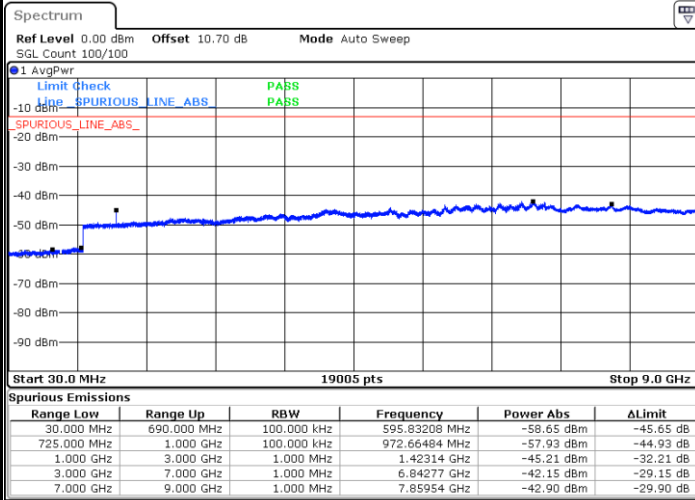




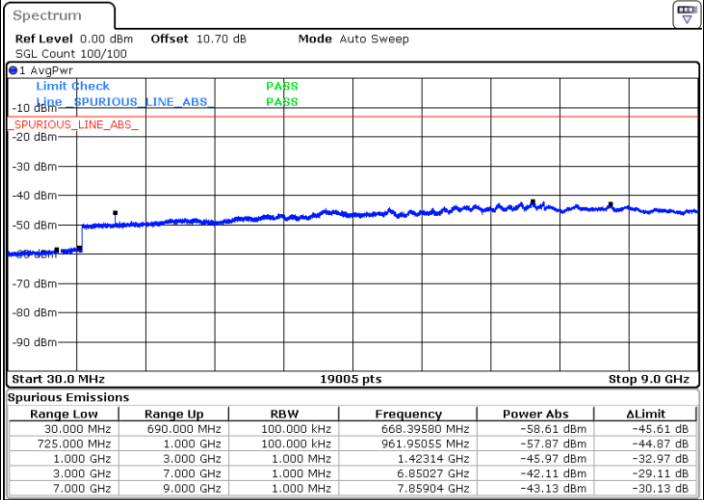
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 3 AUG.2017 21:25:39

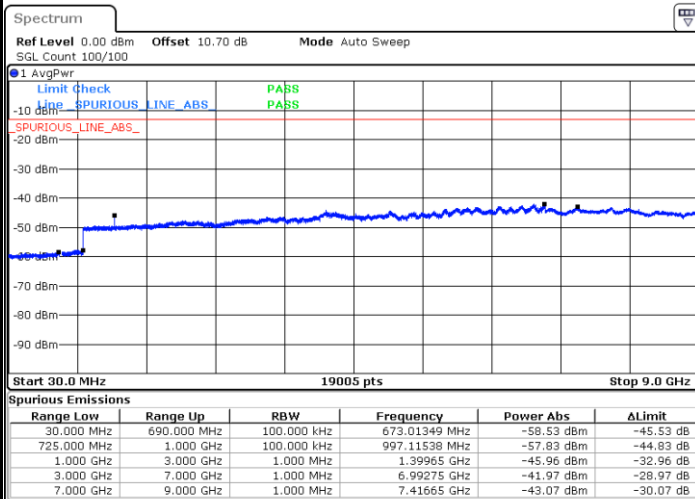
Highest Channel / 16QAM



Date: 3 AUG.2017 21:24:45

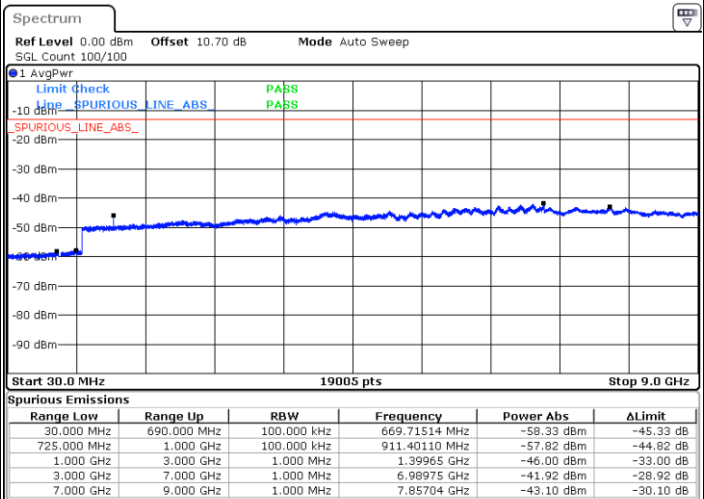
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 3 AUG.2017 21:31:48

