



Appendix B

E-UTRA BAND 71

CONTENT

1.	EFFECTIVE (ISOTROPIC) RADIATED POWER	3
1.1.	<i>Test Result</i>	3
2.	PEAK-TO-AVERAGE RATIO(CCDF).....	8
2.1.	<i>Test Result</i>	8
2.2.	<i>Test Plots</i>	8
3.	MODULATION CHARACTERISTICS	11
3.1.	<i>Test BAND = LTE BAND71</i>	11
3.1.1.	<i>Test Mode = LTE /TM1 20MHz</i>	11
3.1.1.1.	<i>Test Channel = MCH</i>	11
3.1.2.	<i>Test Mode = LTE /TM2 20MHz</i>	12
3.1.2.1.	<i>Test Channel = MCH</i>	12
4.	26dB BANDWIDTH AND OCCUPIED BANDWIDTH	13
4.1.	<i>Test Result</i>	13
4.2.	<i>Test Plots</i>	14
5.	BAND EDGE COMPLIANCE	23
5.1.	<i>Test Plots</i>	23
6.	SPURIOUS EMISSION AT ANTENNA TERMINAL	34
6.1.	<i>Test Plots</i>	34
7.	FIELD STRENGTH OF SPURIOUS RADIATION.....	39
7.1.	<i>Test BAND = LTE BAND 71</i>	39
7.1.1.	<i>Test Mode =LTE/TM1 20MHz</i>	39
7.1.1.1.	<i>Test Channel = LCH</i>	39
7.1.1.2.	<i>Test Channel = MCH</i>	39
7.1.1.3.	<i>Test Channel = HCH</i>	40
8.	FREQUENCY STABILITY.....	41
8.1.	<i>Frequency Vs Voltage</i>	41
8.2.	<i>Frequency Vs Temperature</i>	41

1. Effective (Isotropic) Radiated Power

1.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band71	5MHz	QPSK	133147	1RB#0	22.93	19.38	34.77	PASS
Band71	5MHz	QPSK	133147	1RB#12	22.70	19.15	34.77	PASS
Band71	5MHz	QPSK	133147	1RB#24	22.87	19.32	34.77	PASS
Band71	5MHz	QPSK	133147	12RB#0	21.61	18.06	34.77	PASS
Band71	5MHz	QPSK	133147	12RB#6	21.73	18.18	34.77	PASS
Band71	5MHz	QPSK	133147	12RB#13	21.97	18.42	34.77	PASS
Band71	5MHz	QPSK	133147	25RB#0	21.78	18.23	34.77	PASS
Band71	5MHz	QPSK	133297	1RB#0	22.86	19.31	34.77	PASS
Band71	5MHz	QPSK	133297	1RB#12	22.35	18.80	34.77	PASS
Band71	5MHz	QPSK	133297	1RB#24	23.14	19.59	34.77	PASS
Band71	5MHz	QPSK	133297	12RB#0	21.85	18.30	34.77	PASS
Band71	5MHz	QPSK	133297	12RB#6	21.49	17.94	34.77	PASS
Band71	5MHz	QPSK	133297	12RB#13	21.96	18.41	34.77	PASS
Band71	5MHz	QPSK	133297	25RB#0	21.81	18.26	34.77	PASS
Band71	5MHz	QPSK	133447	1RB#0	22.90	19.35	34.77	PASS
Band71	5MHz	QPSK	133447	1RB#12	22.28	18.73	34.77	PASS
Band71	5MHz	QPSK	133447	1RB#24	22.38	18.83	34.77	PASS
Band71	5MHz	QPSK	133447	12RB#0	21.73	18.18	34.77	PASS
Band71	5MHz	QPSK	133447	12RB#6	21.46	17.91	34.77	PASS
Band71	5MHz	QPSK	133447	12RB#13	21.84	18.29	34.77	PASS
Band71	5MHz	QPSK	133447	25RB#0	21.67	18.12	34.77	PASS
Band71	5MHz	16QAM	133147	1RB#0	21.32	17.77	34.77	PASS
Band71	5MHz	16QAM	133147	1RB#12	21.73	18.18	34.77	PASS
Band71	5MHz	16QAM	133147	1RB#24	21.63	18.08	34.77	PASS
Band71	5MHz	16QAM	133147	12RB#0	20.62	17.07	34.77	PASS
Band71	5MHz	16QAM	133147	12RB#6	20.66	17.11	34.77	PASS
Band71	5MHz	16QAM	133147	12RB#13	20.73	17.18	34.77	PASS
Band71	5MHz	16QAM	133147	25RB#0	20.78	17.23	34.77	PASS
Band71	5MHz	16QAM	133297	1RB#0	21.32	17.77	34.77	PASS
Band71	5MHz	16QAM	133297	1RB#12	21.82	18.27	34.77	PASS
Band71	5MHz	16QAM	133297	1RB#24	21.23	17.68	34.77	PASS
Band71	5MHz	16QAM	133297	12RB#0	20.80	17.25	34.77	PASS
Band71	5MHz	16QAM	133297	12RB#6	20.85	17.30	34.77	PASS
Band71	5MHz	16QAM	133297	12RB#13	20.80	17.25	34.77	PASS
Band71	5MHz	16QAM	133297	25RB#0	20.81	17.26	34.77	PASS
Band71	5MHz	16QAM	133447	1RB#0	21.05	17.50	34.77	PASS



Band71	5MHz	16QAM	133447	1RB#12	21.81	18.26	34.77	PASS
Band71	5MHz	16QAM	133447	1RB#24	21.06	17.51	34.77	PASS
Band71	5MHz	16QAM	133447	12RB#0	20.84	17.29	34.77	PASS
Band71	5MHz	16QAM	133447	12RB#6	20.94	17.39	34.77	PASS
Band71	5MHz	16QAM	133447	12RB#13	20.66	17.11	34.77	PASS
Band71	5MHz	16QAM	133447	25RB#0	20.60	17.05	34.77	PASS
Band71	10MHz	QPSK	133172	1RB#0	22.76	19.21	34.77	PASS
Band71	10MHz	QPSK	133172	1RB#24	22.62	19.07	34.77	PASS
Band71	10MHz	QPSK	133172	1RB#49	22.65	19.10	34.77	PASS
Band71	10MHz	QPSK	133172	25RB#0	21.87	18.32	34.77	PASS
Band71	10MHz	QPSK	133172	25RB#12	21.57	18.02	34.77	PASS
Band71	10MHz	QPSK	133172	25RB#25	21.73	18.18	34.77	PASS
Band71	10MHz	QPSK	133172	50RB#0	21.78	18.23	34.77	PASS
Band71	10MHz	QPSK	133297	1RB#0	23.06	19.51	34.77	PASS
Band71	10MHz	QPSK	133297	1RB#24	22.23	18.68	34.77	PASS
Band71	10MHz	QPSK	133297	1RB#49	22.99	19.44	34.77	PASS
Band71	10MHz	QPSK	133297	25RB#0	21.99	18.44	34.77	PASS
Band71	10MHz	QPSK	133297	25RB#12	21.57	18.02	34.77	PASS
Band71	10MHz	QPSK	133297	25RB#25	21.79	18.24	34.77	PASS
Band71	10MHz	QPSK	133297	50RB#0	21.86	18.31	34.77	PASS
Band71	10MHz	QPSK	133422	1RB#0	22.93	19.38	34.77	PASS
Band71	10MHz	QPSK	133422	1RB#24	22.73	19.18	34.77	PASS
Band71	10MHz	QPSK	133422	1RB#49	22.63	19.08	34.77	PASS
Band71	10MHz	QPSK	133422	25RB#0	21.89	18.34	34.77	PASS
Band71	10MHz	QPSK	133422	25RB#12	21.57	18.02	34.77	PASS
Band71	10MHz	QPSK	133422	25RB#25	21.62	18.07	34.77	PASS
Band71	10MHz	QPSK	133422	50RB#0	21.70	18.15	34.77	PASS
Band71	10MHz	16QAM	133172	1RB#0	21.14	17.59	34.77	PASS
Band71	10MHz	16QAM	133172	1RB#24	21.46	17.91	34.77	PASS
Band71	10MHz	16QAM	133172	1RB#49	21.06	17.51	34.77	PASS
Band71	10MHz	16QAM	133172	25RB#0	20.78	17.23	34.77	PASS
Band71	10MHz	16QAM	133172	25RB#12	20.69	17.14	34.77	PASS
Band71	10MHz	16QAM	133172	25RB#25	20.84	17.29	34.77	PASS
Band71	10MHz	16QAM	133172	50RB#0	20.69	17.14	34.77	PASS
Band71	10MHz	16QAM	133297	1RB#0	21.19	17.64	34.77	PASS
Band71	10MHz	16QAM	133297	1RB#24	21.11	17.56	34.77	PASS
Band71	10MHz	16QAM	133297	1RB#49	21.03	17.48	34.77	PASS
Band71	10MHz	16QAM	133297	25RB#0	20.86	17.31	34.77	PASS
Band71	10MHz	16QAM	133297	25RB#12	21.03	17.48	34.77	PASS
Band71	10MHz	16QAM	133297	25RB#25	20.94	17.39	34.77	PASS
Band71	10MHz	16QAM	133297	50RB#0	20.87	17.32	34.77	PASS
Band71	10MHz	16QAM	133422	1RB#0	21.15	17.60	34.77	PASS



Band71	10MHz	16QAM	133422	1RB#24	21.55	18.00	34.77	PASS
Band71	10MHz	16QAM	133422	1RB#49	21.14	17.59	34.77	PASS
Band71	10MHz	16QAM	133422	25RB#0	20.90	17.35	34.77	PASS
Band71	10MHz	16QAM	133422	25RB#12	20.94	17.39	34.77	PASS
Band71	10MHz	16QAM	133422	25RB#25	20.52	16.97	34.77	PASS
Band71	10MHz	16QAM	133422	50RB#0	20.83	17.28	34.77	PASS
Band71	15MHz	QPSK	133197	1RB#0	22.77	19.22	34.77	PASS
Band71	15MHz	QPSK	133197	1RB#38	22.51	18.96	34.77	PASS
Band71	15MHz	QPSK	133197	1RB#74	22.90	19.35	34.77	PASS
Band71	15MHz	QPSK	133197	36RB#0	21.67	18.12	34.77	PASS
Band71	15MHz	QPSK	133197	36RB#18	21.59	18.04	34.77	PASS
Band71	15MHz	QPSK	133197	36RB#39	21.78	18.23	34.77	PASS
Band71	15MHz	QPSK	133197	75RB#0	21.75	18.20	34.77	PASS
Band71	15MHz	QPSK	133297	1RB#0	23.07	19.52	34.77	PASS
Band71	15MHz	QPSK	133297	1RB#38	21.58	18.03	34.77	PASS
Band71	15MHz	QPSK	133297	1RB#74	23.02	19.47	34.77	PASS
Band71	15MHz	QPSK	133297	36RB#0	21.87	18.32	34.77	PASS
Band71	15MHz	QPSK	133297	36RB#18	21.43	17.88	34.77	PASS
Band71	15MHz	QPSK	133297	36RB#39	21.83	18.28	34.77	PASS
Band71	15MHz	QPSK	133297	75RB#0	21.84	18.29	34.77	PASS
Band71	15MHz	QPSK	133397	1RB#0	22.79	19.24	34.77	PASS
Band71	15MHz	QPSK	133397	1RB#38	22.73	19.18	34.77	PASS
Band71	15MHz	QPSK	133397	1RB#74	22.71	19.16	34.77	PASS
Band71	15MHz	QPSK	133397	36RB#0	21.63	18.08	34.77	PASS
Band71	15MHz	QPSK	133397	36RB#18	21.75	18.20	34.77	PASS
Band71	15MHz	QPSK	133397	36RB#39	21.68	18.13	34.77	PASS
Band71	15MHz	QPSK	133397	75RB#0	21.77	18.22	34.77	PASS
Band71	15MHz	16QAM	133197	1RB#0	21.33	17.78	34.77	PASS
Band71	15MHz	16QAM	133197	1RB#38	21.10	17.55	34.77	PASS
Band71	15MHz	16QAM	133197	1RB#74	21.11	17.56	34.77	PASS
Band71	15MHz	16QAM	133197	36RB#0	20.69	17.14	34.77	PASS
Band71	15MHz	16QAM	133197	36RB#18	20.91	17.36	34.77	PASS
Band71	15MHz	16QAM	133197	36RB#39	20.81	17.26	34.77	PASS
Band71	15MHz	16QAM	133197	75RB#0	20.76	17.21	34.77	PASS
Band71	15MHz	16QAM	133297	1RB#0	21.10	17.55	34.77	PASS
Band71	15MHz	16QAM	133297	1RB#38	21.15	17.60	34.77	PASS
Band71	15MHz	16QAM	133297	1RB#74	21.10	17.55	34.77	PASS
Band71	15MHz	16QAM	133297	36RB#0	20.92	17.37	34.77	PASS
Band71	15MHz	16QAM	133297	36RB#18	20.93	17.38	34.77	PASS
Band71	15MHz	16QAM	133297	36RB#39	20.85	17.30	34.77	PASS
Band71	15MHz	16QAM	133297	75RB#0	20.87	17.32	34.77	PASS
Band71	15MHz	16QAM	133397	1RB#0	21.81	18.26	34.77	PASS



Band71	15MHz	16QAM	133397	1RB#38	21.22	17.67	34.77	PASS
Band71	15MHz	16QAM	133397	1RB#74	21.14	17.59	34.77	PASS
Band71	15MHz	16QAM	133397	36RB#0	20.81	17.26	34.77	PASS
Band71	15MHz	16QAM	133397	36RB#18	20.92	17.37	34.77	PASS
Band71	15MHz	16QAM	133397	36RB#39	20.70	17.15	34.77	PASS
Band71	15MHz	16QAM	133397	75RB#0	20.69	17.14	34.77	PASS
Band71	20MHz	QPSK	133222	1RB#0	22.70	19.15	34.77	PASS
Band71	20MHz	QPSK	133222	1RB#49	22.50	18.95	34.77	PASS
Band71	20MHz	QPSK	133222	1RB#99	22.35	18.80	34.77	PASS
Band71	20MHz	QPSK	133222	50RB#0	22.02	18.47	34.77	PASS
Band71	20MHz	QPSK	133222	50RB#25	21.54	17.99	34.77	PASS
Band71	20MHz	QPSK	133222	50RB#50	21.57	18.02	34.77	PASS
Band71	20MHz	QPSK	133222	100RB#0	21.81	18.26	34.77	PASS
Band71	20MHz	QPSK	133297	1RB#0	22.61	19.06	34.77	PASS
Band71	20MHz	QPSK	133297	1RB#49	22.26	18.71	34.77	PASS
Band71	20MHz	QPSK	133297	1RB#99	23.55	20.00	34.77	PASS
Band71	20MHz	QPSK	133297	50RB#0	21.95	18.40	34.77	PASS
Band71	20MHz	QPSK	133297	50RB#25	21.53	17.98	34.77	PASS
Band71	20MHz	QPSK	133297	50RB#50	21.82	18.27	34.77	PASS
Band71	20MHz	QPSK	133297	100RB#0	21.75	18.20	34.77	PASS
Band71	20MHz	QPSK	133372	1RB#0	22.86	19.31	34.77	PASS
Band71	20MHz	QPSK	133372	1RB#49	22.64	19.09	34.77	PASS
Band71	20MHz	QPSK	133372	1RB#99	22.63	19.08	34.77	PASS
Band71	20MHz	QPSK	133372	50RB#0	21.63	18.08	34.77	PASS
Band71	20MHz	QPSK	133372	50RB#25	21.78	18.23	34.77	PASS
Band71	20MHz	QPSK	133372	50RB#50	22.03	18.48	34.77	PASS
Band71	20MHz	QPSK	133372	100RB#0	21.59	18.04	34.77	PASS
Band71	20MHz	16QAM	133222	1RB#0	21.48	17.93	34.77	PASS
Band71	20MHz	16QAM	133222	1RB#49	21.90	18.35	34.77	PASS
Band71	20MHz	16QAM	133222	1RB#99	21.67	18.12	34.77	PASS
Band71	20MHz	16QAM	133222	50RB#0	20.93	17.38	34.77	PASS
Band71	20MHz	16QAM	133222	50RB#25	20.68	17.13	34.77	PASS
Band71	20MHz	16QAM	133222	50RB#50	20.74	17.19	34.77	PASS
Band71	20MHz	16QAM	133222	100RB#0	20.83	17.28	34.77	PASS
Band71	20MHz	16QAM	133297	1RB#0	21.47	17.92	34.77	PASS
Band71	20MHz	16QAM	133297	1RB#49	21.98	18.43	34.77	PASS
Band71	20MHz	16QAM	133297	1RB#99	21.07	17.52	34.77	PASS
Band71	20MHz	16QAM	133297	50RB#0	20.99	17.44	34.77	PASS
Band71	20MHz	16QAM	133297	50RB#25	20.97	17.42	34.77	PASS
Band71	20MHz	16QAM	133297	50RB#50	20.82	17.27	34.77	PASS
Band71	20MHz	16QAM	133297	100RB#0	20.87	17.32	34.77	PASS
Band71	20MHz	16QAM	133372	1RB#0	21.68	18.13	34.77	PASS

