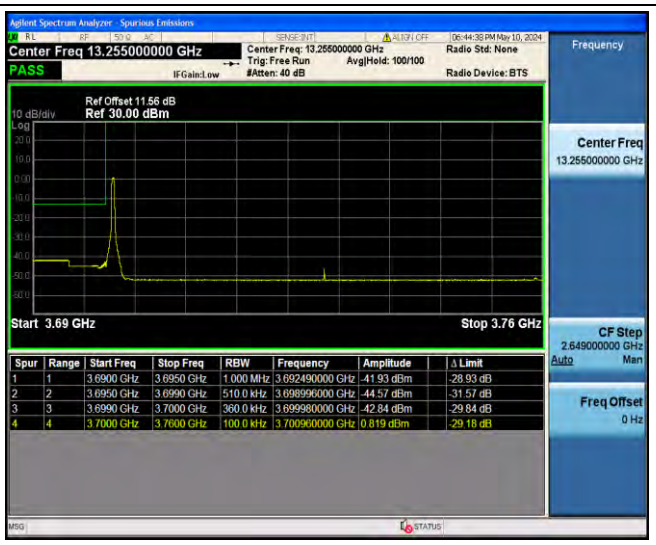
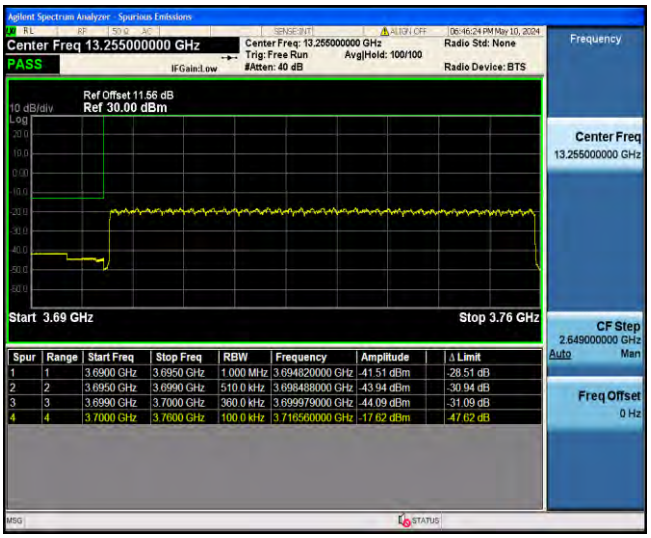
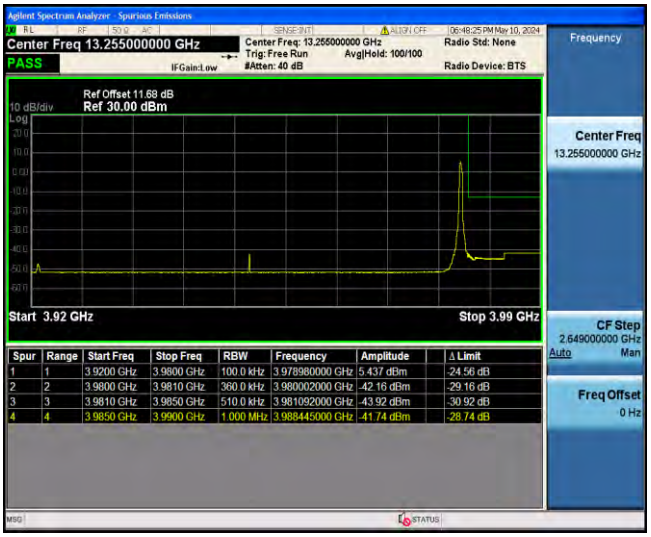


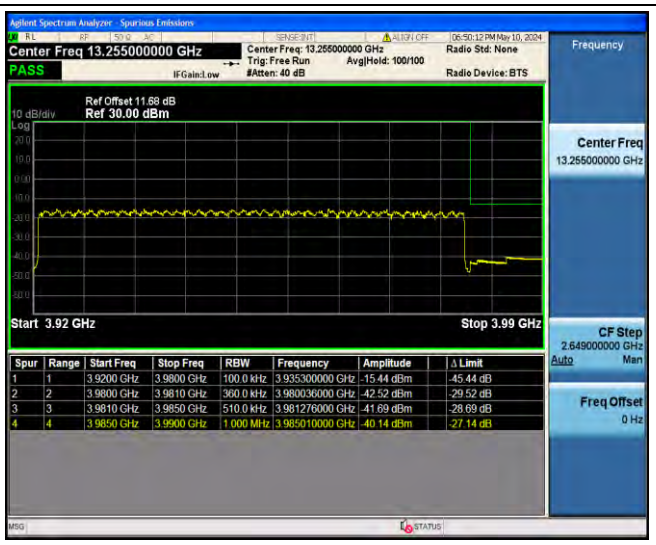
1-N77-3700-3980-PC3-30-60-L-4-CP-QPSK-Edge_1RB_Left-1@0-Ant14-3692.49-28.93--41.93-PASS



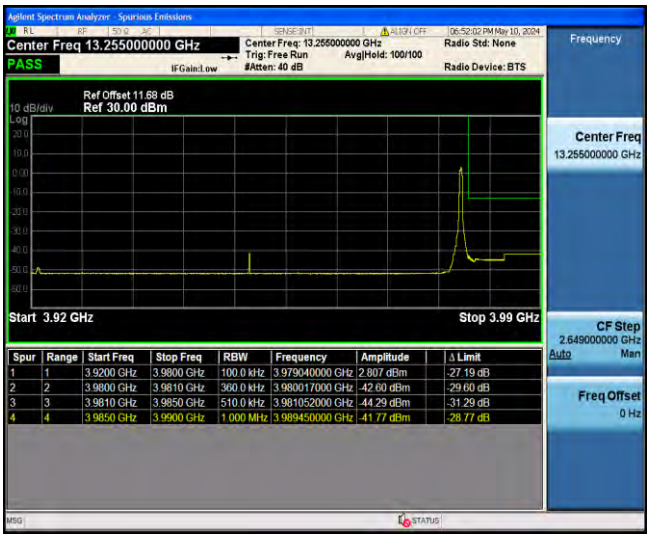
1-N77-3700-3980-PC3-30-60-L-6-CP-QPSK-Outer_Full-162@0-Ant14-3694.82-28.51--41.51-PASS



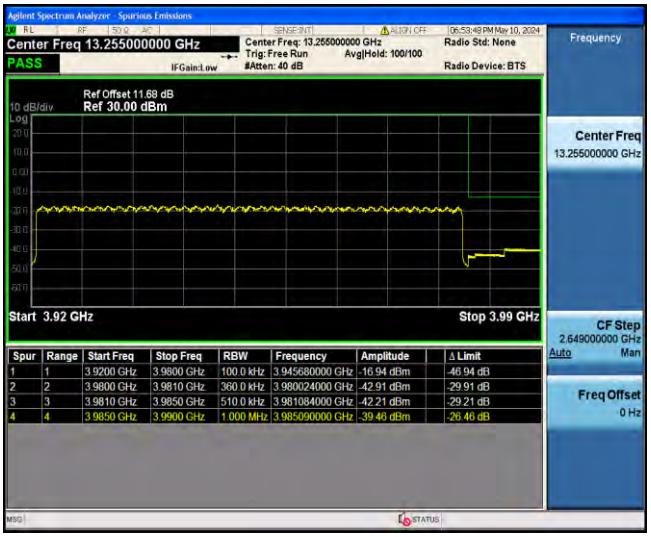
1-N77-3700-3980-PC3-30-60-H-2-DFT-PI2BPSK-Edge_1RB_Right-1@161-Ant14-3988.45-28.74--41.74-PASS



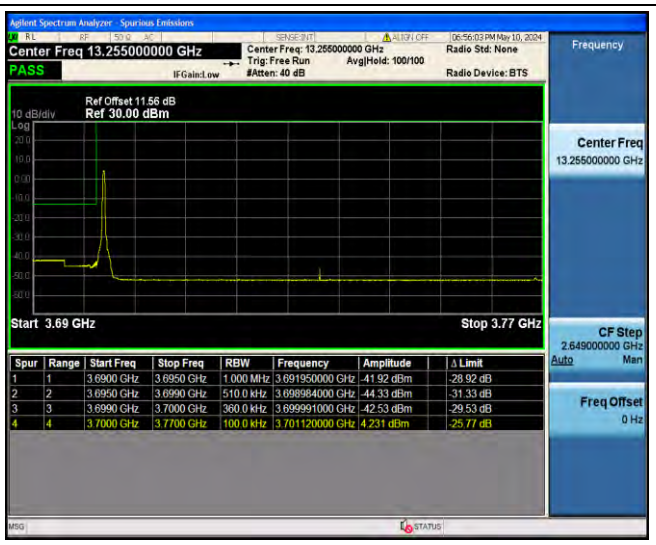
1-N77-3700-3980-PC3-30-60-H-3-DFT-PI2BPSK-Outer_Full-162@0-Ant14-3985.01-27.14--40.14-PASS



1-N77-3700-3980-PC3-30-60-H-5-CP-QPSK-Edge_1RB_Right-1@161-Ant14-3989.45-28.77--41.77-PASS

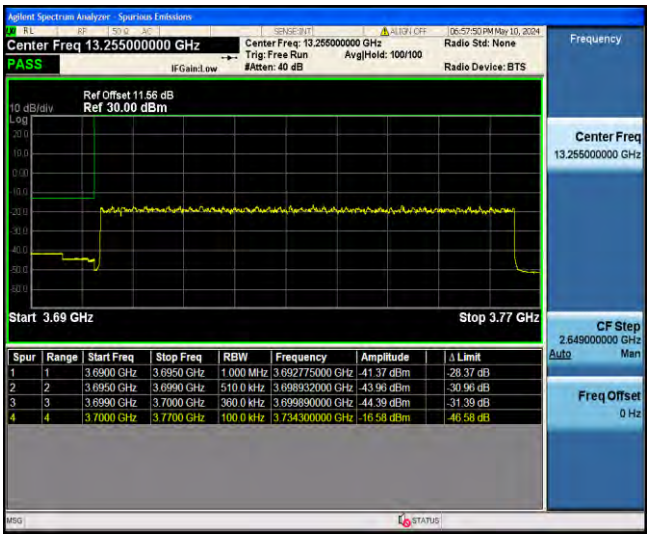


1-N77-3700-3980-PC3-30-60-H-6-CP-QPSK-Outer_Full-162@0-Ant14-3985.09-26.46--39.46-PASS



