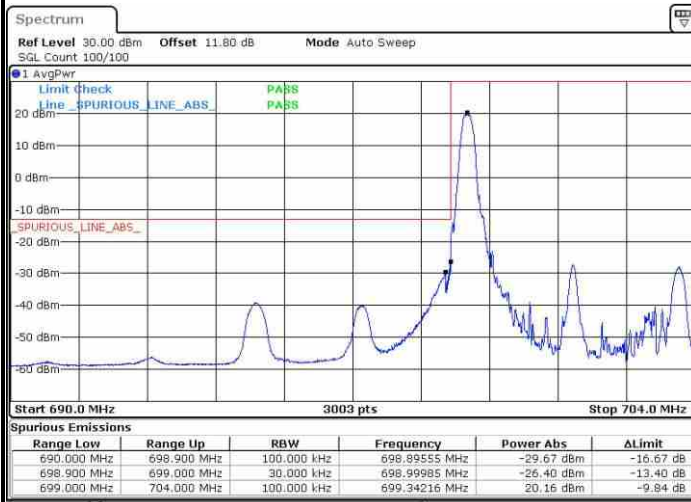




LTE Band 12 / 5MHz / 16QAM

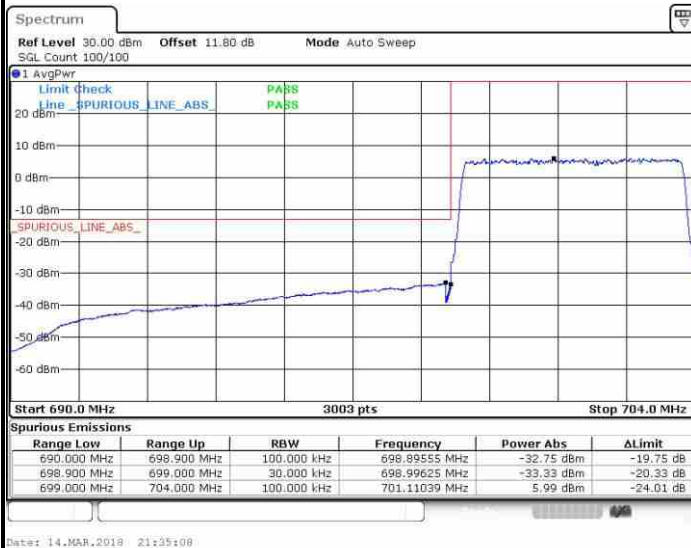
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



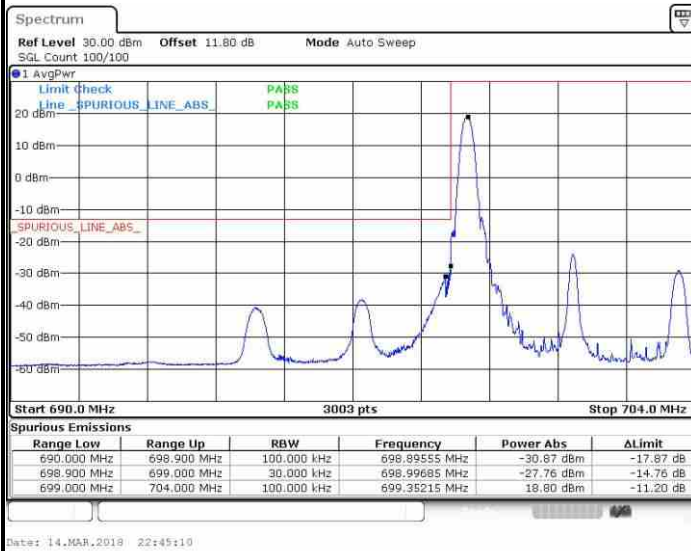
Highest Band Edge / Full RB



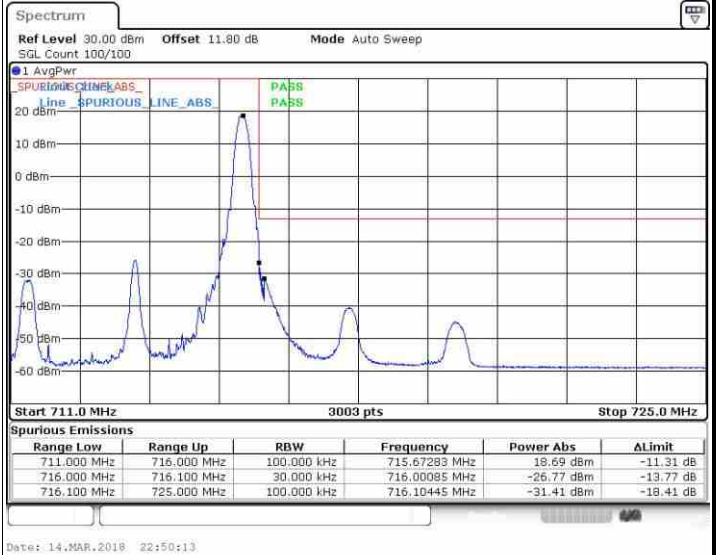


LTE Band 12 / 5MHz / 64QAM

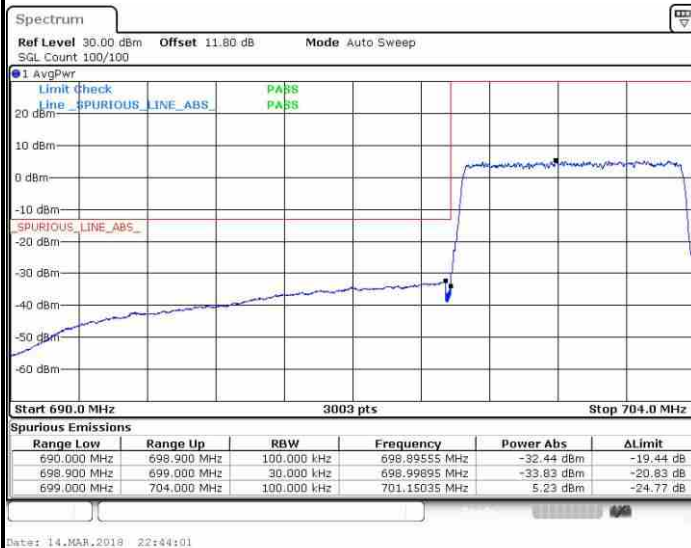
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



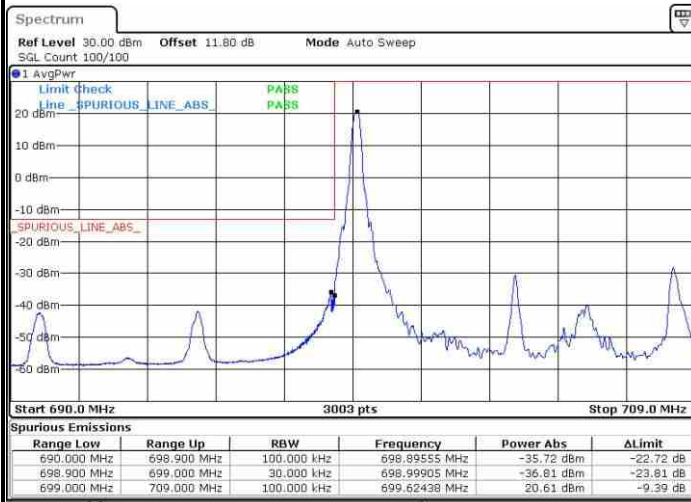
Highest Band Edge / Full RB



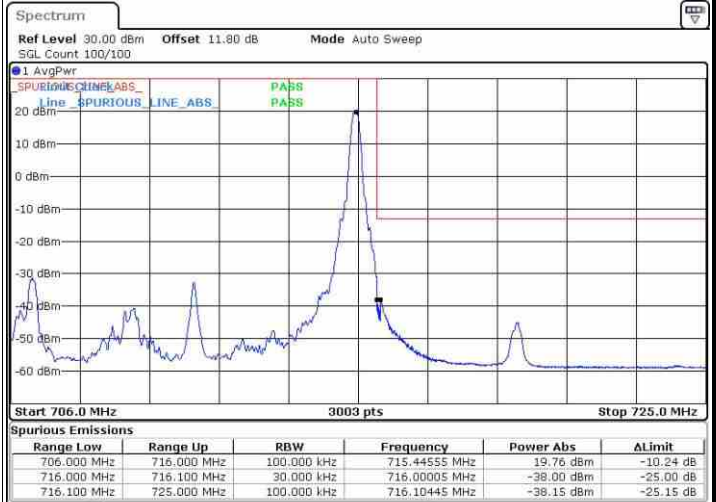


LTE Band 12 / 10MHz / QPSK

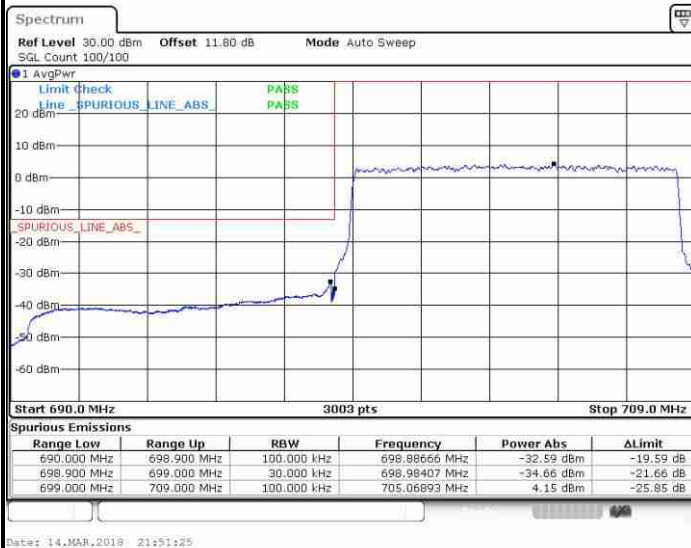
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



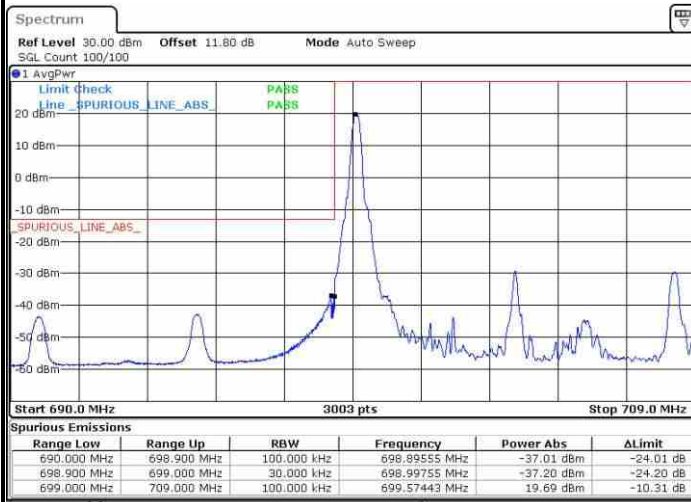
Highest Band Edge / Full RB



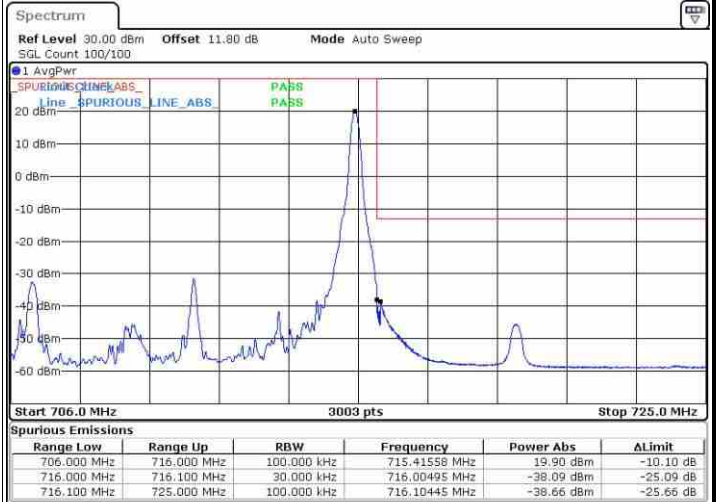


LTE Band 12 / 10MHz / 16QAM

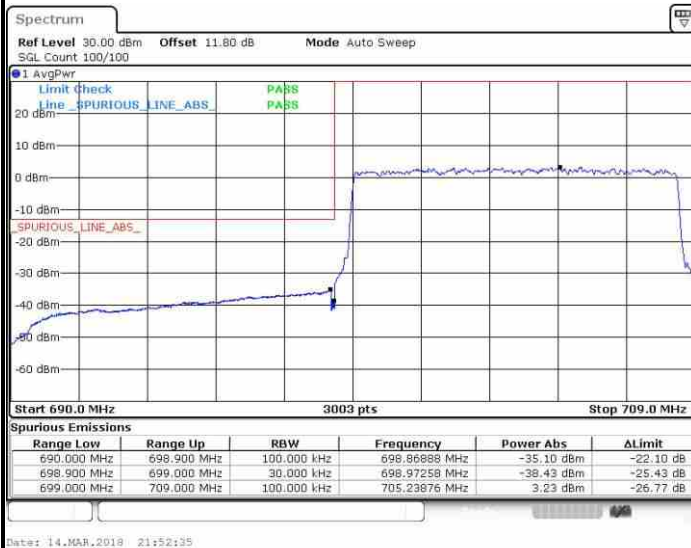
Lowest Band Edge / 1 RB



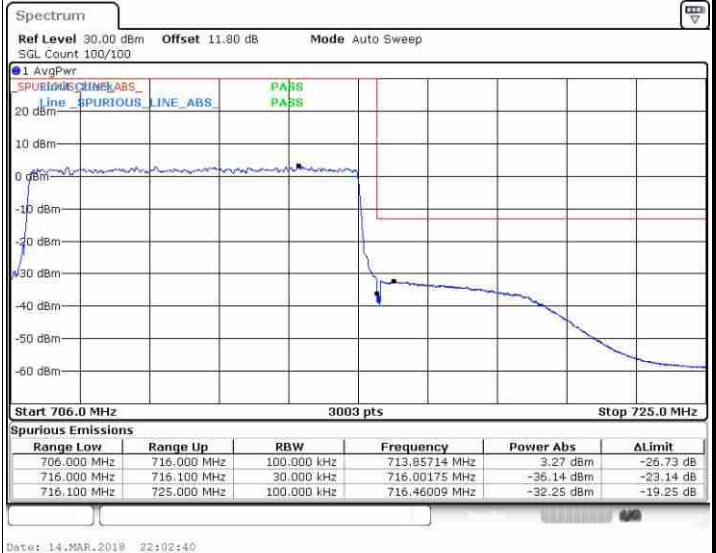
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



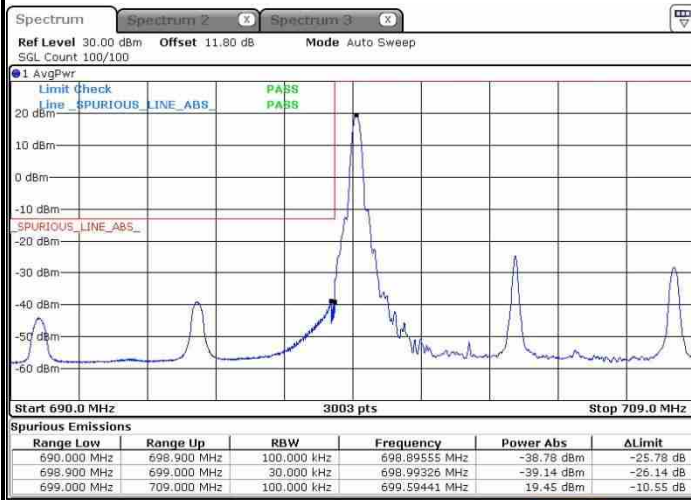
Highest Band Edge / Full RB





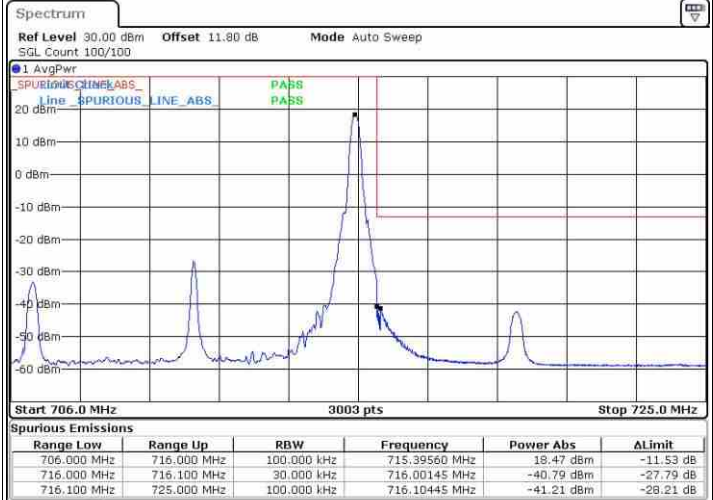
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



