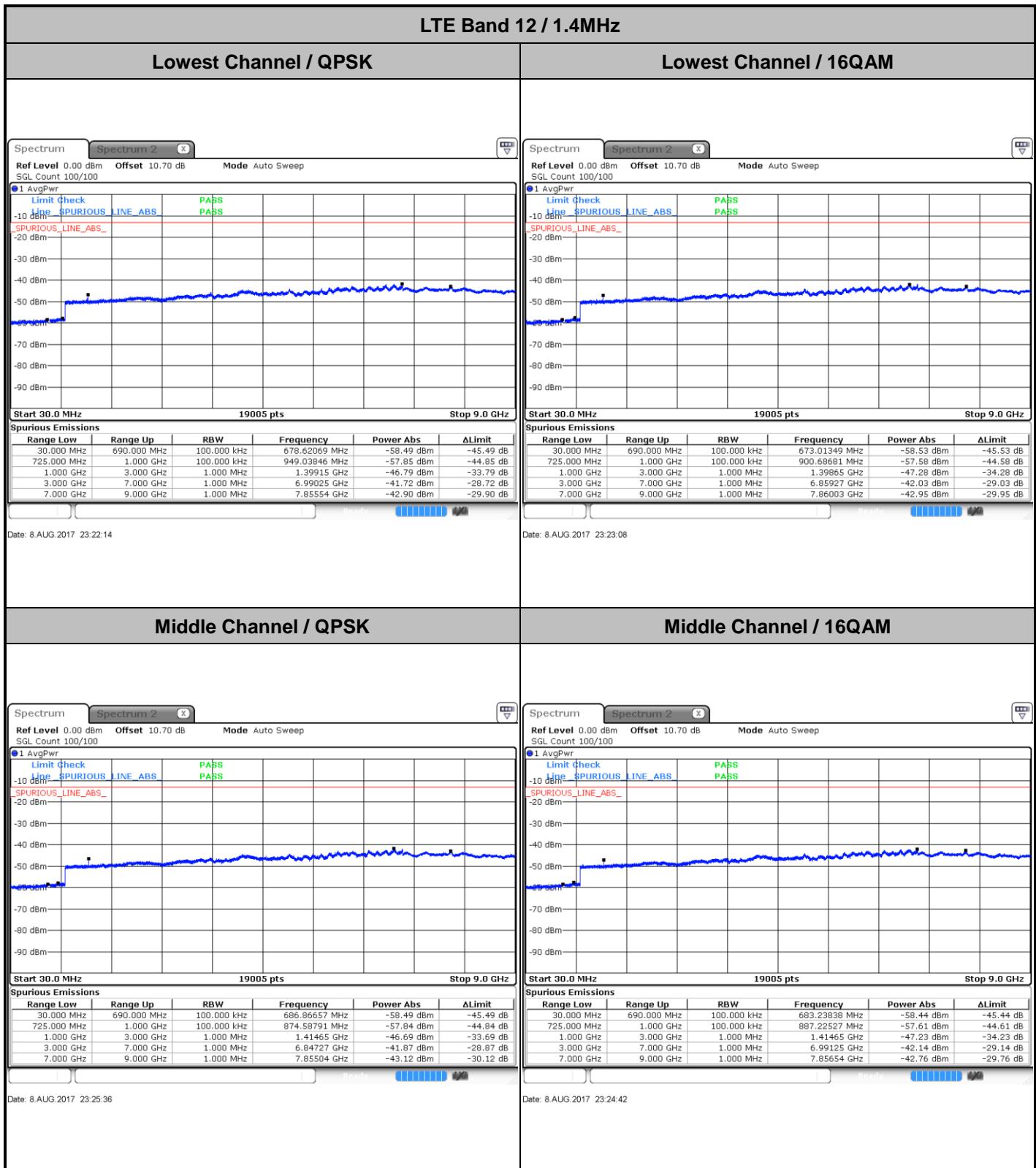




## Conducted Spurious Emission

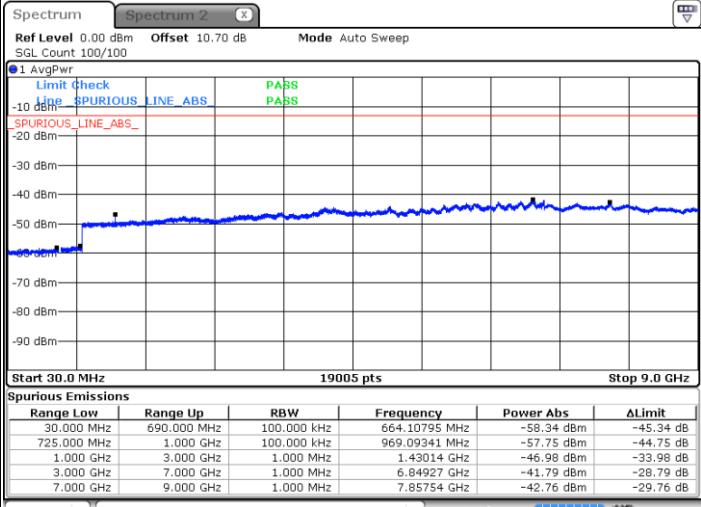
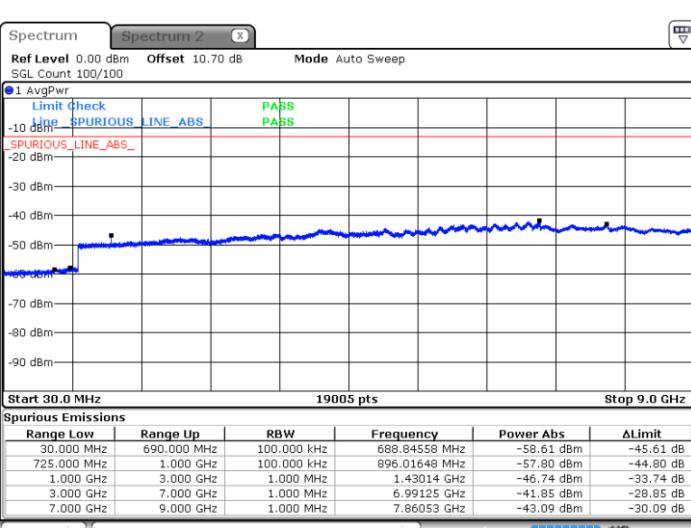




## LTE Band 12 / 1.4MHz

## Highest Channel / QPSK

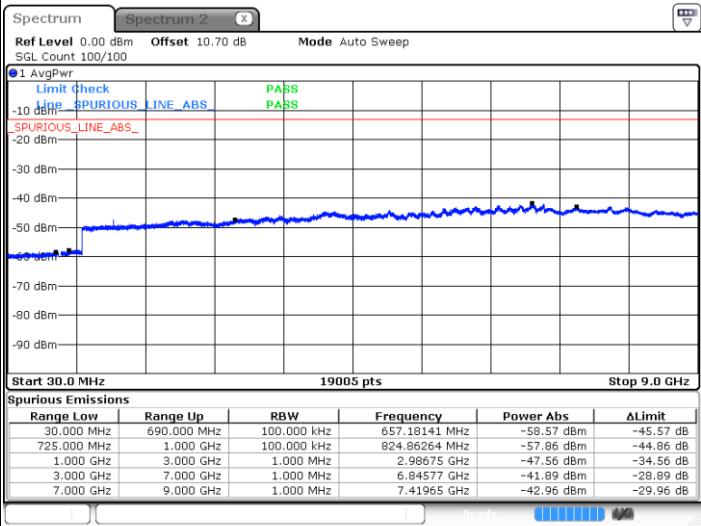
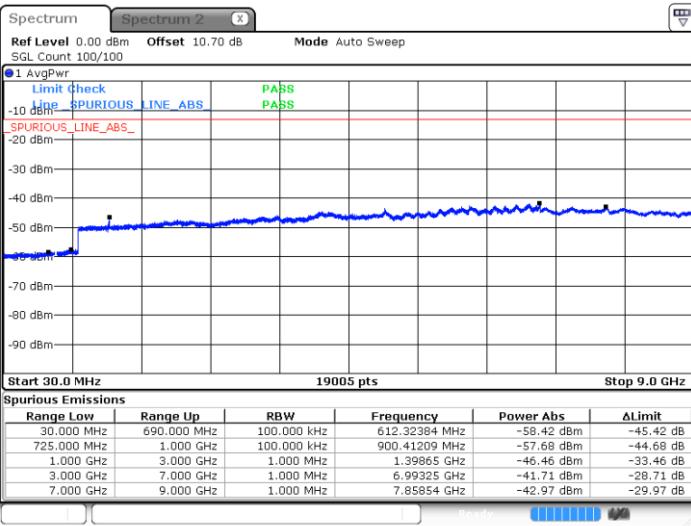
## Highest Channel / 16QAM

