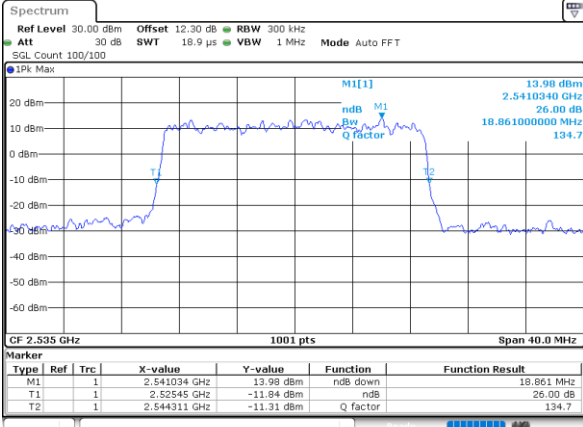




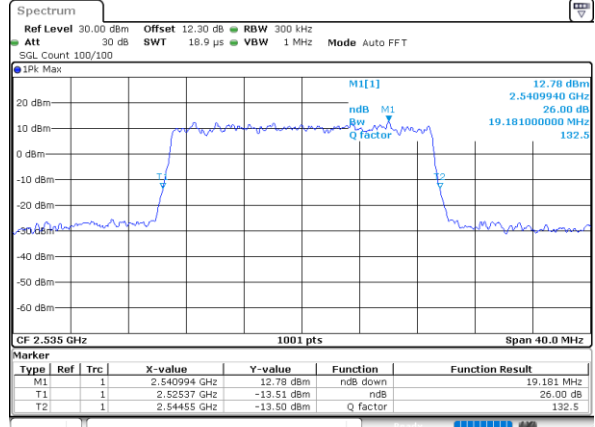
LTE Band 7

Middle Channel / 20MHz / QPSK



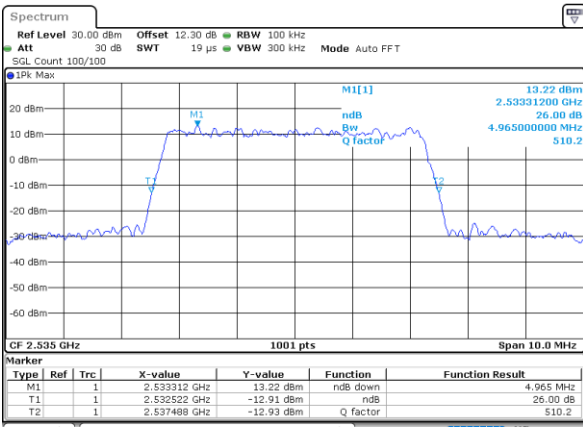
Date: 13. DEC. 2020 08:138:01

Middle Channel / 20MHz / 16QAM



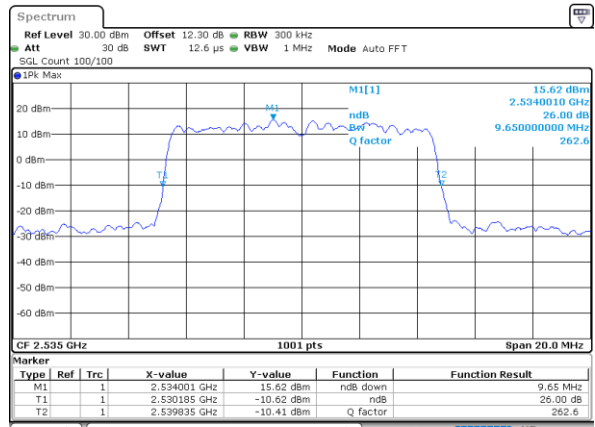
Date: 13. DEC. 2020 08:138:12

Middle Channel / 5MHz / 64QAM



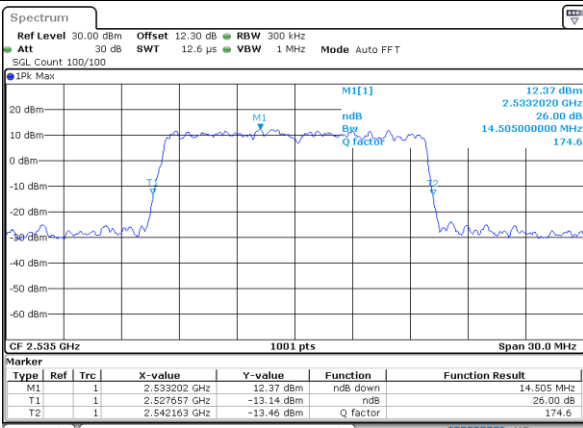
Date: 13. DEC. 2020 08:142:23

Middle Channel / 10MHz / 64QAM



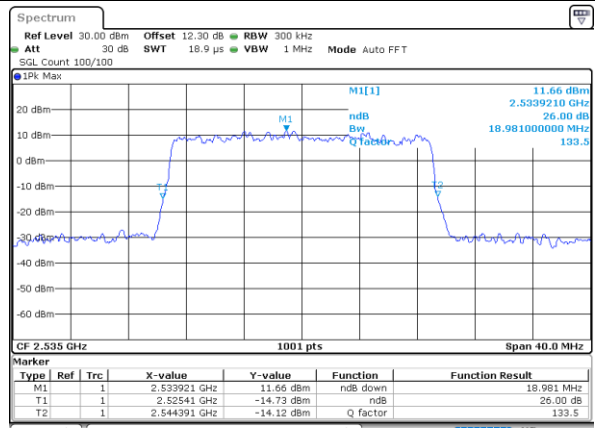
Date: 13. DEC. 2020 08:122:01

Middle Channel / 15MHz / 64QAM



Date: 13. DEC. 2020 08:134:34

Middle Channel / 20MHz / 64QAM



Date: 13. DEC. 2020 08:142:15



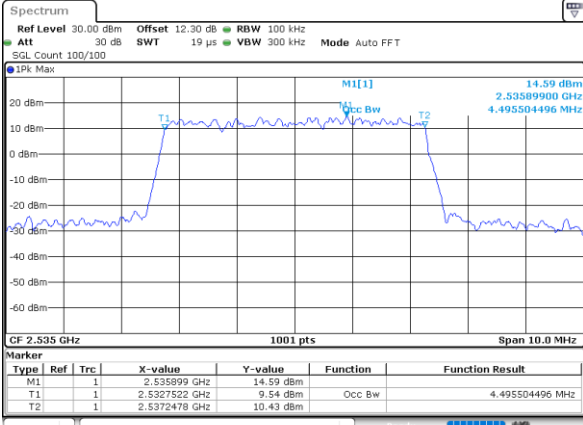
Occupied Bandwidth

Mode	LTE Band 7 : 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	-	-	-	-	4.50	4.50	8.99	8.97	13.46	13.37	17.90	17.82
Mode	LTE Band 7 : 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	-	-	-	-	4.54	-	9.05	-	13.40	-	17.82	-



