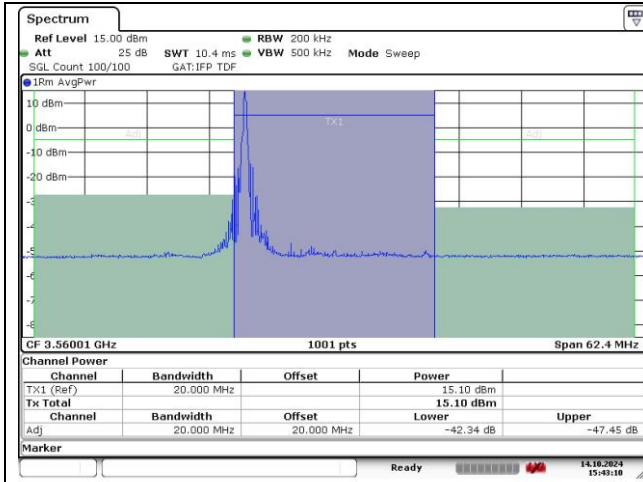
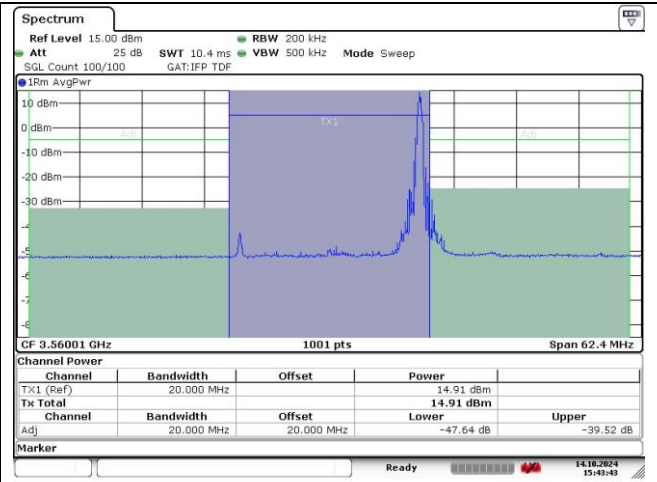
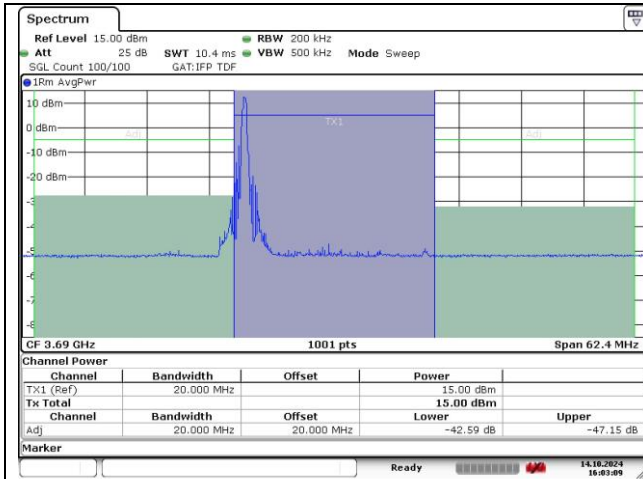




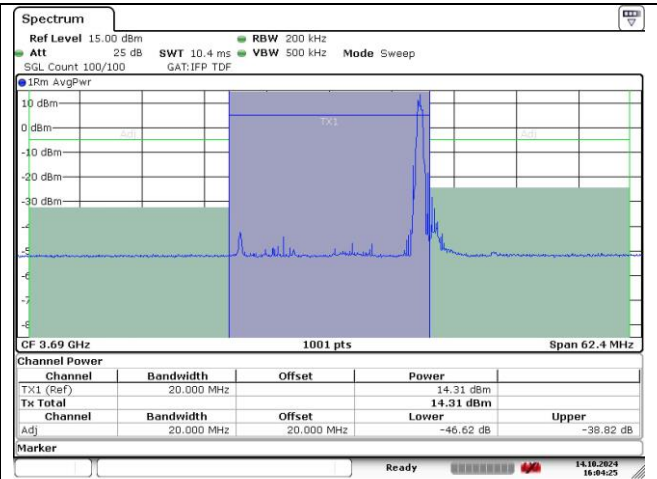
16QAM Low Channel - 1 RB



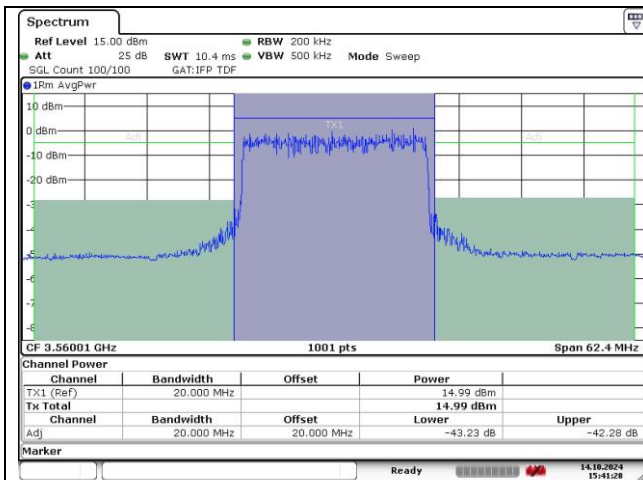
16QAM Low Channel - 1 RB



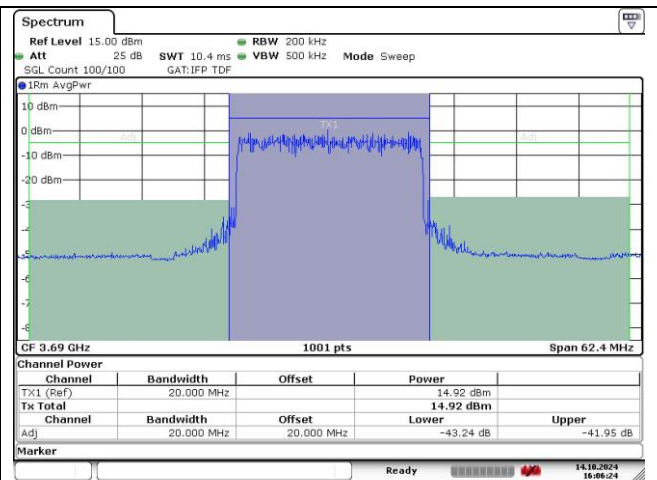
16QAM High Channel - 1 RB



16QAM High Channel - 1 RB

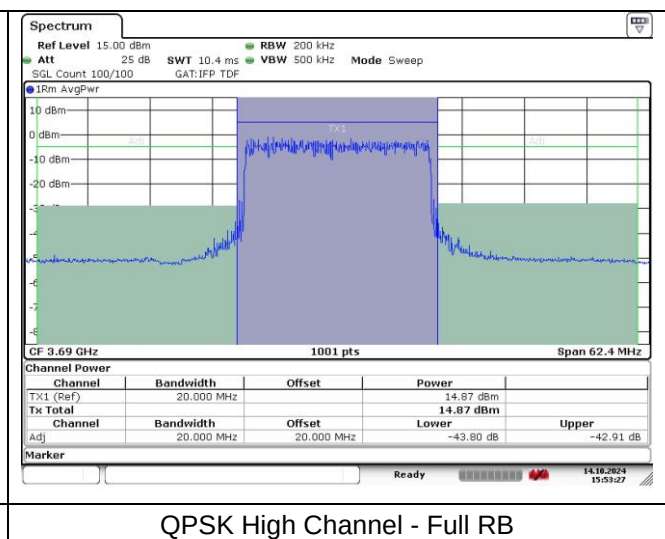
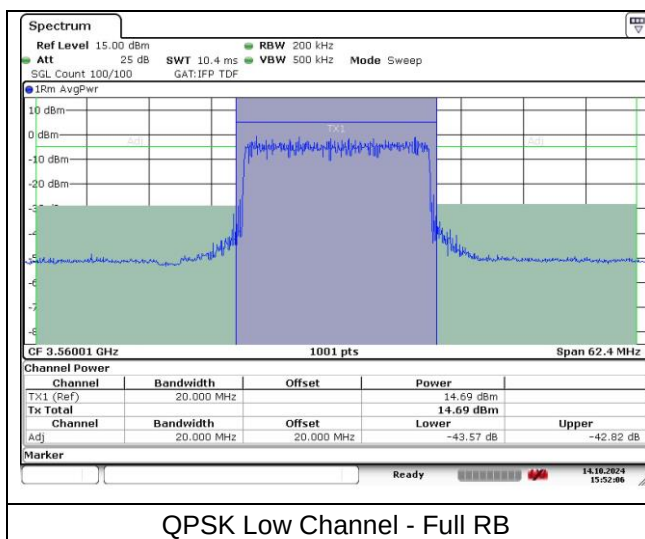
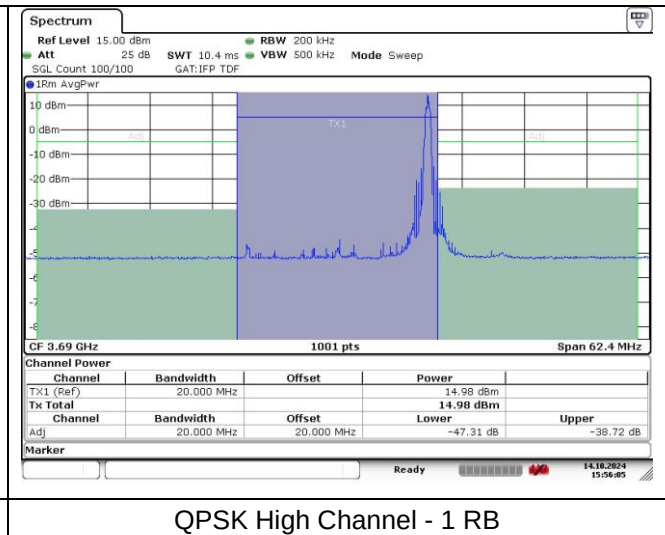
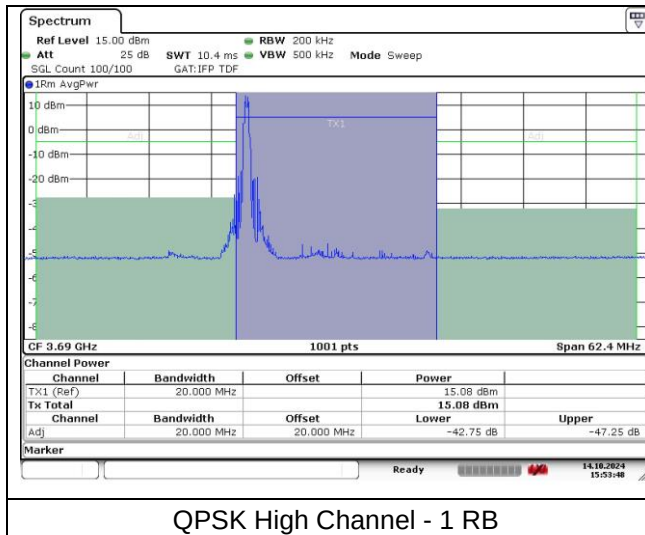
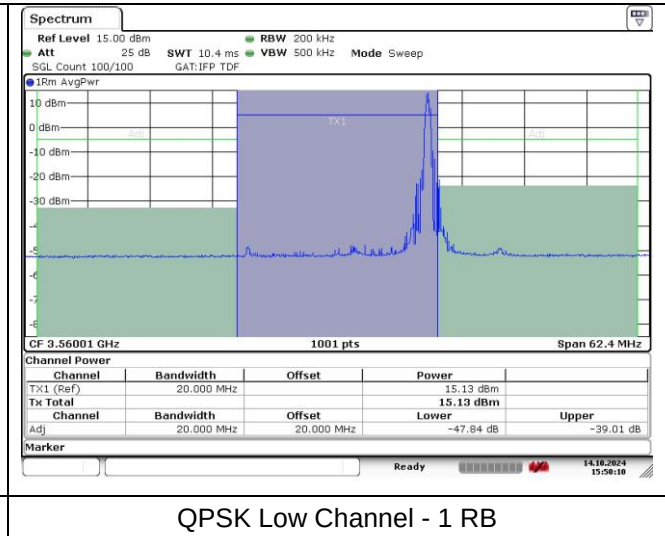
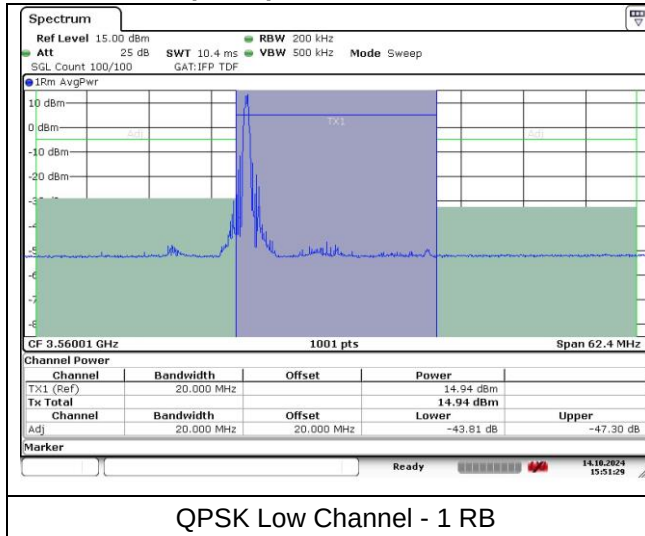


