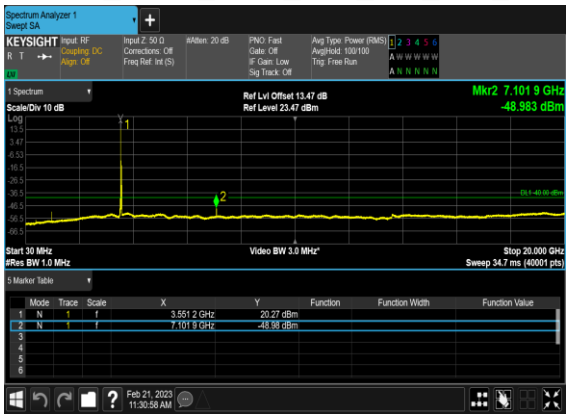
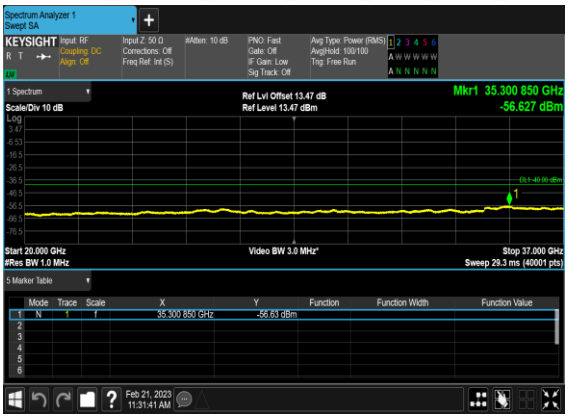
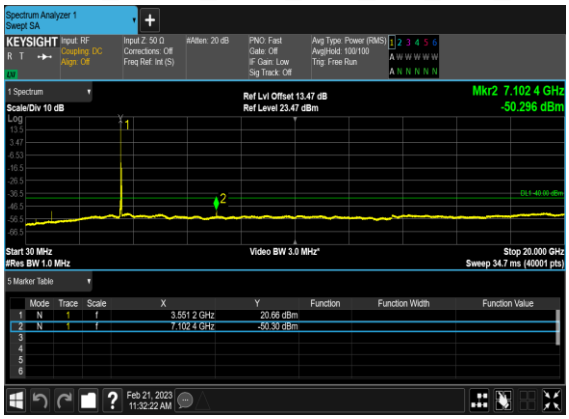
N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



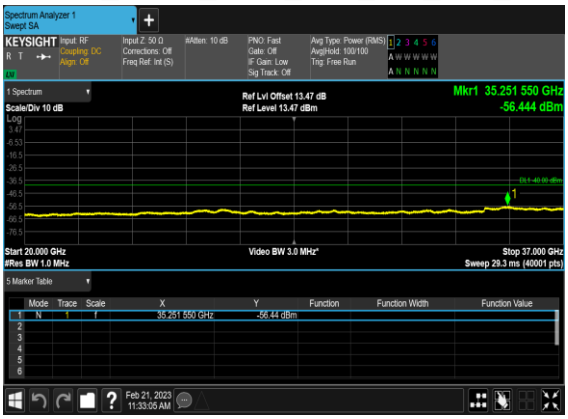
N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



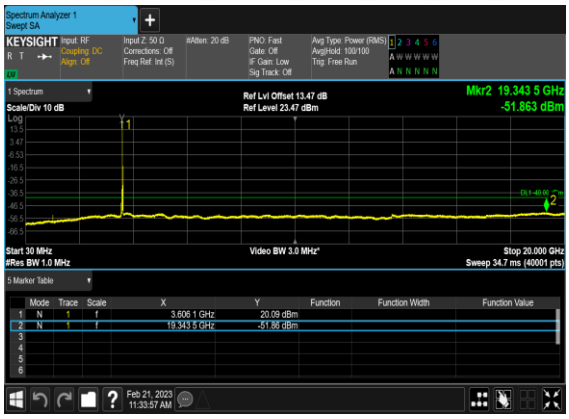
N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH

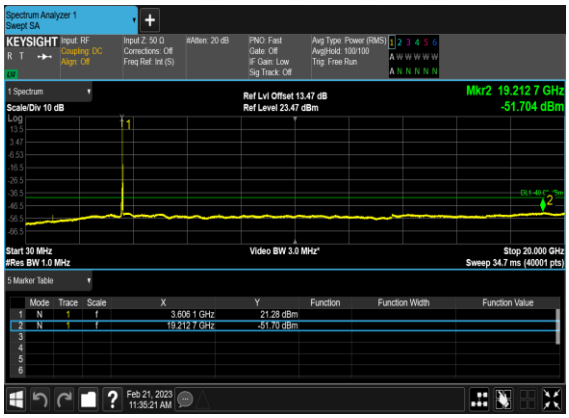


N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH

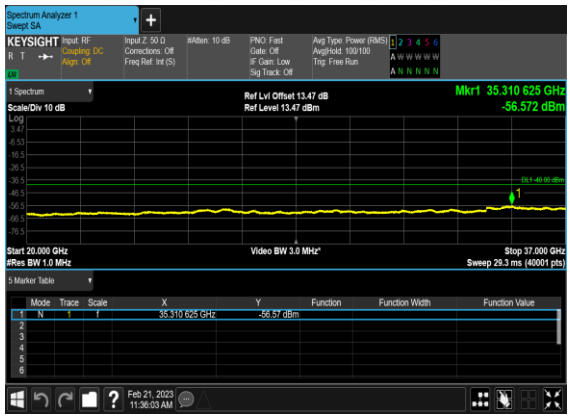


N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH

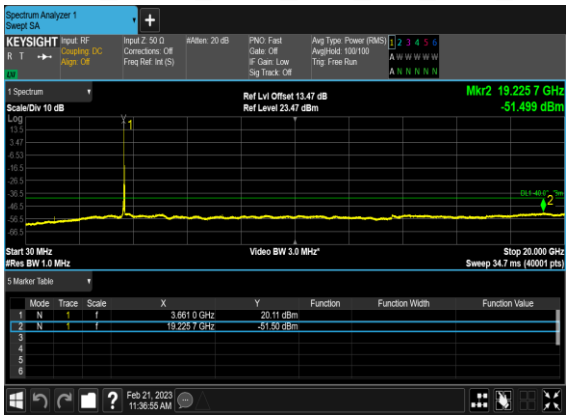
N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



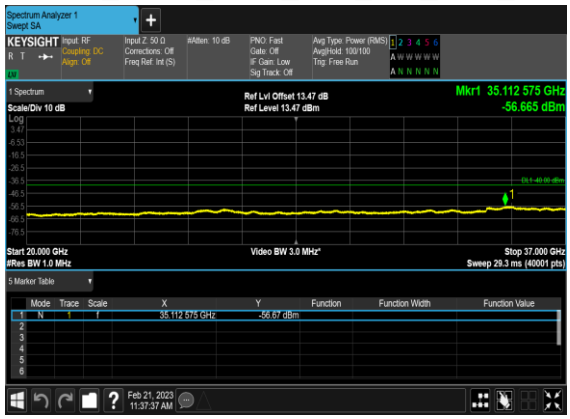
N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



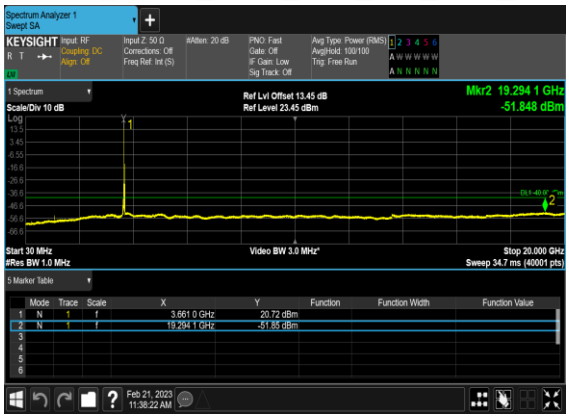
N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



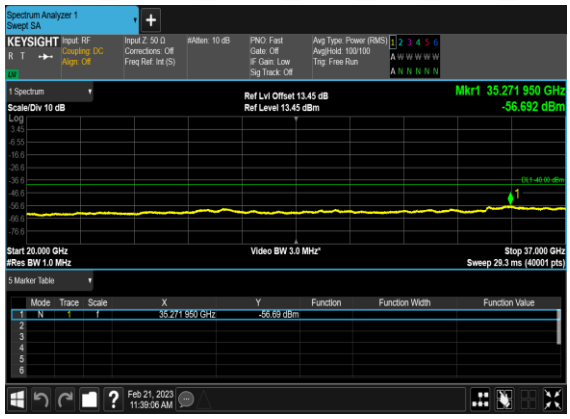
N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH

