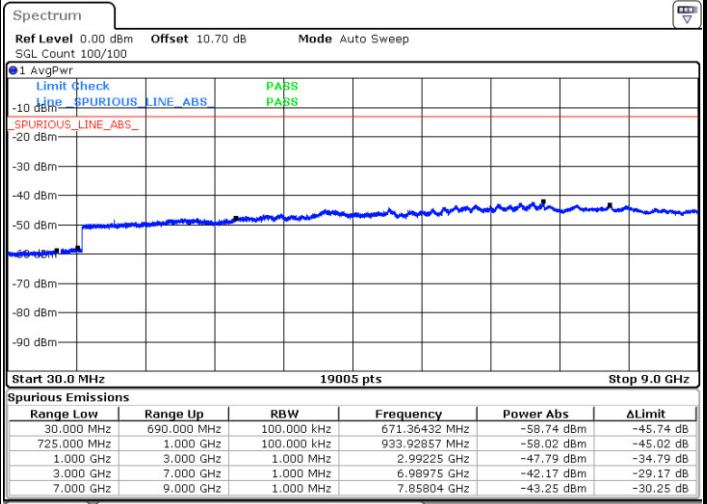
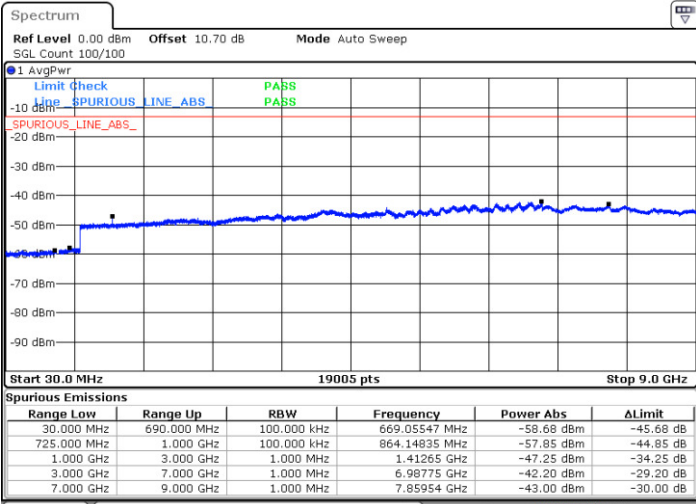




LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

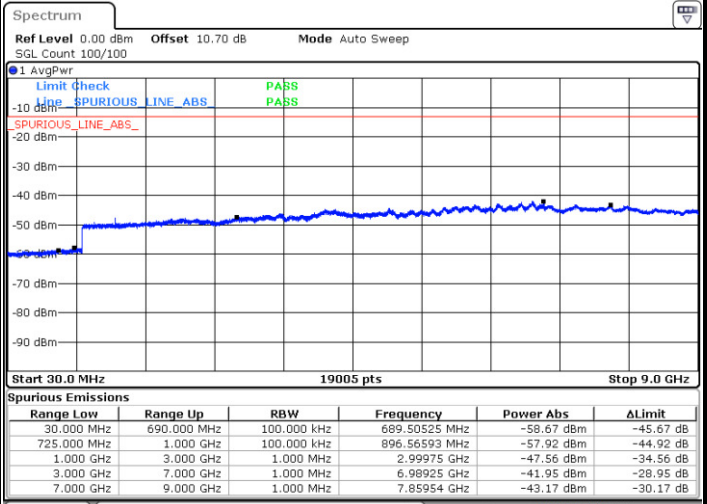
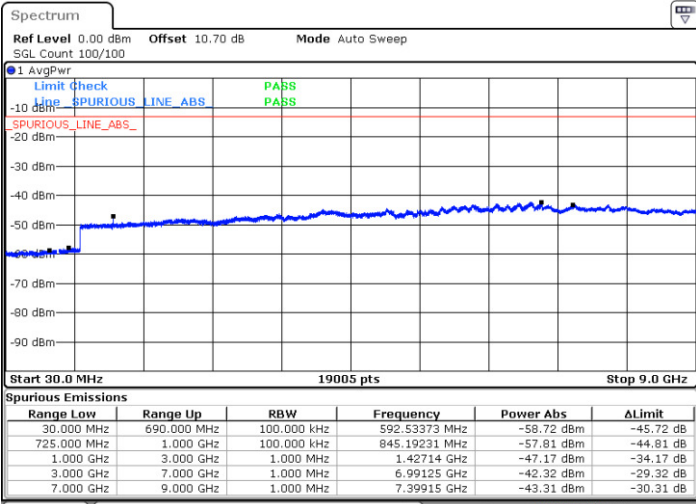


Date: 5 JAN 2018 23:39:02

Date: 5 JAN 2018 23:38:09

Highest Channel / QPSK

Highest Channel / 16QAM



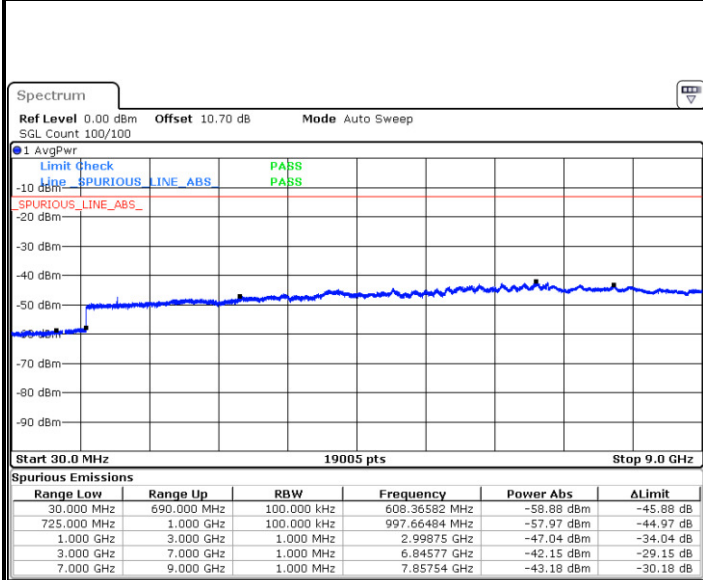
Date: 5 JAN 2018 23:45:11

Date: 5 JAN 2018 23:46:05



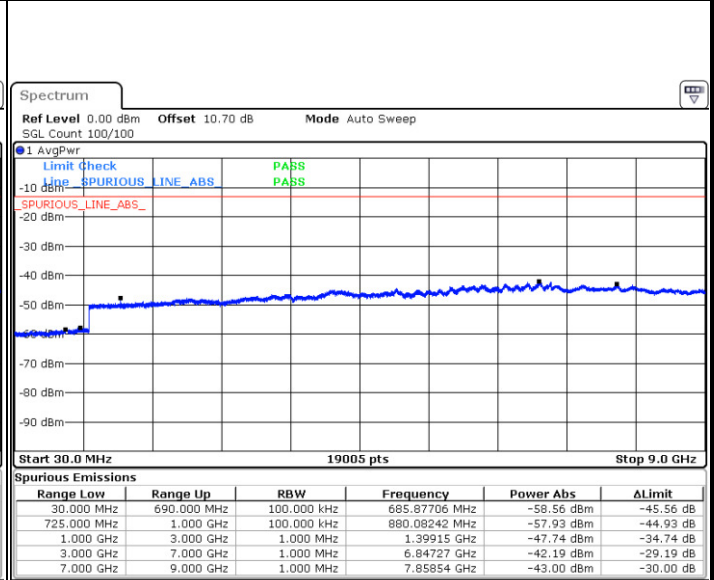
LTE Band 12 / 5MHz

Lowest Channel / QPSK



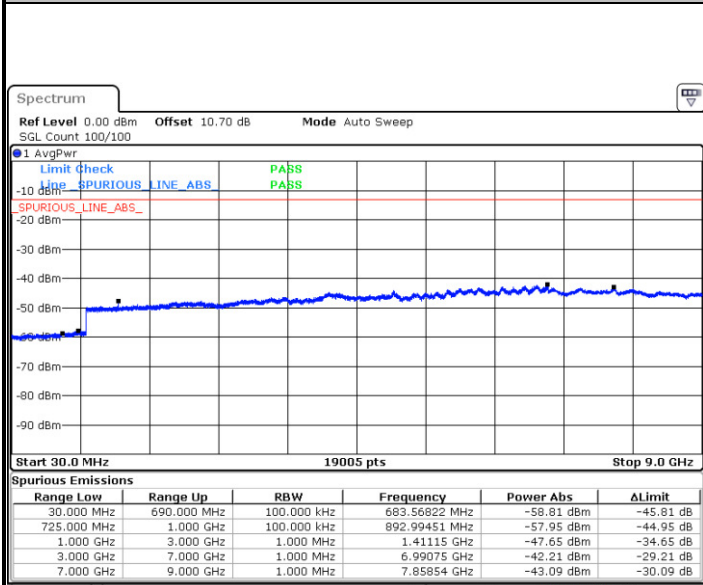
Date: 5 JAN 2018 23:52:14

Lowest Channel / 16QAM



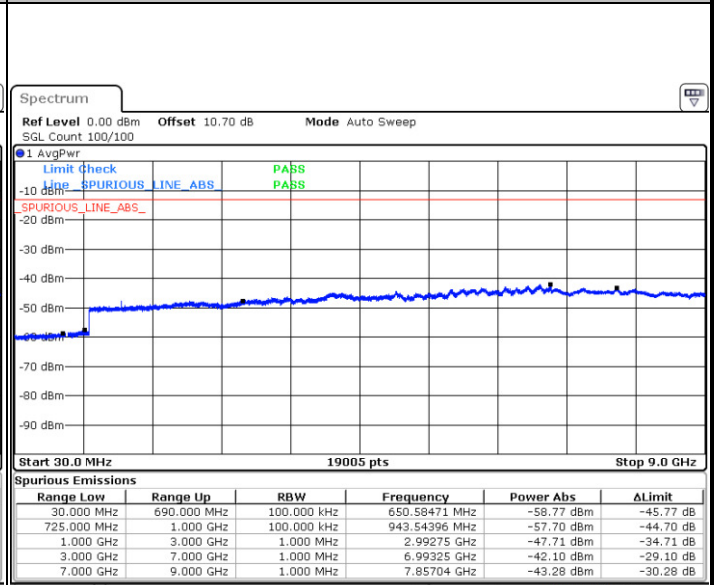
Date: 5 JAN 2018 23:53:07

Middle Channel / QPSK



Date: 5 JAN 2018 23:55:35

Middle Channel / 16QAM

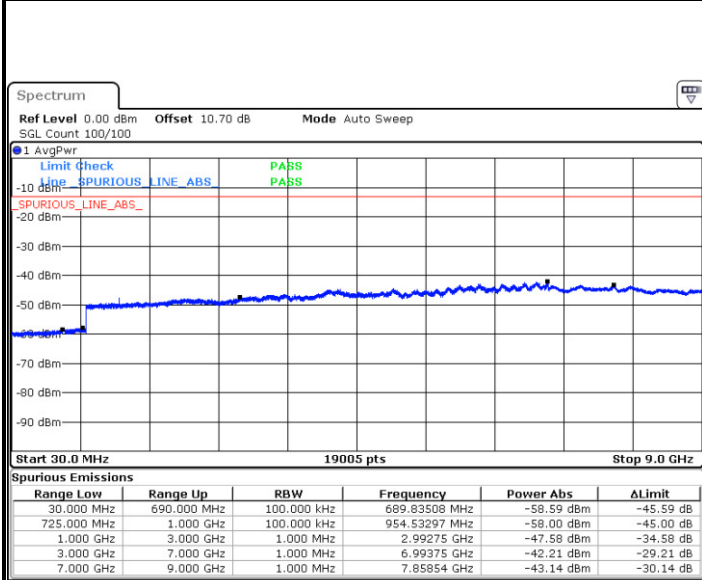


Date: 5 JAN 2018 23:54:41



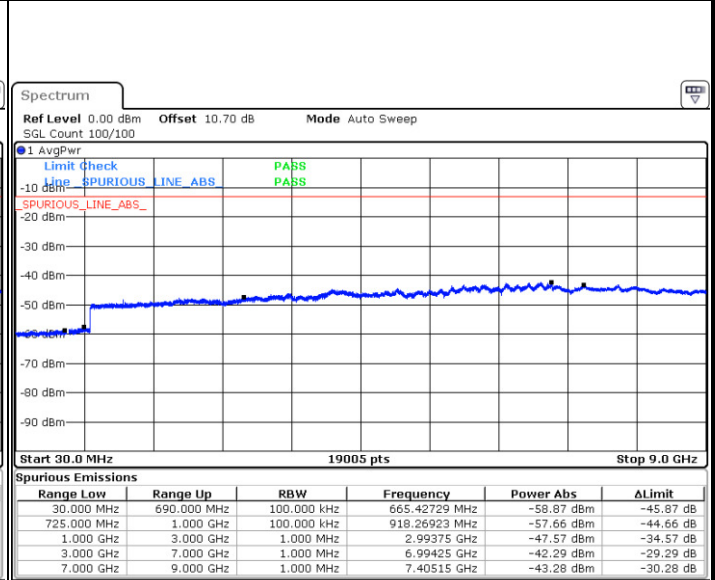
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 6 JAN 2018 00:02:38

