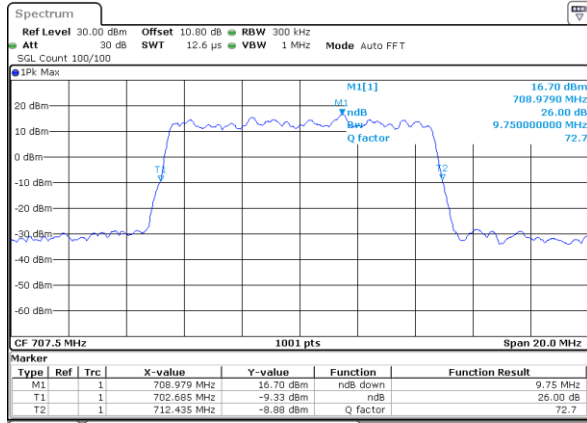




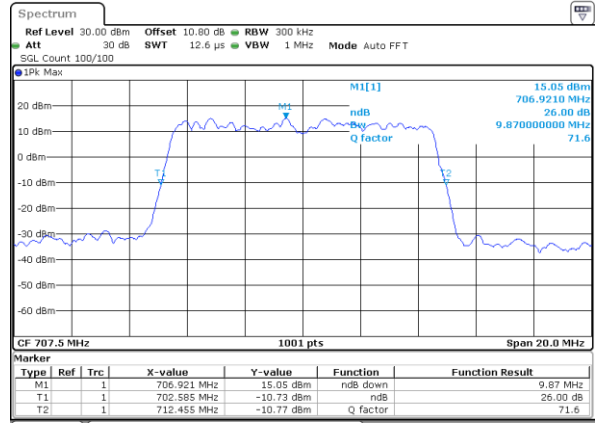
LTE Band 12

Middle Channel / 10MHz / QPSK



Date: 25.MAY.2021 11:09:11

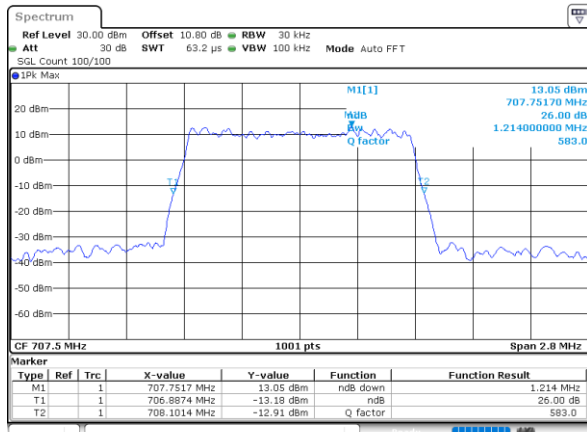
Middle Channel / 10MHz / 16QAM



Date: 25.MAY.2021 11:09:32

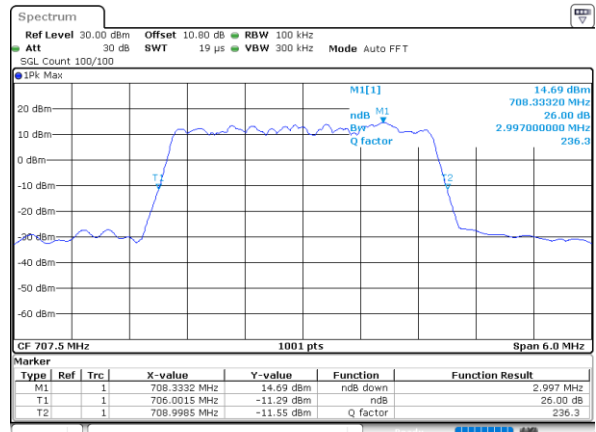
LTE Band 12

Middle Channel / 1.4MHz / 64QAM



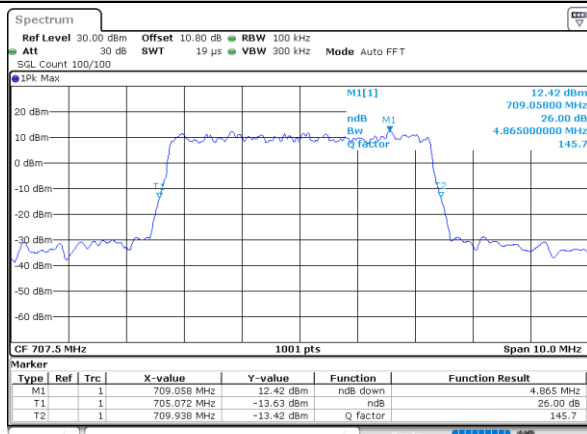
Date: 25.MAY.2021 10:38:41

Middle Channel / 3MHz / 64QAM



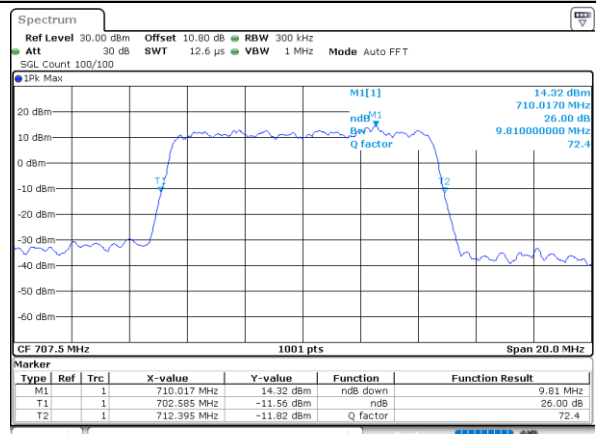
Date: 25.MAY.2021 10:50:58

Middle Channel / 5MHz / 64QAM



Date: 25.MAY.2021 10:54:28

Middle Channel / 10MHz / 64QAM



Date: 25.MAY.2021 11:16:39

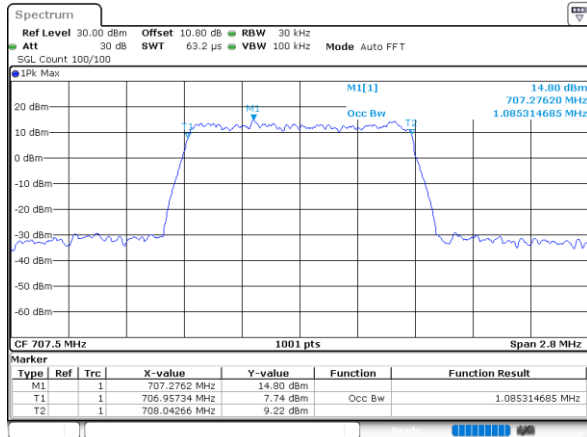
**Occupied Bandwidth**

Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	1.09	1.08	2.71	2.72	4.49	4.50	9.01	8.99	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	1.09	-	2.70	-	4.47	-	8.97	-	-	-	-	-

