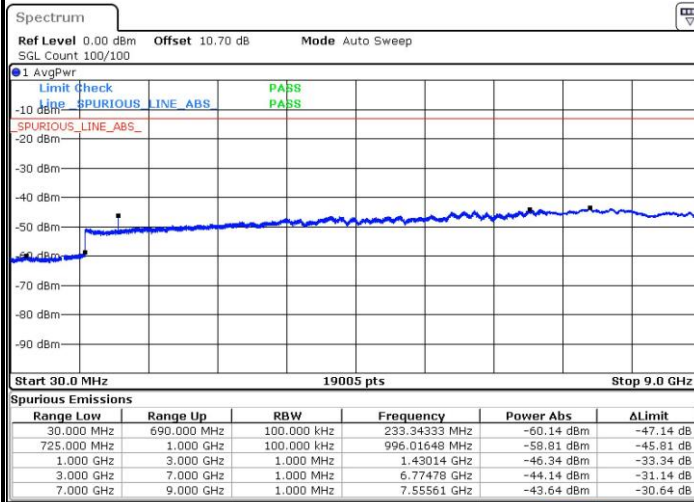




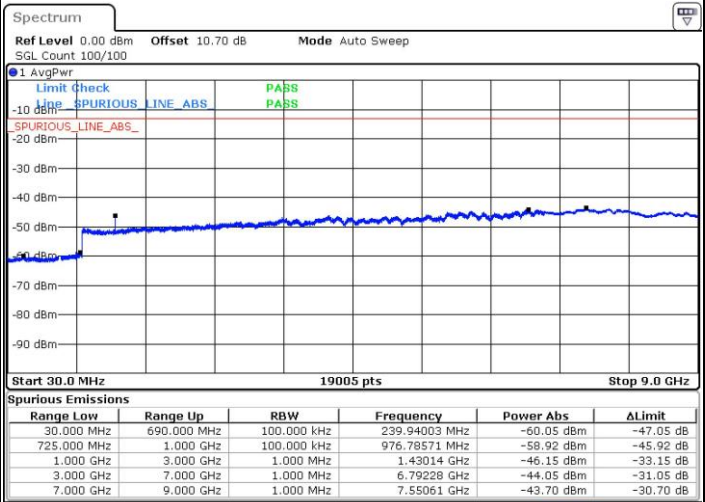
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 13 JUN 2018 09:26:07

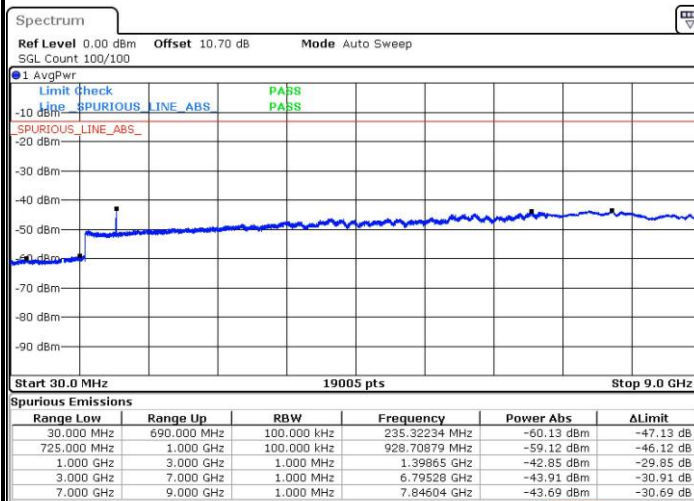
Highest Channel / 16QAM



Date: 13 JUN 2018 09:27:01

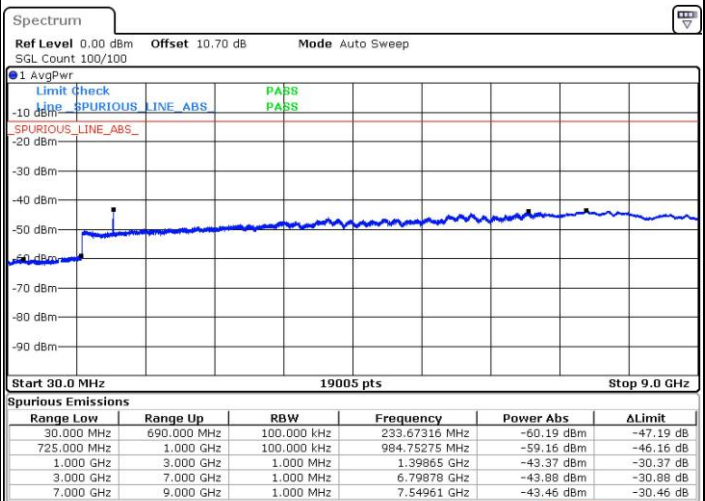
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 13 JUN 2018 00:54:32

