

FCC LTE NB-IOT Band 4 Test Data

General Description of EUT	
Product Name:	AirSuite Sense LTE
Test Model:	SSCM860
Sample ID:	202303-0011-01-02#
Environmental Conditions	
Temperature:	25°C
Relative Humidity:	55%
Test Voltage:	DC 5V
Test Engineer:	Huang jian ping
Note: For a more detailed features description, please refer to the report TBR-C-202303-0011-101 . The report only show the worst case data.	

Contents

FCC LTE NB-IOT Band 4 Test Data	1
1: Conducted Power Data for NB1	3
1.1 Test Result.....	3
2: Peak-to-Average Ratio(CCDF) for NB1.....	4
2.1 Test Result.....	4
2.2 Test Graphs	5
3: Emission Bandwidth for NB1.....	9
3.1 Test Result.....	9
3.2 Test Graphs	10
4: Band Edge for NB1	16
4.1 Test Result.....	16
4.2 Test Graphs	17
5: Conducted Spurious Emission for NB1.....	24
5.1 Test Result.....	24
5.2 Test Graphs	30
6: Frequency Stability for NB1.....	50
6.1 Test Result.....	50

1: Conducted Power Data for NB1

1.1 Test Result

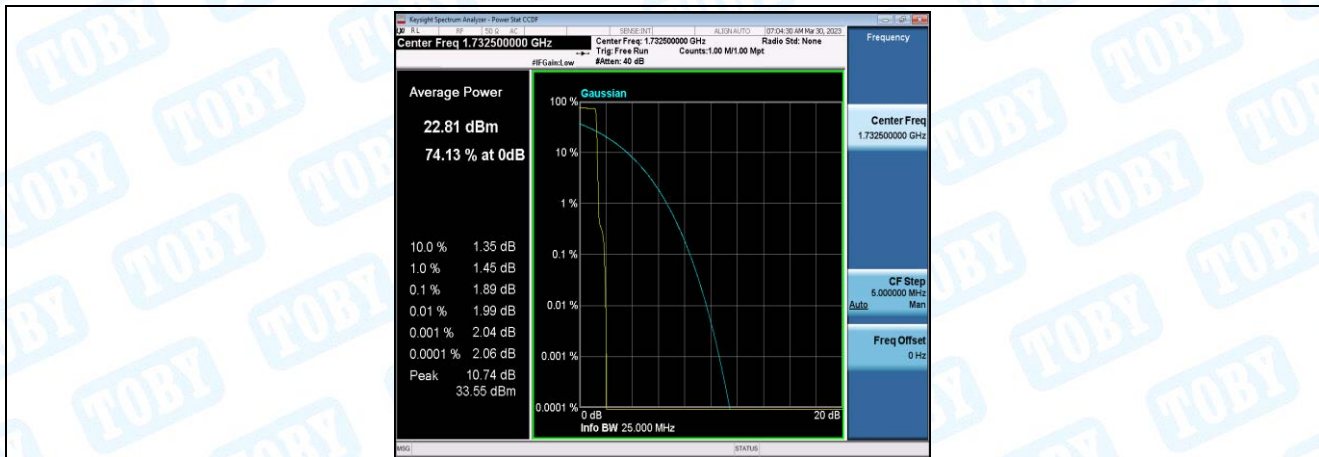
Band	OpMode	BW	Modu	Channel	Tones	Result (dBm)	Verdict
Band4	Stand-Alone	3.75kHz	BPSK	19951	1@0	23.71	PASS
Band4	Stand-Alone	3.75kHz	BPSK	19951	1@47	23.65	PASS
Band4	Stand-Alone	3.75kHz	BPSK	20175	1@0	23.74	PASS
Band4	Stand-Alone	3.75kHz	BPSK	20175	1@47	23.69	PASS
Band4	Stand-Alone	3.75kHz	BPSK	20399	1@0	23.54	PASS
Band4	Stand-Alone	3.75kHz	BPSK	20399	1@47	23.60	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@0	23.71	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@47	23.69	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	23.78	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	23.74	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@0	23.56	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@47	23.48	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@0	23.75	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@11	23.79	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	3@3	23.59	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@0	23.83	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@11	23.83	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	3@3	23.67	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@0	23.62	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@11	23.61	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	3@3	23.57	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	1@0	23.76	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	1@11	23.75	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	3@3	23.60	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	23.81	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	23.82	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	3@3	23.68	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	1@0	23.19	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	1@11	23.63	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	3@3	23.56	PASS

2: Peak-to-Average Ratio(CCDF) for NB1

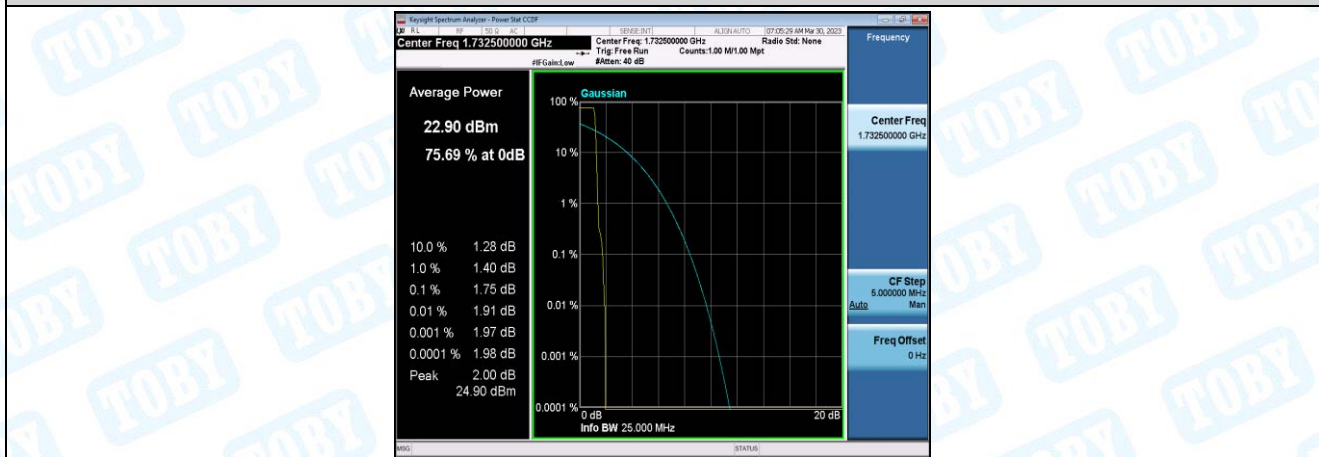
2.1 Test Result

Band	OpMode	BW	Modu	Channel	Tones	Result (dBm)	Limit (dBm)	Verdict
Band4	Stand-Alone	3.75kHz	BPSK	20175	1@0	1.89	<=13	PASS
Band4	Stand-Alone	3.75kHz	BPSK	20175	1@47	1.75	<=13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	3.5	<=13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	2.72	<=13	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@0	3.53	<=13	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@11	3.91	<=13	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	3@3	8.77	<=13	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	10.23	<=13	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	8.98	<=13	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	3@3	10.76	<=13	PASS

2.2 Test Graphs



Band4-Stand-Alone-NaN-BPSK-20175-1@0-3.75kHz-1.89-<=13-PASS



Band4-Stand-Alone-NaN-BPSK-20175-1@47-3.75kHz-1.75-<=13-PASS



Band4-Stand-Alone-NaN-QPSK-20175-1@0-3.75kHz-3.5-<=13-PASS



Band4-Stand-Alone-NaN-QPSK-20175-1@47-3.75kHz-2.72-<=13-PASS



Band4-Stand-Alone-NaN-BPSK-20175-1@0-15kHz-3.53-<=13-PASS



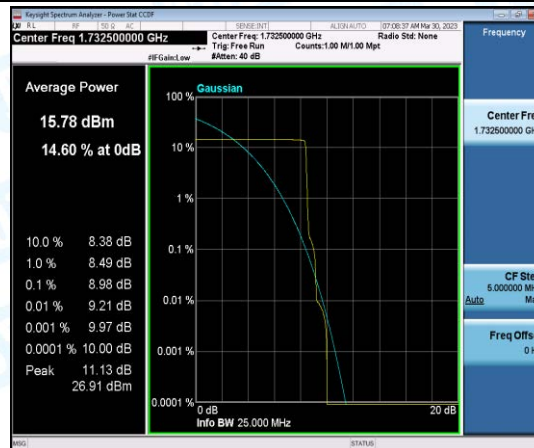
Band4-Stand-Alone-NaN-BPSK-20175-1@11-15kHz-3.91-<=13-PASS



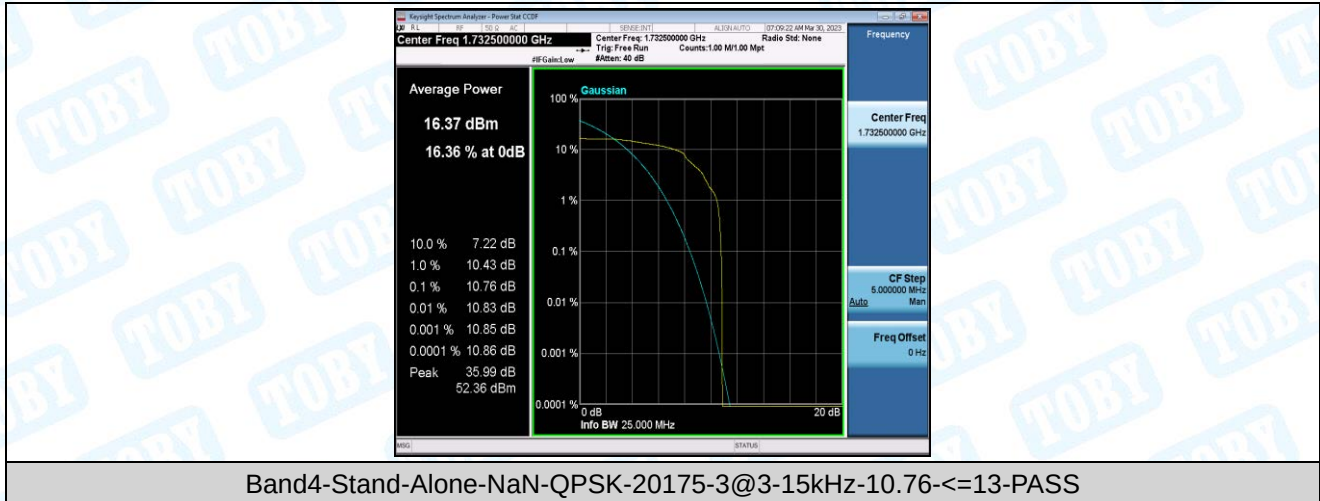
Band4-Stand-Alone-NaNBPSK-20175-3@3-15kHz-8.77-<=13-PASS