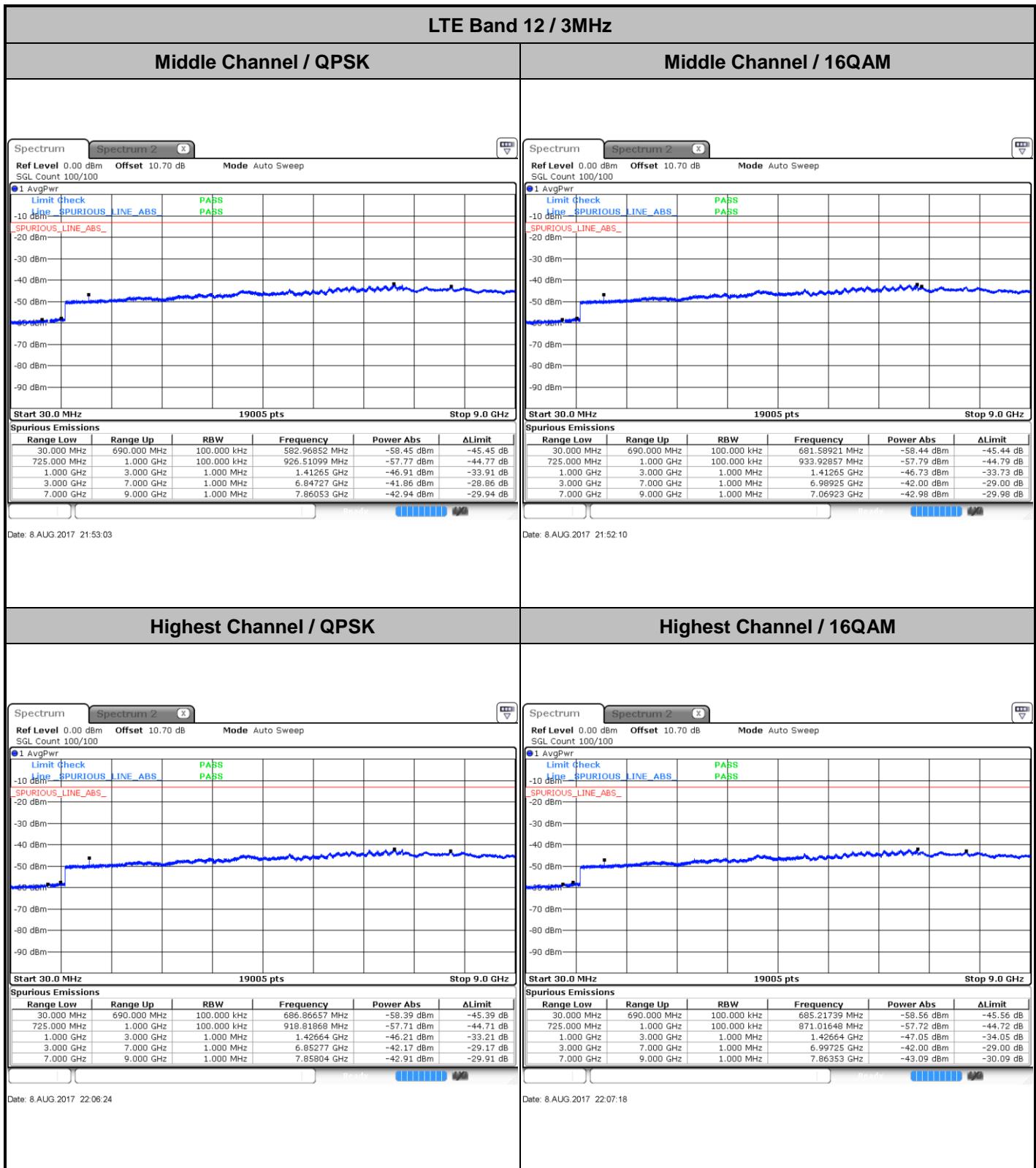


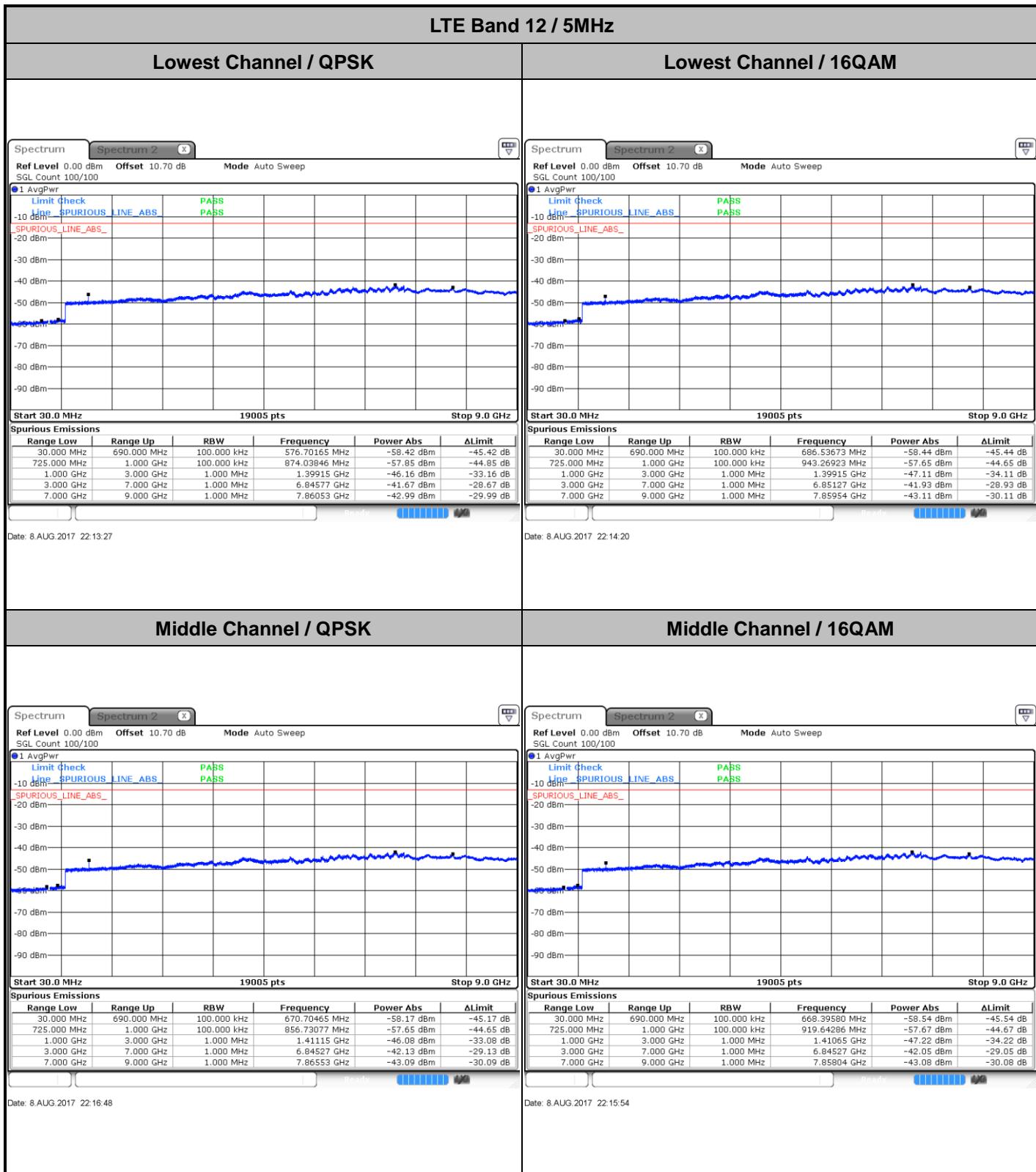
## LTE Band 12 / 3MHz

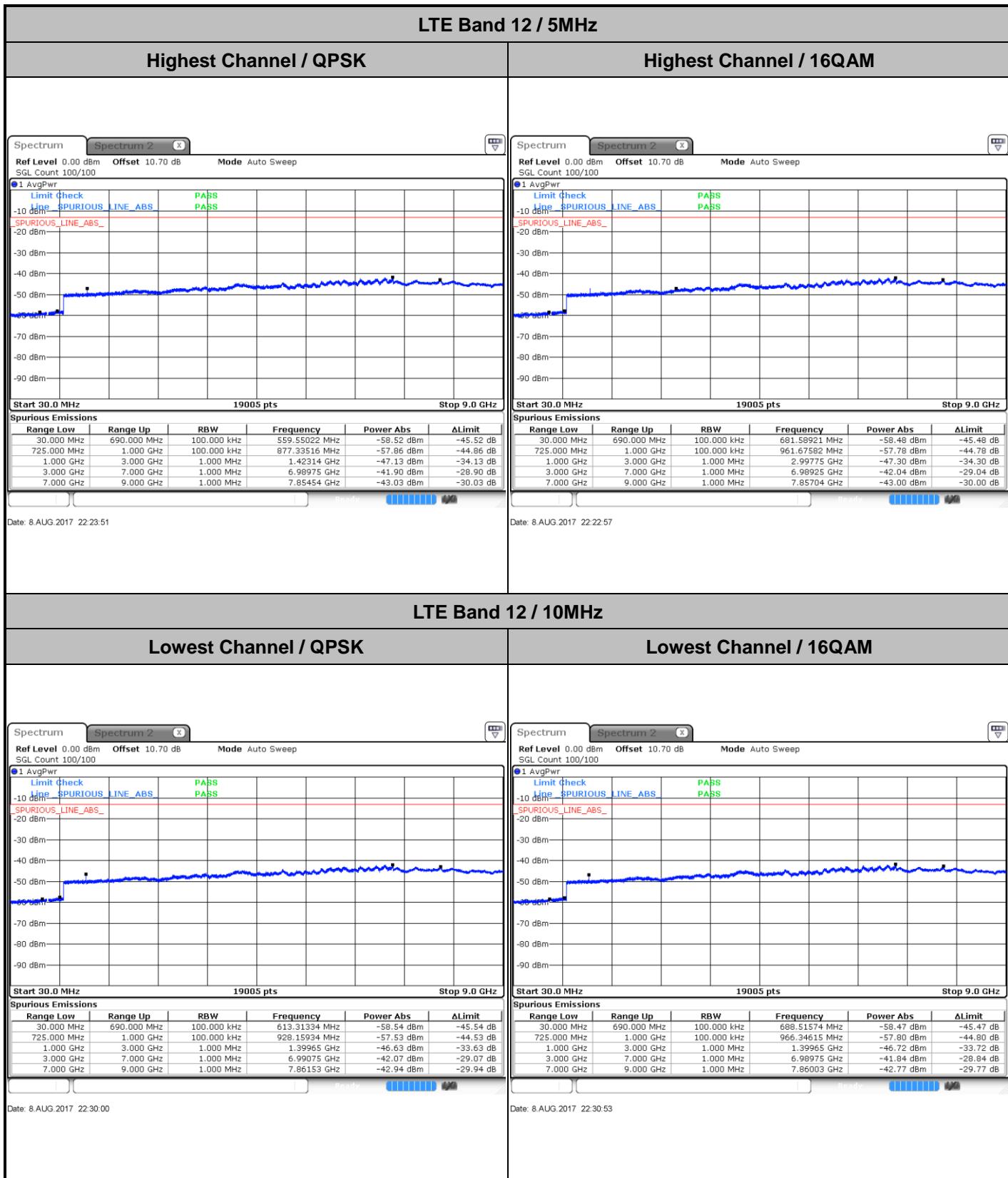
## Lowest Channel / QPSK

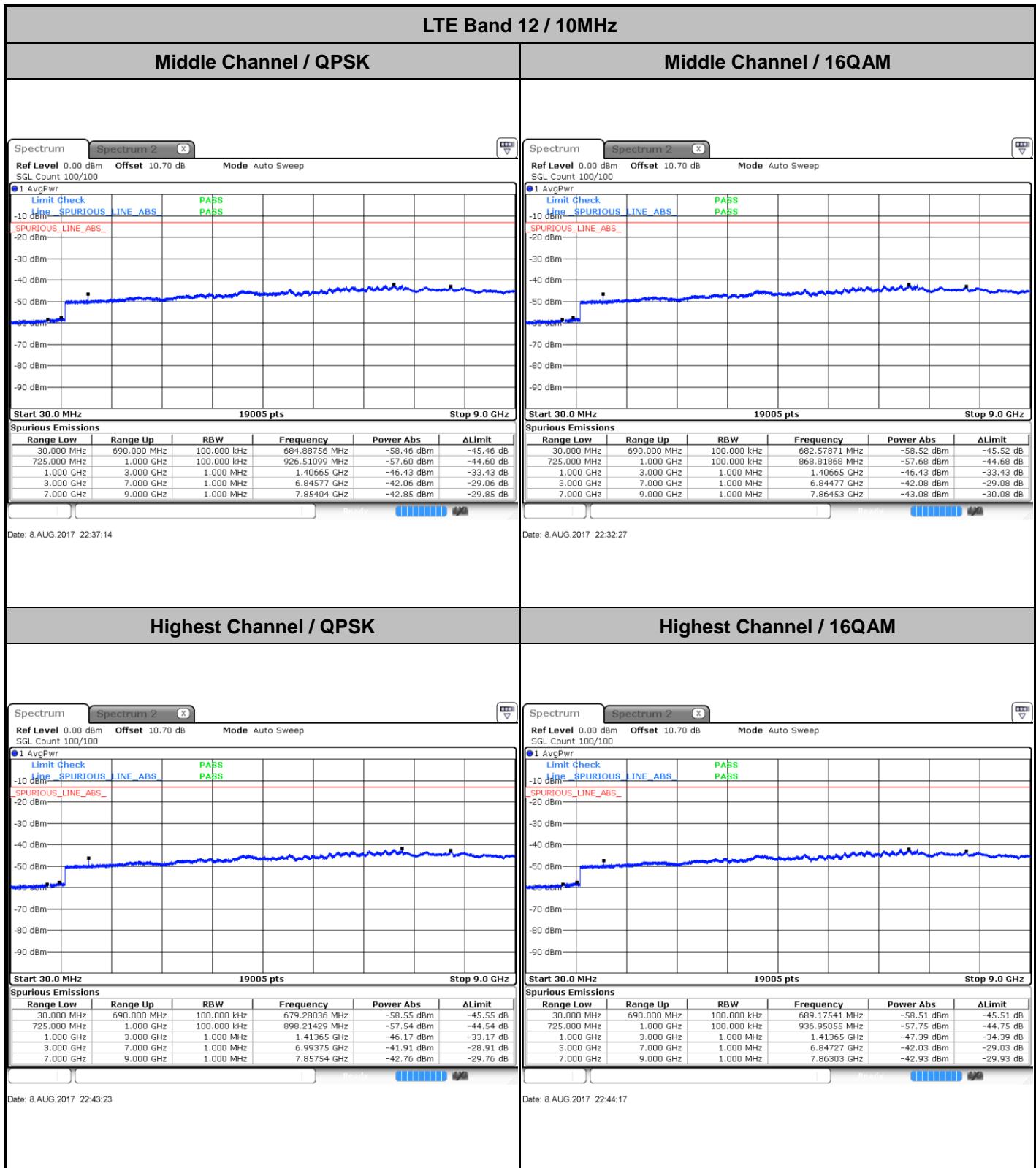
## Lowest Channel / 16QAM













## 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	0.0001	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0020	
0	Normal Voltage	0.0110	
-10	Normal Voltage	0.0028	
-20	Normal Voltage	0.0106	
-30	Normal Voltage	0.0113	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0021	

