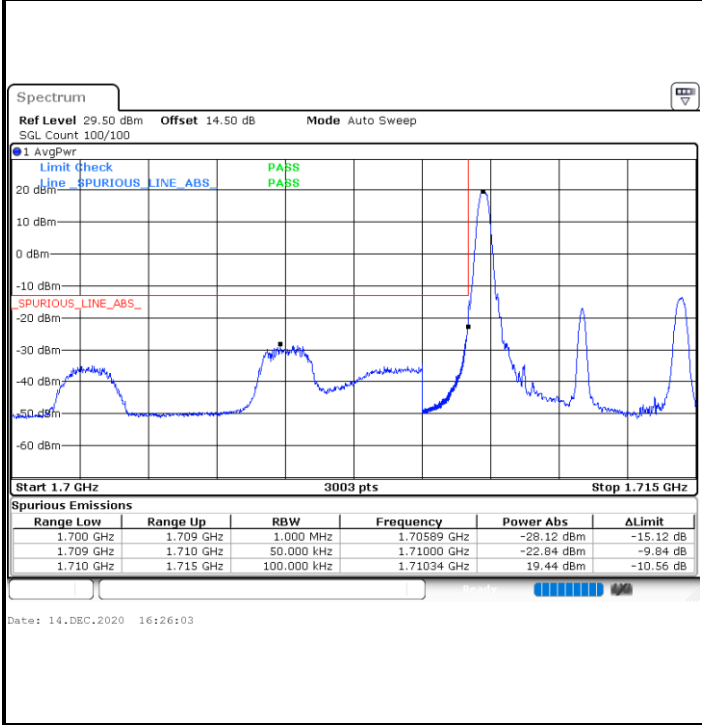


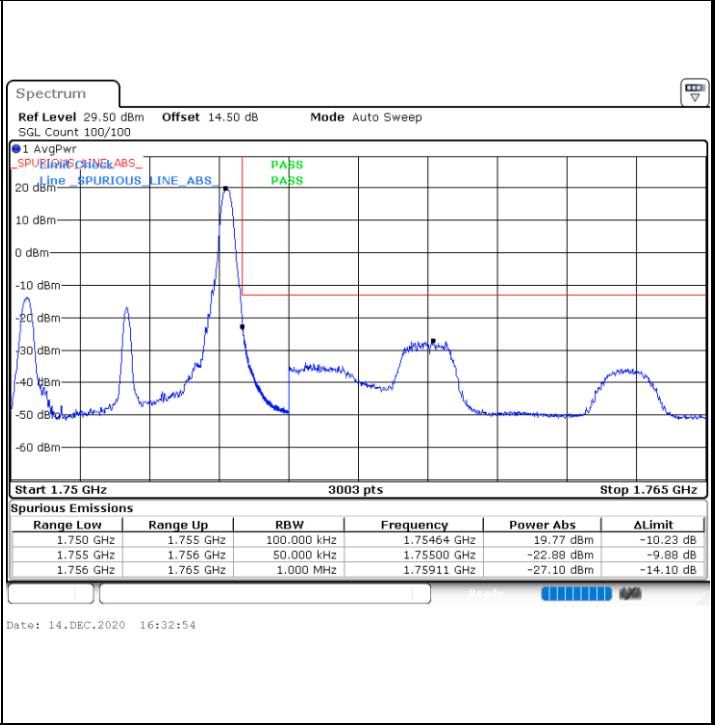


LTE Band 4 / 5MHz / 16QAM

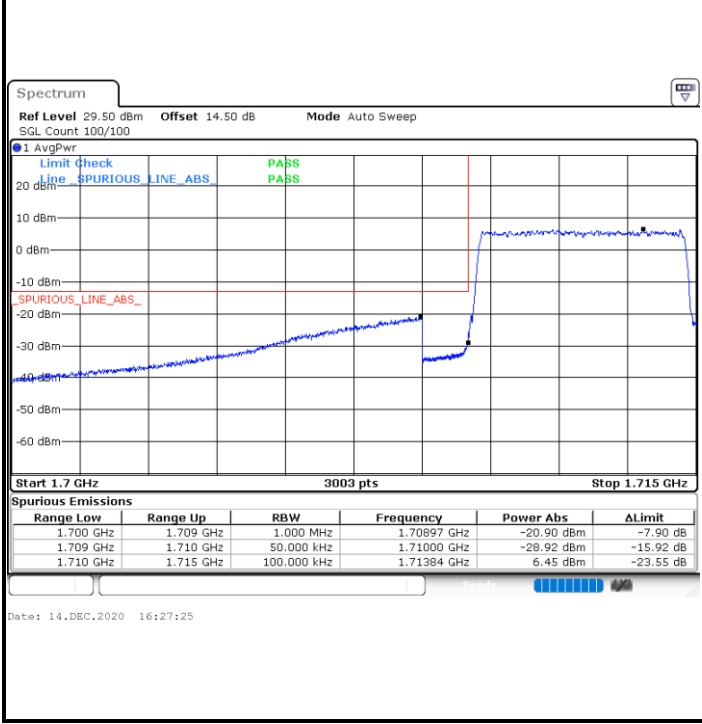
Lowest Band Edge / 1RB



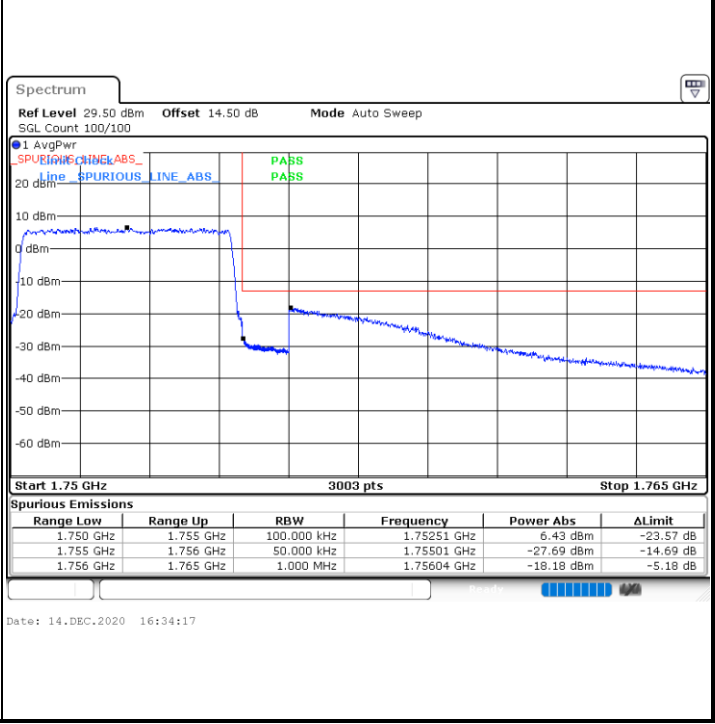
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



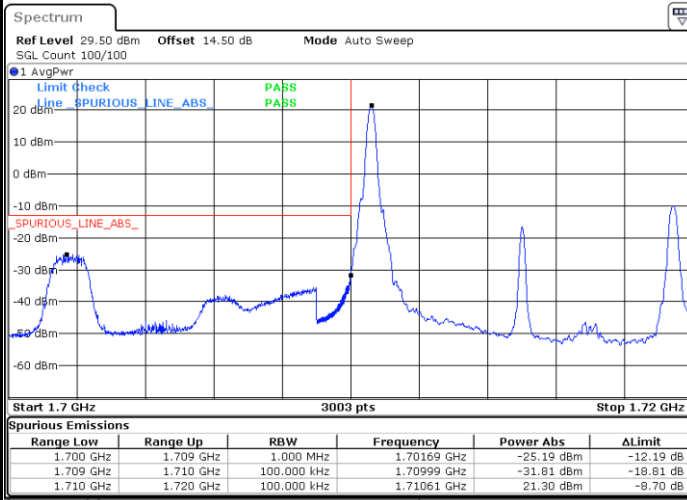
Highest Band Edge / Full RB





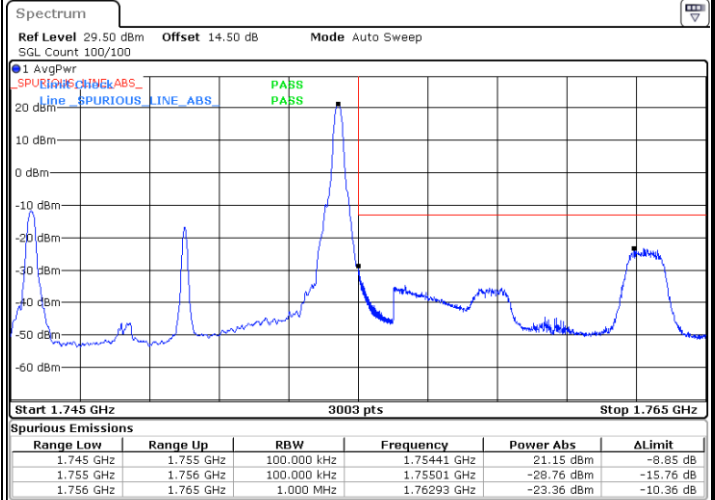
LTE Band 4 / 10MHz / QPSK

Lowest Band Edge / 1 RB



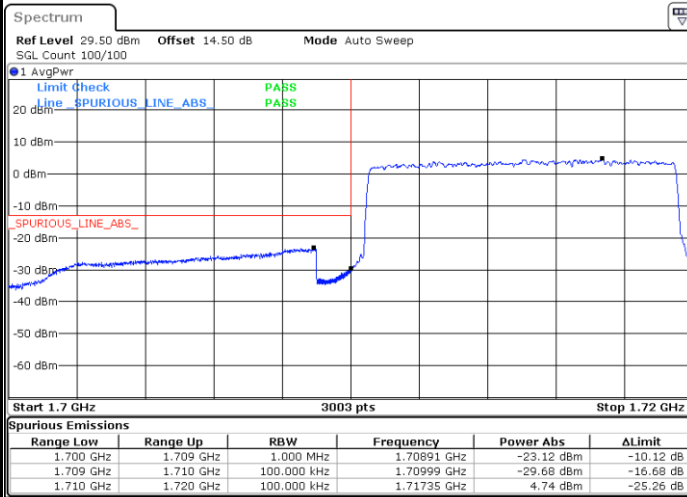
Date: 14.DEC.2020 16:37:01

Highest Band Edge / 1 RB



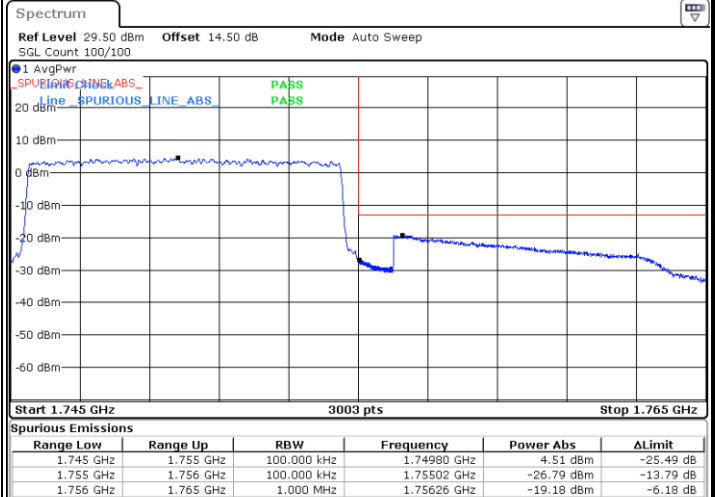
Date: 14.DEC.2020 16:43:53

Lowest Band Edge / Full RB



Date: 14.DEC.2020 16:38:24

Highest Band Edge / Full RB

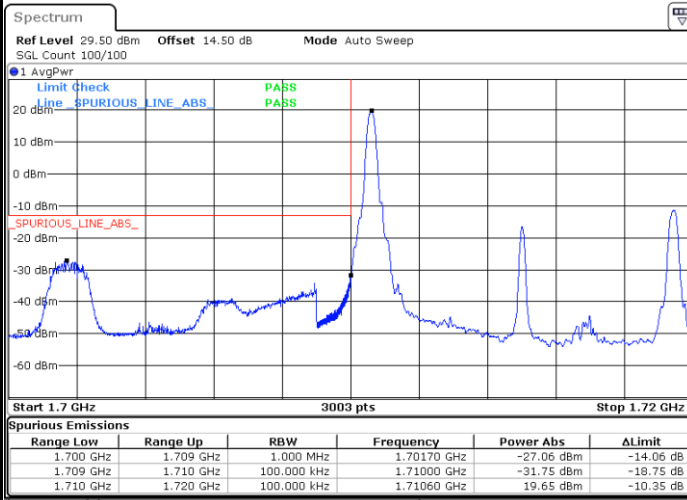


Date: 14.DEC.2020 16:45:15



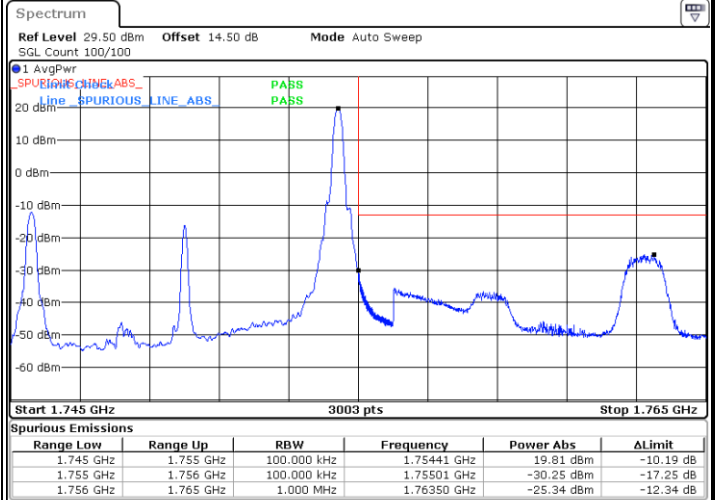
LTE Band 4 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



