

Appendix B.6

E-UTRA Band 12

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1. Main Test Instruments

RE in Chamber					
Test Equipment	Manufacturer	Model No.	Inventory No.	Cal. date	Cal.Due date
				(yyyy-mm-dd)	(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	Cal.Due date
				(yyyy-mm-dd)	(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]	$U = \pm 0.37$ dB
Bandwidth	Magnitude [%]	$U = \pm 0.2\%$
Band Edge Compliance	Disturbance Power [dBm]	$U = \pm 2.0$ dB
Spurious Emissions, Conducted	Disturbance Power [dBm]	$U = \pm 2.0$ dB
Frequency Stability	Frequency Accuracy [ppm]	$U = \pm 0.24$ ppm

3. Effective (Isotropic) Radiated Power

3.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power(dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	22.81	24.66	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	22.97	24.82	34.77	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	22.93	24.78	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.03	24.88	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.00	24.85	34.77	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	22.88	24.73	34.77	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.05	23.90	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	22.95	24.80	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	22.95	24.80	34.77	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	22.77	24.62	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.02	24.87	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	22.96	24.81	34.77	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	22.92	24.77	34.77	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.06	23.91	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.08	24.93	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.15	25.00	34.77	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.05	24.90	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.12	24.97	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.10	24.95	34.77	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.11	24.96	34.77	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.20	24.05	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.13	23.98	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.25	24.10	34.77	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.18	24.03	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.12	23.97	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.09	23.94	34.77	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	22.03	23.88	34.77	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.18	23.03	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.36	24.21	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.42	24.27	34.77	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.28	24.13	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.22	24.07	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	22.12	23.97	34.77	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.06	23.91	34.77	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.19	23.04	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.32	24.17	34.77	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.56	24.41	34.77	PASS

Band12	1.4MHz	16QAM	23173	1RB#5	22.49	24.34	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	22.33	24.18	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.34	24.19	34.77	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	22.15	24.00	34.77	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.28	23.13	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#0	22.85	24.70	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#8	22.88	24.73	34.77	PASS
Band12	3MHz	QPSK	23025	1RB#14	22.83	24.68	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.21	24.06	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.10	23.95	34.77	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.04	23.89	34.77	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.16	24.01	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.00	24.85	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#8	22.98	24.83	34.77	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.16	25.01	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.14	23.99	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.05	23.90	34.77	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.10	23.95	34.77	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.04	23.89	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.18	25.03	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.11	24.96	34.77	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.39	25.24	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.13	23.98	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#4	22.19	24.04	34.77	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.17	24.02	34.77	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.19	24.04	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.34	24.19	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.36	24.21	34.77	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.23	24.08	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.18	23.03	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.08	22.93	34.77	PASS
Band12	3MHz	16QAM	23025	8RB#7	21.00	22.85	34.77	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.05	22.90	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#0	22.38	24.23	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.38	24.23	34.77	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.37	24.22	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.20	23.05	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.15	23.00	34.77	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.20	23.05	34.77	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.07	22.92	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.48	24.33	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.50	24.35	34.77	PASS
Band12	3MHz	16QAM	23165	1RB#14	22.43	24.28	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.25	23.10	34.77	PASS

Band12	3MHz	16QAM	23165	8RB#4	21.21	23.06	34.77	PASS
Band12	3MHz	16QAM	23165	8RB#7	21.19	23.04	34.77	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.26	23.11	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.06	24.91	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#12	22.97	24.82	34.77	PASS
Band12	5MHz	QPSK	23035	1RB#24	22.75	24.60	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.25	24.10	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.18	24.03	34.77	PASS
Band12	5MHz	QPSK	23035	12RB#13	21.94	23.79	34.77	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.30	24.15	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.00	24.85	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.16	25.01	34.77	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.08	24.93	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.21	24.06	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#6	22.01	23.86	34.77	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.01	23.86	34.77	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.07	23.92	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.28	25.13	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.20	25.05	34.77	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.26	25.11	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.34	24.19	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.31	24.16	34.77	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.20	24.05	34.77	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.36	24.21	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.45	24.30	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.39	24.24	34.77	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.23	24.08	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#0	21.32	23.17	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.24	23.09	34.77	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.18	23.03	34.77	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.24	23.09	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.35	24.20	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.16	24.01	34.77	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.33	24.18	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.29	23.14	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.20	23.05	34.77	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.19	23.04	34.77	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.02	22.87	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#0	22.63	24.48	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#12	22.46	24.31	34.77	PASS
Band12	5MHz	16QAM	23155	1RB#24	22.46	24.31	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.38	23.23	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.30	23.15	34.77	PASS
Band12	5MHz	16QAM	23155	12RB#13	21.29	23.14	34.77	PASS

Band12	5MHz	16QAM	23155	25RB#0	21.42	23.27	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.24	25.09	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.25	25.10	34.77	PASS
Band12	10MHz	QPSK	23060	1RB#49	22.93	24.78	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.50	24.35	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.32	24.17	34.77	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.17	24.02	34.77	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.11	23.96	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.10	24.95	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.70	25.55	34.77	PASS
Band12	10MHz	QPSK	23095	1RB#49	22.82	24.67	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.33	24.18	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#12	22.20	24.05	34.77	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.13	23.98	34.77	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.13	23.98	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.43	25.28	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.71	25.56	34.77	PASS
Band12	10MHz	QPSK	23130	1RB#49	22.77	24.62	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.33	24.18	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.34	24.19	34.77	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.09	23.94	34.77	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.18	24.03	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#0	22.76	24.61	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.30	24.15	34.77	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.49	24.34	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#0	21.23	23.08	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#12	21.16	23.01	34.77	PASS
Band12	10MHz	16QAM	23060	25RB#25	21.06	22.91	34.77	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.14	22.99	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.66	24.51	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.34	24.19	34.77	PASS
Band12	10MHz	16QAM	23095	1RB#49	22.59	24.44	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#0	21.19	23.04	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#12	21.24	23.09	34.77	PASS
Band12	10MHz	16QAM	23095	25RB#25	21.05	22.90	34.77	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.06	22.91	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.63	24.48	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.26	24.11	34.77	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.58	24.43	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#0	21.31	23.16	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#12	21.27	23.12	34.77	PASS
Band12	10MHz	16QAM	23130	25RB#25	21.14	22.99	34.77	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.23	23.08	34.77	PASS

Remark:

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

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

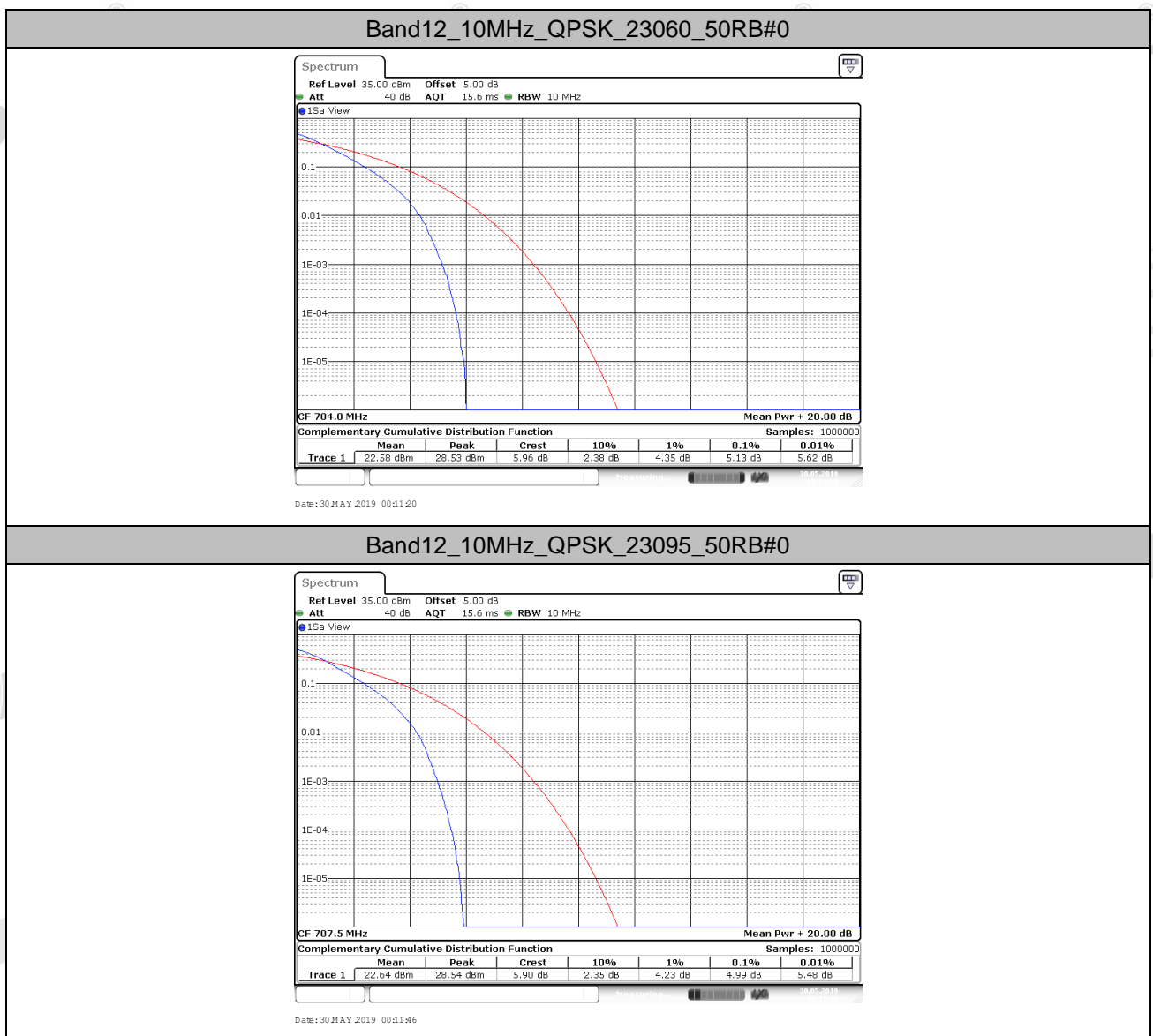
$$\text{EIRP [dBm]} = \text{Conducted Power [dBm]} + \text{Gain [dBi]}$$

4. Peak-to-Average Ratio(CCDF)

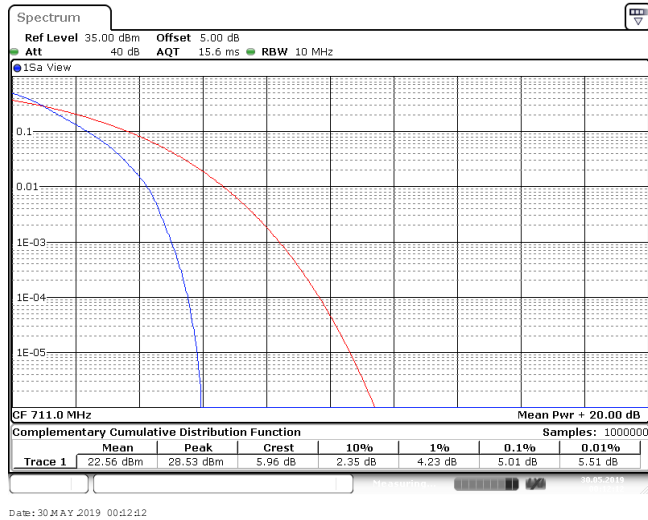
4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	10MHz	QPSK	23060	50RB#0	5.13	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	4.99	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.01	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	6.14	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.03	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	5.97	13	PASS

