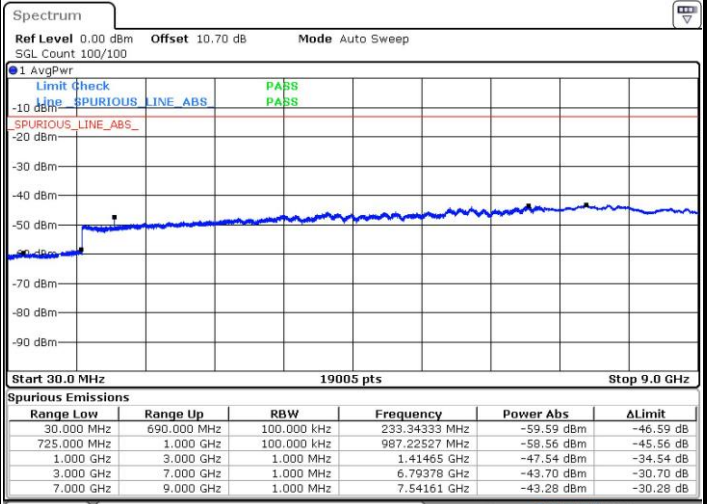
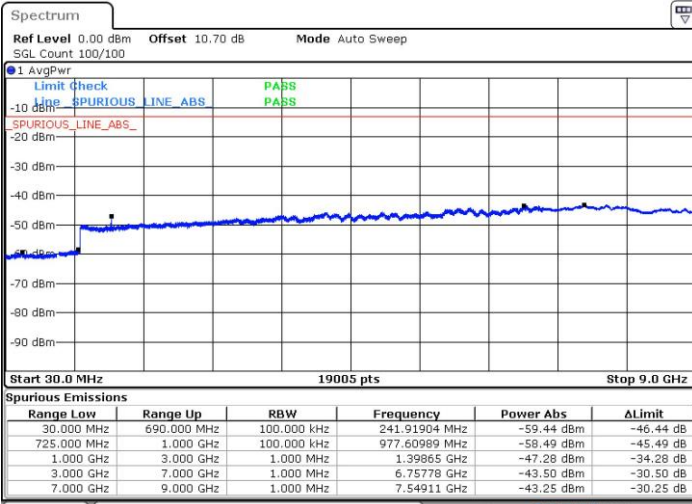




LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

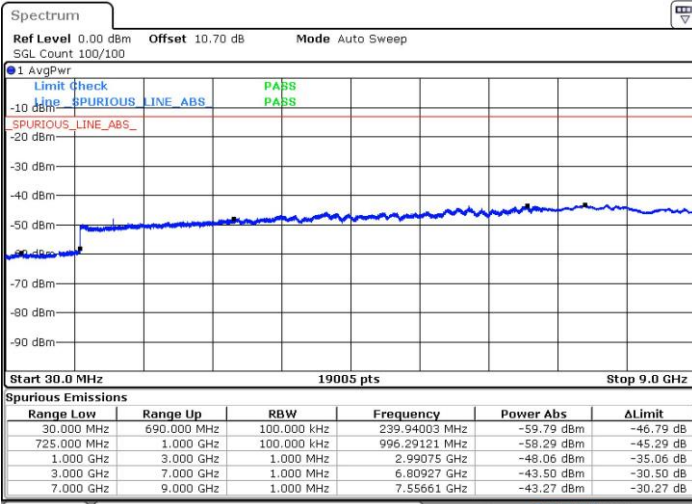
Middle Channel / 64QAM



Date: 6 JUL 2018 20:42:24

Date: 6 JUL 2018 20:43:42

Highest Channel / 64QAM

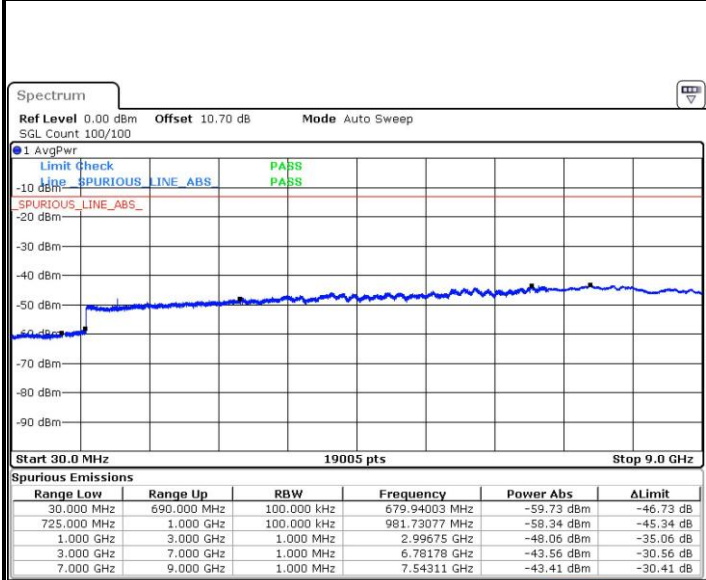


Date: 6 JUL 2018 20:47:20



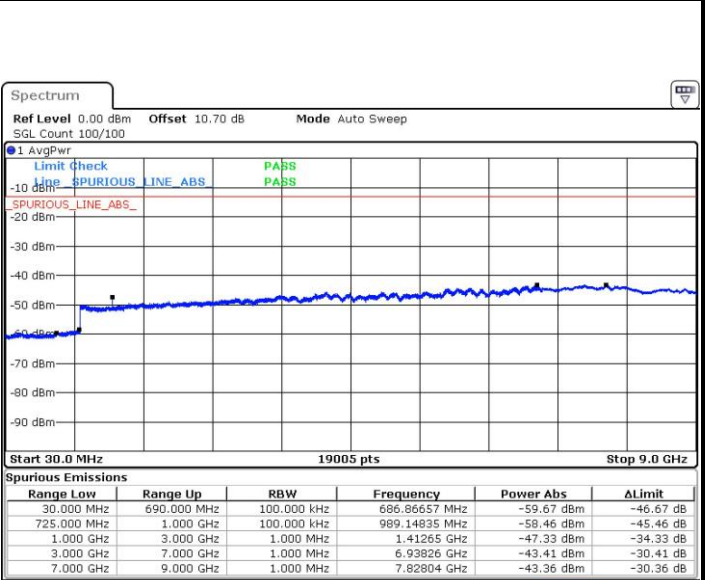
**LTE Band 12 / 3MHz**

**Lowest Channel / 64QAM**



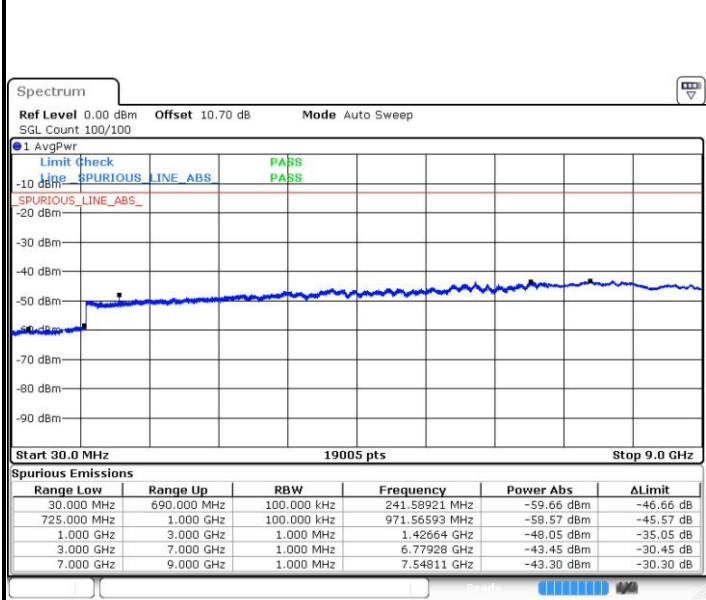
Date: 6 JUL 2018 20:16:43

**Middle Channel / 64QAM**



Date: 6 JUL 2018 20:18:00

**Highest Channel / 64QAM**



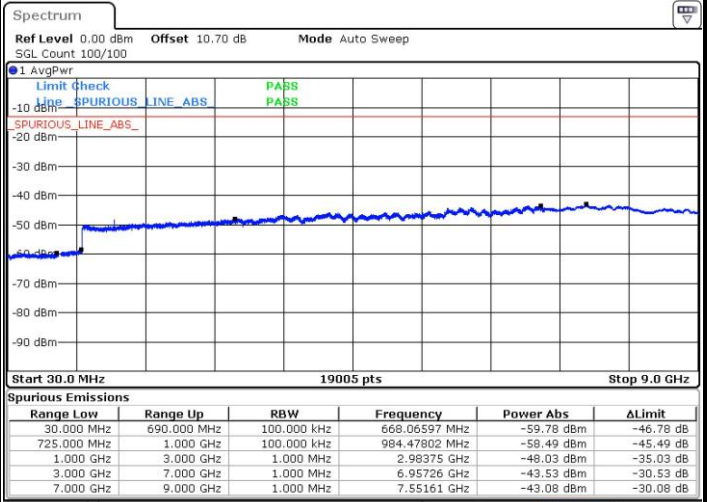
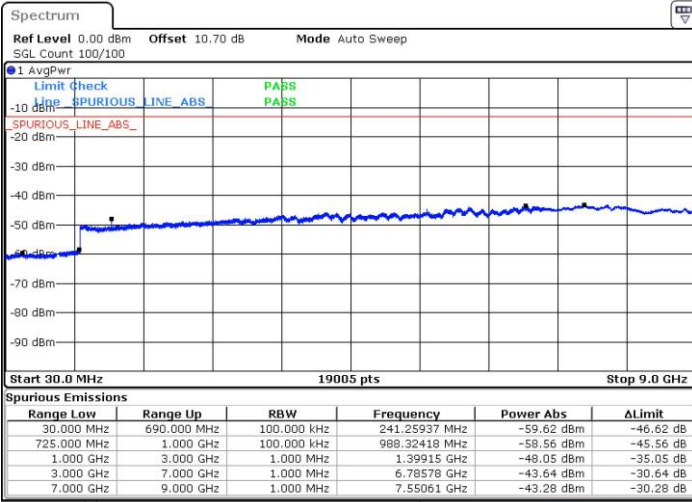
Date: 6 JUL 2018 20:21:38



