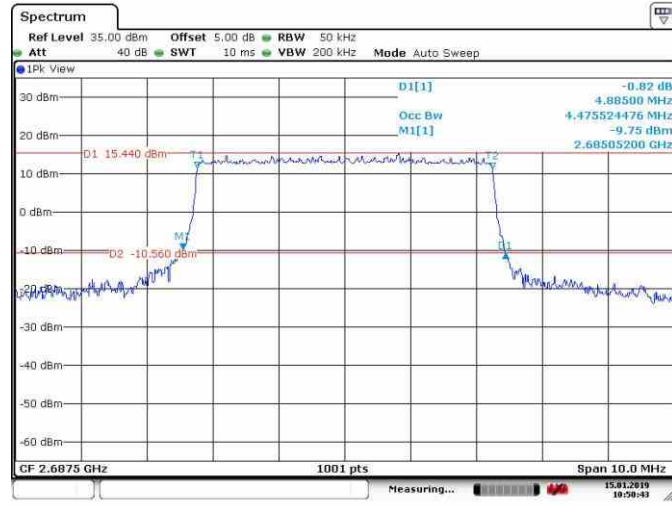
Band41_5MHz_16QAM_40620_25RB#0



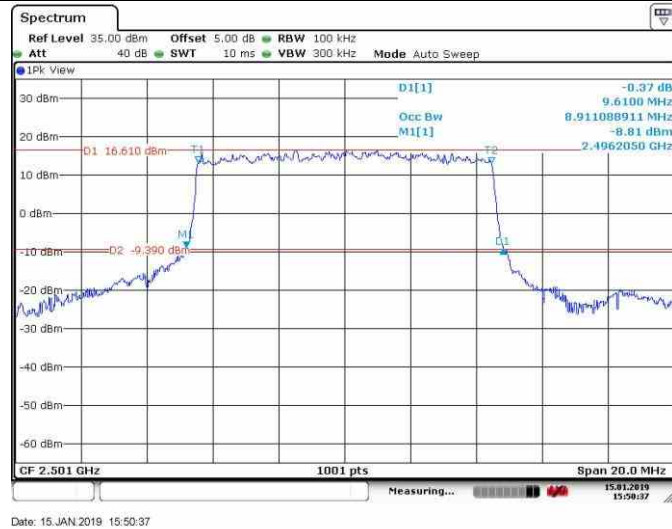
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Band41_5MHz_16QAM_41565_25RB#0

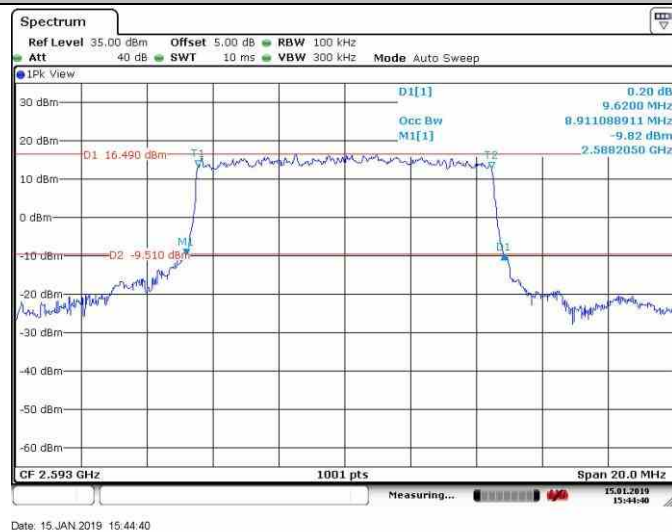
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Band41_10MHz_QPSK_39700_50RB#0

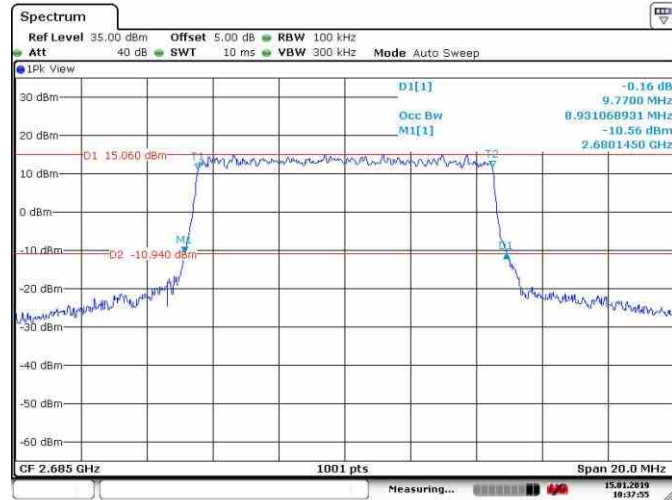


Band41_10MHz_QPSK_40620_50RB#0



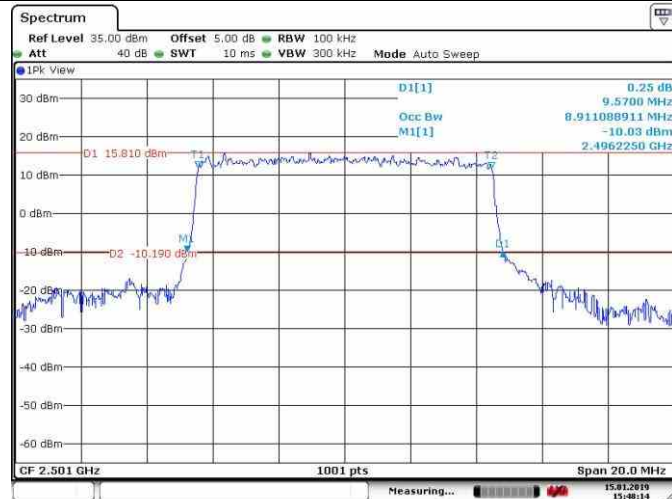
Band41_10MHz_QPSK_41540_50RB#0

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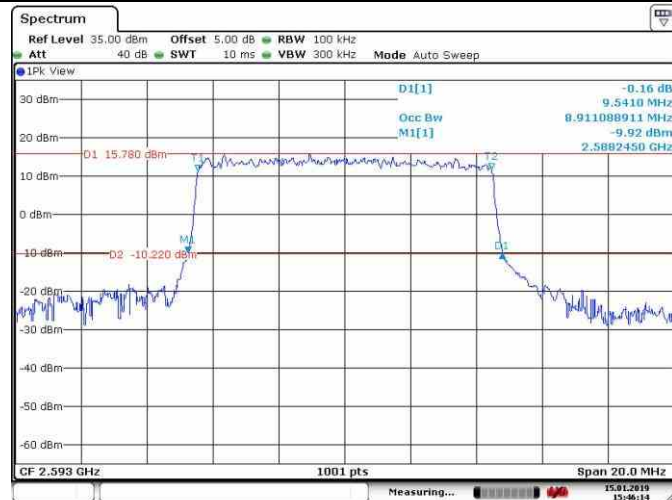
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Band41_10MHz_16QAM_39700_50RB#0



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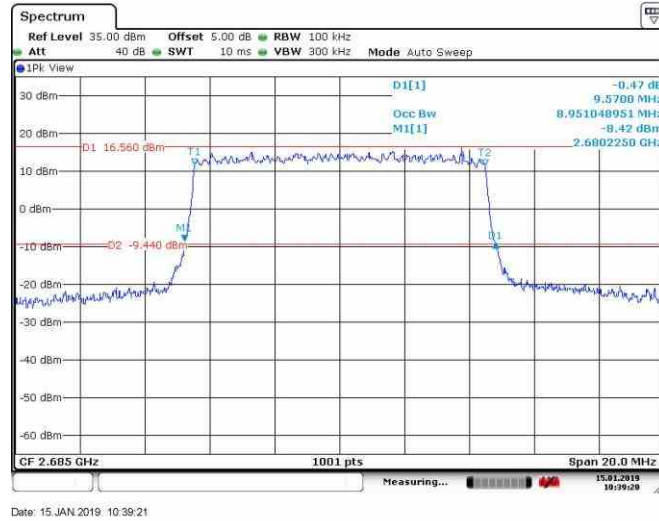
Band41_10MHz_16QAM_40620_50RB#0



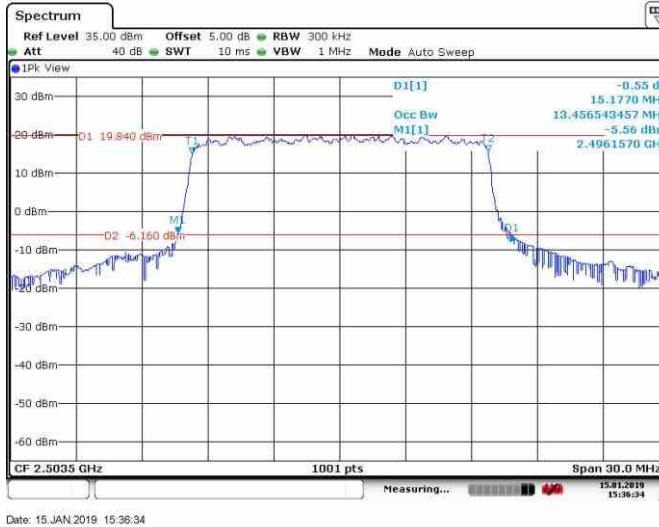
Date: 15 JAN 2019 15:48:15

Band41_10MHz_16QAM_41540_50RB#0

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Band41_15MHz_QPSK_39725_75RB#0