Band4-Stand-Alone-NaNBPSK-20175-1@0-15kHz-10.23-<=13-PASS



Band4-Stand-Alone-NaNBPSK-20175-1@11-15kHz-8.98-<=13-PASS

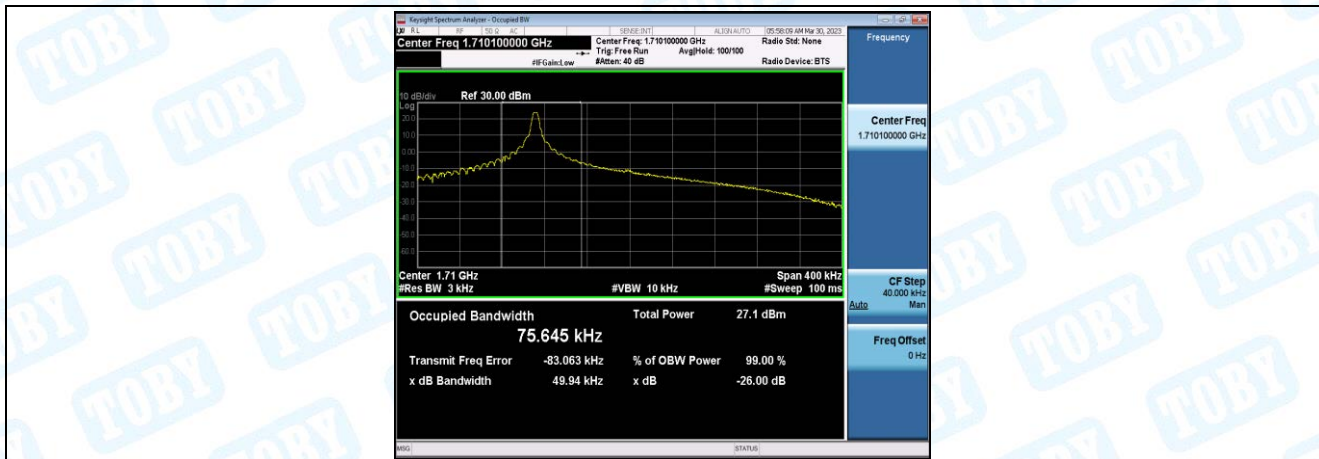


3: Emission Bandwidth for NB1

3.1 Test Result

Band	OpMode	BW	Modu	Channel	Tones	Occupied Bandwidth (MHz)	Result (MHz)	Verdict
Band4	Stand-Alone	3.75kHz	BPSK	19951	1@0	0.0756	0.0499	PASS
Band4	Stand-Alone	3.75kHz	BPSK	20175	1@0	0.0751	0.0504	PASS
Band4	Stand-Alone	3.75kHz	BPSK	20399	1@0	0.0732	0.0754	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@0	0.0901	0.0543	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	0.0896	0.0544	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@0	0.0891	0.0537	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@0	0.1345	0.1273	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	12@0	0.1826	0.2843	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@0	0.1388	0.1308	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	12@0	0.1862	0.3054	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@0	0.1352	0.1307	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	12@0	0.1869	0.3015	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	1@0	0.1426	0.1445	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	12@0	0.1860	0.2736	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	0.1383	0.1432	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	12@0	0.1878	0.3164	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	1@0	0.1386	0.1453	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	12@0	0.1878	0.2927	PASS

3.2 Test Graphs



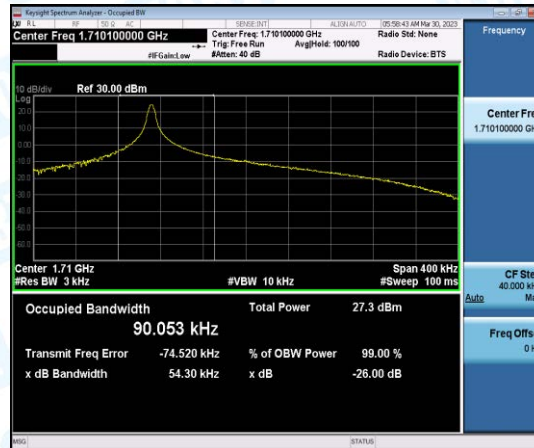
Band4-Stand-Alone-NaN-BPSK-19951-1@0-3.75kHz-0.0499-PASS



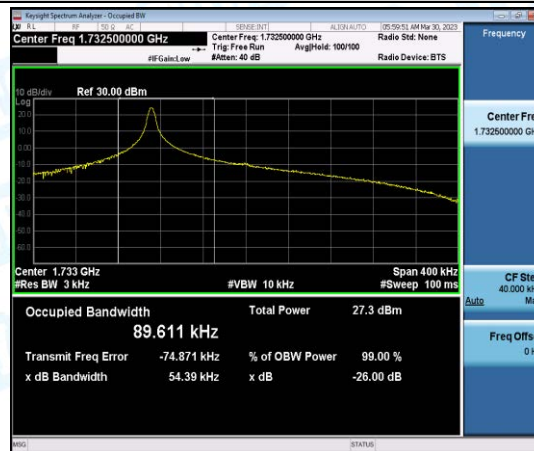
Band4-Stand-Alone-NaN-BPSK-20175-1@0-3.75kHz-0.0504-PASS



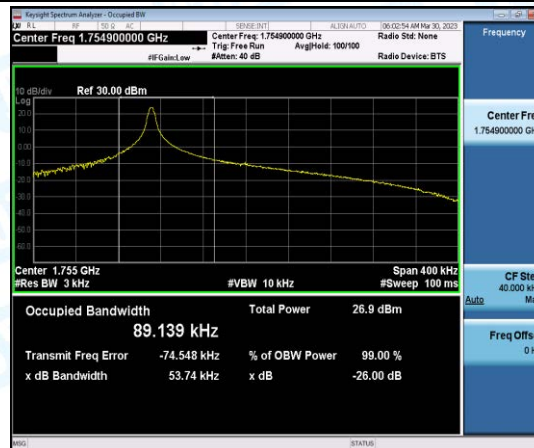
Band4-Stand-Alone-NaN-BPSK-20399-1@0-3.75kHz-0.0754-PASS



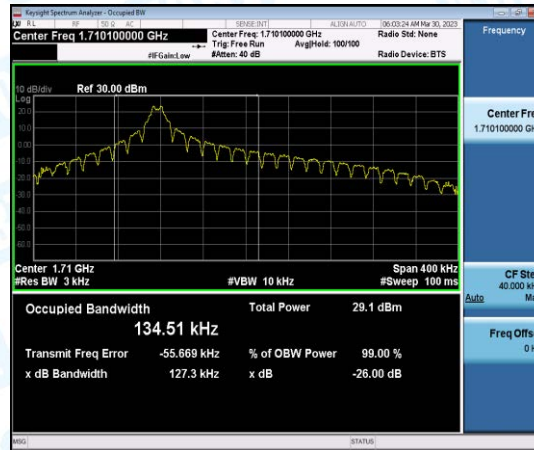
Band4-Stand-Alone-NaN-QPSK-19951-1@0-3.75kHz-0.0543-PASS



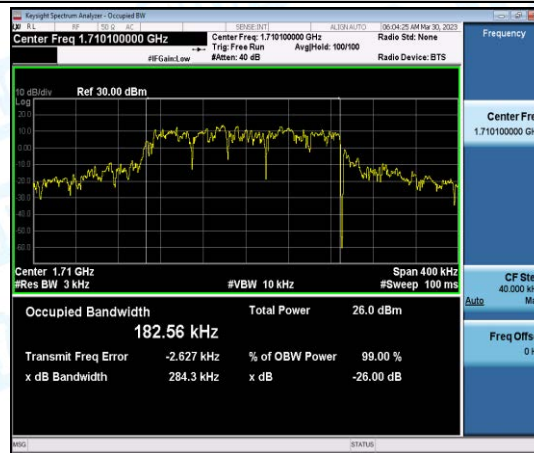
Band4-Stand-Alone-NaN-QPSK-20175-1@0-3.75kHz-0.0544-PASS



Band4-Stand-Alone-NaN-QPSK-20399-1@0-3.75kHz-0.0537-PASS



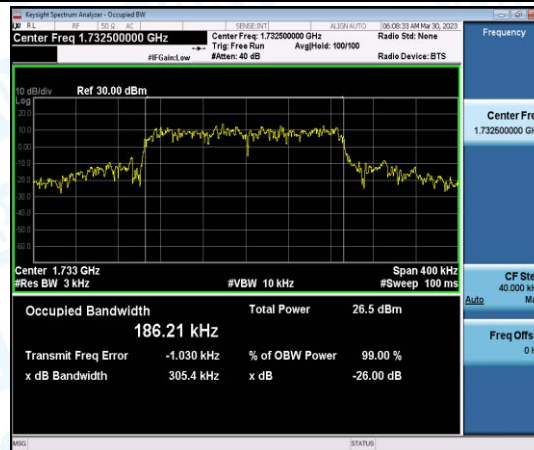
Band4-Stand-Alone-NaN-BPSK-19951-1@0-15kHz-0.1273-PASS



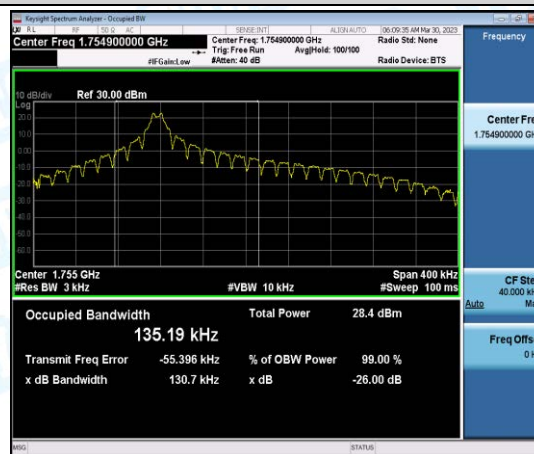
Band4-Stand-Alone-NaN-BPSK-19951-12@0-15kHz-0.2843-PASS



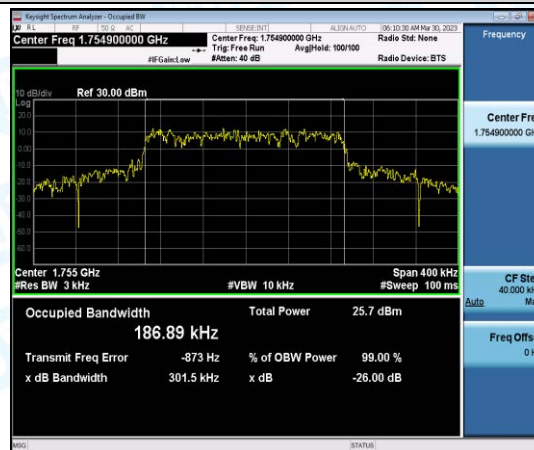
Band4-Stand-Alone-NaN-BPSK-20175-1@0-15kHz-0.1308-PASS



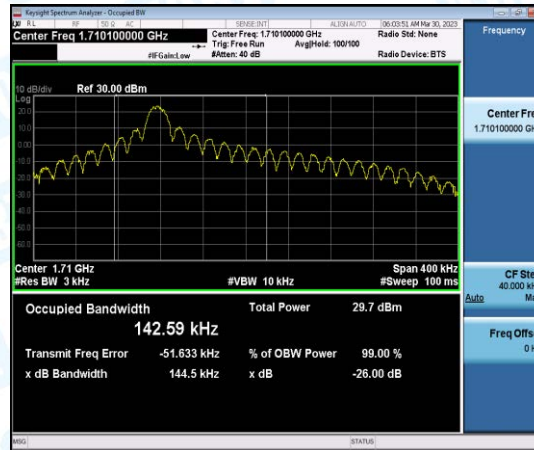
Band4-Stand-Alone-NaN-BPSK-20175-12@0-15kHz-0.3054-PASS



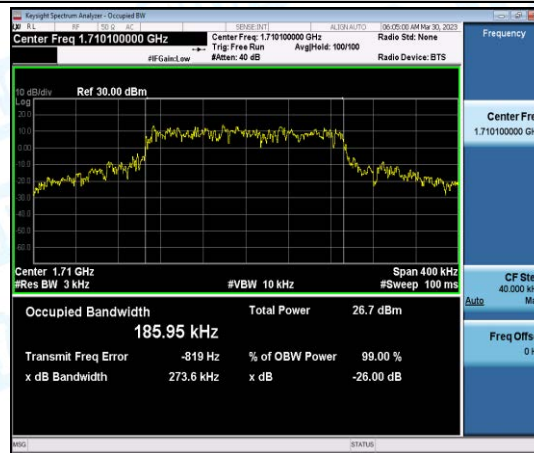
Band4-Stand-Alone-NaN-BPSK-20399-1@0-15kHz-0.1307-PASS