Band71	20MHz	16QAM	133372	1RB#49	21.85	18.30	34.77	PASS
Band71	20MHz	16QAM	133372	1RB#99	21.21	17.66	34.77	PASS
Band71	20MHz	16QAM	133372	50RB#0	20.85	17.30	34.77	PASS
Band71	20MHz	16QAM	133372	50RB#25	20.82	17.27	34.77	PASS
Band71	20MHz	16QAM	133372	50RB#50	20.72	17.17	34.77	PASS
Band71	20MHz	16QAM	133372	100RB#0	20.74	17.19	34.77	PASS

Remark:

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

$$ERP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBd]$$

$$EIRP [dBm] = SGP [dBm] - Cable Loss [dB] + Gain [dBi]$$

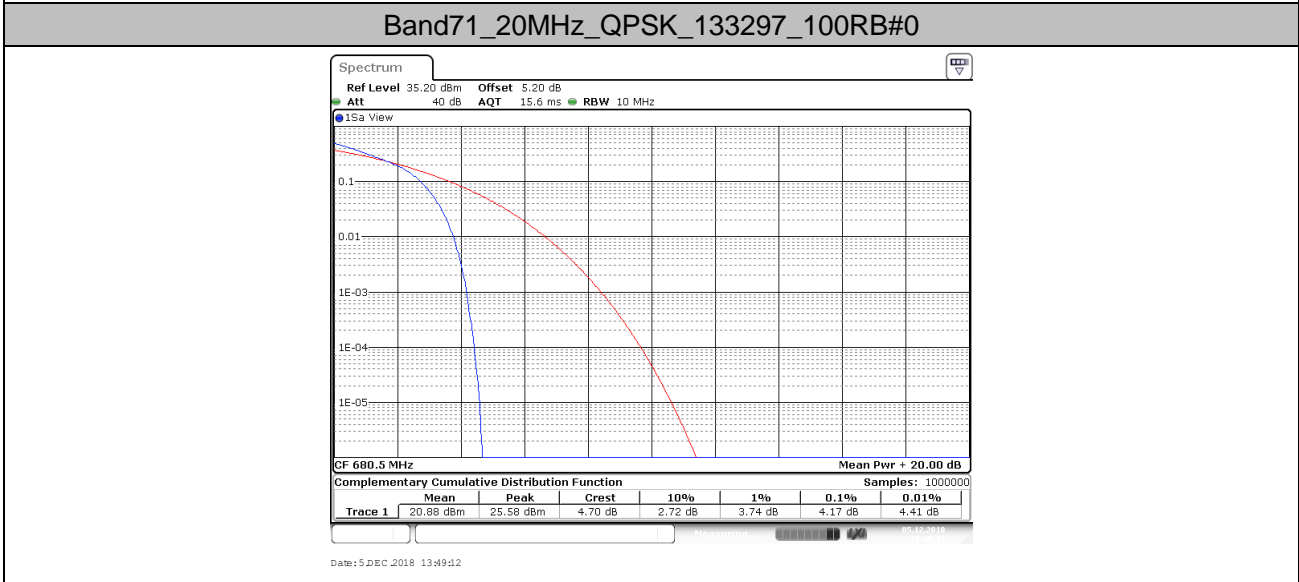
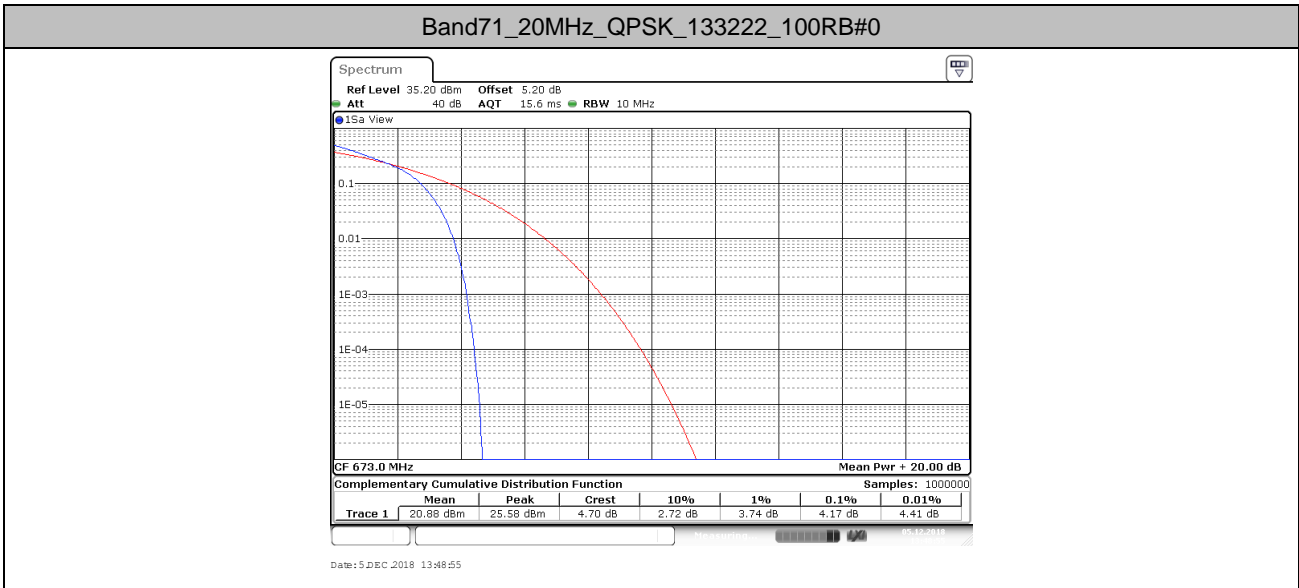
b: SGP=Signal Generator Level

2. Peak-to-Average Ratio(CCDF)

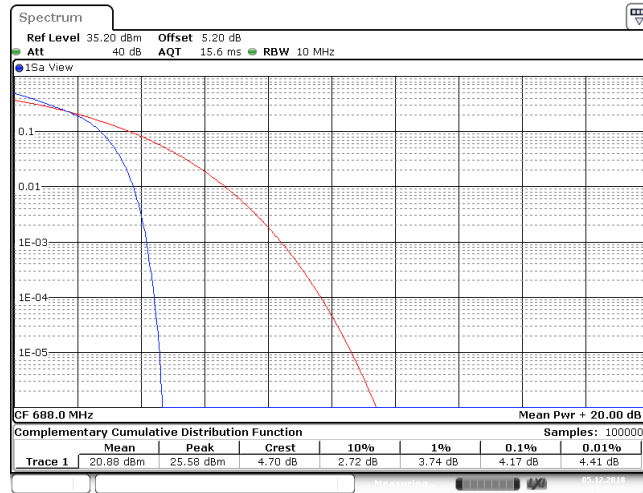
2.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band71	20MHz	QPSK	133222	100RB#0	4.17	13	PASS
Band71	20MHz	QPSK	133297	100RB#0	4.17	13	PASS
Band71	20MHz	QPSK	133372	100RB#0	4.17	13	PASS
Band71	20MHz	16QAM	133222	100RB#0	4.17	13	PASS
Band71	20MHz	16QAM	133297	100RB#0	4.17	13	PASS
Band71	20MHz	16QAM	133372	100RB#0	4.17	13	PASS