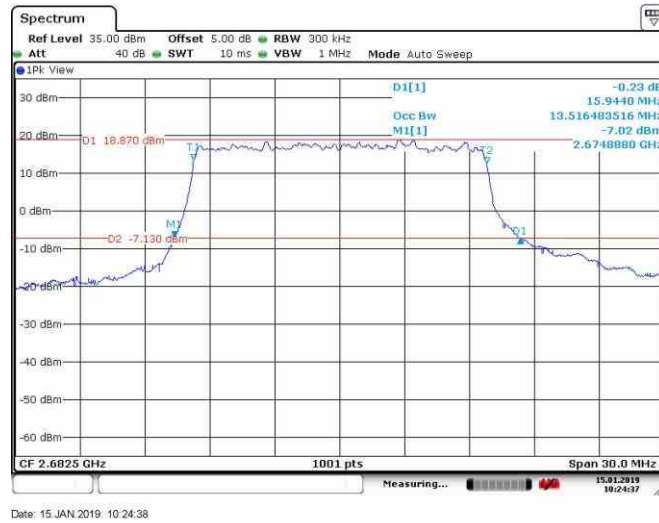


Band41_15MHz_QPSK_40620_75RB#0

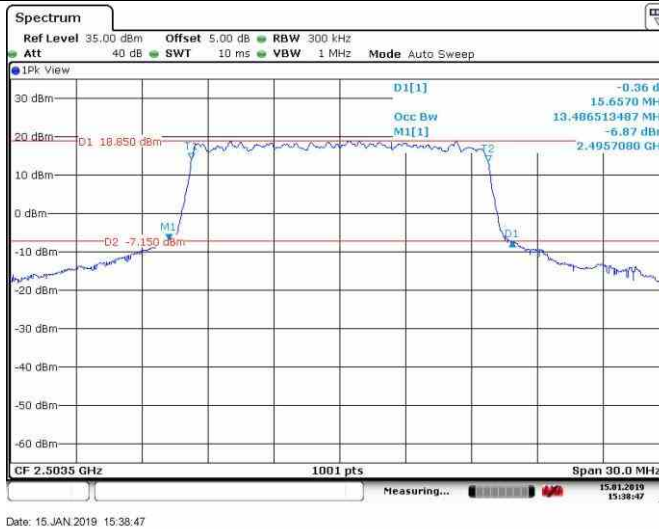


Band41_15MHz_QPSK_41515_75RB#0

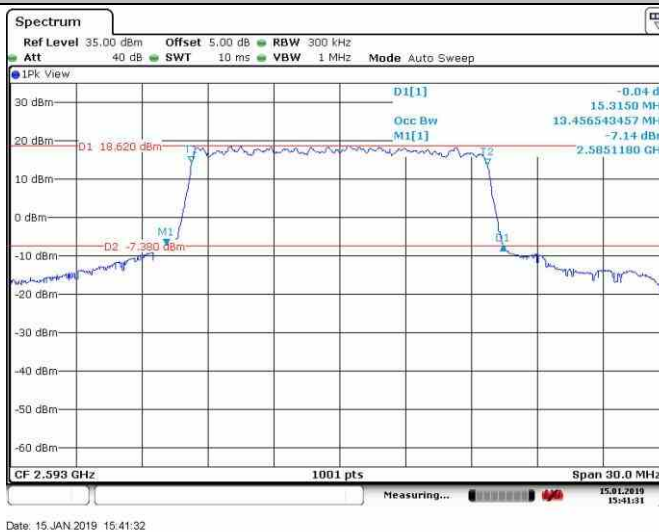
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Band41_15MHz_16QAM_39725_75RB#0

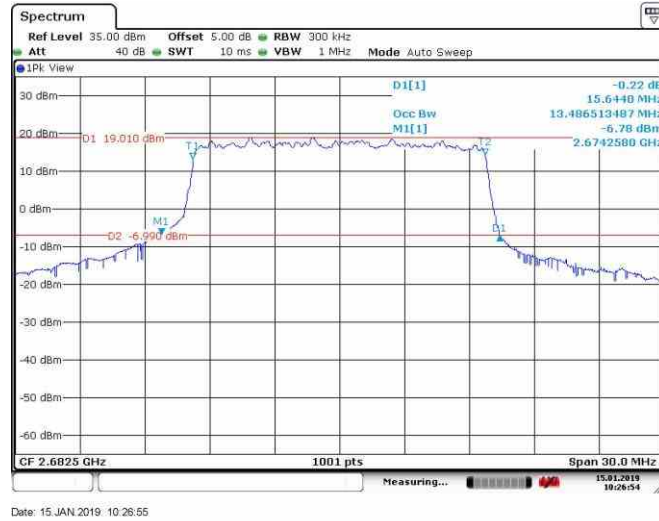


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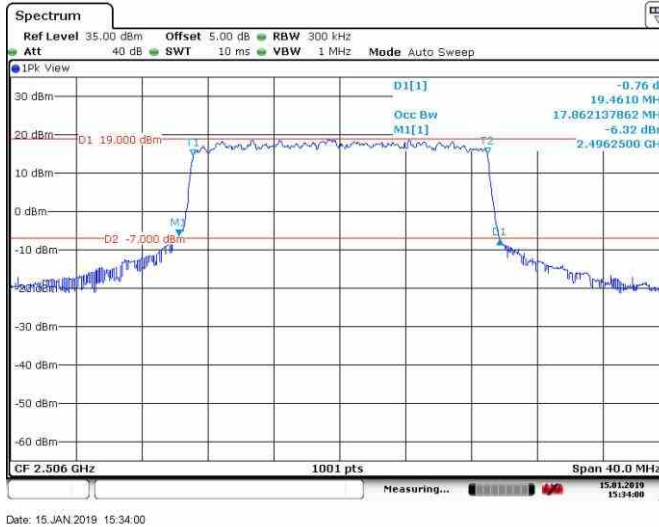


Band41_15MHz_16QAM_41515_75RB#0

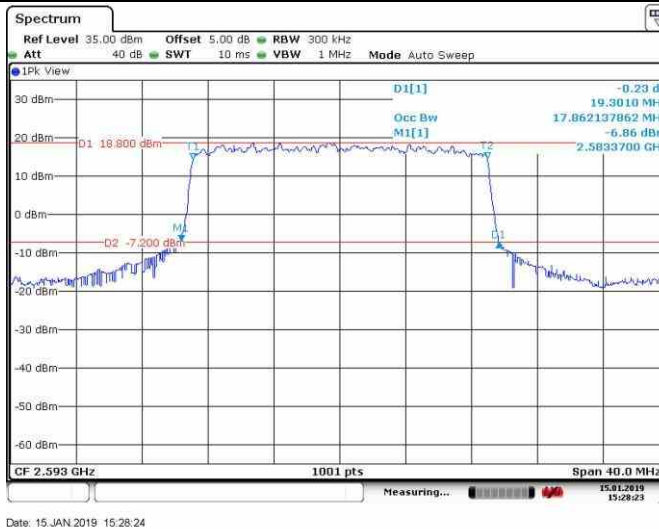
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Band41_20MHz_QPSK_39750_100RB#0

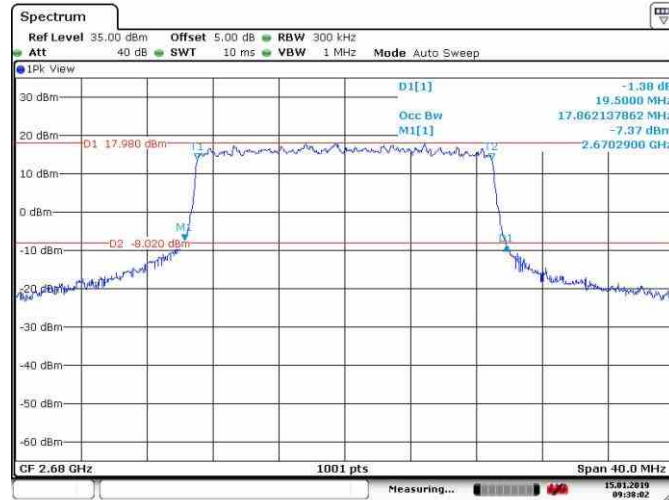


Band41_20MHz_QPSK_40620_100RB#0



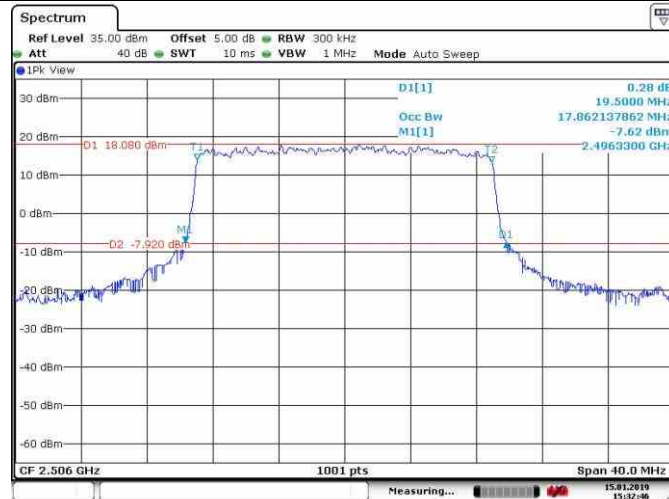
Band41_20MHz_QPSK_41490_100RB#0

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Date: 15.JAN.2019 09:38:02

Band41_20MHz_16QAM_39750_100RB#0



Date: 15.JAN.2019 15:32:46

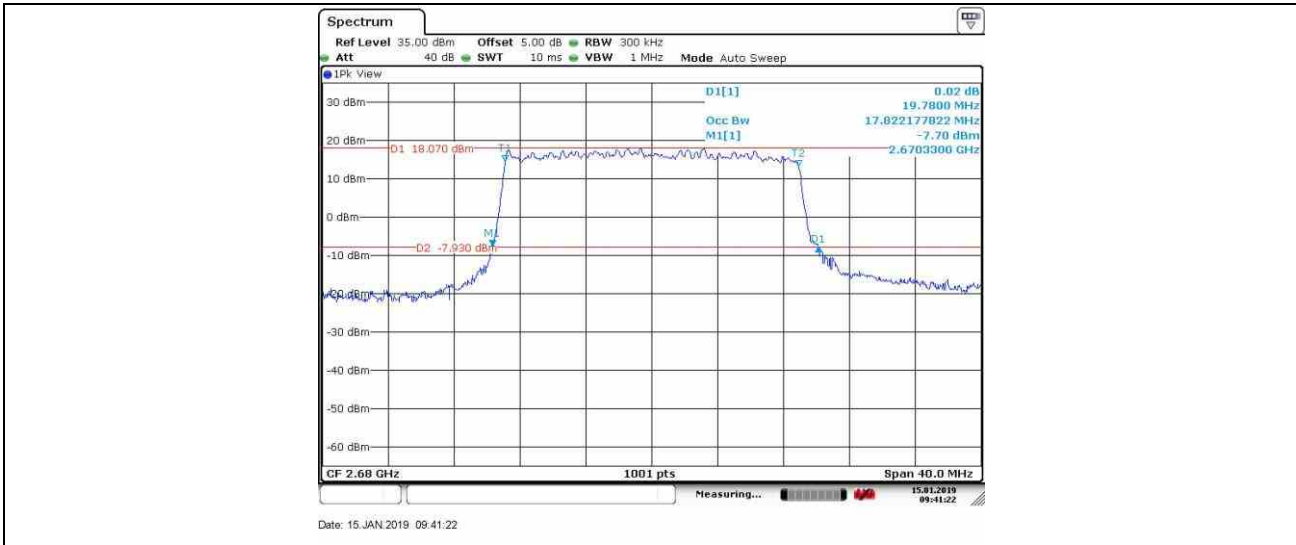
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Date: 15.JAN.2019 15:30:13

