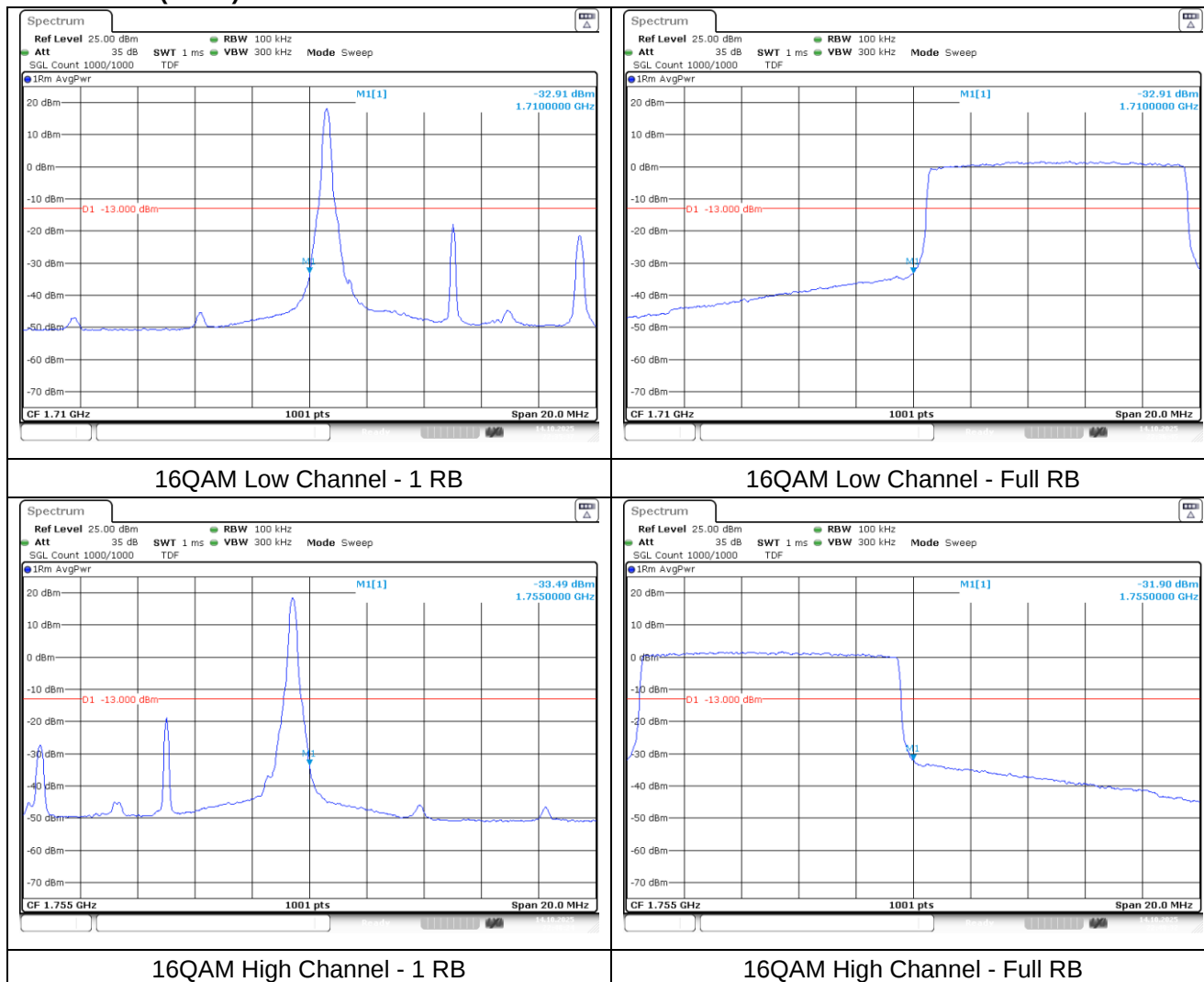
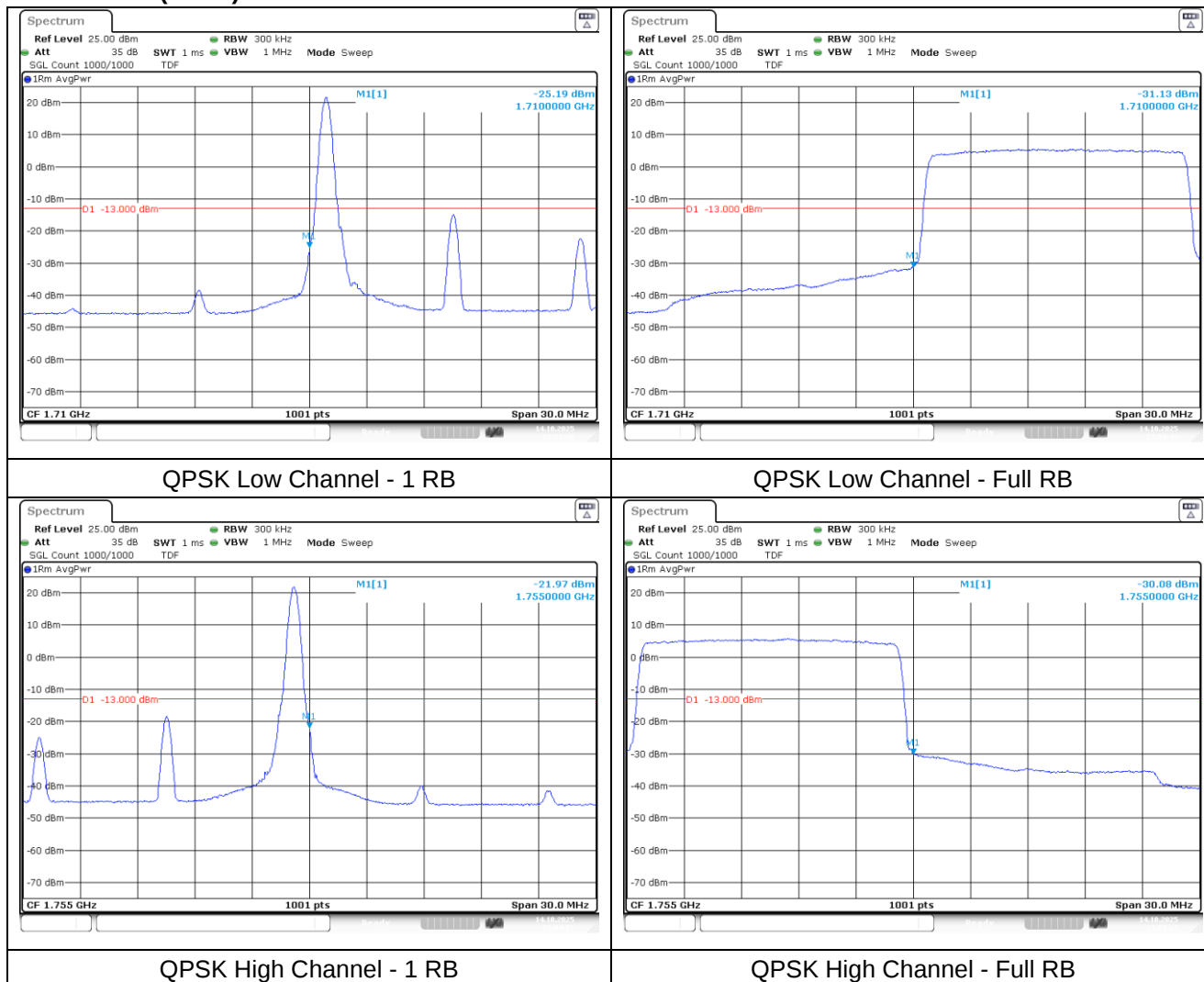


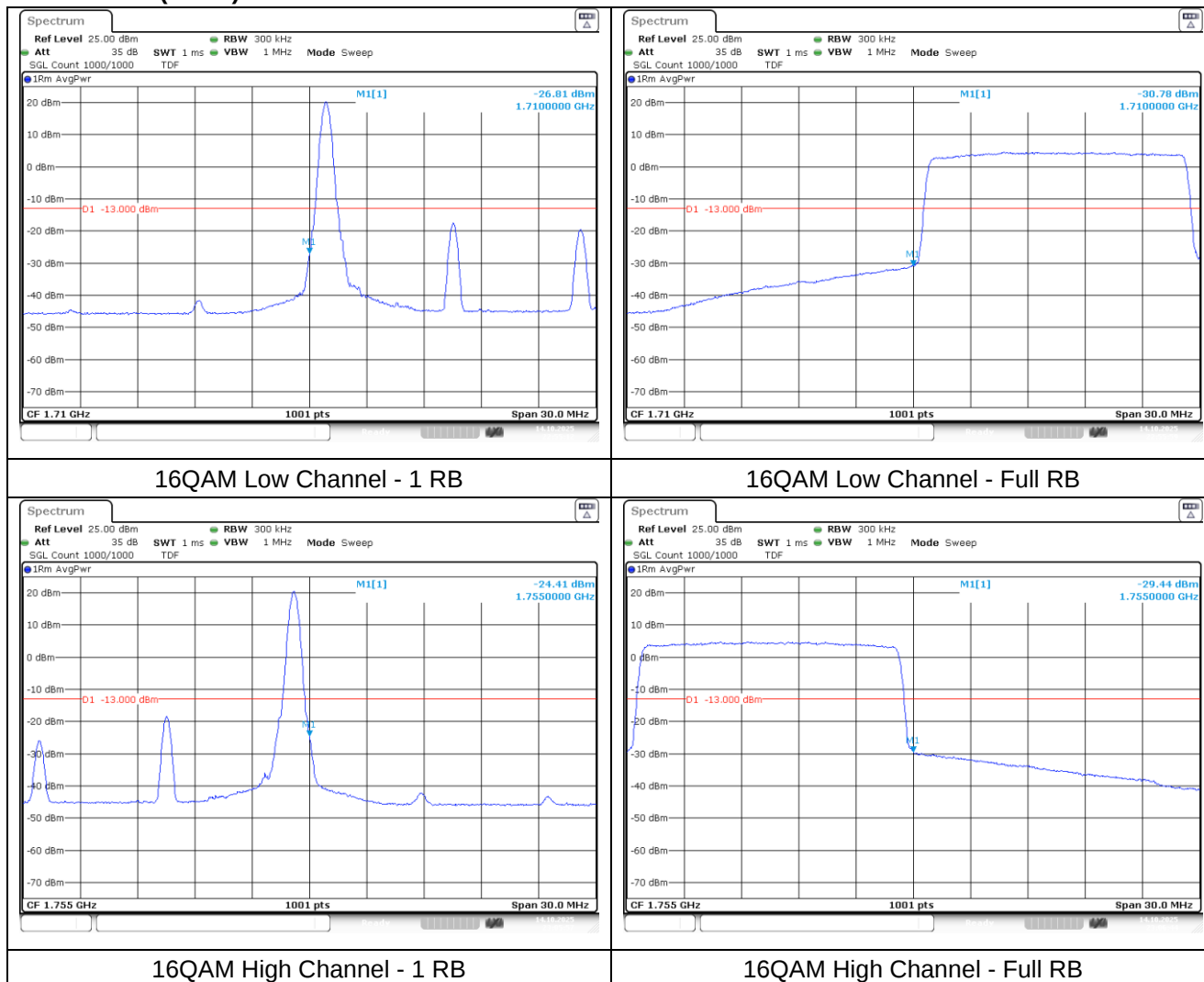
LTE band 4 (10 MHz)



