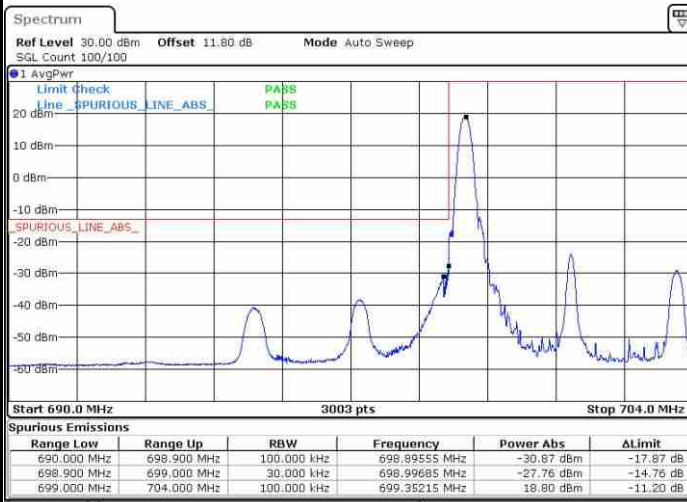




LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



Date: 14.MAR.2018 22:45:10

Highest Band Edge / 1 RB



Date: 14.MAR.2018 22:50:13

Lowest Band Edge / Full RB



Date: 14.MAR.2018 22:44:01

Highest Band Edge / Full RB

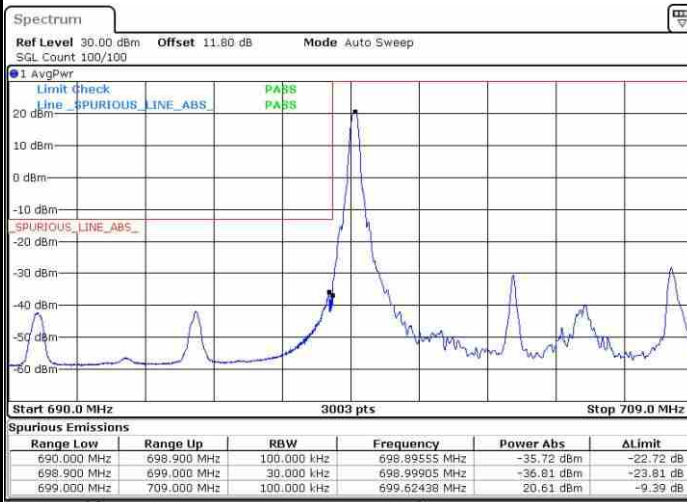


Date: 14.MAR.2018 22:45:04



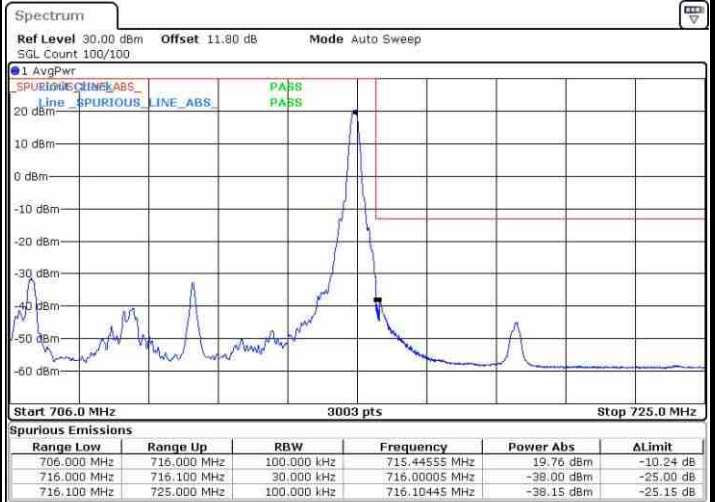
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



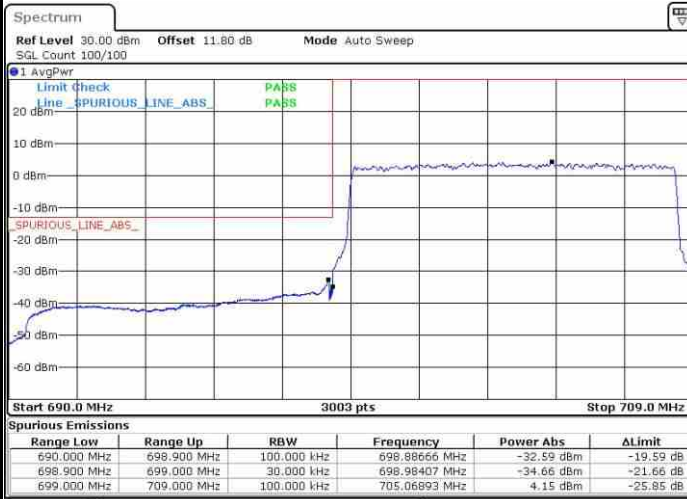
Date: 14.MAR.2018 21:54:34

Highest Band Edge / 1 RB



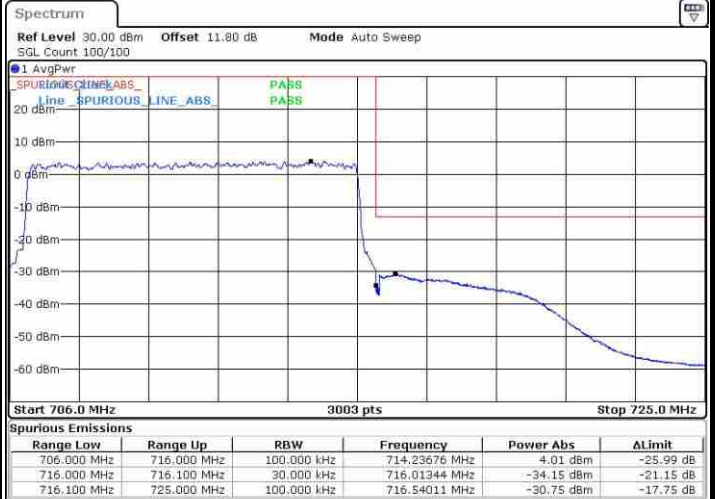
Date: 14.MAR.2018 22:04:58

Lowest Band Edge / Full RB



Date: 14.MAR.2018 21:51:25

Highest Band Edge / Full RB

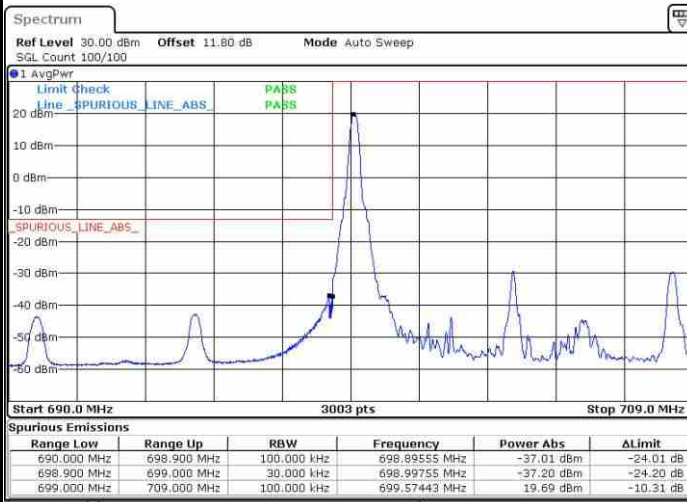


Date: 14.MAR.2018 22:01:30



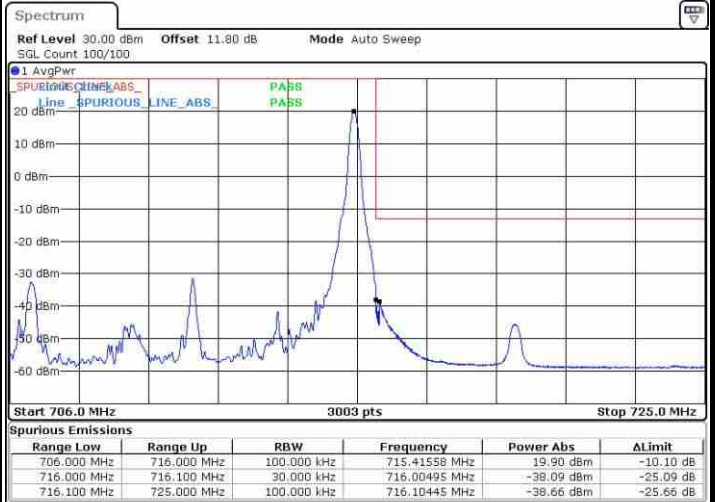
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



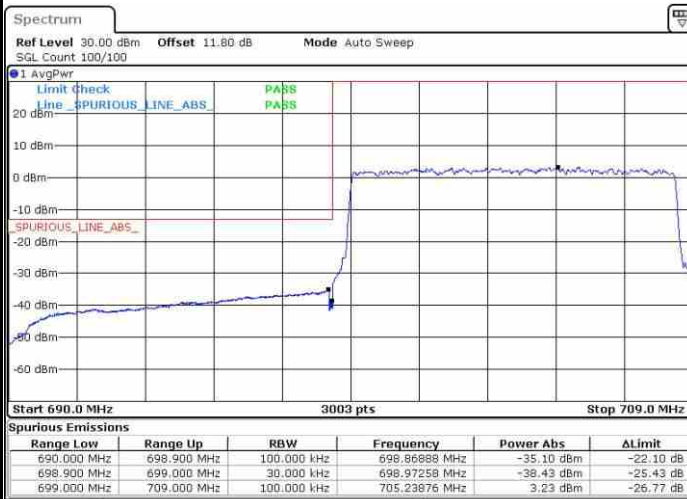
Date: 14.MAR.2018 21:53:45

Highest Band Edge / 1 RB



Date: 14.MAR.2018 22:03:49

Lowest Band Edge / Full RB



Date: 14.MAR.2018 21:52:35

Highest Band Edge / Full RB

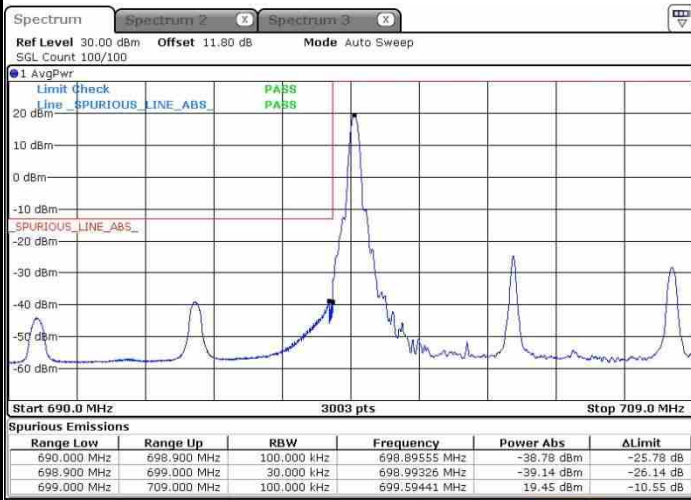


Date: 14.MAR.2018 22:02:40



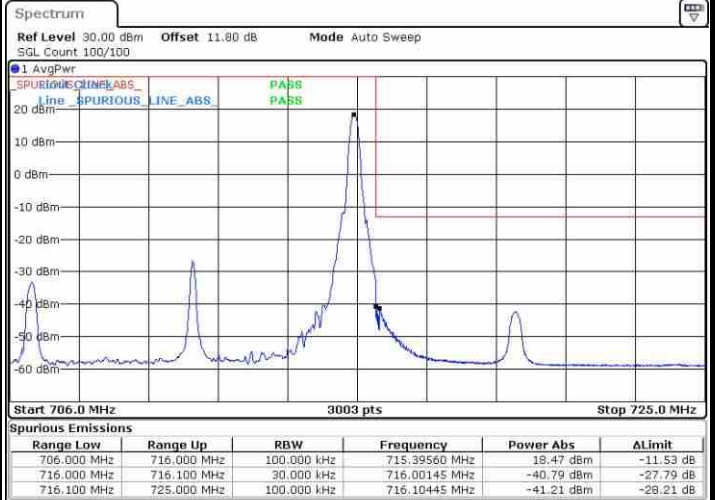
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



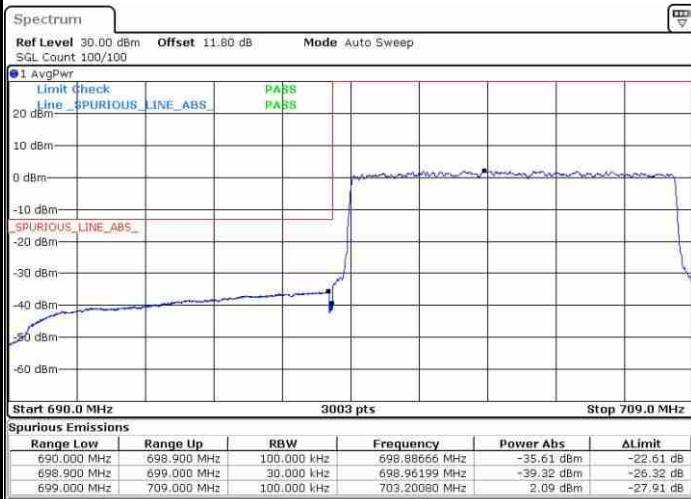
Date: 28 MAR 2018 04:20:45

Highest Band Edge / 1 RB



Date: 14.MAR.2018 22:58:57

Lowest Band Edge / Full RB



Date: 14.MAR.2018 22:52:45

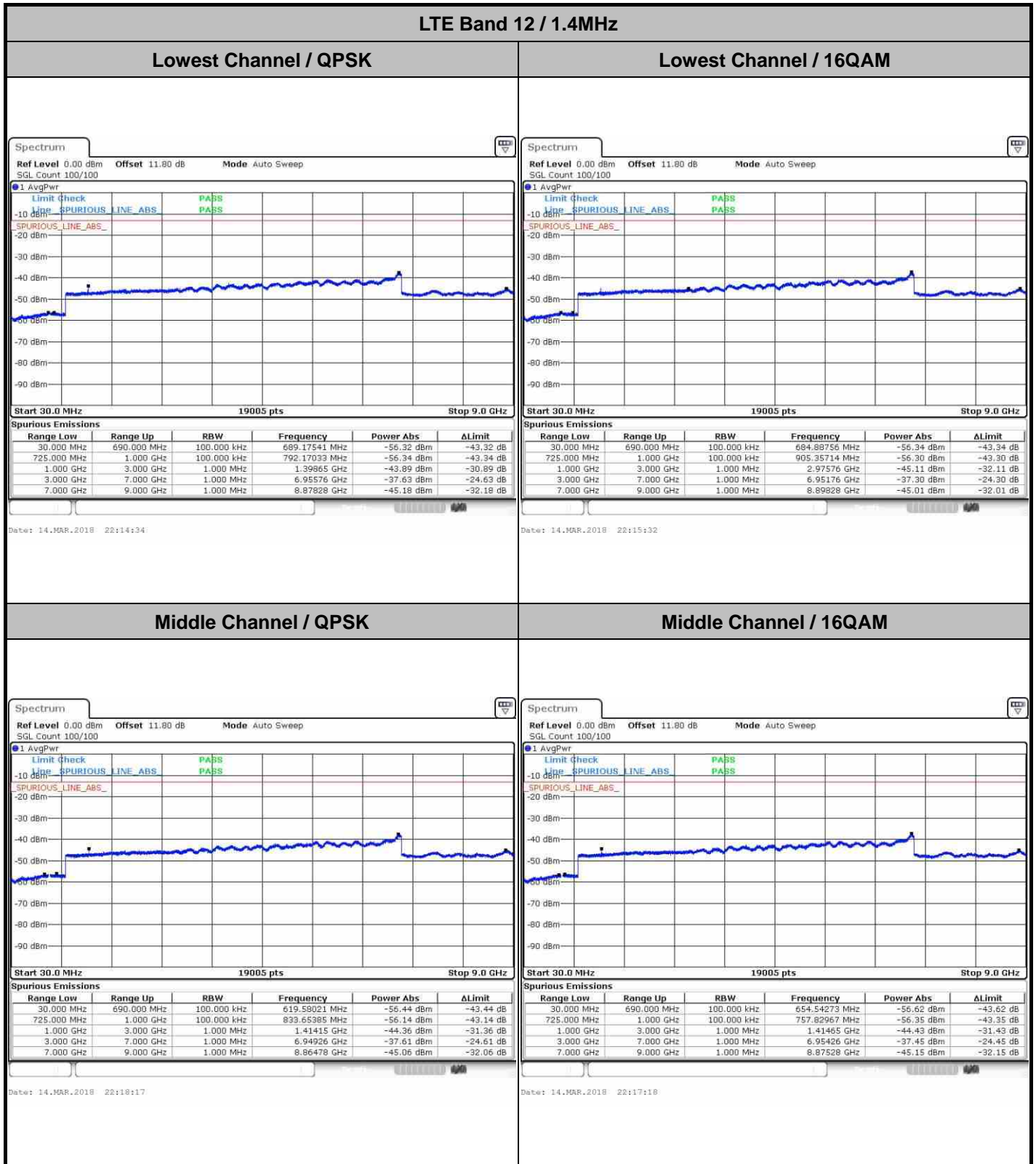
Highest Band Edge / Full RB



Date: 14.MAR.2018 22:57:47



Conducted Spurious Emission





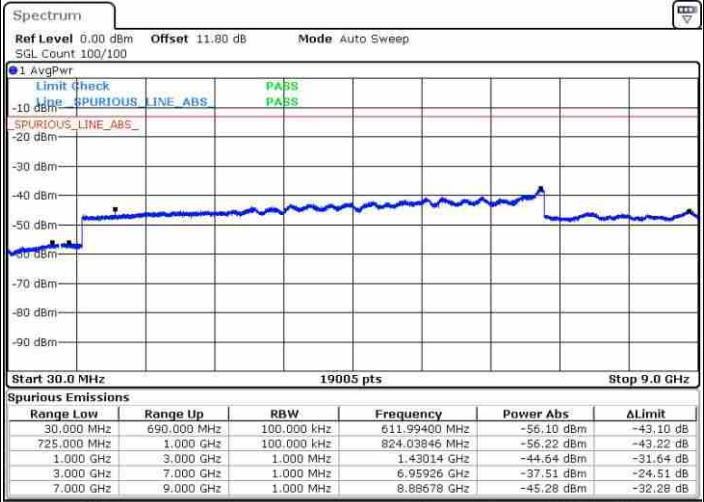
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 14.MAR.2018 22:24:40

