

Appendix B.15

E-UTRA Band 71

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1. Main Test Instruments

RE in Chamber					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy-mm-dd)	Cal.Due date (yyyy-mm-dd)
3m Semi-Anechoic Chamber	AUDIX	N/A	SEM001-02	2018/3/13	2021/3/12
Spectrum Analyzer (20Hz-43GHz)	Rohde & Schwarz	FSU43	SEM004-08	2019/3/2	2020/3/1
BiConiLog Antenna (26-3000MHz)	ETS-Lindgren	3142C	SEM003-01	2017/6/27	2020/6/26
Horn Antenna (800MHz-18GHz)	Rohde & Schwarz	HF907	SEM003-07	2018/4/13	2021/4/12
Horn Antenna (15-40GHz)	Schwarzbeck	BBHA 9170	SEM003-15	2017/10/17	2020/10/16
Amplifier (0.1-1300MHz)	HP	8447D	SEM005-02	2018/9/2	2019/9/2
Low Noise Amplifier (100MHz-18GHz)	Black Diamond Series	BDLNA-0118-352810	SEM005-05	2018/9/2	2019/9/2
Pre-Amplifier (0.1-26.5GHz)	Compliance Directions Systems Inc.	PAP-0126	EMC2063	2018/10/20	2019/10/19
Pre-amplifier (26-40GHz)	Compliance Directions Systems Inc.	PAP-2640-50	SEM005-08	2019/3/2	2020/3/1
Band filter	N/A	N/A	N/A	N/A	N/A
Measurement Software	AUDIX	e3 V8.2014-6-27	N/A	N/A	N/A
Coaxial Cable	SGS	N/A	SEM026-01	2018/7/12	2019/7/11
Wideband Radio Communication Tester	Anritsu	MT8821C	6201462742	2019/4/3	2020/4/3
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	W005-02	2019/1/13	2020/1/12
RF conducted test					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date (yyyy-mm-dd)	Cal.Due date (yyyy-mm-dd)
Dual Output Mobile Communication DC Source	Agilent Technologies Inc	66311B	W009-09	2018/11/2	2019/11/1
Signal Analyzer	Rohde & Schwarz	FSV	W005-02	2019/3/2	2020/3/1
Coaxial Cable	SGS	N/A	SEM031-01	2018/7/12	2019/7/11
Attenuator	Weinschel Associates	WA41	SEM021-09	N/A	N/A
Signal Generator	KEYSIGHT	N5173B	SEM006-05	2018/11/2	2019/11/1
Humidity/ Temperature Indicator	Shanghai Meteorological Industry Factory	HTC-1	W006-17	2018/11/2	2019/11/1
Temperature Chamber	GIANT FORCE	ICT-150-40-CP-AR	W027-03	2018/11/2	2019/11/1
Wideband Radio Communication Tester	Anritsu	MT8821C	6201462742	2019/3/2	2020/3/1
Wideband Radio Communication Tester	Rohde & Schwarz	CMW500	W005-02	2018/11/2	2019/11/1

2. Measurement Uncertainty

For a 95% confidence level ($k = 2$), the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 as following:

Test Item	Extended Uncertainty	Data
Transmit Output Power Data	Power [dBm]	$U = \pm 0.37 \text{ dB}$
Bandwidth	Magnitude [%]	$U = \pm 0.2\%$
Band Edge Compliance	Disturbance Power [dBm]	$U = \pm 2.0 \text{ dB}$
Spurious Emissions, Conducted	Disturbance Power [dBm]	$U = \pm 2.0 \text{ dB}$
Frequency Stability	Frequency Accuracy [ppm]	$U = \pm 0.24 \text{ ppm}$

3. Effective (Isotropic) Radiated Power

3.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band71	5MHz	QPSK	133147	1RB#0	23.36	25.21	34.77	PASS
Band71	5MHz	QPSK	133147	1RB#12	23.04	24.89	34.77	PASS
Band71	5MHz	QPSK	133147	1RB#24	23.55	25.40	34.77	PASS
Band71	5MHz	QPSK	133147	12RB#0	22.23	24.08	34.77	PASS
Band71	5MHz	QPSK	133147	12RB#6	22.24	24.09	34.77	PASS
Band71	5MHz	QPSK	133147	12RB#13	22.18	24.03	34.77	PASS
Band71	5MHz	QPSK	133147	25RB#0	22.35	24.20	34.77	PASS
Band71	5MHz	QPSK	133297	1RB#0	23.28	25.13	34.77	PASS
Band71	5MHz	QPSK	133297	1RB#12	23.23	25.08	34.77	PASS
Band71	5MHz	QPSK	133297	1RB#24	23.14	24.99	34.77	PASS
Band71	5MHz	QPSK	133297	12RB#0	22.37	24.22	34.77	PASS
Band71	5MHz	QPSK	133297	12RB#6	22.29	24.14	34.77	PASS
Band71	5MHz	QPSK	133297	12RB#13	22.35	24.20	34.77	PASS
Band71	5MHz	QPSK	133297	25RB#0	22.3	24.15	34.77	PASS
Band71	5MHz	QPSK	133447	1RB#0	23.19	25.04	34.77	PASS
Band71	5MHz	QPSK	133447	1RB#12	23.11	24.96	34.77	PASS
Band71	5MHz	QPSK	133447	1RB#24	22.73	24.58	34.77	PASS
Band71	5MHz	QPSK	133447	12RB#0	22.37	24.22	34.77	PASS
Band71	5MHz	QPSK	133447	12RB#6	22.2	24.05	34.77	PASS
Band71	5MHz	QPSK	133447	12RB#13	22.2	24.05	34.77	PASS
Band71	5MHz	QPSK	133447	25RB#0	22.38	24.23	34.77	PASS
Band71	5MHz	16QAM	133147	1RB#0	22.58	24.43	34.77	PASS
Band71	5MHz	16QAM	133147	1RB#12	22.59	24.44	34.77	PASS
Band71	5MHz	16QAM	133147	1RB#24	22.53	24.38	34.77	PASS
Band71	5MHz	16QAM	133147	12RB#0	21.18	23.03	34.77	PASS
Band71	5MHz	16QAM	133147	12RB#6	21.31	23.16	34.77	PASS
Band71	5MHz	16QAM	133147	12RB#13	21.24	23.09	34.77	PASS
Band71	5MHz	16QAM	133147	25RB#0	21.3	23.15	34.77	PASS
Band71	5MHz	16QAM	133297	1RB#0	22.7	24.55	34.77	PASS
Band71	5MHz	16QAM	133297	1RB#12	22.5	24.35	34.77	PASS
Band71	5MHz	16QAM	133297	1RB#24	22.73	24.58	34.77	PASS
Band71	5MHz	16QAM	133297	12RB#0	21.34	23.19	34.77	PASS
Band71	5MHz	16QAM	133297	12RB#6	21.28	23.13	34.77	PASS
Band71	5MHz	16QAM	133297	12RB#13	21.3	23.15	34.77	PASS
Band71	5MHz	16QAM	133297	25RB#0	21.24	23.09	34.77	PASS
Band71	5MHz	16QAM	133447	1RB#0	22.48	24.33	34.77	PASS
Band71	5MHz	16QAM	133447	1RB#12	22.29	24.14	34.77	PASS

Band71	5MHz	16QAM	133447	1RB#24	22.38	24.23	34.77	PASS
Band71	5MHz	16QAM	133447	12RB#0	21.2	23.05	34.77	PASS
Band71	5MHz	16QAM	133447	12RB#6	21.09	22.94	34.77	PASS
Band71	5MHz	16QAM	133447	12RB#13	21.17	23.02	34.77	PASS
Band71	5MHz	16QAM	133447	25RB#0	21.18	23.03	34.77	PASS
Band71	10MHz	QPSK	133172	1RB#0	23.25	25.10	34.77	PASS
Band71	10MHz	QPSK	133172	1RB#24	24.22	26.07	34.77	PASS
Band71	10MHz	QPSK	133172	1RB#49	22.73	24.58	34.77	PASS
Band71	10MHz	QPSK	133172	25RB#0	22.43	24.28	34.77	PASS
Band71	10MHz	QPSK	133172	25RB#12	22.54	24.39	34.77	PASS
Band71	10MHz	QPSK	133172	25RB#25	22.37	24.22	34.77	PASS
Band71	10MHz	QPSK	133172	50RB#0	22.05	23.90	34.77	PASS
Band71	10MHz	QPSK	133297	1RB#0	23.49	25.34	34.77	PASS
Band71	10MHz	QPSK	133297	1RB#24	23.41	25.26	34.77	PASS
Band71	10MHz	QPSK	133297	1RB#49	22.87	24.72	34.77	PASS
Band71	10MHz	QPSK	133297	25RB#0	22.56	24.41	34.77	PASS
Band71	10MHz	QPSK	133297	25RB#12	22.28	24.13	34.77	PASS
Band71	10MHz	QPSK	133297	25RB#25	22.31	24.16	34.77	PASS
Band71	10MHz	QPSK	133297	50RB#0	22.4	24.25	34.77	PASS
Band71	10MHz	QPSK	133422	1RB#0	23.16	25.01	34.77	PASS
Band71	10MHz	QPSK	133422	1RB#24	23.5	25.35	34.77	PASS
Band71	10MHz	QPSK	133422	1RB#49	22.48	24.33	34.77	PASS
Band71	10MHz	QPSK	133422	25RB#0	22.25	24.10	34.77	PASS
Band71	10MHz	QPSK	133422	25RB#12	22.33	24.18	34.77	PASS
Band71	10MHz	QPSK	133422	25RB#25	21.97	23.82	34.77	PASS
Band71	10MHz	QPSK	133422	50RB#0	22.17	24.02	34.77	PASS
Band71	10MHz	16QAM	133172	1RB#0	22.53	24.38	34.77	PASS
Band71	10MHz	16QAM	133172	1RB#24	22.4	24.25	34.77	PASS
Band71	10MHz	16QAM	133172	1RB#49	22.52	24.37	34.77	PASS
Band71	10MHz	16QAM	133172	25RB#0	21.34	23.19	34.77	PASS
Band71	10MHz	16QAM	133172	25RB#12	21.31	23.16	34.77	PASS
Band71	10MHz	16QAM	133172	25RB#25	21.3	23.15	34.77	PASS
Band71	10MHz	16QAM	133172	50RB#0	21.36	23.21	34.77	PASS
Band71	10MHz	16QAM	133297	1RB#0	22.83	24.68	34.77	PASS
Band71	10MHz	16QAM	133297	1RB#24	22.57	24.42	34.77	PASS
Band71	10MHz	16QAM	133297	1RB#49	22.47	24.32	34.77	PASS
Band71	10MHz	16QAM	133297	25RB#0	21.44	23.29	34.77	PASS
Band71	10MHz	16QAM	133297	25RB#12	21.32	23.17	34.77	PASS
Band71	10MHz	16QAM	133297	25RB#25	21.24	23.09	34.77	PASS
Band71	10MHz	16QAM	133297	50RB#0	21.33	23.18	34.77	PASS
Band71	10MHz	16QAM	133422	1RB#0	22.7	24.55	34.77	PASS
Band71	10MHz	16QAM	133422	1RB#24	22.49	24.34	34.77	PASS
Band71	10MHz	16QAM	133422	1RB#49	22.36	24.21	34.77	PASS
Band71	10MHz	16QAM	133422	25RB#0	21.13	22.98	34.77	PASS

Band71	10MHz	16QAM	133422	25RB#12	21.18	23.03	34.77	PASS
Band71	10MHz	16QAM	133422	25RB#25	21.2	23.05	34.77	PASS
Band71	10MHz	16QAM	133422	50RB#0	21.22	23.07	34.77	PASS
Band71	15MHz	QPSK	133197	1RB#0	23.48	25.33	34.77	PASS
Band71	15MHz	QPSK	133197	1RB#38	24.15	26.00	34.77	PASS
Band71	15MHz	QPSK	133197	1RB#74	22.48	24.33	34.77	PASS
Band71	15MHz	QPSK	133197	36RB#0	22.29	24.14	34.77	PASS
Band71	15MHz	QPSK	133197	36RB#18	22.53	24.38	34.77	PASS
Band71	15MHz	QPSK	133197	36RB#39	21.9	23.75	34.77	PASS
Band71	15MHz	QPSK	133197	75RB#0	22.31	24.16	34.77	PASS
Band71	15MHz	QPSK	133297	1RB#0	23.46	25.31	34.77	PASS
Band71	15MHz	QPSK	133297	1RB#38	22.86	24.71	34.77	PASS
Band71	15MHz	QPSK	133297	1RB#74	23.16	25.01	34.77	PASS
Band71	15MHz	QPSK	133297	36RB#0	22.37	24.22	34.77	PASS
Band71	15MHz	QPSK	133297	36RB#18	22.11	23.96	34.77	PASS
Band71	15MHz	QPSK	133297	36RB#39	22.18	24.03	34.77	PASS
Band71	15MHz	QPSK	133297	75RB#0	22.14	23.99	34.77	PASS
Band71	15MHz	QPSK	133397	1RB#0	22.9	24.75	34.77	PASS
Band71	15MHz	QPSK	133397	1RB#38	23.86	25.71	34.77	PASS
Band71	15MHz	QPSK	133397	1RB#74	22.57	24.42	34.77	PASS
Band71	15MHz	QPSK	133397	36RB#0	22.36	24.21	34.77	PASS
Band71	15MHz	QPSK	133397	36RB#18	22.13	23.98	34.77	PASS
Band71	15MHz	QPSK	133397	36RB#39	22.12	23.97	34.77	PASS
Band71	15MHz	QPSK	133397	75RB#0	22.19	24.04	34.77	PASS
Band71	15MHz	16QAM	133197	1RB#0	22.62	24.47	34.77	PASS
Band71	15MHz	16QAM	133197	1RB#38	22.51	24.36	34.77	PASS
Band71	15MHz	16QAM	133197	1RB#74	22.39	24.24	34.77	PASS
Band71	15MHz	16QAM	133197	36RB#0	21.42	23.27	34.77	PASS
Band71	15MHz	16QAM	133197	36RB#18	21.29	23.14	34.77	PASS
Band71	15MHz	16QAM	133197	36RB#39	21.27	23.12	34.77	PASS
Band71	15MHz	16QAM	133197	75RB#0	21.13	22.98	34.77	PASS
Band71	15MHz	16QAM	133297	1RB#0	22.77	24.62	34.77	PASS
Band71	15MHz	16QAM	133297	1RB#38	22.39	24.24	34.77	PASS
Band71	15MHz	16QAM	133297	1RB#74	22.47	24.32	34.77	PASS
Band71	15MHz	16QAM	133297	36RB#0	21.31	23.16	34.77	PASS
Band71	15MHz	16QAM	133297	36RB#18	21.07	22.92	34.77	PASS
Band71	15MHz	16QAM	133297	36RB#39	21.21	23.06	34.77	PASS
Band71	15MHz	16QAM	133297	75RB#0	21.09	22.94	34.77	PASS
Band71	15MHz	16QAM	133397	1RB#0	22.61	24.46	34.77	PASS
Band71	15MHz	16QAM	133397	1RB#38	22.47	24.32	34.77	PASS
Band71	15MHz	16QAM	133397	1RB#74	22.48	24.33	34.77	PASS
Band71	15MHz	16QAM	133397	36RB#0	21.23	23.08	34.77	PASS
Band71	15MHz	16QAM	133397	36RB#18	21.17	23.02	34.77	PASS
Band71	15MHz	16QAM	133397	36RB#39	21.16	23.01	34.77	PASS

