

# FCC LTE Band13 Test Data

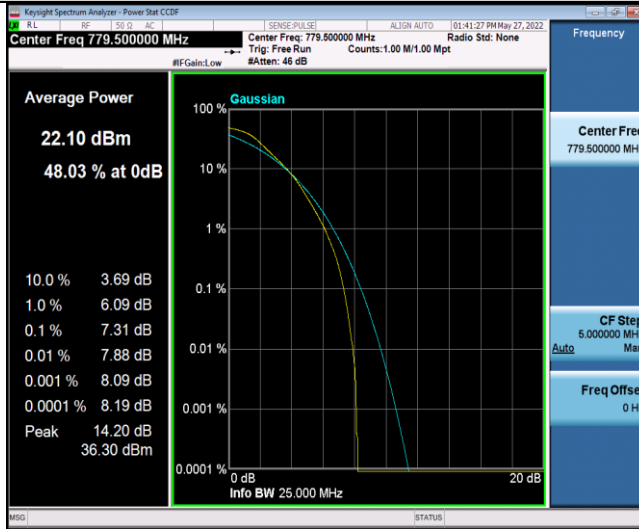
## Appendix B: Peak-to-Average Ratio(CCDF)

### Test Result

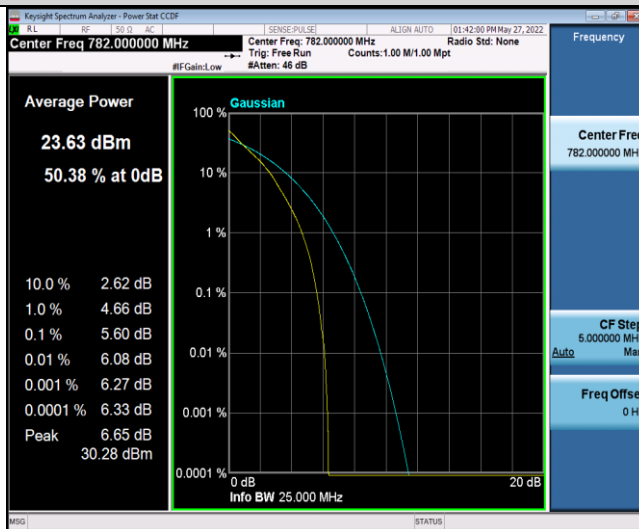
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	7.31	13	PASS
Band13	5MHz	QPSK	23230	25RB#0	5.60	13	PASS
Band13	5MHz	QPSK	23255	25RB#0	5.36	13	PASS
Band13	5MHz	16QAM	23205	25RB#0	6.91	13	PASS
Band13	5MHz	16QAM	23230	25RB#0	7.40	13	PASS
Band13	5MHz	16QAM	23255	25RB#0	7.38	13	PASS
Band13	10MHz	QPSK	23230	50RB#0	5.43	13	PASS
Band13	10MHz	16QAM	23230	50RB#0	7.54	13	PASS

