



Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0025	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0034	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0025	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0025	

Note:

1. Normal Voltage =7.6 V. ; Battery End Point (BEP) =6.8 V. ; Maximum Voltage =8.7 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

Peak-to-Average Ratio

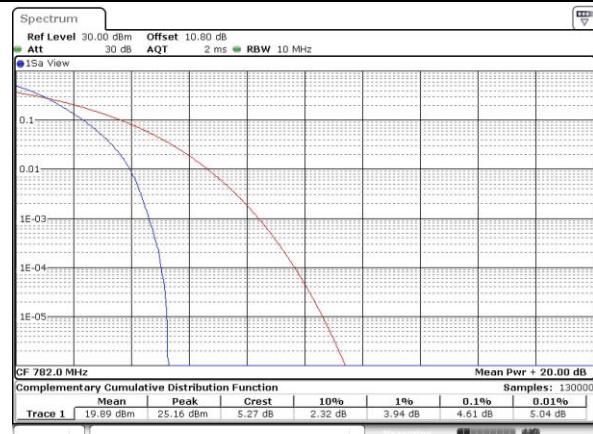
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	
Middle CH	2.58	4.61	3.16	5.36	PASS
Highest CH	-	-	-	-	

LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB

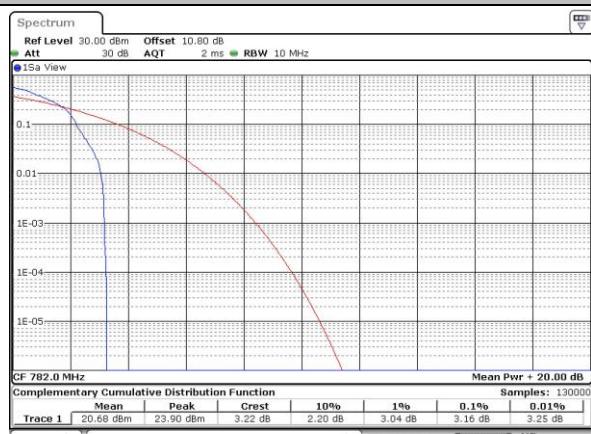


Middle Channel / Full RB

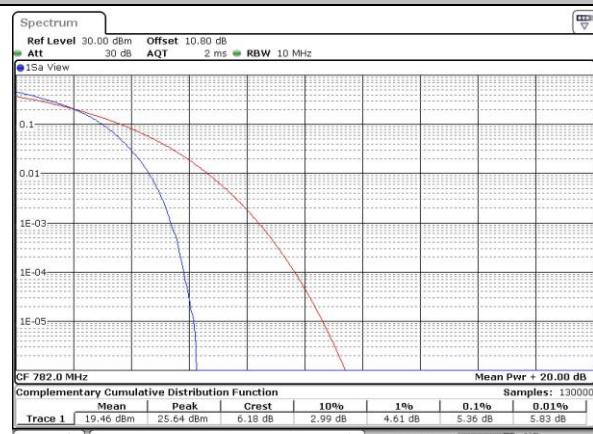


LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB

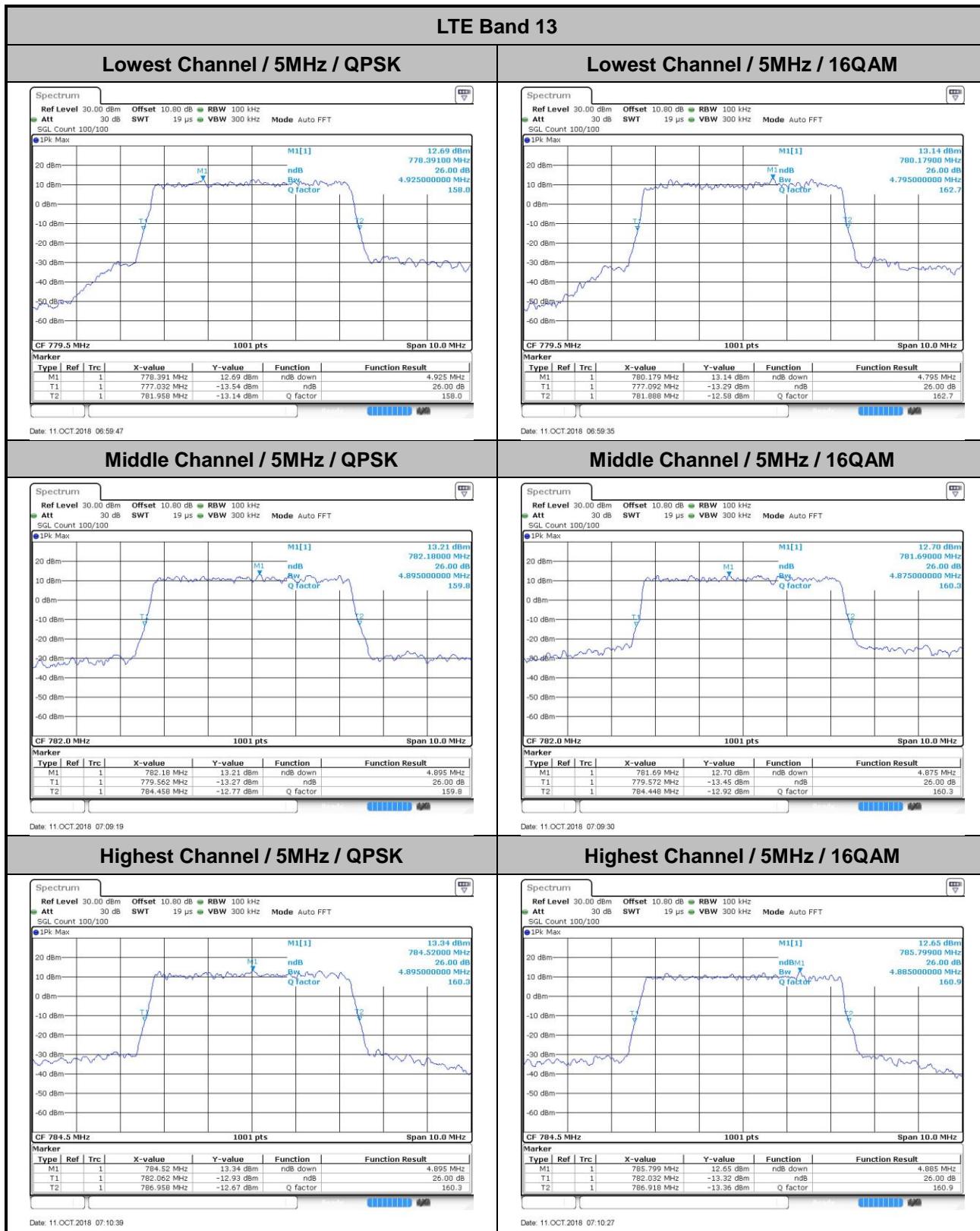


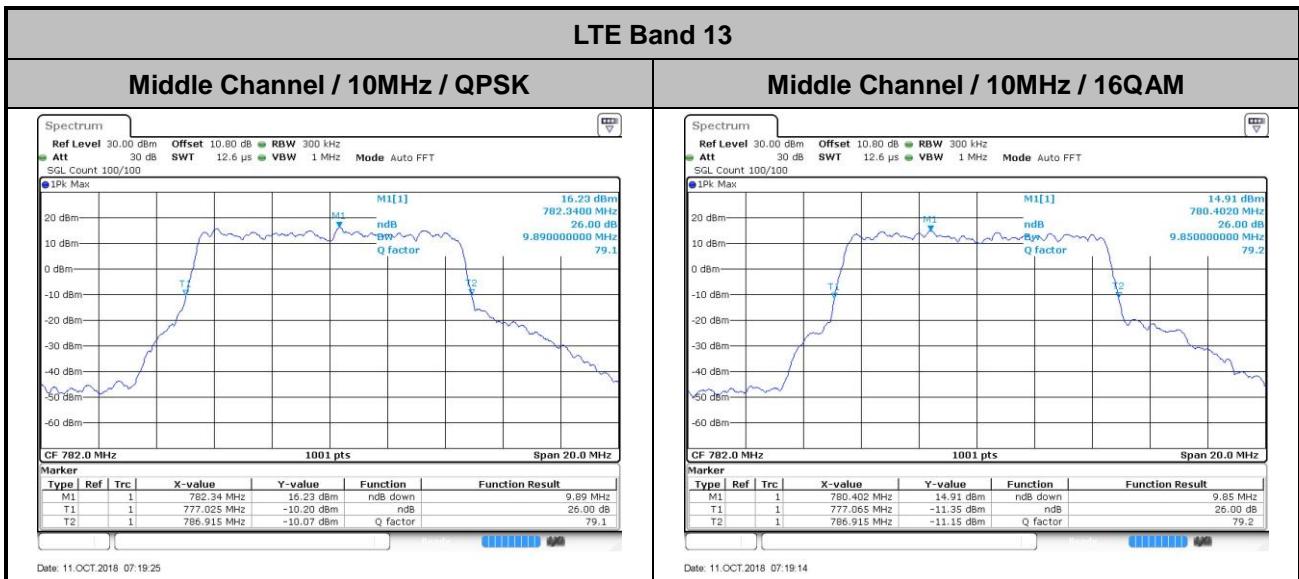
Middle Channel / Full RB



**26dB Bandwidth**

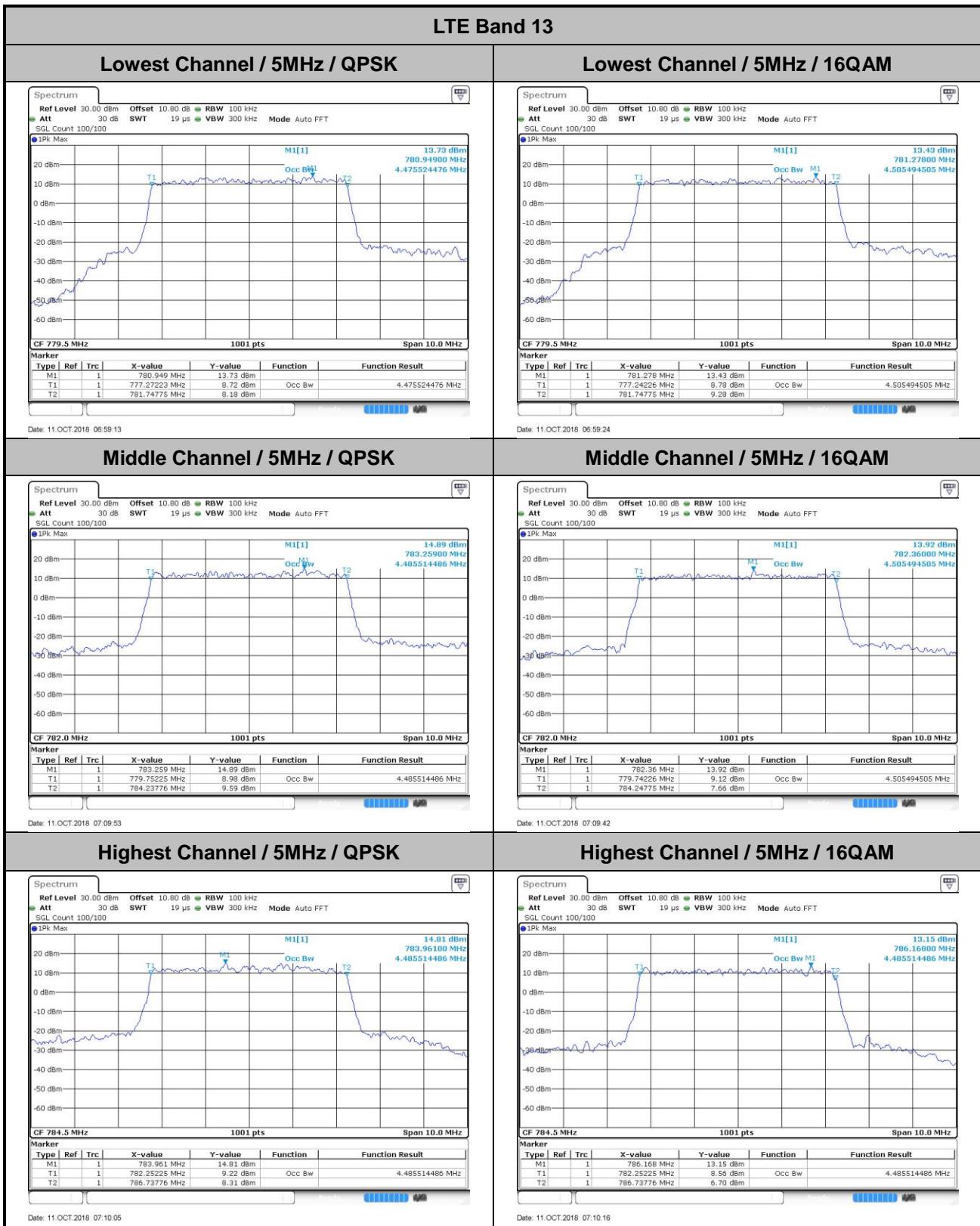
Mode	LTE Band 13 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.93	4.80	-	-	-	-	-	-
Middle CH	-	-	-	-	4.90	4.88	9.89	9.85	-	-	-	-
Highest CH	-	-	-	-	4.90	4.89	-	-	-	-	-	-