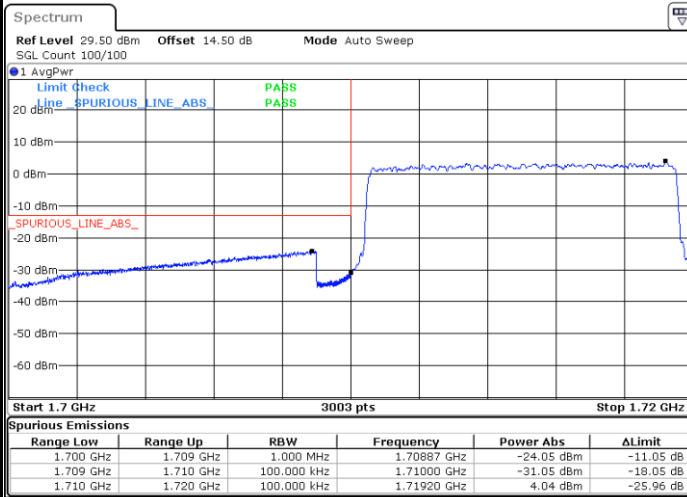
Date: 14.DEC.2020 16:37:42

Highest Band Edge / 1 RB



Date: 14.DEC.2020 16:44:34

Lowest Band Edge / Full RB



Date: 14.DEC.2020 16:39:05

Highest Band Edge / Full RB

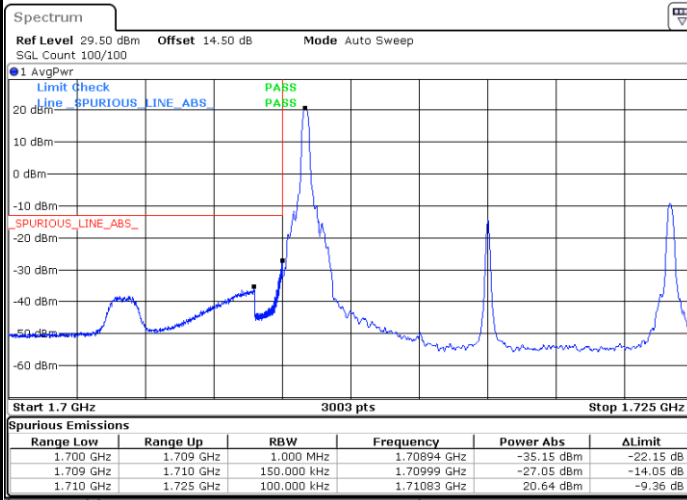


Date: 14.DEC.2020 16:45:56



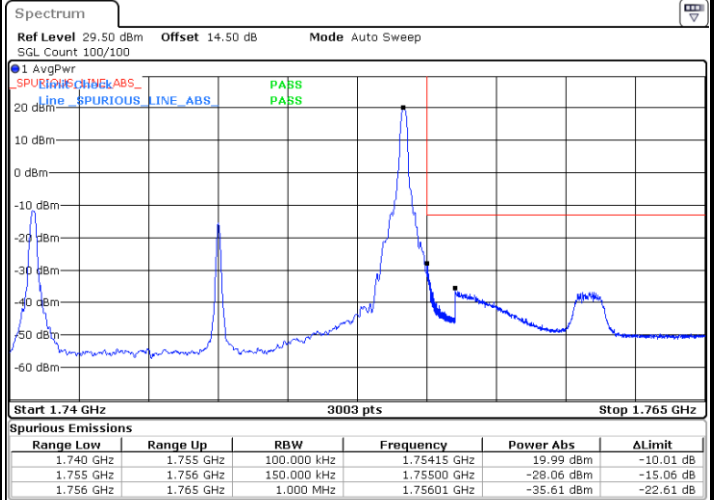
LTE Band 4 / 15MHz / QPSK

Lowest Band Edge / 1 RB



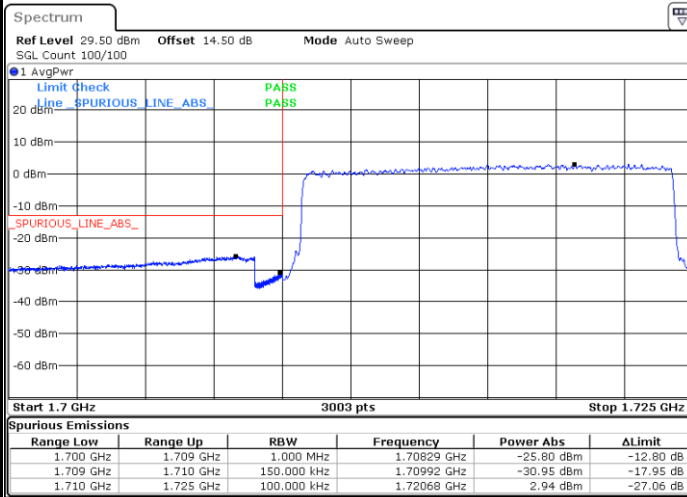
Date: 14.DEC.2020 16:48:40

Highest Band Edge / 1 RB



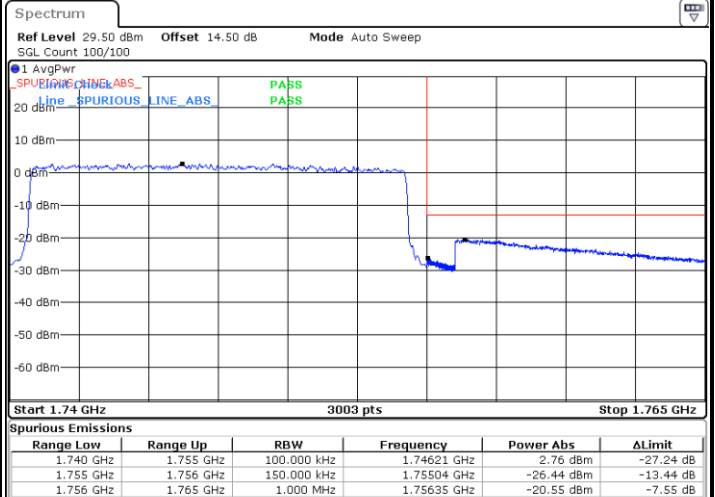
Date: 14.DEC.2020 16:55:31

Lowest Band Edge / Full RB



Date: 14.DEC.2020 16:50:03

Highest Band Edge / Full RB

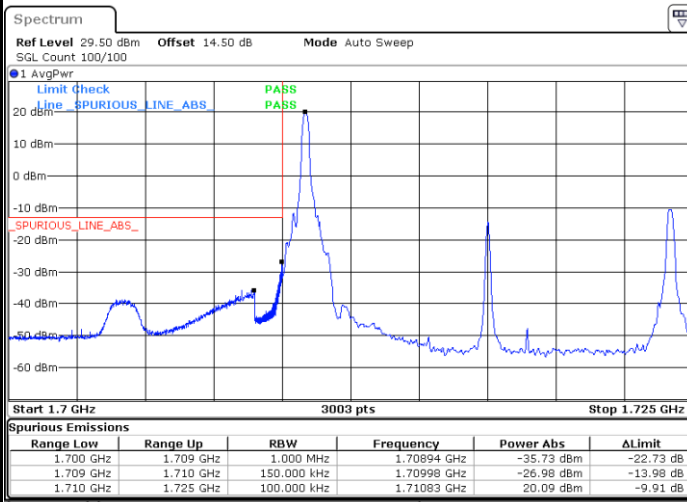


Date: 14.DEC.2020 16:56:53



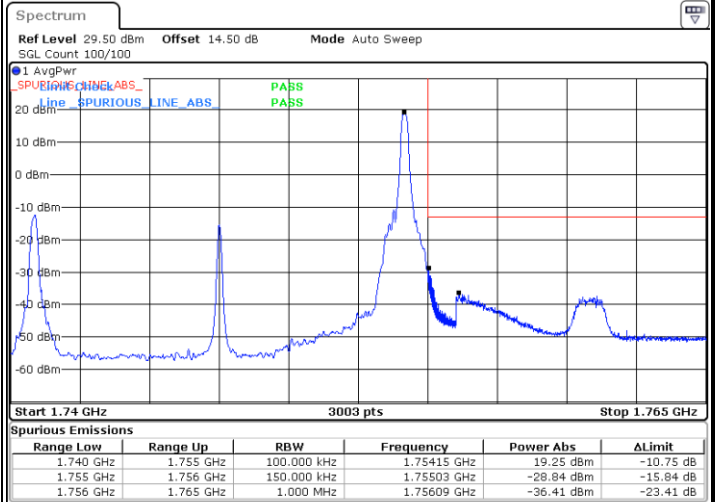
LTE Band 4 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



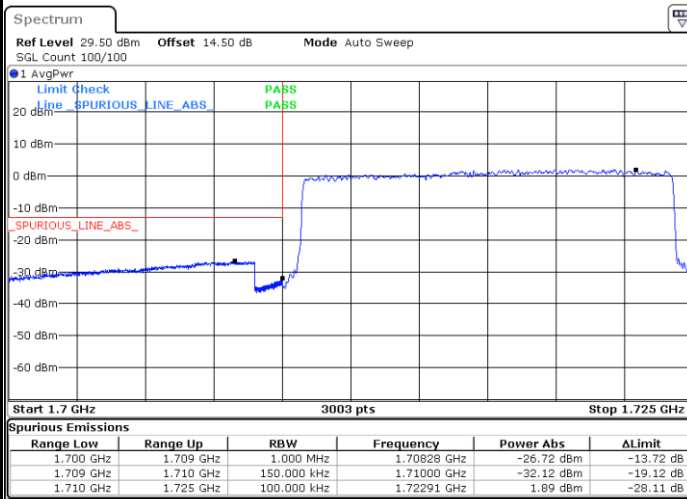
Date: 14.DEC.2020 16:49:22

Highest Band Edge / 1 RB



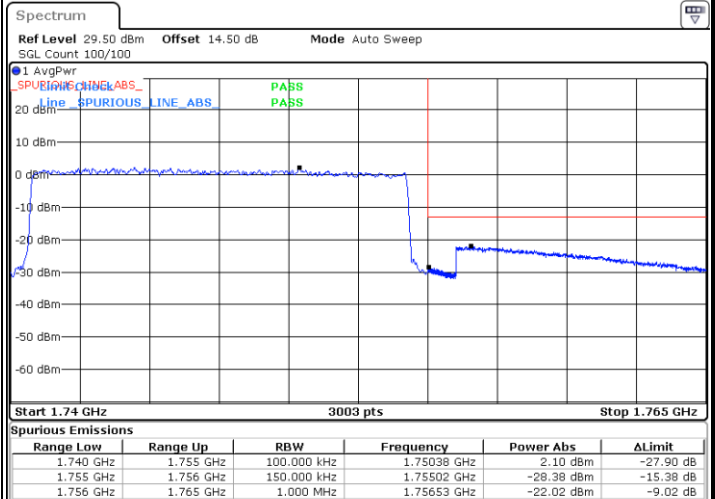
Date: 14.DEC.2020 16:56:12

Lowest Band Edge / Full RB



Date: 14.DEC.2020 16:50:44

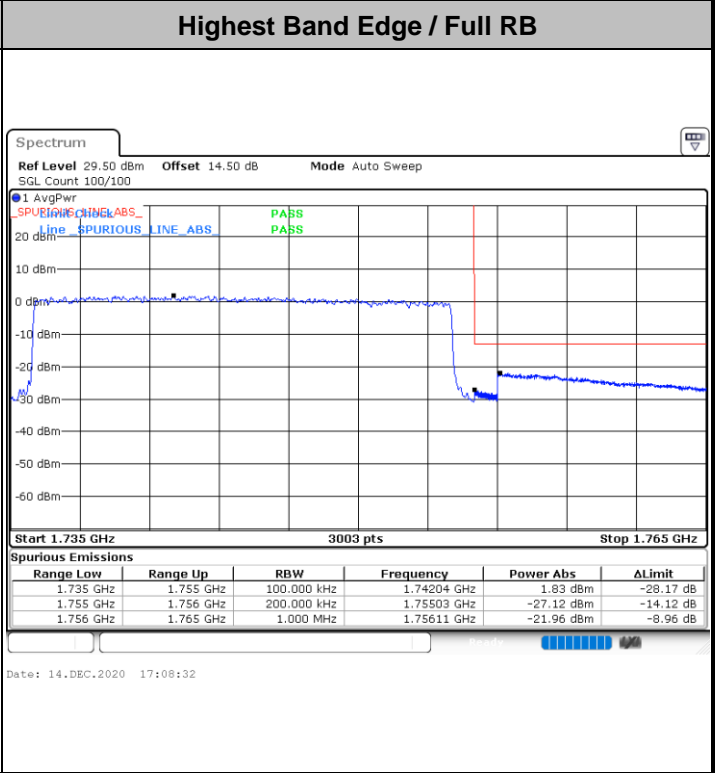
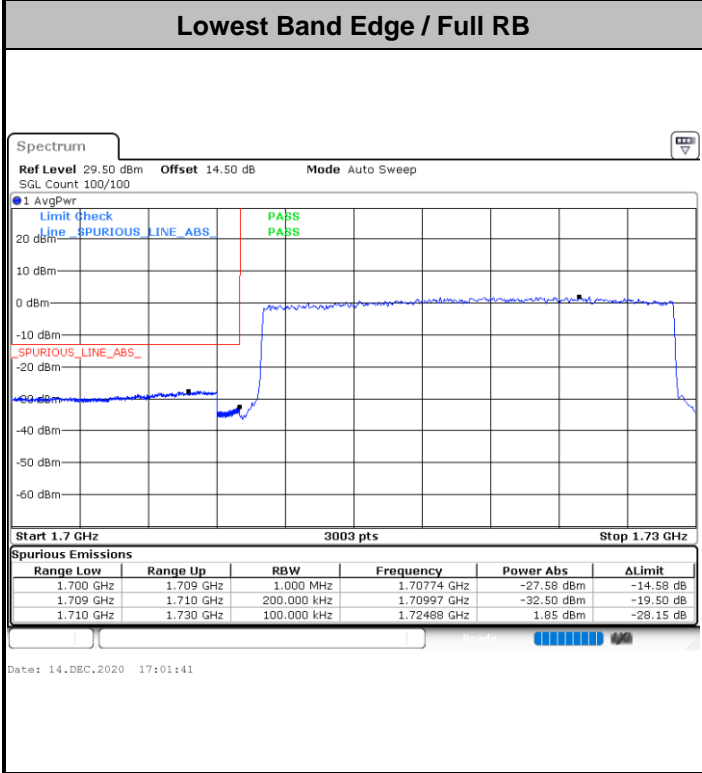
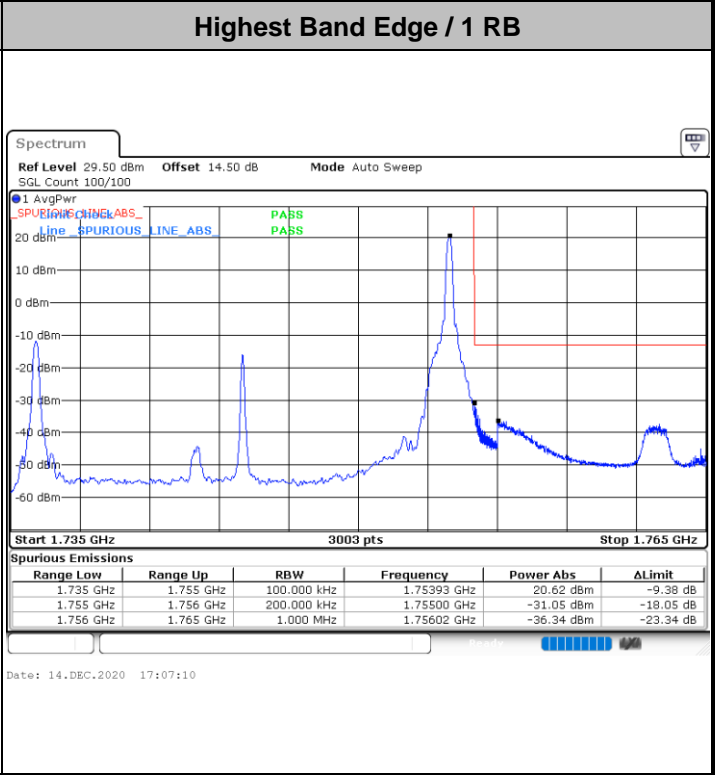
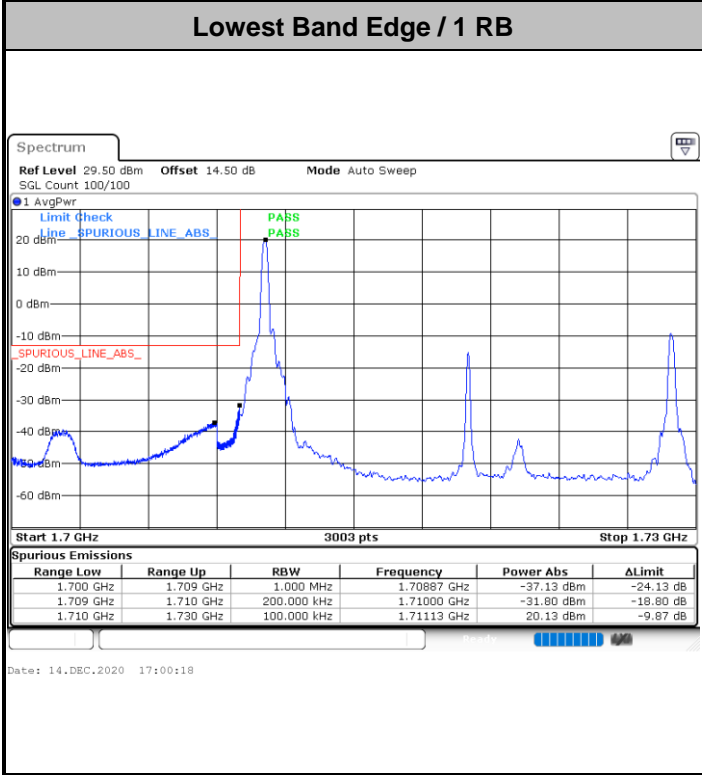
Highest Band Edge / Full RB