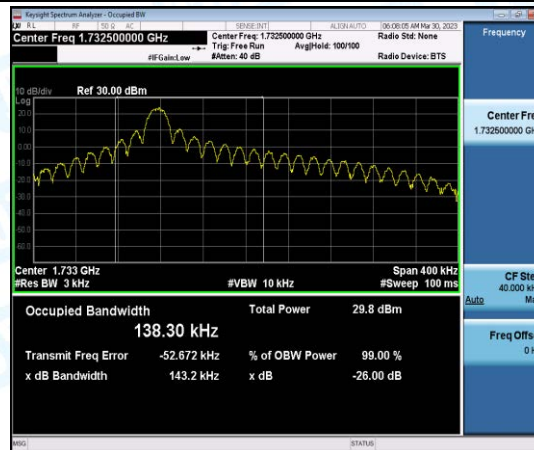
Band4-Stand-Alone-NaN-BPSK-20399-12@0-15kHz-0.3015-PASS



Band4-Stand-Alone-NaN-QPSK-19951-1@0-15kHz-0.1445-PASS



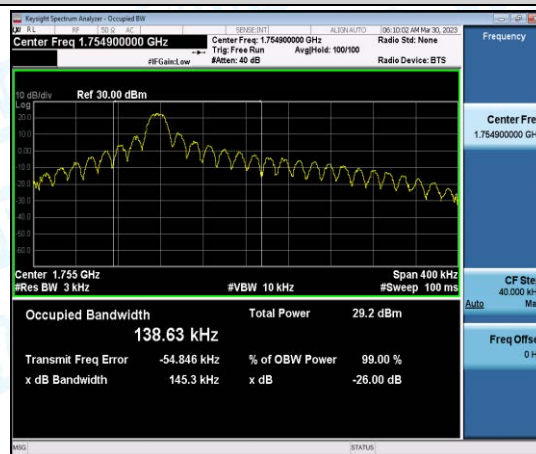
Band4-Stand-Alone-NaN-QPSK-19951-12@0-15kHz-0.2736-PASS



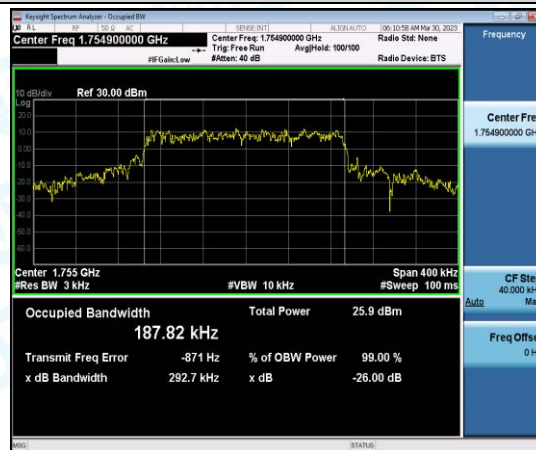
Band4-Stand-Alone-NaN-QPSK-20175-1@0-15kHz-0.1432-PASS



Band4-Stand-Alone-NaN-QPSK-20175-12@0-15kHz-0.3164-PASS



Band4-Stand-Alone-NaN-QPSK-20399-1@0-15kHz-0.1453-PASS



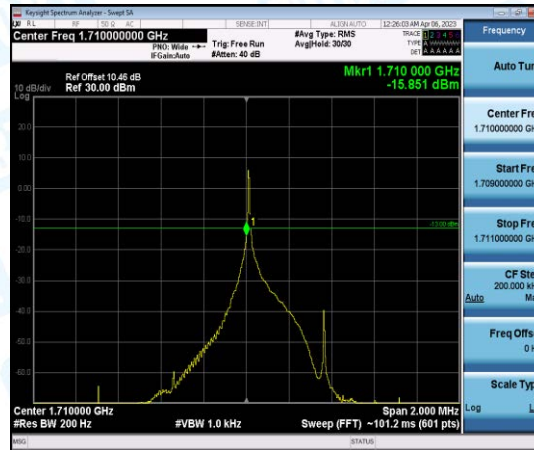
Band4-Stand-Alone-NaN-QPSK-20399-12@0-15kHz-0.2927-PASS

4: Band Edge for NB1

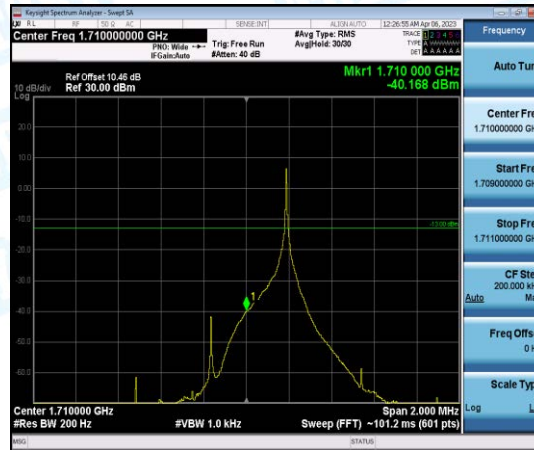
4.1 Test Result

Band	OpMode	BW	Modu	Channel	Tones	Result (dBm)	Verdict
Band4	Stand-Alone	3.75kHz	BPSK	19951	1@0	-15.85	PASS
Band4	Stand-Alone	3.75kHz	BPSK	19951	1@47	-40.17	PASS
Band4	Stand-Alone	3.75kHz	BPSK	20399	1@0	-40.93	PASS
Band4	Stand-Alone	3.75kHz	BPSK	20399	1@47	-16.62	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@0	-16.21	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@47	-39.56	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@0	-40.19	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@47	-16.55	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@0	-14.05	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@11	-33.35	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	12@0	-41.08	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@0	-34.68	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@11	-14.62	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	12@0	-42.36	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	1@0	-14.08	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	1@11	-36.71	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	12@0	-35.83	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	1@0	-35.71	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	1@11	-19.69	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	12@0	-38.77	PASS

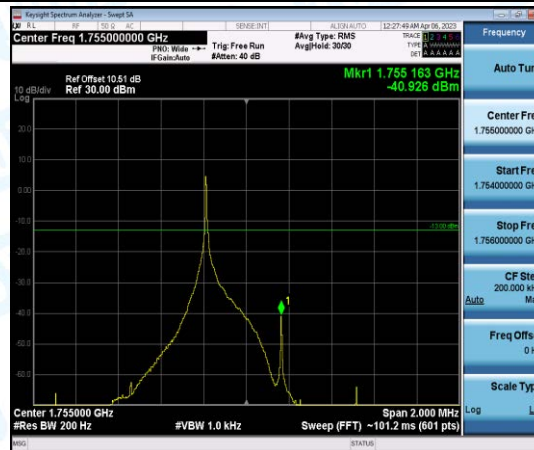
4.2 Test Graphs



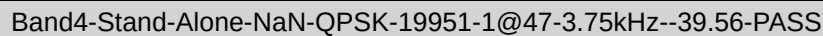
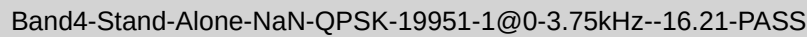
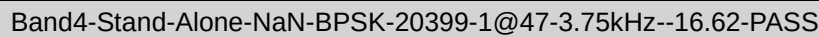
Band4-Stand-Alone-NaN-BPSK-19951-1@0-3.75kHz--15.85-PASS

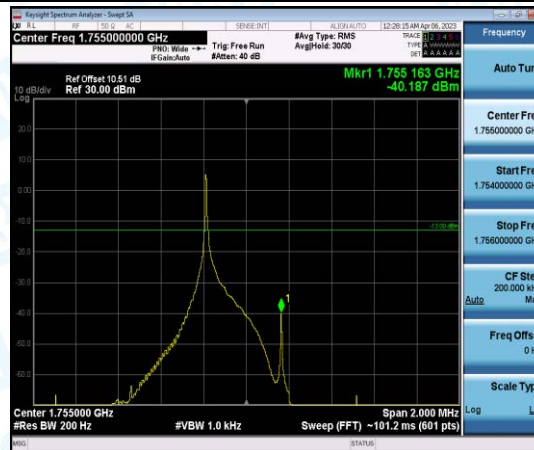


Band4-Stand-Alone-NaN-BPSK-19951-1@47-3.75kHz--40.17-PASS

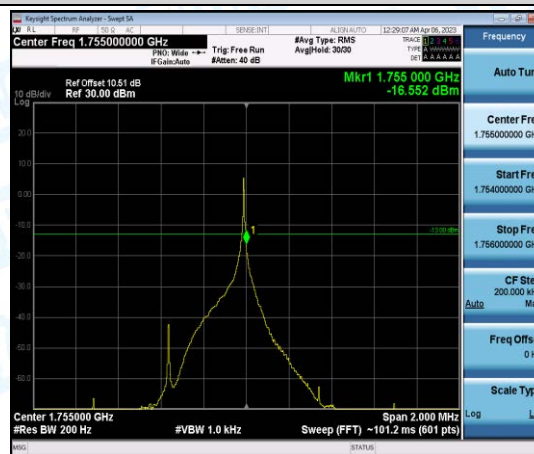


Band4-Stand-Alone-NaN-BPSK-20399-1@0-3.75kHz--40.93-PASS





Band4-Stand-Alone-Na-N-QPSK-20399-1@0-3.75kHz--40.19-PASS



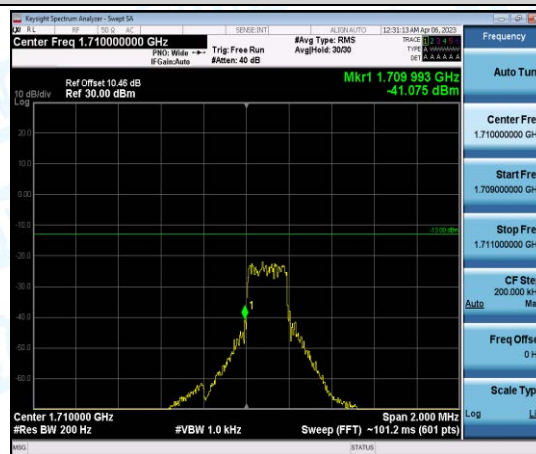
Band4-Stand-Alone-Na-N-QPSK-20399-1@47-3.75kHz--16.55-PASS



Band4-Stand-Alone-Na-N-BPSK-19951-1@0-15kHz--14.05-PASS



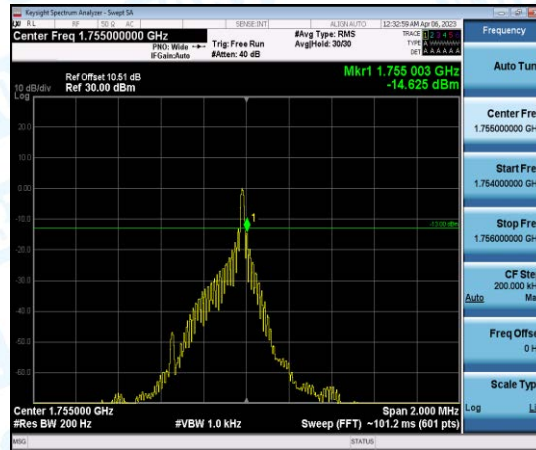
Band4-Stand-Alone-NaN-BPSK-19951-1@11-15kHz--33.35-PASS