Band41_20MHz_16QAM_41490_100RB#0

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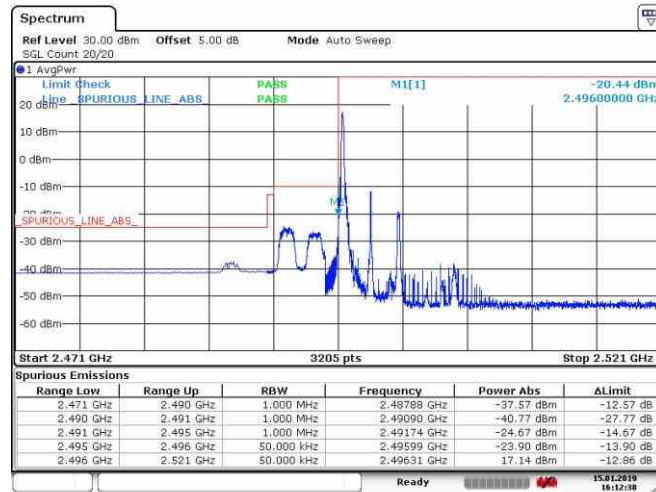


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5. Band Edge Compliance

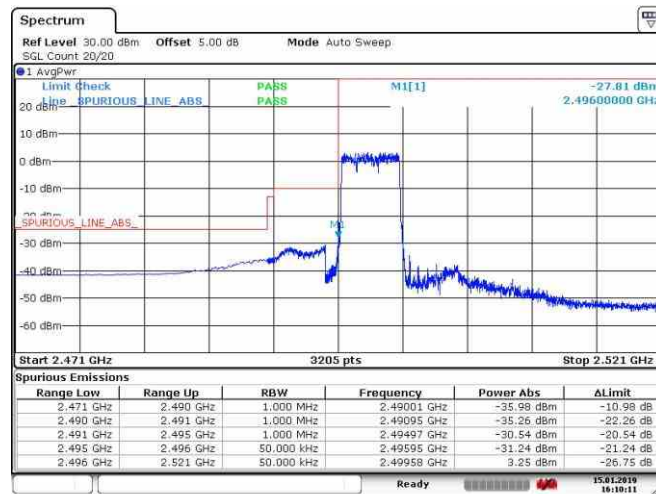
5.1. Test Plots

BAND 41_5MHz_QPSK_39675_1RB#0



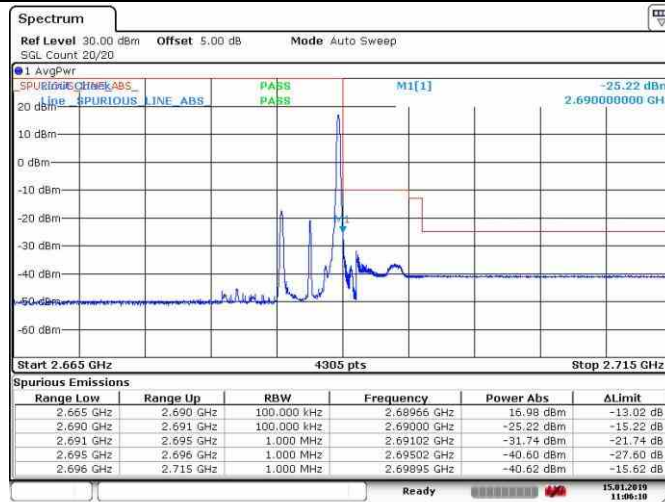
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BAND 41_5MHz_QPSK_39675_25RB#0



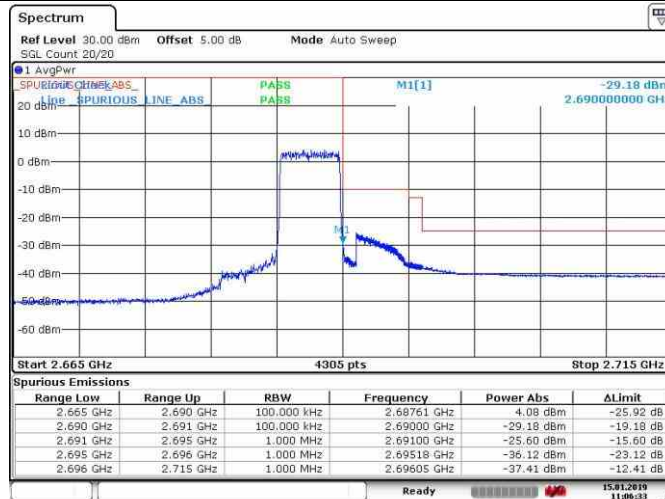
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BAND 41_5MHz_QPSK_41565_1RB#24



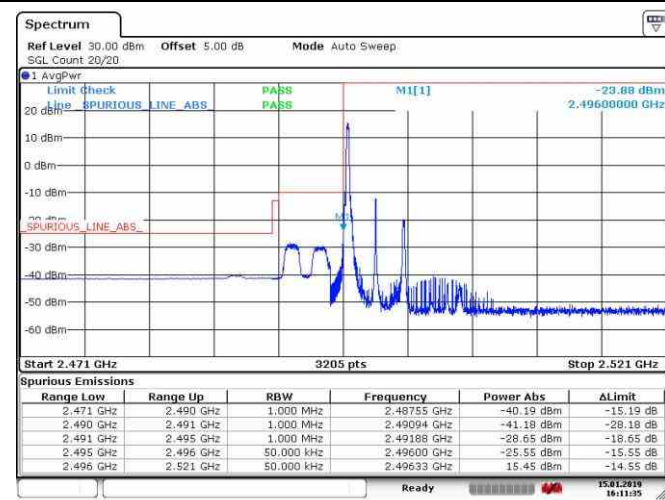
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BAND 41_5MHz_QPSK_41565_25RB#0



Date: 15 JAN 2019 11:06:34

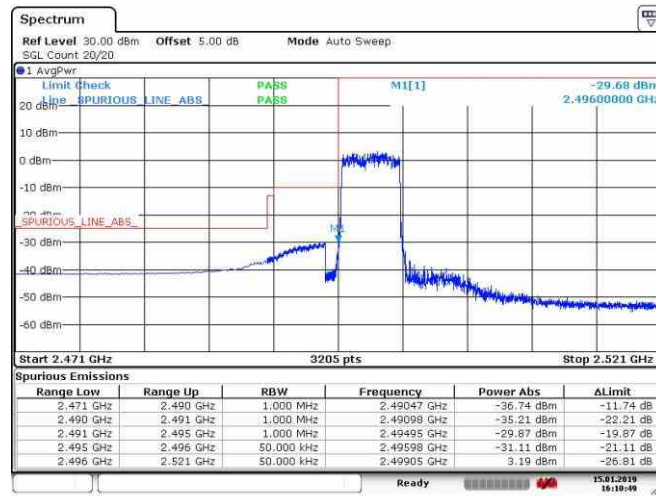
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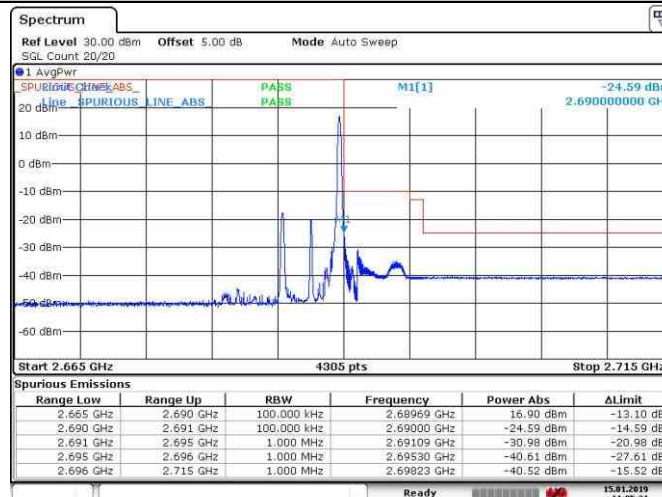
BAND 41_5MHz_16QAM_39675_25RB#0

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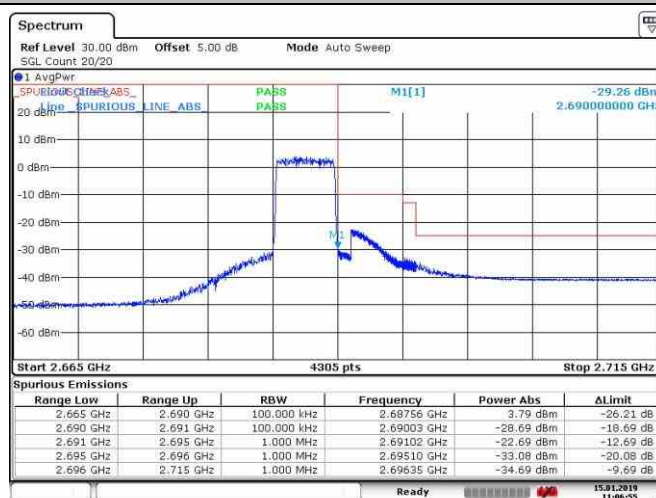
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BAND 41_5MHz_16QAM_41565_1RB#24