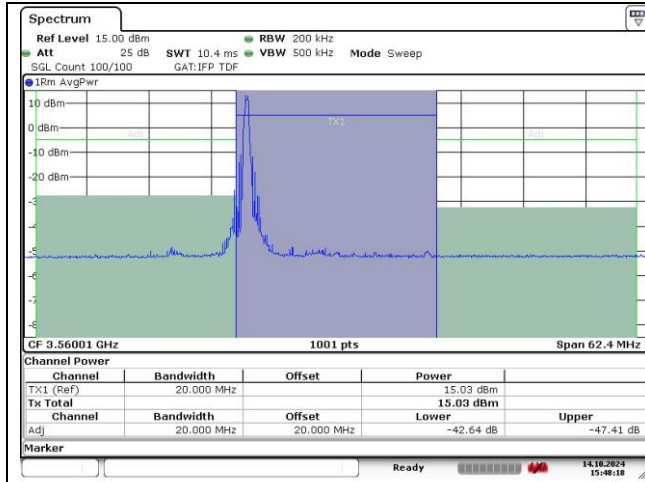
16QAM Low Channel - Full RB



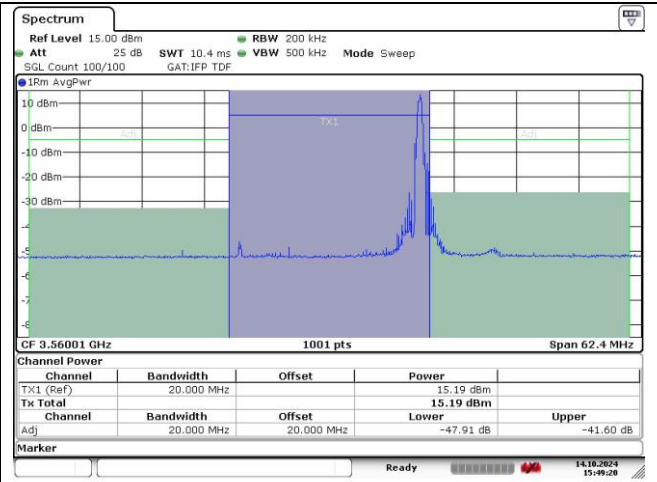
16QAM High Channel - Full RB

LTE band 48 (20 MHz) Ant. 2

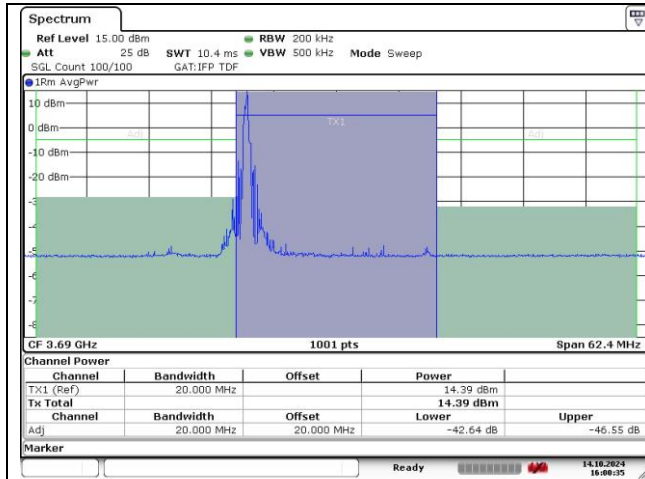




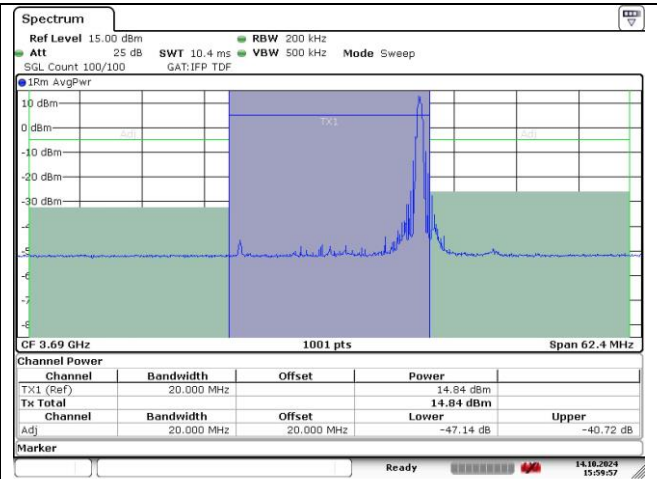
16QAM Low Channel - 1 RB



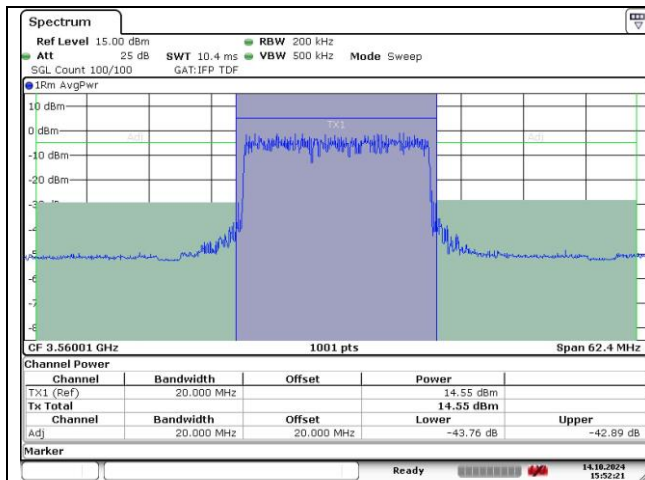
16QAM Low Channel - 1 RB



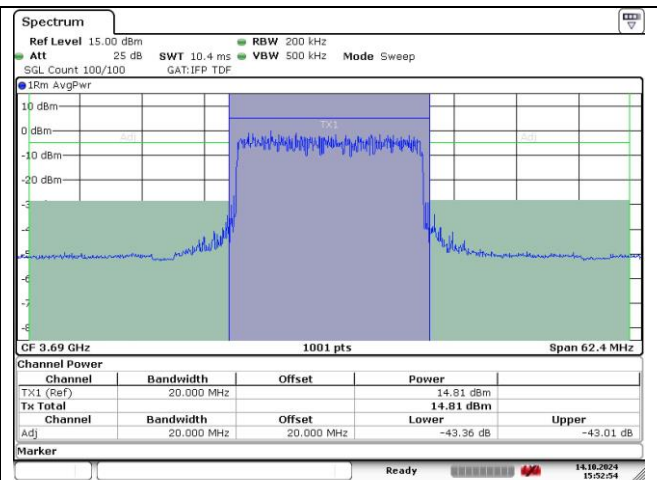
16QAM High Channel - 1 RB



16QAM High Channel - 1 RB

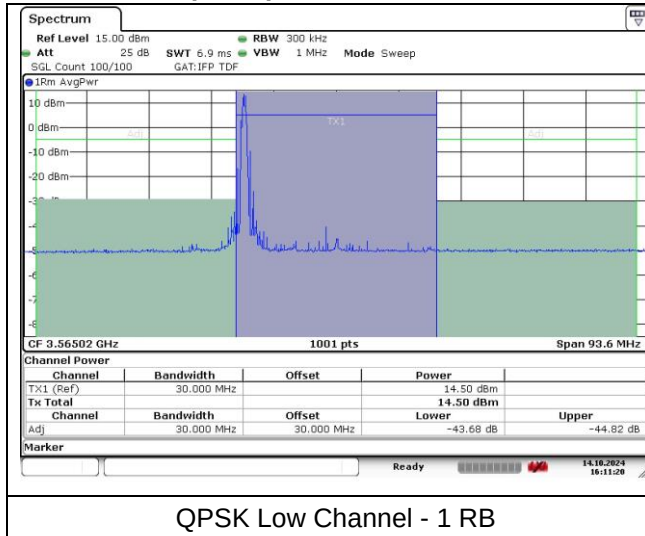