Band71	15MHz	16QAM	133397	75RB#0	21.21	23.06	34.77	PASS
Band71	20MHz	QPSK	133222	1RB#0	23.41	25.26	34.77	PASS
Band71	20MHz	QPSK	133222	1RB#49	23.85	25.70	34.77	PASS
Band71	20MHz	QPSK	133222	1RB#99	22.17	24.02	34.77	PASS
Band71	20MHz	QPSK	133222	50RB#0	22.59	24.44	34.77	PASS
Band71	20MHz	QPSK	133222	50RB#25	22.27	24.12	34.77	PASS
Band71	20MHz	QPSK	133222	50RB#50	22.15	24.00	34.77	PASS
Band71	20MHz	QPSK	133222	100RB#0	22.34	24.19	34.77	PASS
Band71	20MHz	QPSK	133322	1RB#0	23.59	25.44	34.77	PASS
Band71	20MHz	QPSK	133322	1RB#49	22.99	24.84	34.77	PASS
Band71	20MHz	QPSK	133322	1RB#99	22.92	24.77	34.77	PASS
Band71	20MHz	QPSK	133322	50RB#0	22.28	24.13	34.77	PASS
Band71	20MHz	QPSK	133322	50RB#25	22.15	24.00	34.77	PASS
Band71	20MHz	QPSK	133322	50RB#50	22.14	23.99	34.77	PASS
Band71	20MHz	QPSK	133322	100RB#0	22.21	24.06	34.77	PASS
Band71	20MHz	QPSK	133372	1RB#0	23.31	25.16	34.77	PASS
Band71	20MHz	QPSK	133372	1RB#49	23.87	25.72	34.77	PASS
Band71	20MHz	QPSK	133372	1RB#99	22.36	24.21	34.77	PASS
Band71	20MHz	QPSK	133372	50RB#0	22.18	24.03	34.77	PASS
Band71	20MHz	QPSK	133372	50RB#25	22.27	24.12	34.77	PASS
Band71	20MHz	QPSK	133372	50RB#50	22.13	23.98	34.77	PASS
Band71	20MHz	QPSK	133372	100RB#0	22.15	24.00	34.77	PASS
Band71	20MHz	16QAM	133222	1RB#0	22.78	24.63	34.77	PASS
Band71	20MHz	16QAM	133222	1RB#49	22.52	24.37	34.77	PASS
Band71	20MHz	16QAM	133222	1RB#99	22.52	24.37	34.77	PASS
Band71	20MHz	16QAM	133222	50RB#0	21.22	23.07	34.77	PASS
Band71	20MHz	16QAM	133222	50RB#25	21.15	23.00	34.77	PASS
Band71	20MHz	16QAM	133222	50RB#50	21.09	22.94	34.77	PASS
Band71	20MHz	16QAM	133222	100RB#0	21.37	23.22	34.77	PASS
Band71	20MHz	16QAM	133322	1RB#0	22.83	24.68	34.77	PASS
Band71	20MHz	16QAM	133322	1RB#49	22.35	24.20	34.77	PASS
Band71	20MHz	16QAM	133322	1RB#99	22.41	24.26	34.77	PASS
Band71	20MHz	16QAM	133322	50RB#0	21.24	23.09	34.77	PASS
Band71	20MHz	16QAM	133322	50RB#25	21.09	22.94	34.77	PASS
Band71	20MHz	16QAM	133322	50RB#50	21.17	23.02	34.77	PASS
Band71	20MHz	16QAM	133322	100RB#0	21.21	23.06	34.77	PASS
Band71	20MHz	16QAM	133372	1RB#0	22.89	24.74	34.77	PASS
Band71	20MHz	16QAM	133372	1RB#49	22.44	24.29	34.77	PASS
Band71	20MHz	16QAM	133372	1RB#99	22.54	24.39	34.77	PASS
Band71	20MHz	16QAM	133372	50RB#0	21.14	22.99	34.77	PASS
Band71	20MHz	16QAM	133372	50RB#25	21.18	23.03	34.77	PASS
Band71	20MHz	16QAM	133372	50RB#50	21.16	23.01	34.77	PASS
Band71	20MHz	16QAM	133372	100RB#0	21.27	23.12	34.77	PASS

Remark:

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

$$\text{ERP [dBm]} = \text{Conducted Power [dBm]} + \text{Gain [dBd]}$$

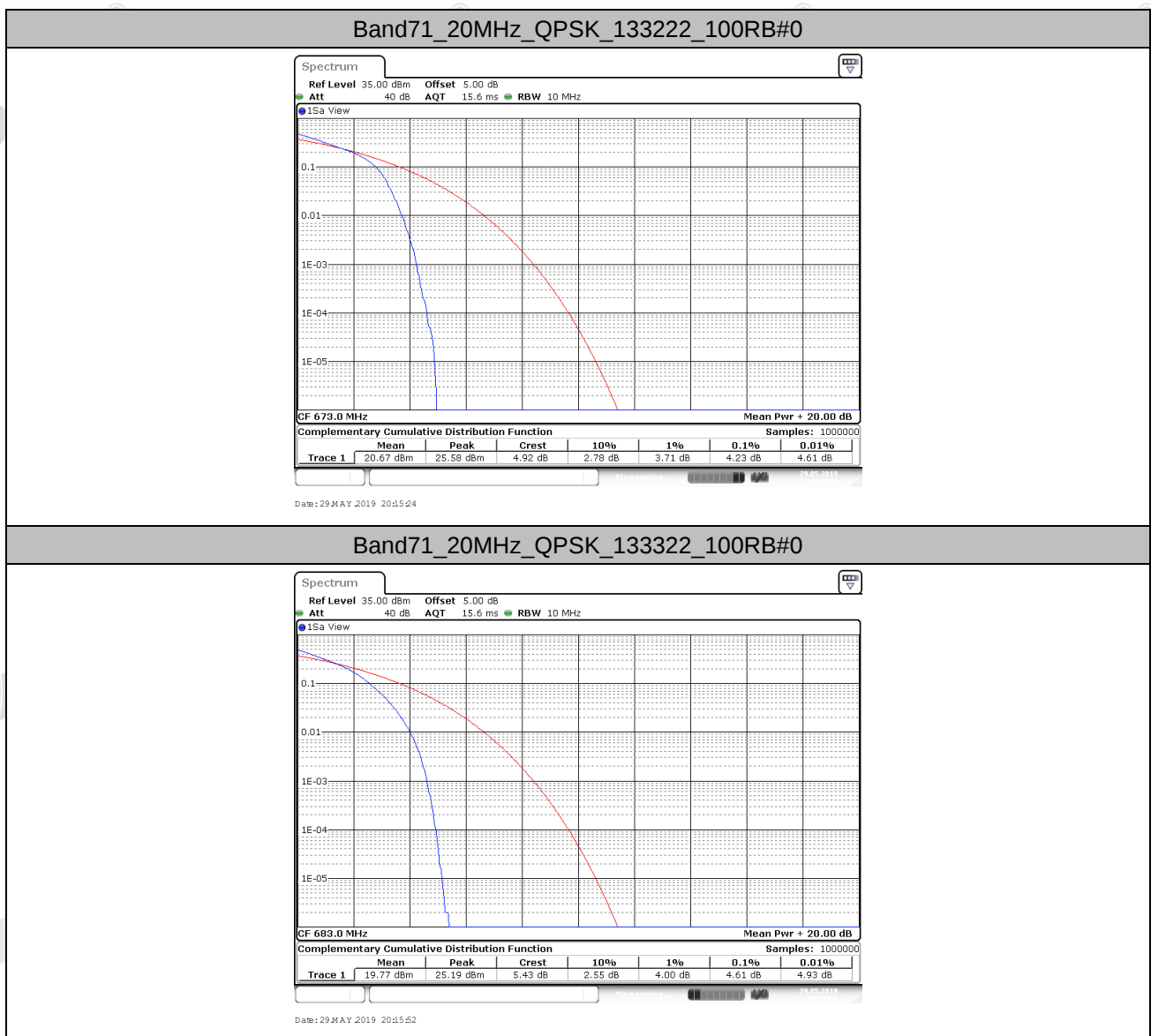
$$\text{EIRP [dBm]} = \text{Conducted Power [dBm]} + \text{Gain [dBi]}$$

4. Peak-to-Average Ratio(CCDF)

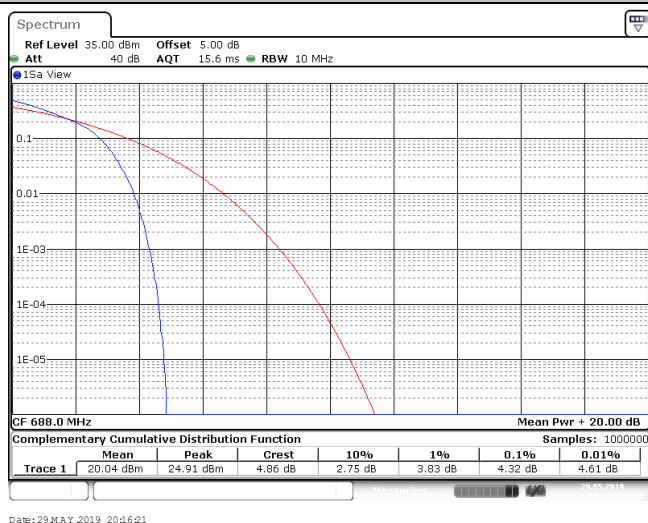
4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band71	20MHz	QPSK	133222	100RB#0	4.23	13	PASS
Band71	20MHz	QPSK	133322	100RB#0	4.61	13	PASS
Band71	20MHz	QPSK	133372	100RB#0	4.32	13	PASS
Band71	20MHz	16QAM	133222	100RB#0	5.97	13	PASS
Band71	20MHz	16QAM	133322	100RB#0	6.06	13	PASS
Band71	20MHz	16QAM	133372	100RB#0	6.00	13	PASS