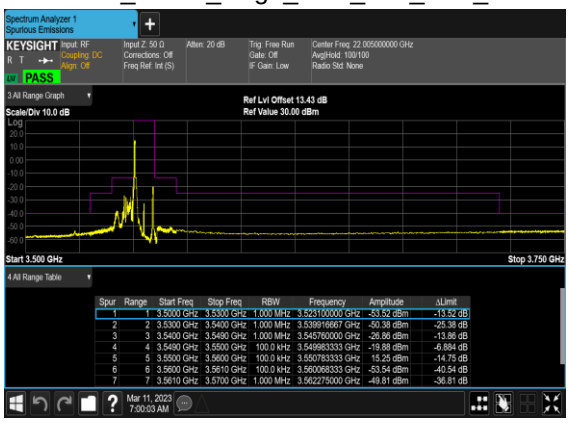


Conducted Band Edge

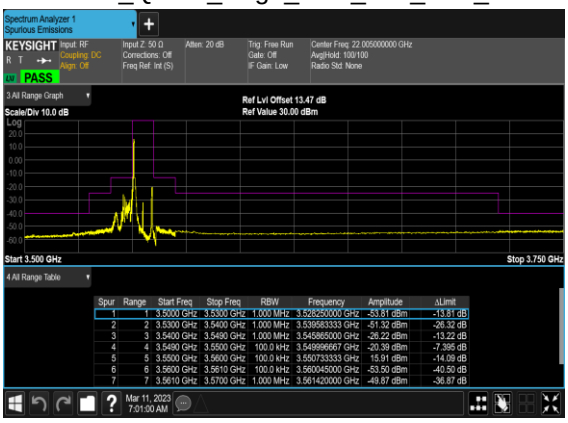
NR Band	SCS (kHz)	Bandwidth (MHz)	Arfcn	Freq (MHz)	Modulation	RB	Result	Verdict
48	30	10	637000	3555.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
48	30	10	637000	3555.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
48	30	10	637000	3555.0	DFT-s-OFDM BPSK	1@23	see graph	**PASS**
48	30	10	637000	3555.0	DFT-s-OFDM QPSK	1@23	see graph	**PASS**
48	30	10	637000	3555.0	DFT-s-OFDM BPSK	24@0	see graph	**PASS**
48	30	10	637000	3555.0	DFT-s-OFDM QPSK	24@0	see graph	**PASS**
48	30	10	641666	3624.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
48	30	10	641666	3624.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
48	30	10	641666	3624.99	DFT-s-OFDM BPSK	1@23	see graph	**PASS**
48	30	10	641666	3624.99	DFT-s-OFDM QPSK	1@23	see graph	**PASS**
48	30	10	641666	3624.99	DFT-s-OFDM BPSK	24@0	see graph	**PASS**
48	30	10	641666	3624.99	DFT-s-OFDM QPSK	24@0	see graph	**PASS**
48	30	10	646332	3694.98	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
48	30	10	646332	3694.98	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
48	30	10	646332	3694.98	DFT-s-OFDM BPSK	1@23	see graph	**PASS**
48	30	10	646332	3694.98	DFT-s-OFDM QPSK	1@23	see graph	**PASS**
48	30	10	646332	3694.98	DFT-s-OFDM BPSK	24@0	see graph	**PASS**
48	30	10	646332	3694.98	DFT-s-OFDM QPSK	24@0	see graph	**PASS**
48	30	20	637334	3560.01	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
48	30	20	637334	3560.01	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
48	30	20	637334	3560.01	DFT-s-OFDM BPSK	1@50	see graph	**PASS**
48	30	20	637334	3560.01	DFT-s-OFDM QPSK	1@50	see graph	**PASS**
48	30	20	637334	3560.01	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
48	30	20	637334	3560.01	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
48	30	20	641666	3624.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
48	30	20	641666	3624.99	DFT-s-OFDM BPSK	1@50	see graph	**PASS**
48	30	20	641666	3624.99	DFT-s-OFDM QPSK	1@50	see graph	**PASS**
48	30	20	641666	3624.99	DFT-s-OFDM BPSK	50@0	see graph	**PASS**

48	30	20	641666	3624.99	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
48	30	20	646000	3624.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
48	30	20	646000	3690.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
48	30	20	646000	3690.0	DFT-s-OFDM BPSK	1@50	see graph	**PASS**
48	30	20	646000	3690.0	DFT-s-OFDM QPSK	1@50	see graph	**PASS**
48	30	20	646000	3690.0	DFT-s-OFDM BPSK	50@0	see graph	**PASS**
48	30	20	646000	3690.0	DFT-s-OFDM QPSK	50@0	see graph	**PASS**
48	30	40	638000	3570.0	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
48	30	40	638000	3570.0	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
48	30	40	638000	3570.0	DFT-s-OFDM BPSK	1@105	see graph	**PASS**
48	30	40	638000	3570.0	DFT-s-OFDM QPSK	1@105	see graph	**PASS**
48	30	40	638000	3570.0	DFT-s-OFDM BPSK	100@0	see graph	**PASS**
48	30	40	638000	3570.0	DFT-s-OFDM QPSK	100@0	see graph	**PASS**
48	30	40	641666	3624.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
48	30	40	641666	3624.99	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
48	30	40	641666	3624.99	DFT-s-OFDM BPSK	1@105	see graph	**PASS**
48	30	40	641666	3624.99	DFT-s-OFDM QPSK	1@105	see graph	**PASS**
48	30	40	641666	3624.99	DFT-s-OFDM BPSK	100@0	see graph	**PASS**
48	30	40	641666	3624.99	DFT-s-OFDM QPSK	100@0	see graph	**PASS**
48	30	40	645332	3624.99	DFT-s-OFDM BPSK	1@0	see graph	**PASS**
48	30	40	645332	3679.98	DFT-s-OFDM QPSK	1@0	see graph	**PASS**
48	30	40	645332	3679.98	DFT-s-OFDM BPSK	1@105	see graph	**PASS**
48	30	40	645332	3679.98	DFT-s-OFDM QPSK	1@105	see graph	**PASS**
48	30	40	645332	3679.98	DFT-s-OFDM BPSK	100@0	see graph	**PASS**
48	30	40	645332	3679.98	DFT-s-OFDM QPSK	100@0	see graph	**PASS**

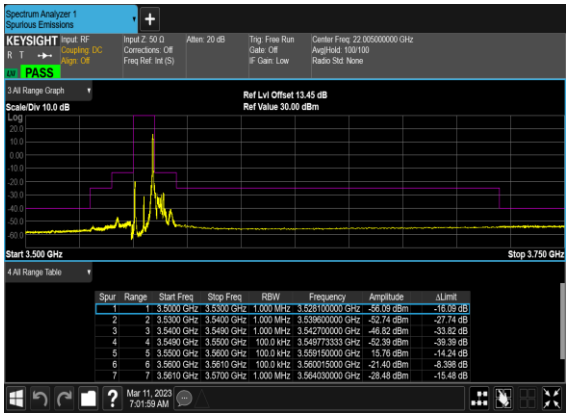
N48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



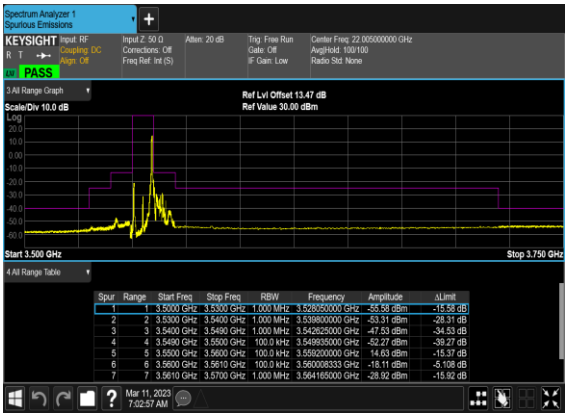
N48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



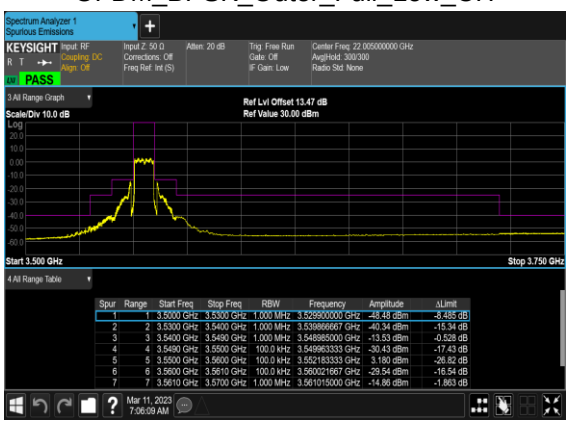
N48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_Low_CH