### Test Graphs

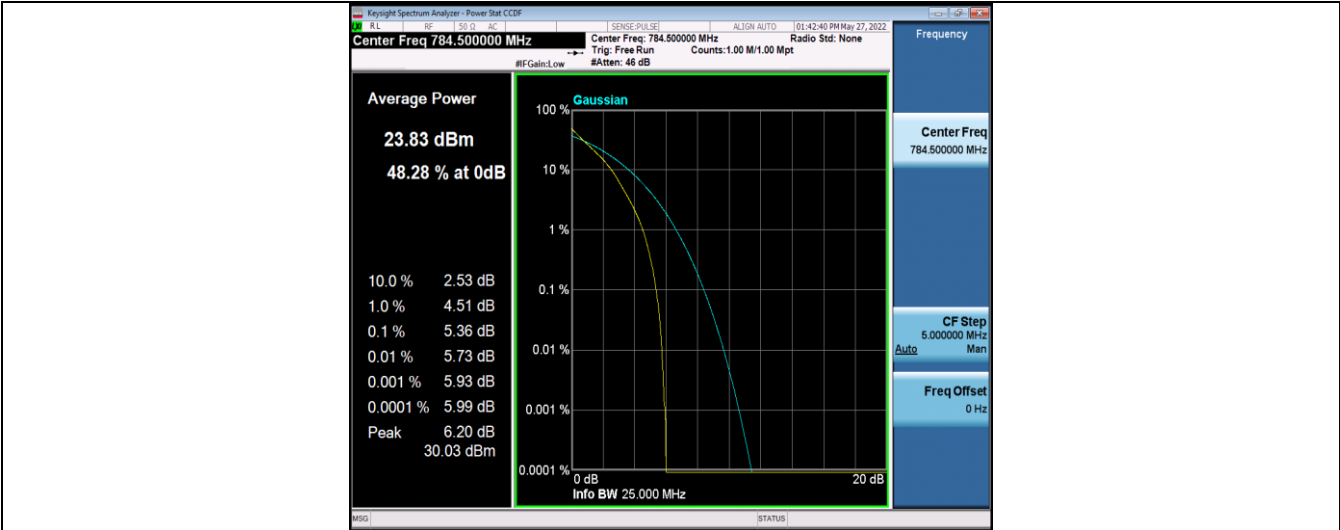
Band13-5MHz-QPSK-23205-25RB#0



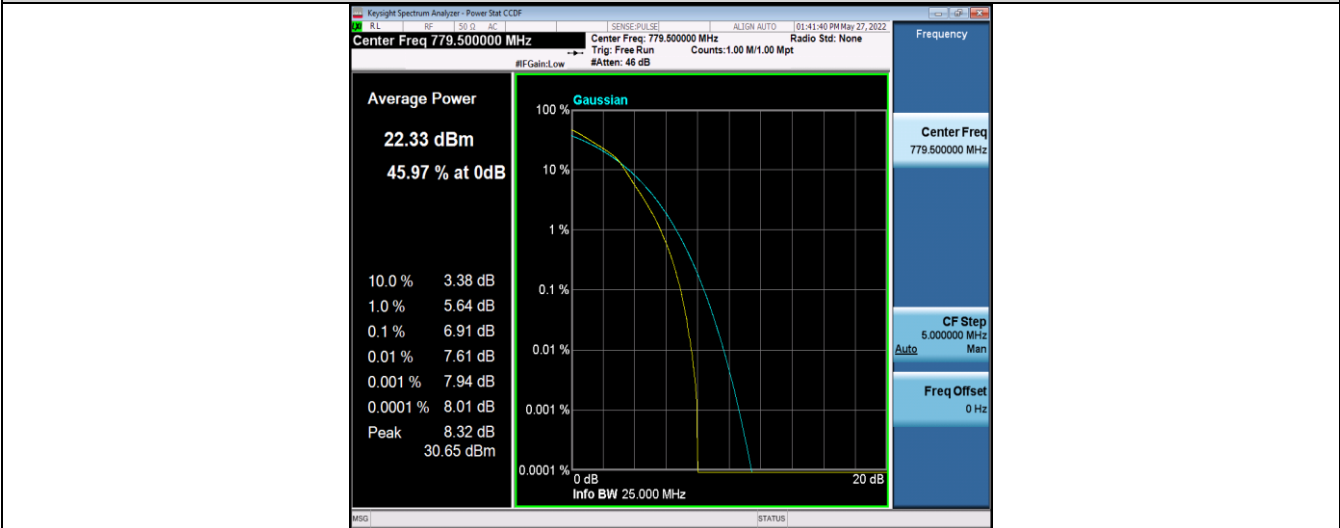
Band13-5MHz-QPSK-23230-25RB#0



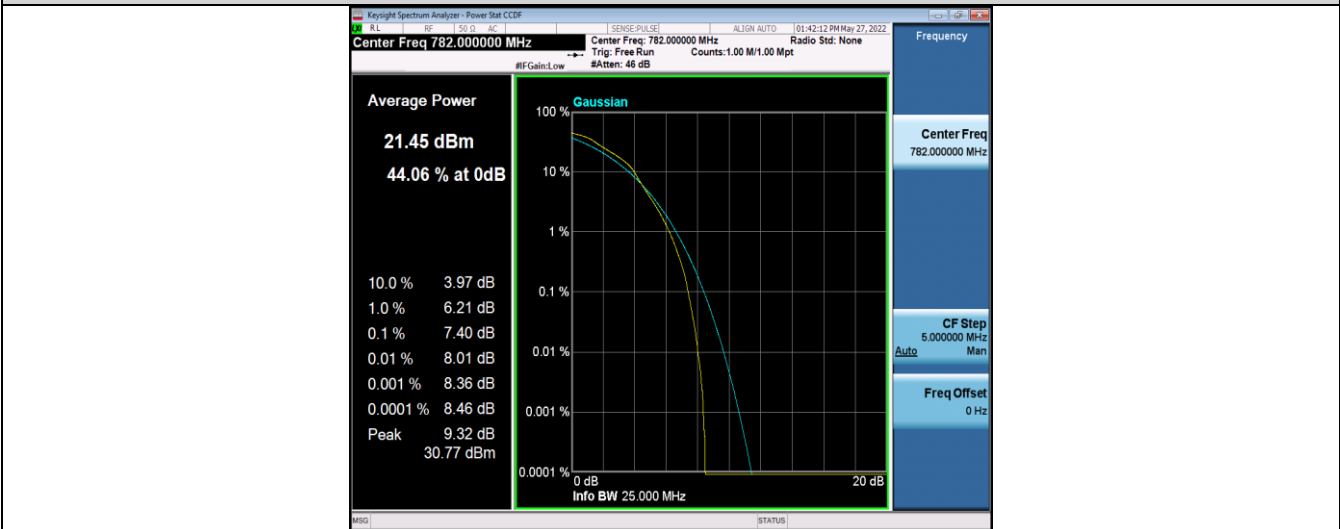
Band13-5MHz-QPSK-23255-25RB#0



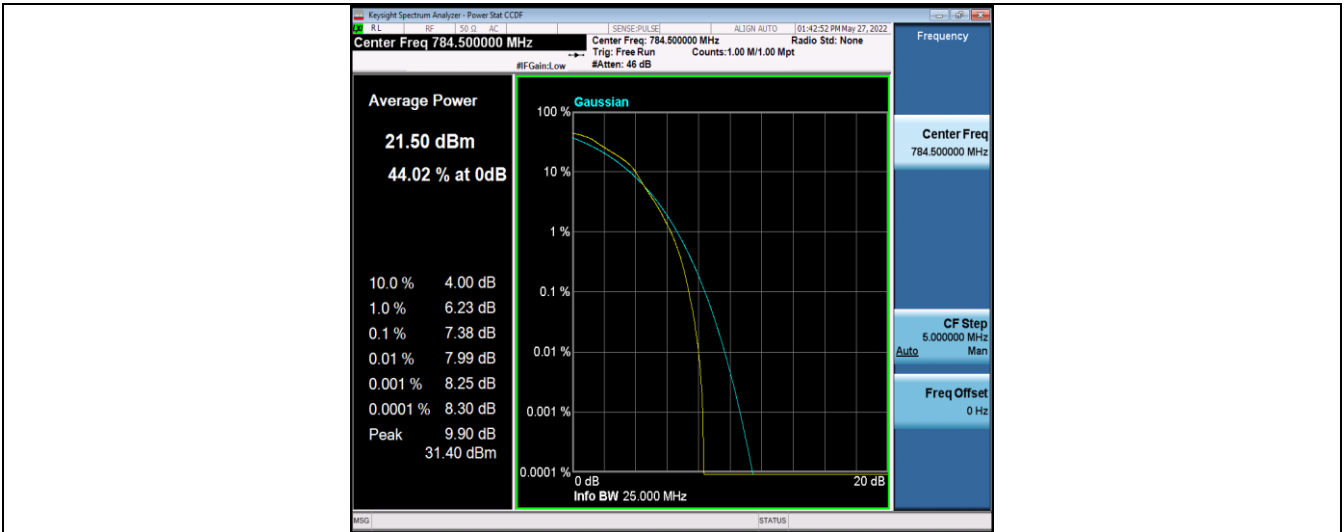
Band13-5MHz-16QAM-23205-25RB#0



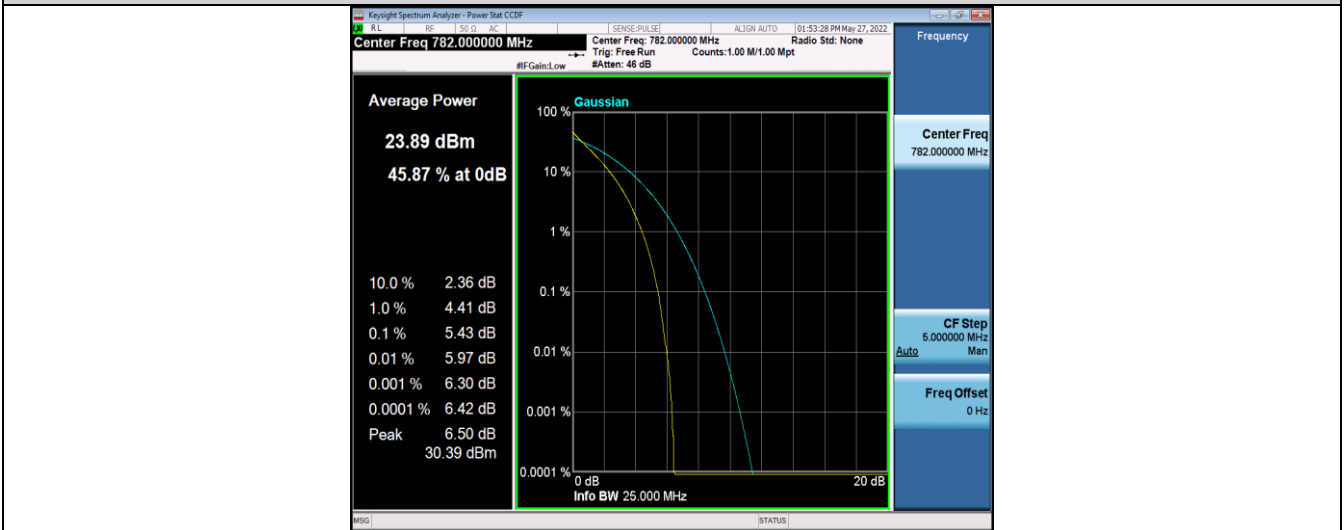
Band13-5MHz-16QAM-23230-25RB#0



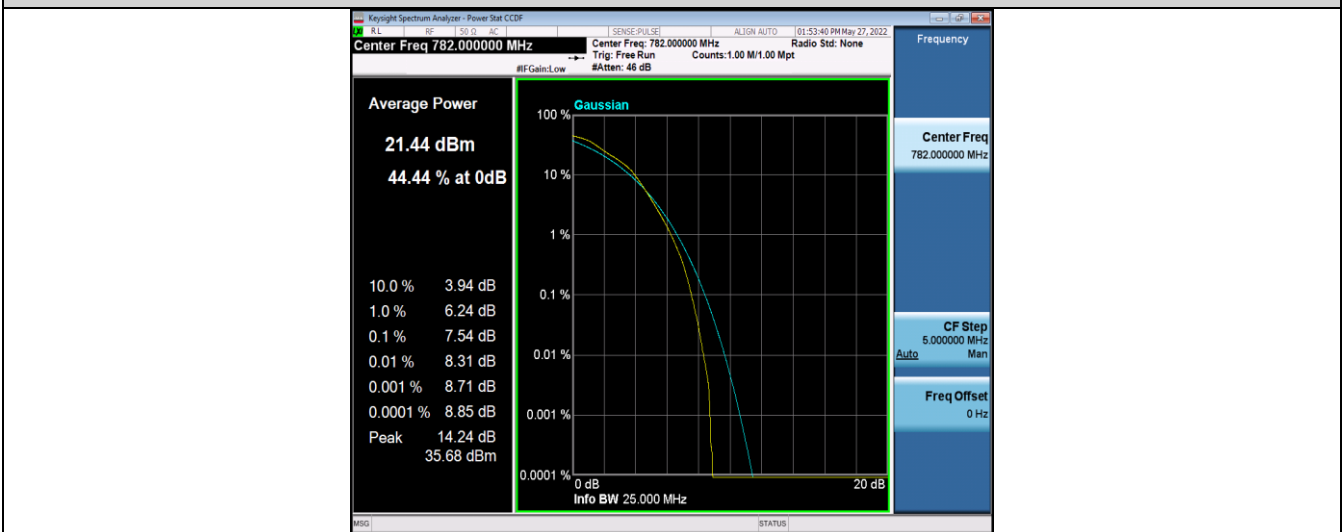
Band13-5MHz-16QAM-23255-25RB#0



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



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



### Appendix C: 26dB Bandwidth and Occupied Bandwidth

#### Test Result

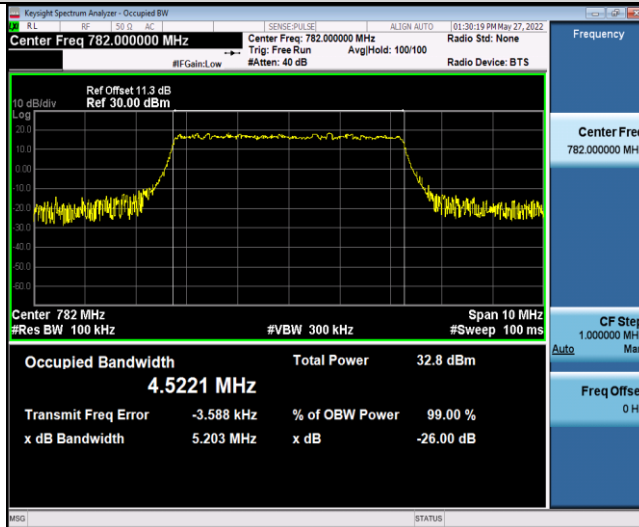
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	4.5253	5.151	PASS
Band13	5MHz	QPSK	23230	25RB#0	4.5221	5.203	PASS
Band13	5MHz	QPSK	23255	25RB#0	4.5079	5.153	PASS
Band13	5MHz	16QAM	23205	25RB#0	4.5069	5.131	PASS
Band13	5MHz	16QAM	23230	25RB#0	4.5080	5.122	PASS
Band13	5MHz	16QAM	23255	25RB#0	4.5318	5.210	PASS
Band13	10MHz	QPSK	23230	50RB#0	8.9781	10.13	PASS
Band13	10MHz	16QAM	23230	50RB#0	8.9810	10.00	PASS

