

Appendix for LTE B13 test report

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Results:

Band	Bandwidth	Modulation	Channel	RB Configuration	Conducted Power[dBm]	ERP[dBm]	Limit[dBm]	Verdict
Band13	5MHz	QPSK	23205	1RB#24	22.97	20.87	33	PASS
Band13	5MHz	QPSK	23205	1RB#0	23.09	20.99	33	PASS
Band13	5MHz	QPSK	23205	1RB#12	23.14	21.04	33	PASS
Band13	5MHz	QPSK	23205	12RB#6	22.10	20.00	33	PASS
Band13	5MHz	QPSK	23205	12RB#0	22.09	19.99	33	PASS
Band13	5MHz	QPSK	23205	12RB#13	22.08	19.98	33	PASS
Band13	5MHz	QPSK	23205	25RB#0	22.05	19.95	33	PASS
Band13	5MHz	QPSK	23230	1RB#24	23.31	21.21	33	PASS
Band13	5MHz	QPSK	23230	1RB#0	23.29	21.19	33	PASS
Band13	5MHz	QPSK	23230	1RB#12	23.12	21.02	33	PASS
Band13	5MHz	QPSK	23230	12RB#13	22.02	19.92	33	PASS
Band13	5MHz	QPSK	23230	12RB#0	22.14	20.04	33	PASS
Band13	5MHz	QPSK	23230	12RB#6	22.21	20.11	33	PASS
Band13	5MHz	QPSK	23230	25RB#0	22.28	20.18	33	PASS
Band13	5MHz	QPSK	23255	1RB#24	23.27	21.17	33	PASS
Band13	5MHz	QPSK	23255	1RB#12	23.10	21.00	33	PASS
Band13	5MHz	QPSK	23255	1RB#0	23.11	21.01	33	PASS
Band13	5MHz	QPSK	23255	12RB#6	21.94	19.84	33	PASS
Band13	5MHz	QPSK	23255	12RB#13	22.16	20.06	33	PASS
Band13	5MHz	QPSK	23255	12RB#0	22.06	19.96	33	PASS
Band13	5MHz	QPSK	23255	25RB#0	21.95	19.85	33	PASS
Band13	5MHz	16QAM	23205	1RB#24	21.76	19.66	33	PASS
Band13	5MHz	16QAM	23205	1RB#12	22.15	20.05	33	PASS
Band13	5MHz	16QAM	23205	1RB#0	22.14	20.04	33	PASS
Band13	5MHz	16QAM	23205	12RB#6	21.22	19.12	33	PASS
Band13	5MHz	16QAM	23205	12RB#0	21.20	19.10	33	PASS
Band13	5MHz	16QAM	23205	12RB#13	21.19	19.09	33	PASS
Band13	5MHz	16QAM	23205	25RB#0	21.14	19.04	33	PASS
Band13	5MHz	16QAM	23230	1RB#24	21.78	19.68	33	PASS
Band13	5MHz	16QAM	23230	1RB#0	22.00	19.90	33	PASS
Band13	5MHz	16QAM	23230	1RB#12	21.70	19.60	33	PASS
Band13	5MHz	16QAM	23230	12RB#13	21.16	19.06	33	PASS

Band13	5MHz	16QAM	23230	12RB#6	21.22	19.12	33	PASS
Band13	5MHz	16QAM	23230	12RB#0	21.24	19.14	33	PASS
Band13	5MHz	16QAM	23230	25RB#0	21.36	19.26	33	PASS
Band13	5MHz	16QAM	23255	1RB#0	21.25	19.15	33	PASS
Band13	5MHz	16QAM	23255	1RB#12	21.33	19.23	33	PASS
Band13	5MHz	16QAM	23255	1RB#24	21.54	19.44	33	PASS
Band13	5MHz	16QAM	23255	12RB#13	21.21	19.11	33	PASS
Band13	5MHz	16QAM	23255	12RB#0	21.09	18.99	33	PASS
Band13	5MHz	16QAM	23255	12RB#6	21.09	18.99	33	PASS
Band13	5MHz	16QAM	23255	25RB#0	21.13	19.03	33	PASS
Band13	10MHz	QPSK	23230	1RB#0	23.11	21.01	33	PASS
Band13	10MHz	QPSK	23230	1RB#24	23.02	20.92	33	PASS
Band13	10MHz	QPSK	23230	1RB#49	23.20	21.10	33	PASS
Band13	10MHz	QPSK	23230	25RB#0	22.11	20.01	33	PASS
Band13	10MHz	QPSK	23230	25RB#25	22.02	19.92	33	PASS
Band13	10MHz	QPSK	23230	25RB#12	22.25	20.15	33	PASS
Band13	10MHz	QPSK	23230	50RB#0	21.87	19.77	33	PASS
Band13	10MHz	16QAM	23230	1RB#49	21.69	19.59	33	PASS
Band13	10MHz	16QAM	23230	1RB#24	21.37	19.27	33	PASS
Band13	10MHz	16QAM	23230	1RB#0	21.52	19.42	33	PASS
Band13	10MHz	16QAM	23230	25RB#12	21.28	19.18	33	PASS
Band13	10MHz	16QAM	23230	25RB#25	21.12	19.02	33	PASS
Band13	10MHz	16QAM	23230	25RB#0	21.26	19.16	33	PASS
Band13	10MHz	16QAM	23230	50RB#0	21.22	19.12	33	PASS

Note1:

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

$$\text{ERP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBd]}$$

$$\text{EIRP [dBm]} = \text{SGP [dBm]} - \text{Cable Loss [dB]} + \text{Gain [dBi]}$$

b, SGP=Signal Generator Level

c, Antenna gain of LTE Band 13 is -2.1dBi.

Note2: SET Span=1.5*OBW

SET RBW=1%of the OBW,not to exceed 1MHz

SET VBW>= 3*RBW

SET Sweep time=auto-couple.

Detector:RMS

Appendix B: Peak-to-Average Ratio

Test Results

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	4.81	13	PASS
Band13	5MHz	QPSK	23205	25RB#0	5.13	13	PASS
Band13	5MHz	QPSK	23230	1RB#0	4.72	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.19	13	PASS
Band13	5MHz	QPSK	23255	1RB#0	8.43	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.13	13	PASS
Band13	5MHz	16QAM	23205	1RB#0	5.77	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	5.97	13	PASS
Band13	5MHz	16QAM	23230	1RB#0	5.48	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	6.00	13	PASS
Band13	5MHz	16QAM	23255	1RB#0	6.00	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	6.00	13	PASS
Band13	10MHz	QPSK	23230	1RB#0	4.81	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.22	13	PASS
Band13	10MHz	16QAM	23230	1RB#0	5.59	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	6.06	13	PASS