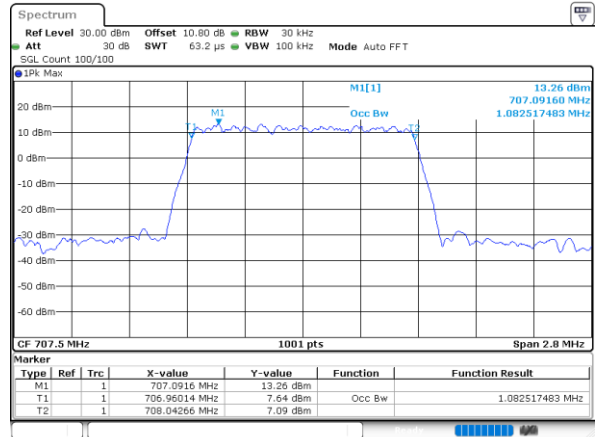


LTE Band 12

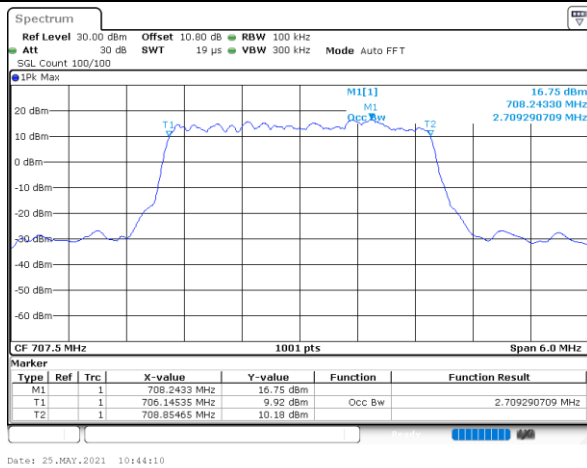
Middle Channel / 1.4MHz / QPSK



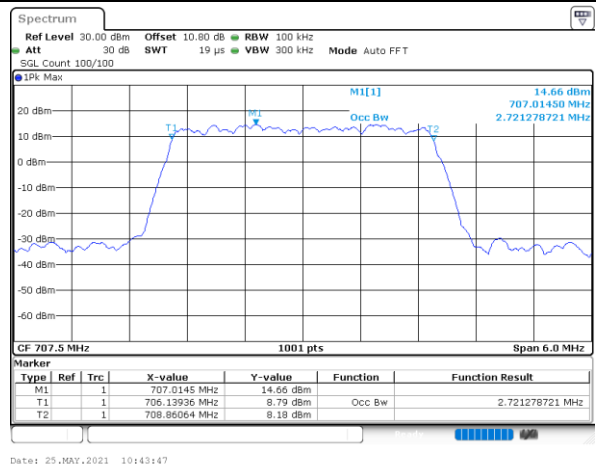
Middle Channel / 1.4MHz / 16QAM



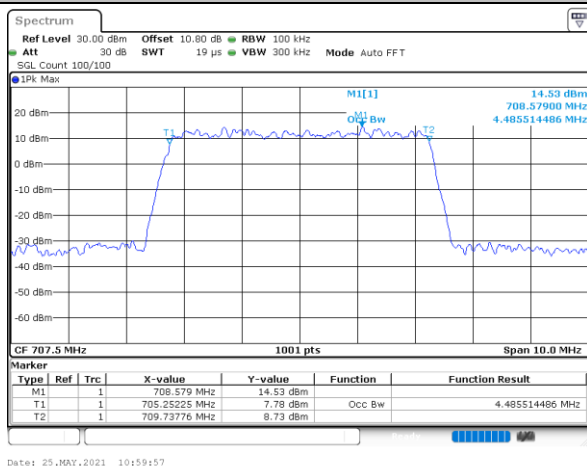
Middle Channel / 3MHz / QPSK



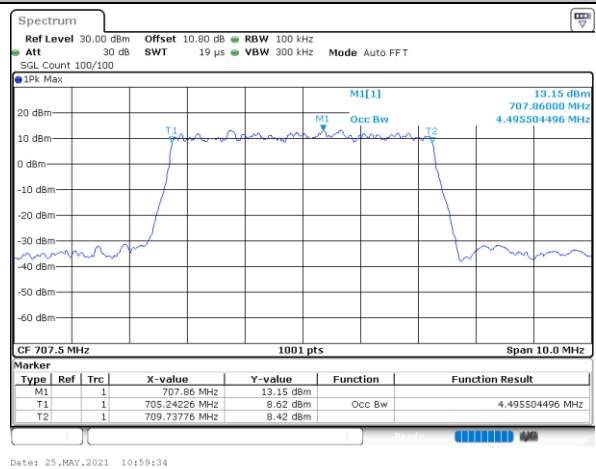
Middle Channel / 3MHz / 16QAM



Middle Channel / 5MHz / QPSK



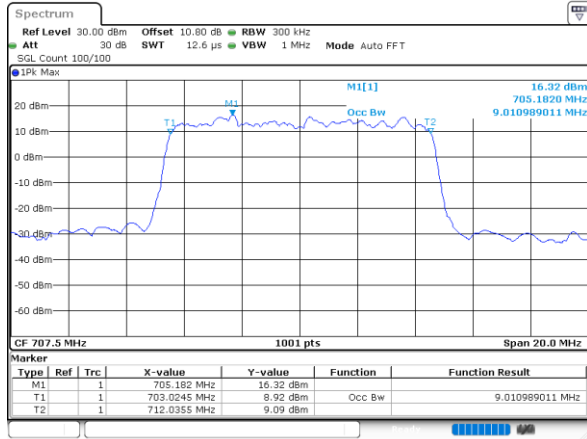
Middle Channel / 5MHz / 16QAM



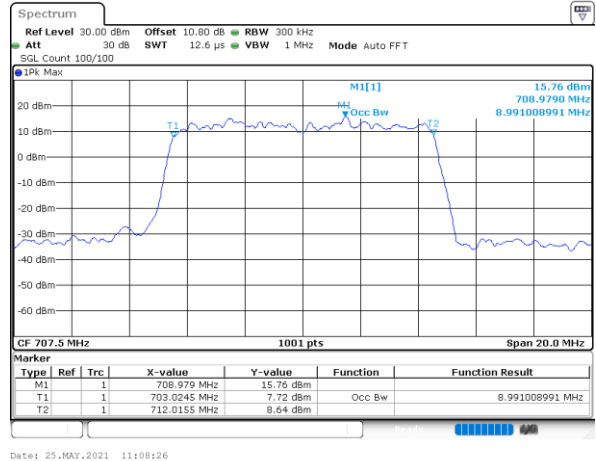


LTE Band 12

Middle Channel / 10MHz / QPSK

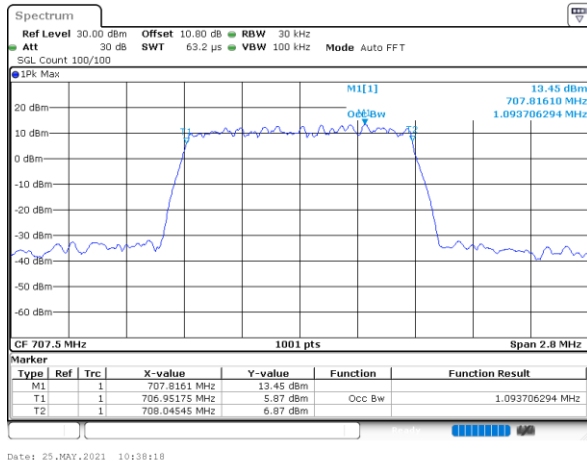


Middle Channel / 10MHz / 16QAM

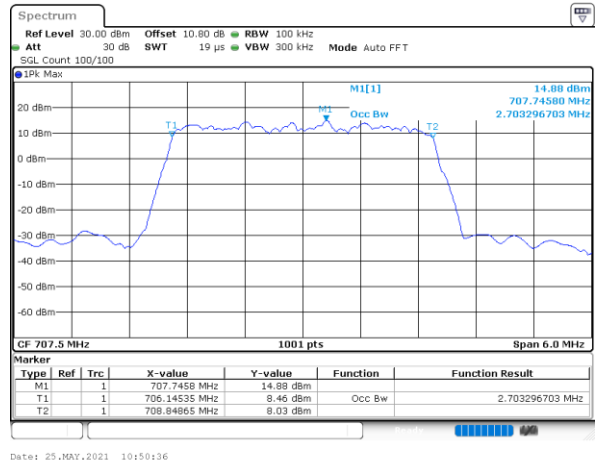


LTE Band 12

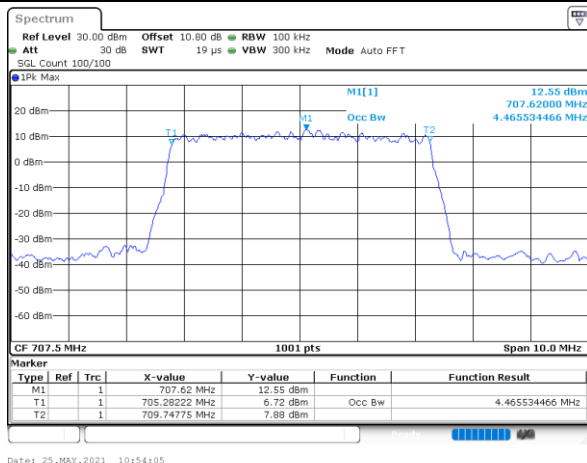
Middle Channel / 1.4MHz / 64QAM



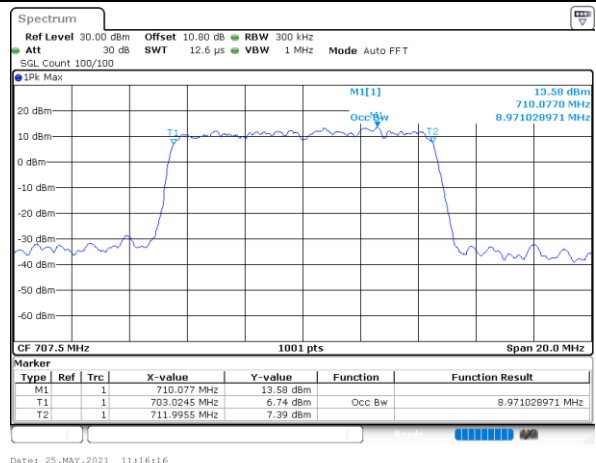
Middle Channel / 3MHz / 64QAM



Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM

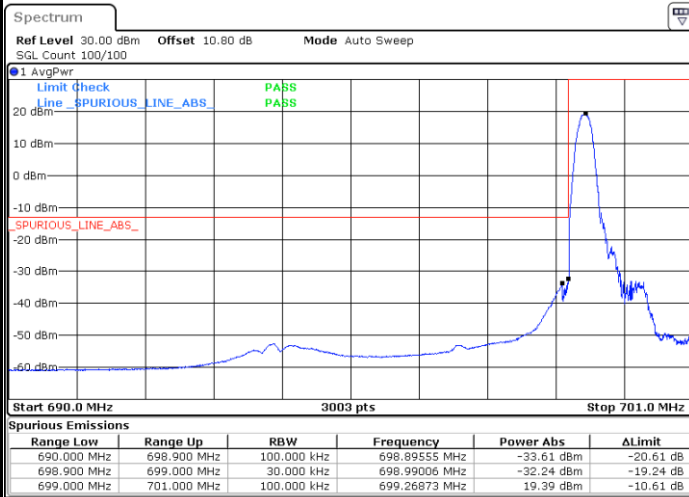




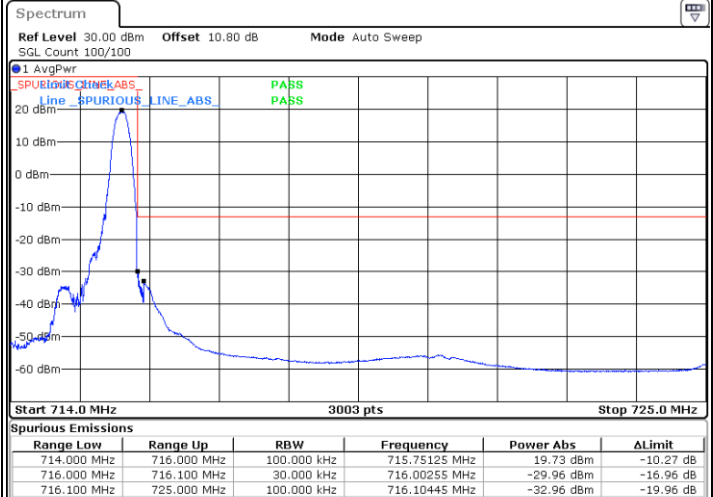
Conducted Band Edge

LTE Band 12 / 1.4MHz / QPSK

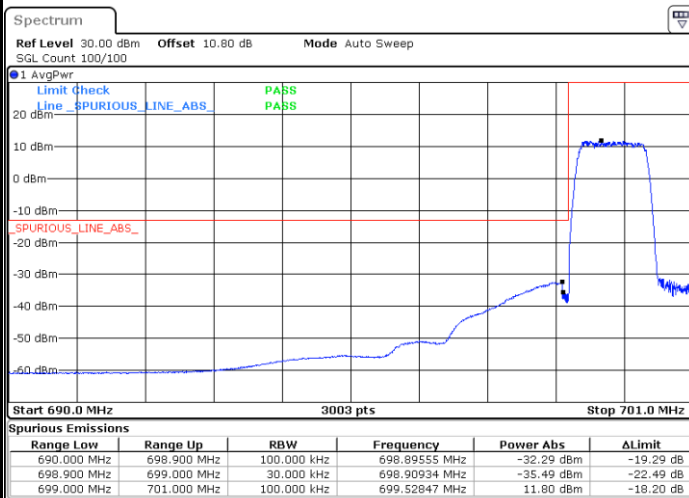
Lowest Band Edge / 1RB



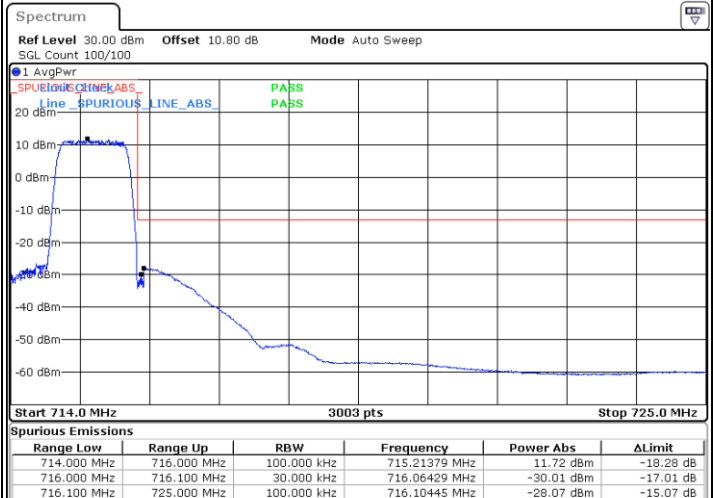
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



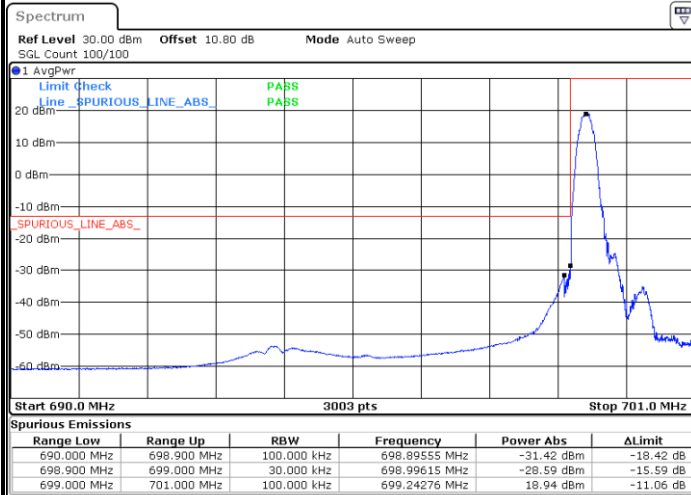
Highest Band Edge / Full RB



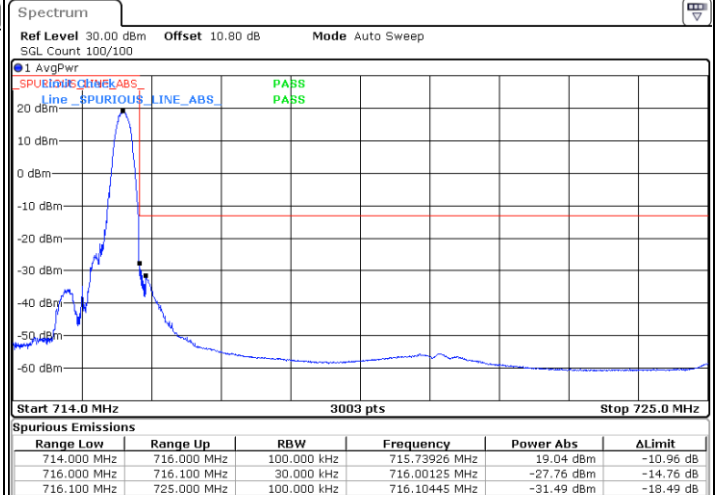


LTE Band 12 / 1.4MHz / 16QAM

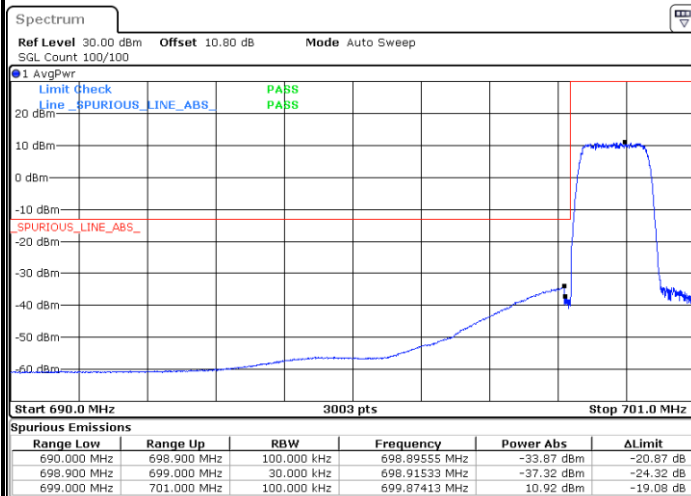
Lowest Band Edge / 1 RB



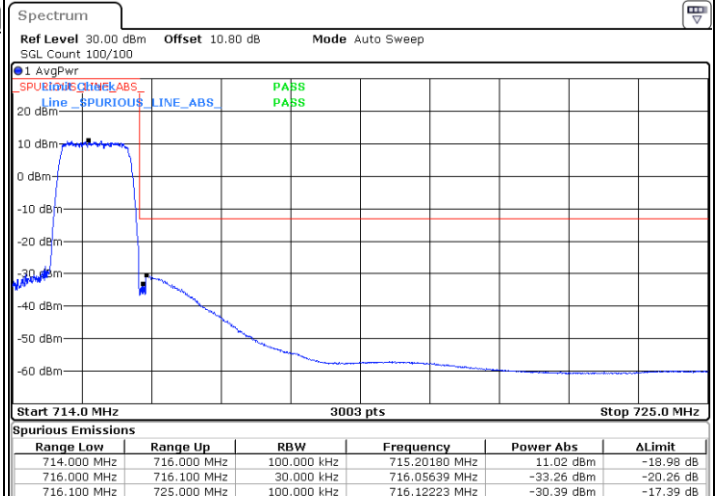
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



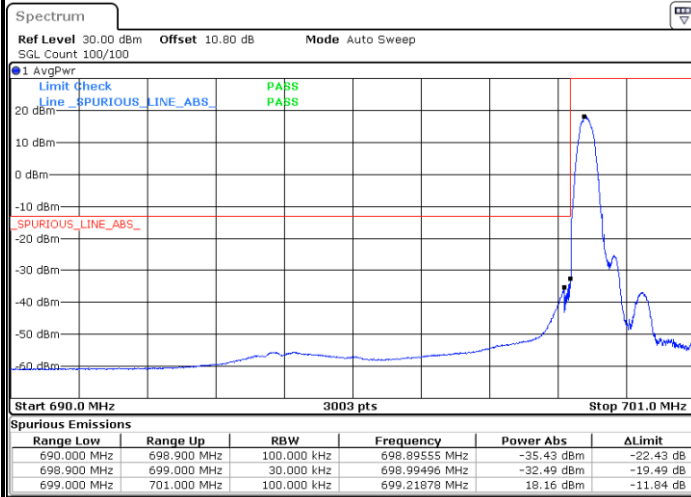
Highest Band Edge / Full RB





LTE Band 12 / 1.4MHz / 64QAM

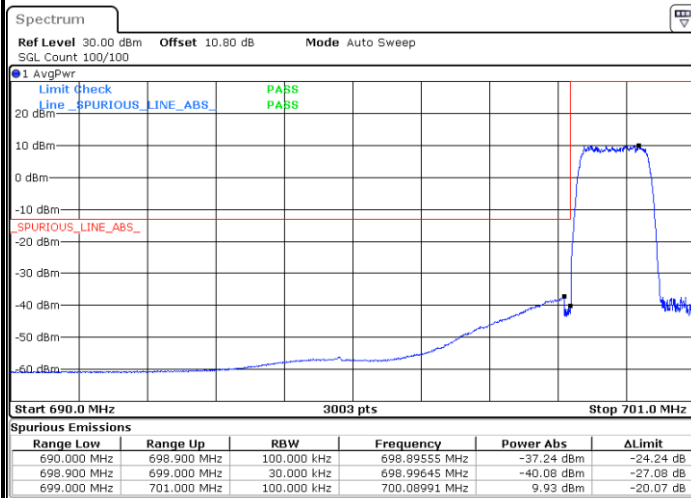
Lowest Band Edge / 1 RB



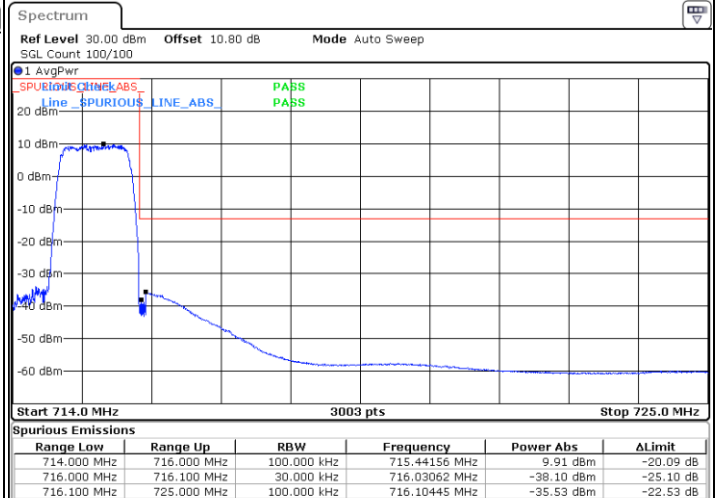
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



