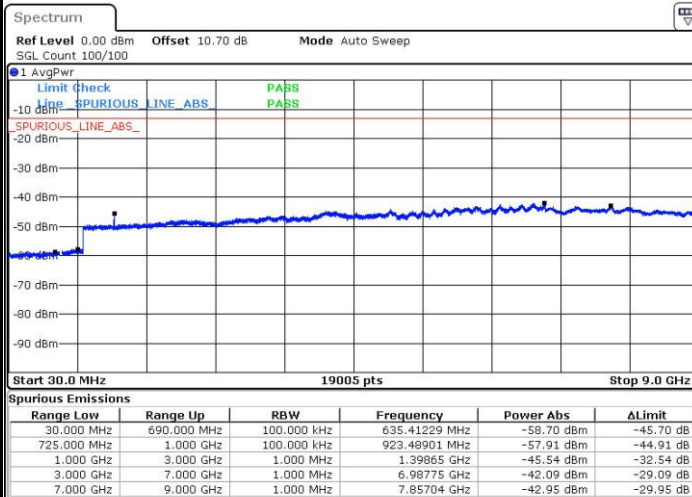




Conducted Spurious Emission

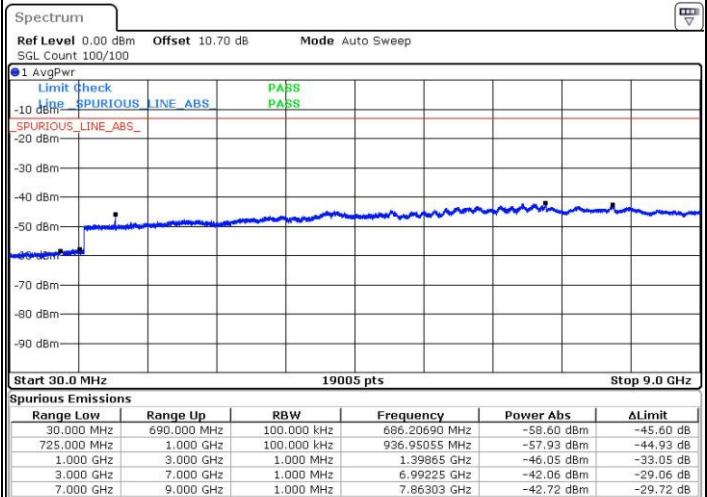
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



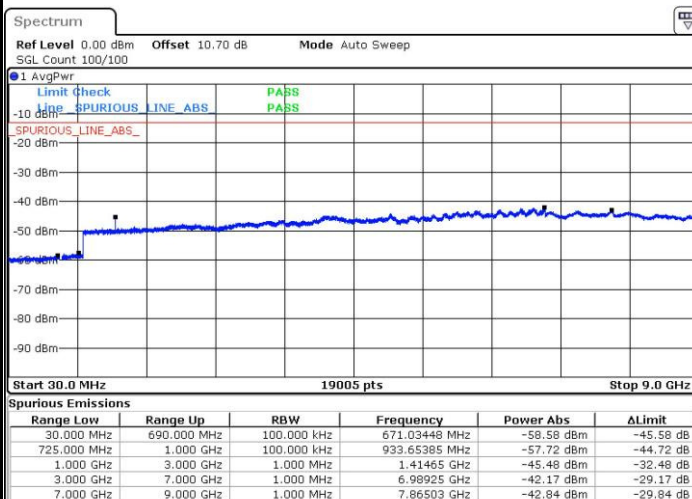
Date: 16 MAY 2017 00:12:46

Lowest Channel / 16QAM



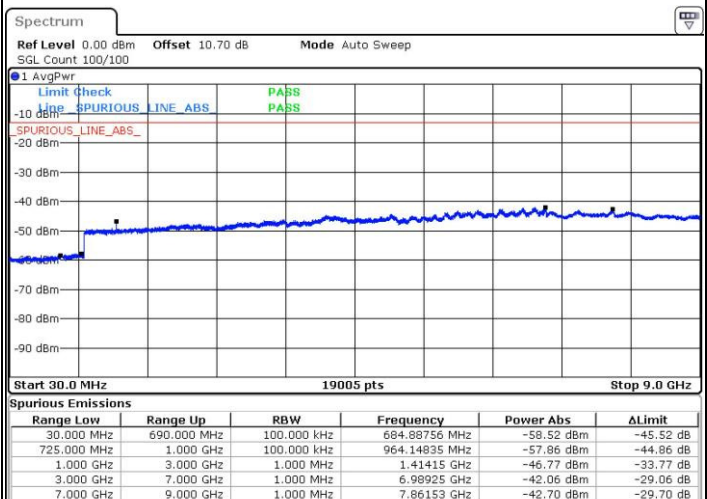
Date: 16 MAY 2017 00:13:40

Middle Channel / QPSK



Date: 16 MAY 2017 00:16:10

Middle Channel / 16QAM

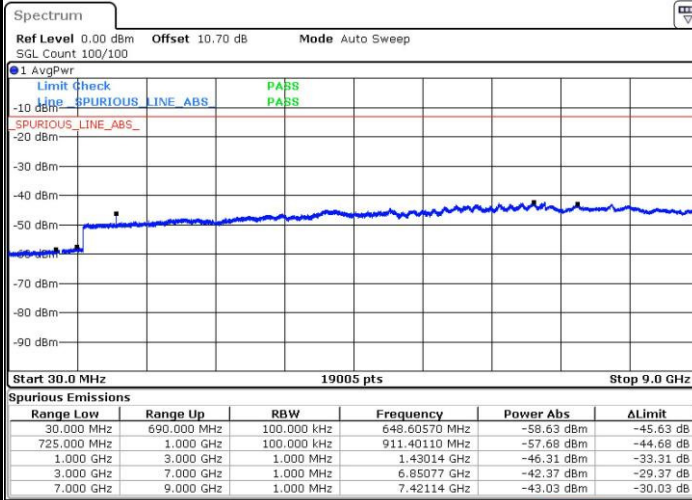


Date: 16 MAY 2017 00:15:16



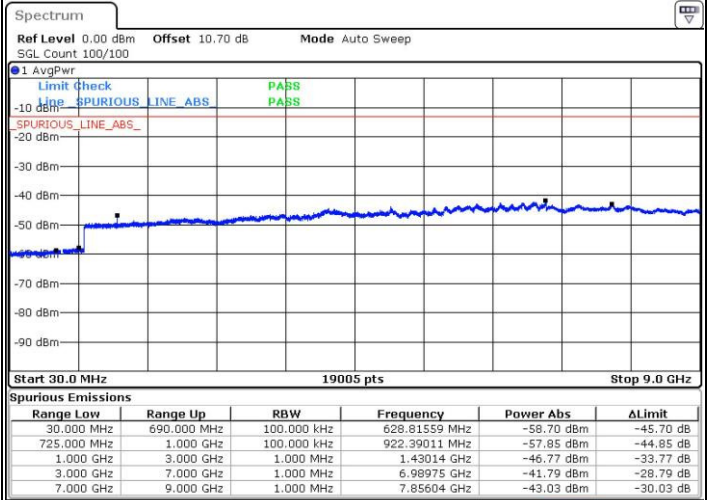
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 16 MAY 2017 00:22:22

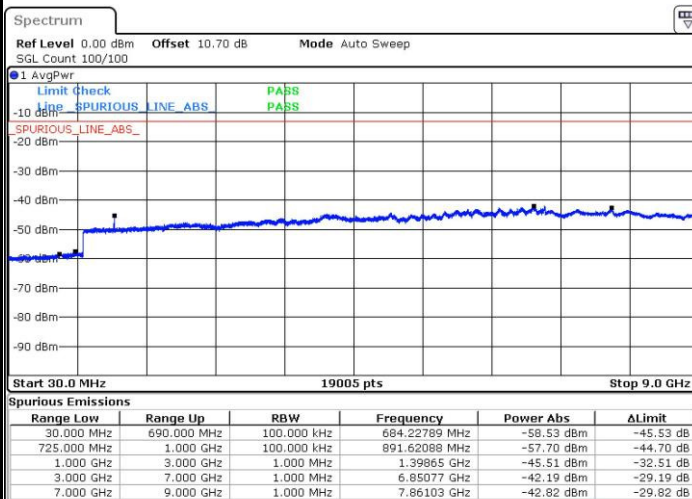
Highest Channel / 16QAM



Date: 16 MAY 2017 00:23:16

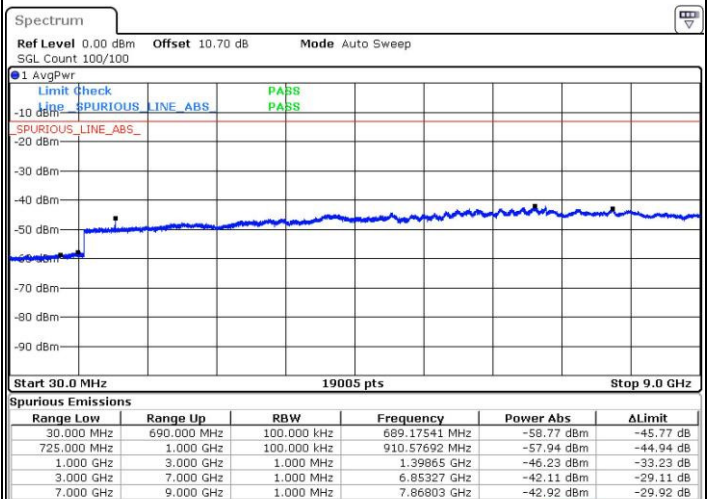
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 15 MAY 2017 23:21:46