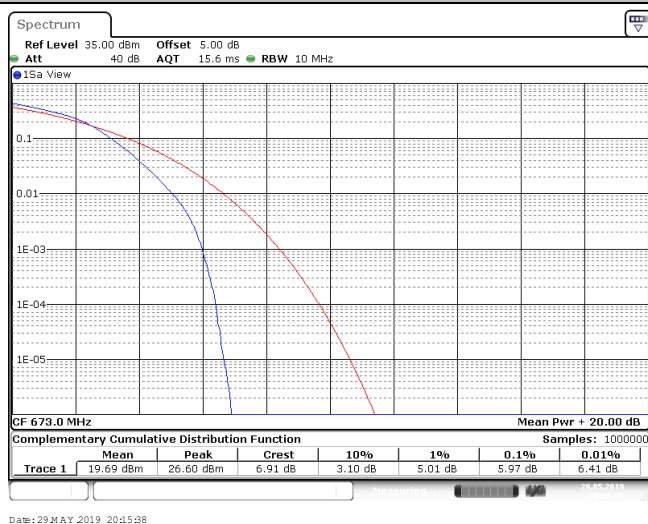
4.2. Test Plots



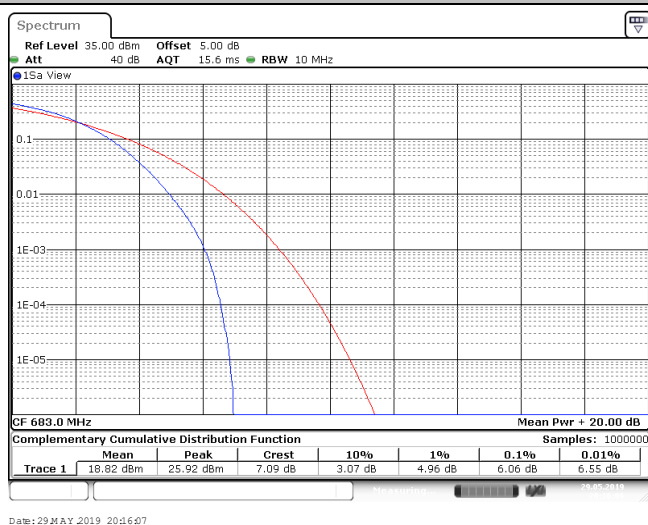
Band71_20MHz_QPSK_133372_100RB#0



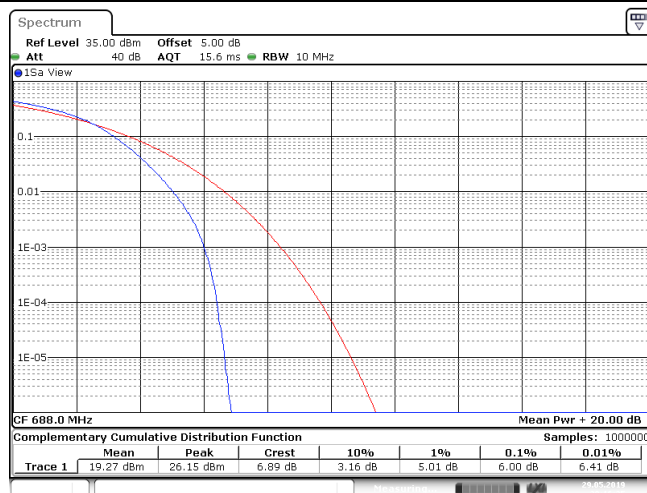
Band71_20MHz_16QAM_133222_100RB#0



Band71_20MHz_16QAM_133322_100RB#0



Band71_20MHz_16QAM_133372_100RB#0



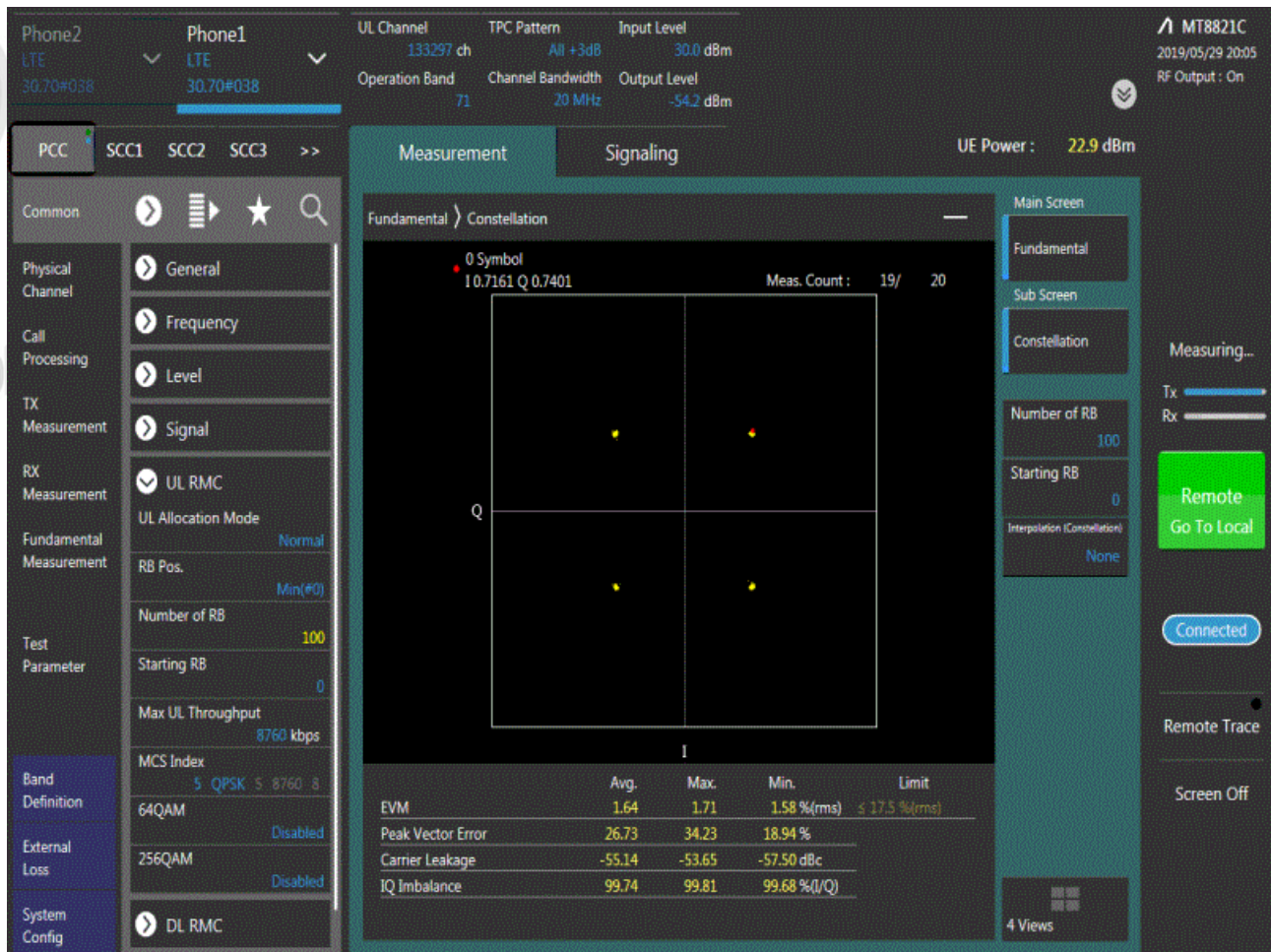
Date: 29 MAY 2019 20:16:35

5. Modulation Characteristics

5.1. Test BAND = LTE Band 71

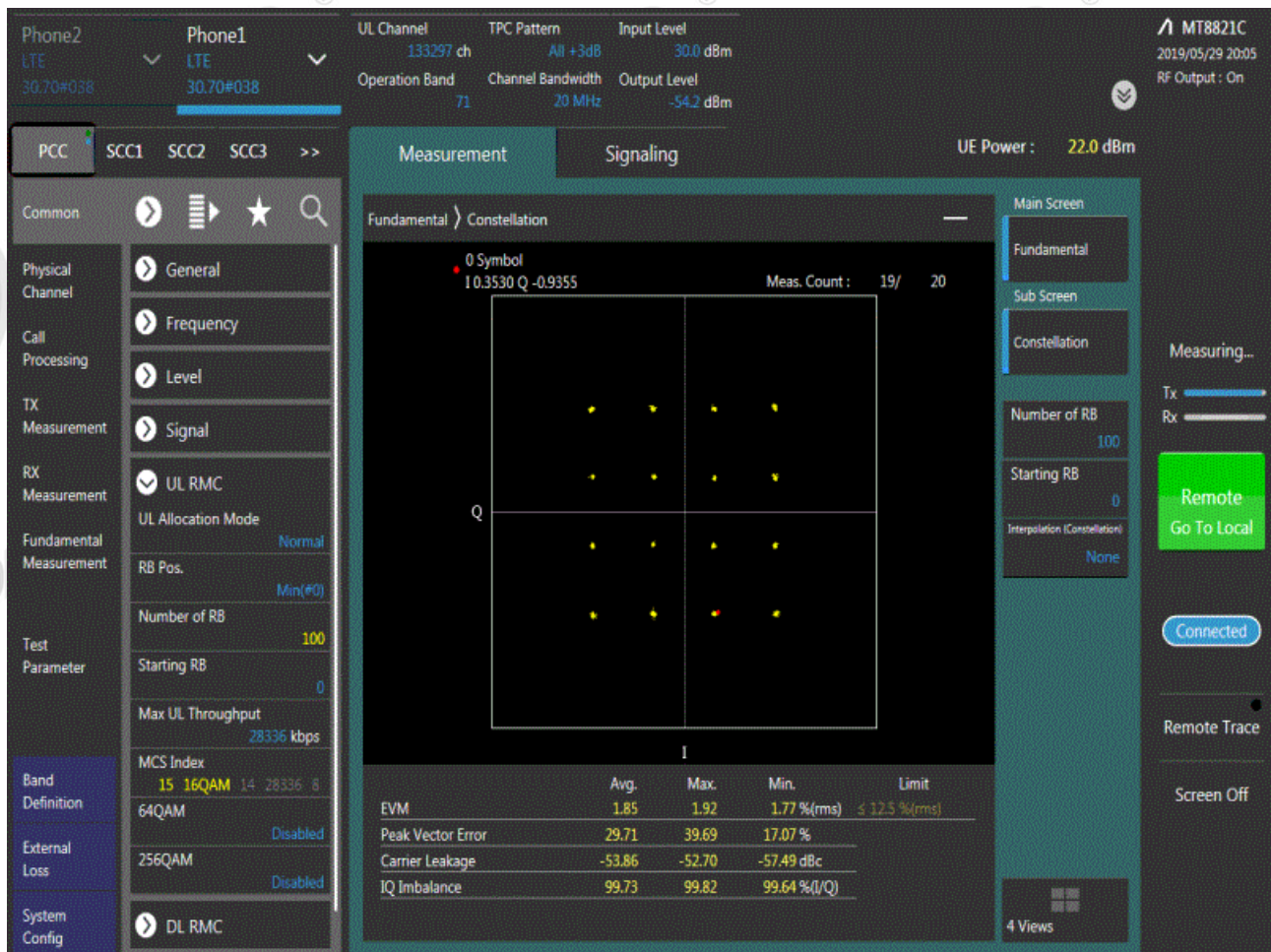
5.2. Test Mode = LTE /TM1 20MHz

5.2.1. Test Channel = MCH



5.3. Test Mode = LTE /TM2 20MHz

5.3.1. Test Channel = MCH



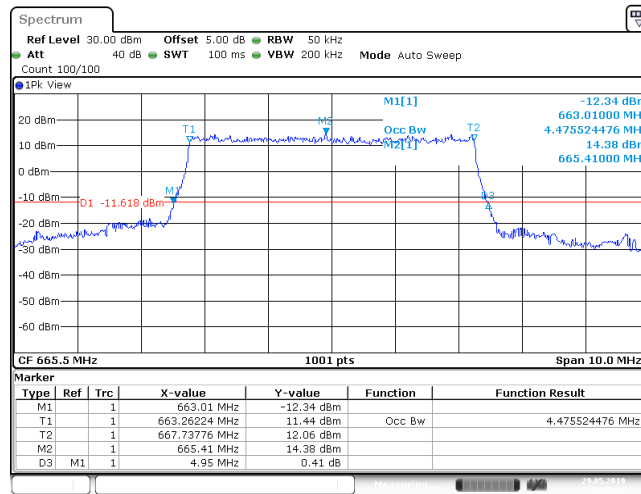
6. 26dB Bandwidth and Occupied Bandwidth

6.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band71	5MHz	QPSK	133147	25RB#0	4.476	4.950	PASS
Band71	5MHz	QPSK	133297	25RB#0	4.476	4.940	PASS
Band71	5MHz	QPSK	133447	25RB#0	4.476	4.910	PASS
Band71	5MHz	16QAM	133147	25RB#0	4.486	4.970	PASS
Band71	5MHz	16QAM	133297	25RB#0	4.486	4.950	PASS
Band71	5MHz	16QAM	133447	25RB#0	4.486	4.940	PASS
Band71	10MHz	QPSK	133172	50RB#0	8.951	9.760	PASS
Band71	10MHz	QPSK	133297	50RB#0	8.931	9.720	PASS
Band71	10MHz	QPSK	133422	50RB#0	8.891	9.720	PASS
Band71	10MHz	16QAM	133172	50RB#0	8.951	9.780	PASS
Band71	10MHz	16QAM	133297	50RB#0	8.931	9.700	PASS
Band71	10MHz	16QAM	133422	50RB#0	8.911	9.640	PASS
Band71	15MHz	QPSK	133197	75RB#0	13.457	14.790	PASS
Band71	15MHz	QPSK	133297	75RB#0	13.487	14.760	PASS
Band71	15MHz	QPSK	133397	75RB#0	13.427	14.700	PASS
Band71	15MHz	16QAM	133197	75RB#0	13.457	14.730	PASS
Band71	15MHz	16QAM	133297	75RB#0	13.487	14.790	PASS
Band71	15MHz	16QAM	133397	75RB#0	13.397	14.670	PASS
Band71	20MHz	QPSK	133222	100RB#0	17.862	19.440	PASS
Band71	20MHz	QPSK	133322	100RB#0	17.942	19.560	PASS
Band71	20MHz	QPSK	133372	100RB#0	17.862	19.480	PASS
Band71	20MHz	16QAM	133222	100RB#0	17.822	19.320	PASS
Band71	20MHz	16QAM	133322	100RB#0	17.942	19.440	PASS
Band71	20MHz	16QAM	133372	100RB#0	17.862	19.400	PASS

