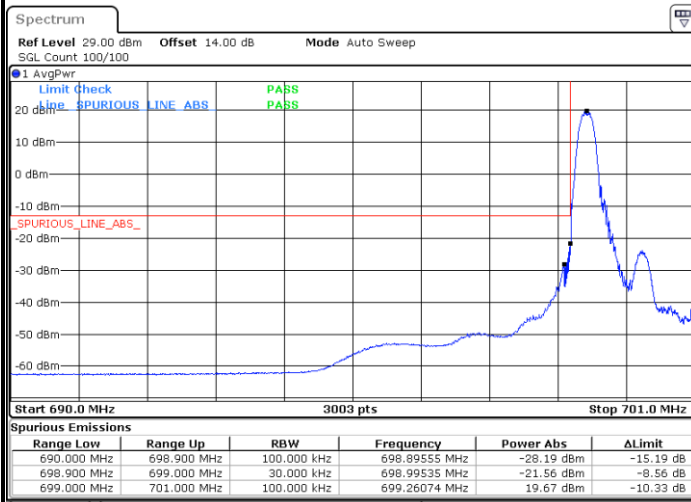


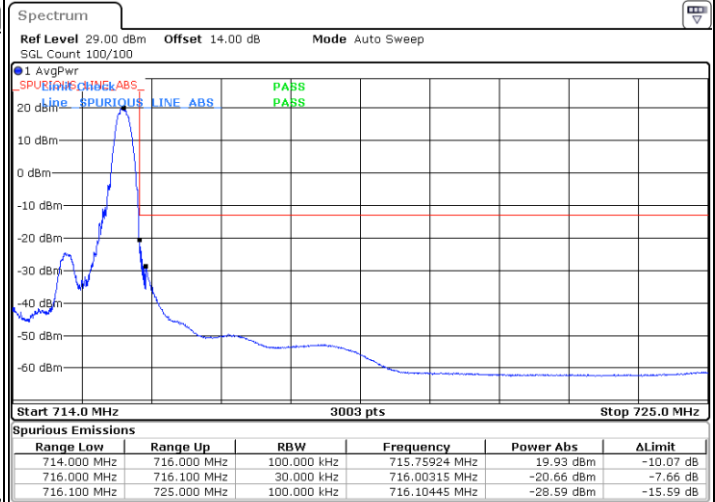


LTE Band 12 / 1.4MHz / 64QAM

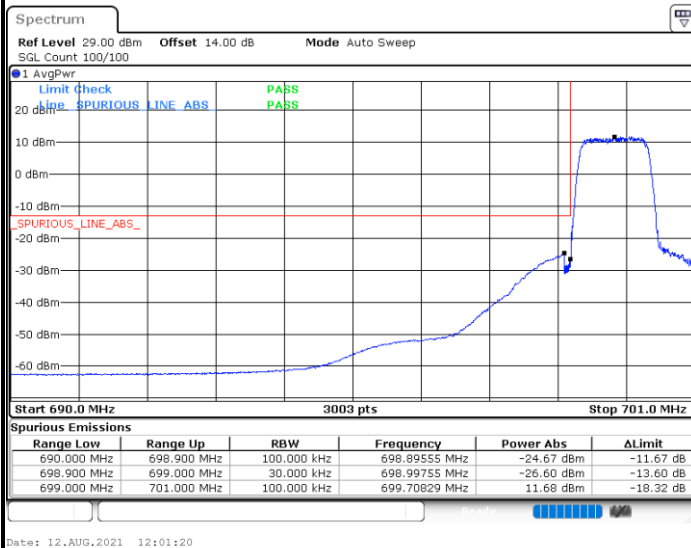
Lowest Band Edge / 1 RB



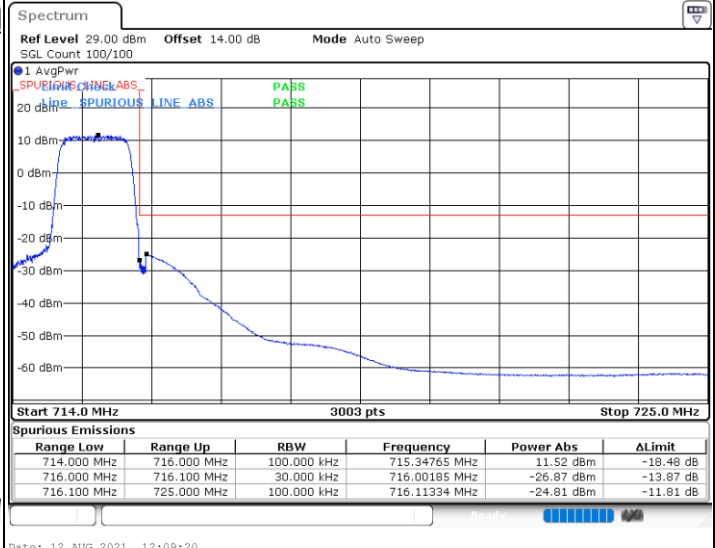
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



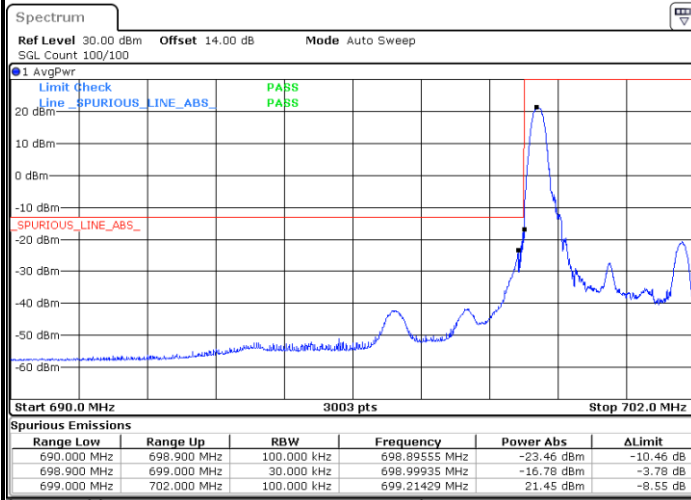
Highest Band Edge / Full RB



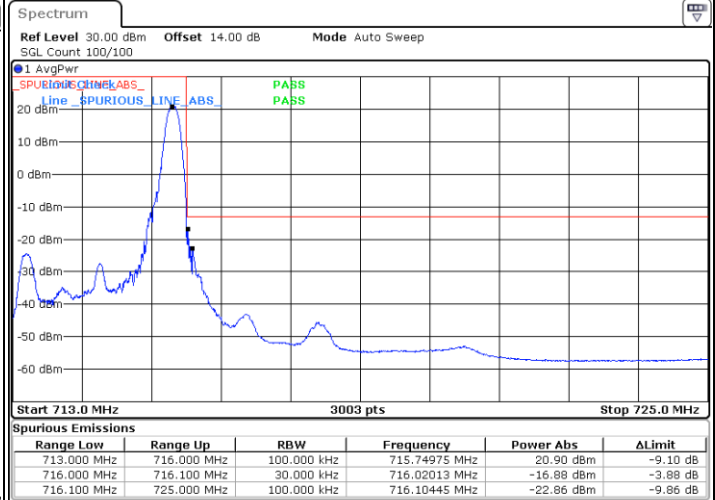


LTE Band 12 / 3MHz / QPSK

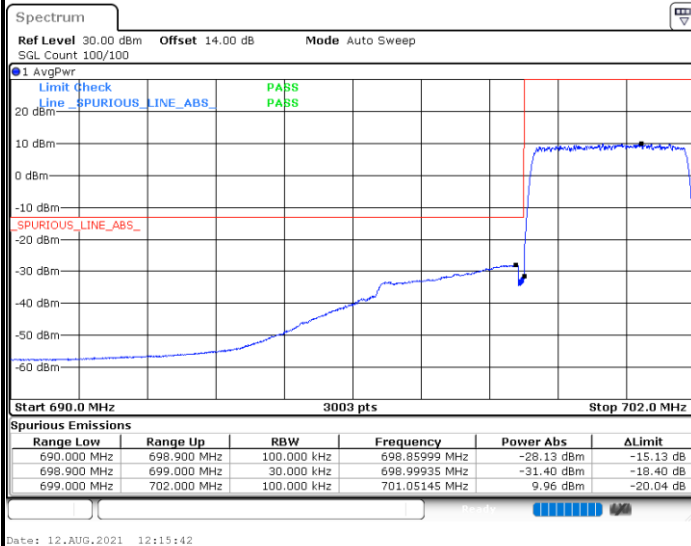
Lowest Band Edge / 1RB



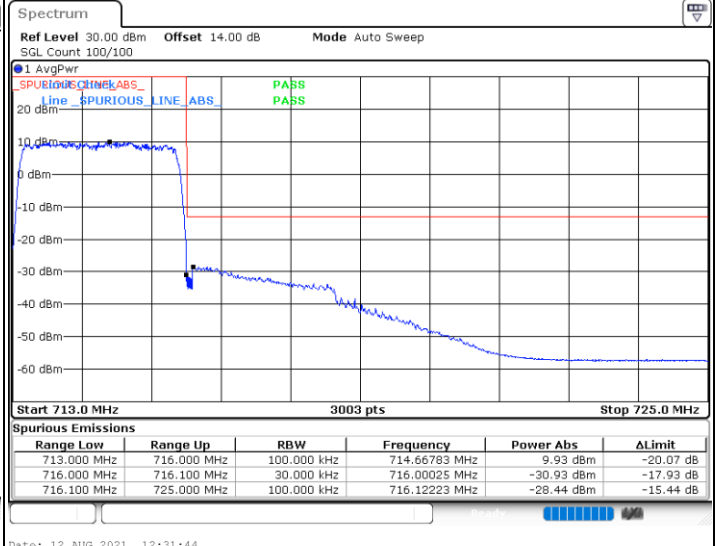
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



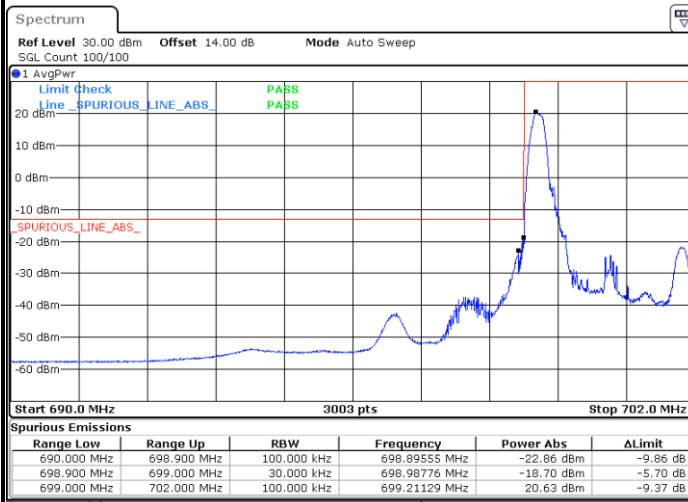
Highest Band Edge / Full RB



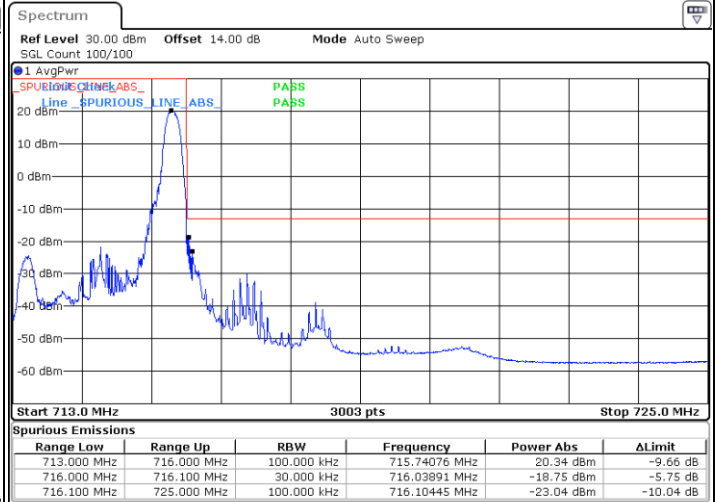


LTE Band 12 / 3MHz / 16QAM

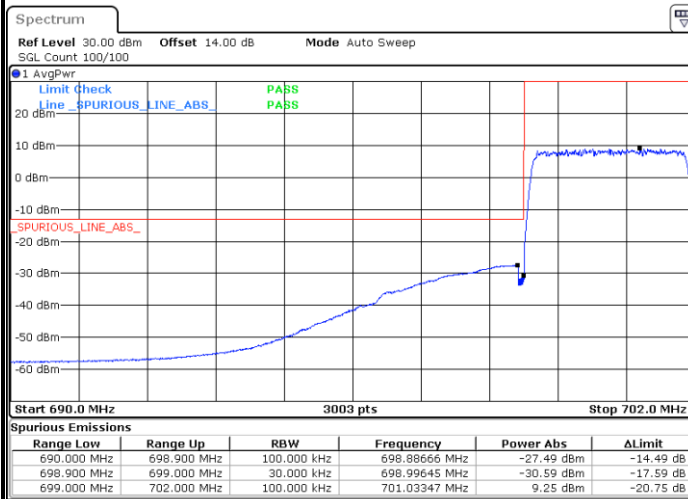
Lowest Band Edge / 1 RB



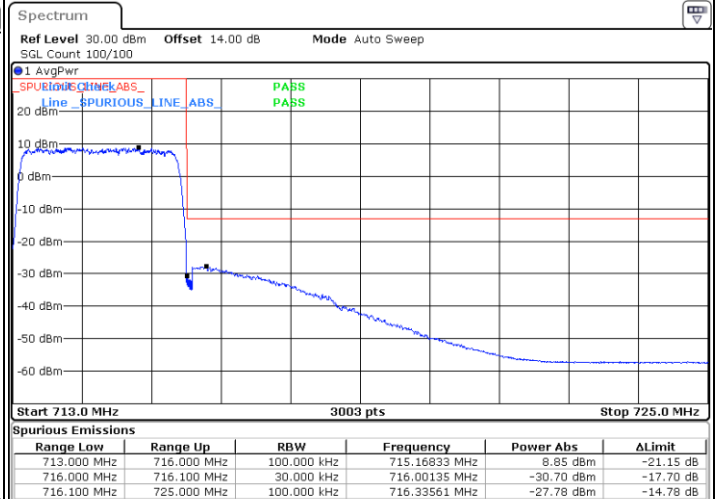
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