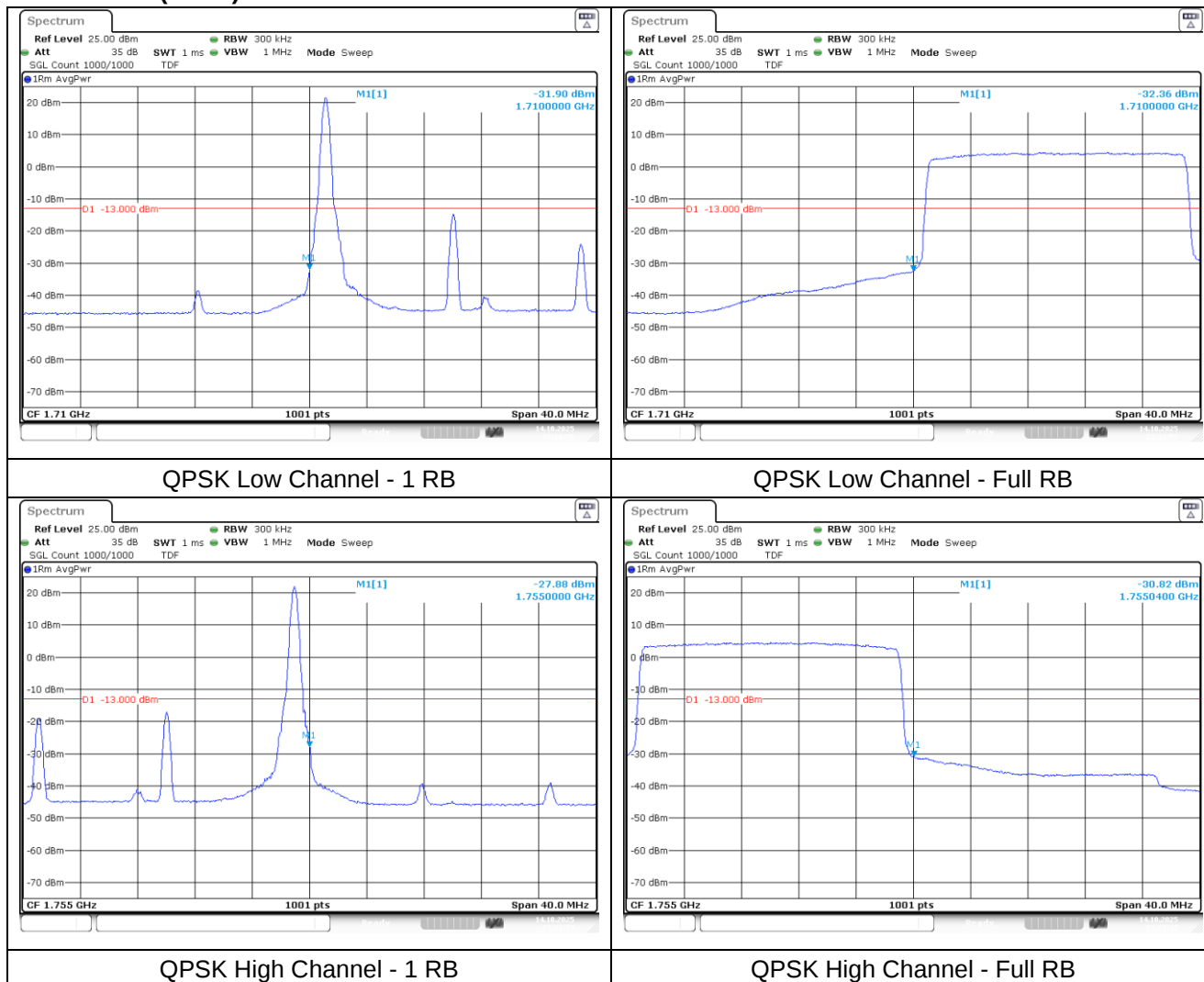
LTE band 4 (15 MHz)



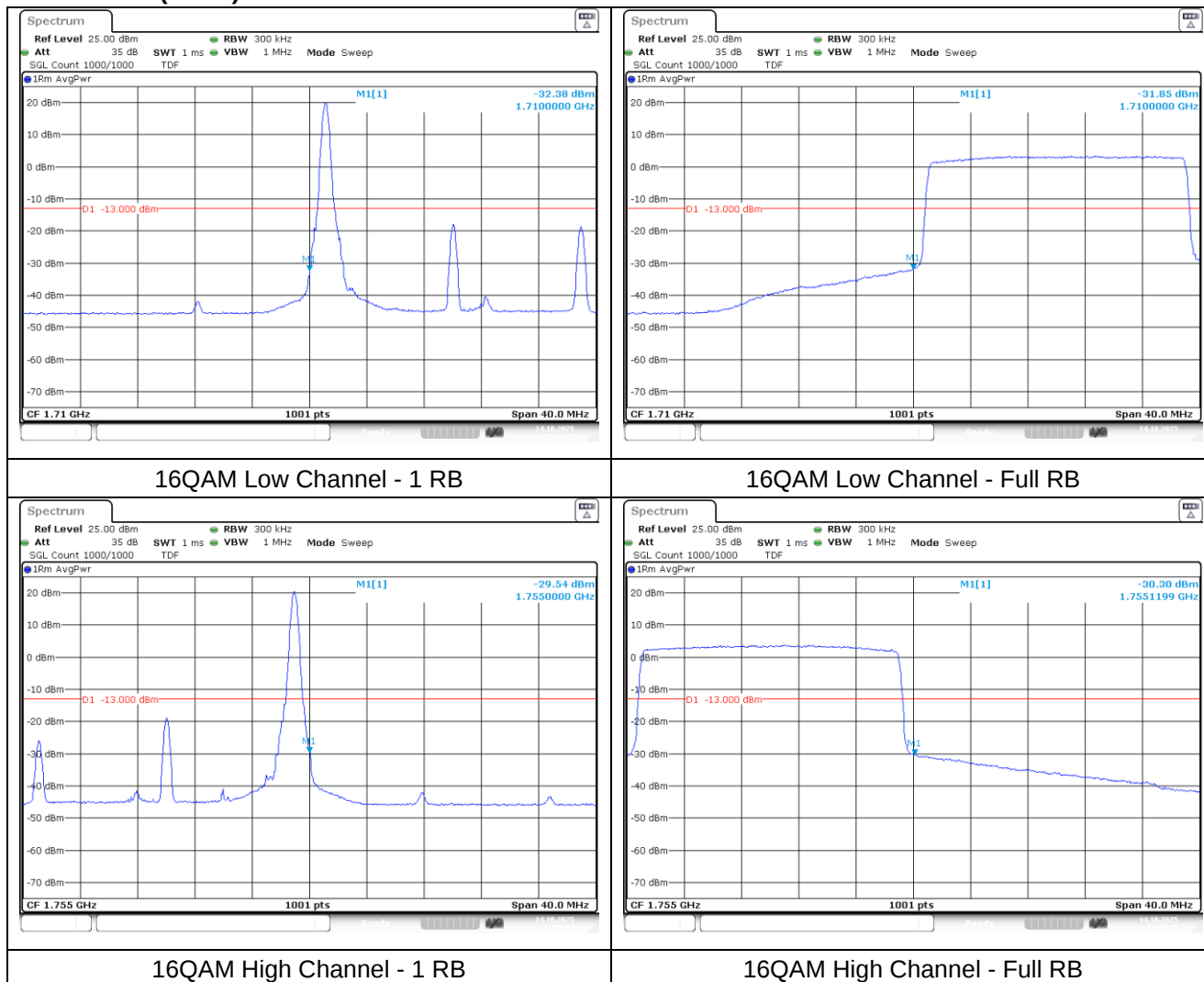
LTE band 4 (15 MHz)



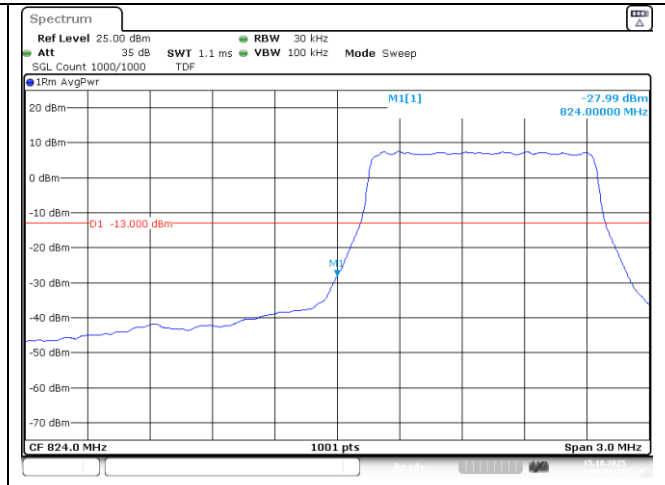
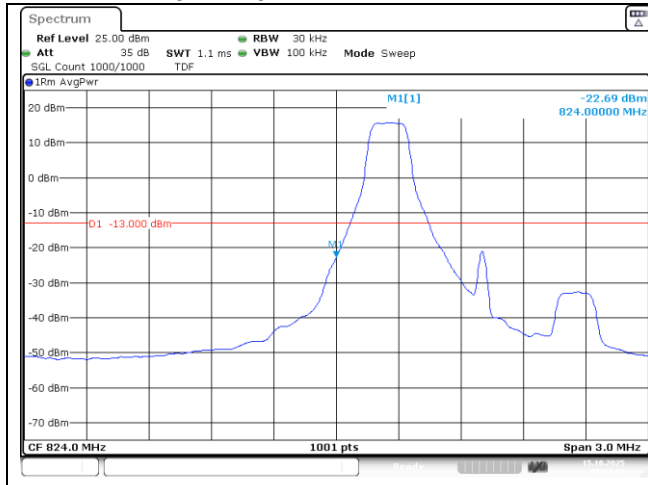
LTE band 4 (20 MHz)



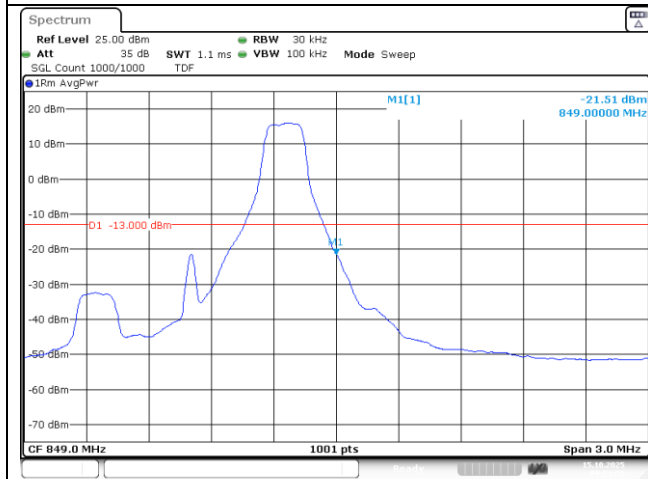
LTE band 4 (20 MHz)