Lowest Channel / 16QAM

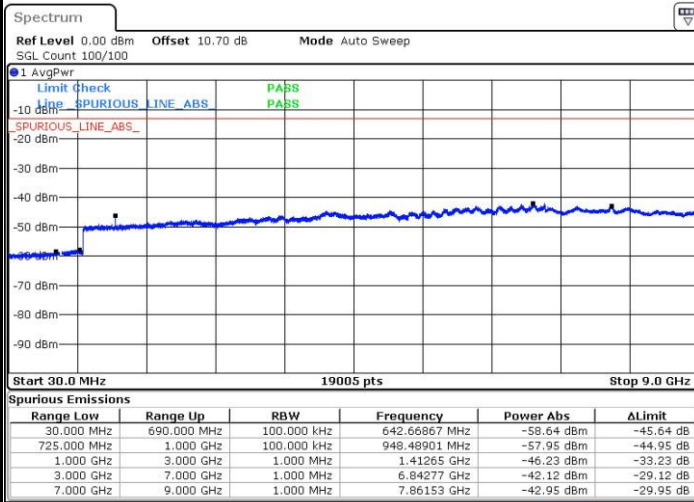


Date: 15 MAY 2017 23:22:40



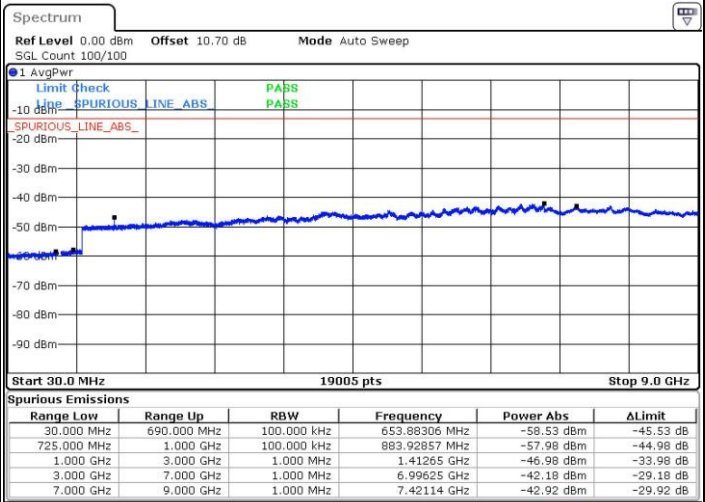
LTE Band 12 / 3MHz

Middle Channel / QPSK



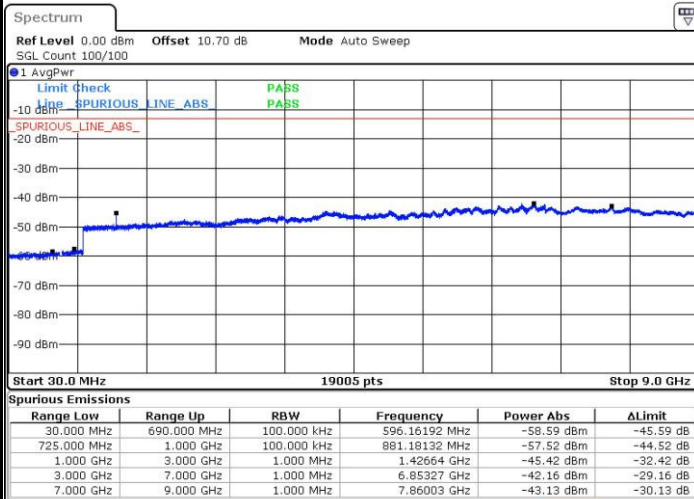
Date: 15 MAY 2017 23:25:10

Middle Channel / 16QAM



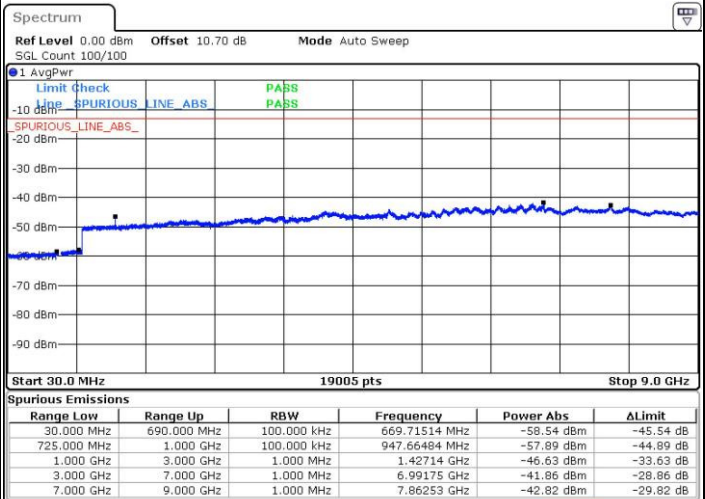
Date: 15 MAY 2017 23:24:16

Highest Channel / QPSK



Date: 15 MAY 2017 23:31:22

Highest Channel / 16QAM

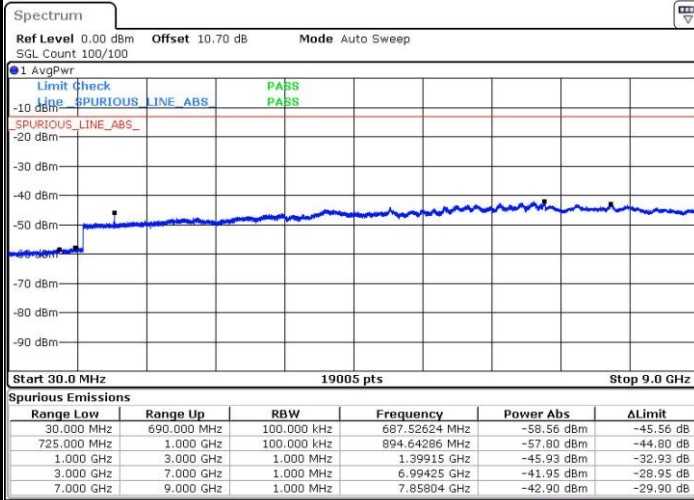


Date: 15 MAY 2017 23:32:16



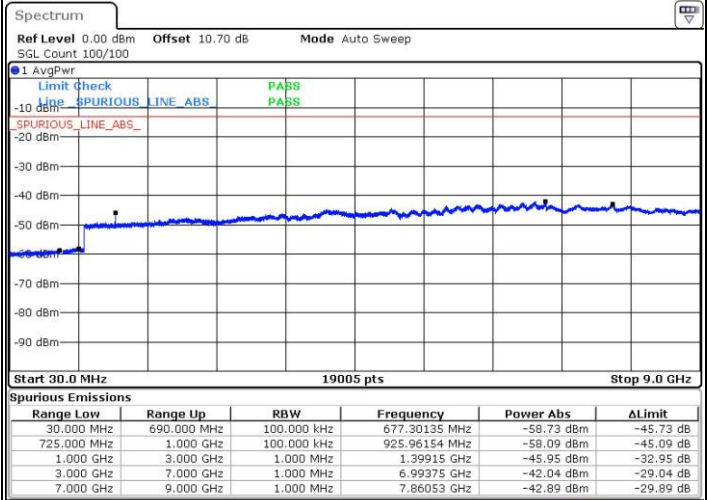
LTE Band 12 / 5MHz

Lowest Channel / QPSK



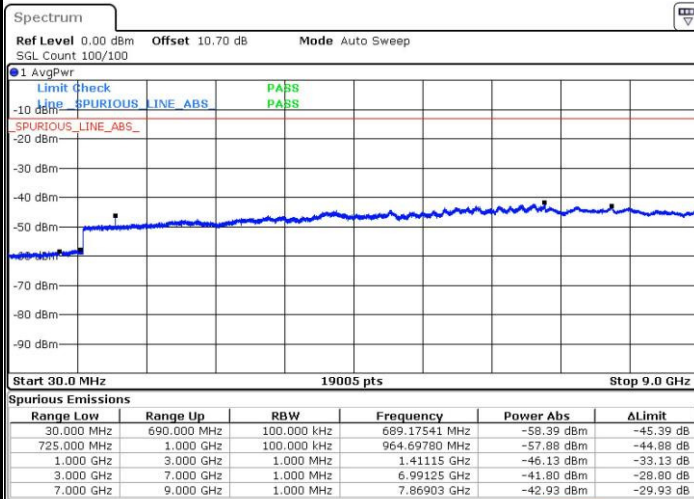
Date: 15 MAY 2017 23:38:28

Lowest Channel / 16QAM



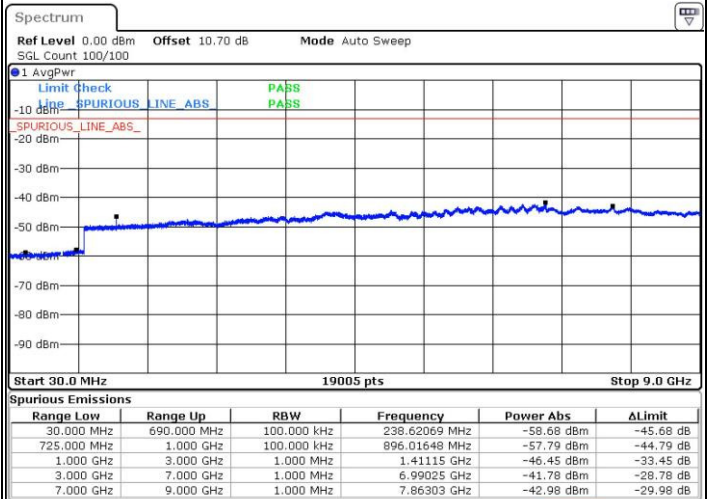
Date: 15 MAY 2017 23:39:22

Middle Channel / QPSK



Date: 15 MAY 2017 23:41:52

Middle Channel / 16QAM

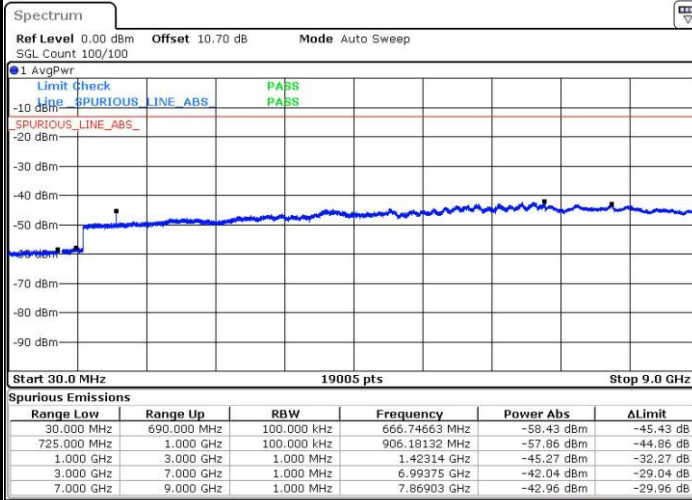


Date: 15 MAY 2017 23:40:58



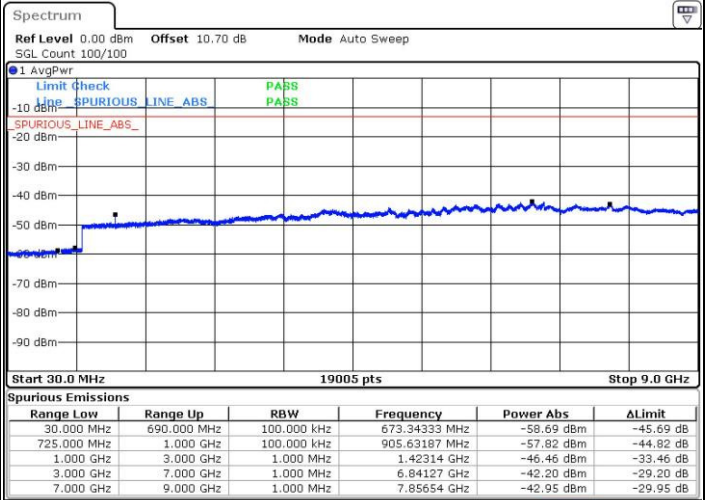
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 15 MAY 2017 23:48:59

