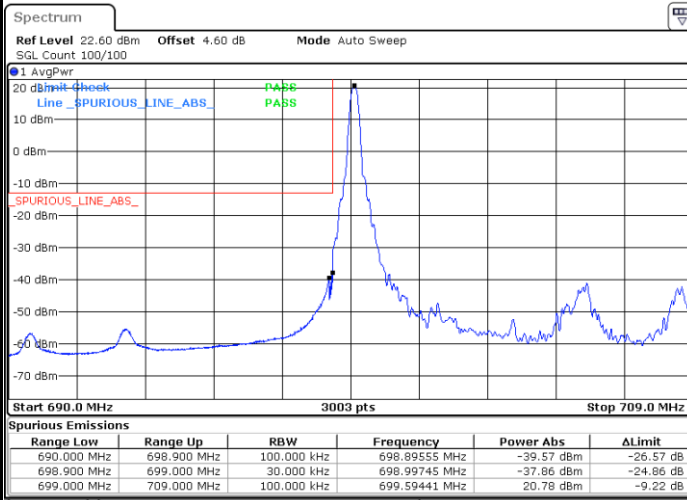




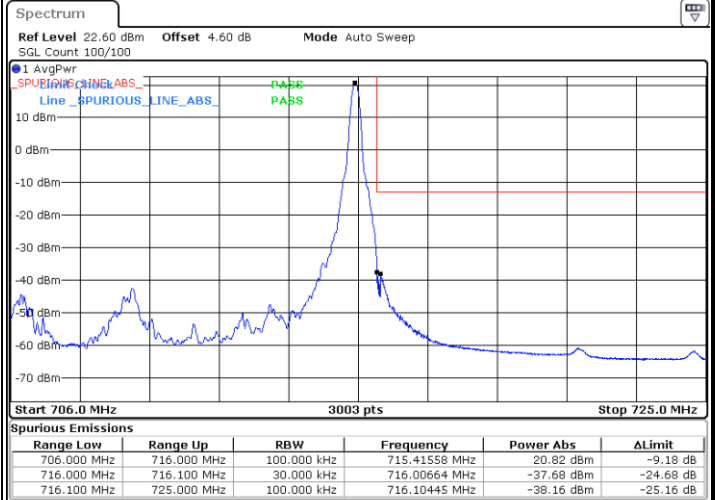
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



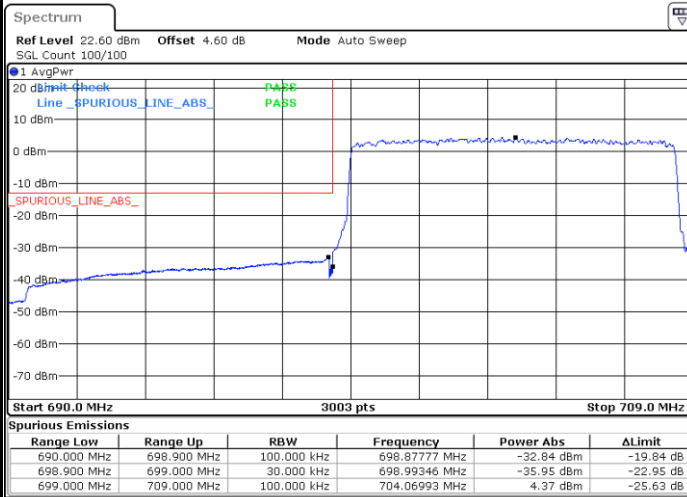
Date: 6.JUN.2020 18:23:14

Highest Band Edge / 1 RB



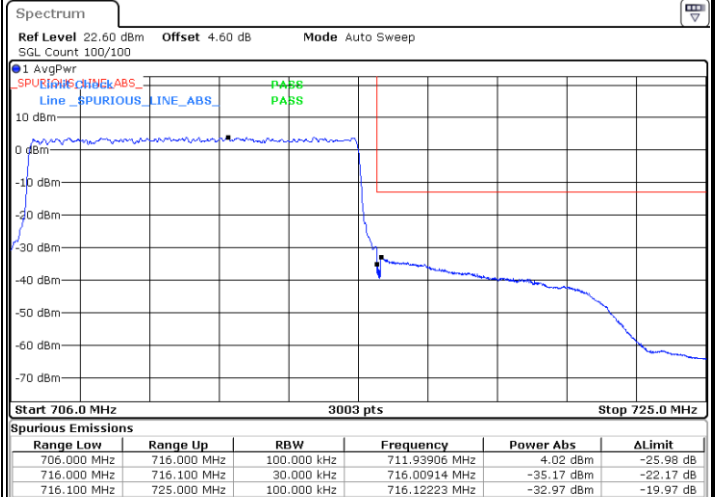
Date: 6.JUN.2020 18:28:52

Lowest Band Edge / Full RB



Date: 6.JUN.2020 18:24:22

Highest Band Edge / Full RB

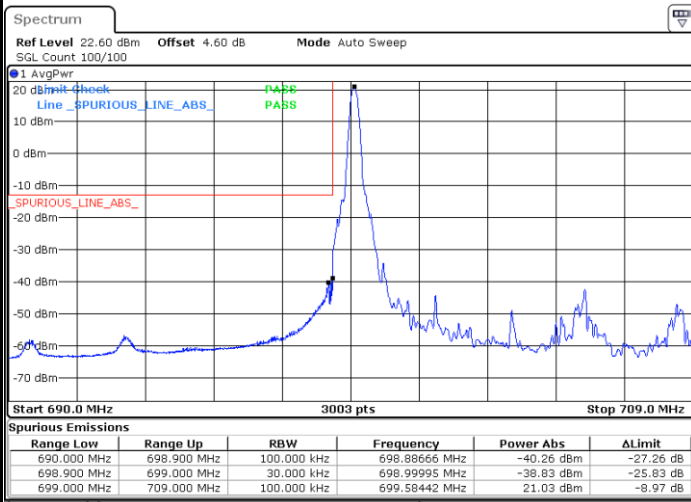


Date: 6.JUN.2020 18:27:45



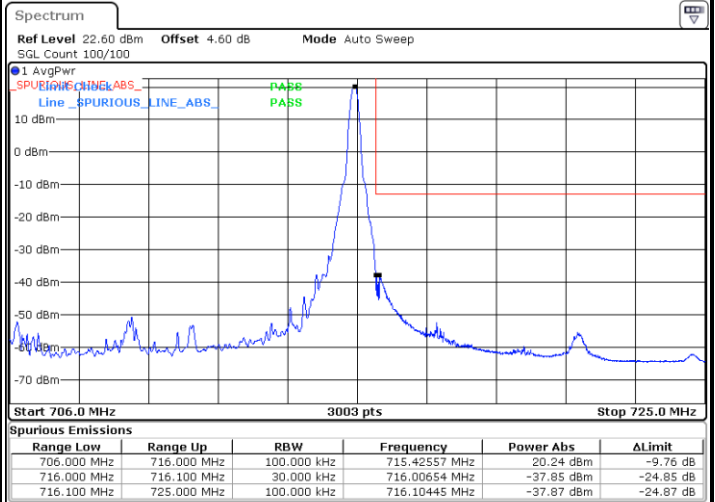
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



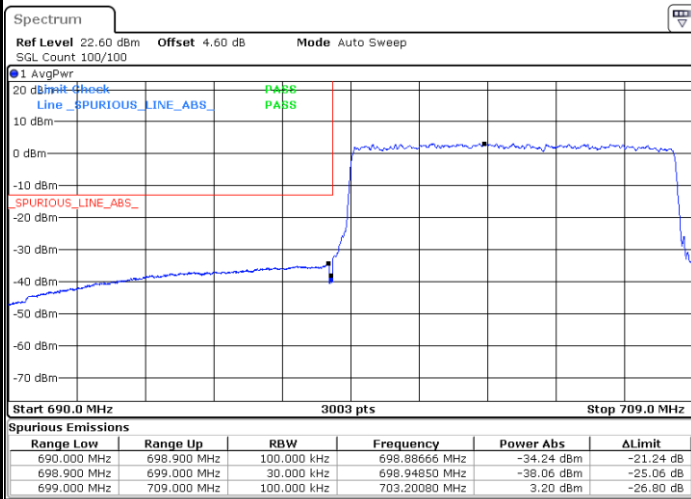
Date: 6 JUN.2020 18:22:06

Highest Band Edge / 1 RB



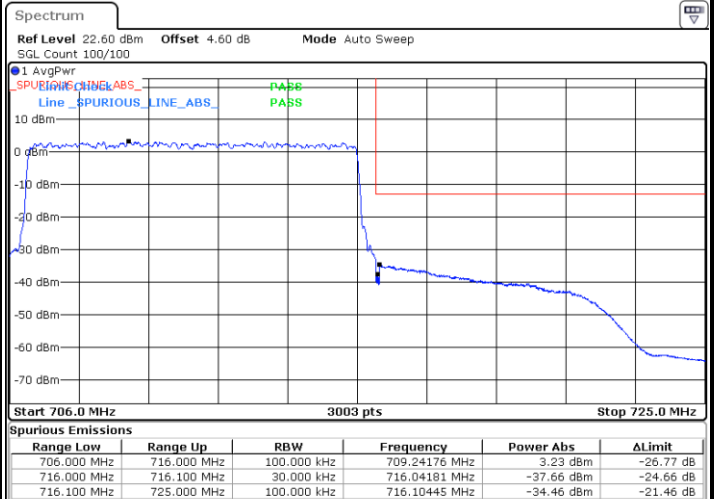
Date: 6 JUN.2020 18:30:00

Lowest Band Edge / Full RB



Date: 6 JUN.2020 18:25:29

Highest Band Edge / Full RB

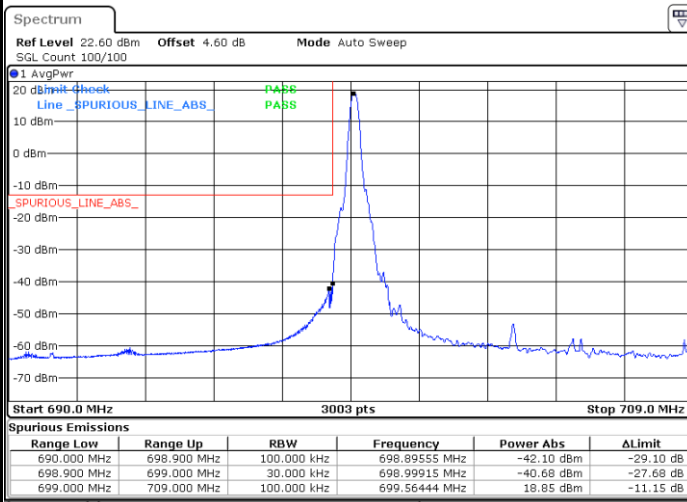


Date: 6 JUN.2020 18:26:37



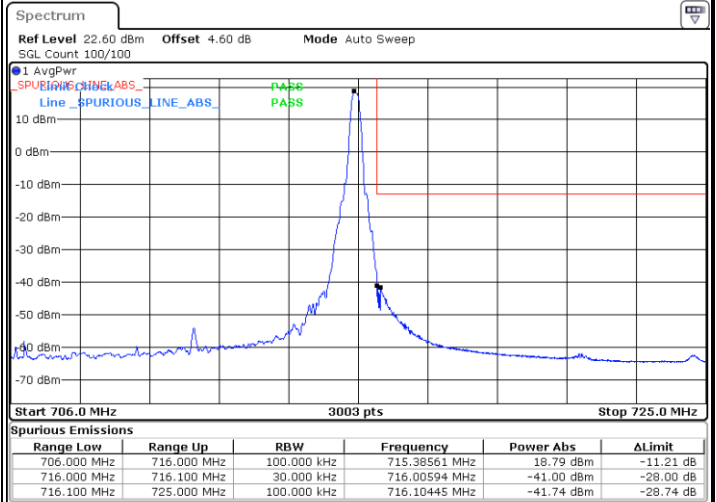
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



