Appendix B.5

E-UTRA Band 7

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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	2018/413	2021/412
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 CommunicationTeste	Anristu	MT8821C	6201462742	2019/4/3	2020/4/3
Wideband Radio CommunicationTester	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 CommunicationTeste	Anristu	MT8821C	6201462742	2019/3/2	2020/3/1
Wideband Radio CommunicationTester	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 =±0.37 dB
Bandwidth	Magnitude [%]	U =± 0.2%
Band Edge Compliance	Disturbance Power [dBm]	U = ±2.0 dB
Spurious Emissions, Conducted	Disturbance Power [dBm]	U = ±2.0 dB
Frequency Stability	Frequency Accuracy [ppm]	U = ±0.24 ppm

3. Effective (Isotropic) Radiated Power

3.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band7	5MHz	QPSK	20775	1RB#0	23.22	27.22	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#12	23.23	27.23	33.00	PASS
Band7	5MHz	QPSK	20775	1RB#24	23.12	27.12	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#0	22.29	26.29	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#6	22.32	26.32	33.00	PASS
Band7	5MHz	QPSK	20775	12RB#13	22.22	26.22	33.00	PASS
Band7	5MHz	QPSK	20775	25RB#0	22.36	26.36	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#0	23.2	27.20	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#12	23.04	27.04	33.00	PASS
Band7	5MHz	QPSK	21100	1RB#24	23.05	27.05	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#0	22.21	26.21	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#6	22.15	26.15	33.00	PASS
Band7	5MHz	QPSK	21100	12RB#13	22.07	26.07	33.00	PASS
Band7	5MHz	QPSK	21100	25RB#0	22.18	26.18	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#0	23.17	27.17	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#12	23.1	27.10	33.00	PASS
Band7	5MHz	QPSK	21425	1RB#24	22.72	26.72	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#0	22.53	26.53	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#6	22.25	26.25	33.00	PASS
Band7	5MHz	QPSK	21425	12RB#13	21.94	25.94	33.00	PASS
Band7	5MHz	QPSK	21425	25RB#0	22.24	26.24	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#0	22.52	26.52	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#12	22.3	26.30	33.00	PASS
Band7	5MHz	16QAM	20775	1RB#24	22.55	26.55	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#0	21.41	25.41	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#6	21.34	25.34	33.00	PASS
Band7	5MHz	16QAM	20775	12RB#13	21.3	25.30	33.00	PASS
Band7	5MHz	16QAM	20775	25RB#0	21.34	25.34	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#0	22.37	26.37	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#12	22.25	26.25	33.00	PASS
Band7	5MHz	16QAM	21100	1RB#24	22.18	26.18	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#0	21.22	25.22	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#6	21.21	25.21	33.00	PASS
Band7	5MHz	16QAM	21100	12RB#13	21.17	25.17	33.00	PASS
Band7	5MHz	16QAM	21100	25RB#0	21.12	25.12	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#0	22.54	26.54	33.00	PASS
Band7	5MHz	16QAM	21425	1RB#12	22.42	26.42	33.00	PASS

Band7	5MHz	16QAM	21425	1RB#24	22.39	26.39	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#0	21.29	25.29	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#6	21.2	25.20	33.00	PASS
Band7	5MHz	16QAM	21425	12RB#13	21.25	25.25	33.00	PASS
Band7	5MHz	16QAM	21425	25RB#0	21.23	25.23	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#0	23.38	27.38	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#24	24.24	28.24	33.00	PASS
Band7	10MHz	QPSK	20800	1RB#49	22.77	26.77	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#0	22.41	26.41	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#12	22.29	26.29	33.00	PASS
Band7	10MHz	QPSK	20800	25RB#25	22.24	26.24	33.00	PASS
Band7	10MHz	QPSK	20800	50RB#0	22.27	26.27	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#0	23.33	27.33	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#24	23.33	27.33	33.00	PASS
Band7	10MHz	QPSK	21100	1RB#49	22.78	26.78	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#0	22.31	26.31	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#12	22.1	26.10	33.00	PASS
Band7	10MHz	QPSK	21100	25RB#25	22.07	26.07	33.00	PASS
Band7	10MHz	QPSK	21100	50RB#0	22.11	26.11	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#0	23.32	27.32	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#24	23.35	27.35	33.00	PASS
Band7	10MHz	QPSK	21400	1RB#49	21.99	25.99	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#0	22.55	26.55	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#12	22.14	26.14	33.00	PASS
Band7	10MHz	QPSK	21400	25RB#25	22.05	26.05	33.00	PASS
Band7	10MHz	QPSK	21400	50RB#0	22.22	26.22	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#0	22.71	26.71	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#24	22.43	26.43	33.00	PASS
Band7	10MHz	16QAM	20800	1RB#49	22.49	26.49	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#0	21.25	25.25	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#12	21.26	25.26	33.00	PASS
Band7	10MHz	16QAM	20800	25RB#25	21.23	25.23	33.00	PASS
Band7	10MHz	16QAM	20800	50RB#0	21.32	25.32	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#0	22.6	26.60	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#24	22.3	26.30	33.00	PASS
Band7	10MHz	16QAM	21100	1RB#49	22.4	26.40	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#0	21.18	25.18	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#12	21.15	25.15	33.00	PASS
Band7	10MHz	16QAM	21100	25RB#25	20.95	24.95	33.00	PASS
Band7	10MHz	16QAM	21100	50RB#0	21.12	25.12	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#0	22.62	26.62	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#24	22.3	26.30	33.00	PASS
Band7	10MHz	16QAM	21400	1RB#49	22.52	26.52	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#0	21.23	25.23	33.00	PASS

Band7	10MHz	16QAM	21400	25RB#12	21.18	25.18	33.00	PASS
Band7	10MHz	16QAM	21400	25RB#25	21.24	25.24	33.00	PASS
Band7	10MHz	16QAM	21400	50RB#0	21.15	25.15	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#0	23.29	27.29	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#38	23.22	27.22	33.00	PASS
Band7	15MHz	QPSK	20825	1RB#74	23.28	27.28	33.00	PASS
Band7	15MHz	QPSK	20825	36RB#0	22.53	26.53	33.00	PASS
Band7	15MHz	QPSK	20825	36RB#18	22.38	26.38	33.00	PASS
Band7	15MHz	QPSK	20825	36RB#39	22.28	26.28	33.00	PASS
Band7	15MHz	QPSK	20825	75RB#0	22.43	26.43	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#0	23.16	27.16	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#38	23.06	27.06	33.00	PASS
Band7	15MHz	QPSK	21100	1RB#74	22.99	26.99	33.00	PASS
Band7	15MHz	QPSK	21100	36RB#0	22.3	26.30	33.00	PASS
Band7	15MHz	QPSK	21100	36RB#18	22.36	26.36	33.00	PASS
Band7	15MHz	QPSK	21100	36RB#39	22.22	26.22	33.00	PASS
Band7	15MHz	QPSK	21100	75RB#0	22.26	26.26	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#0	23.17	27.17	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#38	23.1	27.10	33.00	PASS
Band7	15MHz	QPSK	21375	1RB#74	22.09	26.09	33.00	PASS
Band7	15MHz	QPSK	21375	36RB#0	22.45	26.45	33.00	PASS
Band7	15MHz	QPSK	21375	36RB#18	22.28	26.28	33.00	PASS
Band7	15MHz	QPSK	21375	36RB#39	22.19	26.19	33.00	PASS
Band7	15MHz	QPSK	21375	75RB#0	22.27	26.27	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#0	22.62	26.62	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#38	22.44	26.44	33.00	PASS
Band7	15MHz	16QAM	20825	1RB#74	22.35	26.35	33.00	PASS
Band7	15MHz	16QAM	20825	36RB#0	21.52	25.52	33.00	PASS
Band7	15MHz	16QAM	20825	36RB#18	21.39	25.39	33.00	PASS
Band7	15MHz	16QAM	20825	36RB#39	21.36	25.36	33.00	PASS
Band7	15MHz	16QAM	20825	75RB#0	21.37	25.37	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#0	22.42	26.42	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#38	22.43	26.43	33.00	PASS
Band7	15MHz	16QAM	21100	1RB#74	22.42	26.42	33.00	PASS
Band7	15MHz	16QAM	21100	36RB#0	21.21	25.21	33.00	PASS
Band7	15MHz	16QAM	21100	36RB#18	21.26	25.26	33.00	PASS
Band7	15MHz	16QAM	21100	36RB#39	21.18	25.18	33.00	PASS
Band7	15MHz	16QAM	21100	75RB#0	21.27	25.27	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#0	22.54	26.54	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#38	22.45	26.45	33.00	PASS
Band7	15MHz	16QAM	21375	1RB#74	22.41	26.41	33.00	PASS
Band7	15MHz	16QAM	21375	36RB#0	21.33	25.33	33.00	PASS
Band7	15MHz	16QAM	21375	36RB#18	21.25	25.25	33.00	PASS
Band7	15MHz	16QAM	21375	36RB#39	21.19	25.19	33.00	PASS

Band7	15MHz	16QAM	21375	75RB#0	21.28	25.28	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#0	23.38	27.38	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#49	23.16	27.16	33.00	PASS
Band7	20MHz	QPSK	20850	1RB#99	23.22	27.22	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#0	22.43	26.43	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#25	22.37	26.37	33.00	PASS
Band7	20MHz	QPSK	20850	50RB#50	22.28	26.28	33.00	PASS
Band7	20MHz	QPSK	20850	100RB#0	22.31	26.31	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#0	23.17	27.17	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#49	22.94	26.94	33.00	PASS
Band7	20MHz	QPSK	21100	1RB#99	22.81	26.81	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#0	22.26	26.26	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#25	22.29	26.29	33.00	PASS
Band7	20MHz	QPSK	21100	50RB#50	22.23	26.23	33.00	PASS
Band7	20MHz	QPSK	21100	100RB#0	22.28	26.28	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#0	23.31	27.31	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#49	23.14	27.14	33.00	PASS
Band7	20MHz	QPSK	21350	1RB#99	21.99	25.99	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#0	22.45	26.45	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#25	22.18	26.18	33.00	PASS
Band7	20MHz	QPSK	21350	50RB#50	21.84	25.84	33.00	PASS
Band7	20MHz	QPSK	21350	100RB#0	22.35	26.35	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#0	22.67	26.67	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#49	22.53	26.53	33.00	PASS
Band7	20MHz	16QAM	20850	1RB#99	22.52	26.52	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#0	21.37	25.37	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#25	21.38	25.38	33.00	PASS
Band7	20MHz	16QAM	20850	50RB#50	21.35	25.35	33.00	PASS
Band7	20MHz	16QAM	20850	100RB#0	21.45	25.45	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#0	22.4	26.40	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#49	22.35	26.35	33.00	PASS
Band7	20MHz	16QAM	21100	1RB#99	22.39	26.39	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#0	21.19	25.19	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#25	21.16	25.16	33.00	PASS
Band7	20MHz	16QAM	21100	50RB#50	21.17	25.17	33.00	PASS
Band7	20MHz	16QAM	21100	100RB#0	21.23	25.23	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#0	22.46	26.46	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#49	22.28	26.28	33.00	PASS
Band7	20MHz	16QAM	21350	1RB#99	22.32	26.32	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#0	21.24	25.24	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#25	21.24	25.24	33.00	PASS
Band7	20MHz	16QAM	21350	50RB#50	21.15	25.15	33.00	PASS
Band7	20MHz	16QAM	21350	100RB#0	21.26	25.26	33.00	PASS

Remark:

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

ERP [dBm] = Conducted Power [dBm] + Gain [dBd]

EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]

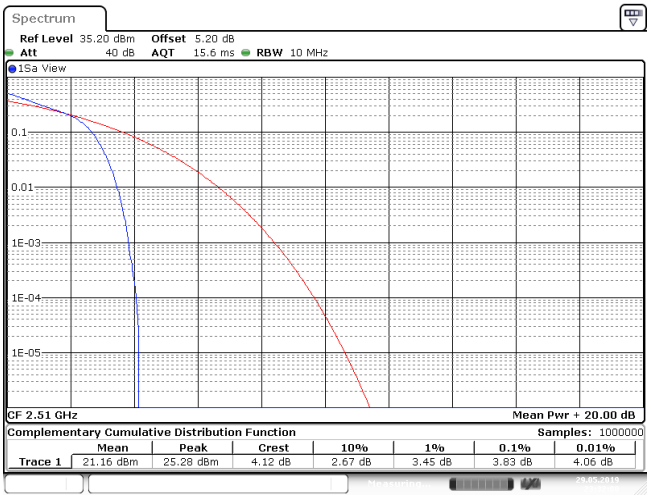
4. Peak-to-Average Ratio(CCDF)

4.1. Test Result

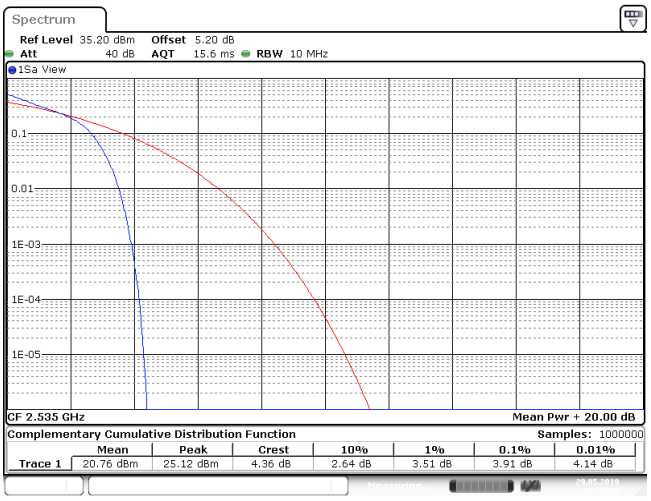
BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	3.83	13	PASS
Band7	20MHz	QPSK	21100	100RB#0	3.91	13	PASS
Band7	20MHz	QPSK	21350	100RB#0	3.91	13	PASS
Band7	20MHz	16QAM	20850	100RB#0	5.62	13	PASS
Band7	20MHz	16QAM	21100	100RB#0	5.65	13	PASS
Band7	20MHz	16QAM	21350	100RB#0	5.68	13	PASS