**Note:**

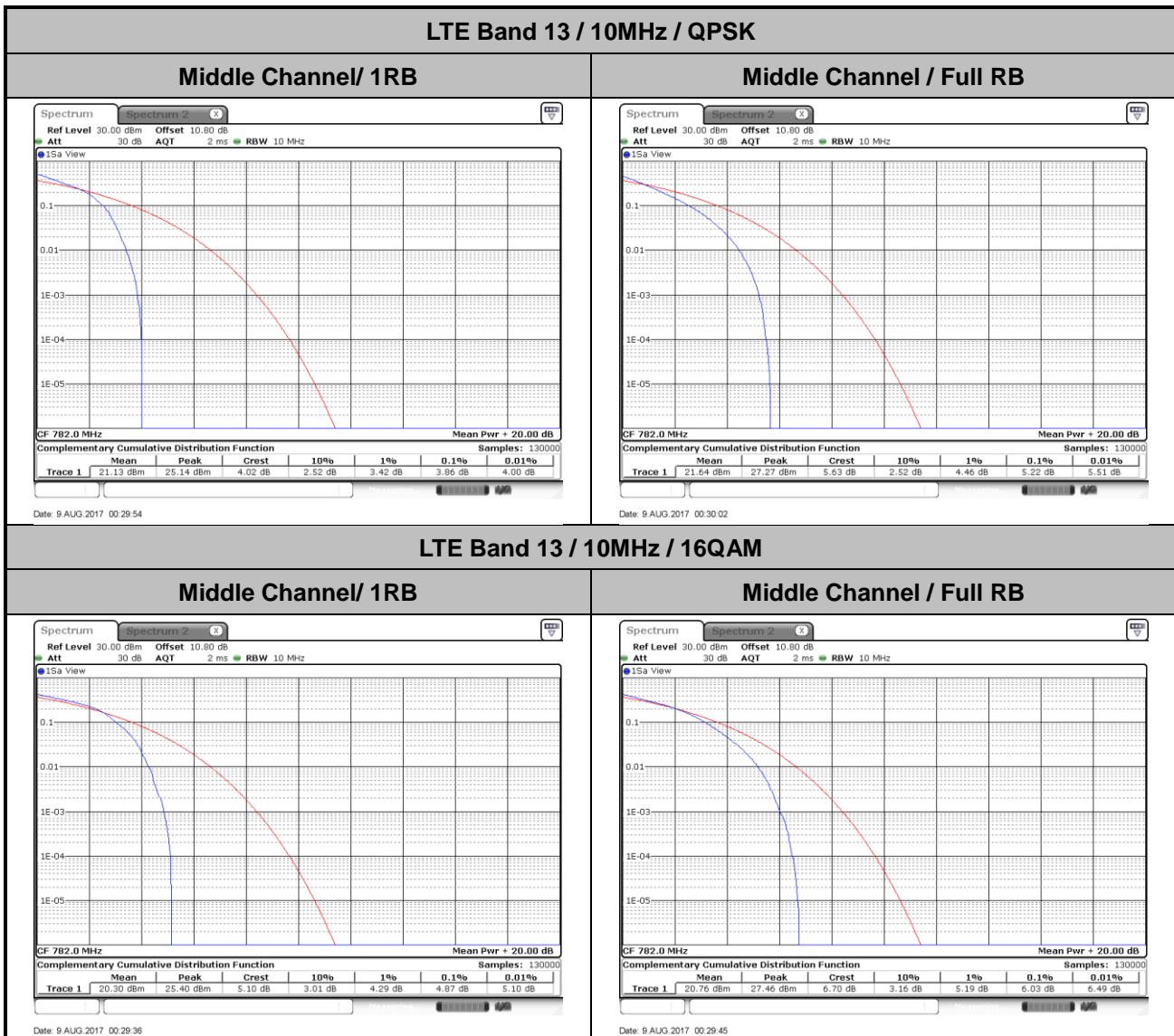
1. Normal Voltage =4.0 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 13

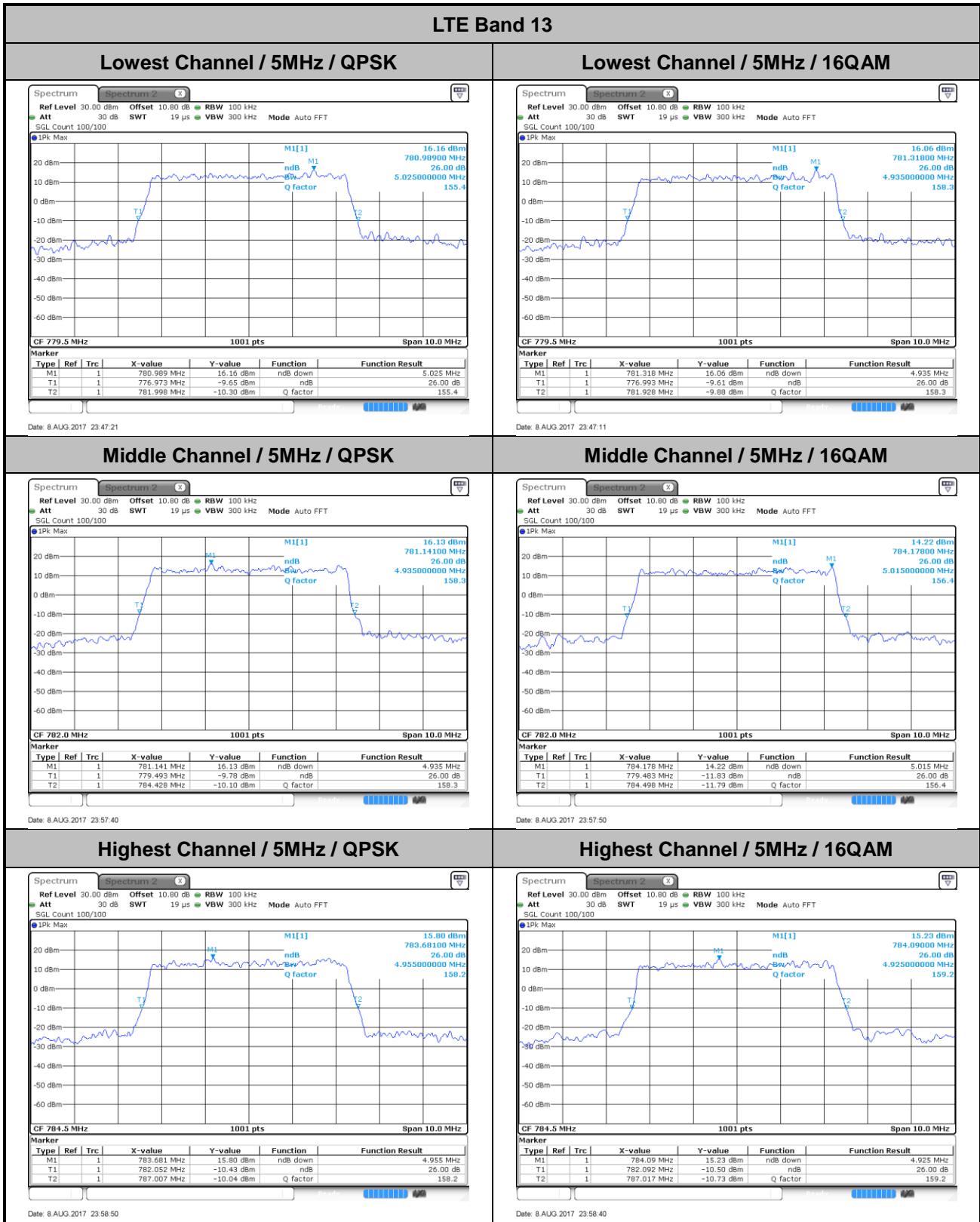
### Peak-to-Average Ratio

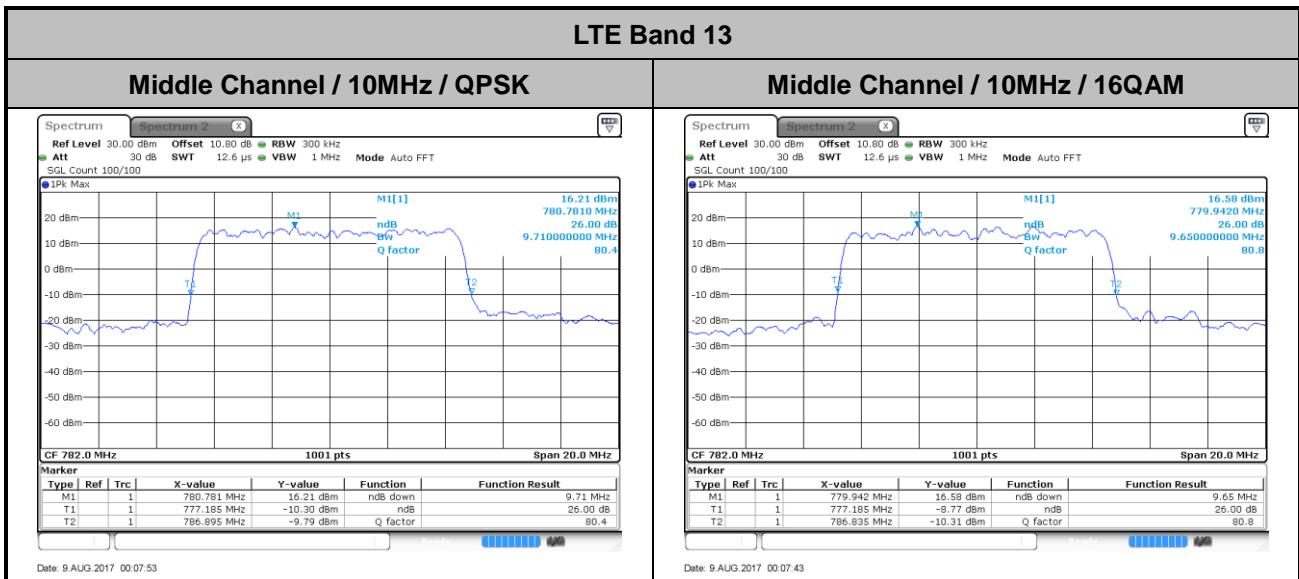
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	
Middle CH	3.86	5.22	4.87	6.03	PASS
Highest CH	-	-	-	-	