Appendix C: Modulation Characteristics

Test Plots

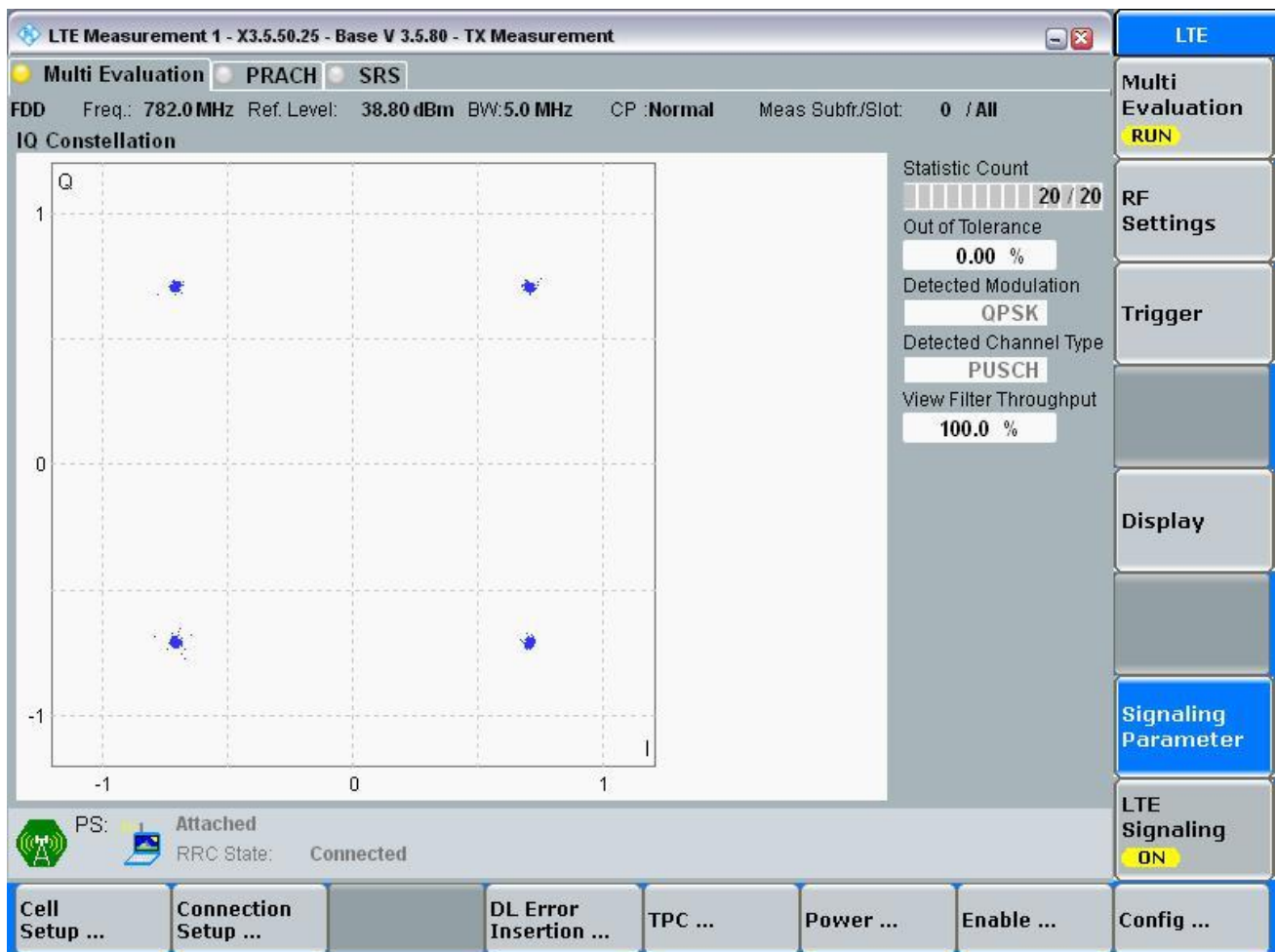
Test Band = BAND13

Test Mode = LTE/TM1

Test Bandwidth = 5MHz

Test Channel = MCH

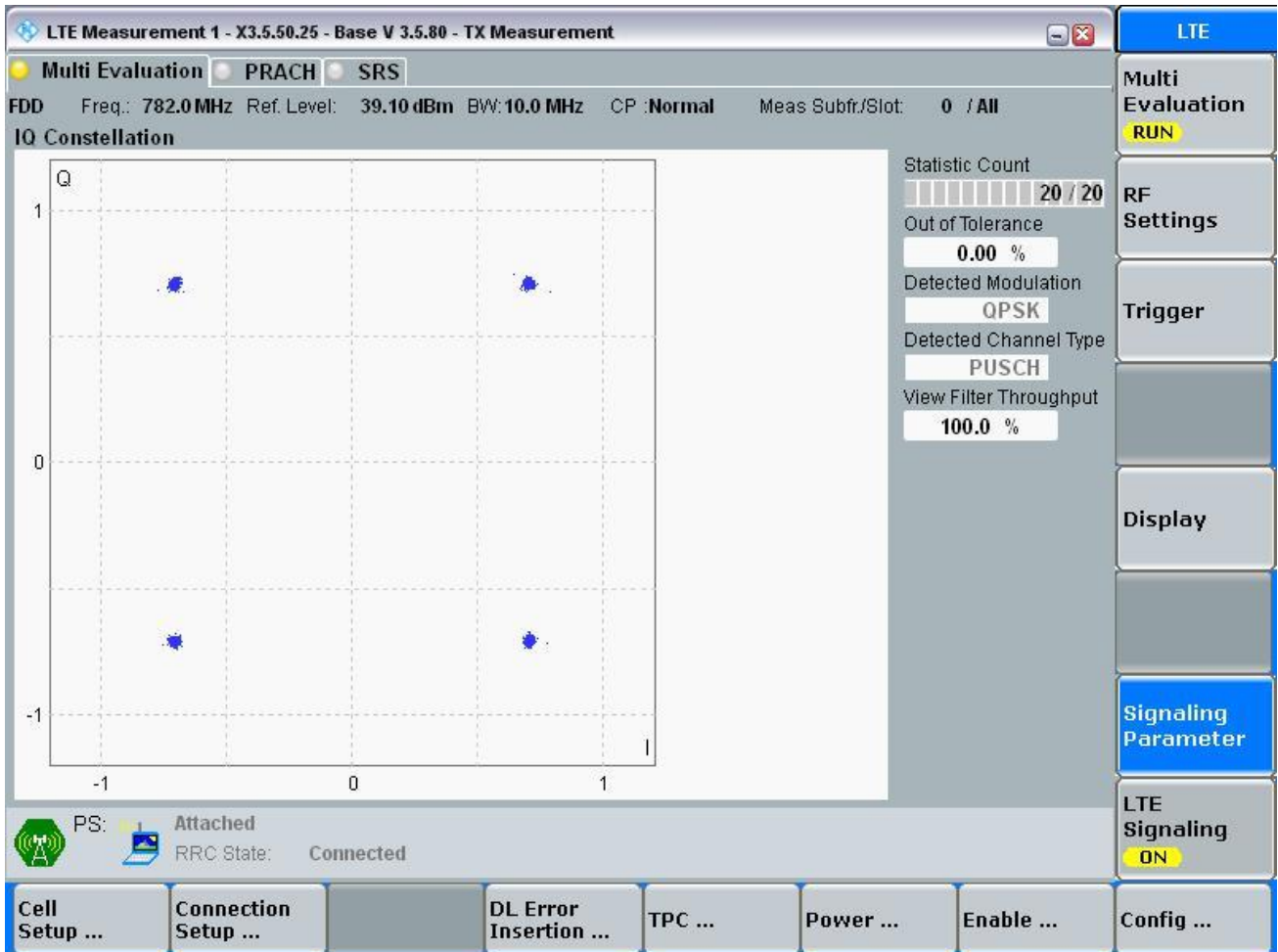
Test RB = RB25#0



Test Bandwidth = 10MHz

Test Channel = MCH

Test RB = RB50#0

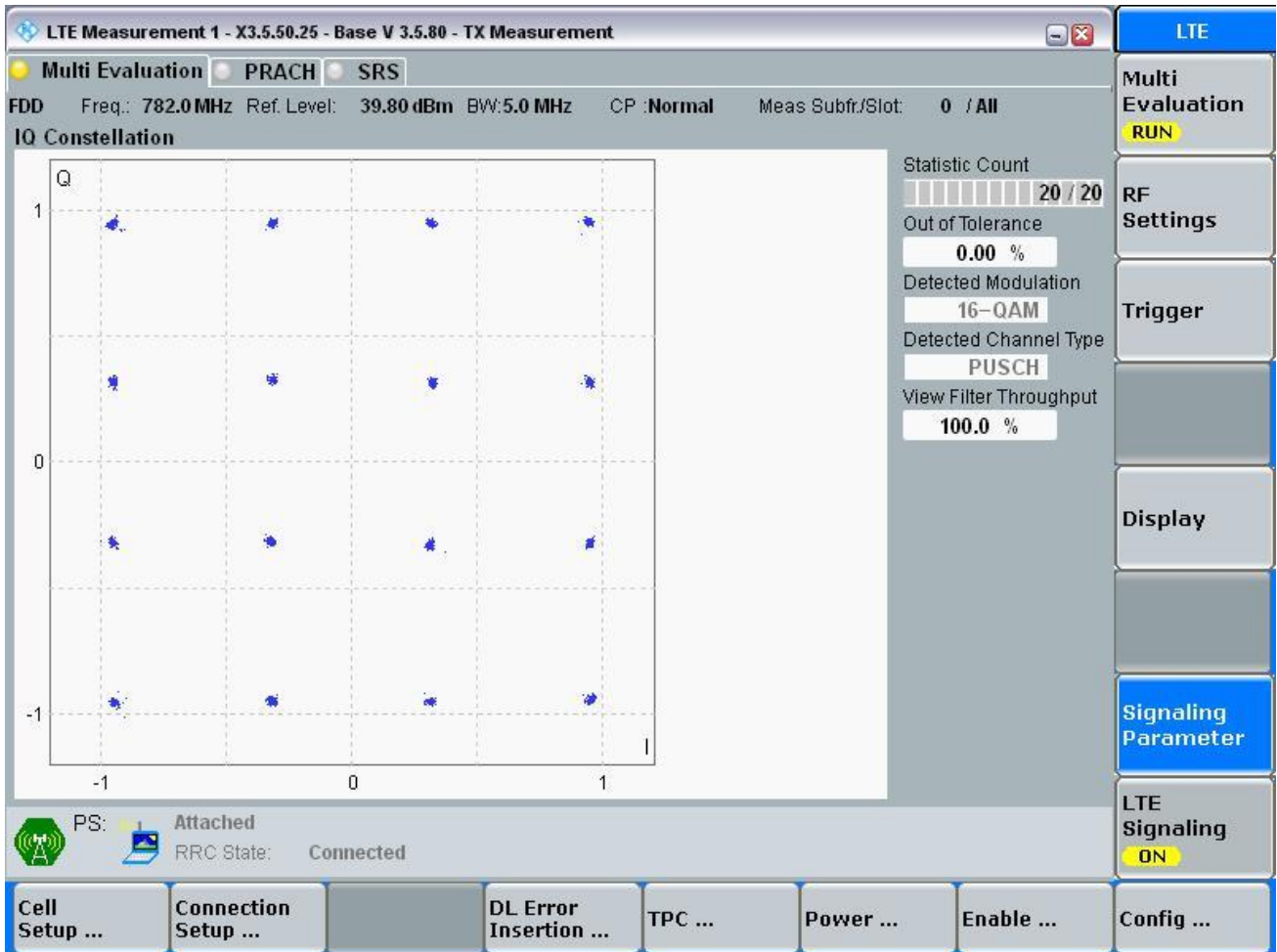


Test Mode = LTE/TM2

Test Bandwidth = 5MHz

Test Channel = MCH

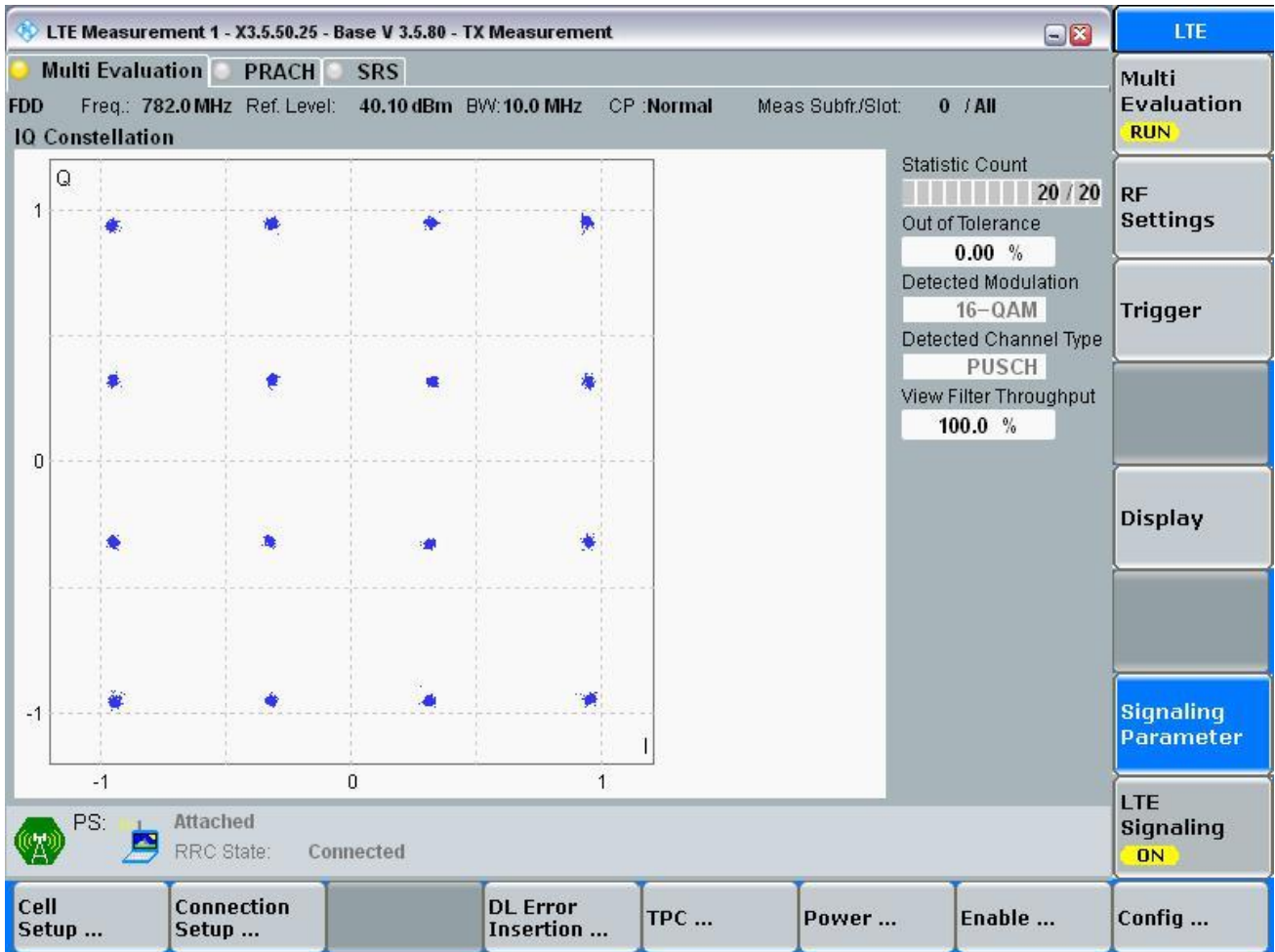
Test RB = RB25#0



Test Bandwidth = 10MHz

Test Channel = MCH

Test RB = RB50#0



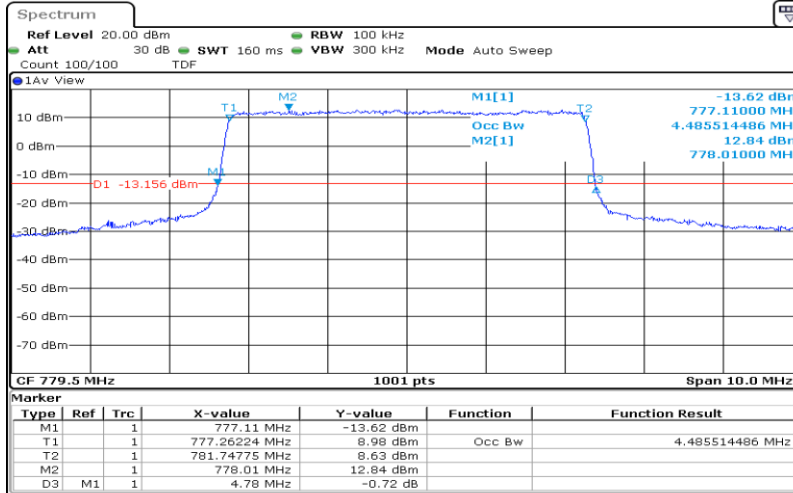
Appendix D: Bandwidth

Test Results

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.486	4.780	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.496	4.780	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.486	4.790	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.486	4.790	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.505	4.780	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.496	4.780	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.985	9.533	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.985	9.533	PASS

