

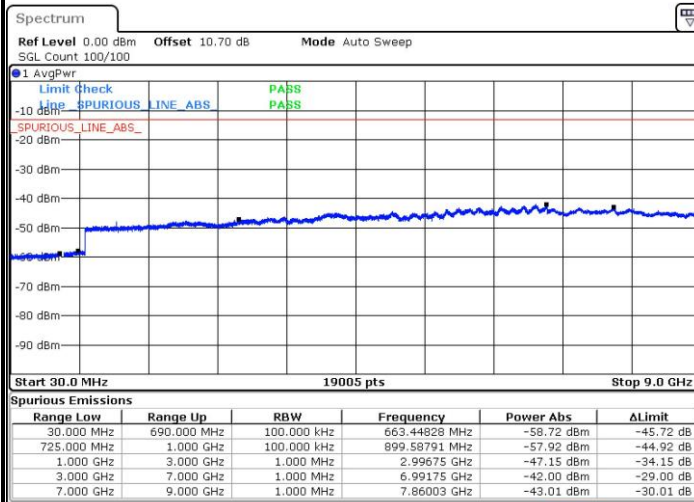


Conducted Spurious Emission



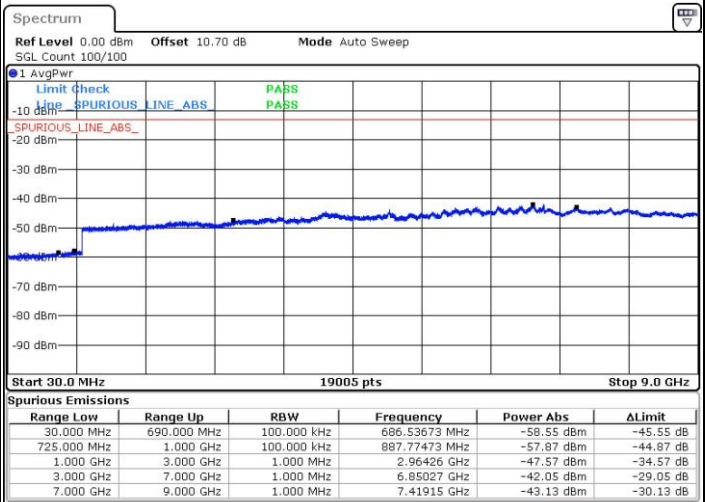
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



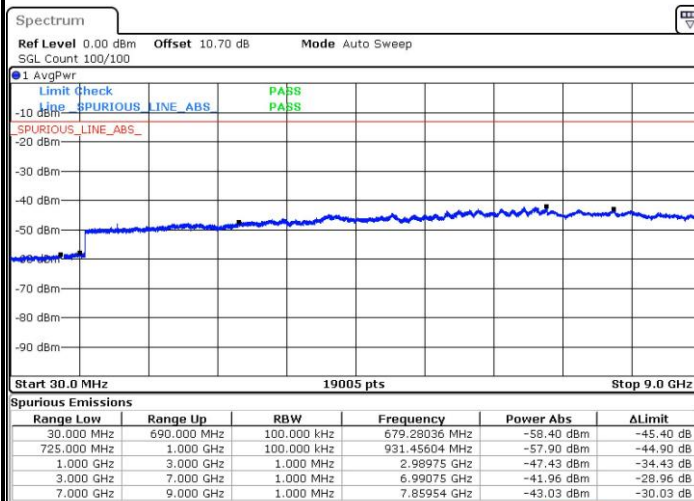
Date: 17 JUN 2017 20:32:10

Lowest Channel / 16QAM



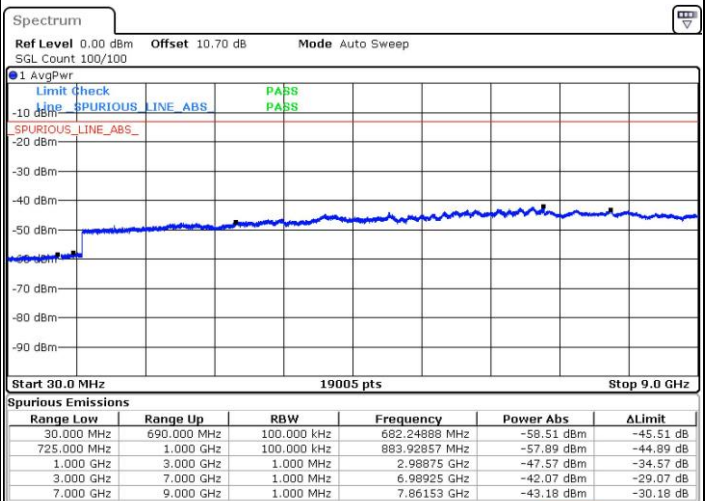
Date: 17 JUN 2017 20:33:05

Middle Channel / QPSK



Date: 17 JUN 2017 20:35:35

Middle Channel / 16QAM

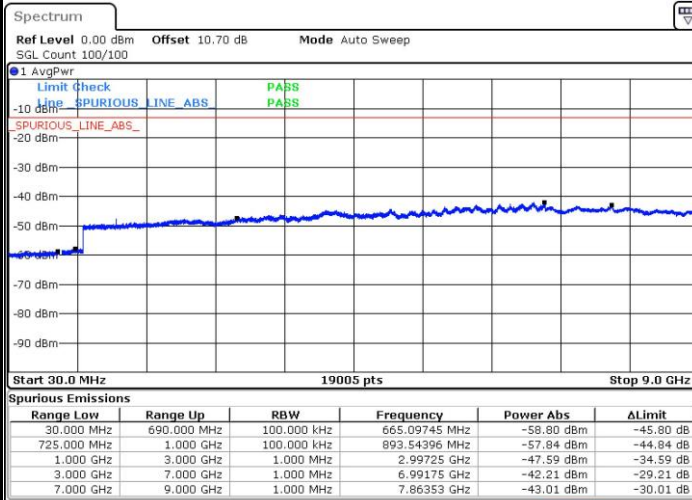


Date: 17 JUN 2017 20:34:40



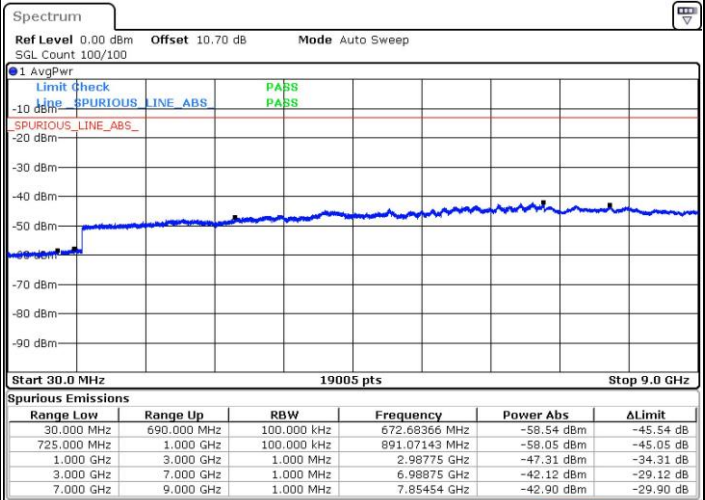
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 17 JUN 2017 20:41:47

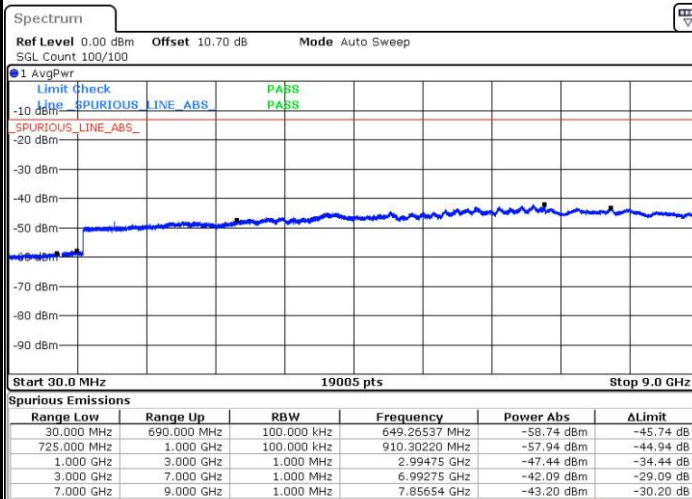
Highest Channel / 16QAM



Date: 17 JUN 2017 20:42:41

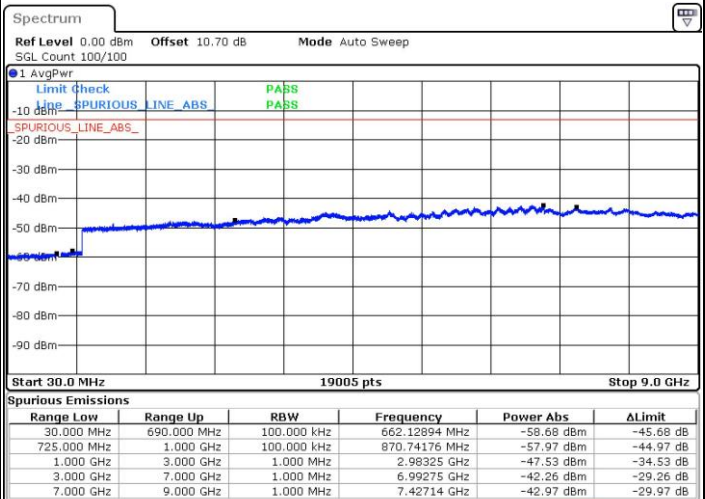
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 17 JUN 2017 19:09:26