Date: 15 JAN 2019 11:05:21

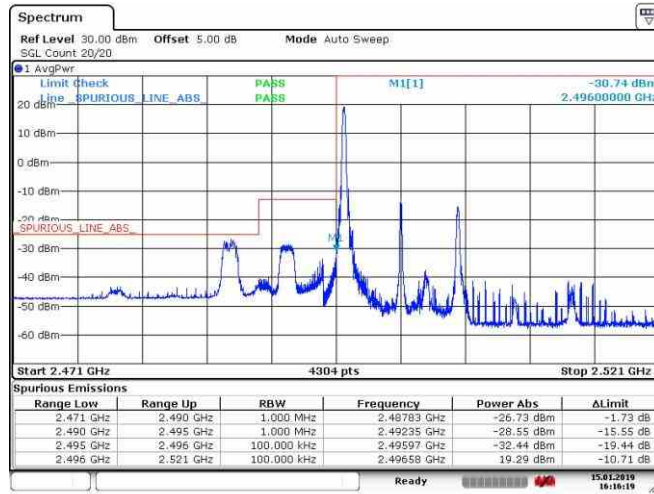
BAND 41_5MHz_16QAM_41565_25RB#0



Date: 15 JAN 2019 11:06:56

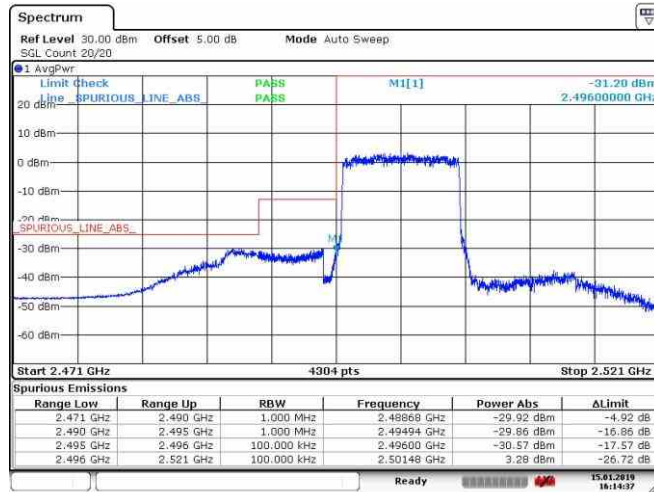
BAND 41_10MHz_QPSK_39700_1RB#0

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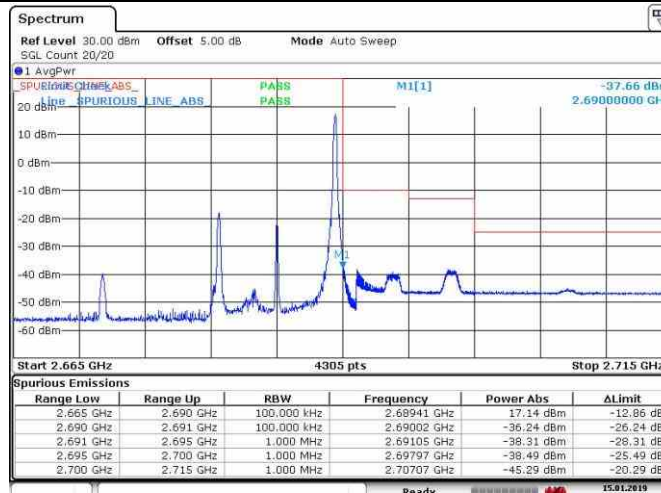
Date: 15 JAN 2019 16:16:20

BAND 41_10MHz_QPSK_39700_50RB#0



Date: 15 JAN 2019 18:14:37

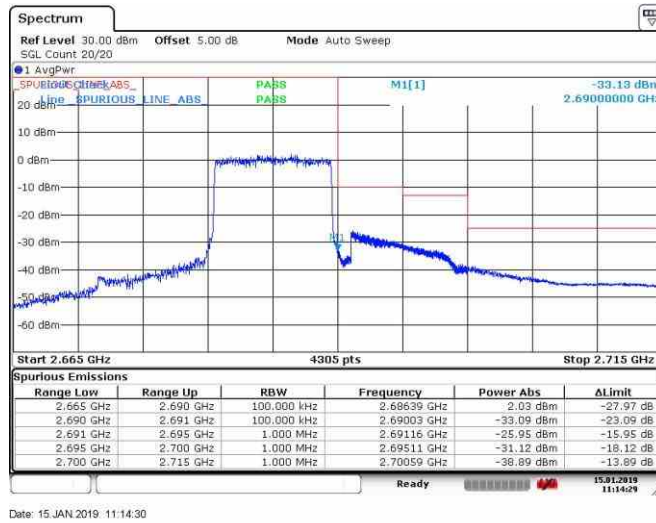
BAND 41_10MHz_QPSK_41540_1RB#49



Date: 15 JAN 2019 11:14:52

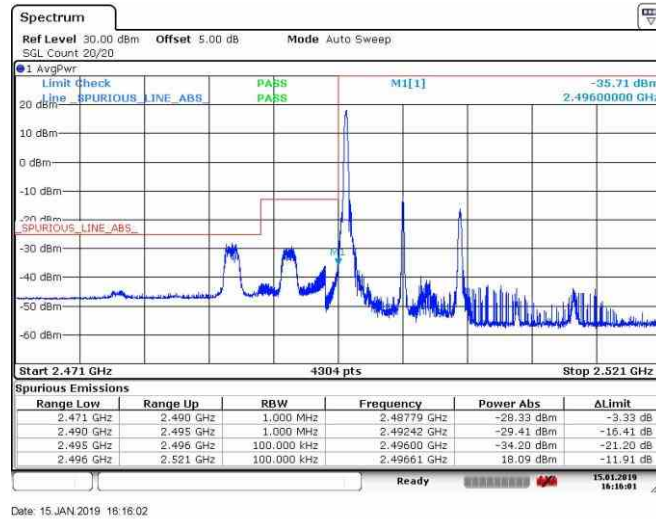
BAND 41_10MHz_QPSK_41540_50RB#0

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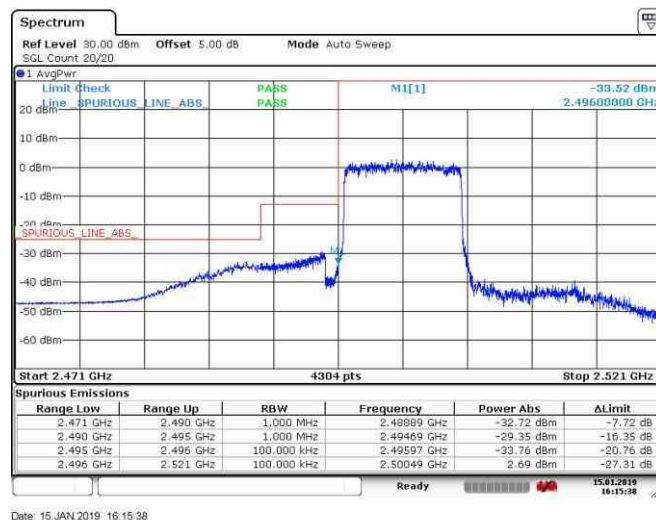
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BAND 41_10MHz_16QAM_39700_1RB#0



Date: 15 JAN 2019 18:18:02

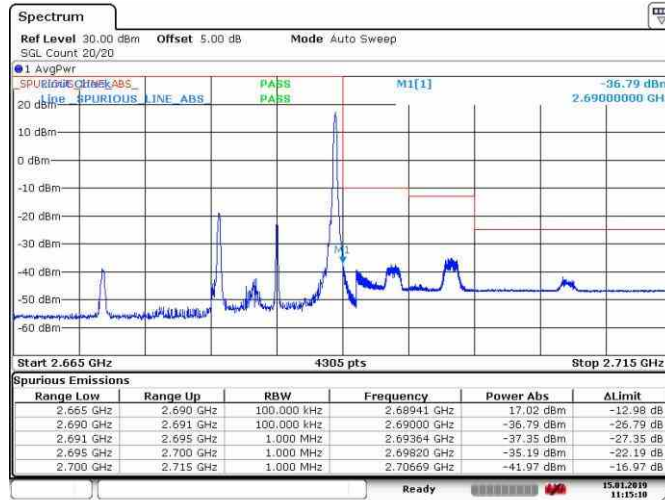
BAND 41_10MHz_16QAM_39700_50RB#0



Date: 15 JAN 2019 16:15:38

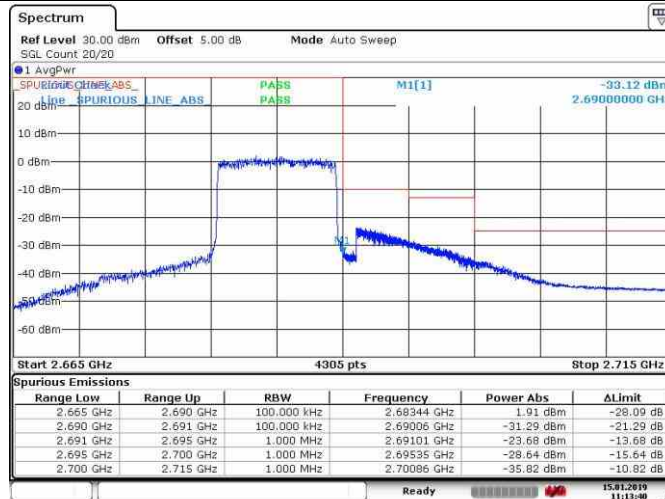
BAND 41_10MHz_16QAM_41540_1RB#49

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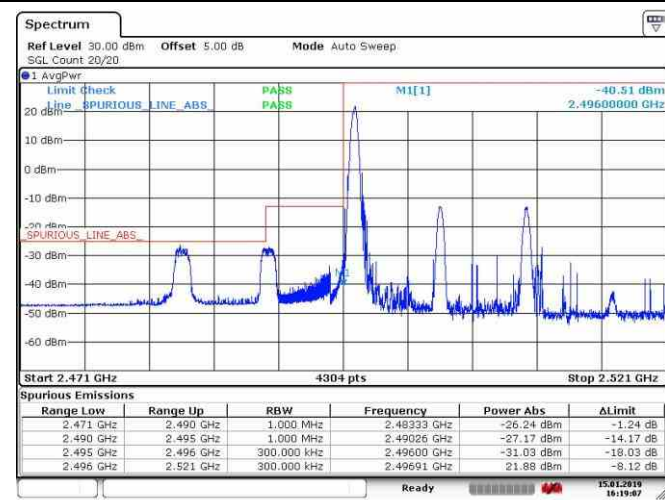
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BAND 41_10MHz_16QAM_41540_50RB#0



