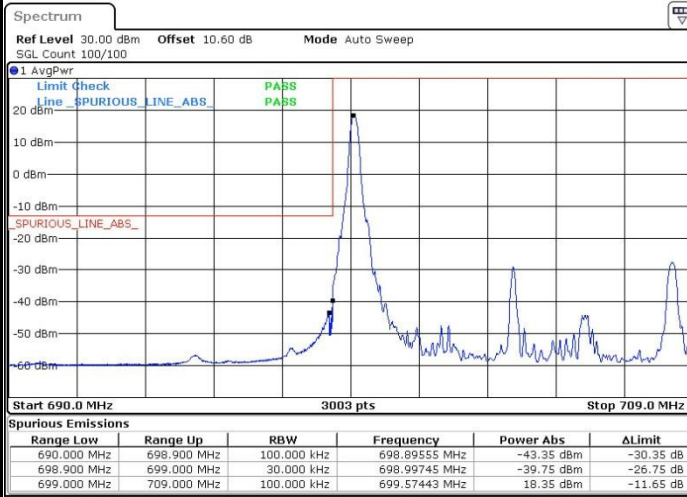




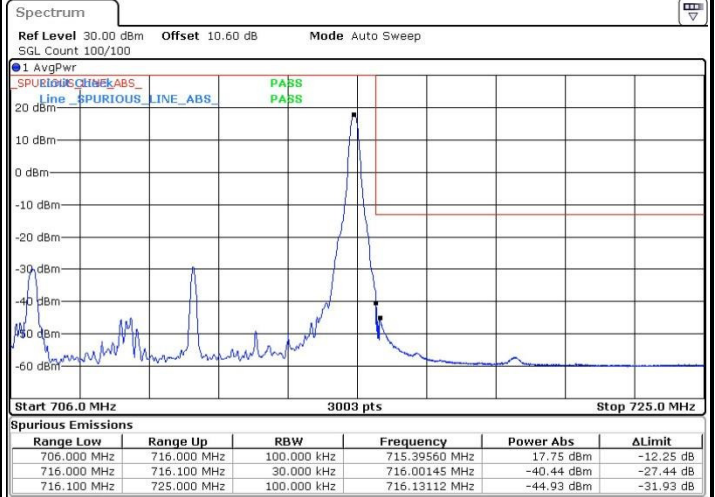
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



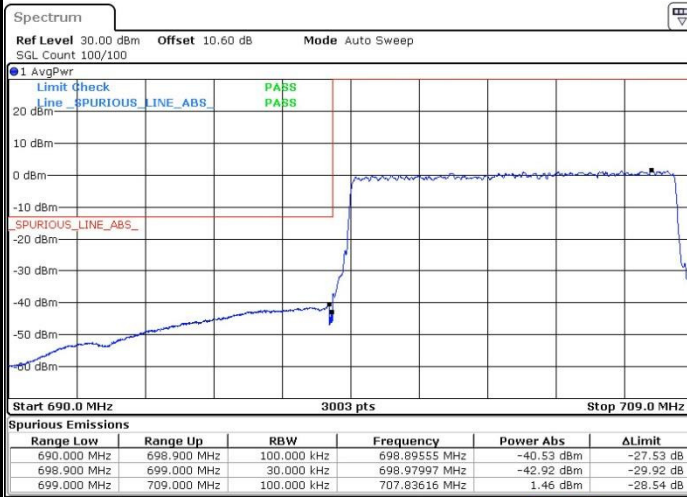
Date: 28 APR 2017 14:11:20

Highest Band Edge / 1 RB



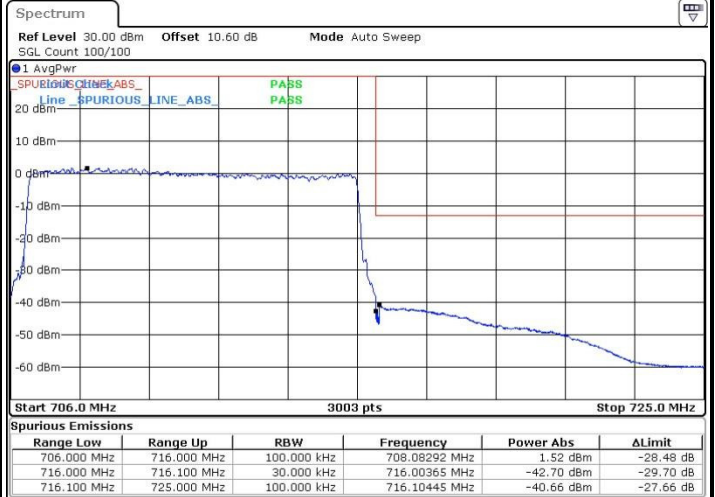
Date: 28 APR 2017 14:16:08

Lowest Band Edge / Full RB



Date: 28 APR 2017 14:10:11

Highest Band Edge / Full RB



Date: 28 APR 2017 14:14:59

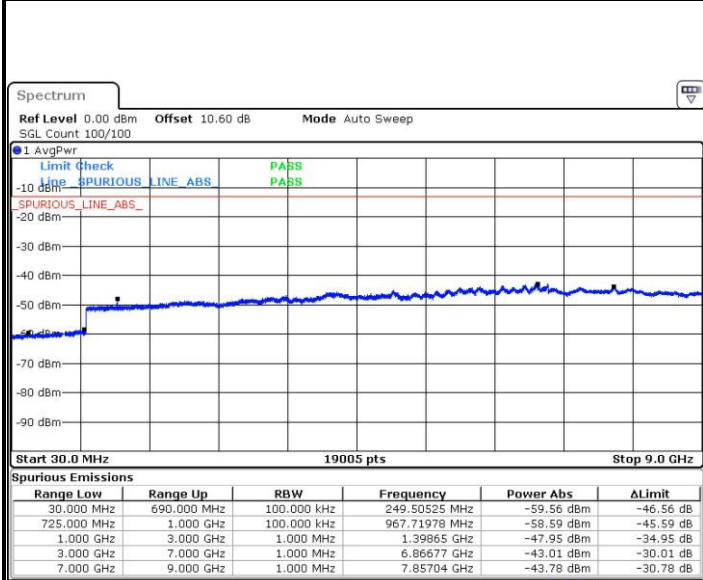


Conducted Spurious Emission



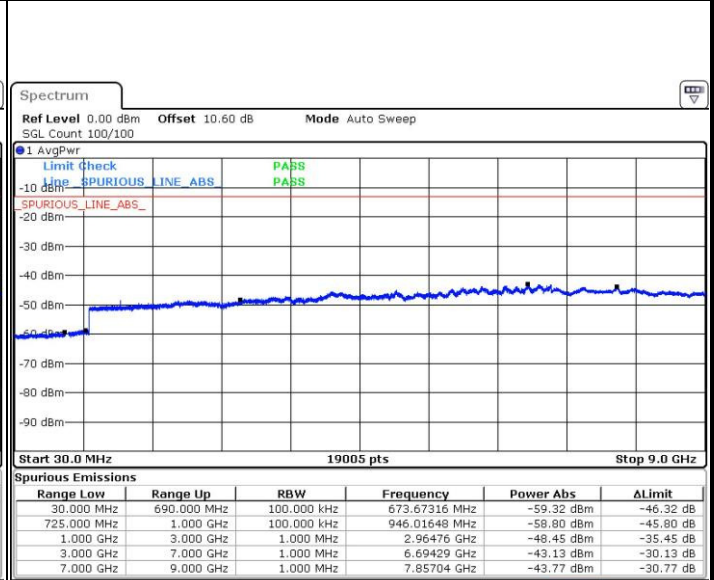
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



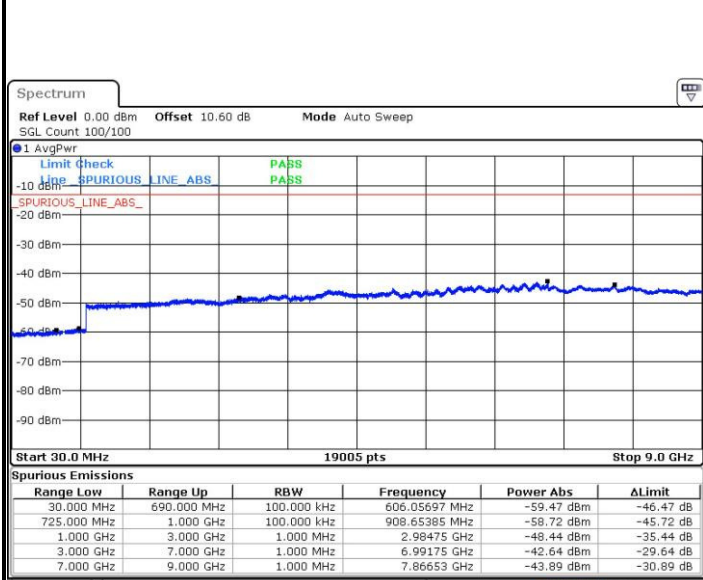
Date: 21 APR 2017 19:05:51

Lowest Channel / 16QAM



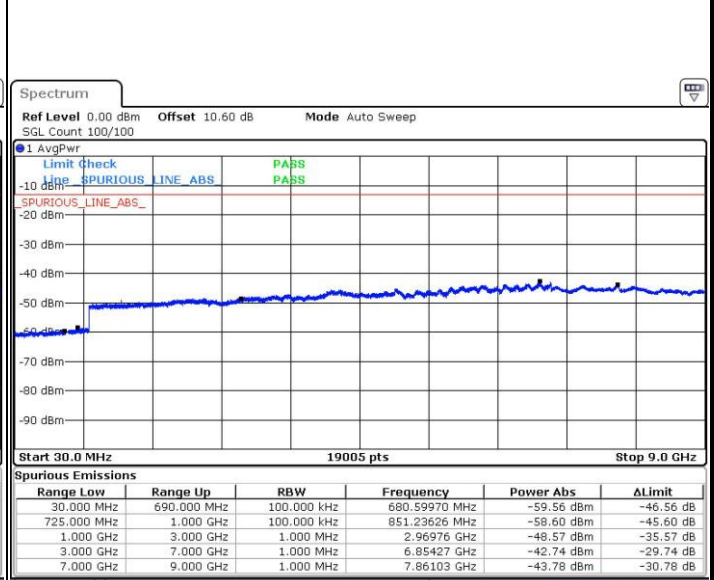
Date: 21 APR 2017 19:06:45

Middle Channel / QPSK



Date: 21 APR 2017 19:09:15

Middle Channel / 16QAM

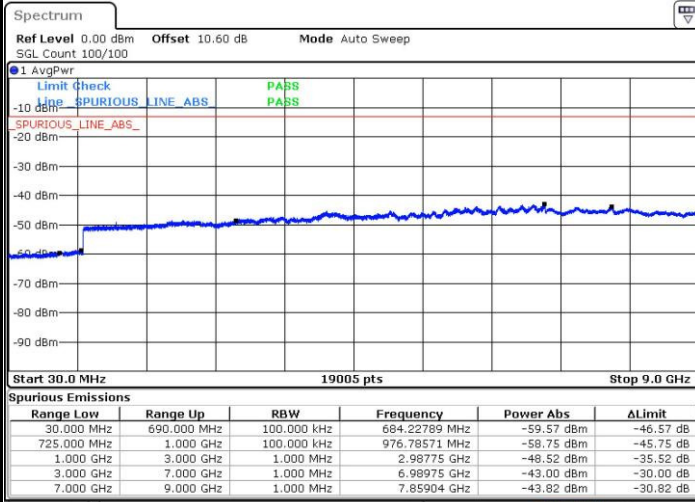


Date: 21 APR 2017 19:08:21



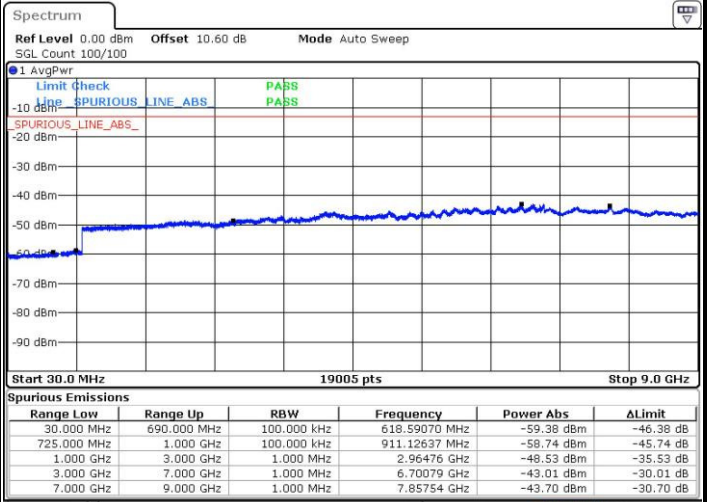
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 21 APR 2017 19:15:28