Lowest Channel / 16QAM

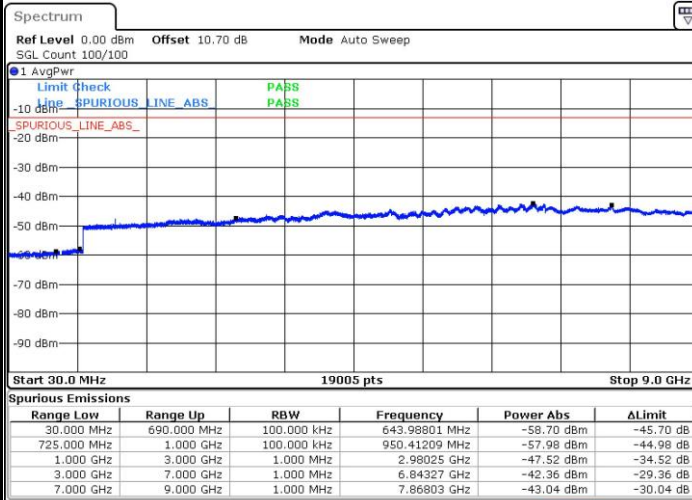


Date: 17 JUN 2017 19:10:20



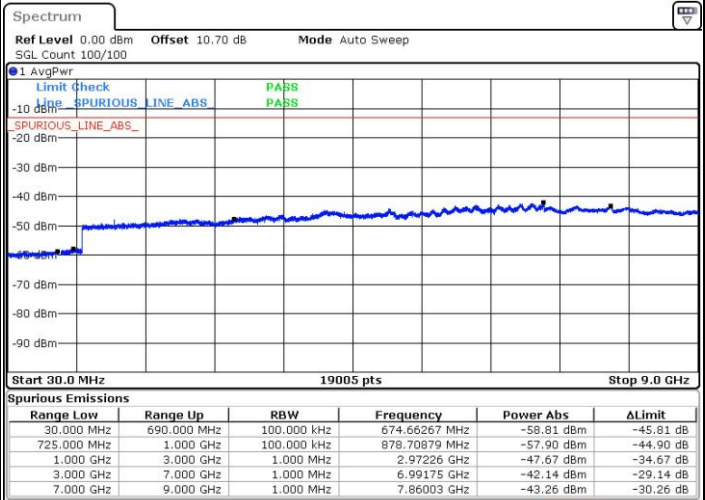
LTE Band 12 / 3MHz

Middle Channel / QPSK



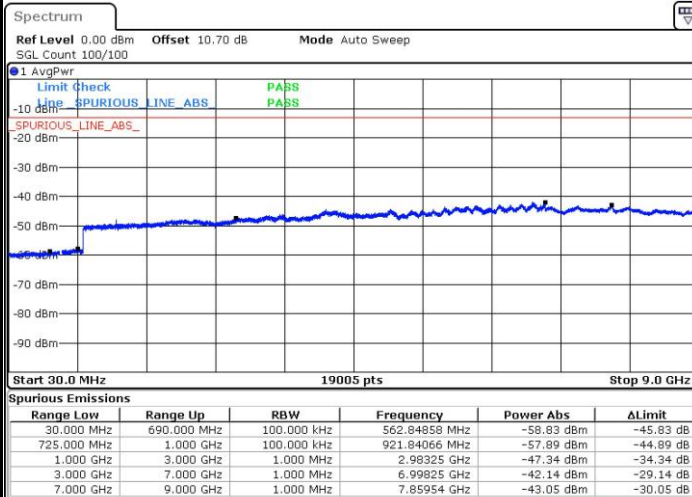
Date: 17.JUN.2017 19:12:50

Middle Channel / 16QAM



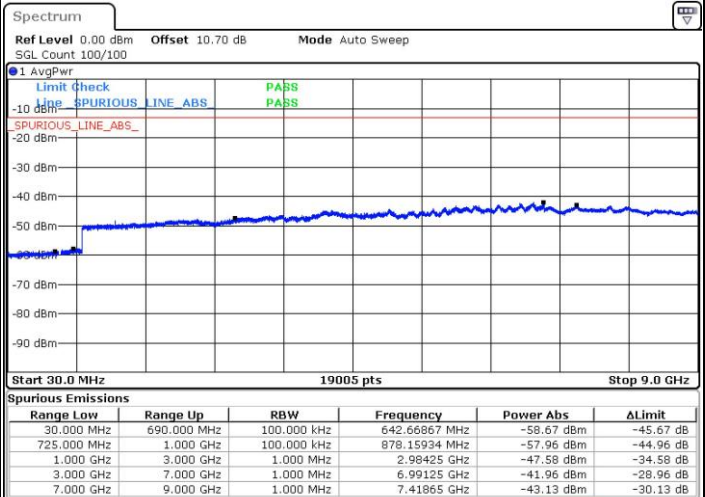
Date: 17.JUN.2017 19:11:56

Highest Channel / QPSK



Date: 17.JUN.2017 19:19:02

Highest Channel / 16QAM

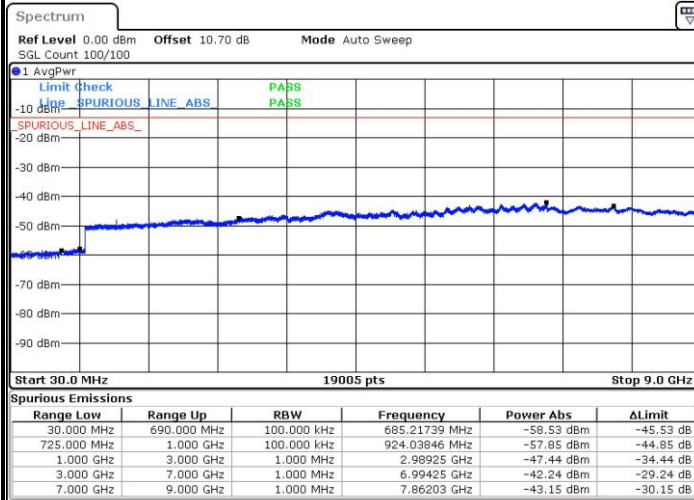


Date: 17.JUN.2017 19:19:56



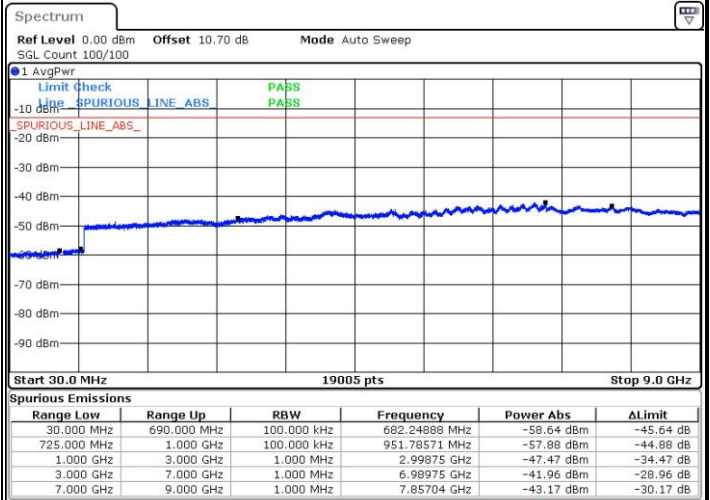
LTE Band 12 / 5MHz

Lowest Channel / QPSK



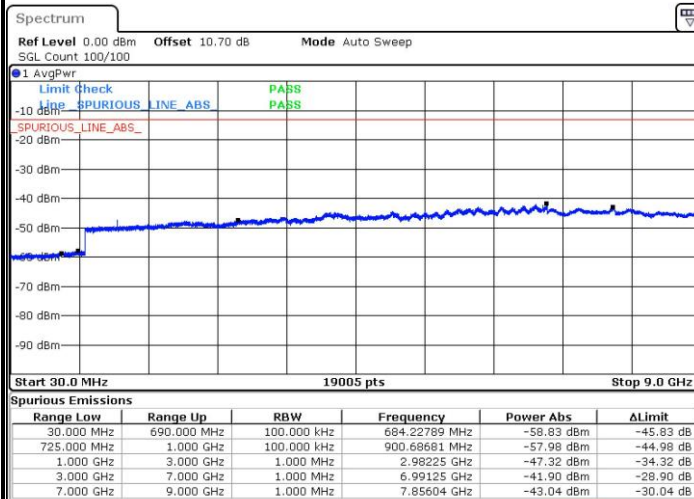
Date: 17 JUN 2017 19:26:08

Lowest Channel / 16QAM



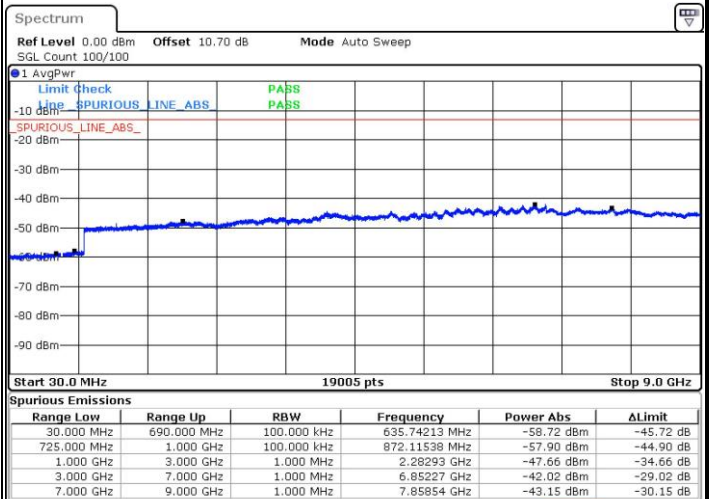
Date: 17 JUN 2017 19:27:03

Middle Channel / QPSK



Date: 17 JUN 2017 19:29:32

Middle Channel / 16QAM

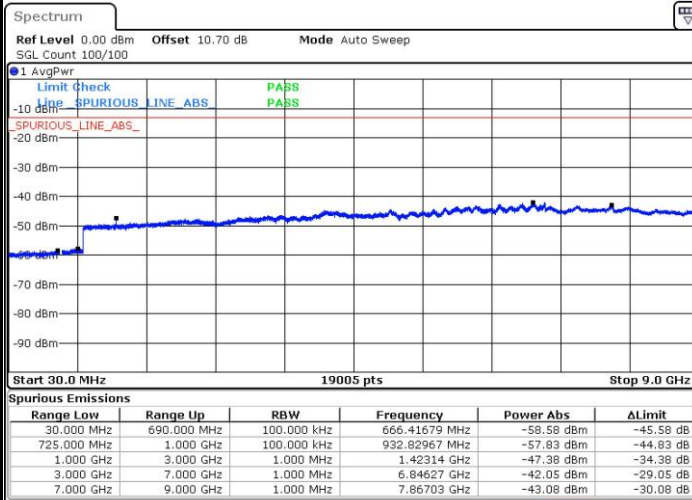


Date: 17 JUN 2017 19:28:38



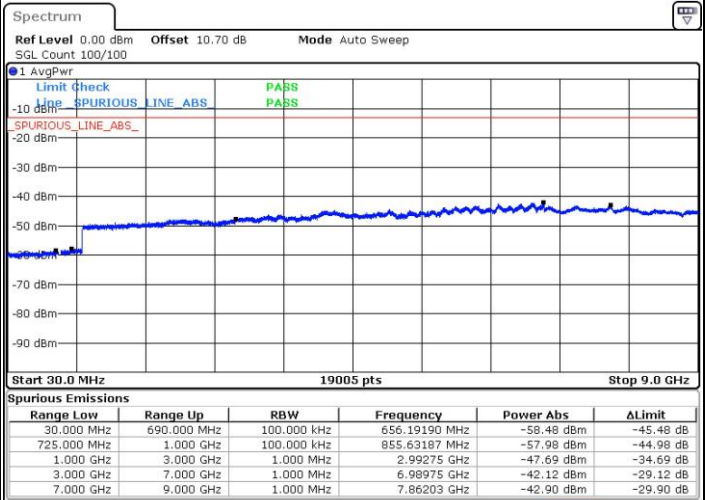
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 17 JUN 2017 19:36:39

