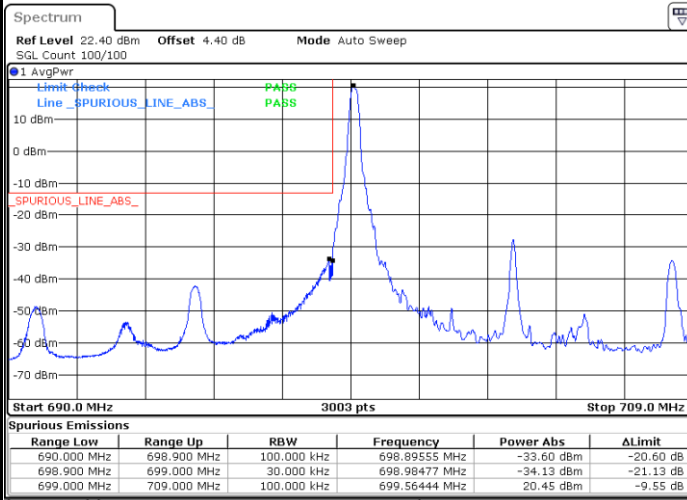




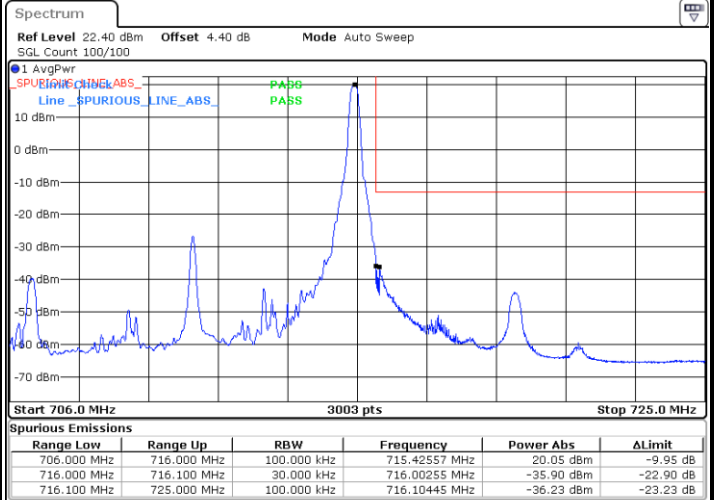
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



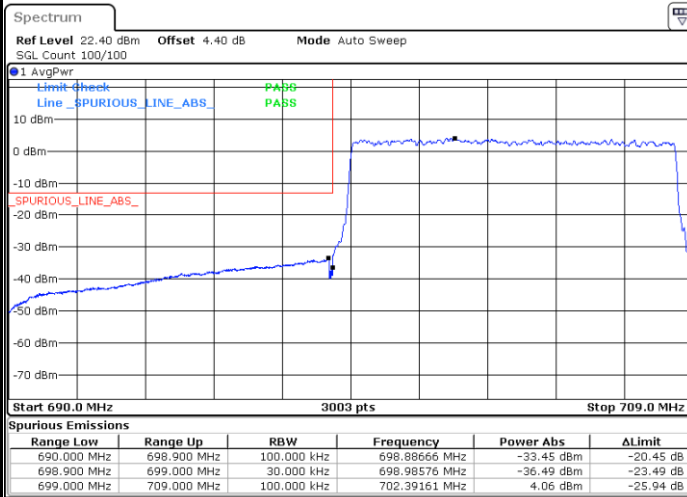
Date: 7 SEP.2018 18:21:21

Highest Band Edge / 1 RB



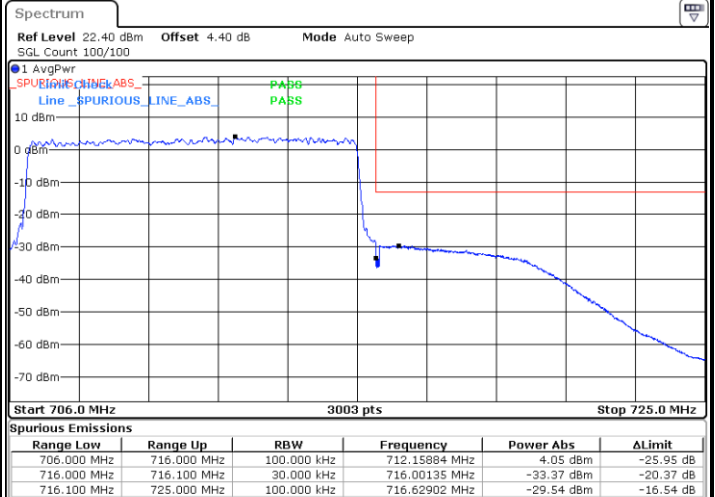
Date: 7 SEP.2018 18:29:18

Lowest Band Edge / Full RB



Date: 7 SEP.2018 18:24:45

Highest Band Edge / Full RB

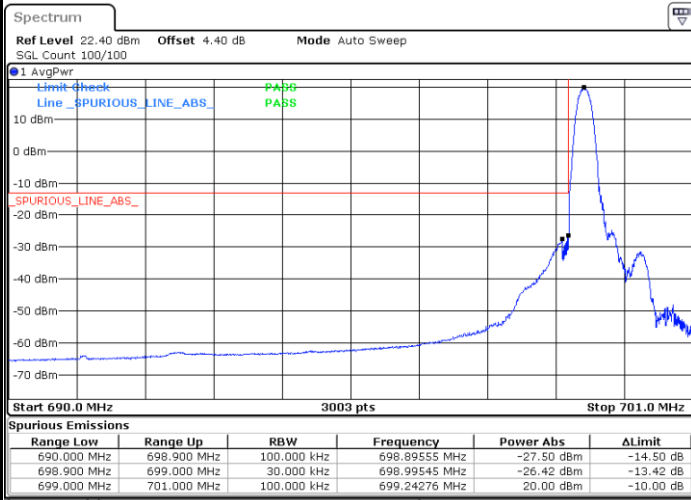


Date: 7 SEP.2018 18:25:53



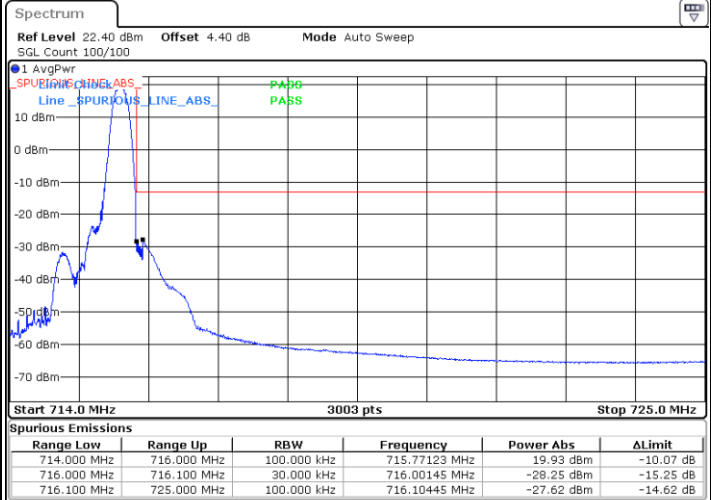
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1RB



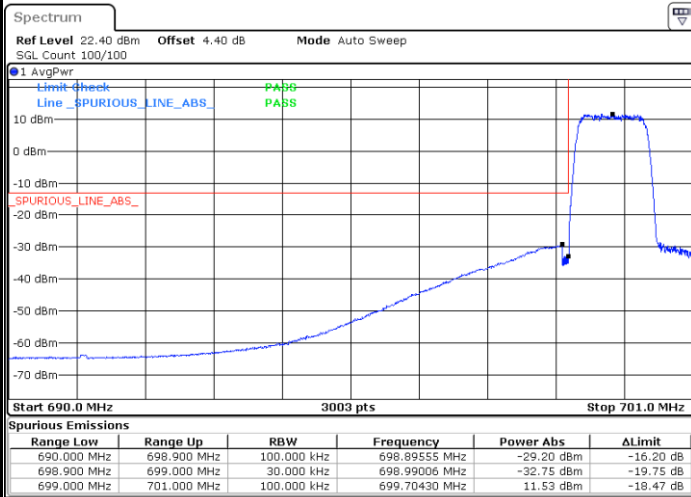
Date: 7 SEP.2018 18:49:00

Highest Band Edge / 1RB



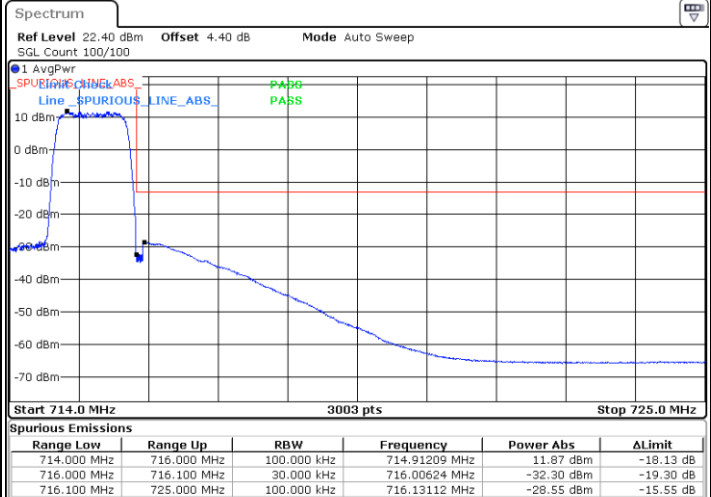
Date: 7 SEP.2018 18:50:09

Lowest Band Edge / Full RB



Date: 7 SEP.2018 18:47:52

Highest Band Edge / Full RB

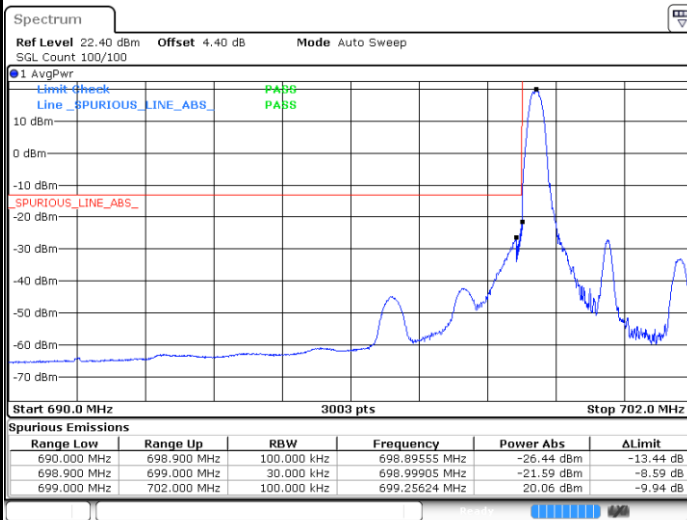


Date: 7 SEP.2018 18:51:17



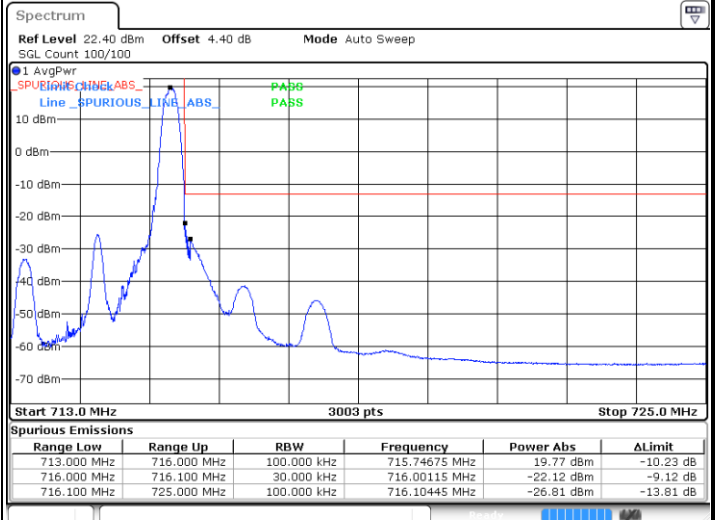
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1RB