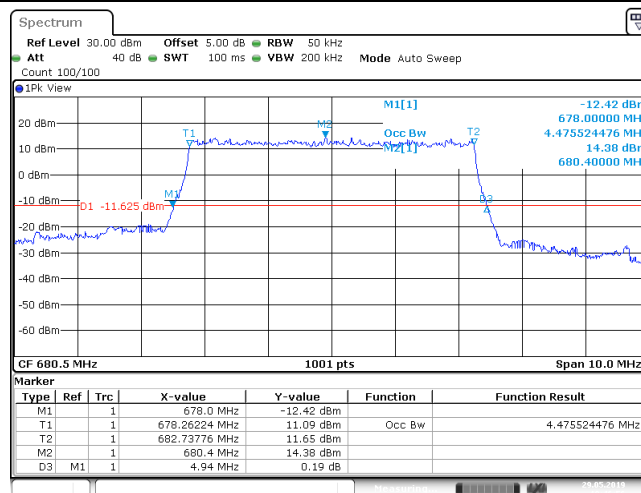
6.2. Test Plots

Band71_5MHz_QPSK_133147_25RB#0



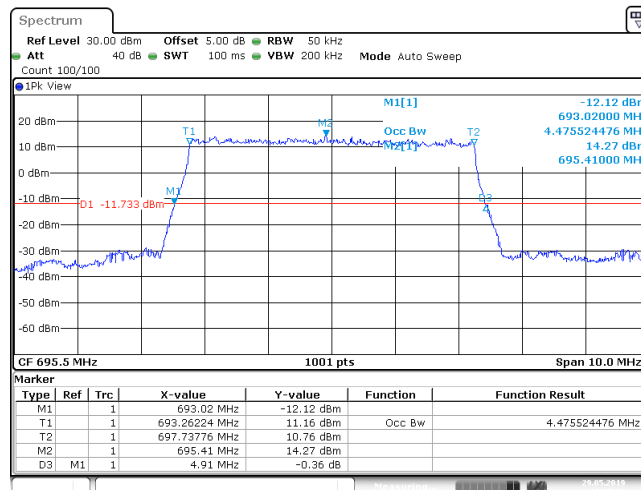
Date: 29 MAY 2019 19:46:11

Band71_5MHz_QPSK_133297_25RB#0



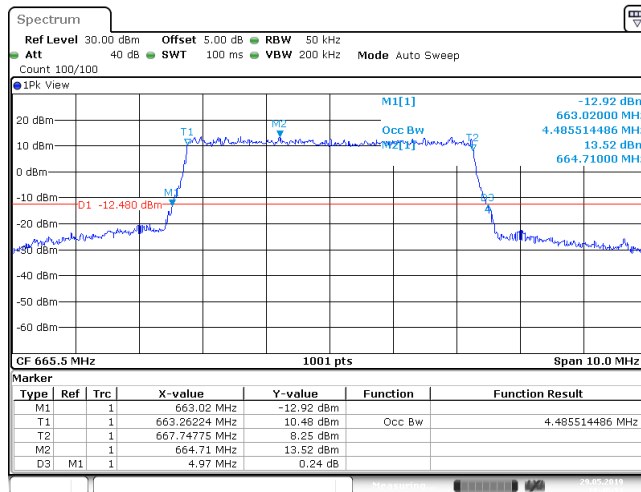
Date: 29 MAY 2019 19:46:57

Band71_5MHz_QPSK_133447_25RB#0



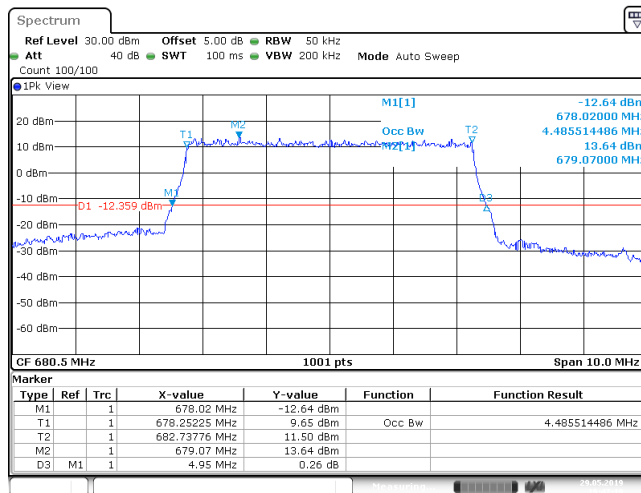
Date: 29 MAY 2019 19:47:42

Band71_5MHz_16QAM_133147_25RB#0



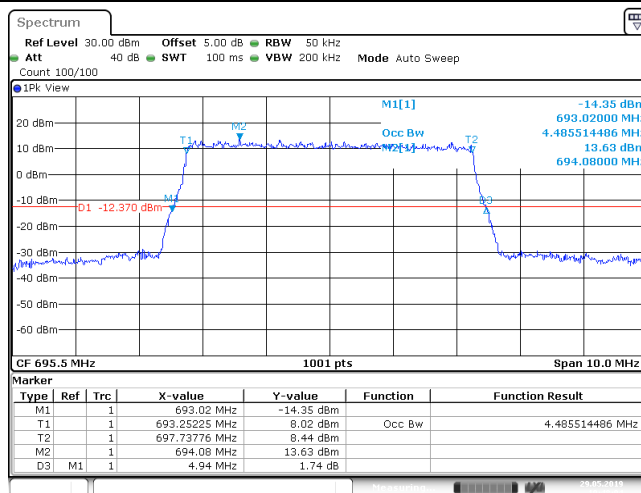
Date: 29 MAY 2019 19:46:34

Band71_5MHz_16QAM_133297_25RB#0



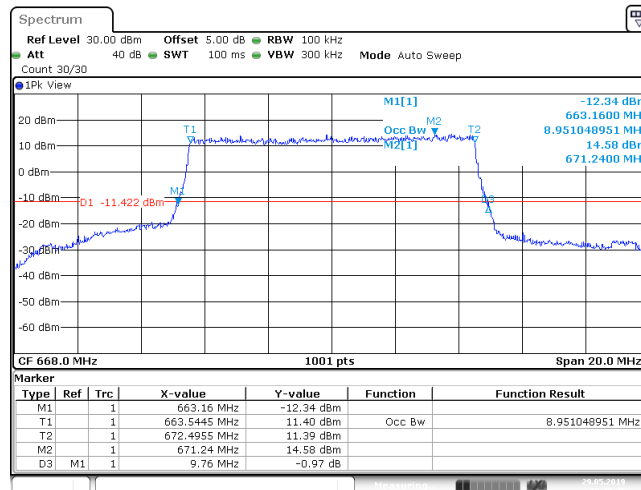
Date: 29 MAY 2019 19:47:19

Band71_5MHz_16QAM_133447_25RB#0



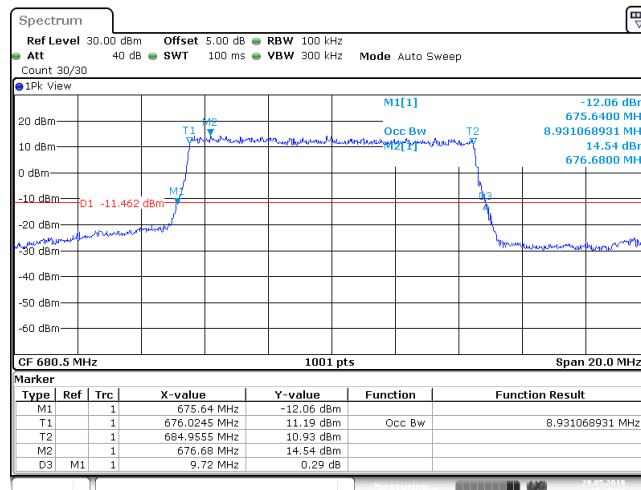
Date: 29 MAY 2019 19:48:05

Band71_10MHz_QPSK_133172_50RB#0



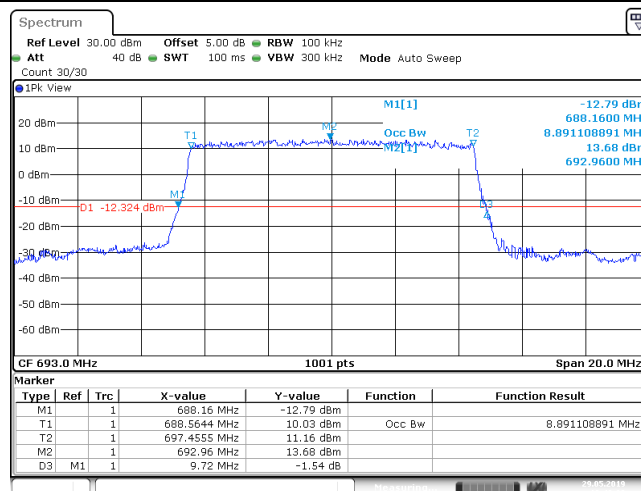
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Band71_10MHz_QPSK_133297_50RB#0



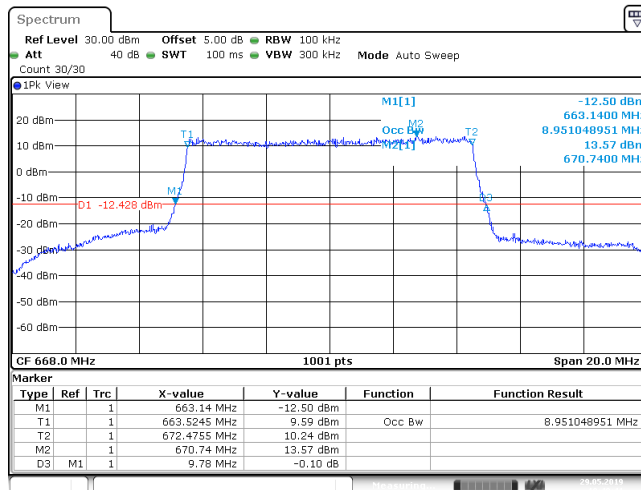
Date: 29 MAY 2019 19:48:57

Band71_10MHz_QPSK_133422_50RB#0



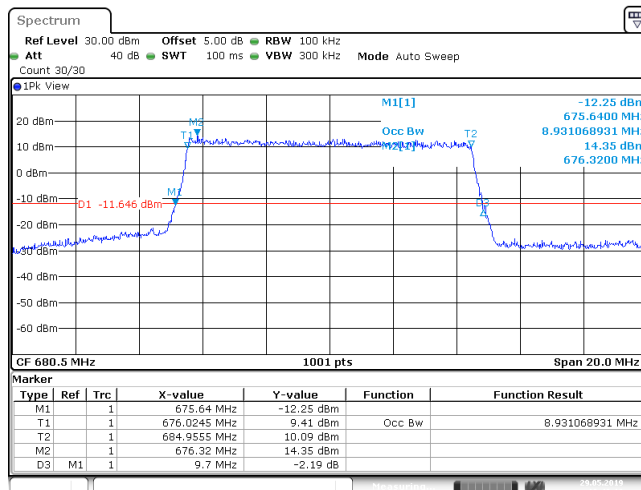
Date: 29 MAY 2019 19:49:29

Band71_10MHz_16QAM_133172_50RB#0



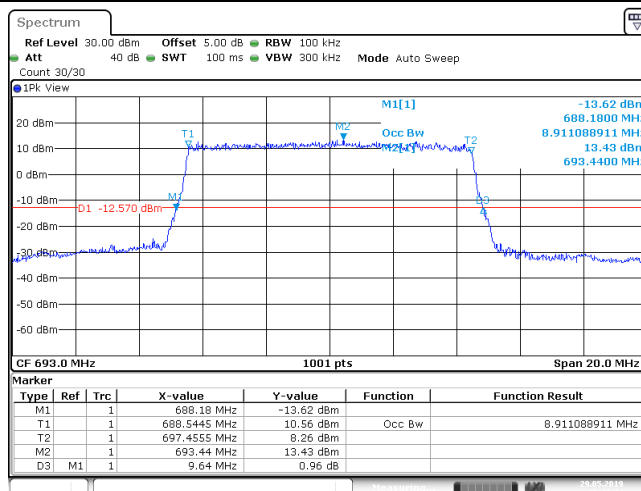
Date: 29 MAY 2019 19:48:41

Band71_10MHz_16QAM_133297_50RB#0



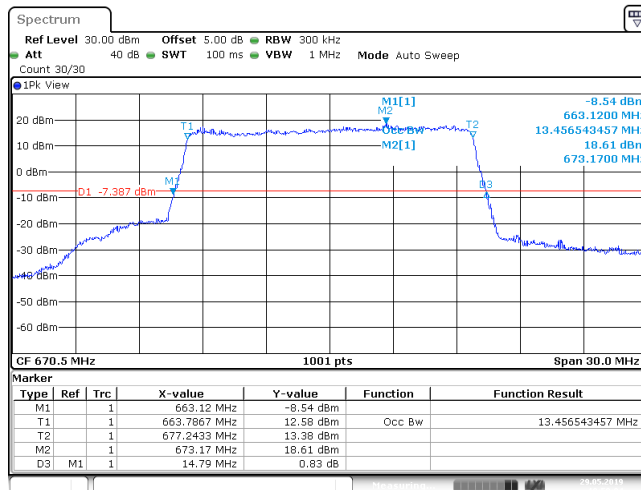
Date: 29 MAY 2019 19:49:13

Band71_10MHz_16QAM_133422_50RB#0



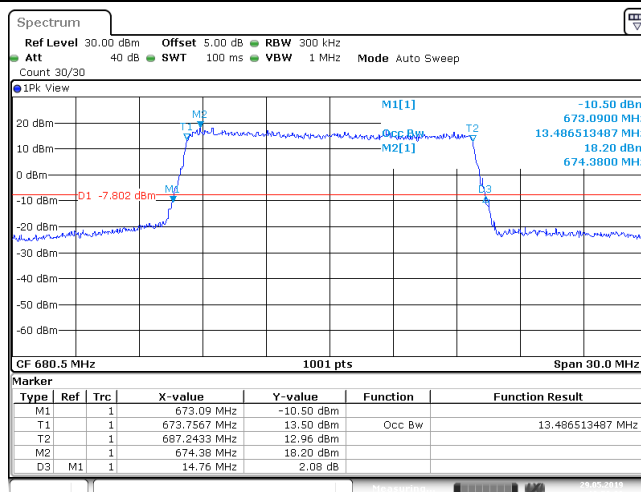
Date: 29 MAY 2019 19:49:44

Band71_15MHz_QPSK_133197_75RB#0



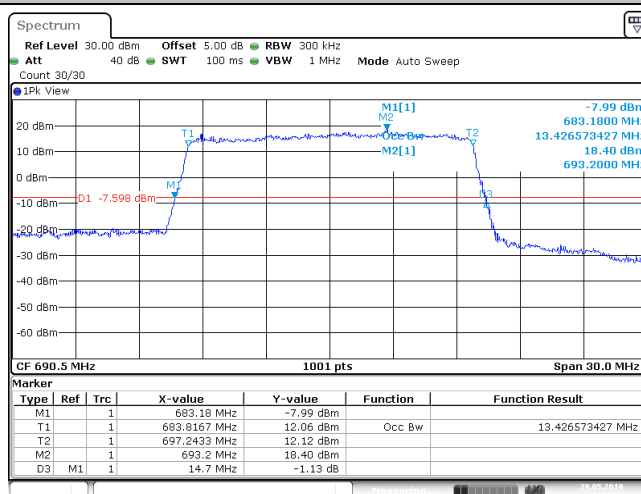
Date: 29 MAY 2019 19:50:05

Band71_15MHz_QPSK_133297_75RB#0



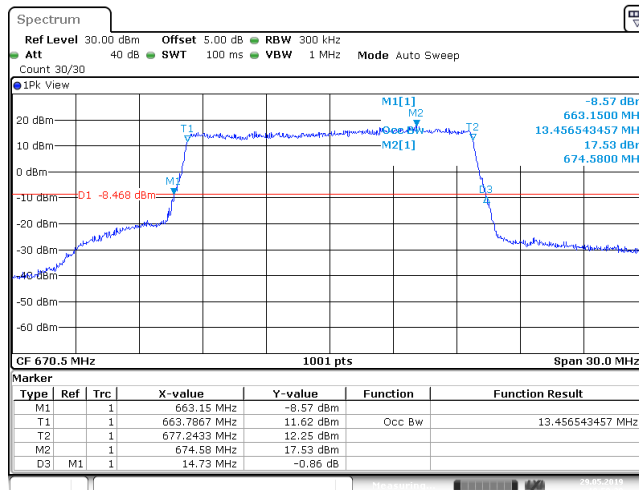
Date: 29 MAY 2019 19:50:36

Band71_15MHz_QPSK_133397_75RB#0



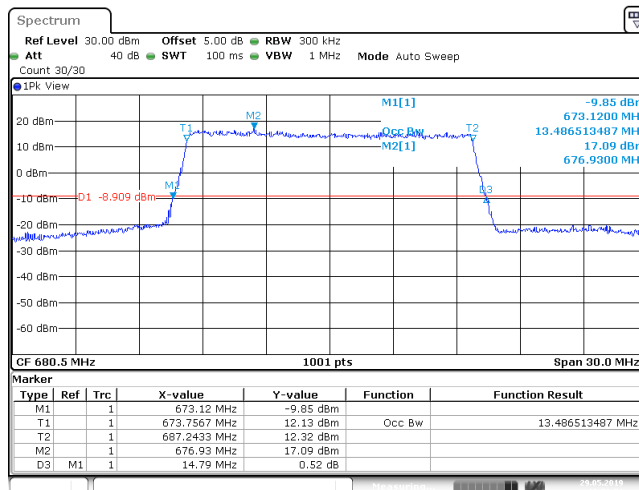
Date: 29 MAY 2019 19:51:08

Band71_15MHz_16QAM_133197_75RB#0



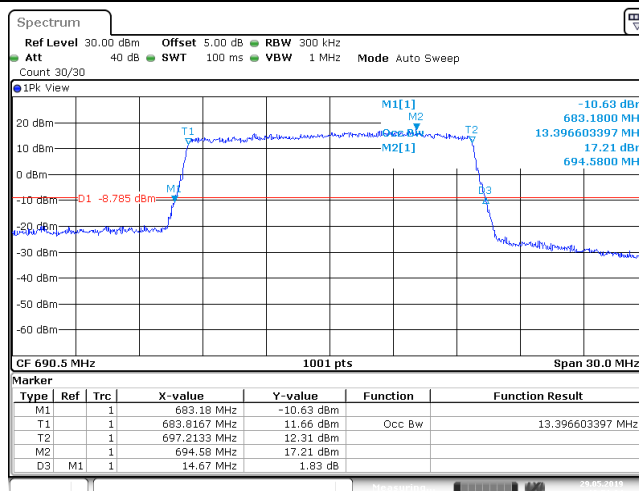
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Band71_15MHz_16QAM_133297_75RB#0