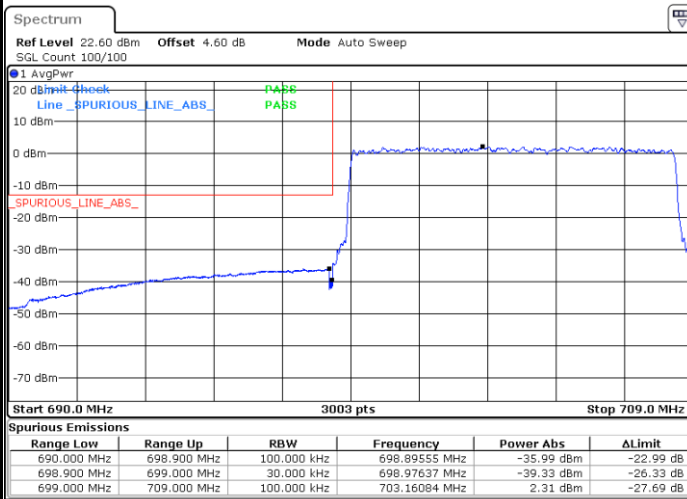
Date: 6.JUN.2020 19:02:19

Highest Band Edge / 1 RB



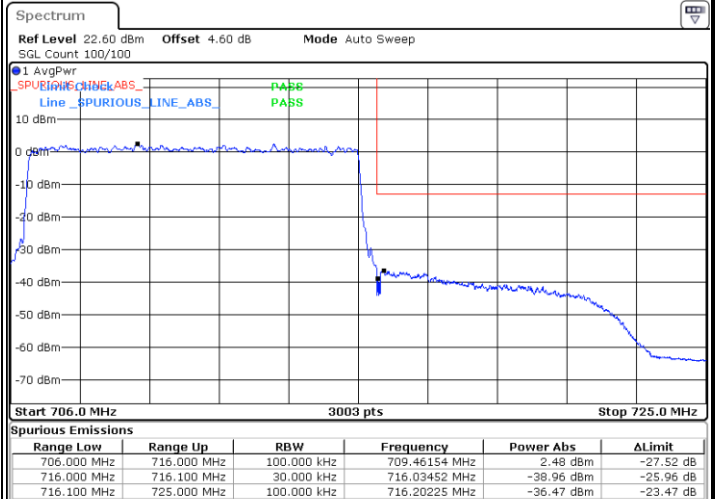
Date: 6.JUN.2020 19:01:12

Lowest Band Edge / Full RB



Date: 6.JUN.2020 19:03:27

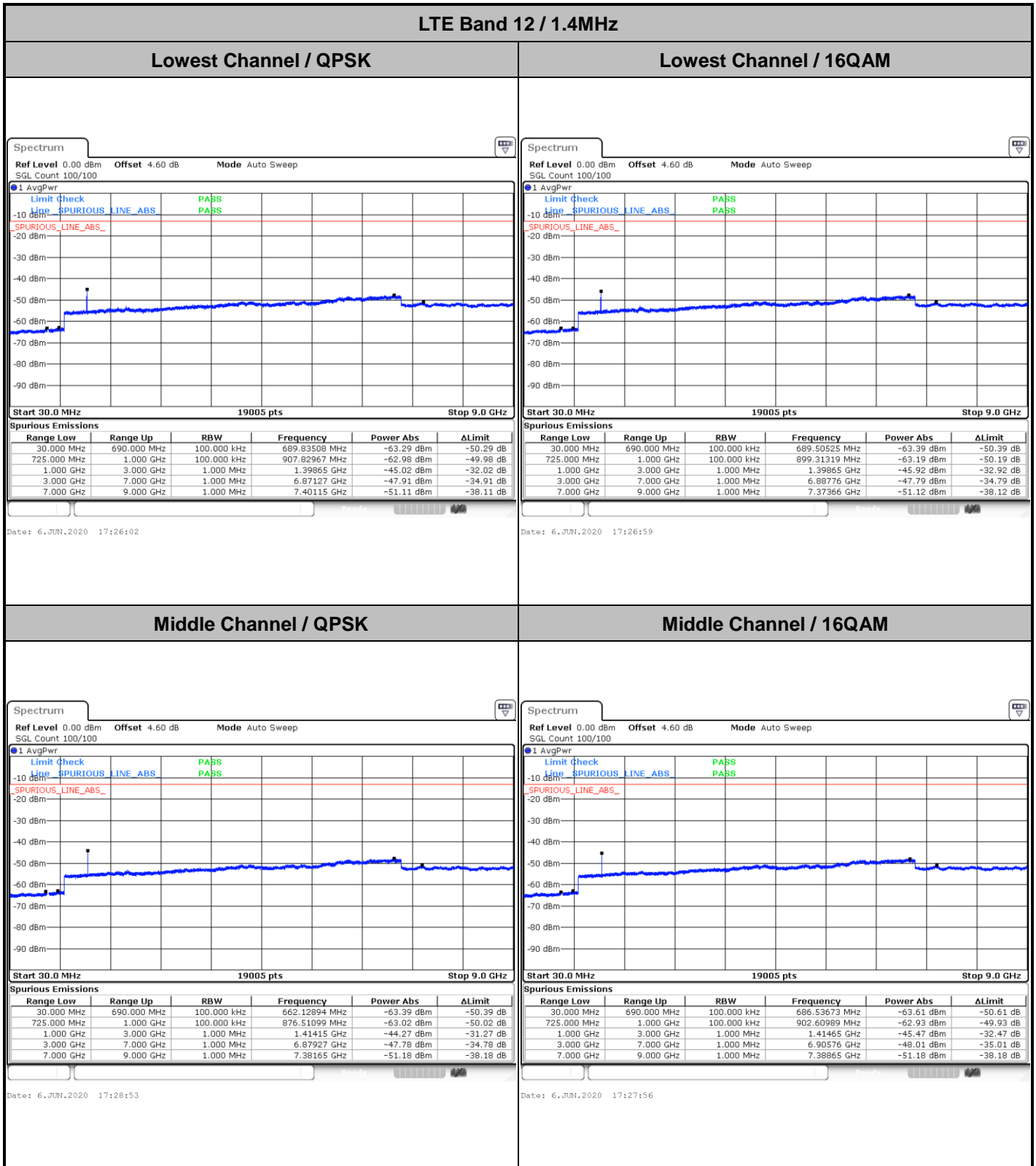
Highest Band Edge / Full RB



Date: 6.JUN.2020 19:00:04



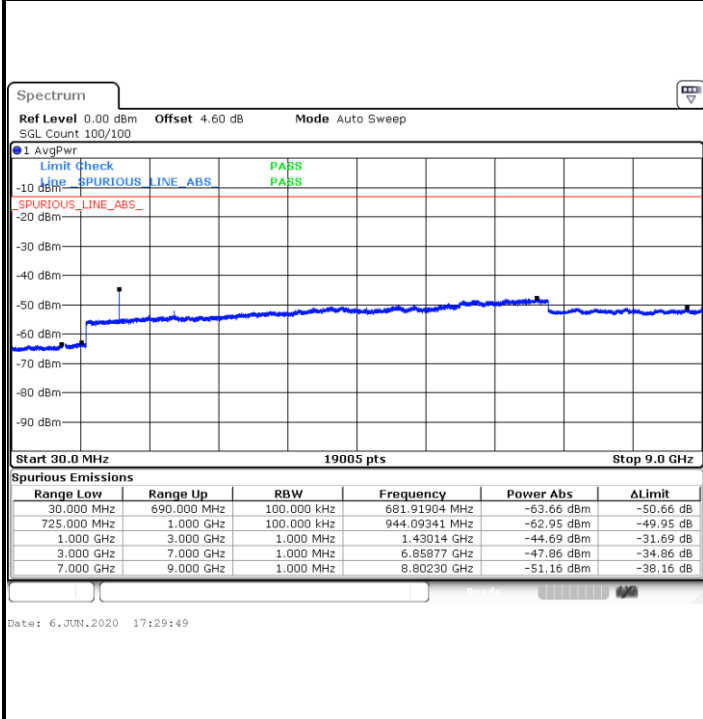
# Conducted Spurious Emission



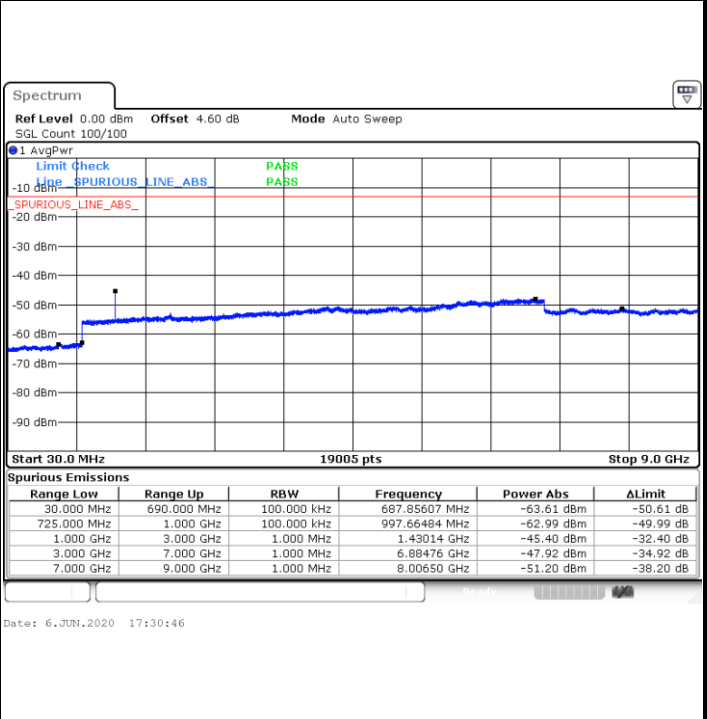


LTE Band 12 / 1.4MHz

Highest Channel / QPSK

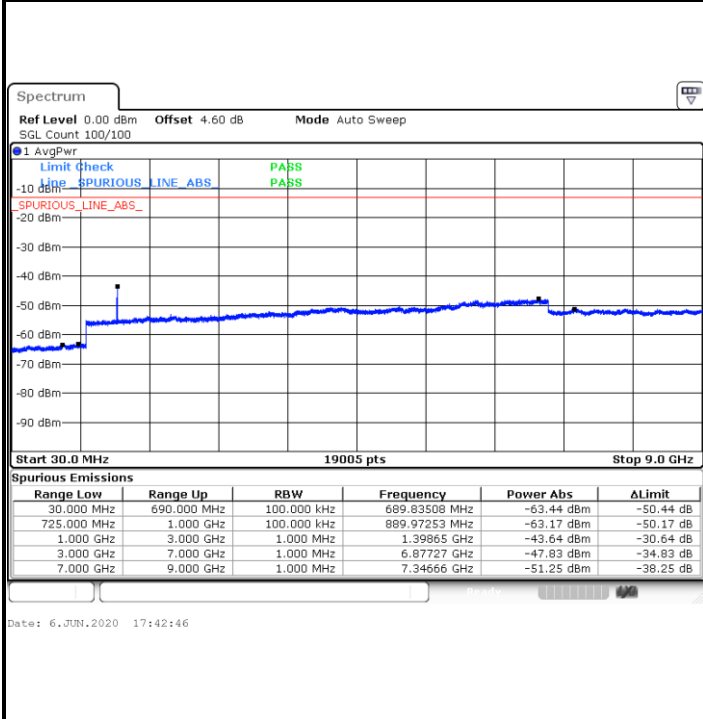


Highest Channel / 16QAM

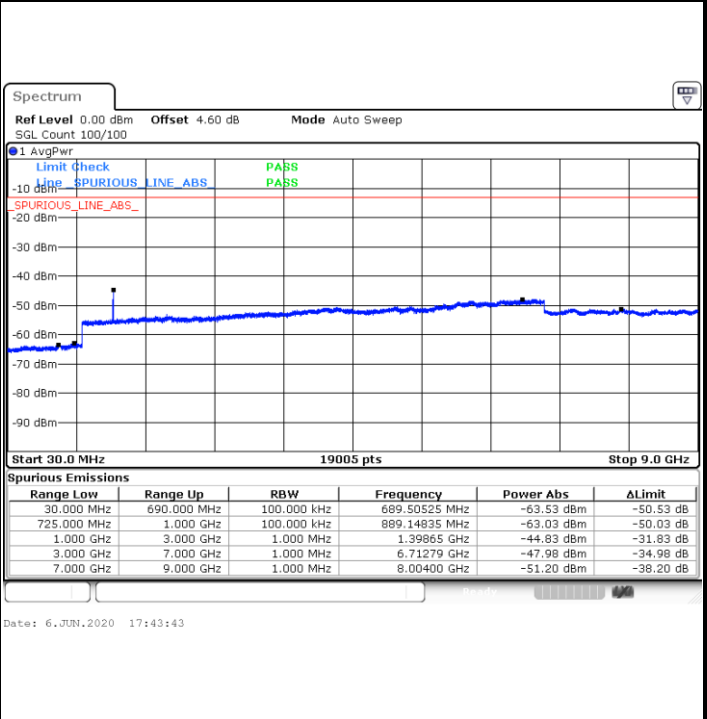


LTE Band 12 / 3MHz

Lowest Channel / QPSK



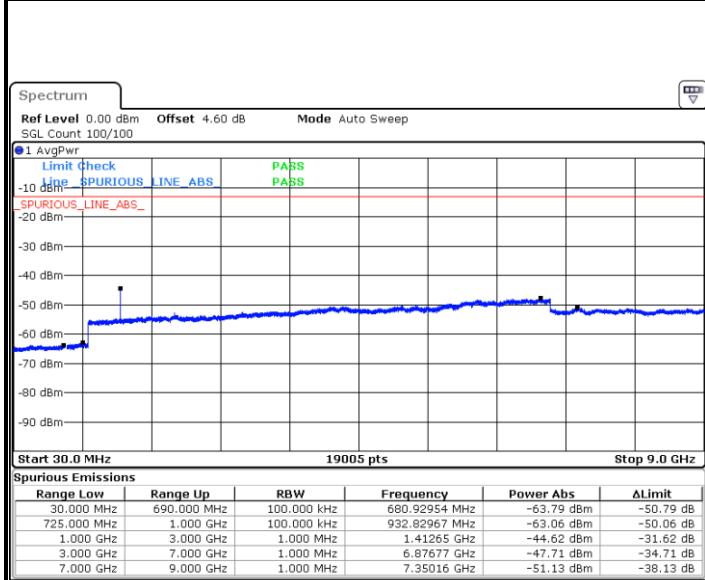
Lowest Channel / 16QAM





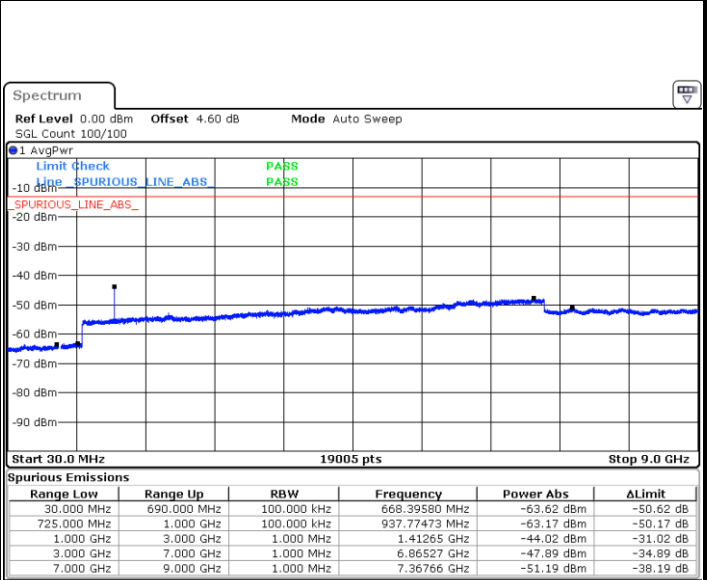
LTE Band 12 / 3MHz

Middle Channel / QPSK



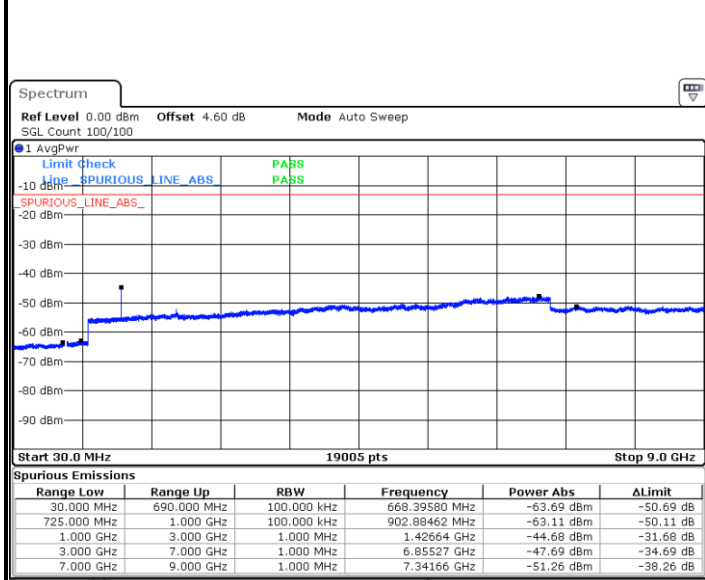
Date: 6. JUN. 2020 17:45:37

Middle Channel / 16QAM



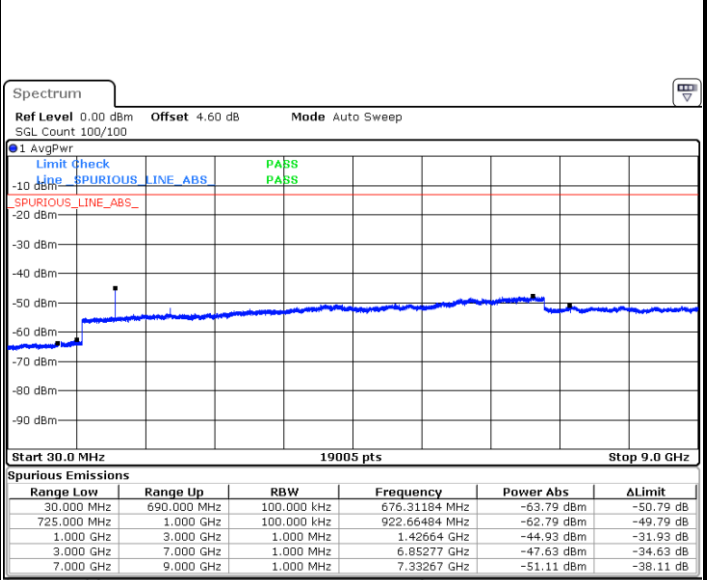
