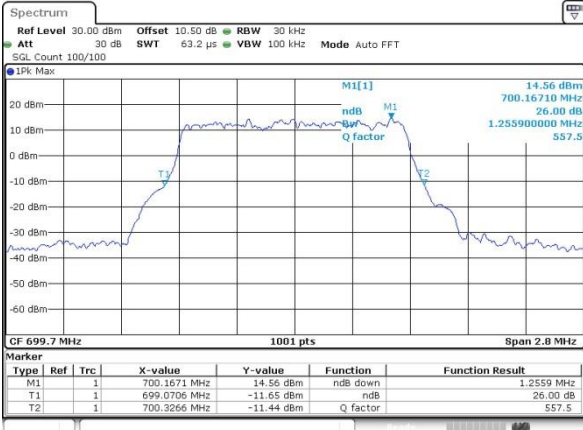




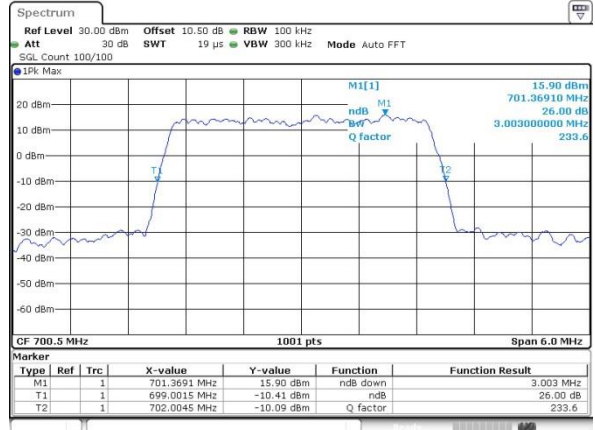
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



