

Appendix B.3

E-UTRA Band 4

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)	EIRP (dBm)	Limit (dBm)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	22.93	18.93	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	23.14	19.14	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	23.05	19.05	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#0	23.07	19.07	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#1	23.13	19.13	30.00	PASS
Band4	1.4MHz	QPSK	19957	3RB#3	23.16	19.16	30.00	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	22.06	18.06	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	22.96	18.96	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	23.31	19.31	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	23.00	19.00	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#0	23.11	19.11	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#1	22.96	18.96	30.00	PASS
Band4	1.4MHz	QPSK	20175	3RB#3	22.95	18.95	30.00	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	21.94	17.94	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	22.75	18.75	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	23.03	19.03	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	22.74	18.74	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#0	22.81	18.81	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#1	22.85	18.85	30.00	PASS
Band4	1.4MHz	QPSK	20393	3RB#3	22.91	18.91	30.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	21.84	17.84	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	21.84	17.84	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	22.17	18.17	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	21.99	17.99	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#0	22.12	18.12	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#1	22.21	18.21	30.00	PASS
Band4	1.4MHz	16QAM	19957	3RB#3	22.11	18.11	30.00	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	20.92	16.92	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	21.96	17.96	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	21.75	17.75	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	21.78	17.78	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#0	21.95	17.95	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#1	22.00	18.00	30.00	PASS
Band4	1.4MHz	16QAM	20175	3RB#3	21.82	17.82	30.00	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	20.85	16.85	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	21.70	17.70	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	21.62	17.62	30.00	PASS

Band4	1.4MHz	16QAM	20393	1RB#5	21.73	17.73	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#0	21.71	17.71	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#1	21.80	17.80	30.00	PASS
Band4	1.4MHz	16QAM	20393	3RB#3	21.74	17.74	30.00	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	20.77	16.77	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#0	23.00	19.00	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#8	23.25	19.25	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#14	23.04	19.04	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#0	22.01	18.01	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#4	22.08	18.08	30.00	PASS
Band4	3MHz	QPSK	19965	8RB#7	22.06	18.06	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	22.03	18.03	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#0	22.92	18.92	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#8	23.10	19.10	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#14	22.79	18.79	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#0	21.86	17.86	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#4	21.97	17.97	30.00	PASS
Band4	3MHz	QPSK	20175	8RB#7	21.87	17.87	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	21.93	17.93	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#0	22.66	18.66	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#8	22.89	18.89	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#14	22.70	18.70	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#0	21.68	17.68	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#4	21.91	17.91	30.00	PASS
Band4	3MHz	QPSK	20385	8RB#7	21.88	17.88	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	21.69	17.69	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#0	21.95	17.95	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#8	22.00	18.00	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#14	21.95	17.95	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#0	20.88	16.88	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#4	20.94	16.94	30.00	PASS
Band4	3MHz	16QAM	19965	8RB#7	20.78	16.78	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	20.83	16.83	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#0	21.70	17.70	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#8	22.05	18.05	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#14	21.61	17.61	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#0	20.82	16.82	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#4	20.93	16.93	30.00	PASS
Band4	3MHz	16QAM	20175	8RB#7	20.76	16.76	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	20.86	16.86	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#0	21.54	17.54	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#8	21.61	17.61	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#14	21.55	17.55	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#0	20.54	16.54	30.00	PASS

Band4	3MHz	16QAM	20385	8RB#4	20.77	16.77	30.00	PASS
Band4	3MHz	16QAM	20385	8RB#7	20.77	16.77	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	20.72	16.72	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#0	22.80	18.80	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#12	23.24	19.24	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#24	23.12	19.12	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#0	21.94	17.94	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#6	22.06	18.06	30.00	PASS
Band4	5MHz	QPSK	19975	12RB#13	21.91	17.91	30.00	PASS
Band4	5MHz	QPSK	19975	25RB#0	21.85	17.85	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#0	22.83	18.83	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#12	23.45	19.45	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#24	22.96	18.96	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#0	21.85	17.85	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#6	22.09	18.09	30.00	PASS
Band4	5MHz	QPSK	20175	12RB#13	21.86	17.86	30.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	21.86	17.86	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#0	22.56	18.56	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#12	23.02	19.02	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#24	23.08	19.08	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#0	21.59	17.59	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#6	21.72	17.72	30.00	PASS
Band4	5MHz	QPSK	20375	12RB#13	21.74	17.74	30.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	21.67	17.67	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#0	21.62	17.62	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#12	21.95	17.95	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#24	21.77	17.77	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#0	20.70	16.70	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#6	20.99	16.99	30.00	PASS
Band4	5MHz	16QAM	19975	12RB#13	20.85	16.85	30.00	PASS
Band4	5MHz	16QAM	19975	25RB#0	20.61	16.61	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#0	22.00	18.00	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#12	21.98	17.98	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#24	21.56	17.56	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#0	20.69	16.69	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#6	21.07	17.07	30.00	PASS
Band4	5MHz	16QAM	20175	12RB#13	20.70	16.70	30.00	PASS
Band4	5MHz	16QAM	20175	25RB#0	20.49	16.49	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#0	21.66	17.66	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#12	22.03	18.03	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#24	21.90	17.90	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#0	20.47	16.47	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#6	20.68	16.68	30.00	PASS
Band4	5MHz	16QAM	20375	12RB#13	20.69	16.69	30.00	PASS

Band4	5MHz	16QAM	20375	25RB#0	20.46	16.46	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#0	22.71	18.71	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#24	23.40	19.40	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#49	22.63	18.63	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#0	22.12	18.12	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#12	22.03	18.03	30.00	PASS
Band4	10MHz	QPSK	20000	25RB#25	21.69	17.69	30.00	PASS
Band4	10MHz	QPSK	20000	50RB#0	21.91	17.91	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#0	22.69	18.69	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#24	23.55	19.55	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#49	22.46	18.46	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#0	21.88	17.88	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#12	22.11	18.11	30.00	PASS
Band4	10MHz	QPSK	20175	25RB#25	21.68	17.68	30.00	PASS
Band4	10MHz	QPSK	20175	50RB#0	21.75	17.75	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#0	22.53	18.53	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#24	23.20	19.20	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#49	22.69	18.69	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#0	21.82	17.82	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#12	21.78	17.78	30.00	PASS
Band4	10MHz	QPSK	20350	25RB#25	21.80	17.80	30.00	PASS
Band4	10MHz	QPSK	20350	50RB#0	21.64	17.64	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#0	22.04	18.04	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#24	22.49	18.49	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#49	21.39	17.39	30.00	PASS
Band4	10MHz	16QAM	20000	27RB#0	20.58	16.58	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#0	21.75	17.75	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#24	22.54	18.54	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#49	21.43	17.43	30.00	PASS
Band4	10MHz	16QAM	20175	27RB#0	20.46	16.46	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#0	22.45	18.45	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#24	22.00	18.00	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#49	21.79	17.79	30.00	PASS
Band4	10MHz	16QAM	20350	27RB#0	20.44	16.44	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#0	22.86	18.86	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#38	23.33	19.33	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#74	22.30	18.30	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#0	21.98	17.98	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#18	21.92	17.92	30.00	PASS
Band4	15MHz	QPSK	20025	36RB#39	21.68	17.68	30.00	PASS
Band4	15MHz	QPSK	20025	75RB#0	21.67	17.67	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#0	22.77	18.77	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#38	23.08	19.08	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#74	22.40	18.40	30.00	PASS

Band4	15MHz	QPSK	20175	36RB#0	22.01	18.01	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#18	22.21	18.21	30.00	PASS
Band4	15MHz	QPSK	20175	36RB#39	21.78	17.78	30.00	PASS
Band4	15MHz	QPSK	20175	75RB#0	21.73	17.73	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#0	22.85	18.85	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#38	23.23	19.23	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#74	22.82	18.82	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#0	21.93	17.93	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#18	21.86	17.86	30.00	PASS
Band4	15MHz	QPSK	20325	36RB#39	21.59	17.59	30.00	PASS
Band4	15MHz	QPSK	20325	75RB#0	21.71	17.71	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#0	21.84	17.84	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#38	22.19	18.19	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#74	21.36	17.36	30.00	PASS
Band4	15MHz	16QAM	20025	27RB#0	20.82	16.82	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#0	21.63	17.63	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#38	22.84	18.84	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#74	21.20	17.20	30.00	PASS
Band4	15MHz	16QAM	20175	27RB#0	20.72	16.72	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#0	21.81	17.81	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#38	22.19	18.19	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#74	21.32	17.32	30.00	PASS
Band4	15MHz	16QAM	20325	27RB#0	20.69	16.69	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#0	22.99	18.99	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#49	23.54	19.54	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#99	22.31	18.31	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#0	22.20	18.20	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#25	22.07	18.07	30.00	PASS
Band4	20MHz	QPSK	20050	50RB#50	21.84	17.84	30.00	PASS
Band4	20MHz	QPSK	20050	100RB#0	21.56	17.56	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#0	22.69	18.69	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#49	23.72	19.72	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#99	22.30	18.30	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#0	21.92	17.92	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#25	22.19	18.19	30.00	PASS
Band4	20MHz	QPSK	20175	50RB#50	21.75	17.75	30.00	PASS
Band4	20MHz	QPSK	20175	100RB#0	21.75	17.75	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#0	23.01	19.01	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#49	23.30	19.30	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#99	22.49	18.49	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#0	22.12	18.12	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#25	21.92	17.92	30.00	PASS
Band4	20MHz	QPSK	20300	50RB#50	21.44	17.44	30.00	PASS
Band4	20MHz	QPSK	20300	100RB#0	21.46	17.46	30.00	PASS

Band4	20MHz	16QAM	20050	1RB#0	21.83	17.83	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#49	22.46	18.46	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#99	21.38	17.38	30.00	PASS
Band4	20MHz	16QAM	20050	27RB#0	21.55	17.55	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#0	21.60	17.60	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#49	22.77	18.77	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#99	21.38	17.38	30.00	PASS
Band4	20MHz	16QAM	20175	27RB#0	21.49	17.49	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#0	22.14	18.14	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#49	22.09	18.09	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#99	21.34	17.34	30.00	PASS
Band4	20MHz	16QAM	20300	27RB#0	21.45	17.45	30.00	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]

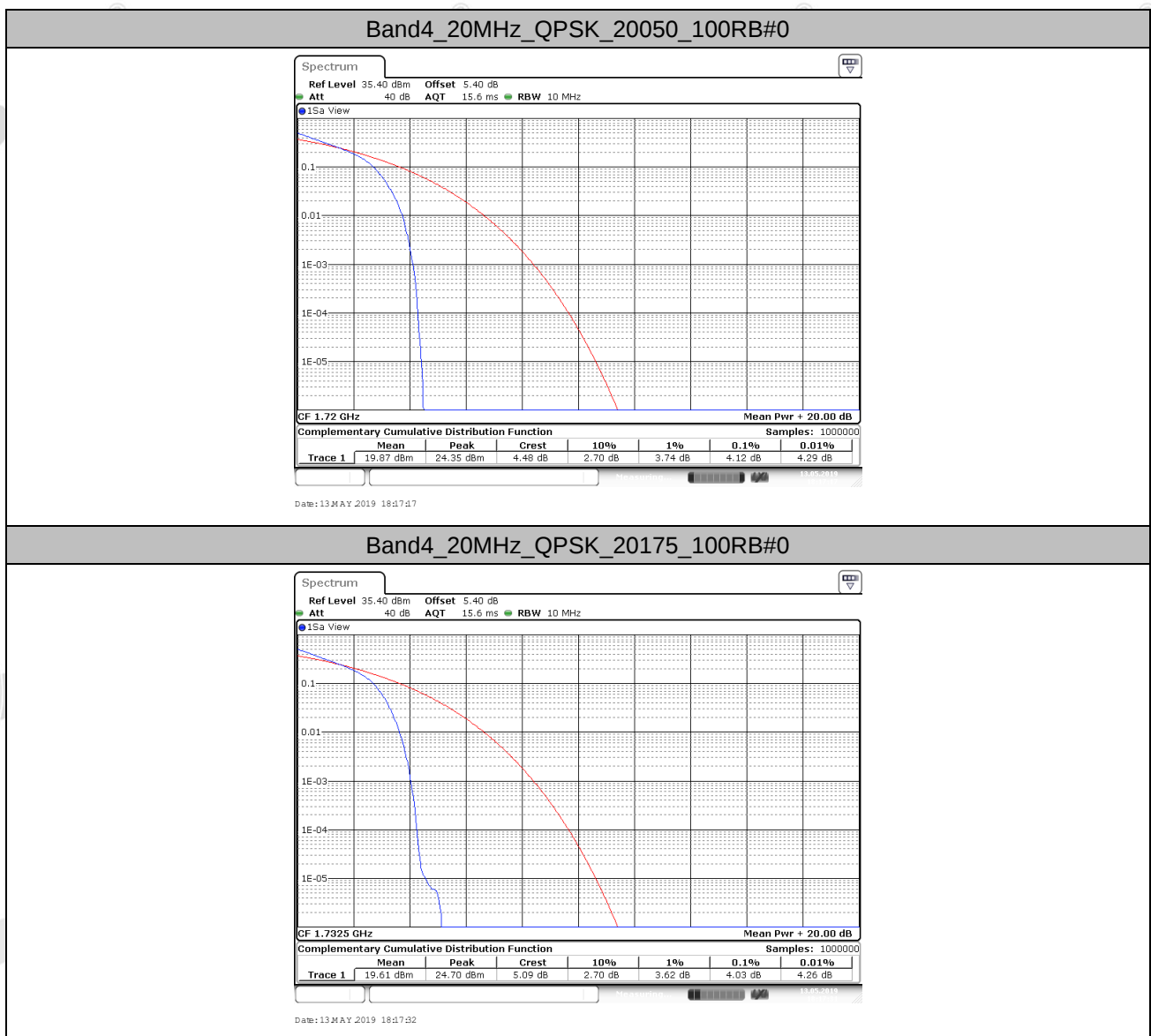
EIRP [dBm] = Conducted Power [dBm] + Gain [dBi]

4. Peak-to-Average Ratio(CCDF)

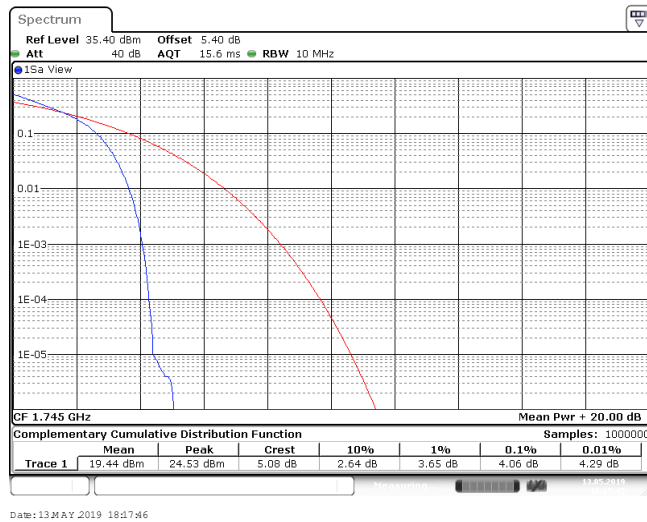
4.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	4.12	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	4.03	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	4.06	13	PASS
Band4	20MHz	16QAM	20050	27RB#0	6.14	13	PASS
Band4	20MHz	16QAM	20175	27RB#0	6.23	13	PASS
Band4	20MHz	16QAM	20300	27RB#0	5.91	13	PASS