Date: 6. JUN. 2020 17:44:40

Highest Channel / QPSK



Date: 6. JUN. 2020 17:46:34

Highest Channel / 16QAM

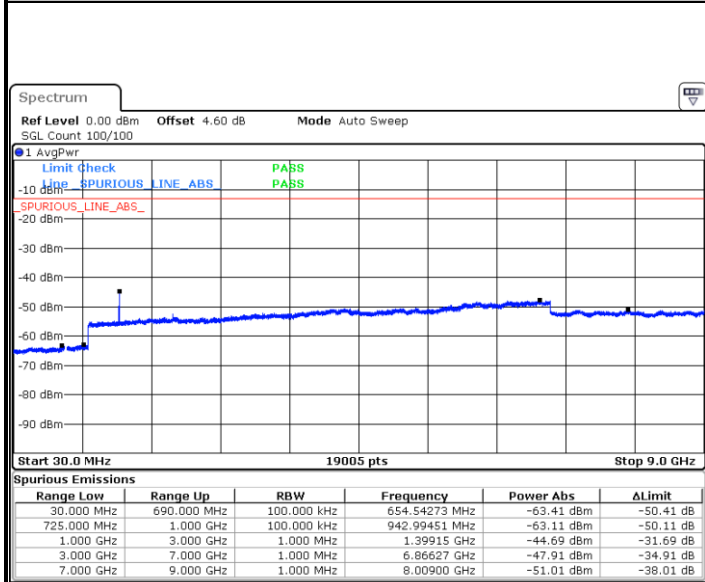


Date: 6. JUN. 2020 17:47:30



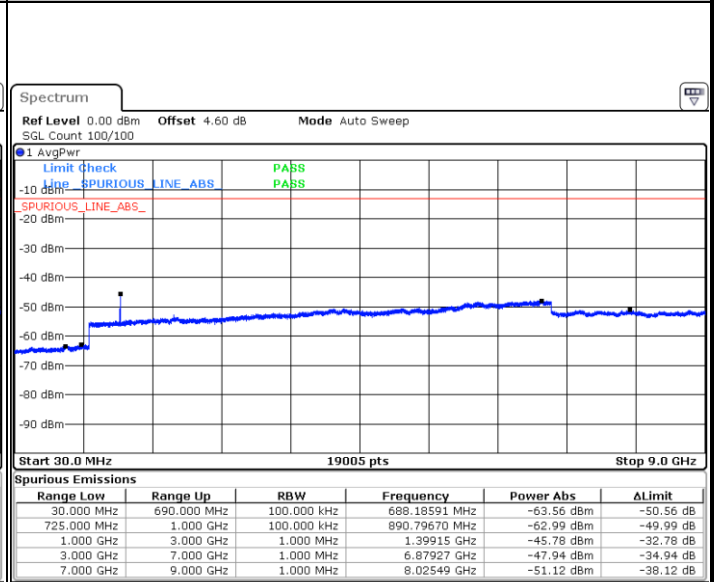
LTE Band 12 / 5MHz

Lowest Channel / QPSK



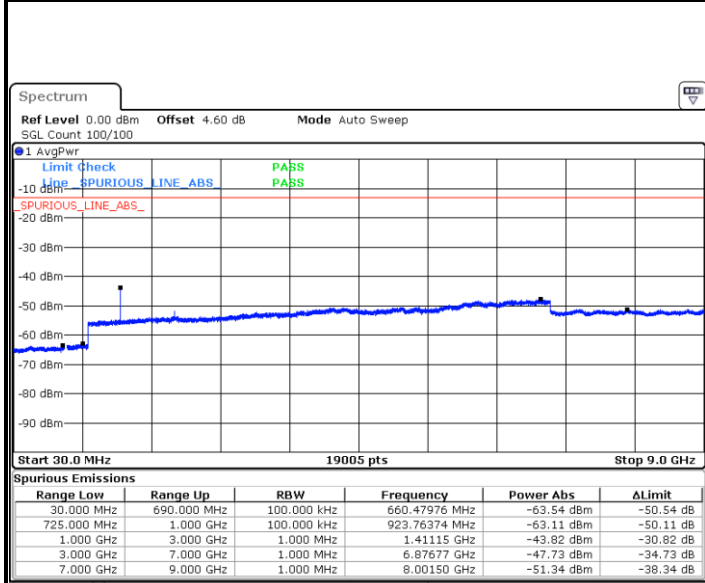
Date: 6 JUN.2020 17:59:31

Lowest Channel / 16QAM



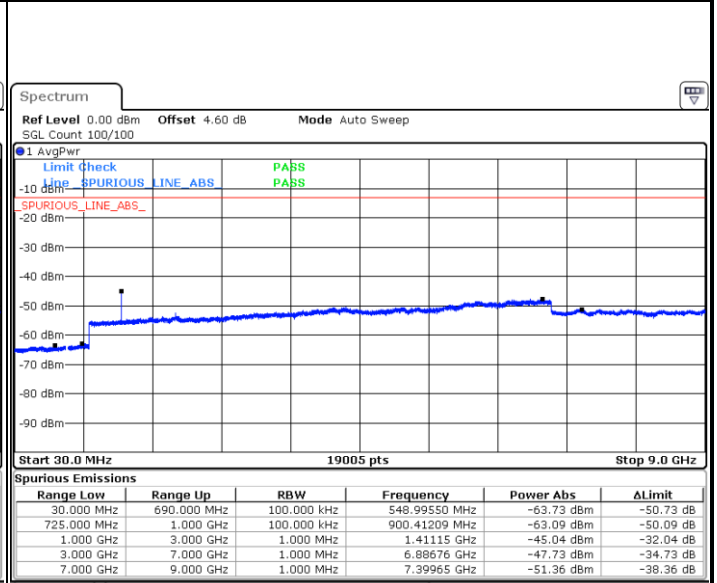
Date: 6 JUN.2020 18:00:28

Middle Channel / QPSK



Date: 6 JUN.2020 18:02:21

Middle Channel / 16QAM

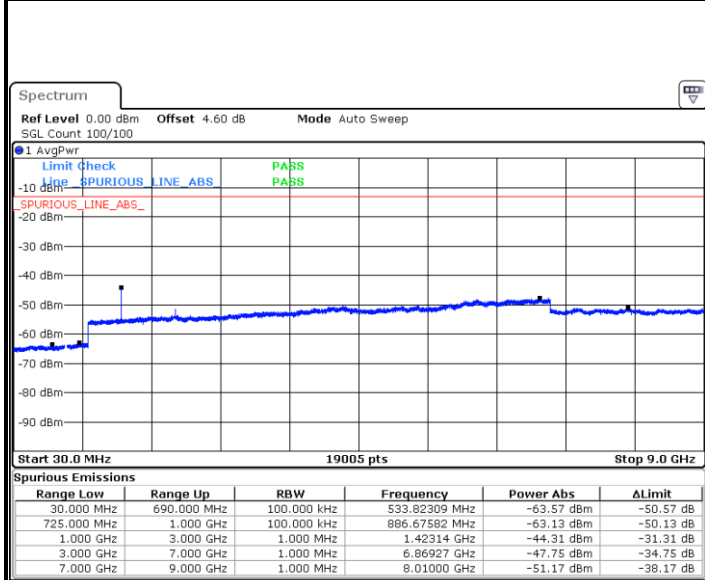


Date: 6 JUN.2020 18:01:24



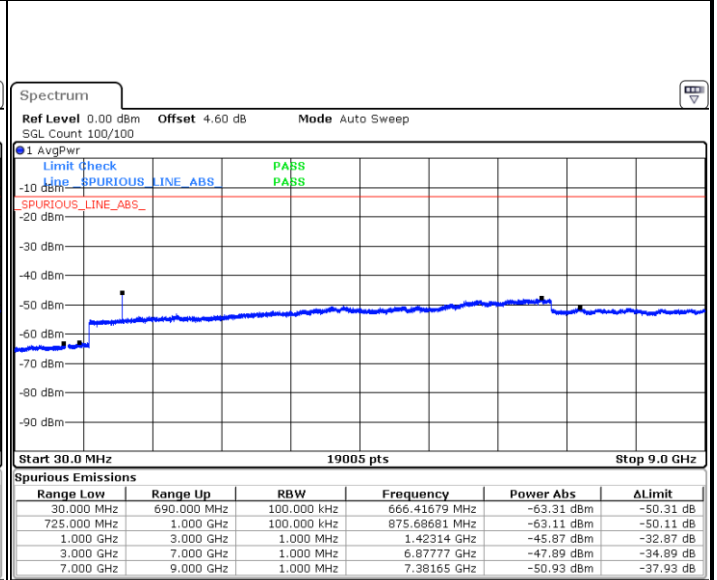
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 6 JUN.2020 18:03:18

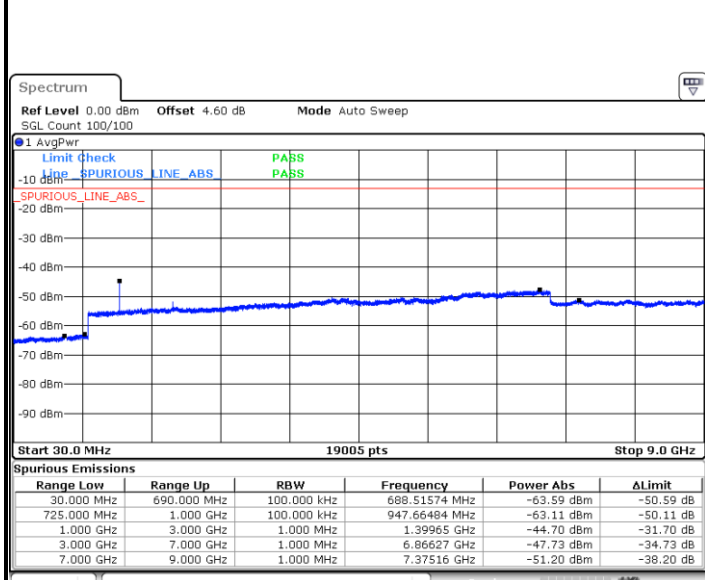
Highest Channel / 16QAM



Date: 6 JUN.2020 18:04:15

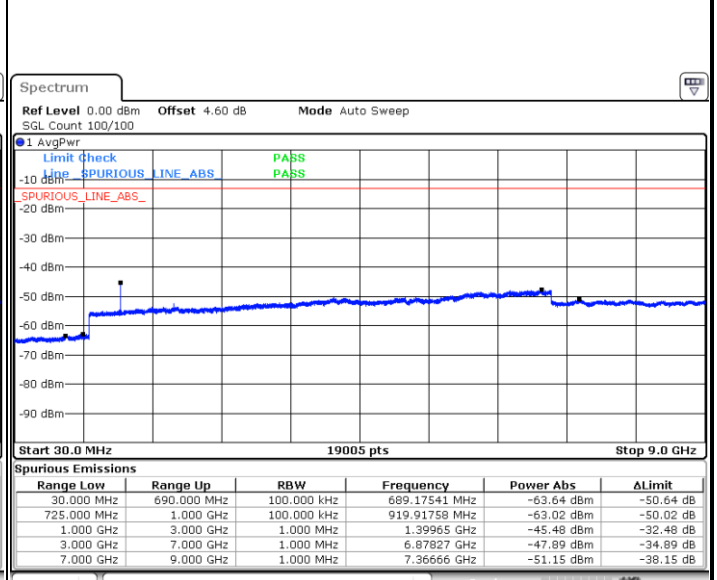
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 6 JUN.2020 18:16:15