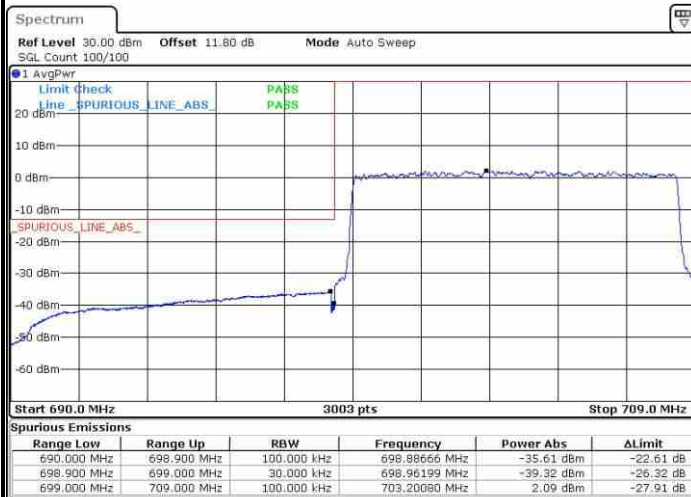
Date: 28 MAR 2018 04:20:45

Highest Band Edge / 1 RB



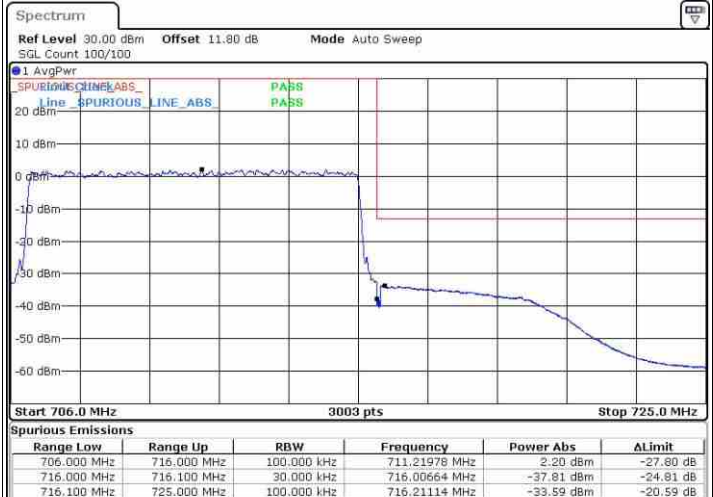
Date: 14.MAR.2018 22:58:57

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

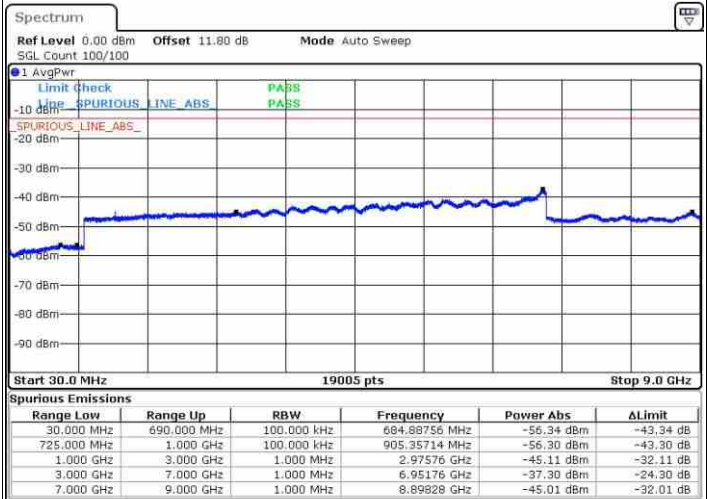
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



Date: 14.MAR.2018 22:14:34

Lowest Channel / 16QAM



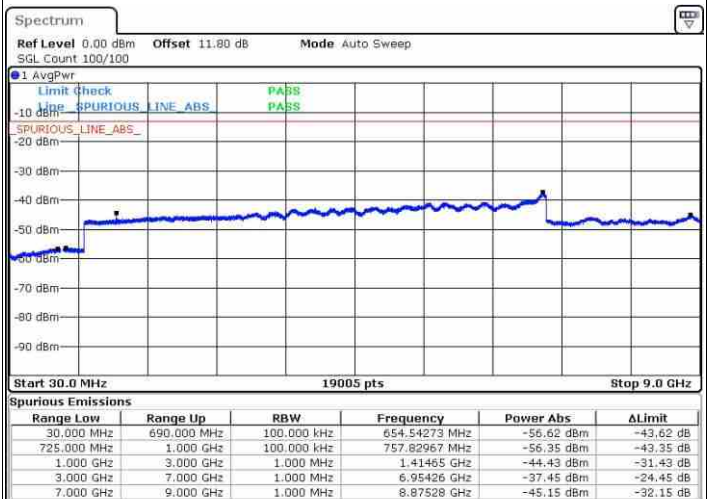
Date: 14.MAR.2018 22:15:32

Middle Channel / QPSK



Date: 14.MAR.2018 22:18:17

Middle Channel / 16QAM

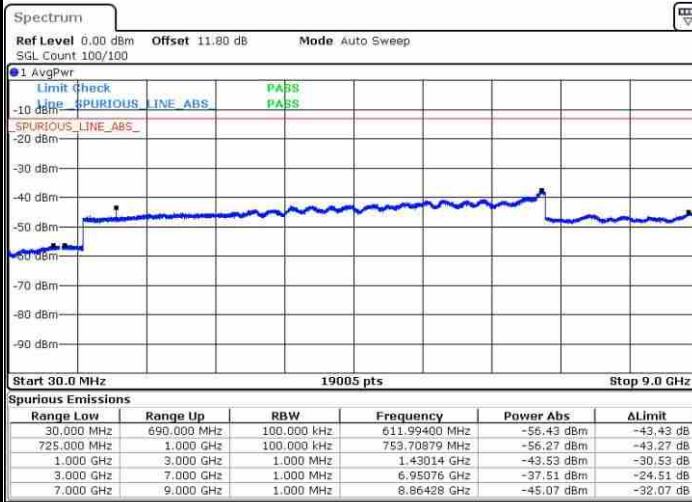


Date: 14.MAR.2018 22:17:18



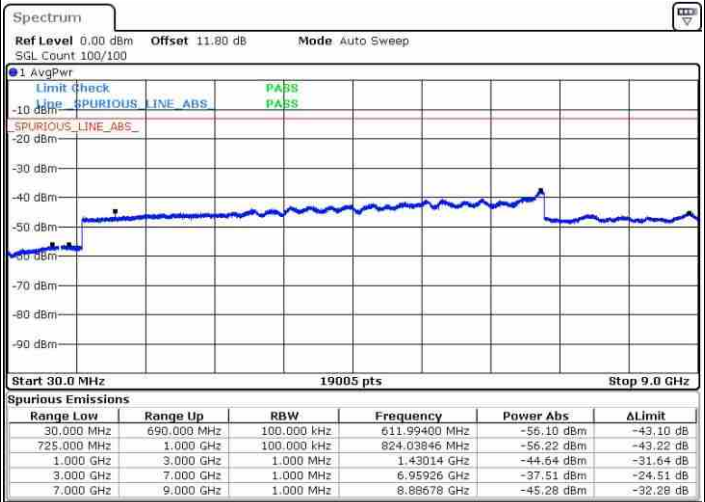
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