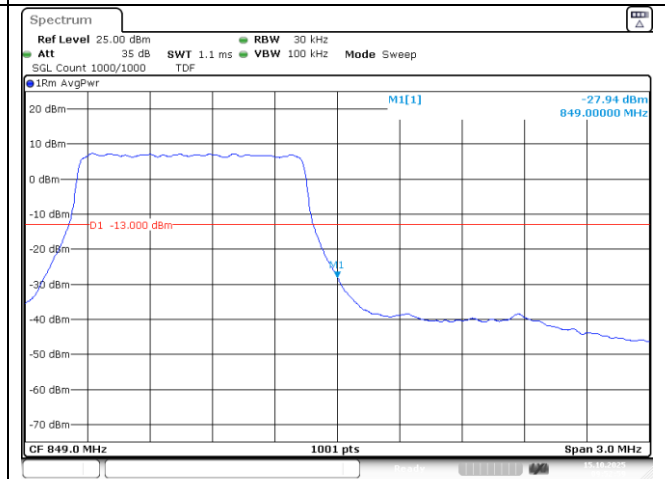
LTE band 5 (1.4 MHz)



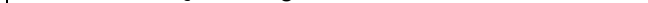
QPSK Low Channel - 1 RB



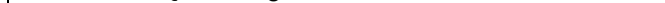
QPSK Low Channel - Full RB



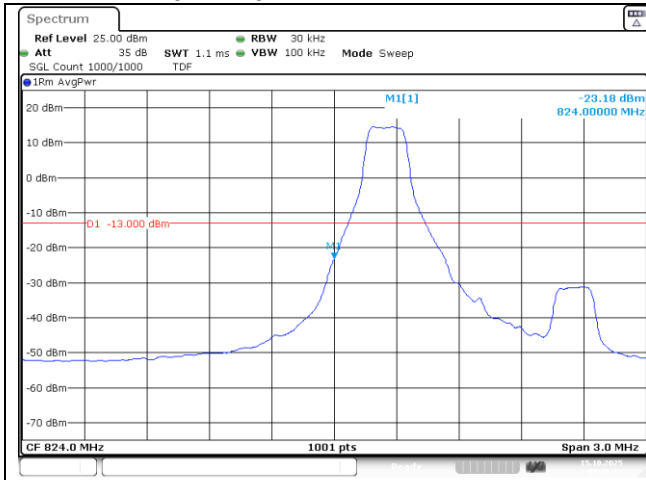
QPSK High Channel - 1 RB



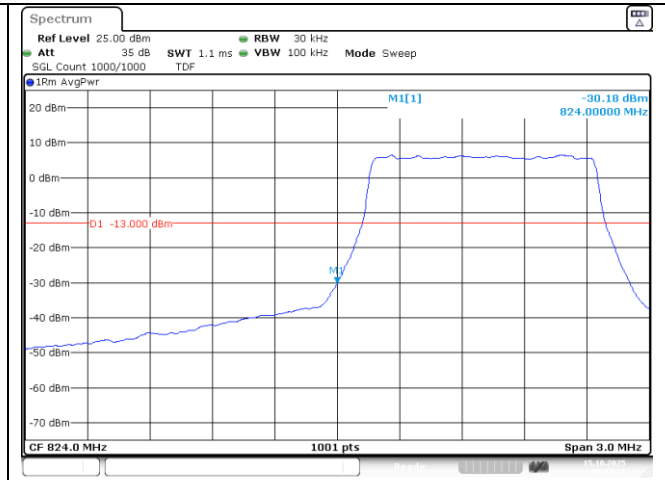
QPSK High Channel - Full RB



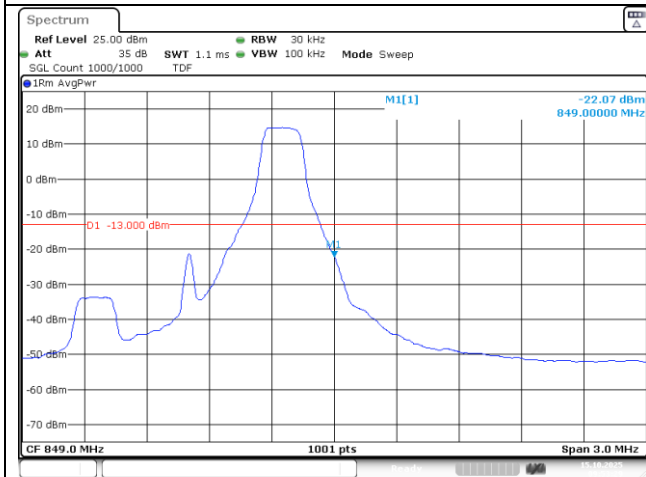
LTE band 5 (1.4 MHz)



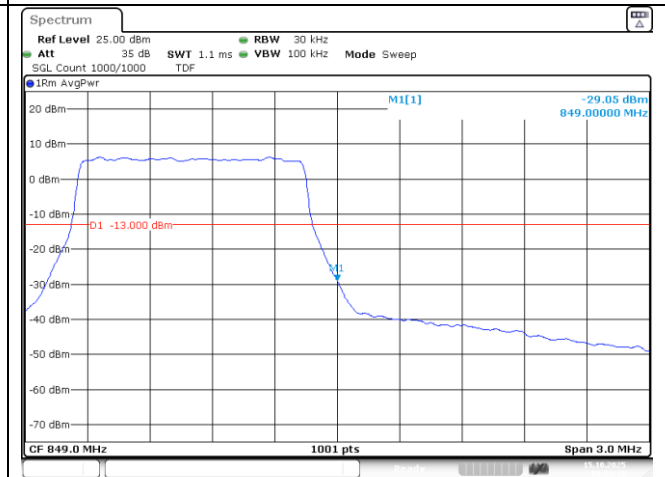
16QAM Low Channel - 1 RB



16QAM Low Channel - Full RB

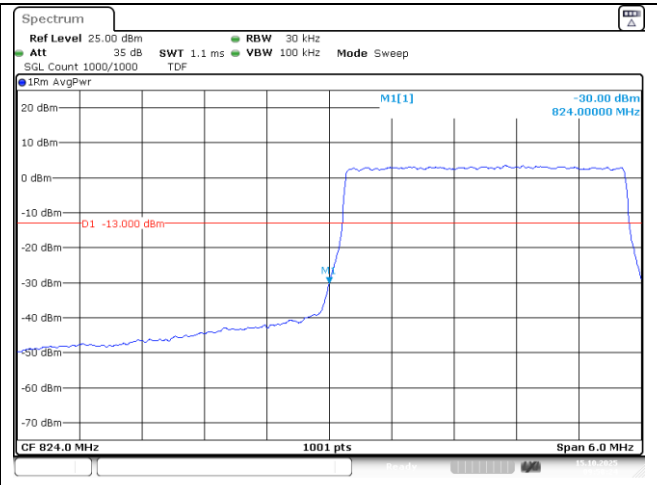
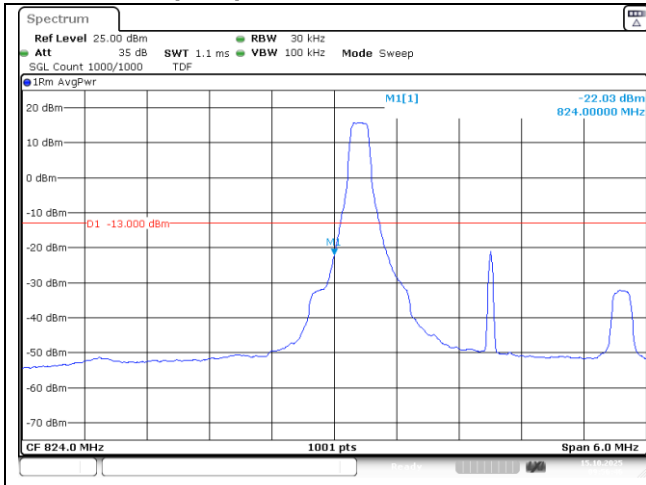


16QAM High Channel - 1 RB

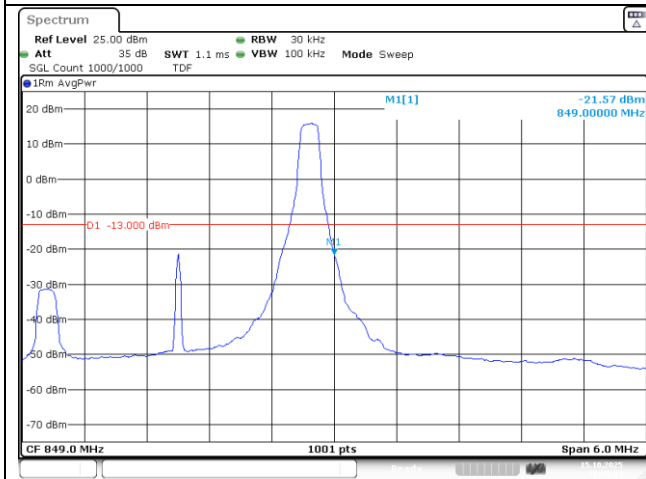


16QAM High Channel - Full RB

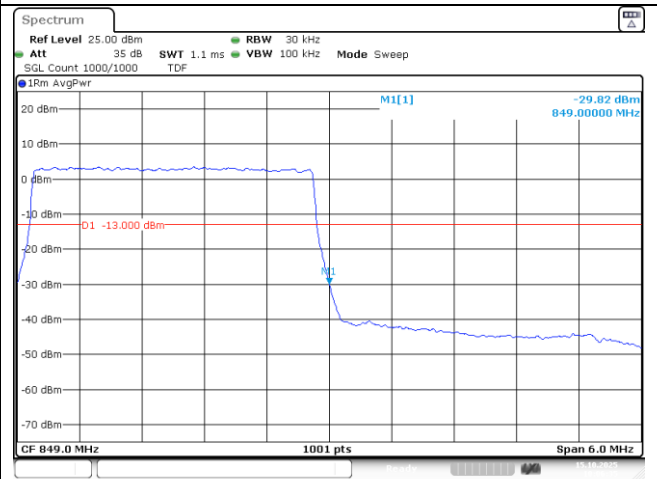
LTE band 5 (3 MHz)