Lowest Channel / 16QAM



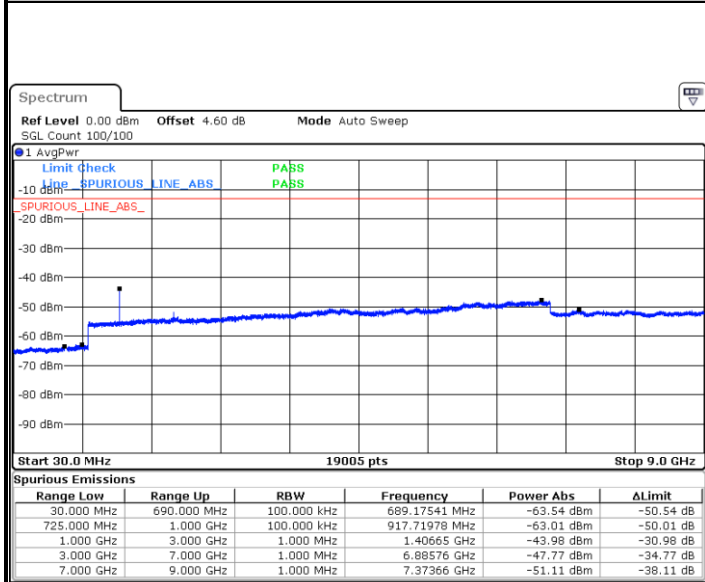
Date: 6 JUN.2020 18:17:12





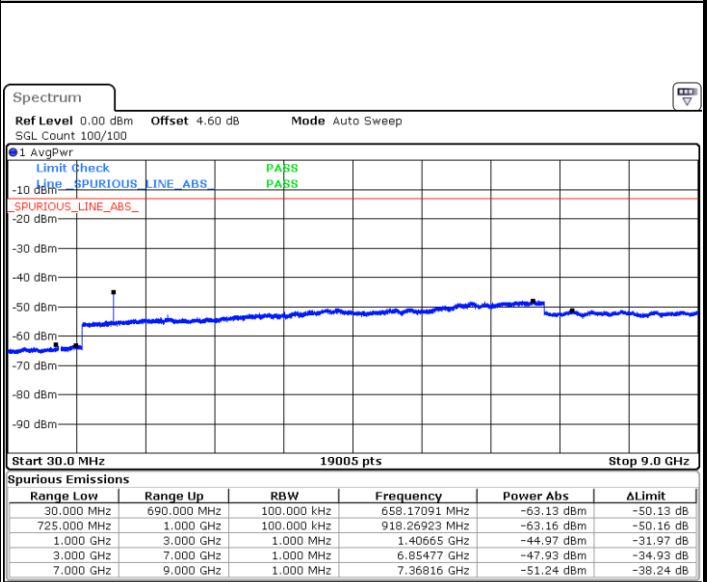
LTE Band 12 / 10MHz

Middle Channel / QPSK



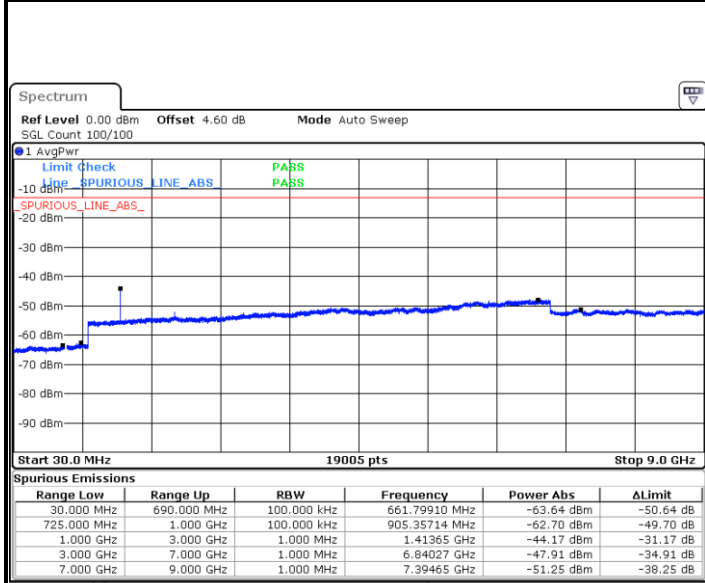
Date: 6 JUN.2020 18:19:05

Middle Channel / 16QAM



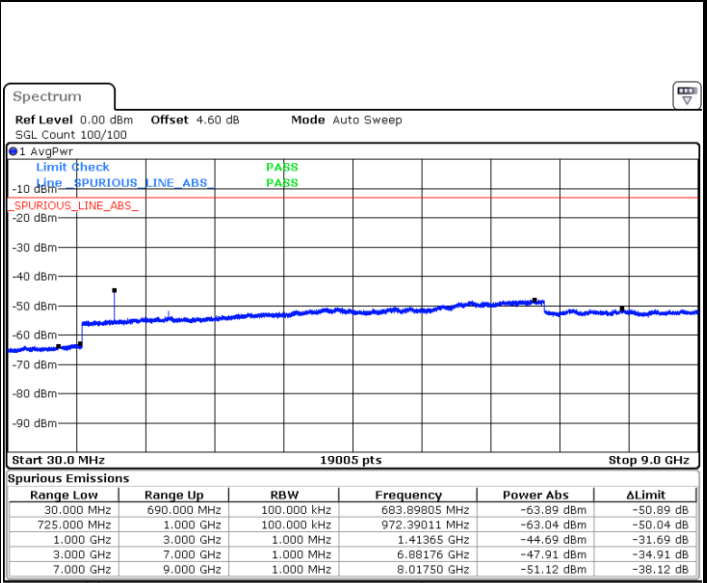
Date: 6 JUN.2020 18:18:09

Highest Channel / QPSK



Date: 6 JUN.2020 18:20:01

Highest Channel / 16QAM



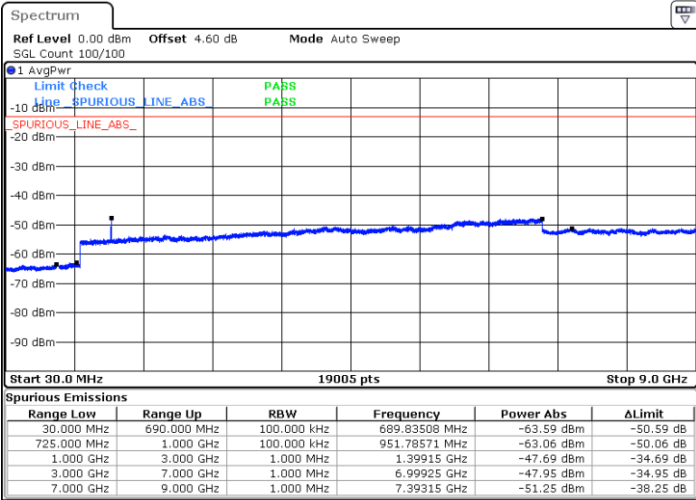
Date: 6 JUN.2020 18:20:58



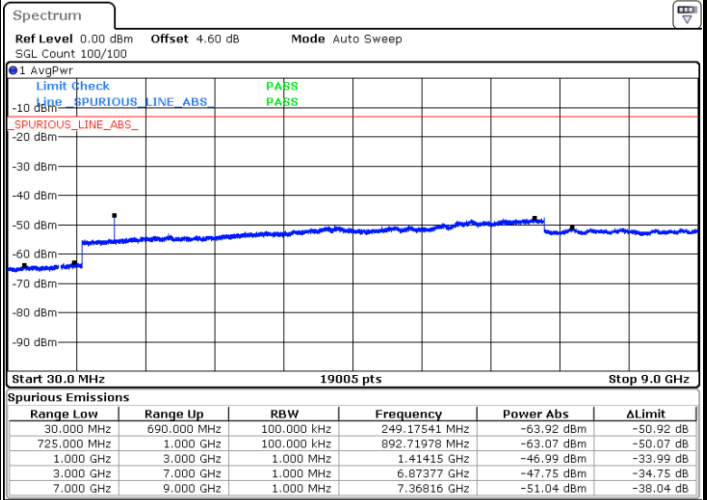
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