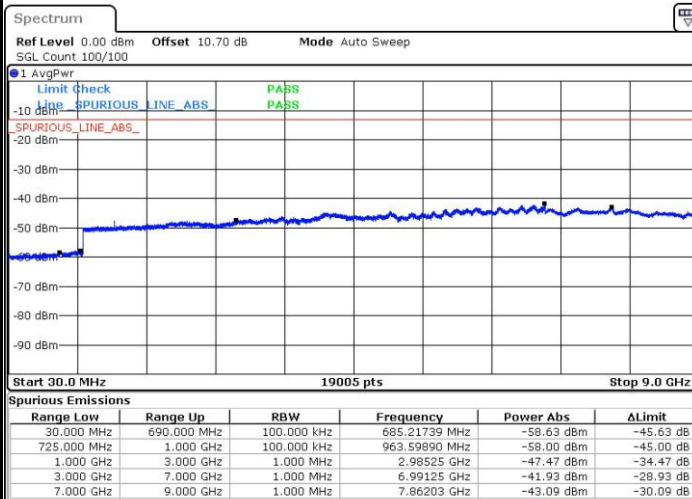
Highest Channel / 16QAM



Date: 17 JUN 2017 19:35:45

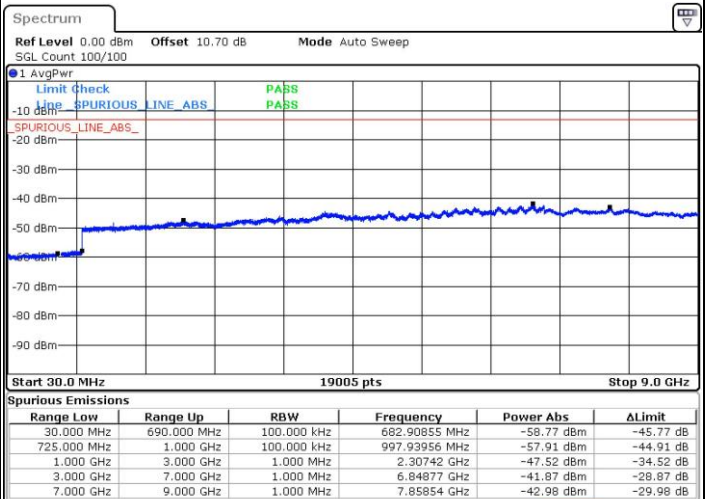
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 17 JUN 2017 19:42:51

Lowest Channel / 16QAM

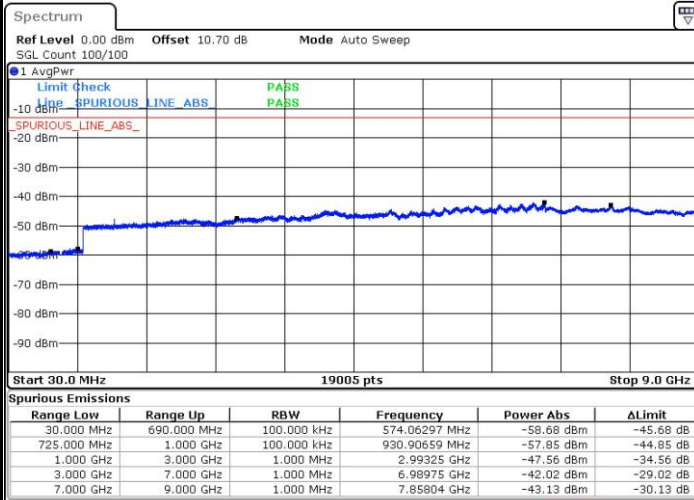


Date: 17 JUN 2017 19:43:45



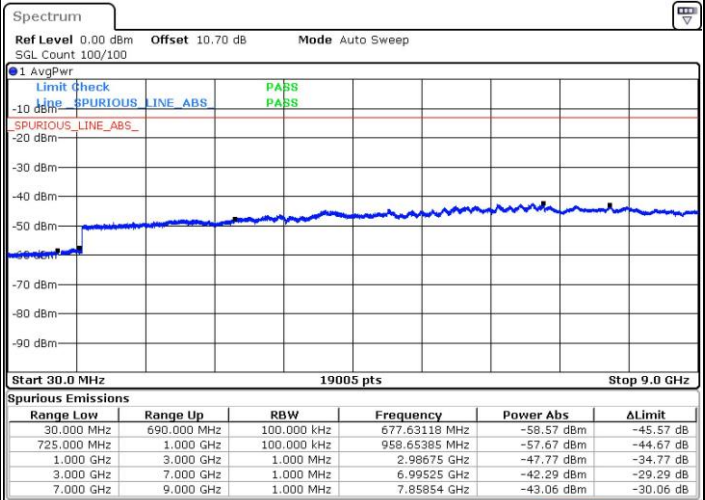
LTE Band 12 / 10MHz

Middle Channel / QPSK



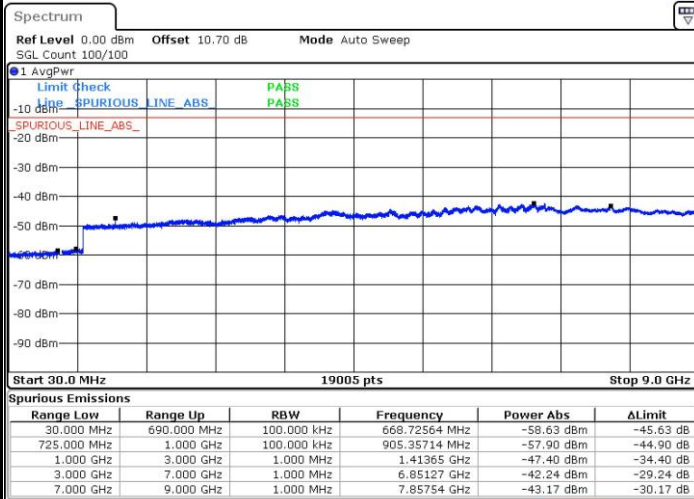
Date: 17 JUN 2017 19:46:15

Middle Channel / 16QAM



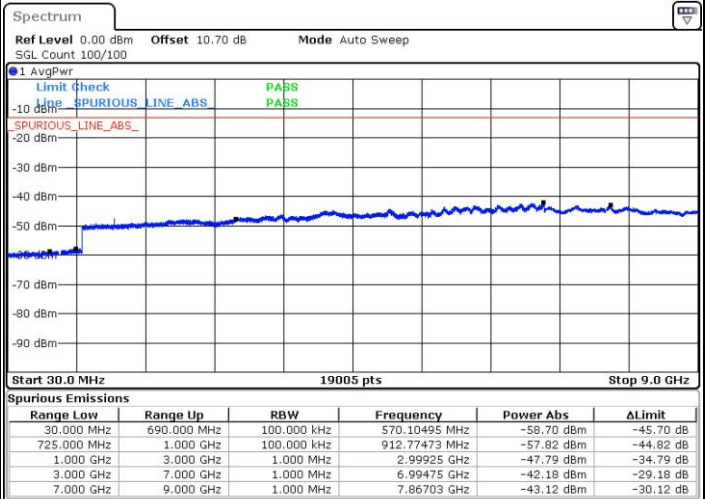
Date: 17 JUN 2017 19:45:21

Highest Channel / QPSK



Date: 17 JUN 2017 19:52:27

Highest Channel / 16QAM

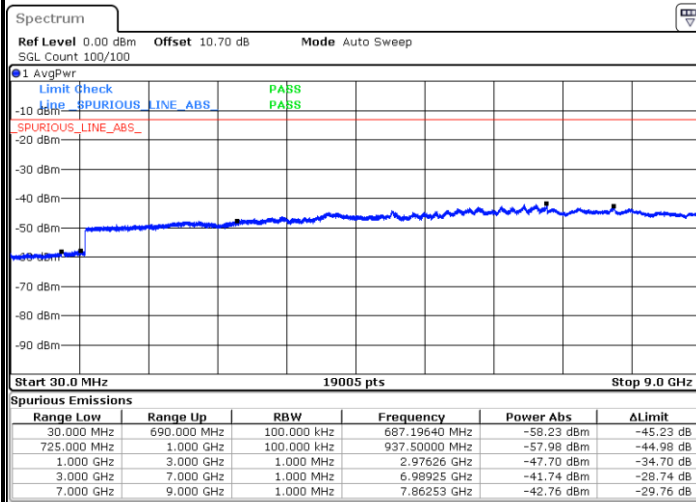


Date: 17 JUN 2017 19:53:22



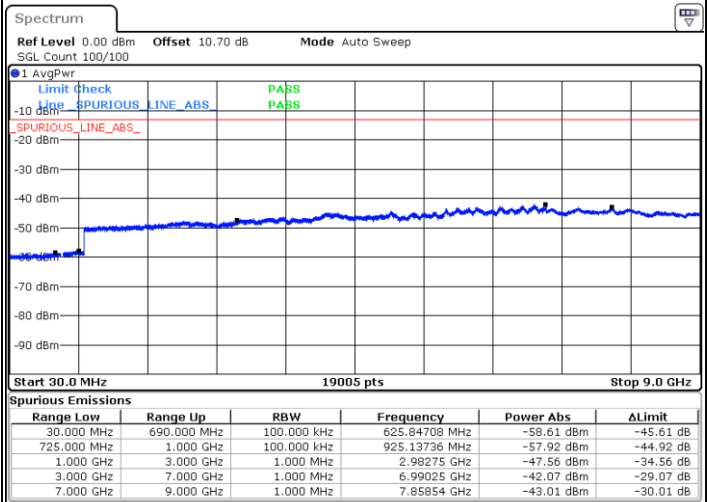
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