4.2. Test Plots

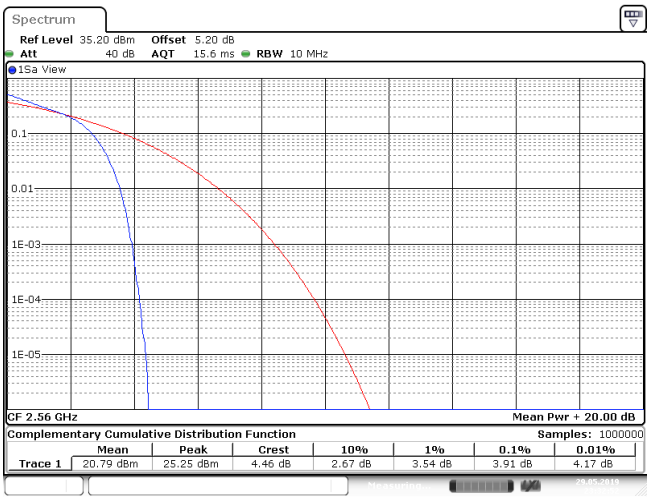
Band7_20MHz_QPSK_20850_100RB#0



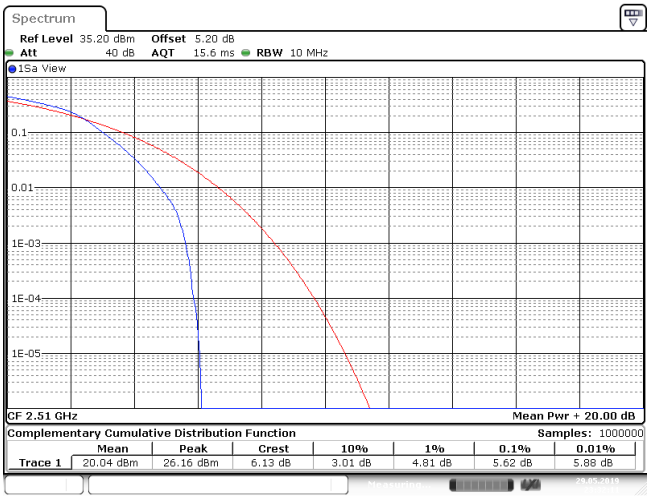
Band7_20MHz_QPSK_21100_100RB#0



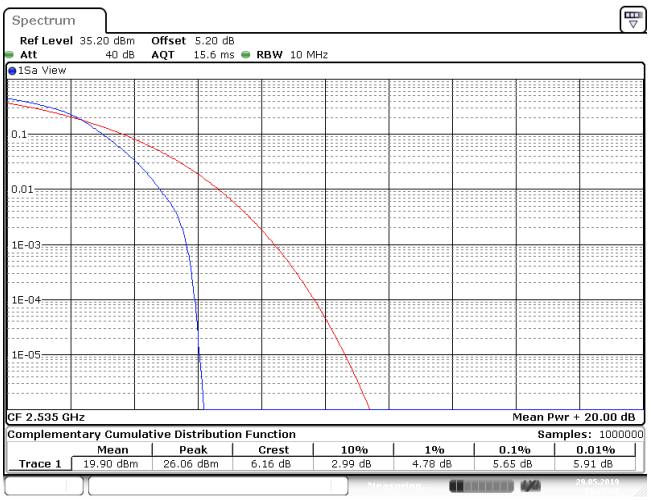
Band7_20MHz_QPSK_21350_100RB#0



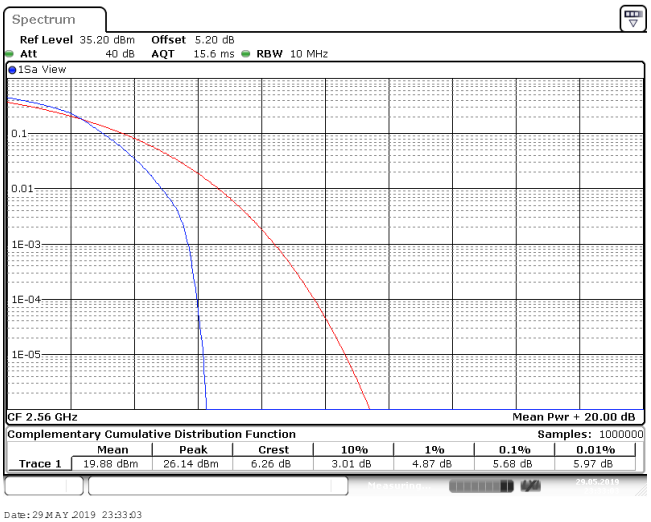
Band7_20MHz_16QAM_20850_100RB#0



Band7_20MHz_16QAM_21100_100RB#0



Band7_20MHz_16QAM_21350_100RB#0

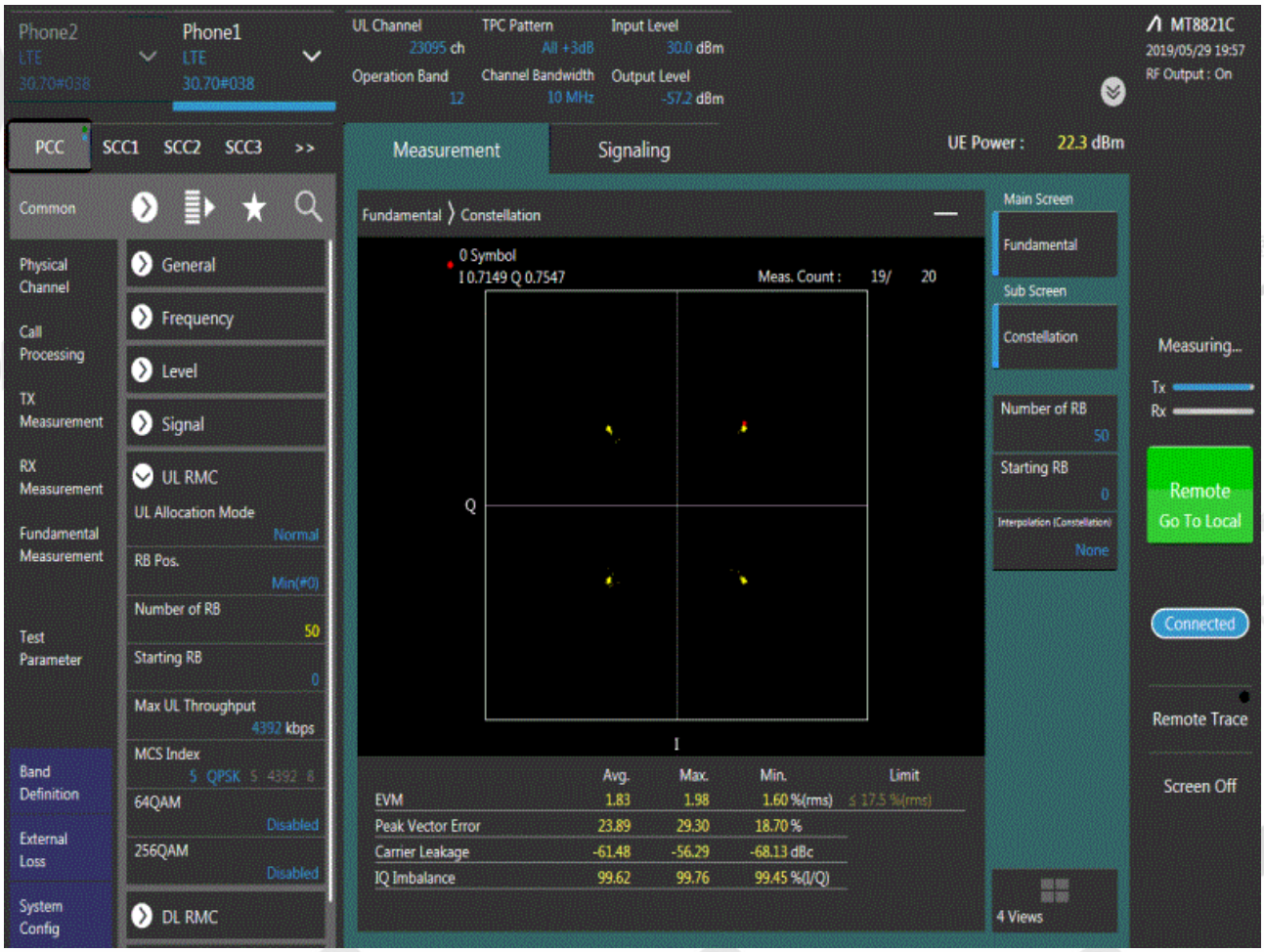


5. Modulation Characteristics

5.1. Test BAND = LTE Band 7

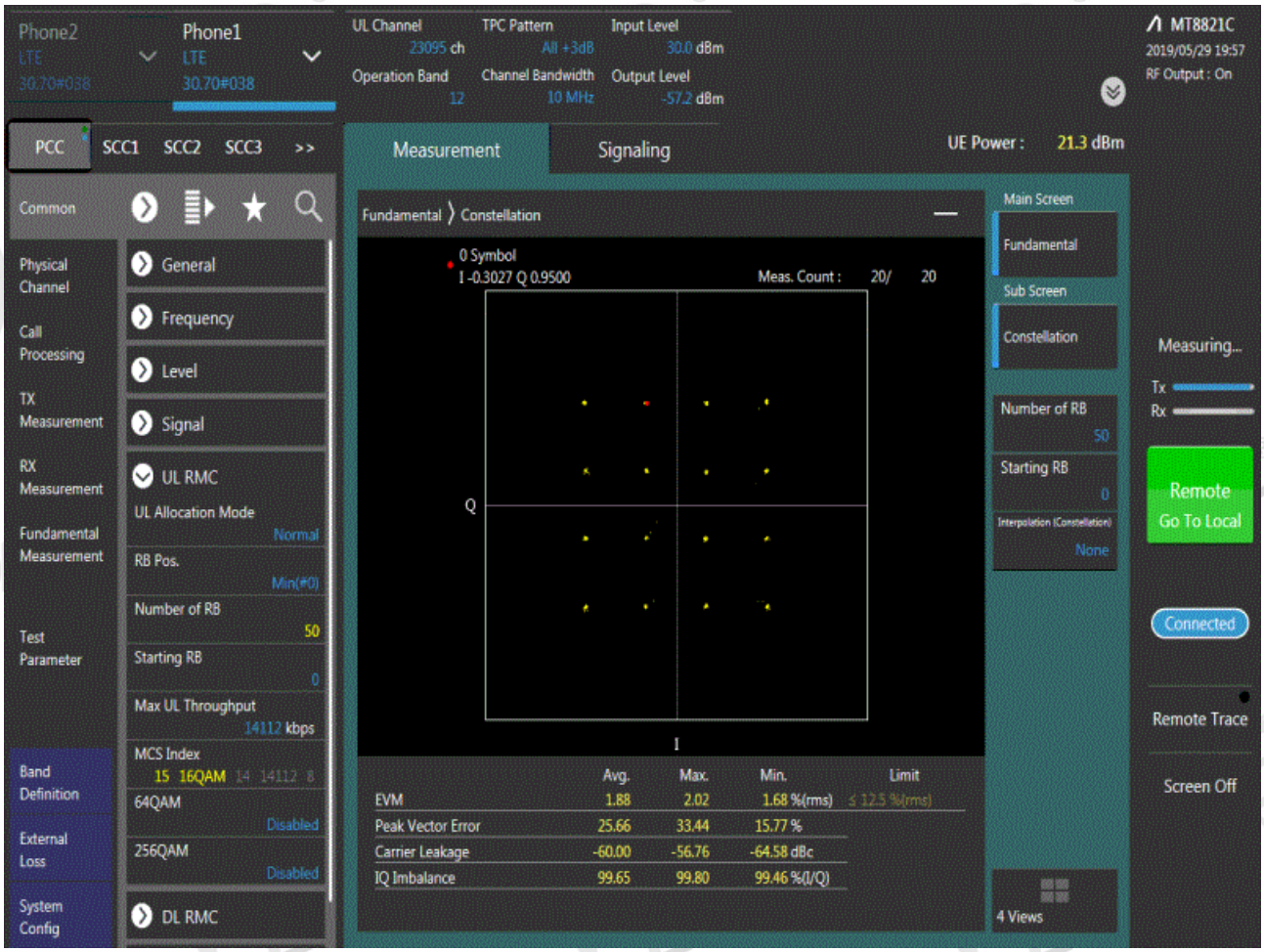
5.2. Test Mode = LTE /TM1 20MHz

5.2.1.Test Channel = MCH



5.3. Test Mode = LTE /TM2 20MHz

5.3.1.Test Channel = MCH



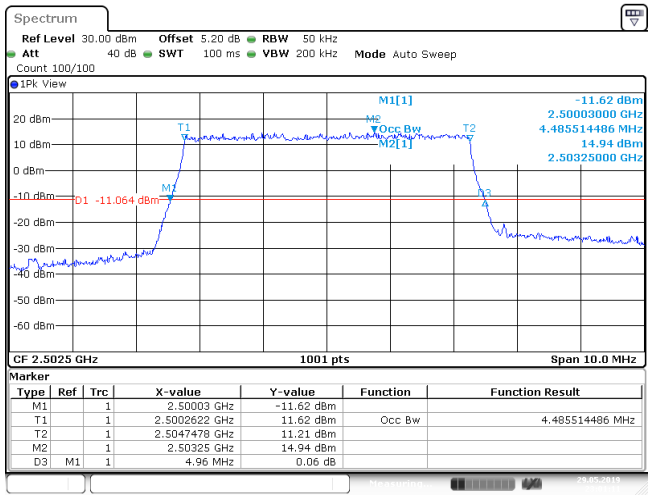
6. 26dB Bandwidth and Occupied Bandwidth