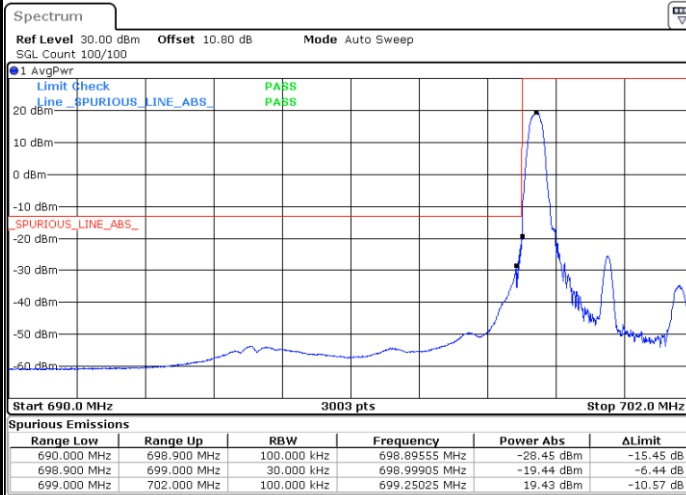
Highest Band Edge / Full RB



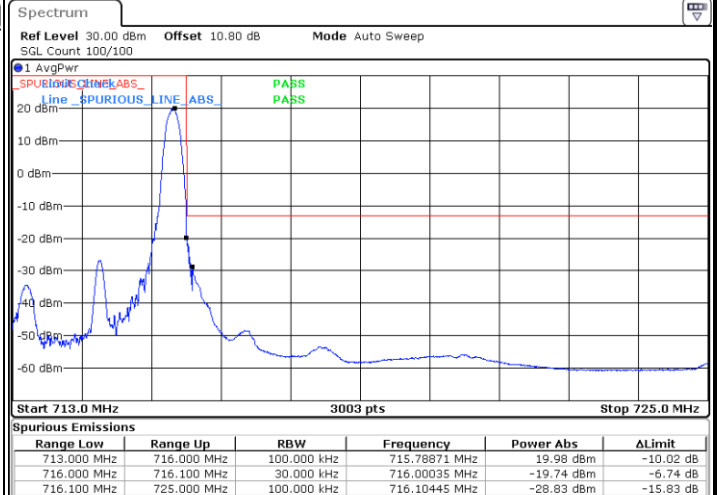


LTE Band 12 / 3MHz / QPSK

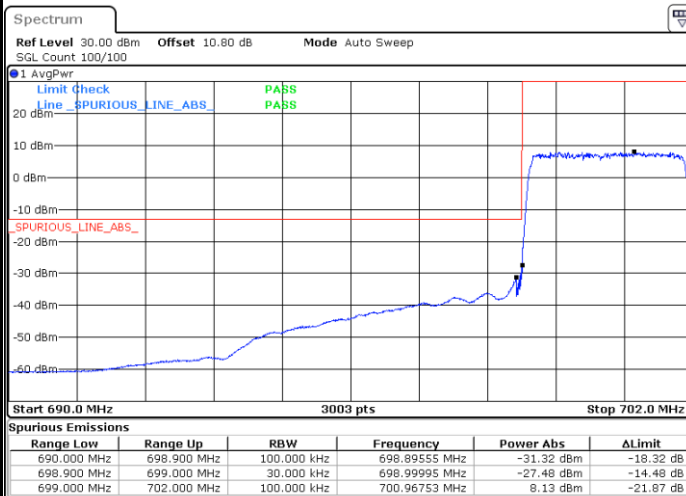
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



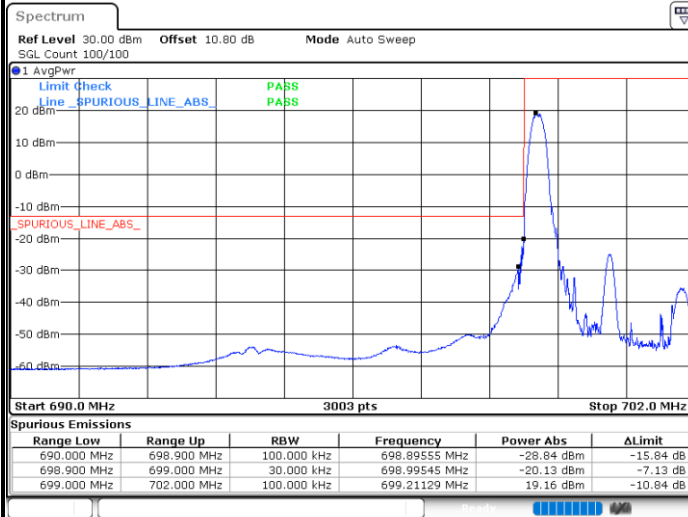
Highest Band Edge / Full RB



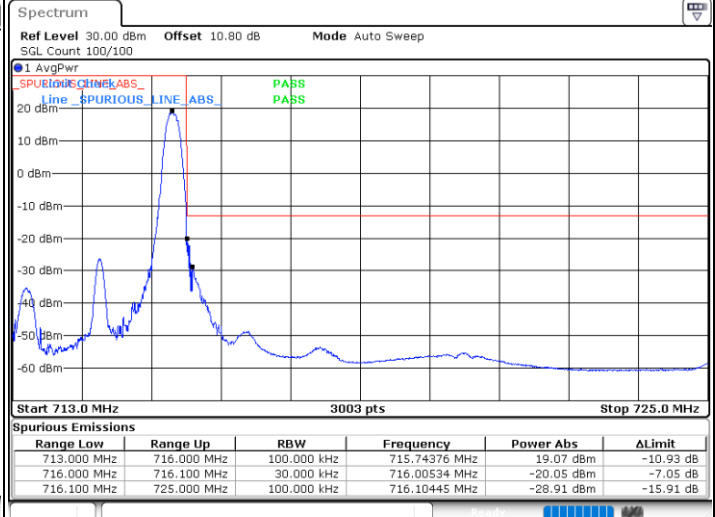


LTE Band 12 / 3MHz / 16QAM

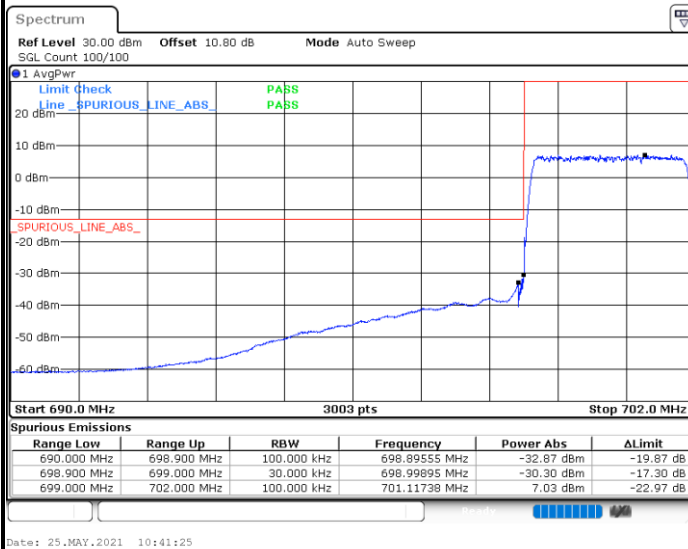
Lowest Band Edge / 1 RB



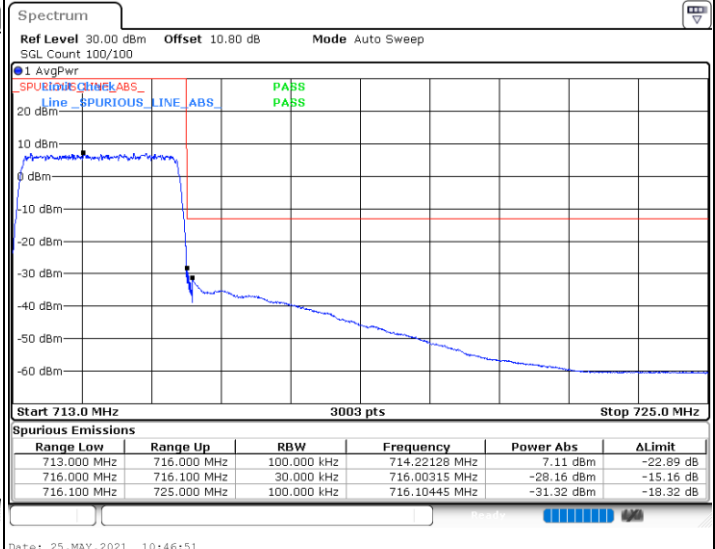
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



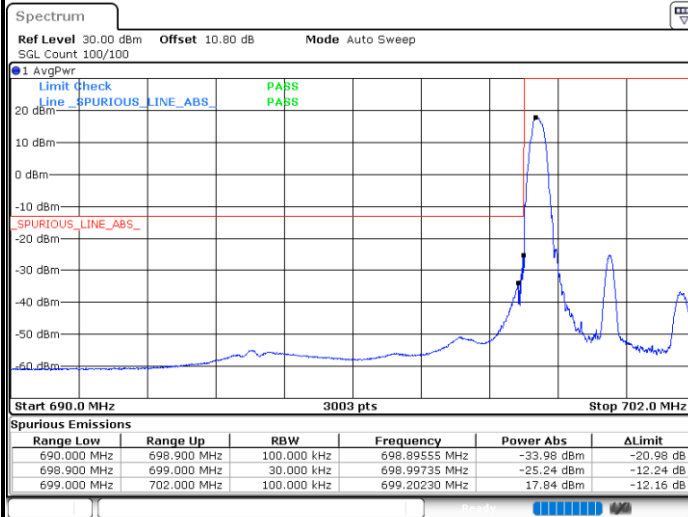
Highest Band Edge / Full RB



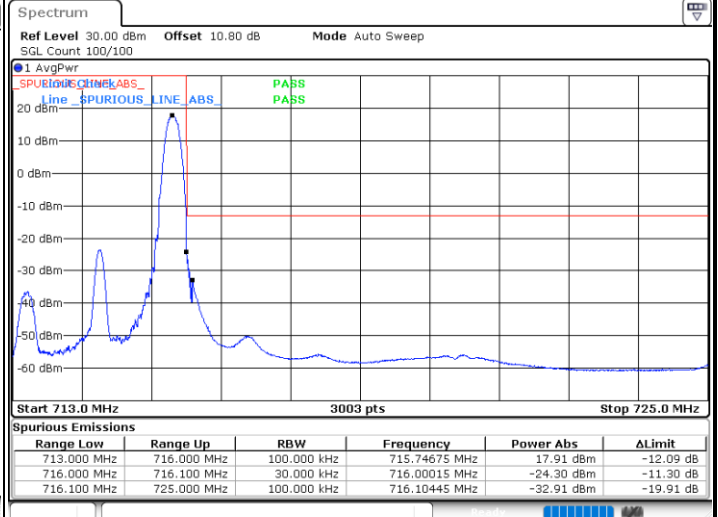


LTE Band 12 / 3MHz / 64QAM

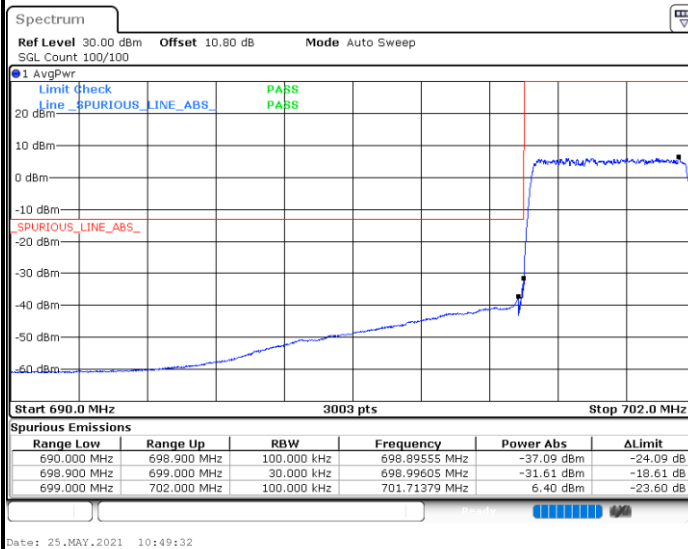
Lowest Band Edge / 1 RB



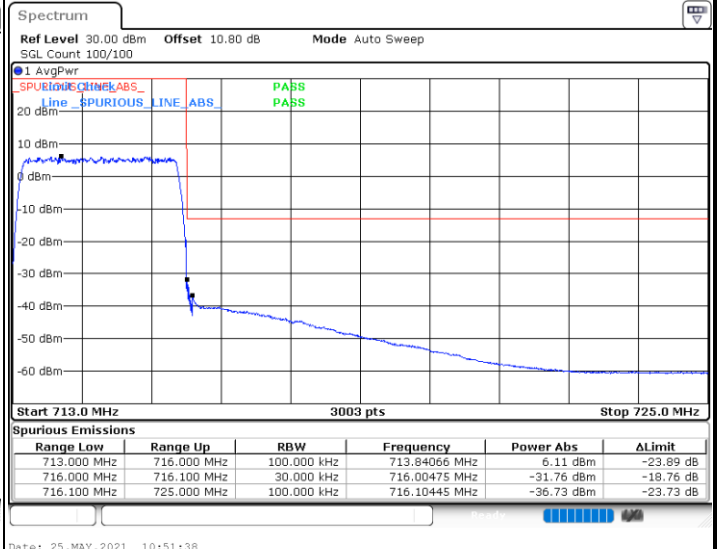
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