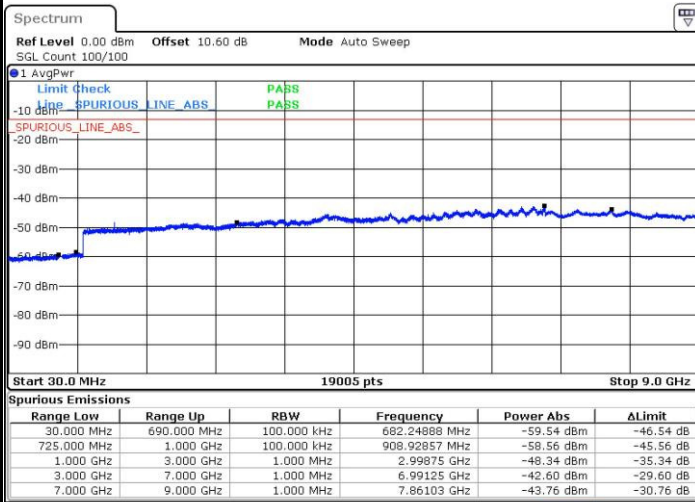
Highest Channel / 16QAM



Date: 21 APR 2017 19:16:22

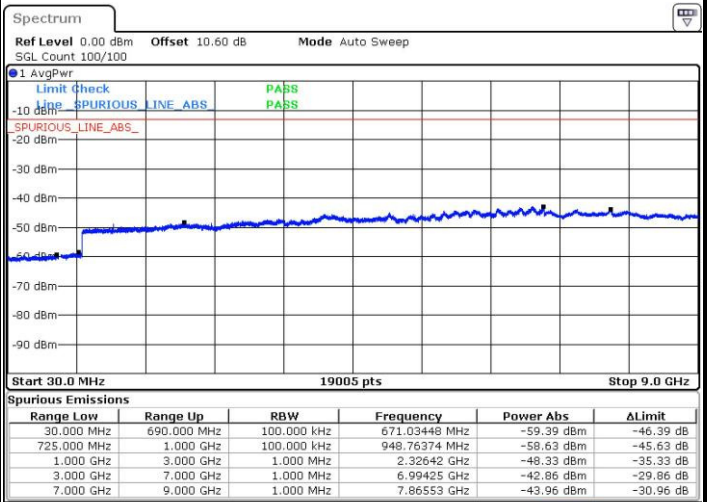
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 21 APR 2017 18:02:06

Lowest Channel / 16QAM



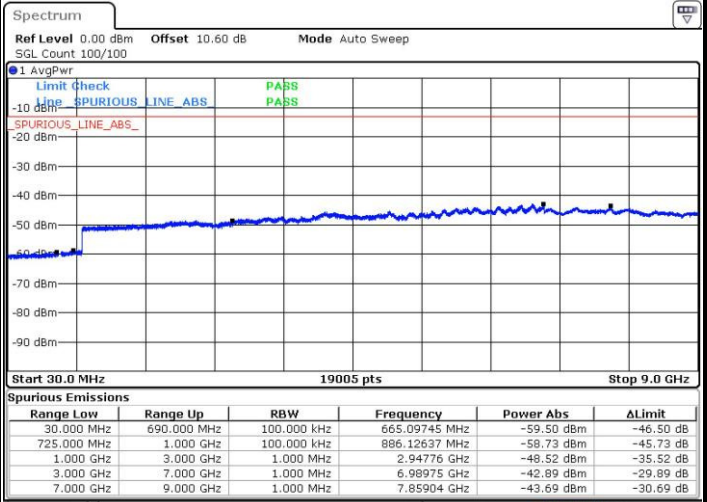
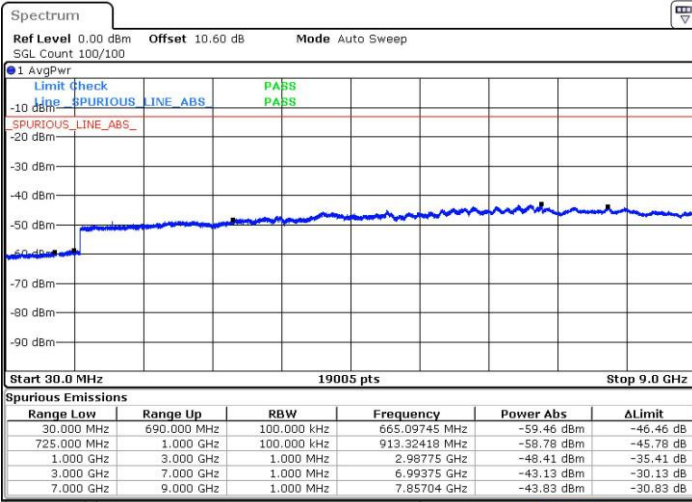
Date: 21 APR 2017 18:03:00



LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

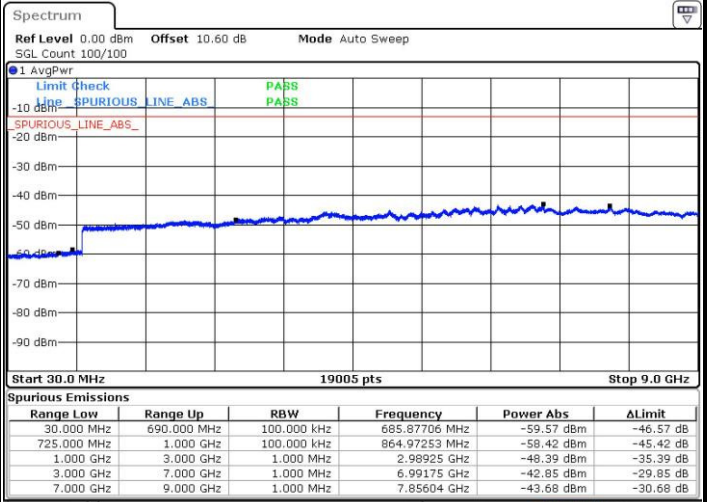
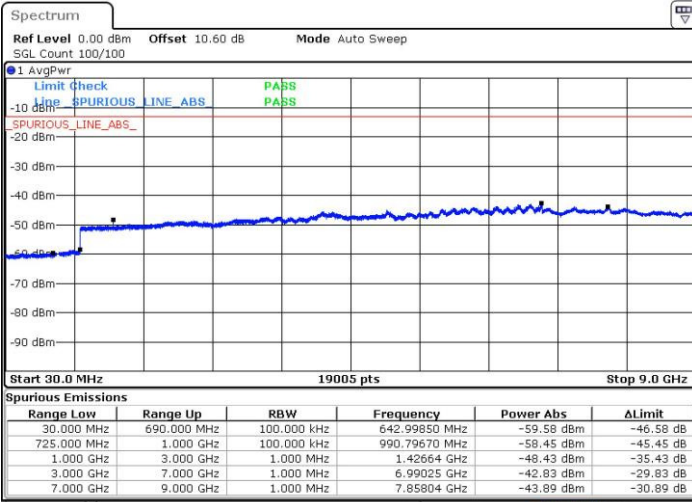


Date: 21 APR 2017 18:05:29

Date: 21 APR 2017 18:04:35

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 21 APR 2017 18:11:41

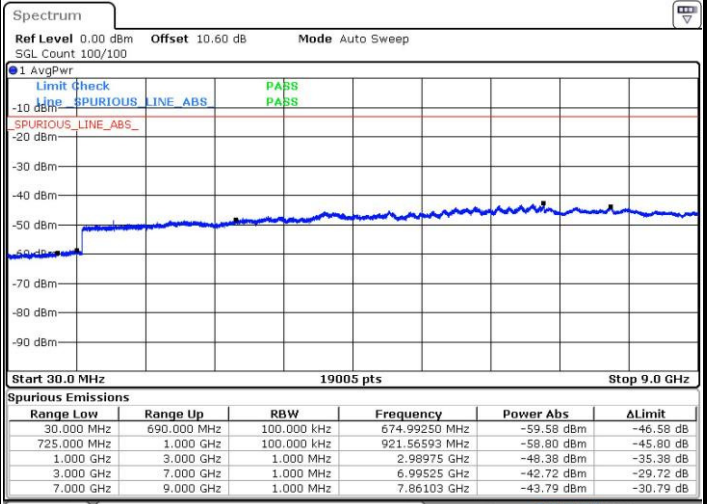
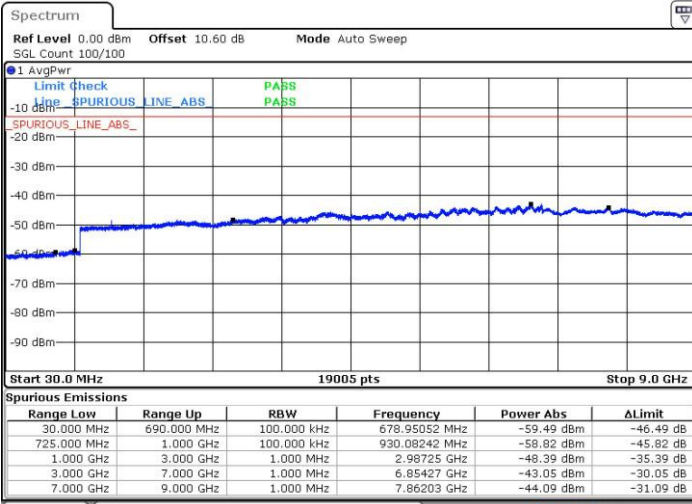
Date: 21 APR 2017 18:12:35



