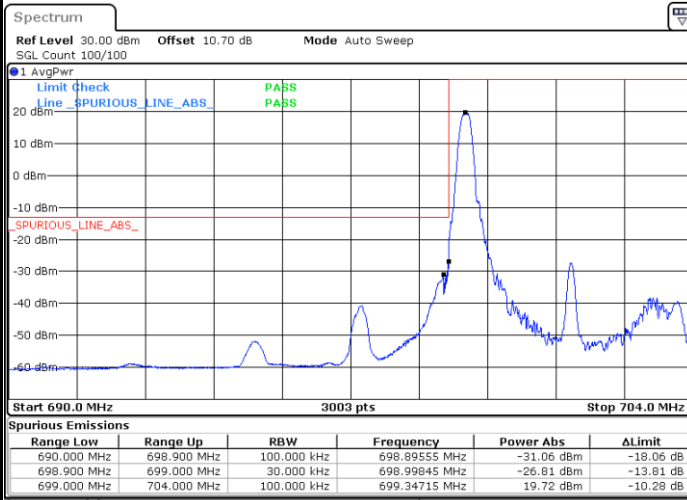




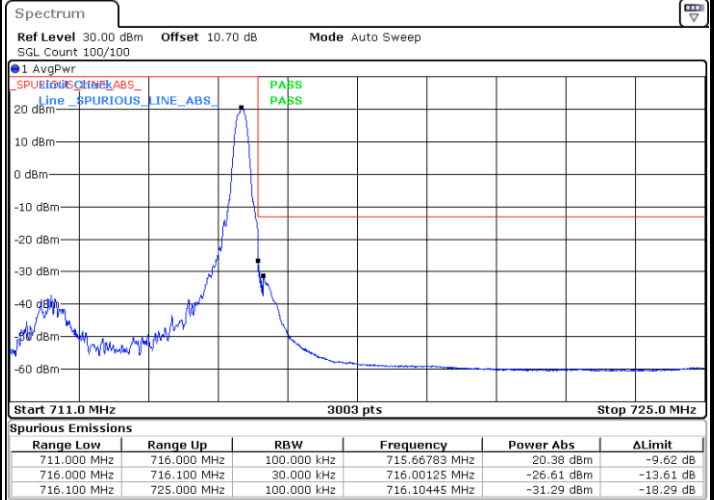
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



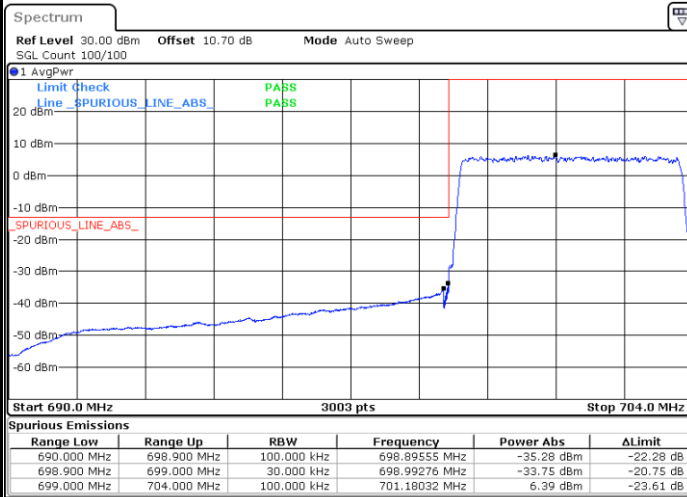
Date: 3.MAR.2020 12:30:51

Highest Band Edge / 1 RB



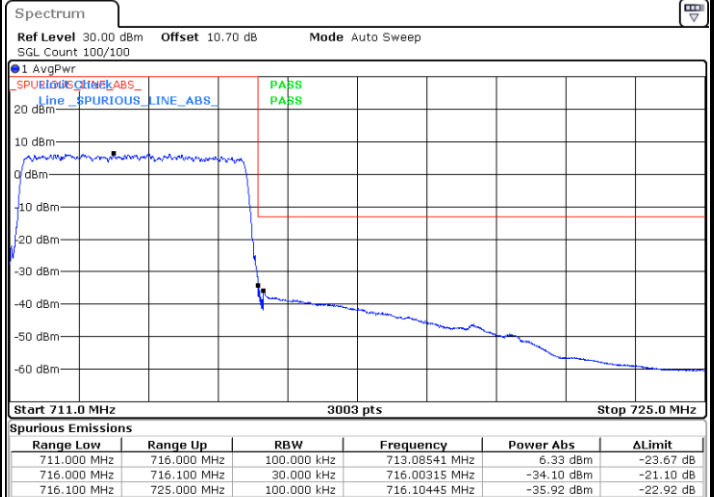
Date: 3.MAR.2020 12:38:04

Lowest Band Edge / Full RB



Date: 3.MAR.2020 12:27:51

Highest Band Edge / Full RB

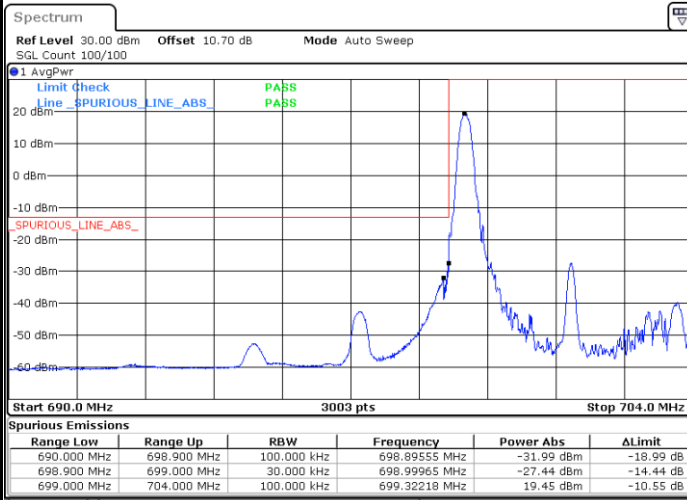


Date: 3.MAR.2020 12:36:04



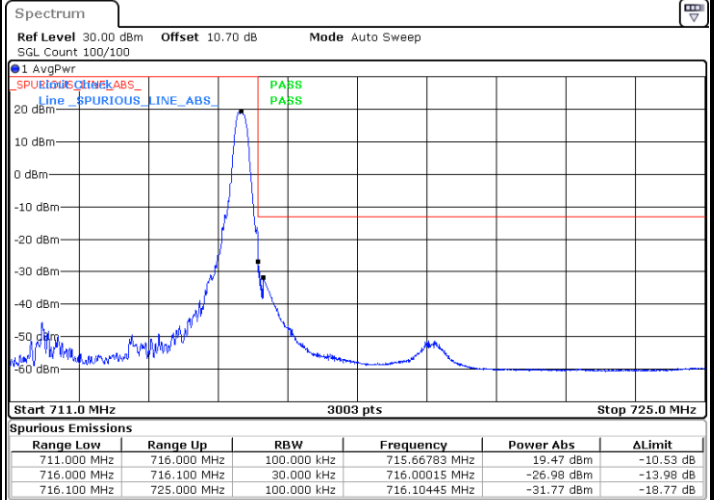
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



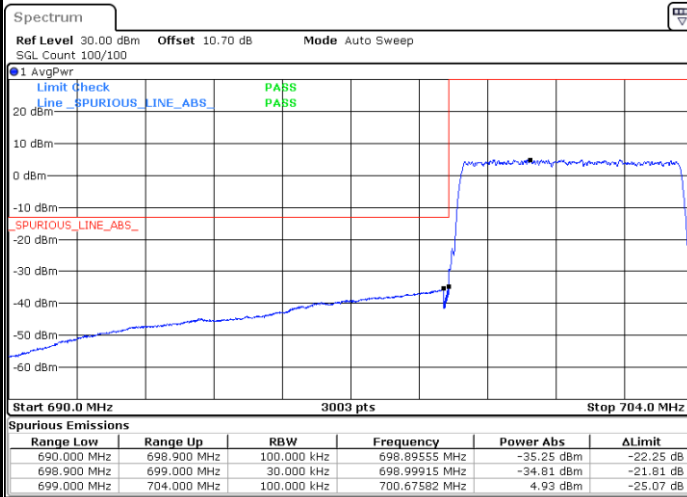
Date: 3.MAR.2020 12:29:51

Highest Band Edge / 1 RB



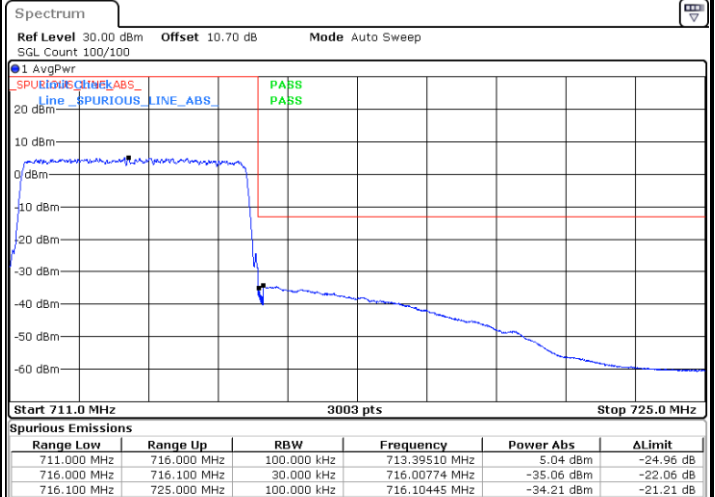
Date: 3.MAR.2020 12:39:04

Lowest Band Edge / Full RB



Date: 3.MAR.2020 12:28:51

Highest Band Edge / Full RB

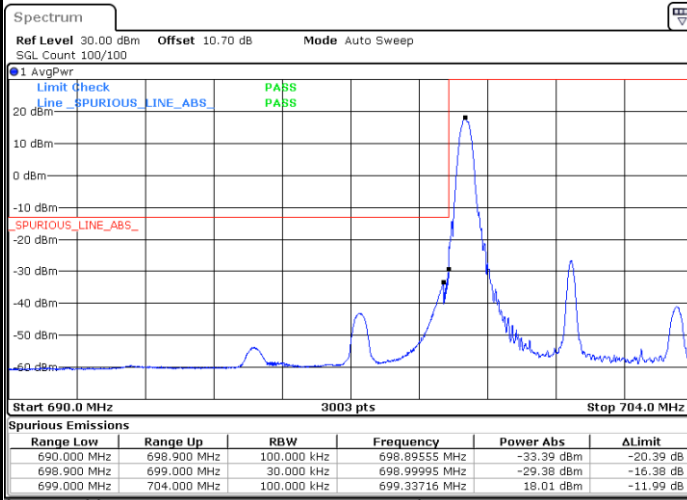


Date: 3.MAR.2020 12:37:04



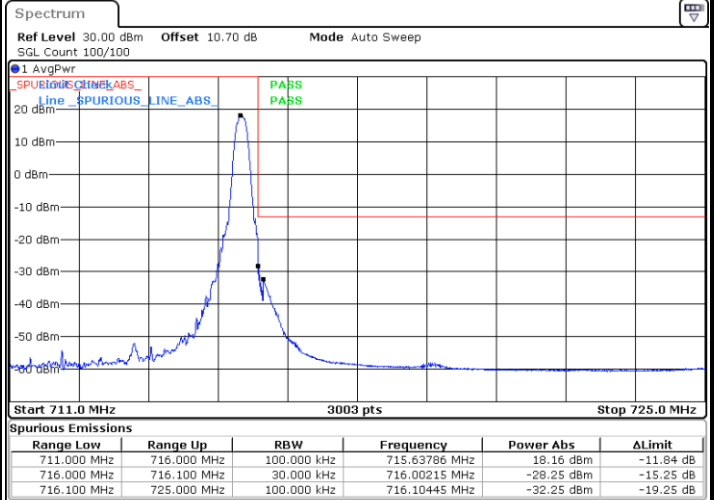
LTE Band 12 / 5MHz / 64QAM

Lowest Band Edge / 1RB



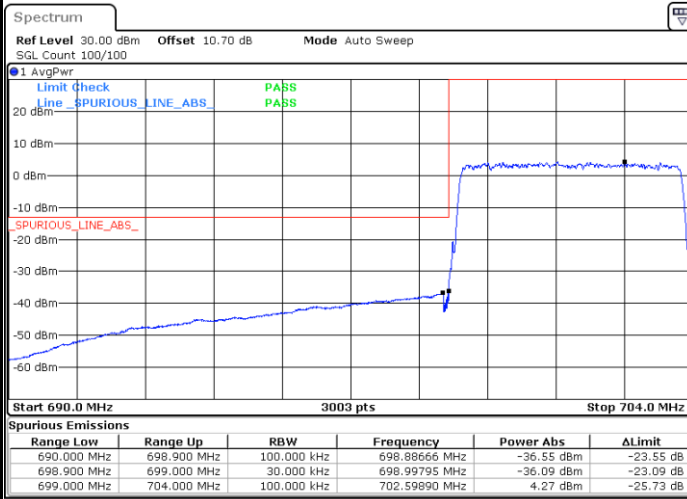
Date: 3.MAR.2020 12:21:17

Highest Band Edge / 1 RB



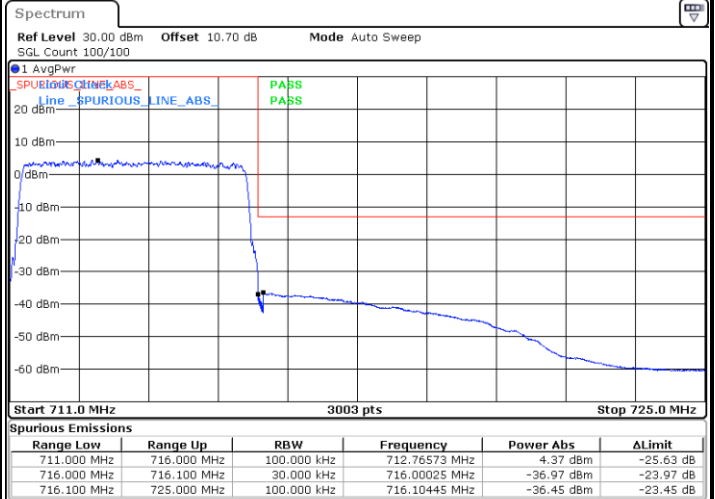
Date: 3.MAR.2020 12:25:23

Lowest Band Edge / Full RB



Date: 3.MAR.2020 12:20:18

Highest Band Edge / Full RB

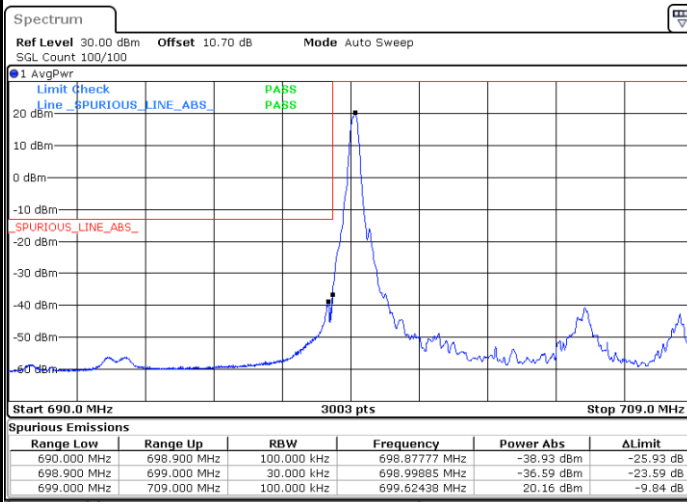


Date: 3.MAR.2020 12:24:23



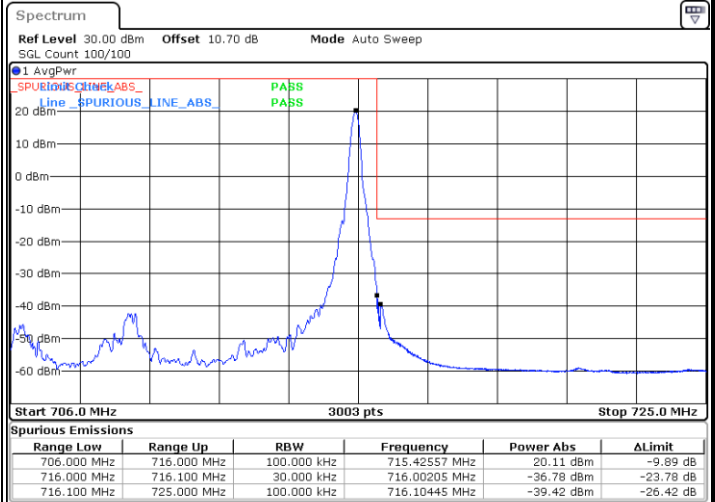
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