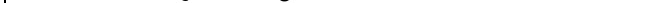
QPSK Low Channel - 1 RB



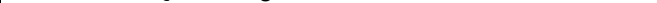
QPSK Low Channel - Full RB



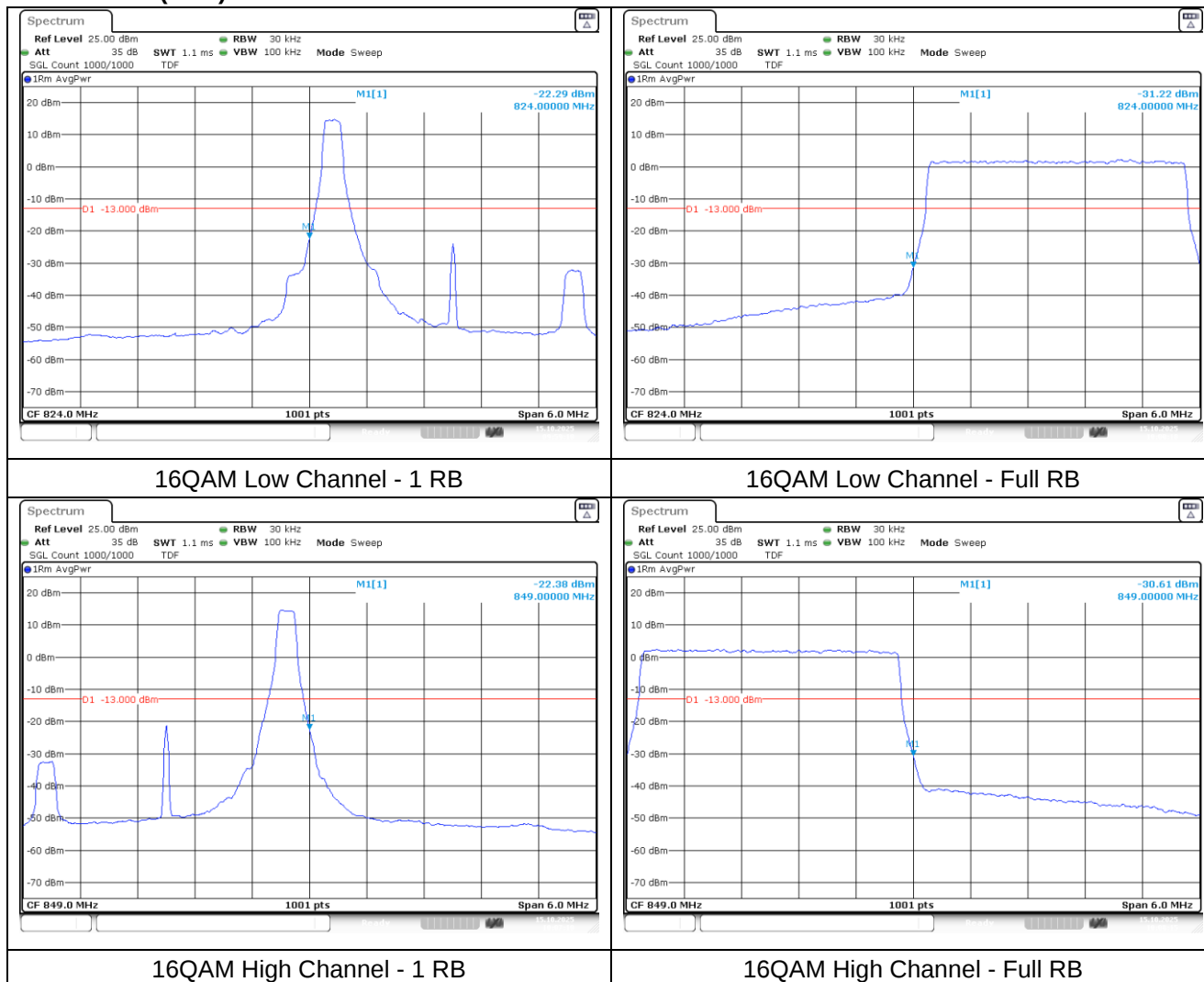
QPSK High Channel - 1 RB



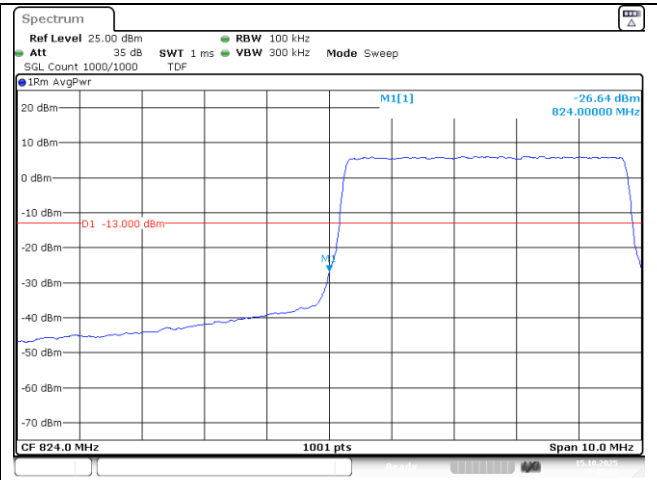
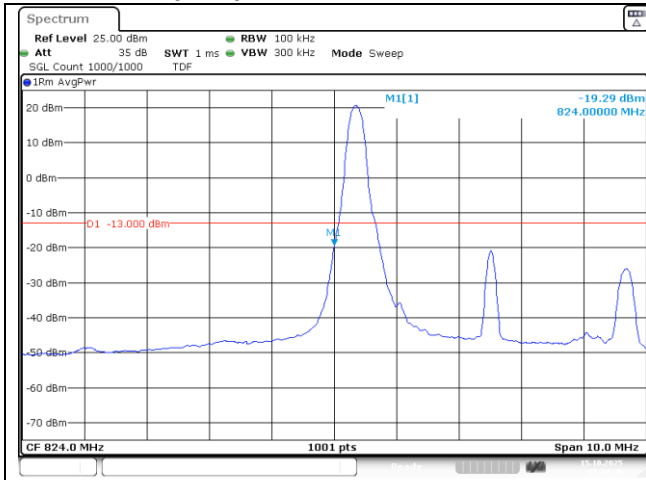
QPSK High Channel - Full RB



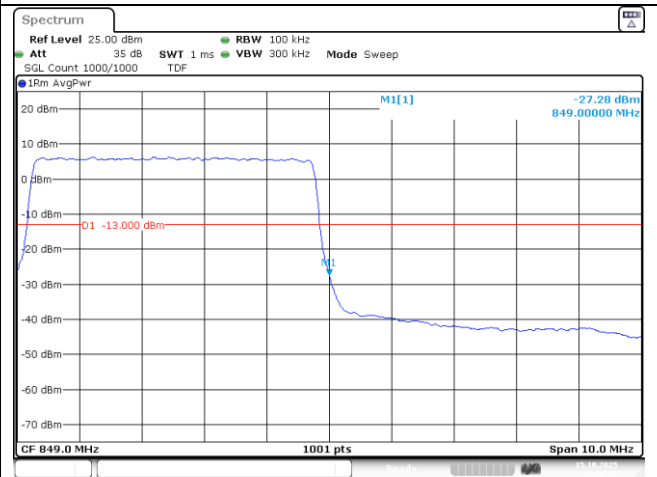
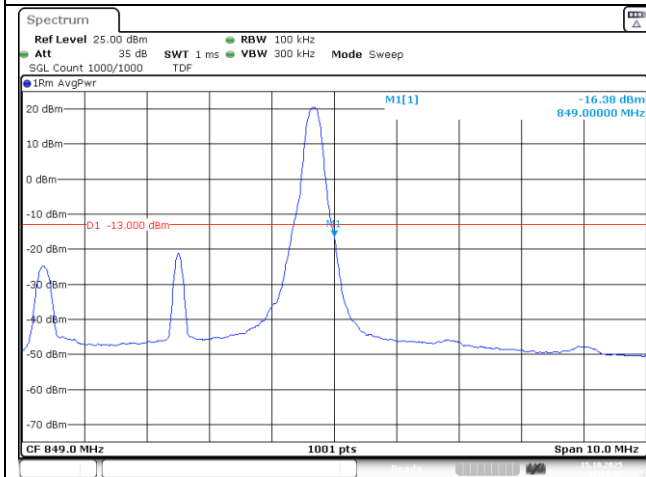
LTE band 5 (3 MHz)



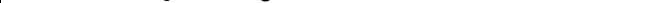
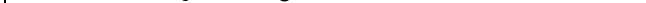
LTE band 5 (5 MHz)