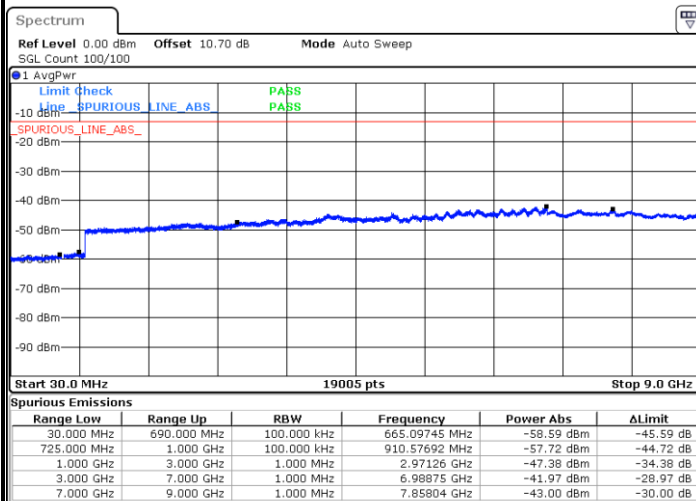
Date: 21 JUN 2017 23:23:35

Middle Channel / 64QAM



Date: 21 JUN 2017 23:24:49

Highest Channel / 64QAM

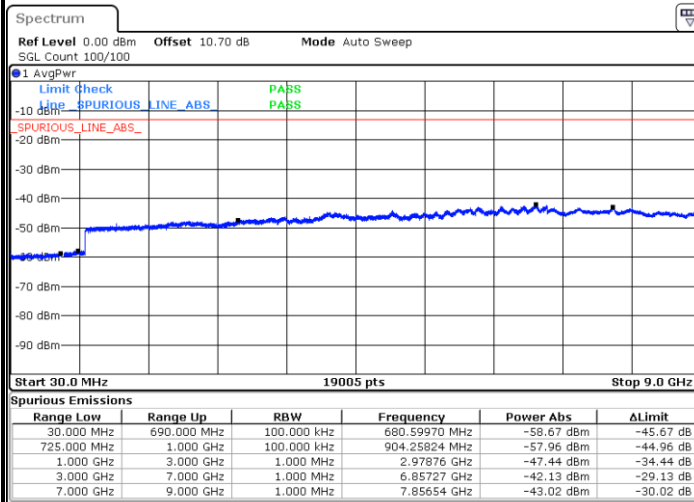


Date: 21 JUN 2017 23:28:20



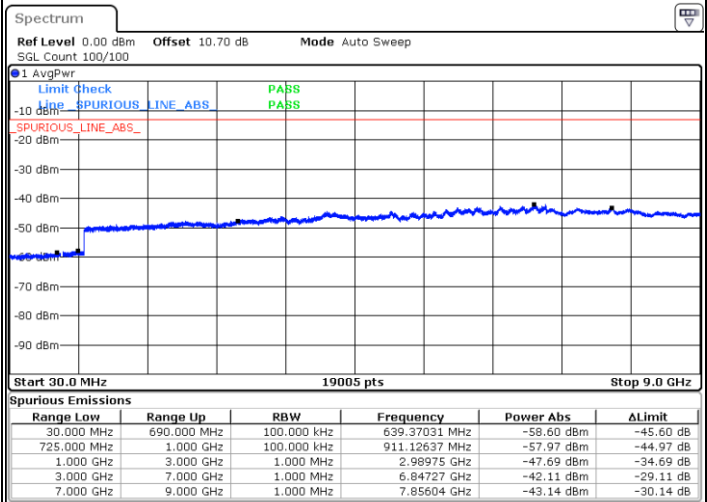
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



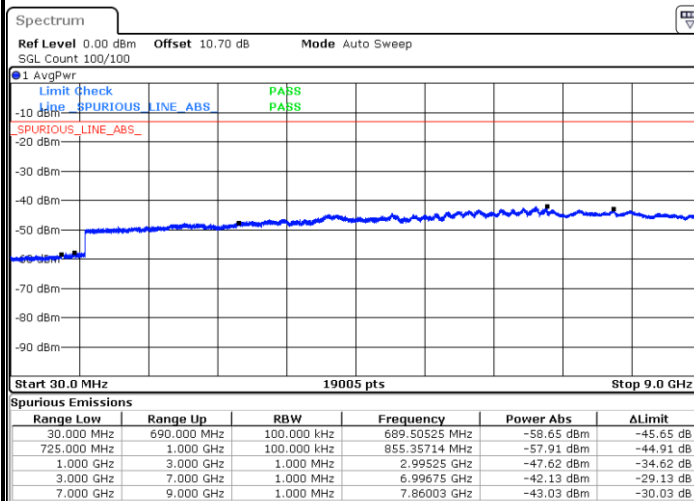
Date: 21 JUN 2017 22:58:45

Middle Channel / 64QAM



Date: 21 JUN 2017 22:59:59

Highest Channel / 64QAM

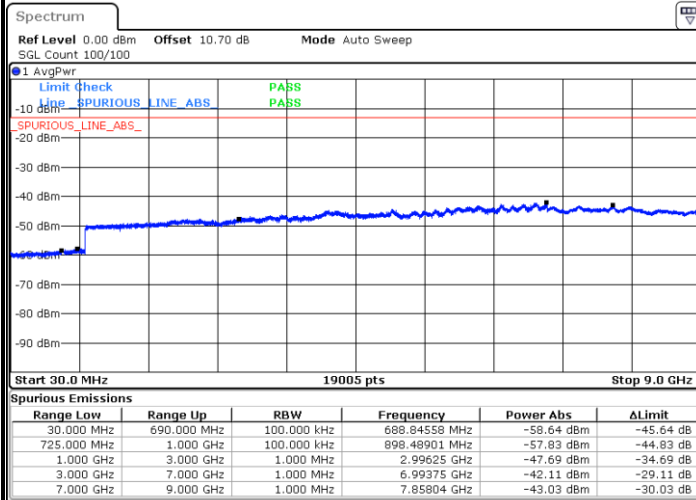


Date: 21 JUN 2017 23:03:31



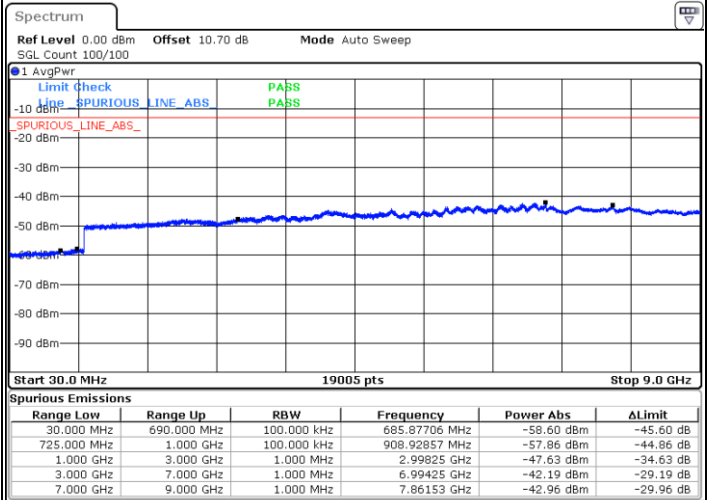
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



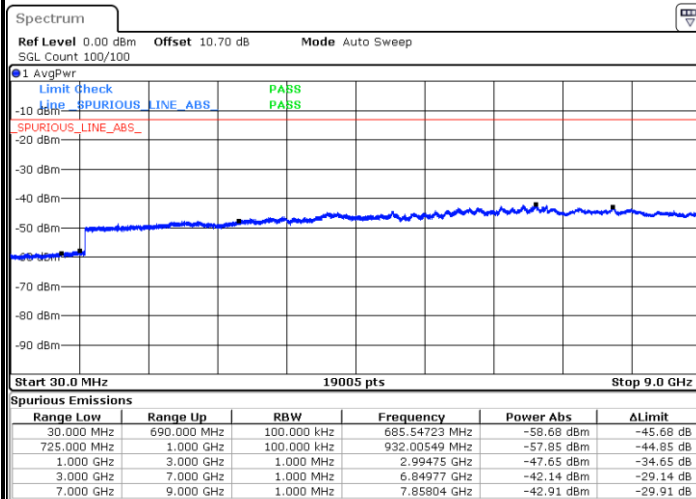
Date: 21 JUN 2017 23:07:02

Middle Channel / 64QAM



Date: 21 JUN 2017 23:08:16

Highest Channel / 64QAM

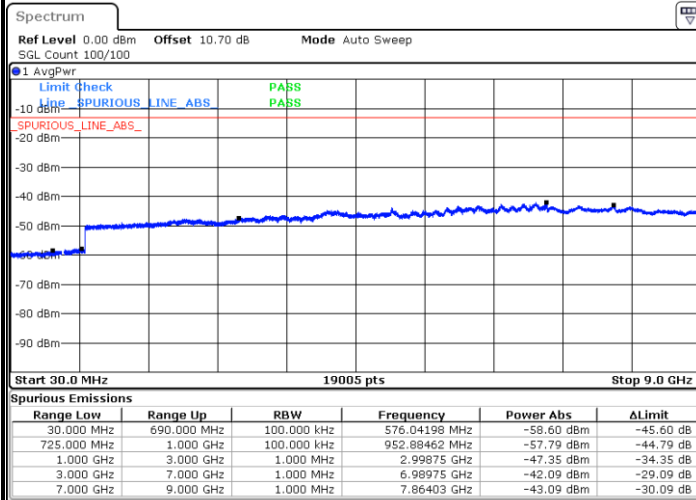


Date: 21 JUN 2017 23:11:47



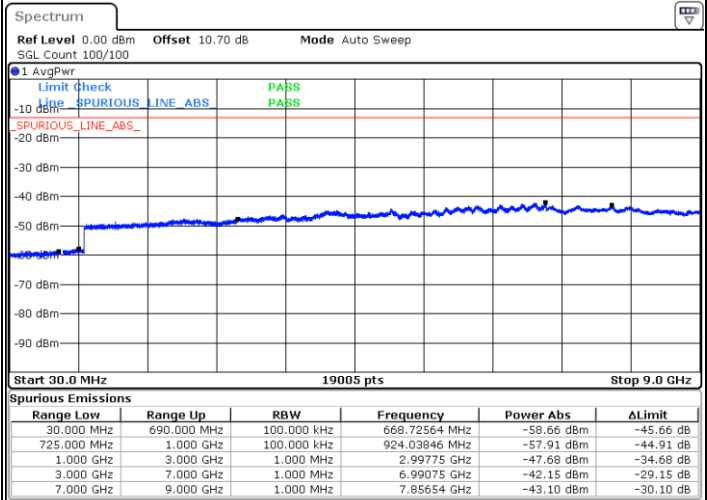
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



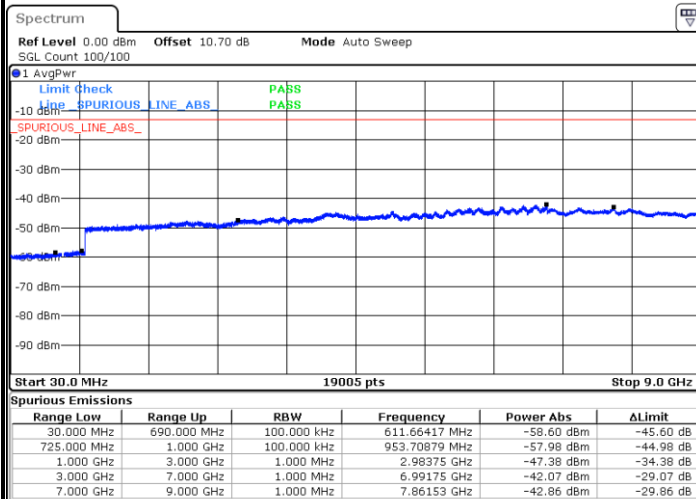
Date: 21.JUN.2017 23:15:18

Middle Channel / 64QAM



Date: 21.JUN.2017 23:16:32

Highest Channel / 64QAM



Date: 21.JUN.2017 23:20:03

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	0.0010	PASS
40	Normal Voltage	0.0000	
30	Normal Voltage	0.0017	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0025	
0	Normal Voltage	0.0065	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0072	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0066	