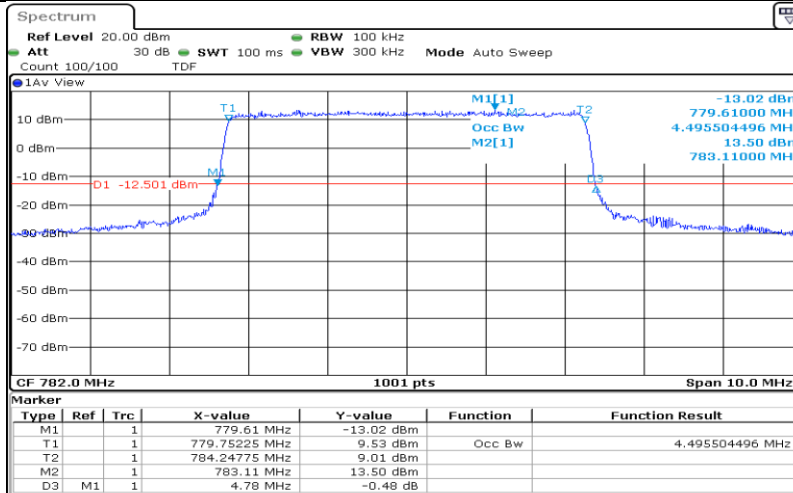
Test Plots

Band13-5MHz-QPSK-23205-25RB#0-4.486



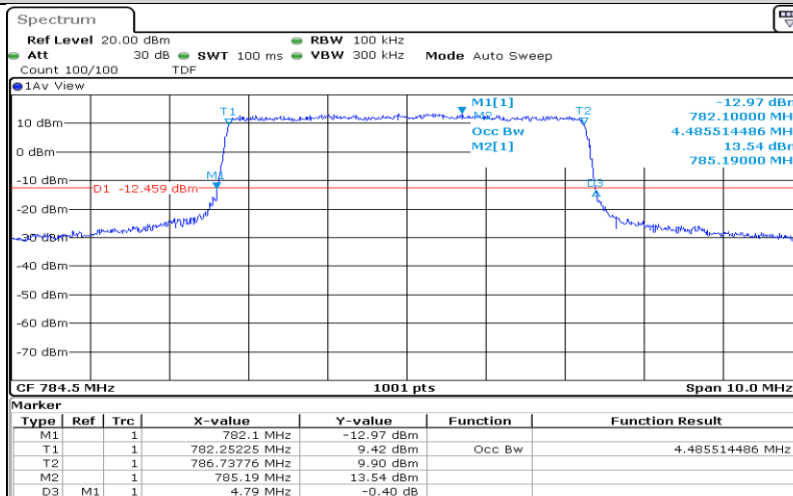
Date: 17.AUG.2020 17:13:53

Band13-5MHz-QPSK-23230-25RB#0-4.496



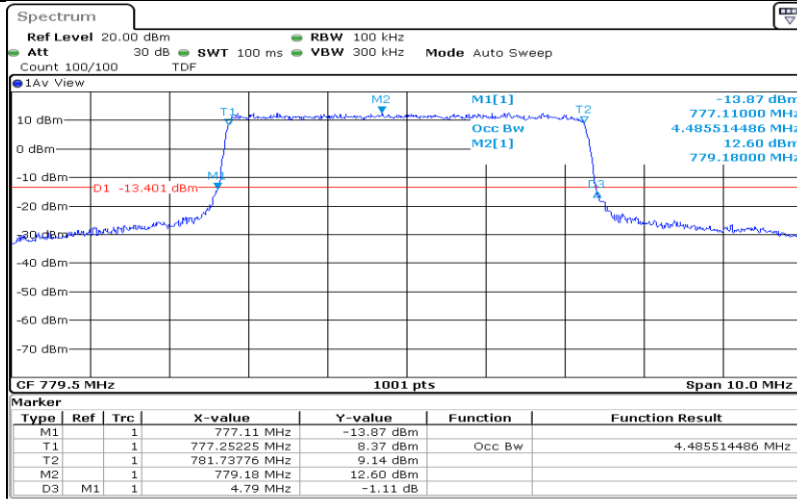
Date: 17.AUG.2020 17:14:29

Band13-5MHz-QPSK-23255-25RB#0-4.486



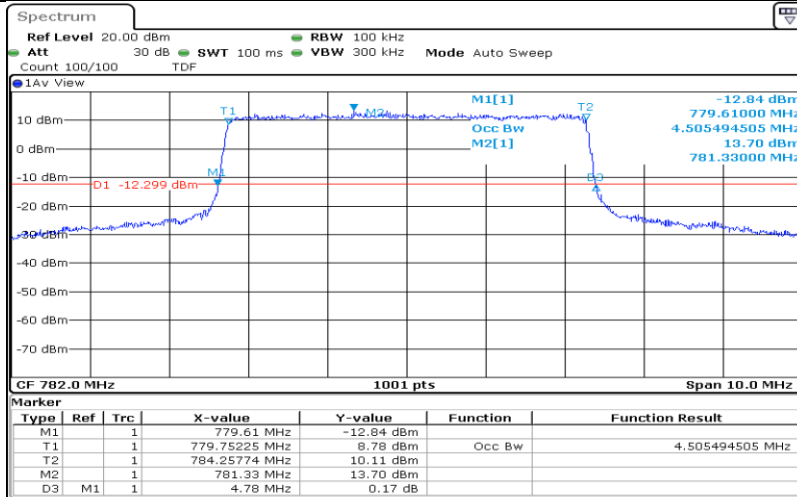
Date: 17.AUG.2020 17:15:05

Band13-5MHz-16QAM-23205-25RB#0-4.486



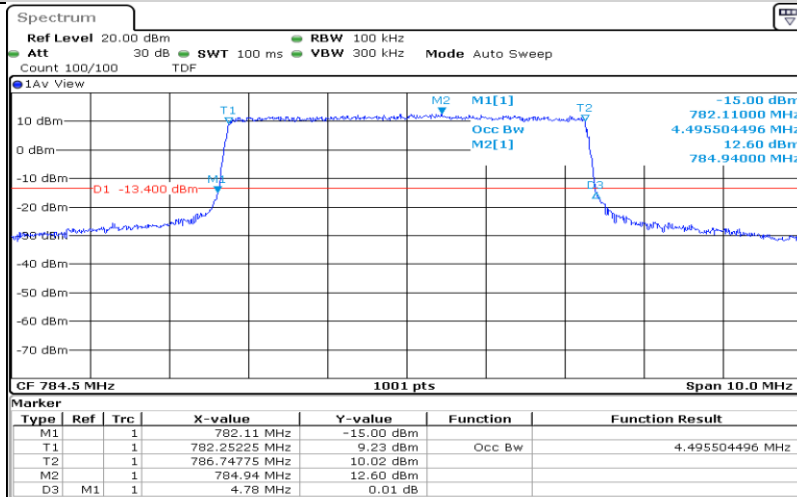
Date: 17.AUG.2020 17:14:10

Band13-5MHz-16QAM-23230-25RB#0-4.505



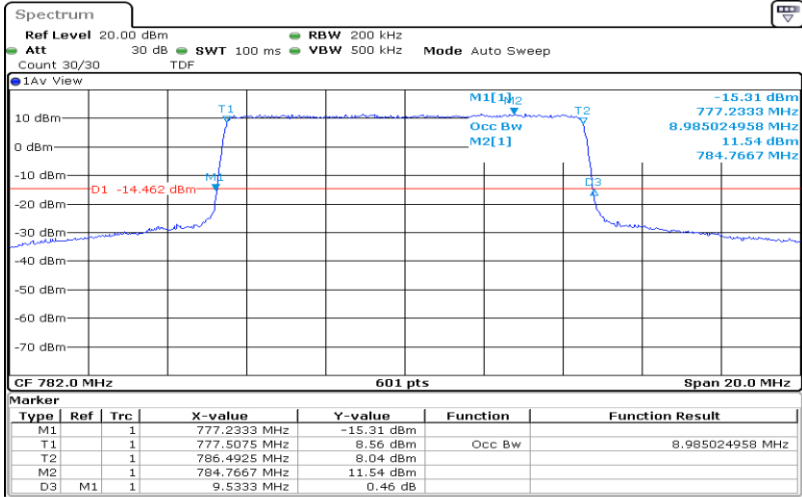
Date: 17.AUG.2020 17:14:46

Band13-5MHz-16QAM-23255-25RB#0-4.496



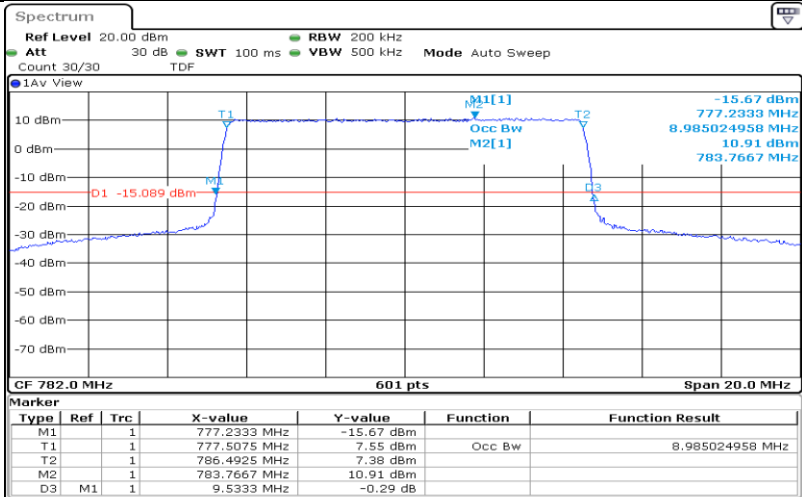
Date: 17.AUG.2020 17:15:22

Band13-10MHz-QPSK-23230-50RB#0-8.985



Date: 17.AUG.2020 17:36:41

Band13-10MHz-16QAM-23230-50RB#0-8.985



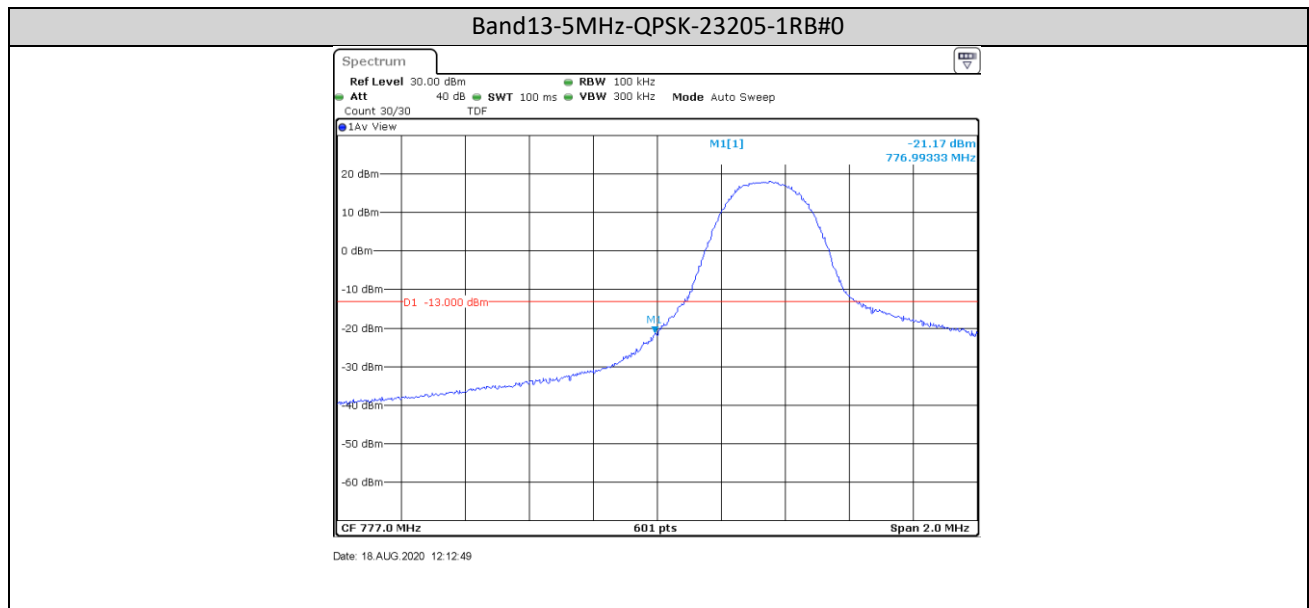
Date: 17.AUG.2020 17:36:51

Appendix E: Band Edges Compliance

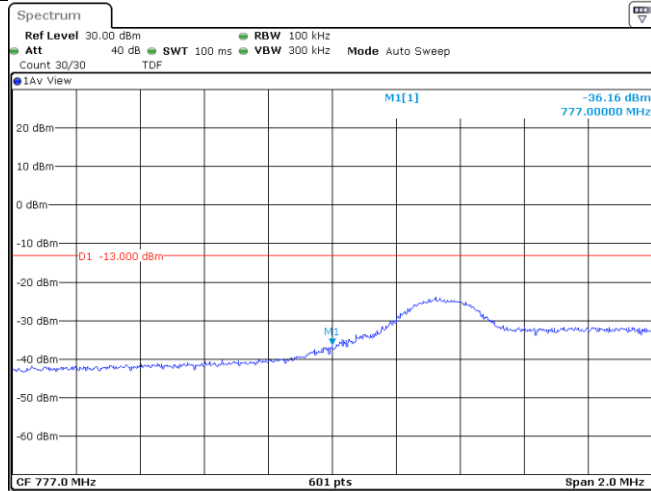
Test Plots

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	-21.17	PASS
Band13	5MHz	QPSK	23205	1RB#24	-36.16	PASS
Band13	5MHz	QPSK	23205	25RB#0	-28.82	PASS
Band13	5MHz	QPSK	23255	1RB#0	-36.35	PASS
Band13	5MHz	QPSK	23255	1RB#24	-20.95	PASS
Band13	5MHz	QPSK	23255	25RB#0	-29.47	PASS
Band13	5MHz	16QAM	23205	1RB#0	-23.16	PASS
Band13	5MHz	16QAM	23205	1RB#24	-37.00	PASS
Band13	5MHz	16QAM	23205	25RB#0	-30.69	PASS
Band13	5MHz	16QAM	23255	1RB#0	-36.98	PASS
Band13	5MHz	16QAM	23255	1RB#24	-21.60	PASS
Band13	5MHz	16QAM	23255	25RB#0	-29.72	PASS
Band13	10MHz	QPSK	23230	1RB#49	-40.29, -28.14	PASS
Band13	10MHz	QPSK	23230	1RB#0	-25.53, -41.22	PASS
Band13	10MHz	QPSK	23230	50RB#0	-32.44, -32.14	PASS
Band13	10MHz	16QAM	23230	1RB#0	-27.21, -40.93	PASS
Band13	10MHz	16QAM	23230	1RB#49	-41.26, -28.80	PASS
Band13	10MHz	16QAM	23230	50RB#0	-31.98, -32.26	PASS