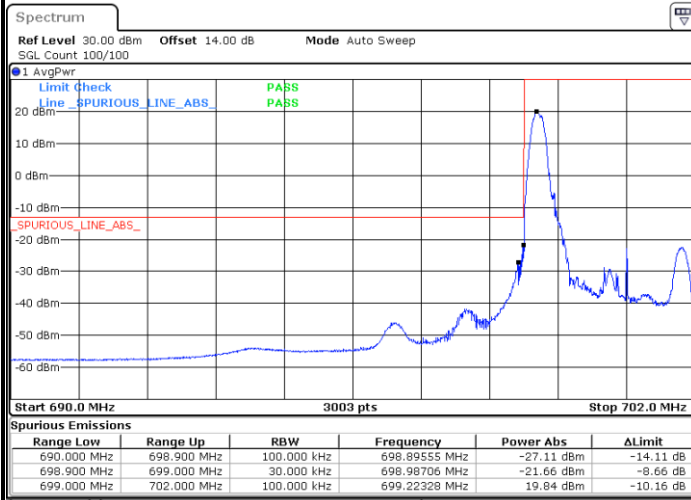
Highest Band Edge / Full RB



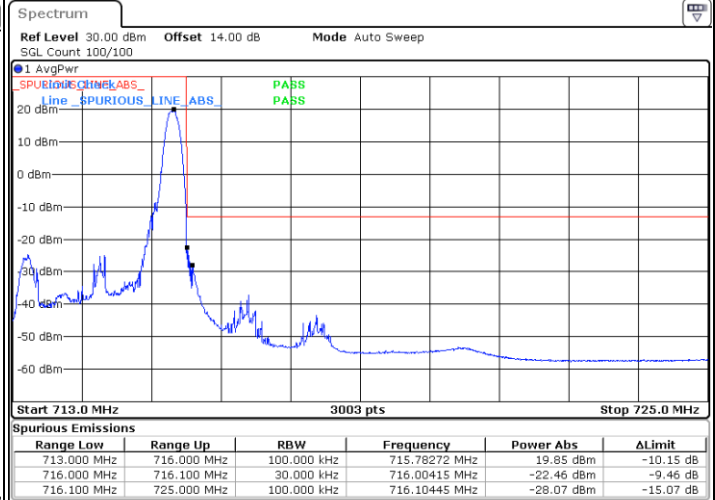


LTE Band 12 / 3MHz / 64QAM

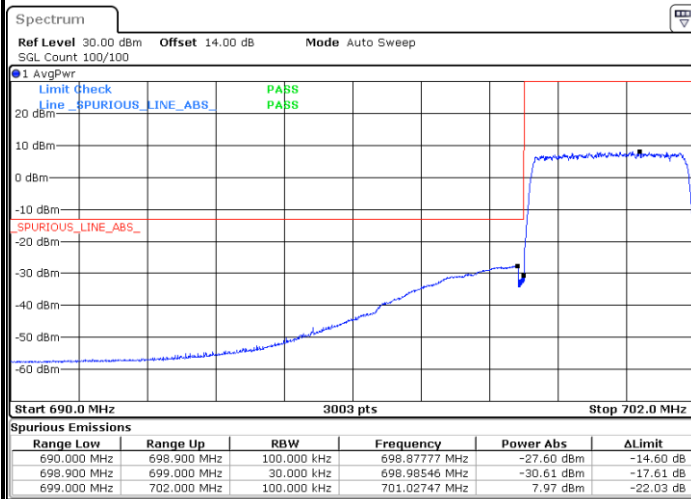
Lowest Band Edge / 1 RB



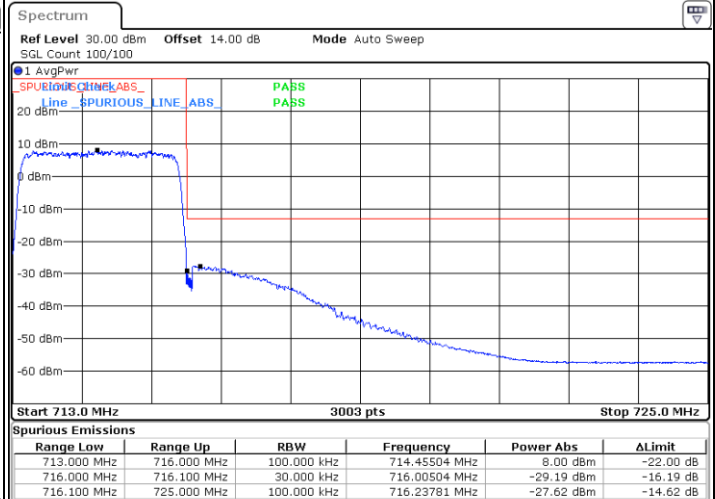
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



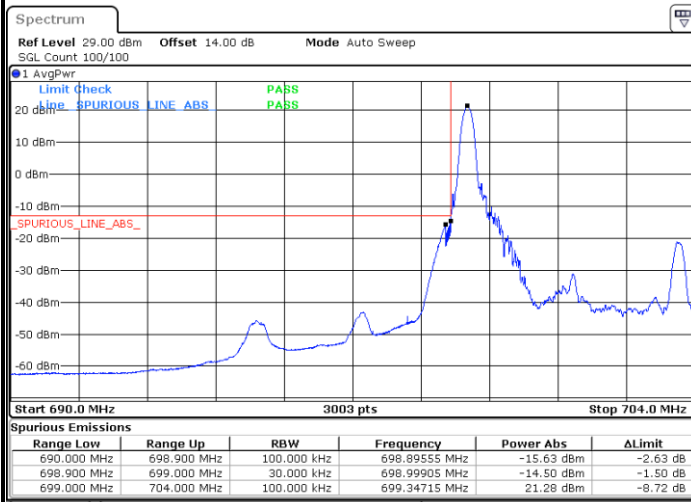
Highest Band Edge / Full RB





LTE Band 12 / 5MHz / QPSK

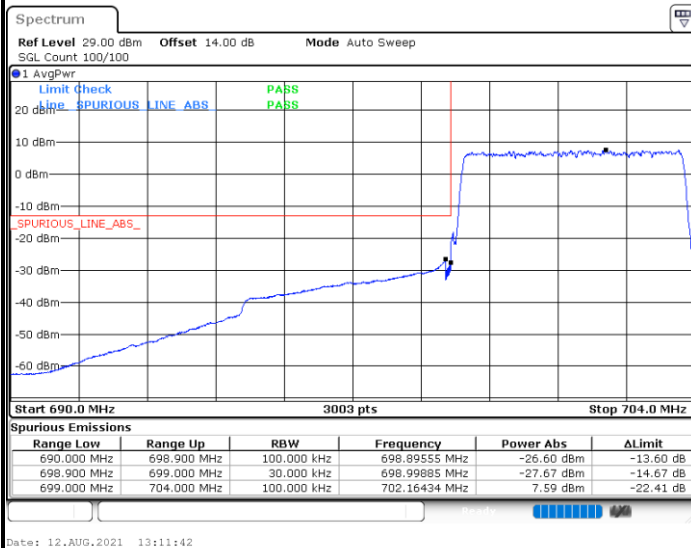
Lowest Band Edge / 1 RB



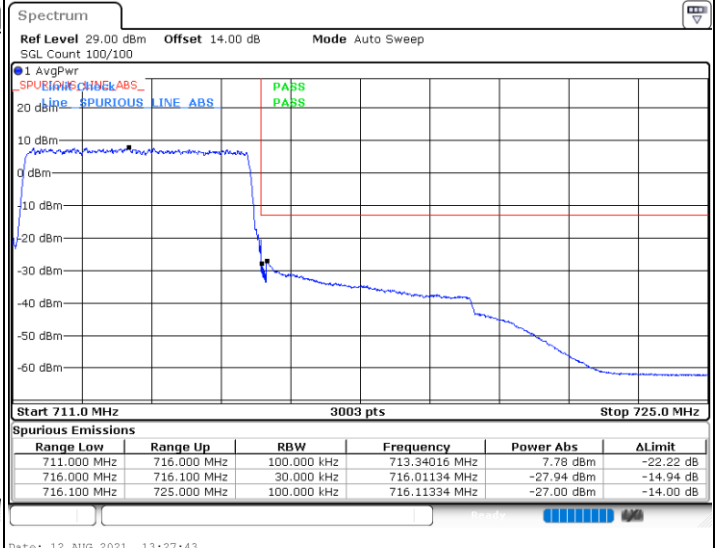
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



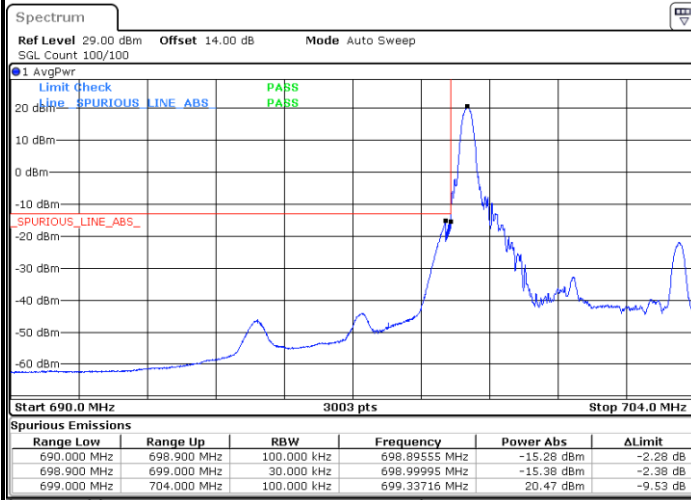
Highest Band Edge / Full RB



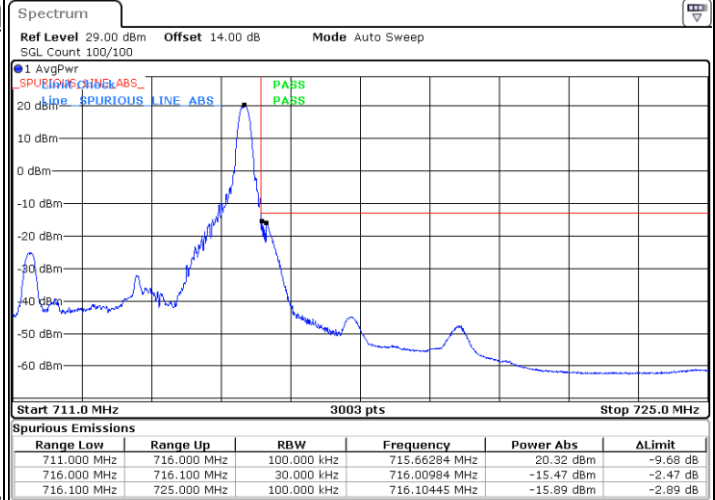


LTE Band 12 / 5MHz / 16QAM

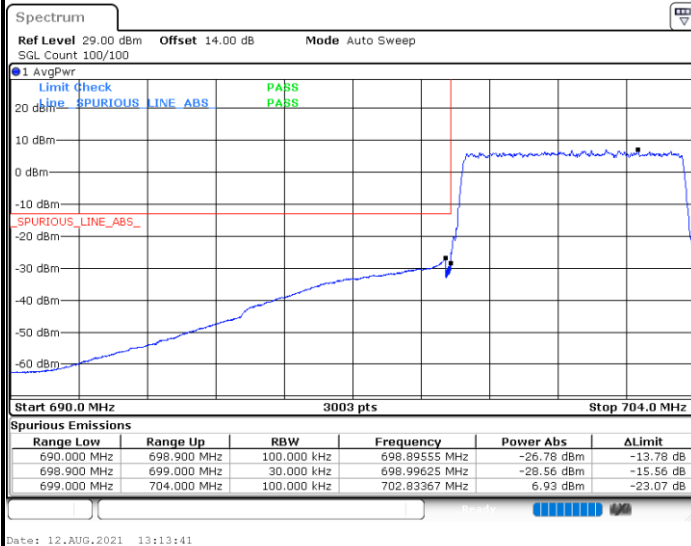
Lowest Band Edge / 1RB



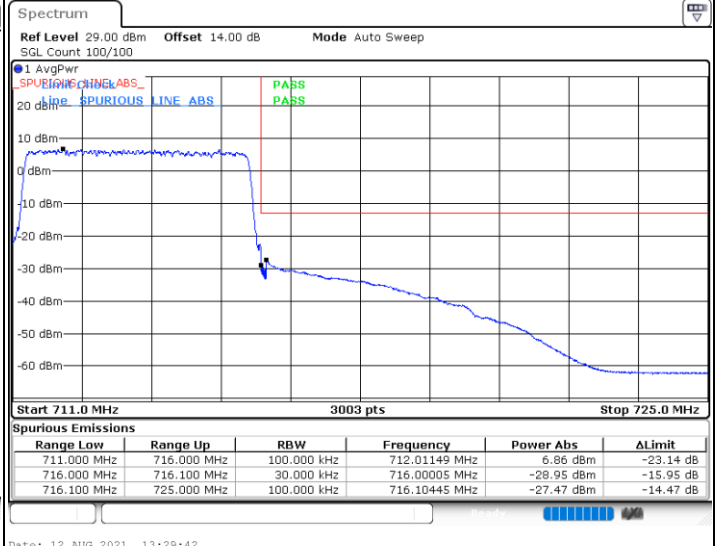
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



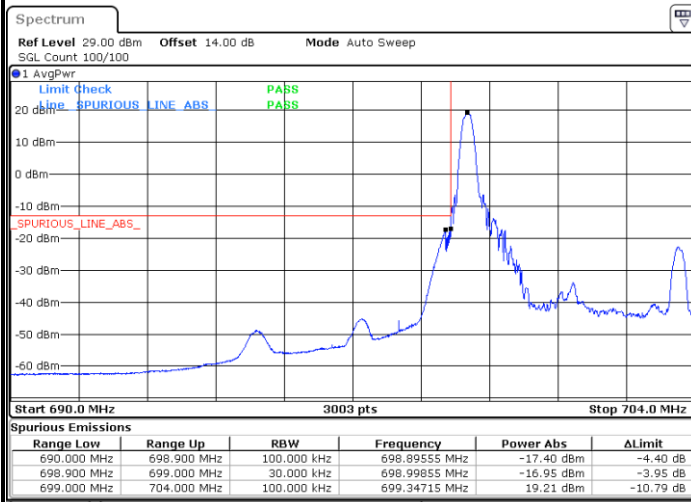
Highest Band Edge / Full RB





LTE Band 12 / 5MHz / 64QAM

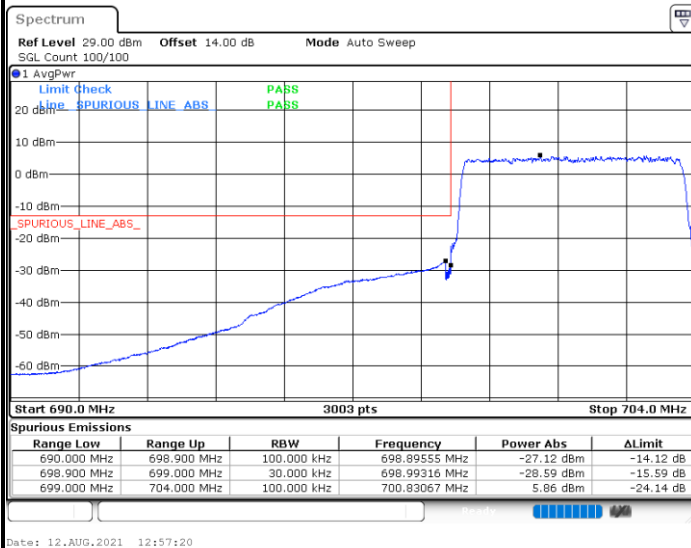
Lowest Band Edge / 1RB



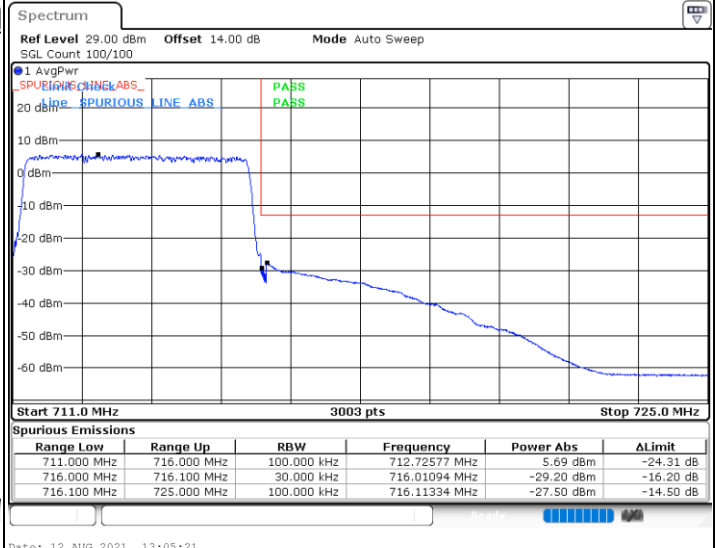
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