Lowest Channel / 16QAM

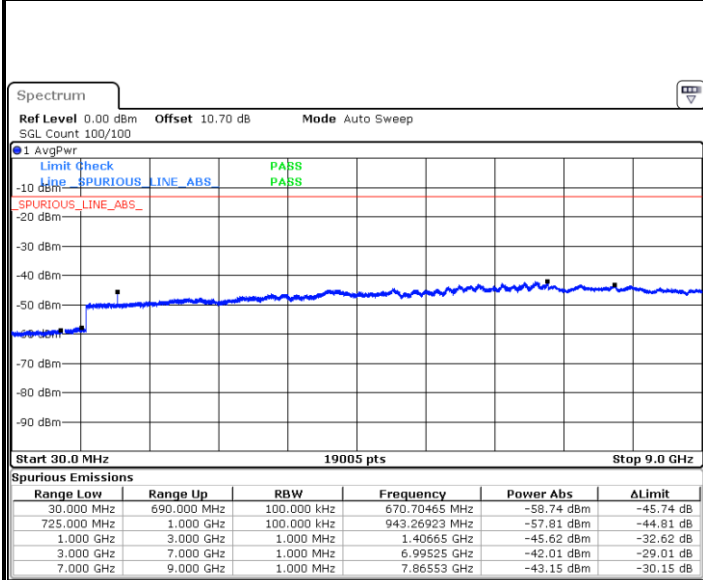


Date: 3 AUG.2017 21:32:42



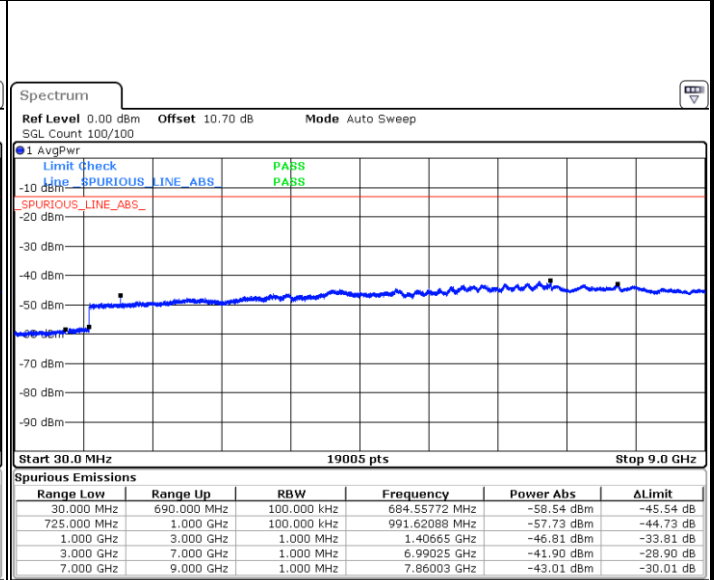
LTE Band 12 / 10MHz

Middle Channel / QPSK



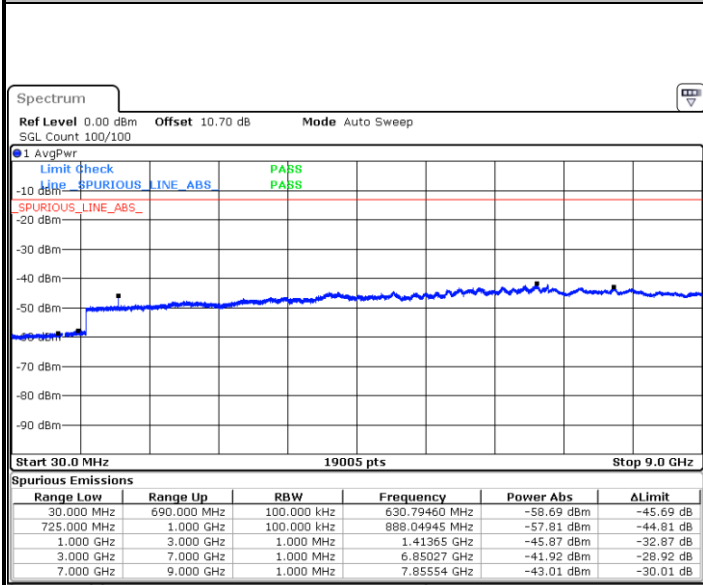
Date: 3 AUG.2017 21:35:09

Middle Channel / 16QAM



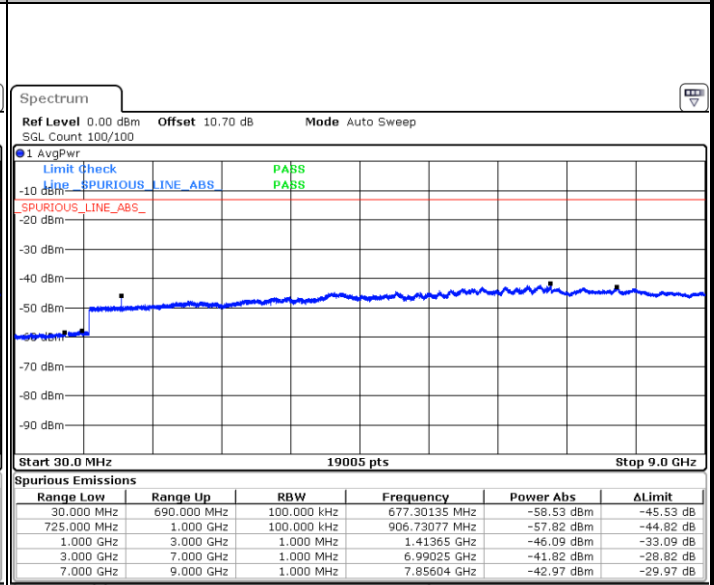
Date: 3 AUG.2017 21:34:16

Highest Channel / QPSK



Date: 3 AUG.2017 21:41:18

Highest Channel / 16QAM

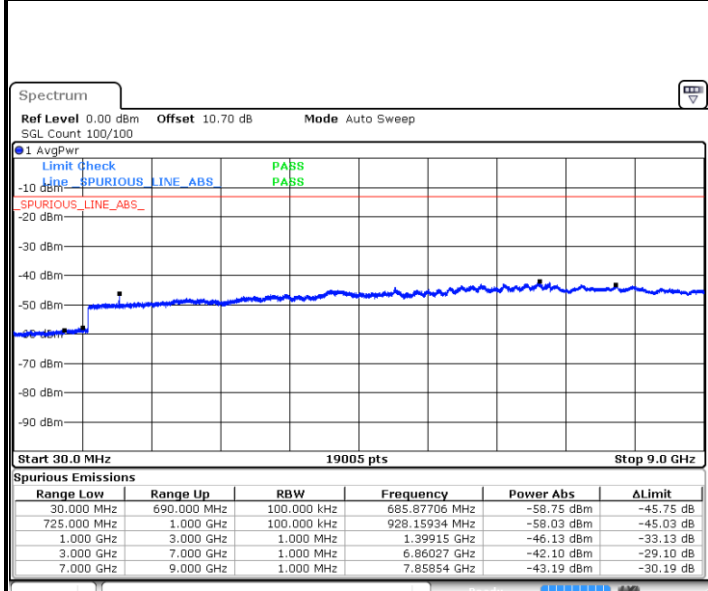


Date: 3 AUG.2017 21:42:12



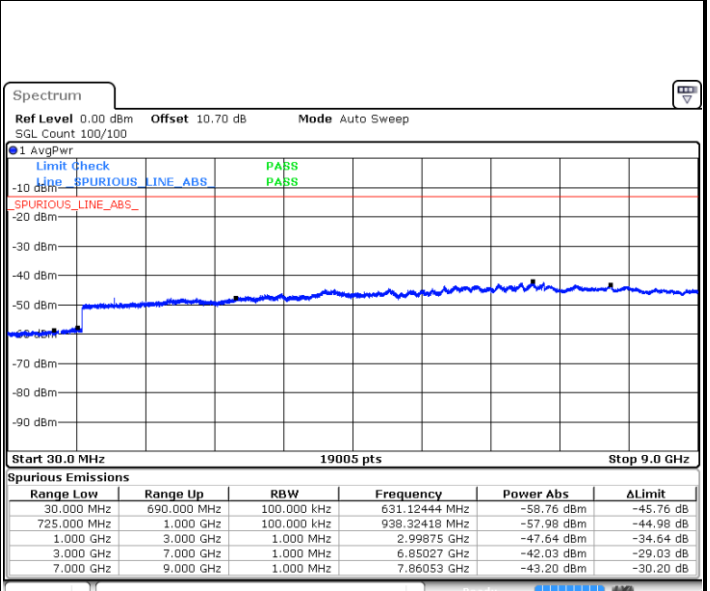
**LTE Band 12 / 1.4MHz**

**Lowest Channel / 64QAM**



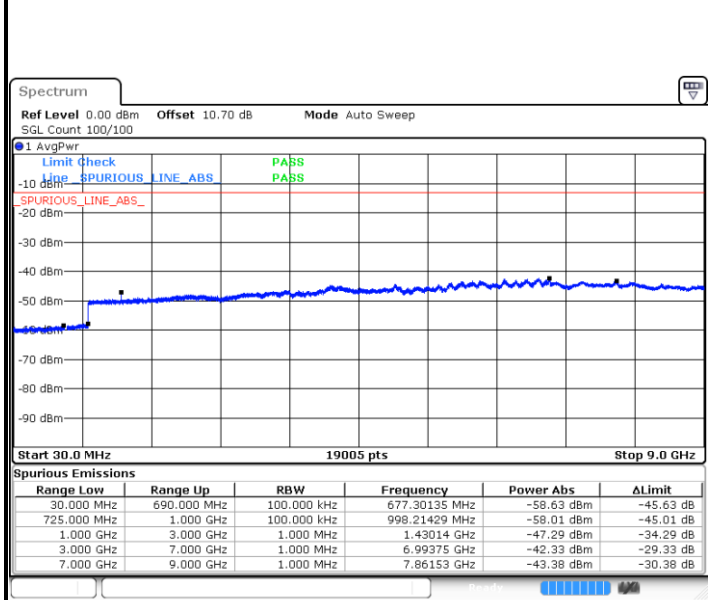
Date: 6.OCT.2017 22:31:52

**Middle Channel / 64QAM**



Date: 6.OCT.2017 22:33:06

**Highest Channel / 64QAM**



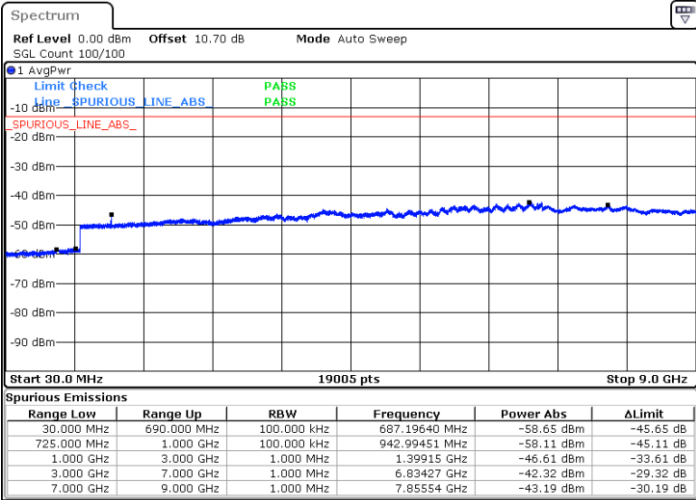
Date: 6.OCT.2017 22:36:37



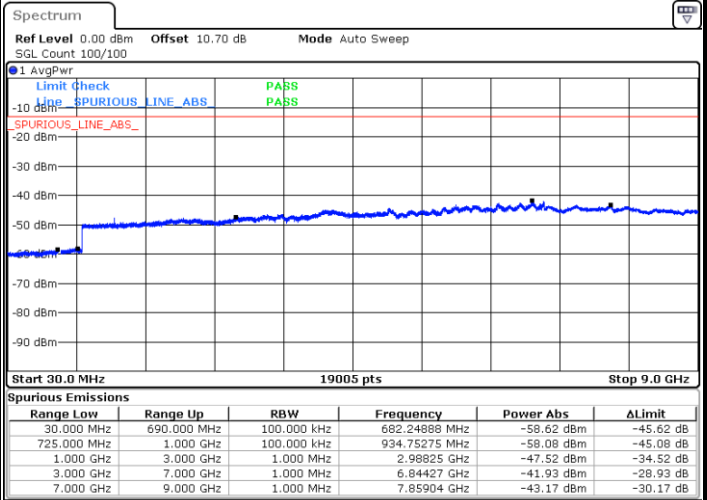
LTE Band 12 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

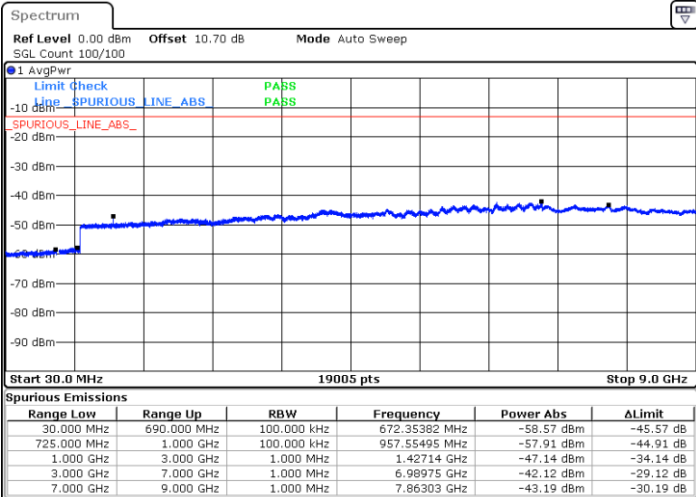


Date: 6.OCT.2017 22:07:04



Date: 6.OCT.2017 22:08:17

Highest Channel / 64QAM



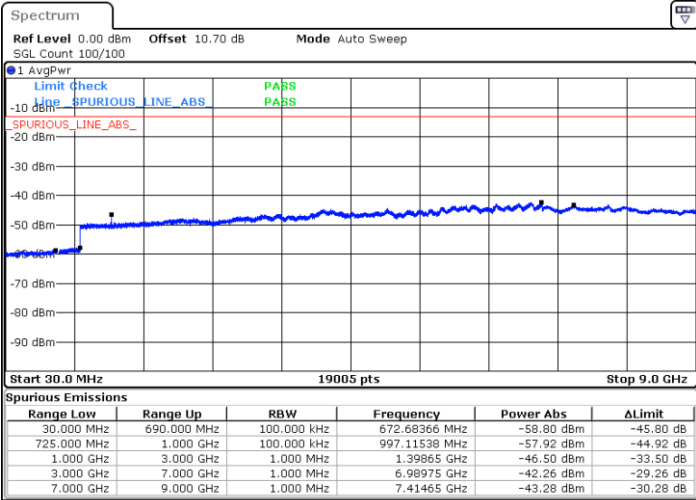
Date: 6.OCT.2017 22:11:49



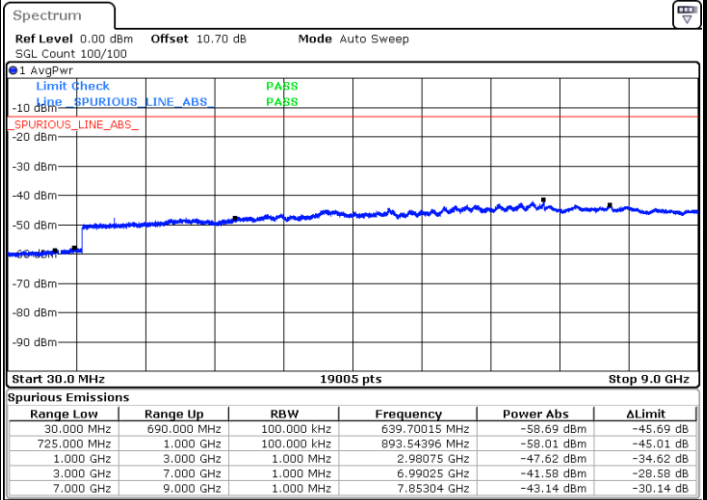
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

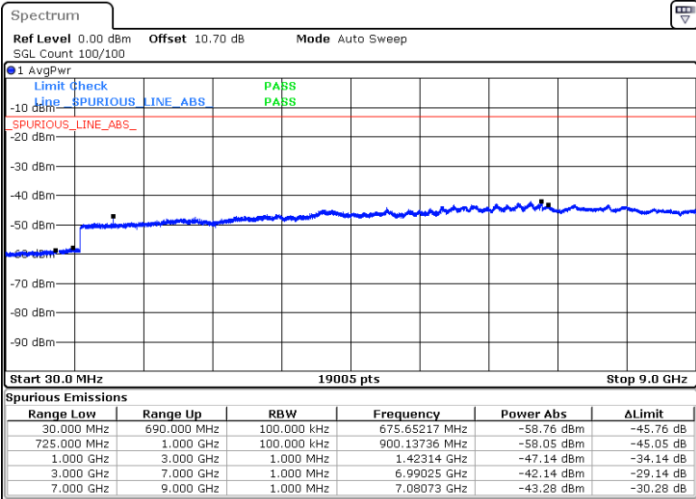


Date: 6.OCT.2017 22:15:20



Date: 6.OCT.2017 22:16:34

Highest Channel / 64QAM



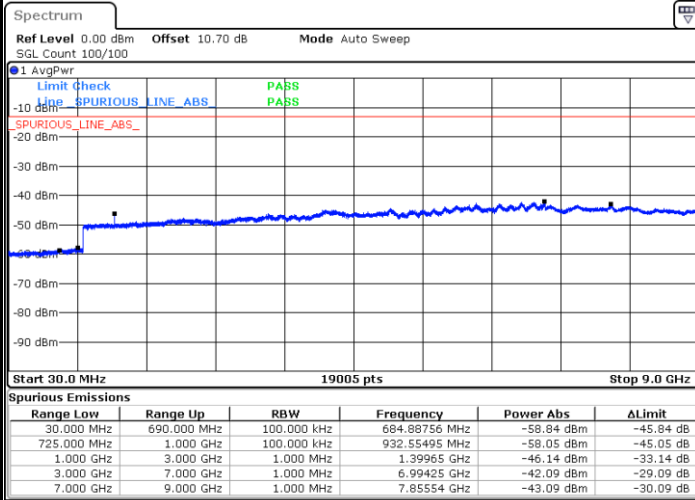
Date: 6.OCT.2017 22:20:05



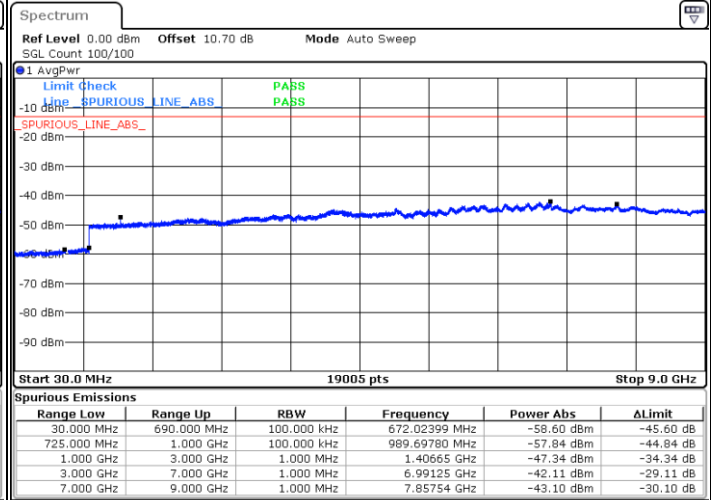
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

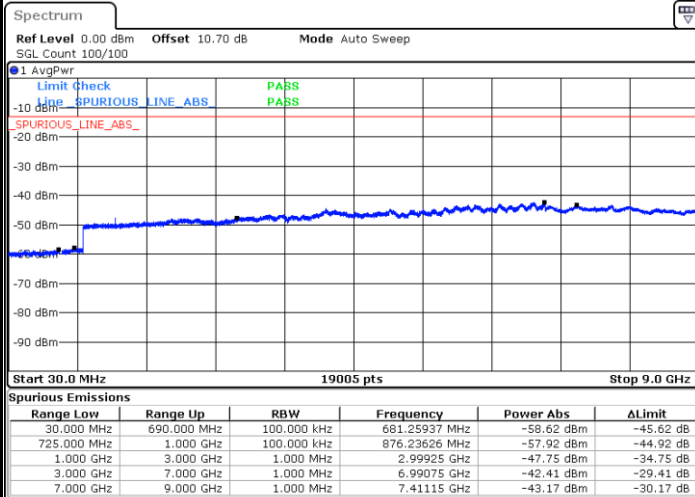


Date: 6.OCT.2017 22:23:36



Date: 6.OCT.2017 22:24:50

Highest Channel / 64QAM



Date: 6.OCT.2017 22:28:21



**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	0.0061	PASS
40	Normal Voltage	0.0008	
30	Normal Voltage	0.0016	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0076	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0071	
-30	Normal Voltage	0.0004	
20	Maximum Voltage	0.0079	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0054	

**Note:**

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.4 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

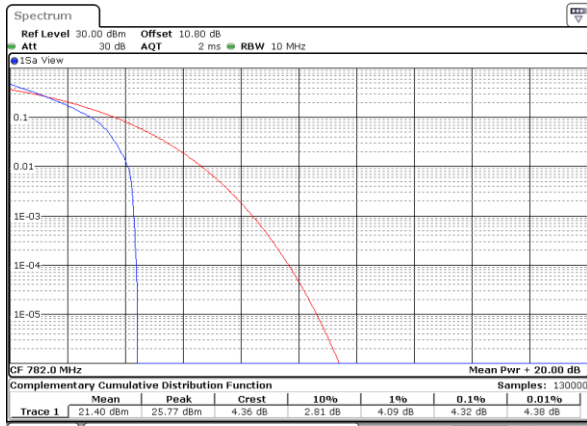
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	<b>PASS</b>
Middle CH	4.32	5.01	5.22	5.88	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH			-	-	<b>PASS</b>
Middle CH	5.51	6.58	-	-	
Highest CH			-	-	





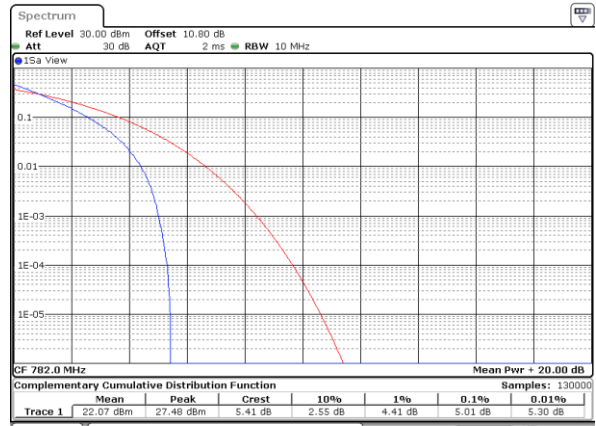
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 3 AUG 2017 20:20:42