Test Graphs

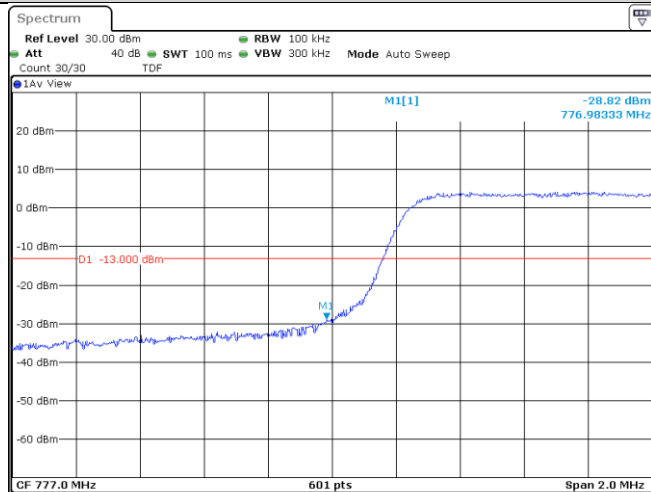


Band13-5MHz-QPSK-23205-1RB#24



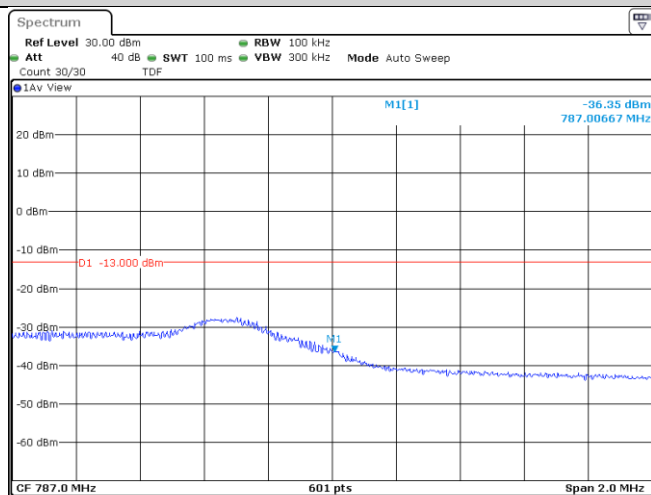
Date: 18 AUG 2020 12:13:16

Band13-5MHz-QPSK-23205-25RB#0



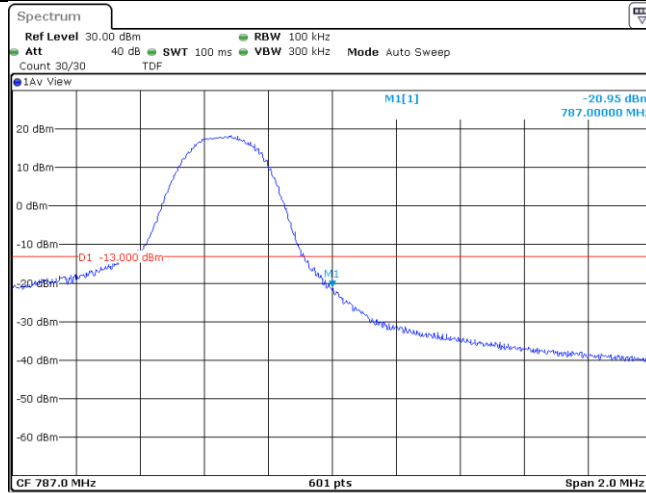
Date: 18 AUG 2020 12:13:43

Band13-5MHz-QPSK-23255-1RB#0



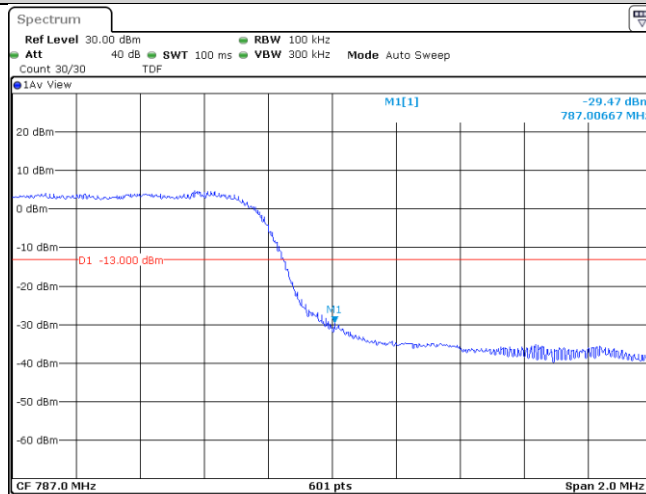
Date: 18 AUG 2020 12:14:14

Band13-5MHz-QPSK-23255-1RB#24



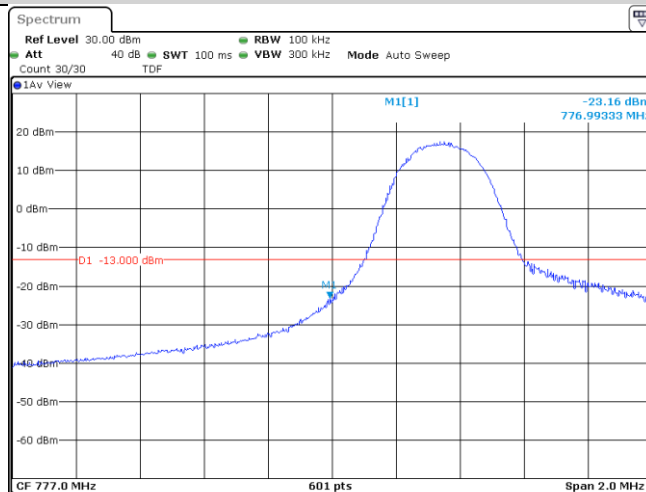
Date: 18.AUG.2020 12:14:41

Band13-5MHz-QPSK-23255-25RB#0



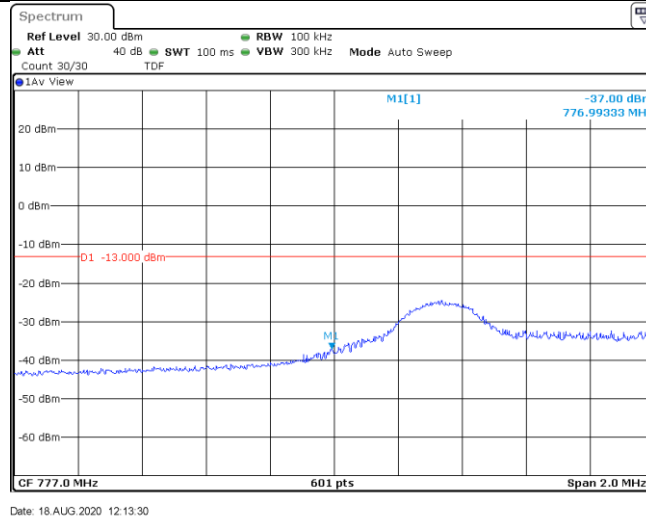
Date: 18.AUG.2020 12:15:09

Band13-5MHz-16QAM-23205-1RB#0

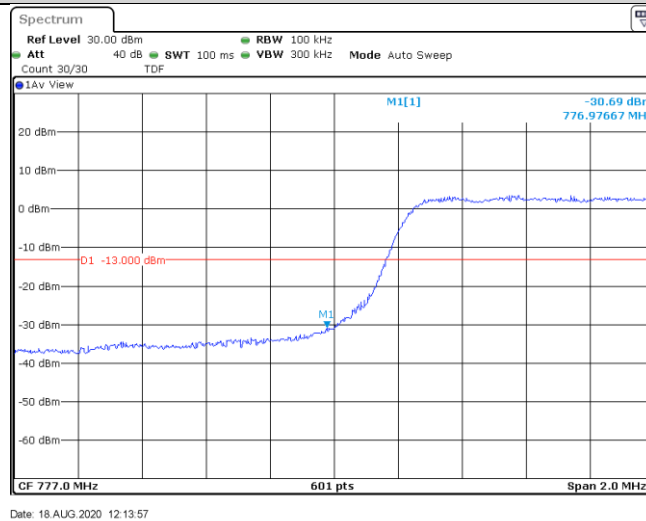


Date: 18.AUG.2020 12:13:02

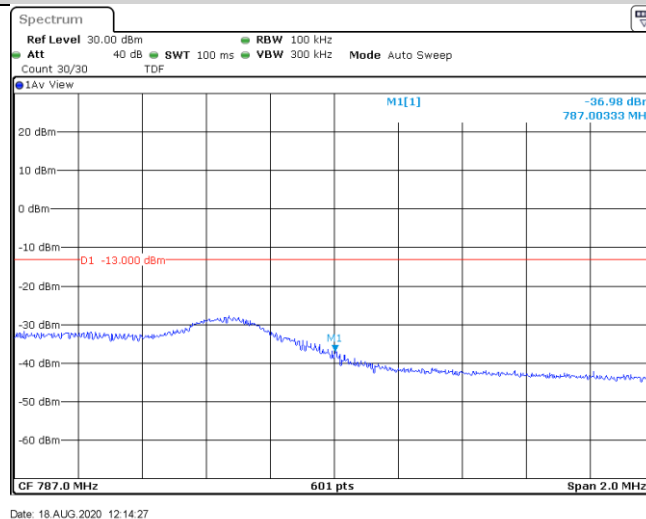
Band13-5MHz-16QAM-23205-1RB#24



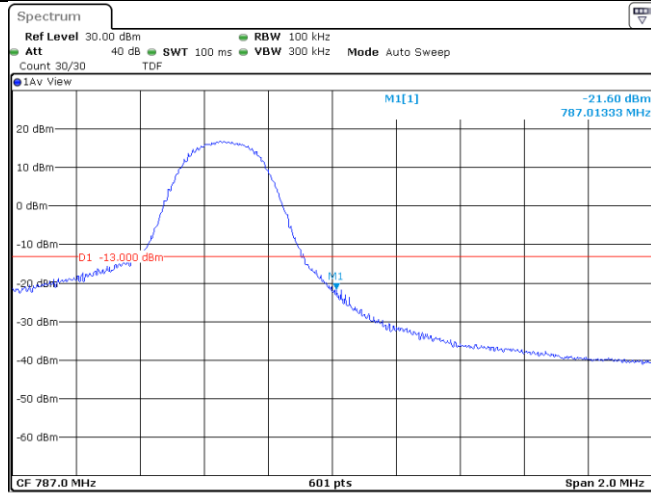
Band13-5MHz-16QAM-23205-25RB#0



Band13-5MHz-16QAM-23255-1RB#0

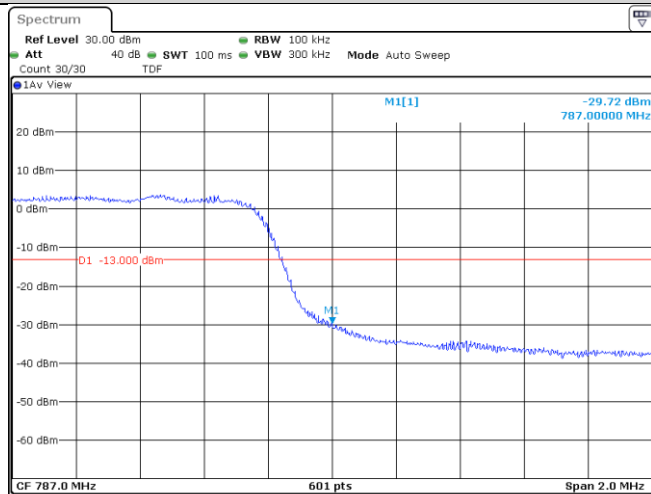


Band13-5MHz-16QAM-23255-1RB#24



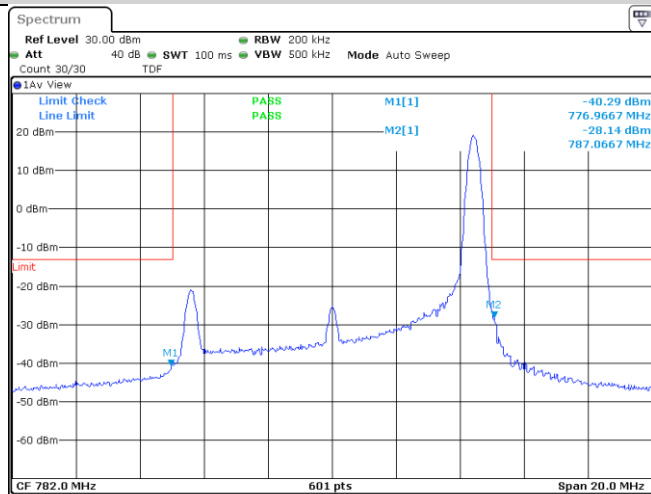
Date: 18.AUG.2020 12:14:55

Band13-5MHz-16QAM-23255-25RB#0



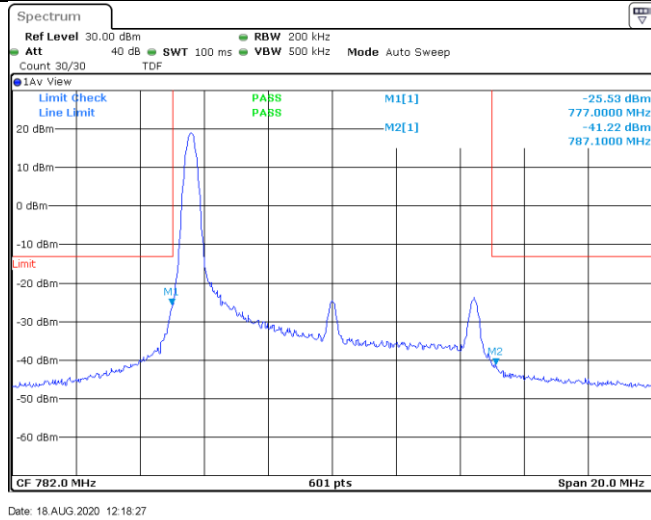
Date: 18.AUG.2020 12:15:22

Band13-10MHz-QPSK-23230-1RB#49

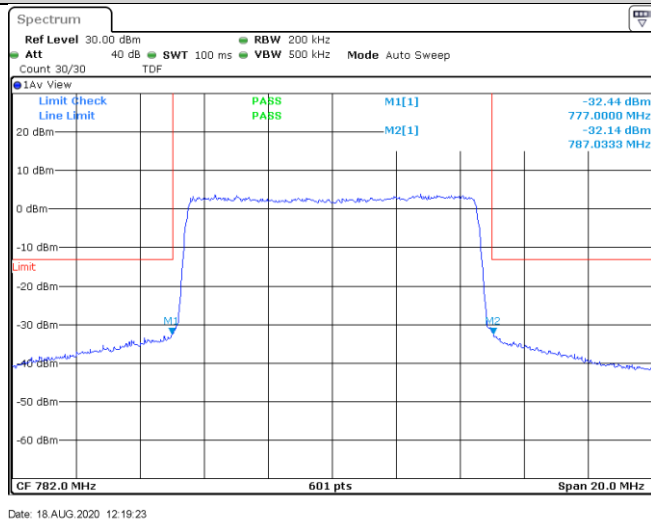


Date: 18.AUG.2020 12:18:55

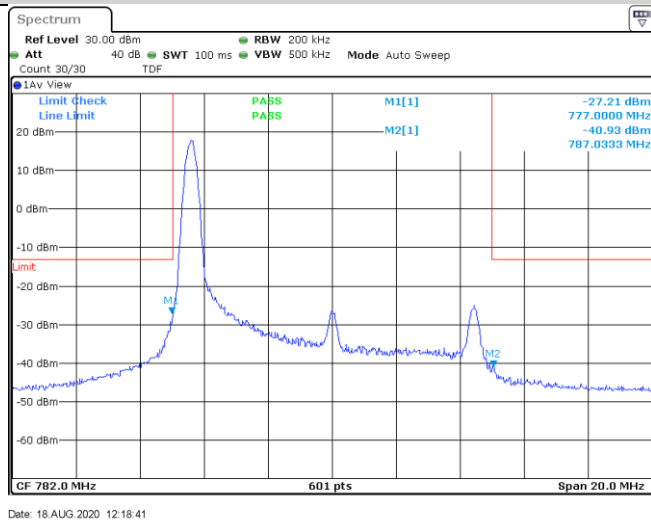
Band13-10MHz-QPSK-23230-1RB#0



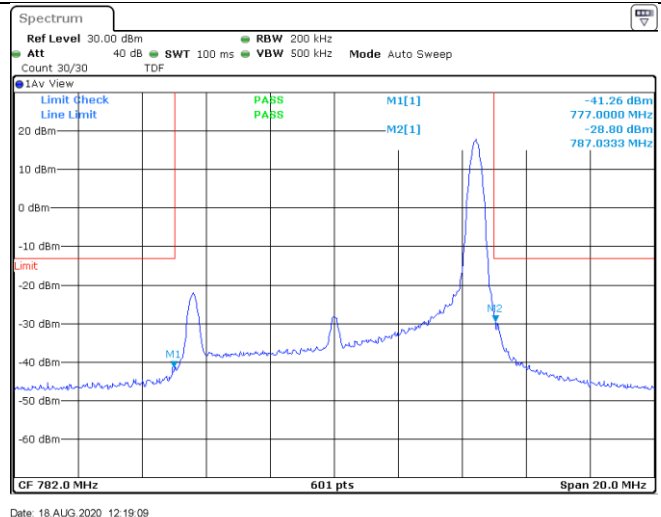
Band13-10MHz-QPSK-23230-50RB#0



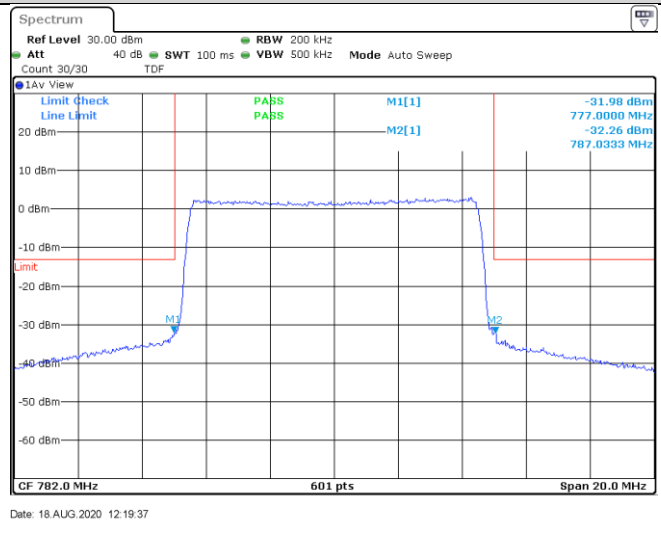
Band13-10MHz-16QAM-23230-1RB#0



Band13-10MHz-16QAM-23230-1RB#49



Band13-10MHz-16QAM-23230-50RB#0



Appendix F: Spurious Emission at Antenna Terminals

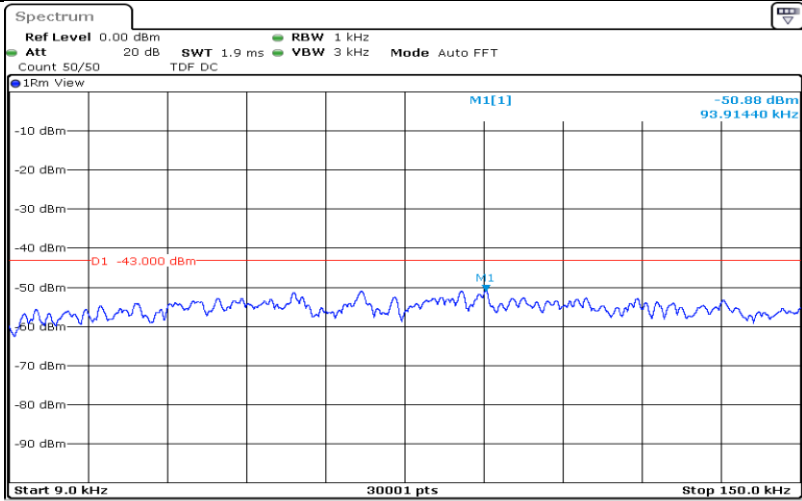
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	1RB#0	Range1:0.009~0.15MHz	-50.88	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range2:0.15~30MHz	-50.01	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range3:30~1000MHz	-28.75	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range4:1000~5000MHz	-31.34	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range5:5000~12000MHz	-45.77	PASS
Band13	5MHz	QPSK	23205	1RB#0	Range6:12000~26500MHz	-61.4	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range1:0.009~0.15MHz	-50.26	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range2:0.15~30MHz	-50.75	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range3:30~1000MHz	-29.22	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range4:1000~5000MHz	-31.43	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range5:5000~12000MHz	-45.65	PASS
Band13	5MHz	QPSK	23230	1RB#0	Range6:12000~26500MHz	-61.35	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range1:0.009~0.15MHz	-50.24	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range2:0.15~30MHz	-51.82	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range3:30~1000MHz	-28.01	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range4:1000~5000MHz	-31.43	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range5:5000~12000MHz	-45.87	PASS
Band13	5MHz	QPSK	23255	1RB#0	Range6:12000~26500MHz	-61.23	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range1:0.009~0.15MHz	-51.36	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range2:0.15~30MHz	-53.63	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range3:30~1000MHz	-28.12	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range4:1000~5000MHz	-31.34	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range5:5000~12000MHz	-45.87	PASS
Band13	5MHz	16QAM	23205	1RB#0	Range6:12000~26500MHz	-61.31	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range1:0.009~0.15MHz	-50.95	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range2:0.15~30MHz	-53.73	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range3:30~1000MHz	-28.72	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range4:1000~5000MHz	-31.47	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range5:5000~12000MHz	-45.83	PASS
Band13	5MHz	16QAM	23230	1RB#0	Range6:12000~26500MHz	-61.16	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range1:0.009~0.15MHz	-52.2	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range2:0.15~30MHz	-52.47	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range3:30~1000MHz	-29.01	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range4:1000~5000MHz	-31.36	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range5:5000~12000MHz	-45.95	PASS
Band13	5MHz	16QAM	23255	1RB#0	Range6:12000~26500MHz	-61.39	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range1:0.009~0.15MHz	-50.63	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range2:0.15~30MHz	-51.54	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range3:30~1000MHz	-28.3	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range4:1000~5000MHz	-31.19	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range5:5000~12000MHz	-45.57	PASS
Band13	10MHz	QPSK	23230	1RB#0	Range6:12000~26500MHz	-61.36	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range1:0.009~0.15MHz	-51.65	PASS

Total Quality. Assured.

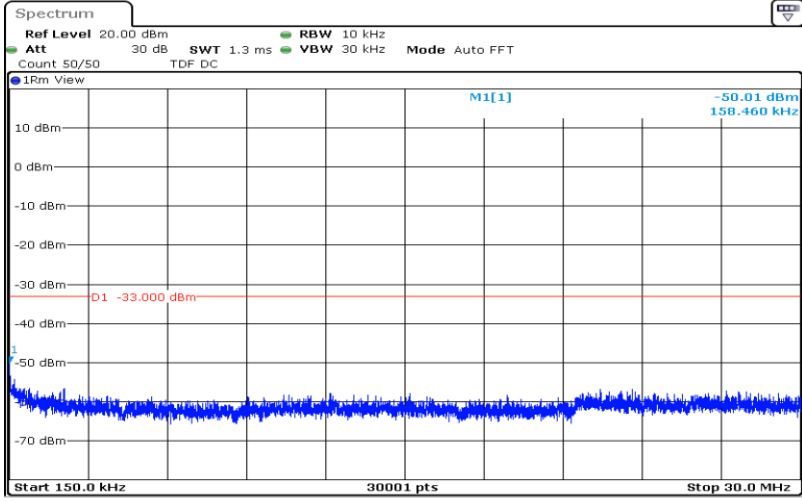
Band13	10MHz	16QAM	23230	1RB#0	Range2:0.15~30MHz	-51.57	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range3:30~1000MHz	-28.64	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range4:1000~5000MHz	-31.48	PASS
Band13	10MHz	16QAM	23230	1RB#0	Range5:5000~12000MHz	-45.81	
Band13	10MHz	16QAM	23230	1RB#0	Range6:12000~26500MHz	-61.23	PASS