6.1. Test Result

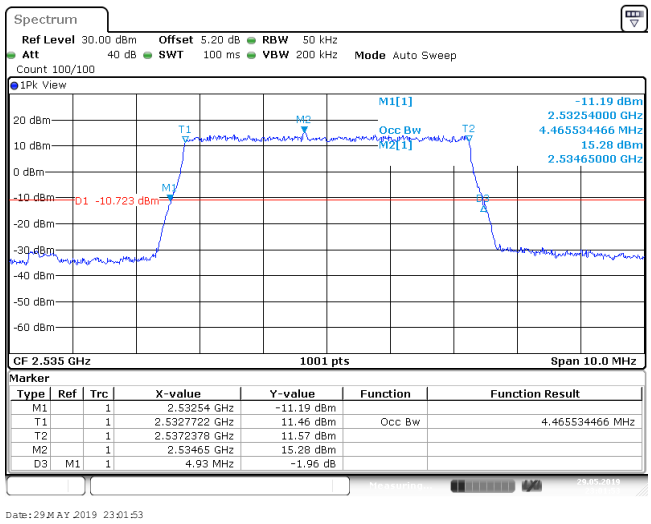
BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band7	5MHz	QPSK	20775	25RB#0	4.486	4.960	PASS
Band7	5MHz	QPSK	21100	25RB#0	4.466	4.930	PASS
Band7	5MHz	QPSK	21425	25RB#0	4.476	4.930	PASS
Band7	5MHz	16QAM	20775	25RB#0	4.476	4.870	PASS
Band7	5MHz	16QAM	21100	25RB#0	4.476	4.960	PASS
Band7	5MHz	16QAM	21425	25RB#0	4.476	4.950	PASS
Band7	10MHz	QPSK	20800	50RB#0	8.931	9.780	PASS
Band7	10MHz	QPSK	21100	50RB#0	8.931	9.740	PASS
Band7	10MHz	QPSK	21400	50RB#0	8.931	9.760	PASS
Band7	10MHz	16QAM	20800	50RB#0	8.911	9.720	PASS
Band7	10MHz	16QAM	21100	50RB#0	8.951	9.700	PASS
Band7	10MHz	16QAM	21400	50RB#0	8.931	9.640	PASS
Band7	15MHz	QPSK	20825	75RB#0	13.457	14.850	PASS
Band7	15MHz	QPSK	21100	75RB#0	13.427	14.730	PASS
Band7	15MHz	QPSK	21375	75RB#0	13.457	14.880	PASS
Band7	15MHz	16QAM	20825	75RB#0	13.457	14.880	PASS
Band7	15MHz	16QAM	21100	75RB#0	13.487	14.820	PASS
Band7	15MHz	16QAM	21375	75RB#0	13.457	14.760	PASS
Band7	20MHz	QPSK	20850	100RB#0	17.902	19.400	PASS
Band7	20MHz	QPSK	21100	100RB#0	17.942	19.360	PASS
Band7	20MHz	QPSK	21350	100RB#0	17.902	19.560	PASS
Band7	20MHz	16QAM	20850	100RB#0	17.862	19.240	PASS
Band7	20MHz	16QAM	21100	100RB#0	17.902	19.440	PASS
Band7	20MHz	16QAM	21350	100RB#0	17.902	19.440	PASS

6.2. Test Plots

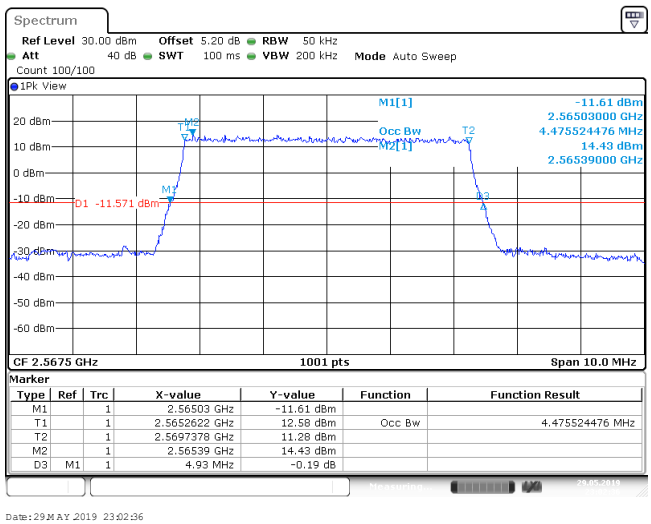
Band7_5MHz_QPSK_20775_25RB#0



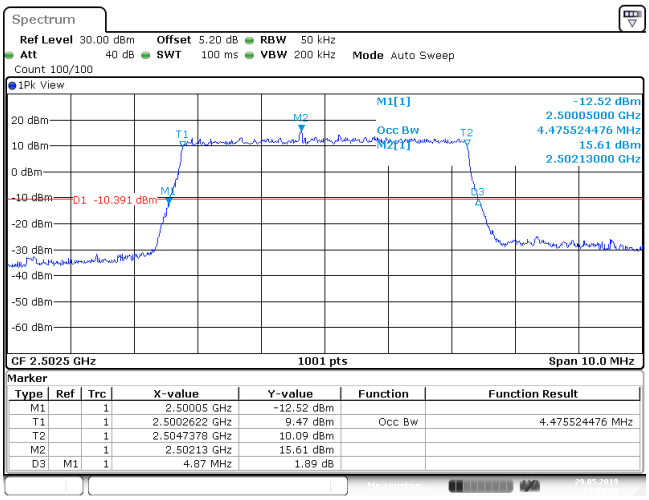
Band7_5MHz_QPSK_21100_25RB#0



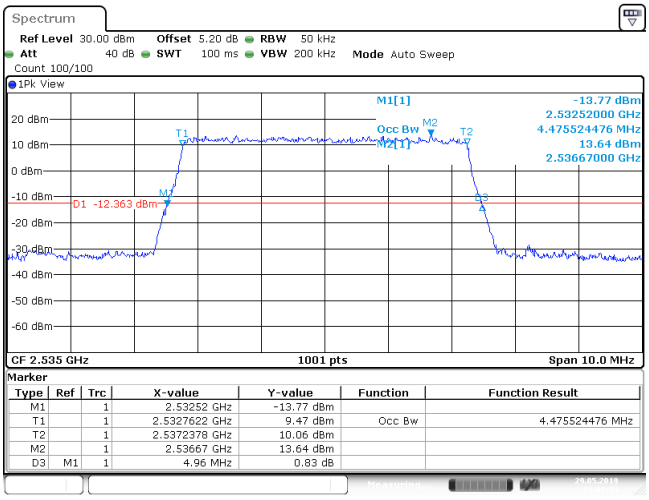
Band7_5MHz_QPSK_21425_25RB#0



Band7_5MHz_16QAM_20775_25RB#0



Band7_5MHz_16QAM_21100_25RB#0



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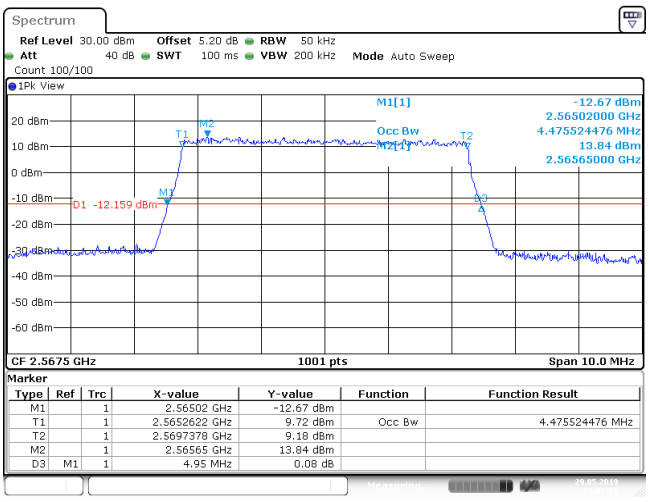
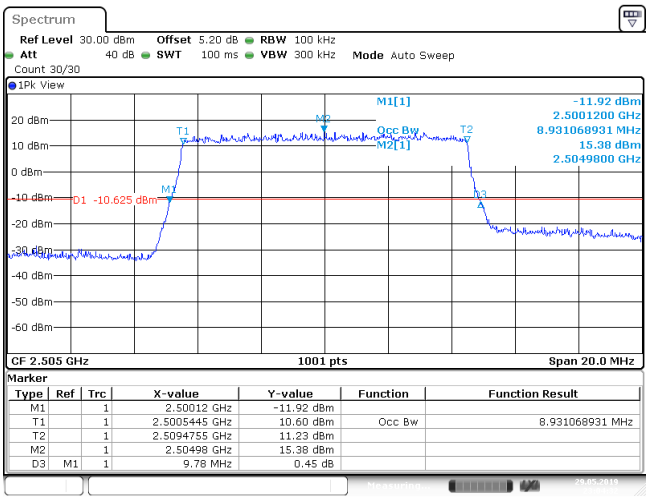


Band7_10MHz_QPSK_20800_50RB#0



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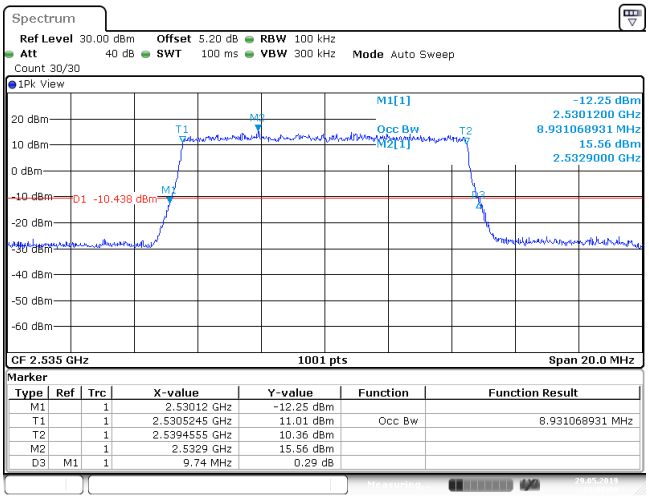
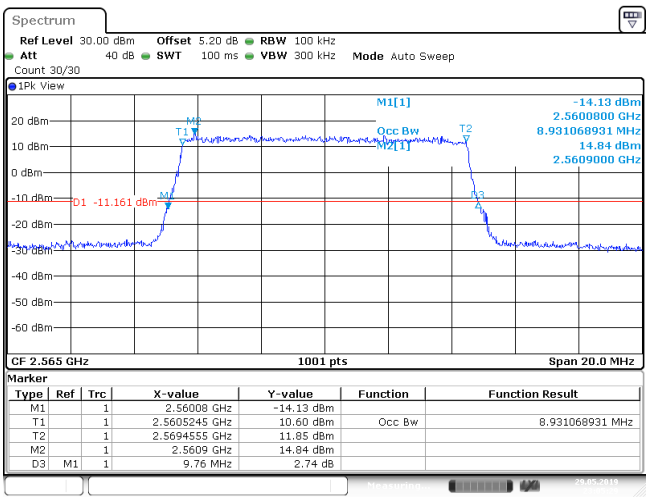
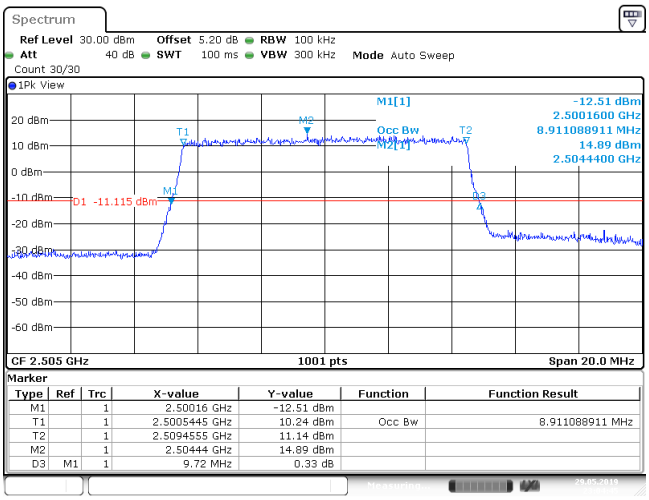