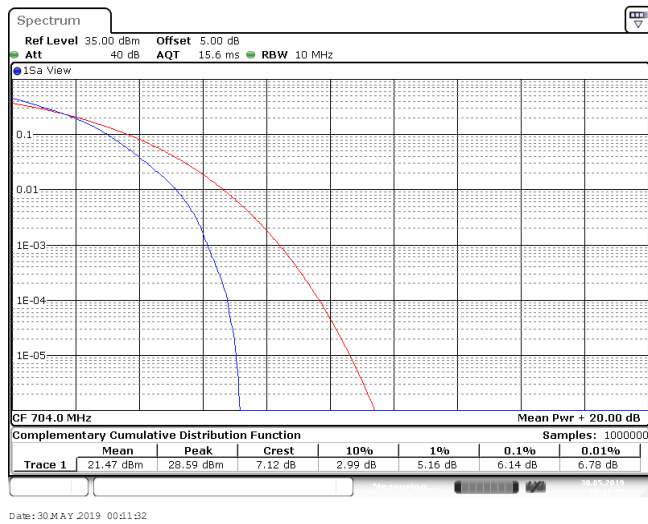
4.2. Test Plots



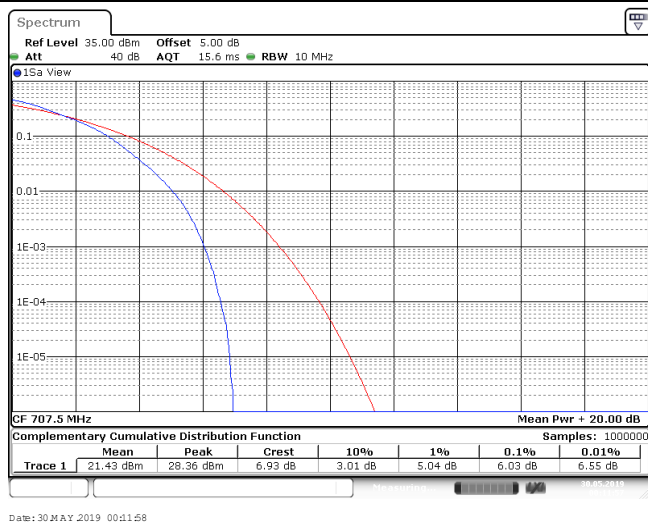
Band12_10MHz_QPSK_23130_50RB#0

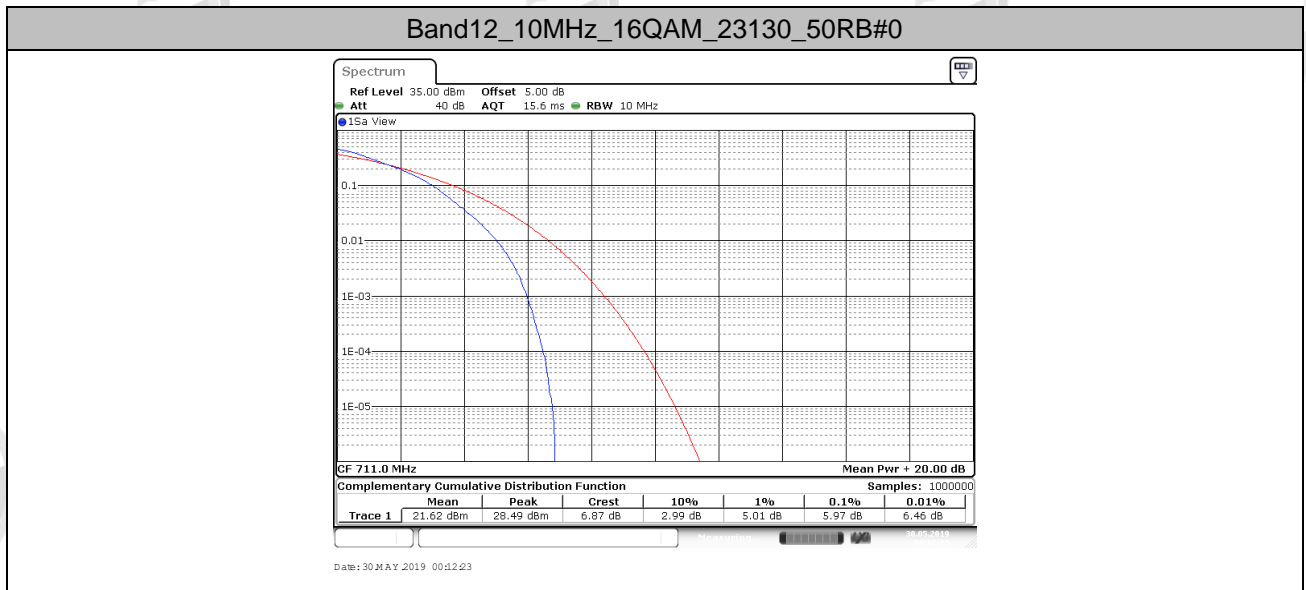


Band12_10MHz_16QAM_23060_50RB#0



Band12_10MHz_16QAM_23095_50RB#0



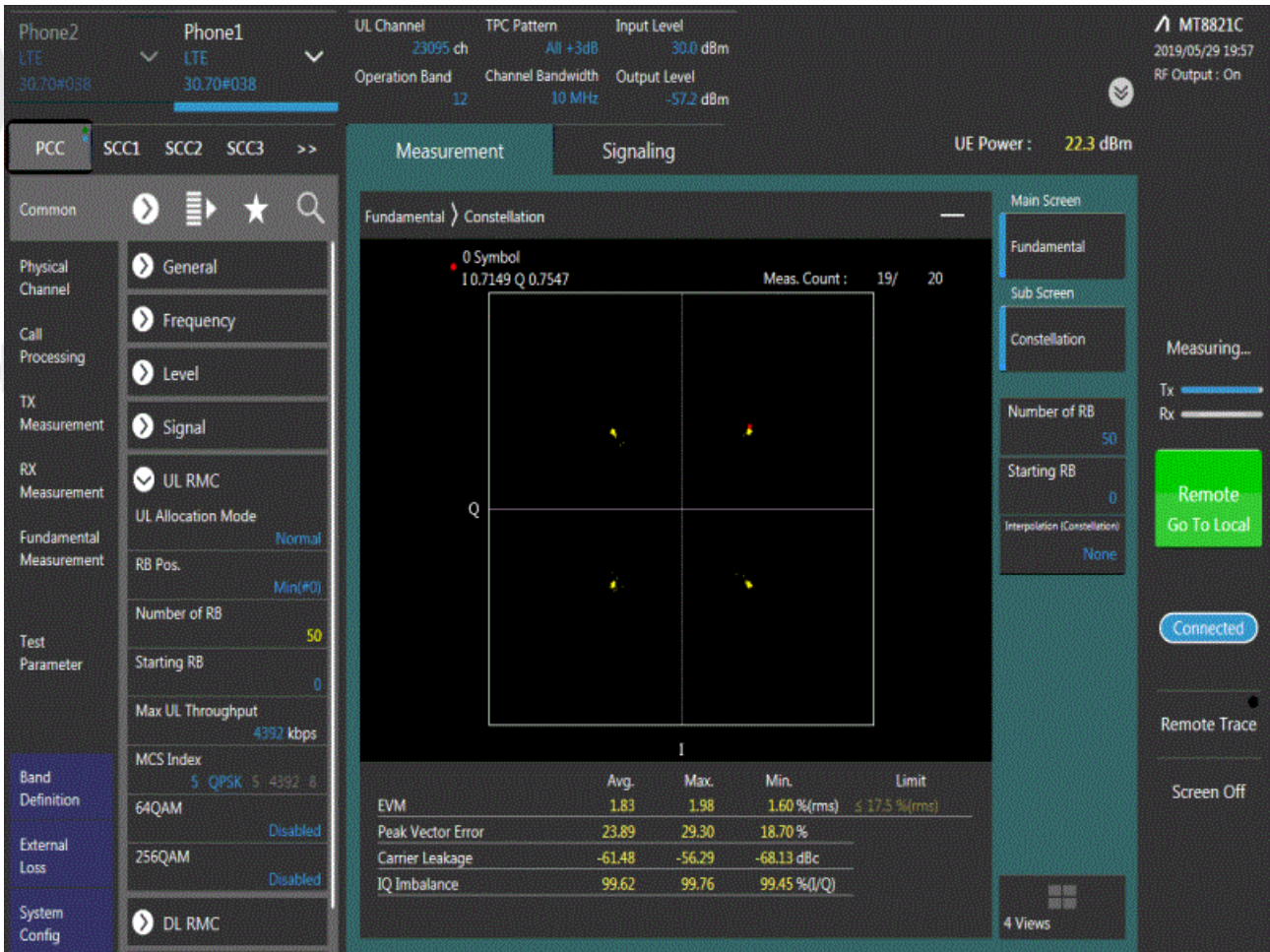


5. Modulation Characteristics

5.1. Test BAND = LTE Band 12

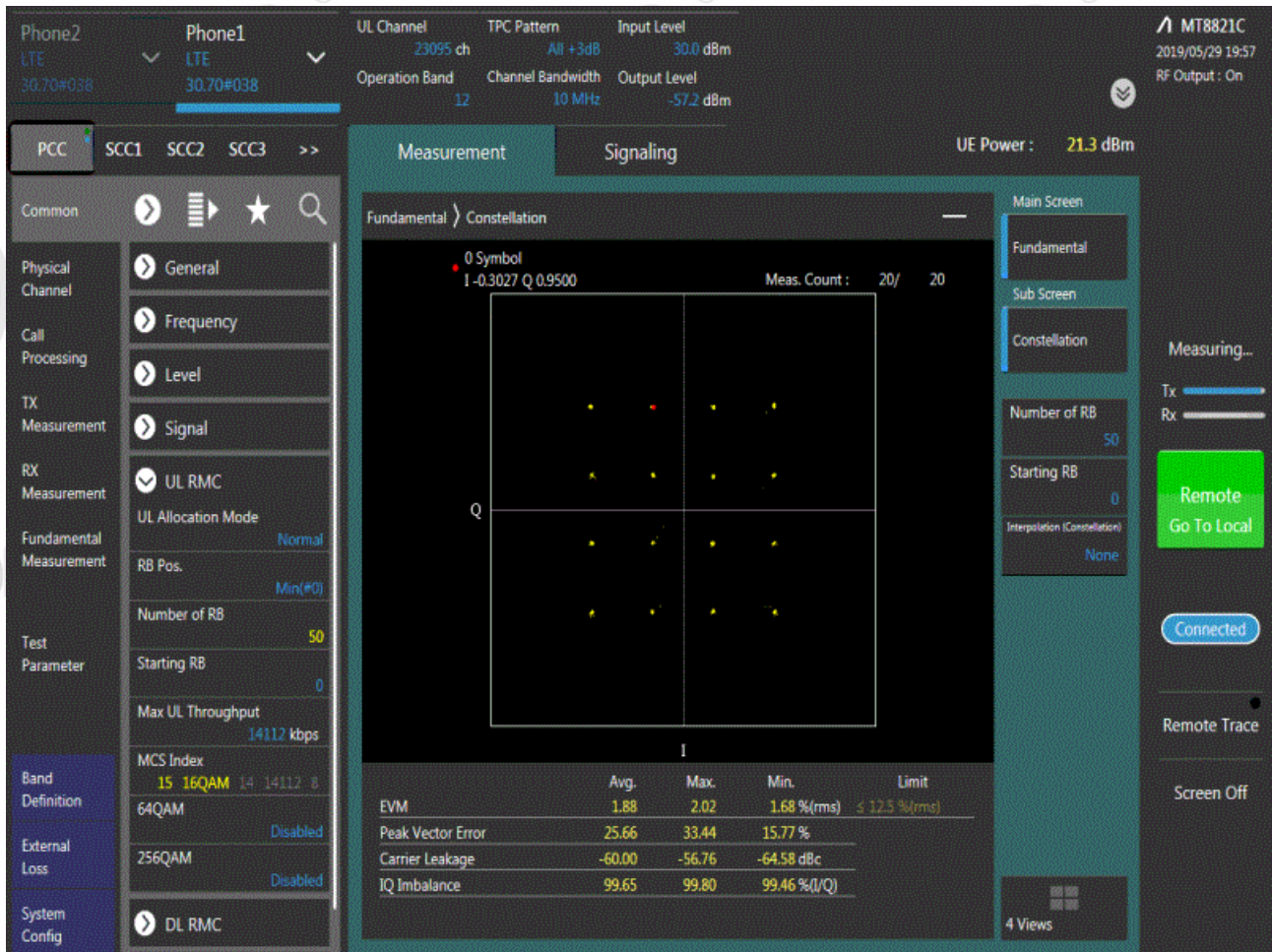
5.2. Test Mode = LTE /TM1 10MHz

5.2.1. Test Channel = MCH



5.3. Test Mode = LTE /TM2 10MHz

5.3.1. Test Channel = MCH

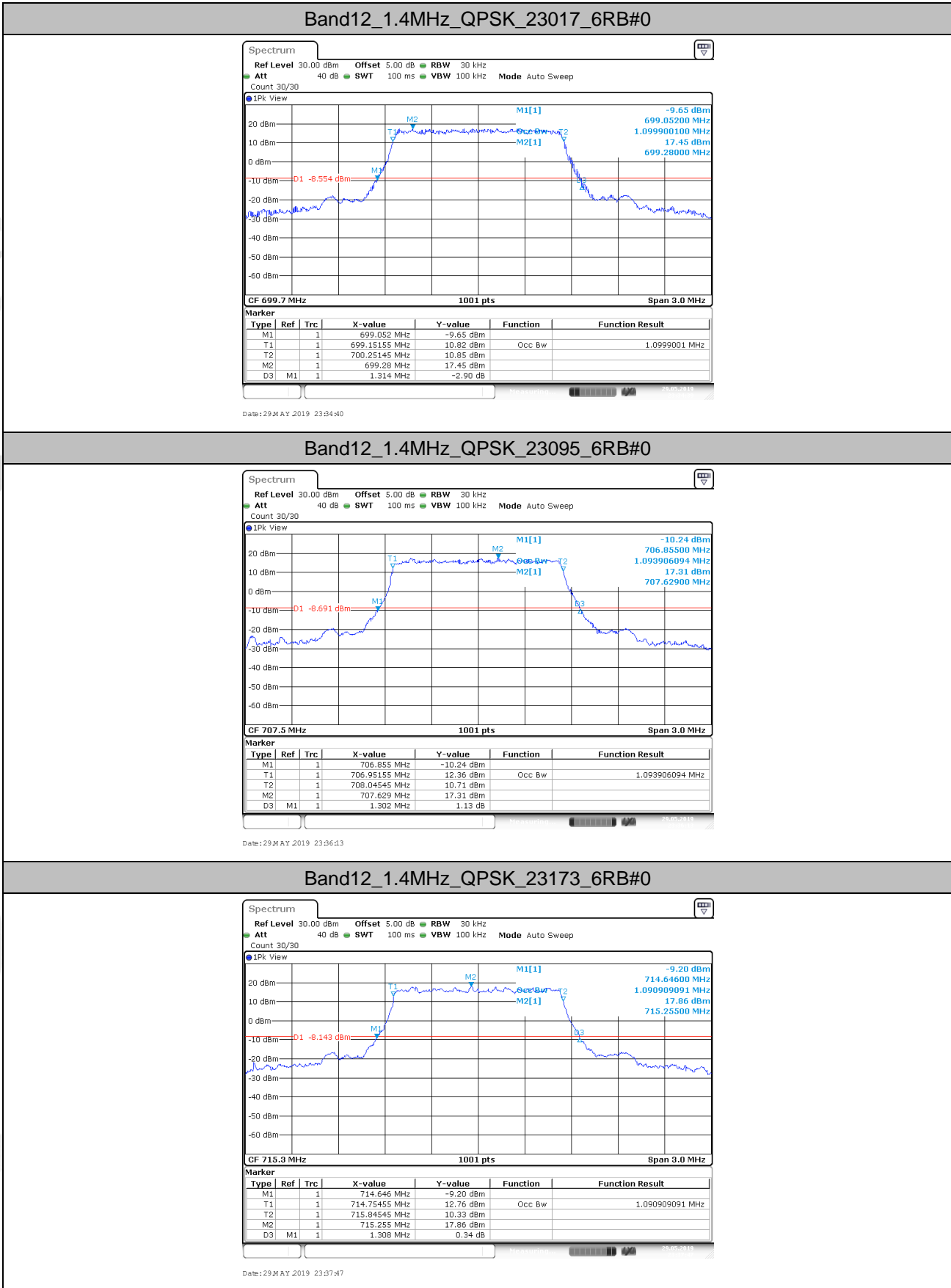


6. 26dB Bandwidth and Occupied Bandwidth

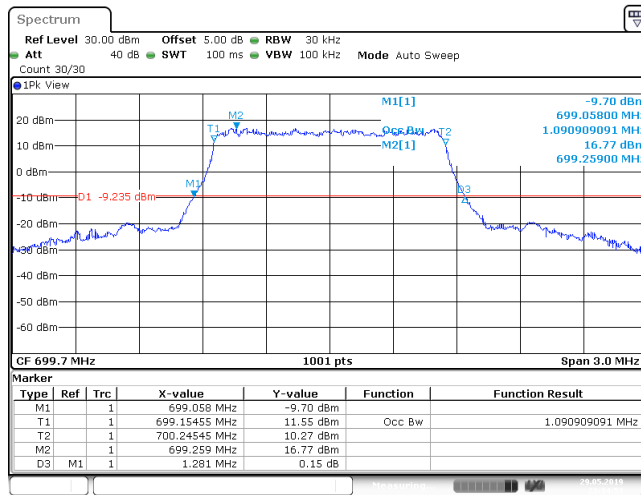
6.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.1	1.314	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.094	1.302	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.091	1.308	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.091	1.281	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.100	1.296	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.103	1.308	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.697	2.988	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.697	2.982	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.703	2.976	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.697	2.976	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.697	2.982	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.703	3.000	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.466	4.920	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.476	4.940	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.486	4.950	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.476	4.970	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.486	4.940	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.476	4.880	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.951	9.820	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.911	9.720	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.931	9.740	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.951	9.780	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.931	9.700	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.911	9.680	PASS