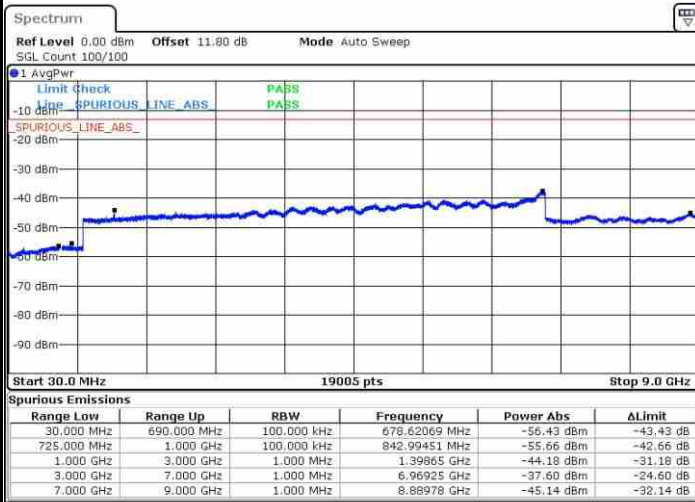
Highest Channel / 16QAM



Date: 14.MAR.2018 22:25:39

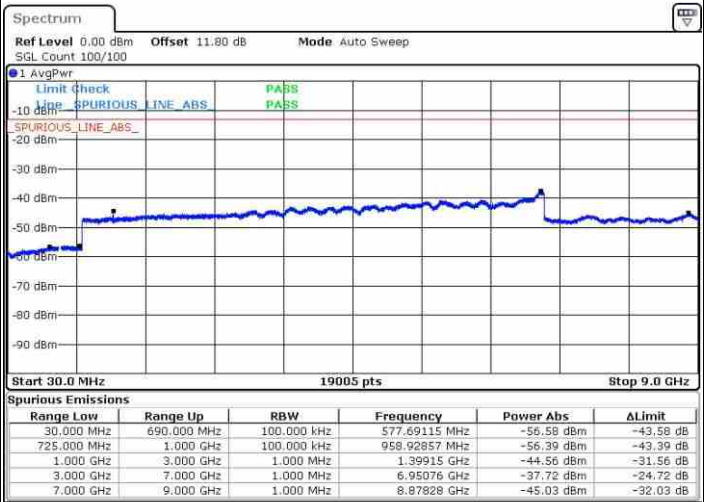
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 14.MAR.2018 21:20:57

Lowest Channel / 16QAM



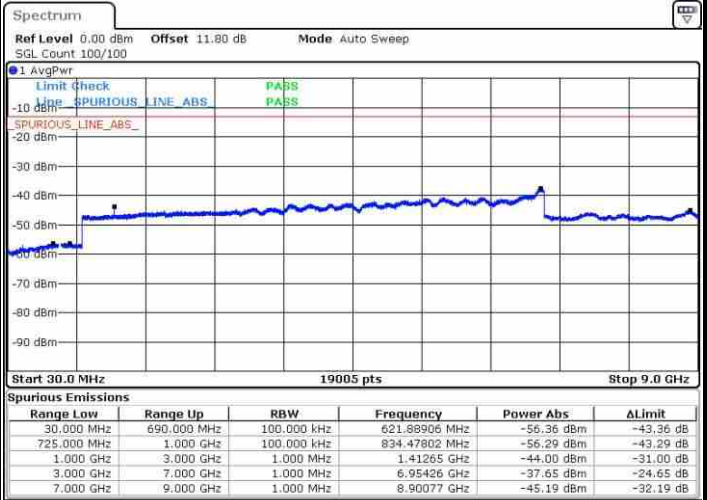
Date: 14.MAR.2018 21:21:55



LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

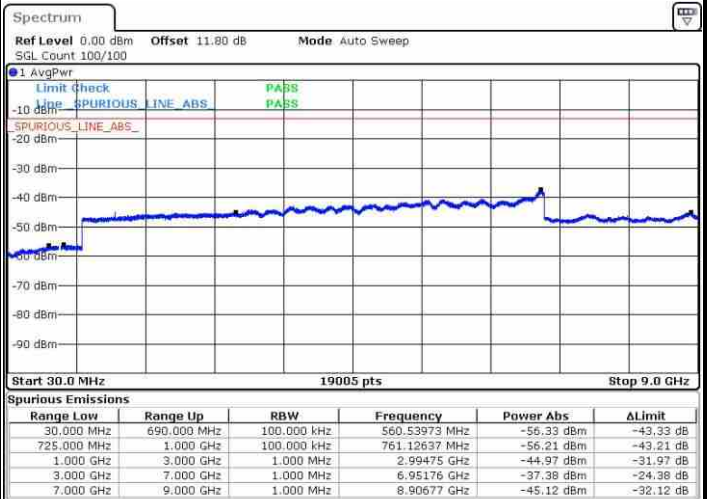
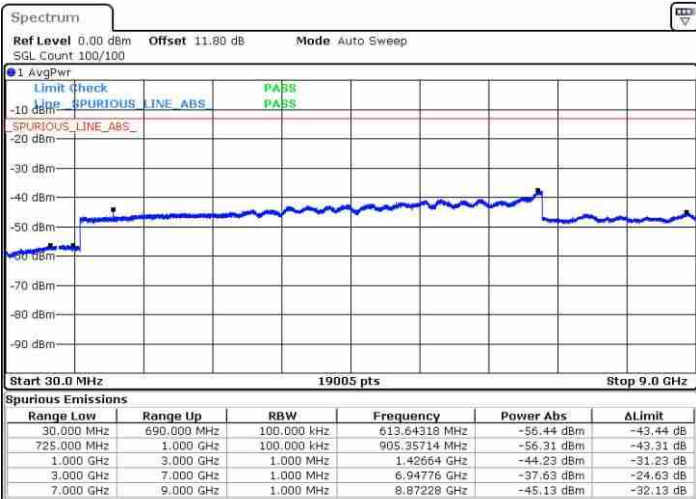


Date: 14.MAR.2018 21:24:40

Date: 14.MAR.2018 21:23:42

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 14.MAR.2018 21:01:04

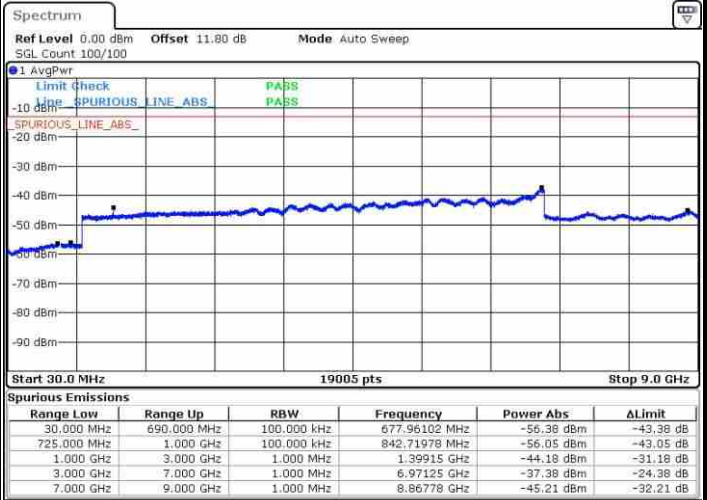
Date: 14.MAR.2018 21:02:01



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

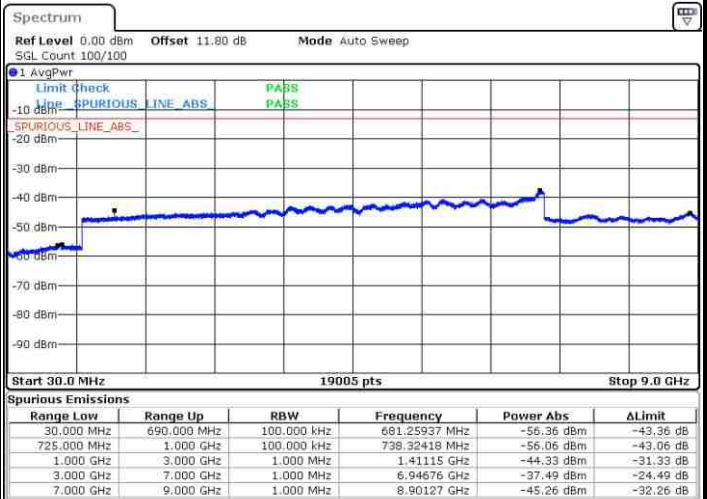
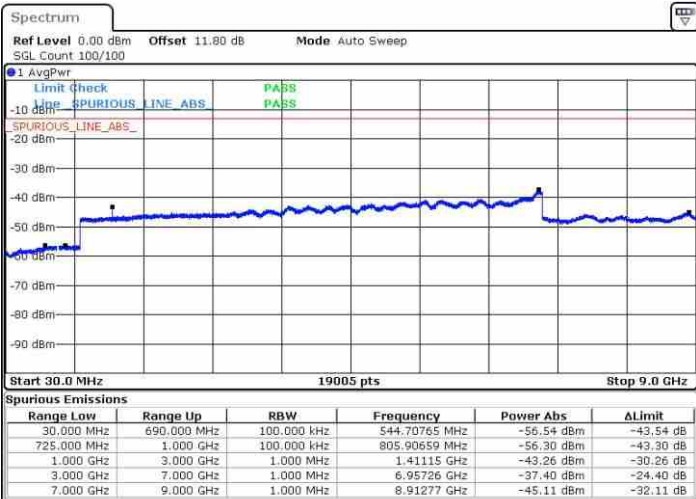


Date: 14.MAR.2018 21:38:24

Date: 14.MAR.2018 21:39:23

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 14.MAR.2018 21:42:07

Date: 14.MAR.2018 21:41:09



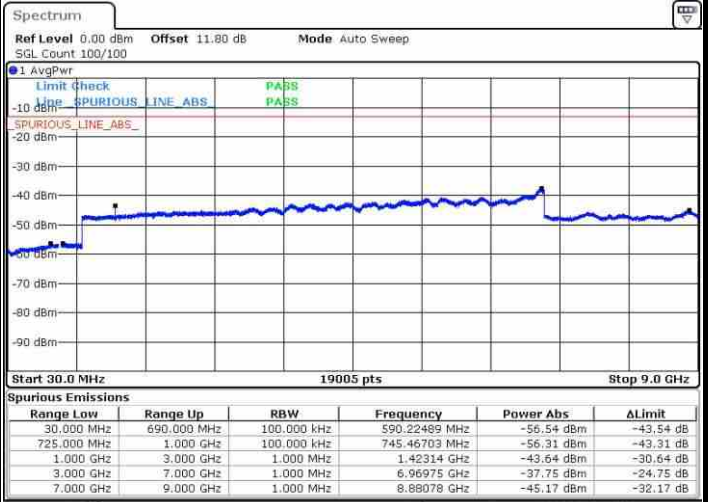
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 14.MAR.2018 21:49:28

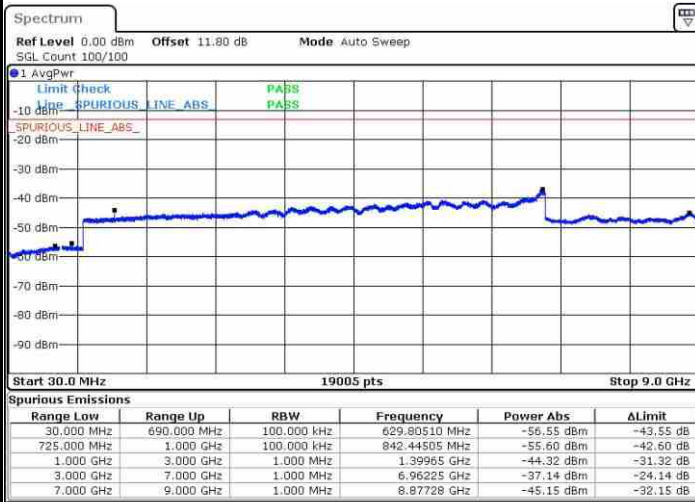
Highest Channel / 16QAM



Date: 14.MAR.2018 21:48:30

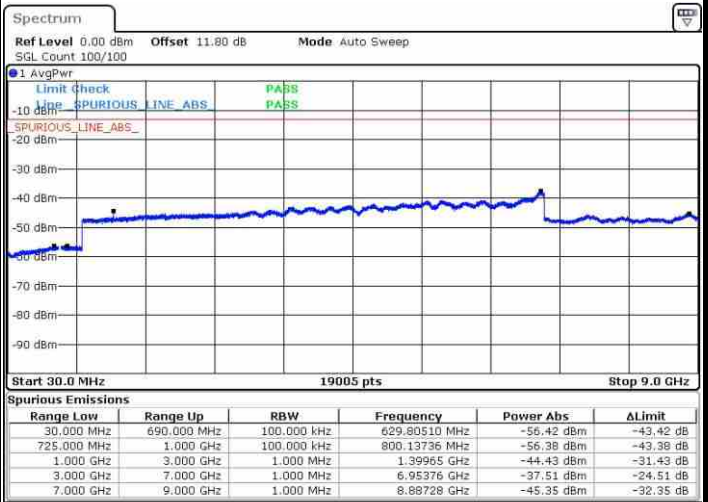
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 14.MAR.2018 21:55:51