### Test Graphs

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



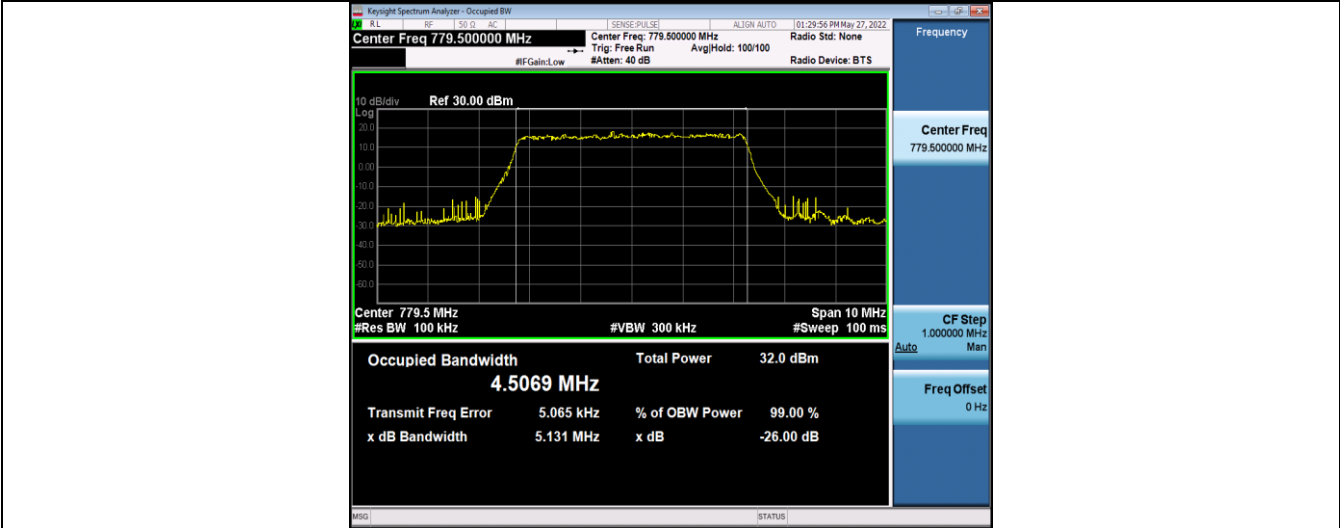
Band13-5MHz-QPSK-23230-25RB#0



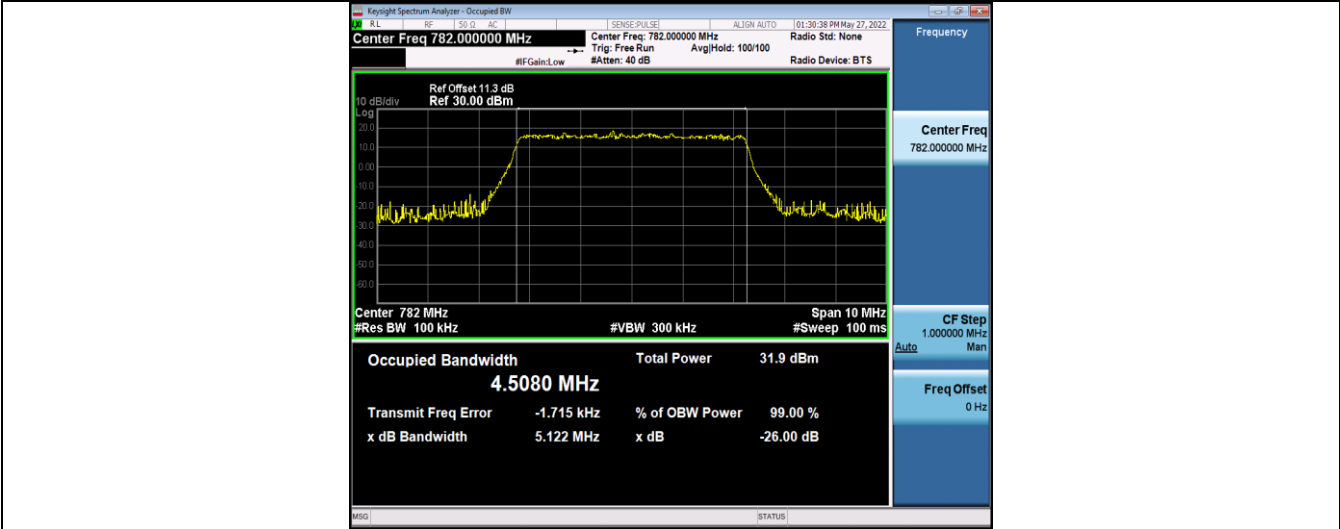
Band13-5MHz-QPSK-23255-25RB#0



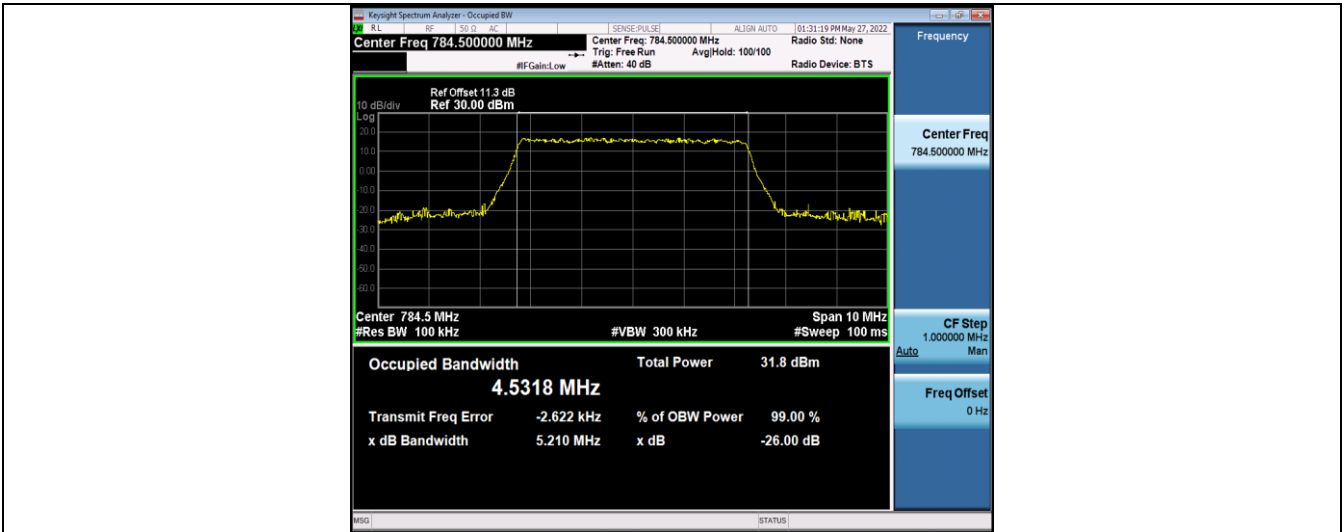
Band13-5MHz-16QAM-23205-25RB#0



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



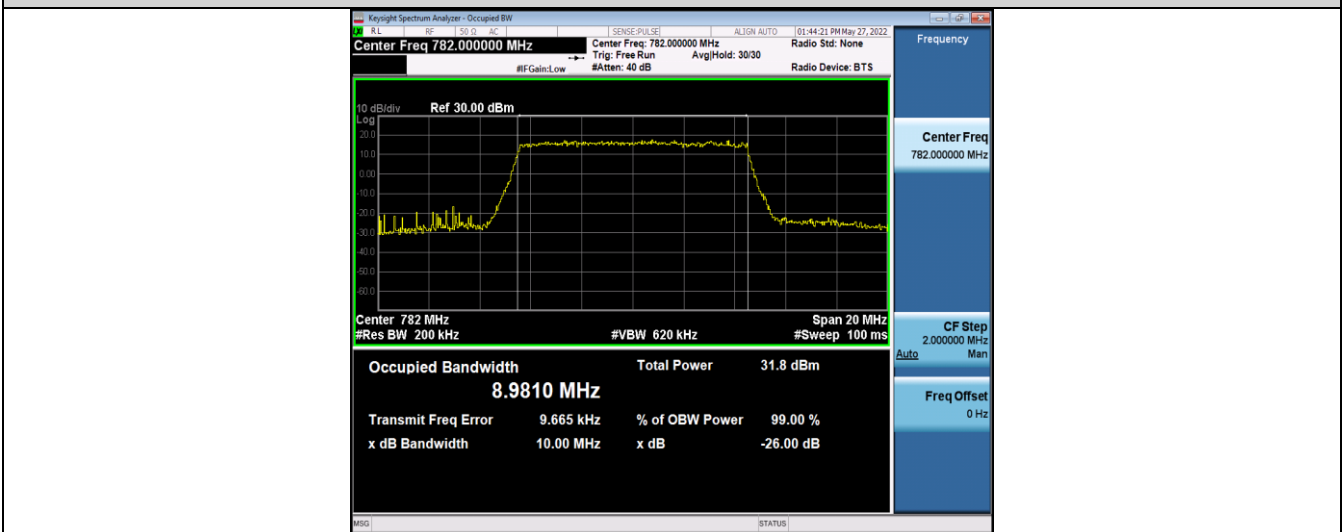
Band13-5MHz-16QAM-23255-25RB#0



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



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





# Appendix D: Band Edge

## Test Result

Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	-23.34	PASS
Band13	5MHz	QPSK	23255	25RB#0	-22.41	PASS
Band13	5MHz	16QAM	23205	25RB#0	-23.00	PASS
Band13	5MHz	16QAM	23255	25RB#0	-22.22	PASS
Band13	10MHz	QPSK	23230	50RB#0	-26.44,-28.15	PASS
Band13	10MHz	16QAM	23230	50RB#0	-29.34,-30.09	PASS

Test Graphs

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



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



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



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



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



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



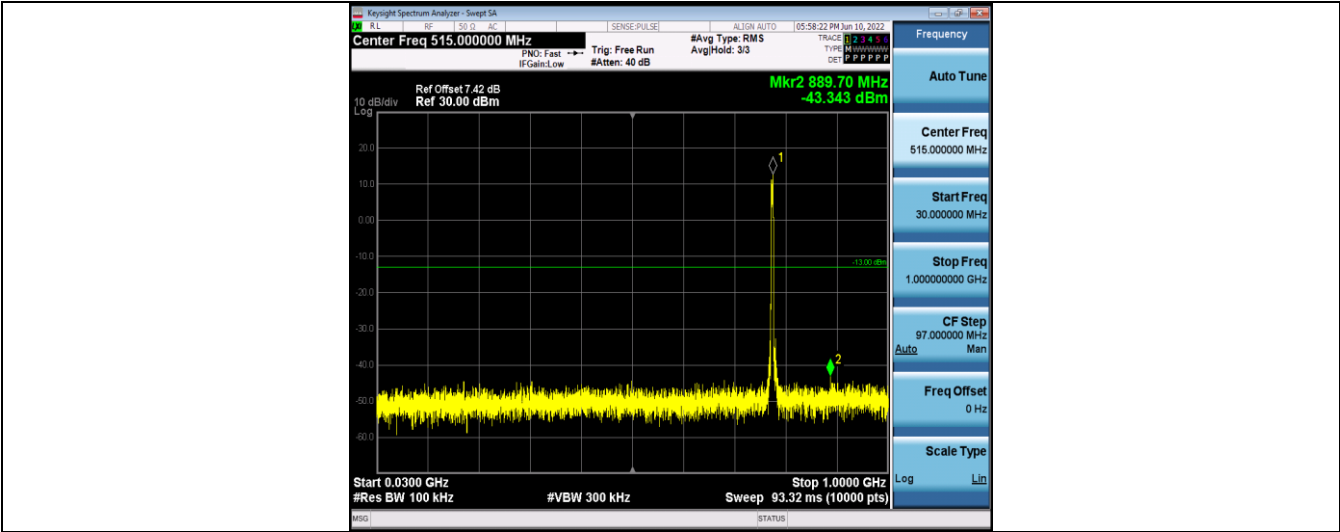
## Appendix E: Conducted Spurious Emission

### Test Result

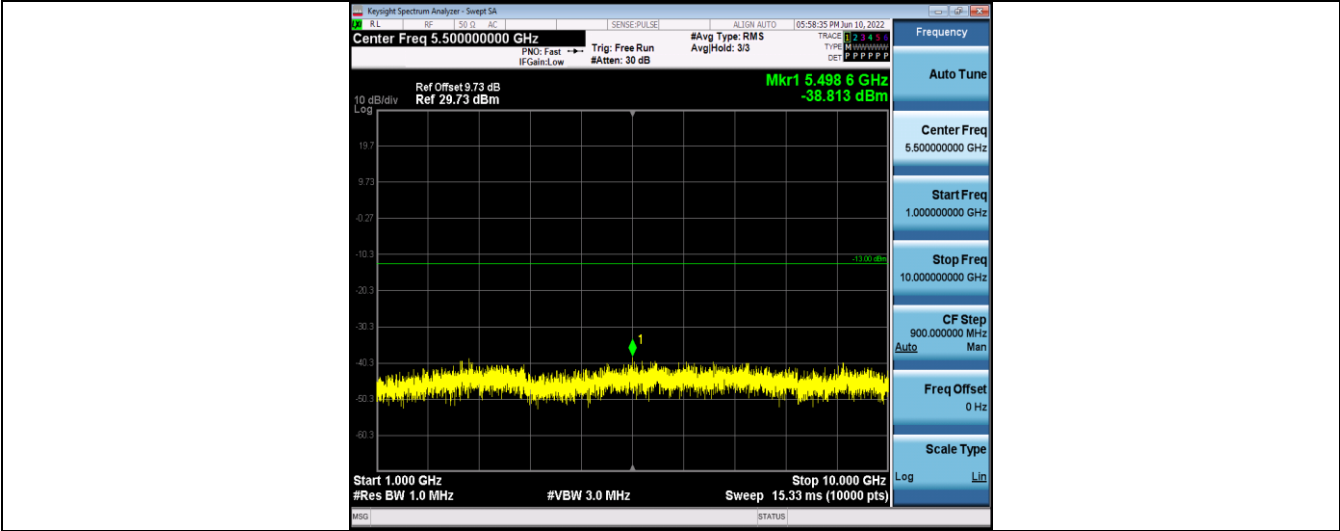
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band13	5MHz	QPSK	23205	25RB#0	Range1:30~1000MHz	-43.34	PASS
Band13	5MHz	QPSK	23205	25RB#0	Range2:1000~10000MHz	-38.81	PASS
Band13	5MHz	QPSK	23205	25RB#0	Range3:1559~1610MHz	-27.61	FAIL
Band13	5MHz	QPSK	23230	25RB#0	Range1:30~1000MHz	-42.48	PASS
Band13	5MHz	QPSK	23230	25RB#0	Range2:1000~10000MHz	-38.22	PASS
Band13	5MHz	QPSK	23230	25RB#0	Range3:1559~1610MHz	-27.38	FAIL
Band13	5MHz	QPSK	23255	25RB#0	Range1:30~1000MHz	-42.77	PASS
Band13	5MHz	QPSK	23255	25RB#0	Range2:1000~10000MHz	-37.97	PASS
Band13	5MHz	QPSK	23255	25RB#0	Range3:1559~1610MHz	-26.78	FAIL
Band13	5MHz	16QAM	23205	25RB#0	Range1:30~1000MHz	-43.47	PASS
Band13	5MHz	16QAM	23205	25RB#0	Range2:1000~10000MHz	-38.31	PASS
Band13	5MHz	16QAM	23205	25RB#0	Range3:1559~1610MHz	-26.56	FAIL
Band13	5MHz	16QAM	23230	25RB#0	Range1:30~1000MHz	-44.17	PASS
Band13	5MHz	16QAM	23230	25RB#0	Range2:1000~10000MHz	-38.5	PASS
Band13	5MHz	16QAM	23230	25RB#0	Range3:1559~1610MHz	-27.02	FAIL
Band13	5MHz	16QAM	23255	25RB#0	Range1:30~1000MHz	-43.52	PASS
Band13	5MHz	16QAM	23255	25RB#0	Range2:1000~10000MHz	-39.07	PASS
Band13	5MHz	16QAM	23255	25RB#0	Range3:1559~1610MHz	-26.72	FAIL
Band13	10MHz	QPSK	23230	50RB#0	Range1:30~1000MHz	-43.5	PASS
Band13	10MHz	QPSK	23230	50RB#0	Range2:1000~10000MHz	-38.82	PASS
Band13	10MHz	QPSK	23230	50RB#0	Range3:1559~1610MHz	-29.16	FAIL
Band13	10MHz	16QAM	23230	50RB#0	Range1:30~1000MHz	-43.55	PASS
Band13	10MHz	16QAM	23230	50RB#0	Range2:1000~10000MHz	-38.22	PASS
Band13	10MHz	16QAM	23230	50RB#0	Range3:1559~1610MHz	-29.16	FAIL