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

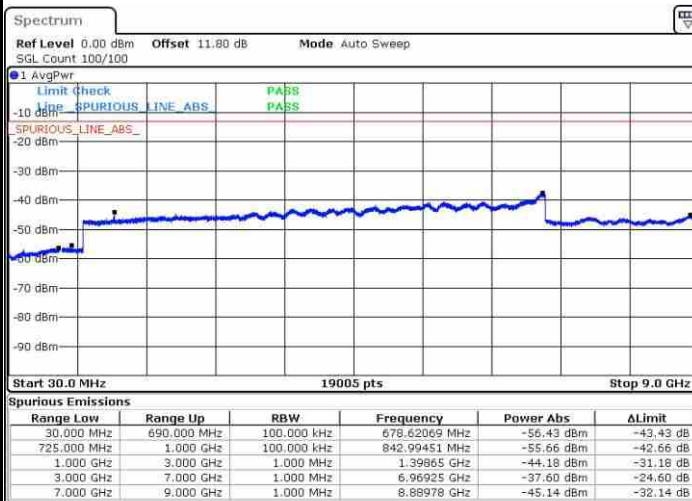
Highest Channel / 16QAM



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

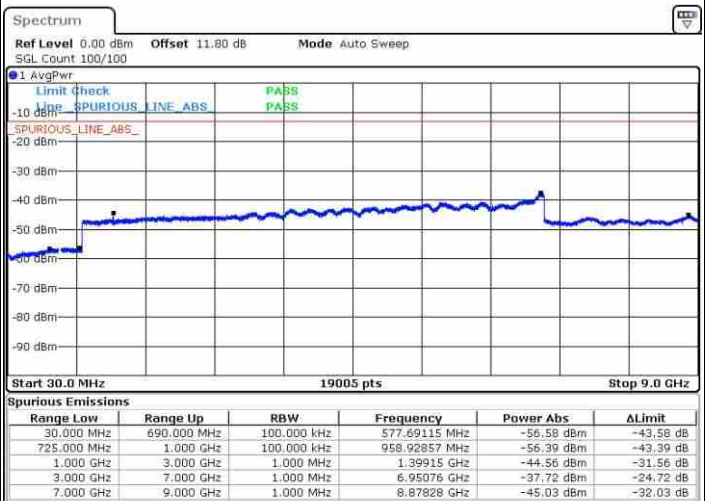
LTE Band 12 / 3MHz

Lowest Channel / QPSK



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

Lowest Channel / 16QAM

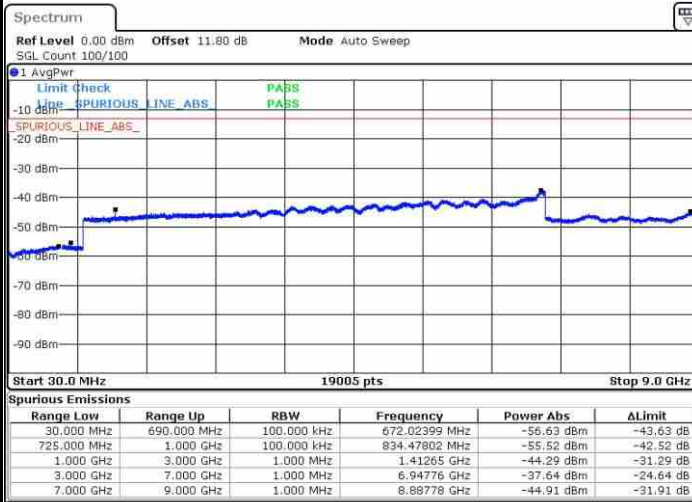


Date: 14.MAR.2018 21:21:55



LTE Band 12 / 3MHz

Middle Channel / QPSK



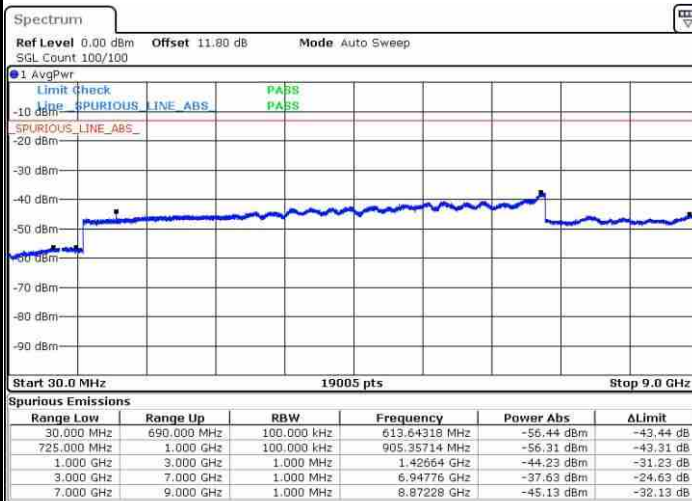
Date: 14.MAR.2018 21:24:40

Middle Channel / 16QAM



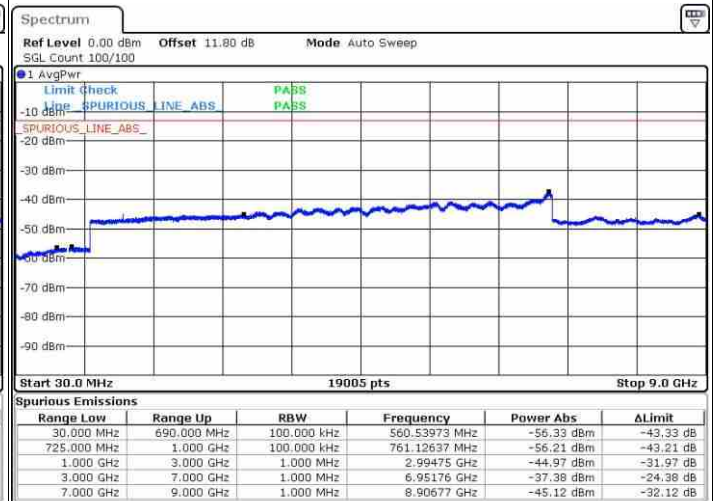
Date: 14.MAR.2018 21:23:42

Highest Channel / QPSK



Date: 14.MAR.2018 21:31:04

Highest Channel / 16QAM

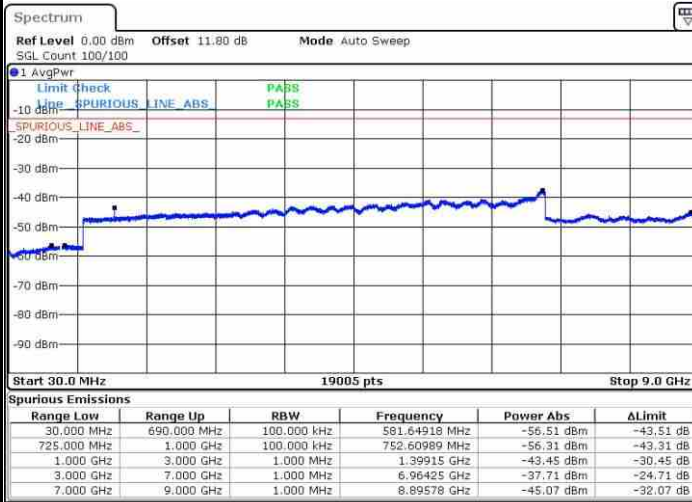


Date: 14.MAR.2018 21:32:01



LTE Band 12 / 5MHz

Lowest Channel / QPSK



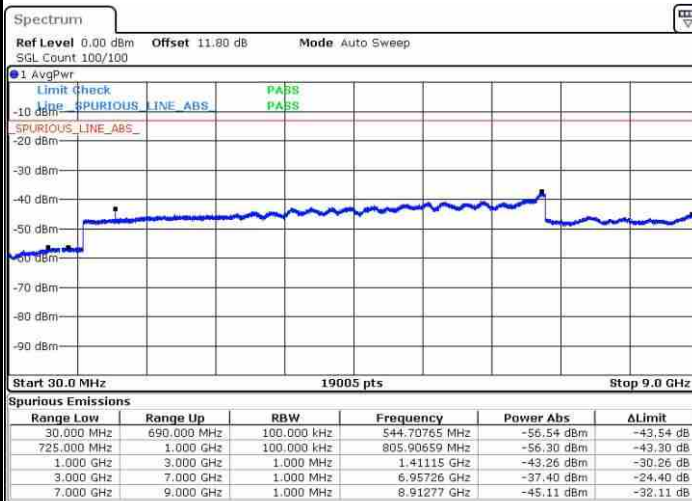
Date: 14.MAR.2018 21:38:24

Lowest Channel / 16QAM



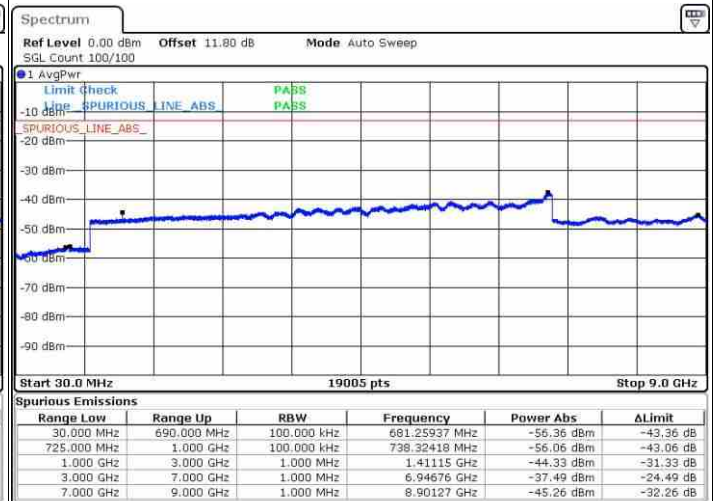
Date: 14.MAR.2018 21:39:23

Middle Channel / QPSK



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

Middle Channel / 16QAM

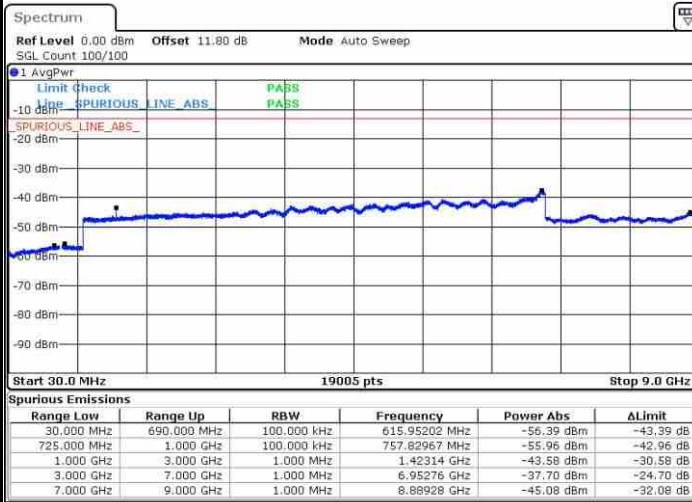


Date: 14.MAR.2018 21:41:09



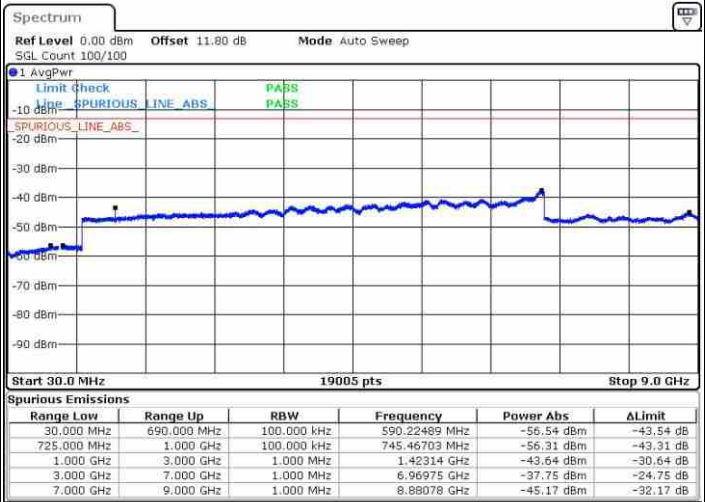
LTE Band 12 / 5MHz

Highest Channel / QPSK



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

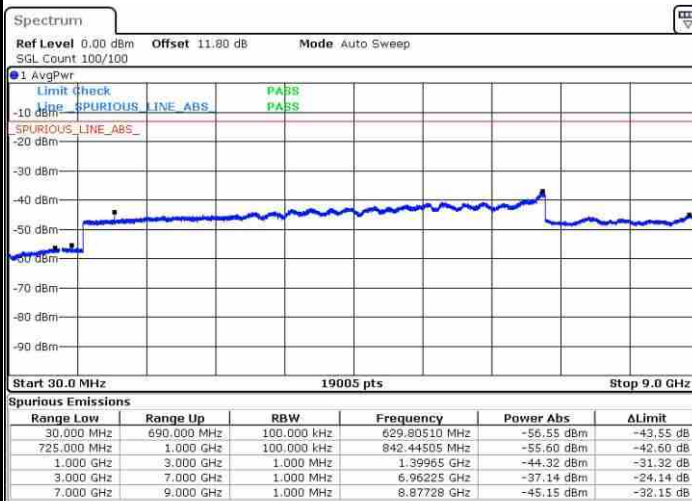
Highest Channel / 16QAM



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

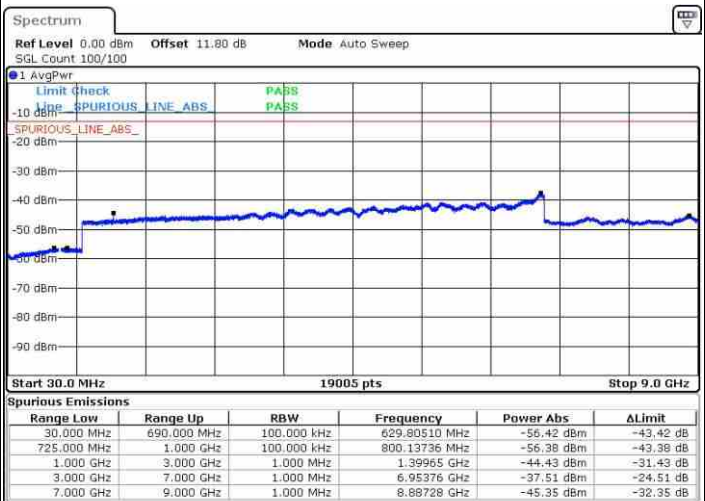
LTE Band 12 / 10MHz

Lowest Channel / QPSK



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

Lowest Channel / 16QAM



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



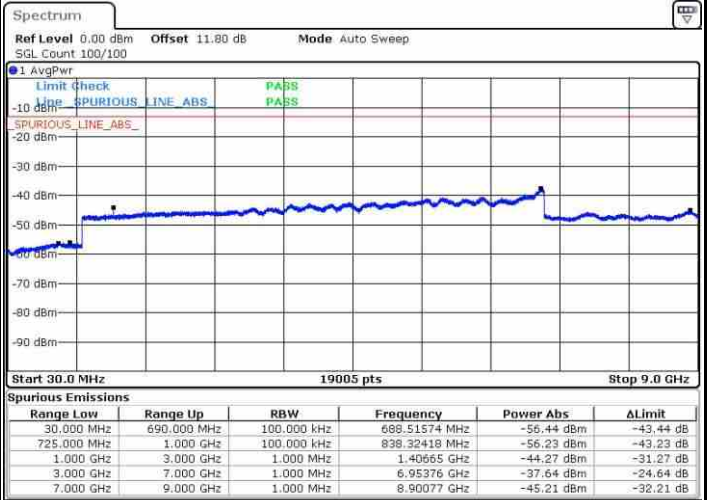
LTE Band 12 / 10MHz

Middle Channel / QPSK



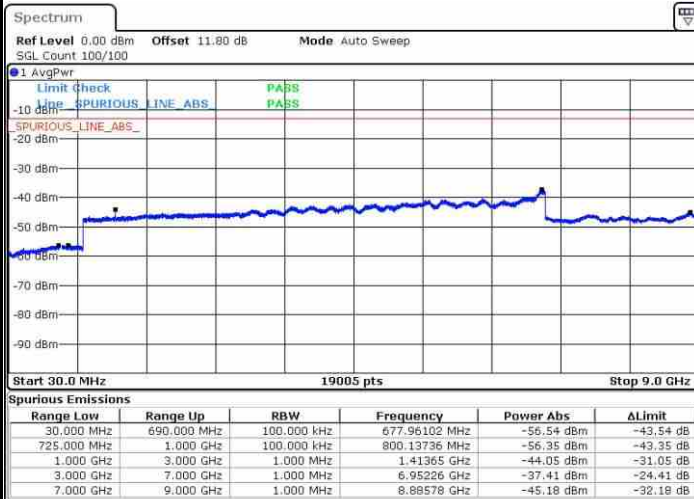
Date: 14.MAR.2018 21:59:33

Middle Channel / 16QAM



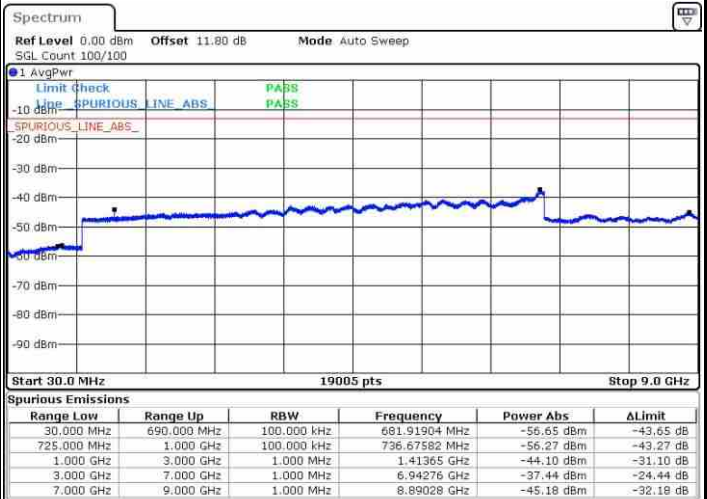
Date: 14.MAR.2018 21:58:34

Highest Channel / QPSK



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

Highest Channel / 16QAM

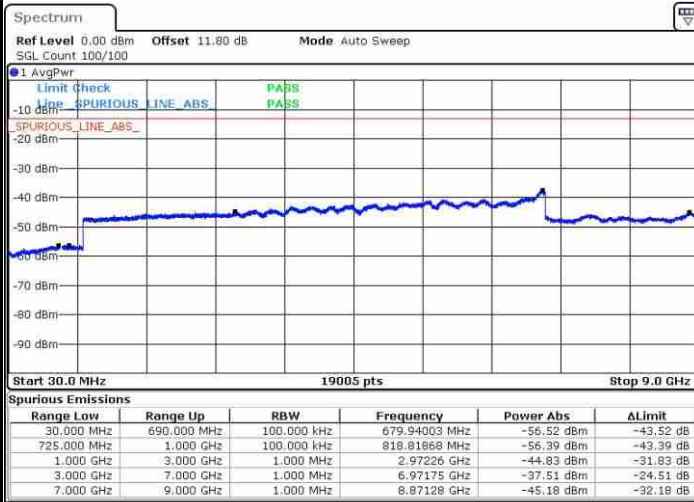


Date: 14.MAR.2018 22:06:54



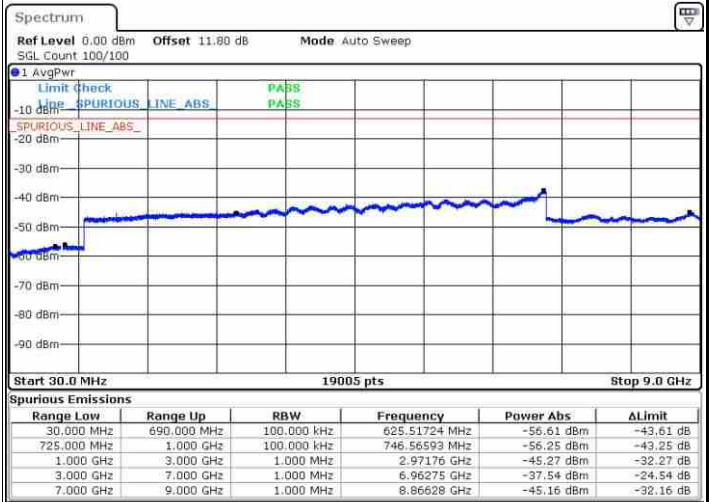
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



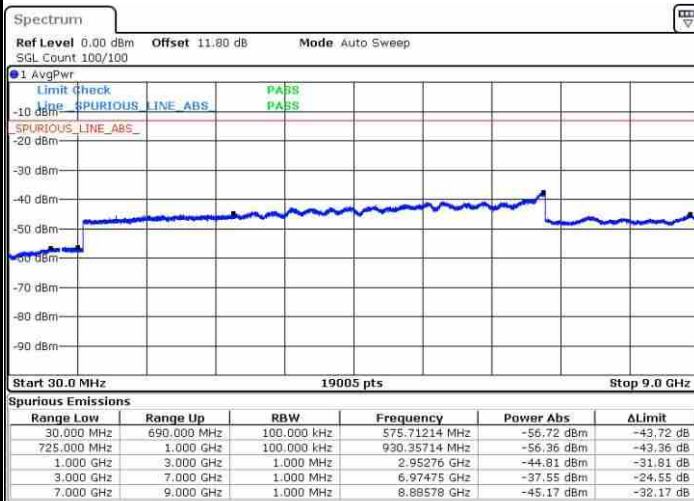
Date: 14.MAR.2018 23:03:35

Middle Channel / 64QAM



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

Highest Channel / 64QAM



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



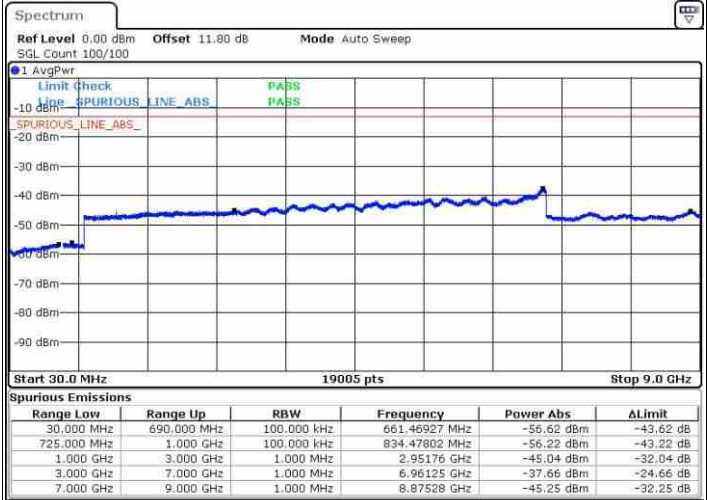
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