Lowest Channel / 16QAM



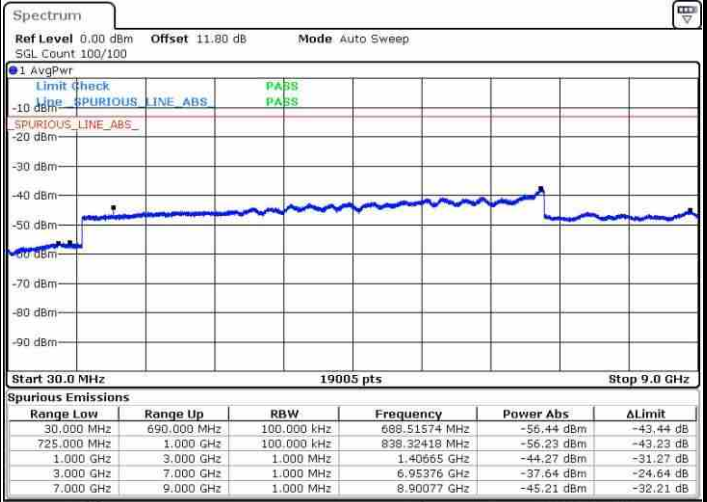
Date: 14.MAR.2018 21:56:46



LTE Band 12 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

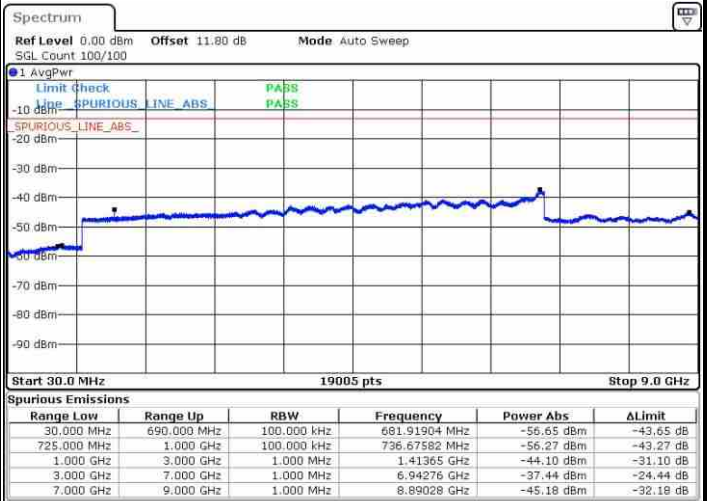
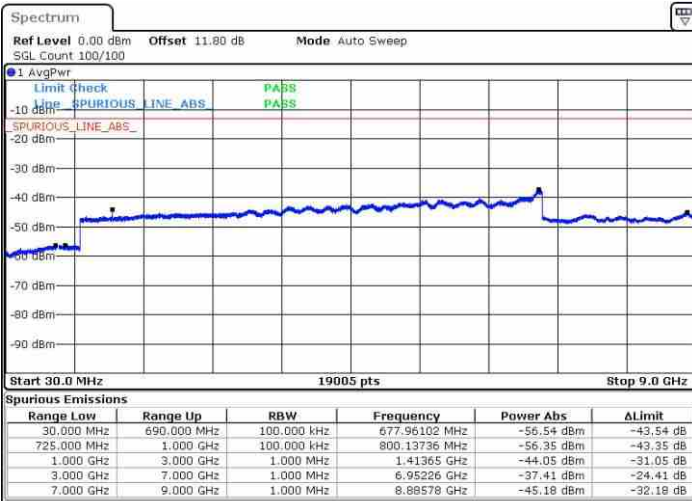


Date: 14.MAR.2018 21:59:33

Date: 14.MAR.2018 21:58:34

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 14.MAR.2018 22:05:56

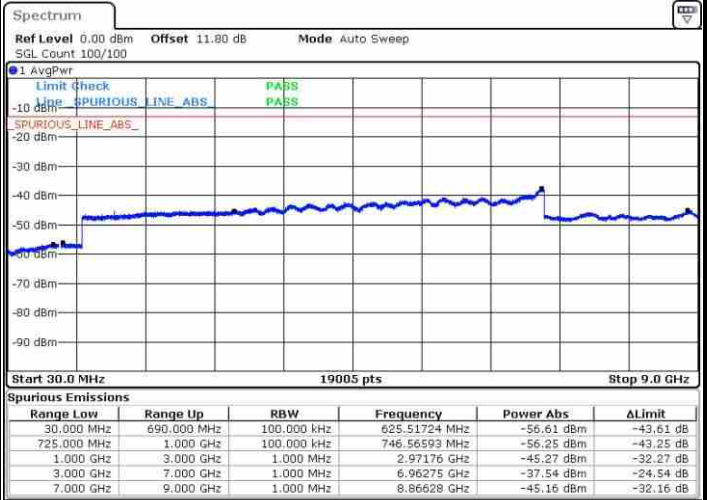
Date: 14.MAR.2018 22:06:54



LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

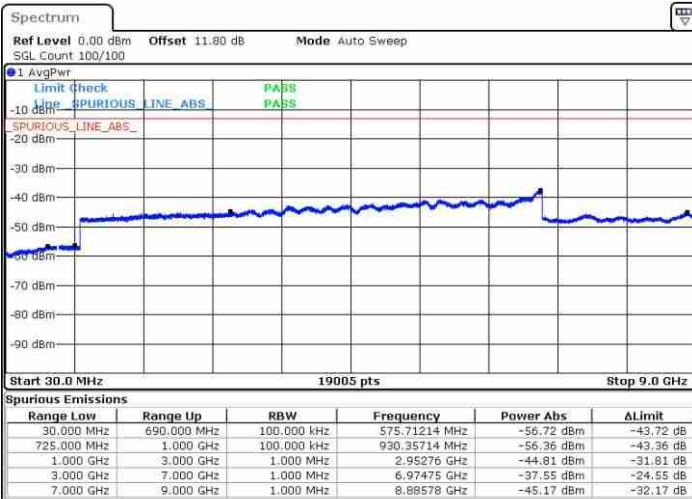
Middle Channel / 64QAM



Date: 14.MAR.2018 23:03:35

Date: 14.MAR.2018 23:04:57

Highest Channel / 64QAM



Date: 14.MAR.2018 23:08:38



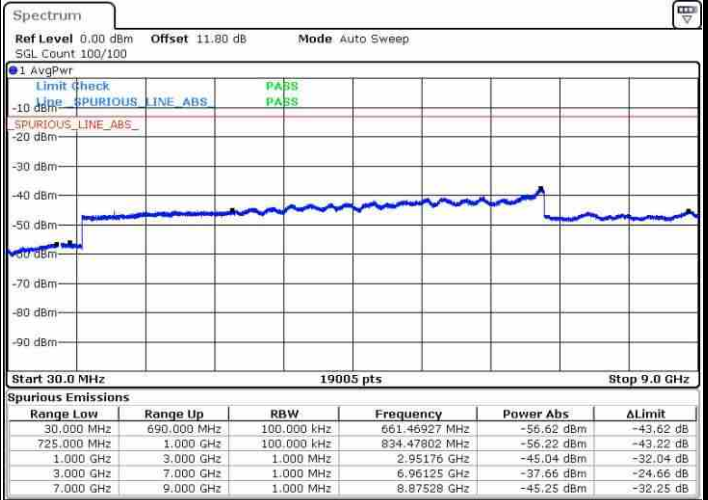
LTE Band 12 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

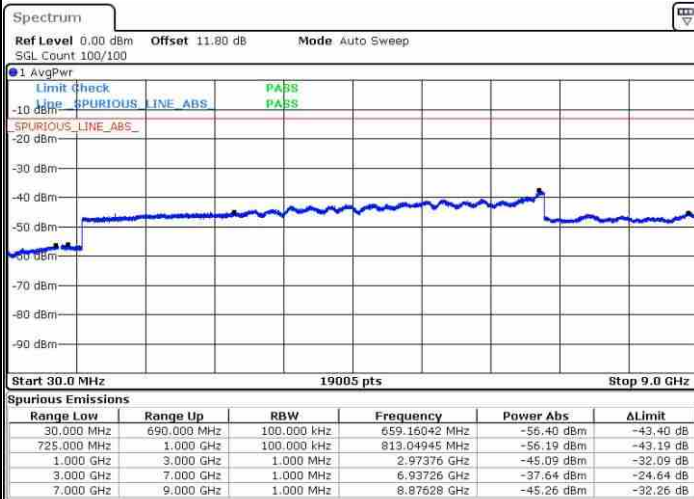


Date: 14.MAR.2018 22:37:24



Date: 14.MAR.2018 22:38:46

Highest Channel / 64QAM



Date: 14.MAR.2018 22:42:27



LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM



Date: 14.MAR.2018 22:46:08



Date: 14.MAR.2018 22:47:30

Highest Channel / 64QAM

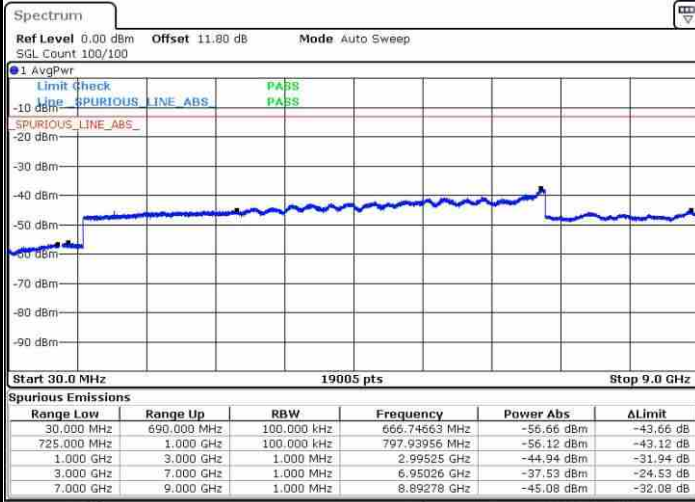


Date: 14.MAR.2018 22:51:11



LTE Band 12 / 10MHz

Lowest Channel / 64QAM



Date: 14.MAR.2018 22:54:51

Middle Channel / 64QAM



Date: 14.MAR.2018 22:56:13

Highest Channel / 64QAM



Date: 14.MAR.2018 22:59:54



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	0.0141	PASS
40	Normal Voltage	0.0188	
30	Normal Voltage	0.0143	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0117	
0	Normal Voltage	0.0136	
-10	Normal Voltage	0.0106	
-20	Normal Voltage	0.0126	
-30	Normal Voltage	0.0164	
20	Maximum Voltage	0.0178	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0049	

Note:

1. Normal Voltage =3.8 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	-	-	-	-	PASS
Middle CH	3.65	4.58	5.28	5.91	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH			-	-	PASS
Middle CH	5.83	6.41	-	-	
Highest CH			-	-	



LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 14, MAR, 2018 02:03:20

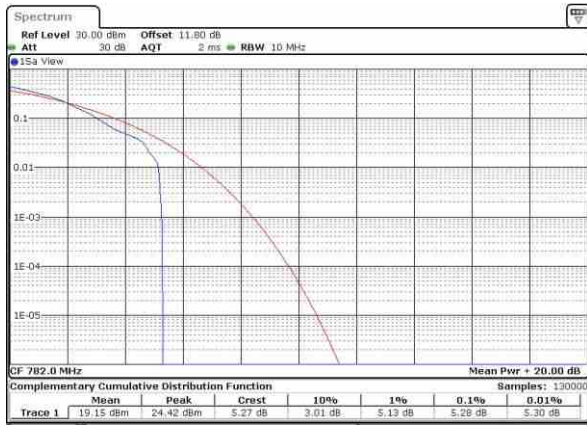
Middle Channel / Full RB



Date: 14, MAR, 2018 02:10:31

LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 14, MAR, 2018 02:02:42

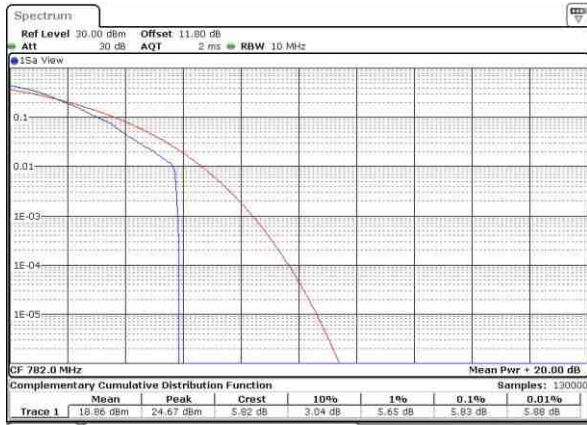
Middle Channel / Full RB



Date: 14, MAR, 2018 02:10:06

LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 14, MAR, 2018 23:31:58

Middle Channel / Full RB



Date: 14, MAR, 2018 23:32:12



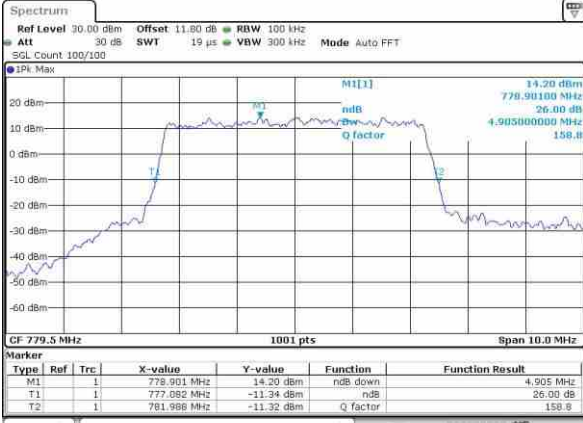
26dB Bandwidth

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	-	-	-	-	4.91	4.92	-	-	-	-	-	-
Middle CH	-	-	-	-	4.90	4.87	9.75	9.97	-	-	-	-
Highest CH	-	-	-	-	4.95	4.89	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.87	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.97	-	9.81	-	-	-	-	-
Highest CH	-	-	-	-	4.96	-	-	-	-	-	-	-