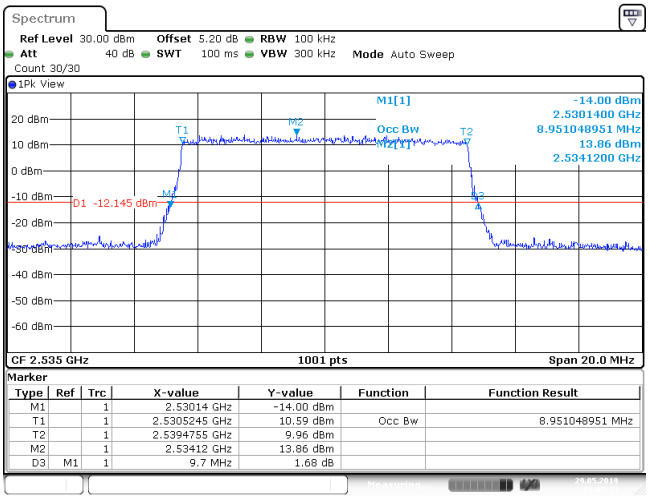
Band7_10MHz_QPSK_21400_50RB#0



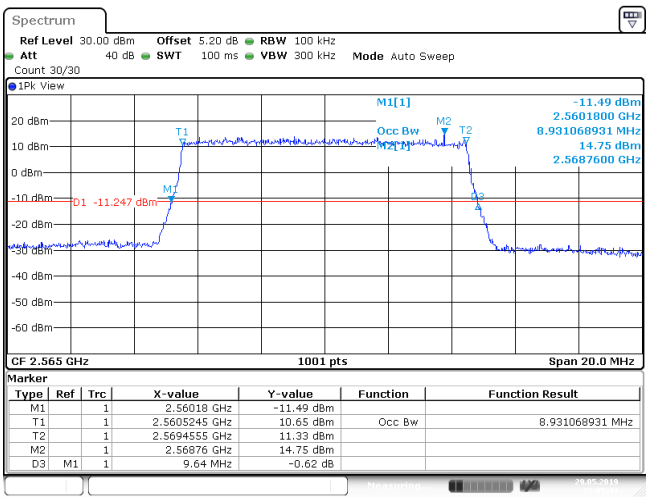
Band7_10MHz_16QAM_20800_50RB#0



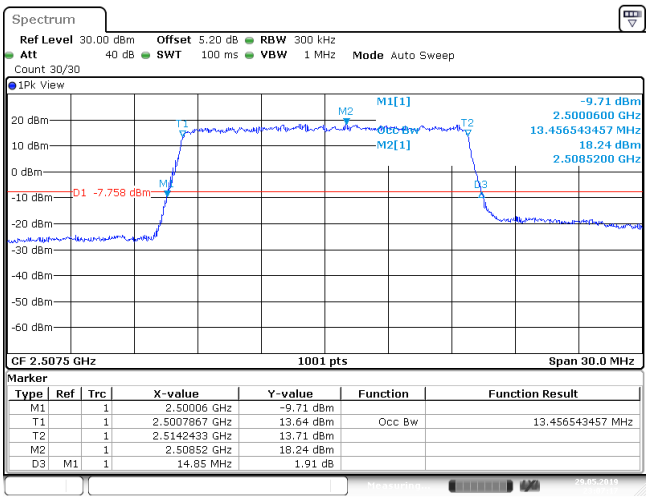
Band7_10MHz_16QAM_21100_50RB#0



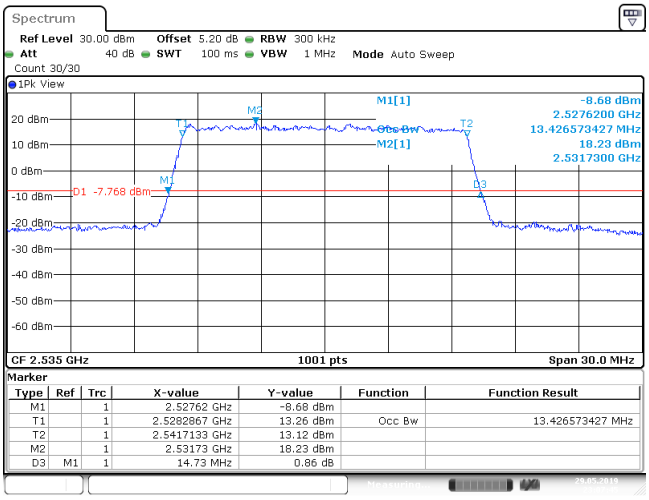
Band7_10MHz_16QAM_21400_50RB#0



Band7_15MHz_QPSK_20825_75RB#0



Band7_15MHz_QPSK_21100_75RB#0



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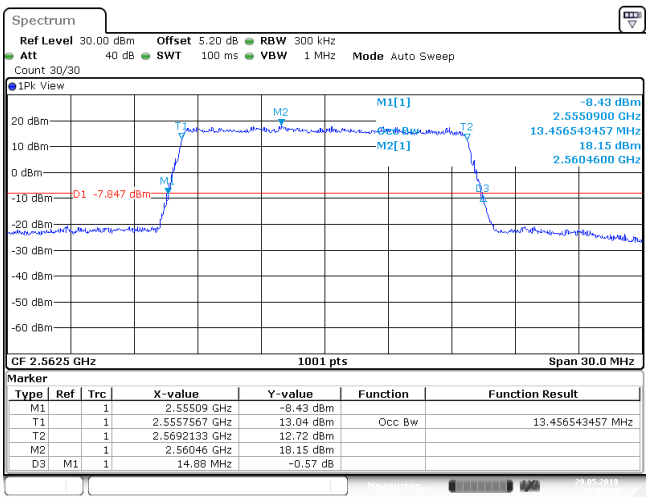
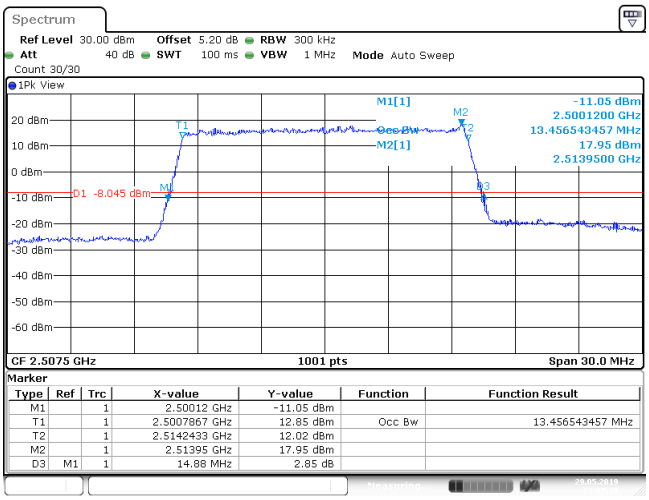
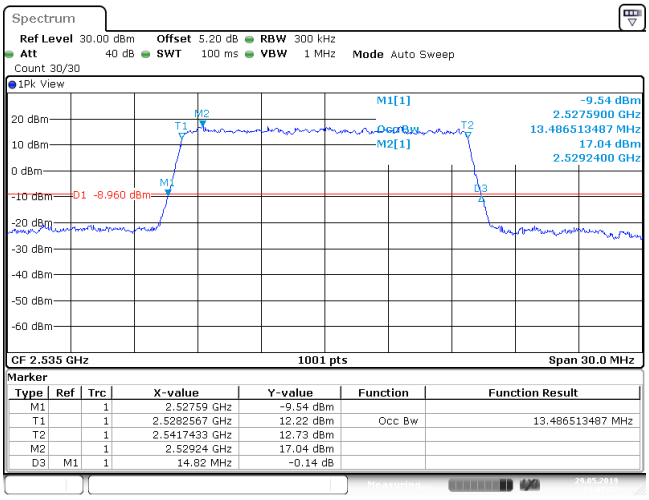


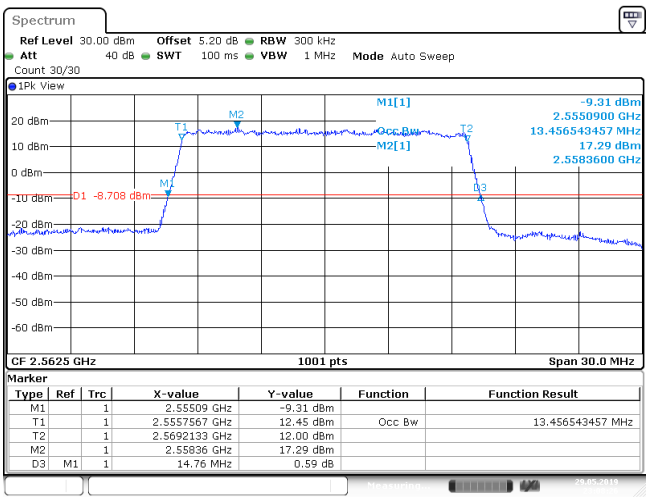
Band7_15MHz_16QAM_20825_75RB#0



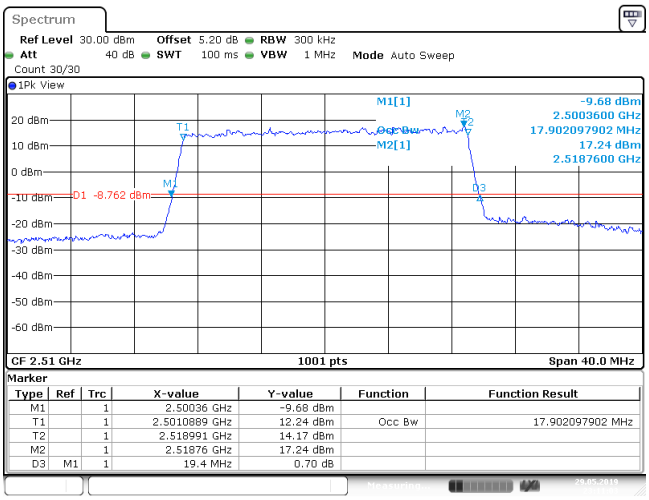
Band7_15MHz_16QAM_21100_75RB#0



Band7_15MHz_16QAM_21375_75RB#0



Band7_20MHz_QPSK_20850_100RB#0



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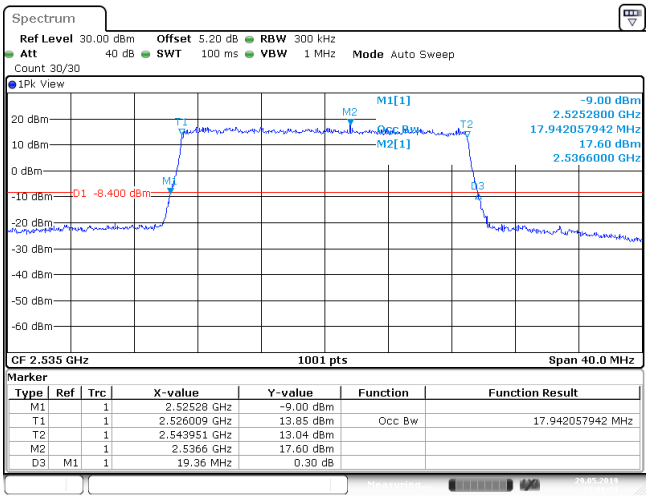

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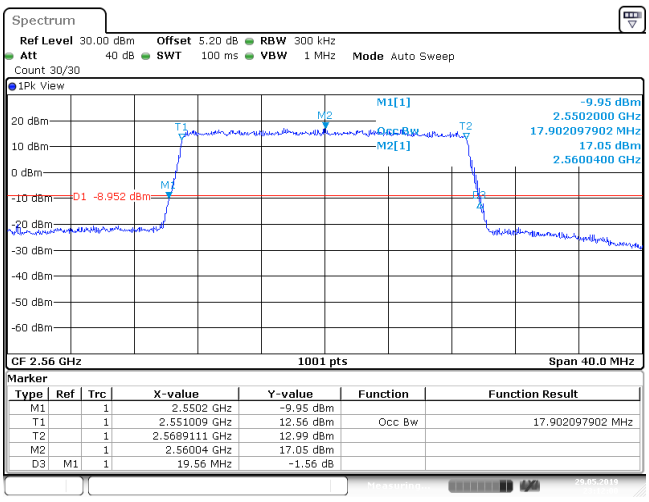

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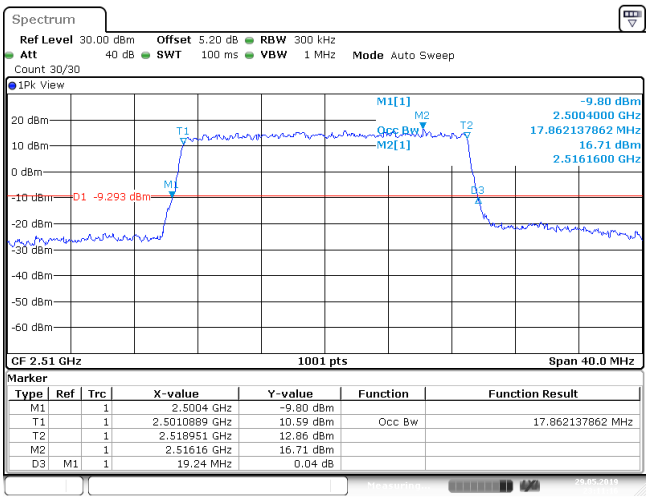

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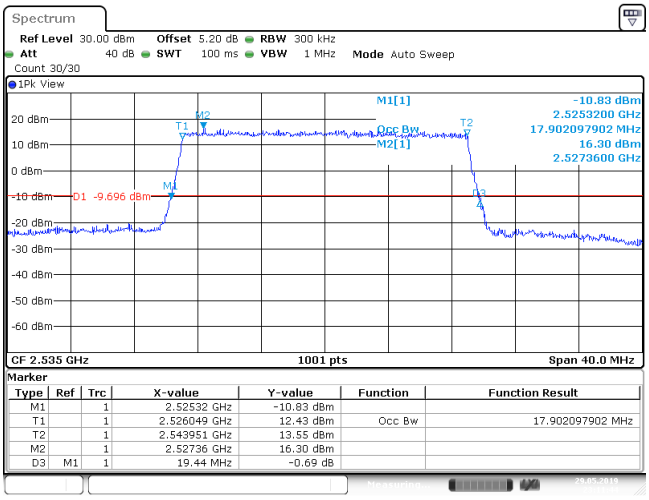