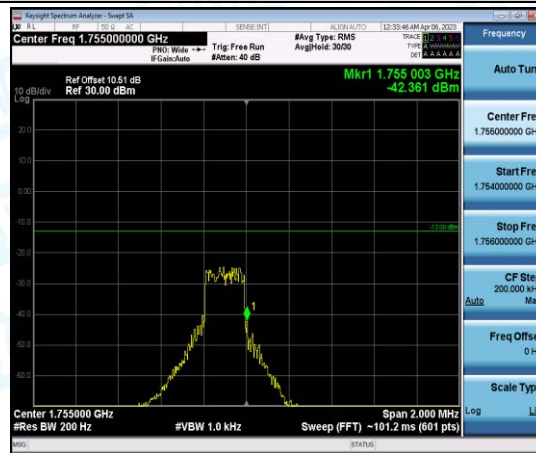
Band4-Stand-Alone-NaN-BPSK-19951-12@0-15kHz--41.08-PASS



Band4-Stand-Alone-NaN-BPSK-20399-1@0-15kHz--34.68-PASS



Band4-Stand-Alone-NaN-BPSK-20399-1@11-15kHz--14.62-PASS



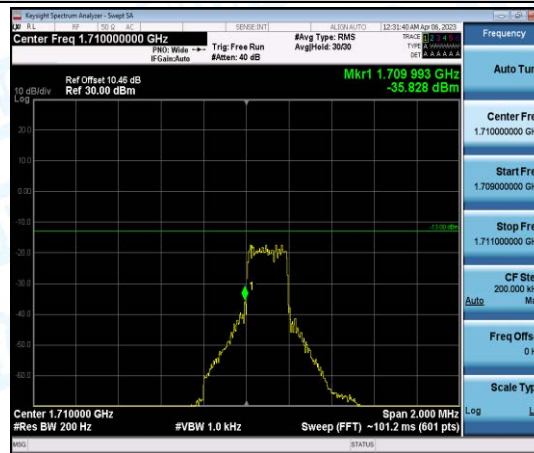
Band4-Stand-Alone-NaN-BPSK-20399-12@0-15kHz--42.36-PASS



Band4-Stand-Alone-NaN-QPSK-19951-1@0-15kHz--14.08-PASS



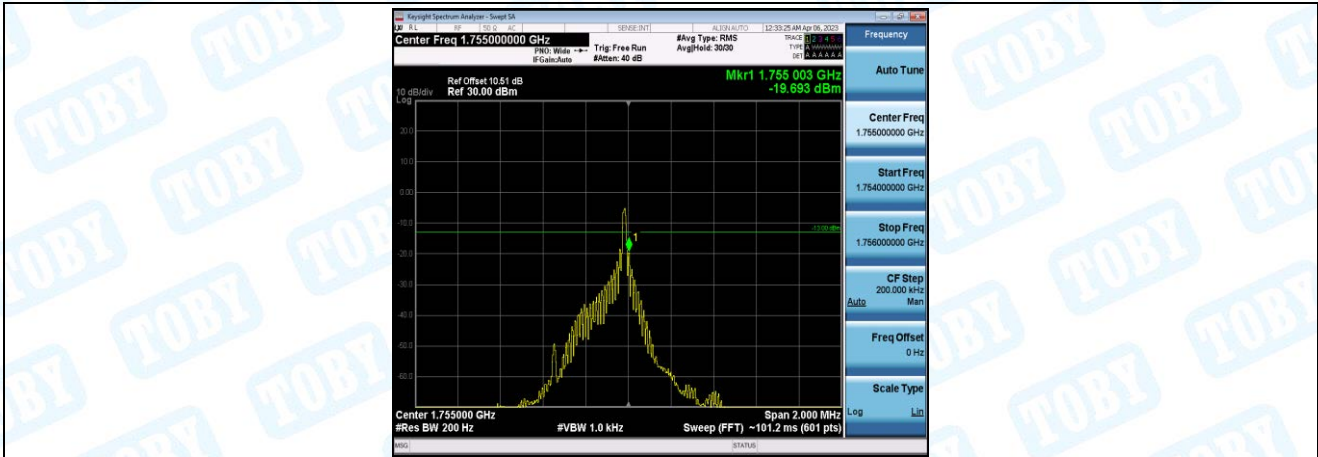
Band4-Stand-Alone-NaN-QPSK-19951-1@11-15kHz--36.71-PASS



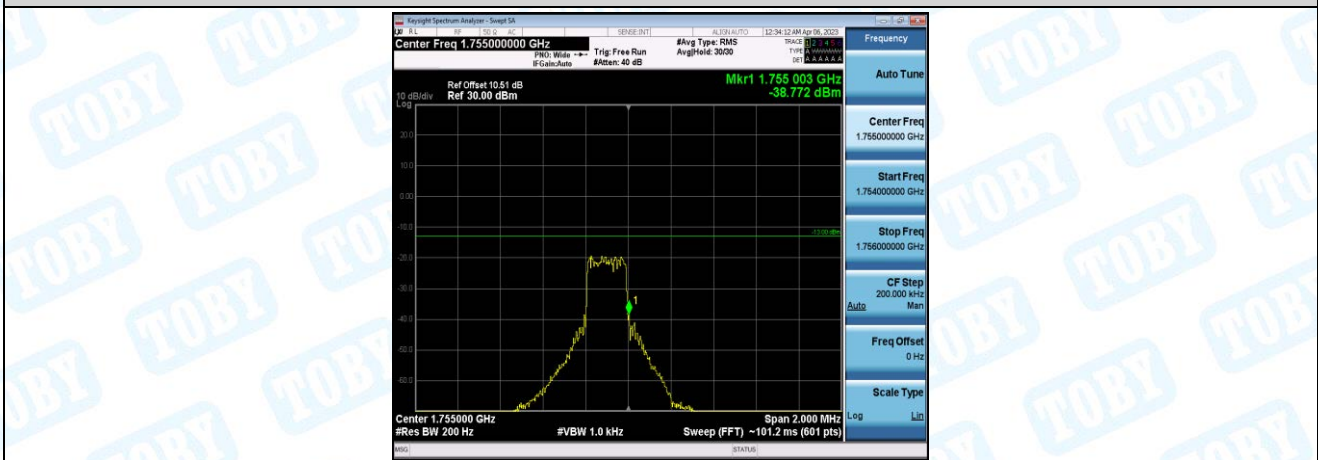
Band4-Stand-Alone-NaN-QPSK-19951-12@0-15kHz--35.83-PASS



Band4-Stand-Alone-NaN-QPSK-20399-1@0-15kHz--35.71-PASS



Band4-Stand-Alone-NaN-QPSK-20399-1@11-15kHz--19.69-PASS



Band4-Stand-Alone-NaN-QPSK-20399-12@0-15kHz--38.77-PASS

5: Conducted Spurious Emission for NB1

5.1 Test Result

Band	OpMode	BW	Modu	Channel	Tones	Freq Start [MHz]	Freq Stop [MHz]	Result (dBm)	Limit (dBm)	Verdict
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@0	0.009	0.15	0.009~0.15MHz @-59.36dBm	-43	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@0	0.15	30	0.15~30MHz @-63.5dBm	-33	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@0	30	1000	30~1000MHz @-50.42dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@0	1000	20000	1000~20000MHz @-40.61dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@47	0.009	0.15	0.009~0.15MHz @-59.76dBm	-43	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@47	0.15	30	0.15~30MHz @-60.95dBm	-33	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@47	30	1000	30~1000MHz @-50.36dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	19951	1@47	1000	20000	1000~20000MHz @-40.53dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	0.009	0.15	0.009~0.15MHz @-60.43dBm	-43	PASS

Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	0.15	30	0.15~30MHz @-63.84dBm	-33	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	30	1000	30~1000MHz @-50.44dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	1000	20000	1000~20000MHz @-40.67dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	0.009	0.15	0.009~0.15MHz @-59.98dBm	-43	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	0.15	30	0.15~30MHz @-66.3dBm	-33	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	30	1000	30~1000MHz @-50.43dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	1000	20000	1000~20000MHz @-40.67dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@0	0.009	0.15	0.009~0.15MHz @-62.37dBm	-43	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@0	0.15	30	0.15~30MHz @-66.4dBm	-33	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@0	30	1000	30~1000MHz @-50.37dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@0	1000	20000	1000~20000MHz @-40.67dBm	-13	PASS

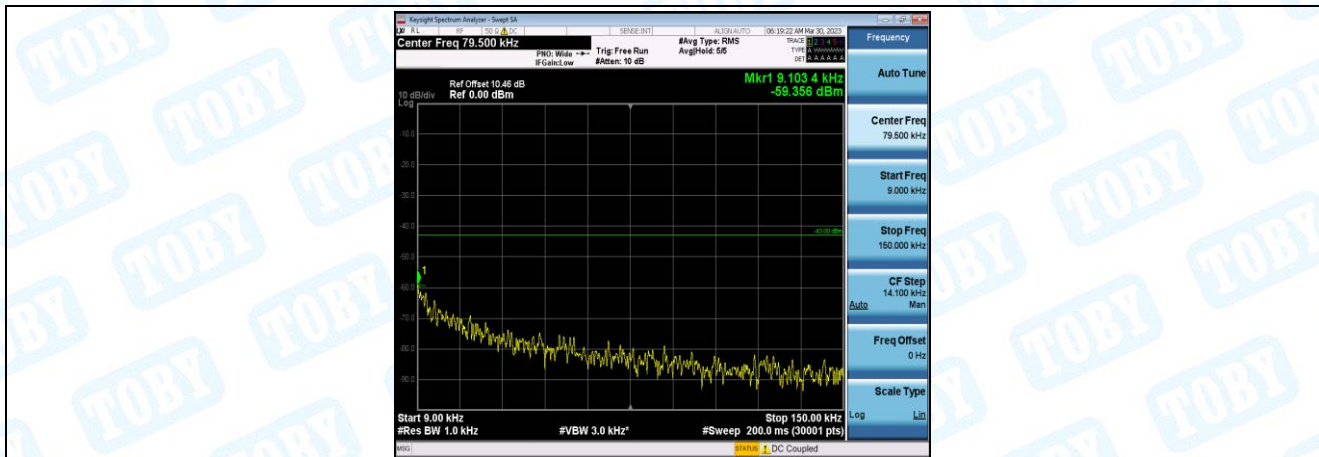
								0.64dBm		
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@47	0.009	0.15	0.009~0.15MHz @-61.53dBm	-43	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@47	0.15	30	0.15~30MHz @-65.28dBm	-33	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@47	30	1000	30~1000MHz @-50.42dBm	-13	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20399	1@47	1000	20000	1000~20000MHz @-40.62dBm	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@0	0.009	0.15	0.009~0.15MHz @-61.42dBm	-43	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@0	0.15	30	0.15~30MHz @-61.42dBm	-33	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@0	30	1000	30~1000MHz @-50.2dBm	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@0	1000	20000	1000~20000MHz @-40.49dBm	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@11	0.009	0.15	0.009~0.15MHz @-61.3dBm	-43	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@11	0.15	30	0.15~30MHz @-63.01dBm	-33	PASS