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

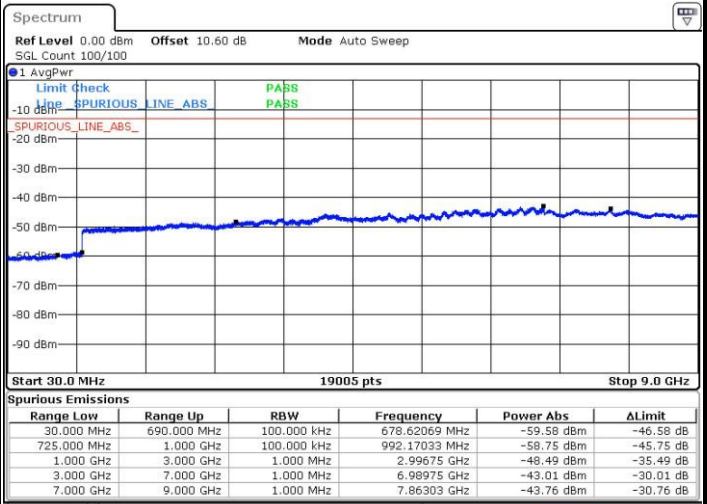
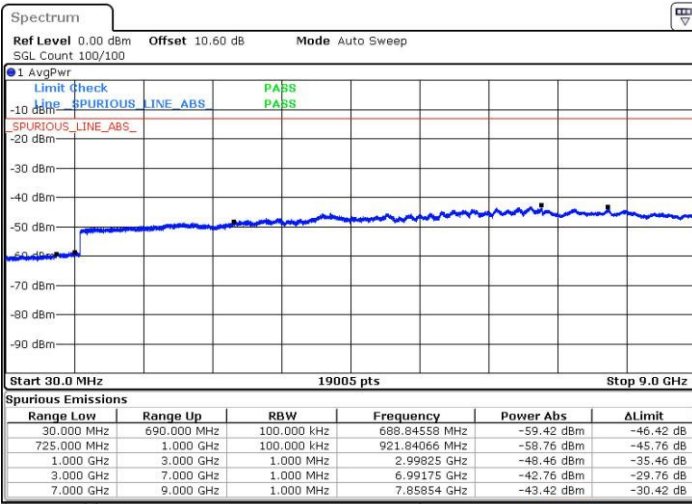


Date: 21 APR 2017 18:18:47

Date: 21 APR 2017 18:19:41

Middle Channel / QPSK

Middle Channel / 16QAM



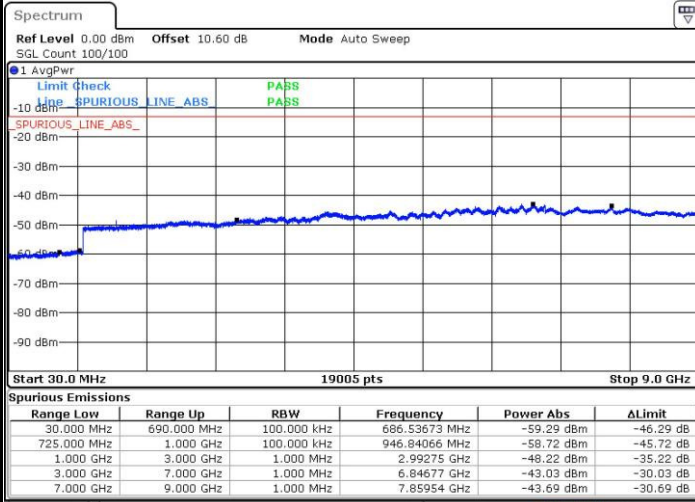
Date: 21 APR 2017 18:22:10

Date: 21 APR 2017 18:21:16



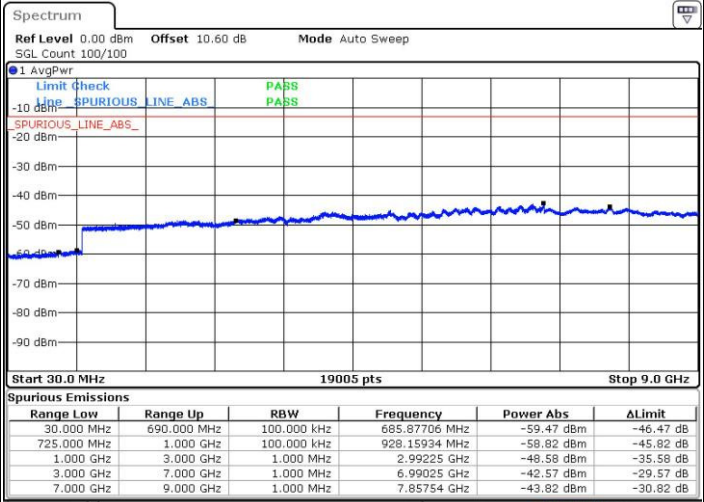
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 21 APR 2017 18:29:16

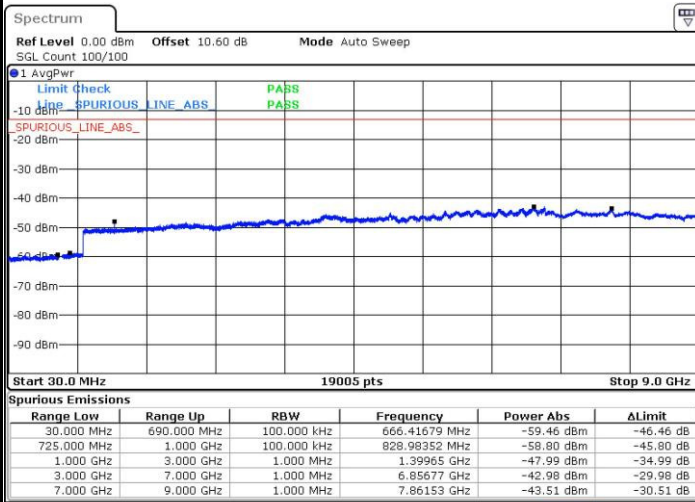
Highest Channel / 16QAM



Date: 21 APR 2017 18:28:22

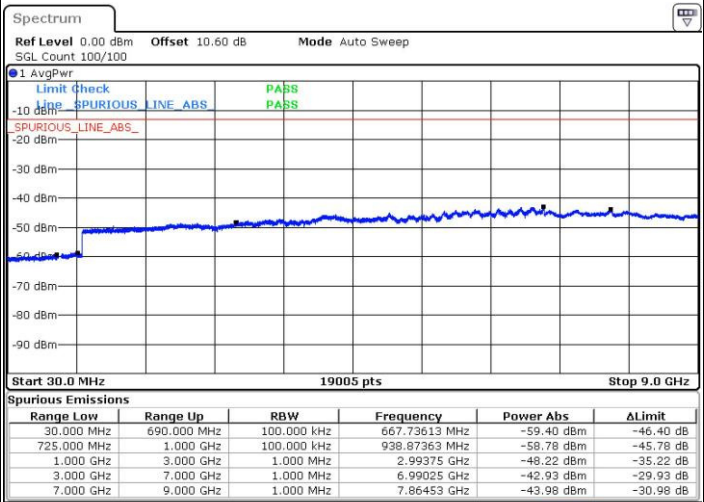
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 21 APR 2017 18:35:28

Lowest Channel / 16QAM



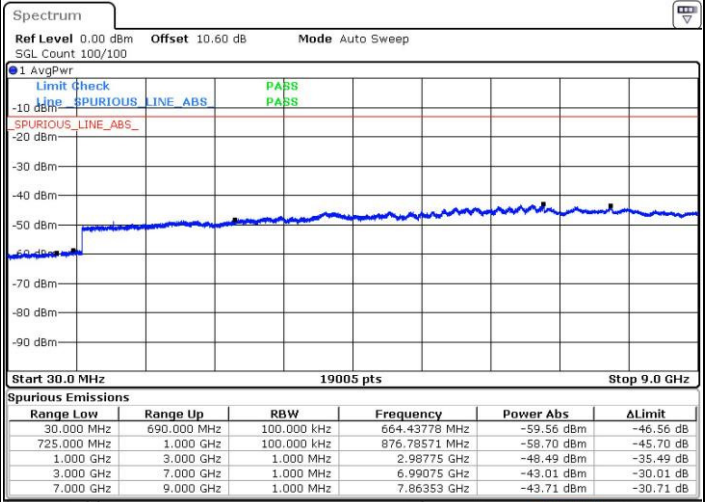
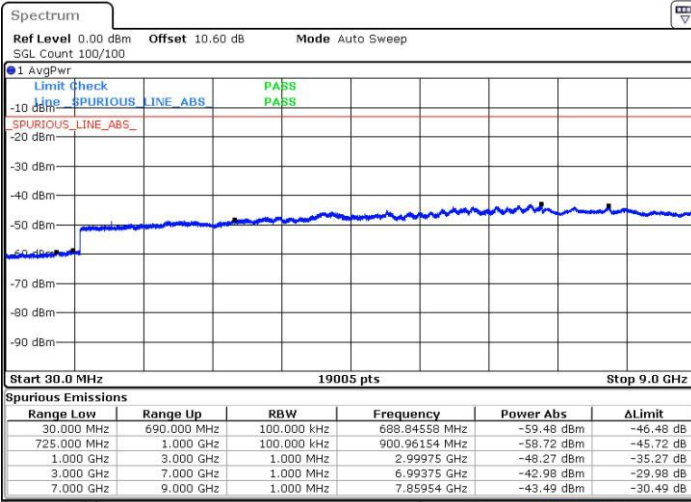
Date: 21 APR 2017 18:36:22



LTE Band 12 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

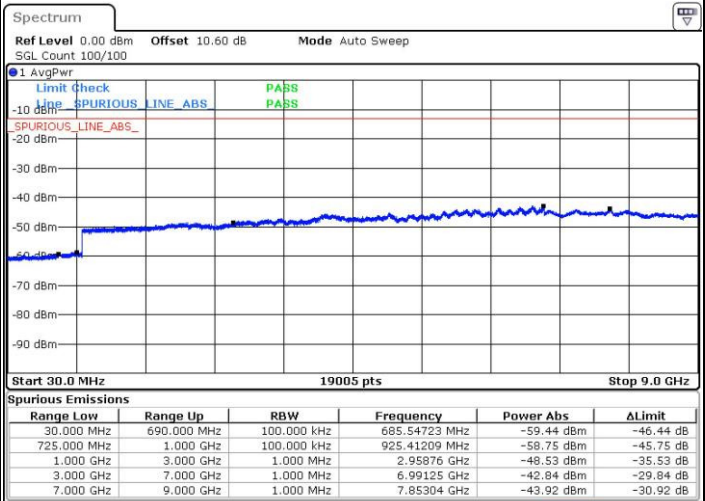
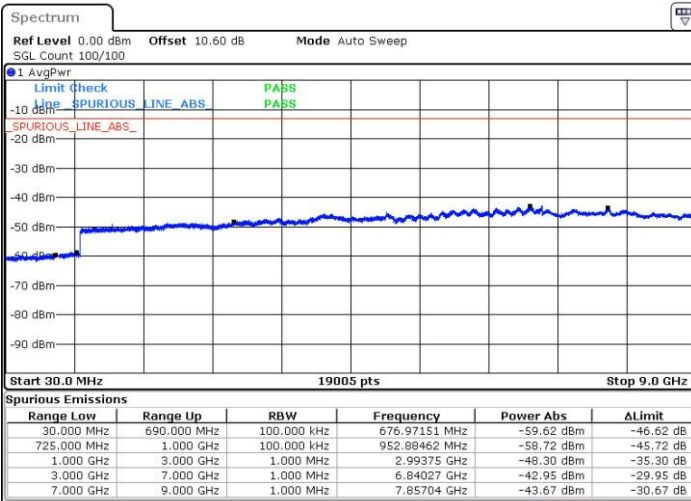