LTE Band 12 / 5MHz

Lowest Channel / 64QAM

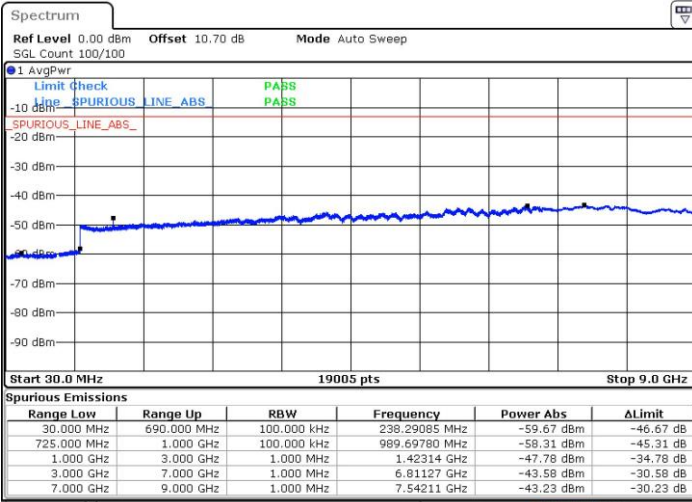
Middle Channel / 64QAM



Date: 6 JUL 2018 20:25:16

Date: 6 JUL 2018 20:26:34

Highest Channel / 64QAM



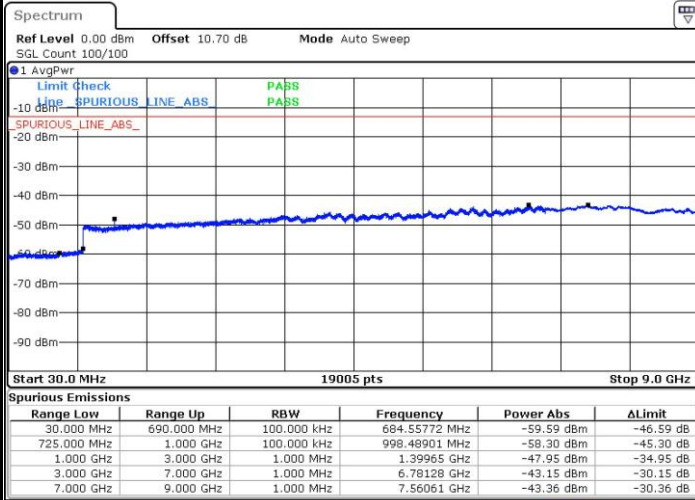
Date: 6 JUL 2018 20:30:12



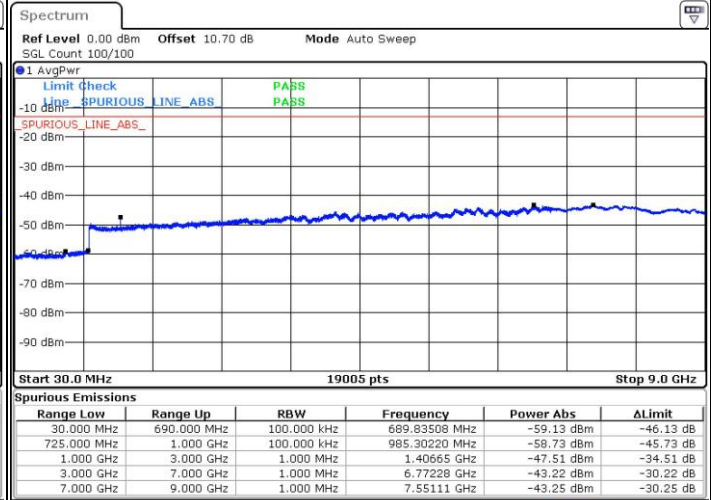
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

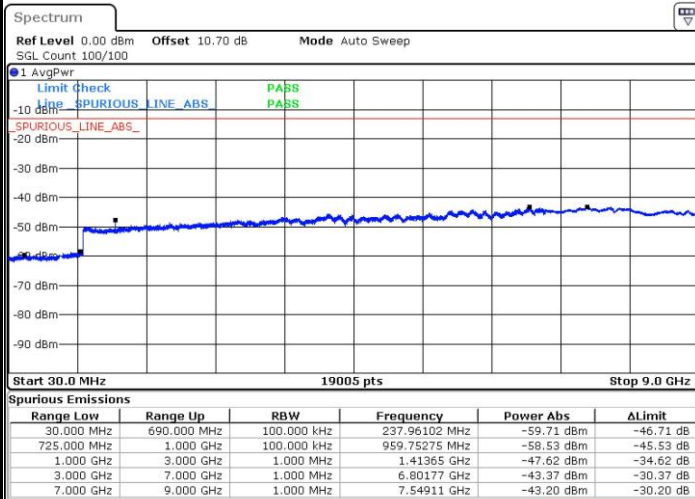


Date: 6 JUL 2018 20:33:50



Date: 6 JUL 2018 20:35:08

Highest Channel / 64QAM



Date: 6 JUL 2018 20:38:46



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	0.0075	
30	Normal Voltage	0.0122	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0042	
0	Normal Voltage	0.0047	
-10	Normal Voltage	0.0075	
-20	Normal Voltage	0.0113	
-30	Normal Voltage	0.0040	
20	Maximum Voltage	0.0011	
20	Normal Voltage	0.0181	
20	Battery End Point	0.0057	

Note:

1. Normal Voltage =3.85 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

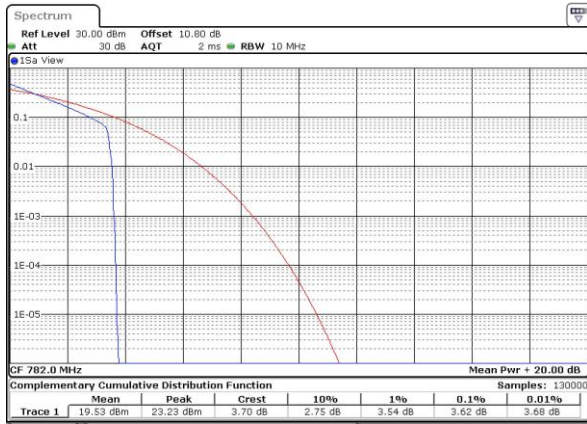
## Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.62	4.41	5.10	5.68	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH			-	-	PASS
Middle CH	5.16	5.65	-	-	
Highest CH			-	-	



LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 6 JUL 2018 23:13:37

Middle Channel / Full RB



Date: 6 JUL 2018 23:13:47

LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 6 JUL 2018 23:13:15

Middle Channel / Full RB



Date: 6 JUL 2018 23:13:26

LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 6 JUL 2018 23:12:53

Middle Channel / Full RB



Date: 6 JUL 2018 23:13:05



**26dB Bandwidth**

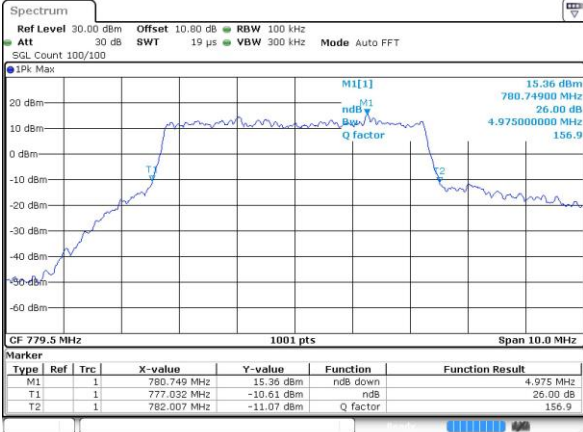
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.98	4.91	-	-	-	-	-	-
Middle CH	-	-	-	-	4.95	4.83	9.83	9.69	-	-	-	-
Highest CH	-	-	-	-	4.89	4.86	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.93	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.94	-	9.81	-	-	-	-	-
Highest CH	-	-	-	-	4.88	-	-	-	-	-	-	-