Lowest Channel / 16QAM

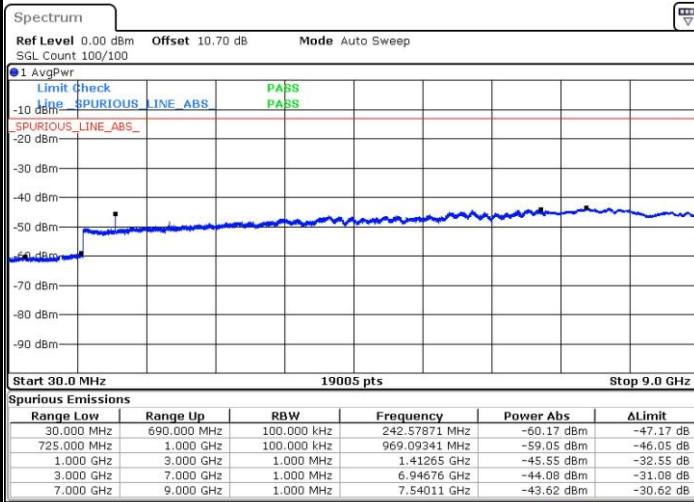


Date: 13 JUN 2018 00:55:26



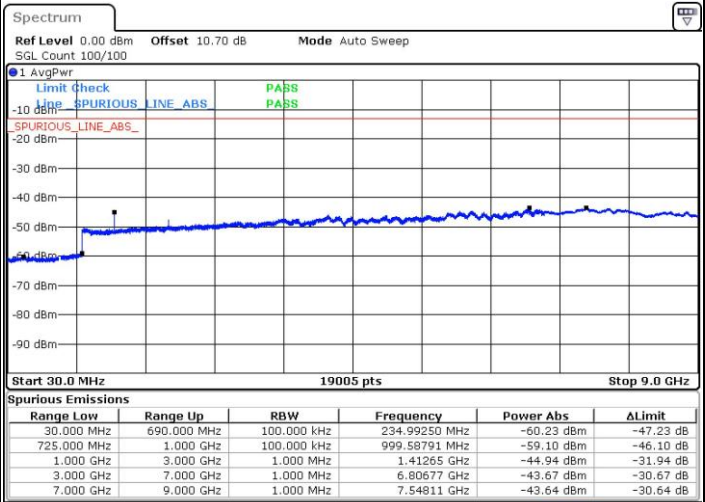
LTE Band 12 / 3MHz

Middle Channel / QPSK



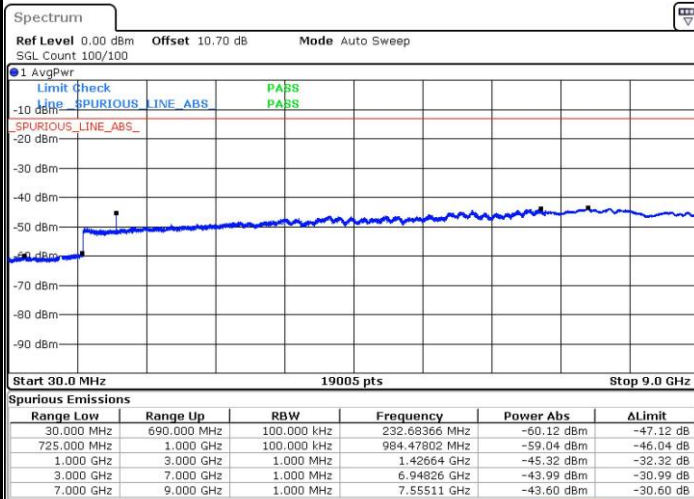
Date: 13 JUN 2018 00:57:56

Middle Channel / 16QAM



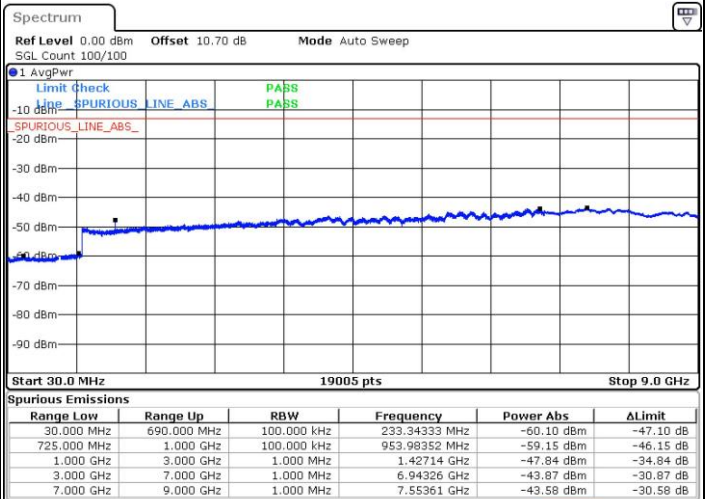
Date: 13 JUN 2018 00:57:02

Highest Channel / QPSK



Date: 13 JUN 2018 01:04:09

Highest Channel / 16QAM

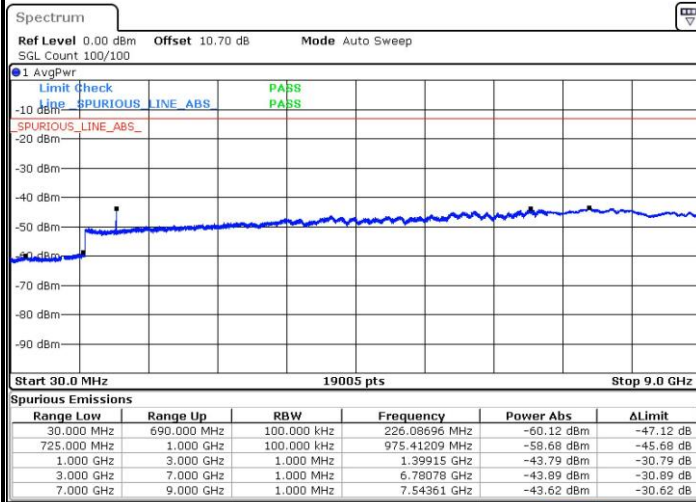


Date: 13 JUN 2018 01:05:03



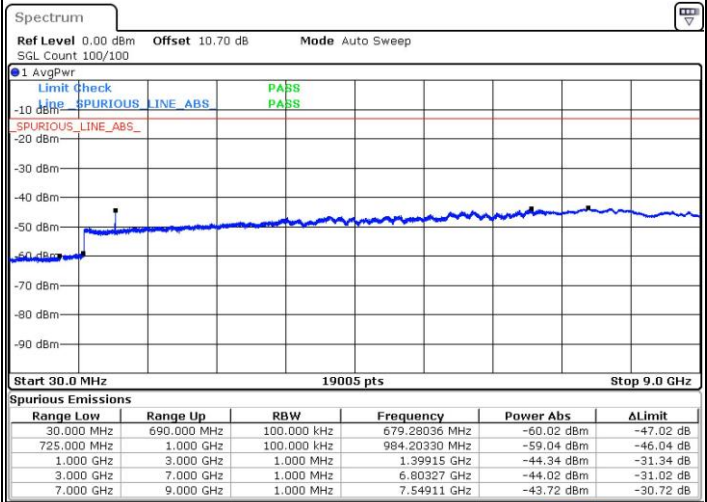
LTE Band 12 / 5MHz

Lowest Channel / QPSK



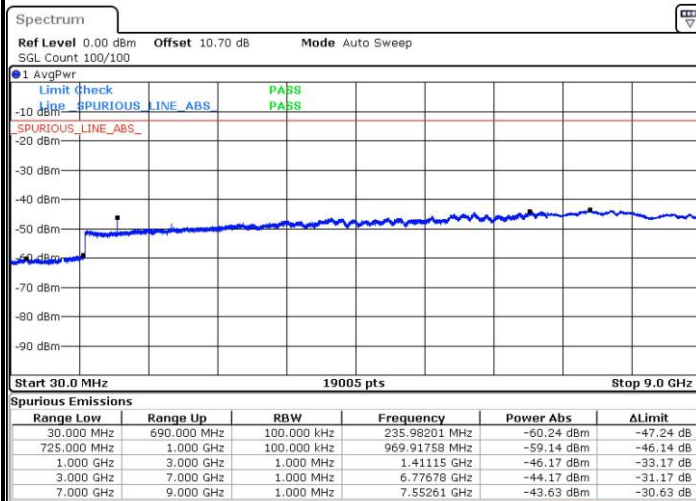
Date: 13 JUN 2018 01:11:16

Lowest Channel / 16QAM



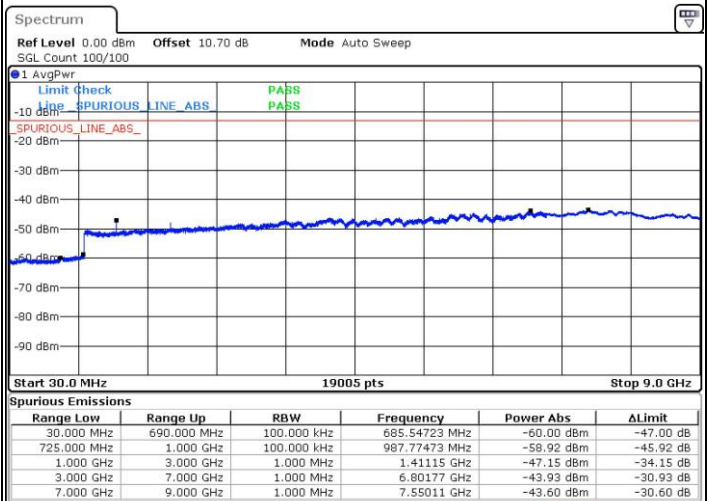
Date: 13 JUN 2018 01:12:11

Middle Channel / QPSK



Date: 13 JUN 2018 01:16:16

Middle Channel / 16QAM

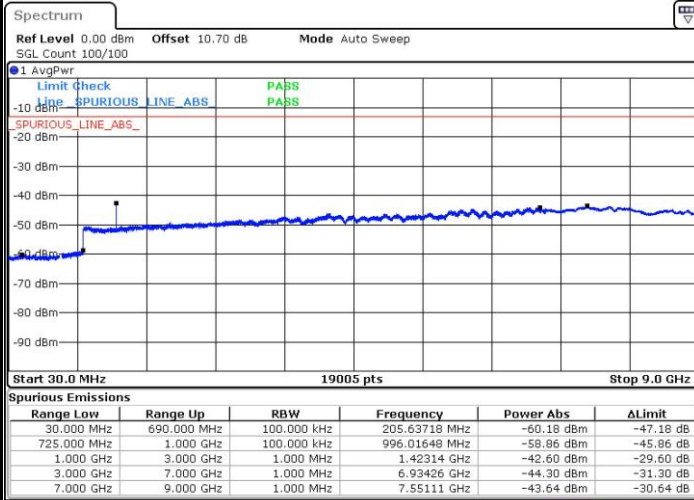


Date: 13 JUN 2018 01:15:22



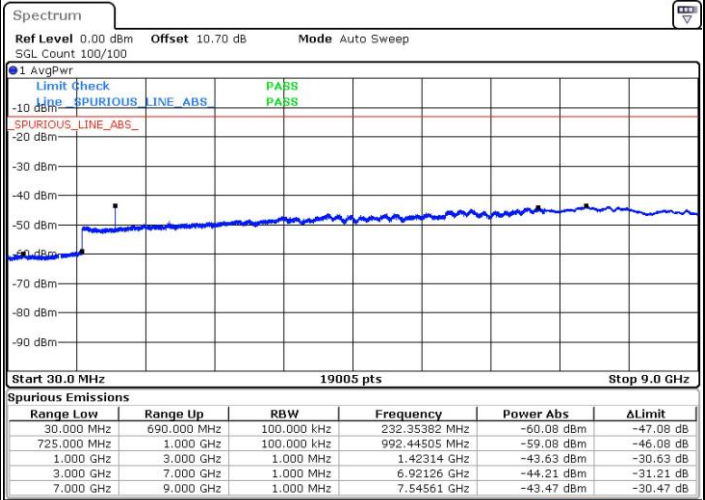
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 13 JUN 2018 01:23:23

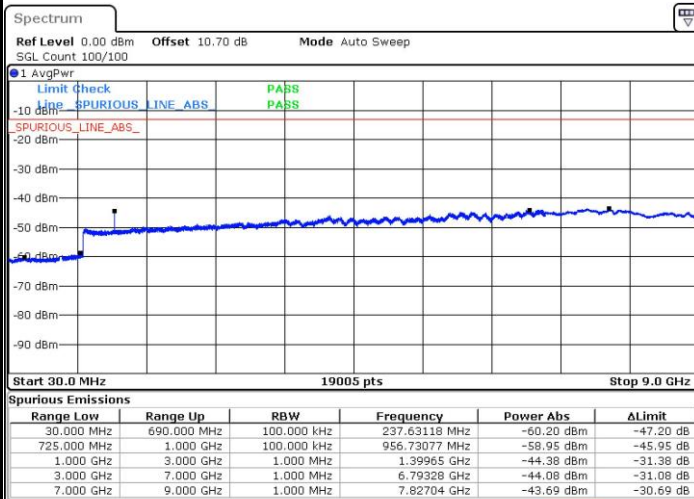
Highest Channel / 16QAM



Date: 13 JUN 2018 01:22:29

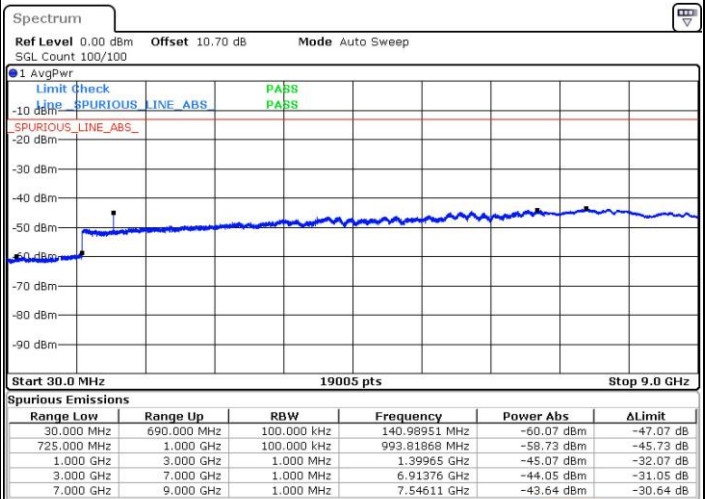
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 13 JUN 2018 01:29:36