Date: 21 APR 2017 18:38:52

Date: 21 APR 2017 18:37:57

Highest Channel / QPSK

Highest Channel / 16QAM

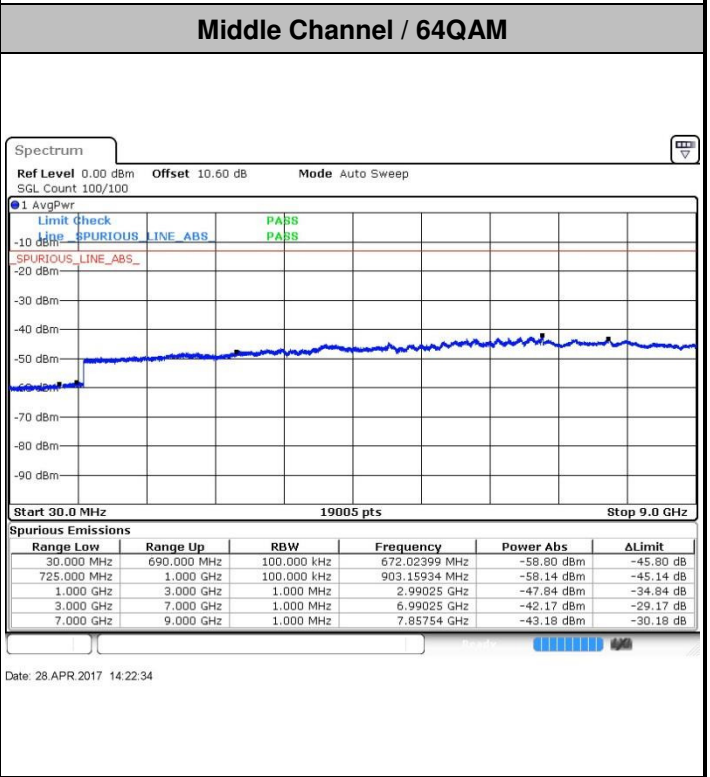
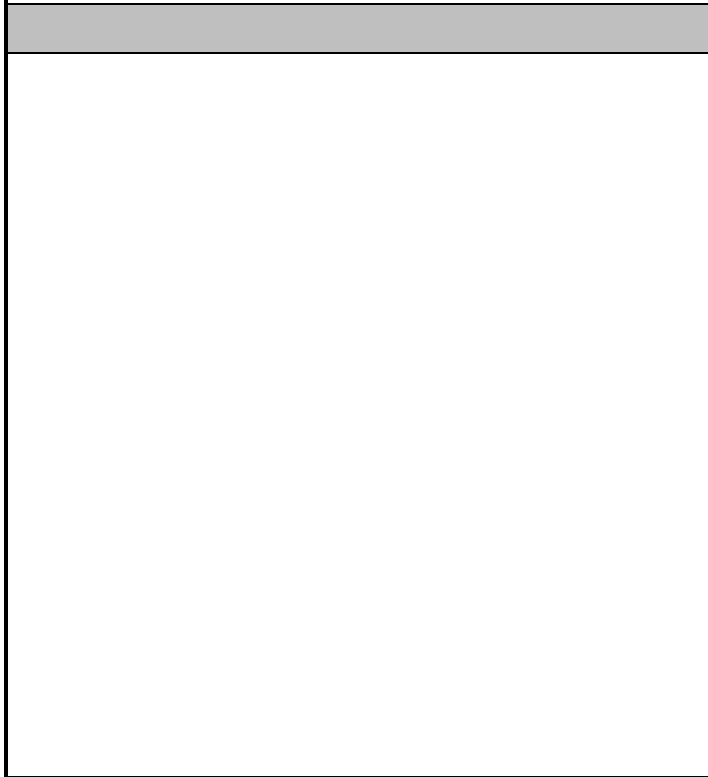
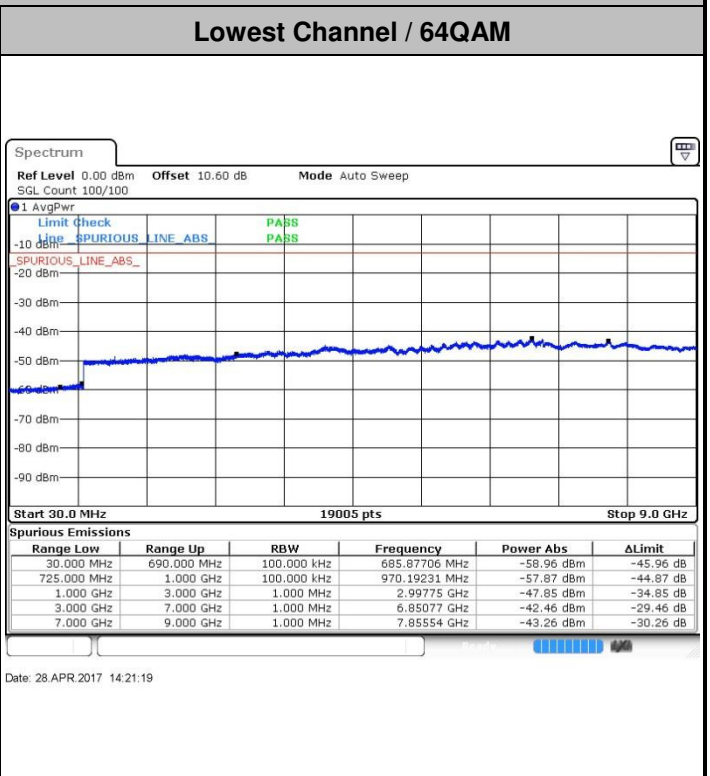
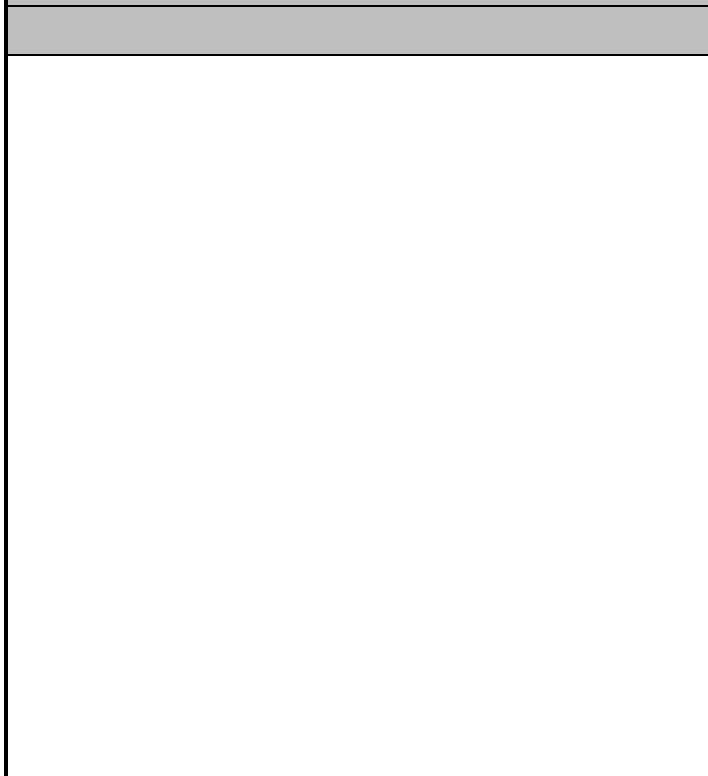