N48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_Low_CH

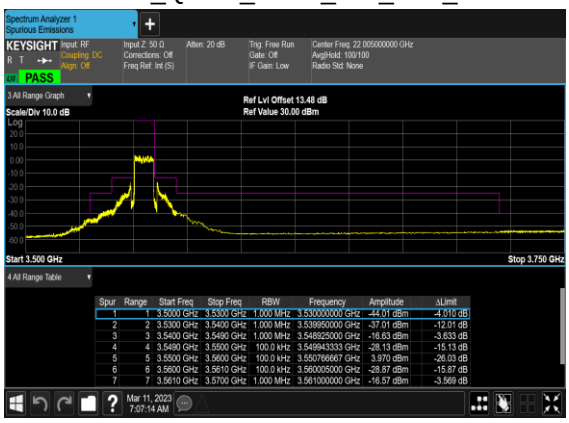


N48(10M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH

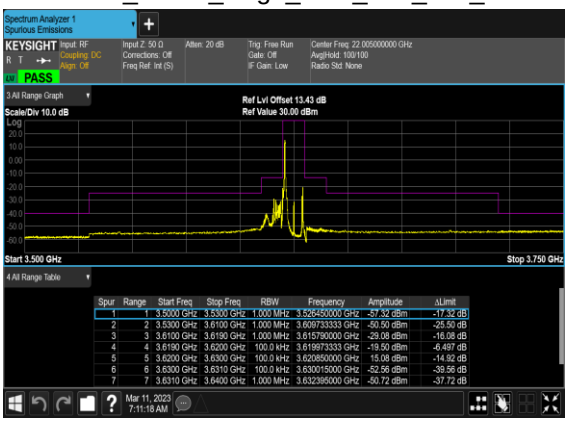


N48(10M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH_**CHP_PASS**

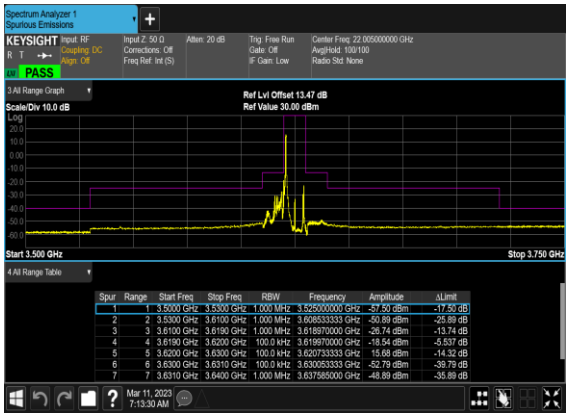
N48(10M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



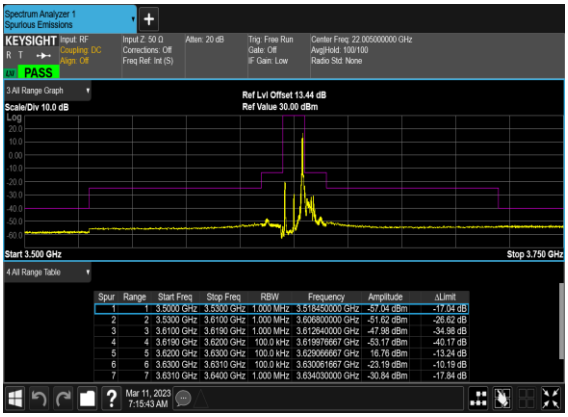
N48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



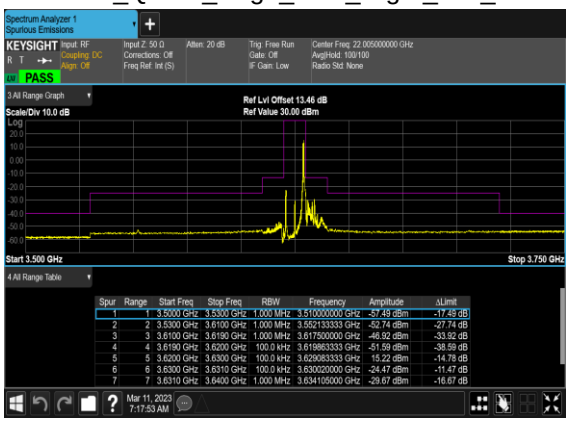
N48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



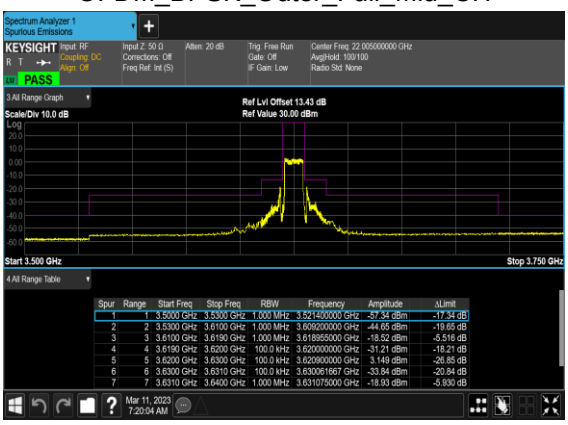
N48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_Mid_CH



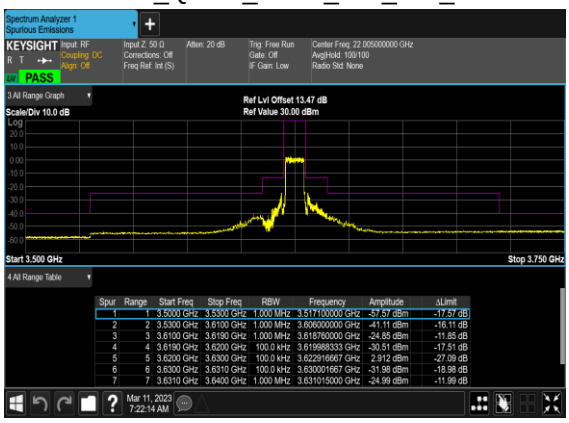
N48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_Mid_CH



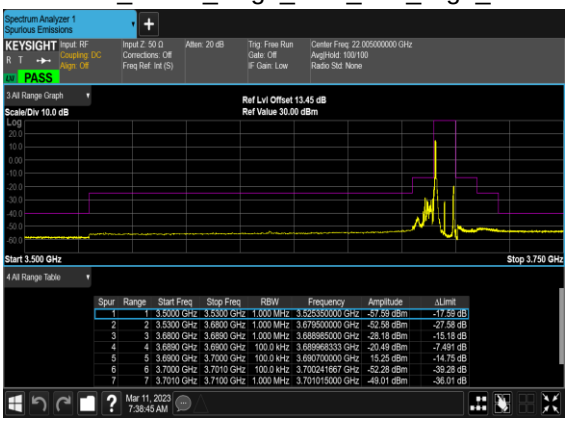
N48(10M)_DFT-s-OFDM_BPSK_Outer_Full_Mid_CH



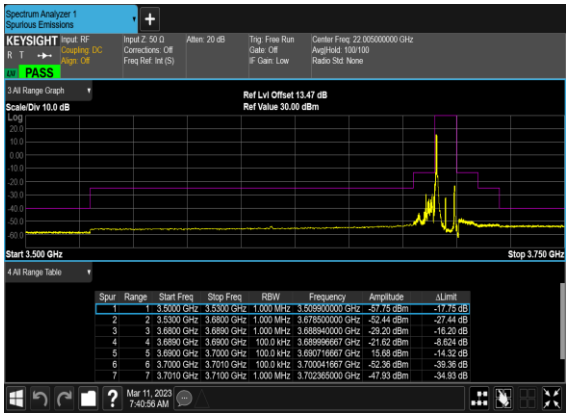
N48(10M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



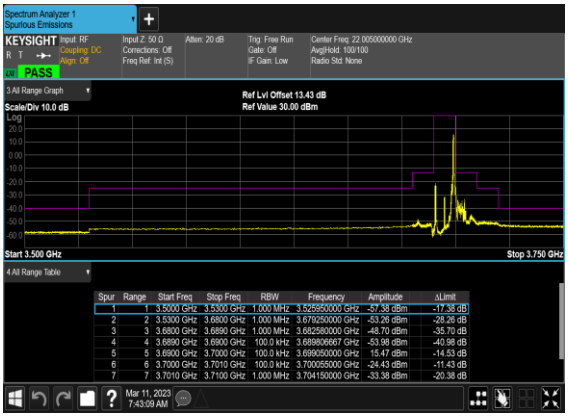
N48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