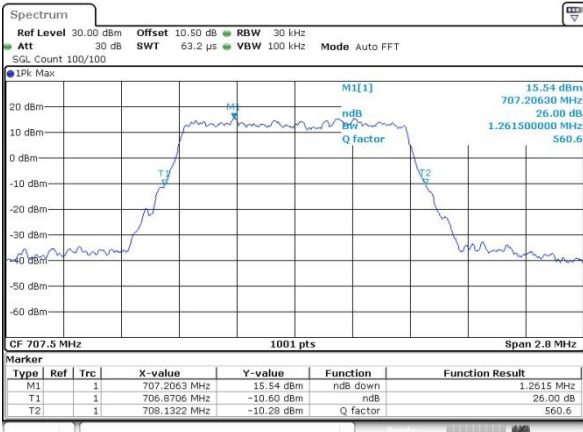
Date: 21.MAY.2019 09:33:22

Lowest Channel / 3MHz / QPSK



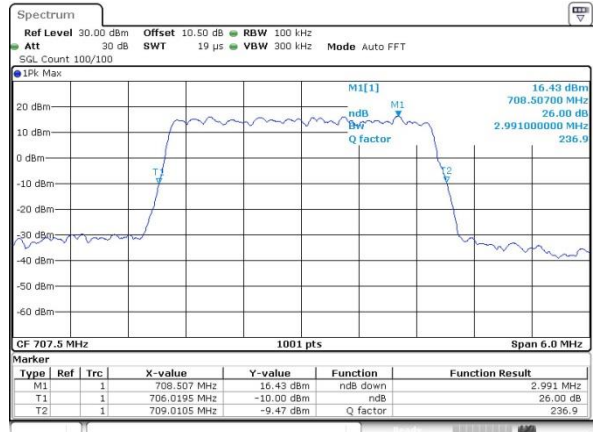
Date: 20.MAY.2019 17:36:43

Middle Channel / 1.4MHz / QPSK



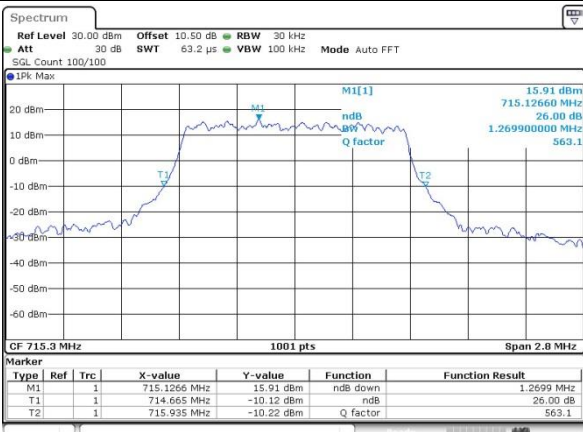
Date: 21.MAY.2019 09:42:26

Middle Channel / 3MHz / QPSK



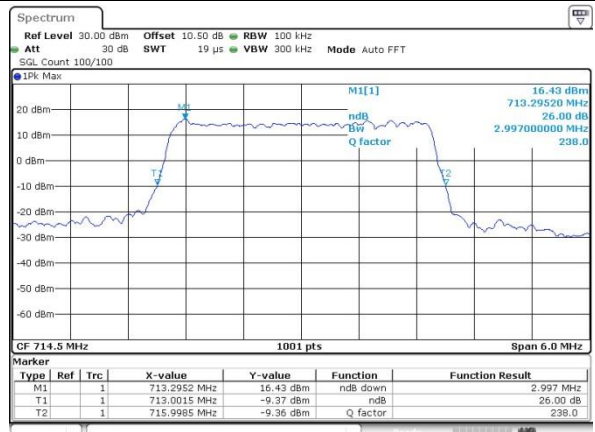
Date: 20.MAY.2019 17:45:22

Highest Channel / 1.4MHz / QPSK



Date: 21.MAY.2019 09:45:32

Highest Channel / 3MHz / QPSK

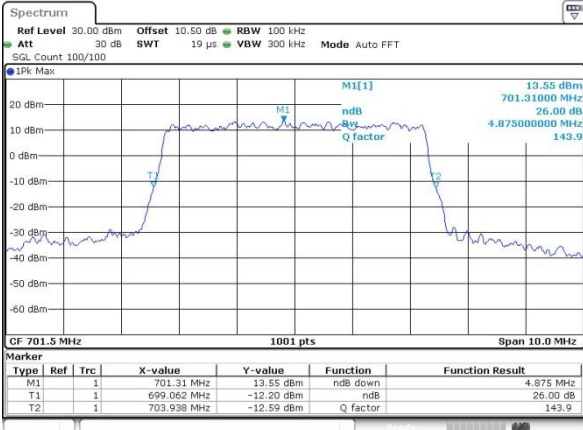


Date: 20.MAY.2019 17:48:26



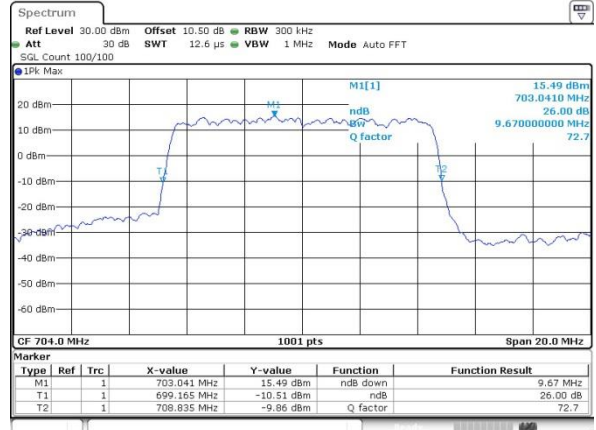
LTE Band 12

Lowest Channel / 5MHz / QPSK



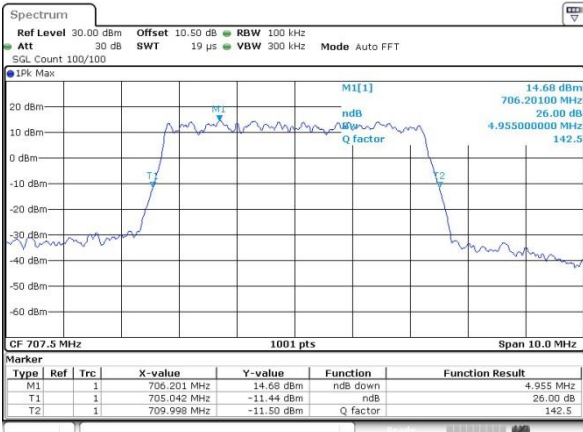
Date: 20.MAY.2019 17:57:16

Lowest Channel / 10MHz / QPSK



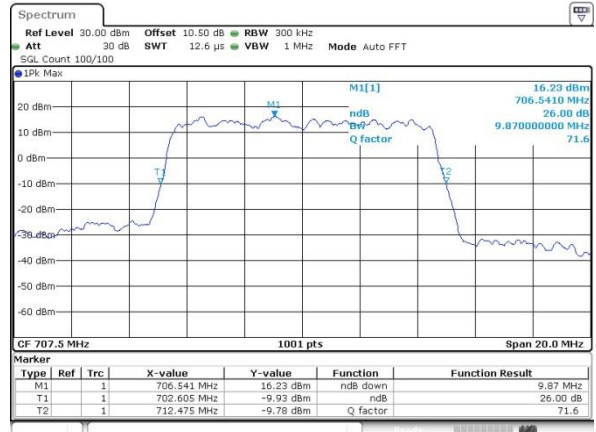
Date: 20.MAY.2019 18:17:50

Middle Channel / 5MHz / QPSK



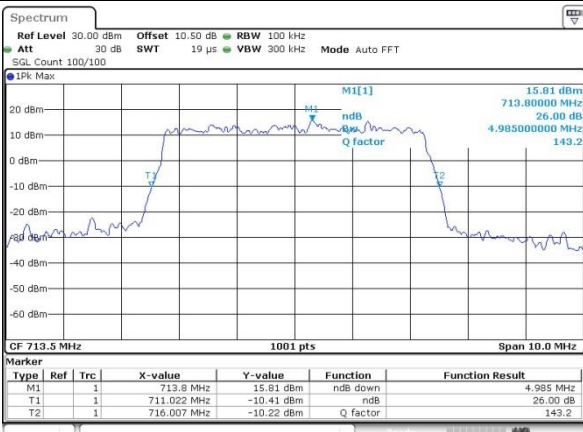
Date: 20.MAY.2019 18:05:55

Middle Channel / 10MHz / QPSK



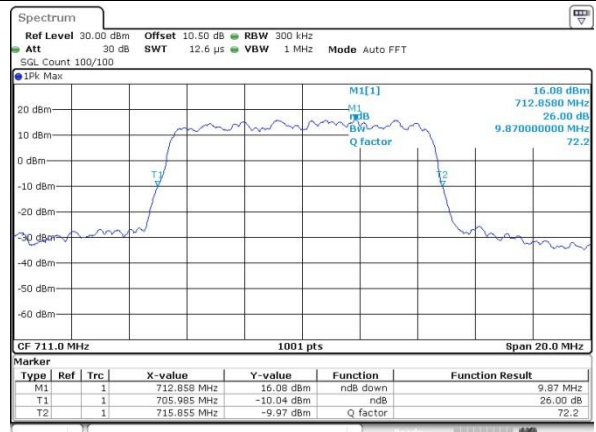
Date: 20.MAY.2019 18:26:28

Highest Channel / 5MHz / QPSK



Date: 20.MAY.2019 18:08:59

Highest Channel / 10MHz / QPSK



Date: 20.MAY.2019 18:29:33



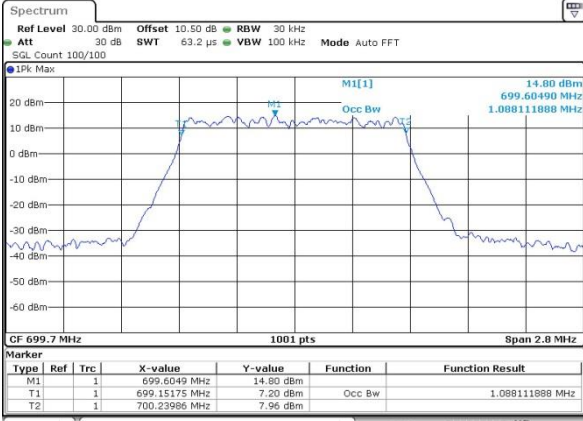
Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	-	2.72	-	4.49	-	8.99	-	-	-	-	-
Middle CH	1.09	-	2.72	-	4.49	-	9.03	-	-	-	-	-
Highest CH	1.09	-	2.72	-	4.48	-	9.03	-	-	-	-	-



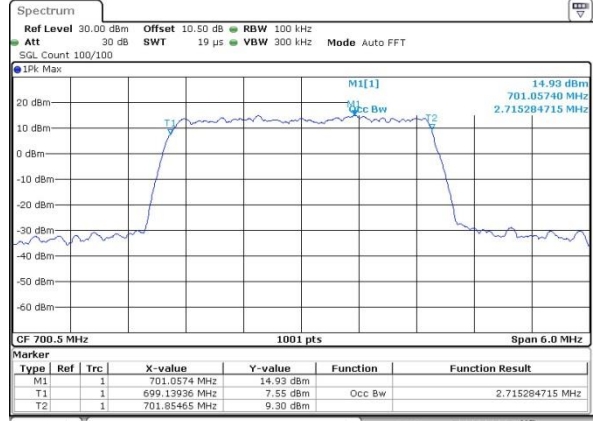
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