### Test Graphs

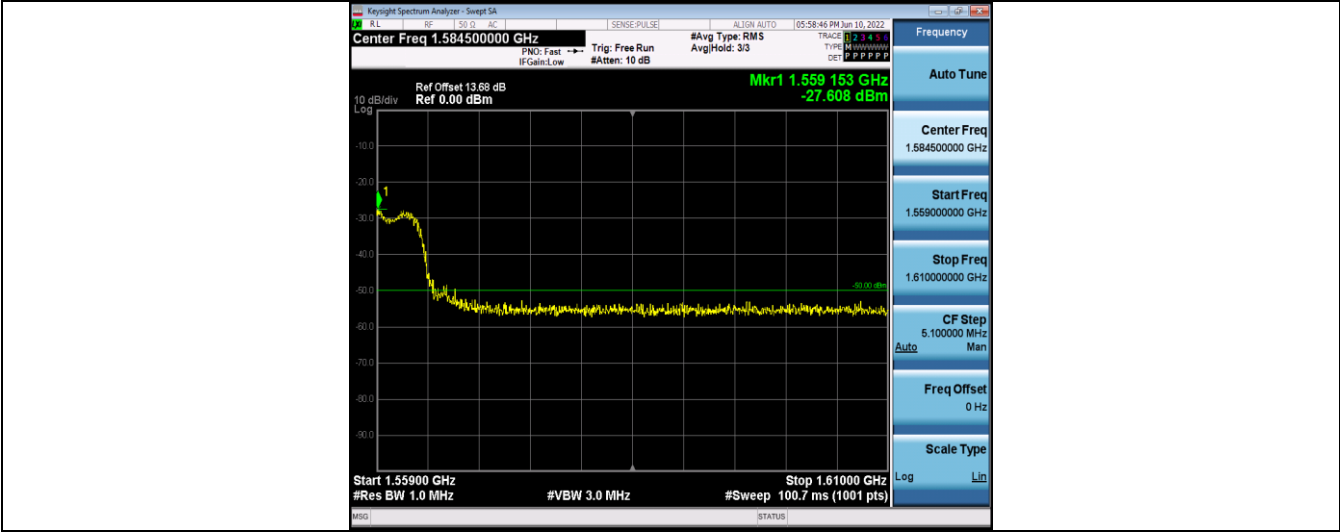
Band13-5MHz-QPSK-23205-25RB#0-Range1:30~1000MHz



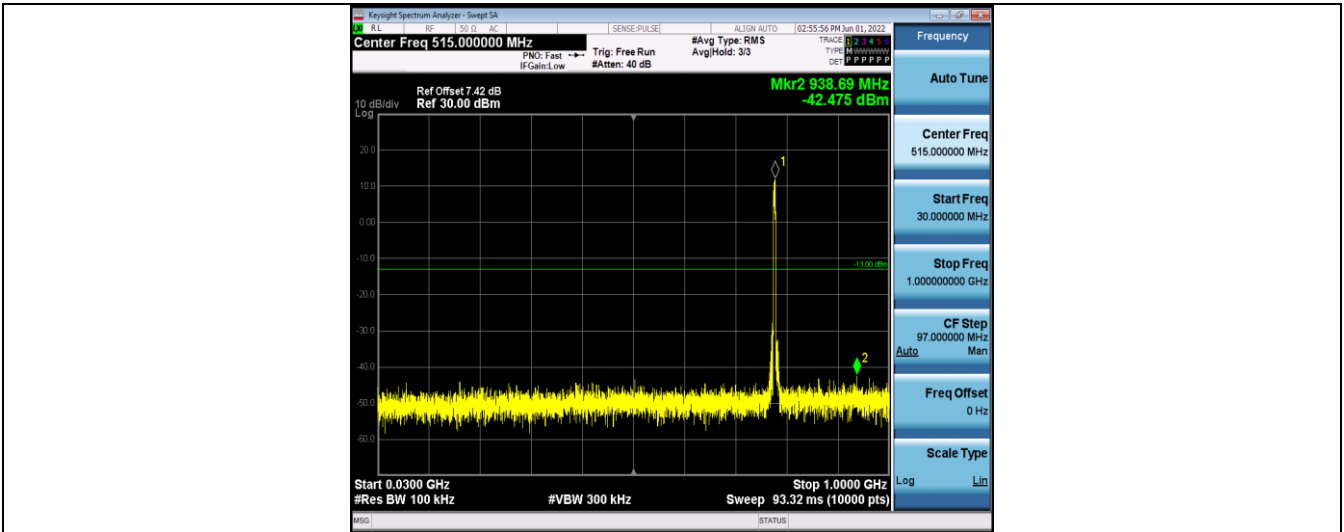
Band13-5MHz-QPSK-23205-25RB#0-Range2:1000~10000MHz



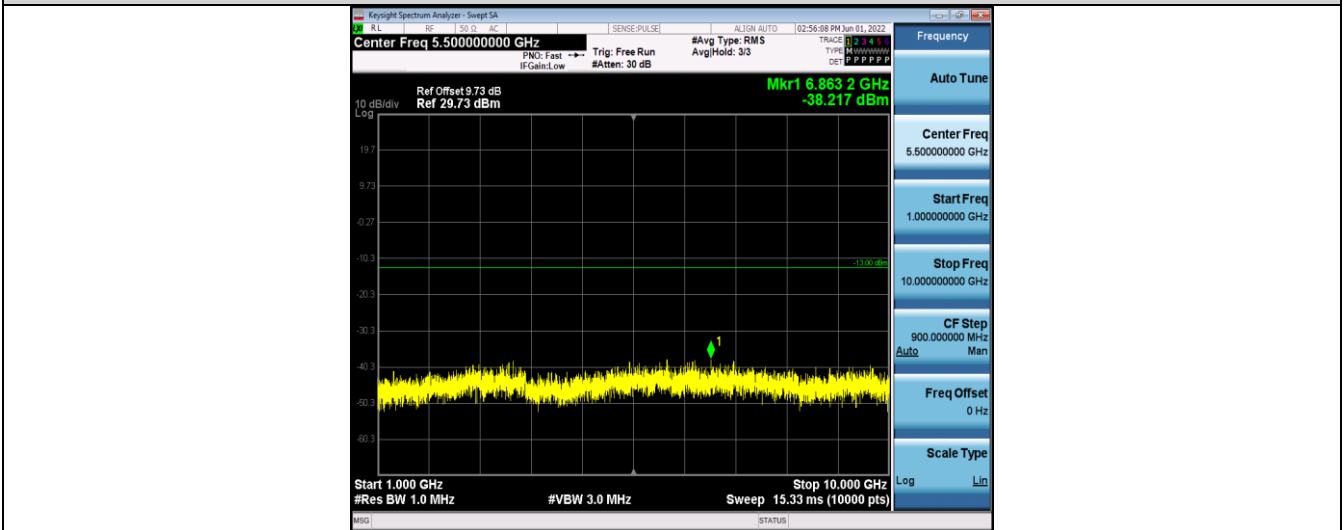
Band13-5MHz-QPSK-23205-25RB#0-Range3:1559~1610MHz



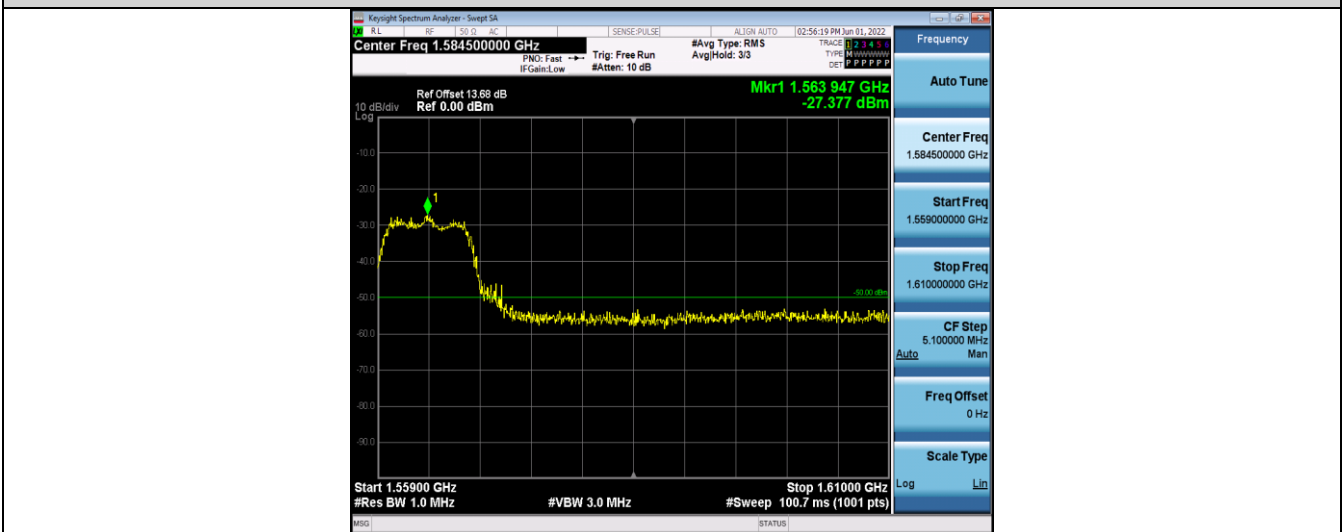
Band13-5MHz-QPSK-23230-25RB#0-Range1:30~1000MHz



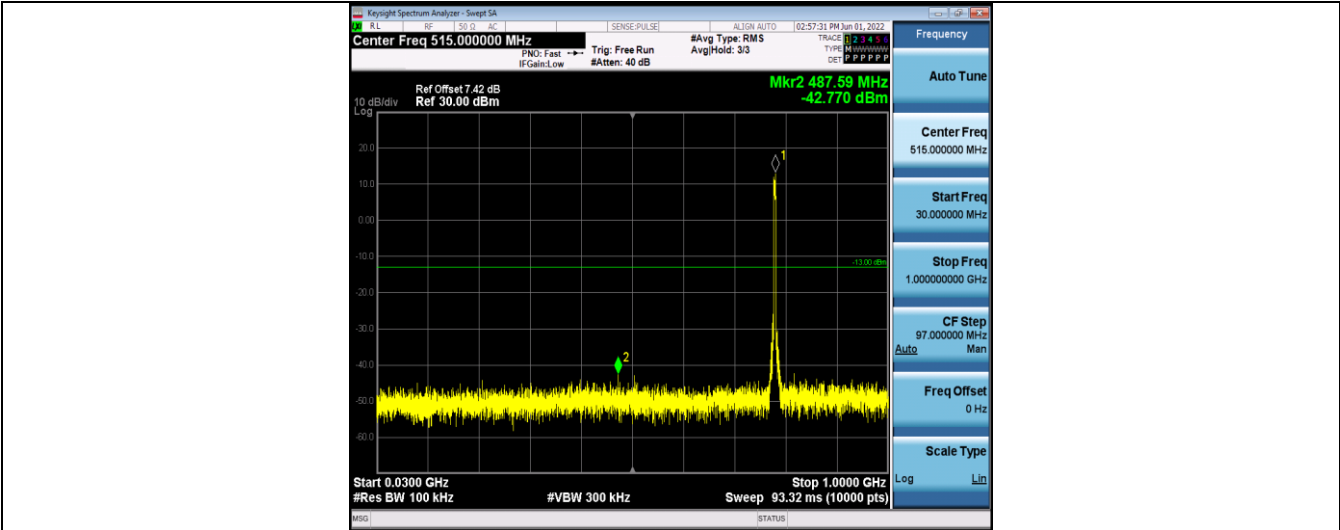
Band13-5MHz-QPSK-23230-25RB#0-Range2:1000~10000MHz