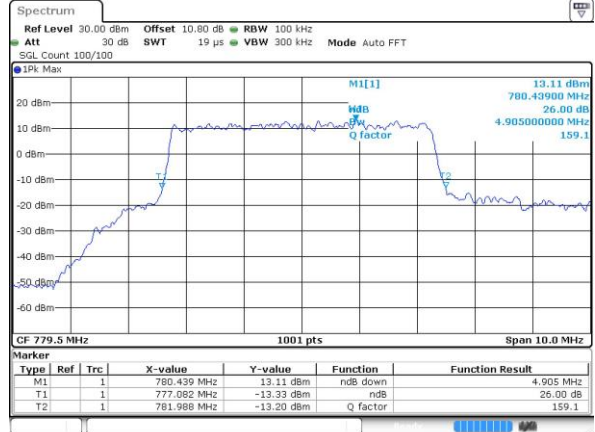
LTE Band 13

Lowest Channel / 5MHz / QPSK



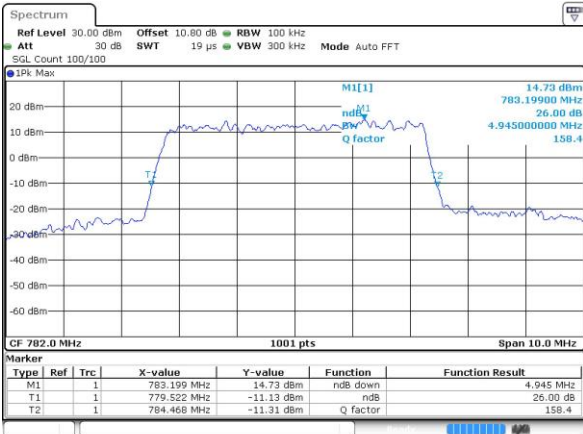
Date: 6 JUL 2018 22:20:13

Lowest Channel / 5MHz / 16QAM



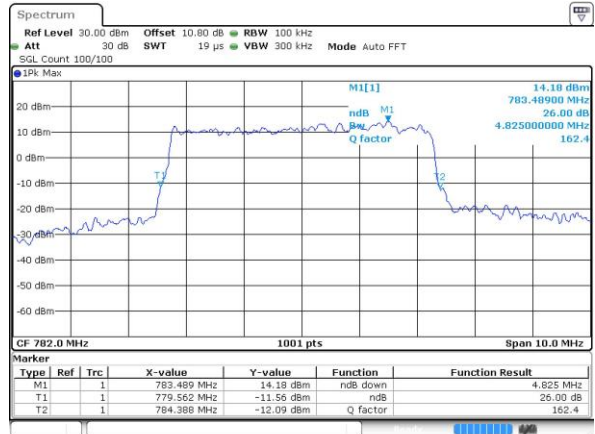
Date: 6 JUL 2018 22:20:01

Middle Channel / 5MHz / QPSK



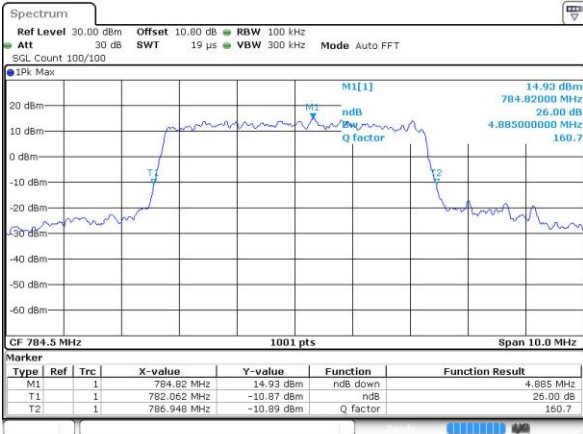
Date: 6 JUL 2018 22:30:45

Middle Channel / 5MHz / 16QAM



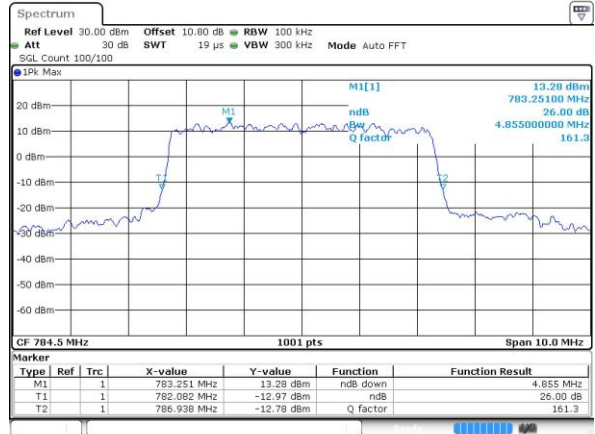
Date: 6 JUL 2018 22:30:56

Highest Channel / 5MHz / QPSK



Date: 6 JUL 2018 22:32:04

Highest Channel / 5MHz / 16QAM

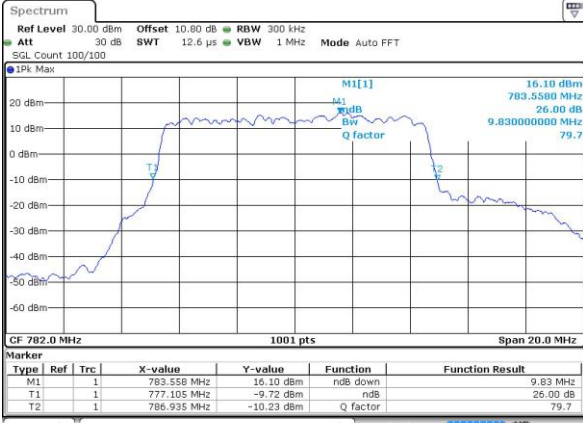


Date: 6 JUL 2018 22:31:53



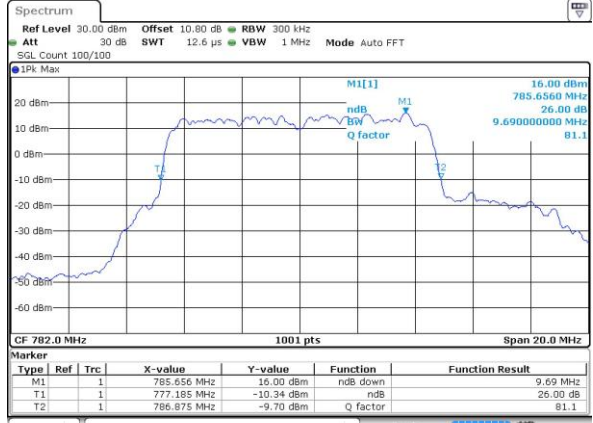
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 6 JUL 2018 22:51:55