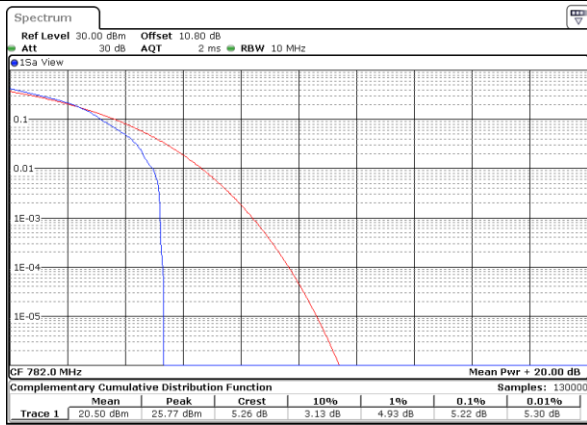
Middle Channel / Full RB



Date: 3 AUG 2017 20:23:05

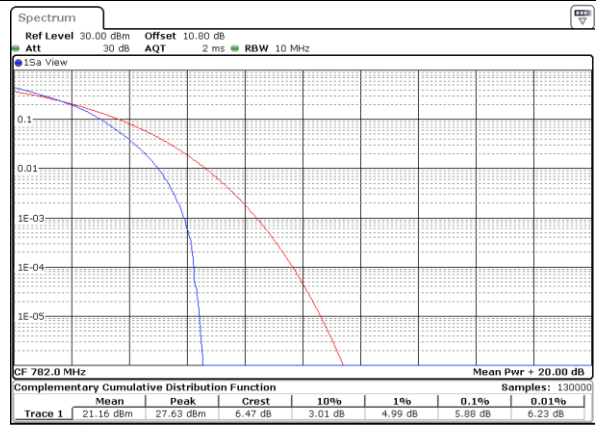
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 3 AUG 2017 20:20:22

Middle Channel / Full RB



Date: 3 AUG 2017 20:20:32

LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 11 OCT 2017 10:42:56

Middle Channel / Full RB



Date: 11 OCT 2017 10:43:06



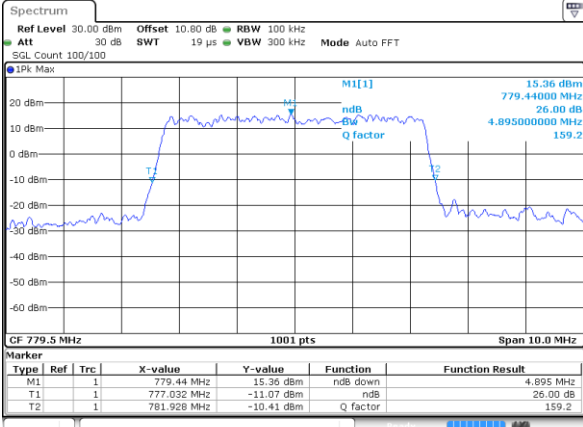
**26dB Bandwidth**

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	-	-	-	-	4.90	4.84	-	-	-	-	-	-
Middle CH	-	-	-	-	4.91	4.95	9.81	9.83	-	-	-	-
Highest CH	-	-	-	-	4.90	4.92	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.92	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.94	-	9.71	-	-	-	-	-
Highest CH	-	-	-	-	4.96	-	-	-	-	-	-	-



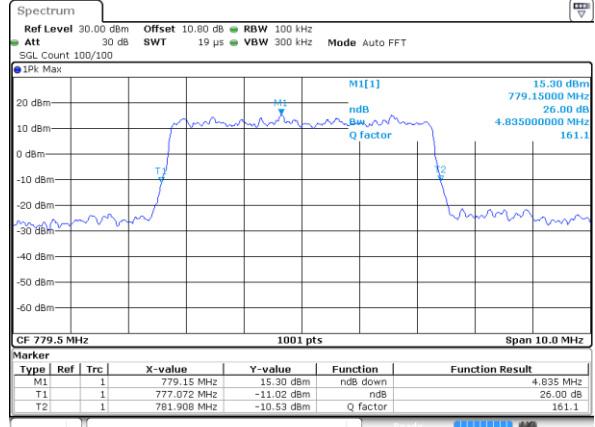
LTE Band 13

Lowest Channel / 5MHz / QPSK



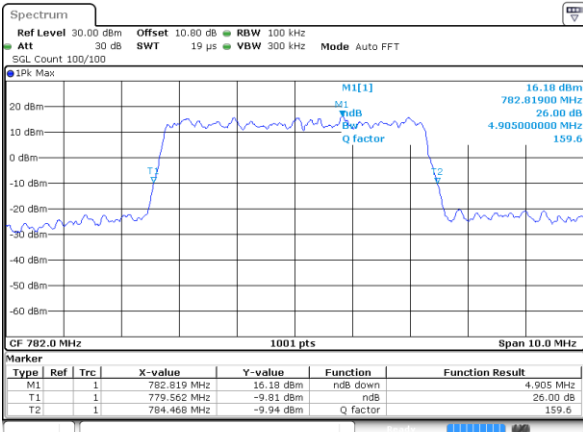
Date: 3 AUG 2017 19:47:59

Lowest Channel / 5MHz / 16QAM



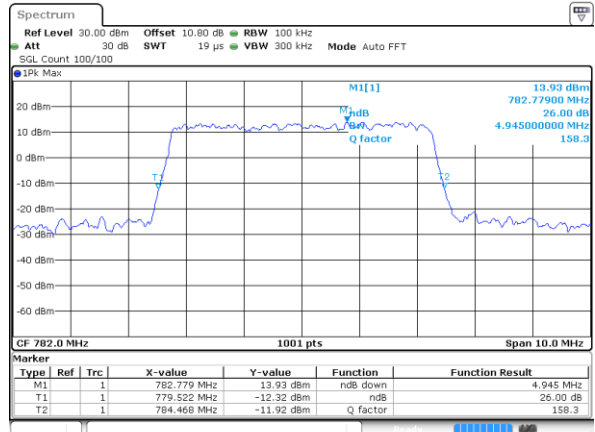
Date: 3 AUG 2017 19:47:49

Middle Channel / 5MHz / QPSK



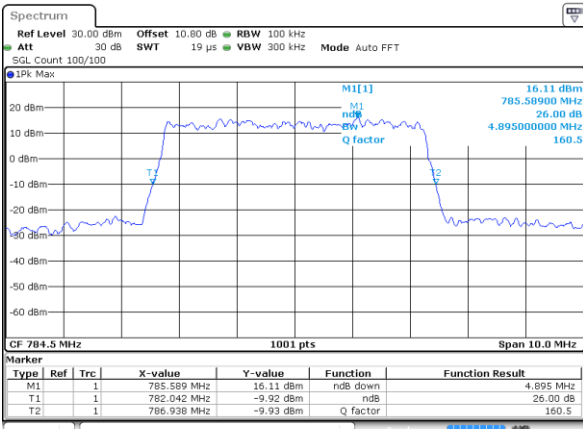
Date: 3 AUG 2017 19:58:18

Middle Channel / 5MHz / 16QAM



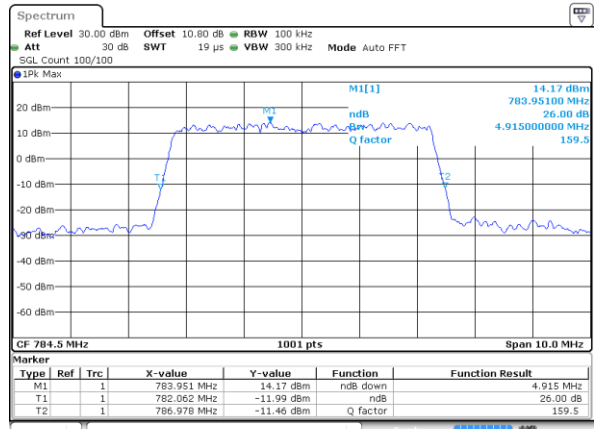
Date: 3 AUG 2017 19:58:28

Highest Channel / 5MHz / QPSK



Date: 3 AUG 2017 19:59:28

Highest Channel / 5MHz / 16QAM

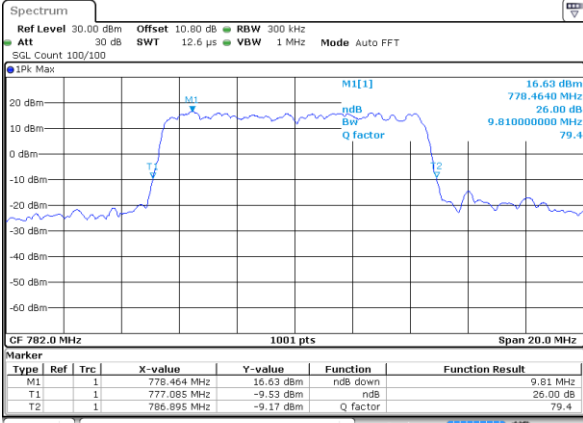


Date: 3 AUG 2017 19:59:18



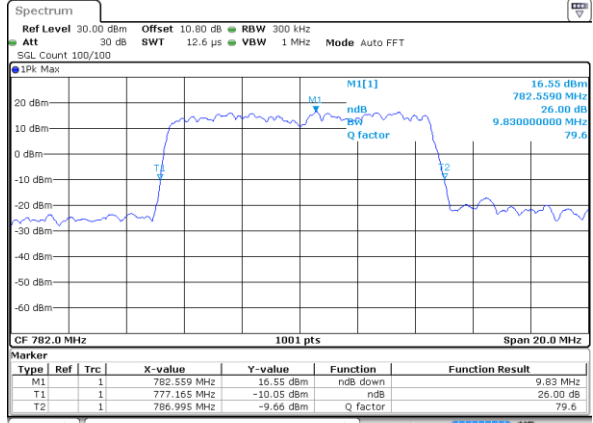
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 3 AUG 2017 20:08:31

Middle Channel / 10MHz / 16QAM

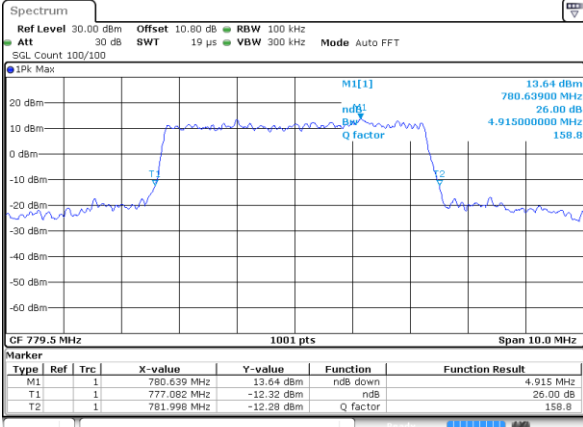


Date: 3 AUG 2017 20:08:21



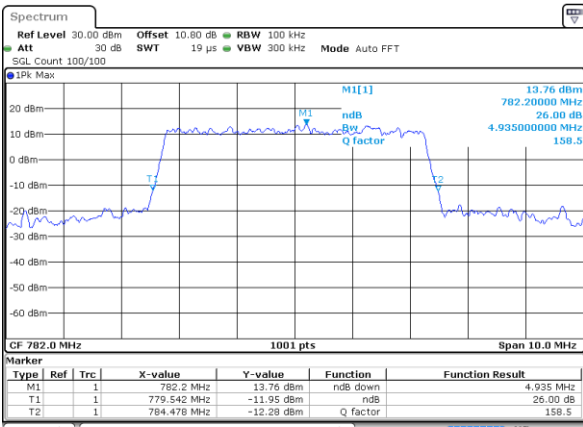
LTE Band 13

Lowest Channel / 5MHz / 64QAM



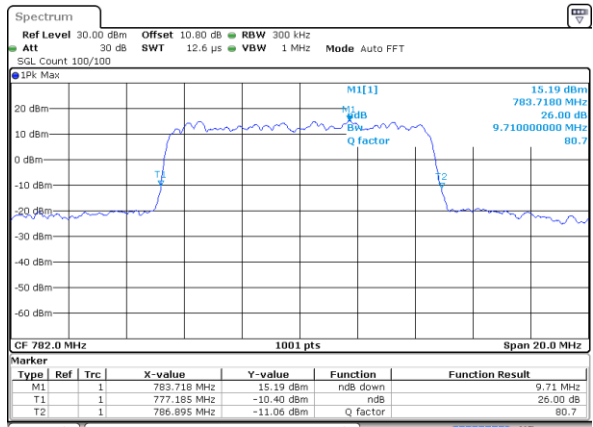
Date: 11.OCT.2017 10:26:05

Middle Channel / 5MHz / 64QAM



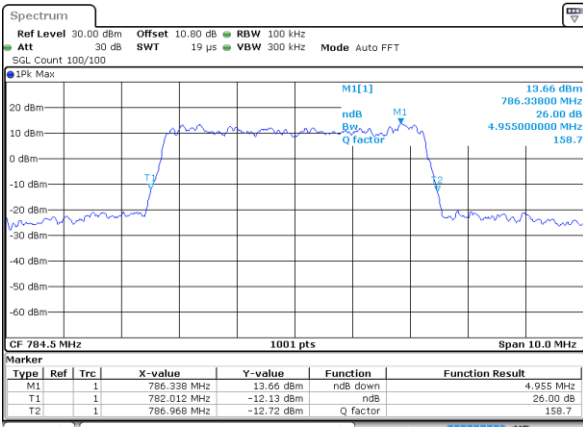
Date: 11.OCT.2017 10:31:19

Middle Channel / 10MHz / 64QAM



Date: 11.OCT.2017 10:36:21

Highest Channel / 5MHz / 64QAM



Date: 11.OCT.2017 10:31:49



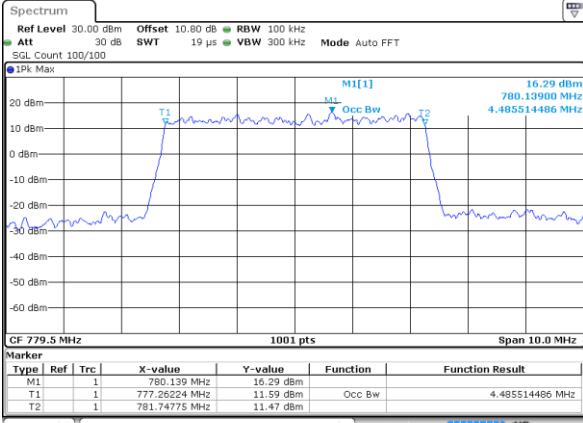
**Occupied Bandwidth**

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	-	-	-	-	4.49	4.52	-	-	-	-	-	-
Middle CH	-	-	-	-	4.52	4.5	9.03	9.01	-	-	-	-
Highest CH	-	-	-	-	4.52	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	-	9.05	-	-	-	-	-
Highest CH	-	-	-	-	4.49	-	-	-	-	-	-	-