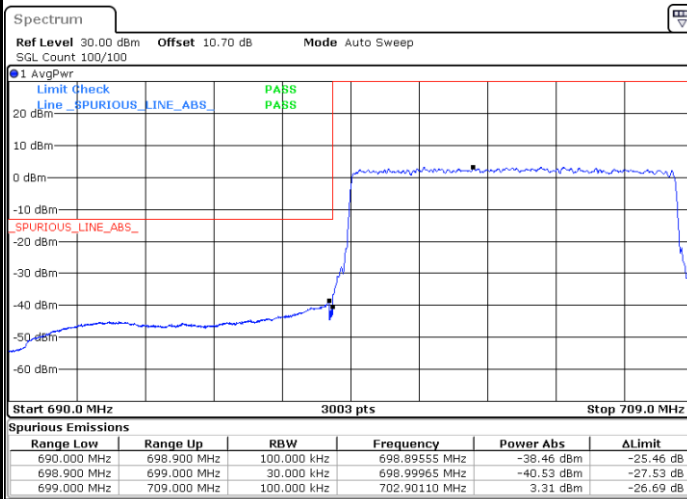
Date: 3.MAR.2020 12:45:11

Highest Band Edge / 1 RB



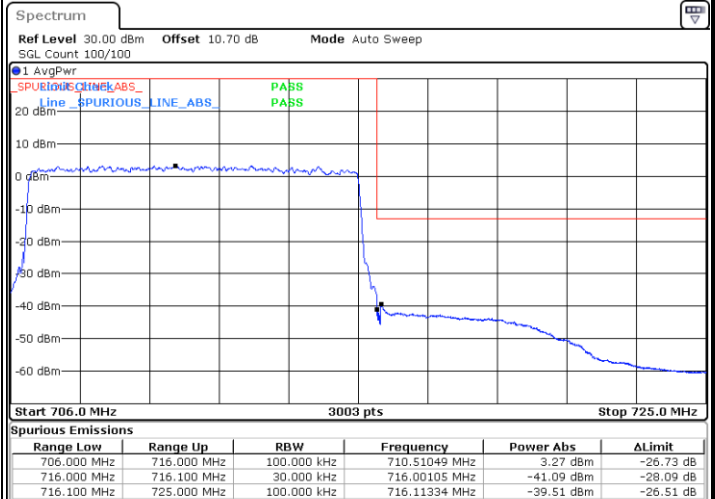
Date: 3.MAR.2020 12:53:23

Lowest Band Edge / Full RB



Date: 3.MAR.2020 12:42:12

Highest Band Edge / Full RB

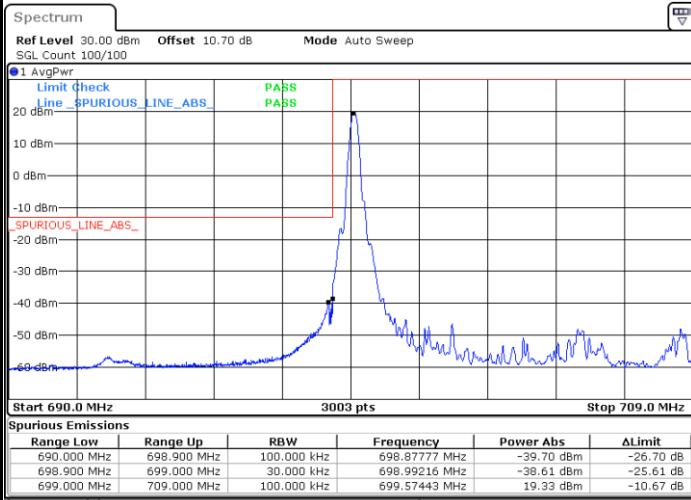


Date: 3.MAR.2020 12:50:23



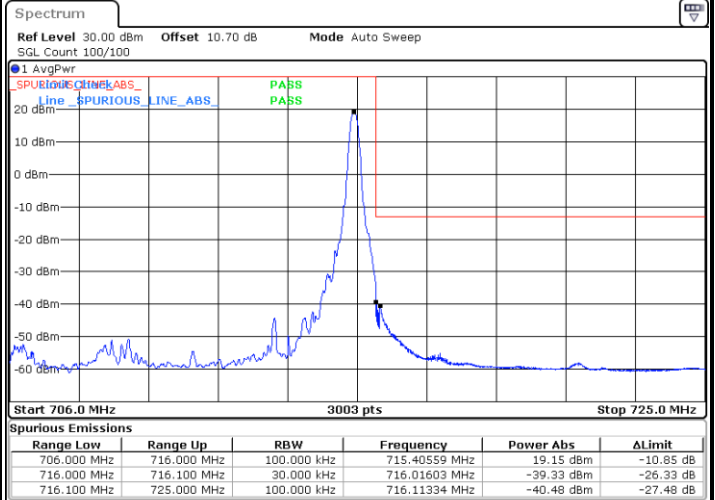
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



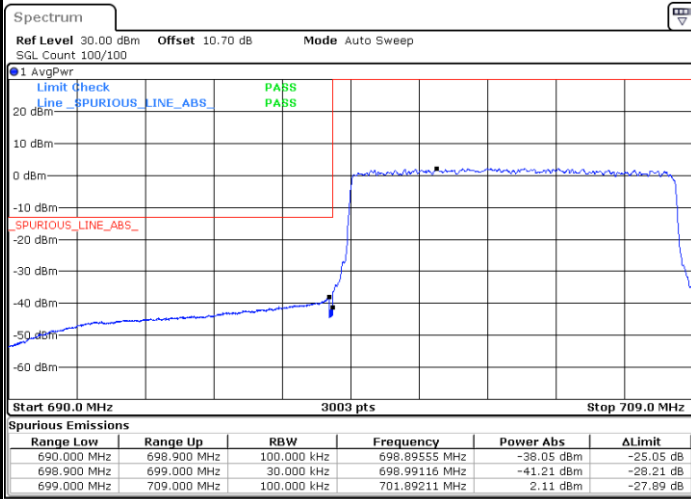
Date: 3.MAR.2020 12:44:11

Highest Band Edge / 1 RB



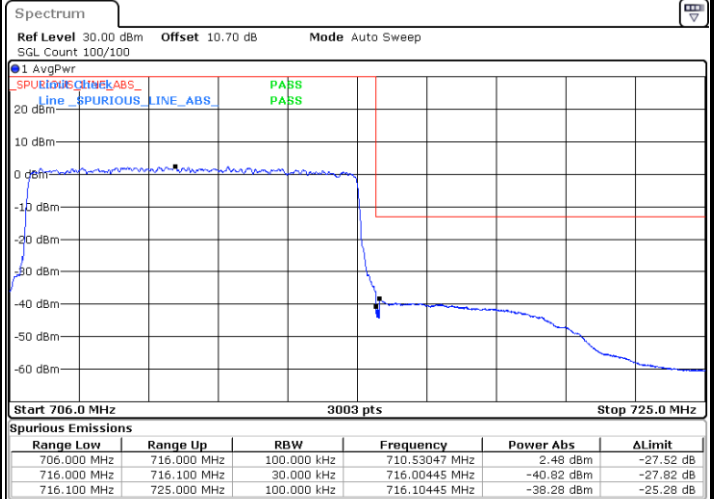
Date: 3.MAR.2020 12:52:23

Lowest Band Edge / Full RB



Date: 3.MAR.2020 12:43:12

Highest Band Edge / Full RB

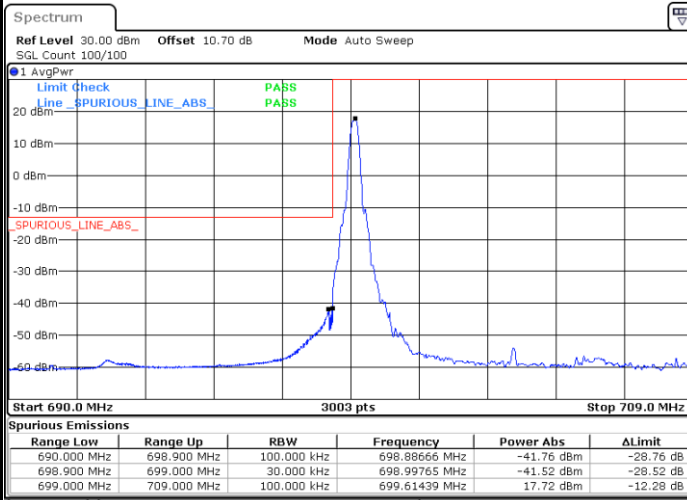


Date: 3.MAR.2020 12:51:23



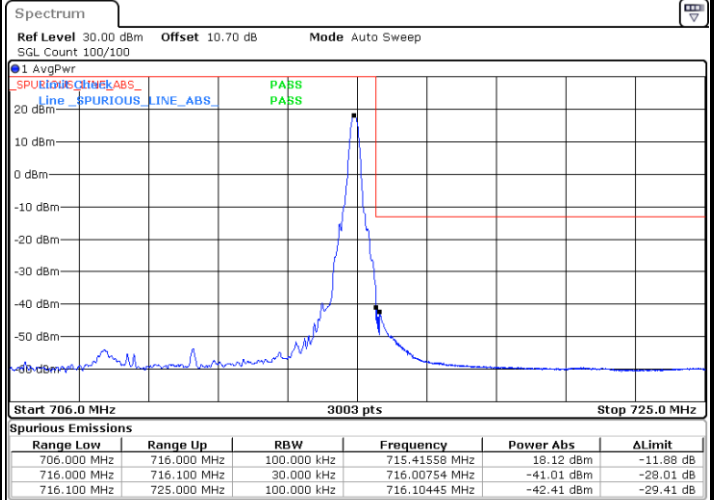
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