Band13-5MHz-QPSK-23205-1RB#0-Range1:0.009~0.15MHz



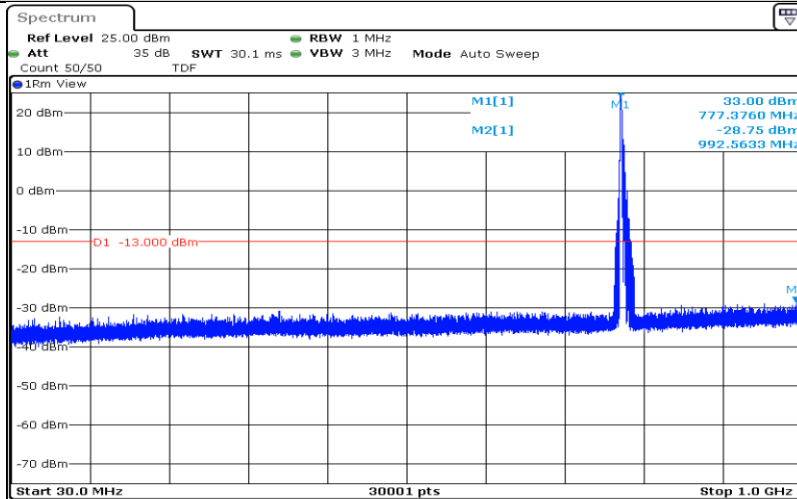
Date: 17.AUG.2020 17:18:02

Band13-5MHz-QPSK-23205-1RB#0-Range2:0.15~30MHz



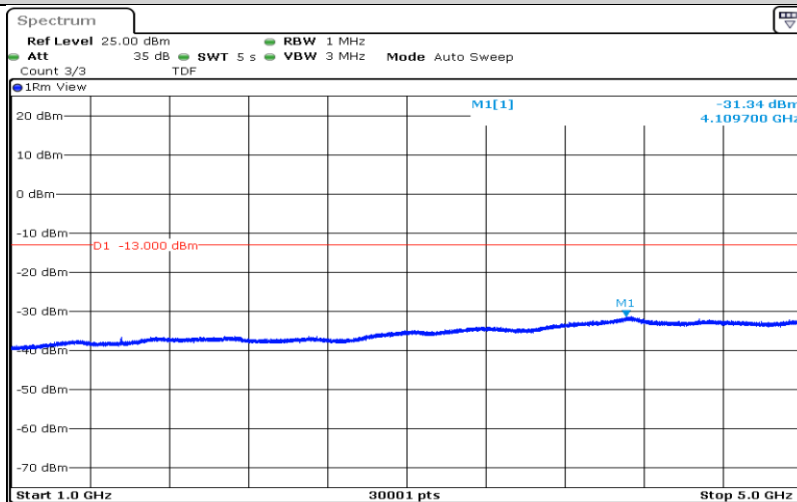
Date: 17.AUG.2020 17:18:08

Band13-5MHz-QPSK-23205-1RB#0-Range3:30~1000MHz



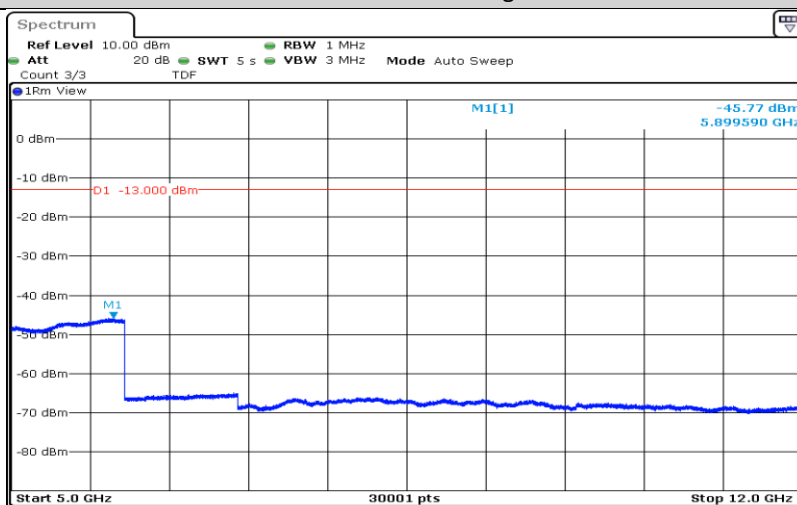
Date: 17.AUG.2020 17:18:17

Band13-5MHz-QPSK-23205-1RB#0-Range4:1000~5000MHz



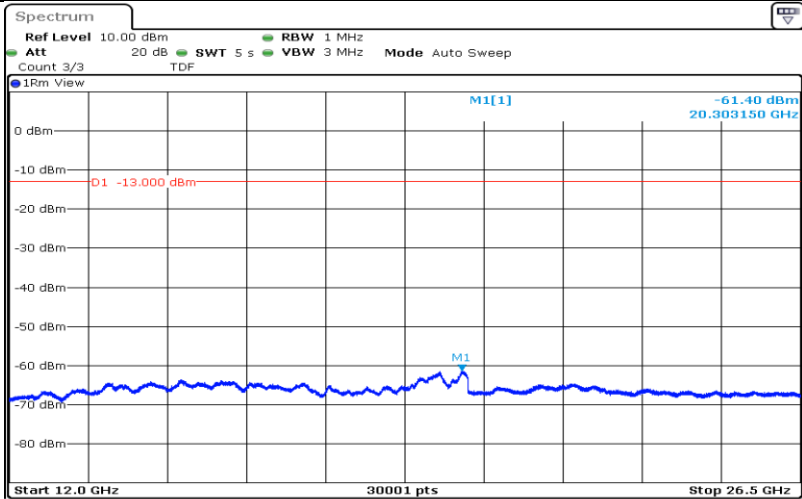
Date: 17.AUG.2020 17:18:40

Band13-5MHz-QPSK-23205-1RB#0-Range5:5000~12000MHz



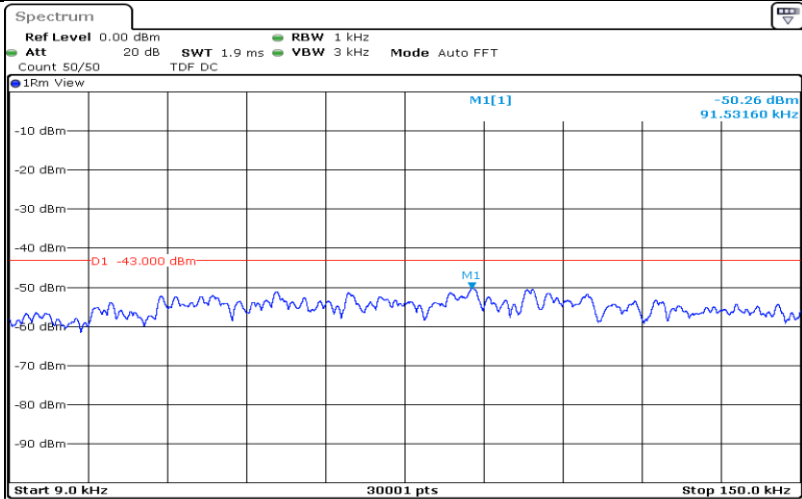
Date: 17.AUG.2020 17:19:03

Band13-5MHz-QPSK-23205-1RB#0-Range6:12000~26500MHz



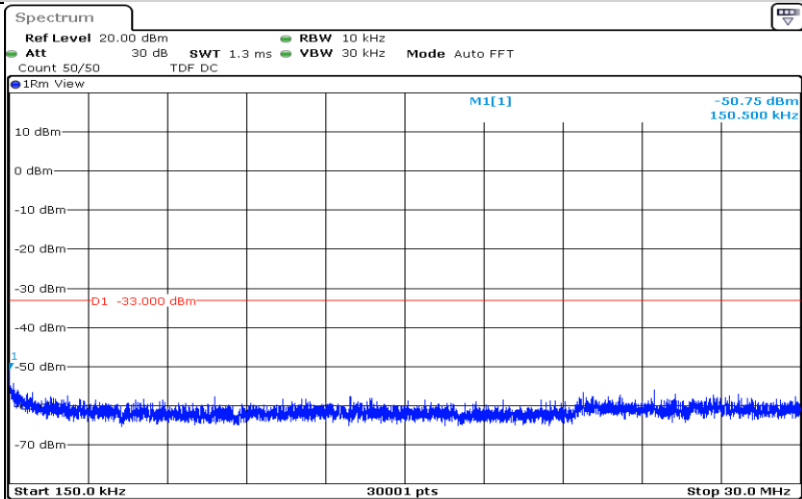
Date: 17.AUG.2020 17:19:26

Band13-5MHz-QPSK-23230-1RB#0-Range1:0.009~0.15MHz



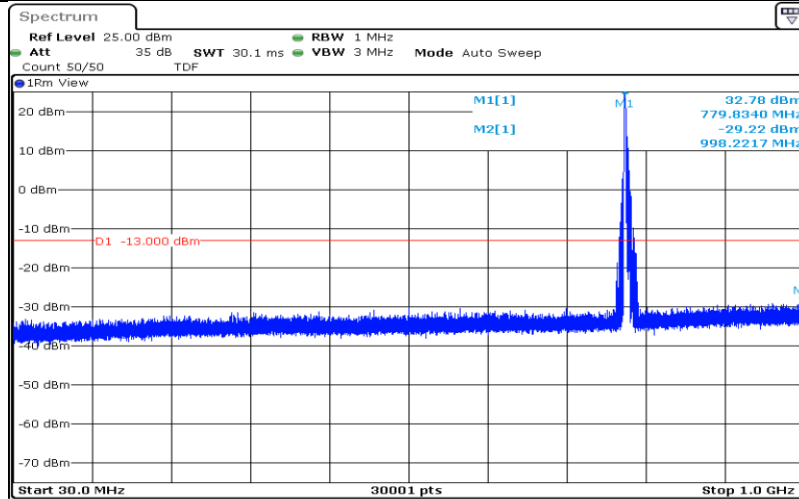
Date: 17.AUG.2020 17:21:06

Band13-5MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz



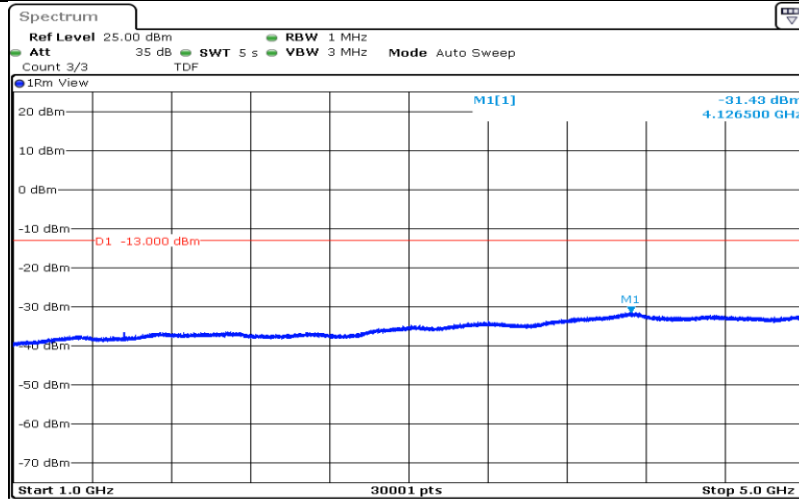
Date: 17.AUG.2020 17:21:13

Band13-5MHz-QPSK-23230-1RB#0-Range3:30~1000MHz



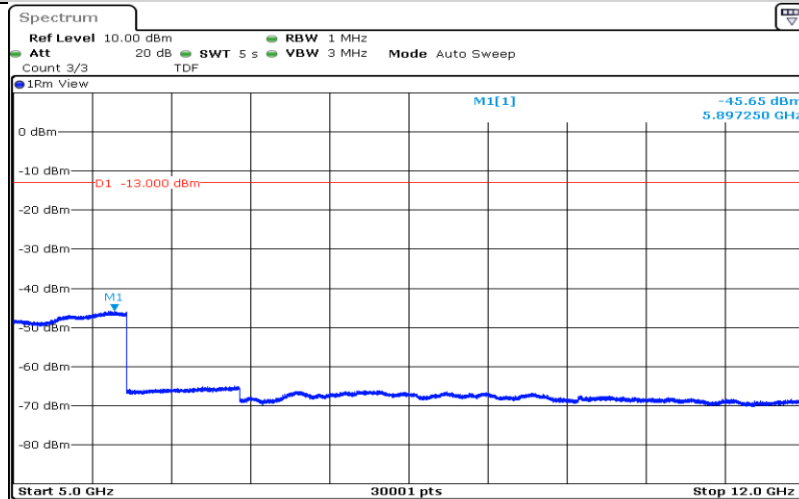
Date: 17.AUG.2020 17:21:22

Band13-5MHz-QPSK-23230-1RB#0-Range4:1000~5000MHz



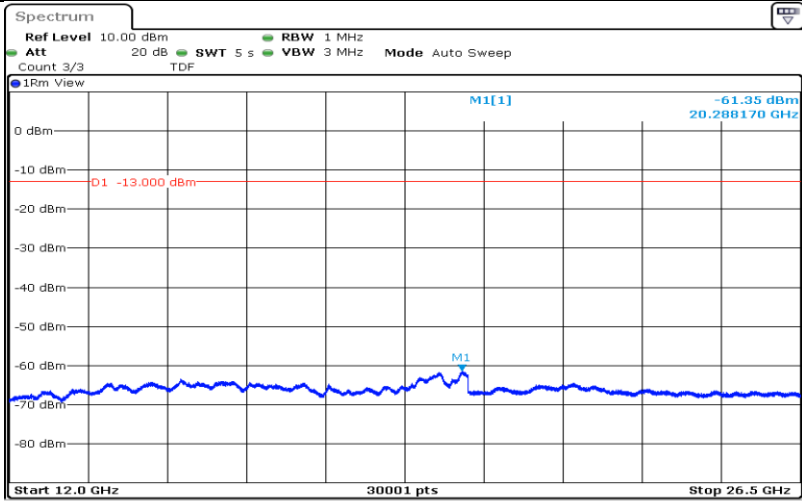
Date: 17.AUG.2020 17:21:45

Band13-5MHz-QPSK-23230-1RB#0-Range5:5000~12000MHz



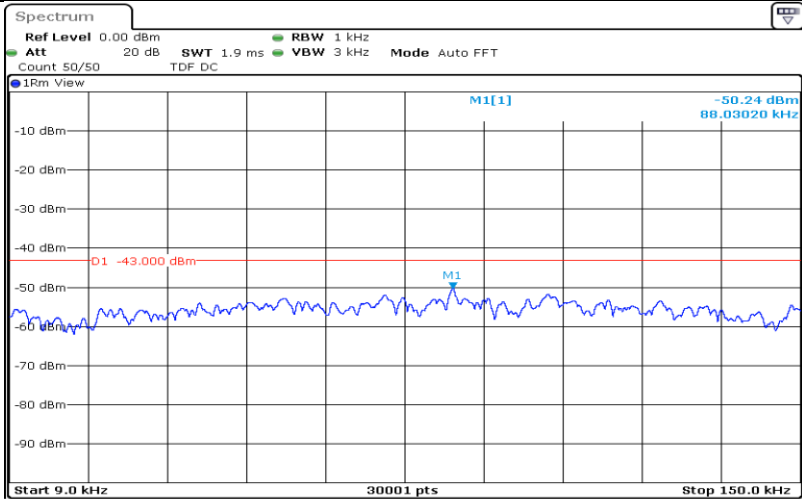
Date: 17.AUG.2020 17:22:08

Band13-5MHz-QPSK-23230-1RB#0-Range6:12000~26500MHz



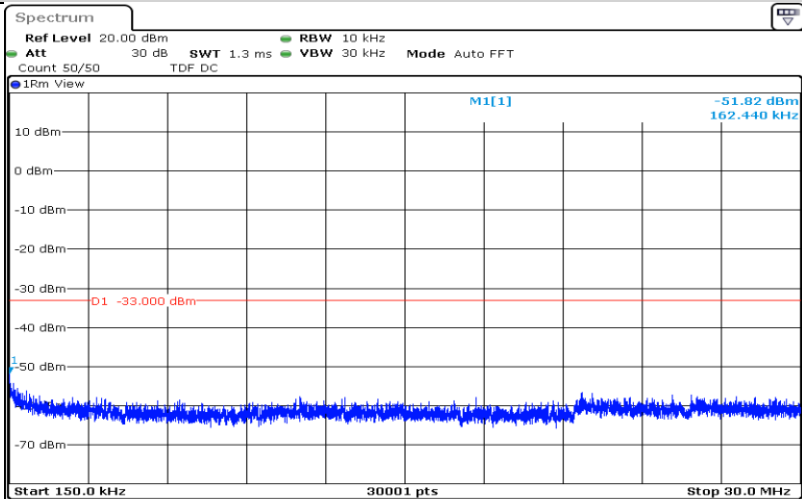
Date: 17.AUG.2020 17:22:30

Band13-5MHz-QPSK-23255-1RB#0-Range1:0.009~0.15MHz



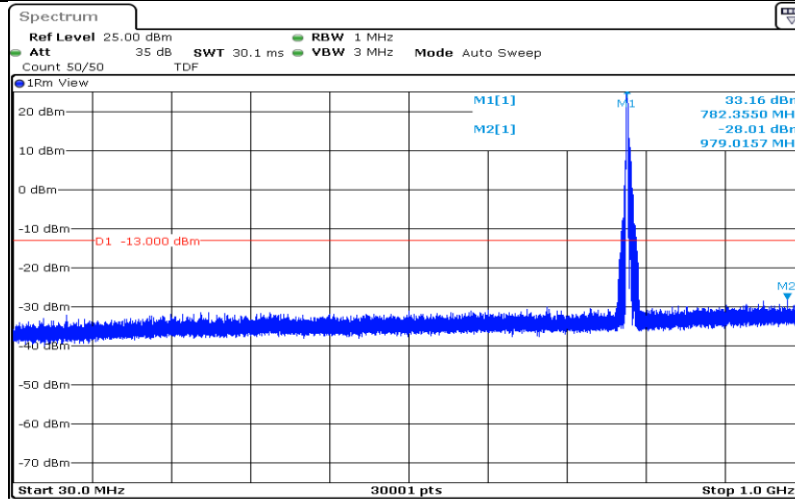
Date: 17.AUG.2020 17:24:11

Band13-5MHz-QPSK-23255-1RB#0-Range2:0.15~30MHz



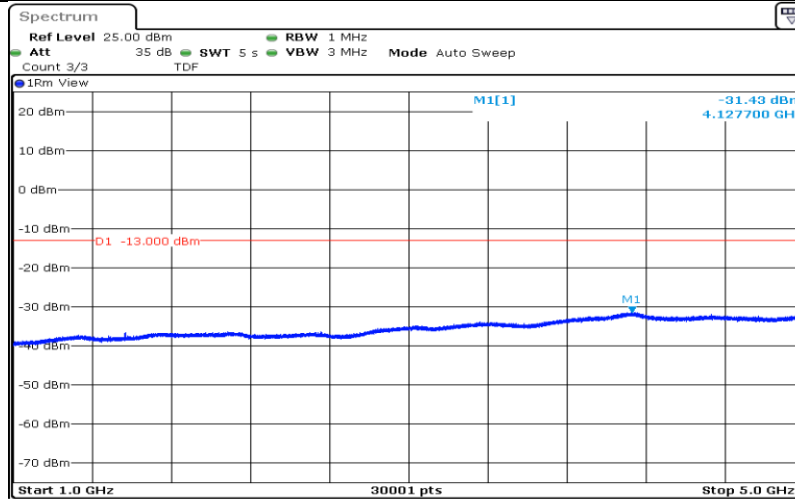
Date: 17.AUG.2020 17:24:17

Band13-5MHz-QPSK-23255-1RB#0-Range3:30~1000MHz



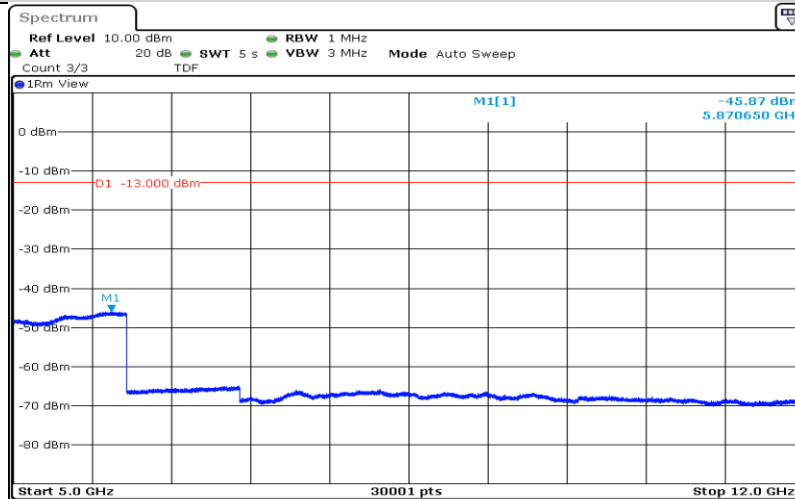
Date: 17.AUG.2020 17:24:26

Band13-5MHz-QPSK-23255-1RB#0-Range4:1000~5000MHz



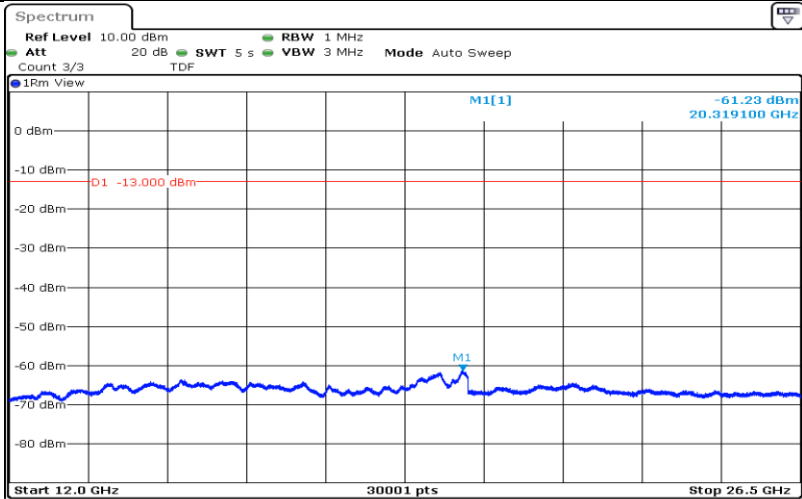
Date: 17.AUG.2020 17:24:49

Band13-5MHz-QPSK-23255-1RB#0-Range5:5000~12000MHz



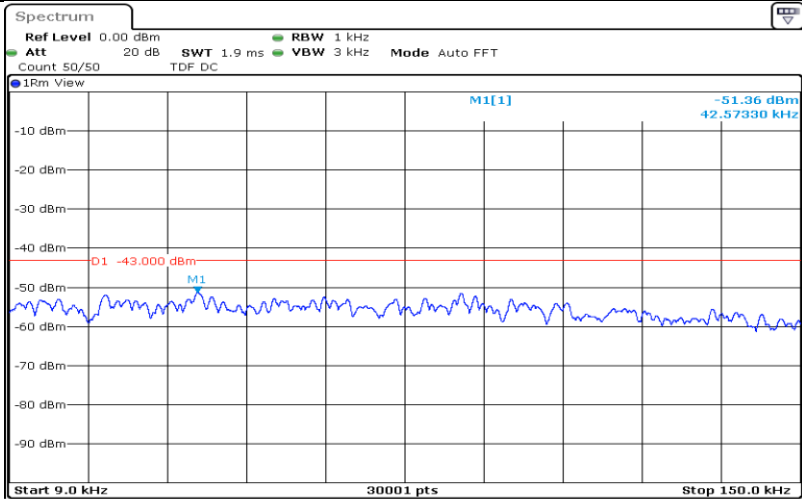
Date: 17.AUG.2020 17:25:12

Band13-5MHz-QPSK-23255-1RB#0-Range6:12000~26500MHz



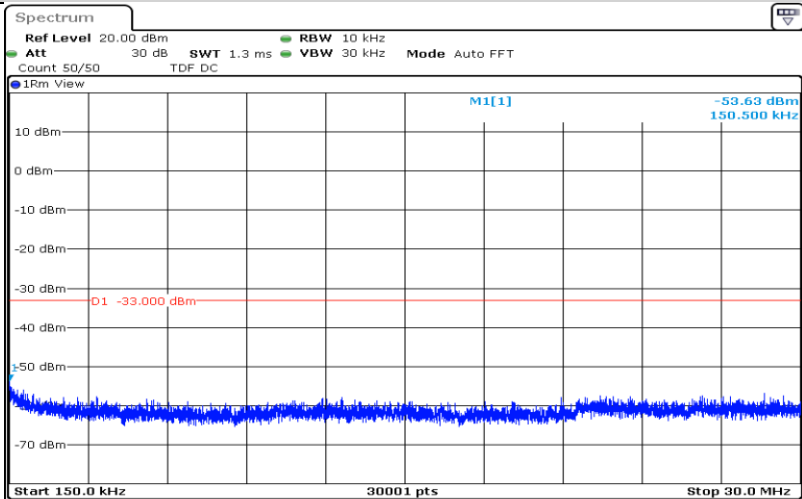
Date: 17.AUG.2020 17:25:35

Band13-5MHz-16QAM-23205-1RB#0-Range1:0.009~0.15MHz



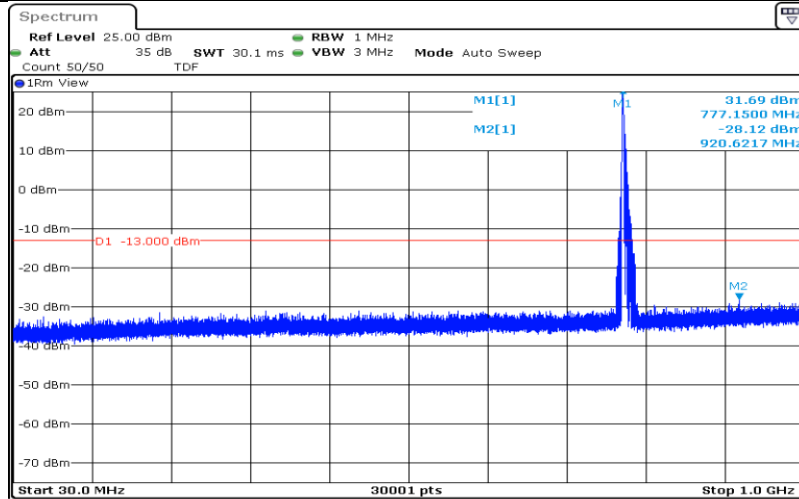
Date: 17.AUG.2020 17:19:33

Band13-5MHz-16QAM-23205-1RB#0-Range2:0.15~30MHz



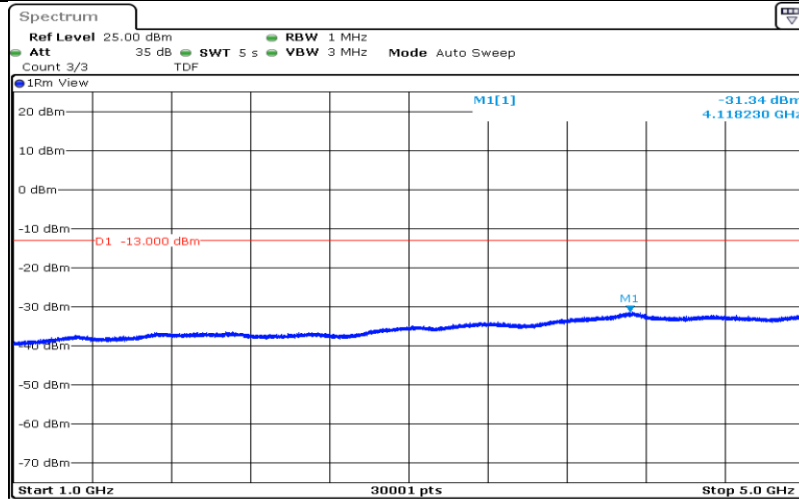
Date: 17.AUG.2020 17:19:39

Band13-5MHz-16QAM-23205-1RB#0-Range3:30~1000MHz



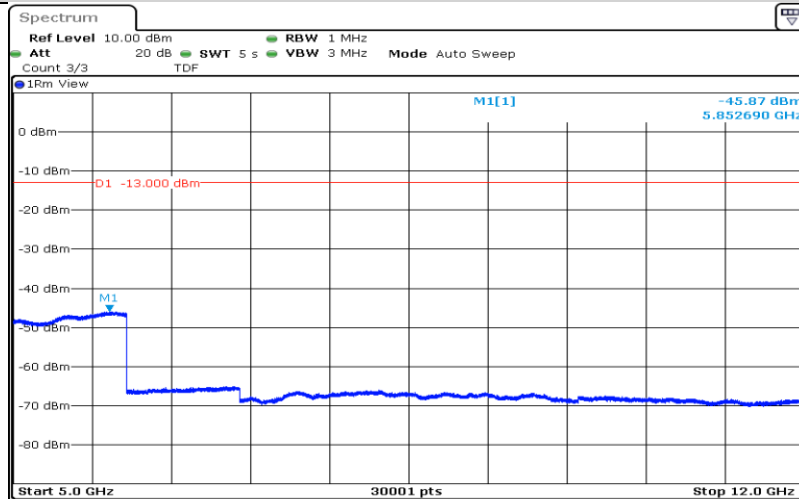
Date: 17.AUG.2020 17:19:48

Band13-5MHz-16QAM-23205-1RB#0-Range4:1000~5000MHz



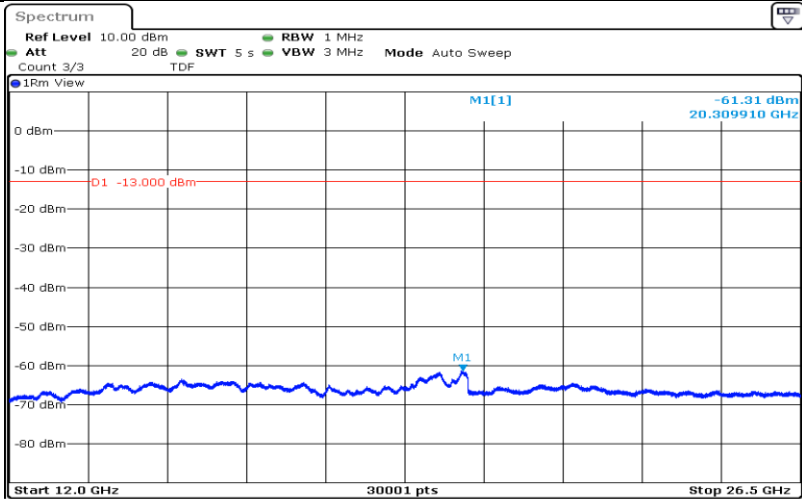
Date: 17.AUG.2020 17:20:11

Band13-5MHz-16QAM-23205-1RB#0-Range5:5000~12000MHz



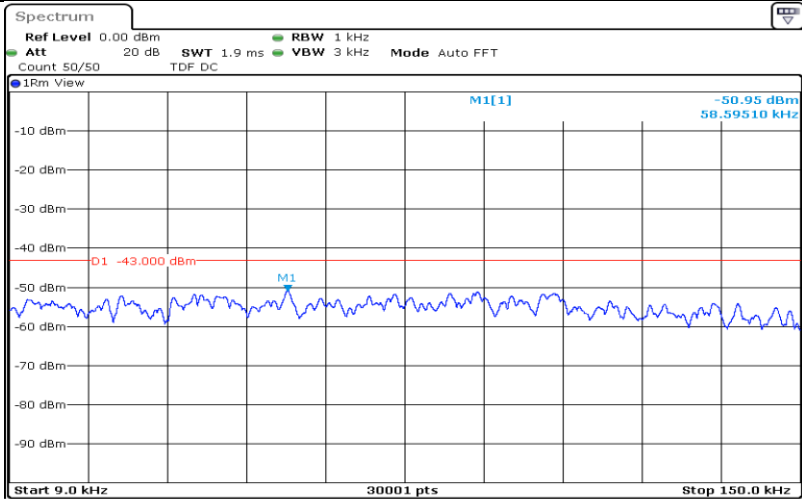
Date: 17.AUG.2020 17:20:34

Band13-5MHz-16QAM-23205-1RB#0-Range6:12000~26500MHz



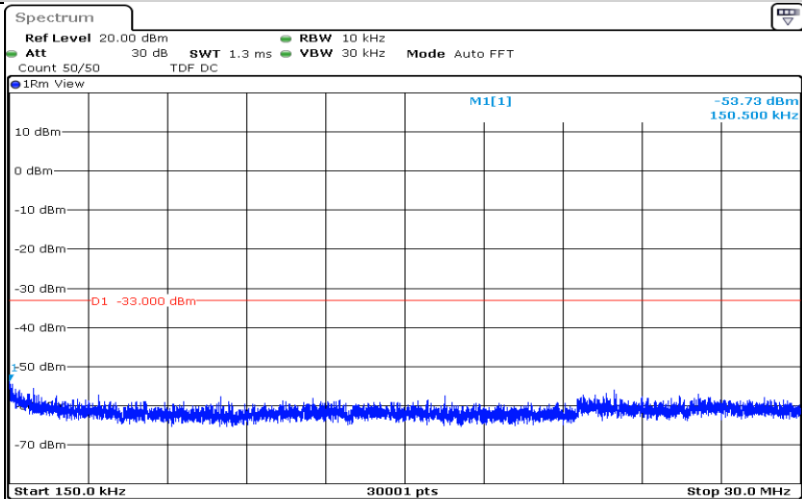
Date: 17.AUG.2020 17:20:57

Band13-5MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz