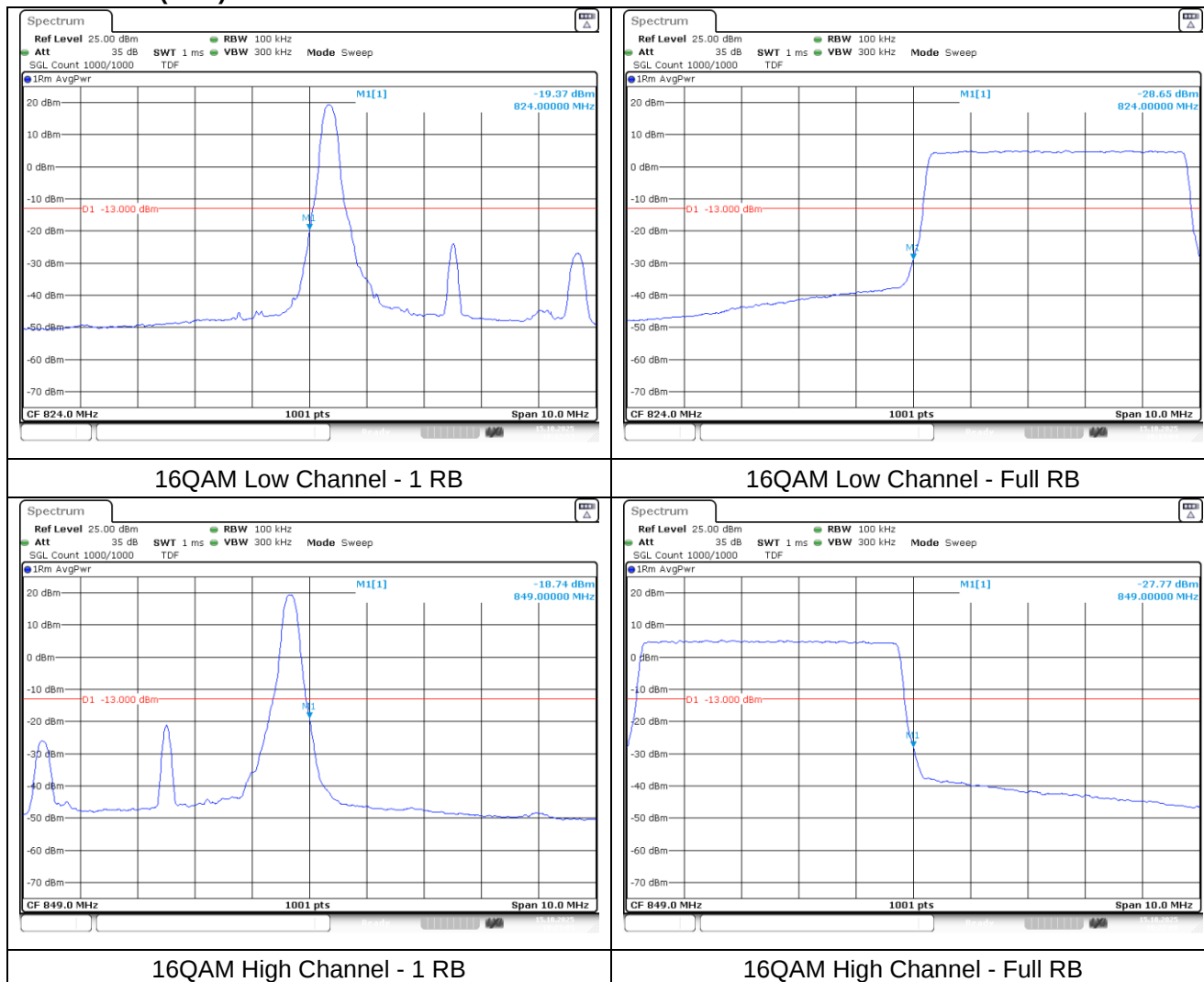
QPSK Low Channel - 1 RB



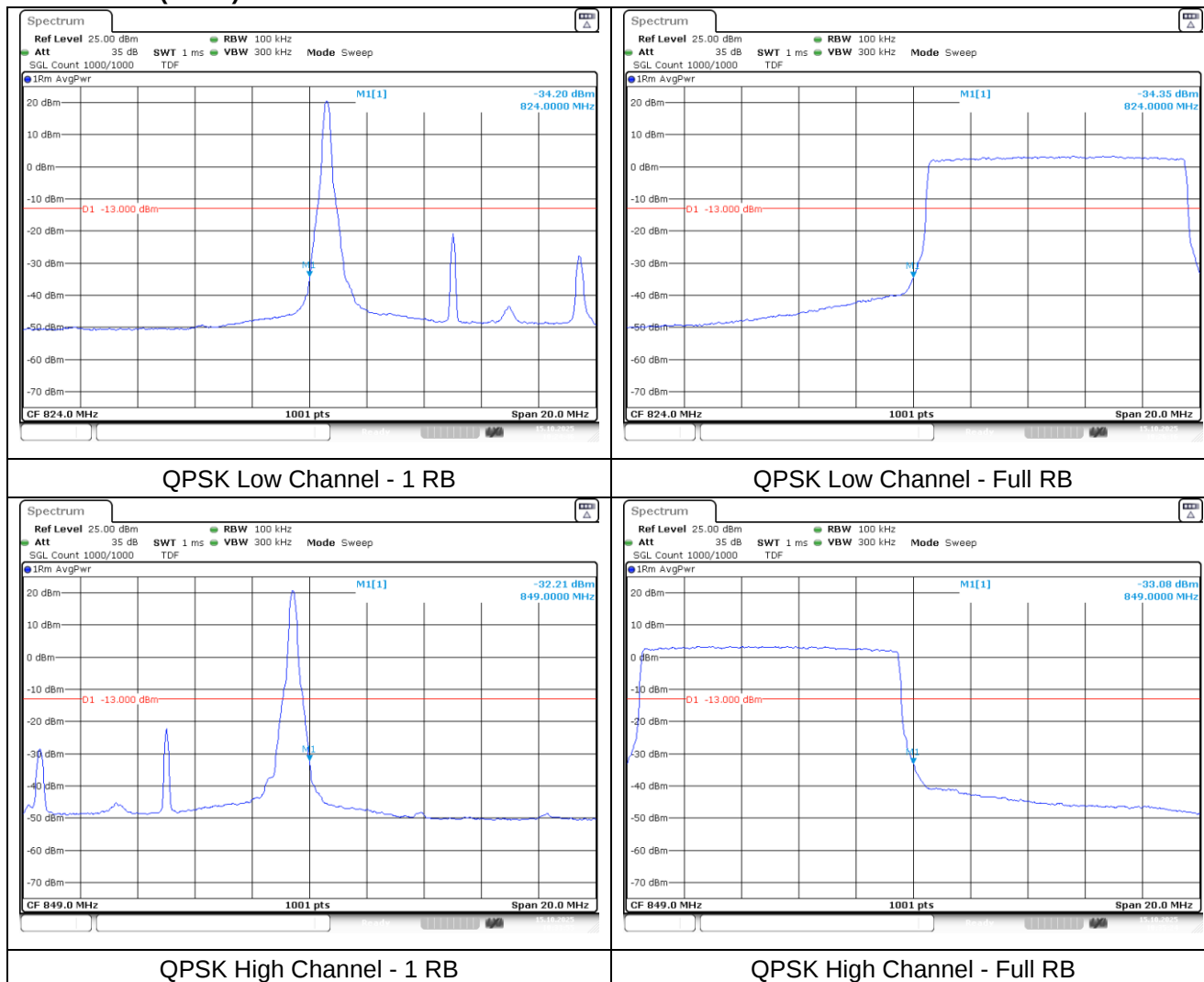
QPSK High Channel - 1 RB



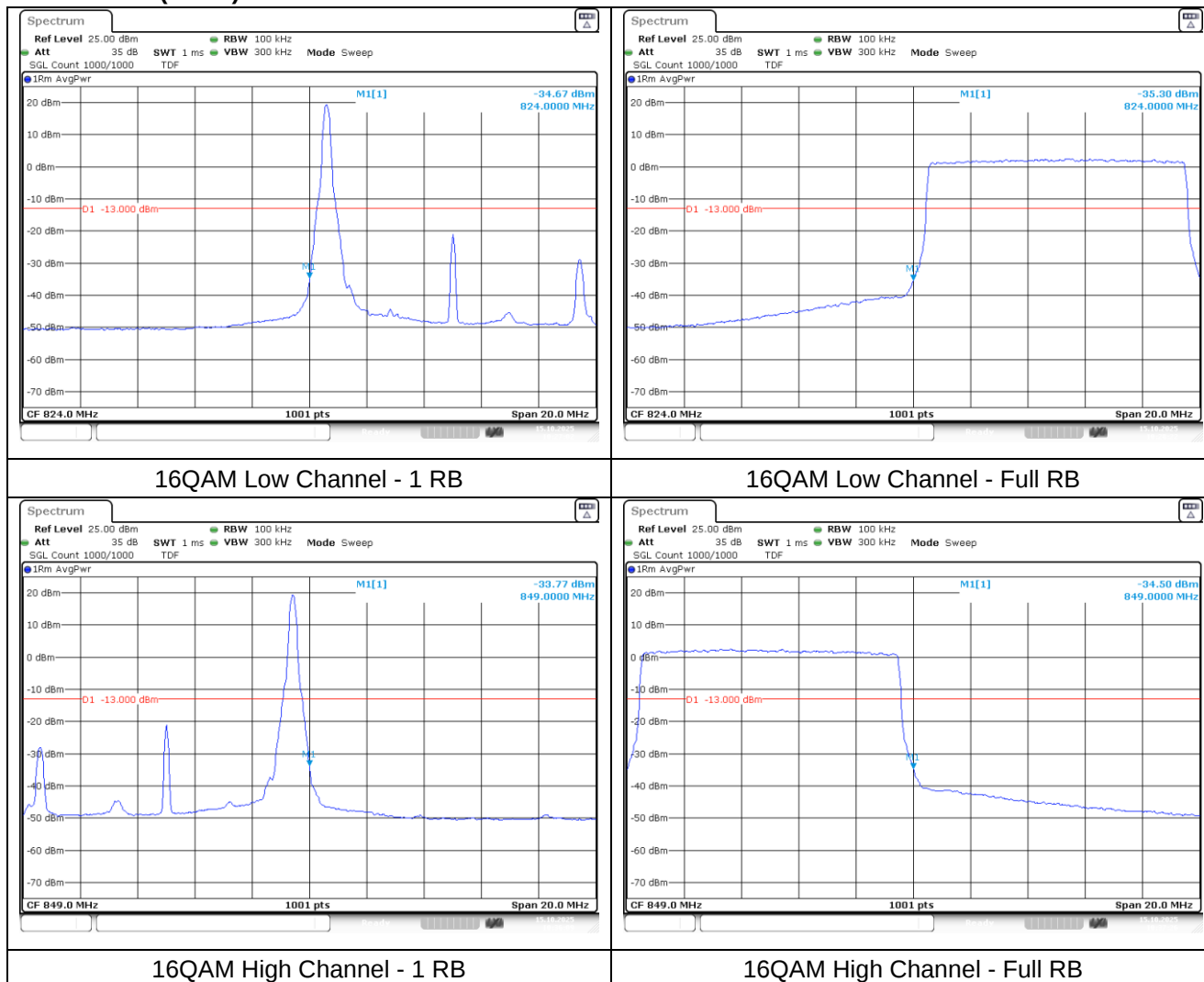
LTE band 5 (5 MHz)



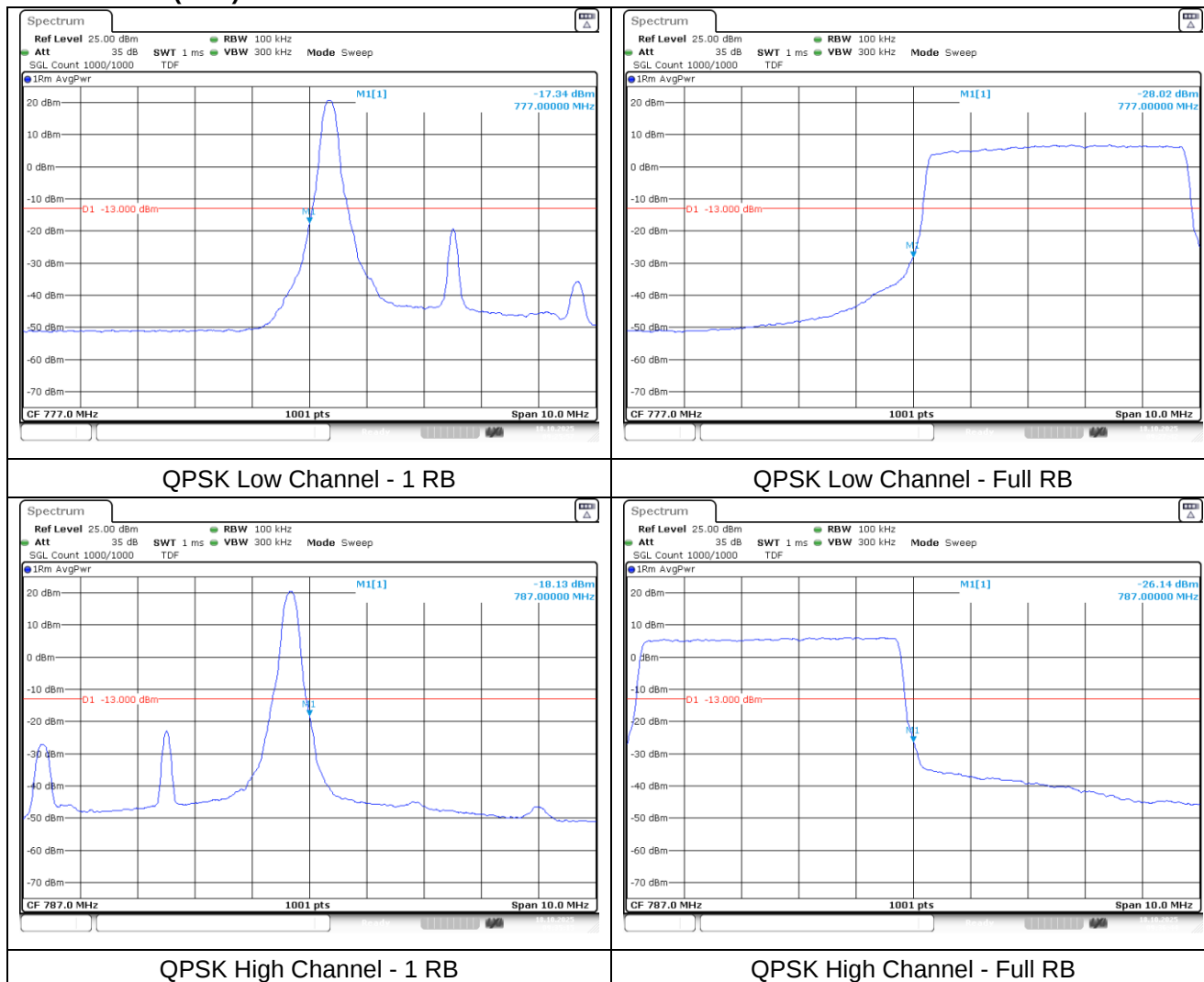
LTE band 5 (10 MHz)



