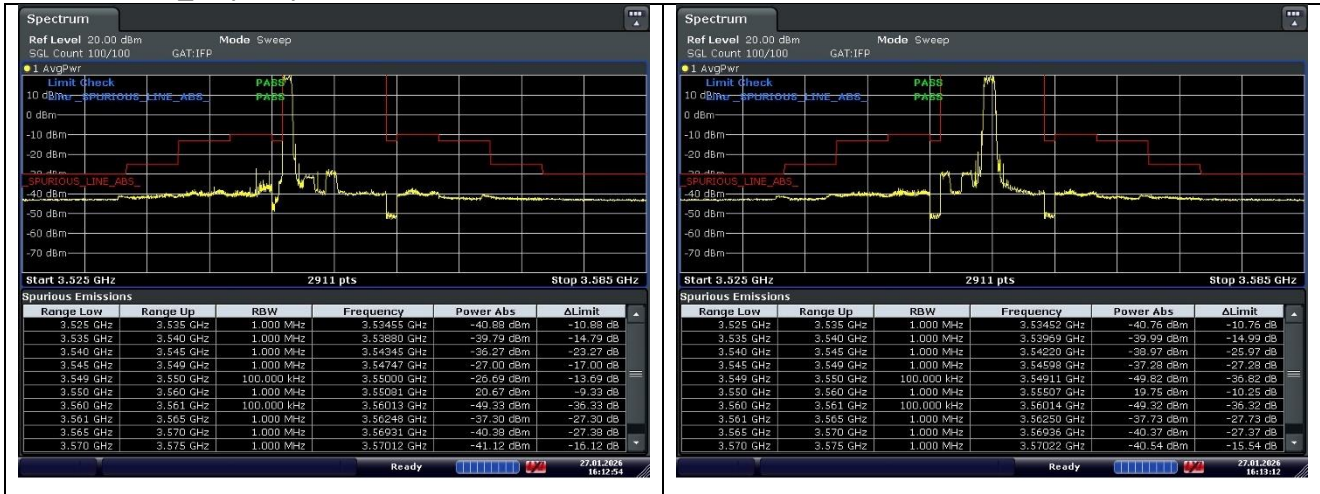


LTE band 48_IC (5 MHz)



16QAM Low Channel - 1 RB



16QAM Low Channel - Full RB

LTE band 48_IC (5 MHz)