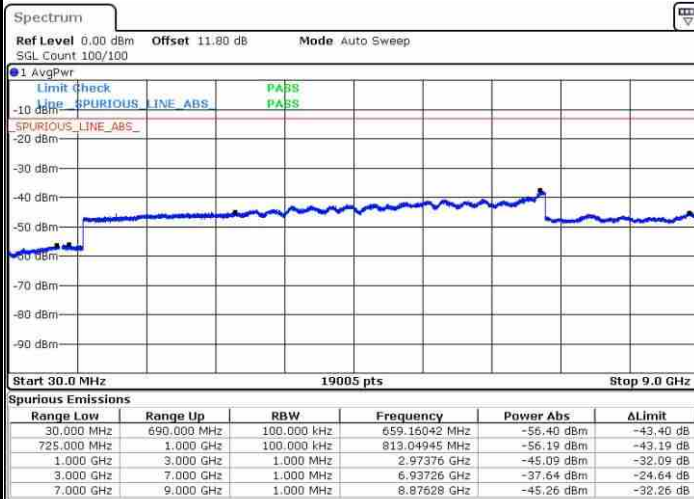
Date: 14.MAR.2018 22:37:24

Middle Channel / 64QAM



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

Highest Channel / 64QAM

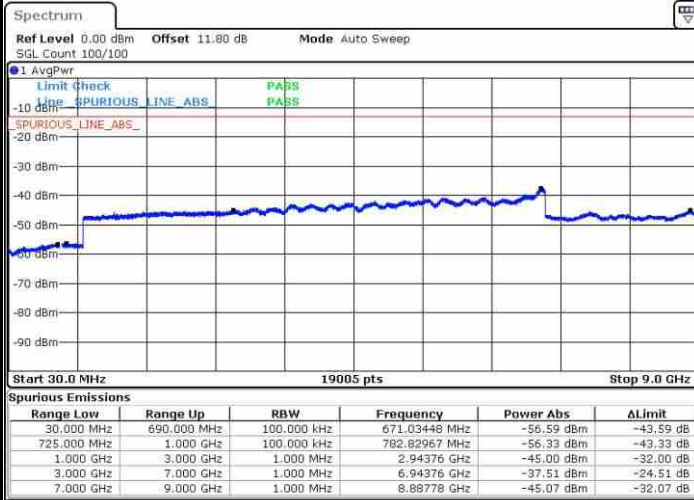


Date: 14.MAR.2018 22:42:27



LTE Band 12 / 5MHz

Lowest Channel / 64QAM



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

Middle Channel / 64QAM



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

Highest Channel / 64QAM

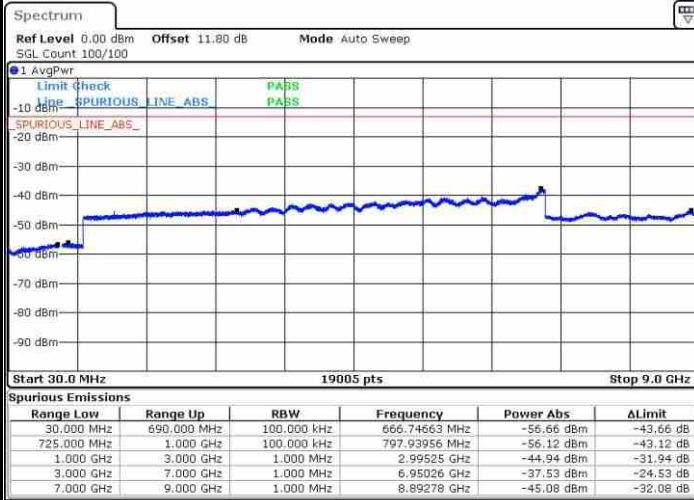


Date: 14.MAR.2018 22:51:11



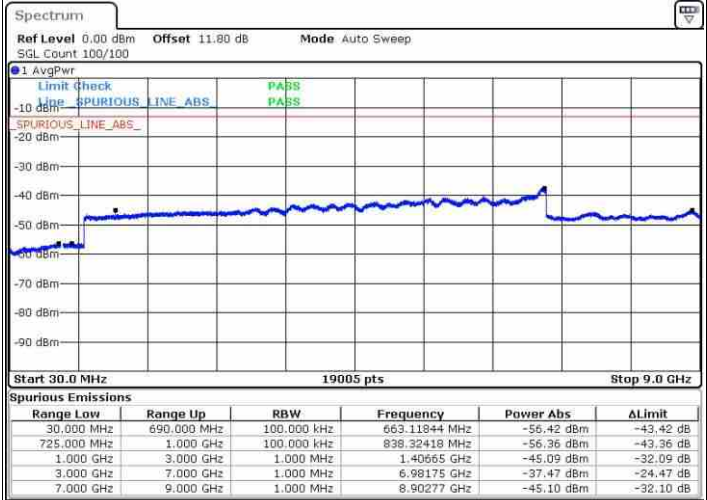
LTE Band 12 / 10MHz

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

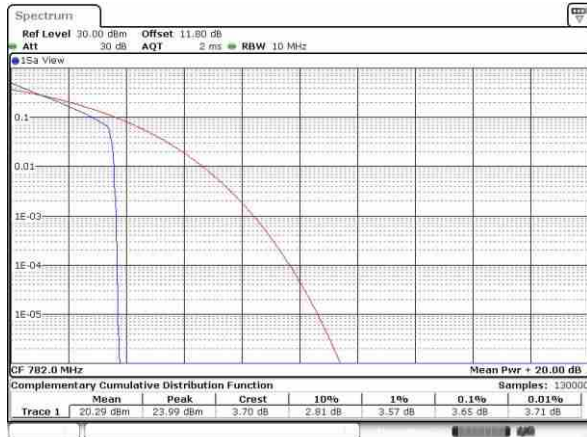
Peak-to-Average Ratio

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			-	-	

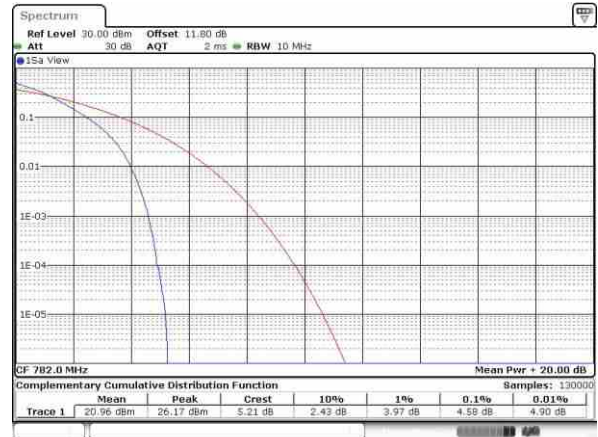


LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB

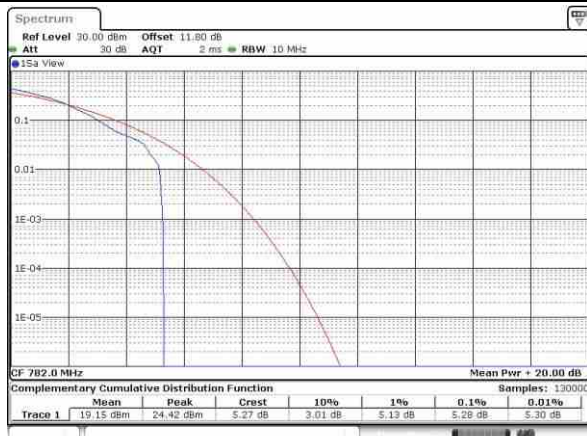


Middle Channel / Full RB

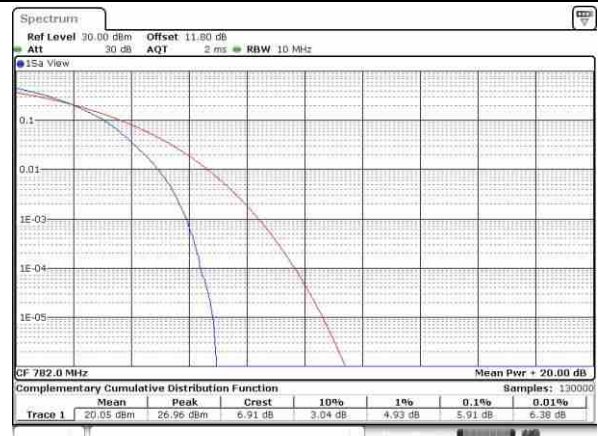


LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB

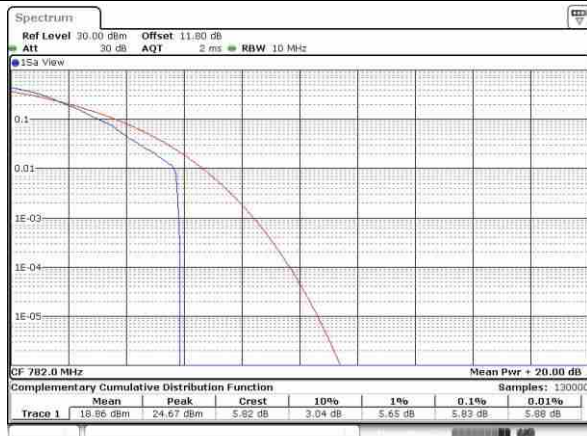


Middle Channel / Full RB



LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB



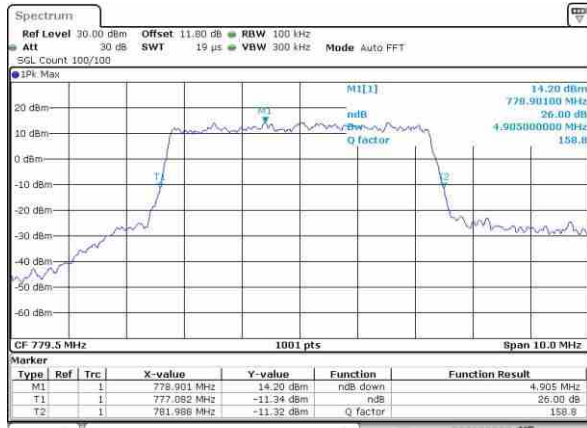
**26dB Bandwidth**

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	-	-	-	-	4.91	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	-		-	-	-	-	-



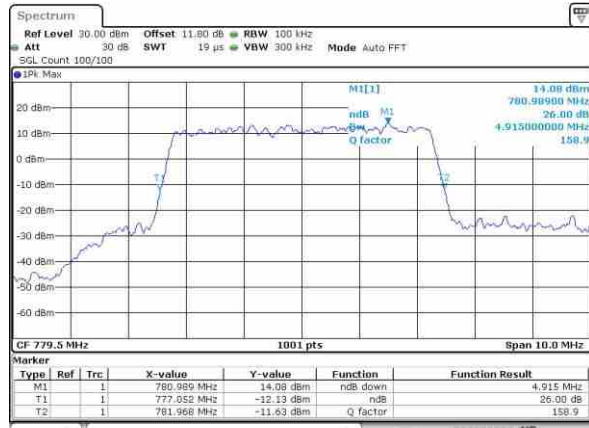
LTE Band 13

Lowest Channel / 5MHz / QPSK



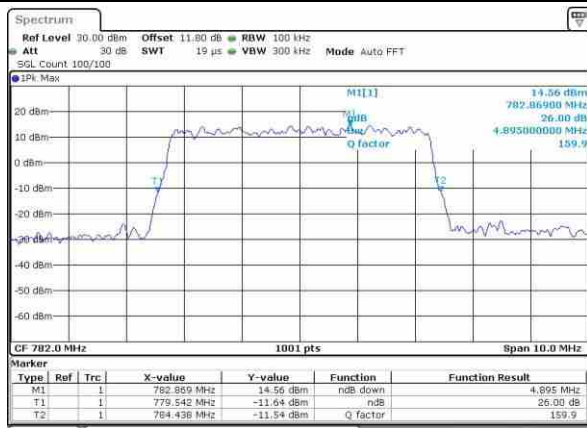
Date: 14, MAR, 2018 01:28:25

Lowest Channel / 5MHz / 16QAM



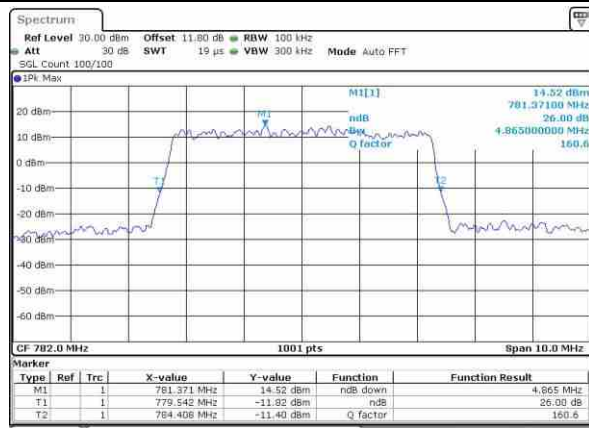
Date: 14, MAR, 2018 01:28:14

Middle Channel / 5MHz / QPSK



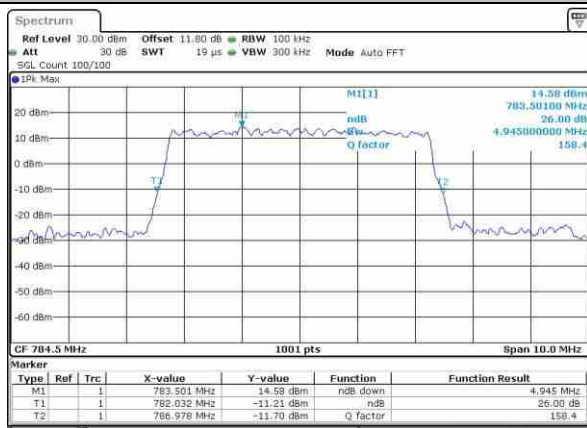
Date: 14, MAR, 2018 01:38:05

Middle Channel / 5MHz / 16QAM



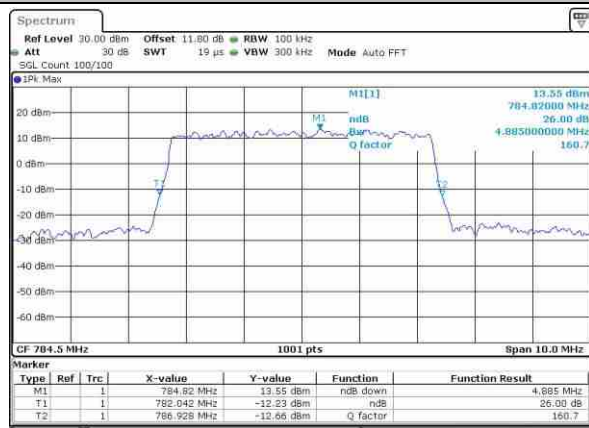
Date: 14, MAR, 2018 01:38:17

Highest Channel / 5MHz / QPSK



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

Highest Channel / 5MHz / 16QAM

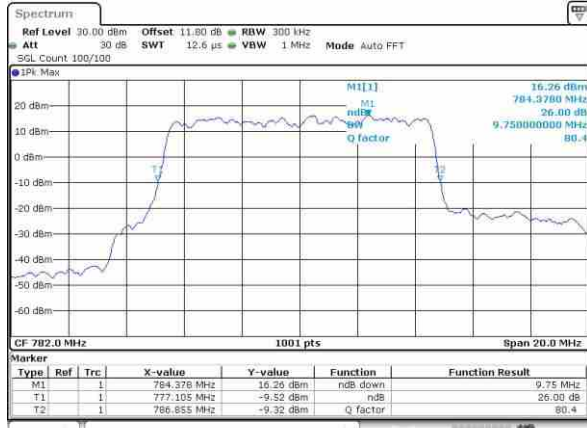


Date: 14, MAR, 2018 01:40:16



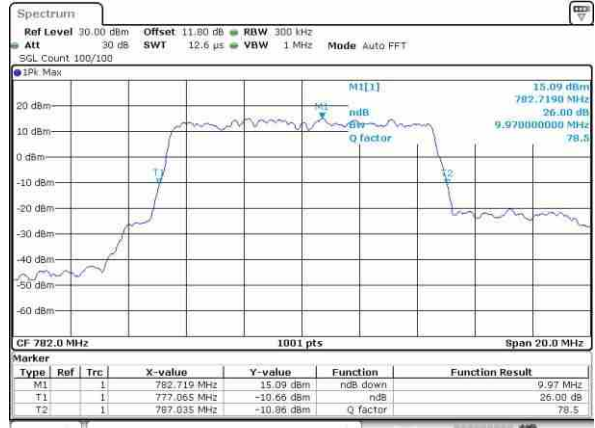
LTE Band 13

Middle Channel / 10MHz / QPSK



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

Middle Channel / 10MHz / 16QAM

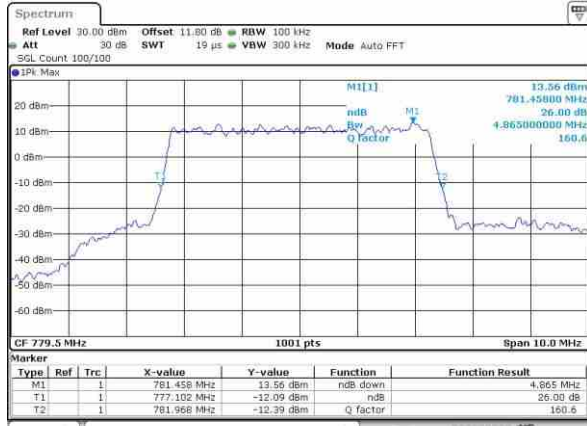


Date: 14, MAR, 2018 01:49:36

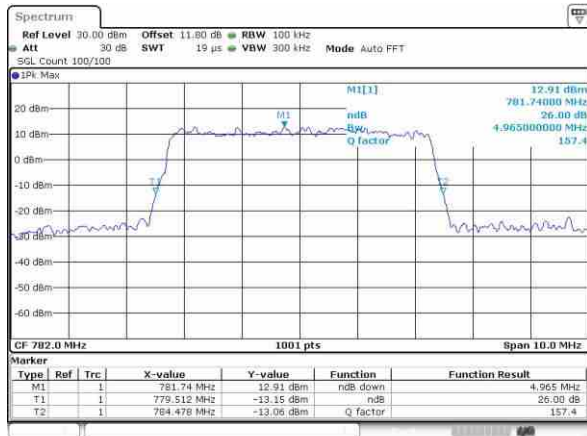


LTE Band 13

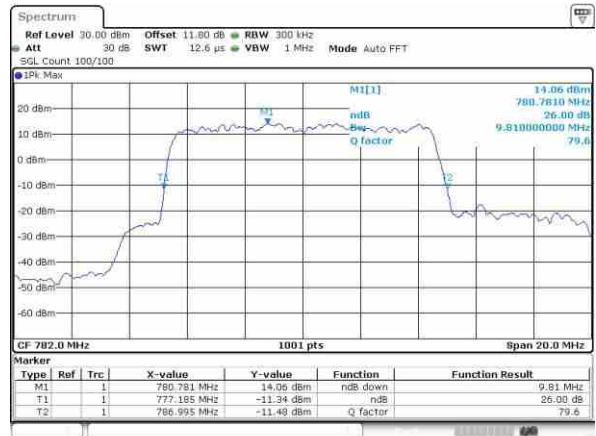
Lowest Channel / 5MHz / 64QAM



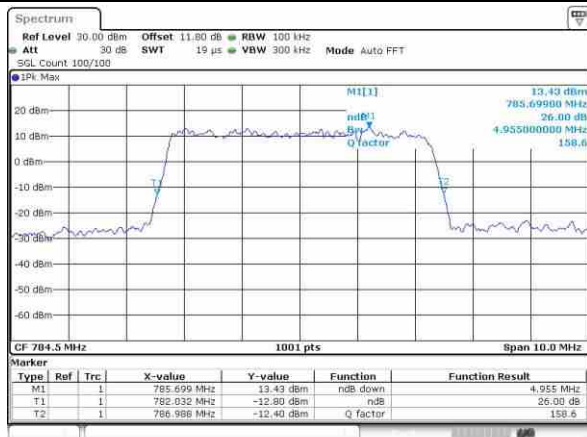
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



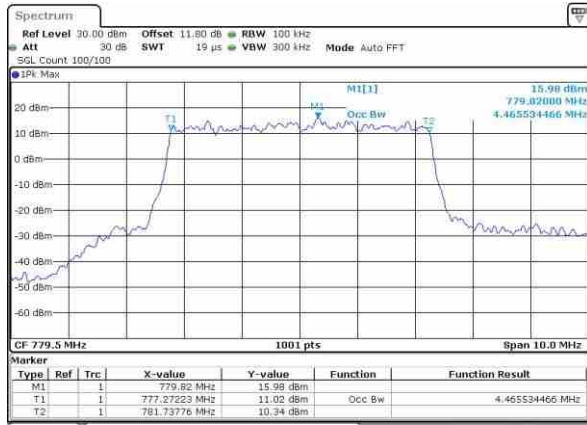
**Occupied Bandwidth**

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	-	-	-	-	4.47	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	-		-	-	-	-	-

