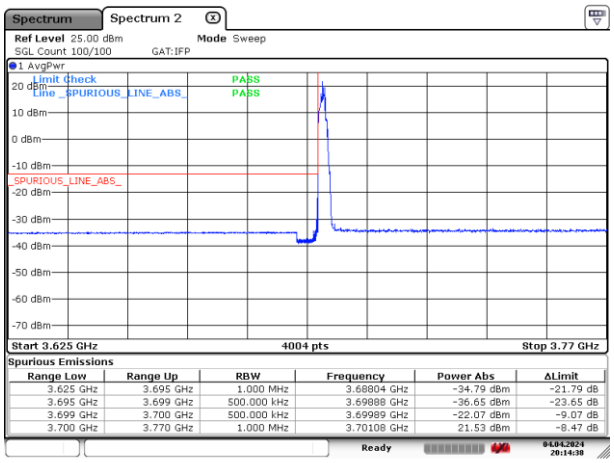
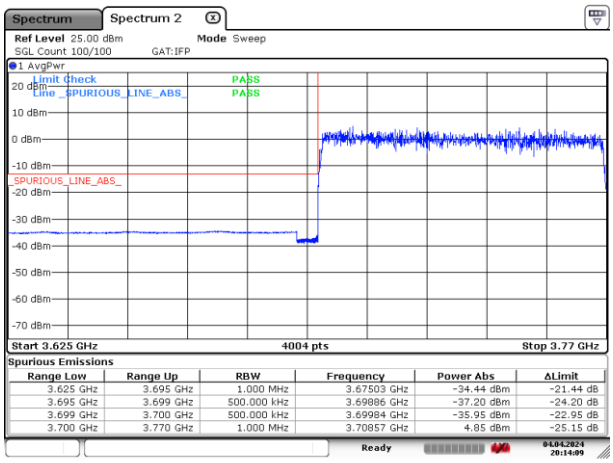
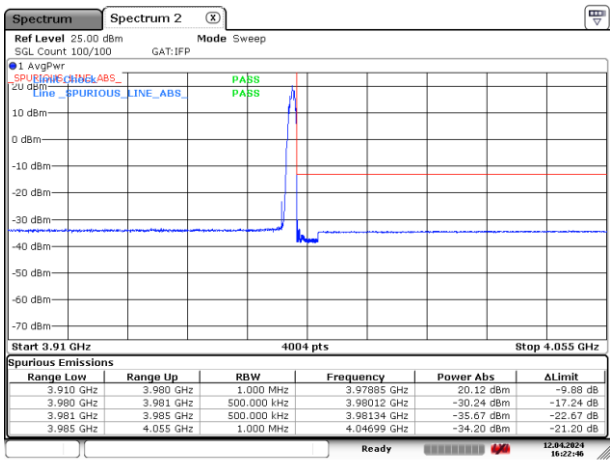
NR band 77_High Band (70 ㎒)



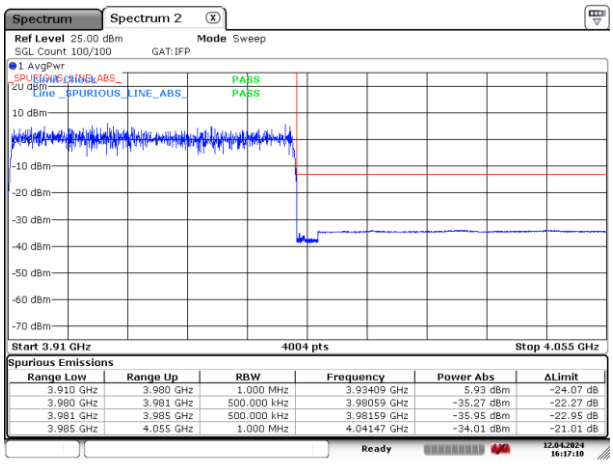
CP-OFDM QPSK - Low Channel - 1 RB



CP-OFDM QPSK - Low Channel - Full RB

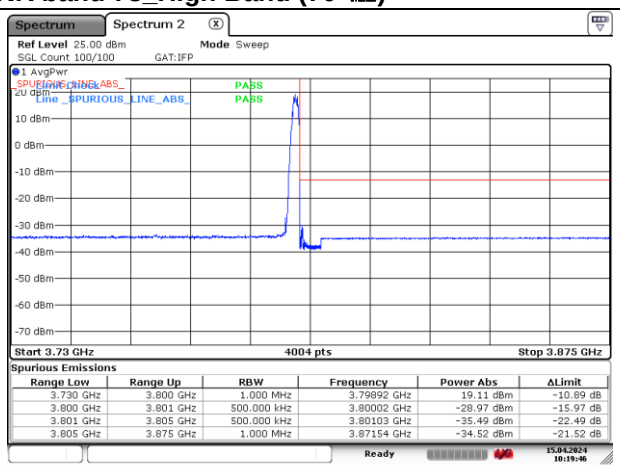


CP-OFDM QPSK - High Channel - 1 RB

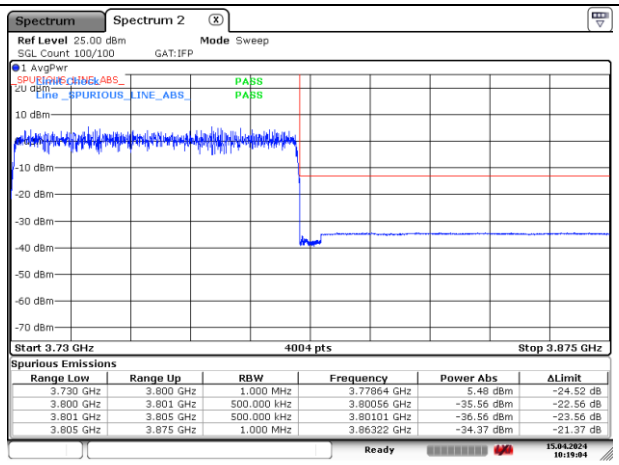


CP-OFDM QPSK - High Channel - Full RB

NR band 78_High Band (70 ㎒)

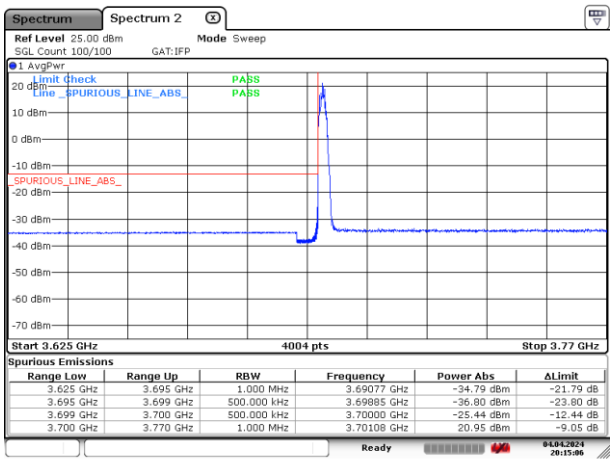


CP-OFDM QPSK - High Channel - 1 RB

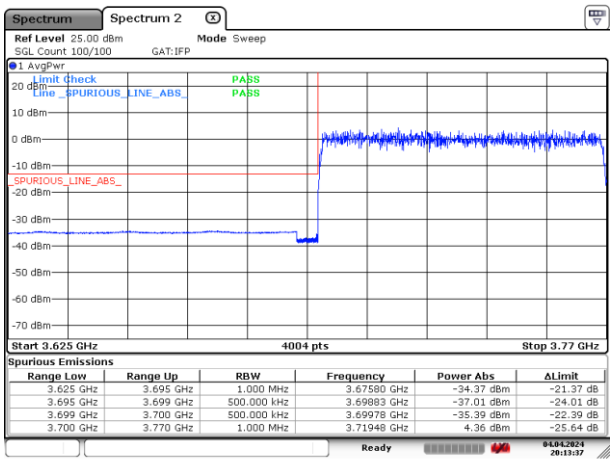


CP-OFDM QPSK - High Channel - Full RB

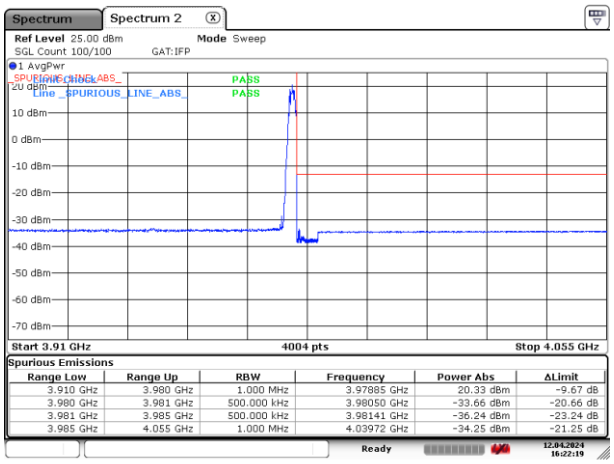
NR band 77_High Band (70 ㎒)



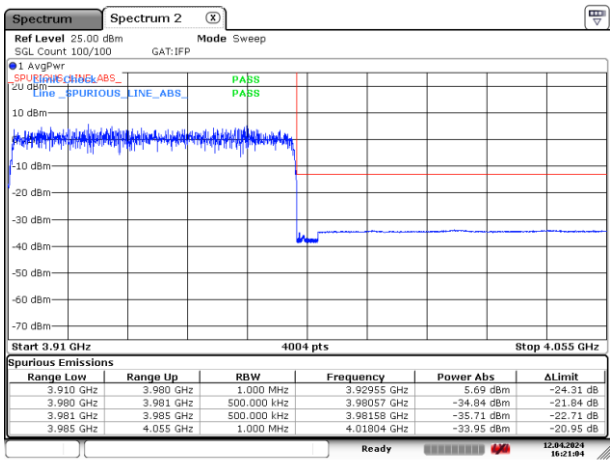
CP-OFDM 16QAM - Low Channel - 1 RB



CP-OFDM 16QAM - Low Channel - Full RB

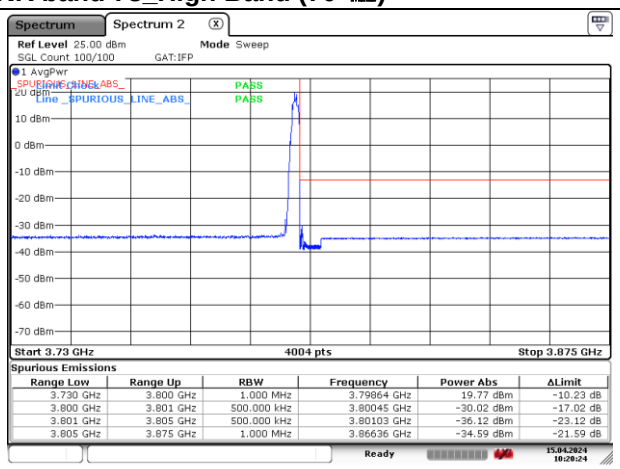


CP-OFDM 16QAM - High Channel - 1 RB

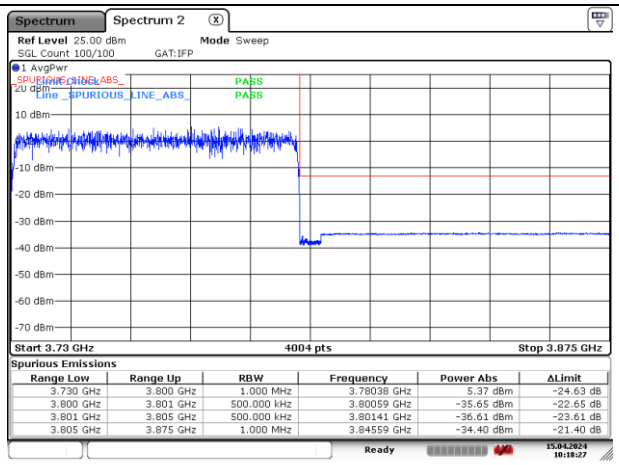


CP-OFDM 16QAM - High Channel - Full RB

NR band 78_High Band (70 ㎒)