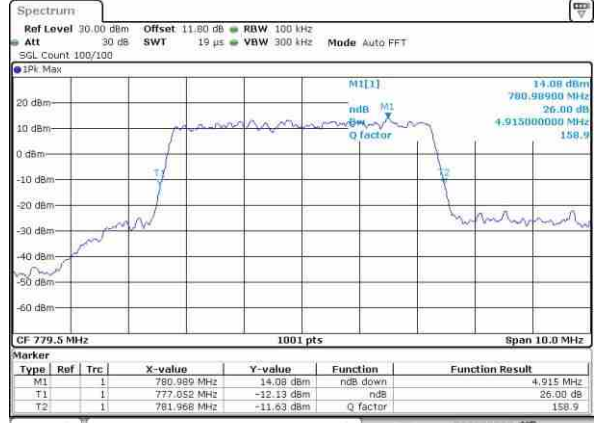
LTE Band 13

Lowest Channel / 5MHz / QPSK



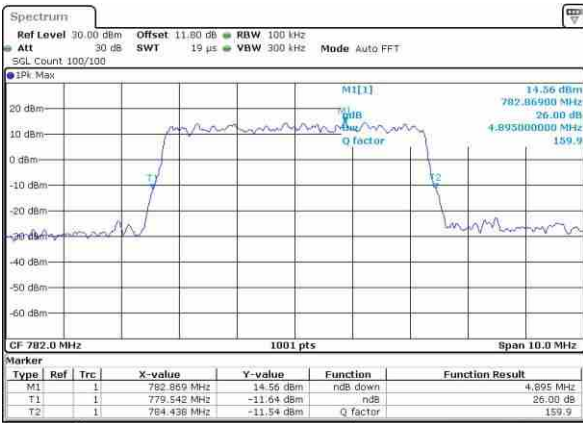
Date: 14, MAR, 2018 01:28:25

Lowest Channel / 5MHz / 16QAM



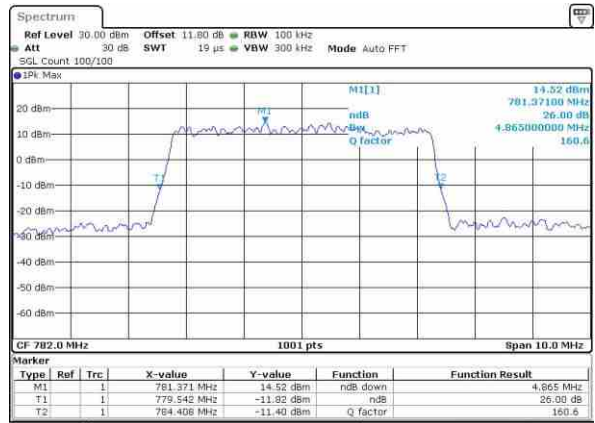
Date: 14, MAR, 2018 01:28:14

Middle Channel / 5MHz / QPSK



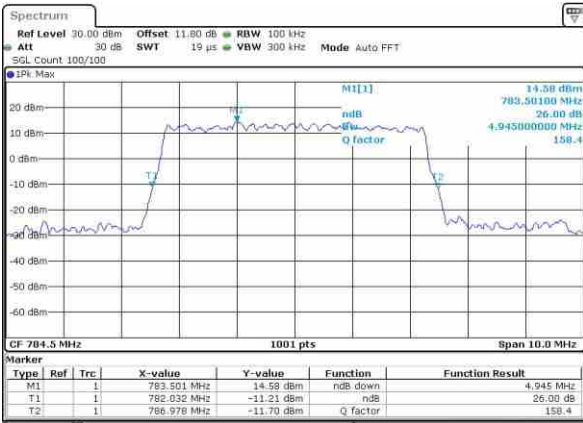
Date: 14, MAR, 2018 01:38:05

Middle Channel / 5MHz / 16QAM



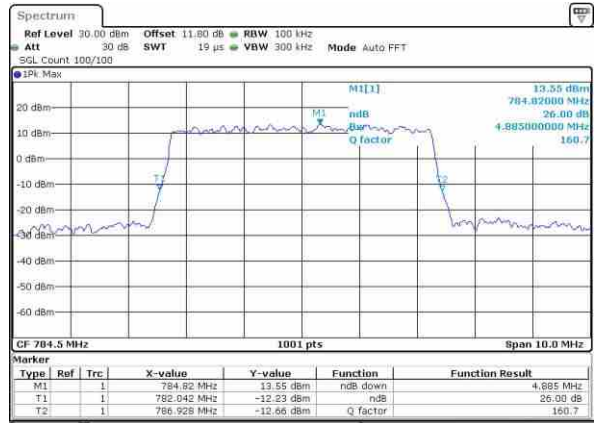
Date: 14, MAR, 2018 01:38:17

Highest Channel / 5MHz / QPSK



Date: 14, MAR, 2018 01:40:28

Highest Channel / 5MHz / 16QAM



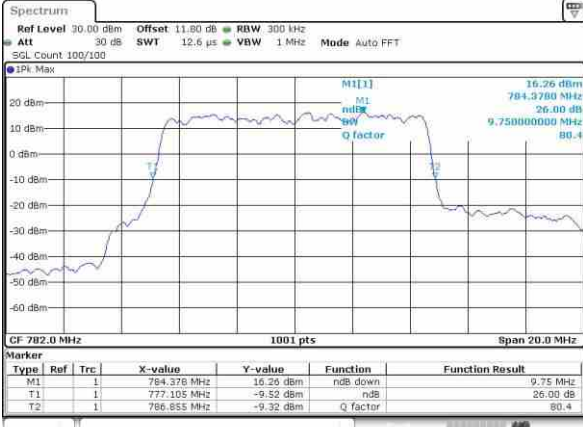
Date: 14, MAR, 2018 01:40:16



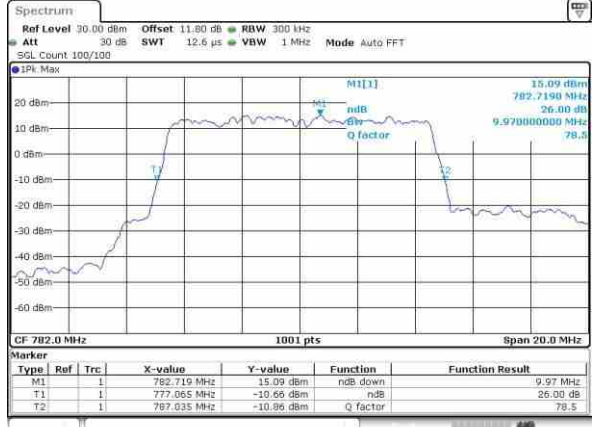
LTE Band 13

Middle Channel / 10MHz / QPSK

Middle Channel / 10MHz / 16QAM



Date: 14, MAR, 2018 01:49:48

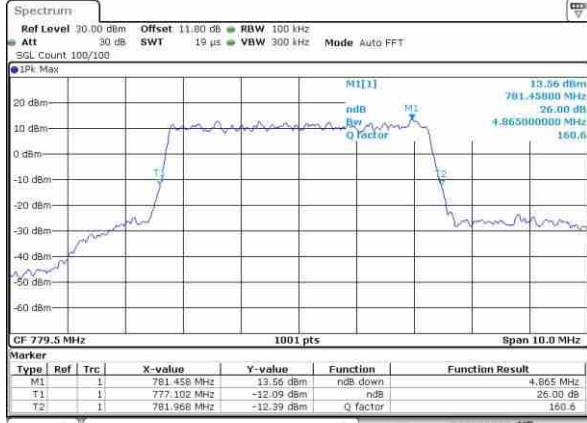


Date: 14, MAR, 2018 01:49:36



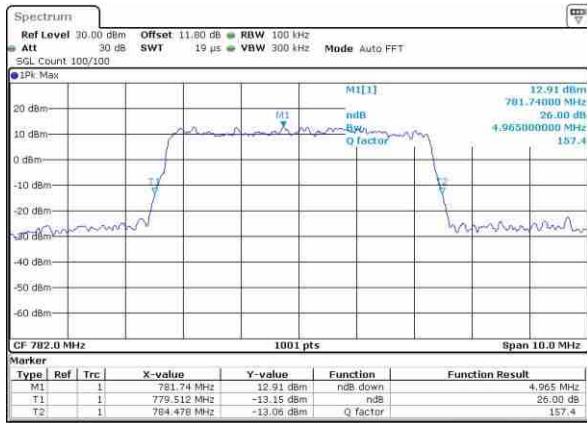
LTE Band 13

Lowest Channel / 5MHz / 64QAM



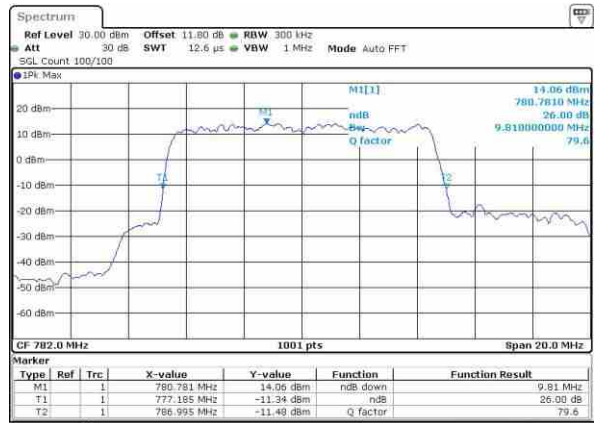
Date: 14, MAR, 2018 23:13:16

Middle Channel / 5MHz / 64QAM



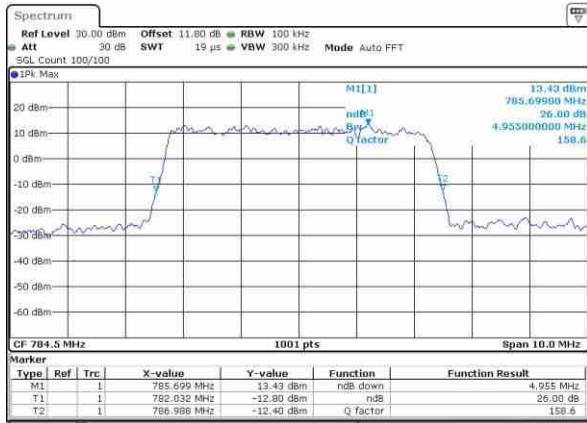
Date: 14, MAR, 2018 23:18:42

Middle Channel / 10MHz / 64QAM



Date: 14, MAR, 2018 23:23:59

Highest Channel / 5MHz / 64QAM



Date: 14, MAR, 2018 23:19:18



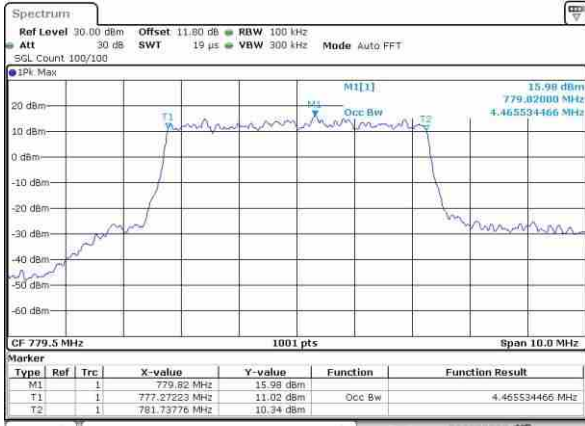
Occupied Bandwidth

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	-	-	-	-	4.47	4.47	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	4.48	8.99	9.03	-	-	-	-
Highest CH	-	-	-	-	4.49	4.52	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.47	-		-	-	-	-	-
Middle CH	-	-	-	-	4.50	-	9.01	-	-	-	-	-
Highest CH	-	-	-	-	4.50	-		-	-	-	-	-



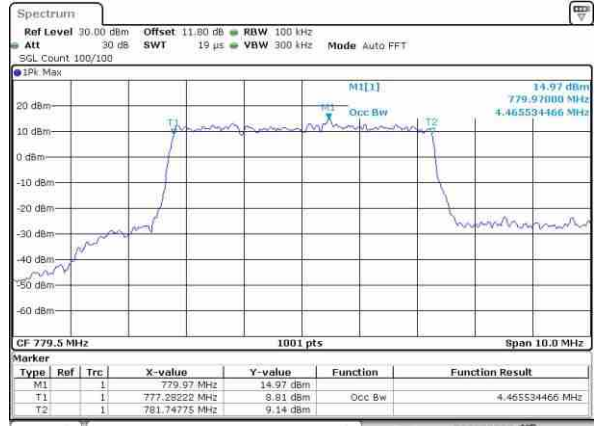
LTE Band 13

Lowest Channel / 5MHz / QPSK



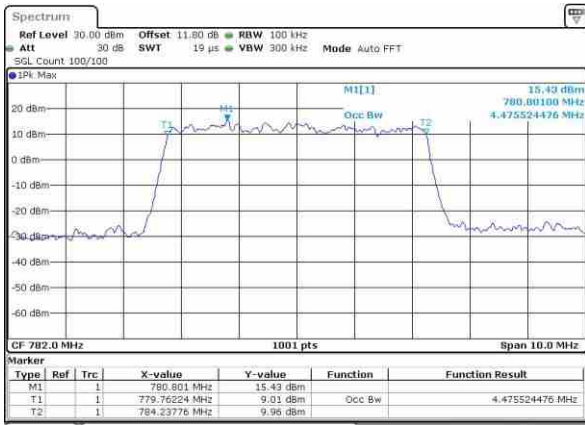
Date: 14, MAR, 2018 02:04:38

Lowest Channel / 5MHz / 16QAM



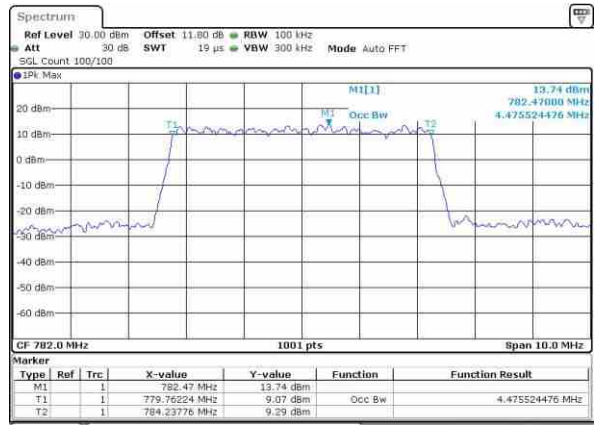
Date: 14, MAR, 2018 02:28:02

Middle Channel / 5MHz / QPSK



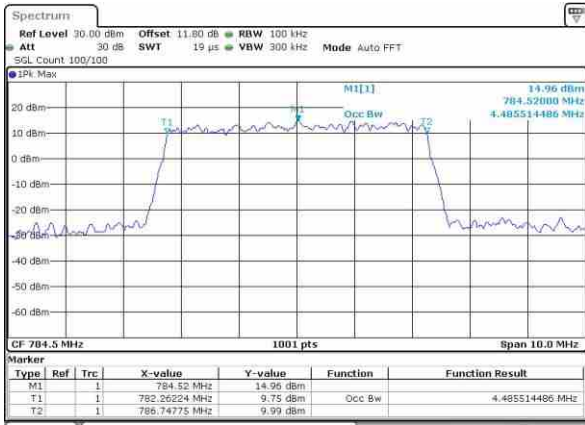
Date: 14, MAR, 2018 01:39:41

Middle Channel / 5MHz / 16QAM



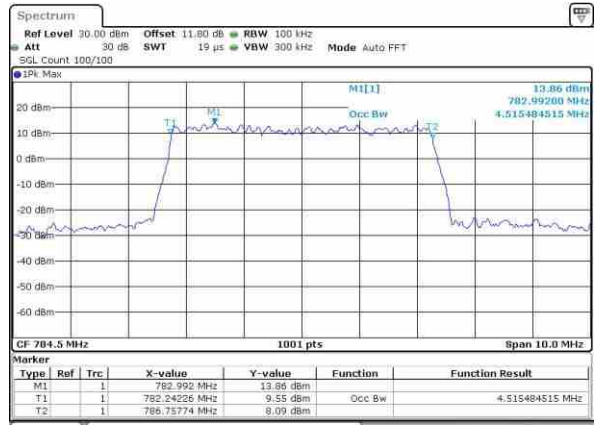
Date: 14, MAR, 2018 01:39:42

Highest Channel / 5MHz / QPSK



Date: 14, MAR, 2018 01:39:53

Highest Channel / 5MHz / 16QAM

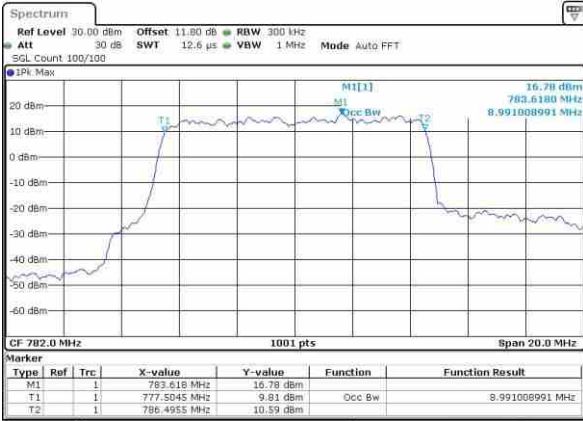


Date: 14, MAR, 2018 01:40:08



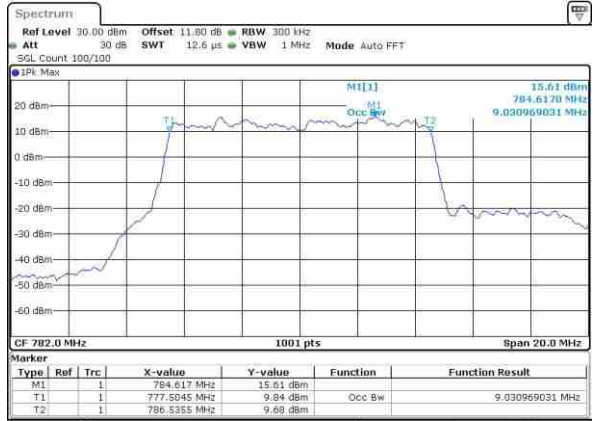
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 14, MAR, 2018 01:49:13

