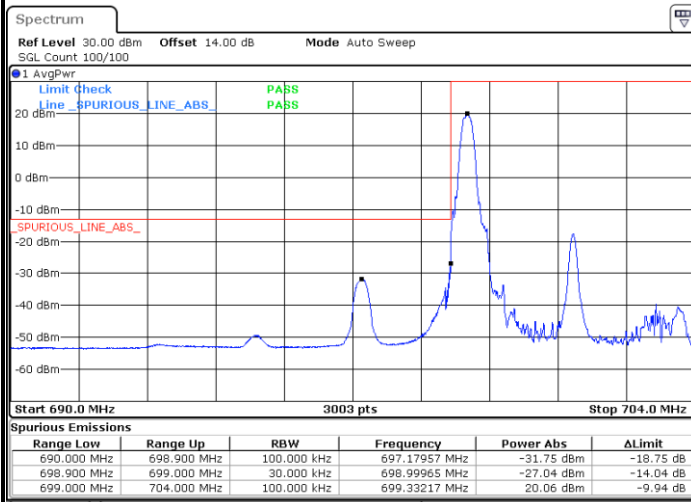




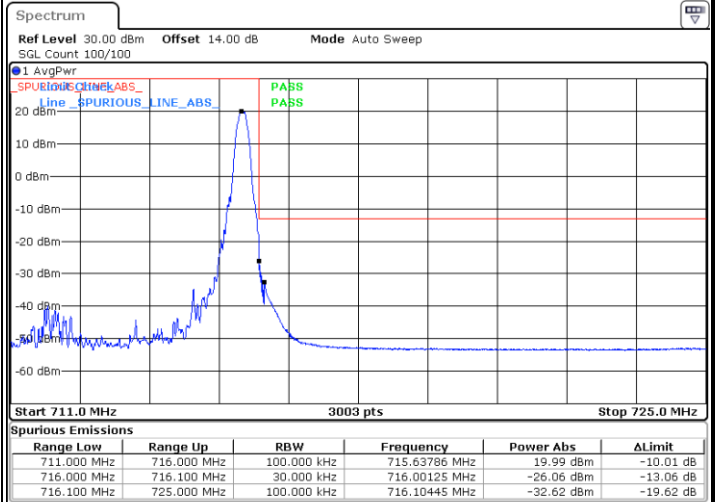
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



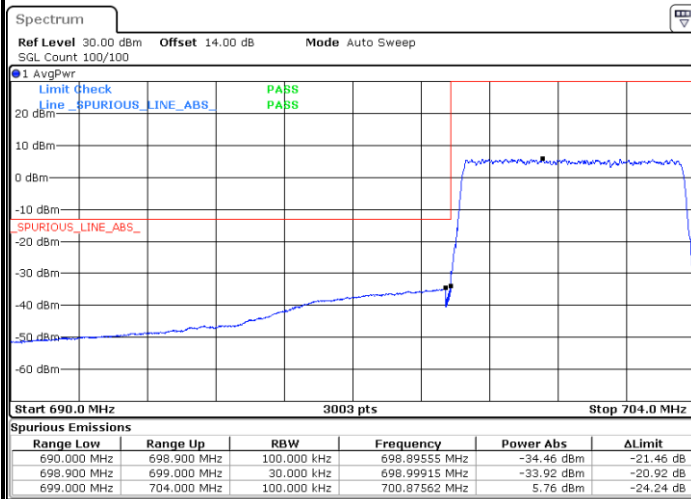
Date: 29.NOV.2019 20:08:09

Highest Band Edge / 1 RB



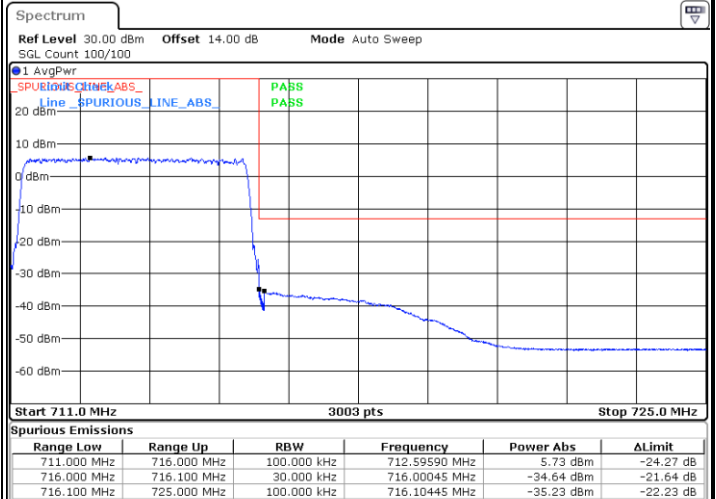
Date: 29.NOV.2019 20:17:24

Lowest Band Edge / Full RB



Date: 29.NOV.2019 20:07:09

Highest Band Edge / Full RB

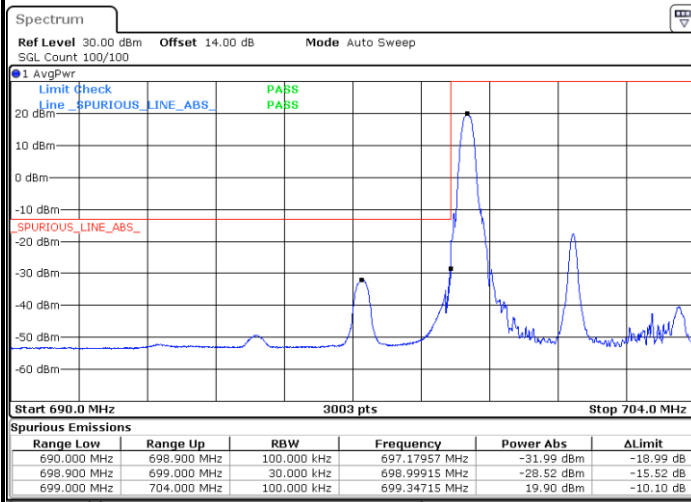


Date: 29.NOV.2019 20:15:24

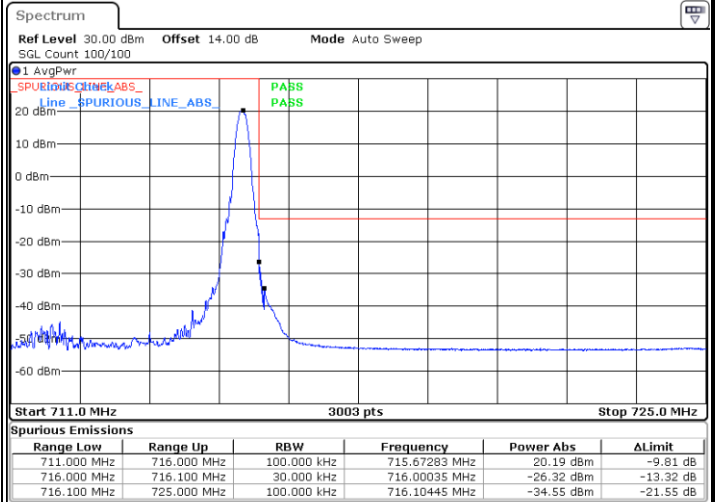


LTE Band 12 / 5MHz / 64QAM

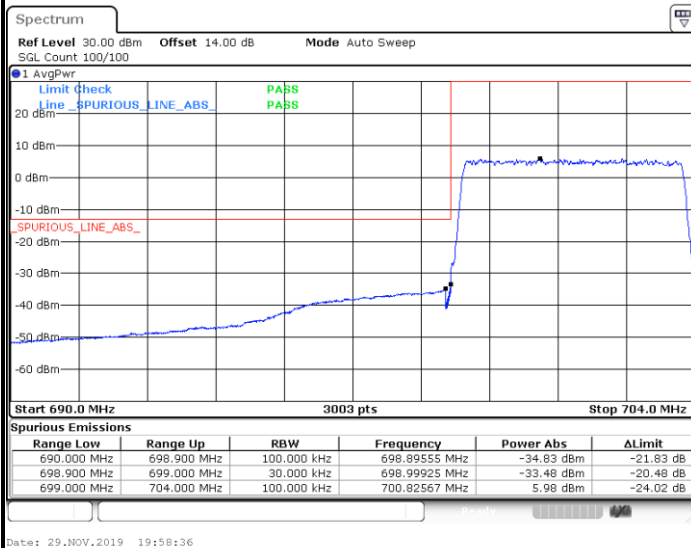
Lowest Band Edge / 1RB



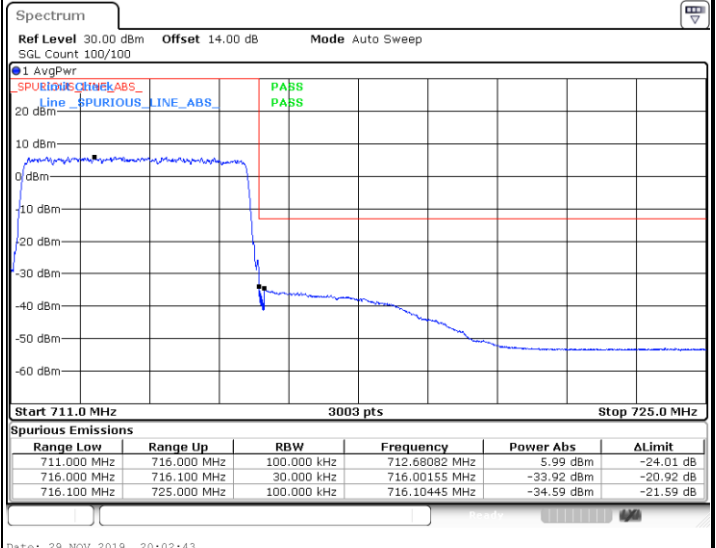
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