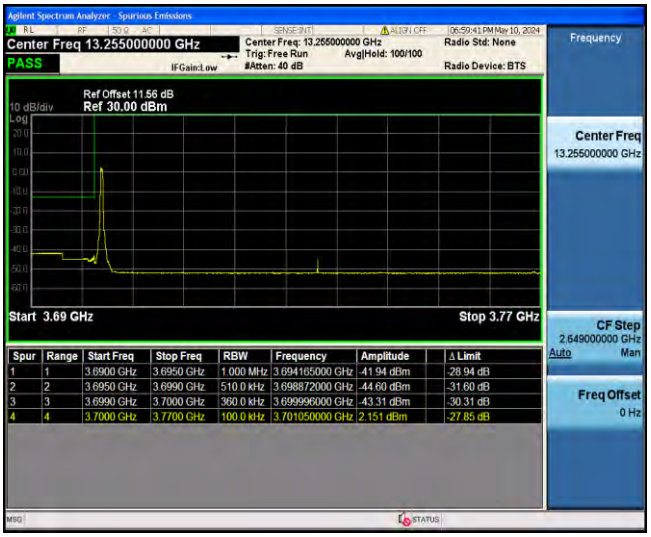
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6900 GHz	3.6950 GHz	1.000 MHz	3.691950000 GHz	-41.92 dBm	-28.92 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.698984000 GHz	-44.33 dBm	-31.33 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699991000 GHz	-42.53 dBm	-29.53 dB
4	4	3.7000 GHz	3.7700 GHz	100.0 kHz	3.701120000 GHz	4.231 dBm	-25.77 dB

1-N77-3700-3980-PC3-30-70-L-1-DFT-PI2BPSK-Edge_1RB_Left-1@0-Ant14-3691.95-28.92--41.92-PASS



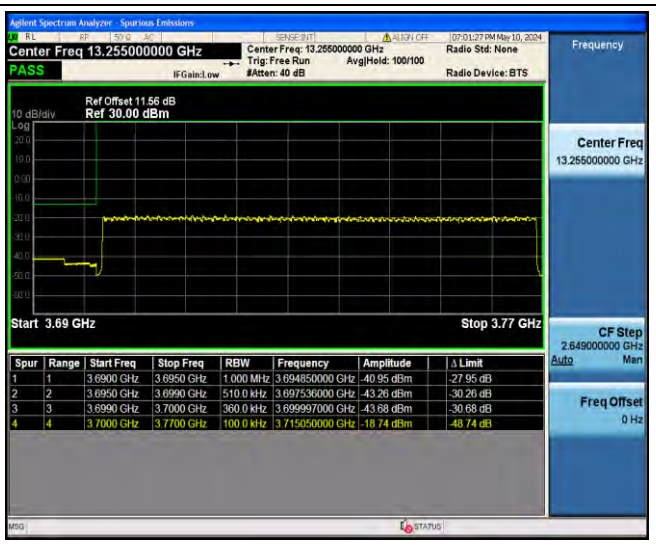
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6900 GHz	3.6950 GHz	1.000 MHz	3.692775000 GHz	-41.37 dBm	-28.37 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.698932000 GHz	-43.96 dBm	-30.96 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699890000 GHz	-44.39 dBm	-31.39 dB
4	4	3.7000 GHz	3.7700 GHz	100.0 kHz	3.734300000 GHz	-16.58 dBm	-46.58 dB

1-N77-3700-3980-PC3-30-70-L-3-DFT-PI2BPSK-Outer_Full-180@0-Ant14-3692.78-28.37--41.37-PASS

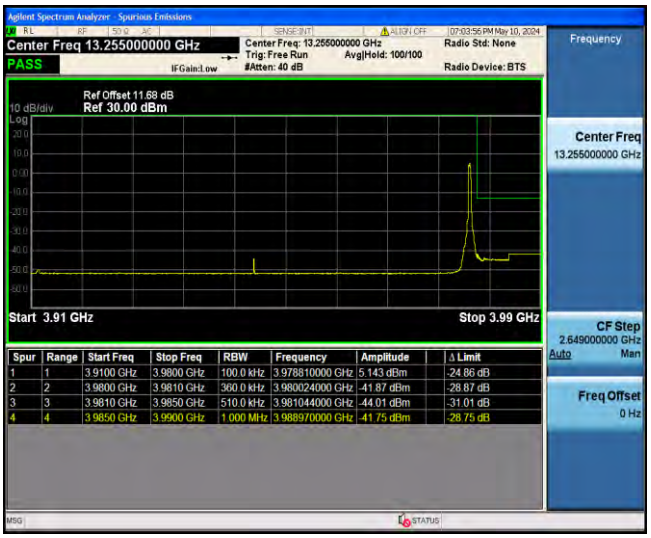


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6900 GHz	3.6950 GHz	1.000 MHz	3.694165000 GHz	-41.94 dBm	-28.94 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.698872000 GHz	-44.60 dBm	-31.60 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699996000 GHz	-43.31 dBm	-30.31 dB
4	4	3.7000 GHz	3.7700 GHz	100.0 kHz	3.701050000 GHz	2.151 dBm	-27.85 dB

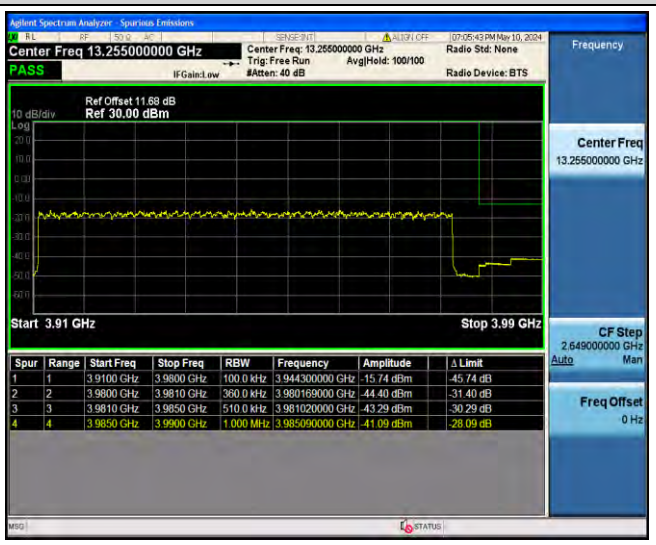
1-N77-3700-3980-PC3-30-70-L-4-CP-QPSK-Edge_1RB_Left-1@0-Ant14-3694.17-28.94--41.94-PASS



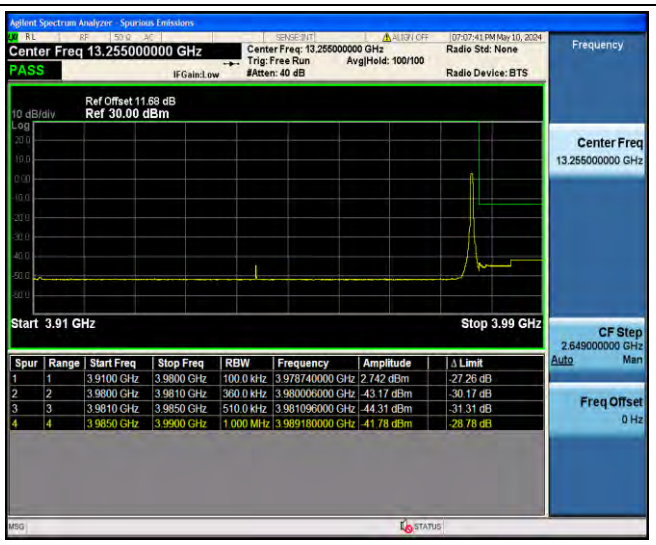
1-N77-3700-3980-PC3-30-70-L-6-CP-QPSK-Outer_Full-189@0-Ant14-3694.85-27.95--40.95-PASS



1-N77-3700-3980-PC3-30-70-H-2-DFT-PI2BPSK-Edge_1RB_Right-1@188-Ant14-3988.97-28.75--41.75-PASS



1-N77-3700-3980-PC3-30-70-H-3-DFT-PI2BPSK-Outer_Full-180@0-Ant14-3985.09-28.09--41.09-PASS



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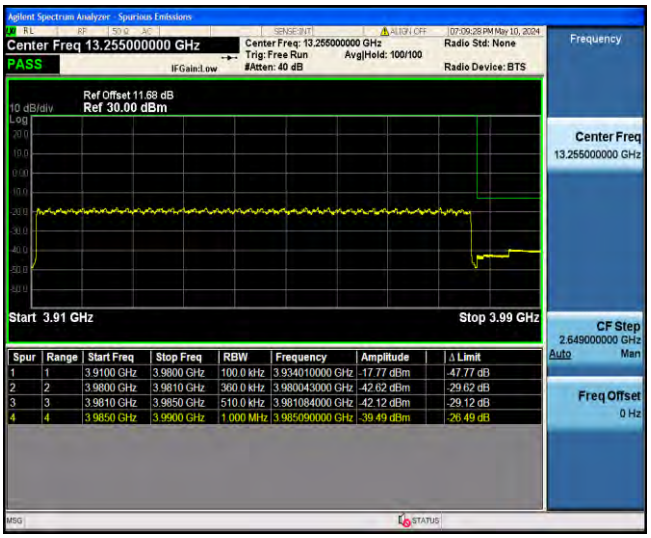