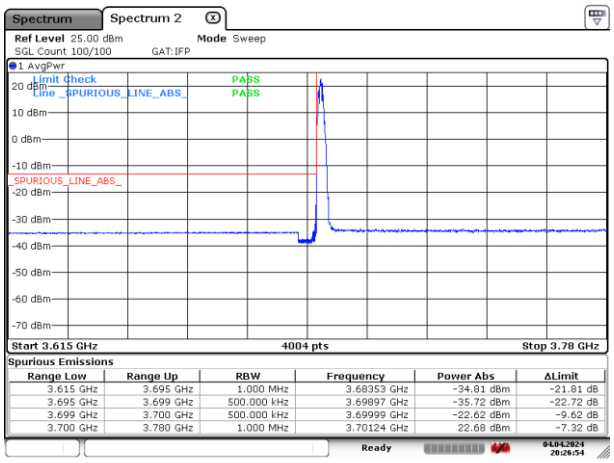


CP-OFDM 16QAM - High Channel - 1 RB

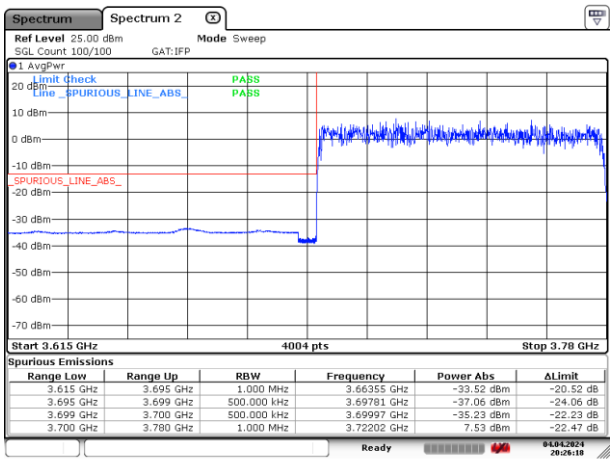


CP-OFDM 16QAM - High Channel - Full RB

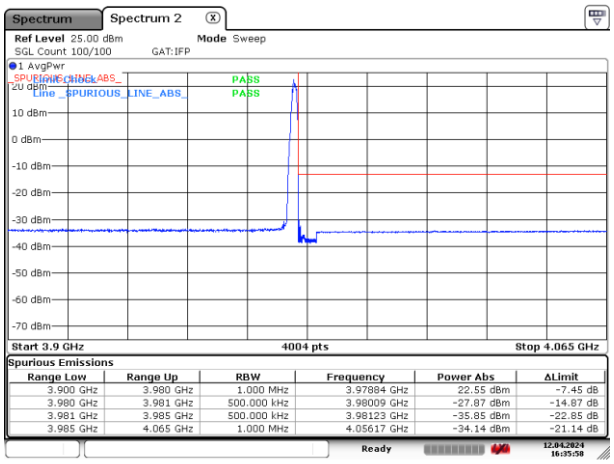
NR band 77_High Band (80 ㎒)



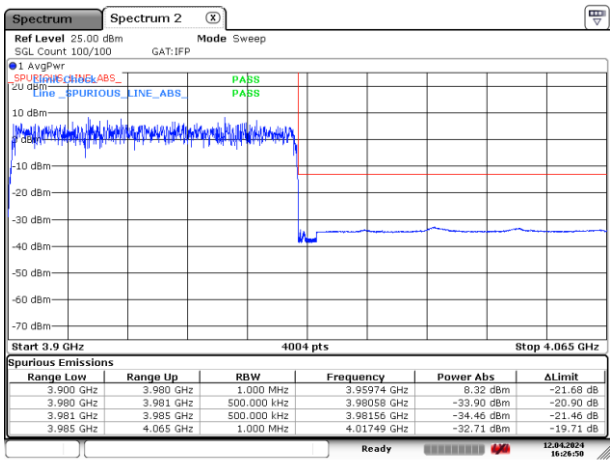
DFT-S-OFDM BPSK - Low Channel - 1 RB



DFT-S-OFDM BPSK - Low Channel - Full RB

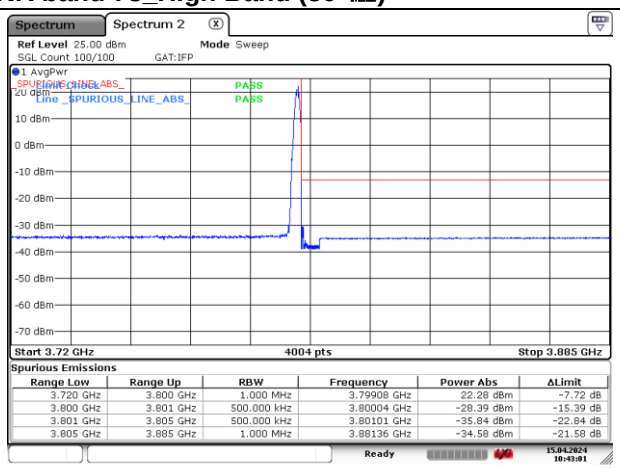


DFT-S-OFDM BPSK - High Channel - 1 RB

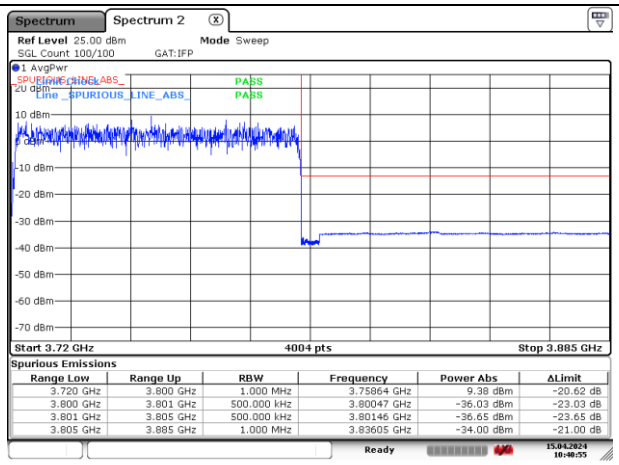


DFT-S-OFDM BPSK - High Channel - Full RB

NR band 78_High Band (80 ㎒)

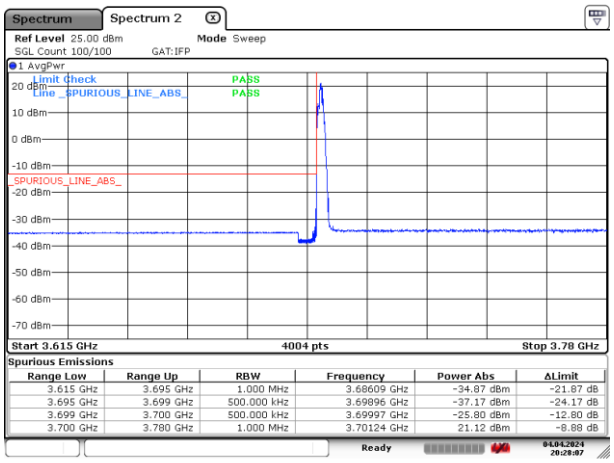


DFT-S-OFDM BPSK - High Channel - 1 RB

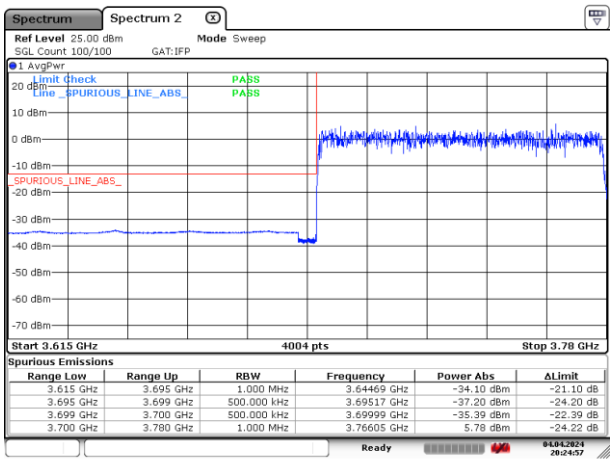


DFT-S-OFDM BPSK - High Channel - Full RB

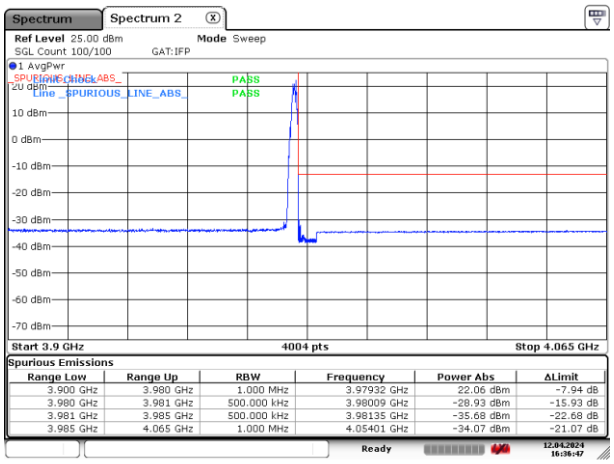
NR band 77_High Band (80 ㎒)