Date: 14.DEC.2020 16:57:34



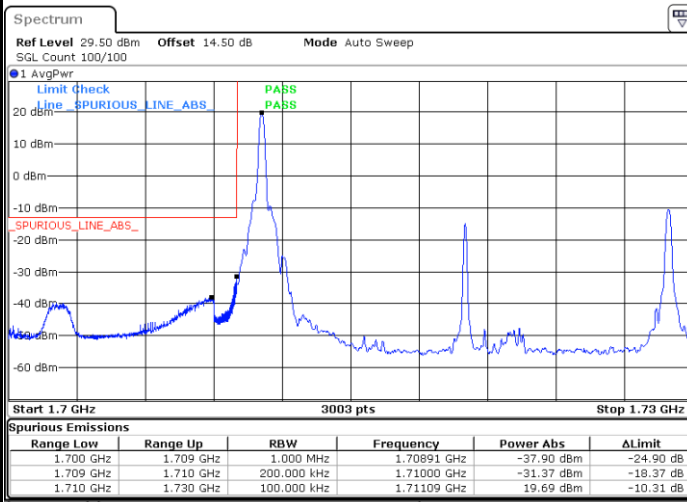
LTE Band 4 / 20MHz / QPSK





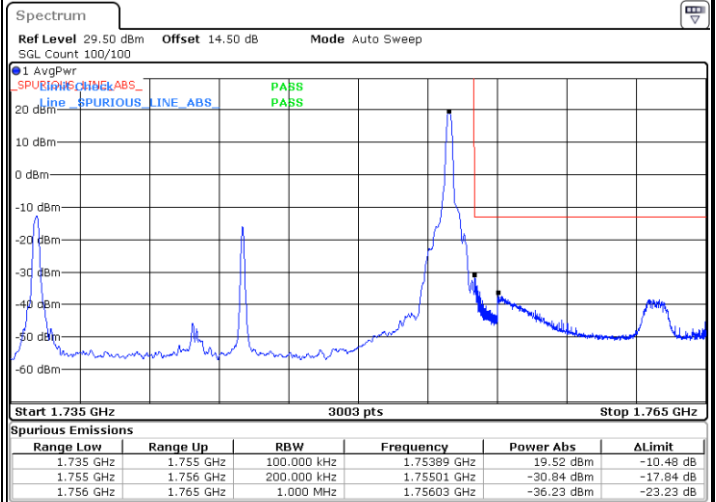
LTE Band 4 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



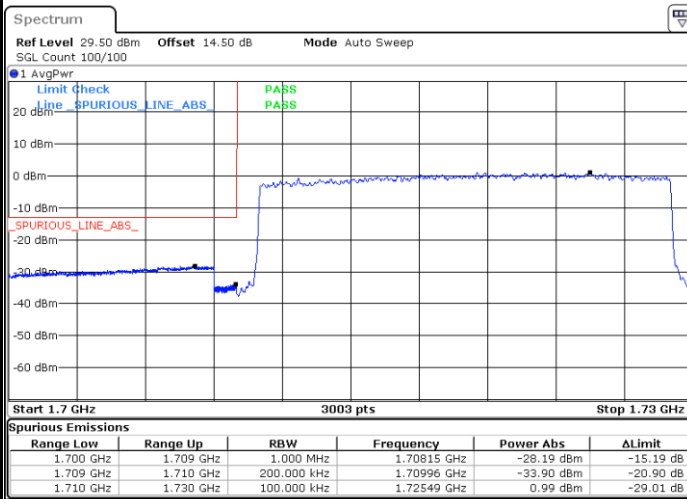
Date: 14.DEC.2020 17:01:00

Highest Band Edge / 1 RB



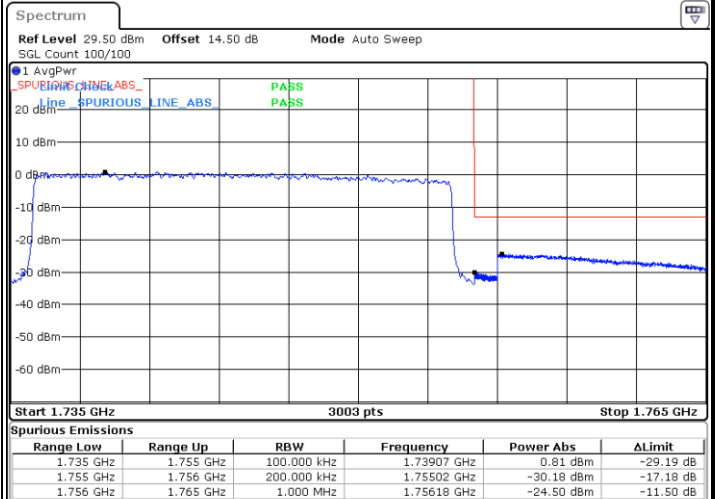
Date: 14.DEC.2020 17:07:51

Lowest Band Edge / Full RB



Date: 14.DEC.2020 17:02:22

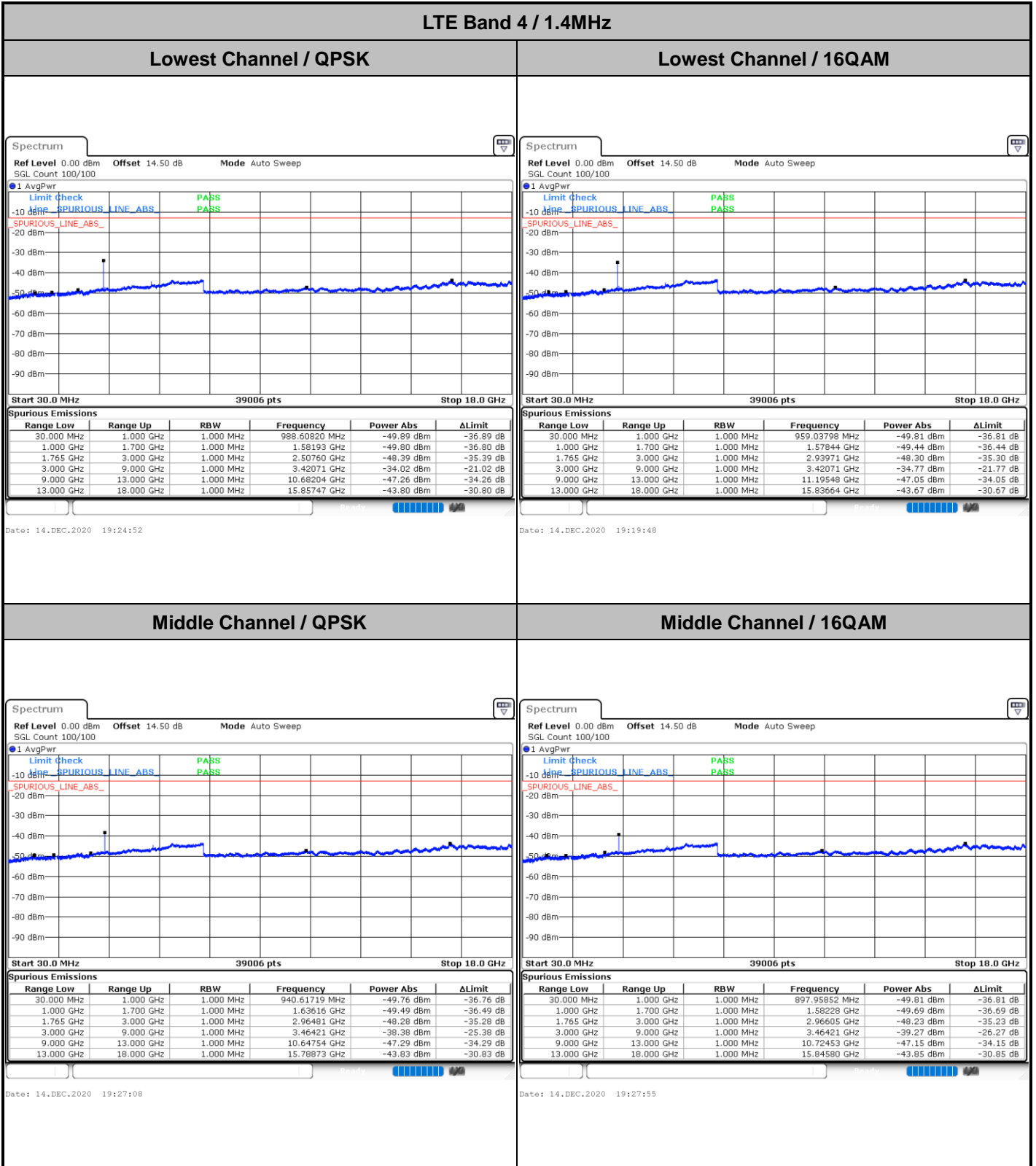
Highest Band Edge / Full RB



Date: 14.DEC.2020 17:09:13



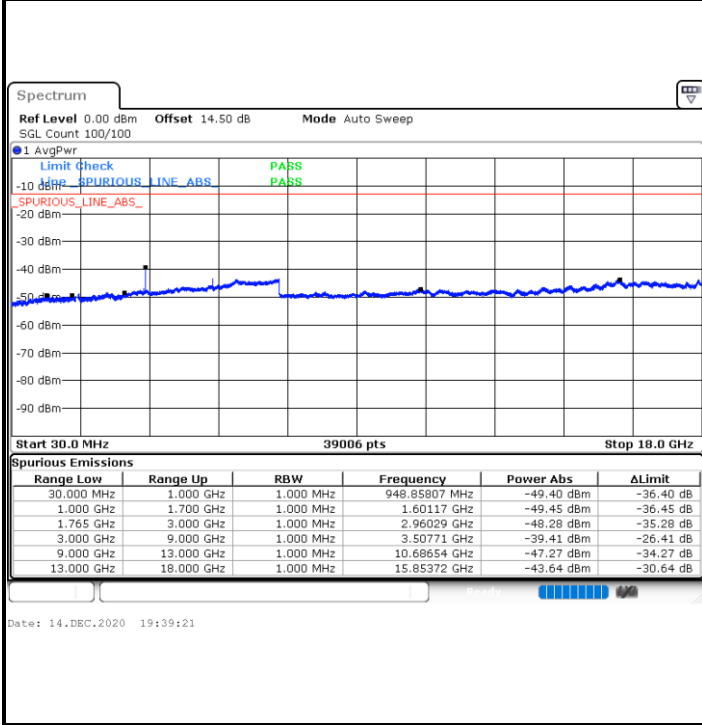
Conducted Spurious Emission



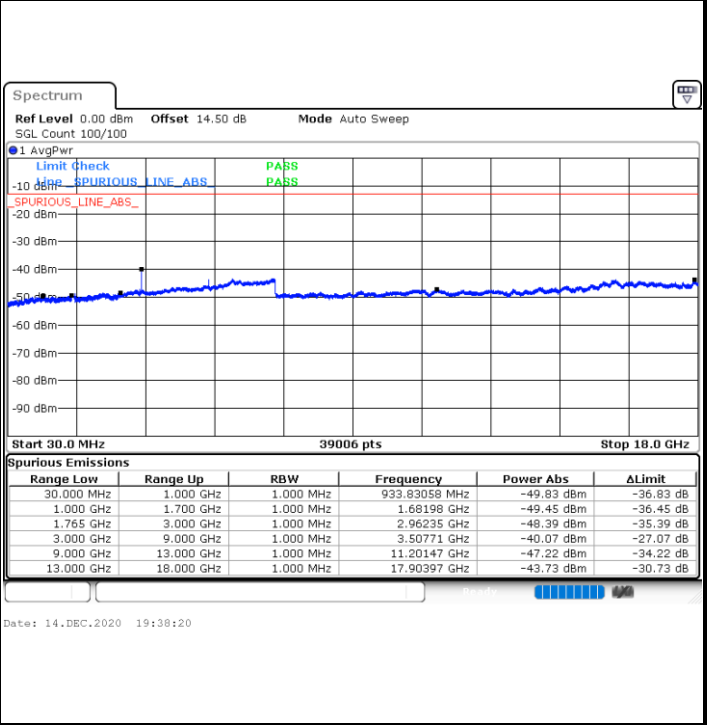


LTE Band 4 / 1.4MHz

Highest Channel / QPSK

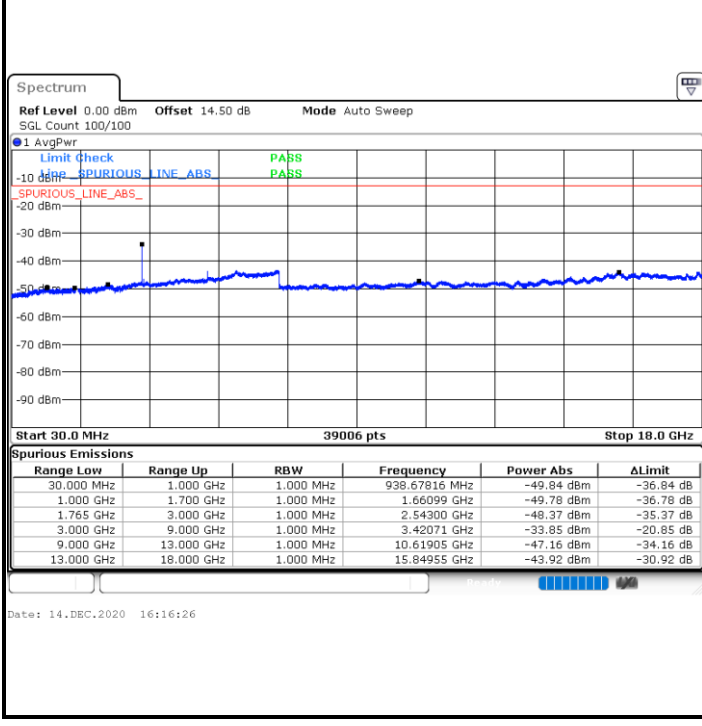


Highest Channel / 16QAM

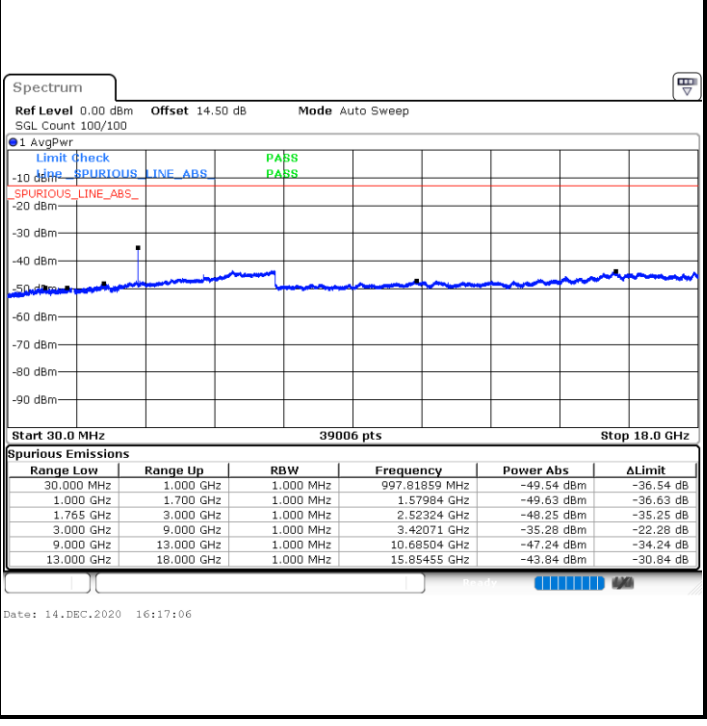


LTE Band 4 / 3MHz

Lowest Channel / QPSK



Lowest Channel / 16QAM

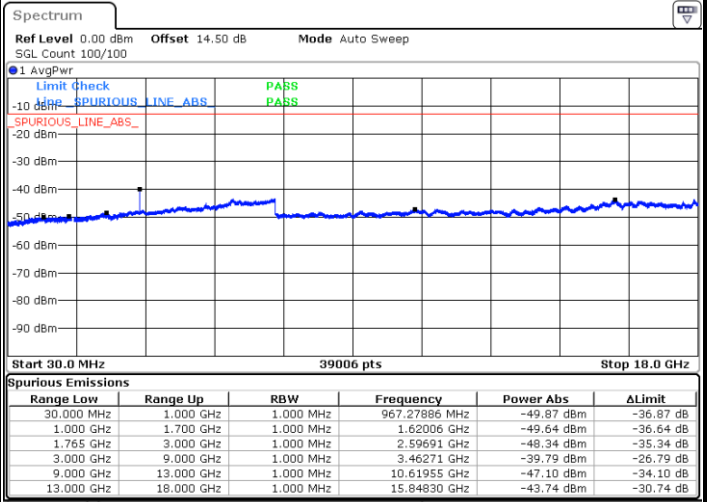
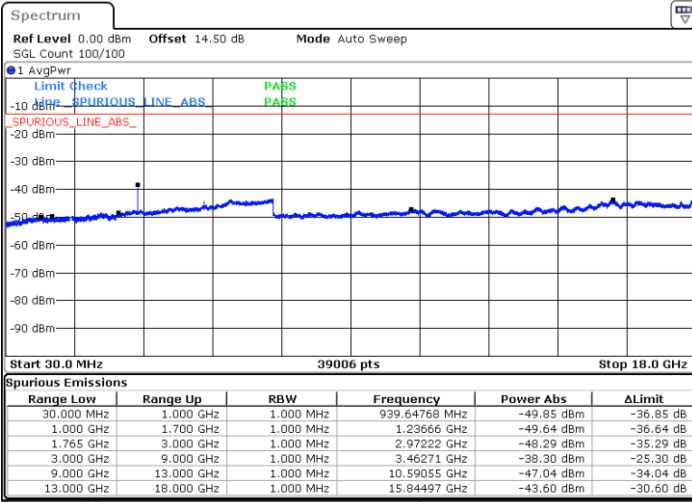




LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

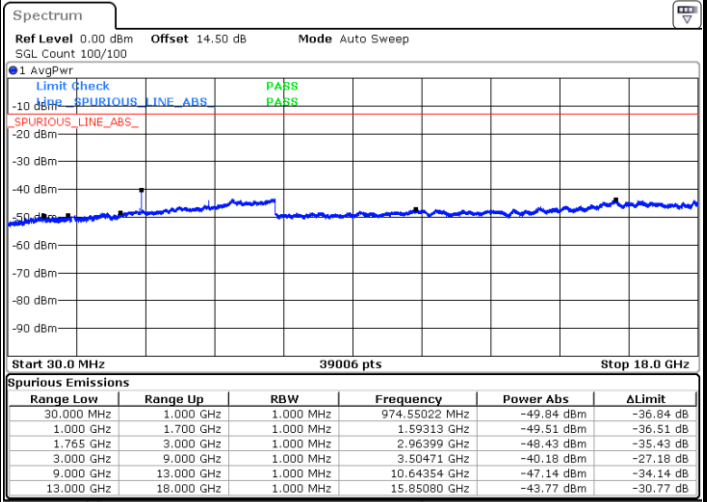
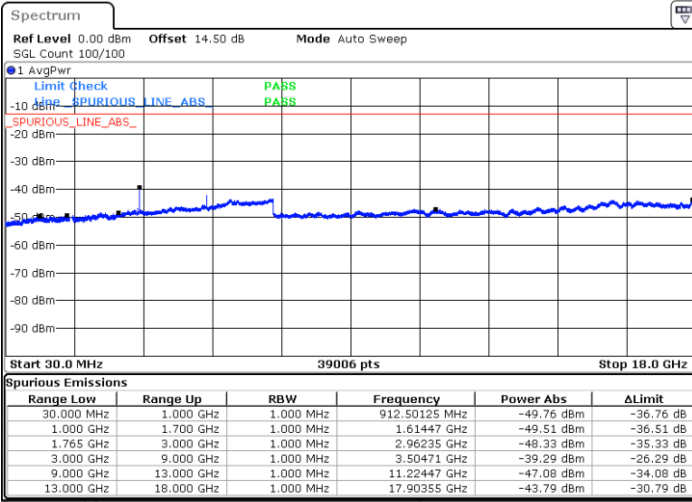


Date: 14. DEC. 2020 16:18:29

Date: 14. DEC. 2020 16:19:09

Highest Channel / QPSK

Highest Channel / 16QAM



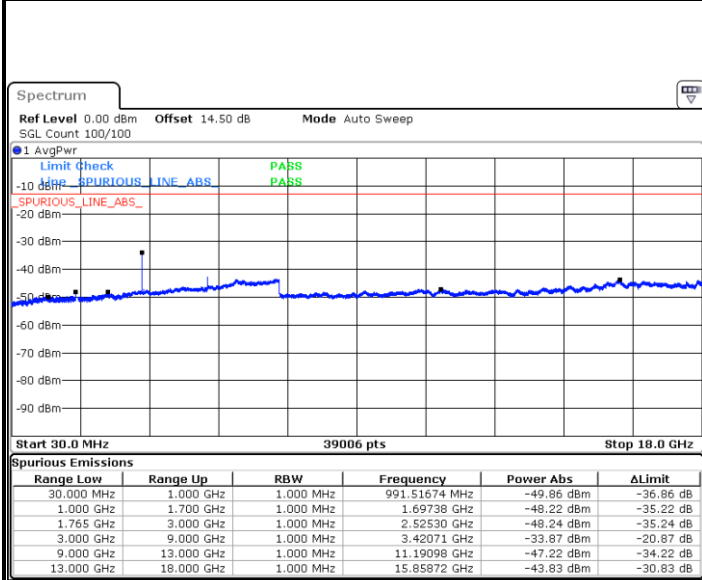
Date: 14. DEC. 2020 16:23:17

Date: 14. DEC. 2020 16:23:57



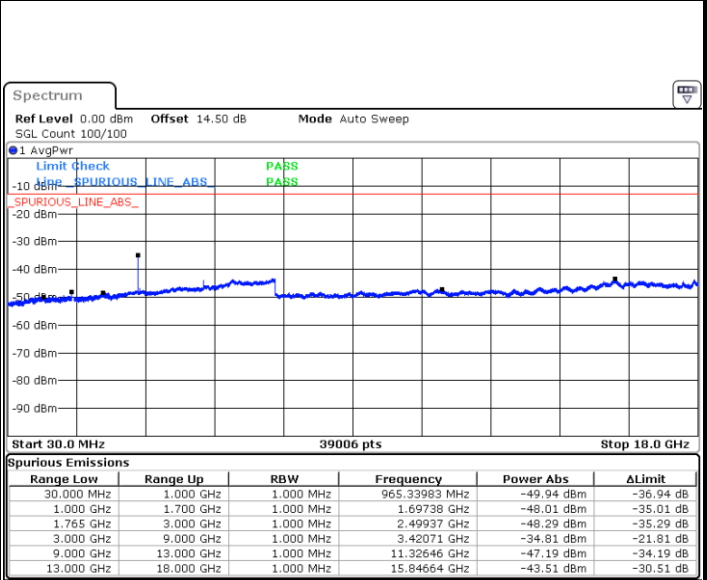
LTE Band 4 / 5MHz

Lowest Channel / QPSK



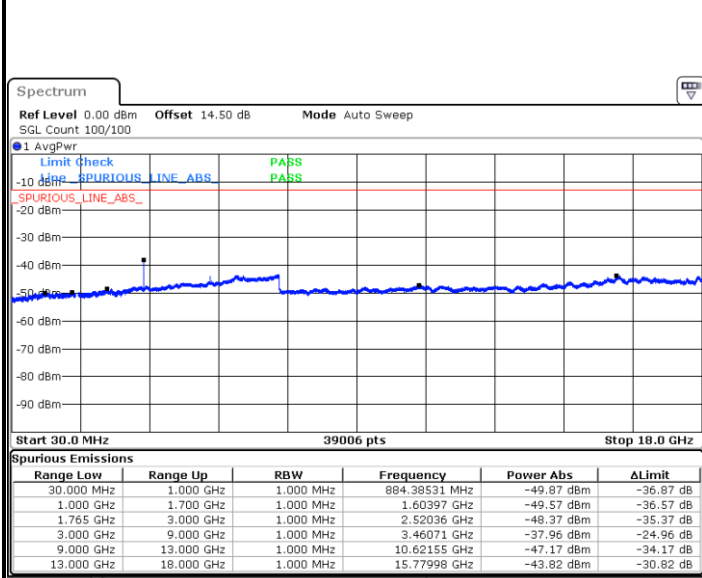
Date: 14.DEC.2020 16:28:05

Lowest Channel / 16QAM



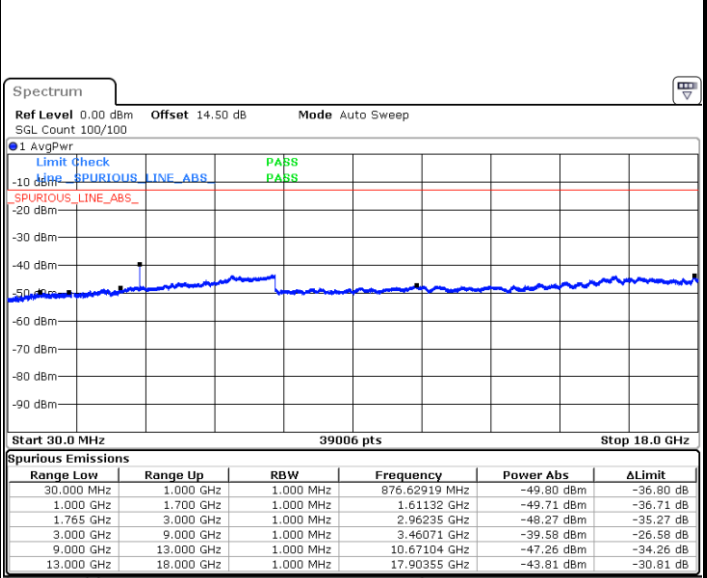
Date: 14.DEC.2020 16:28:45

Middle Channel / QPSK



Date: 14.DEC.2020 16:30:09

Middle Channel / 16QAM

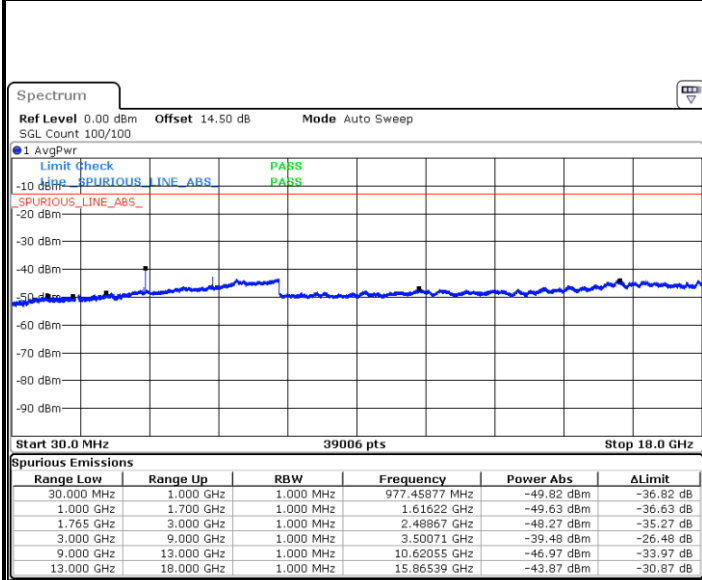


Date: 14.DEC.2020 16:30:48



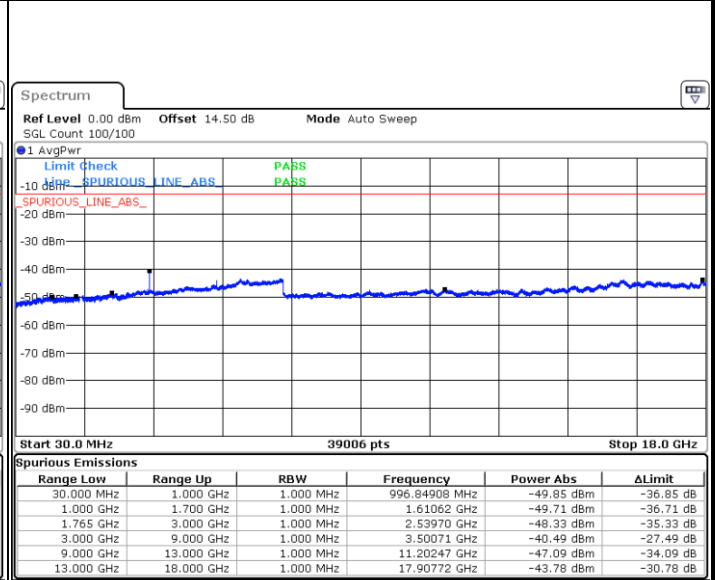
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 14.DEC.2020 16:34:57

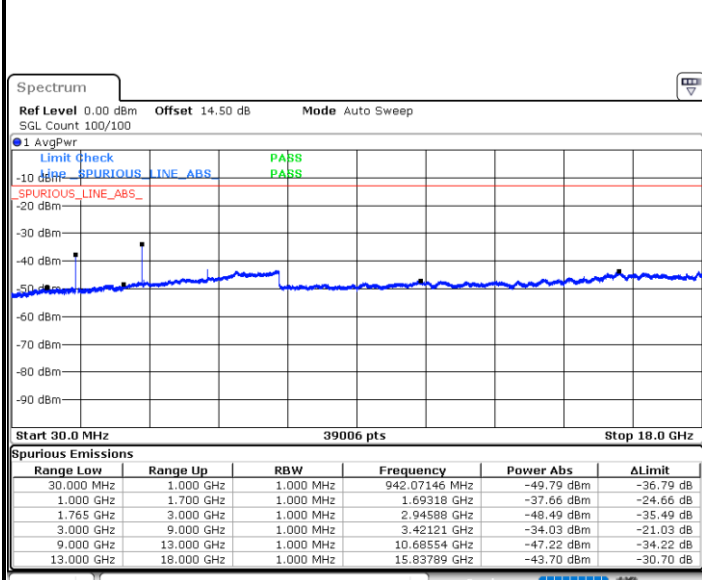
Highest Channel / 16QAM



Date: 14.DEC.2020 16:35:36

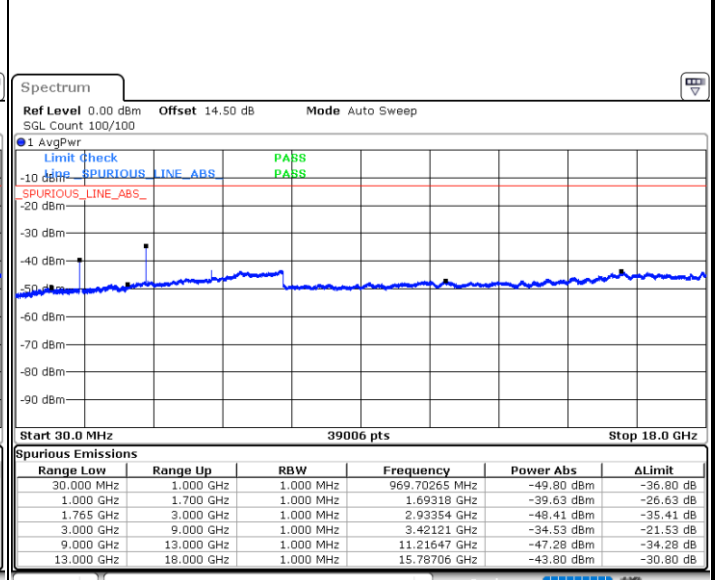
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 14.DEC.2020 16:39:45