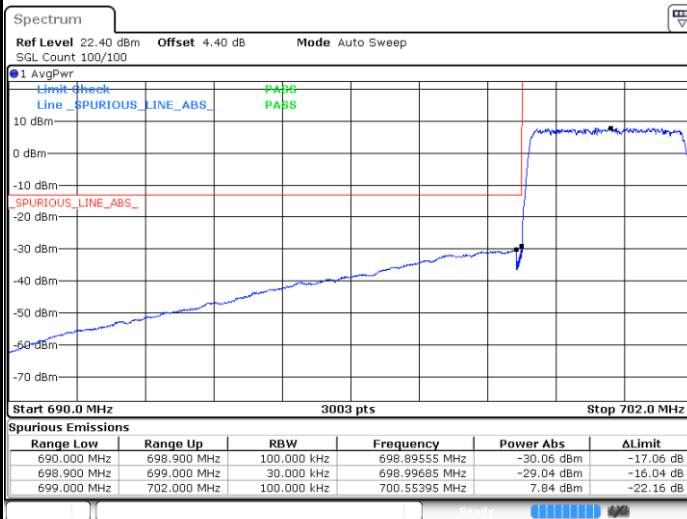
Date: 7 SEP.2018 18:52:25

Highest Band Edge / 1 RB



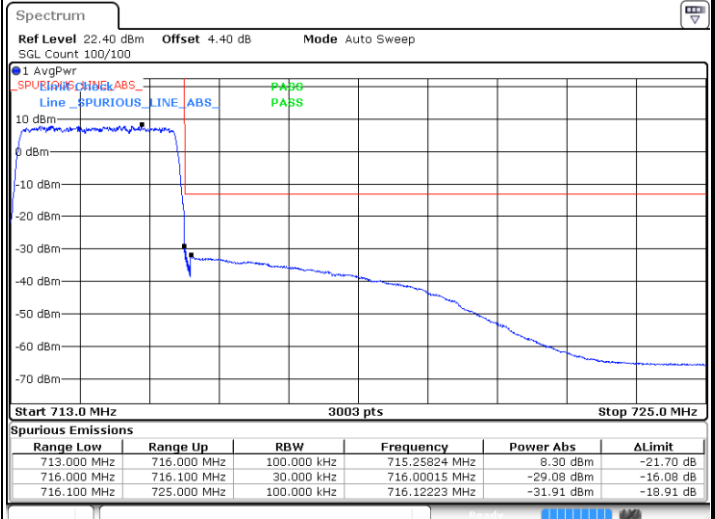
Date: 7 SEP.2018 18:55:49

Lowest Band Edge / Full RB



Date: 7 SEP.2018 18:53:33

Highest Band Edge / Full RB

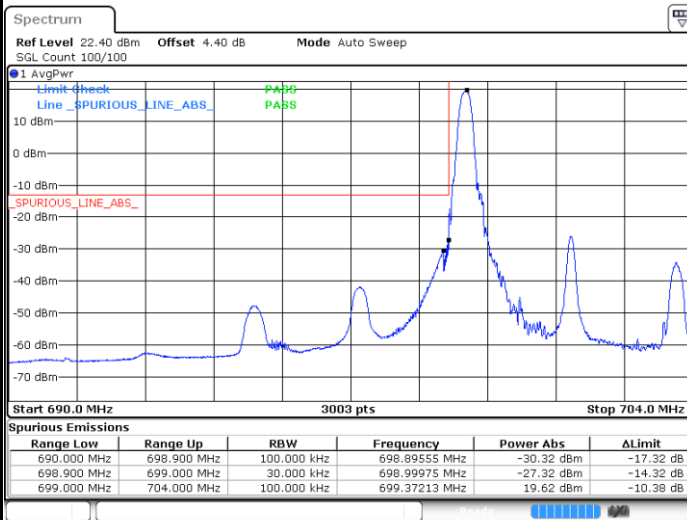


Date: 7 SEP.2018 18:54:41



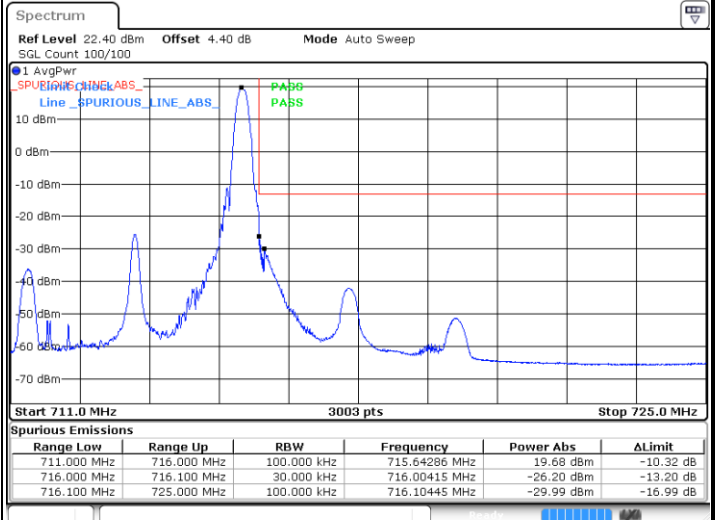
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



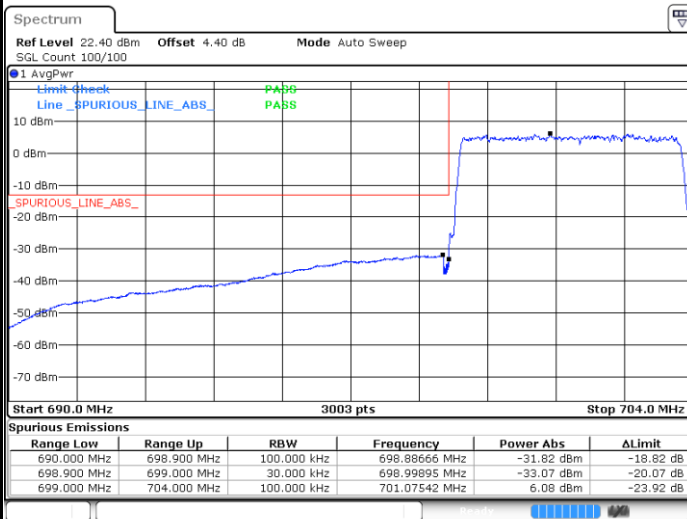
Date: 7 SEP.2018 18:58:06

Highest Band Edge / 1 RB



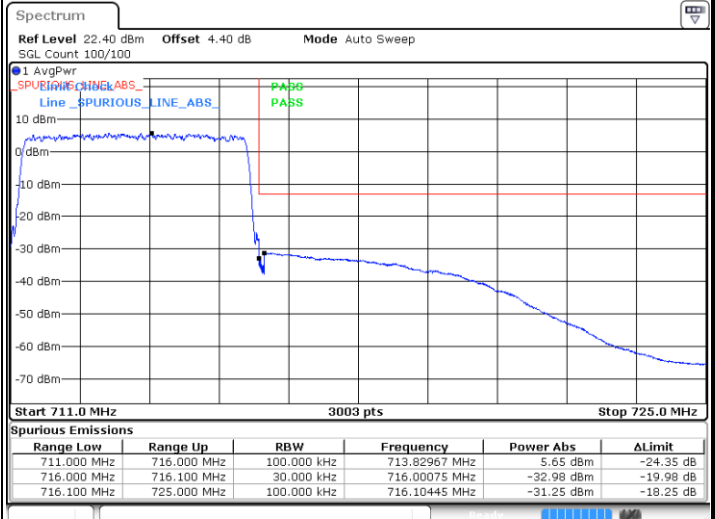
Date: 7 SEP.2018 18:59:14

Lowest Band Edge / Full RB



Date: 7 SEP.2018 18:56:57

Highest Band Edge / Full RB

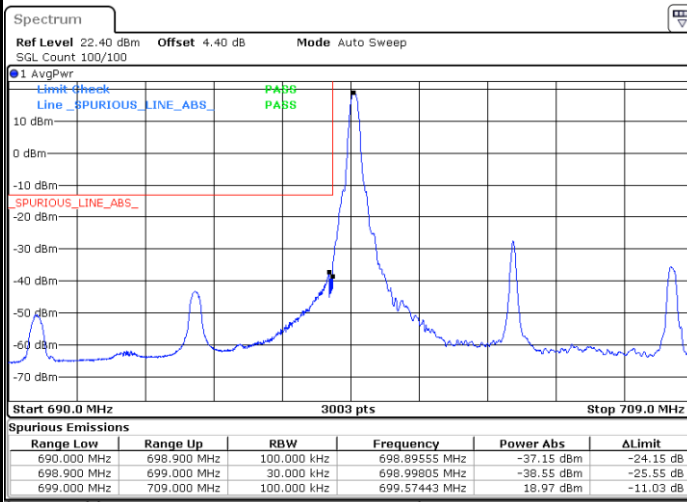


Date: 7 SEP.2018 19:00:22



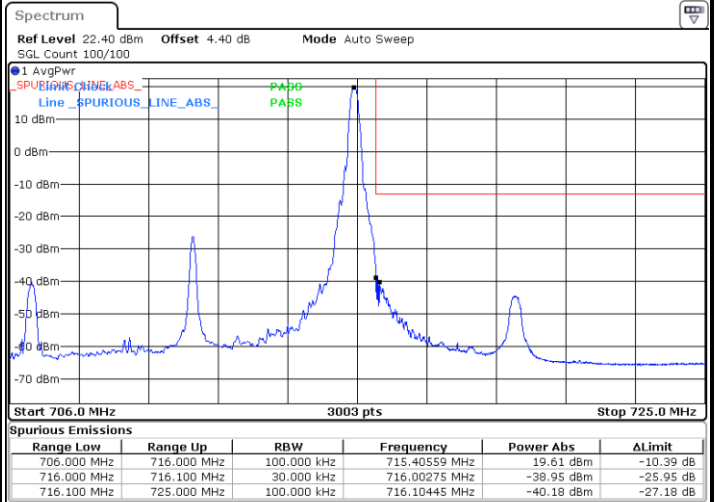
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



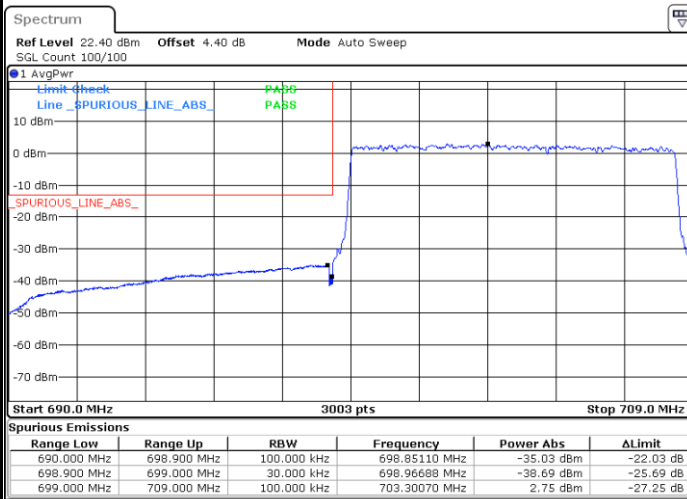
Date: 7 SEP.2018 19:02:38

Highest Band Edge / 1 RB



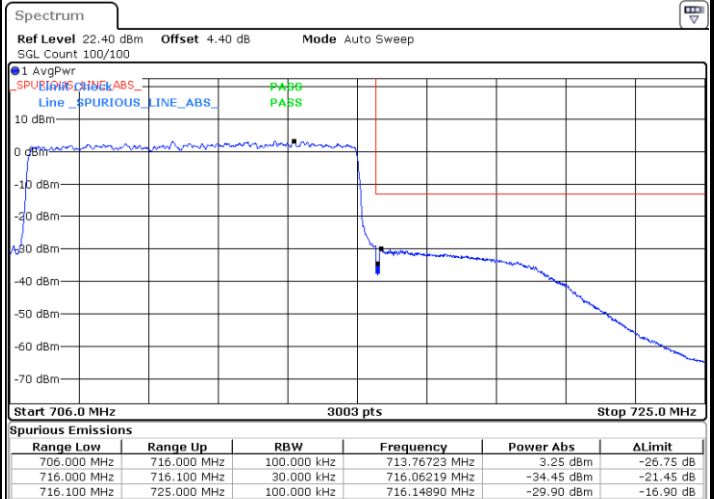
Date: 7 SEP.2018 19:03:46

Lowest Band Edge / Full RB



Date: 7 SEP.2018 19:01:30

Highest Band Edge / Full RB



Date: 7 SEP.2018 19:04:55



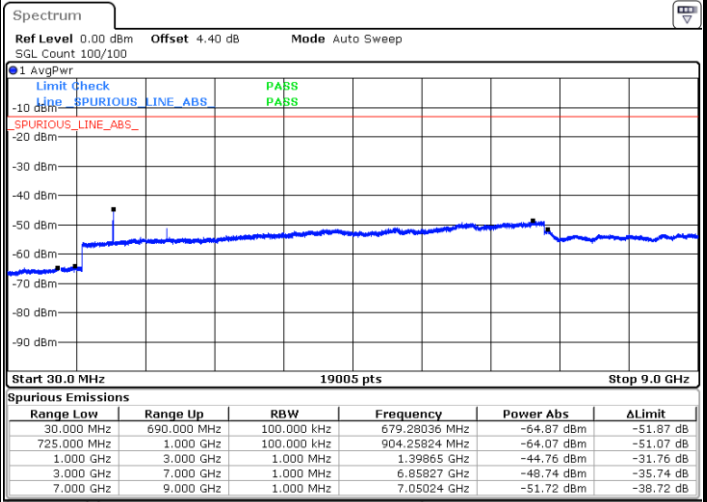
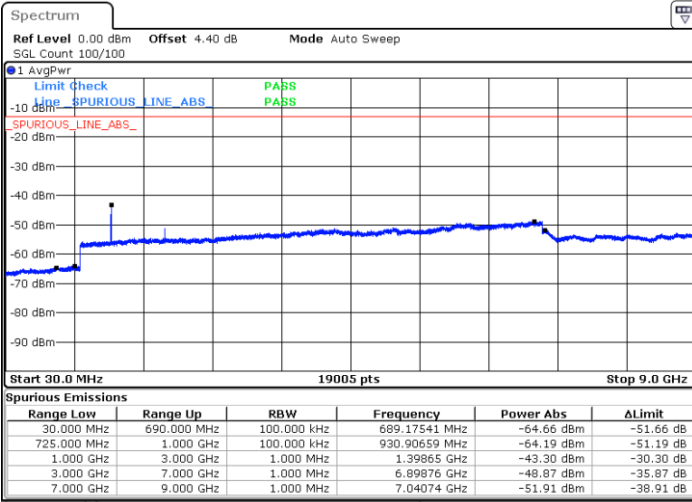
Conducted Spurious Emission



LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

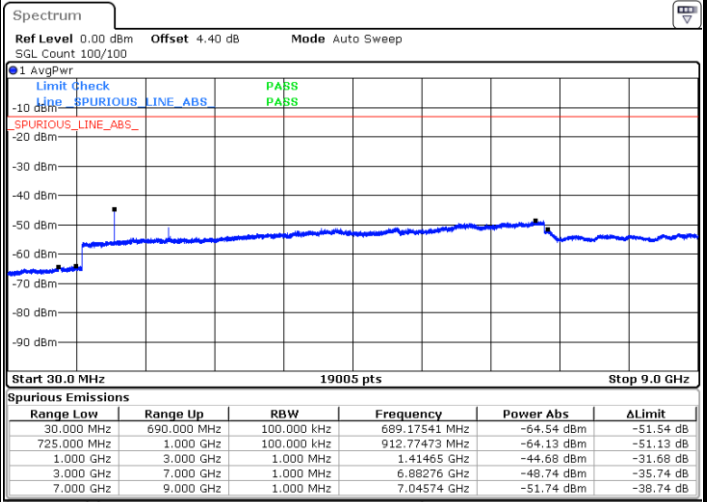
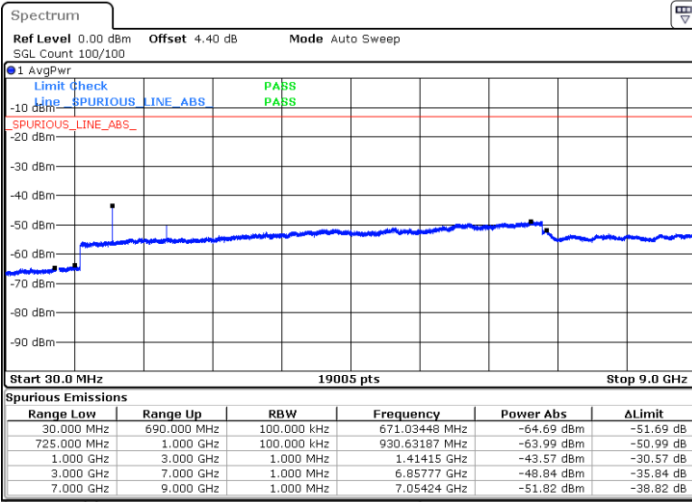


Date: 7.SEP.2018 17:25:22

Date: 7.SEP.2018 17:26:17

Middle Channel / QPSK

Middle Channel / 16QAM



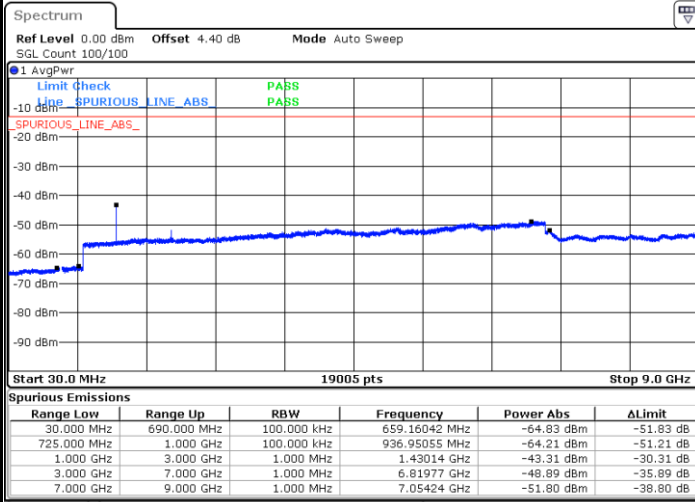
Date: 7.SEP.2018 17:28:08

Date: 7.SEP.2018 17:27:12



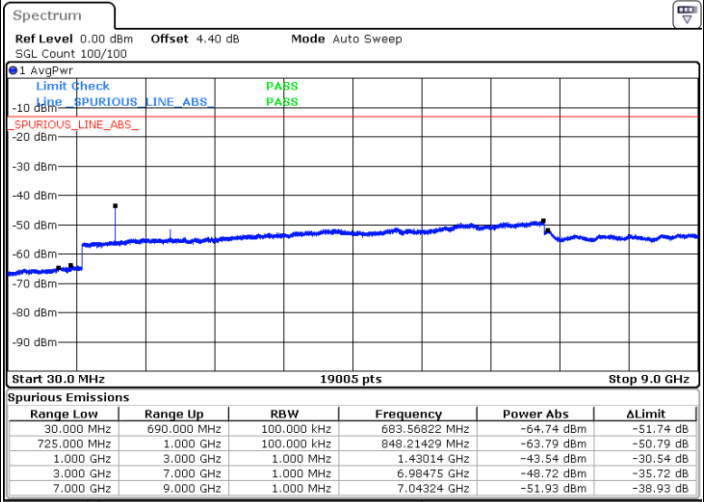
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 7.SEP.2018 17:29:03

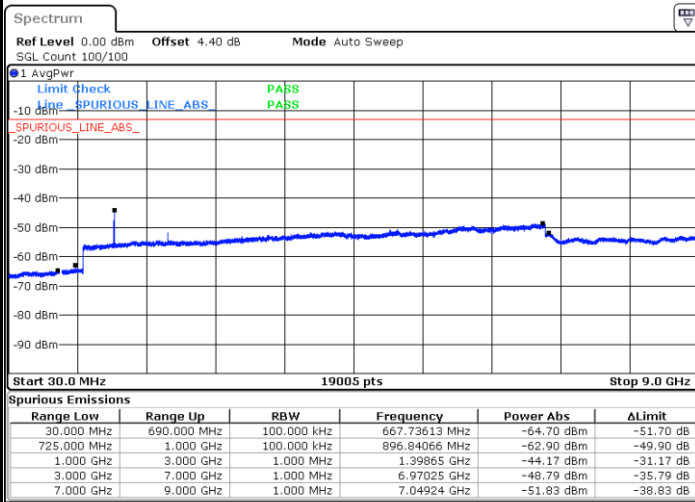
Highest Channel / 16QAM



Date: 7.SEP.2018 17:29:58

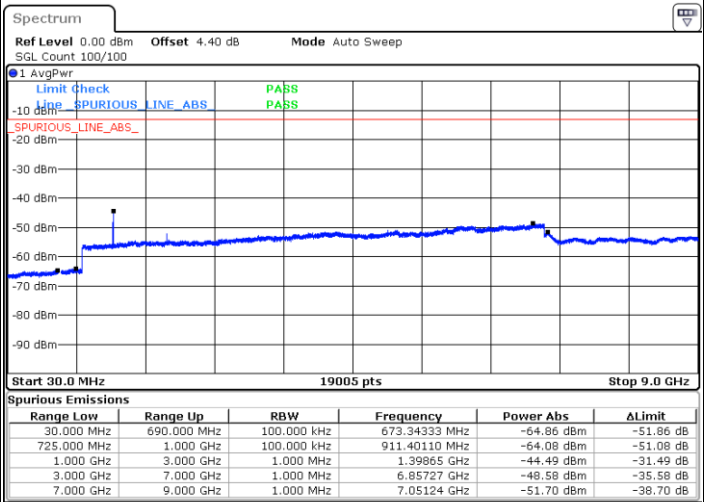
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 7.SEP.2018 17:42:06

Lowest Channel / 16QAM



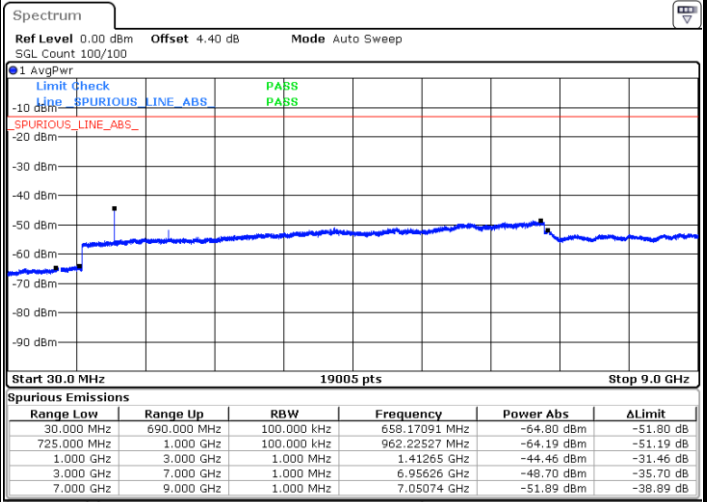
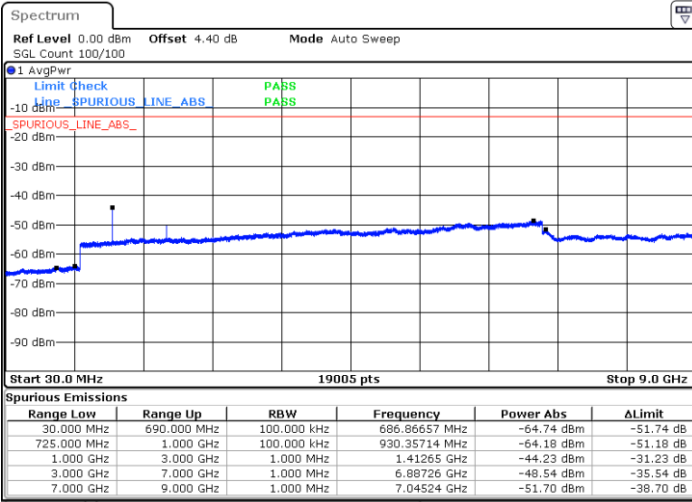
Date: 7.SEP.2018 17:43:02



LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

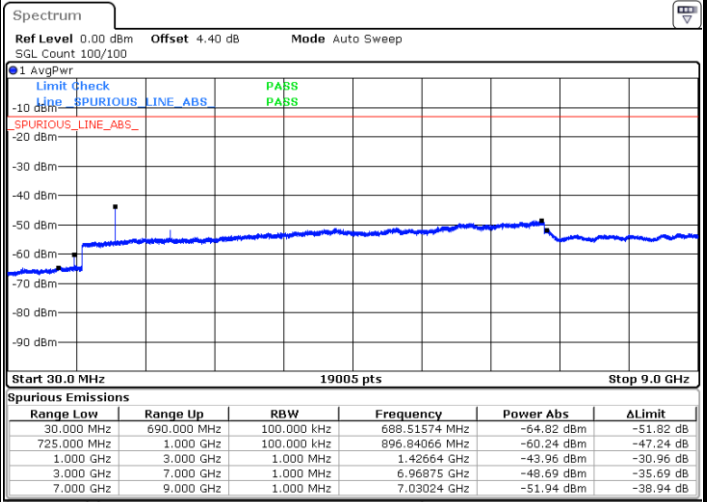
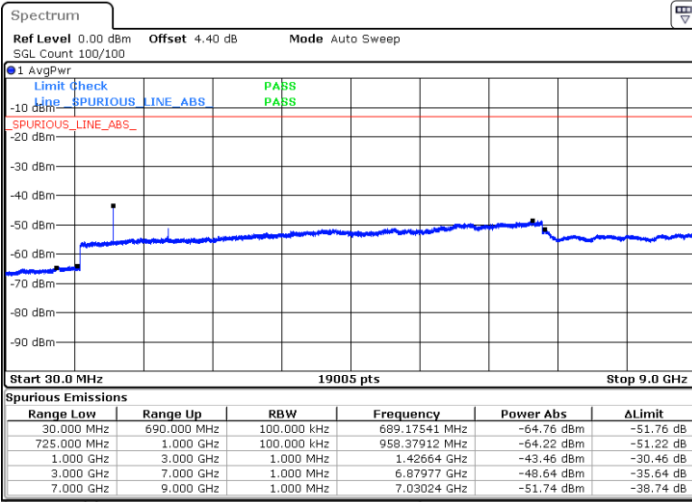


Date: 7.SEP.2018 17:44:52

Date: 7.SEP.2018 17:43:57

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 7.SEP.2018 17:45:47

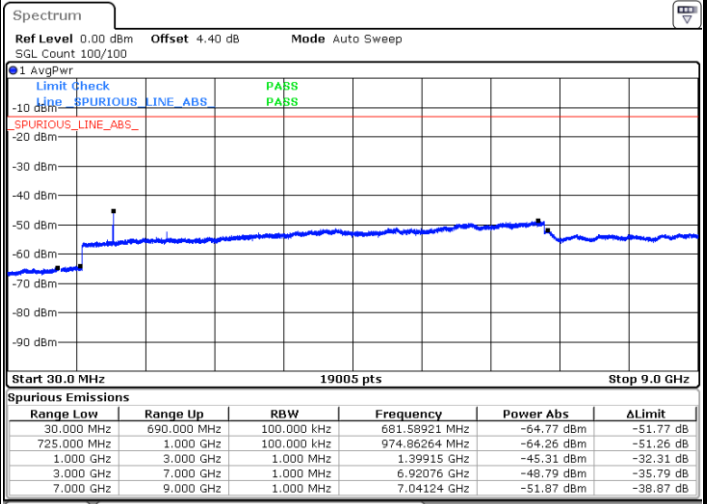
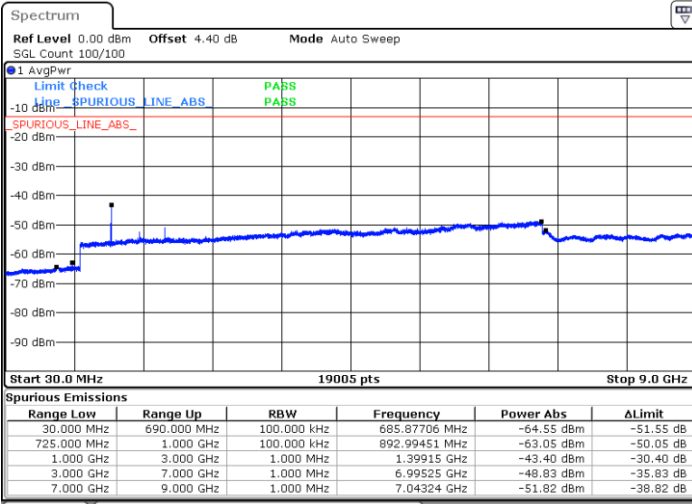
Date: 7.SEP.2018 17:46:42