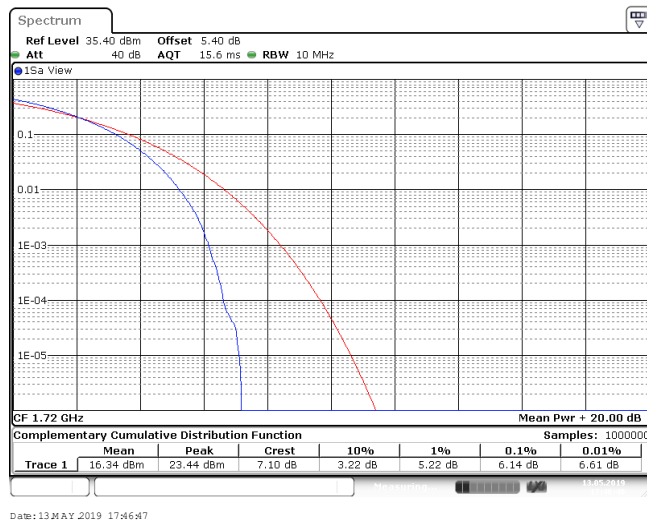
4.2. Test Plots



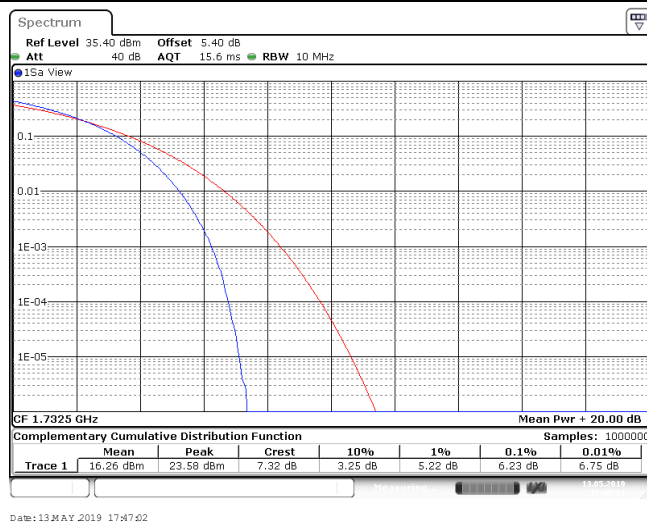
Band4_20MHz_QPSK_20300_100RB#0

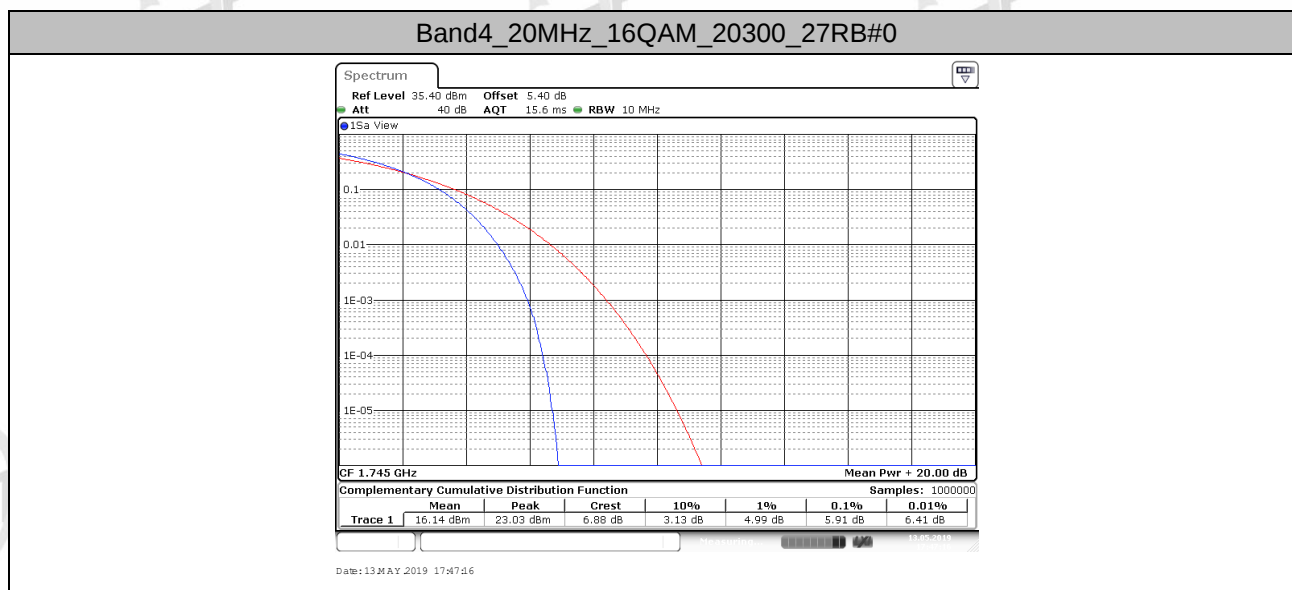


Band4_20MHz_16QAM_20050_27RB#0



Band4_20MHz_16QAM_20175_27RB#0



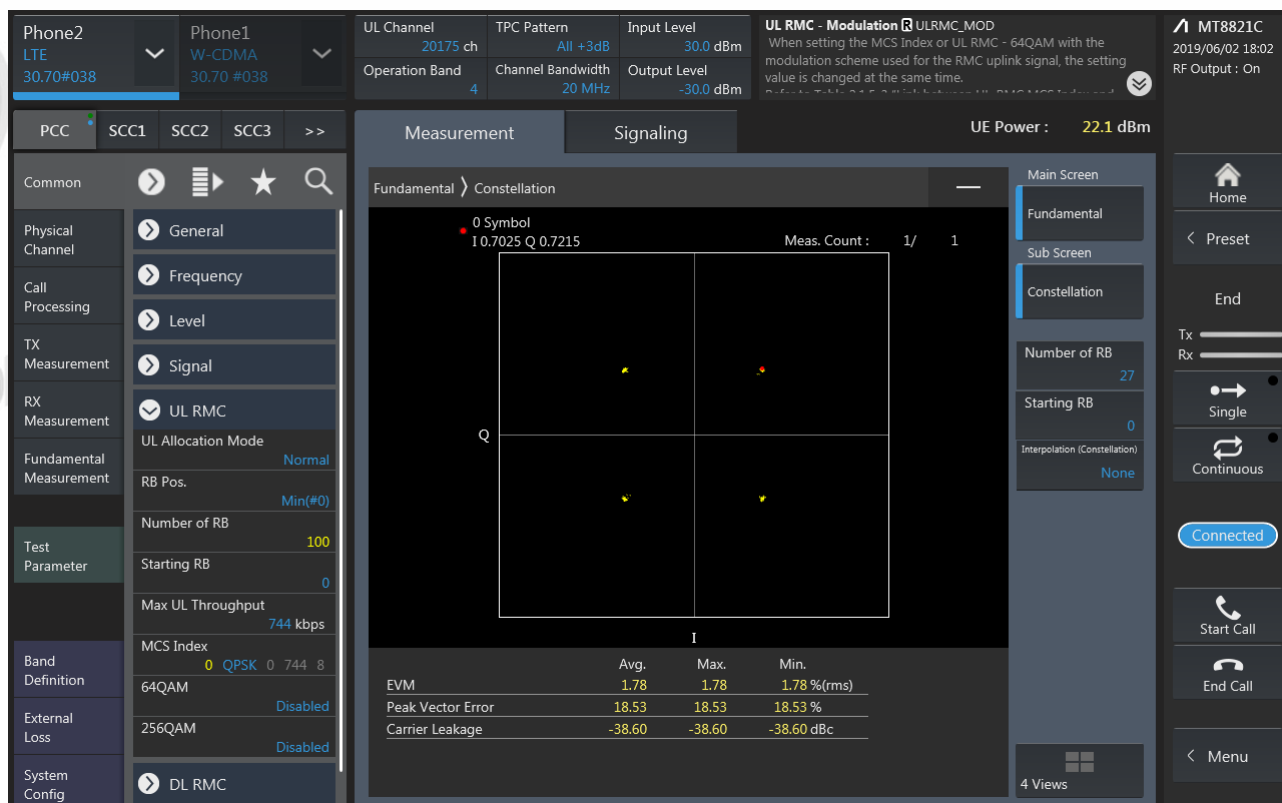


5. Modulation Characteristics

5.1. Test BAND = LTE Band 4

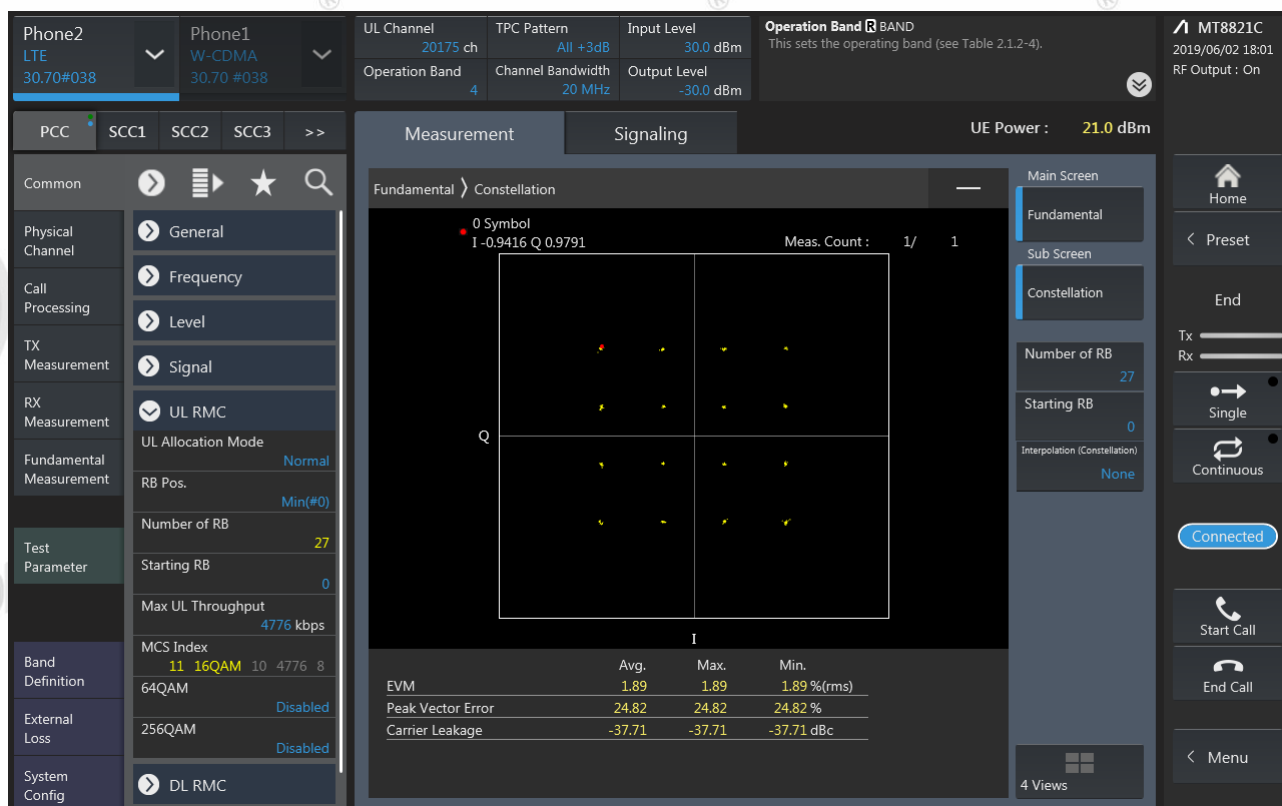
5.2. Test Mode = LTE /TM1 20MHz

5.2.1. Test Channel = MCH



5.3. Test Mode = LTE /TM2 20MHz

5.3.1. Test Channel = MCH



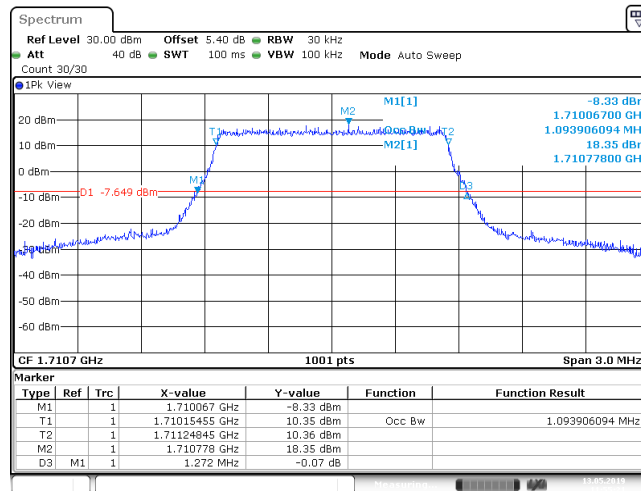
6. 26dB Bandwidth and Occupied Bandwidth

6.1. Test Result

BAND	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.094	1.272	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.097	1.293	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.091	1.287	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.094	1.242	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.091	1.245	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.097	1.251	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.691	2.982	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.685	2.988	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.697	3.000	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.697	2.982	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.703	2.982	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.697	2.964	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.476	4.940	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.476	4.920	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.476	4.920	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.486	4.930	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.476	4.930	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.486	4.950	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.931	9.700	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.931	9.680	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.931	9.720	PASS
Band4	10MHz	16QAM	20000	27RB#0	4.895	5.680	PASS
Band4	10MHz	16QAM	20175	27RB#0	4.875	5.660	PASS
Band4	10MHz	16QAM	20350	27RB#0	4.855	5.680	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.487	14.730	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.457	14.640	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.457	14.820	PASS
Band4	15MHz	16QAM	20025	27RB#0	5.035	6.000	PASS
Band4	15MHz	16QAM	20175	27RB#0	5.035	5.970	PASS
Band4	15MHz	16QAM	20325	27RB#0	5.035	6.090	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.902	19.480	PASS
Band4	20MHz	QPSK	20175	100RB#0	17.862	19.440	PASS
Band4	20MHz	QPSK	20300	100RB#0	17.862	19.480	PASS
Band4	20MHz	16QAM	20050	27RB#0	5.155	6.480	PASS
Band4	20MHz	16QAM	20175	27RB#0	5.155	6.400	PASS
Band4	20MHz	16QAM	20300	27RB#0	5.115	6.320	PASS