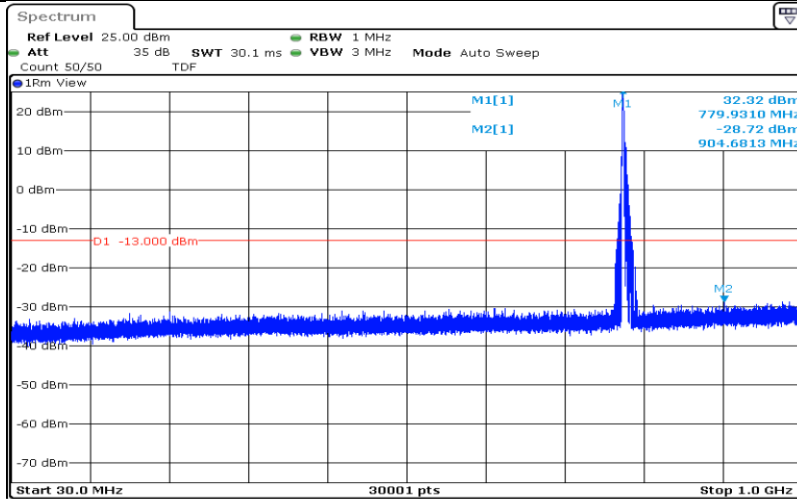
Date: 17.AUG.2020 17:22:38

Band13-5MHz-16QAM-23230-1RB#0-Range2:0.15~30MHz



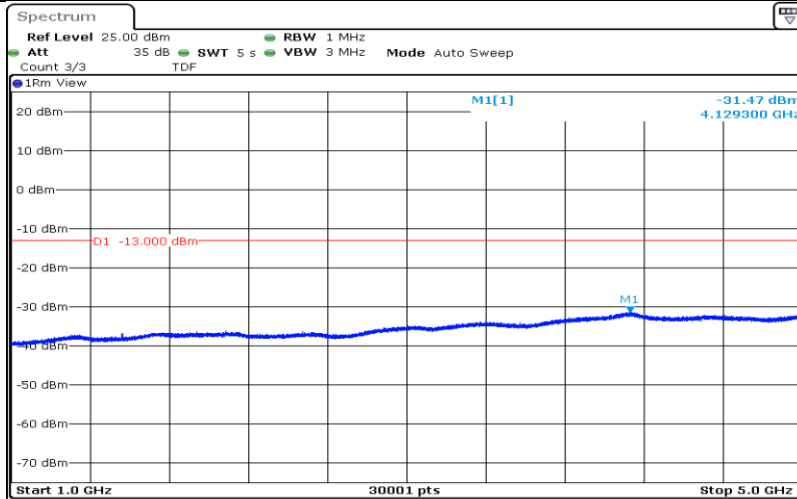
Date: 17.AUG.2020 17:22:44

Band13-5MHz-16QAM-23230-1RB#0-Range3:30~1000MHz



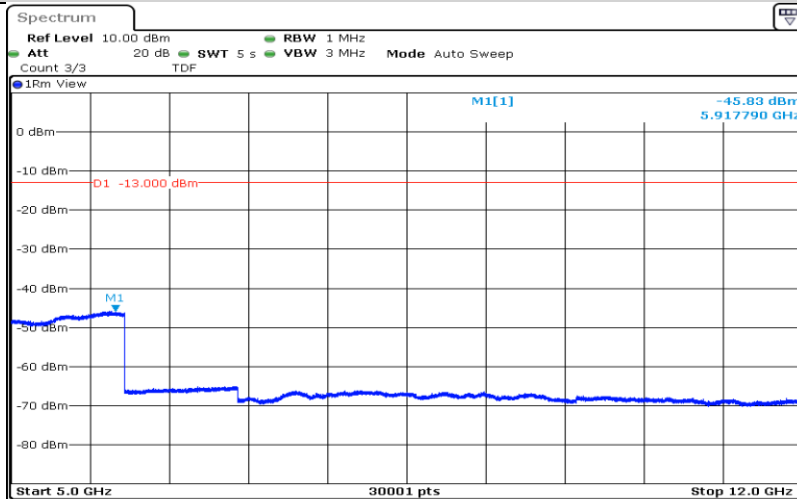
Date: 17.AUG.2020 17:22:53

Band13-5MHz-16QAM-23230-1RB#0-Range4:1000~5000MHz



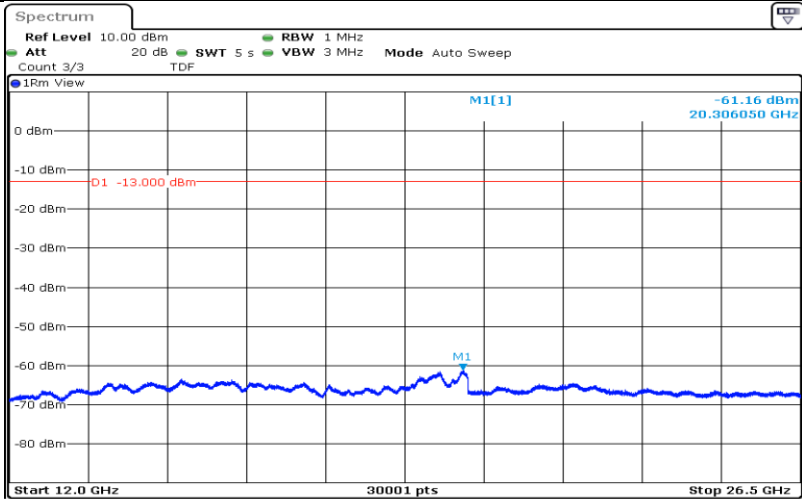
Date: 17.AUG.2020 17:23:16

Band13-5MHz-16QAM-23230-1RB#0-Range5:5000~12000MHz



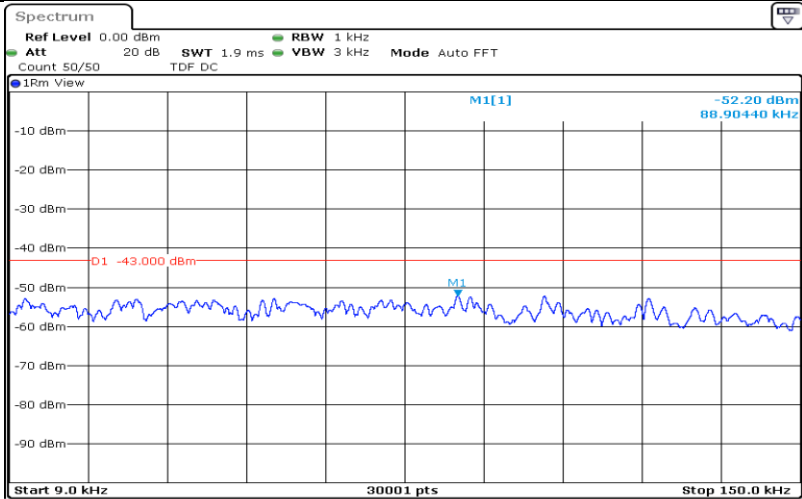
Date: 17.AUG.2020 17:23:39

Band13-5MHz-16QAM-23230-1RB#0-Range6:12000~26500MHz



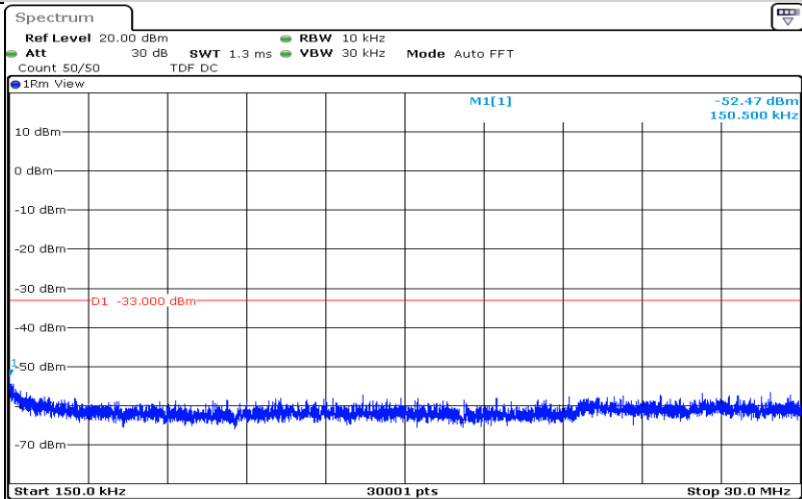
Date: 17.AUG.2020 17:24:02

Band13-5MHz-16QAM-23255-1RB#0-Range1:0.009~0.15MHz



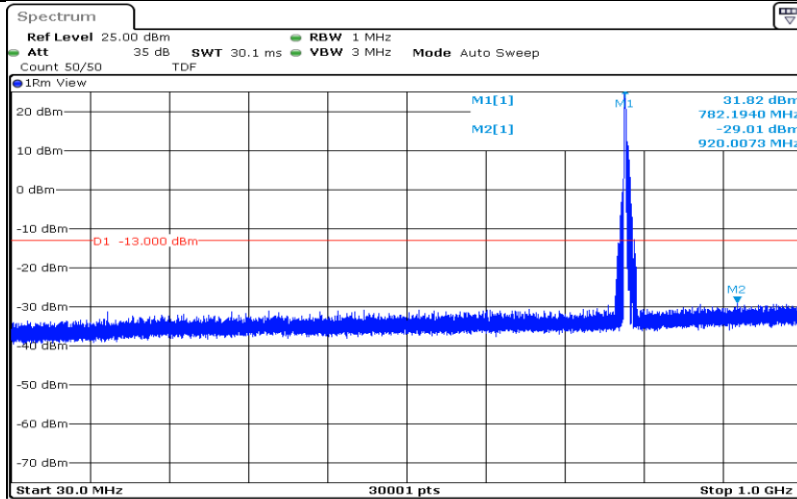
Date: 17.AUG.2020 17:25:43

Band13-5MHz-16QAM-23255-1RB#0-Range2:0.15~30MHz



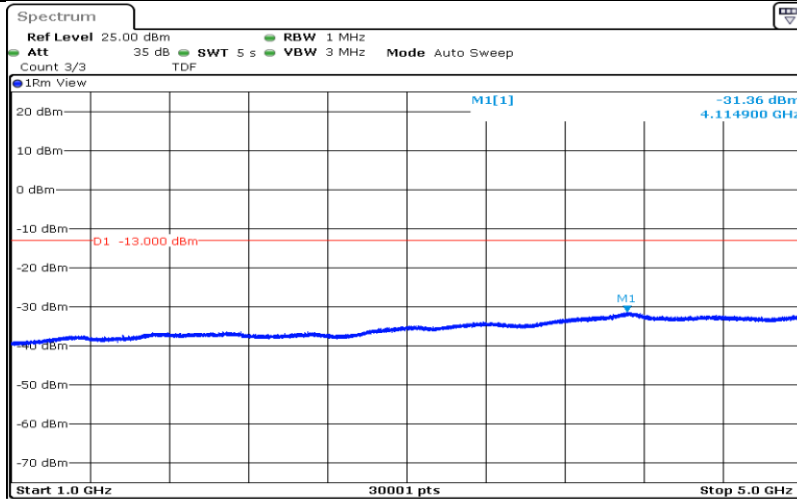
Date: 17.AUG.2020 17:25:49

Band13-5MHz-16QAM-23255-1RB#0-Range3:30~1000MHz



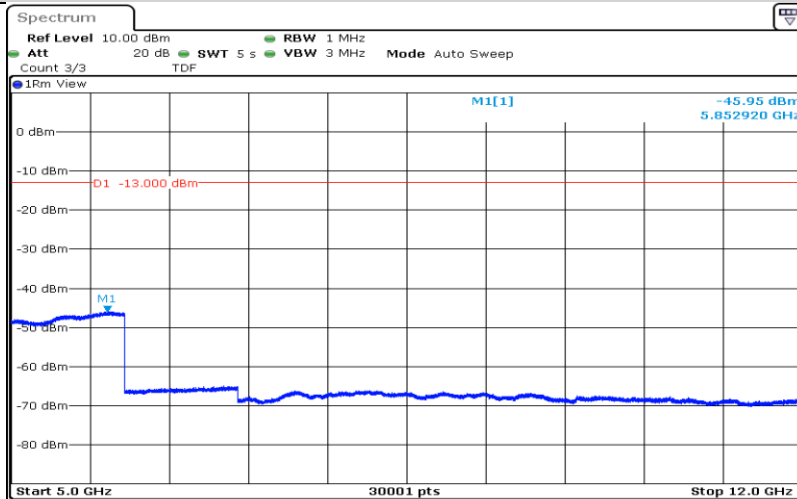
Date: 17.AUG.2020 17:25:58

Band13-5MHz-16QAM-23255-1RB#0-Range4:1000~5000MHz



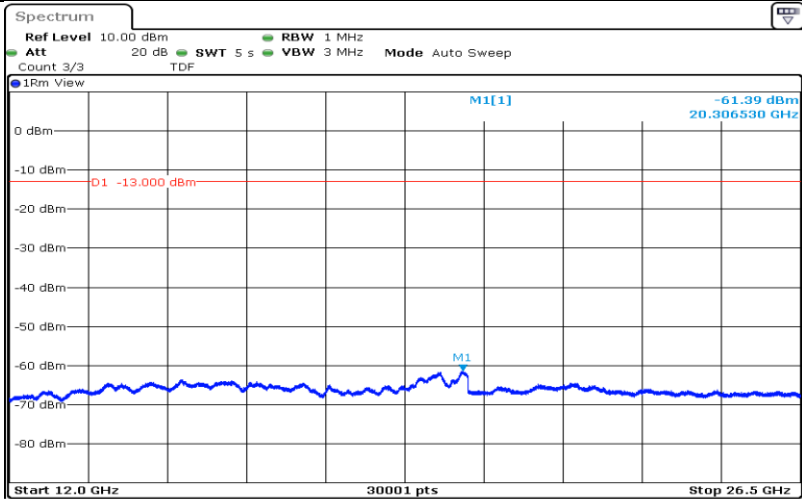
Date: 17.AUG.2020 17:26:21

Band13-5MHz-16QAM-23255-1RB#0-Range5:5000~12000MHz



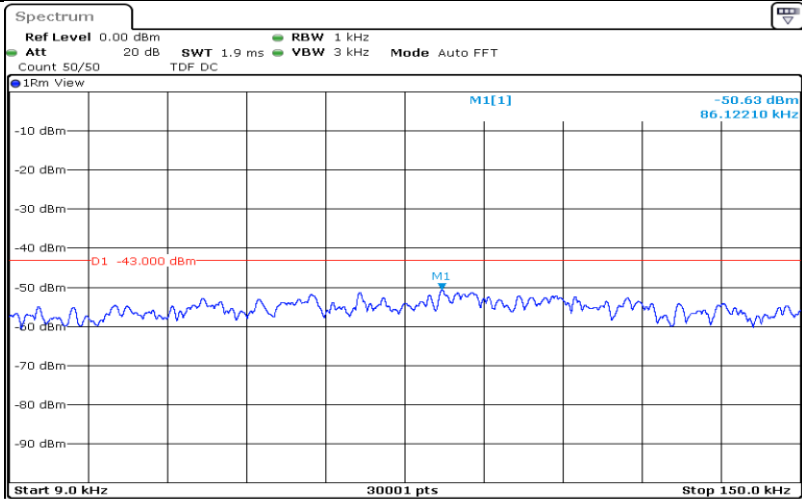
Date: 17.AUG.2020 17:26:44

Band13-5MHz-16QAM-23255-1RB#0-Range6:12000~26500MHz



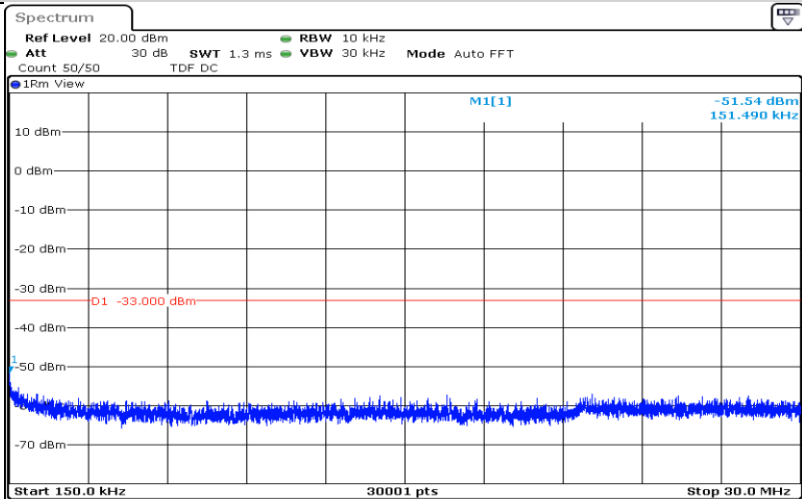
Date: 17.AUG.2020 17:27:07

Band13-10MHz-QPSK-23230-1RB#0-Range1:0.009~0.15MHz



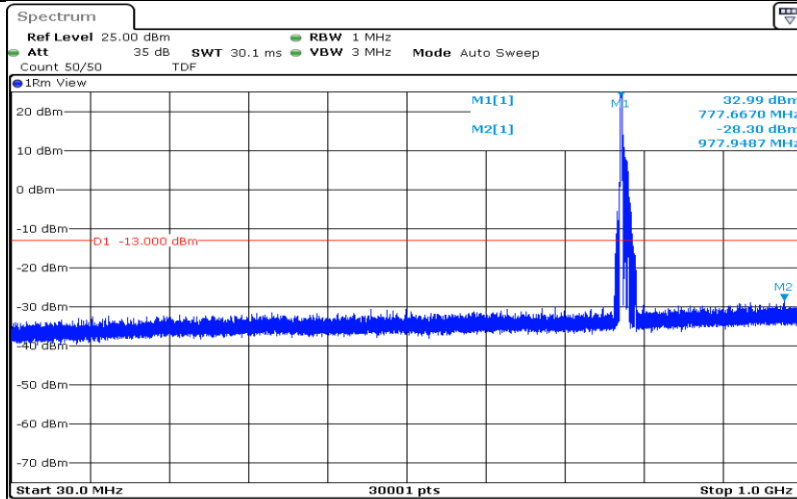
Date: 17.AUG.2020 17:46:24

Band13-10MHz-QPSK-23230-1RB#0-Range2:0.15~30MHz



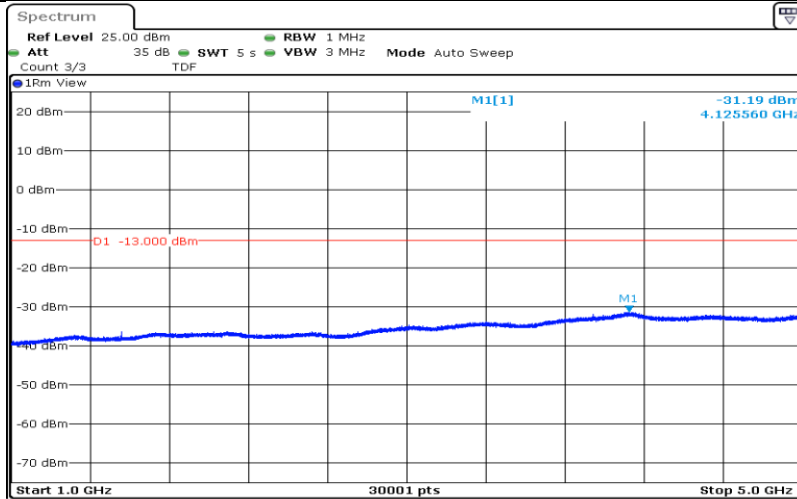
Date: 17.AUG.2020 17:46:31

Band13-10MHz-QPSK-23230-1RB#0-Range3:30~100MHz



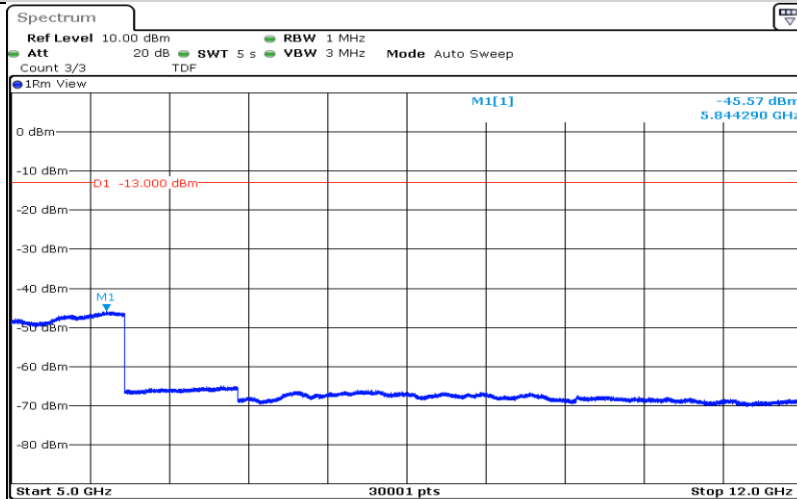
Date: 17.AUG.2020 17:46:40

Band13-10MHz-QPSK-23230-1RB#0-Range4:1000~5000MHz



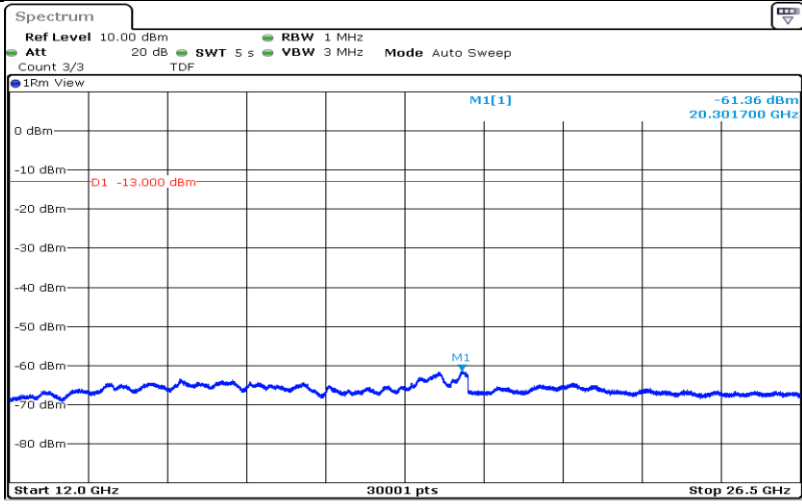
Date: 17.AUG.2020 17:47:03

Band13-10MHz-QPSK-23230-1RB#0-Range5:5000~12000MHz



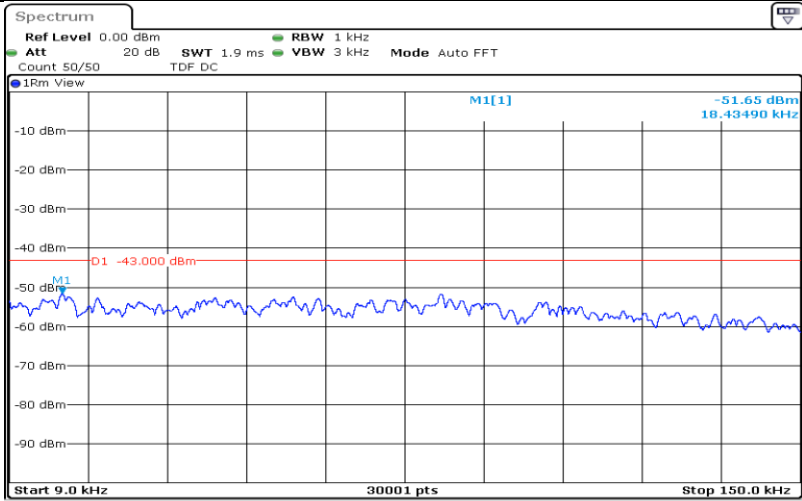
Date: 17.AUG.2020 17:47:25

Band13-10MHz-QPSK-23230-1RB#0-Range6:12000~26500MHz



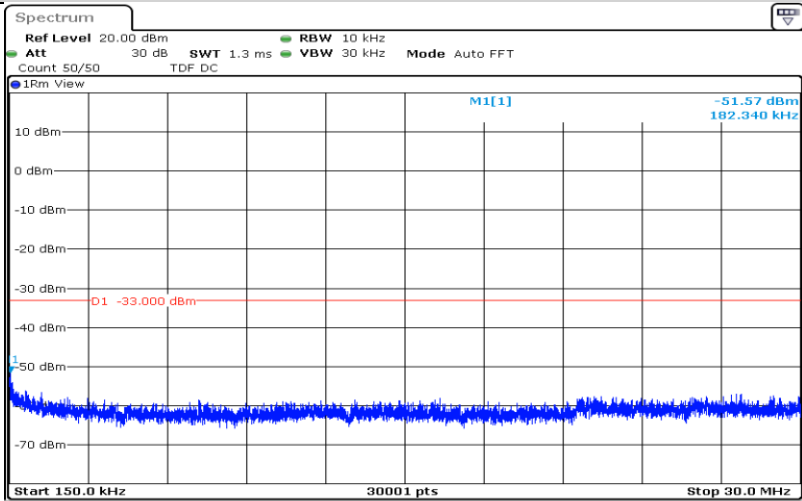
Date: 17.AUG.2020 17:47:48

Band13-10MHz-16QAM-23230-1RB#0-Range1:0.009~0.15MHz



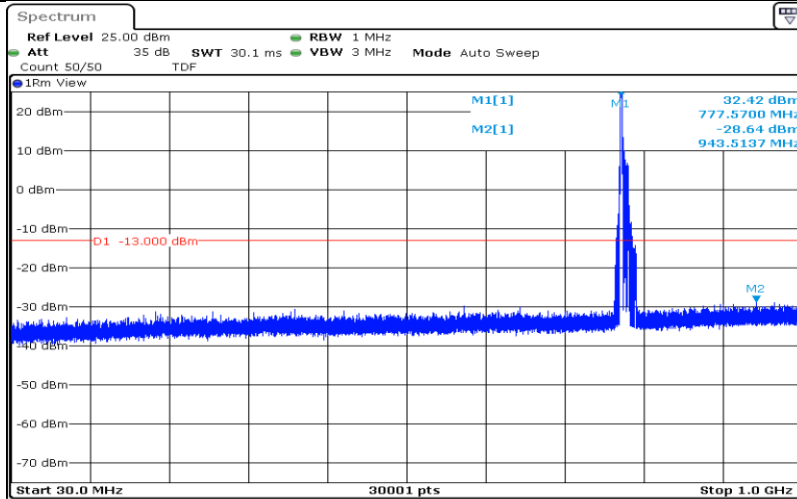
Date: 17.AUG.2020 17:47:56

Band13-10MHz-16QAM-23230-1RB#0-Range2:0.15~30MHz



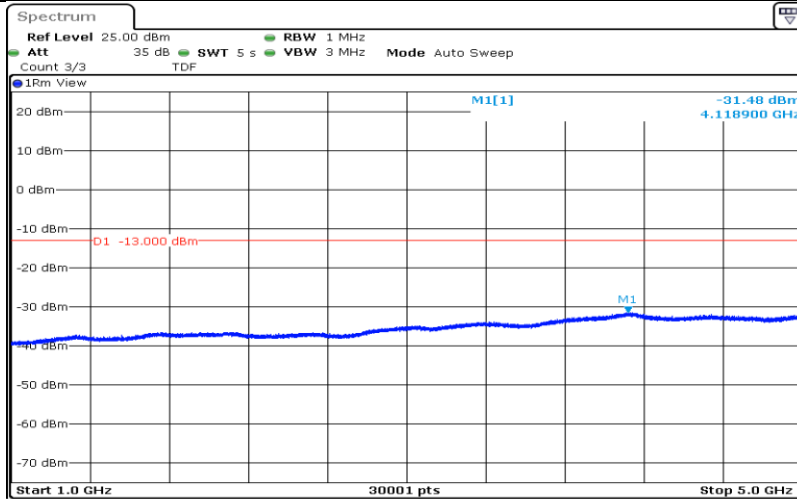
Date: 17.AUG.2020 17:48:02

Band13-10MHz-16QAM-23230-1RB#0-Range3:30~100MHz



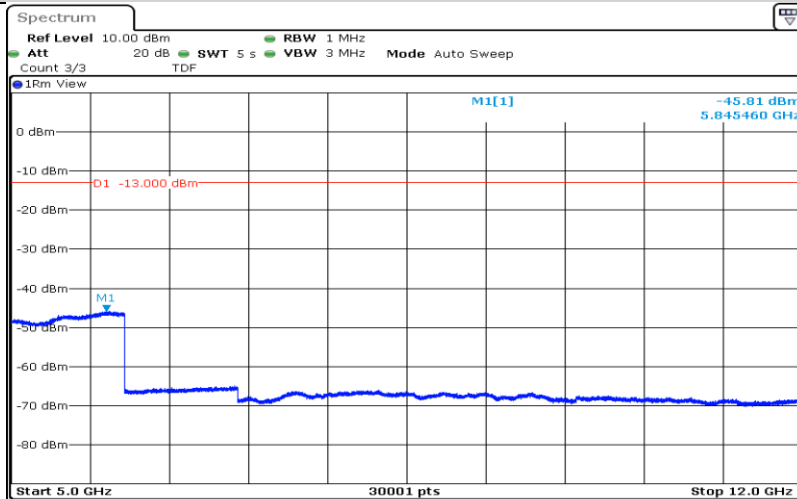
Date: 17.AUG.2020 17:48:11

Band13-10MHz-16QAM-23230-1RB#0-Range4:1000~5000MHz



Date: 17.AUG.2020 17:48:34

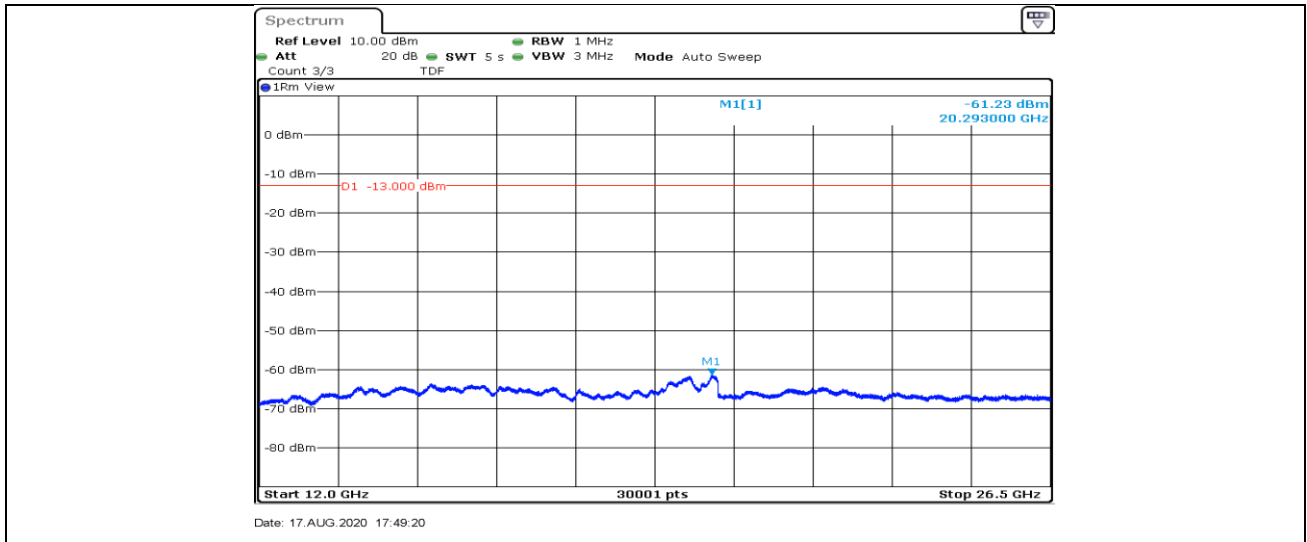
Band13-10MHz-16QAM-23230-1RB#0-Range5:5000~12000MHz



Date: 17.AUG.2020 17:48:57

Band13-10MHz-16QAM-23230-1RB#0-Range6:12000~26500MHz

Total Quality. Assured.



Appendix G Field Strength of Spurious Radiation