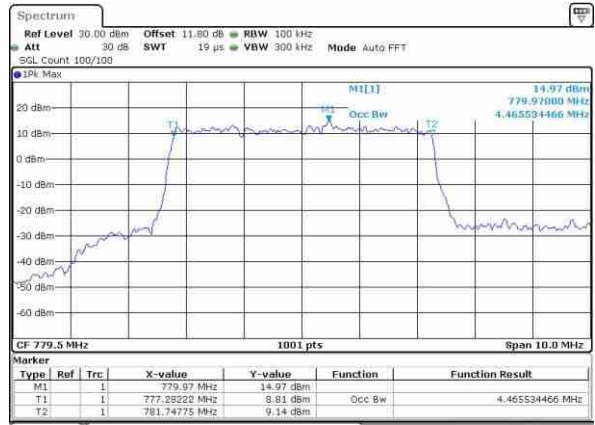


LTE Band 13

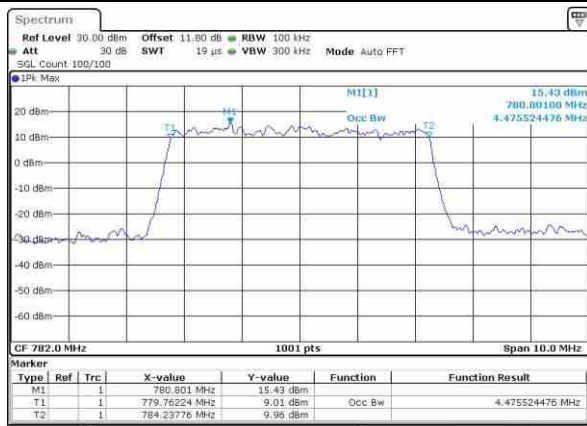
Lowest Channel / 5MHz / QPSK



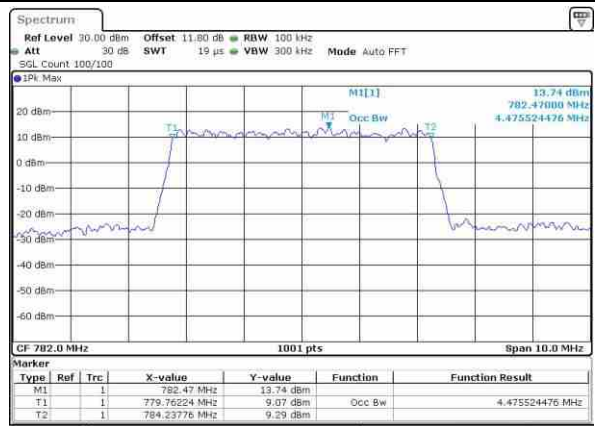
Lowest Channel / 5MHz / 16QAM



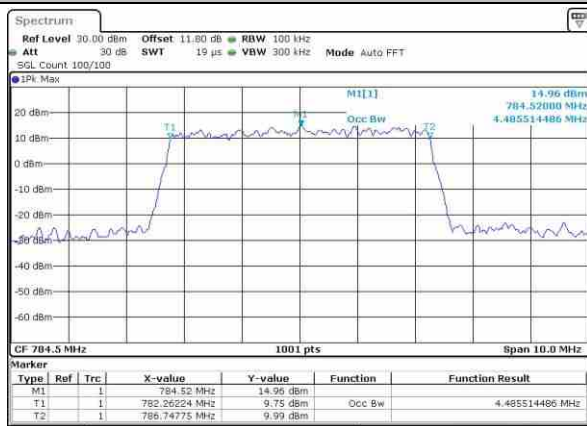
Middle Channel / 5MHz / QPSK



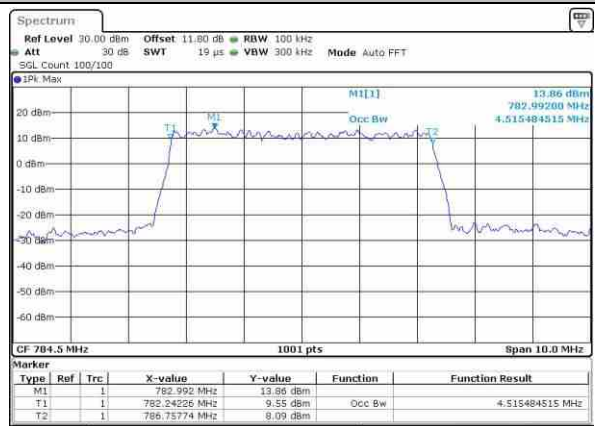
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



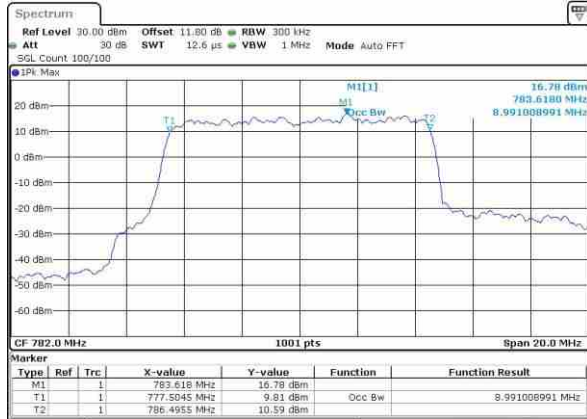
Highest Channel / 5MHz / 16QAM





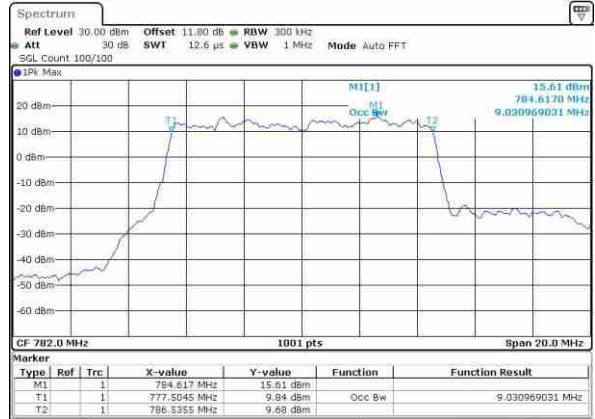
LTE Band 13

Middle Channel / 10MHz / QPSK



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

Middle Channel / 10MHz / 16QAM

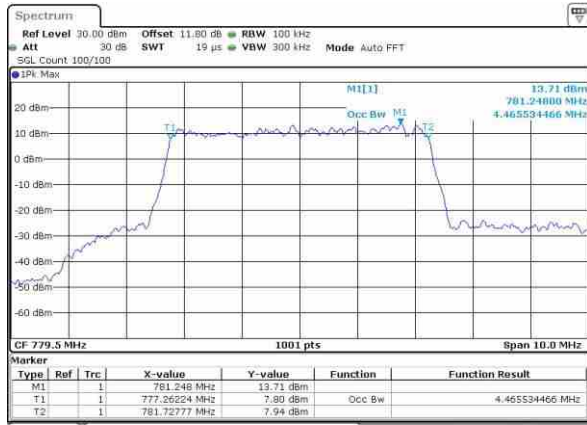


Date: 14, MAR, 2018 01:49:24



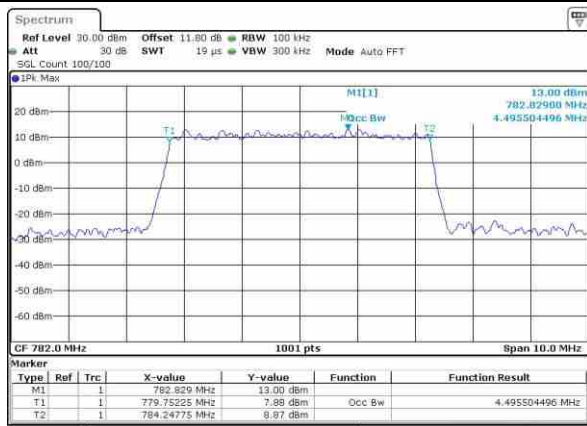
LTE Band 13

Lowest Channel / 5MHz / 64QAM



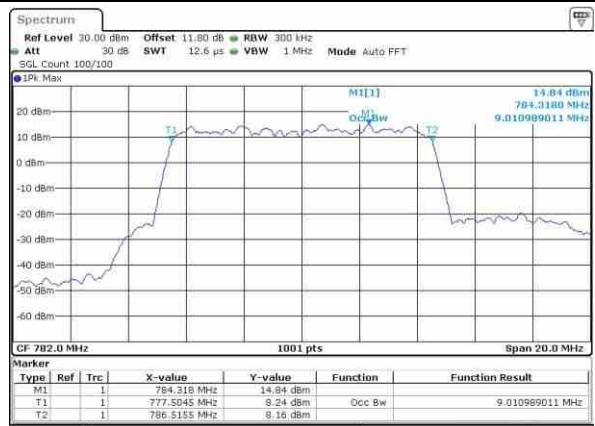
Date: 14, MAR, 2018 23:13:04

Middle Channel / 5MHz / 64QAM



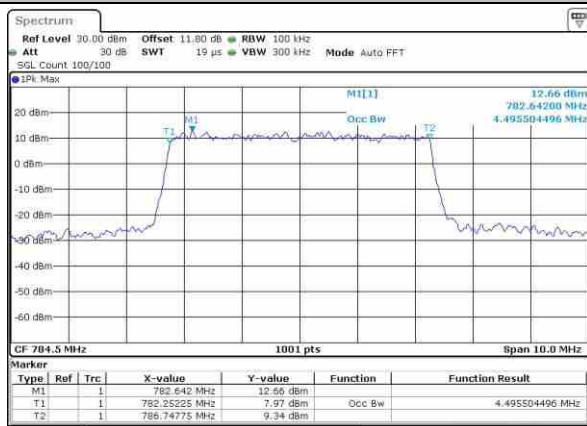
Date: 14, MAR, 2018 23:18:54

Middle Channel / 10MHz / 64QAM

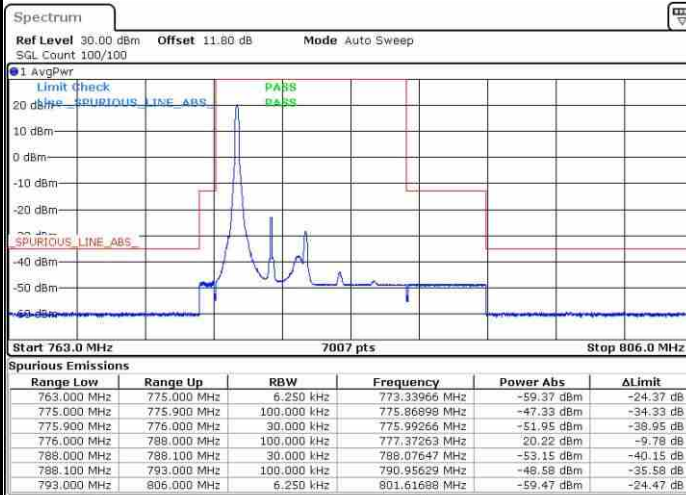
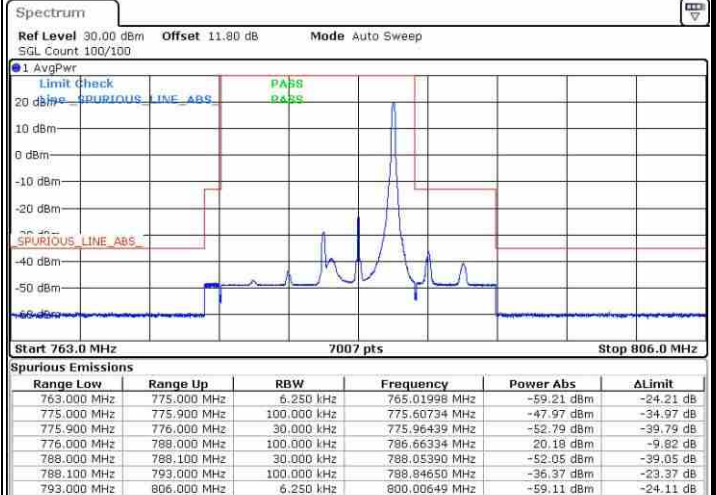
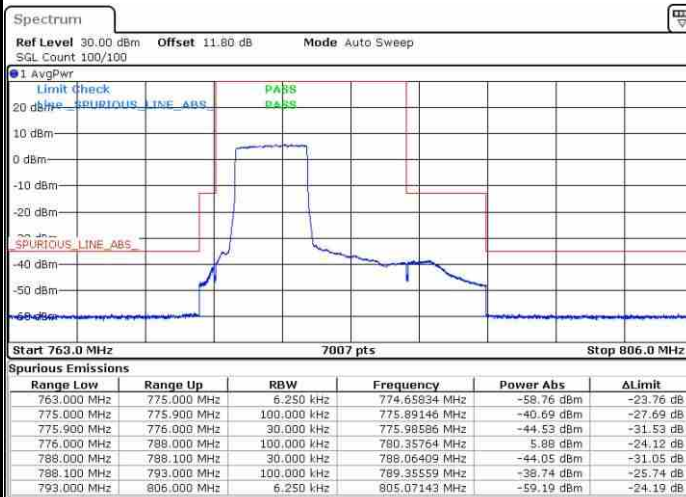
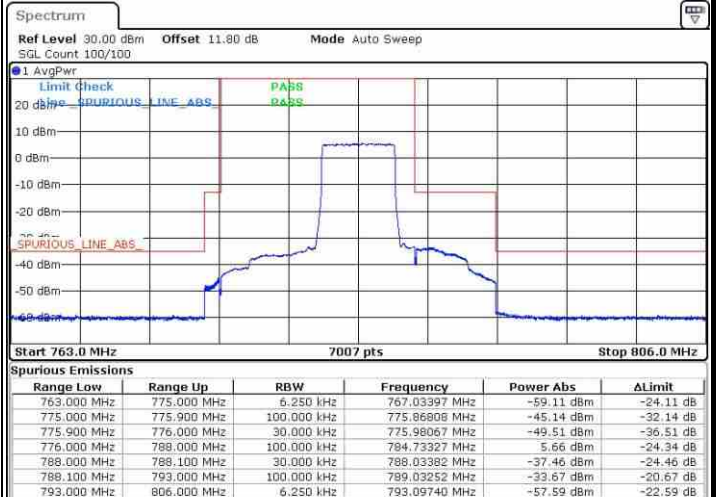


Date: 14, MAR, 2018 23:23:47

Highest Channel / 5MHz / 64QAM



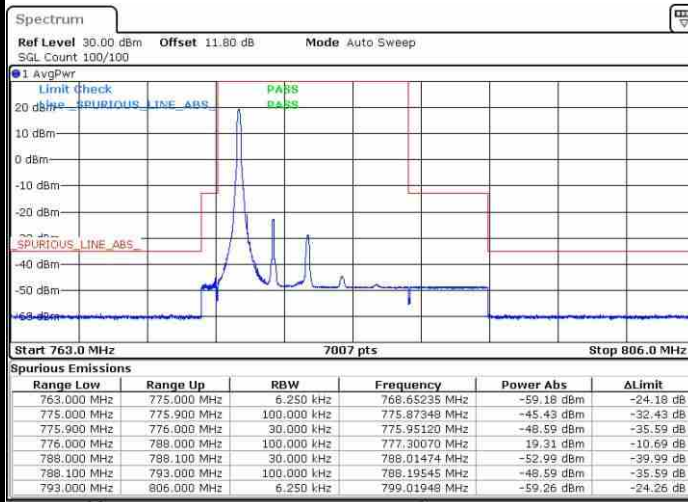
Date: 14, MAR, 2018 23:19:06

**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**

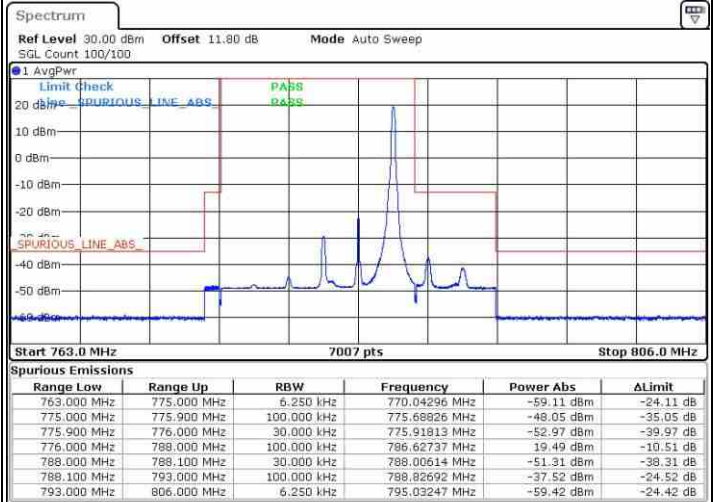


LTE Band 13 / 5MHz / 16QAM

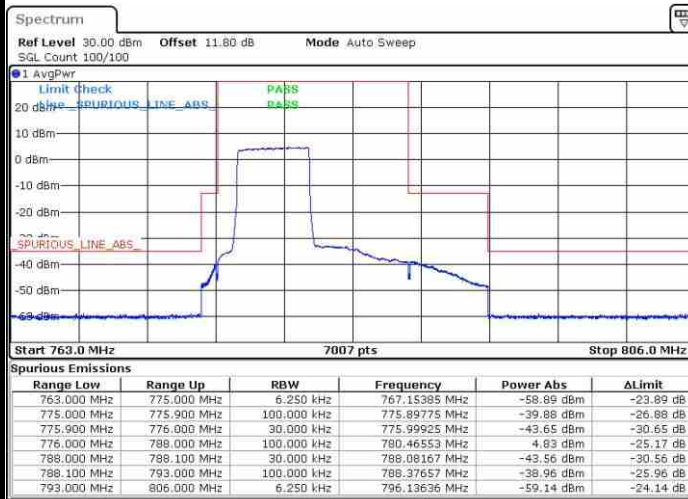
Lowest Band Edge / 1 RB



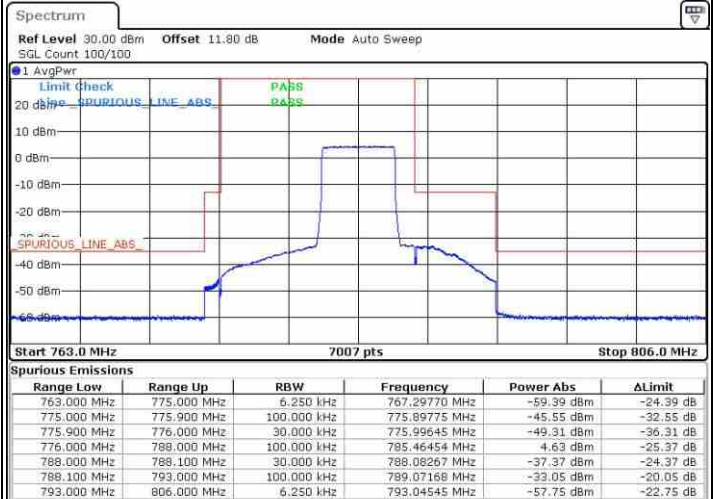
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