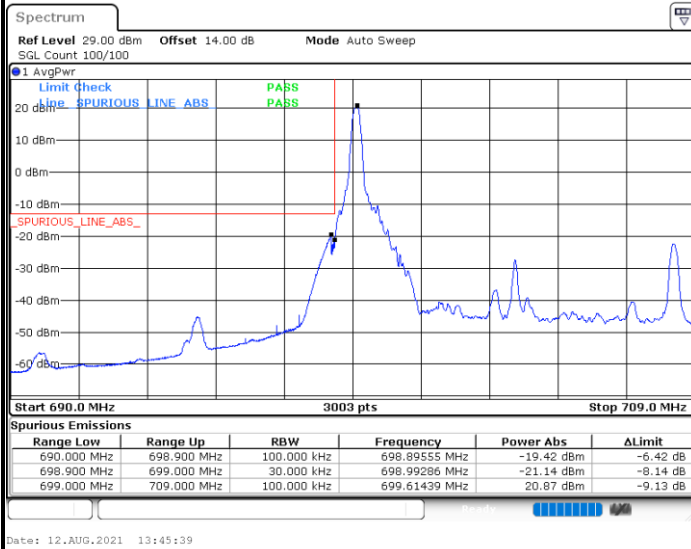
Highest Band Edge / Full RB



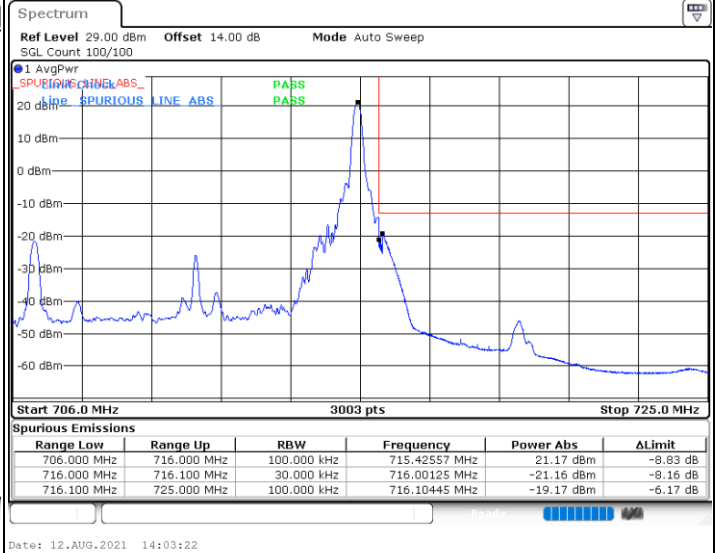


LTE Band 12 / 10MHz / QPSK

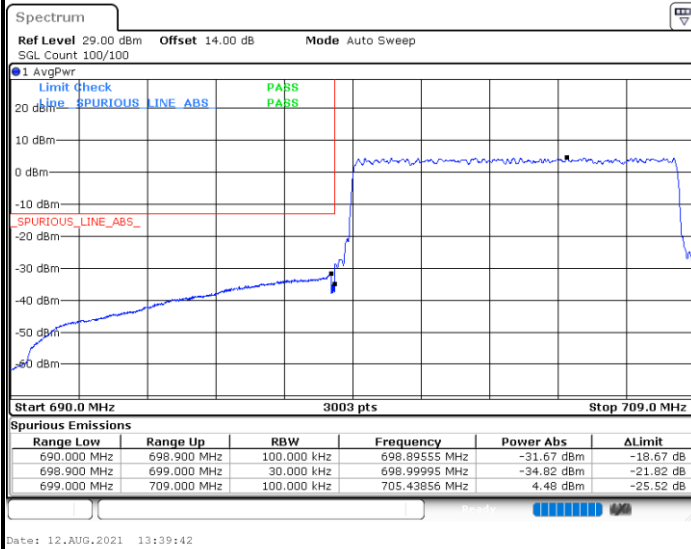
Lowest Band Edge / 1 RB



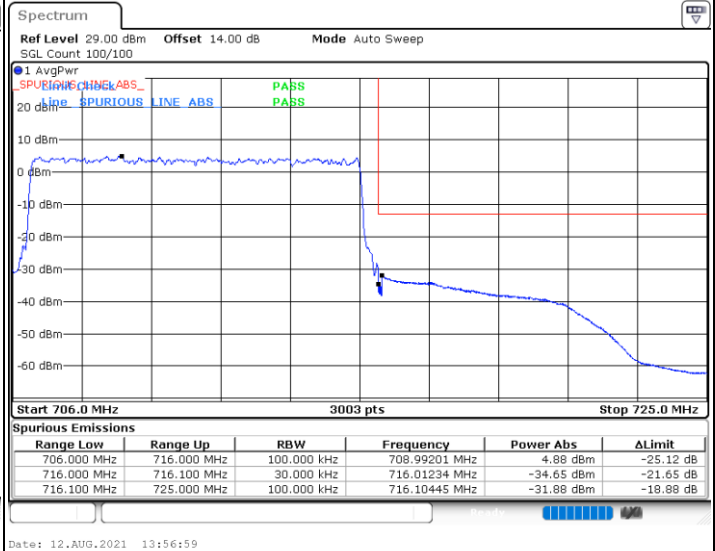
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



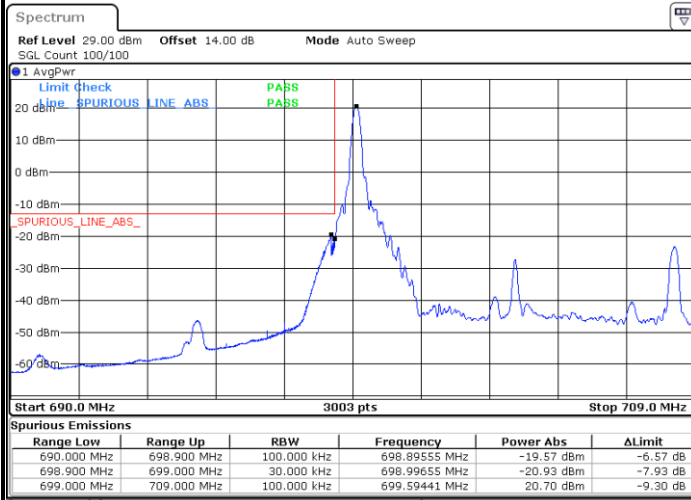
Highest Band Edge / Full RB



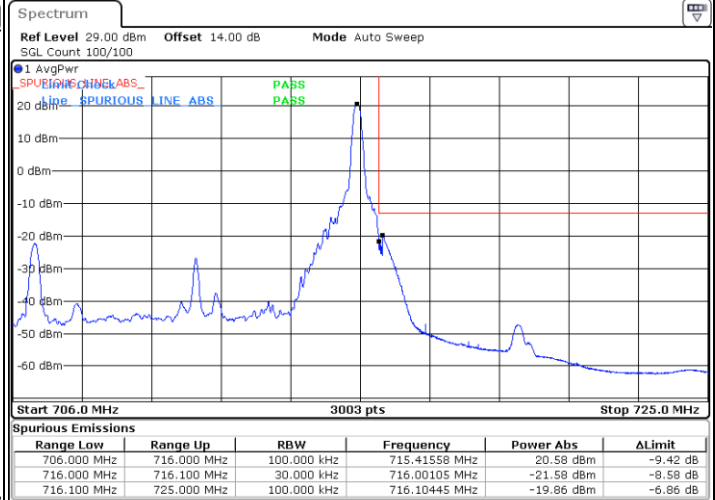


LTE Band 12 / 10MHz / 16QAM

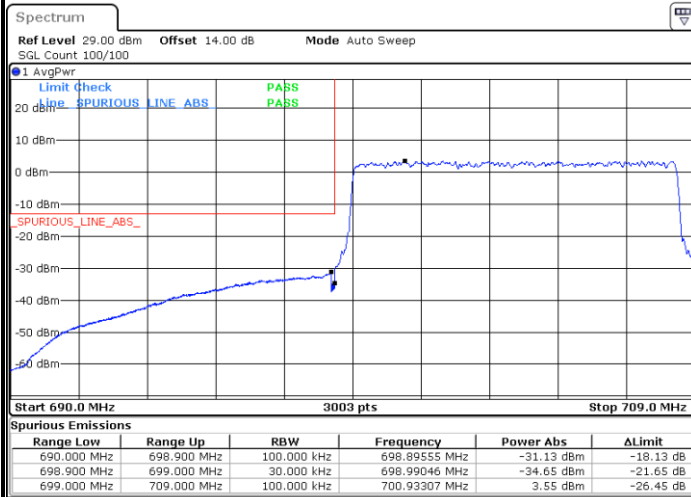
Lowest Band Edge / 1 RB



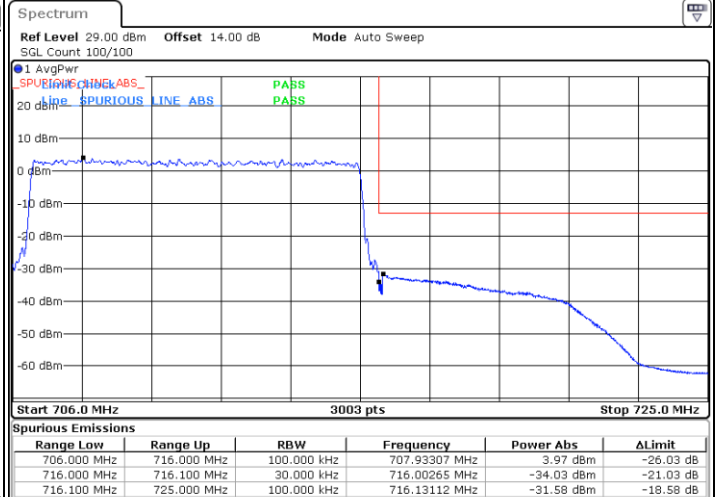
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



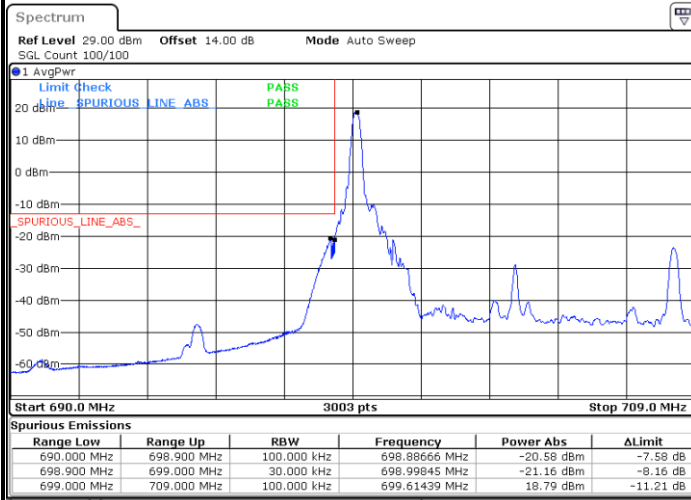
Highest Band Edge / Full RB



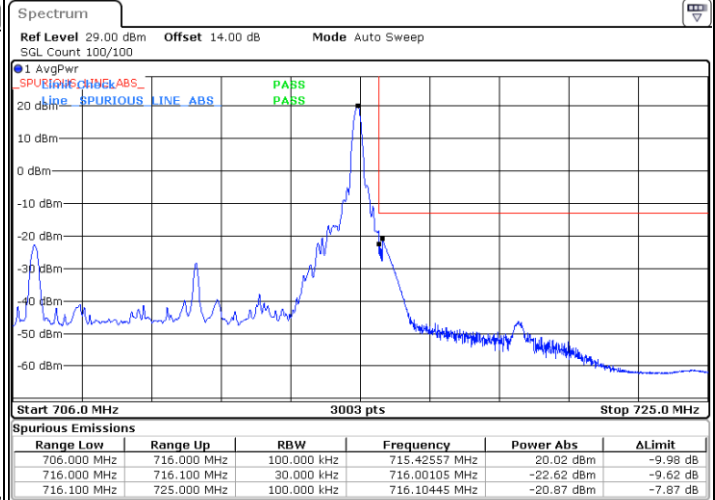


LTE Band 12 / 10MHz / 64QAM

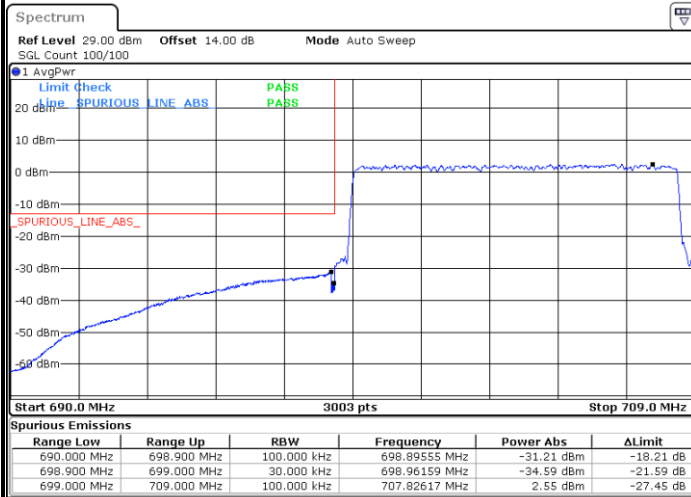
Lowest Band Edge / 1 RB



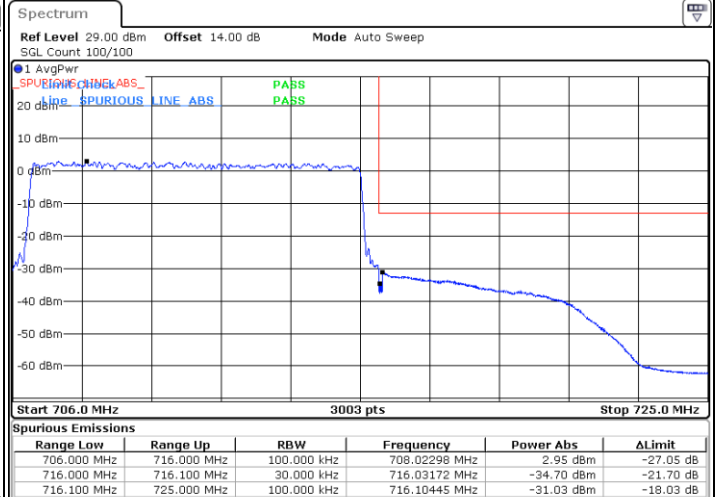
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