**26dB Bandwidth**

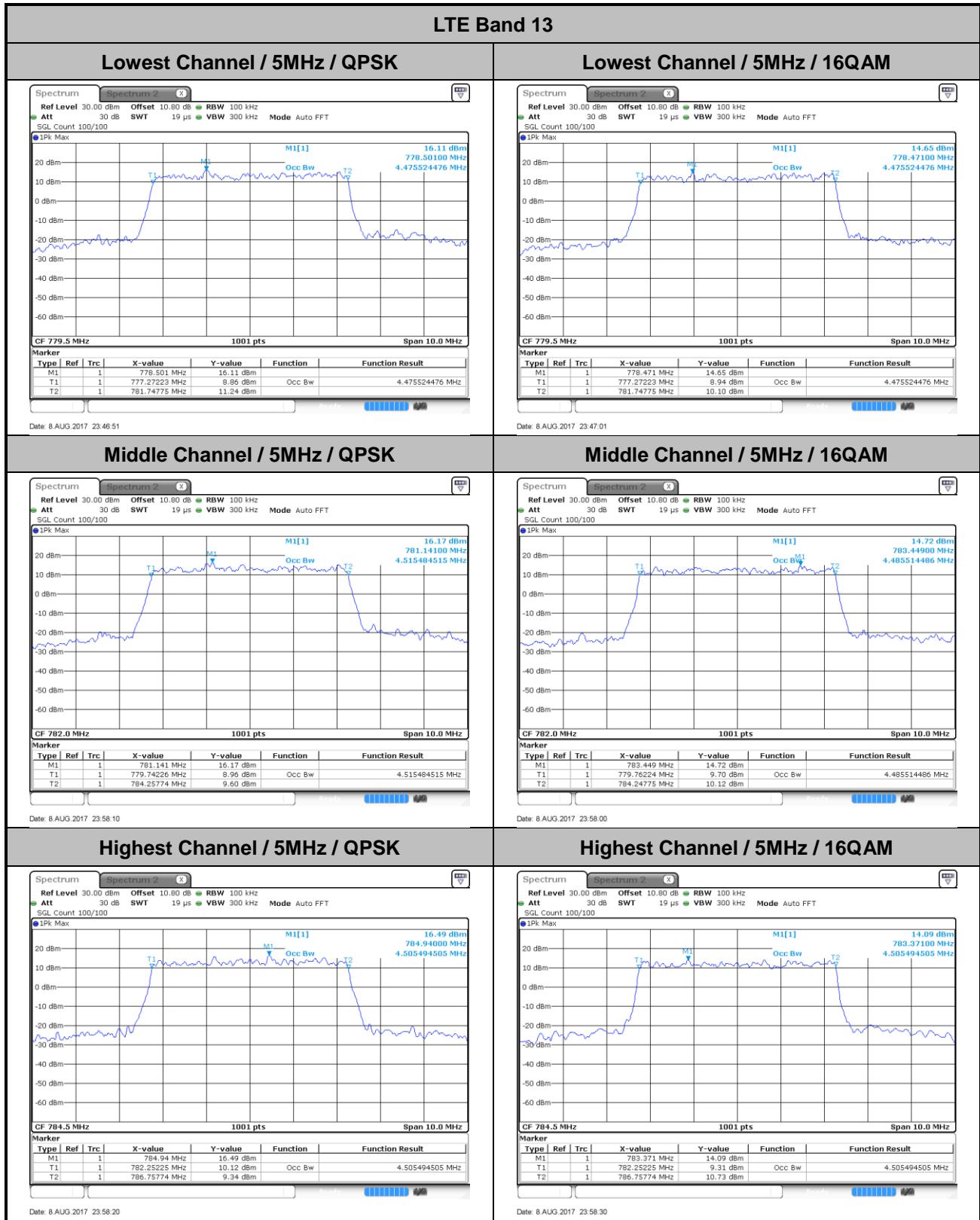
Mode	LTE Band 13 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.03	4.94	-	-	-	-	-	-
Middle CH	-	-	-	-	4.94	5.02	9.71	9.65	-	-	-	-
Highest CH	-	-	-	-	4.96	4.93	-	-	-	-	-	-

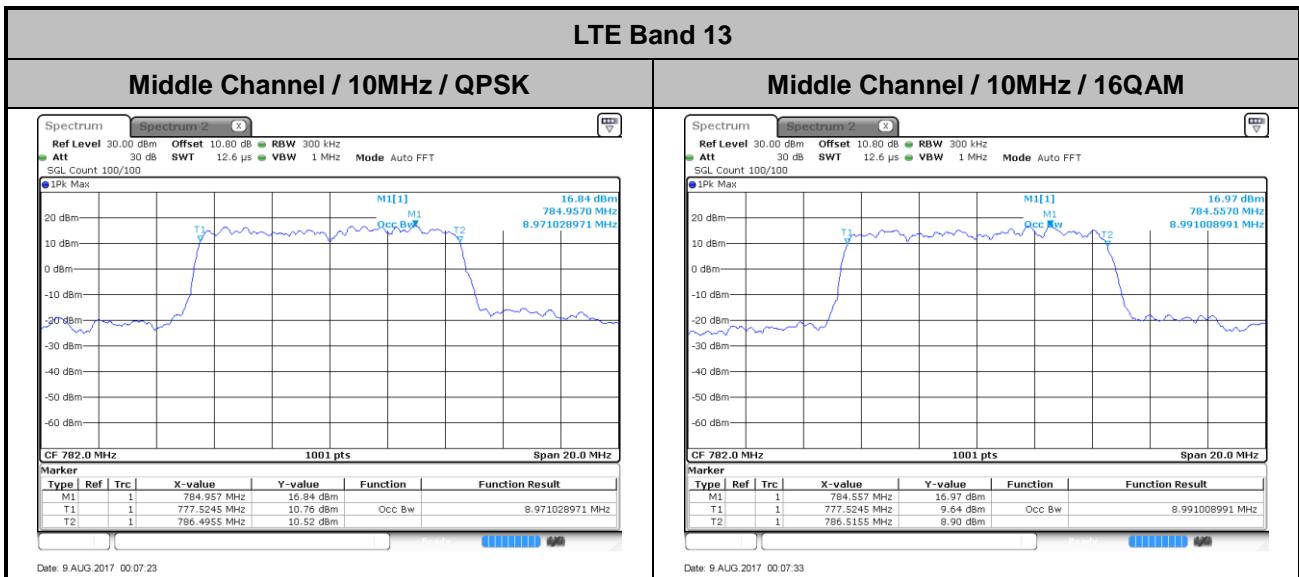




**Occupied Bandwidth**

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	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.52	4.49	8.97	8.99	-	-	-	-
Highest CH	-	-	-	-	4.51	4.51	-	-	-	-	-	-