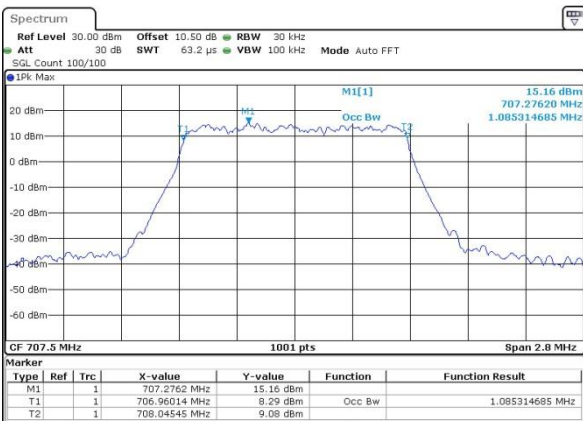
Date: 21.MAY.2019 09:32:46

Lowest Channel / 3MHz / QPSK



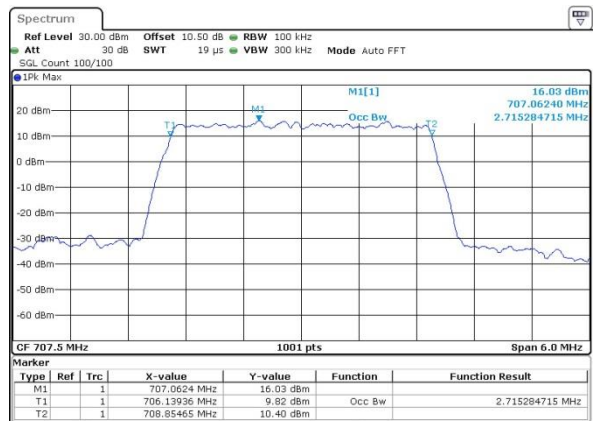
Date: 20.MAY.2019 17:36:08

Middle Channel / 1.4MHz / QPSK



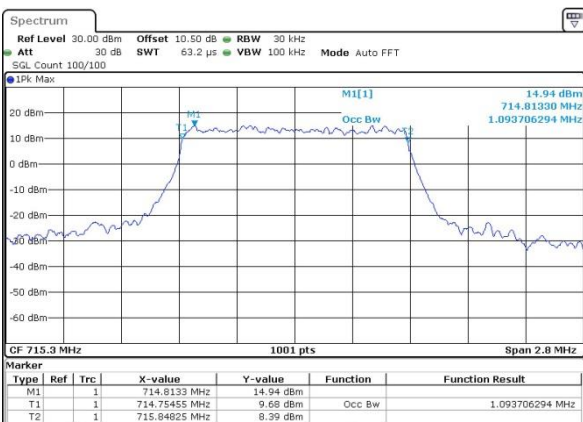
Date: 21.MAY.2019 09:42:14

Middle Channel / 3MHz / QPSK



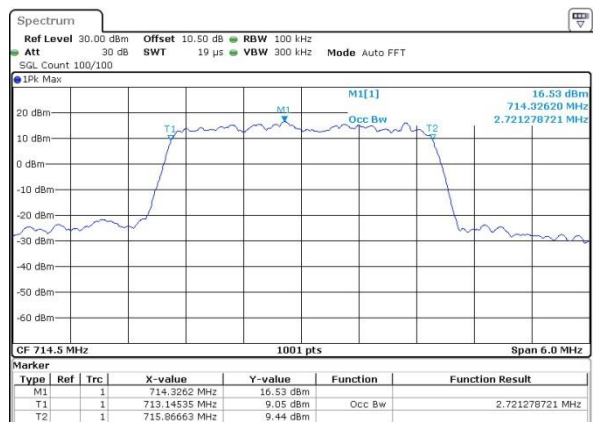
Date: 20.MAY.2019 17:45:10

Highest Channel / 1.4MHz / QPSK



Date: 21.MAY.2019 09:44:57

Highest Channel / 3MHz / QPSK

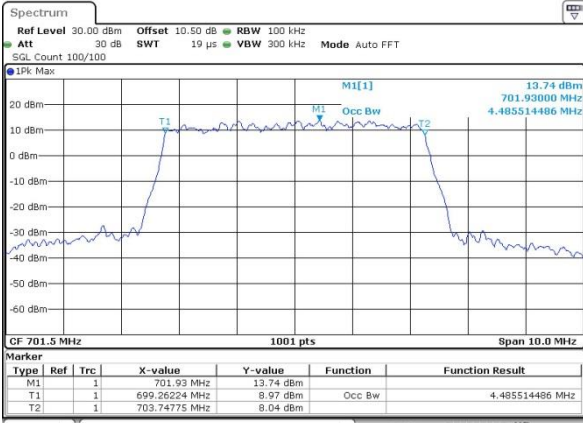


Date: 20.MAY.2019 17:47:51



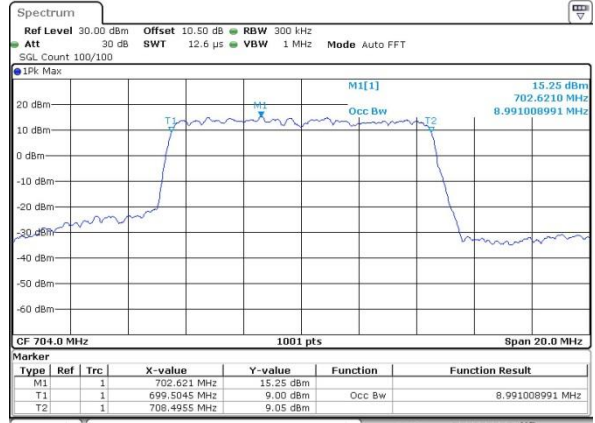
LTE Band 12

Lowest Channel / 5MHz / QPSK



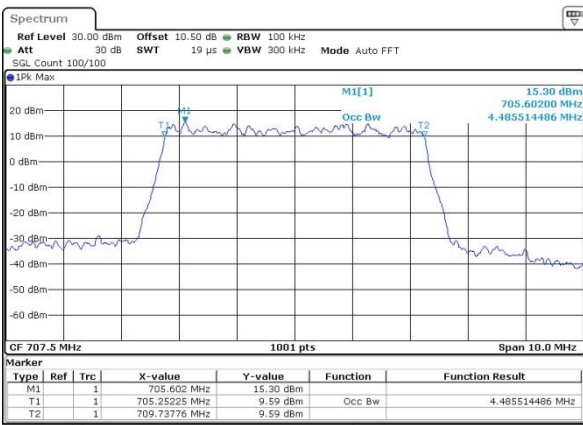
Date: 20_MAY_2019 17:56:41

Lowest Channel / 10MHz / QPSK



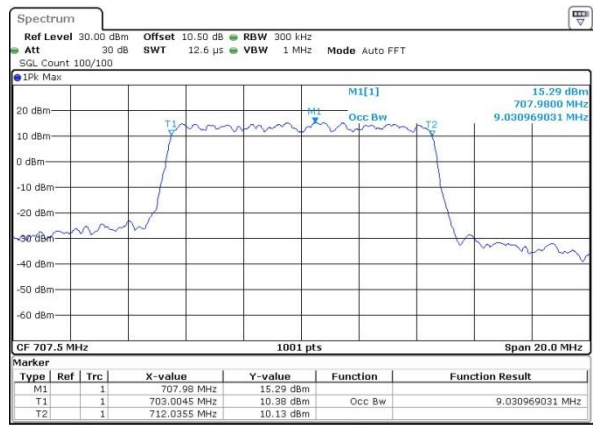
Date: 20_MAY_2019 18:17:15

Middle Channel / 5MHz / QPSK



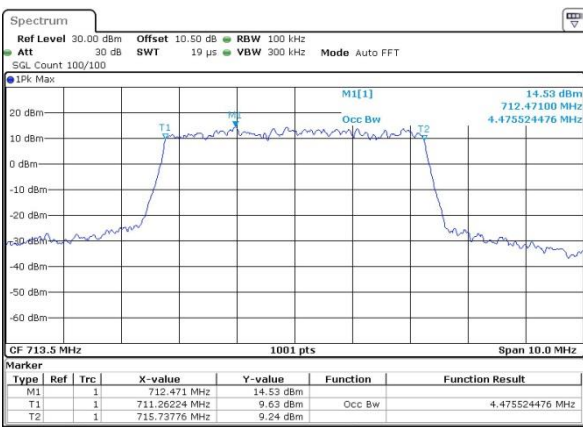
Date: 20_MAY_2019 18:05:43

Middle Channel / 10MHz / QPSK



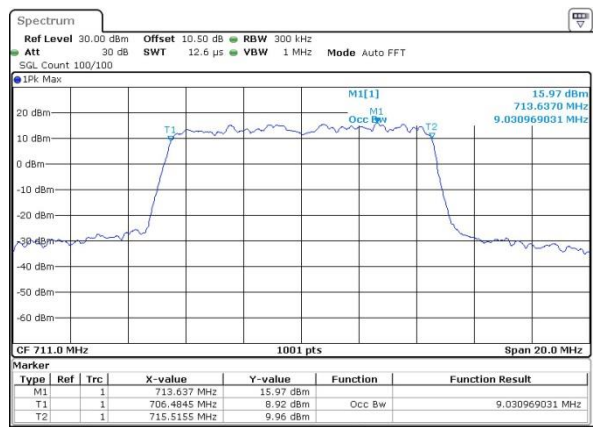
Date: 20_MAY_2019 18:26:17

Highest Channel / 5MHz / QPSK