Date: 21 APR 2017 18:45:03

Date: 21 APR 2017 18:45:57



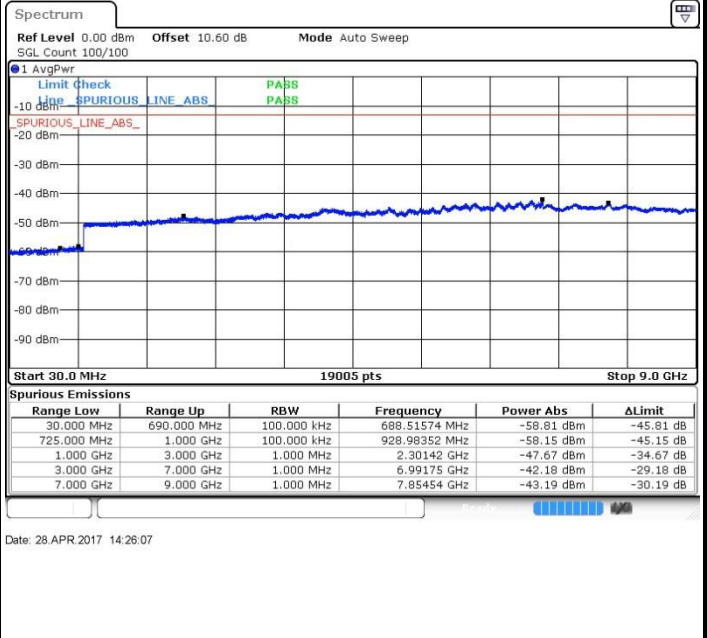
LTE Band 12 / 1.4MHz





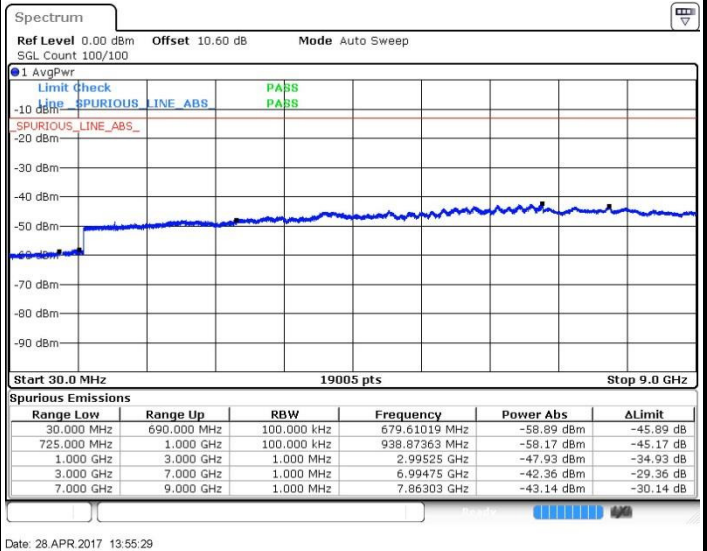
LTE Band 12 / 1.4MHz

Highest Channel / 64QAM



LTE Band 12 / 3MHz

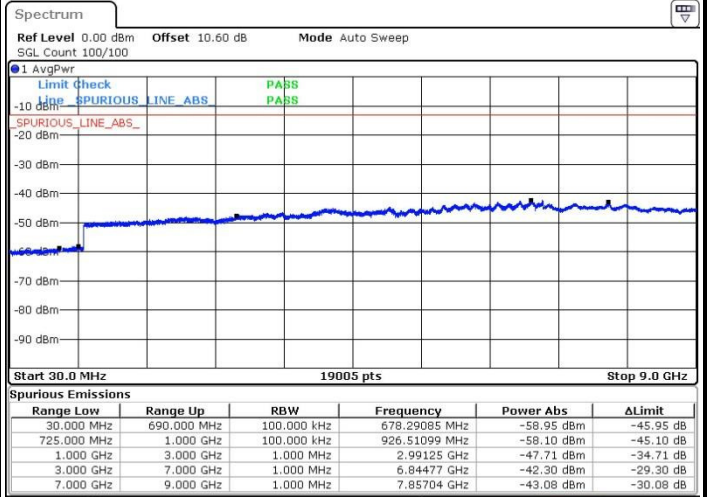
Lowest Channel / 64QAM





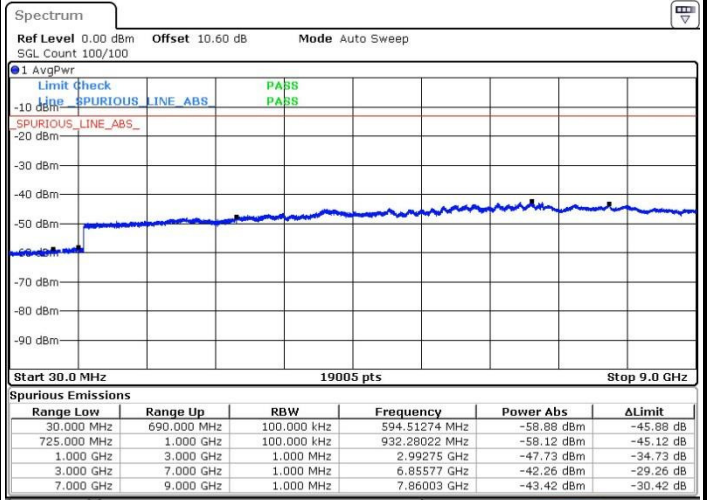
LTE Band 12 / 3MHz

Middle Channel / 64QAM



Date: 28.APR.2017 13:56:45

Highest Channel / 64QAM

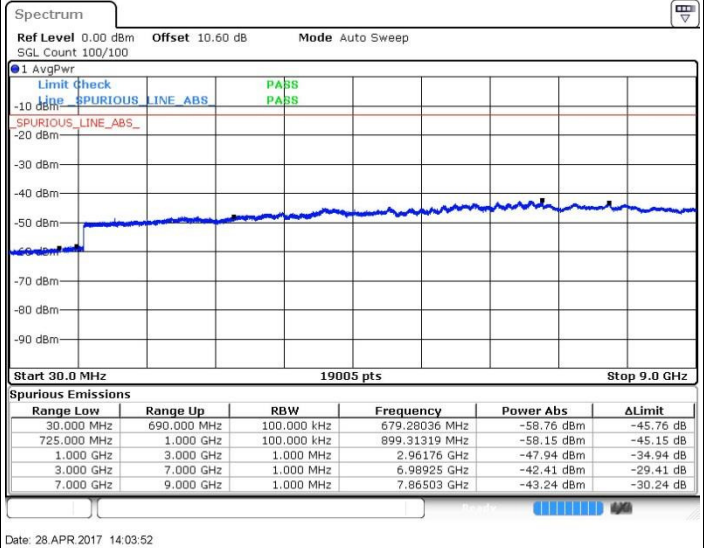


Date: 28.APR.2017 14:00:18

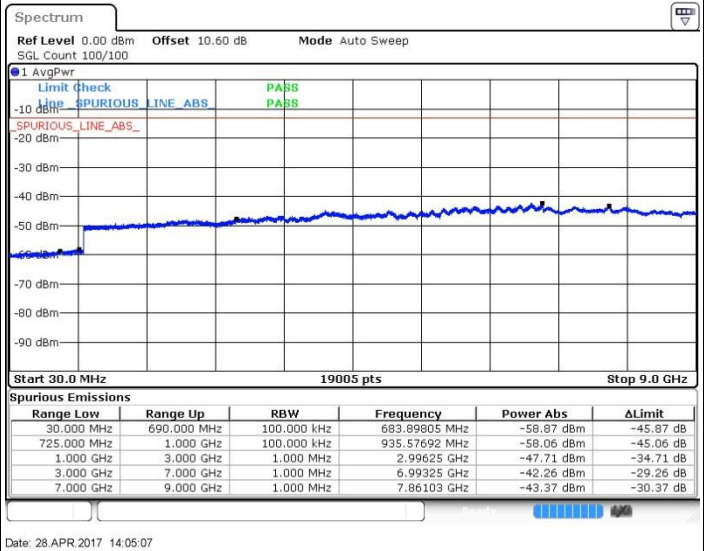


LTE Band 12 / 5MHz

Lowest Channel / 64QAM



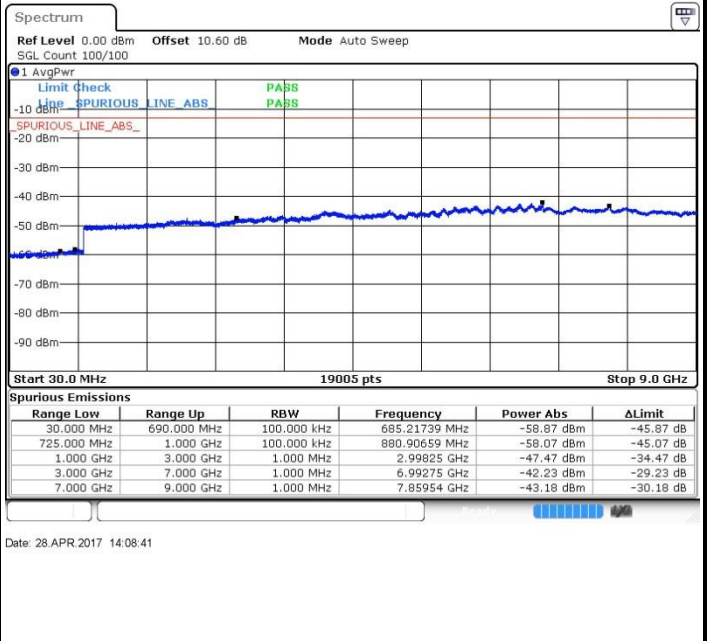
Middle Channel / 64QAM





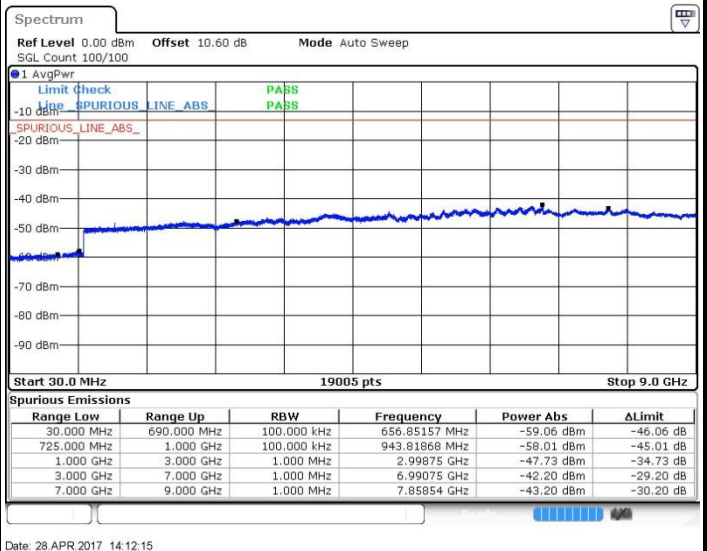
LTE Band 12 / 5MHz

Highest Channel / 64QAM



LTE Band 12 / 10MHz

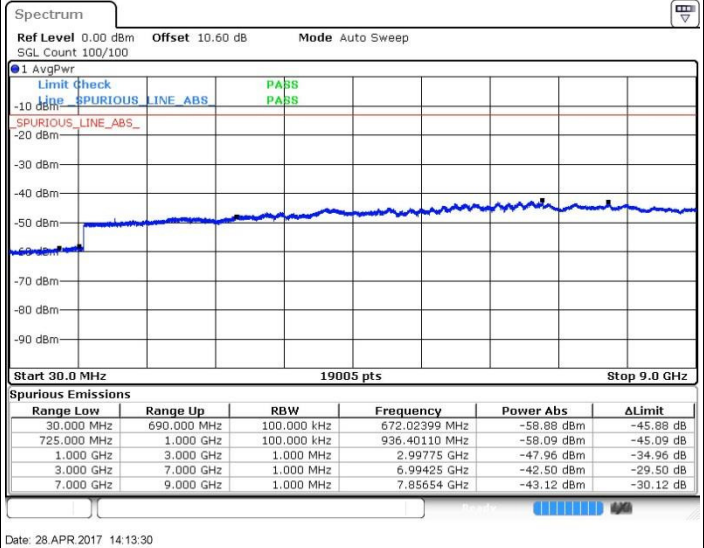
Lowest Channel / 64QAM



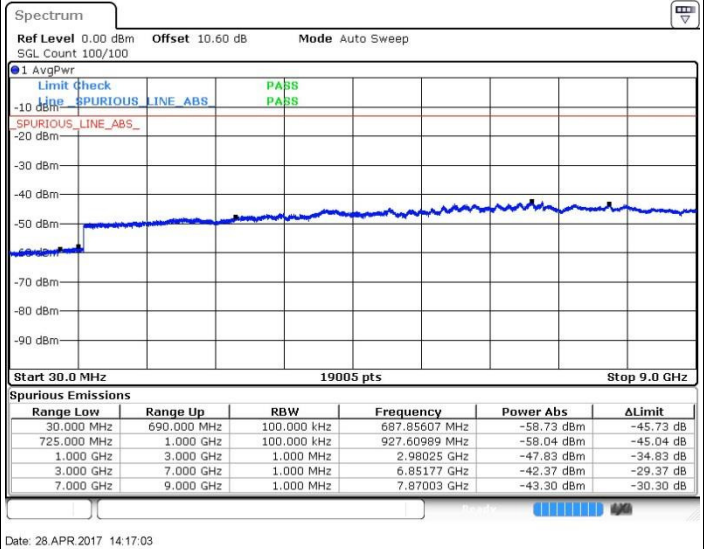


LTE Band 12 / 10MHz

Middle Channel / 64QAM



Highest Channel / 64QAM





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	0.0069	PASS
40	Normal Voltage	0.0061	
30	Normal Voltage	0.0010	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0008	
0	Normal Voltage	0.0014	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0004	
-30	Normal Voltage	0.0078	
20	Maximum Voltage	0.0033	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0024	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.35 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	4.64	4.99	5.19	5.91	
Highest CH	-	-	-	-	
Mod.	-		64QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	-	-	5.16	6	
Highest CH	-	-	-	-	



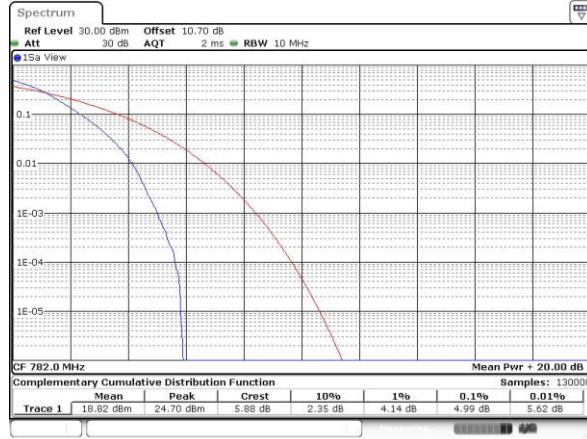
LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 21 APR 2017 17:14:39

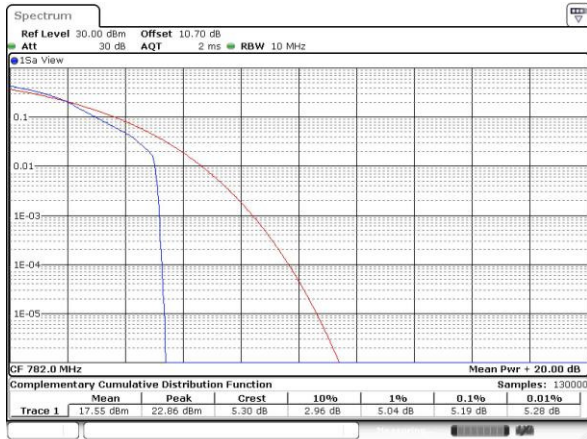
Middle Channel / Full RB



Date: 21 APR 2017 17:14:49

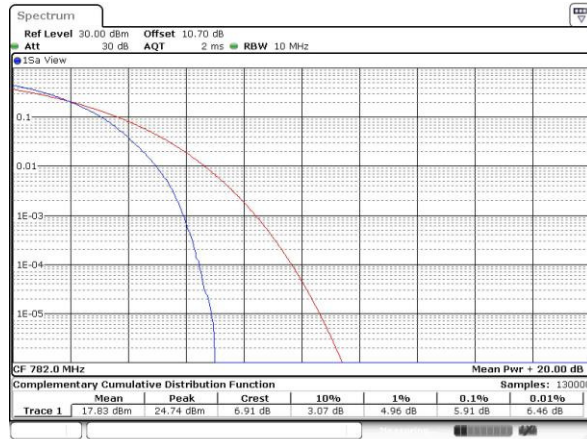
LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Date: 21 APR 2017 17:14:08