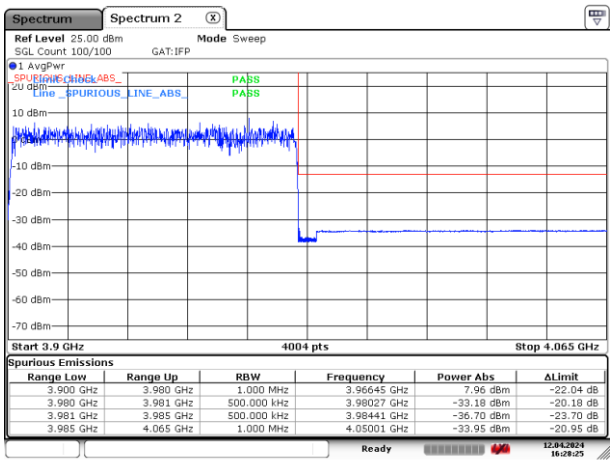
DFT-S-OFDM 16QAM - Low Channel - 1 RB



DFT-S-OFDM 16QAM - Low Channel - Full RB

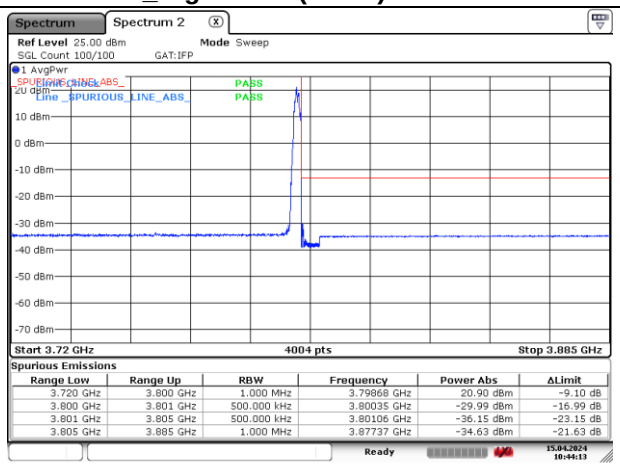


DFT-S-OFDM 16QAM - High Channel - 1 RB

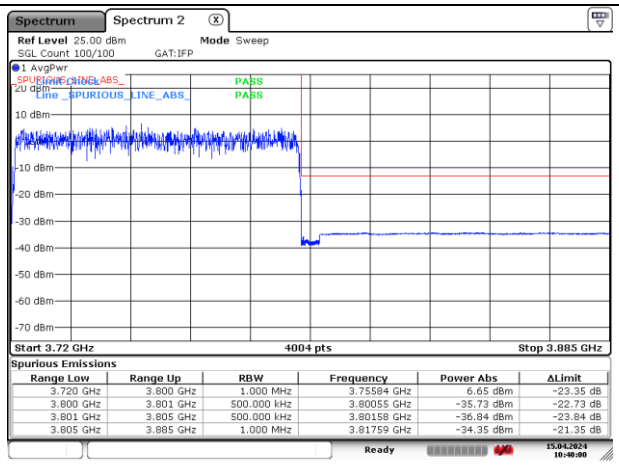


DFT-S-OFDM 16QAM - High Channel - Full RB

NR band 78_High Band (80 ㎒)

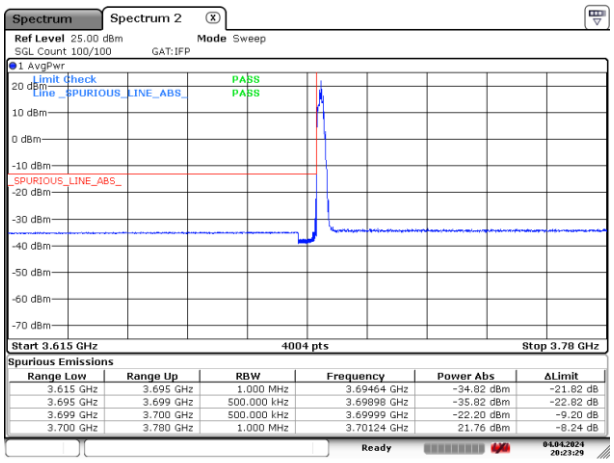


DFT-S-OFDM 16QAM - High Channel - 1 RB

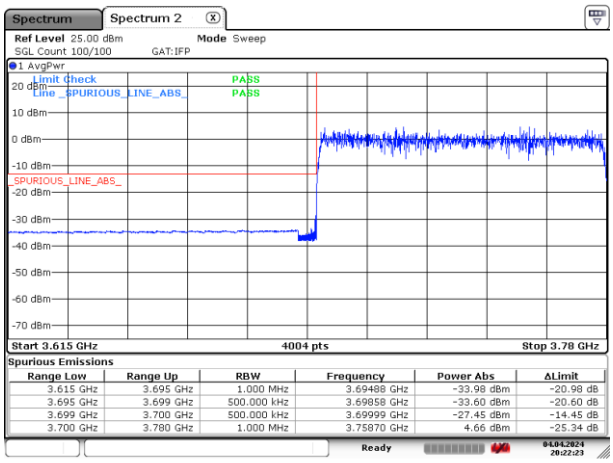


DFT-S-OFDM 16QAM - High Channel - Full RB

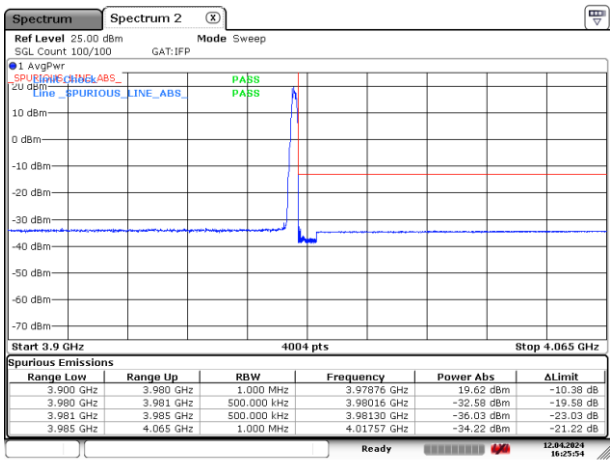
NR band 77_High Band (80 ㎒)



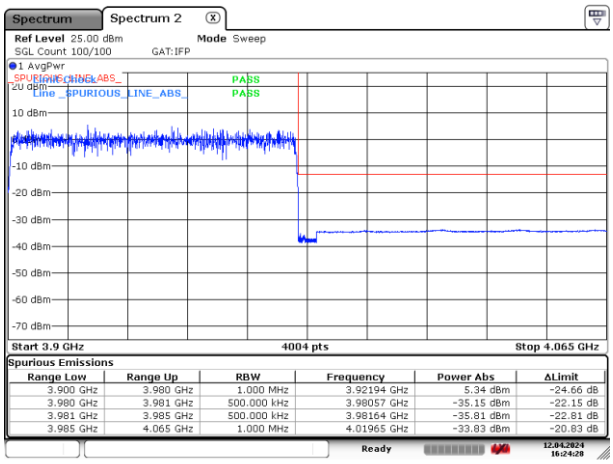
CP-OFDM QPSK - Low Channel - 1 RB



CP-OFDM QPSK - Low Channel - Full RB

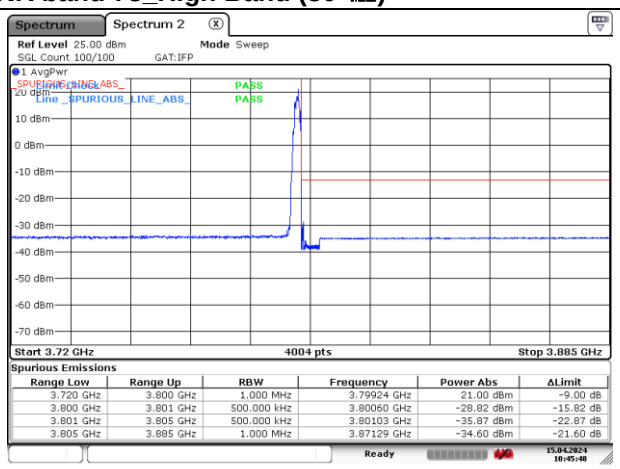


CP-OFDM QPSK - High Channel - 1 RB

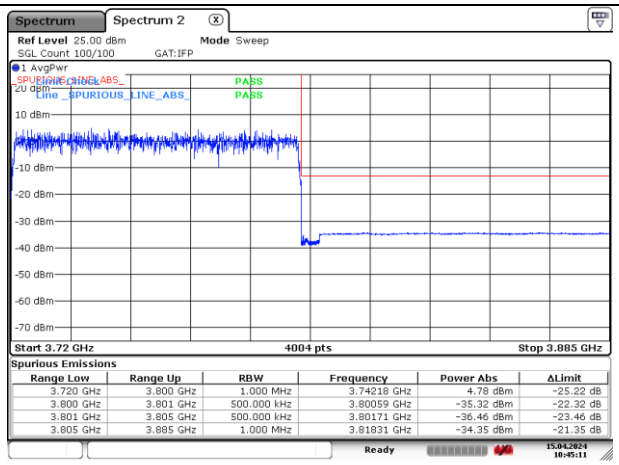


CP-OFDM QPSK - High Channel - Full RB

NR band 78_High Band (80 ㎒)

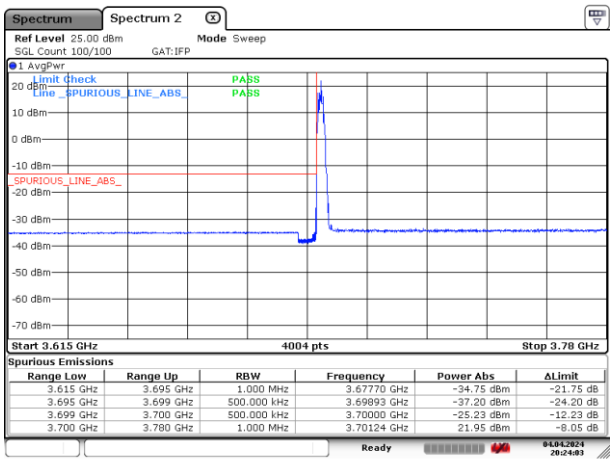


CP-OFDM QPSK - High Channel - 1 RB

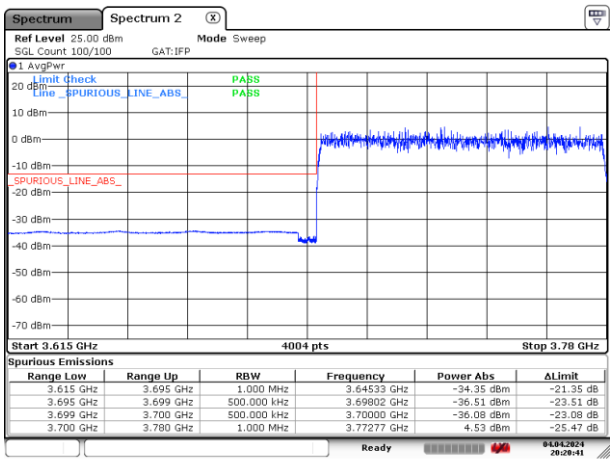


CP-OFDM QPSK - High Channel - Full RB

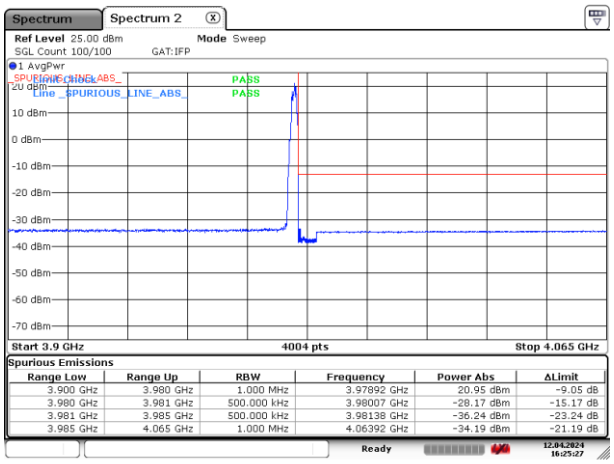
NR band 77_High Band (80 ㎒)