Date: 20_MAY_2019 18:08:24

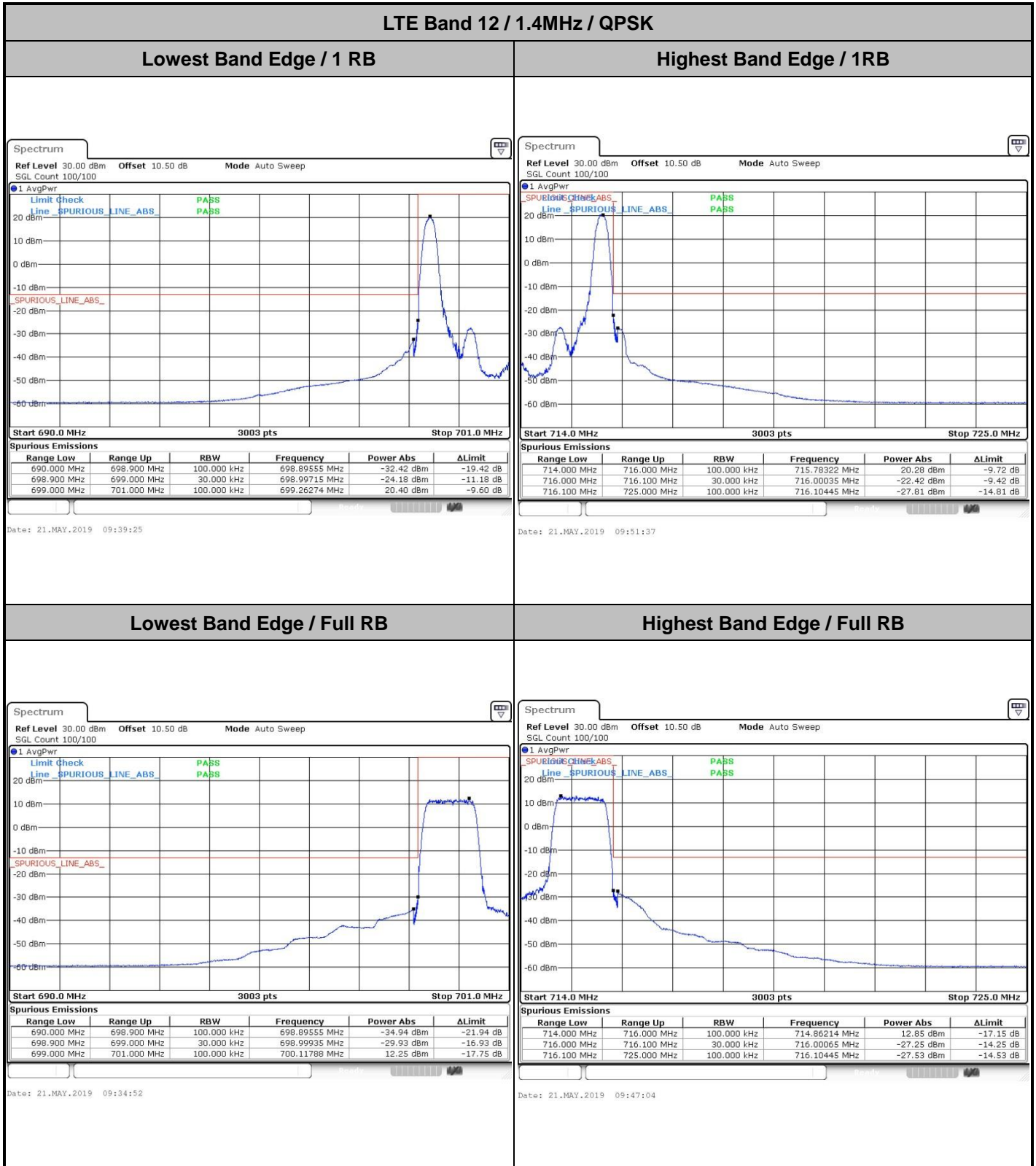
Highest Channel / 10MHz / QPSK



Date: 20_MAY_2019 18:28:58



Conducted Band Edge

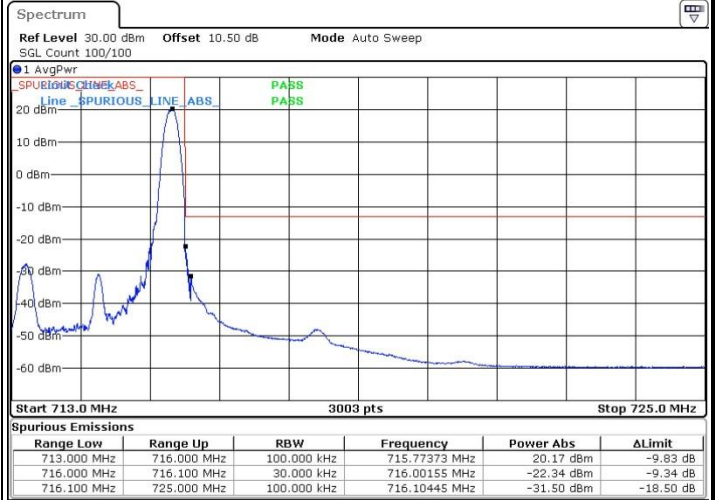
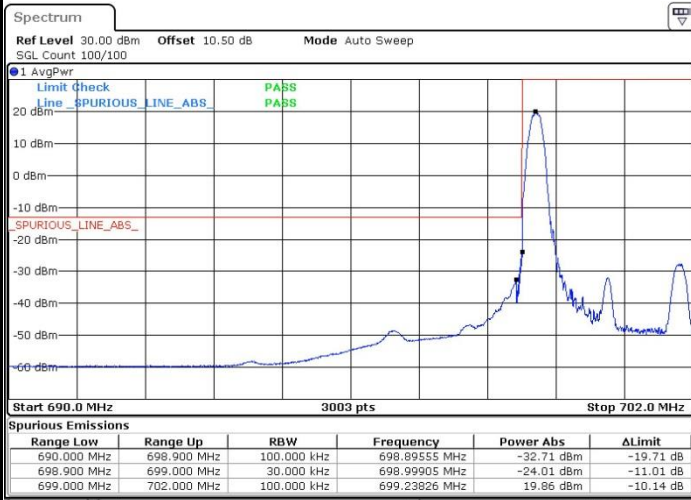




LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB

Highest Band Edge / 1 RB



Date: 20.MAY.2019 17:42:41

Date: 20.MAY.2019 17:54:23

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



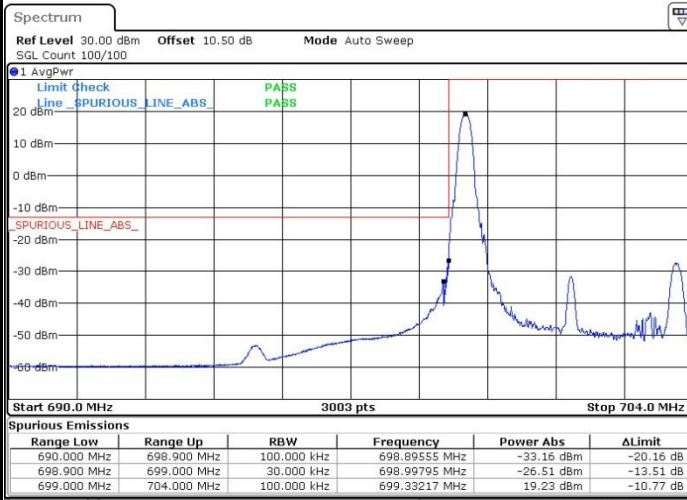
Date: 20.MAY.2019 17:38:13

Date: 20.MAY.2019 17:49:55



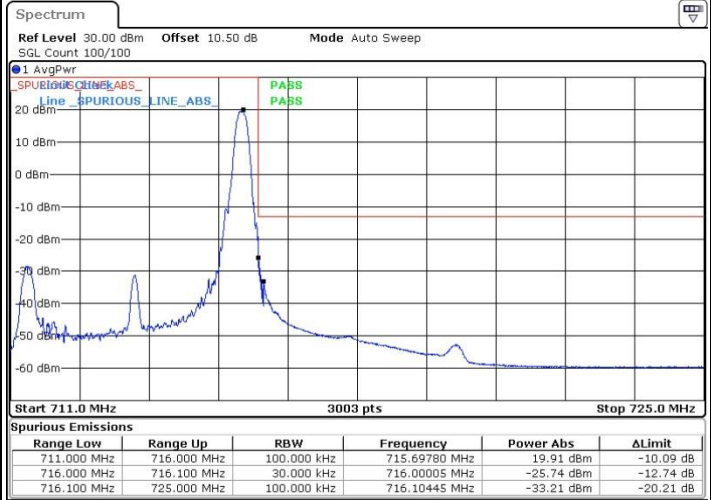
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Date: 20.MAY.2019 18:03:14

Highest Band Edge / 1 RB



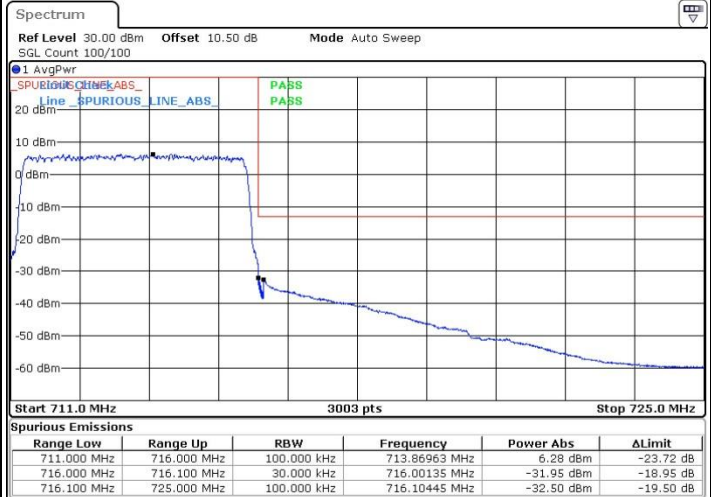
Date: 20.MAY.2019 18:13:28

Lowest Band Edge / Full RB



Date: 20.MAY.2019 17:58:46

Highest Band Edge / Full RB



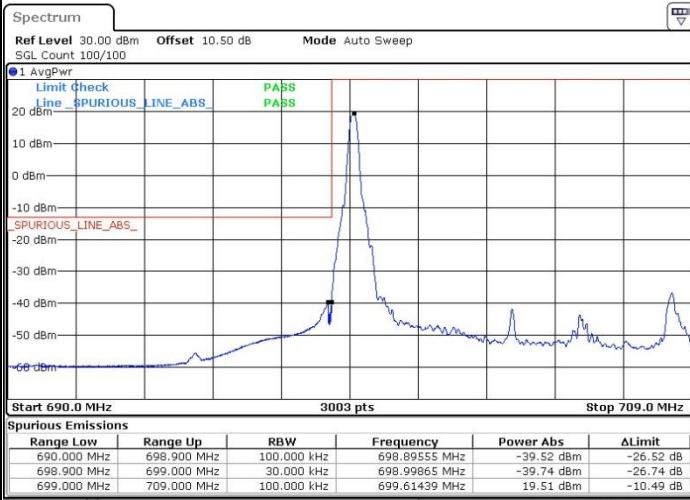
Date: 20.MAY.2019 18:10:29



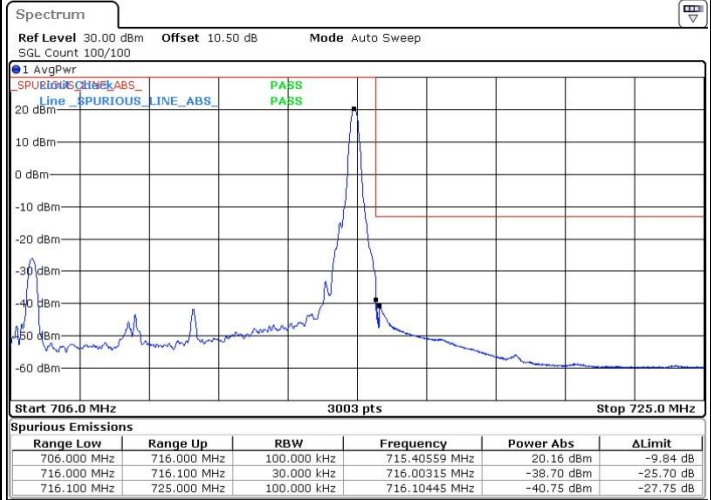
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