16QAM Low Channel - Full RB

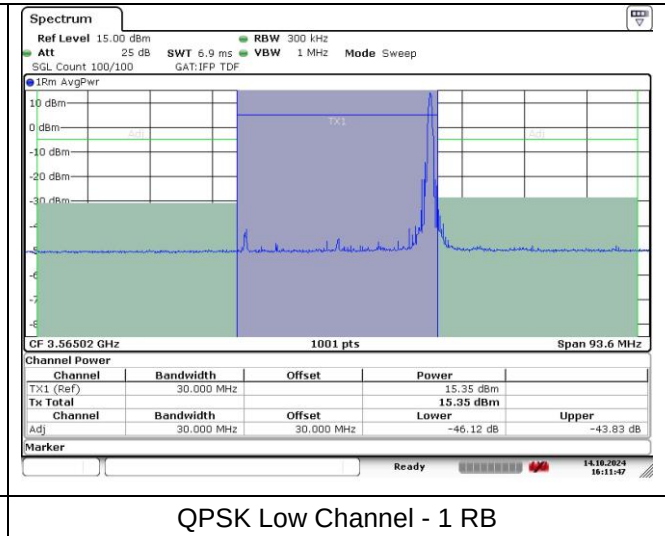


16QAM High Channel - Full RB

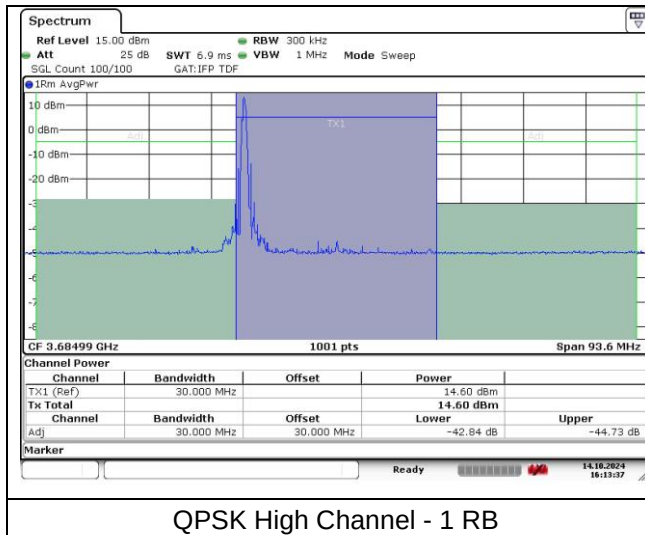
LTE band 48 (30 MHz) Ant. 1



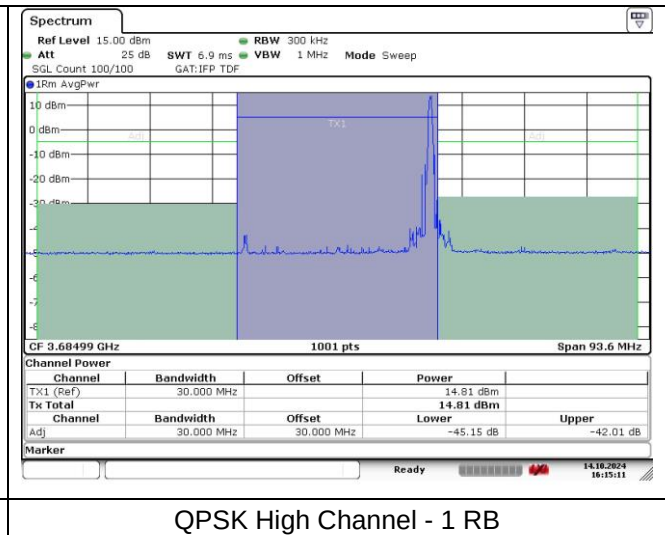
QPSK Low Channel - 1 RB



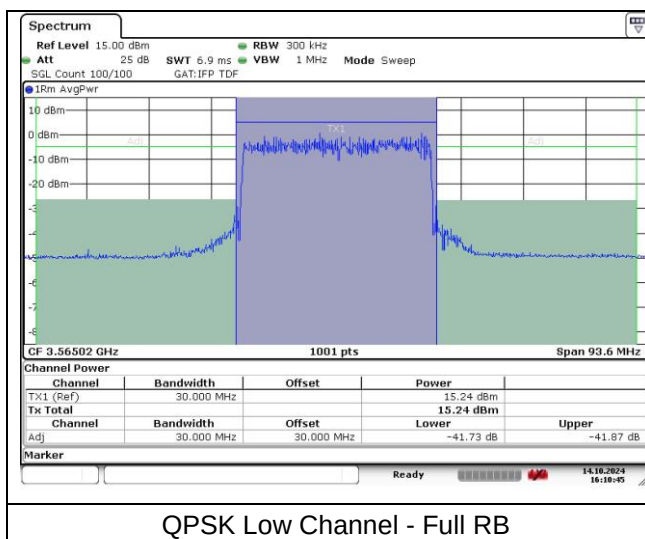
QPSK Low Channel - 1 RB



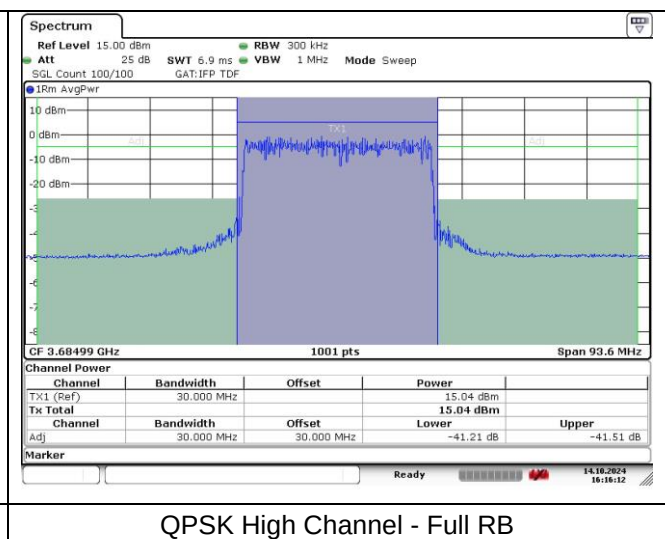
QPSK High Channel - 1 RB



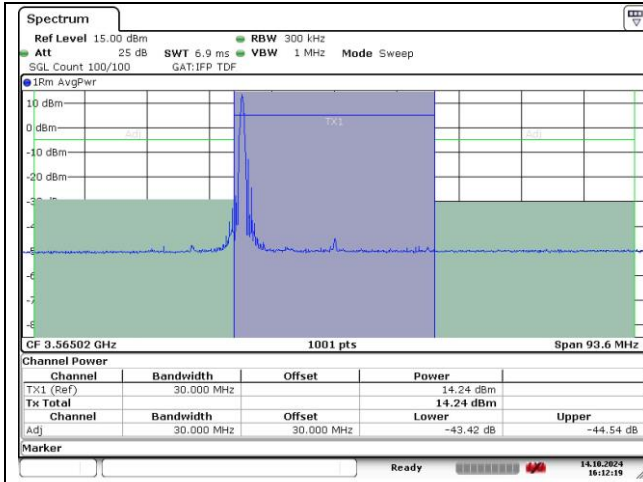
QPSK High Channel - 1 RB



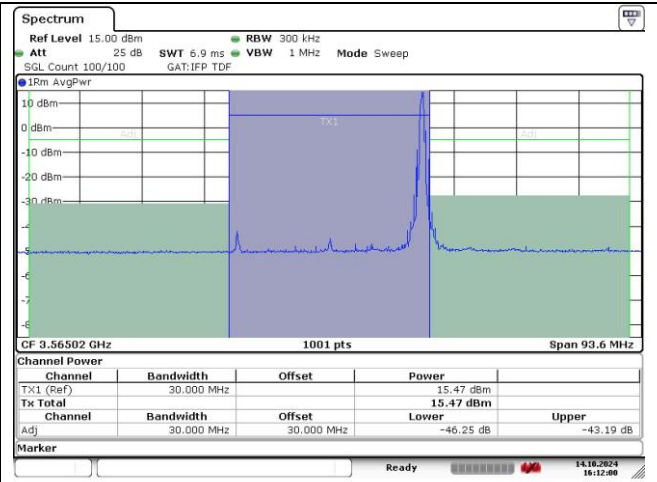
