

# LTE Band30 Test Data

**Project No.** : ENS2111040057W00207R

**Company:** : Micro-Star Int'l Co.,Ltd.

**EUT** : Tablet

**Model Number** : MS-ND52-Gen2

**Number of Samples** : 1

**Sample Number** : 1#

**Tested By** : Tracy Hu

**Reviewed By** : Joe Xia

## Appendix A: Effective (Isotropic) Radiated Power Output Data

### Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band30	5MHz	QPSK	27685	1RB#0	21.28	PASS
Band30	5MHz	QPSK	27685	1RB#12	20.87	PASS
Band30	5MHz	QPSK	27685	1RB#24	20.79	PASS
Band30	5MHz	QPSK	27685	12RB#0	19.78	PASS
Band30	5MHz	QPSK	27685	12RB#6	19.78	PASS
Band30	5MHz	QPSK	27685	12RB#13	19.66	PASS
Band30	5MHz	QPSK	27685	25RB#0	19.63	PASS
Band30	5MHz	QPSK	27710	1RB#0	20.81	PASS
Band30	5MHz	QPSK	27710	1RB#12	20.74	PASS
Band30	5MHz	QPSK	27710	1RB#24	20.69	PASS
Band30	5MHz	QPSK	27710	12RB#0	19.71	PASS
Band30	5MHz	QPSK	27710	12RB#6	19.68	PASS
Band30	5MHz	QPSK	27710	12RB#13	19.59	PASS
Band30	5MHz	QPSK	27710	25RB#0	19.64	PASS
Band30	5MHz	QPSK	27735	1RB#0	20.90	PASS
Band30	5MHz	QPSK	27735	1RB#12	20.75	PASS
Band30	5MHz	QPSK	27735	1RB#24	20.78	PASS
Band30	5MHz	QPSK	27735	12RB#0	19.64	PASS
Band30	5MHz	QPSK	27735	12RB#6	19.60	PASS
Band30	5MHz	QPSK	27735	12RB#13	19.66	PASS
Band30	5MHz	QPSK	27735	25RB#0	19.59	PASS
Band30	5MHz	16QAM	27685	1RB#0	19.86	PASS
Band30	5MHz	16QAM	27685	1RB#12	19.76	PASS
Band30	5MHz	16QAM	27685	1RB#24	19.72	PASS
Band30	5MHz	16QAM	27685	12RB#0	18.84	PASS
Band30	5MHz	16QAM	27685	12RB#6	18.74	PASS
Band30	5MHz	16QAM	27685	12RB#13	18.68	PASS
Band30	5MHz	16QAM	27685	25RB#0	18.65	PASS
Band30	5MHz	16QAM	27710	1RB#0	19.81	PASS
Band30	5MHz	16QAM	27710	1RB#12	19.59	PASS
Band30	5MHz	16QAM	27710	1RB#24	19.62	PASS
Band30	5MHz	16QAM	27710	12RB#0	18.68	PASS
Band30	5MHz	16QAM	27710	12RB#6	18.72	PASS

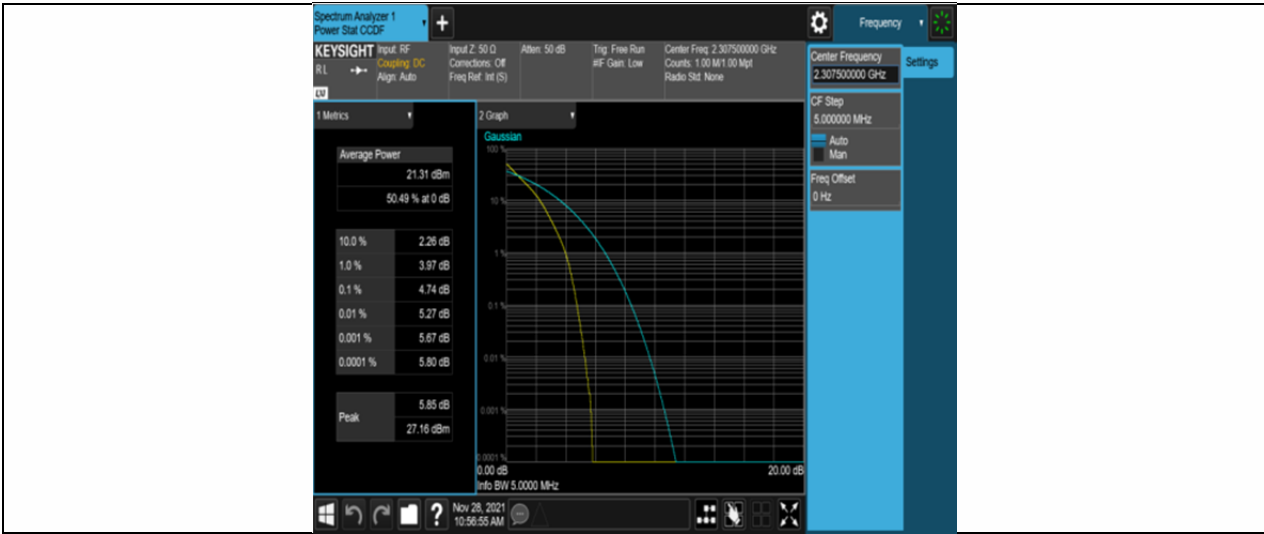
Band30	5MHz	16QAM	27710	12RB#13	18.59	PASS
Band30	5MHz	16QAM	27710	25RB#0	18.65	PASS
Band30	5MHz	16QAM	27735	1RB#0	19.82	PASS
Band30	5MHz	16QAM	27735	1RB#12	19.81	PASS
Band30	5MHz	16QAM	27735	1RB#24	19.80	PASS
Band30	5MHz	16QAM	27735	12RB#0	18.67	PASS
Band30	5MHz	16QAM	27735	12RB#6	18.63	PASS
Band30	5MHz	16QAM	27735	12RB#13	18.64	PASS
Band30	5MHz	16QAM	27735	25RB#0	18.58	PASS
Band30	10MHz	QPSK	27710	1RB#0	20.96	PASS
Band30	10MHz	QPSK	27710	1RB#24	20.68	PASS
Band30	10MHz	QPSK	27710	1RB#49	20.63	PASS
Band30	10MHz	QPSK	27710	25RB#0	19.75	PASS
Band30	10MHz	QPSK	27710	25RB#12	19.75	PASS
Band30	10MHz	QPSK	27710	25RB#25	19.75	PASS
Band30	10MHz	QPSK	27710	50RB#0	19.78	PASS
Band30	10MHz	16QAM	27710	1RB#0	19.96	PASS
Band30	10MHz	16QAM	27710	1RB#24	19.56	PASS
Band30	10MHz	16QAM	27710	1RB#49	19.66	PASS
Band30	10MHz	16QAM	27710	25RB#0	18.72	PASS
Band30	10MHz	16QAM	27710	25RB#12	18.80	PASS
Band30	10MHz	16QAM	27710	25RB#25	18.73	PASS
Band30	10MHz	16QAM	27710	50RB#0	18.77	PASS

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

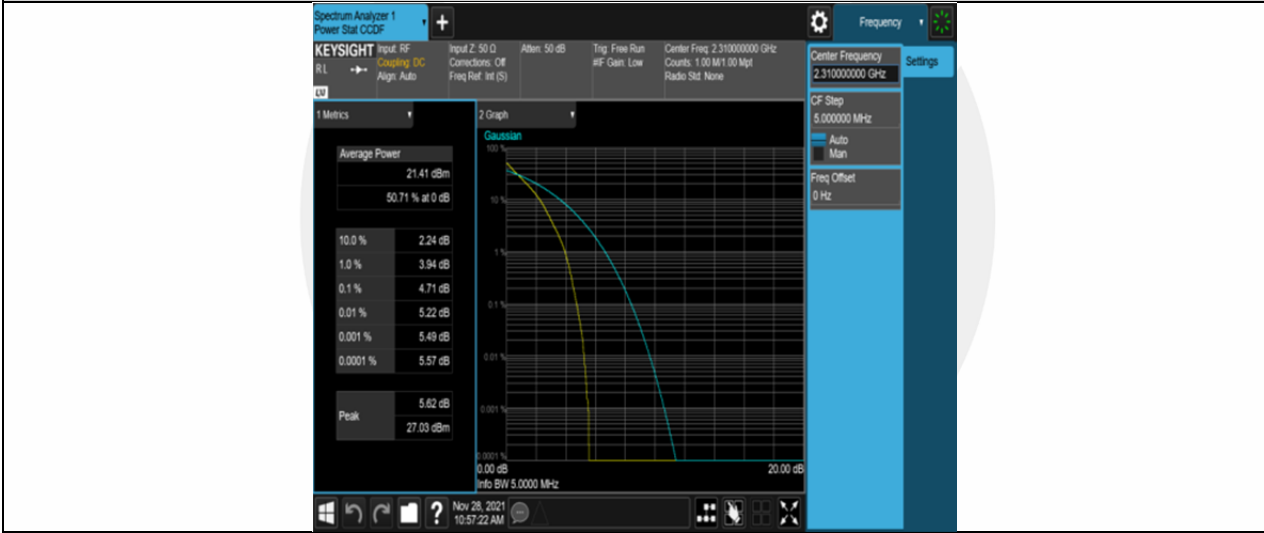
### Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band30	5MHz	QPSK	27685	25RB#0	4.74	13	PASS
Band30	5MHz	QPSK	27710	25RB#0	4.71	13	PASS
Band30	5MHz	QPSK	27735	25RB#0	4.80	13	PASS
Band30	5MHz	16QAM	27685	25RB#0	5.46	13	PASS
Band30	5MHz	16QAM	27710	25RB#0	5.41	13	PASS
Band30	5MHz	16QAM	27735	25RB#0	5.52	13	PASS
Band30	10MHz	QPSK	27710	50RB#0	4.56	13	PASS
Band30	10MHz	16QAM	27710	50RB#0	5.84	13	PASS