2.2. Test Plots

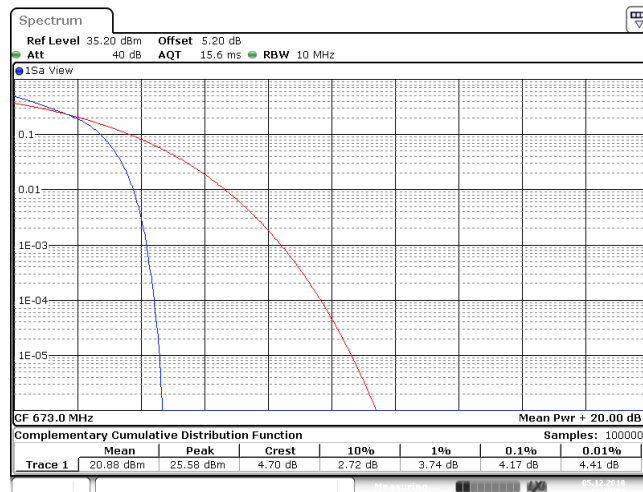


Band71_20MHz_QPSK_133372_100RB#0



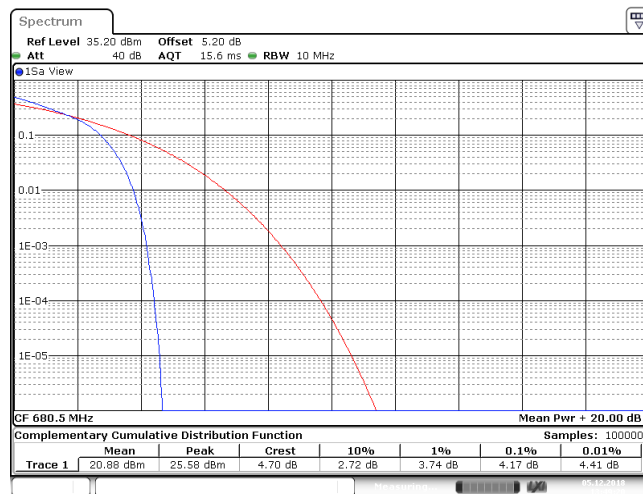
Date: 5 DEC 2018 13:49:30

Band71_20MHz_16QAM_133222_100RB#0



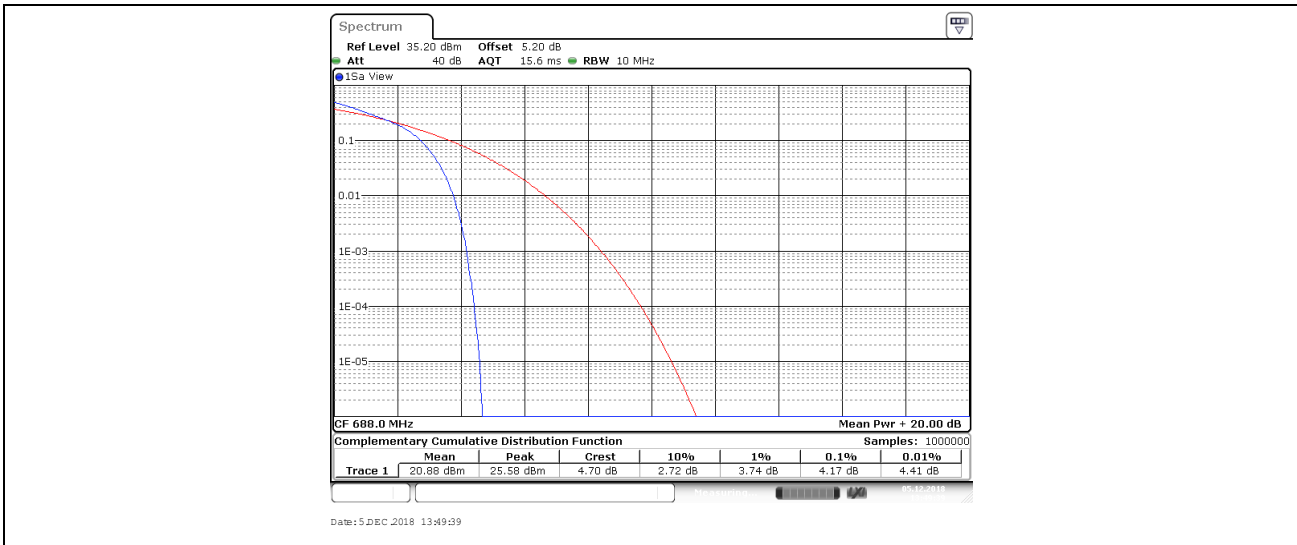
Date: 5 DEC 2018 13:49:03

Band71_20MHz_16QAM_133297_100RB#0



Date: 5 DEC 2018 13:49:21

Band71_20MHz_16QAM_133372_100RB#0

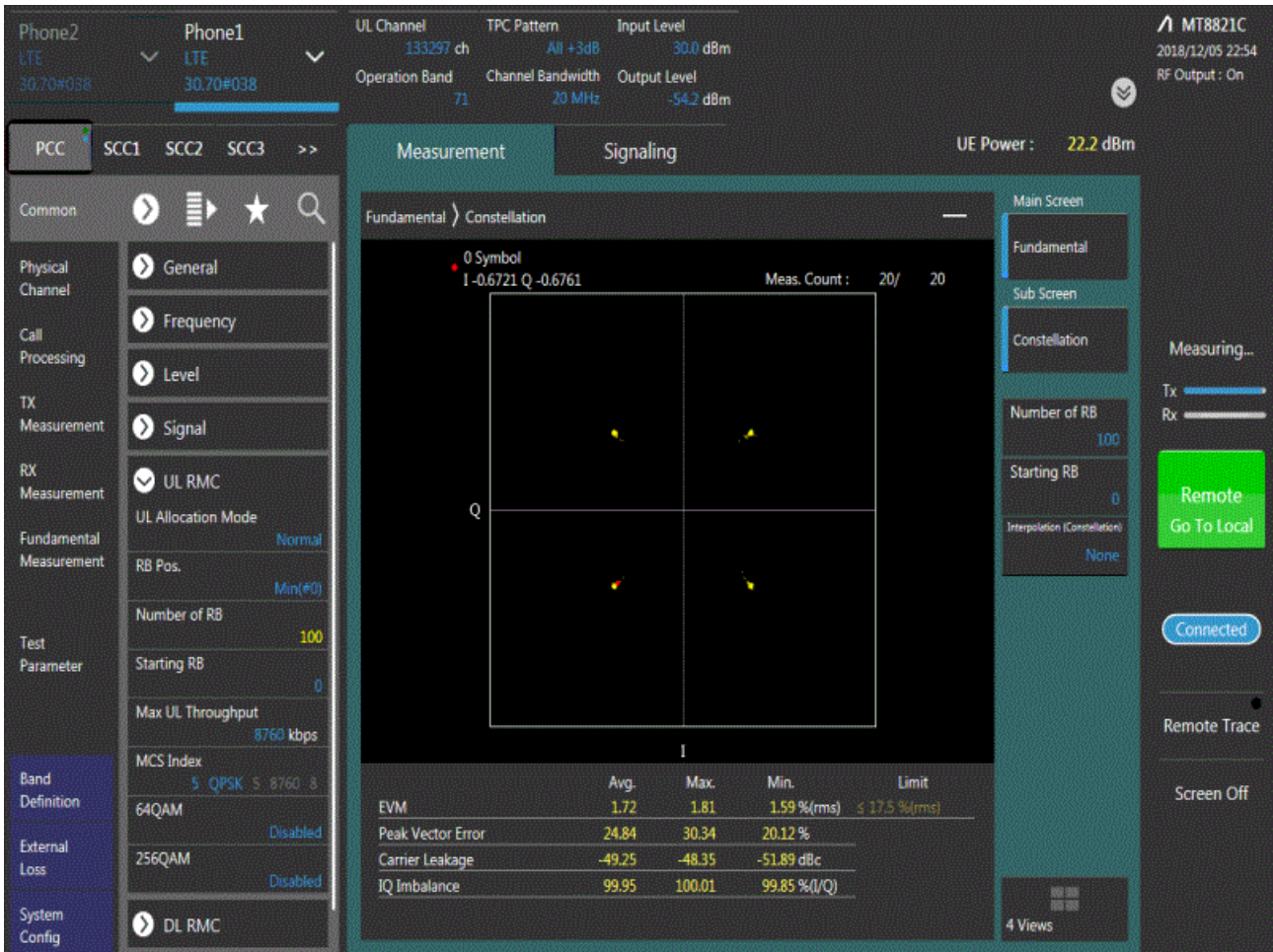


3. Modulation Characteristics

3.1. Test BAND = LTE BAND71

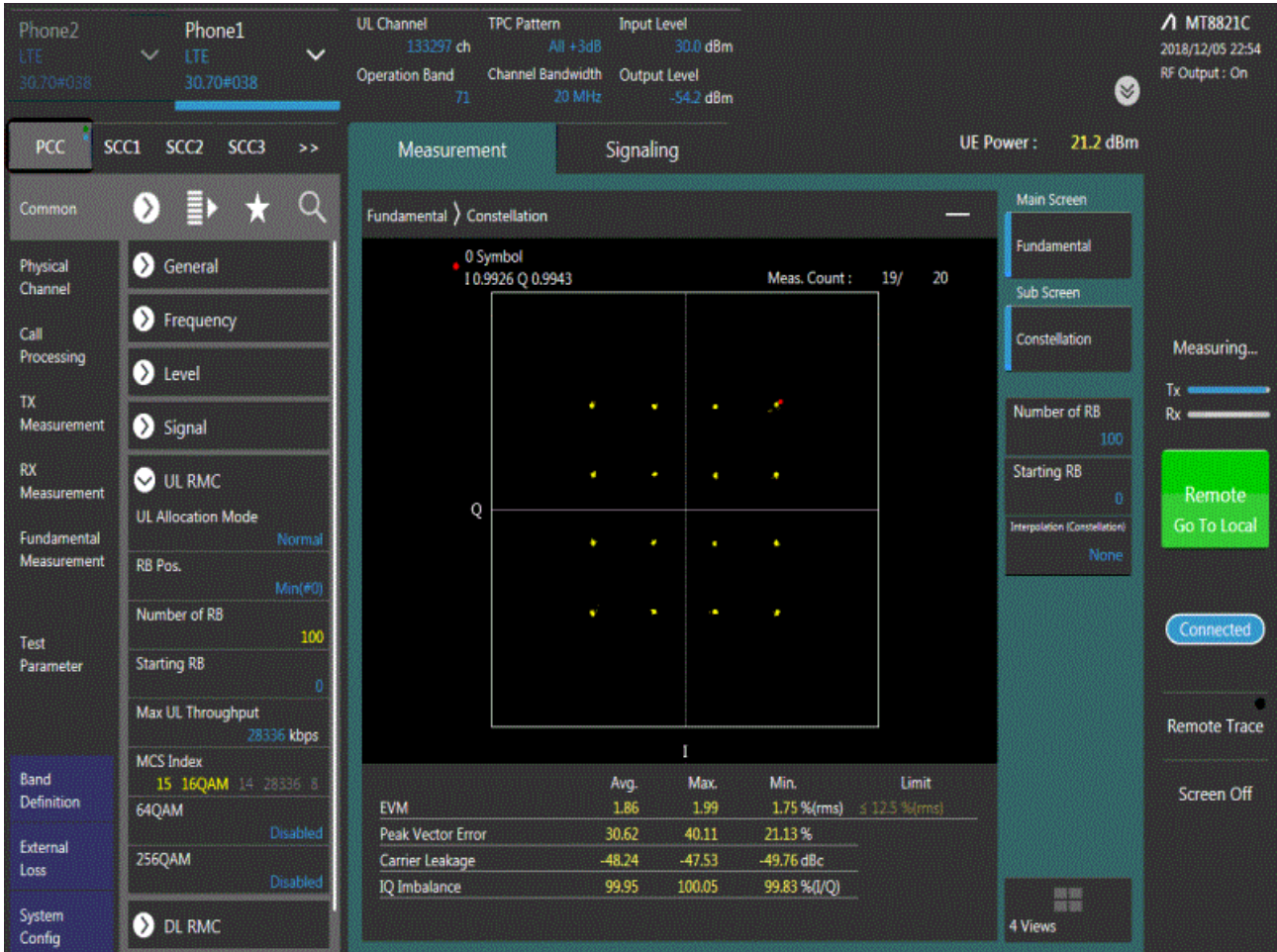
3.1.1. Test Mode = LTE /TM1 20MHZ

3.1.1.1. Test Channel = MCH



3.1.2. Test Mode = LTE /TM2 20MHz

3.1.2.1. Test Channel = MCH

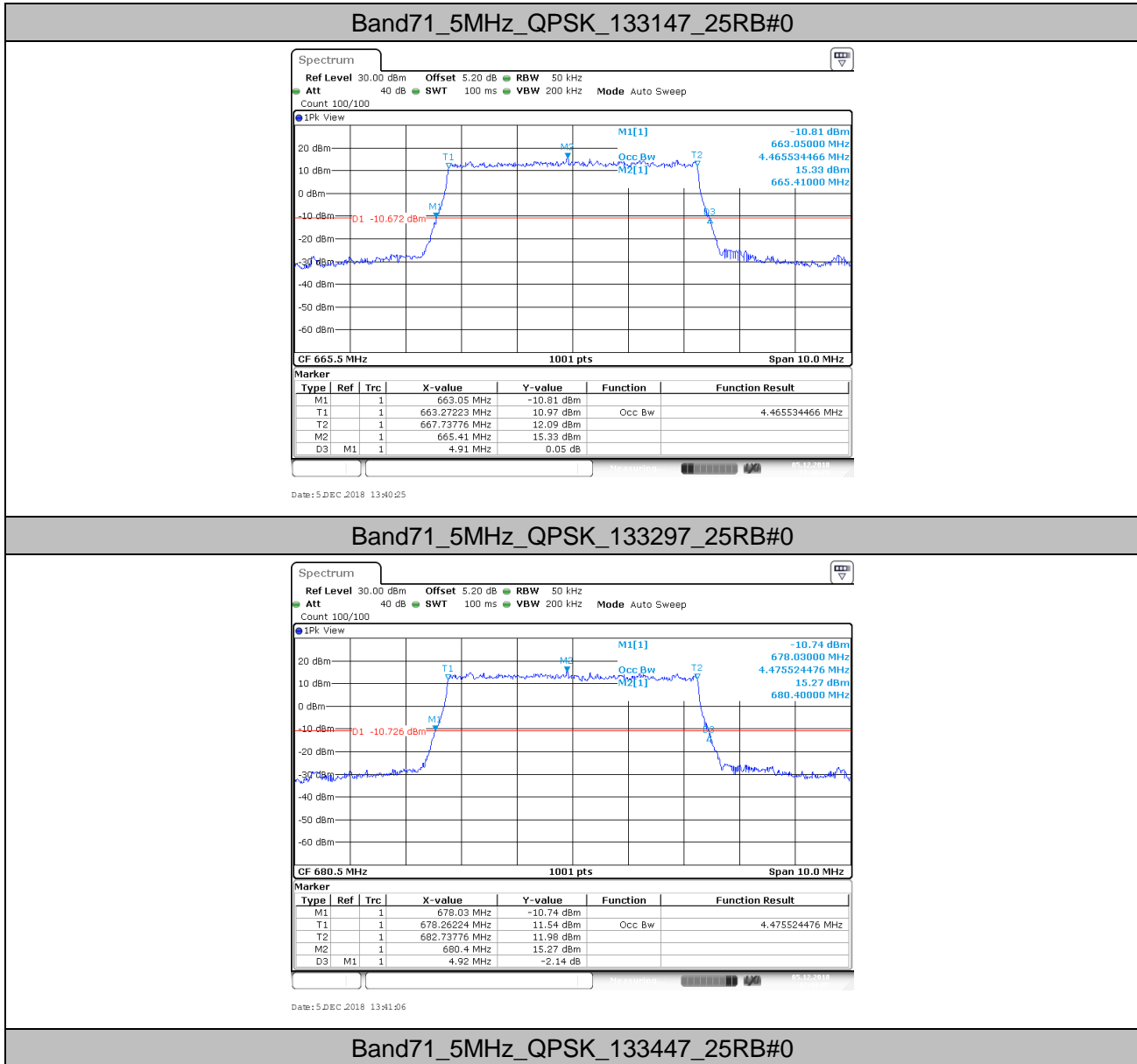


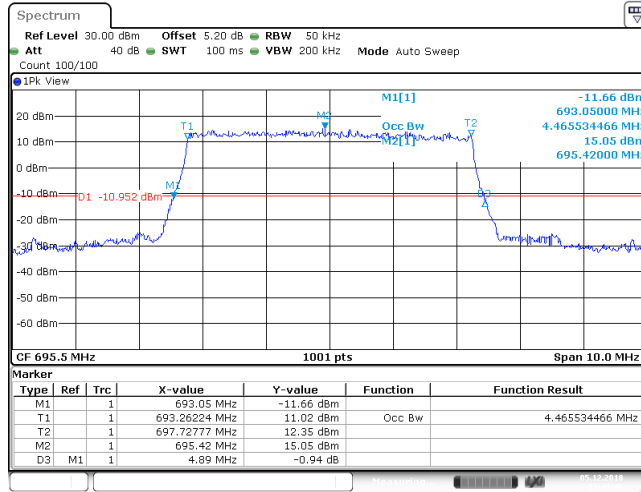
4. 26dB Bandwidth and Occupied Bandwidth

4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band71	5MHz	QPSK	133147	25RB#0	4.466	4.910	PASS
Band71	5MHz	QPSK	133297	25RB#0	4.476	4.920	PASS
Band71	5MHz	QPSK	133447	25RB#0	4.466	4.890	PASS
Band71	5MHz	16QAM	133147	25RB#0	4.486	4.930	PASS
Band71	5MHz	16QAM	133297	25RB#0	4.476	4.940	PASS
Band71	5MHz	16QAM	133447	25RB#0	4.486	4.920	PASS
Band71	10MHz	QPSK	133172	50RB#0	8.911	9.680	PASS
Band71	10MHz	QPSK	133297	50RB#0	8.911	9.660	PASS
Band71	10MHz	QPSK	133422	50RB#0	8.891	9.660	PASS
Band71	10MHz	16QAM	133172	50RB#0	8.911	9.740	PASS
Band71	10MHz	16QAM	133297	50RB#0	8.891	9.660	PASS
Band71	10MHz	16QAM	133422	50RB#0	8.911	9.660	PASS
Band71	15MHz	QPSK	133197	75RB#0	13.457	14.790	PASS
Band71	15MHz	QPSK	133297	75RB#0	13.367	14.700	PASS
Band71	15MHz	QPSK	133397	75RB#0	13.427	14.670	PASS
Band71	15MHz	16QAM	133197	75RB#0	13.427	14.790	PASS
Band71	15MHz	16QAM	133297	75RB#0	13.367	14.670	PASS
Band71	15MHz	16QAM	133397	75RB#0	13.427	14.700	PASS
Band71	20MHz	QPSK	133222	100RB#0	17.822	19.280	PASS
Band71	20MHz	QPSK	133297	100RB#0	17.782	19.160	PASS
Band71	20MHz	QPSK	133372	100RB#0	17.862	19.400	PASS
Band71	20MHz	16QAM	133222	100RB#0	17.862	19.280	PASS
Band71	20MHz	16QAM	133297	100RB#0	17.742	19.280	PASS
Band71	20MHz	16QAM	133372	100RB#0	17.862	19.280	PASS