Lowest Channel / 16QAM



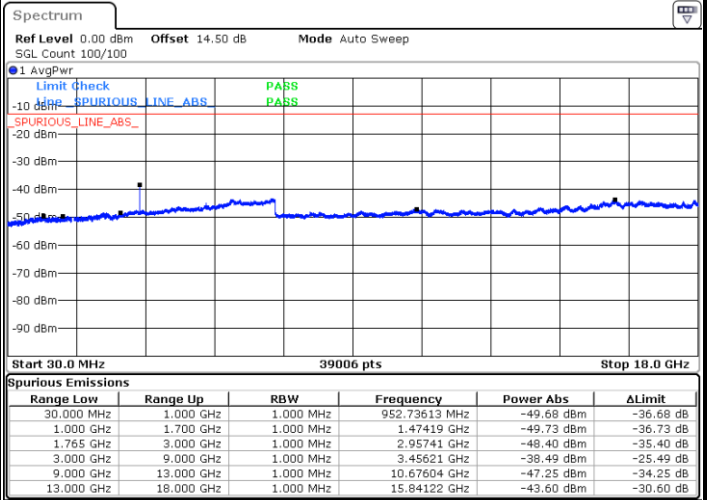
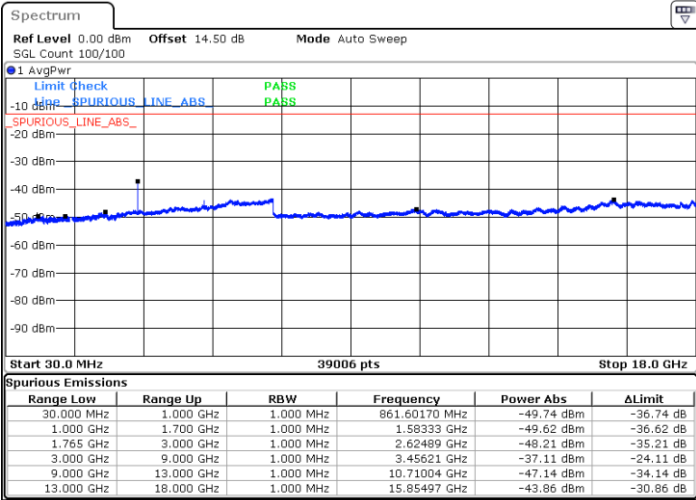
Date: 14.DEC.2020 16:40:24



LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

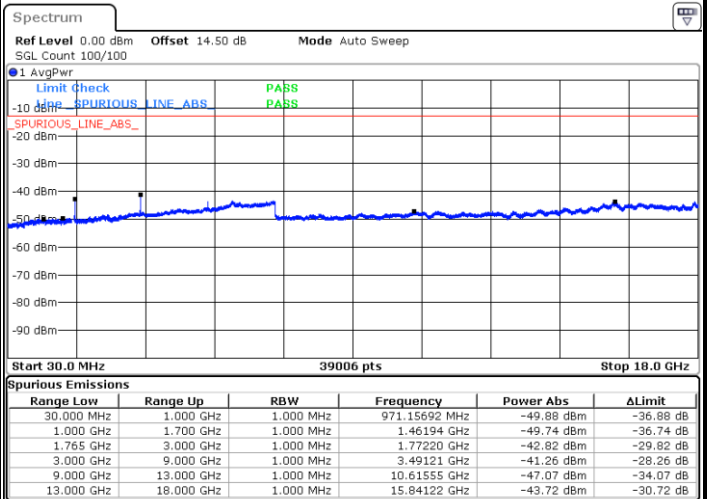
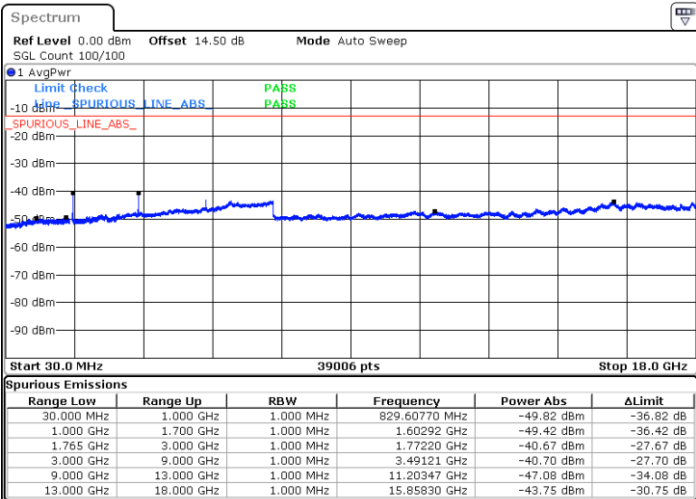


Date: 14. DEC. 2020 16:41:48

Date: 14. DEC. 2020 16:42:28

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 14. DEC. 2020 16:46:36

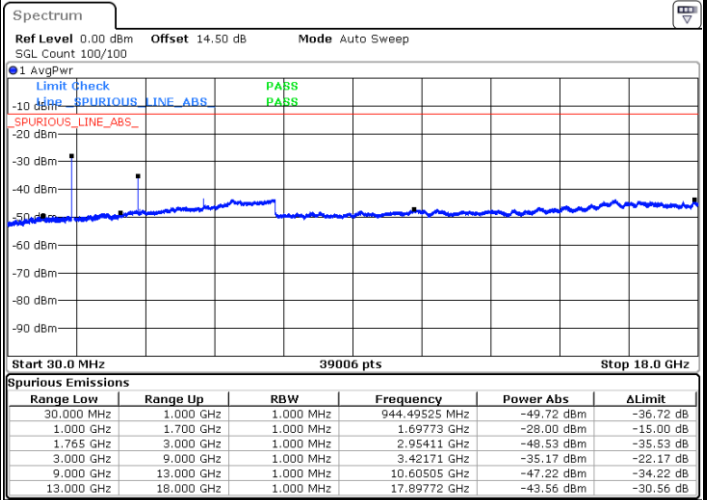
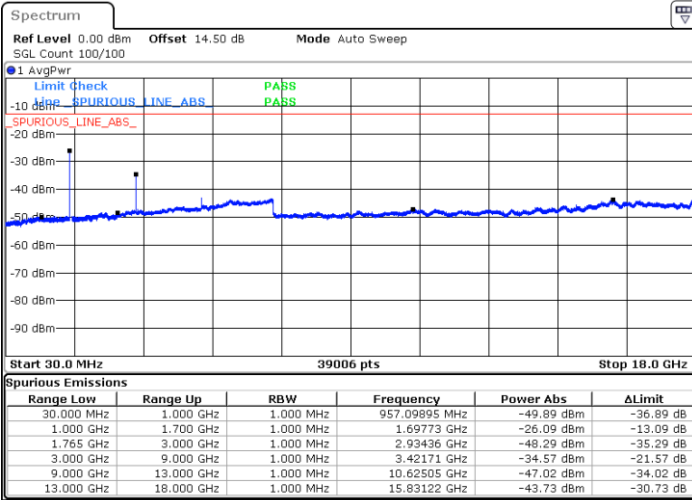
Date: 14. DEC. 2020 16:47:15



LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

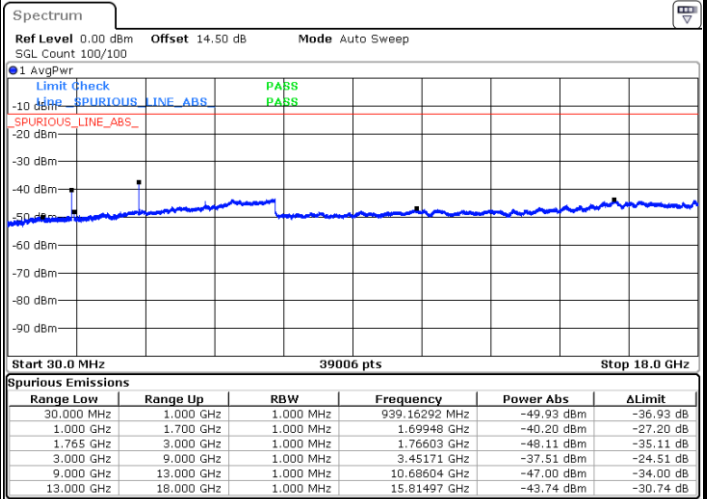
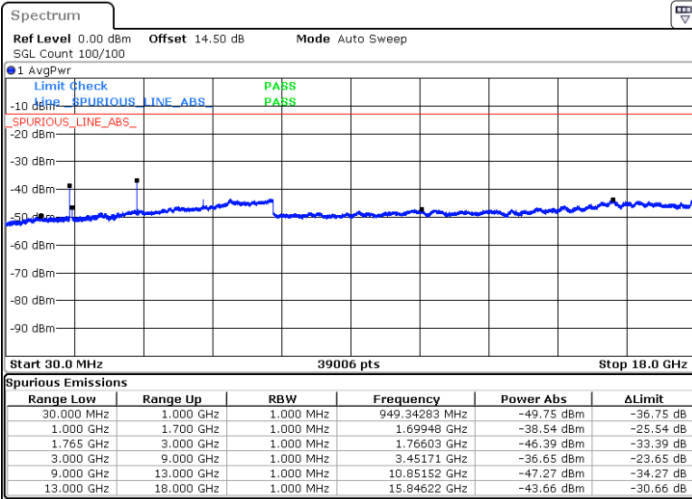


Date: 14.DEC.2020 16:51:24

Date: 14.DEC.2020 16:52:03

Middle Channel / QPSK

Middle Channel / 16QAM



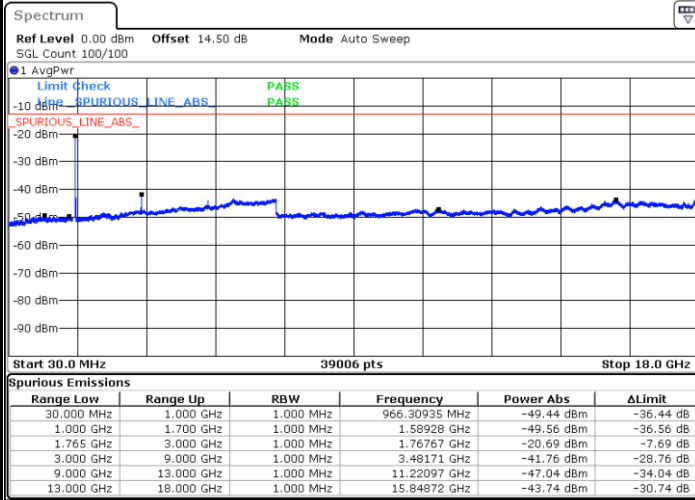
Date: 14.DEC.2020 16:53:26

Date: 14.DEC.2020 16:54:06



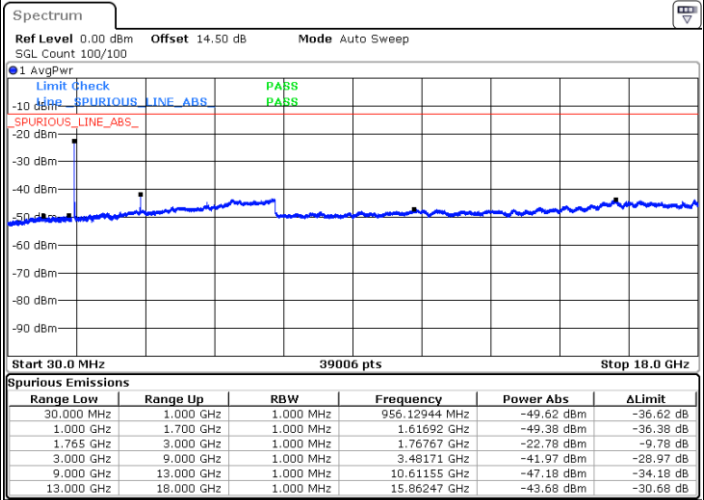
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 14.DEC.2020 16:58:14

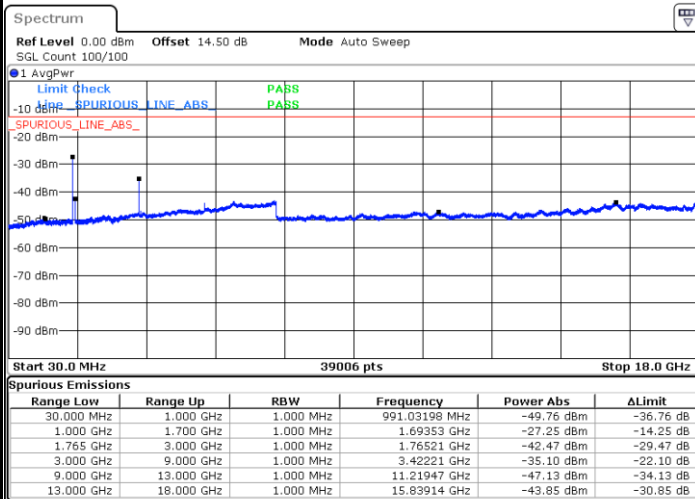
Highest Channel / 16QAM



Date: 14.DEC.2020 16:58:53

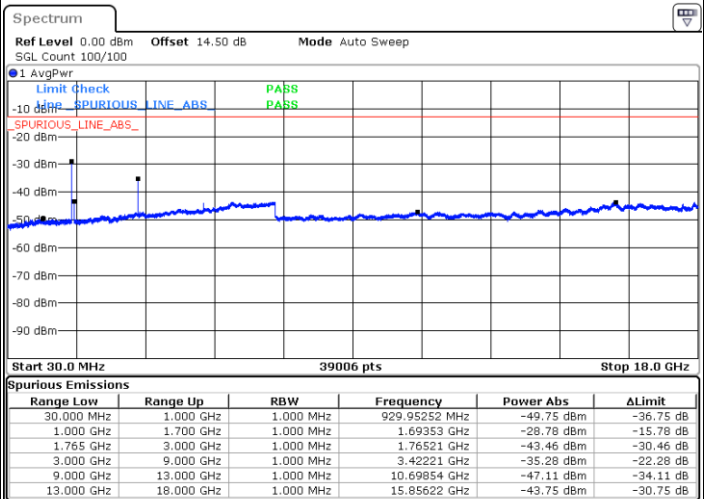
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 14.DEC.2020 17:03:02

Lowest Channel / 16QAM



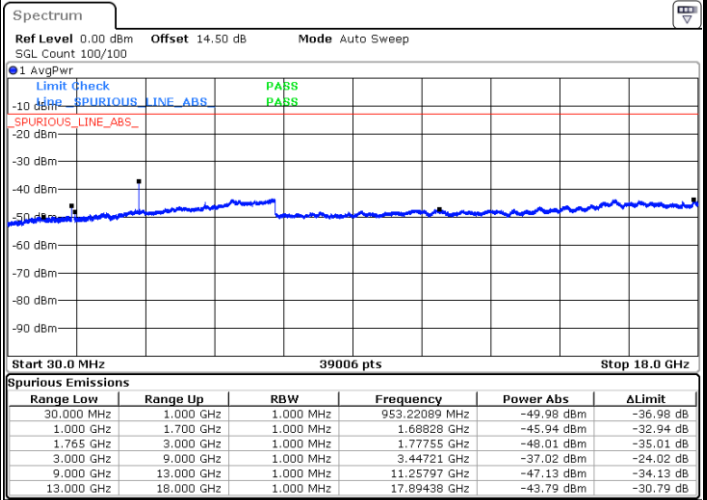
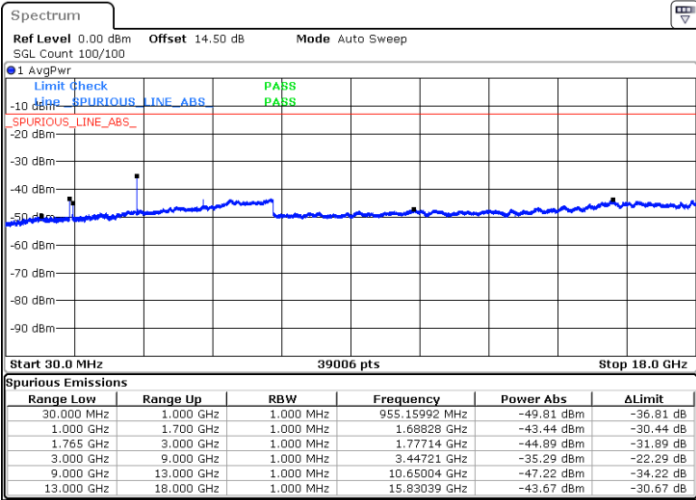
Date: 14.DEC.2020 17:03:41