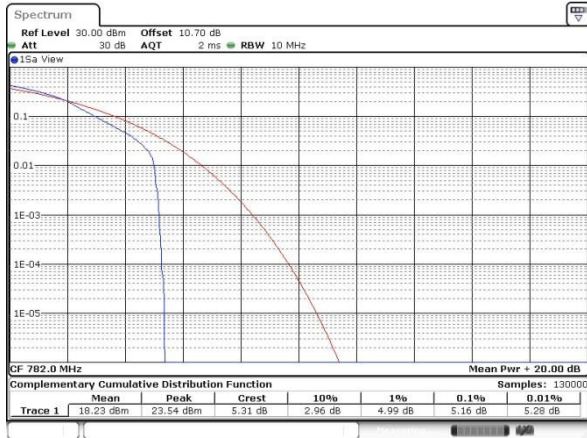
Middle Channel / Full RB



Date: 21 APR 2017 17:14:18

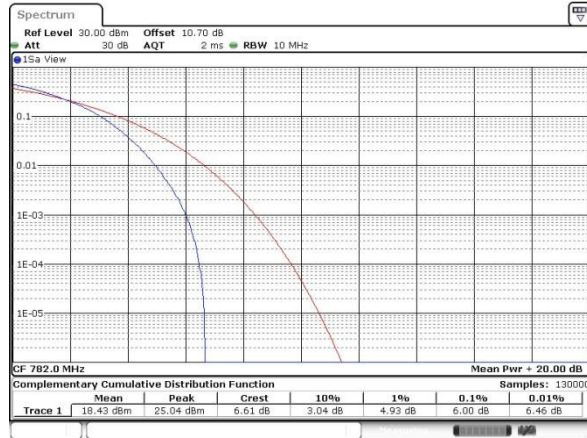
LTE Band 13 / 10MHz / 64QAM

Middle Channel/ 1RB



Date: 28 APR 2017 15:20:23

Middle Channel / Full RB



Date: 28 APR 2017 15:20:33



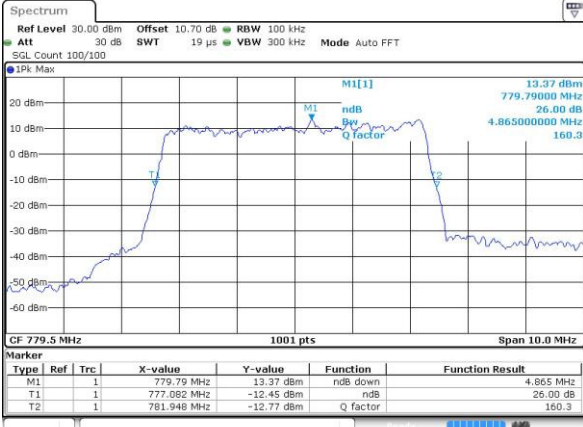
26dB Bandwidth

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	-	-	-	-	4.865	4.905	-	-	-	-	-	-
Middle CH	-	-	-	-	4.885	4.935	9.87	9.71	-	-	-	-
Highest CH	-	-	-	-	4.845	4.885	-	-	-	-	-	-
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM
Lowest CH	-	-	-	-	-	4.905	-	-	-	-	-	-
Middle CH	-	-	-	-	-	4.765	-	9.73	-	-	-	-
Highest CH	-	-	-	-	-	4.945	-	-	-	-	-	-



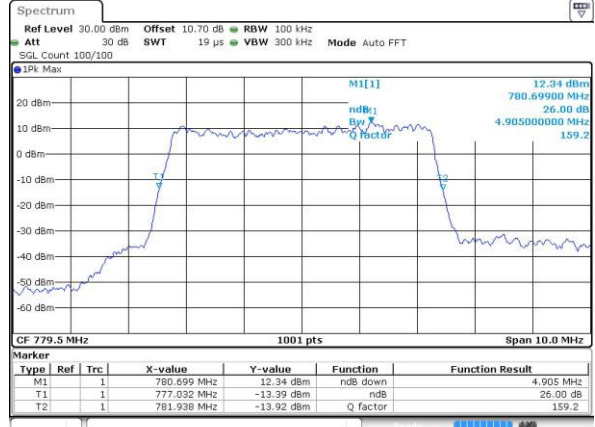
LTE Band 13

Lowest Channel / 5MHz / QPSK



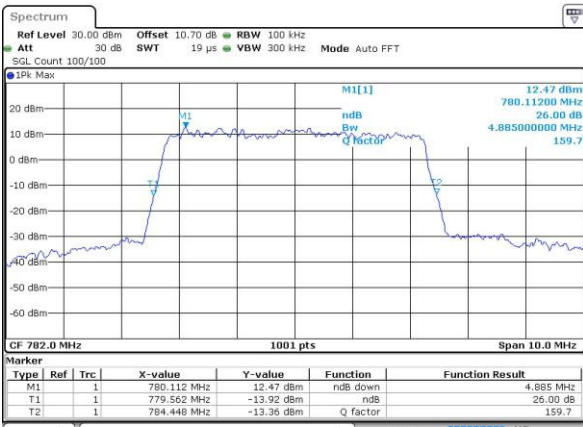
Date: 21 APR 2017 16:41:22

Lowest Channel / 5MHz / 16QAM



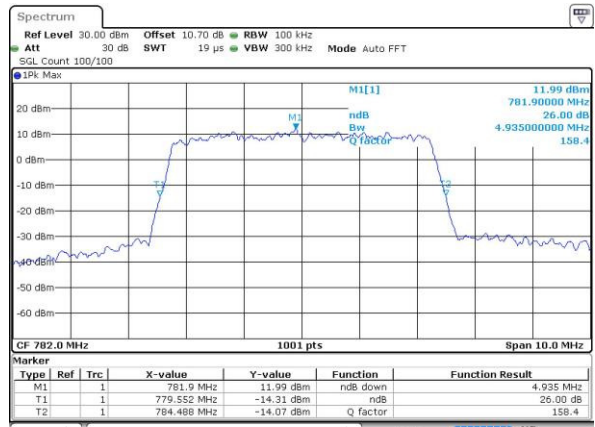
Date: 21 APR 2017 16:41:12

Middle Channel / 5MHz / QPSK



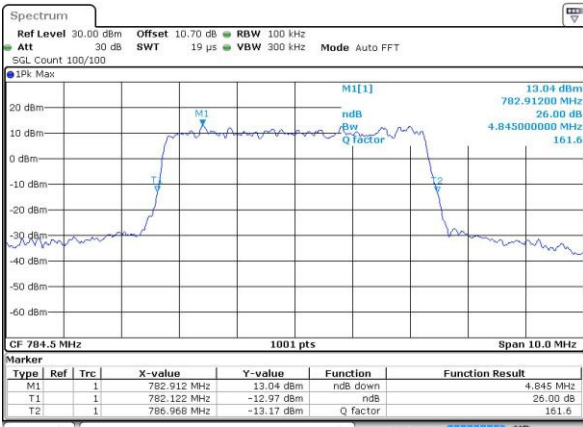
Date: 21 APR 2017 16:51:46

Middle Channel / 5MHz / 16QAM



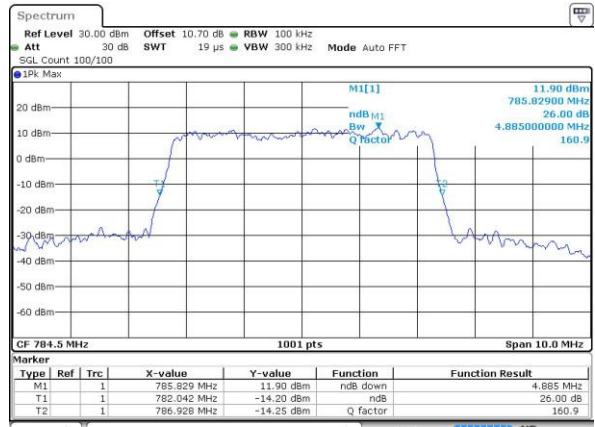
Date: 21 APR 2017 16:51:57

Highest Channel / 5MHz / QPSK



Date: 21 APR 2017 16:53:00

Highest Channel / 5MHz / 16QAM

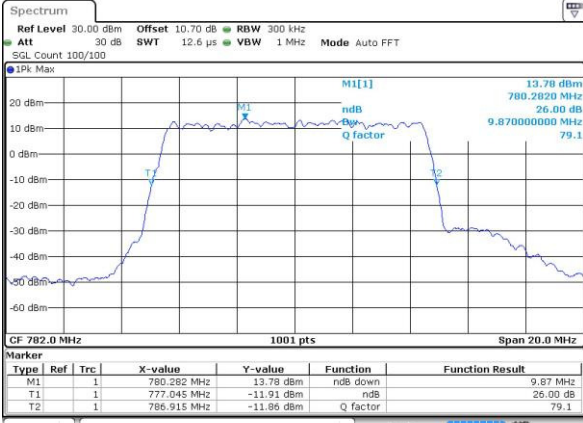


Date: 21 APR 2017 16:52:49



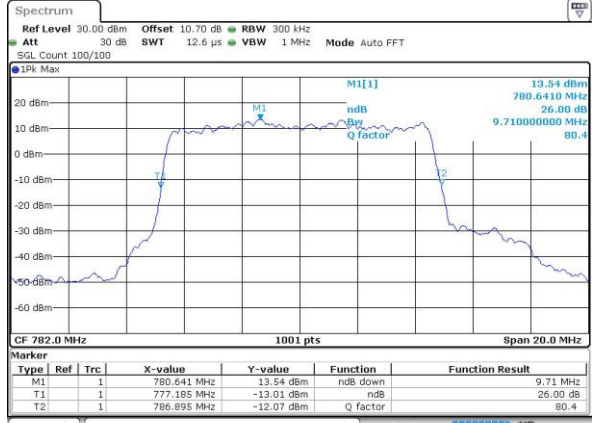
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 21 APR 2017 17:02:07