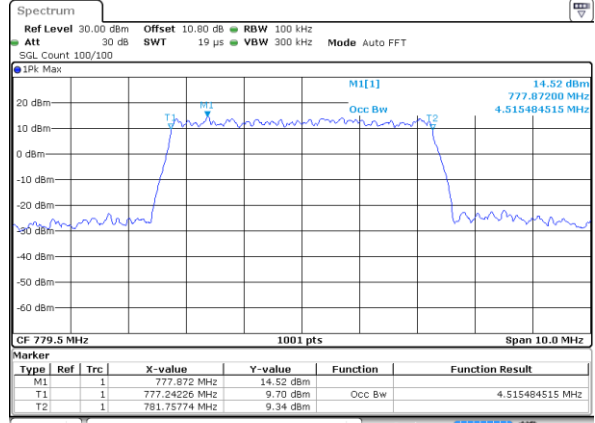
LTE Band 13

Lowest Channel / 5MHz / QPSK



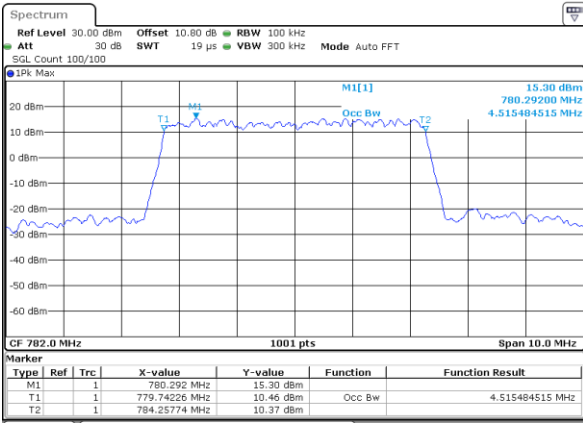
Date: 3 AUG 2017 19:47:29

Lowest Channel / 5MHz / 16QAM



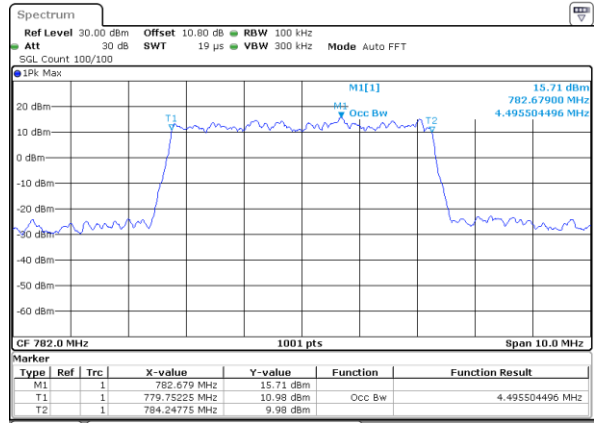
Date: 3 AUG 2017 19:47:39

Middle Channel / 5MHz / QPSK



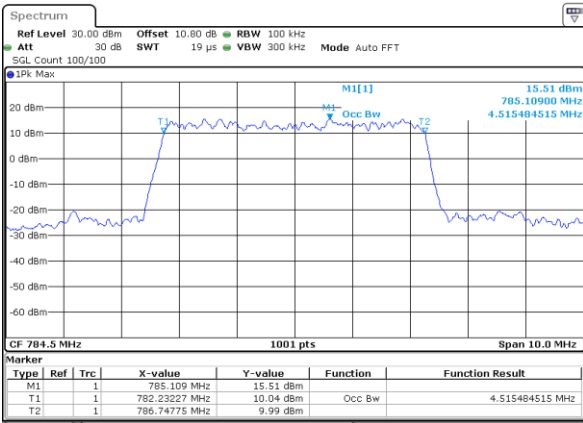
Date: 3 AUG 2017 19:58:48

Middle Channel / 5MHz / 16QAM



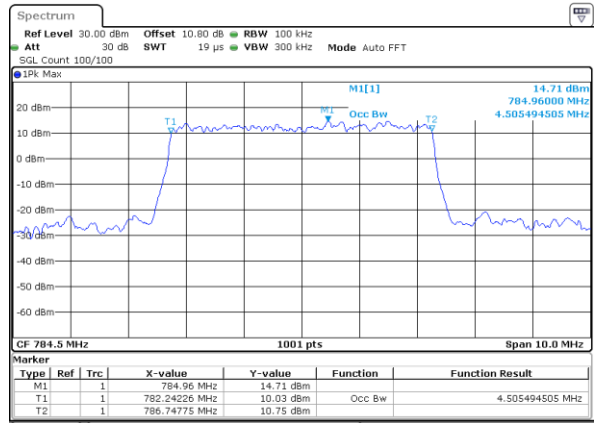
Date: 3 AUG 2017 19:58:38

Highest Channel / 5MHz / QPSK



Date: 3 AUG 2017 19:58:58

Highest Channel / 5MHz / 16QAM

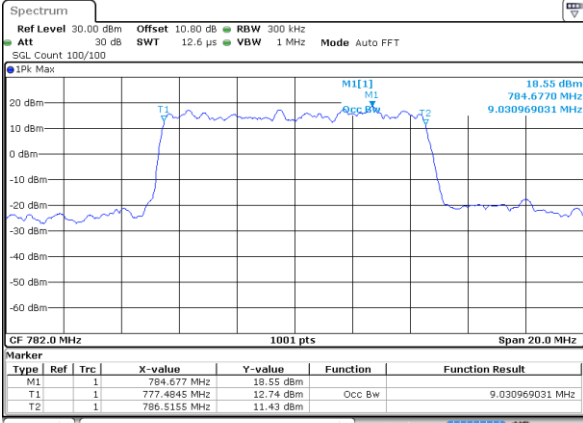


Date: 3 AUG 2017 19:59:08



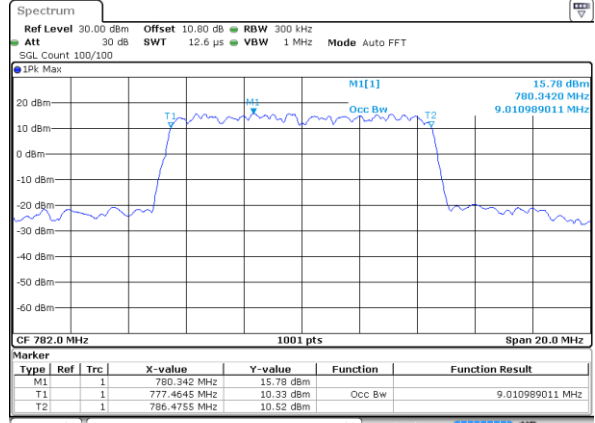
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 3 AUG 2017 20:08:01

Middle Channel / 10MHz / 16QAM



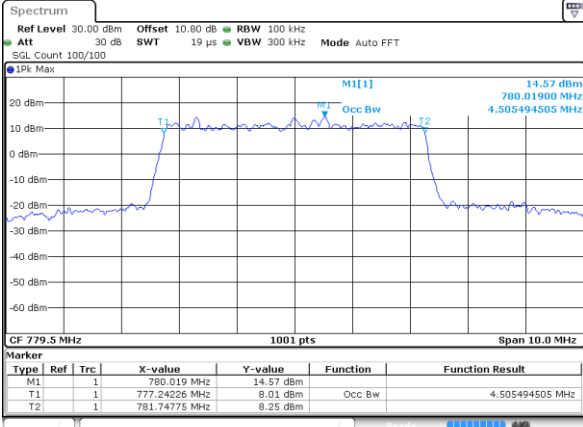
Date: 3 AUG 2017 20:08:11



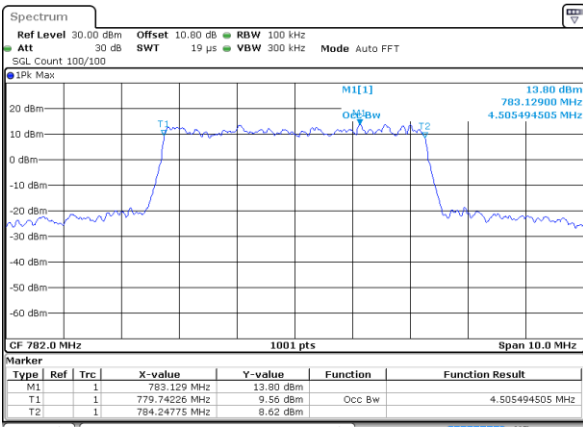


LTE Band 13

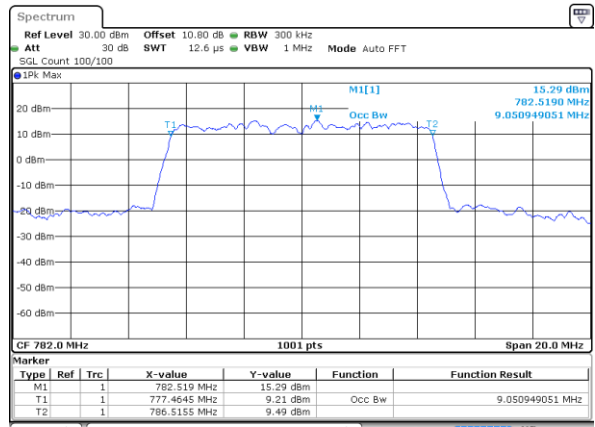
Lowest Channel / 5MHz / 64QAM



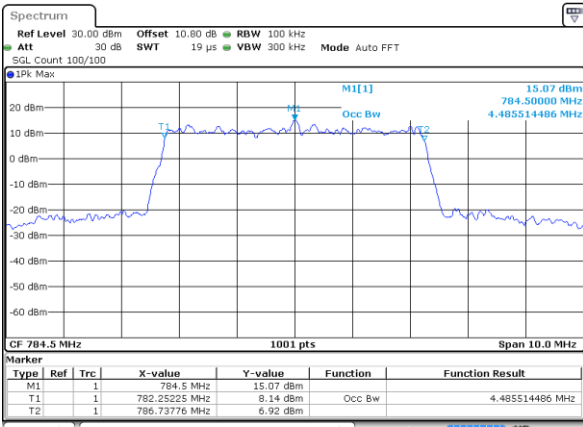
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM





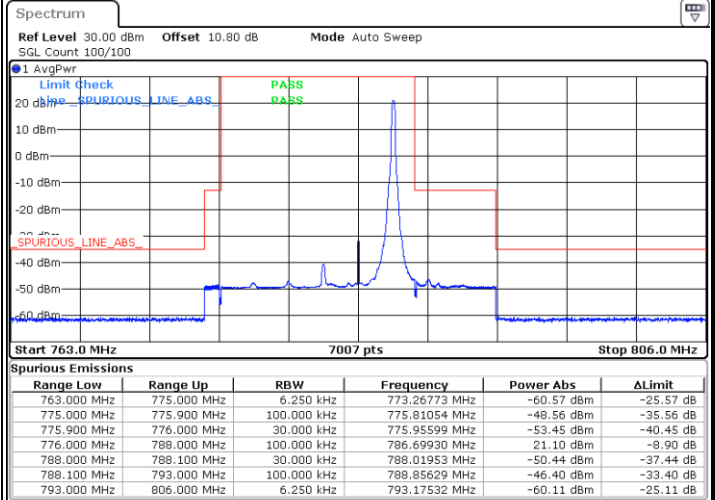
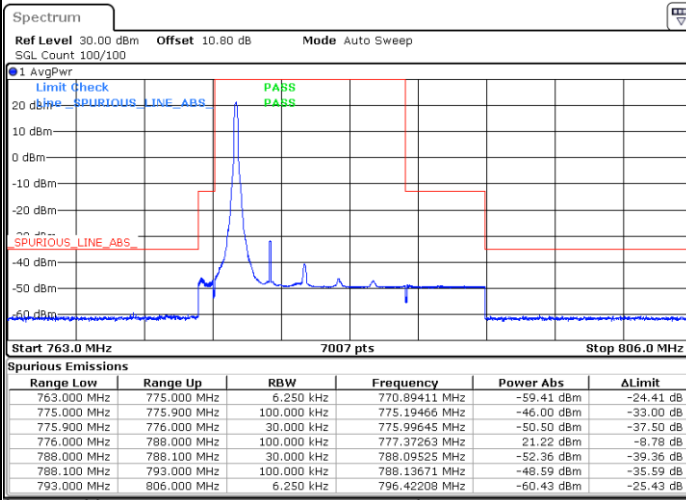
**Conducted Band Edge**



LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

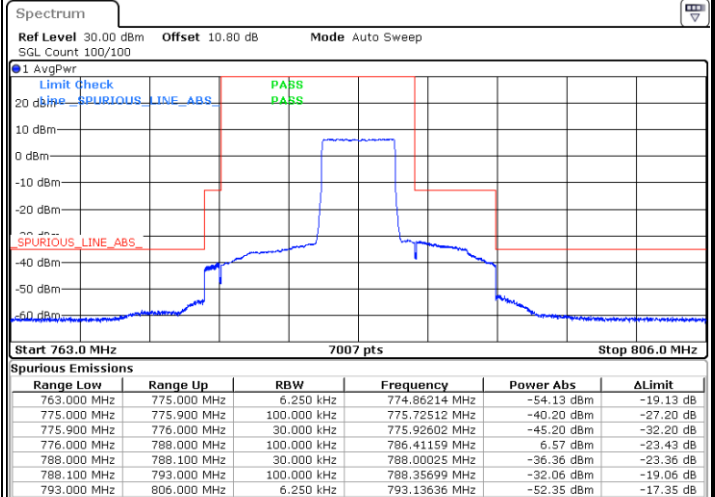
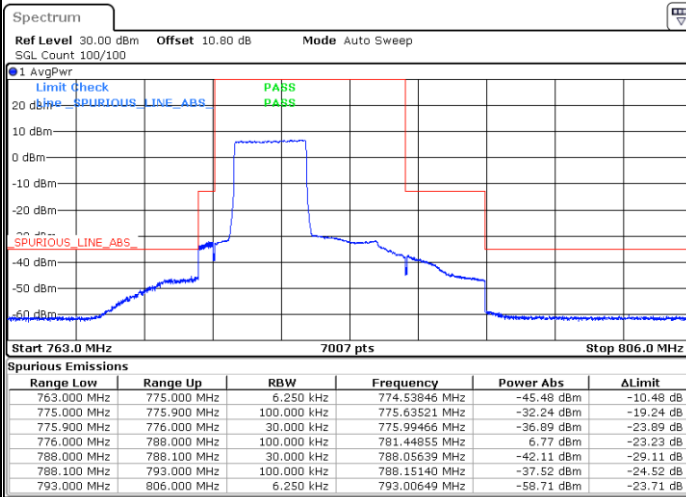


Date: 3 AUG 2017 19:54:34

Date: 3 AUG 2017 20:06:03

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 3 AUG 2017 19:49:37

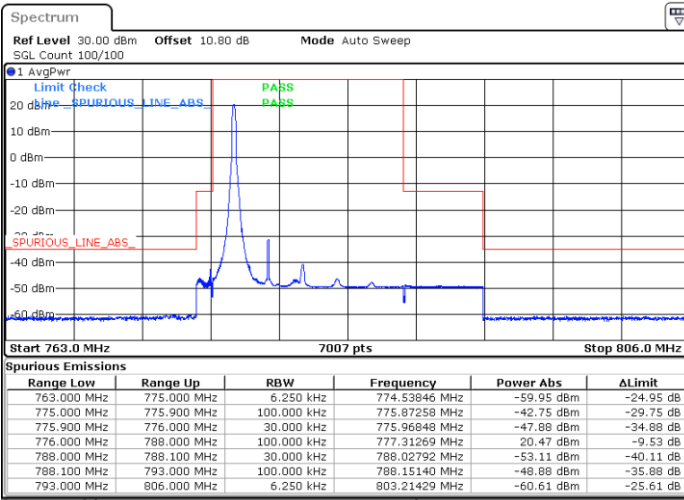
Date: 3 AUG 2017 20:01:07



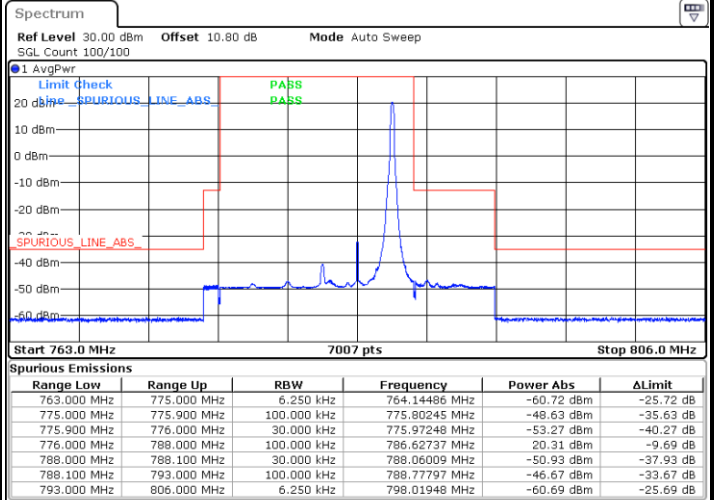
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



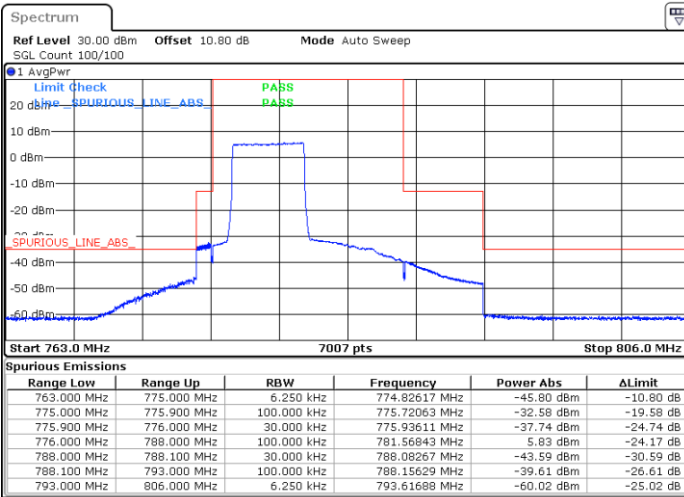
Date: 3 AUG 2017 19:52:55



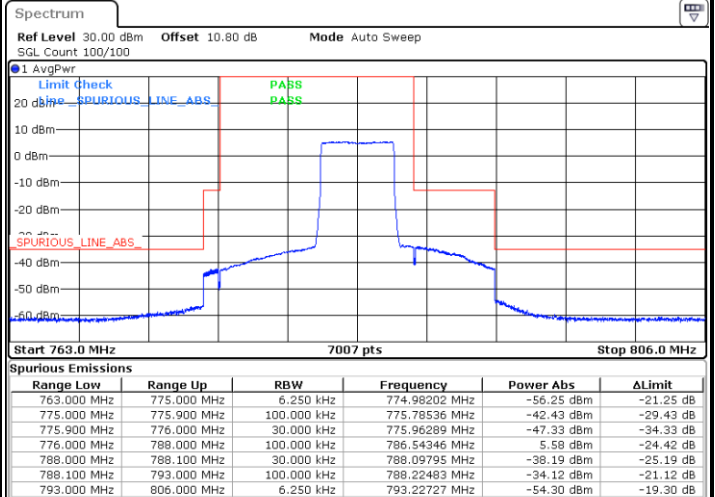
Date: 3 AUG 2017 20:04:24

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 3 AUG 2017 19:51:16



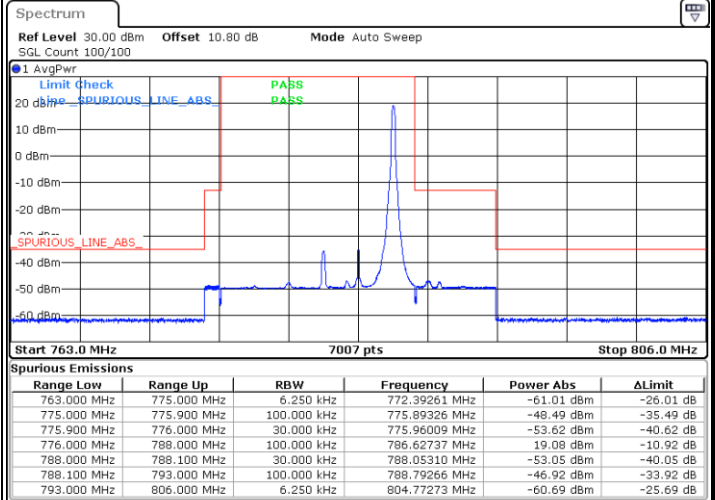
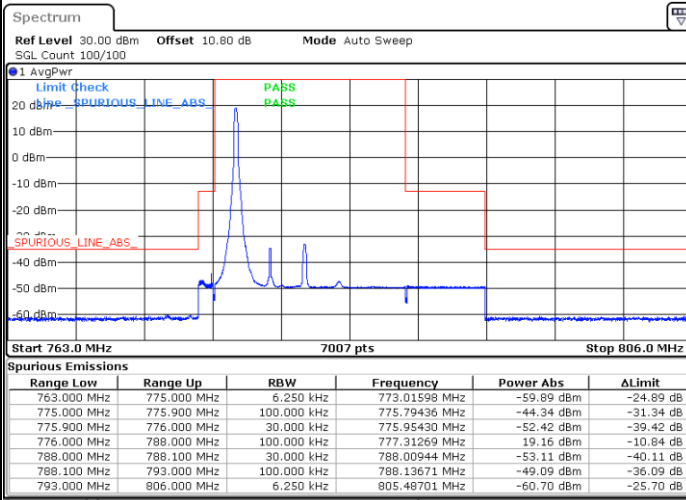
Date: 3 AUG 2017 20:02:46



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

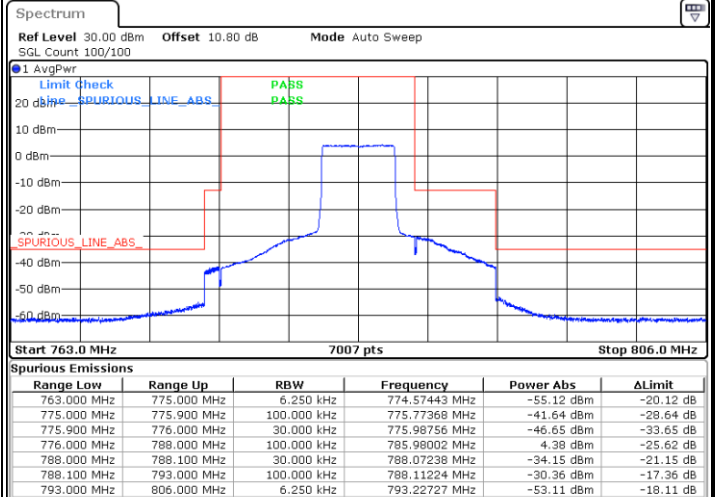
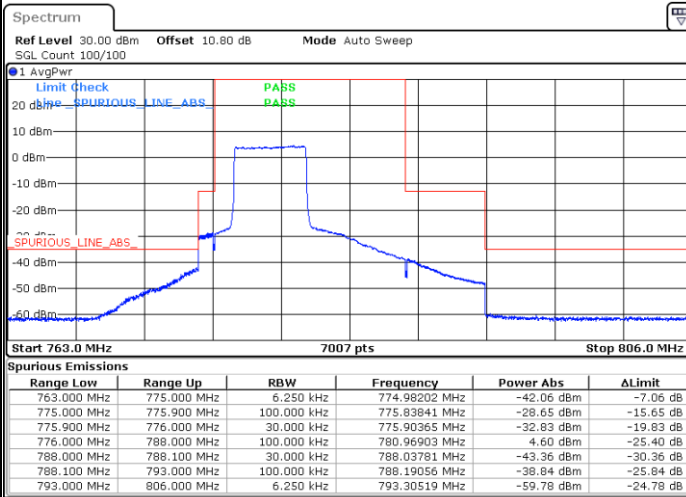


Date: 11.OCT.2017 10:46:53

Date: 11.OCT.2017 10:50:10

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 11.OCT.2017 10:45:14

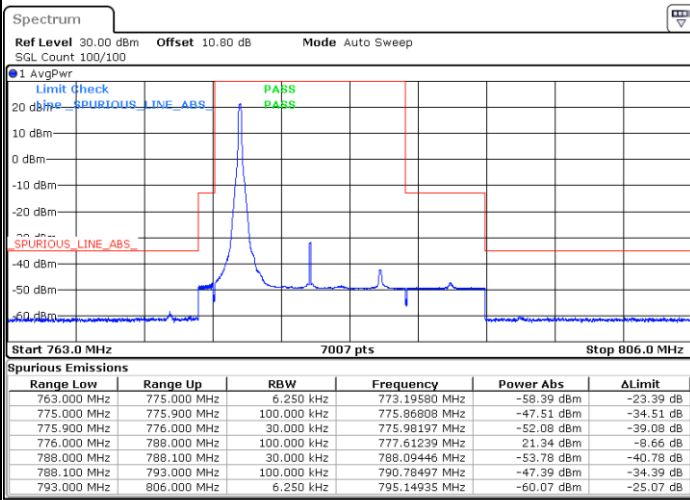
Date: 11.OCT.2017 10:48:32



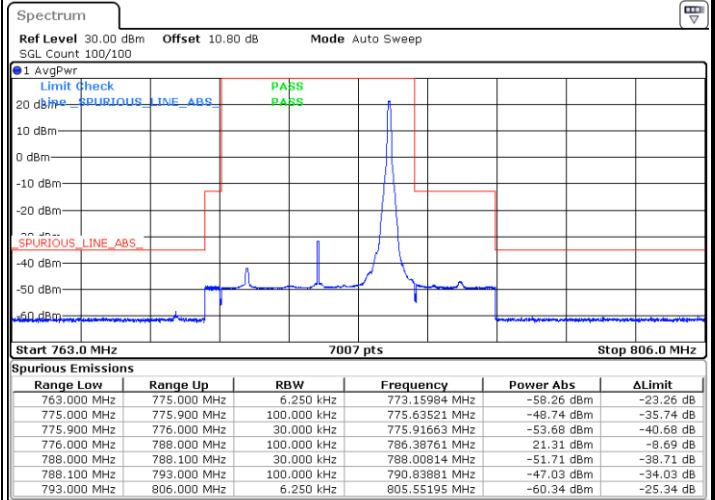
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