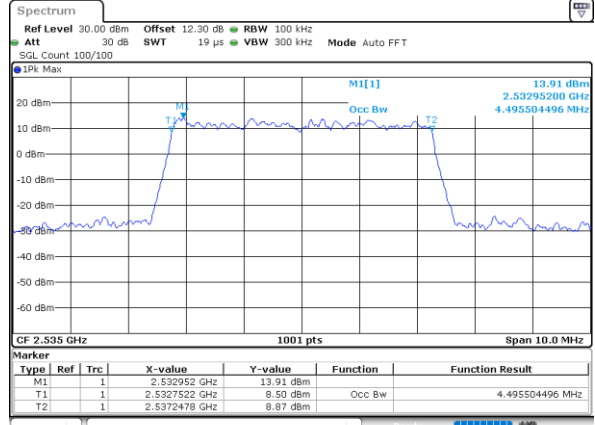
LTE Band 7

Middle Channel / 5MHz / QPSK



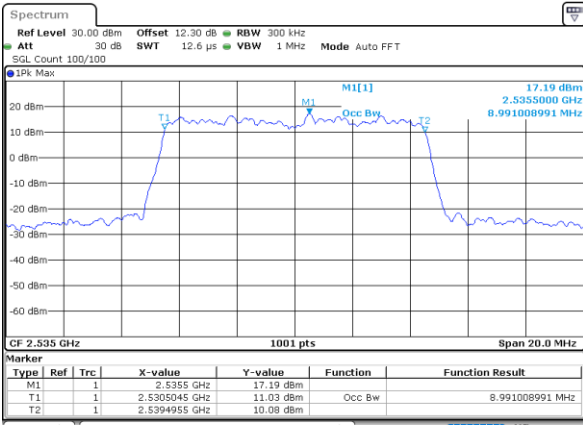
Date: 13. DEC. 2020 08:09:46

Middle Channel / 5MHz / 16QAM



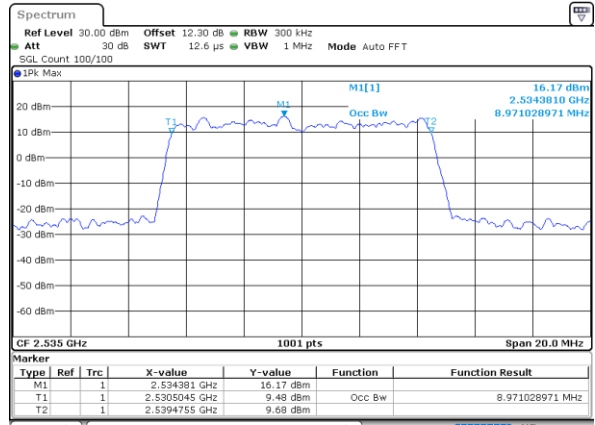
Date: 13. DEC. 2020 08:10:57

Middle Channel / 10MHz / QPSK



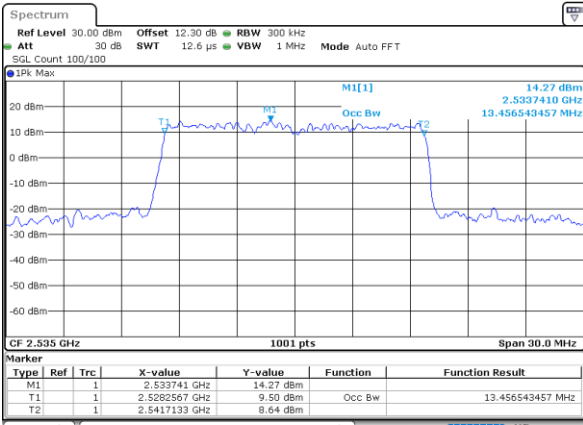
Date: 13. DEC. 2020 08:17:24

Middle Channel / 10MHz / 16QAM



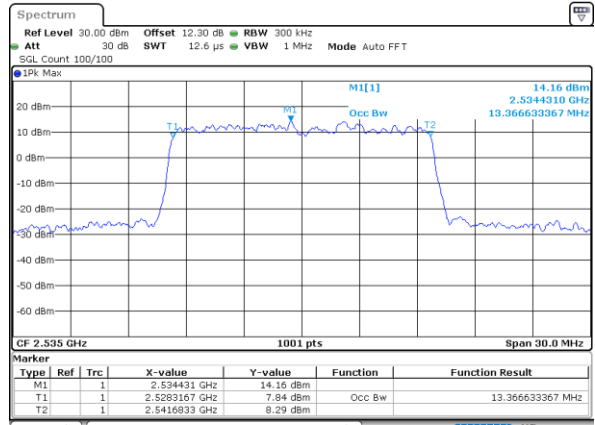
Date: 13. DEC. 2020 08:17:36

Middle Channel / 15MHz / QPSK



Date: 13. DEC. 2020 08:25:04

Middle Channel / 15MHz / 16QAM

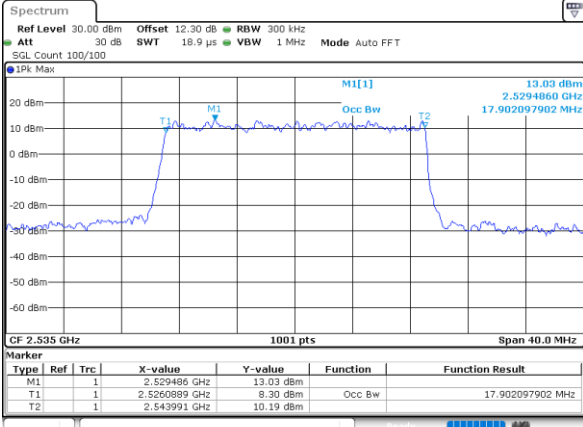


Date: 13. DEC. 2020 08:25:15



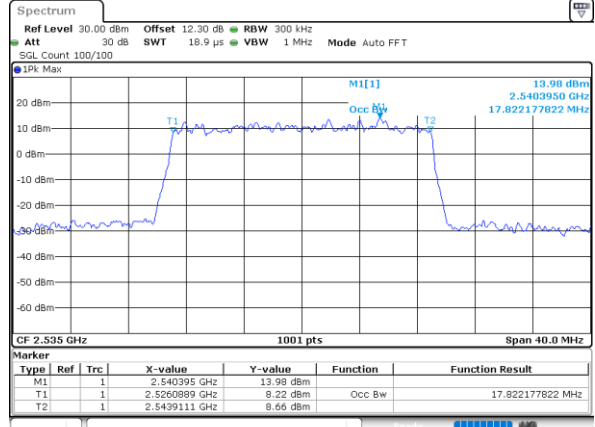
LTE Band 7

Middle Channel / 20MHz / QPSK



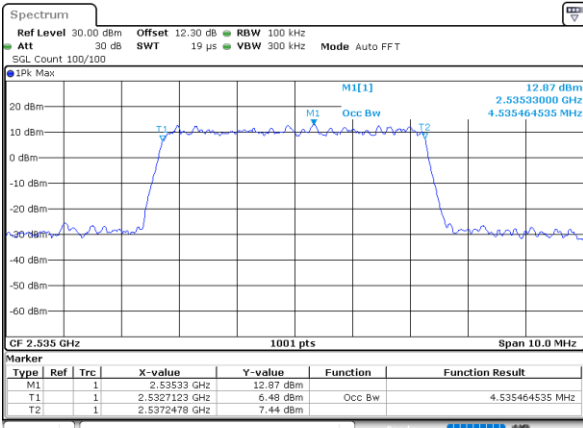
Date: 13. DEC. 2020 08:37:38

Middle Channel / 20MHz / 16QAM



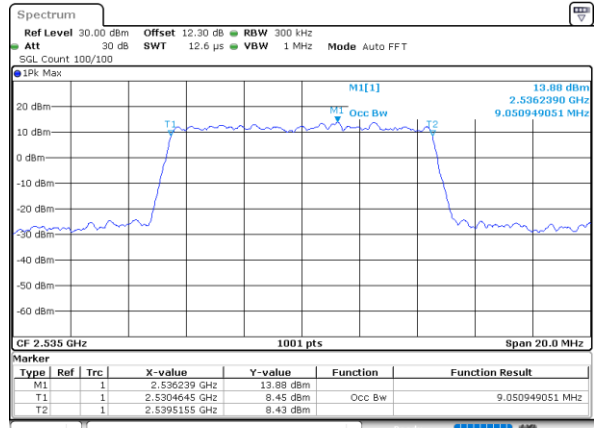
Date: 13. DEC. 2020 08:37:49

Middle Channel / 5MHz / 64QAM



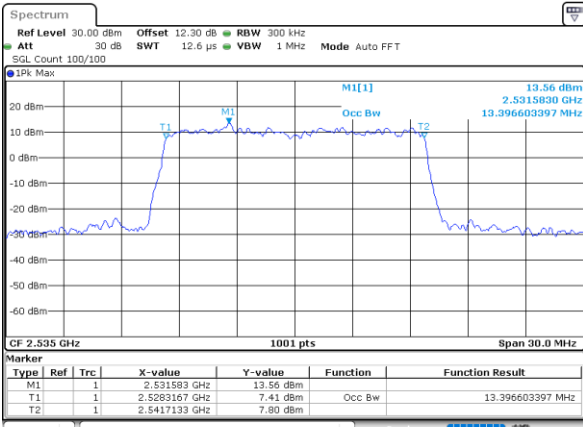
Date: 13. DEC. 2020 08:14:12

Middle Channel / 10MHz / 64QAM



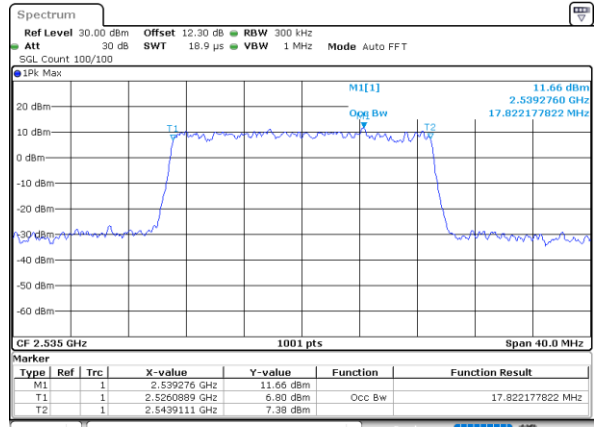
Date: 13. DEC. 2020 08:21:50

Middle Channel / 15MHz / 64QAM



Date: 13. DEC. 2020 08:34:23

Middle Channel / 20MHz / 64QAM



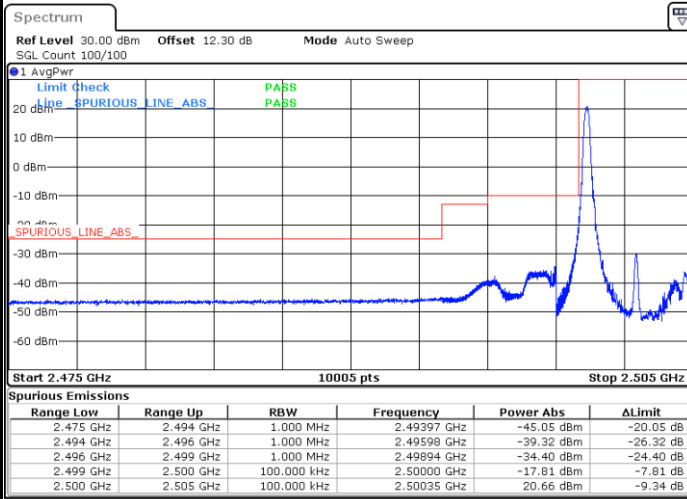
Date: 13. DEC. 2020 08:42:04



Conducted Band Edge

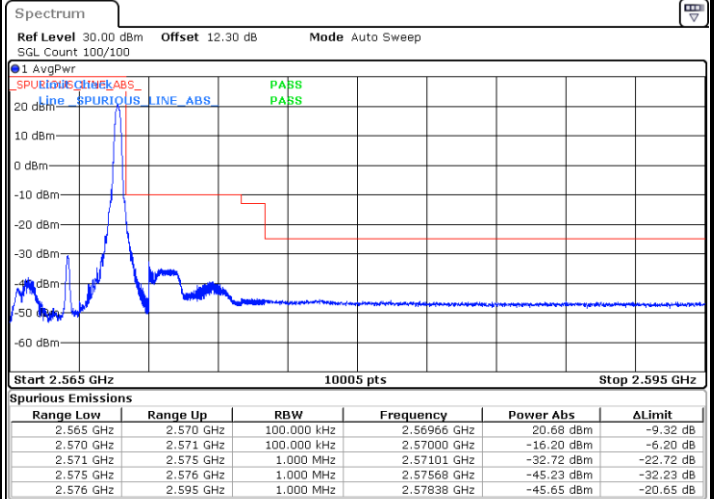
LTE Band 7 / 5MHz / QPSK

Lowest Band Edge / 1 RB



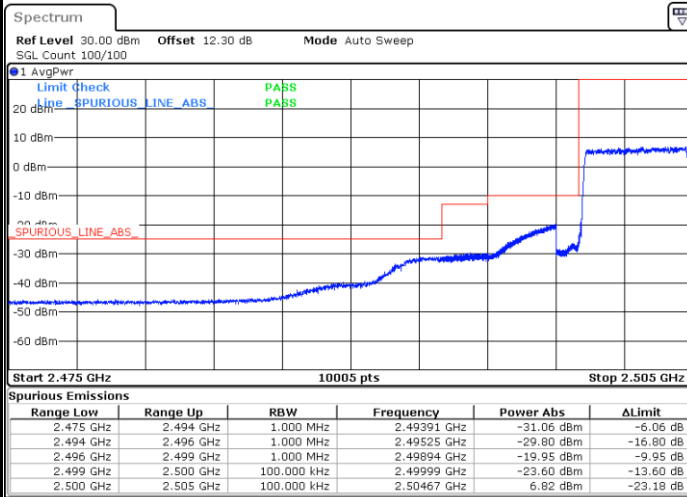
Date: 13.DEC.2020 08:07:41

Highest Band Edge / 1 RB



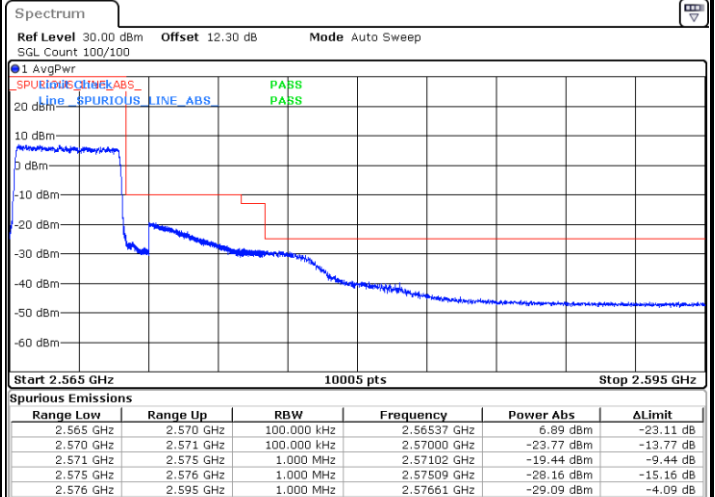
Date: 13.DEC.2020 08:11:28

Lowest Band Edge / Full RB



Date: 13.DEC.2020 08:08:22

Highest Band Edge / Full RB

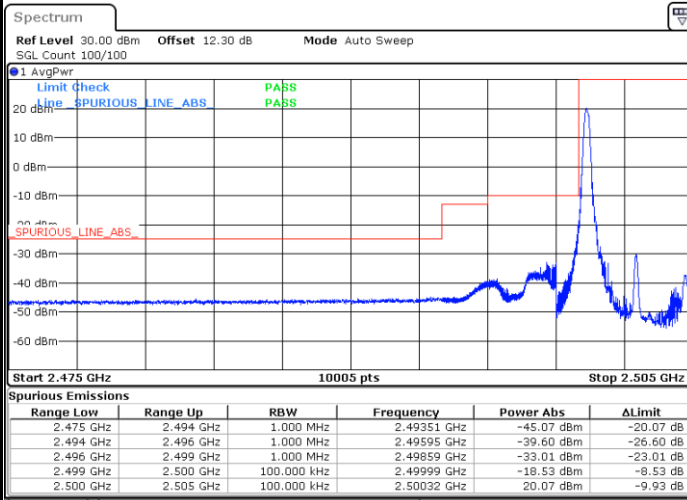


Date: 13.DEC.2020 08:12:08



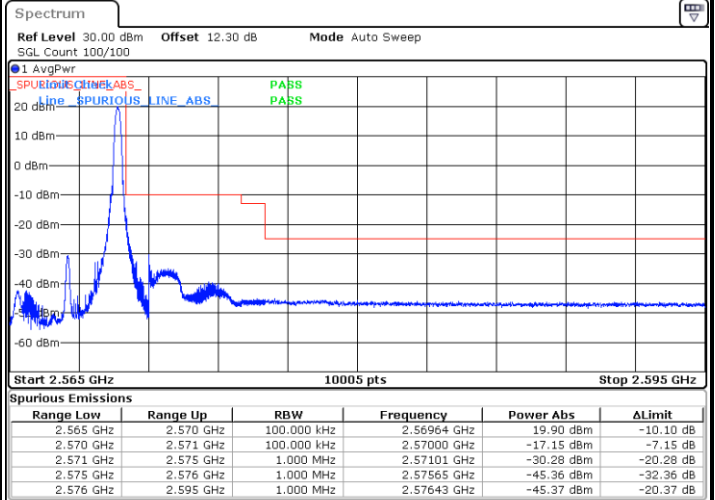
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1RB



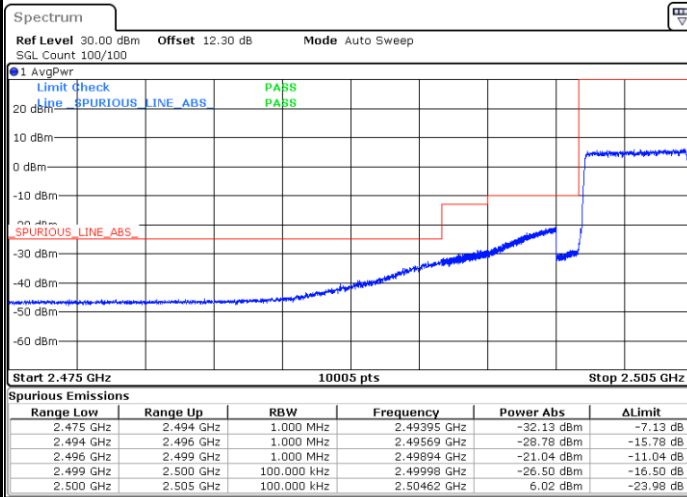
Date: 13.DEC.2020 08:08:01

Highest Band Edge / 1 RB



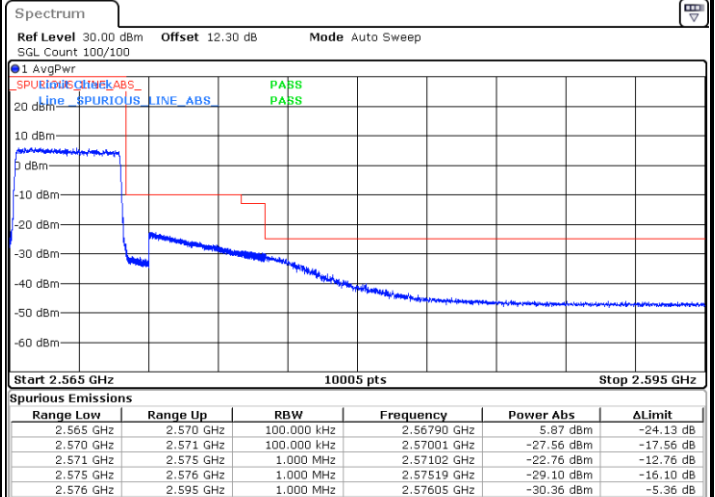
Date: 13.DEC.2020 08:11:48

Lowest Band Edge / Full RB



Date: 13.DEC.2020 08:08:42

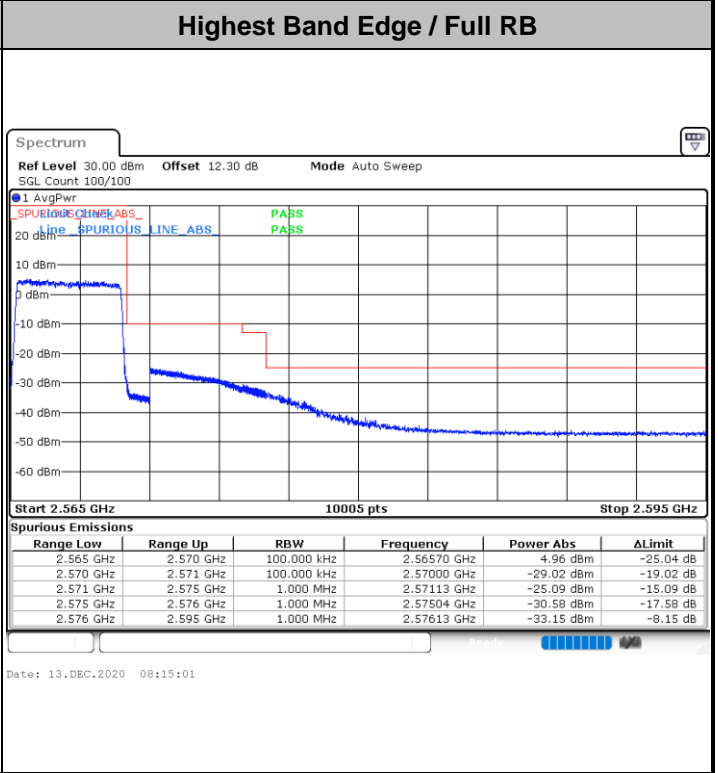
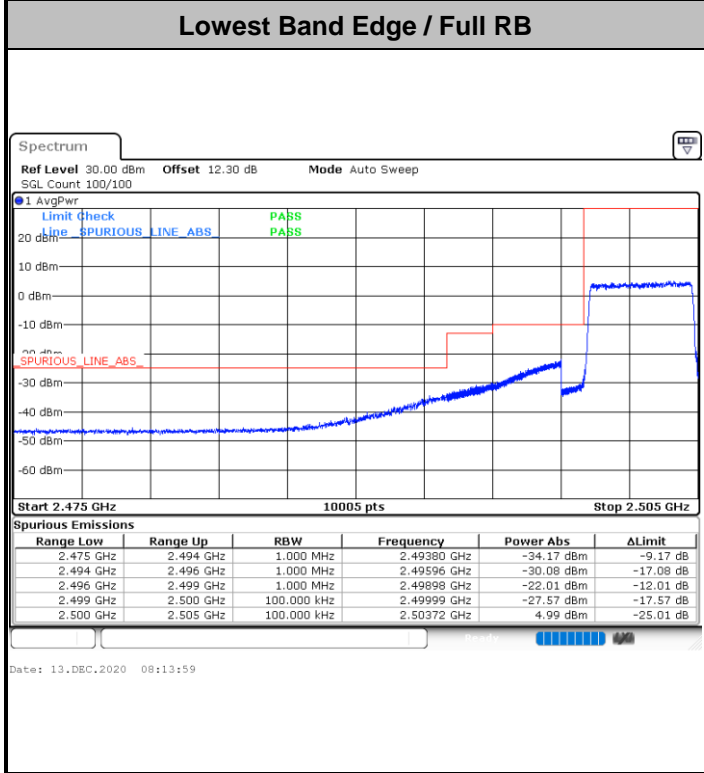
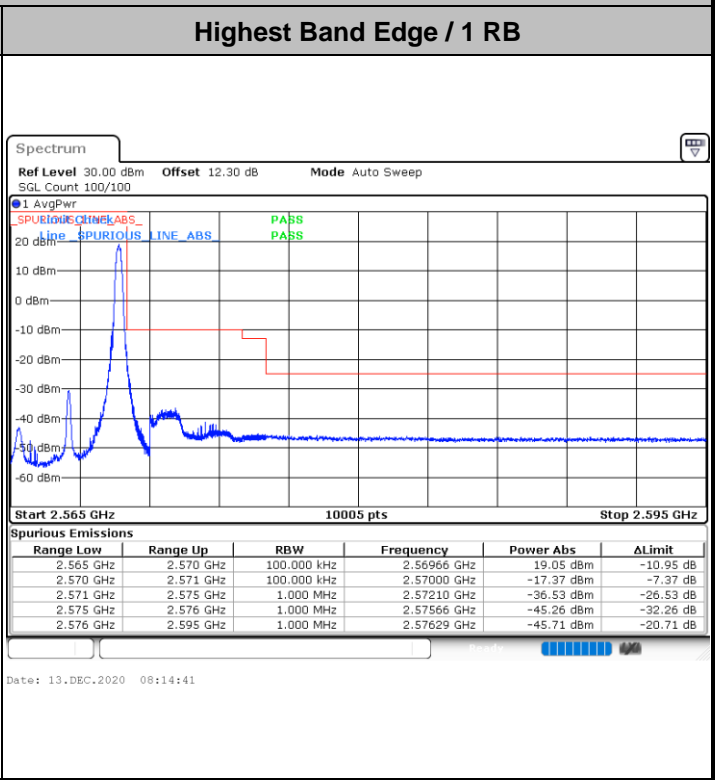
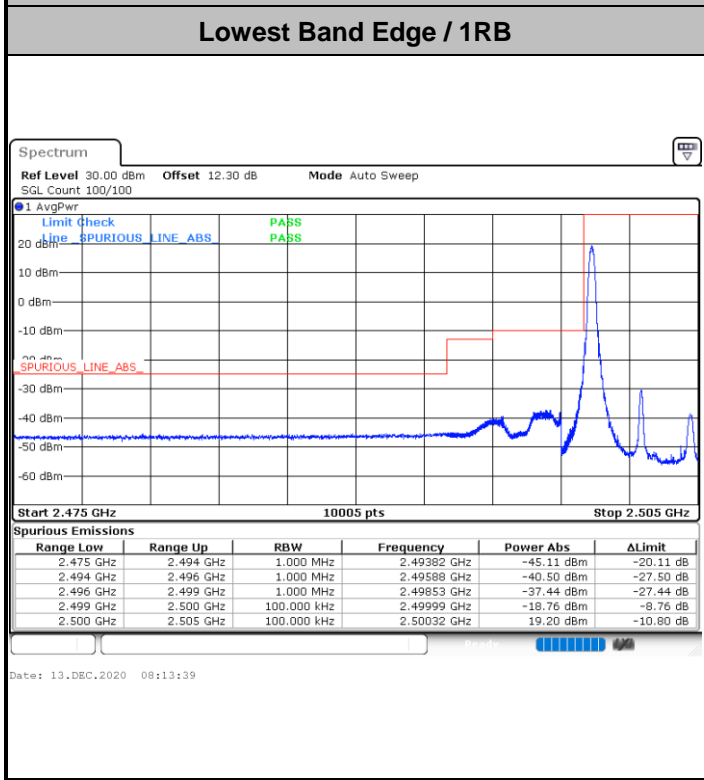
Highest Band Edge / Full RB