Lowest Channel / 16QAM

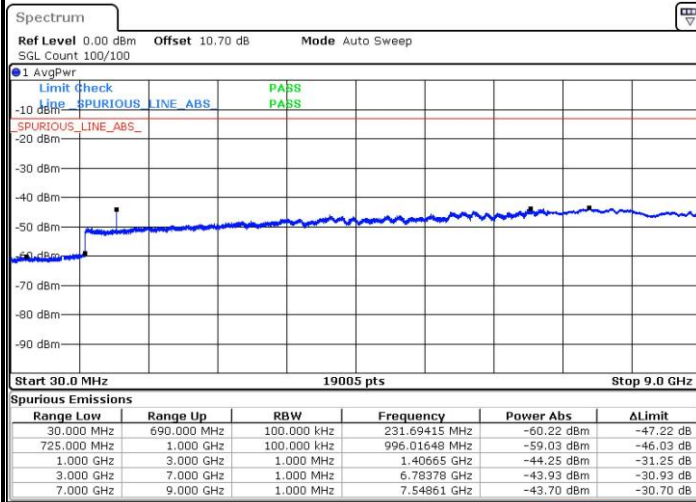


Date: 13 JUN 2018 01:30:31



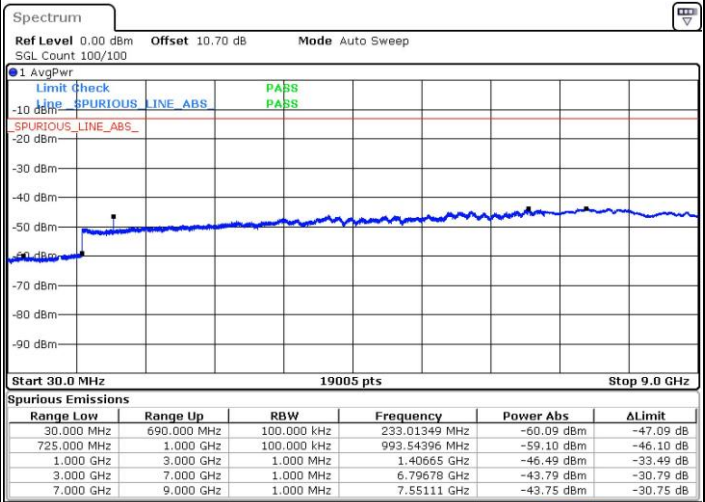
LTE Band 12 / 10MHz

Middle Channel / QPSK



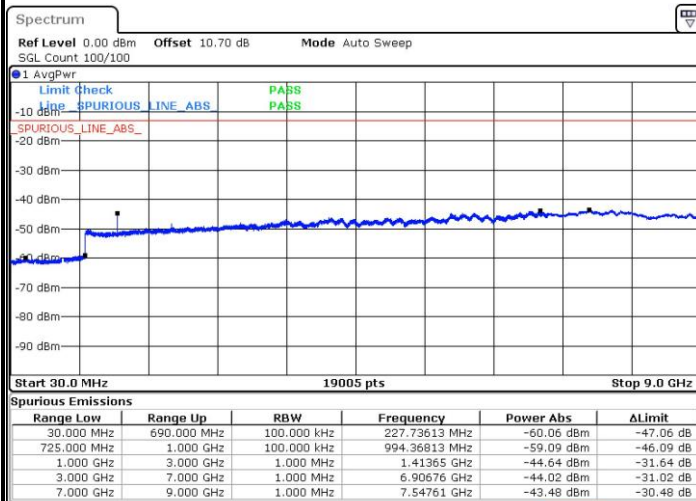
Date: 13 JUN 2018 01:33:01

Middle Channel / 16QAM



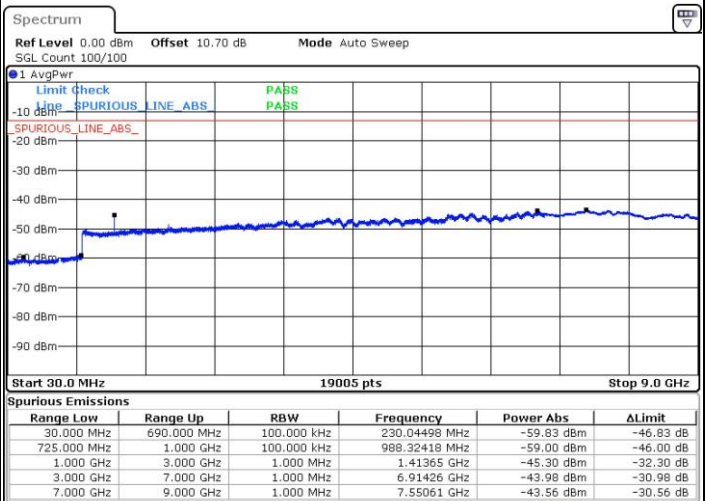
Date: 13 JUN 2018 01:32:07

Highest Channel / QPSK



Date: 13 JUN 2018 01:39:14

Highest Channel / 16QAM

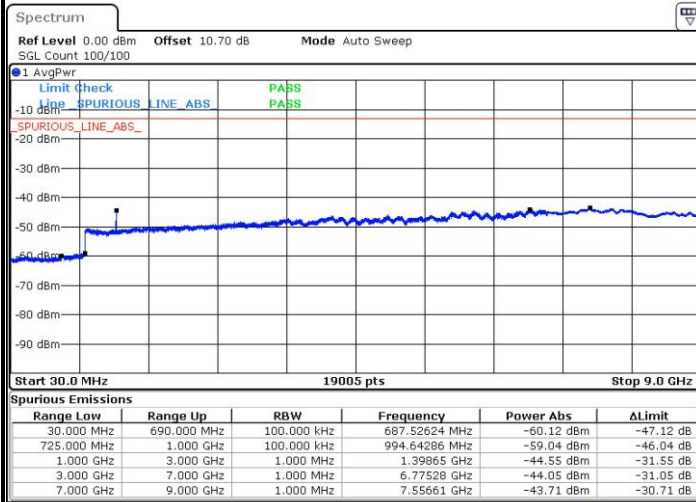


Date: 13 JUN 2018 01:40:09



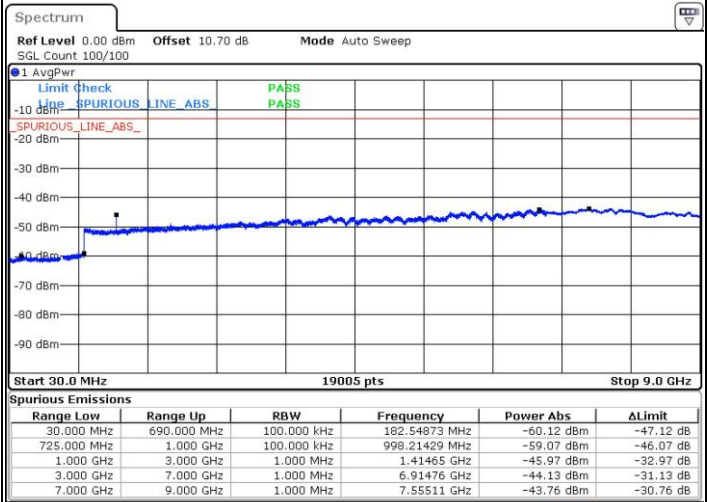
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



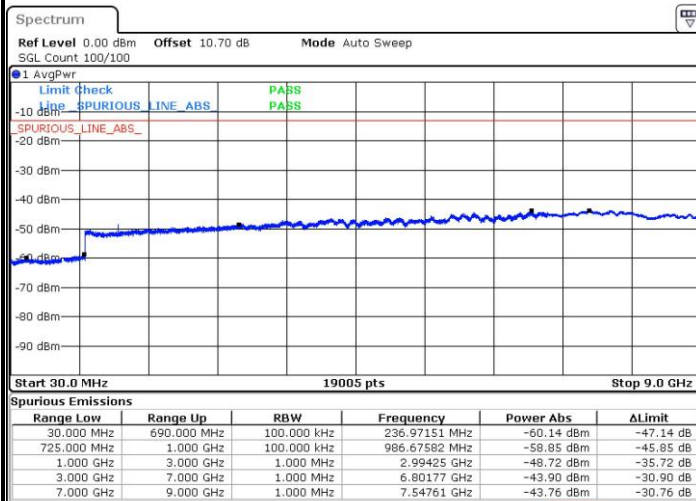
Date: 13 JUN 2018 09:55:43

Middle Channel / 64QAM



Date: 13 JUN 2018 09:56:59

Highest Channel / 64QAM

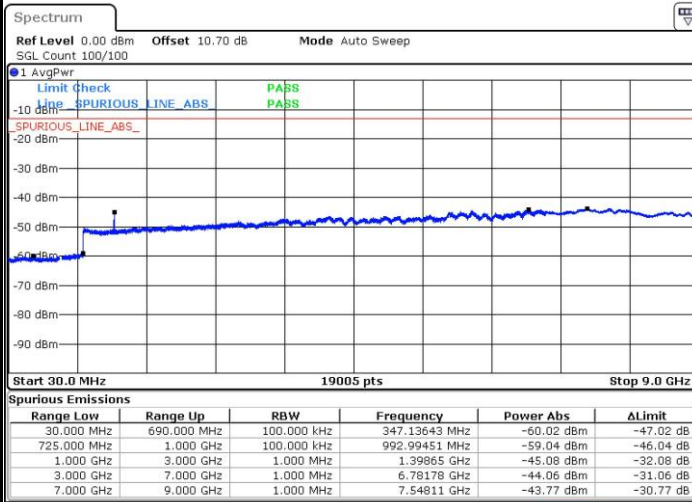


Date: 13 JUN 2018 10:00:32



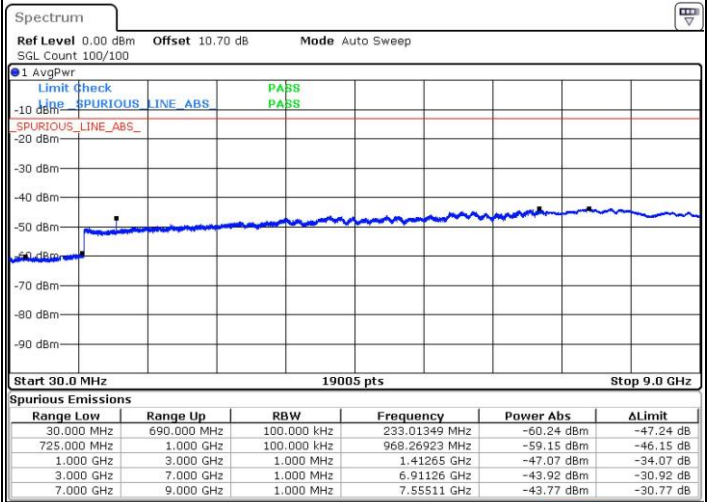
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



