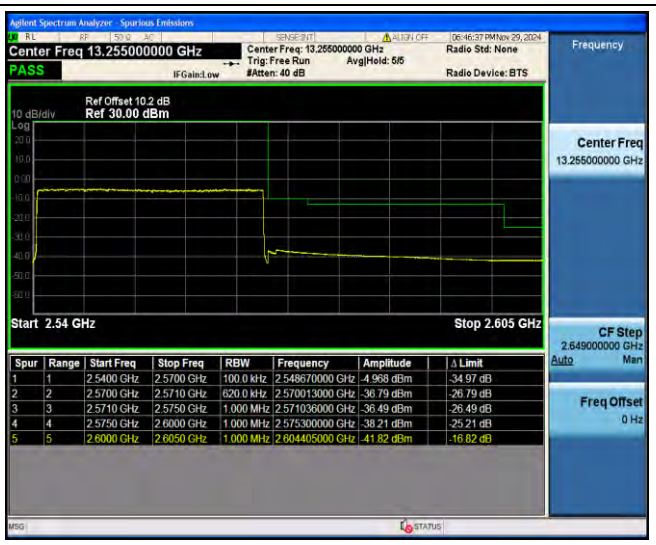
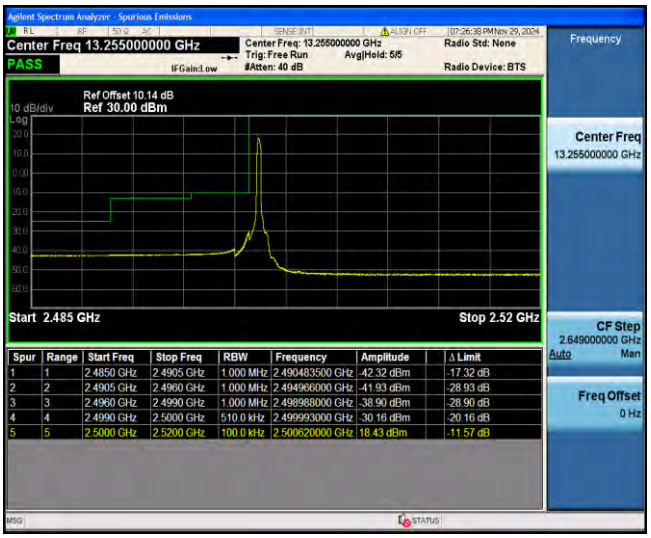


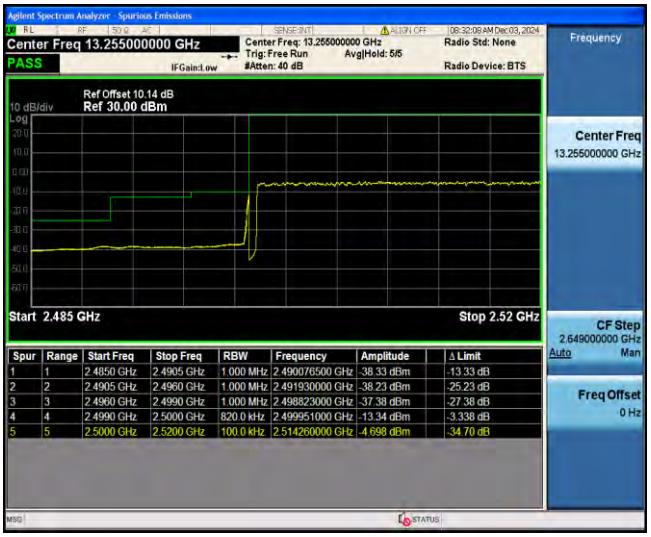
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5400 GHz	2.5700 GHz	100.0 kHz	2.548670000 GHz	-4.968 dBm	-34.97 dB
2	2	2.5700 GHz	2.5710 GHz	620.0 kHz	2.570013000 GHz	-36.79 dBm	-26.79 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571036000 GHz	-36.49 dBm	-26.49 dB
4	4	2.5750 GHz	2.6000 GHz	1.000 MHz	2.575300000 GHz	-38.21 dBm	-25.21 dB
5	5	2.6000 GHz	2.6050 GHz	1.000 MHz	2.604405000 GHz	-41.82 dBm	-16.82 dB