Date: 13.DEC.2020 08:12:28



LTE Band 7 / 5MHz / 64QAM

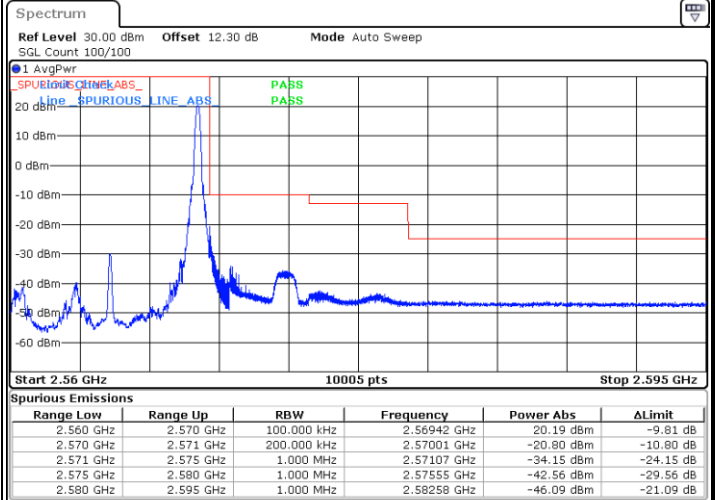
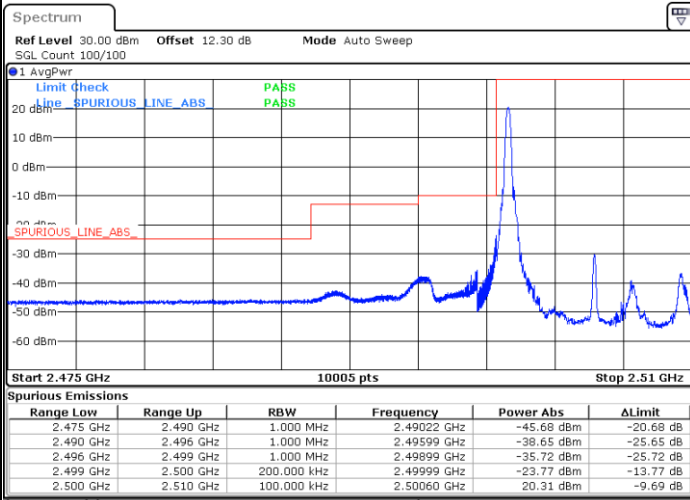




LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

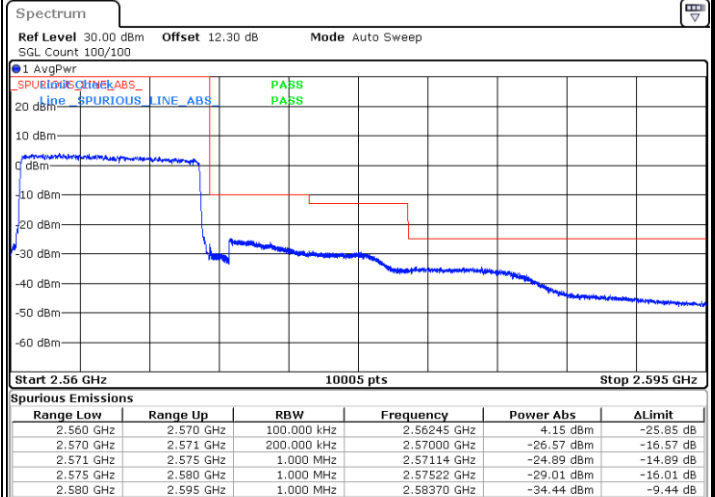
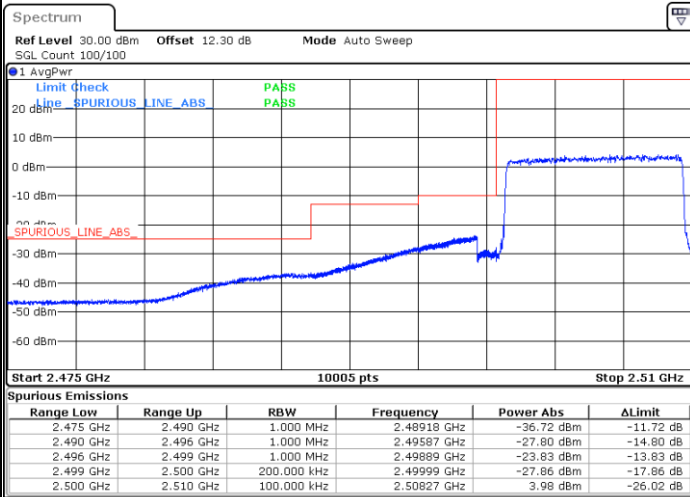


Date: 13.DEC.2020 08:15:21

Date: 13.DEC.2020 08:19:07

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



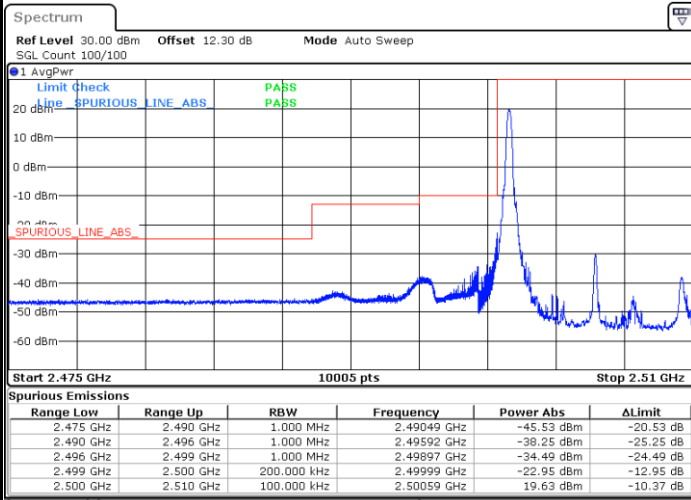
Date: 13.DEC.2020 08:16:01

Date: 13.DEC.2020 08:19:47



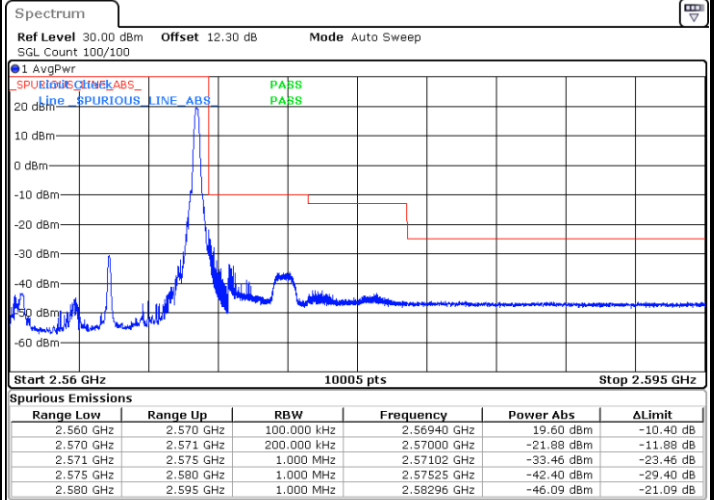
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



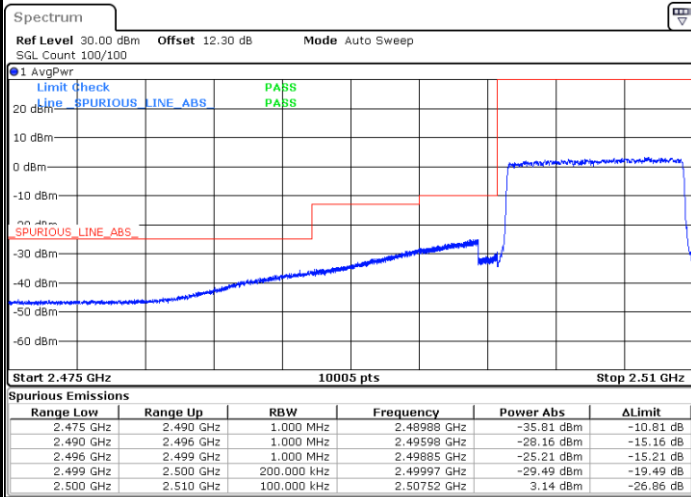
Date: 13.DEC.2020 08:15:41

Highest Band Edge / 1 RB



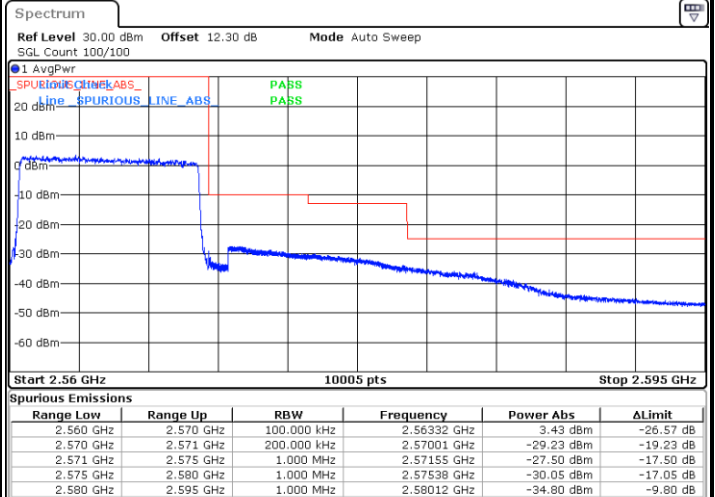
Date: 13.DEC.2020 08:19:27

Lowest Band Edge / Full RB



Date: 13.DEC.2020 08:16:20

Highest Band Edge / Full RB

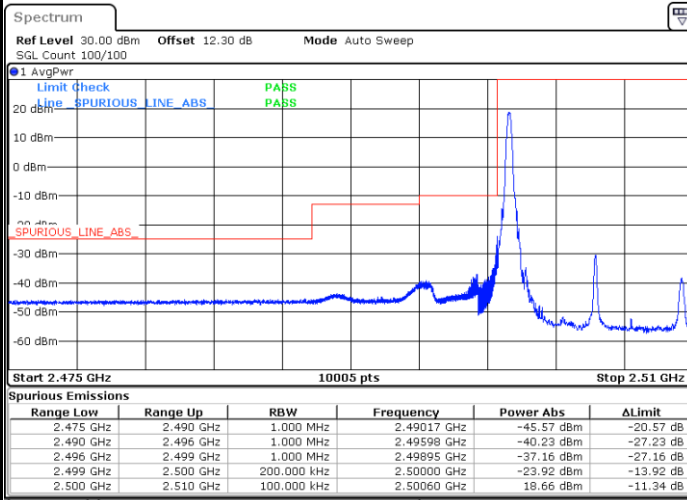


Date: 13.DEC.2020 08:20:06



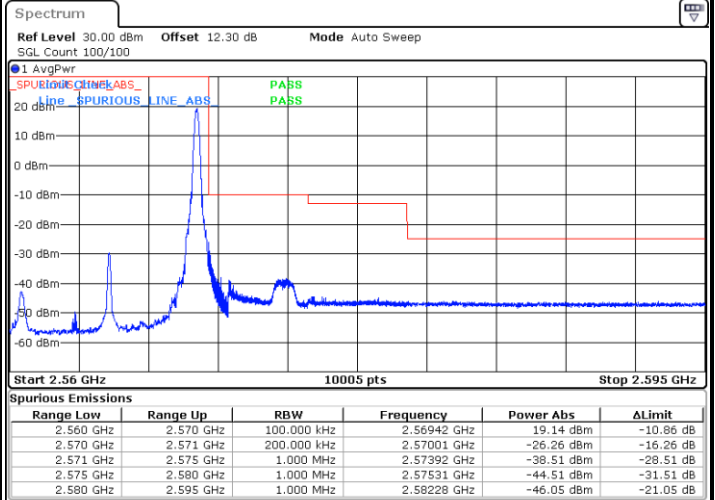
LTE Band 7 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