Middle Channel / 10MHz / 16QAM

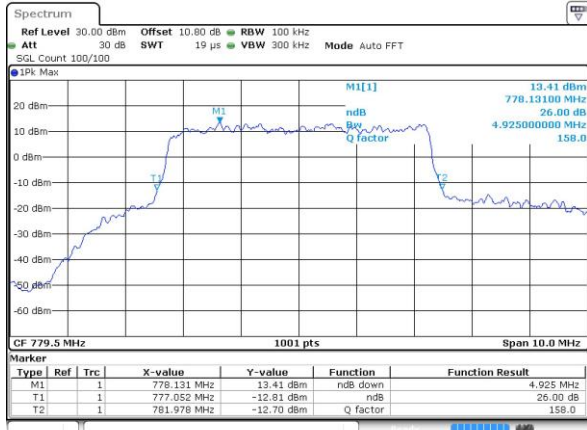


Date: 6 JUL 2018 22:51:44



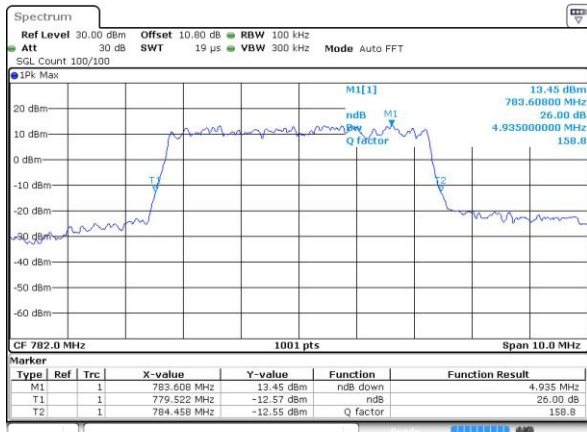
LTE Band 13

Lowest Channel / 5MHz / 64QAM



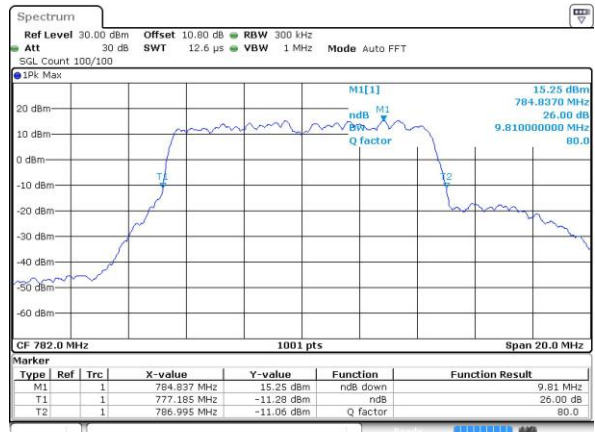
Date: 6 JUL 2018 22:40:58

Middle Channel / 5MHz / 64QAM



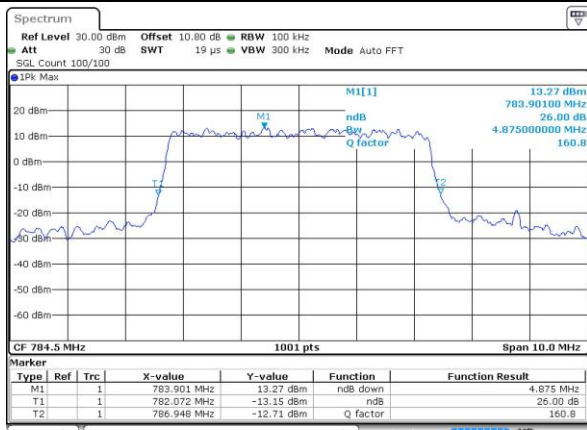
Date: 6 JUL 2018 22:46:20

Middle Channel / 10MHz / 64QAM



Date: 6 JUL 2018 23:04:09

Highest Channel / 5MHz / 64QAM



Date: 6 JUL 2018 22:46:54



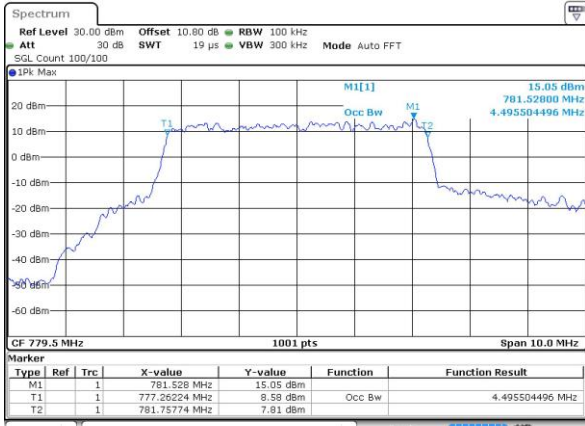
**Occupied Bandwidth**

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	-	-	-	-	4.50	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.50	8.91	8.95	-	-	-	-
Highest CH	-	-	-	-	4.51	4.48	-	-	-	-	-	-
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	-	-	-	-	4.50	-	9.01	-	-	-	-	-
Highest CH	-	-	-	-	4.51	-	-	-	-	-	-	-



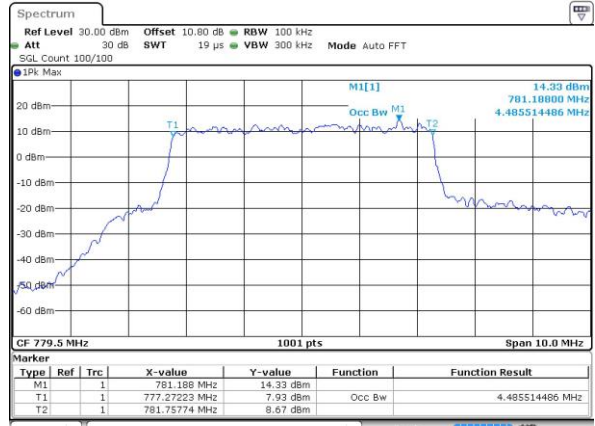
LTE Band 13

Lowest Channel / 5MHz / QPSK



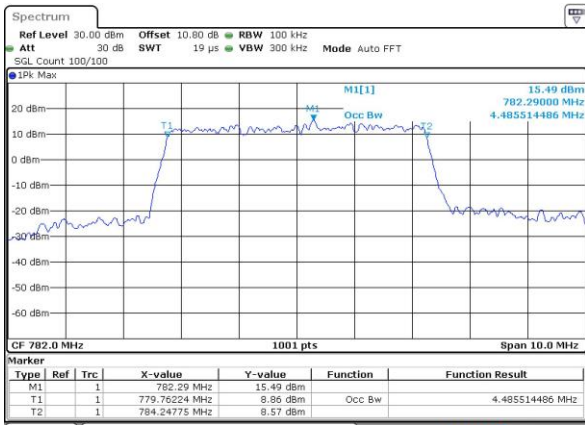
Date: 6 JUL 2018 22:19:39

Lowest Channel / 5MHz / 16QAM



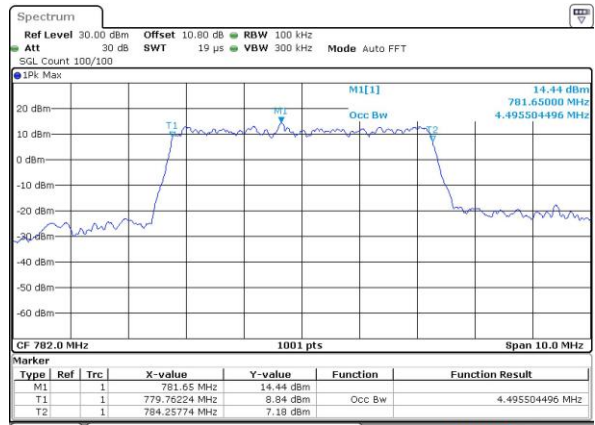
Date: 6 JUL 2018 22:19:50

Middle Channel / 5MHz / QPSK



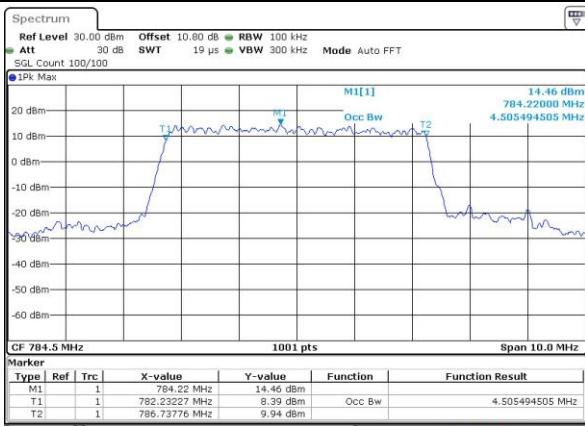
Date: 6 JUL 2018 22:31:19

Middle Channel / 5MHz / 16QAM



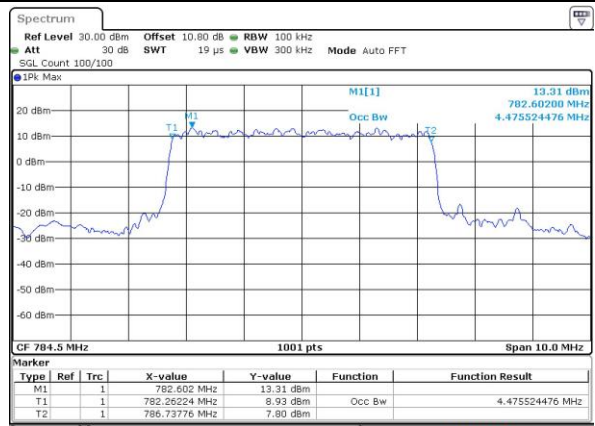
Date: 6 JUL 2018 22:31:08

Highest Channel / 5MHz / QPSK



Date: 6 JUL 2018 22:31:30

Highest Channel / 5MHz / 16QAM

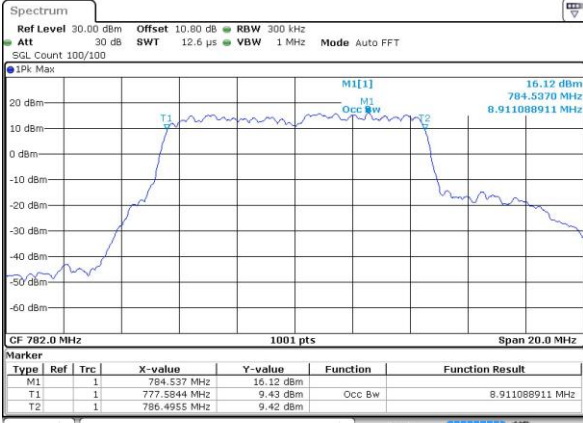


Date: 6 JUL 2018 22:31:42



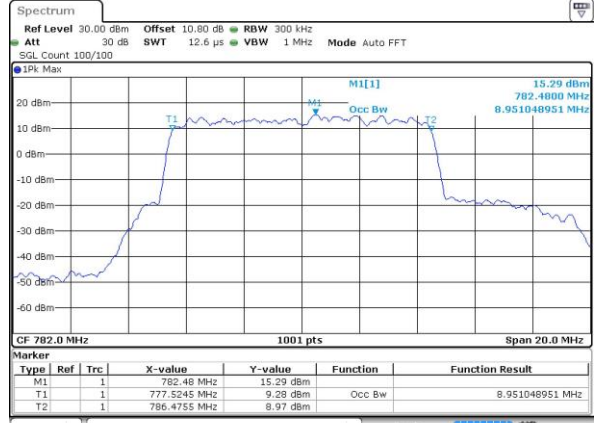
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 6 JUL 2018 22:51:21