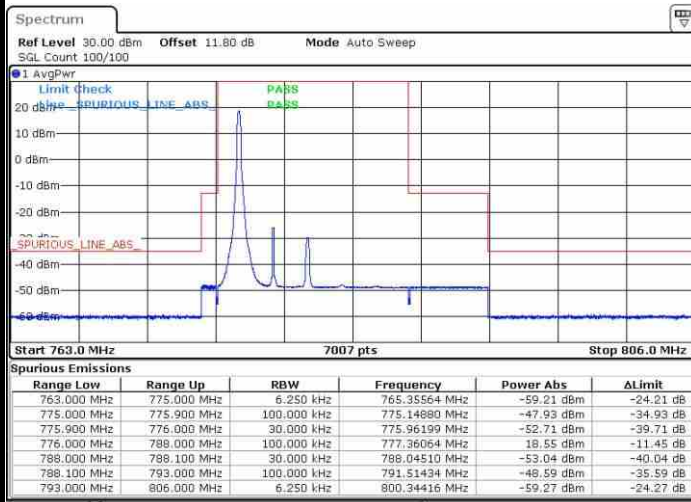
Highest Band Edge / Full RB





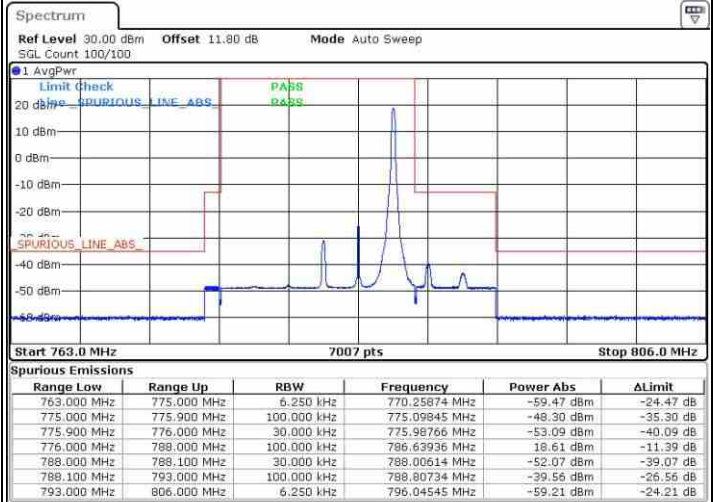
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



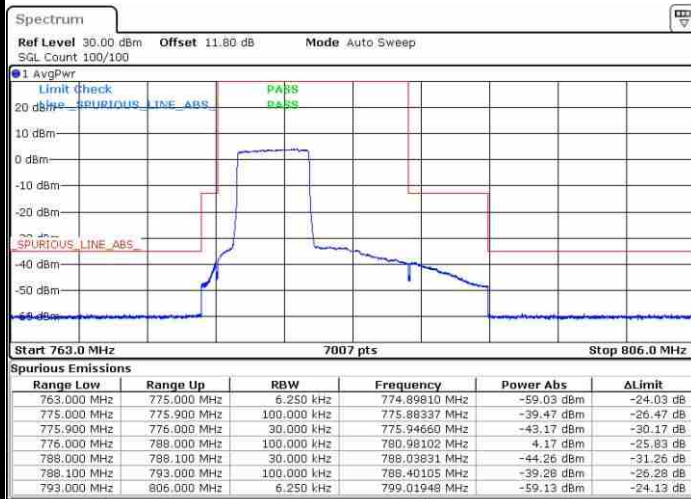
Date: 14.MAR.2018 23:16:35

Highest Band Edge / 1 RB



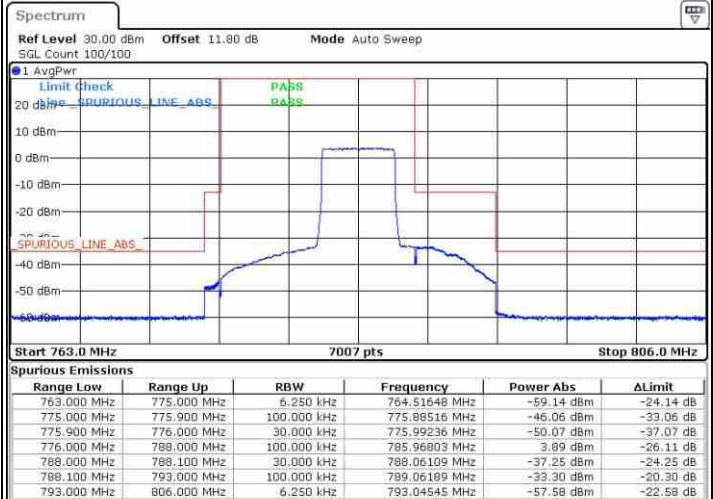
Date: 14.MAR.2018 23:22:37

Lowest Band Edge / Full RB



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

Highest Band Edge / Full RB

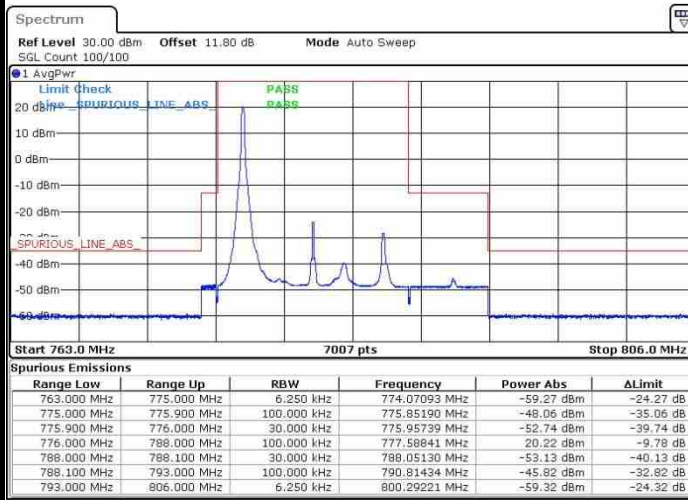


Date: 14.MAR.2018 23:20:58

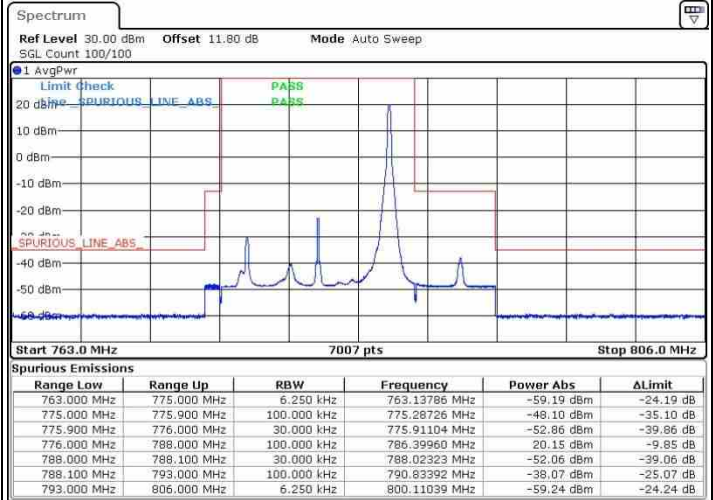


LTE Band 13 / 10MHz / QPSK

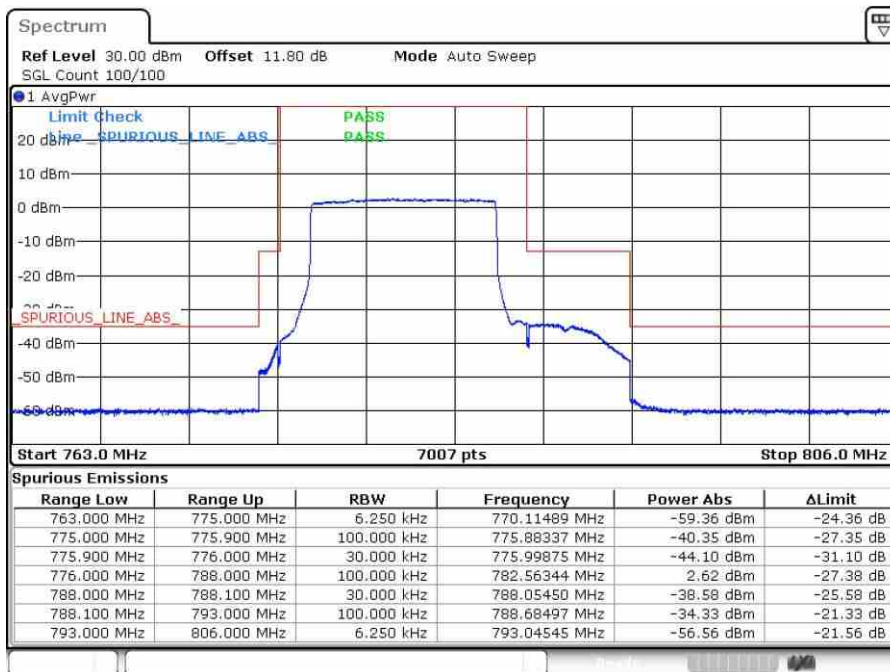
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



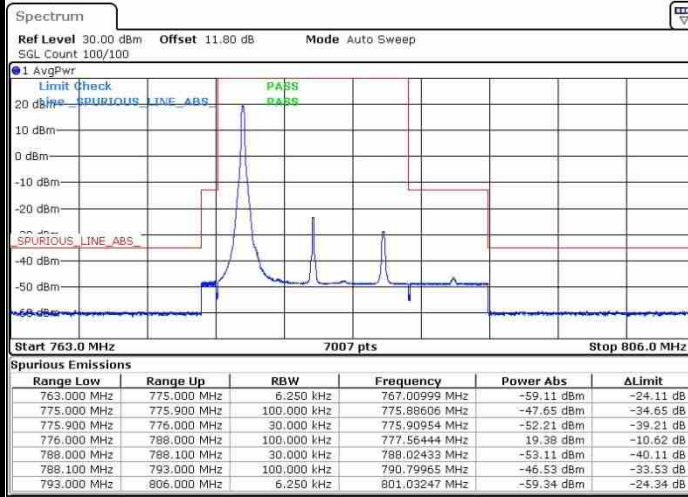
Band Edge / Full RB



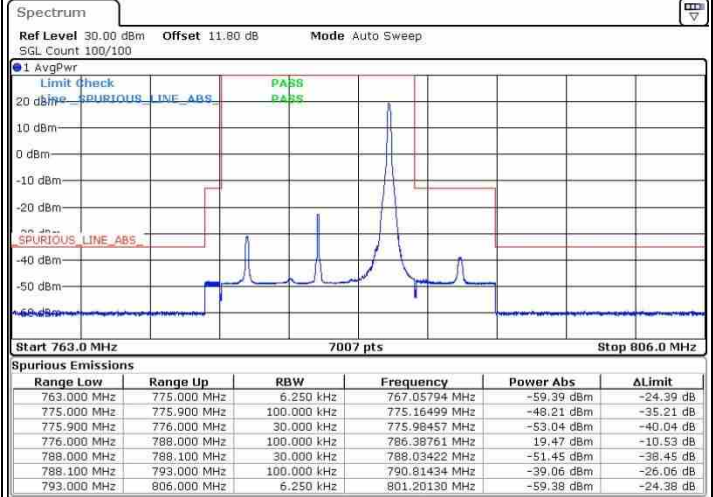


LTE Band 13 / 10MHz / 16QAM

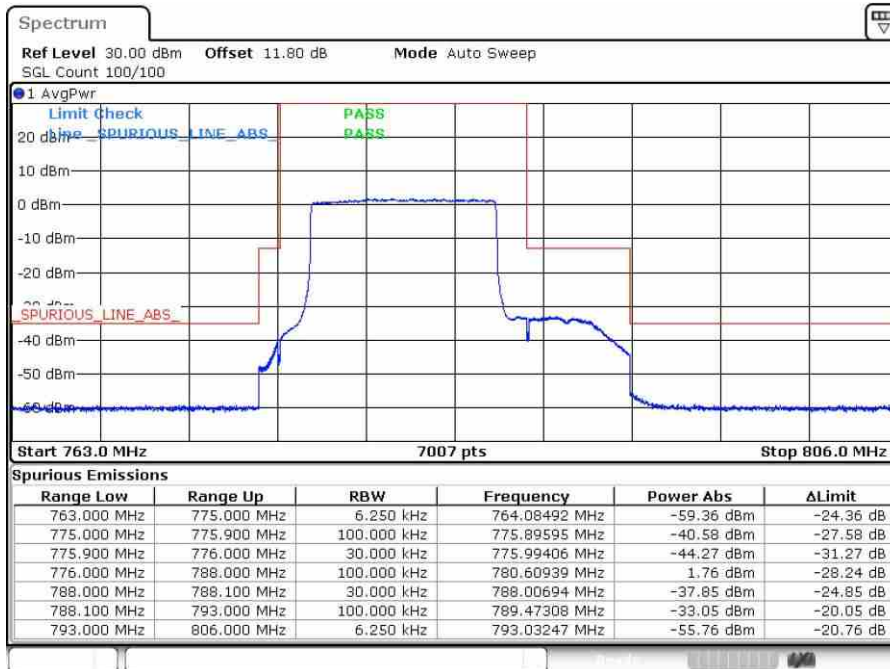
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