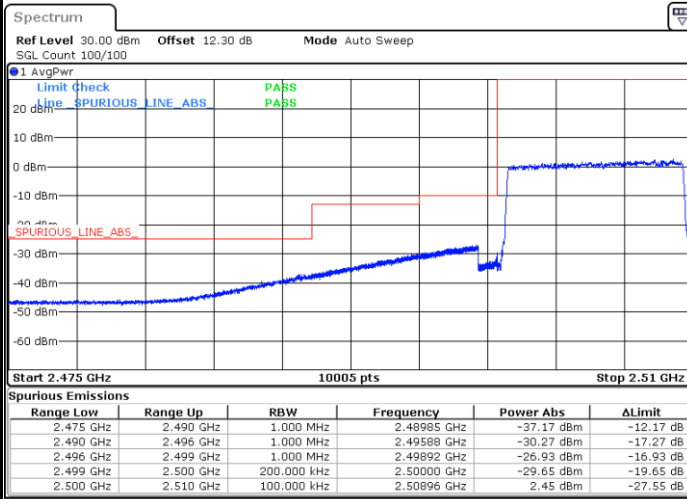
Date: 13.DEC.2020 08:21:17

Highest Band Edge / 1 RB



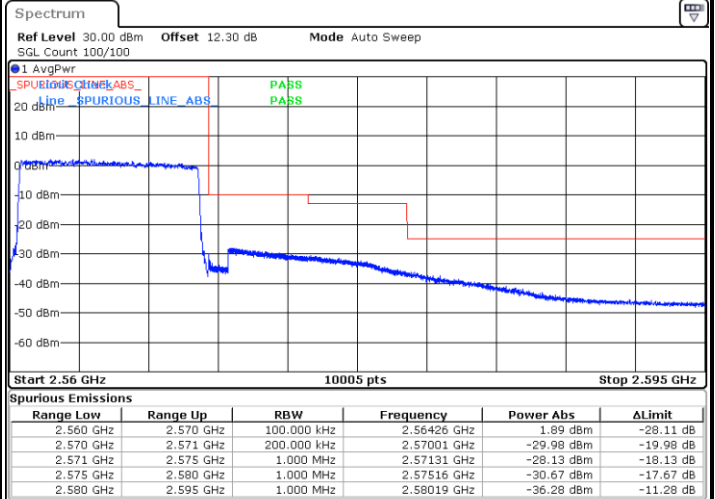
Date: 13.DEC.2020 08:22:19

Lowest Band Edge / Full RB



Date: 13.DEC.2020 08:21:37

Highest Band Edge / Full RB

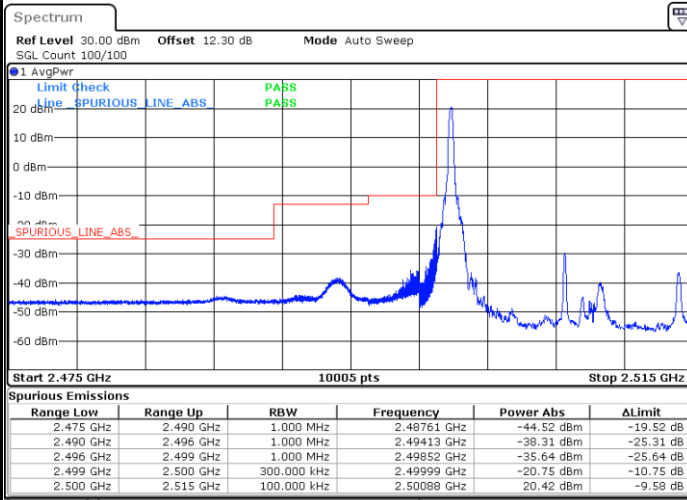


Date: 13.DEC.2020 08:22:39



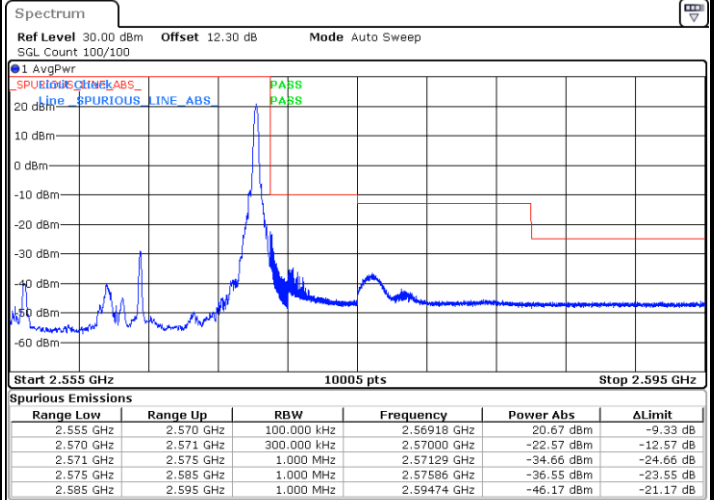
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



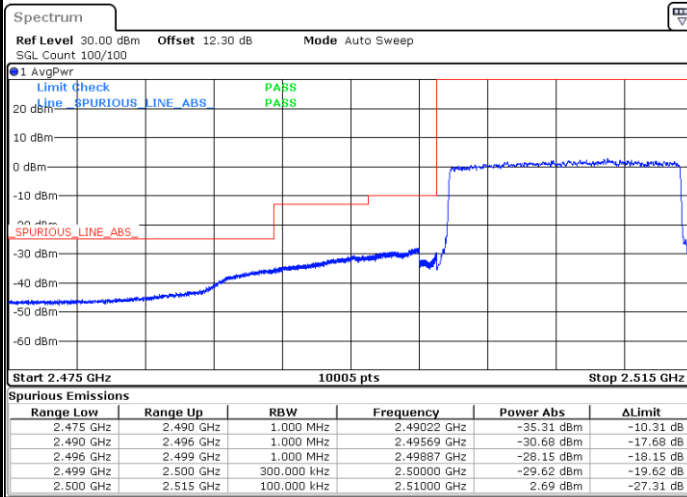
Date: 13.DEC.2020 08:22:59

Highest Band Edge / 1 RB



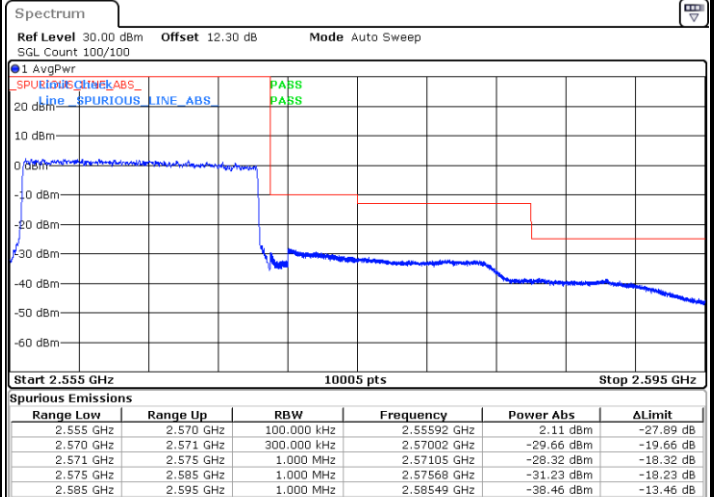
Date: 13.DEC.2020 08:31:40

Lowest Band Edge / Full RB



Date: 13.DEC.2020 08:23:19

Highest Band Edge / Full RB

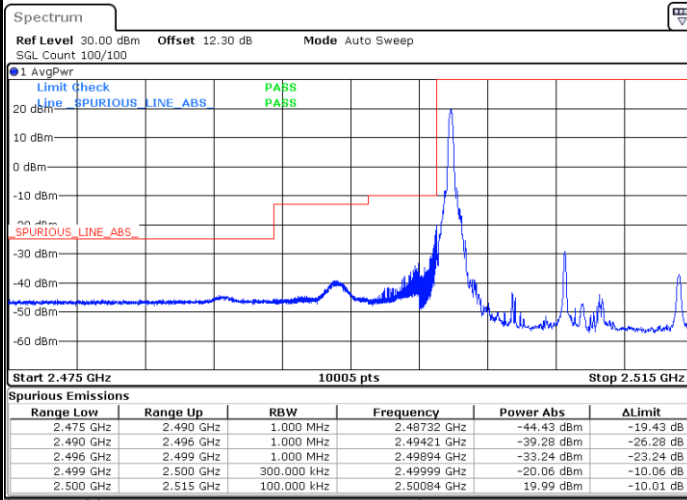


Date: 13.DEC.2020 08:32:19



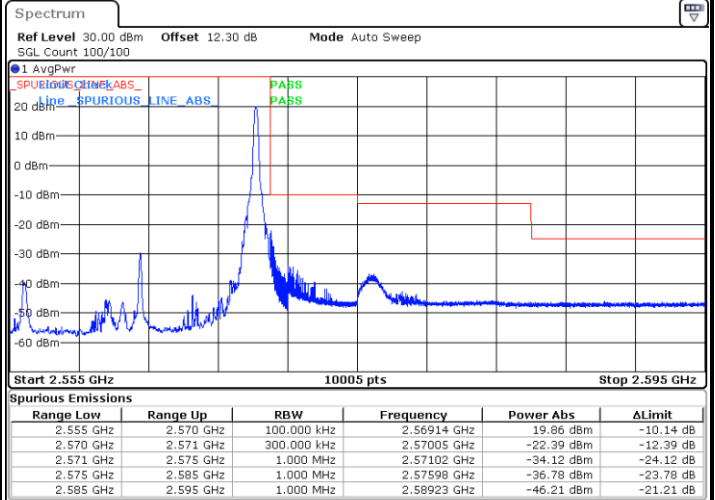
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



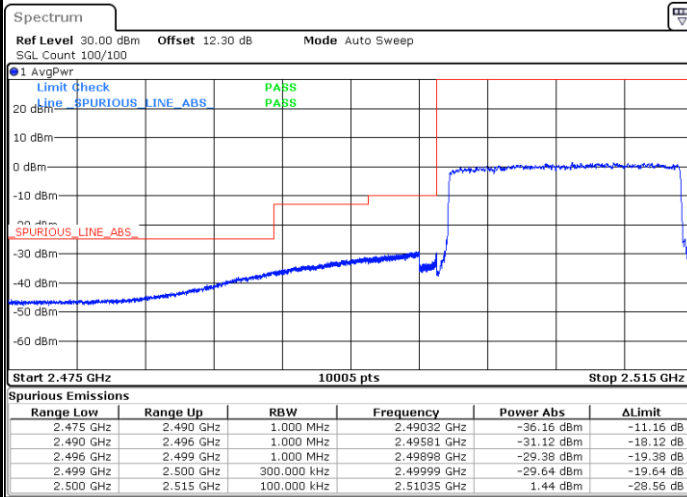
Date: 13.DEC.2020 08:23:19

Highest Band Edge / 1 RB



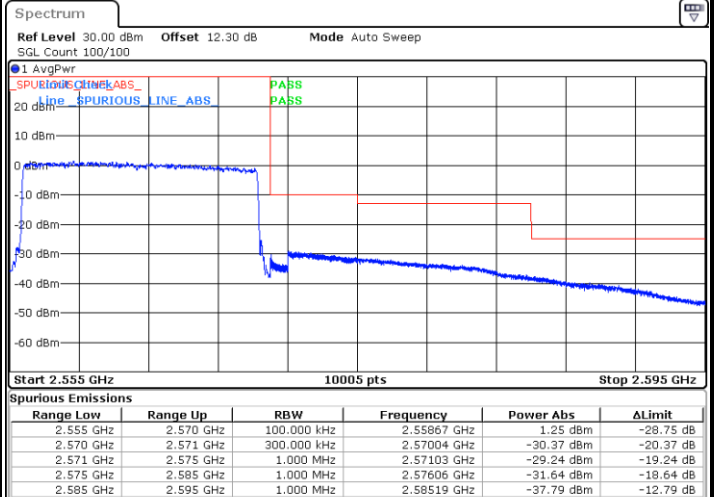
Date: 13.DEC.2020 08:31:59

Lowest Band Edge / Full RB



Date: 13.DEC.2020 08:24:00

Highest Band Edge / Full RB

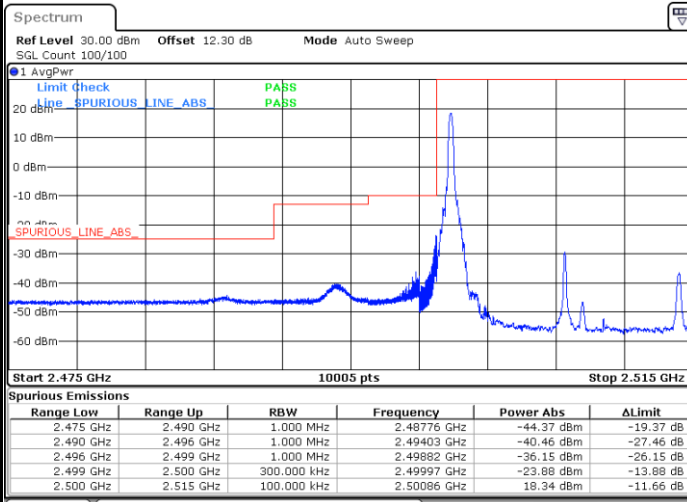


Date: 13.DEC.2020 08:32:39



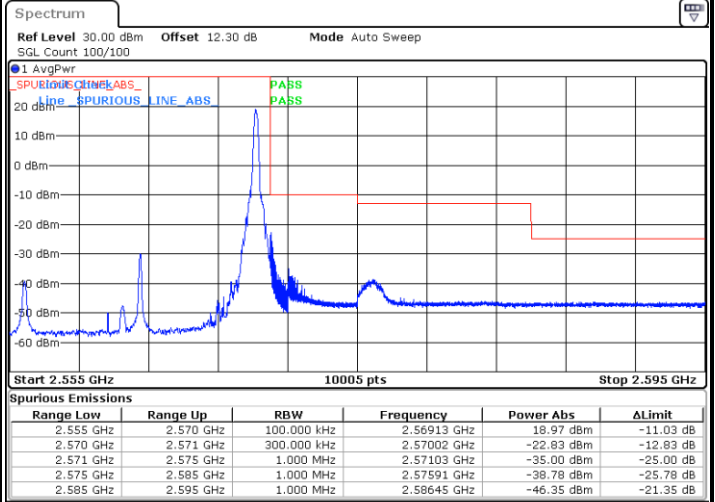
LTE Band 7 / 15MHz / 64QAM

Lowest Band Edge / 1 RB



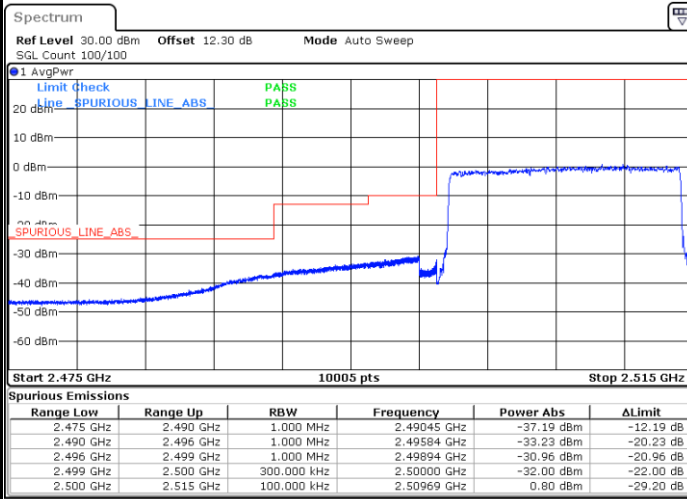
Date: 13.DEC.2020 08:33:50

Highest Band Edge / 1 RB



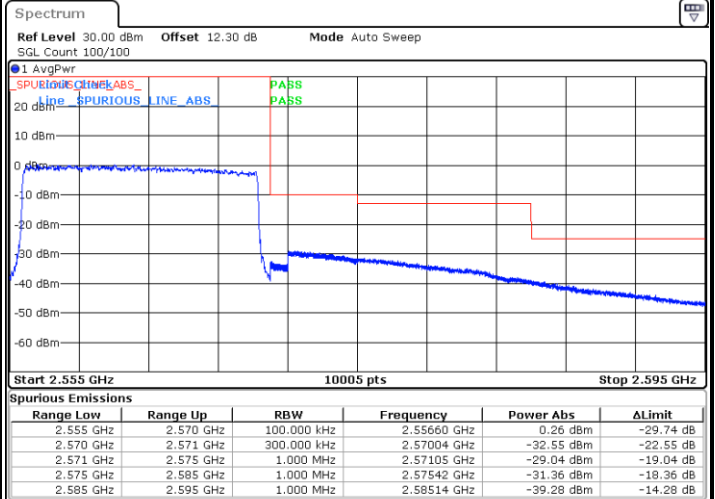
Date: 13.DEC.2020 08:34:53

Lowest Band Edge / Full RB



Date: 13.DEC.2020 08:34:10

Highest Band Edge / Full RB



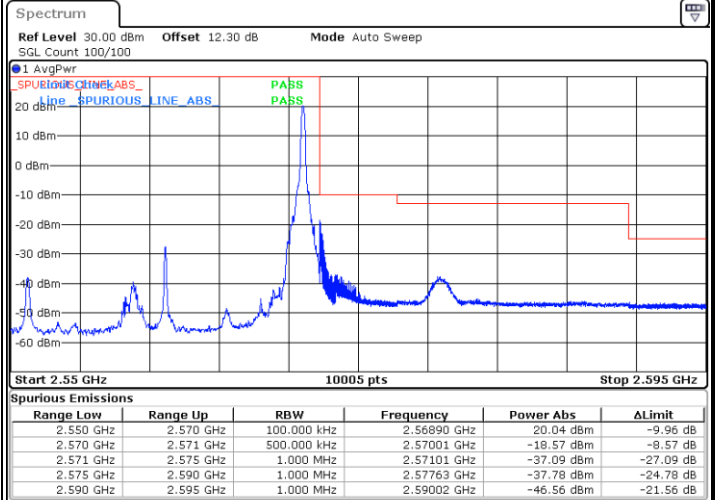
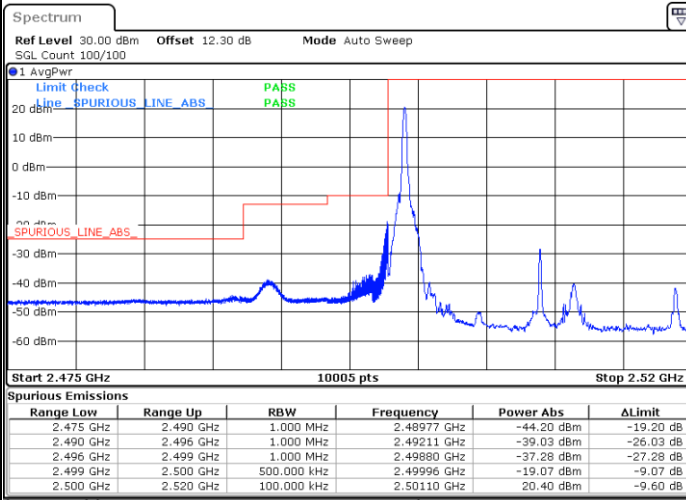
Date: 13.DEC.2020 08:35:13



LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

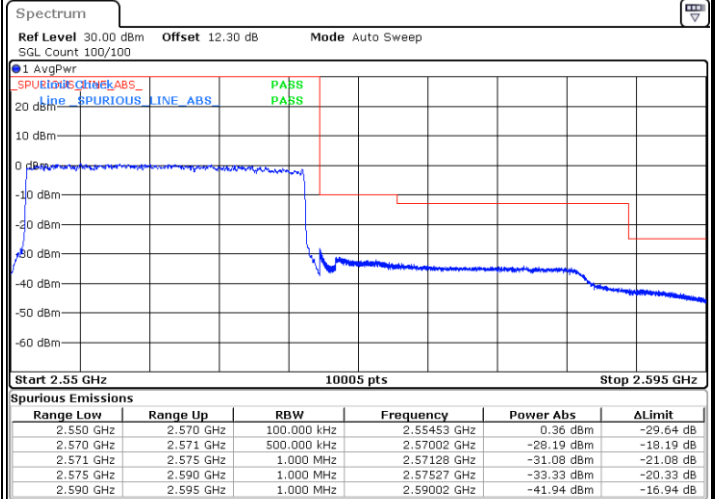
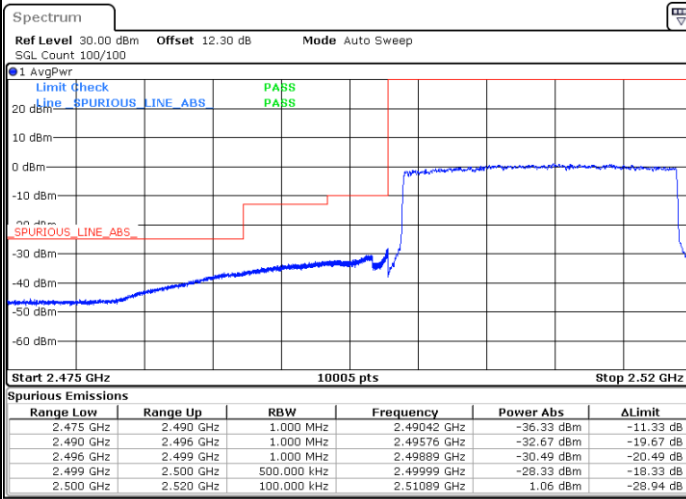


Date: 13.DEC.2020 08:35:33

Date: 13.DEC.2020 08:39:20

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



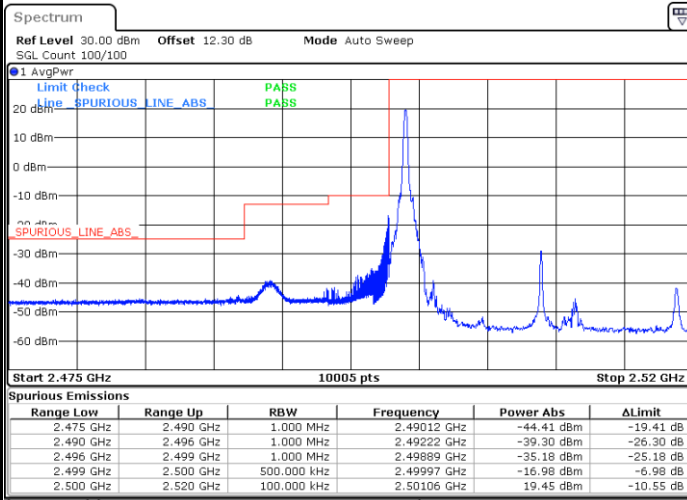
Date: 13.DEC.2020 08:36:14

Date: 13.DEC.2020 08:40:20



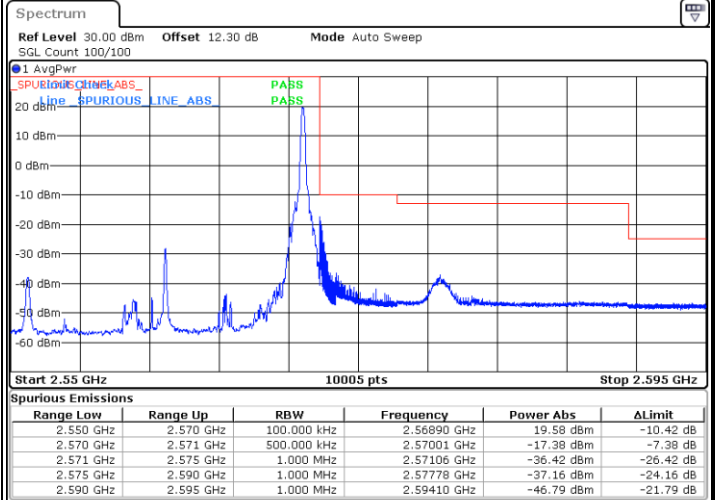
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