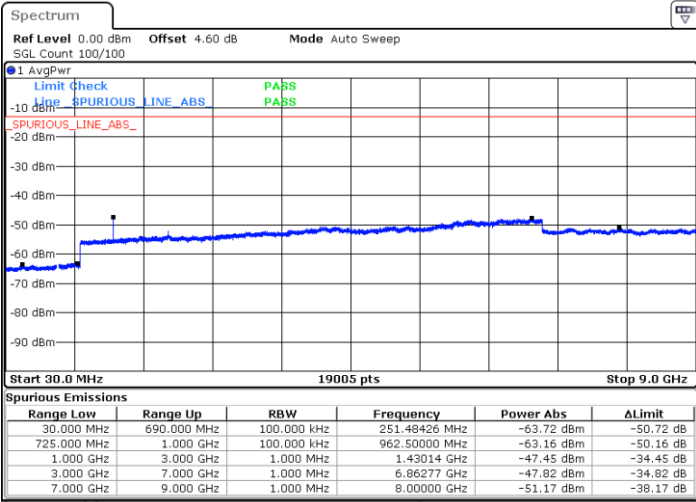


Date: 6 JUN.2020 18:36:28



Date: 6 JUN.2020 18:37:25

Highest Channel / 64QAM

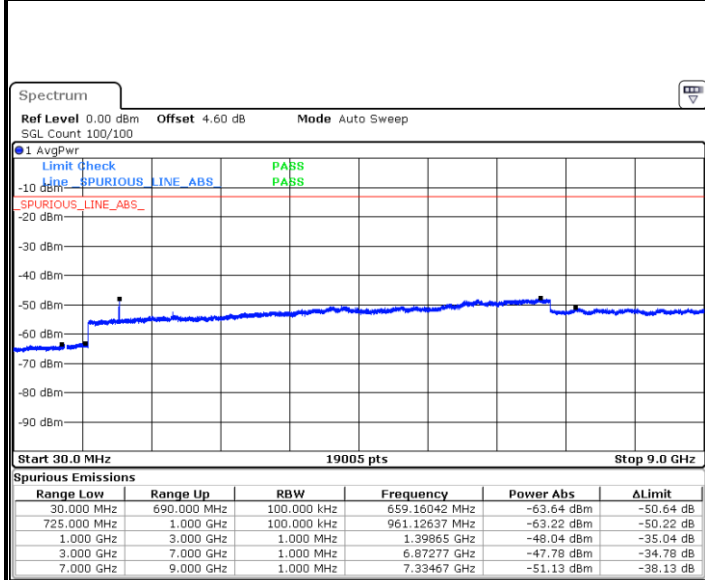


Date: 6 JUN.2020 18:38:22



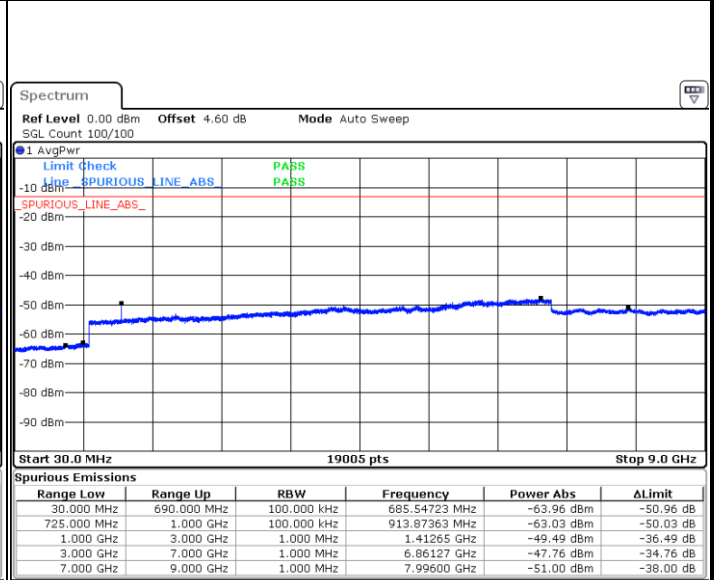
**LTE Band 12 / 3MHz**

**Lowest Channel / 64QAM**



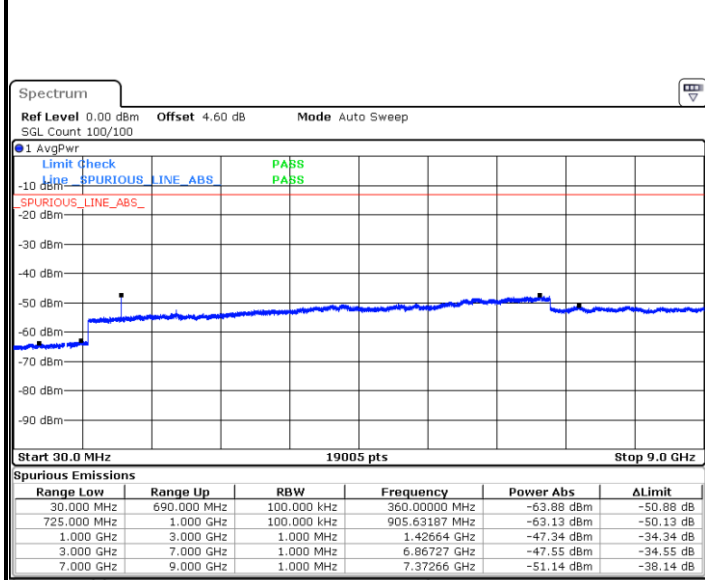
Date: 6 JUN.2020 18:39:19

**Middle Channel / 64QAM**



Date: 6 JUN.2020 18:40:15

**Highest Channel / 64QAM**



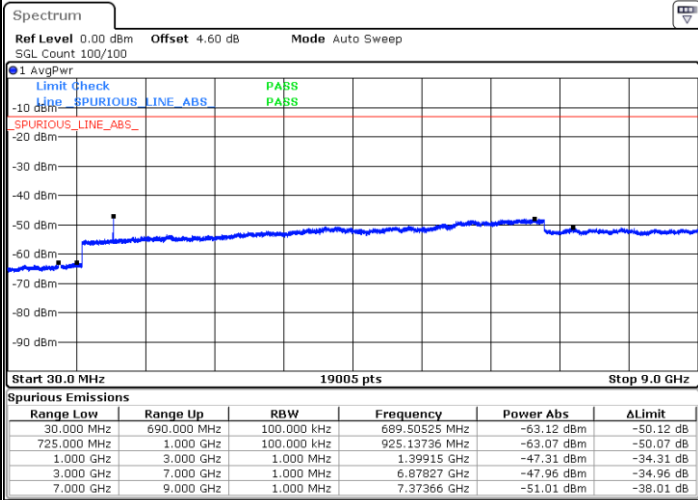
Date: 6 JUN.2020 18:41:12



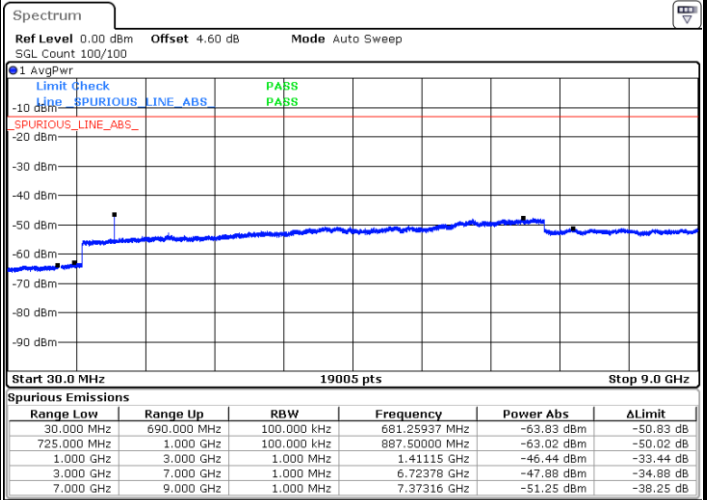
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

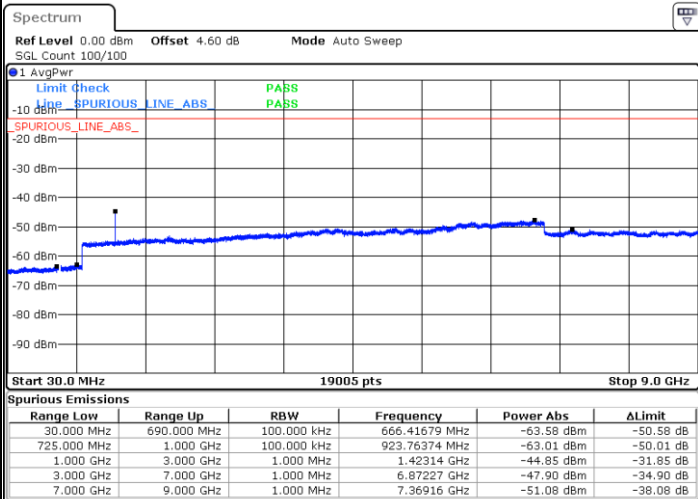


Date: 6 JUN.2020 18:53:12



Date: 6 JUN.2020 18:54:09

Highest Channel / 64QAM



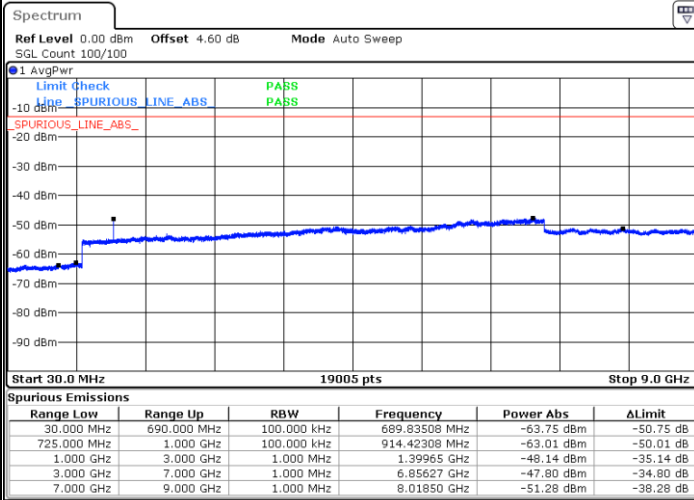
Date: 6 JUN.2020 18:55:05



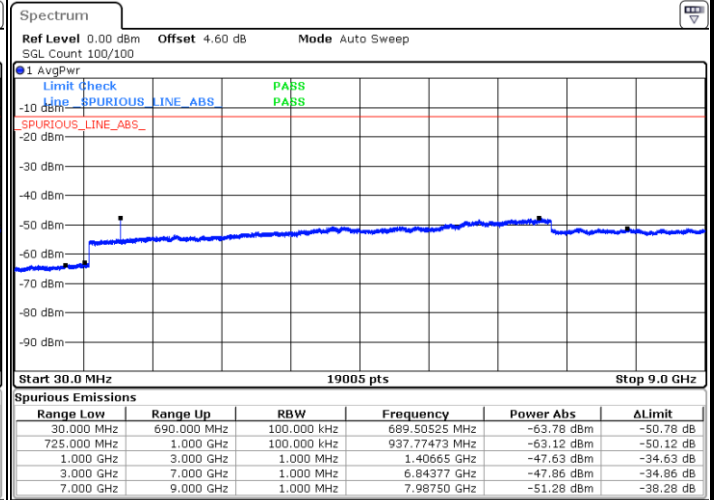
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

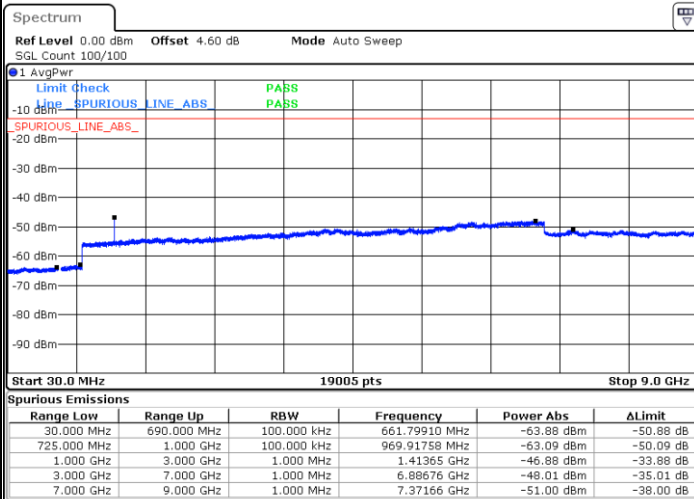


Date: 6 JUN.2020 18:56:02



Date: 6 JUN.2020 18:56:58

Highest Channel / 64QAM



Date: 6 JUN.2020 18:57:55



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	0.0001	PASS
40	Normal Voltage	0.0018	
30	Normal Voltage	0.0001	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0032	
0	Normal Voltage	0.0005	
-10	Normal Voltage	0.0002	
-20	Normal Voltage	0.0010	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0027	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0007	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 13

## Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	2.58	4.72	3.16	5.65	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.17	6.14	-	-	
Highest CH	-	-	-	-	



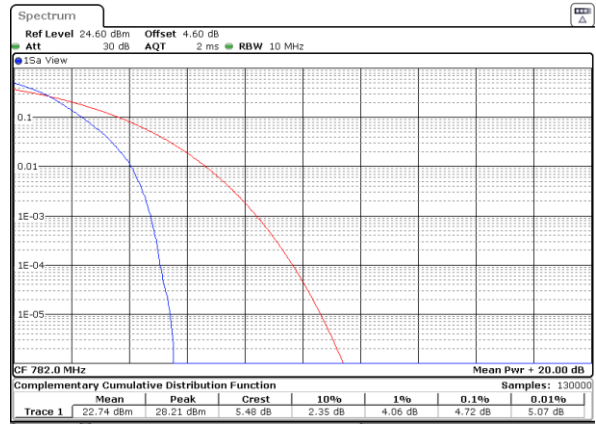
LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB



Date: 7 JUN 2020 12:10:48

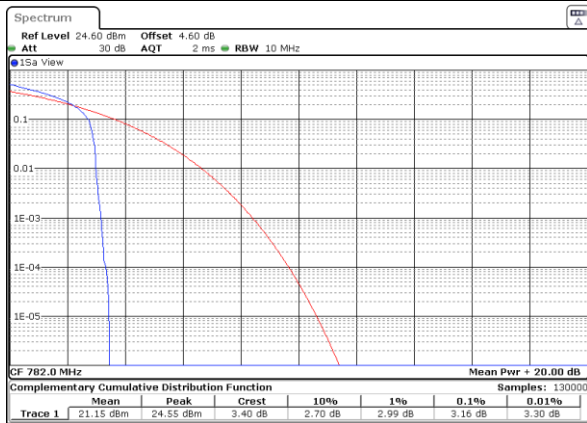
Middle Channel / Full RB



Date: 7 JUN 2020 12:11:17

LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Date: 7 JUN 2020 12:10:57

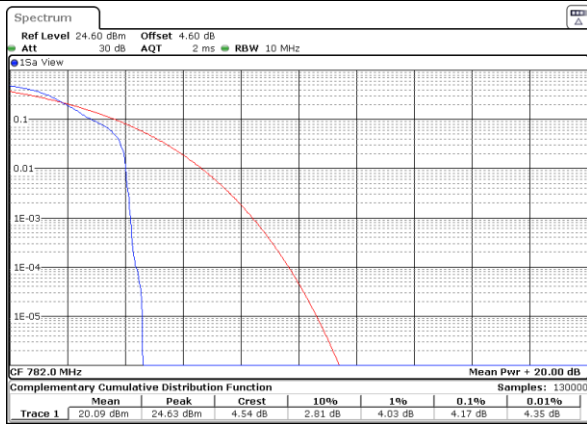
Middle Channel / Full RB



Date: 7 JUN 2020 12:11:09

LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Date: 7 JUN 2020 12:33:15

Middle Channel / Full RB



Date: 7 JUN 2020 12:33:26





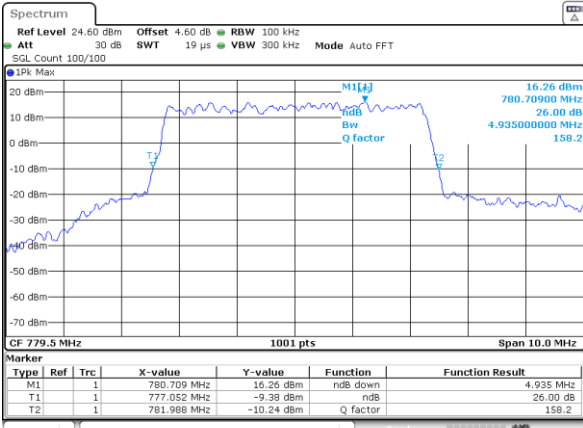
**26dB Bandwidth**

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	-	-	-	-	4.94	4.86	-	-	-	-	-	-
Middle CH	-	-	-	-	4.96	4.89	9.63	9.77	-	-	-	-
Highest CH	-	-	-	-	4.83	4.87	-	-	-	-	-	-
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.80	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.89	-	9.83	-	-	-	-	-
Highest CH	-	-	-	-	5.00	-	-	-	-	-	-	-