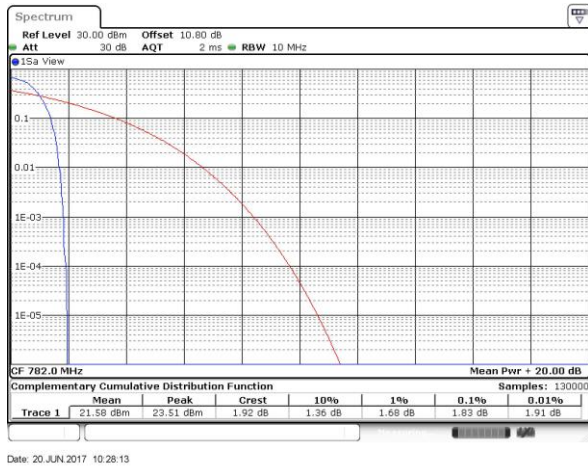
Note:

1. Normal Voltage =3.3 V. ; Battery End Point (BEP) =3.1 V. ; Maximum Voltage =3.6 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

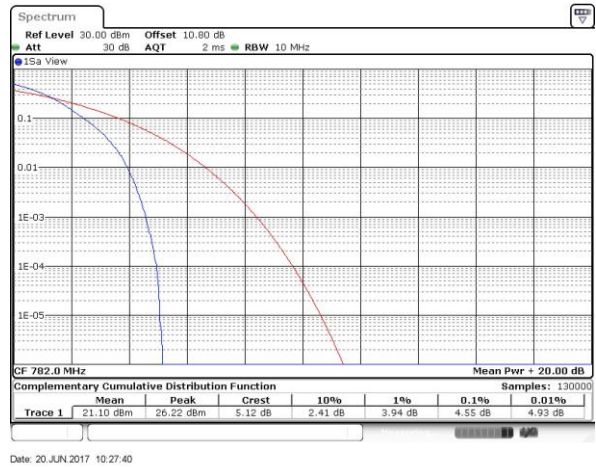
LTE Band 13

Peak-to-Average Ratio

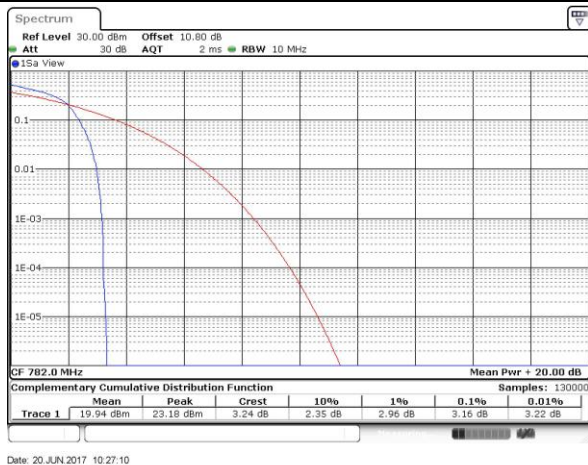
Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	1.83	4.55	3.16	5.65	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.38	6			
Highest CH	-	-	-	-	

LTE Band 13 / 10MHz / QPSK
Middle Channel / 1RB


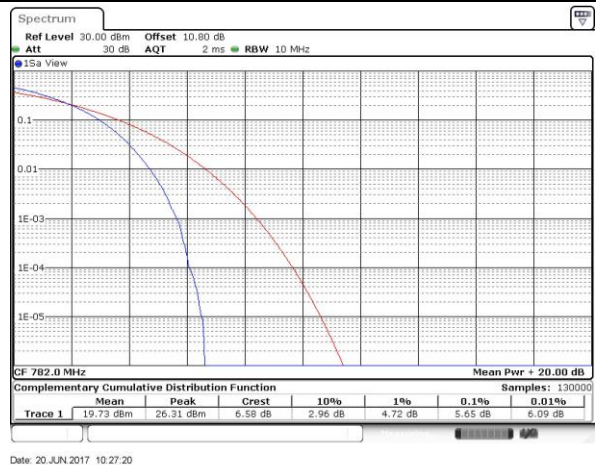
Date: 20 JUN 2017 10:28:13

Middle Channel / Full RB


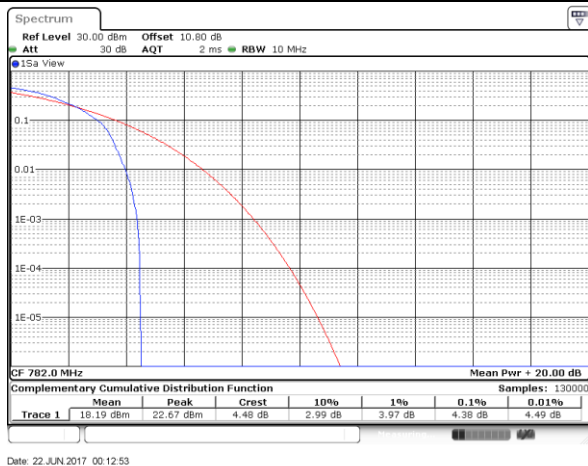
Date: 20 JUN 2017 10:27:40

LTE Band 13 / 10MHz / 16QAM
Middle Channel / 1RB


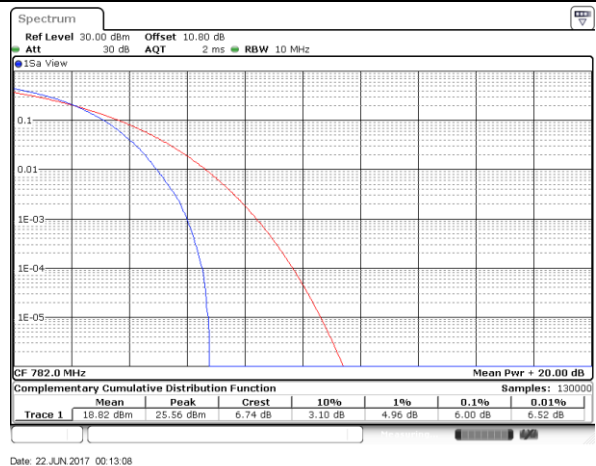
Date: 20 JUN 2017 10:27:10

Middle Channel / Full RB


Date: 20 JUN 2017 10:27:20

LTE Band 13 / 10MHz / 64QAM
Middle Channel / 1RB


Date: 22 JUN 2017 00:12:53

Middle Channel / Full RB


Date: 22 JUN 2017 00:13:08

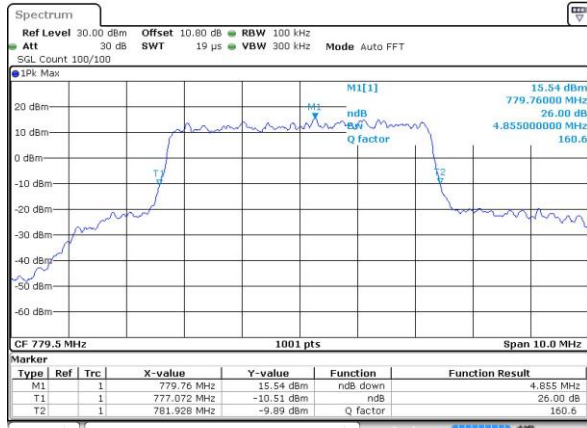
**26dB Bandwidth**

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	-	-	-	-	4.86	4.95	-	-	-	-	-	-
Middle CH	-	-	-	-	4.96	4.89	9.77	9.77	-	-	-	-
Highest CH	-	-	-	-	4.94	4.97	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.84	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.87	-	9.77	-	-	-	-	-
Highest CH	-	-	-	-	4.87	-	-	-	-	-	-	-