## Test Graphs



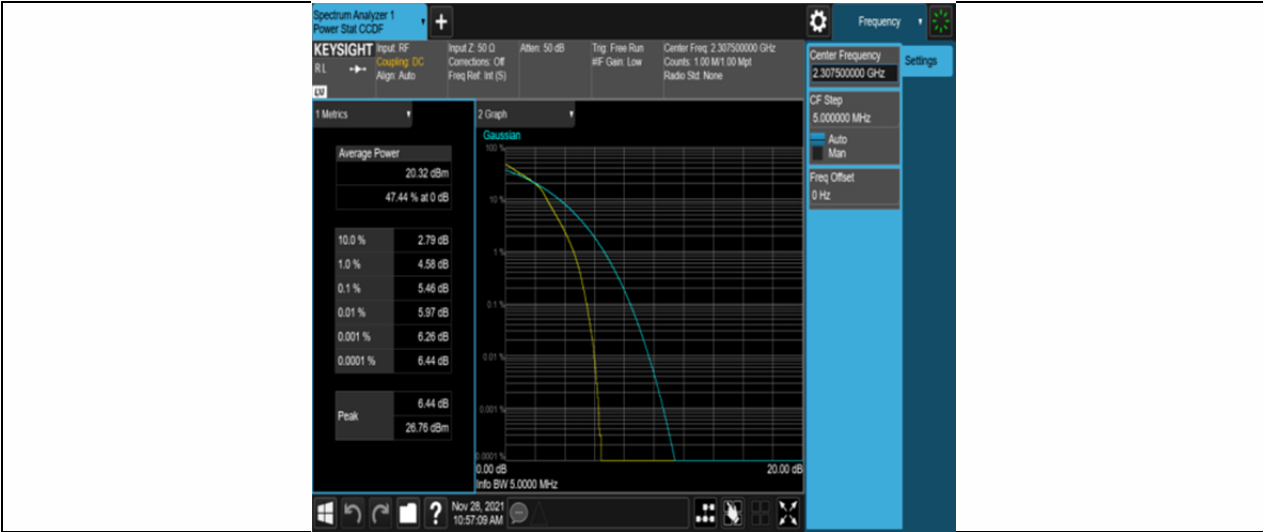
Band30-5MHz-QPSK-27685-25RB#0



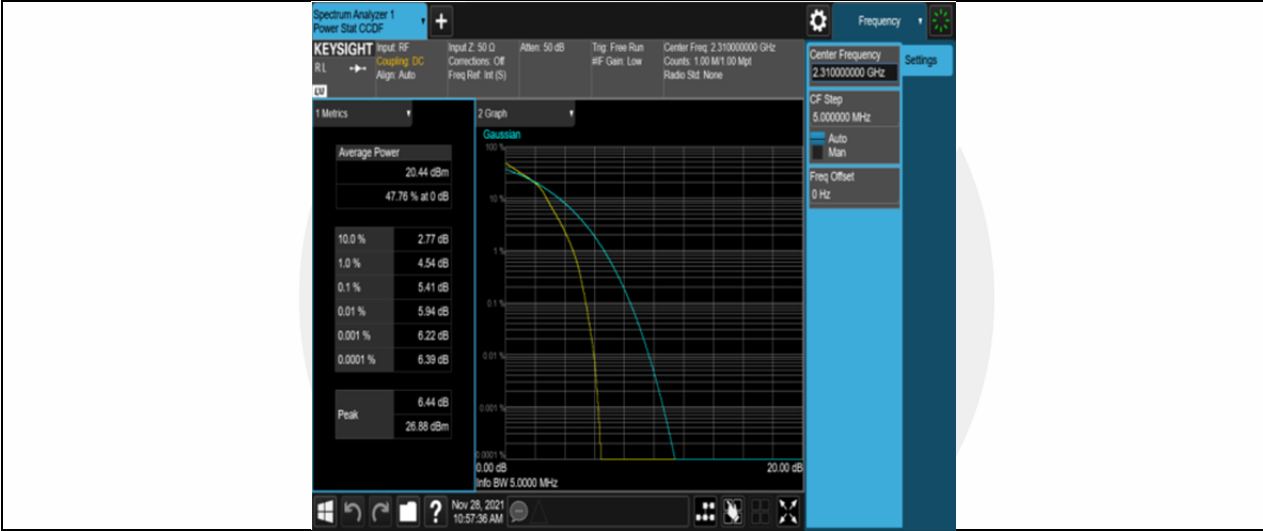
Band30-5MHz-QPSK-27710-25RB#0



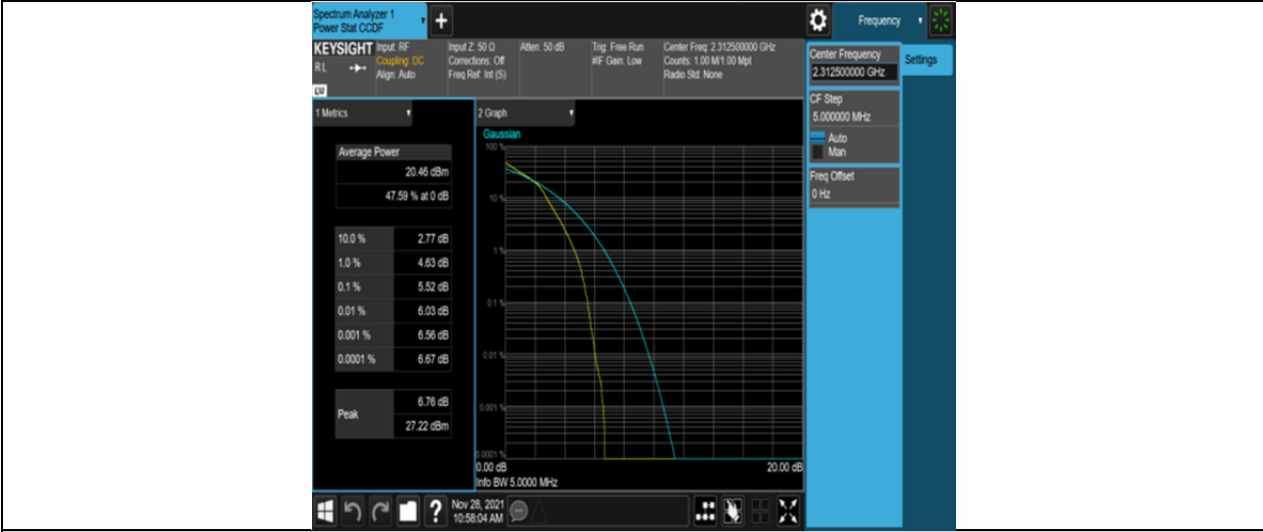
Band30-5MHz-QPSK-27735-25RB#0



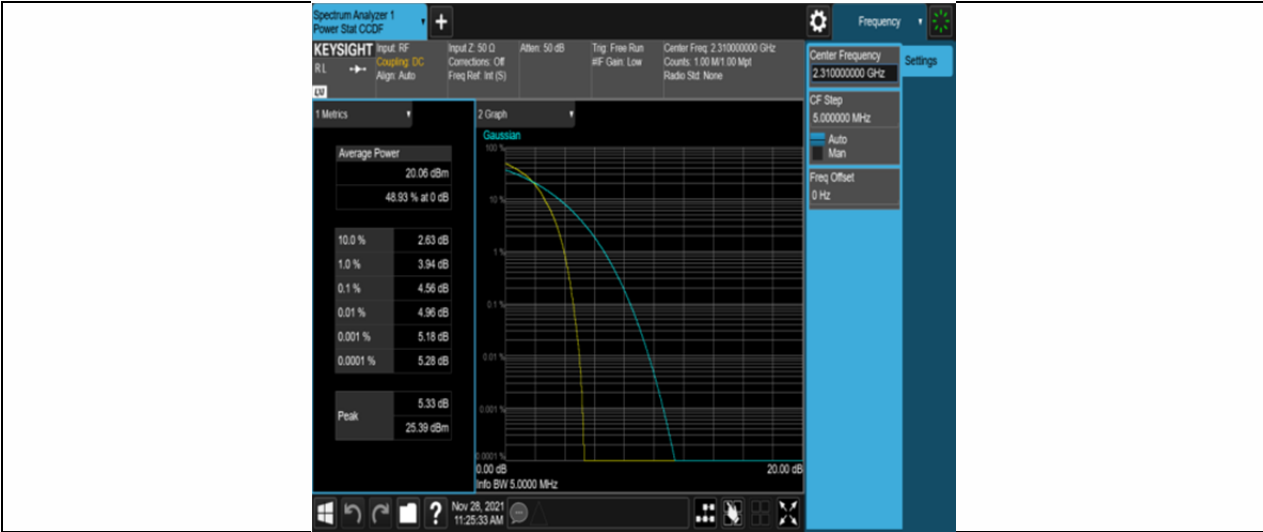
Band30-5MHz-16QAM-27685-25RB#0



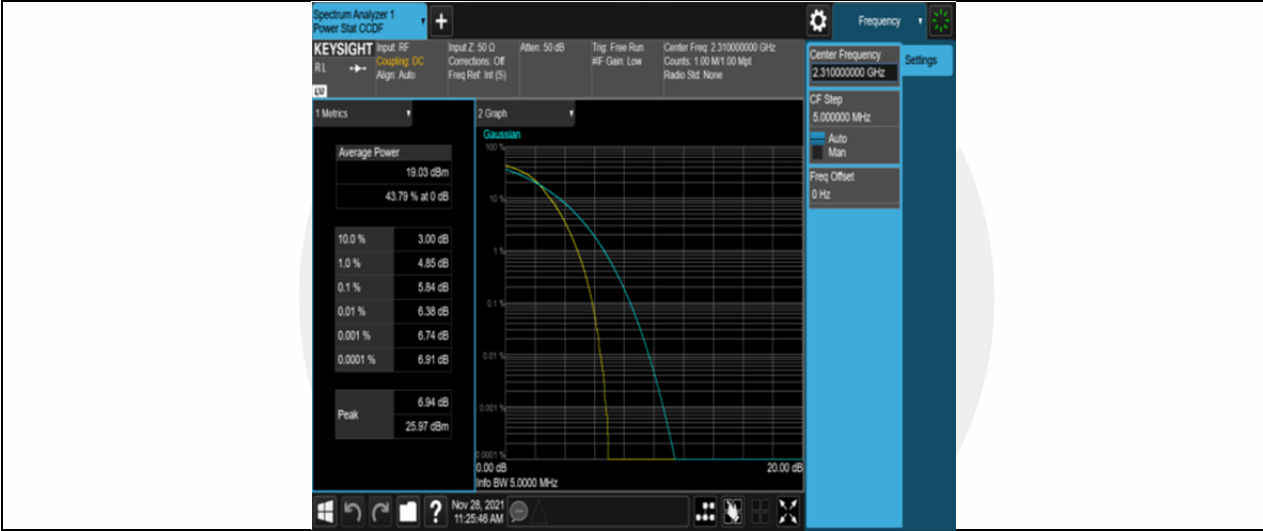
Band30-5MHz-16QAM-27710-25RB#0



Band30-5MHz-16QAM-27735-25RB#0



Band30-10MHz-QPSK-27710-50RB#0



Band30-10MHz-16QAM-27710-50RB#0

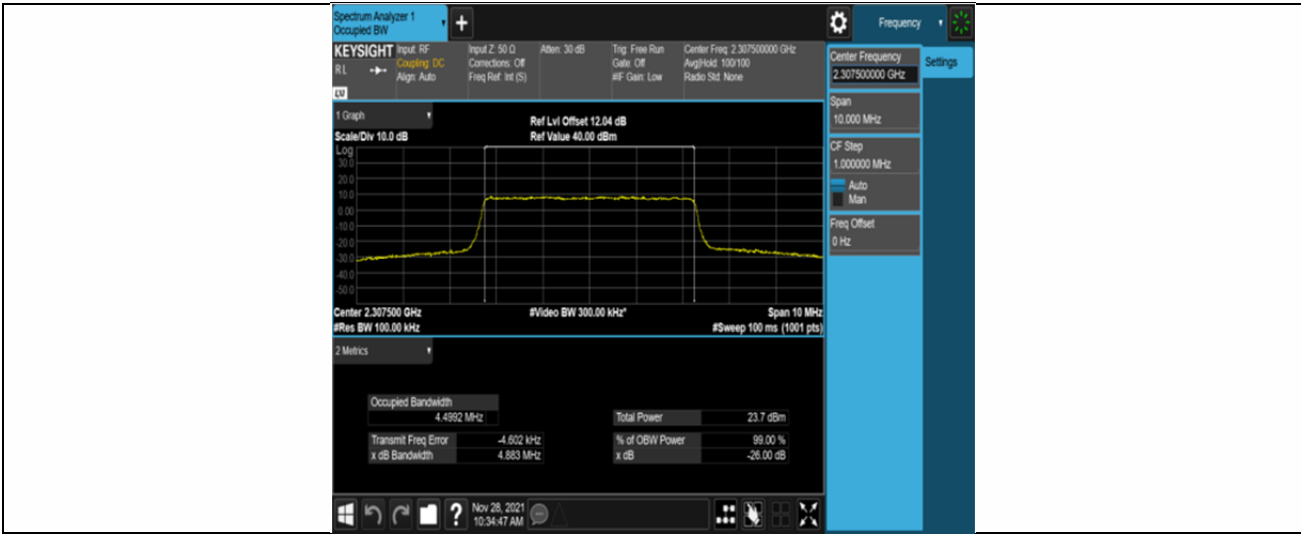