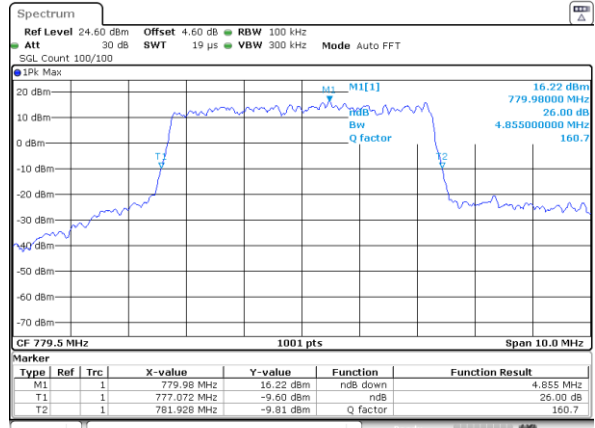
LTE Band 13

Lowest Channel / 5MHz / QPSK



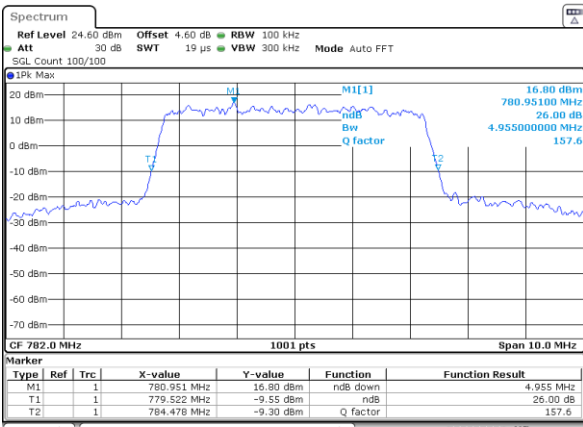
Date: 7, JUN, 2020 11:36:50

Lowest Channel / 5MHz / 16QAM



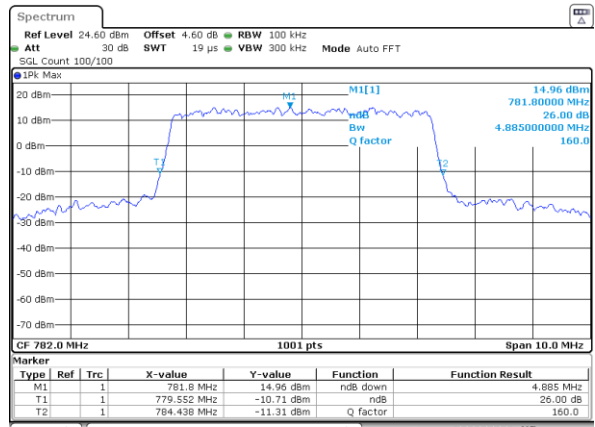
Date: 7, JUN, 2020 11:37:00

Middle Channel / 5MHz / QPSK



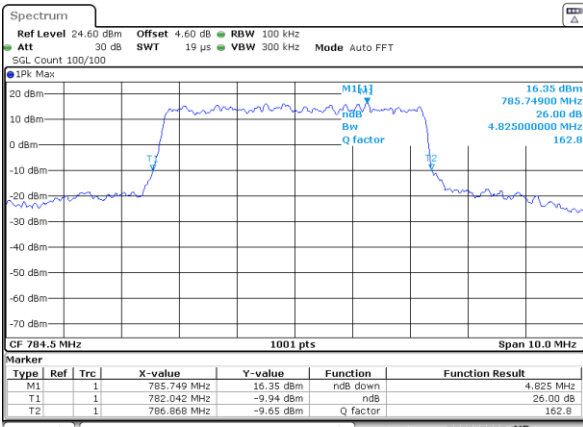
Date: 7, JUN, 2020 11:45:54

Middle Channel / 5MHz / 16QAM



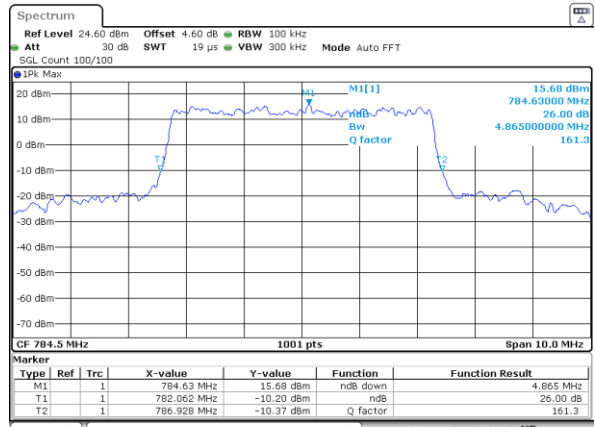
Date: 7, JUN, 2020 11:46:04

Highest Channel / 5MHz / QPSK



Date: 7, JUN, 2020 11:48:34

Highest Channel / 5MHz / 16QAM

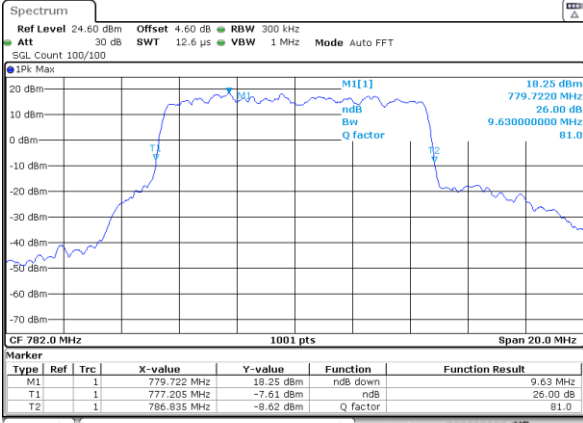


Date: 7, JUN, 2020 11:48:24



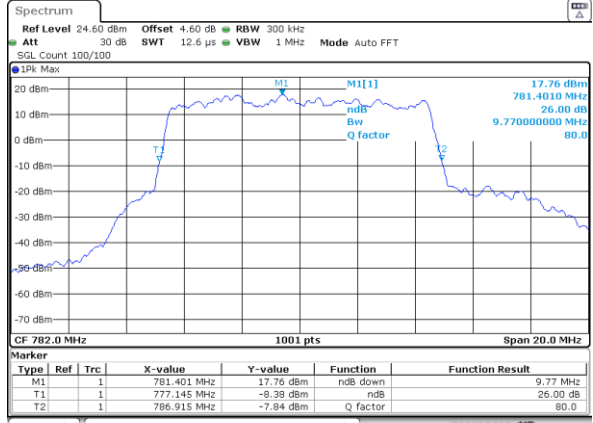
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 7 JUN 2020 11:59:27

Middle Channel / 10MHz / 16QAM

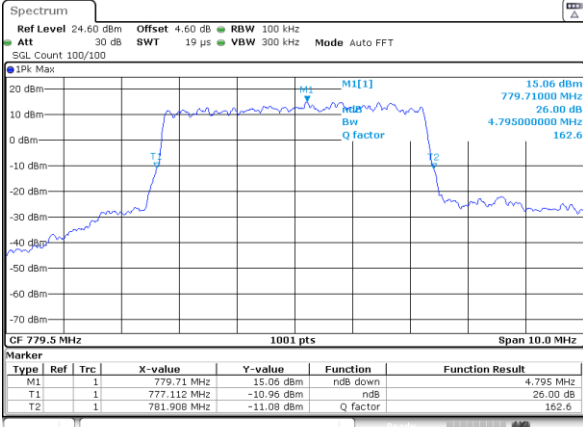


Date: 7 JUN 2020 11:59:17



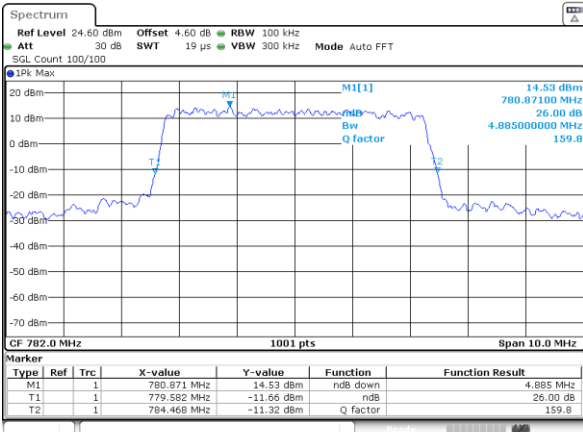
LTE Band 13

Lowest Channel / 5MHz / 64QAM



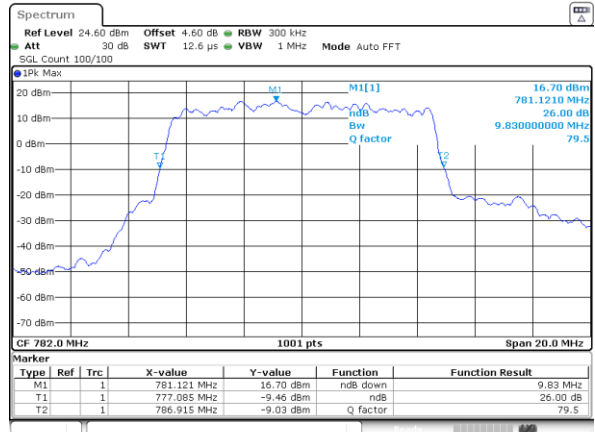
Date: 7, JUN, 2020 12:11:57

Middle Channel / 5MHz / 64QAM



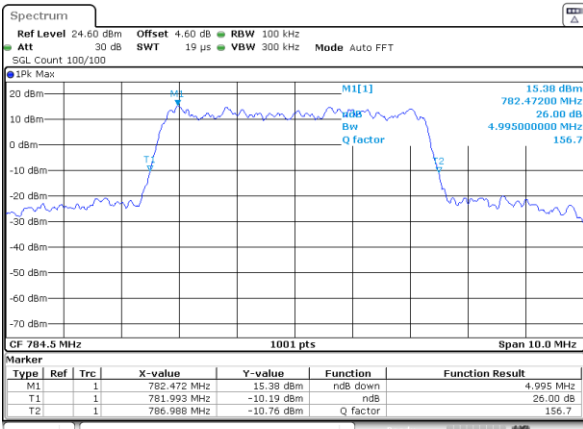
Date: 7, JUN, 2020 12:12:07

Middle Channel / 10MHz / 64QAM



Date: 7, JUN, 2020 12:21:55

Highest Channel / 5MHz / 64QAM



Date: 7, JUN, 2020 12:12:16



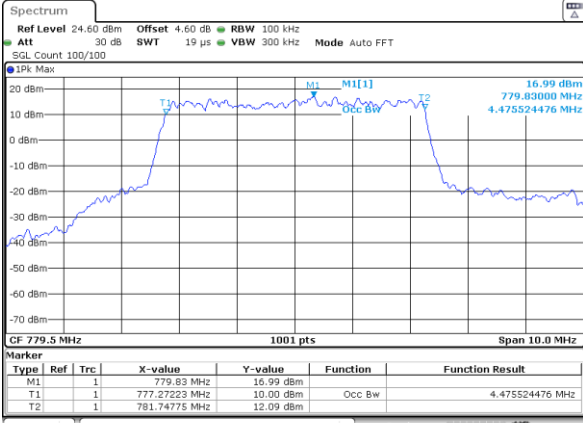
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.48	4.49	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.51	9.03	9.05	-	-	-	-
Highest CH	-	-	-	-	4.49	4.49	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.46	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	-	8.95	-	-	-	-	-
Highest CH	-	-	-	-	4.48	-	-	-	-	-	-	-