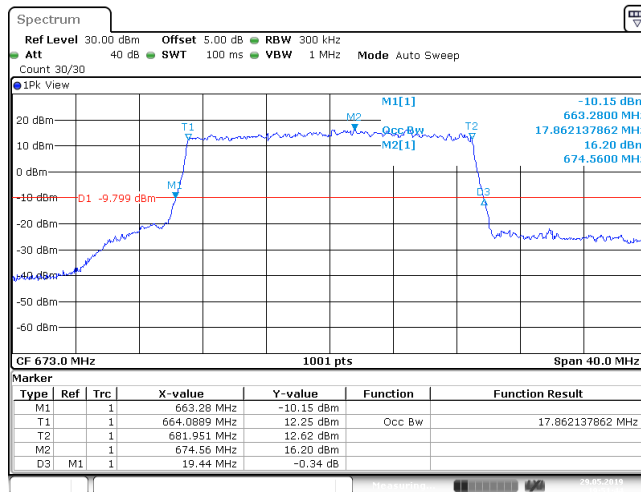
Date: 29 MAY 2019 19:50:52

Band71_15MHz_16QAM_133397_75RB#0



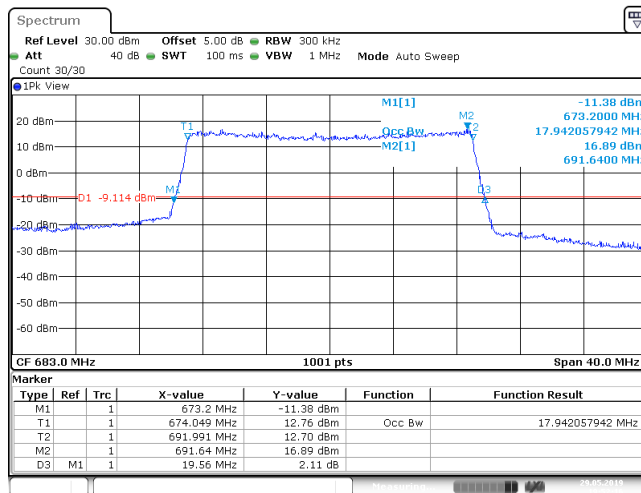
Date: 29 MAY 2019 19:51:24

Band71_20MHz_QPSK_133222_100RB#0



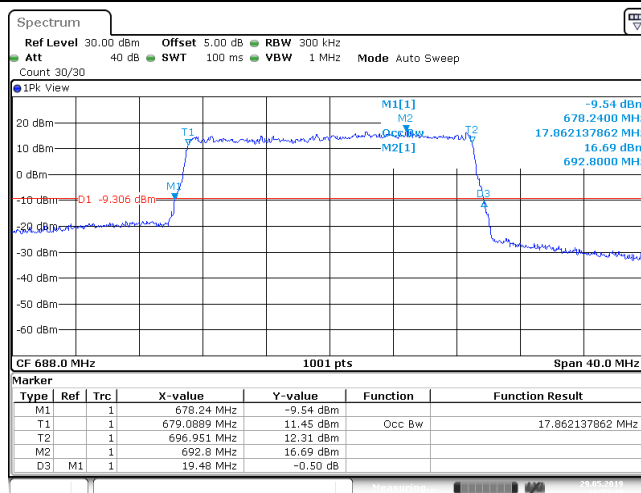
Date: 29 MAY 2019 19:51:45

Band71_20MHz_QPSK_133322_100RB#0



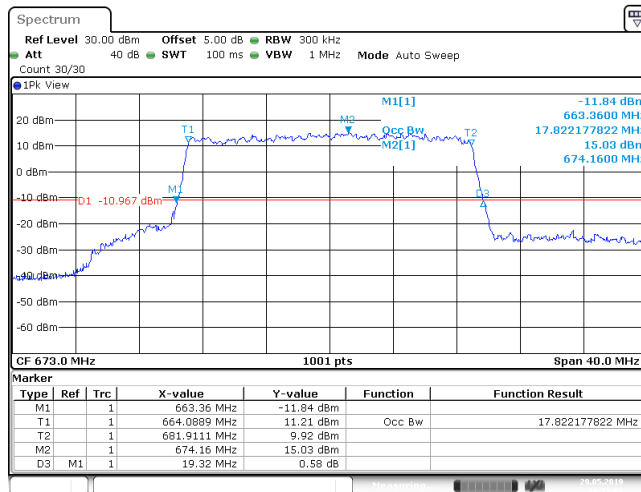
Date: 29 MAY 2019 19:52:16

Band71_20MHz_QPSK_133372_100RB#0



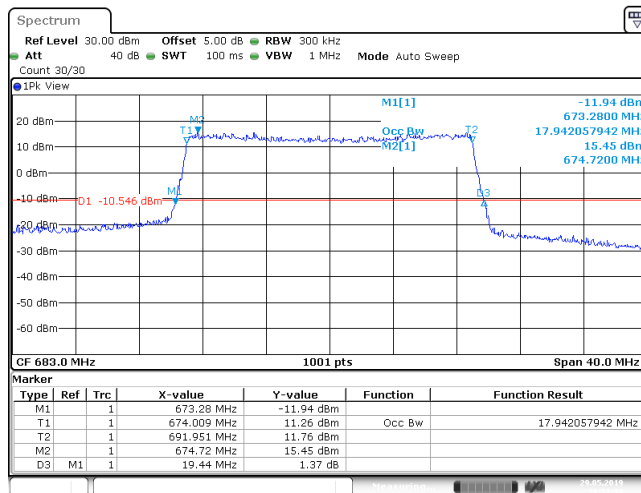
Date: 29 MAY 2019 19:52:48

Band71_20MHz_16QAM_133222_100RB#0



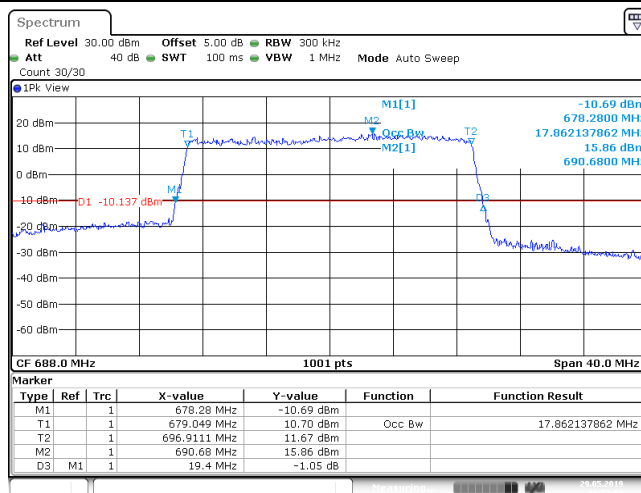
Date: 29 MAY 2019 19:52:01

Band71_20MHz_16QAM_133322_100RB#0



Date: 29 MAY 2019 19:52:32

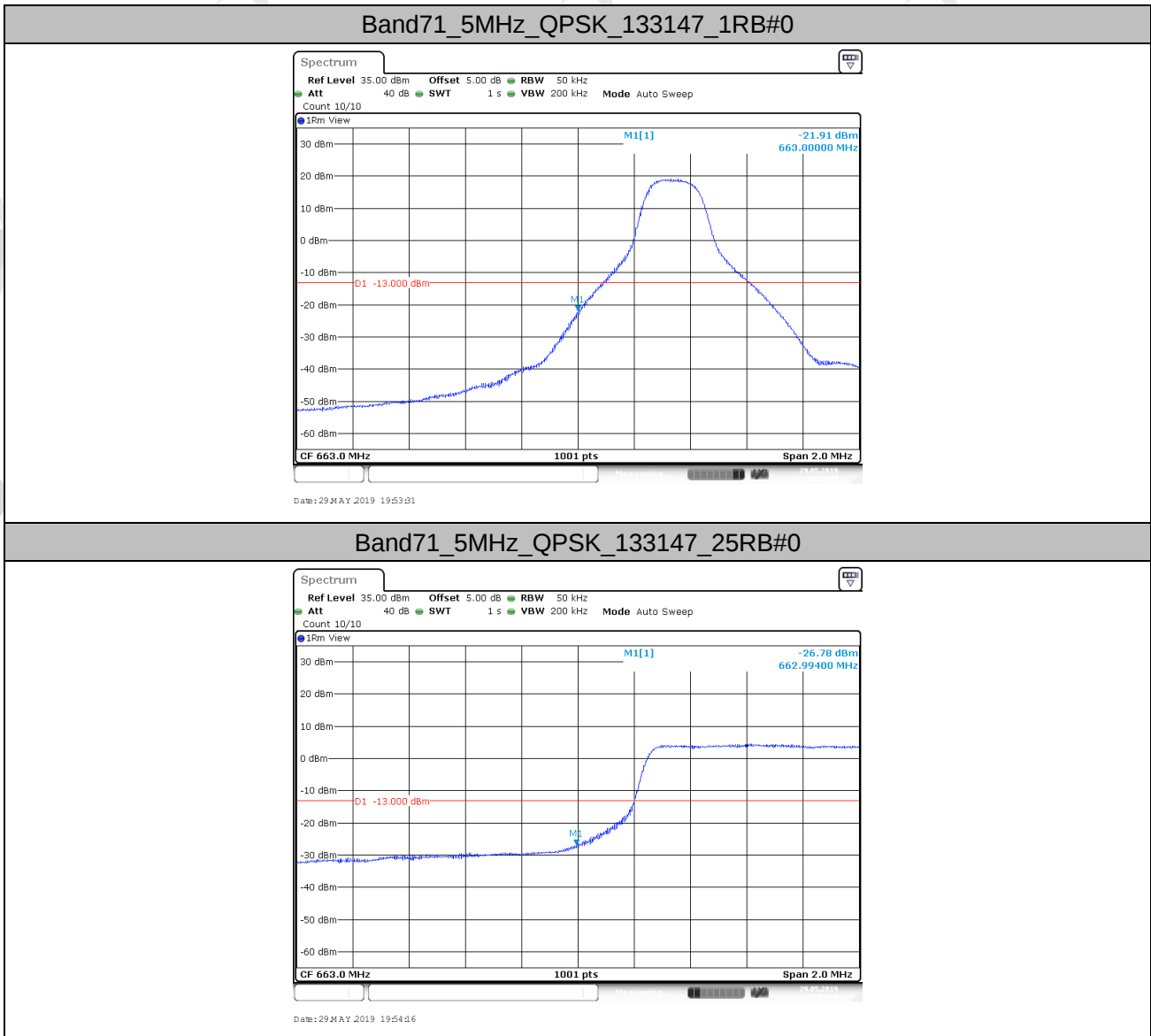
Band71_20MHz_16QAM_133372_100RB#0



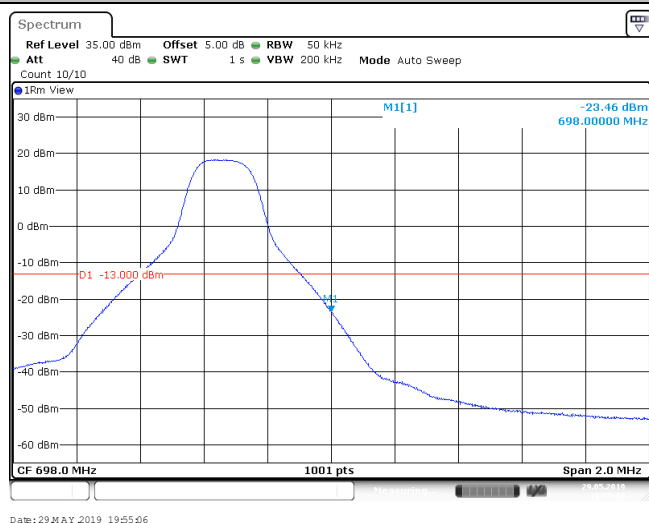
Date: 29 MAY 2019 19:53:04

7. Band Edge Compliance

7.1. Test Plots



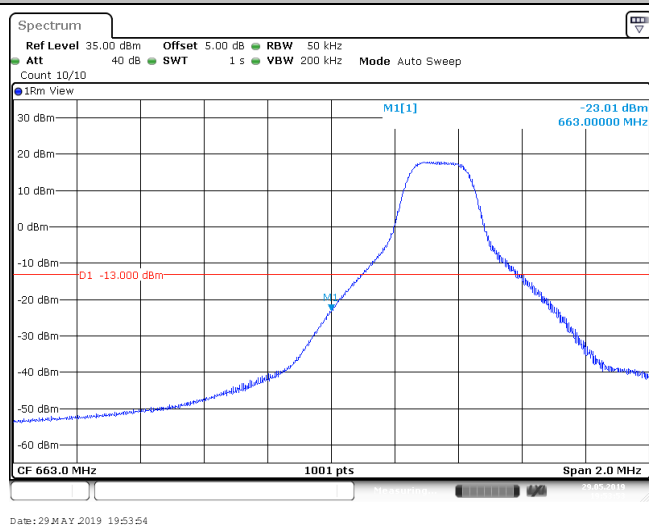
Band71_5MHz_QPSK_133447_1RB#24



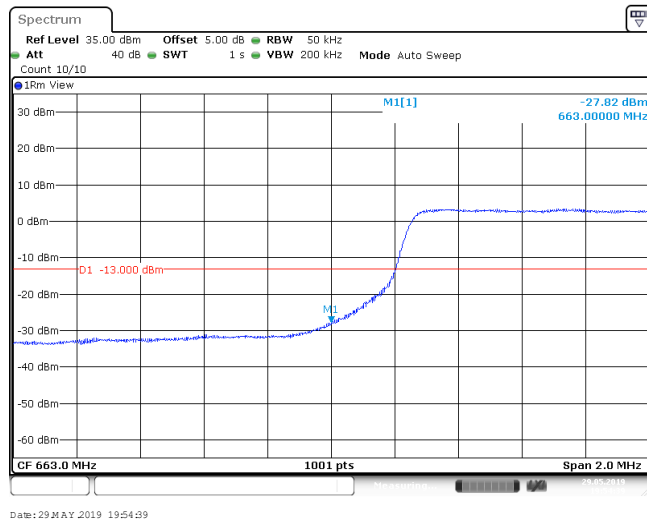
Band71_5MHz_QPSK_133447_25RB#0



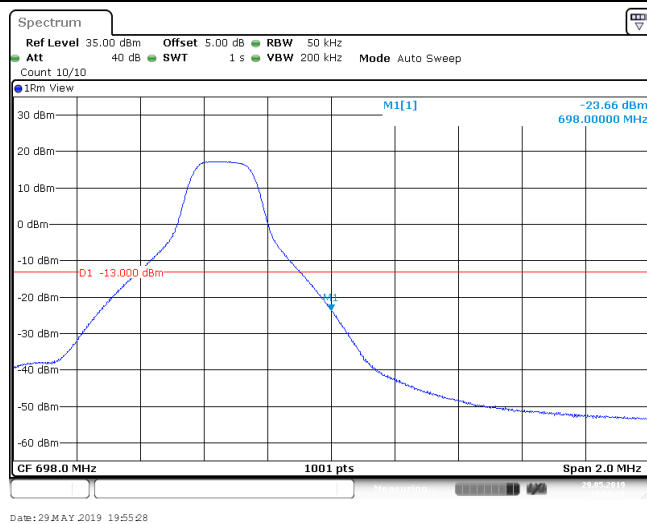
Band71_5MHz_16QAM_133147_1RB#0



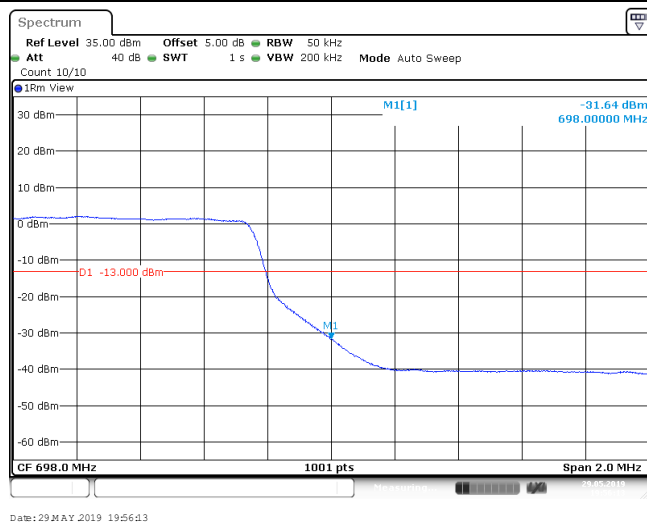
Band71_5MHz_16QAM_133147_25RB#0



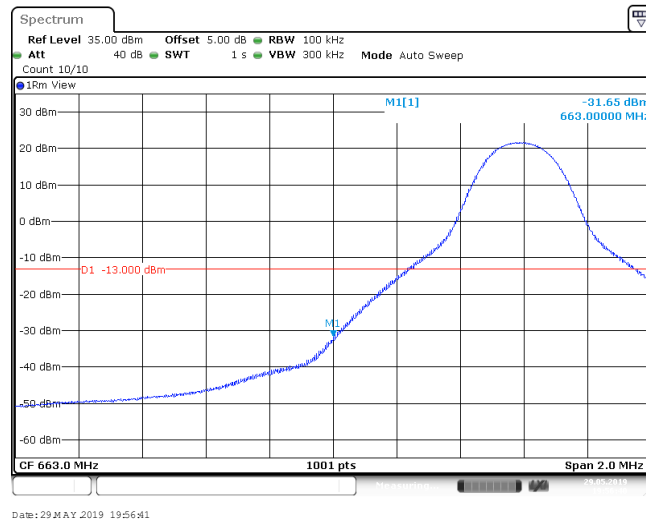