## Appendix C: 26dB Bandwidth and Occupied Bandwidth

### Test Result

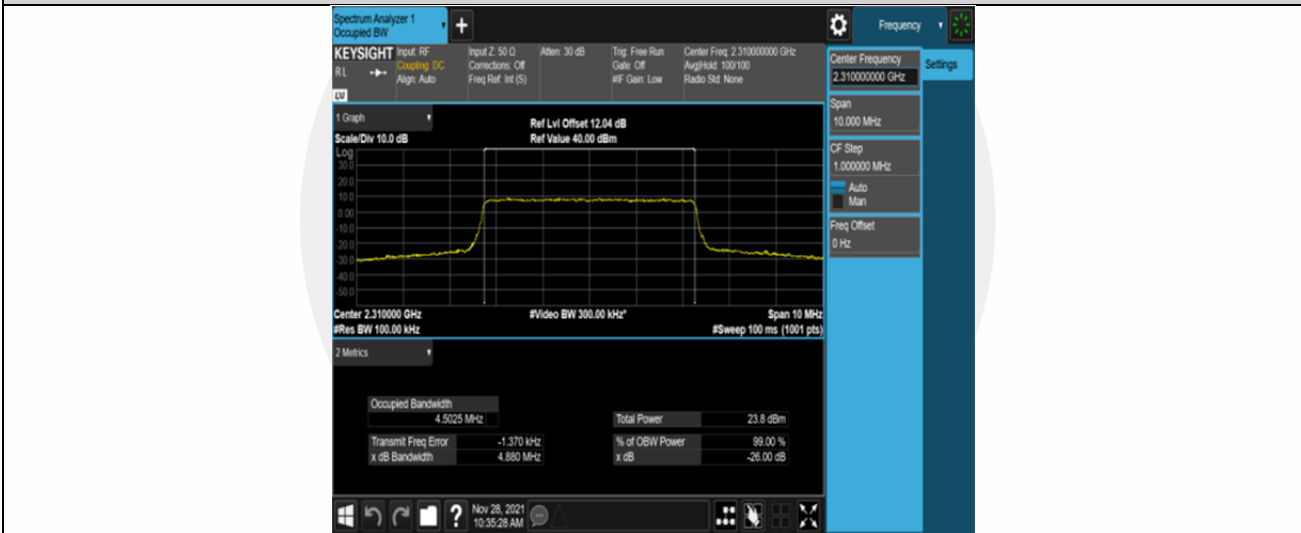
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band30	5MHz	QPSK	27685	25RB#0	4.4992	4.883	PASS
Band30	5MHz	QPSK	27710	25RB#0	4.5025	4.880	PASS
Band30	5MHz	QPSK	27735	25RB#0	4.5028	4.875	PASS
Band30	5MHz	16QAM	27685	25RB#0	4.5004	4.842	PASS
Band30	5MHz	16QAM	27710	25RB#0	4.4996	4.894	PASS
Band30	5MHz	16QAM	27735	25RB#0	4.5084	4.859	PASS
Band30	10MHz	QPSK	27710	50RB#0	8.9795	9.586	PASS
Band30	10MHz	16QAM	27710	50RB#0	8.9616	9.531	PASS