6.2. Test Plots

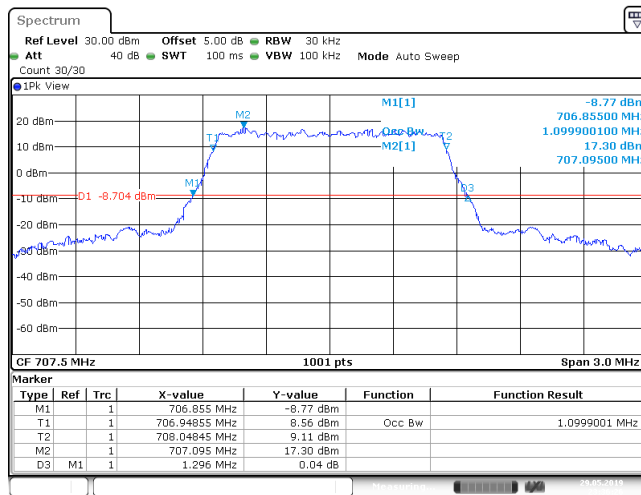


Band12_1.4MHz_16QAM_23017_6RB#0



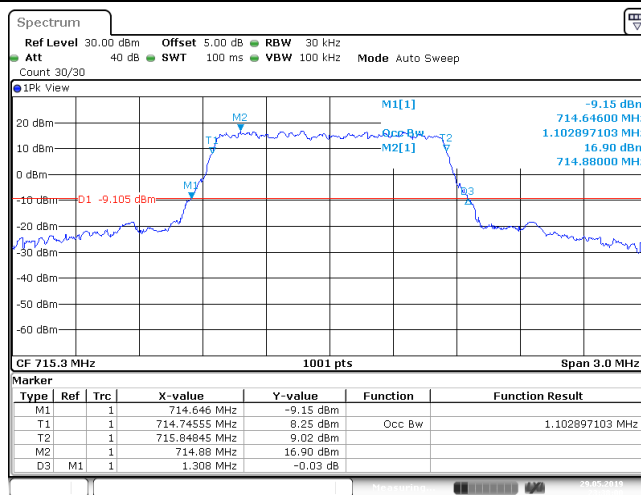
Date: 29 MAY 2019 23:34:53

Band12_1.4MHz_16QAM_23095_6RB#0



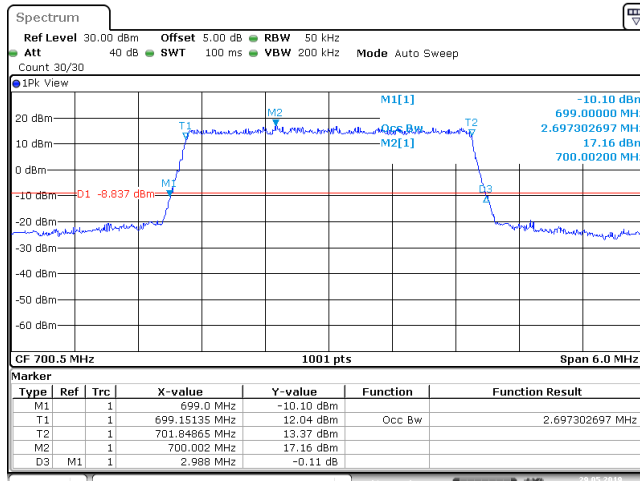
Date: 29 MAY 2019 23:36:27

Band12_1.4MHz_16QAM_23173_6RB#0



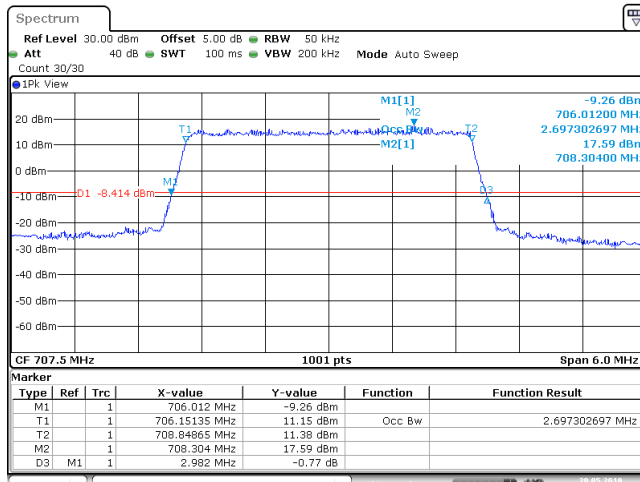
Date: 29 MAY 2019 23:38:00

Band12_3MHz_QPSK_23025_15RB#0



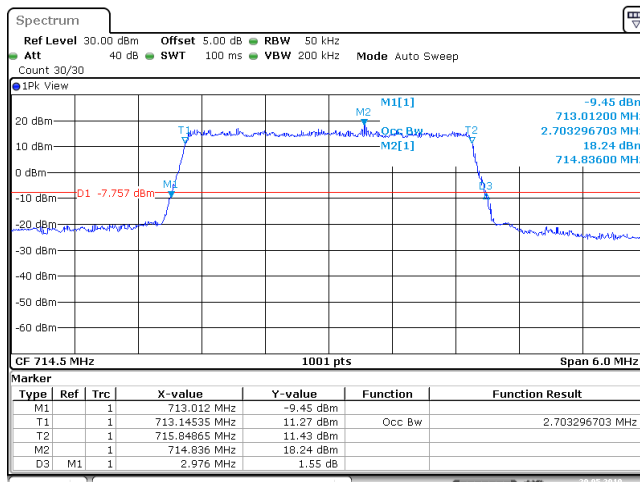
Date: 29 MAY 2019 23:39:35

Band12_3MHz_QPSK_23095_15RB#0



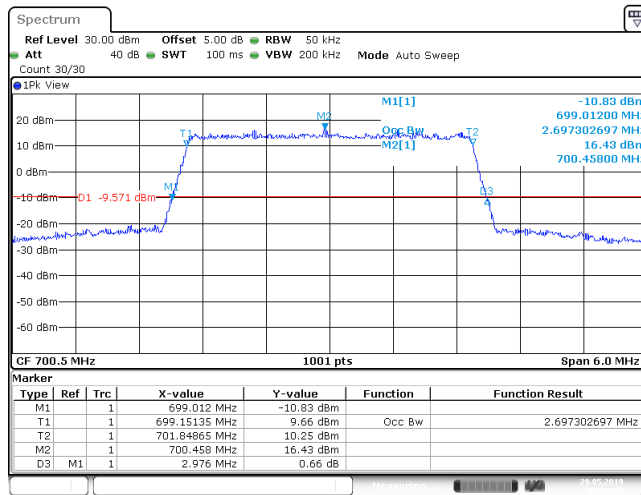
Date: 29 MAY 2019 23:40:04

Band12_3MHz_QPSK_23165_15RB#0

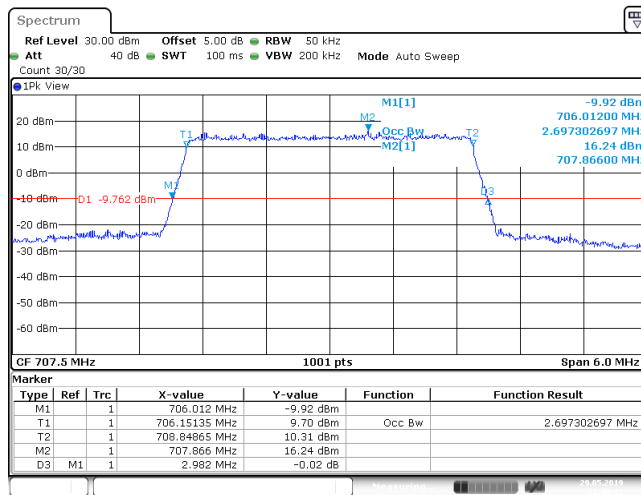


Date: 29 MAY 2019 23:40:33

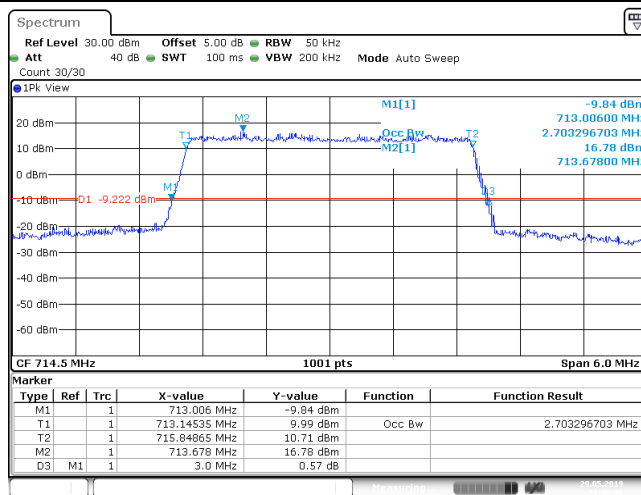
Band12_3MHz_16QAM_23025_15RB#0



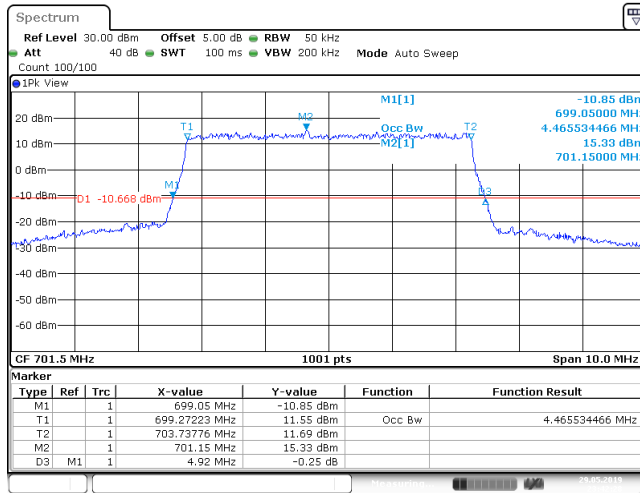
Band12_3MHz_16QAM_23095_15RB#0



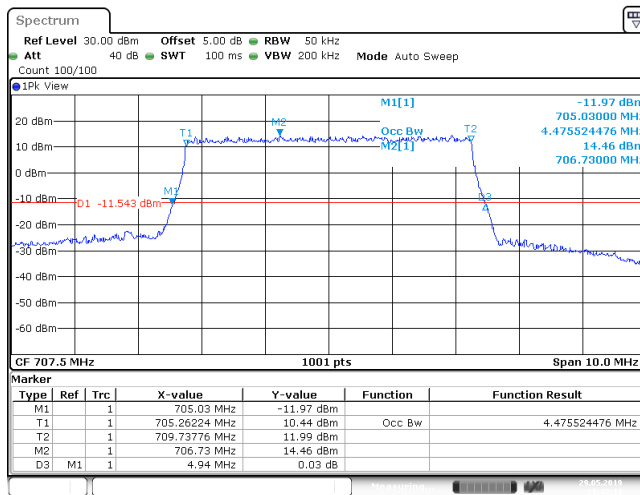
Band12_3MHz_16QAM_23165_15RB#0



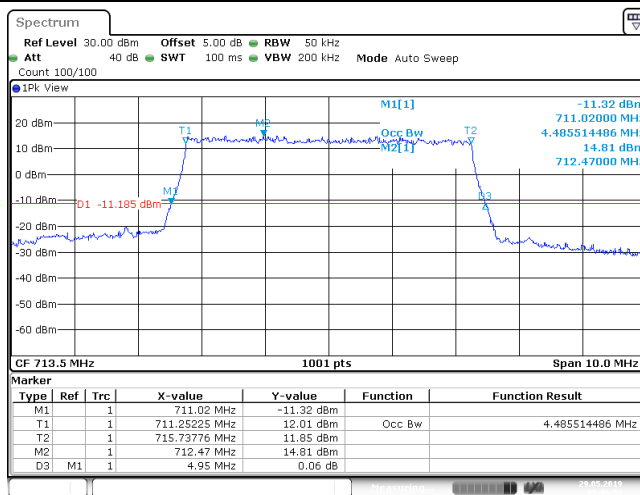