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

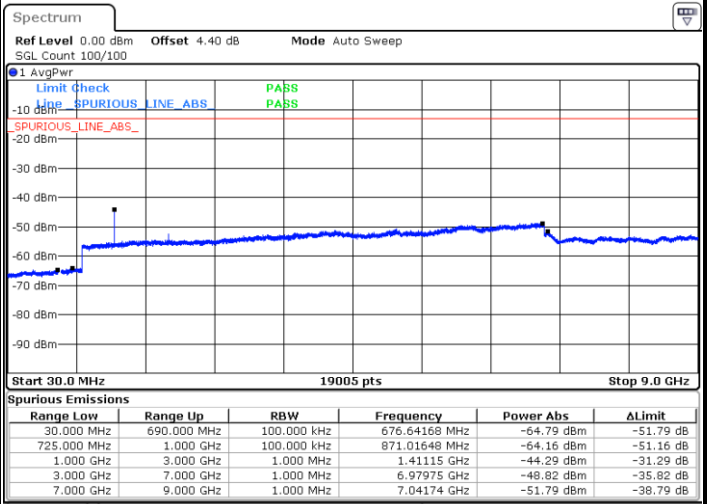
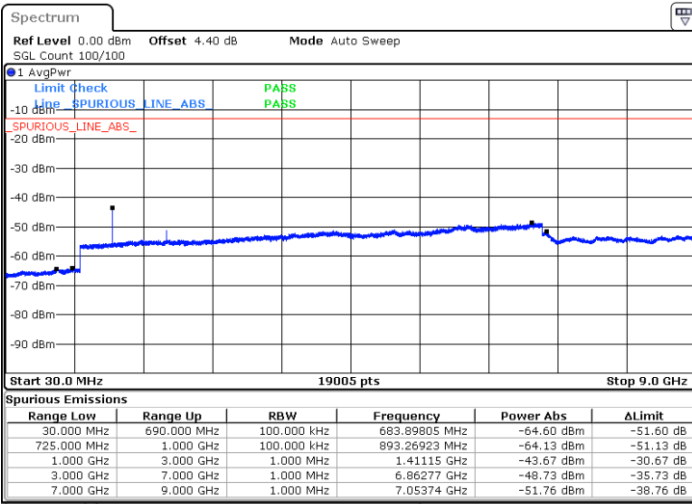


Date: 7.SEP.2018 17:58:51

Date: 7.SEP.2018 17:59:46

Middle Channel / QPSK

Middle Channel / 16QAM



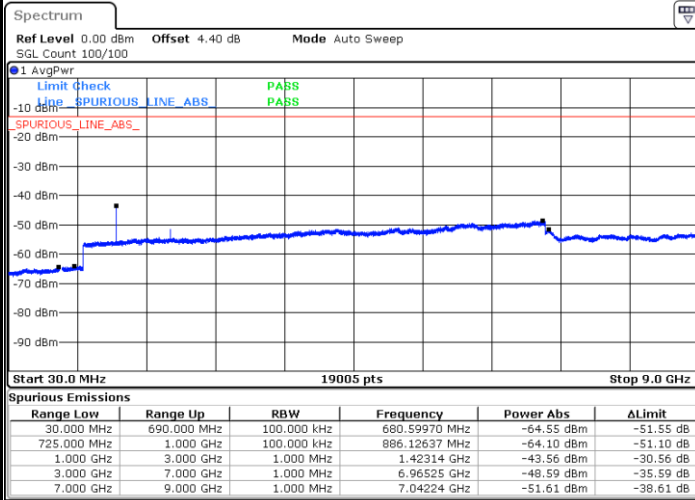
Date: 7.SEP.2018 18:01:36

Date: 7.SEP.2018 18:00:41



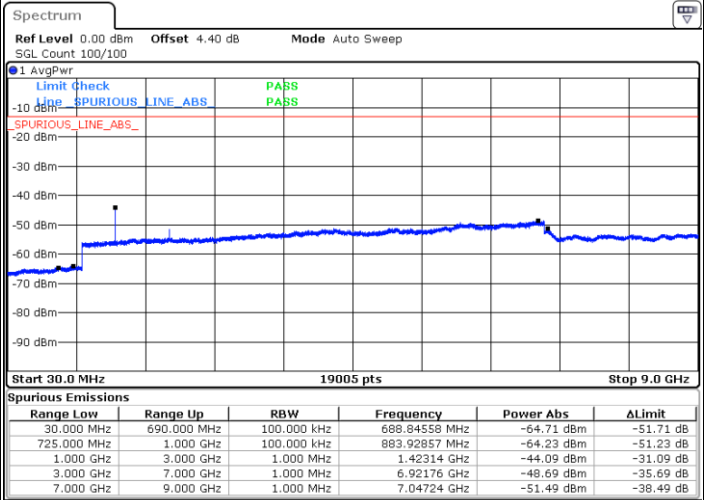
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 7.SEP.2018 18:02:32

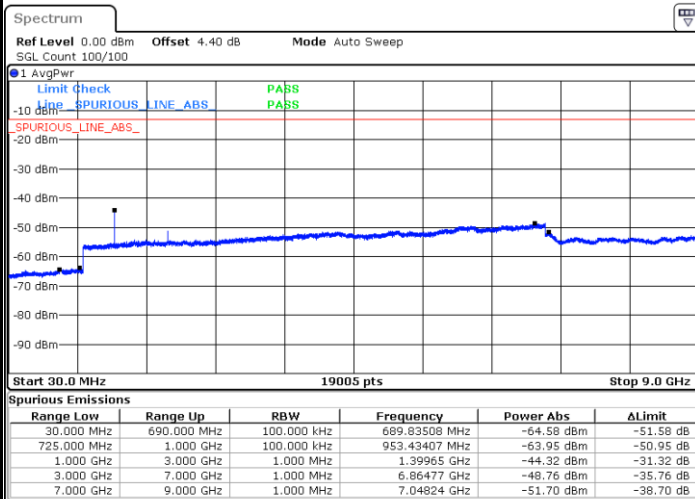
Highest Channel / 16QAM



Date: 7.SEP.2018 18:03:27

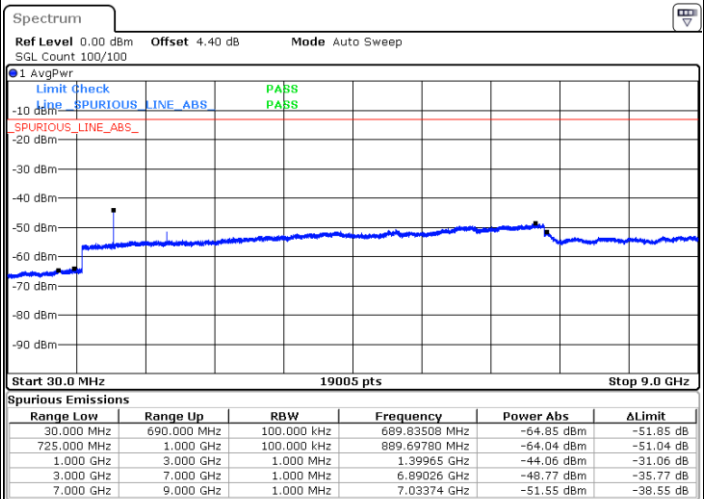
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 7.SEP.2018 18:15:35

Lowest Channel / 16QAM



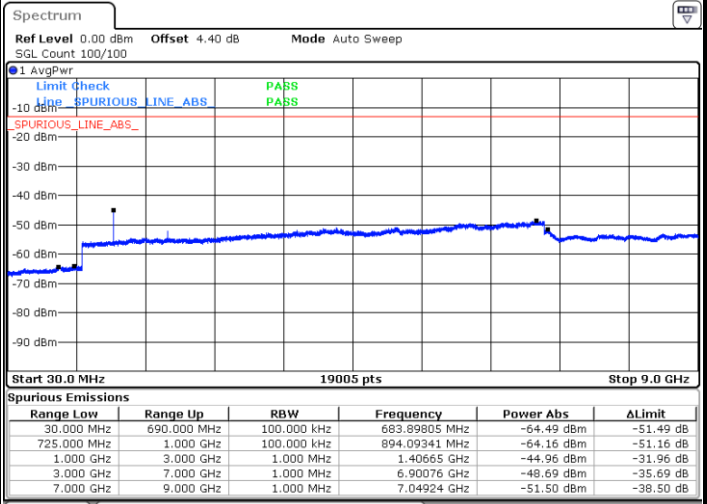
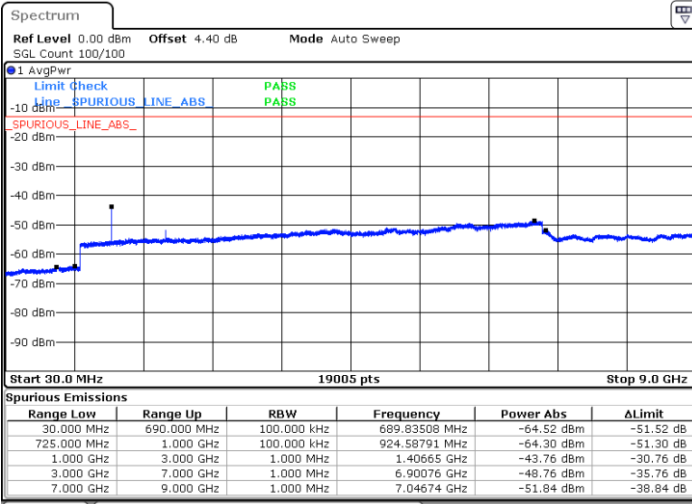
Date: 7.SEP.2018 18:16:31



LTE Band 12 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

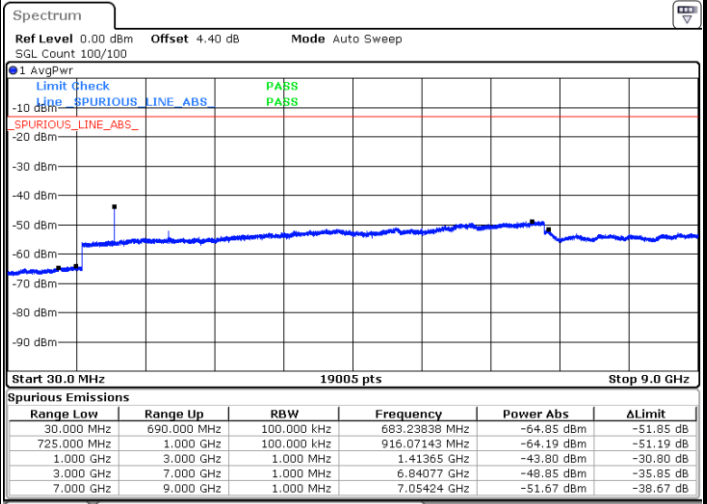
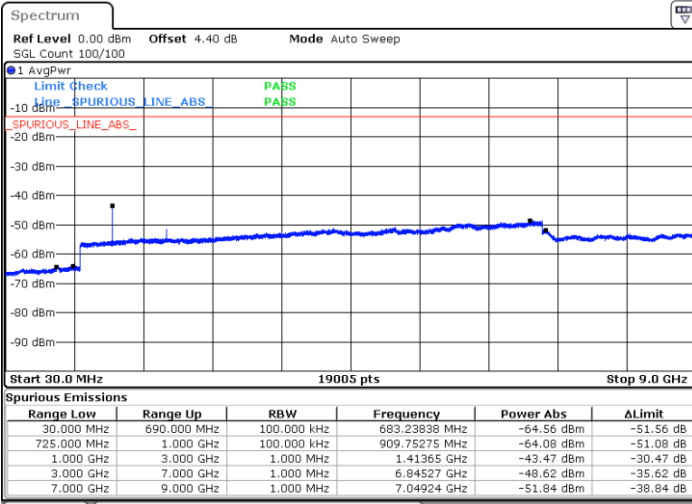