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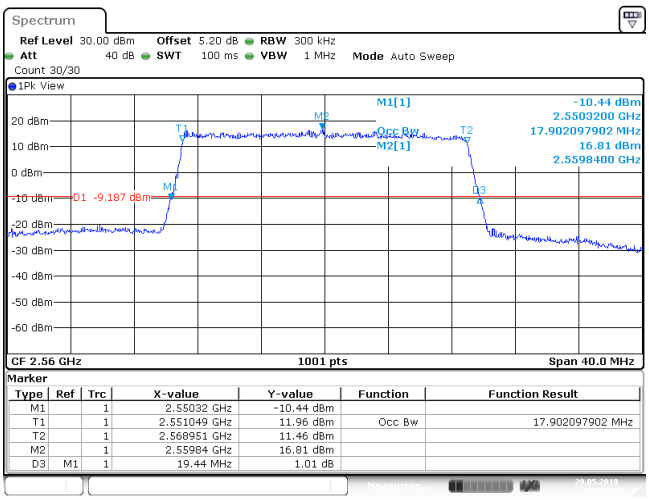
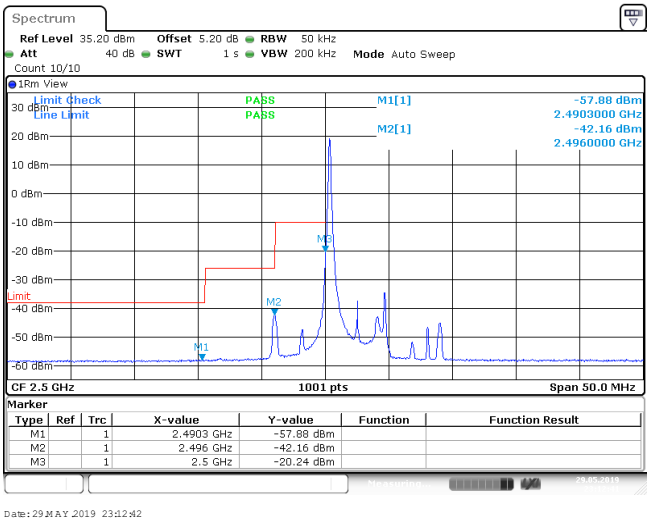
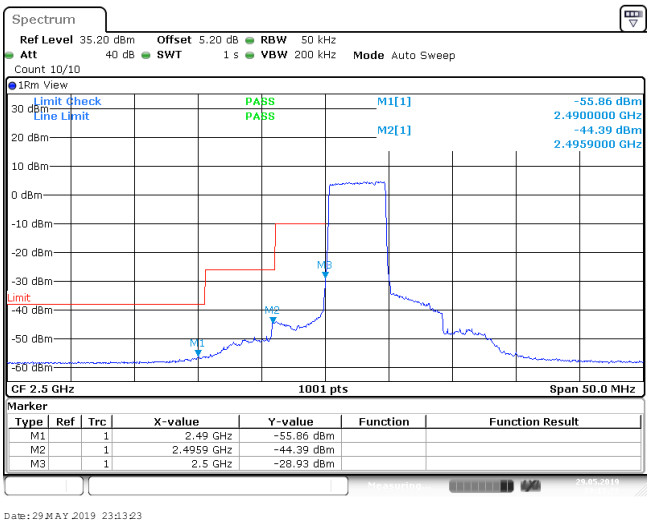


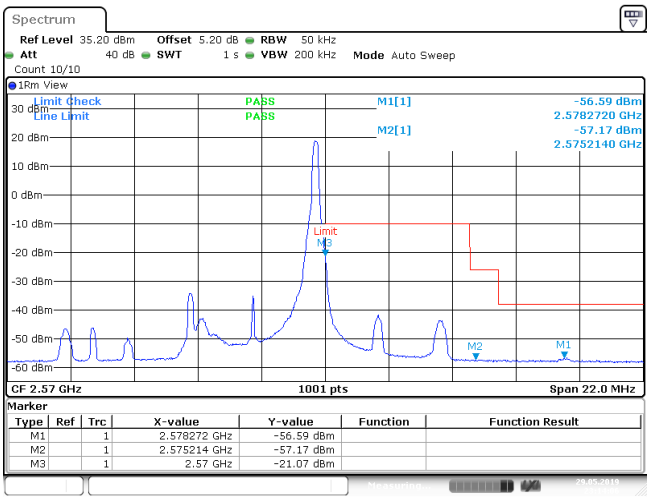
7. Band Edge Compliance

7.1. Test Plots

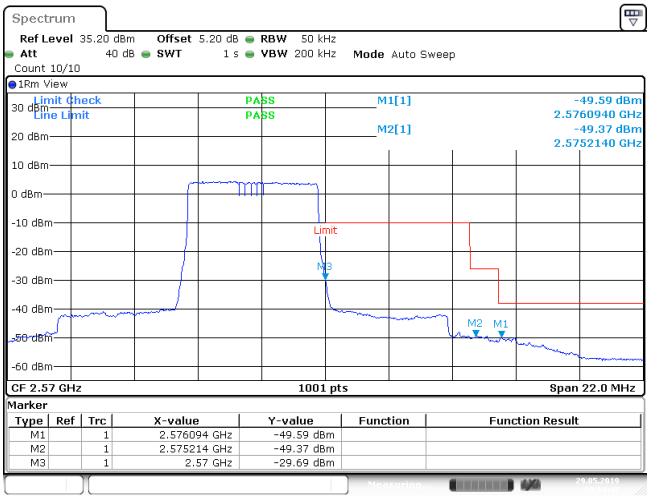
Band7_5MHz_QPSK_20775_1RB#0


Band7_5MHz_QPSK_20775_25RB#0


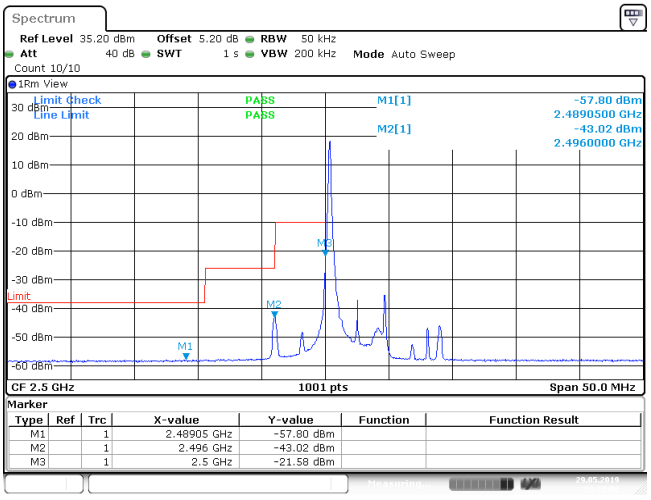
Band7_5MHz_QPSK_21425_1RB#24



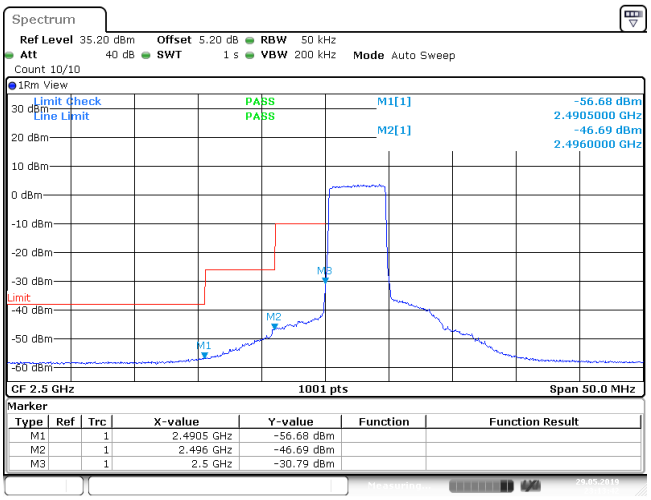
Band7_5MHz_QPSK_21425_25RB#0



Band7_5MHz_16QAM_20775_1RB#0



Band7_5MHz_16QAM_20775_25RB#0



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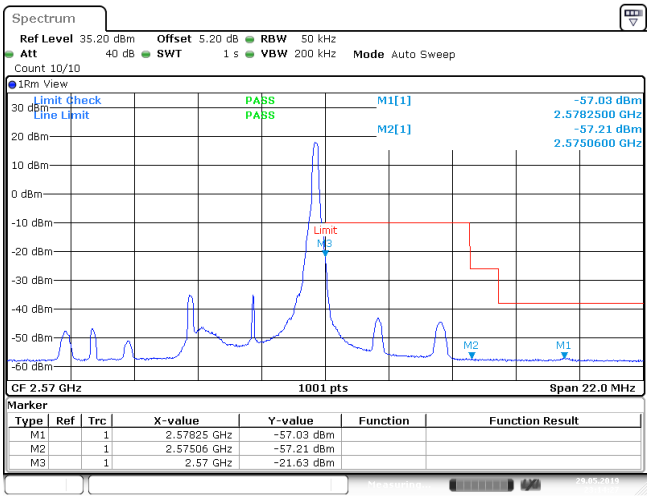
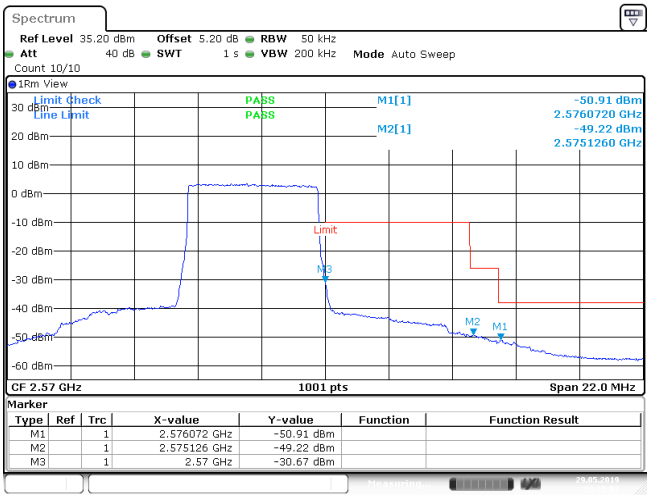
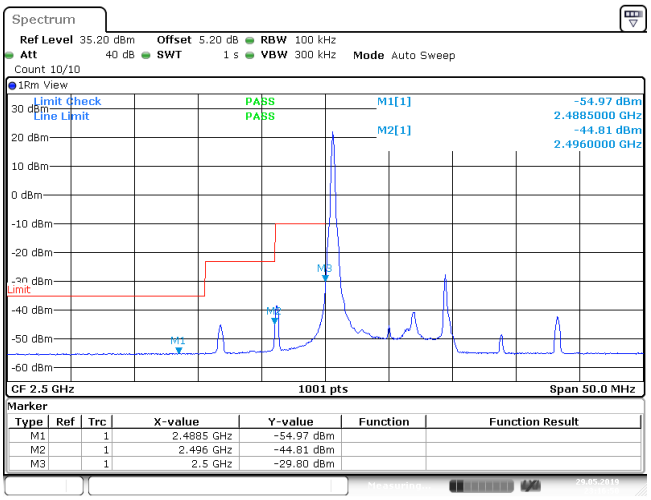