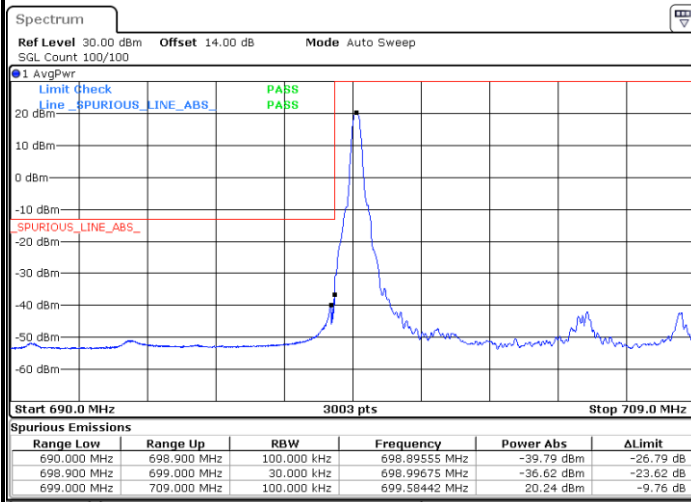
Highest Band Edge / Full RB



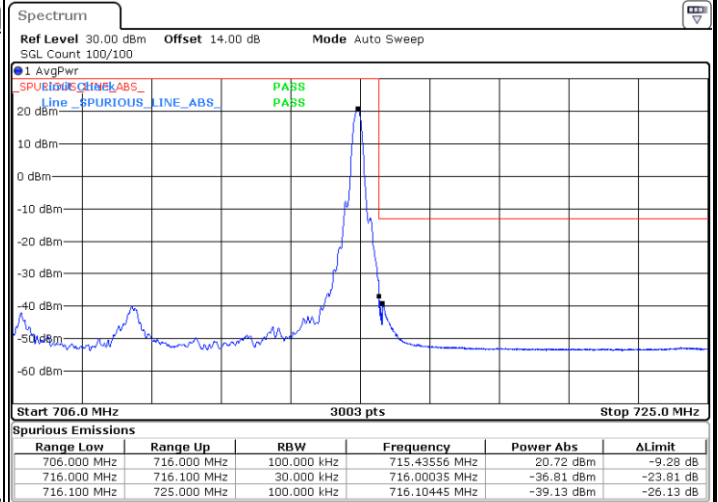


LTE Band 12 / 10MHz / QPSK

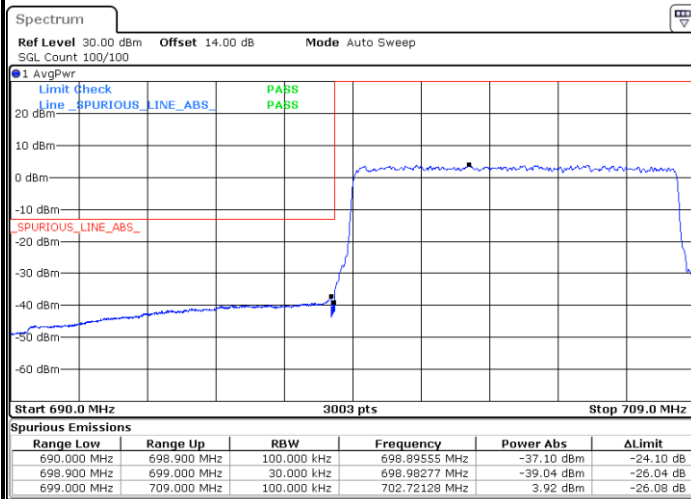
Lowest Band Edge / 1 RB



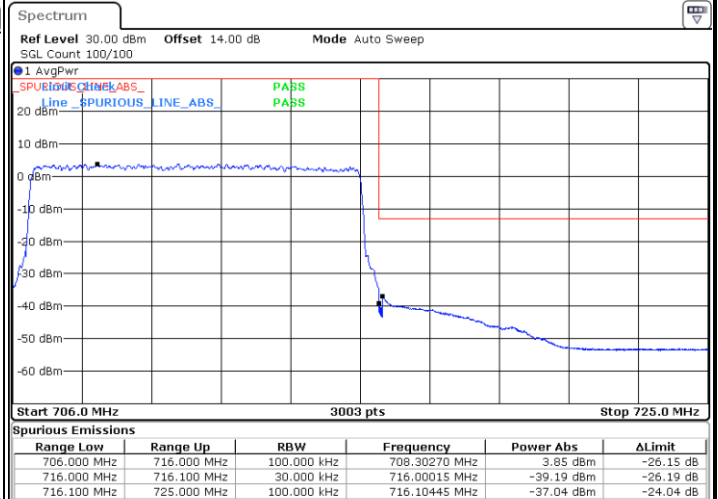
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



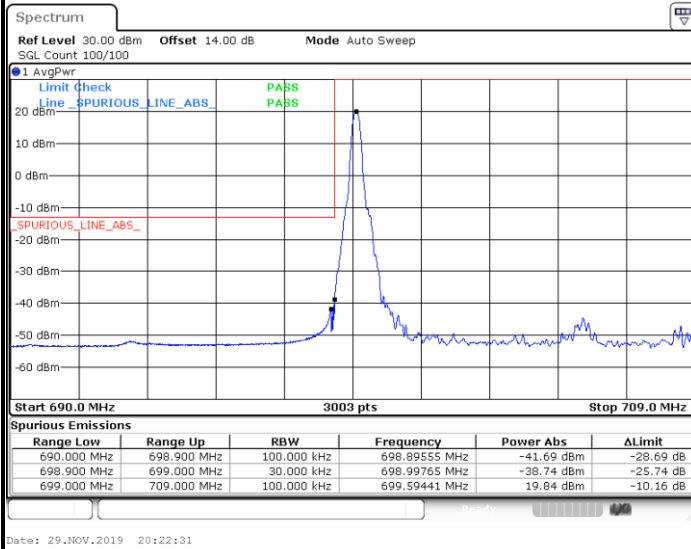
Highest Band Edge / Full RB



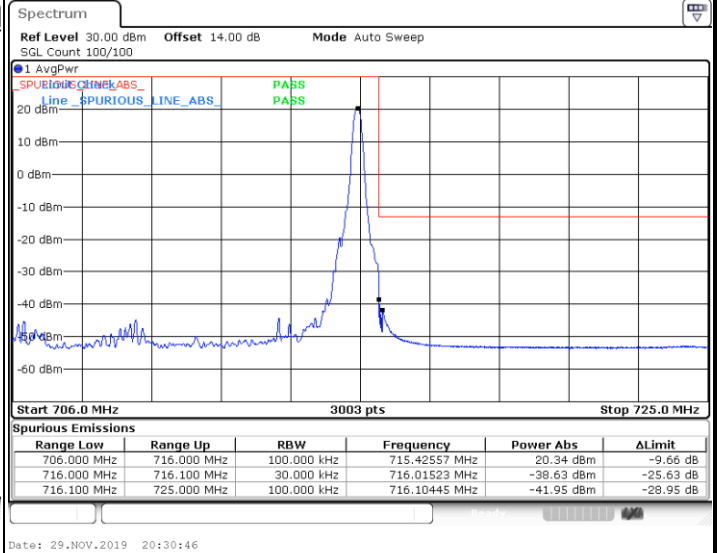


LTE Band 12 / 10MHz / 16QAM

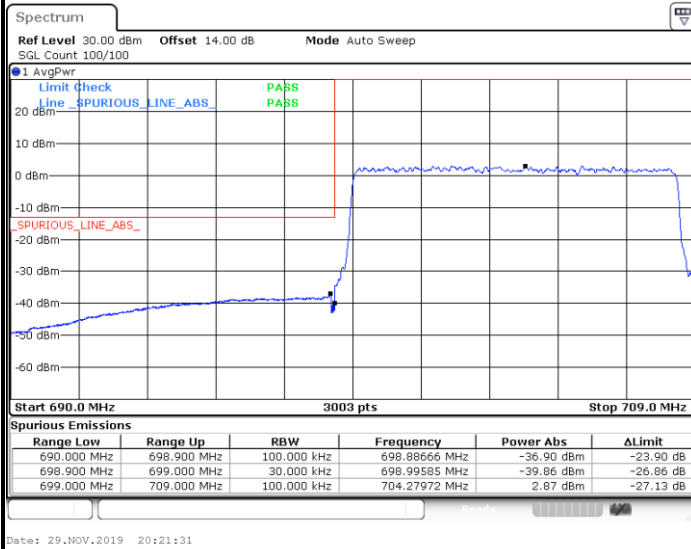
Lowest Band Edge / 1 RB



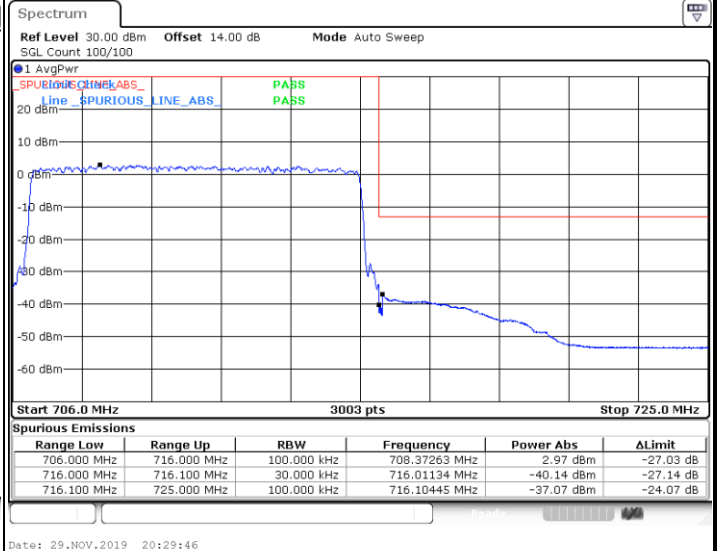
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



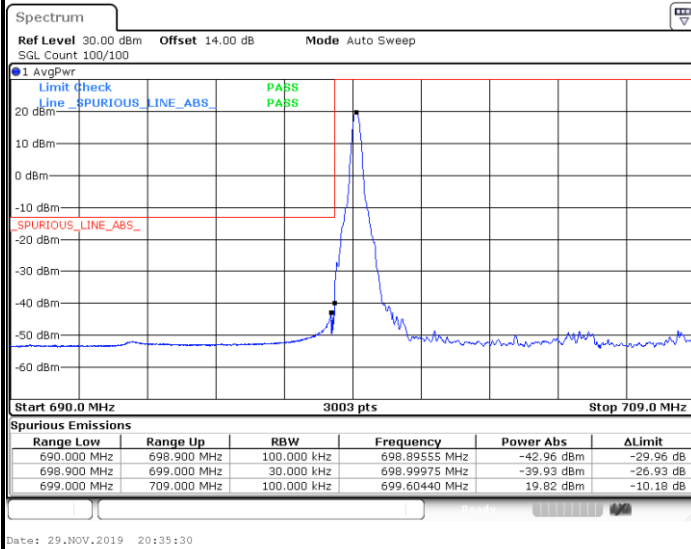
Highest Band Edge / Full RB



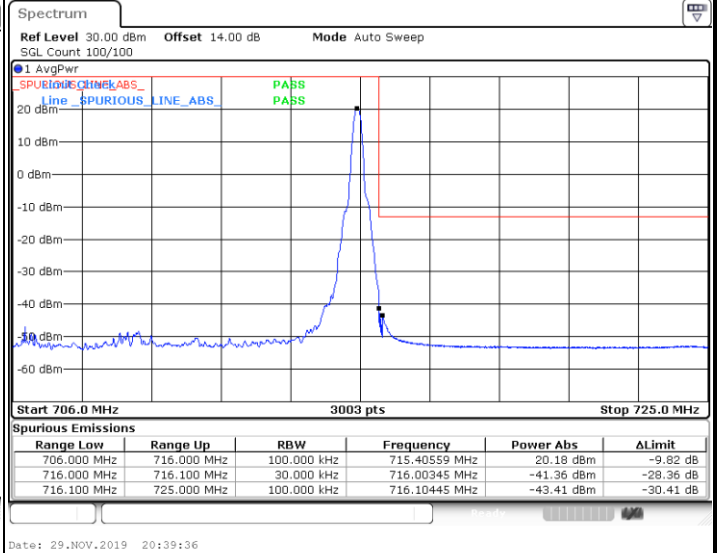


LTE Band 12 / 10MHz / 64QAM

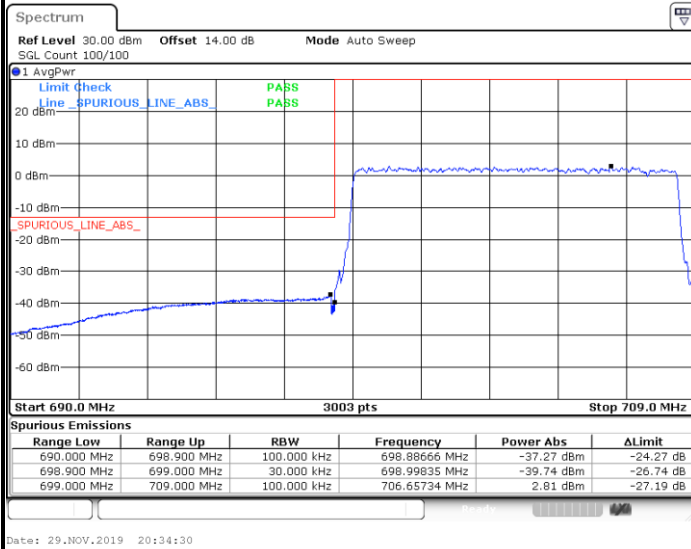
Lowest Band Edge / 1 RB



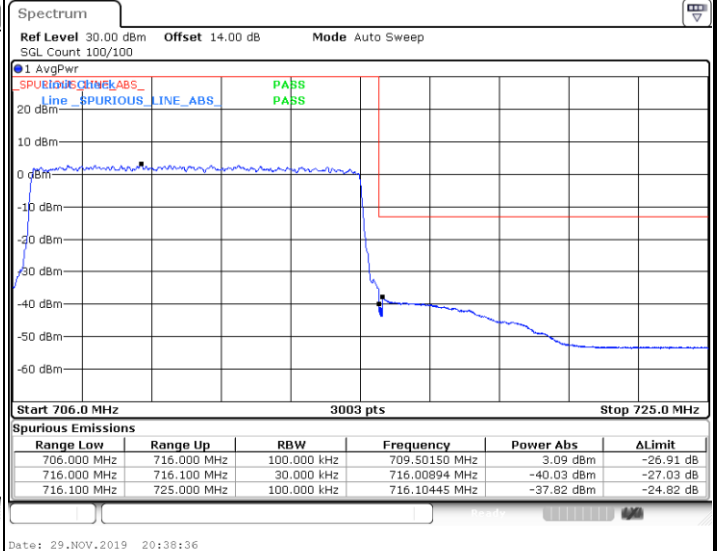
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