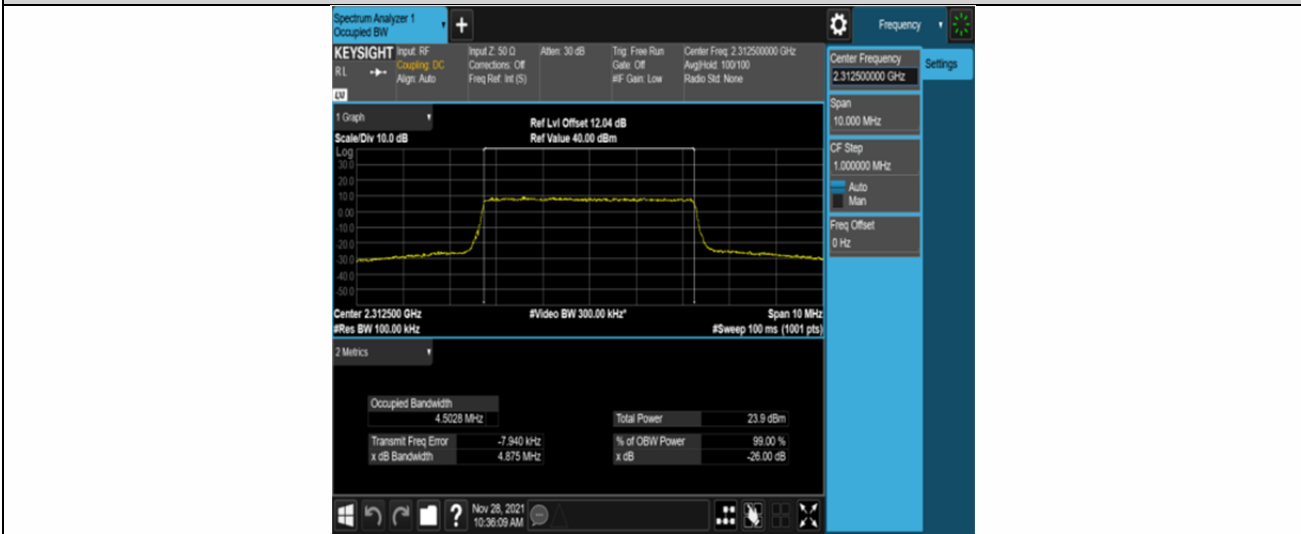
### Test Graphs



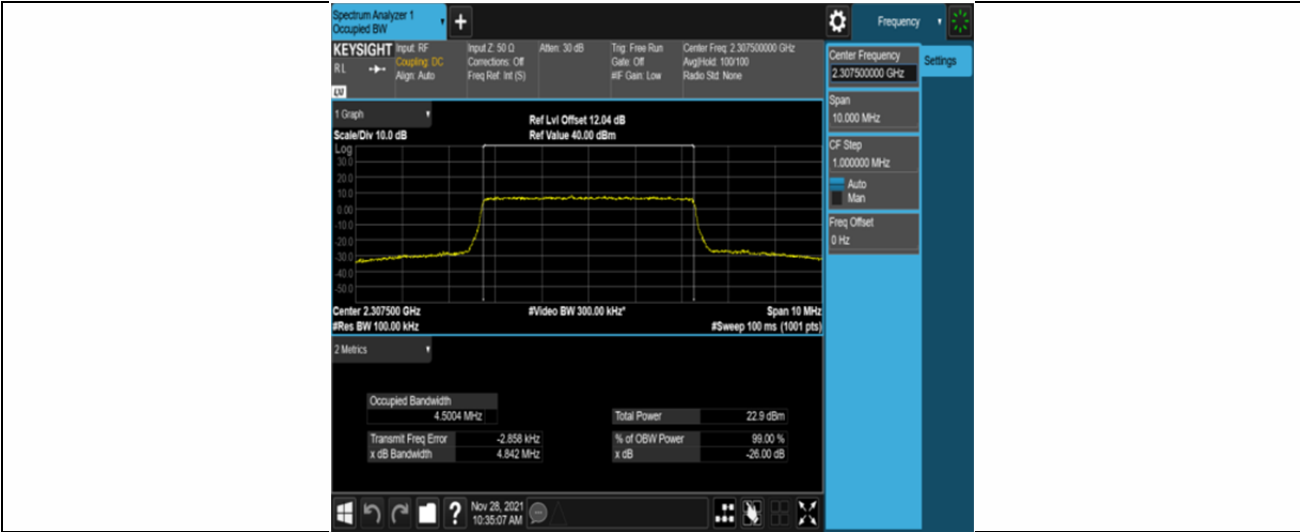
Band30-5MHz-QPSK-27685-25RB#0



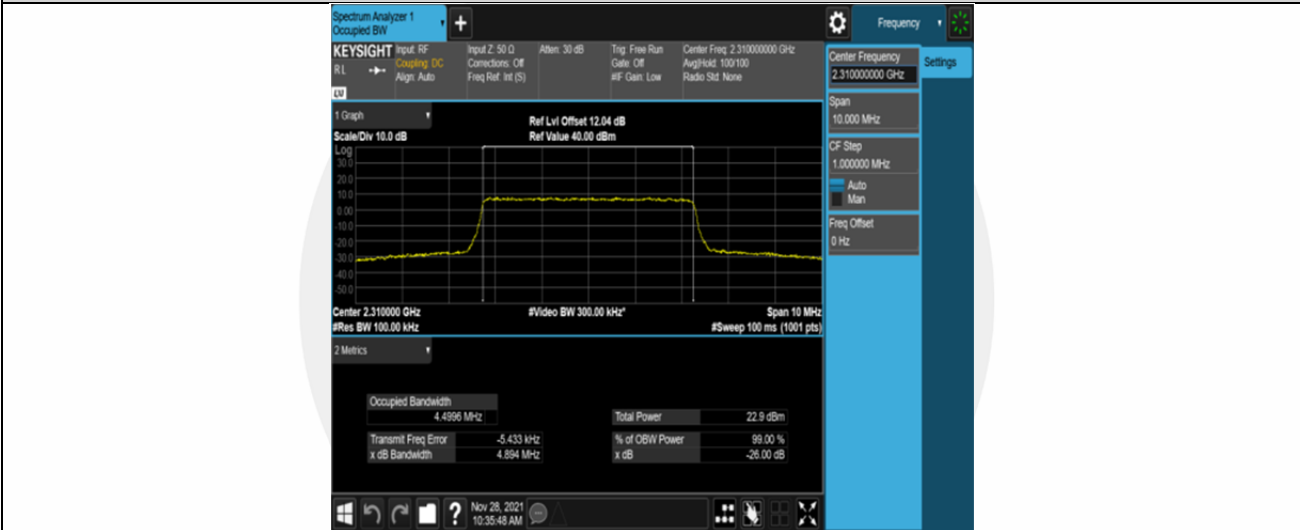
Band30-5MHz-QPSK-27710-25RB#0



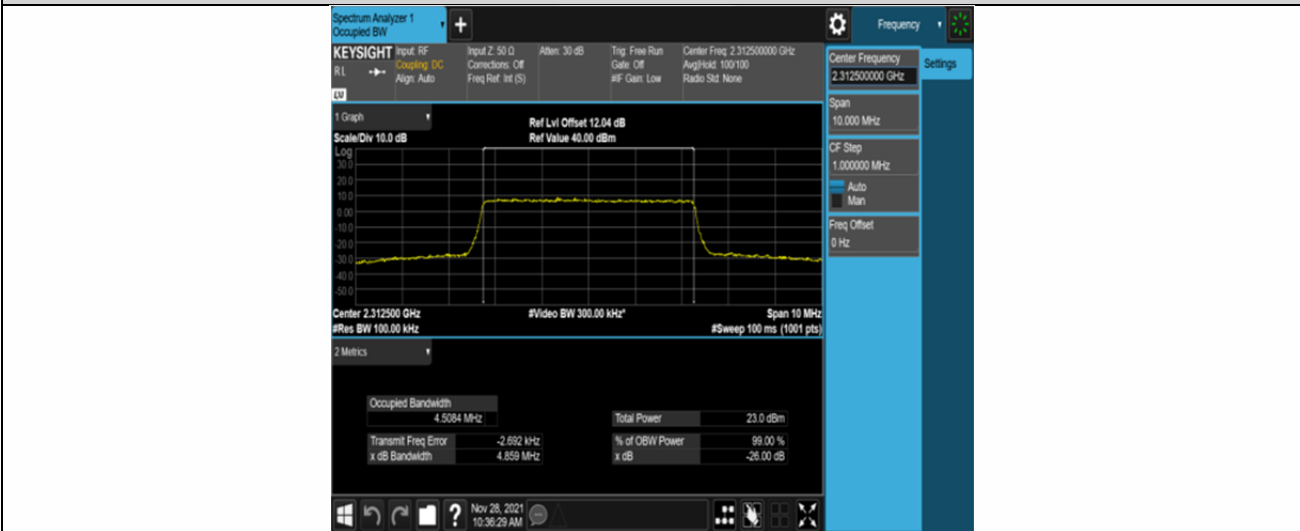
Band30-5MHz-QPSK-27735-25RB#0



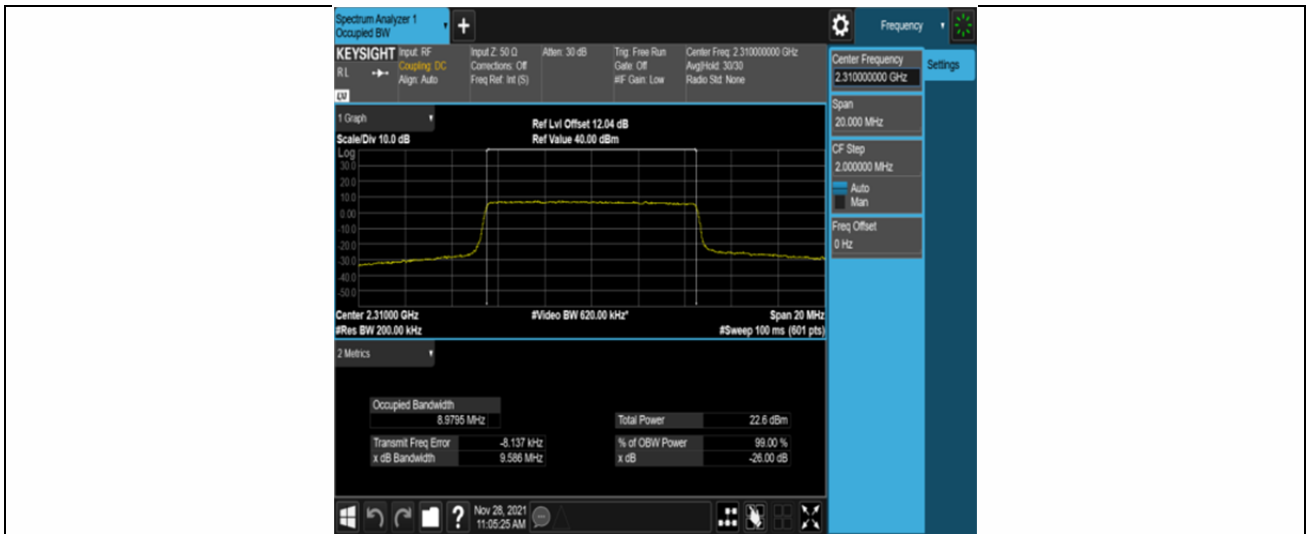
Band30-5MHz-16QAM-27685-25RB#0



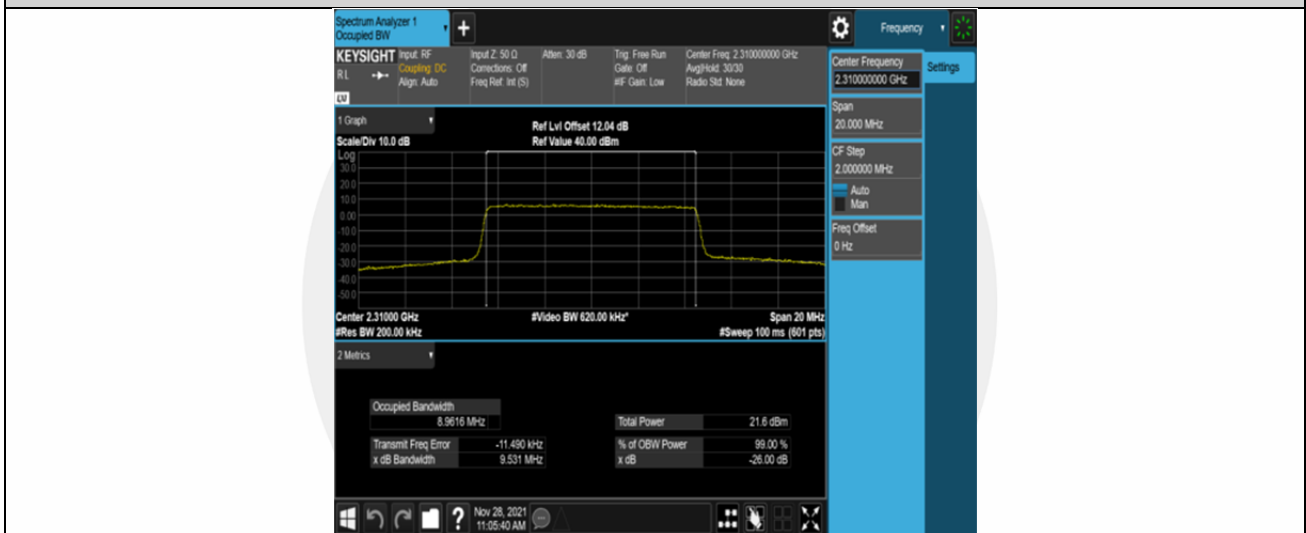
Band30-5MHz-16QAM-27710-25RB#0



Band30-5MHz-16QAM-27735-25RB#0



Band30-10MHz-QPSK-27710-50RB#0



Band30-10MHz-16QAM-27710-50RB#0

## Appendix D: Band Edge

### Test Result

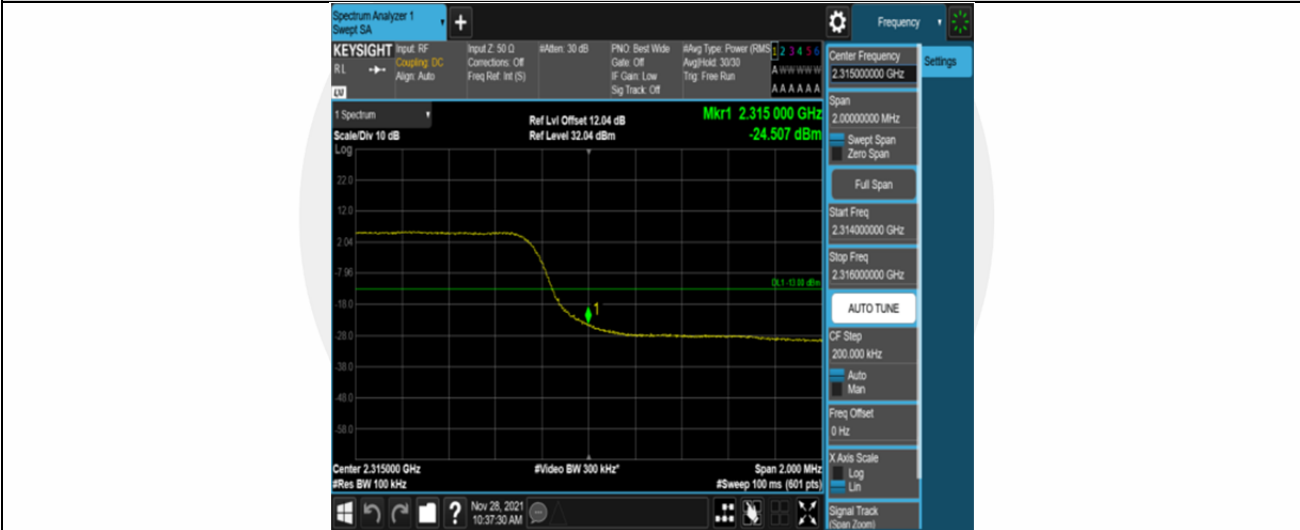
Band	Bandwidth	Modulation	Channel	RB Config.	Result (dBm)	Verdict
Band30	5MHz	QPSK	27685	25RB#0	-24.50	PASS
Band30	5MHz	QPSK	27735	25RB#0	-24.51	PASS
Band30	5MHz	16QAM	27685	25RB#0	-27.01	PASS
Band30	5MHz	16QAM	27735	25RB#0	-26.19	PASS
Band30	10MHz	QPSK	27710	50RB#0	-25.86,-24.82	PASS
Band30	10MHz	16QAM	27710	50RB#0	-28.63,-27.53	PASS



### Test Graphs



Band30-5MHz-QPSK-27685-25RB#0



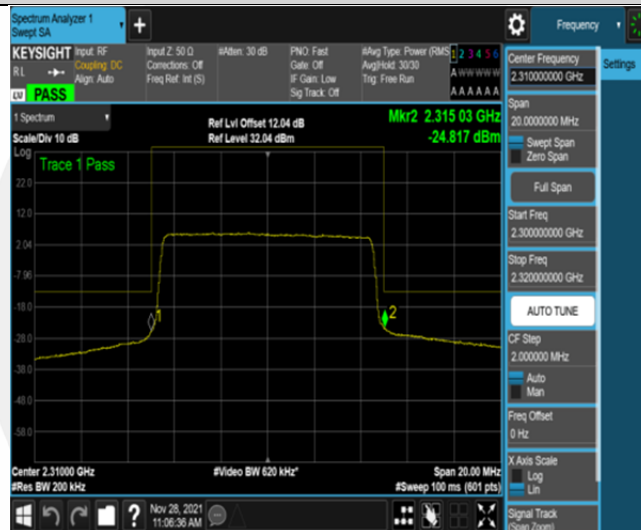
Band30-5MHz-QPSK-27735-25RB#0



Band30-5MHz-16QAM-27685-25RB#0



Band30-5MHz-16QAM-27735-25RB#0



Band30-10MHz-QPSK-27710-50RB#0



Band30-10MHz-16QAM-27710-50RB#0

## Appendix E: Conducted Spurious Emission

### Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band30	5MHz	QPSK	27685	25RB#0	Range1:30~1000MHz	-56.97	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range2:1000~2288MHz	-53.23	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range3:2288~2292MHz	-53.8	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range4:2292~2296MHz	-54.31	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range5:2296~2300MHz	-54	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range6:2300~2305MHz	-44.3	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range7:2320~2324MHz	-54.93	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range8:2324~2328MHz	-54.84	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range9:2328~2337MHz	-53.16	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range10:2337~2341MHz	-44.72	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range11:2341~2345MHz	-44.17	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range12:2360~2365MHz	-34.22	PASS
Band30	5MHz	QPSK	27685	25RB#0	Range13:2365~26500MHz	-47.65	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range1:30~1000MHz	-56.2	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range2:1000~2288MHz	-56.5	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range3:2288~2292MHz	-54.89	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range4:2292~	-53.76	PASS

					2296MHz		
Band30	5MHz	QPSK	27710	25RB#0	Range5:2296~2300MHz	-55.52	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range6:2300~2305MHz	-44.5	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range7:2320~2324MHz	-55.59	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range8:2324~2328MHz	-55.19	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range9:2328~2337MHz	-53.82	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range10:2337~2341MHz	-44.64	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range11:2341~2345MHz	-43.55	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range12:2360~2365MHz	-35.05	PASS