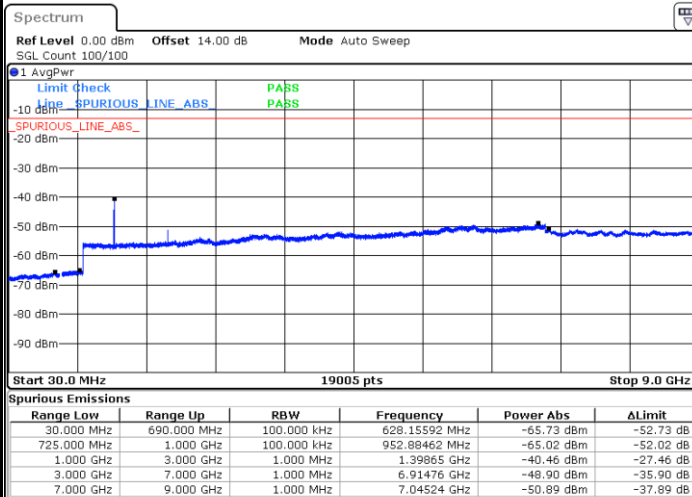




Conducted Spurious Emission

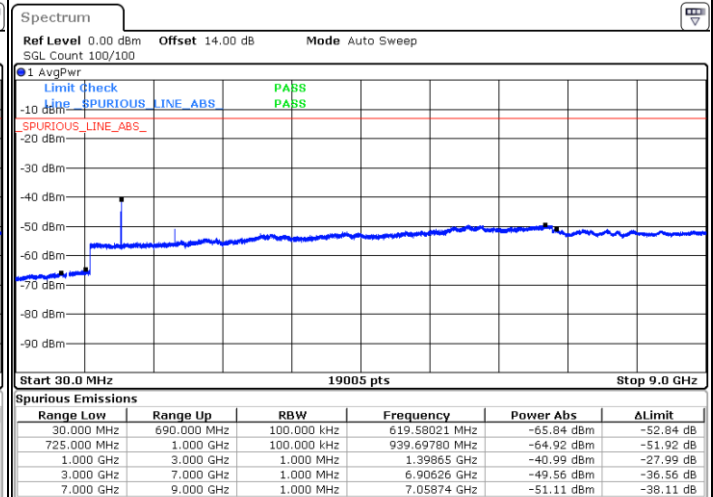
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



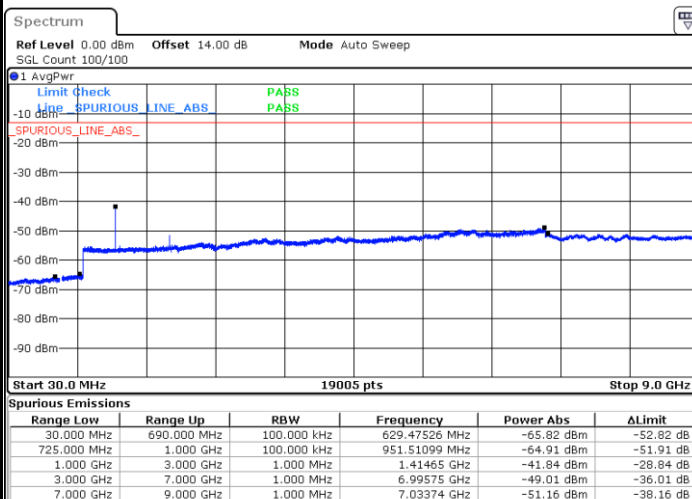
Date: 12.AUG.2021 11:41:18

Lowest Channel / 16QAM



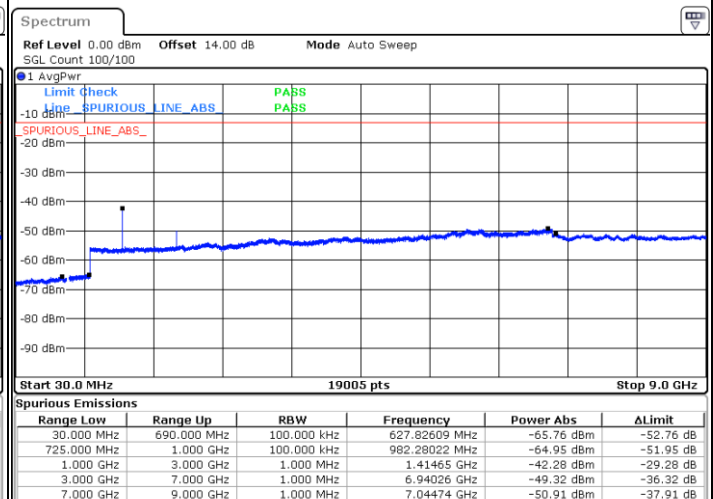
Date: 12.AUG.2021 11:42:58

Middle Channel / QPSK



Date: 12.AUG.2021 11:47:01

Middle Channel / 16QAM

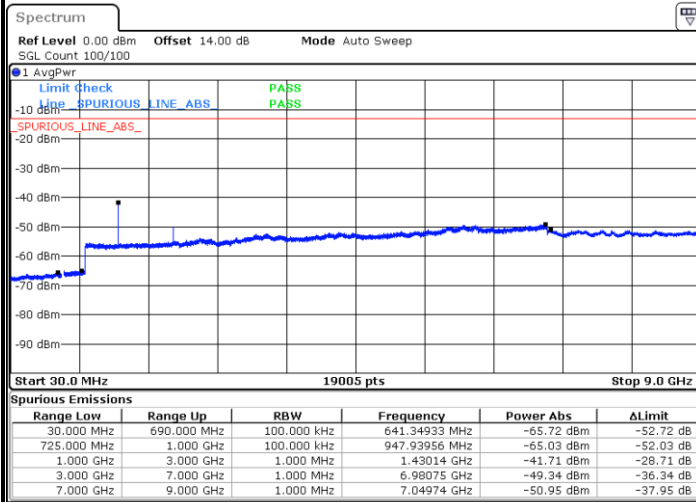


Date: 12.AUG.2021 11:45:21



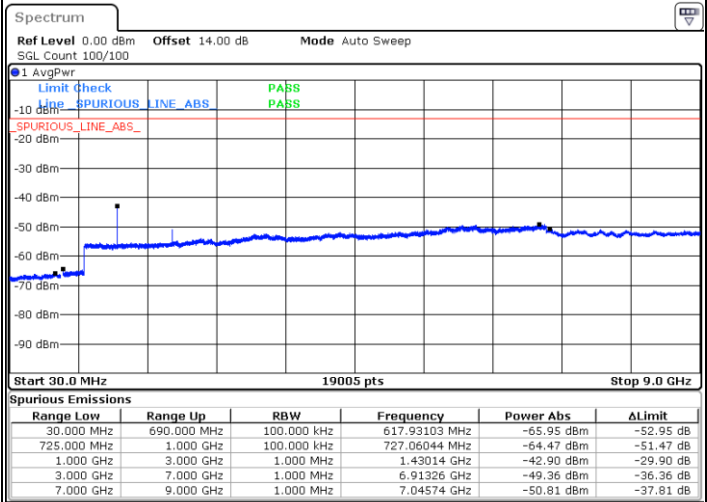
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 12.AUG.2021 11:57:20

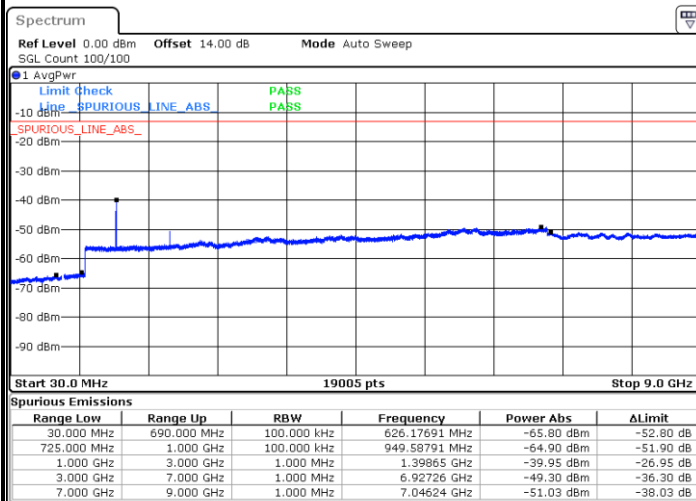
Highest Channel / 16QAM



Date: 12.AUG.2021 11:58:59

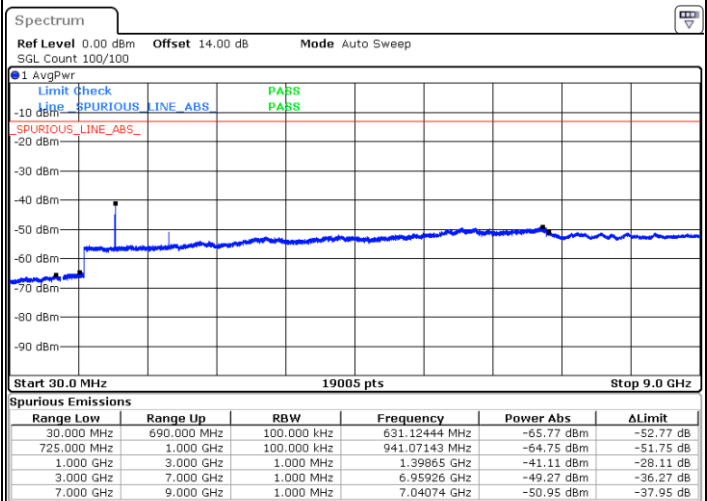
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 12.AUG.2021 12:23:19