Band71_5MHz_16QAM_133447_1RB#24



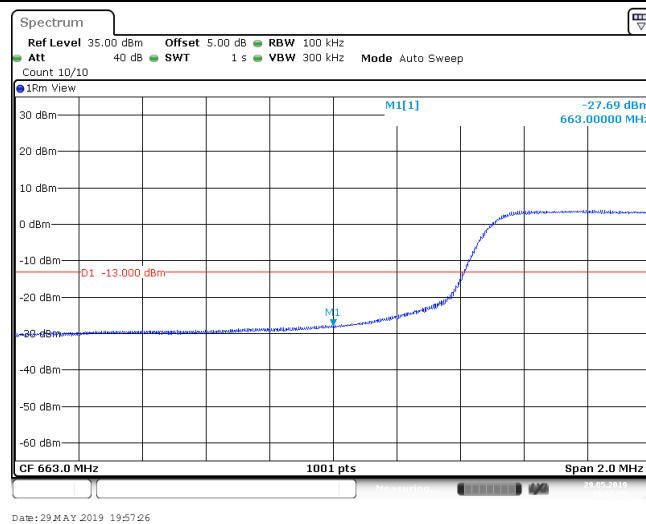
Band71_5MHz_16QAM_133447_25RB#0



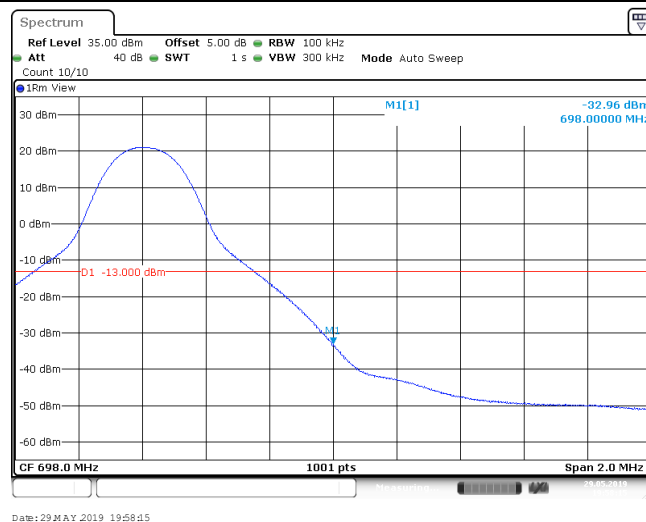
Band71_10MHz_QPSK_133172_1RB#0



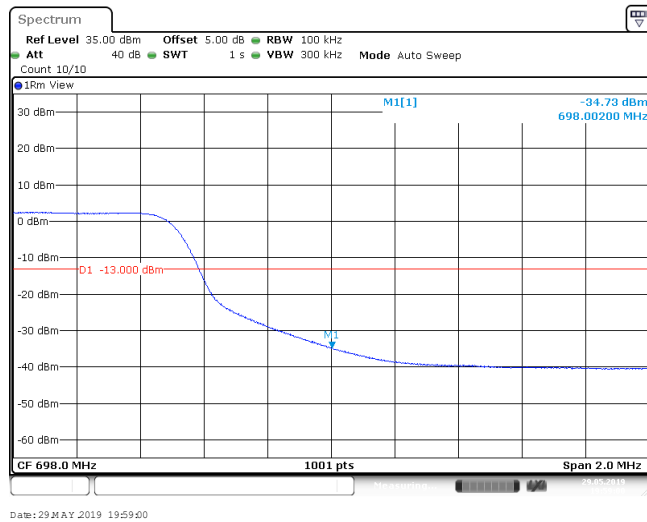
Band71_10MHz_QPSK_133172_50RB#0



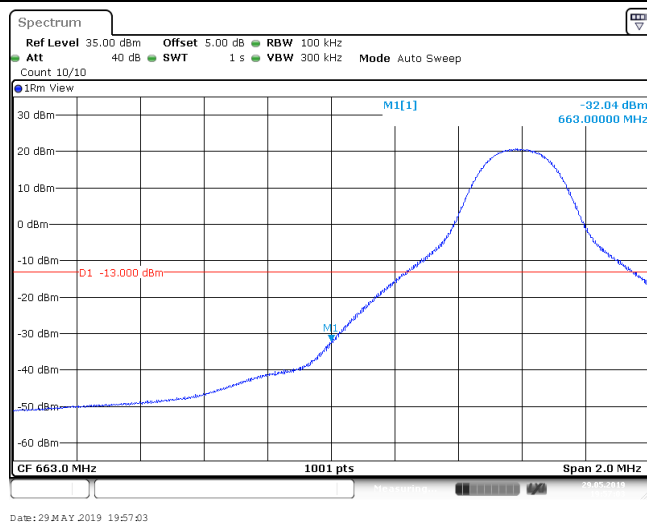
Band71_10MHz_QPSK_133422_1RB#49



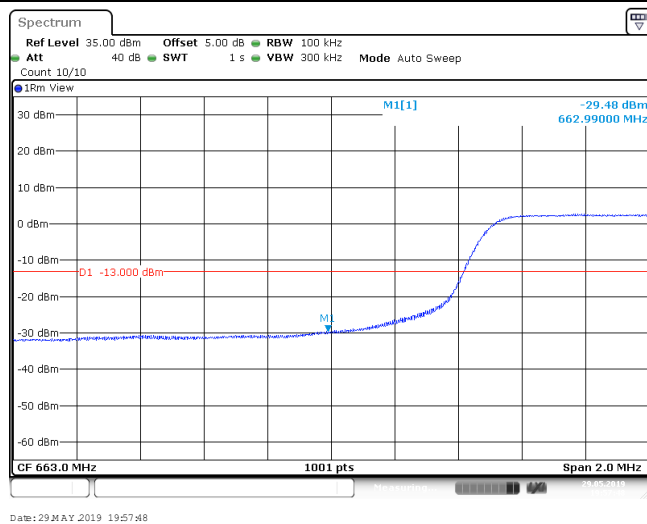
Band71_10MHz_QPSK_133422_50RB#0



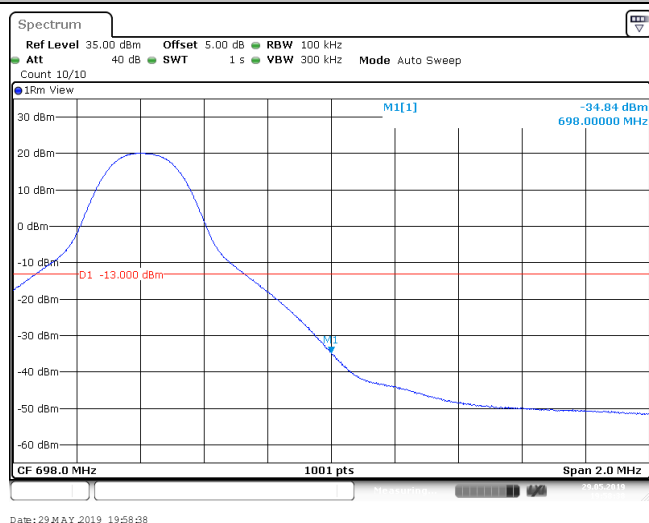
Band71_10MHz_16QAM_133172_1RB#0



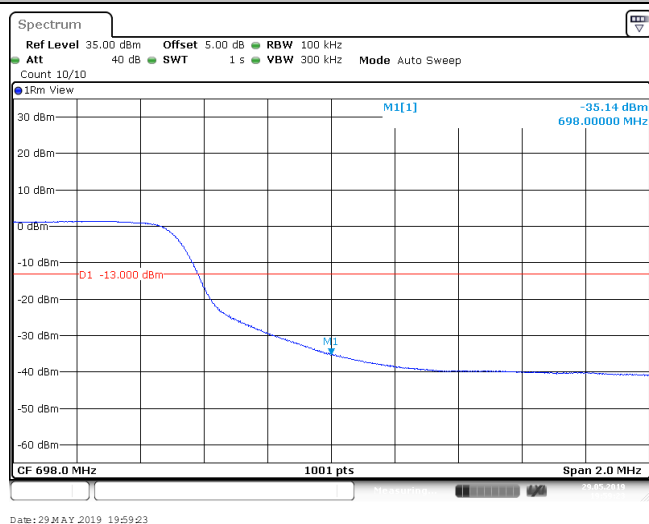
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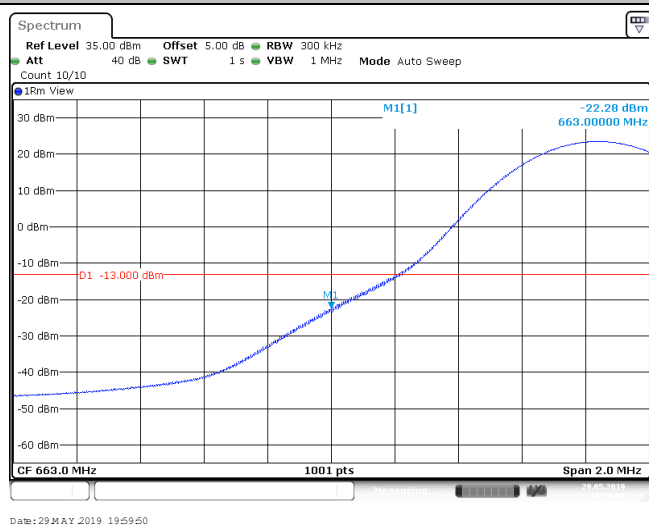
Band71_10MHz_16QAM_133422_1RB#49



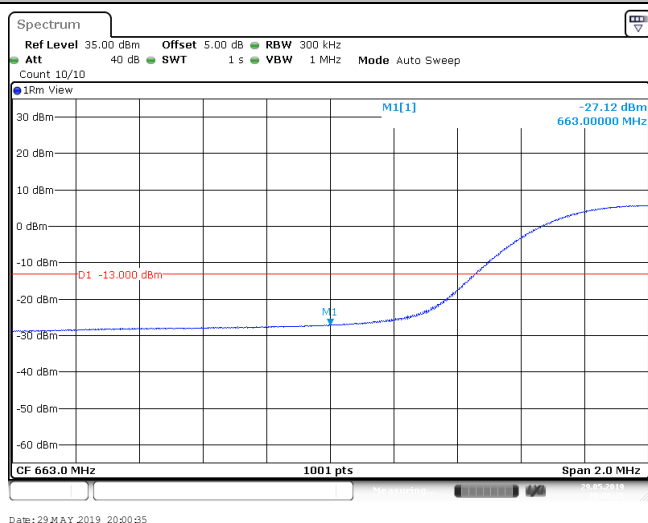
Band71_10MHz_16QAM_133422_50RB#0



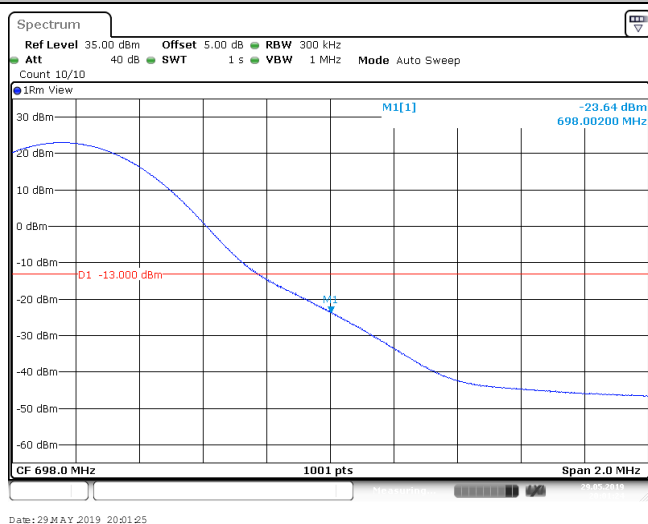
Band71_15MHz_QPSK_133197_1RB#0



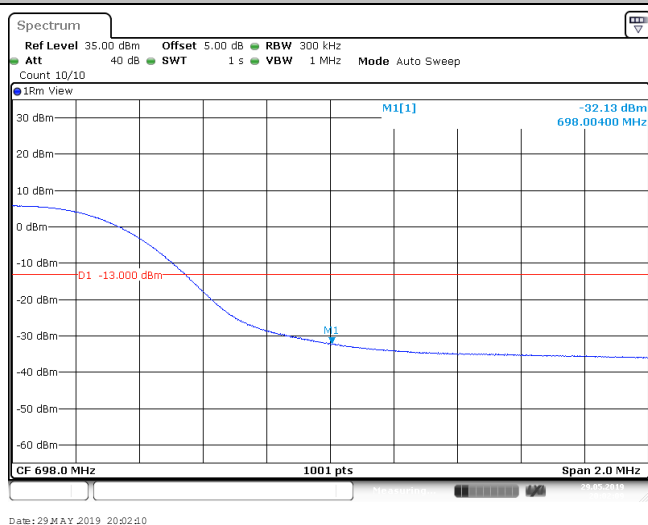
Band71_15MHz_QPSK_133197_75RB#0



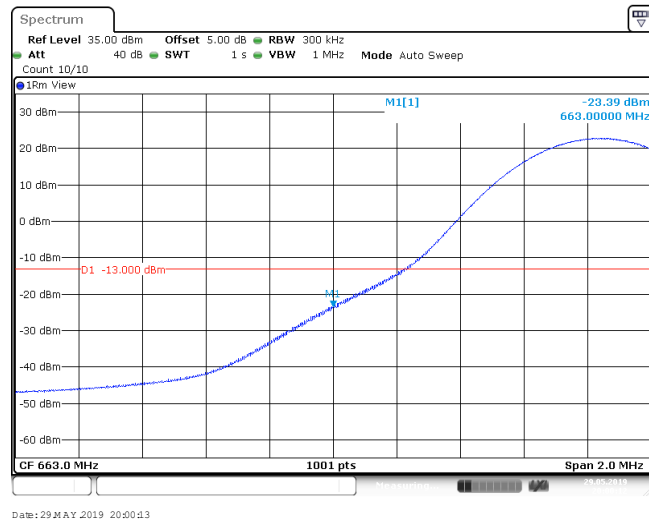
Band71_15MHz_QPSK_133397_1RB#74



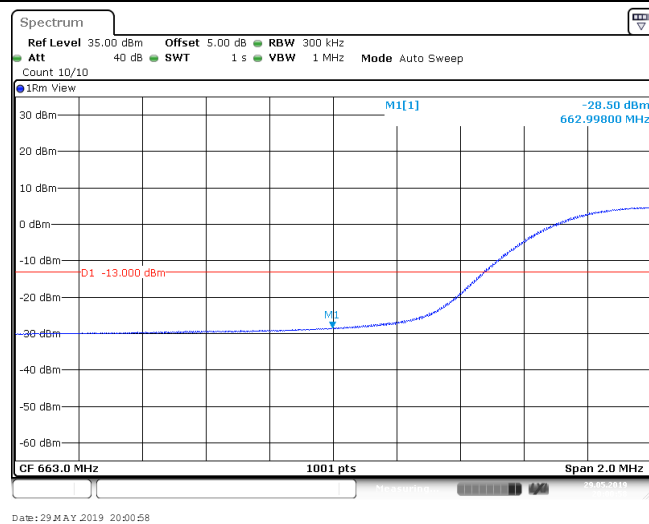
Band71_15MHz_QPSK_133397_75RB#0



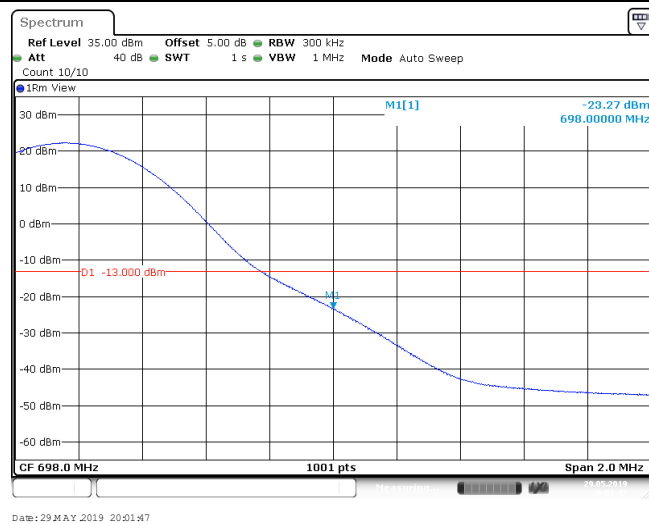
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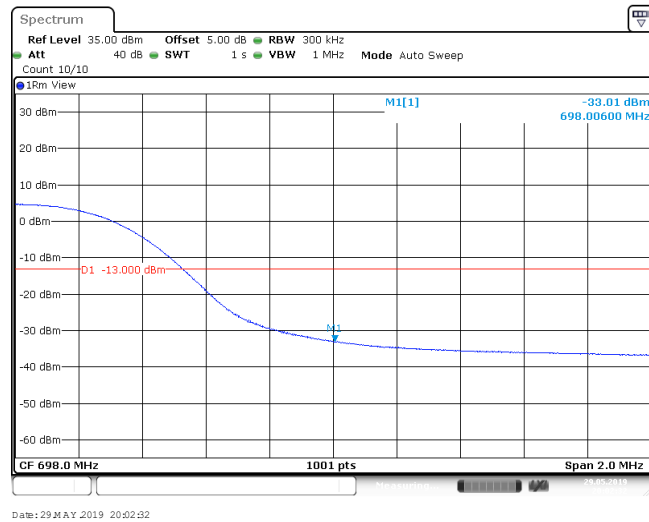
Band71_15MHz_16QAM_133197_75RB#0