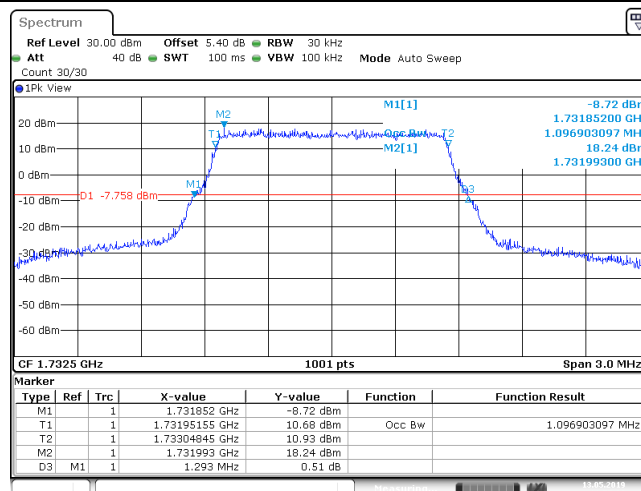
6.2. Test Plots

Band4_1.4MHz_QPSK_19957_6RB#0



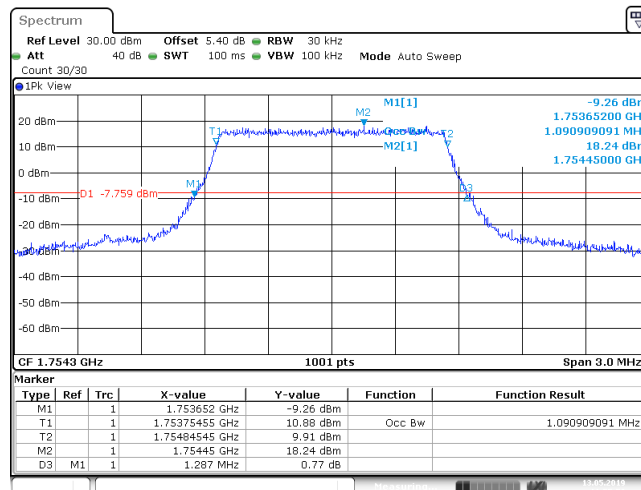
Date: 13 MAY 2019 11:55:21

Band4_1.4MHz_QPSK_20175_6RB#0



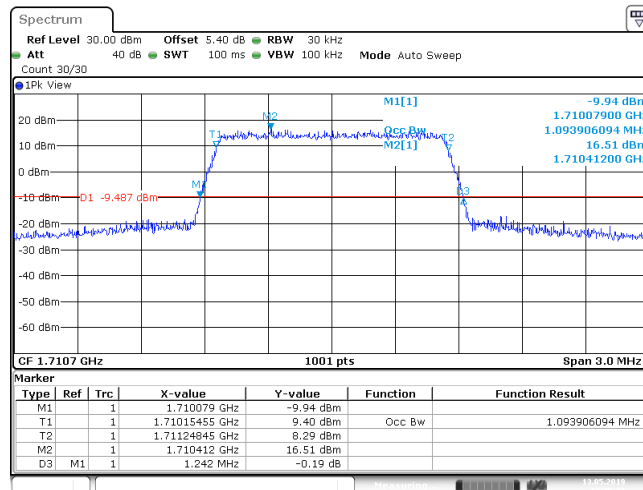
Date: 13 MAY 2019 11:55:27

Band4_1.4MHz_QPSK_20393_6RB#0



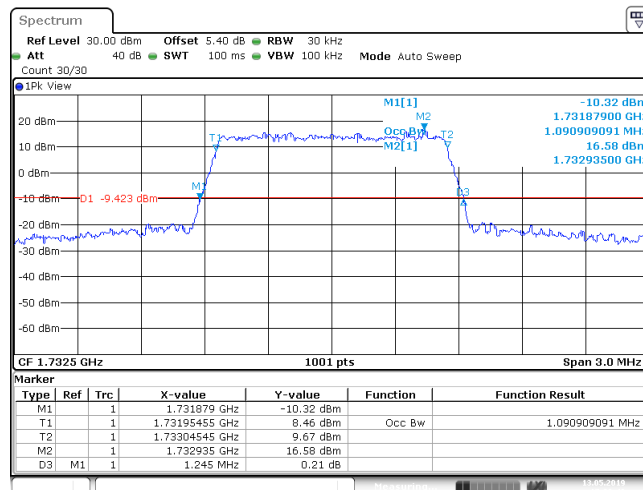
Date: 13 MAY 2019 11:55:53

Band4_1.4MHz_16QAM_19957_6RB#0



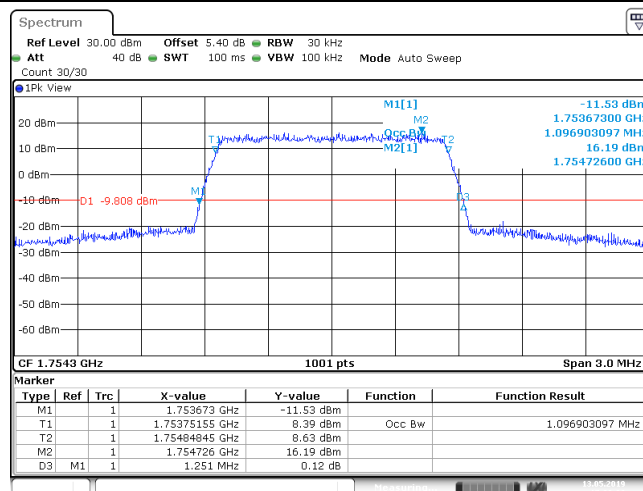
Date: 13 MAY 2019 17:29:31

Band4_1.4MHz_16QAM_20175_6RB#0



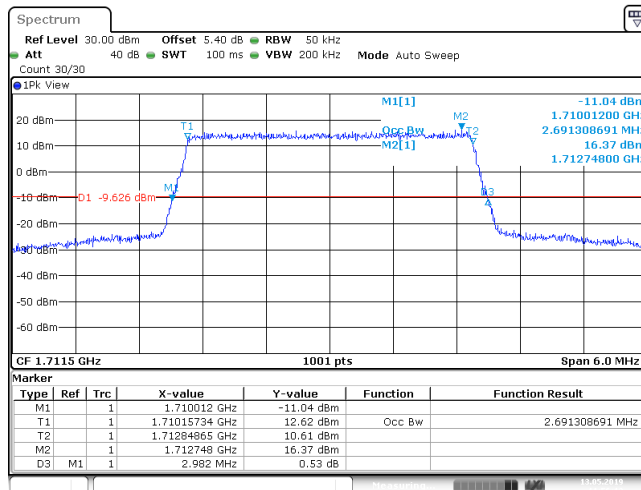
Date: 13 MAY 2019 17:29:47

Band4_1.4MHz_16QAM_20393_6RB#0



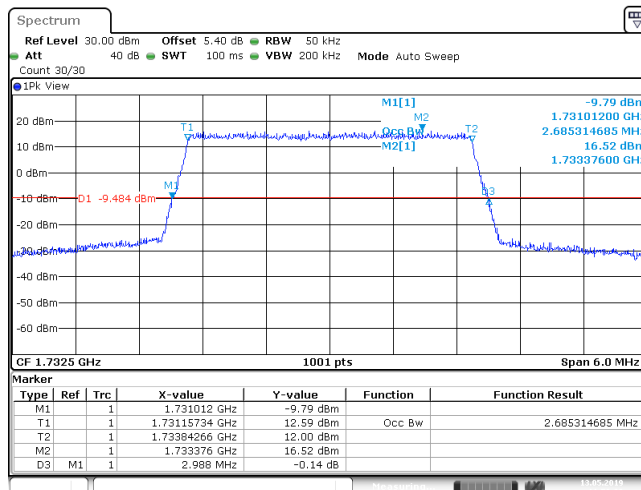
Date: 13 MAY 2019 17:30:03

Band4_3MHz_QPSK_19965_15RB#0



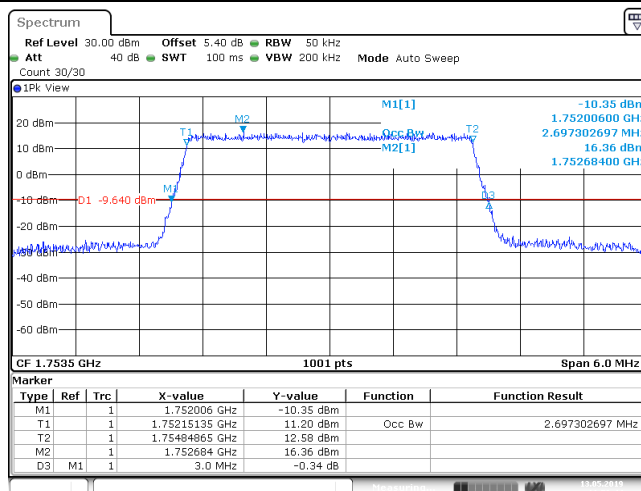
Date: 13 MAY 2019 11:56:13

Band4_3MHz_QPSK_20175_15RB#0



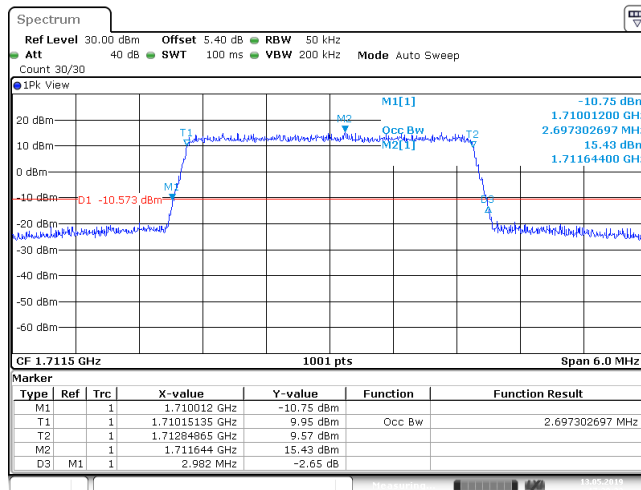
Date: 13 MAY 2019 11:56:29

Band4_3MHz_QPSK_20385_15RB#0



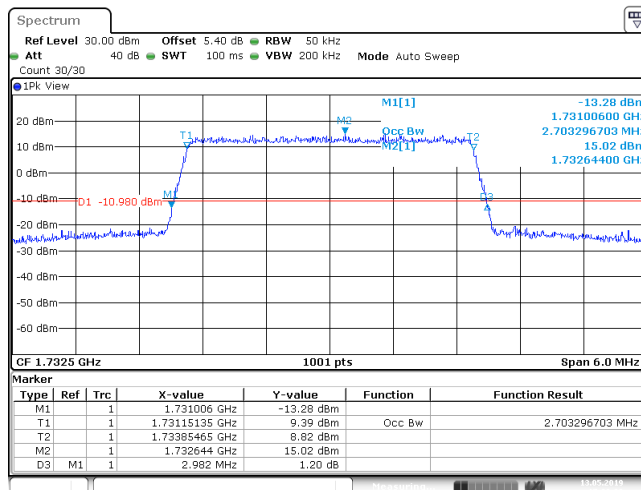
Date: 13 MAY 2019 11:56:45

Band4_3MHz_16QAM_19965_15RB#0



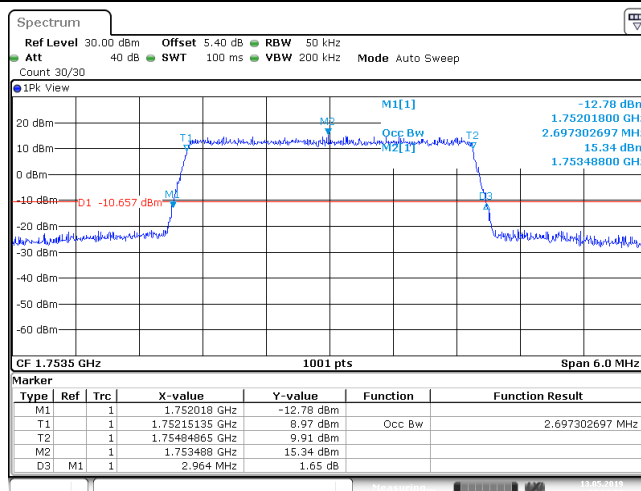
Date: 13 MAY 2019 17:30:22

Band4_3MHz_16QAM_20175_15RB#0



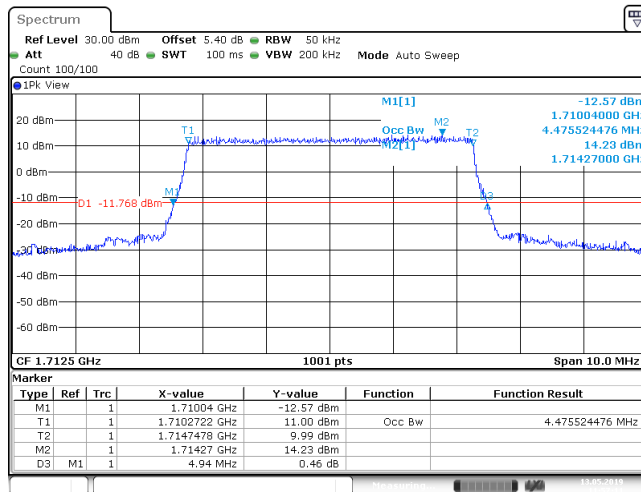
Date: 13 MAY 2019 17:30:38

Band4_3MHz_16QAM_20385_15RB#0



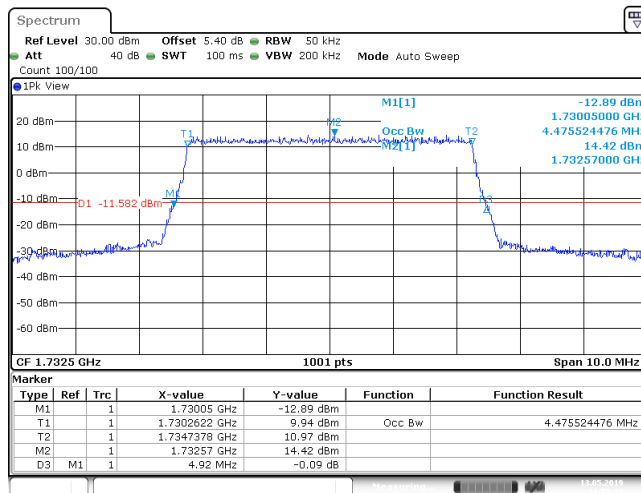
Date: 13 MAY 2019 17:30:54

Band4_5MHz_QPSK_19975_25RB#0



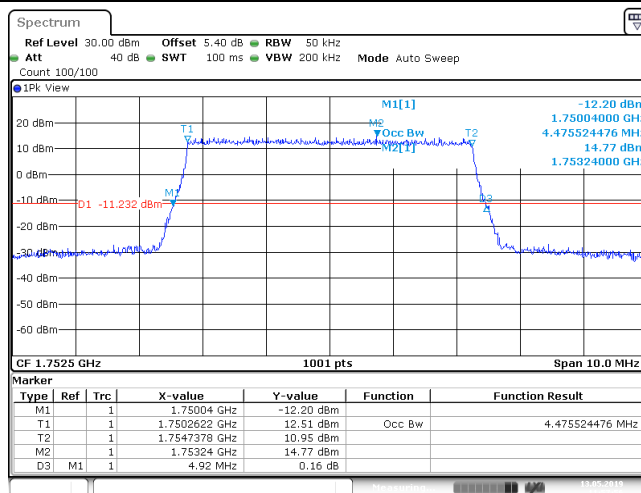
Date: 13 MAY 2019 11:57:11

Band4_5MHz_QPSK_20175_25RB#0



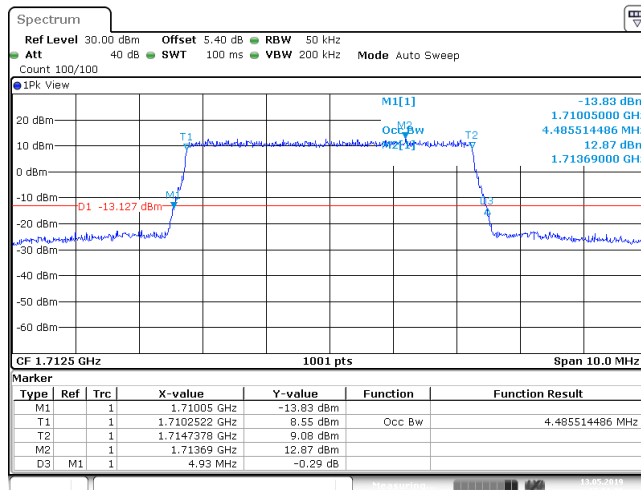
Date: 13 MAY 2019 11:57:34

Band4_5MHz_QPSK_20375_25RB#0

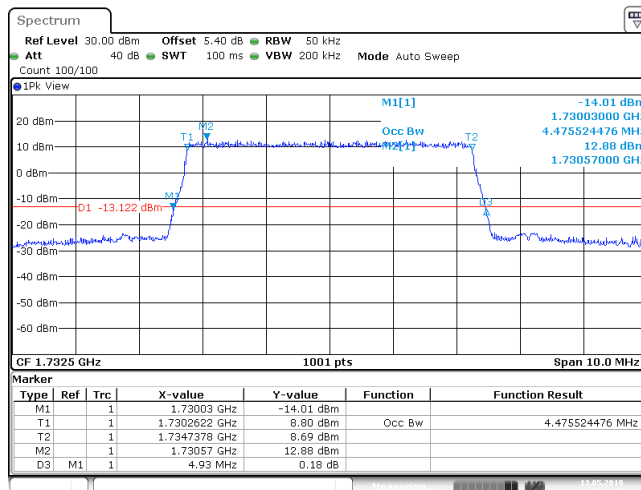


Date: 13 MAY 2019 11:57:57

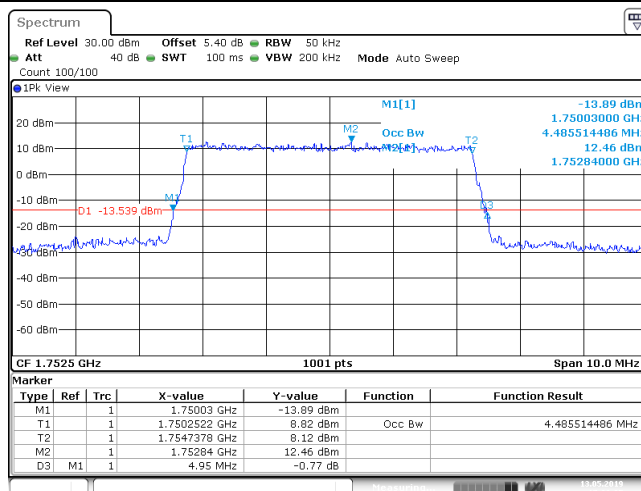
Band4_5MHz_16QAM_19975_25RB#0



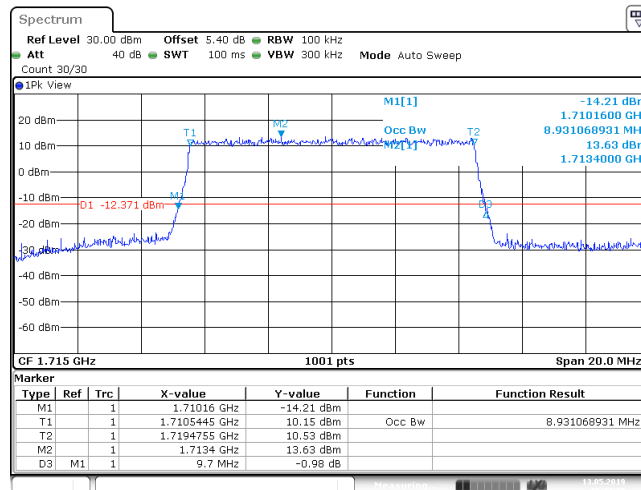
Band4_5MHz_16QAM_20175_25RB#0



Band4_5MHz_16QAM_20375_25RB#0

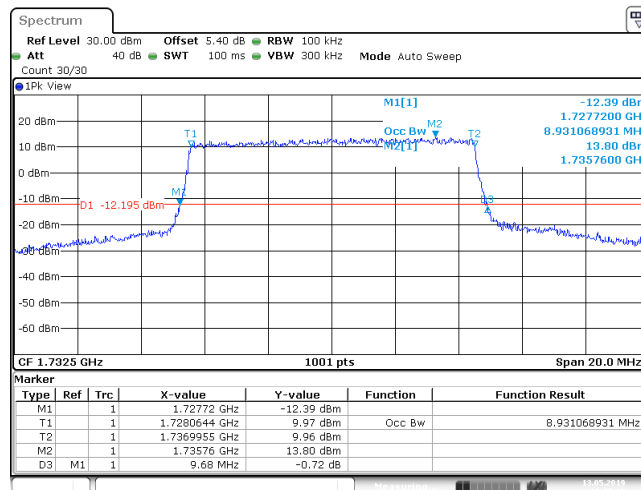


Band4_10MHz_QPSK_20000_50RB#0



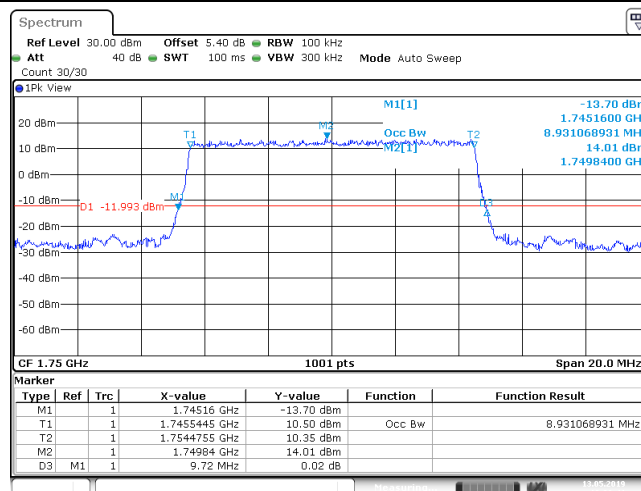
Date: 13 MAY 2019 18:23:10

Band4_10MHz_QPSK_20175_50RB#0



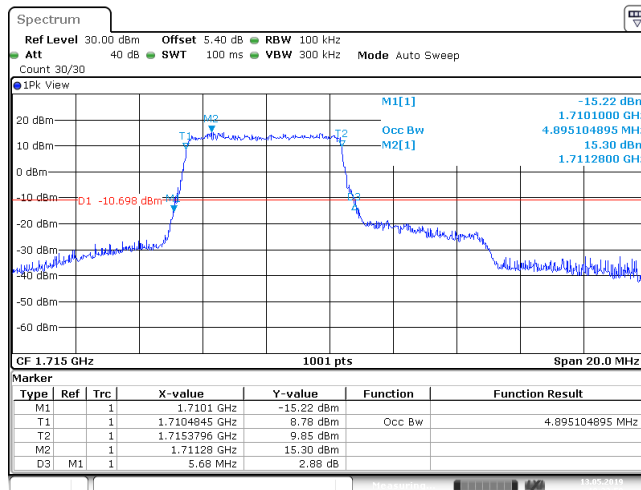
Date: 13 MAY 2019 18:23:26

Band4_10MHz_QPSK_20350_50RB#0



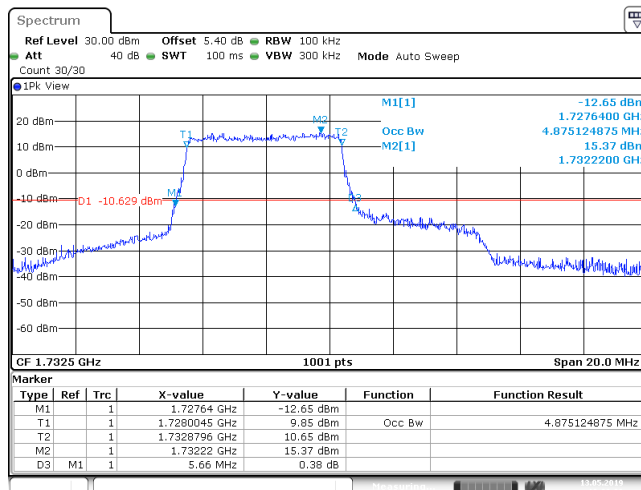
Date: 13 MAY 2019 18:23:42

Band4_10MHz_16QAM_20000_27RB#0



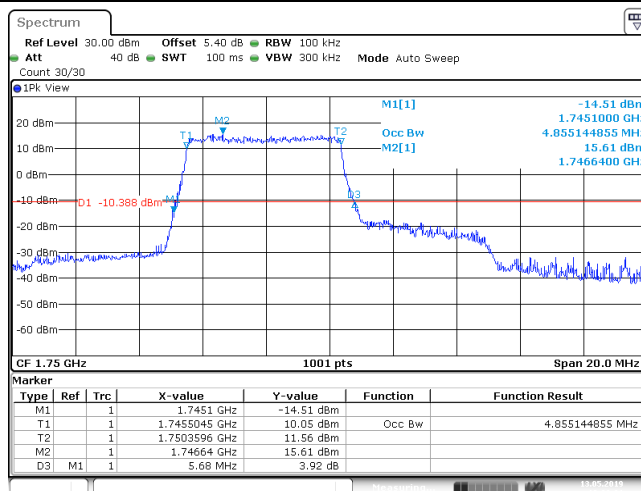