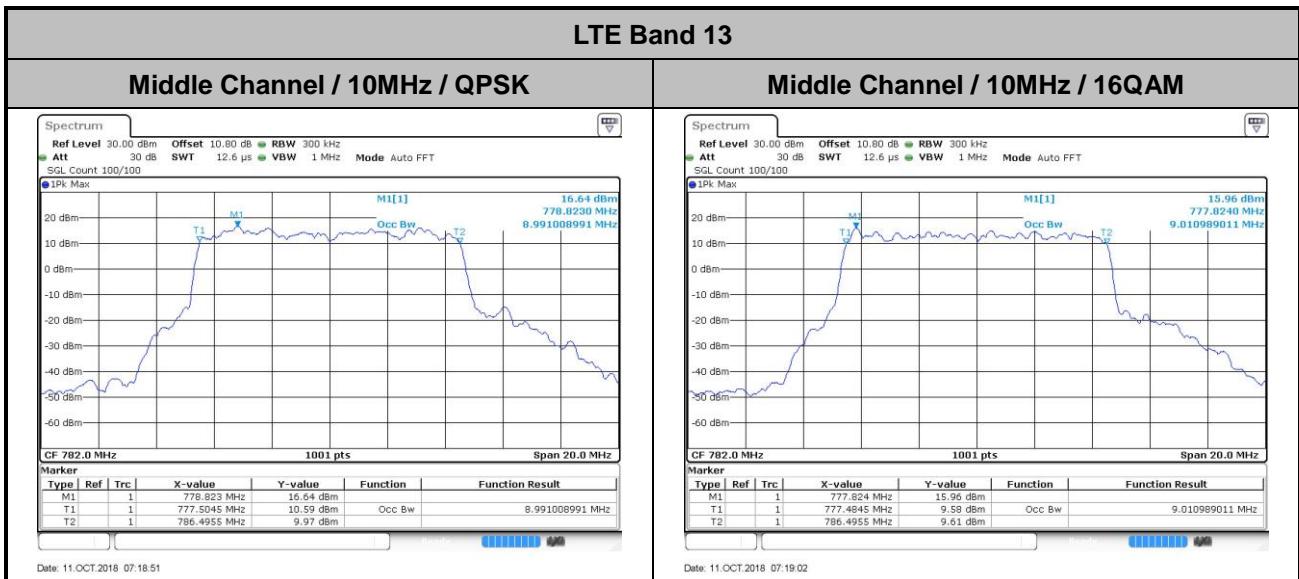




**Occupied Bandwidth**

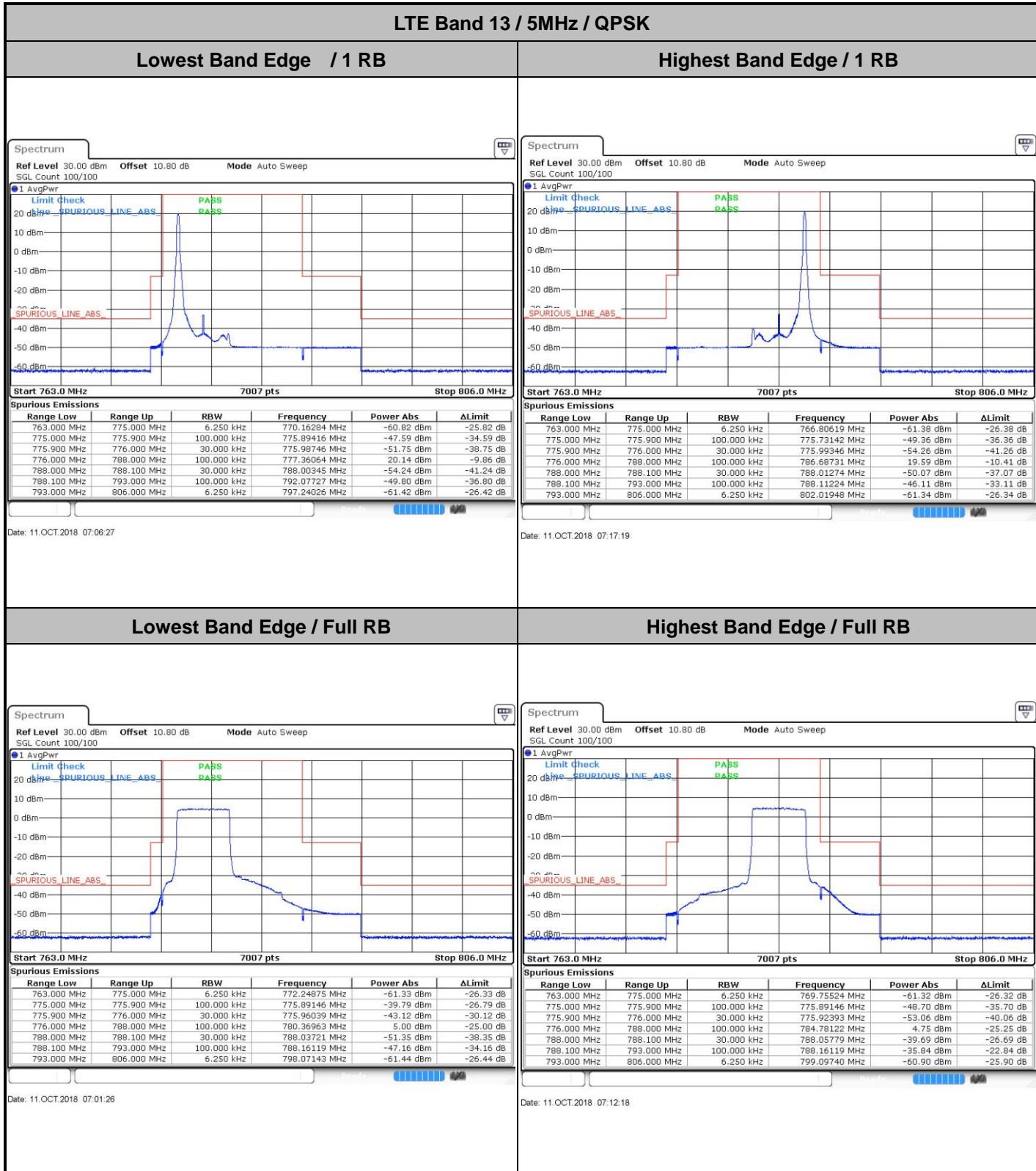
Mode	LTE Band 13 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.48	4.51	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.51	8.99	9.01	-	-	-	-
Highest CH	-	-	-	-	4.49	4.49	-	-	-	-	-	-