1-N7-PC3-15-30-H-6-CP-QPSK-Outer_Full-160@0-Ant3-2604.41-16.82--41.82-PASS



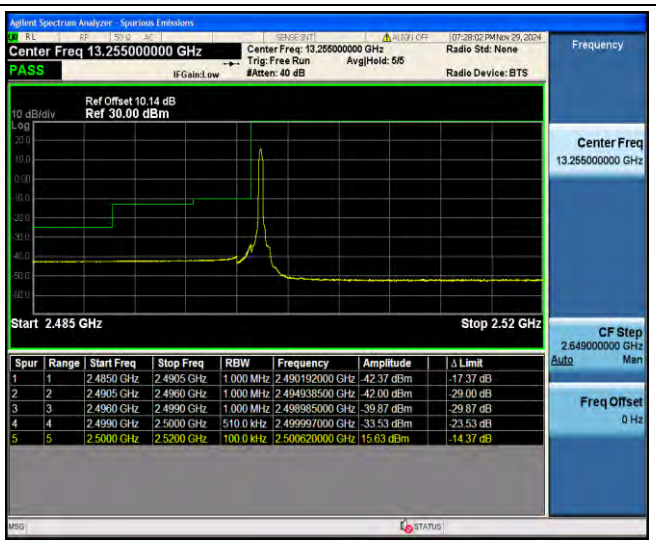
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4850 GHz	2.4905 GHz	1.000 MHz	2.490483500 GHz	-42.32 dBm	-17.32 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.494966000 GHz	-41.93 dBm	-28.93 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498988000 GHz	-38.90 dBm	-28.90 dB
4	4	2.4990 GHz	2.5000 GHz	510.0 kHz	2.499993000 GHz	-30.16 dBm	-20.16 dB
5	5	2.5000 GHz	2.5200 GHz	100.0 kHz	2.500620000 GHz	18.43 dBm	-11.57 dB

1-N7-PC3-15-40-L-1-DFT-QPSK-Edge_1RB_Left-1@0-Ant3-2500.62-11.57-18.43-PASS

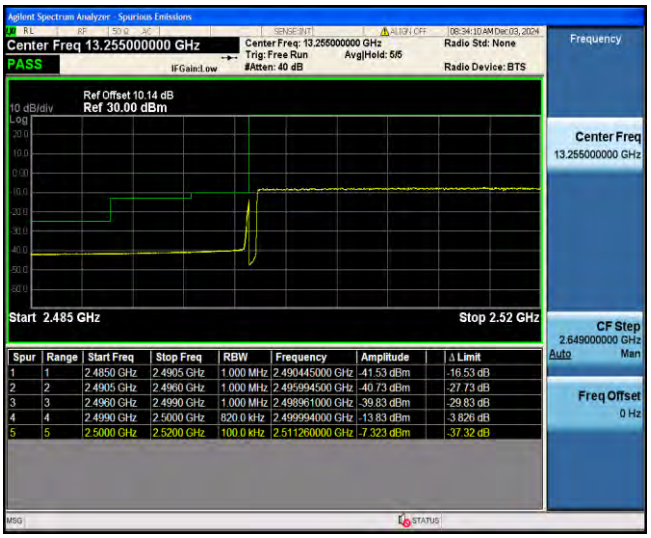


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4850 GHz	2.4905 GHz	1.000 MHz	2.490076500 GHz	-38.33 dBm	-13.33 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.491930000 GHz	-38.23 dBm	-25.23 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498823000 GHz	-37.38 dBm	-27.38 dB
4	4	2.4990 GHz	2.5000 GHz	820.0 kHz	2.499951000 GHz	-13.34 dBm	-3.338 dB
5	5	2.5000 GHz	2.5200 GHz	100.0 kHz	2.514260000 GHz	-4.698 dBm	-34.70 dB

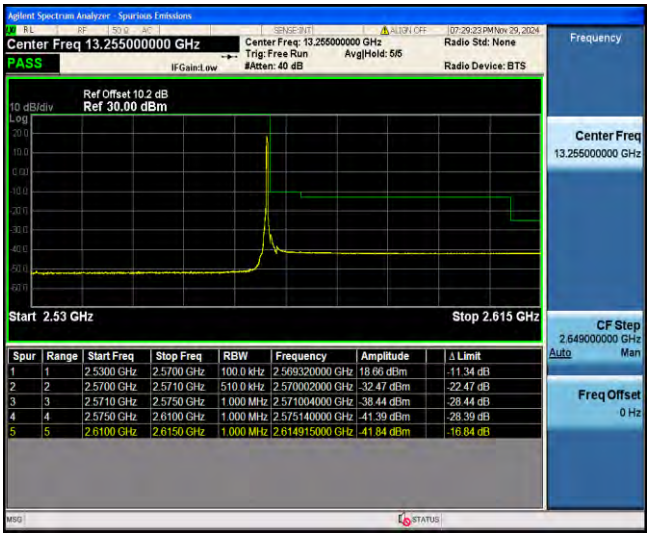
1-N7-PC3-15-40-L-3-DFT-QPSK-Outer_Full-216@0-Ant3-2499.95-3.34--13.34-PASS