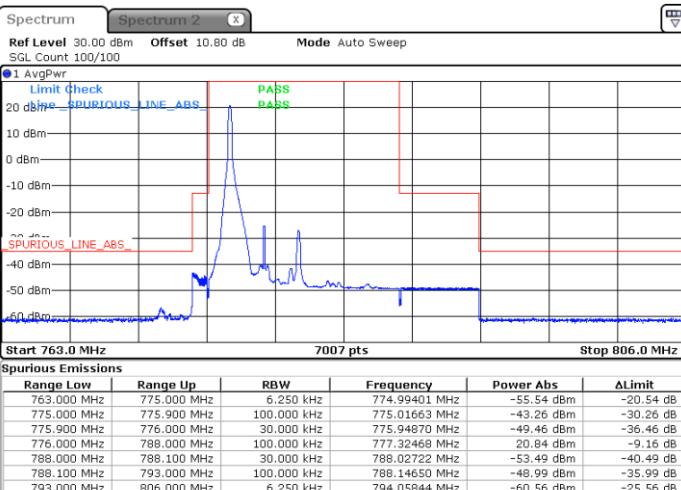


## Conducted Band Edge



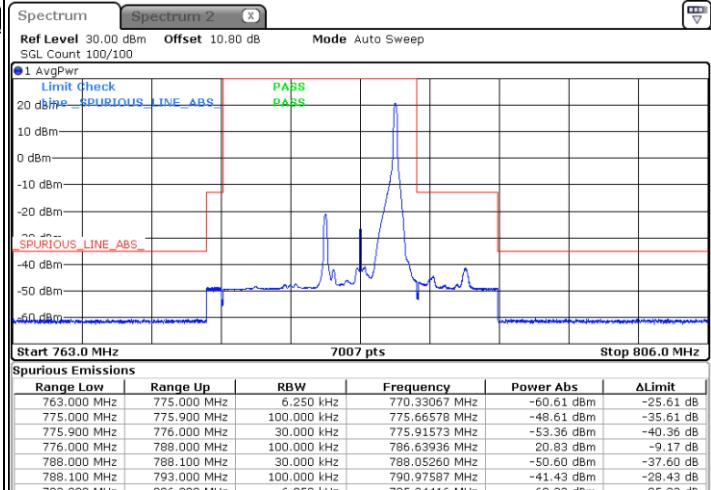
**LTE Band 13 / 5MHz / QPSK**

## Lowest Band Edge / 1 RB



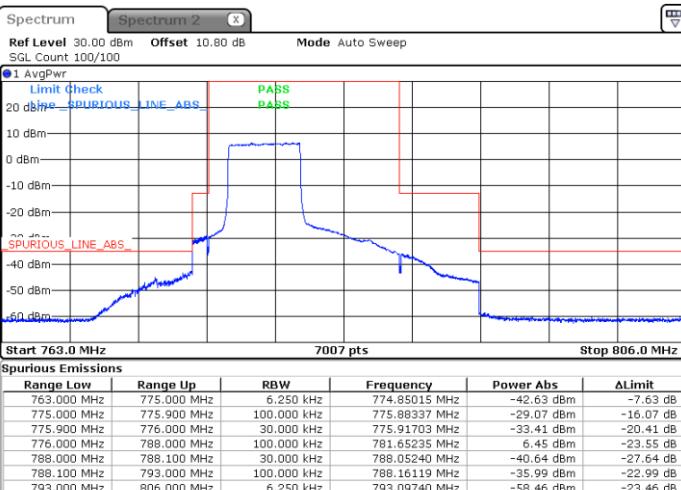
Date: 8.AUG.2017 23:53:55

## Highest Band Edge / 1 RB



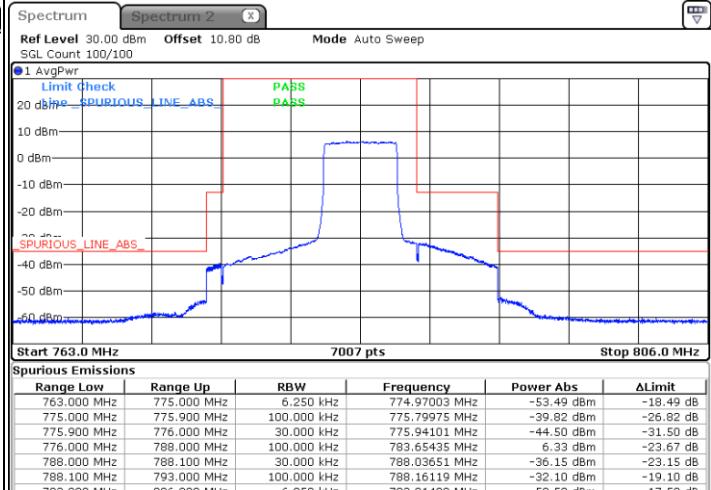
Date: 9.AUG.2017 00:05:25

## **Lowest Band Edge / Full RB**

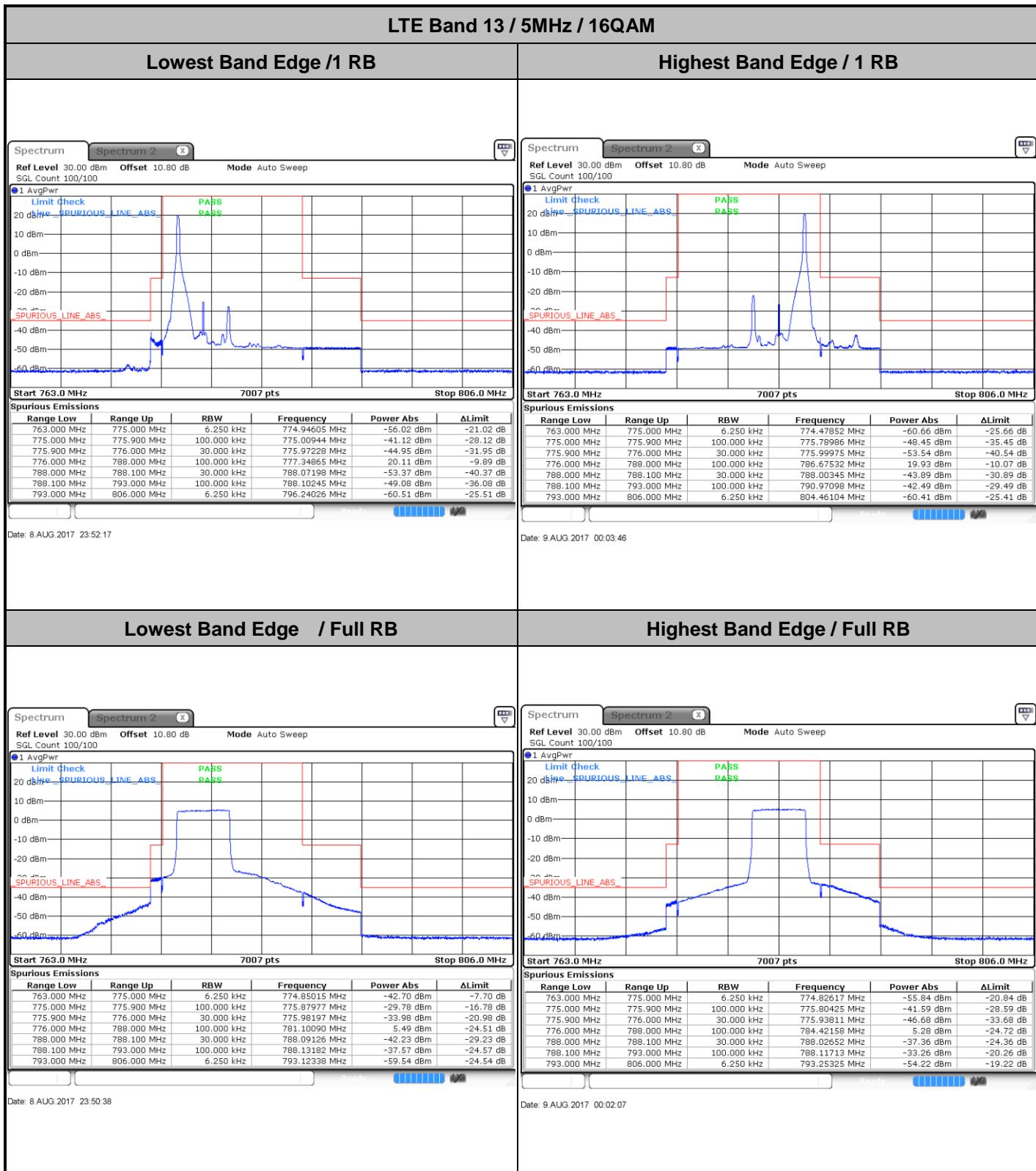


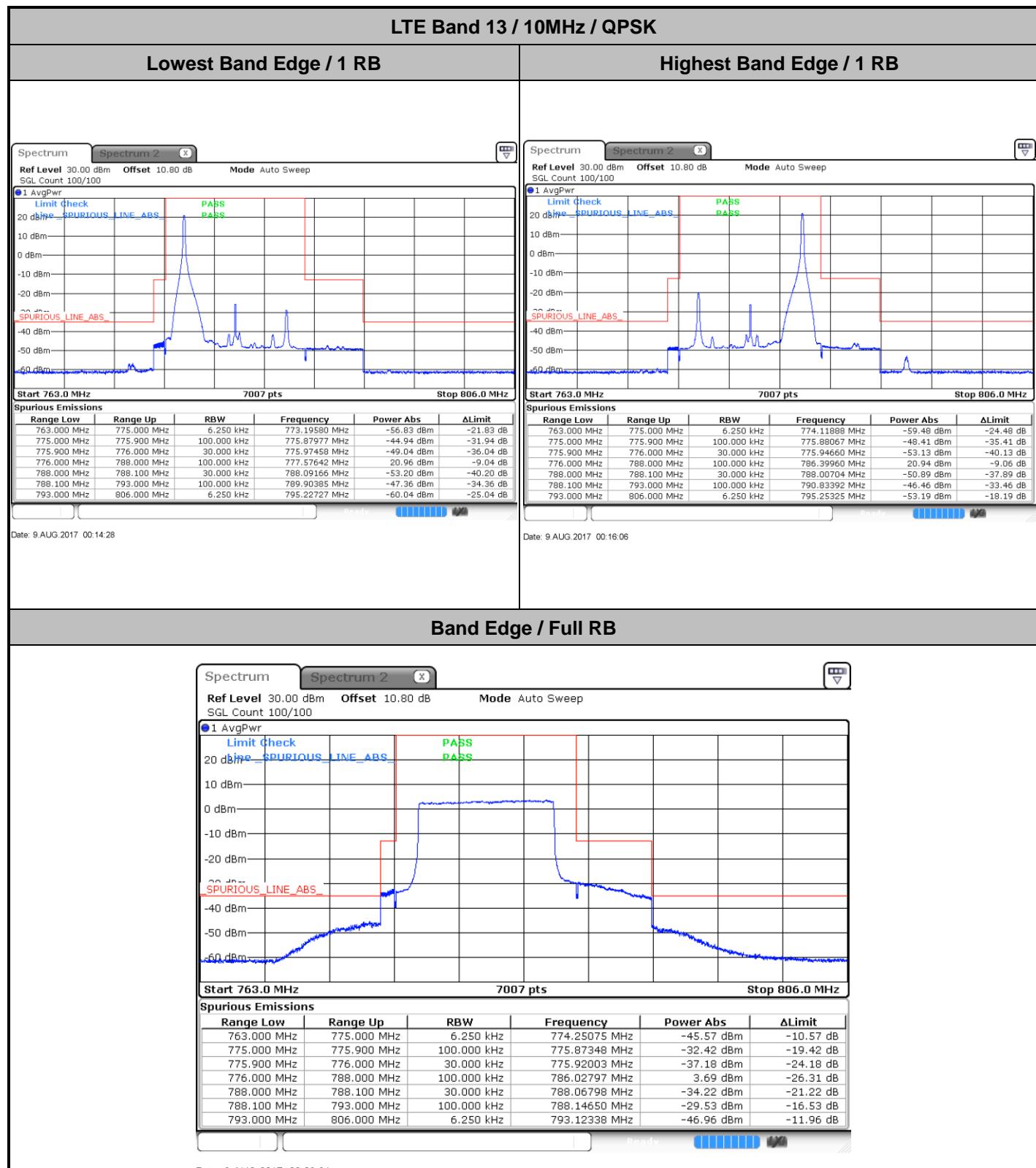
Date: 8.AUG.2017 23:48:59

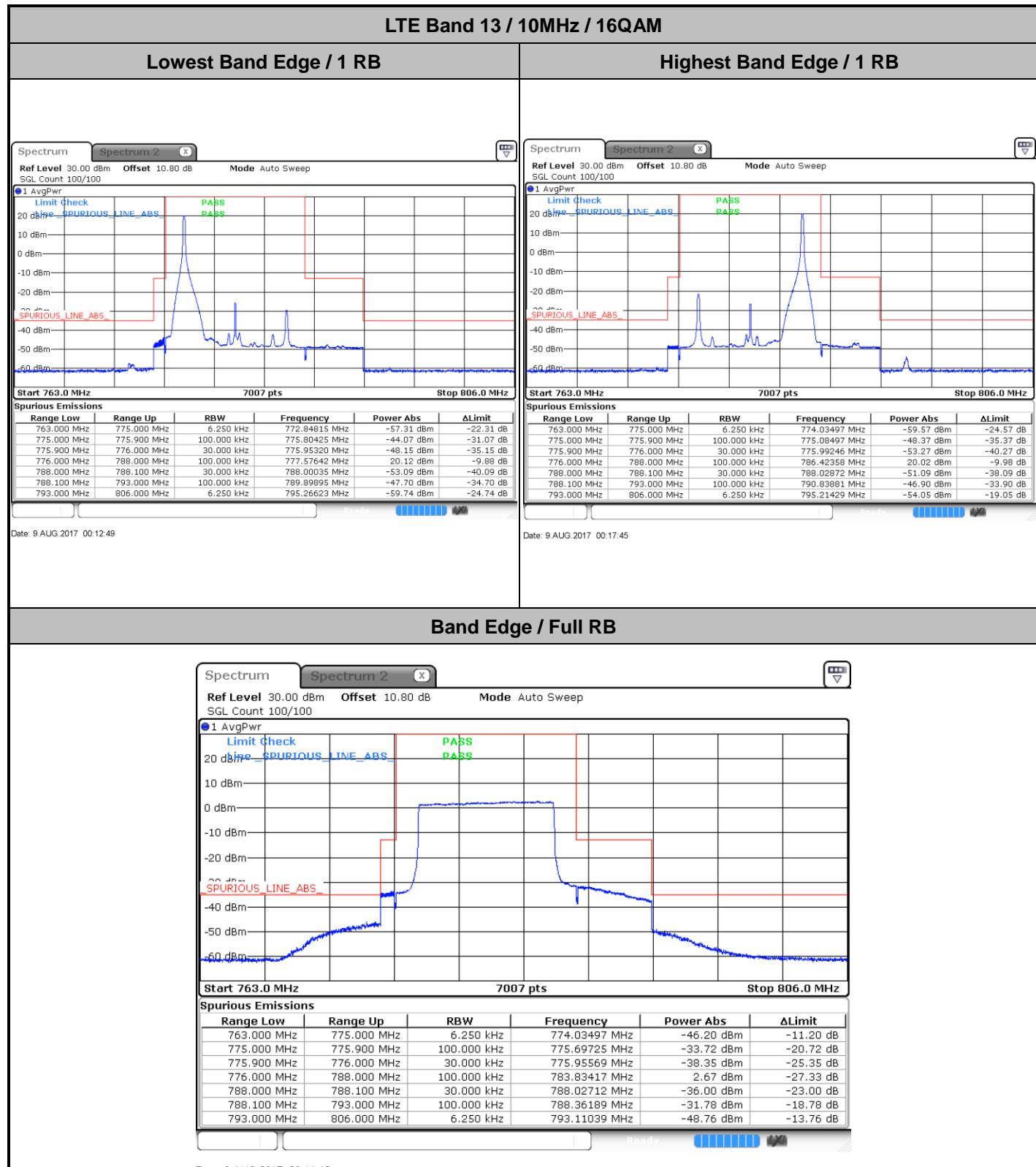