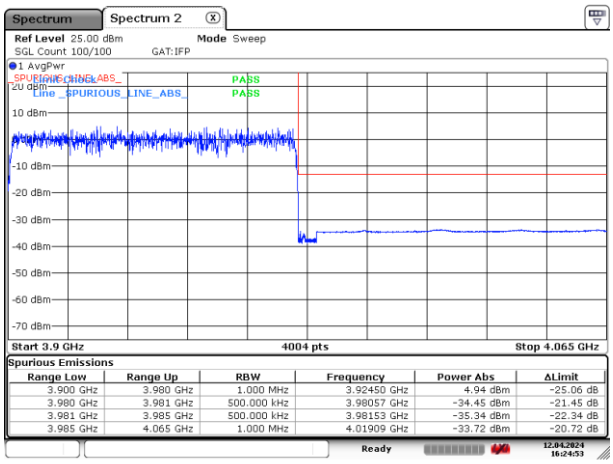
CP-OFDM 16QAM - Low Channel - 1 RB



CP-OFDM 16QAM - Low Channel - Full RB

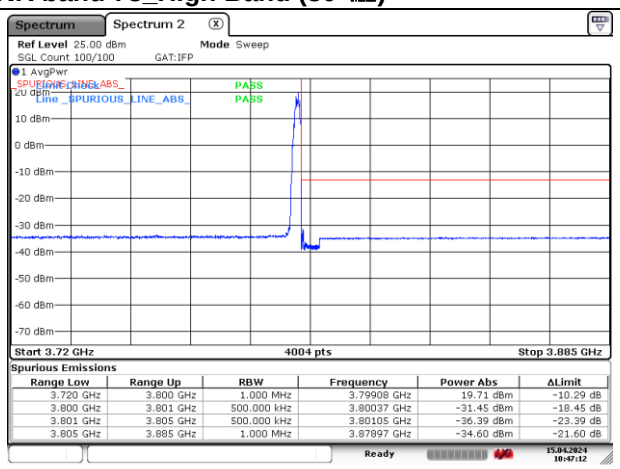


CP-OFDM 16QAM - High Channel - 1 RB

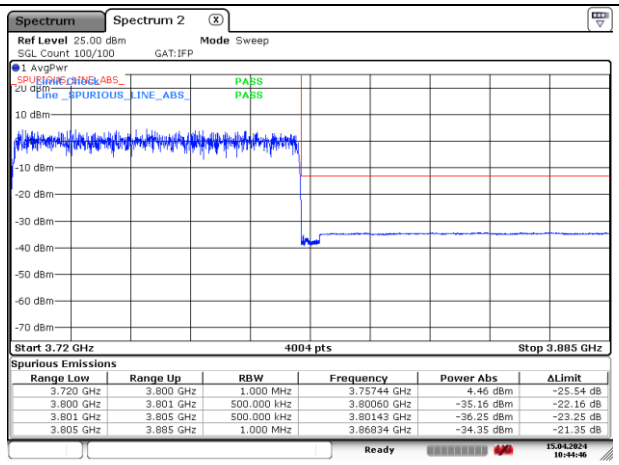


CP-OFDM 16QAM - High Channel - Full RB

NR band 78_High Band (80 ㎒)

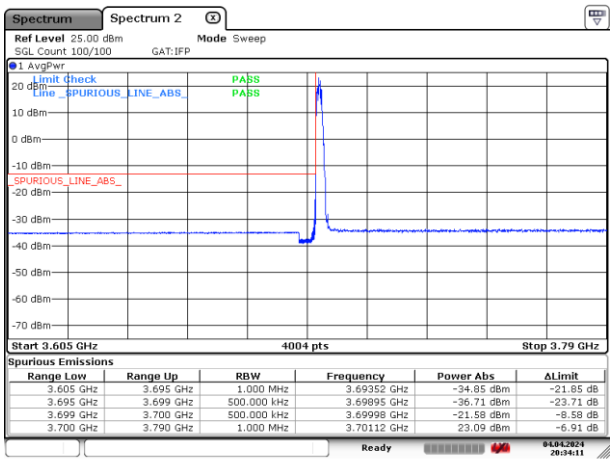


CP-OFDM 16QAM - High Channel - 1 RB

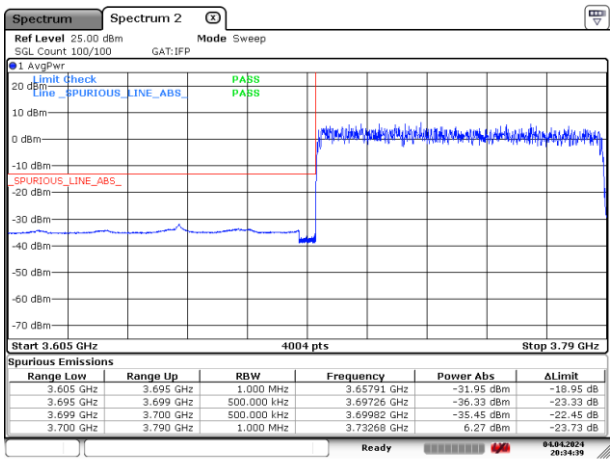


CP-OFDM 16QAM - High Channel - Full RB

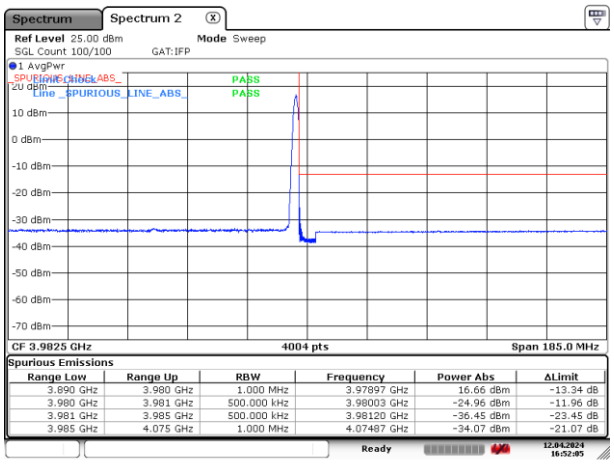
NR band 77_High Band (90 ㎒)



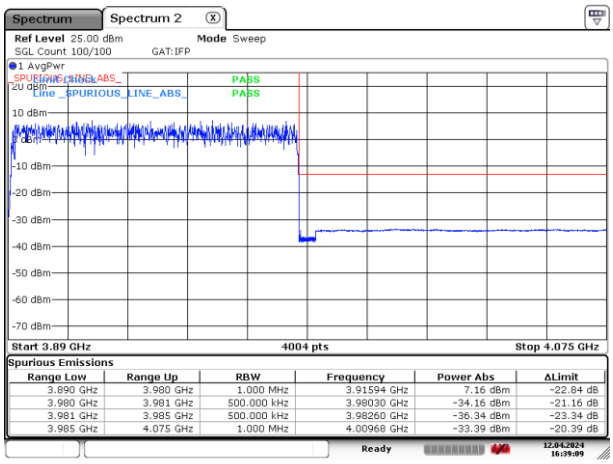
DFT-S-OFDM BPSK - Low Channel - 1 RB



DFT-S-OFDM BPSK - Low Channel - Full RB

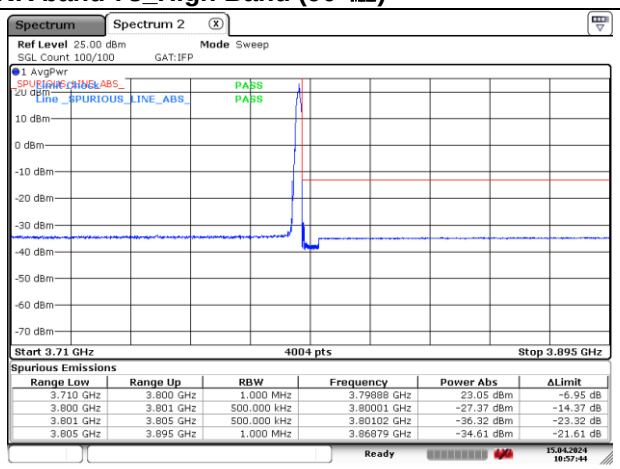


DFT-S-OFDM BPSK - High Channel - 1 RB

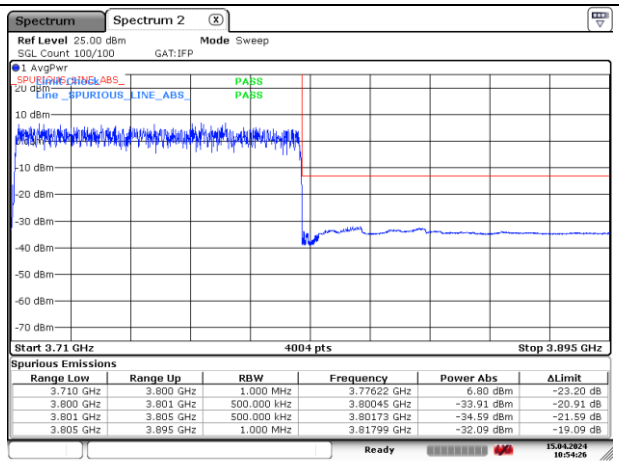


DFT-S-OFDM BPSK - High Channel - Full RB

NR band 78_High Band (90 ㎒)

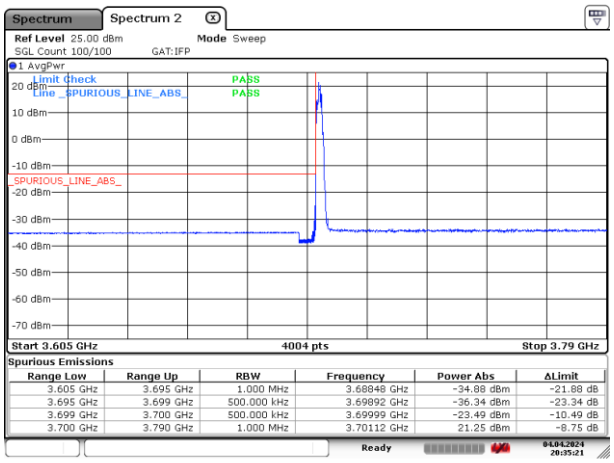


DFT-S-OFDM BPSK - High Channel - 1 RB

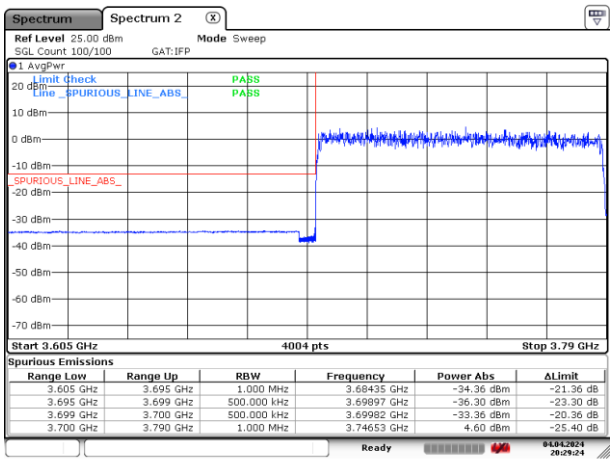


DFT-S-OFDM BPSK - High Channel - Full RB

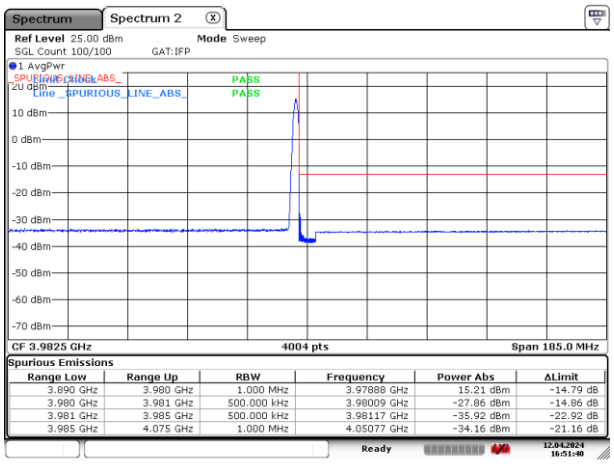
NR band 77_High Band (90 ㎒)