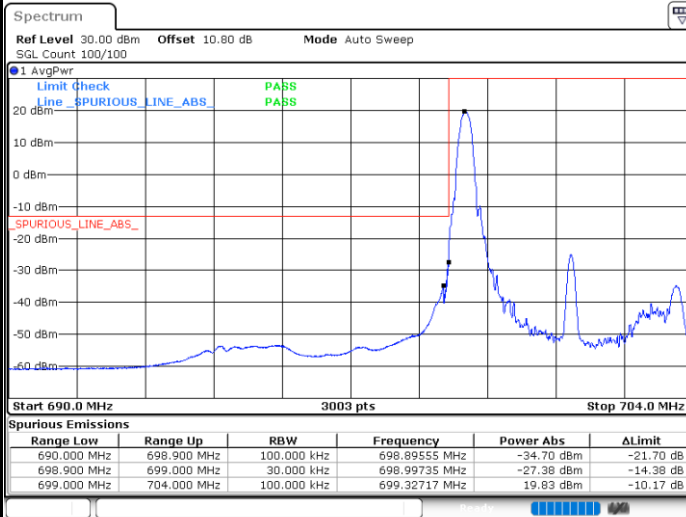
Highest Band Edge / Full RB



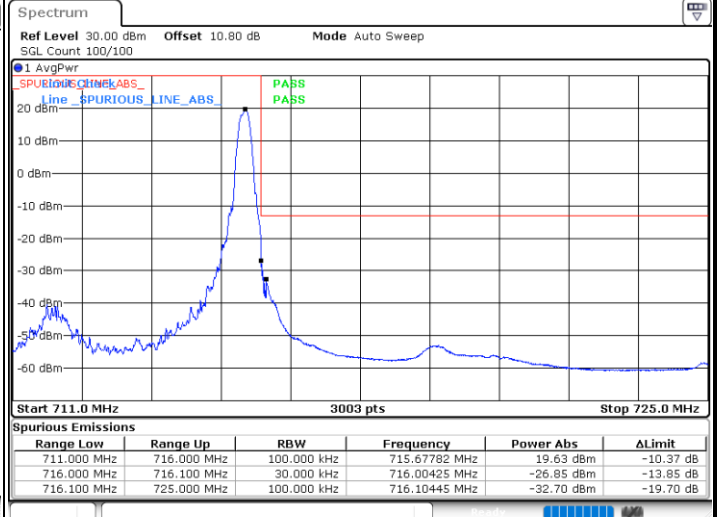


LTE Band 12 / 5MHz / QPSK

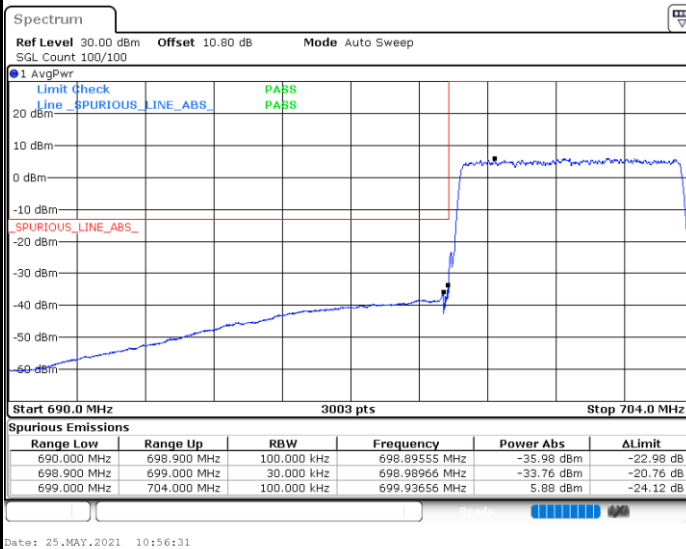
Lowest Band Edge / 1 RB



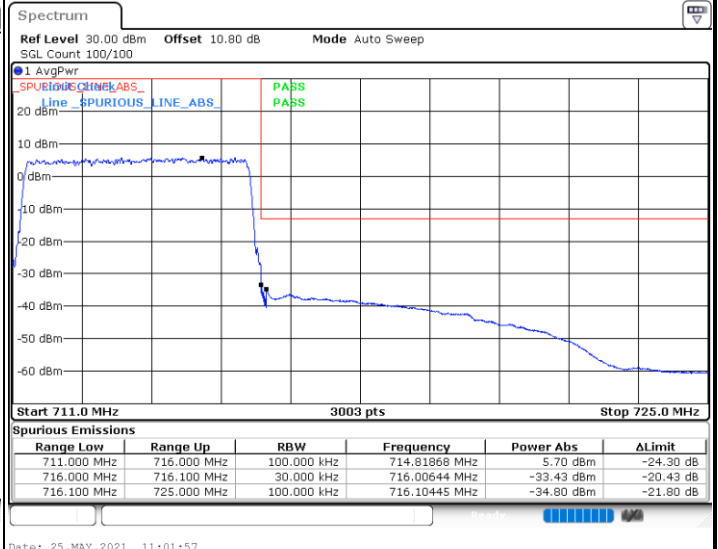
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



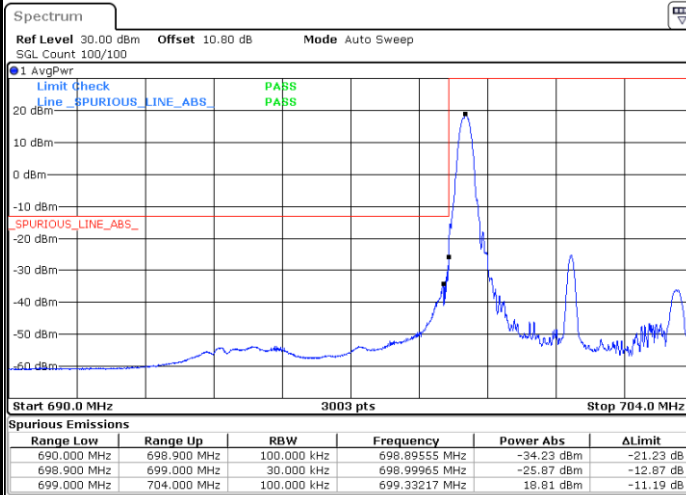
Highest Band Edge / Full RB



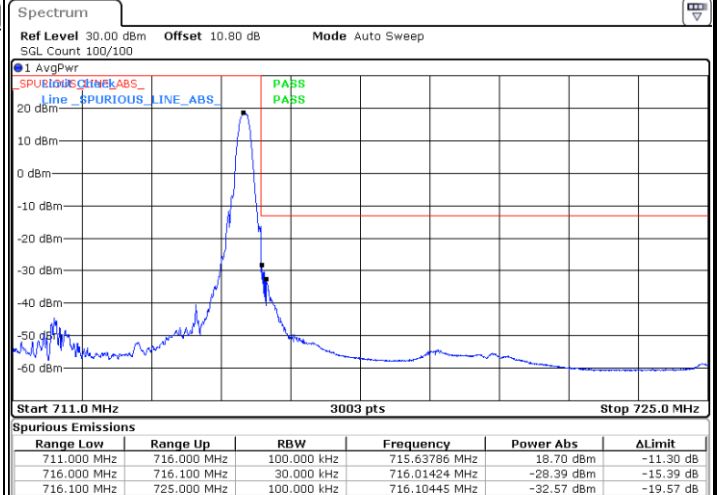


LTE Band 12 / 5MHz / 16QAM

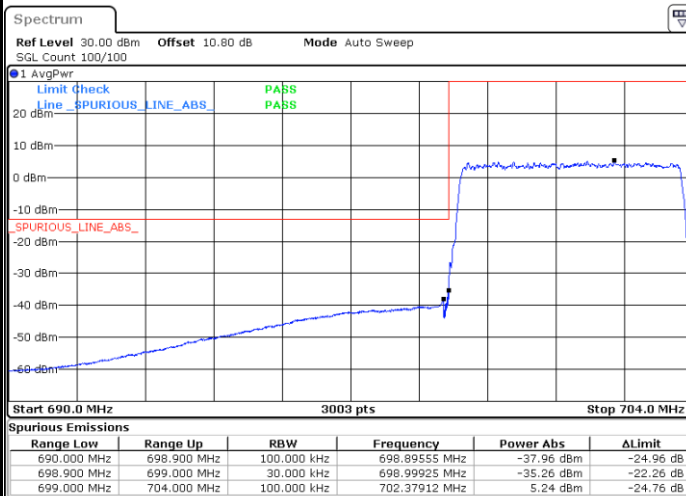
Lowest Band Edge / 1RB



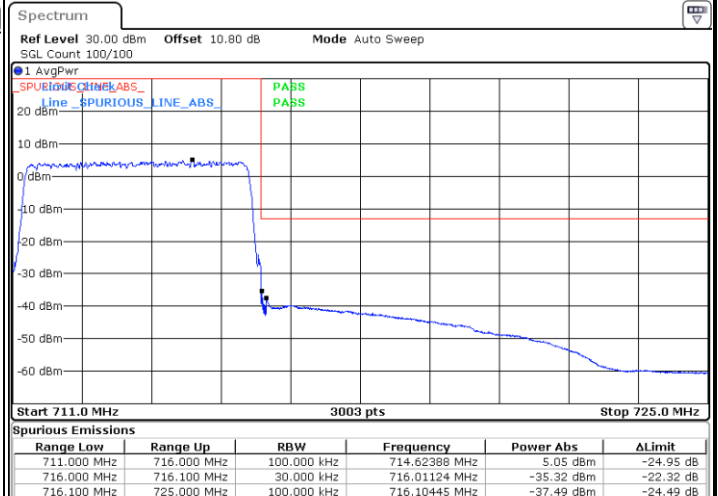
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



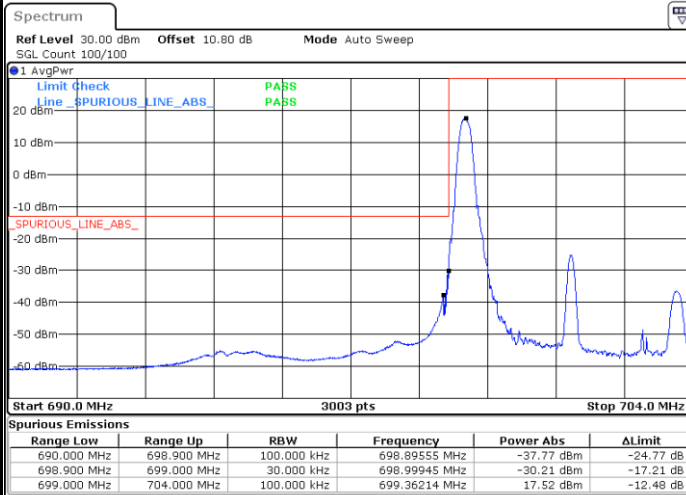
Highest Band Edge / Full RB



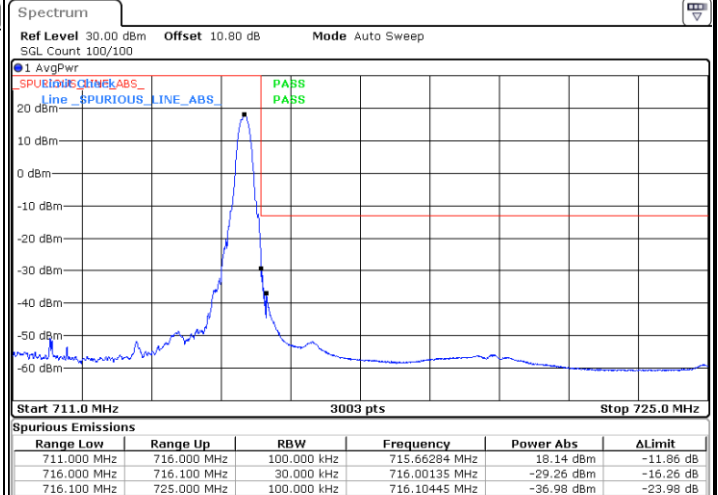


LTE Band 12 / 5MHz / 64QAM

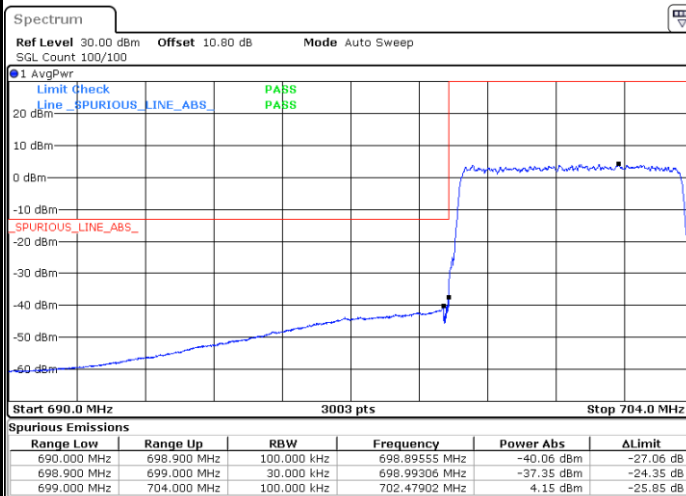
Lowest Band Edge / 1RB



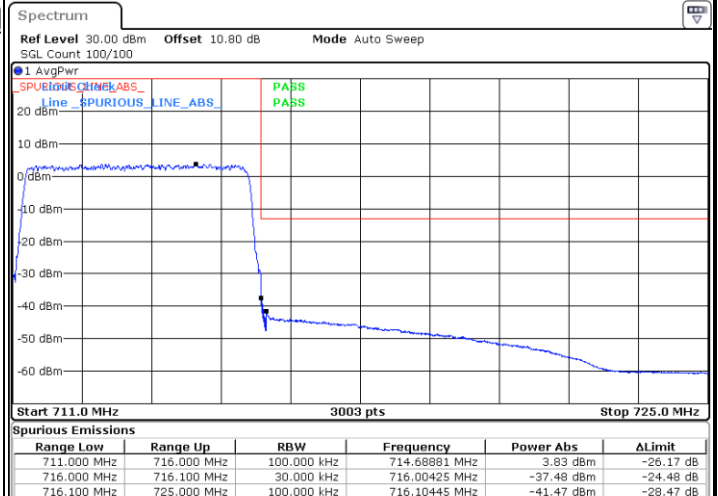
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



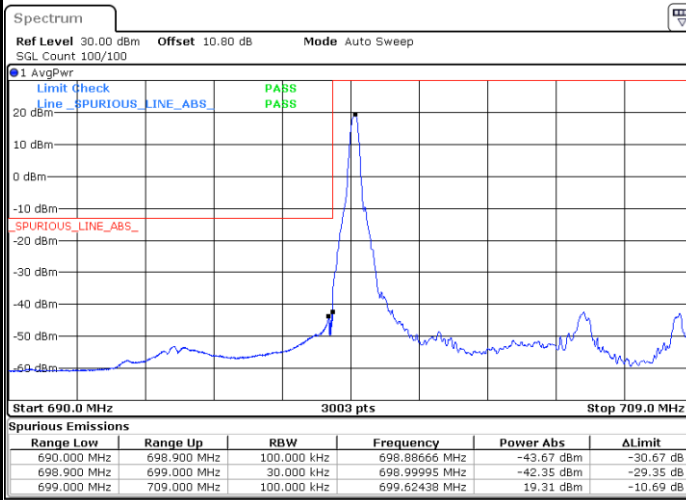
Highest Band Edge / Full RB



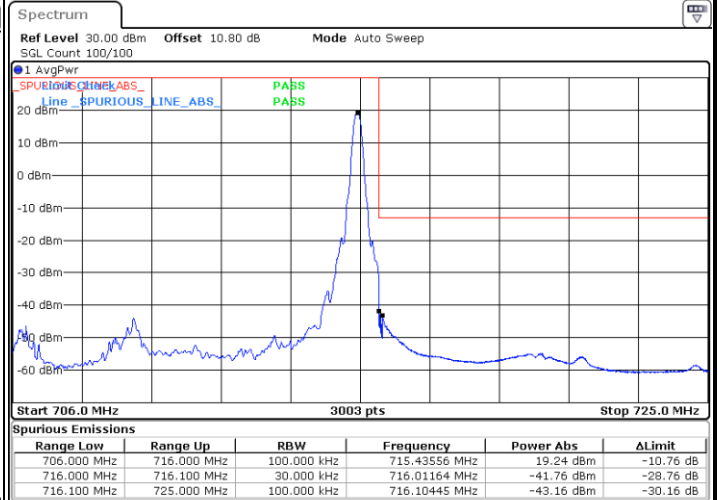


LTE Band 12 / 10MHz / QPSK

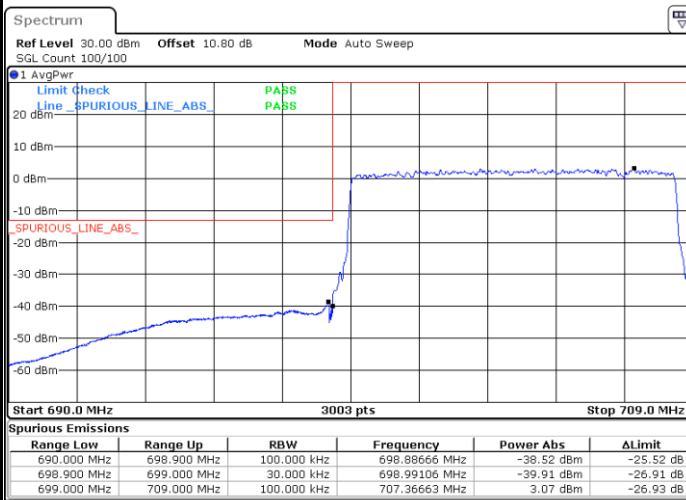
Lowest Band Edge / 1 RB



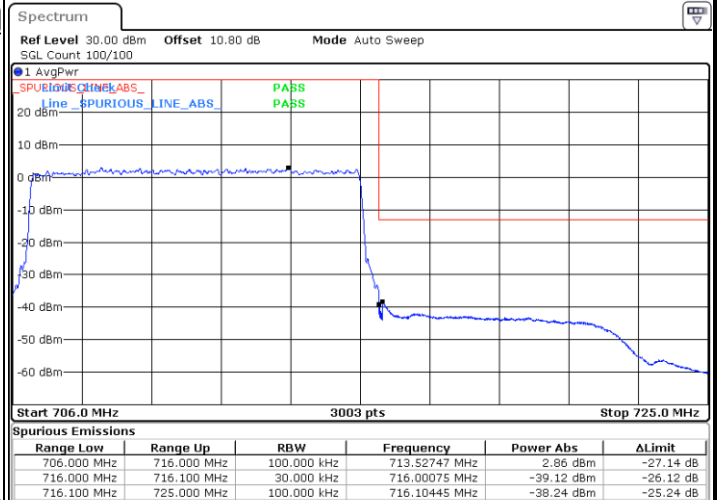
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