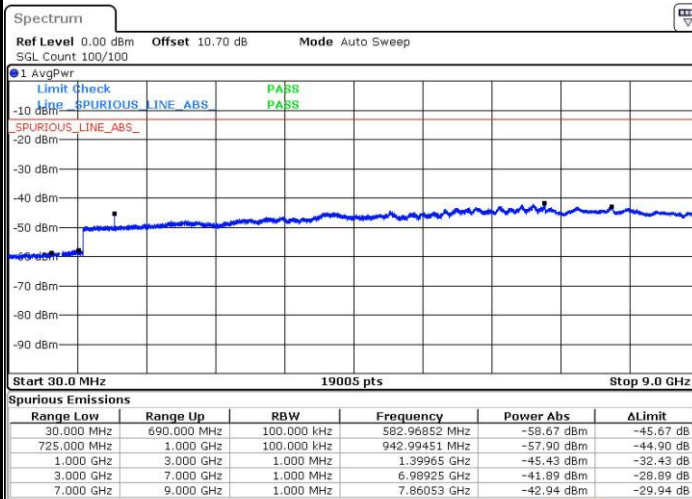
Highest Channel / 16QAM



Date: 15 MAY 2017 23:48:05

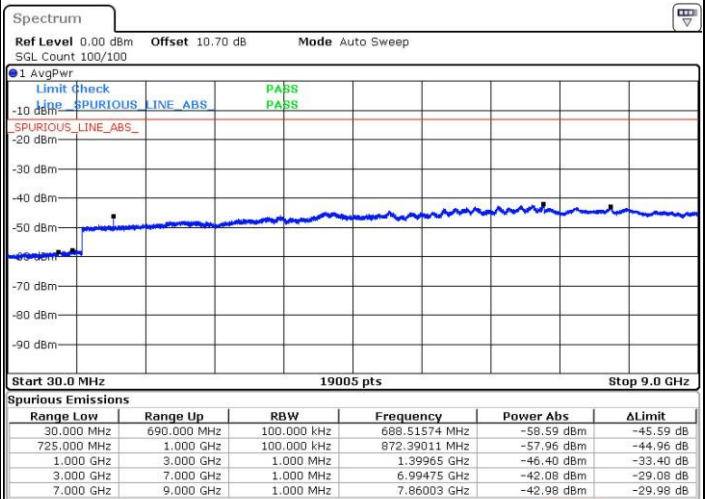
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 15 MAY 2017 23:55:11