QPSK Low Channel - Full RB



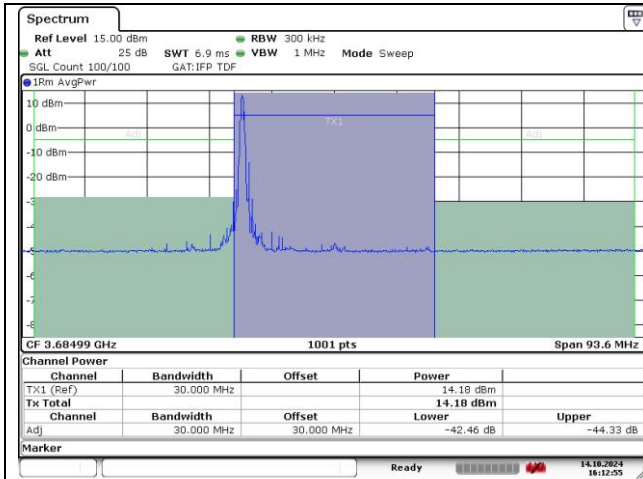
QPSK High Channel - Full RB



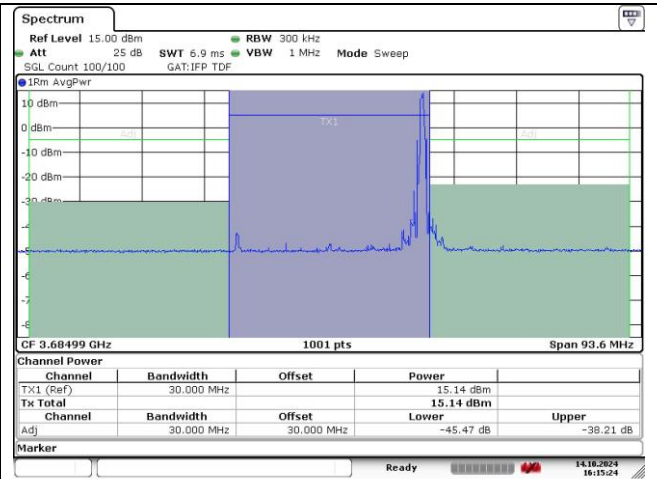
16QAM Low Channel - 1 RB



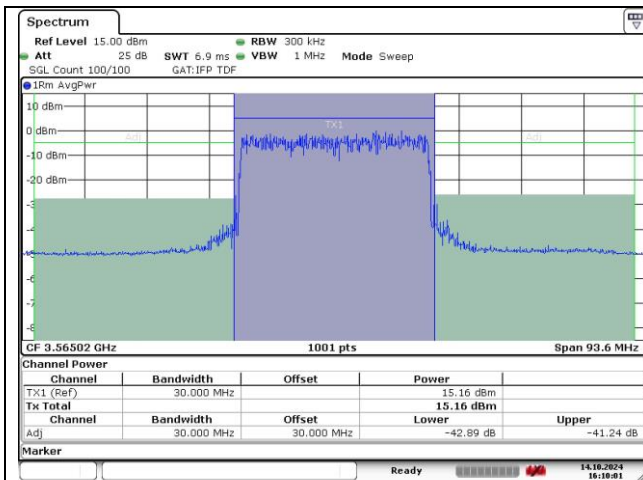
16QAM Low Channel - 1 RB



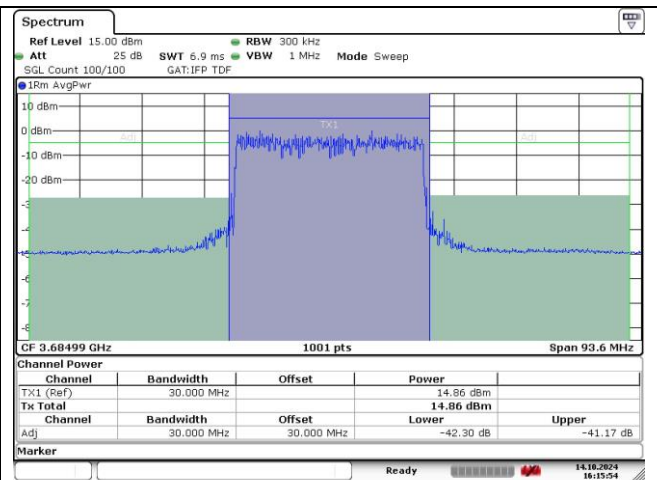
16QAM High Channel - 1 RB



16QAM High Channel - 1 RB

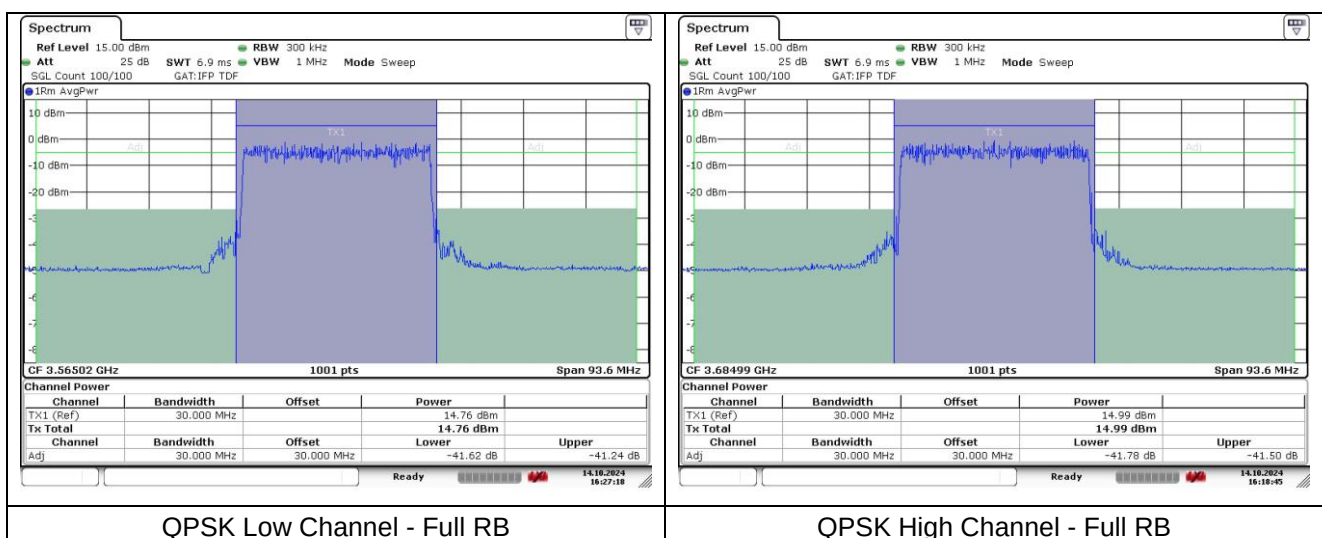
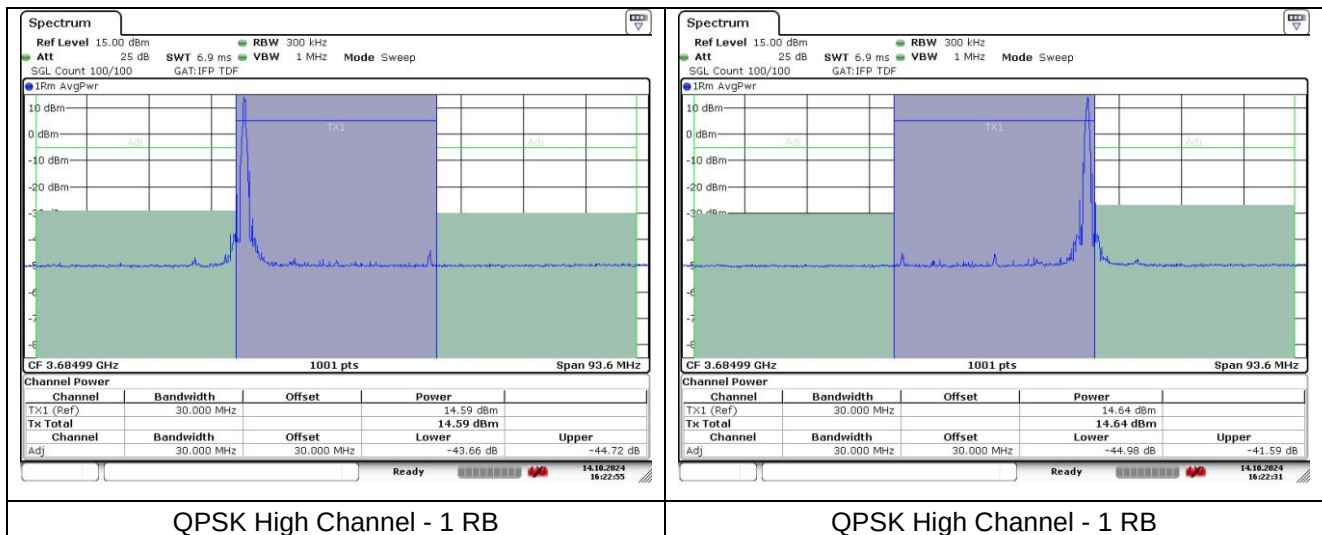
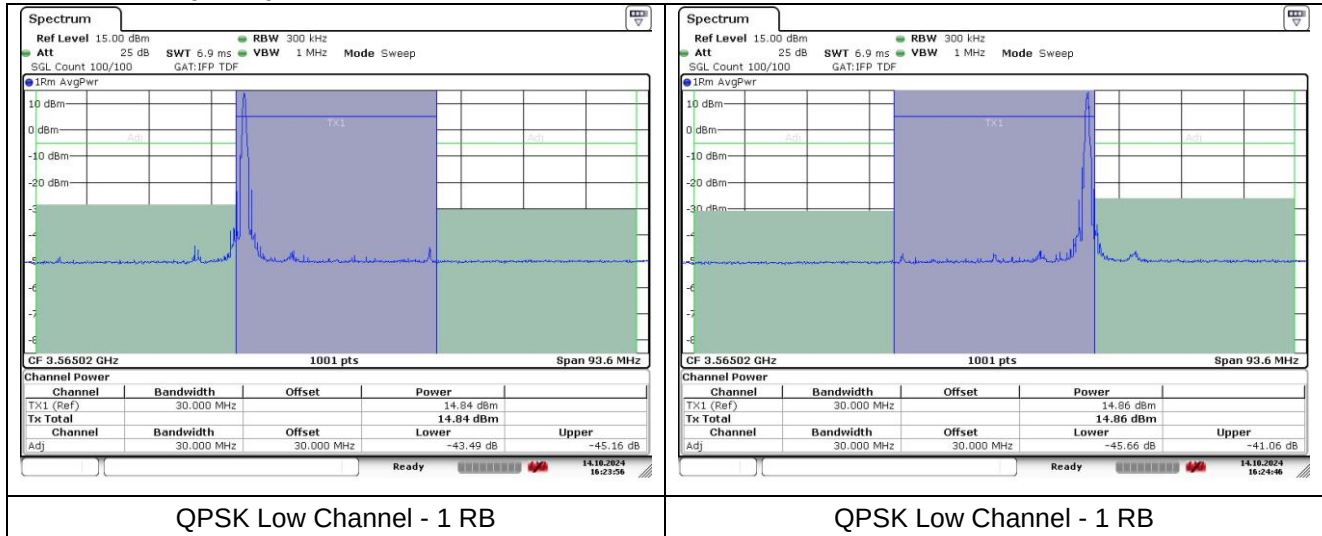