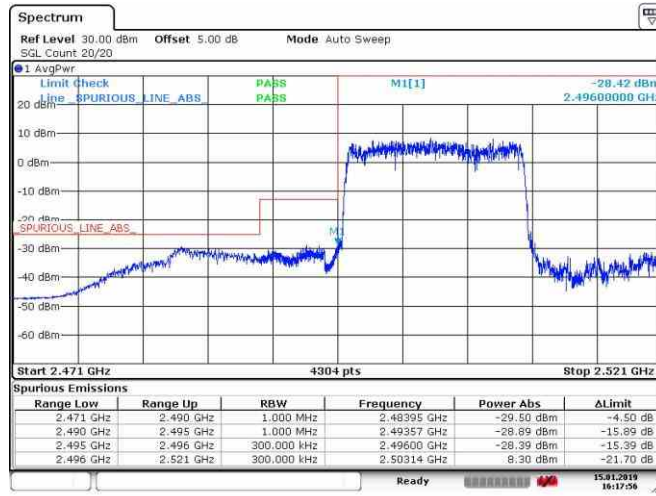
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BAND 41_15MHz_QPSK_39725_1RB#0



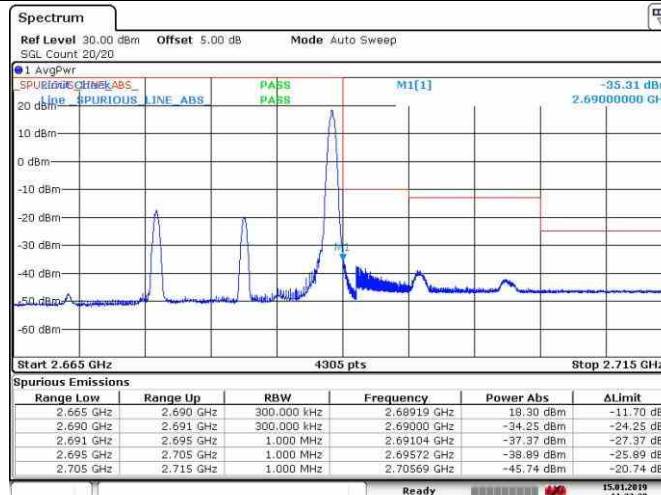
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BAND 41_15MHz_QPSK_39725_75RB#0



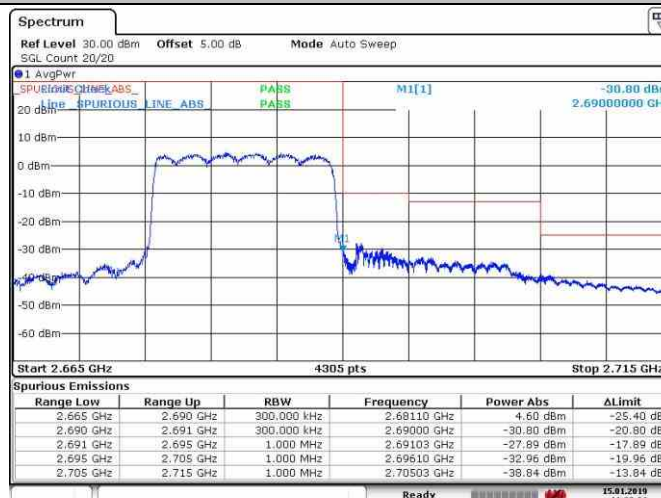
Date: 15.JAN.2019 16:17:56

BAND 41_15MHz_QPSK_41515_1RB#74



Date: 15.JAN.2019 11:22:21

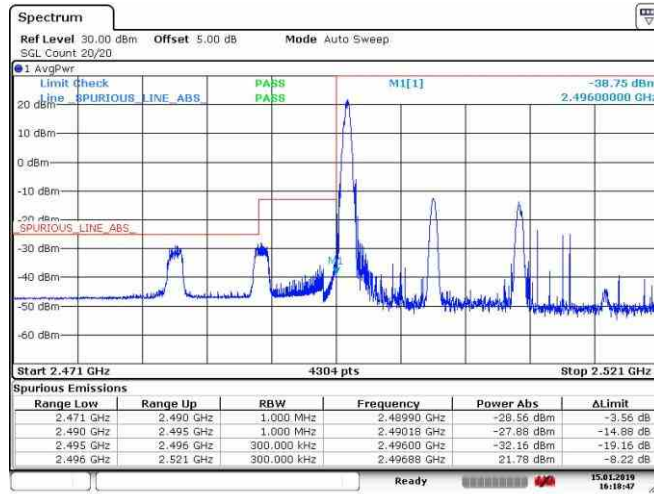
BAND 41_15MHz_QPSK_41515_75RB#0



Date: 15.JAN.2019 11:22:01

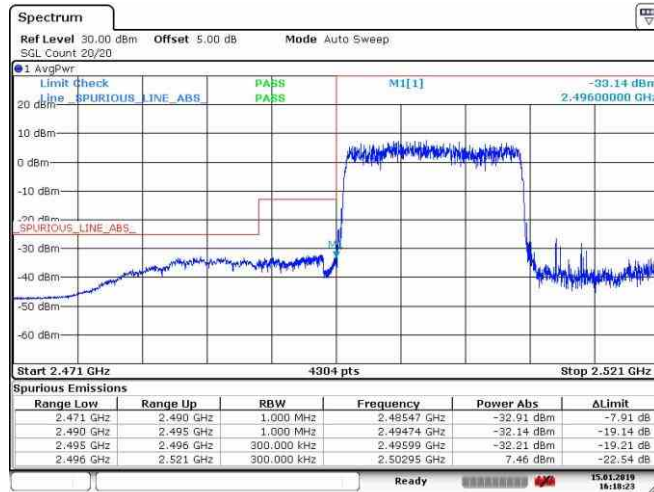
BAND 41_15MHz_16QAM_39725_1RB#0

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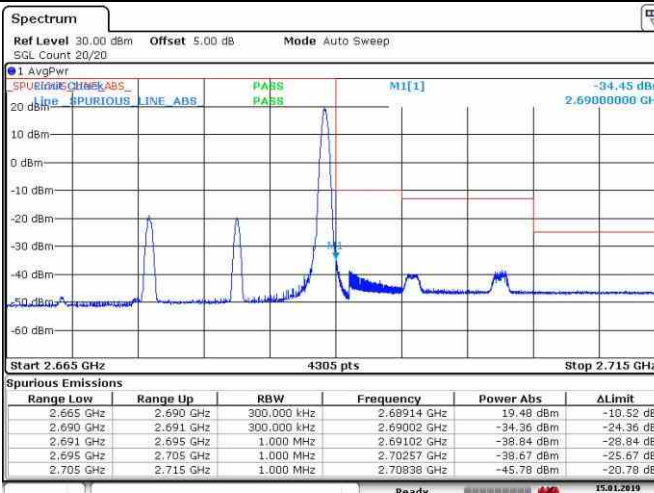
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BAND 41_15MHz_16QAM_39725_75RB#0



Date: 15 JAN 2019 18:18:24

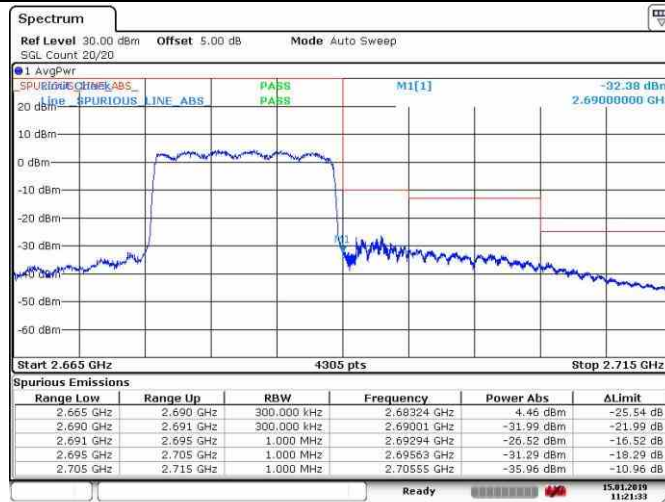
BAND 41_15MHz_16QAM_41515_1RB#74



Date: 15 JAN 2019 11:22:37

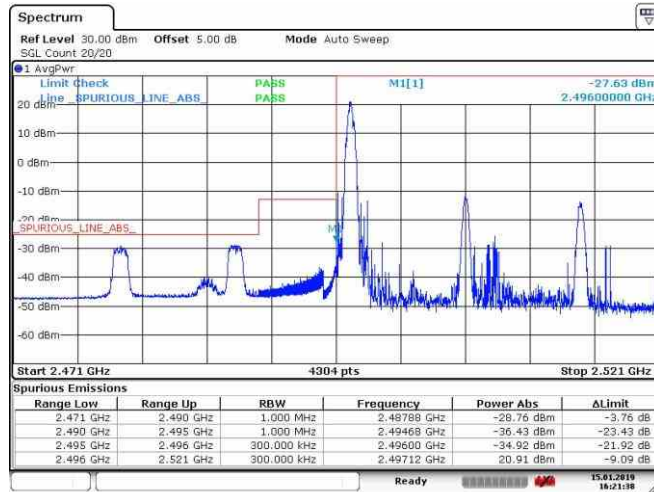
BAND 41_15MHz_16QAM_41515_75RB#0

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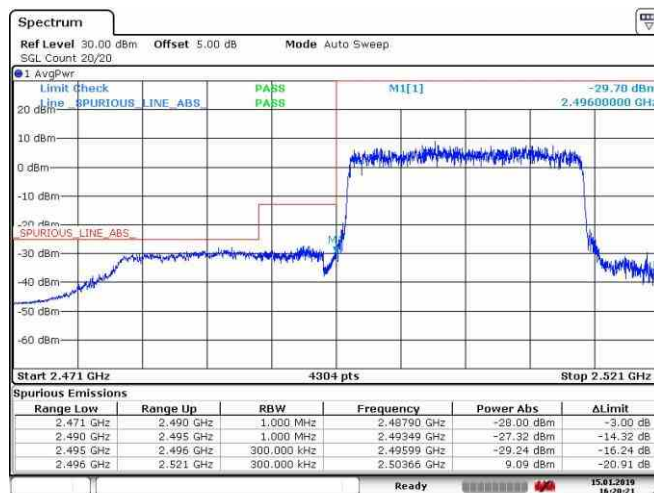
Date: 15 JAN 2019 11:21:33