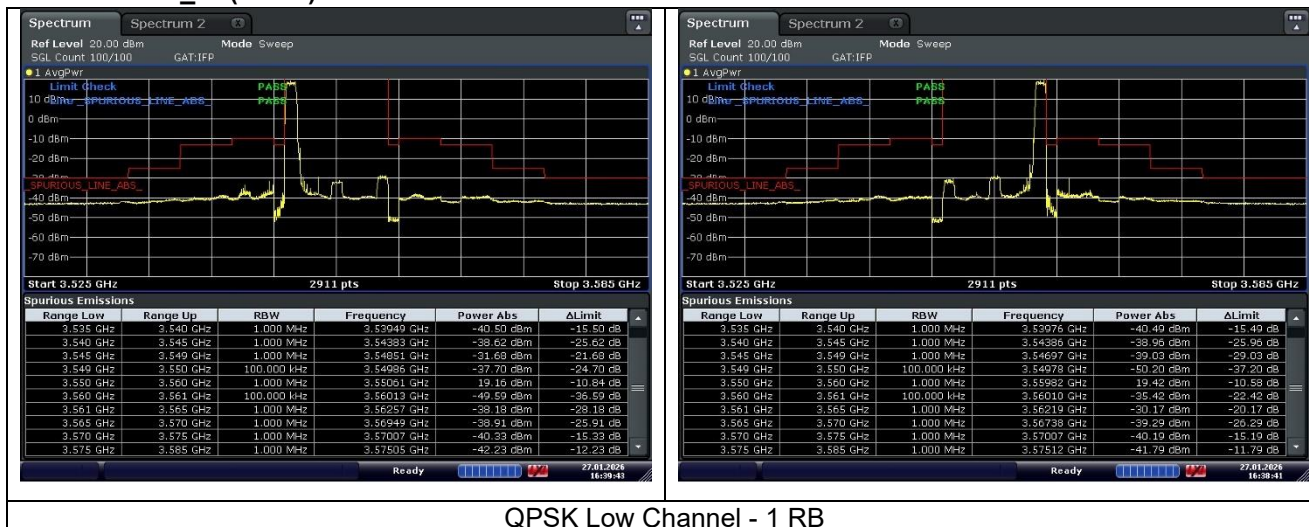


16QAM High Channel - 1 RB



16QAM High Channel - Full RB

LTE band 48_IC (10 MHz)

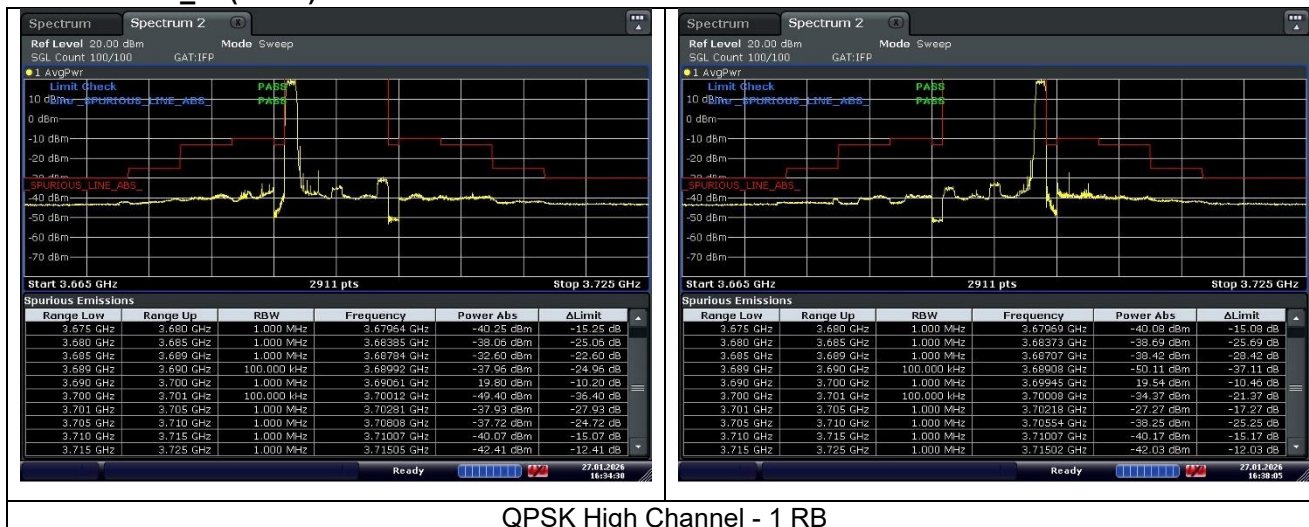


QPSK Low Channel - 1 RB

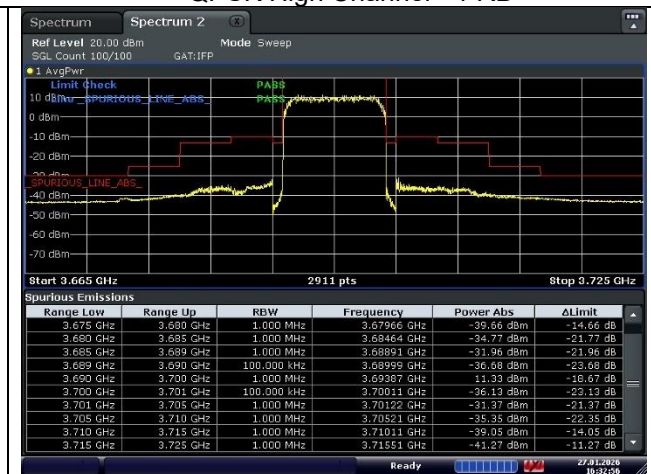


QPSK Low Channel - Full RB

LTE band 48_IC (10 MHz)