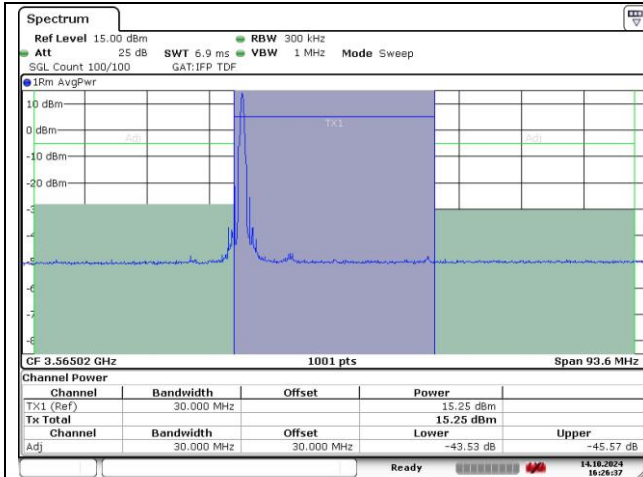
16QAM Low Channel - Full RB



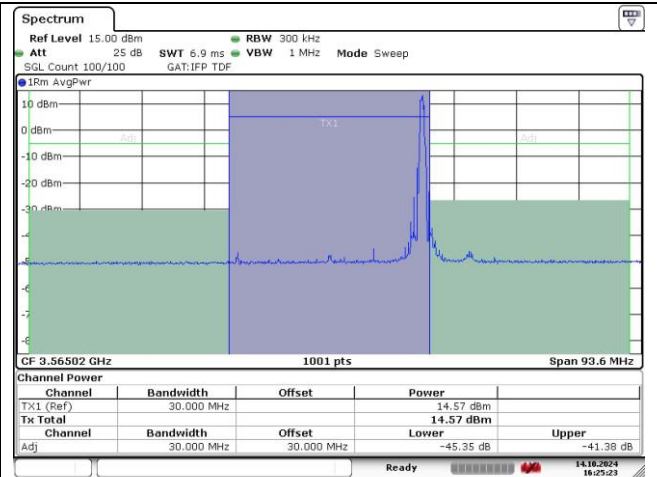
16QAM High Channel - Full RB

LTE band 48 (30 MHz) Ant. 2

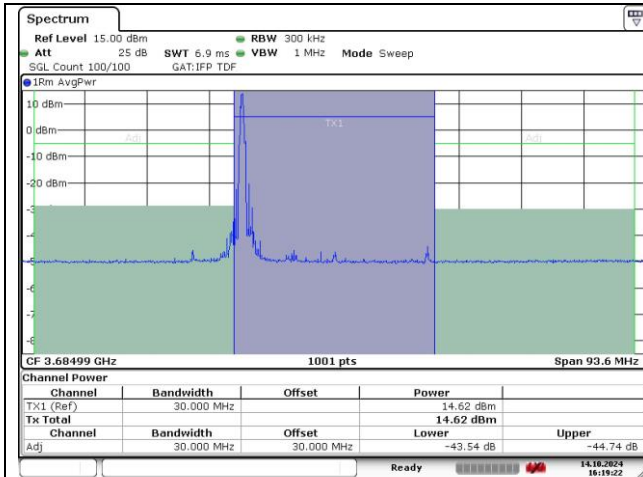




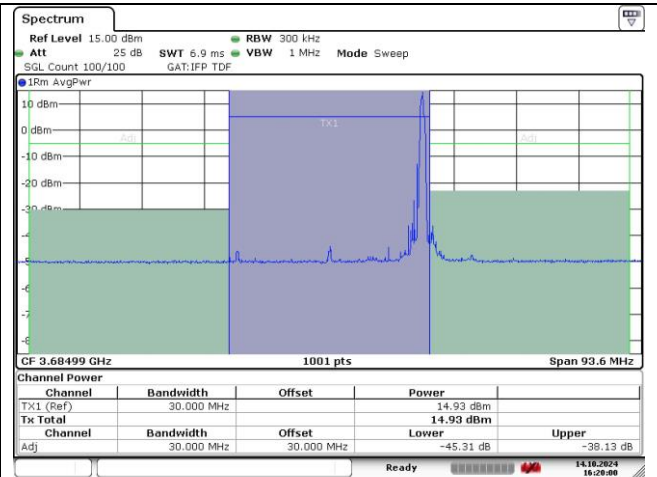
16QAM Low Channel - 1 RB



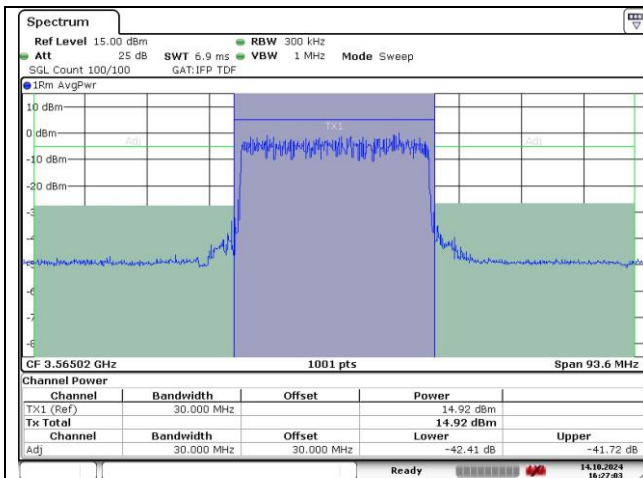
16QAM Low Channel - 1 RB



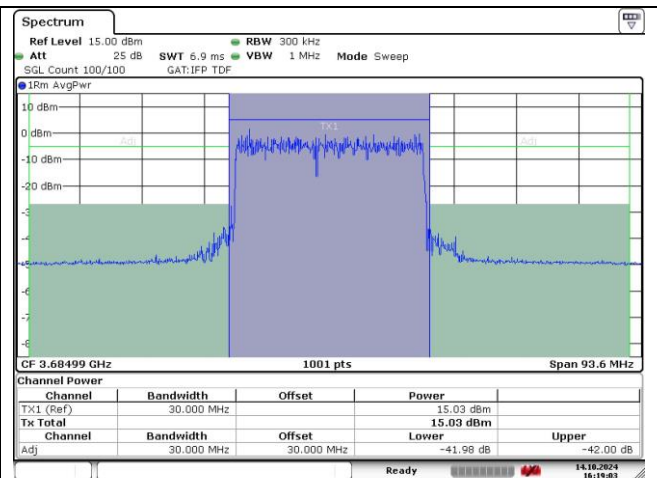
16QAM High Channel - 1 RB



16QAM High Channel - 1 RB

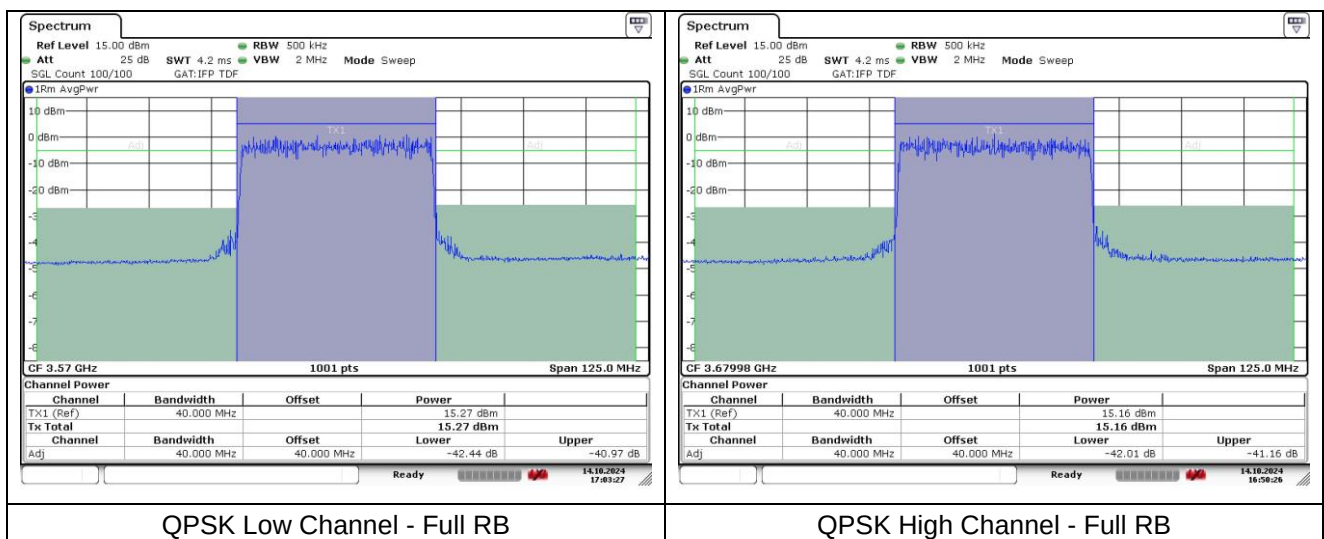
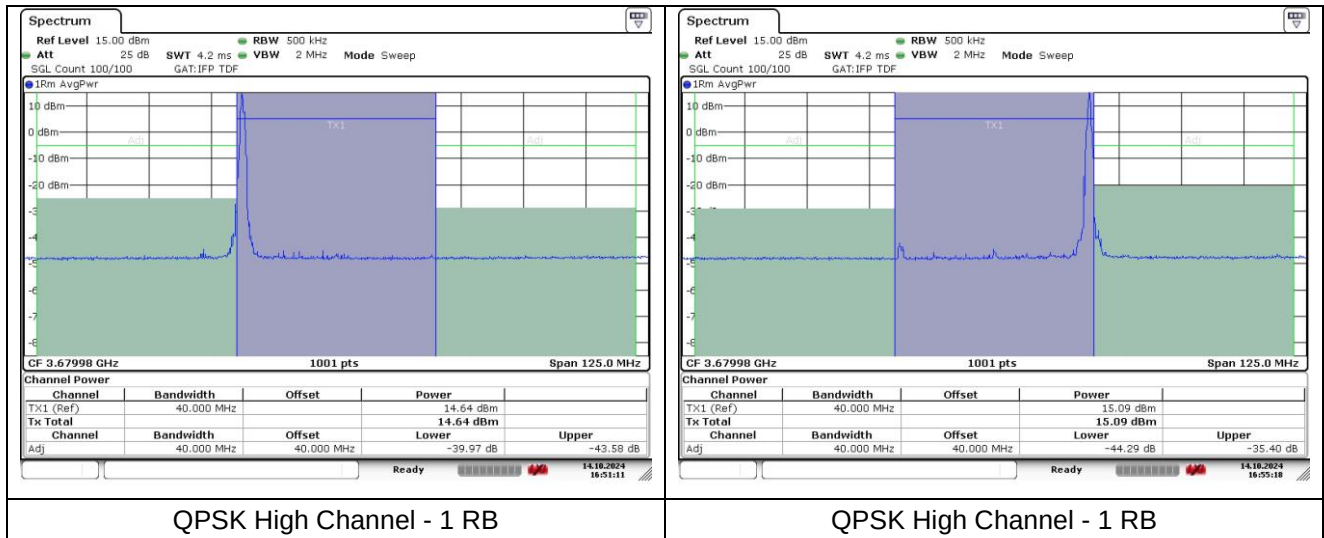
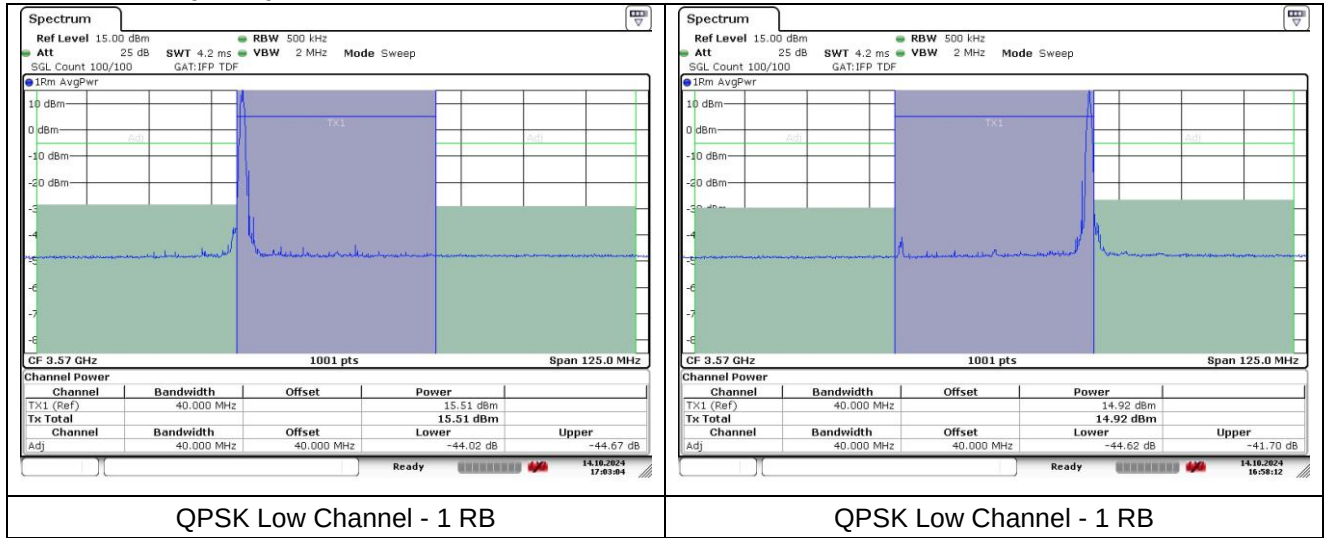