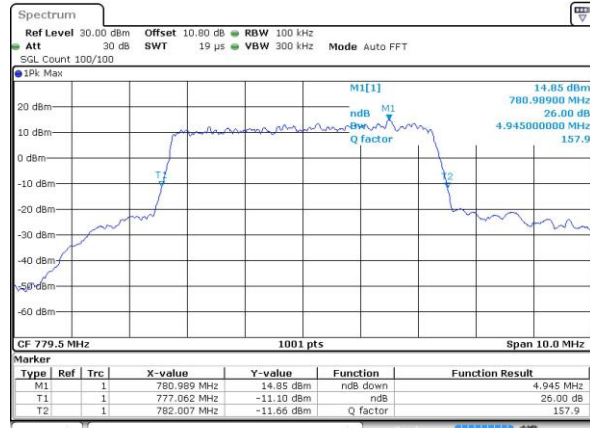
LTE Band 13

Lowest Channel / 5MHz / QPSK



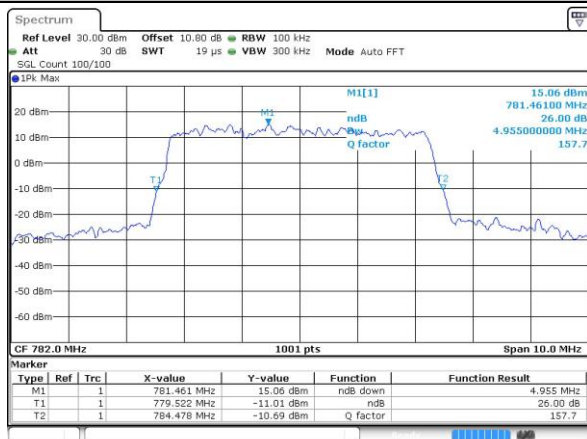
Date: 20 JUN 2017 10:13:55

Lowest Channel / 5MHz / 16QAM



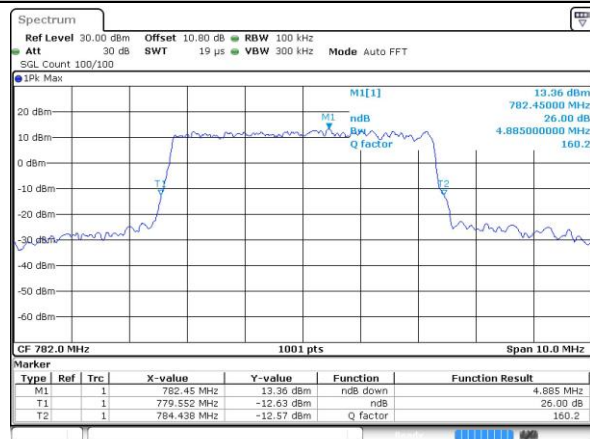
Date: 20 JUN 2017 10:13:45

Middle Channel / 5MHz / QPSK



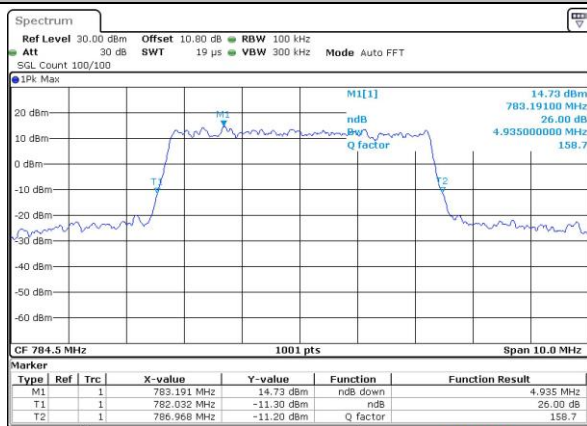
Date: 20 JUN 2017 10:17:41

Middle Channel / 5MHz / 16QAM



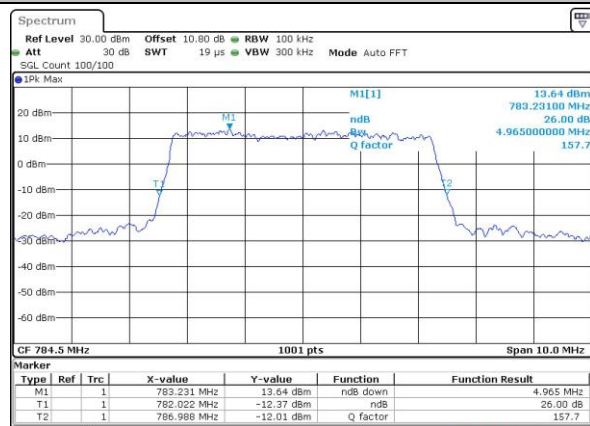
Date: 20 JUN 2017 10:17:51

Highest Channel / 5MHz / QPSK



Date: 20 JUN 2017 10:18:54

Highest Channel / 5MHz / 16QAM

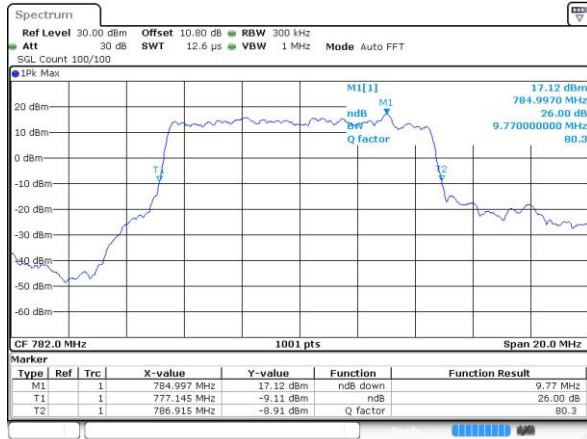


Date: 20 JUN 2017 10:18:43



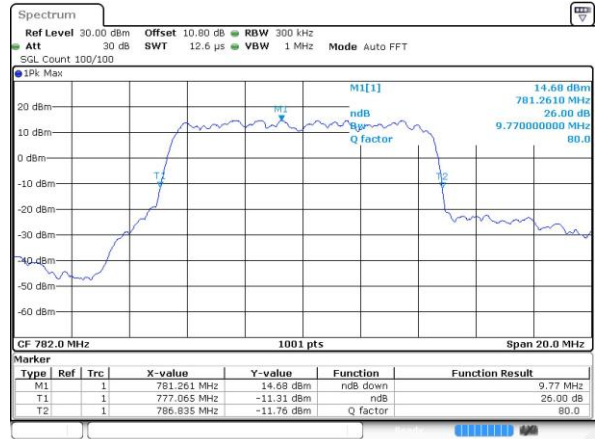
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 20 JUN 2017 10:21:23

Middle Channel / 10MHz / 16QAM

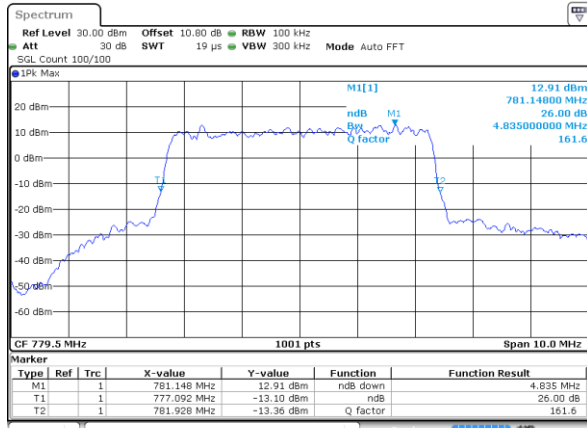


Date: 20 JUN 2017 10:21:13

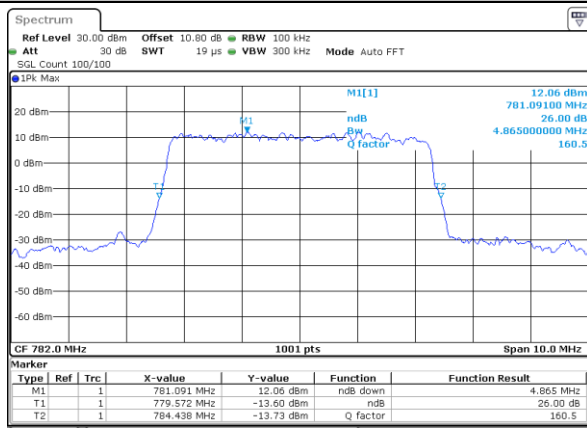


LTE Band 13

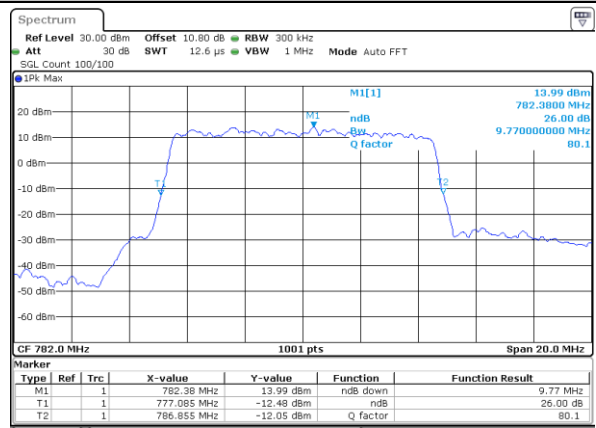
Lowest Channel / 5MHz / 64QAM



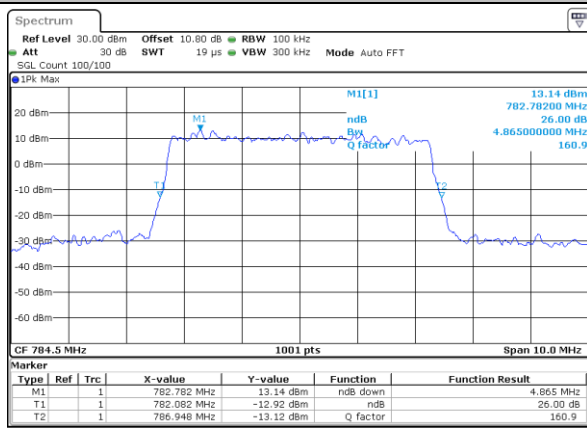
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM

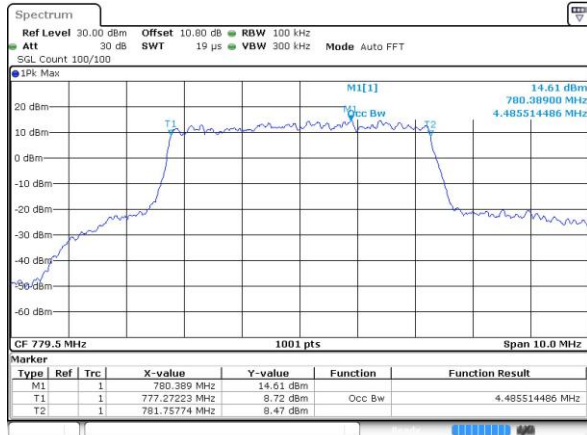


Highest Channel / 5MHz / 64QAM

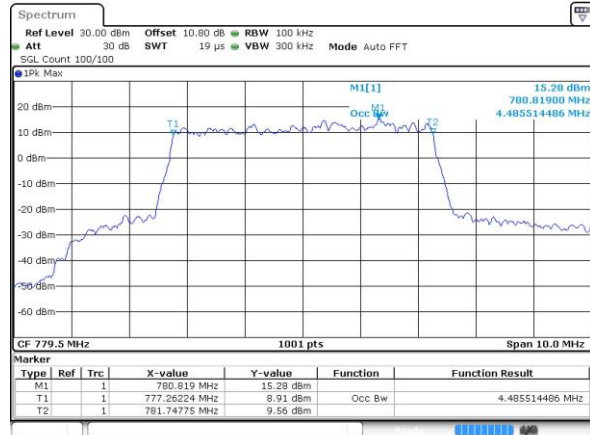


**Occupied Bandwidth**

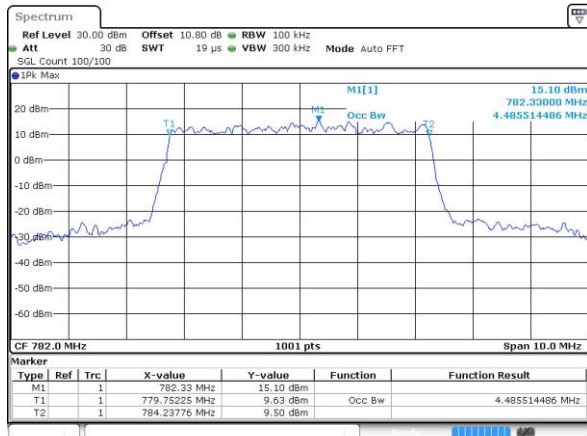
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.49	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.48	8.97	8.97	-	-	-	-
Highest CH	-	-	-	-	4.49	4.49	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	-	9.03	-	-	-	-	-
Highest CH	-	-	-	-	4.5	-	-	-	-	-	-	-