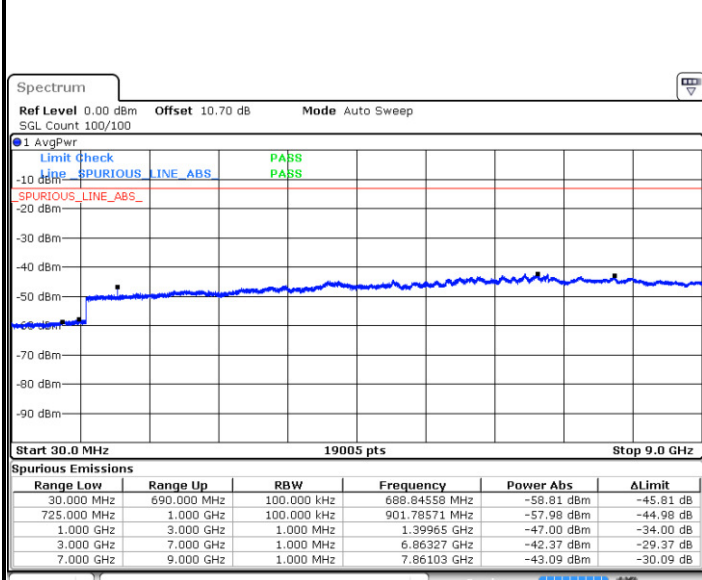
Highest Channel / 16QAM



Date: 6 JAN 2018 00:01:44

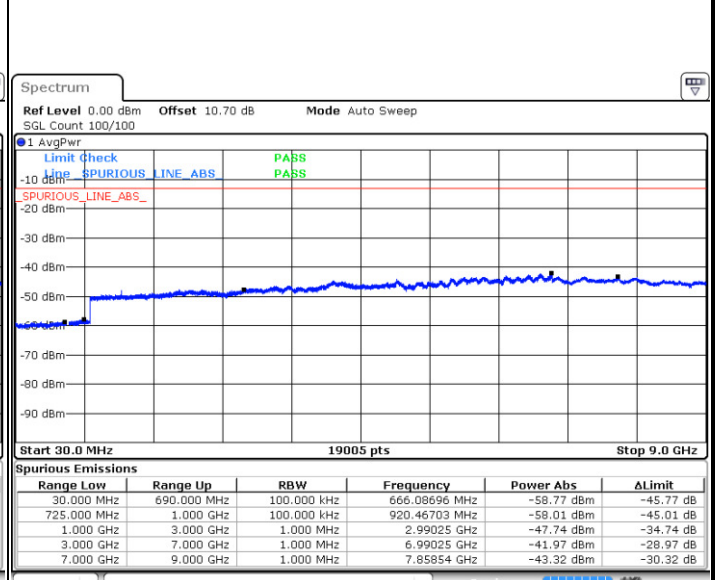
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 6 JAN 2018 00:08:47

Lowest Channel / 16QAM

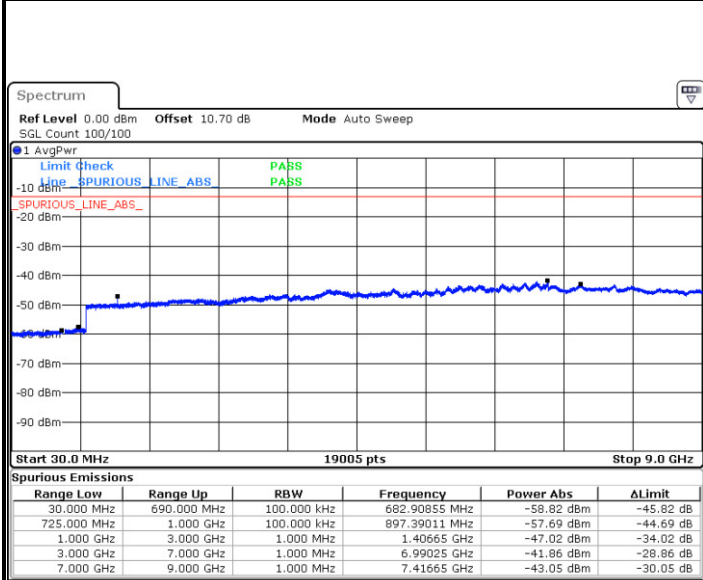


Date: 6 JAN 2018 00:09:40



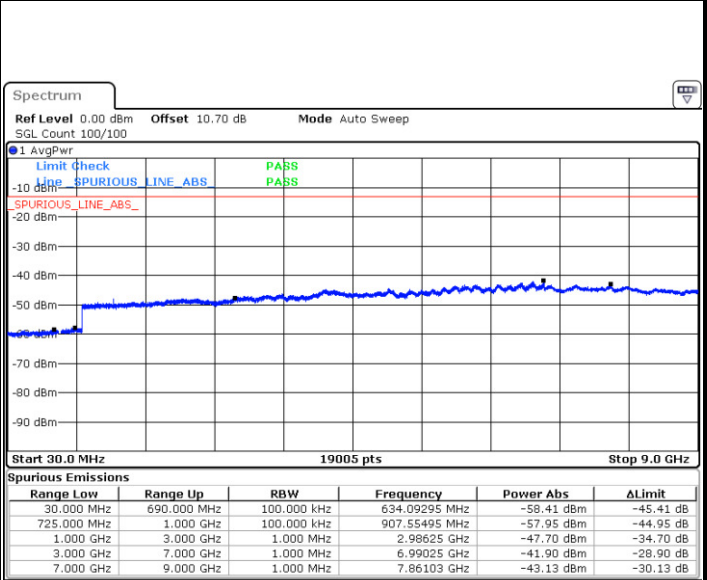
LTE Band 12 / 10MHz

Middle Channel / QPSK



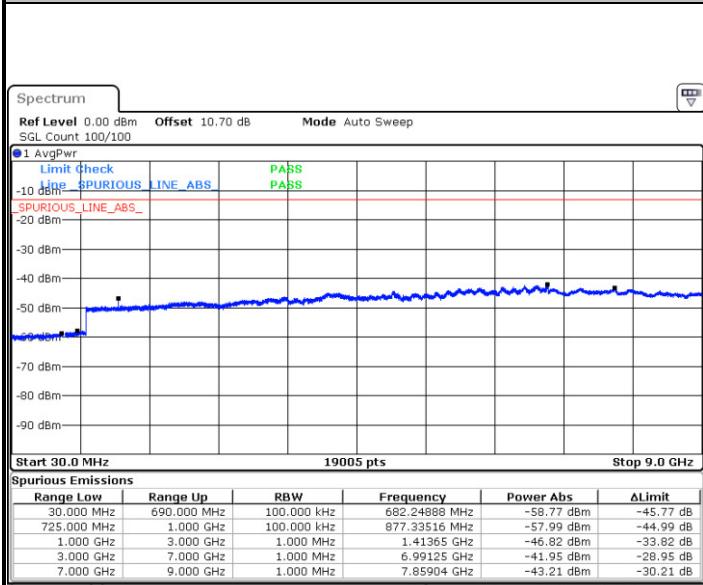
Date: 6 JAN 2018 00:12:08

Middle Channel / 16QAM



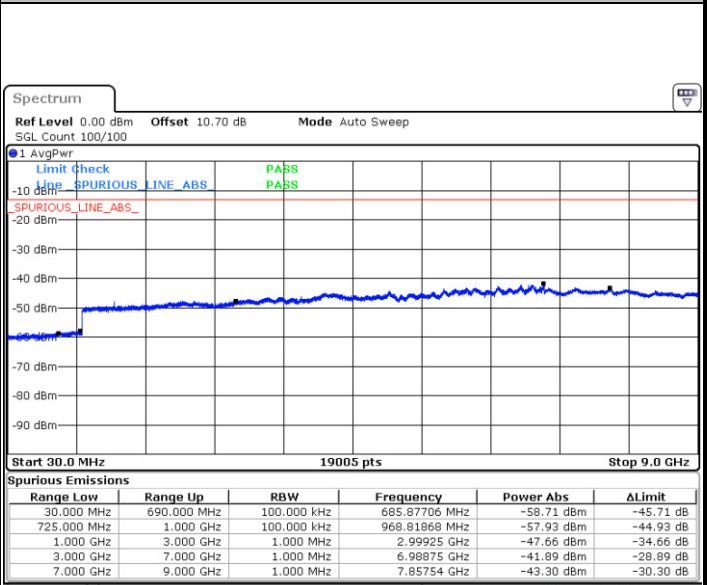
Date: 6 JAN 2018 00:11:14

Highest Channel / QPSK



Date: 6 JAN 2018 00:18:17

Highest Channel / 16QAM



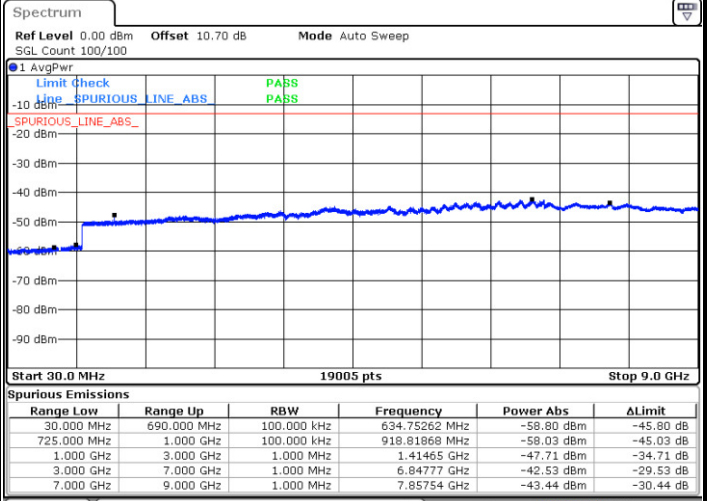
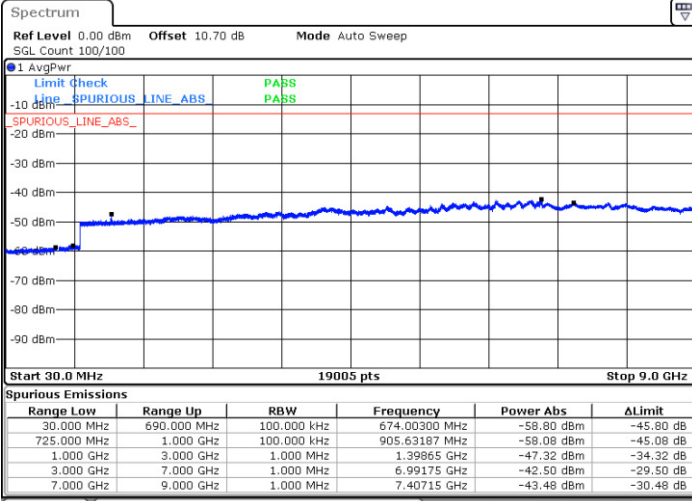
Date: 6 JAN 2018 00:19:11



LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

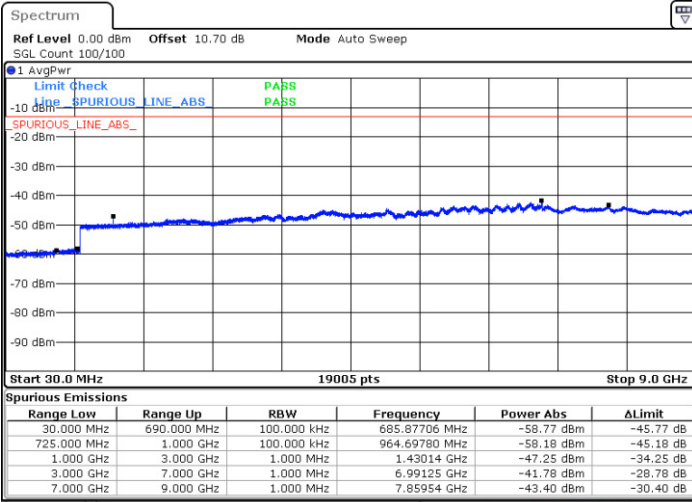
Middle Channel / 64QAM



Date: 1.FEB.2018 19:45:08

Date: 1.FEB.2018 19:46:22

Highest Channel / 64QAM



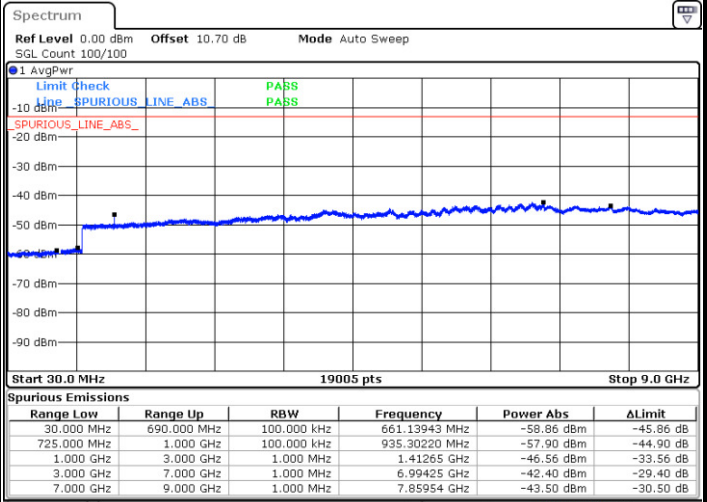
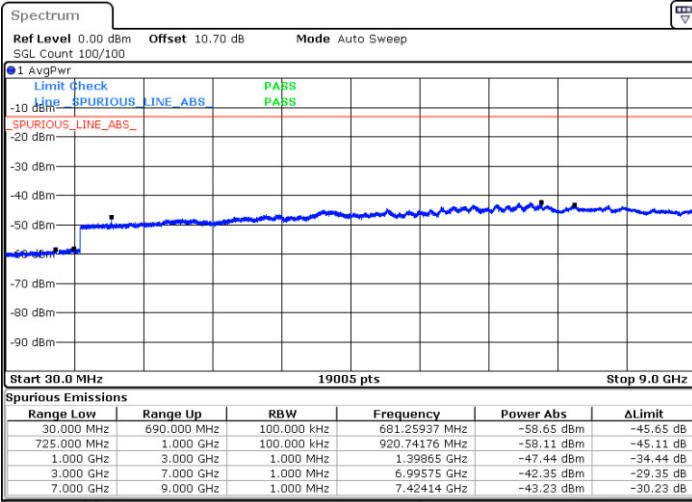
Date: 1.FEB.2018 19:49:54