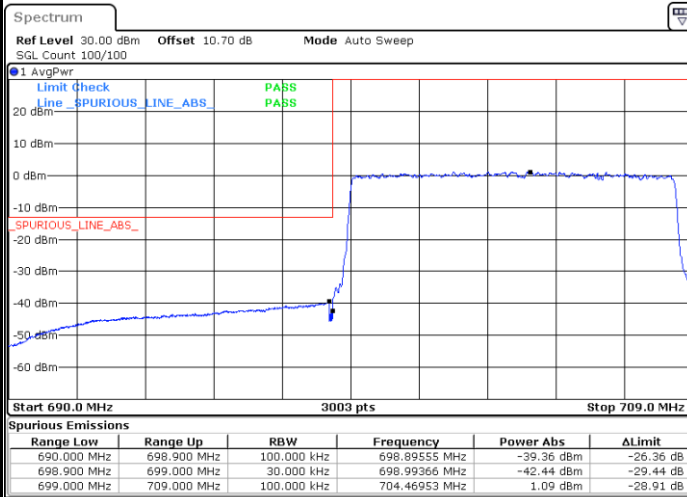
Date: 3.MAR.2020 12:57:06

Highest Band Edge / 1 RB



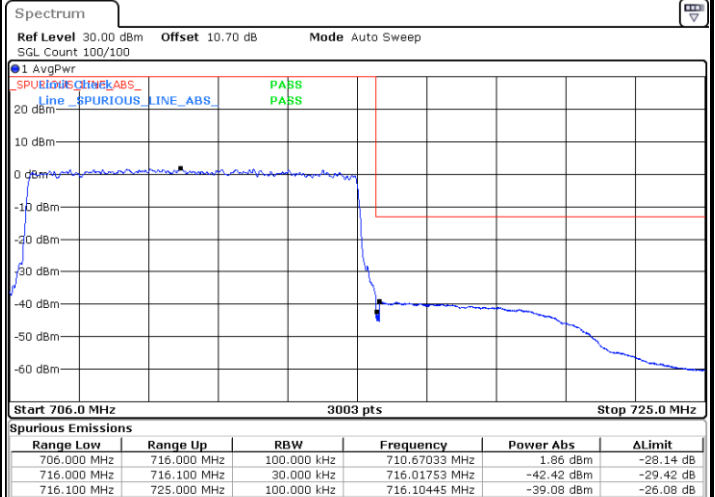
Date: 3.MAR.2020 13:41:07

Lowest Band Edge / Full RB



Date: 3.MAR.2020 12:56:06

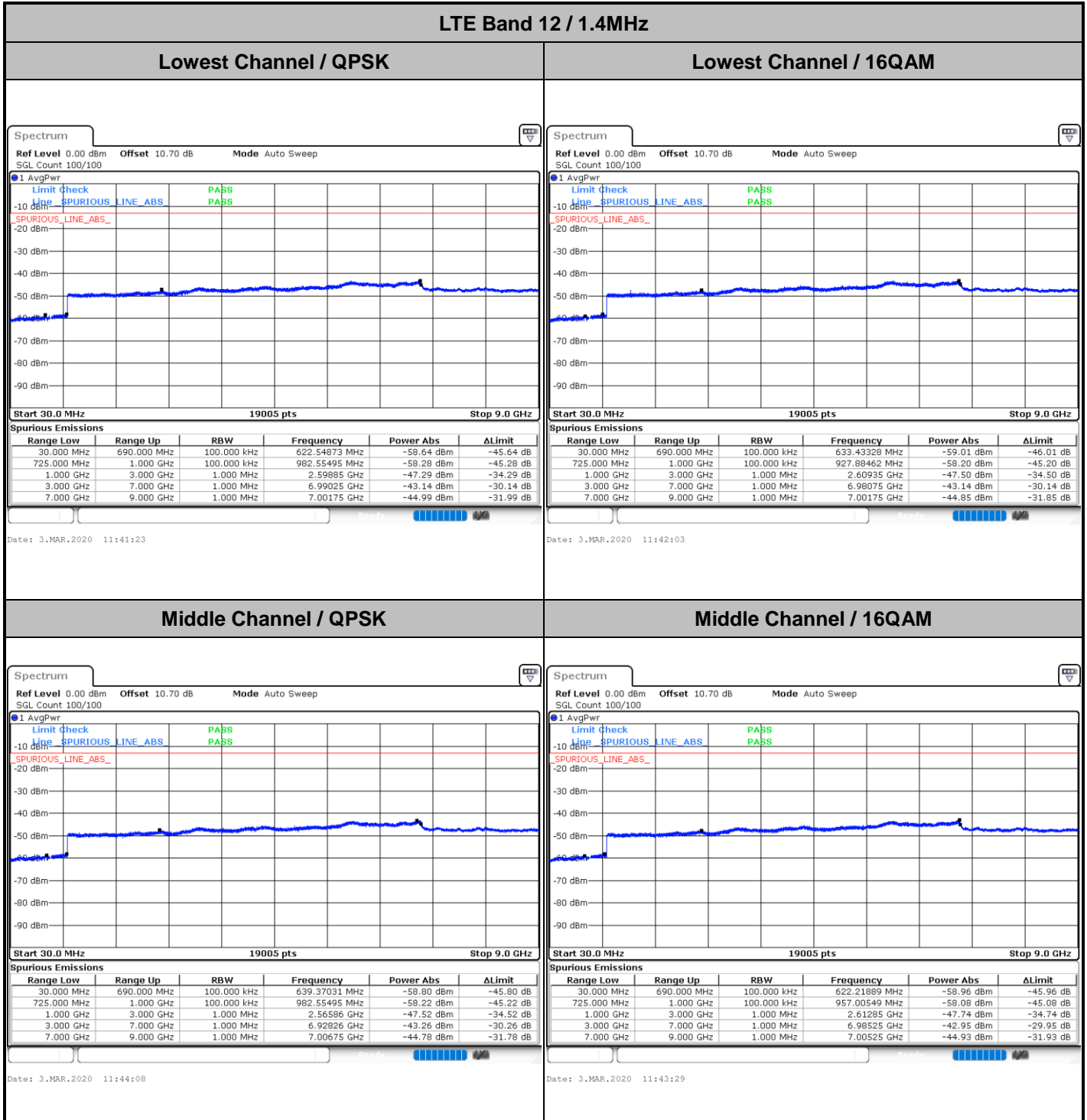
Highest Band Edge / Full RB



Date: 3.MAR.2020 13:40:07



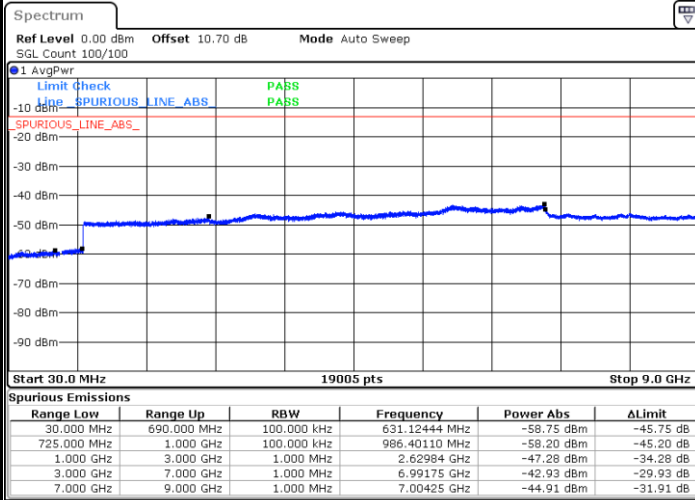
Conducted Spurious Emission





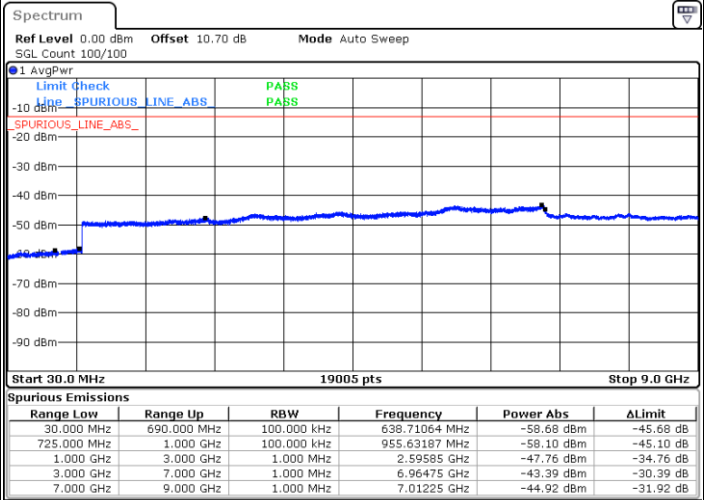
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 3.MAR.2020 11:49:35

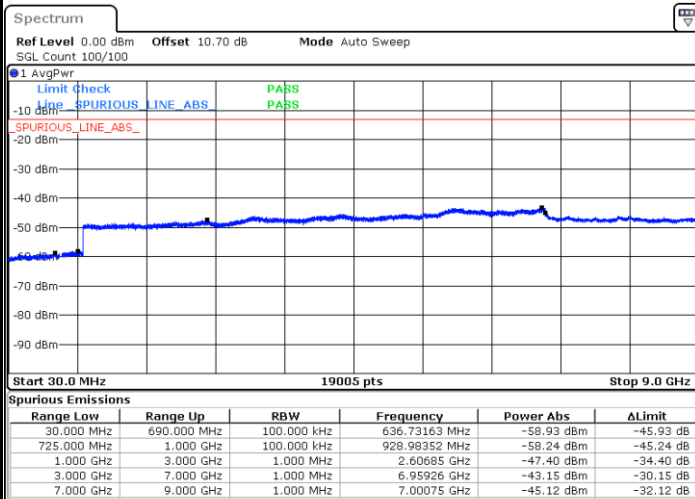
Highest Channel / 16QAM



Date: 3.MAR.2020 11:50:15

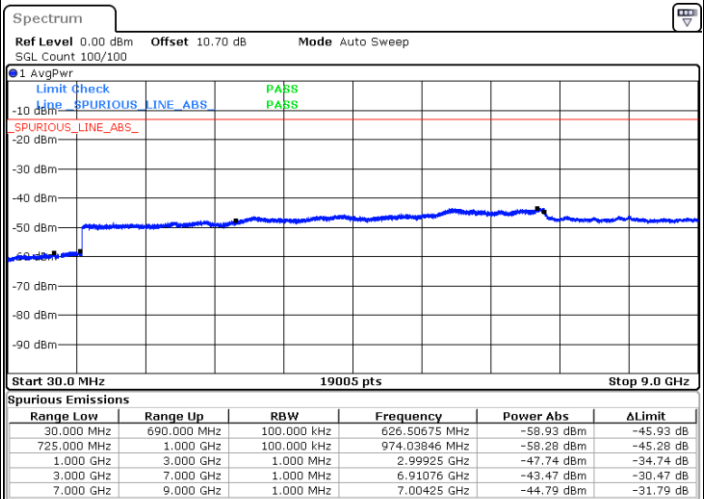
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 3.MAR.2020 12:02:51

Lowest Channel / 16QAM



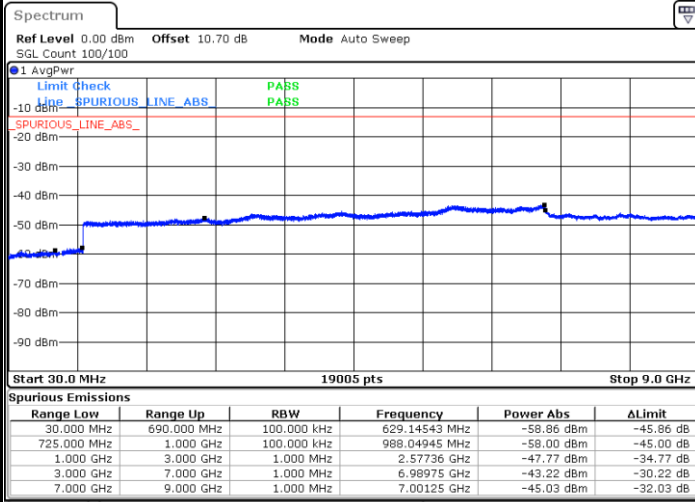
Date: 3.MAR.2020 12:03:31



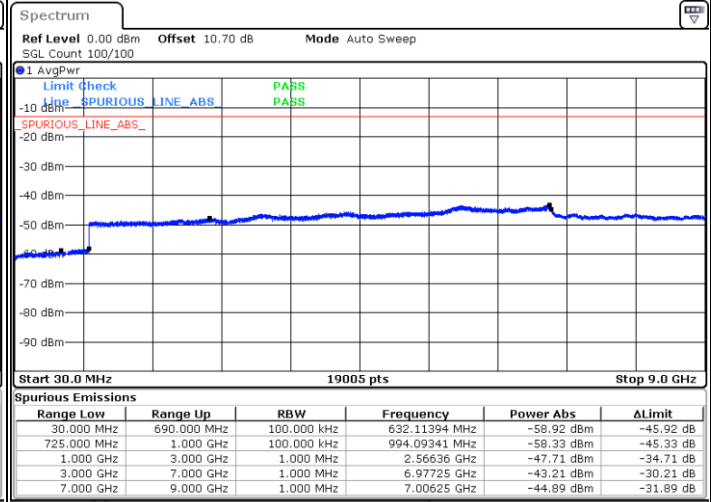
LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM



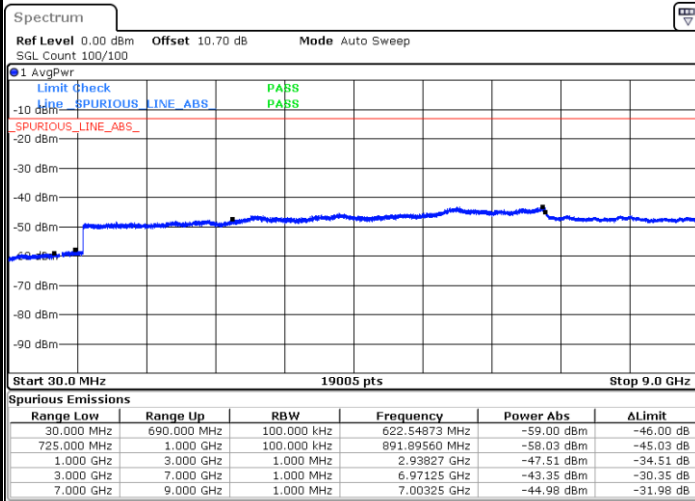
Date: 3.MAR.2020 12:05:36



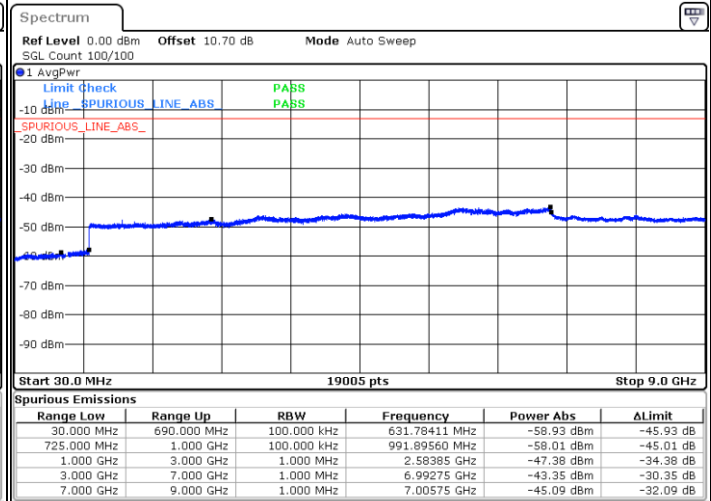
Date: 3.MAR.2020 12:04:57

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 3.MAR.2020 12:11:04



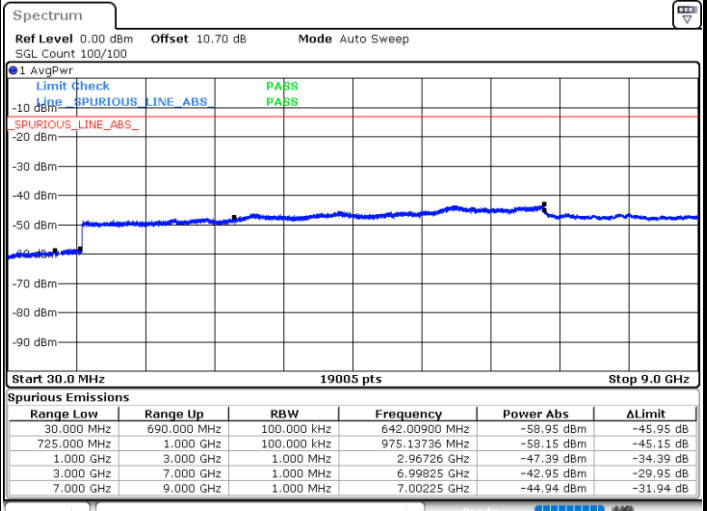
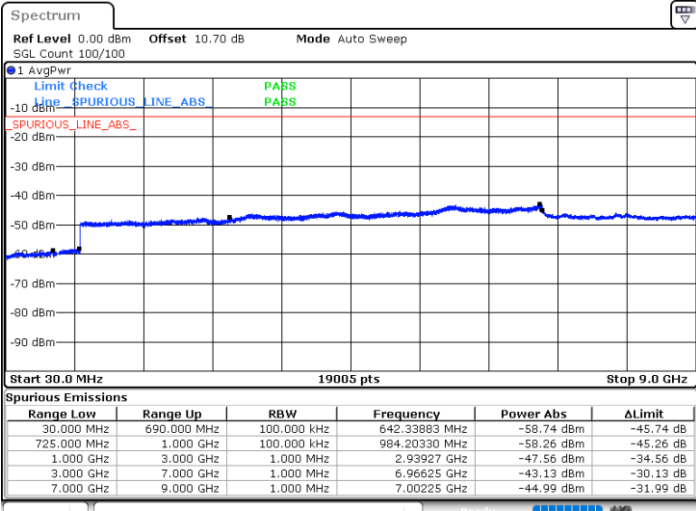
Date: 3.MAR.2020 12:11:44