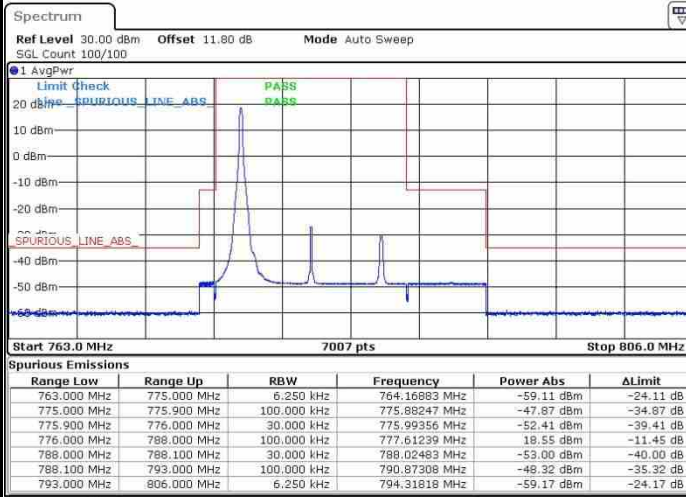
Band Edge / Full RB



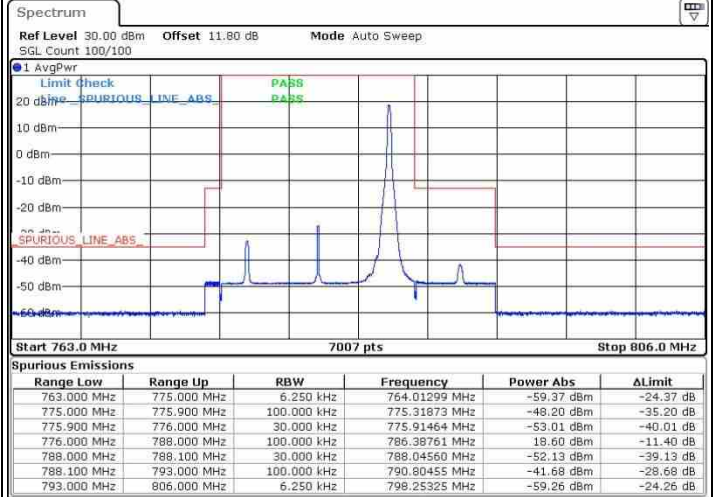


LTE Band 13 / 10MHz / 64QAM

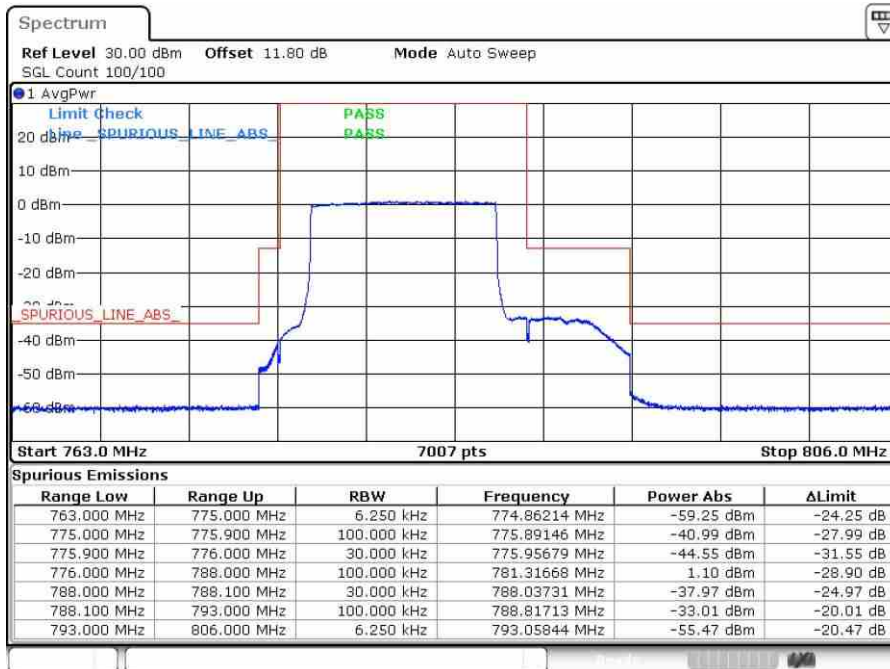
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



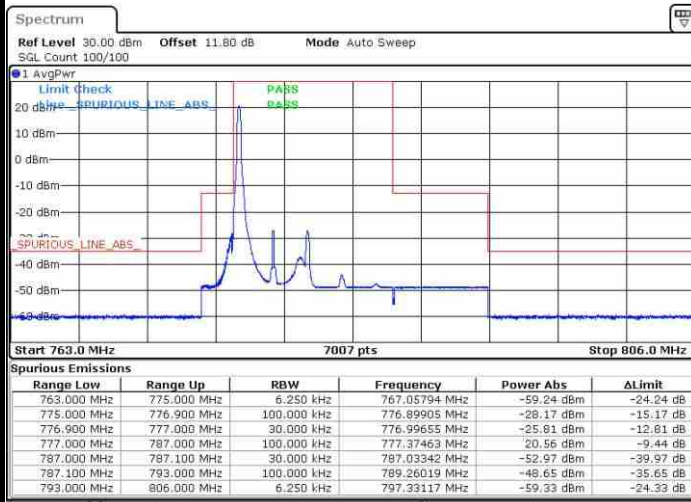
Band Edge / Full RB





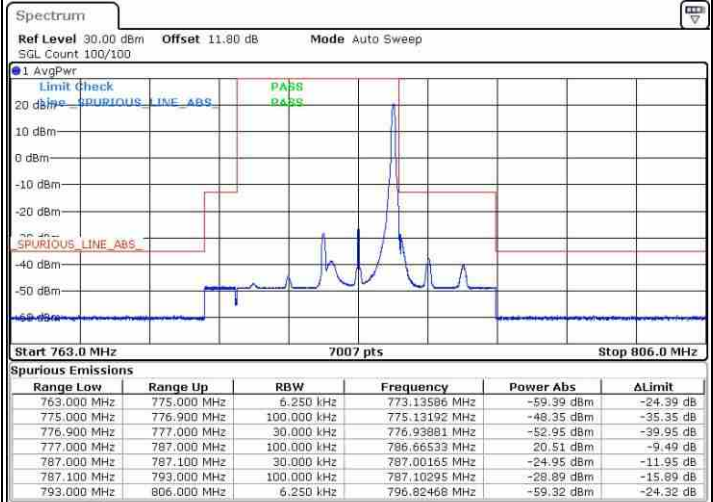
IC LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



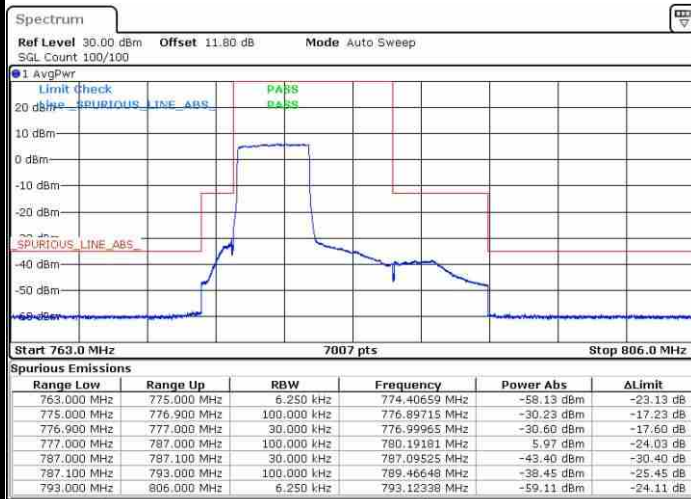
Date: 14.MAR.2018 19:14:44

Highest Band Edge / 1 RB



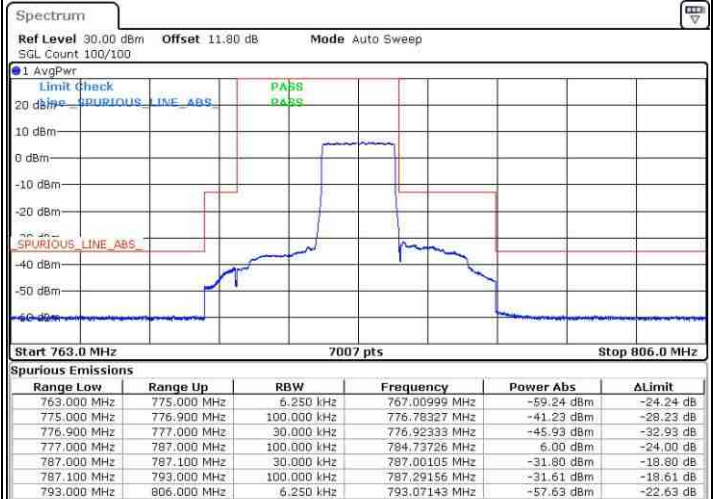
Date: 14.MAR.2018 19:21:35

Lowest Band Edge / Full RB



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

Highest Band Edge / Full RB

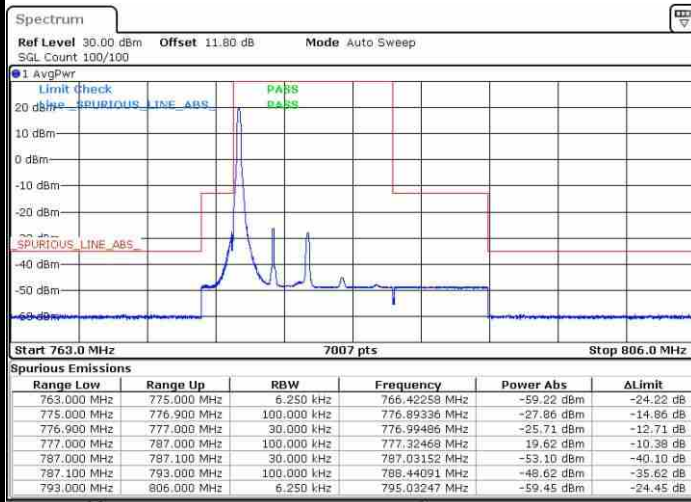


Date: 14.MAR.2018 19:16:05



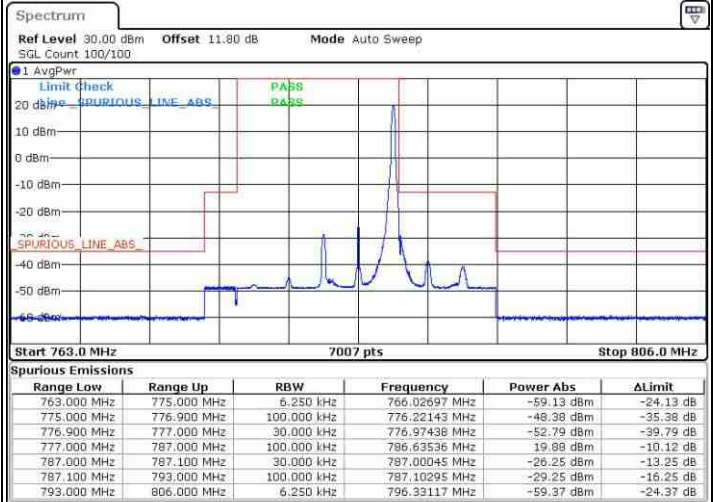
IC LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



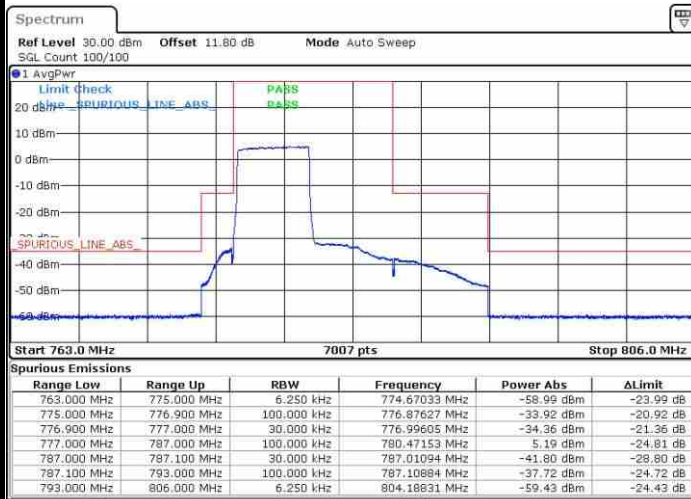
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Highest Band Edge / 1 RB



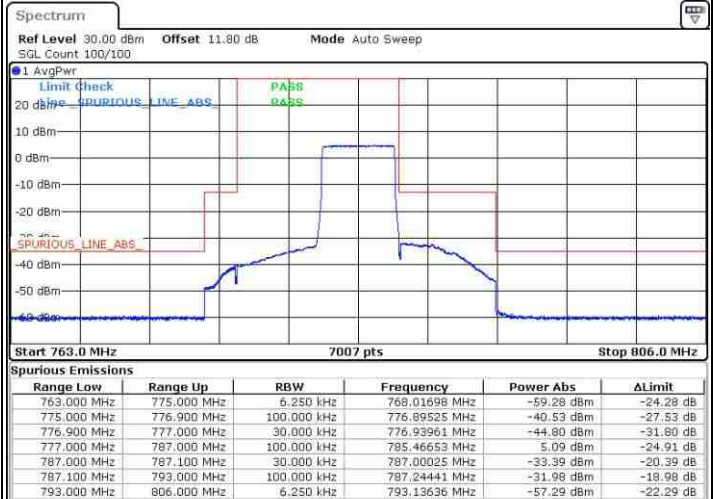
Date: 14.MAR.2018 19:18:49

Lowest Band Edge / Full RB



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

Highest Band Edge / Full RB

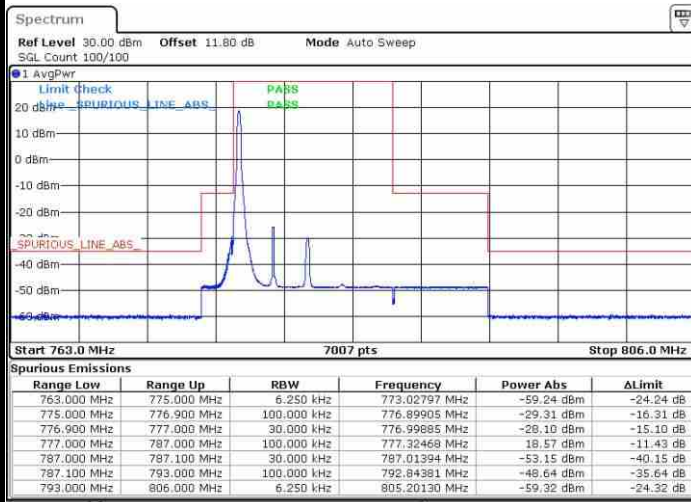


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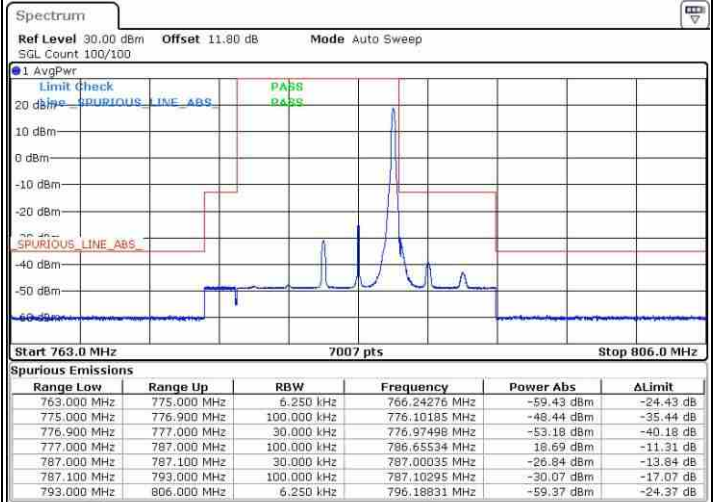


IC LTE Band 13 / 5MHz / 64QAM

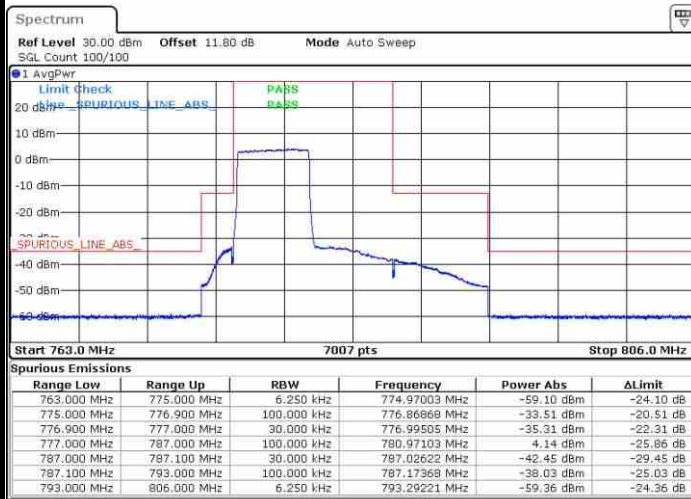
Lowest Band Edge / 1 RB



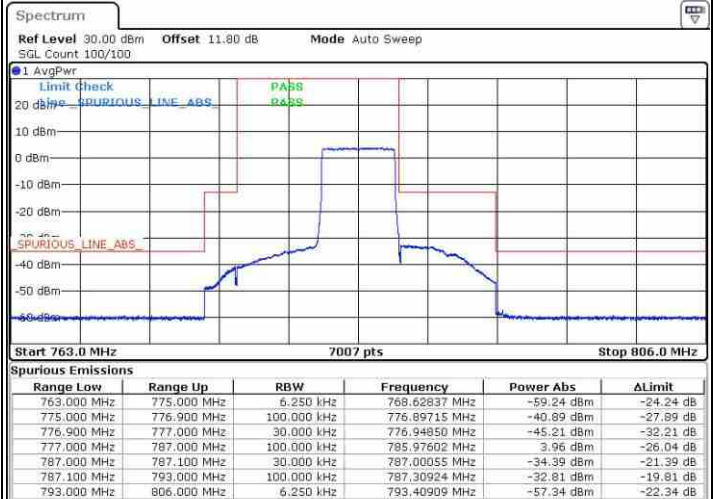
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