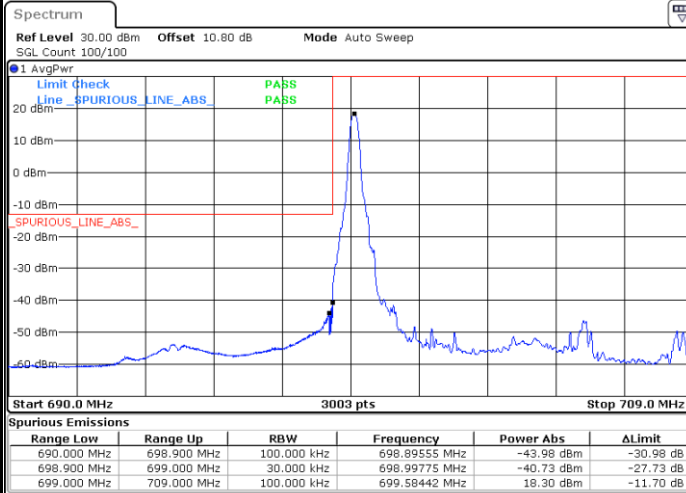
Highest Band Edge / Full RB



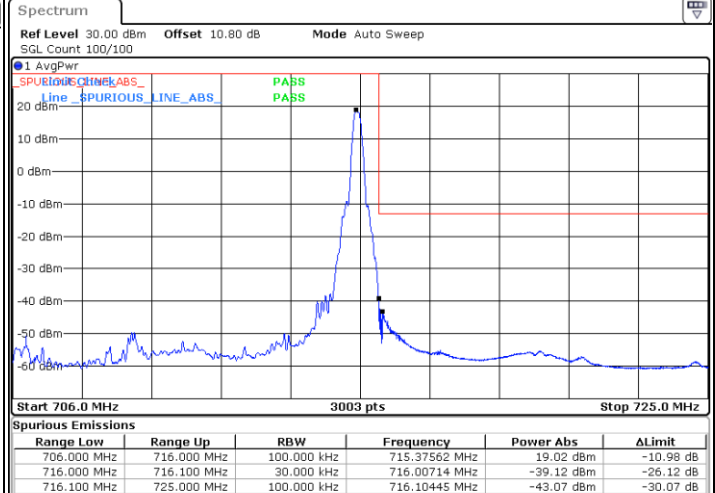


LTE Band 12 / 10MHz / 16QAM

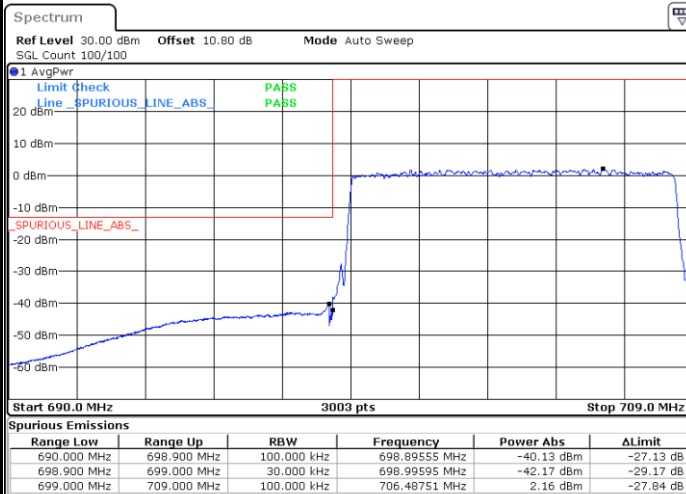
Lowest Band Edge / 1 RB



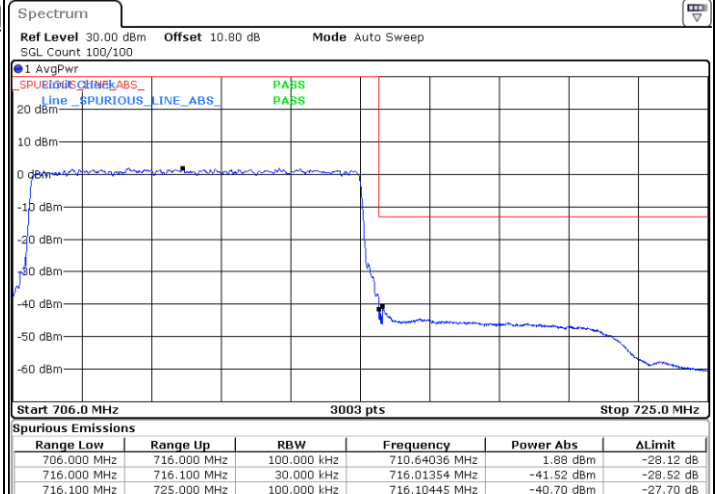
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



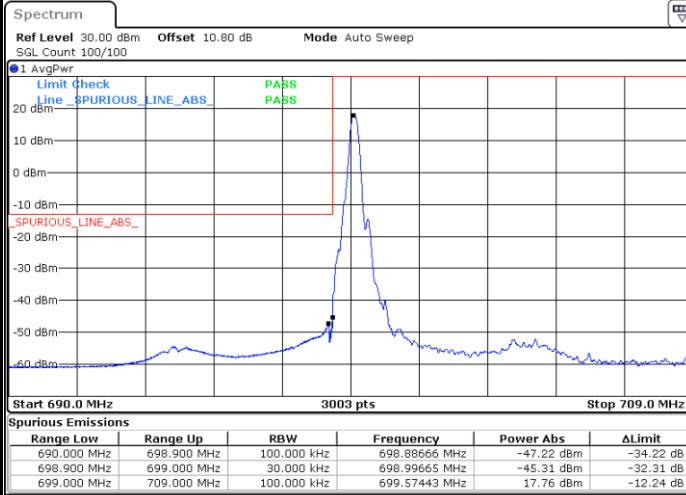
Highest Band Edge / Full RB



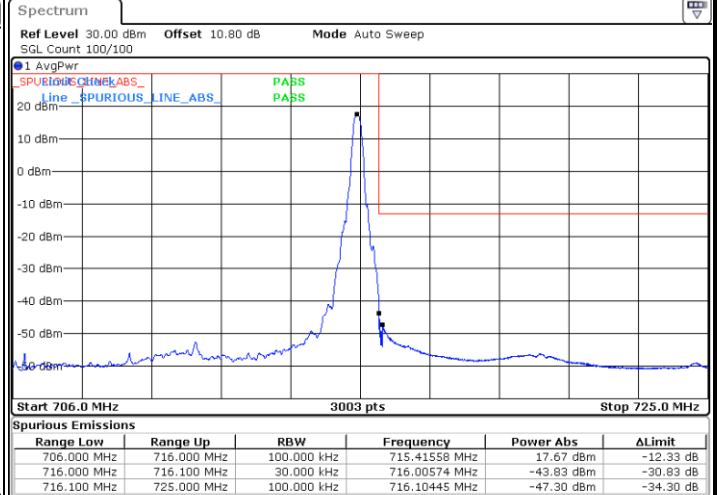


LTE Band 12 / 10MHz / 64QAM

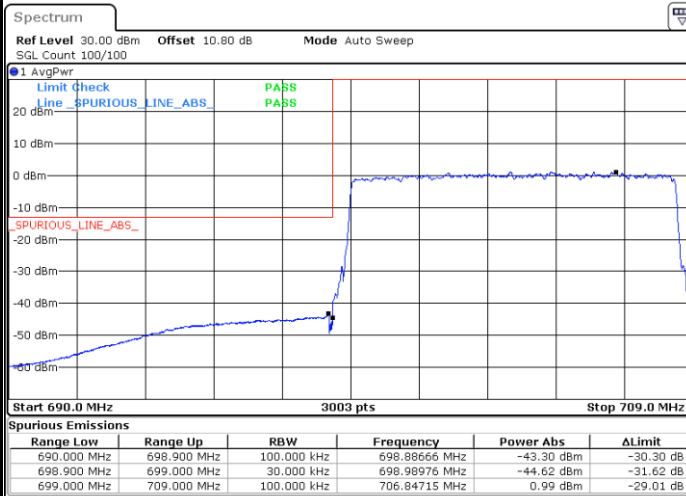
Lowest Band Edge / 1 RB



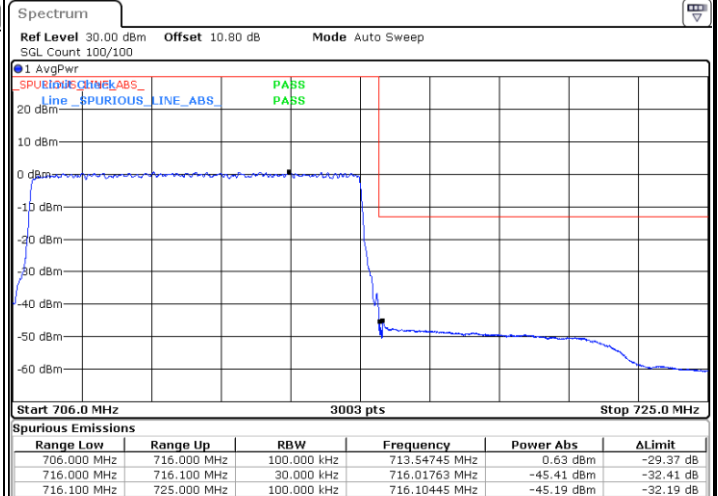
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

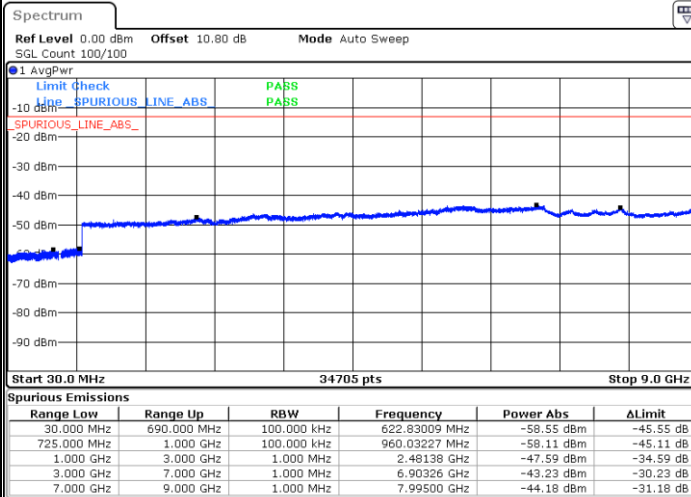




Conducted Spurious Emission

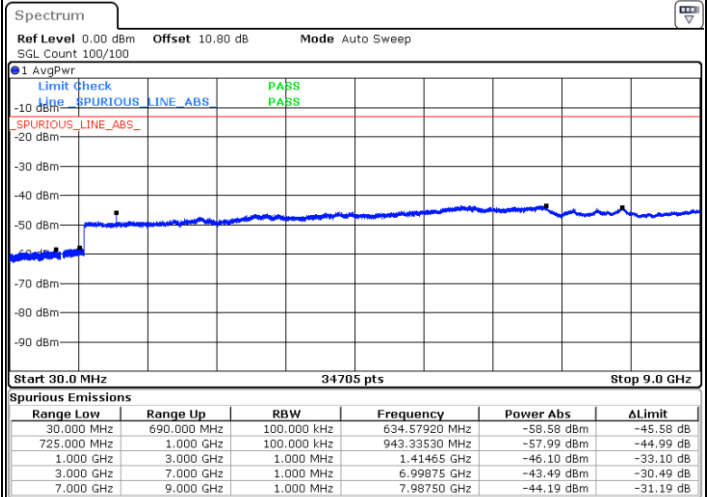
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