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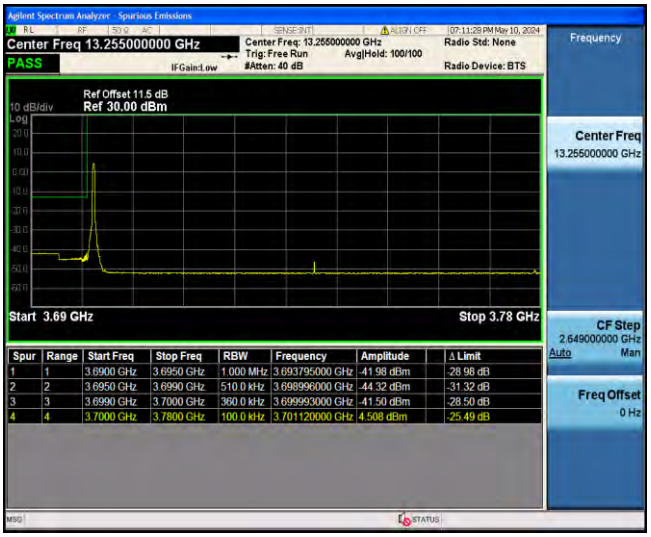
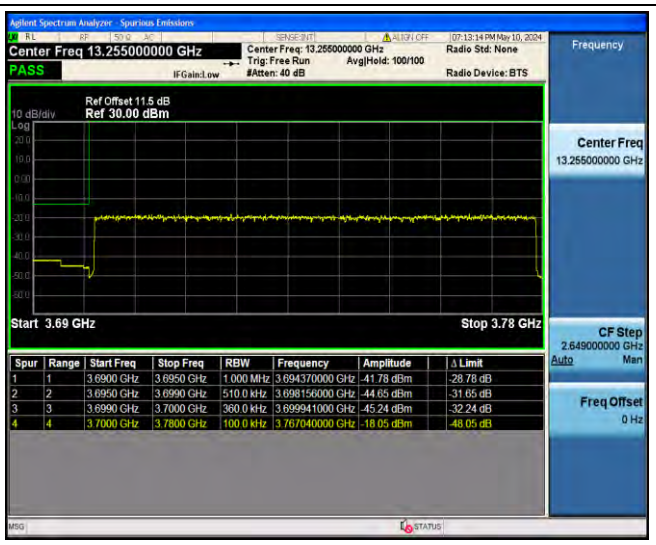


1-N77-3700-3980-PC3-30-80-L-1-DFT-PI2BPSK-Edge_1RB_Left-1@0-Ant14-3699.99-28.50--41.50-PASS



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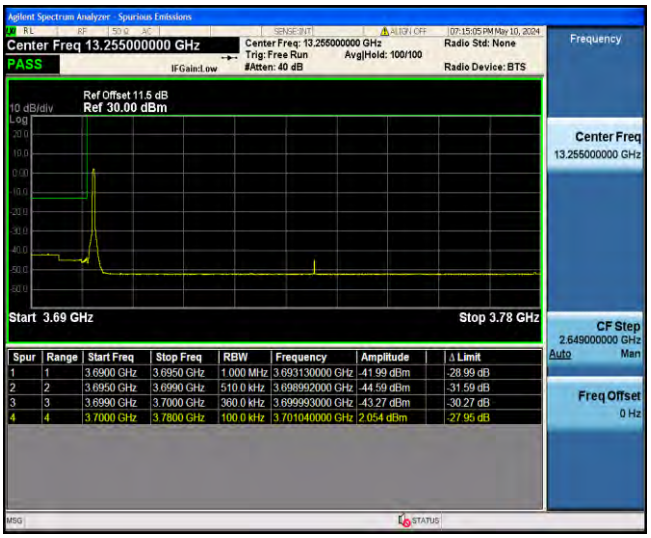

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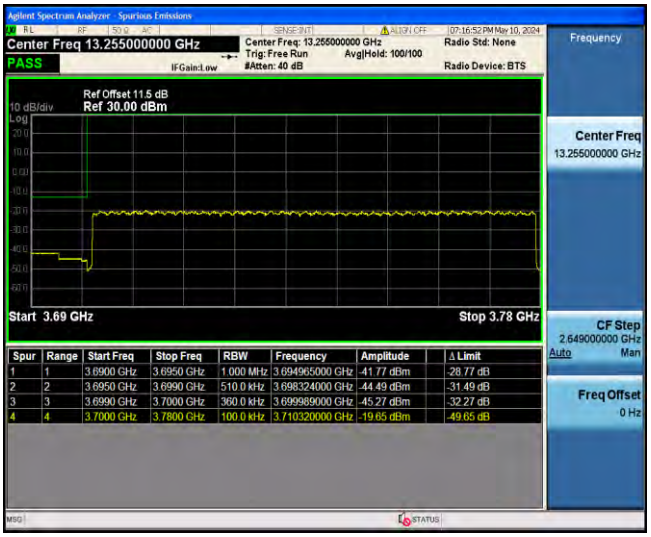

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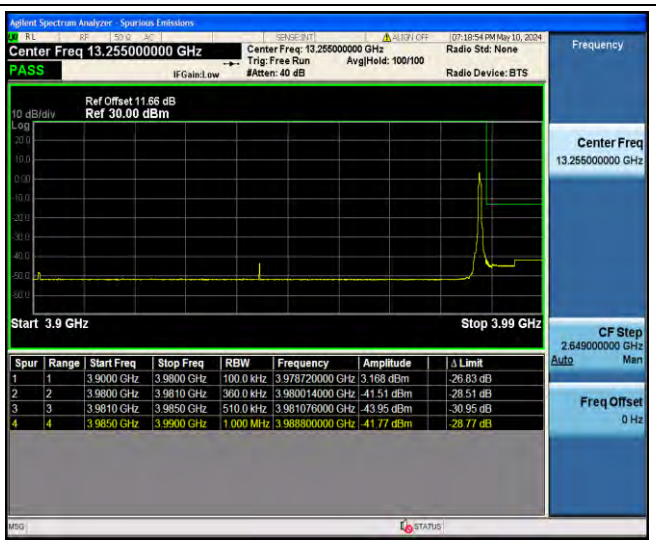

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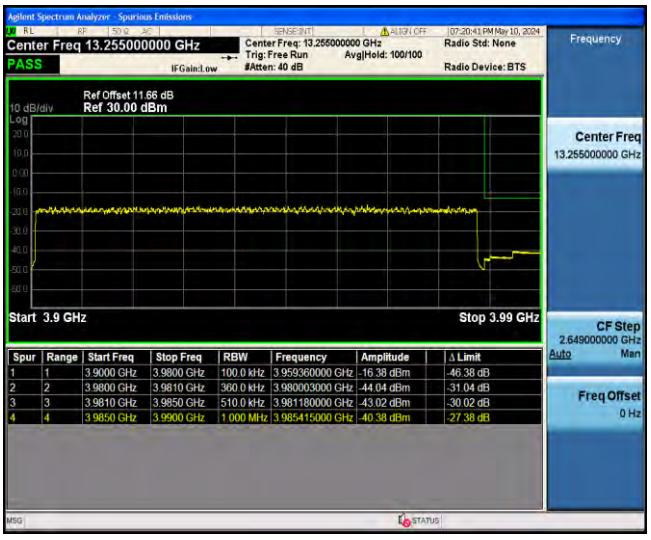

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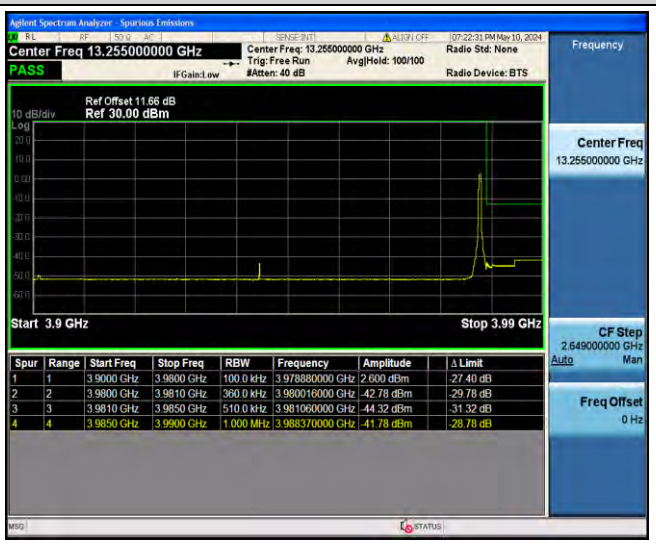
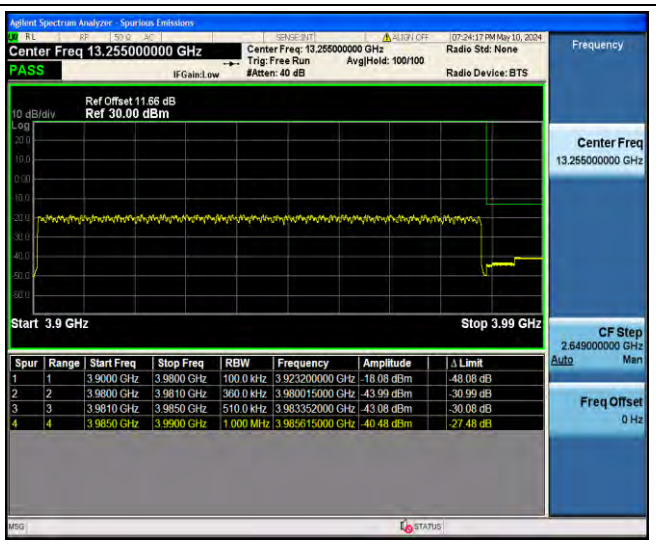