BAND 41_20MHz_QPSK_39750_1RB#0



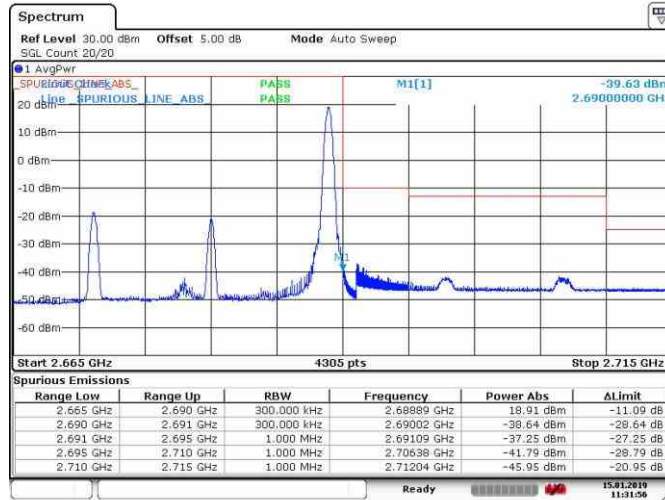
Date: 15 JAN 2019 18:21:38

BAND 41_20MHz_QPSK_39750_100RB#0



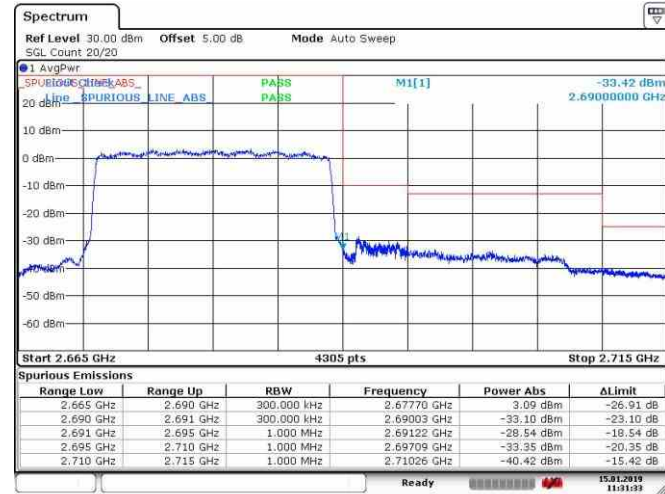
Date: 15 JAN 2019 16:20:21

BAND 41_20MHz_QPSK_41490_1RB#99



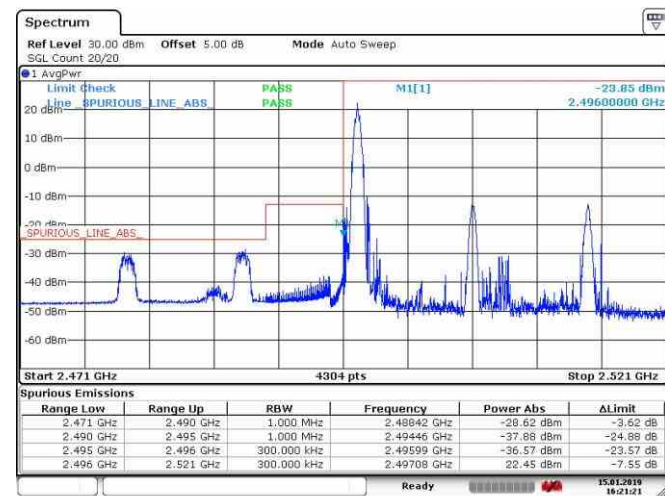
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BAND 41_20MHz_QPSK_41490_100RB#0



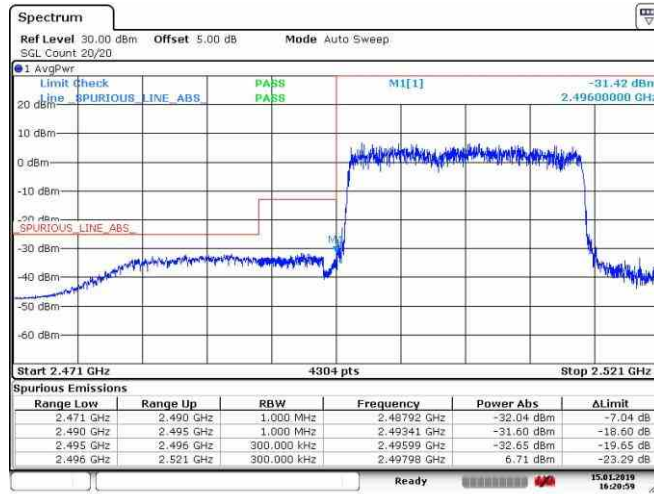
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BAND 41_20MHz_16QAM_39750_1RB#0



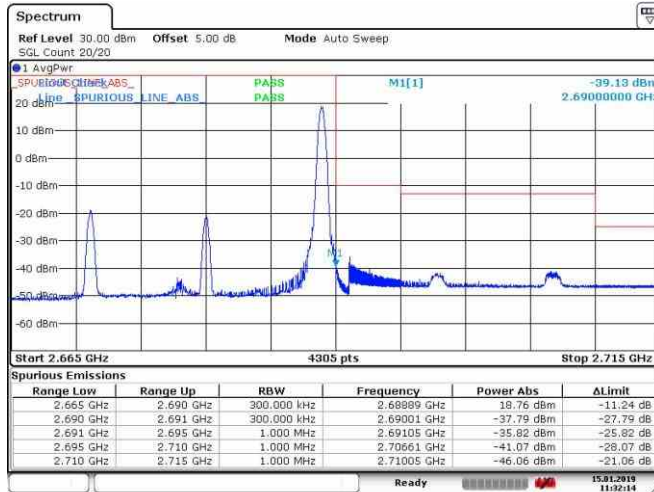
Date: 15 JAN 2019 16:21:21

BAND 41_20MHz_16QAM_39750_100RB#0



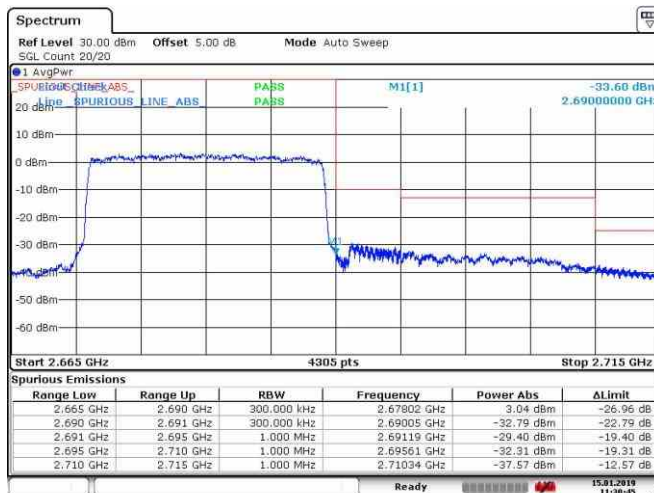
Date: 15 JAN 2019 16:20:59

BAND 41_20MHz_16QAM_41490_1RB#99



Date: 15 JAN 2019 11:32:14

BAND 41_20MHz_16QAM_41490_100RB#0



Date: 15 JAN 2019 11:30:45

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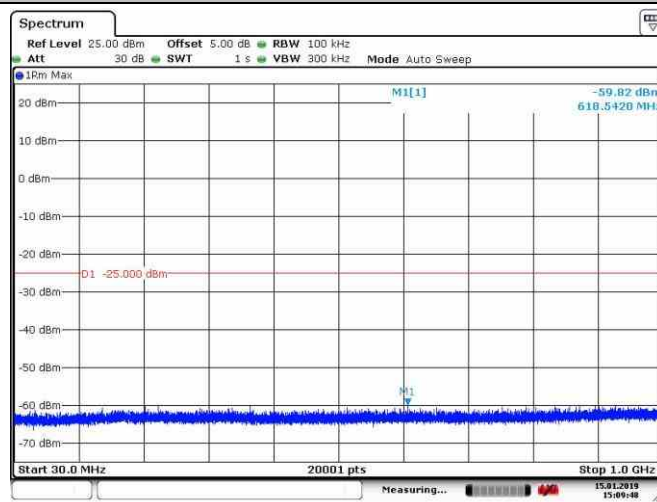
6. Spurious Emission at Antenna Terminal

NOTE1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (Span / RBW)$ " with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

NOTE2: only the worst case data displayed in this report.