Middle Channel / 10MHz / 16QAM

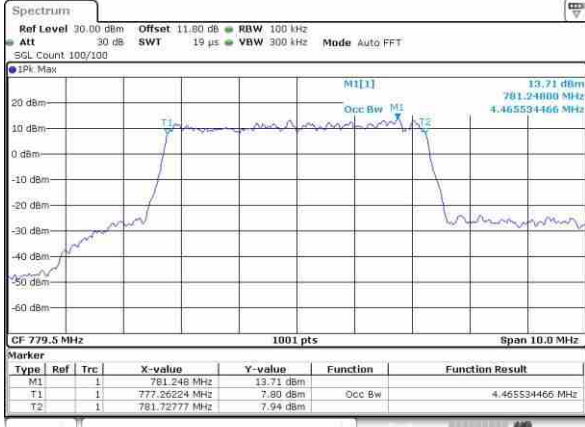


Date: 14, MAR, 2018 01:49:24



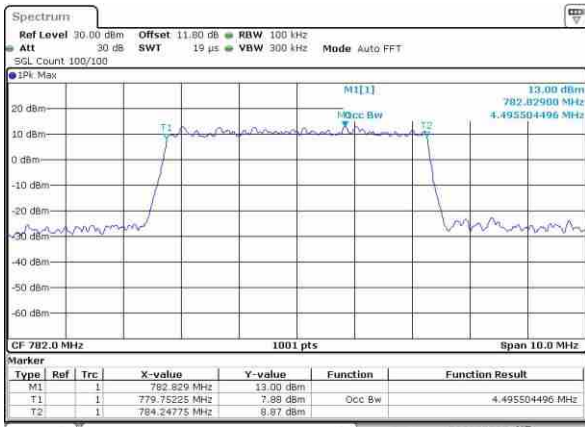
LTE Band 13

Lowest Channel / 5MHz / 64QAM



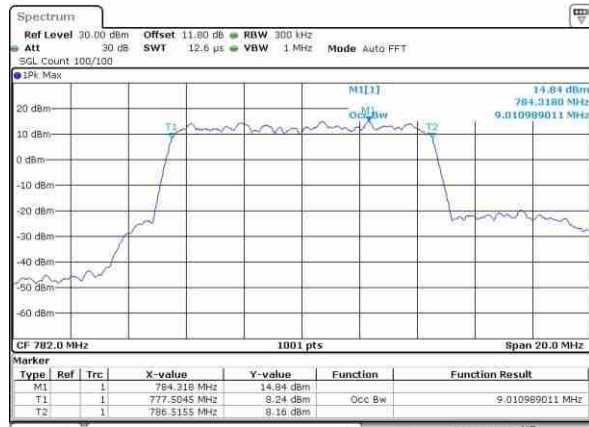
Date: 14, MAR, 2018 23:13:04

Middle Channel / 5MHz / 64QAM



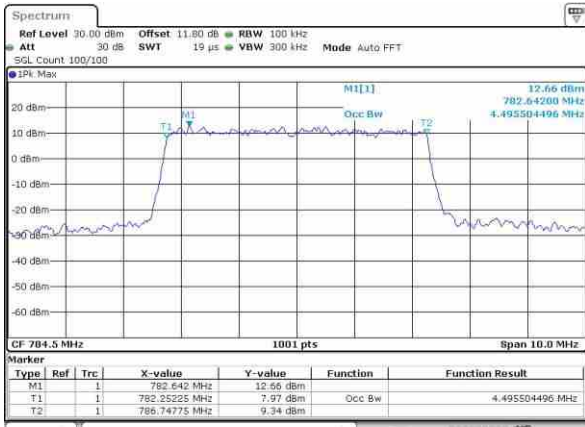
Date: 14, MAR, 2018 23:18:54

Middle Channel / 10MHz / 64QAM



Date: 14, MAR, 2018 23:23:47

Highest Channel / 5MHz / 64QAM



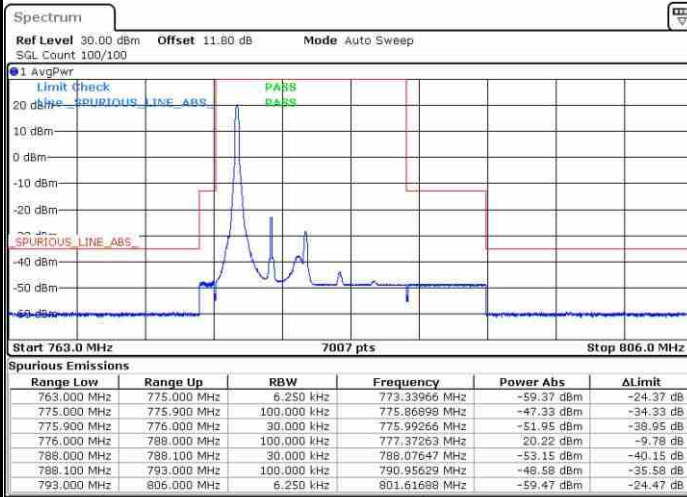
Date: 14, MAR, 2018 23:19:06



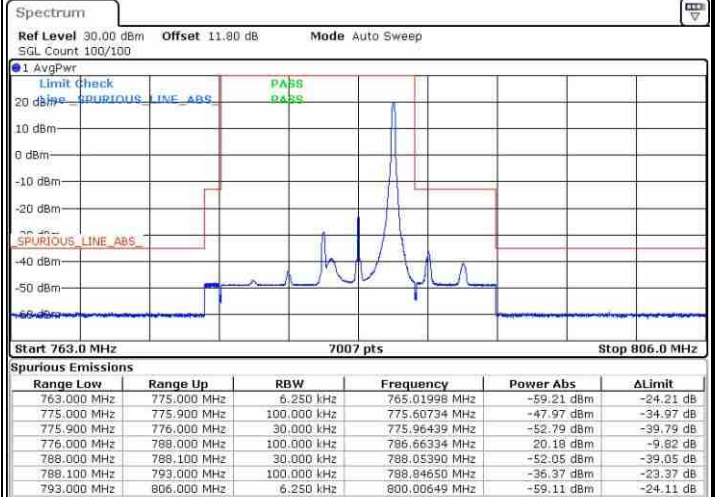
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

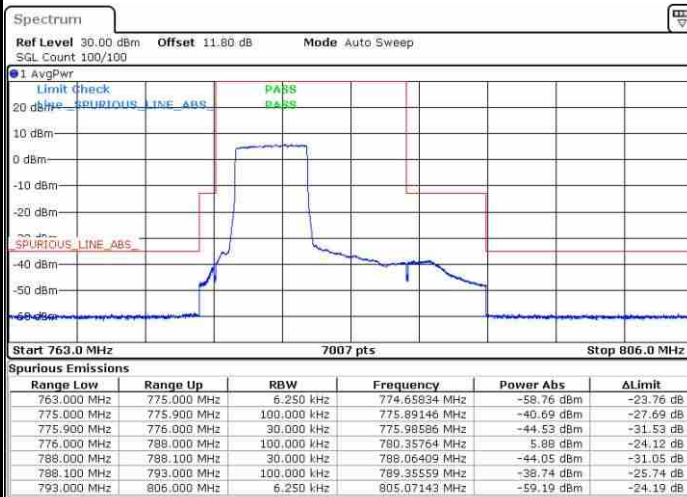
Lowest Band Edge / 1 RB



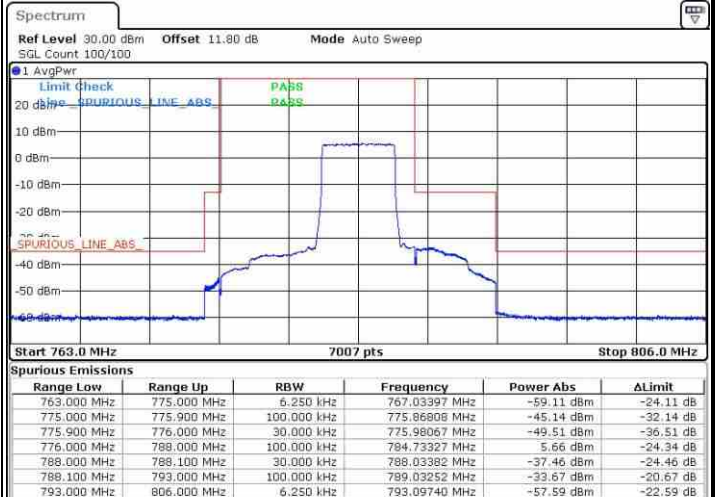
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

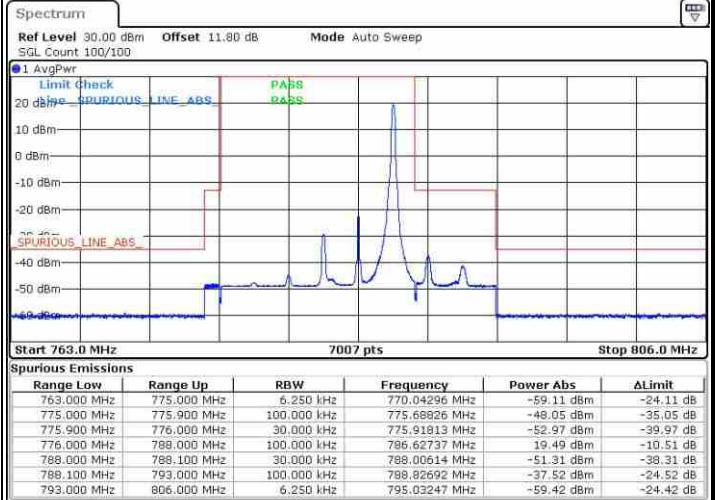
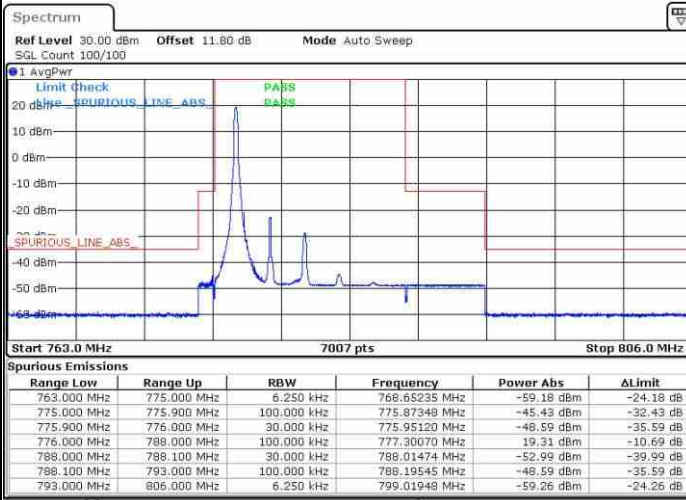




LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

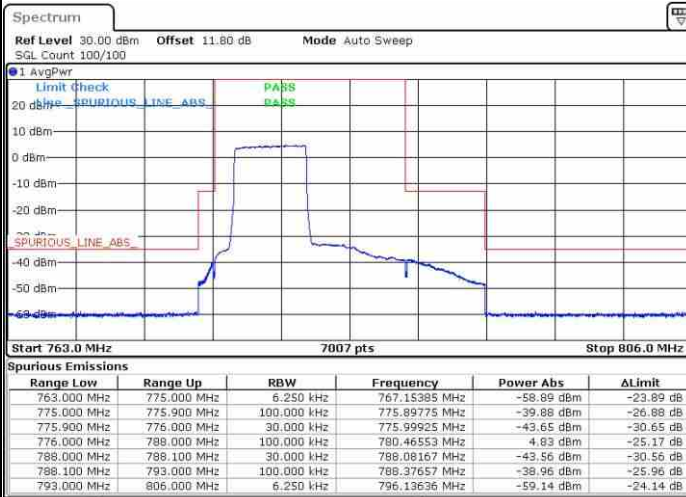


Date: 14.MAR.2018 01:33:25

Date: 14.MAR.2018 01:45:27

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 14.MAR.2018 01:31:46

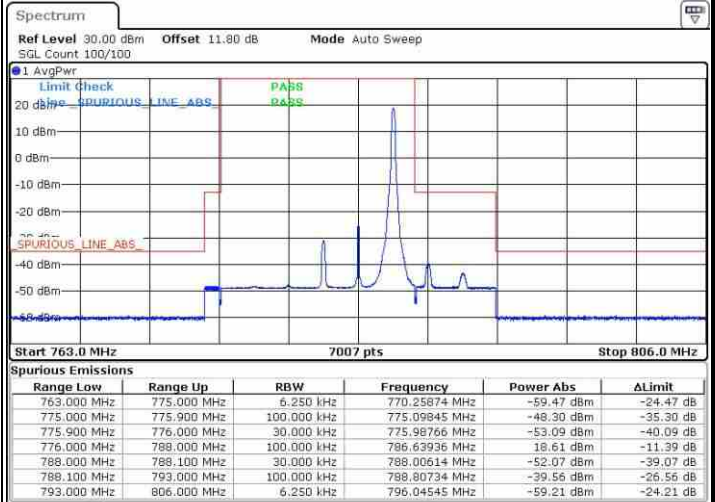
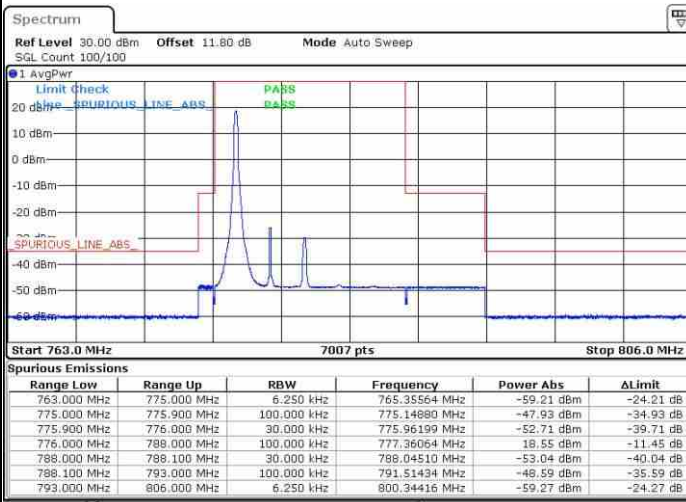
Date: 14.MAR.2018 01:43:47



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

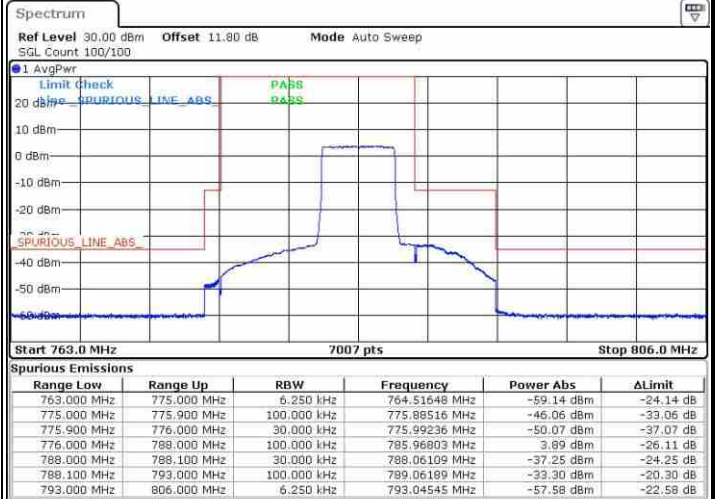
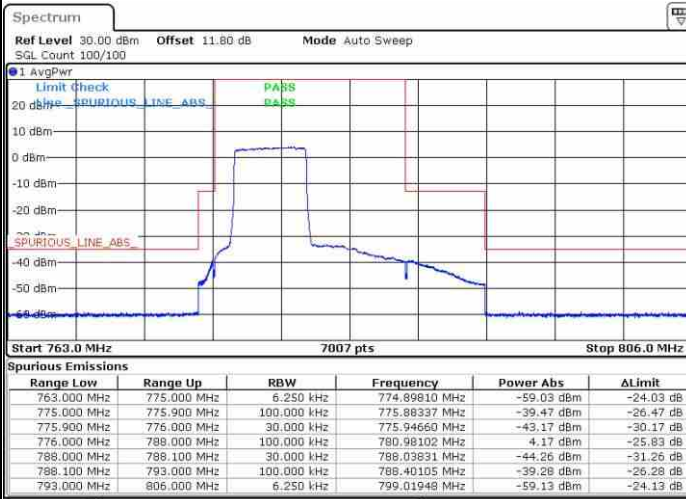


Date: 14.MAR.2018 23:16:35

Date: 14.MAR.2018 23:22:37

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



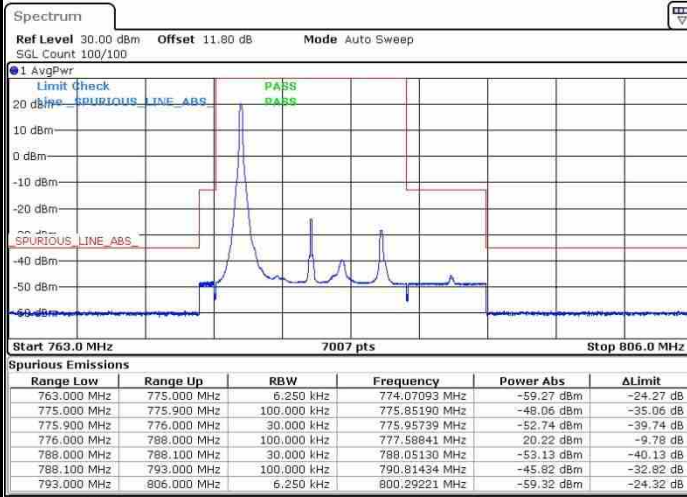
Date: 14.MAR.2018 23:14:56

Date: 14.MAR.2018 23:20:58



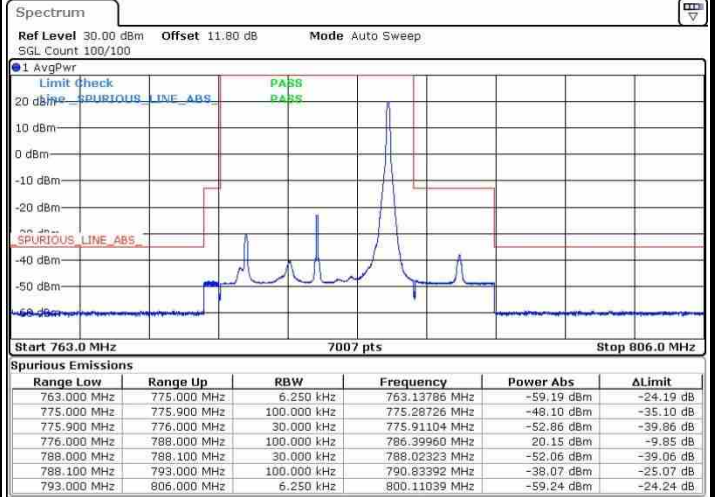
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