LTE Band 12 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

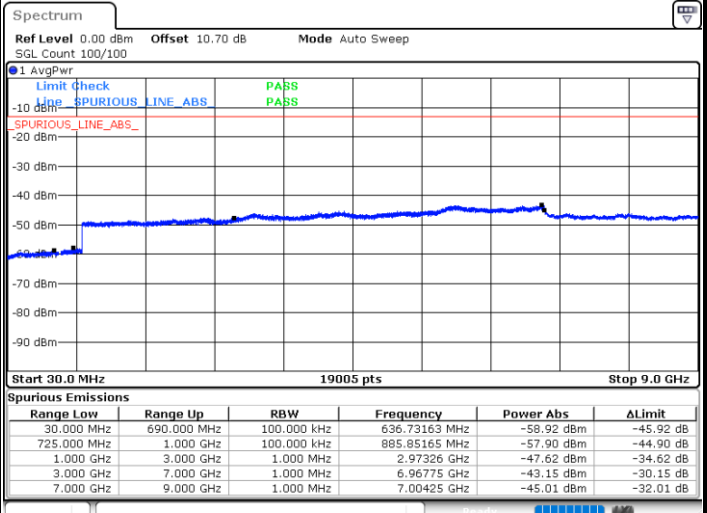
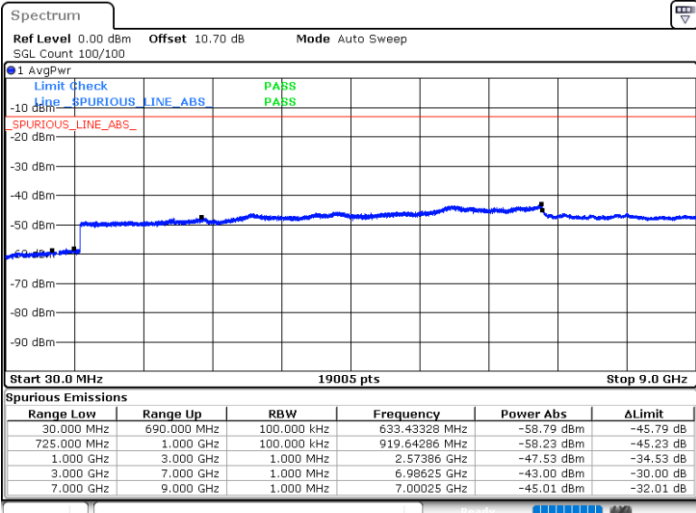


Date: 3.MAR.2020 12:31:31

Date: 3.MAR.2020 12:32:11

Middle Channel / QPSK

Middle Channel / 16QAM



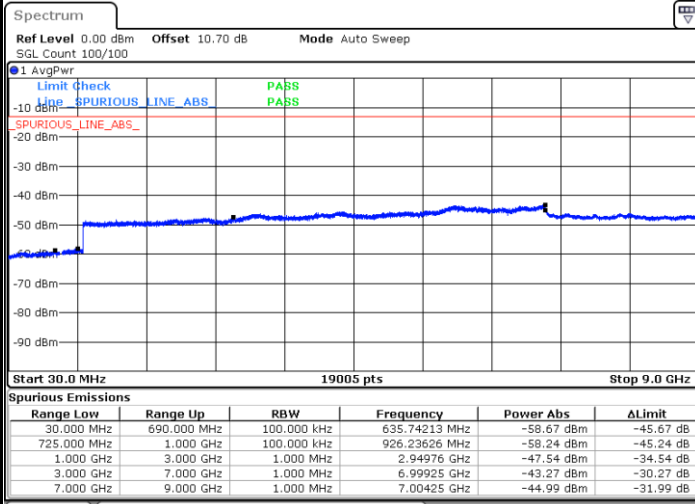
Date: 3.MAR.2020 12:34:16

Date: 3.MAR.2020 12:33:37



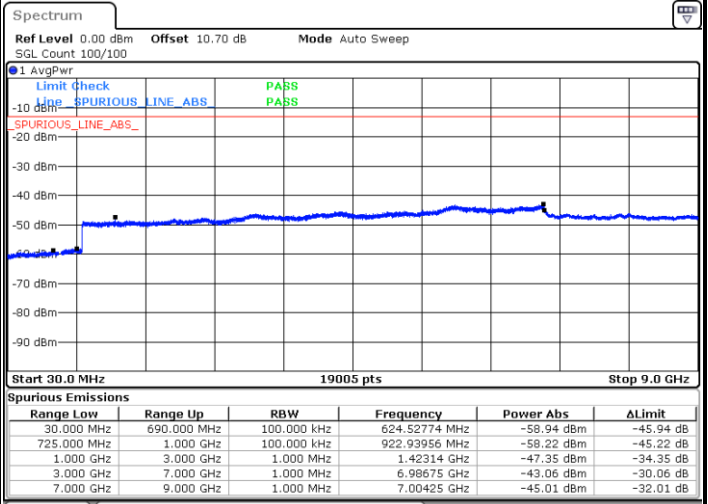
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 3.MAR.2020 12:40:24

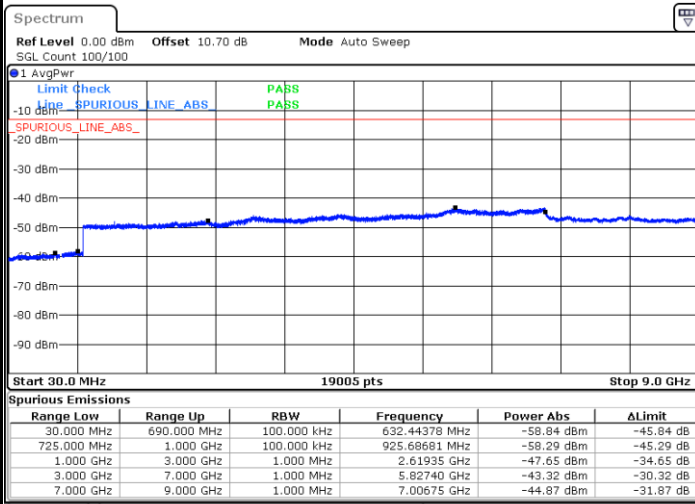
Highest Channel / 16QAM



Date: 3.MAR.2020 12:39:44

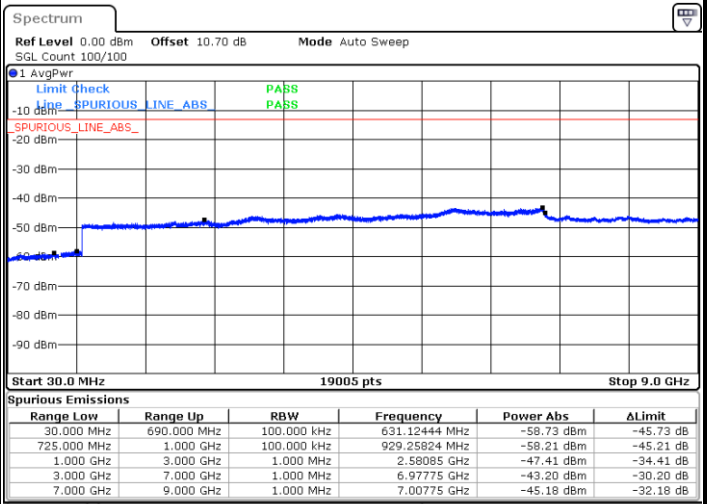
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 3.MAR.2020 12:45:52

Lowest Channel / 16QAM



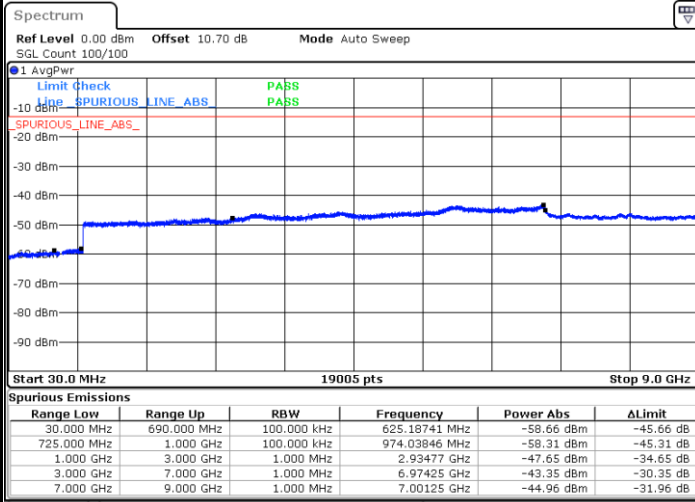
Date: 3.MAR.2020 12:46:32



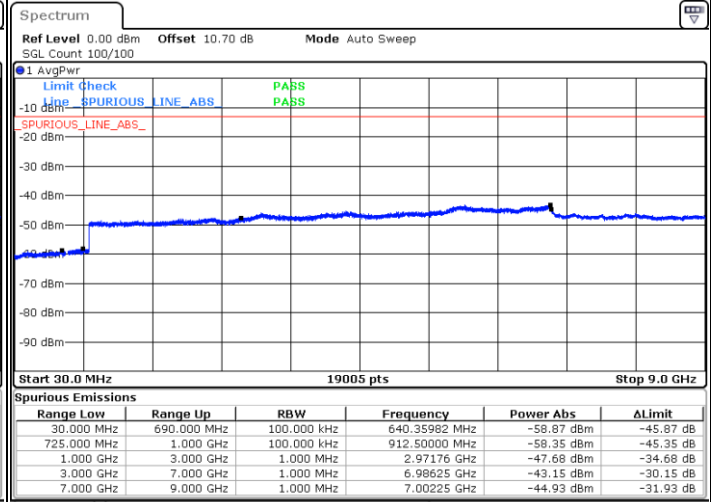
LTE Band 12 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM



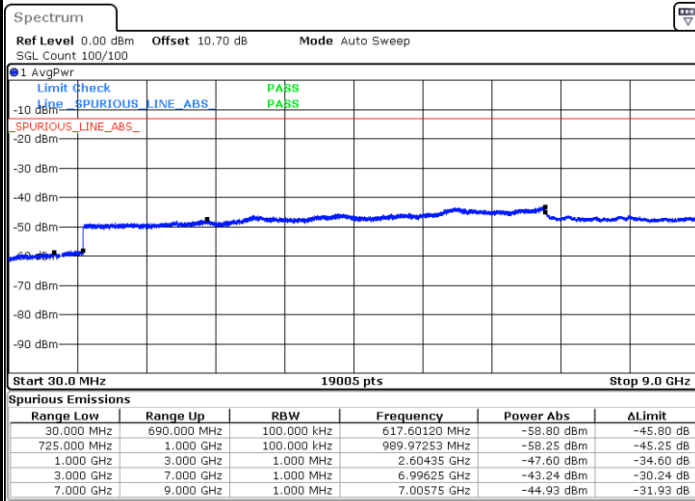
Date: 3.MAR.2020 12:48:36



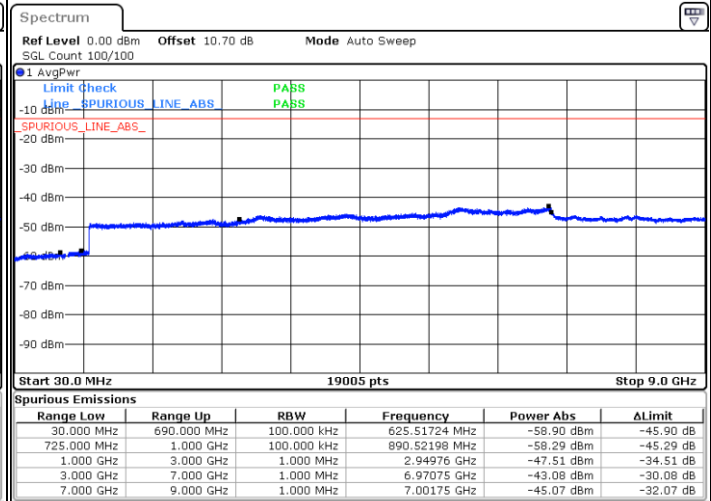
Date: 3.MAR.2020 12:47:57

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 3.MAR.2020 12:54:03



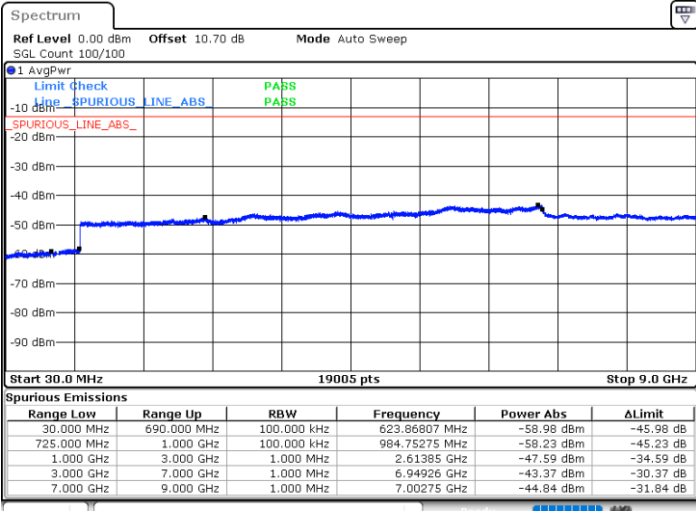
Date: 3.MAR.2020 12:54:43



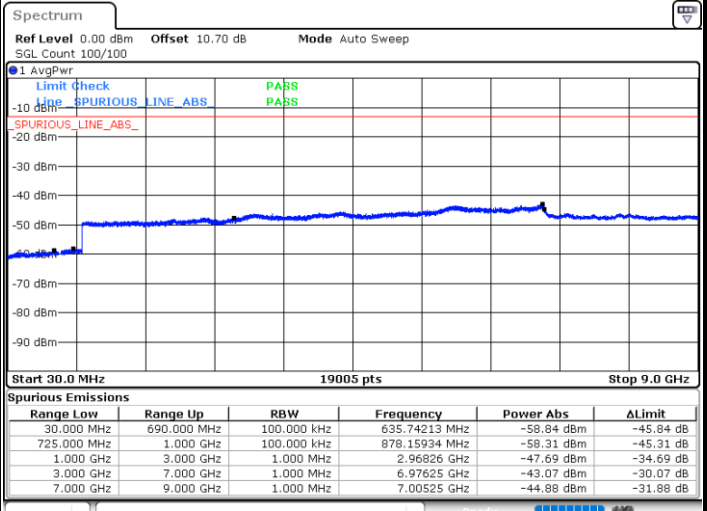
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