LTE Band 12 / 3MHz

Lowest Channel / 64QAM

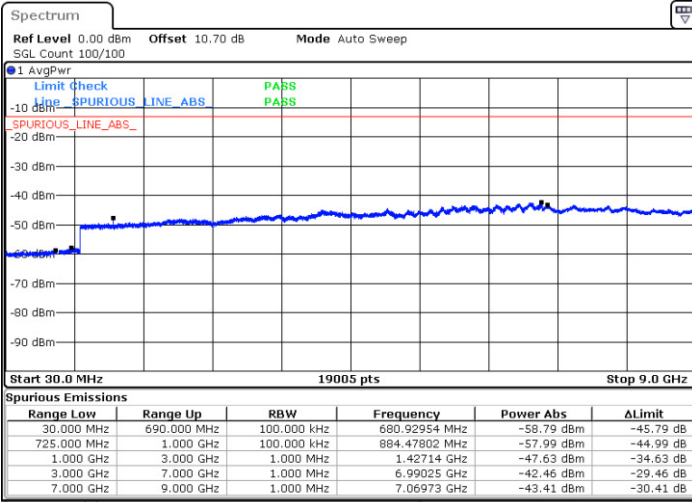
Middle Channel / 64QAM



Date: 1.FEB.2018 19:20:16

Date: 1.FEB.2018 19:21:30

Highest Channel / 64QAM



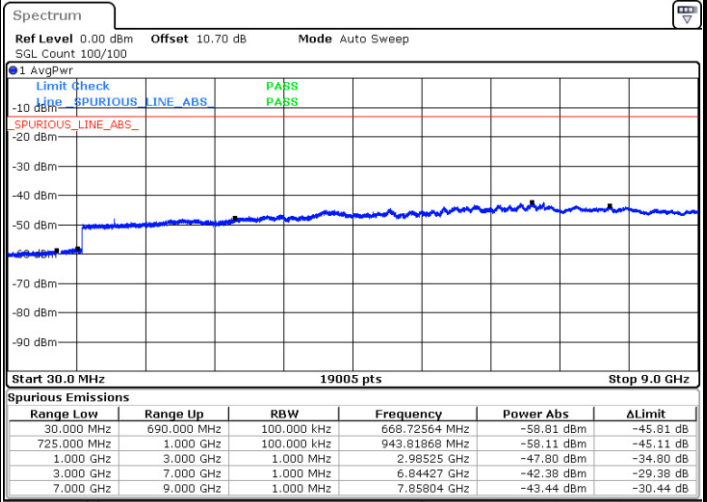
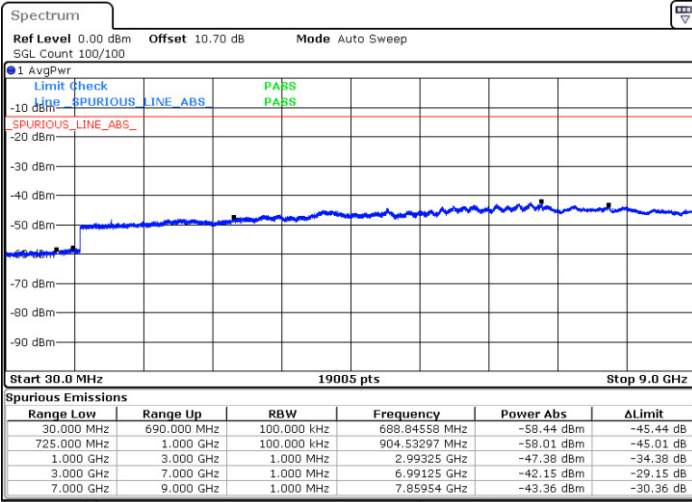
Date: 1.FEB.2018 19:25:02



LTE Band 12 / 5MHz

Lowest Channel / 64QAM

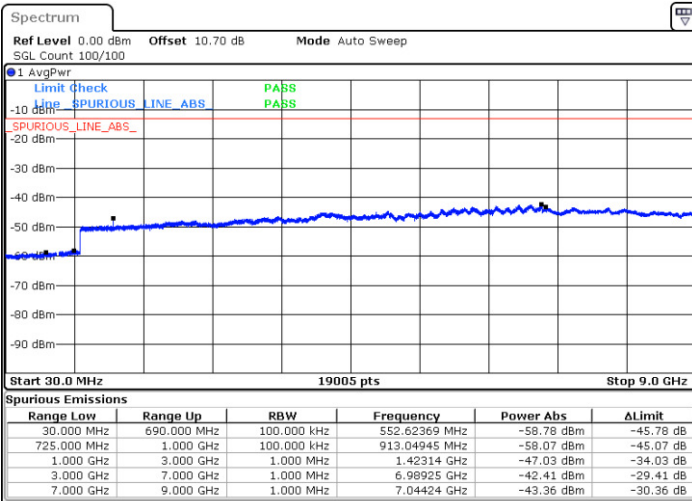
Middle Channel / 64QAM



Date: 1.FEB.2018 19:28:33

Date: 1.FEB.2018 19:29:48

Highest Channel / 64QAM



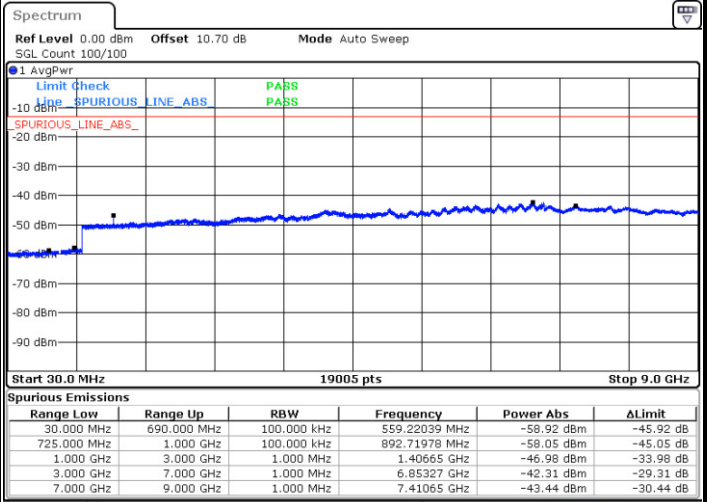
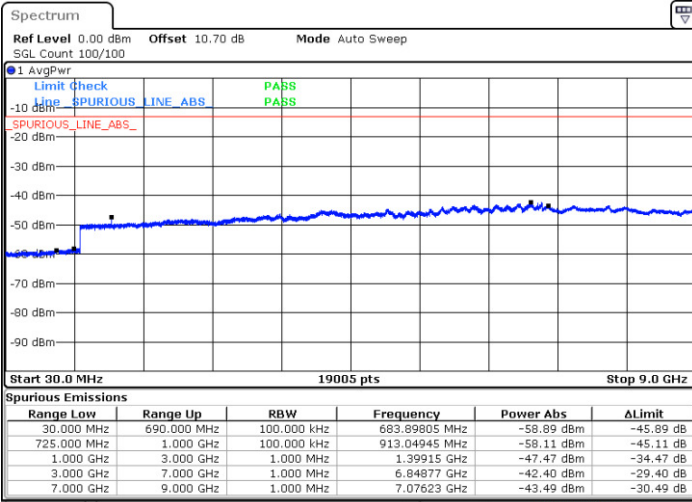
Date: 1.FEB.2018 19:33:19



LTE Band 12 / 10MHz

Lowest Channel / 64QAM

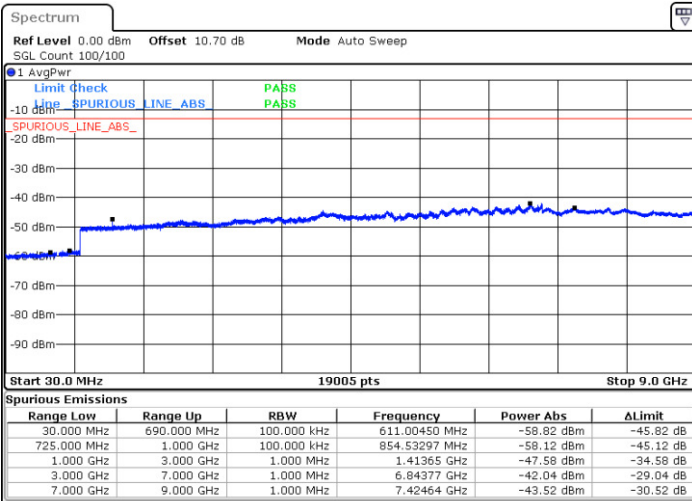
Middle Channel / 64QAM



Date: 1.FEB.2018 19:36:51

Date: 1.FEB.2018 19:38:05

Highest Channel / 64QAM



Date: 1.FEB.2018 19:41:37





**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	0.0016	PASS
40	Normal Voltage	0.0008	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0071	
0	Normal Voltage	0.0059	
-10	Normal Voltage	0.0007	
-20	Normal Voltage	0.0020	
-30	Normal Voltage	0.0064	
20	Maximum Voltage	0.0066	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0064	

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 13

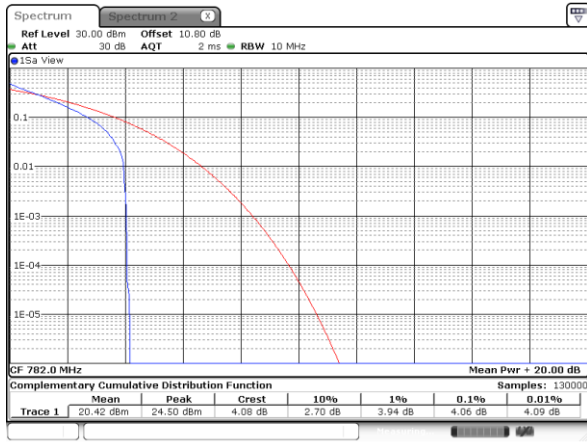
## Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.06	5.1	4.84	5.97	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH			-	-	PASS
Middle CH	4.75	6.14	-	-	
Highest CH			-	-	



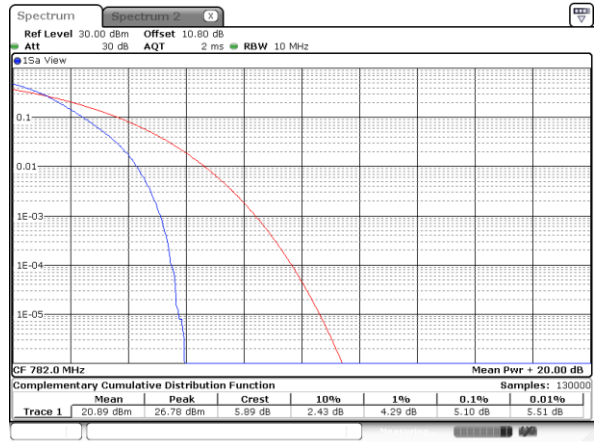
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 6 MAR 2018 23:20:25

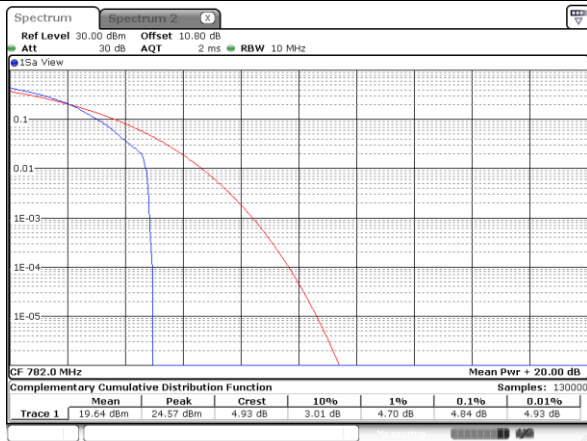
Middle Channel / Full RB



Date: 6 MAR 2018 23:20:34

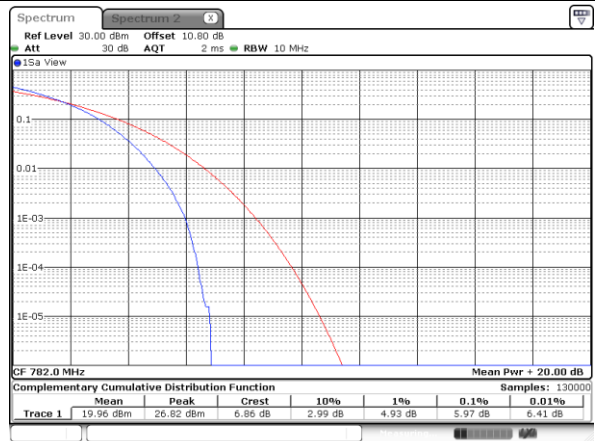
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 6 MAR 2018 23:20:07

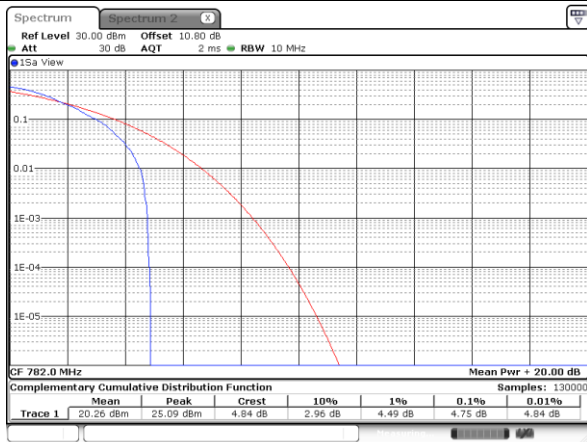
Middle Channel / Full RB



Date: 6 MAR 2018 23:20:17

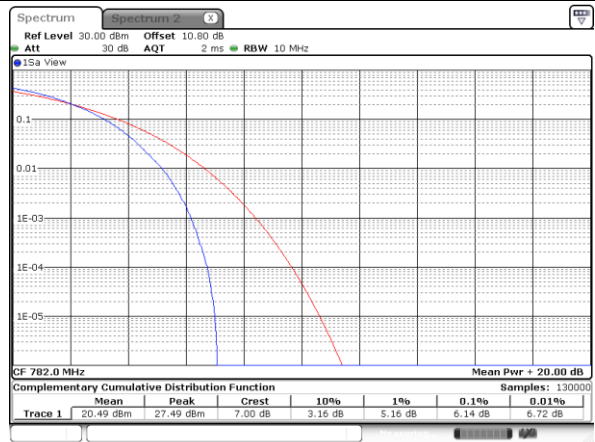
LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 7 MAR 2018 00:31:08