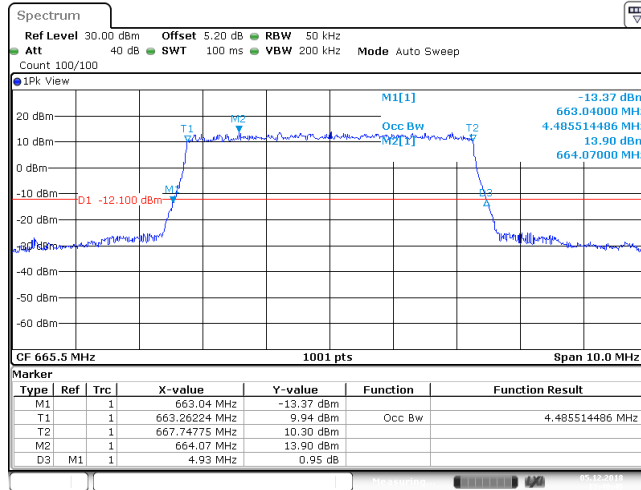
4.2. Test Plots





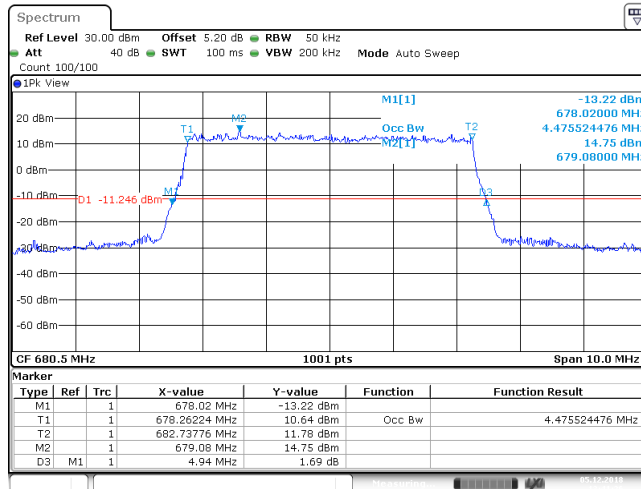
Date: 5 DEC 2018 13:41:46

Band71_5MHz_16QAM_133147_25RB#0



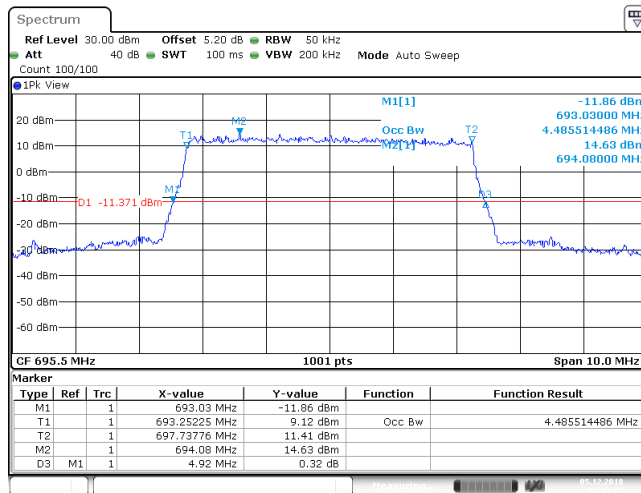
Date: 5 DEC 2018 13:40:45

Band71_5MHz_16QAM_133297_25RB#0



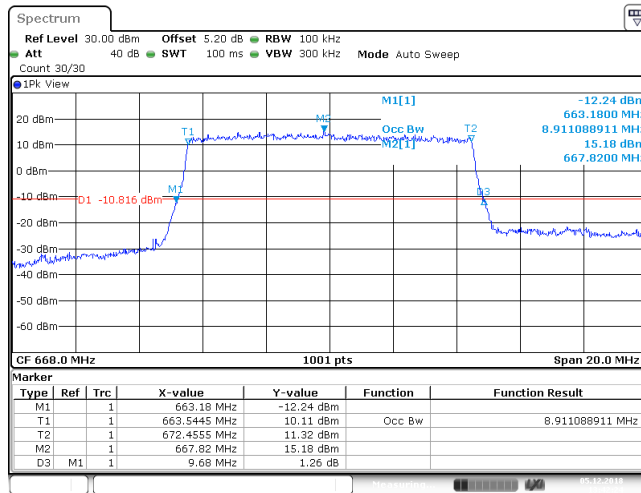
Date: 5 DEC 2018 13:41:26

Band71_5MHz_16QAM_133447_25RB#0



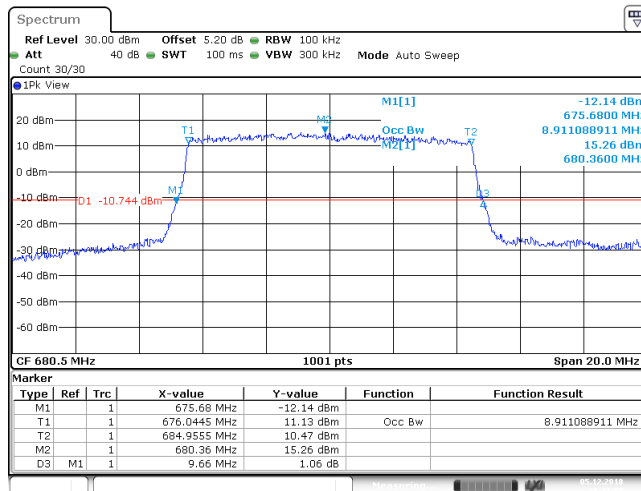
Date: 5 DEC 2018 13:42:06

Band71_10MHz_QPSK_133172_50RB#0



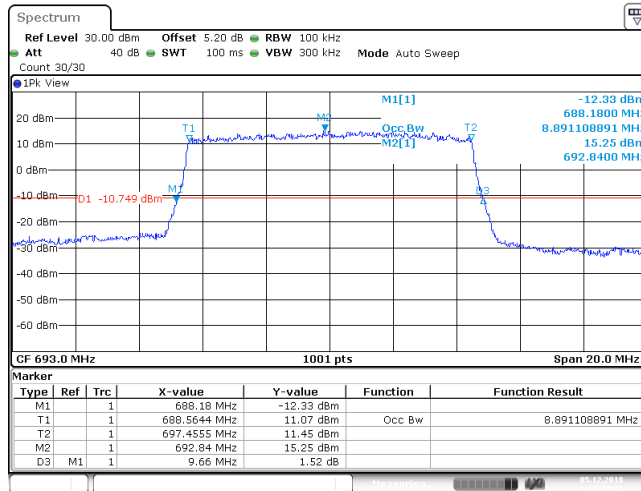
Date: 5 DEC 2018 13:42:04

Band71_10MHz_QPSK_133297_50RB#0



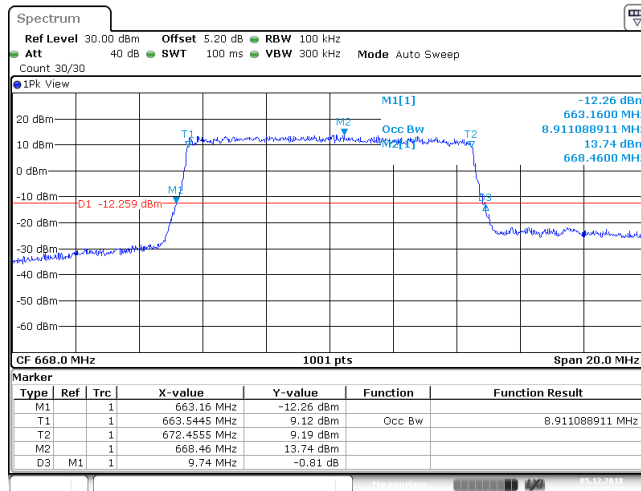
Date: 5 DEC 2018 13:42:50

Band71_10MHz_QPSK_133422_50RB#0



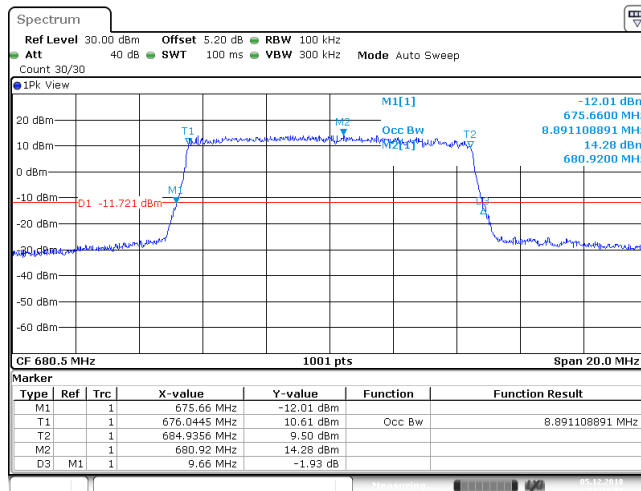
Date: 5 DEC 2018 13:43:16

Band71_10MHz_16QAM_133172_50RB#0



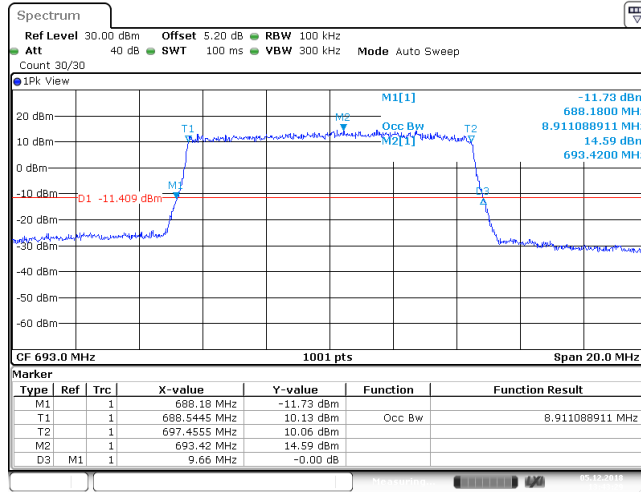
Date: 5 DEC 2018 13:42:37

Band71_10MHz_16QAM_133297_50RB#0



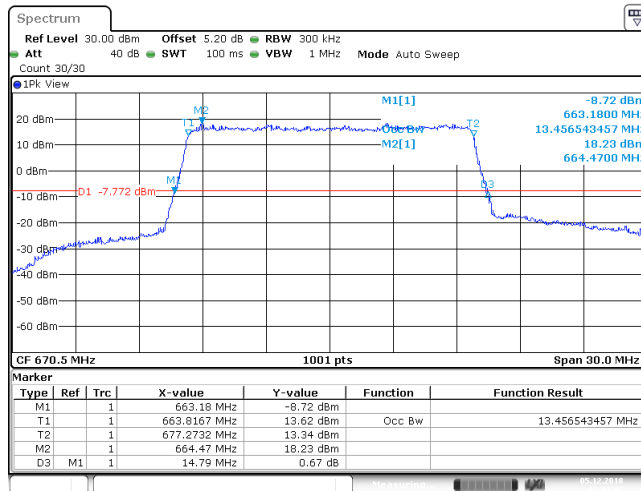
Date: 5 DEC 2018 13:43:03

Band71_10MHz_16QAM_133422_50RB#0



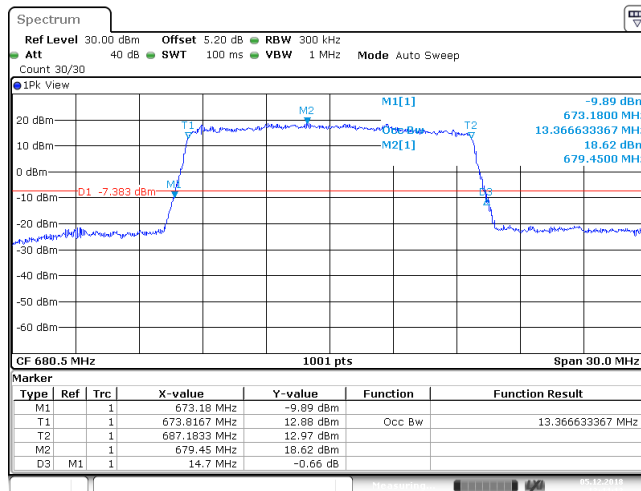
Date: 5 DEC 2018 13:43:29

Band71_15MHz_QPSK_133197_75RB#0



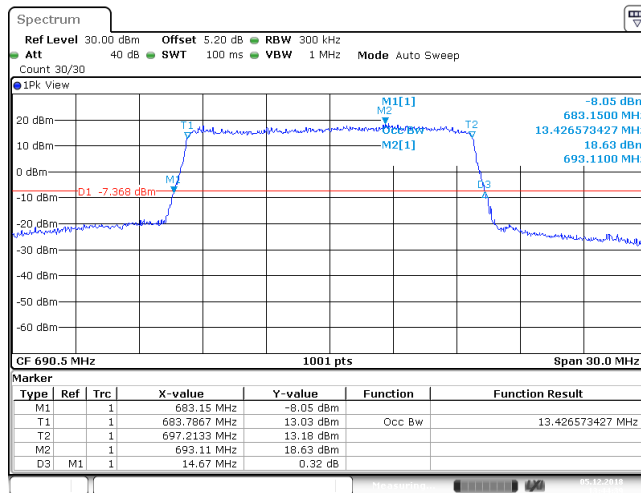
Date: 5 DEC 2018 13:43:47

Band71_15MHz_QPSK_133297_75RB#0



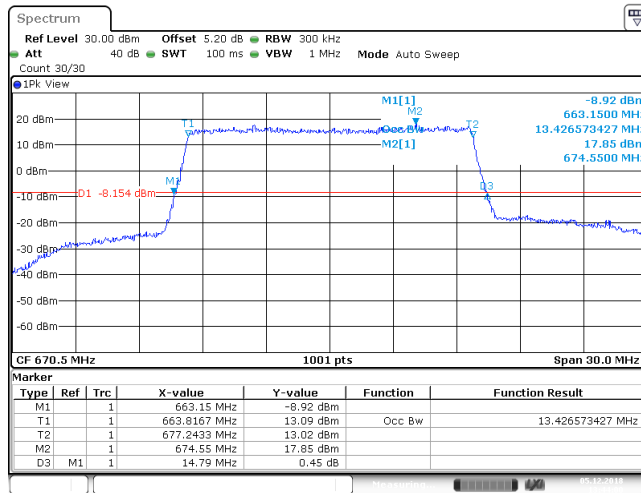
Date: 5 DEC 2018 13:44:14

Band71_15MHz_QPSK_133397_75RB#0



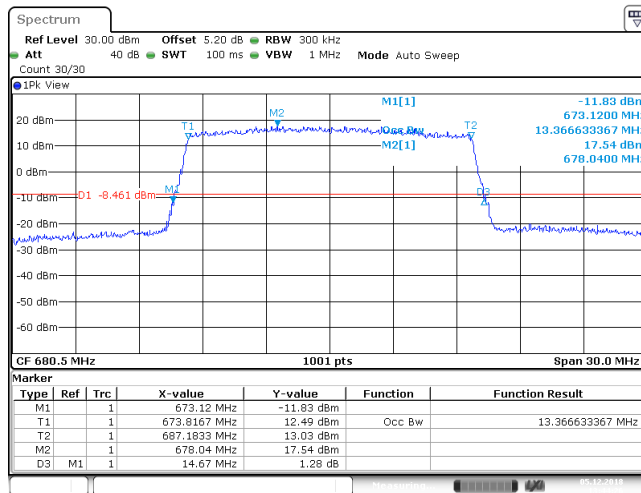
Date: 5 DEC 2018 13:44:40

Band71_15MHz_16QAM_133197_75RB#0



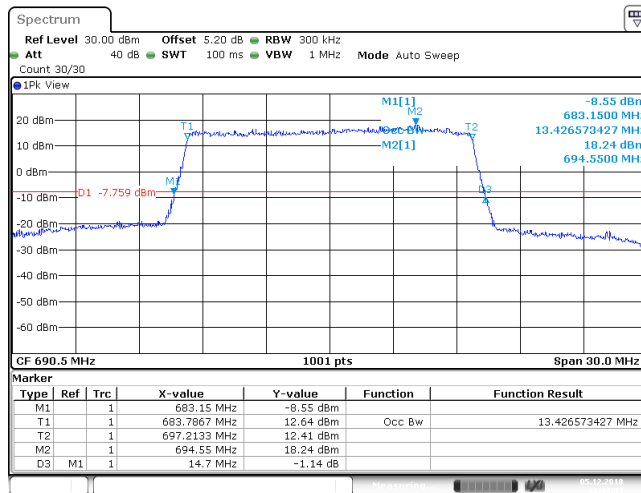