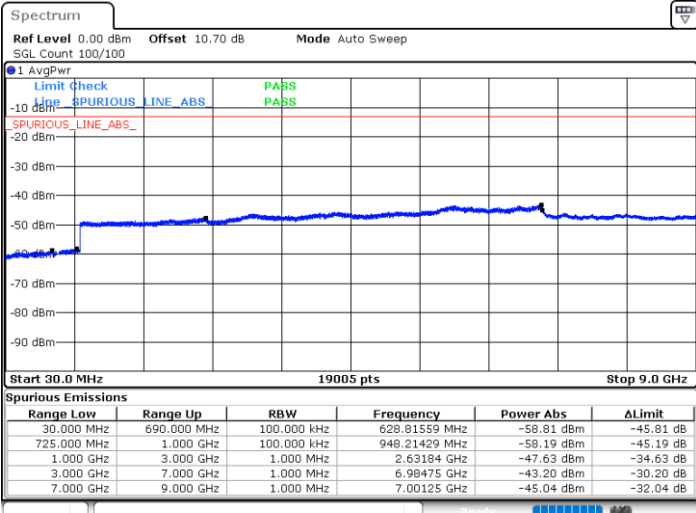


Date: 3.MAR.2020 11:53:18



Date: 3.MAR.2020 11:54:20

Highest Channel / 64QAM



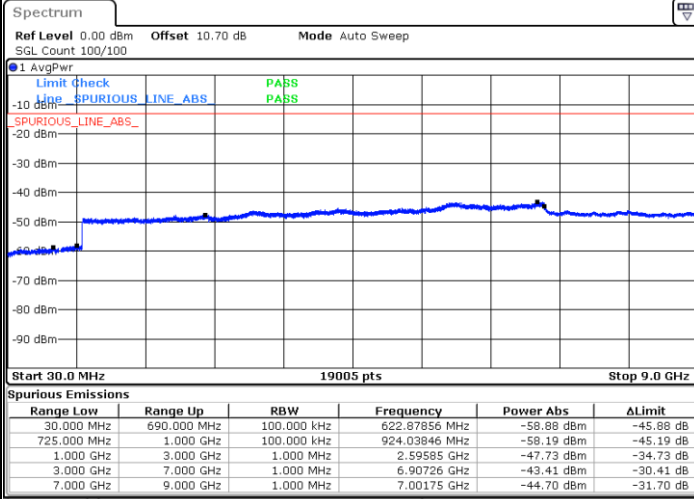
Date: 3.MAR.2020 11:57:23



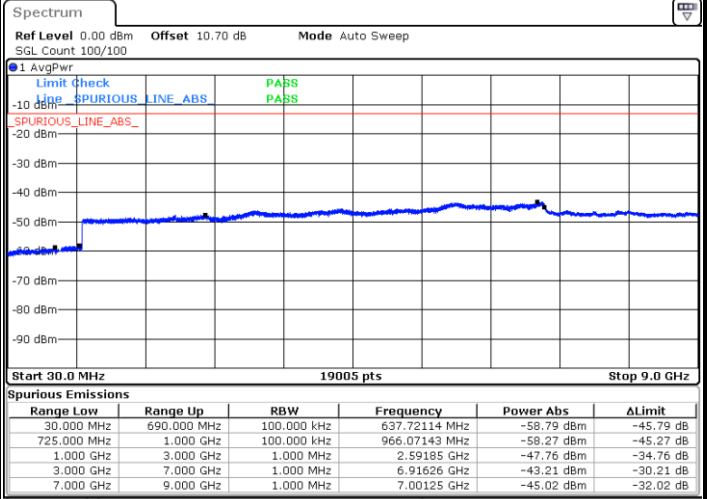
LTE Band 12 / 3MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

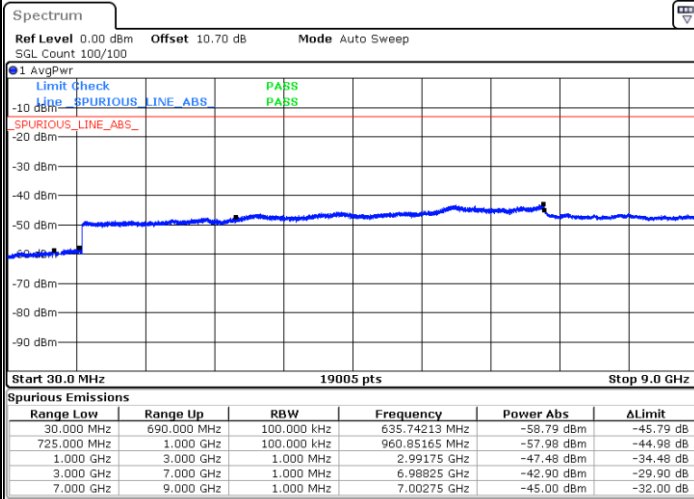


Date: 3.MAR.2020 12:14:48



Date: 3.MAR.2020 12:15:50

Highest Channel / 64QAM



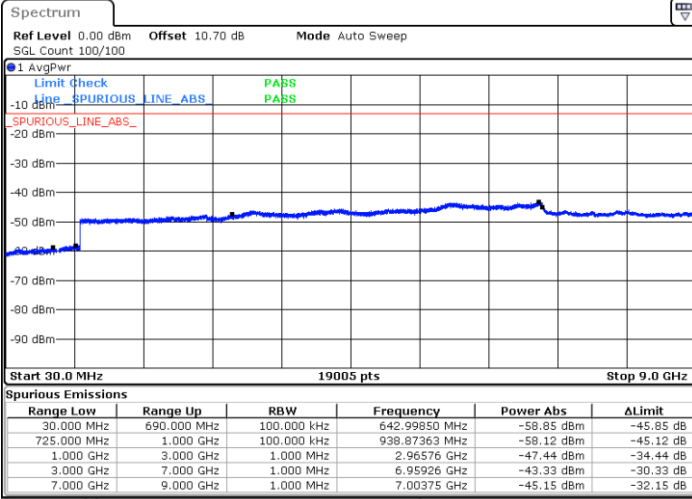
Date: 3.MAR.2020 12:18:53



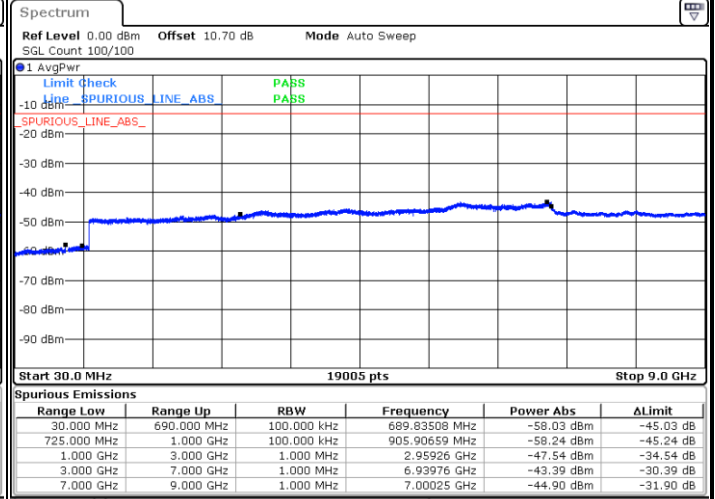
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

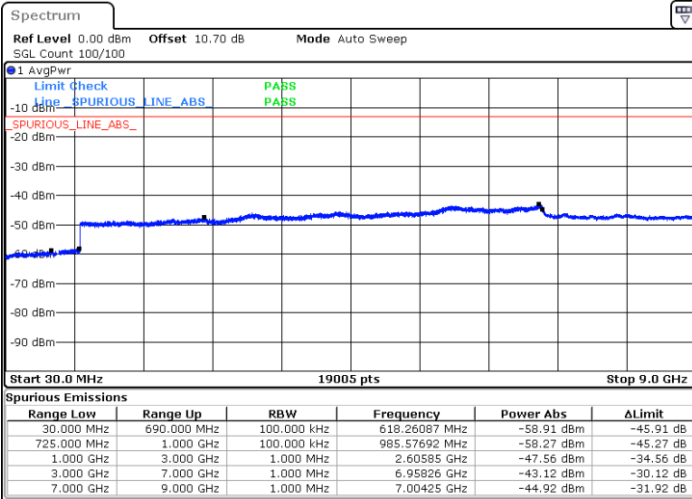


Date: 3.MAR.2020 12:21:58



Date: 3.MAR.2020 12:23:00

Highest Channel / 64QAM



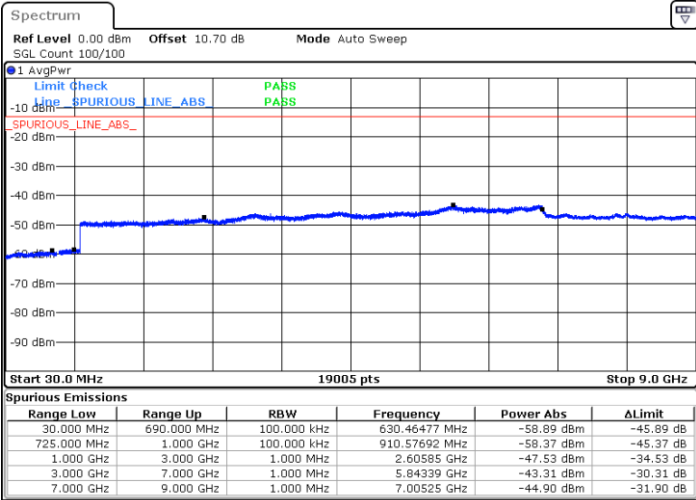
Date: 3.MAR.2020 12:26:04



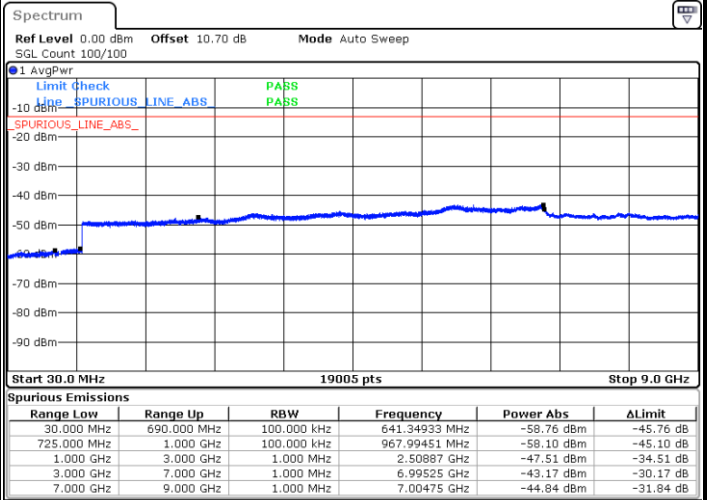
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

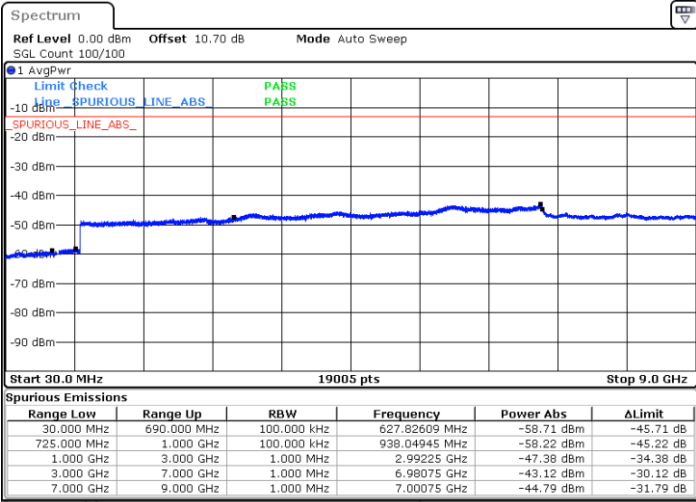


Date: 3.MAR.2020 12:57:47



Date: 3.MAR.2020 13:38:45

Highest Channel / 64QAM



Date: 3.MAR.2020 13:41:48



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	0.0078	PASS
40	Normal Voltage	0.0072	
30	Normal Voltage	0.0103	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0017	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0023	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0086	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0066	

Note:

1. Normal Voltage =7.74 V. ; Battery End Point (BEP) =7.20 V. ; Maximum Voltage =8.90 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



LTE Band 13

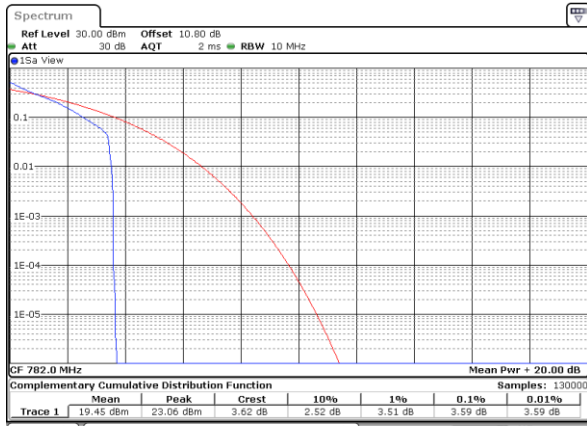
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.59	4.99	5.33	5.80	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	6.81	6.38	-	-	
Highest CH	-	-	-	-	



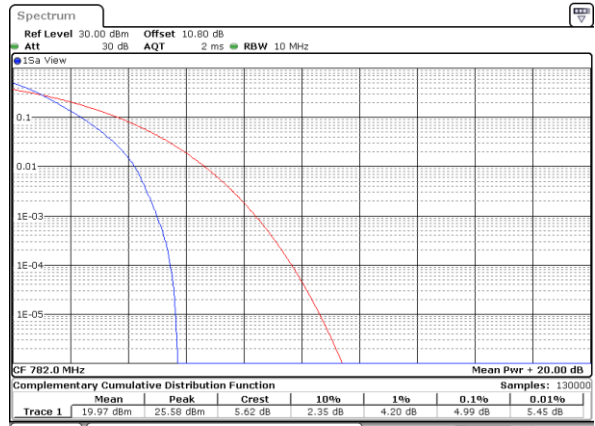
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 3.MAR.2020 20:43:58

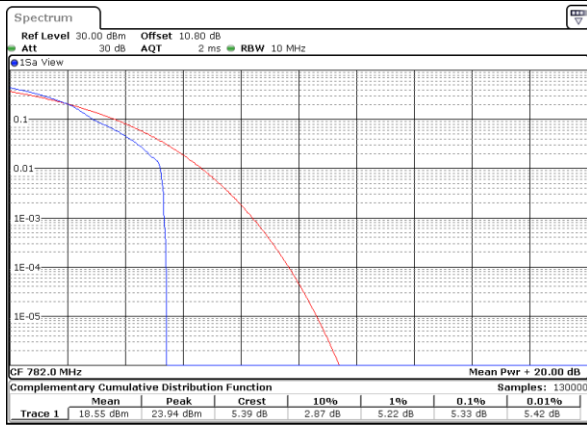
Middle Channel / Full RB



Date: 3.MAR.2020 20:44:14

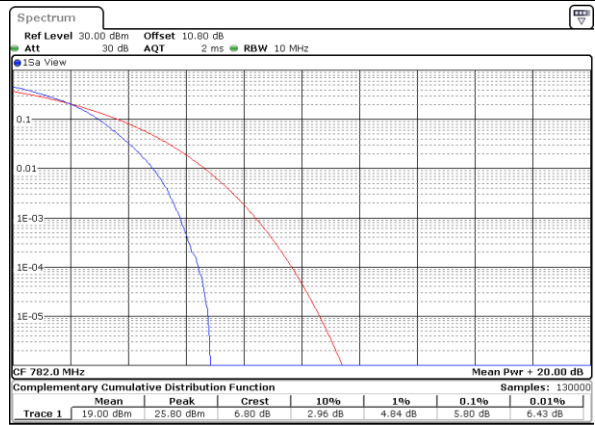
LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 3.MAR.2020 20:43:39