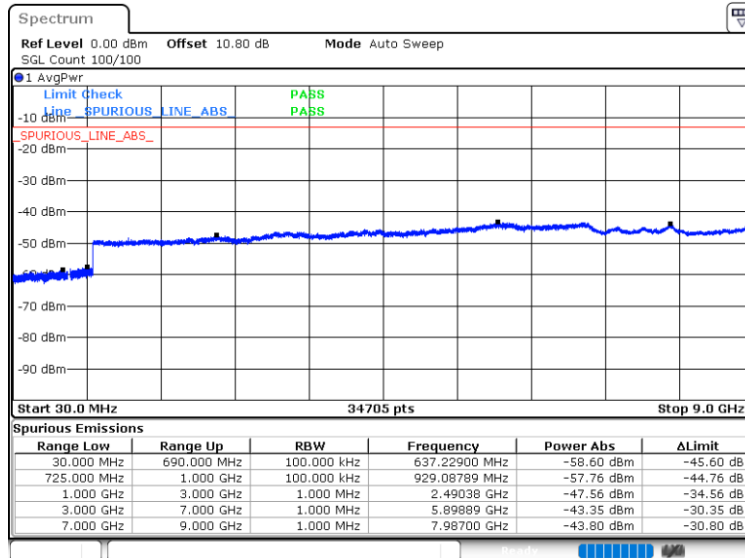
Date: 25.MAY.2021 10:31:07

Middle Channel / QPSK



Date: 25.MAY.2021 10:33:10

Highest Channel / QPSK

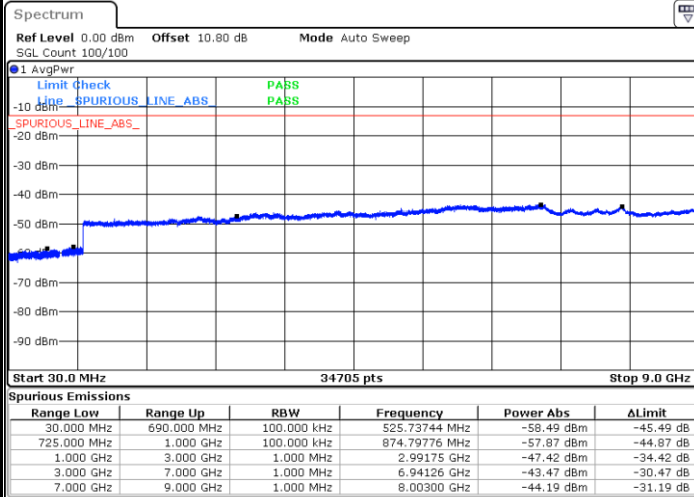


Date: 25.MAY.2021 10:36:32



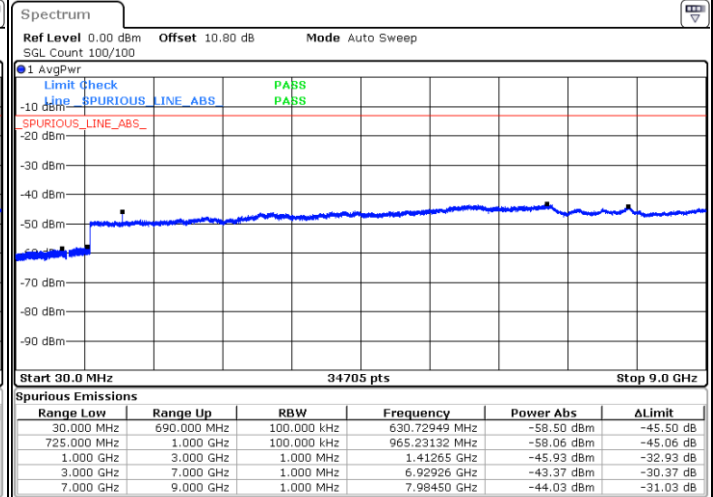
LTE Band 12 / 3MHz

Lowest Channel / QPSK



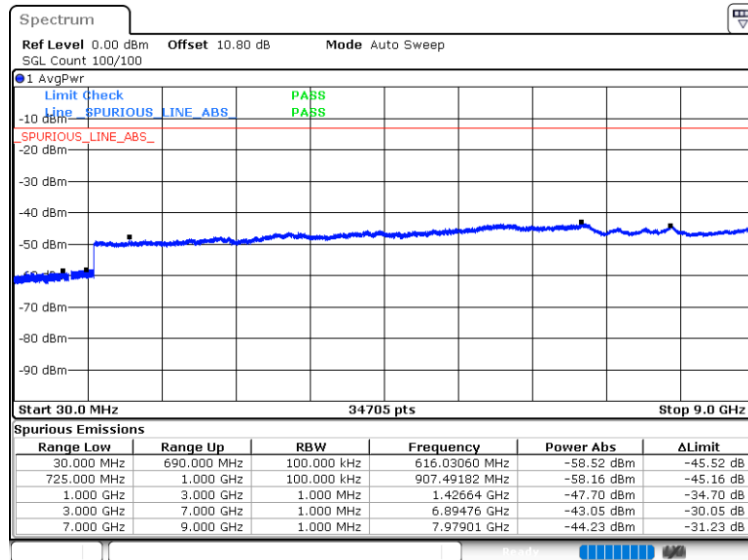
Date: 25.MAY.2021 10:43:25

Middle Channel / QPSK



Date: 25.MAY.2021 10:45:28

Highest Channel / QPSK

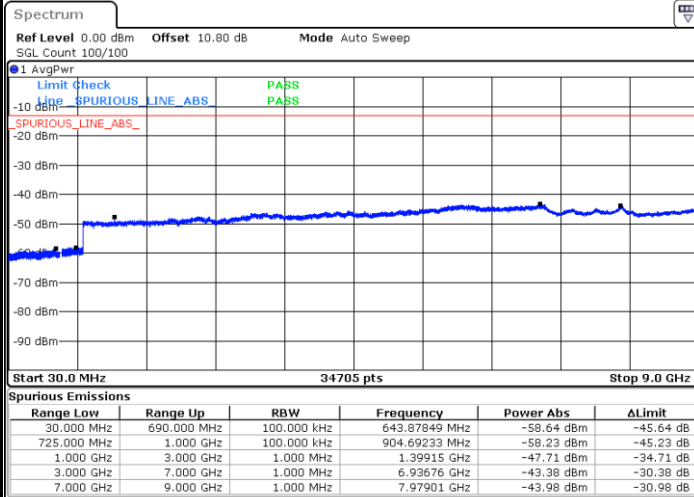


Date: 25.MAY.2021 10:48:50



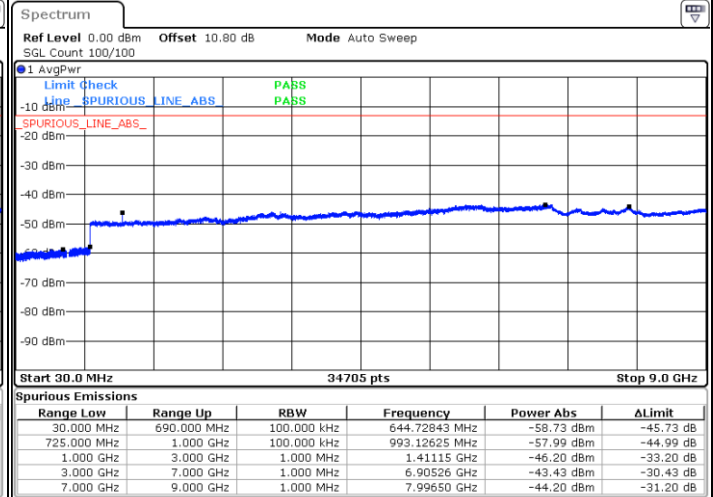
LTE Band 12 / 5MHz

Lowest Channel / QPSK



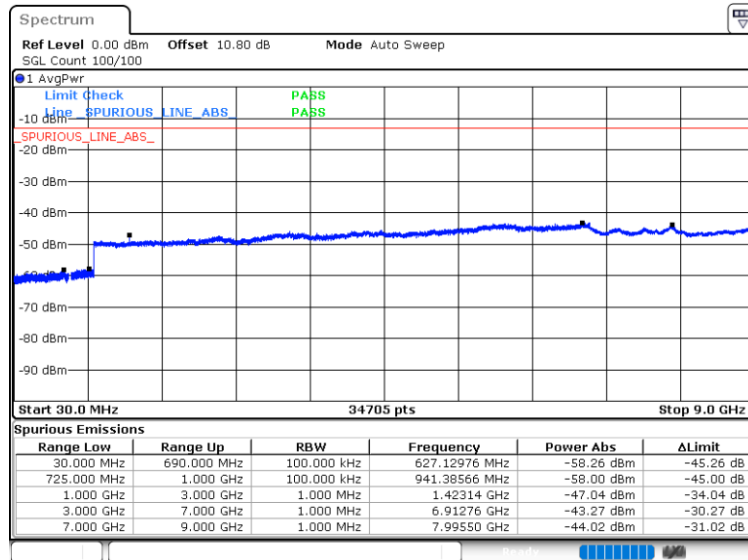
Date: 25.MAY.2021 10:59:12

Middle Channel / QPSK



Date: 25.MAY.2021 11:01:15

Highest Channel / QPSK

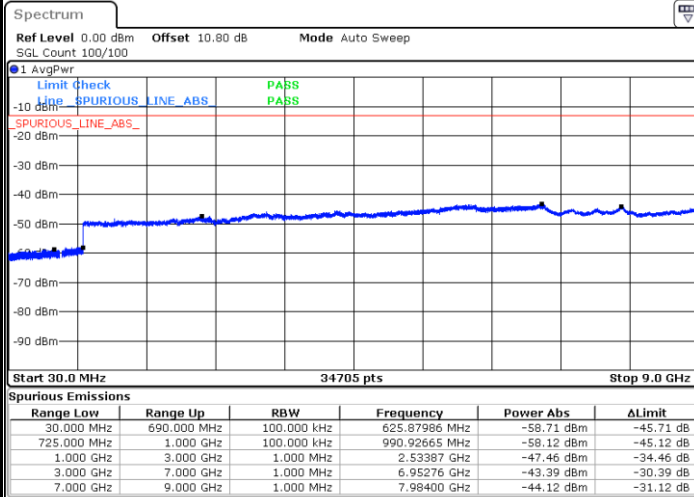


Date: 25.MAY.2021 11:04:37



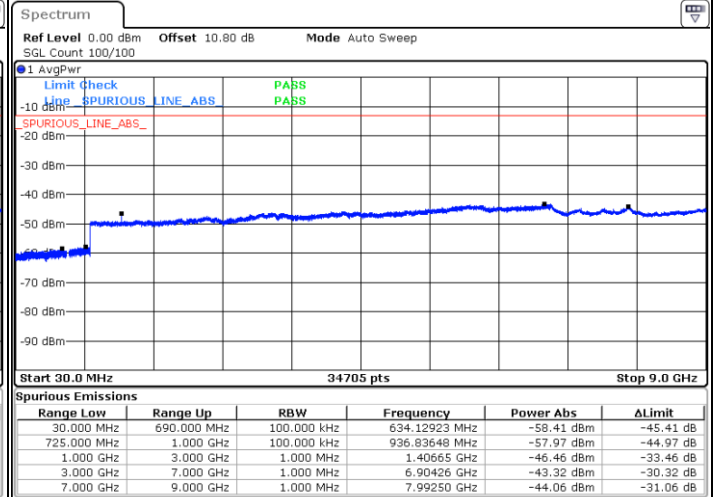
LTE Band 12 / 10MHz

Lowest Channel / QPSK



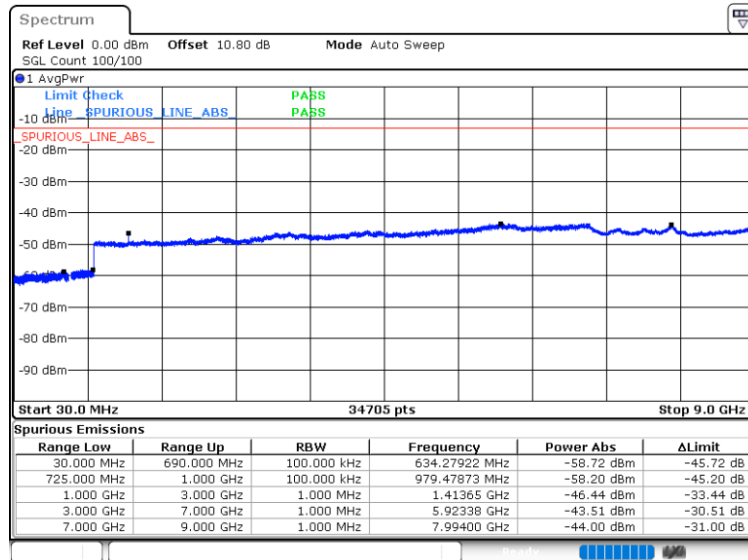
Date: 25.MAY.2021 11:08:04

Middle Channel / QPSK



Date: 25.MAY.2021 11:10:07

Highest Channel / QPSK



Date: 25.MAY.2021 11:14:30

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	0.0184	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0076	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0177	
0	Normal Voltage	0.0059	
-10	Normal Voltage	0.0065	
-20	Normal Voltage	0.0072	
-30	Normal Voltage	0.0048	
20	Maximum Voltage	0.0057	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0045	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.55 V. ; Maximum Voltage =4.35 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 38

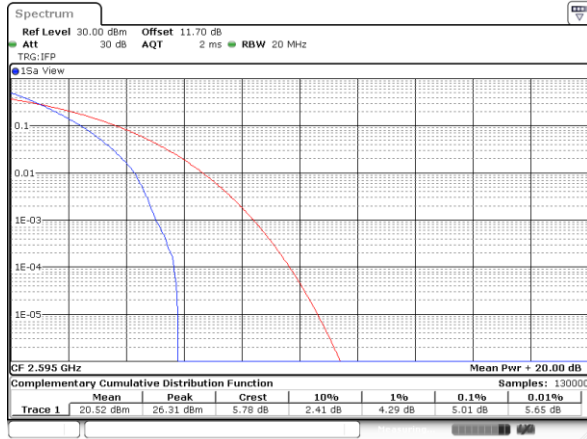
Peak-to-Average Ratio

Mode	LTE Band 38 / 20MHz				
Mod.	QPSK	16QAM	64QAM	256QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Full RB	Result
Middle CH	5.01	5.97	6.49	-	PASS



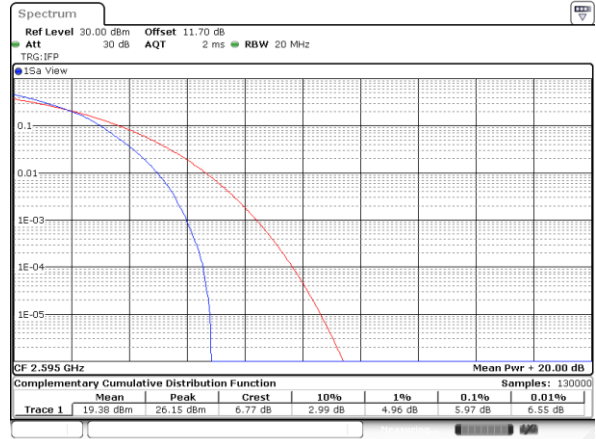
LTE Band 38 / 20MHz / QPSK

Middle Channel / Full RB



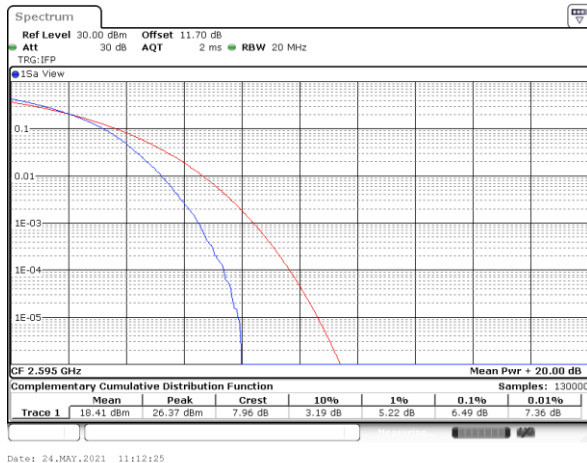
LTE Band 38 / 20MHz / 16QAM

Middle Channel / Full RB



LTE Band 38 / 20MHz / 64QAM

Middle Channel / Full RB



LTE Band 38 / 20MHz / 256QAM

Middle Channel / Full RB

N/A

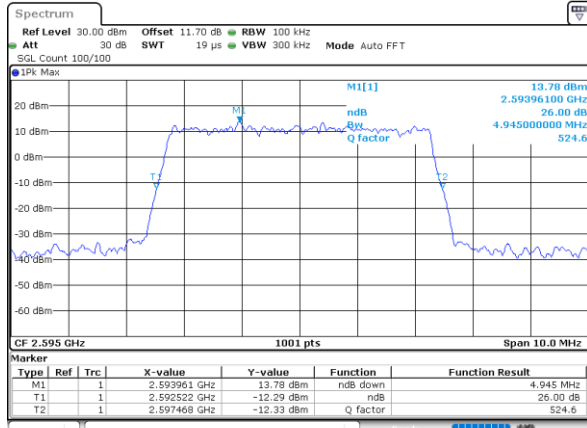
**26dB Bandwidth**

Mode	LTE Band 38 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.95	4.77	9.71	9.67	14.60	14.09	18.74	18.82
Mode	LTE Band 38 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.92	-	9.69	-	14.27	-	19.02	-