Band12_5MHz_QPSK_23035_25RB#0



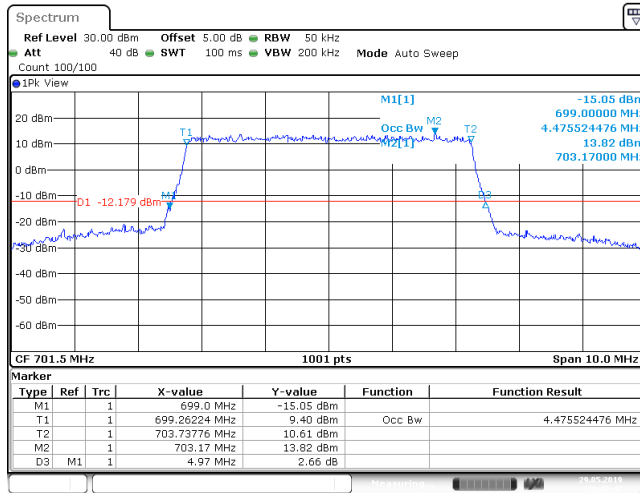
Band12_5MHz_QPSK_23095_25RB#0



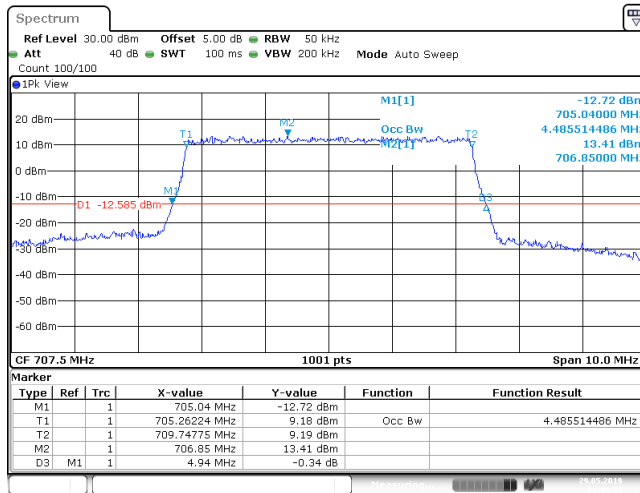
Band12_5MHz_QPSK_23155_25RB#0



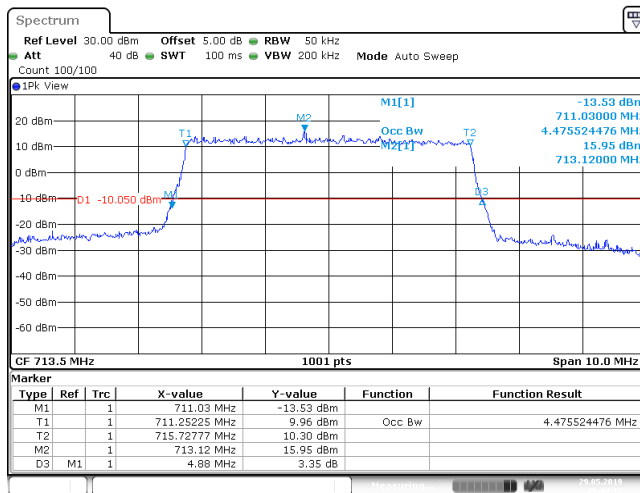
Band12_5MHz_16QAM_23035_25RB#0



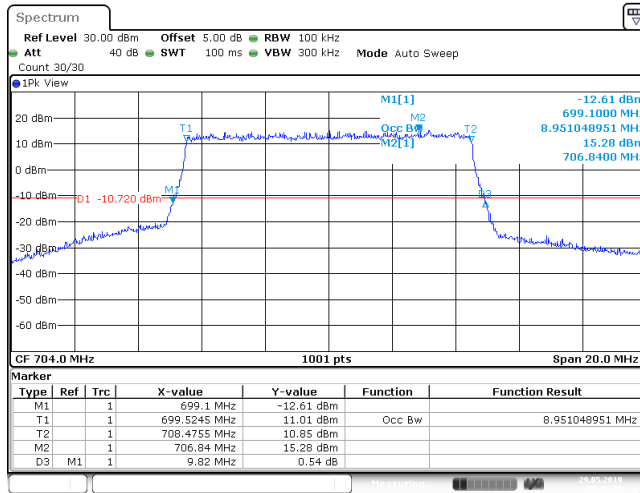
Band12_5MHz_16QAM_23095_25RB#0



Band12_5MHz_16QAM_23155_25RB#0

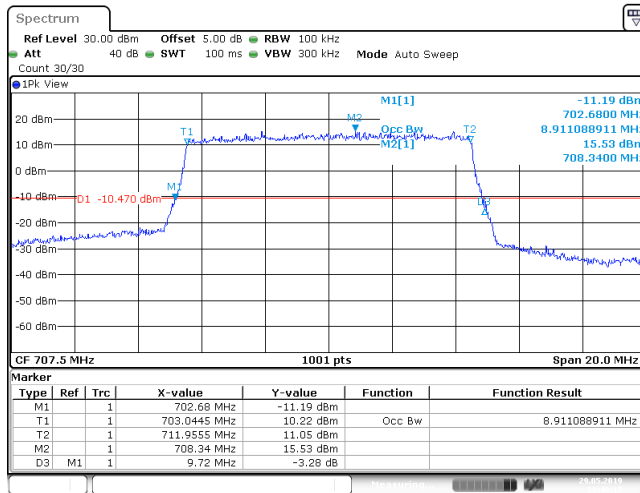


Band12_10MHz_QPSK_23060_50RB#0



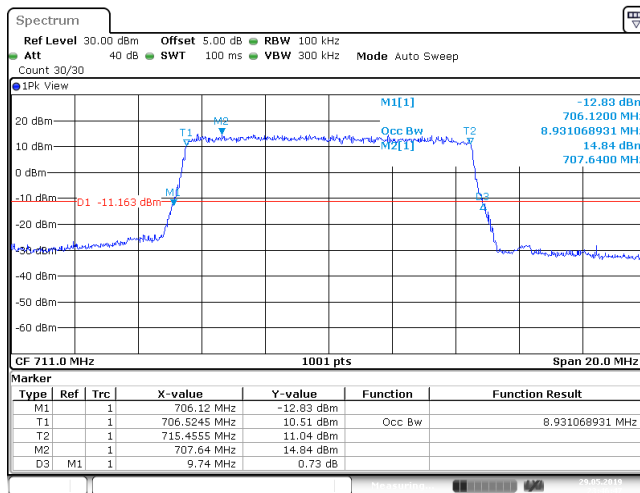
Date: 29 MAY 2019 23:45:49

Band12_10MHz_QPSK_23095_50RB#0



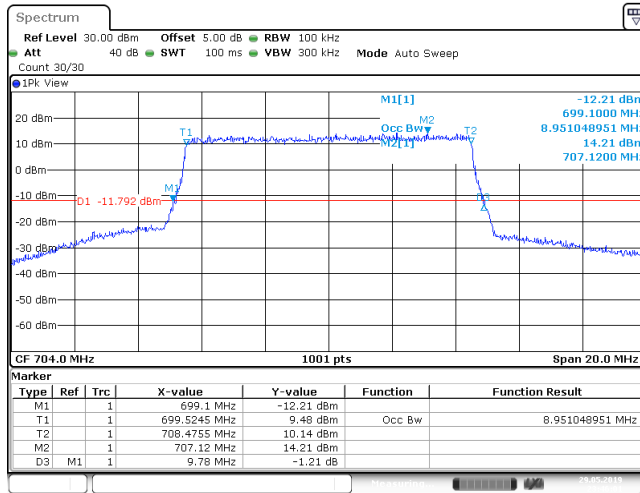
Date: 29 MAY 2019 23:46:18

Band12_10MHz_QPSK_23130_50RB#0

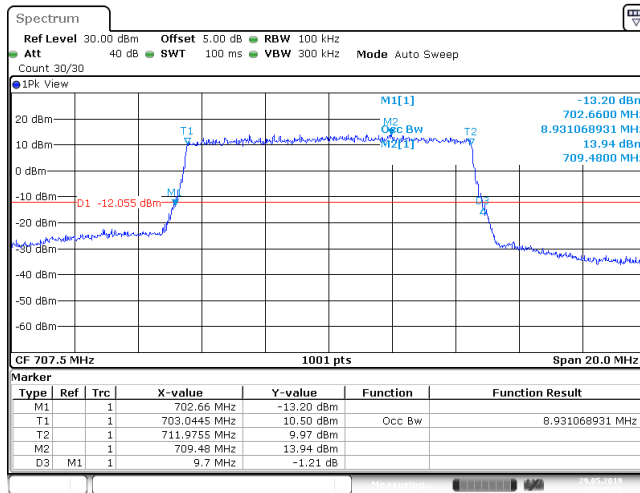


Date: 29 MAY 2019 23:46:46

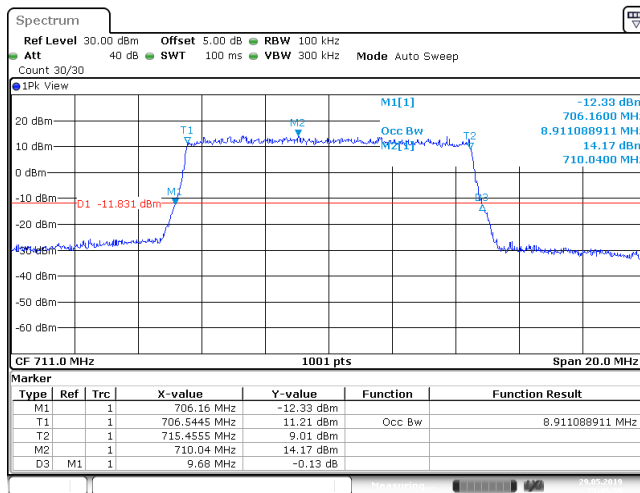
Band12_10MHz_16QAM_23060_50RB#0



Band12_10MHz_16QAM_23095_50RB#0

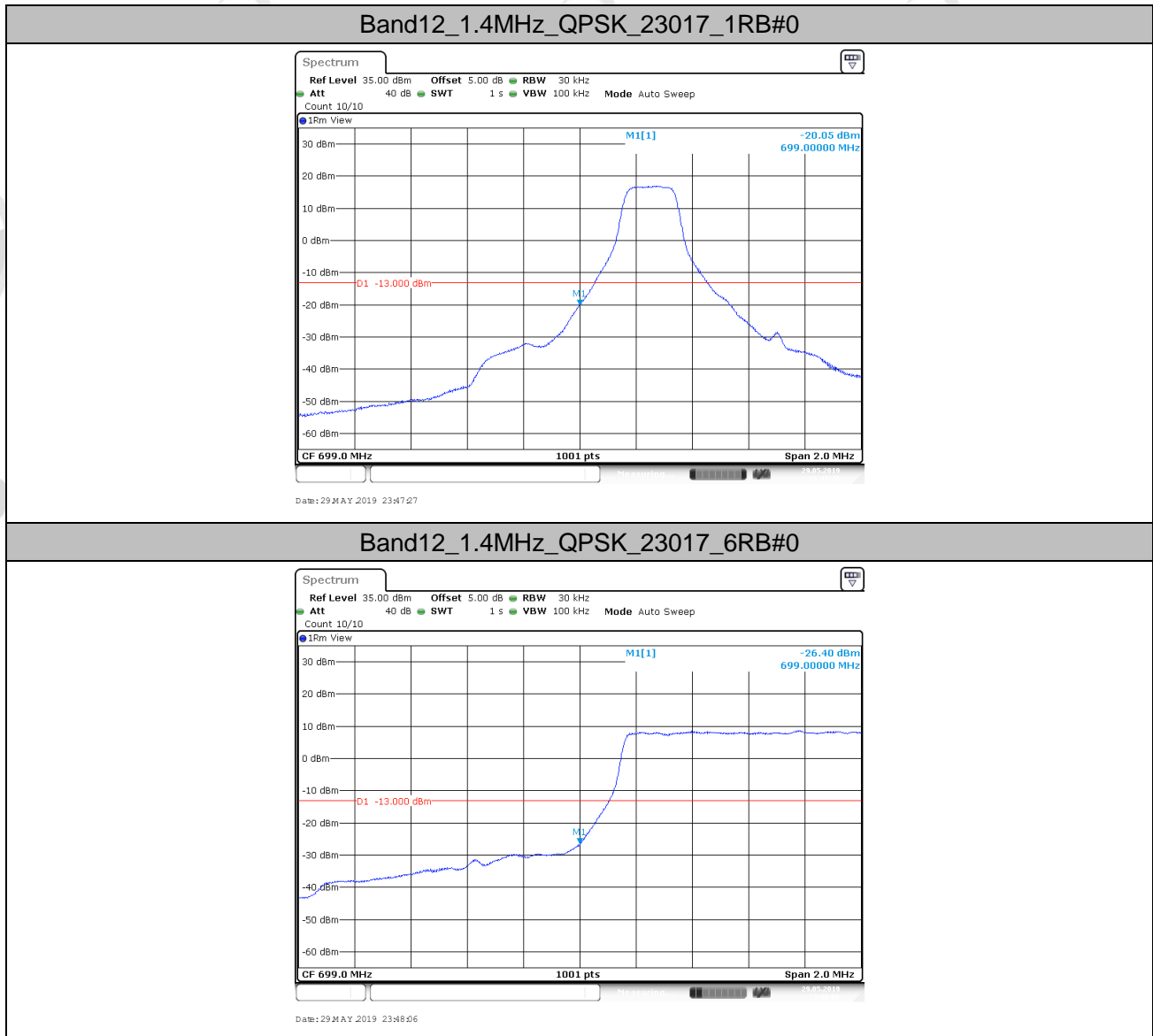


Band12_10MHz_16QAM_23130_50RB#0