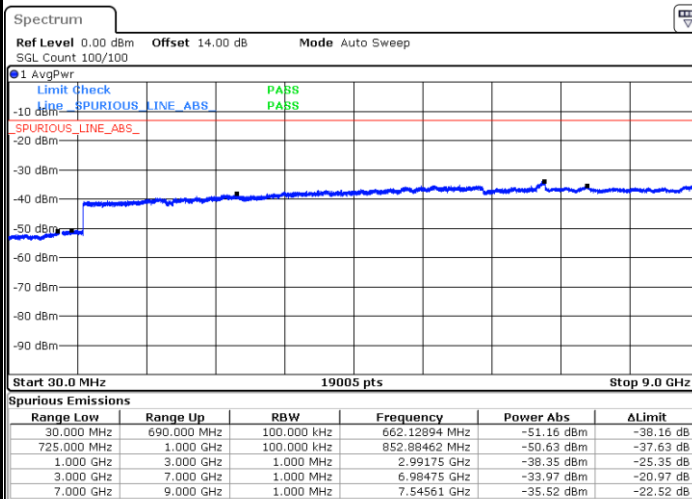




Conducted Spurious Emission

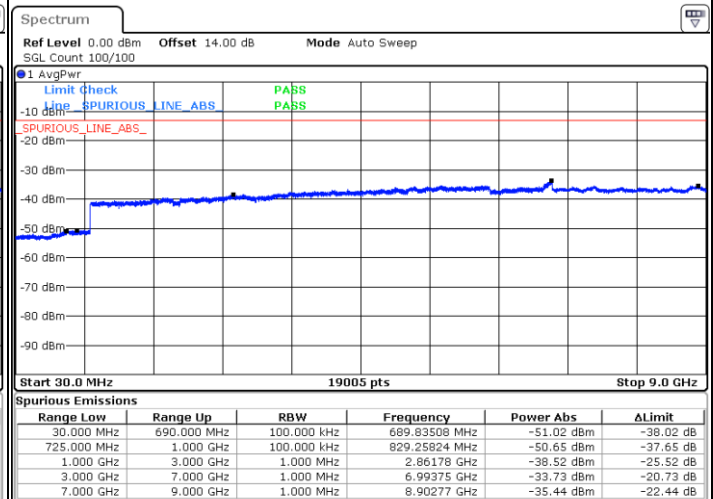
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



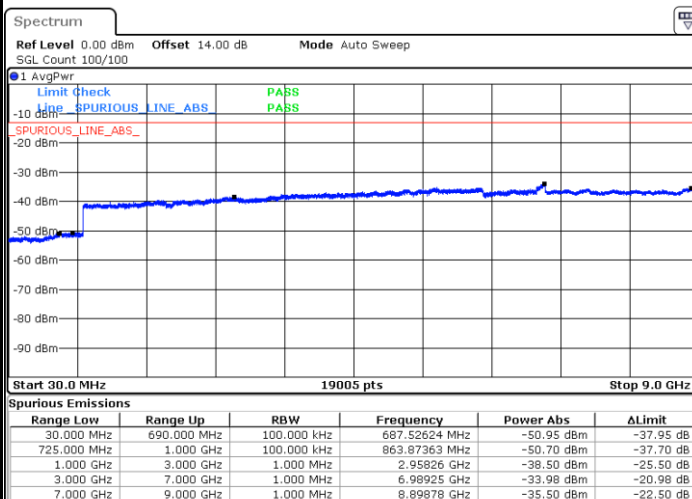
Date: 29.NOV.2019 20:49:49

Lowest Channel / 16QAM



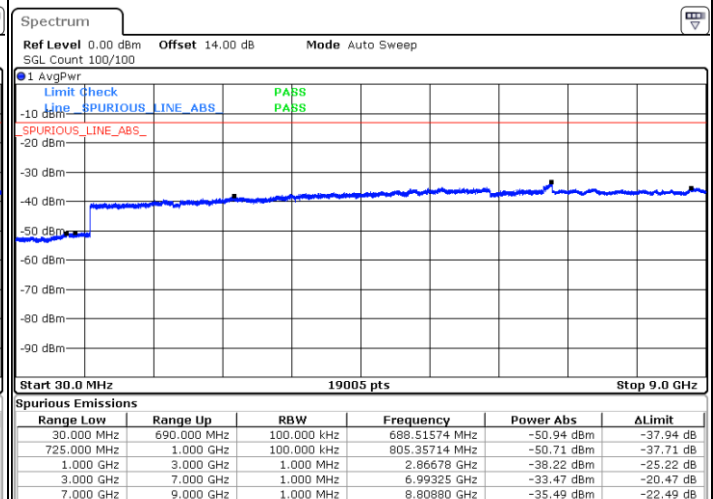
Date: 29.NOV.2019 20:50:30

Middle Channel / QPSK



Date: 29.NOV.2019 20:52:38

Middle Channel / 16QAM

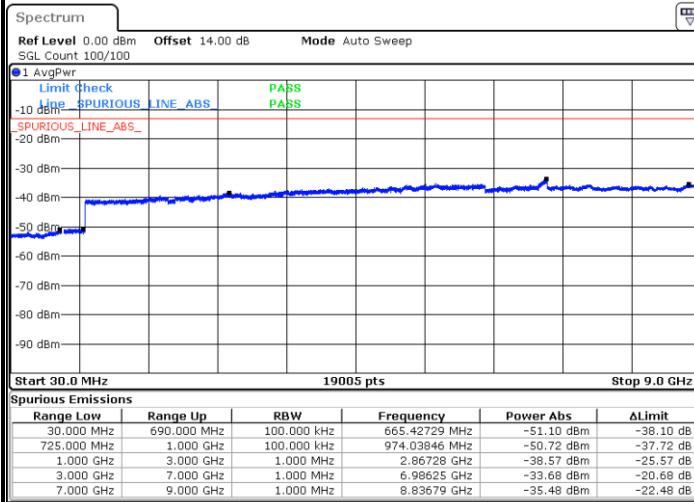


Date: 29.NOV.2019 20:51:57



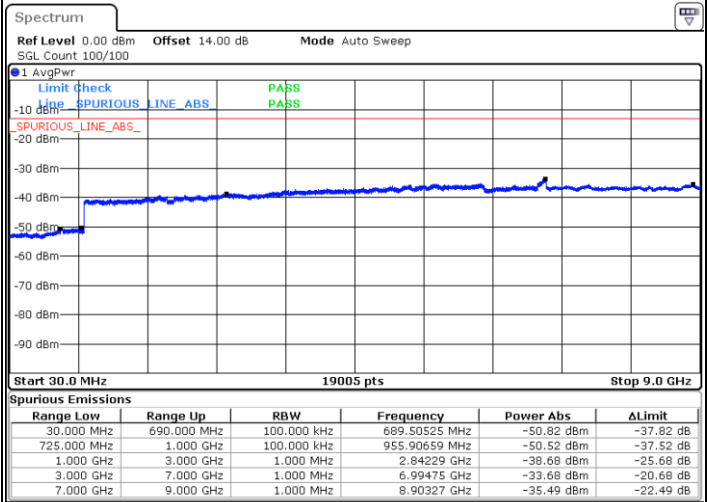
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 29.NOV.2019 20:58:03

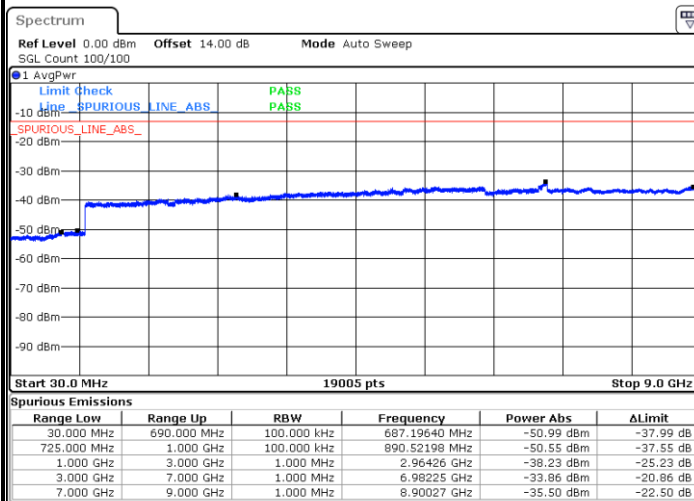
Highest Channel / 16QAM



Date: 29.NOV.2019 20:58:45

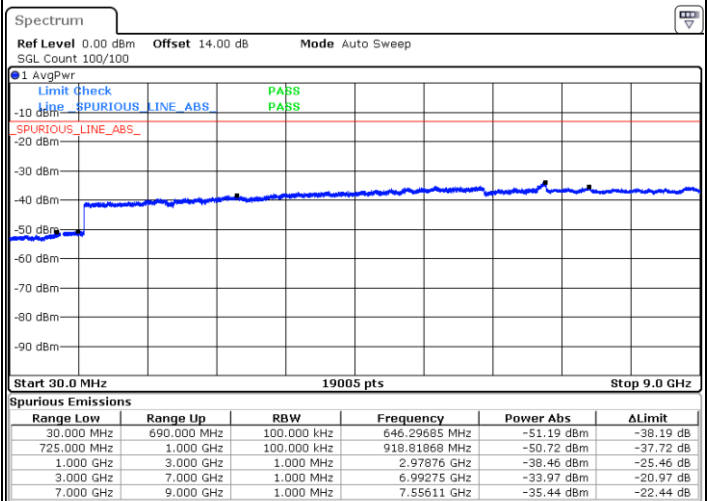
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 29.NOV.2019 19:41:07