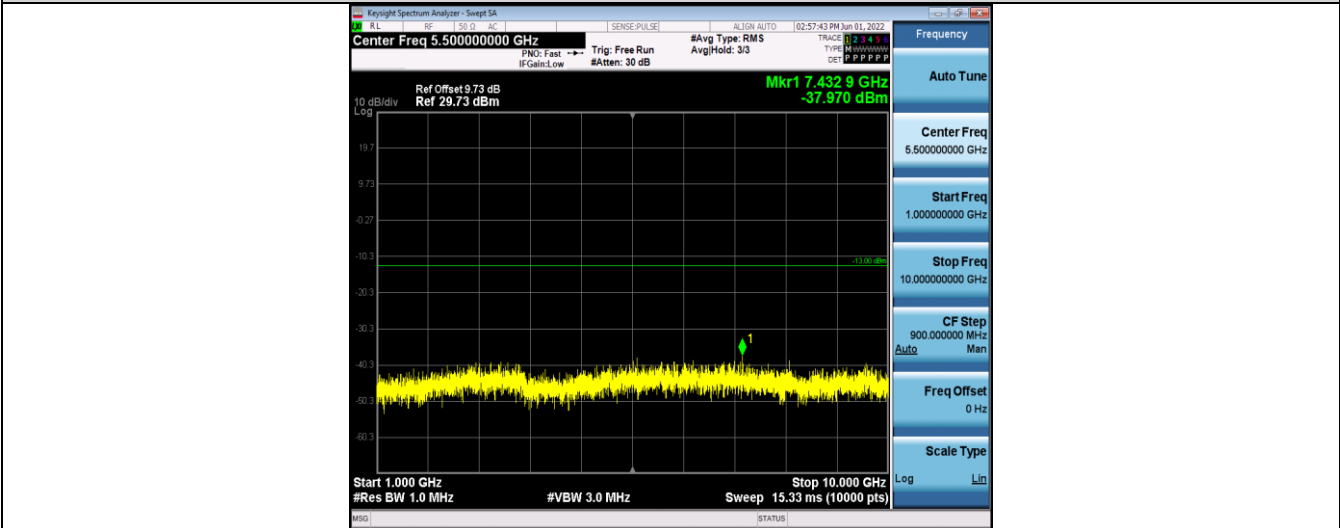
Band13-5MHz-QPSK-23230-25RB#0-Range3:1559~1610MHz



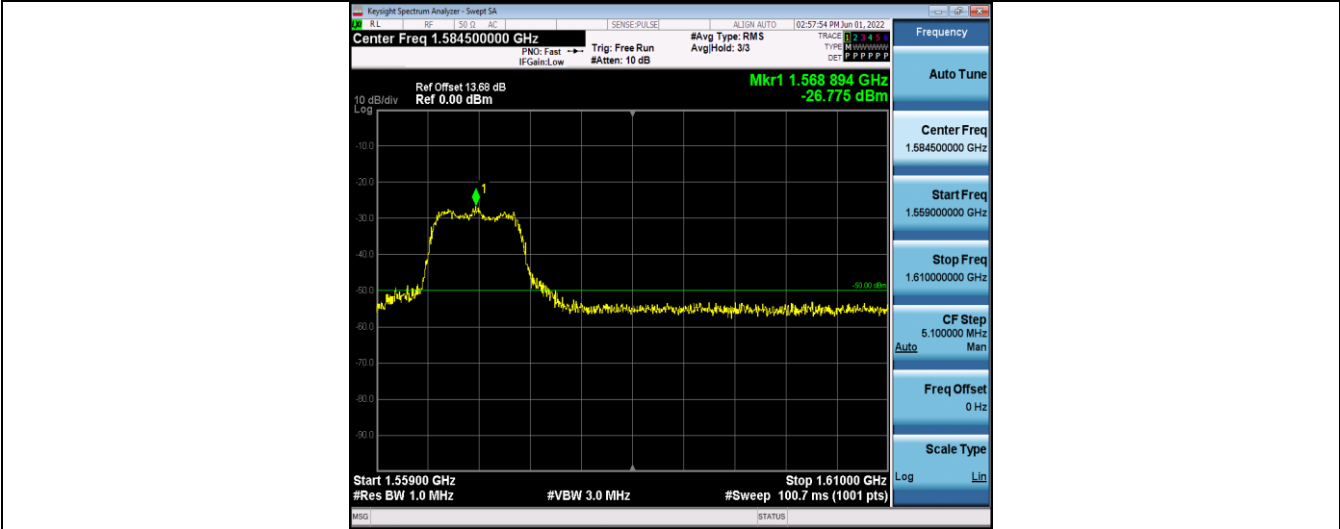
Band13-5MHz-QPSK-23255-25RB#0-Range1:30~1000MHz