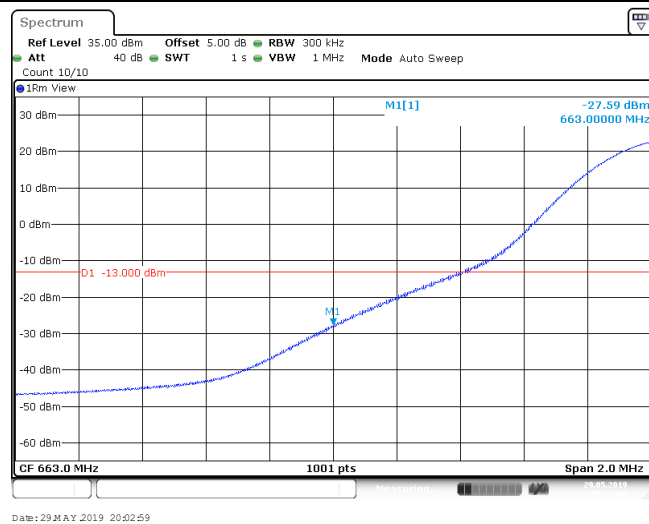
Band71_15MHz_16QAM_133397_1RB#74



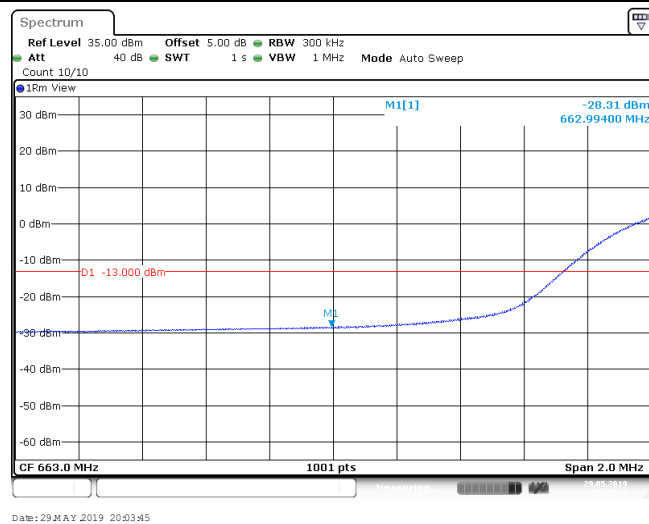
Band71_15MHz_16QAM_133397_75RB#0



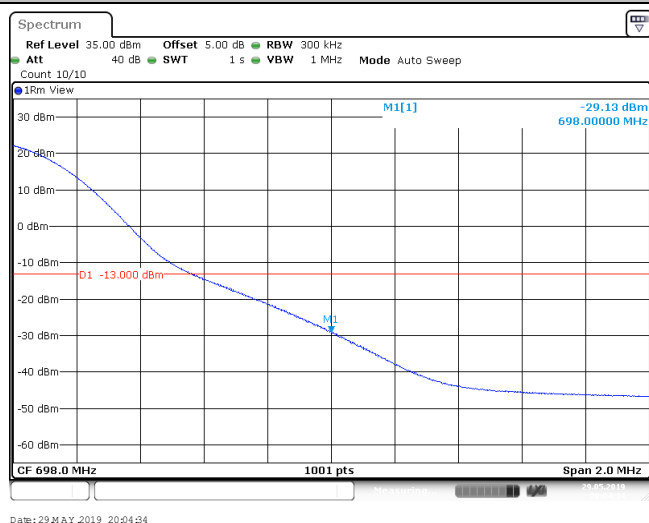
Band71_20MHz_QPSK_133222_1RB#0



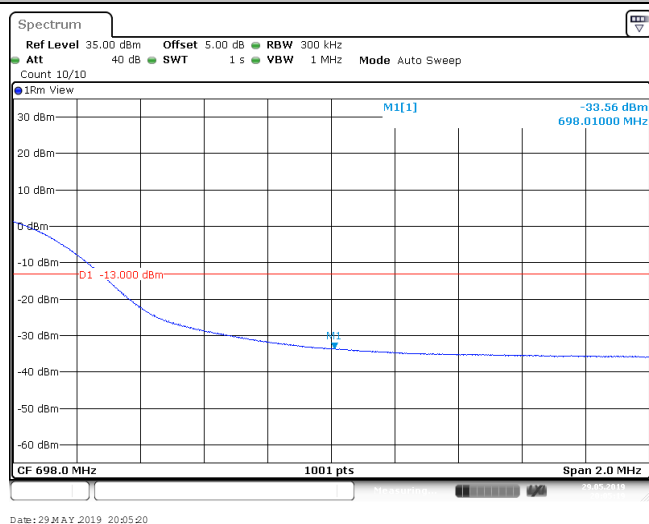
Band71_20MHz_QPSK_133222_100RB#0



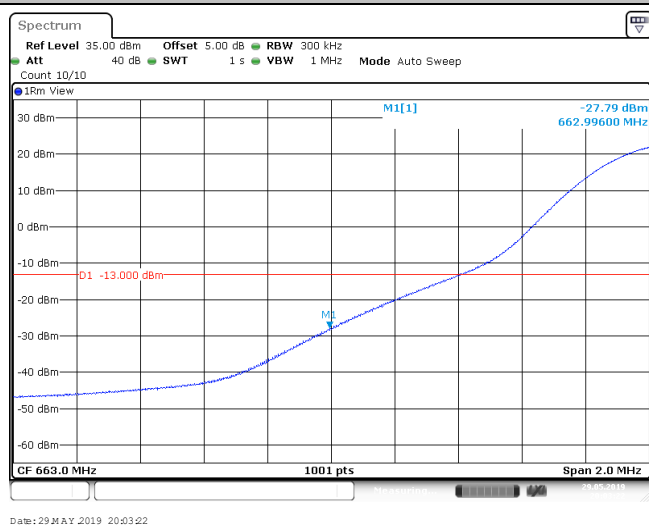
Band71_20MHz_QPSK_133372_1RB#99



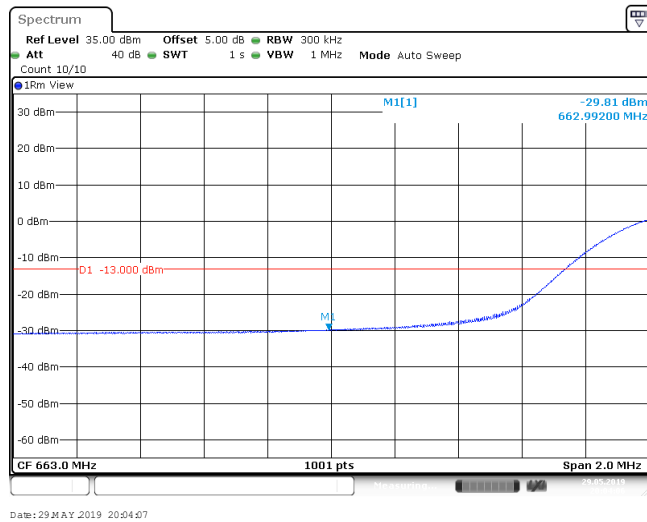
Band71_20MHz_QPSK_133372_100RB#0



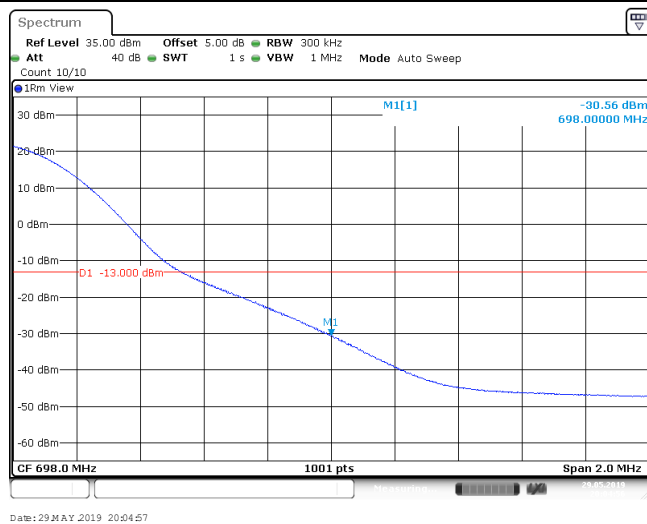
Band71_20MHz_16QAM_133222_1RB#0



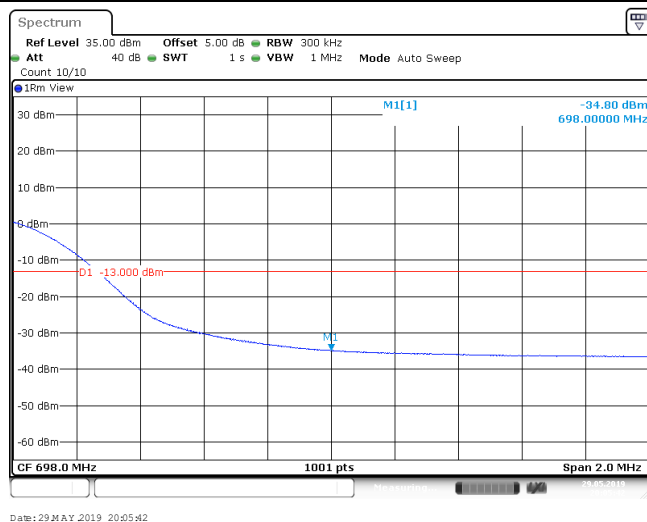
Band71_20MHz_16QAM_133222_100RB#0



Band71_20MHz_16QAM_133372_1RB#99



Band71_20MHz_16QAM_133372_100RB#0

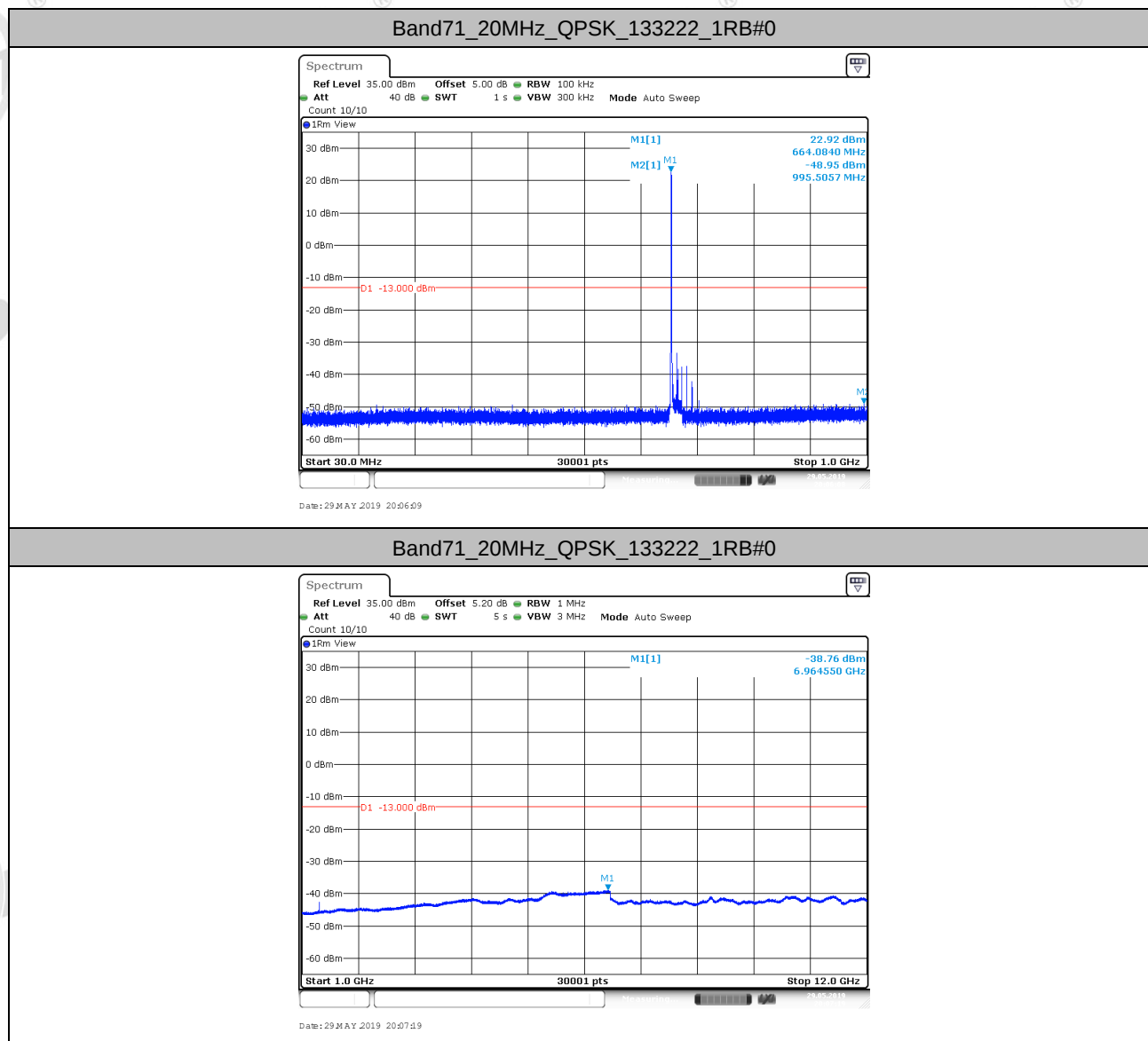


8. Spurious Emission at Antenna Terminal

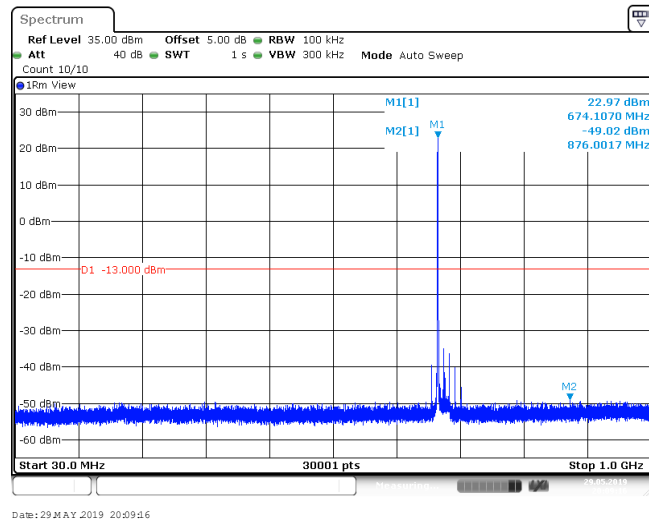
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points = $k * (\text{Span} / RBW)$ " 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.