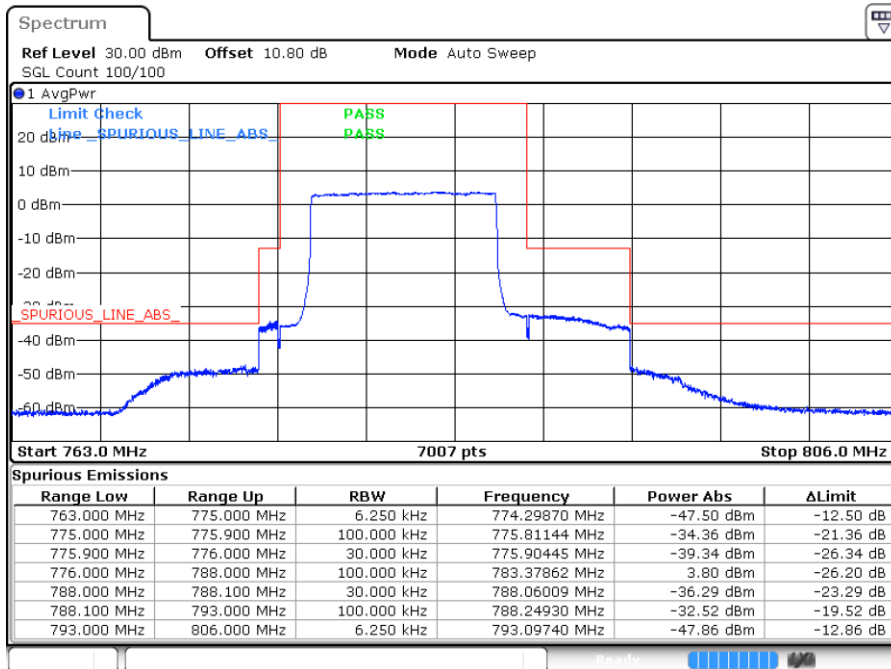


Date: 3 AUG 2017 20:15:05



Date: 3 AUG 2017 20:16:44

Band Edge / Full RB

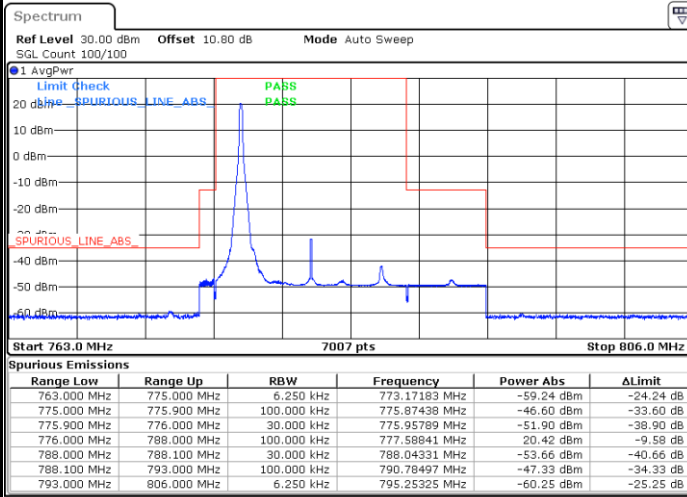


Date: 3 AUG 2017 20:10:09



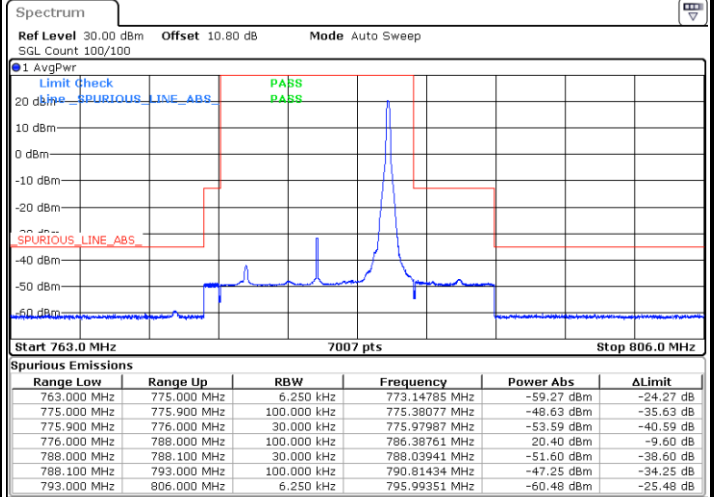
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



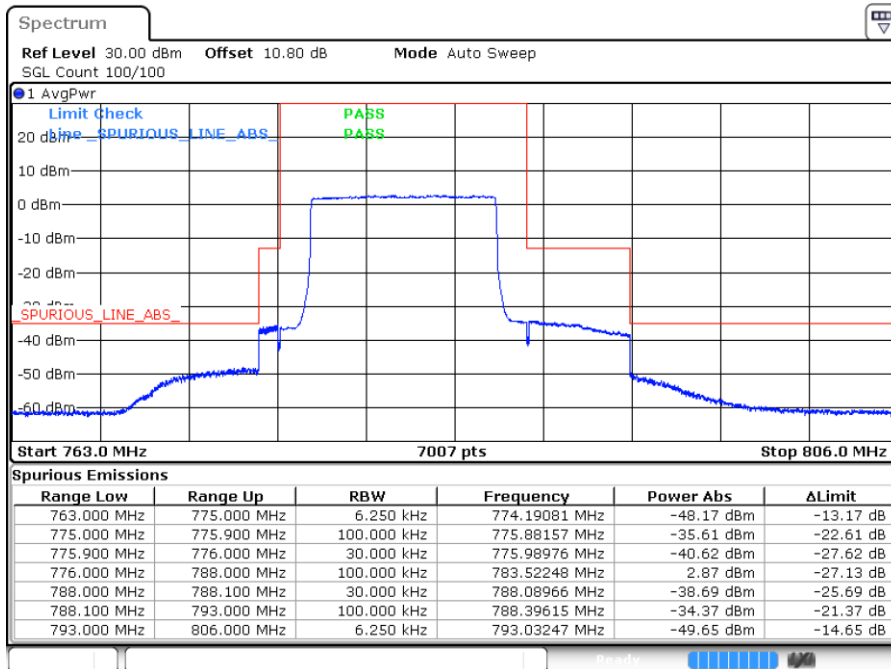
Date: 3 AUG 2017 20:13:27

Highest Band Edge / 1 RB



Date: 3 AUG 2017 20:18:23

Band Edge / Full RB

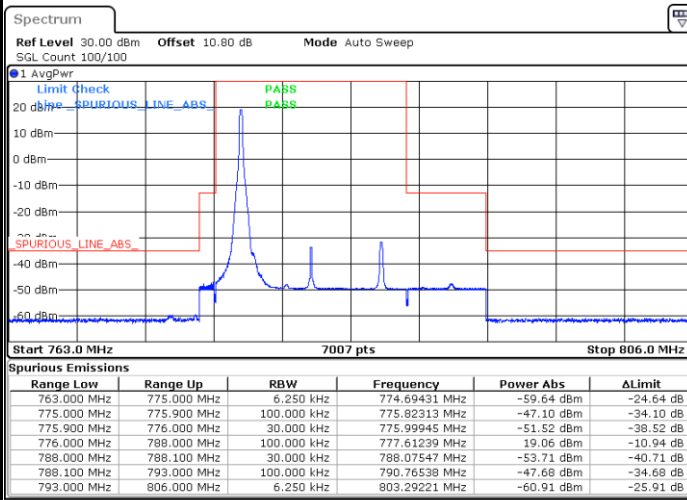


Date: 3 AUG 2017 20:11:48



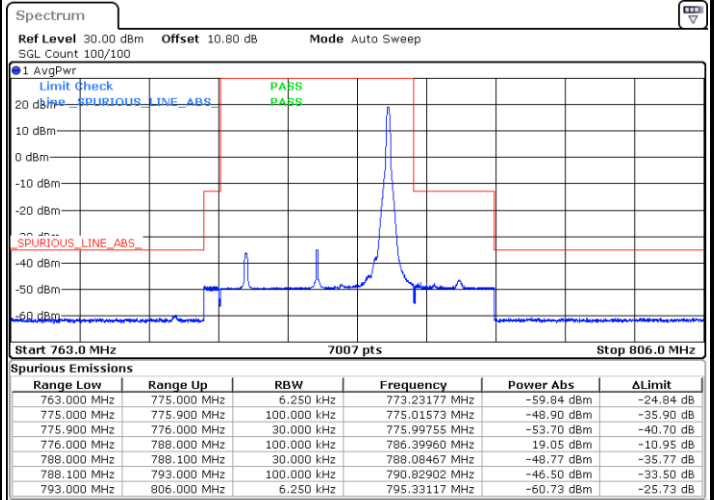
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



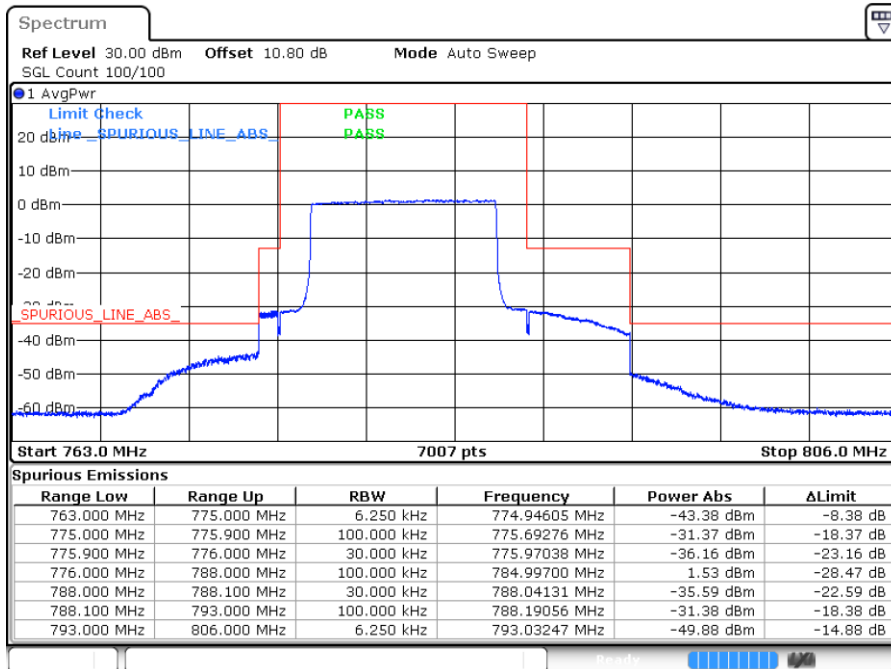
Date: 11.OCT.2017 10:53:28

Highest Band Edge / 1 RB



Date: 11.OCT.2017 10:55:07

Band Edge / Full RB



Date: 11.OCT.2017 10:51:49

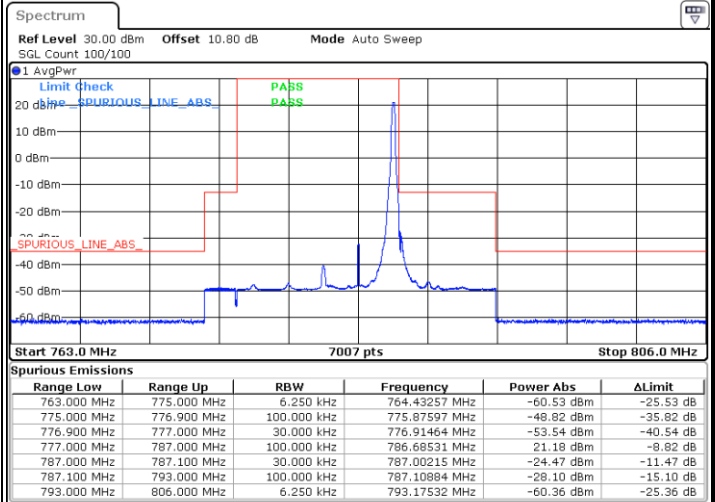
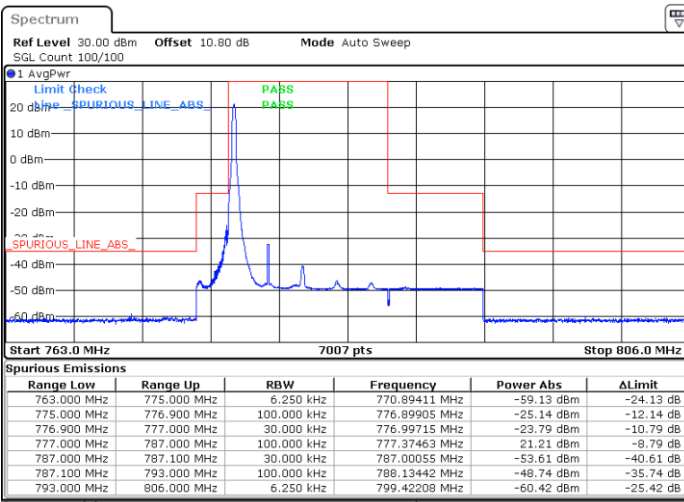




IC LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

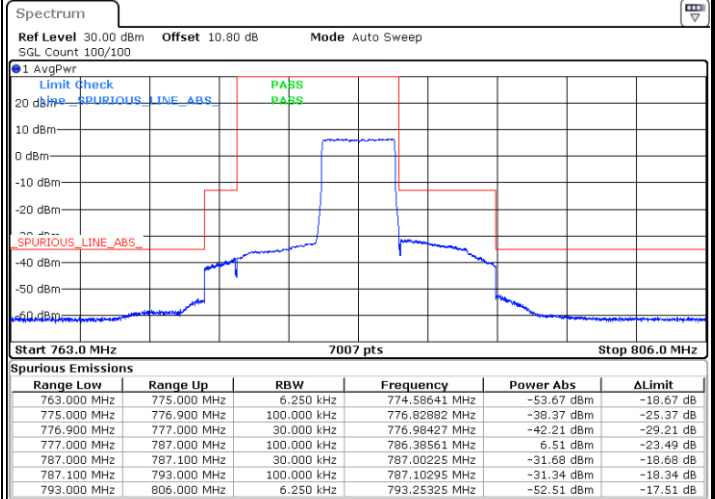
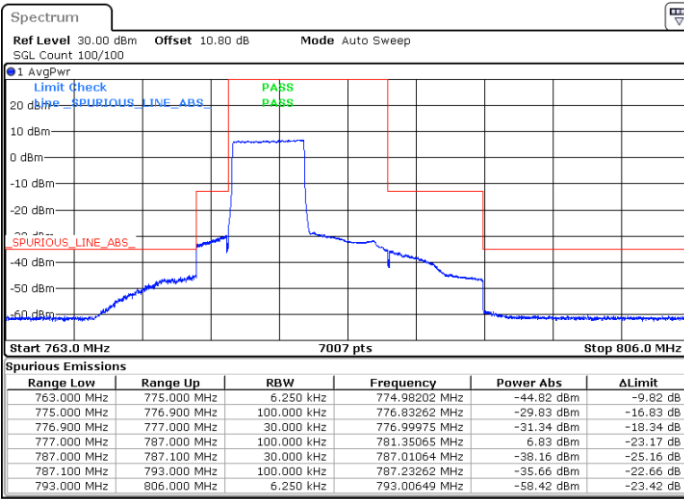