Band30	5MHz	QPSK	27710	25RB#0	Range13:2365~26500MHz	-47.32	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range1:30~1000MHz	-56.49	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range2:1000~2288MHz	-57.08	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range3:2288~2292MHz	-54.11	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range4:2292~2296MHz	-55.46	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range5:2296~2300MHz	-54.9	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range6:2300~2305MHz	-44.82	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range7:2320~2324MHz	-54.45	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range8:2324~2328MHz	-54.57	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range9:2328~2337MHz	-54.3	PASS



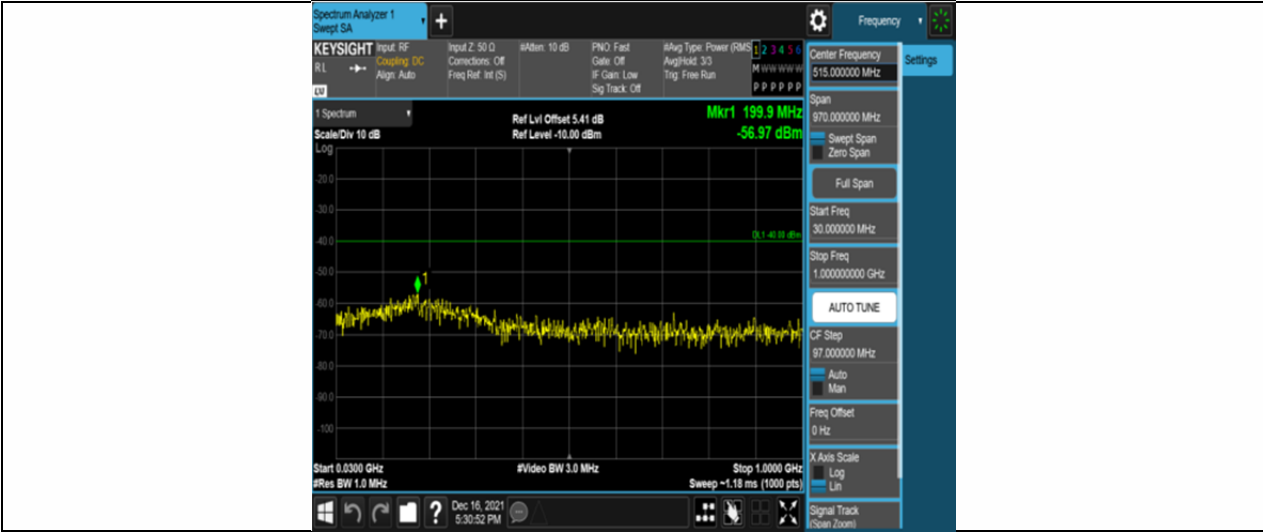
Band30	5MHz	QPSK	27735	25RB#0	Range10:2337 ~2341MHz	-43.48	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range11:2341 ~2345MHz	-45.41	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range12:2360 ~2365MHz	-34.87	PASS
Band30	5MHz	QPSK	27735	25RB#0	Range13:2365 ~26500MHz	-47.19	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range1:30~10 00MHz	-57.27	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range2:1000~ 2288MHz	-58.26	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range3:2288~ 2292MHz	-54.32	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range4:2292~ 2296MHz	-54.57	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range5:2296~ 2300MHz	-55.97	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range6:2300~ 2305MHz	-44.23	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range7:2320~ 2324MHz	-54.55	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range8:2324~ 2328MHz	-54.92	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range9:2328~ 2337MHz	-54.26	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range10:2337 ~2341MHz	-43.86	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range11:2341 ~2345MHz	-44.06	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range12:2360 ~2365MHz	-33.02	PASS
Band30	5MHz	16QAM	27685	25RB#0	Range13:2365 ~26500MHz	-48.04	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range1:30~10 00MHz	-56.99	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range2:1000~	-58.22	PASS

					2288MHz		
Band30	5MHz	16QAM	27710	25RB#0	Range3:2288~2292MHz	-54.85	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range4:2292~2296MHz	-54.66	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range5:2296~2300MHz	-54.37	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range6:2300~2305MHz	-44.36	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range7:2320~2324MHz	-54.5	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range8:2324~2328MHz	-54.2	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range9:2328~2337MHz	-54.42	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range10:2337~2341MHz	-43.73	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range11:2341~2345MHz	-44.52	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range12:2360~2365MHz	-34.06	PASS
Band30	5MHz	16QAM	27710	25RB#0	Range13:2365~26500MHz	-48.13	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range1:30~1000MHz	-56.63	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range2:1000~2288MHz	-58.13	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range3:2288~2292MHz	-55.27	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range4:2292~2296MHz	-54.49	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range5:2296~2300MHz	-55.45	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range6:2300~2305MHz	-44.56	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range7:2320~2324MHz	-55.8	PASS