The transmitting equipment under test (EUT) is placed on a styrene turntable which is four feet in diameter and approximately 0.8 meter up to 1GHz and 1.5 meter above 1GHz in height above the ground plane. During the radiated emissions test, the turntable is rotated and any cables leaving the EUT are manipulated to find the configuration resulting in maximum emissions. The EUT is adjusted through all three orthogonal axes to obtain maximum emission levels. The antenna height and polarization are varied during the testing to search for maximum signal levels.

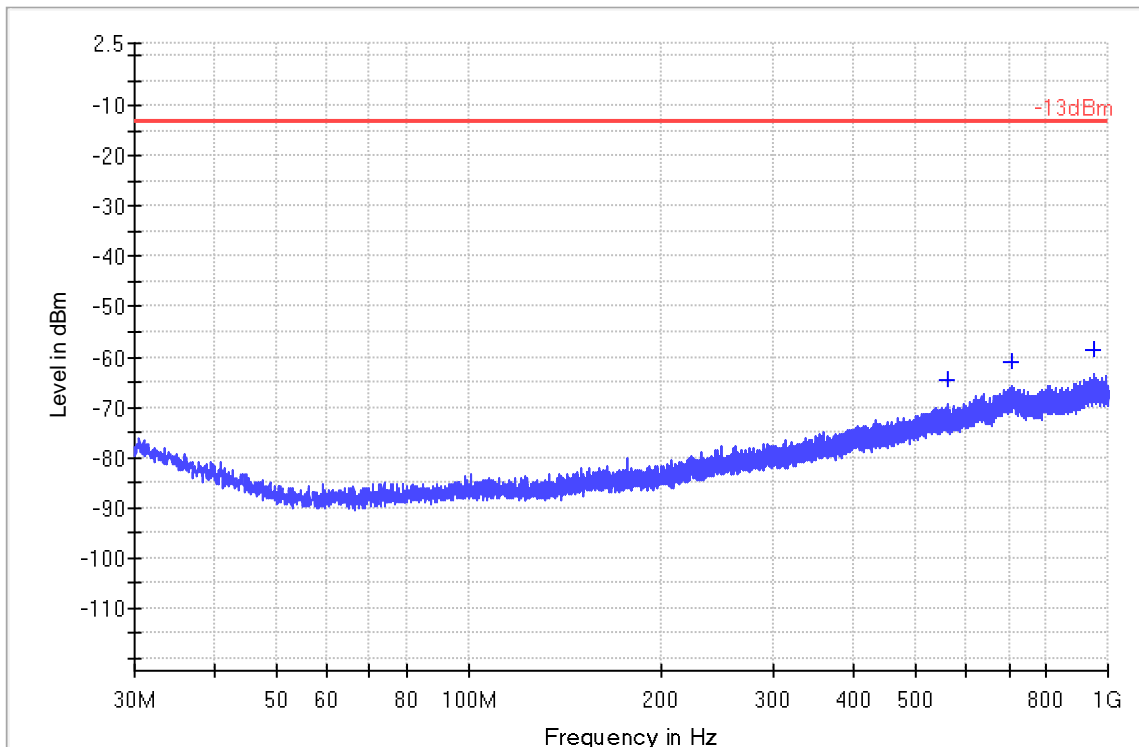
The frequency range scanned is from the lowest radio frequency signal generated in the device which is greater than 9 kHz to the tenth harmonic of the highest fundamental frequency or 40 GHz, whichever is lower. The emissions were very low against the limit in the frequency range 9kHz to 30MHz.

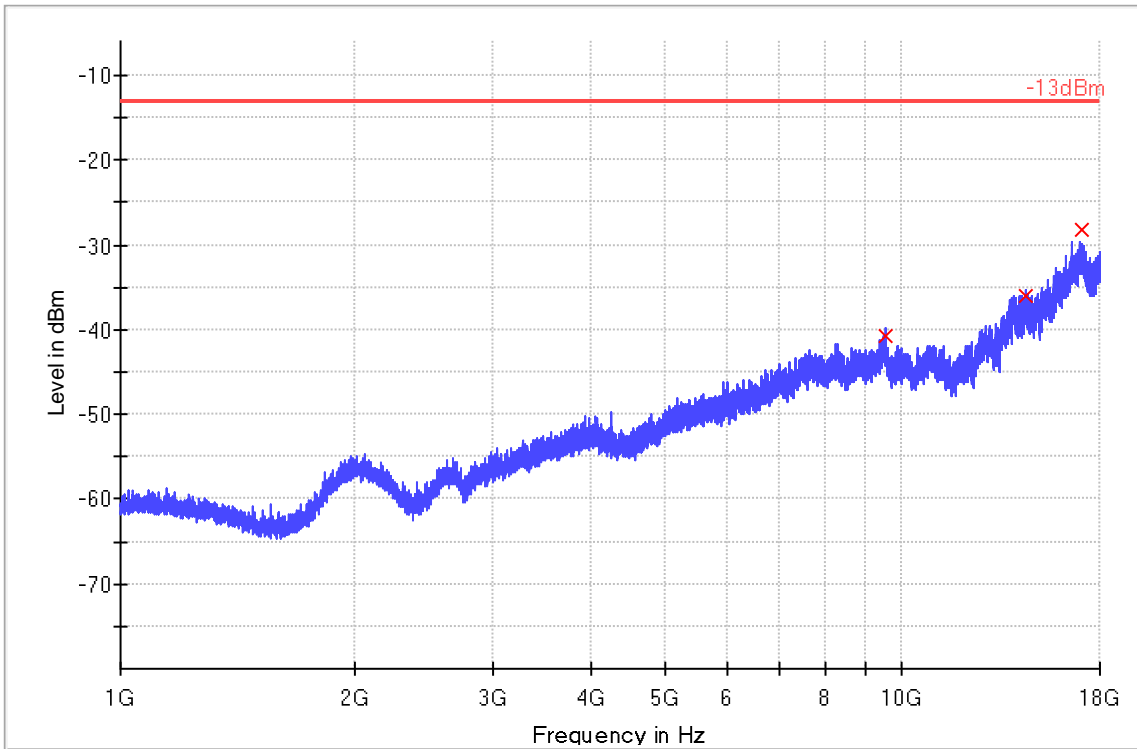
Note: We tested all modes, but the data presented below is the worst case.

- 9kHz~150kHz, VBW = 200Hz, VBW = 600 Hz, Detector: PK
- 150kHz~30MHz, VBW = 9kHz, VBW = 30k Hz, Detector: PK
- 30MHz~1GHz, RBW = 100 kHz, VBW = 300 kHz. Detector: PK
- Above 1GHz, RBW = 1 MHz, VBW = 3 MHz. Detector: PK

Test Plots

Test Band = BAND13
Worst Test Bandwidth = 10MHz





Appendix H: Frequency Stability

Test Result

Frequency Error vs. Voltage:

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	VL	NT	16.34	0.020962	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	VN	NT	20.10	0.025786	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	VH	NT	11.53	0.014792	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VL	NT	15.08	0.019284	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VN	NT	13.82	0.017673	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	VH	NT	10.59	0.013542	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VL	NT	15.69	0.020000	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VN	NT	12.96	0.016520	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	VH	NT	10.20	0.013002	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VL	NT	6.38	0.008185	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VN	NT	-9.84	-0.012623	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	VH	NT	15.08	0.019346	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VL	NT	-5.92	-0.007570	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VN	NT	-10.63	-0.013593	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	VH	NT	9.67	0.012366	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VL	NT	-7.85	-0.010006	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VN	NT	-16.79	-0.021402	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	VH	NT	5.51	0.007024	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VL	NT	7.98	0.010205	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VN	NT	14.16	0.018107	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	VH	NT	-7.37	-0.009425	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VL	NT	-8.67	-0.011087	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VN	NT	-15.82	-0.020230	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	VH	NT	11.33	0.014488	±2.5	PASS