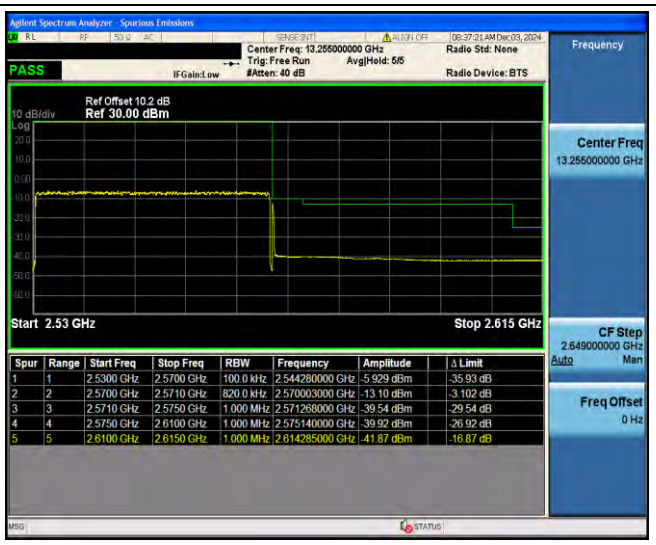
1-N7-PC3-15-40-L-4-CP-QPSK-Edge_1RB_Left-1@0-Ant3-2500.62-14.37-15.63-PASS



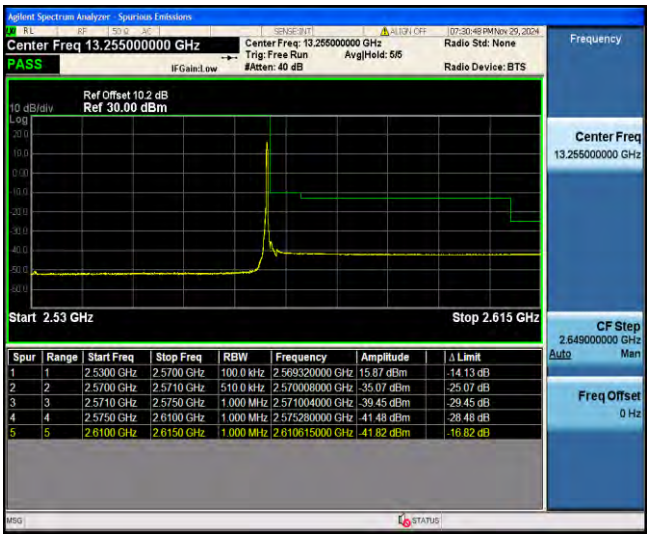
1-N7-PC3-15-40-L-6-CP-QPSK-Outer_Full-216@0-Ant3-2499.99-3.83--13.83-PASS