Middle Channel / 10MHz / 16QAM

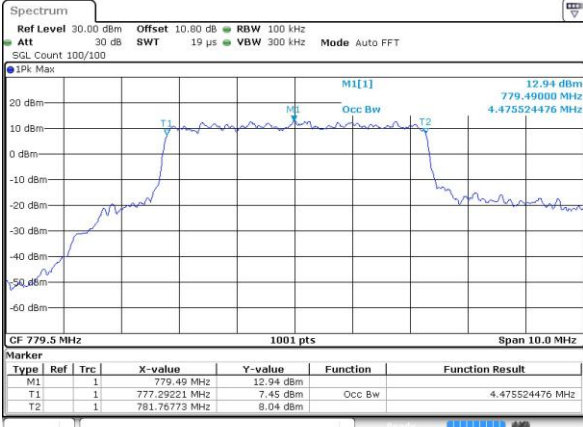


Date: 6 JUL 2018 22:51:32



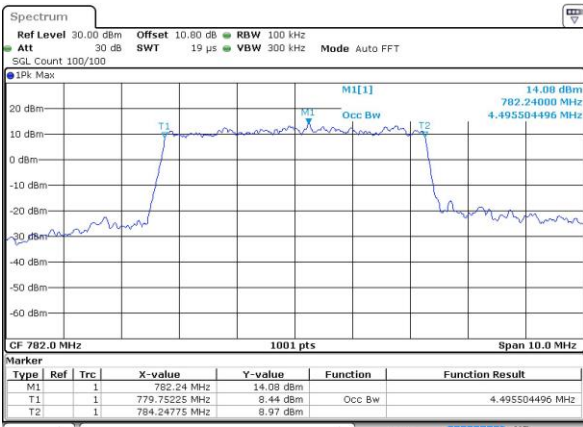
LTE Band 13

Lowest Channel / 5MHz / 64QAM



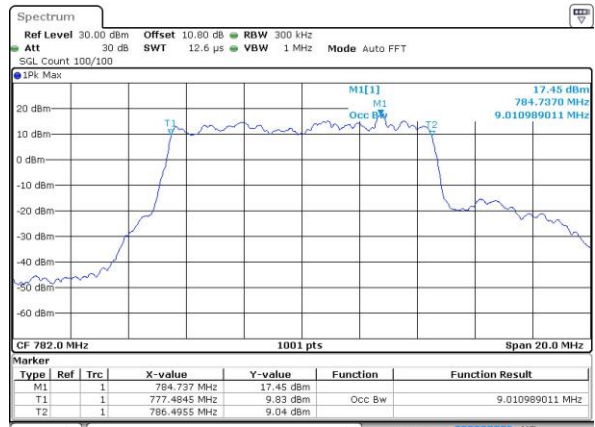
Date: 6 JUL 2018 22:40:47

Middle Channel / 5MHz / 64QAM



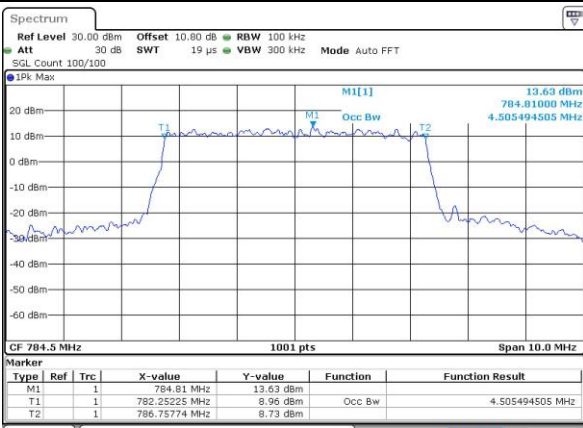
Date: 6 JUL 2018 22:46:31

Middle Channel / 10MHz / 64QAM



Date: 6 JUL 2018 23:03:58

Highest Channel / 5MHz / 64QAM



Date: 6 JUL 2018 22:46:43



**Conducted Band Edge**

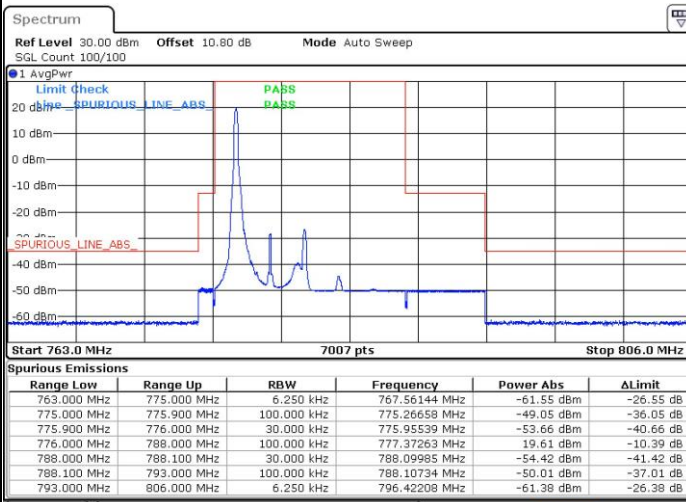




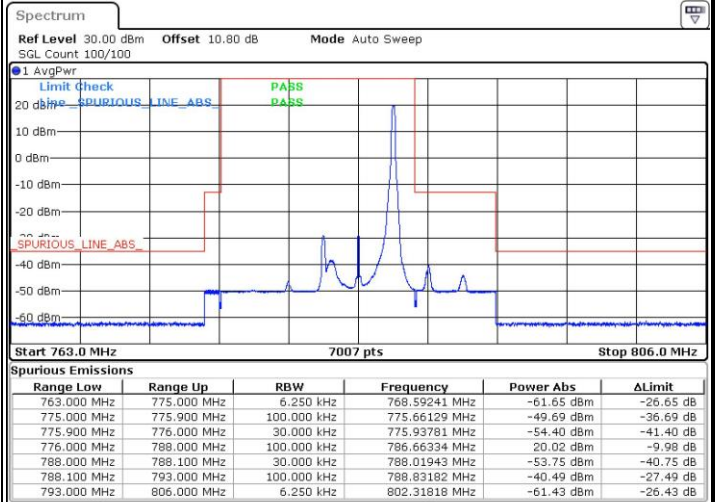
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