Date: 13 MAY 2019 18:32:50

Band4_10MHz_16QAM_20175_27RB#0



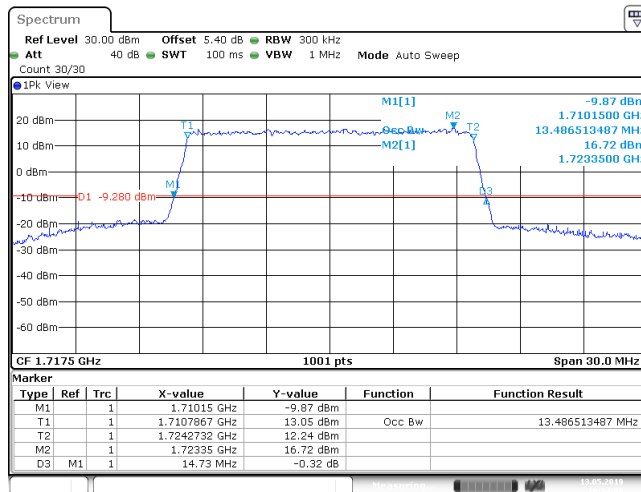
Date: 13 MAY 2019 18:33:06

Band4_10MHz_16QAM_20350_27RB#0



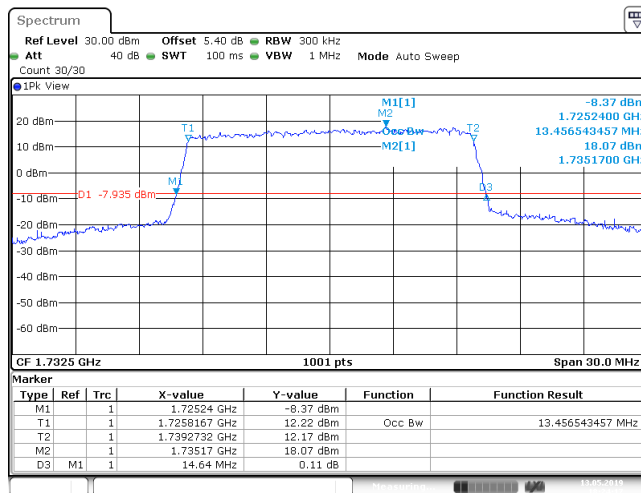
Date: 13 MAY 2019 18:33:22

Band4_15MHz_QPSK_20025_75RB#0



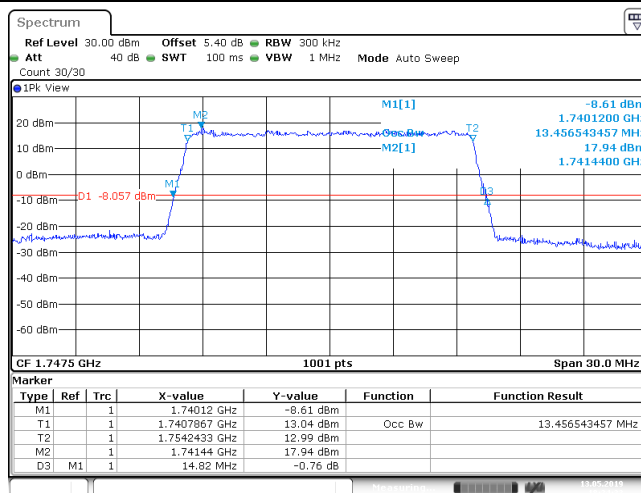
Date: 13 MAY 2019 18:24:01

Band4_15MHz_QPSK_20175_75RB#0



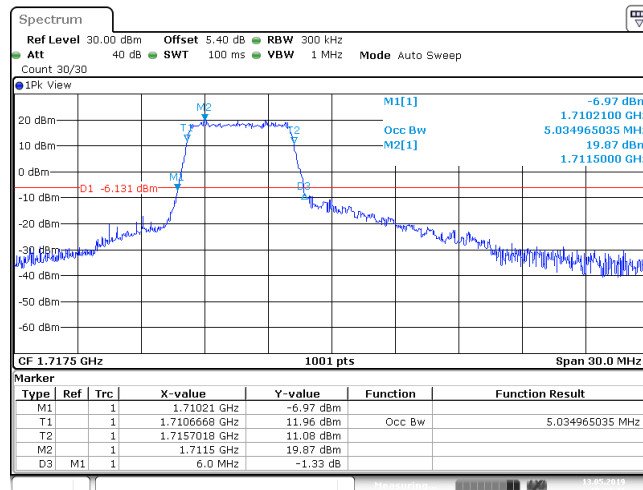
Date: 13 MAY 2019 18:24:17

Band4_15MHz_QPSK_20325_75RB#0



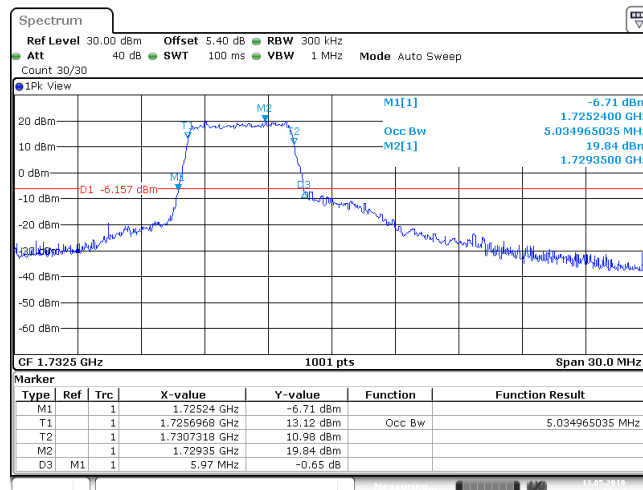
Date: 13 MAY 2019 18:24:33

Band4_15MHz_16QAM_20025_27RB#0



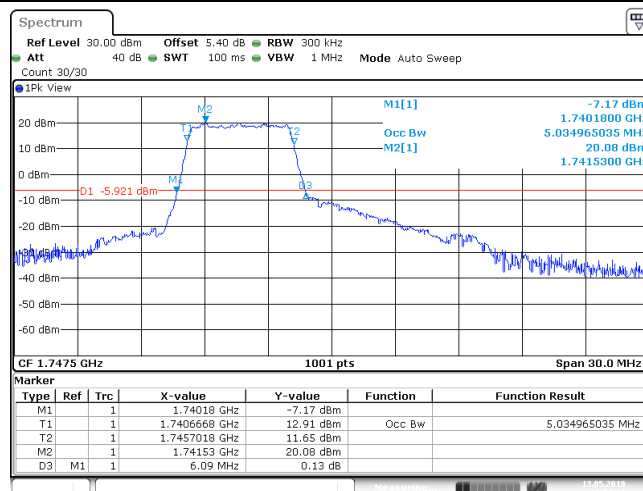
Date: 13 MAY 2019 18:33:41

Band4_15MHz_16QAM_20175_27RB#0



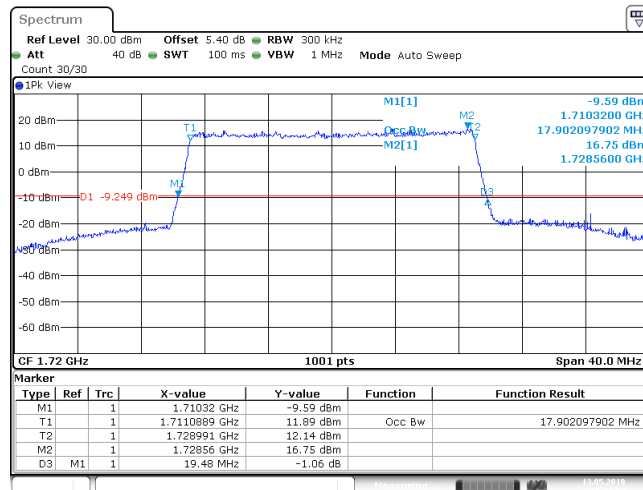
Date: 13 MAY 2019 18:33:57

Band4_15MHz_16QAM_20325_27RB#0



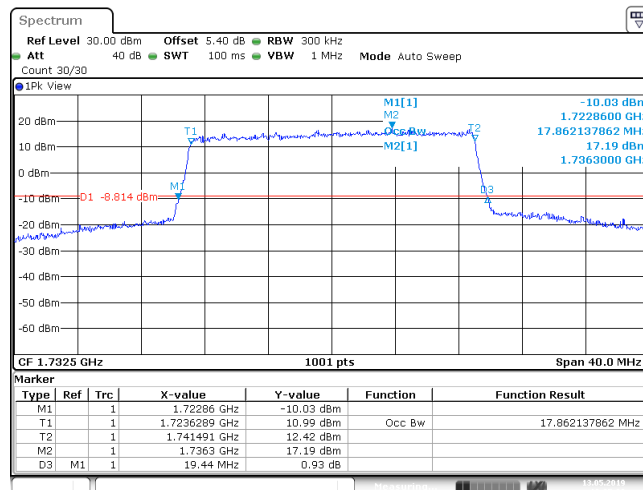
Date: 13 MAY 2019 18:34:13

Band4_20MHz_QPSK_20050_100RB#0



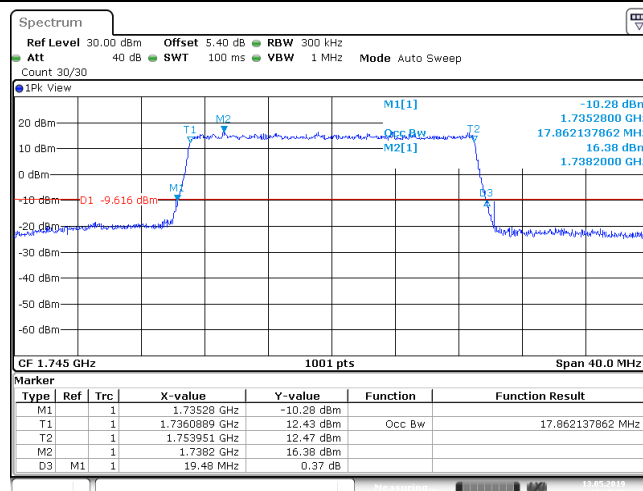
Date: 13 MAY 2019 18:24:53

Band4_20MHz_QPSK_20175_100RB#0



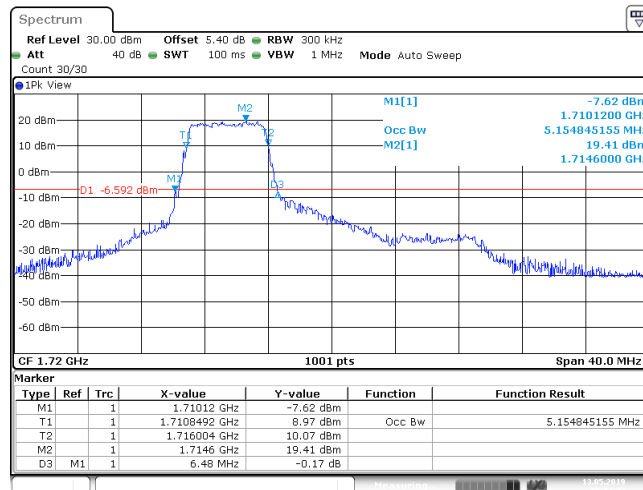
Date: 13 MAY 2019 18:25:09

Band4_20MHz_QPSK_20300_100RB#0



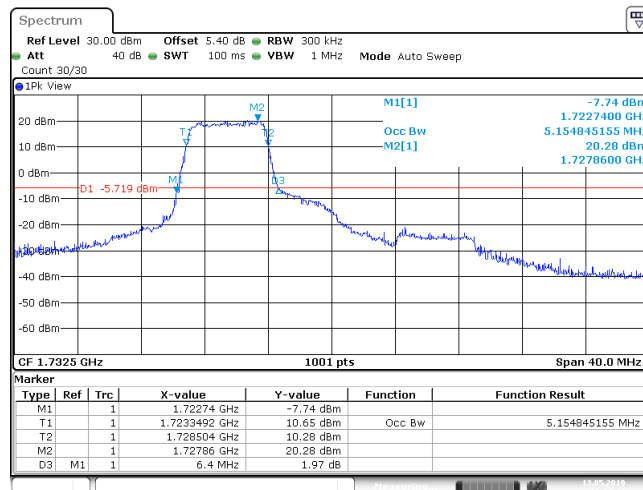
Date: 13 MAY 2019 18:25:25

Band4_20MHz_16QAM_20050_27RB#0



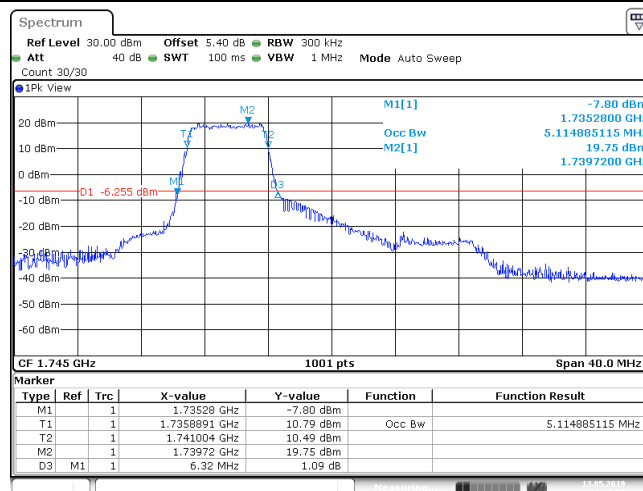
Date: 13 MAY 2019 18:34:33

Band4_20MHz_16QAM_20175_27RB#0



Date: 13 MAY 2019 18:34:49

Band4_20MHz_16QAM_20300_27RB#0

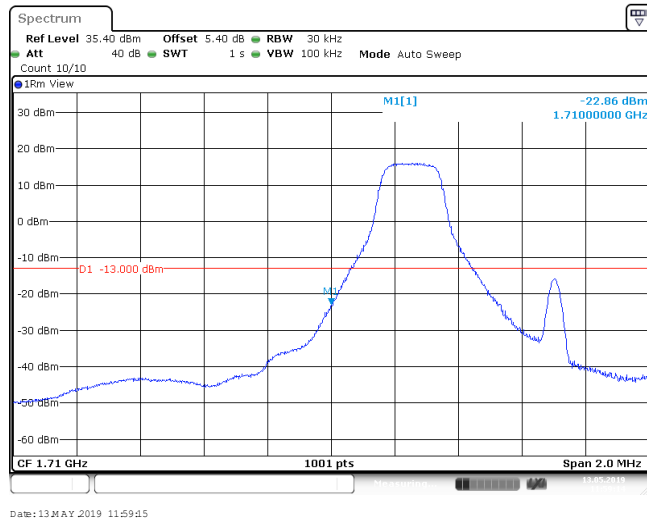


Date: 13 MAY 2019 18:35:05

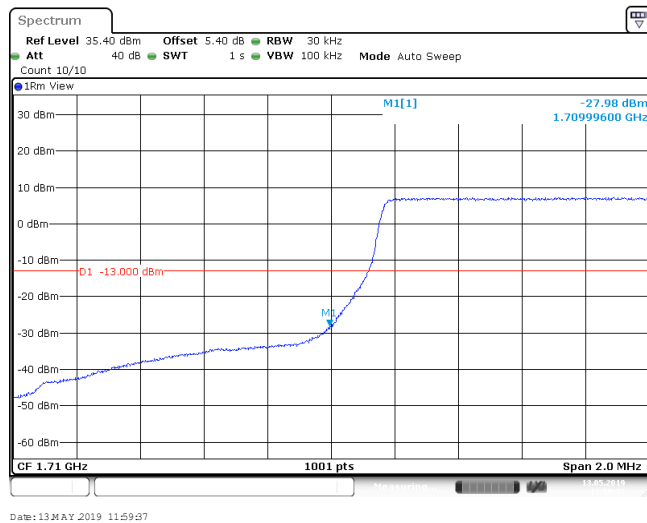
7. Band Edge Compliance

7.1. Test Plots

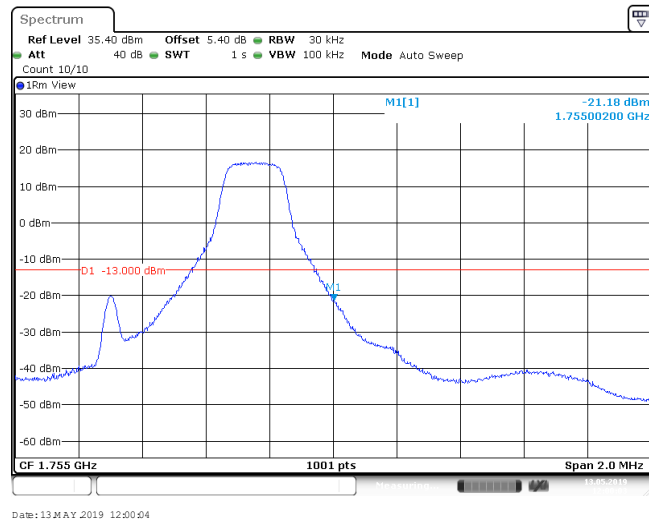
Band4_1.4MHz_QPSK_19957_1RB#0



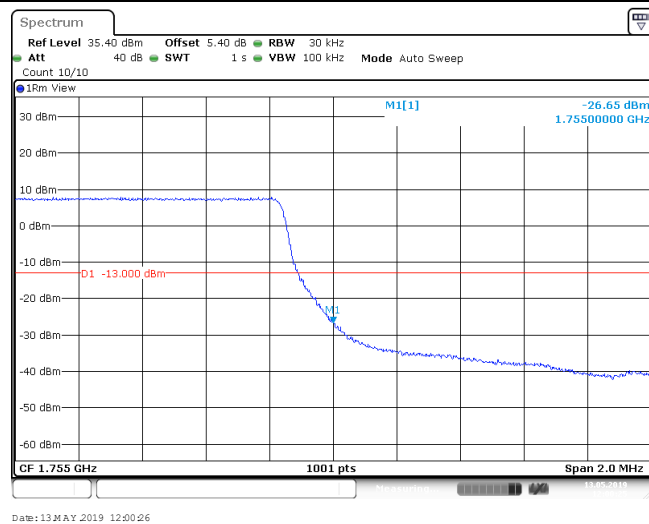
Band4_1.4MHz_QPSK_19957_6RB#0



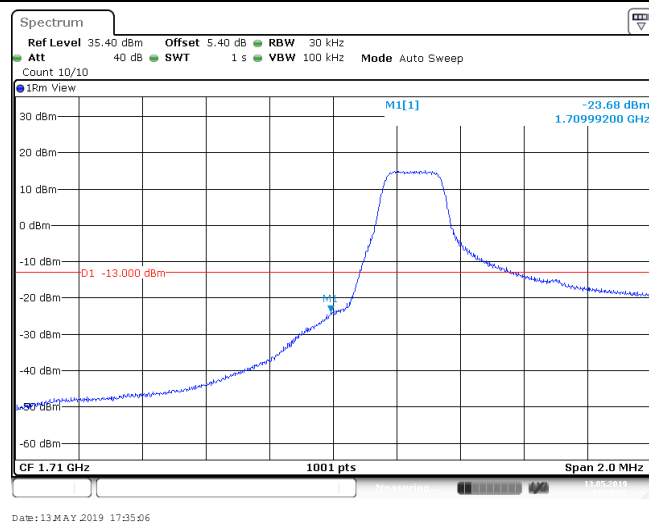
Band4_1.4MHz_QPSK_20393_1RB#5



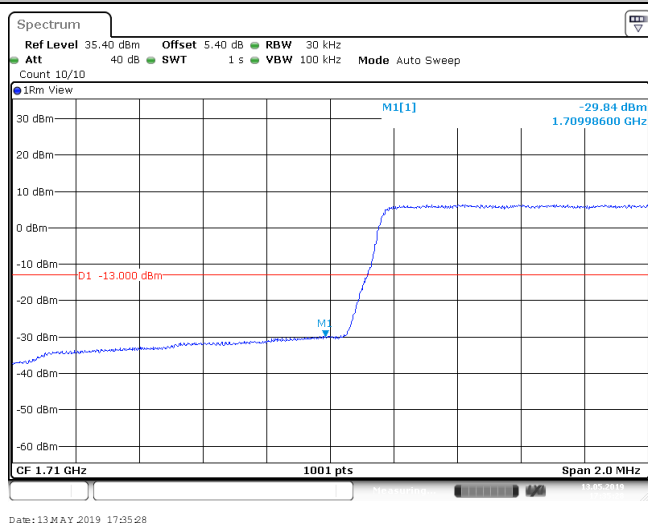
Band4_1.4MHz_QPSK_20393_6RB#0



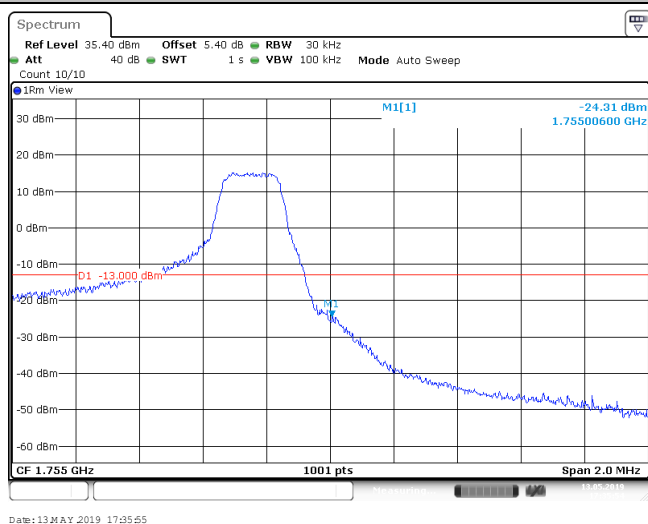
Band4_1.4MHz_16QAM_19957_1RB#0



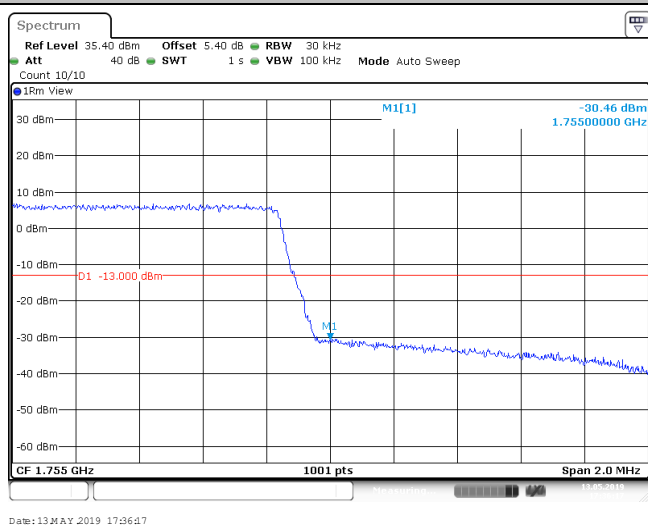
Band4_1.4MHz_16QAM_19957_6RB#0



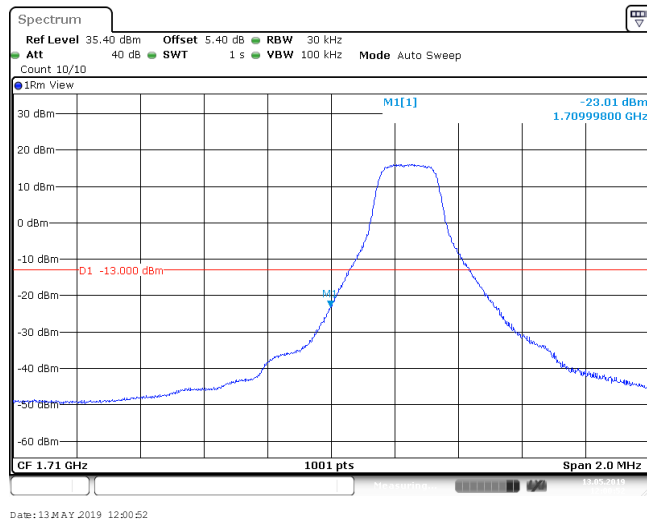
Band4_1.4MHz_16QAM_20393_1RB#5



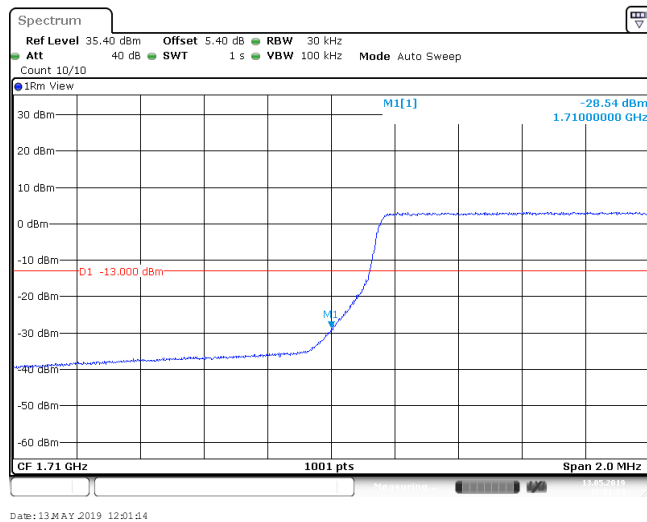
Band4_1.4MHz_16QAM_20393_6RB#0



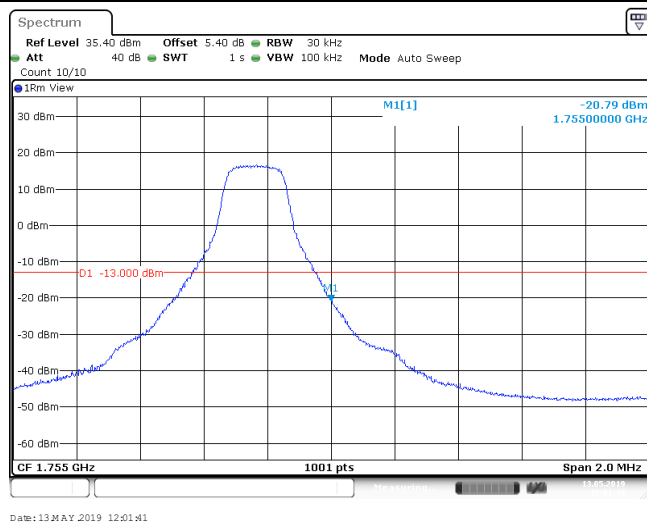
Band4_3MHz_QPSK_19965_1RB#0



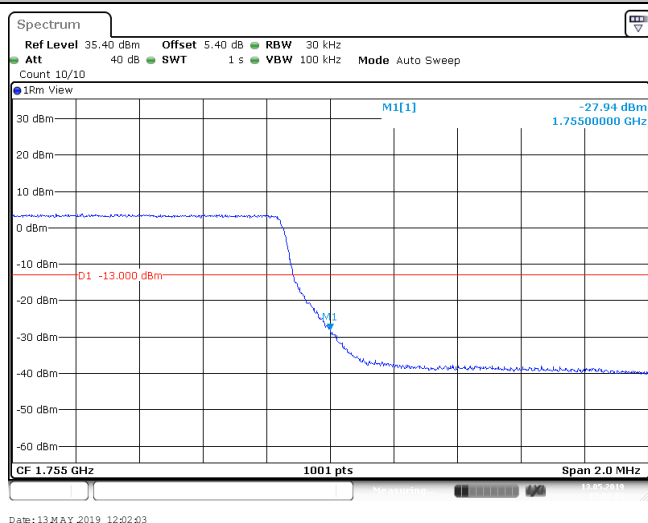