LTE Band 13
Lowest Channel / 5MHz / QPSK


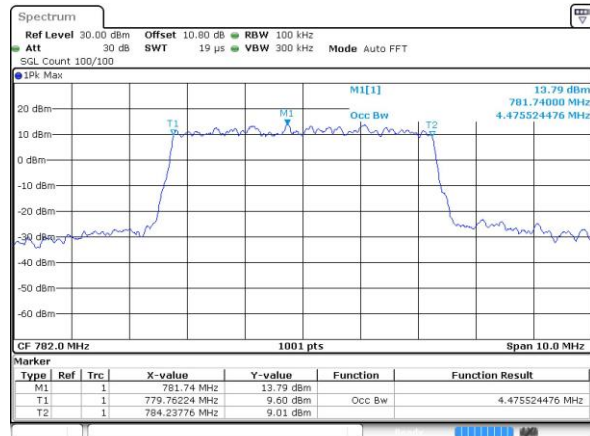
Date: 20 JUN 2017 10:13:24

Lowest Channel / 5MHz / 16QAM


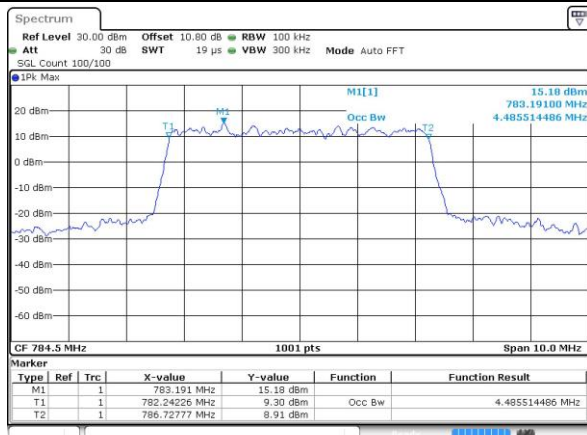
Date: 20 JUN 2017 10:13:34

Middle Channel / 5MHz / QPSK


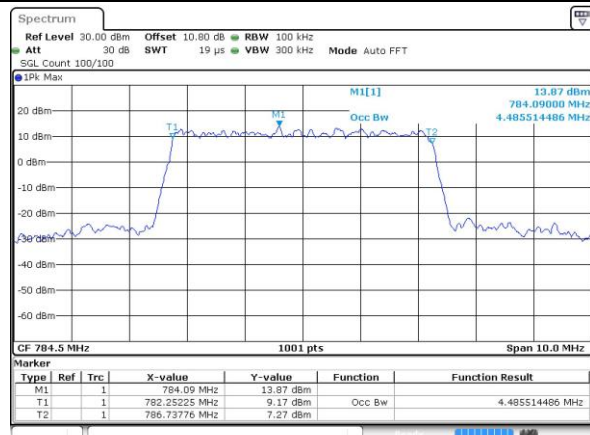
Date: 20 JUN 2017 10:18:12

Middle Channel / 5MHz / 16QAM


Date: 20 JUN 2017 10:18:02

Highest Channel / 5MHz / QPSK


Date: 20 JUN 2017 10:18:22

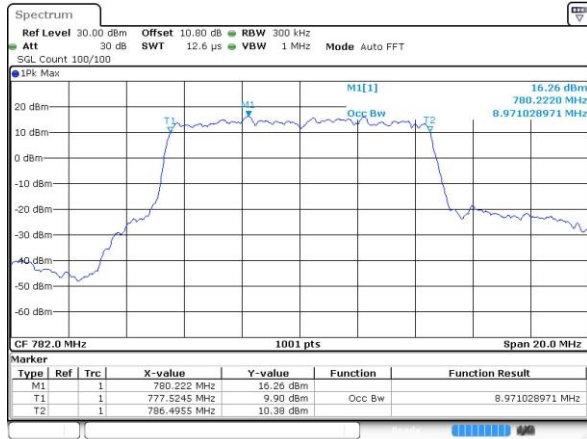
Highest Channel / 5MHz / 16QAM


Date: 20 JUN 2017 10:18:33

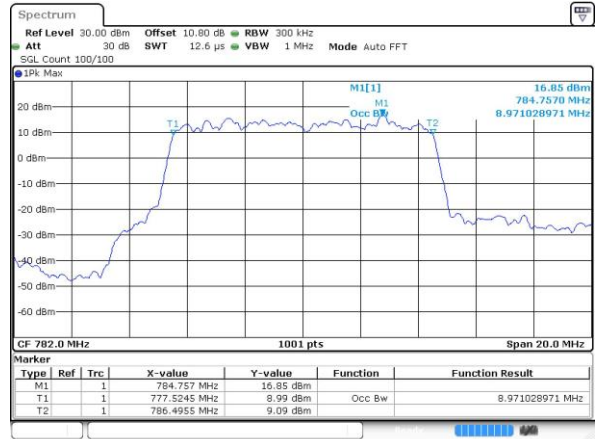


LTE Band 13

Middle Channel / 10MHz / QPSK



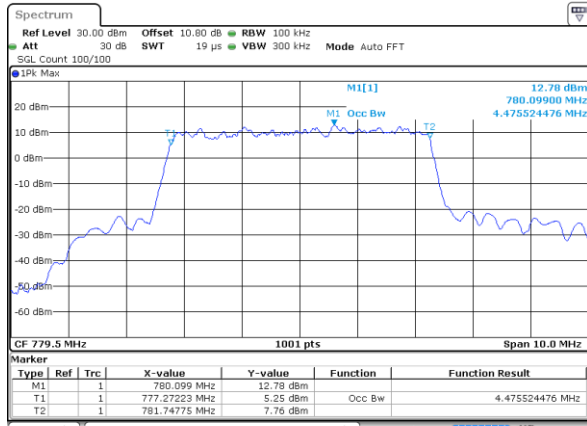
Middle Channel / 10MHz / 16QAM





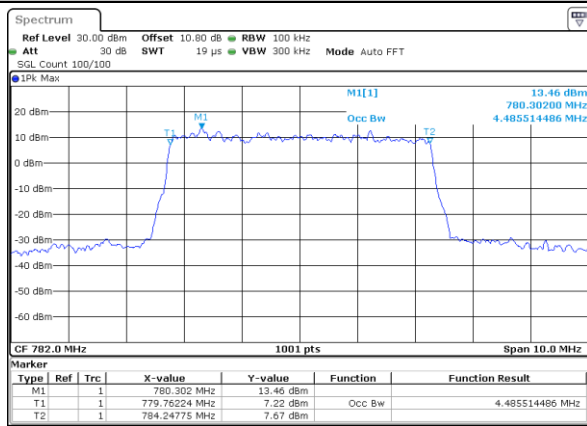
LTE Band 13

Lowest Channel / 5MHz / 64QAM



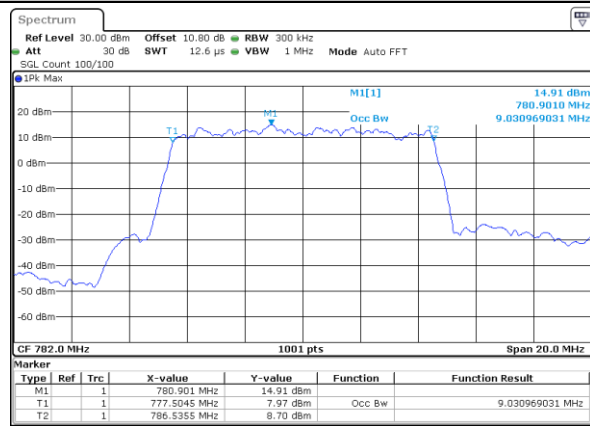
Date: 21 JUN 2017 23:56:01

Middle Channel / 5MHz / 64QAM



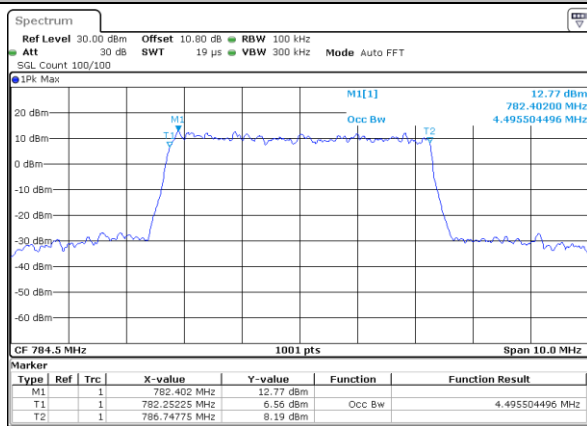
Date: 22 JUN 2017 00:01:36

Middle Channel / 10MHz / 64QAM



Date: 22 JUN 2017 00:06:17

Highest Channel / 5MHz / 64QAM



Date: 22 JUN 2017 00:01:46

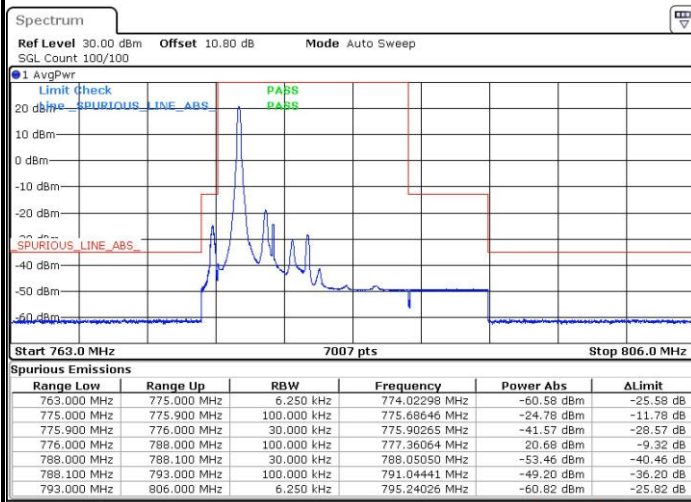


Conducted Band Edge

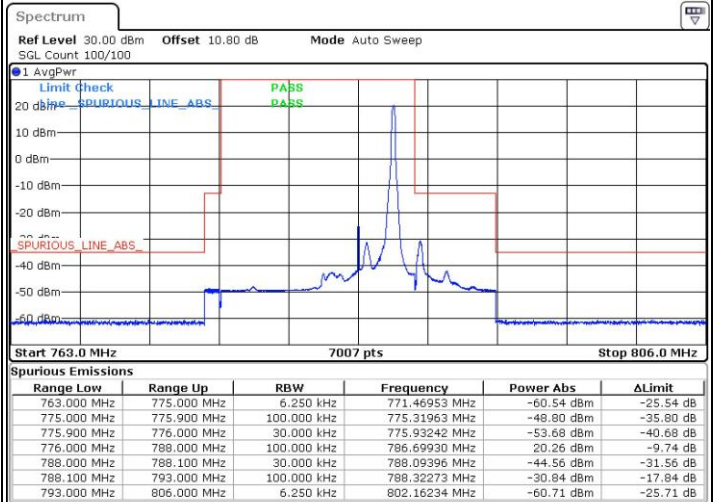


LTE Band 13 / 5MHz / QPSK

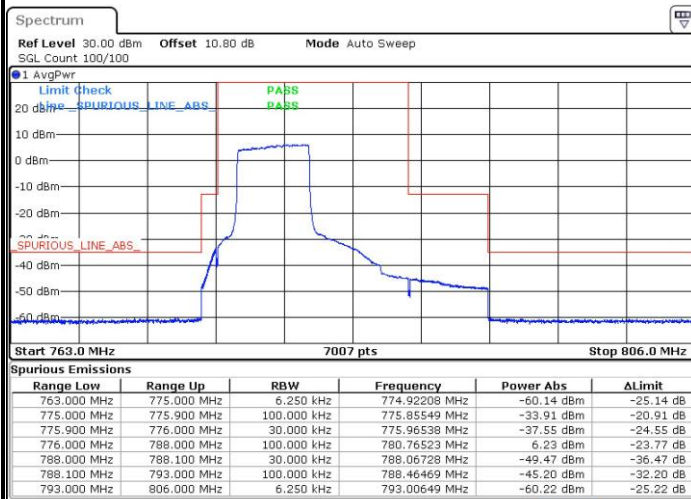
Lowest Band Edge / 1 RB



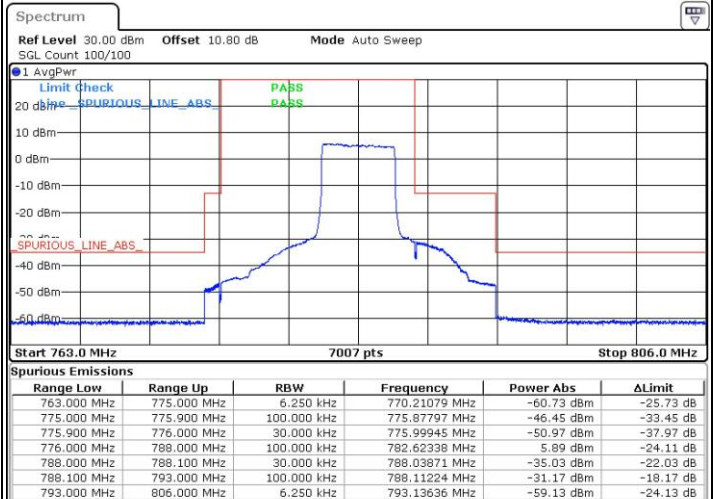
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