Date: 7.SEP.2018 18:18:21

Date: 7.SEP.2018 18:17:26

Highest Channel / QPSK

Highest Channel / 16QAM

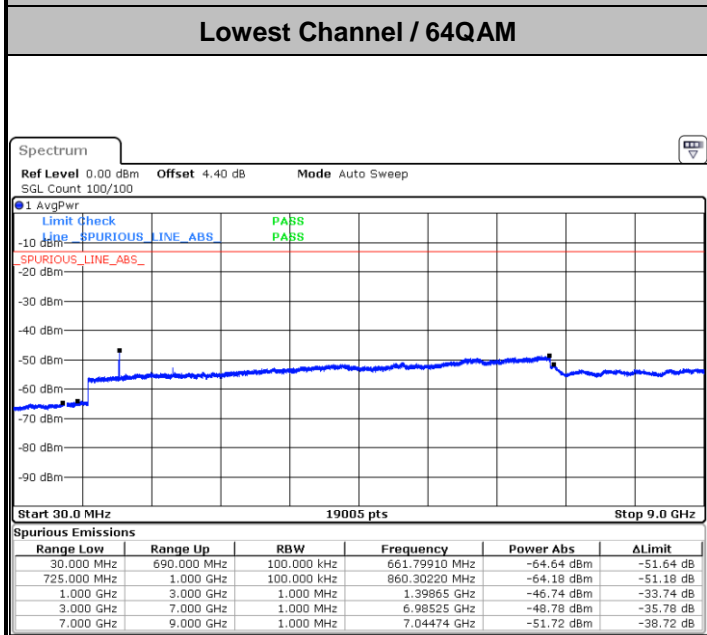


Date: 7.SEP.2018 18:19:17

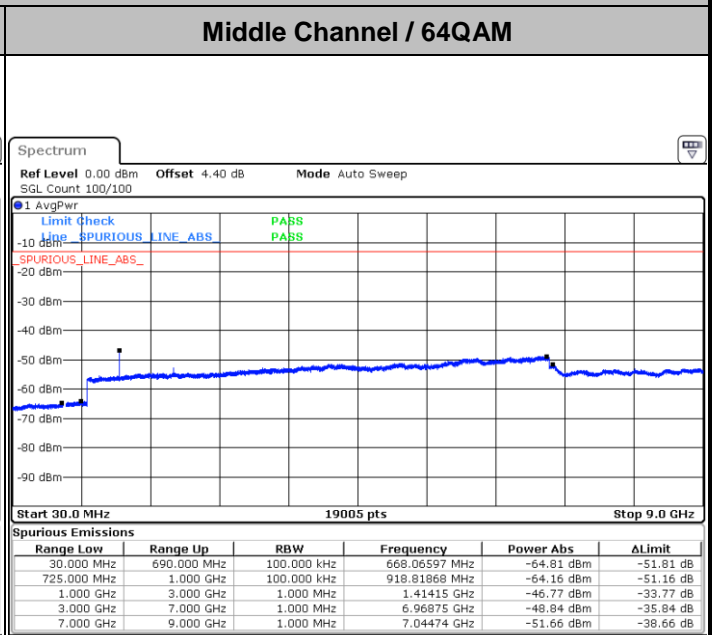
Date: 7.SEP.2018 18:20:12



LTE Band 12 / 1.4MHz

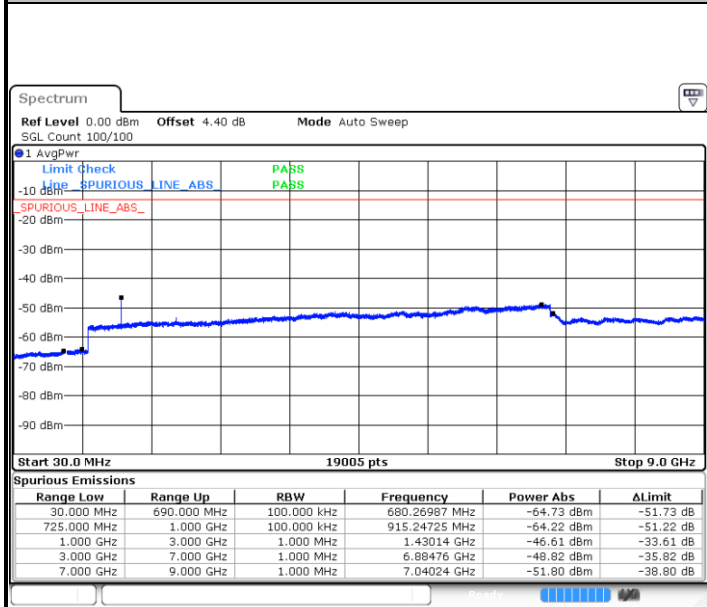


Date: 7.SEP.2018 19:05:49



Date: 7.SEP.2018 19:06:44

Highest Channel / 64QAM



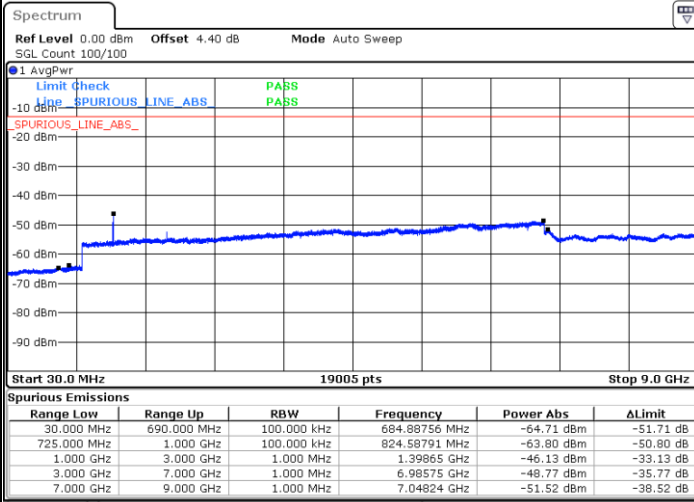
Date: 7.SEP.2018 19:07:39



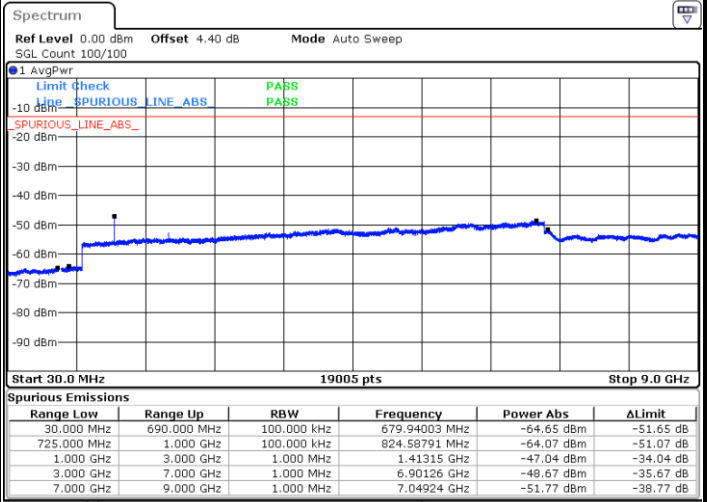
LTE Band 12 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

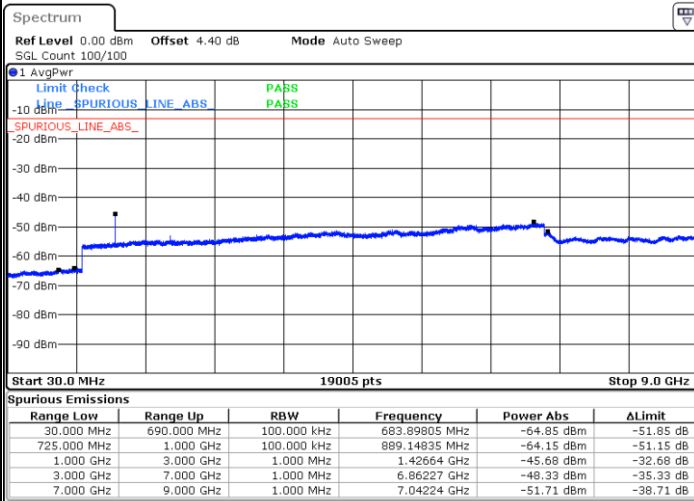


Date: 7.SEP.2018 19:08:35



Date: 7.SEP.2018 19:09:30

Highest Channel / 64QAM



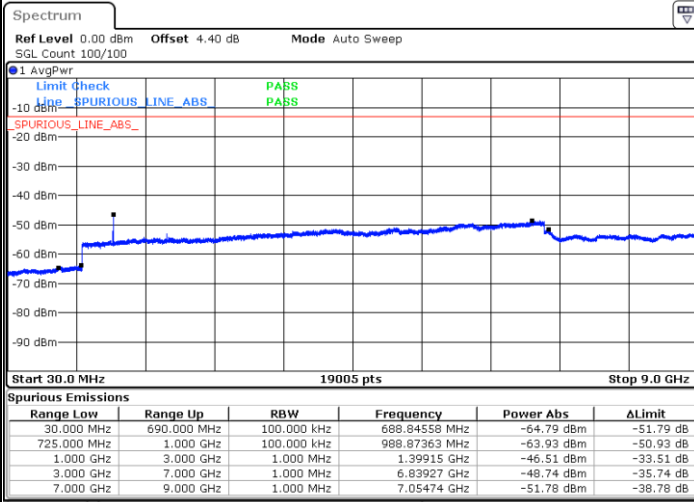
Date: 7.SEP.2018 19:10:25



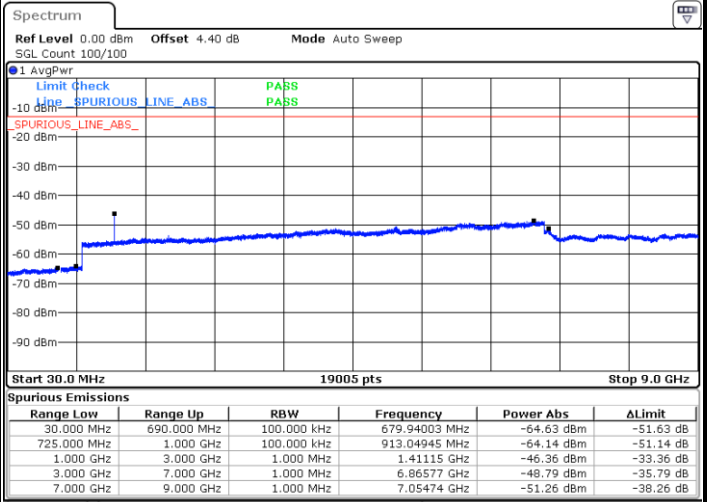
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

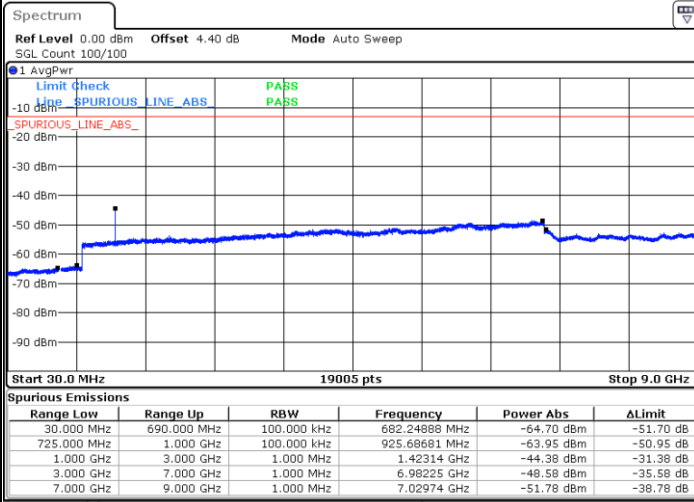


Date: 7.SEP.2018 19:11:21



Date: 7.SEP.2018 19:12:16

Highest Channel / 64QAM



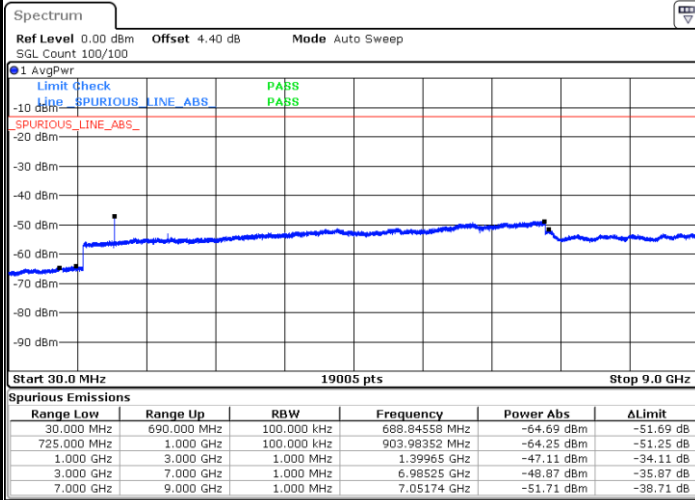
Date: 7.SEP.2018 19:13:11



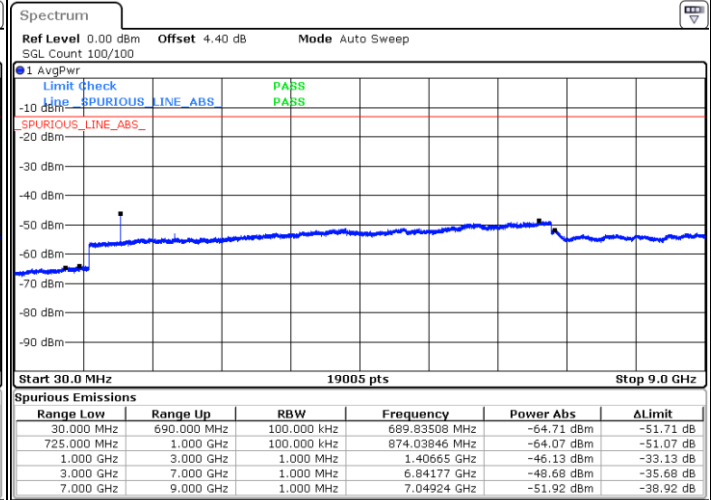
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