Date: 3 AUG 2017 20:32:11

Date: 3 AUG 2017 20:38:46

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 3 AUG 2017 20:27:14

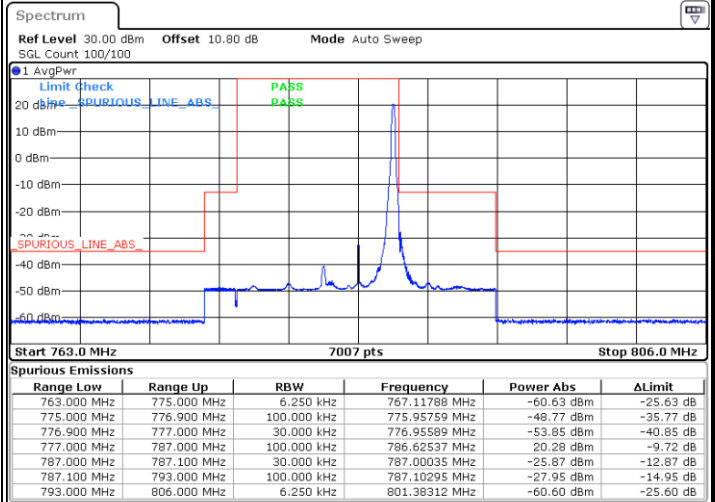
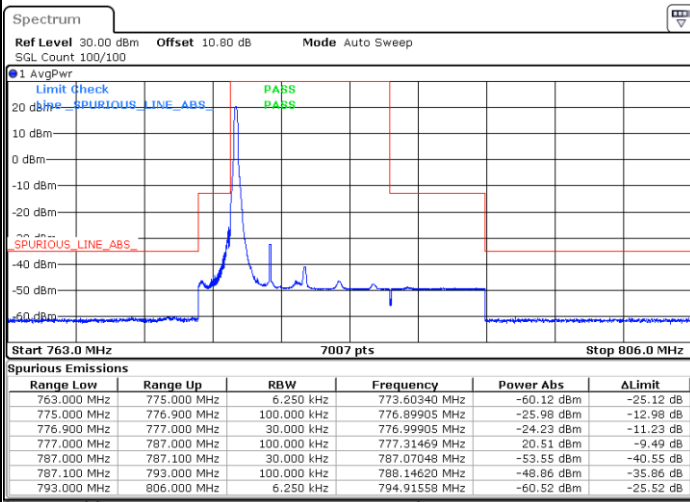
Date: 3 AUG 2017 20:33:50



IC LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

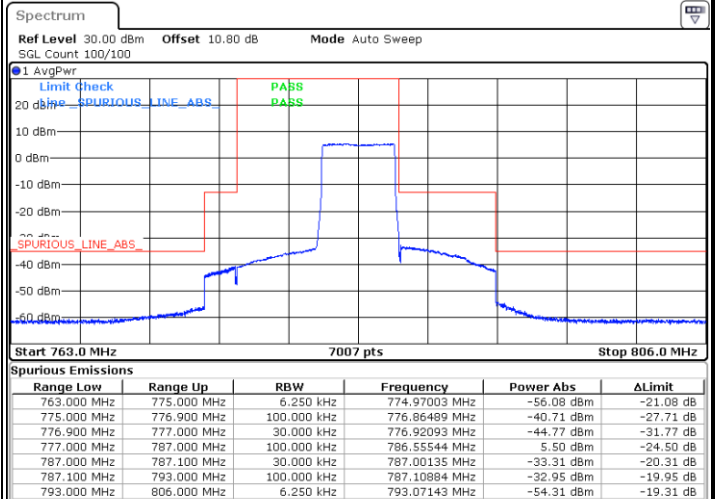
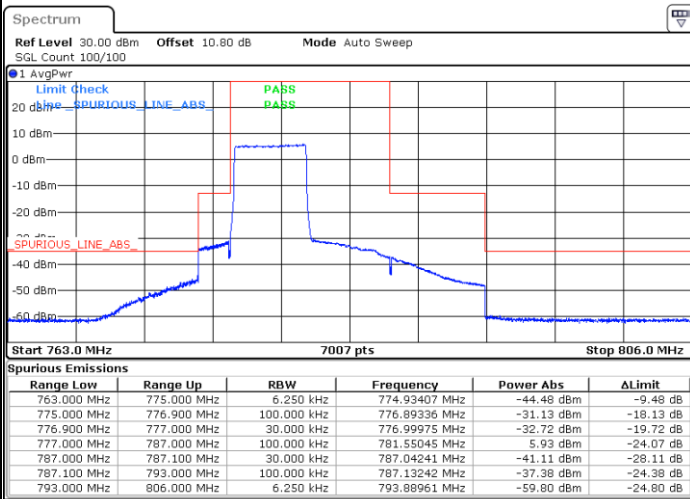


Date: 3 AUG 2017 20:30:32

Date: 3 AUG 2017 20:37:07

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 3 AUG 2017 20:28:53

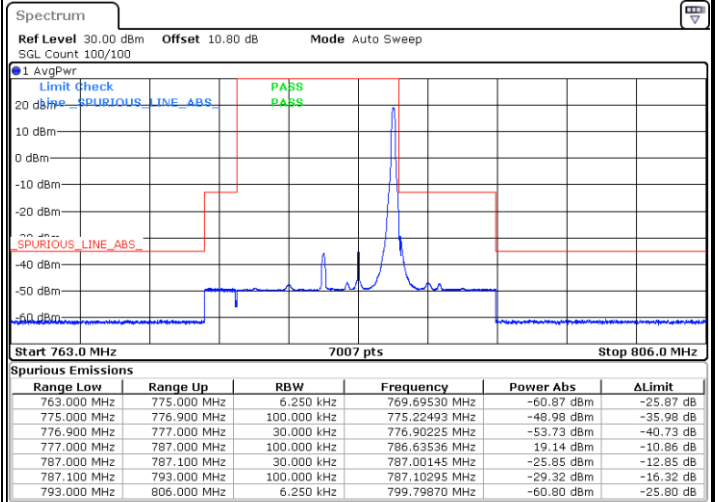
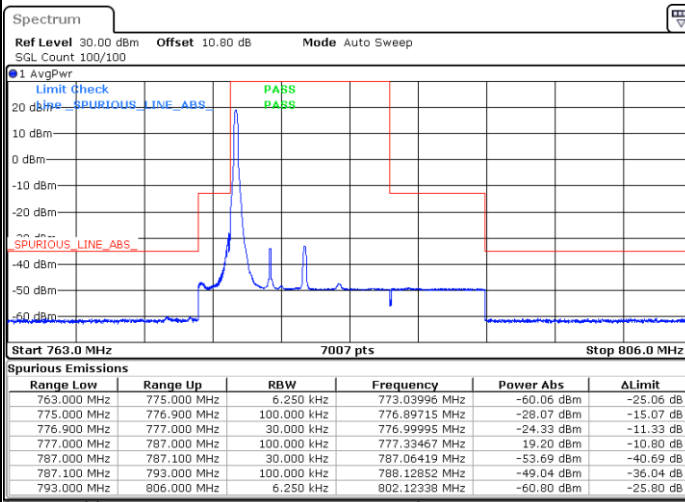
Date: 3 AUG 2017 20:35:28



IC LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

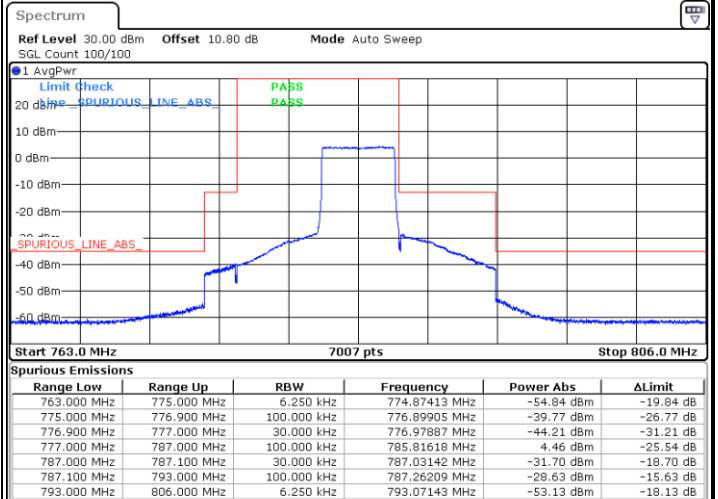
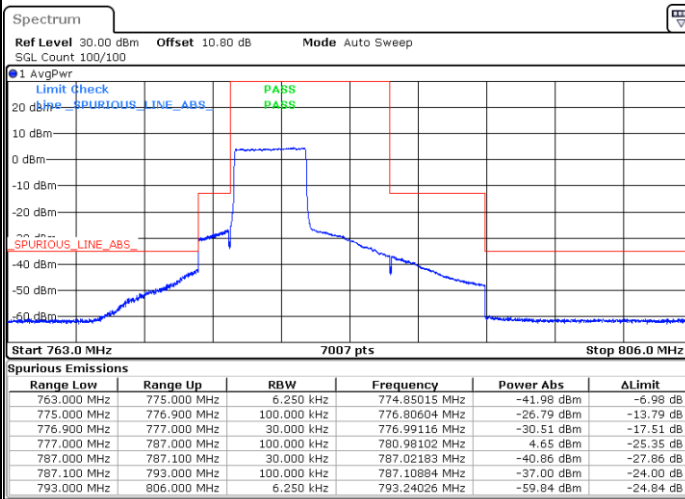


Date: 11.OCT.2017 10:59:03

Date: 11.OCT.2017 11:02:21

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



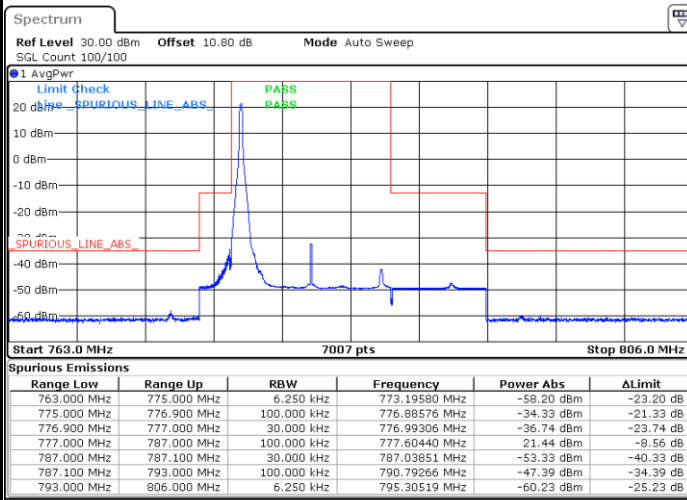
Date: 11.OCT.2017 10:57:25

Date: 11.OCT.2017 11:00:42



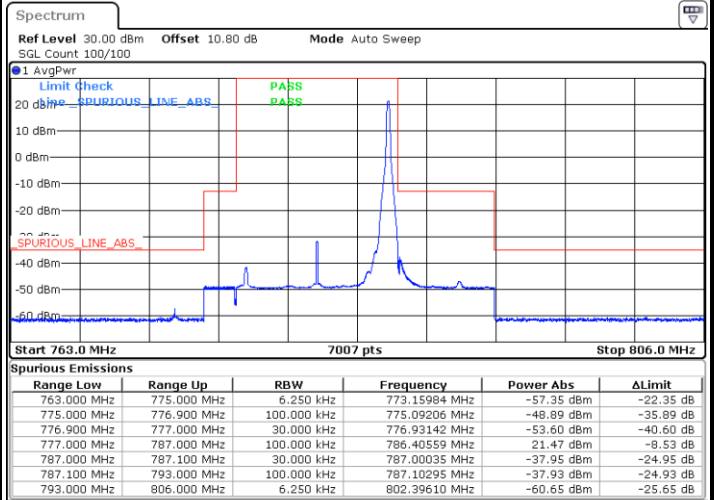
IC LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