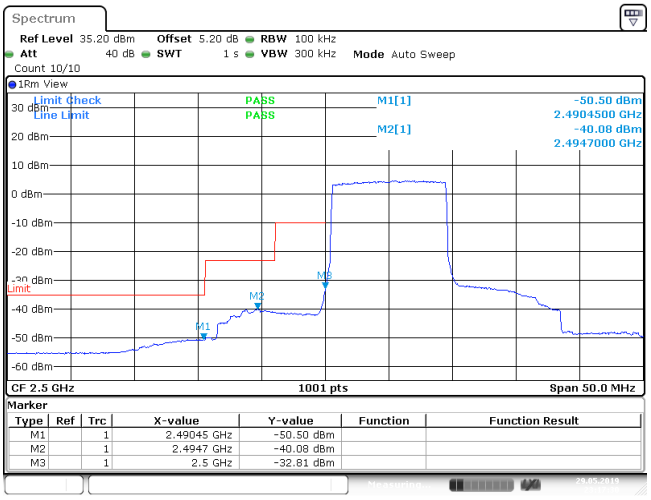
Band7_5MHz_16QAM_21425_25RB#0



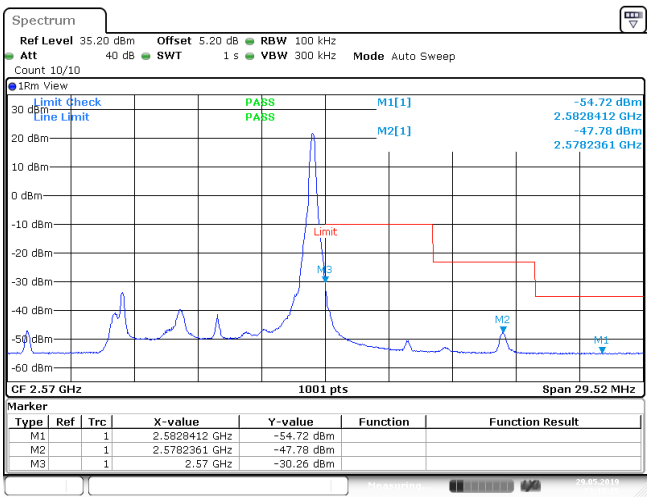
Band7_10MHz_QPSK_20800_1RB#0



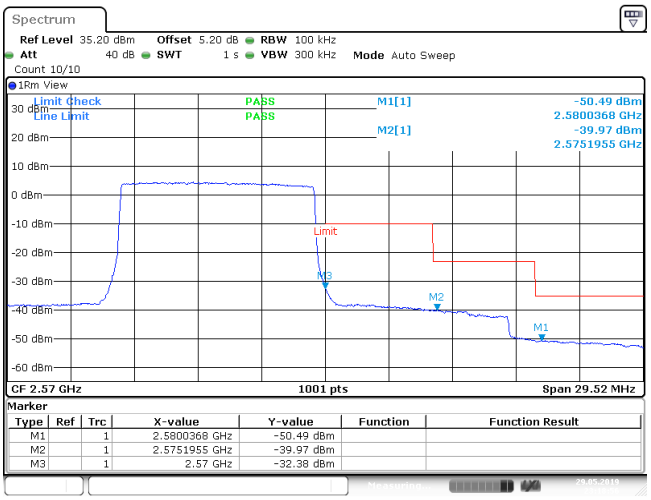
Band7_10MHz_QPSK_20800_50RB#0



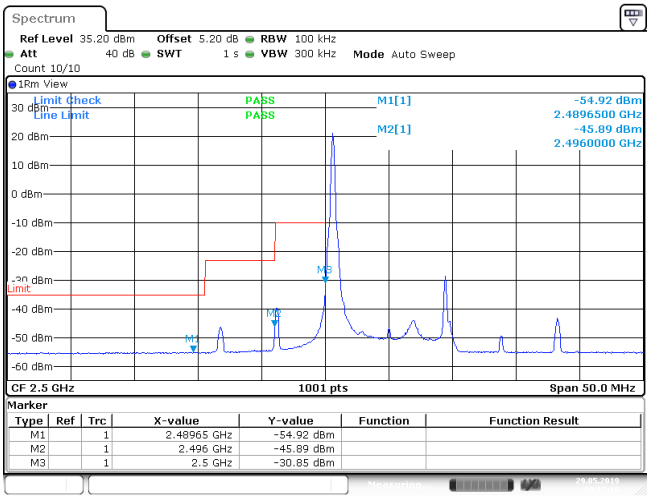
Band7_10MHz_QPSK_21400_1RB#49



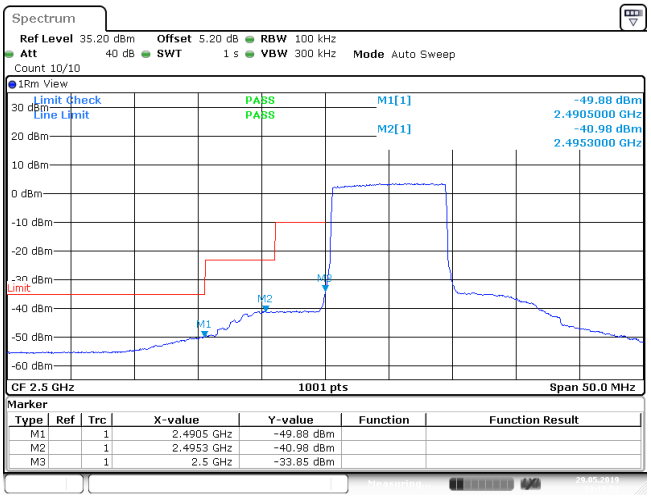
Band7_10MHz_QPSK_21400_50RB#0



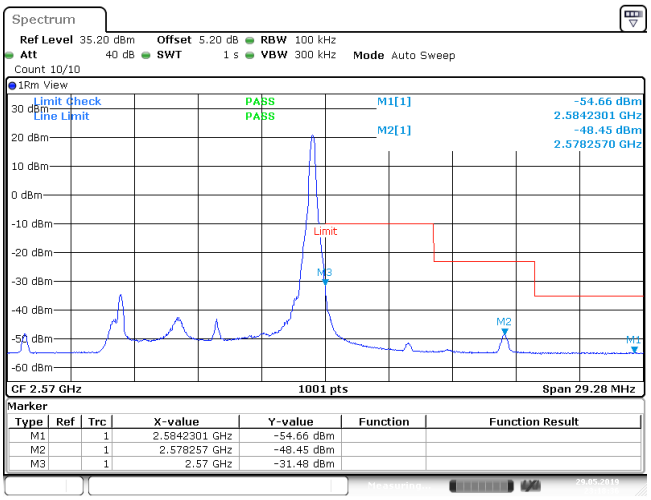
Band7_10MHz_16QAM_20800_1RB#0



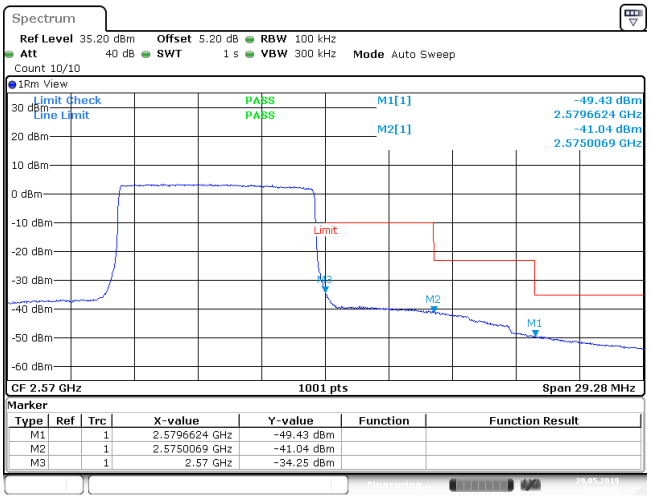
Band7_10MHz_16QAM_20800_50RB#0



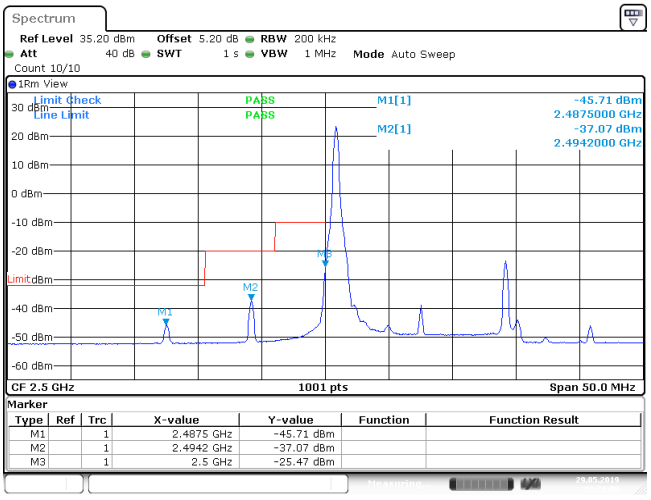
Band7_10MHz_16QAM_21400_1RB#49



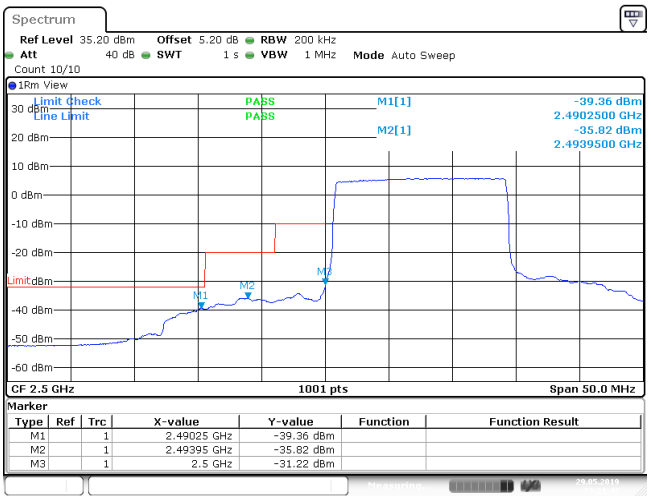
Band7_10MHz_16QAM_21400_50RB#0



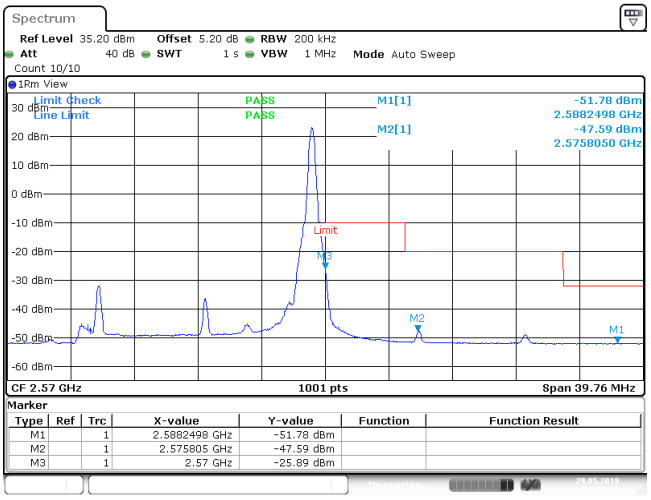
Band7_15MHz_QPSK_20825_1RB#0



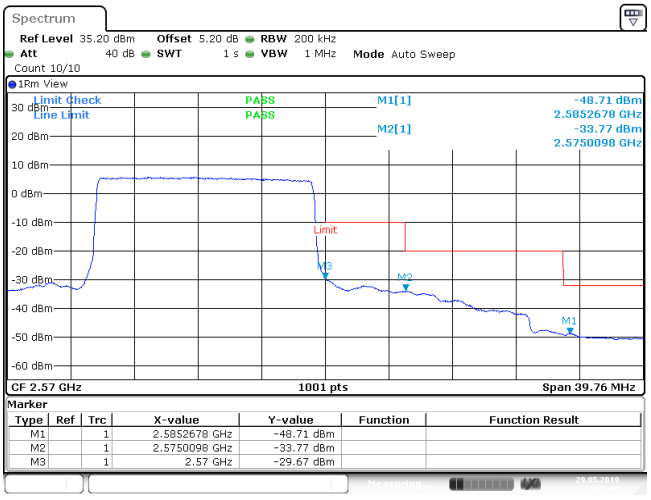
Band7_15MHz_QPSK_20825_75RB#0



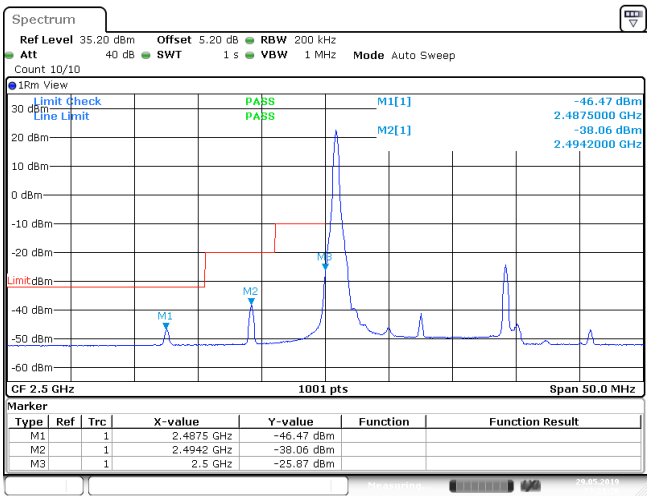
Band7_15MHz_QPSK_21375_1RB#74



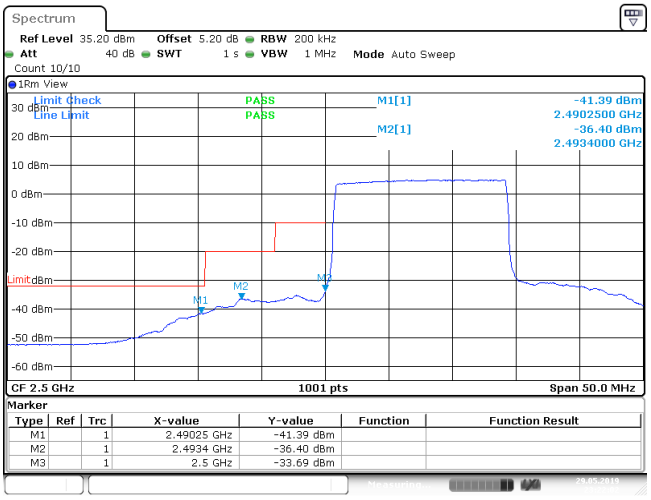
Band7_15MHz_QPSK_21375_75RB#0



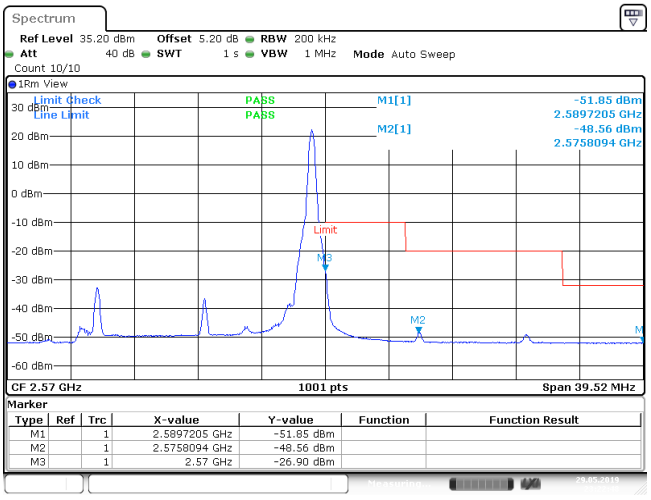
Band7_15MHz_16QAM_20825_1RB#0



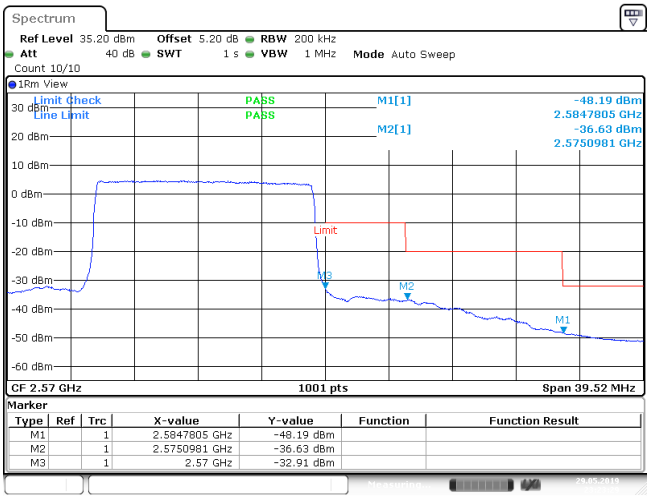
Band7_15MHz_16QAM_20825_75RB#0