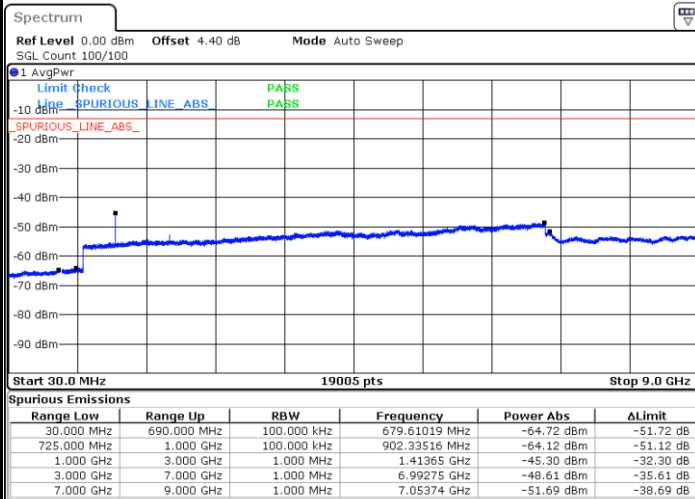


Date: 7.SEP.2018 19:14:06



Date: 7.SEP.2018 19:15:01

Highest Channel / 64QAM



Date: 7.SEP.2018 19:15:57



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	0.0008	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0047	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0016	
0	Normal Voltage	0.0054	
-10	Normal Voltage	0.0041	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0020	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0016	
20	Battery End Point	0.0044	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

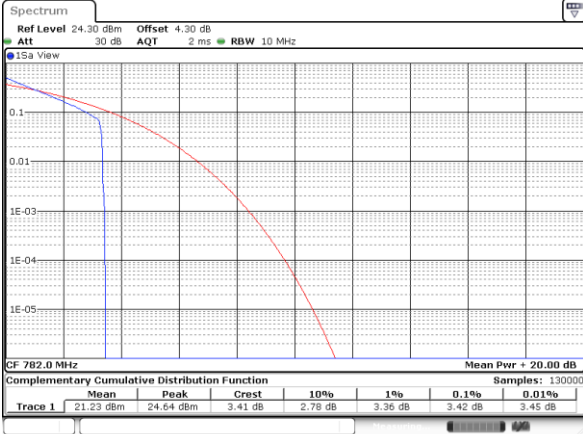
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH		-	-	-	PASS
Middle CH	3.42	4.49	4.38	5.97	
Highest CH	-	-	-	-	
Mod.	64QAM		Limit: 13dB		
RB Size	1RB	Full RB	Result		
Lowest CH			PASS		
Middle CH	4.35	5.86			
Highest CH					



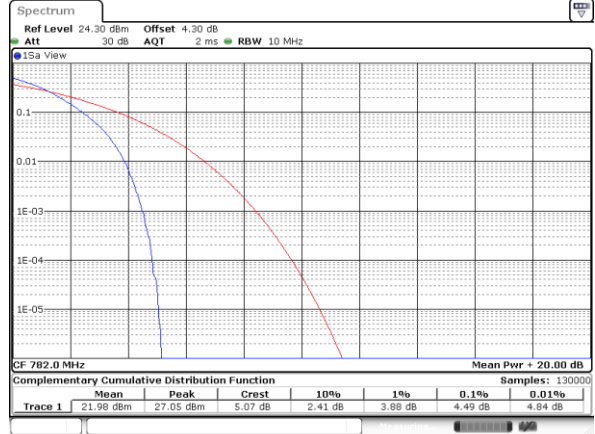
LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 8 SEP 2018 09:31:51

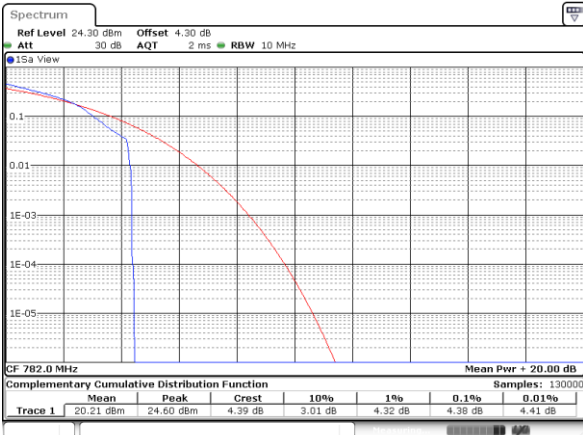
Middle Channel / Full RB



Date: 8 SEP 2018 09:32:20

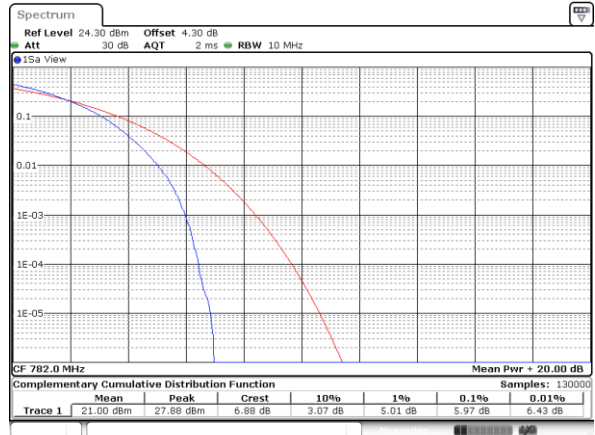
LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Date: 8 SEP 2018 09:32:00

Middle Channel / Full RB

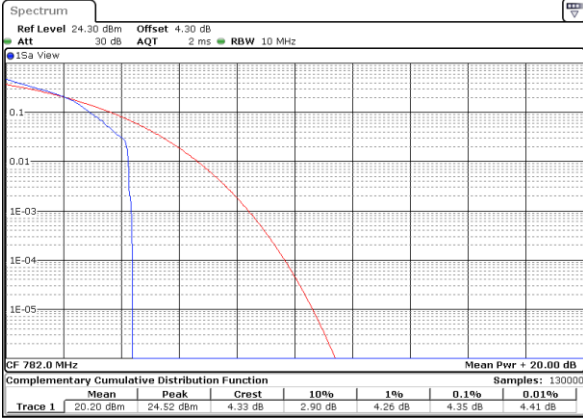


Date: 8 SEP 2018 09:32:10



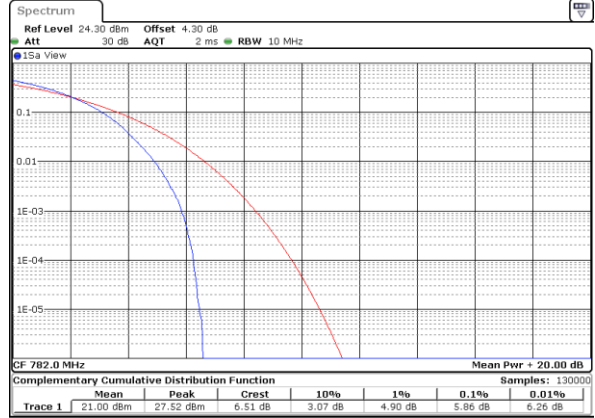
LTE Band 13 / 10MHz / 64QAM

Middle Channel/ 1RB



Date: 8 SEP 2018 09:51:34

Middle Channel / Full RB



Date: 8 SEP 2018 09:51:53



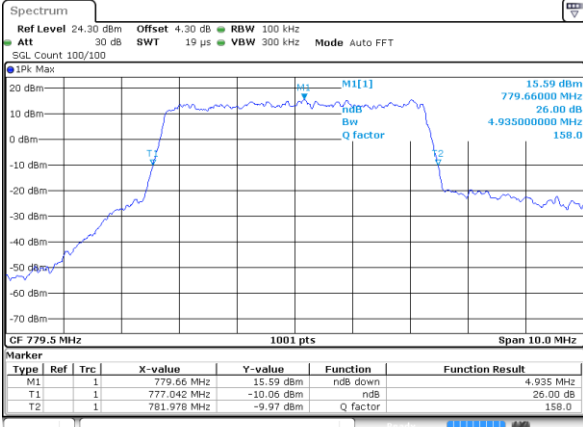
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
	5MHz		10MHz		5MHz	10MHz						
BW	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM						
Lowest CH	4.935	4.875	-	-	4.875							
Middle CH	4.895	4.885	9.69	9.83	4.905	9.77						
Highest CH	4.875	4.825	-	-	4.835							



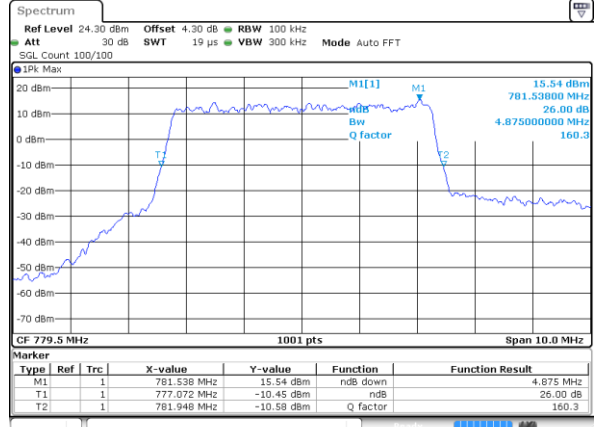
LTE Band 13

Lowest Channel / 5MHz / QPSK



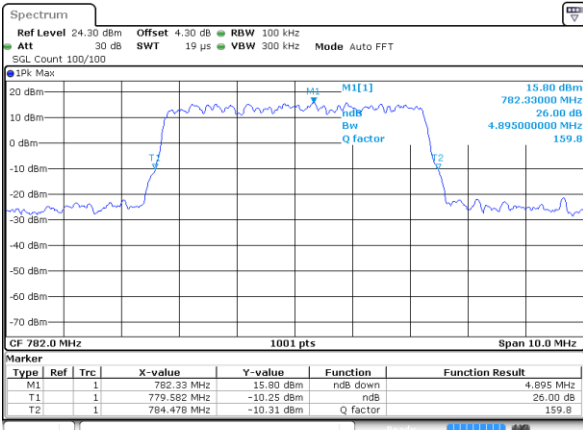
Date: 8 SEP 2018 08:57:00

Lowest Channel / 5MHz / 16QAM



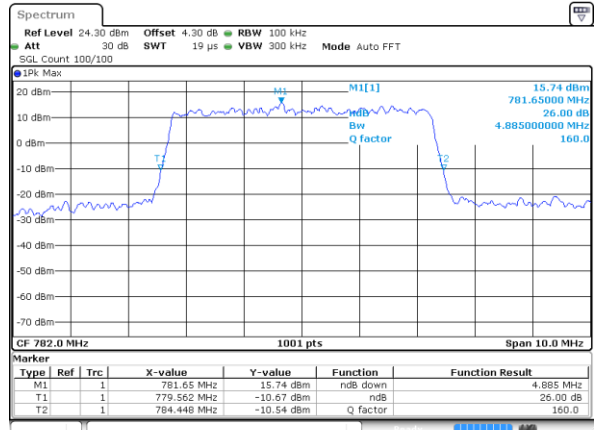
Date: 8 SEP 2018 08:57:11

Middle Channel / 5MHz / QPSK



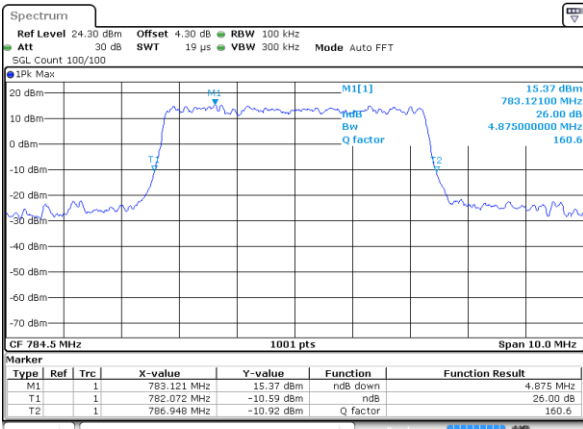
Date: 8 SEP 2018 09:05:59

Middle Channel / 5MHz / 16QAM



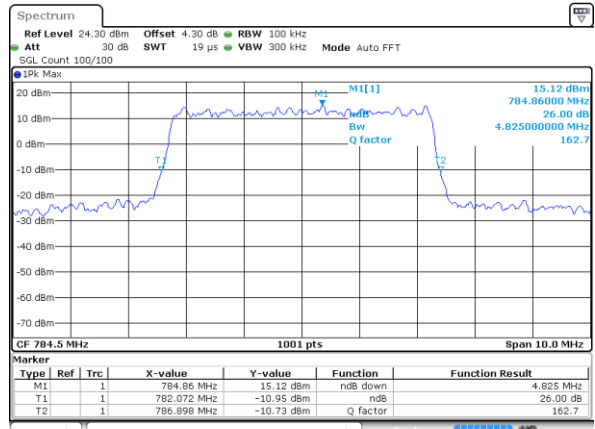
Date: 8 SEP 2018 09:06:09

Highest Channel / 5MHz / QPSK



Date: 8 SEP 2018 09:08:37

Highest Channel / 5MHz / 16QAM

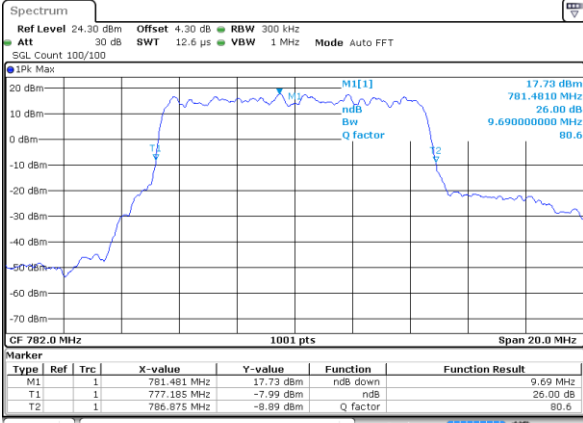


Date: 8 SEP 2018 09:08:27



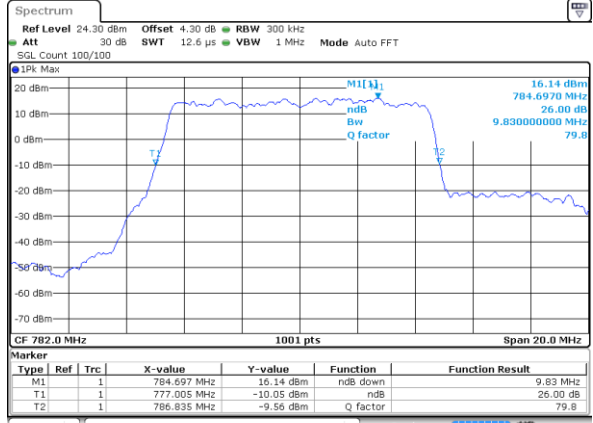
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 8 SEP 2018 09:19:23