Band4	Stand-Alone	15kHz	BPSK	19951	1@11	30	1000	30~100 0MHz @-50.3 7dBm	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	19951	1@11	1000	2000 0	1000~2 0000M Hz@-4 0.77dB m	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@0	0.009	0.15	0.009~ 0.15MH z@-61. 62dBm	-43	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@0	0.15	30	0.15~3 0MHz @-67.9 8dBm	-33	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@0	30	1000	30~100 0MHz @-50.3 dBm	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@0	1000	2000 0	1000~2 0000M Hz@-4 0.85dB m	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@11	0.009	0.15	0.009~ 0.15MH z@-61. 02dBm	-43	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@11	0.15	30	0.15~3 0MHz @-63.0 7dBm	-33	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@11	30	1000	30~100 0MHz @-50.2 4dBm	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	20175	1@11	1000	2000 0	1000~2 0000M Hz@-4 0.79dB m	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@0	0.009	0.15	0.009~ 0.15MH	-43	PASS

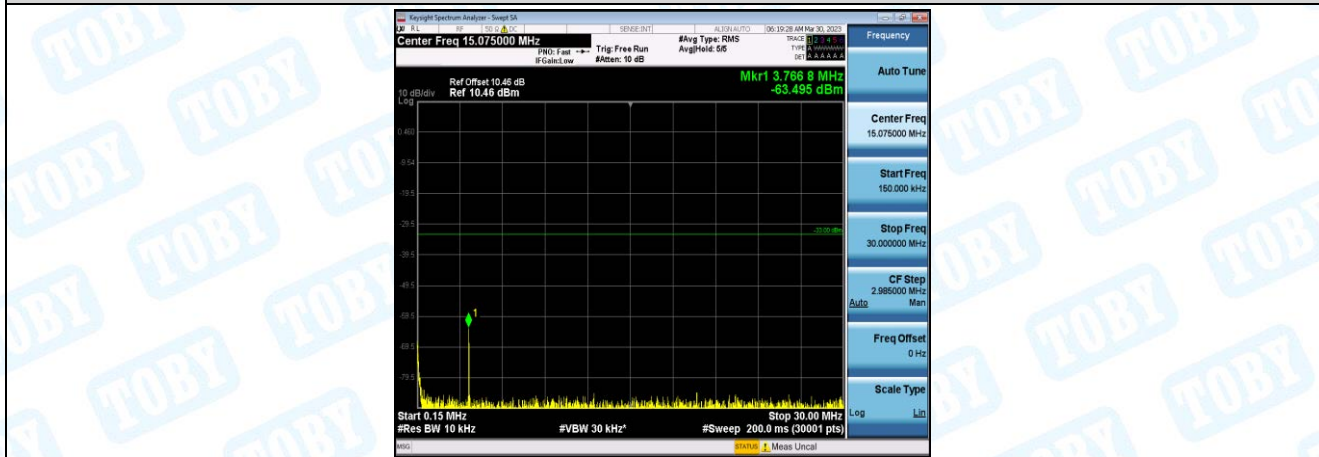
								z@-61.62dBm		
Band4	Stand-Alone	15kHz	BPSK	20399	1@0	0.15	30	0.15~30MHz @-66.46dBm	-33	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@0	30	1000	30~1000MHz @-50.11dBm	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@0	1000	20000	1000~20000MHz @-40.64dBm	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@11	0.009	0.15	0.009~0.15MHz z@-61.31dBm	-43	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@11	0.15	30	0.15~30MHz @-64.42dBm	-33	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@11	30	1000	30~1000MHz @-50.25dBm	-13	PASS
Band4	Stand-Alone	15kHz	BPSK	20399	1@11	1000	20000	1000~20000MHz @-40.74dBm	-13	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	12@0	0.009	0.15	0.009~0.15MHz z@-62.63dBm	-43	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	12@0	0.15	30	0.15~30MHz @-65.64dBm	-33	PASS
Band4	Stand-Alone	15kHz	QPSK	19951	12@0	30	1000	30~1000MHz @-50.35dBm	-13	PASS

Band4	Stand-Alone	15kHz	QPSK	19951	12@0	1000	20000	1000~2000MHz@-40.7dBm	-13	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	12@0	0.009	0.15	0.009~0.15MHz@-61.05dBm	-43	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	12@0	0.15	30	0.15~30MHz@-66.13dBm	-33	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	12@0	30	1000	30~1000MHz@-50.32dBm	-13	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	12@0	1000	20000	1000~2000MHz@-40.74dBm	-13	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	12@0	0.009	0.15	0.009~0.15MHz@-60.38dBm	-43	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	12@0	0.15	30	0.15~30MHz@-64.06dBm	-33	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	12@0	30	1000	30~1000MHz@-50.32dBm	-13	PASS
Band4	Stand-Alone	15kHz	QPSK	20399	12@0	1000	20000	1000~2000MHz@-40.44dBm	-13	PASS

5.2 Test Graphs



Band4-Stand-Alone-NaN-QPSK-19951-1@0-3.75kHz-0.009-0.15-0.009~0.15MHz@-59.36dBm--43-PASS



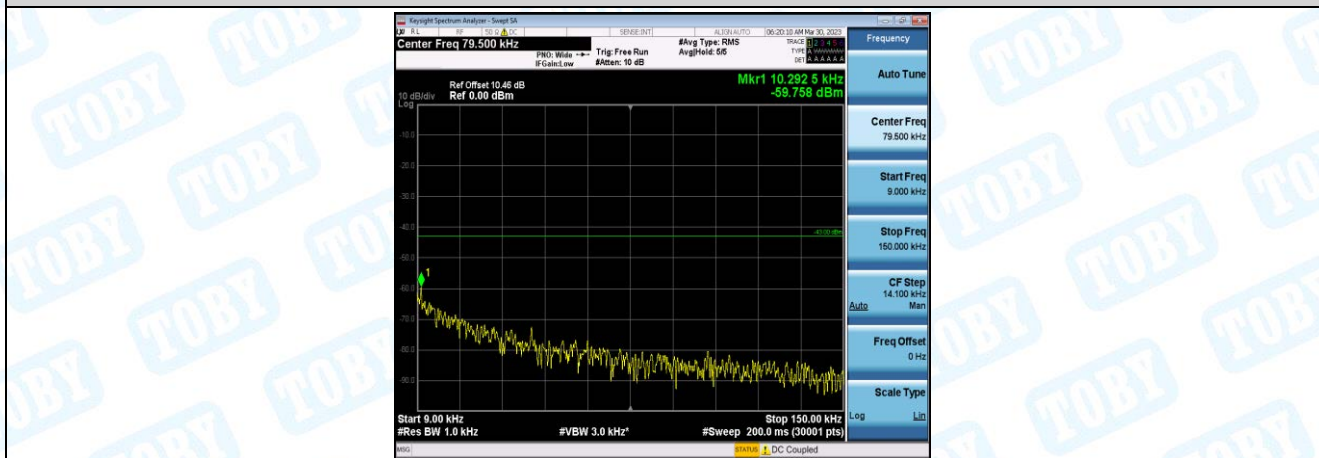
Band4-Stand-Alone-NaN-QPSK-19951-1@0-3.75kHz-0.15-30-0.15~30MHz@-63.5dBm--33-PASS



Band4-Stand-Alone-NaN-QPSK-19951-1@0-3.75kHz-30-1000-30~1000MHz@-50.42dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-19951-1@0-3.75kHz-1000-20000-1000~20000MHz@-40.61dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-19951-1@47-3.75kHz-0.009-0.15-0.009~0.15MHz@-59.76dBm--43-PASS



Band4-Stand-Alone-NaN-QPSK-19951-1@47-3.75kHz-0.15-30-0.15~30MHz@-60.95dBm--33-PASS



Band4-Stand-Alone-NaN-QPSK-19951-1@47-3.75kHz-30-1000-30~1000MHz@-50.36dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-19951-1@47-3.75kHz-1000-20000-1000~20000MHz@-40.53dBm--13-PAS

S



Band4-Stand-Alone-NaN-QPSK-20175-1@0-3.75kHz-0.009-0.15-0.009~0.15MHz@-60.43dBm--43-PASS



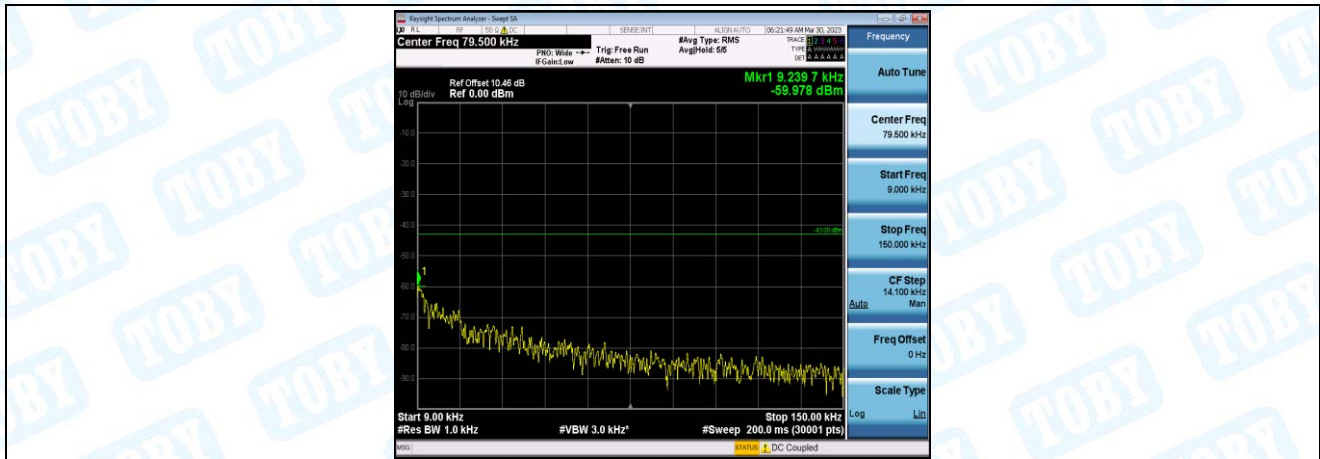
Band4-Stand-Alone-NaN-QPSK-20175-1@0-3.75kHz-0.15-30-0.15~30MHz@-63.84dBm--33-PASS



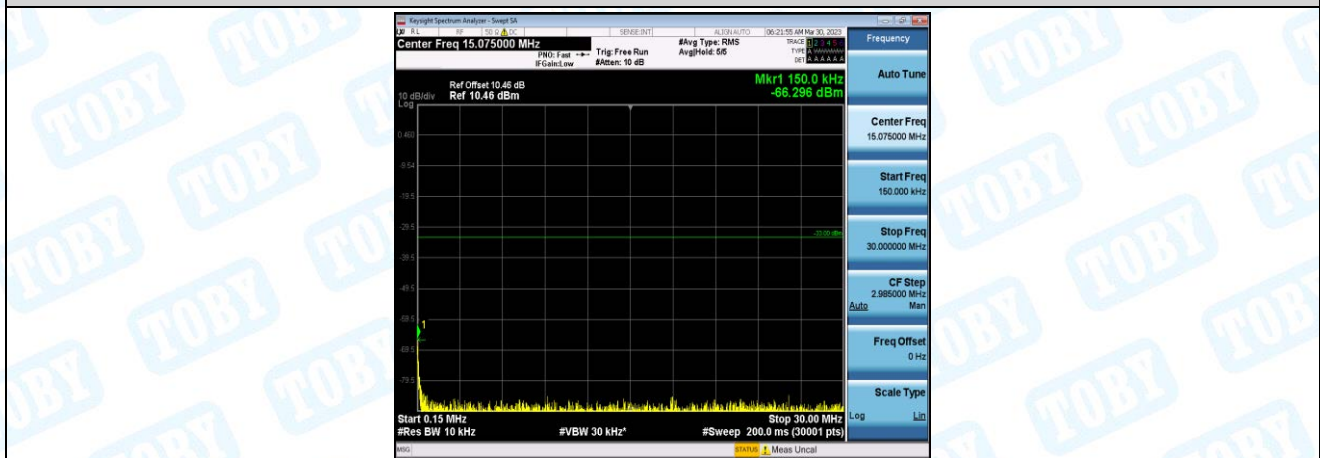
Band4-Stand-Alone-NaN-QPSK-20175-1@0-3.75kHz-30-1000-30~1000MHz@-50.44dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-20175-1@0-3.75kHz-1000-20000-1000~20000MHz@-40.67dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-20175-1@47-3.75kHz-0.009-0.15-0.009~0.15MHz@-59.98dBm--43-PASS