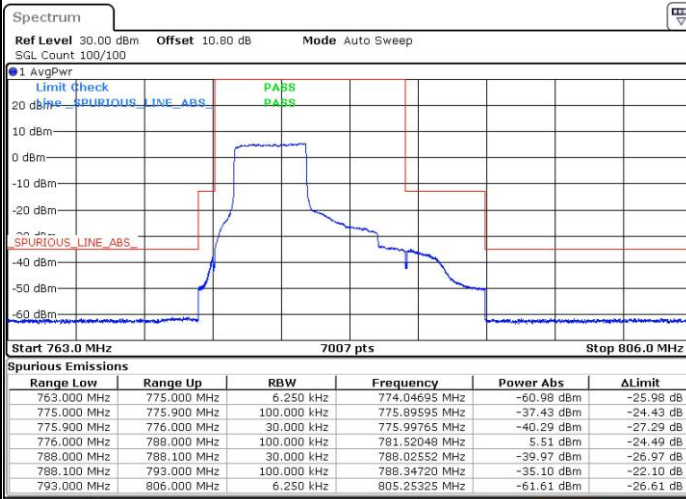
Date: 6 JUL 2018 22:26:53



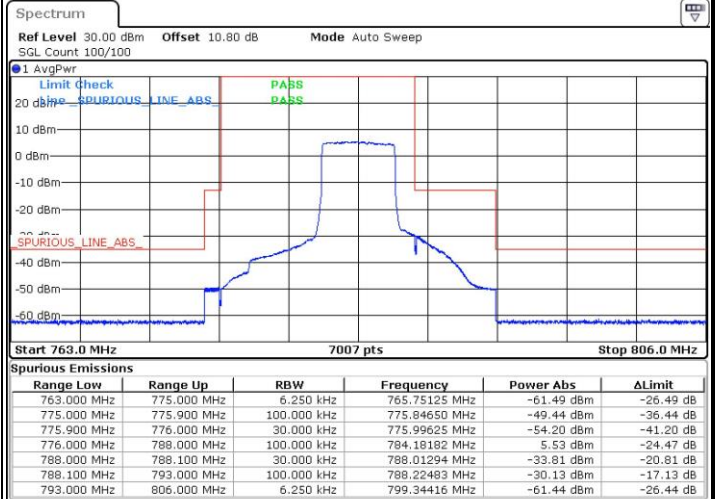
Date: 6 JUL 2018 22:38:45

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 6 JUL 2018 22:21:52

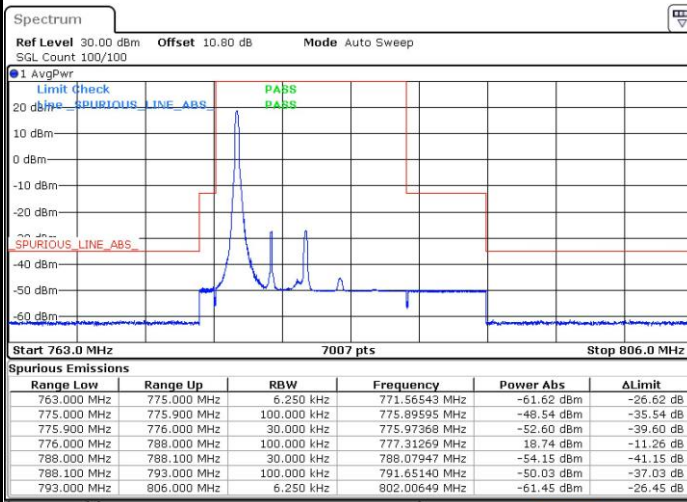


Date: 6 JUL 2018 22:33:44



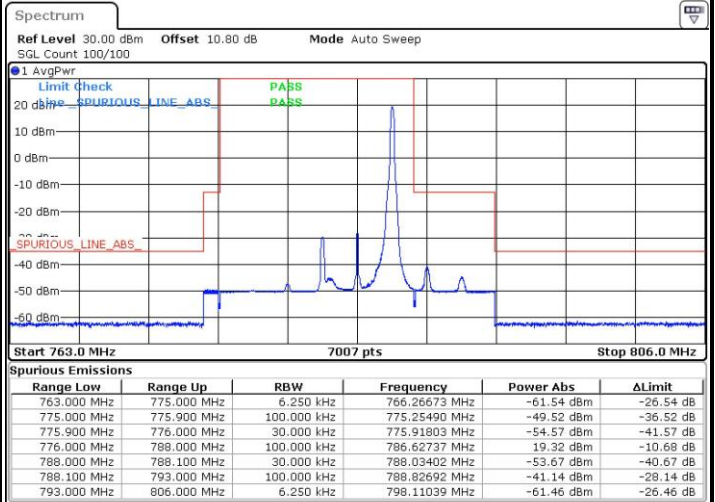
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



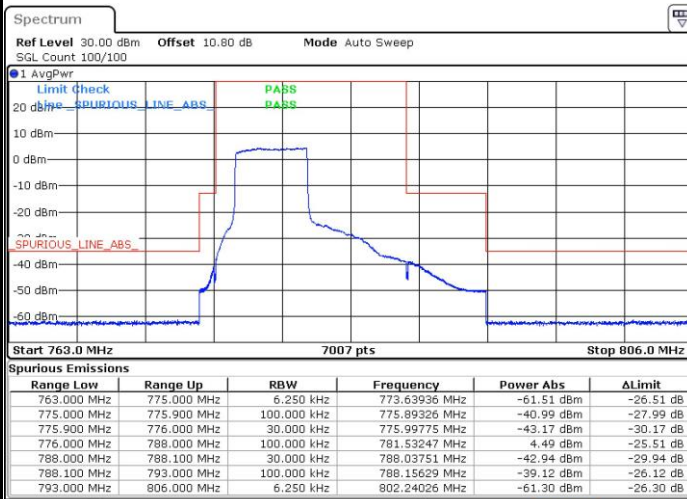
Date: 6 JUL 2018 22:25:13

Highest Band Edge / 1 RB



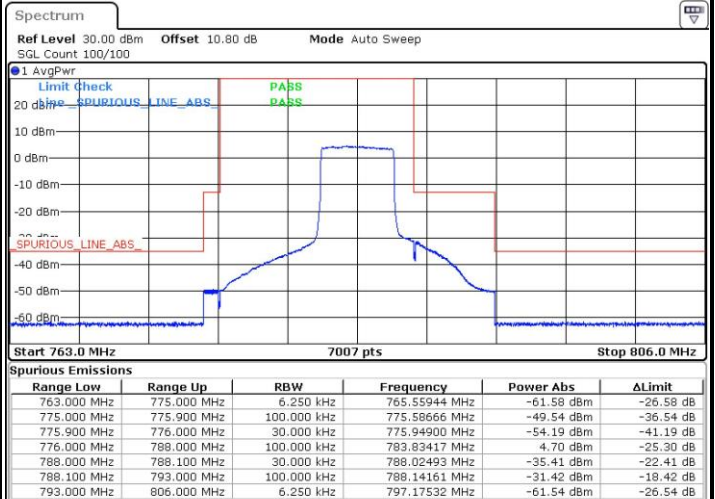
Date: 6 JUL 2018 22:37:05

Lowest Band Edge / Full RB



Date: 6 JUL 2018 22:23:33

Highest Band Edge / Full RB

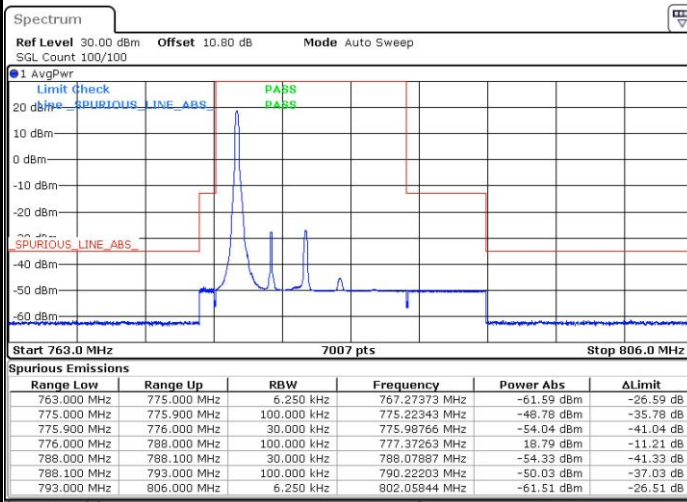


Date: 6 JUL 2018 22:35:24



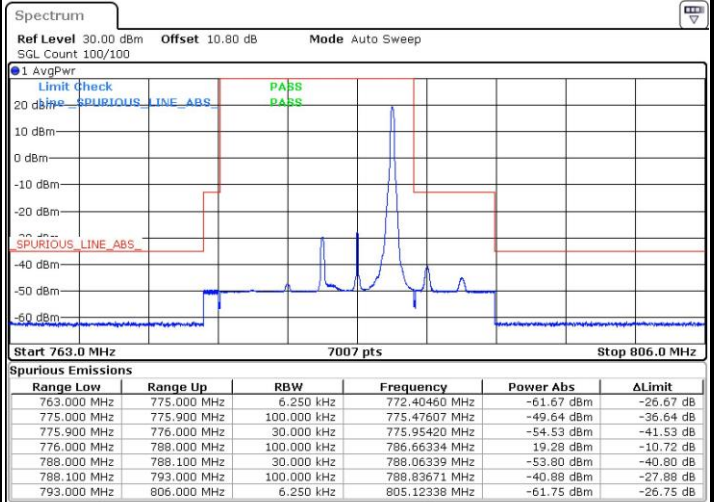
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