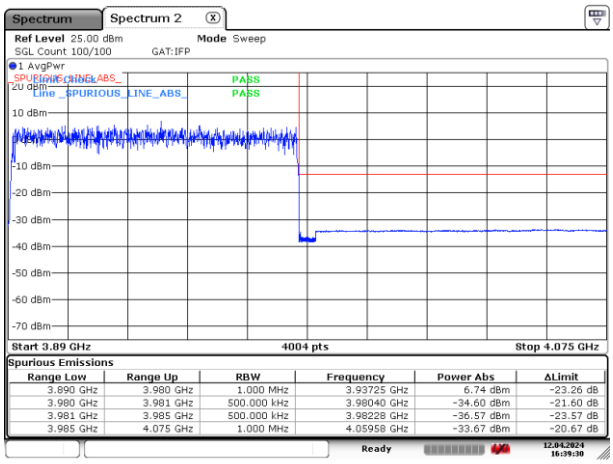
DFT-S-OFDM 16QAM - Low Channel - 1 RB



DFT-S-OFDM 16QAM - Low Channel - Full RB

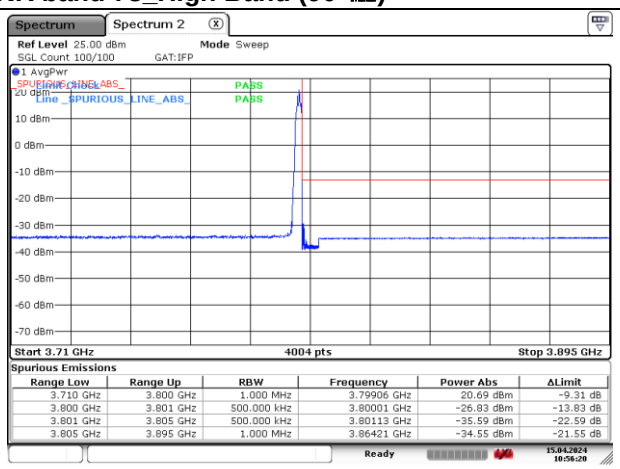


DFT-S-OFDM 16QAM - High Channel - 1 RB

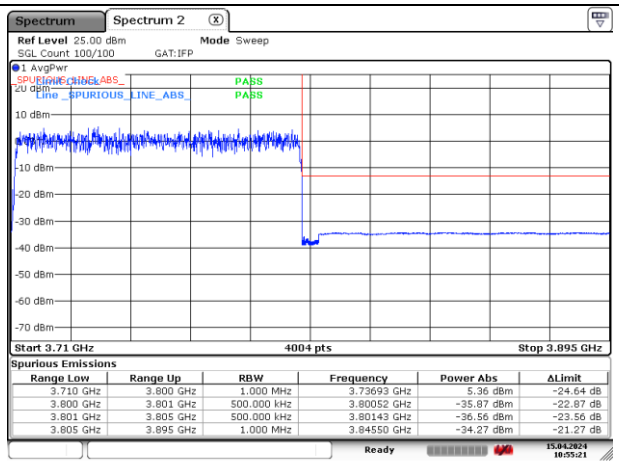


DFT-S-OFDM 16QAM - High Channel - Full RB

NR band 78_High Band (90 ㎒)

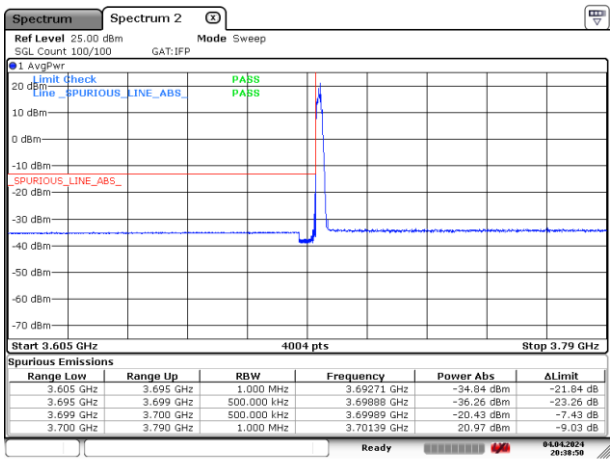


DFT-S-OFDM 16QAM - High Channel - 1 RB

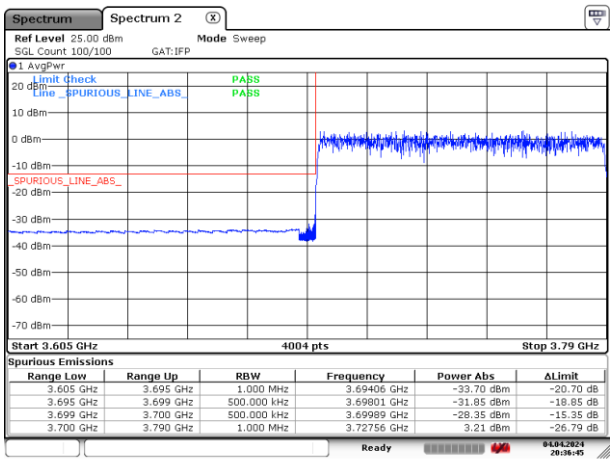


DFT-S-OFDM 16QAM - High Channel - Full RB

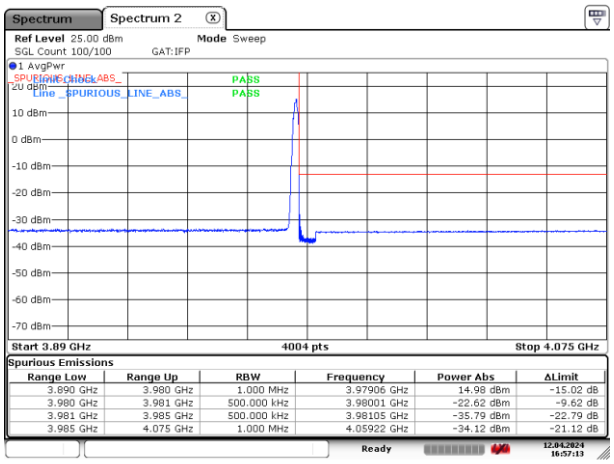
NR band 77_High Band (90 ㎒)



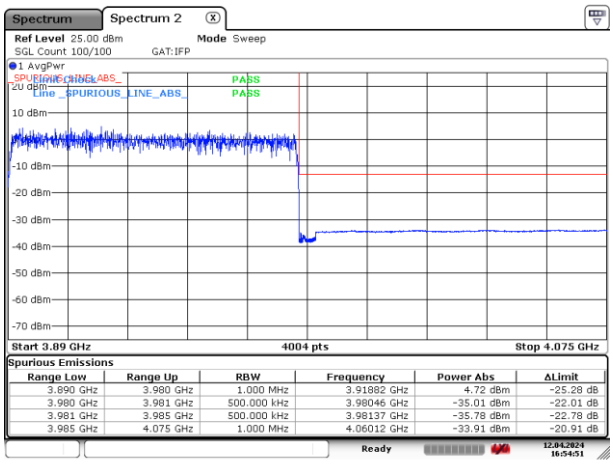
CP-OFDM QPSK - Low Channel - 1 RB



CP-OFDM QPSK - Low Channel - Full RB

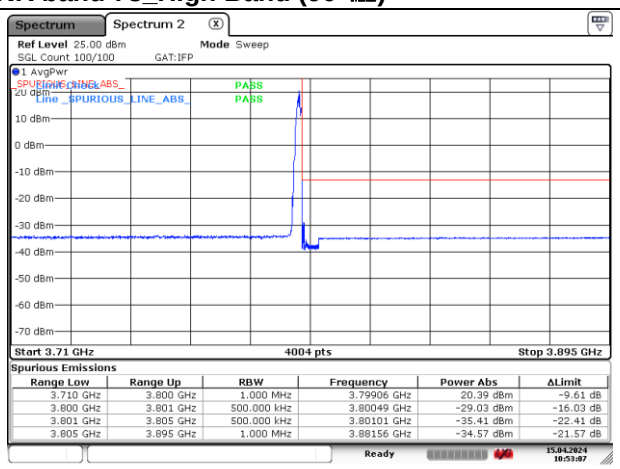


CP-OFDM QPSK - High Channel - 1 RB

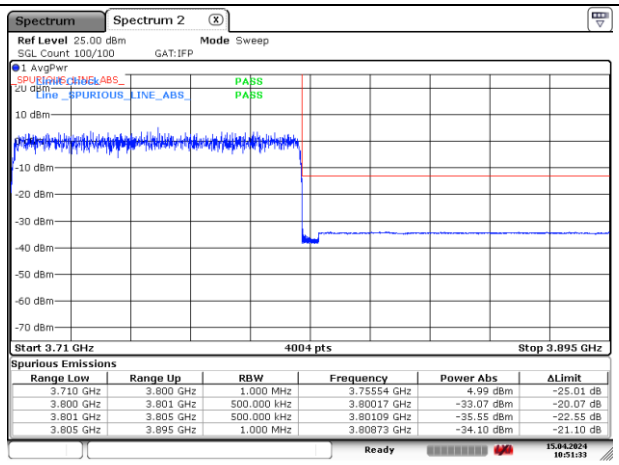


CP-OFDM QPSK - High Channel - Full RB

NR band 78_High Band (90 ㎒)

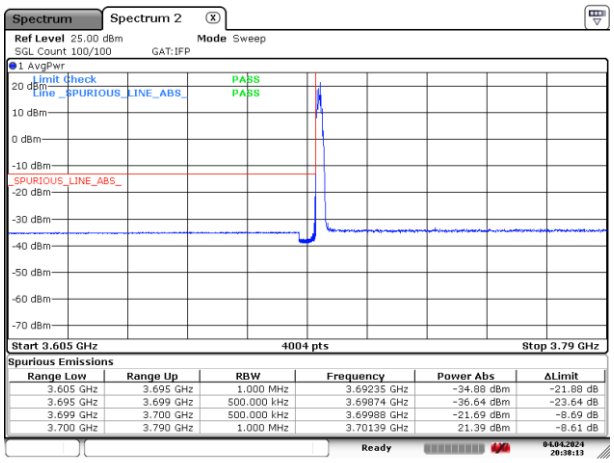


CP-OFDM QPSK - High Channel - 1 RB

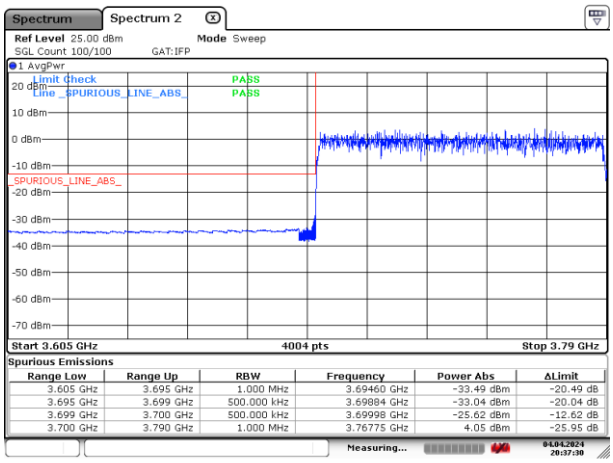


CP-OFDM QPSK - High Channel - Full RB

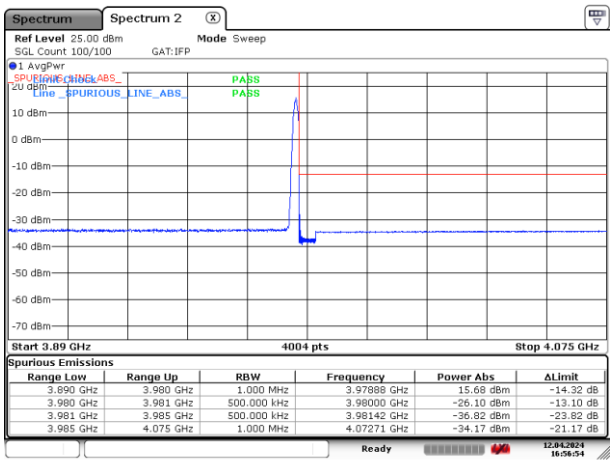
NR band 77_High Band (90 ㎒)