## Highest Band Edge / Full RB



Date: 9.AUG.2017 00:00:29



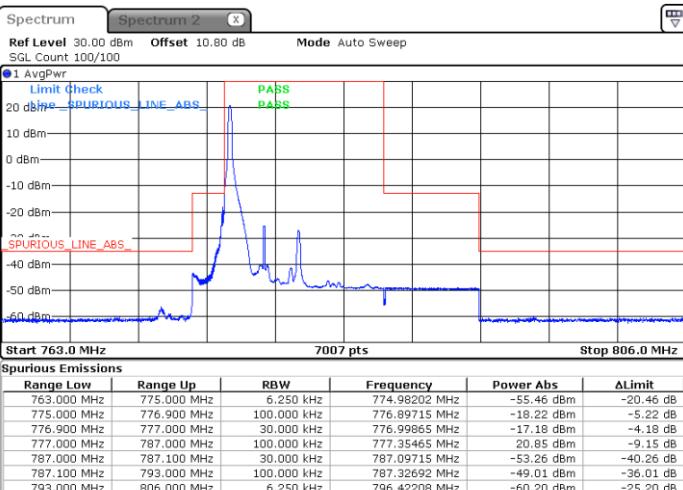






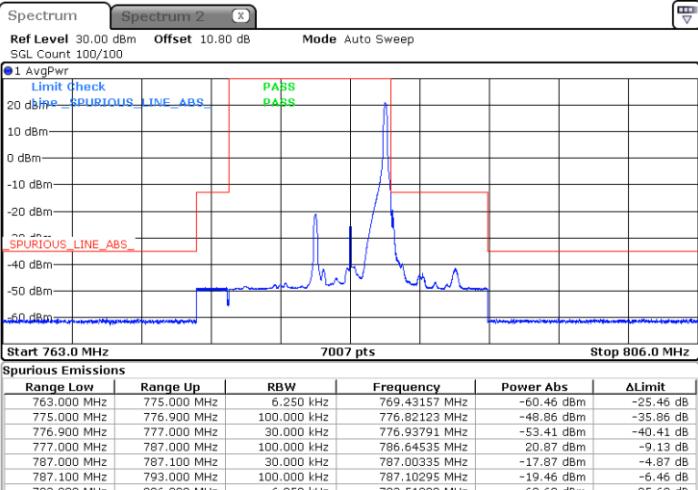
IC LTE Band 13 / 5MHz / QPSK

## Lowest Band Edge / 1 RB



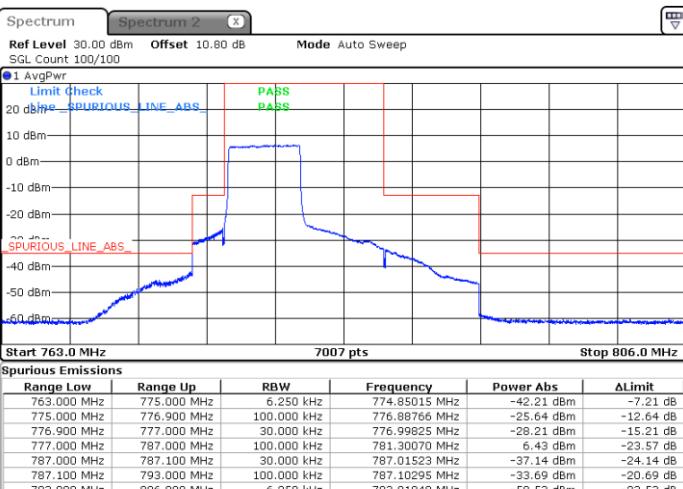
Date: 9.AUG.2017 00:36:54

## Highest Band Edge / 1 RB



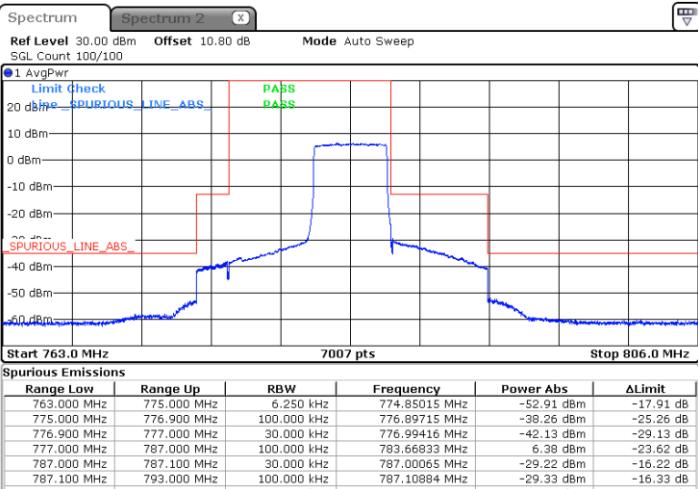
Date: 9 AUG 2017 00:43:30

## **Lowest Band Edge / Full RB**

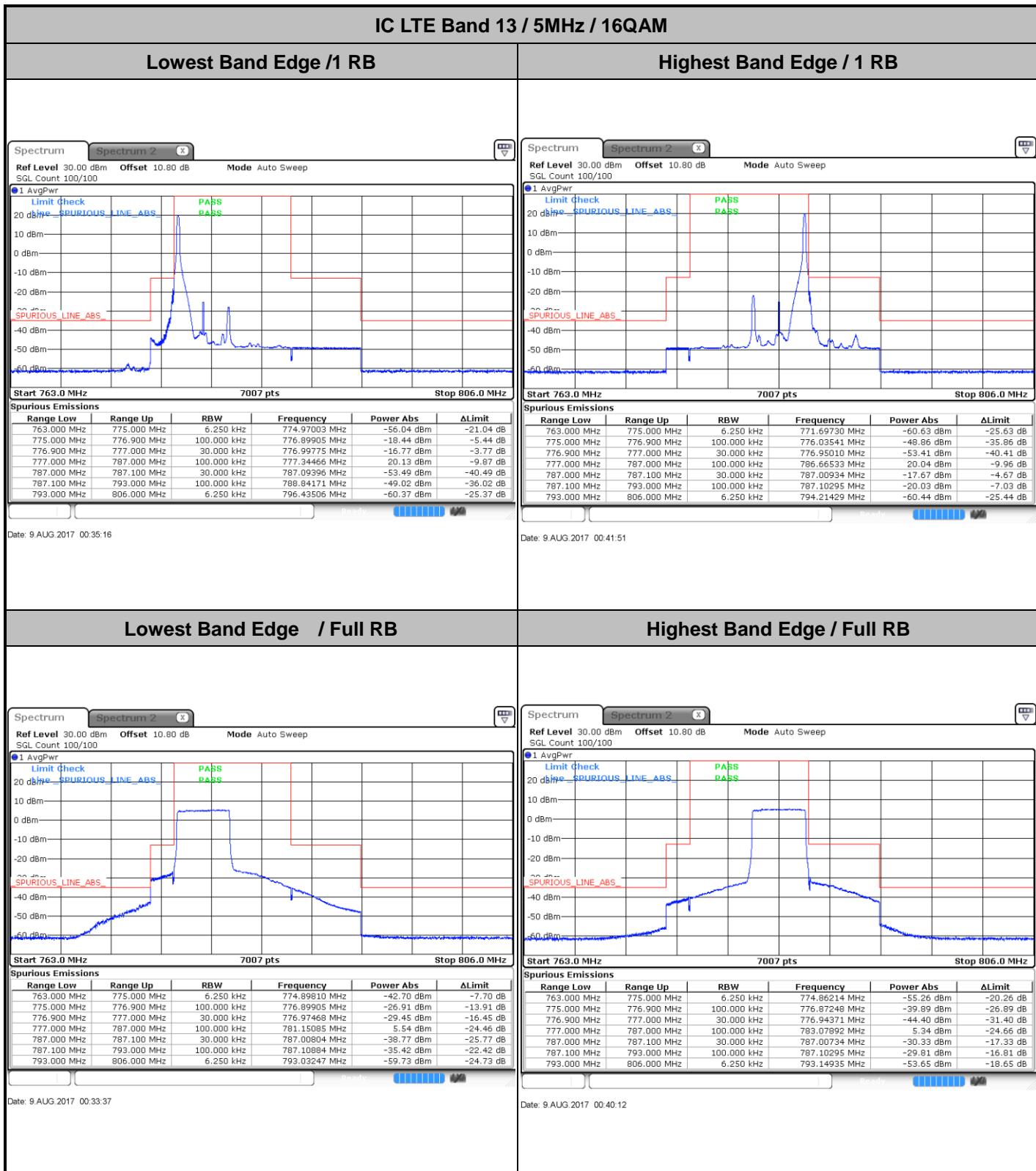


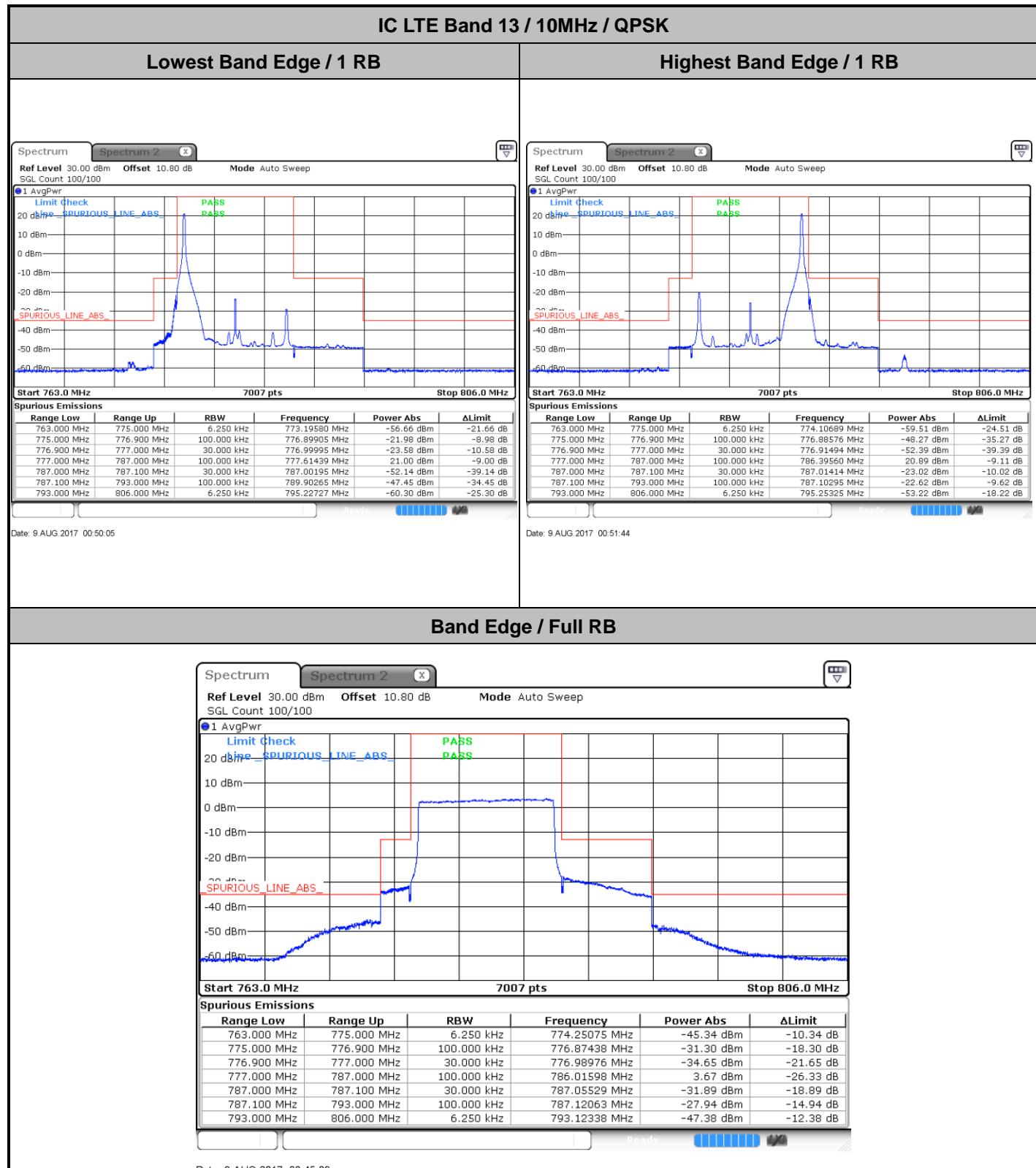