QPSK High Channel - 1 RB



QPSK High Channel - Full RB

LTE band 48_IC (10 MHz)



16QAM Low Channel - 1 RB



16QAM Low Channel - Full RB

LTE band 48_IC (10 MHz)

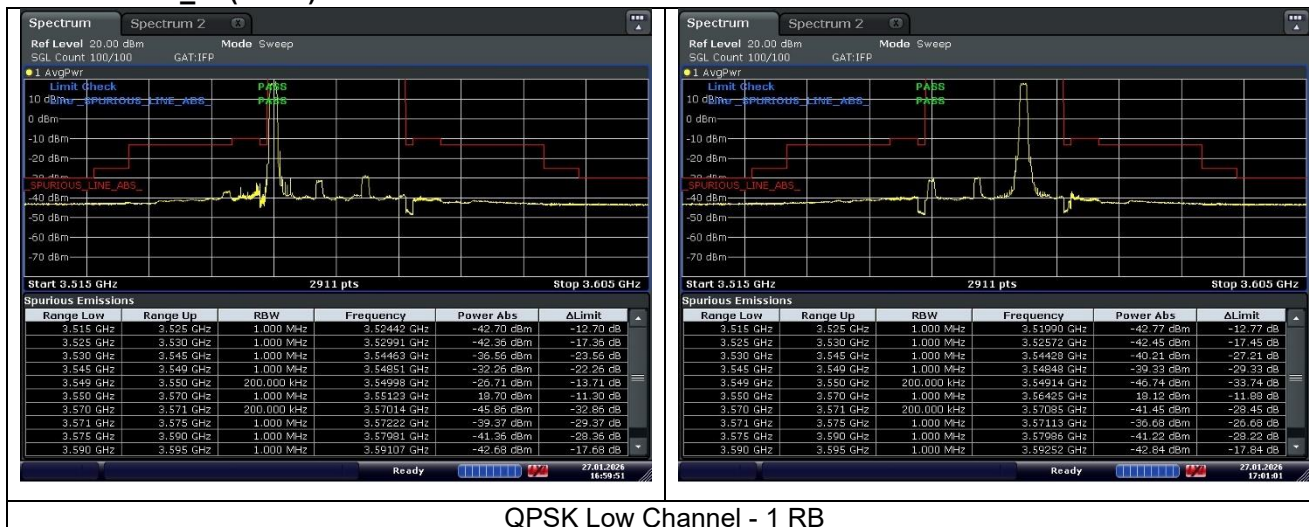


16QAM High Channel - 1 RB

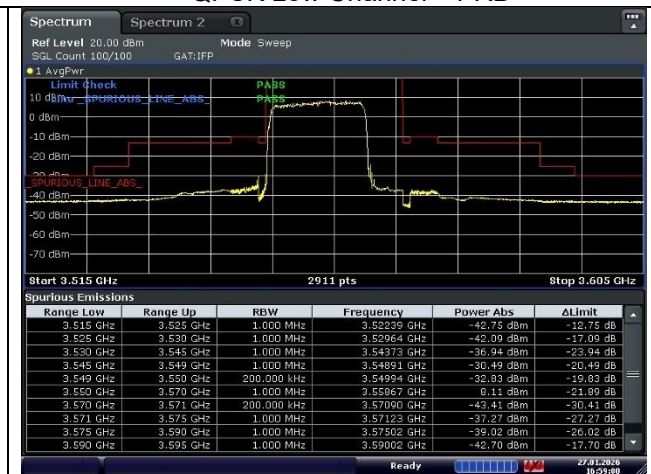


16QAM High Channel - Full RB

LTE band 48_IC (15 MHz)