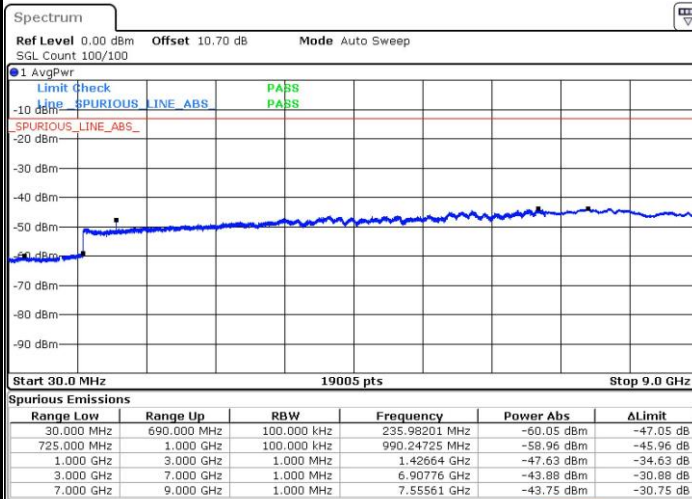
Date: 13 JUN 2018 09:30:35

Middle Channel / 64QAM



Date: 13 JUN 2018 09:31:50

Highest Channel / 64QAM

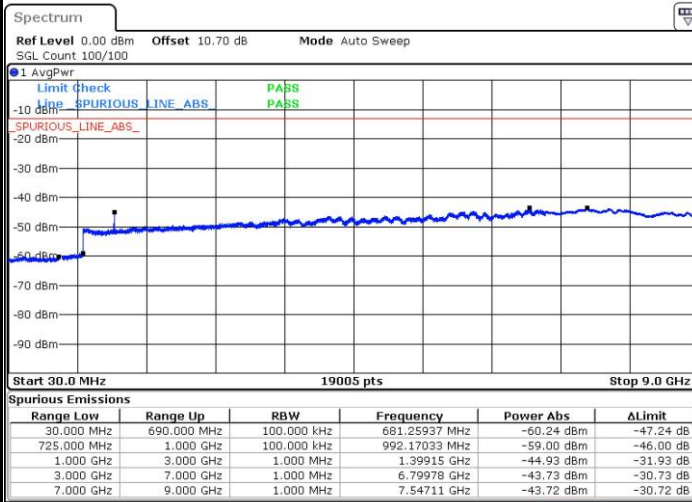


Date: 13 JUN 2018 09:35:24



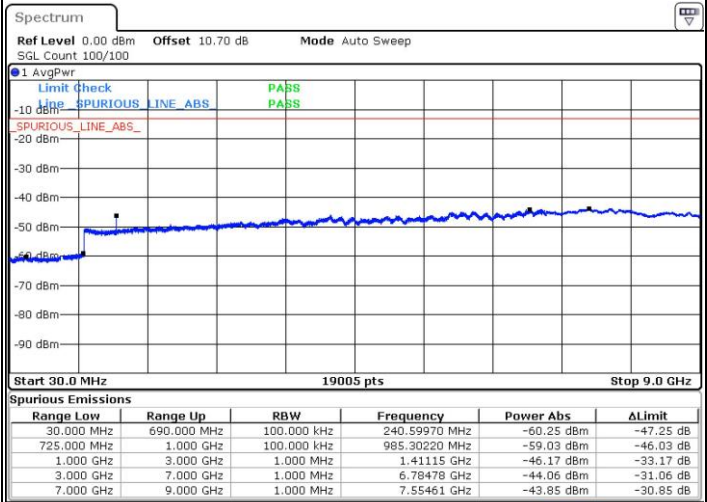
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



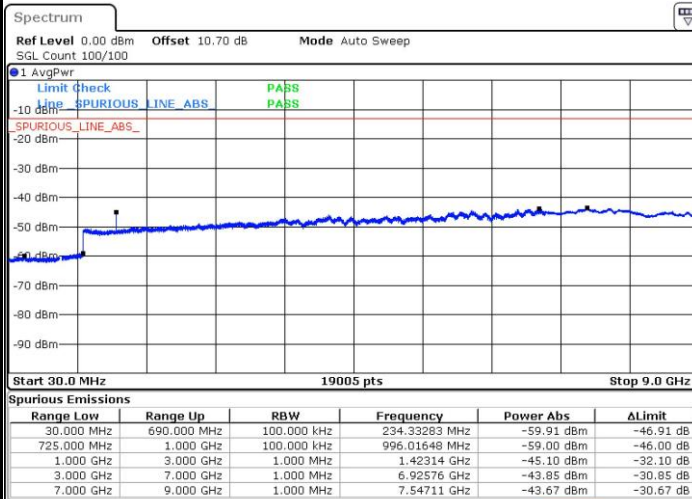
Date: 13 JUN 2018 09:38:58

Middle Channel / 64QAM



Date: 13 JUN 2018 09:40:13

Highest Channel / 64QAM

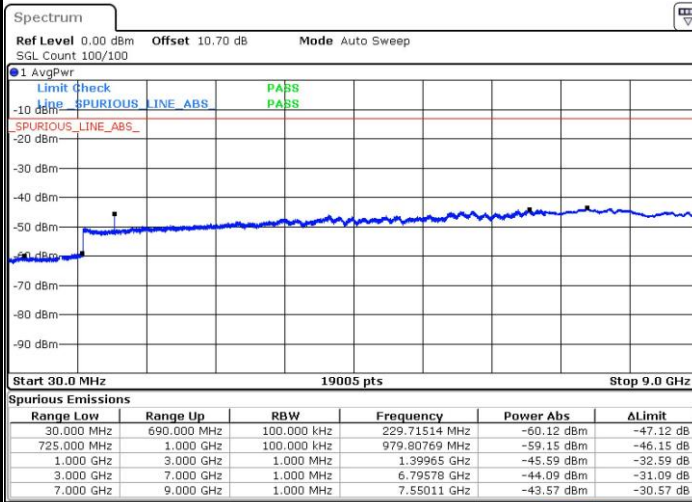


Date: 13 JUN 2018 09:43:47



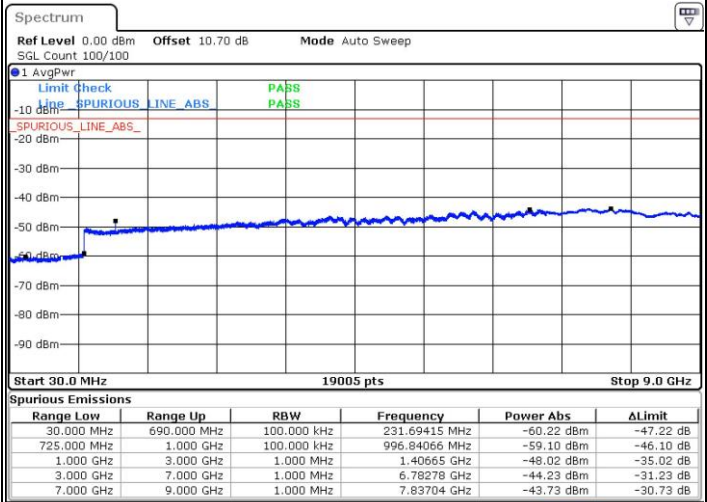
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



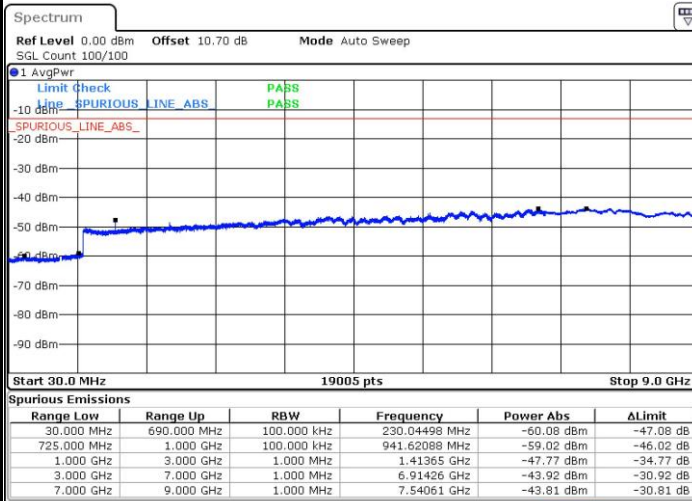
Date: 13 JUN 2018 09:47:21

Middle Channel / 64QAM



Date: 13 JUN 2018 09:48:36

Highest Channel / 64QAM



Date: 13 JUN 2018 09:52:10

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	0.0028	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0035	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0030	
-20	Normal Voltage	0.0054	
-30	Normal Voltage	0.0047	
20	Maximum Voltage	0.0072	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0007	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 13

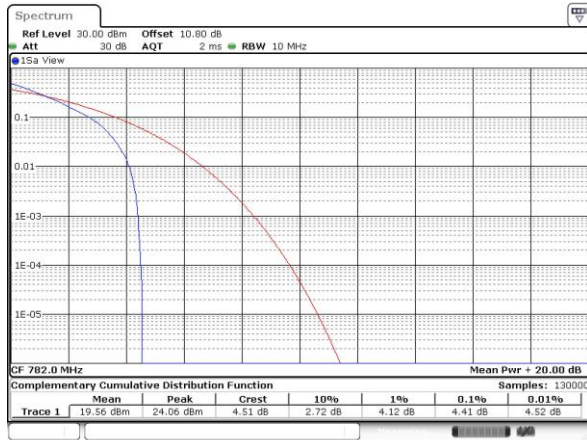
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.41	5.57	5.07	6.41	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.94	6.78	-	-	
Highest CH	-	-	-	-	