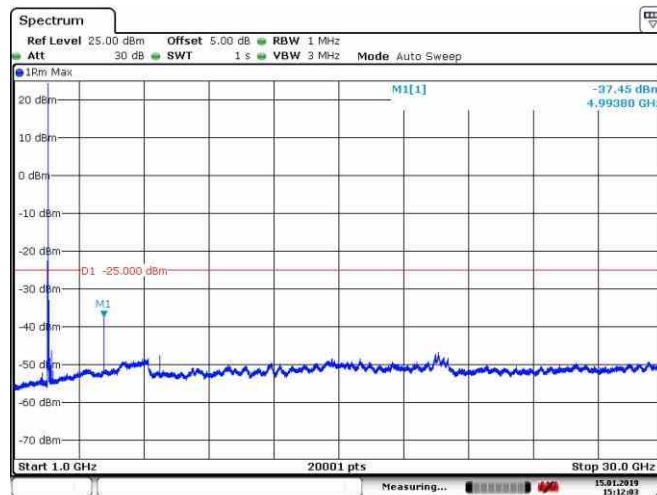
6.1. Test Plots

Band41_20MHz_QPSK_39750_1RB#0



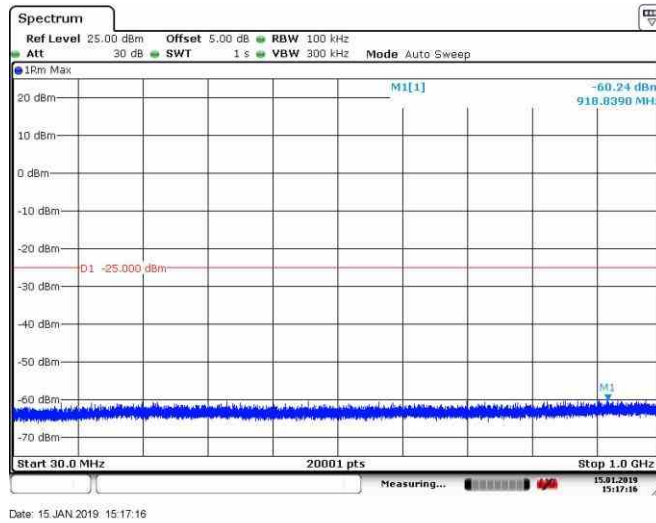
Date: 15 JAN 2019 15:09:49

Band41_20MHz_QPSK_39750_1RB#0

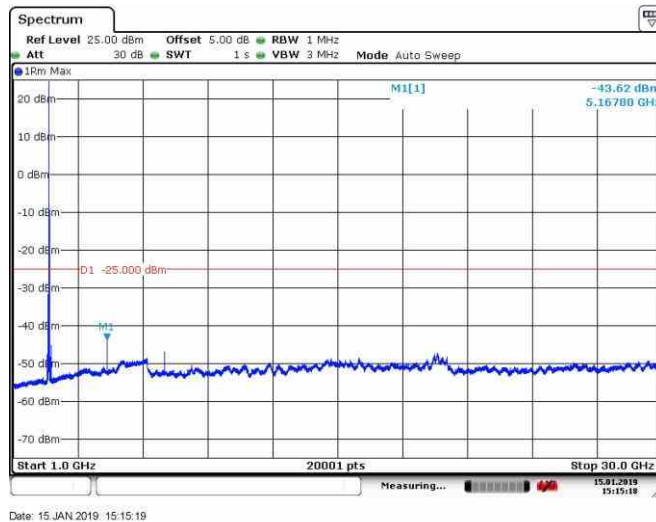


Date: 15 JAN 2019 15:12:03

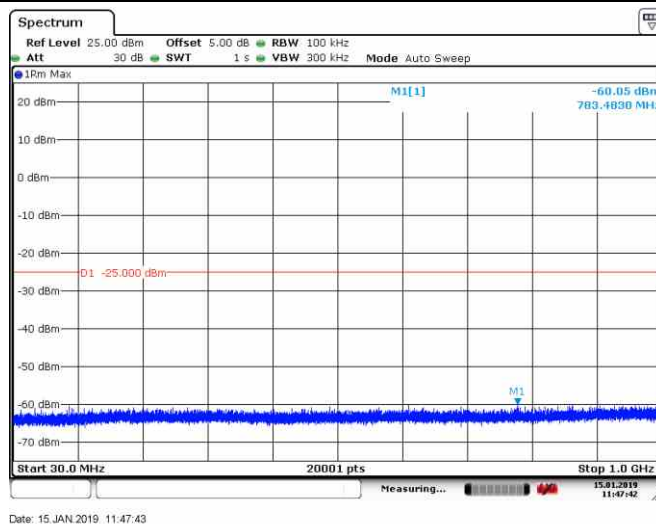
Band41_20MHz_QPSK_40620_1RB#0



Band41_20MHz_QPSK_40620_1RB#0

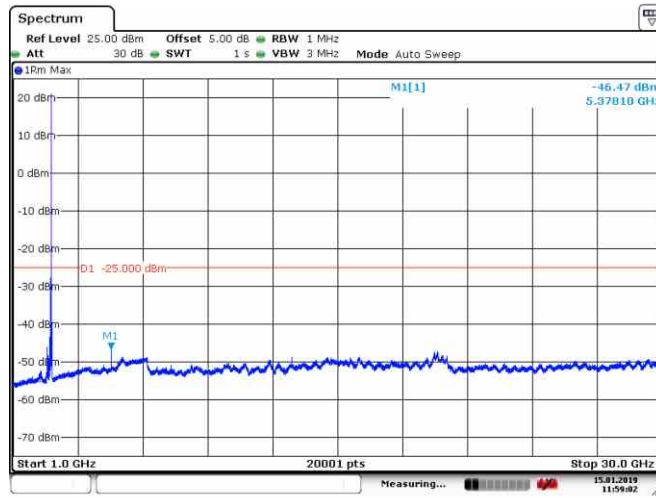


Band41_20MHz_QPSK_41490_1RB#0

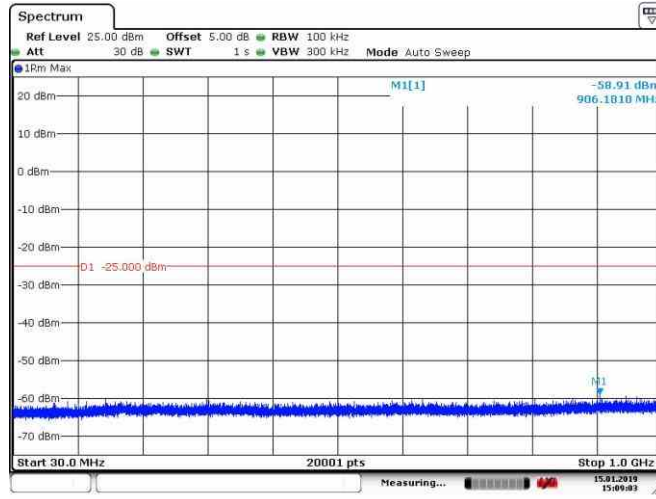


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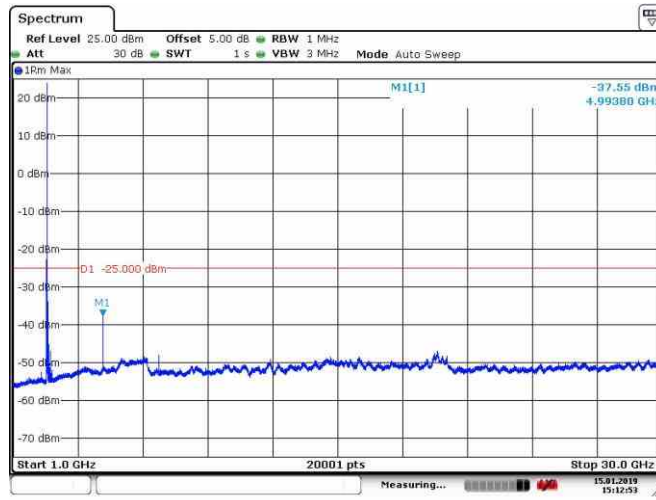
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Band41_20MHz_16QAM_39750_1RB#0

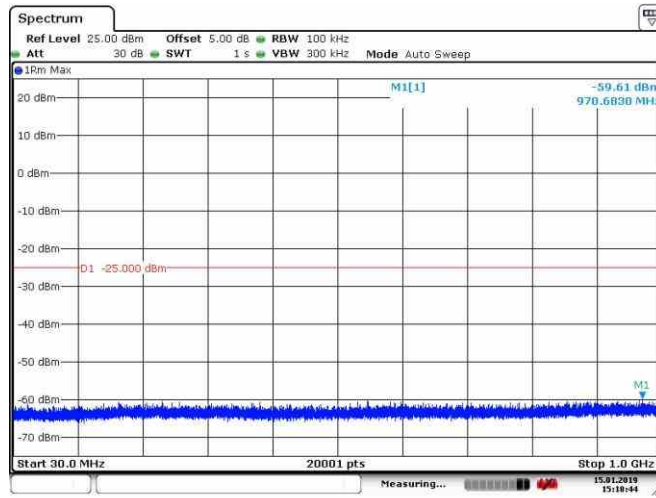


Band41_20MHz_16QAM_39750_1RB#0



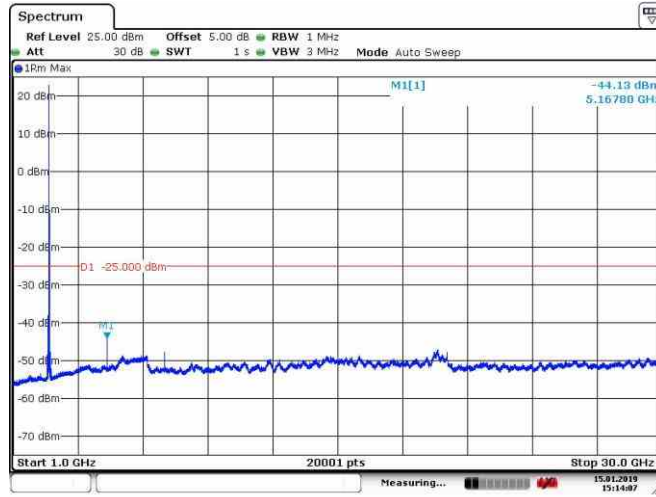
Band41_20MHz_16QAM_40620_1RB#0

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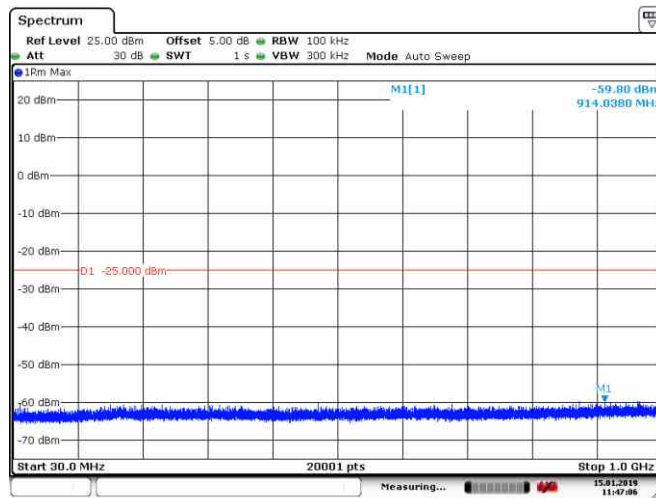
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Band41_20MHz_16QAM_40620_1RB#0