1-N7-PC3-15-40-H-2-DFT-QPSK-Edge_1RB_Right-1@215-Ant3-2614.92-16.84--41.84-PASS

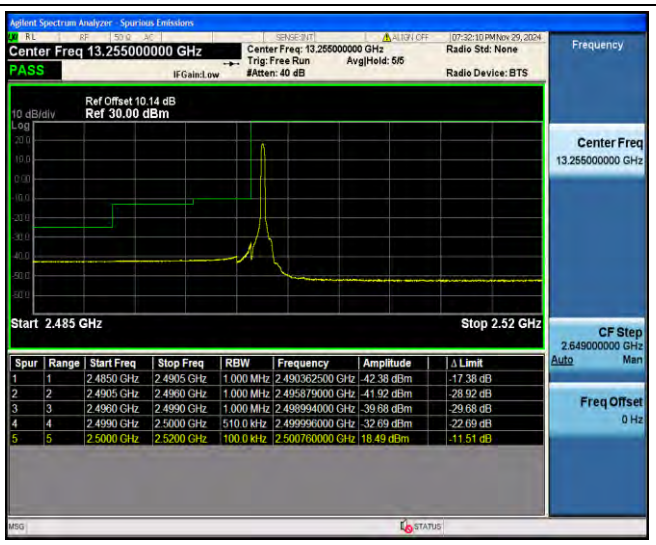


1-N7-PC3-15-40-H-3-DFT-QPSK-Outer_Full-216@0-Ant3-2570.00-3.10--13.10-PASS

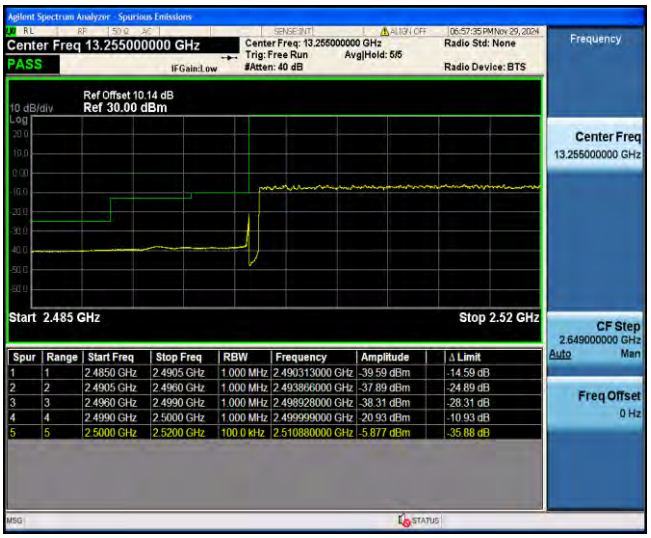


1-N7-PC3-15-40-H-5-CP-QPSK-Edge_1RB_Right-1@215-Ant3-2610.62-16.82--41.82-PASS

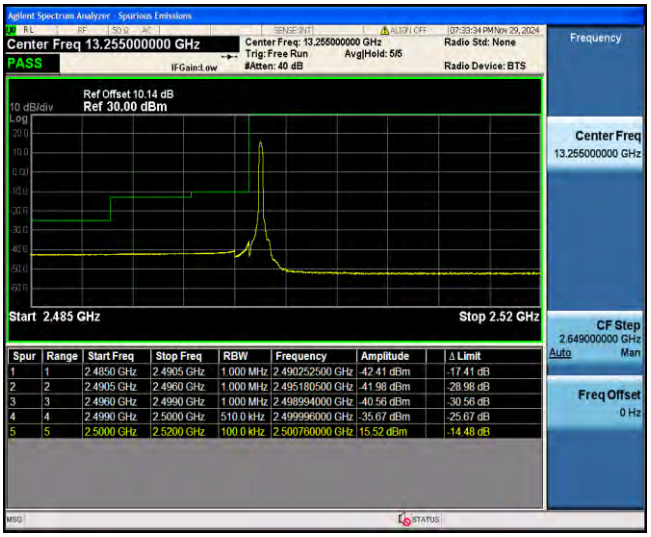
1-N7-PC3-15-40-H-6-CP-QPSK-Outer_Full-216@0-Ant3-2570.00-3.45--13.45-PASS



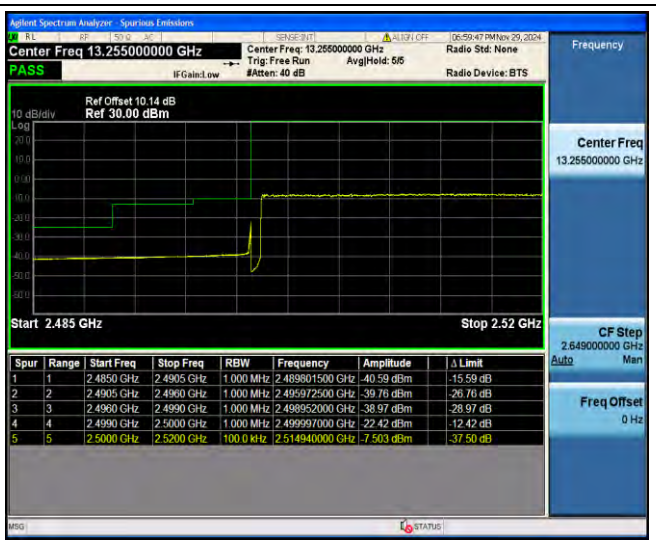
1-N7-PC3-15-50-L-1-DFT-QPSK-Edge_1RB_Left-1@0-Ant3-2500.76-11.51-18.49-PASS



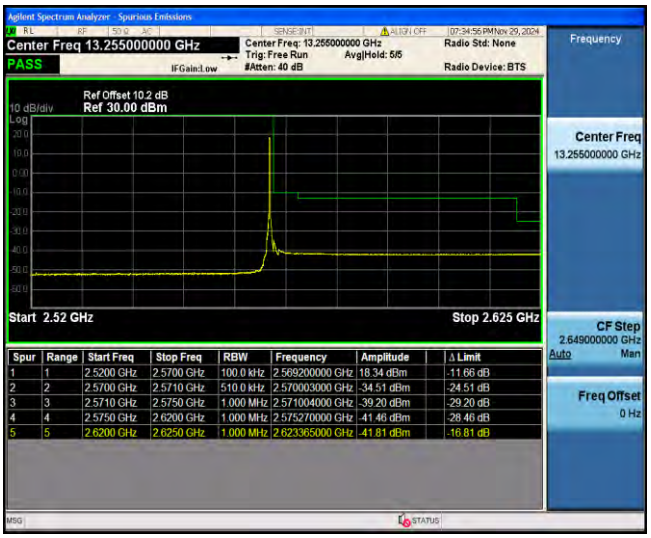
1-N7-PC3-15-50-L-3-DFT-QPSK-Outer_Full-270@0-Ant3-2500.00-10.93--20.93-PASS