Band4-Stand-Alone-NaN-QPSK-20175-1@47-3.75kHz-0.15-30-0.15~30MHz@-66.3dBm--33-PASS

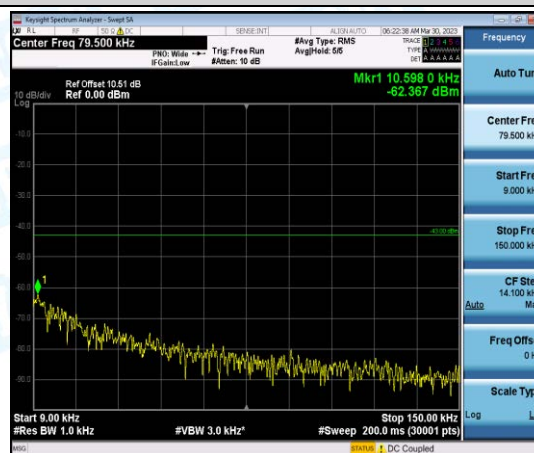


Band4-Stand-Alone-NaN-QPSK-20175-1@47-3.75kHz-30-1000-30~1000MHz@-50.43dBm--13-PASS

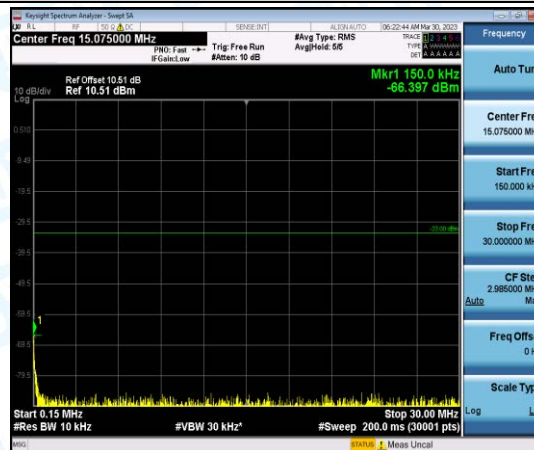


Band4-Stand-Alone-NaN-QPSK-20175-1@47-3.75kHz-1000-20000-1000~20000MHz@-40.67dBm--13-PAS

S



Band4-Stand-Alone-NaN-QPSK-20399-1@0-3.75kHz-0.009-0.15-0.009~0.15MHz@-62.37dBm--43-PASS



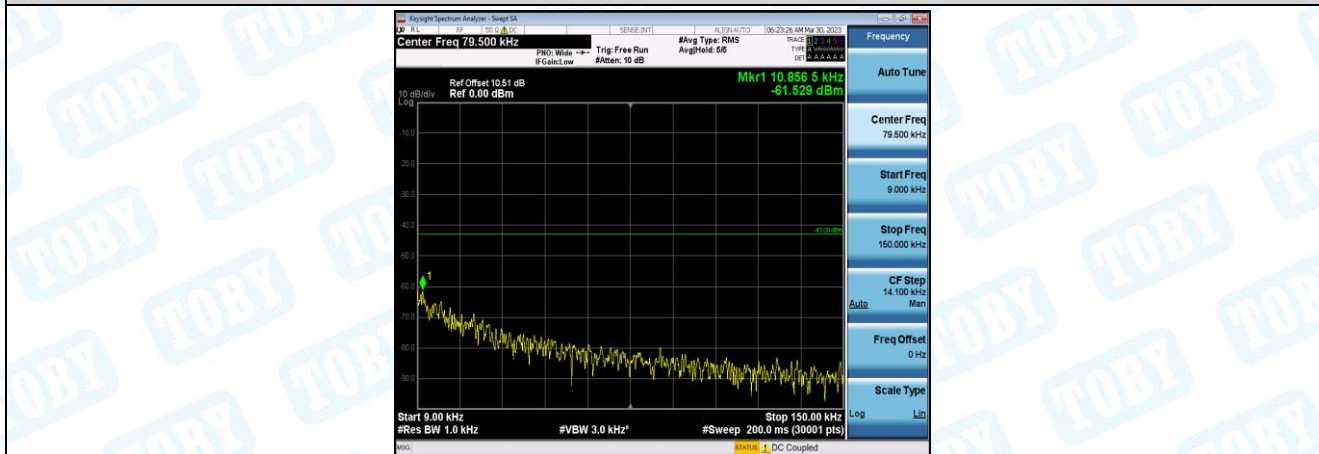
Band4-Stand-Alone-NaN-QPSK-20399-1@0-3.75kHz-0.15-30-0.15~30MHz@-66.4dBm--33-PASS



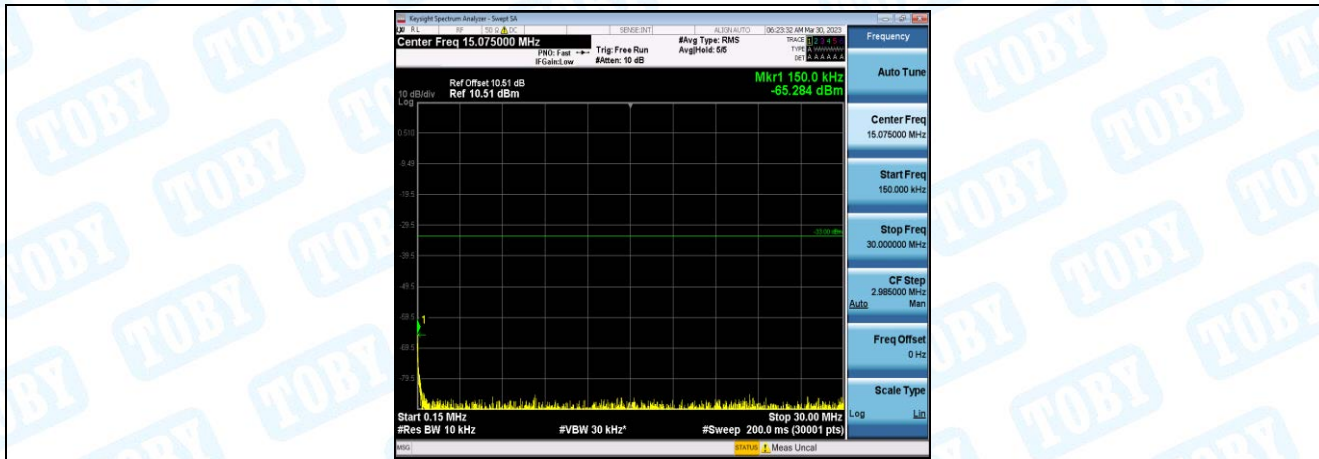
Band4-Stand-Alone-NaN-QPSK-20399-1@0-3.75kHz-30-1000-30~1000MHz@-50.37dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-20399-1@0-3.75kHz-1000-20000-1000~20000MHz@-40.64dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-20399-1@47-3.75kHz-0.009-0.15-0.009~0.15MHz@-61.53dBm--43-PASS



Band4-Stand-Alone-NaN-QPSK-20399-1@47-3.75kHz-0.15-30-0.15~30MHz@-65.28dBm--33-PASS

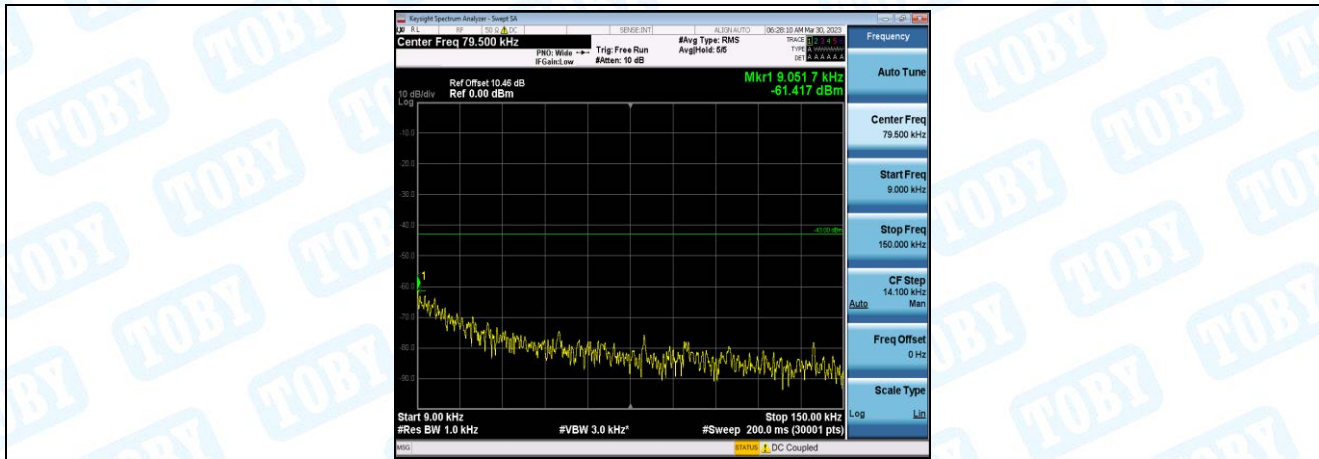


Band4-Stand-Alone-NaN-QPSK-20399-1@47-3.75kHz-30-1000-30~1000MHz@-50.42dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-20399-1@47-3.75kHz-1000-20000-1000~20000MHz@-40.62dBm--13-PAS

S



Band4-Stand-Alone-NaN-BPSK-19951-1@0-15kHz-0.009-0.15-0.009~0.15MHz@-61.42dBm--43-PASS



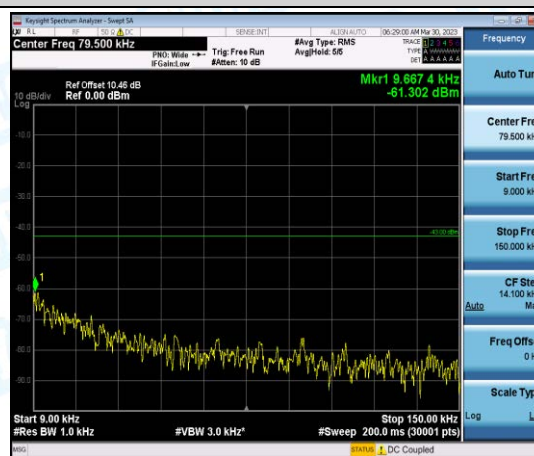
Band4-Stand-Alone-NaN-BPSK-19951-1@0-15kHz-0.15-30-0.15~30MHz@-61.42dBm--33-PASS