Middle Channel / 10MHz / 16QAM

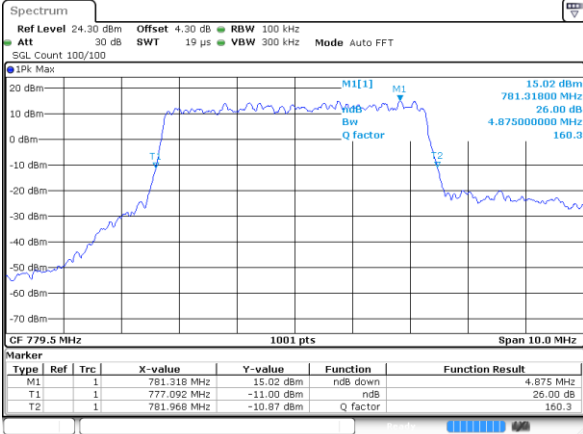


Date: 8 SEP 2018 09:19:13



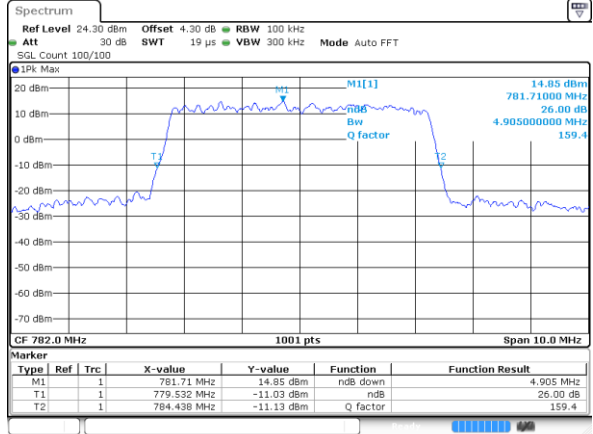
LTE Band 13

Lowest Channel / 5MHz / 64QAM



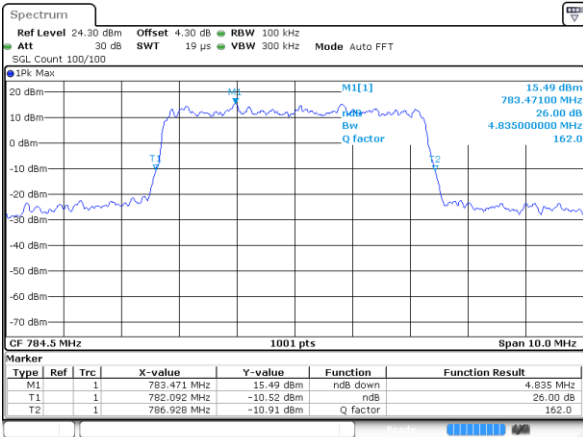
Date: 8 SEP 2018 09:33:00

Middle Channel / 5MHz / 64QAM



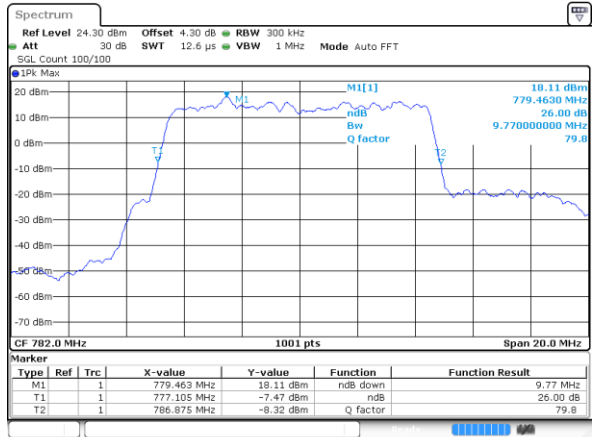
Date: 8 SEP 2018 09:33:10

Highest Channel / 5MHz / 64QAM



Date: 8 SEP 2018 09:33:20

Middle Channel / 10MHz / 64QAM



Date: 8 SEP 2018 09:42:52



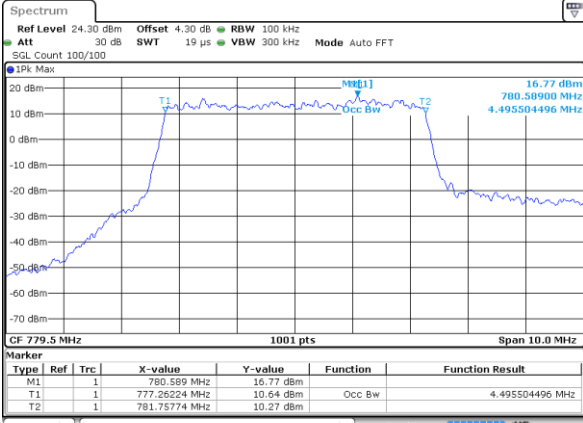
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)										
	5MHz		10MHz		5MHz	10MHz					
BW	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM					
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM					
Lowest CH	4.5	4.48	-	-	4.5						
Middle CH	4.47	4.48	9.03	8.95	4.48	8.99					
Highest CH	4.47	4.48	-	-	4.5						



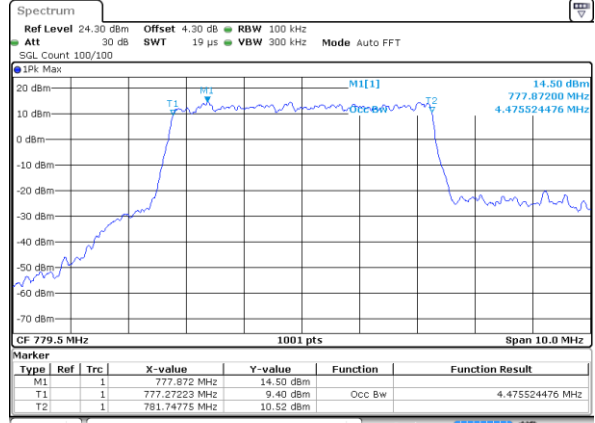
LTE Band 13

Lowest Channel / 5MHz / QPSK



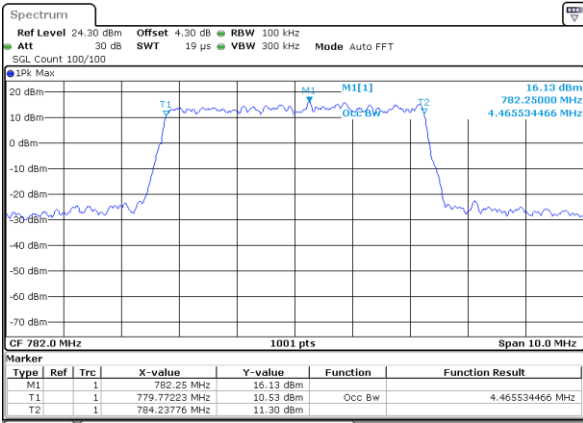
Date: 8 SEP 2018 08:57:31

Lowest Channel / 5MHz / 16QAM



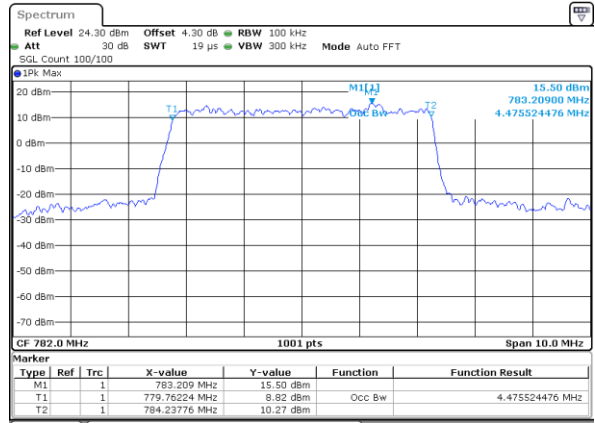
Date: 8 SEP 2018 08:57:21

Middle Channel / 5MHz / QPSK



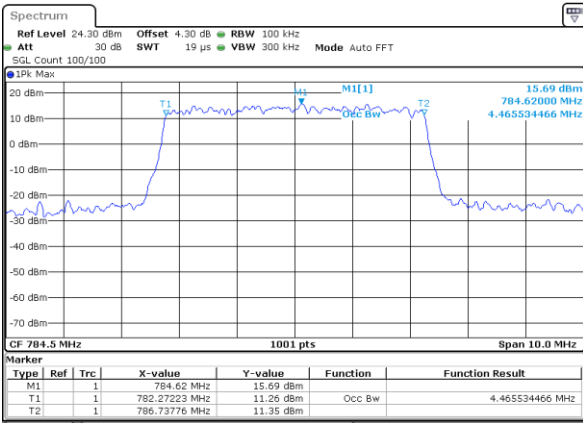
Date: 8 SEP 2018 09:06:19

Middle Channel / 5MHz / 16QAM



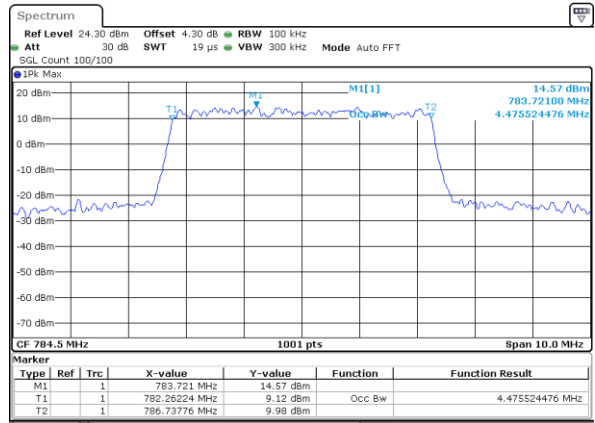
Date: 8 SEP 2018 09:06:29

Highest Channel / 5MHz / QPSK



Date: 8 SEP 2018 09:08:47

Highest Channel / 5MHz / 16QAM

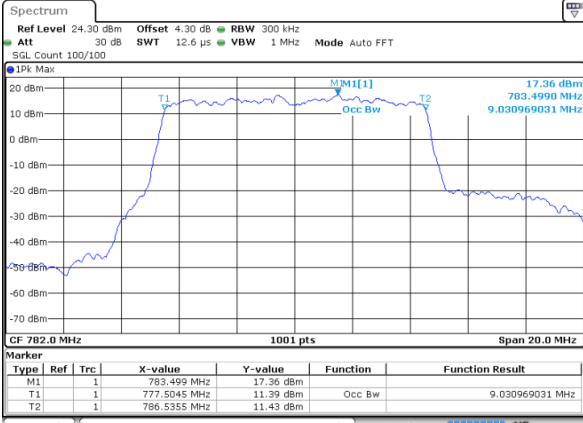


Date: 8 SEP 2018 09:08:57



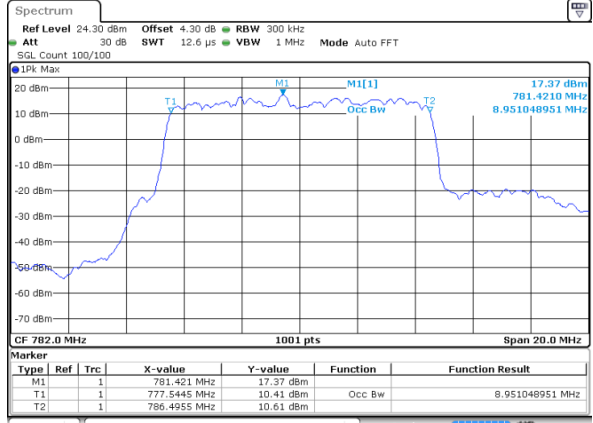
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 8 SEP 2018 09:19:33