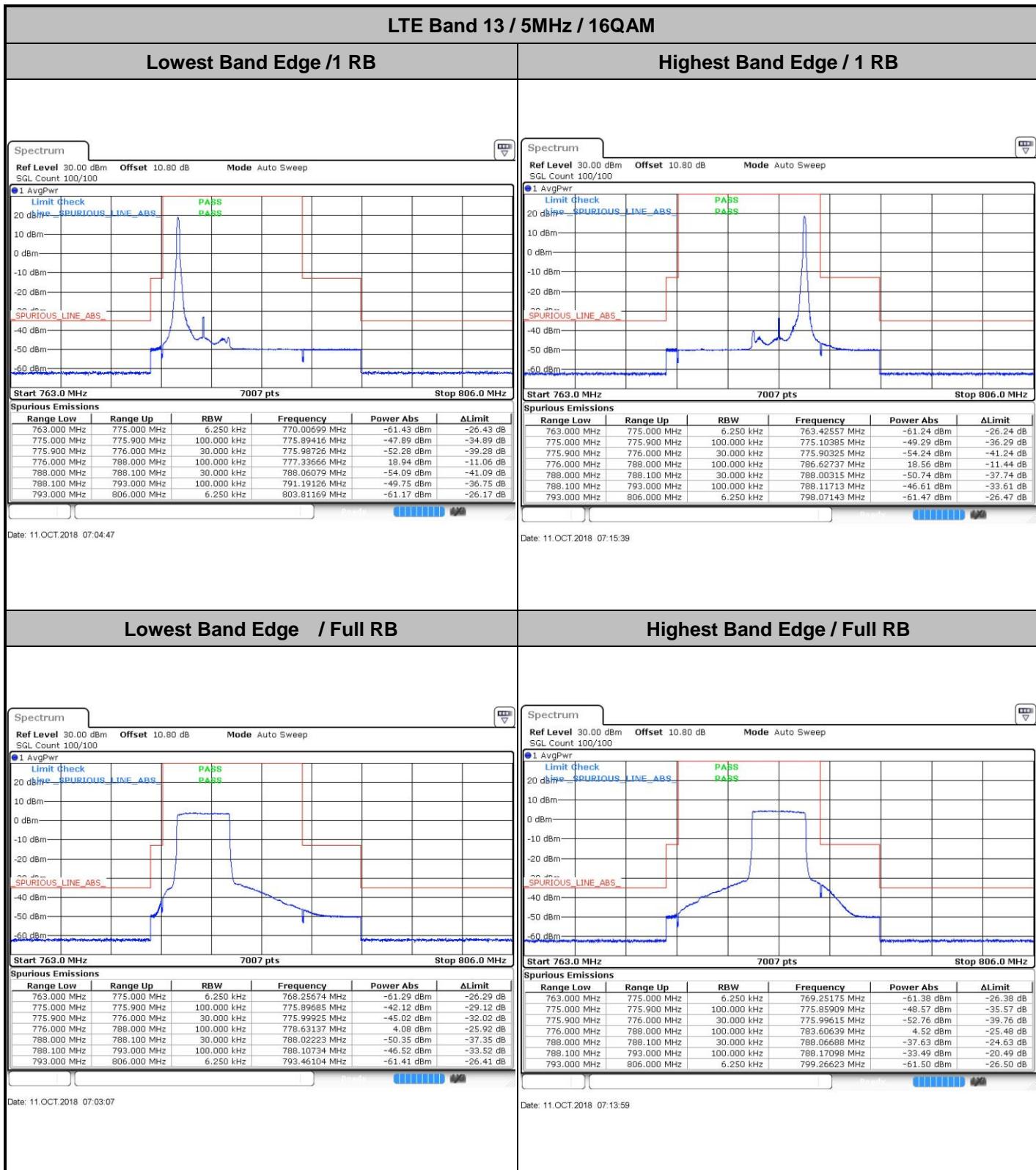


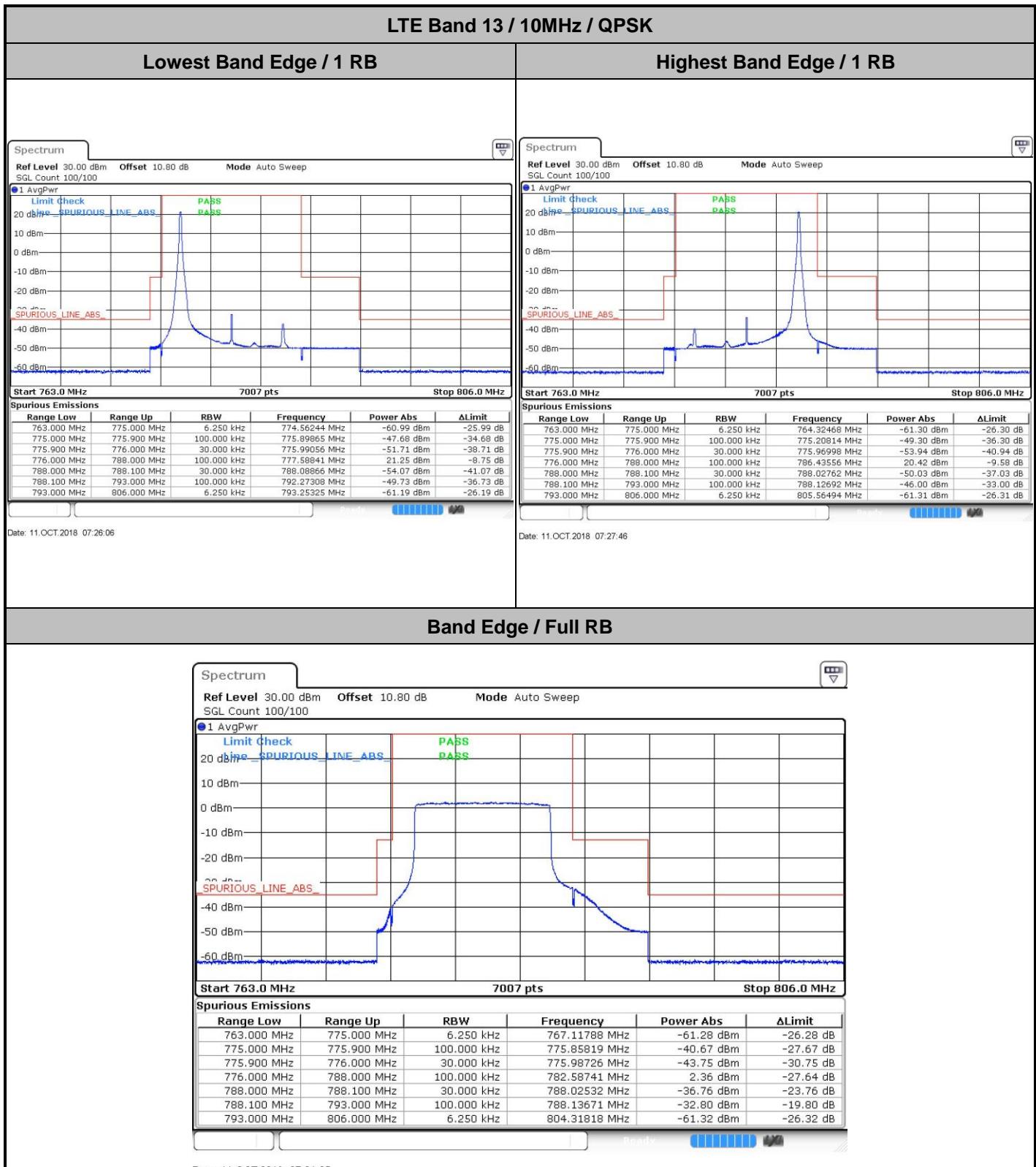




Conducted Band Edge



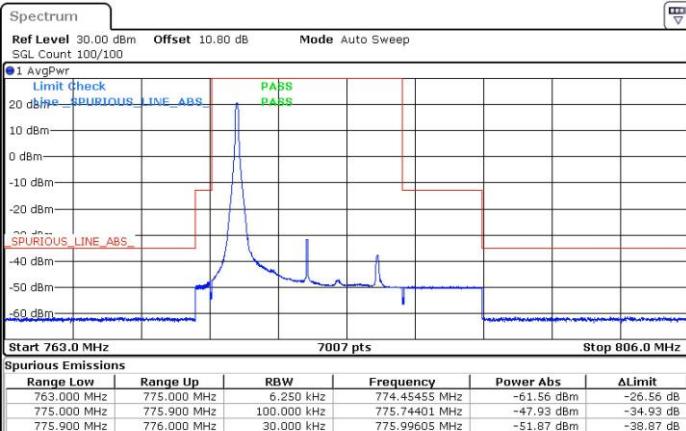






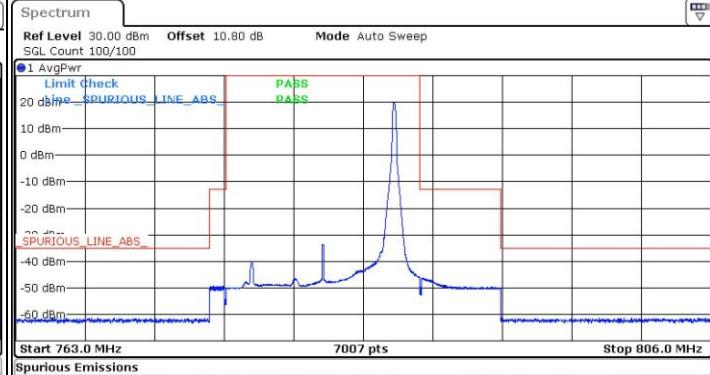
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



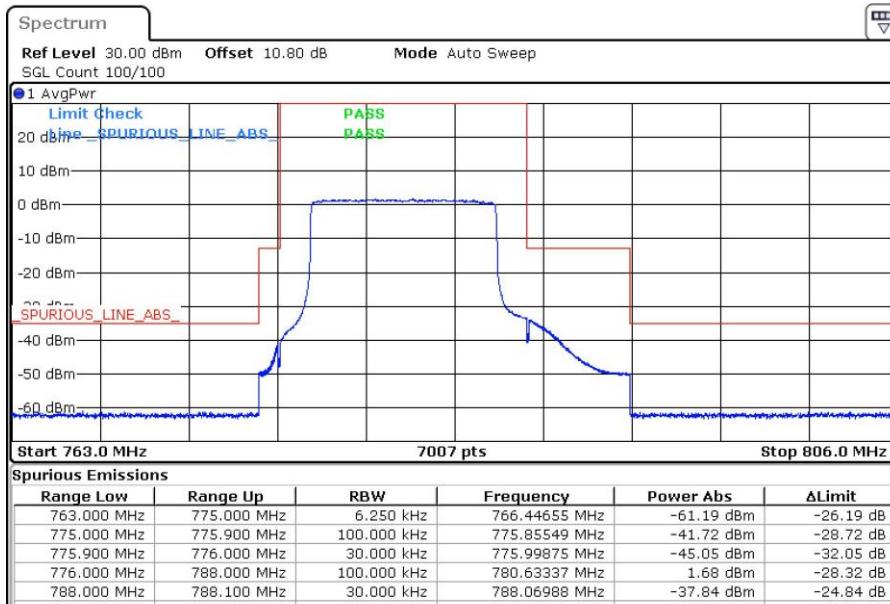
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Highest Band Edge / 1 RB