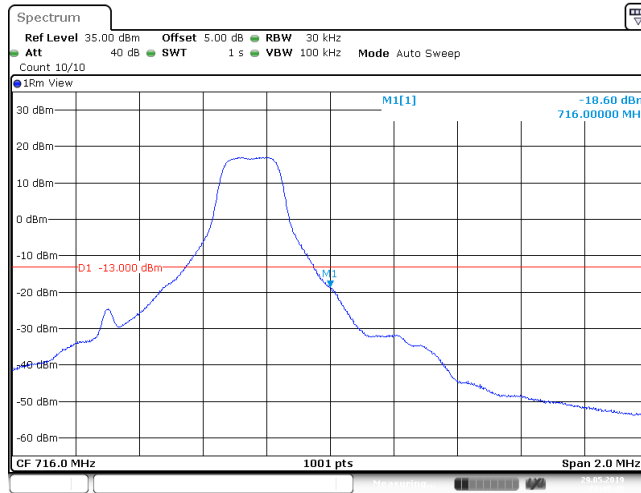


7. Band Edge Compliance

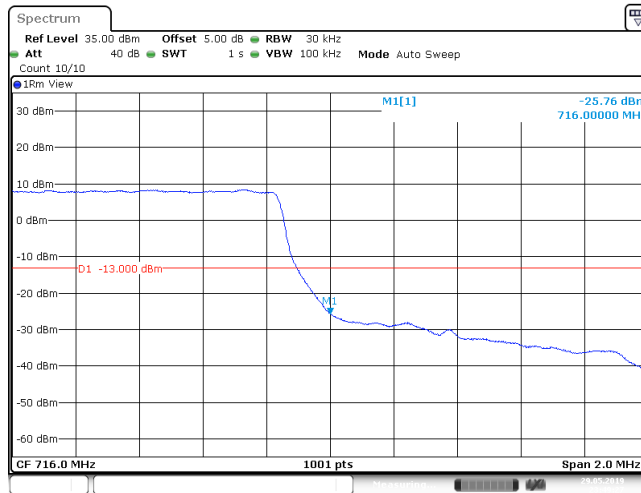
7.1. Test Plots



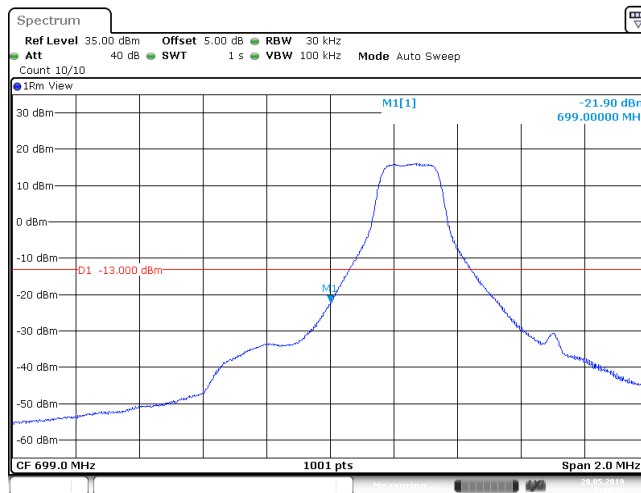
Band12_1.4MHz_QPSK_23173_1RB#5



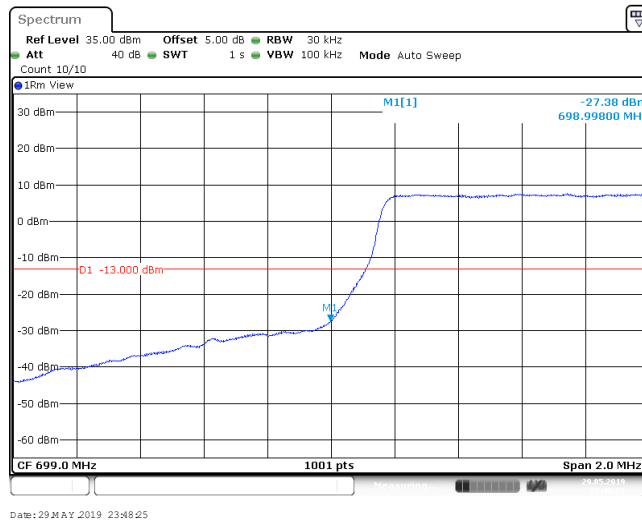
Band12_1.4MHz_QPSK_23173_6RB#0



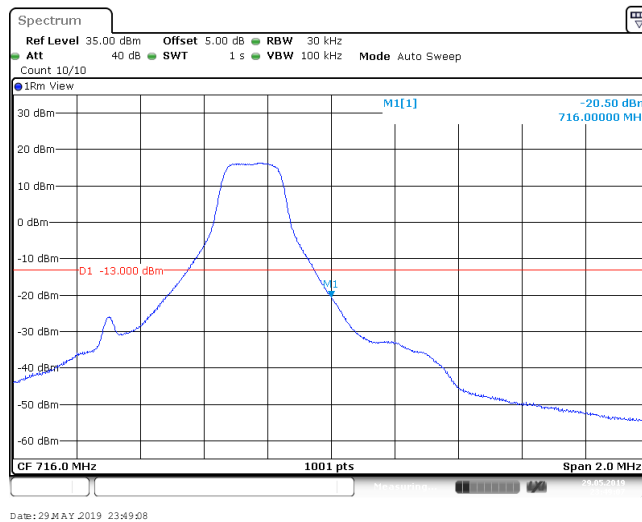
Band12_1.4MHz_16QAM_23017_1RB#0



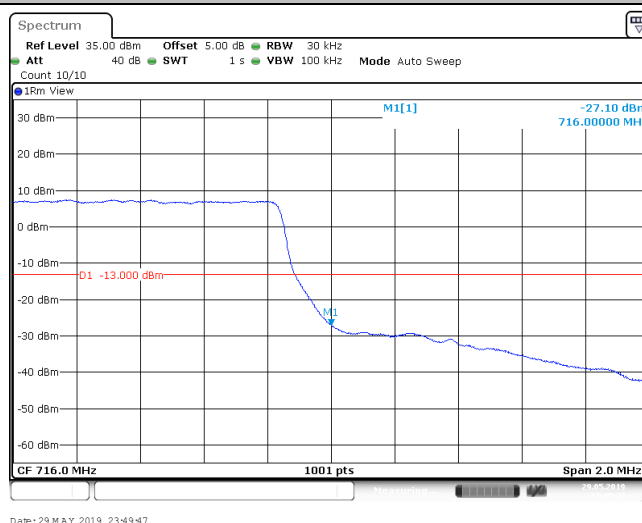
Band12_1.4MHz_16QAM_23017_6RB#0



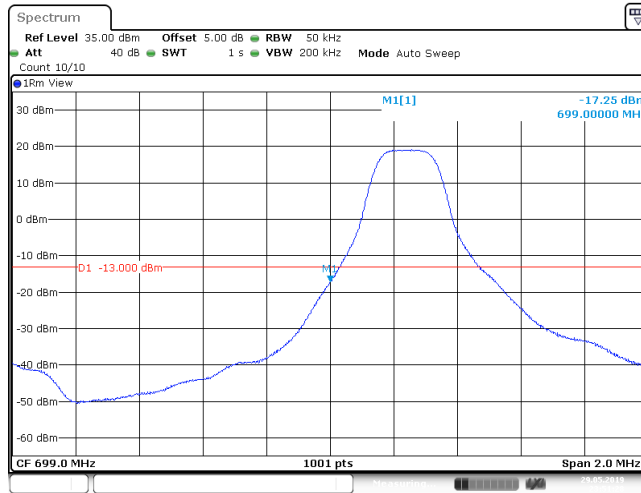
Band12_1.4MHz_16QAM_23173_1RB#5



Band12_1.4MHz_16QAM_23173_6RB#0

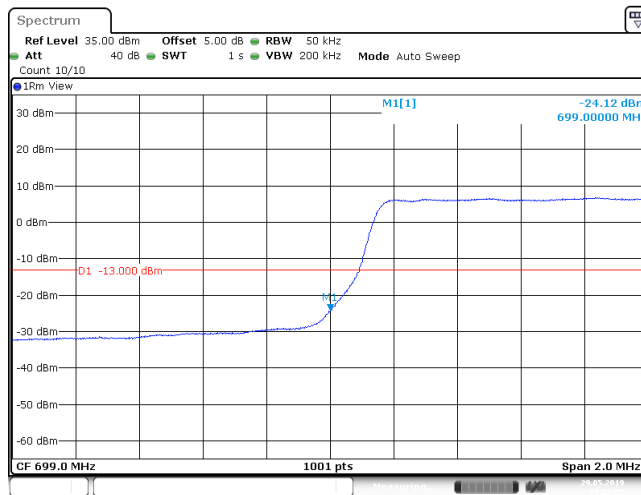


Band12_3MHz_QPSK_23025_1RB#0



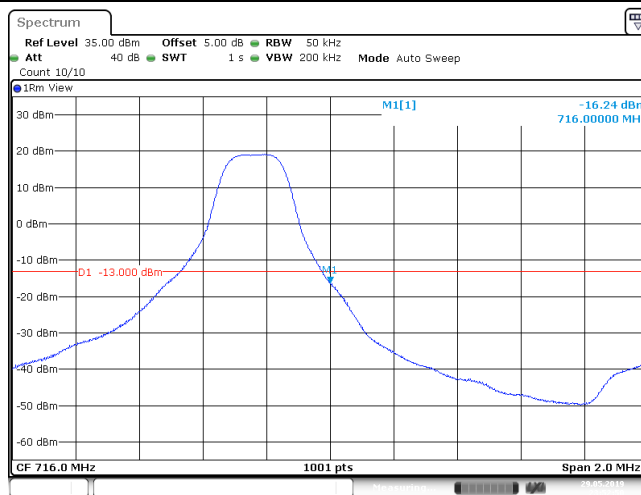
Date: 29 MAY 2019 23:51:29

Band12_3MHz_QPSK_23025_15RB#0



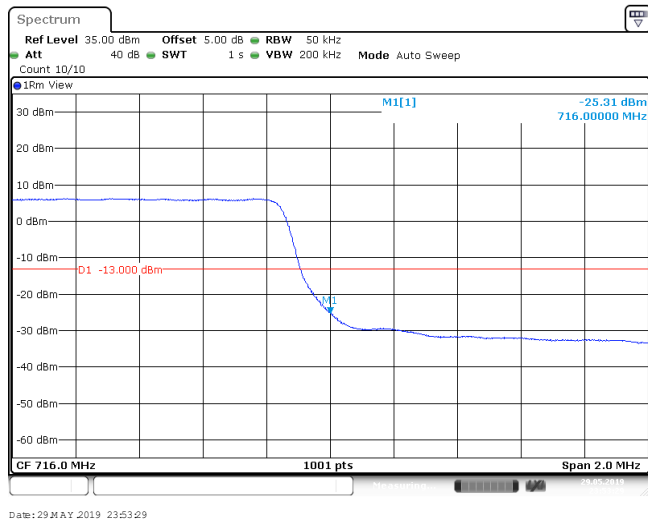
Date: 29 MAY 2019 23:52:08

Band12_3MHz_QPSK_23165_1RB#14

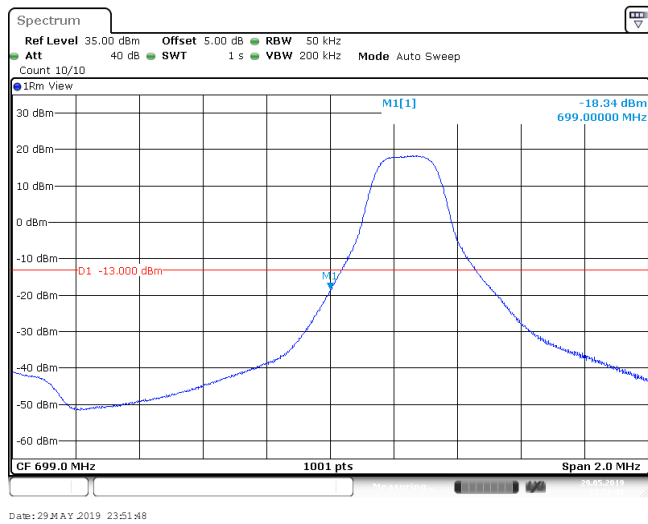


Date: 29 MAY 2019 23:52:50

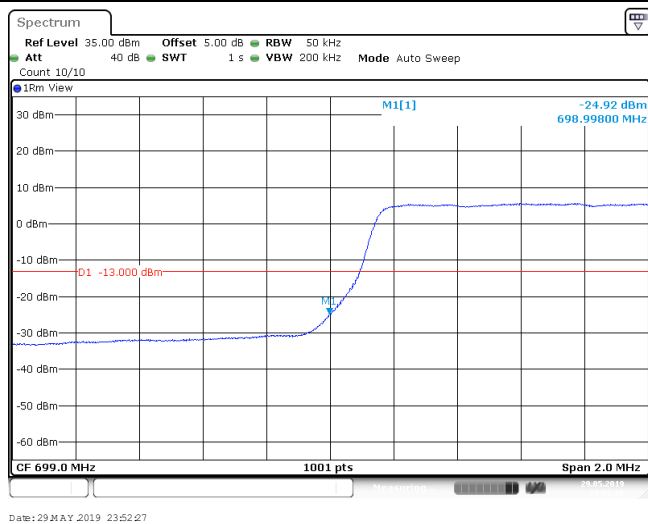
Band12_3MHz_QPSK_23165_15RB#0