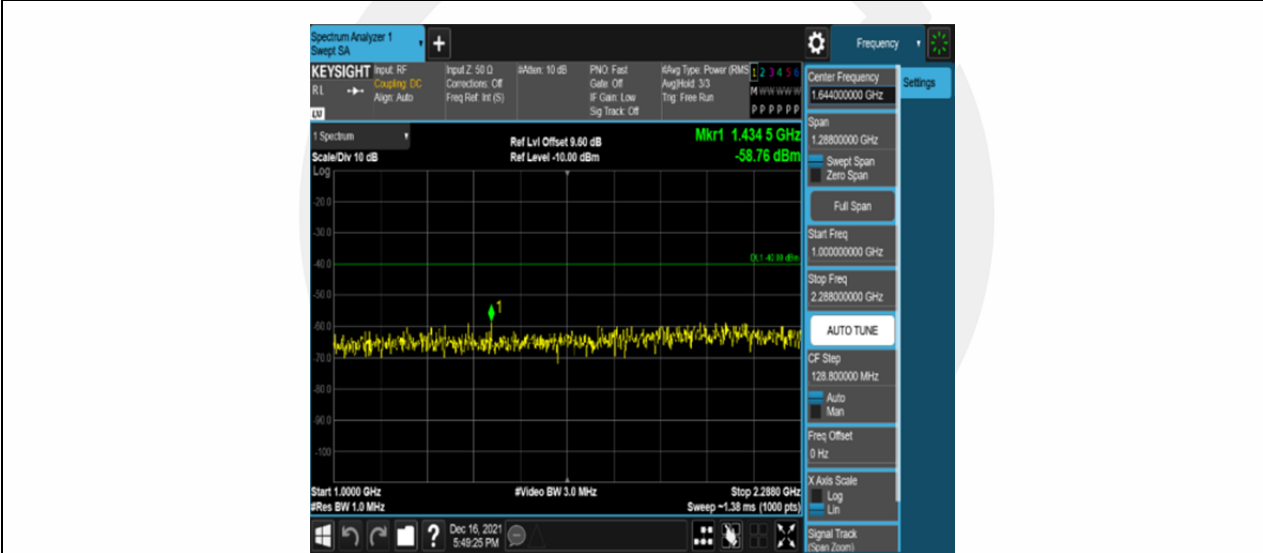
Band30	5MHz	16QAM	27735	25RB#0	Range8:2324~2328MHz	-54.82	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range9:2328~2337MHz	-54.37	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range10:2337~2341MHz	-44.54	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range11:2341~2345MHz	-44.53	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range12:2360~2365MHz	-34.15	PASS
Band30	5MHz	16QAM	27735	25RB#0	Range13:2365~26500MHz	-47.88	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range1:30~1000MHz	-57.38	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range2:1000~2288MHz	-57.3	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range3:2288~2292MHz	-55.27	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range4:2292~2296MHz	-55.29	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range5:2296~2300MHz	-54.89	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range6:2300~2305MHz	-44.54	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range7:2320~2324MHz	-54.5	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range8:2324~2328MHz	-54.51	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range9:2328~2337MHz	-54.11	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range10:2337~2341MHz	-44.69	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range11:2341~2345MHz	-44.14	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range12:2360~2365MHz	-34.97	PASS
Band30	10MHz	QPSK	27710	50RB#0	Range13:2365	-47.93	PASS

					~26500MHz		
Band30	10MHz	16QAM	27710	50RB#0	Range1:30~1000MHz	-56.01	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range2:1000~2288MHz	-58.9	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range3:2288~2292MHz	-55.26	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range4:2292~2296MHz	-54.69	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range5:2296~2300MHz	-54.27	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range6:2300~2305MHz	-45.03	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range7:2320~2324MHz	-54.42	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range8:2324~2328MHz	-54.53	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range9:2328~2337MHz	-54.75	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range10:2337~2341MHz	-44	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range11:2341~2345MHz	-43.81	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range12:2360~2365MHz	-34.36	PASS
Band30	10MHz	16QAM	27710	50RB#0	Range13:2365~26500MHz	-48.39	PASS

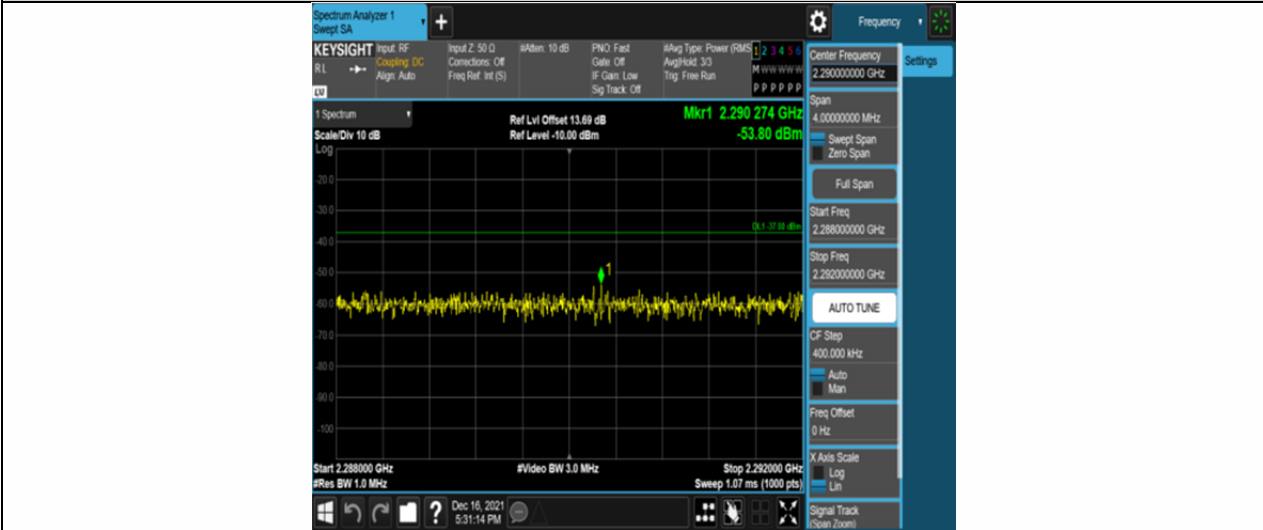
### Test Graphs



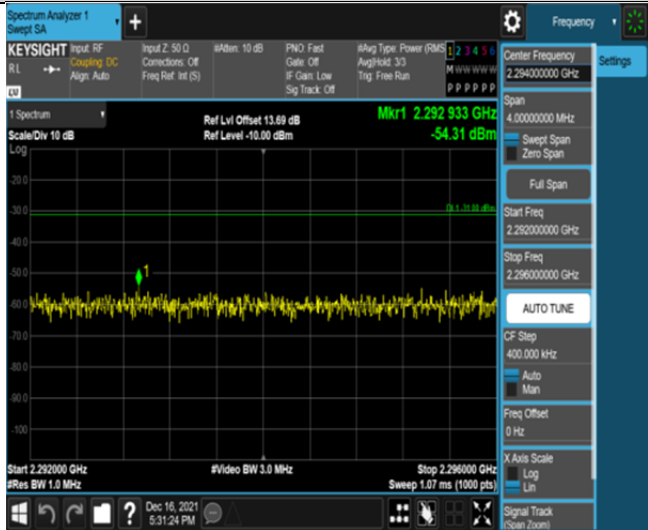
Band30-5MHz-QPSK-27685-25RB#0-Range1:30~1000MHz



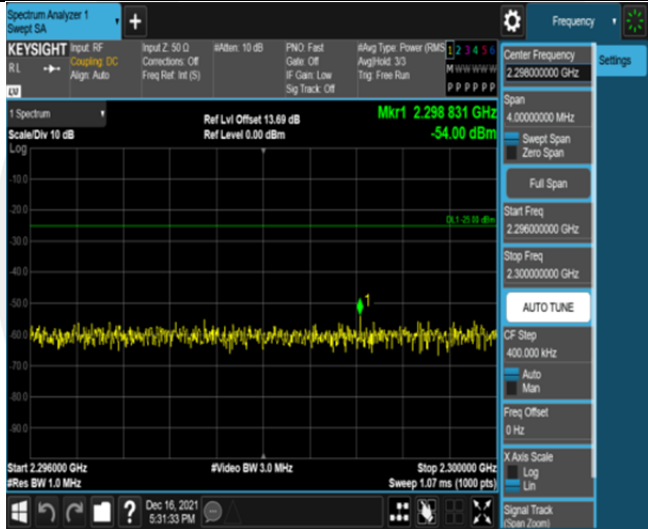
Band30-5MHz-QPSK-27685-25RB#0-Range2:1000~2288MHz



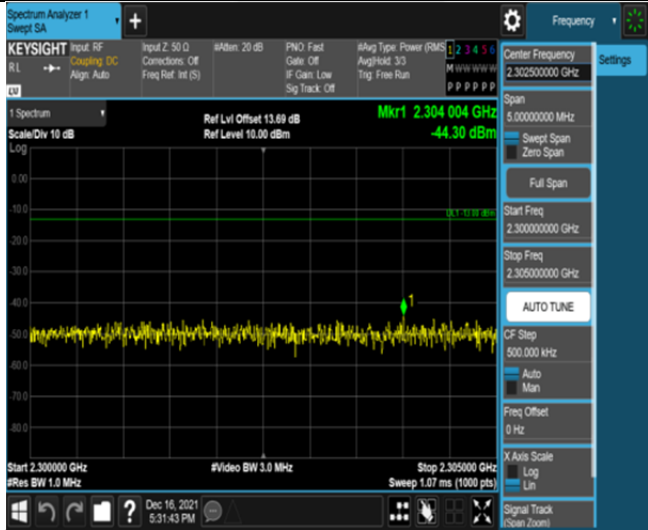
### Band30-5MHz-QPSK-27685-25RB#0-Range3:2288~2292MHz



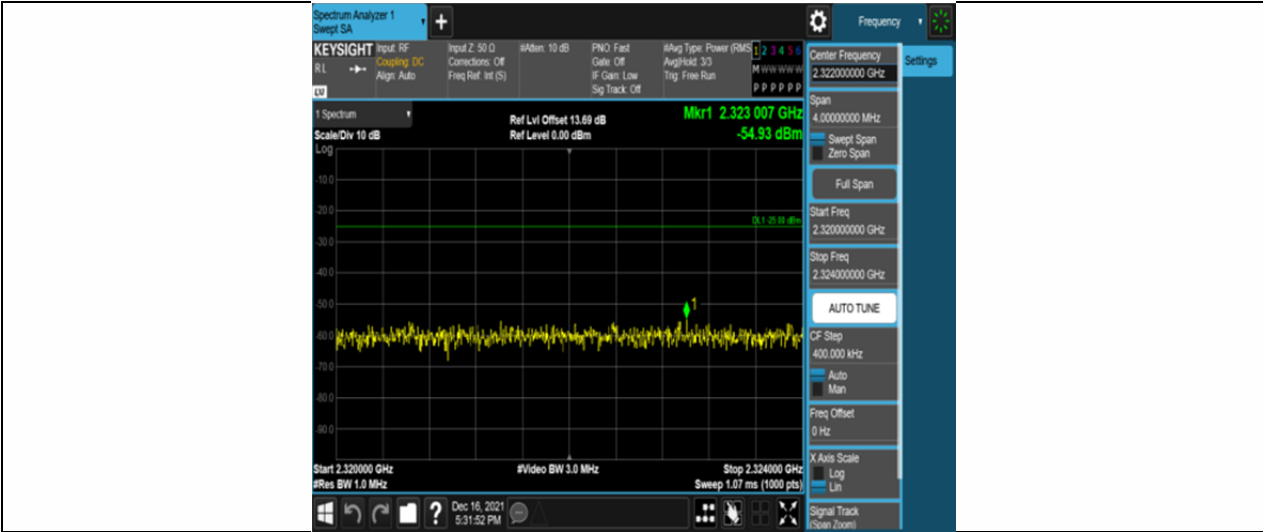
### Band30-5MHz-QPSK-27685-25RB#0-Range4:2292~2296MHz