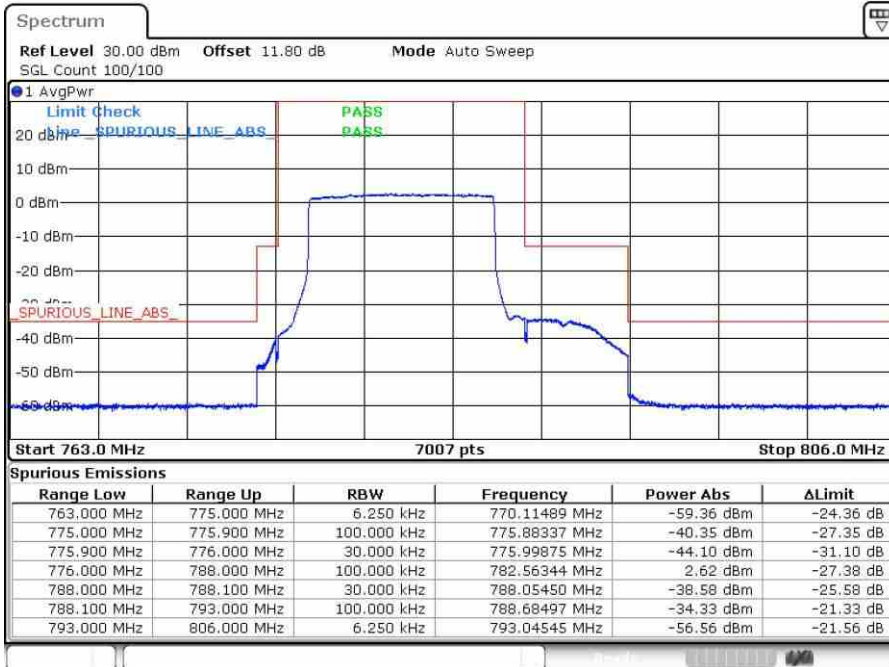
Date: 14.MAR.2018 01:56:26

Highest Band Edge / 1 RB



Date: 14.MAR.2018 01:58:06

Band Edge / Full RB



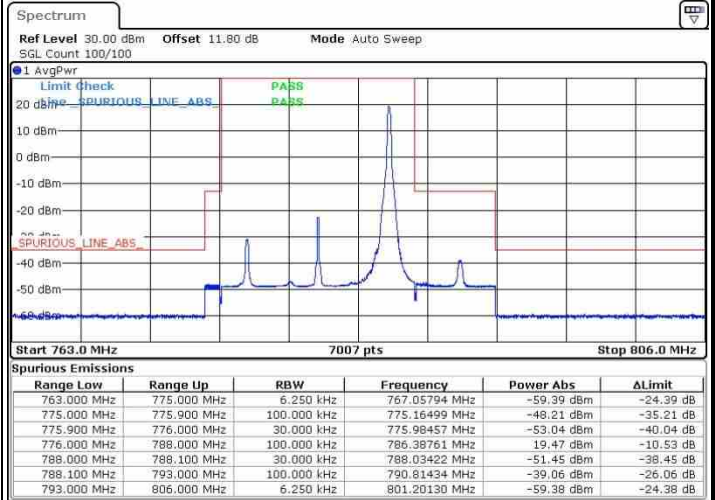
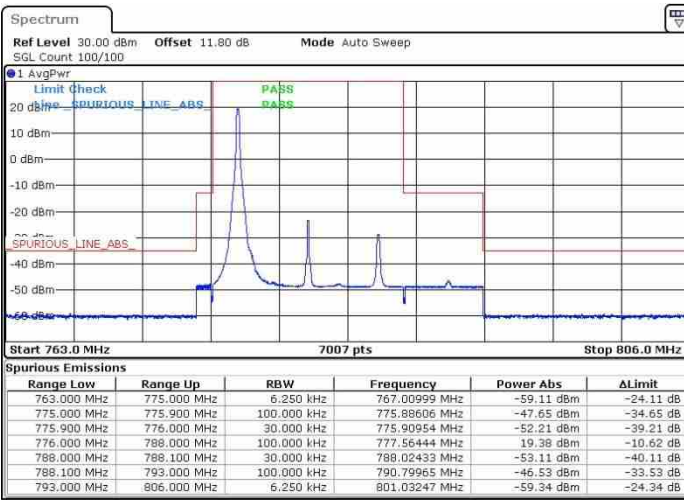
Date: 14.MAR.2018 01:51:28



LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

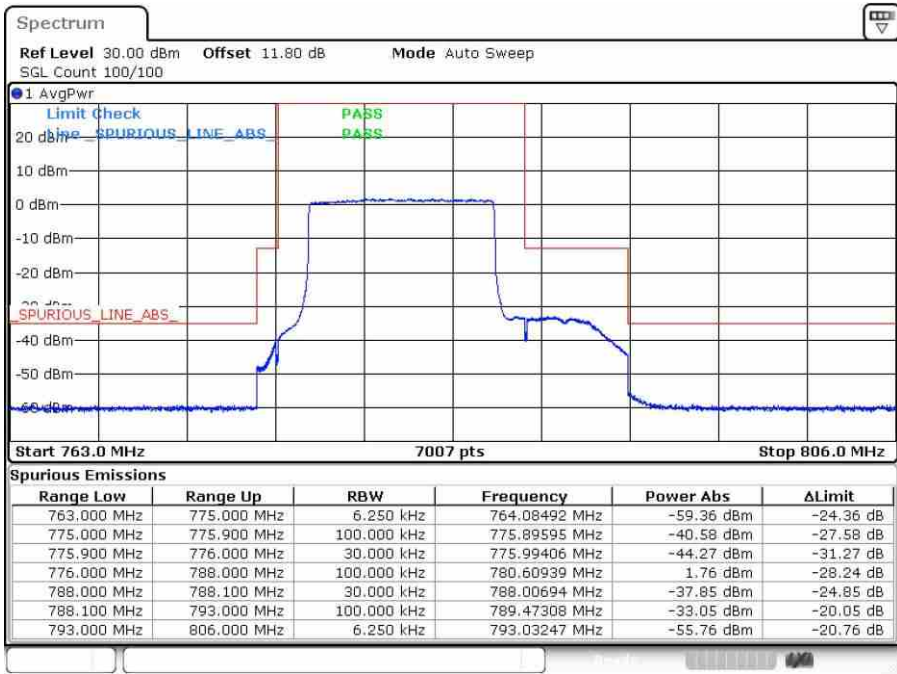
Highest Band Edge / 1 RB



Date: 14.MAR.2018 01:54:47

Date: 14.MAR.2018 01:59:46

Band Edge / Full RB



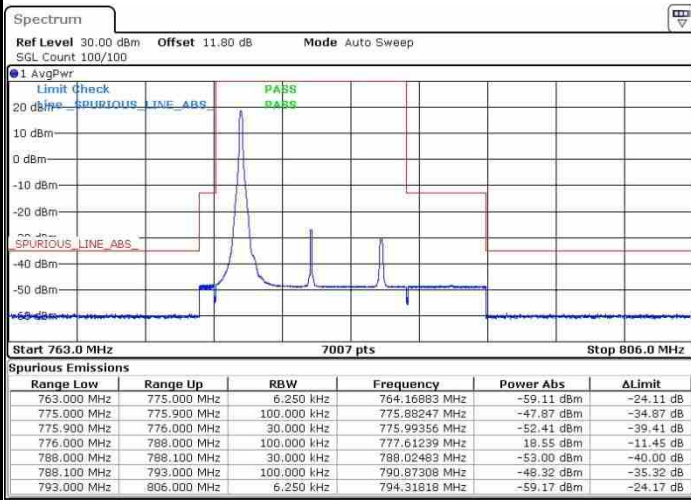
Date: 14.MAR.2018 01:53:07



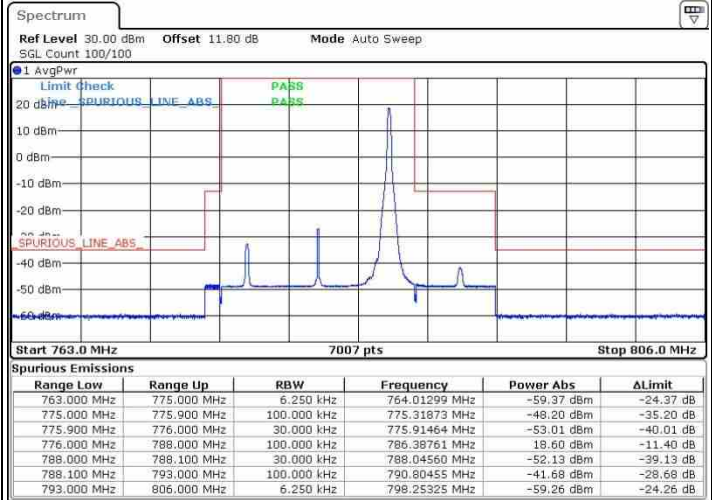
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

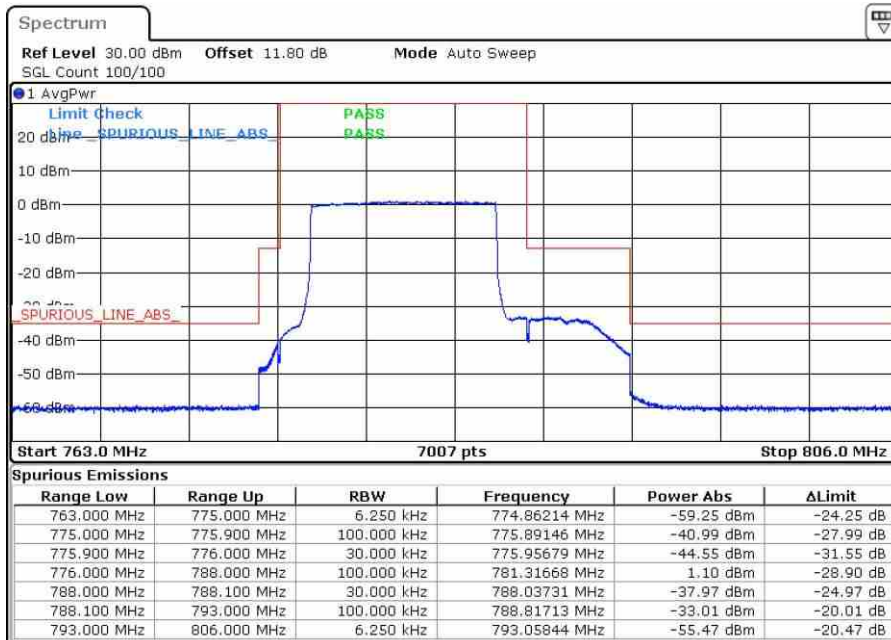


Date: 14.MAR.2018 23:27:18



Date: 14.MAR.2018 23:28:58

Band Edge / Full RB



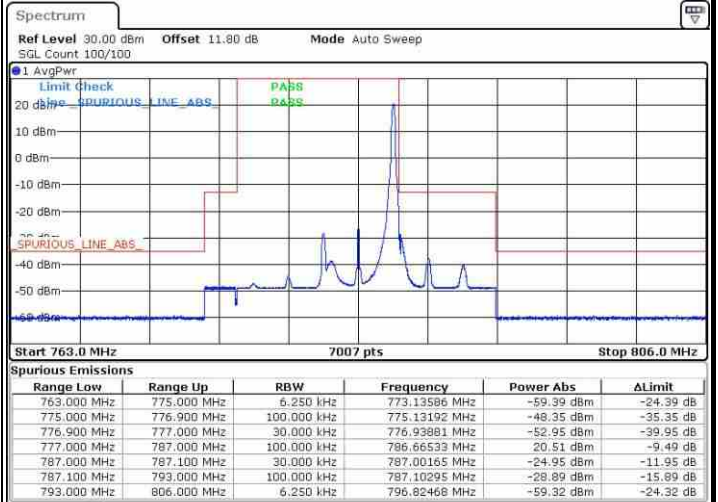
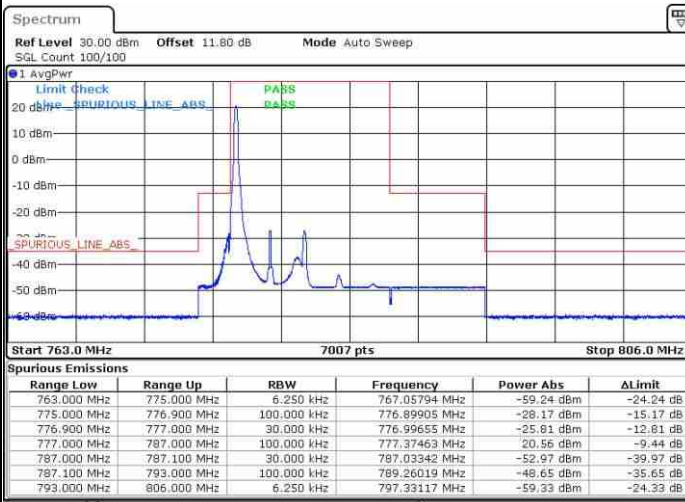
Date: 14.MAR.2018 23:25:38



IC LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

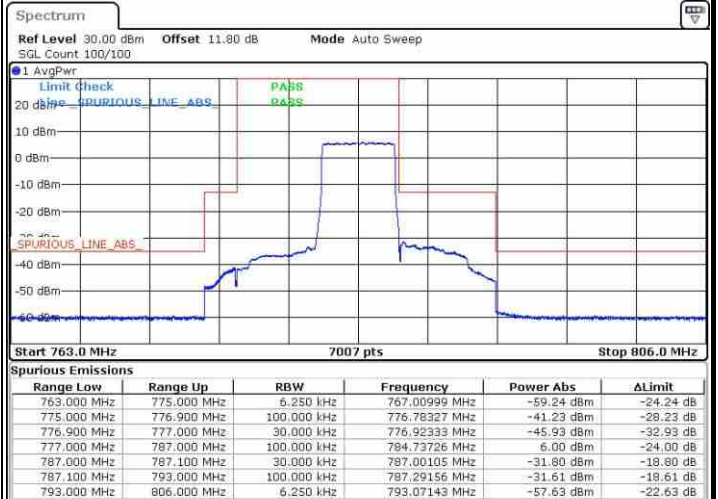
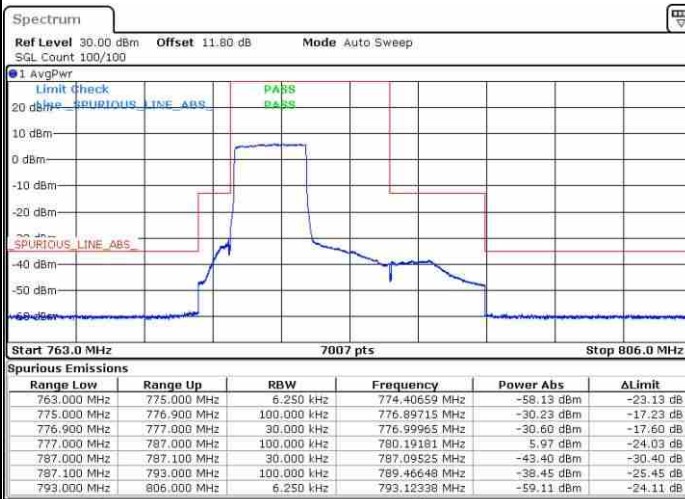