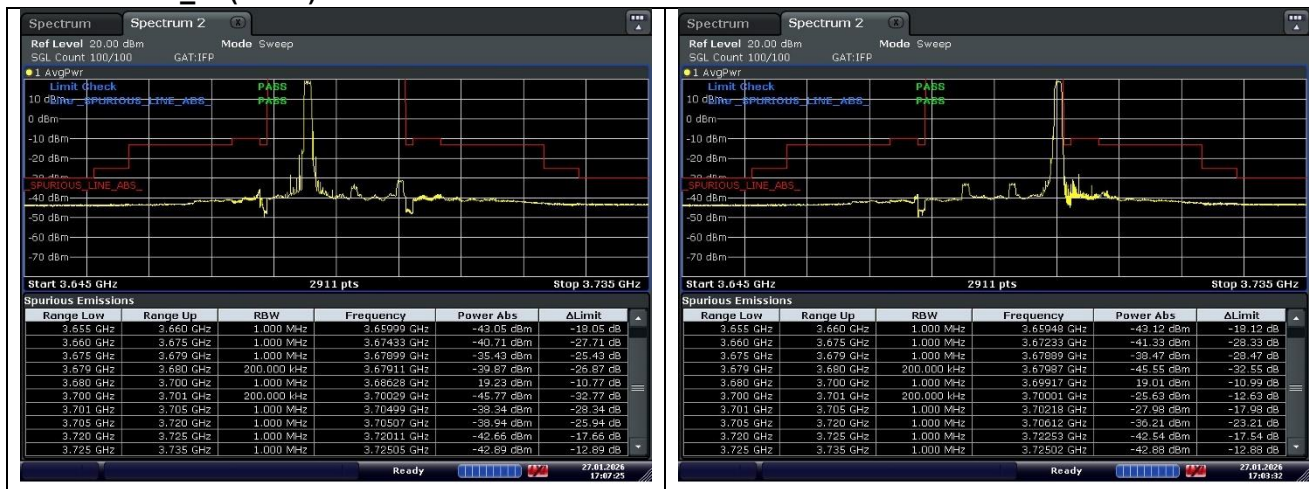


QPSK Low Channel - 1 RB

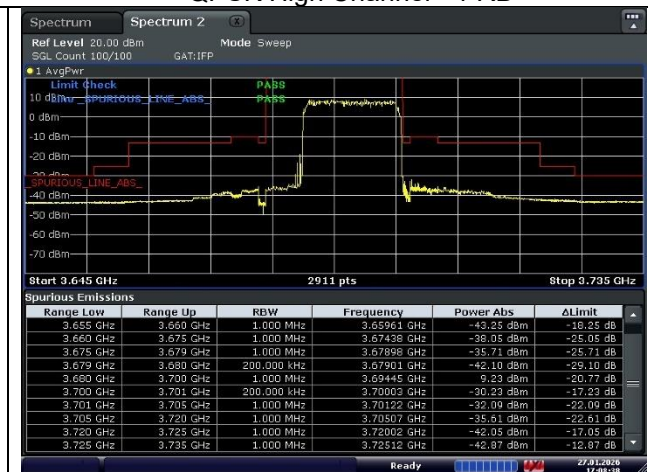


QPSK Low Channel - Full RB

LTE band 48_IC (15 MHz)