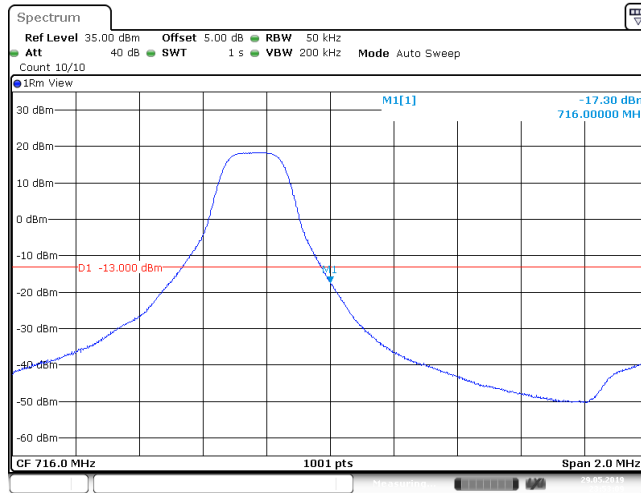
Band12_3MHz_16QAM_23025_1RB#0



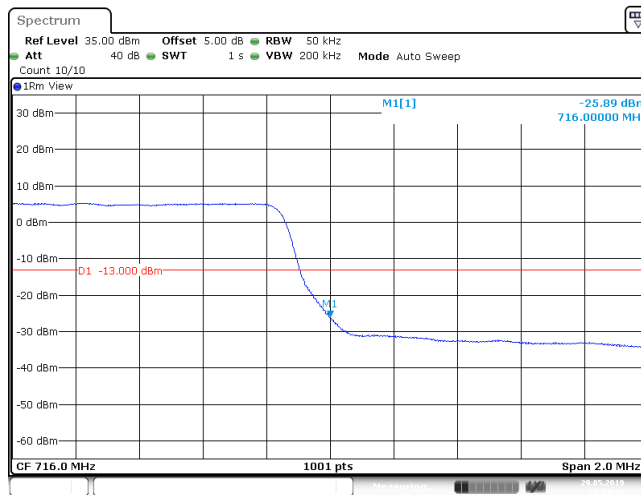
Band12_3MHz_16QAM_23025_15RB#0



Band12_3MHz_16QAM_23165_1RB#14



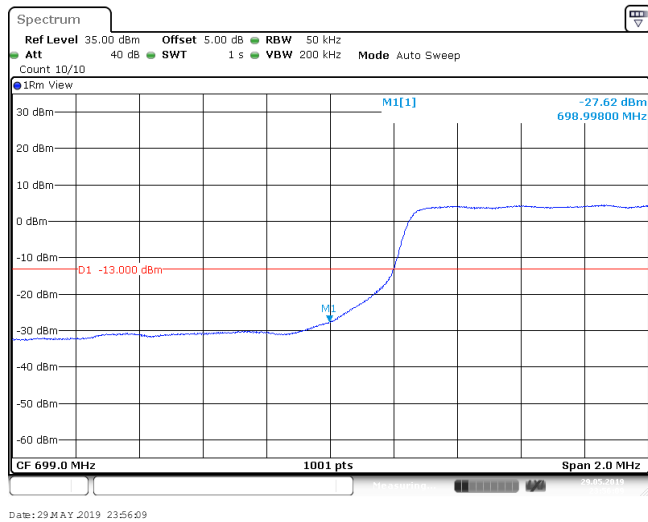
Band12_3MHz_16QAM_23165_15RB#0



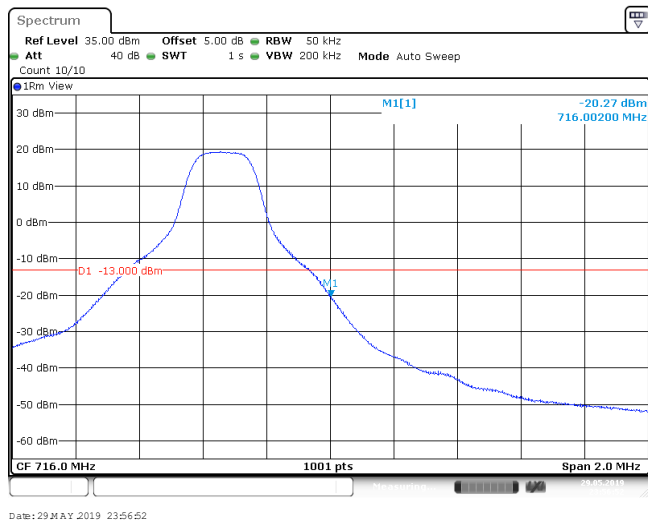
Band12_5MHz_QPSK_23035_1RB#0



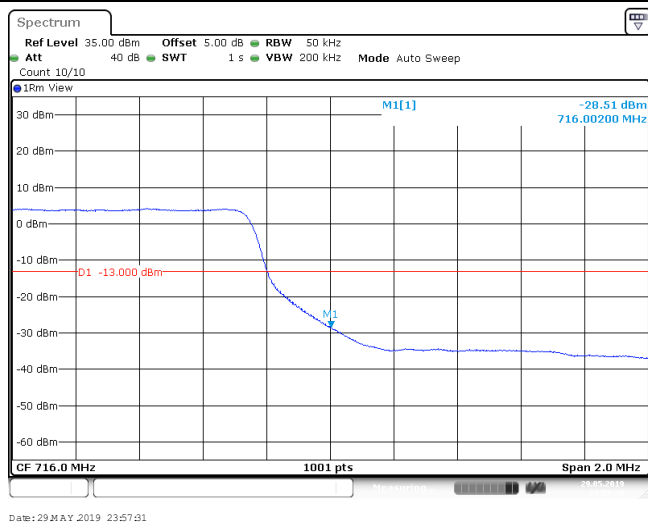
Band12_5MHz_QPSK_23035_25RB#0



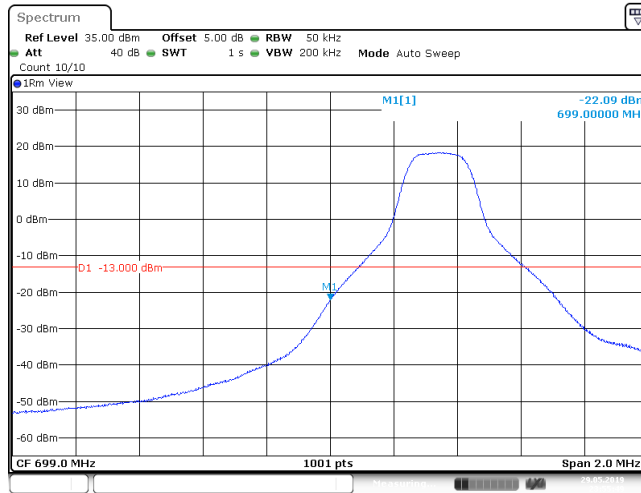
Band12_5MHz_QPSK_23155_1RB#24



Band12_5MHz_QPSK_23155_25RB#0

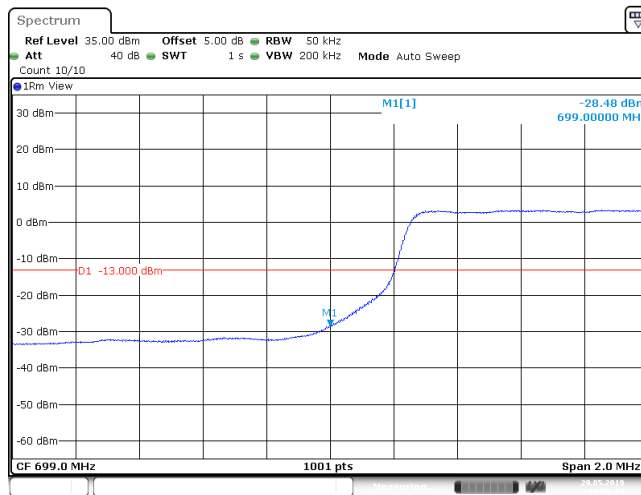


Band12_5MHz_16QAM_23035_1RB#0



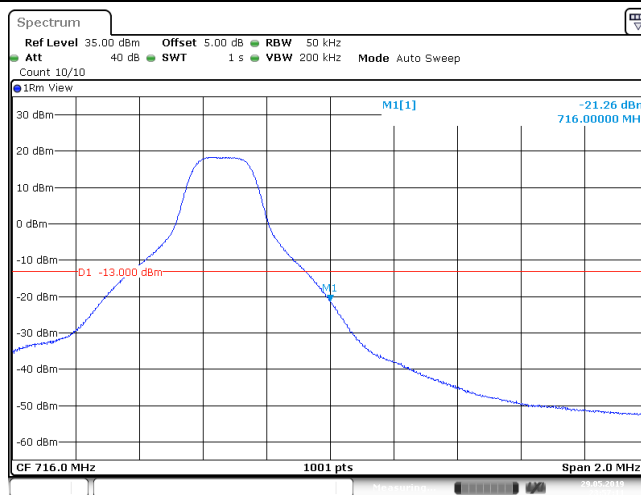
Date: 29 MAY 2019 23:55:50

Band12_5MHz_16QAM_23035_25RB#0



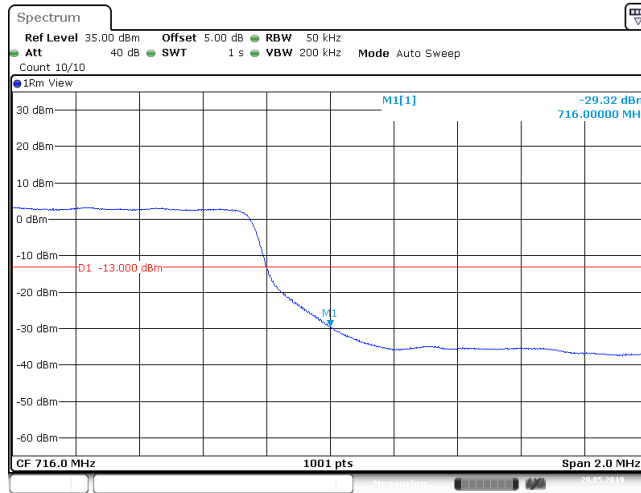
Date: 29 MAY 2019 23:56:29

Band12_5MHz_16QAM_23155_1RB#24



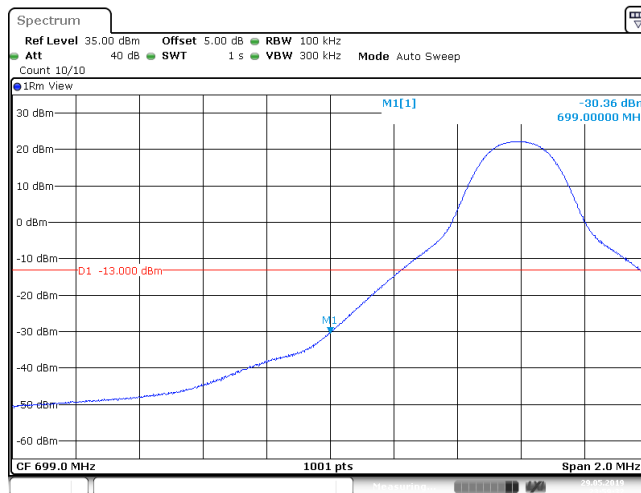
Date: 29 MAY 2019 23:57:32

Band12_5MHz_16QAM_23155_25RB#0



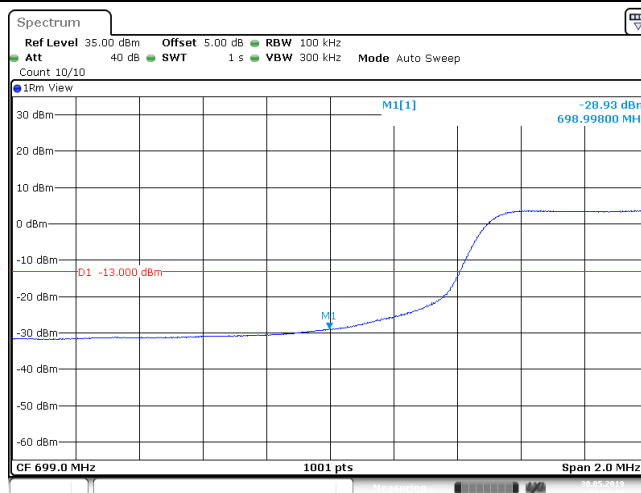