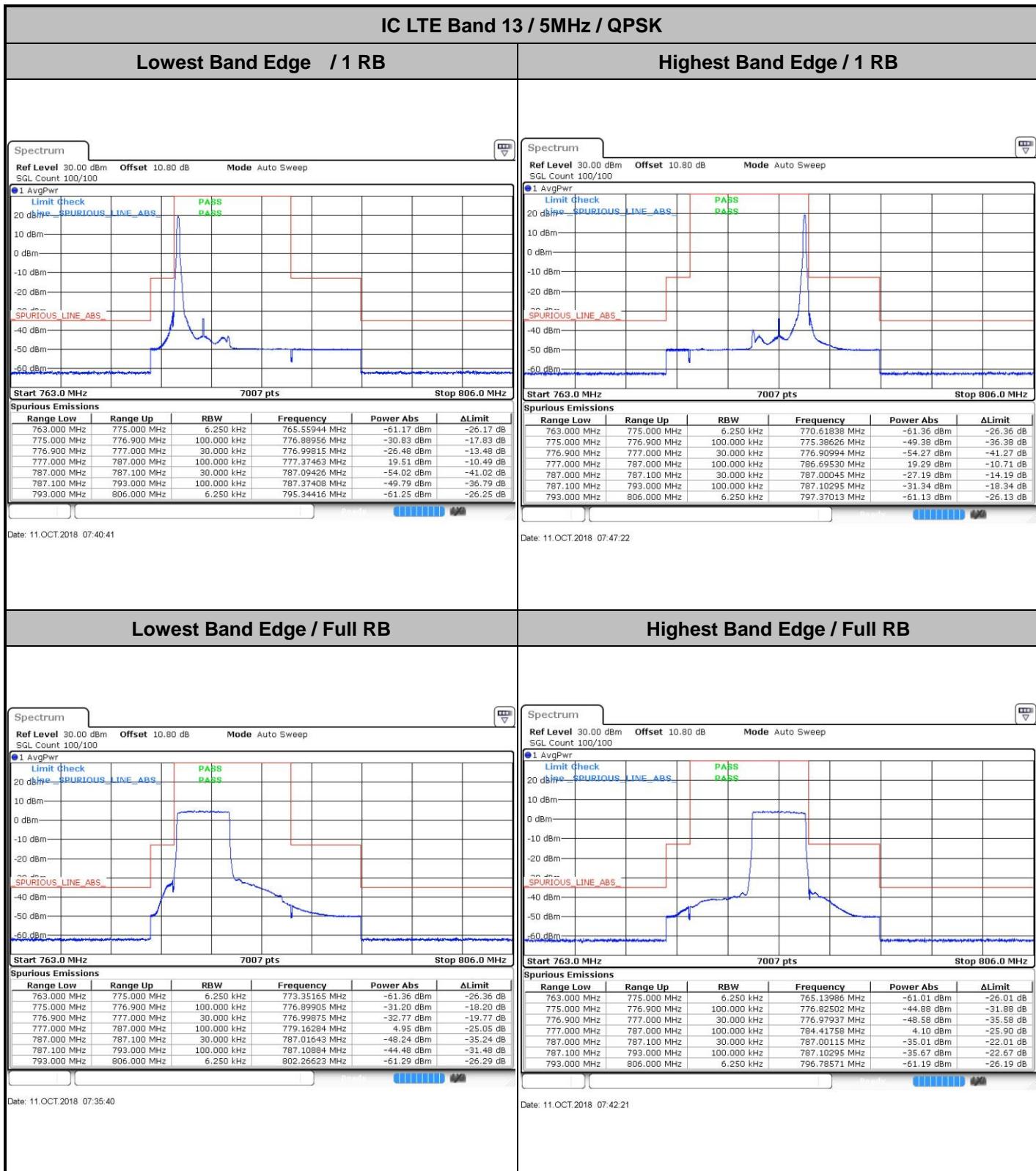


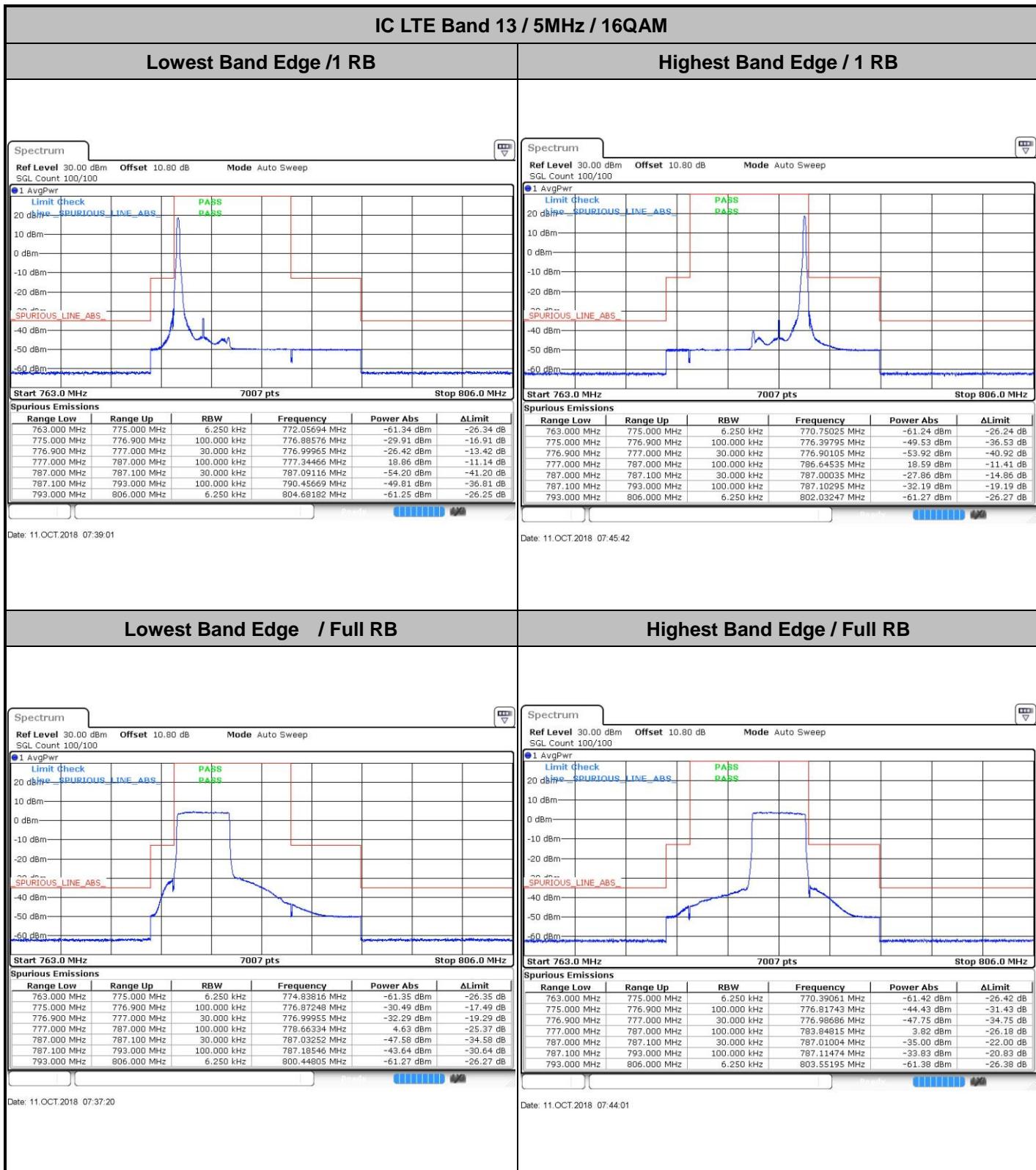