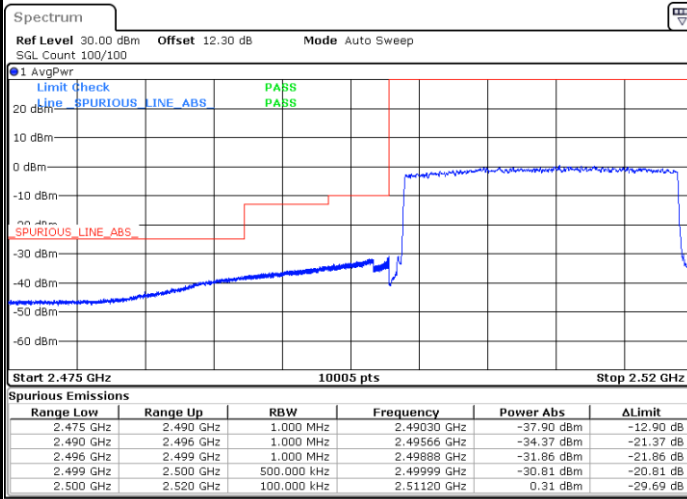
Date: 13.DEC.2020 08:35:53

Highest Band Edge / 1 RB



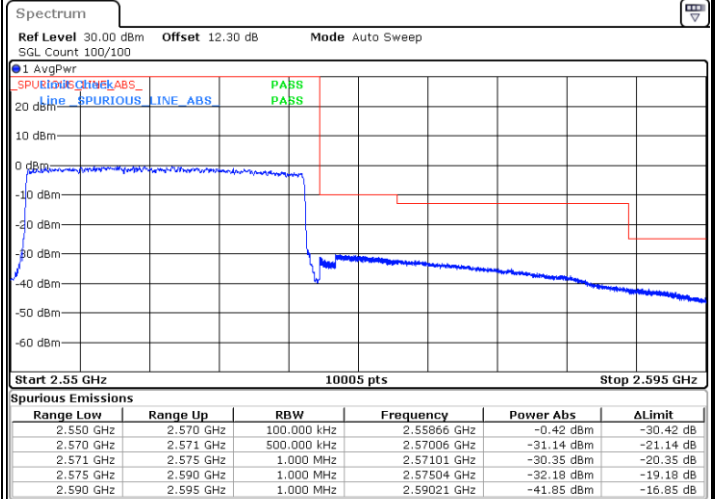
Date: 13.DEC.2020 08:39:40

Lowest Band Edge / Full RB



Date: 13.DEC.2020 08:36:34

Highest Band Edge / Full RB

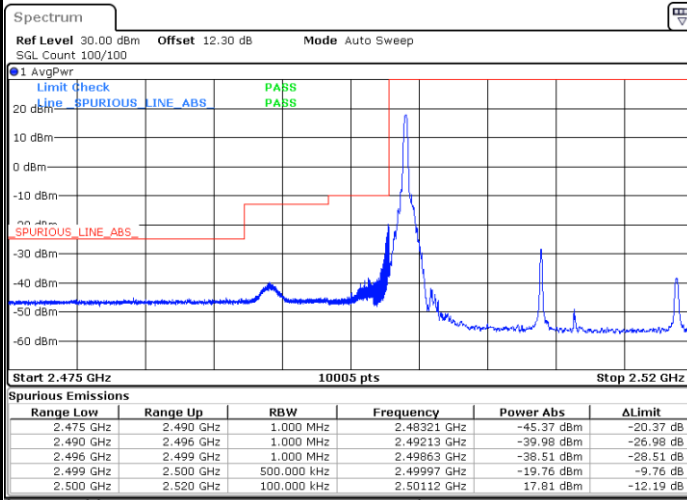


Date: 13.DEC.2020 08:40:00



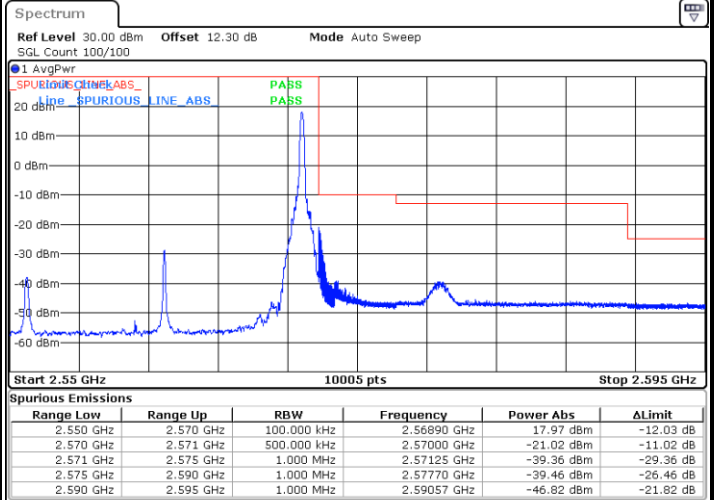
LTE Band 7 / 20MHz / 64QAM

Lowest Band Edge / 1 RB



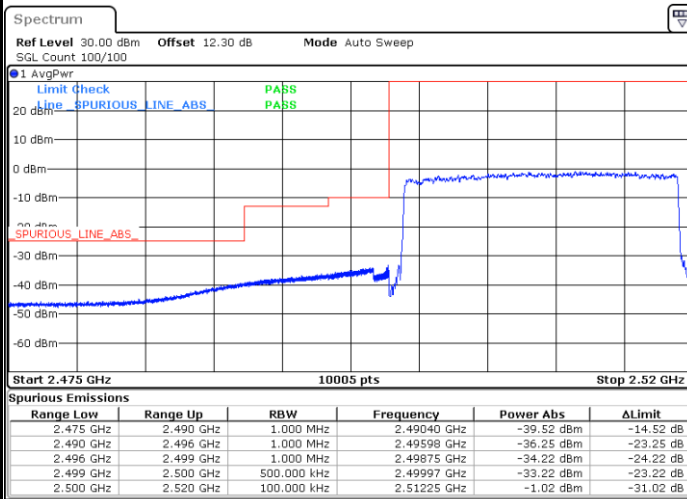
Date: 13.DEC.2020 08:41:31

Highest Band Edge / 1 RB



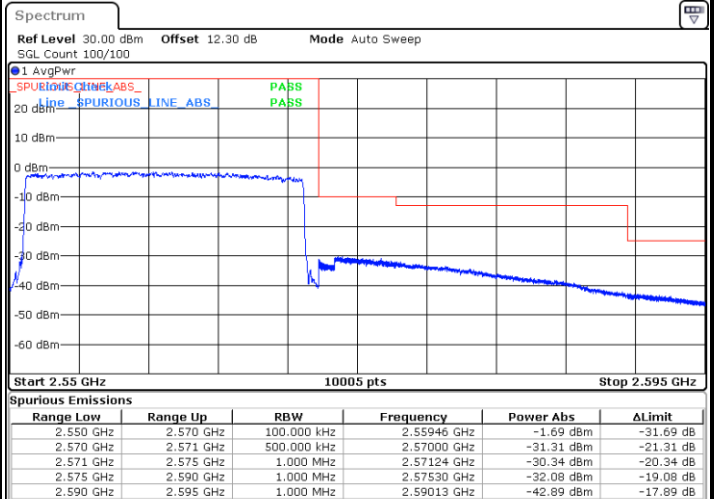
Date: 13.DEC.2020 08:42:33

Lowest Band Edge / Full RB



Date: 13.DEC.2020 08:41:51

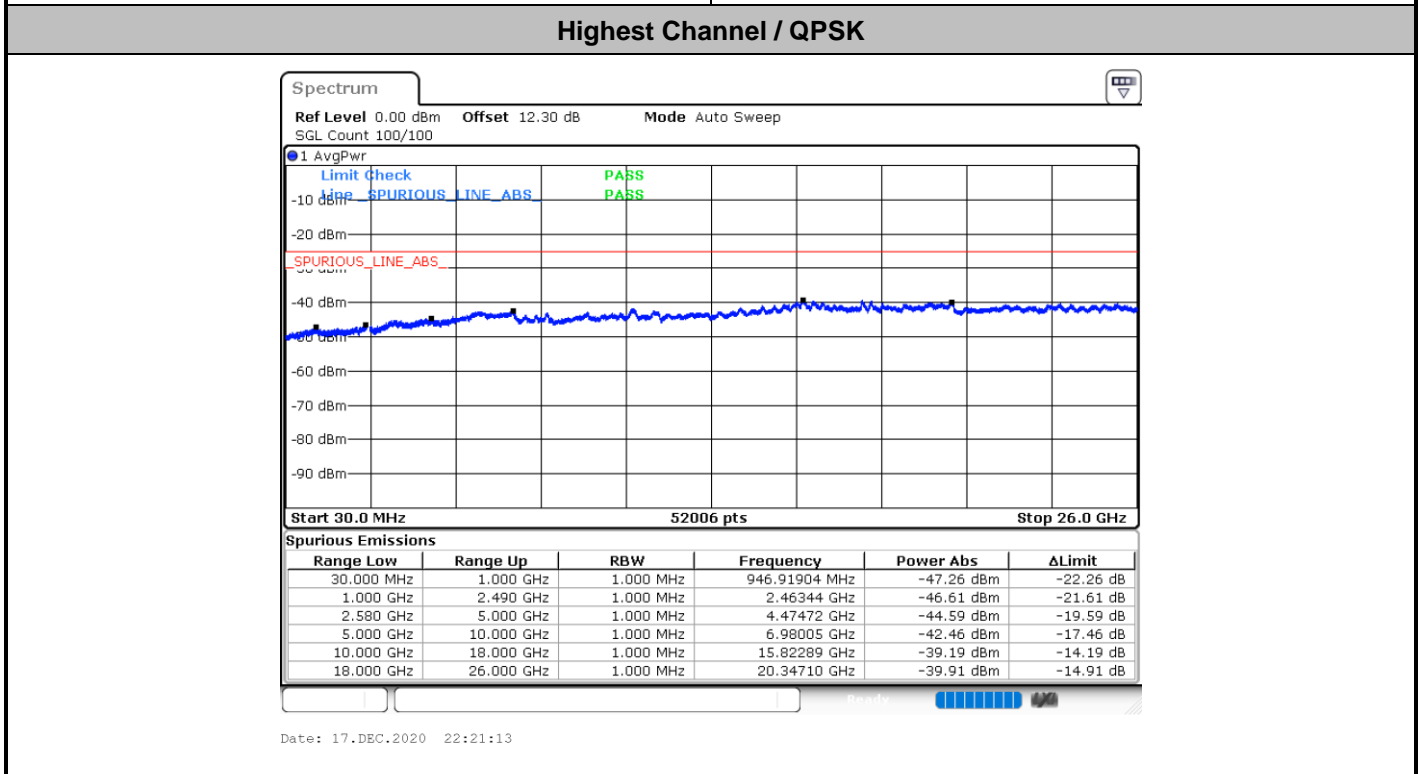
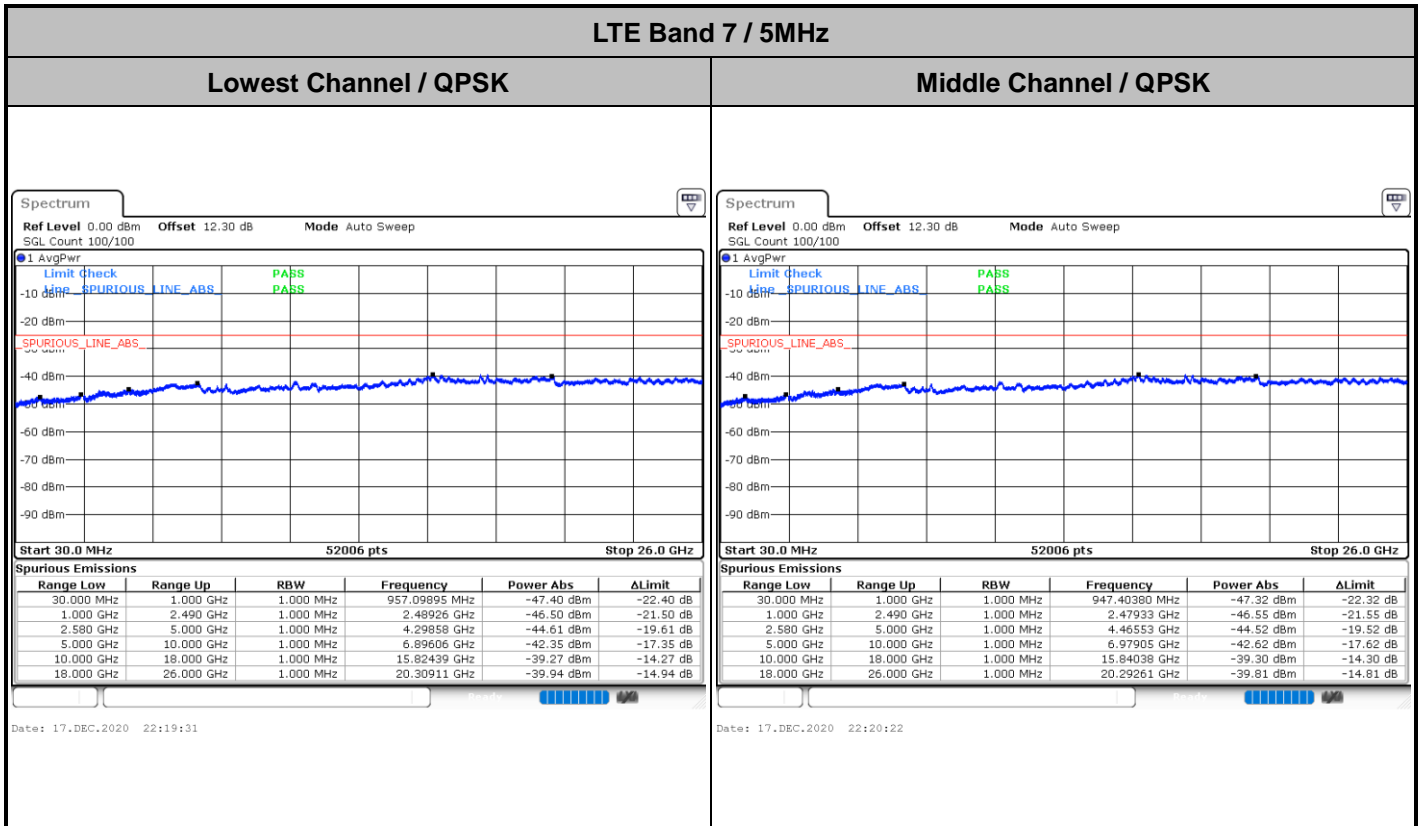
Highest Band Edge / Full RB