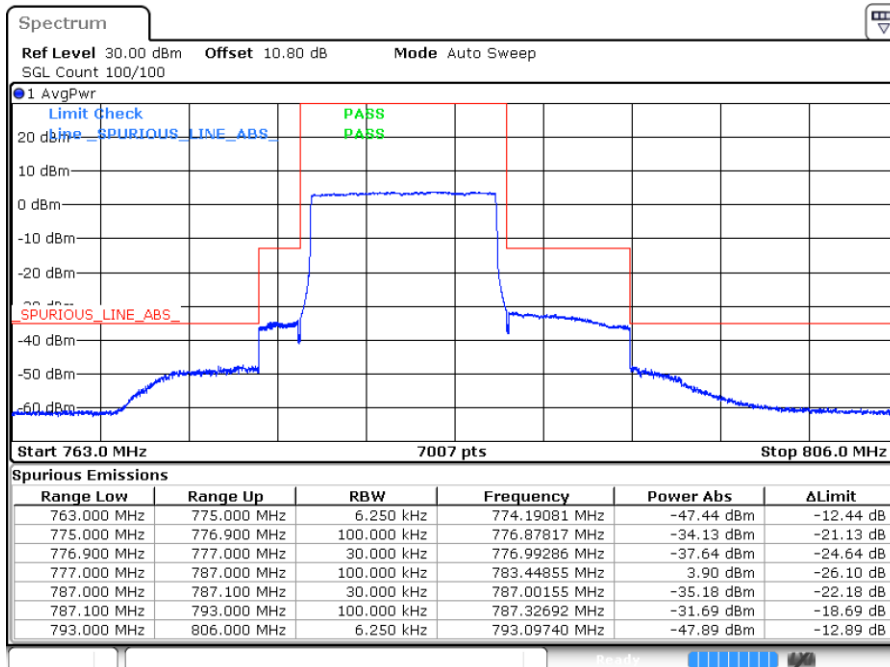
Date: 3 AUG 2017 20:47:24

Highest Band Edge / 1 RB



Date: 3 AUG 2017 20:49:02

Band Edge / Full RB



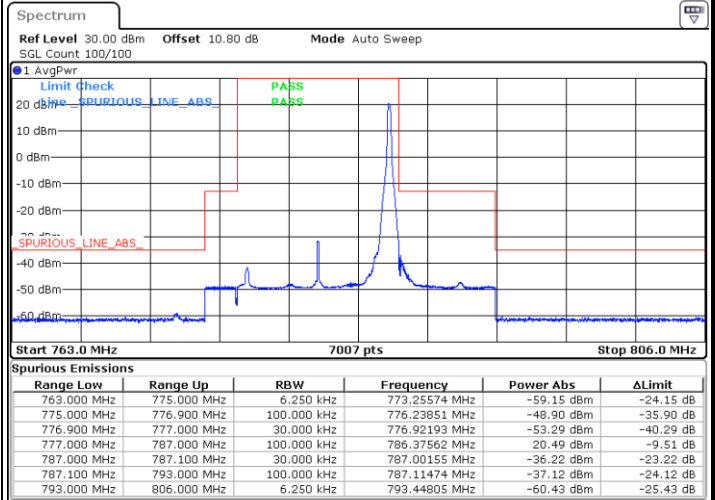
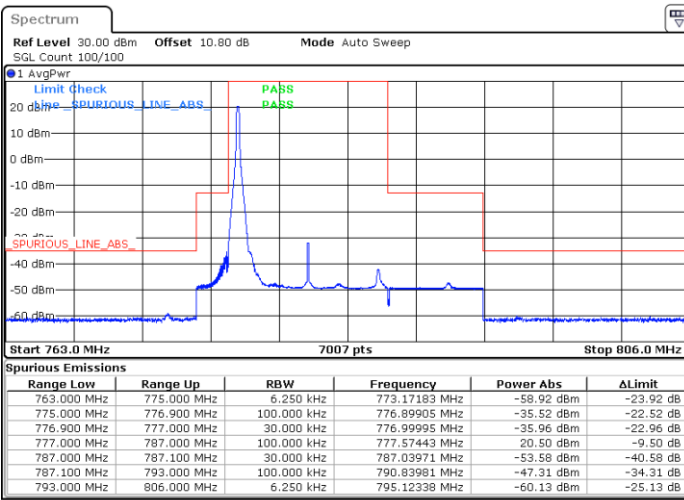
Date: 3 AUG 2017 20:40:25



IC LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

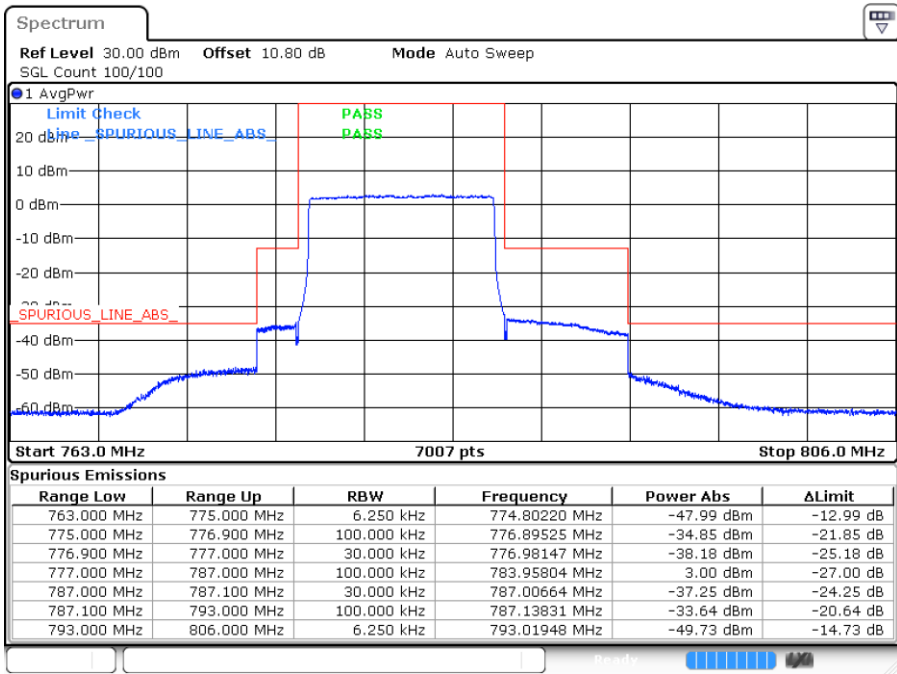
Highest Band Edge / 1 RB



Date: 3 AUG 2017 20:45:45

Date: 3 AUG 2017 20:50:41

Band Edge / Full RB



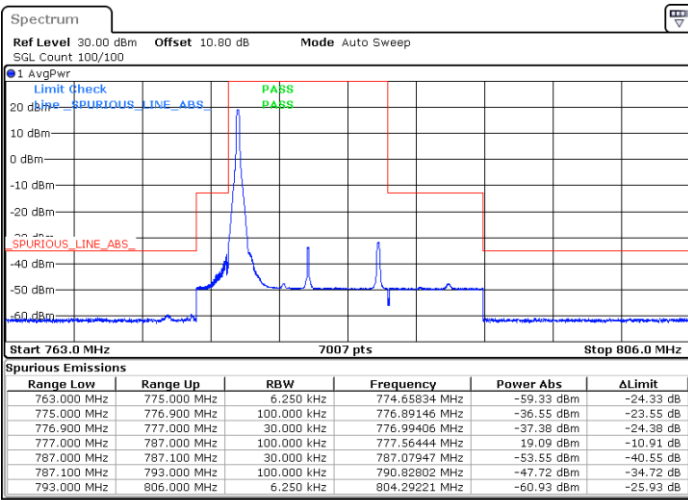
Date: 3 AUG 2017 20:42:02



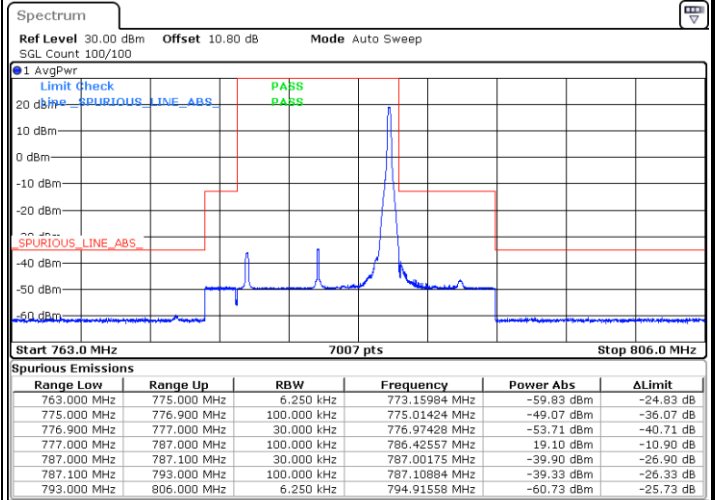
IC LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

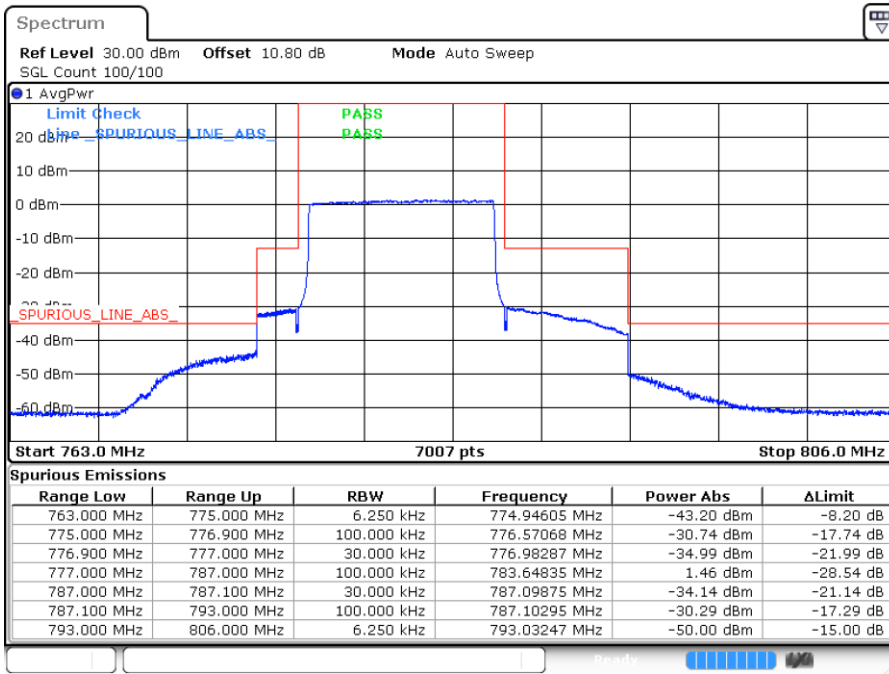


Date: 11.OCT.2017 11:05:38



Date: 11.OCT.2017 11:07:17

Band Edge / Full RB



Date: 11.OCT.2017 11:04:00



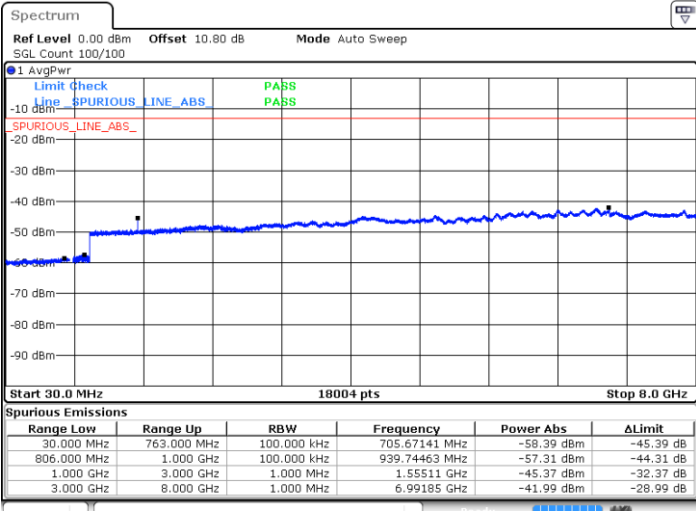
**Conducted Spurious Emission**



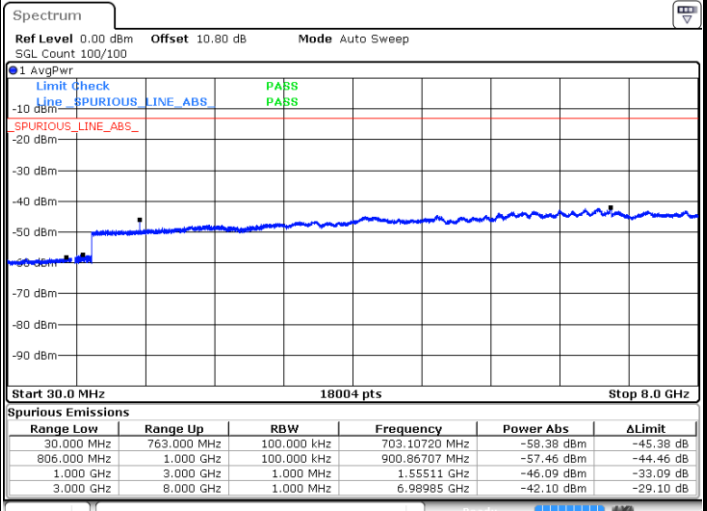
LTE Band 13 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



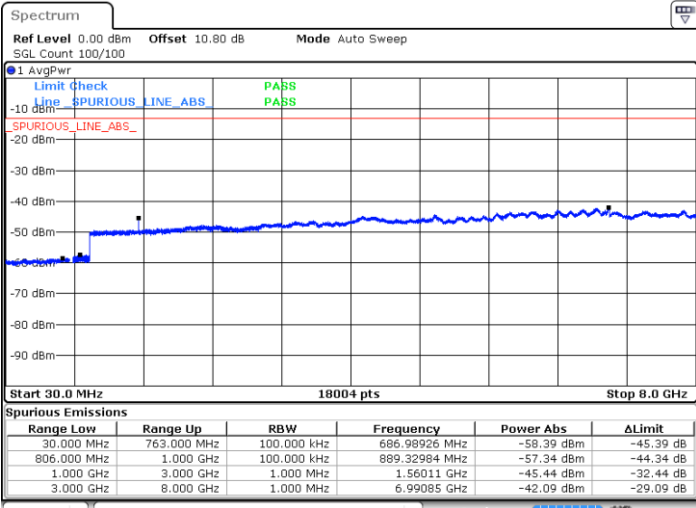
Date: 3 AUG.2017 19:55:28



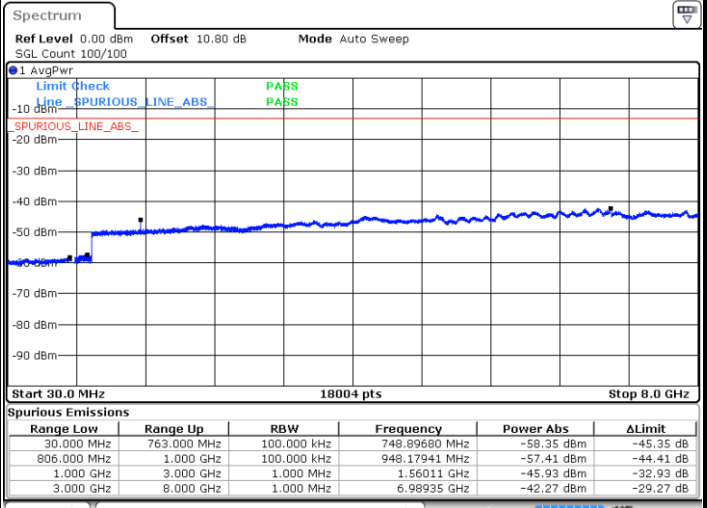
Date: 3 AUG.2017 19:56:21

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 3 AUG.2017 19:58:09



Date: 3 AUG.2017 19:57:15