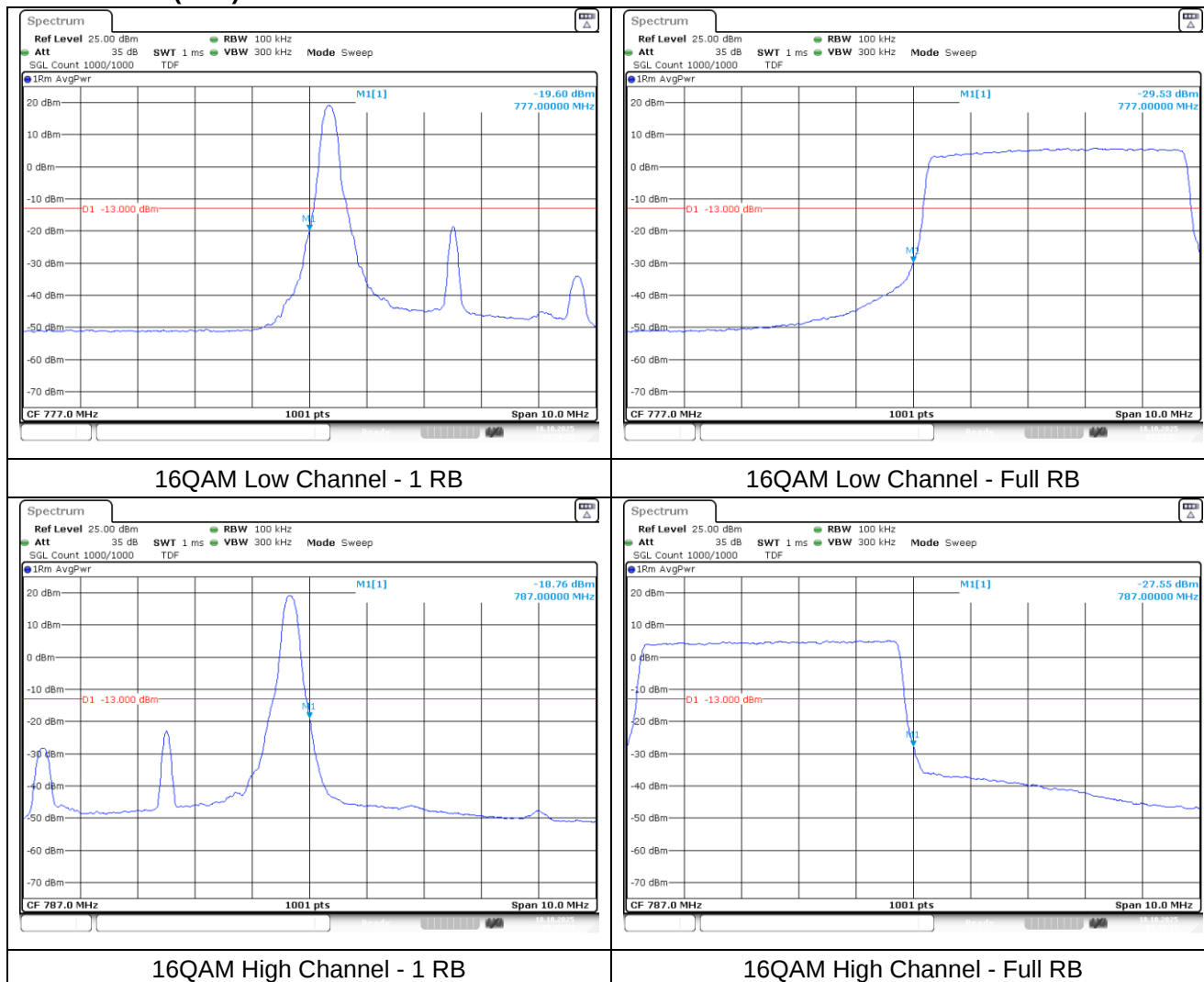
LTE band 5 (10 MHz)



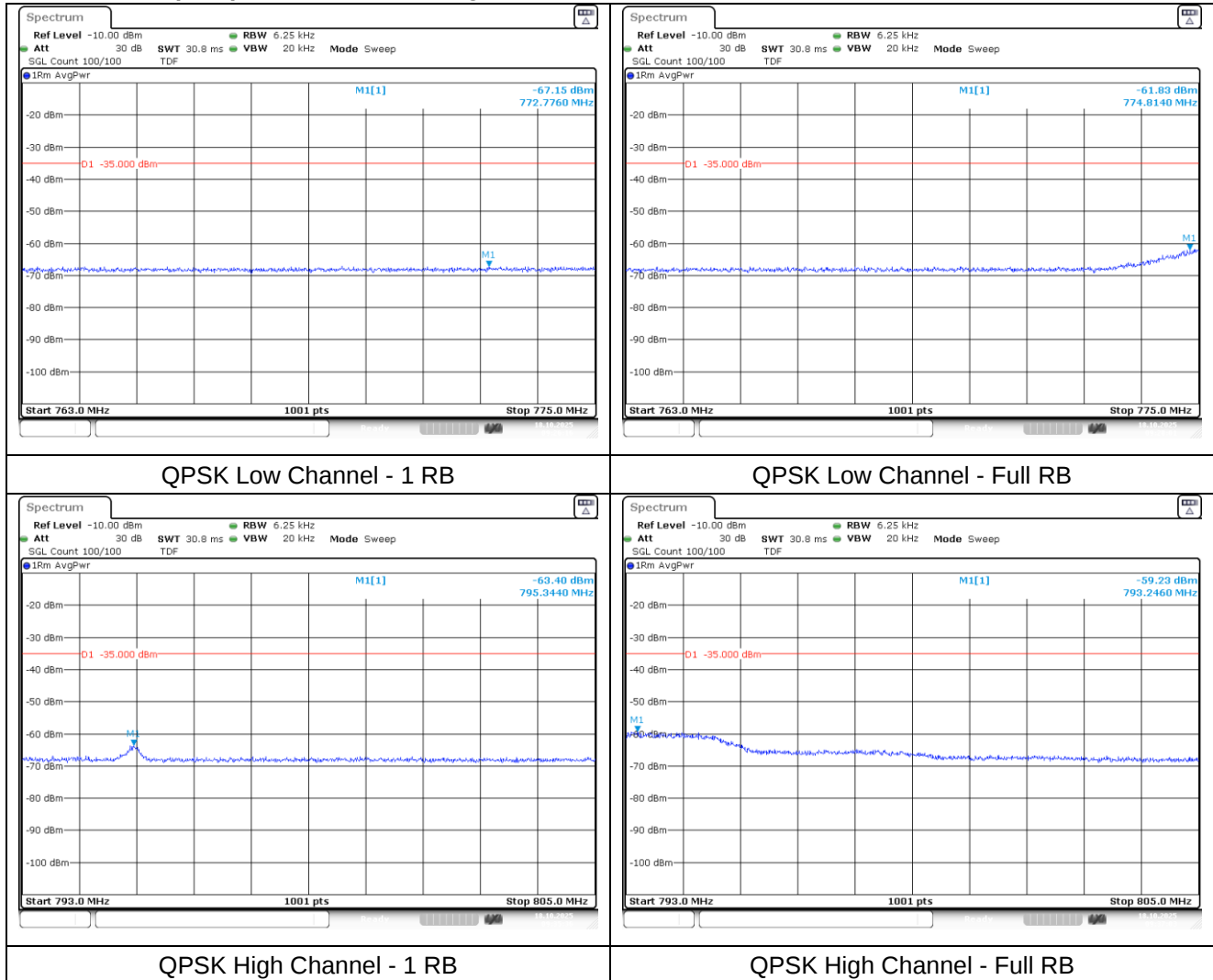
LTE band 13 (5 MHz)