Band4_3MHz_QPSK_19965_15RB#0



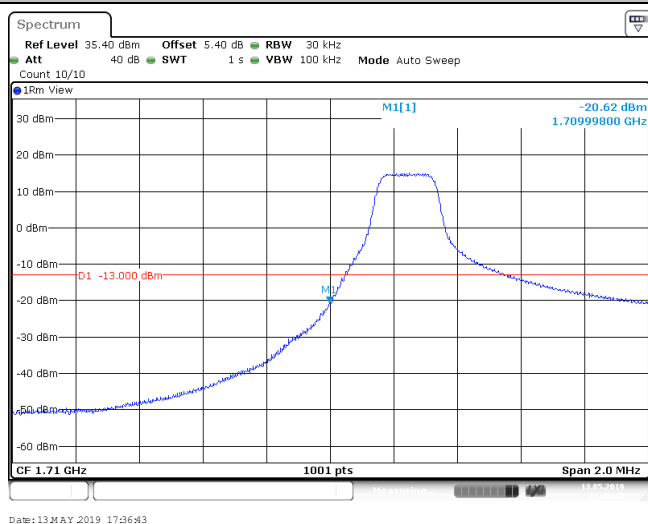
Band4_3MHz_QPSK_20385_1RB#14



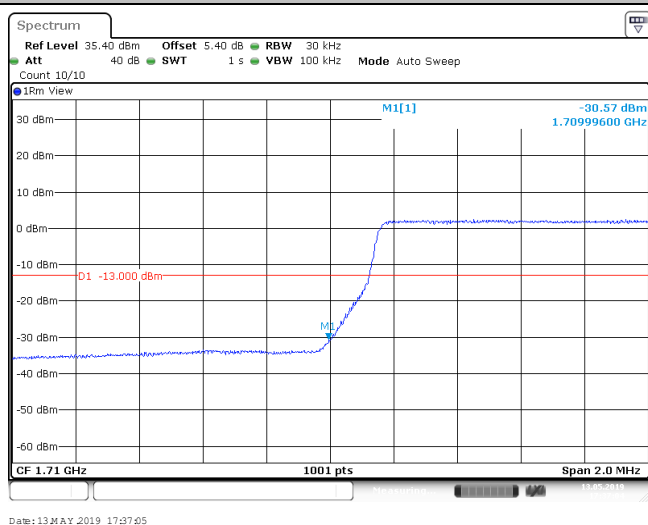
Band4_3MHz_QPSK_20385_15RB#0



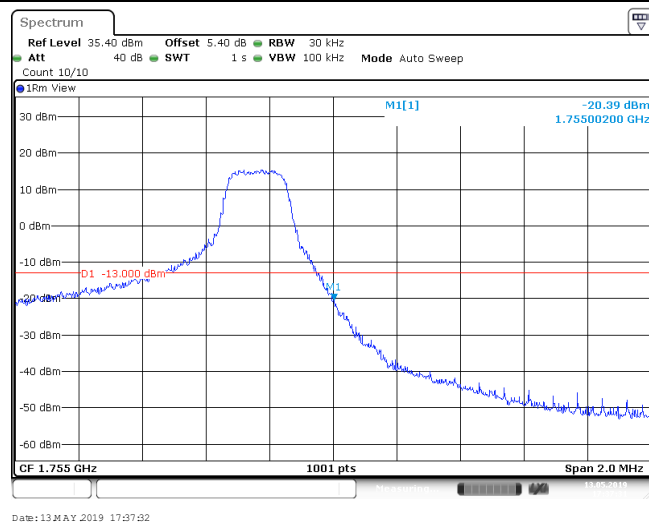
Band4_3MHz_16QAM_19965_1RB#0



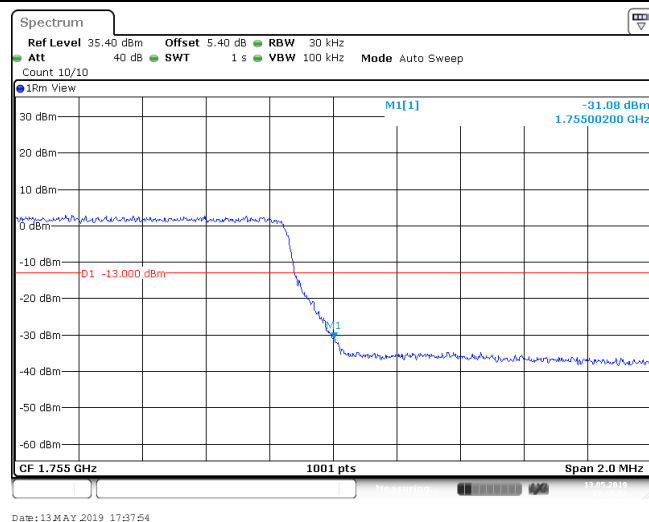
Band4_3MHz_16QAM_19965_15RB#0



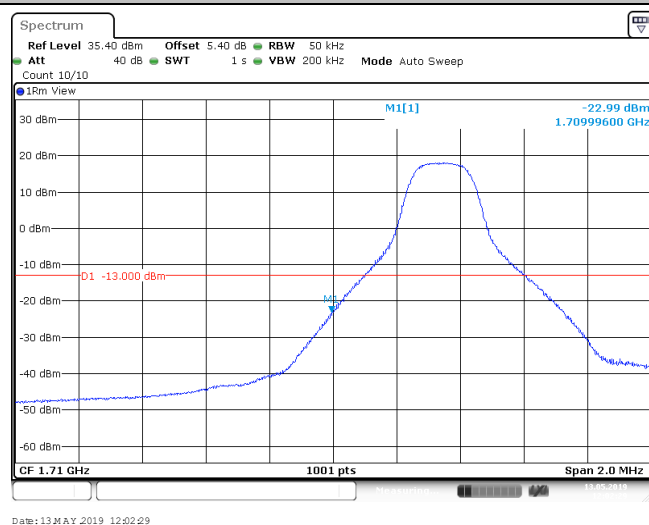
Band4_3MHz_16QAM_20385_1RB#14



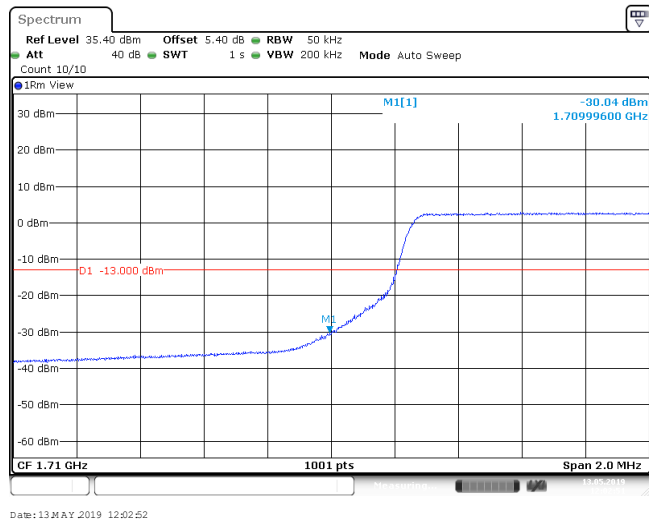
Band4_3MHz_16QAM_20385_15RB#0



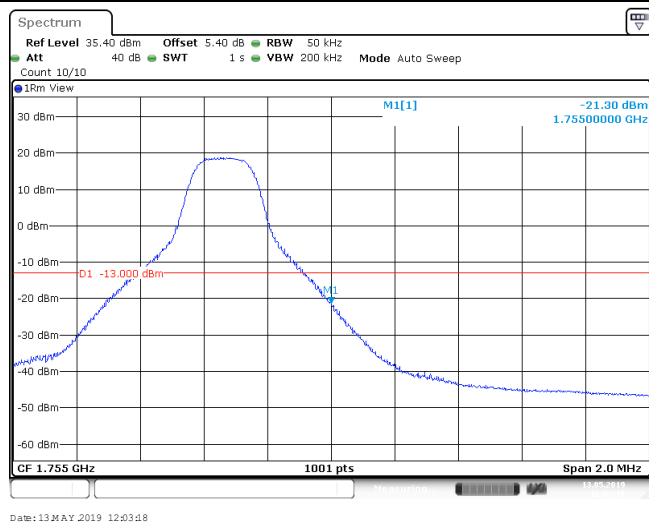
Band4_5MHz_QPSK_19975_1RB#0



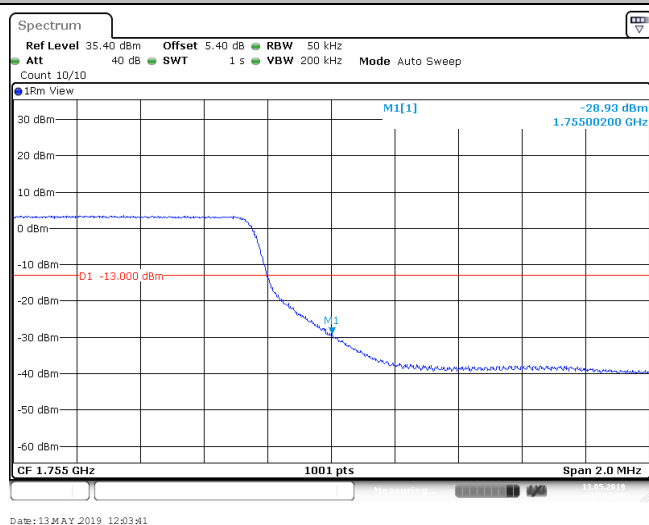
Band4_5MHz_QPSK_19975_25RB#0



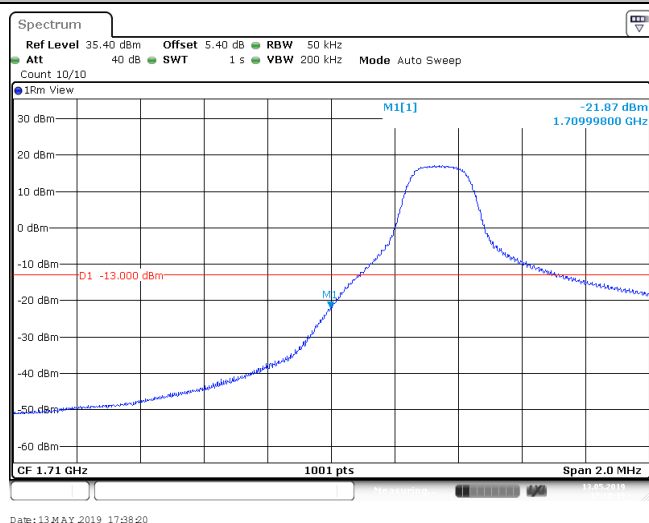
Band4_5MHz_QPSK_20375_1RB#24



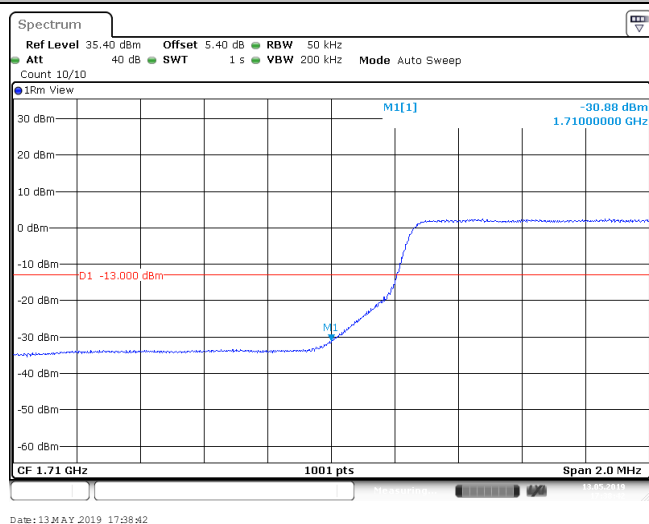
Band4_5MHz_QPSK_20375_25RB#0



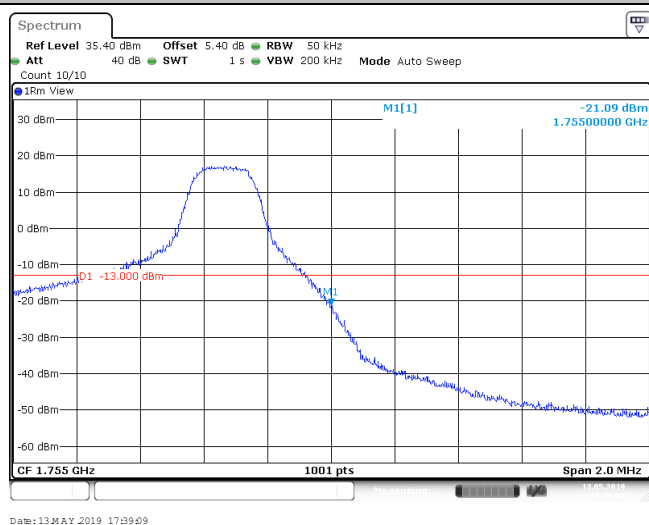
Band4_5MHz_16QAM_19975_1RB#0



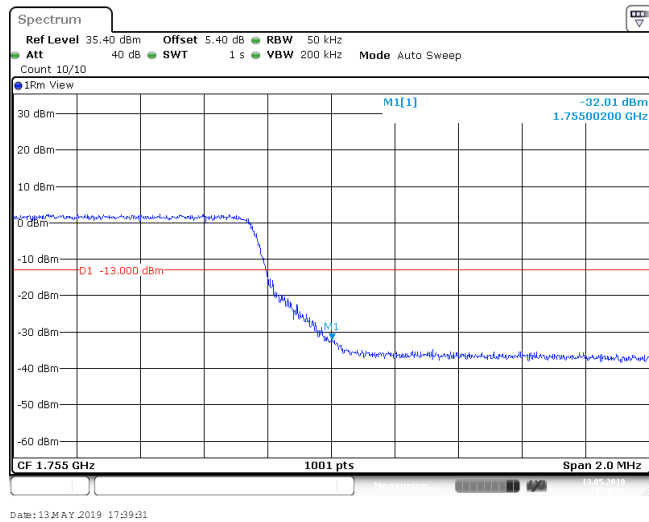
Band4_5MHz_16QAM_19975_25RB#0



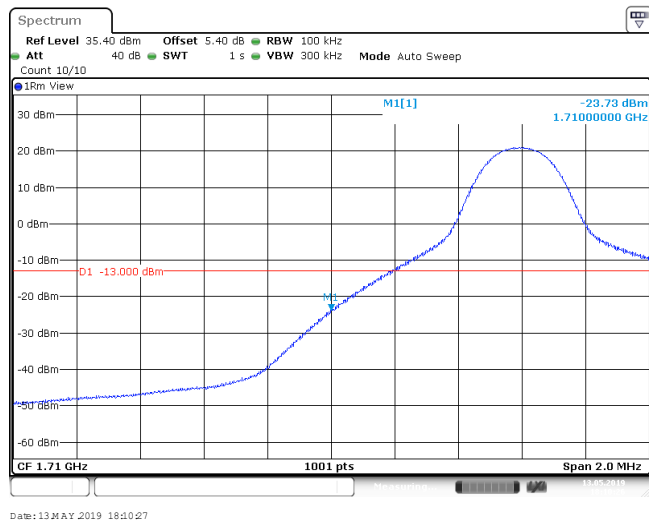
Band4_5MHz_16QAM_20375_1RB#24



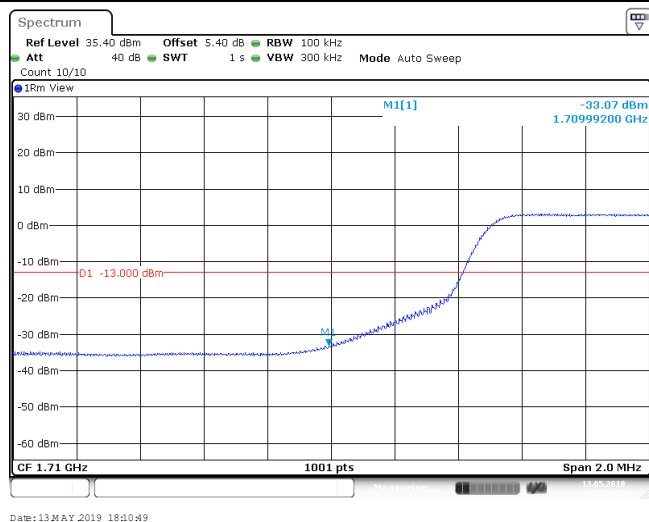
Band4_5MHz_16QAM_20375_25RB#0



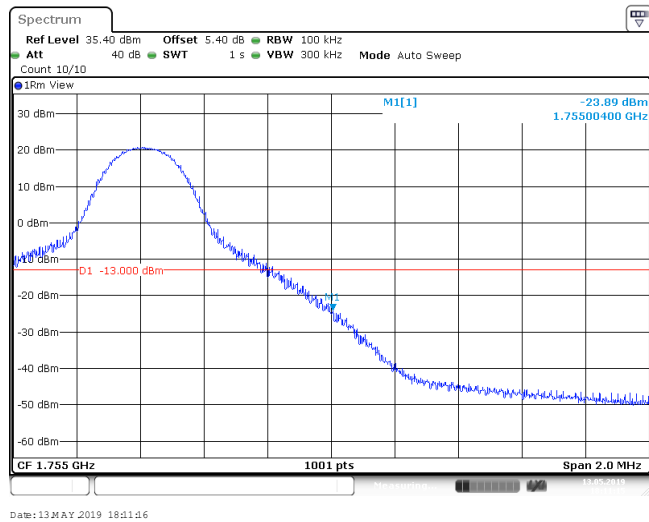
Band4_10MHz_QPSK_20000_1RB#0



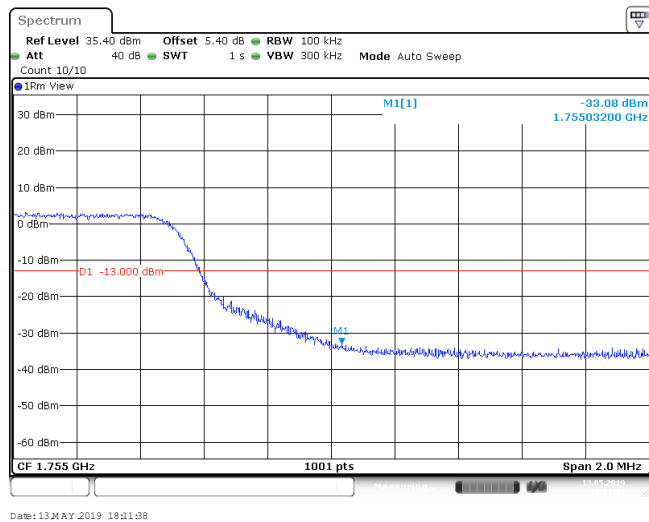
Band4_10MHz_QPSK_20000_50RB#0



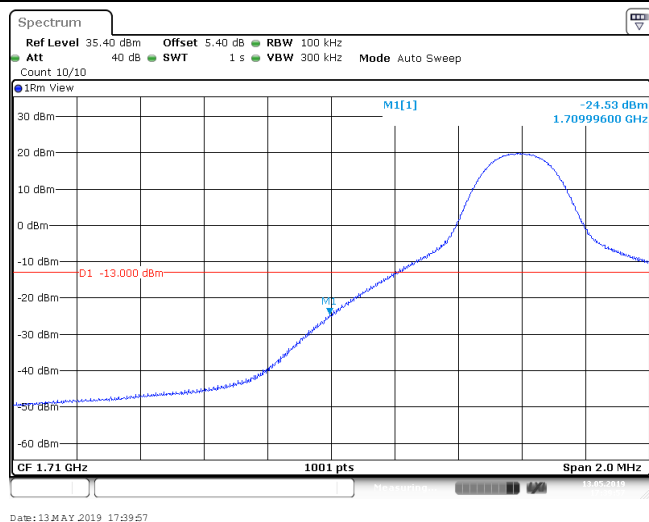
Band4_10MHz_QPSK_20350_1RB#49



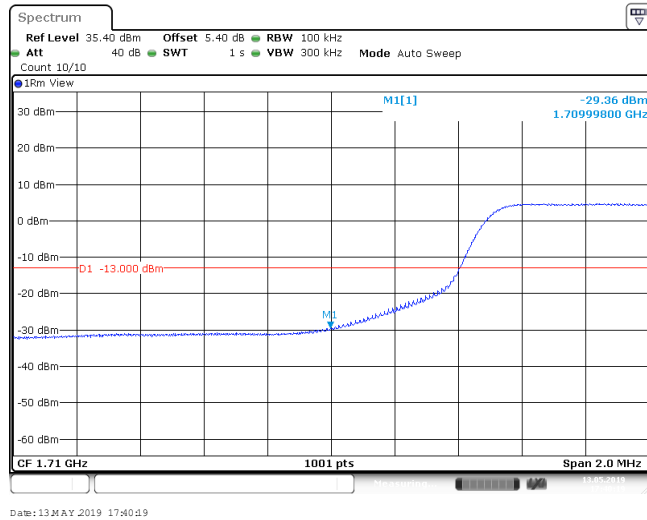
Band4_10MHz_QPSK_20350_50RB#0



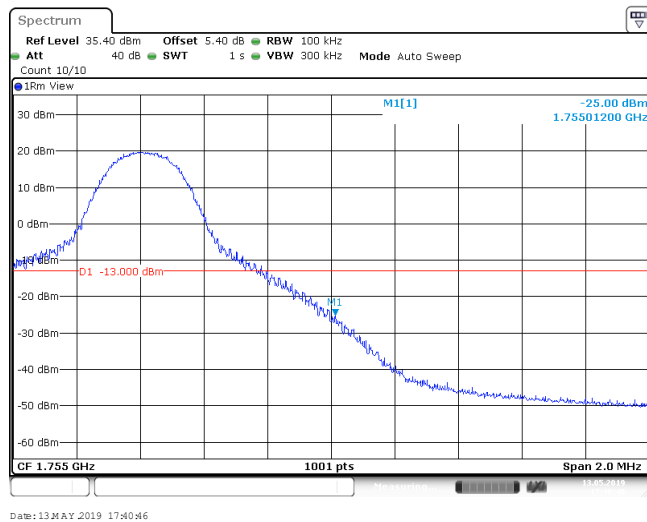
Band4_10MHz_16QAM_20000_1RB#0



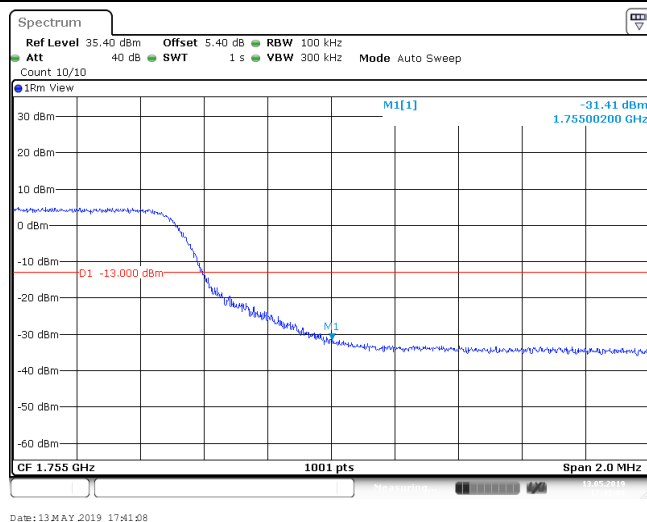
Band4_10MHz_16QAM_20000_27RB#0



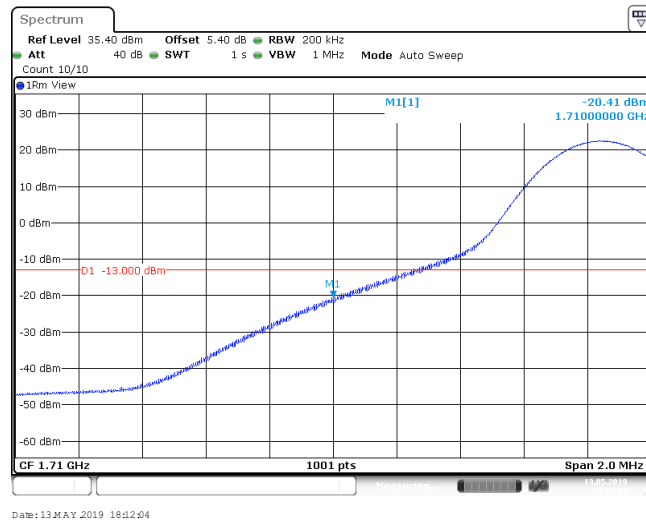
Band4_10MHz_16QAM_20350_1RB#49



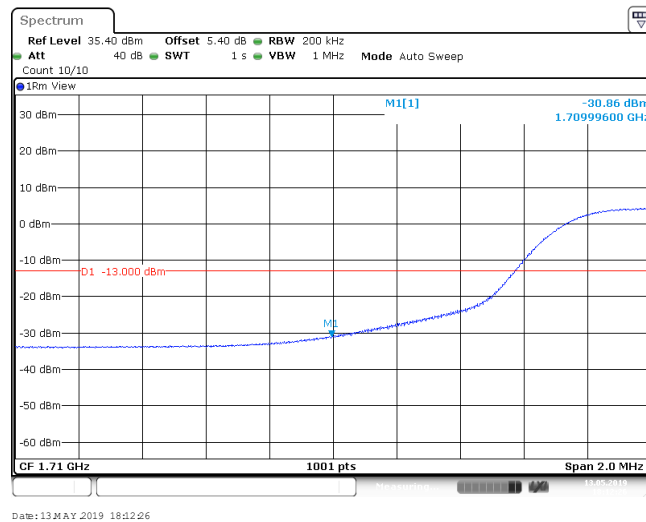
Band4_10MHz_16QAM_20350_27RB#23



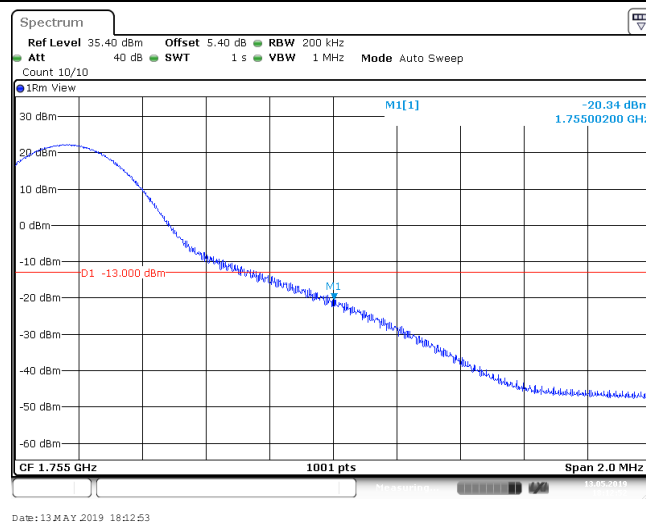
Band4_15MHz_QPSK_20025_1RB#0



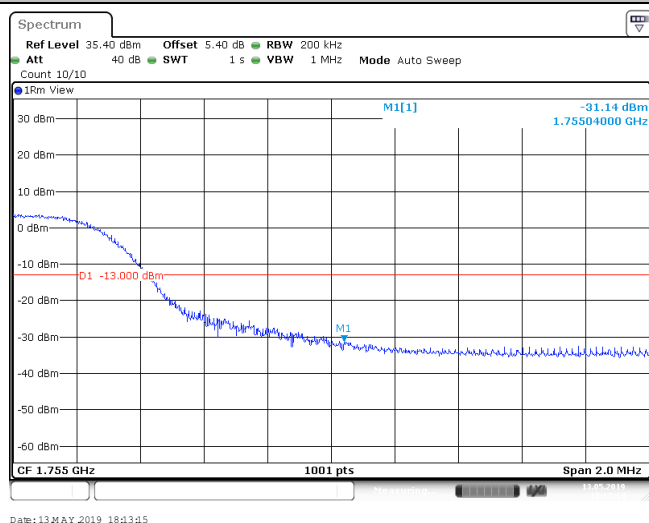
Band4_15MHz_QPSK_20025_75RB#0



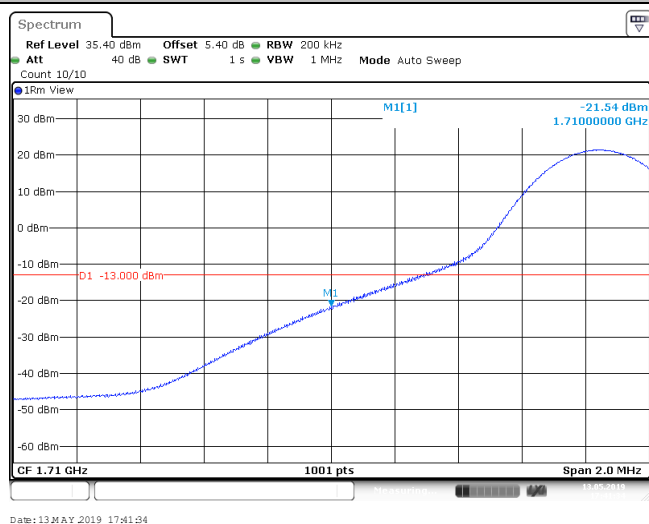
Band4_15MHz_QPSK_20325_1RB#74



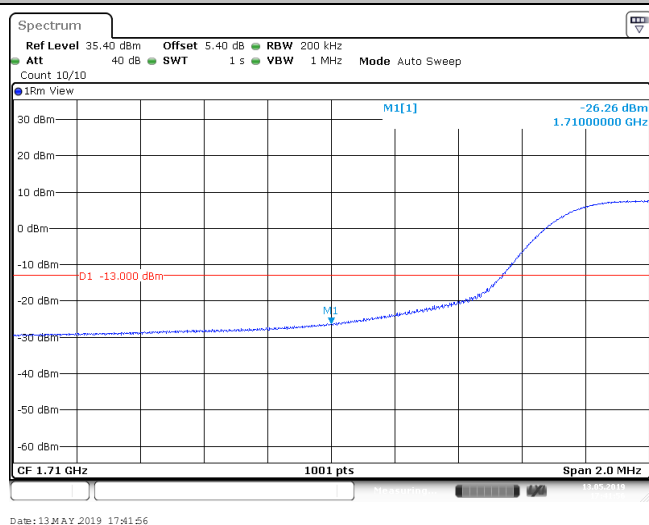
Band4_15MHz_QPSK_20325_75RB#0



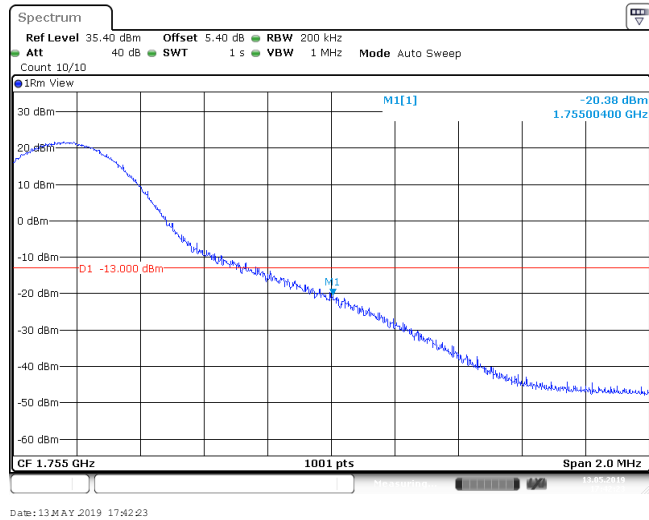
Band4_15MHz_16QAM_20025_1RB#0



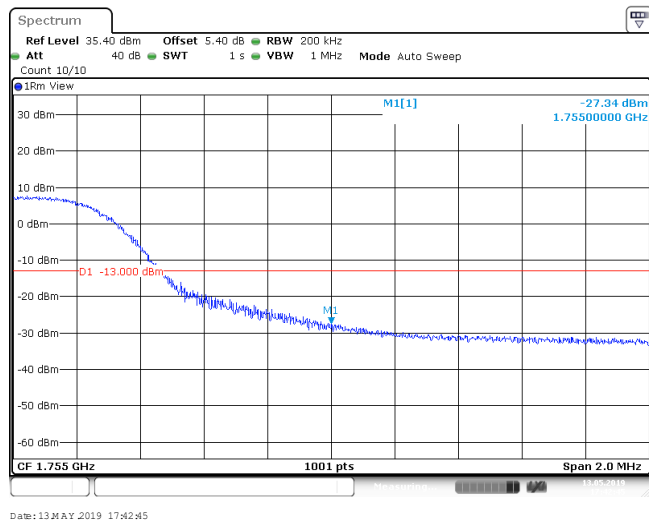
Band4_15MHz_16QAM_20025_27RB#0



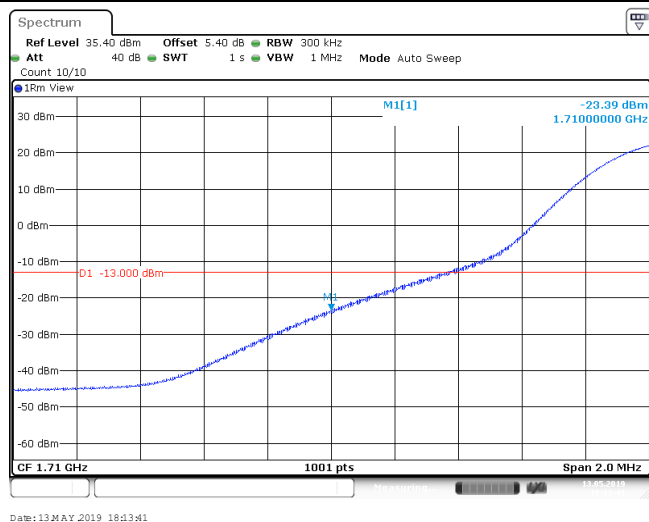
Band4_15MHz_16QAM_20325_1RB#74



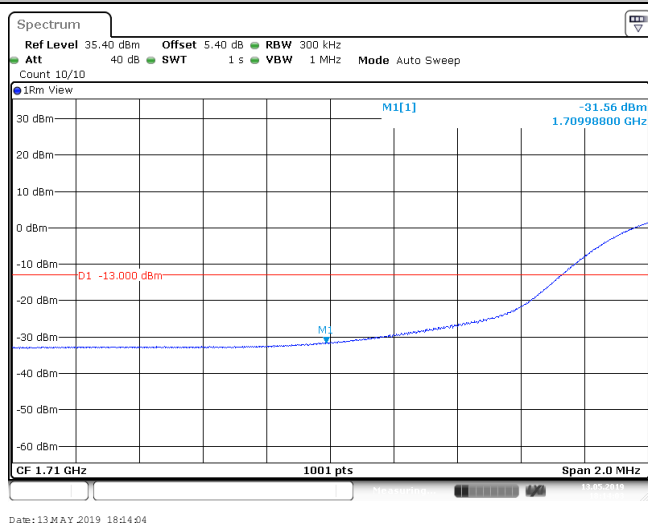