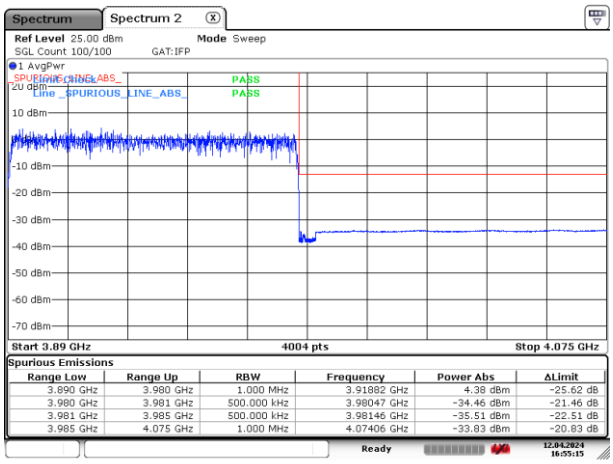
CP-OFDM 16QAM - Low Channel - 1 RB



CP-OFDM 16QAM - Low Channel - Full RB

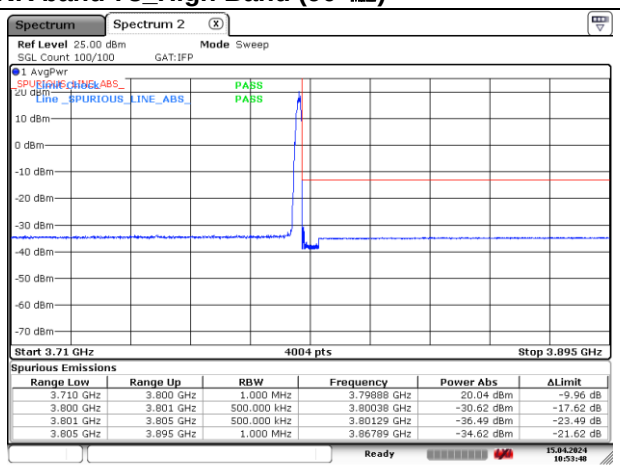


CP-OFDM 16QAM - High Channel - 1 RB

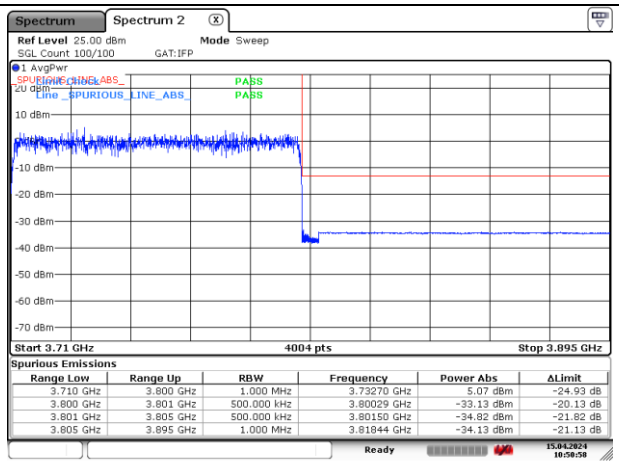


CP-OFDM 16QAM - High Channel - Full RB

NR band 78_High Band (90 ㎒)

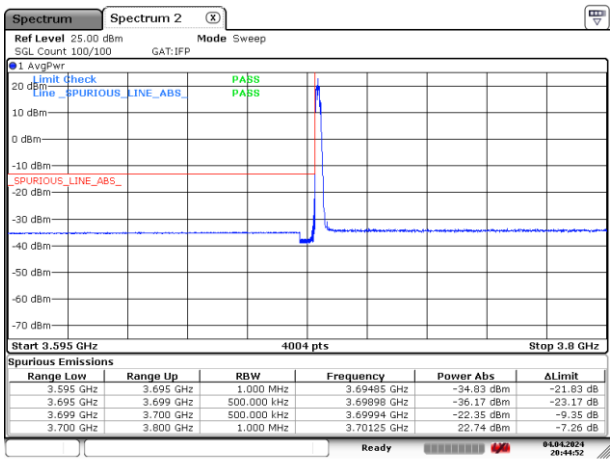


CP-OFDM 16QAM - High Channel - 1 RB

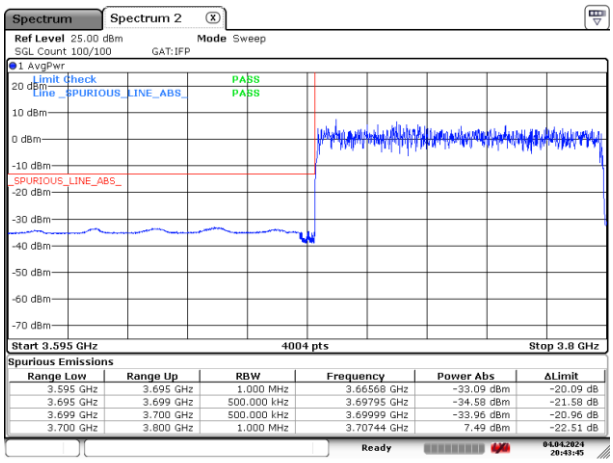


CP-OFDM 16QAM - High Channel - Full RB

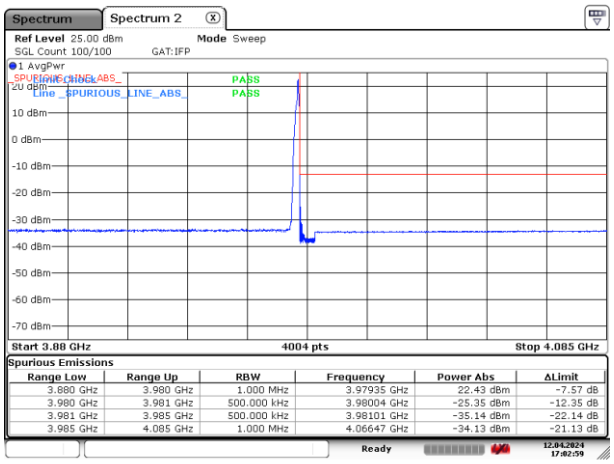
NR band 77_High Band (100 ㎒)



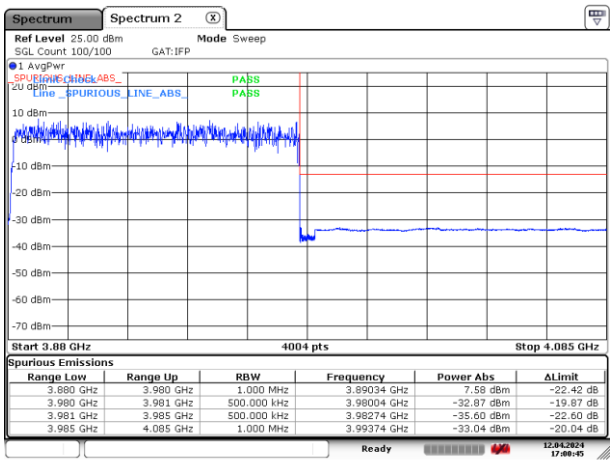
DFT-S-OFDM BPSK - Low Channel - 1 RB



DFT-S-OFDM BPSK - Low Channel - Full RB

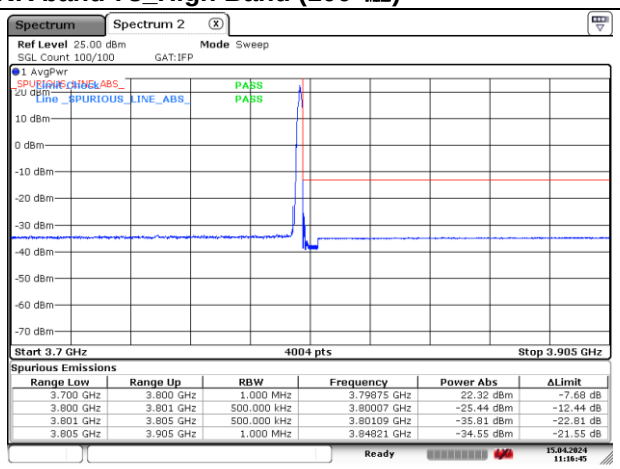


DFT-S-OFDM BPSK - High Channel - 1 RB

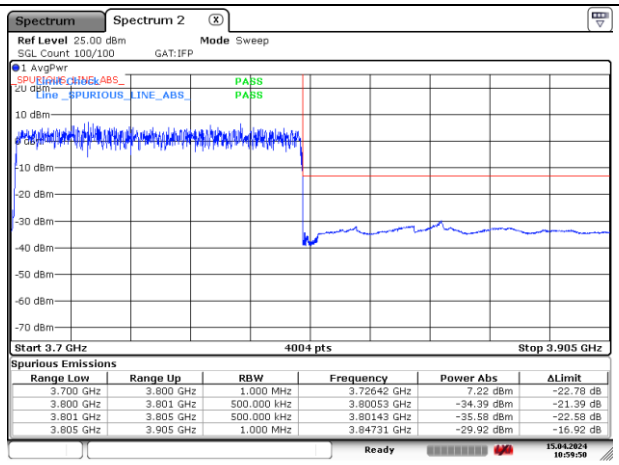


DFT-S-OFDM BPSK - High Channel - Full RB

NR band 78_High Band (100 ㎒)