Date: 5 DEC 2018 13:44:40

Band71_15MHz_16QAM_133297_75RB#0



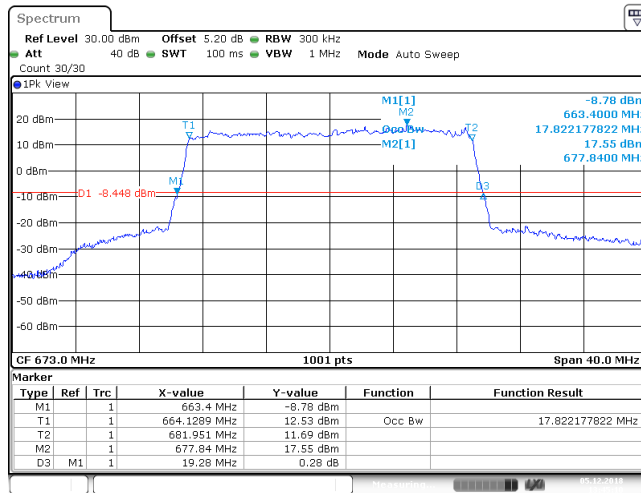
Date: 5 DEC 2018 13:44:26

Band71_15MHz_16QAM_133397_75RB#0



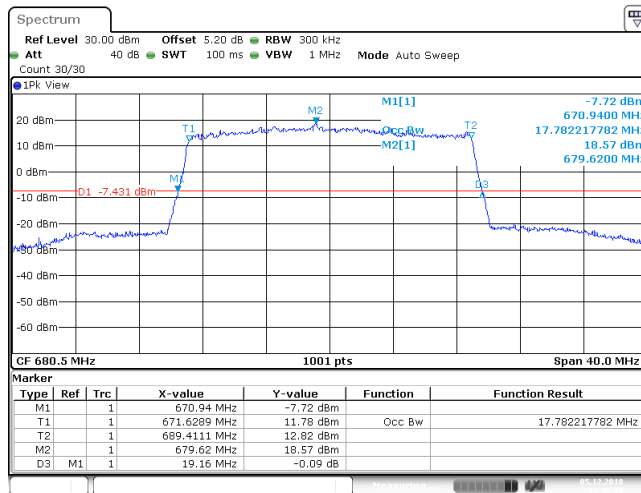
Date: 5 DEC 2018 13:44:53

Band71_20MHz_QPSK_133222_100RB#0



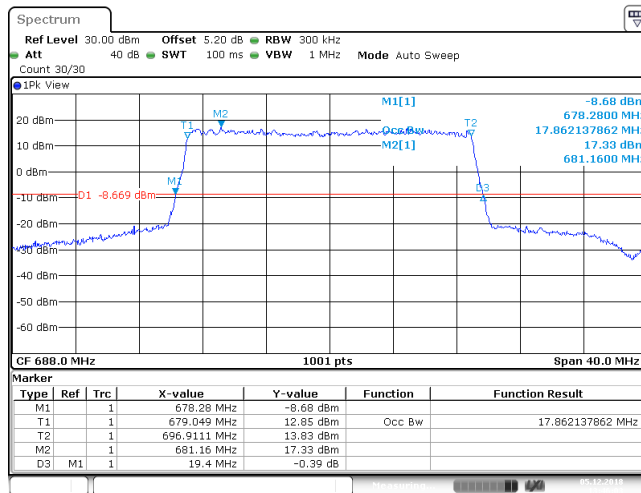
Date: 5 DEC 2018 13:45:11

Band71_20MHz_QPSK_133297_100RB#0



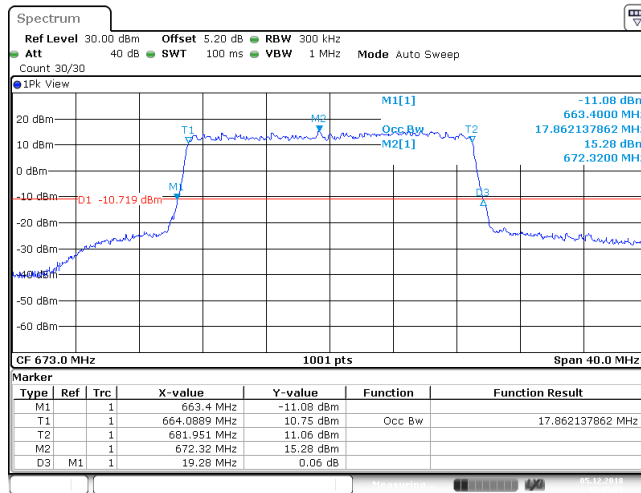
Date: 5 DEC 2018 13:45:37

Band71_20MHz_QPSK_133372_100RB#0



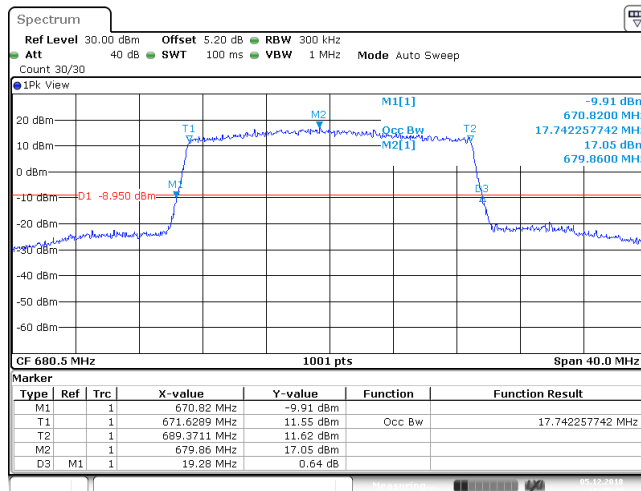
Date: 5 DEC 2018 13:46:03

Band71_20MHz_16QAM_133222_100RB#



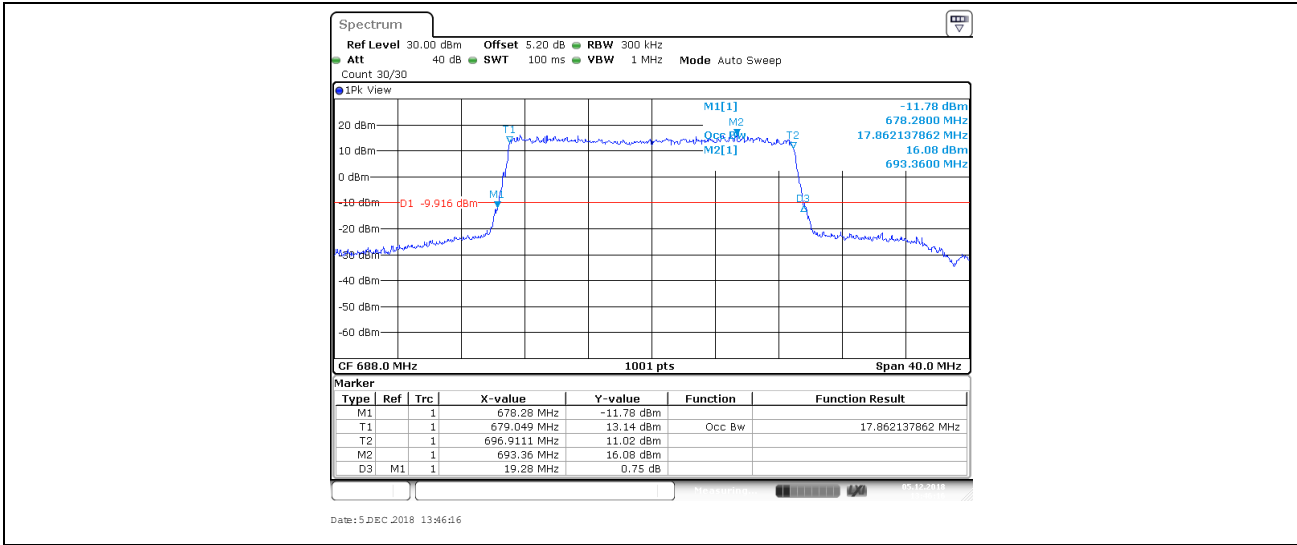
Date: 5 DEC 2018 13:45:03

Band71_20MHz_16QAM_133297_100RB#



Date: 5 DEC 2018 13:45:50

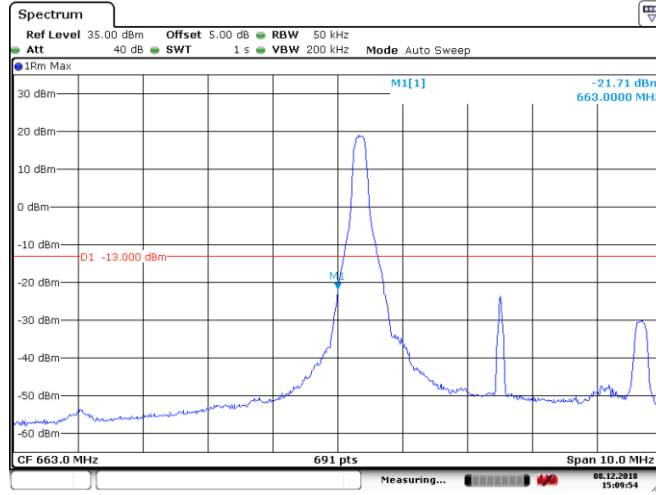
Band71_20MHz_16QAM_133372_100RB#



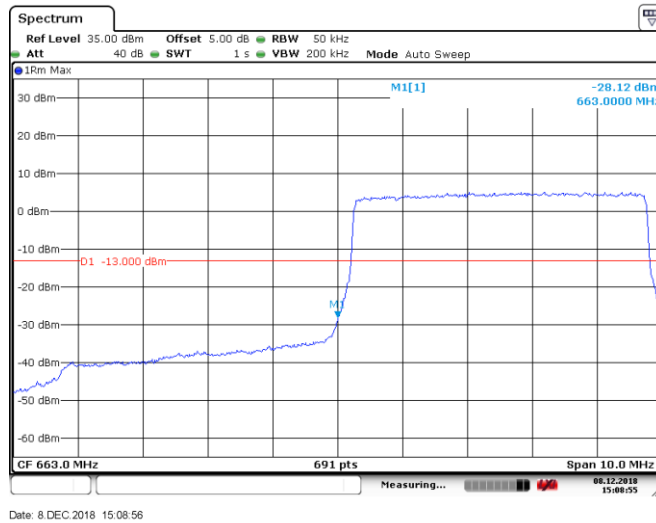
5. Band Edge Compliance

5.1. Test Plots

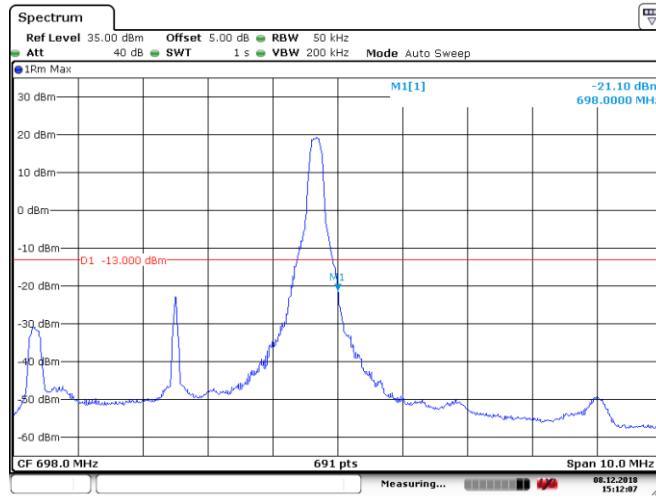
Band71_5MHz_QPSK_133147_1RB#0



Band71_5MHz_QPSK_133147_25RB#0

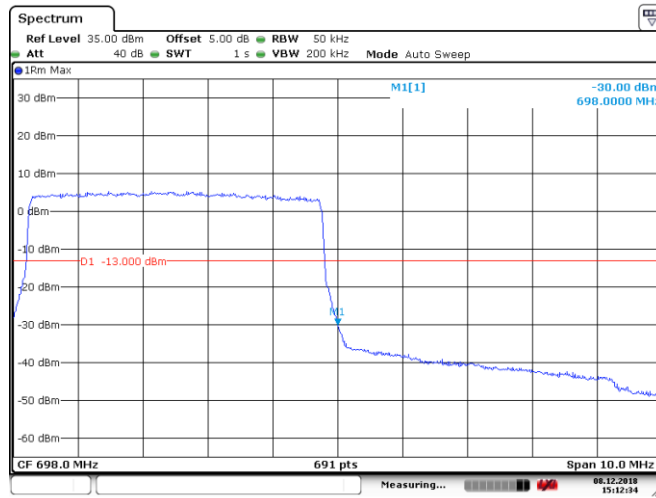


Band71_5MHz_QPSK_133447_1RB#24



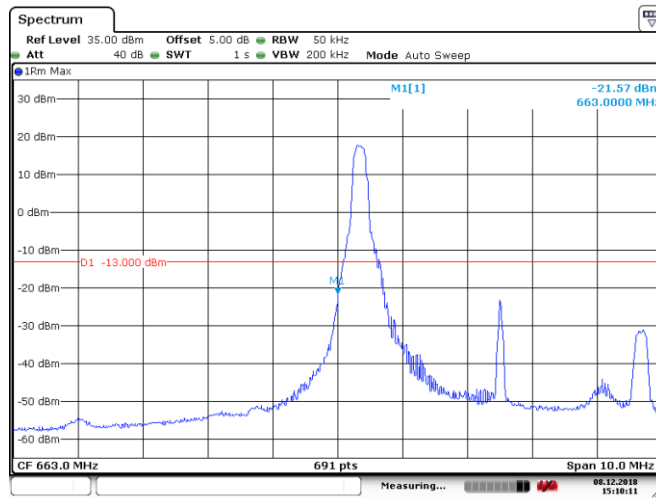
Date: 8 DEC 2018 15:12:07

Band71_5MHz_QPSK_133447_25RB#0



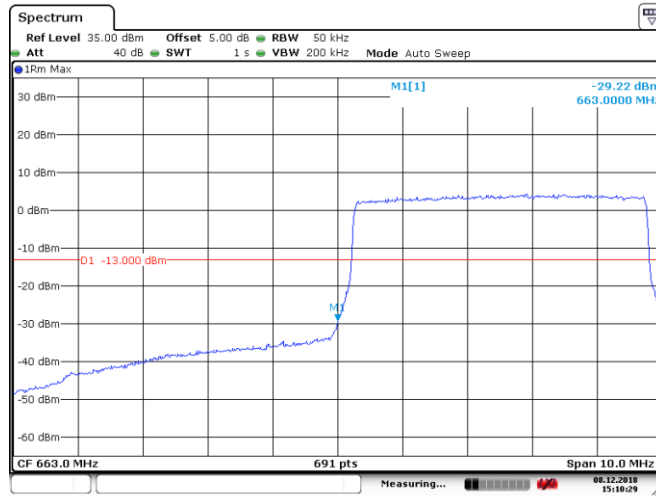
Date: 8 DEC 2018 15:12:34

Band71_5MHz_16QAM_133147_1RB#0



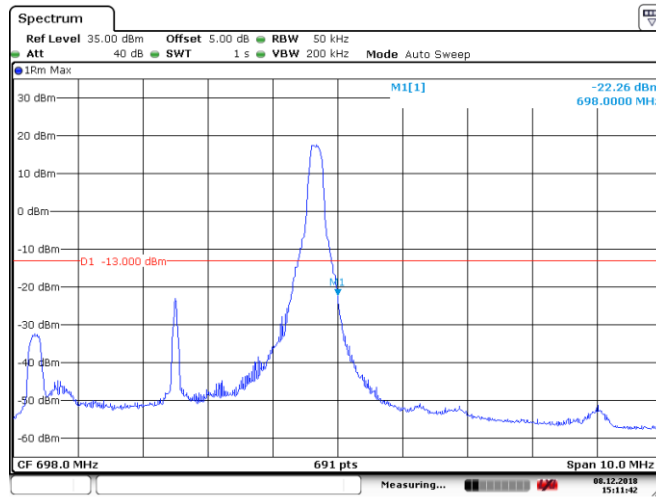
Date: 8 DEC 2018 15:10:11

Band71_5MHz_16QAM_133147_25RB#0



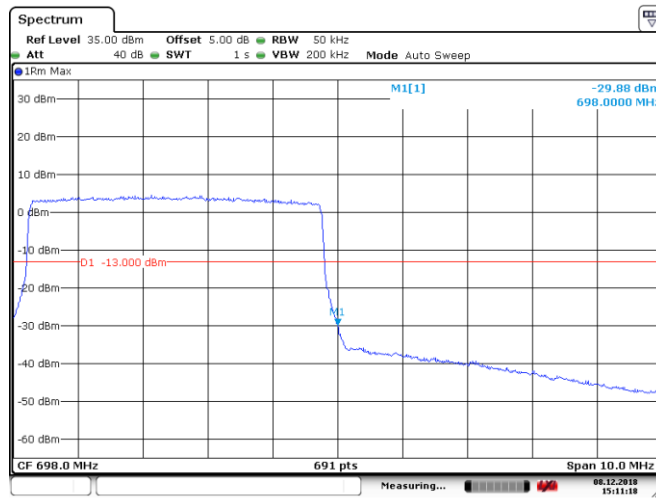
Date: 8 DEC 2018 15:10:30