1-N77-3700-3980-PC3-30-80-H-5-CP-QPSK-Edge_1RB_Right-1@216-Ant14-3988.37-28.78--41.78-PASS



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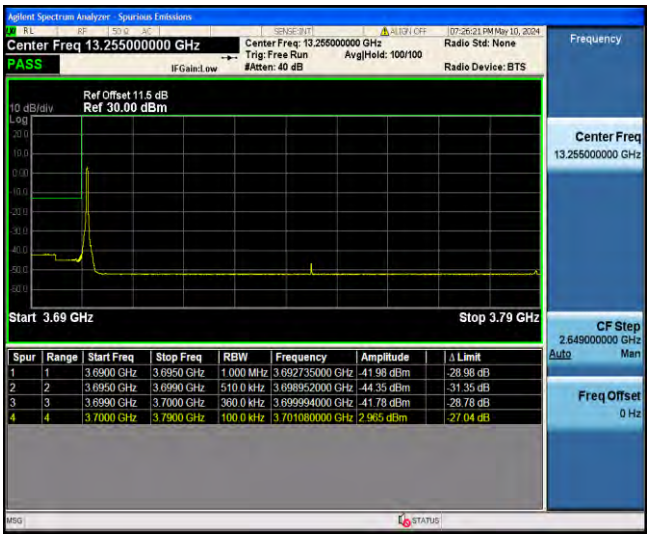
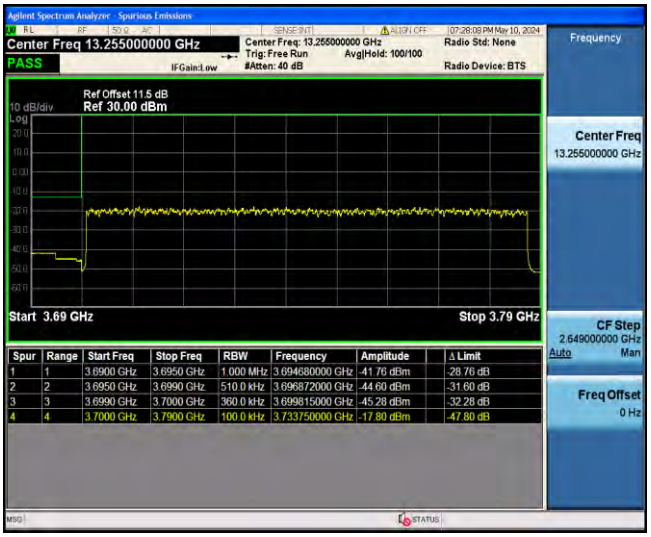


1-N77-3700-3980-PC3-30-90-L-1-DFT-PI2BPSK-Edge_1RB_Left-1@0-Ant14-3699.99-28.78--41.78-PASS



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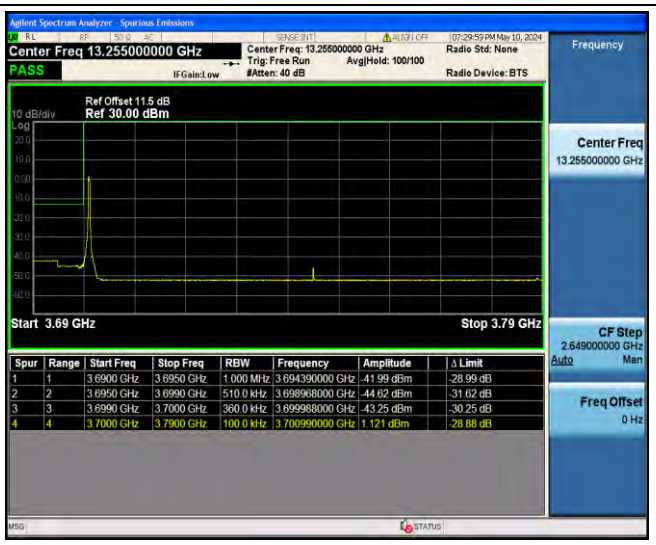

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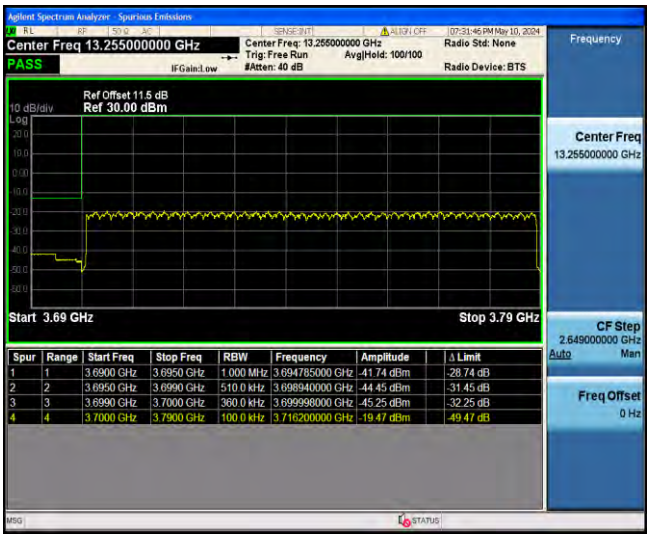

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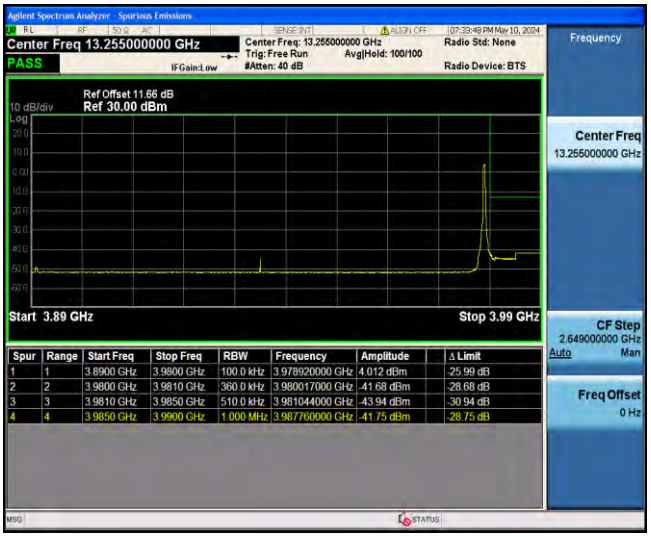
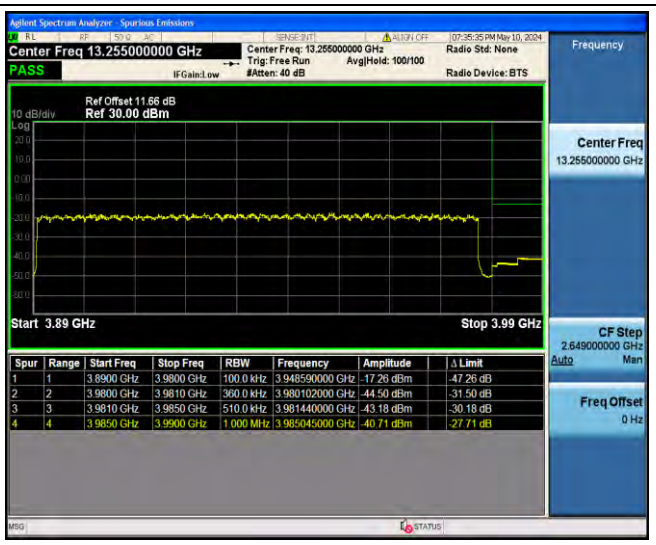


1-N77-3700-3980-PC3-30-90-H-2-DFT-PI2BPSK-Edge_1RB_Right-1@244-Ant14-3980.02-28.68--41.68-PASS



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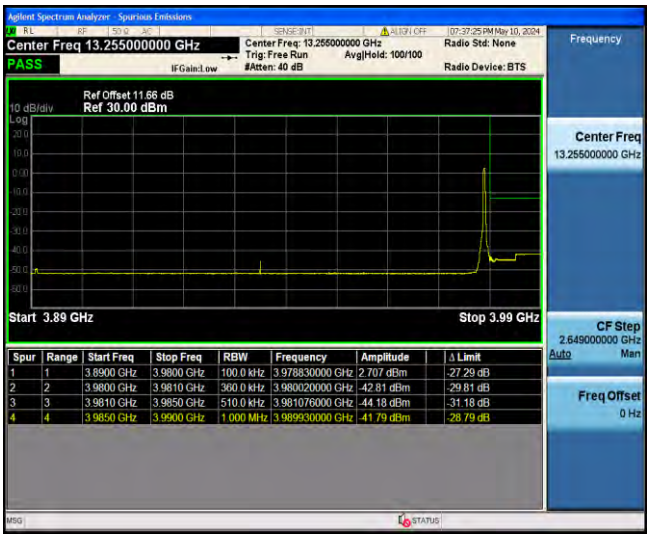

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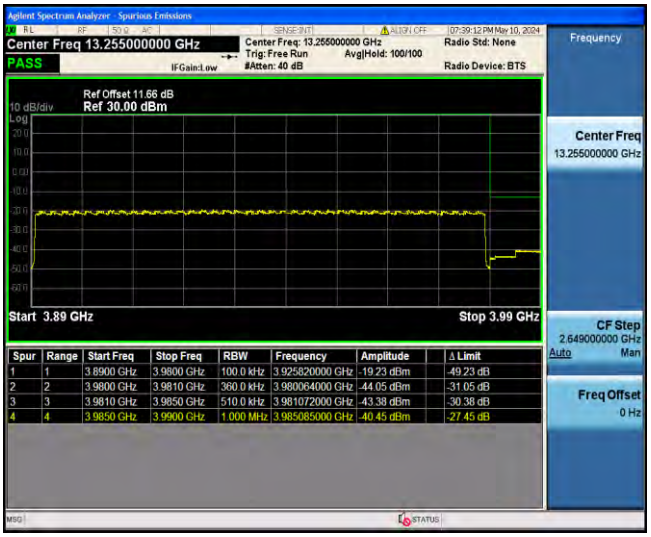