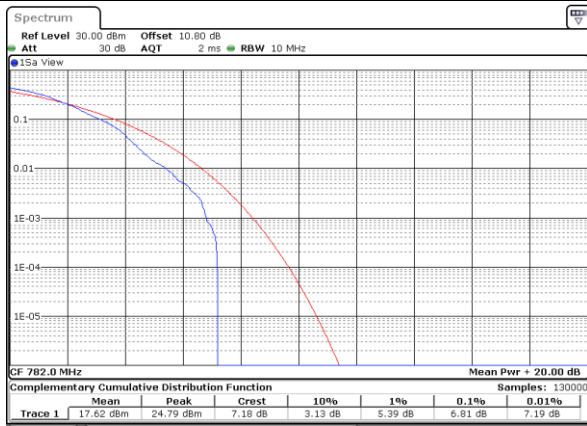
Middle Channel / Full RB



Date: 3.MAR.2020 20:43:49

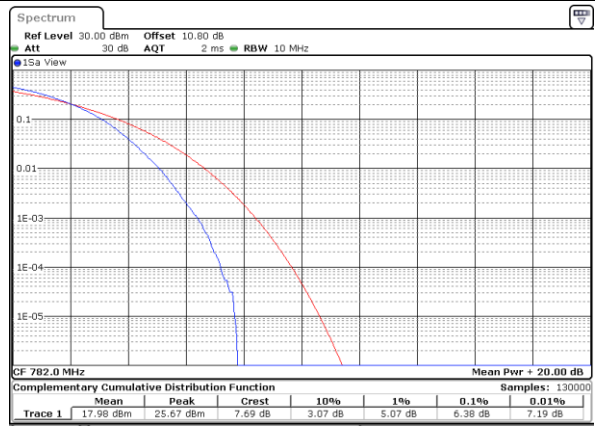
LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 3.MAR.2020 20:43:20

Middle Channel / Full RB



Date: 3.MAR.2020 20:43:30



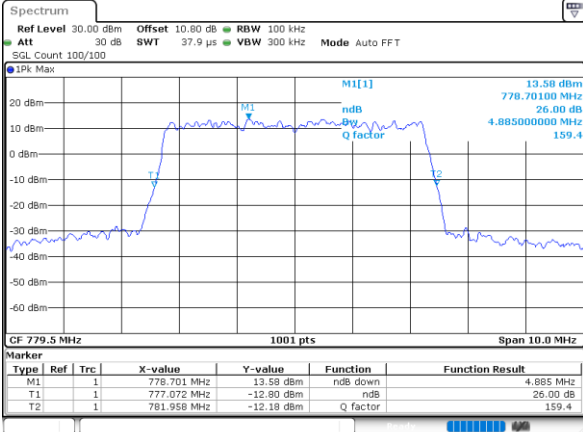
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.89	4.89	-	-	-	-	-	-
Middle CH	-	-	-	-	4.92	4.95	9.65	9.69	-	-	-	-
Highest CH	-	-	-	-	4.88	4.80	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.91	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.82	-	9.77	-	-	-	-	-
Highest CH	-	-	-	-	4.91	-	-	-	-	-	-	-



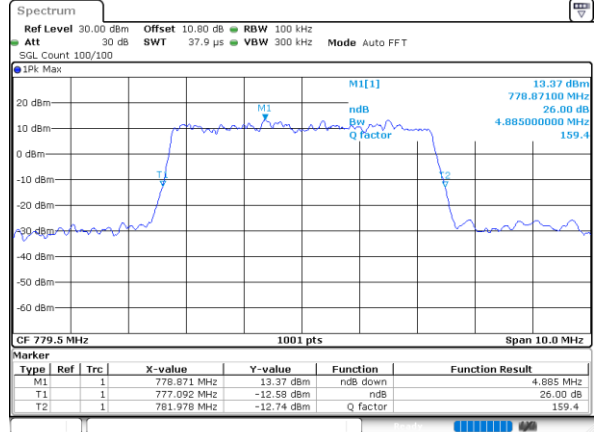
LTE Band 13

Lowest Channel / 5MHz / QPSK



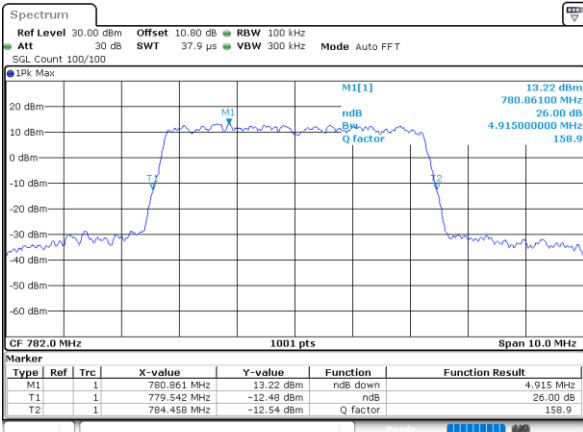
Date: 3,MAR,2020 20:47:14

Lowest Channel / 5MHz / 16QAM



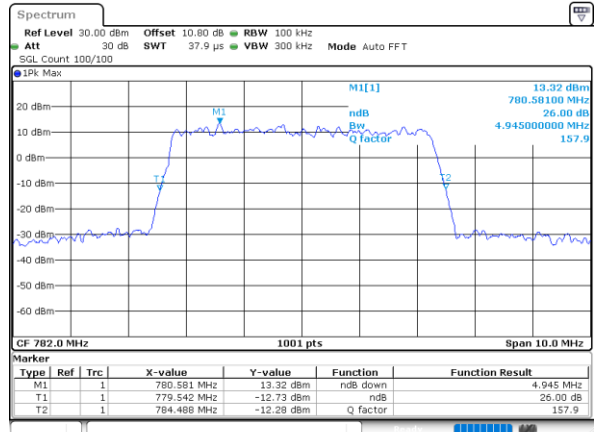
Date: 3,MAR,2020 20:47:02

Middle Channel / 5MHz / QPSK



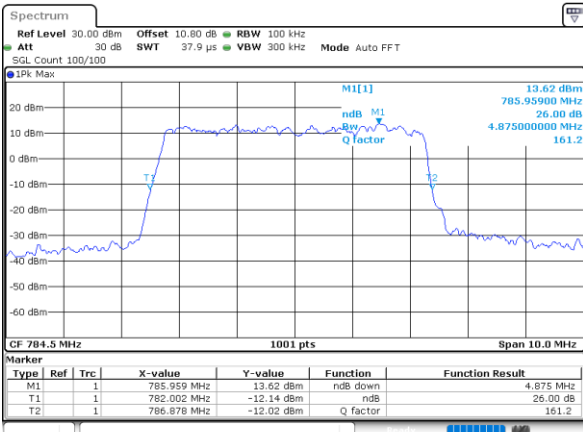
Date: 3,MAR,2020 20:47:26

Middle Channel / 5MHz / 16QAM



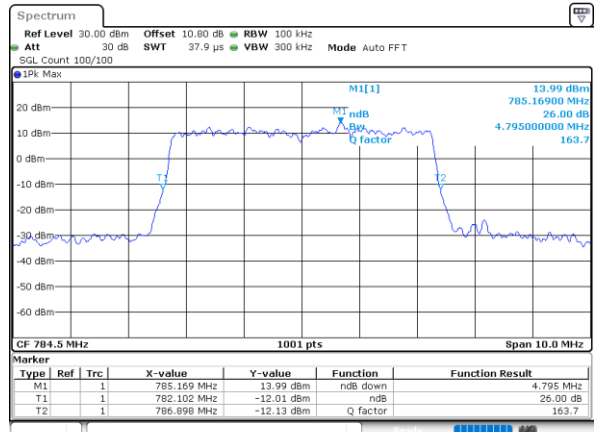
Date: 3,MAR,2020 20:47:38

Highest Channel / 5MHz / QPSK



Date: 3,MAR,2020 20:48:49

Highest Channel / 5MHz / 16QAM

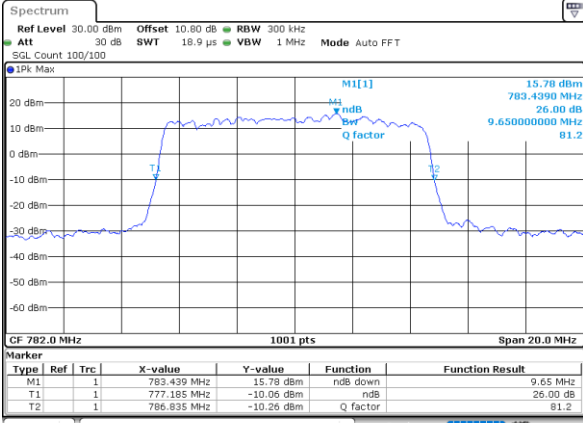


Date: 3,MAR,2020 20:48:37



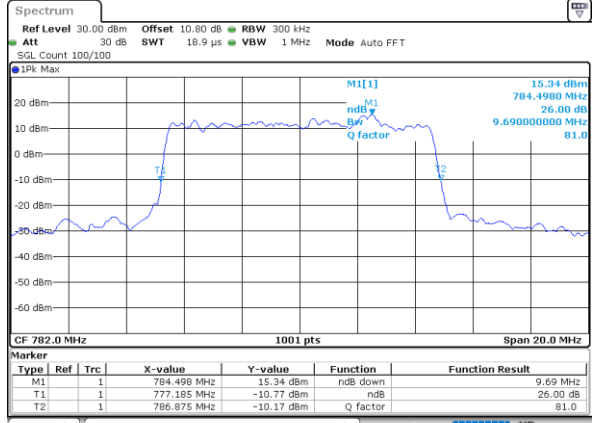
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 3.MAR.2020 20:50:46

Middle Channel / 10MHz / 16QAM

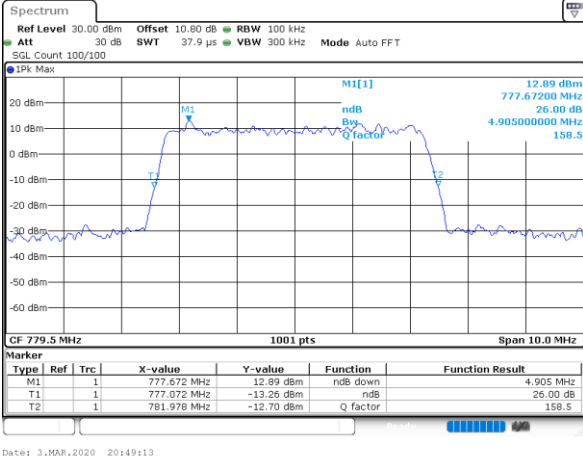


Date: 3.MAR.2020 20:50:35



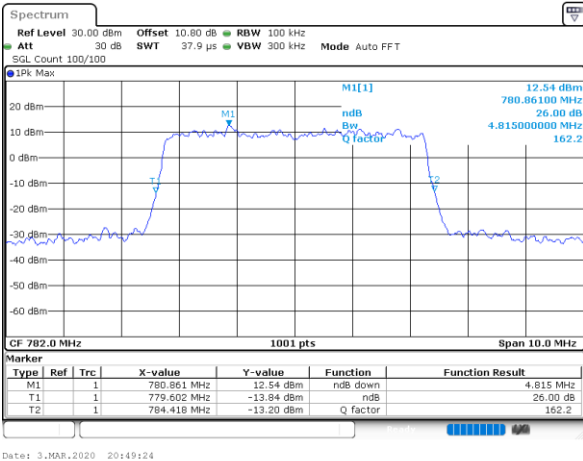
LTE Band 13

Lowest Channel / 5MHz / 64QAM



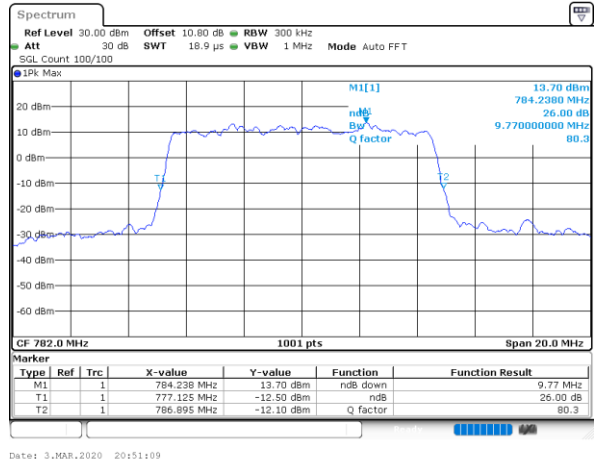
Date: 3,MAR,2020 20:49:13

Middle Channel / 5MHz / 64QAM



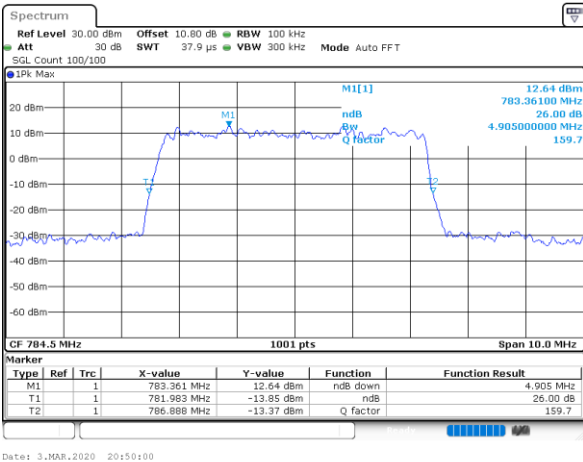
Date: 3,MAR,2020 20:49:24

Middle Channel / 10MHz / 64QAM



Date: 3,MAR,2020 20:51:09

Highest Channel / 5MHz / 64QAM



Date: 3,MAR,2020 20:50:00



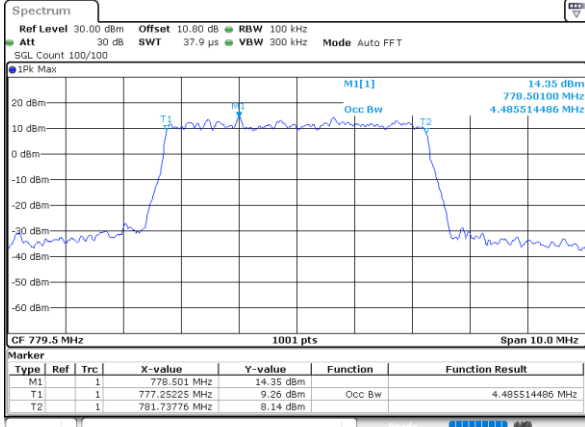
Occupied Bandwidth

LTE Band 13 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.49	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.51	4.48	8.99	8.99	-	-	-	-
Highest CH	-	-	-	-	4.47	4.50	-	-	-	-	-	-
LTE Band 13 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.51	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.50	-	8.97	-	-	-	-	-
Highest CH	-	-	-	-	4.48	-	-	-	-	-	-	-