Date: 13.DEC.2020 08:42:53



Conducted Spurious Emission

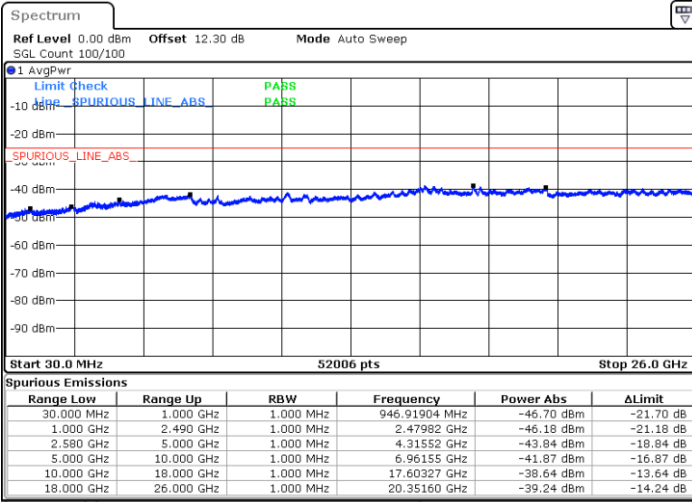




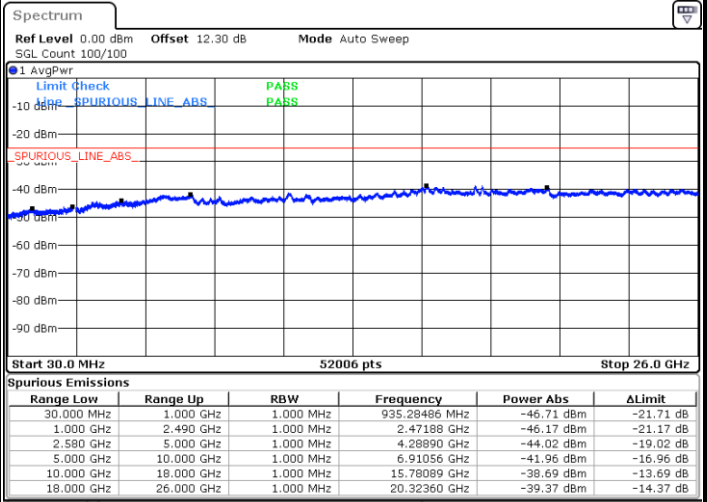
LTE Band 7 / 10MHz

Lowest Channel / QPSK

Middle Channel / QPSK

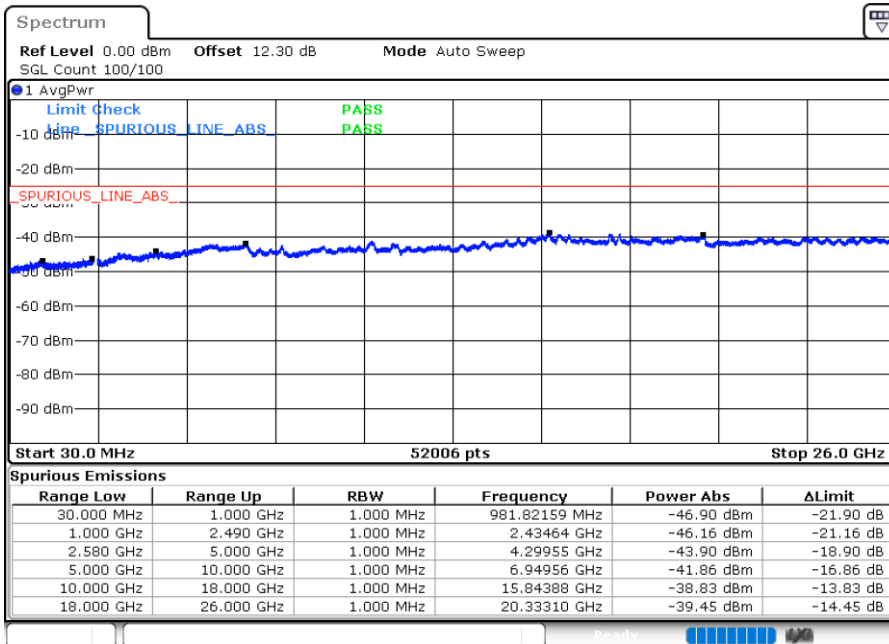


Date: 13.DEC.2020 08:27:45



Date: 13.DEC.2020 08:28:36

Highest Channel / QPSK



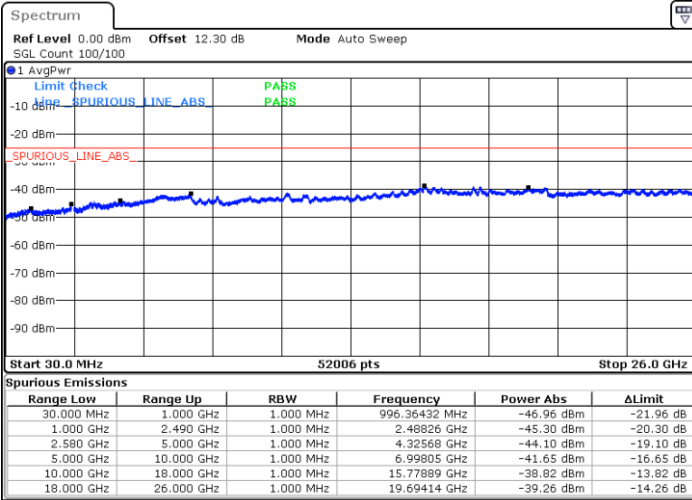
Date: 13.DEC.2020 08:29:27



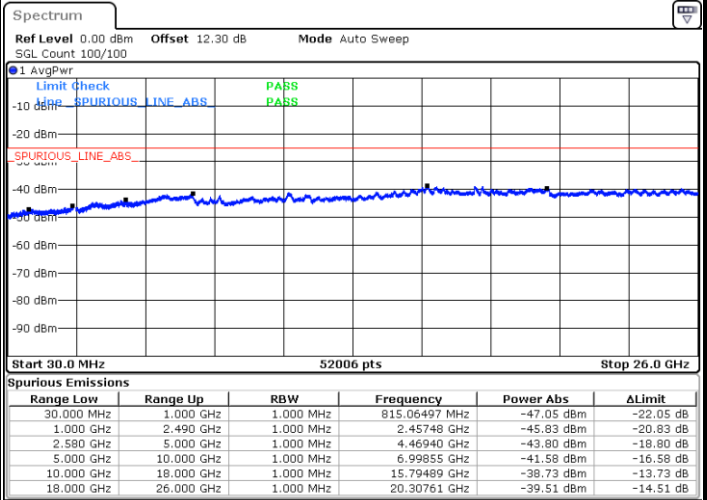
LTE Band 7 / 15MHz

Lowest Channel / QPSK

Middle Channel / QPSK

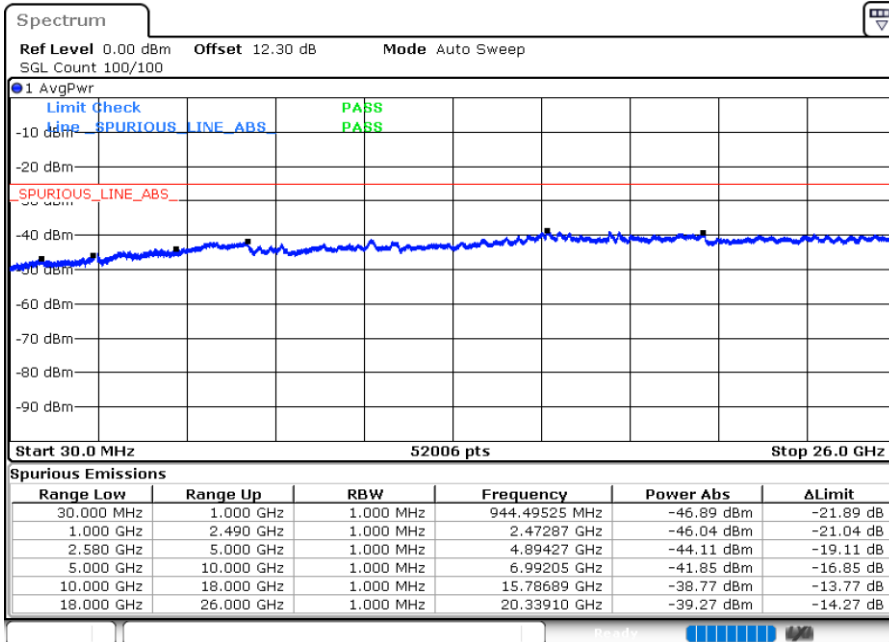


Date: 13.DEC.2020 08:30:18



Date: 13.DEC.2020 08:31:20

Highest Channel / QPSK

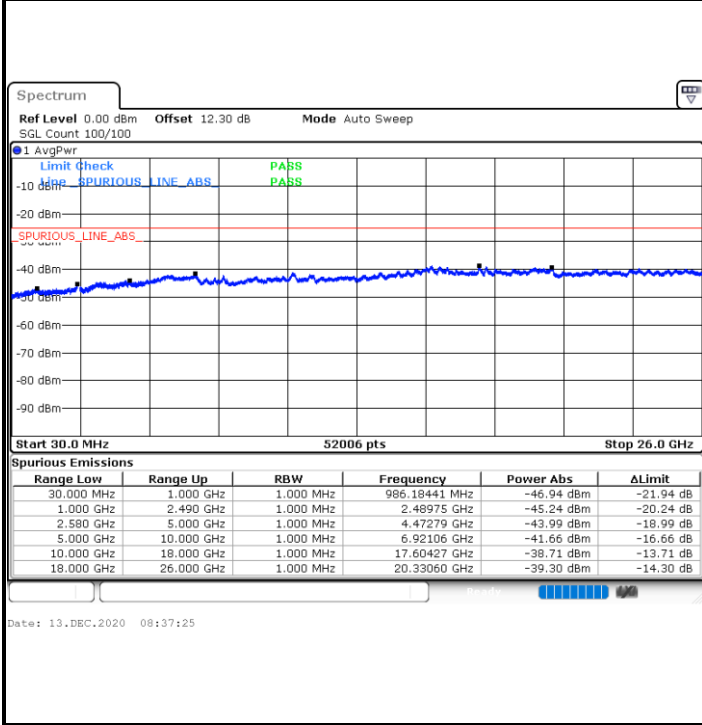


Date: 13.DEC.2020 08:33:30

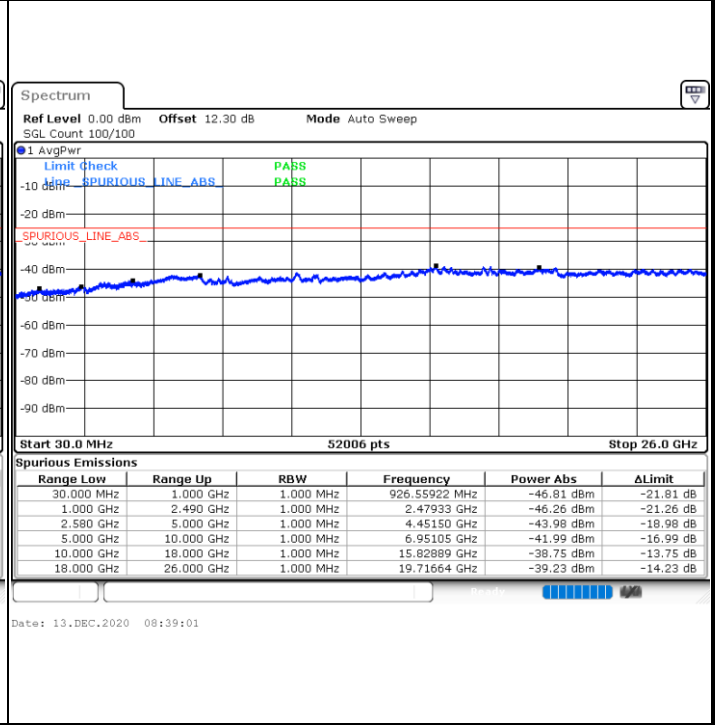


LTE Band 7 / 20MHz

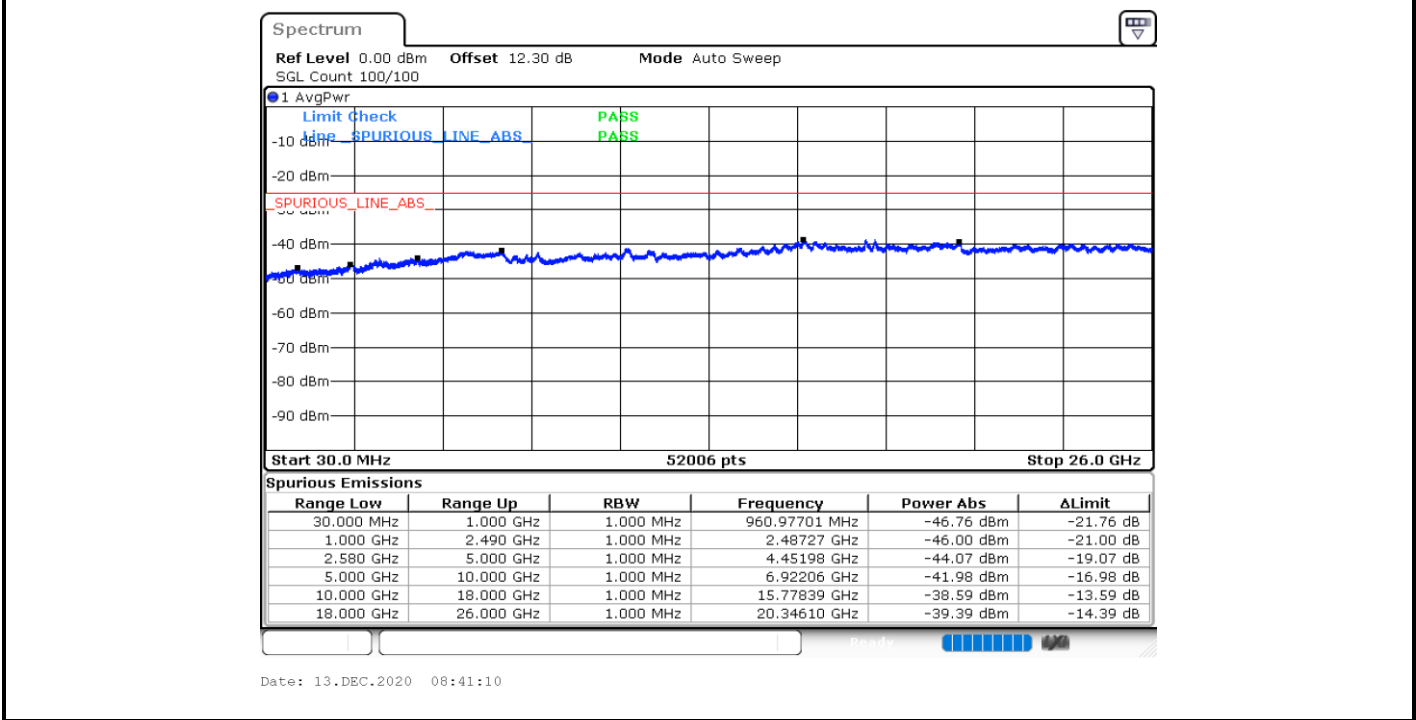
Lowest Channel / QPSK



Middle Channel / QPSK



Highest Channel / QPSK





Frequency Stability

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0071	PASS
40	Normal Voltage	0.0075	
30	Normal Voltage	0.0052	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0071	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0064	
-20	Normal Voltage	0.0025	
-30	Normal Voltage	0.0024	
20	Maximum Voltage	0.0028	
20	Normal Voltage	0.0071	
20	Battery End Point	0.0002	

Note:

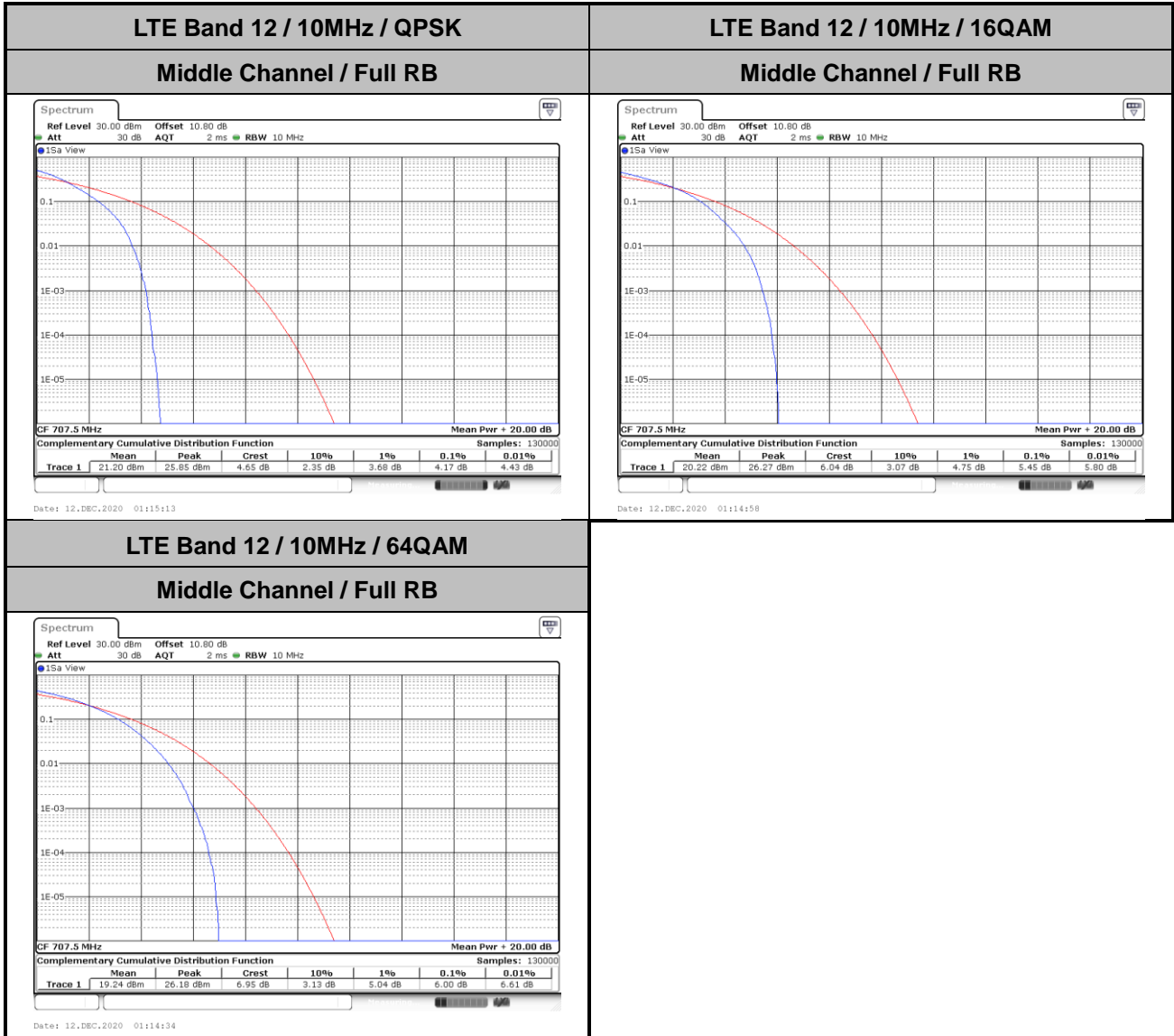
- 1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.35 V.
- 2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz			
Mod.	QPSK	16QAM	64QAM	Limit: 13dB
RB Size	Full RB	Full RB	Full RB	Result
Middle CH	4.17	5.45	6.00	PASS





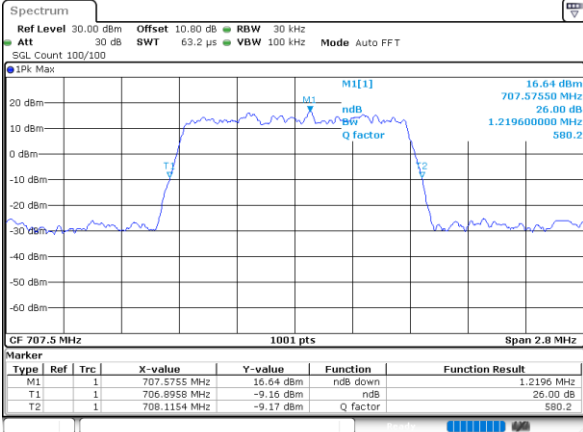
26dB Bandwidth

Mode	LTE Band 12 : 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	1.22	1.24	3.00	3.02	4.88	4.89	9.83	9.67	-	-	-	-
Mode	LTE Band 12 : 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	1.22	-	3.04	-	4.92	-	9.85	-	-	-	-	-