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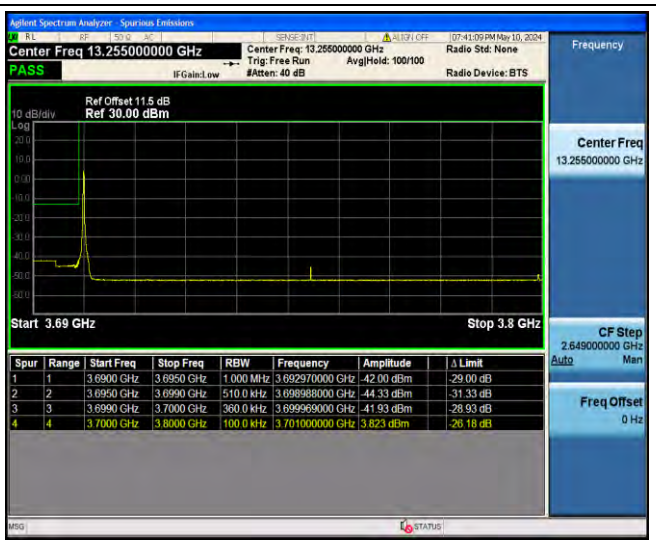

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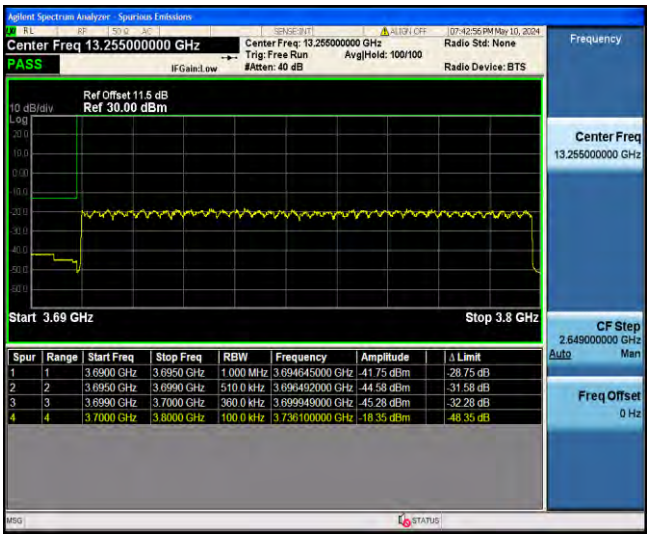

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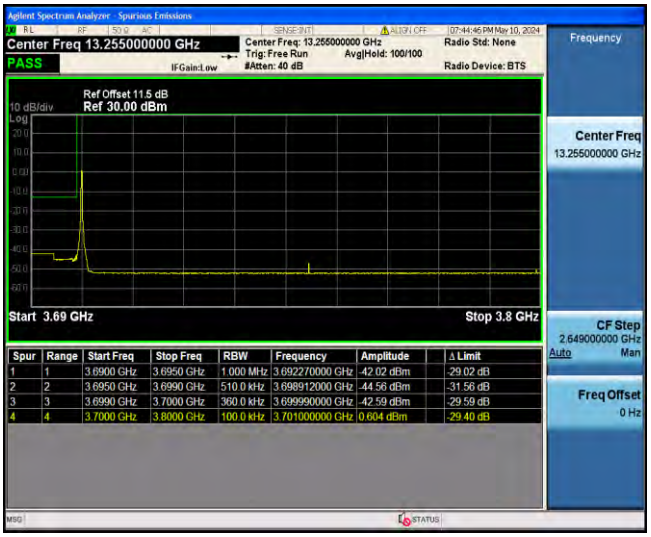

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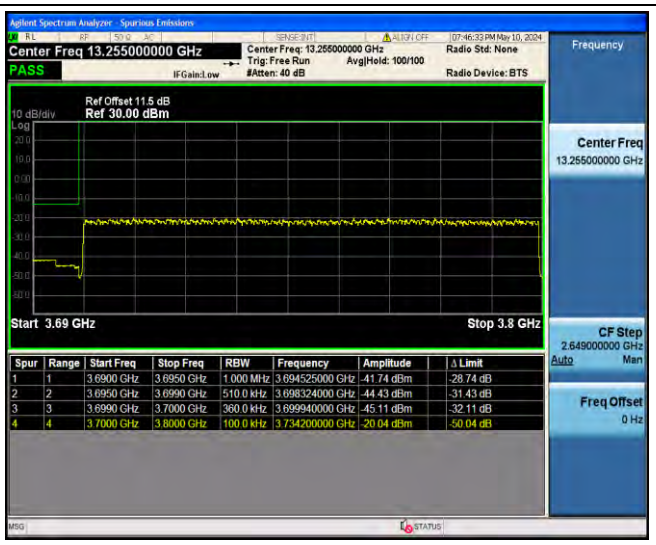
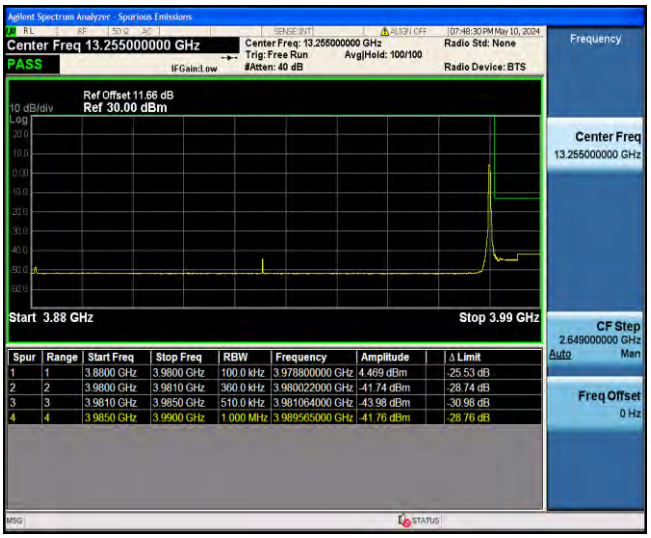
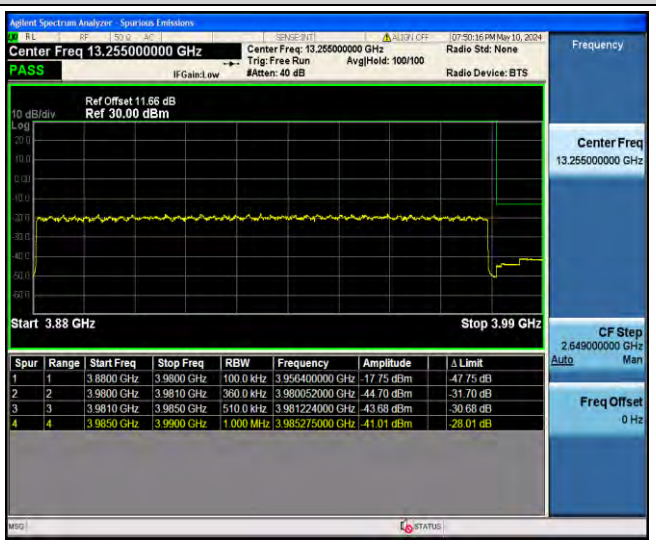


1-N77-3700-3980-PC3-30-100-L-6-CP-QPSK-Outer_Full-273@0-Ant14-3694.53-28.74--41.74-PASS



1-N77-3700-3980-PC3-30-100-H-2-DFT-PI2BPSK-Edge_1RB_Right-1@272-Ant14-3980.02-28.74--41.74-PASS



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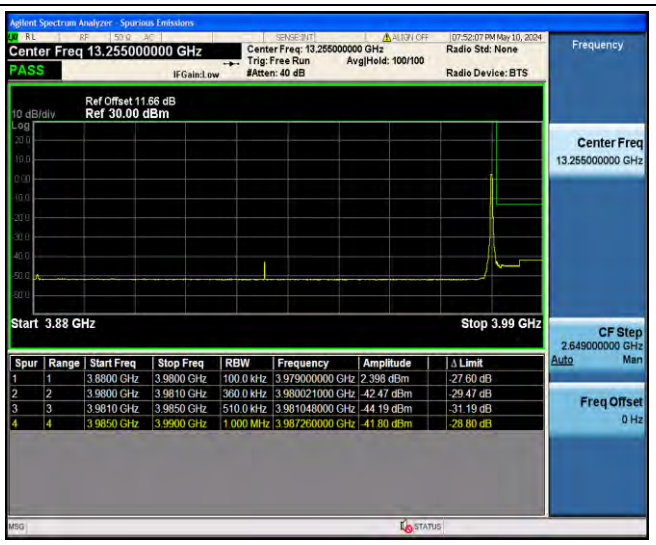

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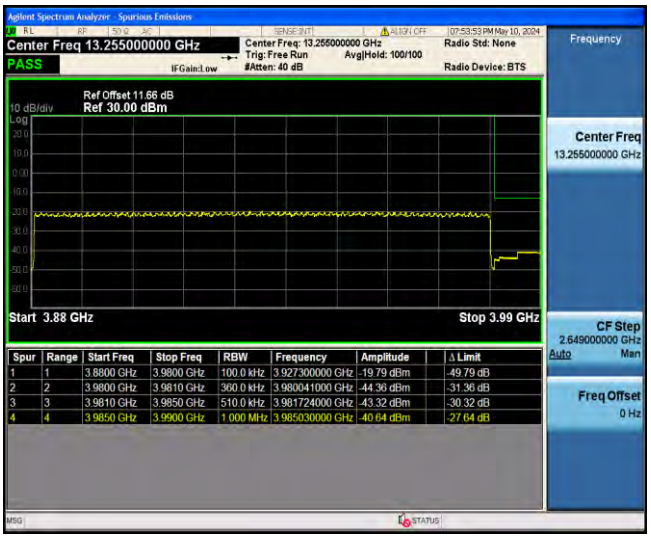