Lowest Channel / 16QAM

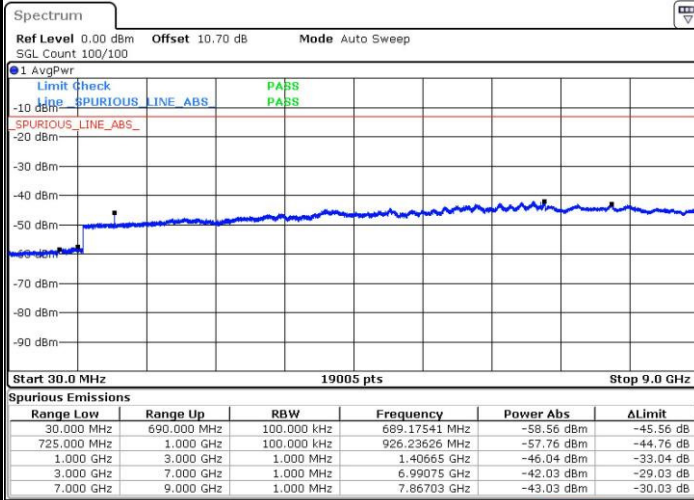


Date: 15 MAY 2017 23:56:05



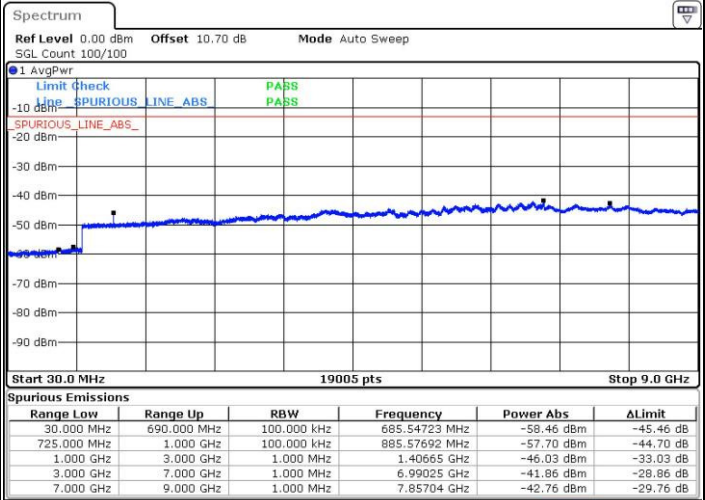
LTE Band 12 / 10MHz

Middle Channel / QPSK



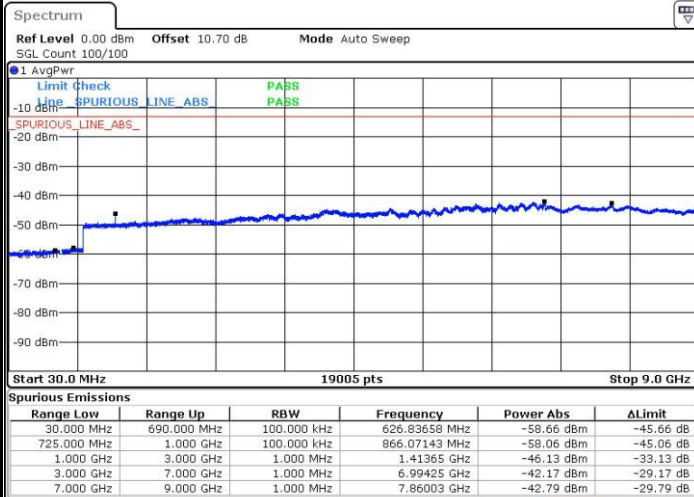
Date: 15 MAY 2017 23:58:35

Middle Channel / 16QAM



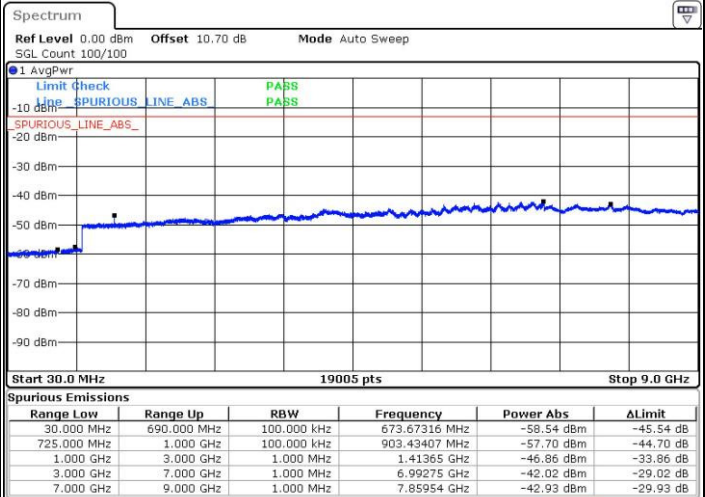
Date: 15 MAY 2017 23:57:41

Highest Channel / QPSK



Date: 16 MAY 2017 00:04:47

Highest Channel / 16QAM

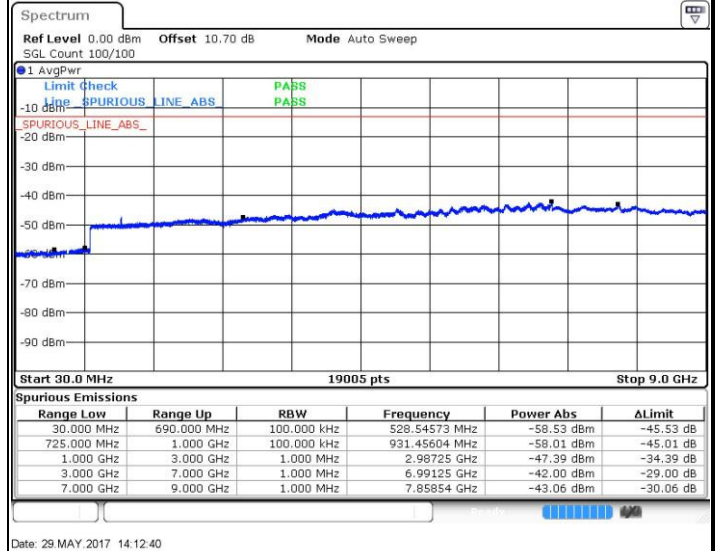


Date: 16 MAY 2017 00:05:41

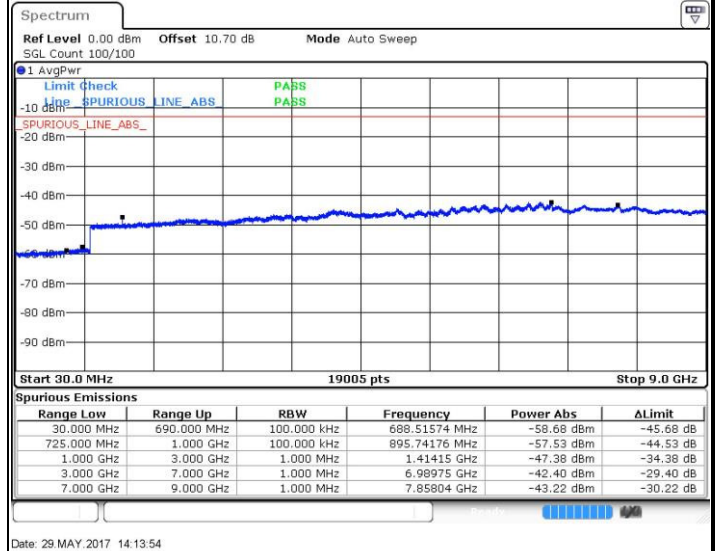


LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



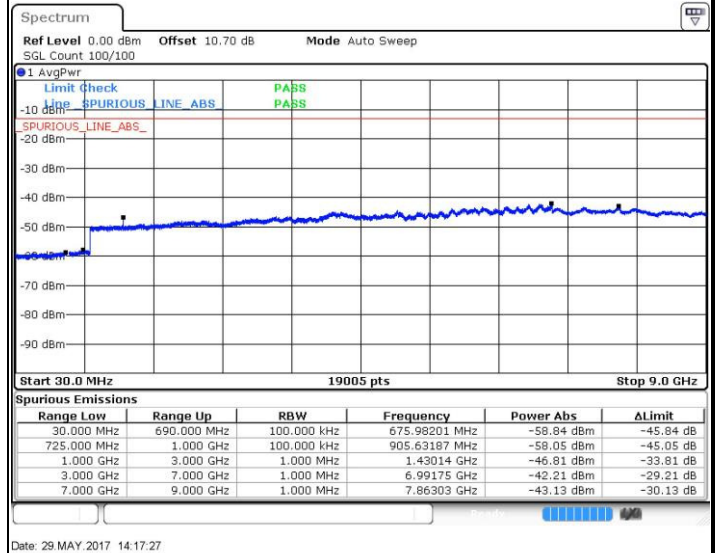
Middle Channel / 64QAM





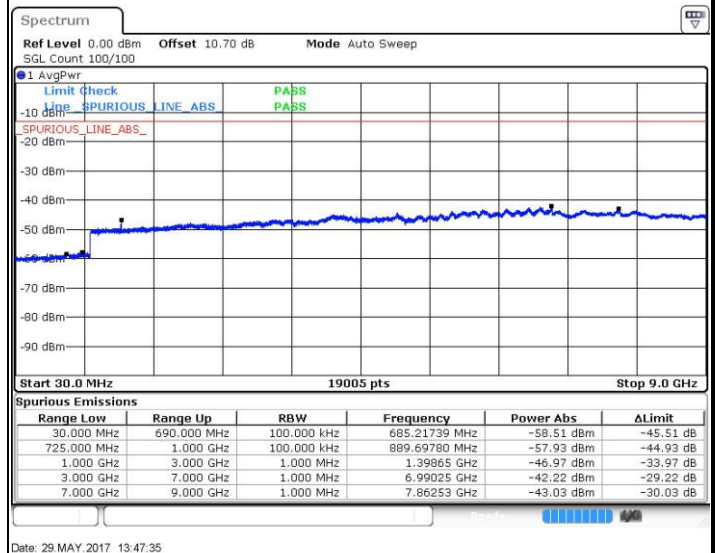
LTE Band 12 / 1.4MHz

Highest Channel / 64QAM



LTE Band 12 / 3MHz

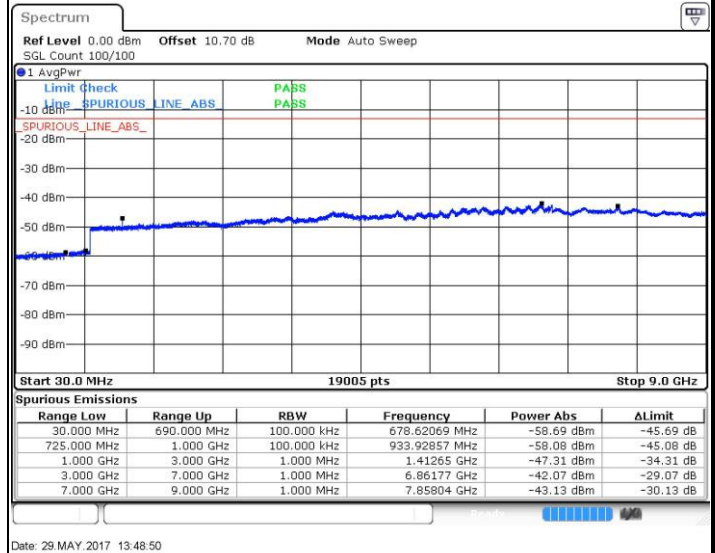
Lowest Channel / 64QAM



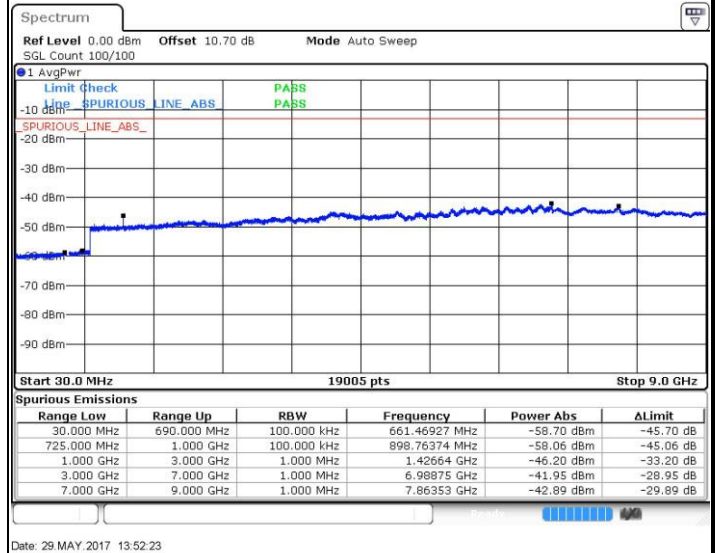


LTE Band 12 / 3MHz

Middle Channel / 64QAM



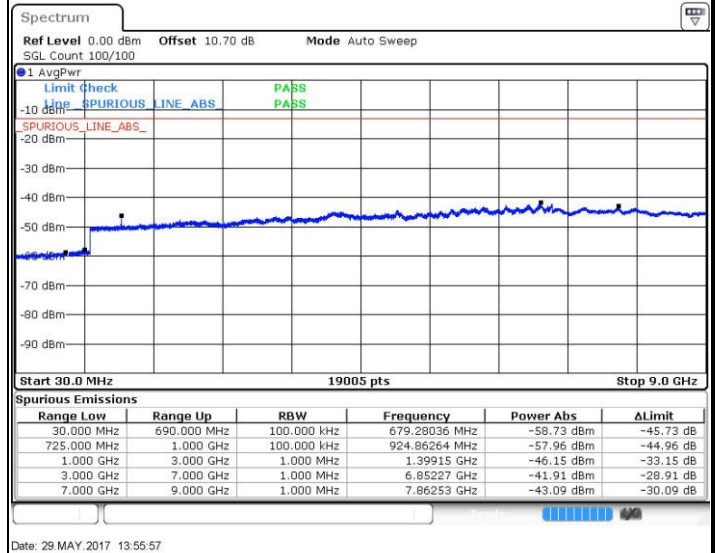
Highest Channel / 64QAM



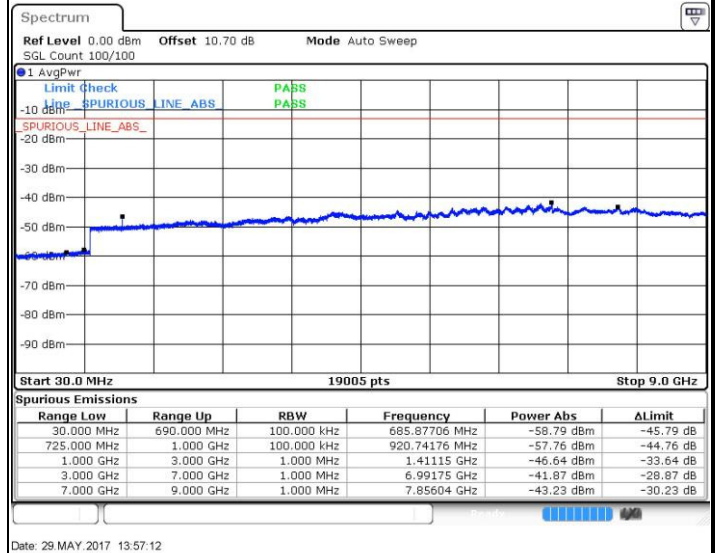


LTE Band 12 / 5MHz

Lowest Channel / 64QAM



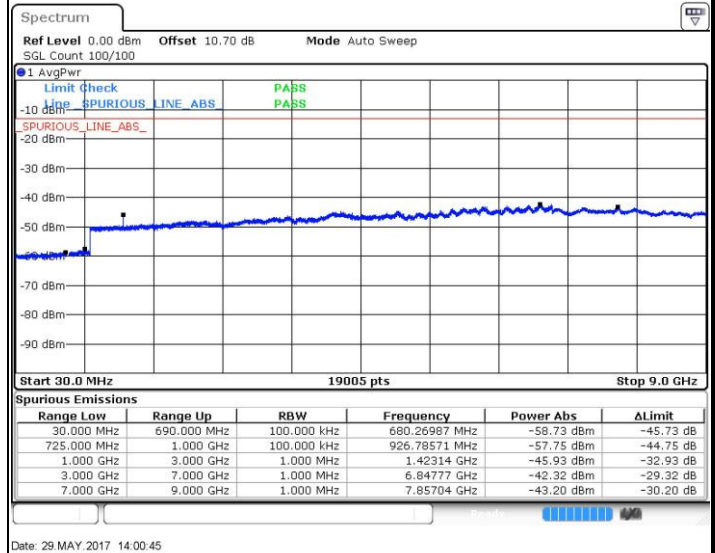
Middle Channel / 64QAM





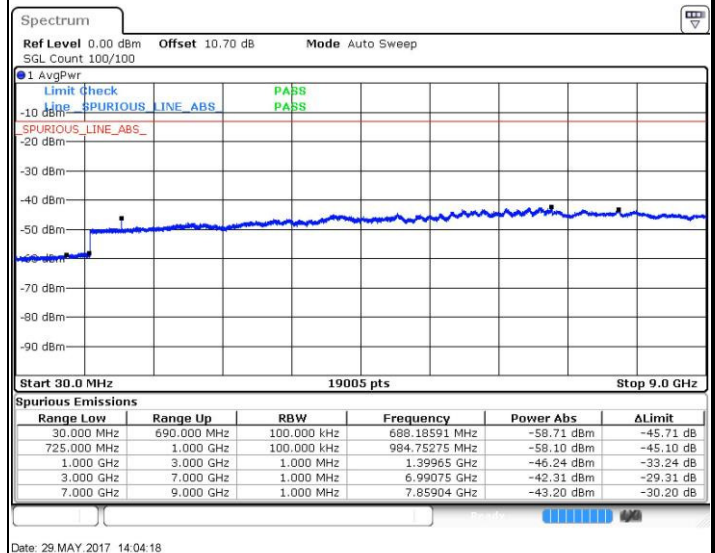
LTE Band 12 / 5MHz

Highest Channel / 64QAM



LTE Band 12 / 10MHz

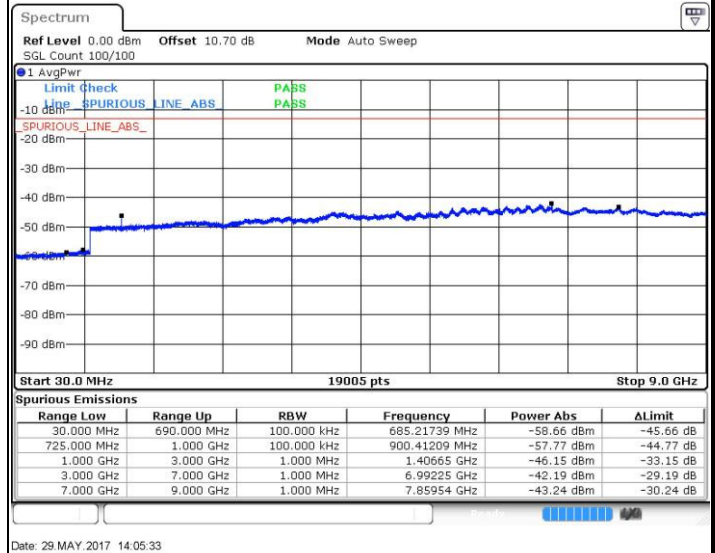
Lowest Channel / 64QAM



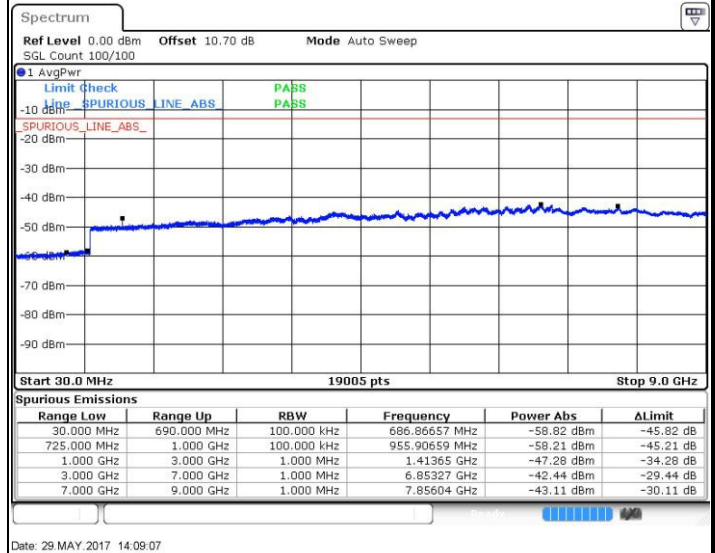


LTE Band 12 / 10MHz

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	0.0099	PASS
40	Normal Voltage	0.0072	
30	Normal Voltage	0.0090	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0035	