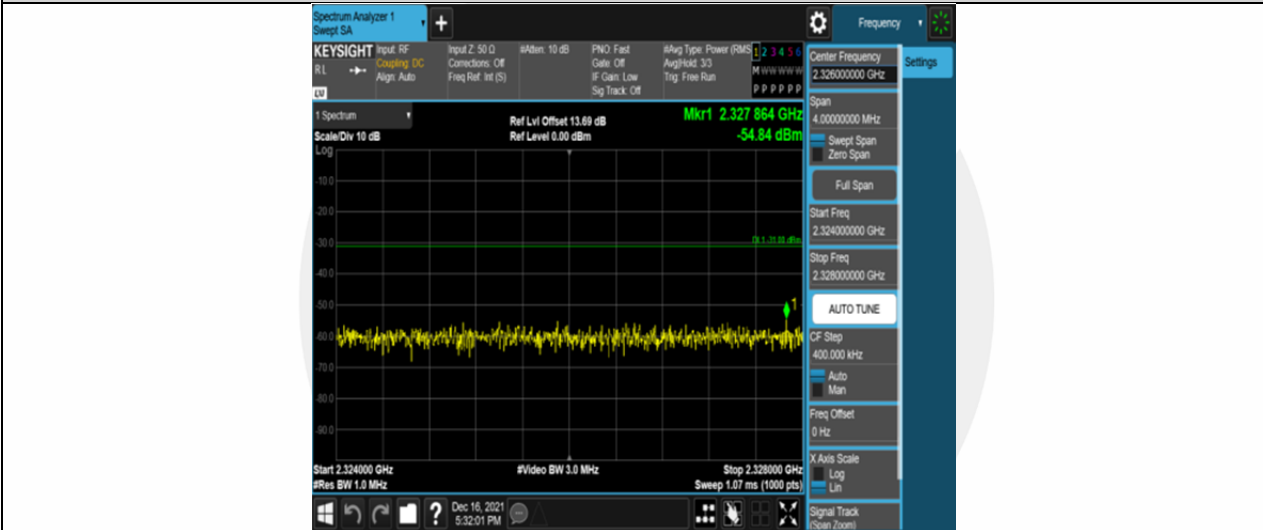
### Band30-5MHz-QPSK-27685-25RB#0-Range5:2296~2300MHz



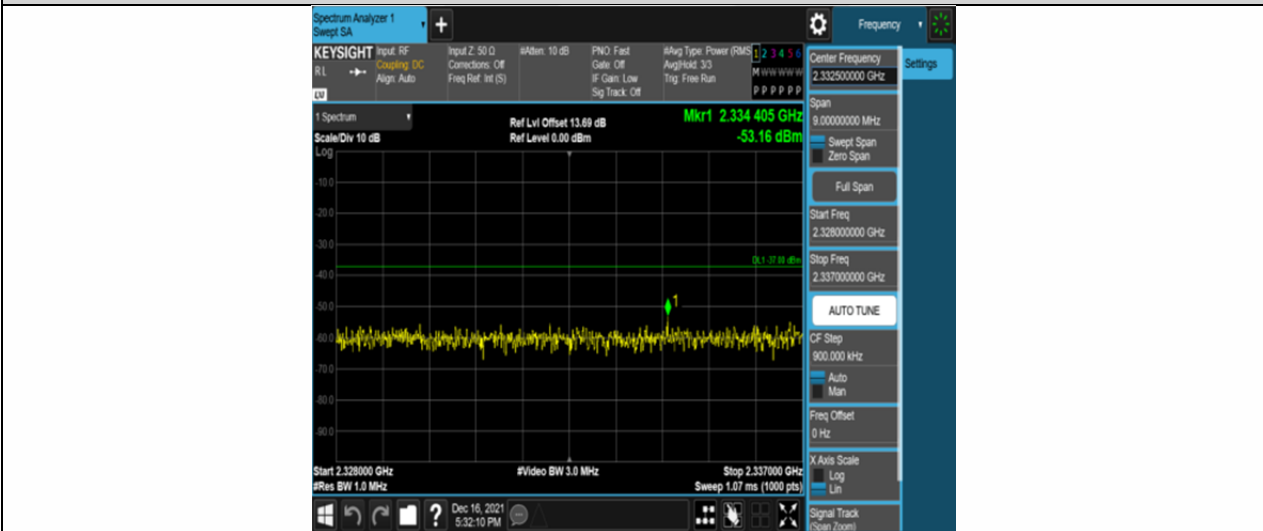
### Band30-5MHz-QPSK-27685-25RB#0-Range6:2300~2305MHz



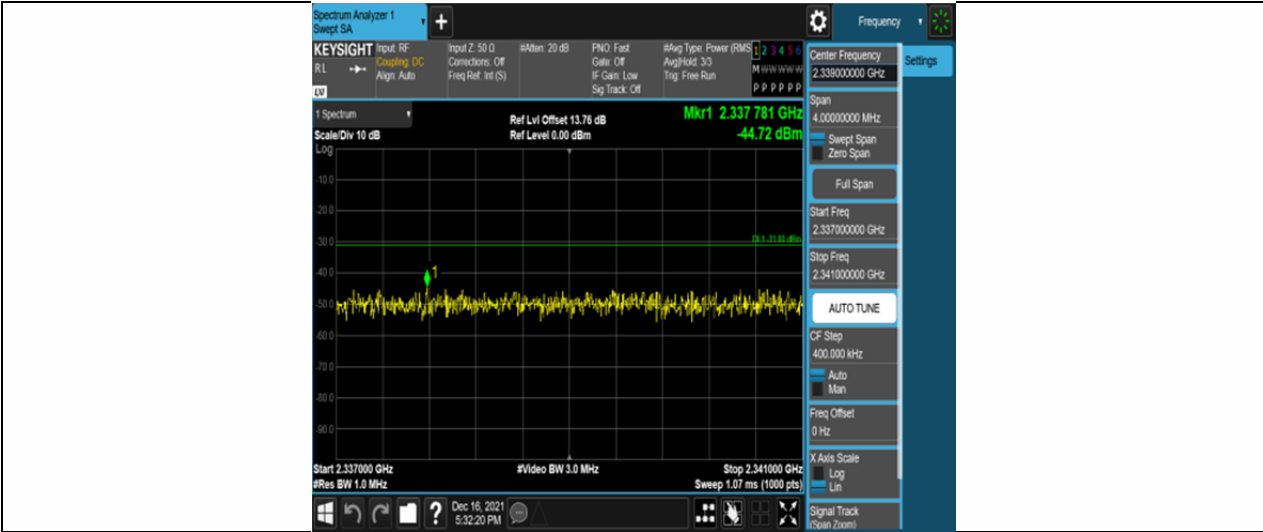
Band30-5MHz-QPSK-27685-25RB#0-Range7:2320~2324MHz



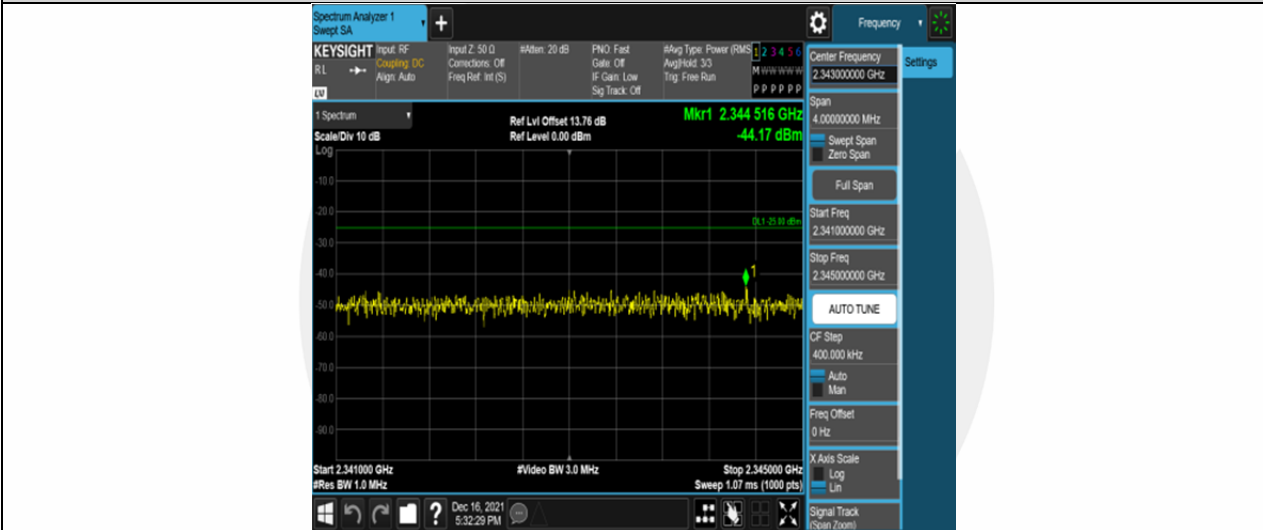
Band30-5MHz-QPSK-27685-25RB#0-Range8:2324~2328MHz