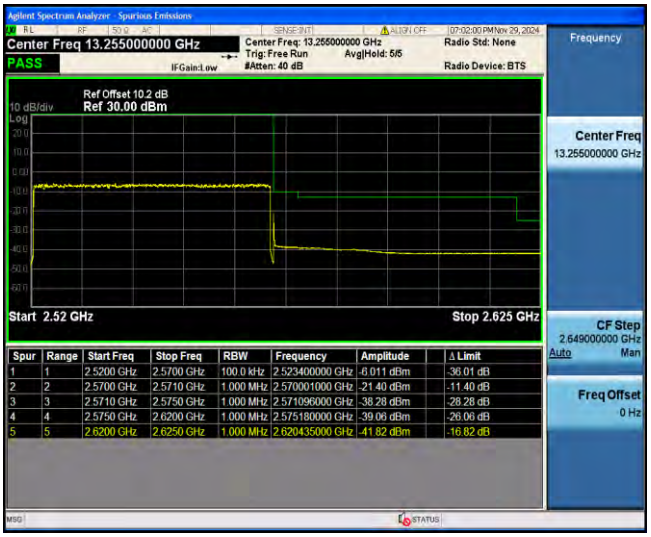
1-N7-PC3-15-50-L-4-CP-QPSK-Edge_1RB_Left-1@0-Ant3-2500.76-14.48-15.52-PASS



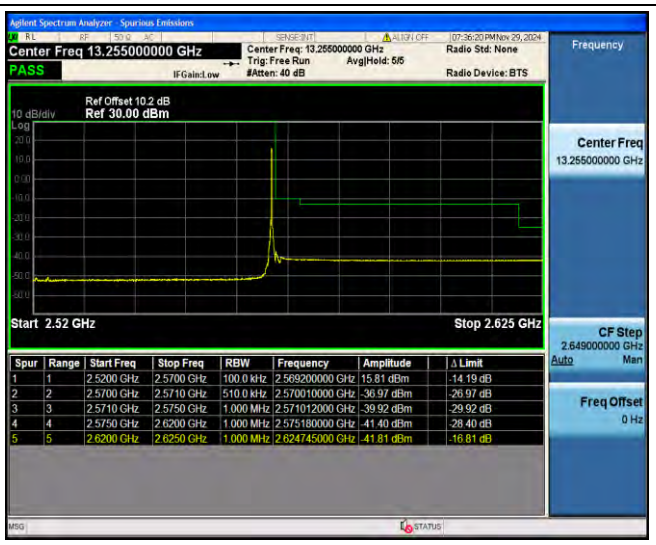
1-N7-PC3-15-50-L-6-CP-QPSK-Outer_Full-270@0-Ant3-2500.00-12.42--22.42-PASS



1-N7-PC3-15-50-H-2-DFT-QPSK-Edge_1RB_Right-1@269-Ant3-2623.37-16.81--41.81-PASS



1-N7-PC3-15-50-H-3-DFT-QPSK-Outer_Full-270@0-Ant3-2570.00-11.40--21.40-PASS



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5200 GHz	2.5700 GHz	100.0 kHz	2.569200000 GHz	15.81 dBm	-14.19 dB
2	2	2.5700 GHz	2.5710 GHz	510.0 kHz	2.570010000 GHz	-36.97 dBm	-26.97 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571012000 GHz	-39.92 dBm	-29.92 dB
4	4	2.5750 GHz	2.6200 GHz	1.000 MHz	2.575180000 GHz	-41.40 dBm	-28.40 dB
5	5	2.6200 GHz	2.6250 GHz	1.000 MHz	2.624745000 GHz	-41.81 dBm	-16.81 dB

1-N7-PC3-15-50-H-5-CP-QPSK-Edge_1RB_Right-1@269-Ant3-2624.75-16.81--41.81-PASS

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5200 GHz	2.5700 GHz	100.0 kHz	2.548550000 GHz	-7.205 dBm	-37.20 dB
2	2	2.5700 GHz	2.5710 GHz	1.000 MHz	2.570003000 GHz	-23.82 dBm	-13.82 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571468000 GHz	-38.87 dBm	-28.87 dB
4	4	2.5750 GHz	2.6200 GHz	1.000 MHz	2.575135000 GHz	-39.68 dBm	-26.68 dB
5	5	2.6200 GHz	2.6250 GHz	1.000 MHz	2.624975000 GHz	-41.77 dBm	-16.77 dB