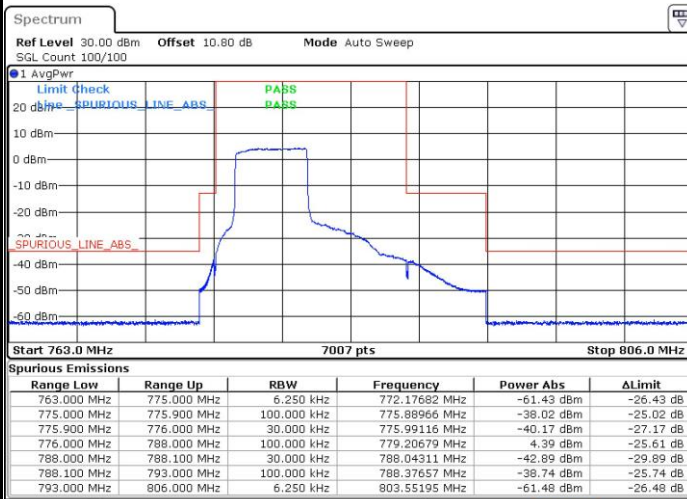
Date: 6 JUL 2018 22:44:18

Highest Band Edge / 1 RB



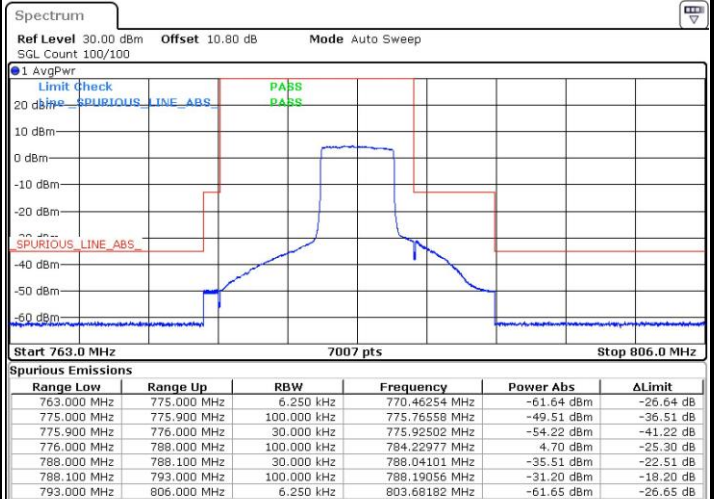
Date: 6 JUL 2018 22:50:14

Lowest Band Edge / Full RB



Date: 6 JUL 2018 22:42:38

Highest Band Edge / Full RB

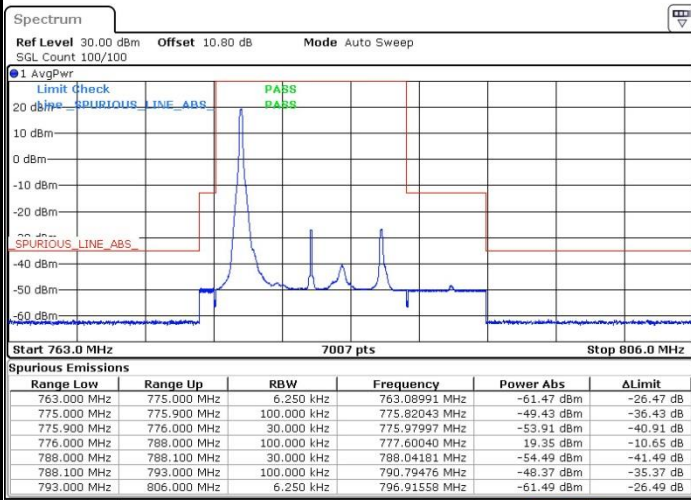


Date: 6 JUL 2018 22:48:34



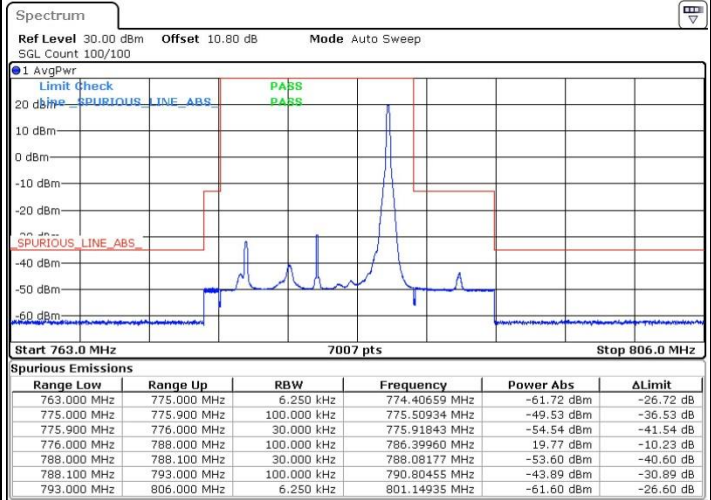
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



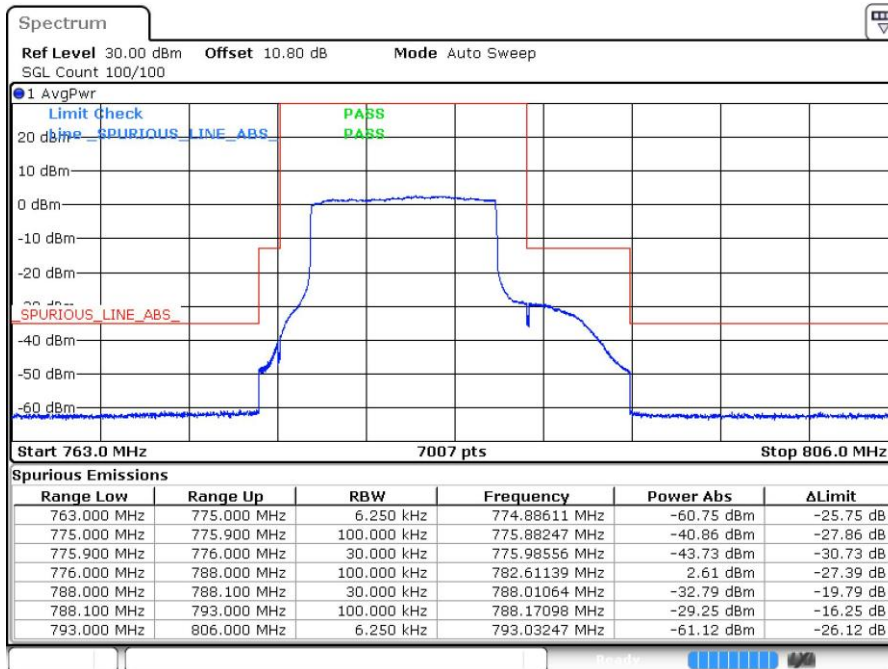
Date: 6 JUL 2018 22:58:36

Highest Band Edge / 1 RB



Date: 6 JUL 2018 23:00:16

Band Edge / Full RB



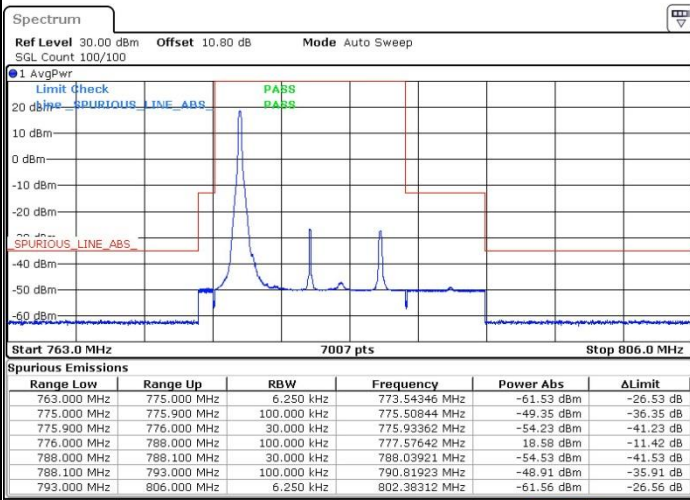
Date: 6 JUL 2018 22:53:35



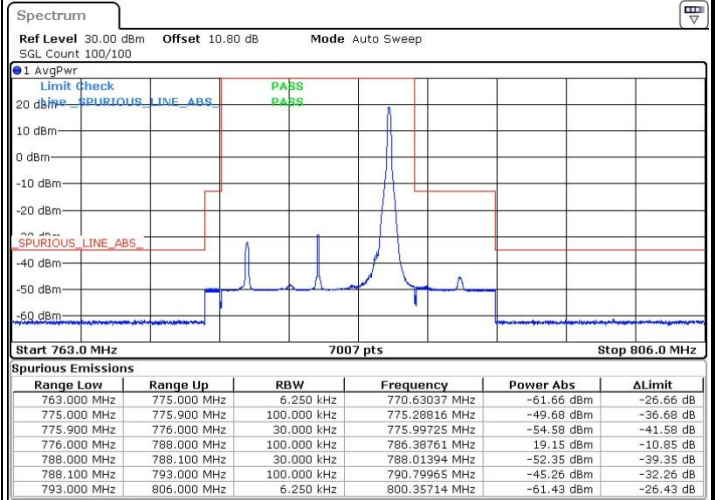
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