Middle Channel / 10MHz / 16QAM

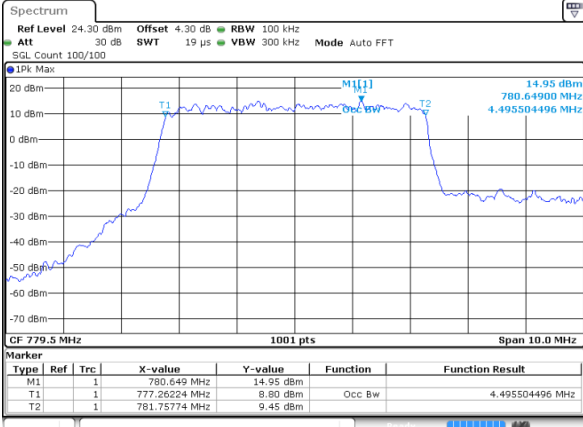


Date: 8 SEP 2018 09:19:43



LTE Band 13

Lowest Channel / 5MHz / 64QAM



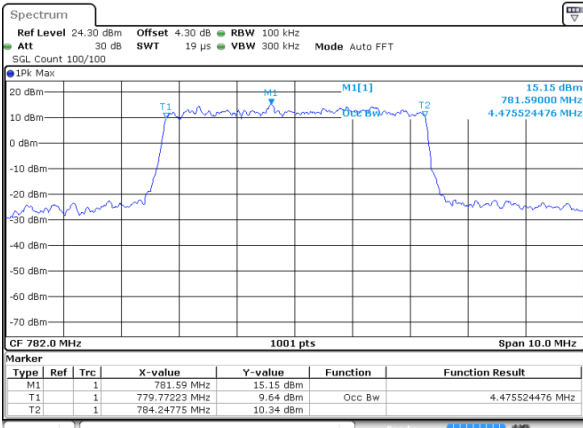
Date: 8 SEP 2018 09:32:30

Lowest Channel / 10MHz / 64QAM



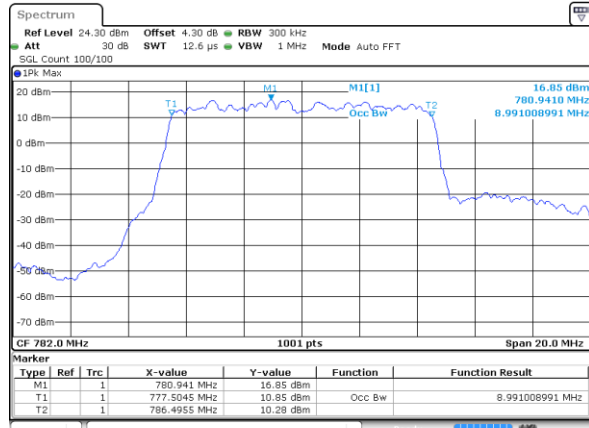
Date: 8 SEP 2018 09:42:42

Middle Channel / 5MHz / 64QAM



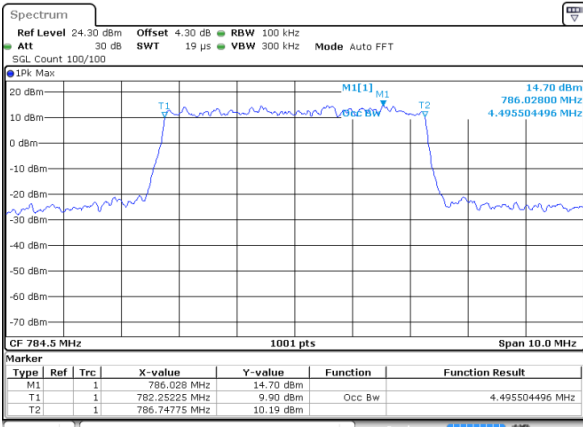
Date: 8 SEP 2018 09:32:40

Middle Channel / 10MHz / 64QAM



Date: 8 SEP 2018 09:42:42

Highest Channel / 5MHz / 64QAM



Date: 8 SEP 2018 09:32:50

Highest Channel / 10MHz / 64QAM



Date: 8 SEP 2018 09:32:50



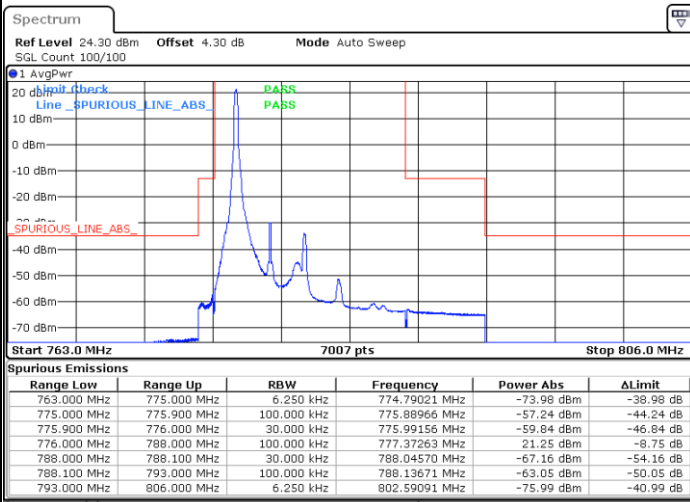
Conducted Band Edge



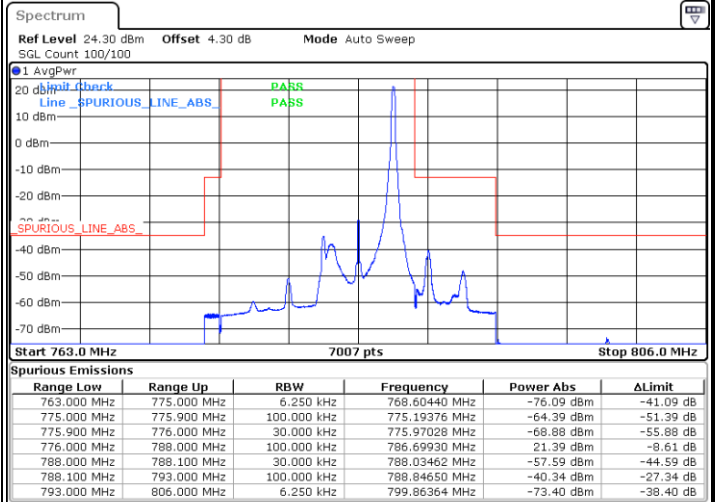
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



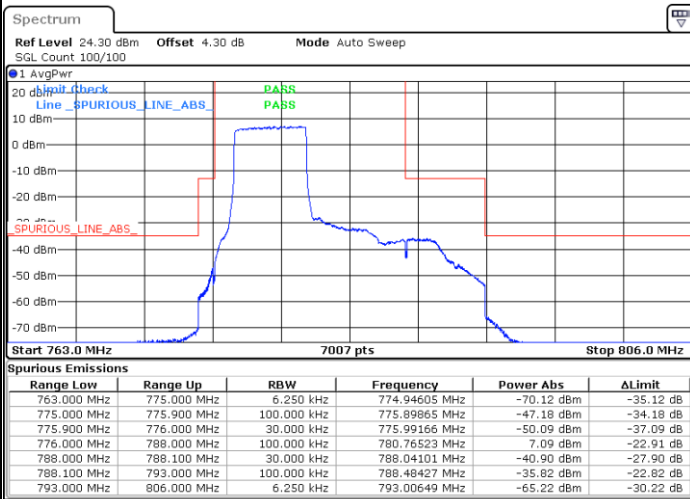
Date: 8 SEP.2018 09:02:24



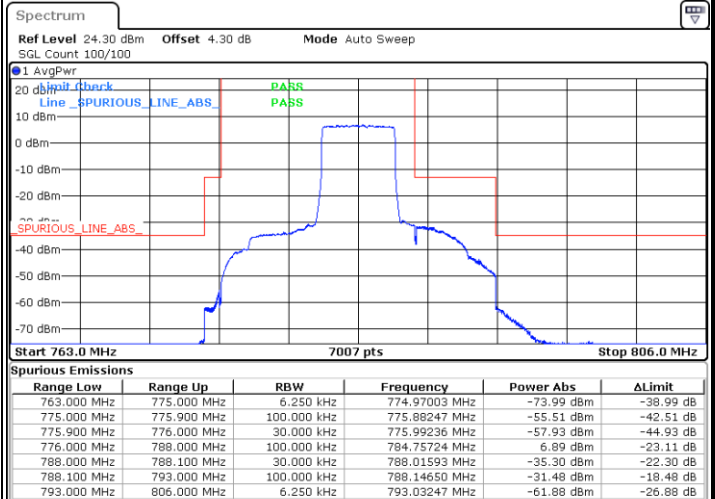
Date: 8 SEP.2018 09:13:50

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 8 SEP.2018 09:00:46

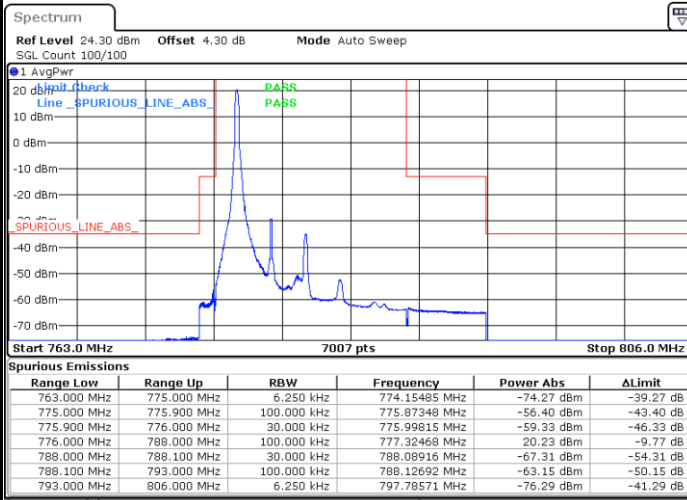


Date: 8 SEP.2018 09:12:12



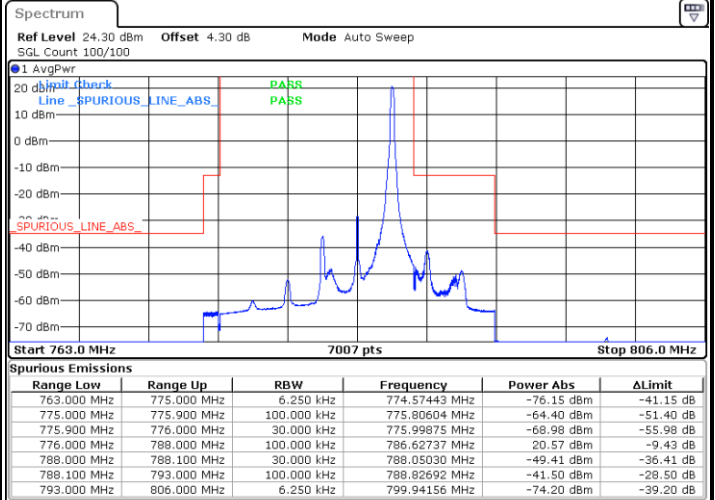
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



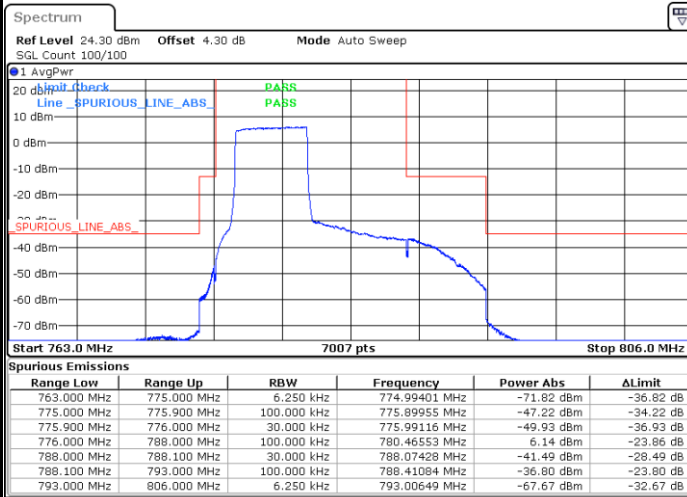
Date: 8 SEP.2018 09:04:01

Highest Band Edge / 1 RB



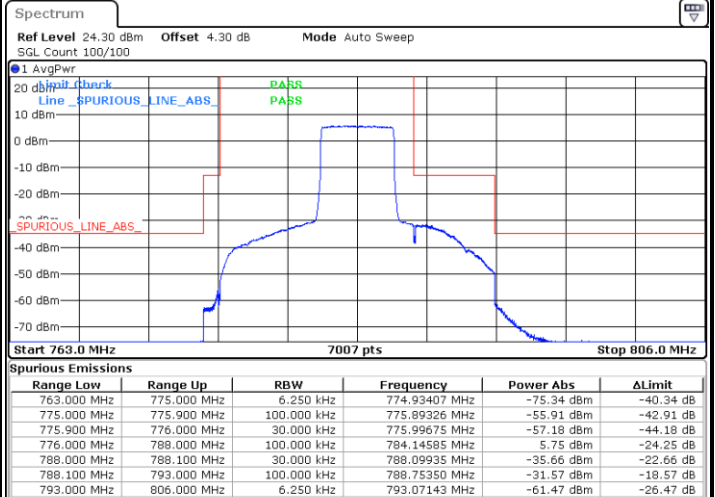
Date: 8 SEP.2018 09:15:27

Lowest Band Edge / Full RB



Date: 8 SEP.2018 08:59:09

Highest Band Edge / Full RB



Date: 8 SEP.2018 09:10:35