Band4_15MHz_16QAM_20325_27RB#48



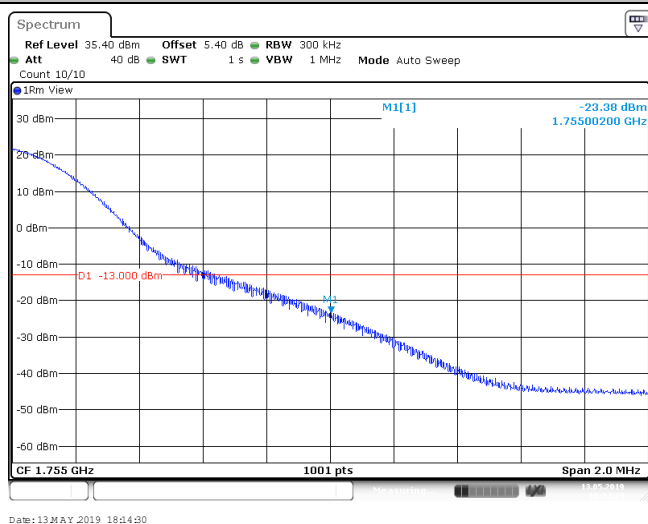
Band4_20MHz_QPSK_20050_1RB#0



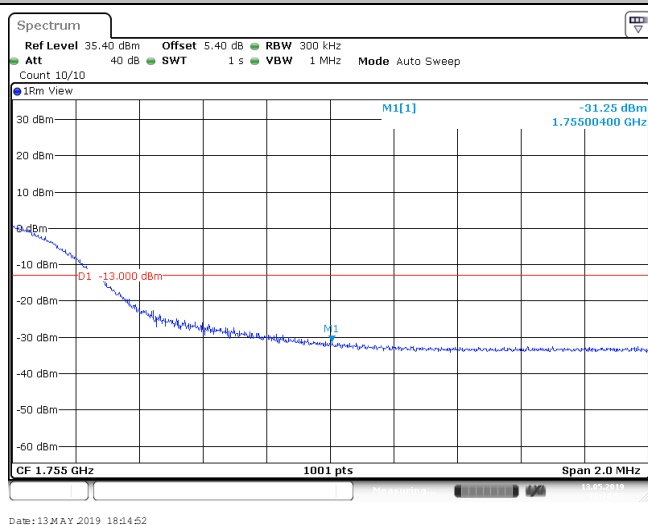
Band4_20MHz_QPSK_20050_100RB#0



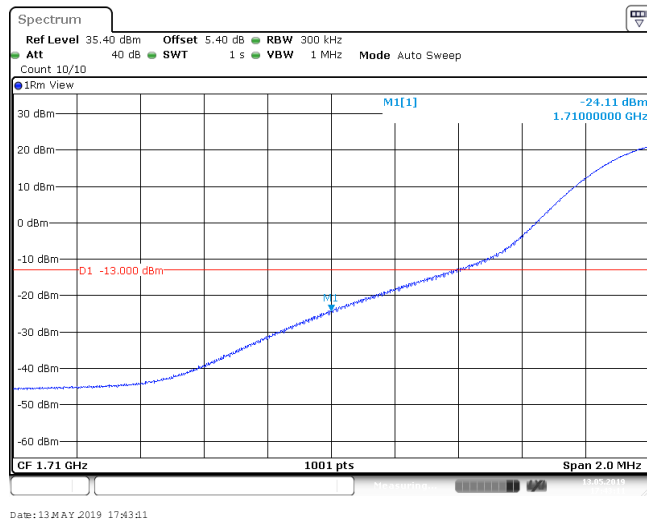
Band4_20MHz_QPSK_20300_1RB#99



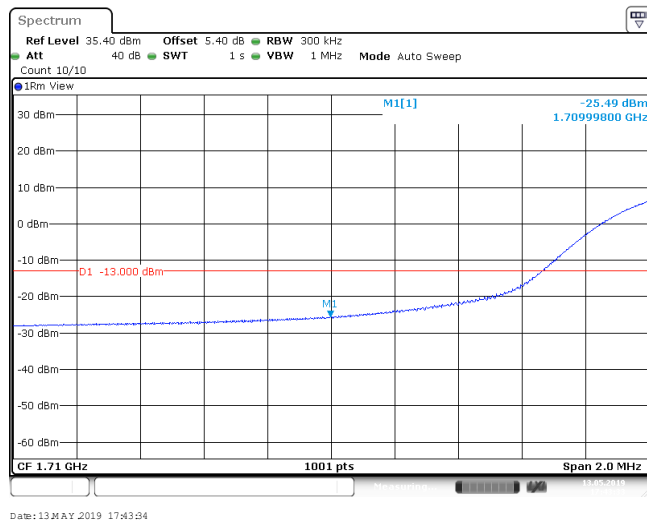
Band4_20MHz_QPSK_20300_100RB#0



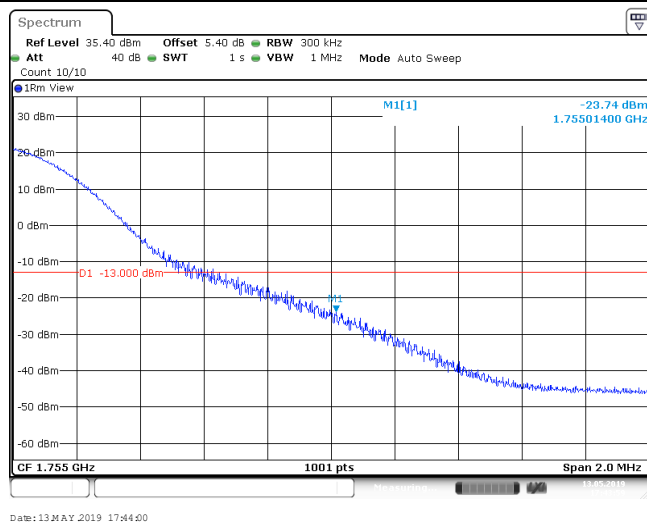
Band4_20MHz_16QAM_20050_1RB#0



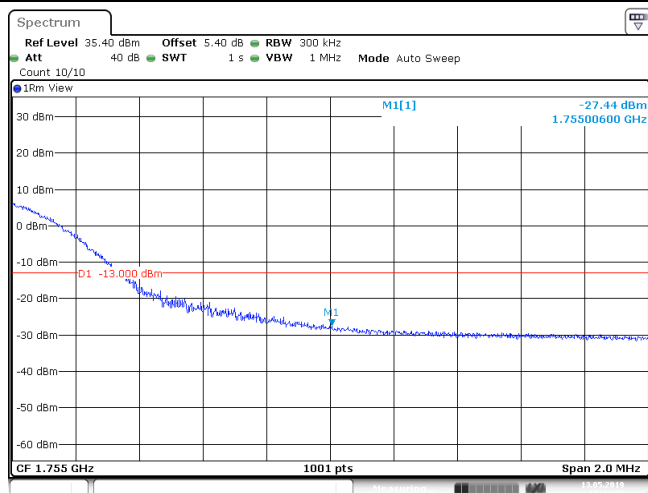
Band4_20MHz_16QAM_20050_27RB#0



Band4_20MHz_16QAM_20300_1RB#99



Band4_20MHz_16QAM_20300_27RB#73



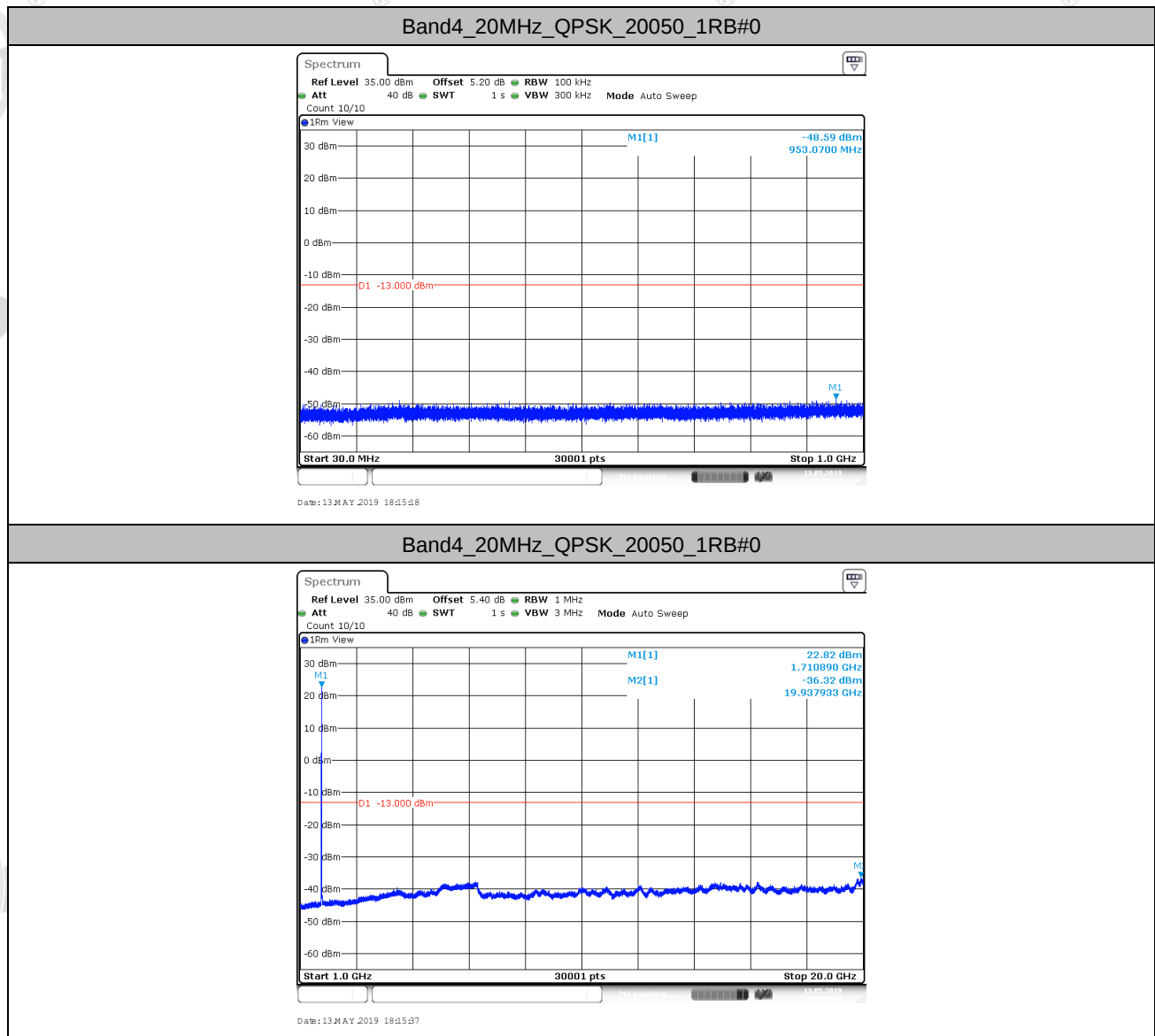
Date: 13 MAY 2019 17:44:22

8. Spurious Emission at Antenna Terminal

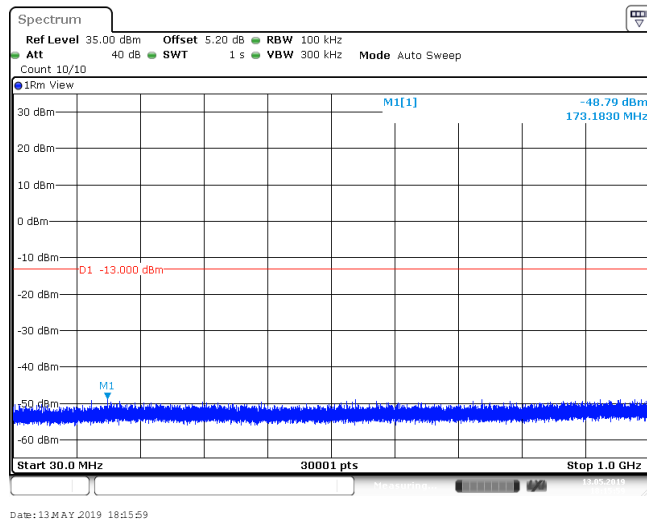
Remark1: For the averaged unwanted emissions measurements, the measurement points in each sweep is greater than twice the Span/RBW in order to ensure bin-to-bin spacing of $< RBW/2$ so that narrowband signals are not lost between frequency bins. As to the present test item, the "Measurement Points =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

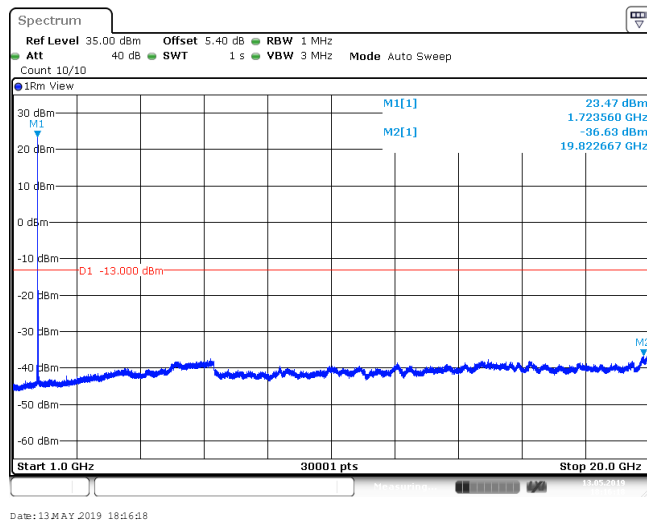
8.1. Test Plots



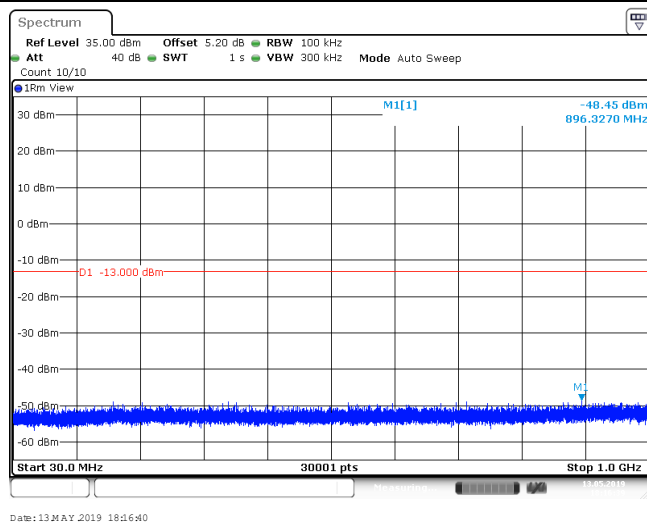
Band4_20MHz_QPSK_20175_1RB#0



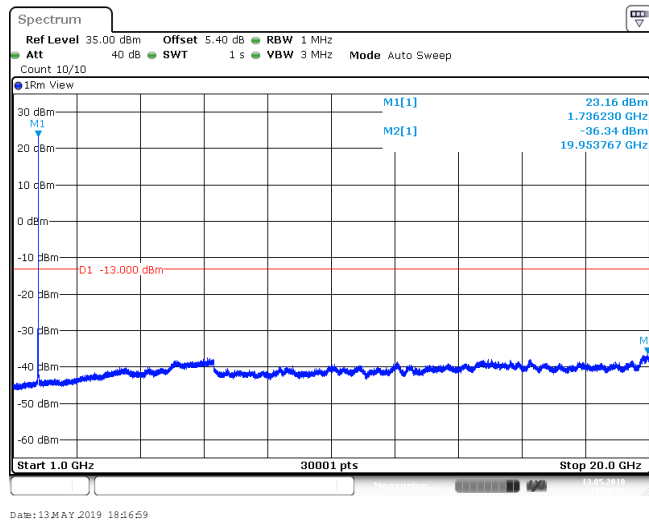
Band4_20MHz_QPSK_20175_1RB#0



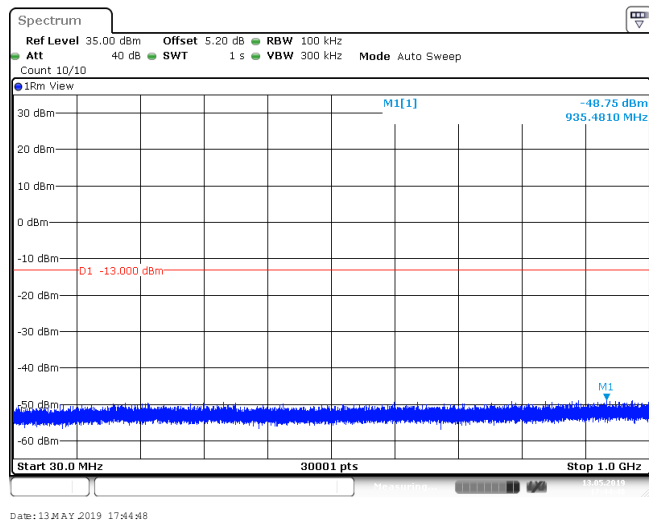
Band4_20MHz_QPSK_20300_1RB#0



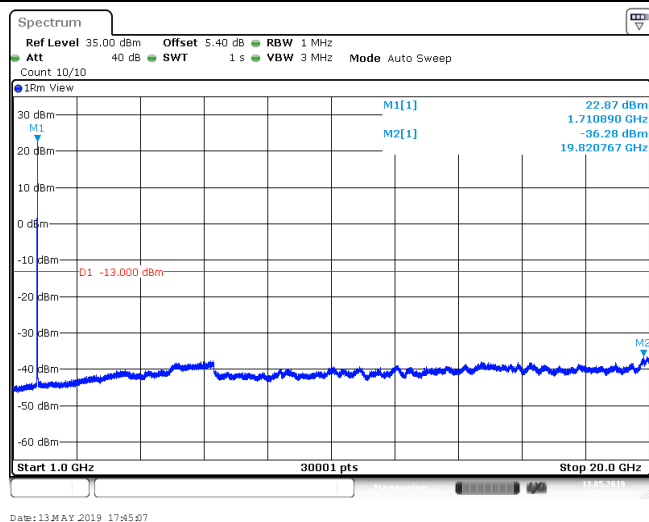
Band4_20MHz_QPSK_20300_1RB#0



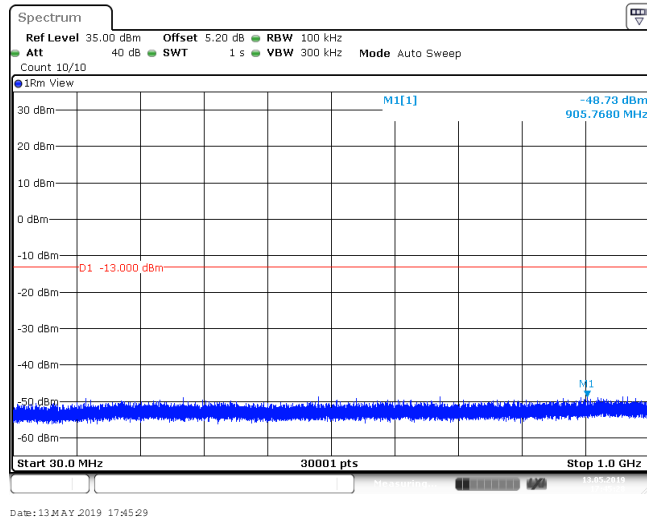
Band4_20MHz_16QAM_20050_1RB#0



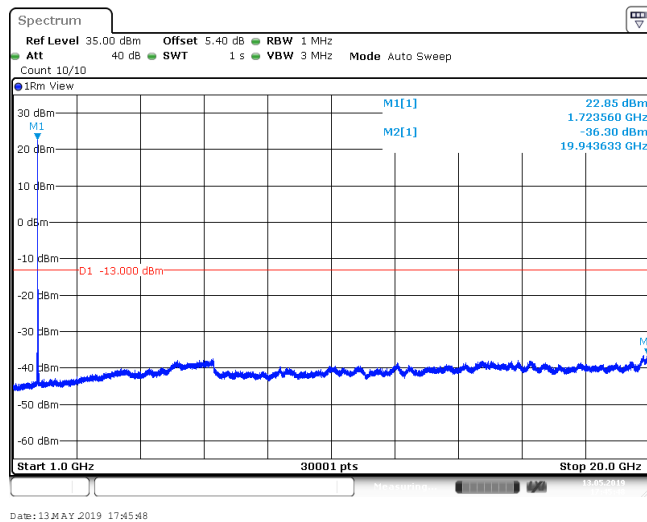
Band4_20MHz_16QAM_20050_1RB#0



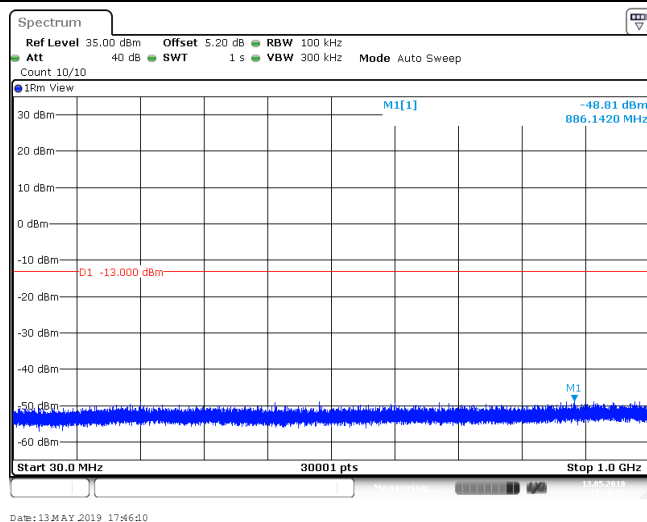
Band4_20MHz_16QAM_20175_1RB#0

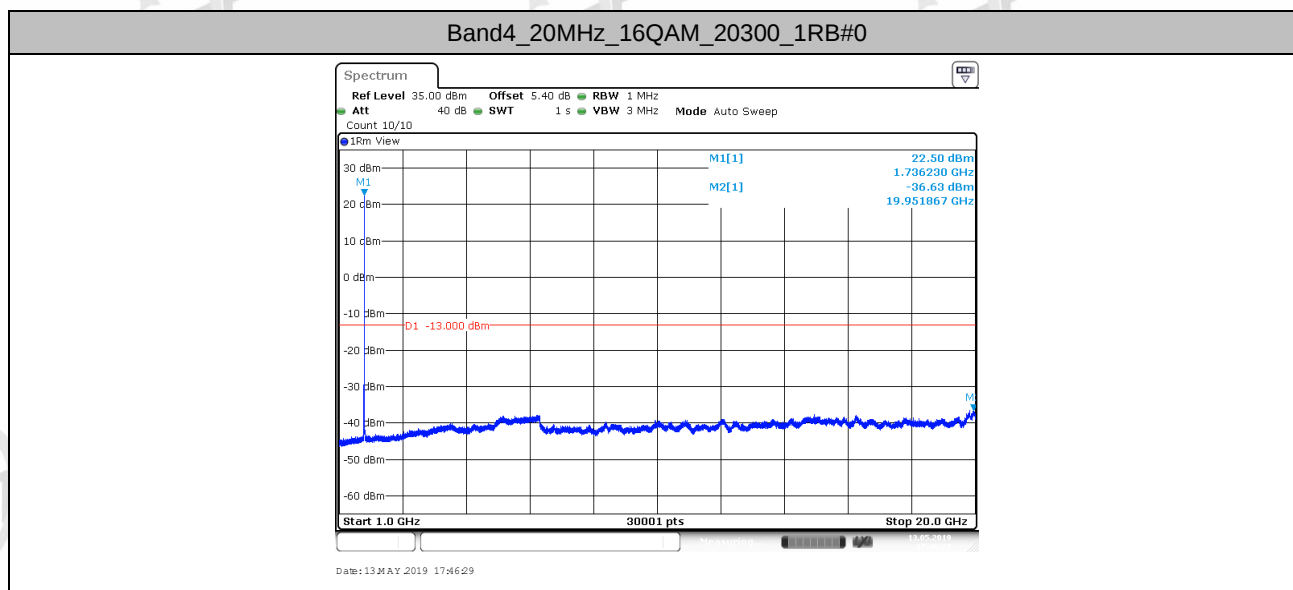


Band4_20MHz_16QAM_20175_1RB#0



Band4_20MHz_16QAM_20300_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
Band4	20MHz	QPSK	20050	100RB#0	VL	NT	-1.50	-0.000872	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VN	NT	3.40	0.001977	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	VH	NT	3.70	0.002151	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	-4.30	-0.002482	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	1.70	0.000981	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	4.50	