0	Normal Voltage	0.0024	
-10	Normal Voltage	0.0030	
-20	Normal Voltage	0.0143	
-30	Normal Voltage	0.0154	
20	Maximum Voltage	0.0151	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0140	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 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	3.54	4.78	4.52	5.86	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	-		64QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	-	-	4.03	5.86	
Highest CH	-	-	-	-	

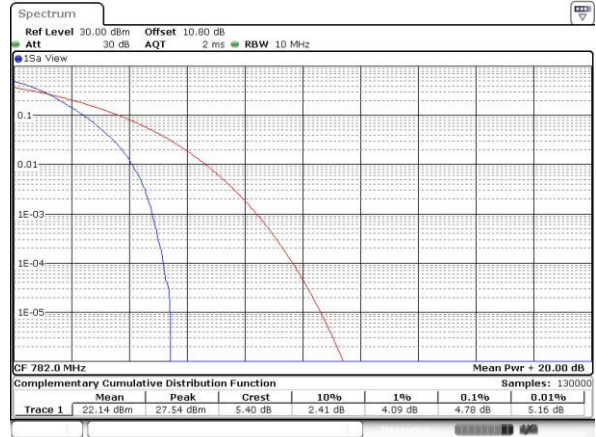


LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB

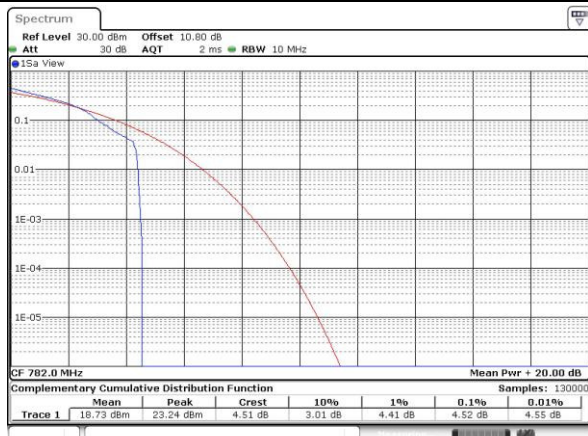


Middle Channel / Full RB



LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Middle Channel / Full RB



LTE Band 13 / 10MHz / 64QAM

Middle Channel/ 1RB



Middle Channel / Full RB



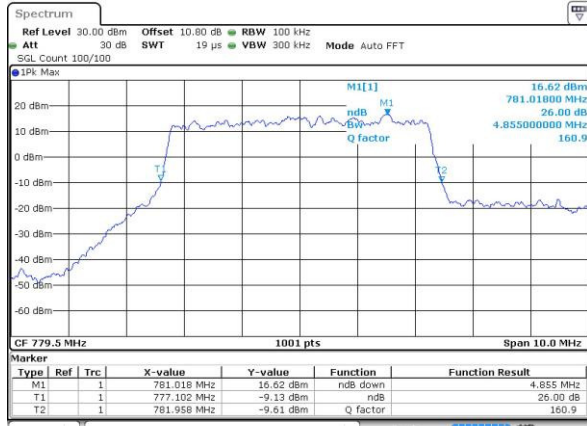
**26dB Bandwidth**

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	-	-	-	-	4.86	4.87	-	-	-	-	-	-
Middle CH	-	-	-	-	4.90	4.90	9.63	9.73	-	-	-	-
Highest CH	-	-	-	-	4.82	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	-	-	-	-	-	4.84	-	-	-	-	-	-
Middle CH	-	-	-	-	-	4.85	-	9.69	-	-	-	-
Highest CH	-	-	-	-	-	4.95	-	-	-	-	-	-

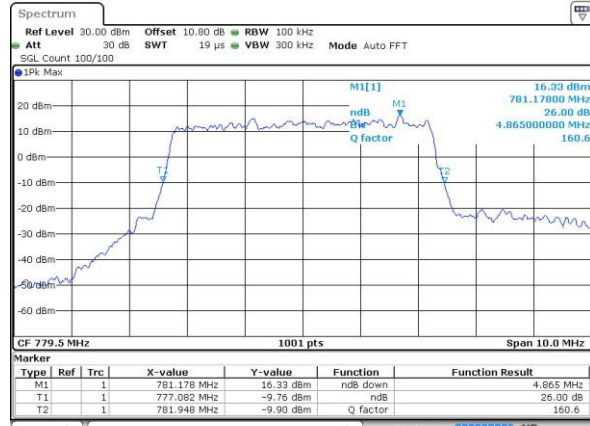


LTE Band 13

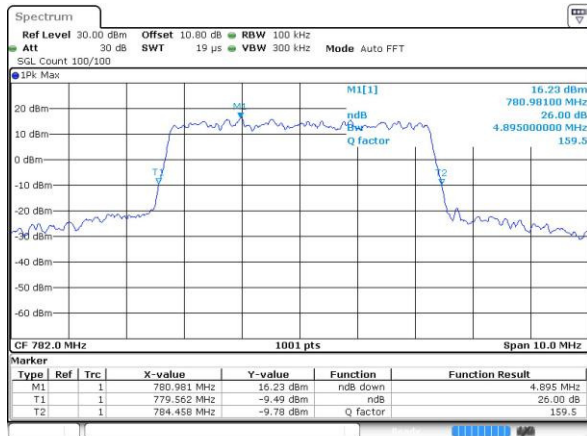
Lowest Channel / 5MHz / QPSK



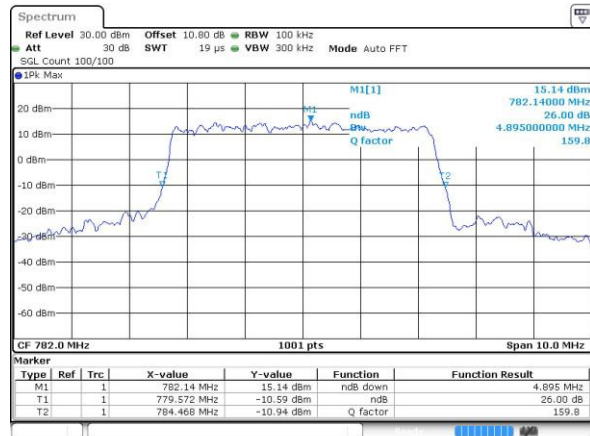
Lowest Channel / 5MHz / 16QAM



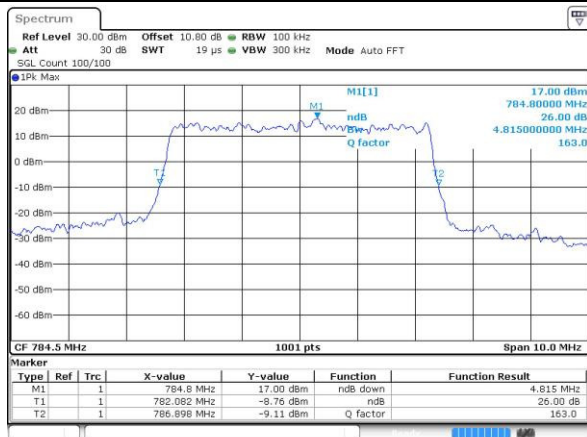
Middle Channel / 5MHz / QPSK



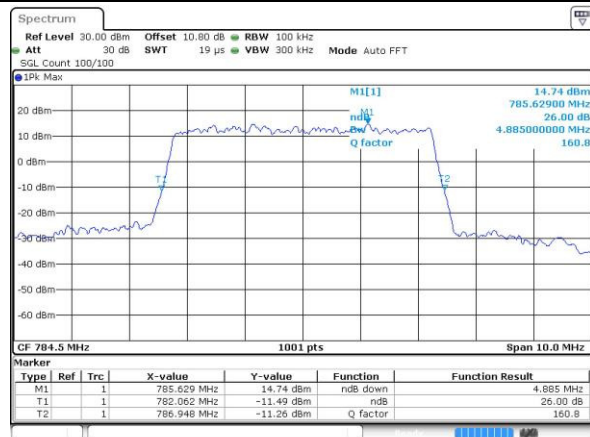
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