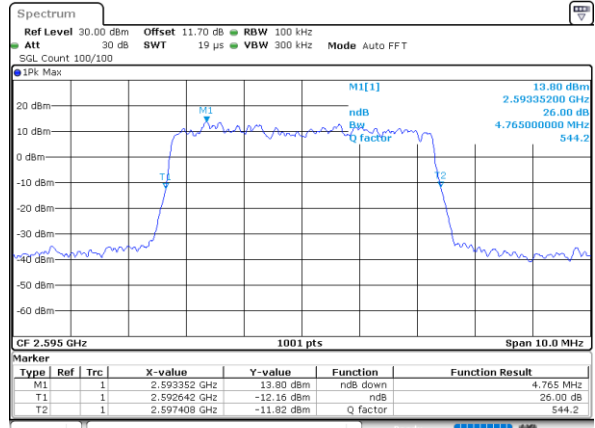
LTE Band 38

Middle Channel / 5MHz / QPSK



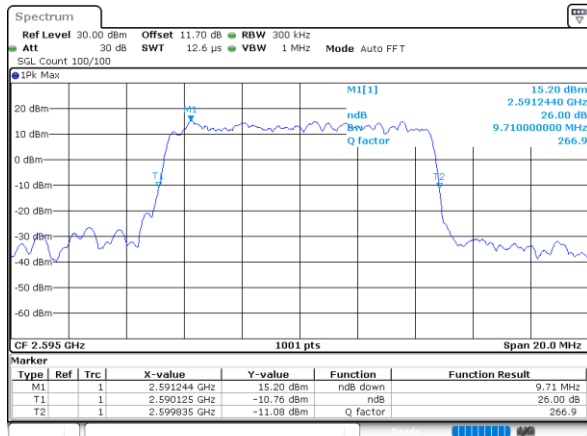
Date: 24.MAY.2021 11:01:52

Middle Channel / 5MHz / 16QAM



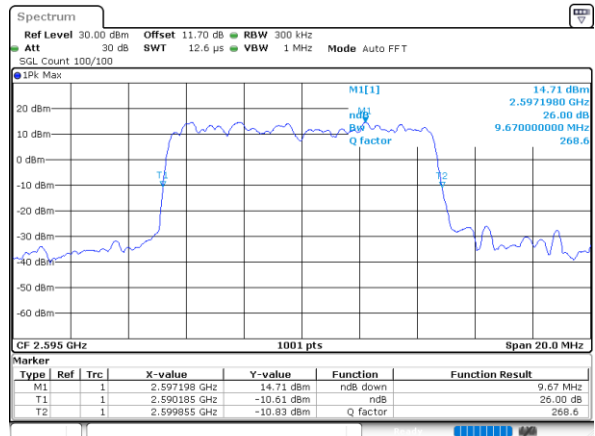
Date: 24.MAY.2021 11:02:13

Middle Channel / 10MHz / QPSK



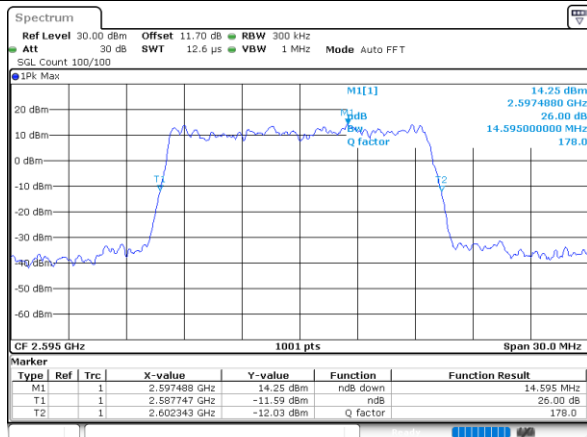
Date: 24.MAY.2021 11:03:20

Middle Channel / 10MHz / 16QAM



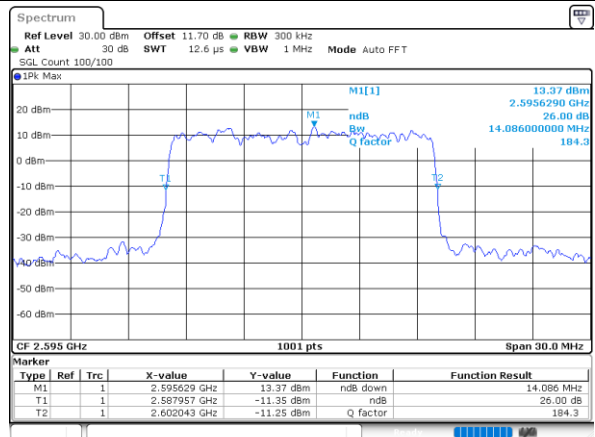
Date: 24.MAY.2021 11:03:41

Middle Channel / 15MHz / QPSK



Date: 24.MAY.2021 11:04:49

Middle Channel / 15MHz / 16QAM

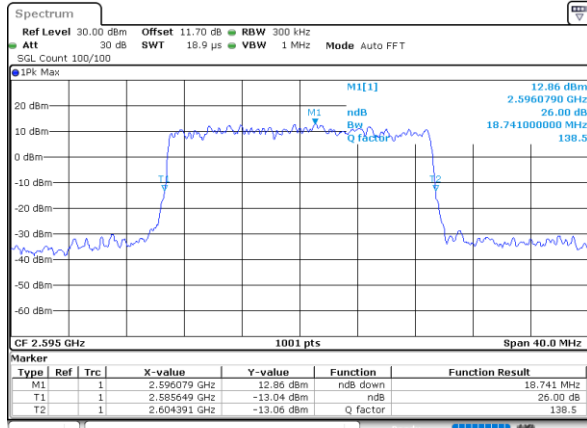


Date: 24.MAY.2021 11:05:10



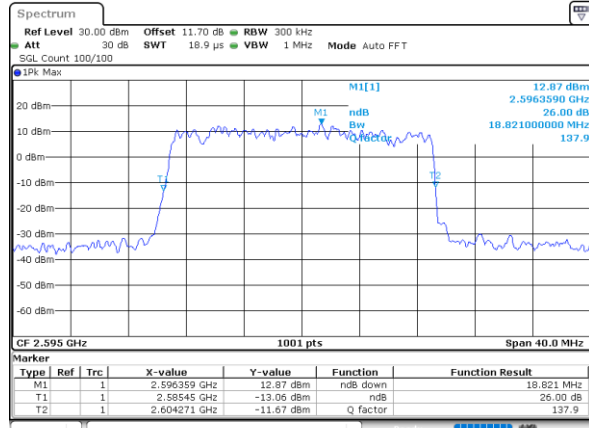
LTE Band 38

Middle Channel / 20MHz / QPSK



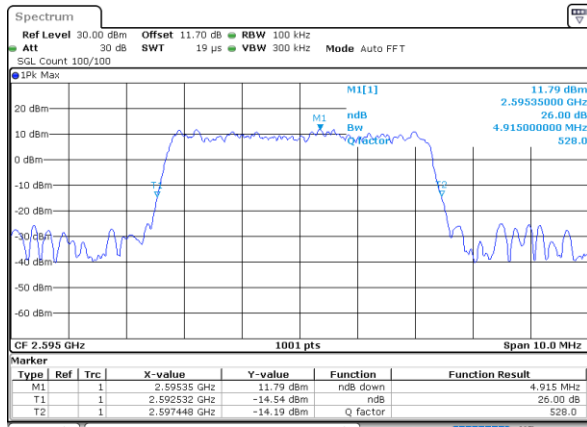
Date: 24.MAY.2021 11:06:16

Middle Channel / 20MHz / 16QAM



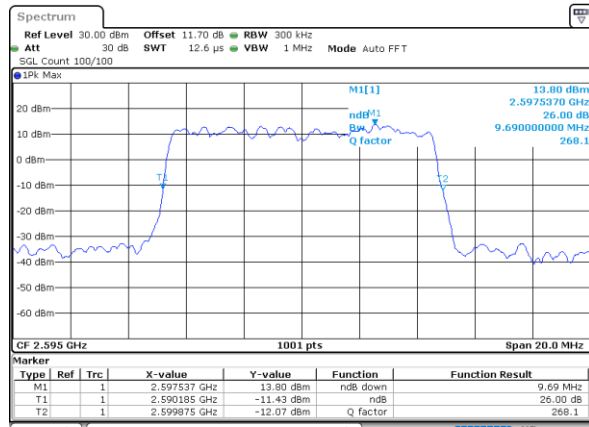
Date: 24.MAY.2021 11:06:17

Middle Channel / 5MHz / 64QAM



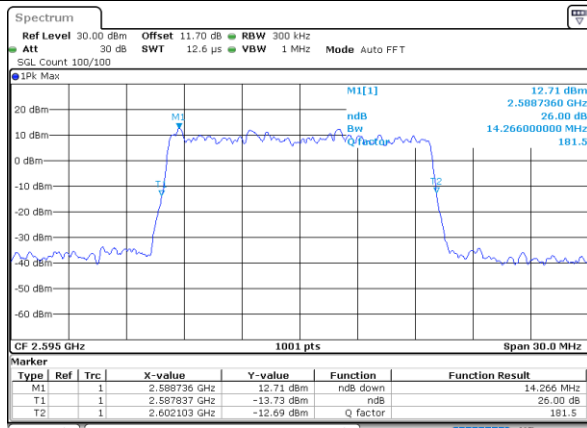
Date: 24.MAY.2021 11:07:22

Middle Channel / 10MHz / 64QAM



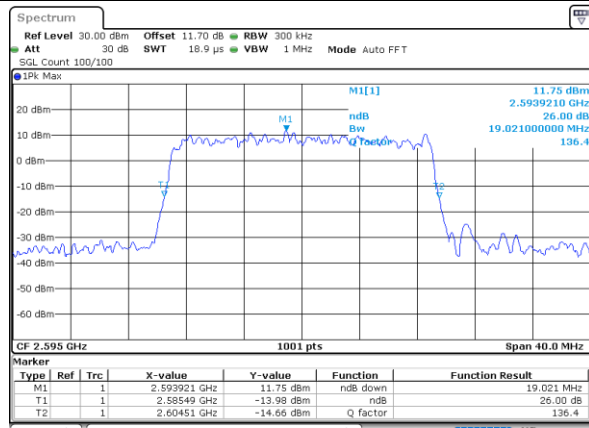
Date: 24.MAY.2021 11:08:06

Middle Channel / 15MHz / 64QAM



Date: 24.MAY.2021 11:08:50

Middle Channel / 20MHz / 64QAM



Date: 24.MAY.2021 11:09:34

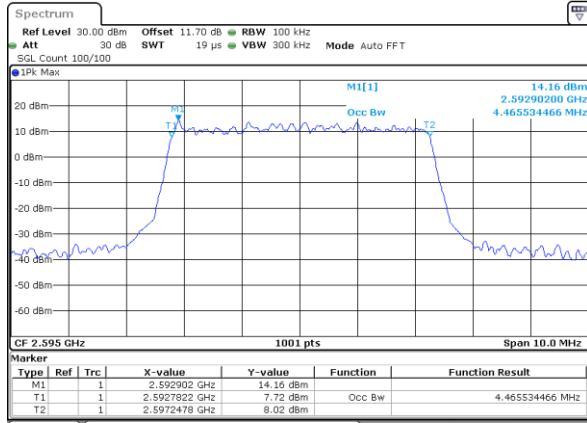
**Occupied Bandwidth**

Mode	LTE Band 38 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Middle CH	-	-	-	-	4.47	4.49	9.01	9.05	13.46	13.43	17.90	17.86
Mode	LTE Band 38 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM	64QAM	256 QAM
Middle CH	-	-	-	-	4.48	-	8.99	-	13.46	-	17.90	-