Lowest Channel / 16QAM

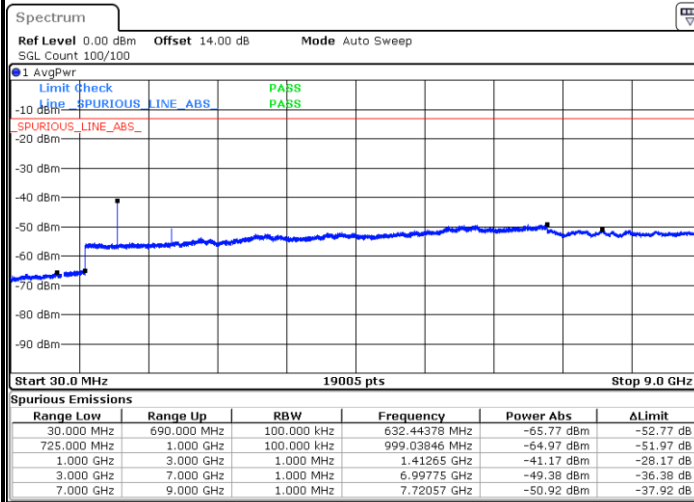


Date: 12.AUG.2021 12:24:58



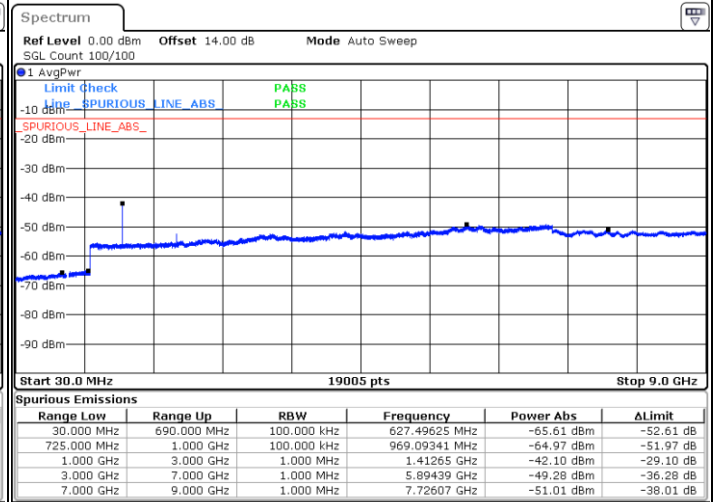
LTE Band 12 / 3MHz

Middle Channel / QPSK



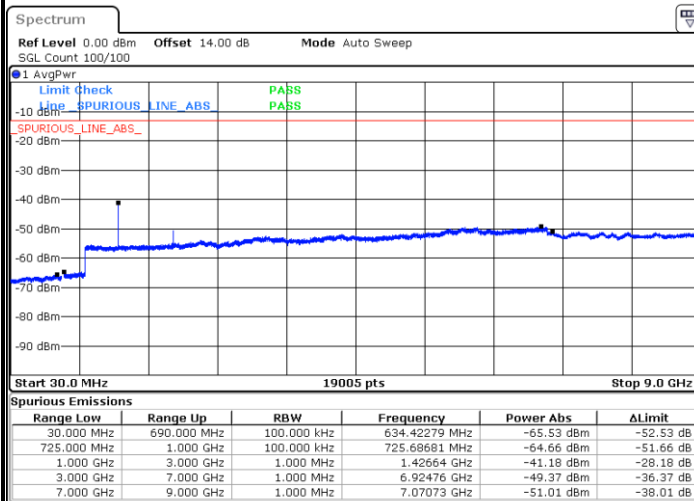
Date: 12.AUG.2021 12:29:01

Middle Channel / 16QAM



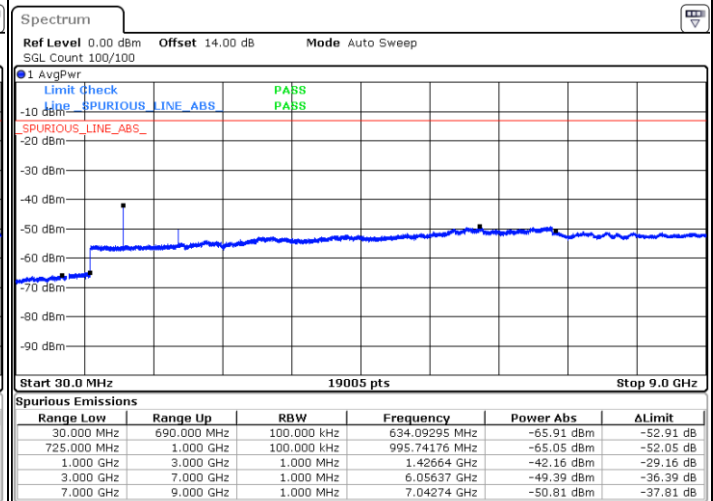
Date: 12.AUG.2021 12:27:22

Highest Channel / QPSK



Date: 12.AUG.2021 12:39:21

Highest Channel / 16QAM

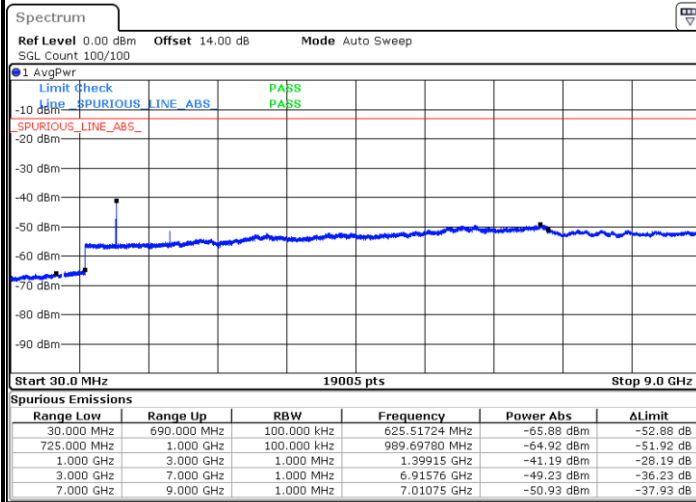


Date: 12.AUG.2021 12:41:00



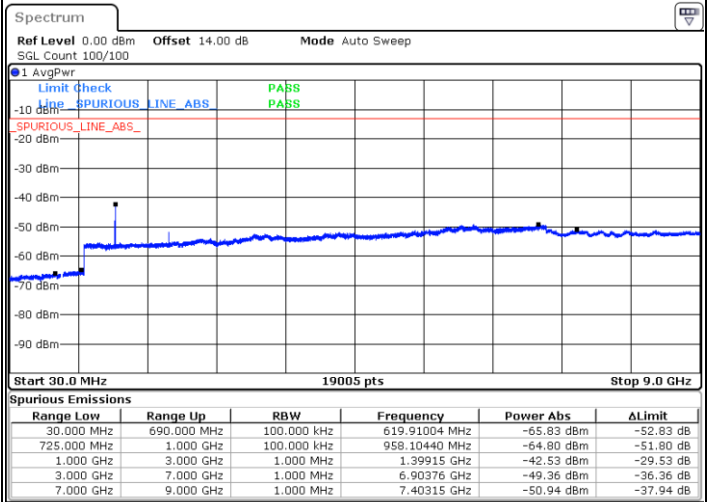
LTE Band 12 / 5MHz

Lowest Channel / QPSK



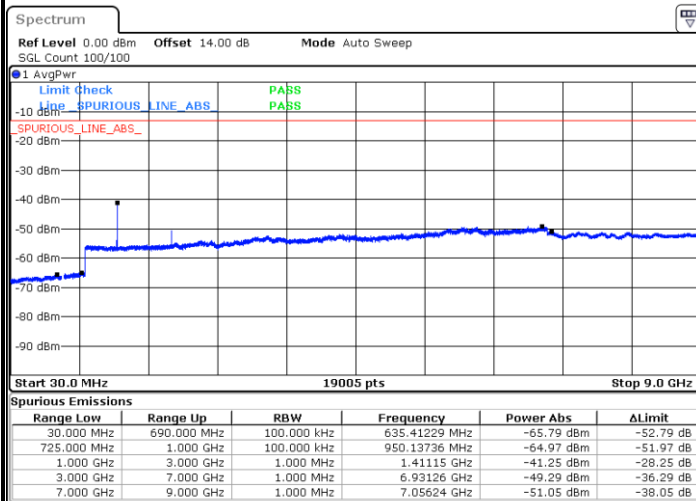
Date: 12.AUG.2021 13:19:19

Lowest Channel / 16QAM



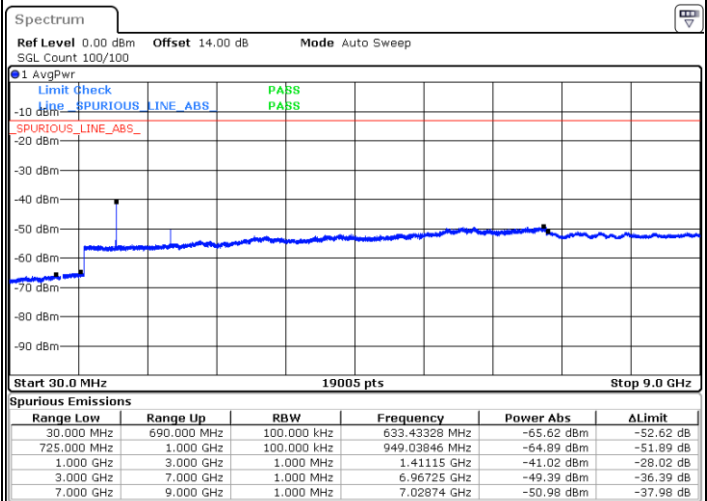
Date: 12.AUG.2021 13:20:58

Middle Channel / QPSK



Date: 12.AUG.2021 13:25:01

Middle Channel / 16QAM

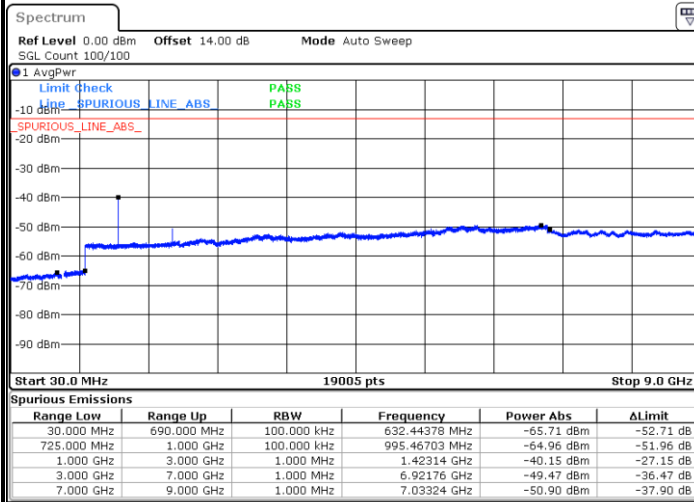


Date: 12.AUG.2021 13:23:21



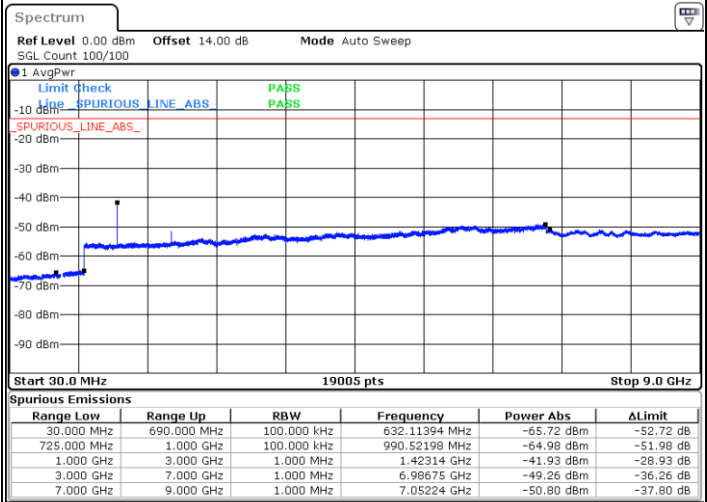
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 12.AUG.2021 13:36:59

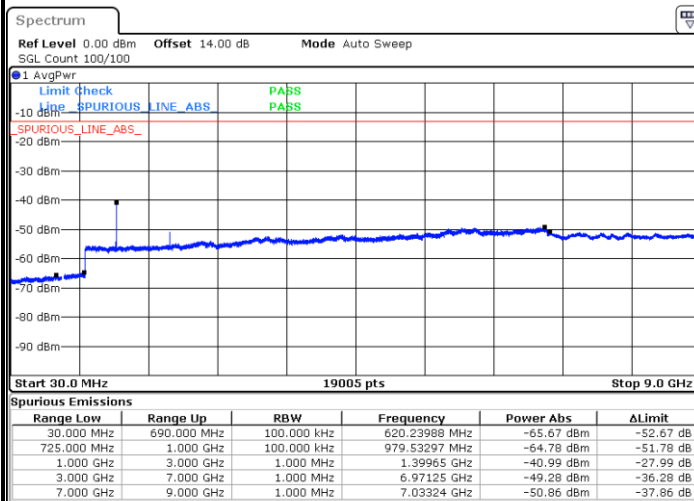
Highest Channel / 16QAM



Date: 12.AUG.2021 13:35:20

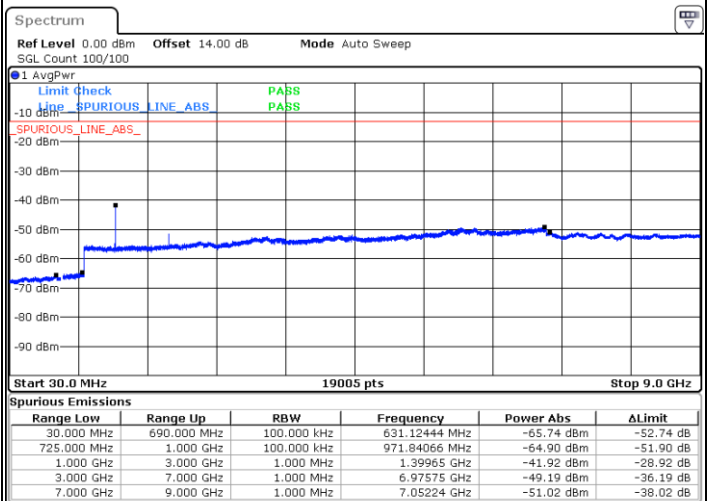
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 12.AUG.2021 13:47:19

Lowest Channel / 16QAM

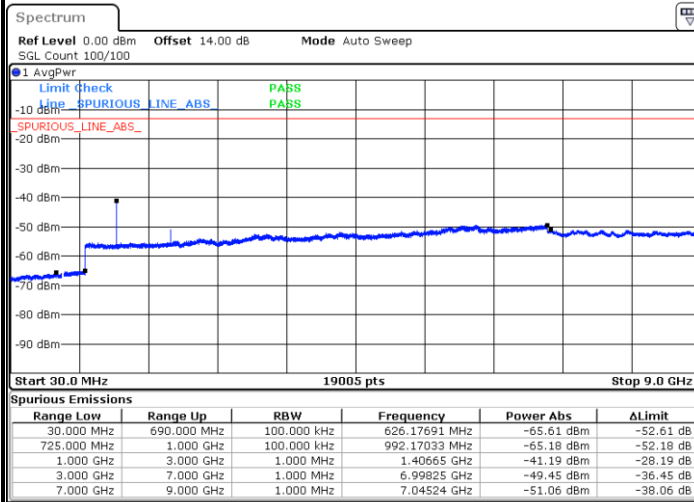


Date: 12.AUG.2021 13:48:58



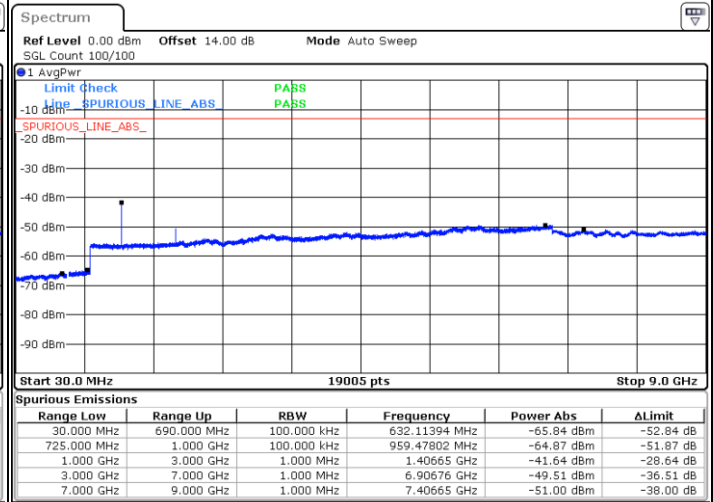
LTE Band 12 / 10MHz

Middle Channel / QPSK



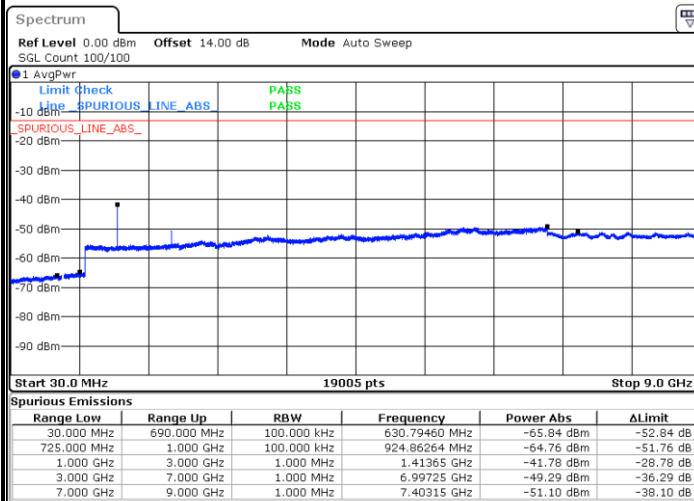
Date: 12.AUG.2021 13:53:00

Middle Channel / 16QAM



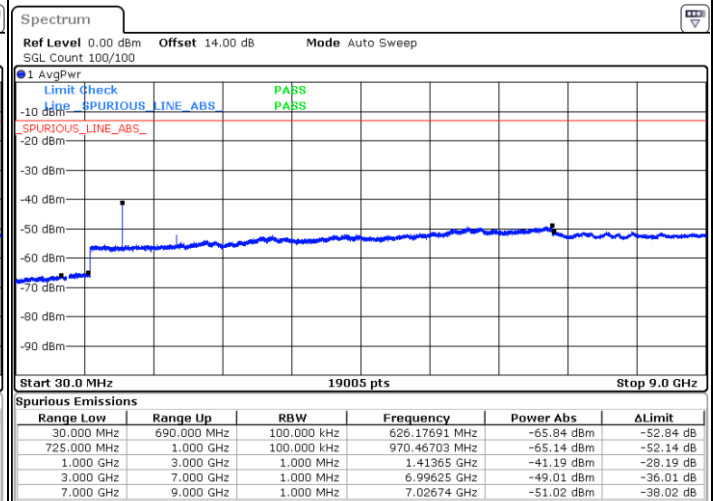
Date: 12.AUG.2021 13:51:21

Highest Channel / QPSK



Date: 12.AUG.2021 14:05:01

Highest Channel / 16QAM

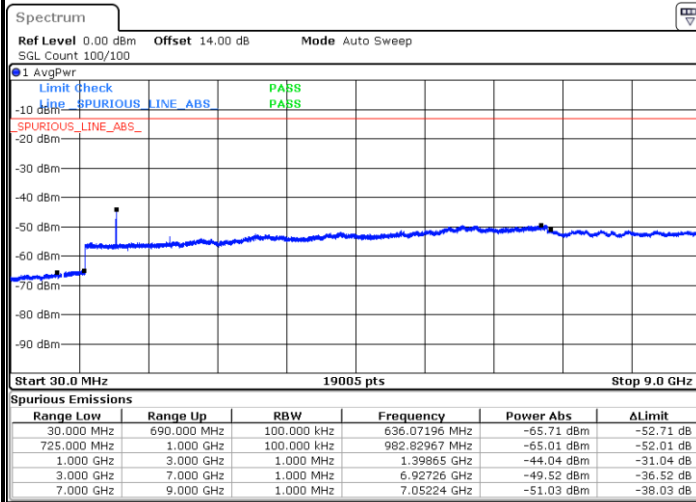


Date: 12.AUG.2021 14:06:41



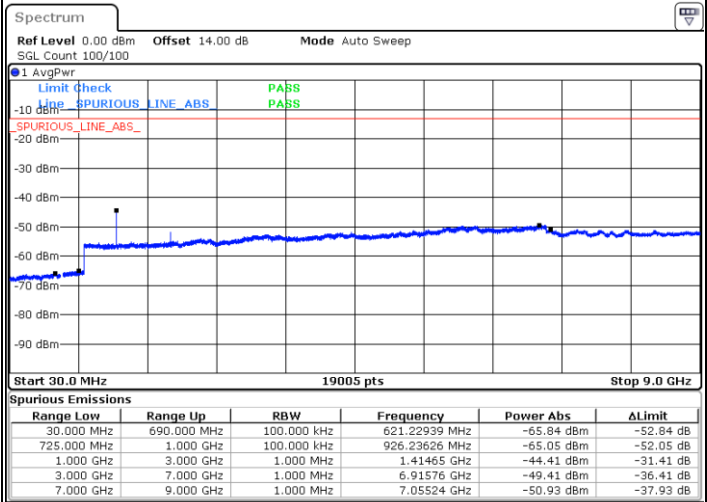
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