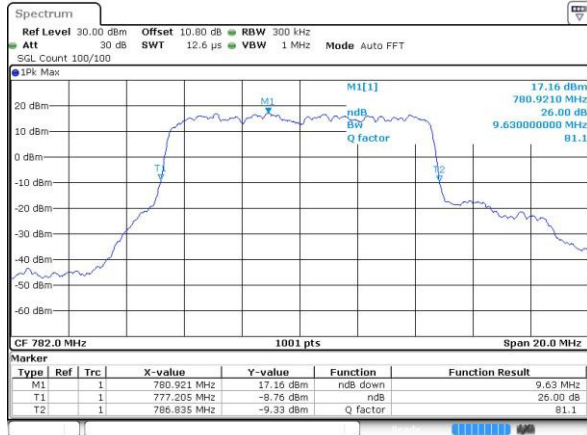
Highest Channel / 5MHz / 16QAM





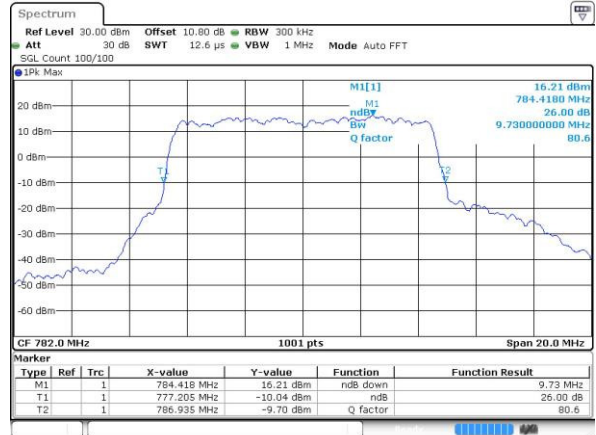
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 17 MAY 2017 00:24:31

Middle Channel / 10MHz / 16QAM

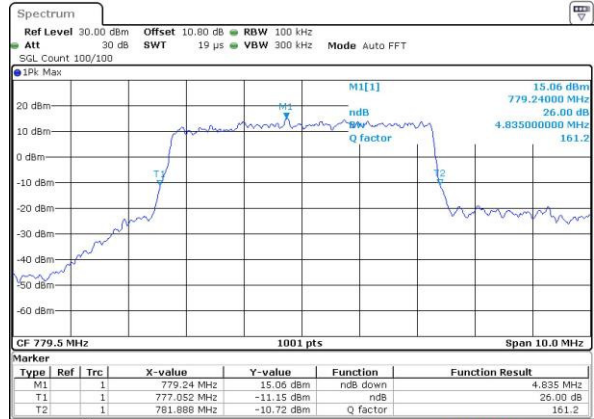


Date: 17 MAY 2017 00:24:21

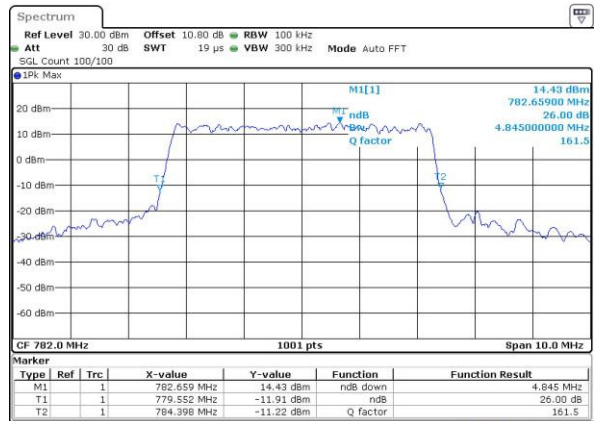


LTE Band 13

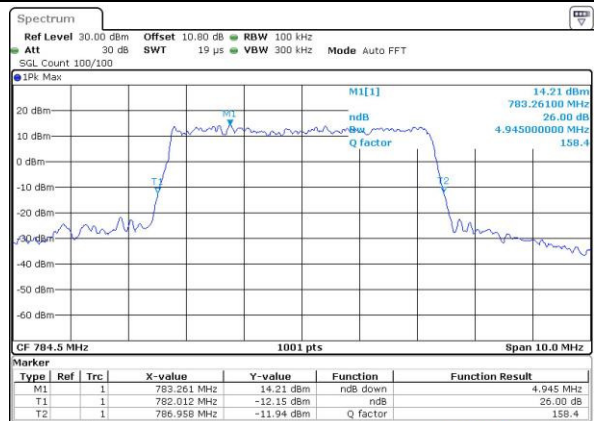
Lowest Channel / 5MHz / 64QAM



Middle Channel / 5MHz / 64QAM



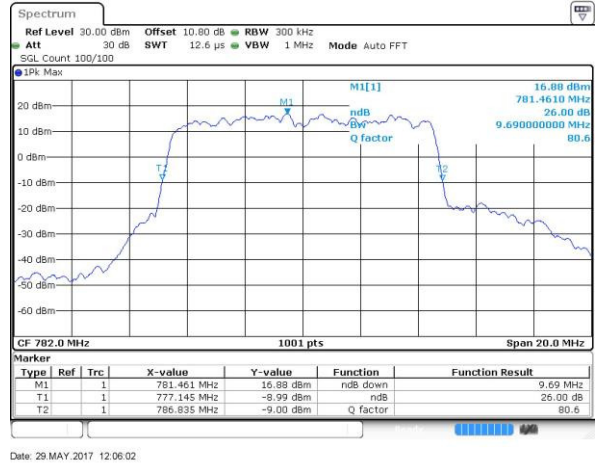
Highest Channel / 5MHz / 64QAM





LTE Band 13

Middle Channel / 10MHz / 64QAM



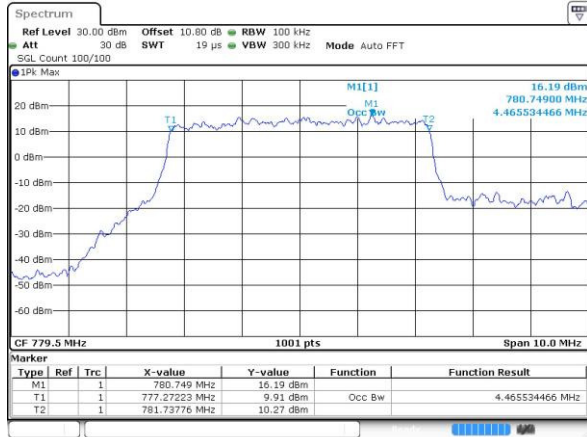
**Occupied Bandwidth**

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	-	-	-	-	4.47	4.47	-	-	-	-	-	-
Middle CH	-	-	-	-	4.5	4.49	8.93	9.03	-	-	-	-
Highest CH	-	-	-	-	4.5	4.5	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM	-	64QAM
Lowest CH	-	-	-	-	-	4.46	-	-	-	-	-	-
Middle CH	-	-	-	-	-	4.48	-	8.95	-	-	-	-
Highest CH	-	-	-	-	-	4.5	-	-	-	-	-	-