Band13-5MHz-QPSK-23255-25RB#0-Range2:1000~10000MHz

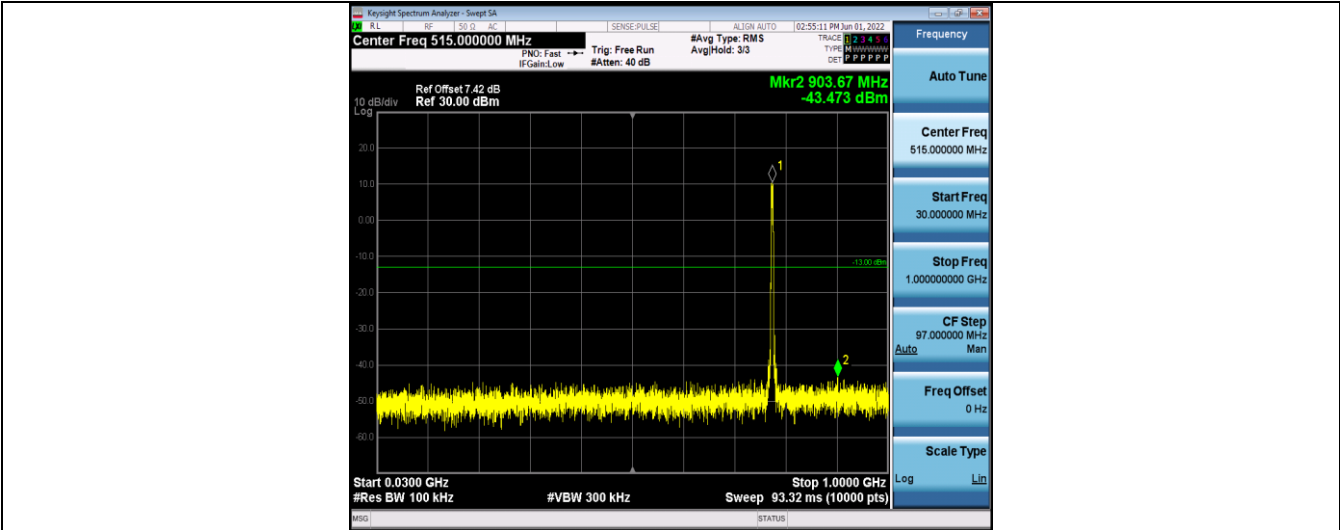


Band13-5MHz-QPSK-23255-25RB#0-Range3:1559~1610MHz

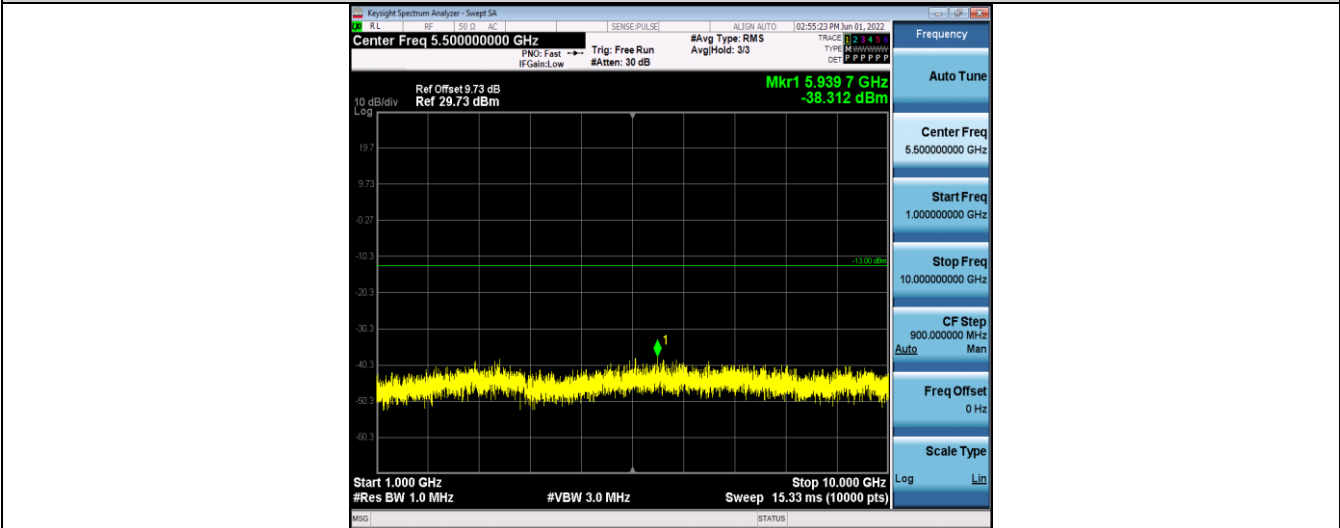


Band13-5MHz-16QAM-23205-25RB#0-Range1:30~1000MHz

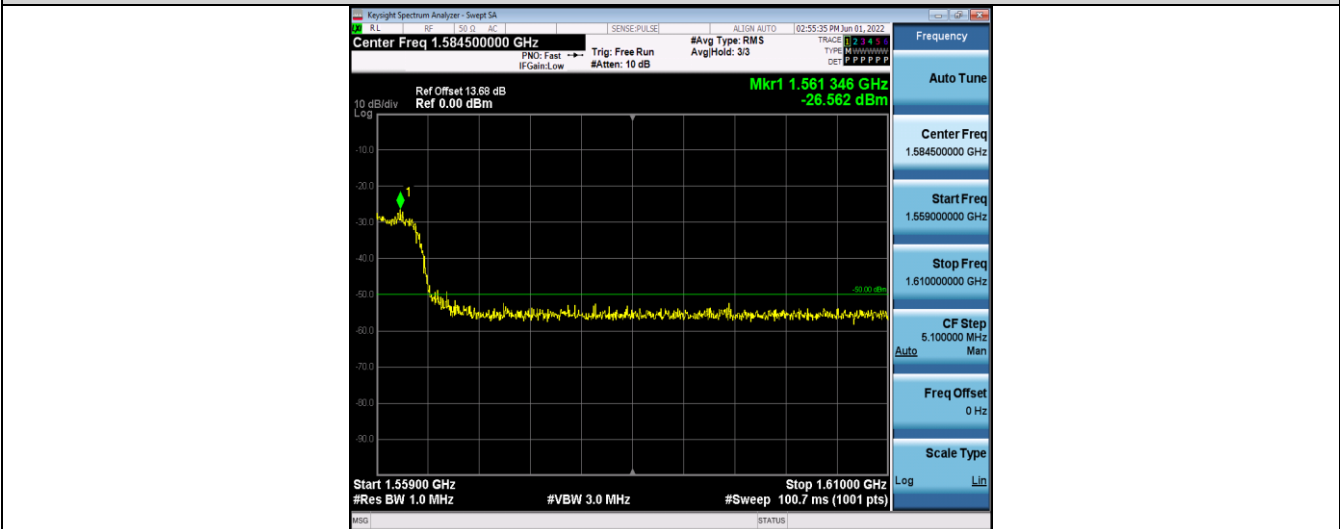




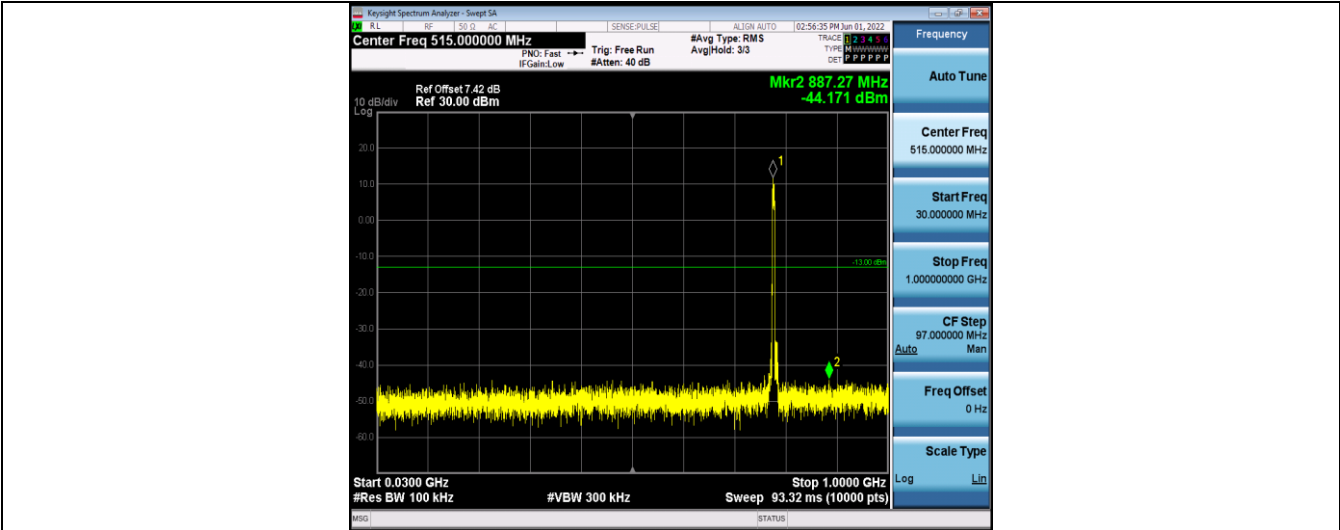
Band13-5MHz-16QAM-23205-25RB#0-Range2:1000~10000MHz



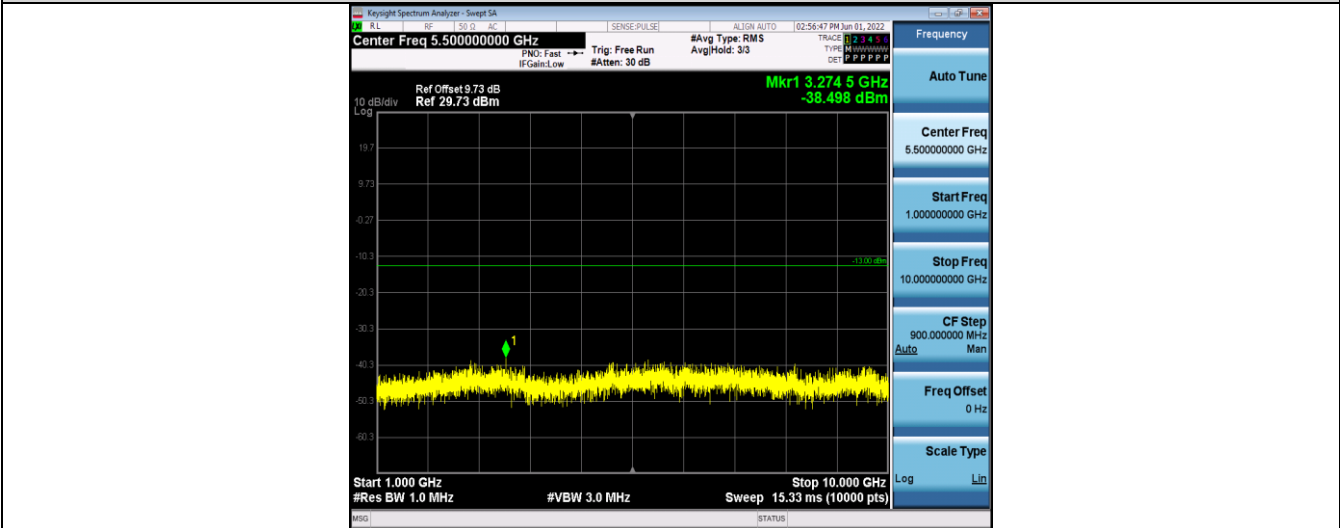
Band13-5MHz-16QAM-23205-25RB#0-Range3:1559~1610MHz



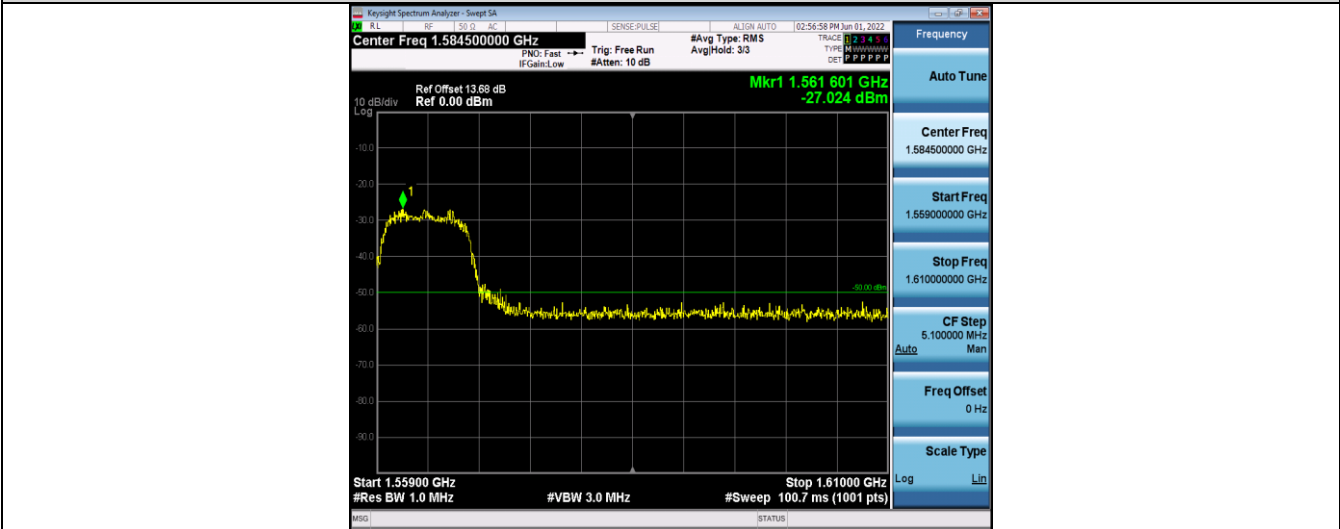
Band13-5MHz-16QAM-23230-25RB#0-Range1:30~1000MHz



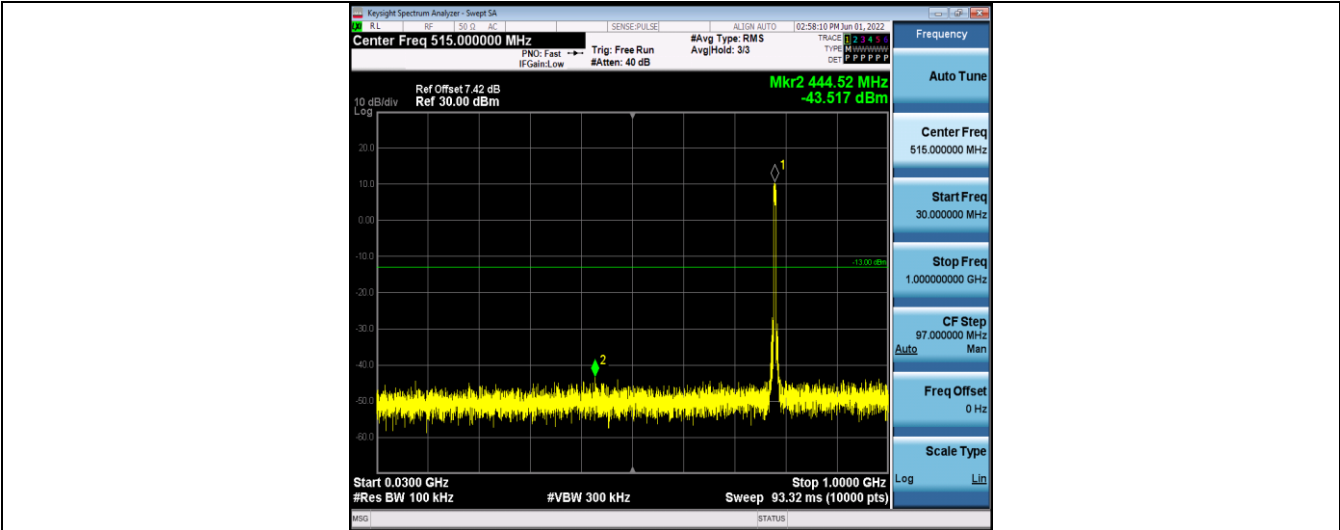
Band13-5MHz-16QAM-23230-25RB#0-Range2:1000~10000MHz