Middle Channel / 10MHz / 16QAM

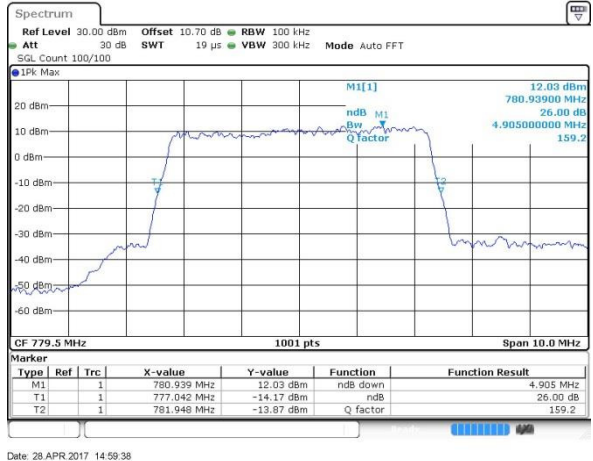


Date: 21 APR 2017 17:01:56

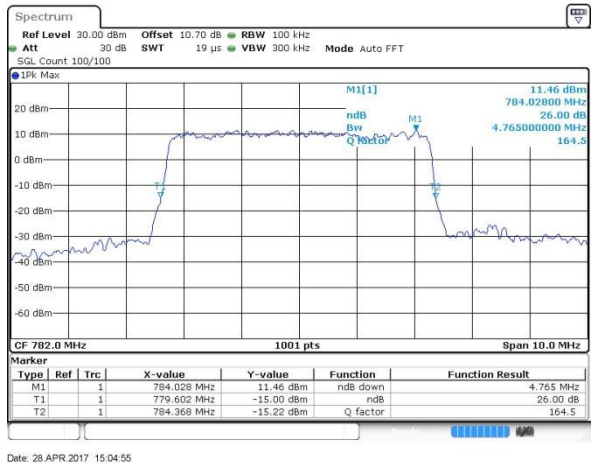


LTE Band 13

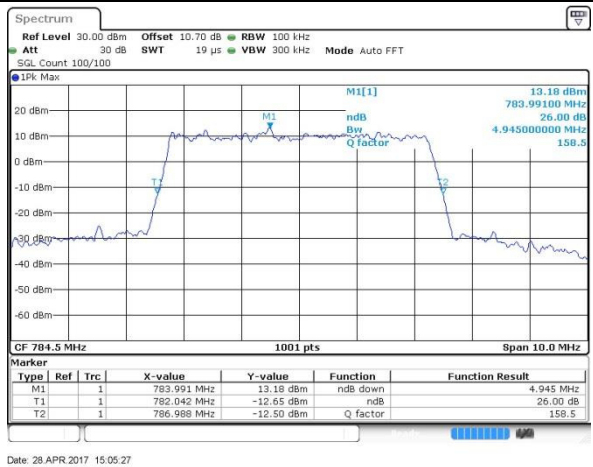
Lowest Channel / 5MHz / 64QAM



Middle Channel / 5MHz / 64QAM



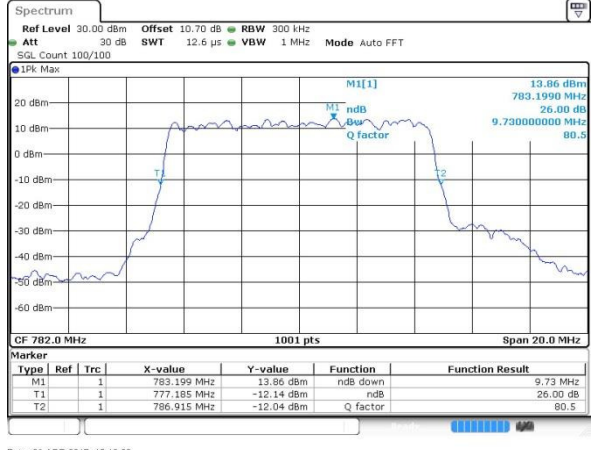
Highest Channel / 5MHz / 64QAM





LTE Band 13

Middle Channel / 10MHz / 64QAM



Date: 28 APR 2017 15:10:00



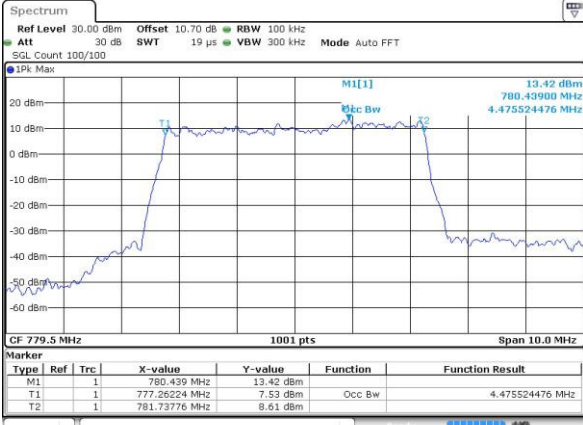
Occupied Bandwidth

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	-	-	-	-	4.48	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.48	9.01	9.01	-	-	-	-
Highest CH	-	-	-	-	4.49	4.5	-	-	-	-	-	-
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM
Lowest CH	-	-	-	-	-	4.47	-	-	-	-	-	-
Middle CH	-	-	-	-	-	4.50	-	8.97	-	-	-	-
Highest CH	-	-	-	-	-	4.49	-	-	-	-	-	-



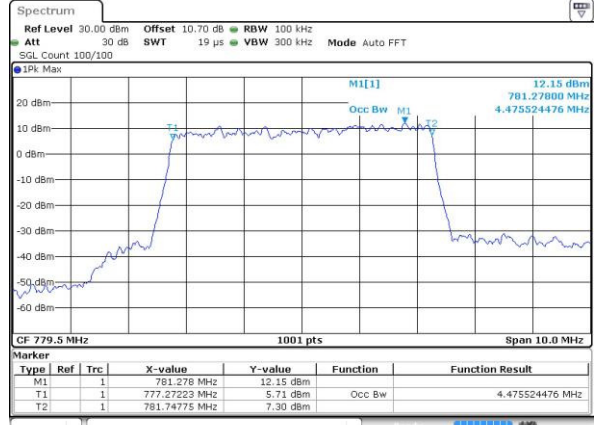
LTE Band 13

Lowest Channel / 5MHz / QPSK



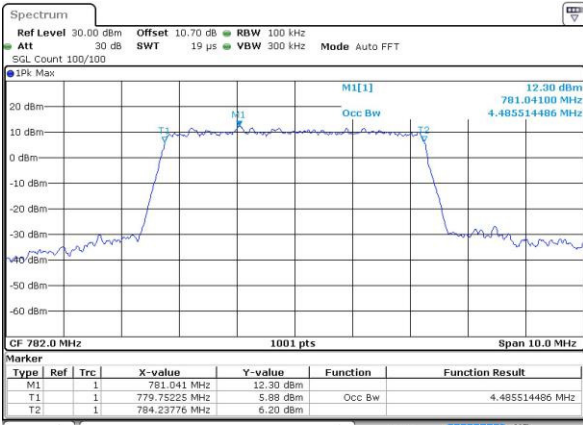
Date: 21 APR 2017 16:40:51

Lowest Channel / 5MHz / 16QAM



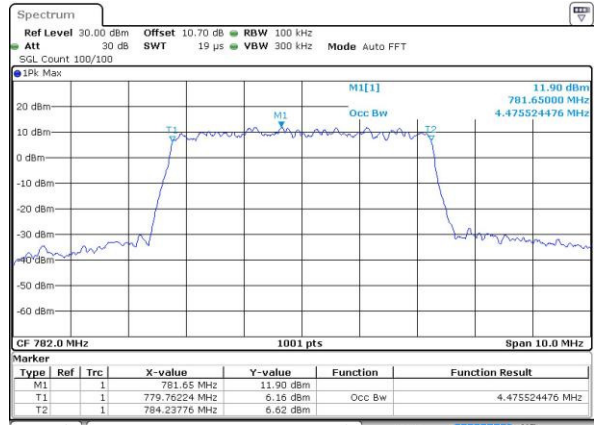
Date: 21 APR 2017 16:41:01

Middle Channel / 5MHz / QPSK



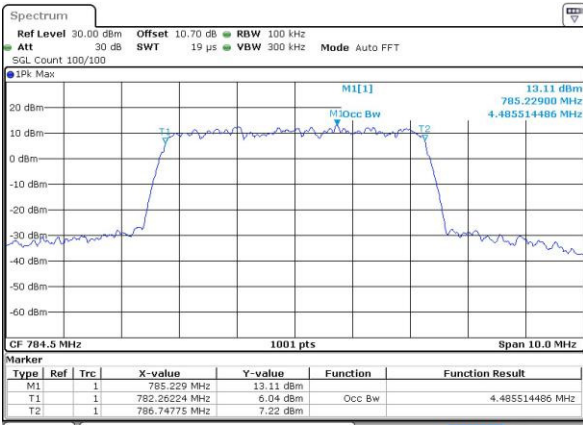
Date: 21 APR 2017 16:52:18

Middle Channel / 5MHz / 16QAM



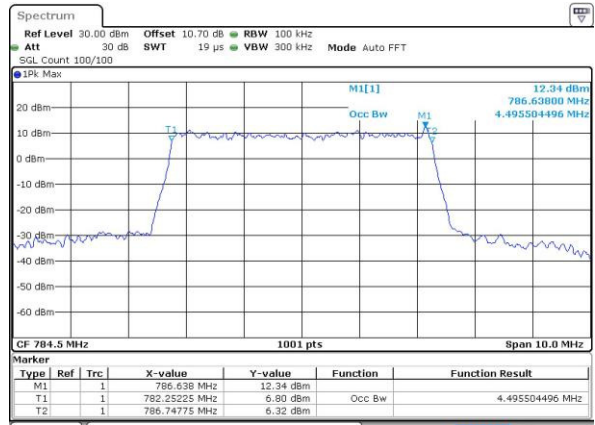
Date: 21 APR 2017 16:52:07

Highest Channel / 5MHz / QPSK



Date: 21 APR 2017 16:52:29

Highest Channel / 5MHz / 16QAM

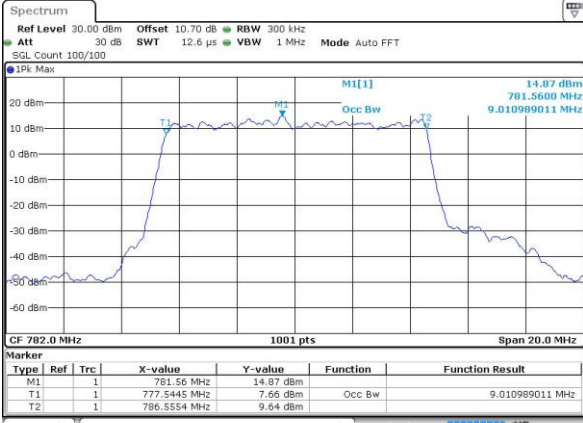


Date: 21 APR 2017 16:52:39



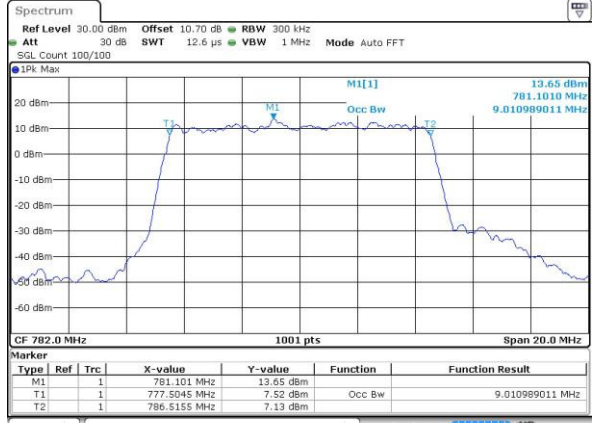
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 21 APR 2017 17:01:36