Lowest Channel / 16QAM

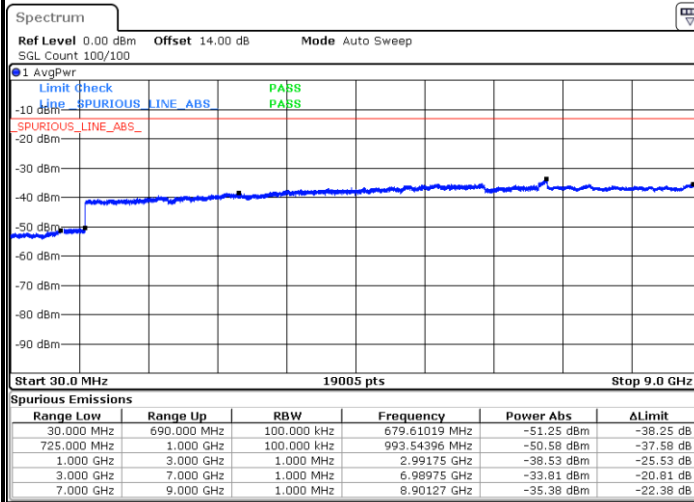


Date: 29.NOV.2019 19:41:49



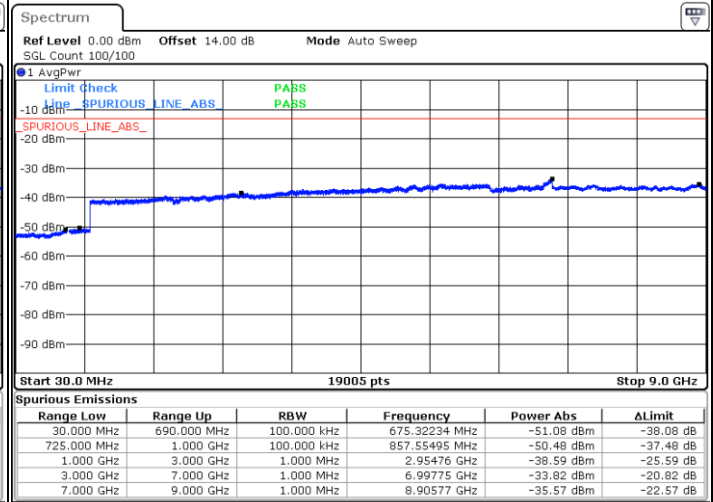
LTE Band 12 / 3MHz

Middle Channel / QPSK



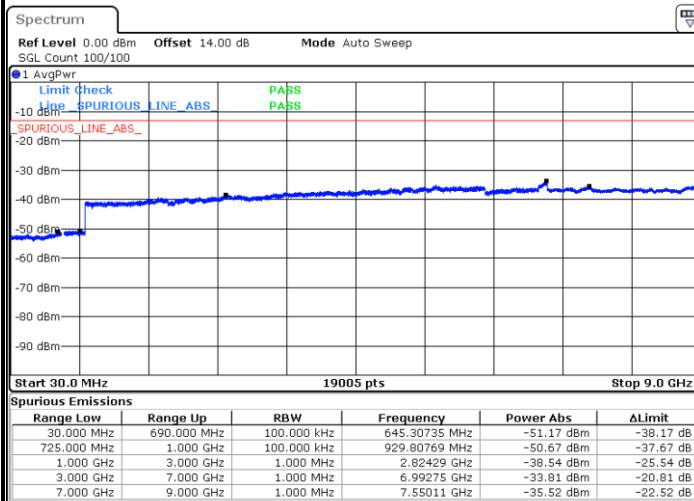
Date: 29.NOV.2019 19:43:56

Middle Channel / 16QAM



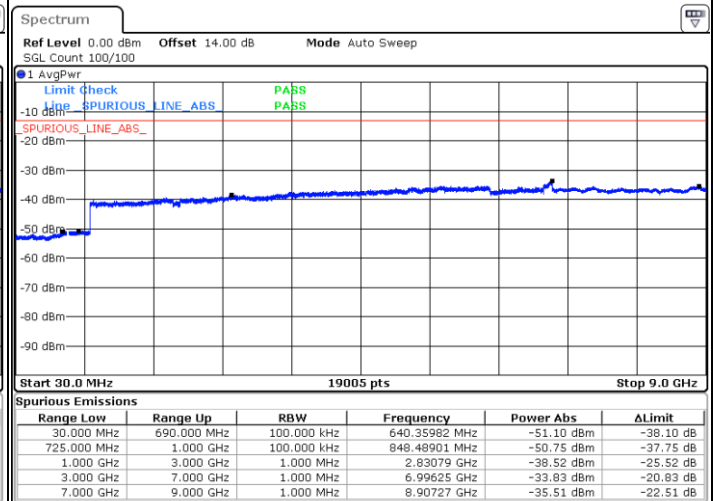
Date: 29.NOV.2019 19:43:14

Highest Channel / QPSK



Date: 29.NOV.2019 19:49:21

Highest Channel / 16QAM

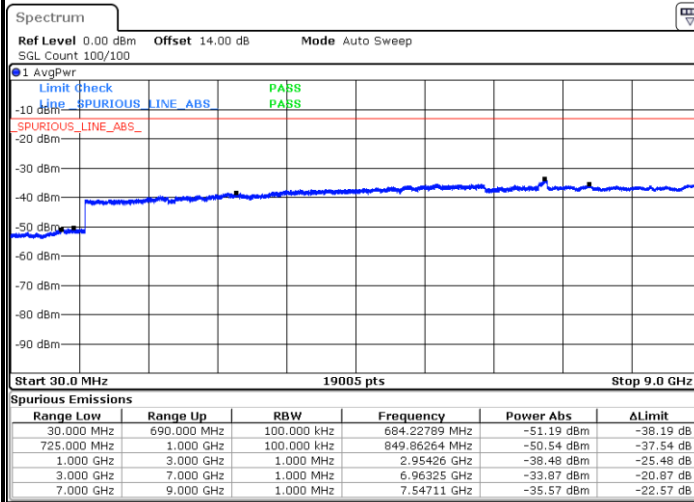


Date: 29.NOV.2019 19:50:03



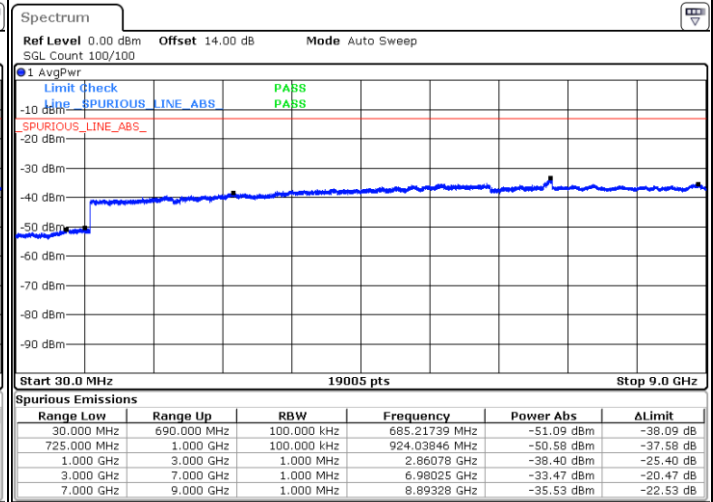
LTE Band 12 / 5MHz

Lowest Channel / QPSK



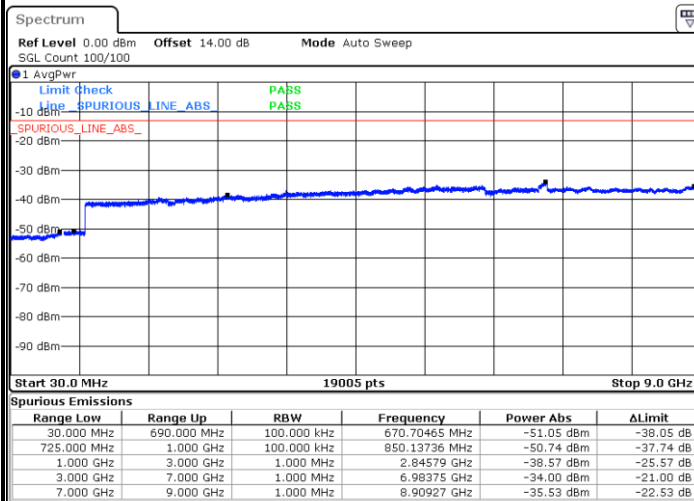
Date: 29.NOV.2019 20:09:51

Lowest Channel / 16QAM



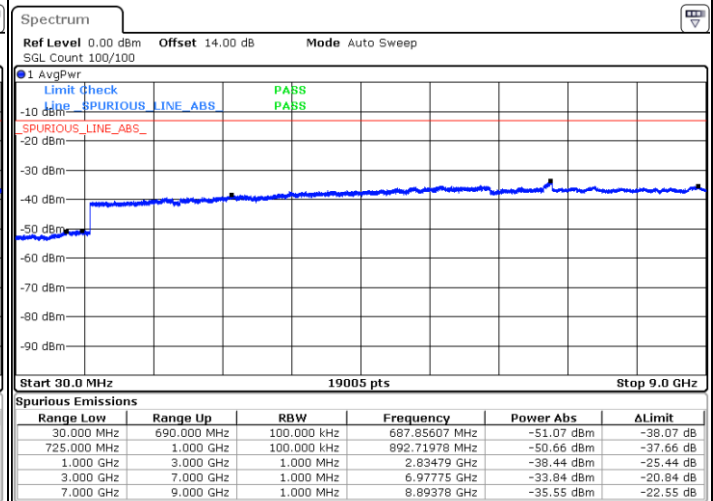
Date: 29.NOV.2019 20:10:32

Middle Channel / QPSK



Date: 29.NOV.2019 20:12:40

Middle Channel / 16QAM

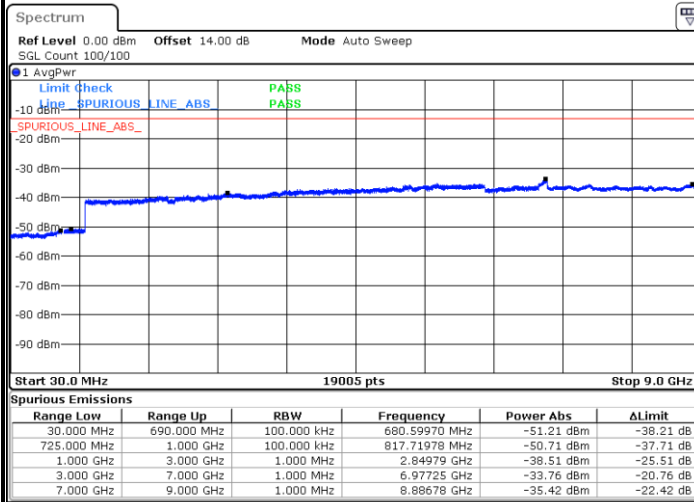


Date: 29.NOV.2019 20:11:59



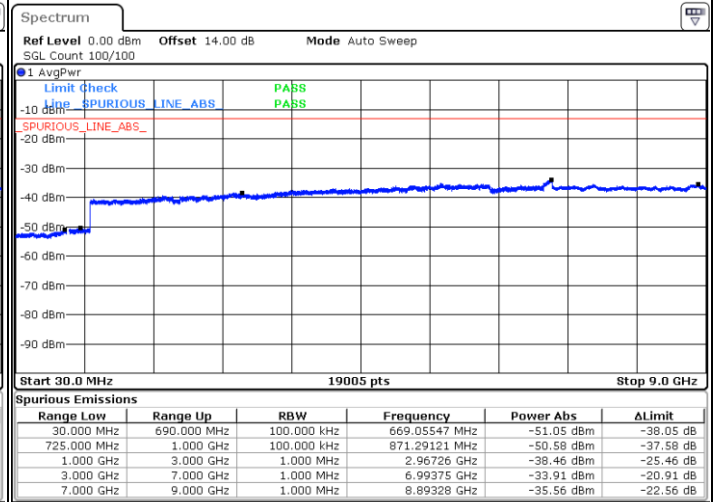
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 29.NOV.2019 20:18:47

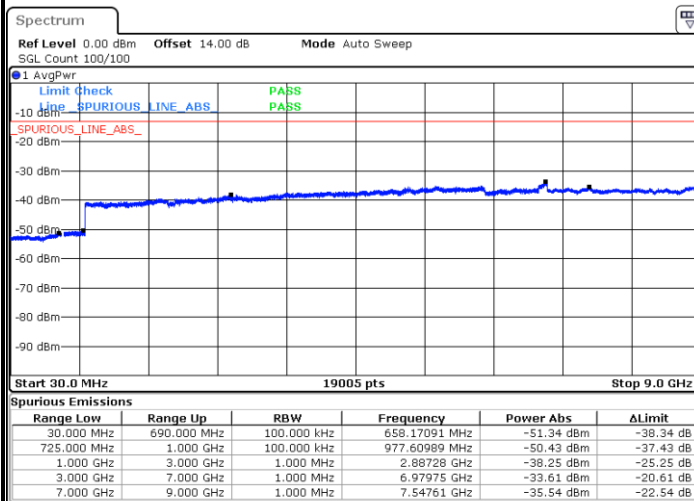
Highest Channel / 16QAM



Date: 29.NOV.2019 20:18:06

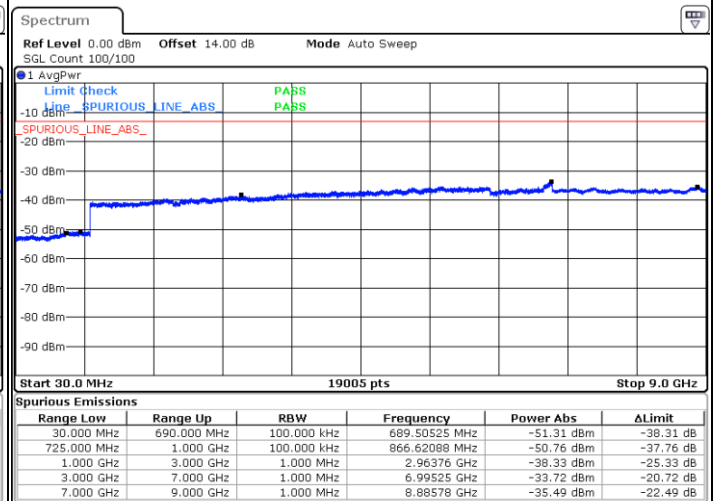
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 29.NOV.2019 20:24:13