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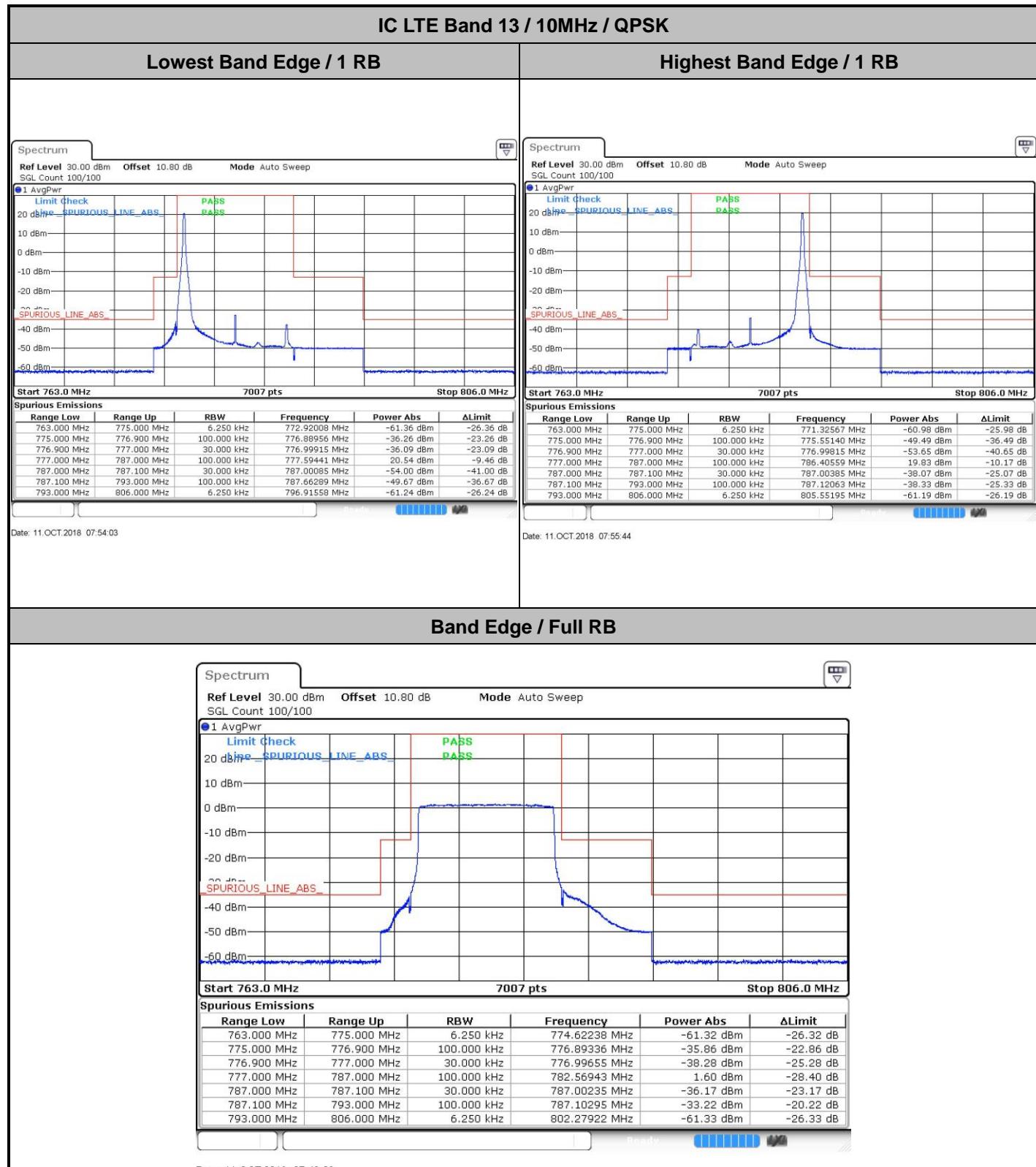
Band Edge / Full RB