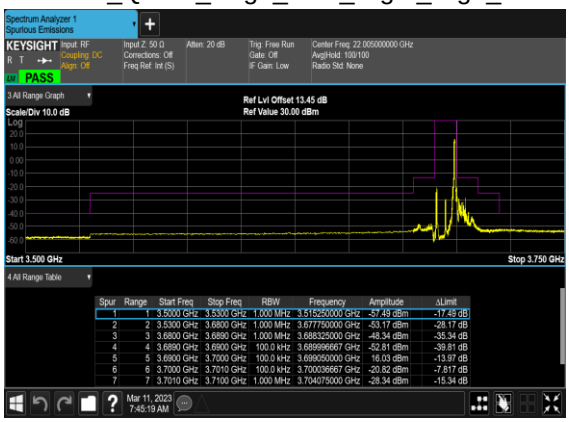
N48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



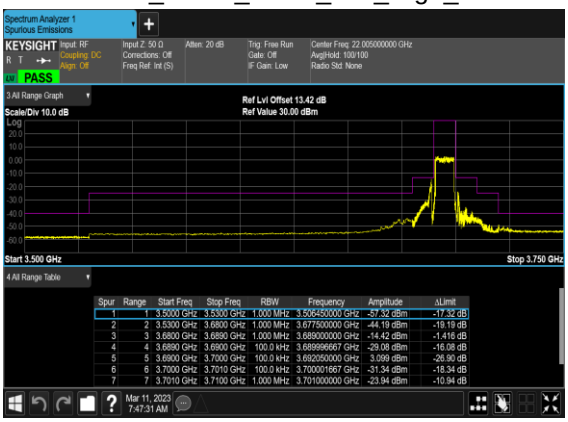
N48(10M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



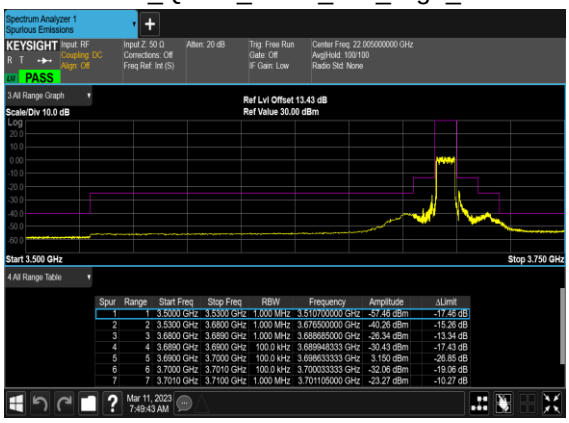
N48(10M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



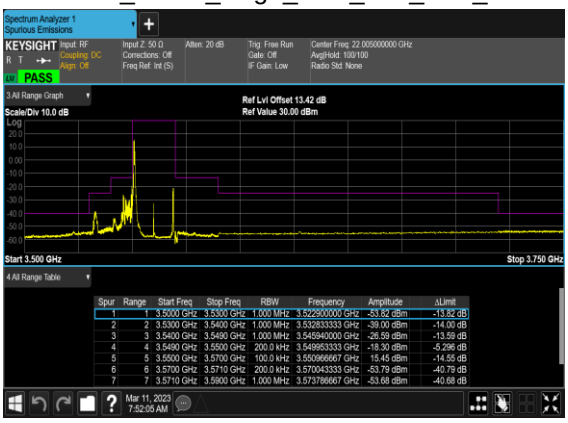
N48(10M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



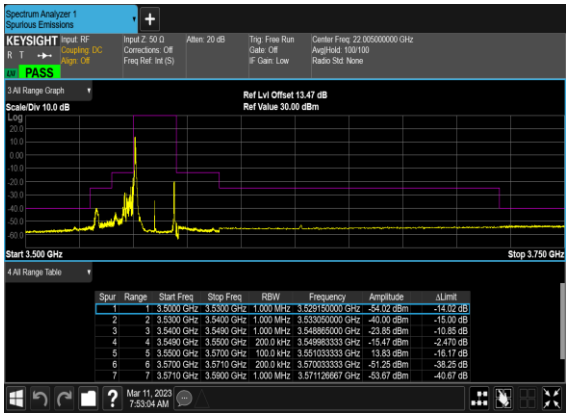
N48(10M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



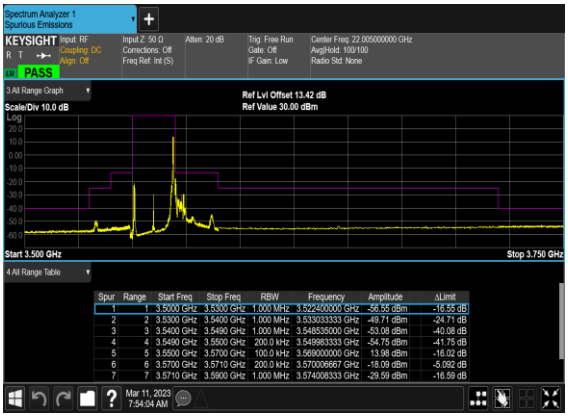
N48(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



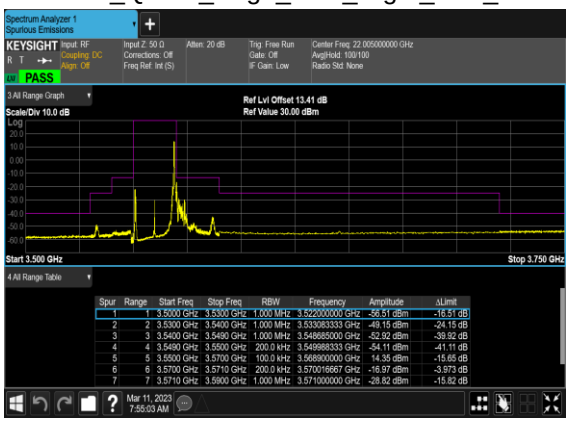
N48(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



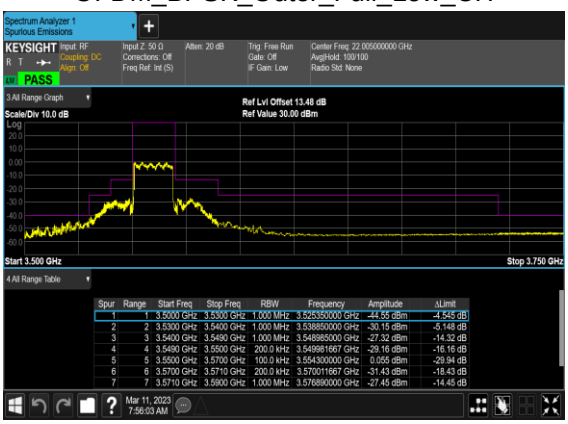
N48(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_Low_CH



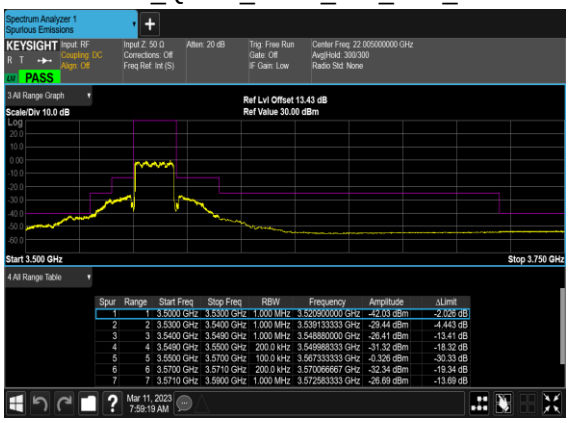
N48(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_Low_CH



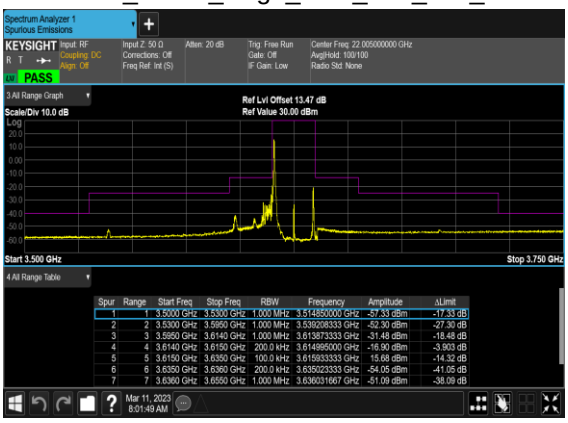
N48(20M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH



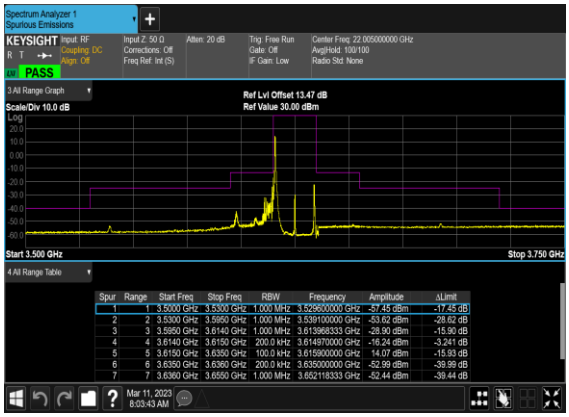
N48(20M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