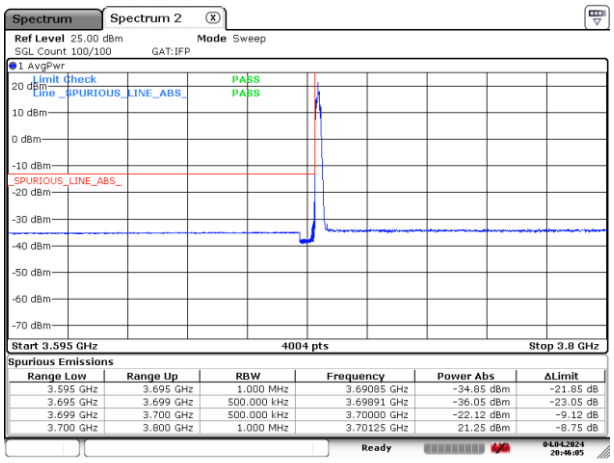


DFT-S-OFDM BPSK - High Channel - 1 RB

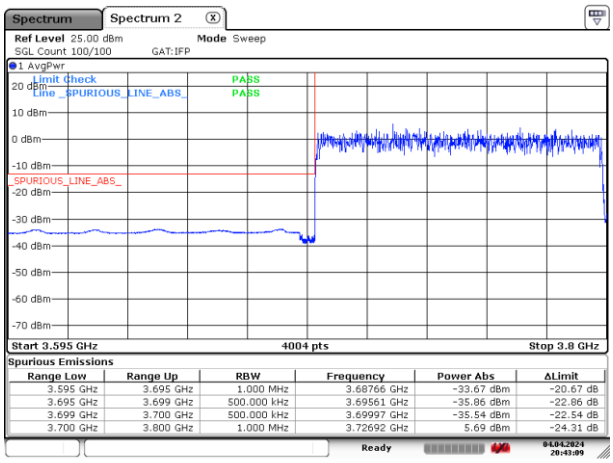


DFT-S-OFDM BPSK - High Channel - Full RB

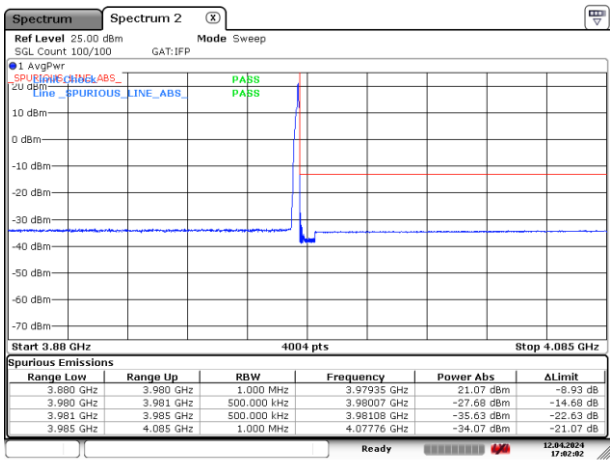
NR band 77_High Band (100 ㎒)



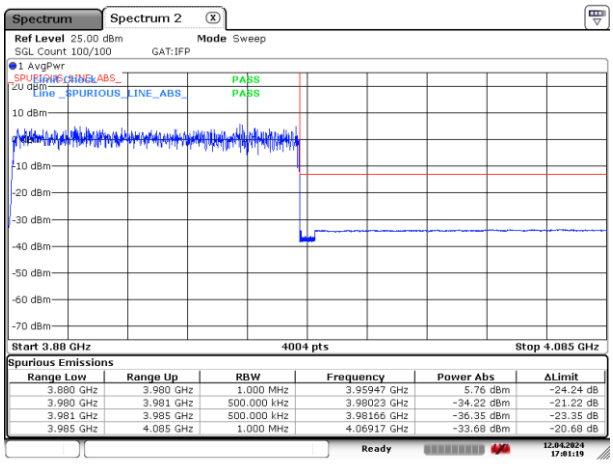
DFT-S-OFDM 16QAM - Low Channel - 1 RB



DFT-S-OFDM 16QAM - Low Channel - Full RB

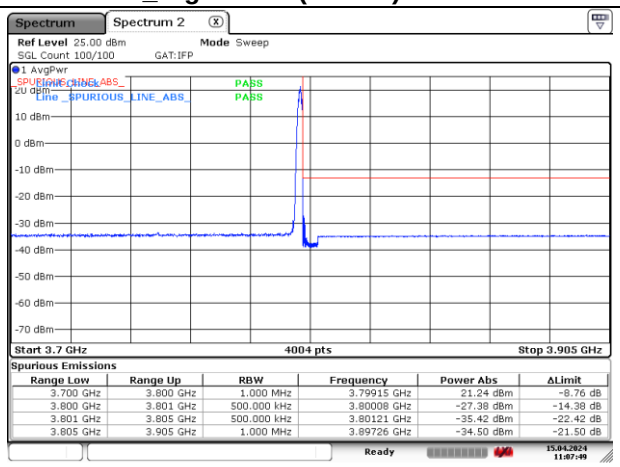


DFT-S-OFDM 16QAM - High Channel - 1 RB

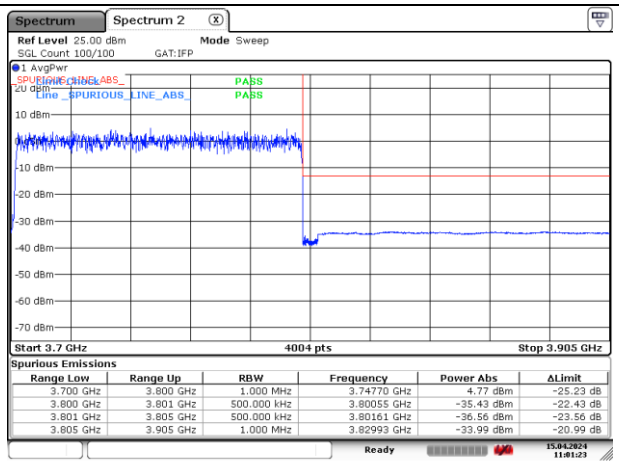


DFT-S-OFDM 16QAM - High Channel - Full RB

NR band 78_High Band (100 ㎒)

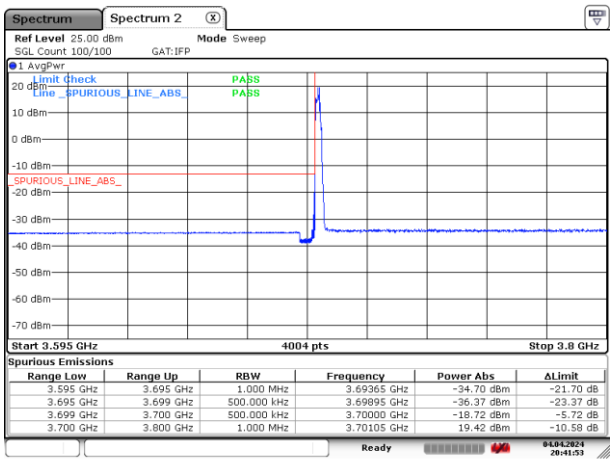


DFT-S-OFDM 16QAM - High Channel - 1 RB

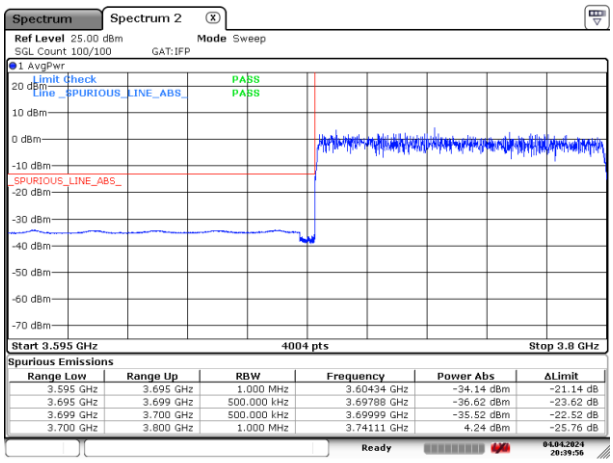


DFT-S-OFDM 16QAM - High Channel - Full RB

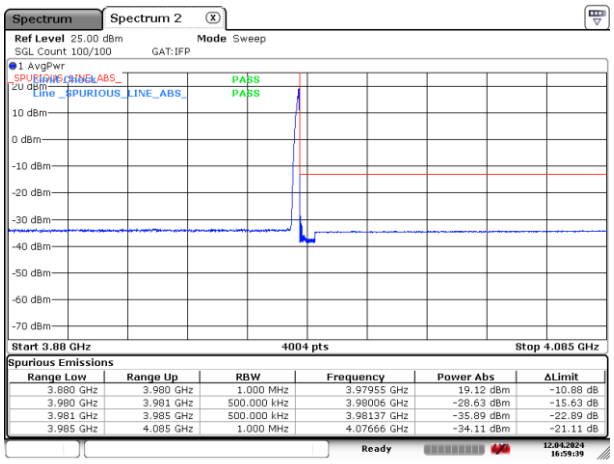
NR band 77_High Band (100 ㎒)



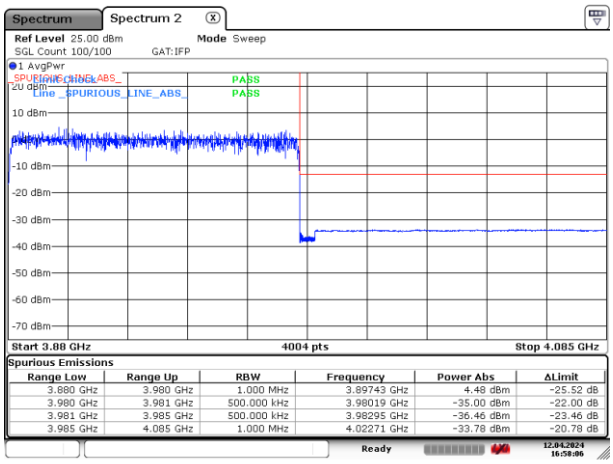
CP-OFDM QPSK - Low Channel - 1 RB



CP-OFDM QPSK - Low Channel - Full RB

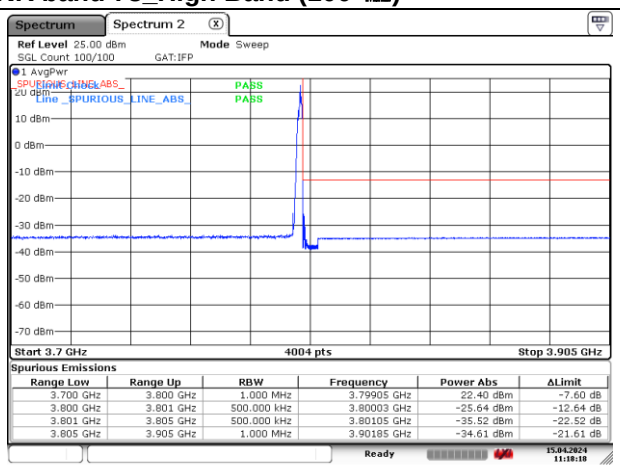


CP-OFDM QPSK - High Channel - 1 RB

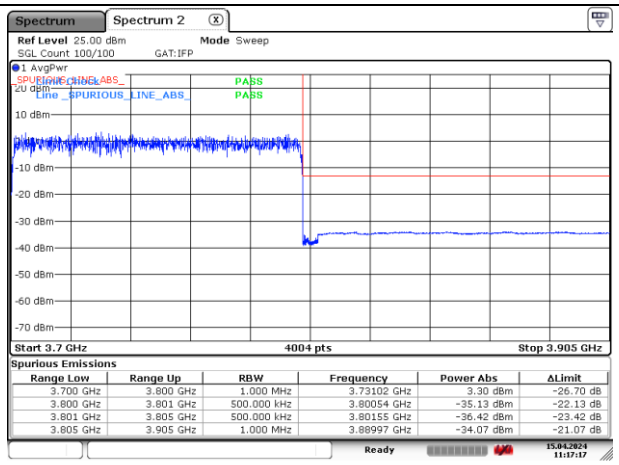


CP-OFDM QPSK - High Channel - Full RB

NR band 78_High Band (100 ㎒)