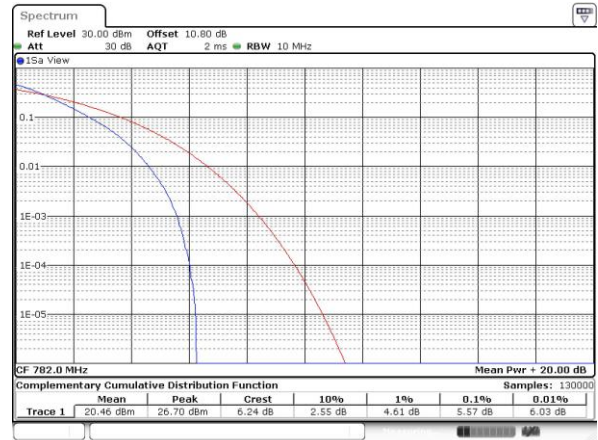


LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB

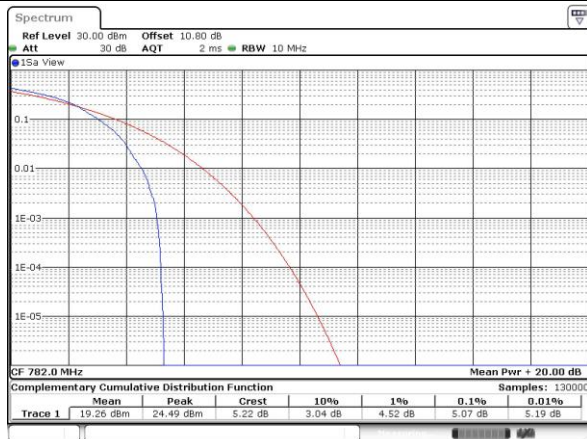


Middle Channel / Full RB



LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB

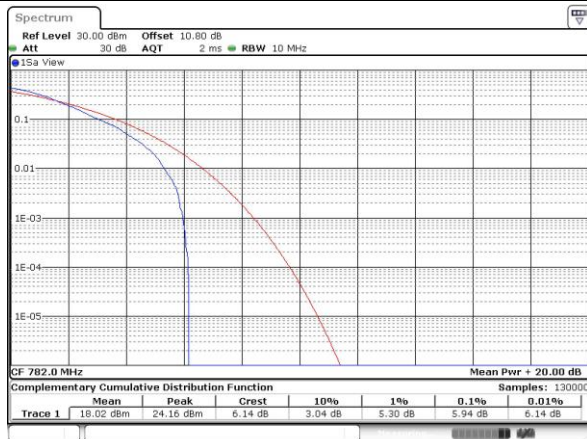


Middle Channel / Full RB



LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB



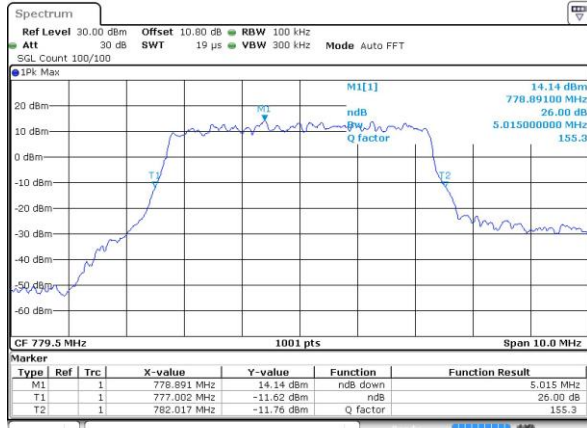
**26dB Bandwidth**

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	-	-	-	-	5.02	4.91	-	-	-	-	-	-
Middle CH	-	-	-	-	5.14	5.11	9.93	9.87	-	-	-	-
Highest CH	-	-	-	-	5.04	5.15	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	5.17	-	-	-	-	-	-	-
Middle CH	-	-	-	-	5.00	-	9.93	-	-	-	-	-
Highest CH	-	-	-	-	4.97	-	-	-	-	-	-	-



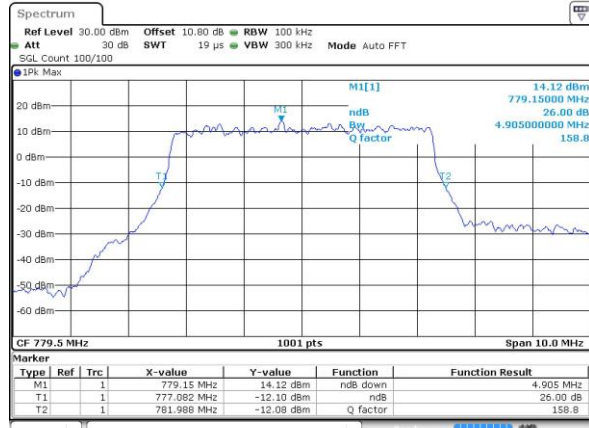
LTE Band 13

Lowest Channel / 5MHz / QPSK



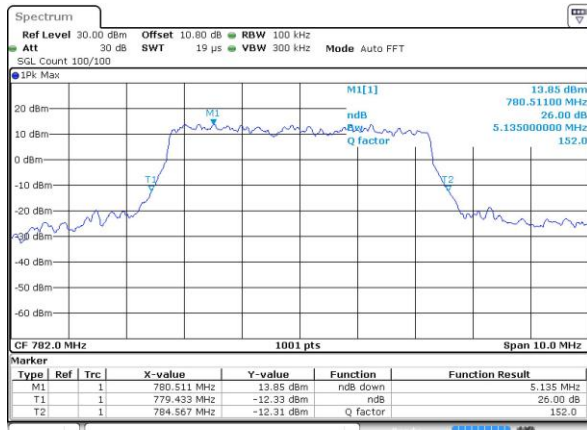
Date: 13 JUN 2018 11:08:13

Lowest Channel / 5MHz / 16QAM



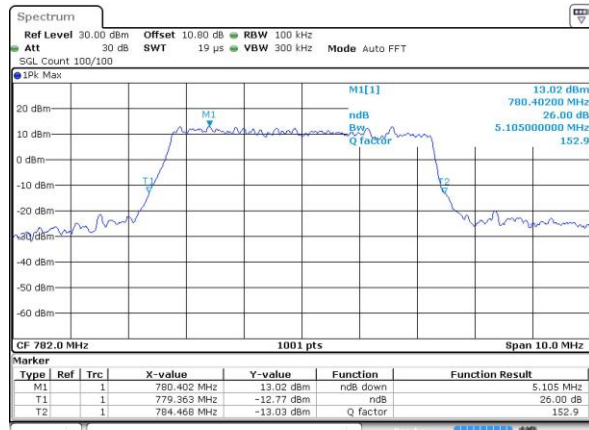
Date: 13 JUN 2018 11:08:03

Middle Channel / 5MHz / QPSK



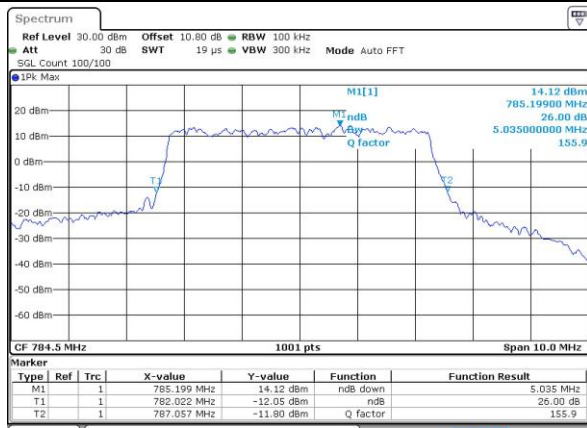
Date: 13 JUN 2018 11:18:38

Middle Channel / 5MHz / 16QAM



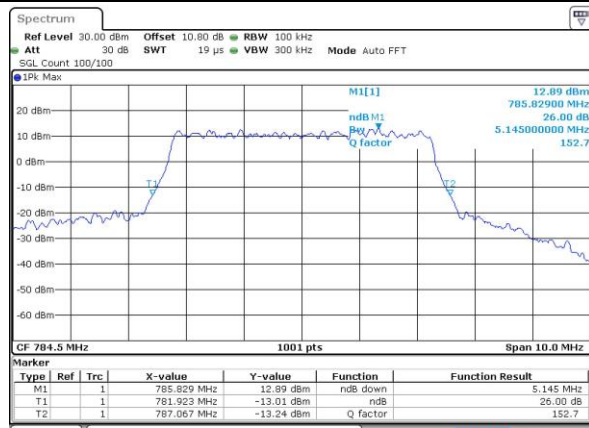
Date: 13 JUN 2018 11:18:48

Highest Channel / 5MHz / QPSK



Date: 13 JUN 2018 11:19:52

Highest Channel / 5MHz / 16QAM

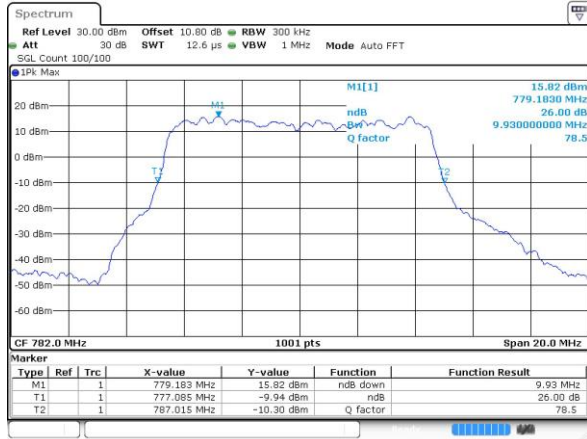


Date: 13 JUN 2018 11:19:41



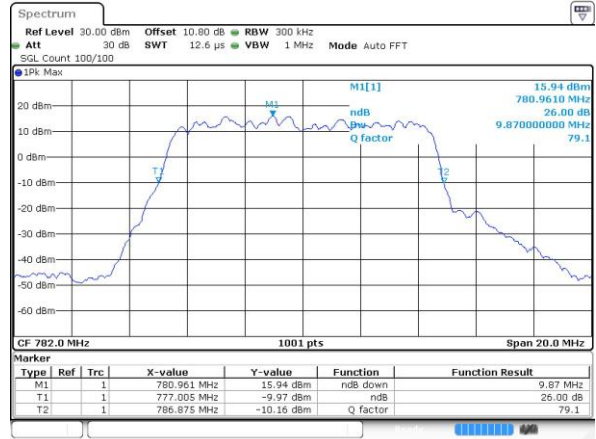
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 13 JUN 2018 11:39:22