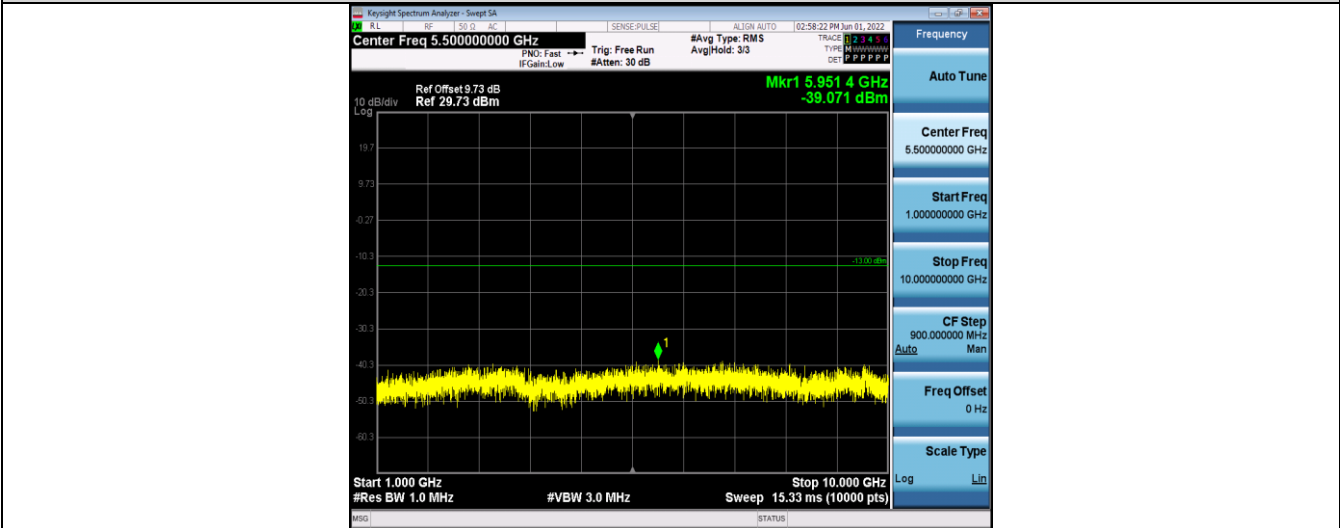
Band13-5MHz-16QAM-23230-25RB#0-Range3:1559~1610MHz



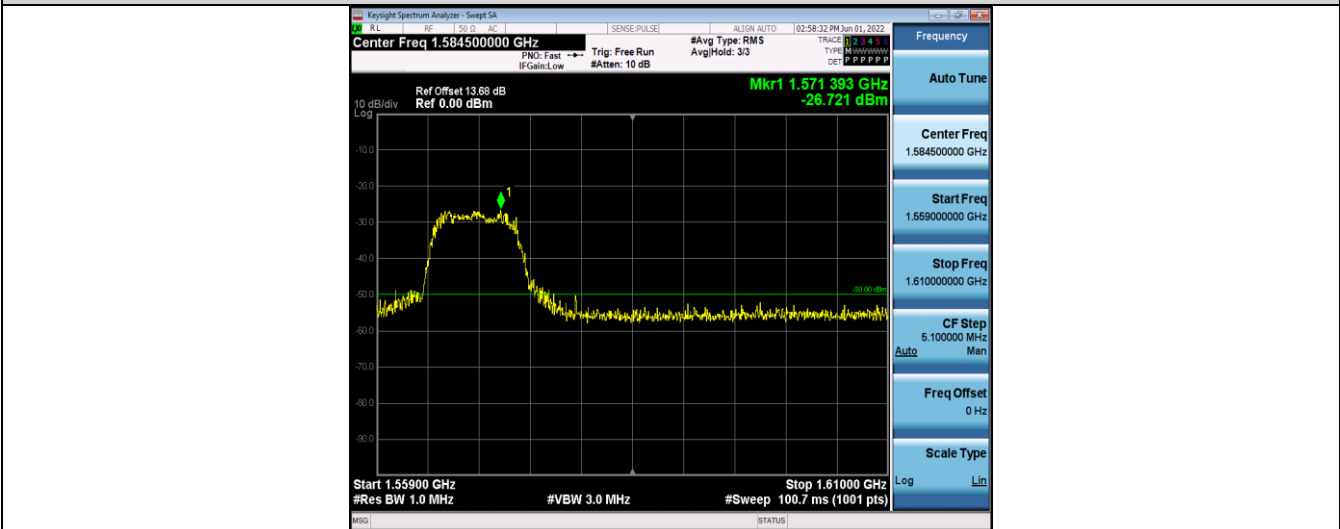
Band13-5MHz-16QAM-23255-25RB#0-Range1:30~1000MHz



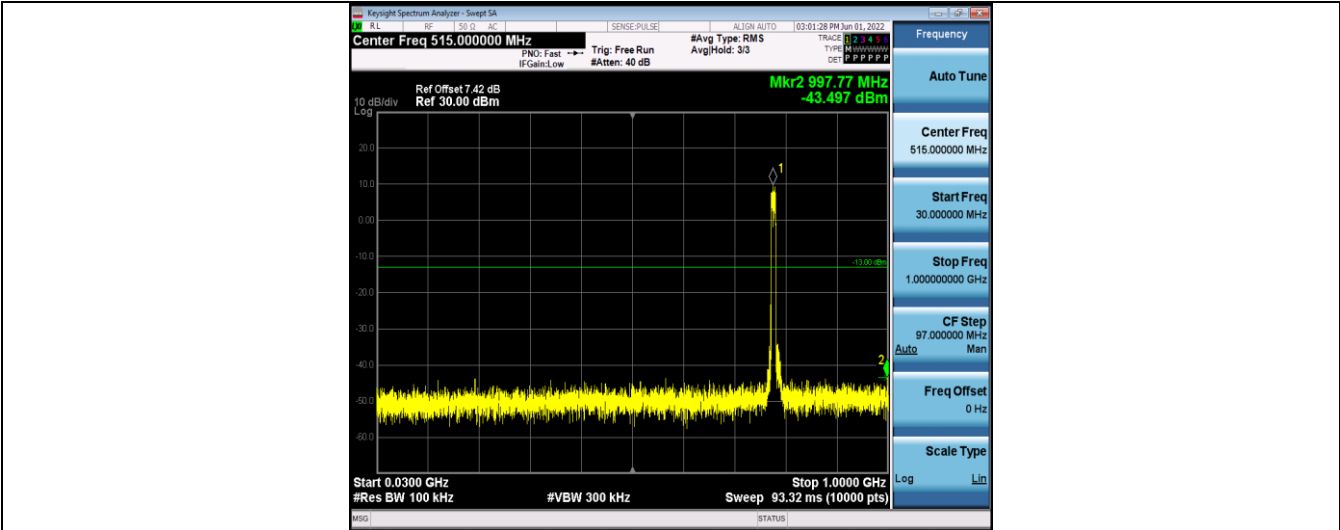
Band13-5MHz-16QAM-23255-25RB#0-Range2:1000~10000MHz



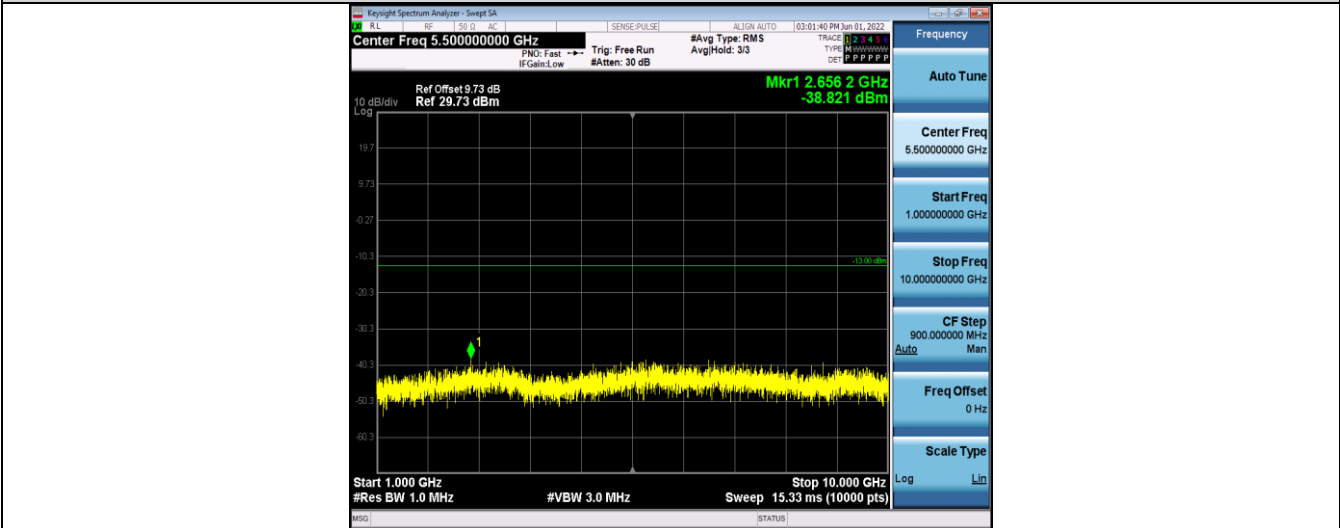
Band13-5MHz-16QAM-23255-25RB#0-Range3:1559~1610MHz



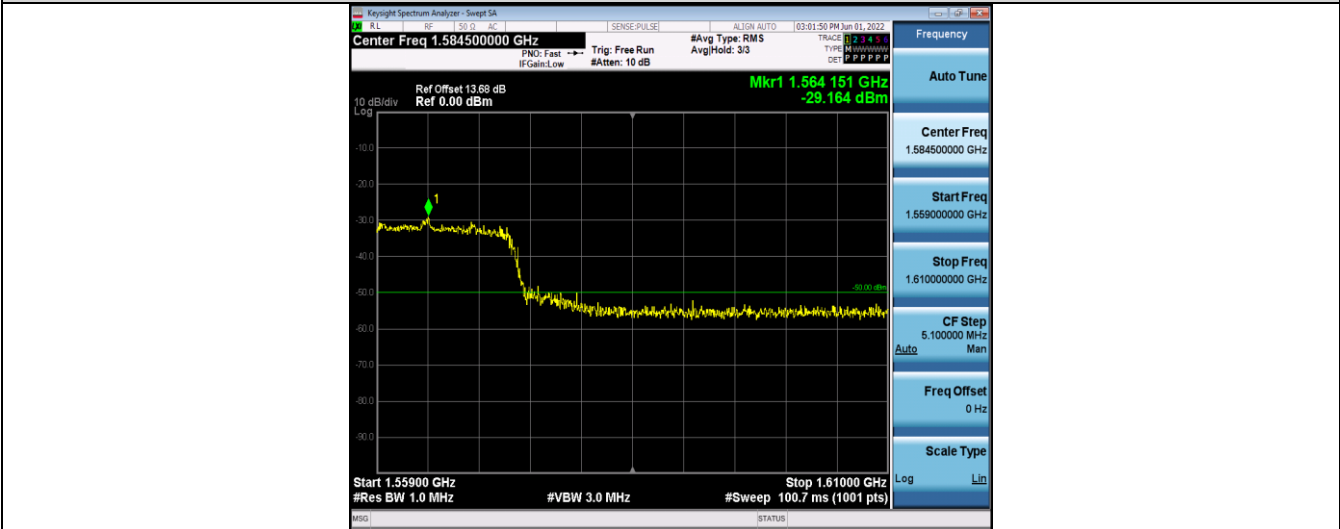
Band13-10MHz-QPSK-23230-50RB#0-Range1:30~1000MHz