Band7_15MHz_16QAM_21375_1RB#74

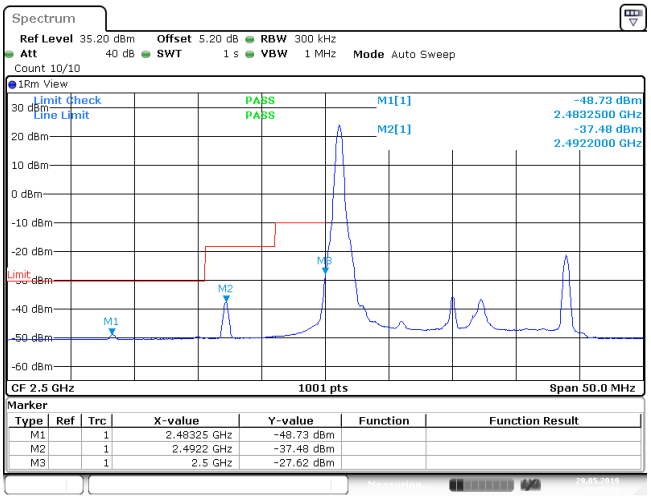


Band7_15MHz_16QAM_21375_75RB#0



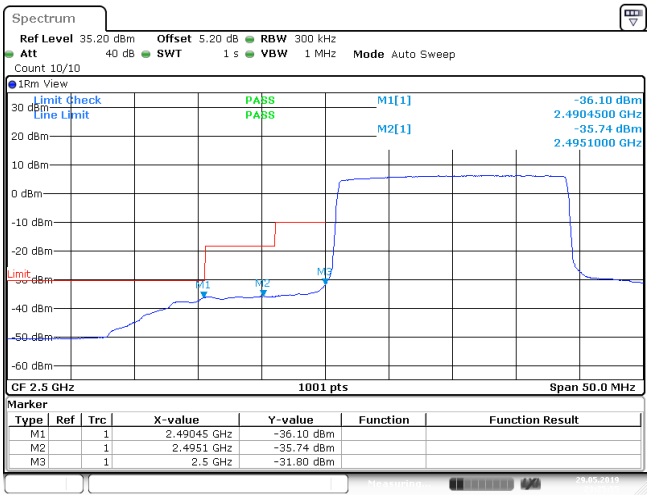
Date: 29.MAY.2019 23:23:30

Band7_20MHz_QPSK_20850_1RB#0



Date: 29.MAY.2019 23:25:13

Band7_20MHz_QPSK_20850_100RB#0



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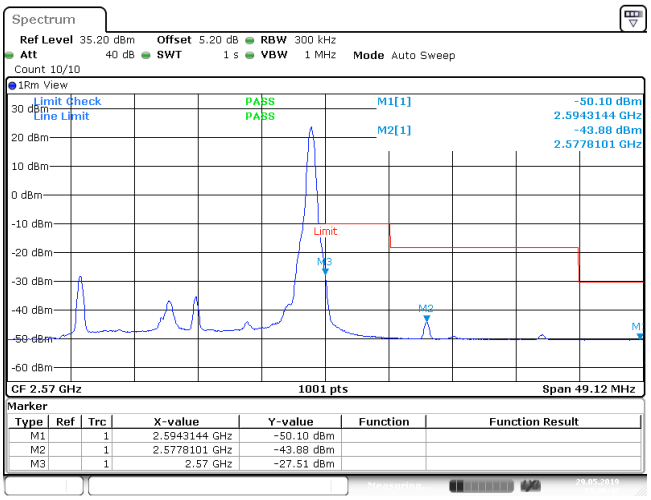

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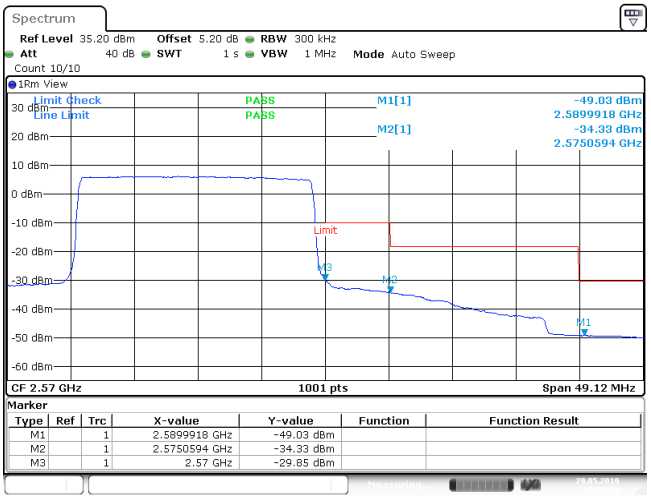
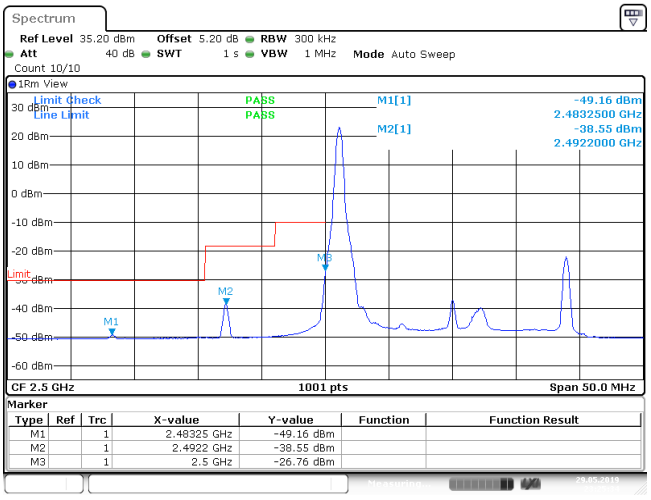
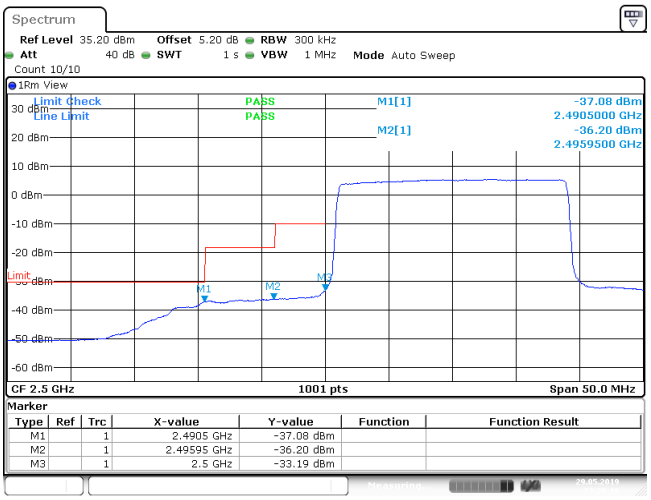


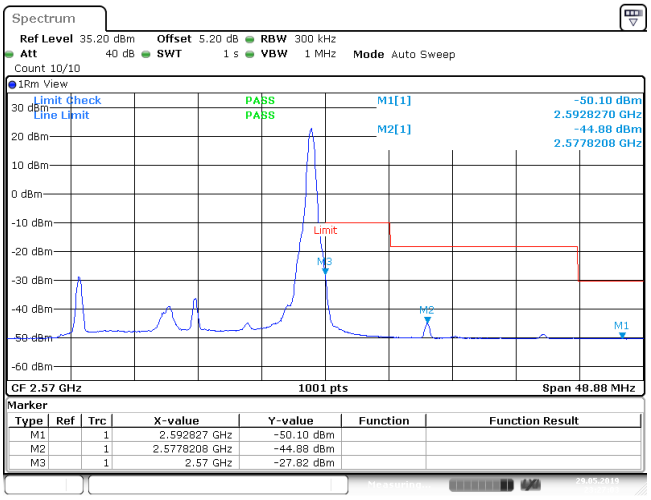
Band7_20MHz_16QAM_20850_1RB#0



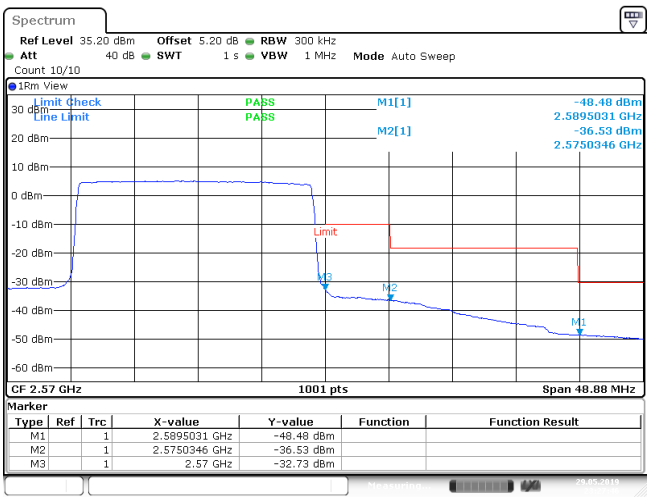
Band7_20MHz_16QAM_20850_100RB#0



Band7_20MHz_16QAM_21350_1RB#99



Band7_20MHz_16QAM_21350_100RB#0



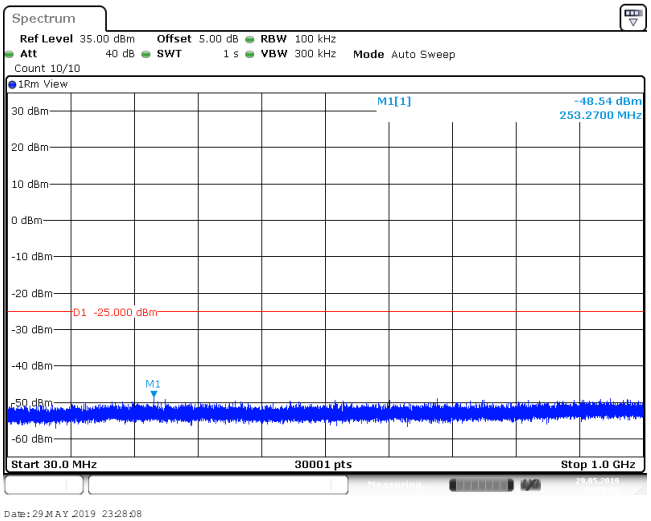
8. Spurious Emission at Antenna Terminal

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 * (Span / RBW)" with k between 4 and 5, which results in an acceptable level error of less than 0.5 dB.

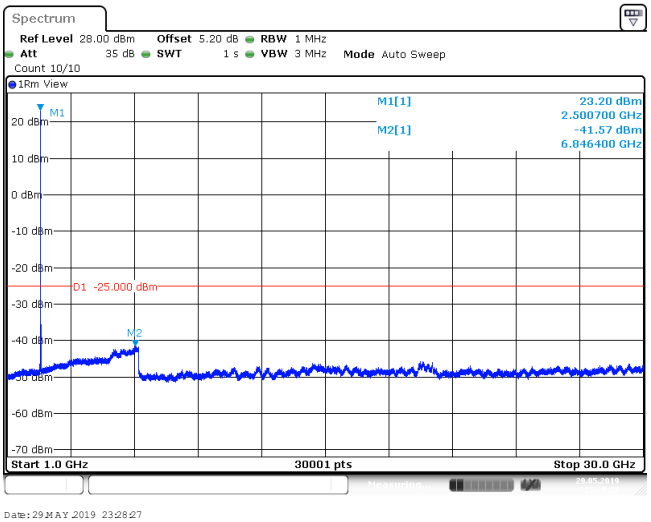
Remark2: only the worst case data displayed in this report.