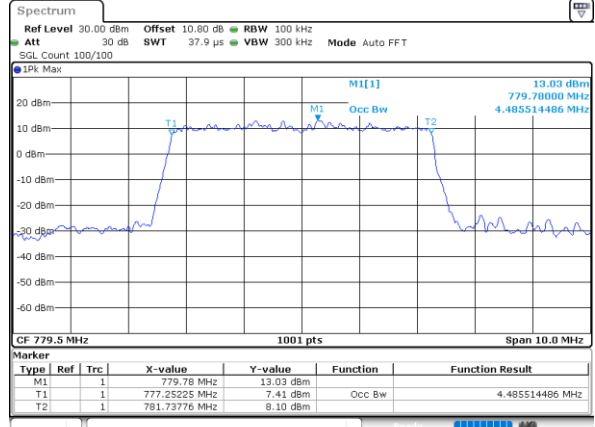
LTE Band 13

Lowest Channel / 5MHz / QPSK



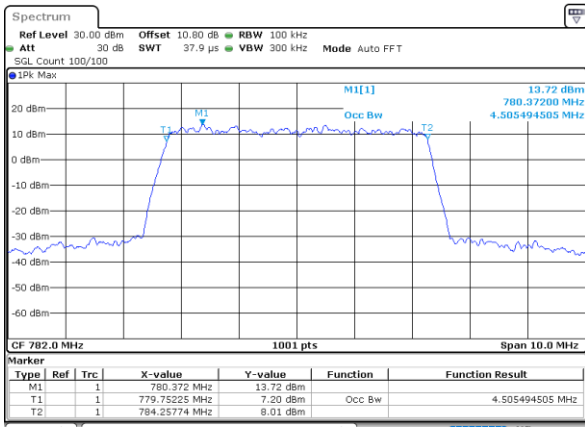
Date: 3,MAR,2020 20:46:38

Lowest Channel / 5MHz / 16QAM



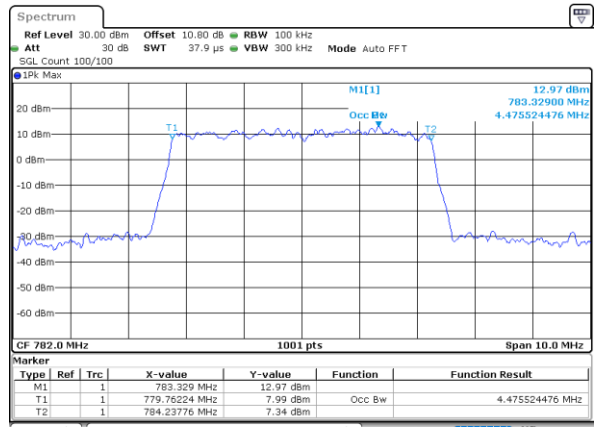
Date: 3,MAR,2020 20:46:50

Middle Channel / 5MHz / QPSK



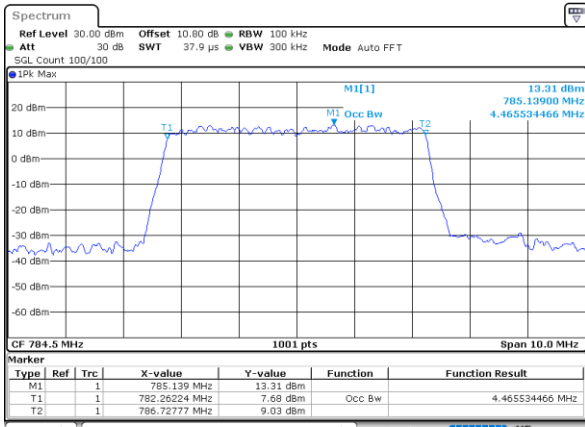
Date: 3,MAR,2020 20:48:01

Middle Channel / 5MHz / 16QAM



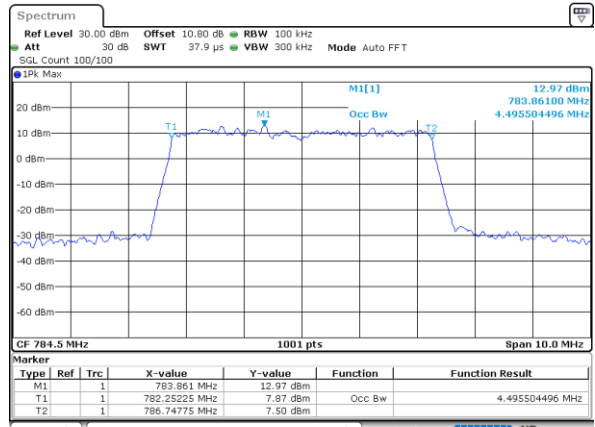
Date: 3,MAR,2020 20:47:49

Highest Channel / 5MHz / QPSK



Date: 3,MAR,2020 20:48:12

Highest Channel / 5MHz / 16QAM

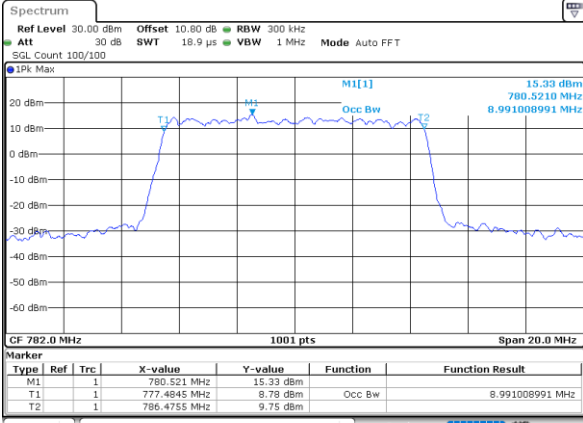


Date: 3,MAR,2020 20:48:25



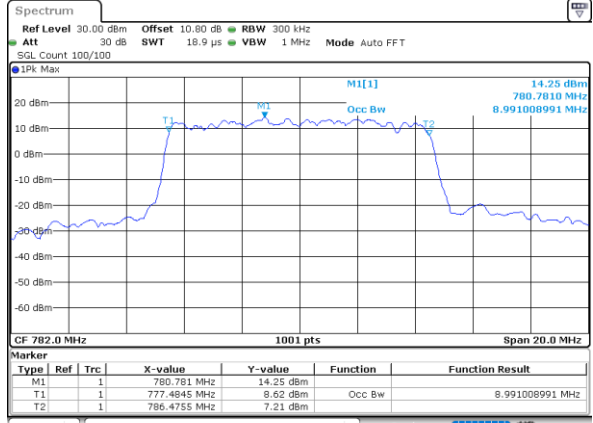
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 3.MAR.2020 20:50:12

Middle Channel / 10MHz / 16QAM

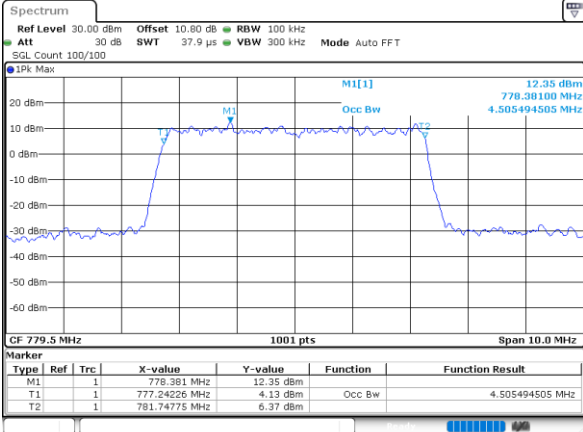


Date: 3.MAR.2020 20:50:24



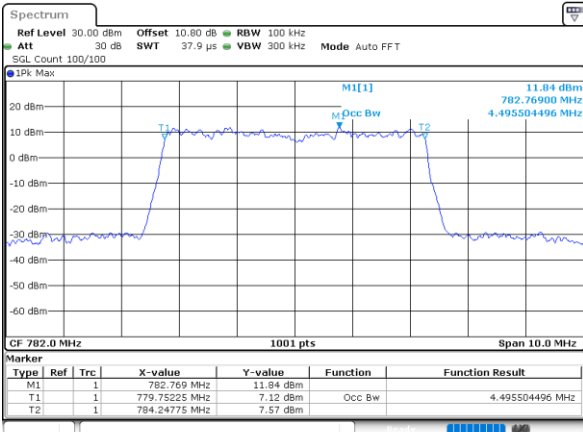
LTE Band 13

Lowest Channel / 5MHz / 64QAM



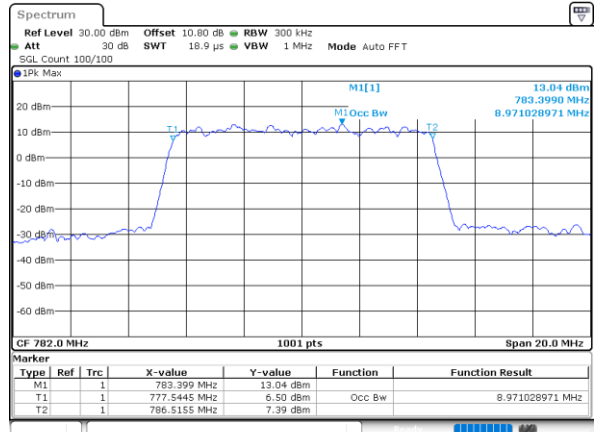
Date: 3,MAR,2020 20:49:01

Middle Channel / 5MHz / 64QAM



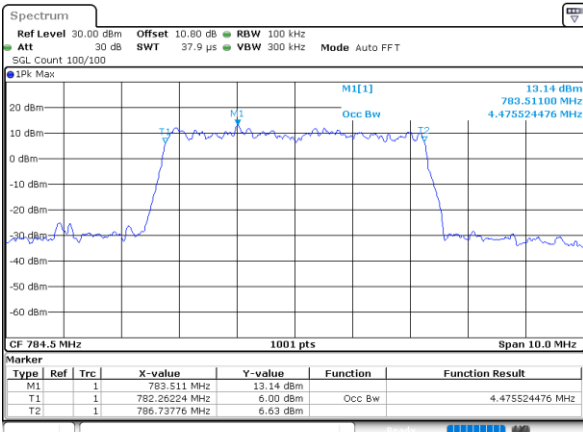
Date: 3,MAR,2020 20:49:36

Middle Channel / 10MHz / 64QAM



Date: 3,MAR,2020 20:50:58

Highest Channel / 5MHz / 64QAM



Date: 3,MAR,2020 20:49:48

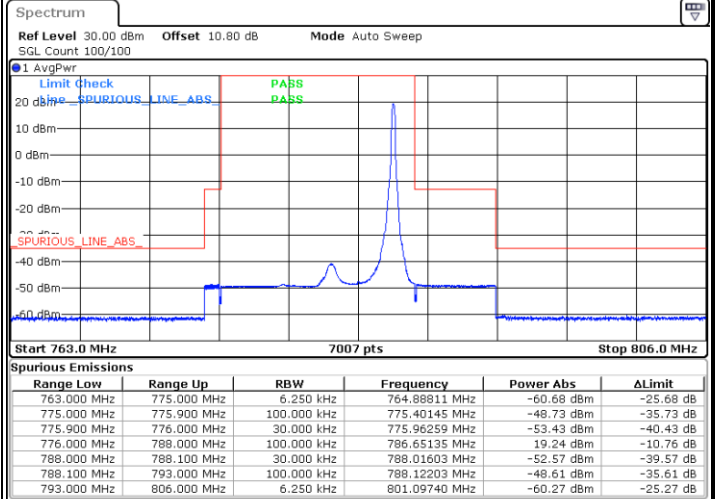
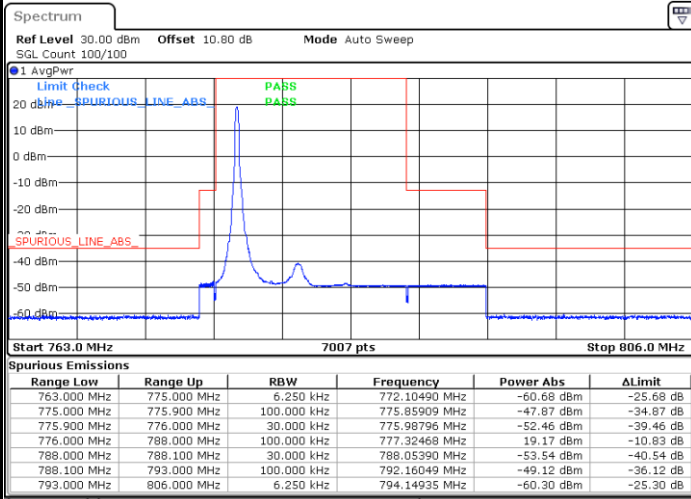


Conducted Band Edge

LTE Band 13 / 5MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

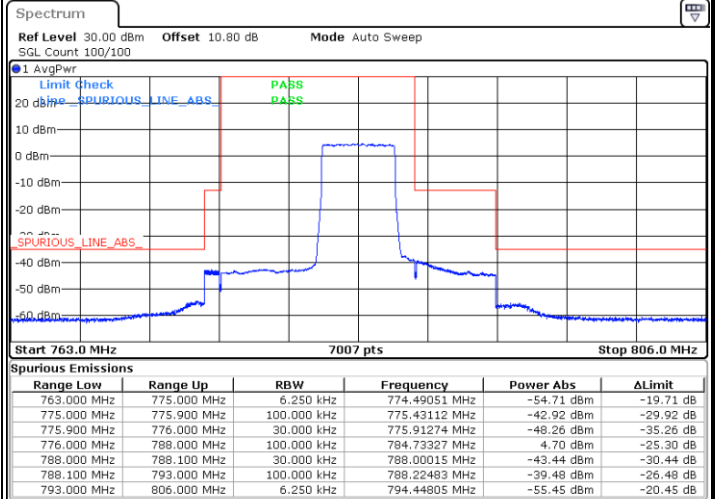
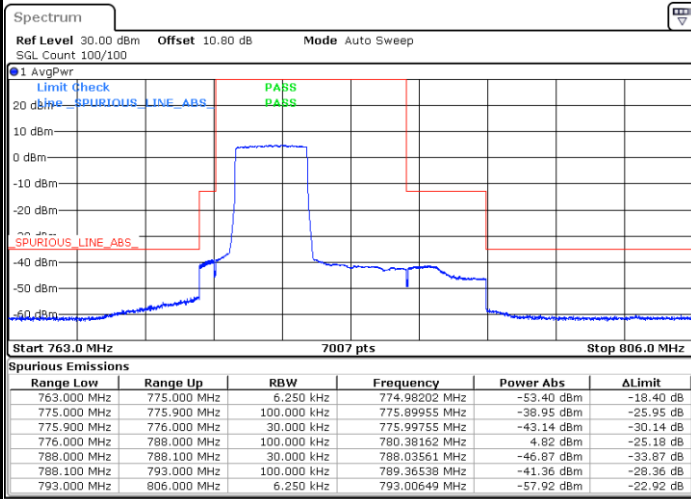