Band30-5MHz-QPSK-27685-25RB#0-Range9:2328~2337MHz



Band30-5MHz-QPSK-27685-25RB#0-Range10:2337~2341MHz



Band30-5MHz-QPSK-27685-25RB#0-Range11:2341~2345MHz

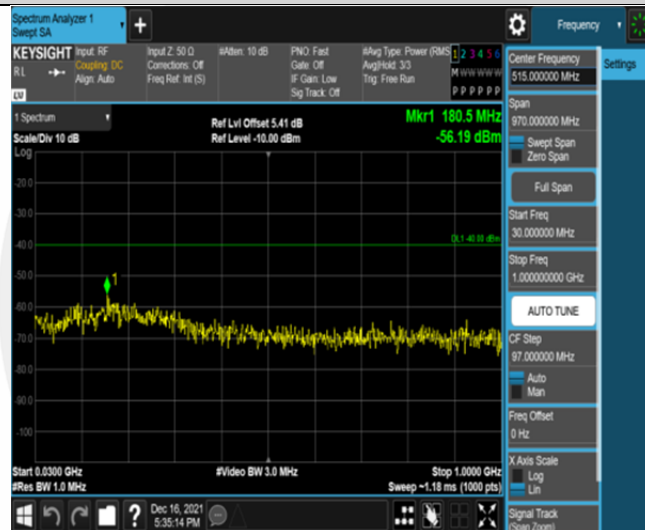


Band30-5MHz-QPSK-27685-25RB#0-Range12:2360~2365MHz

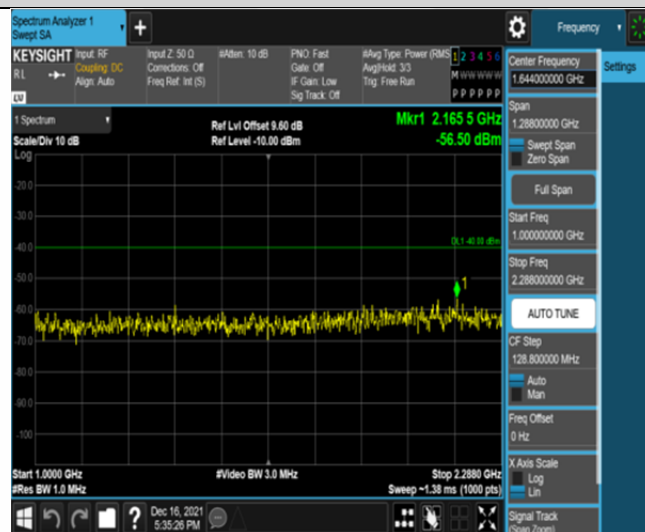




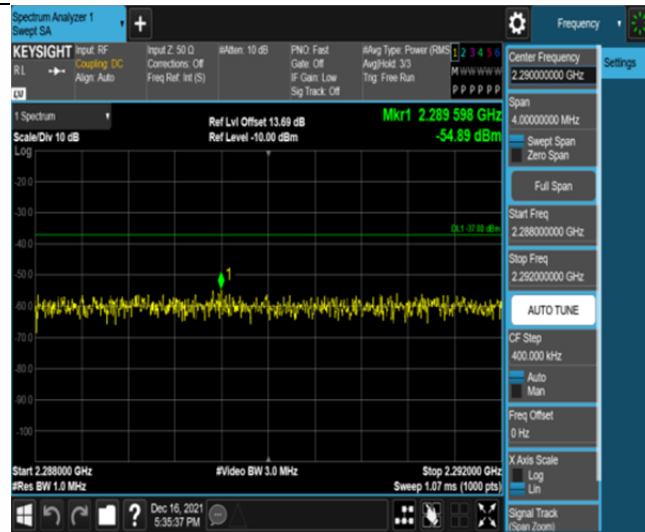
Band30-5MHz-QPSK-27685-25RB#0-Range13:2365~26500MHz



Band30-5MHz-QPSK-27710-25RB#0-Range1:30~1000MHz



Band30-5MHz-QPSK-27710-25RB#0-Range2:1000~2288MHz



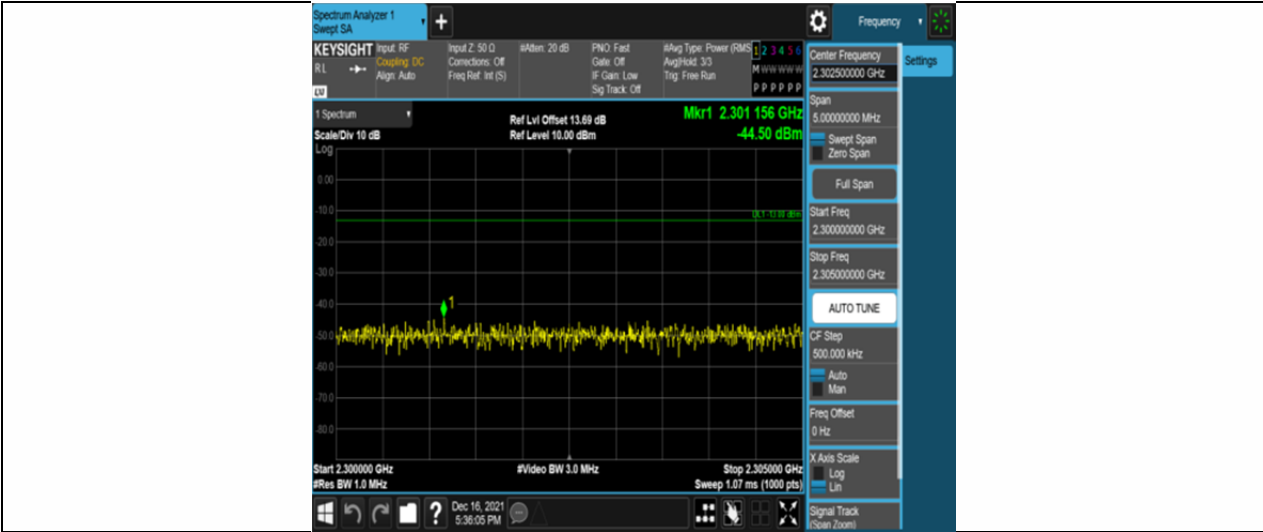
Band30-5MHz-QPSK-27710-25RB#0-Range3:2288~2292MHz



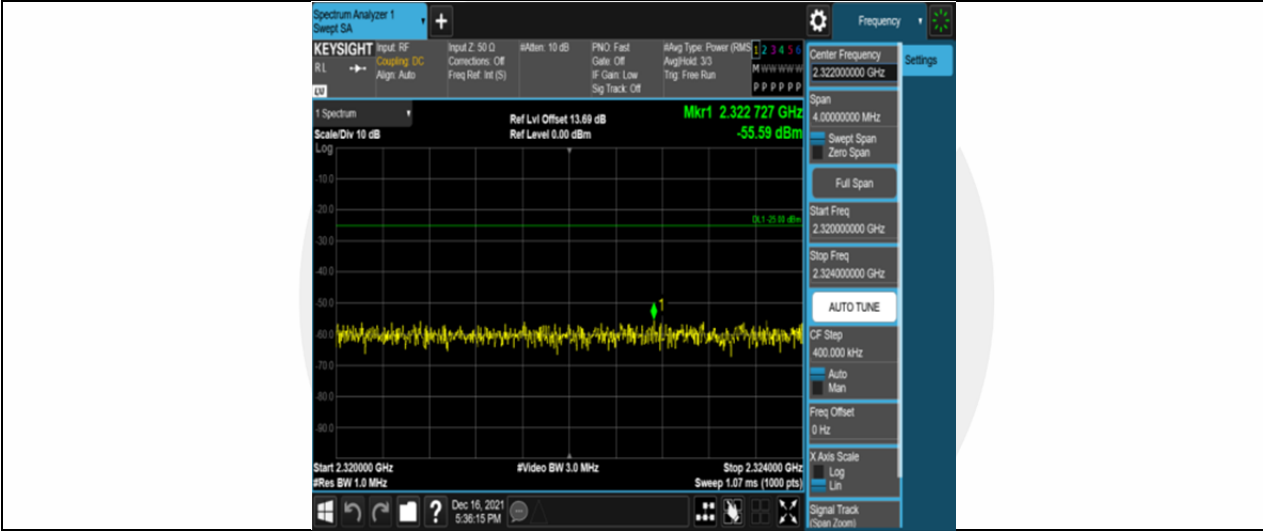
Band30-5MHz-QPSK-27710-25RB#0-Range4:2292~2296MHz



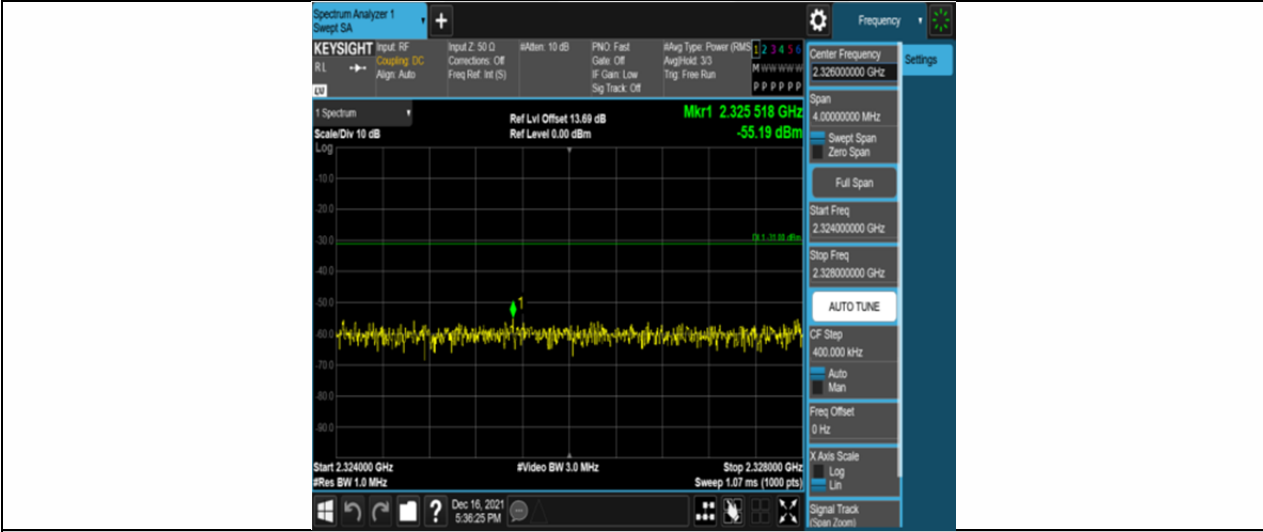
Band30-5MHz-QPSK-27710-25RB#0-Range5:2296~2300MHz



Band30-5MHz-QPSK-27710-25RB#0-Range6:2300~2305MHz



Band30-5MHz-QPSK-27710-25RB#0-Range7:2320~2324MHz



Band30-5MHz-QPSK-27710-25RB#0-Range8:2324~2328MHz