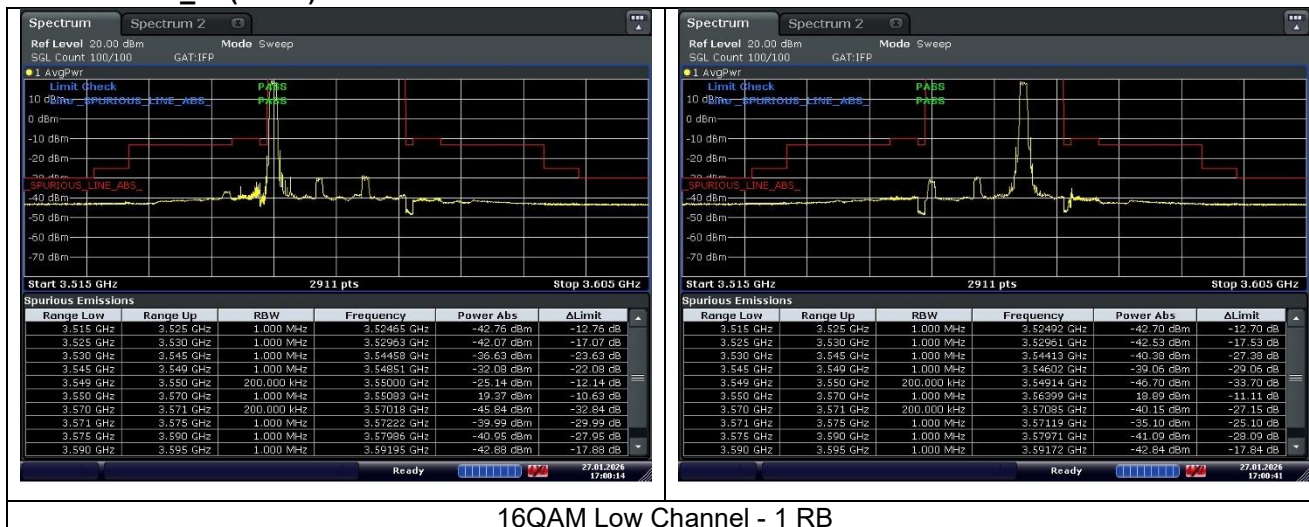


QPSK High Channel - 1 RB

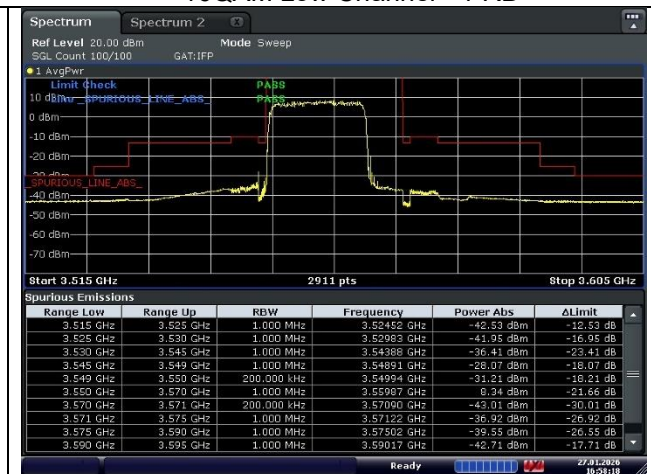


QPSK High Channel - Full RB

LTE band 48_IC (15 MHz)



16QAM Low Channel - 1 RB

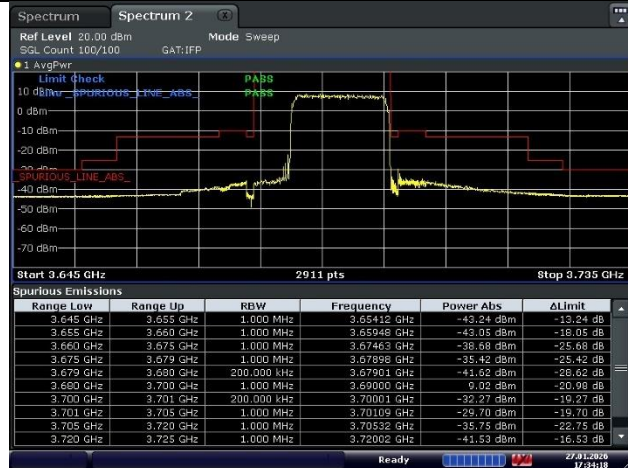


16QAM Low Channel - Full RB

LTE band 48_IC (15 MHz)