N48(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



N48(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



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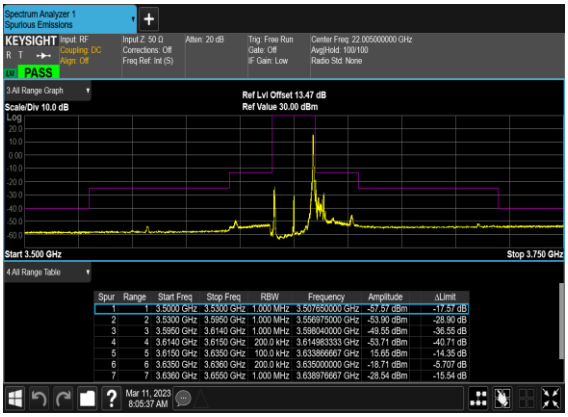

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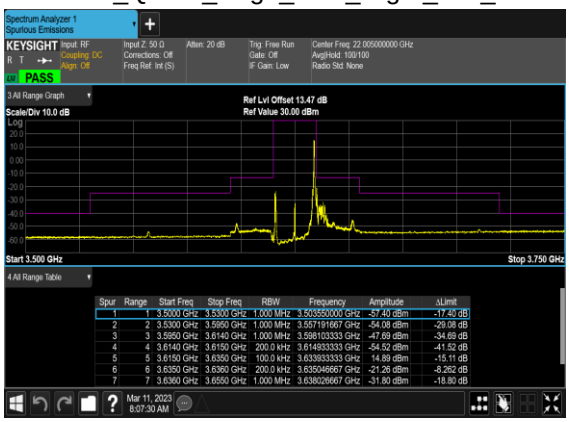
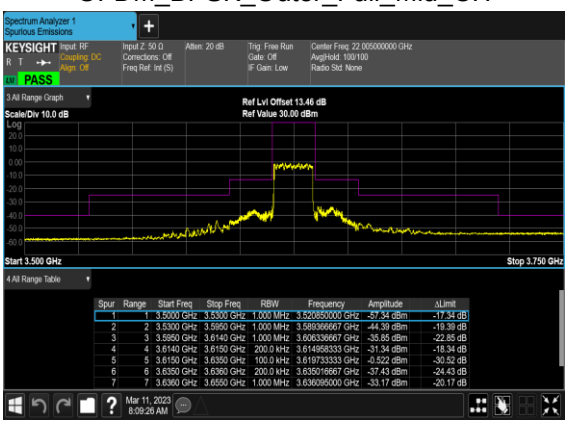


N48(20M)_DFT-s-OFDM_BPSK_Outer_Full_Mid_CH



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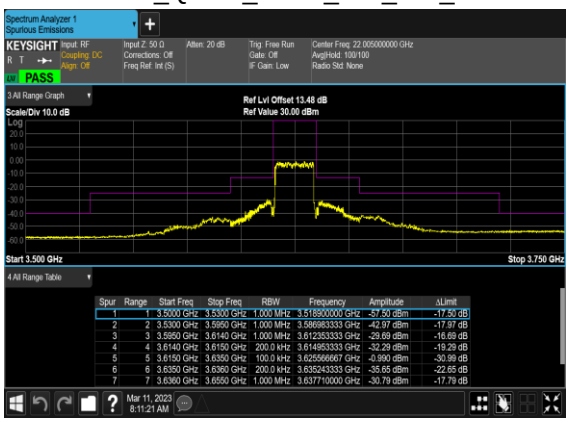
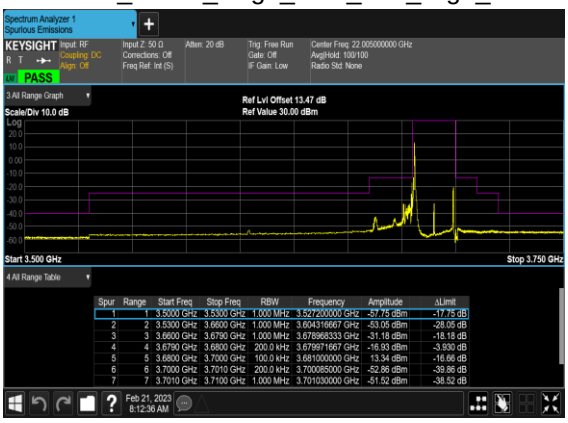


N48(20M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



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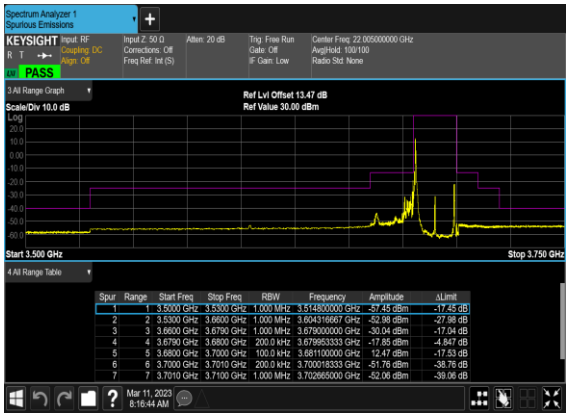

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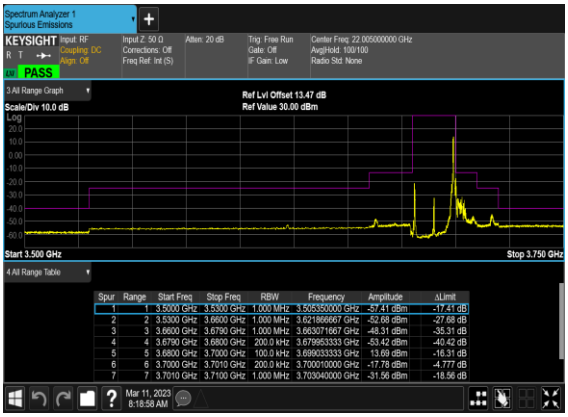
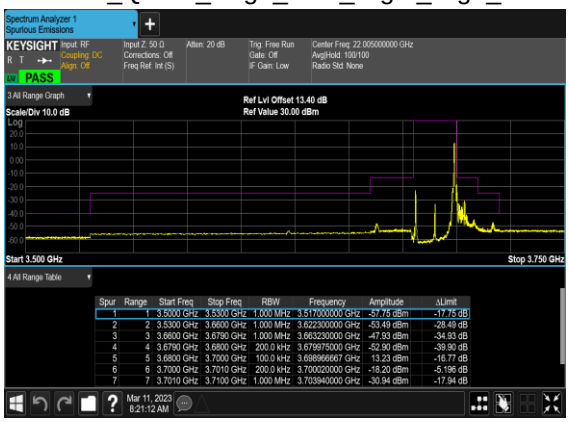
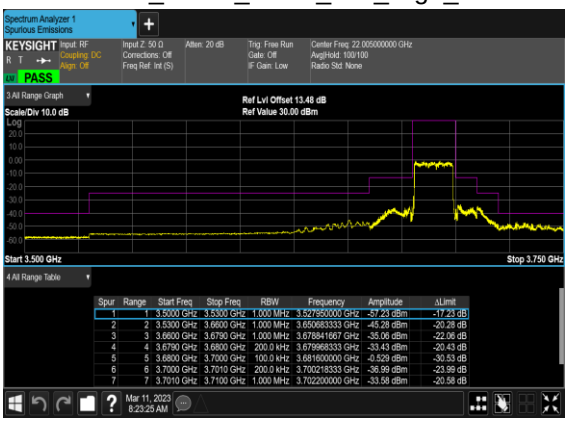


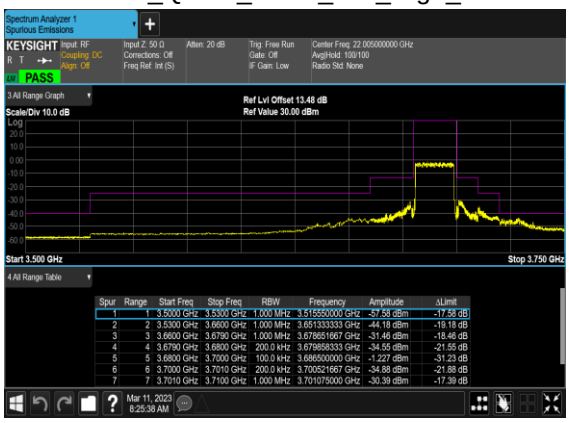
N48(20M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