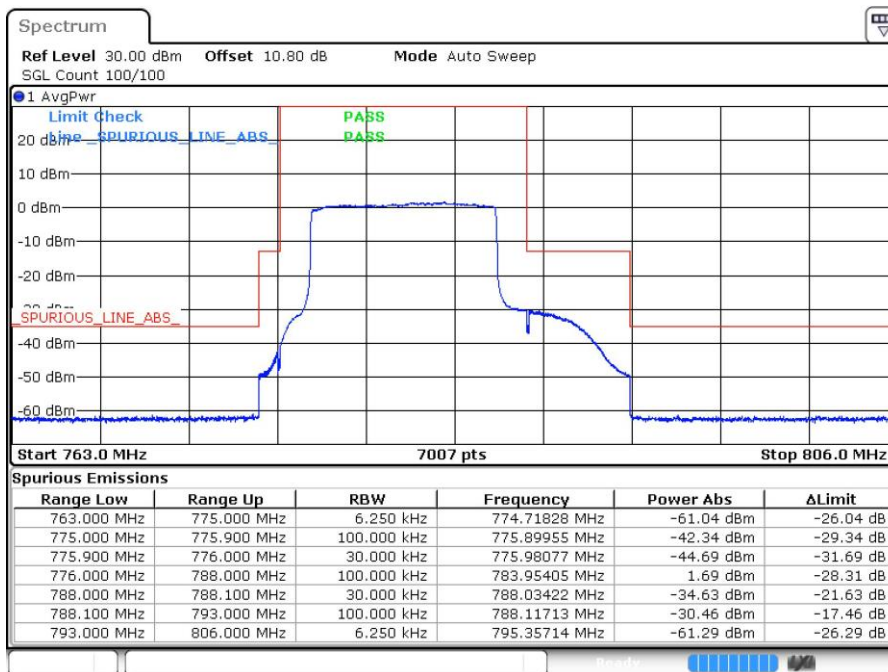


Date: 6 JUL 2018 22:56:55



Date: 6 JUL 2018 23:01:56

Band Edge / Full RB



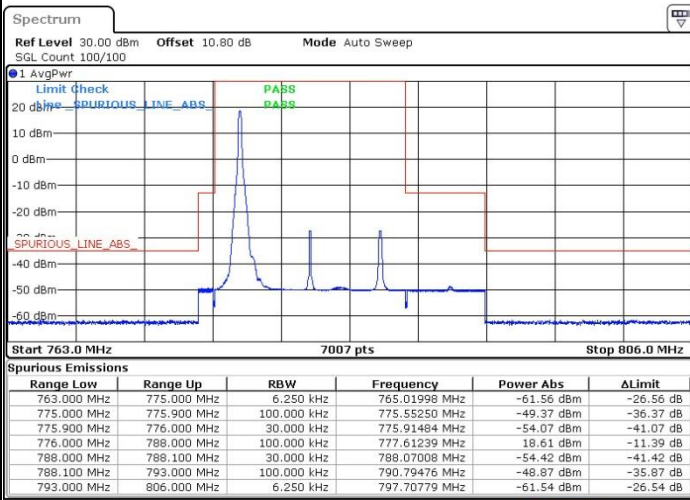
Date: 6 JUL 2018 22:55:15



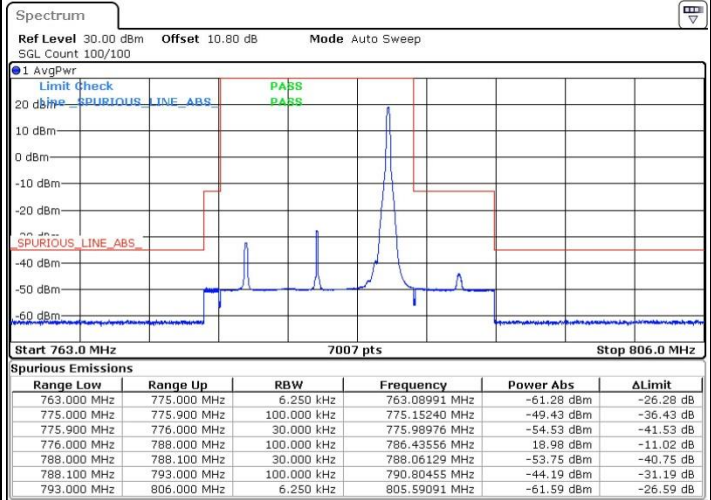
LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

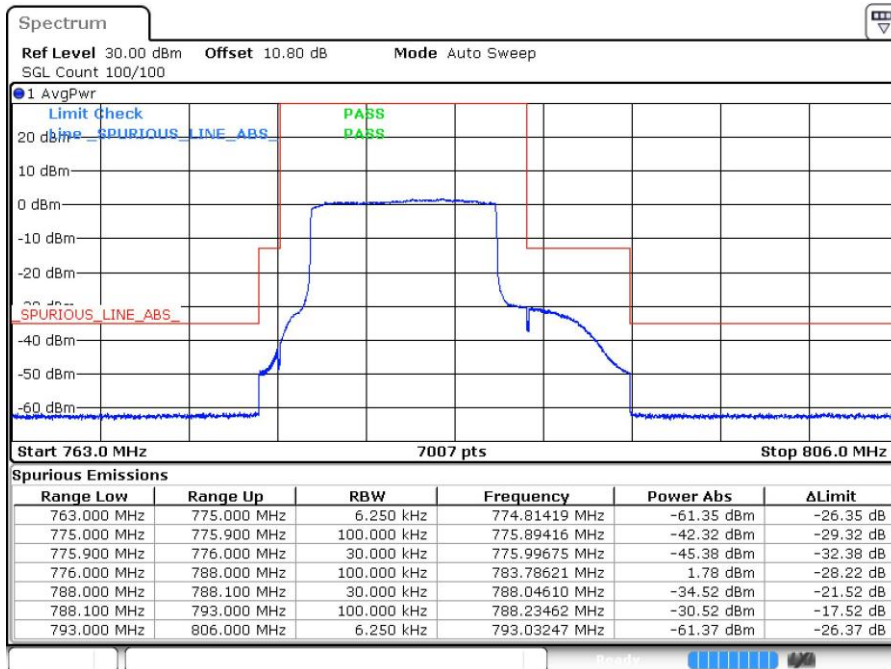


Date: 6 JUL 2018 23:07:29



Date: 6 JUL 2018 23:09:09

Band Edge / Full RB



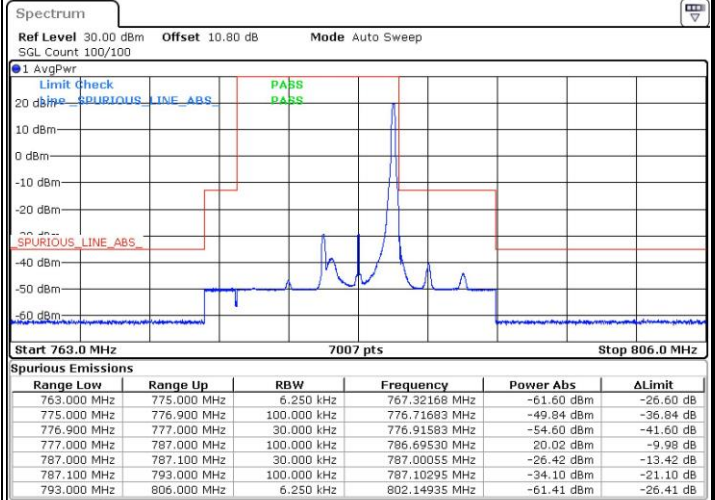
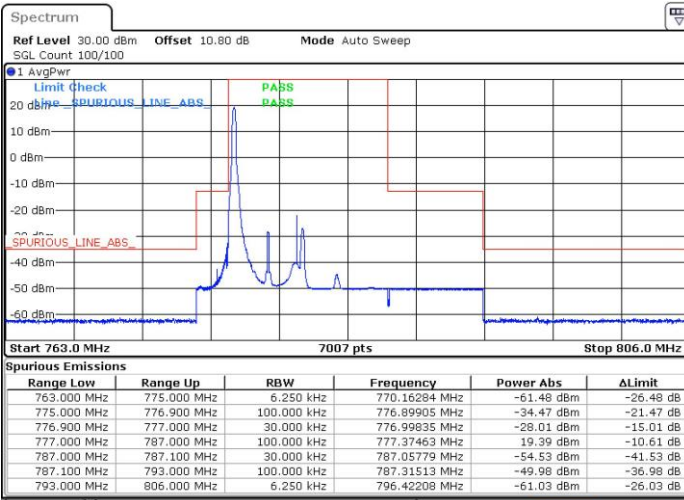
Date: 6 JUL 2018 23:05:49



IC LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

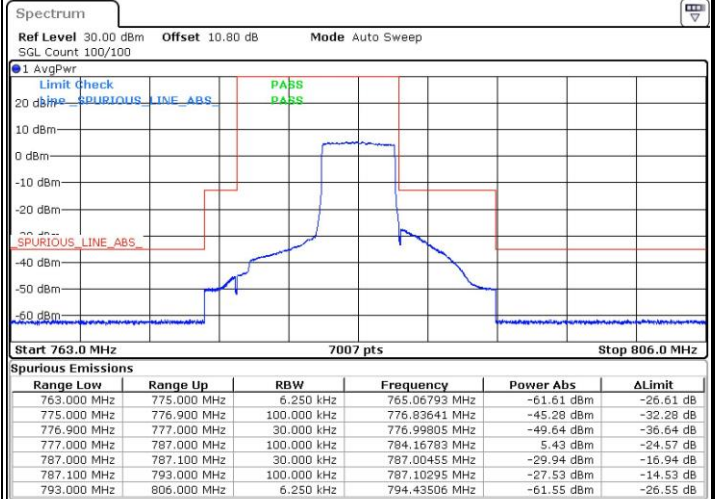
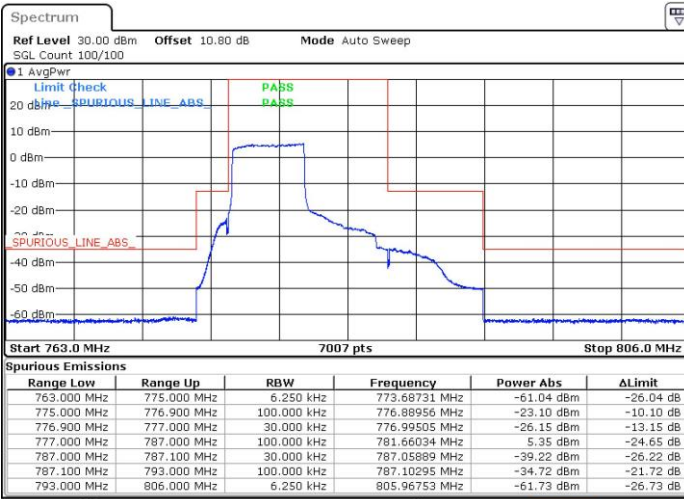


Date: 6 JUL 2018 23:22:35

Date: 6 JUL 2018 23:29:16

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 6 JUL 2018 23:17:34

Date: 6 JUL 2018 23:24:15