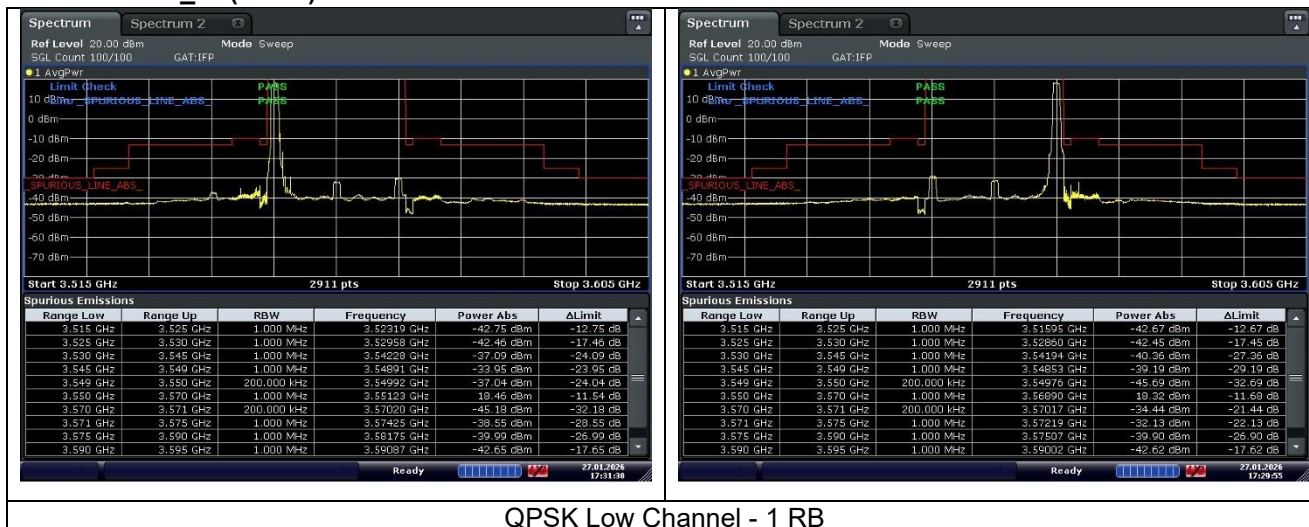


16QAM High Channel - 1 RB



16QAM High Channel - Full RB

LTE band 48_IC (20 MHz)

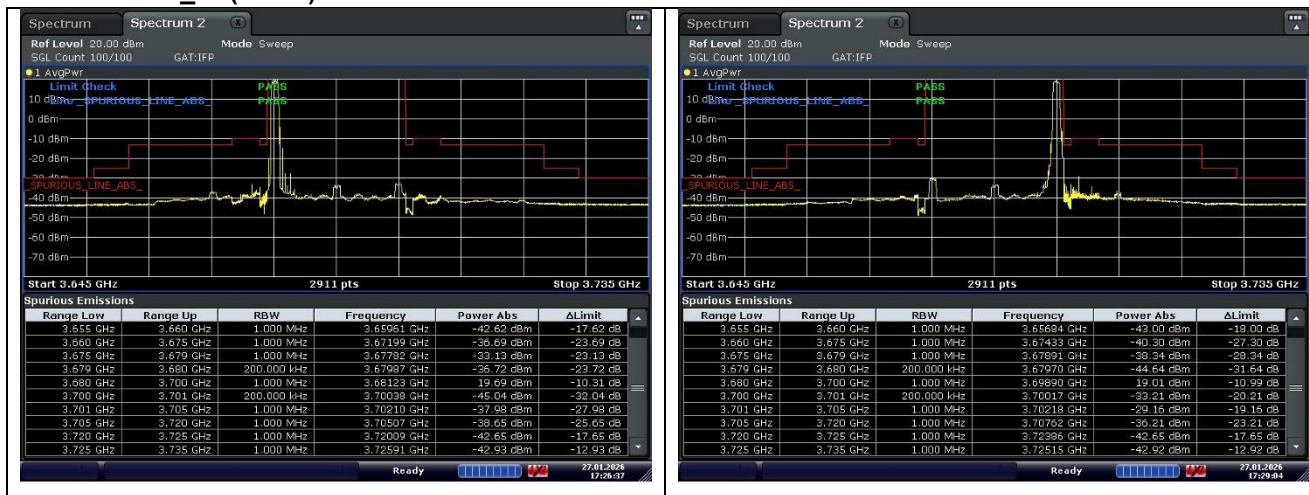


QPSK Low Channel - 1 RB



QPSK Low Channel - Full RB

LTE band 48_IC (20 MHz)