Date: 9.AUG.2017 00:31:58

## Highest Band Edge / Full RB



Datum: 8. AUG 2017 01:04:49



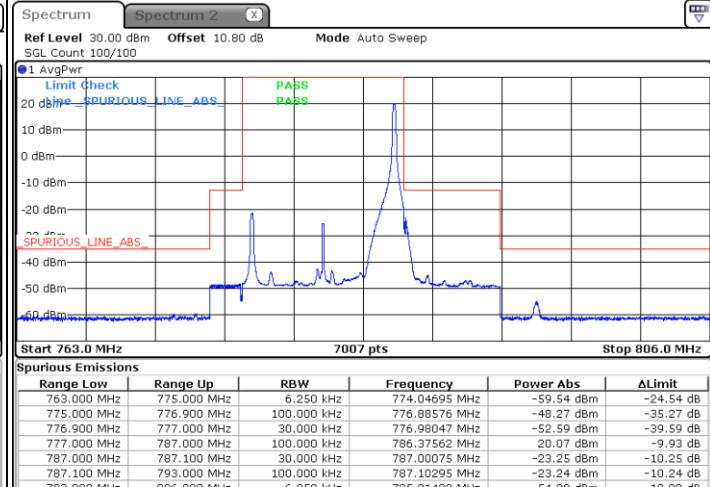
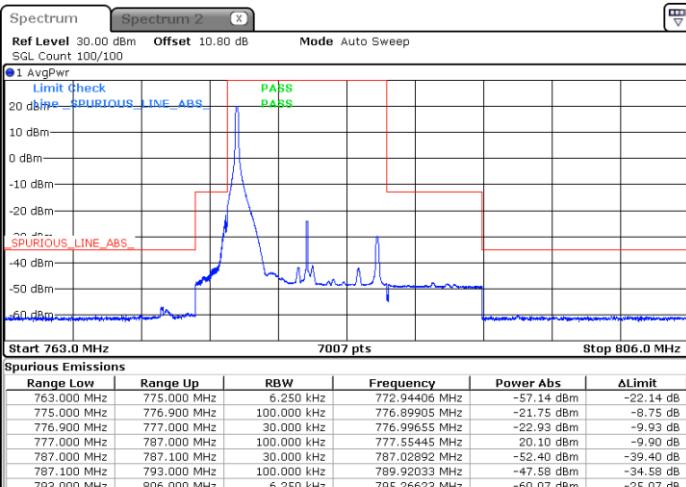




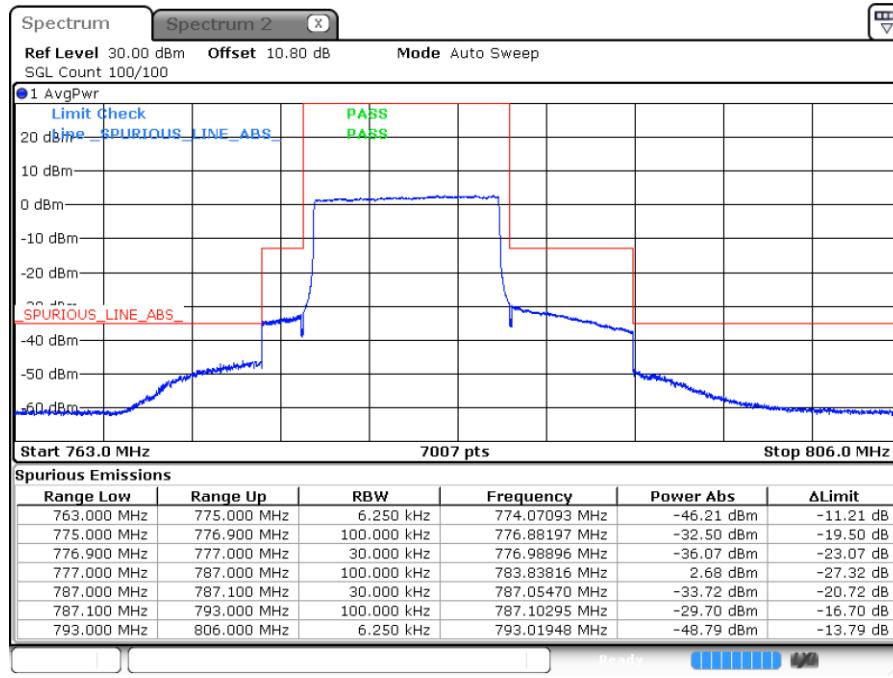
## IC LTE Band 13 / 10MHz / 16QAM

## Lowest Band Edge / 1 RB

## Highest Band Edge / 1 RB



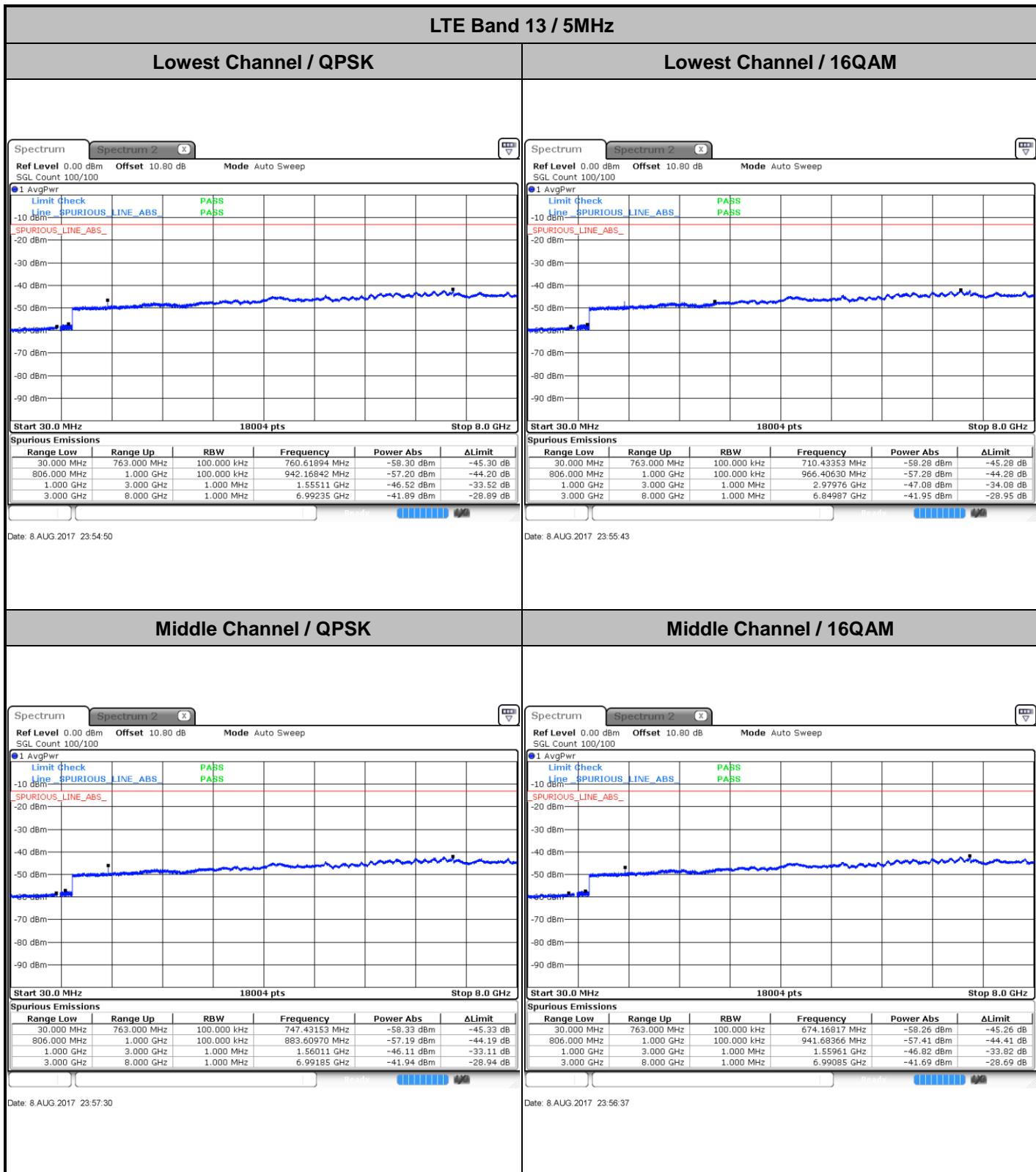
## Band Edge / Full RB



Date: 9 AUG 2017 00:46:47



## Conducted Spurious Emission

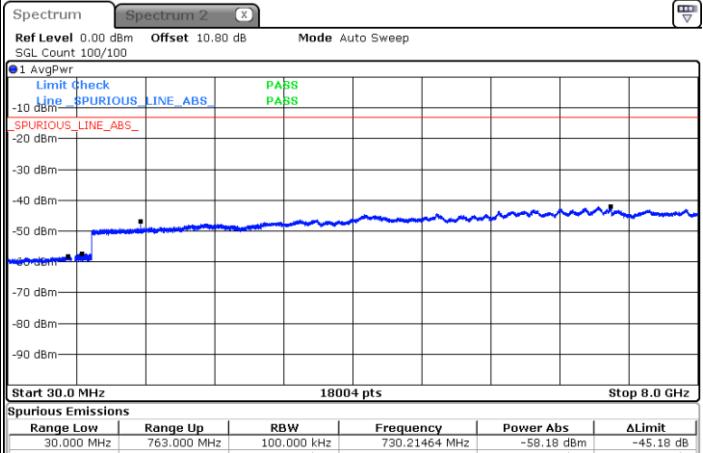
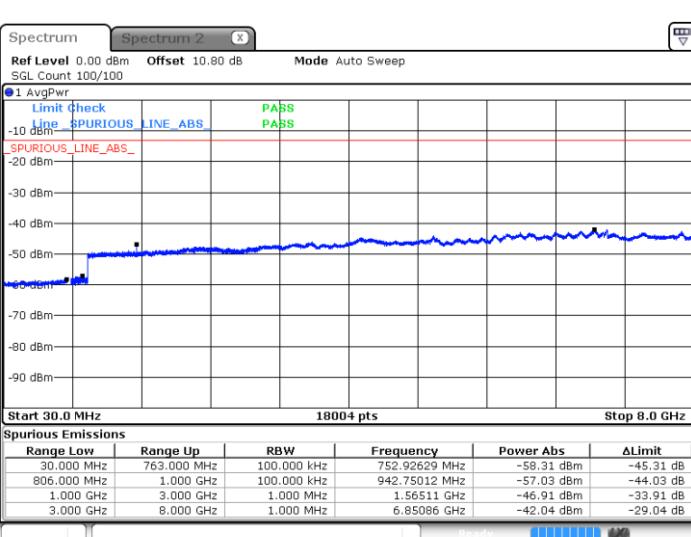