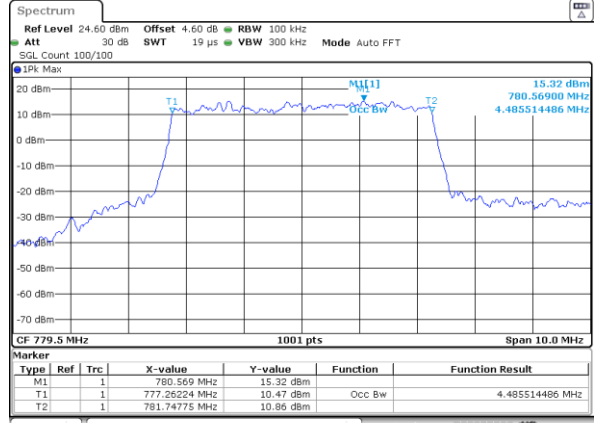
LTE Band 13

Lowest Channel / 5MHz / QPSK



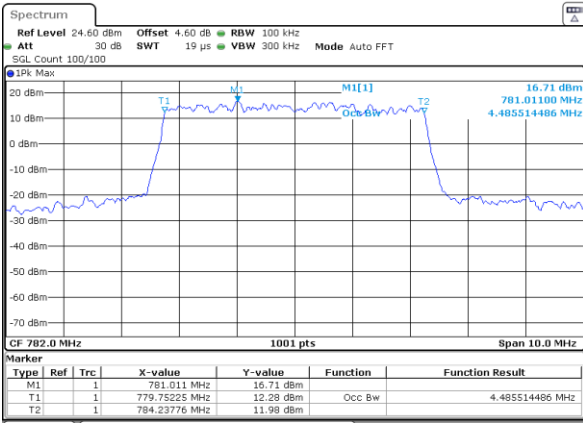
Date: 7 JUN 2020 11:37:20

Lowest Channel / 5MHz / 16QAM



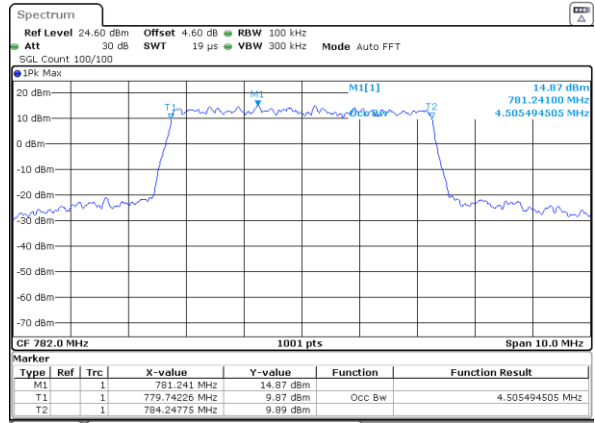
Date: 7 JUN 2020 11:37:10

Middle Channel / 5MHz / QPSK



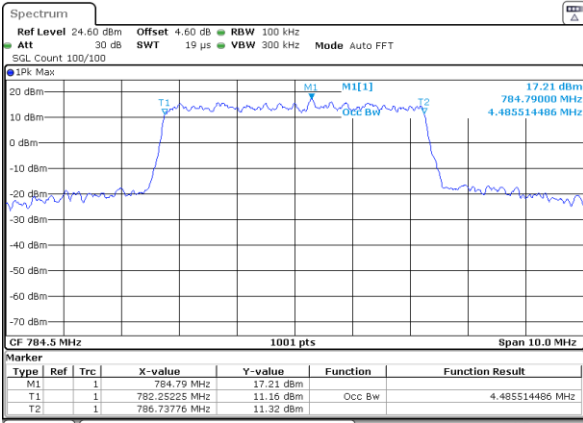
Date: 7 JUN 2020 11:46:14

Middle Channel / 5MHz / 16QAM



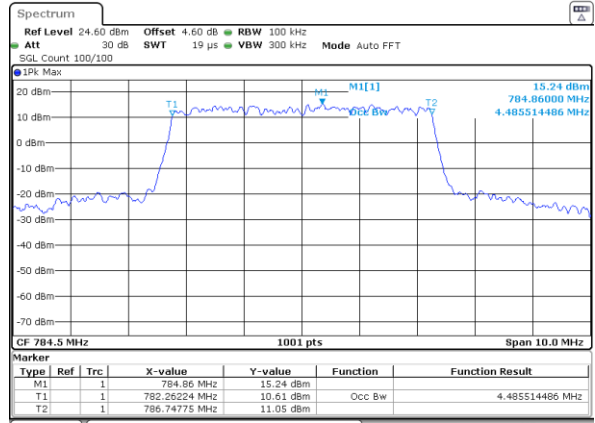
Date: 7 JUN 2020 11:46:24

Highest Channel / 5MHz / QPSK



Date: 7 JUN 2020 11:48:44

Highest Channel / 5MHz / 16QAM

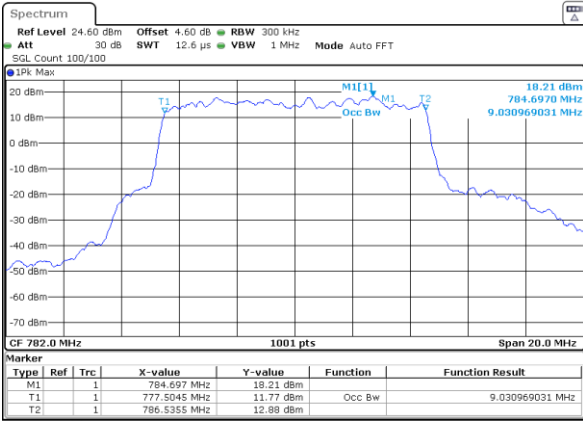


Date: 7 JUN 2020 11:48:54



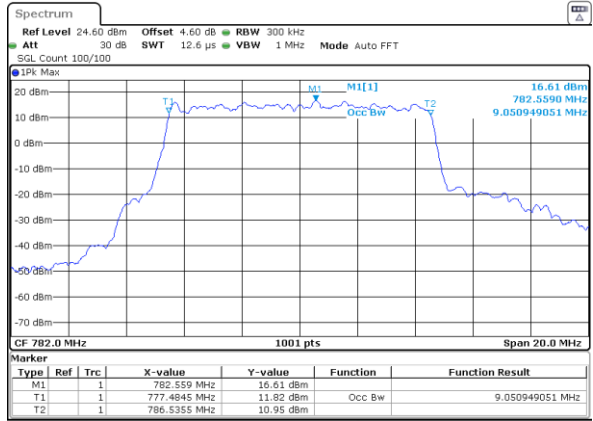
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 7 JUN 2020 11:59:37

Middle Channel / 10MHz / 16QAM

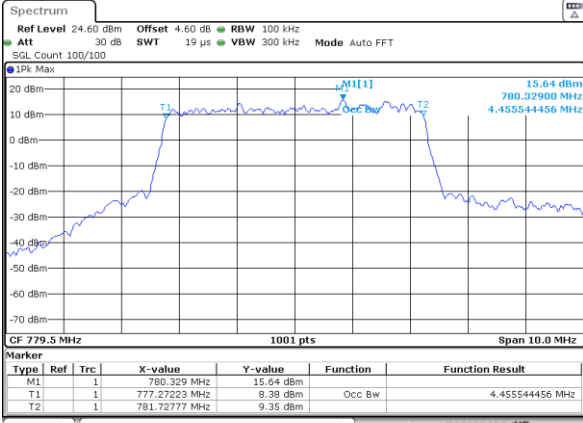


Date: 7 JUN 2020 11:59:47



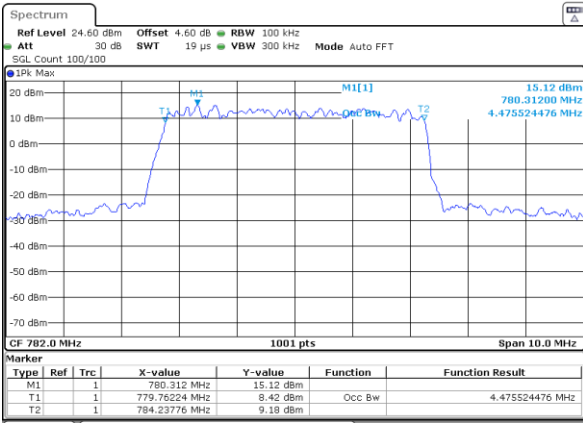
LTE Band 13

Lowest Channel / 5MHz / 64QAM



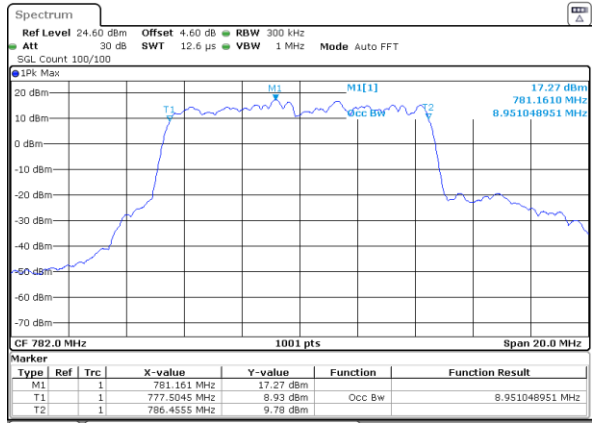
Date: 7, JUN, 2020 12:11:27

Middle Channel / 5MHz / 64QAM



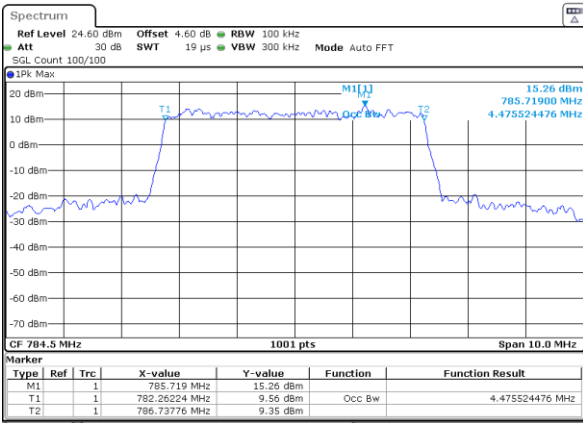
Date: 7, JUN, 2020 12:11:37

Middle Channel / 10MHz / 64QAM



Date: 7, JUN, 2020 12:21:45

Highest Channel / 5MHz / 64QAM

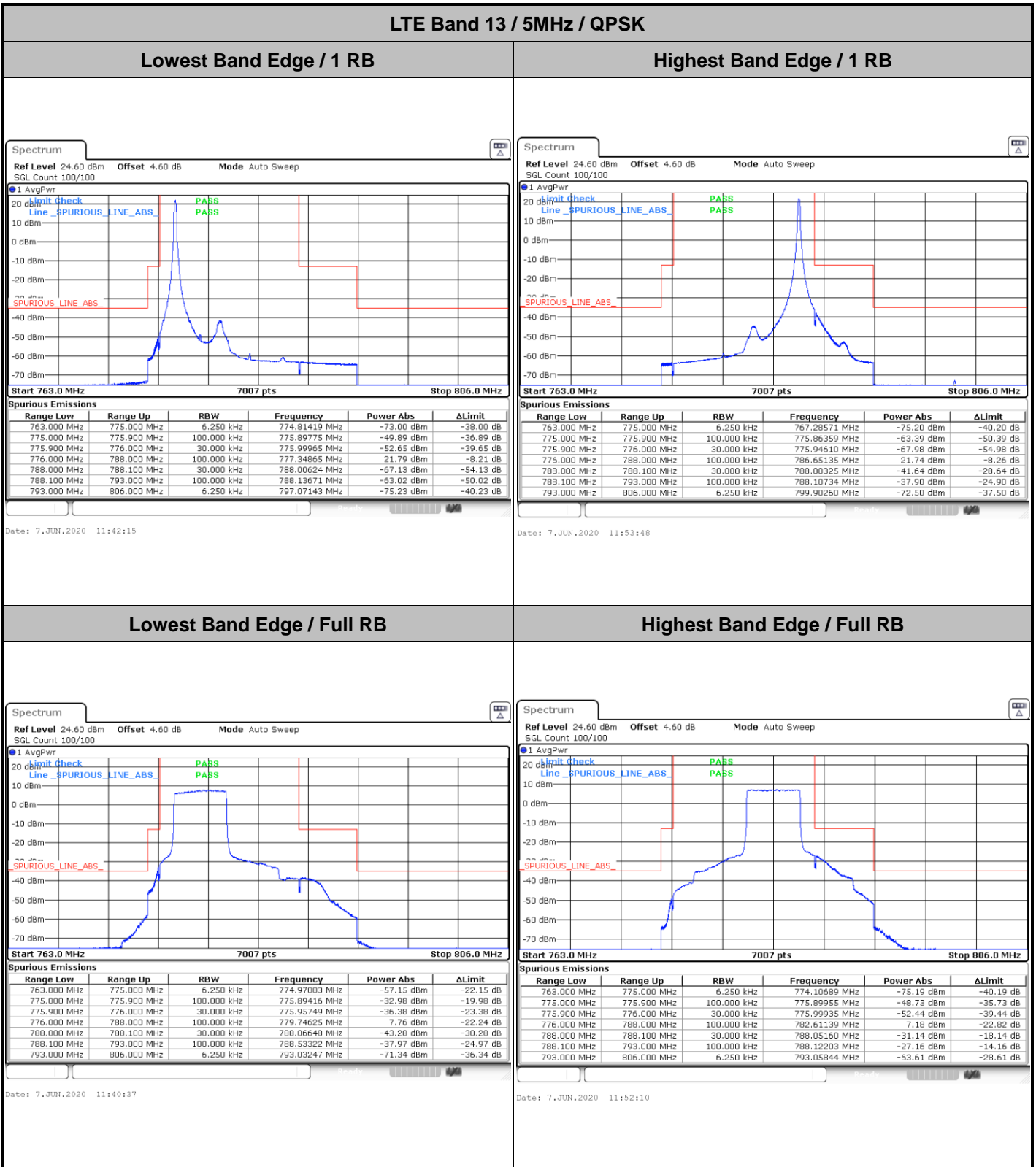


Date: 7, JUN, 2020 12:11:47





# Conducted Band Edge

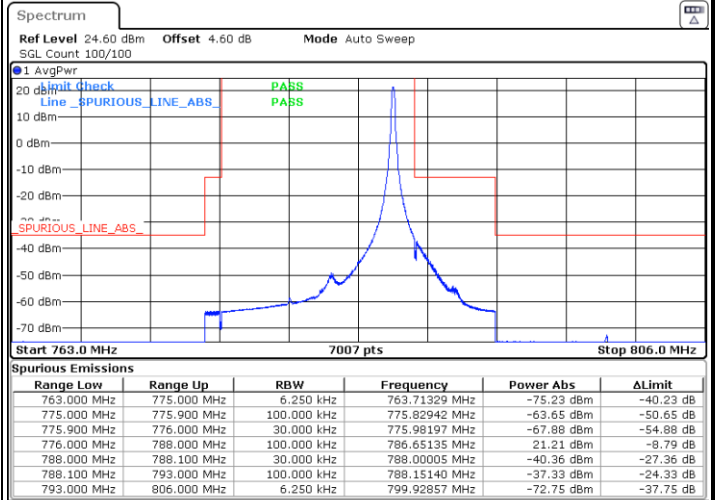
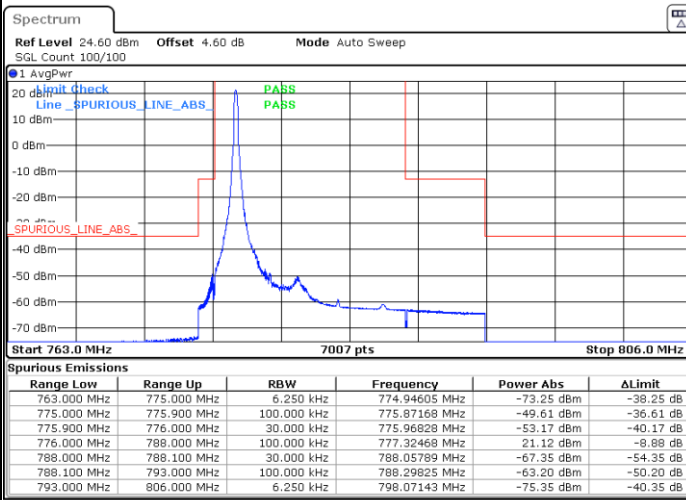




LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

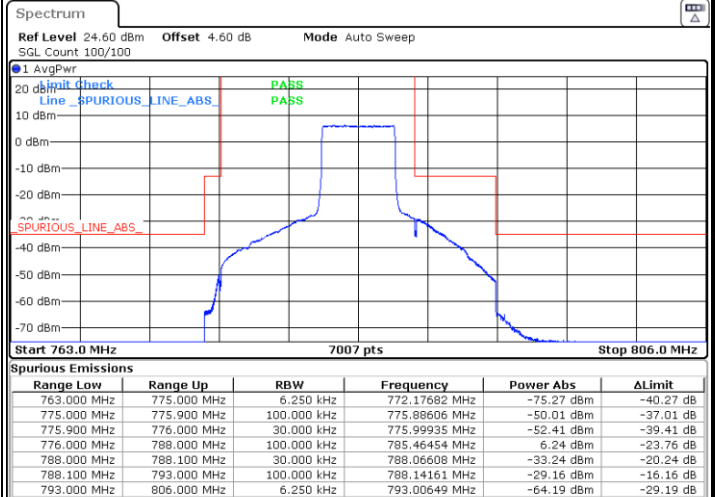
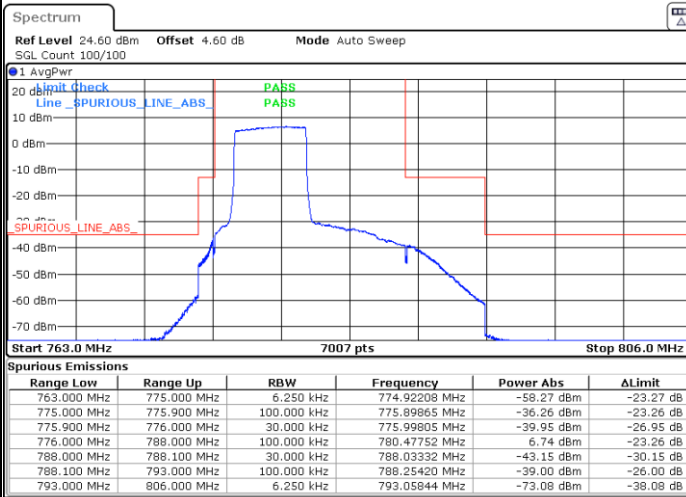