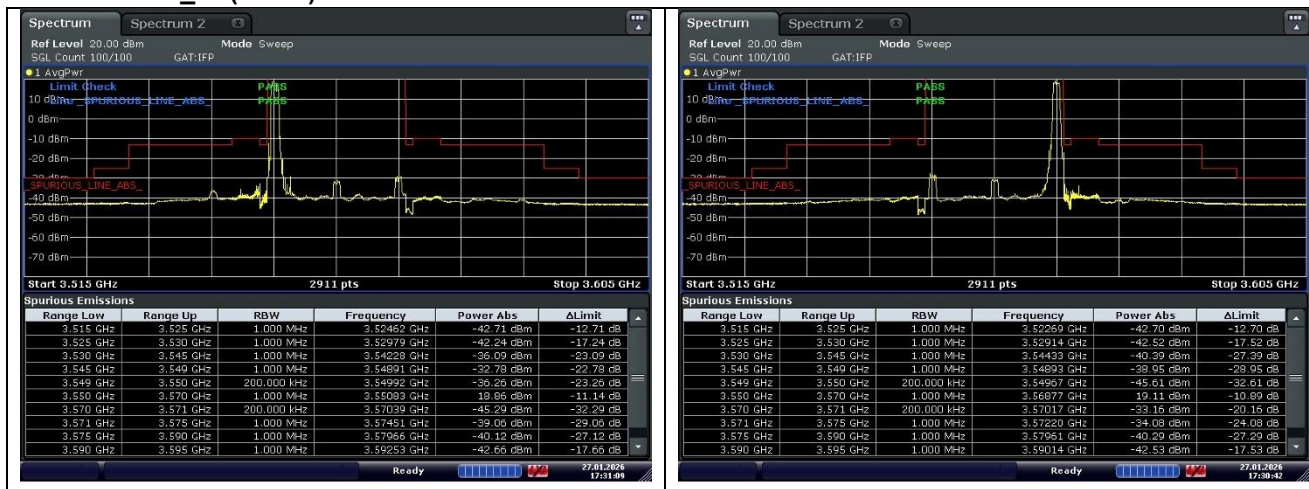


QPSK High Channel - 1 RB



QPSK High Channel - Full RB

LTE band 48_IC (20 MHz)