0.002597	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VL	NT	-8.50	-0.004871	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VN	NT	-3.90	-0.002235	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	VH	NT	-7.50	-0.004298	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	VL	NT	4.40	0.002558	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	VN	NT	-10.20	-0.005930	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	VH	NT	6.40	0.003721	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	VL	NT	-8.00	-0.004618	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	VN	NT	0.20	0.000115	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	VH	NT	-7.60	-0.004387	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	VL	NT	6.70	0.003840	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	VN	NT	5.70	0.003266	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	VH	NT	-3.70	-0.002120	±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
Band4	20MHz	QPSK	20050	100RB#0	NV	-30	5.90	0.003430	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	-20	3.90	0.002267	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	0	2.00	0.001163	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	10	-0.50	-0.000291	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	20	7.50	0.004360	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	30	0.50	0.000291	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	40	-6.50	-0.003779	±2.5	PASS
Band4	20MHz	QPSK	20050	100RB#0	NV	50	3.60	0.002093	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-30	-4.00	-0.002309	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	5.80	0.003348	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	1.30	0.000750	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	-0.50	-0.000289	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	6.10	0.003521	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	2.40	0.001385	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	1.20	0.000693	±2.5	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	0.50	0.000289	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-30	-5.10	-0.002923	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	-20	-7.70	