Lowest Channel / 16QAM

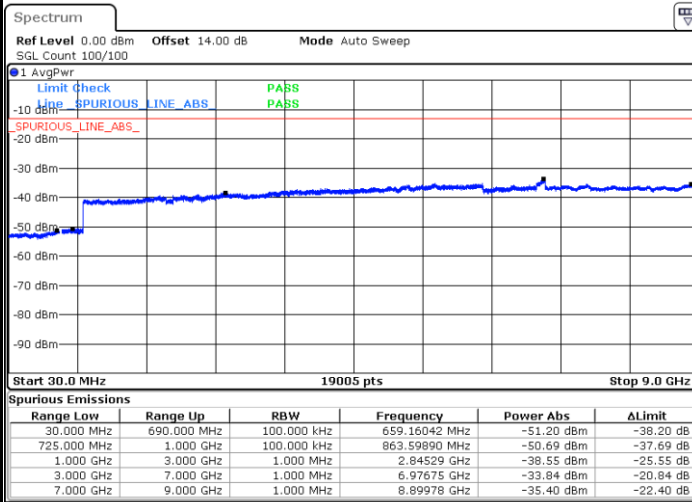


Date: 29.NOV.2019 20:24:55



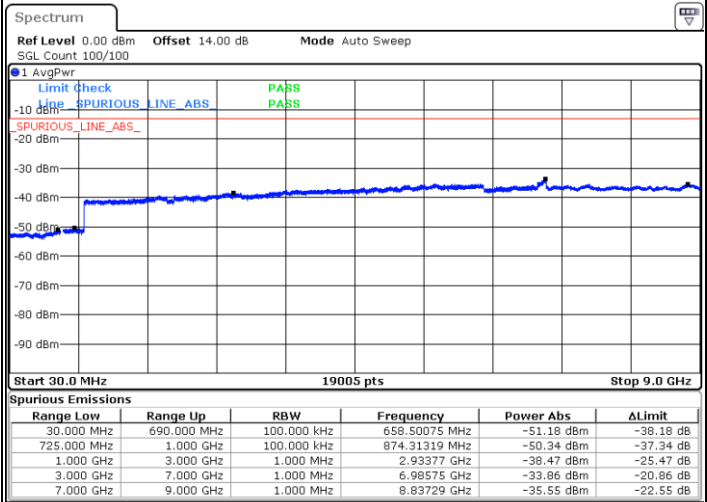
LTE Band 12 / 10MHz

Middle Channel / QPSK



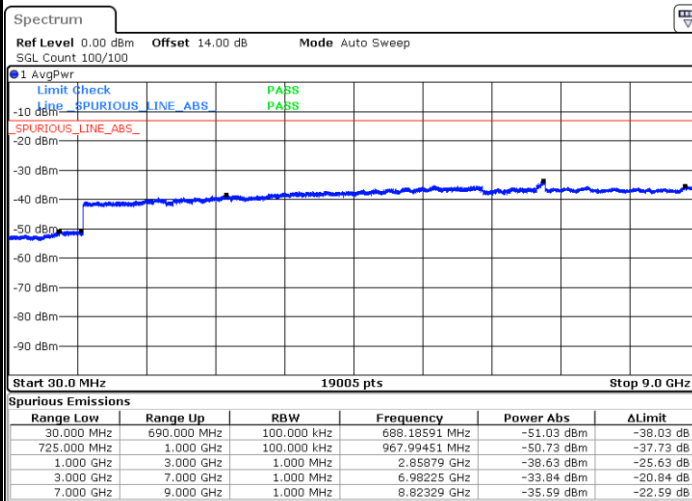
Date: 29.NOV.2019 20:27:02

Middle Channel / 16QAM



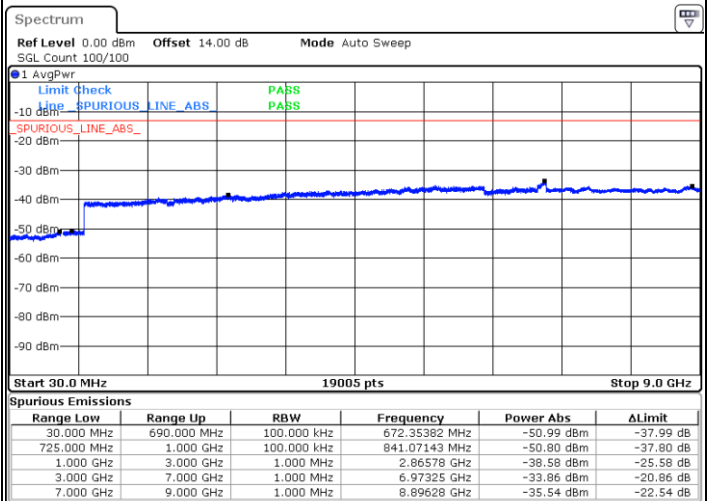
Date: 29.NOV.2019 20:26:21

Highest Channel / QPSK



Date: 29.NOV.2019 20:32:27

Highest Channel / 16QAM

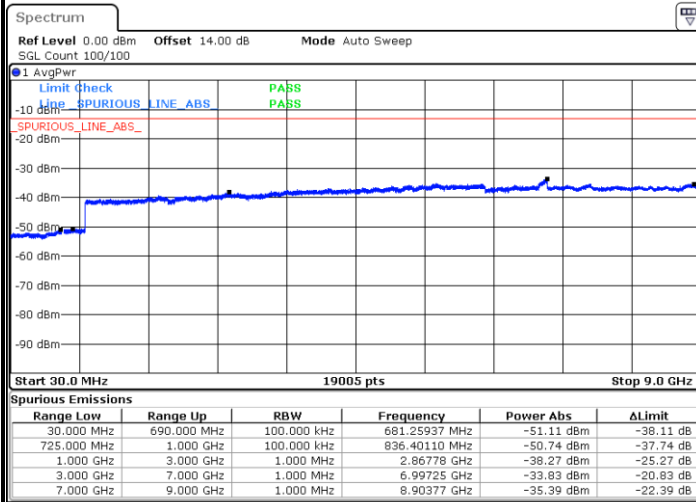


Date: 29.NOV.2019 20:33:08



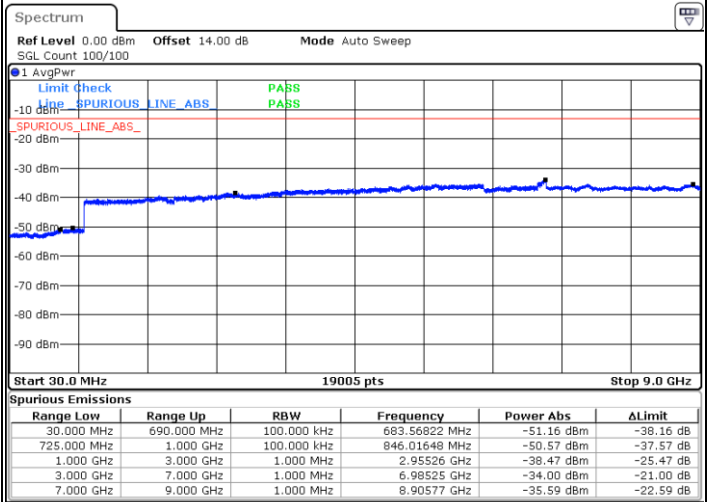
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



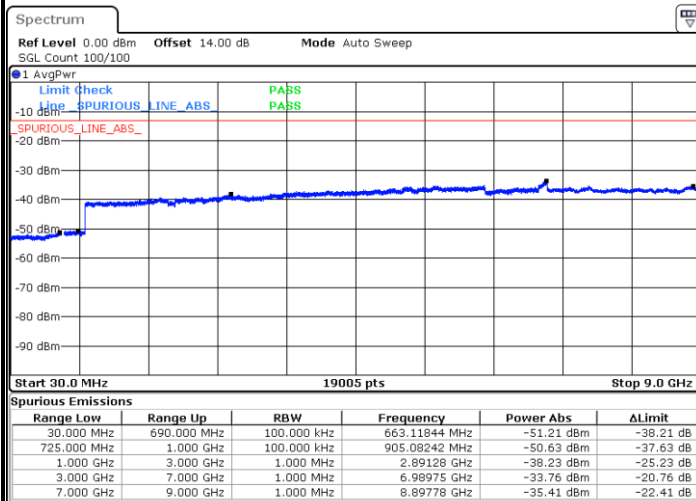
Date: 29.NOV.2019 21:01:48

Middle Channel / 64QAM



Date: 29.NOV.2019 21:02:51

Highest Channel / 64QAM

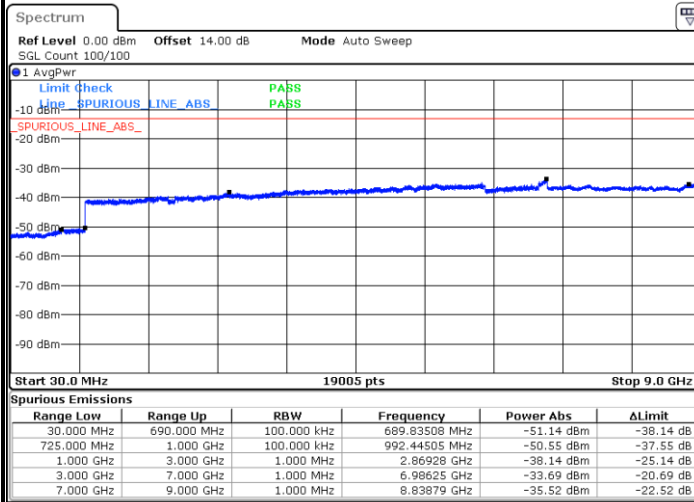


Date: 29.NOV.2019 21:05:55



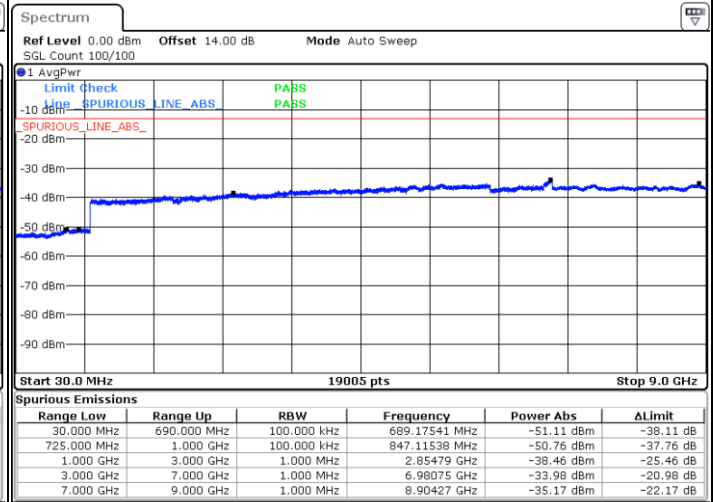
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