Frequency Error vs. Temperature:

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	NV	-20	4.19	0.005375	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	0	-4.56	-0.005850	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	20	-6.32	-0.008108	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	40	-8.20	-0.010520	±2.5	PASS
Band13	5MHz	QPSK	23205	25RB#0	NV	60	-10.37	-0.013303	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	-20	5.61	0.007174	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	0	-5.26	-0.006726	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	20	-9.23	-0.011803	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	40	-10.50	-0.013427	±2.5	PASS
Band13	5MHz	QPSK	23230	25RB#0	NV	60	-11.12	-0.014220	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	-20	7.48	0.009535	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	0	-5.12	-0.006526	±2.5	PASS

Total Quality. Assured.

Band13	5MHz	QPSK	23255	25RB#0	NV	20	-8.37	-0.010669	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	40	-12.12	-0.015449	±2.5	PASS
Band13	5MHz	QPSK	23255	25RB#0	NV	60	-14.10	-0.017973	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	-20	23.25	0.029827	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	0	34.88	0.044747	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	20	37.25	0.047787	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	40	41.61	0.053380	±2.5	PASS
Band13	5MHz	16QAM	23205	25RB#0	NV	60	46.72	0.059936	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	-20	15.05	0.019246	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	0	20.99	0.026841	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	20	24.25	0.031010	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	40	28.61	0.036586	±2.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	NV	60	32.94	0.042123	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	-20	13.72	0.017489	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	0	23.69	0.030198	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	20	29.85	0.038050	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	40	36.91	0.047049	±2.5	PASS
Band13	5MHz	16QAM	23255	25RB#0	NV	60	44.67	0.056941	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	-20	-8.77	-0.011215	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	0	-7.80	-0.009974	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	20	-12.60	-0.016113	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	40	-14.92	-0.019079	±2.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	NV	60	-15.13	-0.019348	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	-20	18.87	0.024130	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	0	22.00	0.028133	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	20	26.08	0.033350	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	40	31.30	0.040026	±2.5	PASS
Band13	10MHz	16QAM	23230	50RB#0	NV	60	34.19	0.043721	±2.5	PASS

 END