Date: 11 OCT 2018 07:22:45





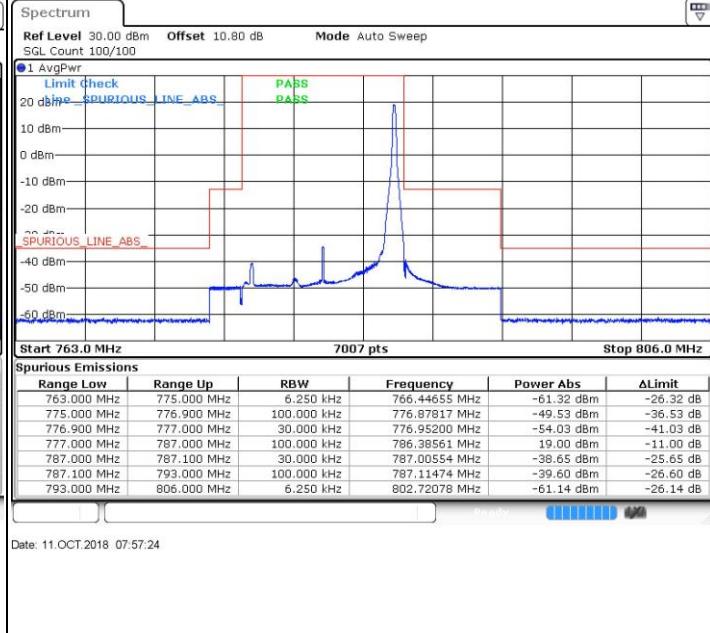
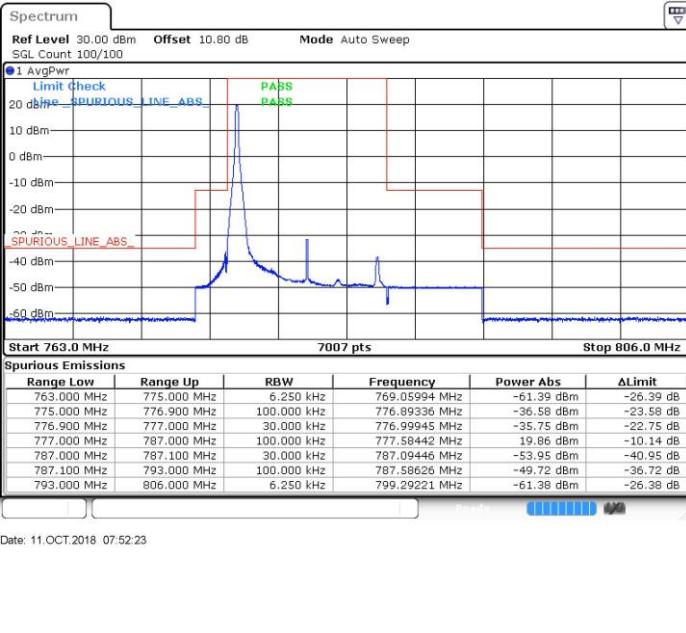




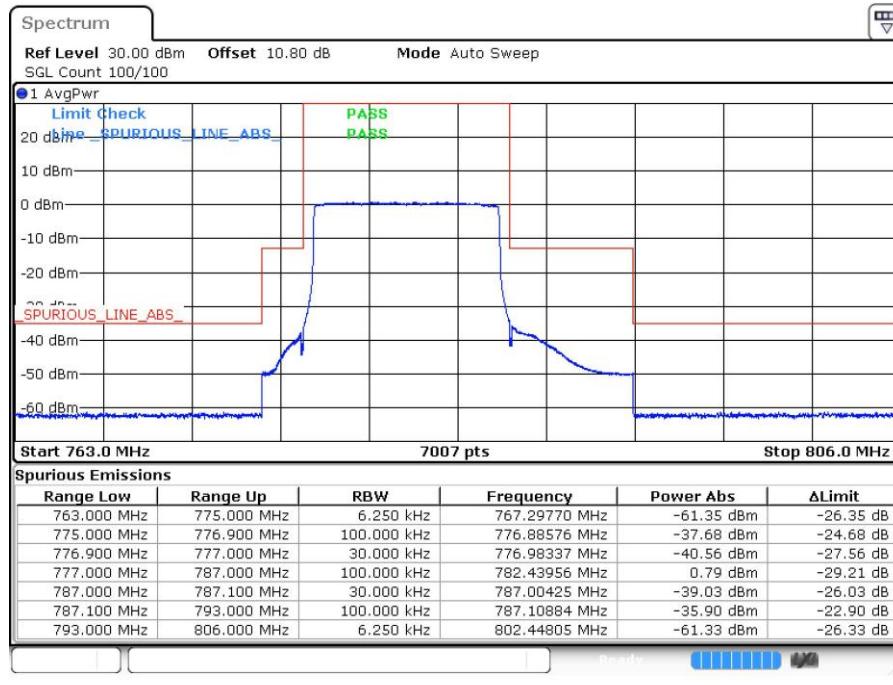
IC LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