Band71_5MHz_16QAM_133447_1RB#24



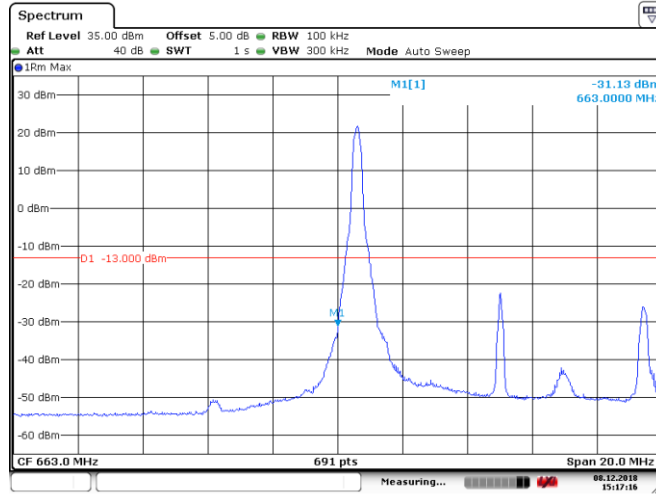
Date: 8 DEC 2018 15:11:43

Band71_5MHz_16QAM_133447_25RB#0



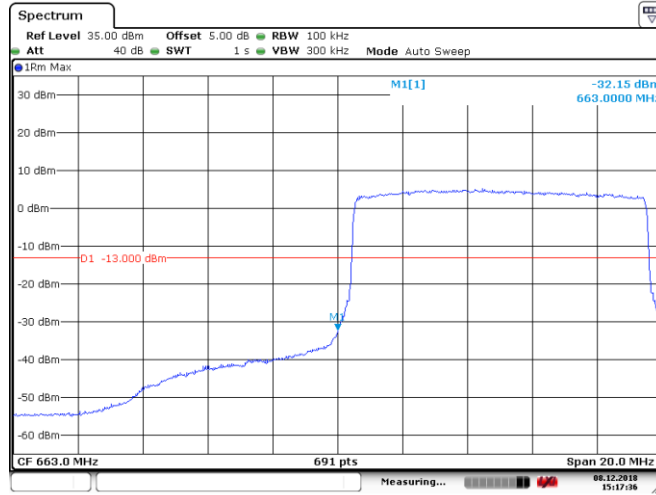
Date: 8 DEC 2018 15:11:18

Band71_10MHz_QPSK_133172_1RB#0



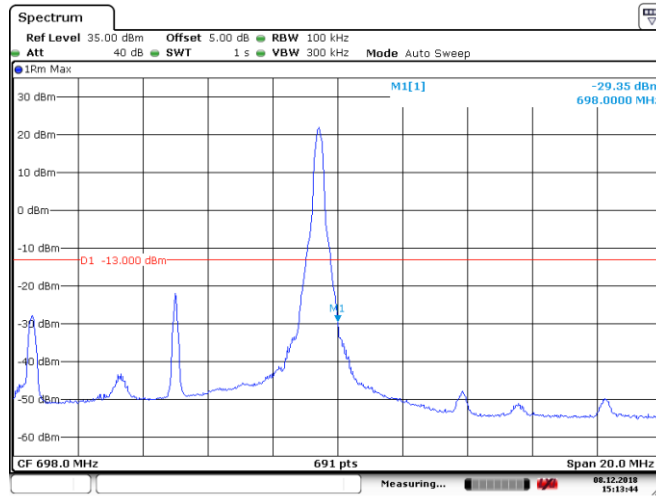
Date: 8 DEC 2018 15:17:17

Band71_10MHz_QPSK_133172_50RB#0



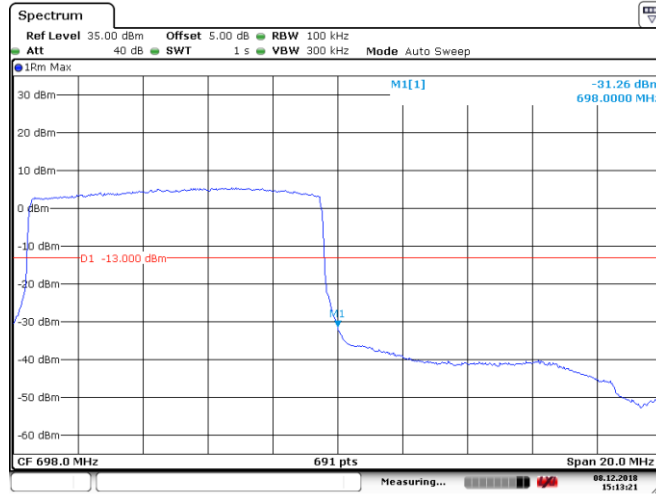
Date: 8 DEC 2018 15:17:37

Band71_10MHz_QPSK_133422_1RB#49



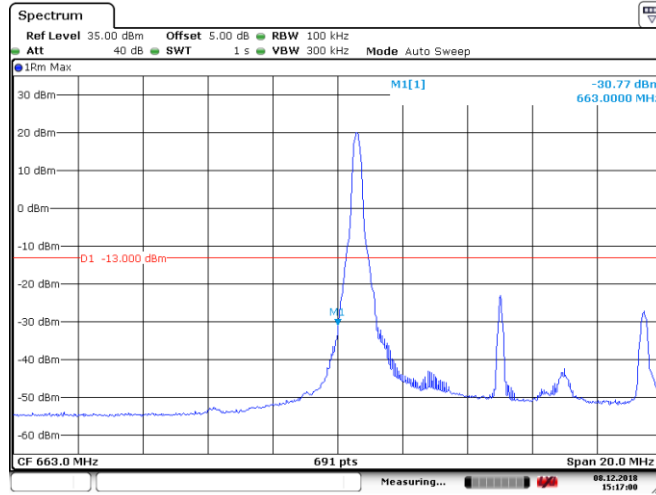
Date: 8 DEC 2018 15:13:45

Band71_10MHz_QPSK_133422_50RB#0



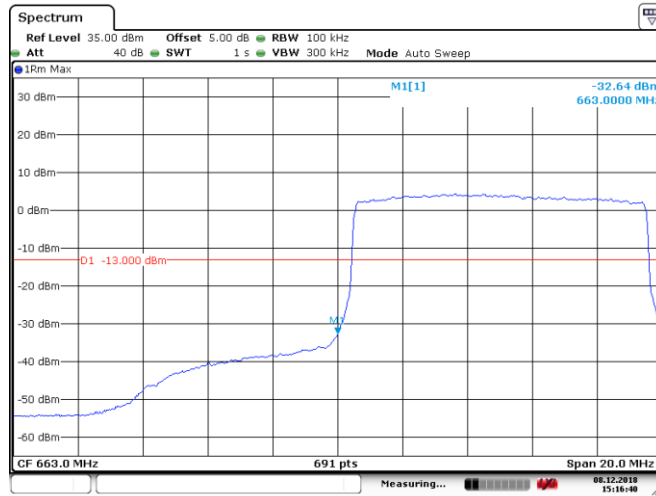
Date: 8 DEC 2018 15:13:21

Band71_10MHz_16QAM_133172_1RB#0



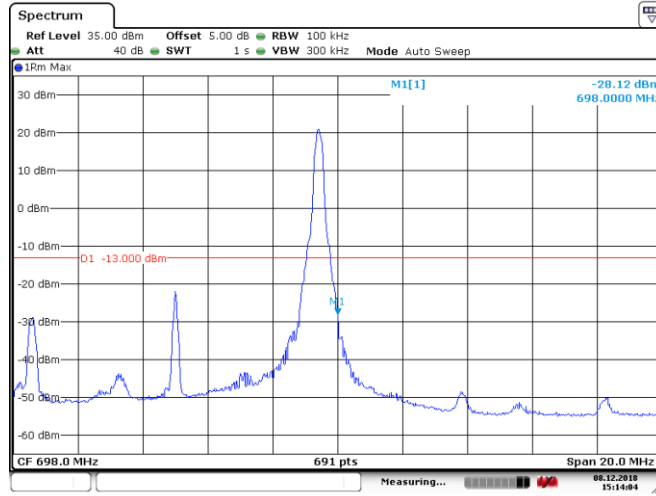
Date: 8 DEC 2018 15:17:00

Band71_10MHz_16QAM_133172_50RB#0



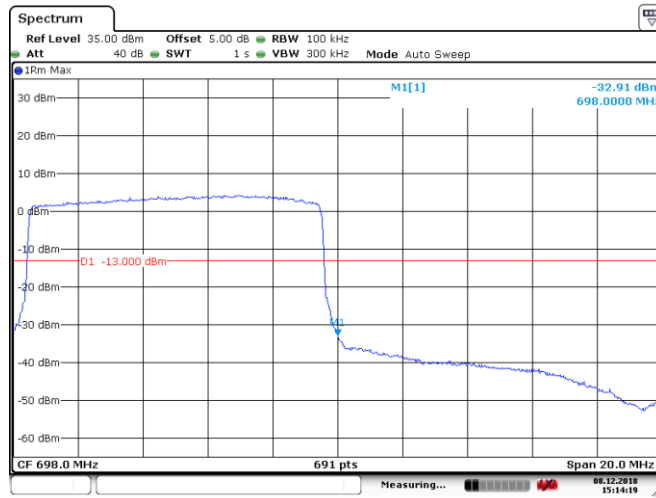
Date: 8 DEC 2018 15:16:41

Band71_10MHz_16QAM_133422_1RB#49



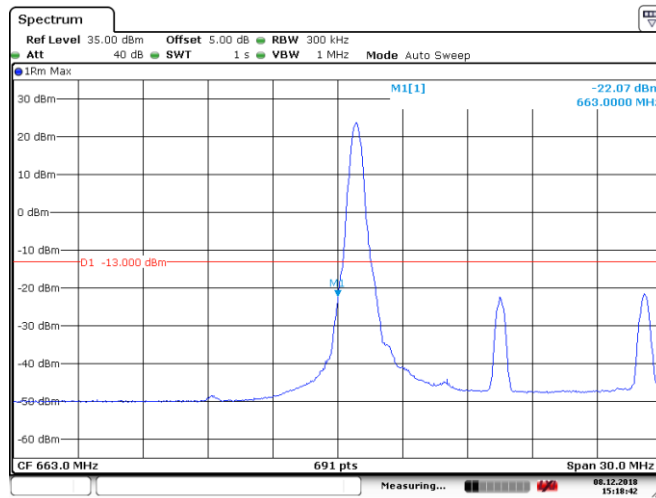
Date: 8 DEC 2018 15:14:04

Band71_10MHz_16QAM_133422_50RB#0



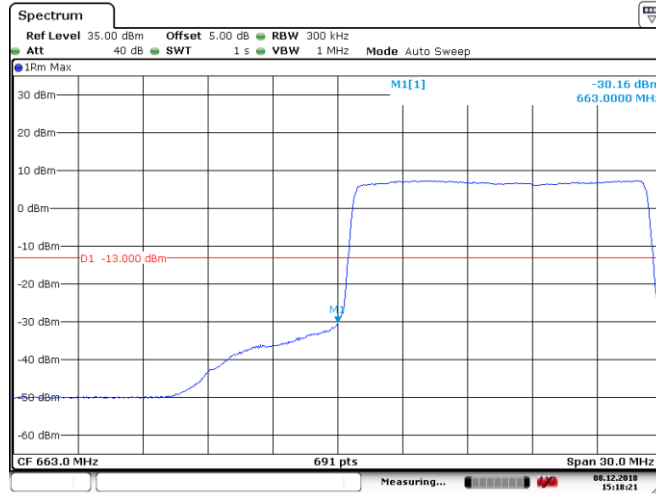
Date: 8 DEC 2018 15:14:20

Band71_15MHz_QPSK_133197_1RB#0



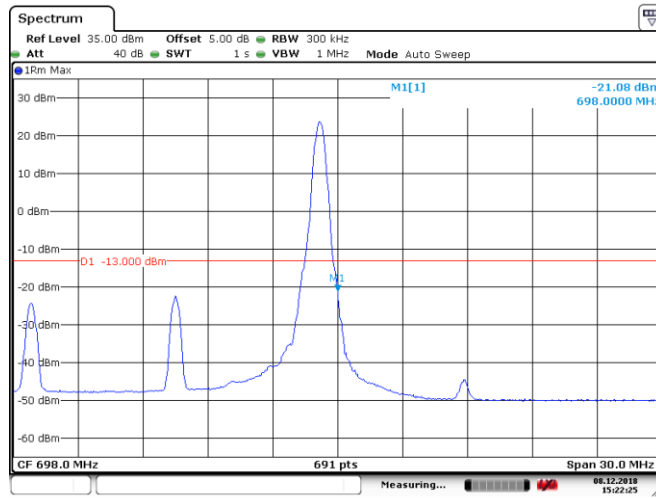
Date: 8 DEC 2018 15:18:42

Band71_15MHz_QPSK_133197_75RB#0



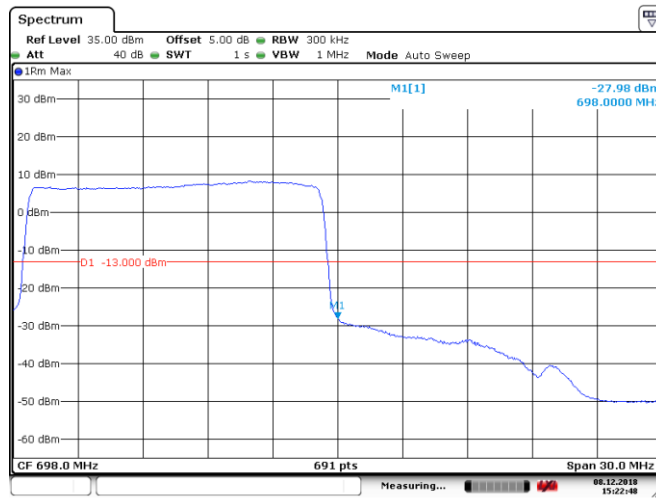
Date: 8 DEC 2018 15:18:21

Band71_15MHz_QPSK_133397_1RB#74



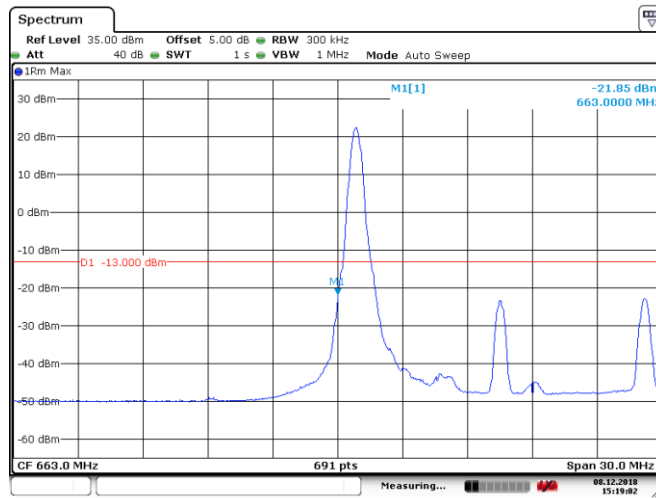
Date: 8 DEC 2018 15:22:26

Band71_15MHz_QPSK_133397_75RB#0



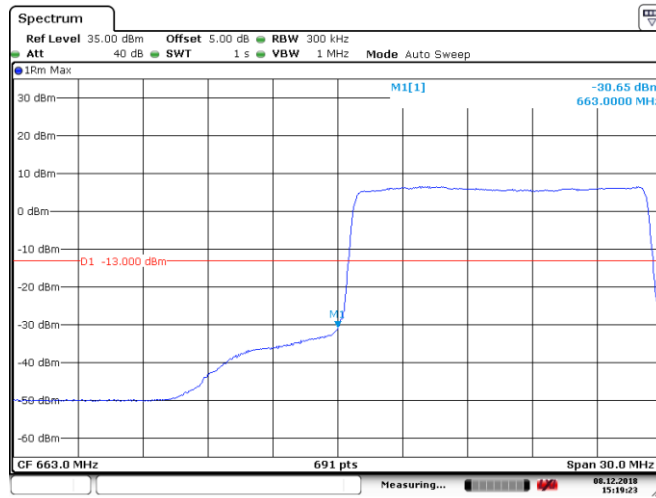