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

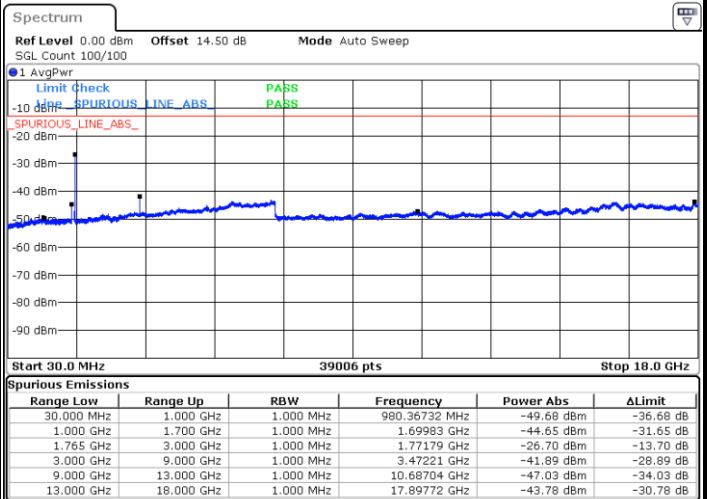
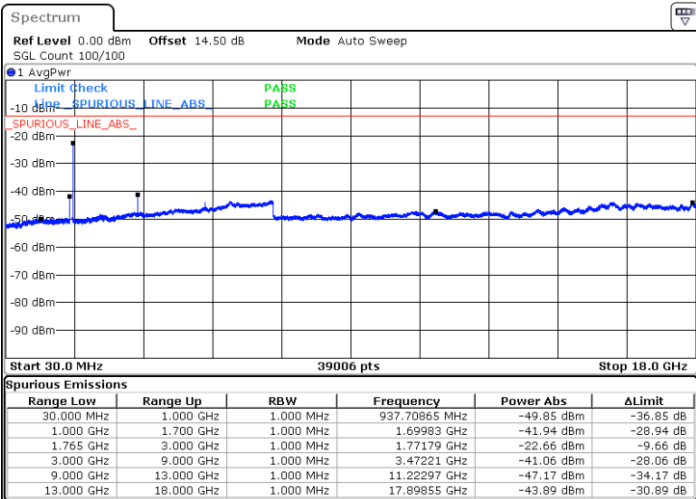


Date: 14.DEC.2020 17:05:05

Date: 14.DEC.2020 17:05:45

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 14.DEC.2020 17:09:53

Date: 14.DEC.2020 17:10:33



Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0009	PASS
40	Normal Voltage	0.0004	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0006	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0012	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 12

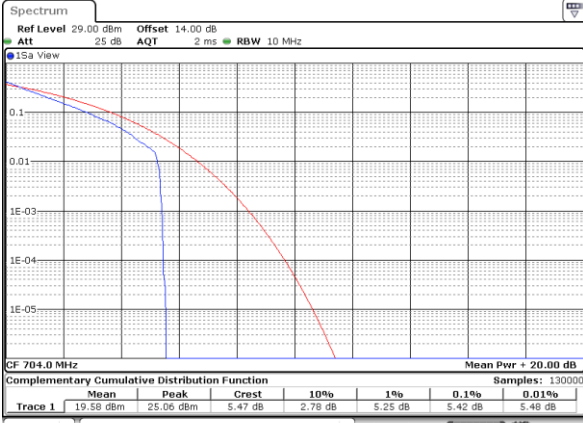
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.42	5.01	5.86	5.94	PASS
Middle CH	4.67	5.51	5.30	6.17	
Highest CH	4.29	5.25	5.36	6.17	



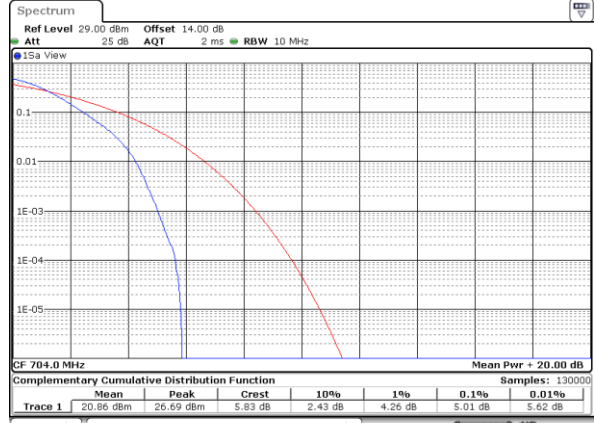
LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



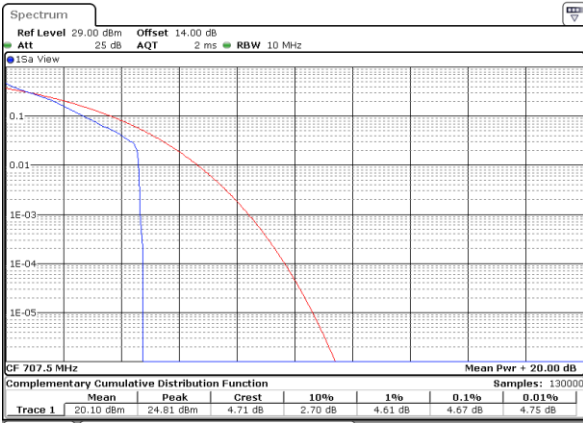
Date: 16.DEC.2020 11:53:38

Lowest Channel / Full RB



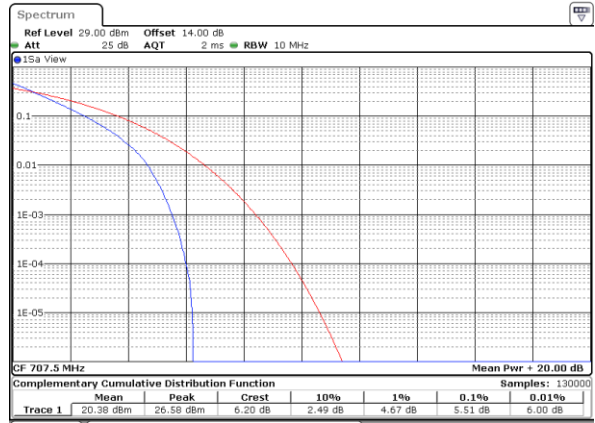
Date: 16.DEC.2020 10:40:49

Middle Channel / 1RB



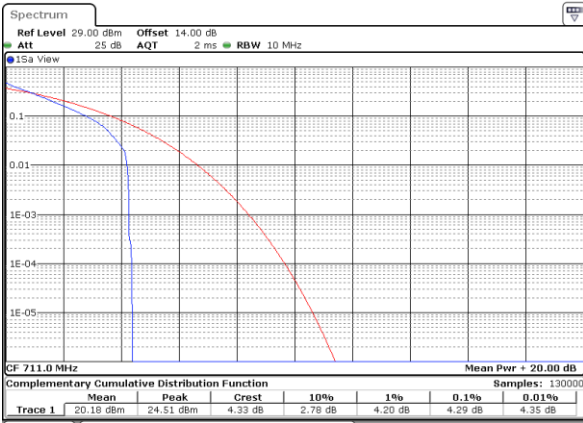
Date: 16.DEC.2020 11:56:11

Middle Channel / Full RB



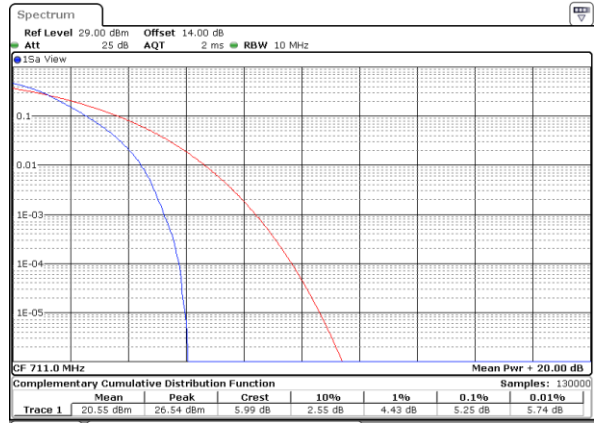
Date: 16.DEC.2020 13:45:09

Highest Channel / 1RB



Date: 16.DEC.2020 20:11:53

Highest Channel / Full RB

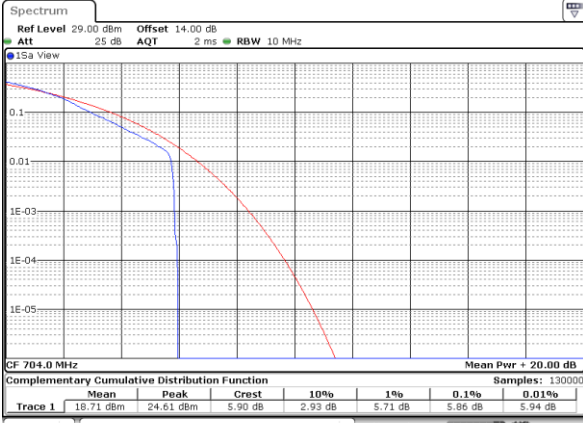


Date: 16.DEC.2020 13:48:27



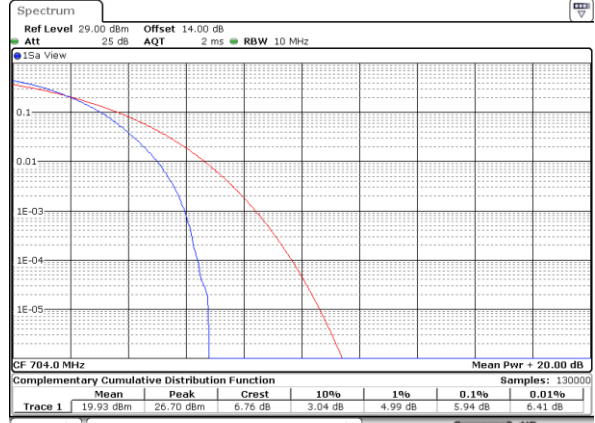
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



Date: 16.DEC.2020 10:46:32

Lowest Channel / Full RB



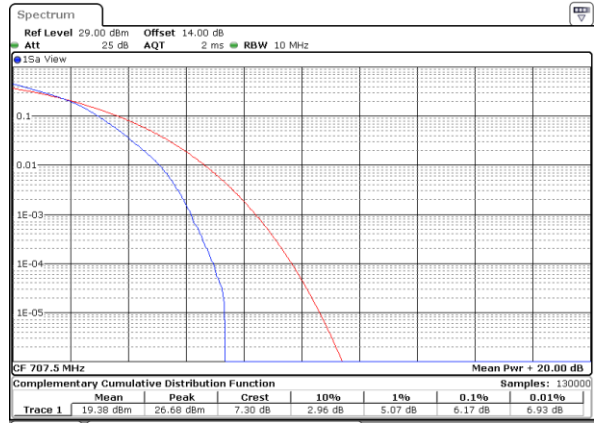
Date: 16.DEC.2020 10:41:08

Middle Channel / 1RB



Date: 16.DEC.2020 11:57:10

Middle Channel / Full RB



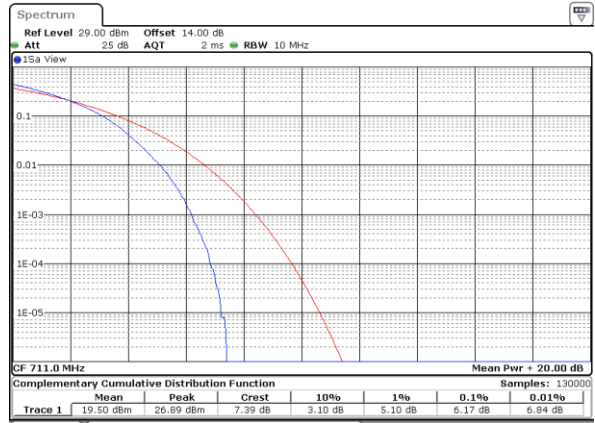
Date: 16.DEC.2020 13:43:06

Highest Channel / 1RB



Date: 16.DEC.2020 14:00:56

Highest Channel / Full RB



Date: 16.DEC.2020 13:49:43



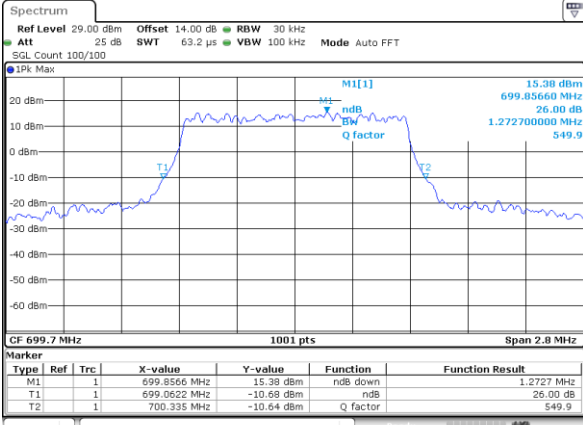
26dB Bandwidth

Mode	LTE Band 12 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.27	1.28	3.00	3.02	5.01	4.91	9.71	9.83	-	-	-	-
Middle CH	1.30	1.29	3.00	2.99	4.90	4.81	10.05	9.89	-	-	-	-
Highest CH	1.28	1.28	3.02	3.03	4.91	4.93	9.77	9.67	-	-	-	-



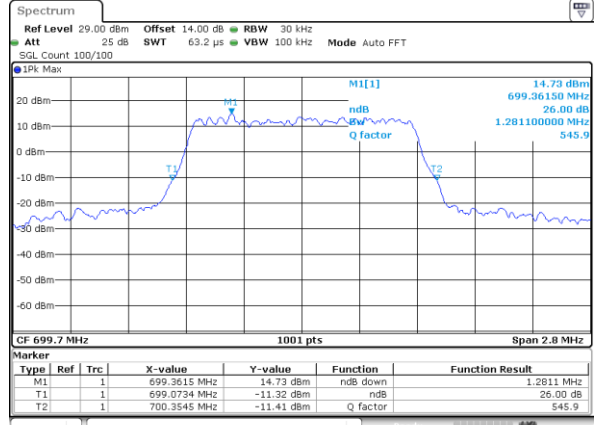
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