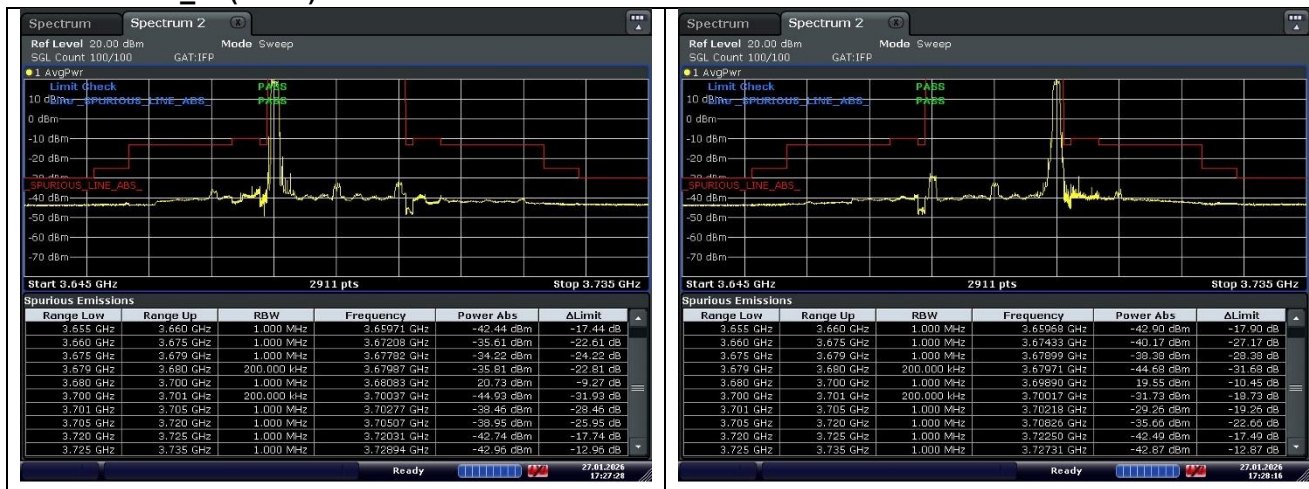


16QAM Low Channel - 1 RB



16QAM Low Channel - Full RB

LTE band 48_IC (20 MHz)



16QAM High Channel - 1 RB



16QAM High Channel - Full RB

8. Frequency Stability

8.1. Limit

FCC

- § 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.

IC

- RSS-Gen Issue 5

6.11, for licensed devices, the following measurement conditions apply:

a. at the temperatures of -30°C (-22°F), +20°C (+68°F) and +50°C (+122°F), and at the manufacturer's rated supply voltage

- RSS-192 Issue 5

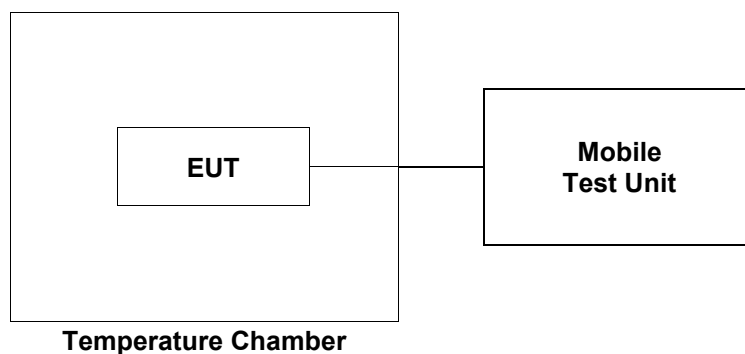
5.4, the frequency stability shall be sufficient to ensure that the occupied bandwidth stays within the operating frequency block or frequency block group when tested at the temperature and supply voltage variations specified in RSS-Gen.

- RSS-199 Issue 4

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 to 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 %

LTE band 41_FCC at middle channel

Reference Frequency: 2 593.0 MHz			
Frequency Stability versus Temperature			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
50	4.00	9.60	0.002 51
40		15.60	0.004 82
30		-6.20	-0.003 59
20(Ref.)		3.10	-
10		4.20	0.000 42
0		-9.60	-0.004 90
-10		6.20	0.001 20
-20		11.40	0.003 20
-30		-14.50	-0.006 79
Frequency Stability versus Power Supply			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
20	3.40 (85%)	4.50	0.000 54
	4.60 (115%)	2.60	-0.000 19

LTE band 41_IC at middle channel_Only IC

Reference Frequency: 2 595.0 MHz			
Frequency Stability versus Temperature			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
50	4.00	11.30	0.002 74
40		7.20	0.001 16
30		-6.10	-0.003 97
20(Ref.)		4.20	-
10		-6.10	-0.003 97
0		7.60	0.001 31
-10		13.70	0.003 66
-20		-12.40	-0.006 40
-30		8.70	0.001 73
Frequency Stability versus Power Supply			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
20	3.40 (85%)	3.50	-0.000 27
	4.60 (115%)	-2.70	-0.002 66

LTE band 48 at middle channel (IC)

Reference Frequency: 3 625.0 MHz			
Frequency Stability versus Temperature			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
50	4.00	23.00	0.007 83
40		-11.60	-0.001 71
30		4.70	0.002 79
20(Ref.)		-5.40	-
10		5.70	0.003 06
0		8.30	0.003 78
-10		-7.70	-0.000 63
-20		15.50	0.005 77
-30		17.90	0.006 43
Frequency Stability versus Power Supply			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
20	3.40 (85%)	3.40	0.002 43
	4.60 (115%)	-2.20	0.000 88

- End of the Test Report -