Date: 3 MAR 2020 19:25:48

Date: 3 MAR 2020 19:36:37

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 3 MAR 2020 19:20:50

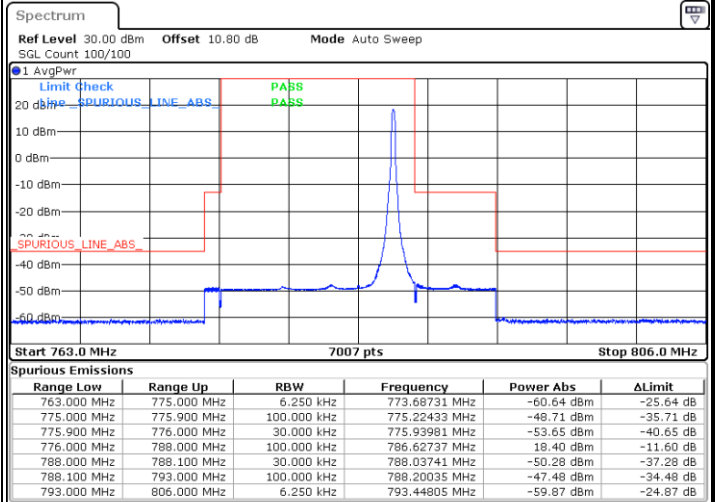
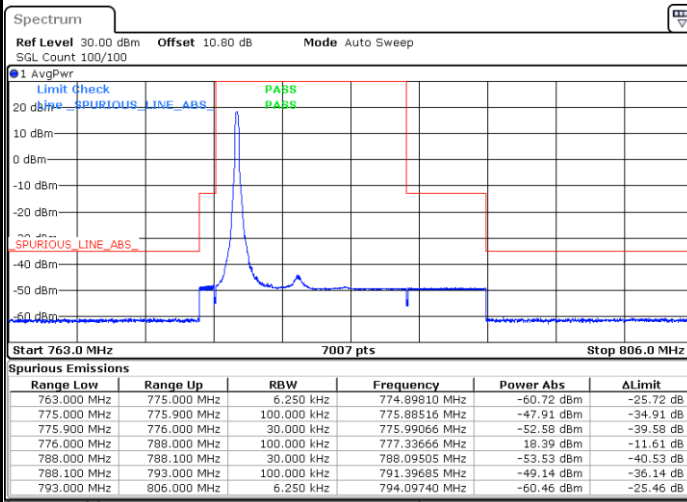
Date: 3 MAR 2020 19:31:39



LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

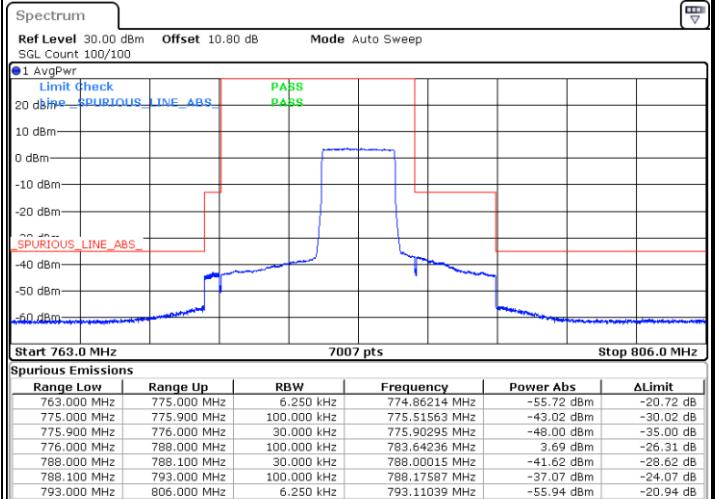
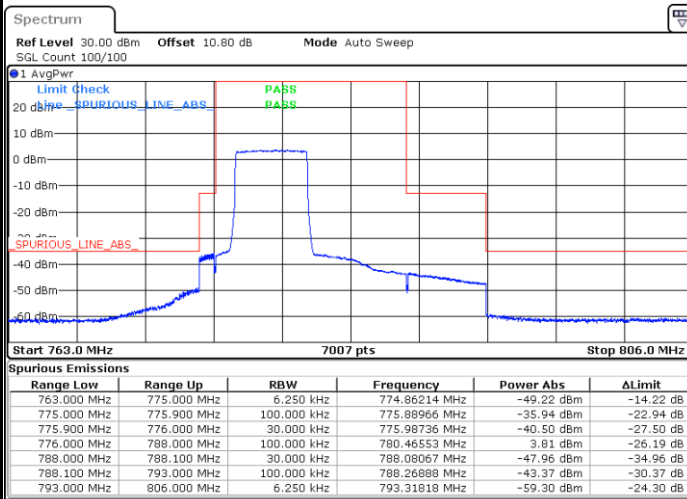


Date: 3 MAR 2020 19:24:09

Date: 3 MAR 2020 19:34:58

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 3 MAR 2020 19:22:29

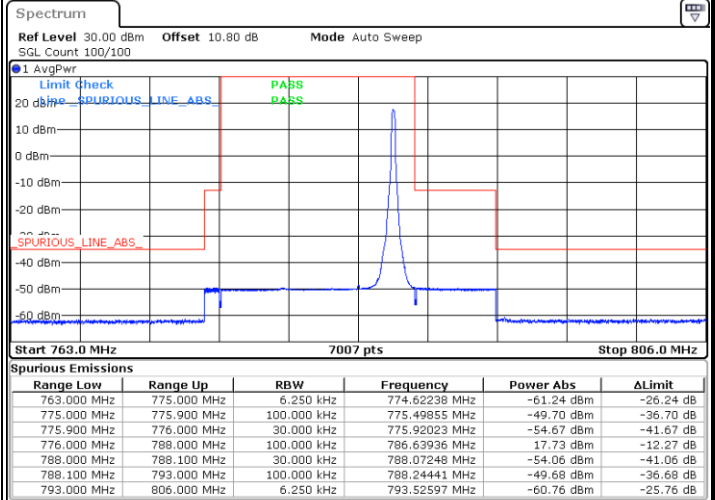
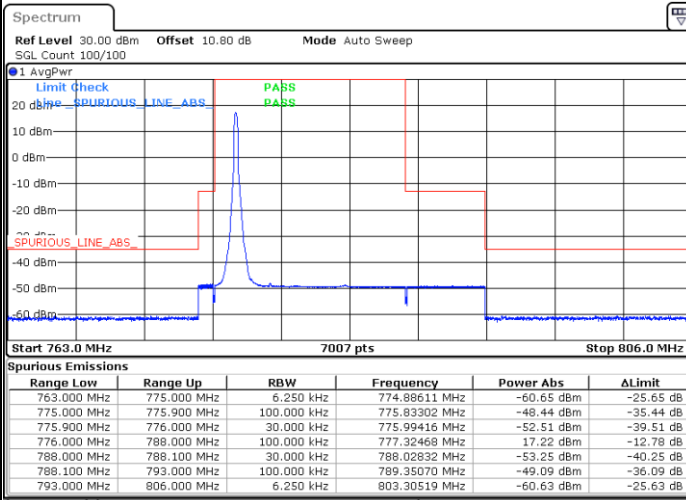
Date: 3 MAR 2020 19:33:19



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

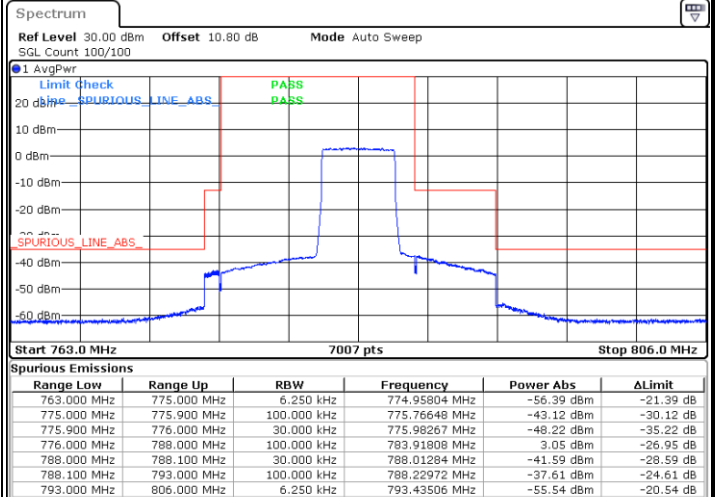
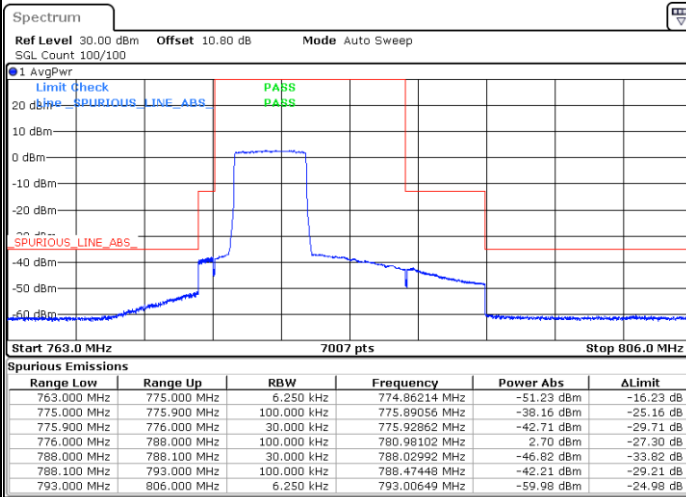


Date: 3.MAR.2020 19:41:41

Date: 3.MAR.2020 20:23:24

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 3.MAR.2020 19:40:01

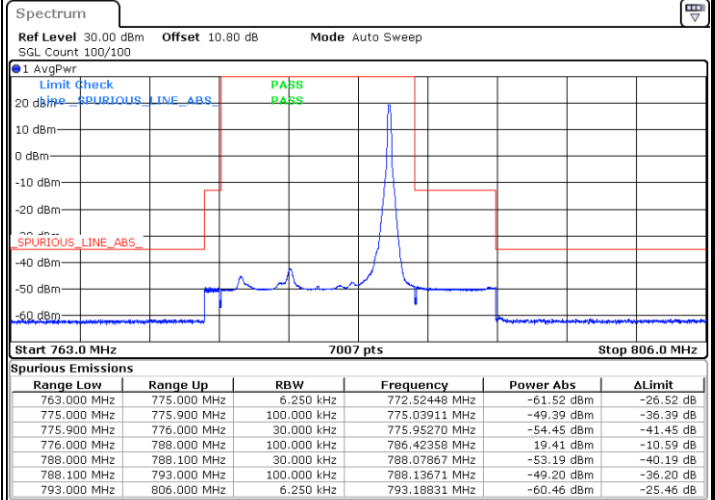
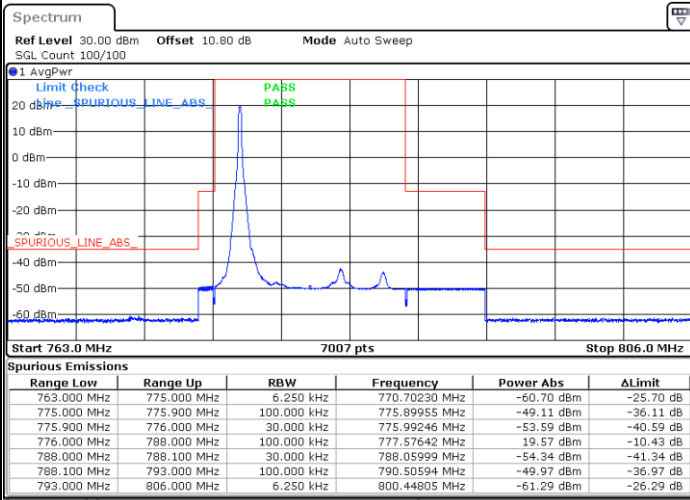
Date: 3.MAR.2020 20:21:44



LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB

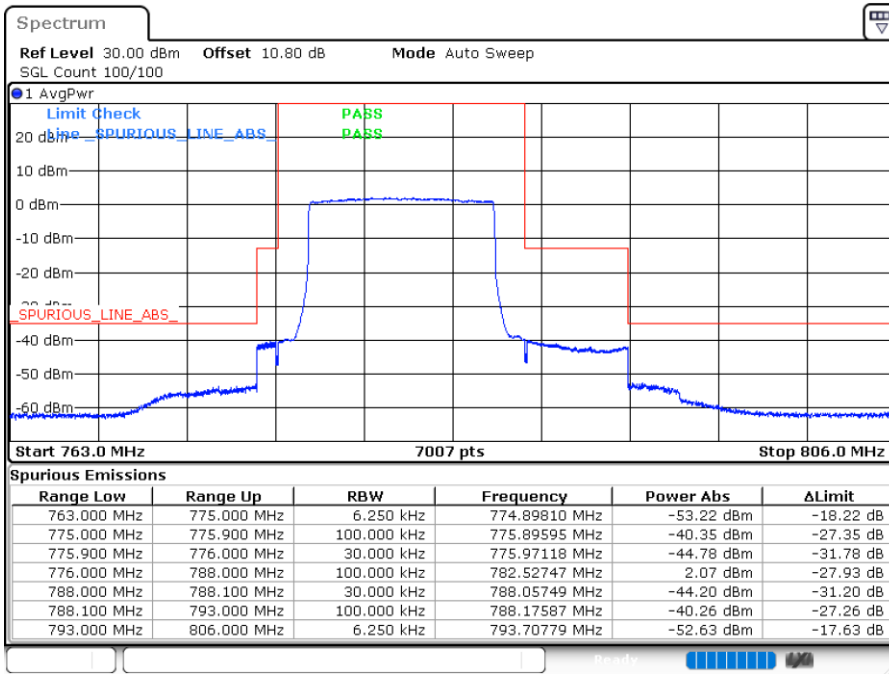
Highest Band Edge / 1 RB



Date: 3.MAR.2020 20:30:42

Date: 3.MAR.2020 20:32:21

Band Edge / Full RB



Date: 3.MAR.2020 20:25:44