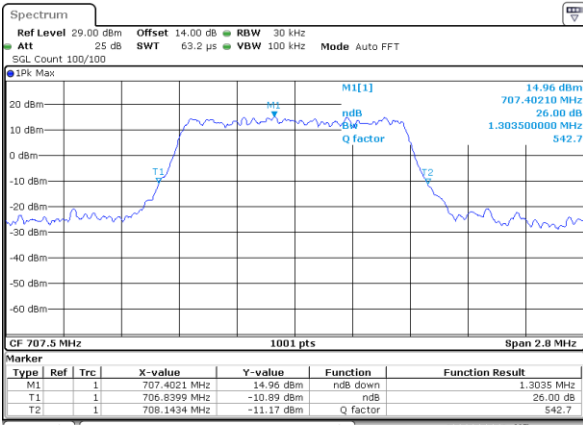
Date: 14. DEC. 2020 17:20:45

Lowest Channel / 1.4MHz / 16QAM



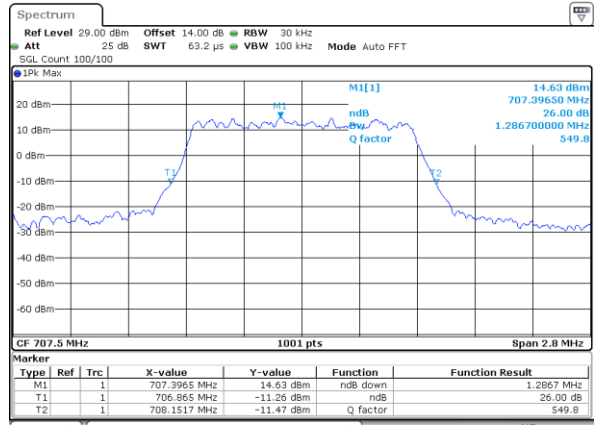
Date: 14. DEC. 2020 17:20:34

Middle Channel / 1.4MHz / QPSK



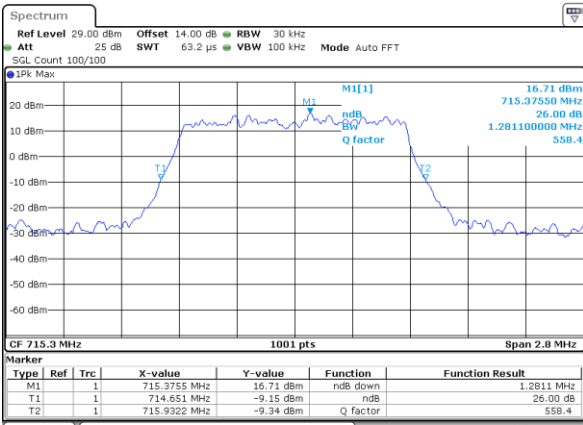
Date: 14. DEC. 2020 17:25:46

Middle Channel / 1.4MHz / 16QAM



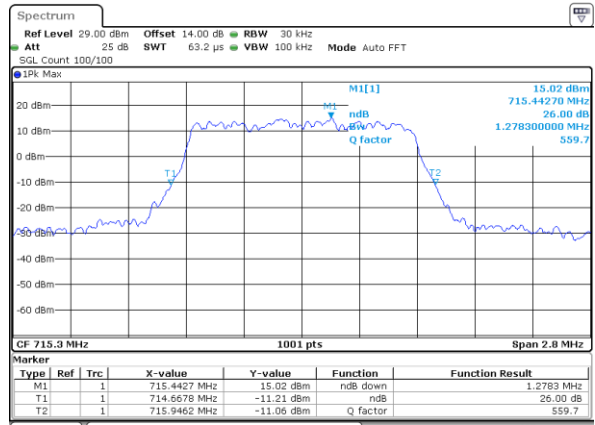
Date: 14. DEC. 2020 17:25:57

Highest Channel / 1.4MHz / QPSK



Date: 14. DEC. 2020 17:28:14

Highest Channel / 1.4MHz / 16QAM

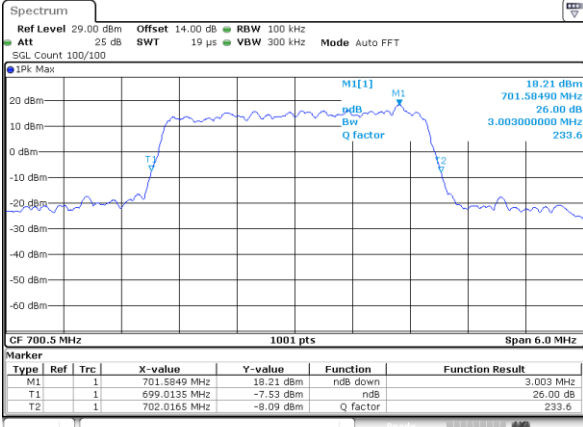


Date: 14. DEC. 2020 17:28:03



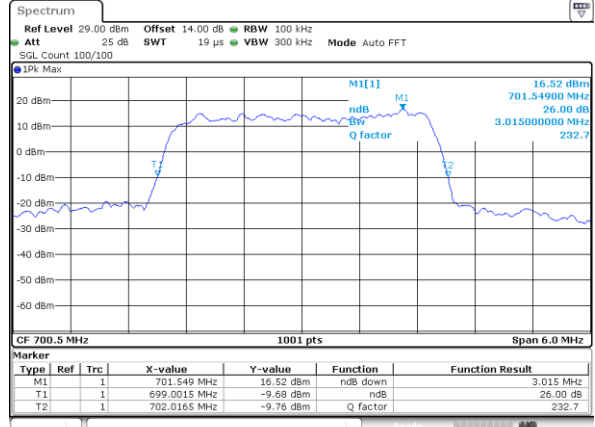
LTE Band 12

Lowest Channel / 3MHz / QPSK



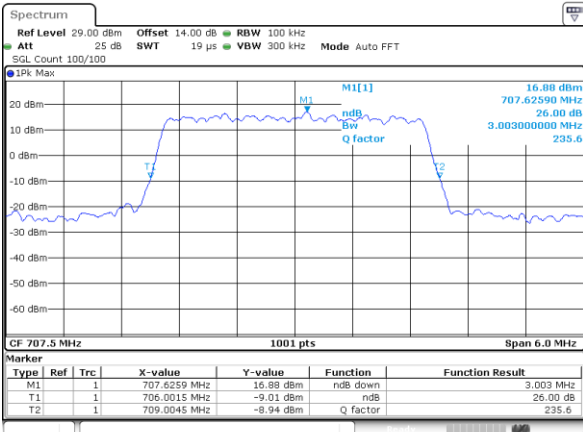
Date: 14. DEC. 2020 17:55:11

Lowest Channel / 3MHz / 16QAM



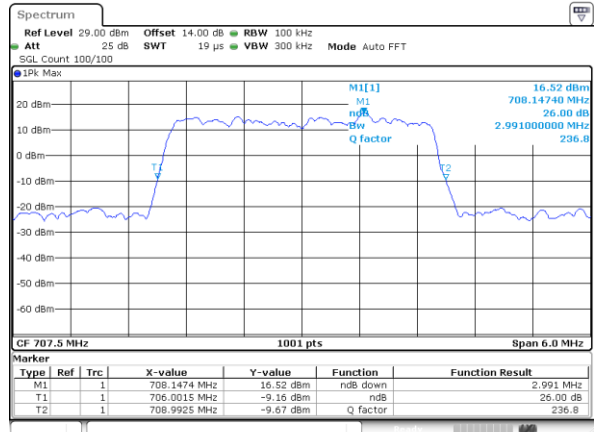
Date: 14. DEC. 2020 17:55:00

Middle Channel / 3MHz / QPSK



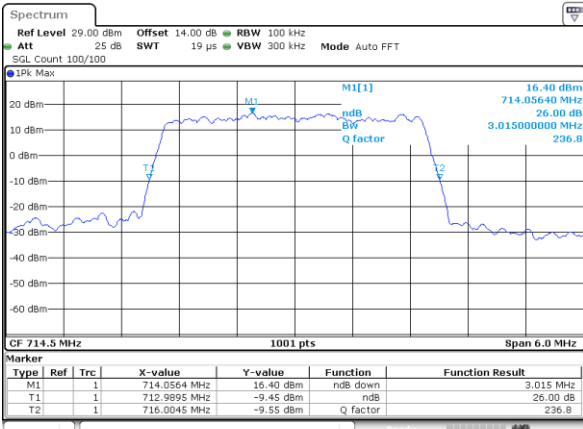
Date: 14. DEC. 2020 18:02:55

Middle Channel / 3MHz / 16QAM



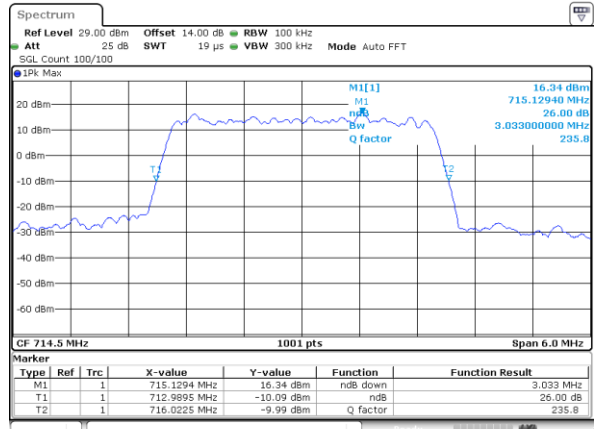
Date: 14. DEC. 2020 18:03:06

Highest Channel / 3MHz / QPSK



Date: 14. DEC. 2020 18:05:41

Highest Channel / 3MHz / 16QAM

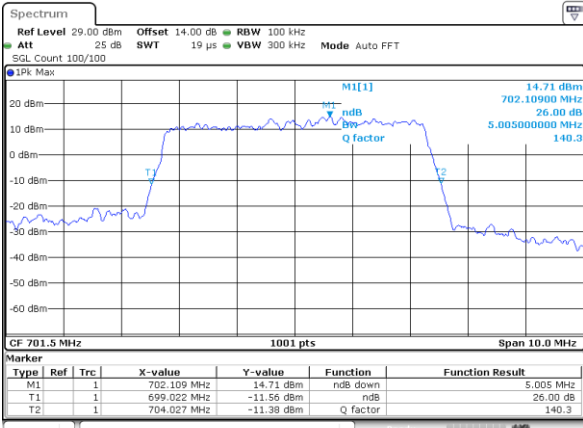


Date: 14. DEC. 2020 18:05:28



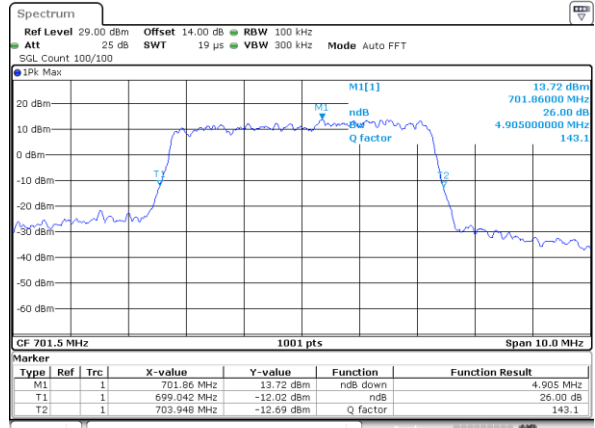
LTE Band 12

Lowest Channel / 5MHz / QPSK



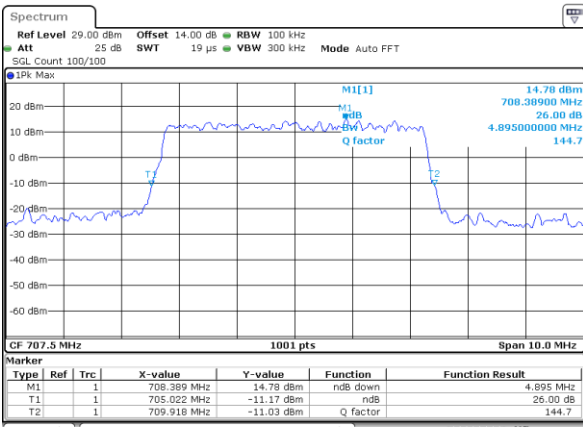
Date: 16, DEC, 2020 09:59:04

Lowest Channel / 5MHz / 16QAM



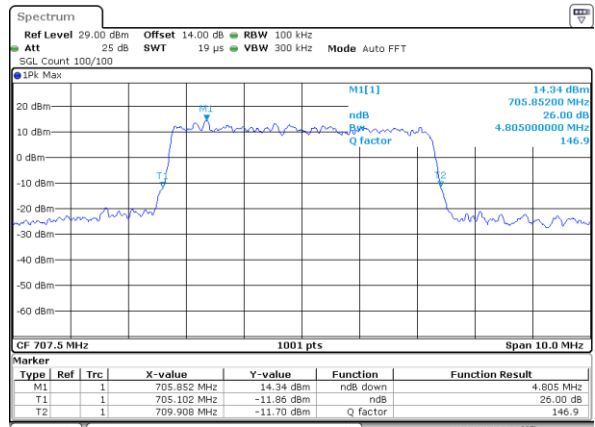
Date: 16, DEC, 2020 10:00:12

Middle Channel / 5MHz / QPSK



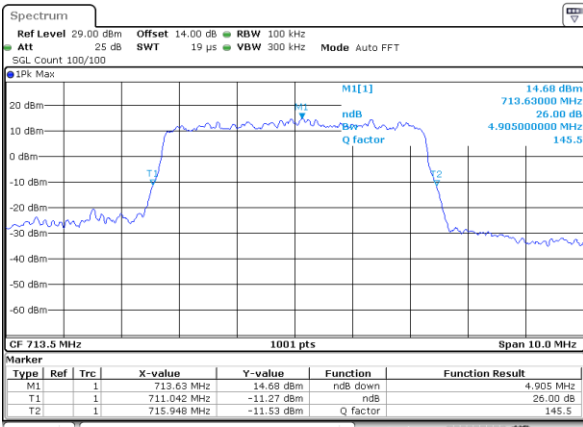
Date: 16, DEC, 2020 10:38:44

Middle Channel / 5MHz / 16QAM



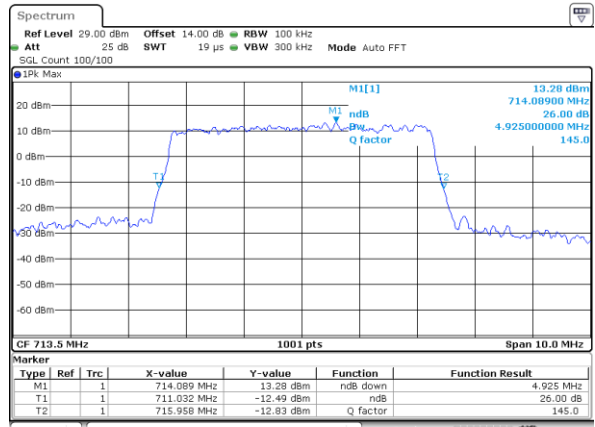
Date: 16, DEC, 2020 10:38:20

Highest Channel / 5MHz / QPSK



Date: 16, DEC, 2020 20:05:04

Highest Channel / 5MHz / 16QAM

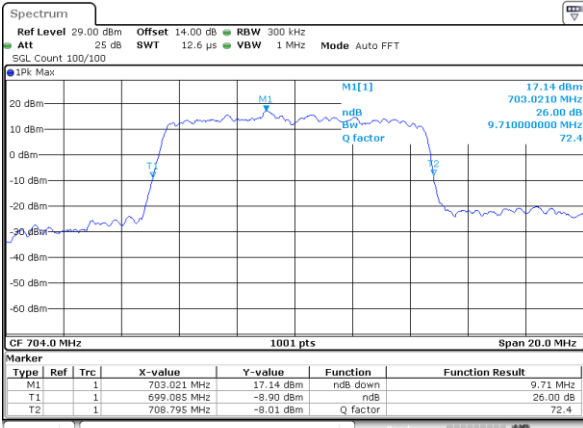


Date: 16, DEC, 2020 10:32:23



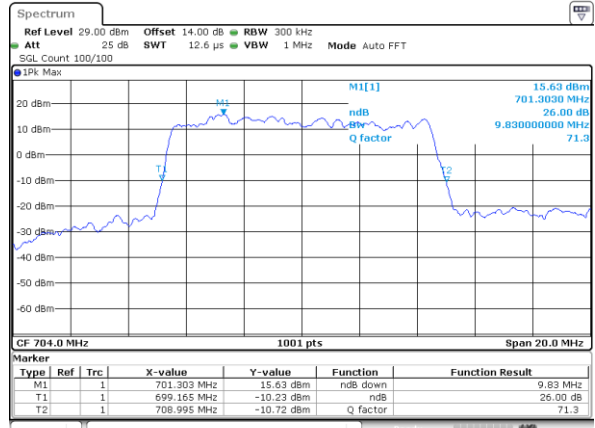
LTE Band 12

Lowest Channel / 10MHz / QPSK



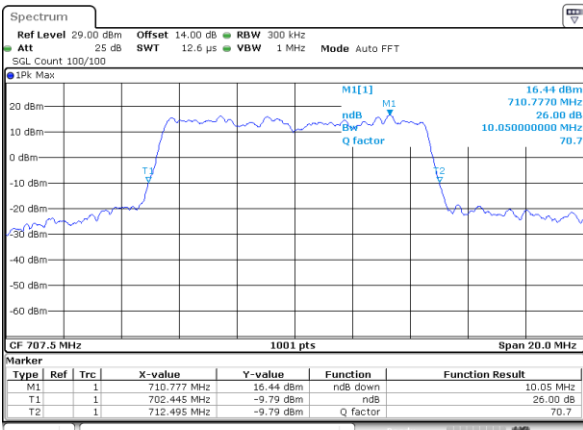