Middle Channel / 10MHz / 16QAM

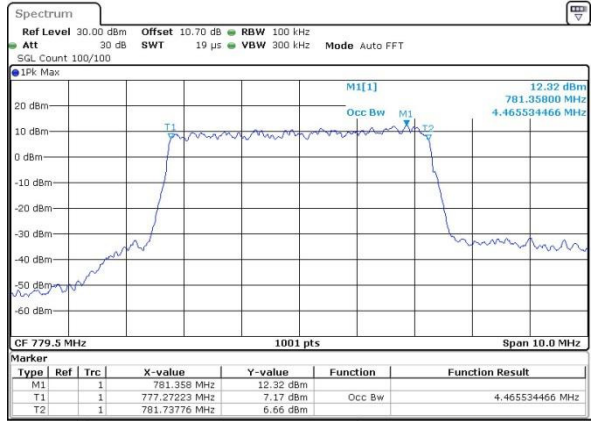


Date: 21 APR 2017 17:01:46



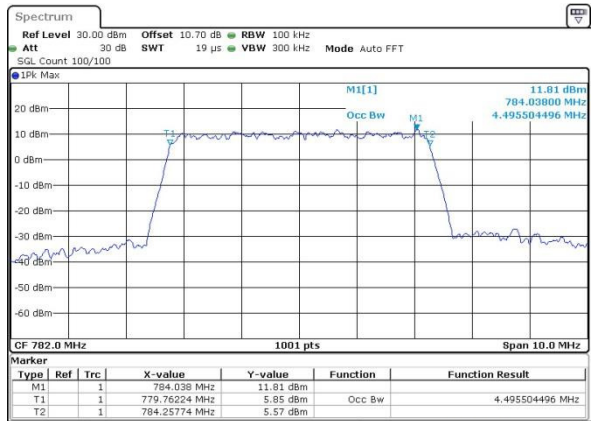
LTE Band 13

Lowest Channel / 5MHz / 64QAM



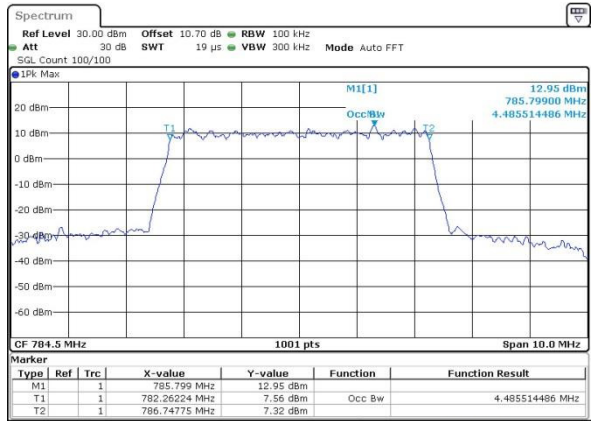
Date: 28 APR 2017 14:59:28

Middle Channel / 5MHz / 64QAM



Date: 28 APR 2017 15:05:06

Highest Channel / 5MHz / 64QAM

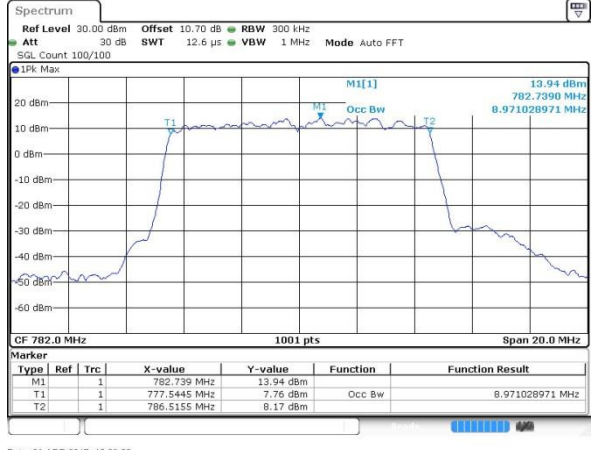


Date: 28 APR 2017 15:05:16



LTE Band 13

Middle Channel / 10MHz / 64QAM



Date: 28 APR 2017 15:09:50



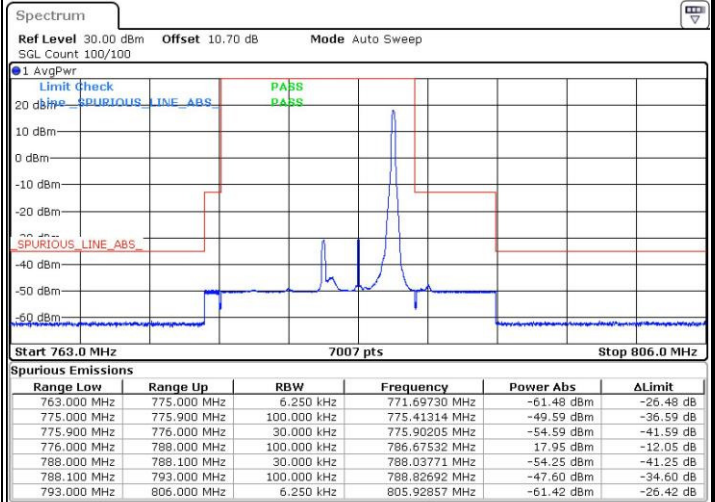
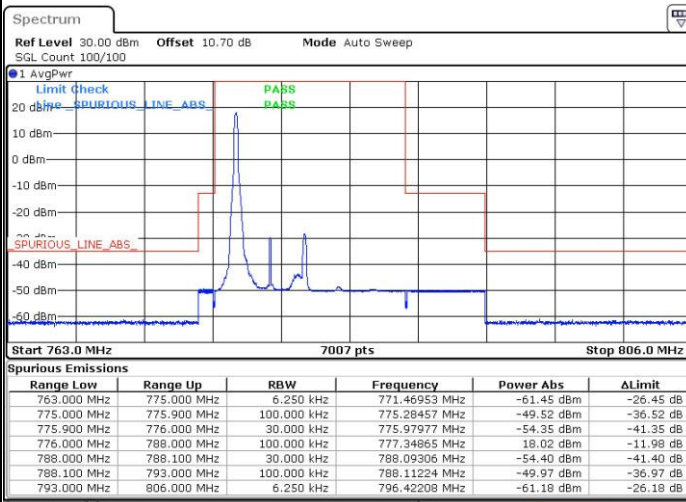
Conducted Band Edge



LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

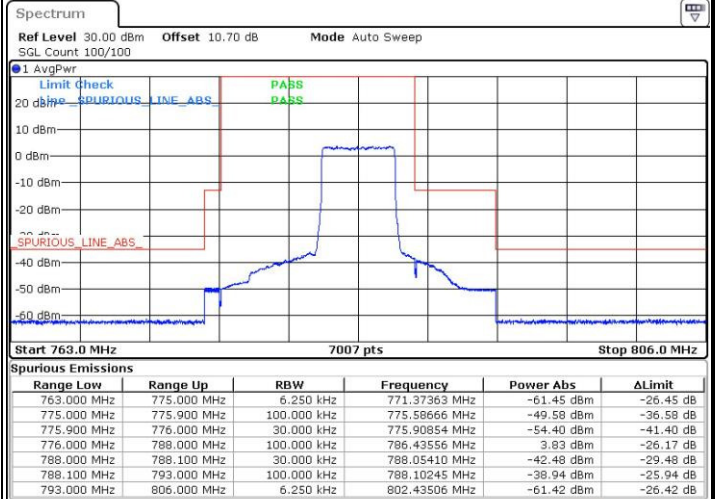
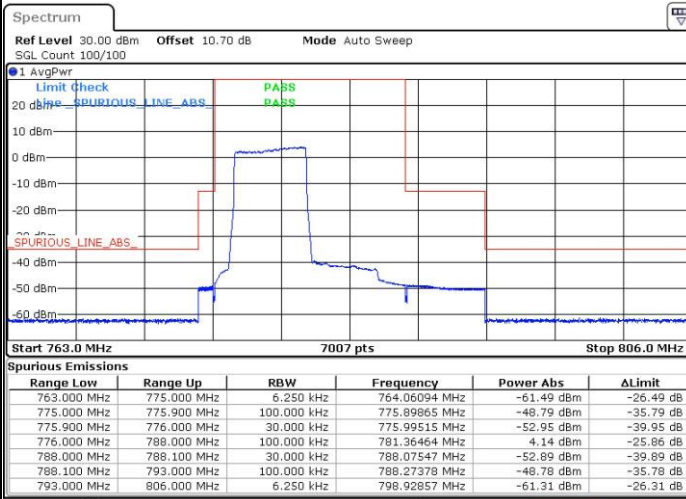


Date: 21 APR 2017 16:47:59

Date: 21 APR 2017 16:59:37

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 21 APR 2017 16:43:01

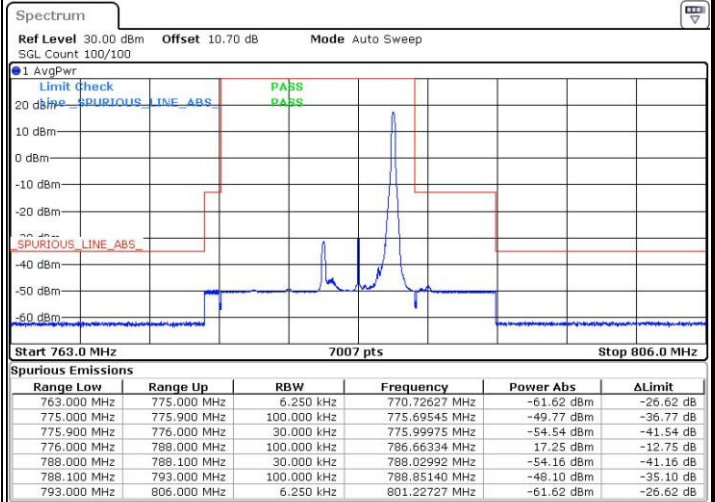
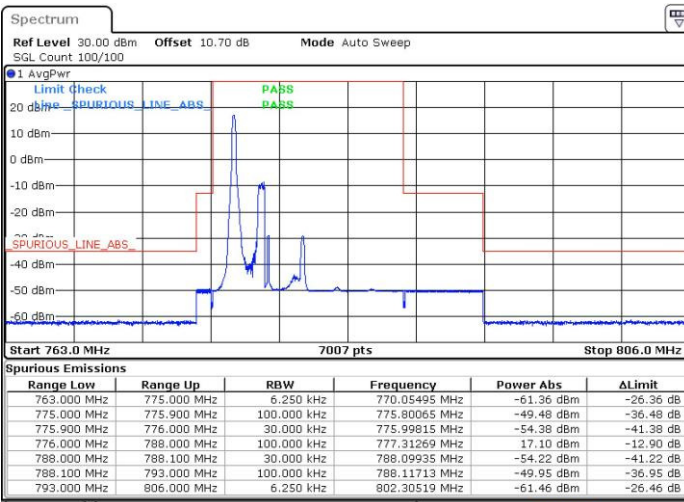
Date: 21 APR 2017 16:54:39



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

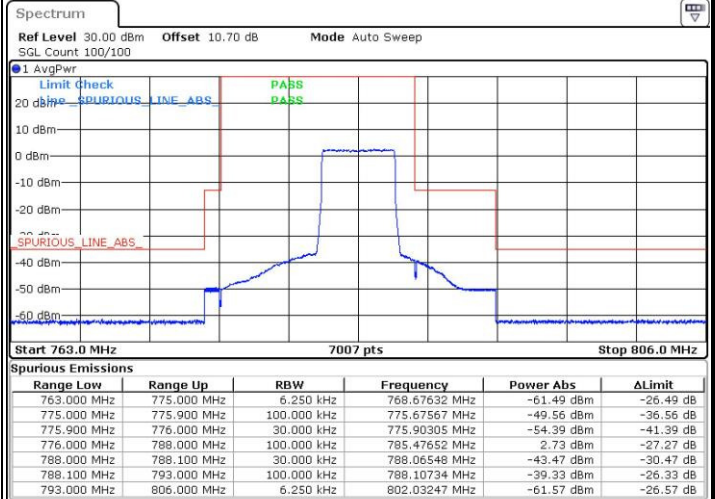
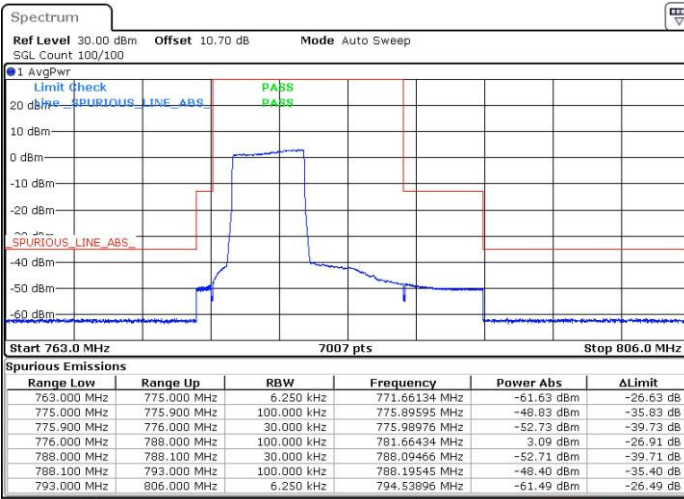


Date: 21 APR 2017 16:46:20

Date: 21 APR 2017 16:57:57

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 21 APR 2017 16:44:40

Date: 21 APR 2017 16:56:18