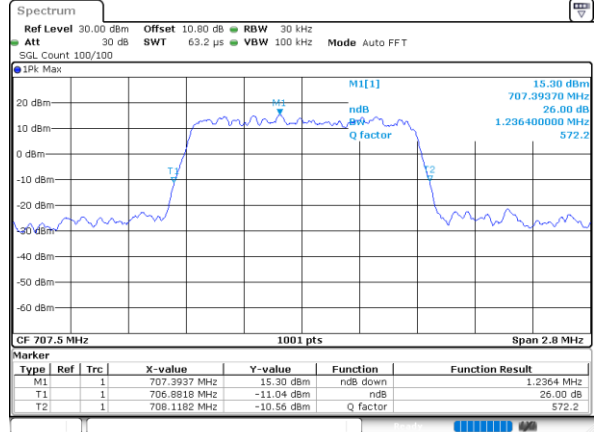
LTE Band 12

Middle Channel / 1.4MHz / QPSK



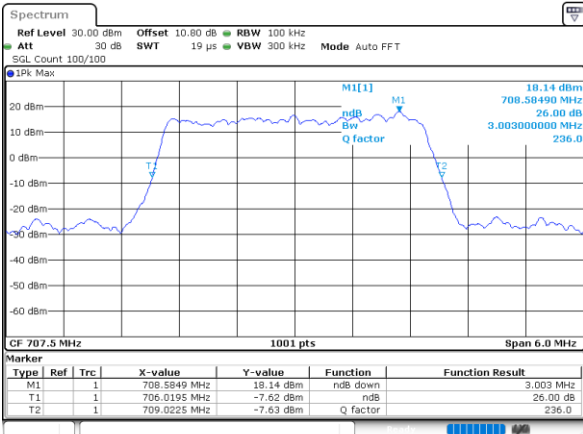
Date: 12. DEC. 2020 00:11:30

Middle Channel / 1.4MHz / 16QAM



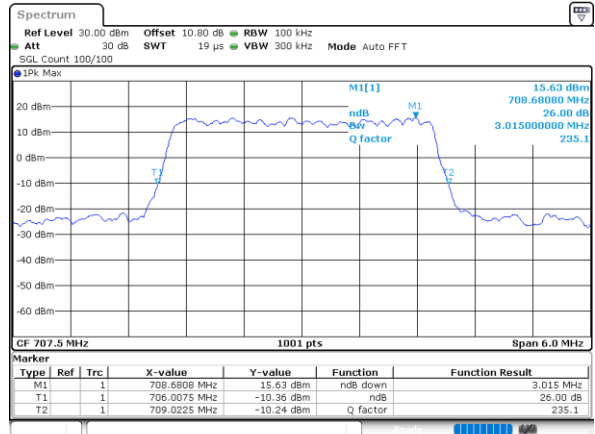
Date: 12. DEC. 2020 00:11:41

Middle Channel / 3MHz / QPSK



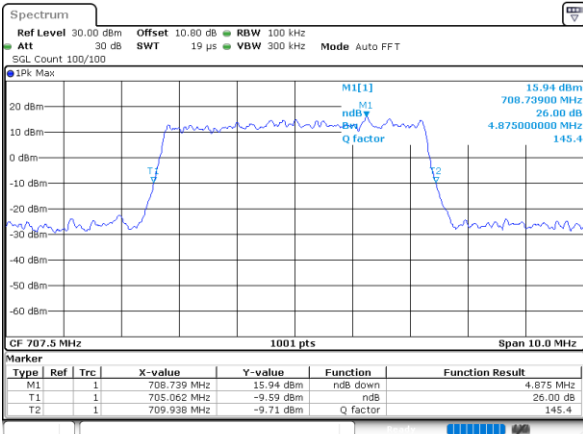
Date: 12. DEC. 2020 00:27:06

Middle Channel / 3MHz / 16QAM



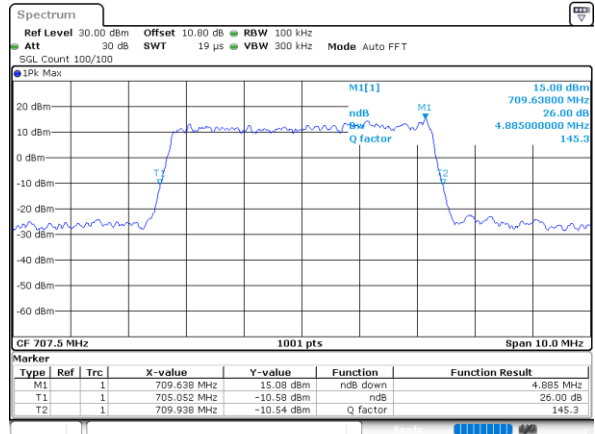
Date: 12. DEC. 2020 00:27:17

Middle Channel / 5MHz / QPSK



Date: 12. DEC. 2020 00:47:08

Middle Channel / 5MHz / 16QAM

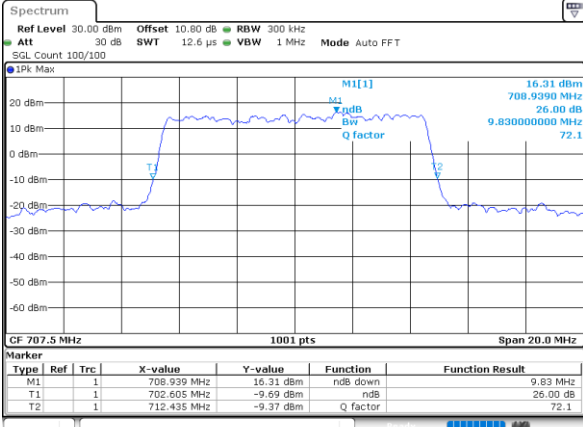


Date: 12. DEC. 2020 00:47:19



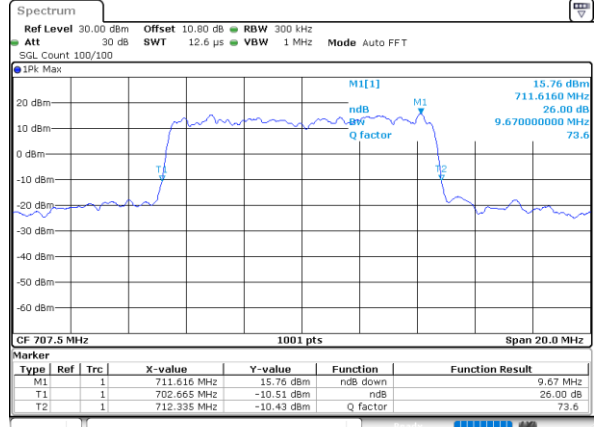
LTE Band 12

Middle Channel / 10MHz / QPSK



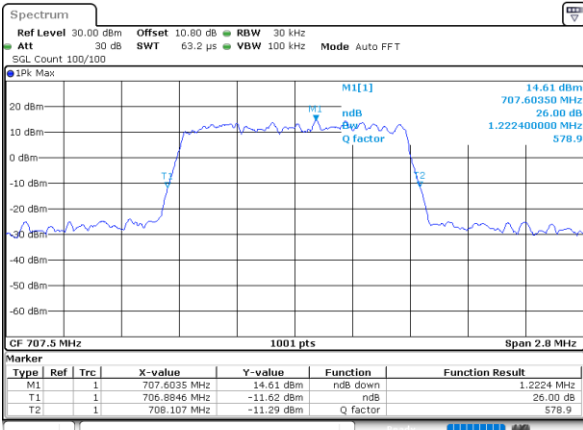
Date: 12. DEC. 2020 00:58:13

Middle Channel / 10MHz / 16QAM



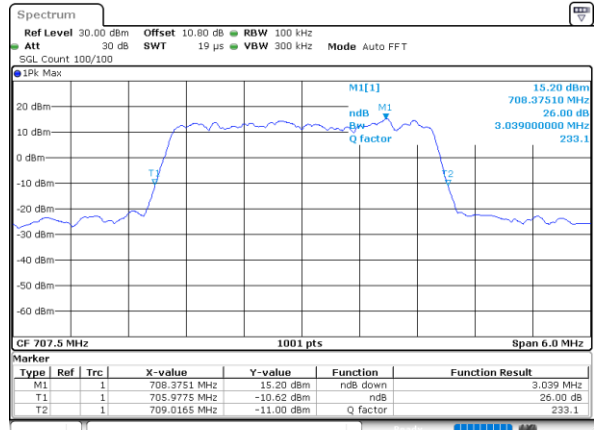
Date: 12. DEC. 2020 00:58:24

Middle Channel / 1.4MHz / 64QAM



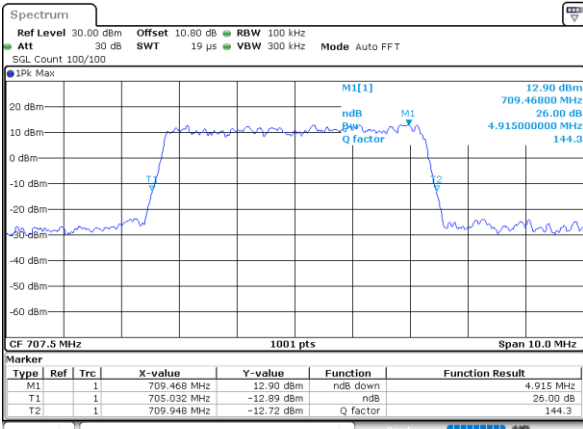
Date: 12. DEC. 2020 00:19:38

Middle Channel / 3MHz / 64QAM



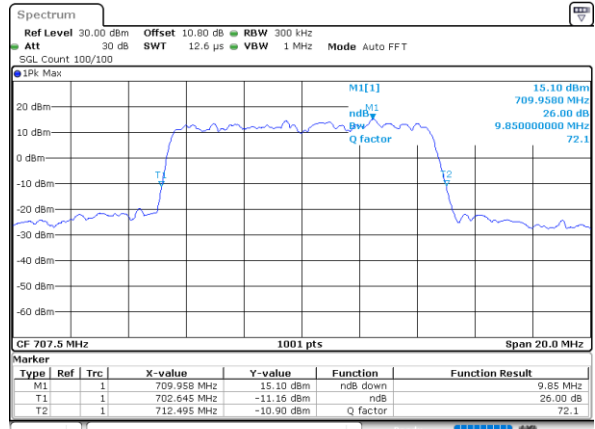
Date: 12. DEC. 2020 00:13:12

Middle Channel / 5MHz / 64QAM



Date: 12. DEC. 2020 00:19:43

Middle Channel / 10MHz / 64QAM



Date: 12. DEC. 2020 01:06:20



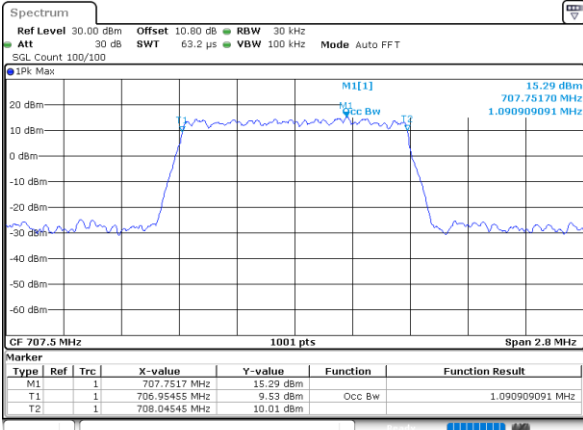
Occupied Bandwidth

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	1.09	2.72	2.73	4.49	4.50	9.03	9.01	-	-	-	-
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	-	2.72	-	4.51	-	9.07	-	-	-	-	-



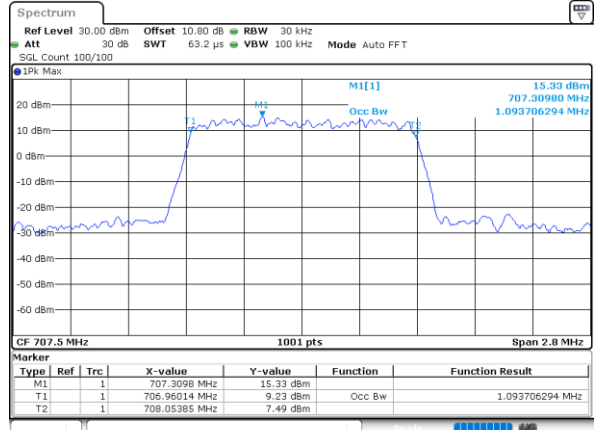
LTE Band 12

Middle Channel / 1.4MHz / QPSK



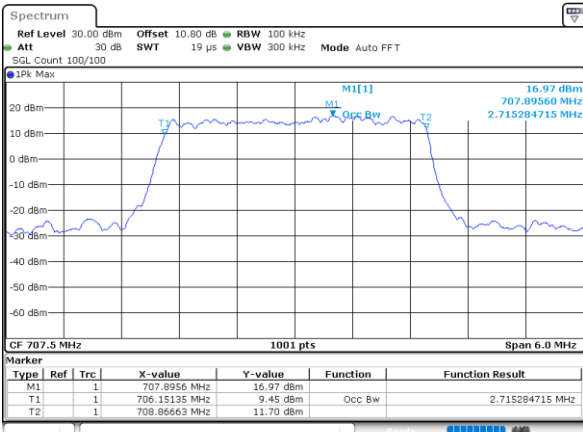
Date: 12.DEC.2020 00:11:19

Middle Channel / 1.4MHz / 16QAM



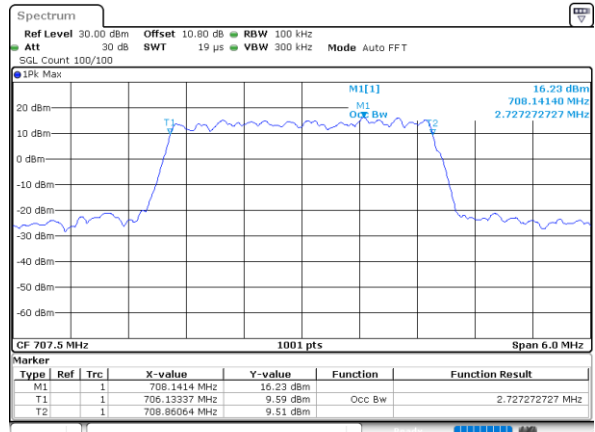
Date: 12.DEC.2020 00:11:08

Middle Channel / 3MHz / QPSK



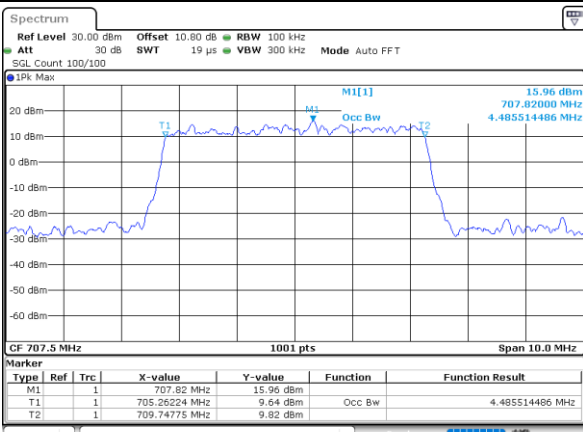
Date: 12.DEC.2020 00:26:55

Middle Channel / 3MHz / 16QAM



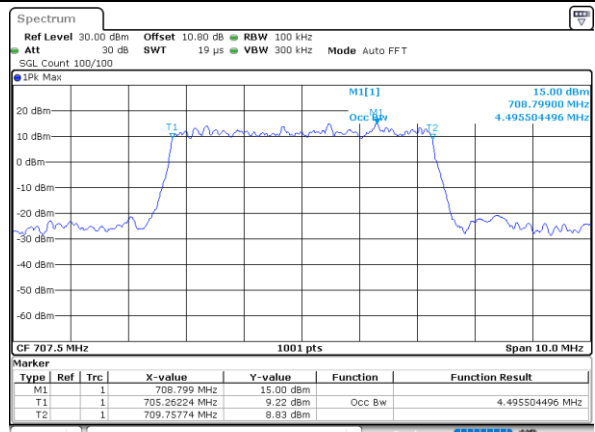
Date: 12.DEC.2020 00:26:43

Middle Channel / 5MHz / QPSK



Date: 12.DEC.2020 00:46:57

Middle Channel / 5MHz / 16QAM

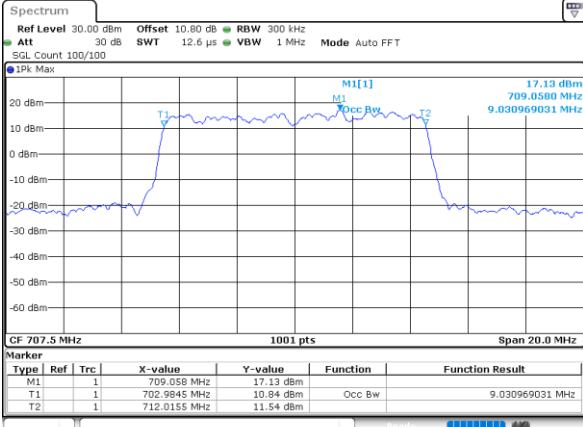


Date: 12.DEC.2020 00:46:46



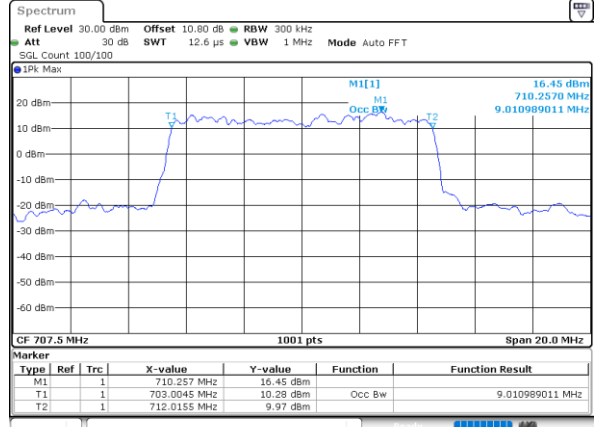
LTE Band 12

Middle Channel / 10MHz / QPSK



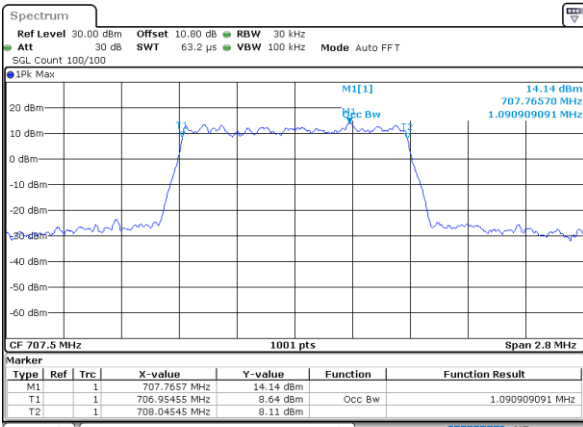
Date: 12. DEC. 2020 00:58:02

Middle Channel / 10MHz / 16QAM



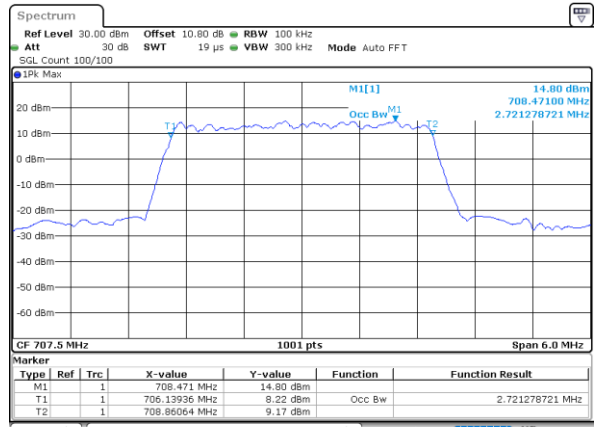
Date: 12. DEC. 2020 00:57:51

Middle Channel / 1.4MHz / 64QAM



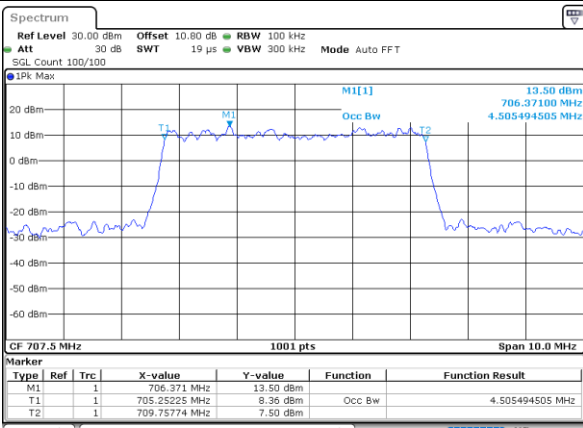
Date: 12. DEC. 2020 00:19:27

Middle Channel / 3MHz / 64QAM



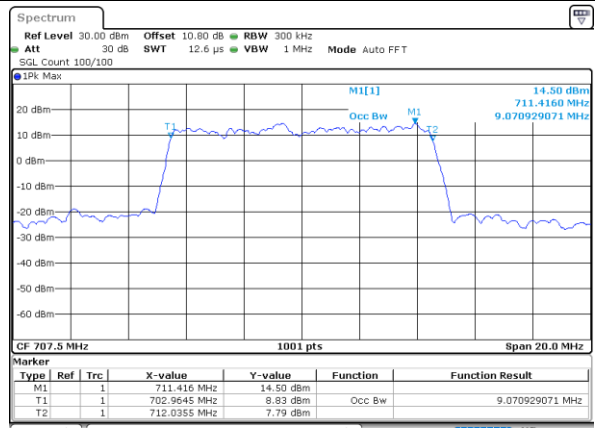
Date: 12. DEC. 2020 00:13:01

Middle Channel / 5MHz / 64QAM



Date: 12. DEC. 2020 00:39:32

Middle Channel / 10MHz / 64QAM



Date: 12. DEC. 2020 01:06:09