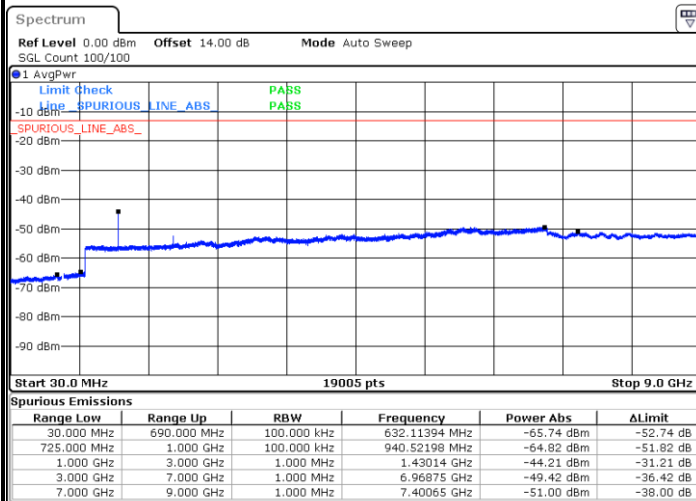
Date: 12.AUG.2021 12:04:58

Middle Channel / 64QAM



Date: 12.AUG.2021 12:07:00

Highest Channel / 64QAM

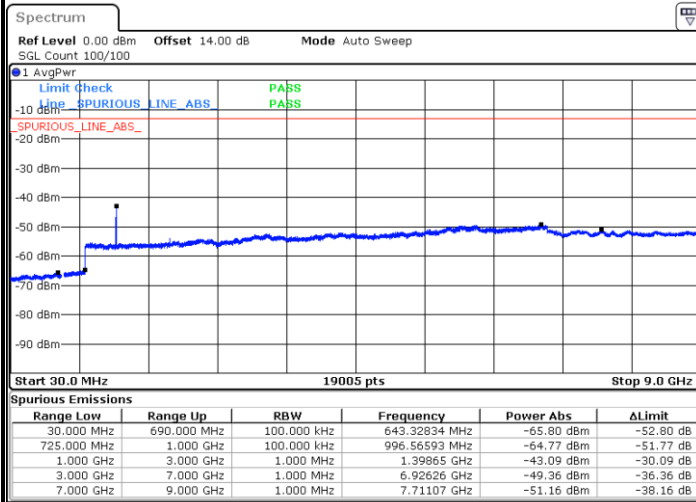


Date: 12.AUG.2021 12:12:59



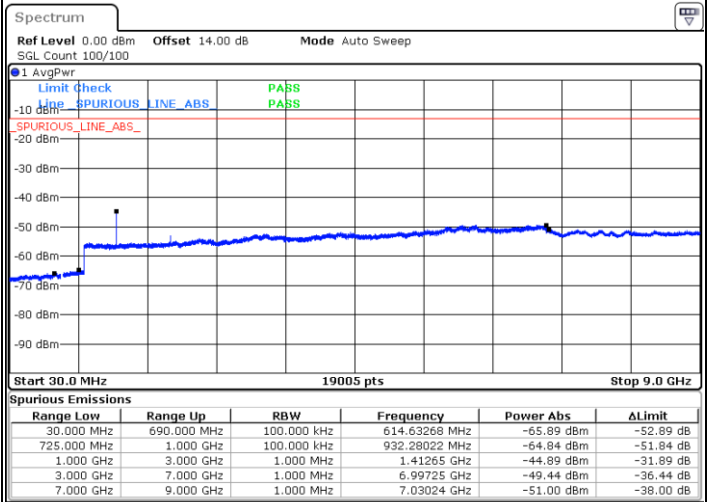
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



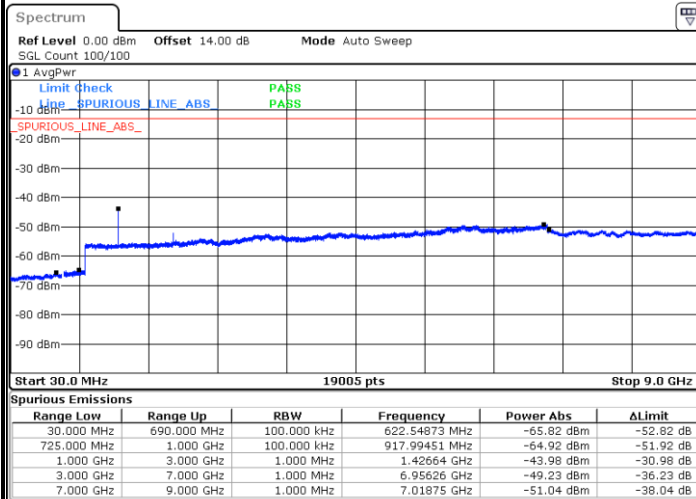
Date: 12.AUG.2021 12:46:59

Middle Channel / 64QAM



Date: 12.AUG.2021 12:49:01

Highest Channel / 64QAM

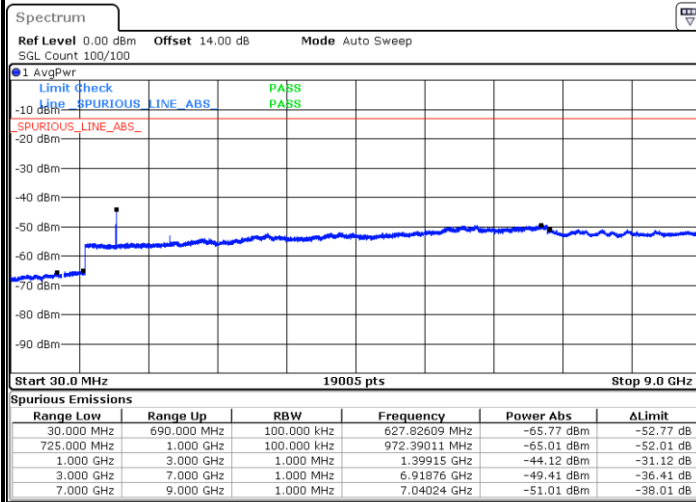


Date: 12.AUG.2021 12:55:00



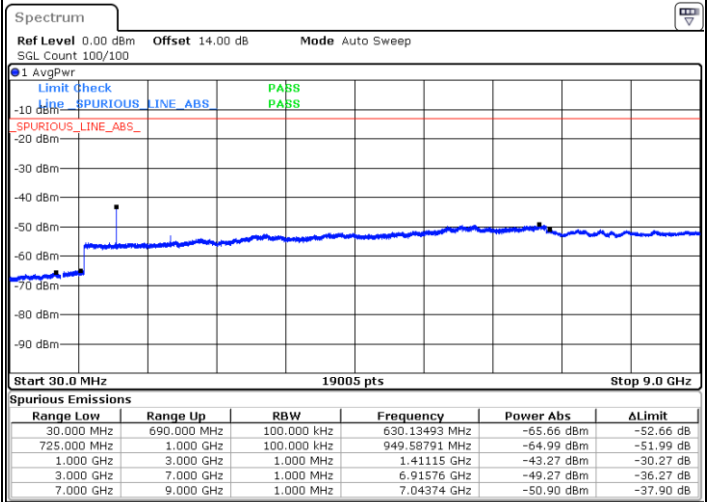
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



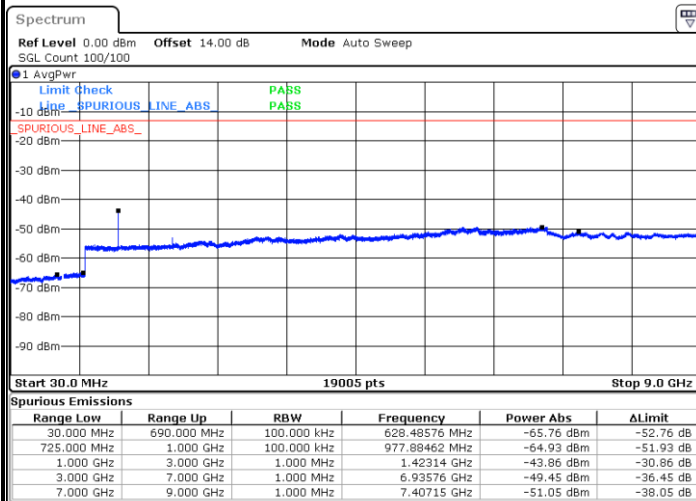
Date: 12.AUG.2021 13:00:59

Middle Channel / 64QAM



Date: 12.AUG.2021 13:03:00

Highest Channel / 64QAM

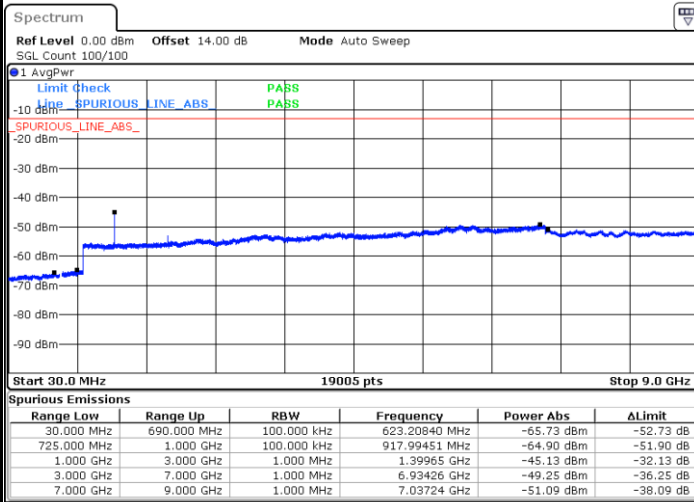


Date: 12.AUG.2021 13:09:00



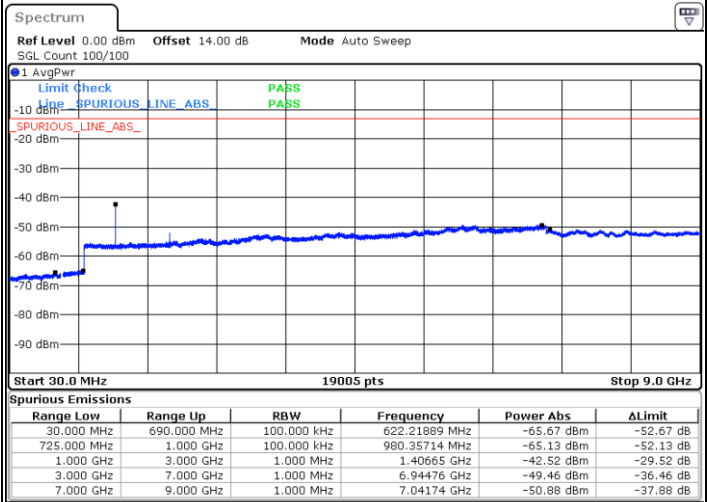
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



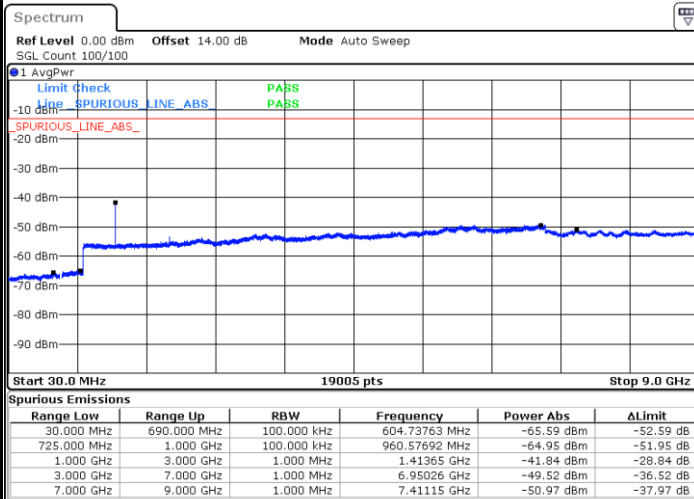
Date: 12.AUG.2021 14:12:40

Middle Channel / 64QAM



Date: 12.AUG.2021 14:14:41

Highest Channel / 64QAM



Date: 12.AUG.2021 14:20:41

**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	0.0027	PASS
40	Normal Voltage	0.0208	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0018	
-10	Normal Voltage	0.0199	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0222	

Note:

1. Normal Voltage =3.8 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

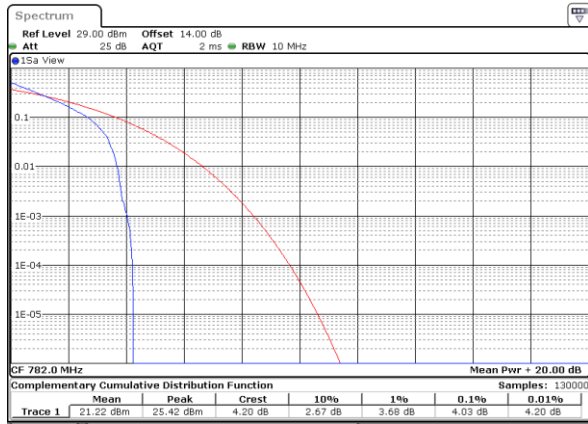
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.03	5.36	5.01	6.23	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.57	6.55	-	-	
Highest CH	-	-	-	-	