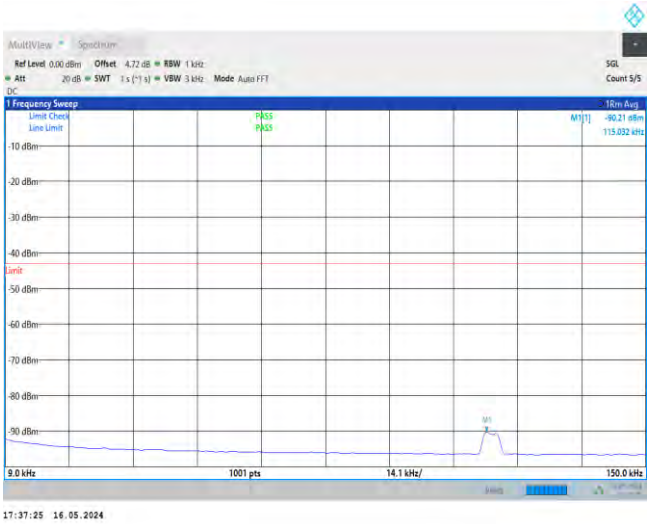
1-N77-3700-3980-PC3-30-100-H-6-CP-QPSK-Outer_Full-273@0-Ant14-3985.03-27.64--40.64-PASS

Conducted Spurious Emission for SA

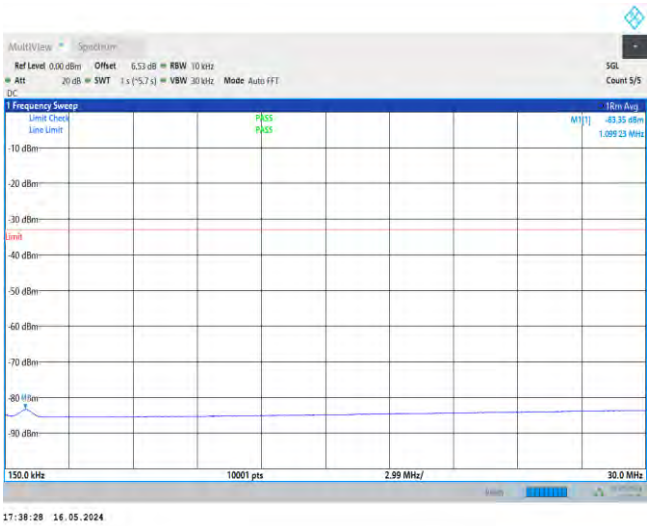
Test Result

Band	SCS	Bandwidth	Modulation	Channel	StartFreq	StopFreq	RB Config	Result	Limit	Verdict
N77-3700-3980	30	100	DFT-PI2BPSK	L	0.009	0.15	1@1	-90.21	-43	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	L	0.15	30	1@1	-83.35	-33	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	L	30	1000	1@1	-54.20	-23	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	L	1000	6000	1@1	-38.64	-13	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	L	6000	26000	1@1	-34.93	-13	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	L	26000	40000	1@1	-42.64	-13	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	0.009	0.15	1@1	-90.10	-43	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	0.15	30	1@1	-83.40	-33	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	30	1000	1@1	-54.88	-23	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	1000	6000	1@1	-38.64	-13	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	6000	26000	1@1	-35.27	-13	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	26000	40000	1@1	-42.24	-13	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	H	0.009	0.15	1@1	-90.19	-43	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	H	0.15	30	1@1	-83.37	-33	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	H	30	1000	1@1	-55.00	-23	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	H	1000	6000	1@1	-38.66	-13	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	H	6000	26000	1@1	-35.11	-13	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	H	26000	40000	1@1	-42.47	-13	PASS

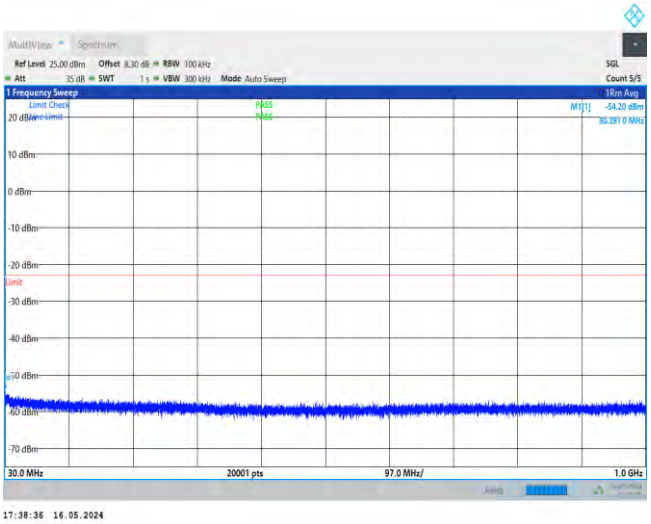
Test Graphs



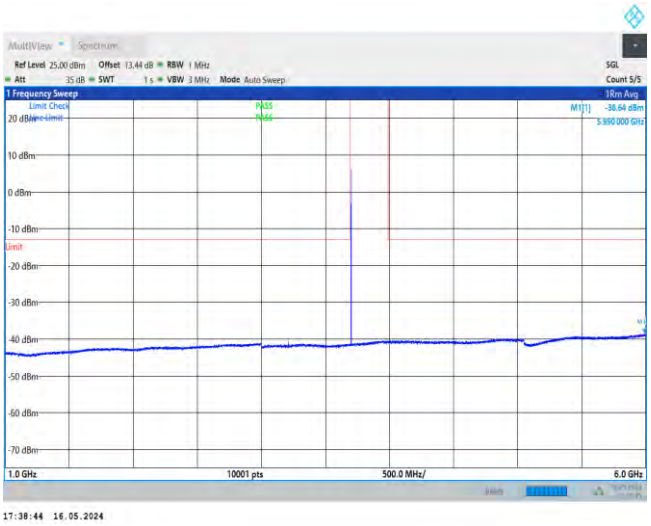
1-N77-3700-3980-PC3-30-100-L-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-0.009-0.15-Ant14-0.12--90.21--43-PASS



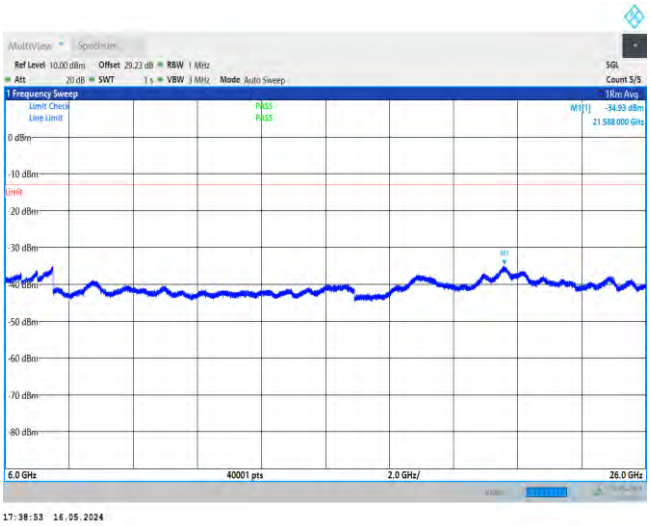
1-N77-3700-3980-PC3-30-100-L-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-0.15-30-Ant14-1.10--83.35--33-PASS



1-N77-3700-3980-PC3-30-100-L-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-30-1000-Ant14-30.29--54.20--23-PASS

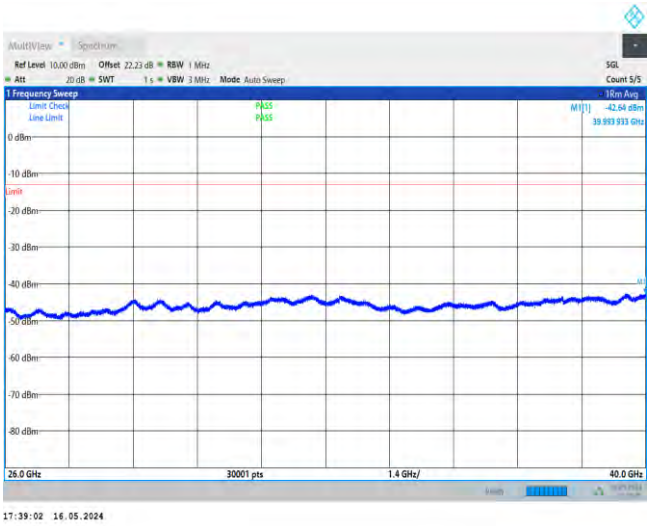


1-N77-3700-3980-PC3-30-100-L-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-1000-6000-Ant14-5990.00--38.64--13-PASS

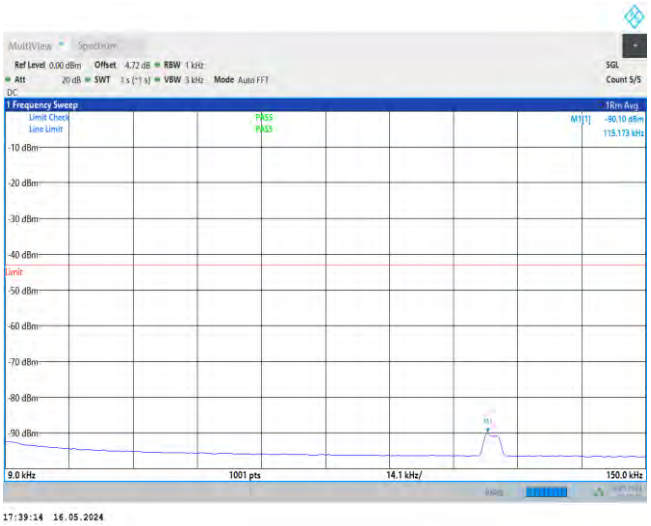


1-N77-3700-3980-PC3-30-100-L-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-6000-26000-Ant14-21588.0