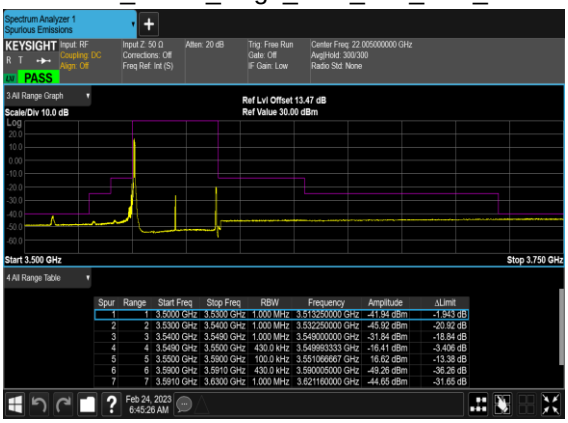
N48(20M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



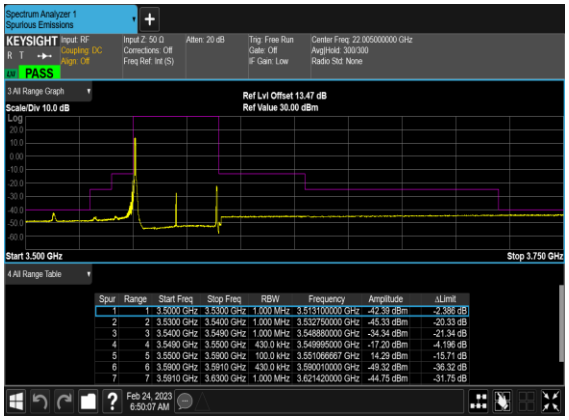
N48(20M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



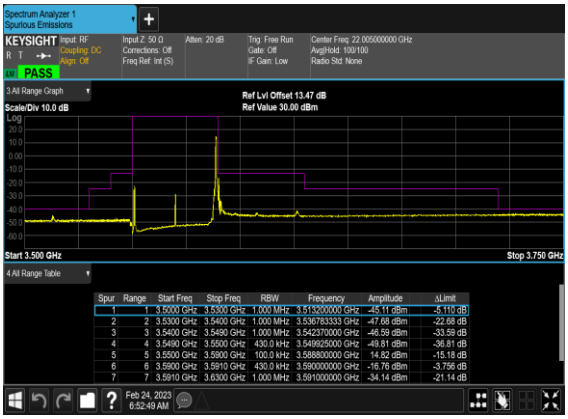
N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Low_CH



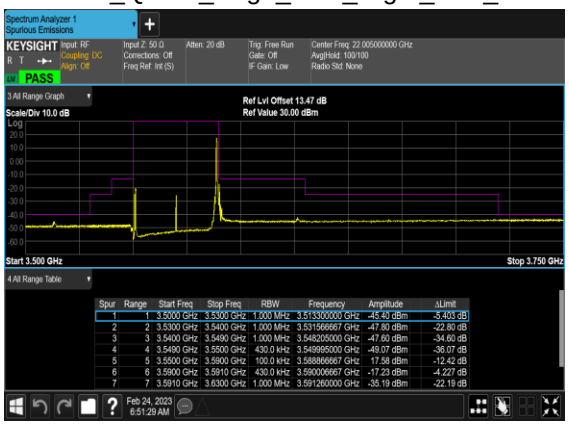
N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Low_CH



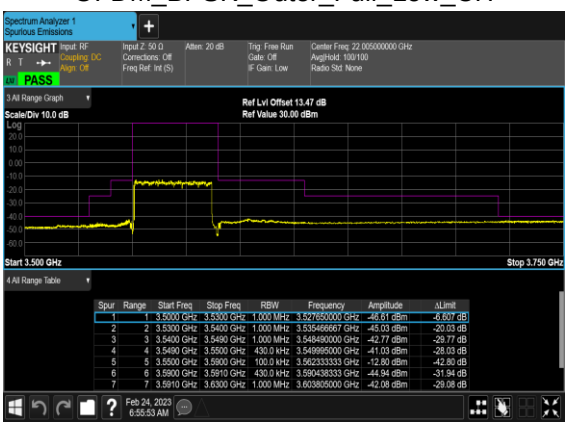
N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_Low_CH



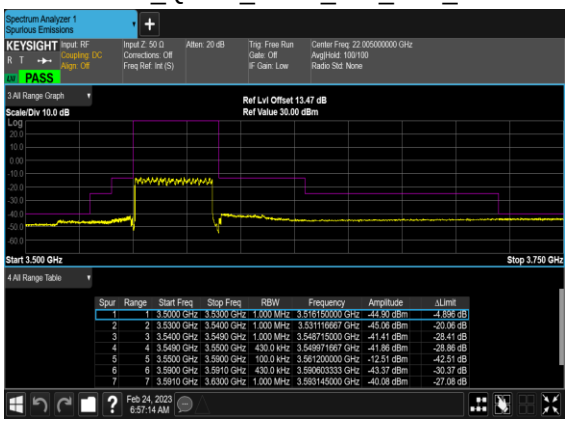
N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_Low_CH



N48(40M)_DFT-s-OFDM_BPSK_Outer_Full_Low_CH

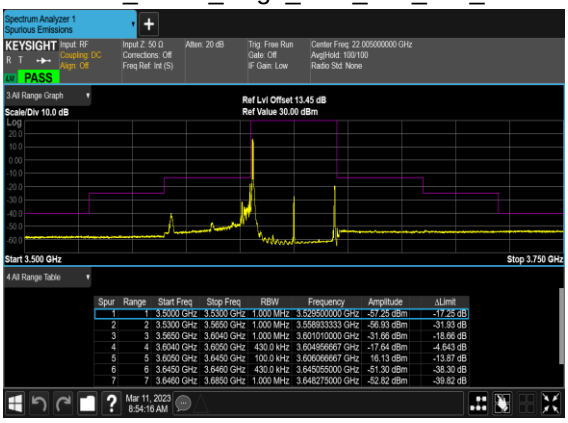


N48(40M)_DFT-s-OFDM_QPSK_Outer_Full_Low_CH



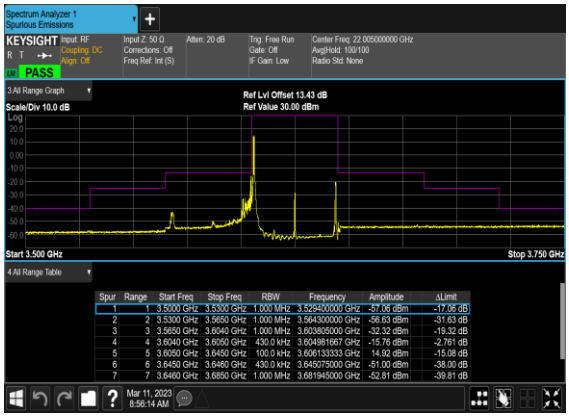
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	3.5000 GHz	3.5300 GHz	1.000 MHz	3.516150000 GHz	-44.90 dBm	-4.896 dB
2	2	3.5300 GHz	3.5400 GHz	1.000 MHz	3.531116667 GHz	-45.06 dBm	-20.06 dB
3	3	3.5400 GHz	3.5490 GHz	1.000 MHz	3.548715000 GHz	-41.41 dBm	-28.41 dB
4	4	3.5490 GHz	3.5500 GHz	430.0 kHz	3.549971667 GHz	-41.86 dBm	-28.86 dB
5	5	3.5500 GHz	3.5900 GHz	100.0 kHz	3.561200000 GHz	-12.51 dBm	-42.51 dB
6	6	3.5900 GHz	3.5910 GHz	430.0 kHz	3.590603333 GHz	-43.37 dBm	-30.37 dB
7	7	3.5910 GHz	3.6300 GHz	1.000 MHz	3.593145000 GHz	-40.08 dBm	-27.08 dB