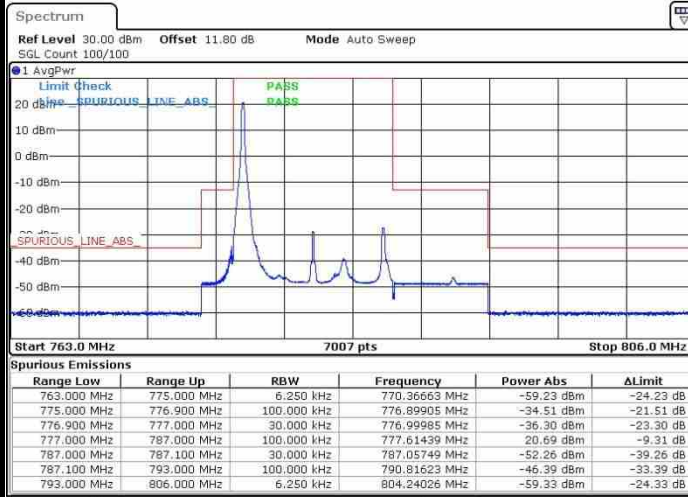
Highest Band Edge / Full RB





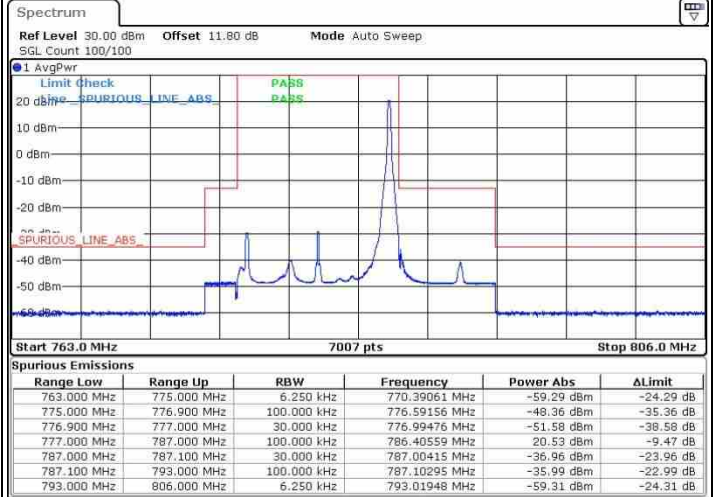
IC LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



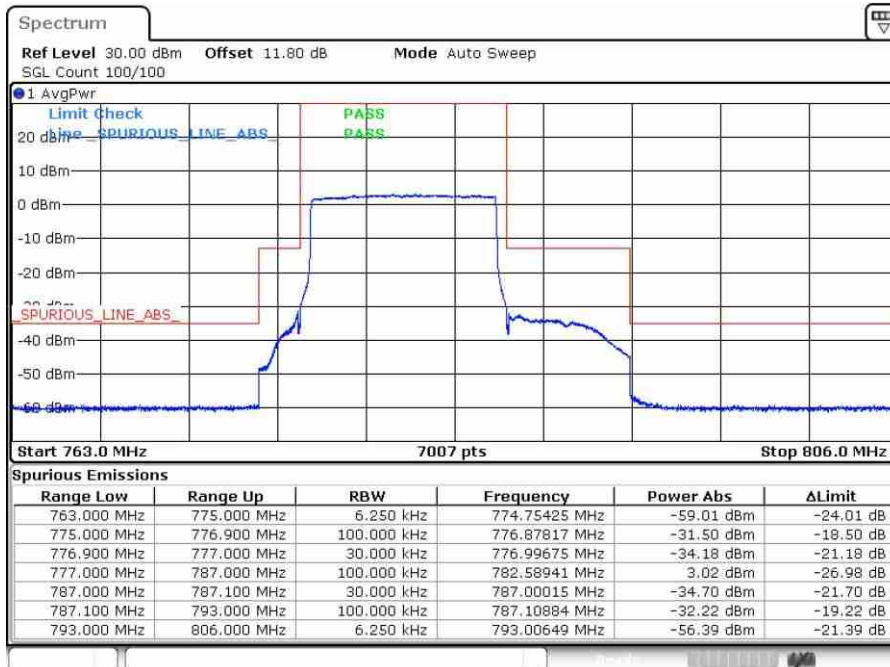
Date: 14.MAR.2018 19:30:31

Highest Band Edge / 1 RB



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

Band Edge / Full RB

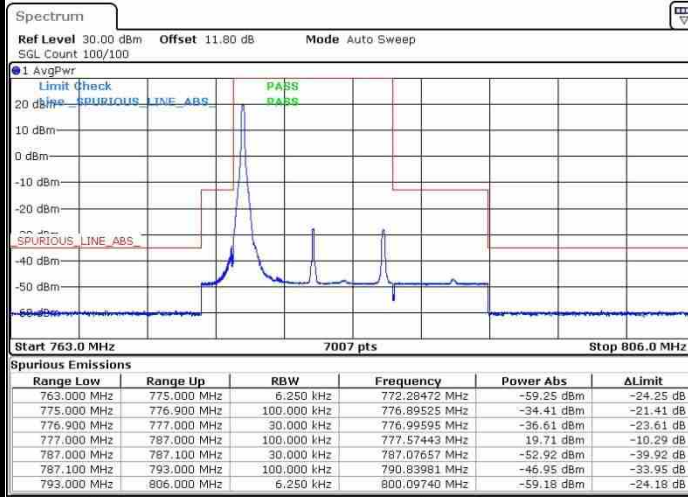


Date: 14.MAR.2018 19:22:57



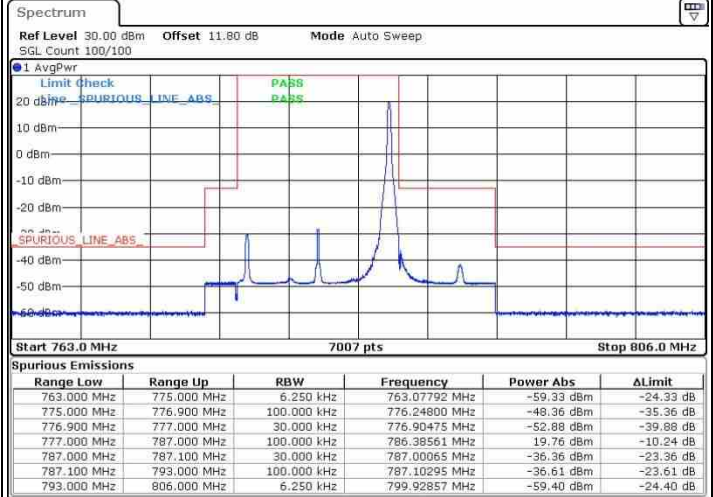
IC LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



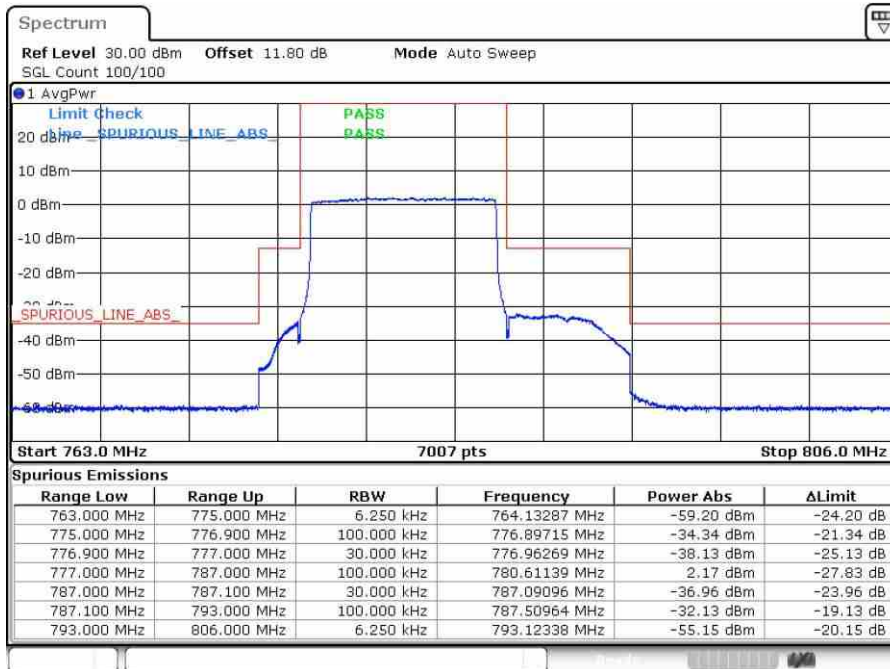
Date: 14.MAR.2018 19:29:05

Highest Band Edge / 1 RB



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

Band Edge / Full RB

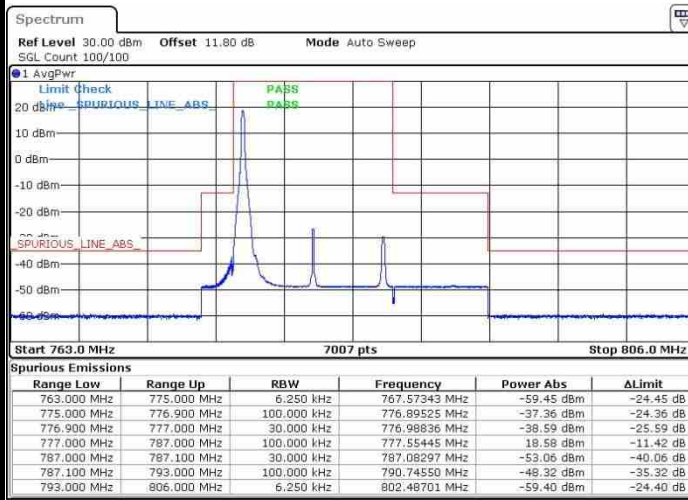


Date: 14.MAR.2018 19:27:44



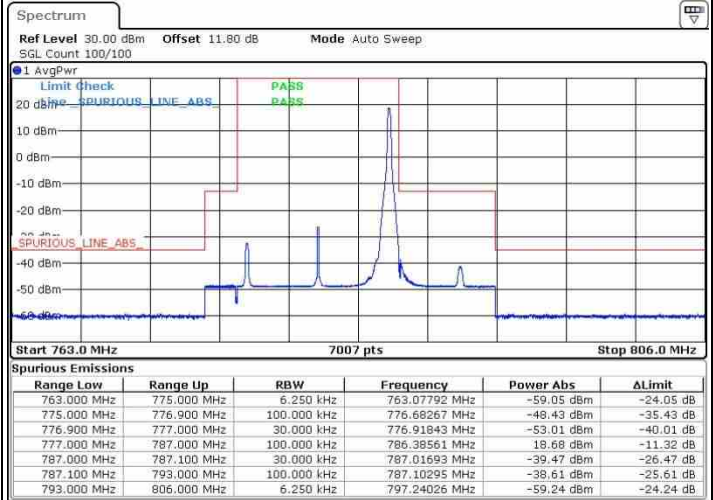
IC LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



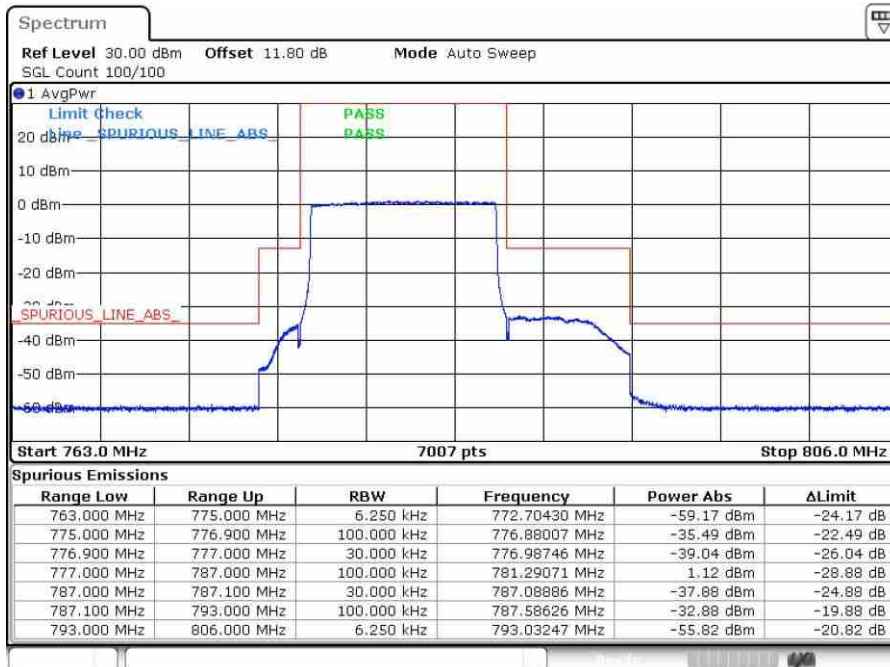
Date: 14.MAR.2018 23:42:33

Highest Band Edge / 1 RB



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

Band Edge / Full RB



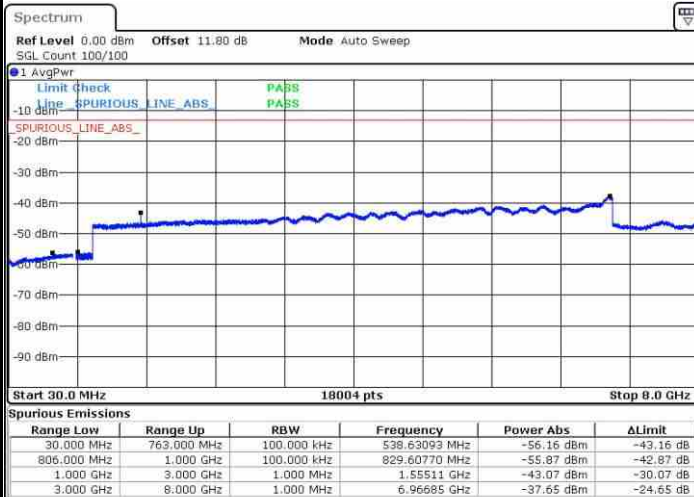
Date: 14.MAR.2018 23:40:53



Conducted Spurious Emission

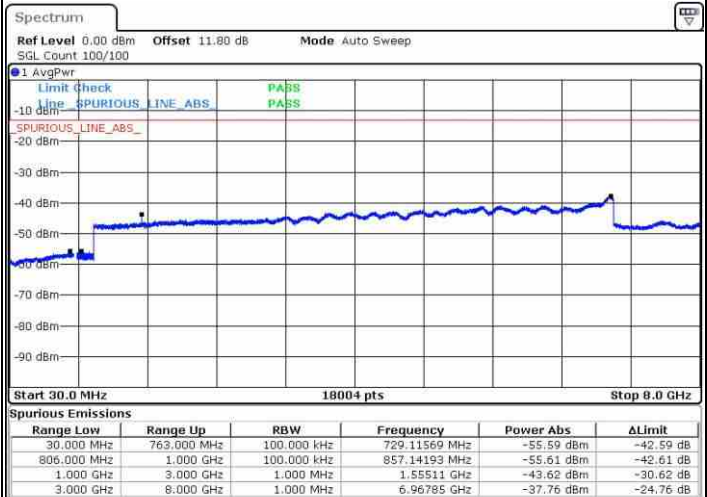
LTE Band 13 / 5MHz

Lowest Channel / QPSK



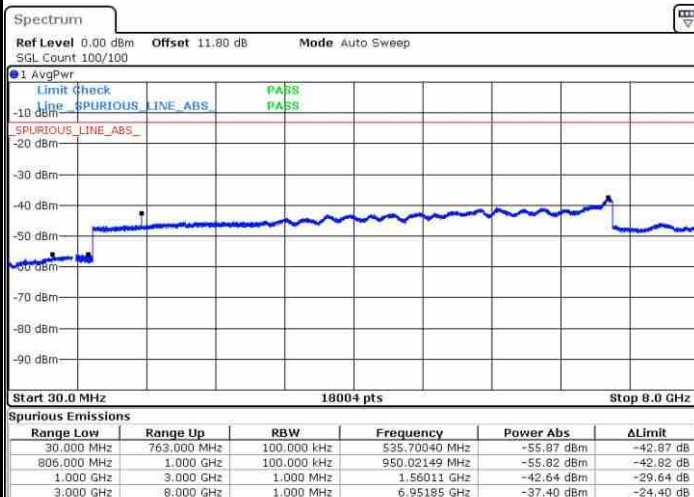
Date: 14.MAR.2018 01:36:01

Lowest Channel / 16QAM



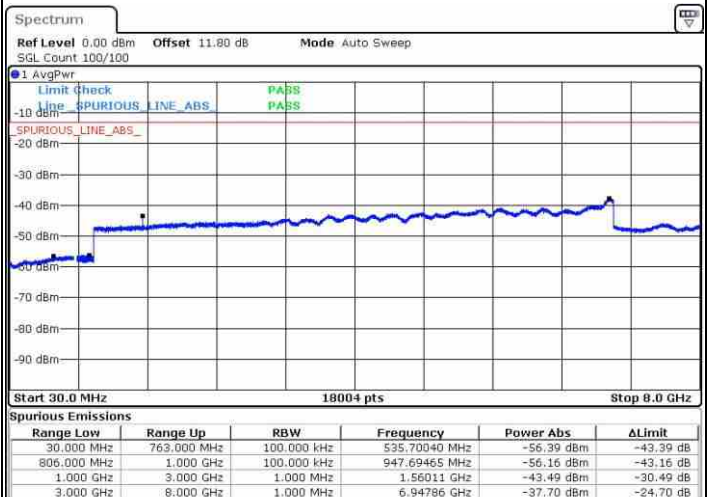
Date: 14.MAR.2018 01:36:59

Middle Channel / QPSK



Date: 14.MAR.2018 01:38:53

Middle Channel / 16QAM



Date: 14.MAR.2018 01:37:56