Date: 8 DEC 2018 15:22:48

Band71_15MHz_16QAM_133197_1RB#0



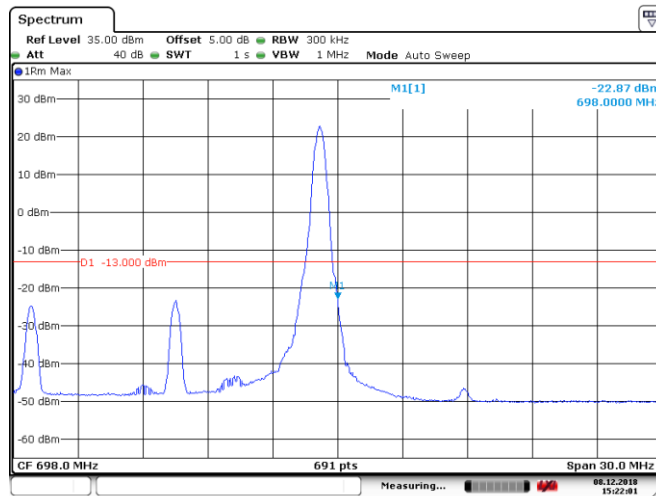
Date: 8 DEC 2018 15:19:02

Band71_15MHz_16QAM_133197_75RB#0



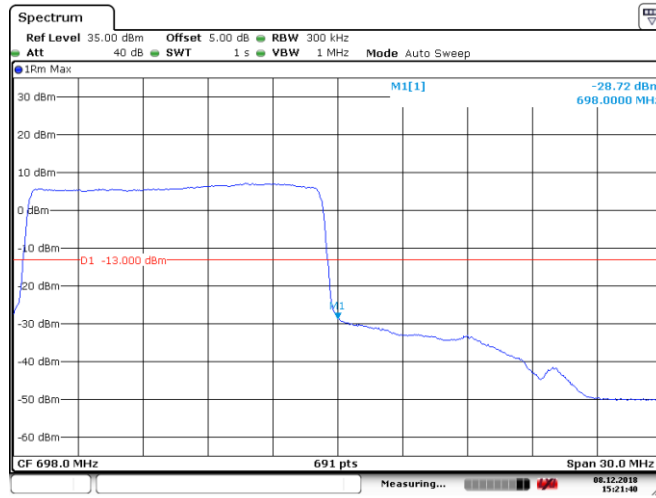
Date: 8 DEC 2018 15:19:23

Band71_15MHz_16QAM_133397_1RB#74



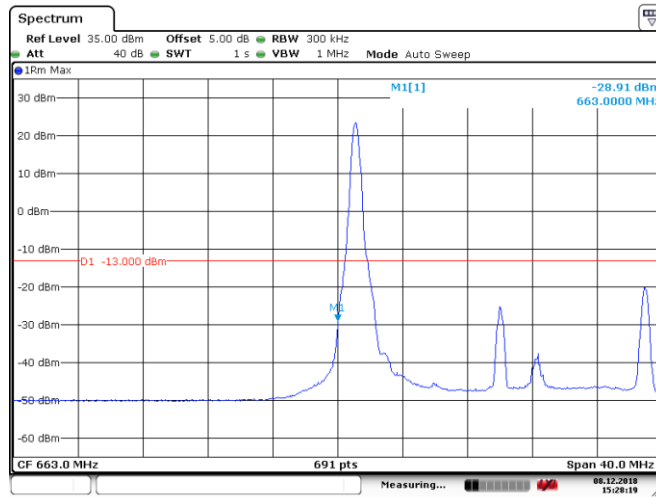
Date: 8 DEC 2018 15:22:01

Band71_15MHz_16QAM_133397_75RB#0



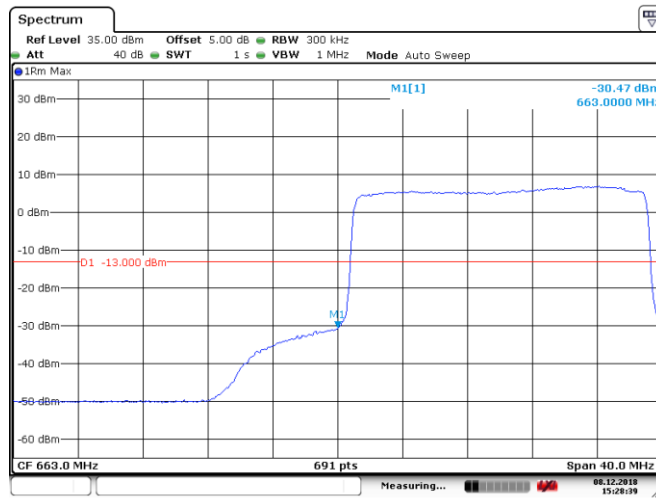
Date: 8 DEC 2018 15:21:40

Band71_20MHz_QPSK_133222_1RB#0



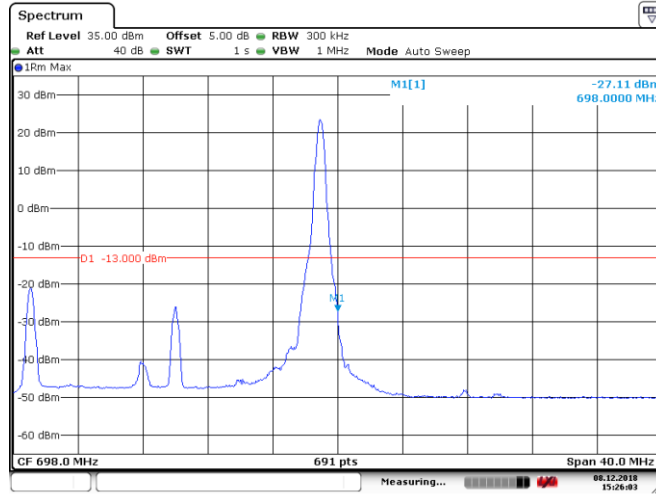
Date: 8 DEC 2018 15:28:20

Band71_20MHz_QPSK_133222_100RB#0



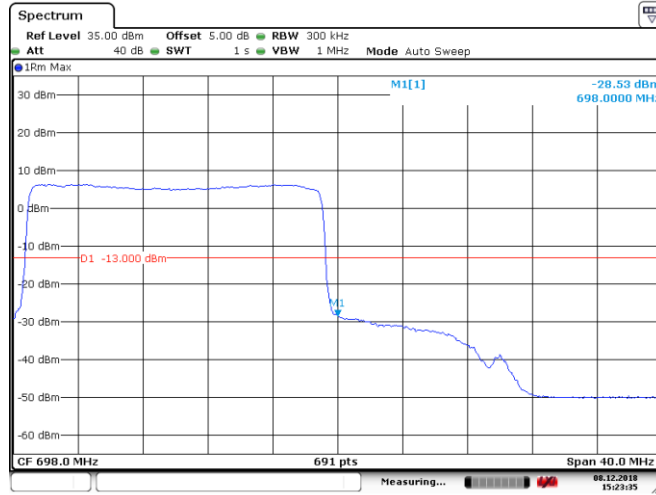
Date: 8 DEC 2018 15:28:40

Band71_20MHz_QPSK_133372_1RB#99



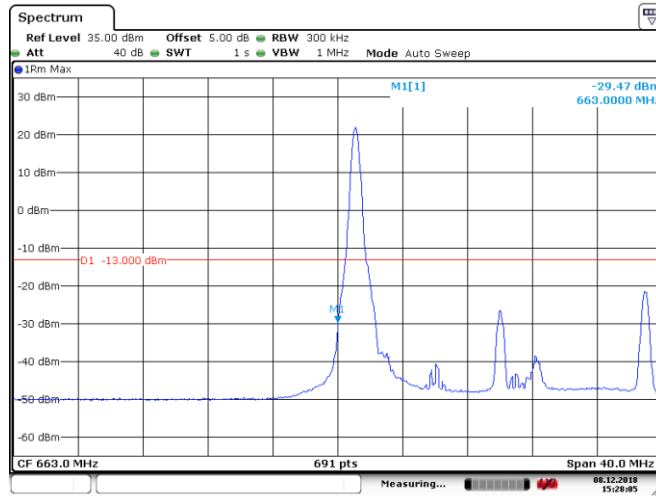
Date: 8 DEC 2018 15:26:04

Band71_20MHz_QPSK_133372_100RB#0



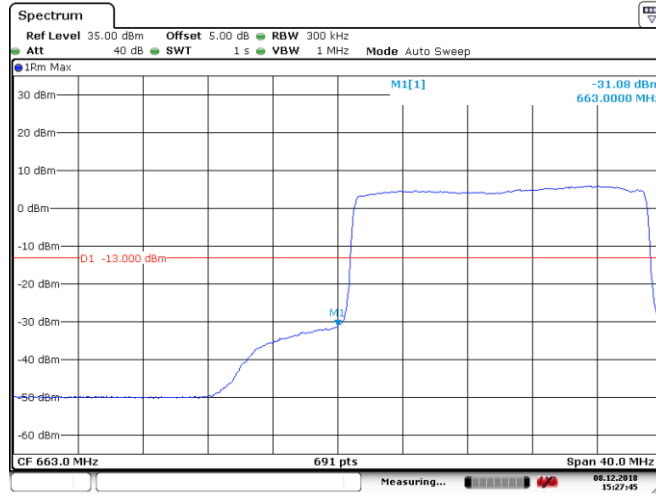
Date: 8 DEC 2018 15:23:36

Band71_20MHz_16QAM_133222_1RB#0



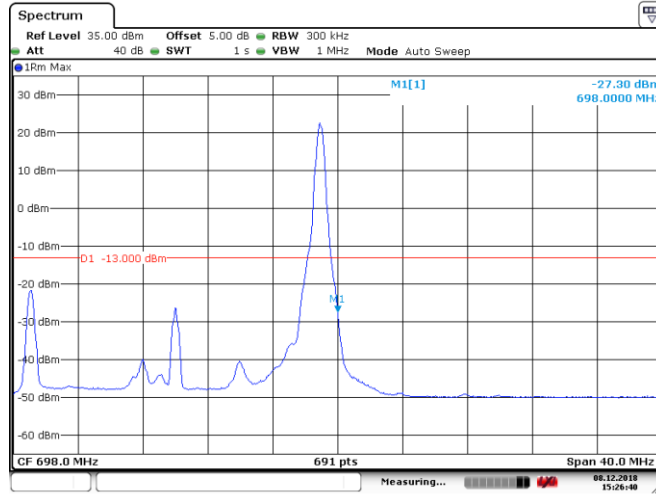
Date: 8 DEC 2018 15:28:05

Band71_20MHz_16QAM_133222_100RB#0



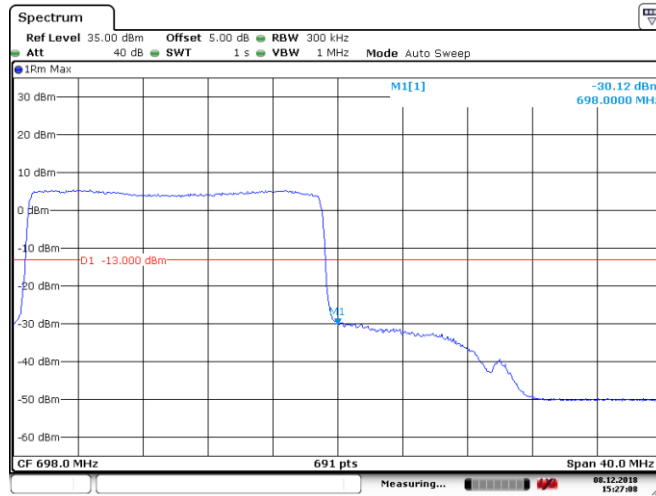
Date: 8 DEC 2018 15:27:45

Band71_20MHz_QPSK_133372_1RB#99



Date: 8 DEC 2018 15:26:40

Band71_20MHz_QPSK_133372_100RB#0



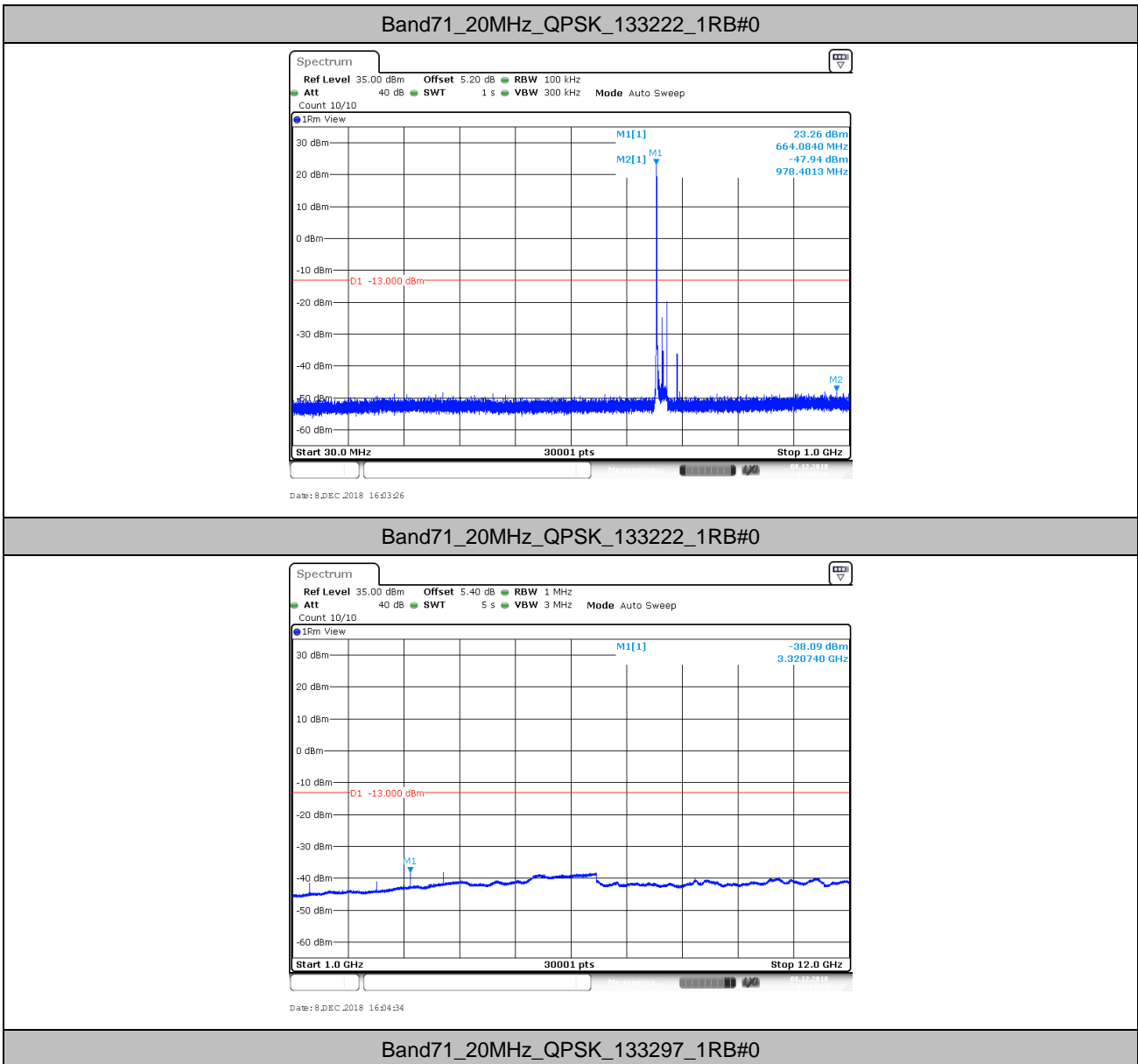
Date: 8 DEC 2018 15:27:09

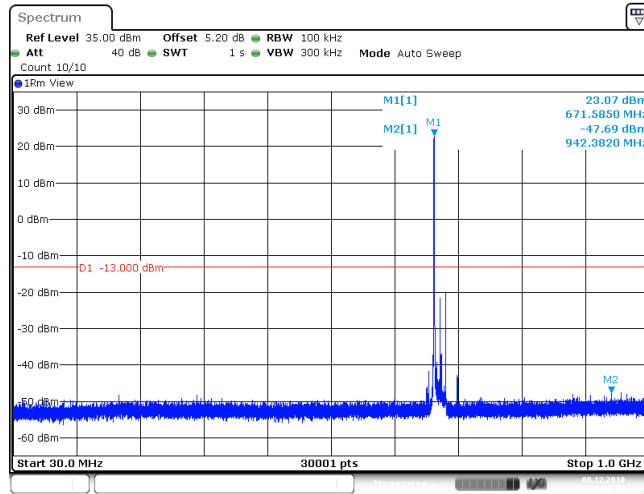
6. Spurious Emission at Antenna Terminal

Remark1: 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.

Remark2: only the worst case data displayed in this report.