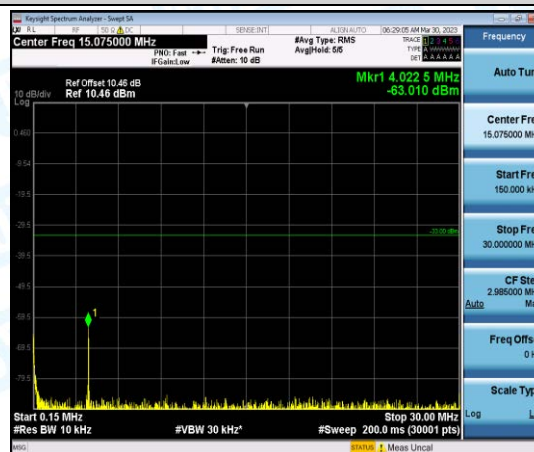
Band4-Stand-Alone-NaN-BPSK-19951-1@0-15kHz-30-1000-30~1000MHz@-50.2dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-19951-1@0-15kHz-1000-20000-1000~20000MHz@-40.49dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-19951-1@11-15kHz-0.009-0.15-0.009~0.15MHz@-61.3dBm--43-PASS



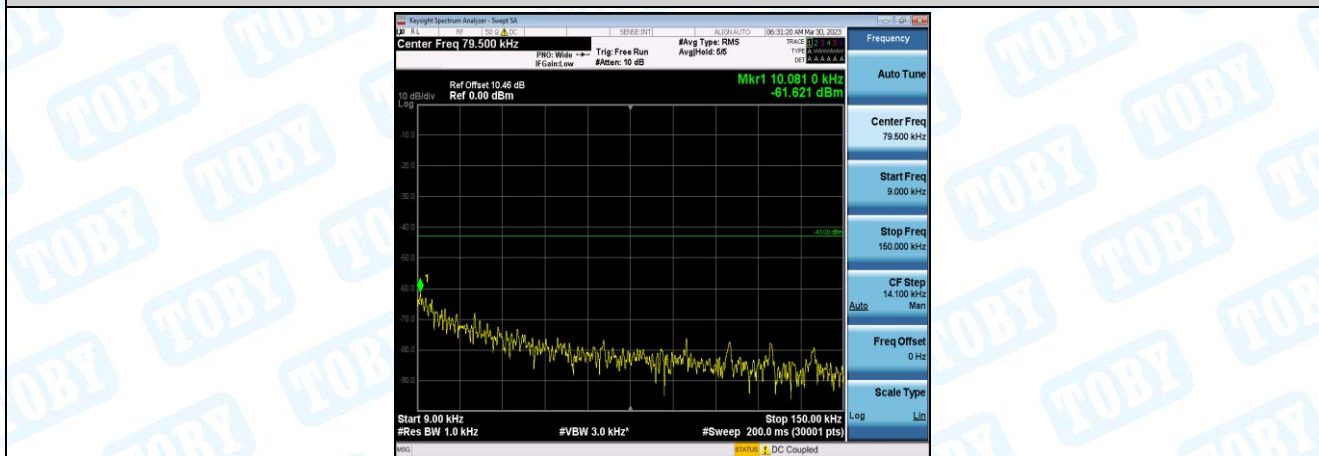
Band4-Stand-Alone-NaN-BPSK-19951-1@11-15kHz-0.15-30-0.15~30MHz@-63.01dBm--33-PASS



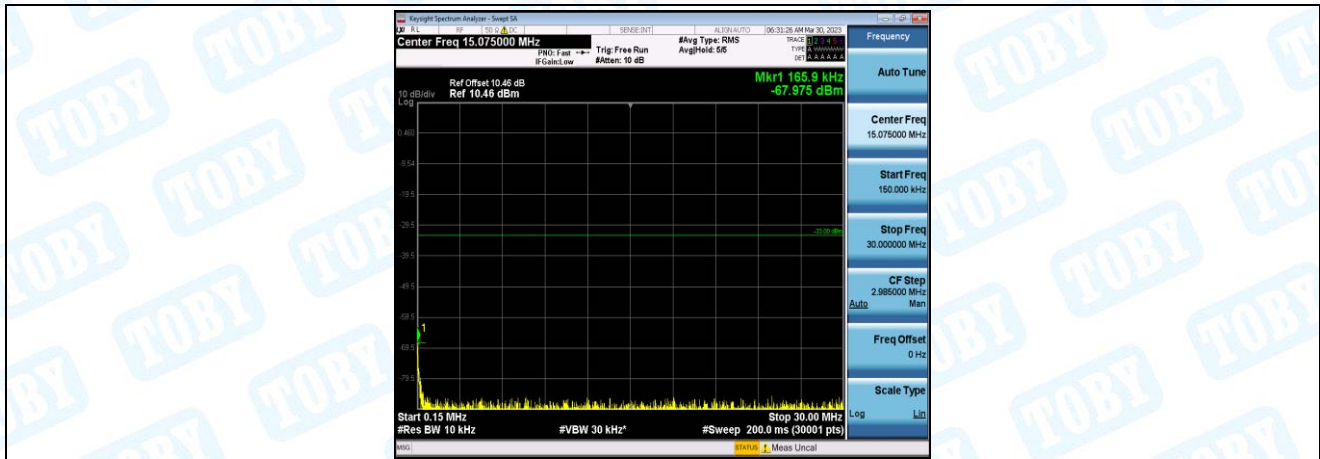
Band4-Stand-Alone-NaN-BPSK-19951-1@11-15kHz-30-1000-30~1000MHz@-50.37dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-19951-1@11-15kHz-1000-20000-1000~20000MHz@-40.77dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-20175-1@0-15kHz-0.009-0.15-0.009~0.15MHz@-61.62dBm--43-PASS



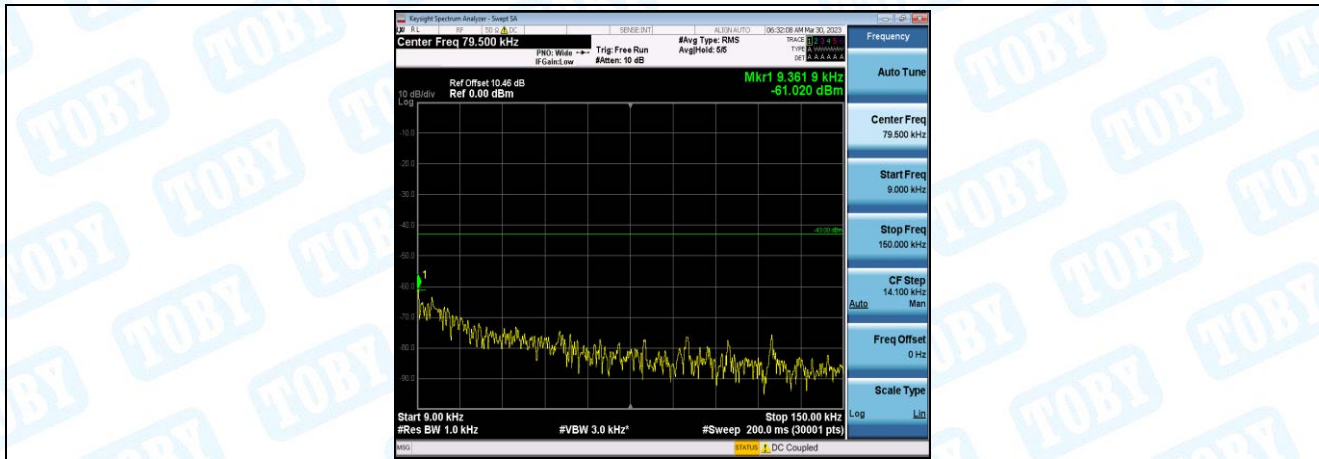
Band4-Stand-Alone-NaN-BPSK-20175-1@0-15kHz-0.15-30-0.15~30MHz@-67.98dBm--33-PASS



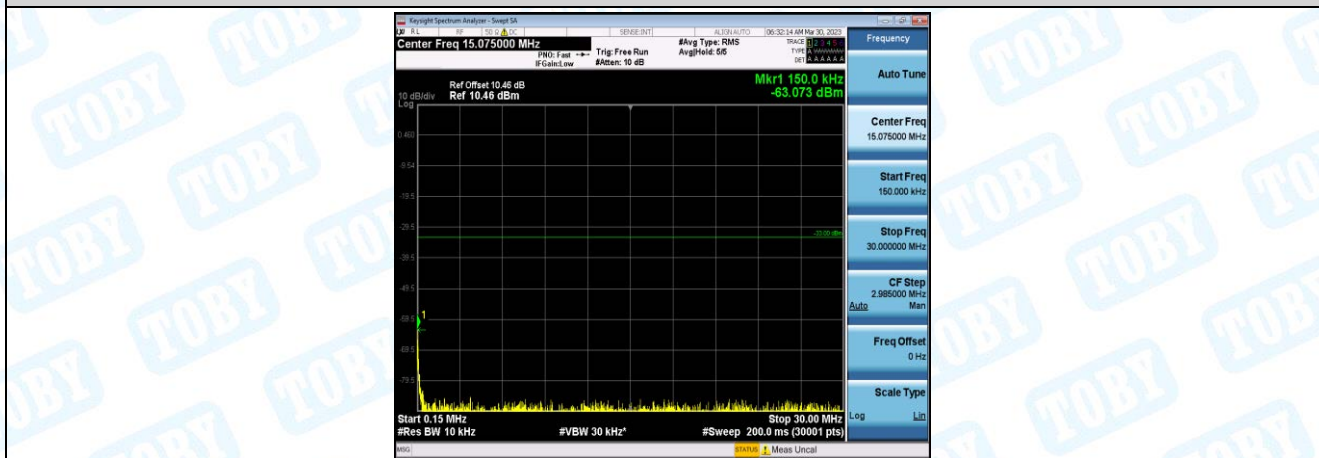
Band4-Stand-Alone-NaN-BPSK-20175-1@0-15kHz-30-1000-30~1000MHz@-50.3dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-20175-1@0-15kHz-1000-20000-1000~20000MHz@-40.85dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-20175-1@11-15kHz-0.009-0.15-0.009~0.15MHz@-61.02dBm--43-PASS



Band4-Stand-Alone-NaN-BPSK-20175-1@11-15kHz-0.15-30-0.15~30MHz@-63.07dBm--33-PASS



Band4-Stand-Alone-NaN-BPSK-20175-1@11-15kHz-30-1000-30~1000MHz@-50.24dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-20175-1@11-15kHz-1000-20000-1000~20000MHz@-40.79dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-20399-1@0-15kHz-0.009-0.15-0.009~0.15MHz@-61.62dBm--43-PASS



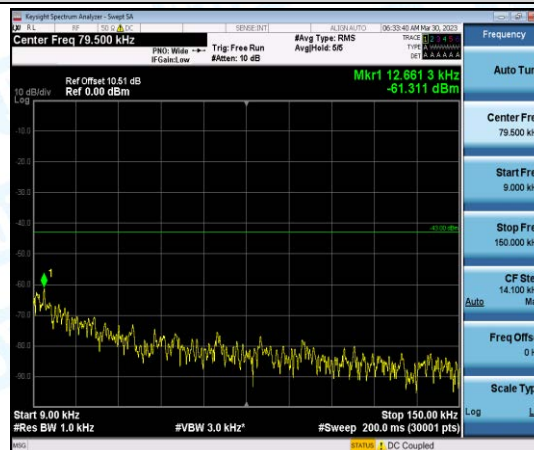
Band4-Stand-Alone-NaN-BPSK-20399-1@0-15kHz-0.15-30-0.15~30MHz@-66.46dBm--33-PASS