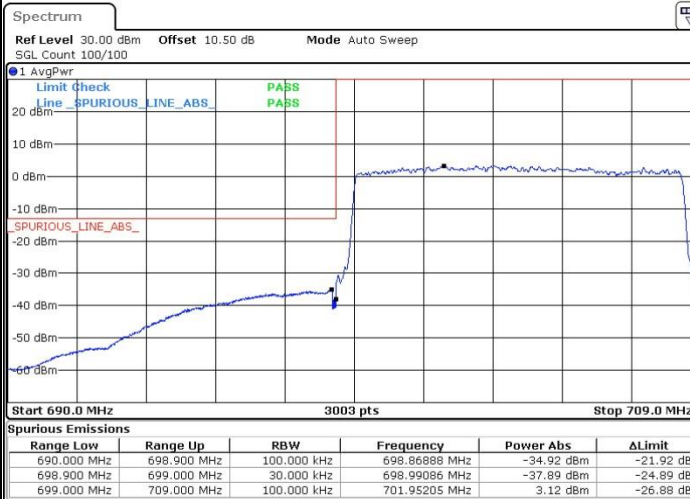
Date: 20.MAY.2019 18:23:48



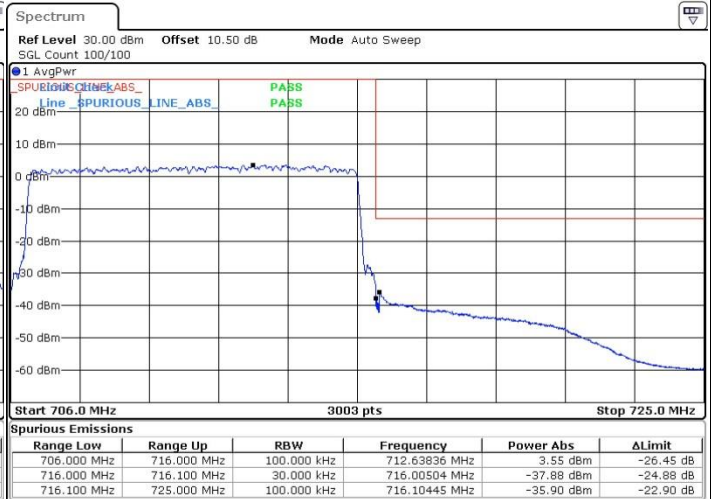
Date: 20.MAY.2019 18:35:31

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 20.MAY.2019 18:19:20



Date: 20.MAY.2019 18:31:03

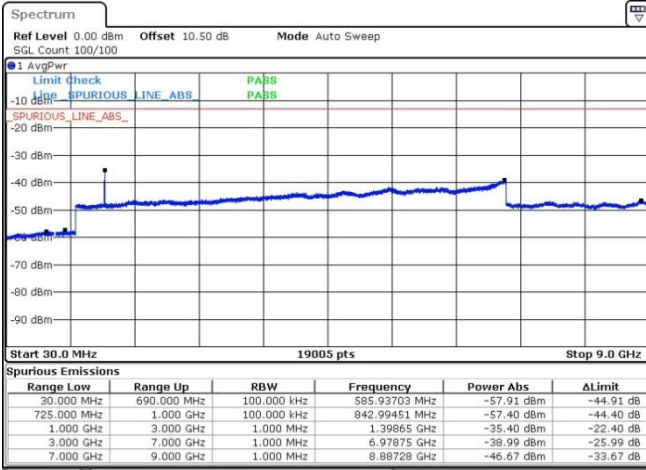


Conducted Spurious Emission

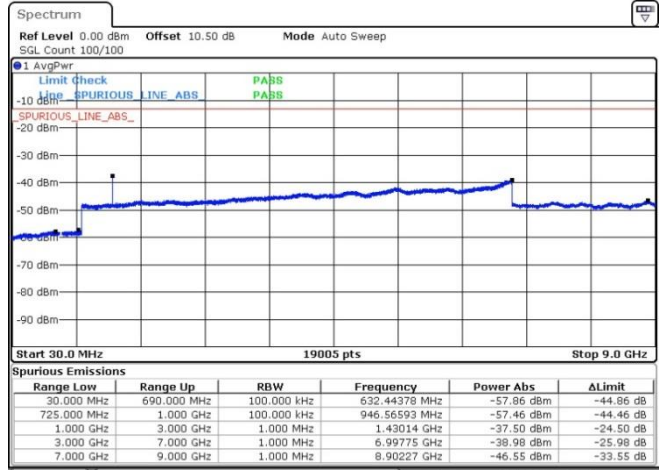
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK

Highest Channel / QPSK

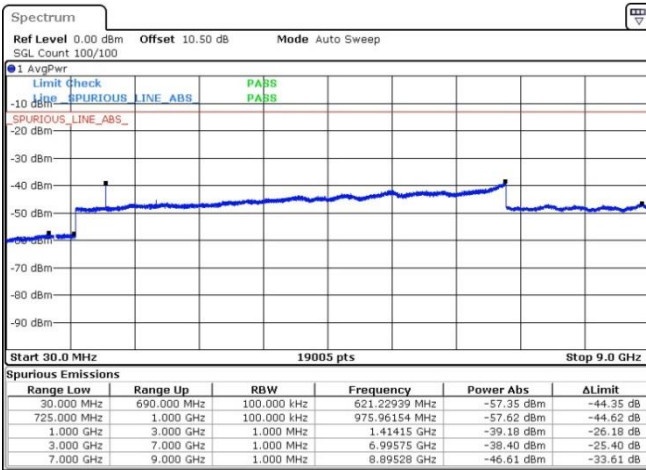


Date: 21.MAY.2019 10:00:02



Date: 21.MAY.2019 09:52:40

Middle Channel / QPSK



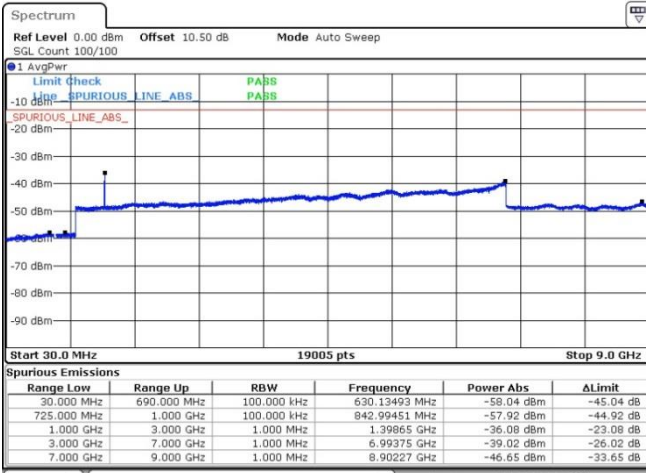
Date: 21.MAY.2019 09:44:45



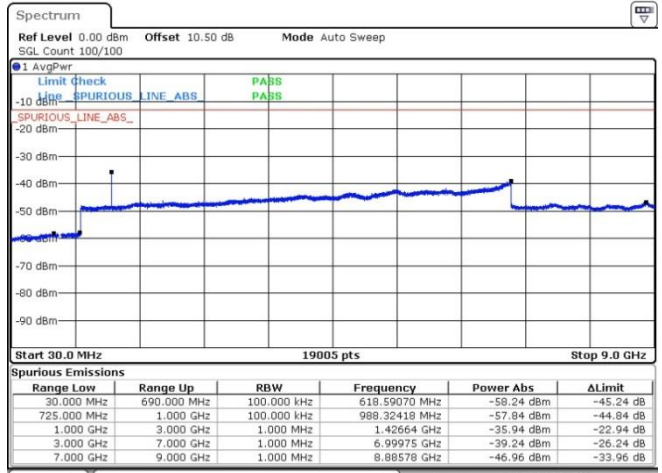
LTE Band 12 / 3MHz

Lowest Channel / QPSK

Highest Channel / QPSK

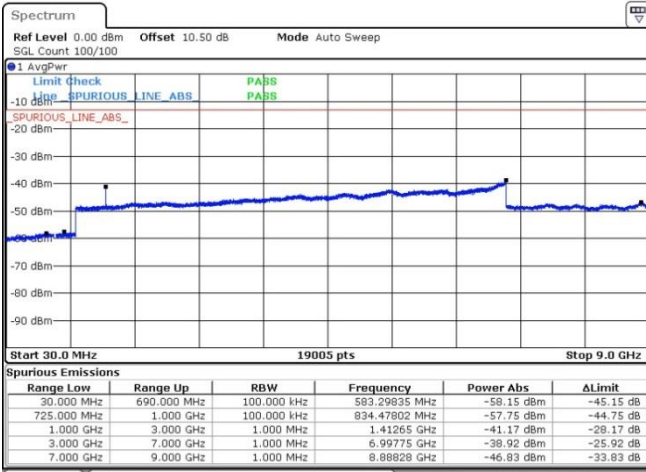


Date: 20.MAY.2019 17:43:43



Date: 20.MAY.2019 17:55:25

Middle Channel / QPSK



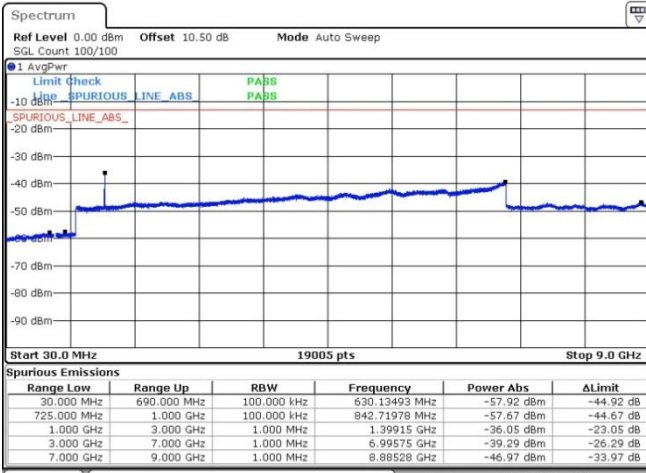
Date: 20.MAY.2019 17:47:38



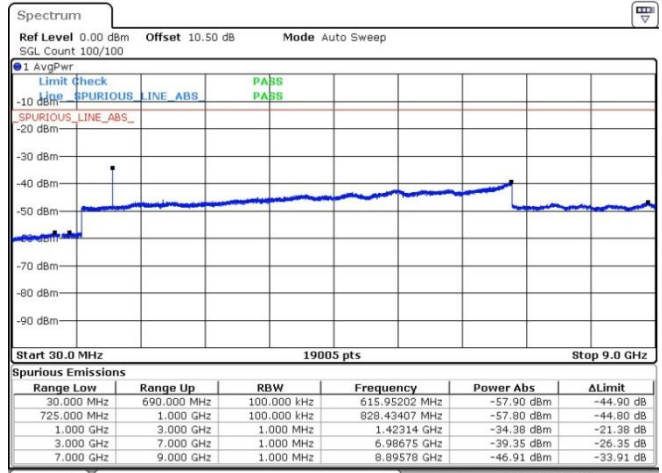
LTE Band 12 / 5MHz

Lowest Channel / QPSK

Highest Channel / QPSK

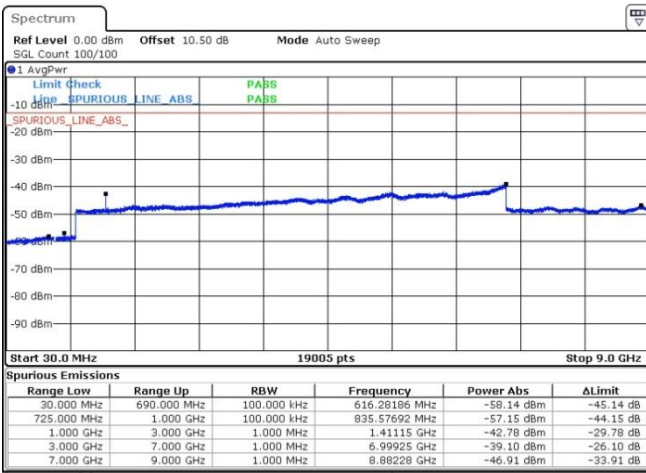


Date: 20.MAY.2019 18:04:16



Date: 20.MAY.2019 18:17:02

Middle Channel / QPSK



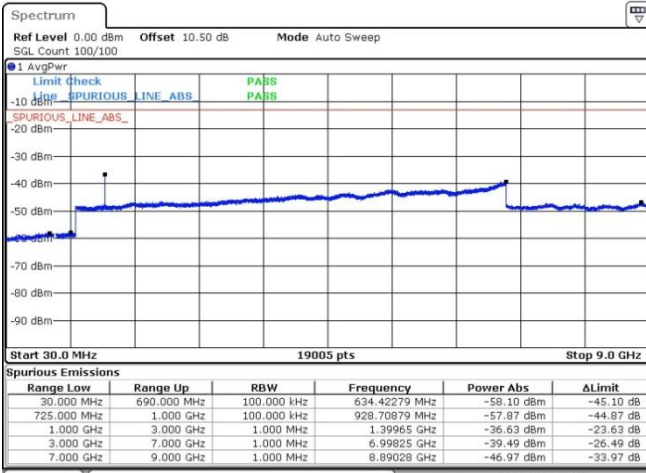
Date: 20.MAY.2019 18:08:12



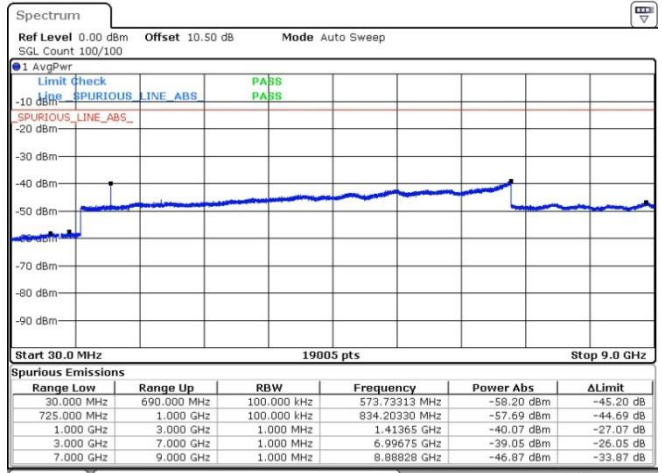
LTE Band 12 / 10MHz

Lowest Channel / QPSK

Highest Channel / QPSK

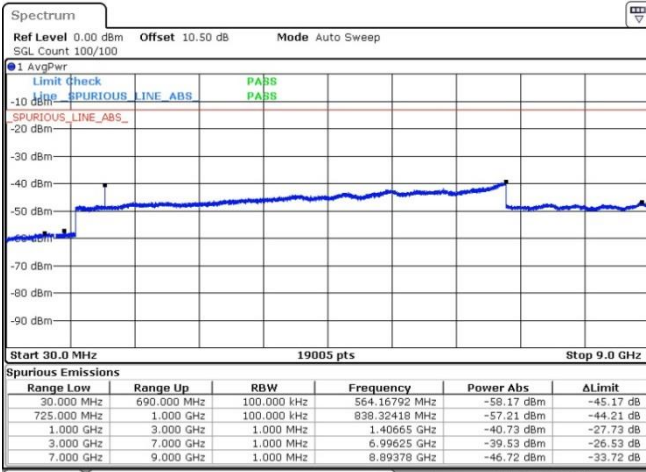


Date: 20.MAY.2019 18:24:50



Date: 20.MAY.2019 18:36:33

Middle Channel / QPSK



Date: 20.MAY.2019 18:28:45



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	0.0025	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0030	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0018	
0	Normal Voltage	0.0061	
-10	Normal Voltage	0.0024	
-20	Normal Voltage	0.0054	
-30	Normal Voltage	0.0088	
20	Maximum Voltage	0.0042	
20	Normal Voltage	0.0042	
20	Battery End Point	0.0035	

Note:

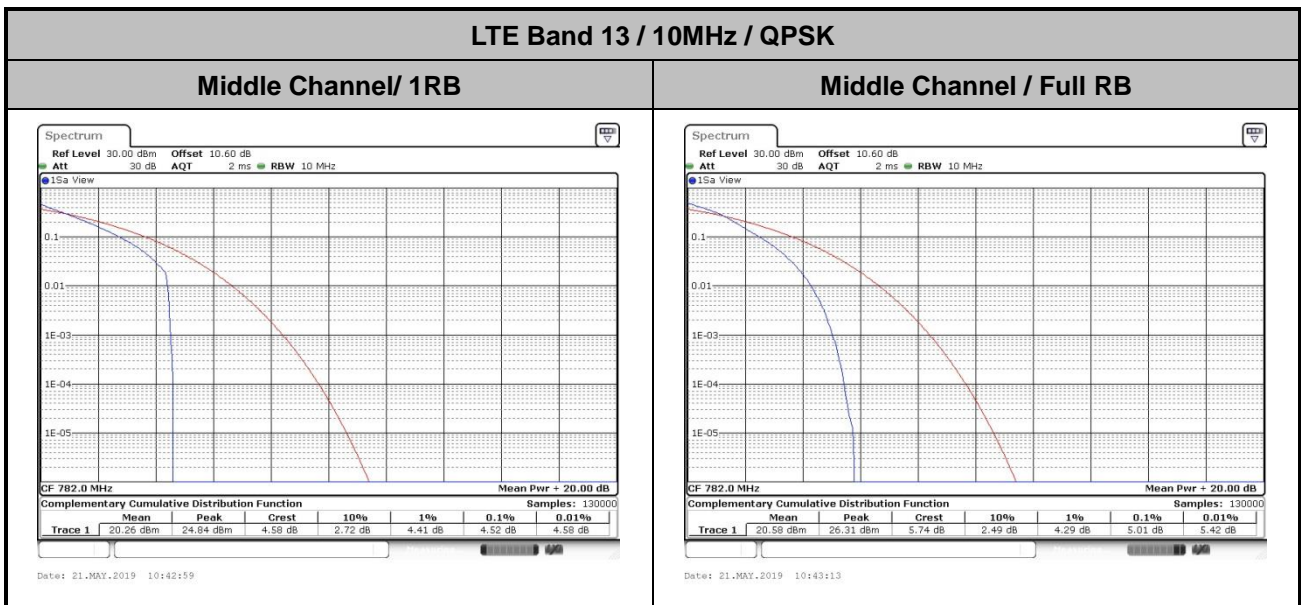
1. Normal Voltage =14.0 V. ; Battery End Point (BEP) =14.0 V. ; Maximum Voltage =16.0 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				Limit: 13dB
Mod.	QPSK		16QAM		
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.52	5.01	-	-	
Highest CH	-	-	-	-	