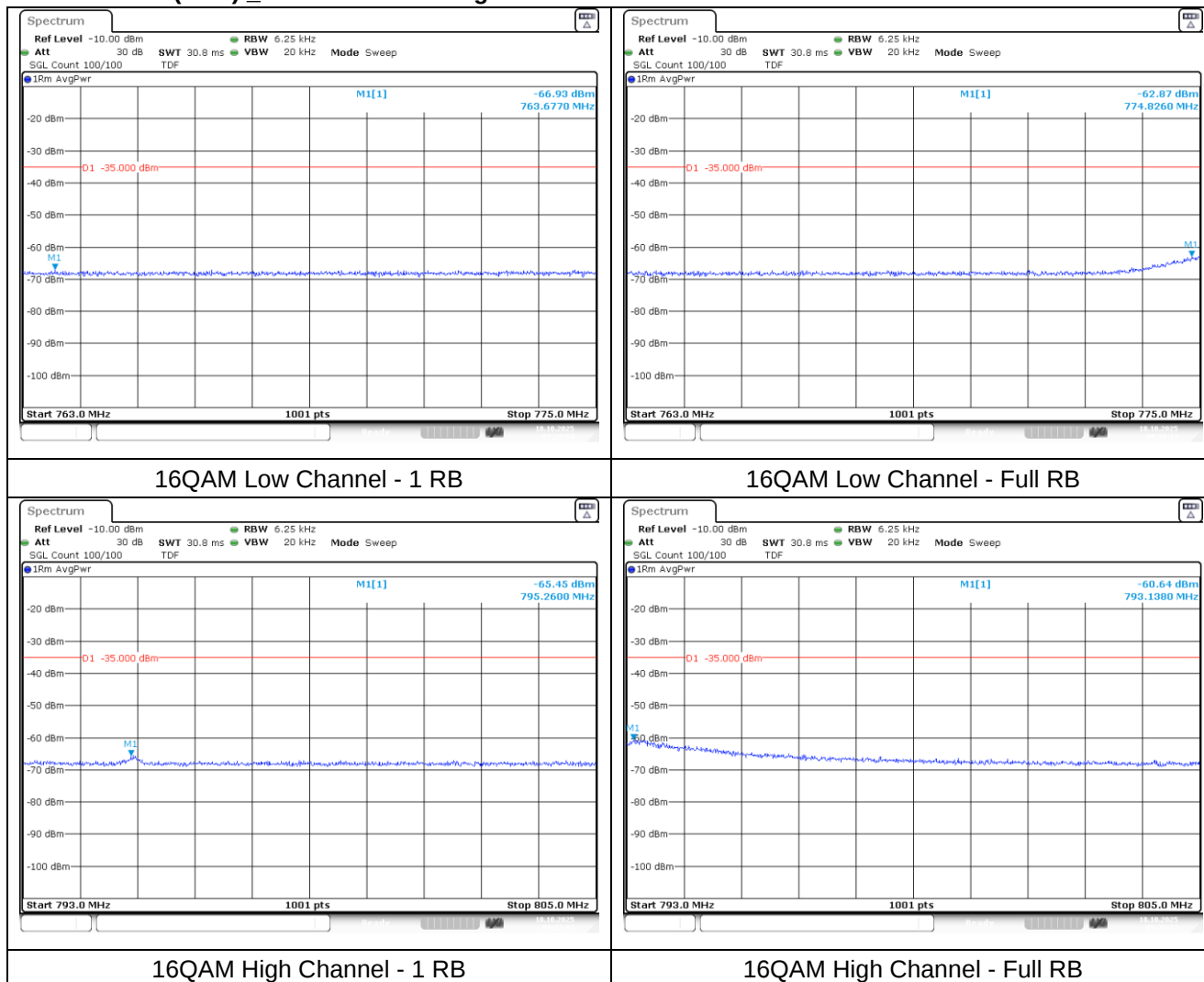
LTE band 13 (5 MHz)



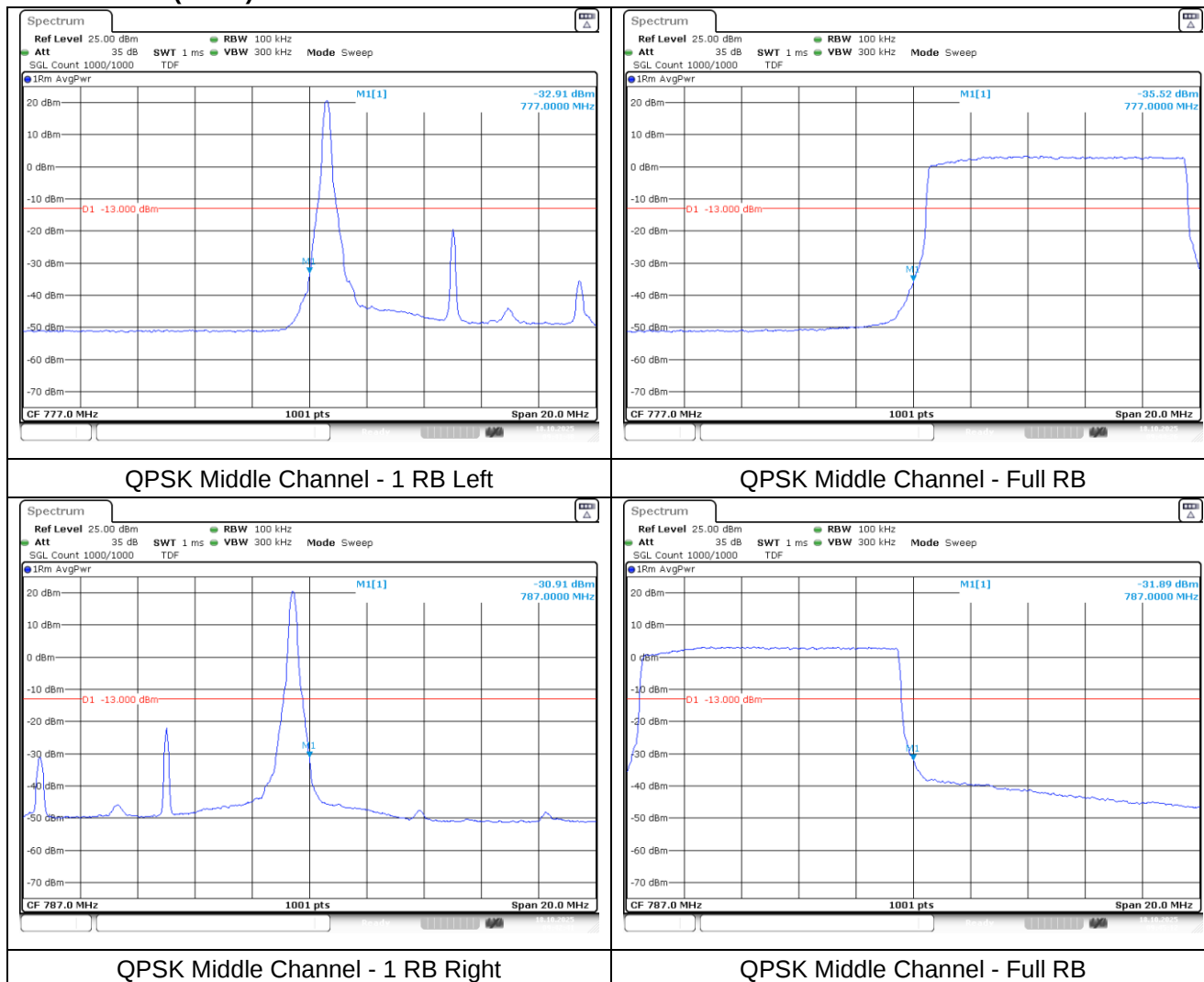
LTE band 13 (5 MHz) Extended Band edge



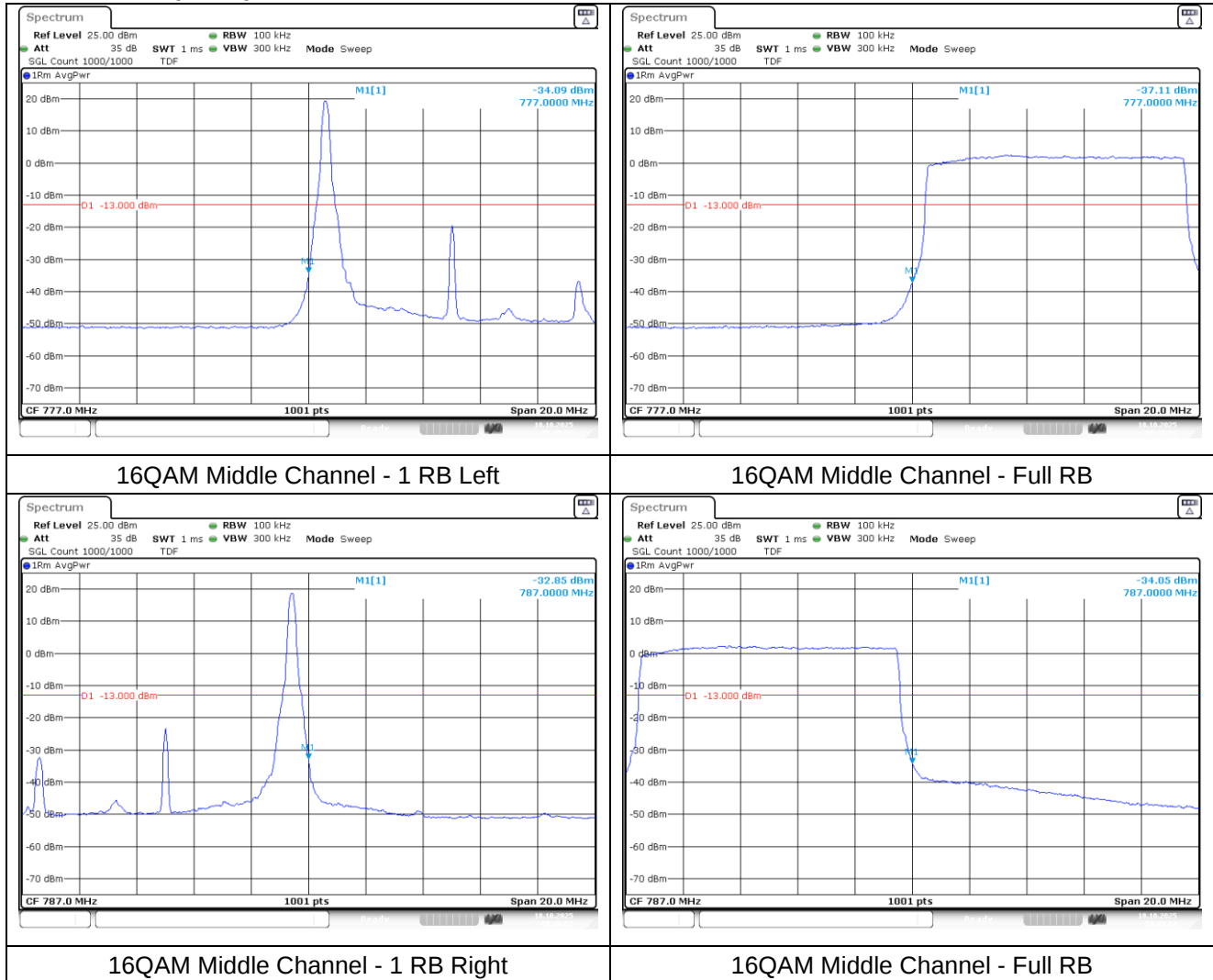
LTE band 13 (5 MHz) Extended Band edge



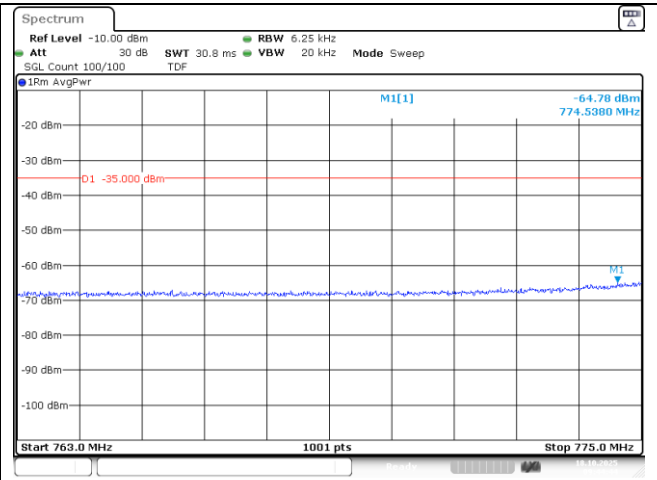
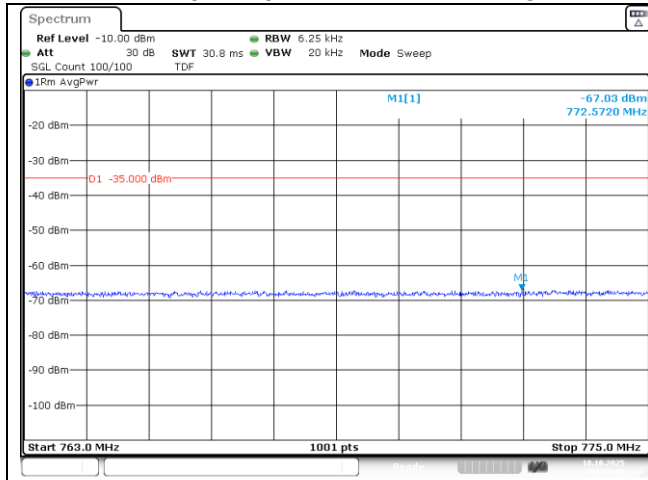
LTE band 13 (10 MHz)