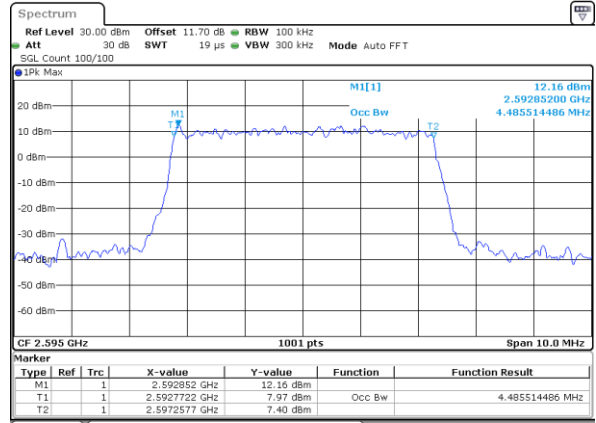


LTE Band 38

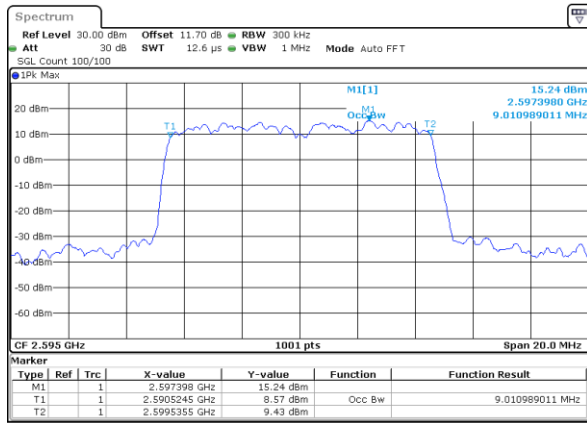
Middle Channel / 5MHz / QPSK



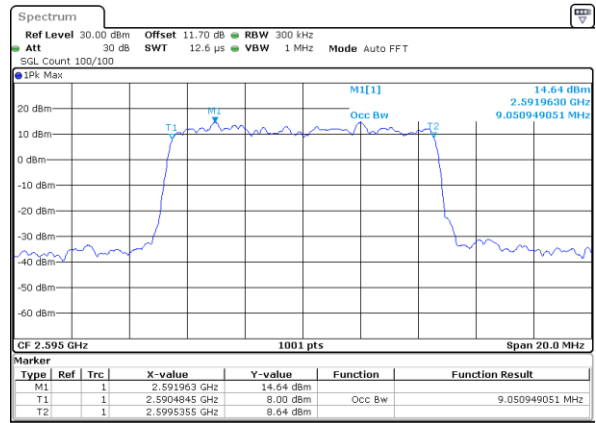
Middle Channel / 5MHz / 16QAM



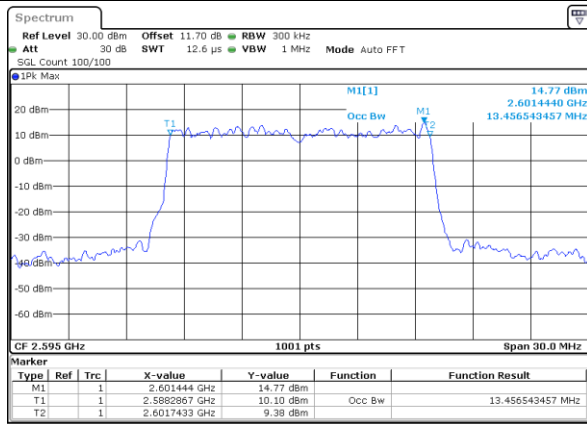
Middle Channel / 10MHz / QPSK



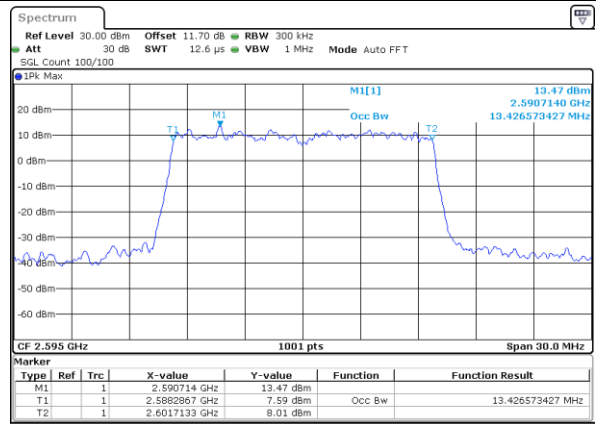
Middle Channel / 10MHz / 16QAM



Middle Channel / 15MHz / QPSK



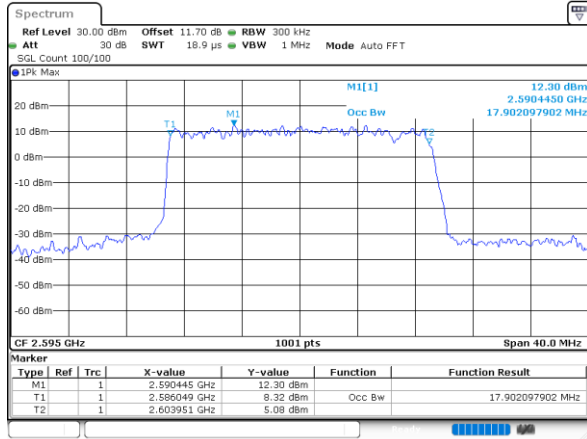
Middle Channel / 15MHz / 16QAM





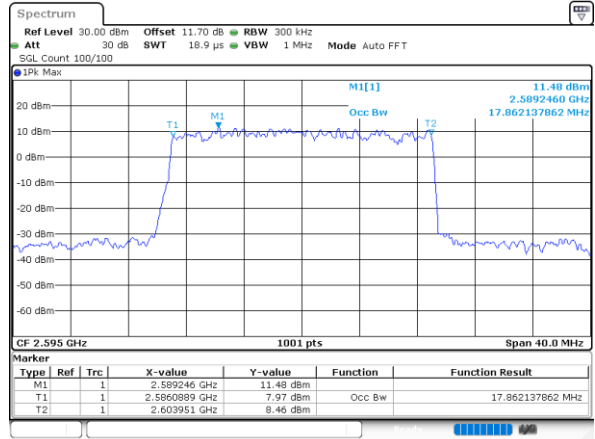
LTE Band 38

Middle Channel / 20MHz / QPSK



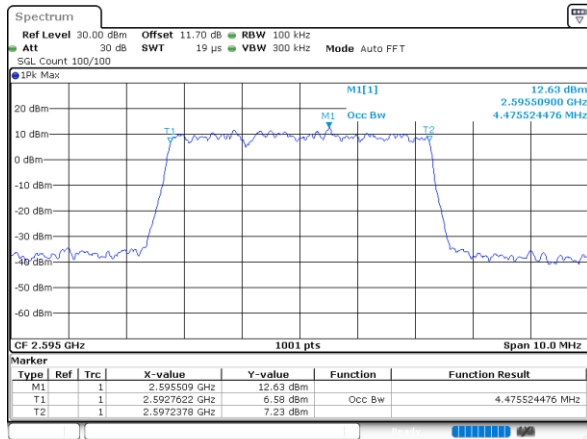
Date: 24.MAY.2021 11:05:31

Middle Channel / 20MHz / 16QAM



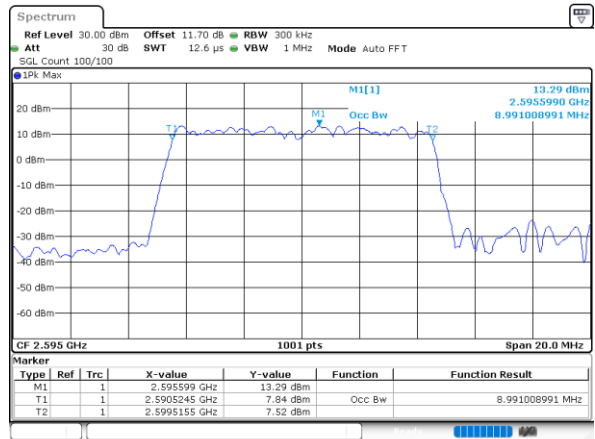
Date: 24.MAY.2021 11:05:54

Middle Channel / 5MHz / 64QAM



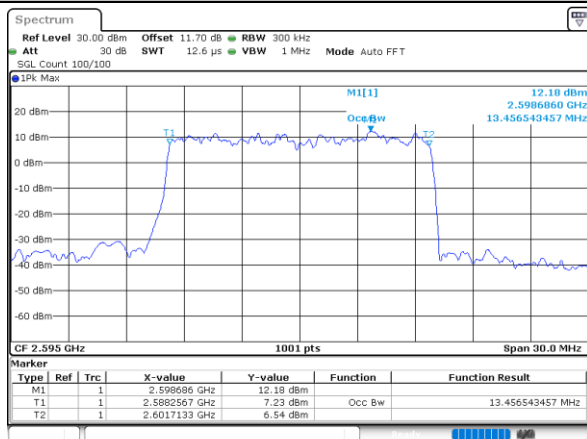
Date: 24.MAY.2021 11:06:59

Middle Channel / 10MHz / 64QAM



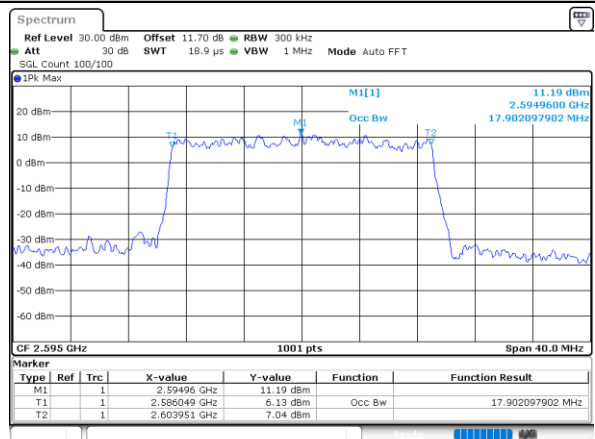
Date: 24.MAY.2021 11:07:43

Middle Channel / 15MHz / 64QAM



Date: 24.MAY.2021 11:08:28

Middle Channel / 20MHz / 64QAM



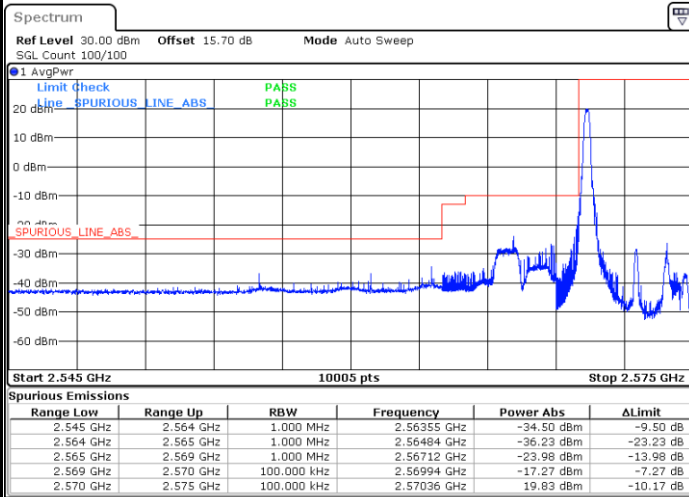
Date: 24.MAY.2021 11:09:11



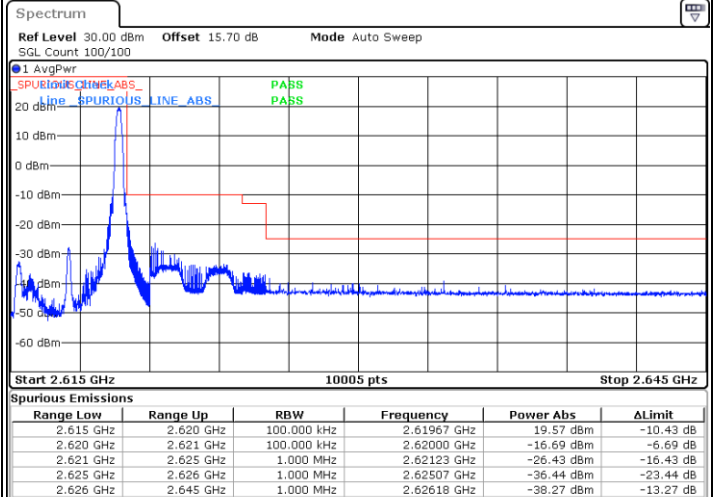
Conducted Band Edge

LTE Band 38 / 5MHz / QPSK

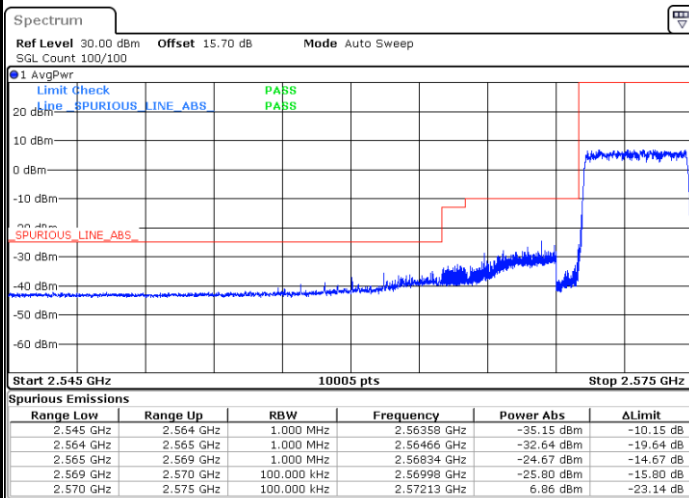
Lowest Band Edge / 1 RB



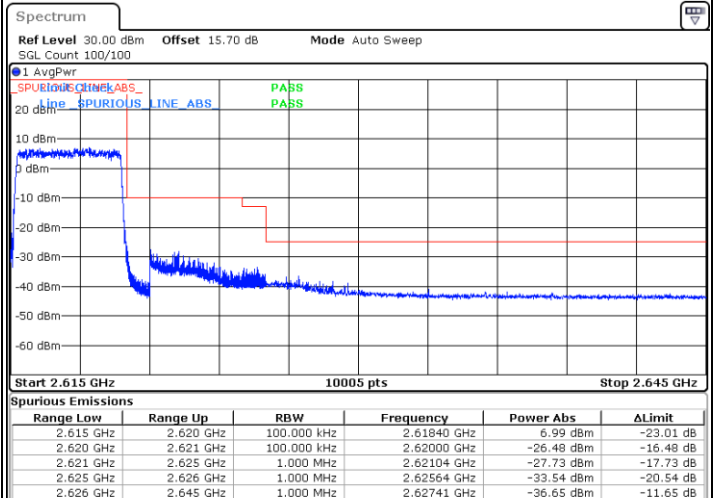
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



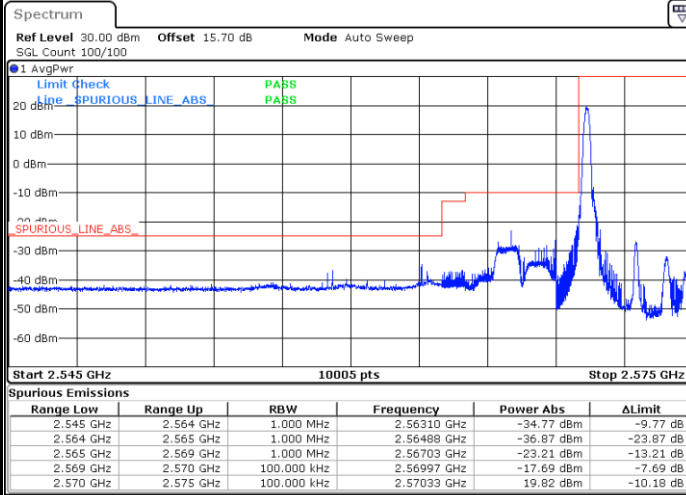
Highest Band Edge / Full RB



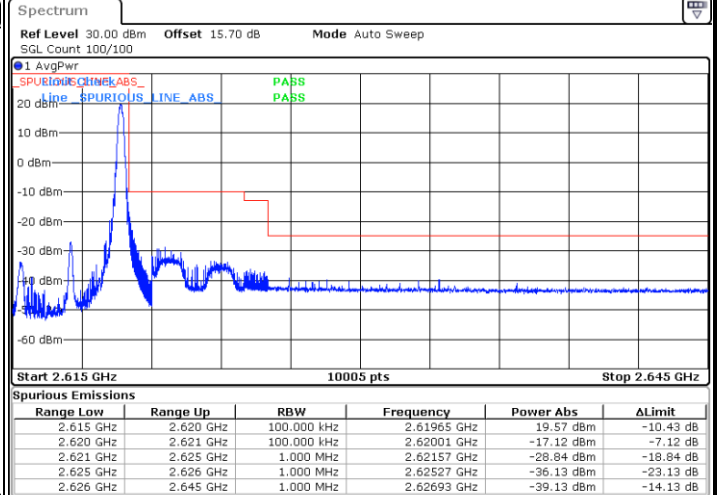


LTE Band 38 / 5MHz / 16QAM

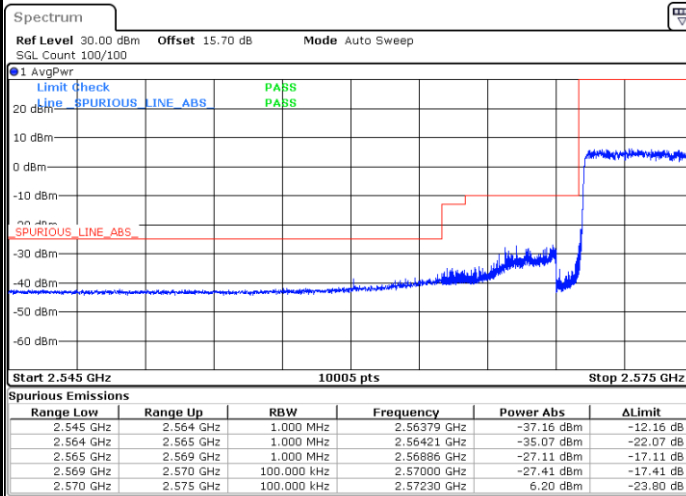
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