Date: 29 MAY 2019 23:57:51

Band12_10MHz_QPSK_23060_1RB#0



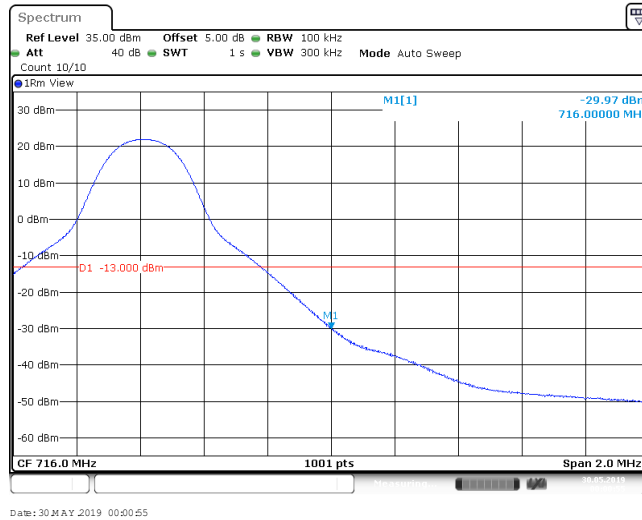
Date: 29 MAY 2019 23:59:33

Band12_10MHz_QPSK_23060_50RB#0

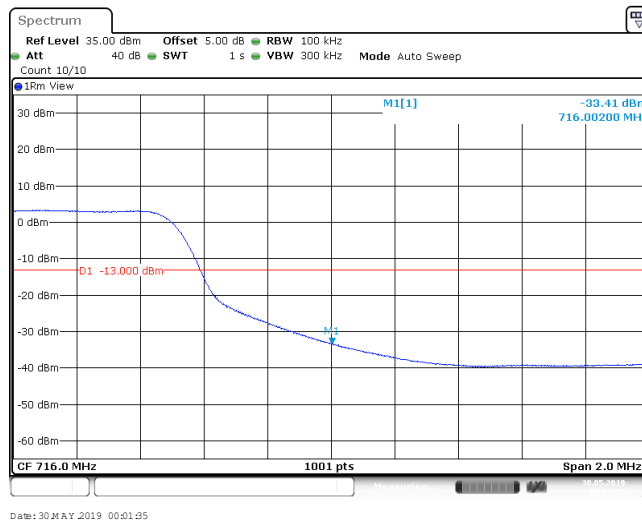


Date: 30 MAY 2019 00:00:12

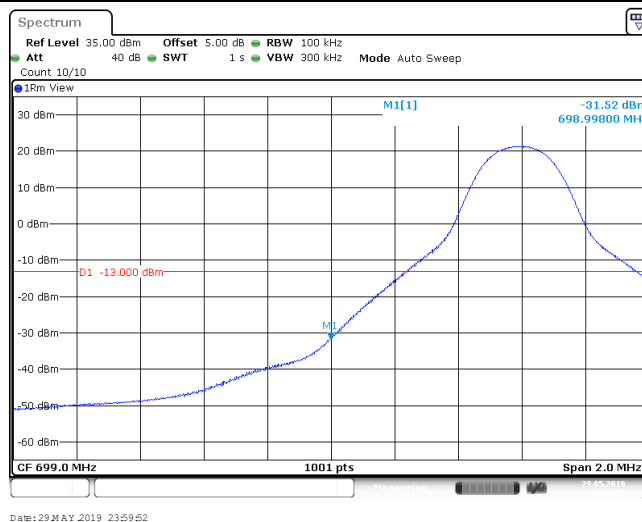
Band12_10MHz_QPSK_23130_1RB#49



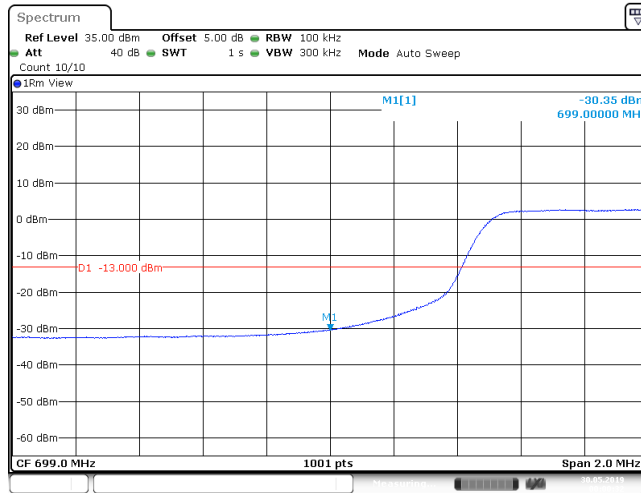
Band12_10MHz_QPSK_23130_50RB#0



Band12_10MHz_16QAM_23060_1RB#0

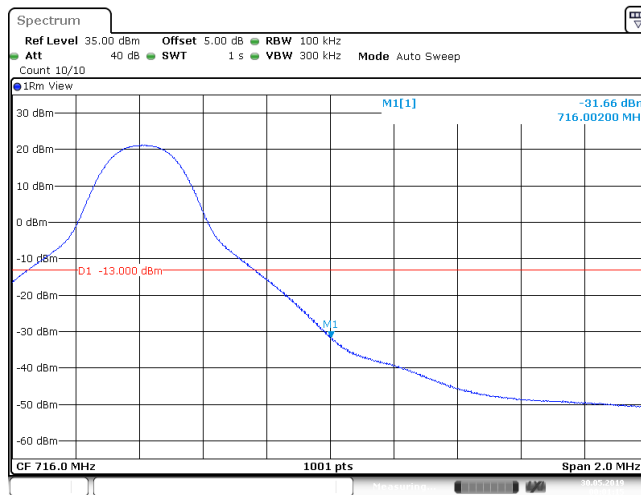


Band12_10MHz_16QAM_23060_50RB#0



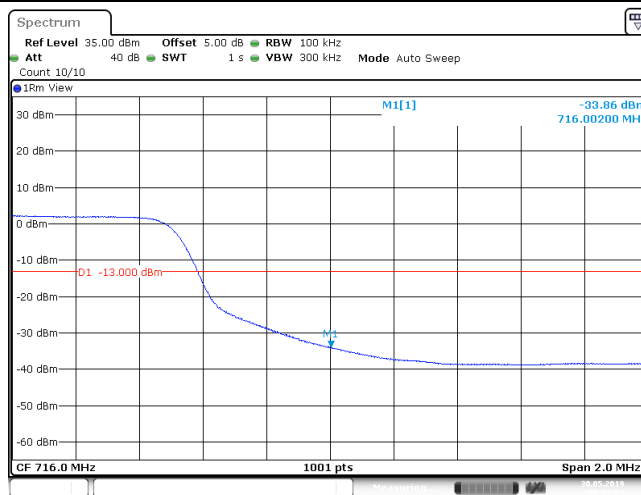
Date: 30 MAY 2019 00:00:32

Band12_10MHz_16QAM_23130_1RB#49



Date: 30 MAY 2019 00:01:15

Band12_10MHz_16QAM_23130_50RB#0



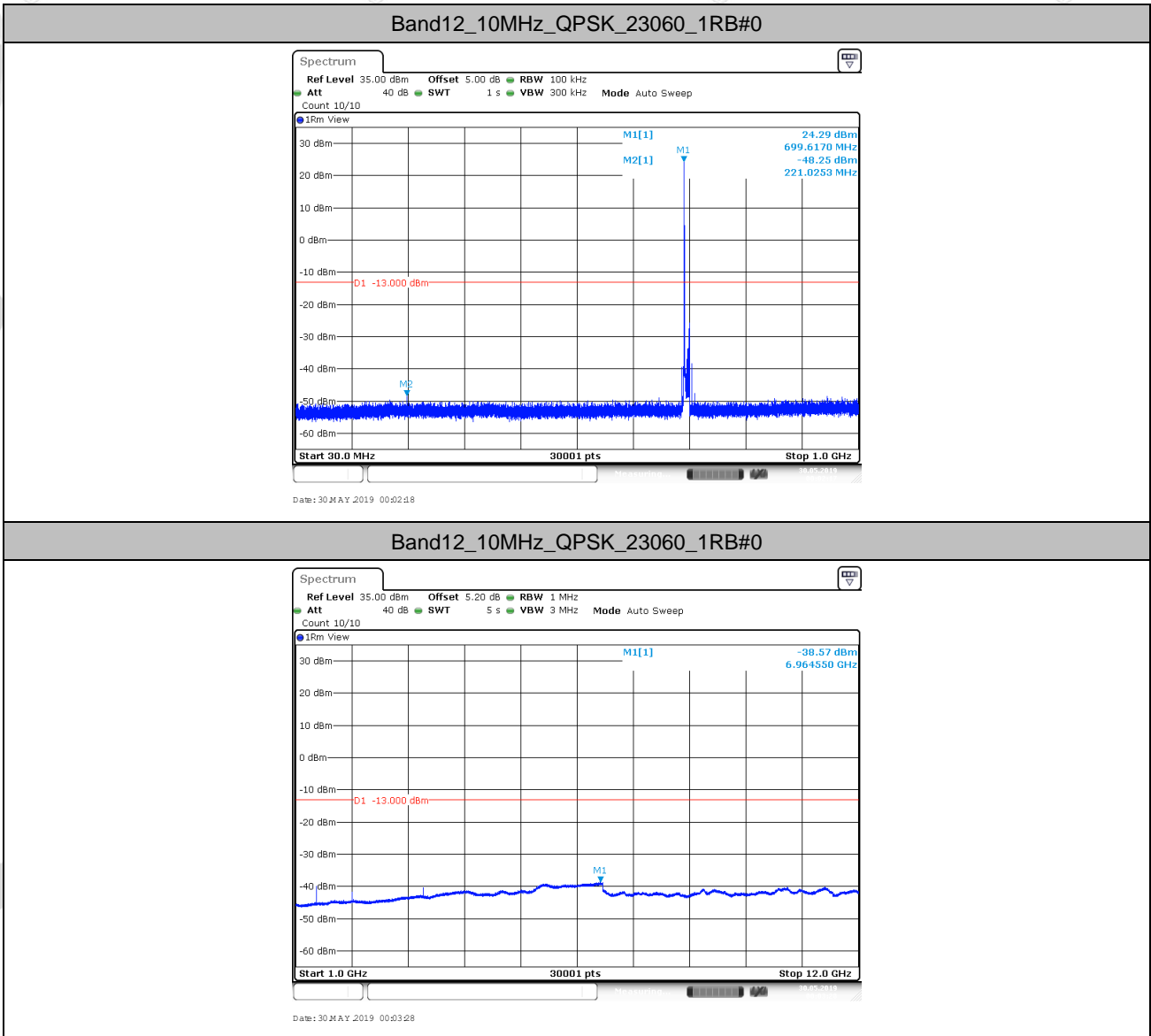
Date: 30 MAY 2019 00:01:55

8. Spurious Emission at Antenna Terminal

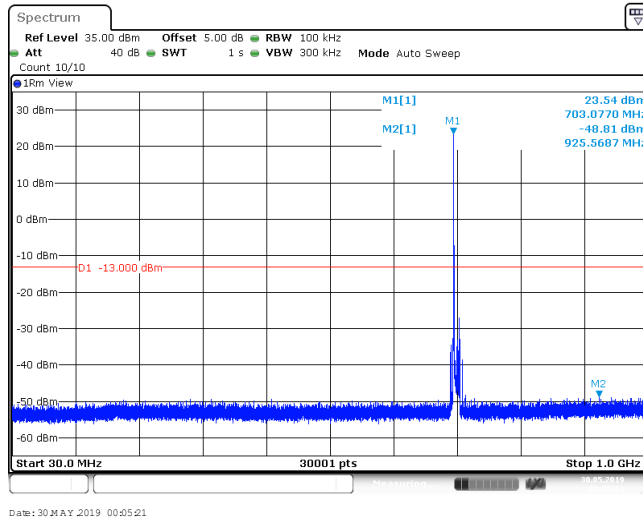
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =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