N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_Mid_CH



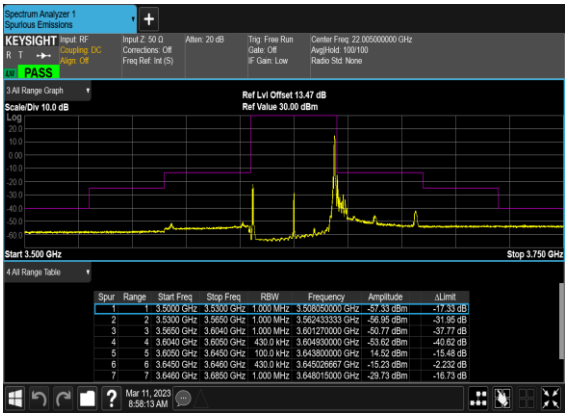
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	3.5000 GHz	3.5300 GHz	1.000 MHz	3.529500000 GHz	-57.25 dBm	-17.25 dB
2	2	3.5300 GHz	3.5650 GHz	1.000 MHz	3.558933333 GHz	-56.93 dBm	-31.93 dB
3	3	3.5650 GHz	3.6040 GHz	1.000 MHz	3.601010000 GHz	-31.66 dBm	-18.66 dB
4	4	3.6040 GHz	3.6050 GHz	430.0 kHz	3.604956667 GHz	-17.64 dBm	-4.643 dB
5	5	3.6050 GHz	3.6450 GHz	100.0 kHz	3.606066667 GHz	16.13 dBm	-13.87 dB
6	6	3.6450 GHz	3.6460 GHz	430.0 kHz	3.645055000 GHz	-51.30 dBm	-38.30 dB
7	7	3.6460 GHz	3.6850 GHz	1.000 MHz	3.648275000 GHz	-52.82 dBm	-39.82 dB

N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_Mid_CH



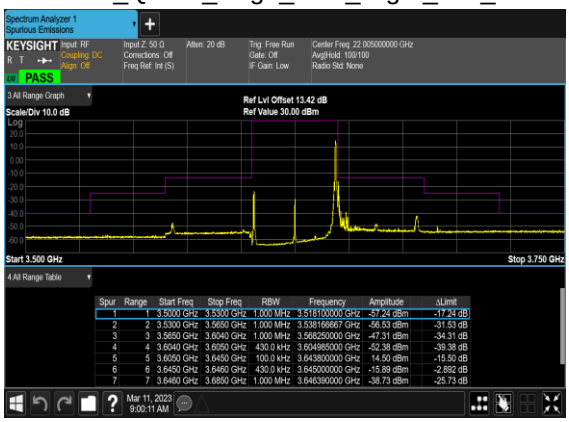
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	3.5000 GHz	3.5300 GHz	1.000 MHz	3.529400000 GHz	-57.06 dBm	-17.06 dB
2	2	3.5300 GHz	3.5650 GHz	1.000 MHz	3.564300000 GHz	-56.63 dBm	-31.63 dB
3	3	3.5650 GHz	3.6040 GHz	1.000 MHz	3.603805000 GHz	-32.32 dBm	-19.32 dB
4	4	3.6040 GHz	3.6050 GHz	430.0 kHz	3.604981667 GHz	-15.76 dBm	-2.761 dB
5	5	3.6050 GHz	3.6450 GHz	100.0 kHz	3.606133333 GHz	14.92 dBm	-15.08 dB
6	6	3.6450 GHz	3.6460 GHz	430.0 kHz	3.645075000 GHz	-51.00 dBm	-38.00 dB
7	7	3.6460 GHz	3.6850 GHz	1.000 MHz	3.681945000 GHz	-52.81 dBm	-39.81 dB

N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_Mid_CH



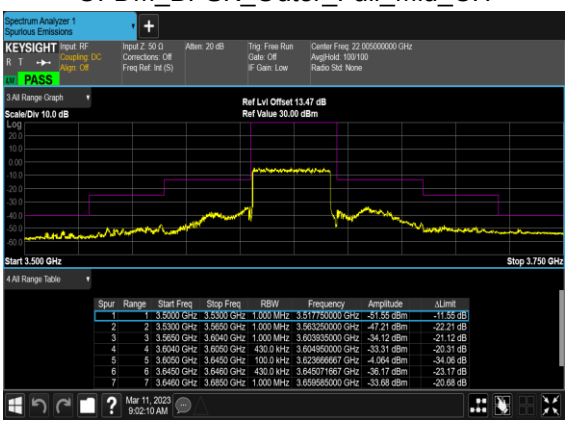
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	3.5000 GHz	3.5300 GHz	1.000 MHz	3.508250000 GHz	-57.33 dBm	-17.33 dB
2	2	3.5300 GHz	3.5650 GHz	1.000 MHz	3.562433333 GHz	-56.96 dBm	-31.96 dB
3	3	3.5650 GHz	3.6040 GHz	1.000 MHz	3.601270000 GHz	-50.77 dBm	-37.77 dB
4	4	3.6040 GHz	3.6050 GHz	430.0 kHz	3.604930000 GHz	-53.62 dBm	-40.62 dB
5	5	3.6050 GHz	3.6450 GHz	100.0 kHz	3.643800000 GHz	14.52 dBm	-15.48 dB
6	6	3.6450 GHz	3.6460 GHz	430.0 kHz	3.645026667 GHz	-15.23 dBm	-2.232 dB
7	7	3.6460 GHz	3.6850 GHz	1.000 MHz	3.648015000 GHz	-29.73 dBm	-16.73 dB

N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_Mid_CH



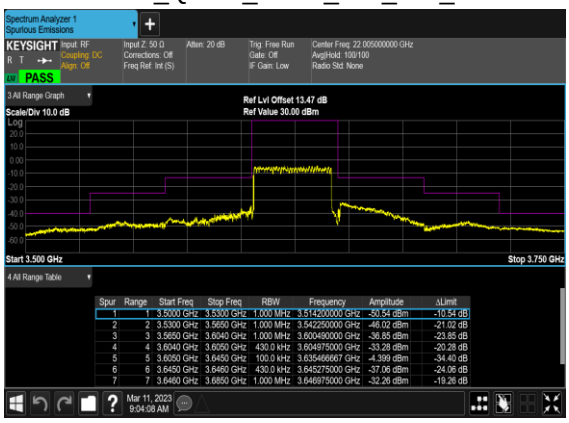
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	3.5000 GHz	3.5300 GHz	1.000 MHz	3.518100000 GHz	-57.24 dBm	-17.24 dB
2	2	3.5300 GHz	3.5650 GHz	1.000 MHz	3.538166667 GHz	-56.53 dBm	-31.53 dB
3	3	3.5650 GHz	3.6040 GHz	1.000 MHz	3.568250000 GHz	-47.31 dBm	-34.31 dB
4	4	3.6040 GHz	3.6050 GHz	430.0 kHz	3.604985000 GHz	-52.38 dBm	-39.38 dB
5	5	3.6050 GHz	3.6450 GHz	100.0 kHz	3.643800000 GHz	14.50 dBm	-15.50 dB
6	6	3.6450 GHz	3.6460 GHz	430.0 kHz	3.645000000 GHz	-15.89 dBm	-2.892 dB
7	7	3.6460 GHz	3.6850 GHz	1.000 MHz	3.646390000 GHz	-38.73 dBm	-25.73 dB

N48(40M)_DFT-s-OFDM_BPSK_Outer_Full_Mid_CH

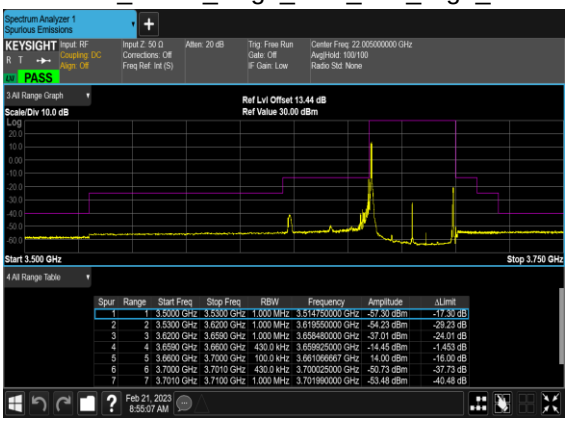


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	3.5000 GHz	3.5300 GHz	1.000 MHz	3.517750000 GHz	-51.55 dBm	-11.55 dB
2	2	3.5300 GHz	3.5650 GHz	1.000 MHz	3.563250000 GHz	-47.21 dBm	-22.21 dB
3	3	3.5650 GHz	3.6040 GHz	1.000 MHz	3.603835000 GHz	-34.12 dBm	-21.12 dB
4	4	3.6040 GHz	3.6050 GHz	430.0 kHz	3.604950000 GHz	-33.31 dBm	-20.31 dB
5	5	3.6050 GHz	3.6450 GHz	100.0 kHz	3.623666667 GHz	-4.064 dBm	-34.06 dB
6	6	3.6450 GHz	3.6460 GHz	430.0 kHz	3.645071667 GHz	-36.17 dBm	-23.17 dB
7	7	3.6460 GHz	3.6850 GHz	1.000 MHz	3.659585000 GHz	-33.68 dBm	-20.68 dB