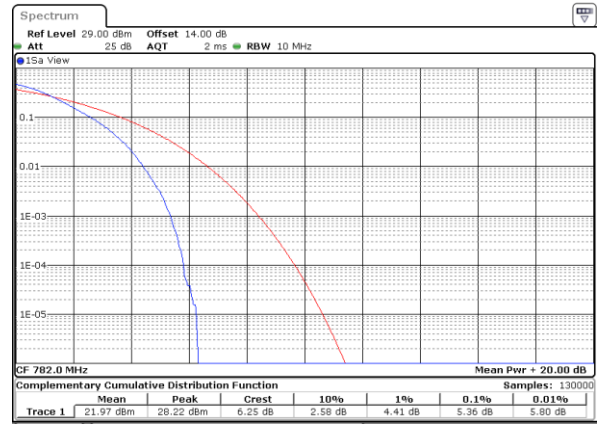


LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Middle Channel / Full RB

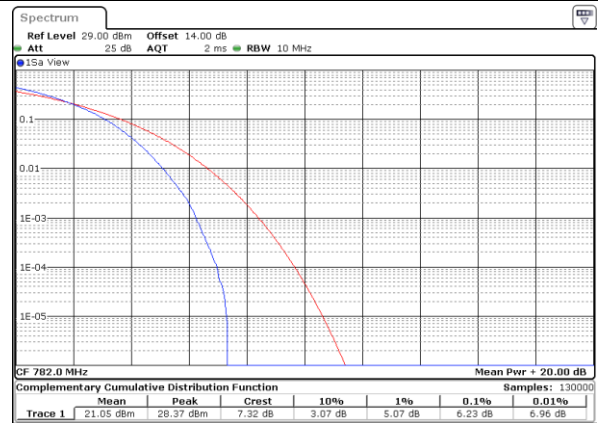


LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB

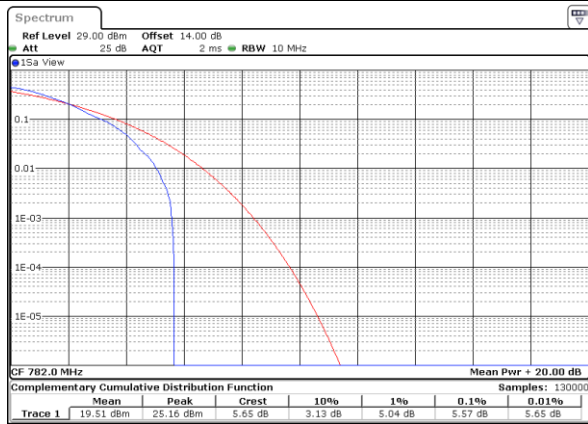


Middle Channel / Full RB

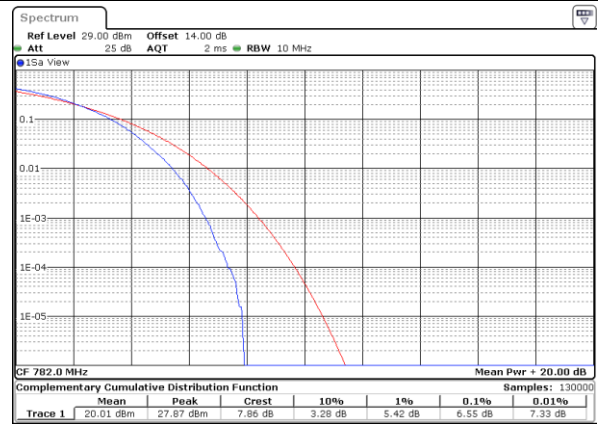


LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB



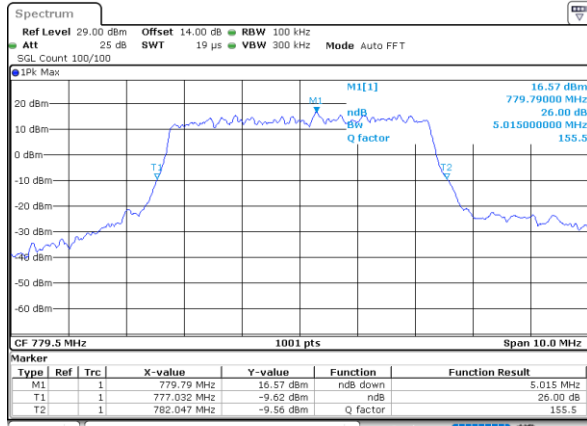
**26dB Bandwidth**

Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.02	4.98	-	-	-	-	-	-
Middle CH	-	-	-	-	4.91	5.12	9.89	9.89	-	-	-	-
Highest CH	-	-	-	-	5.03	4.95	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	5.10	-	-	-	-	-	-	-
Middle CH	-	-	-	-	5.10	-	10.15	-	-	-	-	-
Highest CH	-	-	-	-	5.26	-	-	-	-	-	-	-

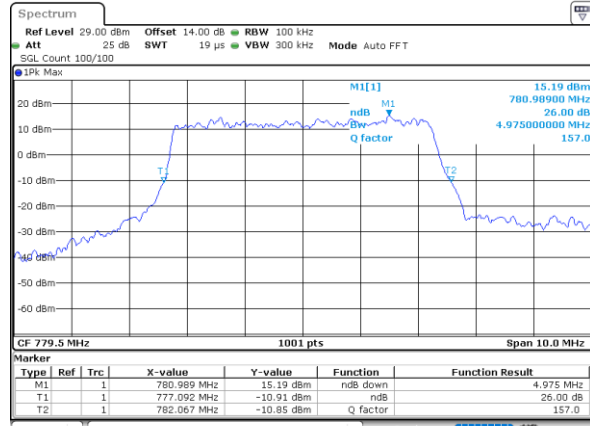


LTE Band 13

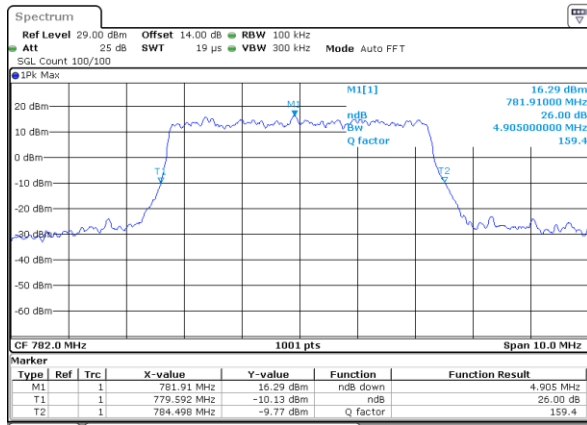
Lowest Channel / 5MHz / QPSK



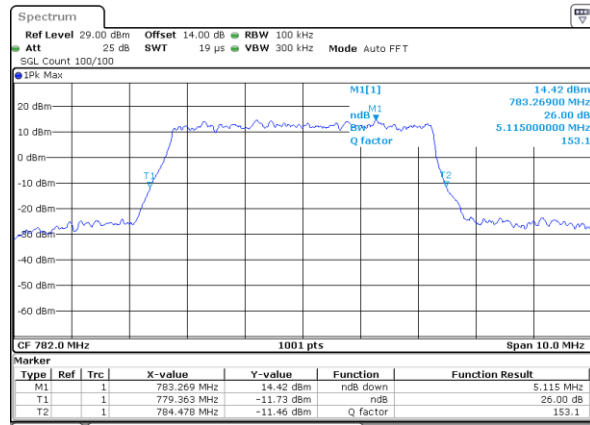
Lowest Channel / 5MHz / 16QAM



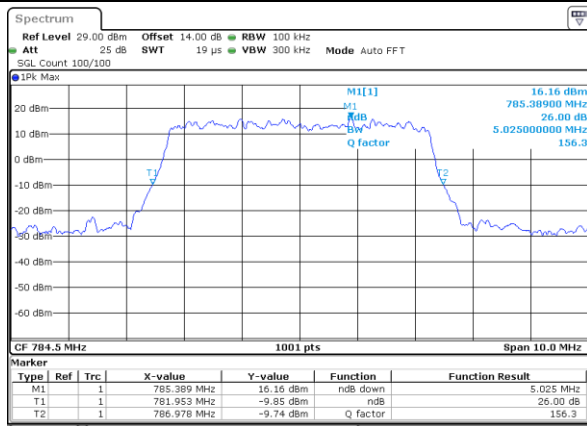
Middle Channel / 5MHz / QPSK



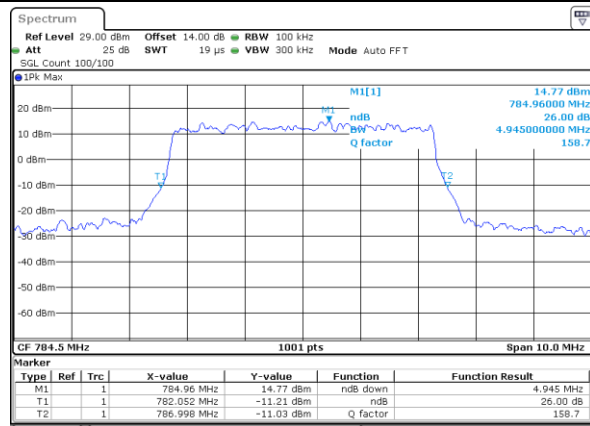
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



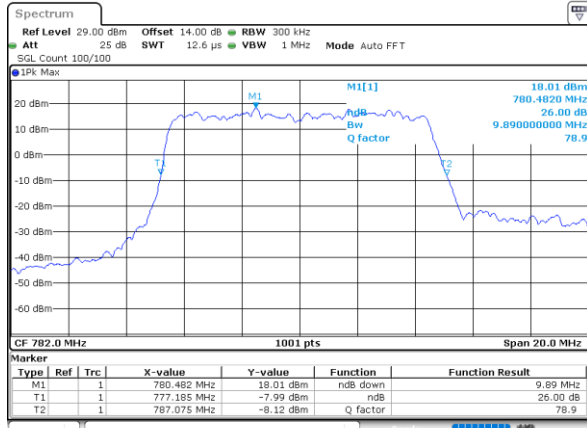
Highest Channel / 5MHz / 16QAM





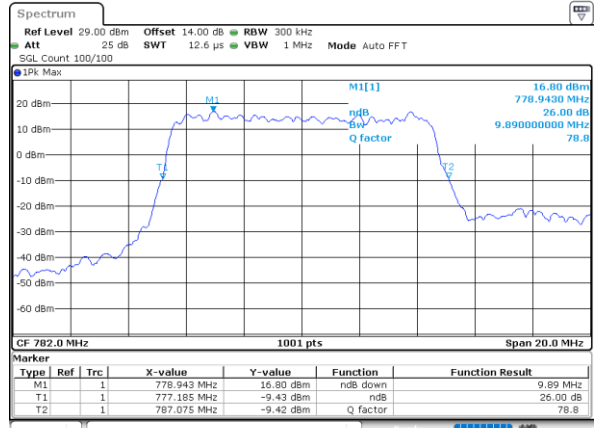
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 12.AUG.2021 15:40:02

Middle Channel / 10MHz / 16QAM

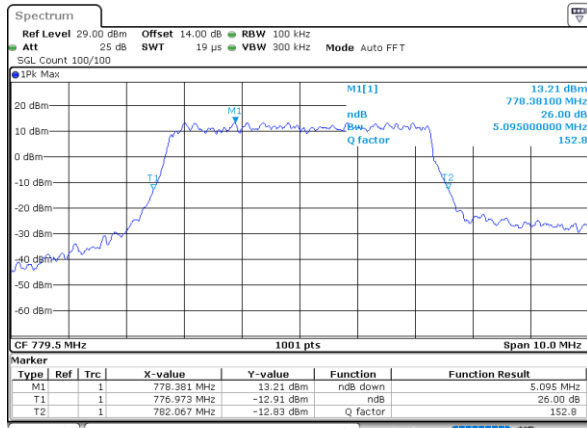


Date: 12.AUG.2021 15:39:51



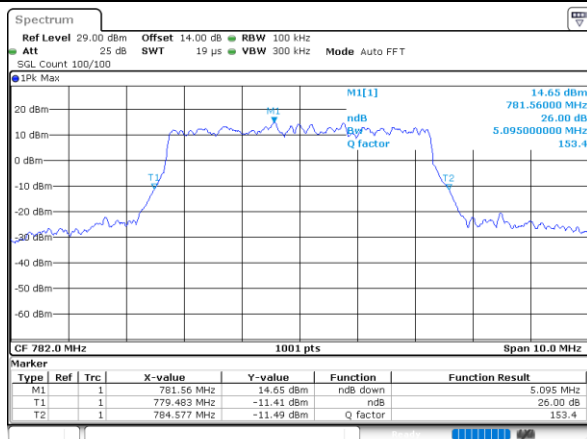
LTE Band 13

Lowest Channel / 5MHz / 64QAM



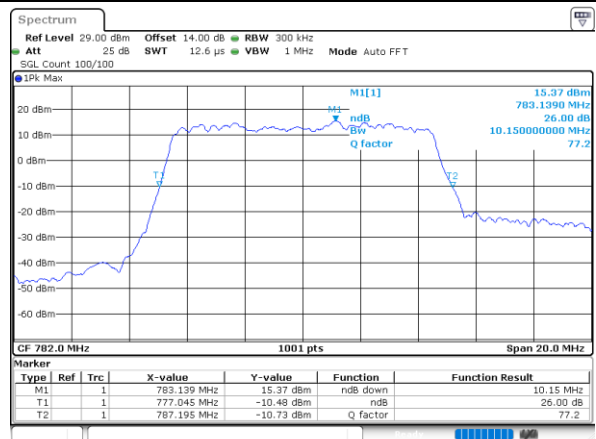
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Middle Channel / 5MHz / 64QAM