Middle Channel / Full RB



Date: 7 MAR 2018 00:31:17



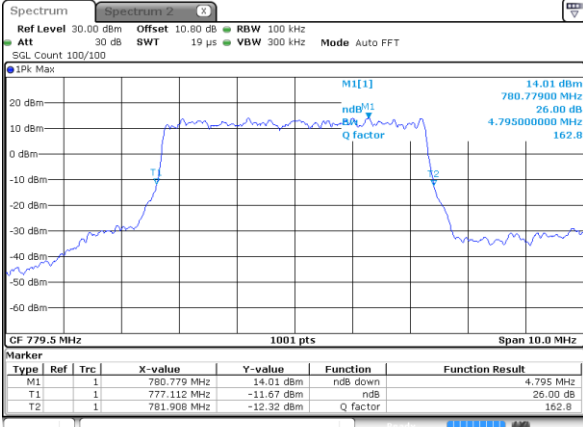
**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.80	4.97	-	-	-	-	-	-
Middle CH	-	-	-	-	4.95	5.02	9.91	9.67	-	-	-	-
Highest CH	-	-	-	-	4.99	4.96	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.84	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.88	-	9.81	-	-	-	-	-
Highest CH	-	-	-	-	5.02	-	-	-	-	-	-	-



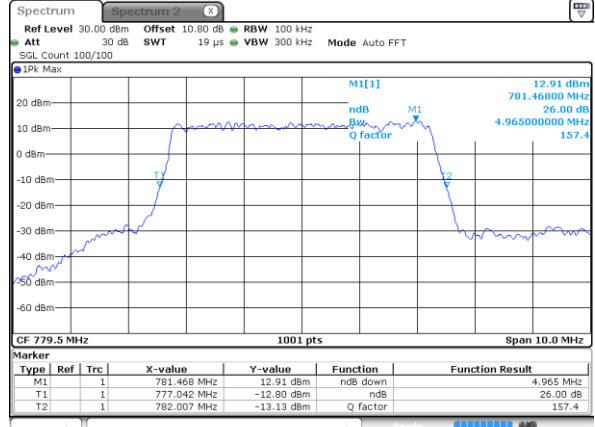
LTE Band 13

Lowest Channel / 5MHz / QPSK



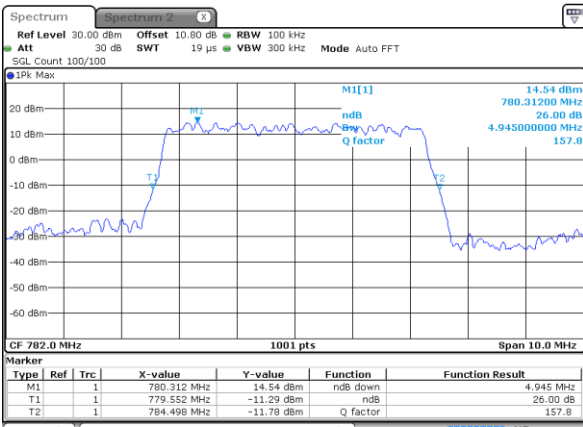
Date: 6 MAR 2018 22:31:25

Lowest Channel / 5MHz / 16QAM



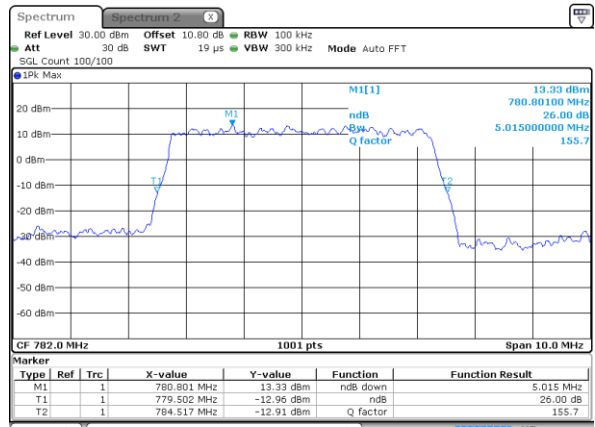
Date: 6 MAR 2018 22:31:15

Middle Channel / 5MHz / QPSK



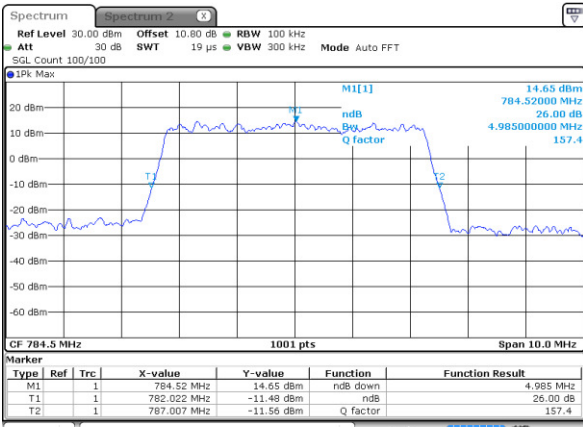
Date: 6 MAR 2018 22:41:45

Middle Channel / 5MHz / 16QAM



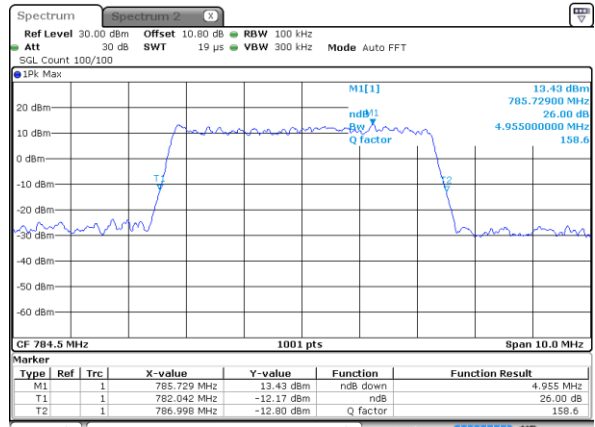
Date: 6 MAR 2018 22:41:55

Highest Channel / 5MHz / QPSK



Date: 6 MAR 2018 22:42:56

Highest Channel / 5MHz / 16QAM

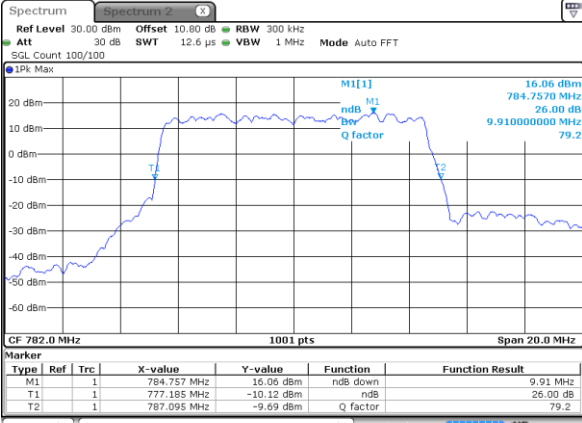


Date: 6 MAR 2018 22:42:46



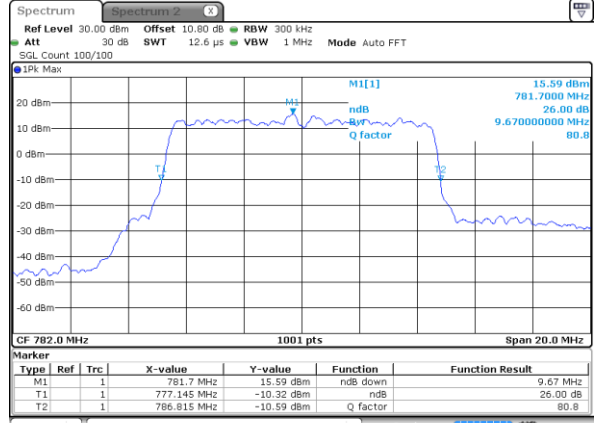
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 6 MAR 2018 23:06:44

Middle Channel / 10MHz / 16QAM

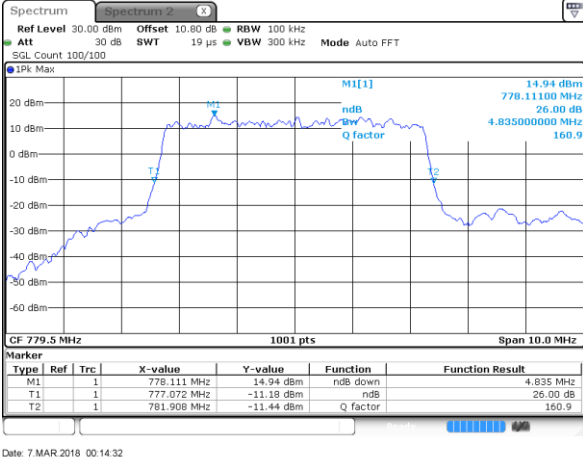


Date: 6 MAR 2018 23:06:33



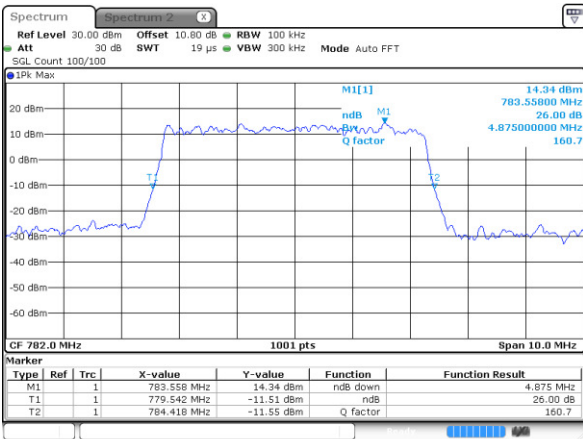
LTE Band 13

Lowest Channel / 5MHz / 64QAM



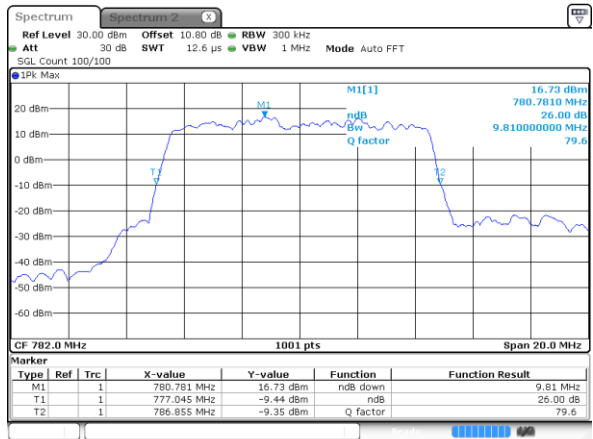
Date: 7 MAR 2018 00:14:32

Middle Channel / 5MHz / 64QAM



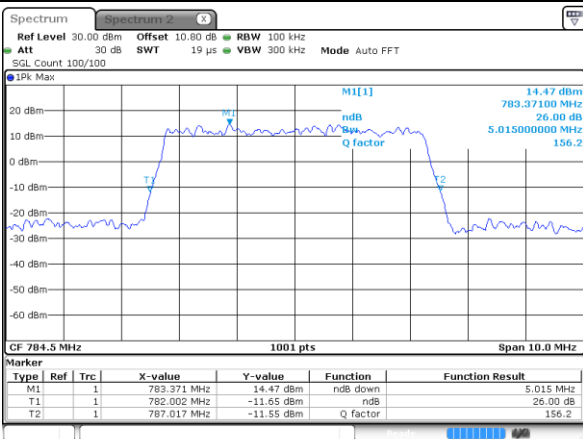
Date: 7 MAR 2018 00:19:47

Middle Channel / 10MHz / 64QAM



Date: 7 MAR 2018 00:24:49

Highest Channel / 5MHz / 64QAM



Date: 7 MAR 2018 00:20:17



**Occupied Bandwidth**

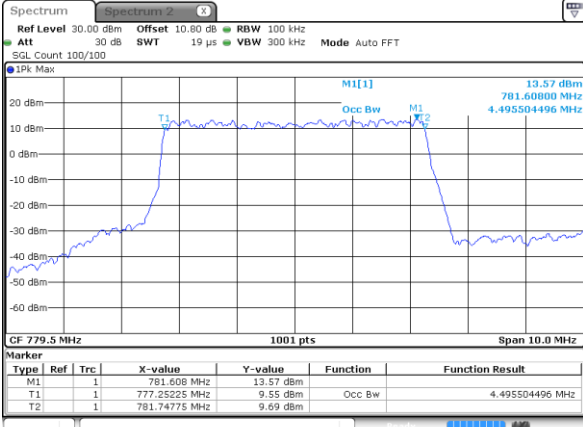
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.5	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.54	4.49	9.05	9.01	-	-	-	-
Highest CH	-	-	-	-	4.49	4.51	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.51	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.51	-	9.07	-	-	-	-	-
Highest CH	-	-	-	-	4.50	-	-	-	-	-	-	-