1-N7-PC3-15-50-H-6-CP-QPSK-Outer_Full-270@0-Ant3-2570.00-13.82--23.82-PASS

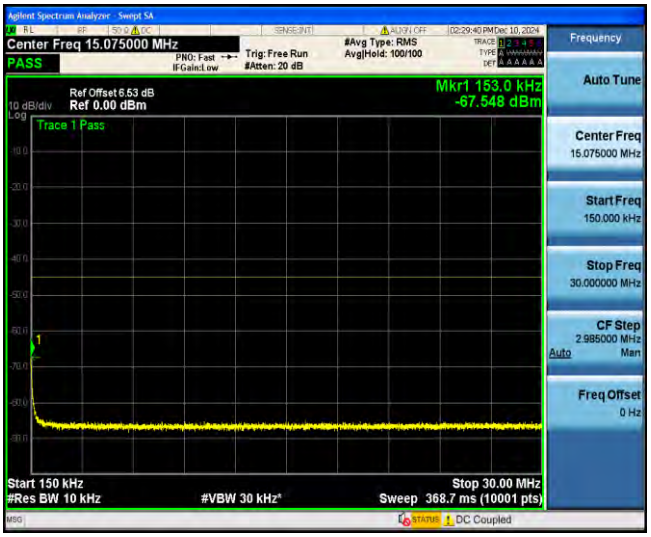
Conducted Spurious Emission for SA

Test Result

Band	SCS	Bandwidth	Modulation	Channel	StartFreq	StopFreq	RB Config	Result (dBm)	Limit (dBm)	Verdict
N7	15	50	DFT-QPSK	L	0.009	0.15	1@0	-66.31	-55	PASS
N7	15	50	DFT-QPSK	L	0.15	30	1@0	-67.55	-45	PASS
N7	15	50	DFT-QPSK	L	30	1000	1@0	-56.25	-35	PASS
N7	15	50	DFT-QPSK	L	1000	3000	1@0	-41.65	-25	PASS
N7	15	50	DFT-QPSK	L	3000	12000	1@0	-47.22	-25	PASS
N7	15	50	DFT-QPSK	L	12000	26500	1@0	-35.28	-25	PASS
N7	15	50	DFT-QPSK	M	0.009	0.15	1@0	-61.24	-55	PASS
N7	15	50	DFT-QPSK	M	0.15	30	1@0	-59.67	-45	PASS
N7	15	50	DFT-QPSK	M	30	1000	1@0	-56.38	-35	PASS
N7	15	50	DFT-QPSK	M	1000	3000	1@0	-41.59	-25	PASS
N7	15	50	DFT-QPSK	M	3000	12000	1@0	-47.25	-25	PASS
N7	15	50	DFT-QPSK	M	12000	26500	1@0	-35.36	-25	PASS
N7	15	50	DFT-QPSK	H	0.009	0.15	1@0	-66.13	-55	PASS
N7	15	50	DFT-QPSK	H	0.15	30	1@0	-67.44	-45	PASS
N7	15	50	DFT-QPSK	H	30	1000	1@0	-56.24	-35	PASS
N7	15	50	DFT-QPSK	H	1000	3000	1@0	-41.64	-25	PASS
N7	15	50	DFT-QPSK	H	3000	12000	1@0	-47.14	-25	PASS
N7	15	50	DFT-QPSK	H	12000	26500	1@0	-35.23	-25	PASS

Test Graphs

1-N7-PC3-15-50-L-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-0.009-0.15-Ant3-0.01--66.31--55-PASS



1-N7-PC3-15-50-L-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-0.15-30-Ant3-0.15--67.55--45-PASS

1-N7-PC3-15-50-L-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-30-1000-Ant3-912.60--56.25--35-PASS

1-N7-PC3-15-50-L-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-1000-3000-Ant3-2689.60--41.65--25-PASS

1-N7-PC3-15-50-L-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-3000-12000-Ant3-5937.15--47.22--25-PASS

1-N7-PC3-15-50-L-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-12000-26500-Ant3-25678.58--35.28--25-PASS

1-N7-PC3-15-50-M-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-0.009-0.15-Ant3-0.01--61.24--55-PASS

1-N7-PC3-15-50-M-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-0.15-30-Ant3-0.15--59.67--45-PASS