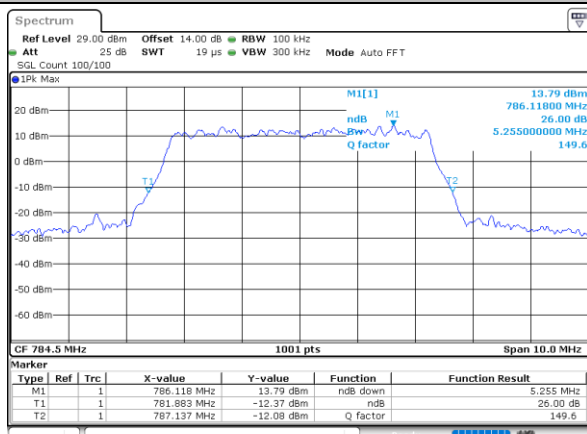
Date: 12.AUG.2021 15:33:48

Middle Channel / 10MHz / 64QAM



Date: 12.AUG.2021 15:53:37

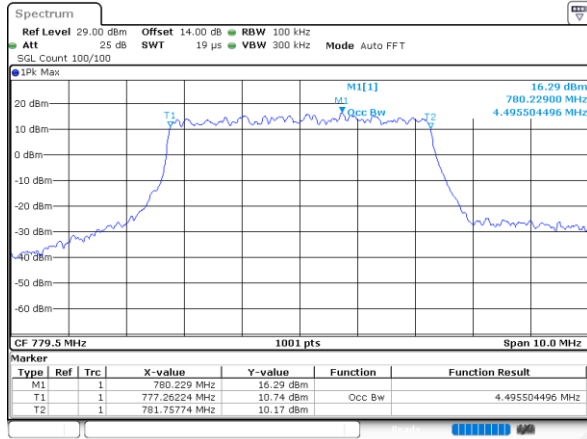
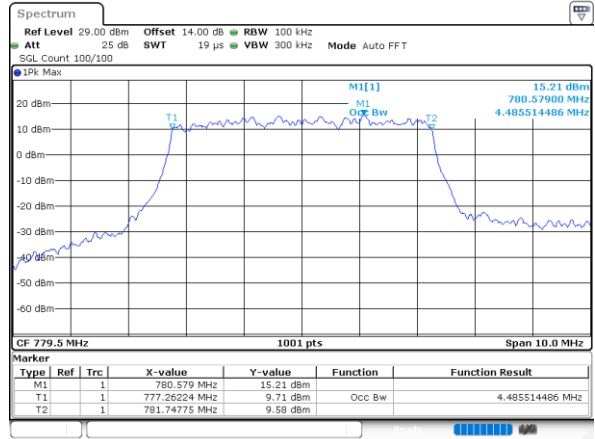
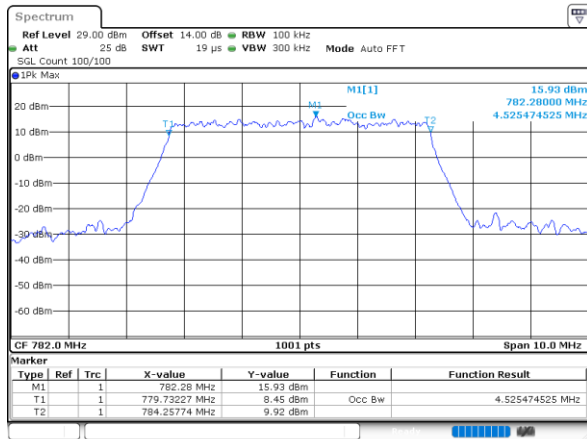
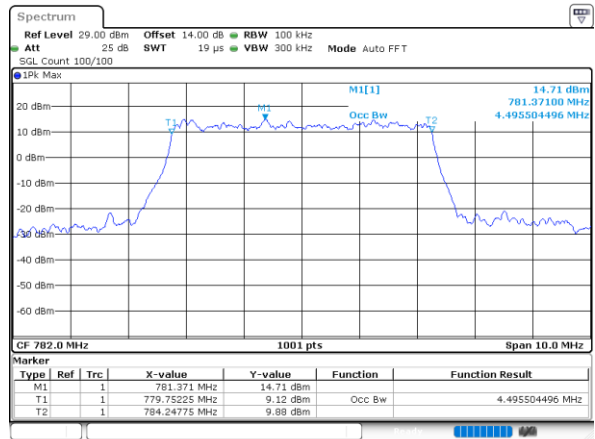
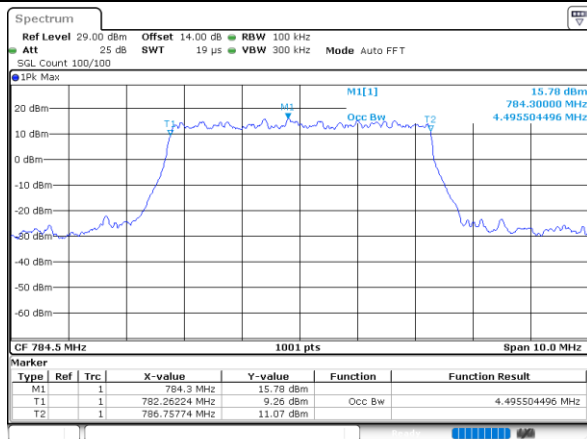
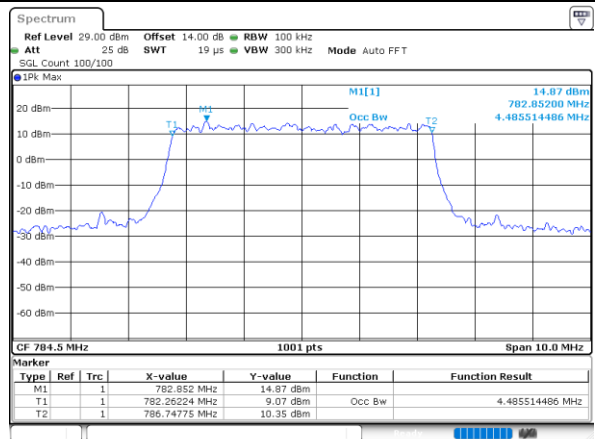
Highest Channel / 5MHz / 64QAM



Date: 12.AUG.2021 15:34:21

**Occupied Bandwidth**

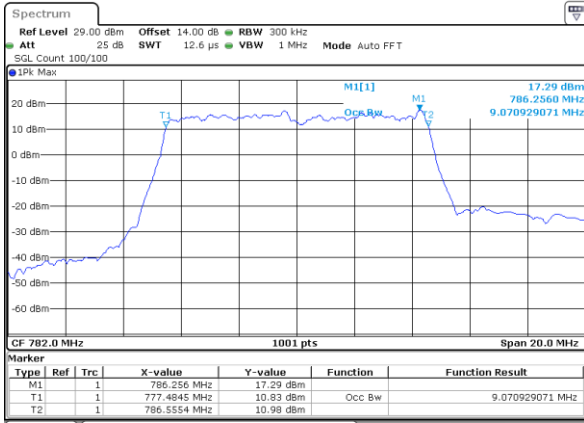
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.50	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.53	4.50	9.07	9.01	-	-	-	-
Highest CH	-	-	-	-	4.50	4.49	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.50	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.51	-	9.03	-	-	-	-	-
Highest CH	-	-	-	-	4.52	-	-	-	-	-	-	-

**LTE Band 13****Lowest Channel / 5MHz / QPSK****Lowest Channel / 5MHz / 16QAM****Middle Channel / 5MHz / QPSK****Middle Channel / 5MHz / 16QAM****Highest Channel / 5MHz / QPSK****Highest Channel / 5MHz / 16QAM**



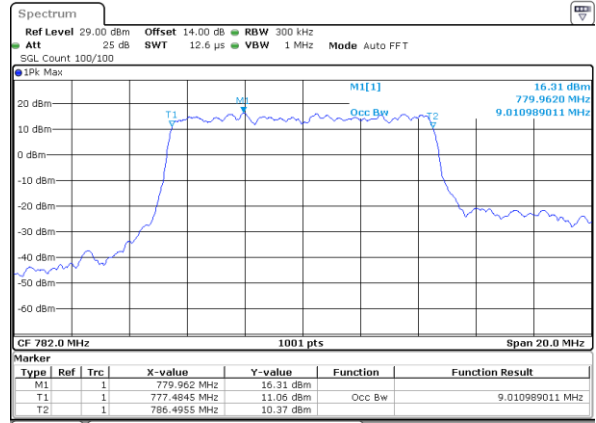
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 12.AUG.2021 15:39:29

Middle Channel / 10MHz / 16QAM

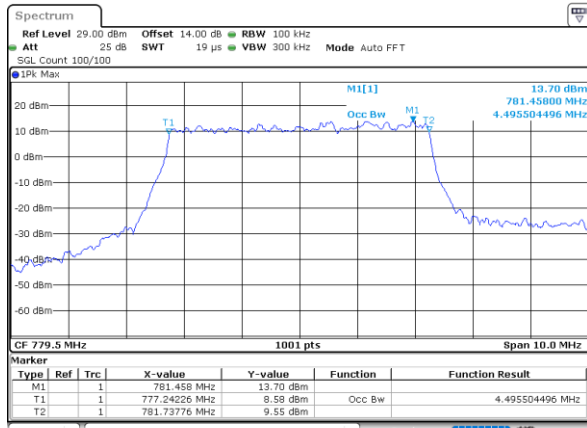


Date: 12.AUG.2021 15:39:40

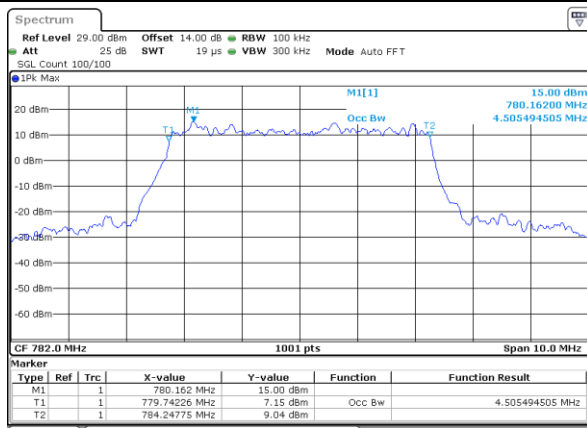


LTE Band 13

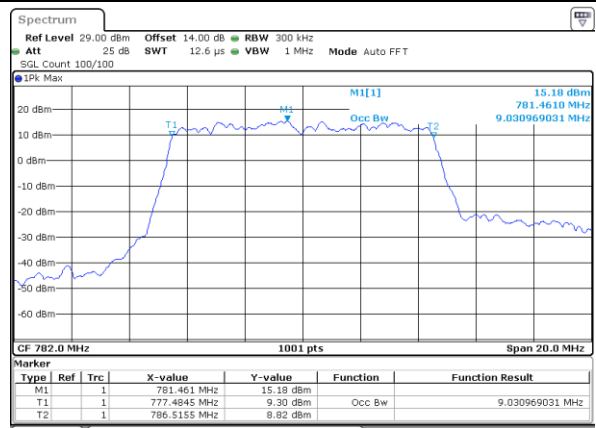
Lowest Channel / 5MHz / 64QAM



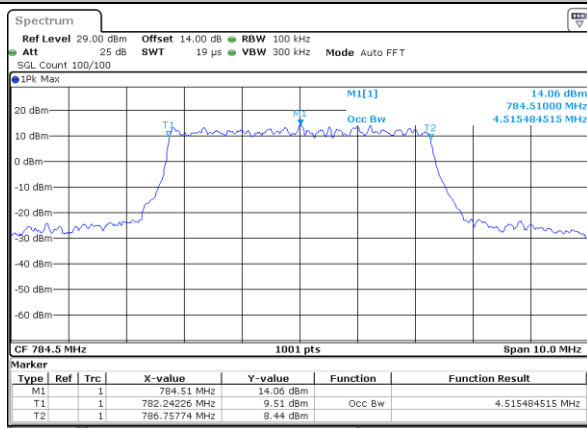
Middle Channel / 5MHz / 64QAM

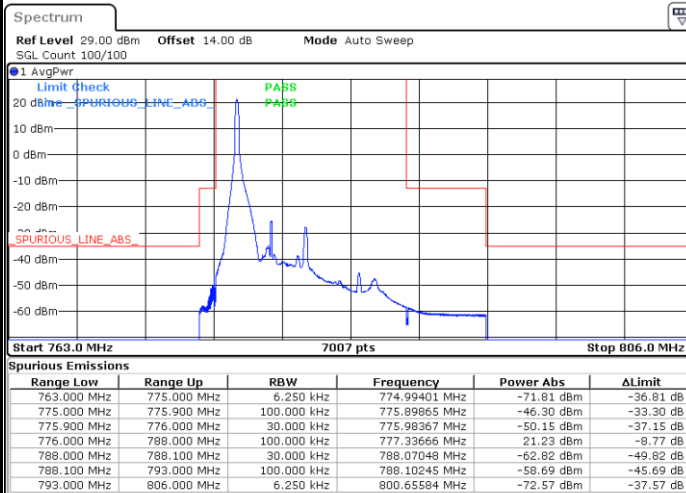


Middle Channel / 10MHz / 64QAM

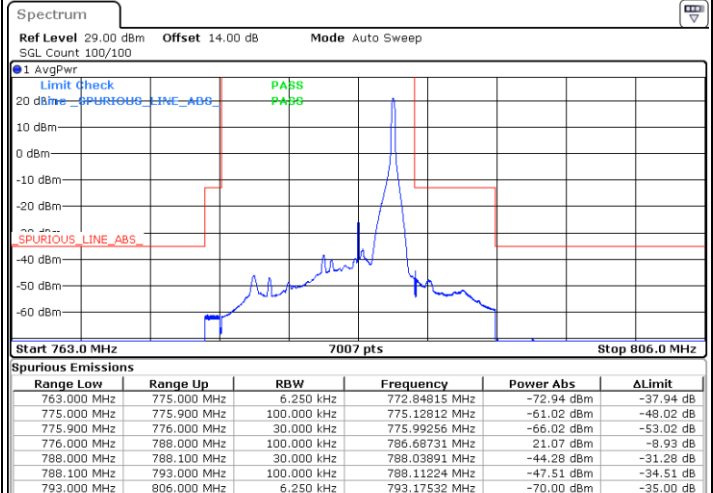


Highest Channel / 5MHz / 64QAM

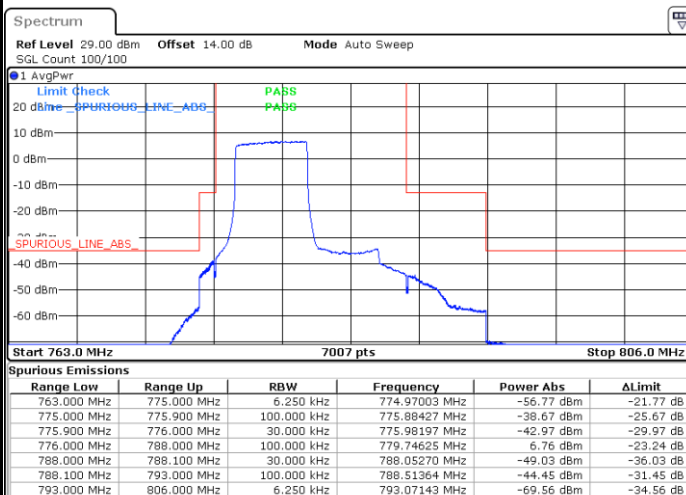


**Conducted Band Edge****LTE Band 13 / 5MHz / QPSK****Lowest Band Edge / 1 RB**

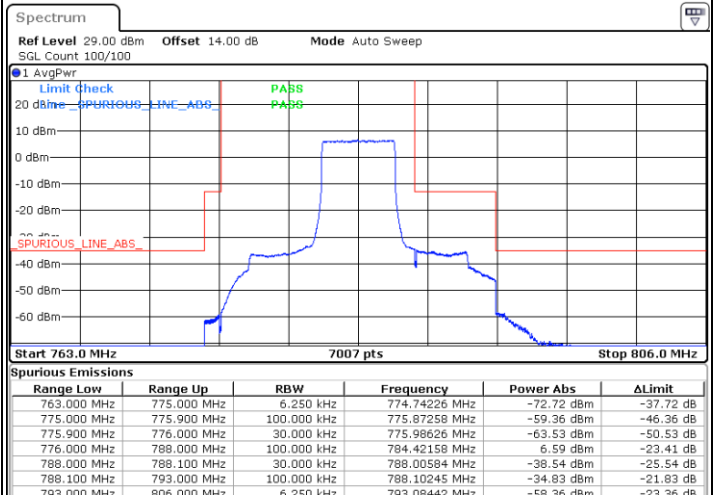
Date: 12.AUG.2021 15:08:38

Highest Band Edge / 1 RB

Date: 12.AUG.2021 15:23:20

Lowest Band Edge / Full RB

Date: 12.AUG.2021 15:03:40

Highest Band Edge / Full RB

Date: 12.AUG.2021 15:18:22