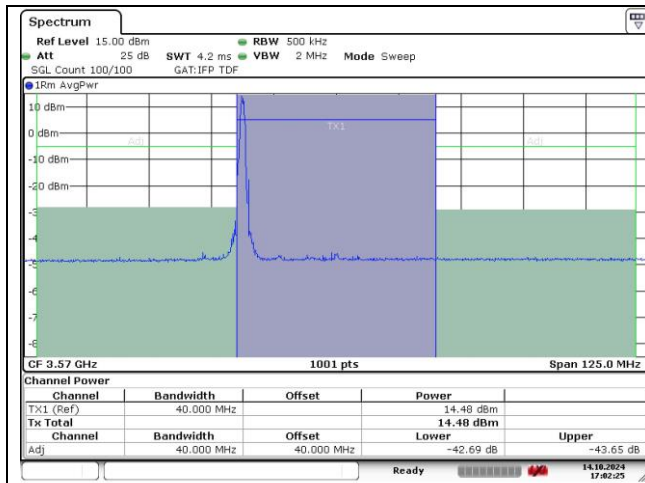
16QAM Low Channel - Full RB



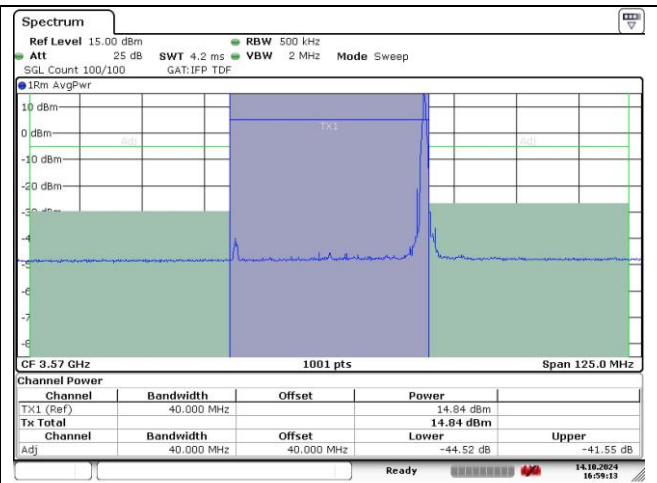
16QAM High Channel - Full RB

LTE band 48 (40 MHz) Ant. 1

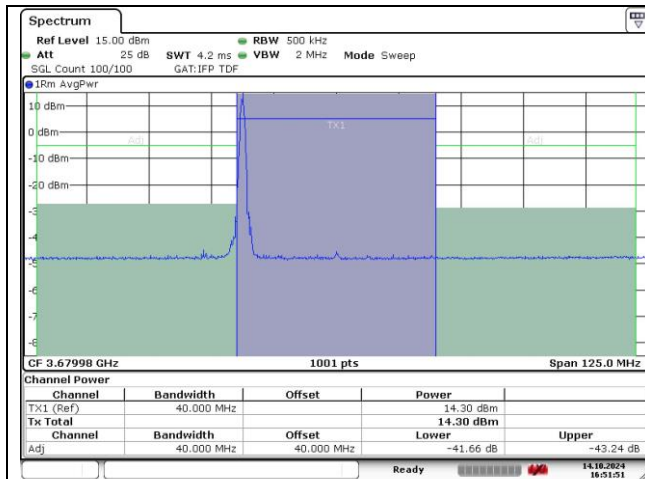




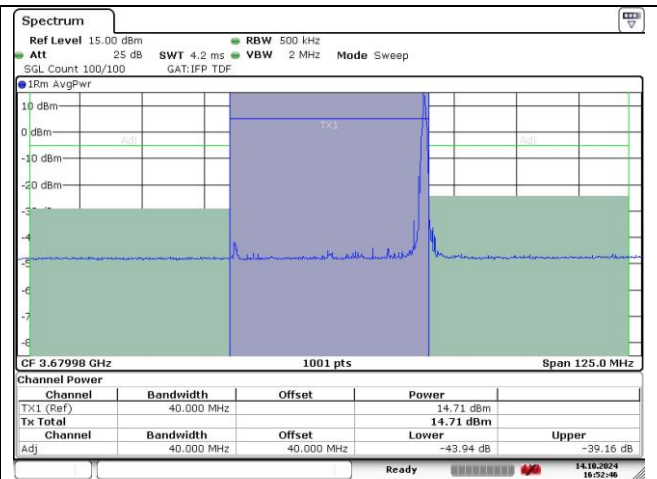
16QAM Low Channel - 1 RB



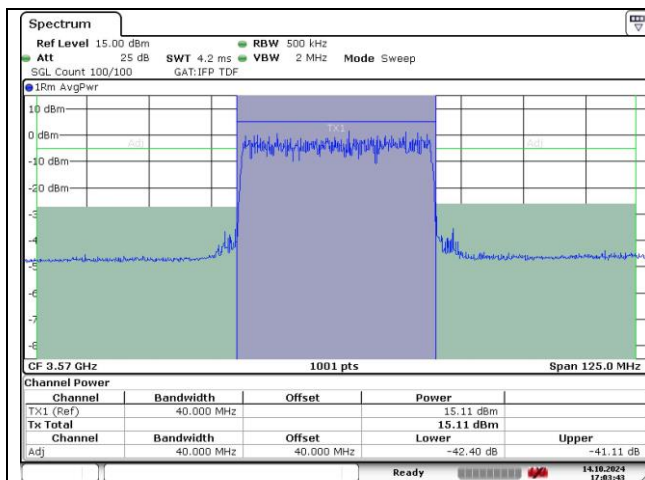
16QAM Low Channel - 1 RB



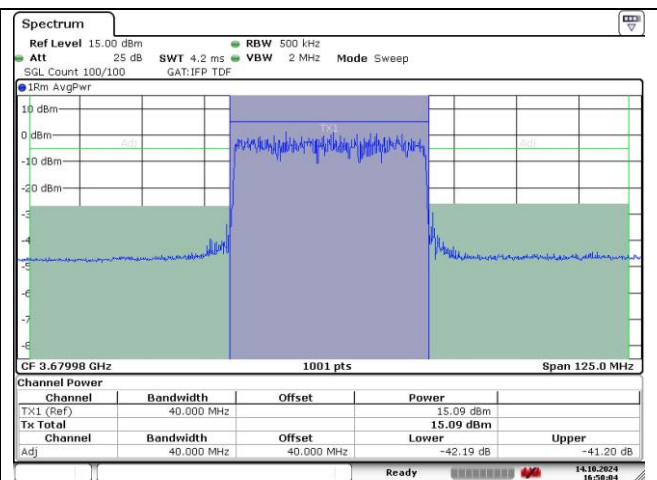
16QAM High Channel - 1 RB



16QAM High Channel - 1 RB

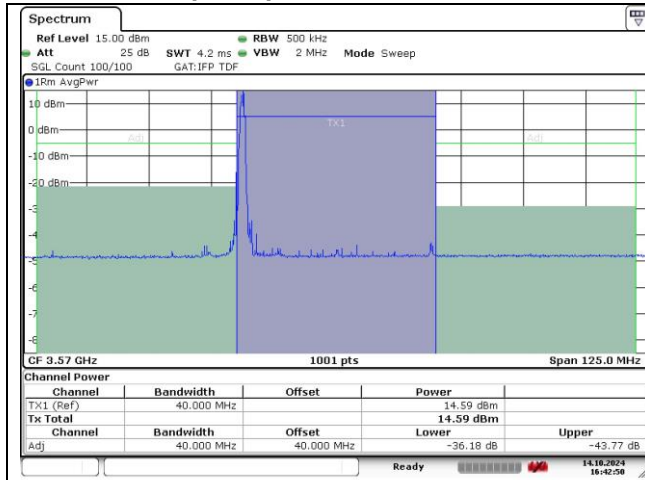


16QAM Low Channel - Full RB

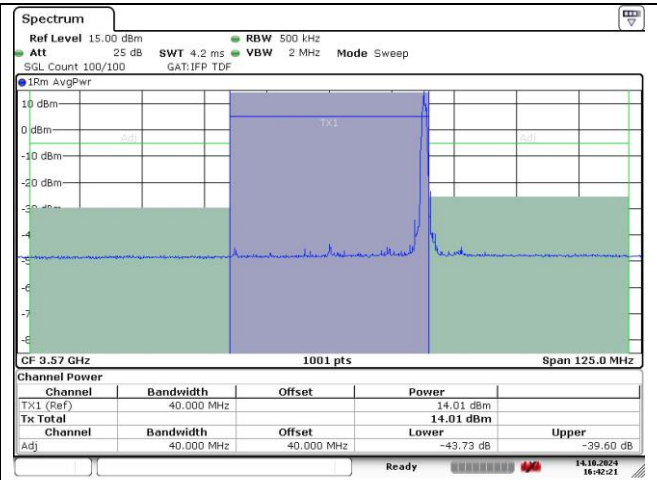


16QAM High Channel - Full RB

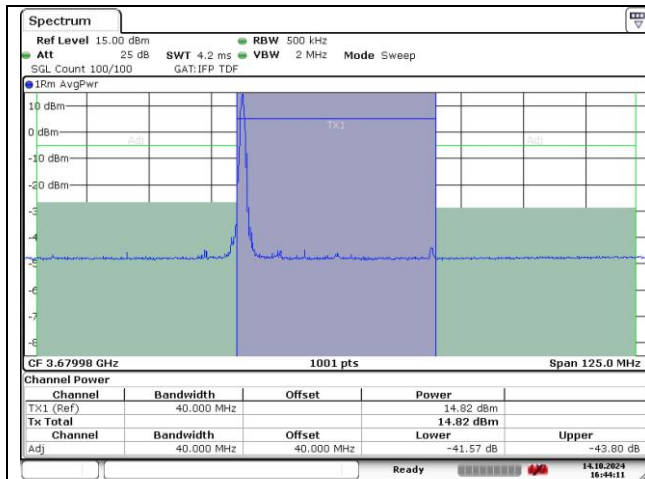
LTE band 48 (40 MHz) Ant. 2



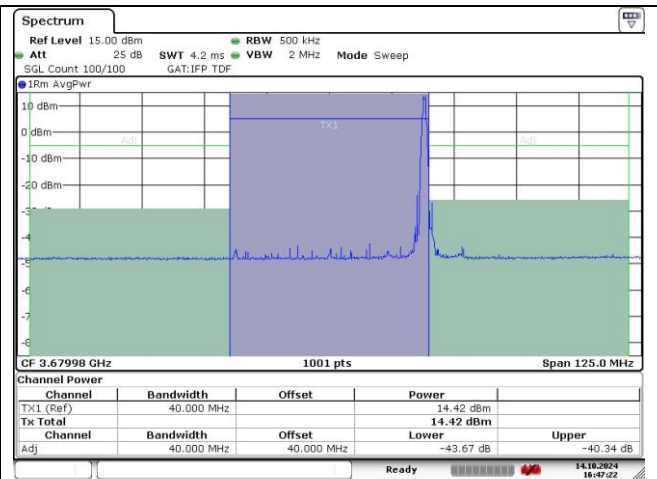
QPSK Low Channel - 1 RB



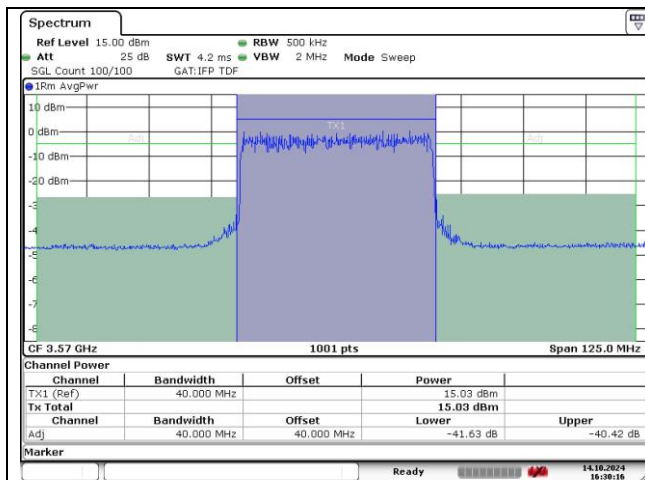
QPSK Low Channel - 1 RB



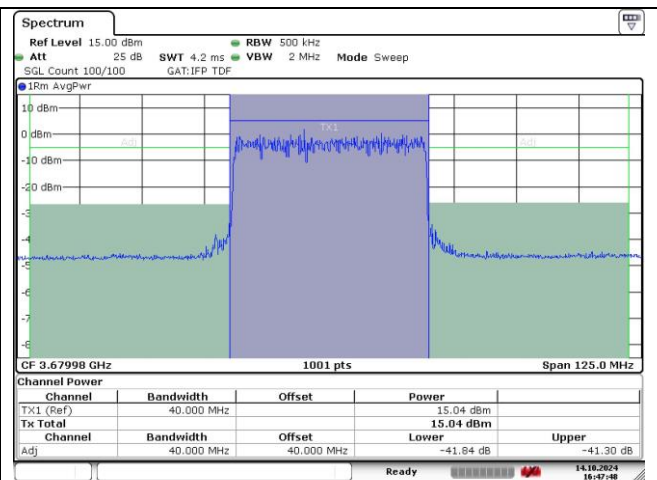
QPSK High Channel - 1 RB



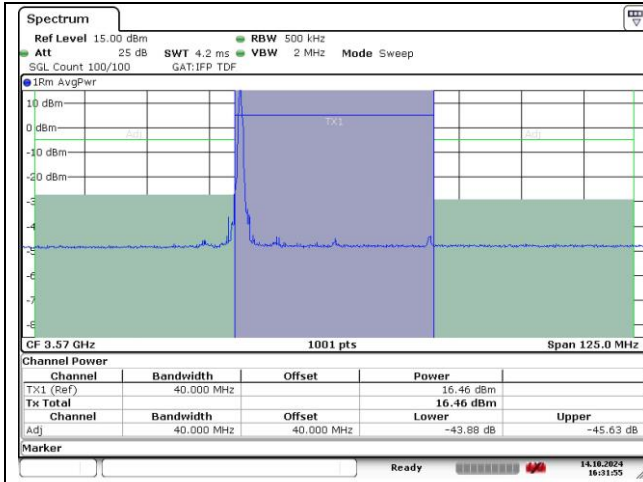
QPSK High Channel - 1 RB



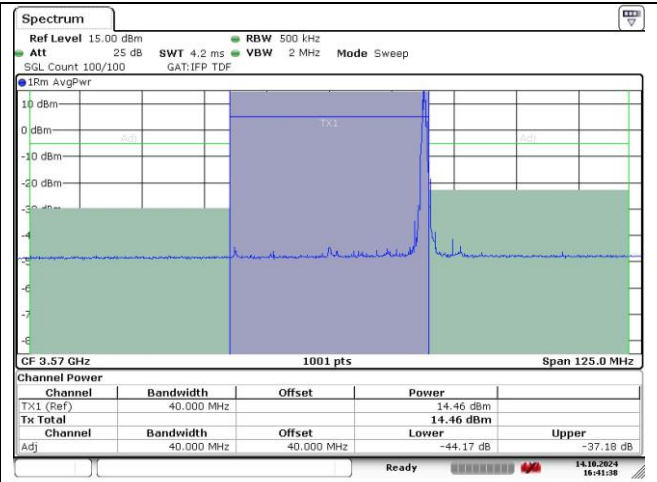
QPSK Low Channel - Full RB



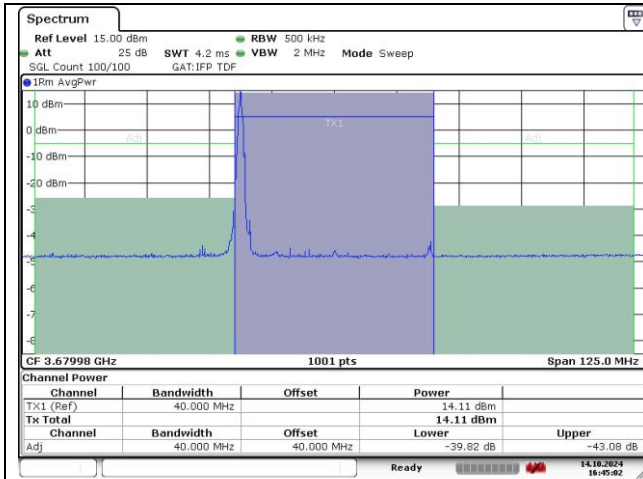
QPSK High Channel - Full RB



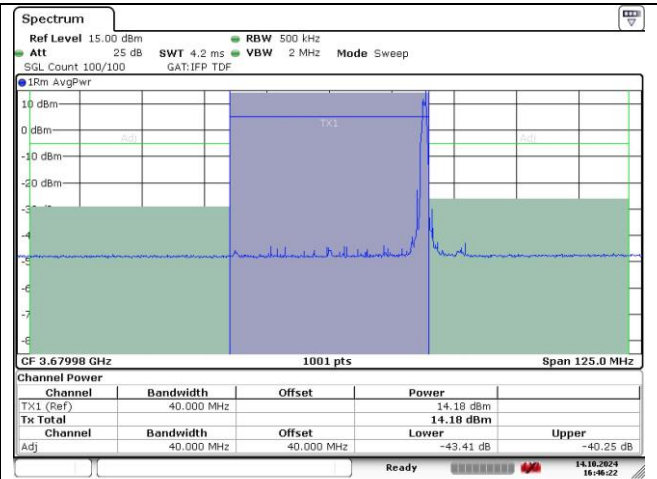
16QAM Low Channel - 1 RB



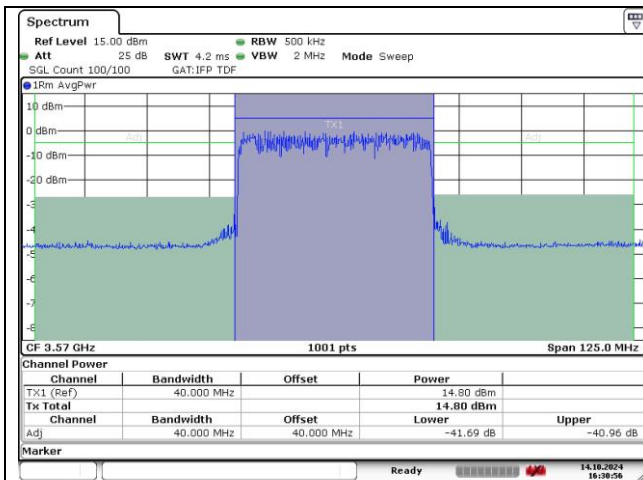
16QAM Low Channel - 1 RB



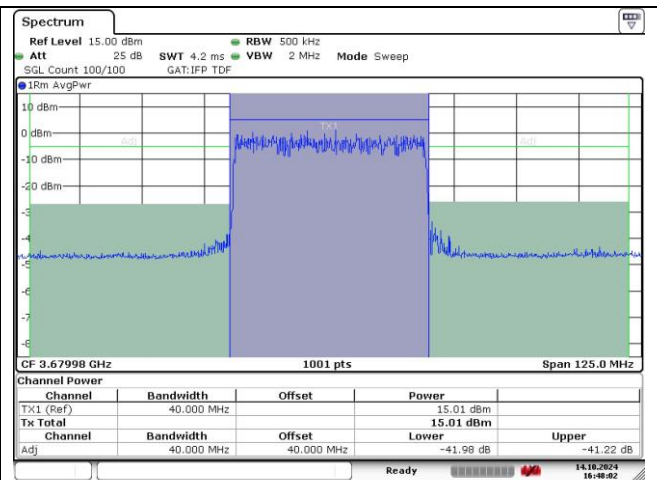
16QAM High Channel - 1 RB



16QAM High Channel - 1 RB



16QAM Low Channel - Full RB



16QAM High Channel - Full RB

8. Frequency Stability

8.1. Limit

- § 2.1055 (a), § 2.1055 (d)

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

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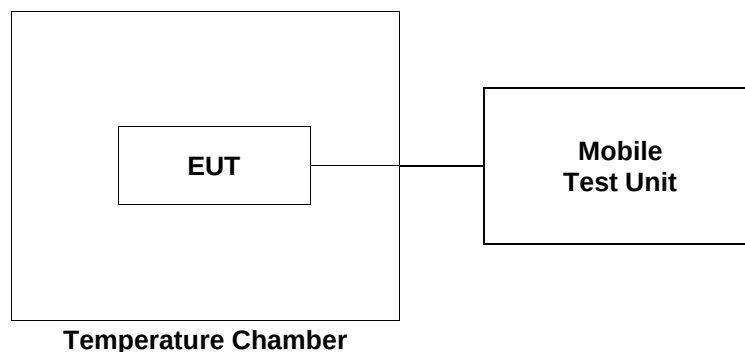
5.4, the frequency stability shall be sufficient to ensure that the occupied bandwidth stays within the operating frequency block or frequency block group when tested at the temperature and supply voltage variations specified in RSS-Gen.

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5.4, the frequency stability shall be sufficient to ensure that the occupied bandwidth stays within the operating frequency block or frequency block group when tested at the temperature and supply voltage variations specified in RSS-Gen.

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.



8.3. Test Results

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

NR band 48 Band at middle channel

Reference Frequency: 3 624.99 MHz					
Frequency Stability versus Temperature					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
50	4.10	-5.80	-12.80	-0.003 83	-0.007 37
40		11.20	-5.30	0.000 86	-0.005 30
30		-5.90	15.50	-0.003 86	0.000 44
20(Ref.)		8.10	13.90	-	-
10		13.30	-7.80	0.001 43	-0.005 99