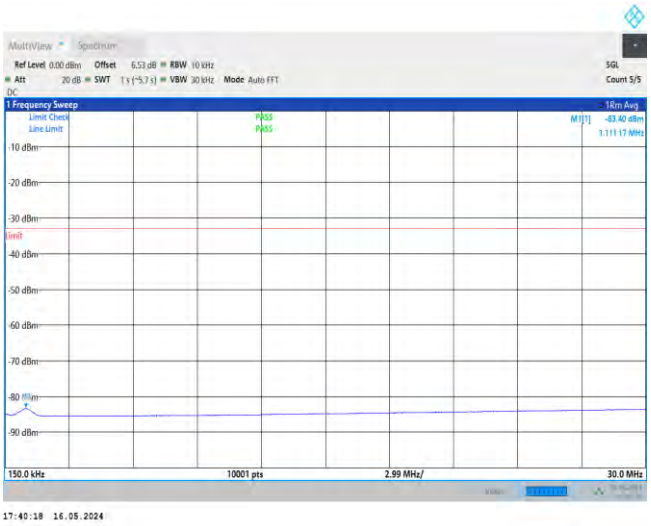
0--34.93--13-PASS



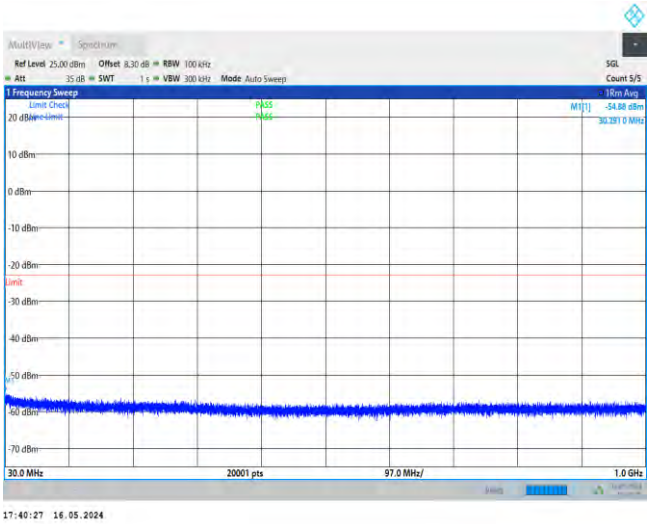
1-N77-3700-3980-PC3-30-100-L-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-26000-40000-Ant14-39993.93--42.64--13-PASS



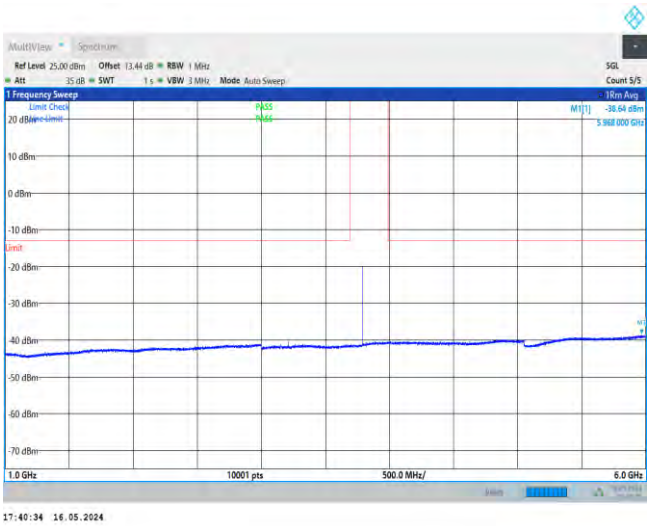
1-N77-3700-3980-PC3-30-100-M-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-0.009-0.15-Ant14-0.12--90.10--43-PASS



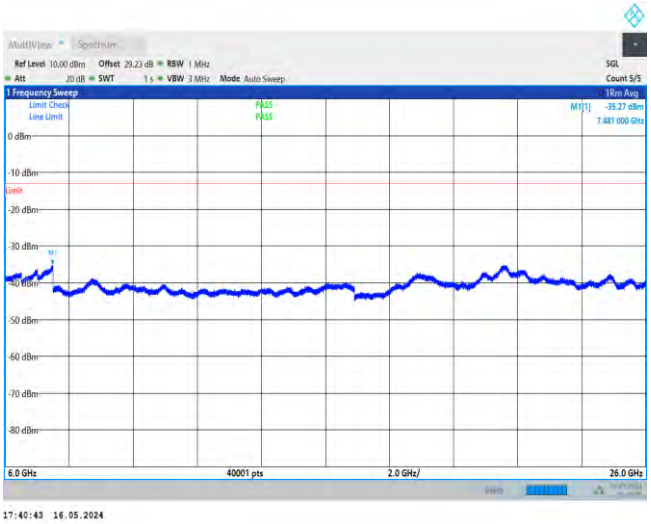
1-N77-3700-3980-PC3-30-100-M-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-0.15-30-Ant14-1.11--83.40--33-PASS



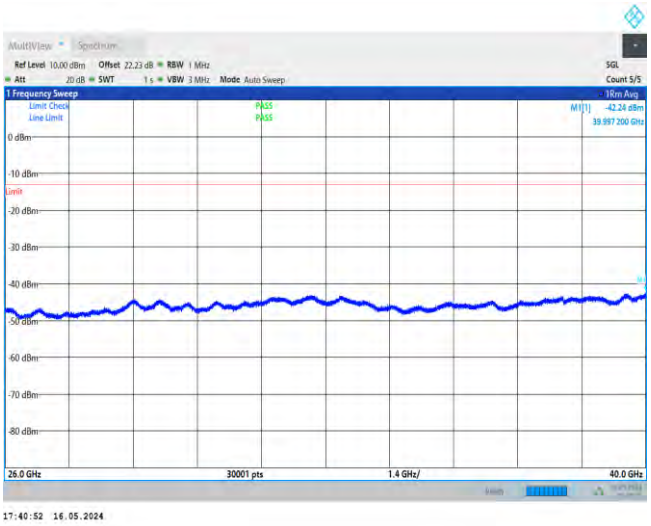
1-N77-3700-3980-PC3-30-100-M-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-30-1000-Ant14-30.29--54.88--23-PASS



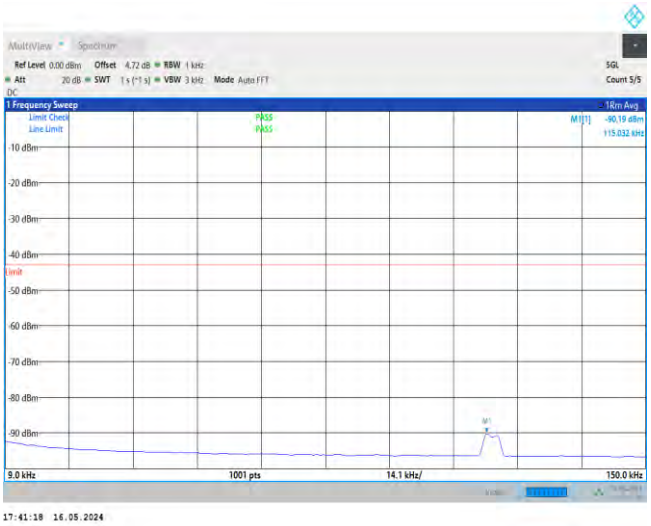
1-N77-3700-3980-PC3-30-100-M-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-1000-6000-Ant14-5968.00--38.64--13-PASS



1-N77-3700-3980-PC3-30-100-M-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-6000-26000-Ant14-7481.00--35.27--13-PASS

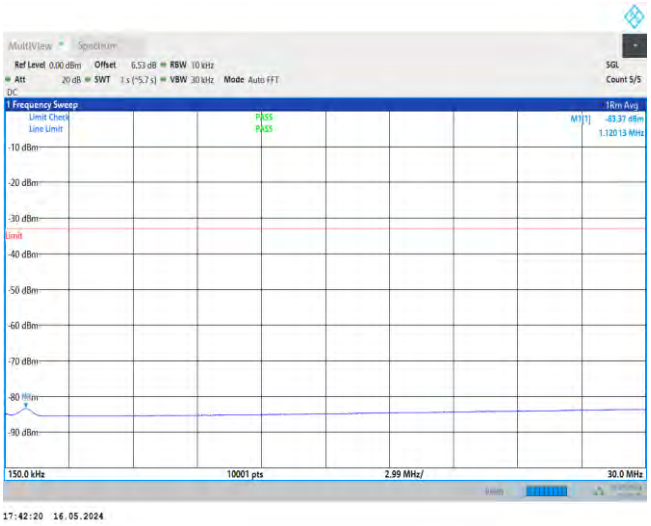


1-N77-3700-3980-PC3-30-100-M-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-26000-40000-Ant14-39997.20--42.24--13-PASS

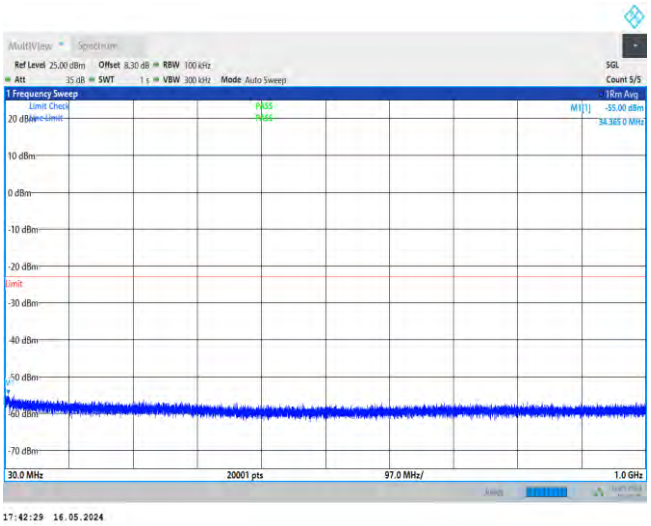


1-N77-3700-3980-PC3-30-100-H-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-0.009-0.15-Ant14-0.12--90.