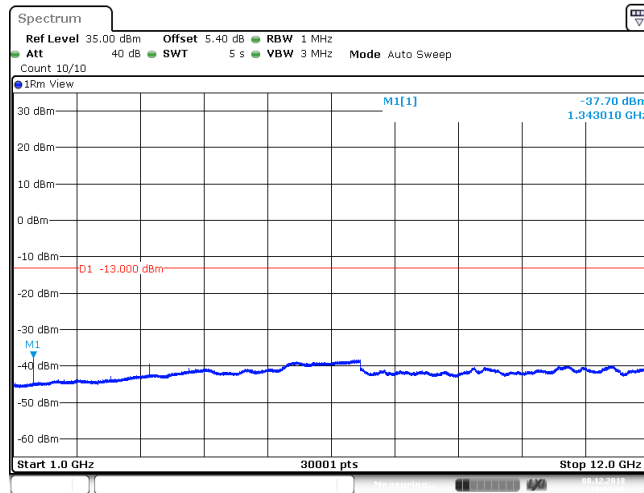
6.1. Test Plots





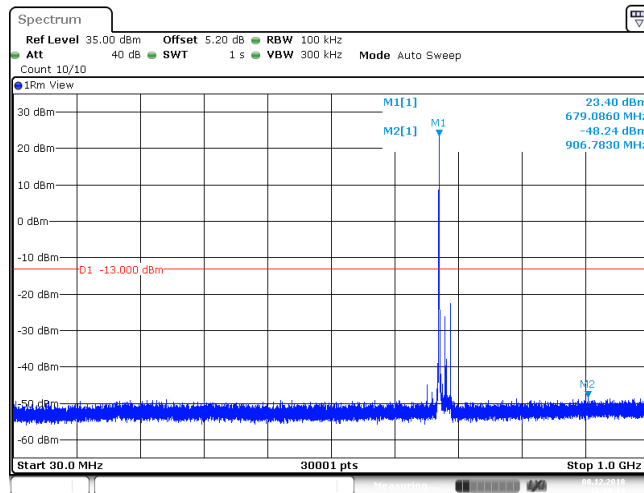
Date: 8 DEC 2018 16:06:21

Band71_20MHz_QPSK_133297_1RB#0



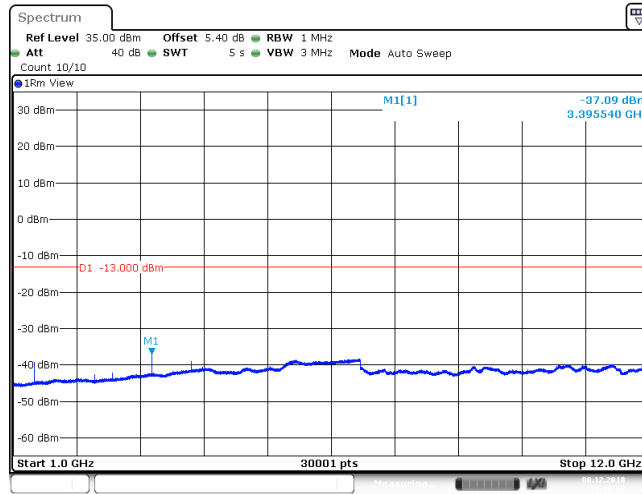
Date: 8 DEC 2018 16:07:28

Band71_20MHz_QPSK_133372_1RB#0



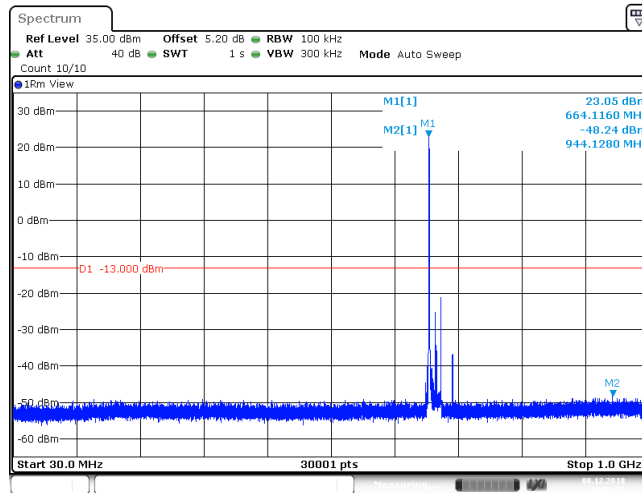
Date: 8 DEC 2018 16:09:15

Band71_20MHz_QPSK_133372_1RB#0



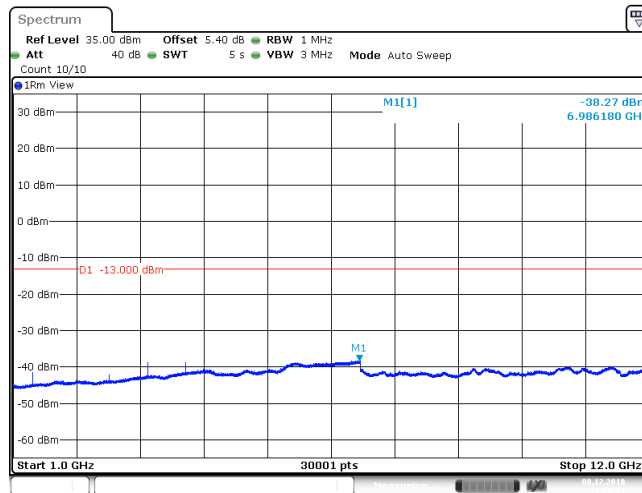
Date: 8 DEC 2018 16:10:22

Band71_20MHz_16QAM_133222_1RB#0



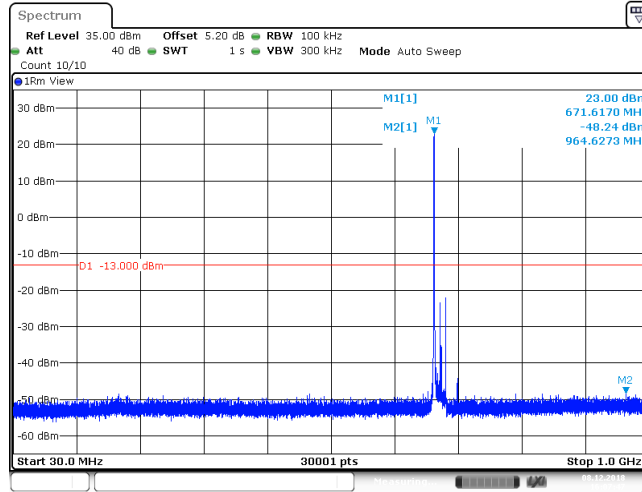
Date: 8 DEC 2018 16:24:53

Band71_20MHz_16QAM_133222_1RB#0



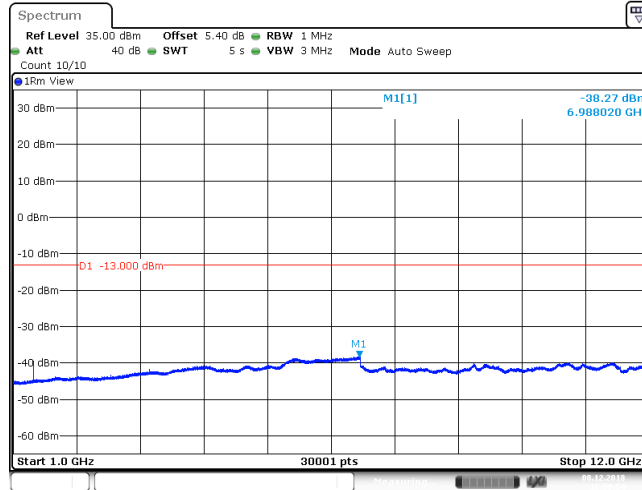
Date: 8 DEC 2018 16:06:01

Band71_20MHz_16QAM_133297_1RB#0



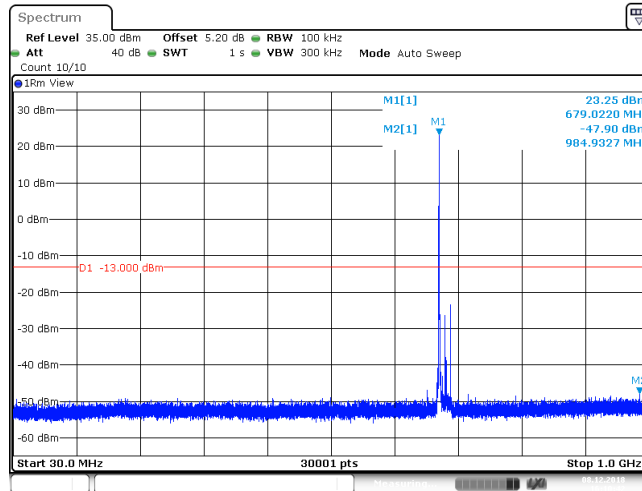
Date: 8 DEC 2018 16:07:47

Band71_20MHz_16QAM_133297_1RB#0



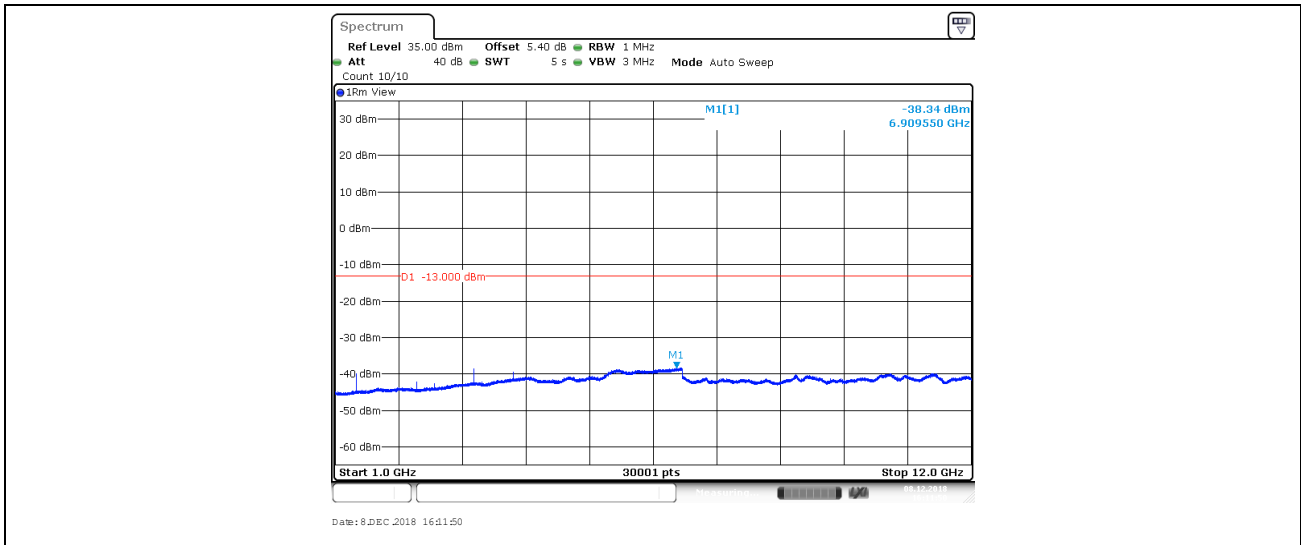
Date: 8 DEC 2018 16:08:55

Band71_20MHz_16QAM_133372_1RB#0



Date: 8 DEC 2018 16:10:42

Band71_20MHz_16QAM_133372_1RB#0



7. Field Strength of Spurious Radiation

7.1. Test BAND = LTE BAND 71

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
74.473333	-77.29	-13.00	64.29	Vertical
204.673333	-73.43	-13.00	60.43	Vertical
1328.000000	-60.86	-13.00	47.86	Vertical
1992.500000	-47.41	-13.00	34.41	Vertical
3320.287500	-54.89	-13.00	41.89	Vertical
3984.262500	-51.00	-13.00	38.00	Vertical
63.320000	-77.20	-13.00	64.20	Horizontal
204.906667	-76.70	-13.00	63.70	Horizontal
1328.000000	-57.48	-13.00	44.48	Horizontal
1992.500000	-46.09	-13.00	33.09	Horizontal
2588.500000	-50.75	-13.00	37.75	Horizontal
3984.262500	-57.95	-13.00	44.95	Horizontal

7.1.1.2. Test Channel = MCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
73.866667	-77.62	-13.00	64.62	Vertical
204.813333	-74.01	-13.00	61.01	Vertical
1343.000000	-54.42	-13.00	41.42	Vertical
2015.000000	-57.92	-13.00	44.92	Vertical
3357.825000	-56.76	-13.00	43.76	Vertical
4029.112500	-52.74	-13.00	39.74	Vertical
62.340000	-77.56	-13.00	64.56	Horizontal
206.820000	-76.59	-13.00	63.59	Horizontal
1343.000000	-52.23	-13.00	39.23	Horizontal
2015.000000	-56.84	-13.00	43.84	Horizontal
3357.825000	-62.78	-13.00	49.78	Horizontal
4029.112500	-60.26	-13.00	47.26	Horizontal

7.1.1.3. Test Channel = HCH

Frequency (MHz)	Level (dBm)	Limit Line (dBm)	Margin (dB)	Polarization
74.426667	-77.19	-13.00	64.19	Vertical
204.580000	-73.47	-13.00	60.47	Vertical
1358.000000	-64.01	-13.00	51.01	Vertical
2716.500000	-55.02	-13.00	42.02	Vertical
3394.875000	-52.87	-13.00	39.87	Vertical
4073.962500	-48.03	-13.00	35.03	Vertical
62.340000	-77.03	-13.00	64.03	Horizontal
204.533333	-76.85	-13.00	63.85	Horizontal
1358.000000	-61.68	-13.00	48.68	Horizontal
3395.362500	-56.96	-13.00	43.96	Horizontal
4073.962500	-58.21	-13.00	45.21	Horizontal
4753.537500	-64.90	-13.00	51.90	Horizontal

Remark:

- 1) The disturbance above 12.75GHz and below 30MHz was very low, and the above harmonics were the highest point could be found when testing, so only the worst case data 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

8.1. Frequency Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band71	20MHz	QPSK	133222	100RB#0	VL	NT	-1.40	-0.002080	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	VN	NT	0.90	0.001337	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	VH	NT	0.00	0.000000	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	VL	NT	-1.90	-0.002792	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	VN	NT	-1.40	-0.002057	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	VH	NT	-0.90	-0.001323	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	VL	NT	-0.10	-0.000145	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	VN	NT	-1.20	-0.001744	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	VH	NT	0.20	0.000291	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	VL	NT	-0.40	-0.000594	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	VN	NT	-0.70	-0.001040	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	VH	NT	-2.00	-0.002972	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	VL	NT	-0.60	-0.000882	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	VN	NT	-0.70	-0.001029	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	VH	NT	-0.10	-0.000147	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	VL	NT	0.60	0.000872	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	VN	NT	-0.30	-0.000436	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	VH	NT	-1.30	-0.001890	±2.5	PASS

8.2. Frequency Vs Temperature

Temperature										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band71	20MHz	QPSK	133222	100RB#0	NV	-30	-1.20	-0.001783	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	-20	0.00	0.000000	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	0	0.90	0.001337	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	10	-0.90	-0.001337	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	20	-1.60	-0.002377	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	30	-0.90	-0.001337	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	40	-0.40	-0.000594	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	50	0.10	0.000149	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	NV	-30	-0.10	-0.000147	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	NV	-20	0.60	0.000882	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	NV	0	-0.60	-0.000882	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	NV	10	1.00	0.001470	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	NV	20	-0.30	-0.000441	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	NV	30	-0.80	-0.001176	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	NV	40	1.00	0.001470	±2.5	PASS
Band71	20MHz	QPSK	133297	100RB#0	NV	50	-1.30	-0.001910	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	-30	-0.20	-0.000291	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	-20	0.40	0.000581	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	0	-0.10	-0.000145	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	10	-0.50	-0.000727	±2.5	PASS



Band71	20MHz	QPSK	133372	100RB#0	NV	20	-0.20	-0.000291	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	30	-1.00	-0.001453	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	40	0.00	0.000000	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	50	0.20	0.000291	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	-30	-1.00	-0.001486	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	-20	-1.10	-0.001634	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	0	-0.70	-0.001040	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	10	-1.20	-0.001783	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	20	-1.40	-0.002080	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	30	-1.20	-0.001783	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	40	-0.70	-0.001040	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	50	-1.60	-0.002377	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	NV	-30	-2.00	-0.002939	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	NV	-20	-1.20	-0.001763	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	NV	0	-0.90	-0.001323	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	NV	10	-0.90	-0.001323	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	NV	20	-1.70	-0.002498	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	NV	30	-1.10	-0.001616	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	NV	40	-2.00	-0.002939	±2.5	PASS
Band71	20MHz	16QAM	133297	100RB#0	NV	50	-2.50	-0.003674	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	-30	-0.20	-0.000291	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	-20	0.00	0.000000	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	0	-0.70	-0.001017	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	10	-1.30	-0.001890	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	20	-0.90	-0.001308	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	30	-2.30	-0.003343	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	40	-1.80	-0.002616	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	50	0.20	0.000291	±2.5	PASS

The End