0		-4.30	16.90	-0.003 42	0.000 83
-10		-8.90	9.20	-0.004 69	-0.001 30
-20		14.10	13.80	0.001 66	-0.000 03
-30		2.90	18.50	-0.001 43	0.001 27
Frequency Stability versus Power Supply					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
20	3.49 (85%)	5.50	15.80	-0.000 72	0.000 52
	4.72 (115%)	13.70	17.30	0.001 54	0.000 94

NR band 77_Low Band at middle channel (FCC)

Reference Frequency: 3 500.01 MHz					
Frequency Stability versus Temperature					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
50	4.10	-2.90	3.80	0.002 17	0.002 77
40		5.30	-11.80	0.004 51	-0.001 69
30		1.80	-9.30	0.003 51	-0.000 97
20(Ref.)		-10.50	-5.90	-	-
10		-5.70	-12.50	0.001 37	-0.001 89
0		-15.30	-13.80	-0.001 37	-0.002 26
-10		-8.60	-1.90	0.000 54	0.001 14
-20		3.30	-15.50	0.003 94	-0.002 74
-30		-7.10	-9.90	0.000 97	-0.001 14
Frequency Stability versus Power Supply					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
20	3.49 (85%)	-17.90	-4.90	-0.002 11	0.000 29
	4.72 (115%)	-12.80	-5.70	-0.000 66	0.000 06

NR band 77_High Band at middle channel (FCC)

Reference Frequency: 3 840 MHz					
Frequency Stability versus Temperature					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
50	4.10	4.50	8.80	0.000 52	-0.000 70
40		1.80	5.30	-0.000 18	-0.001 61
30		7.70	10.90	0.001 35	-0.000 16
20(Ref.)		2.50	11.50	-	-
10		-5.90	-1.10	-0.002 19	-0.003 28
0		4.40	-9.70	0.000 49	-0.005 52
-10		8.10	5.20	0.001 46	-0.001 64
-20		2.90	15.90	0.000 10	0.001 15
-30		-4.80	12.80	-0.001 90	0.000 34
Frequency Stability versus Power Supply					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
20	3.49 (85%)	5.80	8.10	0.000 86	-0.000 89
	4.72 (115%)	11.20	1.90	0.002 27	-0.002 50

NR band 77_Low Band at middle channel (IC)

Reference Frequency: 3 675 MHz					
Frequency Stability versus Temperature					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
50	4.10	-11.80	-5.90	-0.006 80	-0.004 52
40		-5.20	-15.20	-0.005 01	-0.007 05
30		-8.80	-4.30	-0.005 99	-0.004 08
20(Ref.)		13.20	10.70	-	-
10		5.70	15.80	-0.002 04	0.001 39
0		15.50	13.20	0.000 63	0.000 68
-10		18.80	16.80	0.001 52	0.001 66
-20		10.80	5.70	-0.000 65	-0.001 36
-30		6.70	7.20	-0.001 77	-0.000 95
Frequency Stability versus Power Supply					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
20	3.49 (85%)	15.70	6.90	0.000 68	-0.001 03
	4.72 (115%)	10.70	5.80	-0.000 68	-0.001 33

NR band 77_High Band at middle channel (IC)

Reference Frequency: 3 939.99 MHz					
Frequency Stability versus Temperature					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
50	4.10	-18.80	-11.10	-0.007 54	-0.007 66