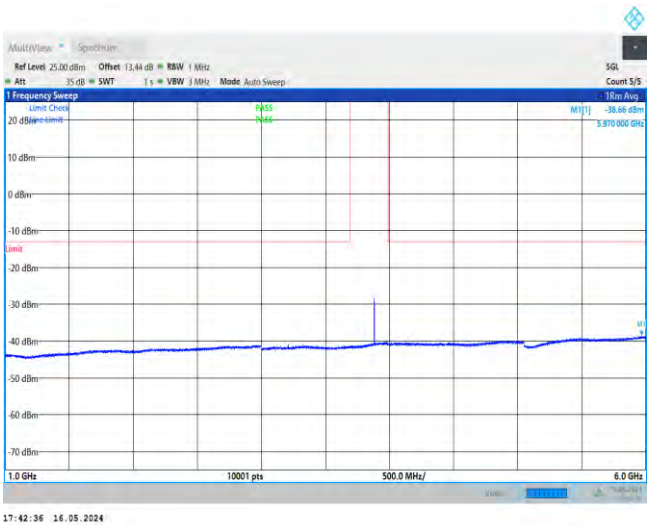
19--43-PASS



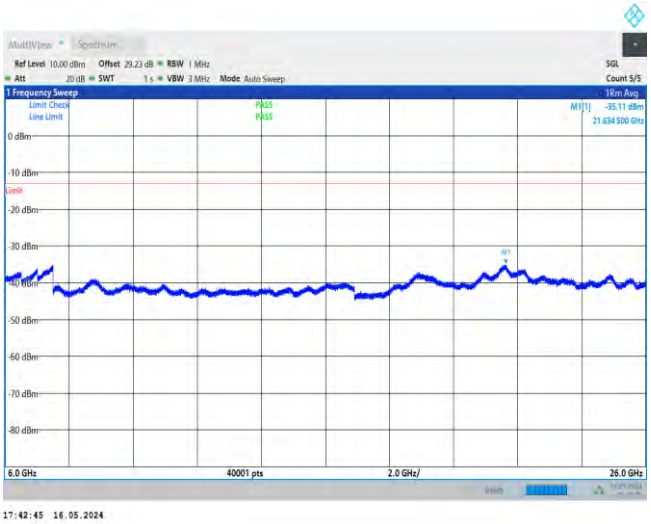
1-N77-3700-3980-PC3-30-100-H-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-0.15-30-Ant14-1.12--83.37--33-PASS



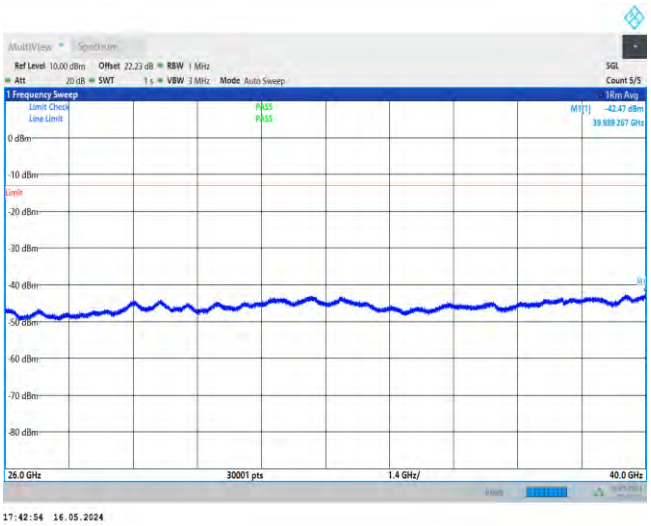
1-N77-3700-3980-PC3-30-100-H-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-30-1000-Ant14-34.37--55.00--23-PASS



1-N77-3700-3980-PC3-30-100-H-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-1000-6000-Ant14-5970.00--38.66--13-PASS



1-N77-3700-3980-PC3-30-100-H-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-6000-26000-Ant14-21634.50--35.11--13-PASS



1-N77-3700-3980-PC3-30-100-H-1-NS_01-DFT-PI2BPSK-Inner_1RB_Left-1@1-26000-40000-Ant14-39989.27--42.47--13-PASS

Field Strength of Spurious Radiation

SA Band 77 3700-3980 ANT23-Low channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
7410.0	-60.7	-13	-47.7	-67.39	4.94	11.63	Horizontal	Pass
11115.0	-56.45	-13	-43.45	-63.9	5.81	13.26	Horizontal	Pass
14820.0	-55.35	-13	-42.35	-62.91	6.92	14.48	Horizontal	Pass
7410.0	-60.65	-13	-47.65	-67.34	4.94	11.63	Vertical	Pass
11115.0	-56.63	-13	-43.63	-64.08	5.81	13.26	Vertical	Pass
14820.0	-52.7	-13	-39.7	-60.26	6.92	14.48	Vertical	Pass

SA Band 77 3700-3980 ANT23- Middle channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
7590.0	-61.38	-13	-48.38	-68.28	4.95	11.85	Horizontal	Pass
11385.0	-57.04	-13	-44.04	-64.43	5.86	13.25	Horizontal	Pass
15180.0	-54.81	-13	-41.81	-62.14	7.09	14.42	Horizontal	Pass
7590.0	-61.53	-13	-48.53	-68.43	4.95	11.85	Vertical	Pass
11385.0	-57.49	-13	-44.49	-64.88	5.86	13.25	Vertical	Pass
15180.0	-54.9	-13	-41.9	-62.23	7.09	14.42	Vertical	Pass

SA Band 77 3700-3980 ANT23- High channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
7770.0	-59.68	-13	-46.68	-66.78	4.96	12.06	Horizontal	Pass
11655.0	-56.49	-13	-43.49	-63.84	5.9	13.25	Horizontal	Pass
15540.0	-54.39	-13	-41.39	-61.49	7.12	14.22	Horizontal	Pass
7770.0	-60.33	-13	-47.33	-67.43	4.96	12.06	Vertical	Pass
11655.0	-56.11	-13	-43.11	-63.46	5.9	13.25	Vertical	Pass
15540.0	-54.24	-13	-41.24	-61.34	7.12	14.22	Vertical	Pass

DC_7A_n77A 3700-3980-Low channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
7410.0	-60.55	-13	-47.55	-67.24	4.94	11.63	Horizontal	Pass
11115.0	-56.24	-13	-43.24	-63.69	5.81	13.26	Horizontal	Pass
14820.0	-52.72	-13	-39.72	-60.28	6.92	14.48	Horizontal	Pass
7410.0	-60.6	-13	-47.6	-67.29	4.94	11.63	Vertical	Pass
11115.0	-56.57	-13	-43.57	-64.02	5.81	13.26	Vertical	Pass
14820.0	-55.09	-13	-42.09	-62.65	6.92	14.48	Vertical	Pass

DC_7A_n77A 3700-3980- Middle channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
7590.0	-60.48	-13	-47.48	-67.38	4.95	11.85	Horizontal	Pass
11385.0	-56.67	-13	-43.67	-64.06	5.86	13.25	Horizontal	Pass
15180.0	-54.76	-13	-41.76	-62.09	7.09	14.42	Horizontal	Pass
7590.0	-60.64	-13	-47.64	-67.54	4.95	11.85	Vertical	Pass
11385.0	-57.06	-13	-44.06	-64.45	5.86	13.25	Vertical	Pass
15180.0	-55.07	-13	-42.07	-62.4	7.09	14.42	Vertical	Pass

DC_7A_n77A 3700-3980-High channel								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
7770.0	-60.1	-13	-47.1	-67.2	4.96	12.06	Horizontal	Pass
11655.0	-56.64	-13	-43.64	-63.99	5.9	13.25	Horizontal	Pass
15540.0	-54.54	-13	-41.54	-61.64	7.12	14.22	Horizontal	Pass
7770.0	-59.71	-13	-46.71	-66.81	4.96	12.06	Vertical	Pass
11655.0	-56.61	-13	-43.61	-63.96	5.9	13.25	Vertical	Pass
15540.0	-54.1	-13	-41.1	-61.2	7.12	14.22	Vertical	Pass

Remark:

1) All antennas of RSE are tested, and only the worst data is presented.

Frequency Stability for SA

Test Result

Frequency Error VS. Voltage

Voltage										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Verdict
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	VH	NT	17.90	0.00	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	VN	NT	23.50	0.01	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	VL	NT	10.00	0.00	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	VH	NT	6.40	0.00	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	VN	NT	7.00	0.00	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	VL	NT	12.80	0.00	PASS

Frequency Error VS. Temperature

Temperature										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage (Vdc)	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Verdict
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	NV	50	4.600000	0.001198	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	NV	-20	21.900000	0.005703	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	NV	-10	8.400000	0.002188	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	NV	0	18.700000	0.004870	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	NV	10	19.200000	0.005000	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	NV	20	13.500000	0.003516	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	NV	30	10.800000	0.002813	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	NV	-30	22.700000	0.005911	PASS
N77-3700-3980	30	100	DFT-PI2BPSK	M	270@0	NV	40	14.900000	0.003880	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	NV	50	-10.400000	-0.002708	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	NV	-20	10.000000	0.002604	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	NV	-10	13.800000	0.003594	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	NV	0	7.500000	0.001953	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	NV	10	-4.500000	-0.001172	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	NV	20	13.100000	0.003411	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	NV	30	8.000000	0.002083	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	NV	40	12.400000	0.003229	PASS
N77-3700-3980	30	100	CP-QPSK	M	273@0	NV	-30	12.100000	0.003151	PASS

---End of Attachment---