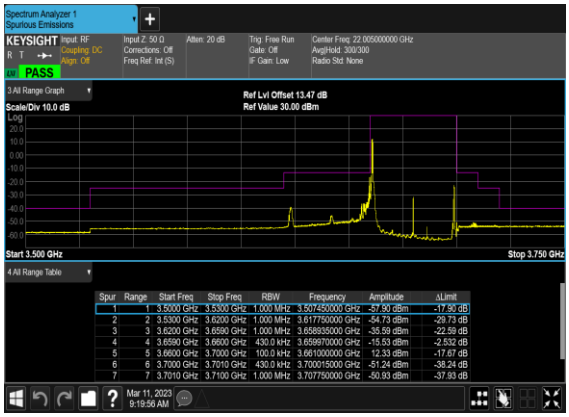
N48(40M)_DFT-s-OFDM_QPSK_Outer_Full_Mid_CH



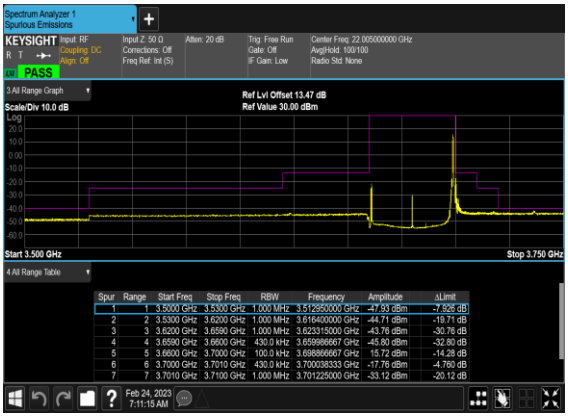
N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Left_High_CH



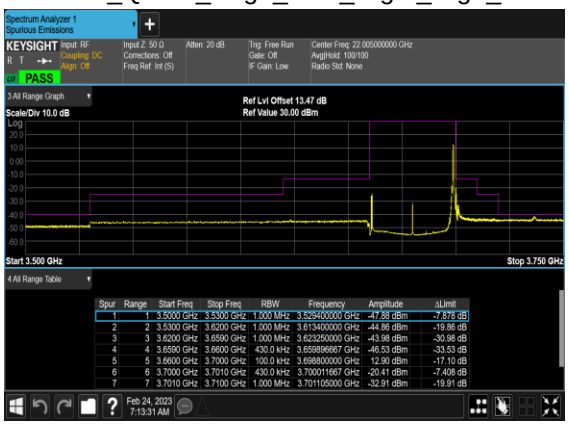
N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Left_High_CH



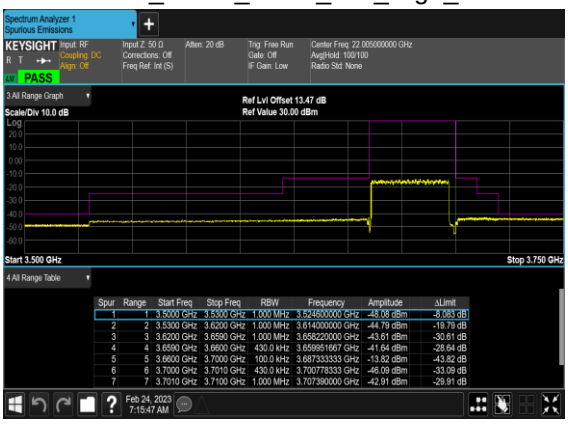
N48(40M)_DFT-s-OFDM_BPSK_Edge_1RB_Right_High_CH



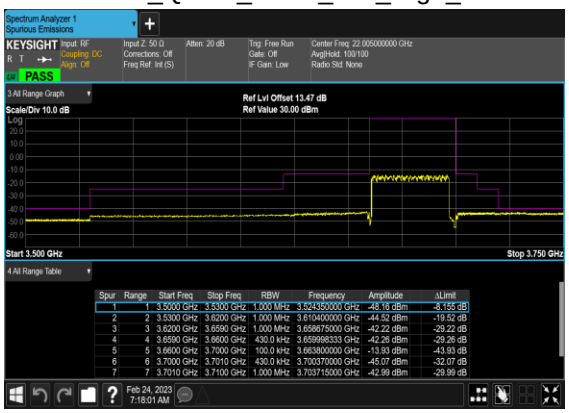
N48(40M)_DFT-s-OFDM_QPSK_Edge_1RB_Right_High_CH



N48(40M)_DFT-s-OFDM_BPSK_Outer_Full_High_CH



N48(40M)_DFT-s-OFDM_QPSK_Outer_Full_High_CH



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	ΔLimit
1	1	3.5000 GHz	3.5300 GHz	1.000 MHz	3.5241500000 GHz	-48.16 dBm	-8.155 dB
2	2	3.5300 GHz	3.6200 GHz	1.000 MHz	3.610400000 GHz	-44.52 dBm	-19.52 dB
3	3	3.6200 GHz	3.6590 GHz	1.000 MHz	3.658675000 GHz	-42.22 dBm	-29.22 dB
4	4	3.6590 GHz	3.6600 GHz	430.0 kHz	3.659998333 GHz	-42.26 dBm	-29.26 dB
5	5	3.6600 GHz	3.7000 GHz	100.0 kHz	3.663800000 GHz	-13.93 dBm	-43.93 dB
6	6	3.7000 GHz	3.7010 GHz	430.0 kHz	3.700370000 GHz	-45.07 dBm	-32.07 dB
7	7	3.7010 GHz	3.7100 GHz	1.000 MHz	3.703715000 GHz	-42.99 dBm	-29.99 dB

Appendix B. Test Results of Radiated Test

Radiated Spurious Emission

Test Engineer :	Carry Xu	Temperature :	23~25℃
		Relative Humidity :	41~42%

n48 SA / NR 40MHz / QPSK / ANT5(NR)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7104	-63.89	-40	-23.89	-75.35	2.84	14.30	H
	10656	-60.57	-40	-20.57	-70.51	3.49	13.43	H
	14208	-58.98	-40	-18.98	-69.22	3.85	14.09	H
	7104	-63.82	-40	-23.82	-75.28	2.84	14.30	V
	10656	-60.80	-40	-20.80	-70.74	3.49	13.43	V
	14208	-59.00	-40	-19.00	-69.24	3.85	14.09	V
Middle	7212	-63.12	-40	-23.12	-74.58	2.84	14.30	H
	10824	-60.69	-40	-20.69	-70.63	3.49	13.43	H
	14424	-59.99	-40	-19.99	-70.23	3.85	14.09	H
	7212	-62.95	-40	-22.95	-74.41	2.84	14.30	V
	10824	-60.46	-40	-20.46	-70.40	3.49	13.43	V
	14424	-60.13	-40	-20.13	-70.37	3.85	14.09	V
Highest	7320	-63.38	-40	-23.38	-74.84	2.84	14.30	H
	10992	-60.02	-40	-20.02	-69.96	3.49	13.43	H
	14652	-59.85	-40	-19.85	-70.09	3.85	14.09	H
	7320	-63.54	-40	-23.54	-75.00	2.84	14.30	V
	10992	-60.25	-40	-20.25	-70.19	3.49	13.43	V
	14652	-59.78	-40	-19.78	-70.02	3.85	14.09	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

EN-DC_13A_n48A / LTE 10MHz + NR 40MHz / QPSK / ANT0(LTE) & ANT5(NR)								
Channel	Frequency (MHz)	EIRP (dBm)	Limit (dBm)	Over Limit (dB)	S.G. Power (dBm)	TX Cable loss (dB)	TX Antenna Gain (dBi)	Polarization (H/V)
Lowest	7110	-63.15	-40	-23.15	-74.61	2.84	14.30	H
	10665	-60.77	-40	-20.77	-70.71	3.49	13.43	H
	14220	-59.52	-40	-19.52	-69.76	3.85	14.09	H
	7110	-63.37	-40	-23.37	-74.83	2.84	14.30	V
	10665	-60.85	-40	-20.85	-70.79	3.49	13.43	V
	14220	-59.73	-40	-19.73	-69.97	3.85	14.09	V
Middle	7160	-62.68	-40	-22.68	-74.14	2.84	14.30	H
	10740	-60.88	-40	-20.88	-70.82	3.49	13.43	H
	14320	-59.82	-40	-19.82	-70.06	3.85	14.09	H
	7160	-62.87	-40	-22.87	-74.33	2.84	14.30	V
	10740	-61.06	-40	-21.06	-71.00	3.49	13.43	V
	14320	-59.71	-40	-19.71	-69.95	3.85	14.09	V
Highest	7210	-62.67	-40	-22.67	-74.13	2.84	14.30	H
	10815	-60.82	-40	-20.82	-70.76	3.49	13.43	H
	14420	-59.46	-40	-19.46	-69.70	3.85	14.09	H
	7210	-63.02	-40	-23.02	-74.48	2.84	14.30	V
	10815	-61.15	-40	-21.15	-71.09	3.49	13.43	V
	14420	-59.59	-40	-19.59	-69.83	3.85	14.09	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.