Middle Channel / 10MHz / 16QAM

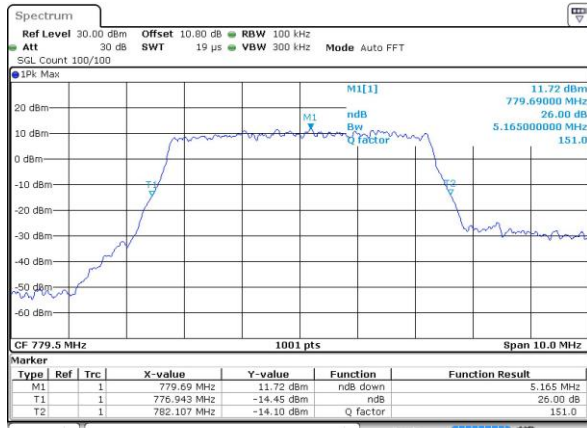


Date: 13 JUN 2018 11:39:12



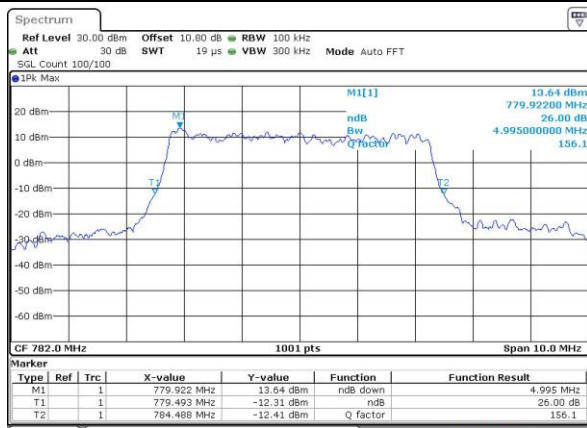
LTE Band 13

Lowest Channel / 5MHz / 64QAM



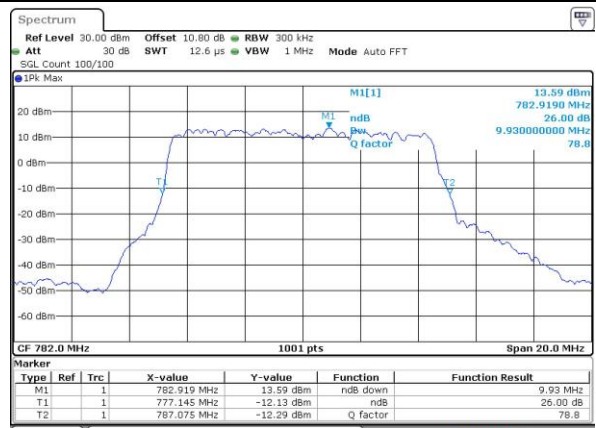
Date: 13 JUN 2018 11:28:39

Middle Channel / 5MHz / 64QAM



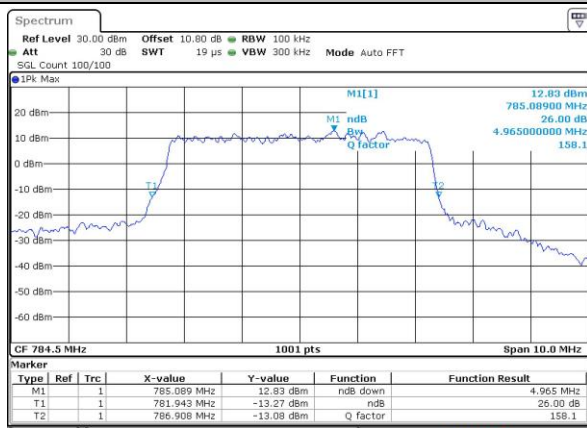
Date: 13 JUN 2018 11:33:56

Middle Channel / 10MHz / 64QAM



Date: 13 JUN 2018 11:51:28

Highest Channel / 5MHz / 64QAM



Date: 13 JUN 2018 11:34:28

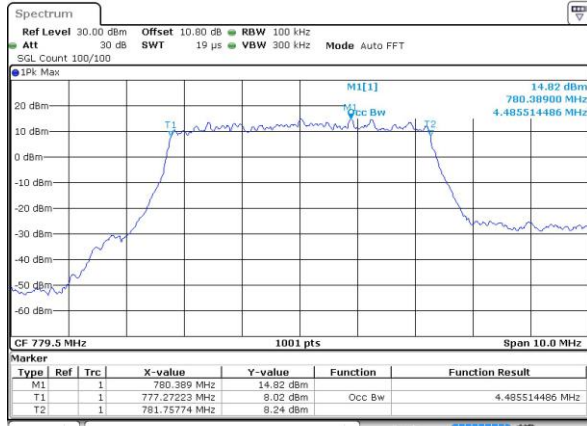
**Occupied Bandwidth**

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	4.47	-	-	-	-	-	-
Middle CH	-	-	-	-	4.52	4.5	9.05	9.05	-	-	-	-
Highest CH	-	-	-	-	4.5	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	-	8.99	-	-	-	-	-
Highest CH	-	-	-	-	4.52	-	-	-	-	-	-	-



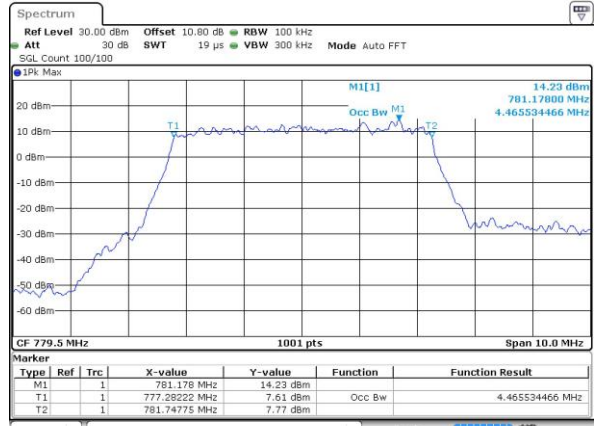
LTE Band 13

Lowest Channel / 5MHz / QPSK



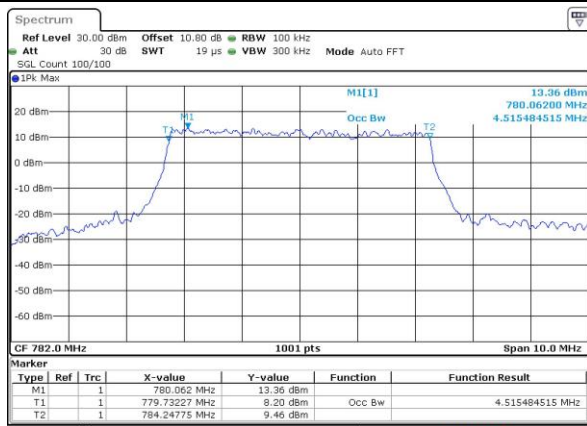
Date: 13 JUN 2018 11:07:42

Lowest Channel / 5MHz / 16QAM



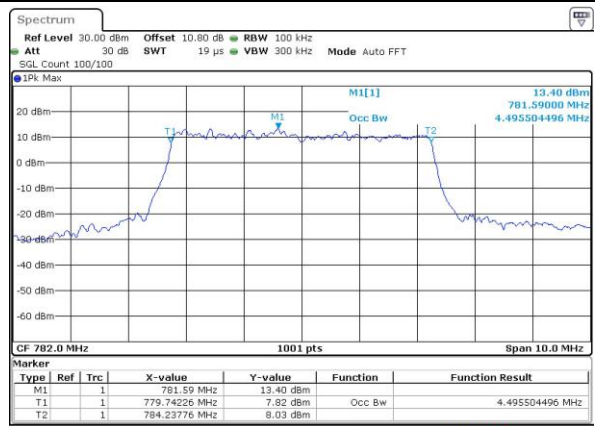
Date: 13 JUN 2018 11:07:52

Middle Channel / 5MHz / QPSK



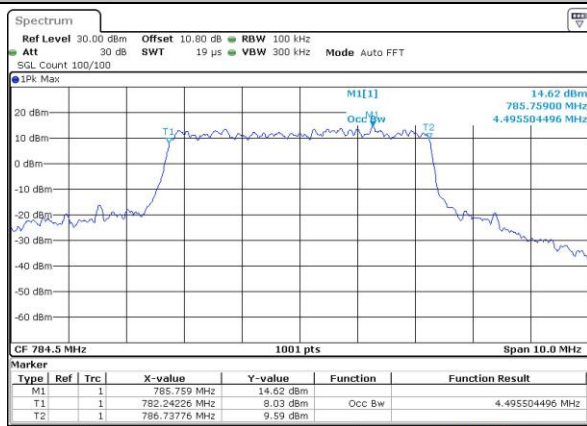
Date: 13 JUN 2018 11:19:09

Middle Channel / 5MHz / 16QAM



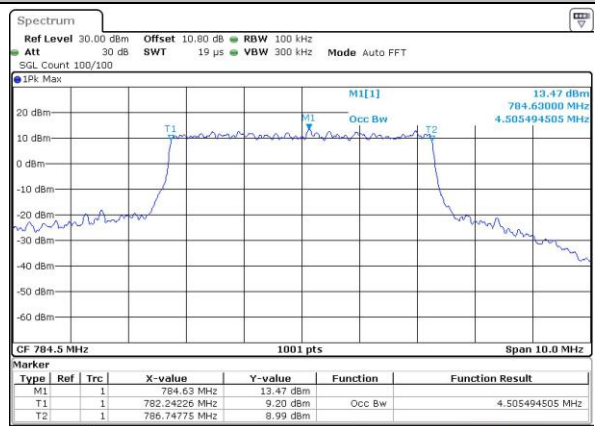
Date: 13 JUN 2018 11:18:59

Highest Channel / 5MHz / QPSK



Date: 13 JUN 2018 11:19:20

Highest Channel / 5MHz / 16QAM



Date: 13 JUN 2018 11:19:30



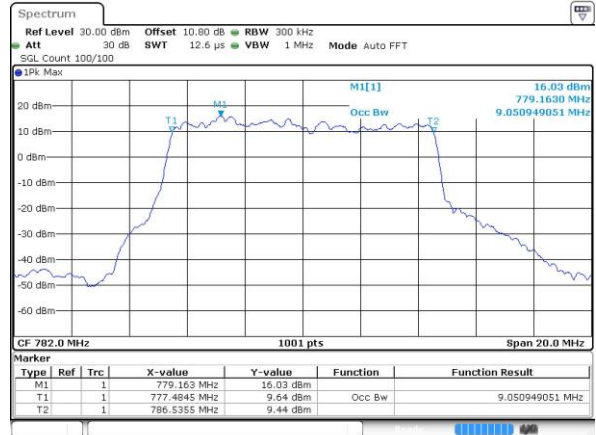
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 13 JUN 2018 11:38:51