40		-11.90	16.90	-0.005 79	-0.000 56
30		15.80	12.20	0.001 24	-0.001 75
20(Ref.)		10.90	19.10	-	-
10		13.20	18.10	0.000 58	-0.000 25
0		-8.50	14.20	-0.004 92	-0.001 24
-10		-3.20	-8.90	-0.003 58	-0.007 11
-20		11.90	-1.30	0.000 25	-0.005 18
-30		9.80	11.80	-0.000 28	-0.001 85
Frequency Stability versus Power Supply					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
20	3.49 (85%)	5.80	13.70	-0.001 29	-0.001 37
	4.72 (115%)	14.40	18.80	0.000 89	-0.000 08

NR band 78_Low Band at middle channel (FCC)

Reference Frequency: 3 500.01 MHz					
Frequency Stability versus Temperature					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
50	4.10	-7.90	-11.80	-0.006 37	-0.005 69
40		-2.10	4.30	-0.004 71	-0.001 09
30		18.80	13.80	0.001 26	0.001 63
20(Ref.)		14.40	8.10	-	-
10		-11.30	12.10	-0.007 34	0.001 14
0		16.20	-5.10	0.000 51	-0.003 77
-10		10.80	-3.30	-0.001 03	-0.003 26
-20		5.90	16.20	-0.002 43	0.002 31
-30		8.80	11.70	-0.001 60	0.001 03
Frequency Stability versus Power Supply					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
20	3.49 (85%)	12.30	8.80	-0.000 60	0.000 20
	4.72 (115%)	11.80	1.90	-0.000 74	-0.001 77

NR band 78_High Band at middle channel (FCC)

Reference Frequency: 3 750 MHz					
Frequency Stability versus Temperature					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
50	4.10	20.80	11.90	0.001 04	0.001 12
40		11.80	-13.80	-0.001 36	-0.005 73
30		-13.80	-3.90	-0.008 19	-0.003 09
20(Ref.)		16.90	7.70	-	-
10		-5.90	15.80	-0.006 08	0.002 16
0		4.40	19.20	-0.003 33	0.003 07
-10		15.80	11.80	-0.000 29	0.001 09
-20		12.20	-10.70	-0.001 25	-0.004 91
-30		-7.80	-6.60	-0.006 59	-0.003 81
Frequency Stability versus Power Supply					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
20	3.49 (85%)	-7.30	-1.80	-0.006 45	-0.002 53
	4.72 (115%)	-11.80	-15.10	-0.007 65	-0.006 08

NR band 78 Band at middle channel (IC)

Reference Frequency: 3 624.99 MHz					
Frequency Stability versus Temperature					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
50	4.10	7.20	2.90	0.003 59	0.004 17
40		-16.90	11.50	-0.003 96	0.006 54
30		13.20	7.80	0.005 24	0.005 52
20(Ref.)		-5.80	-12.20	-	-
10		11.90	-18.80	0.004 88	-0.001 82
0		7.10	-15.90	0.003 56	-0.001 02
-10		2.80	-5.80	0.002 37	0.001 77
-20		-13.80	12.10	-0.002 21	0.006 70
-30		12.70	6.80	0.005 10	0.005 24
Frequency Stability versus Power Supply					
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse			
		Frequency Error (Hz)		ppm	
		Port 1	Port 2	Port 1	Port 2
20	3.49 (85%)	2.50	-7.10	0.002 29	0.001 41
	4.72 (115%)	-6.80	-13.80	-0.000 28	-0.000 44

- End of the Test Report -