Date: 16, DEC, 2020 10:39:51

Lowest Channel / 10MHz / 16QAM



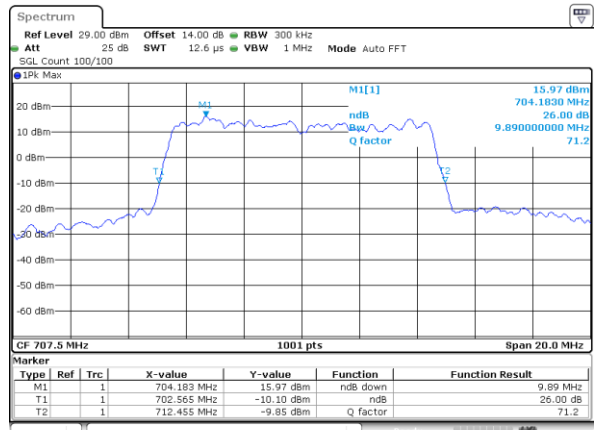
Date: 16, DEC, 2020 10:41:31

Middle Channel / 10MHz / QPSK



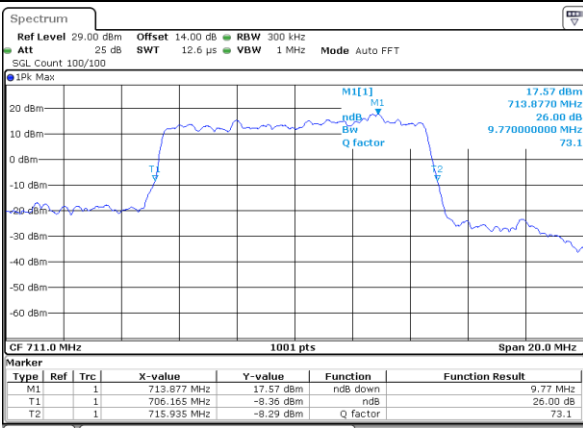
Date: 16, DEC, 2020 13:45:43

Middle Channel / 10MHz / 16QAM



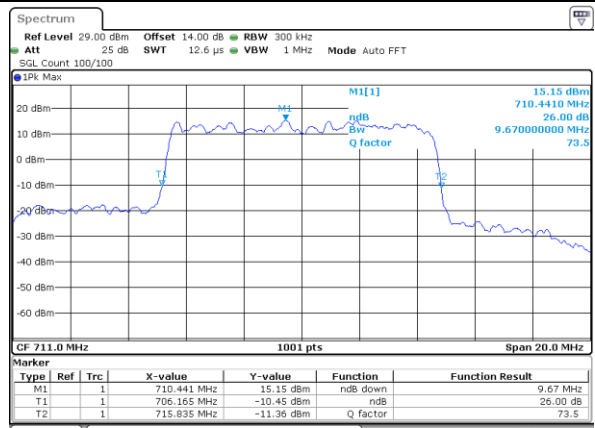
Date: 16, DEC, 2020 13:44:27

Highest Channel / 10MHz / QPSK



Date: 16, DEC, 2020 13:47:25

Highest Channel / 10MHz / 16QAM



Date: 16, DEC, 2020 13:50:03



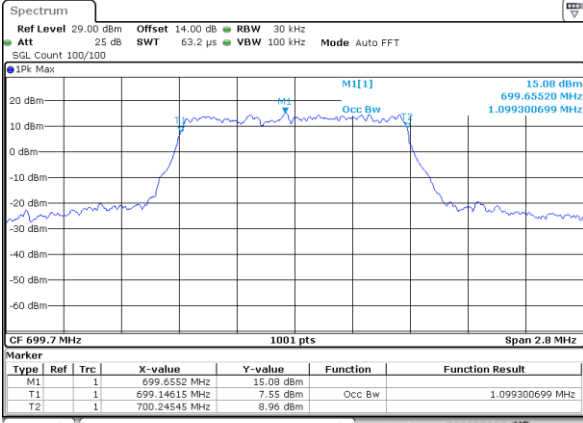
Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.10	1.09	2.73	2.71	4.48	4.48	8.93	8.91	-	-	-	-
Middle CH	1.09	1.09	2.72	2.72	4.50	4.50	9.11	9.03	-	-	-	-
Highest CH	1.10	1.10	2.71	2.70	4.49	4.50	9.05	8.95	-	-	-	-



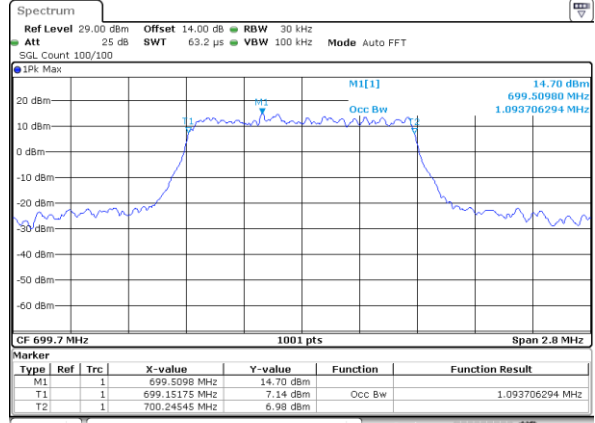
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



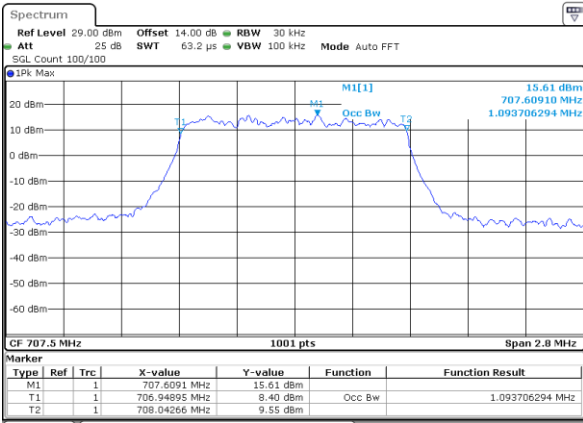
Date: 14. DEC. 2020 17:20:11

Lowest Channel / 1.4MHz / 16QAM



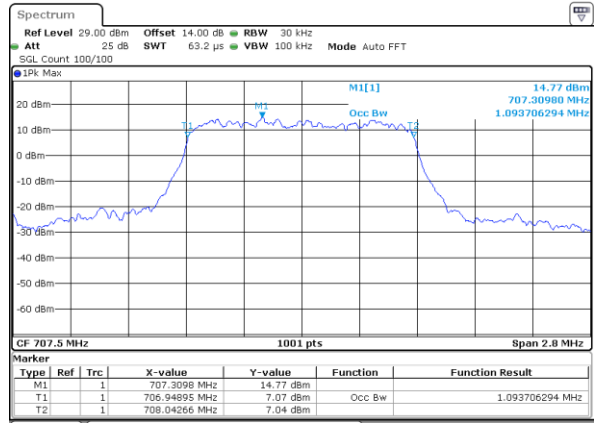
Date: 14. DEC. 2020 17:20:12

Middle Channel / 1.4MHz / QPSK



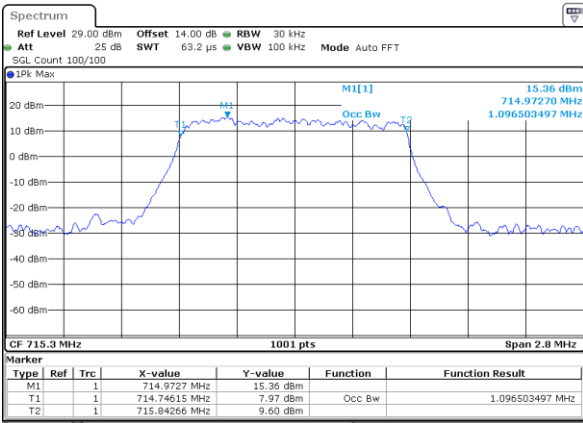
Date: 14. DEC. 2020 17:25:05

Middle Channel / 1.4MHz / 16QAM



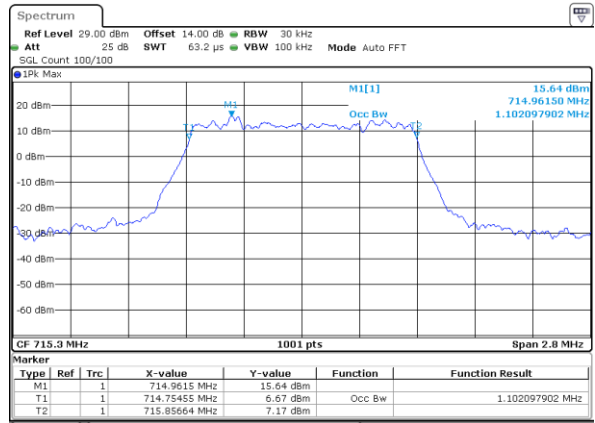
Date: 14. DEC. 2020 17:25:13

Highest Channel / 1.4MHz / QPSK



Date: 14. DEC. 2020 17:27:40

Highest Channel / 1.4MHz / 16QAM

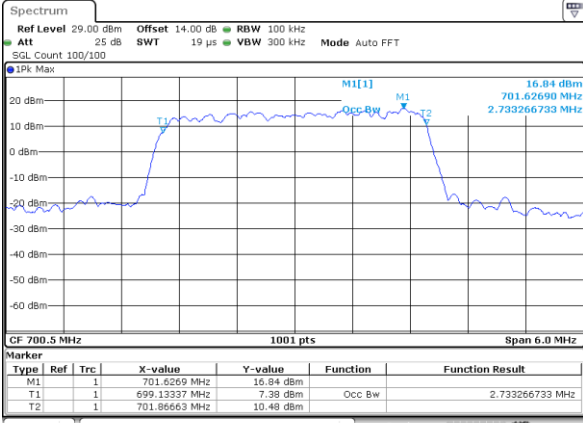


Date: 14. DEC. 2020 17:27:51



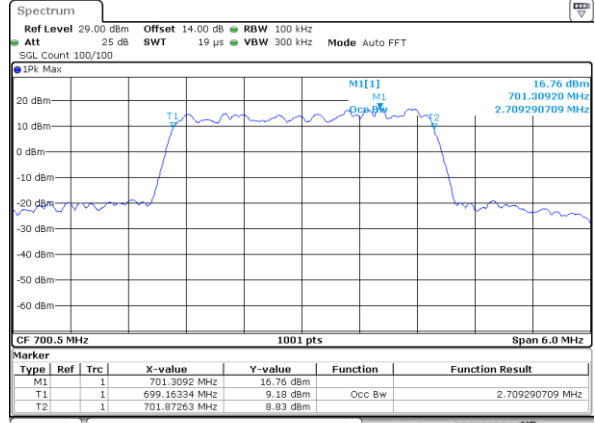
LTE Band 12

Lowest Channel / 3MHz / QPSK



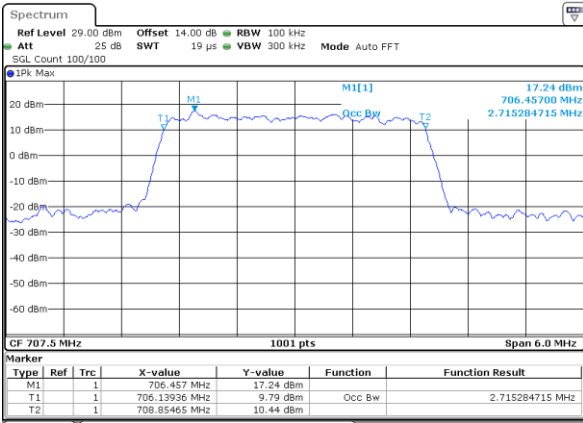
Date: 14. DEC. 2020 17:54:38

Lowest Channel / 3MHz / 16QAM



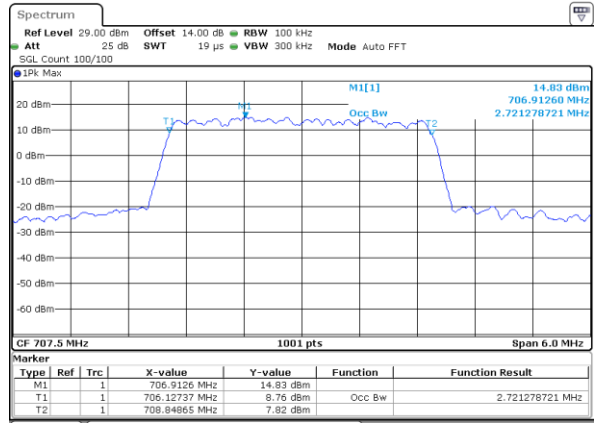
Date: 14. DEC. 2020 17:54:49

Middle Channel / 3MHz / QPSK



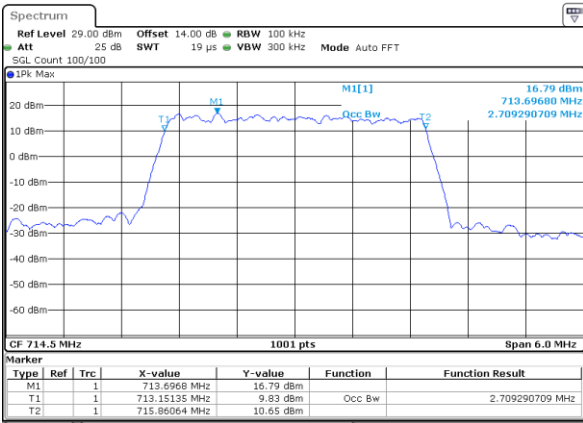
Date: 14. DEC. 2020 18:02:46

Middle Channel / 3MHz / 16QAM



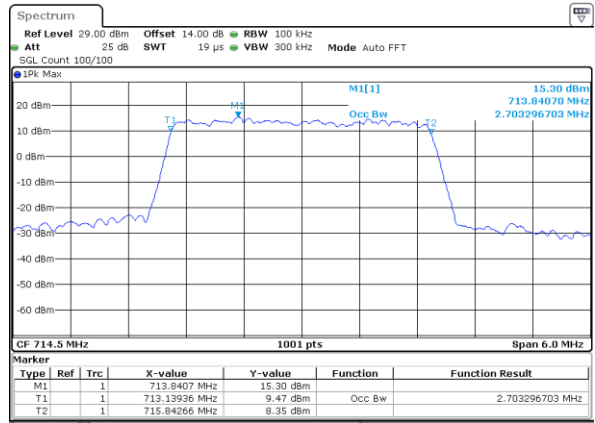
Date: 14. DEC. 2020 18:02:35

Highest Channel / 3MHz / QPSK



Date: 14. DEC. 2020 18:04:53

Highest Channel / 3MHz / 16QAM



Date: 14. DEC. 2020 18:05:03