Middle Channel / 10MHz / 16QAM

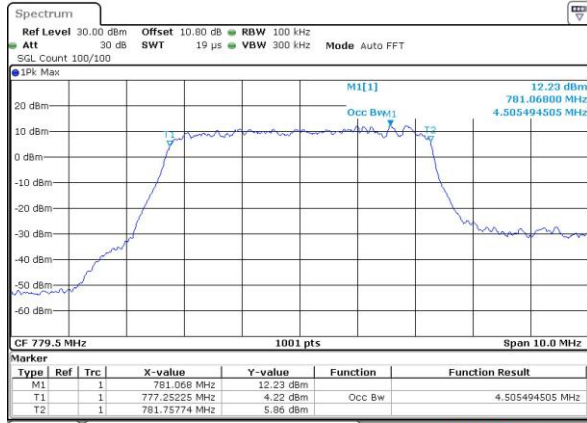


Date: 13 JUN 2018 11:39:02

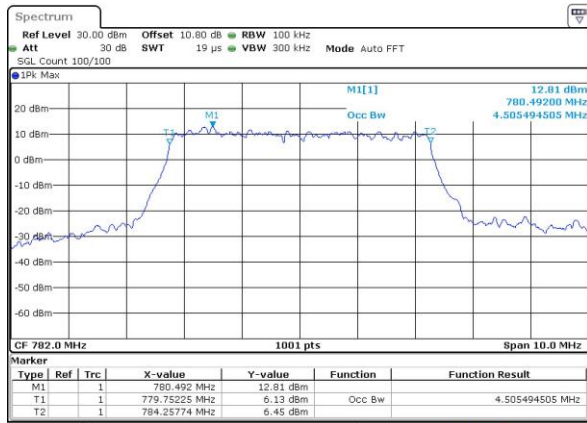


LTE Band 13

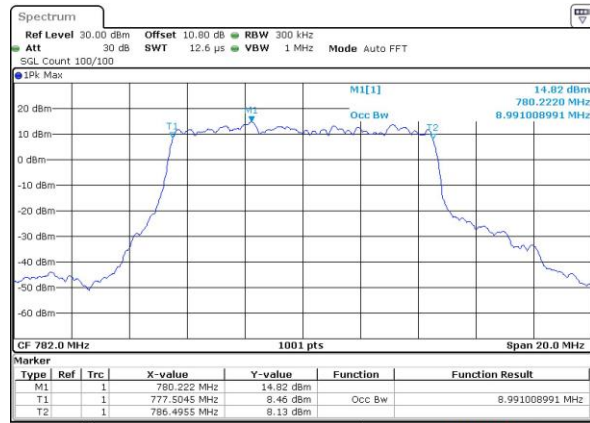
Lowest Channel / 5MHz / 64QAM



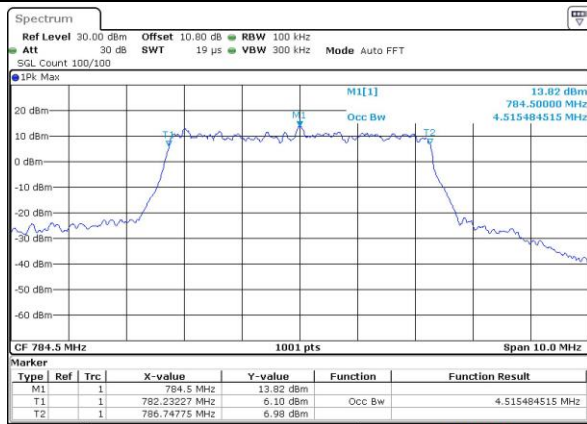
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

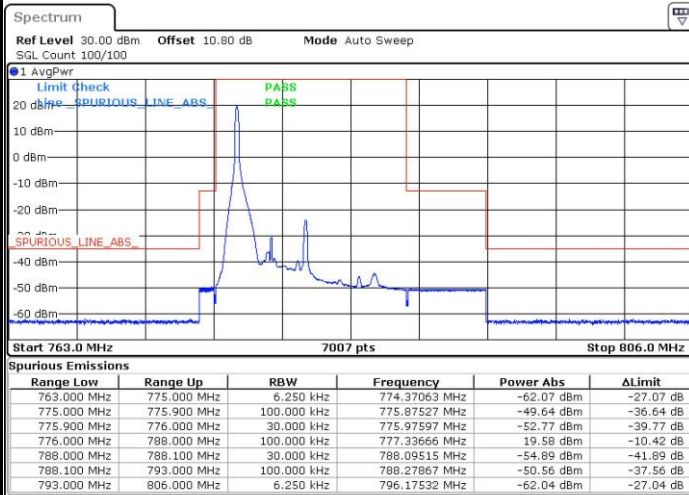




Conducted Band Edge

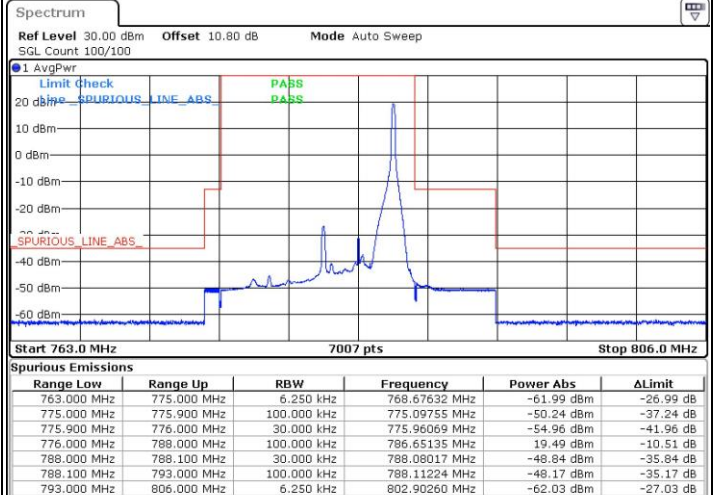
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



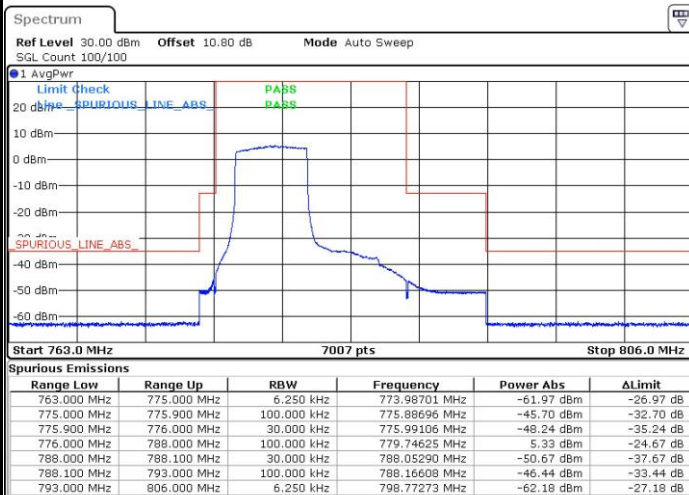
Date: 13 JUN 2018 11:14:51

Highest Band Edge / 1 RB



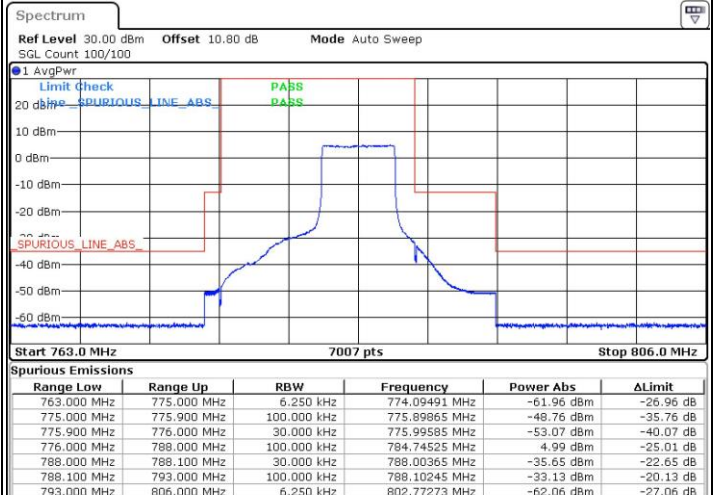
Date: 13 JUN 2018 11:26:29

Lowest Band Edge / Full RB



Date: 13 JUN 2018 11:09:52

Highest Band Edge / Full RB

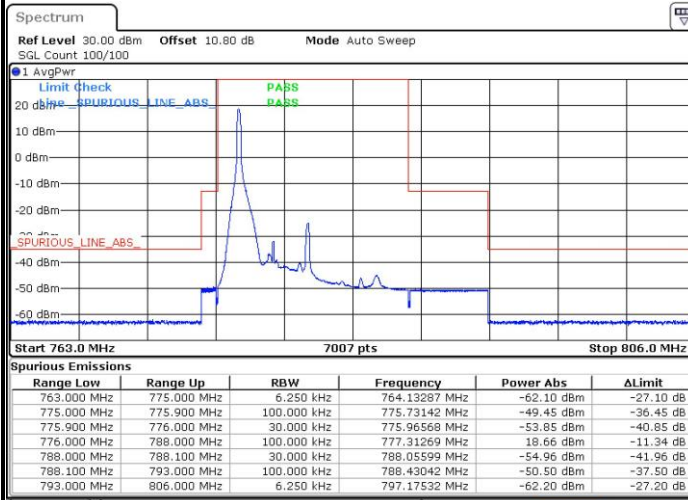


Date: 13 JUN 2018 11:21:31

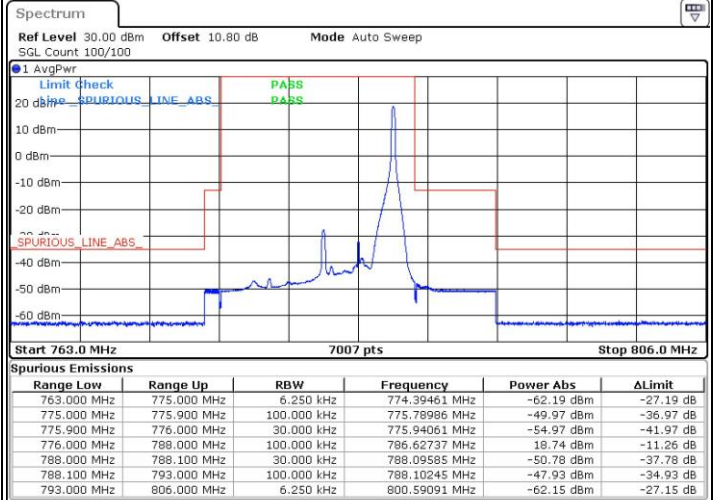


LTE Band 13 / 5MHz / 16QAM

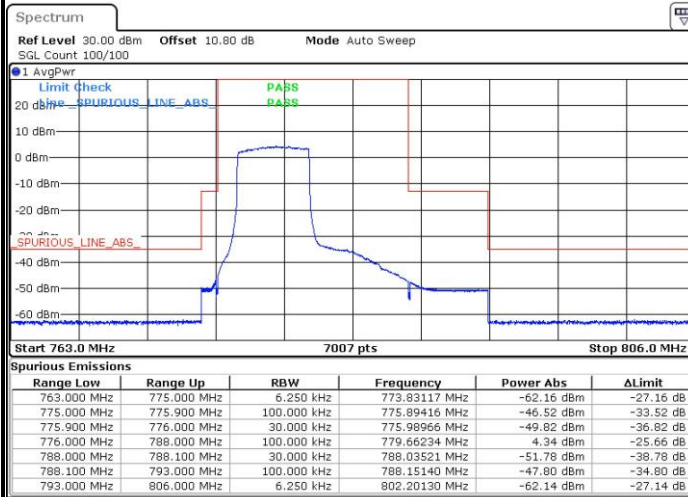
Lowest Band Edge / 1 RB



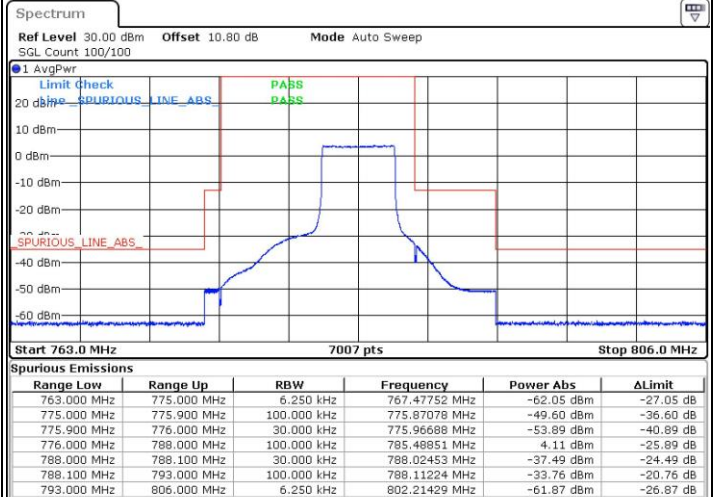
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