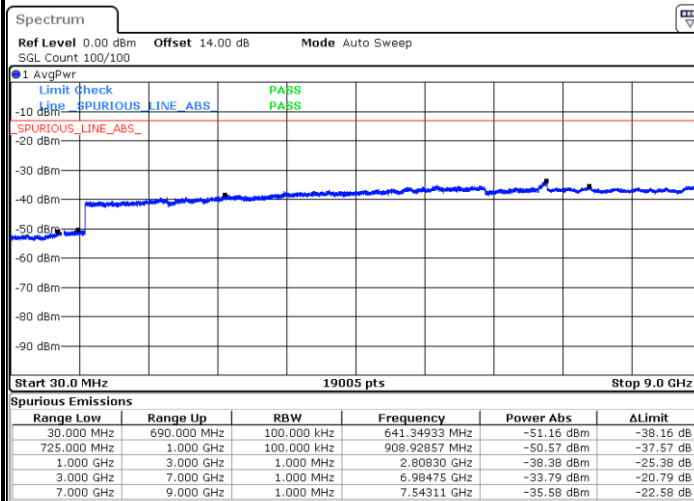
Date: 29.NOV.2019 19:53:07

Middle Channel / 64QAM



Date: 29.NOV.2019 19:54:10

Highest Channel / 64QAM

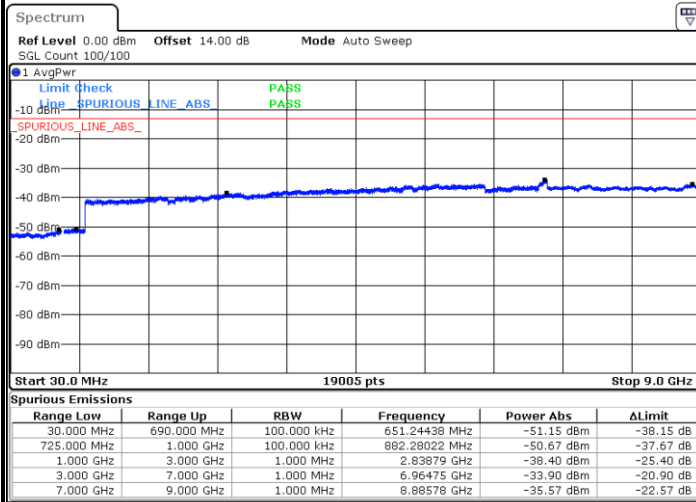


Date: 29.NOV.2019 19:57:14



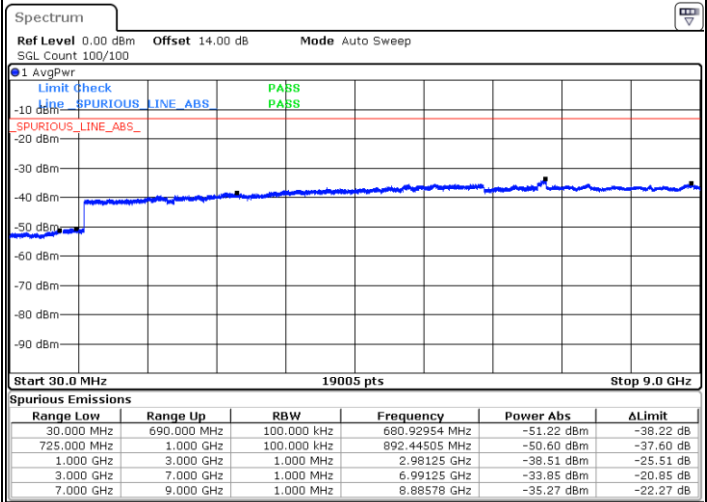
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



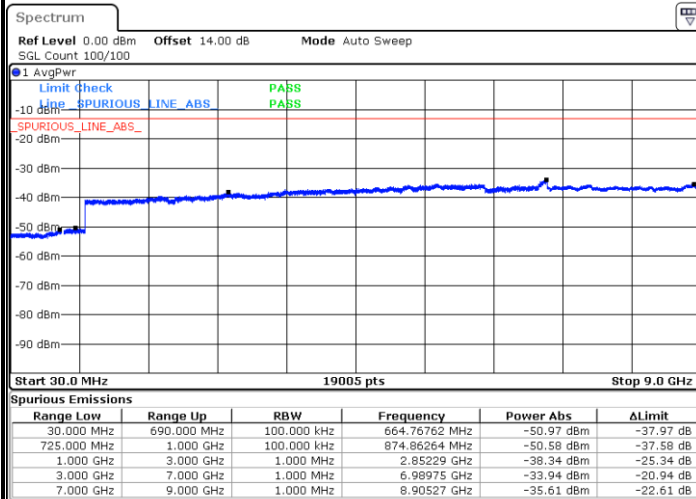
Date: 29.NOV.2019 20:00:18

Middle Channel / 64QAM



Date: 29.NOV.2019 20:01:21

Highest Channel / 64QAM

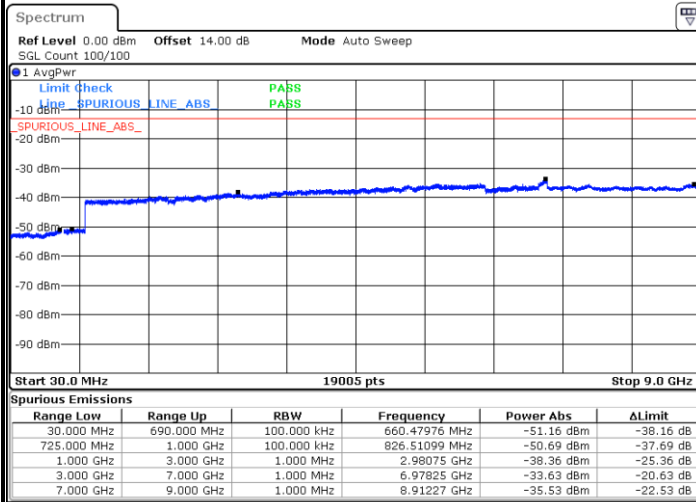


Date: 29.NOV.2019 20:04:25



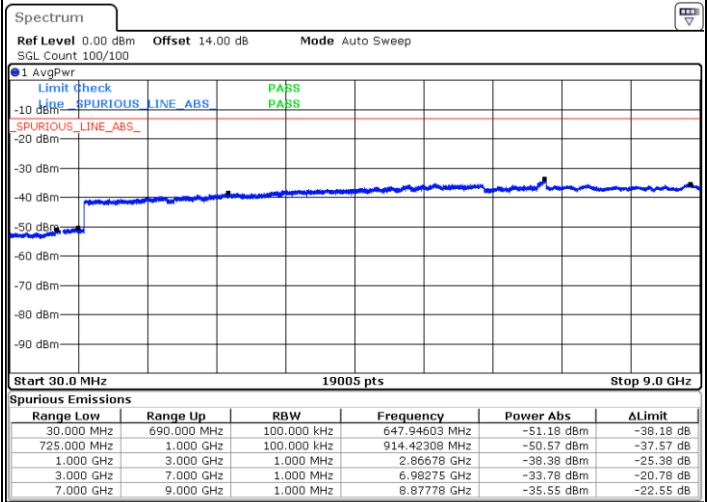
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



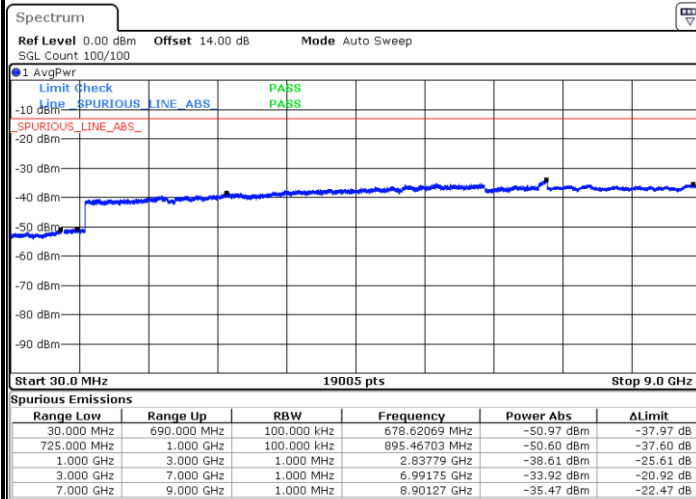
Date: 29.NOV.2019 20:36:11

Middle Channel / 64QAM



Date: 29.NOV.2019 20:37:15

Highest Channel / 64QAM



Date: 29.NOV.2019 20:40:18

**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	0.0047	PASS
40	Normal Voltage	0.0002	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0012	
0	Normal Voltage	0.0020	
-10	Normal Voltage	0.0039	
-20	Normal Voltage	0.0026	
-30	Normal Voltage	0.0038	
20	Maximum Voltage	0.0068	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

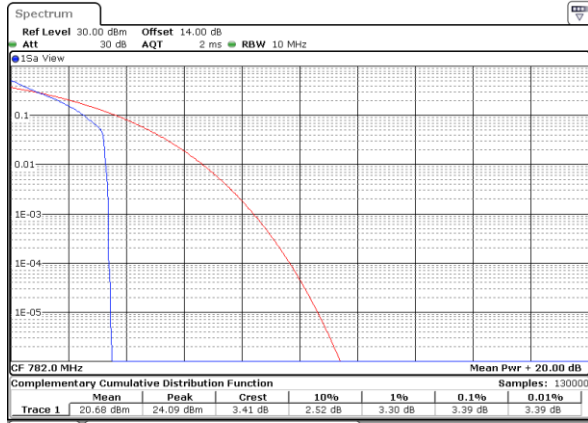
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.39	4.84	4.06	5.74	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM		-		Limit: 13dB
RB Size	1RB	Full RB	-	-	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.06	5.74	-	-	
Highest CH	-	-	-	-	

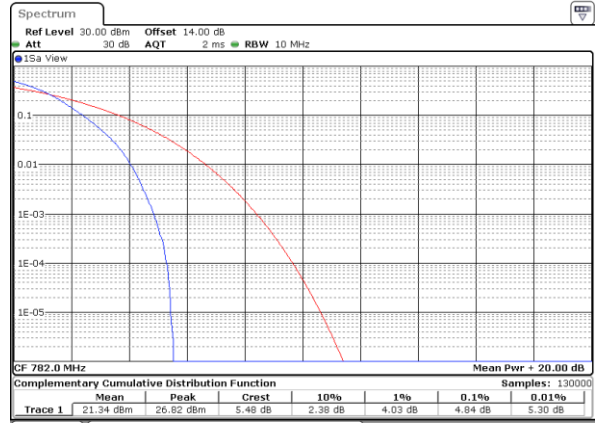


LTE Band 13 / 10MHz / QPSK

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



Date: 3.DEC.2019 14:19:52

Date: 3.DEC.2019 14:20:02

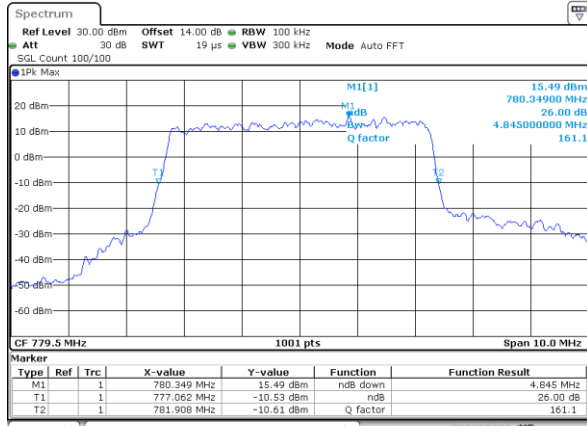
**26dB Bandwidth**

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	-	-	-	-	4.85	4.89	-	-	-	-	-	-
Middle CH	-	-	-	-	4.87	4.95	9.89	9.67	-	-	-	-
Highest CH	-	-	-	-	4.93	4.85	-	-	-	-	-	-
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	-		-		4.82		9.83		-		-	
Highest CH	-		-		4.85		-		-		-	