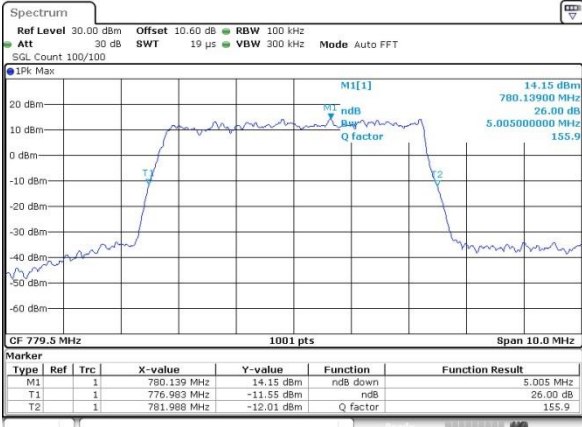
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.01	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.93	-	9.85	-	-	-	-	-
Highest CH	-	-	-	-	5.00	-	-	-	-	-	-	-



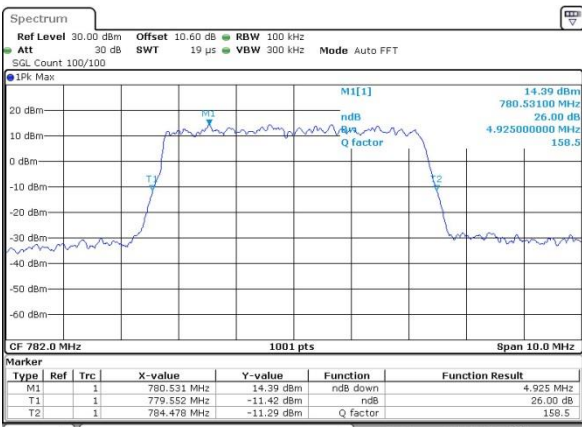
LTE Band 13

Lowest Channel / 5MHz / QPSK



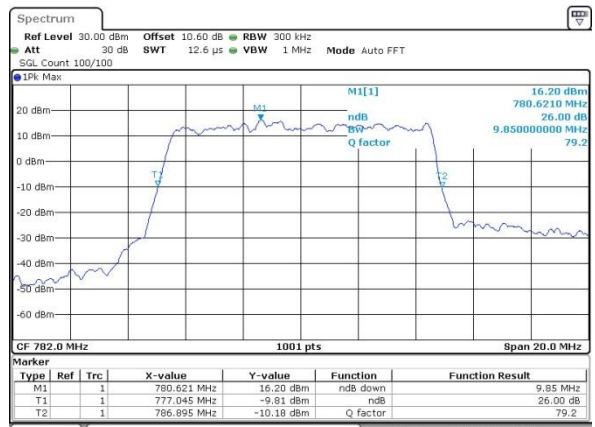
Date: 21.MAY.2019 10:07:41

Middle Channel / 5MHz / QPSK



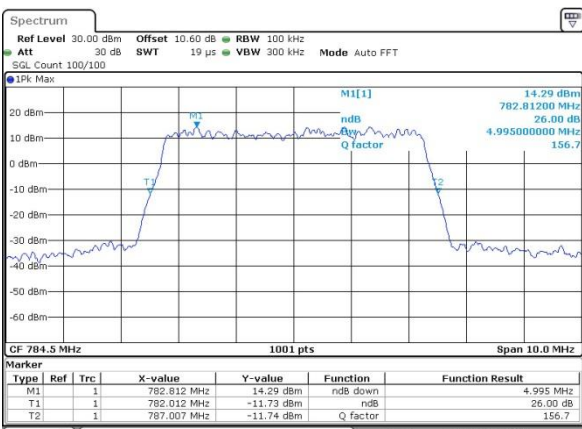
Date: 21.MAY.2019 10:18:57

Middle Channel / 10MHz / QPSK



Date: 21.MAY.2019 10:29:59

Highest Channel / 5MHz / QPSK



Date: 21.MAY.2019 10:20:19



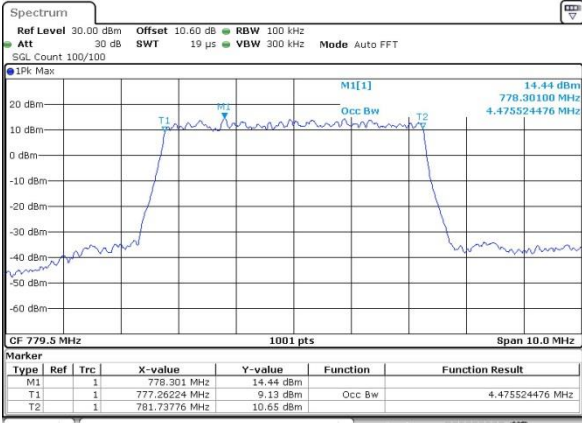
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.47	-	9.03	-	-	-	-	-
Highest CH	-	-	-	-	4.48	-	-	-	-	-	-	-