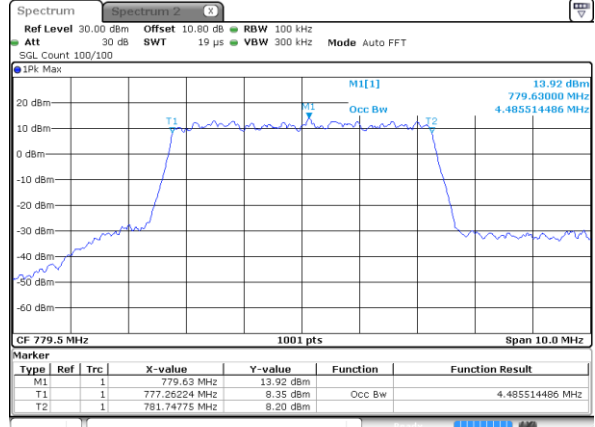
LTE Band 13

Lowest Channel / 5MHz / QPSK



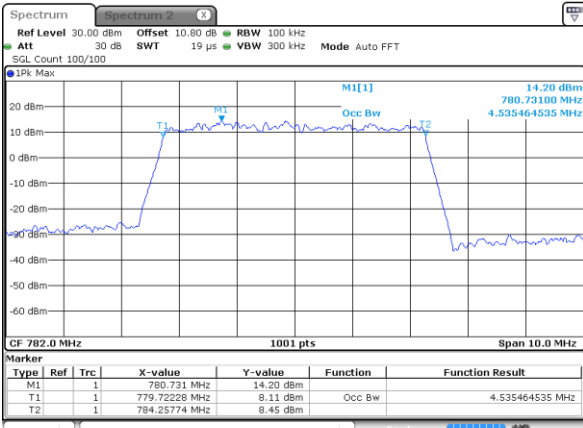
Date: 6 MAR 2018 22:30:55

Lowest Channel / 5MHz / 16QAM



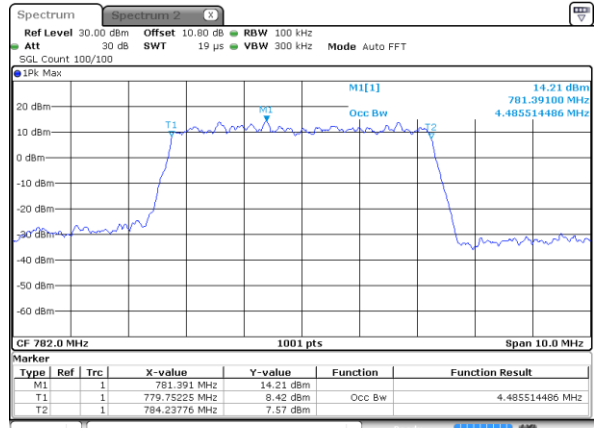
Date: 6 MAR 2018 22:31:05

Middle Channel / 5MHz / QPSK



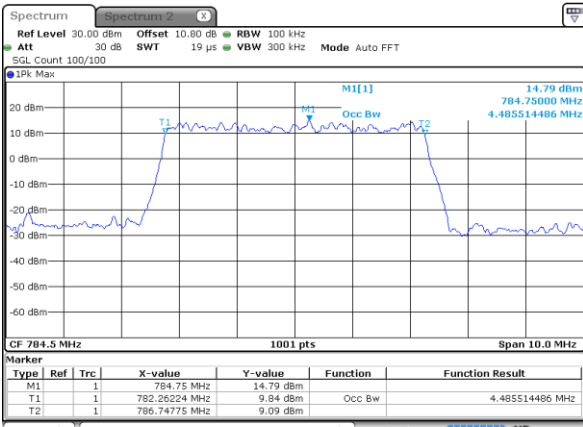
Date: 6 MAR 2018 22:42:15

Middle Channel / 5MHz / 16QAM



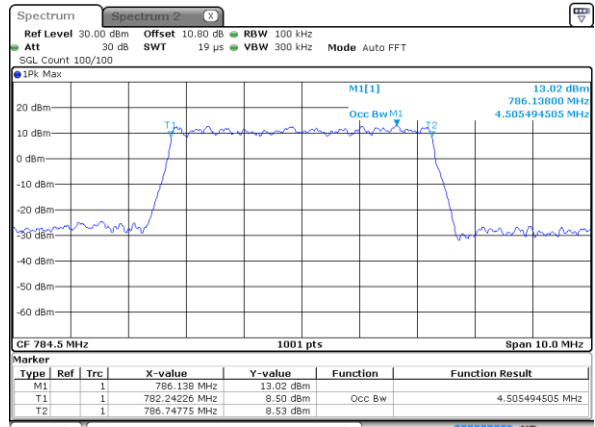
Date: 6 MAR 2018 22:42:05

Highest Channel / 5MHz / QPSK



Date: 6 MAR 2018 22:42:25

Highest Channel / 5MHz / 16QAM

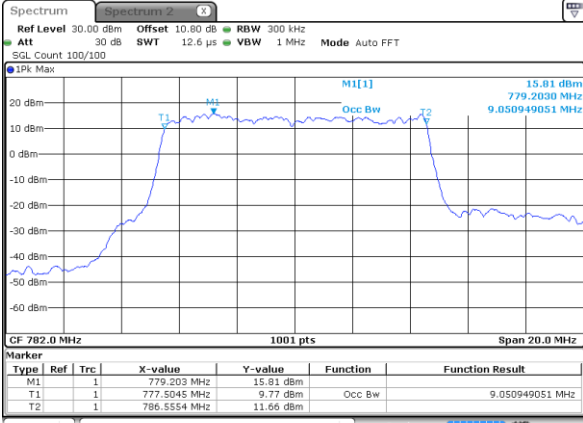


Date: 6 MAR 2018 22:42:36



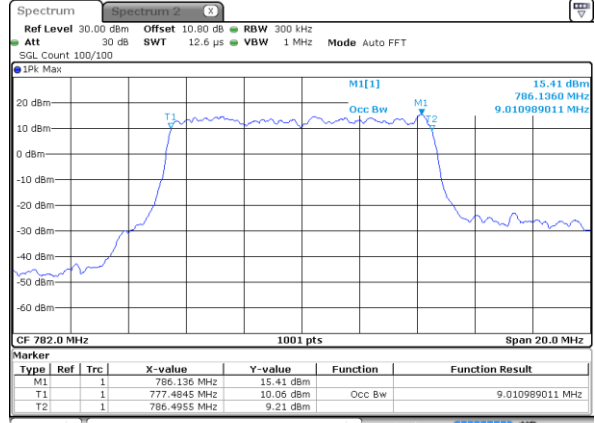
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 6 MAR 2018 23:06:13