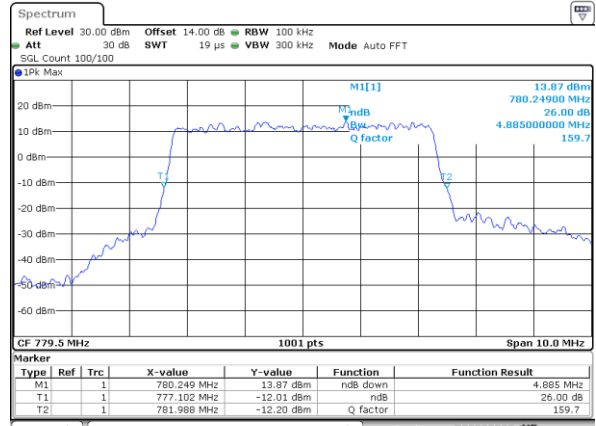
LTE Band 13

Lowest Channel / 5MHz / QPSK



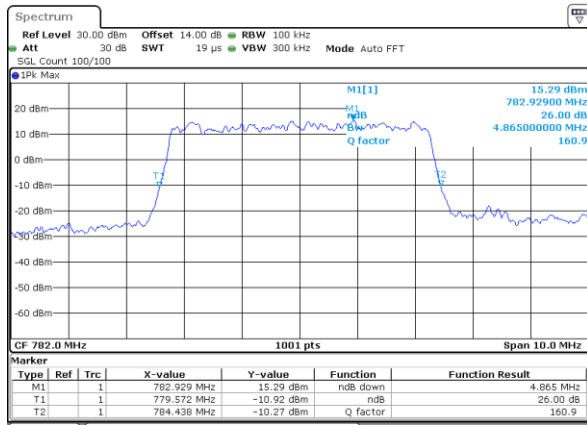
Date: 3,DEC,2019 13:22:46

Lowest Channel / 5MHz / 16QAM



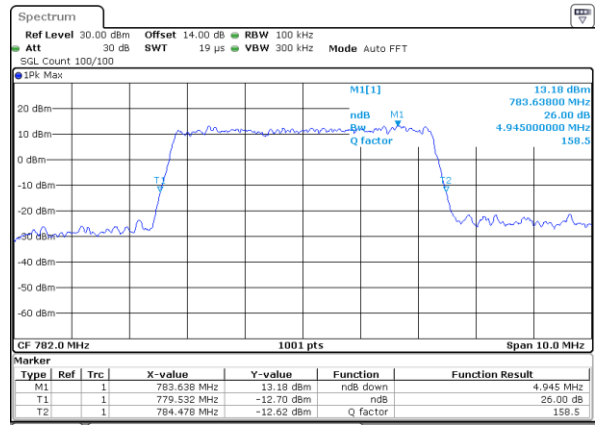
Date: 3,DEC,2019 13:22:35

Middle Channel / 5MHz / QPSK



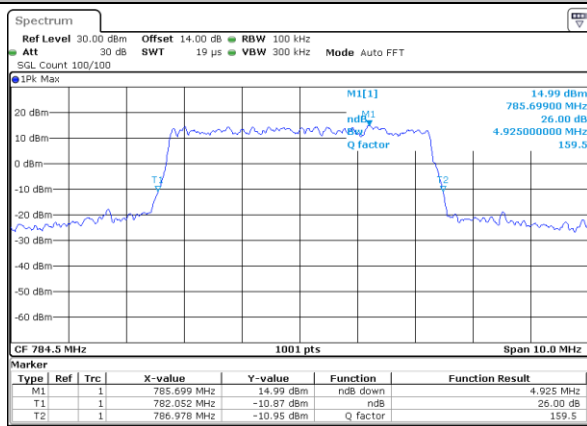
Date: 3,DEC,2019 13:32:23

Middle Channel / 5MHz / 16QAM



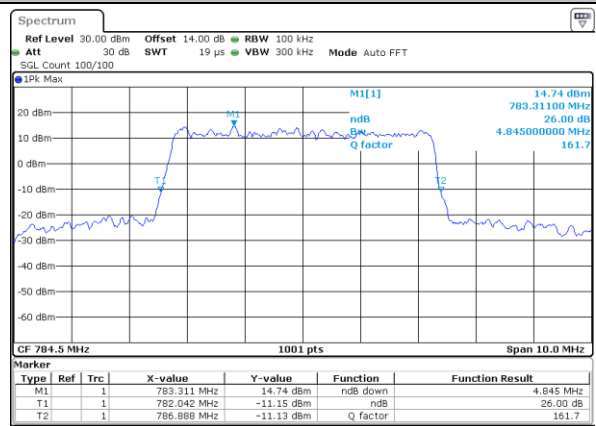
Date: 3,DEC,2019 13:32:34

Highest Channel / 5MHz / QPSK



Date: 3,DEC,2019 13:33:41

Highest Channel / 5MHz / 16QAM

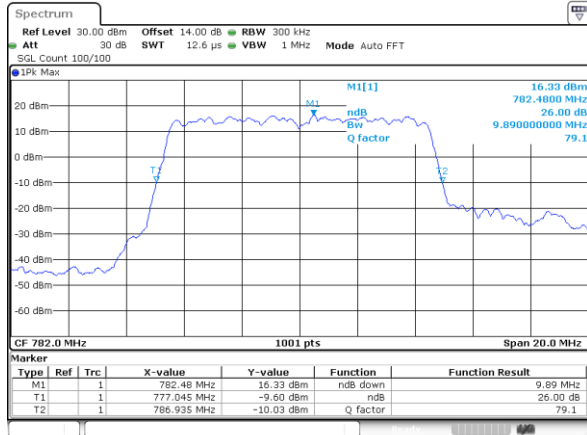


Date: 3,DEC,2019 13:33:30



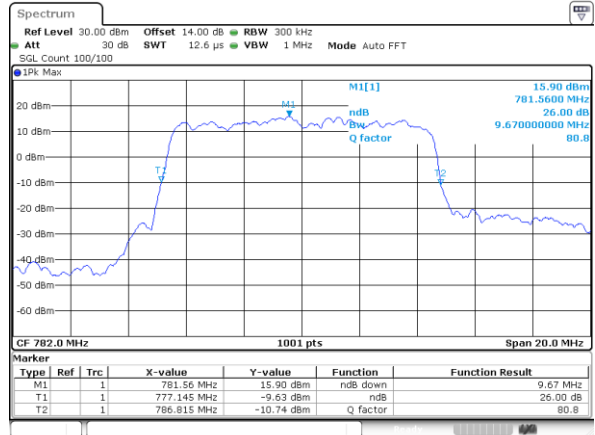
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 3,DEC,2019 13:52:18

Middle Channel / 10MHz / 16QAM

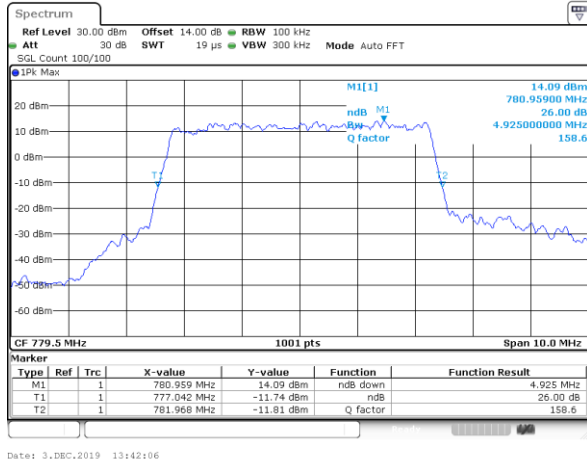


Date: 3,DEC,2019 13:52:07

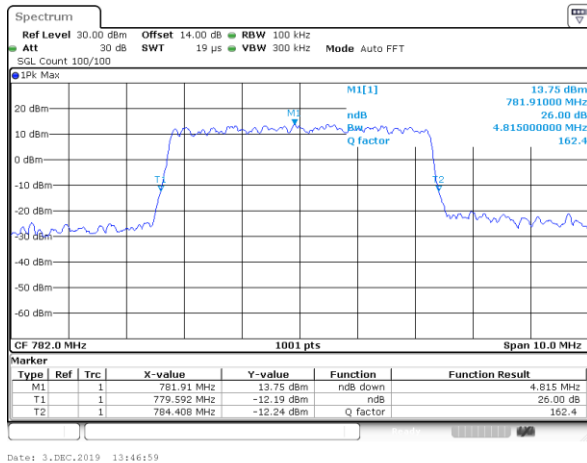


LTE Band 13

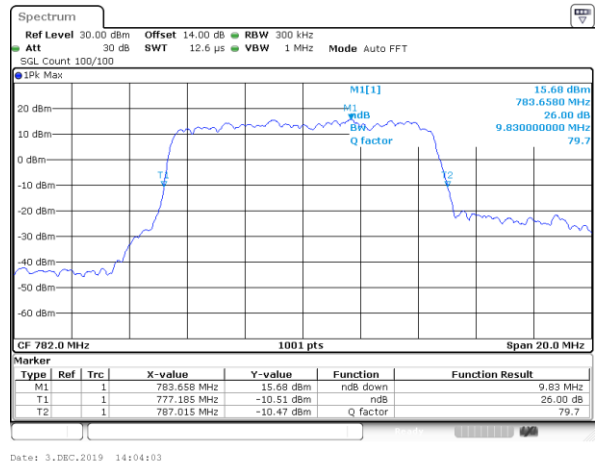
Lowest Channel / 5MHz / 64QAM



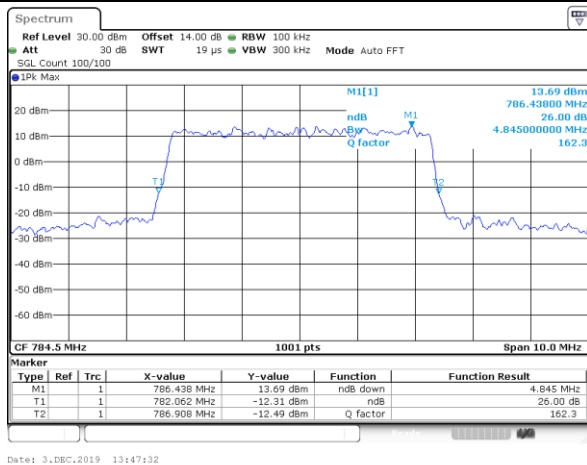
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



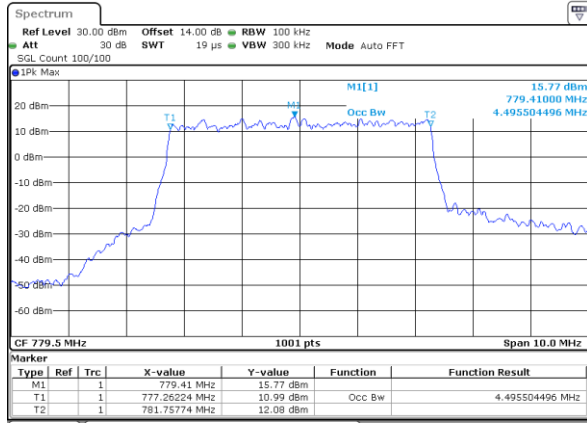
**Occupied Bandwidth**

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	-	-	-	-	4.50	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.46	4.49	8.99	9.01	-	-	-	-
Highest CH	-	-	-	-	4.50	4.49	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-		-		4.49		-		-		-	
Middle CH	-		-		4.50		8.95		-		-	
Highest CH	-		-		4.49		-		-		-	