Date: 14.MAR.2018 19:14:44

Date: 14.MAR.2018 19:21:35

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 14.MAR.2018 19:04:59

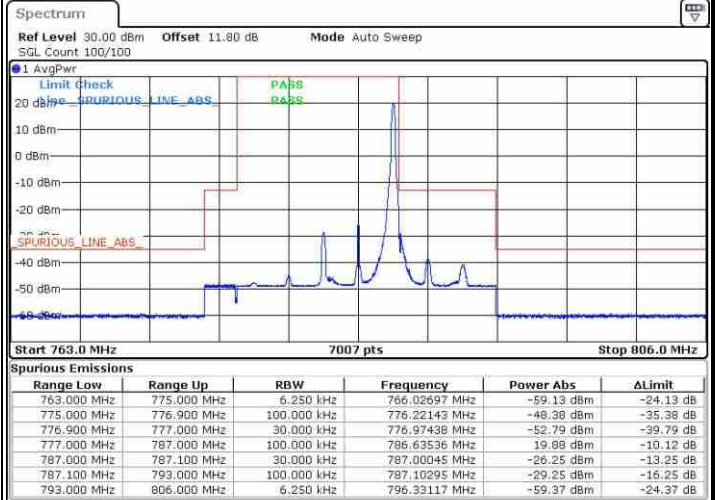
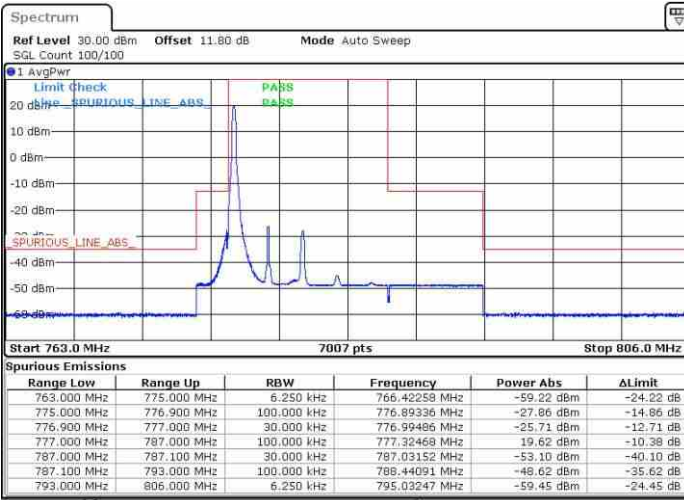
Date: 14.MAR.2018 19:16:05



IC LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

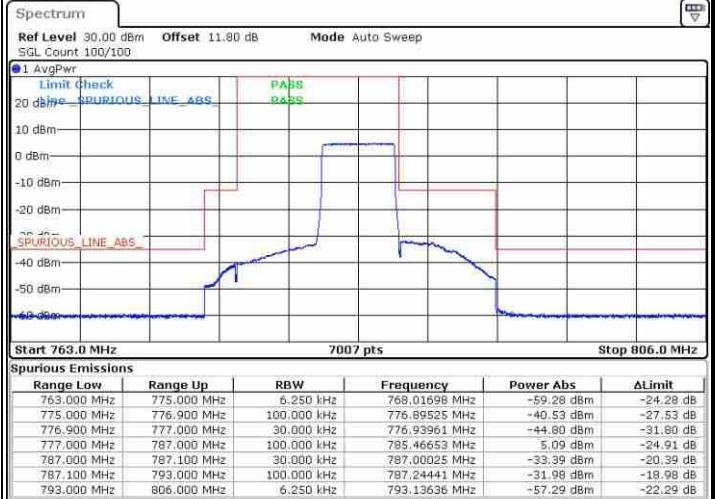
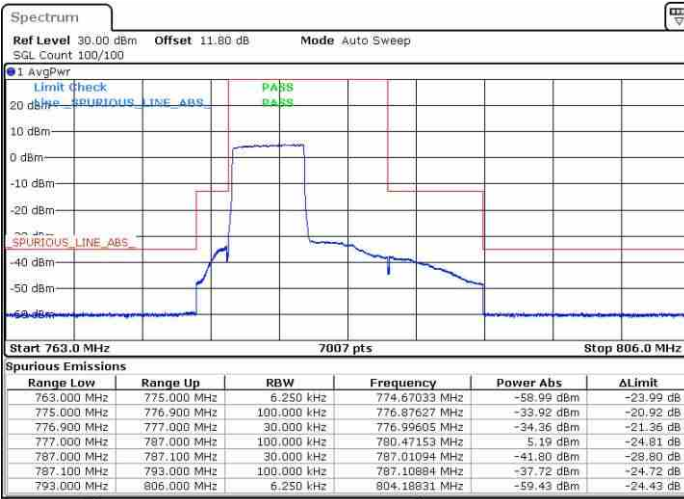


Date: 14.MAR.2018 19:13:05

Date: 14.MAR.2018 19:18:49

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 14.MAR.2018 19:11:44

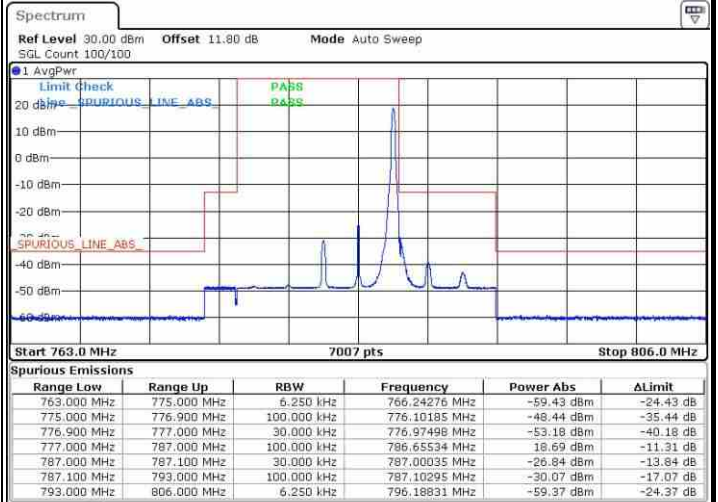
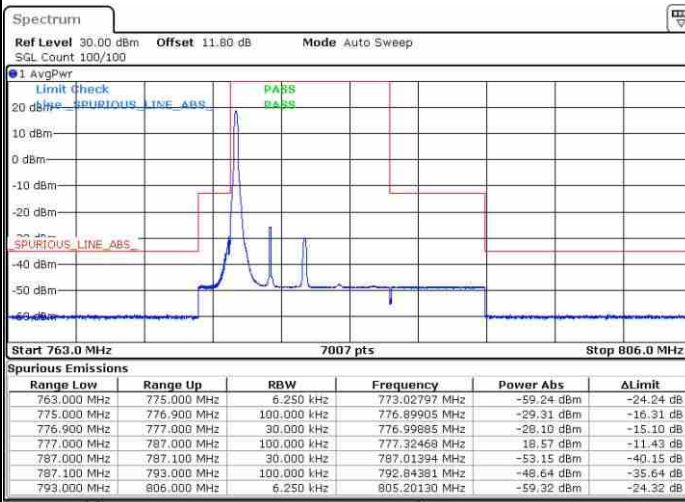
Date: 14.MAR.2018 19:17:27



IC LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

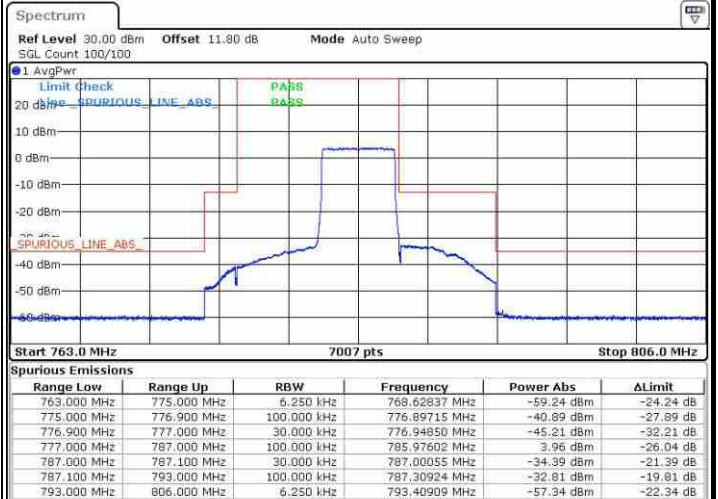
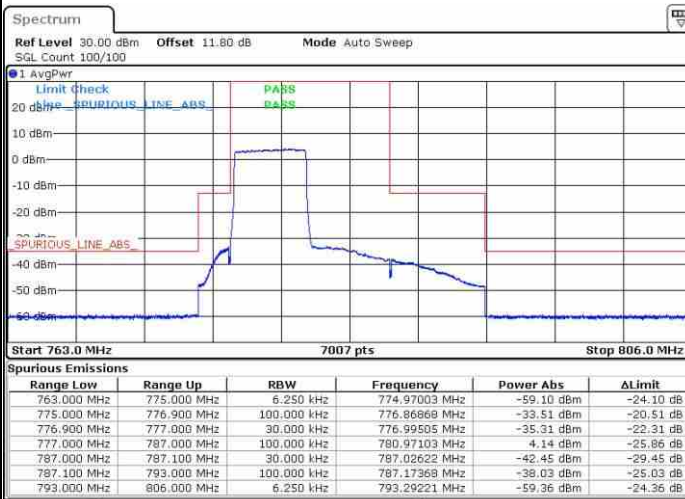


Date: 14.MAR.2018 23:39:14

Date: 14.MAR.2018 23:39:14

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



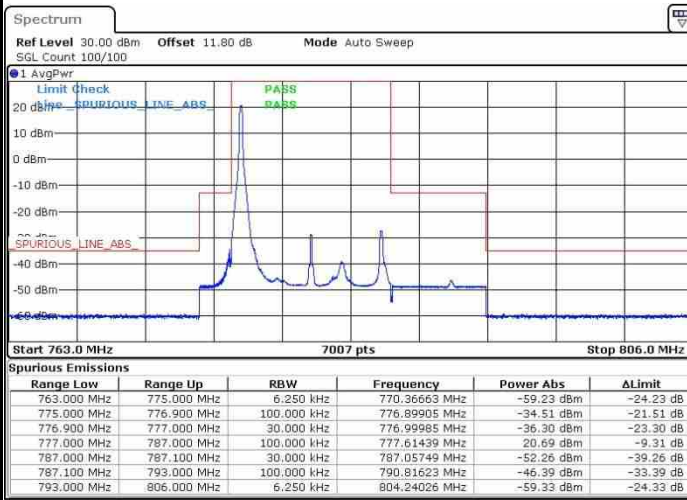
Date: 14.MAR.2018 23:34:15

Date: 14.MAR.2018 23:37:34



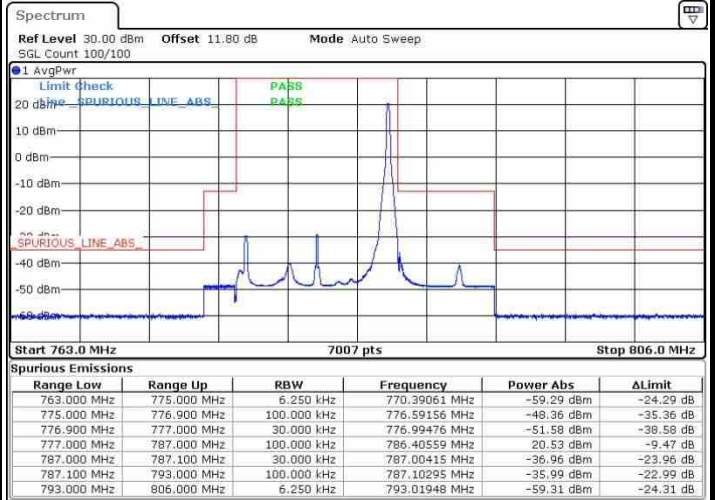
IC LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



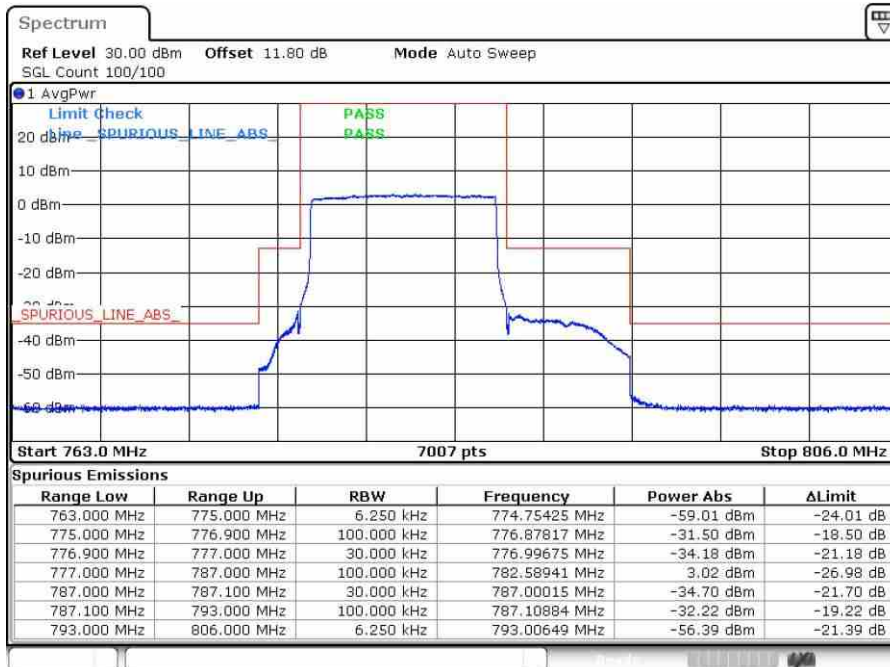
Date: 14.MAR.2018 19:30:31

Highest Band Edge / 1 RB



Date: 14.MAR.2018 19:31:59

Band Edge / Full RB



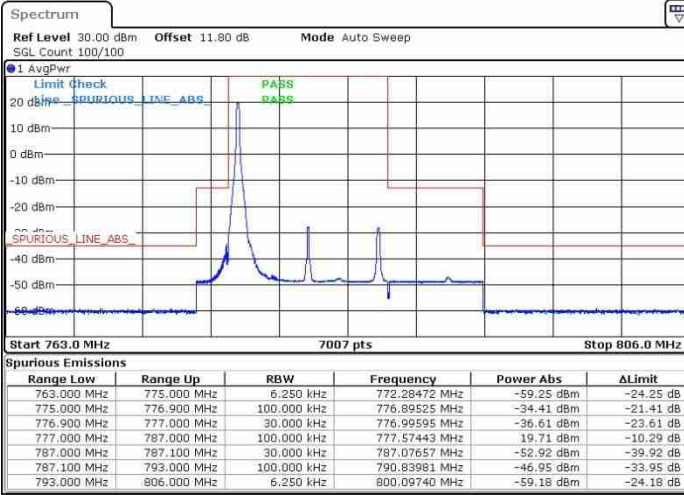
Date: 14.MAR.2018 19:22:57



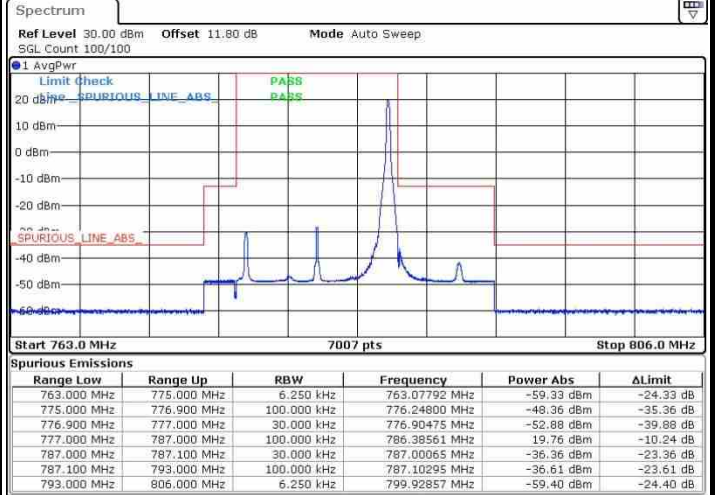
IC LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