1-N7-PC3-15-50-M-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-30-1000-Ant3-898.54--56.38--35-PASS

1-N7-PC3-15-50-M-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-1000-3000-Ant3-2664.20--41.59--25-PASS

1-N7-PC3-15-50-M-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-3000-12000-Ant3-5847.15--47.25--25-PASS

1-N7-PC3-15-50-M-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-12000-26500-Ant3-25767.03--35.36--25-PASS

1-N7-PC3-15-50-H-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-0.009-0.15-Ant3-0.01--66.13--55-PASS

1-N7-PC3-15-50-H-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-0.15-30-Ant3-0.15--67.44--45-PASS

1-N7-PC3-15-50-H-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-30-1000-Ant3-887.19--56.24--35-PASS

1-N7-PC3-15-50-H-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-1000-3000-Ant3-2660.20--41.64--25-PASS

1-N7-PC3-15-50-H-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-3000-12000-Ant3-5411.10--47.14--25-PASS

1-N7-PC3-15-50-H-1-NS_01-DFT-QPSK-Edge_1RB_Left-1@0-12000-26500-Ant3-25796.03--35.23--25-PASS

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
N7	15	50	DFT-QPSK	M	270@0	NV	NT	-4.94	-0.00195	PASS
N7	15	50	DFT-QPSK	M	270@0	LV	NT	-5.09	-0.00201	PASS
N7	15	50	DFT-QPSK	M	270@0	HV	NT	-1.90	-0.00075	PASS
N7	15	50	CP-QPSK	M	270@0	NV	NT	-5.21	-0.00206	PASS
N7	15	50	CP-QPSK	M	270@0	LV	NT	-0.65	-0.00026	PASS
N7	15	50	CP-QPSK	M	270@0	HV	NT	-3.20	-0.00126	PASS

Frequency Error VS. Temperature

Temperature										
Band	SCS	Bandwidth	Modulation	Channel	RB Config	Voltage (Vdc)	Temperature(℃)	Deviation(Hz)	Deviation (ppm)	Verdict
N7	15	50	DFT-QPSK	M	270@0	NV	-20	-1.871000	-0.000738	PASS
N7	15	50	DFT-QPSK	M	270@0	NV	50	-0.764000	-0.000301	PASS
N7	15	50	DFT-QPSK	M	270@0	NV	40	-3.058000	-0.001206	PASS
N7	15	50	DFT-QPSK	M	270@0	NV	10	-3.013000	-0.001189	PASS
N7	15	50	DFT-QPSK	M	270@0	NV	-10	-5.564000	-0.002195	PASS
N7	15	50	DFT-QPSK	M	270@0	NV	-30	-4.173000	-0.001646	PASS
N7	15	50	DFT-QPSK	M	270@0	NV	30	-2.734000	-0.001079	PASS
N7	15	50	DFT-QPSK	M	270@0	NV	0	-3.982000	-0.001571	PASS
N7	15	50	DFT-QPSK	M	270@0	NV	20	-1.590000	-0.000627	PASS
N7	15	50	CP-QPSK	M	270@0	NV	0	-1.287000	-0.000508	PASS
N7	15	50	CP-QPSK	M	270@0	NV	10	-2.210000	-0.000872	PASS
N7	15	50	CP-QPSK	M	270@0	NV	-10	-3.834000	-0.001512	PASS
N7	15	50	CP-QPSK	M	270@0	NV	-20	-2.678000	-0.001056	PASS
N7	15	50	CP-QPSK	M	270@0	NV	50	-2.590000	-0.001022	PASS
N7	15	50	CP-QPSK	M	270@0	NV	30	-1.345000	-0.000531	PASS
N7	15	50	CP-QPSK	M	270@0	NV	-30	-2.346000	-0.000925	PASS
N7	15	50	CP-QPSK	M	270@0	NV	40	-0.731000	-0.000288	PASS
N7	15	50	CP-QPSK	M	270@0	NV	20	-2.117000	-0.000835	PASS

Field Strength of Spurious Radiation

NR N7 ANT5-Low channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#1								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
5002.0	-62.77	-25	-37.77	-68.34	4.57	10.14	Horizontal	Pass
7503.0	-60.37	-25	-35.37	-67.17	4.94	11.74	Horizontal	Pass
10004.0	-57.06	-25	-32.06	-64.63	5.46	13.03	Horizontal	Pass
5002.0	-62.53	-25	-37.53	-68.1	4.57	10.14	Vertical	Pass
7503.0	-60.14	-25	-35.14	-66.94	4.94	11.74	Vertical	Pass
10004.0	-56.94	-25	-31.94	-64.51	5.46	13.03	Vertical	Pass