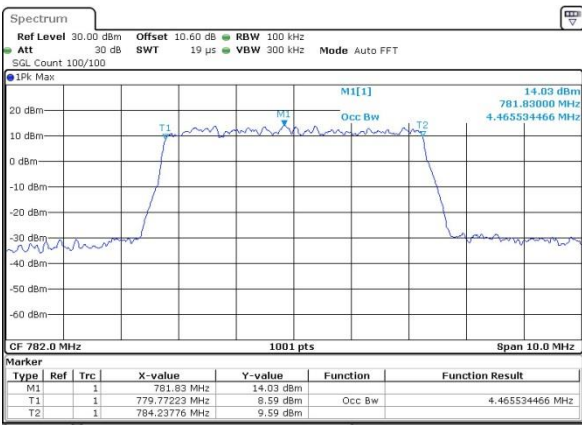
LTE Band 13

Lowest Channel / 5MHz / QPSK



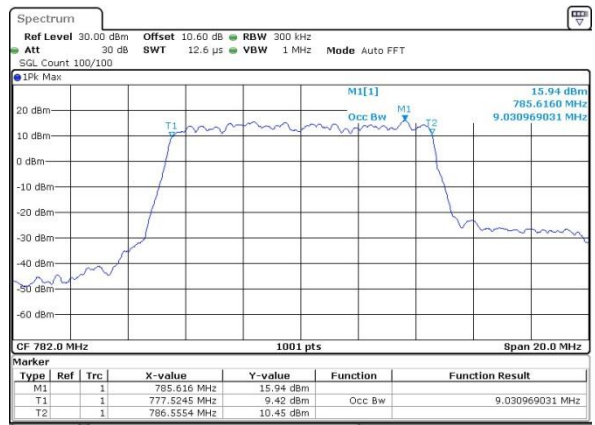
Date: 21.MAY.2019 10:07:05

Middle Channel / 5MHz / QPSK



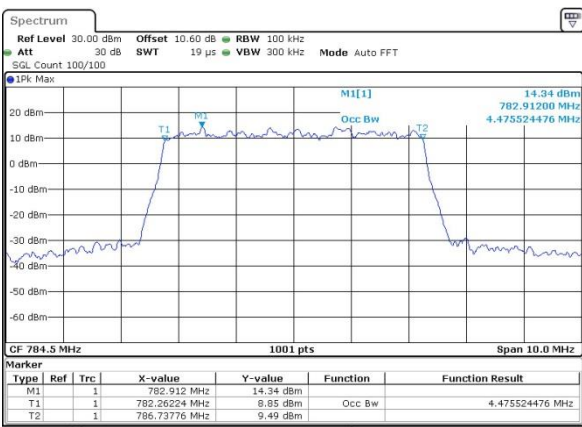
Date: 21.MAY.2019 10:19:32

Middle Channel / 10MHz / QPSK



Date: 21.MAY.2019 10:29:24

Highest Channel / 5MHz / QPSK



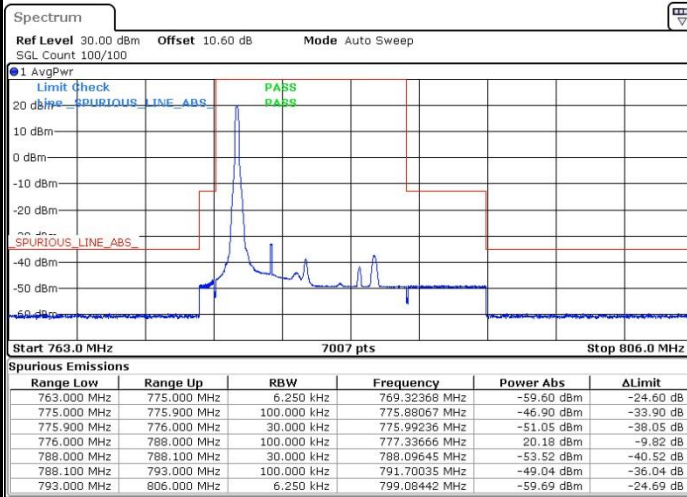
Date: 21.MAY.2019 10:19:44



Conducted Band Edge

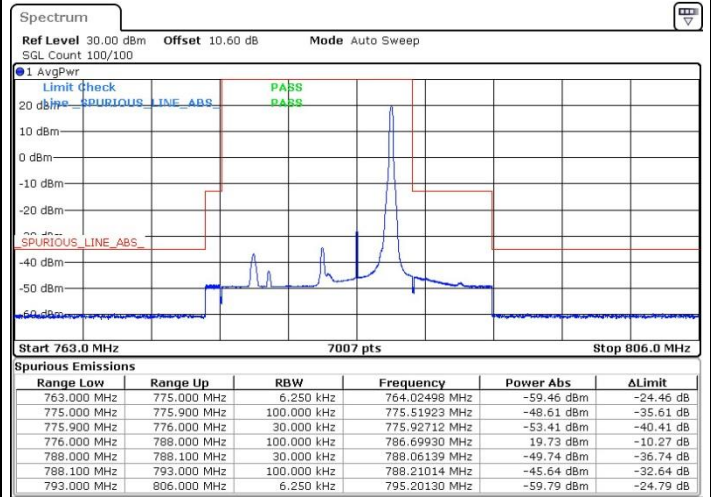
LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB



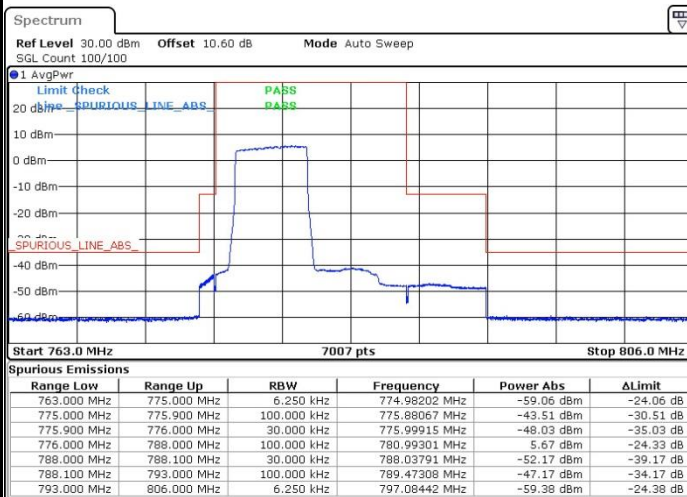
Date: 21.MAY.2019 10:56:26

Highest Band Edge / 1 RB



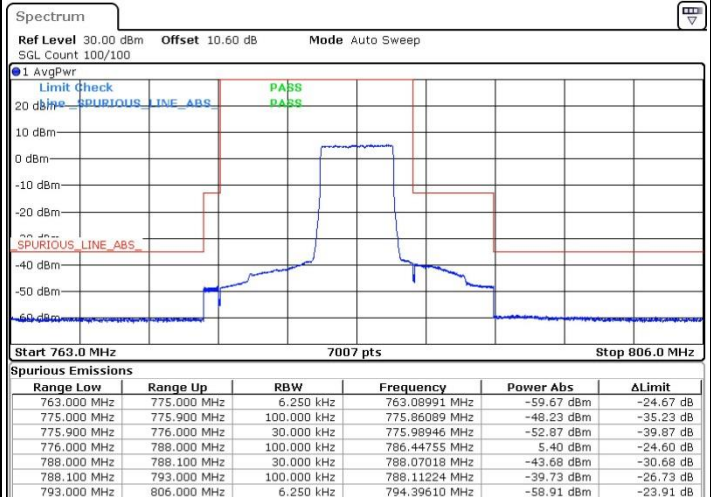
Date: 21.MAY.2019 11:03:11

Lowest Band Edge / Full RB



Date: 21.MAY.2019 10:51:22

Highest Band Edge / Full RB



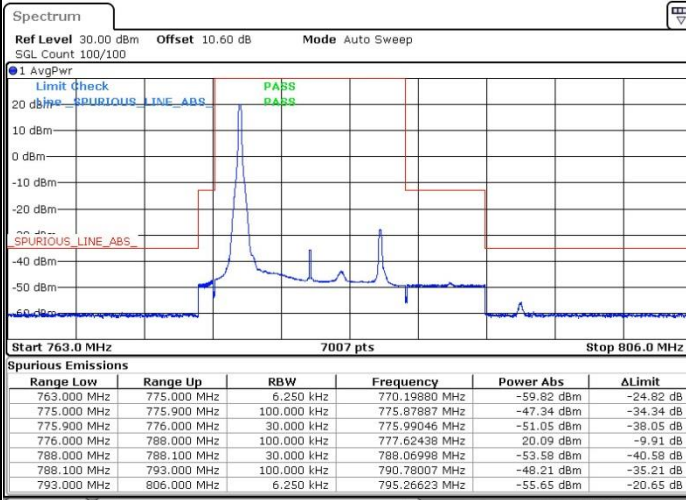
Date: 21.MAY.2019 10:58:07



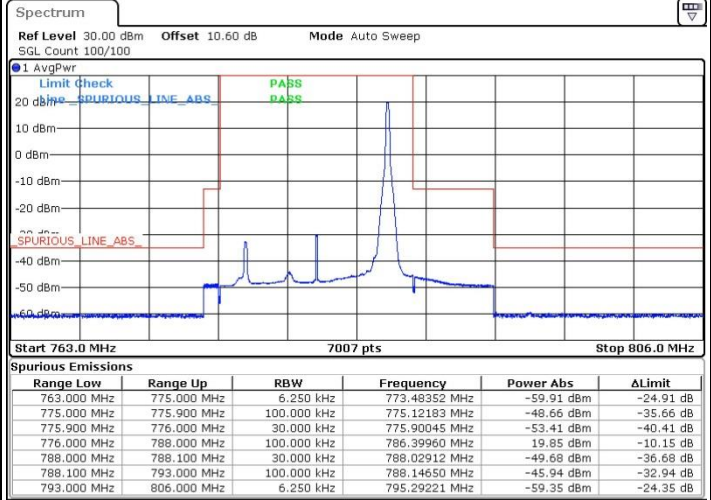
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

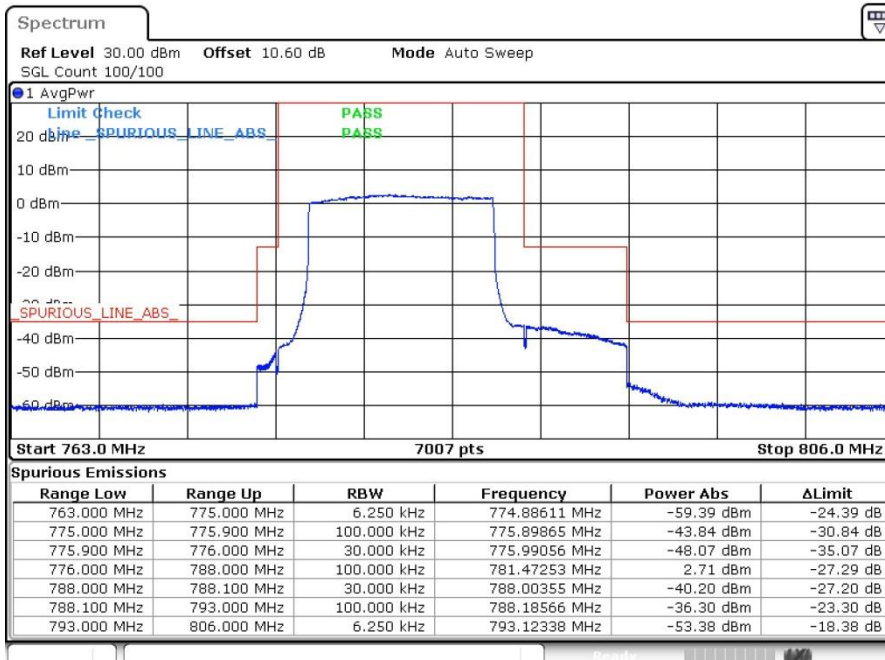


Date: 21.MAY.2019 11:09:53



Date: 21.MAY.2019 11:11:34

Band Edge / Full RB



Date: 21.MAY.2019 11:04:51