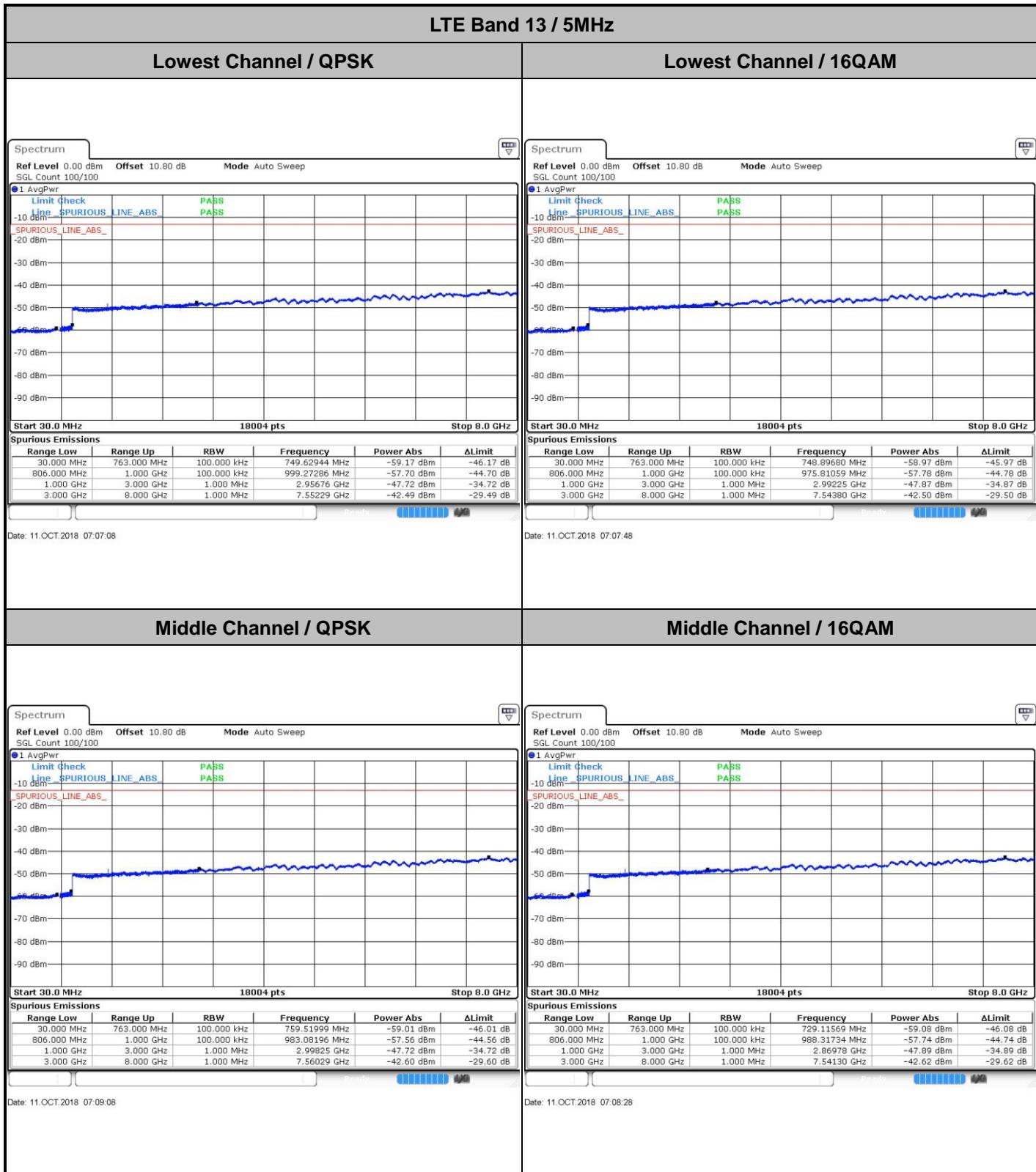


Band Edge / Full RB





Conducted Spurious Emission

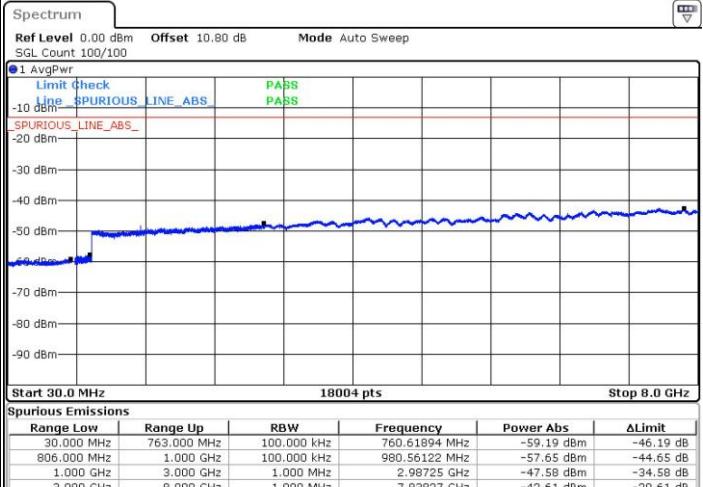
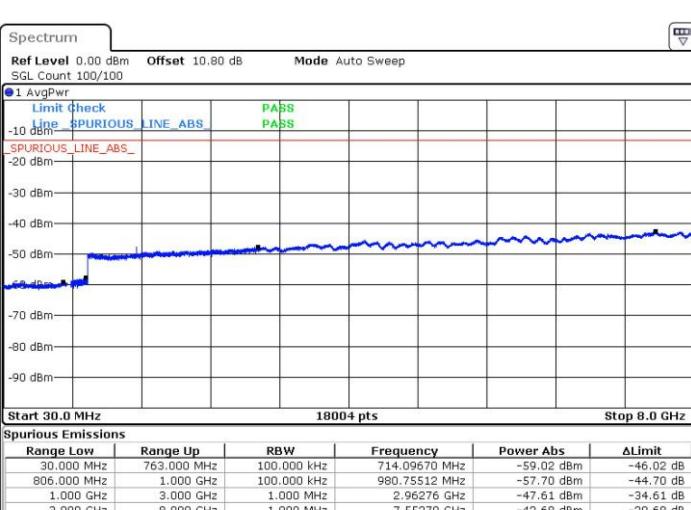




LTE Band 13 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



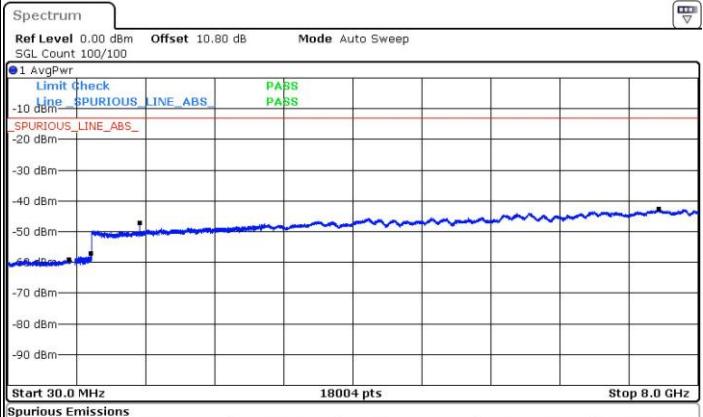
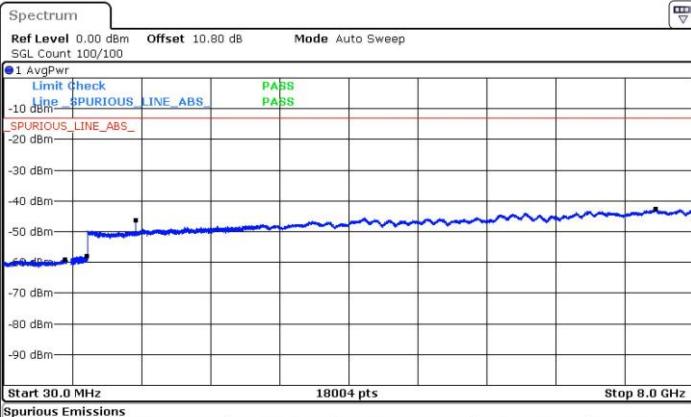
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Date: 11.OCT.2018 07:18:40

LTE Band 13 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 11.OCT.2018 07:30:07



Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0006	PASS
40	Normal Voltage	0.0020	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0027	
-10	Normal Voltage	0.0022	
-20	Normal Voltage	0.0000	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0028	

Note:

1. Normal Voltage =7.6 V. ; Battery End Point (BEP) =6.8 V. ; Maximum Voltage =8.7 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 25

Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.61	4.87	5.48	5.91	
Middle CH	4.67	4.72	5.28	5.77	PASS
Highest CH	3.74	4.75	4.7	5.83	