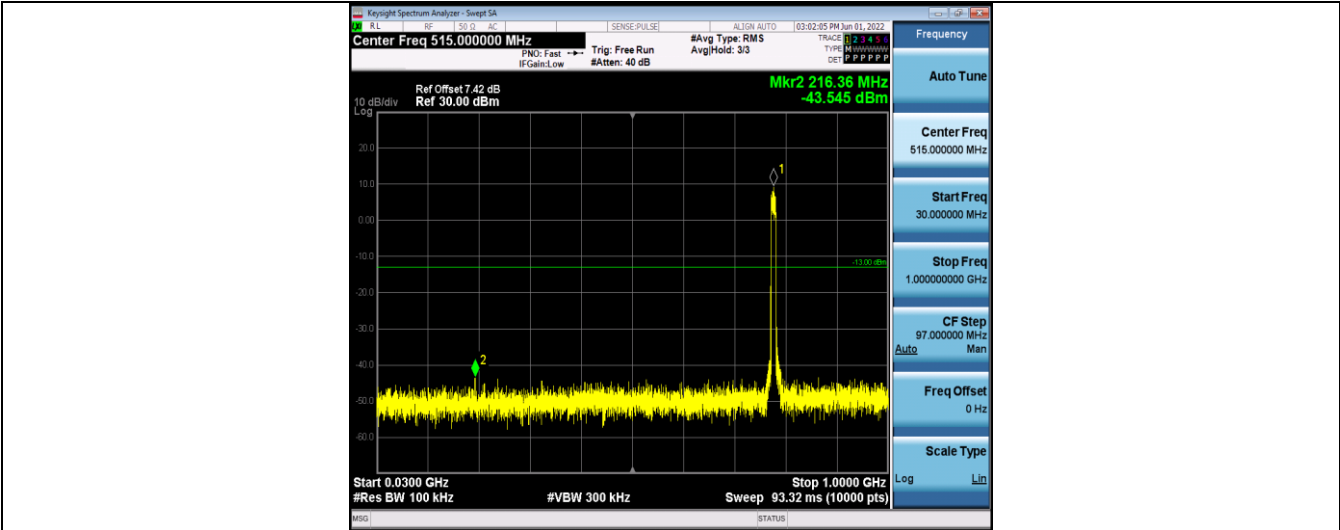
Band13-10MHz-QPSK-23230-50RB#0-Range2:1000~10000MHz



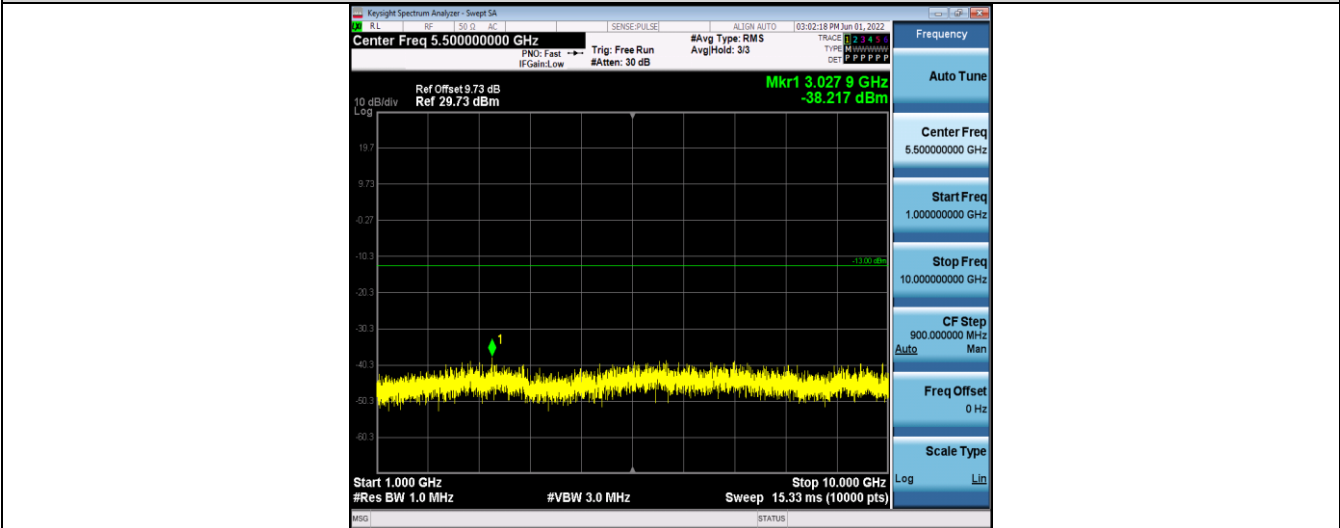
Band13-10MHz-QPSK-23230-50RB#0-Range3:1559~1610MHz



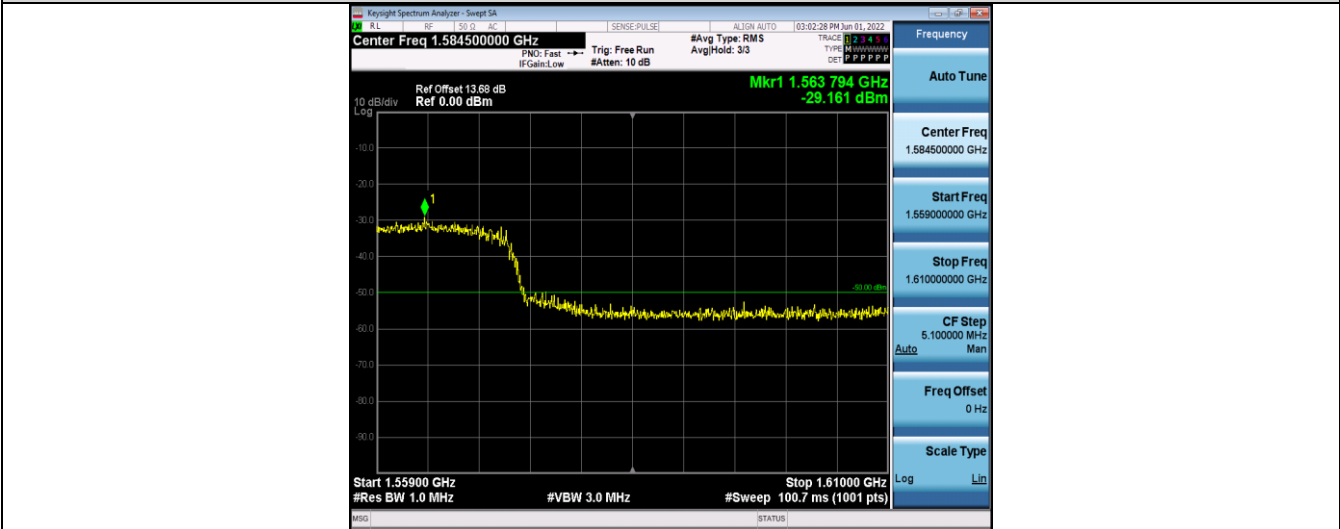
Band13-10MHz-16QAM-23230-50RB#0-Range1:30~1000MHz



Band13-10MHz-16QAM-23230-50RB#0-Range2:1000~10000MHz



Band13-10MHz-16QAM-23230-50RB#0-Range3:1559~1610MHz



## Appendix F: Frequency Stability

### Test Result

Band	Bandwidth	Modulation	Channel	RB Configure	Voltage		Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
					Voltage [Vdc]	Temperature (°C)				
Band1 3	5MHz	QPSK	23205	25RB#0	VL	NT	-8.83	-0.011328	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	VN	NT	-10.93	-0.014022	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	VH	NT	3.96	0.005080	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	VL	NT	-14.56	-0.018619	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	VN	NT	-14.46	-0.018491	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	VH	NT	-9.11	-0.011650	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	VL	NT	4.69	0.005978	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	VN	NT	8.51	0.010848	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	VH	NT	6.48	0.008260	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	VL	NT	-13.93	-0.017870	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	VN	NT	-6.91	-0.008865	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	VH	NT	-10.57	-0.013560	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	VL	NT	6.37	0.008146	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	VN	NT	4.51	0.005767	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	VH	NT	5.71	0.007302	±2.5	PASS

Band1 3	5MHz	16QAM	23255	25RB#0	VL	NT	-7.85	-0.010006	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	VN	NT	-11.14	-0.014200	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	VH	NT	-10.00	-0.012747	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	VL	NT	-12.82	-0.016394	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	VN	NT	-8.70	-0.011125	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	VH	NT	-8.83	-0.011292	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	VL	NT	-5.16	-0.006598	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	VN	NT	-3.00	-0.003836	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	VH	NT	-6.72	-0.008593	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band1 3	5MHz	QPSK	23205	25RB#0	NV	-30	7.40	0.009493	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	-20	7.30	0.009365	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	-10	8.44	0.010827	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	0	4.51	0.005786	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	10	7.04	0.009031	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	20	-3.49	-0.004477	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	30	-6.34	-0.008133	±2.5	PASS
Band1 3	5MHz	QPSK	23205	25RB#0	NV	40	-2.52	-0.003233	±2.5	PASS

3										
Band1 3	5MHz	QPSK	23205	25RB#0	NV	50	-5.65	-0.007248	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	-30	6.81	0.008708	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	-20	-6.24	-0.007980	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	-10	-13.10	-0.016752	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	0	-9.38	-0.011995	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	10	-5.68	-0.007263	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	20	-9.13	-0.011675	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	30	-7.18	-0.009182	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	40	-11.74	-0.015013	±2.5	PASS
Band1 3	5MHz	QPSK	23230	25RB#0	NV	50	-7.64	-0.009770	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	-30	6.12	0.007801	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	-20	5.29	0.006743	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	-10	-7.00	-0.008923	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	0	-9.36	-0.011931	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	10	-6.92	-0.008821	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	20	-9.26	-0.011804	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	30	-5.94	-0.007572	±2.5	PASS
Band1 3	5MHz	QPSK	23255	25RB#0	NV	40	-4.29	-0.005468	±2.5	PASS



Band1 3	5MHz	QPSK	23255	25RB#0	NV	50	-4.16	-0.005303	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	-30	-10.69	-0.013714	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	-20	-9.60	-0.012316	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	-10	-12.35	-0.015843	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	0	-11.96	-0.015343	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	10	-10.99	-0.014099	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	20	-10.86	-0.013932	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	30	-3.73	-0.004785	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	40	1.49	0.001911	±2.5	PASS
Band1 3	5MHz	16QAM	23205	25RB#0	NV	50	3.73	0.004785	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	-30	-4.59	-0.005870	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	-20	-5.66	-0.007238	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	-10	-7.15	-0.009143	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	0	-9.83	-0.012570	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	10	-8.04	-0.010281	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	20	-8.05	-0.010294	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	30	-9.28	-0.011867	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	40	-9.14	-0.011688	±2.5	PASS
Band1 3	5MHz	16QAM	23230	25RB#0	NV	50	-11.22	-0.014348	±2.5	PASS

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Band1 3	5MHz	16QAM	23255	25RB#0	NV	-30	-29.97	-0.038203	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	-20	-11.86	-0.015118	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	-10	-7.61	-0.009700	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	0	4.71	0.006004	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	10	5.26	0.006705	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	20	2.53	0.003225	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	30	-5.85	-0.007457	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	40	-7.55	-0.009624	±2.5	PASS
Band1 3	5MHz	16QAM	23255	25RB#0	NV	50	-5.49	-0.006998	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	-30	-9.24	-0.011816	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	-20	-9.11	-0.011650	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	-10	-12.67	-0.016202	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	0	-7.18	-0.009182	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	10	-3.72	-0.004757	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	20	-5.79	-0.007404	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	30	3.66	0.004680	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	40	-4.51	-0.005767	±2.5	PASS
Band1 3	10MHz	QPSK	23230	50RB#0	NV	50	-9.06	-0.011586	±2.5	PASS

Band1 3	10MHz	16QAM	23230	50RB#0	NV	-30	-5.99	-0.007660	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	-20	-9.46	-0.012097	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	-10	-13.95	-0.017839	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	0	-10.90	-0.013939	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	10	-8.20	-0.010486	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	20	-10.54	-0.013478	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	30	-11.30	-0.014450	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	40	-6.41	-0.008197	±2.5	PASS
Band1 3	10MHz	16QAM	23230	50RB#0	NV	50	-4.91	-0.006279	±2.5	PASS