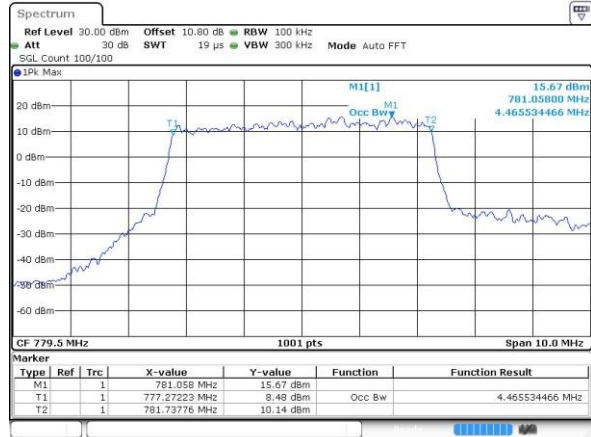


LTE Band 13

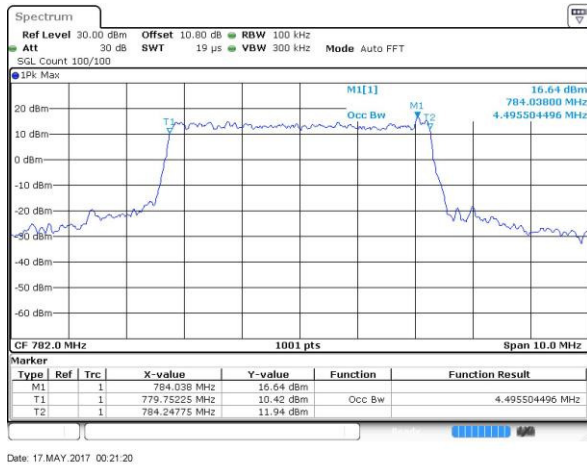
Lowest Channel / 5MHz / QPSK



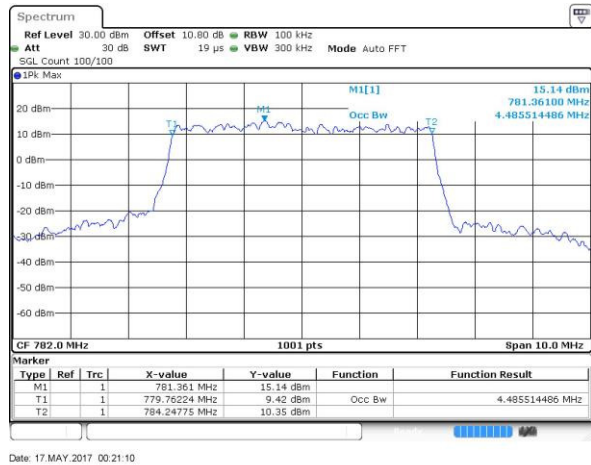
Lowest Channel / 5MHz / 16QAM



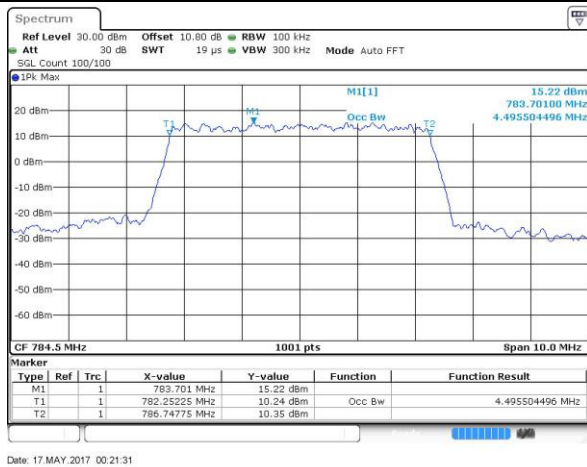
Middle Channel / 5MHz / QPSK



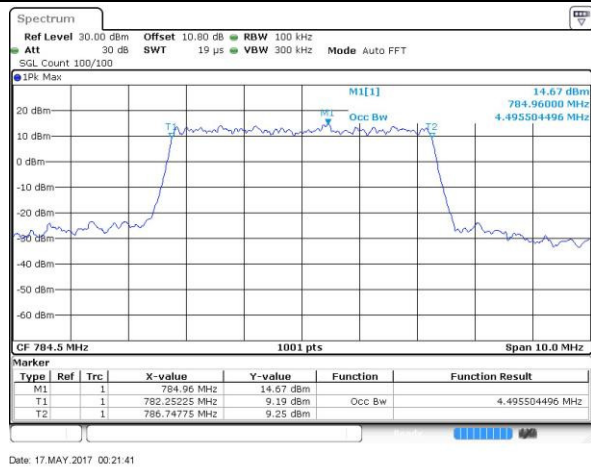
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



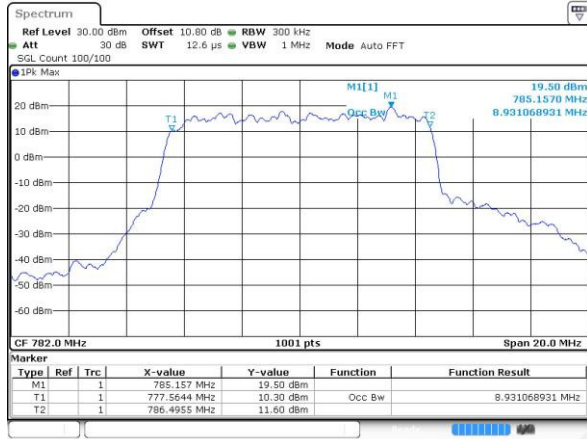
Highest Channel / 5MHz / 16QAM





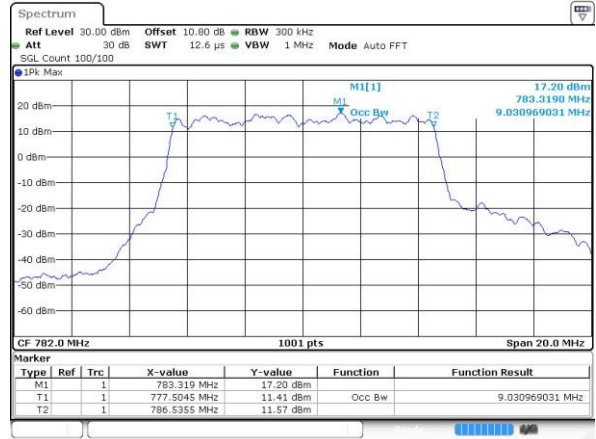
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 17 MAY 2017 00:24:00

Middle Channel / 10MHz / 16QAM

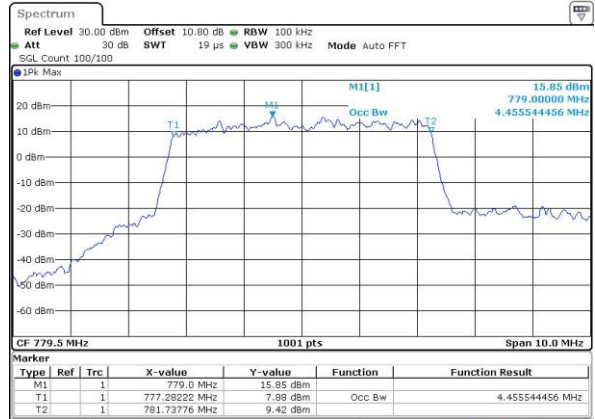


Date: 17 MAY 2017 00:24:10



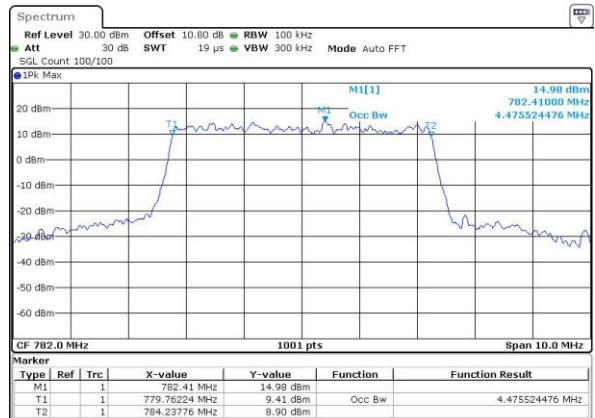
LTE Band 13

Lowest Channel / 5MHz / 64QAM



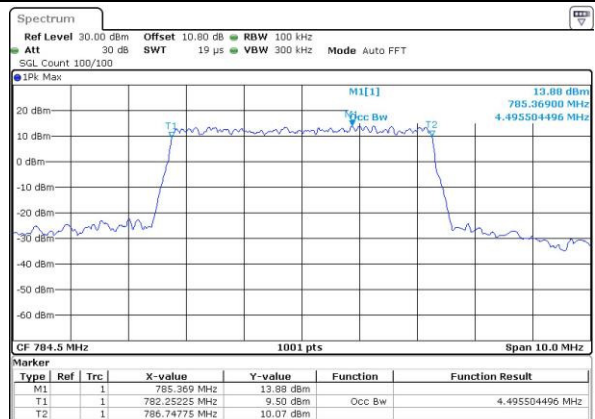
Date: 29 MAY 2017 11:55:30

Middle Channel / 5MHz / 64QAM



Date: 29 MAY 2017 12:01:08

Highest Channel / 5MHz / 64QAM

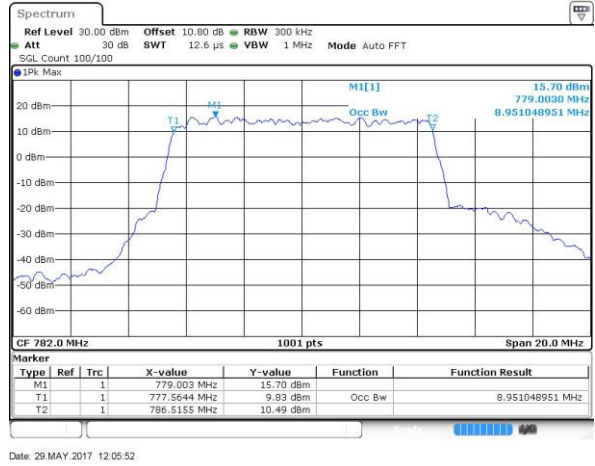


Date: 29 MAY 2017 12:01:18



LTE Band 13

Middle Channel / 10MHz / 64QAM

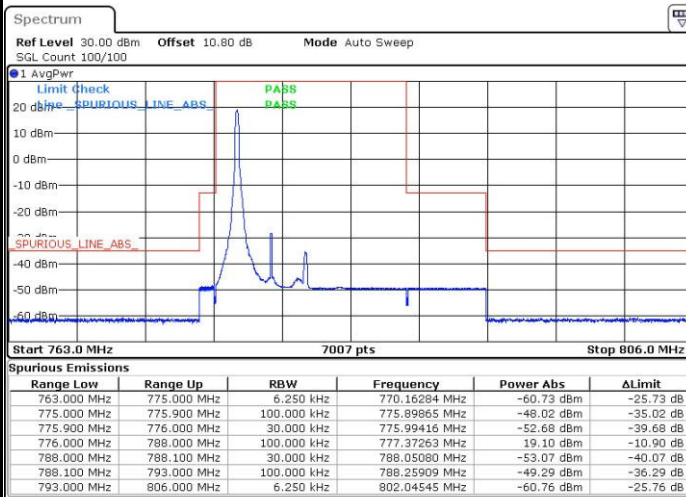




Conducted Band Edge

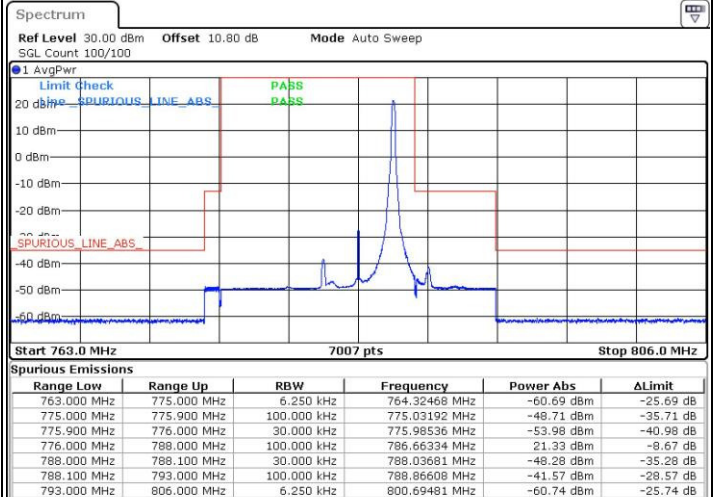
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