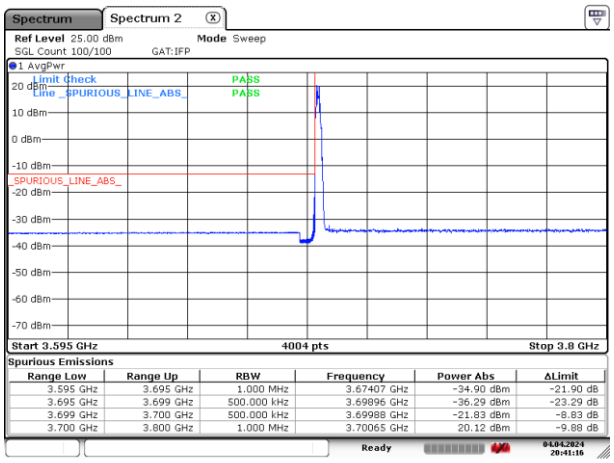


CP-OFDM QPSK - High Channel - 1 RB

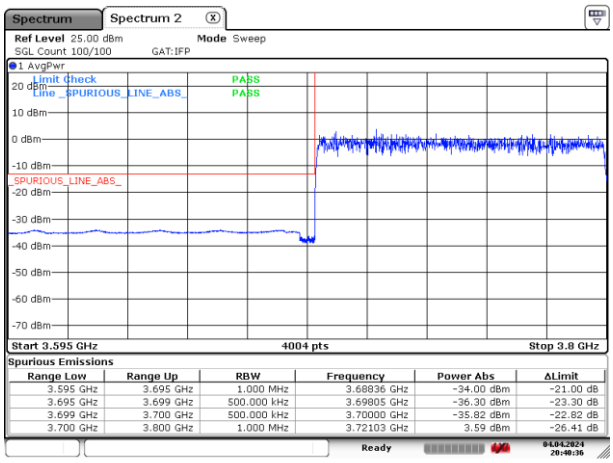


CP-OFDM QPSK - High Channel - Full RB

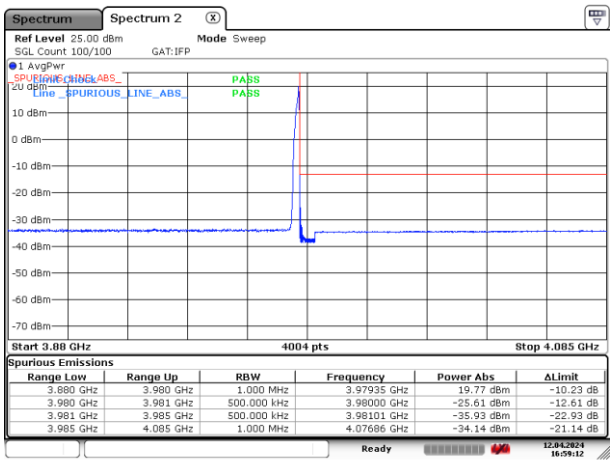
NR band 77_High Band (100 ㎒)



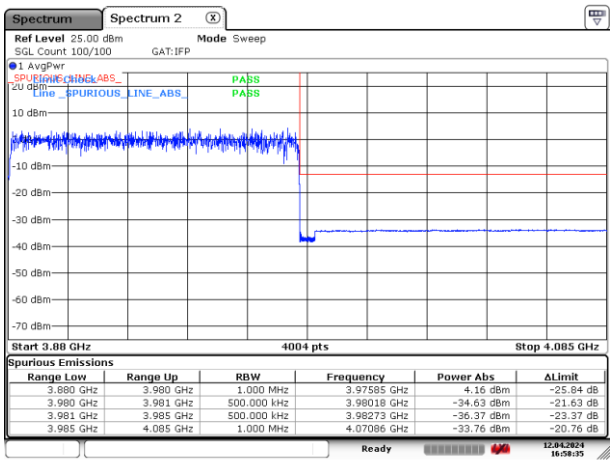
CP-OFDM 16QAM - Low Channel - 1 RB



CP-OFDM 16QAM - Low Channel - Full RB

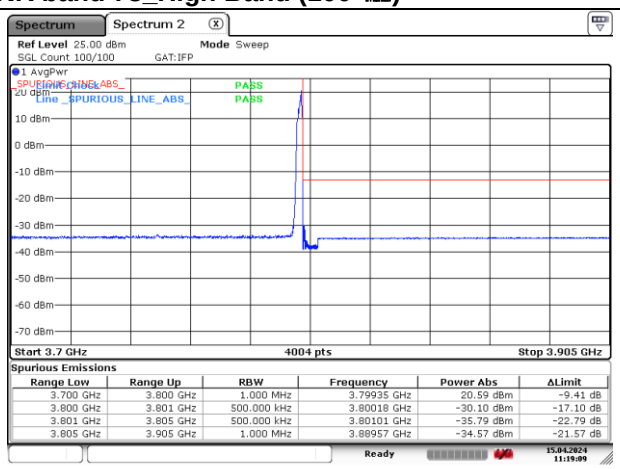


CP-OFDM 16QAM - High Channel - 1 RB

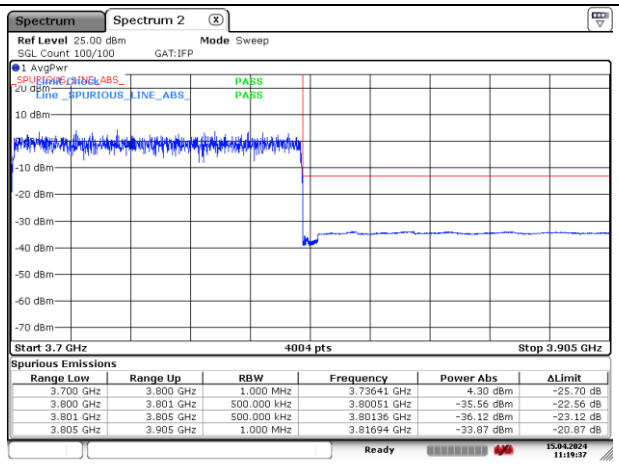


CP-OFDM 16QAM - High Channel - Full RB

NR band 78_High Band (100 ㎒)



CP-OFDM 16QAM - High Channel - 1 RB



CP-OFDM 16QAM - High Channel - Full RB

8. Frequency Stability

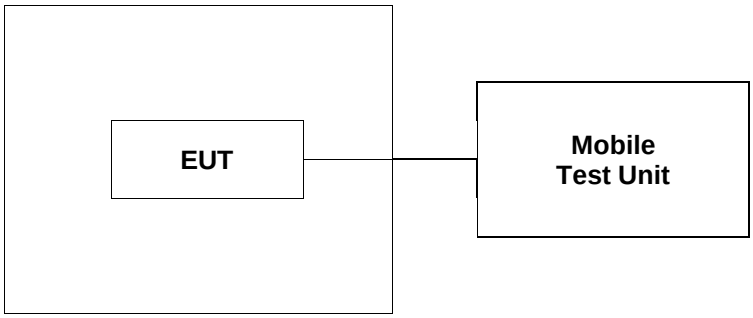
8.1. Limit

- § 2.1055 (a), § 2.1055 (d) & following:

- §27.54, the frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

8.2. Test Procedure

1. Frequency Stability vs. Temperature: The equipment under test was connected to an external DC power supply and the RF output was connected to a Mobile Test Unit via feed-through attenuators.
2. The EUT was placed inside the temperature chamber.
3. After the temperature stabilized for approximately 20 minutes, the frequency output was recorded from Mobile Test Unit.



Temperature Chamber

8.3. Test Results

Ambient temperature : (23 ± 1) ℃
Relative humidity : 47 % R.H.

NR band 38 at middle channel

Reference Frequency: 2 595.0 ㎒			
Frequency Stability versus Temperature			
Environment Temperature (℃)	**Power Supplied (V)**	**Frequency Measure with Time Elapse**	
		Frequency Error (㎐)	**ppm**
50	4.0	4.50	-0.000 27
40		8.70	0.001 35
30		-3.50	-0.003 35
20(Ref.)		5.20	-
10		7.30	0.000 81
0		3.20	-0.000 77
-10		2.80	-0.000 92
-20		3.30	-0.000 73
-30		5.50	0.000 12
Frequency Stability versus Power Supply			
Environment Temperature (℃)	**Power Supplied (V)**	**Frequency Measure with Time Elapse**	
		Frequency Error (㎐)	**ppm**
20	3.40 (85%)	3.20	-0.000 77
	4.60 (115%)	5.30	0.000 04

NR band 41 at middle channel

Reference Frequency: 2 592.99 ㎒			
Frequency Stability versus Temperature			
Environment Temperature (℃)	**Power Supplied (V)**	**Frequency Measure with Time Elapse**	
		Frequency Error (㎐)	**ppm**
50	4.00	8.26	0.000 74
40		11.33	0.001 92
30		13.82	0.002 88
20(Ref.)		6.34	-
10		9.23	0.001 11
0		10.97	0.001 79
-10		10.00	0.001 41
-20		9.82	0.001 34
-30		8.22	0.000 73
Frequency Stability versus Power Supply			
Environment Temperature (℃)	**Power Supplied (V)**	**Frequency Measure with Time Elapse**	
		Frequency Error (㎐)	**ppm**
20	3.40 (85%)	9.60	0.001 26
	4.60 (115%)	10.98	0.001 79

NR band 77/78_Low Band at middle channel

Reference Frequency: 3 500.01 ㎒			
Frequency Stability versus Temperature			
Environment Temperature (℃)	**Power Supplied (V)**	**Frequency Measure with Time Elapse**	
		Frequency Error (㎐)	**ppm**
50	4.00	8.53	0.001 62
40		7.83	0.001 42
30		14.01	0.003 19
20(Ref.)		2.86	-
10		9.61	0.001 93
0		7.43	0.001 31
-10		7.98	0.001 46
-20		10.87	0.002 29
-30		6.20	0.000 95
Frequency Stability versus Power Supply			
Environment Temperature (℃)	**Power Supplied (V)**	**Frequency Measure with Time Elapse**	
		Frequency Error (㎐)	**ppm**
20	3.40 (85%)	7.54	0.001 34
	4.60 (115%)	10.33	0.002 13

NR band 77/78_High Band at middle channel

Reference Frequency: 3 840 ㎒			
Frequency Stability versus Temperature			
Environment Temperature (℃)	**Power Supplied (V)**	**Frequency Measure with Time Elapse**	
		Frequency Error (㎐)	**ppm**
50	4.00	5.80	0.000 92
40		7.86	0.001 46
30		12.97	0.002 79
20(Ref.)		2.25	-
10		8.59	0.001 65
0		5.01	0.000 72
-10		8.23	0.001 56
-20		9.94	0.002 00
-30		3.11	0.000 22
Frequency Stability versus Power Supply			
Environment Temperature (℃)	**Power Supplied (V)**	**Frequency Measure with Time Elapse**	
		Frequency Error (㎐)	**ppm**
20	3.40 (85%)	4.57	0.000 60
	4.60 (115%)	8.03	0.001 51

- End of the Test Report -