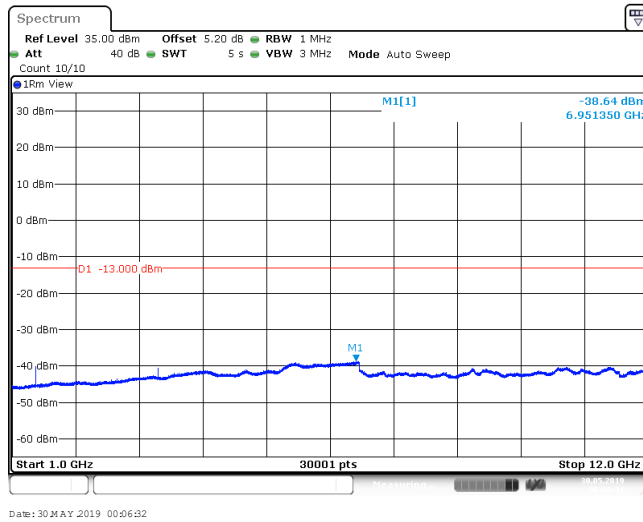
8.1. Test Plots



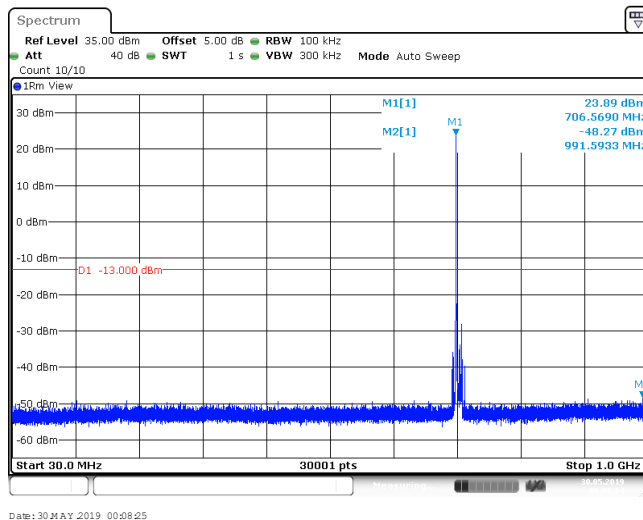
Band12_10MHz_QPSK_23095_1RB#0



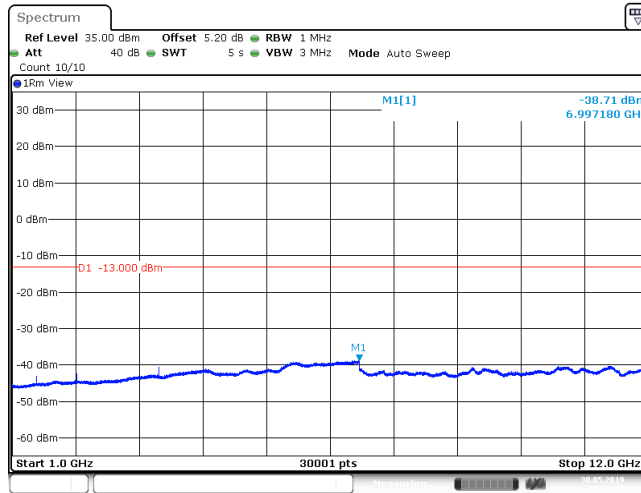
Band12_10MHz_QPSK_23095_1RB#0



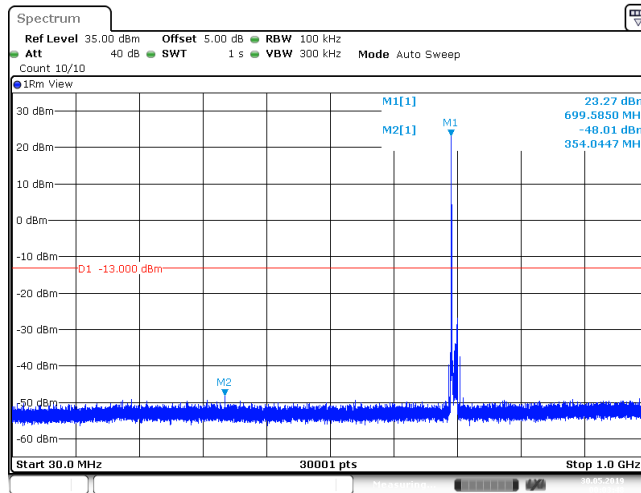
Band12_10MHz_QPSK_23130_1RB#0



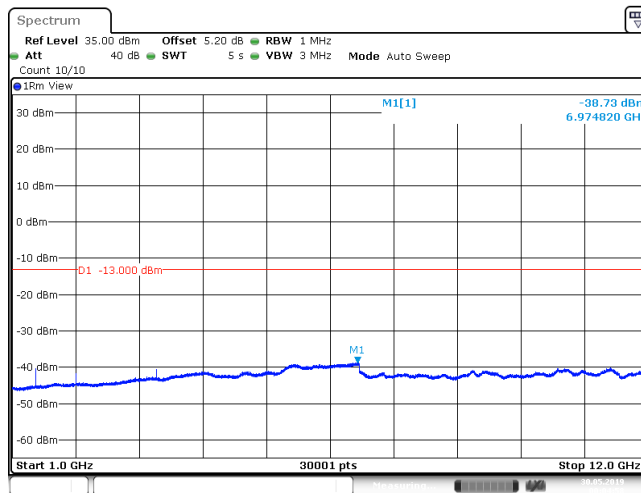
Band12_10MHz_QPSK_23130_1RB#0



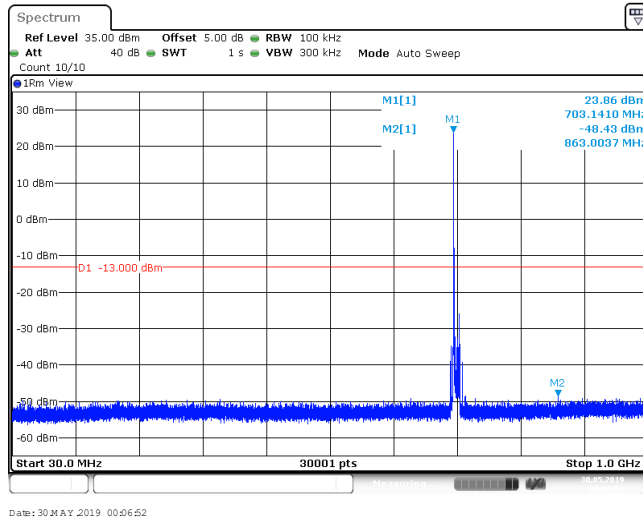
Band12_10MHz_16QAM_23060_1RB#0



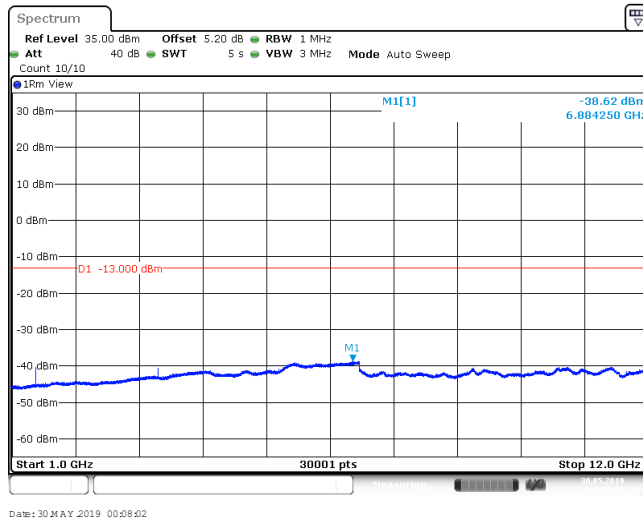
Band12_10MHz_16QAM_23060_1RB#0



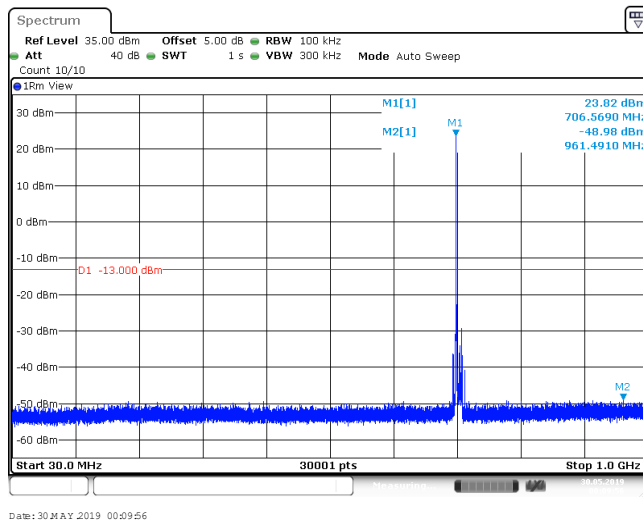
Band12_10MHz_16QAM_23095_1RB#0

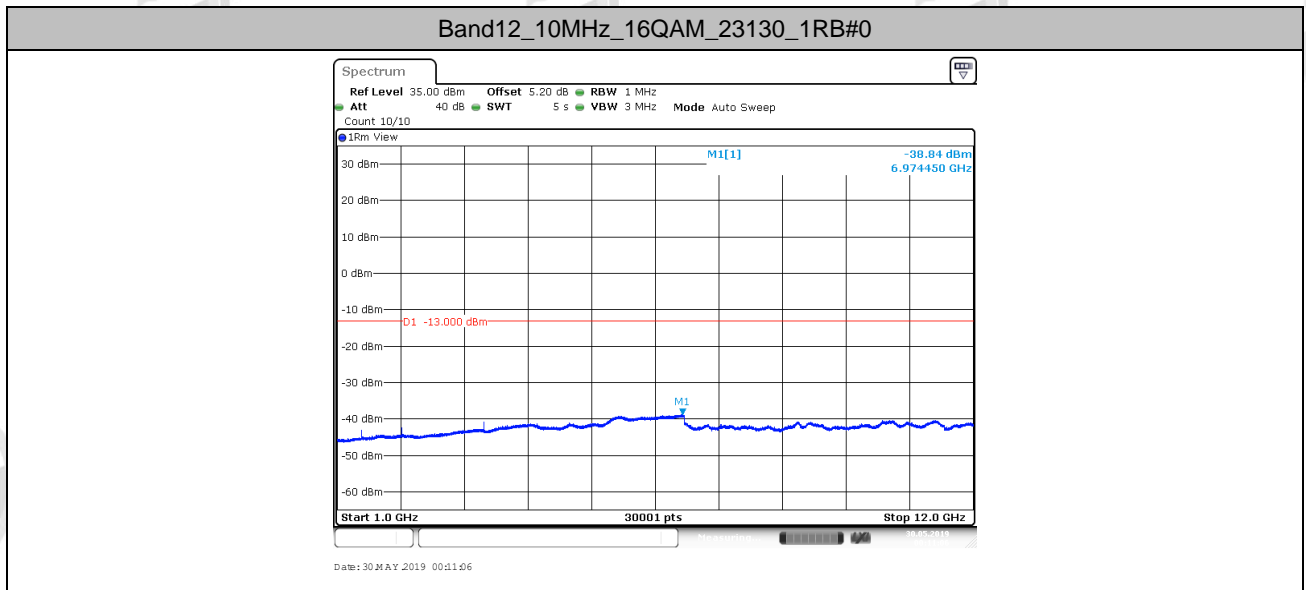


Band12_10MHz_16QAM_23095_1RB#0



Band12_10MHz_16QAM_23130_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
Band12	10MHz	QPSK	23060	50RB#0	VL	NT	-1.10	-0.001563	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	0.90	0.001278	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VH	NT	-1.90	-0.002699	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	1.40	0.001979	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	-1.50	-0.002120	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-1.40	-0.001979	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VL	NT	-0.50	-0.000703	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	-1.00	-0.001406	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-0.10	-0.000141	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VL	NT	0.30	0.000426	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VN	NT	-2.40	-0.003409	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VH	NT	1.00	0.001420	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VL	NT	-0.70	-0.000989	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VN	NT	-1.20	-0.001696	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VH	NT	-0.20	-0.000283	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VL	NT	0.60	0.000844	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VN	NT	-2.30	-0.003235	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VH	NT	-0.30	-0.000422	±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
Band12	10MHz	QPSK	23060	50RB#0	NV	-30	-0.10	-0.000142	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-20	-1.10	-0.001563	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	0	-1.90	-0.002699	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	10	-0.90	-0.001278	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	20	0.40	0.000568	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	30	1.30	0.001847	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	40	-2.00	-0.002841	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	50	-1.60	-0.002273	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	-1.00	-0.001413	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-3.20	-0.004523	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	-0.60	-0.000848	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	-1.80	-0.002544	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-2.50	-0.003534	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	30	-1.60	-0.002261	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	40	0.40	0.000565	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	50	-1.90	-0.002686	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-30	-2.40	-0.003376	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	-0.90	-0.001266	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-2.10	-0.002954	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	0.50	0.000703	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-0.90	-0.001266	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	30	-1.40	-0.001969	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	40	-0.40	-0.000563	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	50	-2.30	-0.003235	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-30	1.70	0.002415	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-20	0.80	0.001136	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	0	-1.00	-0.001420	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	10	1.30	0.001847	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	20	2.20	0.003125	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	30	-1.60	-0.002273	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	40	-1.20	-0.001705	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	50	0.80	0.001136	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-30	1.40	0.001979	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-20	-1.20	-0.001696	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	0	0.90	0.001272	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	10	-2.00	-0.002827	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	20	0.10	0.000141	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	30	-2.30	-0.003251	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	40	0.20	0.000283	±2.5	PASS

Band12	10MHz	16QAM	23095	50RB#0	NV	50	-1.30	-0.001837	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-30	-1.10	-0.001547	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-20	1.30	0.001828	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	0	0.60	0.000844	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	10	-1.30	-0.001828	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	20	-2.80	-0.003938	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	30	-0.50	-0.000703	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	40	-1.50	-0.002110	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	50	1.70	0.002391	±2.5	PASS

The End