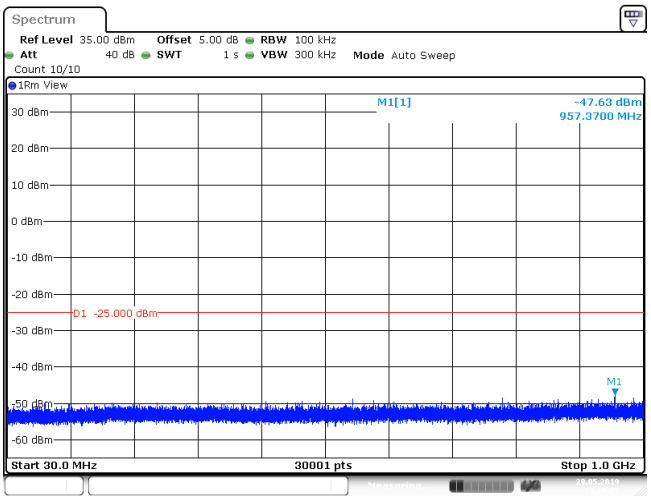
8.1. Test Plots

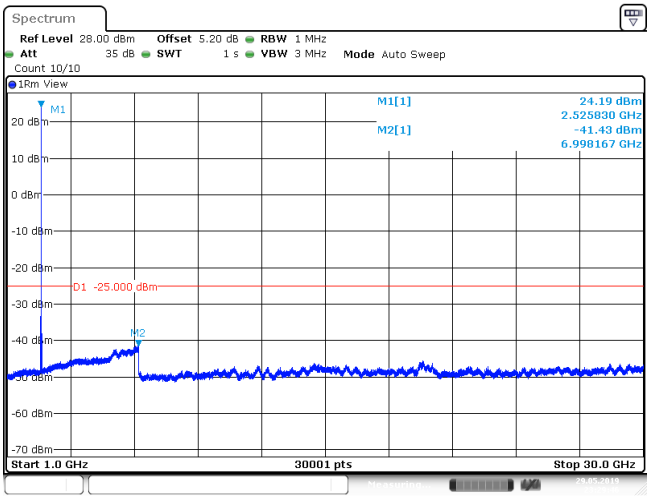
Band7_20MHz_QPSK_20850_1RB#0



Band7_20MHz_QPSK_20850_1RB#0



Band7_20MHz_QPSK_21100_1RB#0


Band7_20MHz_QPSK_21100_1RB#0


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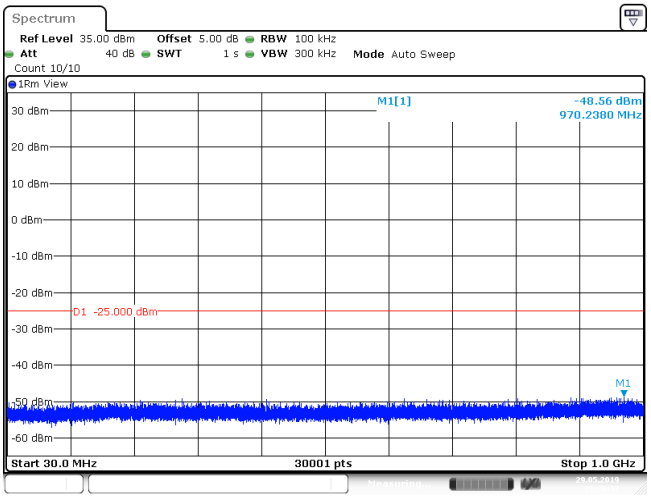
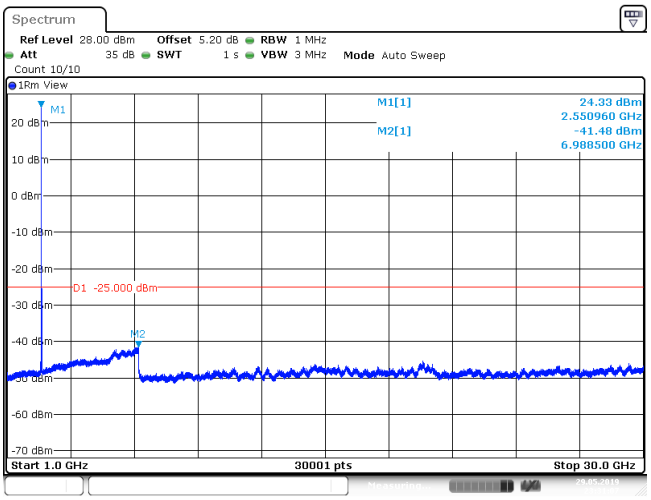
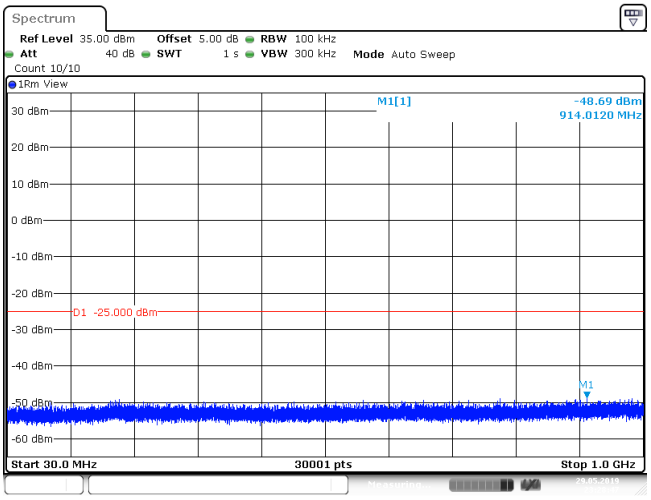
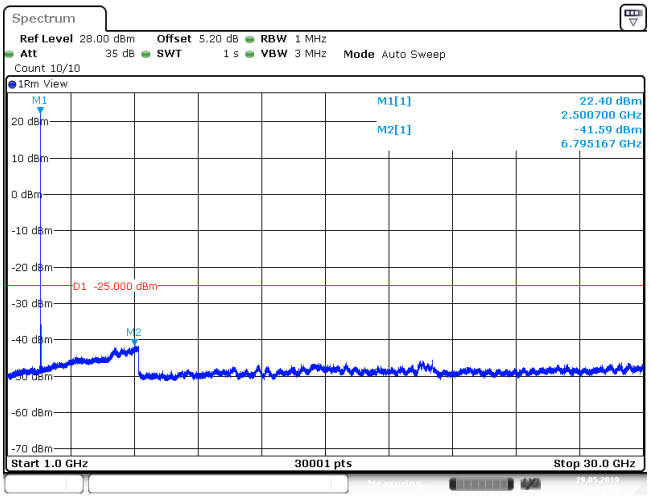
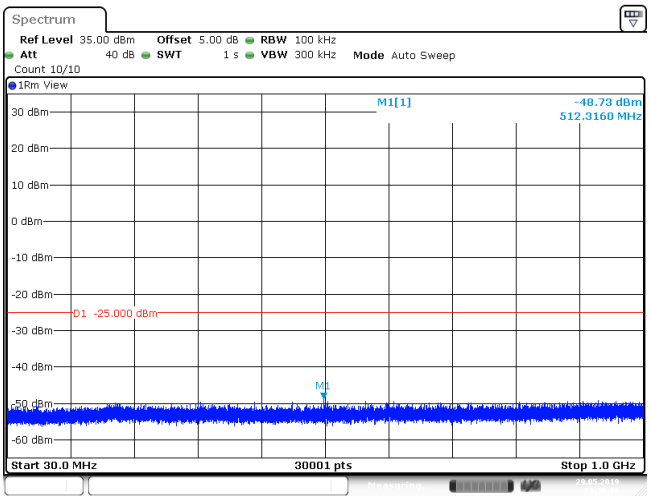


Band7_20MHz_QPSK_21350_1RB#0


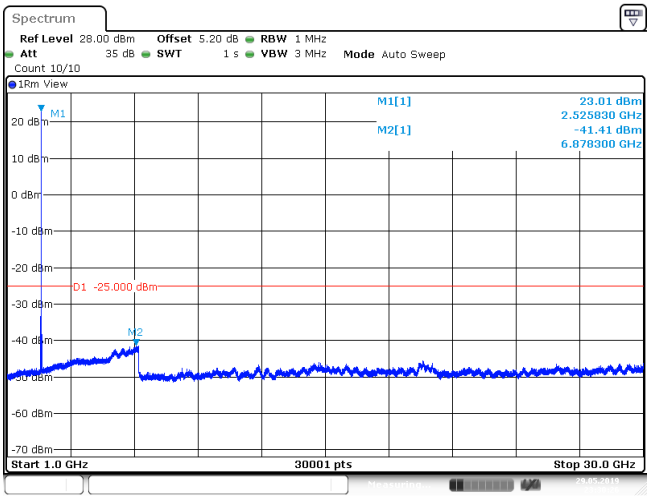
Band7_20MHz_16QAM_20850_1RB#0


Band7_20MHz_16QAM_20850_1RB#0


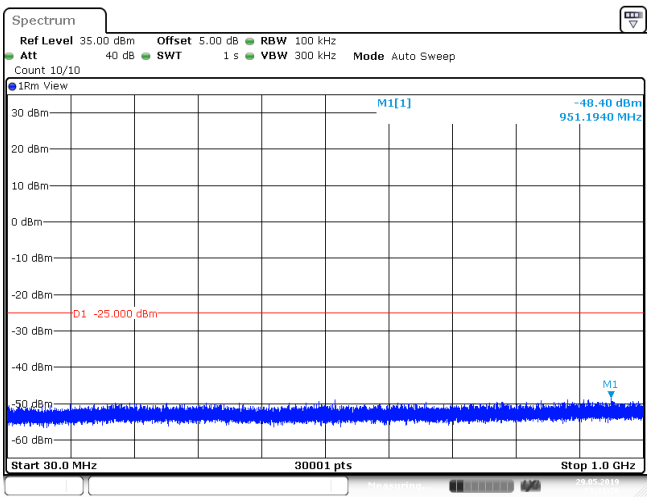
Band7_20MHz_16QAM_21100_1RB#0

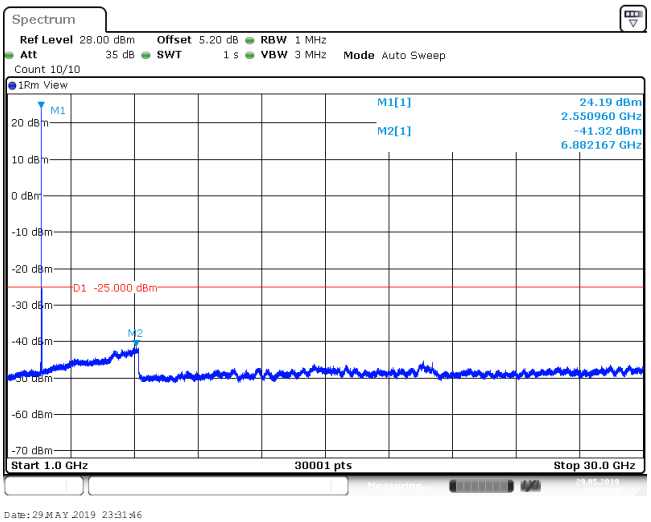


Band7_20MHz_16QAM_21100_1RB#0



Band7_20MHz_16QAM_21350_1RB#0



Band7_20MHz_16QAM_21350_1RB#0


9. Frequency Stability

9.1. Frequency Vs Voltage

Voltage										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	VL	NT	3.10	0.001235	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VN	NT	-0.20	-0.000080	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	VH	NT	0.80	0.000319	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VL	NT	-0.70	-0.000276	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VN	NT	-4.60	-0.001815	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	VH	NT	-4.00	-0.001578	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VL	NT	2.60	0.001016	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VN	NT	-0.80	-0.000313	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	VH	NT	1.40	0.000547	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VL	NT	1.70	0.000677	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VN	NT	1.30	0.000518	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	VH	NT	0.60	0.000239	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VL	NT	-1.30	-0.000513	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VN	NT	0.00	0.000000	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	VH	NT	-2.30	-0.000907	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VL	NT	-1.90	-0.000742	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VN	NT	-0.20	-0.000078	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	VH	NT	0.80	0.000313	±2.5	PASS

9.2. Frequency Vs Temperature

Temperature										
BAND	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band7	20MHz	QPSK	20850	100RB#0	NV	-30	-0.20	-0.000080	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	-20	3.10	0.001235	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	0	0.20	0.000080	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	10	3.00	0.001195	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	20	0.60	0.000239	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	30	3.90	0.001554	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	40	-0.80	-0.000319	±2.5	PASS
Band7	20MHz	QPSK	20850	100RB#0	NV	50	-0.90	-0.000359	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-30	-5.00	-0.001972	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	-20	-2.00	-0.000789	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	0	-2.00	-0.000789	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	10	-1.80	-0.000710	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	20	-2.90	-0.001144	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	30	-4.50	-0.001775	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	40	-5.70	-0.002249	±2.5	PASS
Band7	20MHz	QPSK	21100	100RB#0	NV	50	-1.90	-0.000750	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-30	0.30	0.000117	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	-20	1.70	0.000664	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	0	1.30	0.000508	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	10	-0.90	-0.000352	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	20	-0.20	-0.000078	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	30	0.00	0.000000	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	40	1.50	0.000586	±2.5	PASS
Band7	20MHz	QPSK	21350	100RB#0	NV	50	2.40	0.000938	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-30	3.00	0.001195	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	-20	0.90	0.000359	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	0	1.90	0.000757	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	10	2.10	0.000837	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	20	3.80	0.001514	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	30	3.00	0.001195	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	40	1.20	0.000478	±2.5	PASS
Band7	20MHz	16QAM	20850	100RB#0	NV	50	2.10	0.000837	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-30	-4.10	-0.001617	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	-20	-3.80	-0.001499	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	0	-2.60	-0.001026	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	10	-2.00	-0.000789	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	20	-1.40	-0.000552	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	30	-2.10	-0.000828	±2.5	PASS
Band7	20MHz	16QAM	21100	100RB#0	NV	40	-3.60	-0.001420	±2.5	PASS

Band7	20MHz	16QAM	21100	100RB#0	NV	50	-4.20	-0.001657	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-30	-1.00	-0.000391	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	-20	2.40	0.000938	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	0	3.00	0.001172	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	10	1.40	0.000547	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	20	2.90	0.001133	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	30	0.90	0.000352	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	40	-1.40	-0.000547	±2.5	PASS
Band7	20MHz	16QAM	21350	100RB#0	NV	50	-0.20	-0.000078	±2.5	PASS

The End