Middle Channel / 10MHz / 16QAM

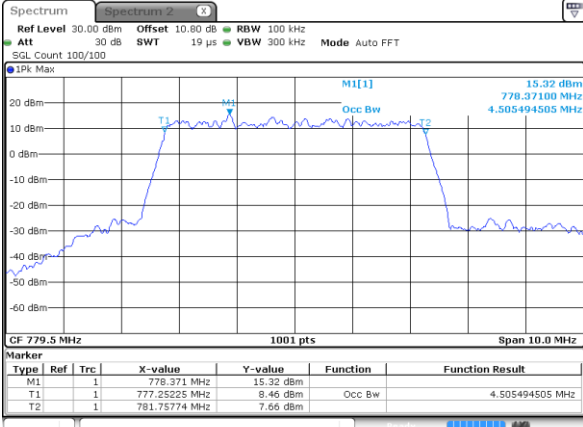


Date: 6 MAR 2018 23:06:23



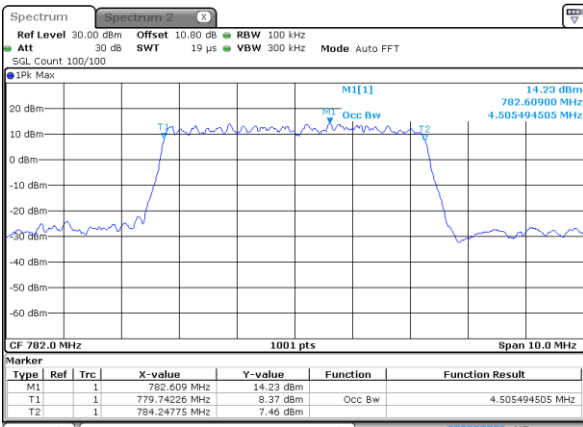
LTE Band 13

Lowest Channel / 5MHz / 64QAM



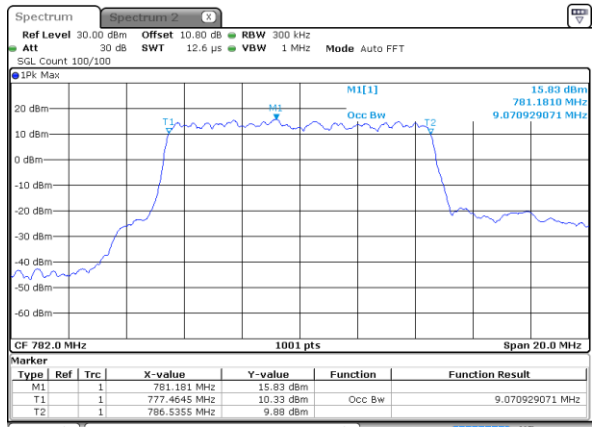
Date: 7 MAR 2018 00:14:22

Middle Channel / 5MHz / 64QAM



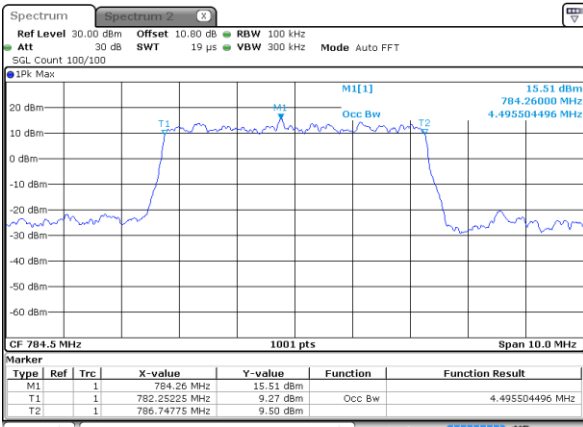
Date: 7 MAR 2018 00:19:57

Middle Channel / 10MHz / 64QAM



Date: 7 MAR 2018 00:24:38

Highest Channel / 5MHz / 64QAM



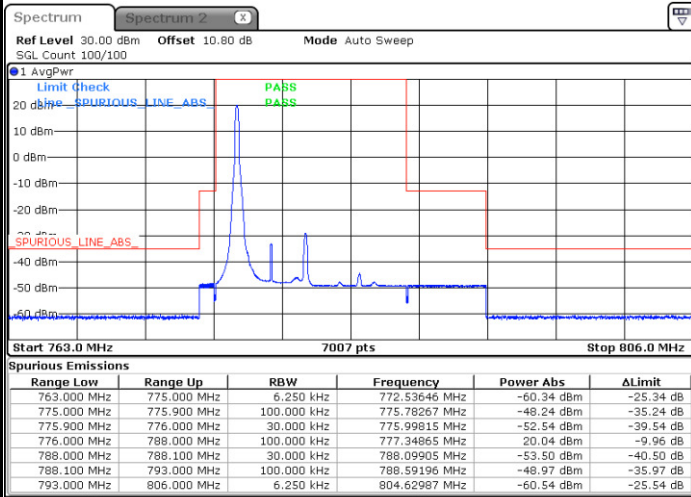
Date: 7 MAR 2018 00:20:07



# Conducted Band Edge

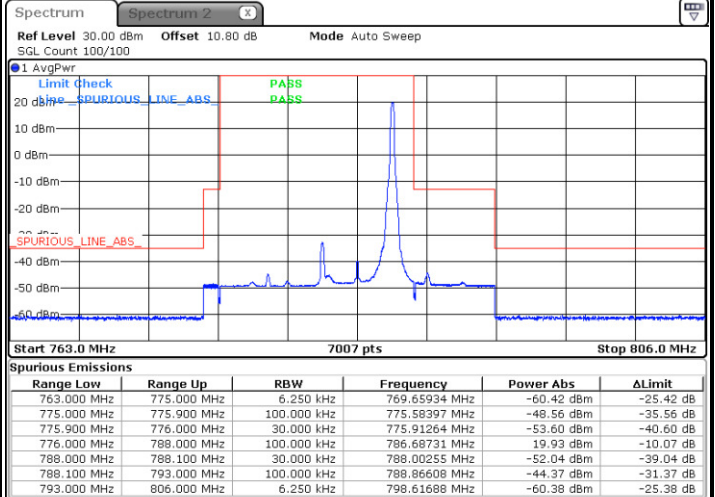
## LTE Band 13 / 5MHz / QPSK

### Lowest Band Edge / 1 RB



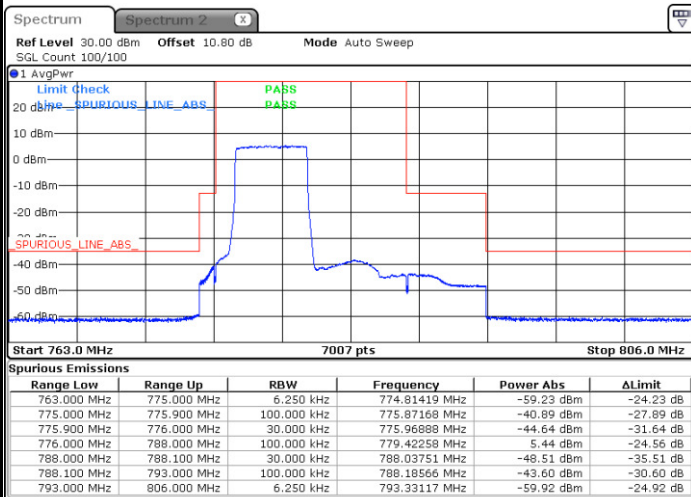
Date: 6 MAR 2018 22:57:40

### Highest Band Edge / 1 RB



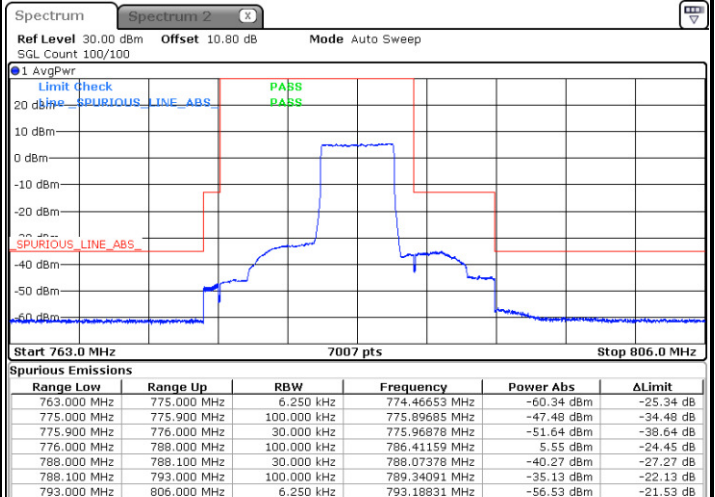
Date: 6 MAR 2018 23:04:16

### Lowest Band Edge / Full RB



Date: 6 MAR 2018 22:52:44

### Highest Band Edge / Full RB



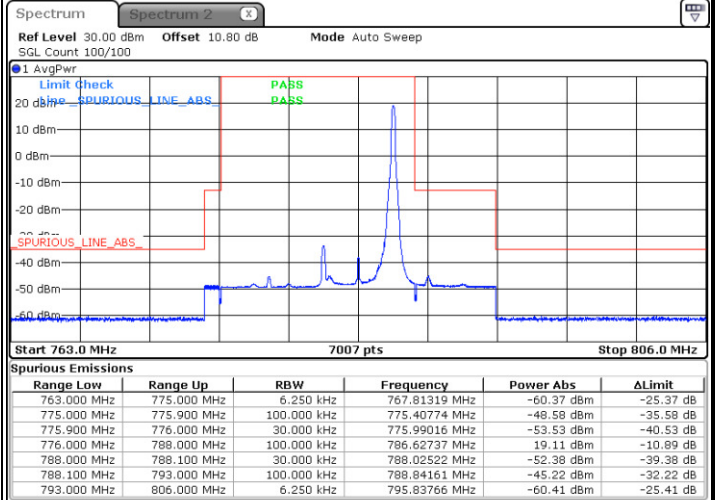
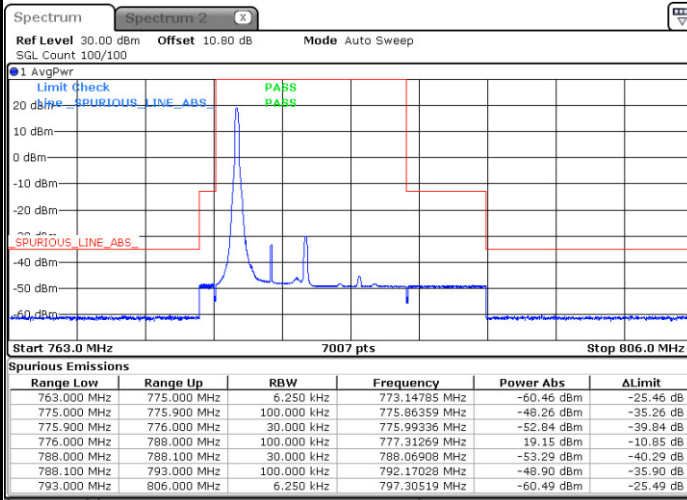
Date: 6 MAR 2018 22:59:19



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

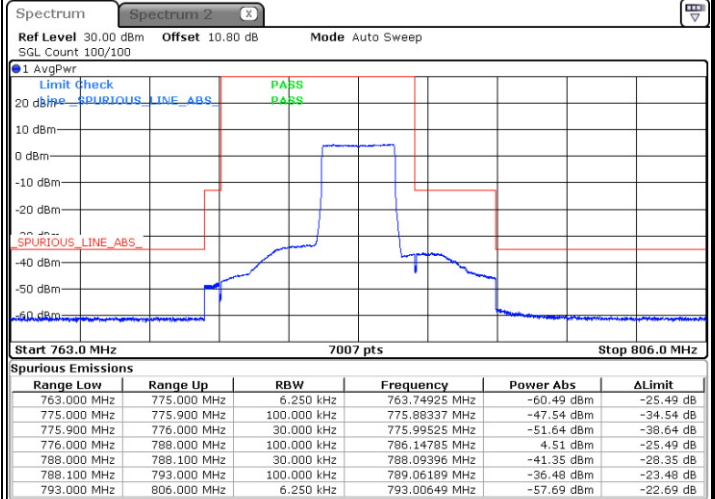
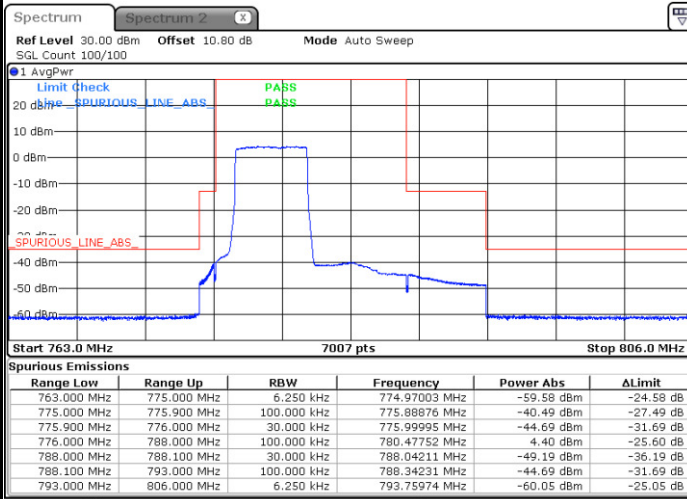


Date: 6 MAR 2018 22:56:02

Date: 6 MAR 2018 23:02:37

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 6 MAR 2018 22:54:23

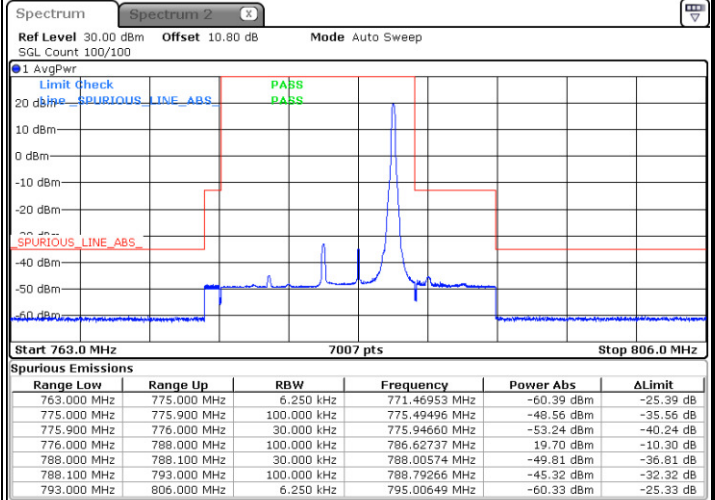
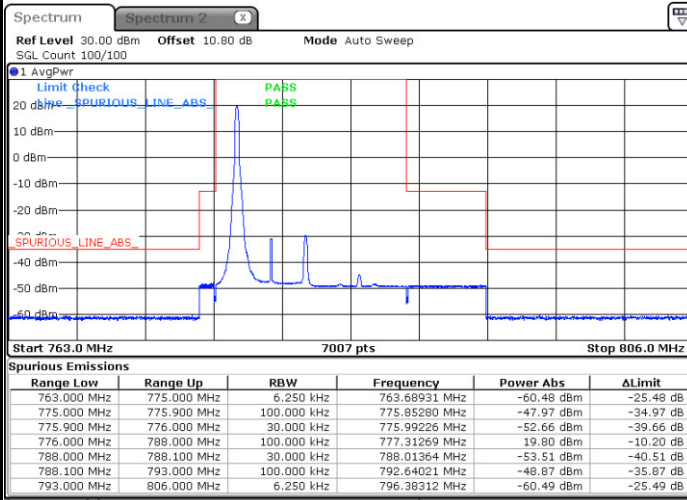
Date: 6 MAR 2018 23:00:58



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

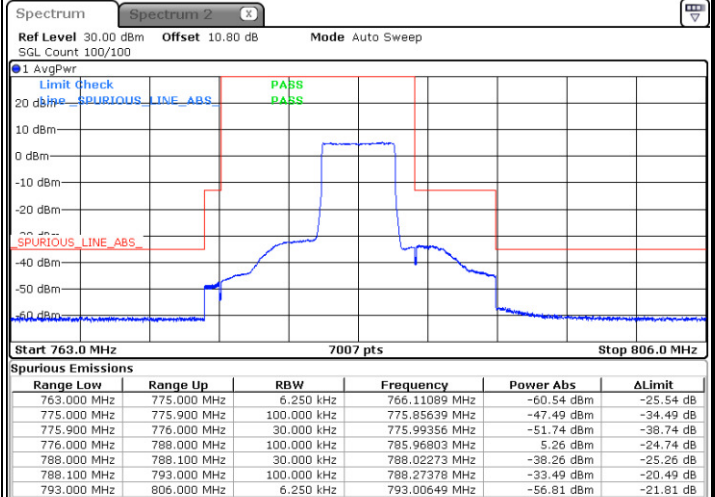
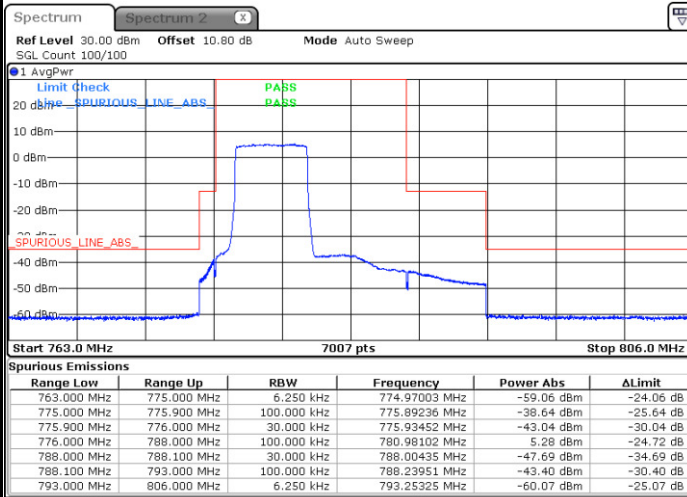


Date: 7.MAR.2018 00:17:49

Date: 7.MAR.2018 00:23:34

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



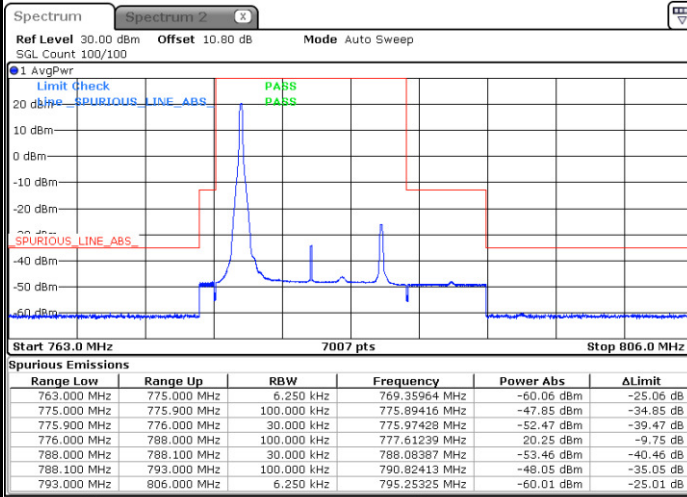
Date: 7.MAR.2018 00:16:10

Date: 7.MAR.2018 00:21:55



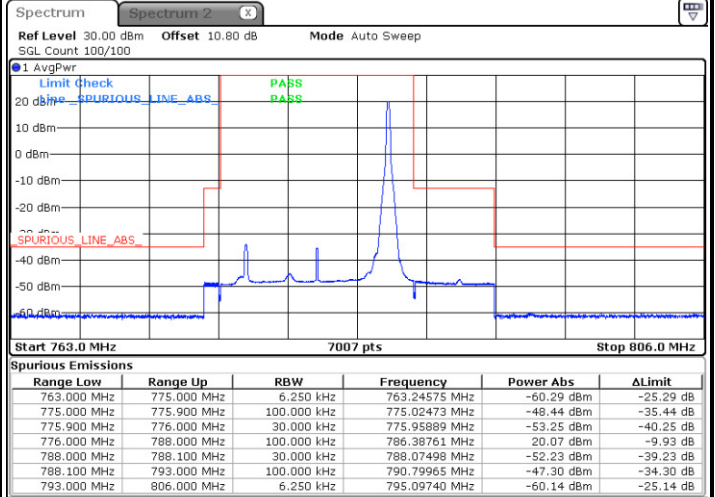
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