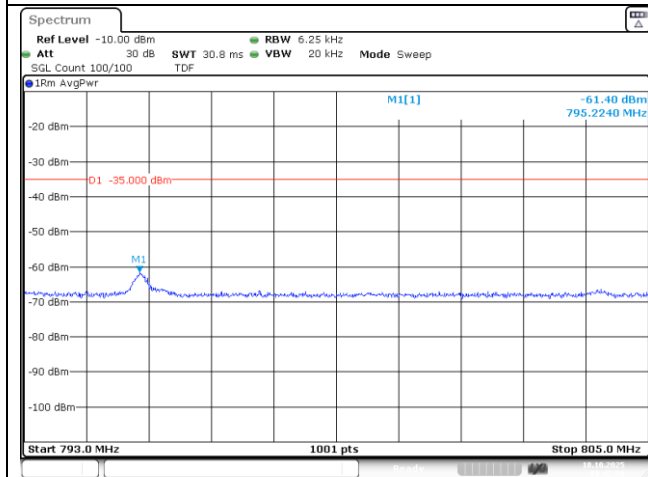
LTE band 13 (10 MHz)



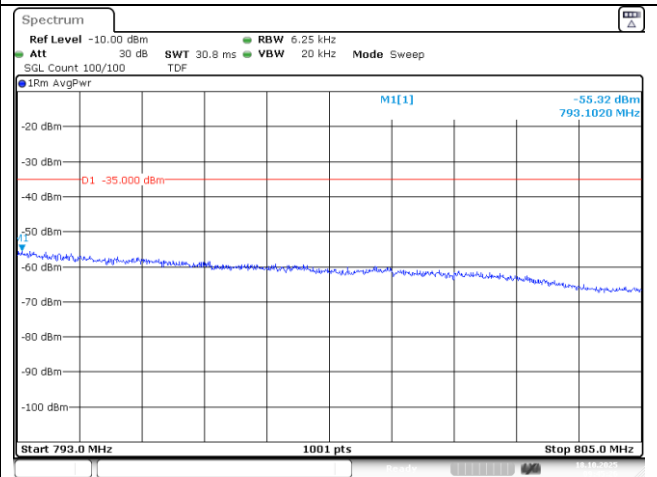
LTE band 13 (10 MHz) Extended Band edge



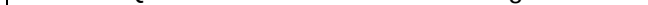
QPSK Middle Channel - 1 RB Left



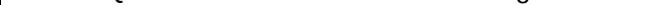
QPSK Middle Channel - Full RB Left



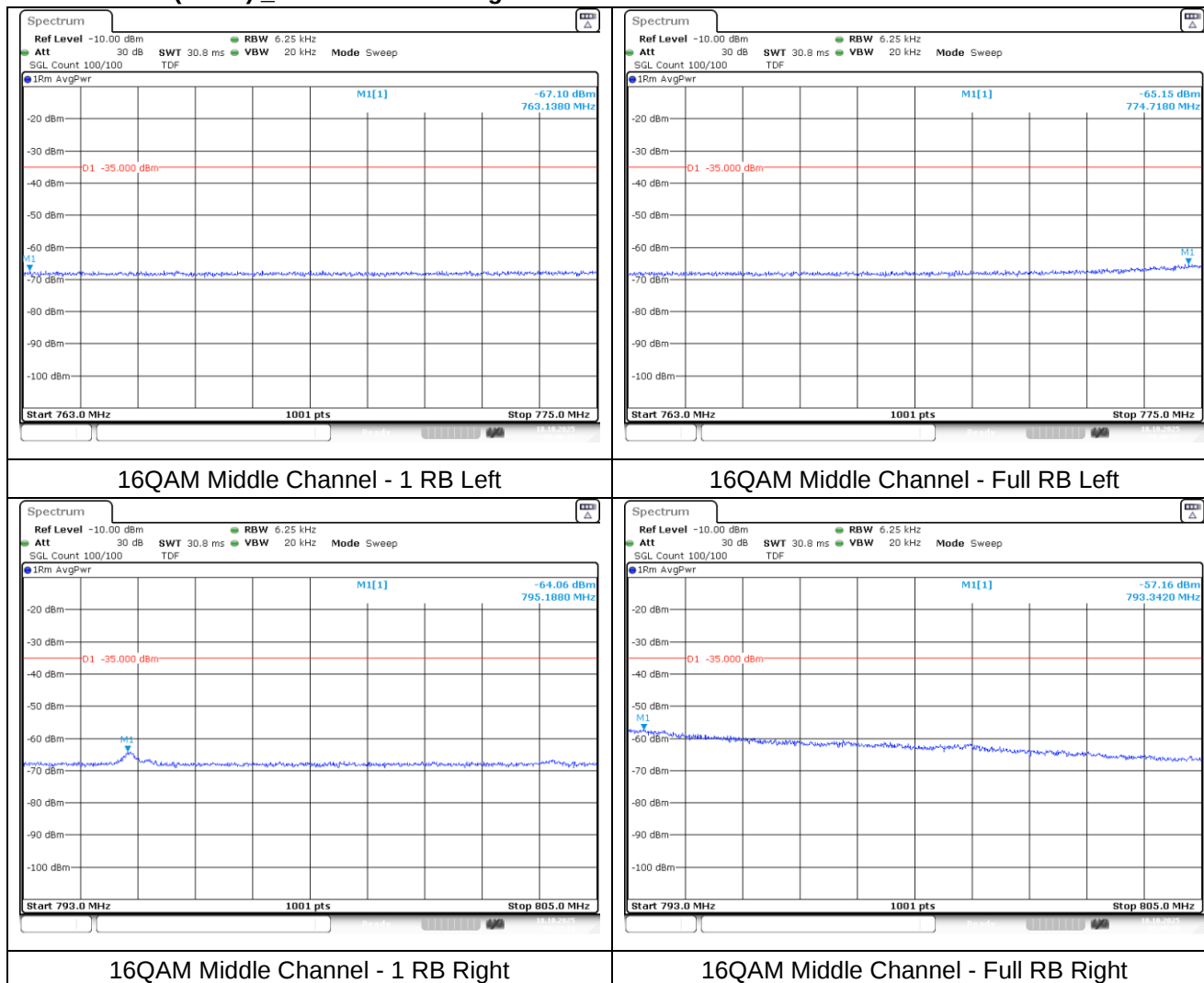
QPSK Middle Channel - 1 RB Right



QPSK Middle Channel - Full RB Right



LTE band 13 (10 MHz) _Extended Band edge



8. Frequency Stability

8.1. Limit

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

- §22.355, the carrier frequency of each transmitter in the Public Mobile Services must be maintained within the tolerances given in Table of this section.

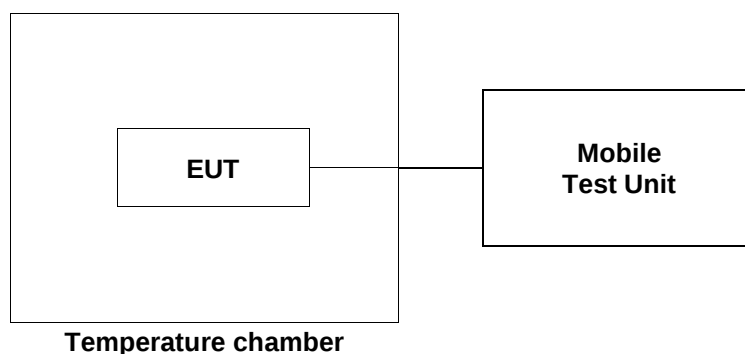
For Mobile devices operating in the 824 to 849 MHz band at a power level less than or equal to 3 Watts, the limit specified in Table C-1 is +/- 2.5 ppm.

- §24.235, the frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

- §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.



8.3. Test Results

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

LTE band 2 at middle channel

Operating Frequency: 1 880.0 MHz			
Frequency Stability versus Temperature			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
50	4.00	4.81	-0.000 74
40		5.33	-0.000 47
30		7.35	0.000 61
20 (Ref.)		6.21	-
10		1.26	-0.002 63
0		3.44	-0.001 47
-10		2.72	-0.001 86
-20		2.40	-0.002 03
-30		2.82	-0.001 80
Frequency Stability versus Power Supply			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
20	3.40 (85 %)	6.12	-0.000 05
	4.60 (115 %)	3.97	-0.001 19

LTE band 4 at middle channel

Operating Frequency: 1 732.5 MHz			
Frequency Stability versus Temperature			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
50	4.00	7.82	0.001 79
40		2.67	-0.001 18
30		3.51	-0.000 70
20 (Ref.)		4.72	-
10		1.38	-0.001 93
0		3.45	-0.000 73
-10		1.18	-0.002 04
-20		8.21	0.002 01
-30		6.45	0.001 00
Frequency Stability versus Power Supply			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
20	3.40 (85 %)	4.25	-0.000 27
	4.60 (115 %)	3.41	-0.000 48

LTE band 5 at middle channel

Operating Frequency: 836.5 MHz			
Frequency Stability versus Temperature			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
50	4.00	4.93	0.001 27
40		3.88	0.000 01
30		2.15	-0.002 06
20 (Ref.)		3.87	-
10		1.89	-0.002 37
0		2.77	-0.001 32
-10		2.80	-0.001 28
-20		3.44	-0.000 51
-30		5.53	0.001 98
Frequency Stability versus Power Supply			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
20	3.40 (85 %)	7.34	0.004 15
	4.60 (115 %)	4.98	0.001 33

LTE band 13 at middle channel

Operating Frequency: 782.0 MHz			
Frequency Stability versus Temperature			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
50	4.00	4.49	-0.000 22
40		2.71	-0.002 49
30		2.44	-0.002 84
20 (Ref.)		4.66	-
10		5.78	0.001 43
0		6.69	0.002 60
-10		8.11	0.004 41
-20		7.09	0.003 11
-30		3.98	-0.000 87
Frequency Stability versus Power Supply			
Environment Temperature (°C)	Power Supplied (V)	Frequency Measure with Time Elapse	
		Frequency Error (Hz)	ppm
20	3.40 (85 %)	3.41	-0.001 60
	4.60 (115 %)	4.10	-0.000 72

- End of the Test Report -