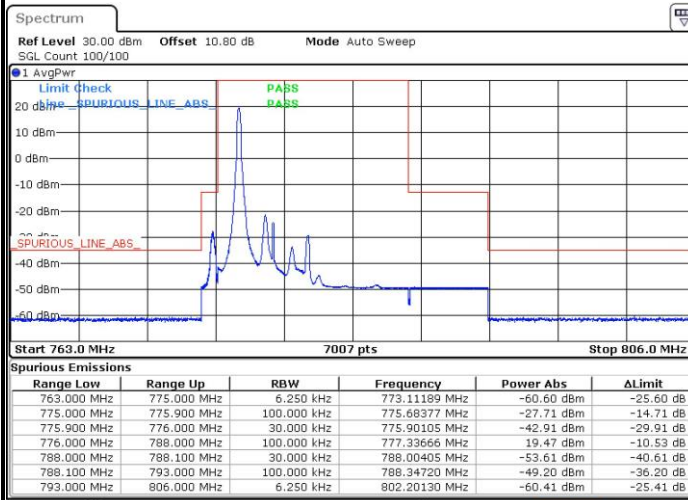
Highest Band Edge / Full RB



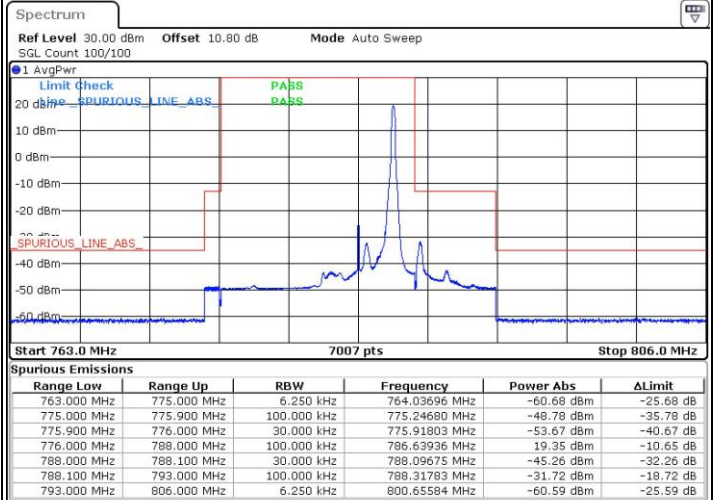


LTE Band 13 / 5MHz / 16QAM

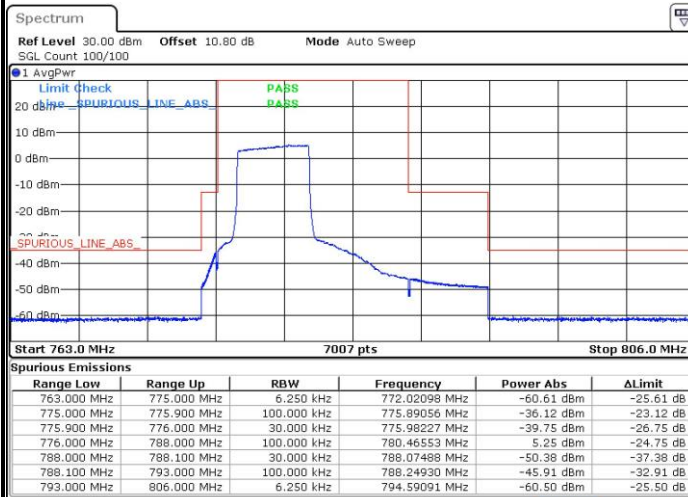
Lowest Band Edge / 1 RB



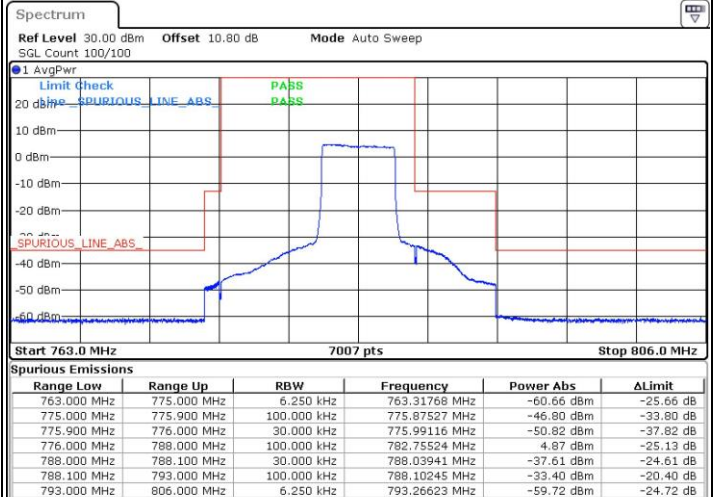
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



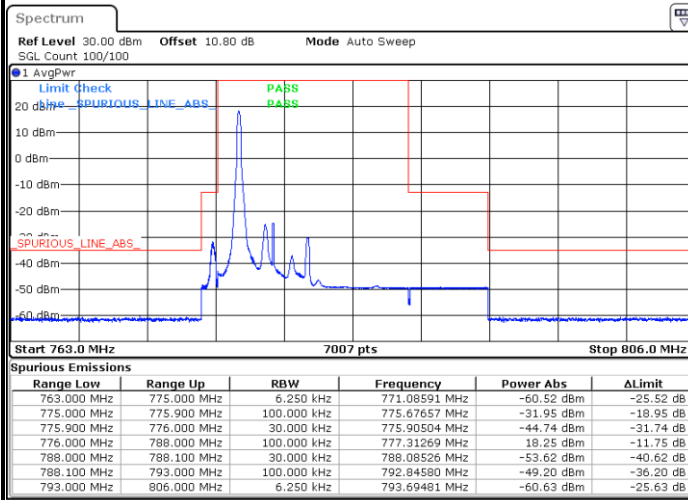
Highest Band Edge / Full RB





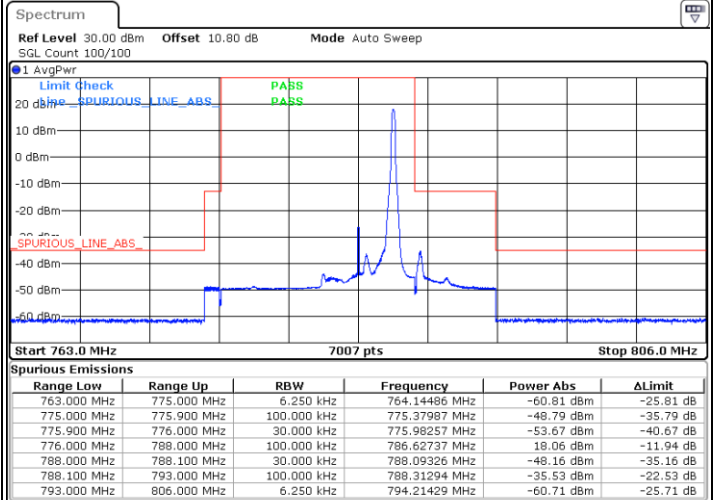
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



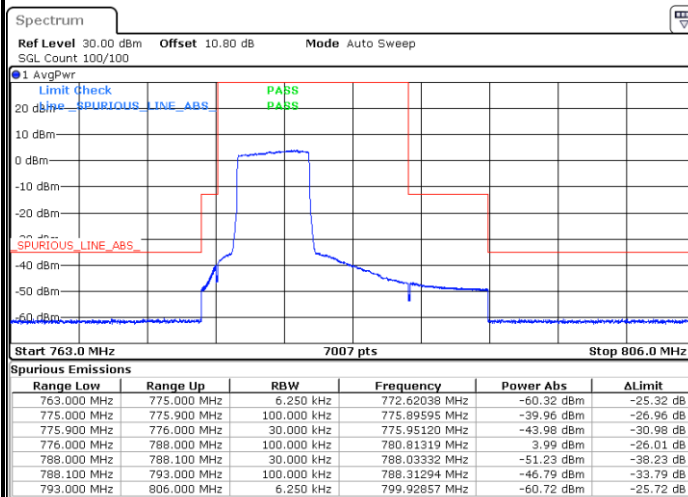
Date: 21 JUN 2017 23:59:28

Highest Band Edge / 1 RB



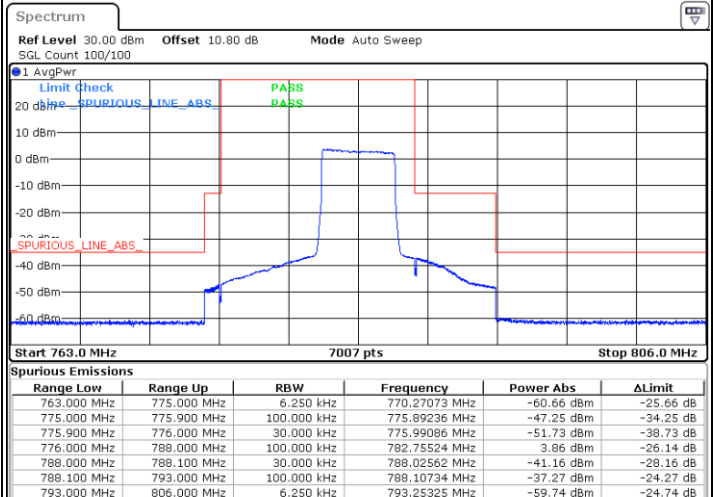
Date: 22 JUN 2017 00:05:13

Lowest Band Edge / Full RB



Date: 21 JUN 2017 23:57:49

Highest Band Edge / Full RB



Date: 22 JUN 2017 00:03:34