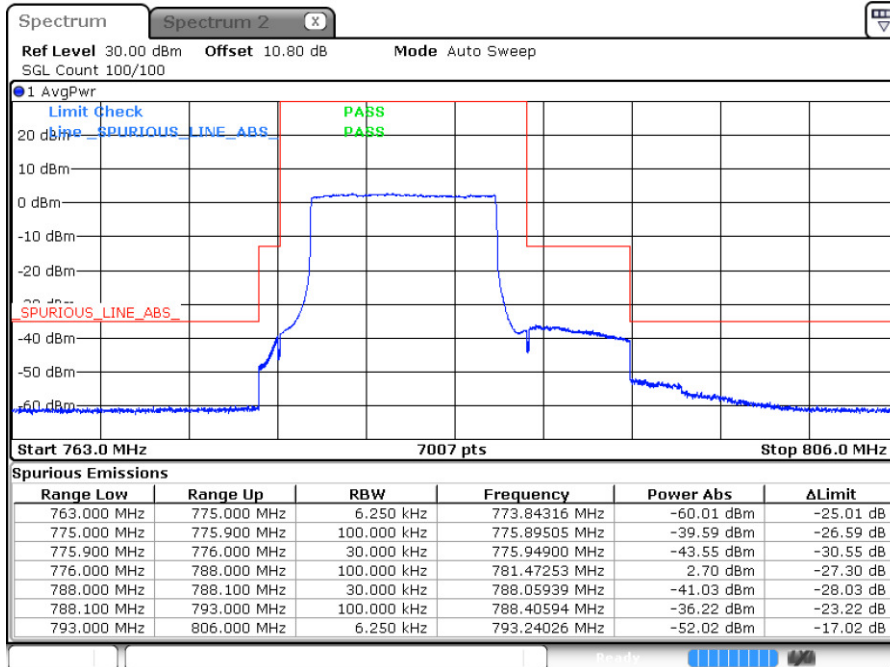
Date: 6 MAR 2018 23:13:19

Highest Band Edge / 1 RB



Date: 6 MAR 2018 23:14:58

Band Edge / Full RB

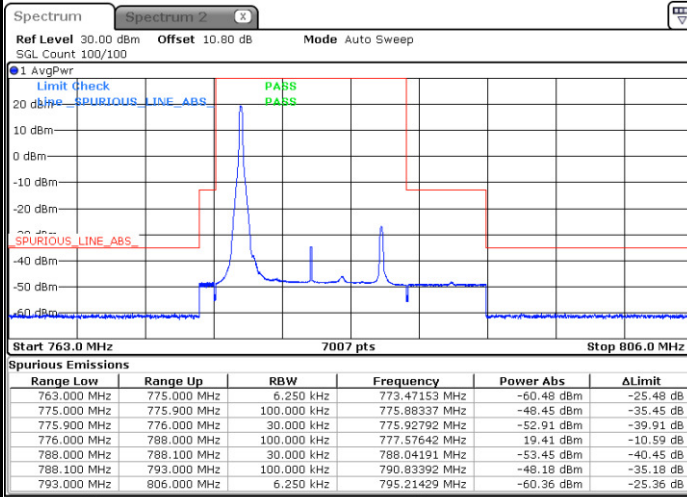


Date: 6 MAR 2018 23:08:22



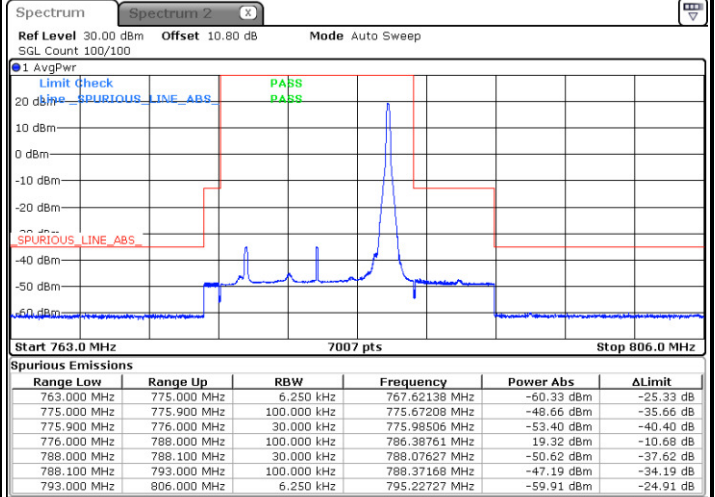
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



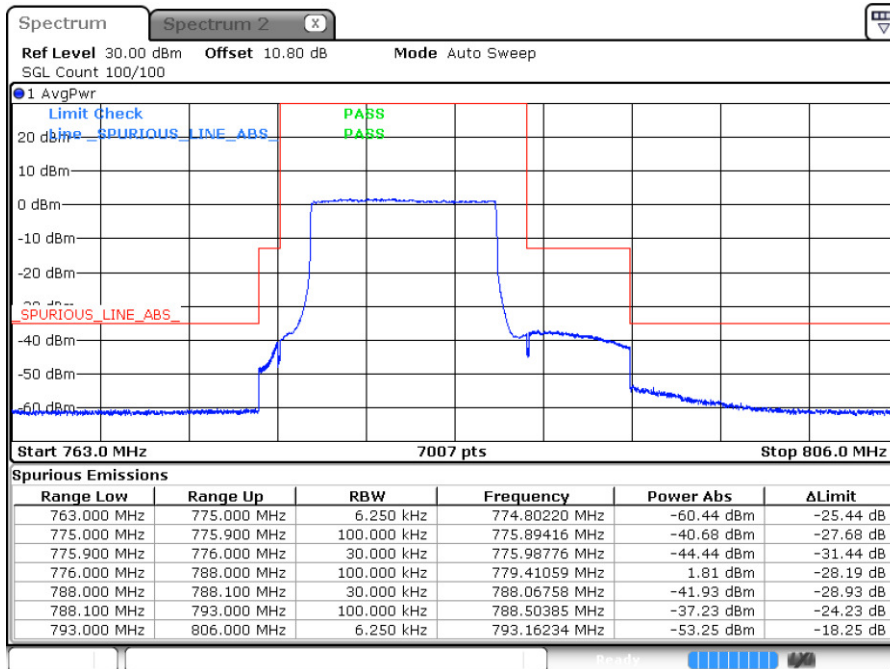
Date: 6 MAR 2018 23:11:40

Highest Band Edge / 1 RB



Date: 6 MAR 2018 23:16:37

Band Edge / Full RB



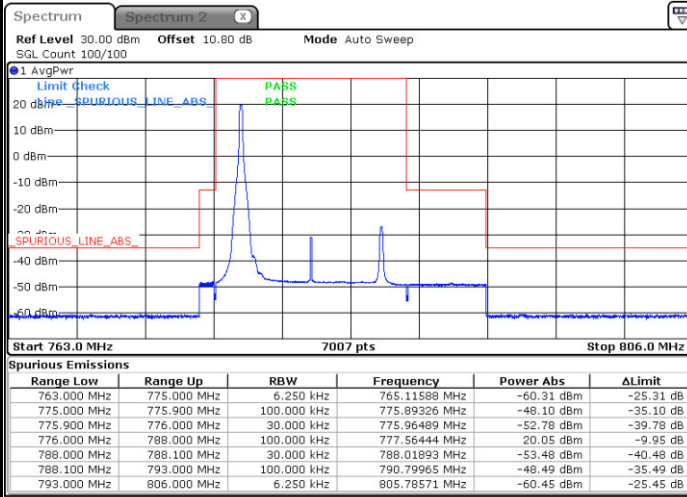
Date: 6 MAR 2018 23:10:01





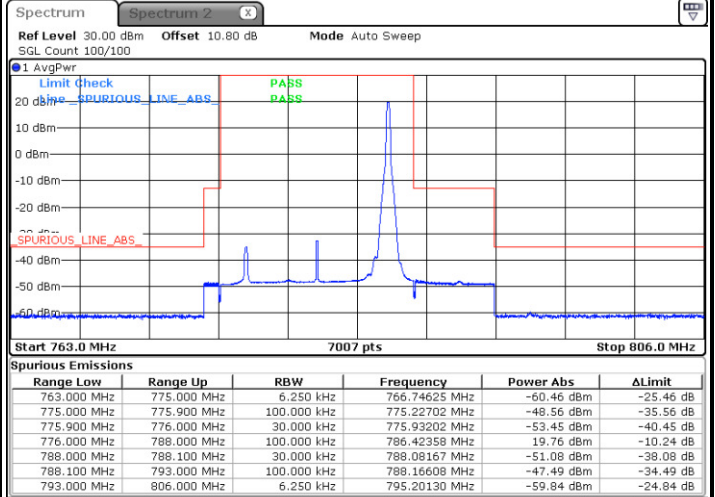
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



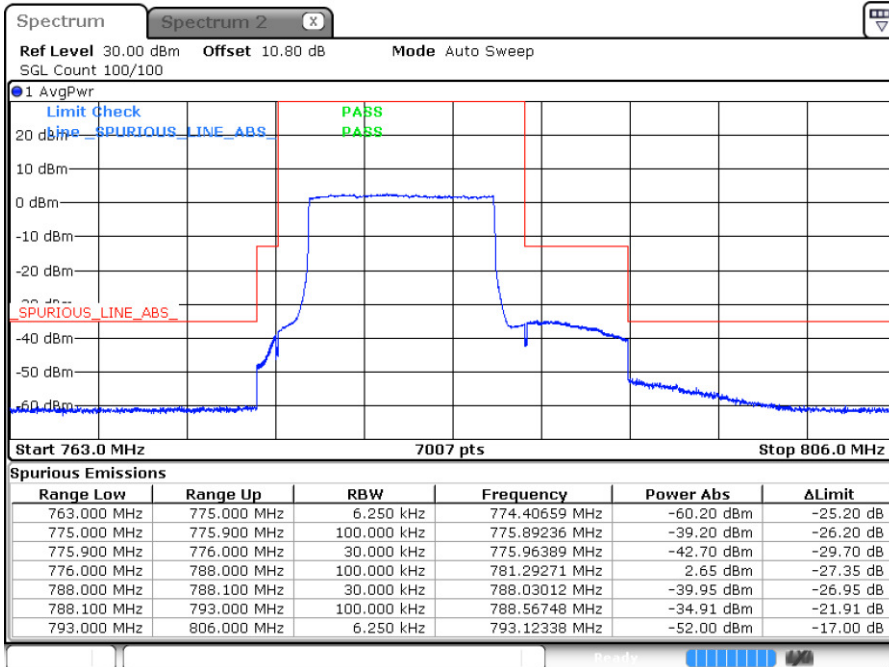
Date: 7.MAR.2018 00:28:06

Highest Band Edge / 1 RB



Date: 7.MAR.2018 00:29:45

Band Edge / Full RB

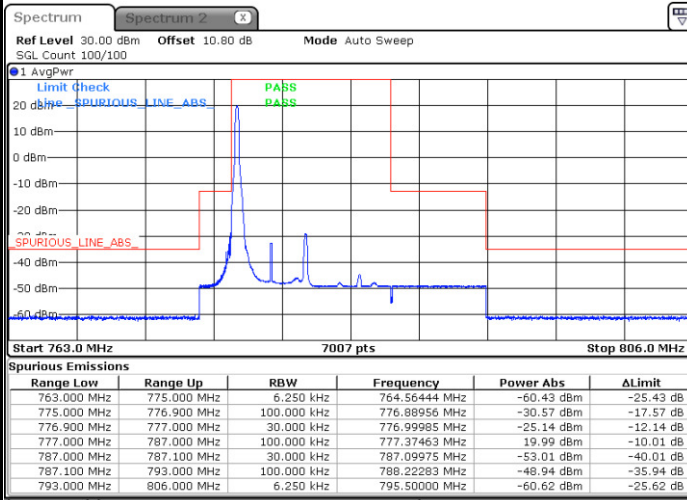


Date: 7.MAR.2018 00:26:27



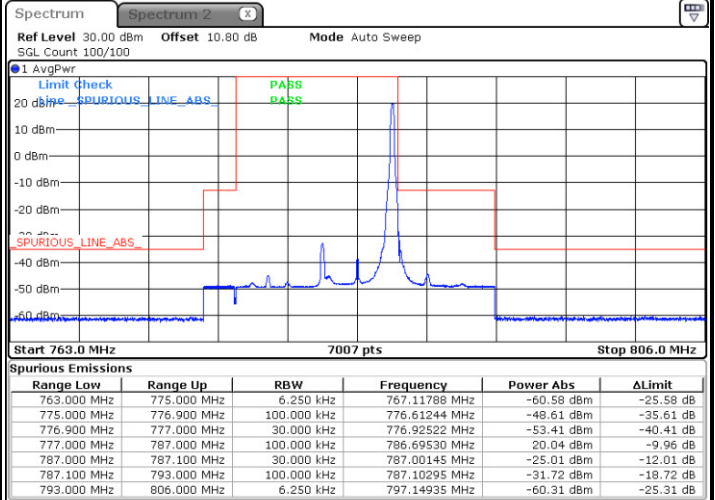
IC LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