NR N7 ANT5-Middle channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#1								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
5052.0	-62.73	-25	-37.73	-68.31	4.59	10.17	Horizontal	Pass
7578.0	-59.81	-25	-34.81	-66.69	4.95	11.83	Horizontal	Pass
10104.0	-56.25	-25	-31.25	-63.82	5.48	13.05	Horizontal	Pass
5052.0	-62.2	-25	-37.2	-67.78	4.59	10.17	Vertical	Pass
7578.0	-59.54	-25	-34.54	-66.42	4.95	11.83	Vertical	Pass
10104.0	-56.39	-25	-31.39	-63.96	5.48	13.05	Vertical	Pass

NR N7 ANT5-High channel, Modulation: QPSK, Bandwidth:20MHz, 1RB#1								
Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	Cable Loss (dB)	Antenna Gain (dBi)	Polarization (H/V)	Result
5102.0	-63.67	-25	-38.67	-69.27	4.6	10.2	Horizontal	Pass
7653.0	-59.82	-25	-34.82	-66.79	4.95	11.92	Horizontal	Pass
10204.0	-56.98	-25	-31.98	-64.56	5.49	13.07	Horizontal	Pass
5102.0	-63.46	-25	-38.46	-69.06	4.6	10.2	Vertical	Pass
7653.0	-60.05	-25	-35.05	-67.02	4.95	11.92	Vertical	Pass
10204.0	-56.98	-25	-31.98	-64.56	5.49	13.07	Vertical	Pass

NSA_2A_n7A-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
5002.0	-62.23	-25	-37.23	-67.8	4.57	10.14	Horizontal	Pass
7503.0	-60.17	-25	-35.17	-66.97	4.94	11.74	Horizontal	Pass
10004.0	-56.83	-25	-31.83	-64.4	5.46	13.03	Horizontal	Pass
5002.0	-62.63	-25	-37.63	-68.2	4.57	10.14	Vertical	Pass
7503.0	-60.06	-25	-35.06	-66.86	4.94	11.74	Vertical	Pass
10004.0	-56.69	-25	-31.69	-64.26	5.46	13.03	Vertical	Pass

NSA_2A_n7A-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
5052.0	-62.74	-25	-37.74	-68.32	4.59	10.17	Horizontal	Pass
7578.0	-59.47	-25	-34.47	-66.35	4.95	11.83	Horizontal	Pass
10104.0	-55.87	-25	-30.87	-63.44	5.48	13.05	Horizontal	Pass
5052.0	-62.93	-25	-37.93	-68.51	4.59	10.17	Vertical	Pass
7578.0	-59.95	-25	-34.95	-66.83	4.95	11.83	Vertical	Pass
10104.0	-56.12	-25	-31.12	-63.69	5.48	13.05	Vertical	Pass

NSA_2A_n7A-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
5102.0	-63.44	-25	-38.44	-69.04	4.6	10.2	Horizontal	Pass
7653.0	-59.75	-25	-34.75	-66.72	4.95	11.92	Horizontal	Pass
10204.0	-56.75	-25	-31.75	-64.33	5.49	13.07	Horizontal	Pass
5102.0	-62.74	-25	-37.74	-68.34	4.6	10.2	Vertical	Pass
7653.0	-59.77	-25	-34.77	-66.74	4.95	11.92	Vertical	Pass
10204.0	-56.83	-25	-31.83	-64.41	5.49	13.07	Vertical	Pass

NA CA_n7A_n78A 3450-3550-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**
6910	-60.07	-13	-47.07	-66.17	4.91	11.01	Horizontal	Pass
10365	-56.57	-13	-43.57	-64.15	5.52	13.1	Horizontal	Pass
13820	-54.6	-13	-41.6	-62.77	6.21	14.38	Horizontal	Pass
6910	-60.79	-13	-47.79	-66.89	4.91	11.01	Vertical	Pass
10365	-56.52	-13	-43.52	-64.1	5.52	13.1	Vertical	Pass
13820	-54.57	-13	-41.57	-62.74	6.21	14.38	Vertical	Pass

NA CA_n7A_n78A 3700-3800-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**
7410	-60.18	-13	-47.18	-66.87	4.94	11.63	Horizontal	Pass
11115	-55.22	-13	-42.22	-62.67	5.81	13.26	Horizontal	Pass
14820	-54.39	-13	-41.39	-61.95	6.92	14.48	Horizontal	Pass
7410	-60.27	-13	-47.27	-66.96	4.94	11.63	Vertical	Pass
11115	-55.84	-13	-42.84	-63.29	5.81	13.26	Vertical	Pass
14820	-54.61	-13	-41.61	-62.17	6.92	14.48	Vertical	Pass