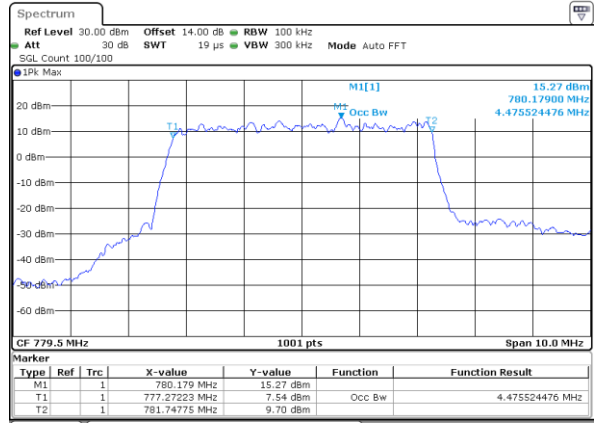
LTE Band 13

Lowest Channel / 5MHz / QPSK



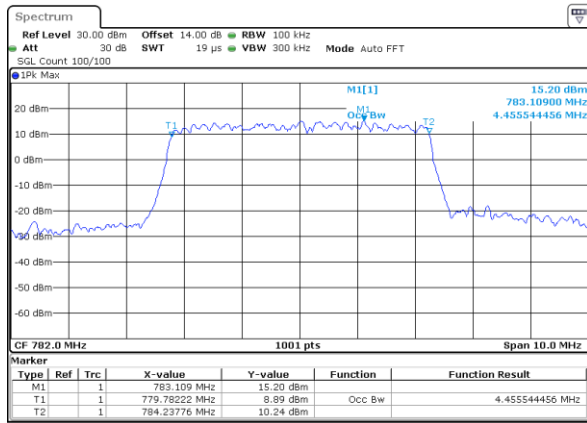
Date: 3,DEC,2019 13:22:12

Lowest Channel / 5MHz / 16QAM



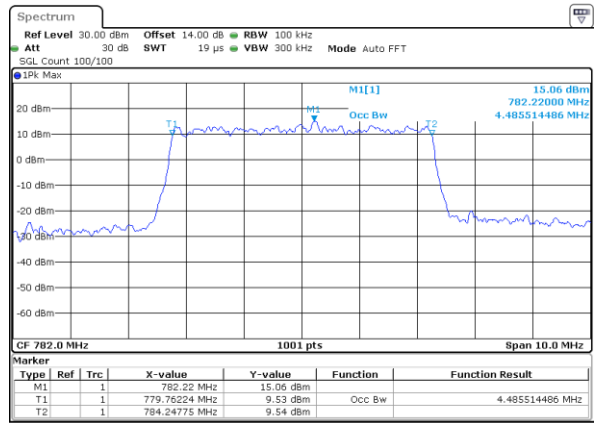
Date: 3,DEC,2019 13:22:23

Middle Channel / 5MHz / QPSK



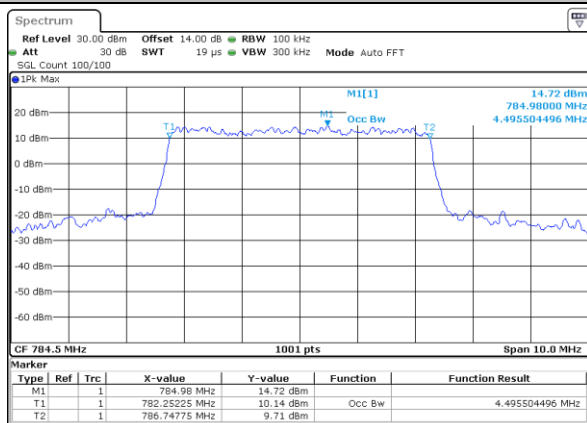
Date: 3,DEC,2019 13:32:56

Middle Channel / 5MHz / 16QAM



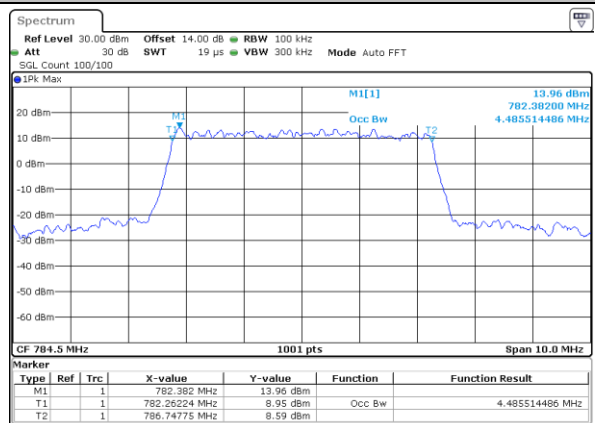
Date: 3,DEC,2019 13:32:45

Highest Channel / 5MHz / QPSK



Date: 3,DEC,2019 13:33:08

Highest Channel / 5MHz / 16QAM

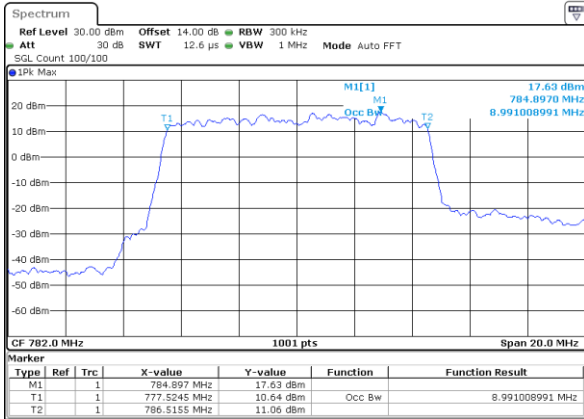


Date: 3,DEC,2019 13:33:19



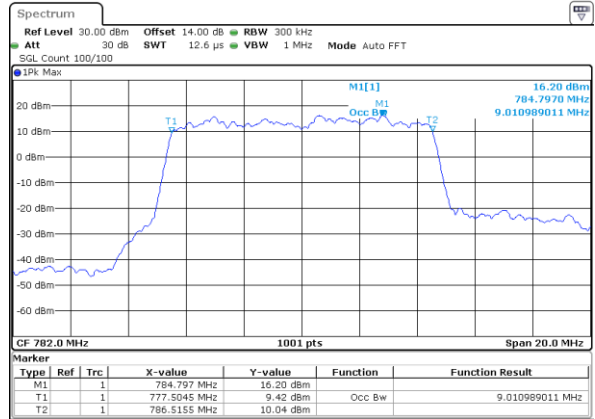
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 3.DEC.2019 13:51:45

Middle Channel / 10MHz / 16QAM

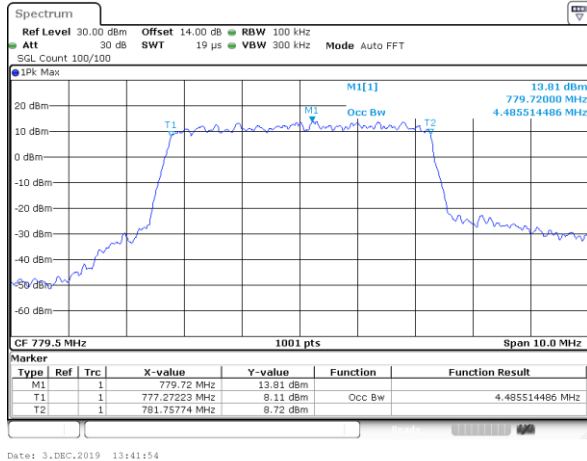


Date: 3.DEC.2019 13:51:56

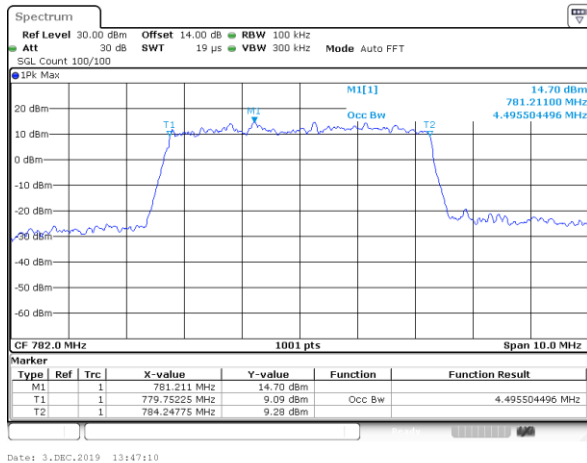


LTE Band 13

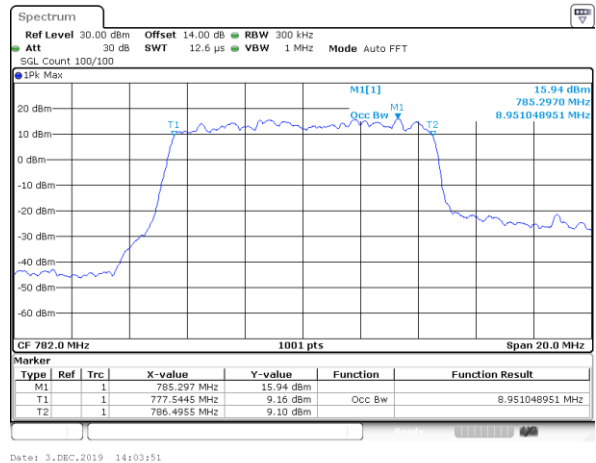
Lowest Channel / 5MHz / 64QAM



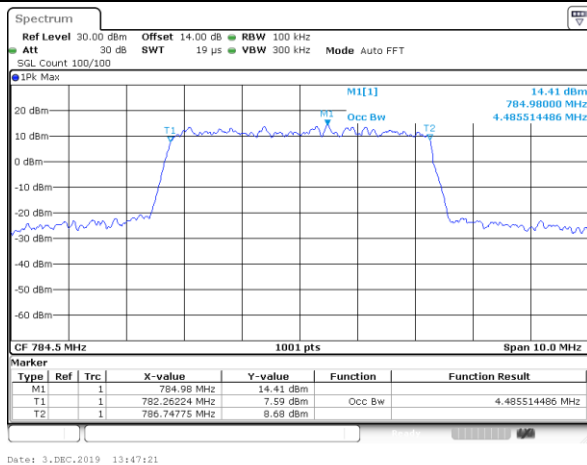
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM

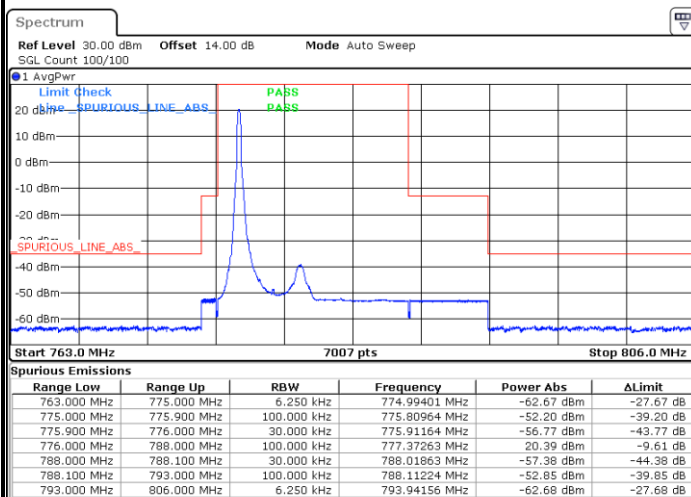




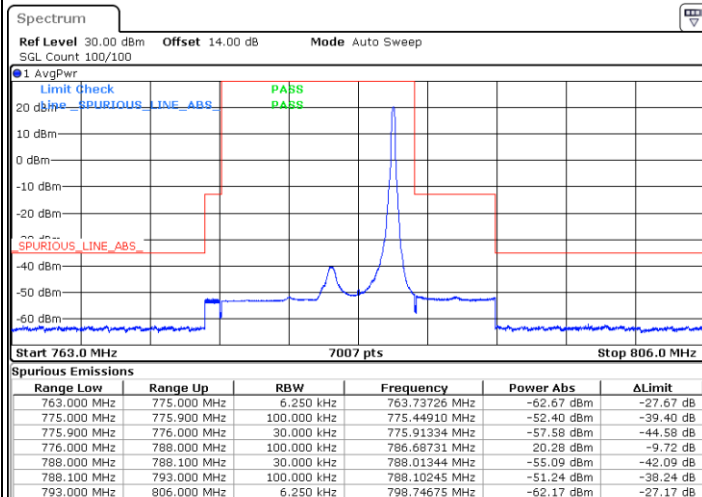
Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

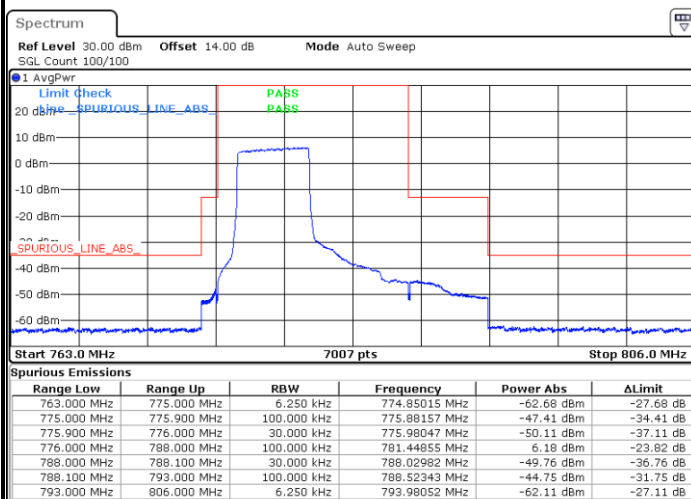
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