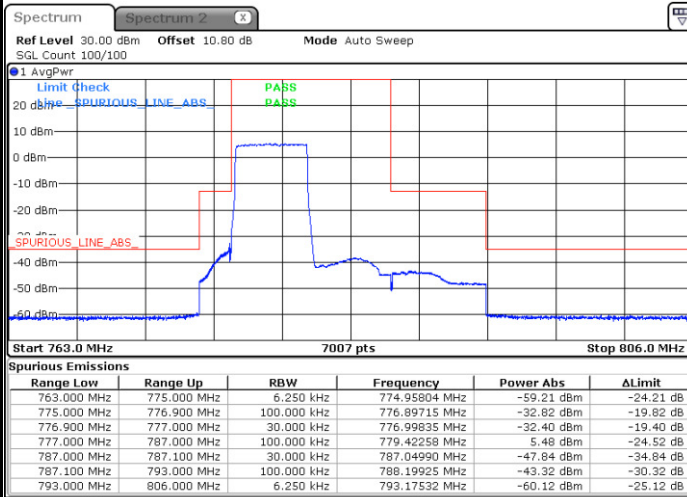
Date: 6 MAR 2018 23:34:26

Highest Band Edge / 1 RB



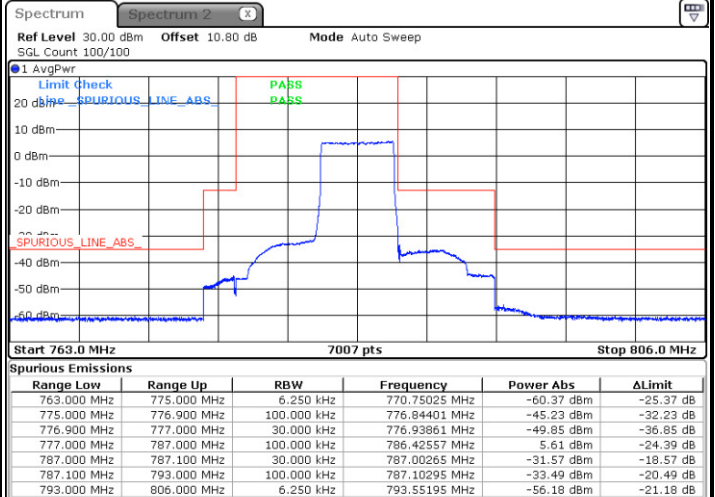
Date: 6 MAR 2018 23:41:02

Lowest Band Edge / Full RB



Date: 6 MAR 2018 23:29:29

Highest Band Edge / Full RB

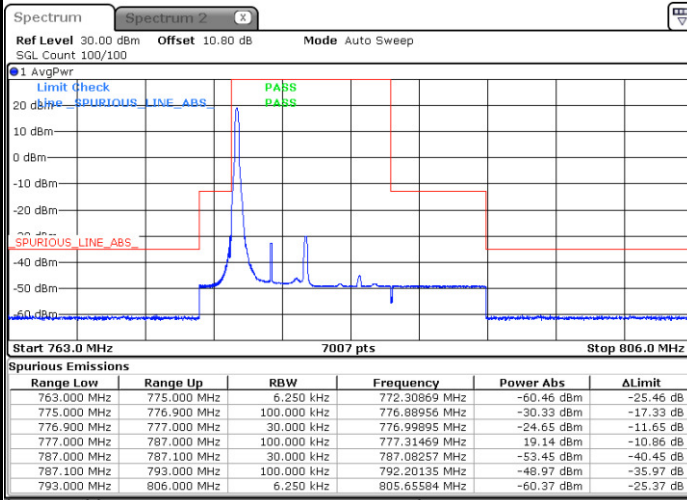


Date: 6 MAR 2018 23:36:05



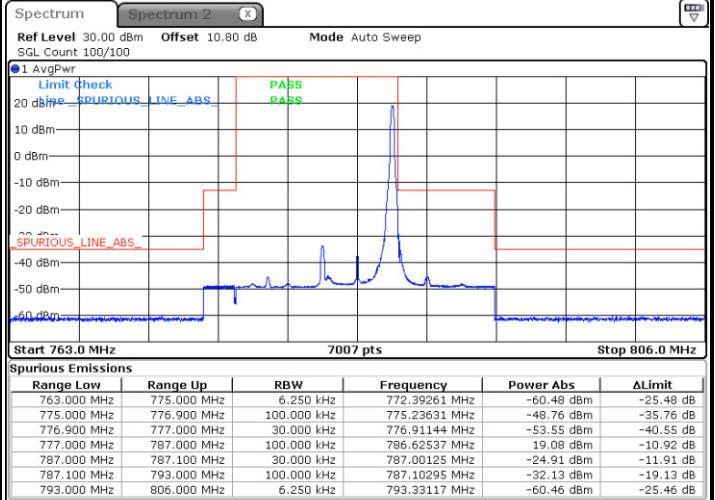
IC LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



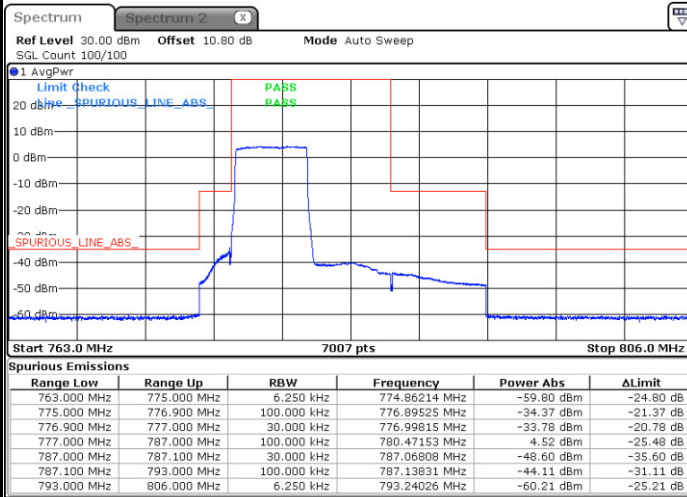
Date: 6 MAR 2018 23:32:47

Highest Band Edge / 1 RB



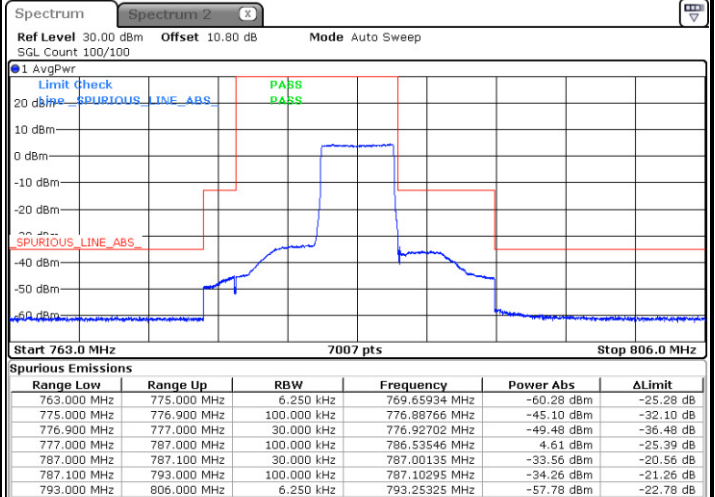
Date: 6 MAR 2018 23:39:23

Lowest Band Edge / Full RB



Date: 6 MAR 2018 23:31:08

Highest Band Edge / Full RB



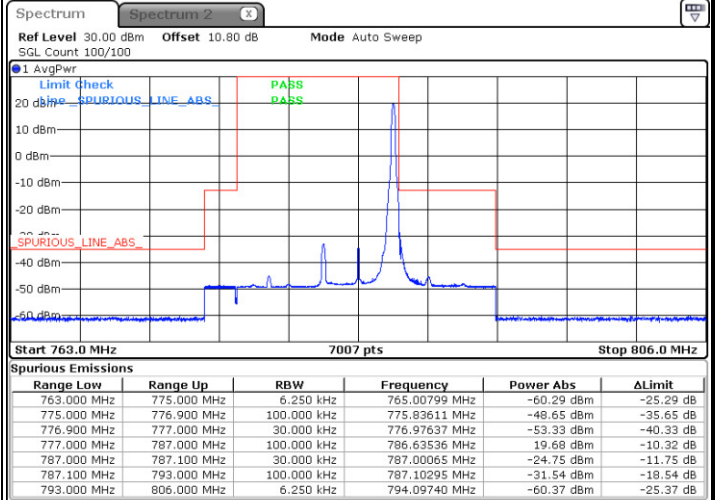
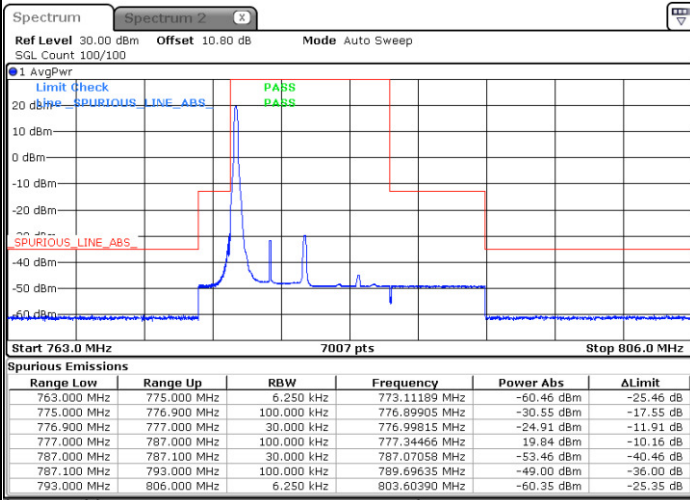
Date: 6 MAR 2018 23:37:44



IC LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

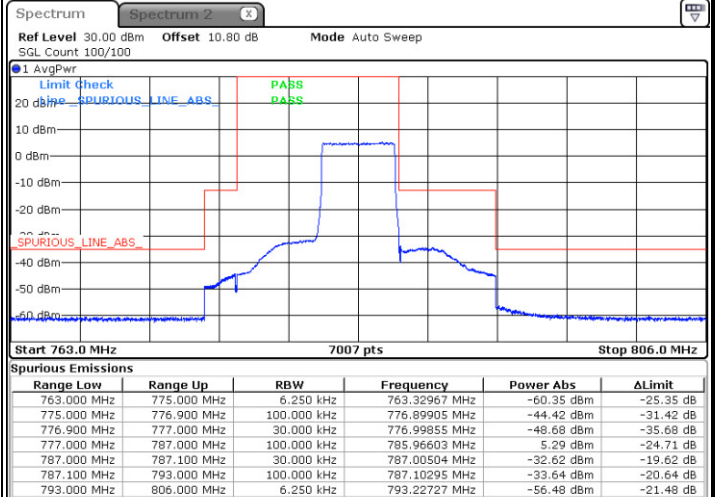
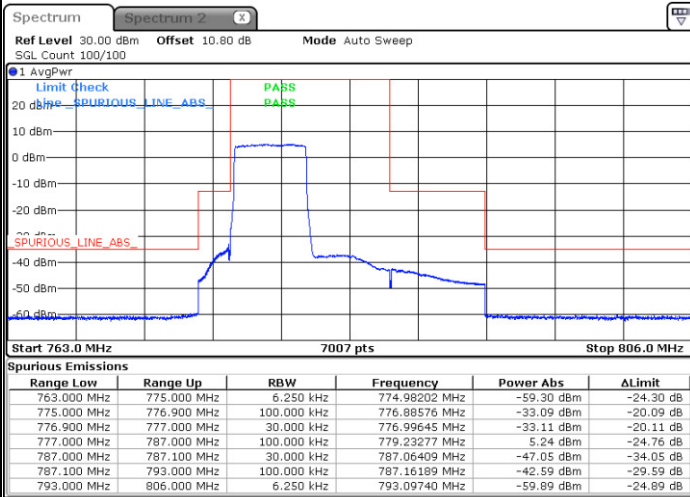


Date: 7 MAR 2018 00:00:16

Date: 7 MAR 2018 00:03:34

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



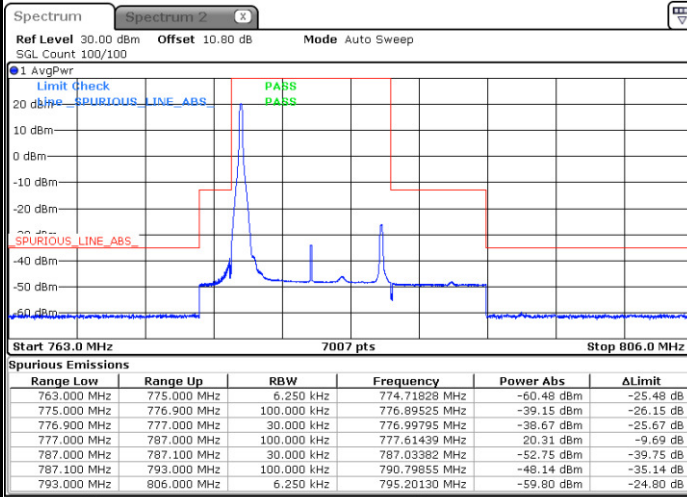
Date: 6 MAR 2018 23:58:37

Date: 7 MAR 2018 00:01:55



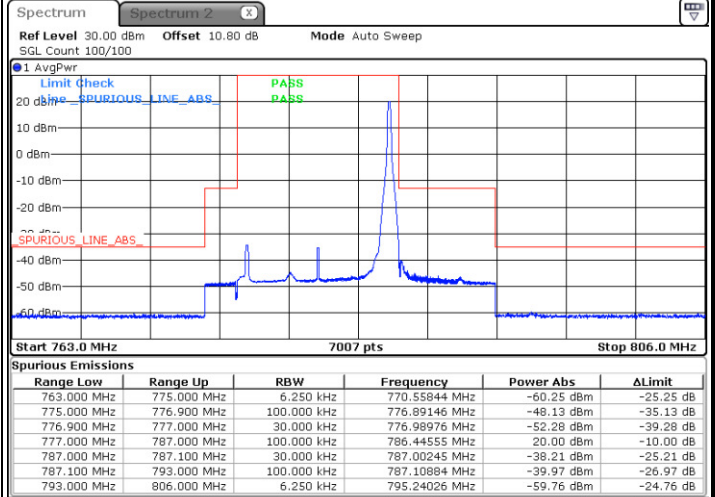
IC LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



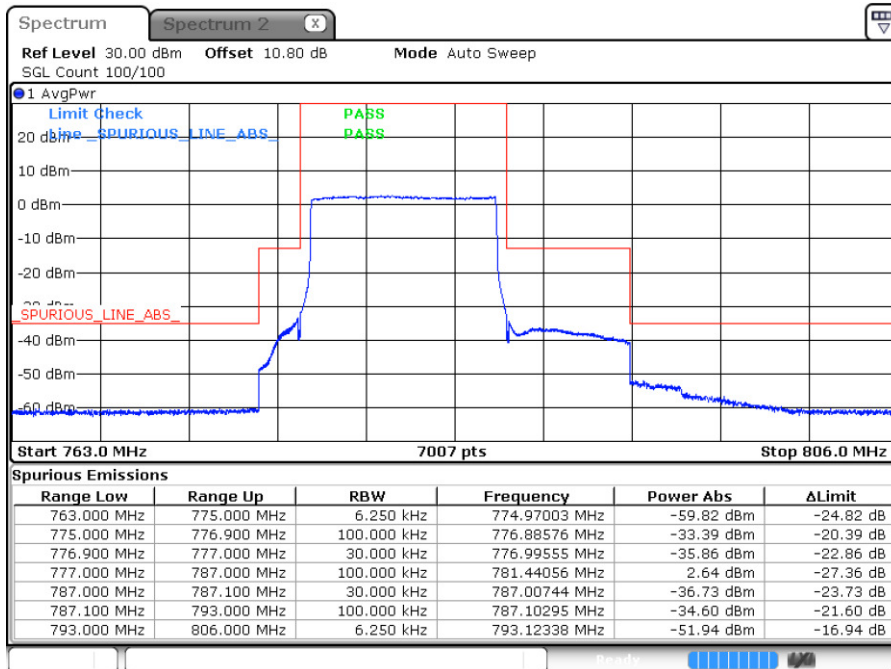
Date: 6 MAR 2018 23:47:38

Highest Band Edge / 1 RB



Date: 6 MAR 2018 23:49:17

Band Edge / Full RB



Date: 6 MAR 2018 23:42:41