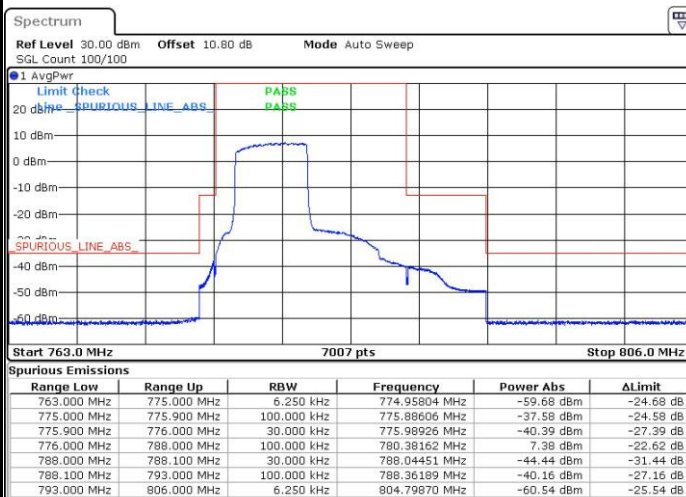
Date: 17.MAY.2017 00:34:50

Highest Band Edge / 1 RB



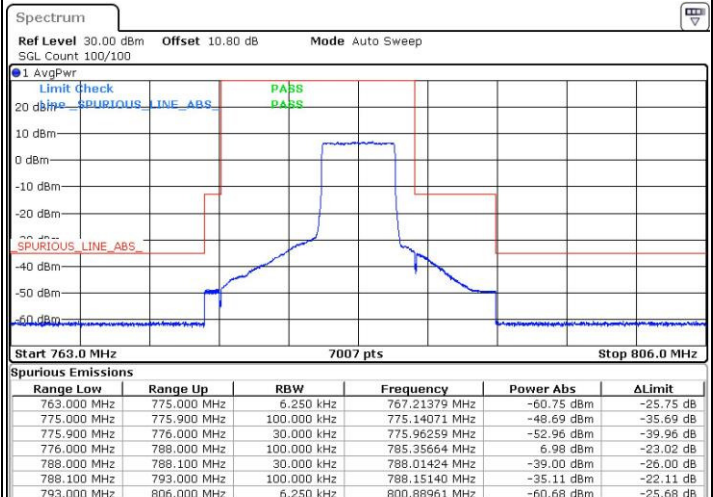
Date: 17.MAY.2017 00:41:27

Lowest Band Edge / Full RB



Date: 17.MAY.2017 00:29:52

Highest Band Edge / Full RB

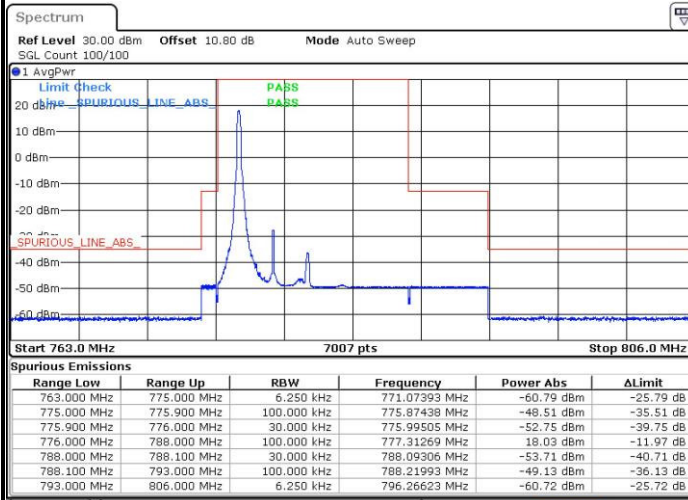


Date: 17.MAY.2017 00:36:29

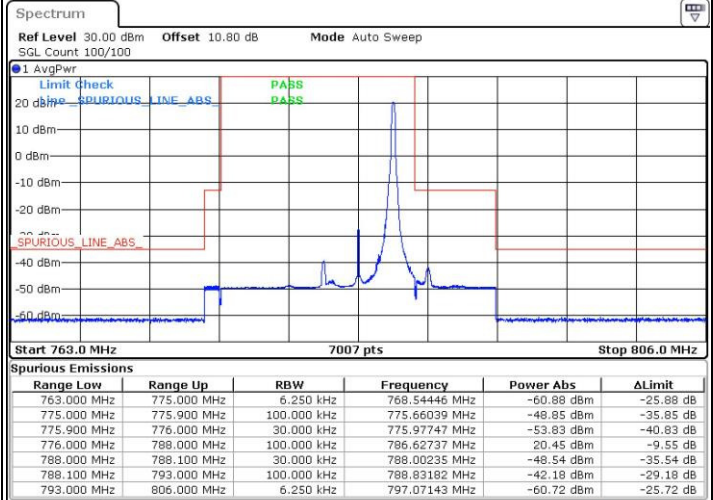


LTE Band 13 / 5MHz / 16QAM

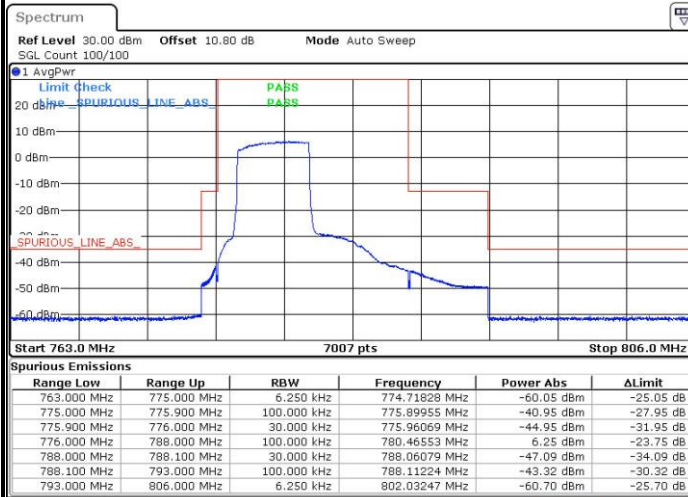
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



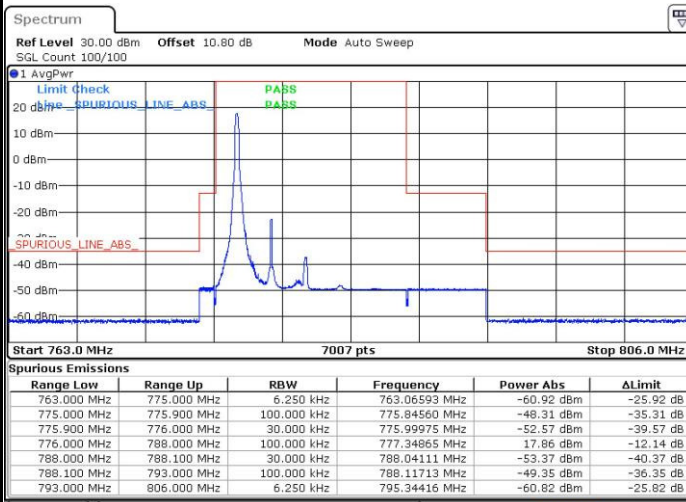
Highest Band Edge / Full RB





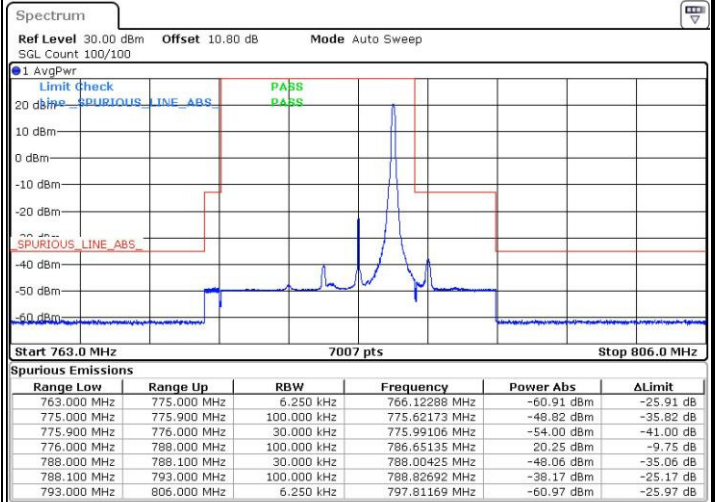
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



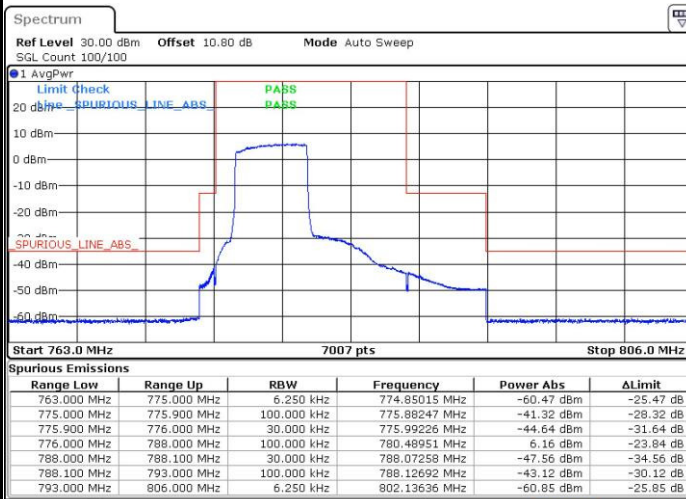
Date: 29 MAY 2017 11:58:59

Highest Band Edge / 1 RB



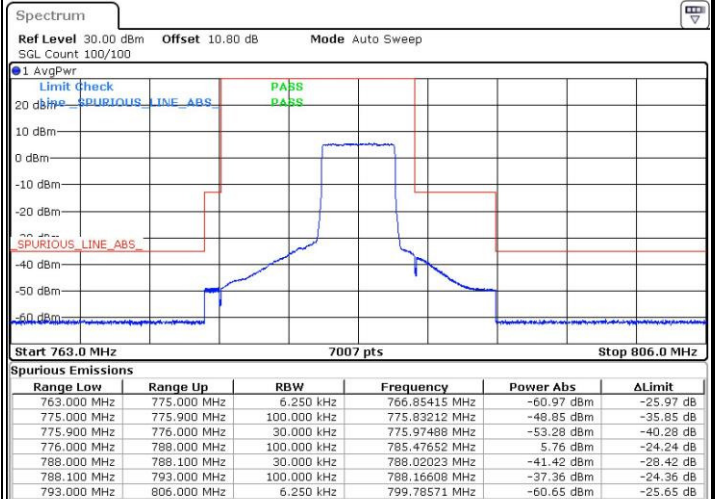
Date: 29 MAY 2017 12:04:47

Lowest Band Edge / Full RB



Date: 29 MAY 2017 11:57:19

Highest Band Edge / Full RB



Date: 29 MAY 2017 12:03:07