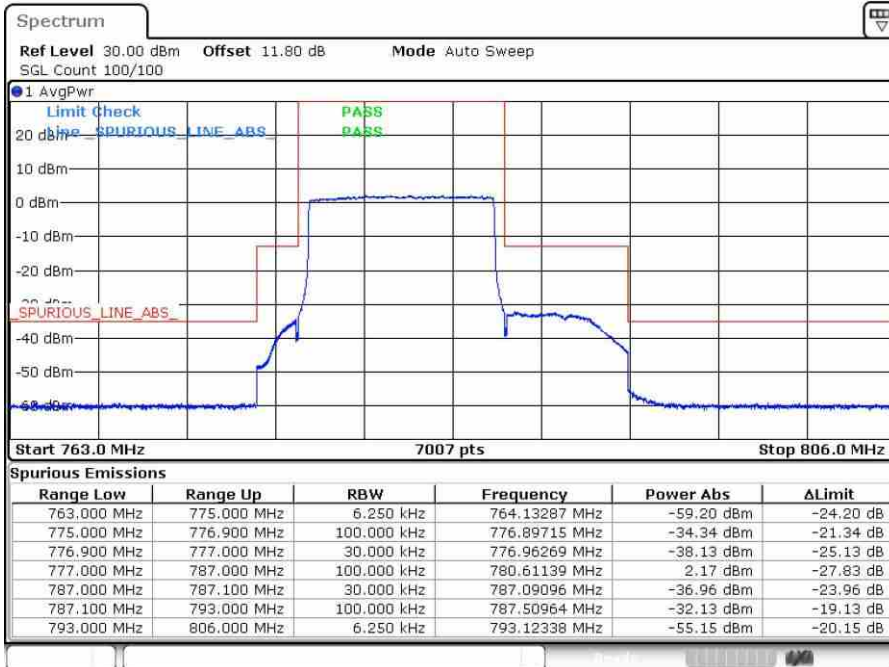


Date: 14.MAR.2018 19:29:05



Date: 14.MAR.2018 19:33:22

Band Edge / Full RB

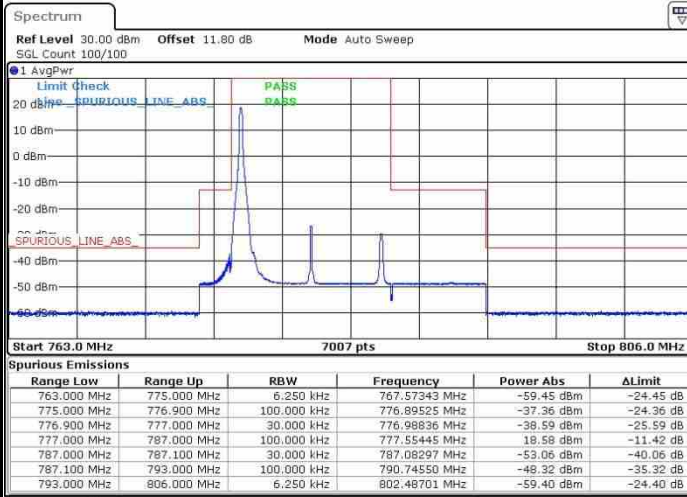


Date: 14.MAR.2018 19:27:44



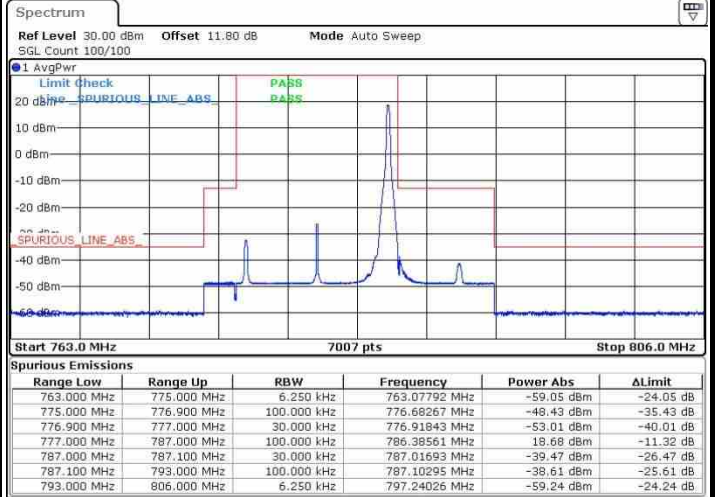
IC LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



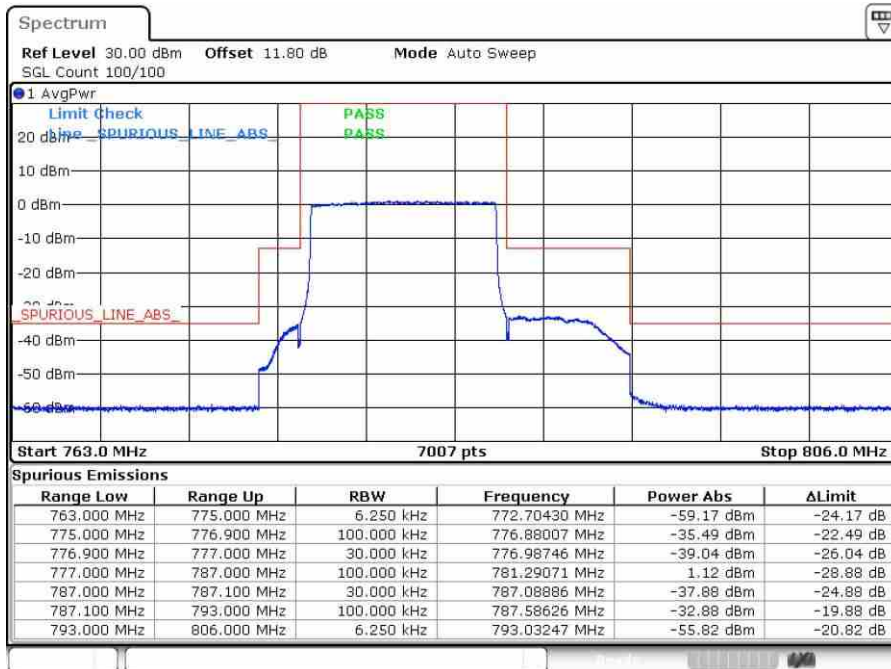
Date: 14.MAR.2018 23:42:33

Highest Band Edge / 1 RB



Date: 14.MAR.2018 23:44:12

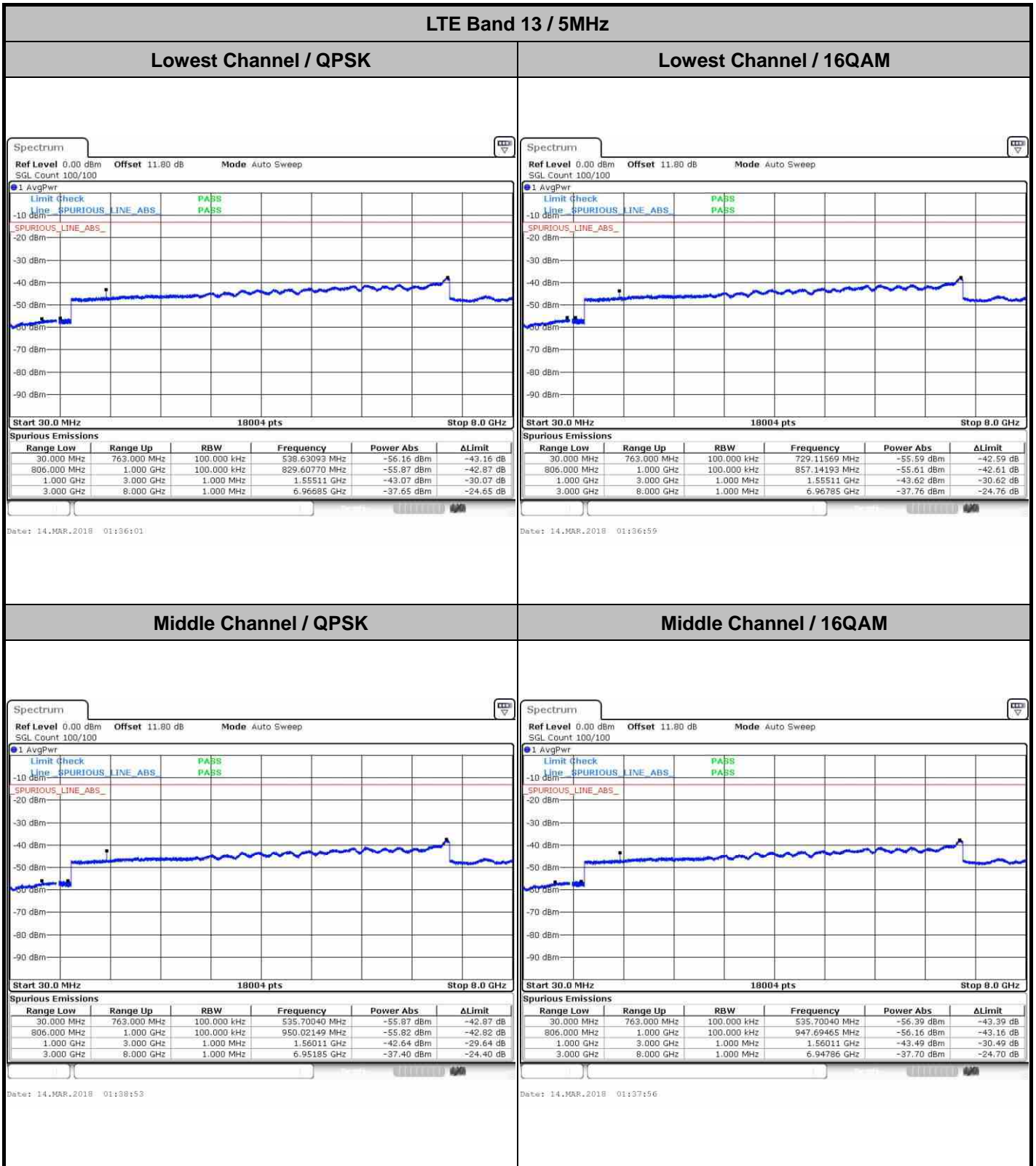
Band Edge / Full RB



Date: 14.MAR.2018 23:40:53



Conducted Spurious Emission





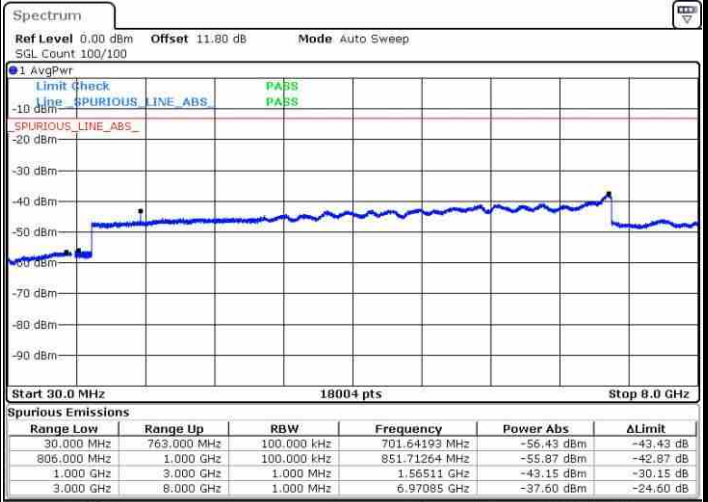
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 14.MAR.2018 01:48:03

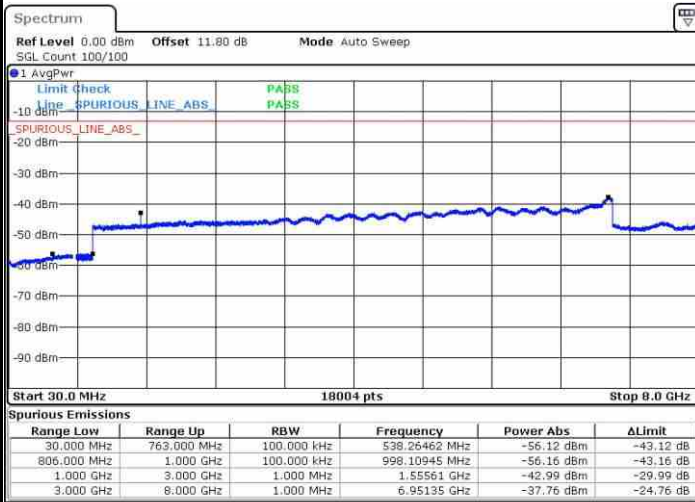
Highest Channel / 16QAM



Date: 14.MAR.2018 01:49:00

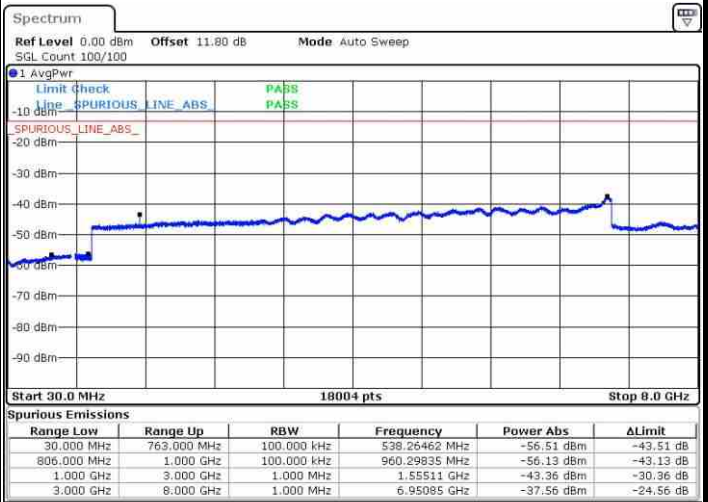
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 14.MAR.2018 02:01:39

Middle Channel / 16QAM



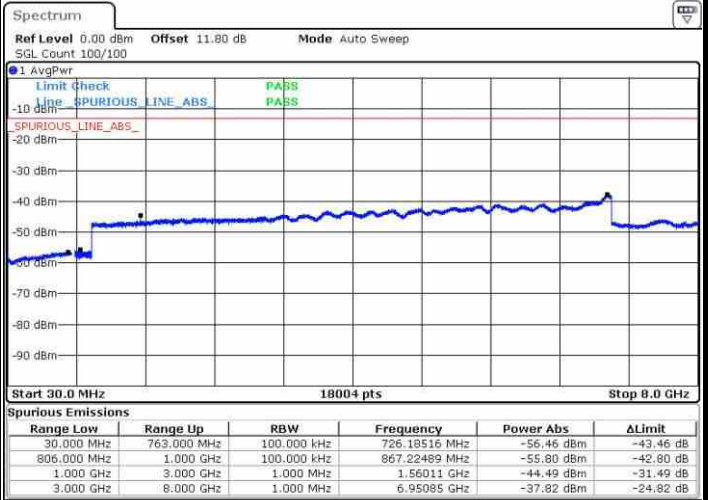
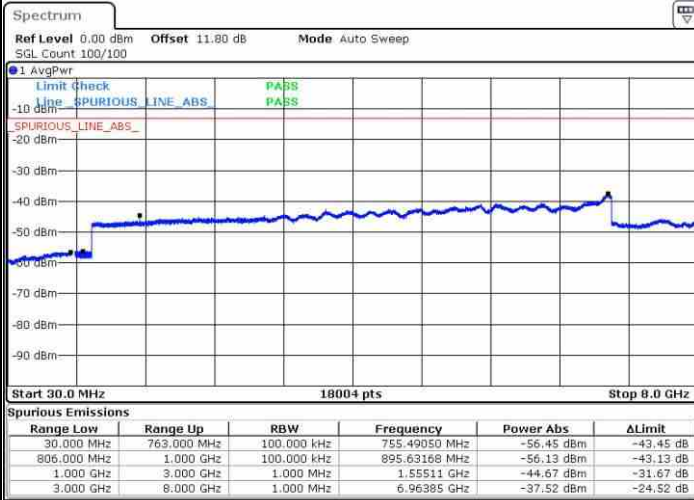
Date: 14.MAR.2018 02:00:42



LTE Band 13 / 5MHz

Lowest Channel / 64QAM

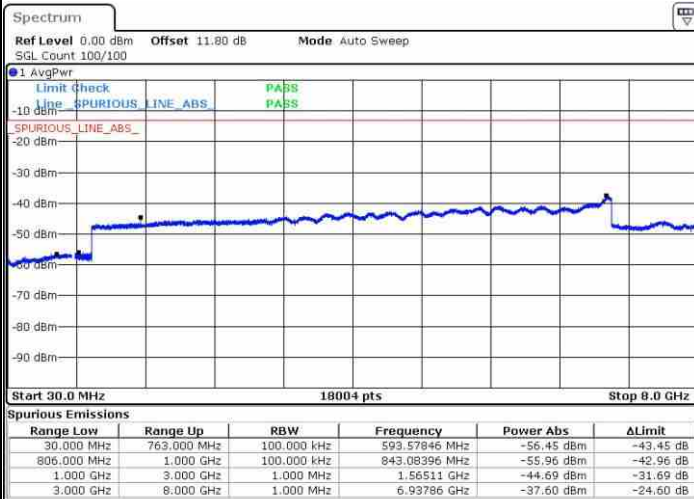
Middle Channel / 64QAM



Date: 14.MAR.2018 23:17:32

Date: 14.MAR.2018 23:18:30

Highest Channel / 64QAM



Date: 14.MAR.2018 23:23:34