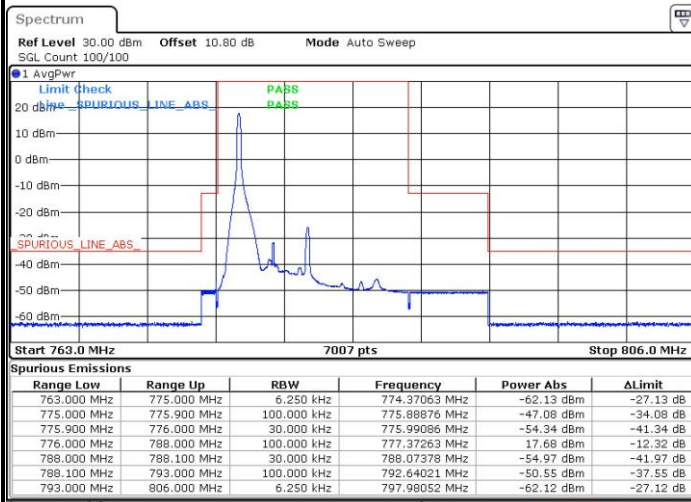
Highest Band Edge / Full RB





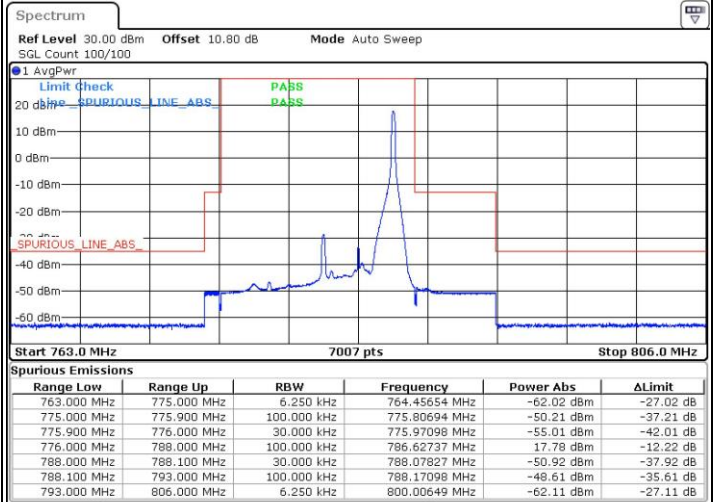
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



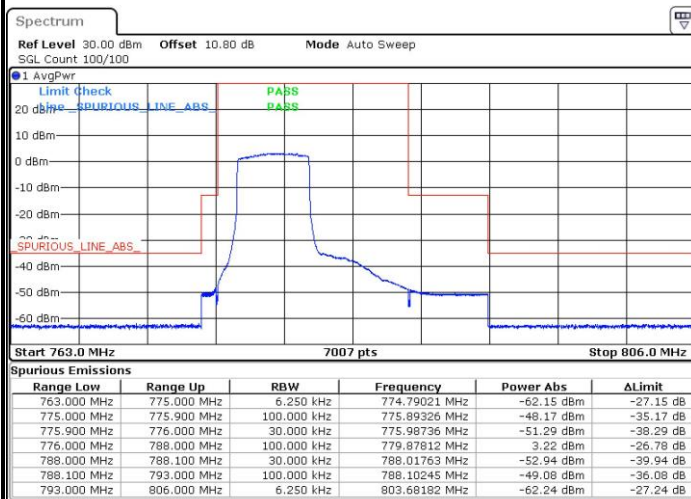
Date: 13 JUN 2018 11:31:57

Highest Band Edge / 1 RB



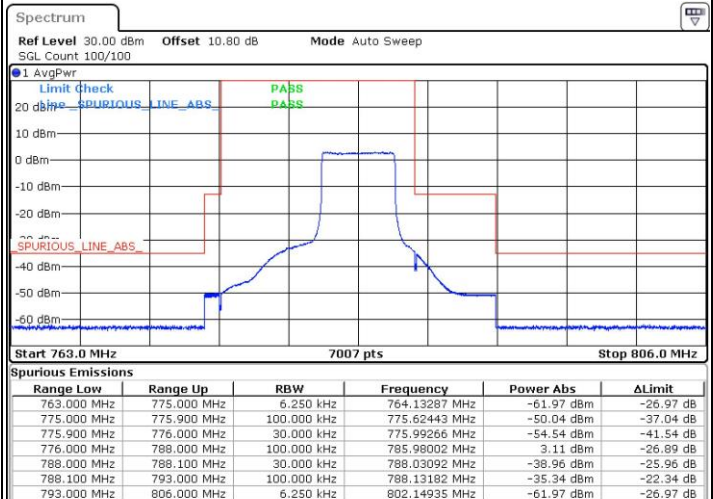
Date: 13 JUN 2018 11:37:46

Lowest Band Edge / Full RB



Date: 13 JUN 2018 11:30:18

Highest Band Edge / Full RB

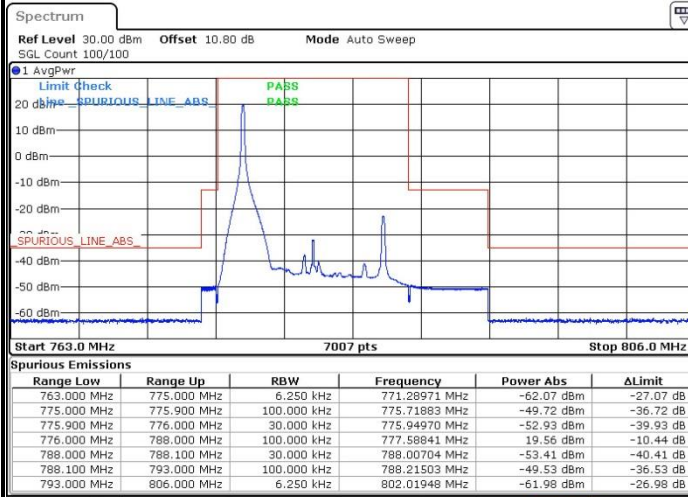


Date: 13 JUN 2018 11:36:06



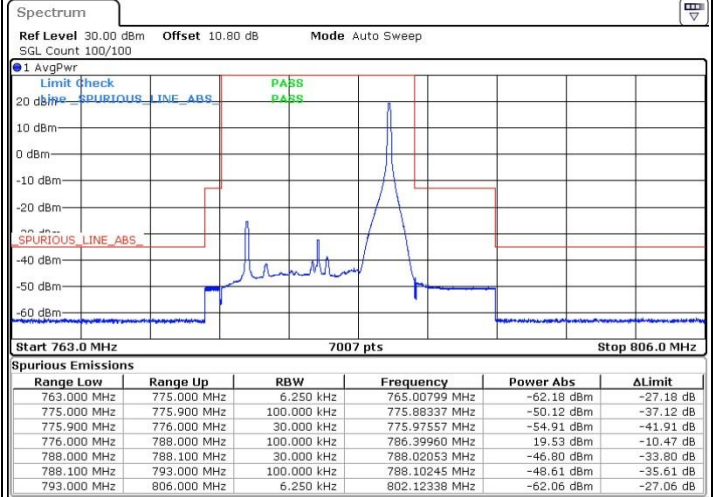
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



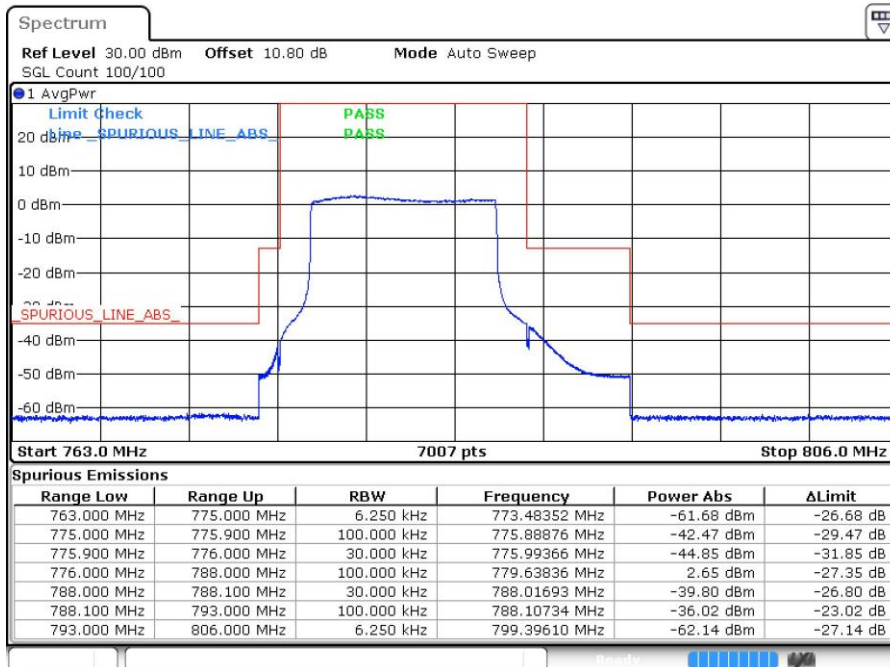
Date: 13 JUN 2018 11:45:59

Highest Band Edge / 1 RB



Date: 13 JUN 2018 11:47:39

Band Edge / Full RB



Date: 13 JUN 2018 11:41:01