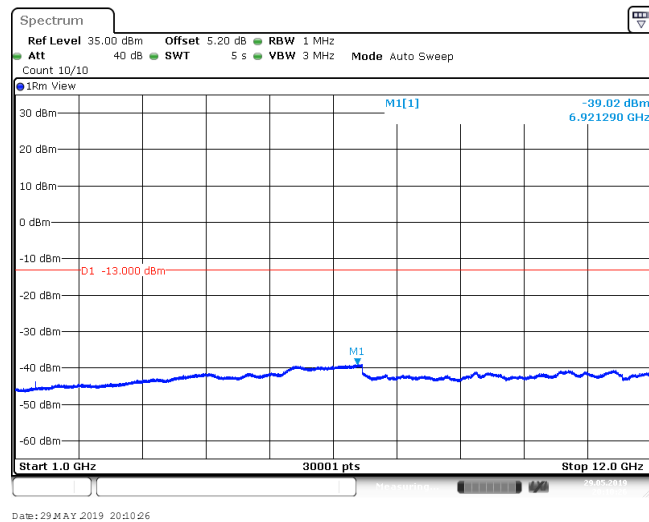
8.1. Test Plots



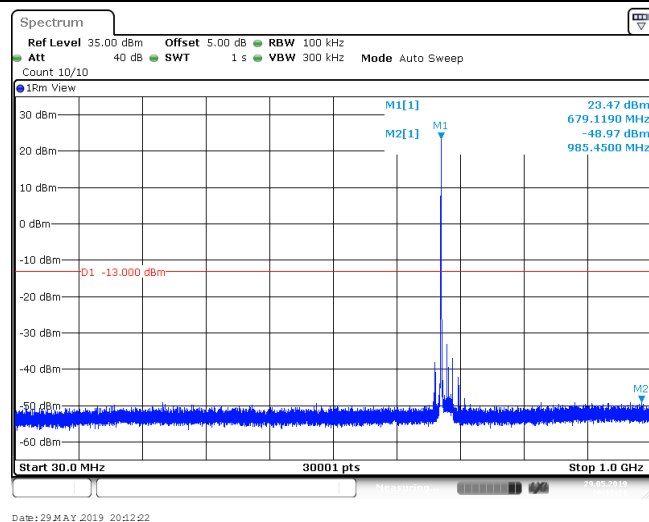
Band71_20MHz_QPSK_133322_1RB#0



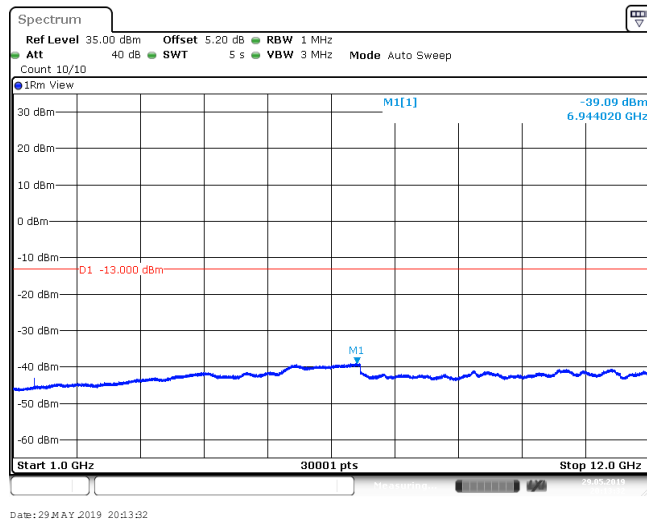
Band71_20MHz_QPSK_133322_1RB#0



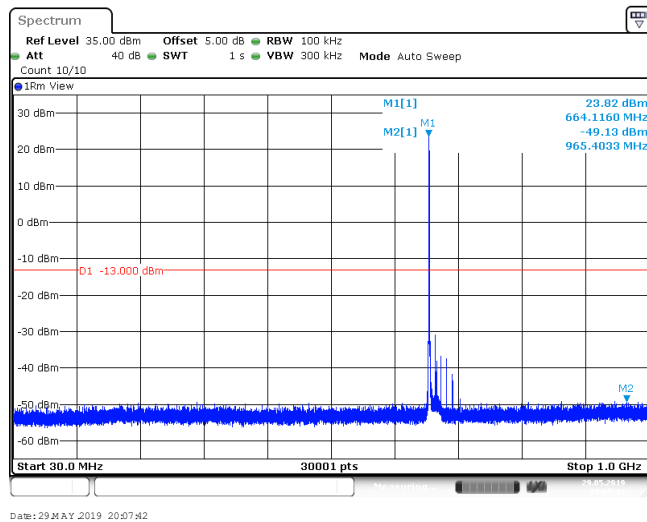
Band71_20MHz_QPSK_133372_1RB#0



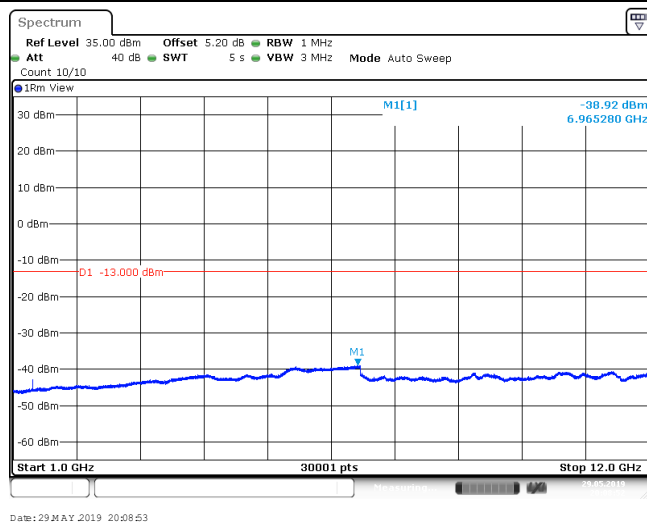
Band71_20MHz_QPSK_133372_1RB#0



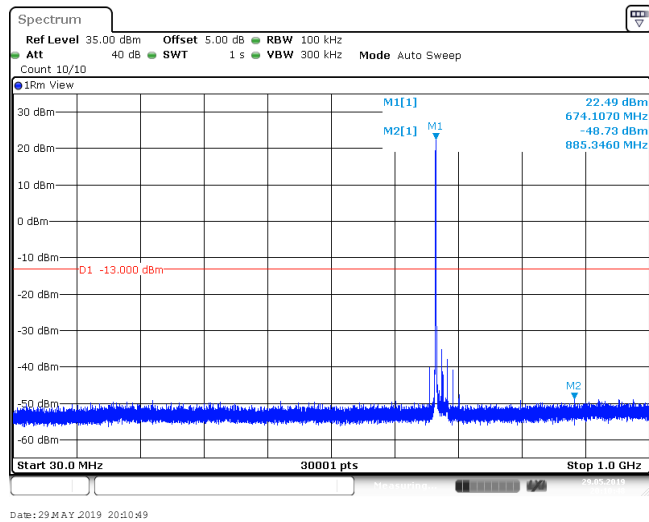
Band71_20MHz_16QAM_133222_1RB#0



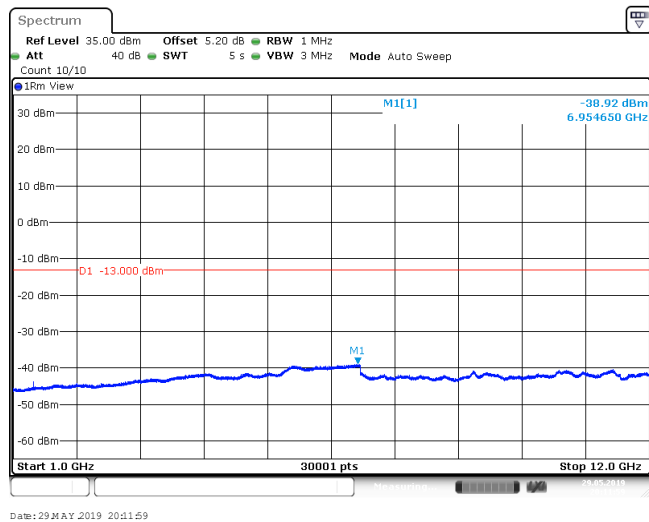
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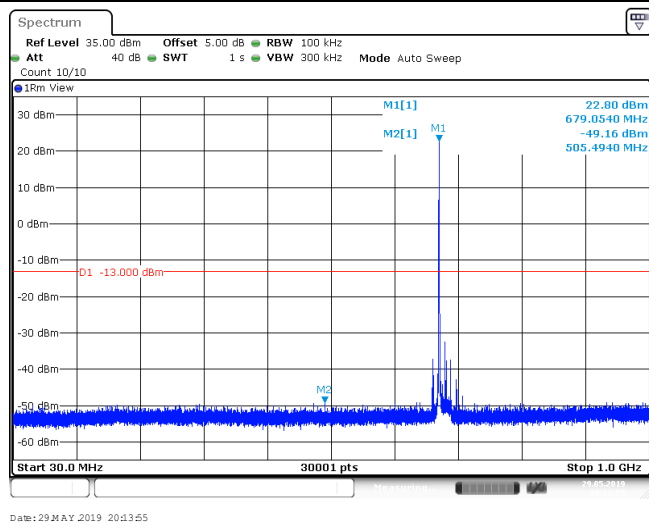
Band71_20MHz_16QAM_133322_1RB#0

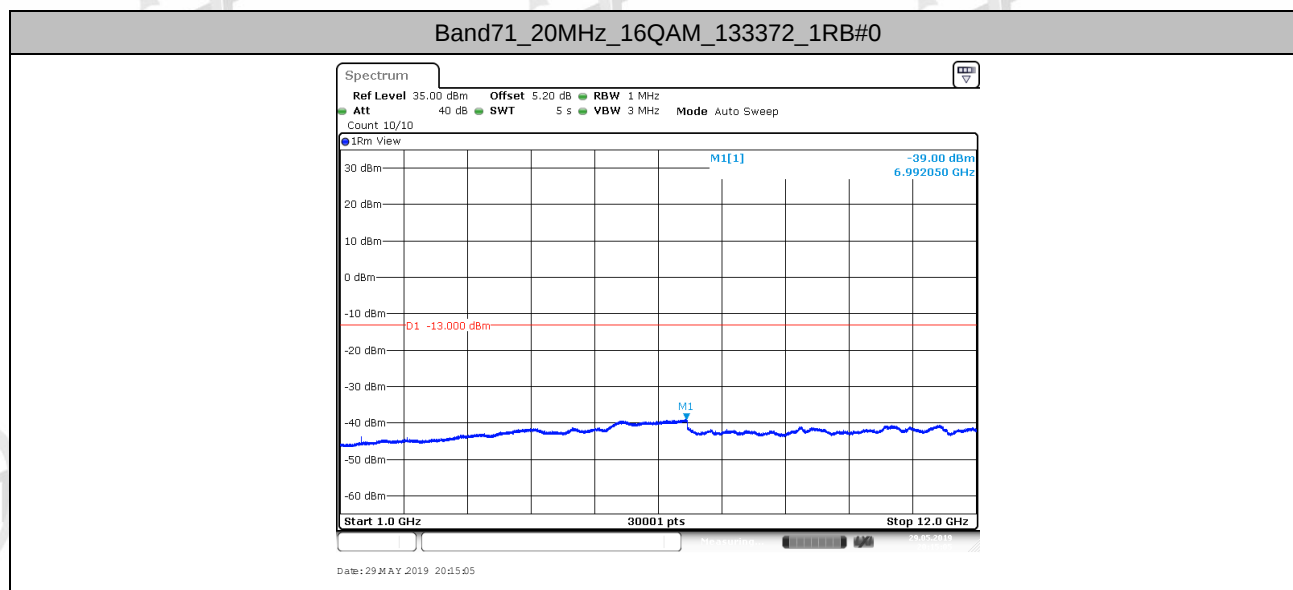


Band71_20MHz_16QAM_133322_1RB#0



Band71_20MHz_16QAM_133372_1RB#0





9. Frequency Stability

9.1. 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	-3.50	-0.005201	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	VN	NT	-4.10	-0.006092	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	VH	NT	-2.00	-0.002972	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	VL	NT	1.40	0.002050	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	VN	NT	-1.40	-0.002050	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	VH	NT	0.90	0.001318	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	VL	NT	-2.70	-0.003924	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	VN	NT	-4.00	-0.005814	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	VH	NT	-1.30	-0.001890	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	VL	NT	-0.10	-0.000149	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	VN	NT	-2.50	-0.003715	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	VH	NT	-1.50	-0.002229	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	VL	NT	0.30	0.000439	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	VN	NT	0.90	0.001318	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	VH	NT	0.80	0.001171	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	VL	NT	-0.20	-0.000291	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	VN	NT	-1.90	-0.002762	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	VH	NT	-0.80	-0.001163	±2.5	PASS

9.2. 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	-0.70	-0.001040	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	-20	-3.10	-0.004606	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	0	-2.60	-0.003863	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	10	-2.70	-0.004012	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	20	-1.30	-0.001932	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	30	-2.60	-0.003863	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	40	-2.80	-0.004160	±2.5	PASS
Band71	20MHz	QPSK	133222	100RB#0	NV	50	-2.00	-0.002972	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	NV	-30	1.70	0.002489	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	NV	-20	-0.20	-0.000293	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	NV	0	1.00	0.001464	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	NV	10	1.60	0.002343	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	NV	20	2.20	0.003221	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	NV	30	1.60	0.002343	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	NV	40	0.50	0.000732	±2.5	PASS
Band71	20MHz	QPSK	133322	100RB#0	NV	50	1.10	0.001611	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	-30	-0.60	-0.000872	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	-20	-3.20	-0.004651	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	0	-2.70	-0.003924	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	10	-4.50	-0.006541	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	20	-1.30	-0.001890	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	30	-3.50	-0.005087	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	40	-2.70	-0.003924	±2.5	PASS
Band71	20MHz	QPSK	133372	100RB#0	NV	50	-2.40	-0.003488	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	-30	-2.70	-0.004012	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	-20	-1.00	-0.001486	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	0	-3.20	-0.004755	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	10	-2.50	-0.003715	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	20	-2.00	-0.002972	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	30	-1.30	-0.001932	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	40	-3.60	-0.005349	±2.5	PASS
Band71	20MHz	16QAM	133222	100RB#0	NV	50	-1.30	-0.001932	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	NV	-30	1.80	0.002635	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	NV	-20	1.80	0.002635	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	NV	0	1.90	0.002782	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	NV	10	0.20	0.000293	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	NV	20	1.30	0.001903	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	NV	30	-0.80	-0.001171	±2.5	PASS
Band71	20MHz	16QAM	133322	100RB#0	NV	40	-0.40	-0.000586	±2.5	PASS

Band71	20MHz	16QAM	133322	100RB#0	NV	50	0.70	0.001025	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	-30	-1.90	-0.002762	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	-20	-1.50	-0.002180	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	0	-2.20	-0.003198	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	10	-2.20	-0.003198	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	20	-1.70	-0.002471	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	30	-2.80	-0.004070	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	40	-2.50	-0.003634	±2.5	PASS
Band71	20MHz	16QAM	133372	100RB#0	NV	50	-1.30	-0.001890	±2.5	PASS

The End