## LTE Band 13 / 5MHz

## Highest Channel / QPSK

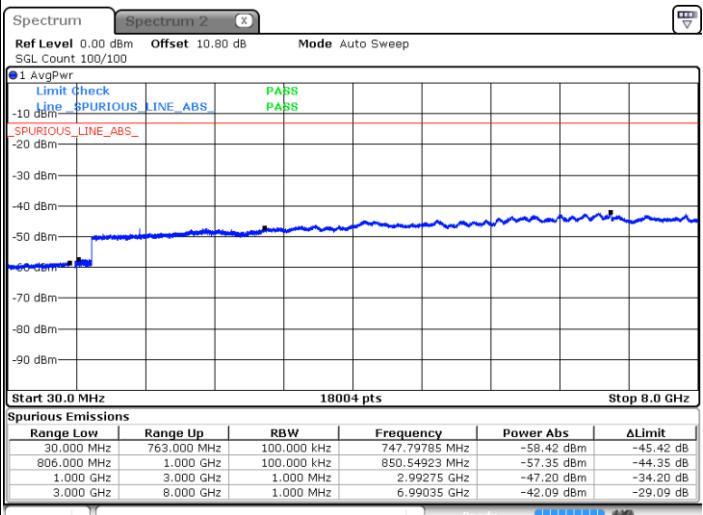
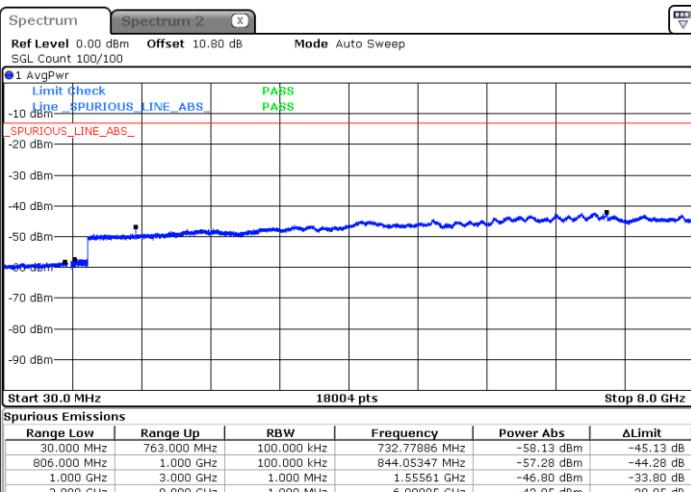
## Highest Channel / 16QAM



## LTE Band 13 / 10MHz

## Middle Channel / QPSK

## Middle Channel / 16QAM





## 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	0.0018	PASS
40	Normal Voltage	0.0000	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0133	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0013	
-20	Normal Voltage	0.0127	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0134	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0027	

**Note:**

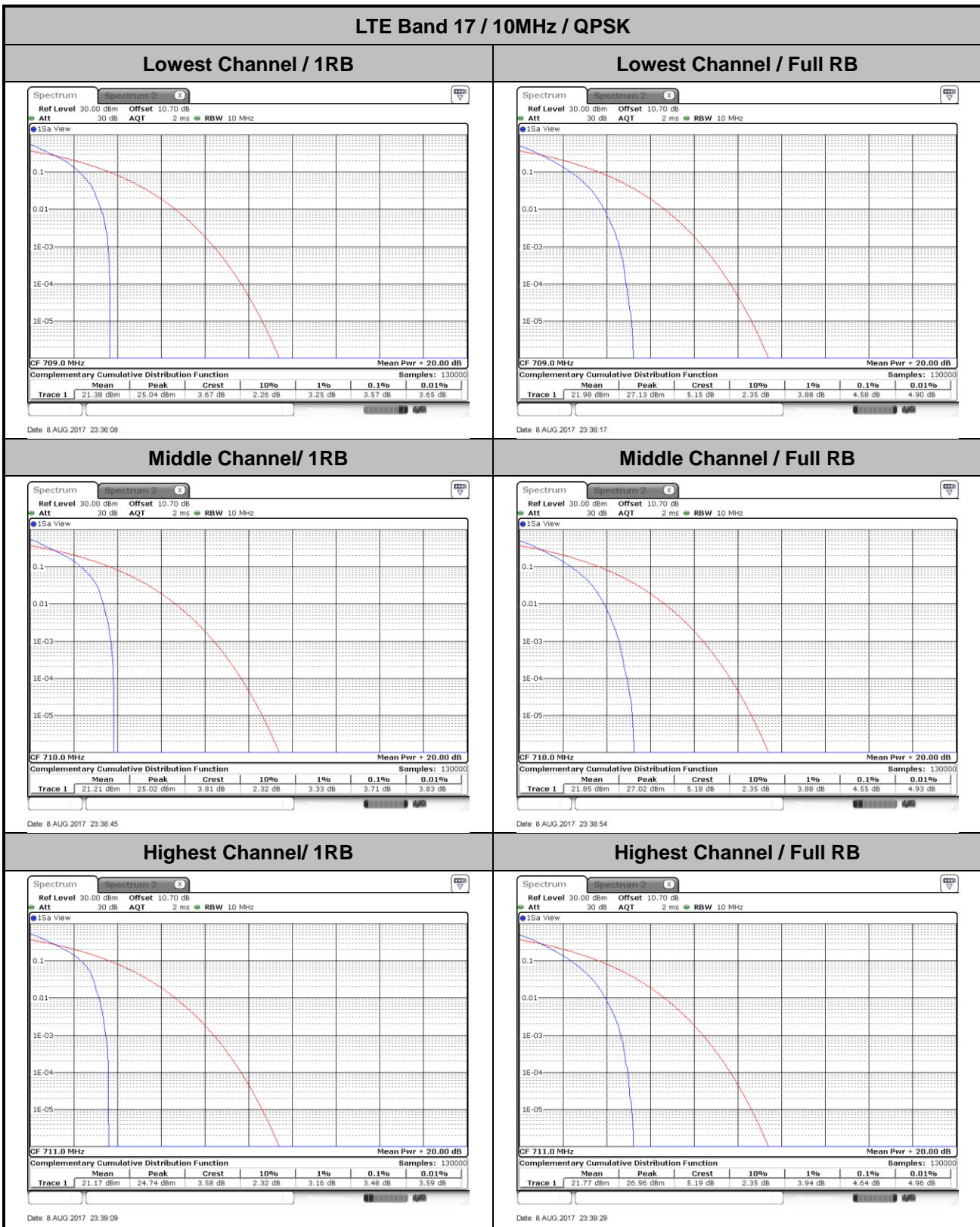
1. Normal Voltage =4.0 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

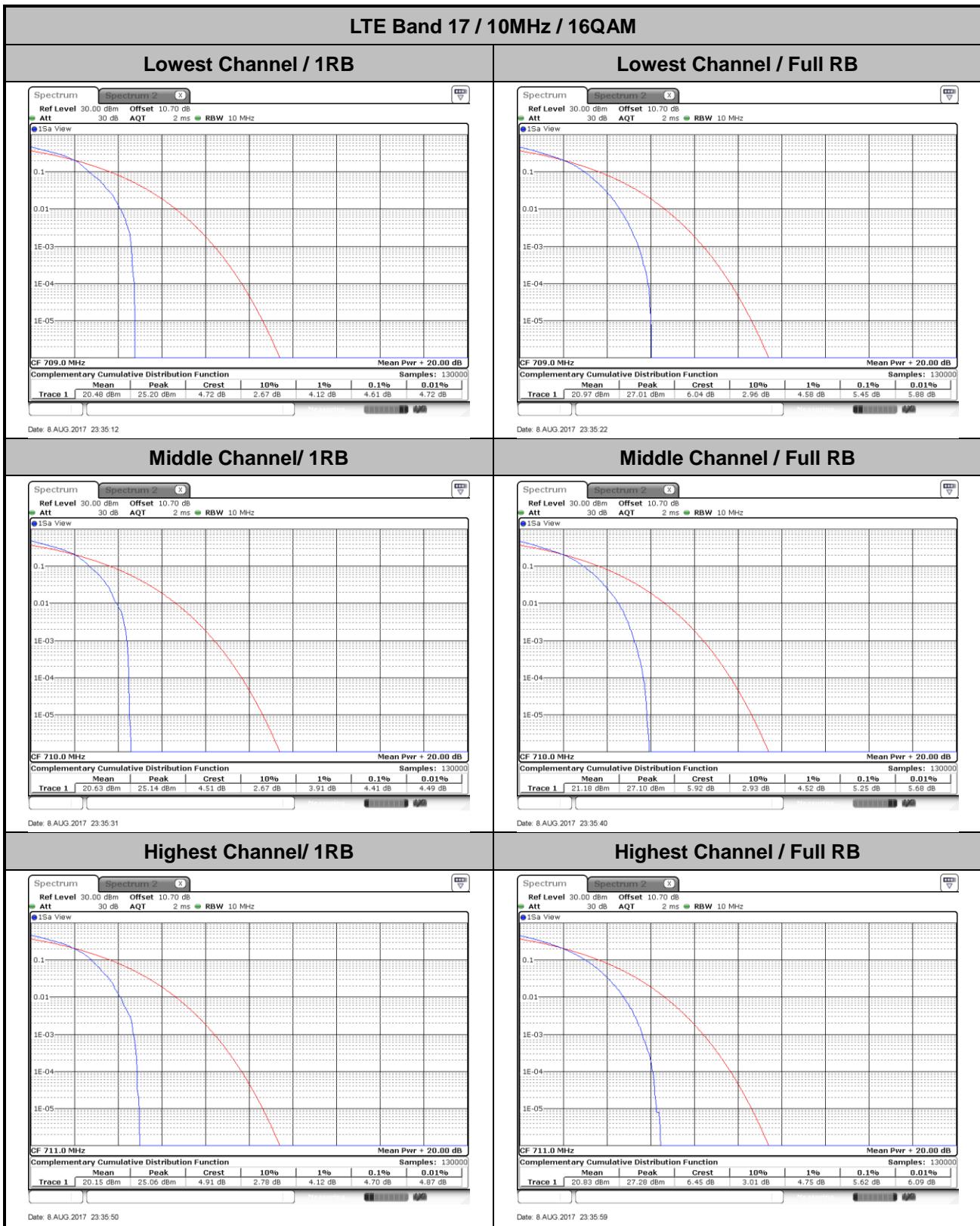


## LTE Band 17

### Peak-to-Average Ratio

Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.57	4.58	4.61	5.45	PASS
Middle CH	3.71	4.55	4.41	5.25	
Highest CH	3.48	4.64	4.7	5.62	





**26dB Bandwidth**

Mode	LTE Band 17 : 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	-	-	-	-	4.81	4.92	10.07	9.95	-	-	-	-
Middle CH	-	-	-	-	5.04	4.88	9.89	9.91	-	-	-	-
Highest CH	-	-	-	-	4.95	5.08	9.99	9.81	-	-	-	-