-0.004413	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	0	-9.40	-0.005387	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	10	-6.90	-0.003954	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	20	6.90	0.003954	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	30	-7.70	-0.004413	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	40	-10.10	-0.005788	±2.5	PASS
Band4	20MHz	QPSK	20300	100RB#0	NV	50	-8.90	-0.005100	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	NV	-30	-8.80	-0.005116	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	NV	-20	6.20	0.003605	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	NV	0	3.30	0.001919	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	NV	10	5.90	0.003430	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	NV	20	6.90	0.004012	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	NV	30	1.90	0.001105	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	NV	40	-0.50	-0.000291	±2.5	PASS
Band4	20MHz	16QAM	20050	27RB#0	NV	50	-5.80	-0.003372	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	NV	-30	-8.30	-0.004791	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	NV	-20	8.30	0.004791	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	NV	0	5.10	0.002944	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	NV	10	-0.10	-0.000058	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	NV	20	-3.50	-0.002020	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	NV	30	5.60	0.003232	±2.5	PASS
Band4	20MHz	16QAM	20175	27RB#0	NV	40	4.00	0.002309	±2.5	PASS

Band4	20MHz	16QAM	20175	27RB#0	NV	50	1.70	0.000981	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	NV	-30	4.70	0.002693	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	NV	-20	-5.70	-0.003266	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	NV	0	-3.00	-0.001719	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	NV	10	1.10	0.000630	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	NV	20	2.90	0.001662	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	NV	30	-0.80	-0.000458	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	NV	40	1.30	0.000745	±2.5	PASS
Band4	20MHz	16QAM	20300	27RB#0	NV	50	3.60	0.002063	±2.5	PASS

The End