Date: 15 JAN 2019 15:14:07

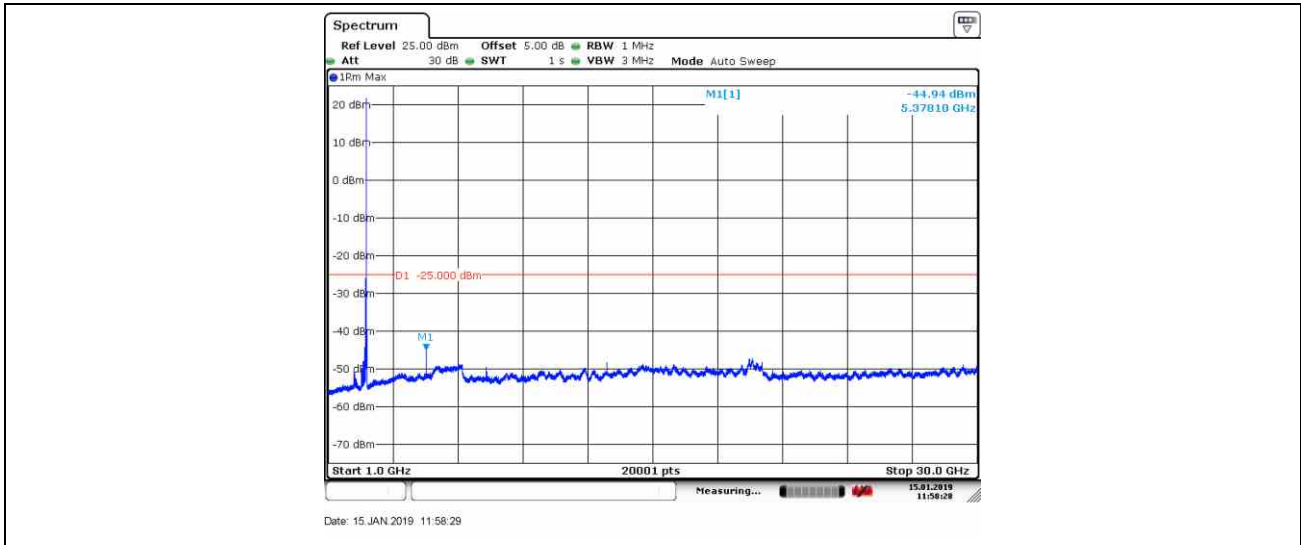
Band41_20MHz_16QAM_41490_1RB#0



Date: 15 JAN 2019 11:47:06

Band41_20MHz_16QAM_41490_1RB#0

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7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE Band 41

7.1.1. Test Mode = LTE/TM1 20MHz

7.1.1.1. Test Channel = LCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
72.750000	-78.88	-25.00	53.88	Vertical
930.470833	-77.96	-25.00	52.96	Vertical
4994.525000	-56.22	-25.00	31.22	Vertical
7490.850000	-54.54	-25.00	29.54	Vertical
9988.475000	-54.76	-25.00	29.76	Vertical
12485.450000	-58.74	-25.00	33.74	Vertical
67.350000	-71.36	-25.00	46.36	Horizontal
268.100000	-84.19	-25.00	59.19	Horizontal
4994.200000	-49.88	-25.00	24.88	Horizontal
7491.825000	-48.33	-25.00	23.33	Horizontal
9988.800000	-38.47	-25.00	13.47	Horizontal
12485.450000	-55.29	-25.00	30.29	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
72.650000	-79.45	-25.00	54.45	Vertical
288.000000	-83.33	-25.00	58.33	Vertical
959.804167	-77.23	-25.00	52.23	Vertical
5168.725000	-58.60	-25.00	33.60	Vertical
7751.825000	-53.06	-25.00	28.06	Vertical
10336.550000	-55.53	-25.00	30.53	Vertical
62.400000	-76.50	-25.00	51.50	Horizontal
104.300000	-83.59	-25.00	58.59	Horizontal
954.900000	-77.31	-25.00	52.31	Horizontal
5167.750000	-54.08	-25.00	29.08	Horizontal
7752.150000	-51.33	-25.00	26.33	Horizontal
10336.550000	-46.75	-25.00	21.75	Horizontal

7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
72.250000	-77.89	-25.00	52.89	Vertical
154.850000	-83.86	-25.00	58.86	Vertical
288.000000	-83.05	-25.00	58.05	Vertical
5341.950000	-54.60	-25.00	29.60	Vertical
8013.125000	-53.97	-25.00	28.97	Vertical
10683.975000	-60.14	-25.00	35.14	Vertical
62.450000	-77.22	-25.00	52.22	Horizontal
144.000000	-81.47	-25.00	56.47	Horizontal
275.750000	-85.09	-25.00	60.09	Horizontal
5341.625000	-59.57	-25.00	34.57	Horizontal
8012.800000	-60.04	-25.00	35.04	Horizontal
10684.300000	-56.60	-25.00	31.60	Horizontal

NOTE:

- 1) All modes are tested, but the data presented above is the worst case.the disturbance above 13GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the above harmonics had been displayed.
- 2) We have tested all modulation and all Bandwidth, but only the worst case data presented in this report.



8. Frequency Stability

1.1. Frequency Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band41	20MHz	QPSK	39750	100RB#0	VL	NT	8.70	0.003468	±2.5	PASS
Band41	20MHz	QPSK	39750	100RB#0	VN	NT	10.57	0.004209	±2.5	PASS
Band41	20MHz	QPSK	39750	100RB#0	VH	NT	-6.70	-0.002668	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	VL	NT	8.09	0.003119	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	VN	NT	2.54	0.000981	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	VH	NT	3.98	0.001534	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	VL	NT	-0.68	-0.000253	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	VN	NT	-5.01	-0.001869	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	VH	NT	13.60	0.005073	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	VL	NT	7.40	0.002949	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	VN	NT	-11.82	-0.004711	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	VH	NT	6.05	0.002409	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	VL	NT	-8.69	-0.003349	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	VN	NT	1.69	0.000650	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	VH	NT	14.64	0.005641	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	VL	NT	13.42	0.005008	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	VN	NT	-13.24	-0.004941	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	VH	NT	7.32	0.002730	±2.5	PASS

1.2. Frequency Vs Temperature

Temperature										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band41	20MHz	QPSK	39750	100RB#0	NV	-30	7.29	0.002903	±2.5	PASS
Band41	20MHz	QPSK	39750	100RB#0	NV	-20	7.08	0.002822	±2.5	PASS
Band41	20MHz	QPSK	39750	100RB#0	NV	0	-1.53	-0.000609	±2.5	PASS
Band41	20MHz	QPSK	39750	100RB#0	NV	10	14.75	0.005875	±2.5	PASS
Band41	20MHz	QPSK	39750	100RB#0	NV	20	13.57	0.005407	±2.5	PASS
Band41	20MHz	QPSK	39750	100RB#0	NV	30	-0.40	-0.000159	±2.5	PASS
Band41	20MHz	QPSK	39750	100RB#0	NV	40	-1.55	-0.000618	±2.5	PASS
Band41	20MHz	QPSK	39750	100RB#0	NV	50	-14.28	-0.005689	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	-30	-14.19	-0.005468	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	-20	-8.58	-0.003306	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	0	13.46	0.005186	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	10	6.05	0.002330	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	20	11.18	0.004307	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	30	0.00	0.000002	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	40	13.83	0.005329	±2.5	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	50	13.80	0.005319	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	NV	-30	6.12	0.002283	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	NV	-20	-4.54	-0.001695	±2.5	PASS

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Band41	20MHz	QPSK	41490	100RB#0	NV	0	-8.53	-0.003184	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	NV	10	-4.60	-0.001715	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	NV	20	0.61	0.000228	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	NV	30	1.64	0.000614	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	NV	40	-0.08	-0.000031	±2.5	PASS
Band41	20MHz	QPSK	41490	100RB#0	NV	50	4.29	0.001599	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	NV	-30	12.26	0.004885	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	NV	-20	-2.84	-0.001130	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	NV	0	5.93	0.002364	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	NV	10	-12.41	-0.004944	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	NV	20	-7.71	-0.003070	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	NV	30	6.82	0.002718	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	NV	40	7.87	0.003136	±2.5	PASS
Band41	20MHz	16QAM	39750	100RB#0	NV	50	8.14	0.003244	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	NV	-30	-4.11	-0.001582	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	NV	-20	0.13	0.000050	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	NV	0	5.82	0.002242	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	NV	10	-6.97	-0.002687	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	NV	20	1.04	0.000399	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	NV	30	-6.86	-0.002645	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	NV	40	9.47	0.003649	±2.5	PASS
Band41	20MHz	16QAM	40620	100RB#0	NV	50	-5.94	-0.002291	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	NV	-30	6.37	0.002376	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	NV	-20	9.85	0.003674	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	NV	0	-1.04	-0.000388	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	NV	10	-4.71	-0.001759	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	NV	20	-12.35	-0.004609	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	NV	30	-5.93	-0.002214	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	NV	40	-6.15	-0.002293	±2.5	PASS
Band41	20MHz	16QAM	41490	100RB#0	NV	50	1.75	0.000655	±2.5	PASS

The End