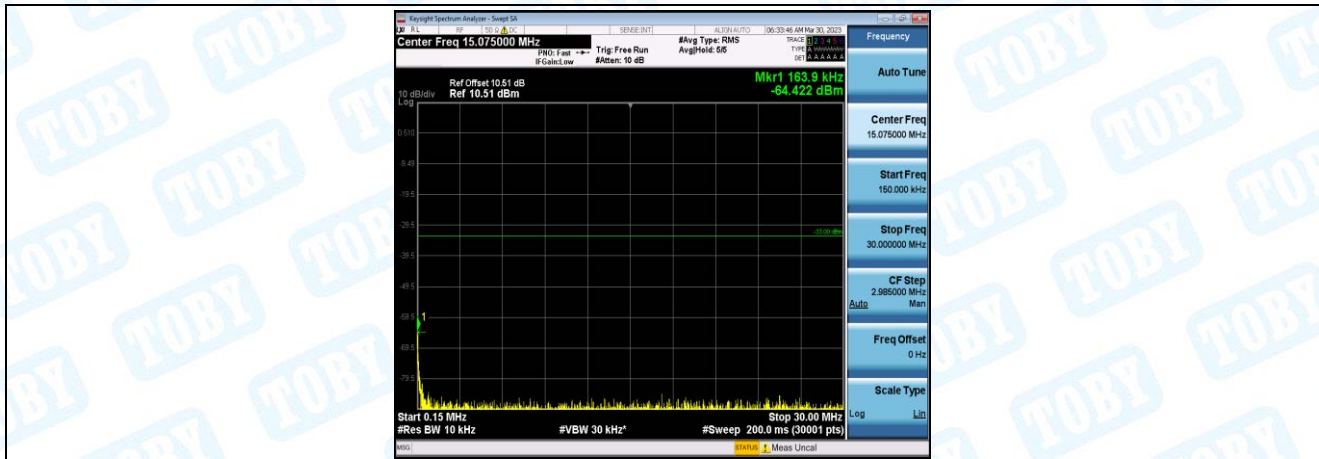
Band4-Stand-Alone-NaN-BPSK-20399-1@0-15kHz-30-1000-30~1000MHz@-50.11dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-20399-1@0-15kHz-1000-20000-1000~20000MHz@-40.64dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-20399-1@11-15kHz-0.009-0.15-0.009~0.15MHz@-61.31dBm--43-PASS



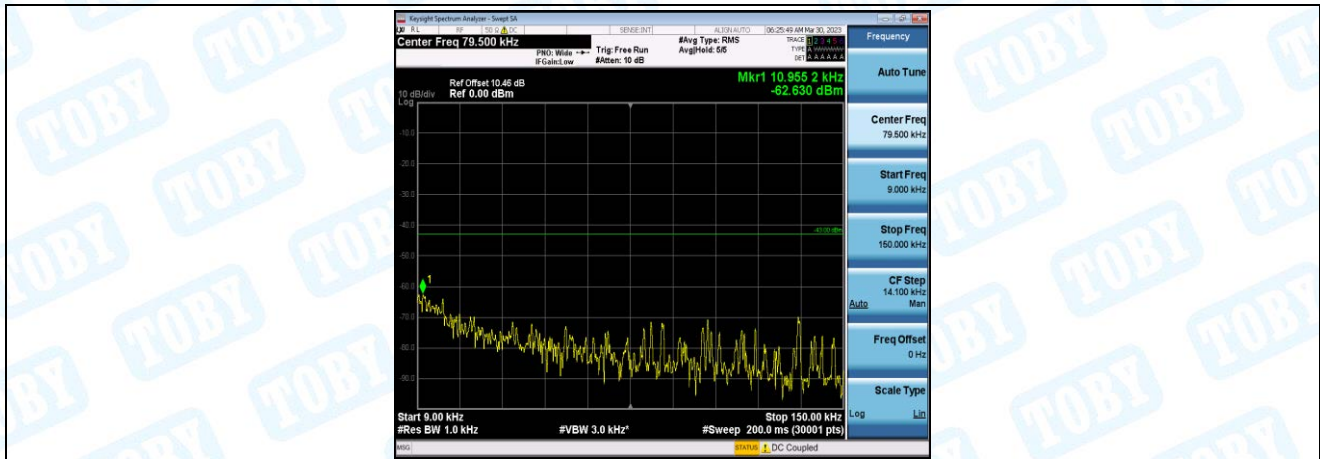
Band4-Stand-Alone-NaN-BPSK-20399-1@11-15kHz-0.15-30-0.15~30MHz@-64.42dBm--33-PASS



Band4-Stand-Alone-NaN-BPSK-20399-1@11-15kHz-30-1000-30~1000MHz@-50.25dBm--13-PASS



Band4-Stand-Alone-NaN-BPSK-20399-1@11-15kHz-1000-20000-1000~20000MHz@-40.74dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-19951-12@0-15kHz-0.009-0.15-0.009~0.15MHz@-62.63dBm--43-PASS



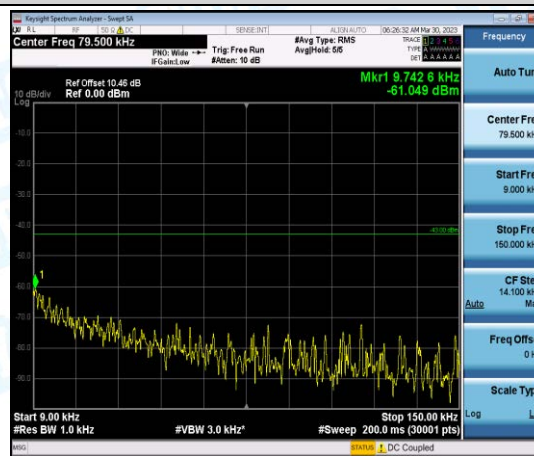
Band4-Stand-Alone-NaN-QPSK-19951-12@0-15kHz-0.15-30-0.15~30MHz@-65.64dBm--33-PASS



Band4-Stand-Alone-NaN-QPSK-19951-12@0-15kHz-30-1000-30~1000MHz@-50.35dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-19951-12@0-15kHz-1000-20000-1000~20000MHz@-40.7dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-20175-12@0-15kHz-0.009-0.15-0.009~0.15MHz@-61.05dBm--43-PASS



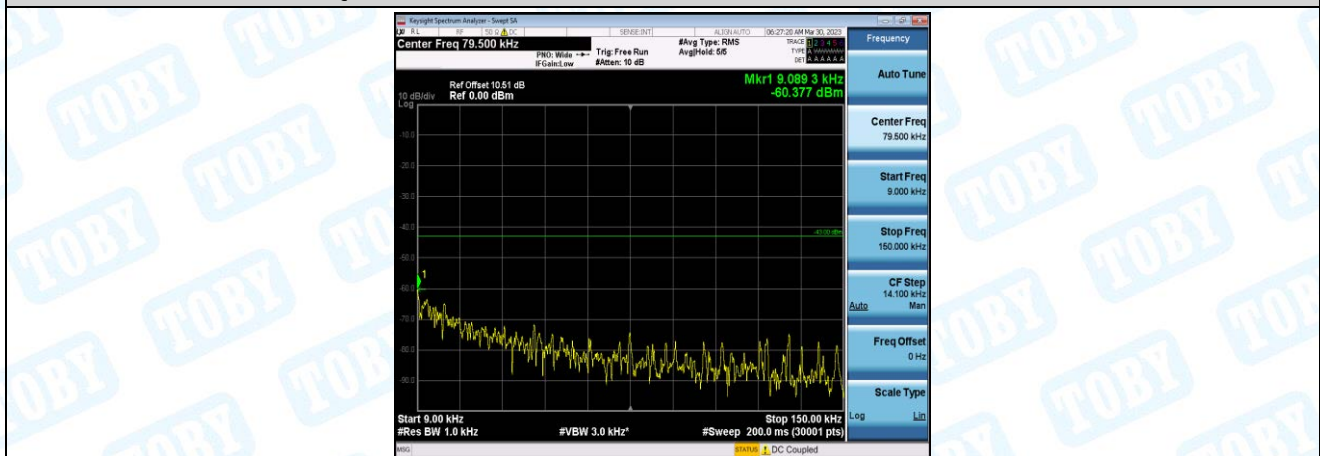
Band4-Stand-Alone-NaN-QPSK-20175-12@0-15kHz-0.15-30-0.15~30MHz@-66.13dBm--33-PASS



Band4-Stand-Alone-NaN-QPSK-20175-12@0-15kHz-30-1000-30~1000MHz@-50.32dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-20175-12@0-15kHz-1000-20000-1000~20000MHz@-40.74dBm--13-PASS



Band4-Stand-Alone-NaN-QPSK-20399-12@0-15kHz-0.009-0.15-0.009~0.15MHz@-60.38dBm--43-PASS



Band4-Stand-Alone-Na-N-QPSK-20399-12@0-15kHz-0.15-30-0.15~30MHz@-64.06dBm--33-PASS



Band4-Stand-Alone-Na-N-QPSK-20399-12@0-15kHz-30-1000-30~1000MHz@-50.32dBm--13-PASS



Band4-Stand-Alone-Na-N-QPSK-20399-12@0-15kHz-1000-20000-1000~20000MHz@-40.44dBm--13-PASS

6: Frequency Stability for NB1

6.1 Test Result

Band	OpMode	Bandwidth	Modulation	Channel	Tones	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	VH	NT	7.00	0.004040	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	VL	NT	5.45	0.003146	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	VN	NT	16.31	0.009414	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	VH	NT	-6.49	-0.003746	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	VL	NT	-3.13	-0.001807	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	VN	NT	14.13	0.008156	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	VH	NT	-15.68	-0.009051	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	VL	NT	-16.39	-0.009460	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	VN	NT	8.95	0.005166	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	VH	NT	-18.39	-0.010615	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	VL	NT	-17.02	-0.009824	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	VN	NT	7.05	0.004069	±2.5	PASS

Band	OpMode	Bandwidth	Modulation	Channel	Tones	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	NV	60	-2.62	-0.001512	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	NV	-20	7.59	0.004381	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	NV	-10	11.01	0.006355	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	NV	0	-9.26	-0.005345	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	NV	10	-5.68	-0.003278	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	NV	20	6.29	0.003631	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	NV	30	-14.08	-0.008127	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	NV	40	-13.27	-0.007659	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@0	NV	-30	-4.84	-0.002794	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	NV	30	-6.40	-0.003694	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	NV	20	6.17	0.003561	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	NV	10	14.77	0.008525	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	NV	0	-3.25	-0.001876	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	NV	-10	8.92	0.005149	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	NV	40	-5.52	-0.003186	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	NV	-30	-10.70	-0.006176	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	NV	60	-6.80	-0.003925	±2.5	PASS
Band4	Stand-Alone	3.75kHz	QPSK	20175	1@47	NV	-20	2.52	0.001455	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	NV	60	-9.92	-0.005726	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	NV	-20	-20.15	-0.011631	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	NV	-10	-15.85	-0.009149	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	NV	0	-15.72	-0.009074	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	NV	10	-11.80	-0.006811	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	NV	20	8.07	0.004658	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	NV	30	9.45	0.005455	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	NV	40	-18.79	-0.010846	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@0	NV	-30	-11.96	-0.006903	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	NV	40	-7.36	-0.004248	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	NV	30	-18.14	-0.010470	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	NV	20	-6.48	-0.003740	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	NV	10	5.30	0.003059	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	NV	0	9.09	0.005247	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	NV	-10	-8.33	-0.004808	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	NV	-30	-16.71	-0.009645	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	NV	60	5.12	0.002955	±2.5	PASS
Band4	Stand-Alone	15kHz	QPSK	20175	1@11	NV	-20	-19.76	-0.011405	±2.5	PASS

-----END OF THE REPORT-----