Date: 7.JUN.2020 11:43:54

Date: 7.JUN.2020 11:55:26

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 7.JUN.2020 11:38:58

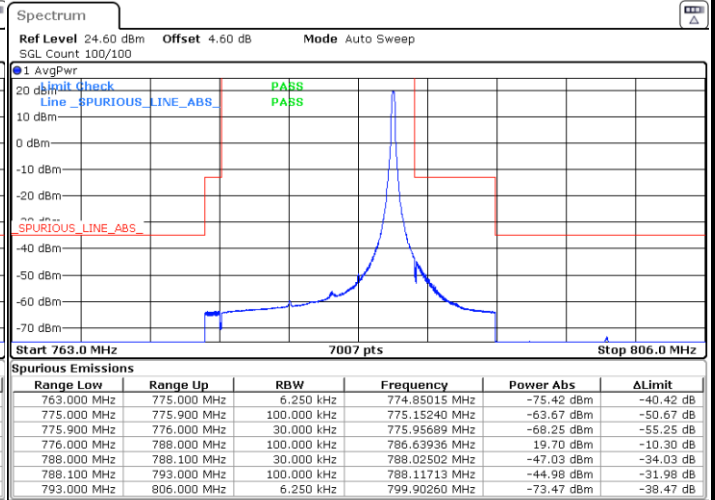
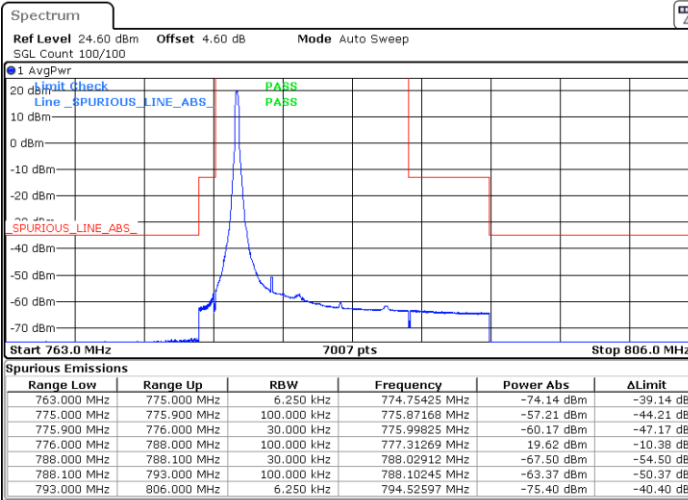
Date: 7.JUN.2020 11:50:32



LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

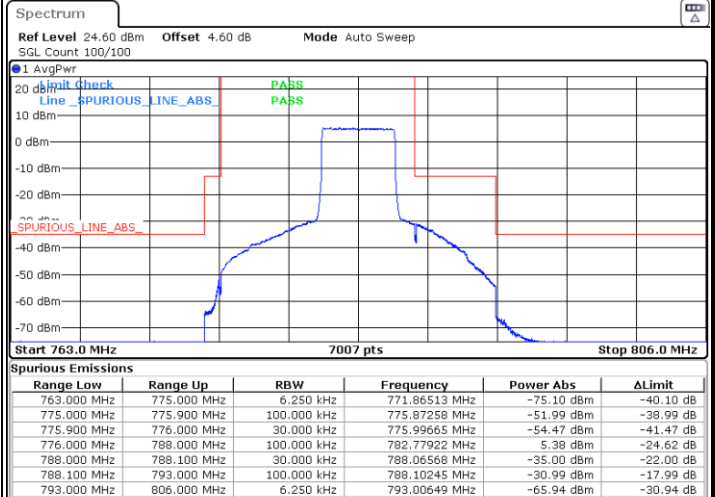
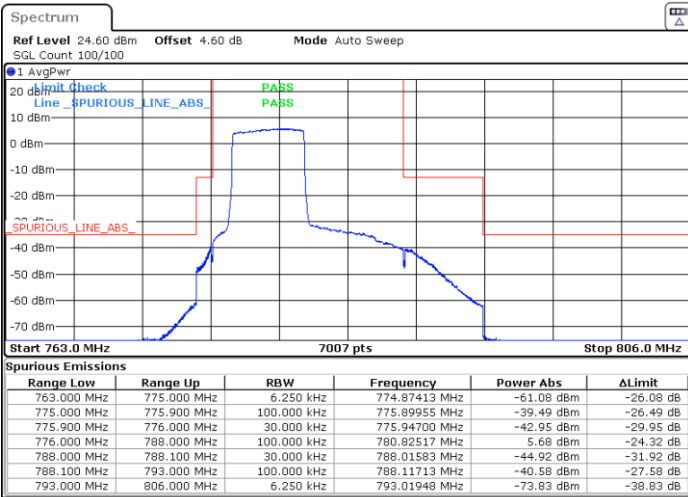


Date: 7 JUN.2020 12:13:55

Date: 7 JUN.2020 12:18:49

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



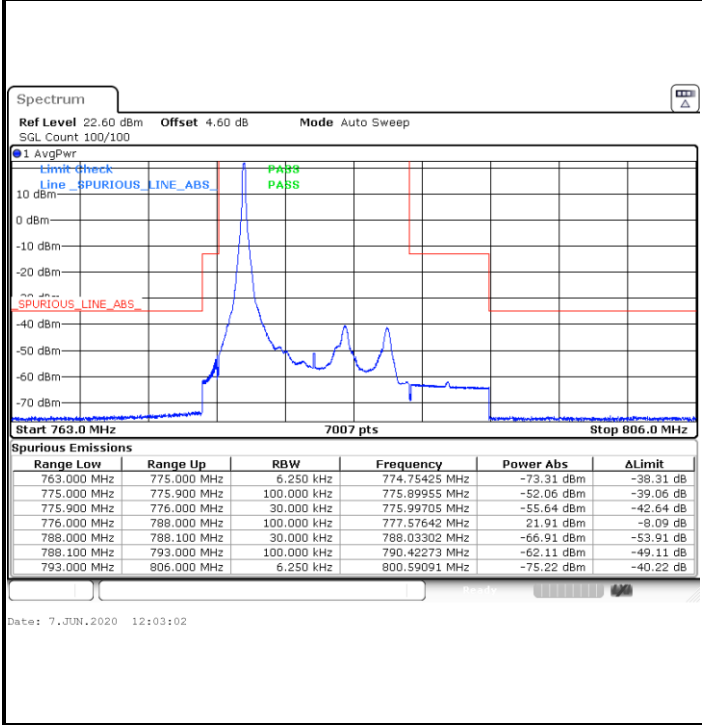
Date: 7 JUN.2020 12:15:33

Date: 7 JUN.2020 12:17:11

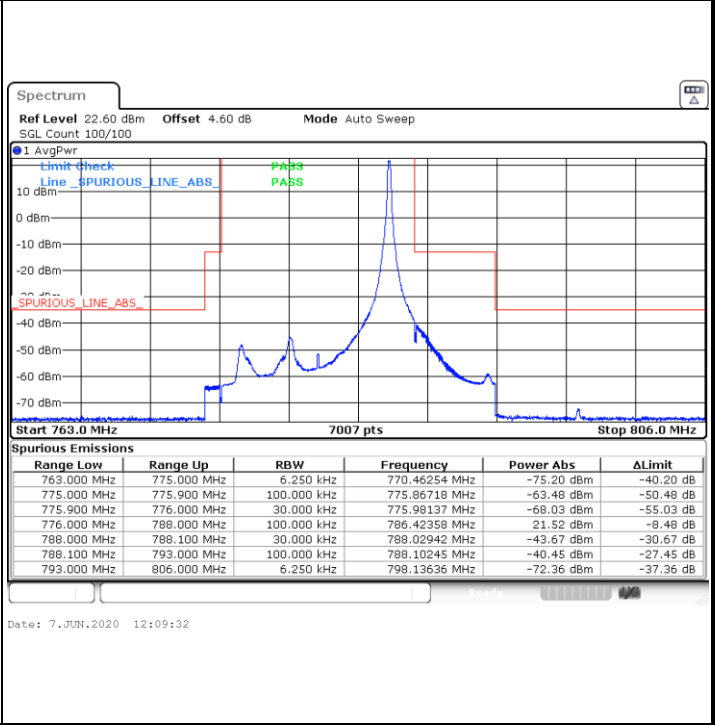


**LTE Band 13 / 10MHz / QPSK**

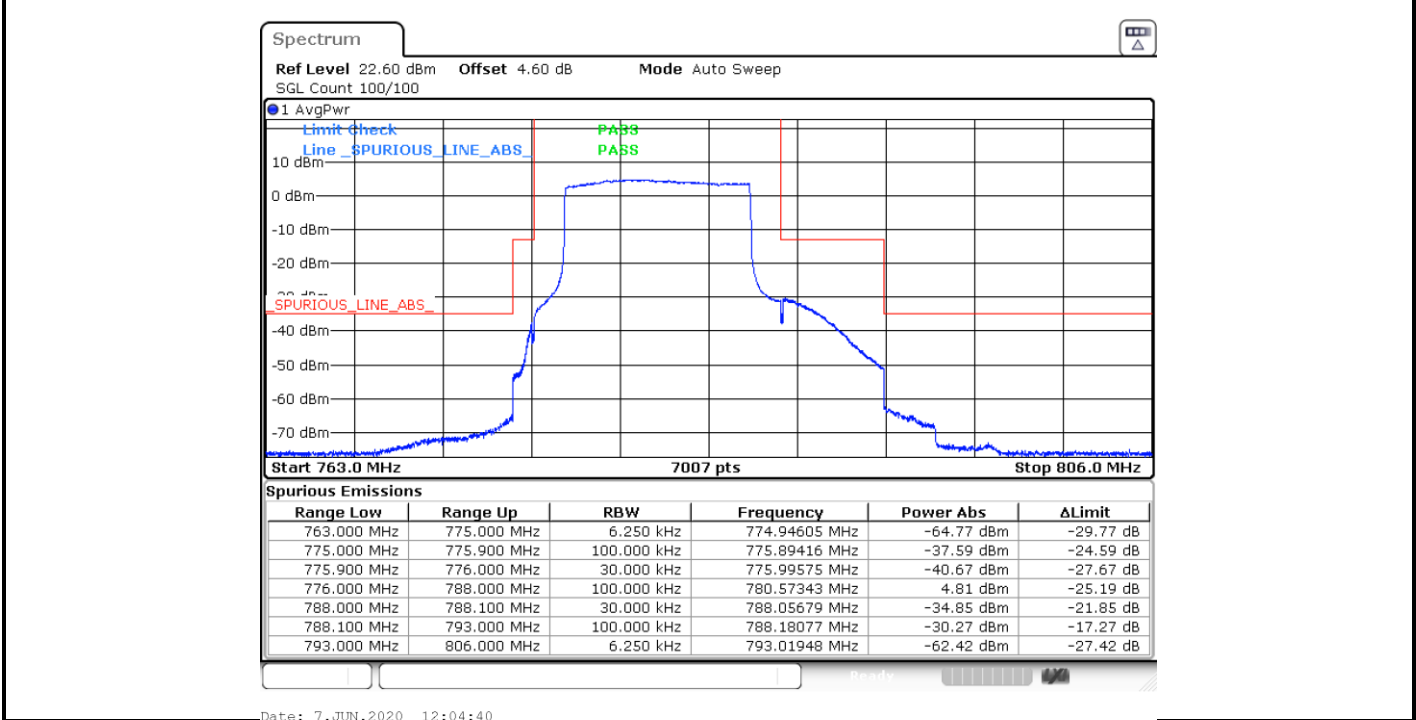
**Lowest Band Edge / 1 RB**



**Highest Band Edge / 1 RB**



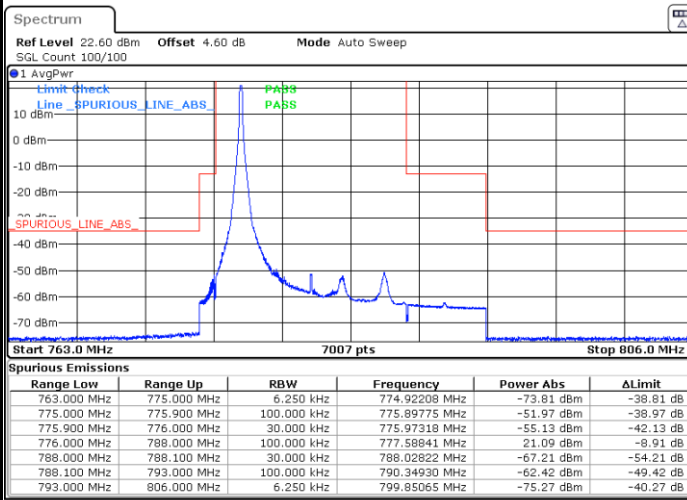
**Band Edge / Full RB**





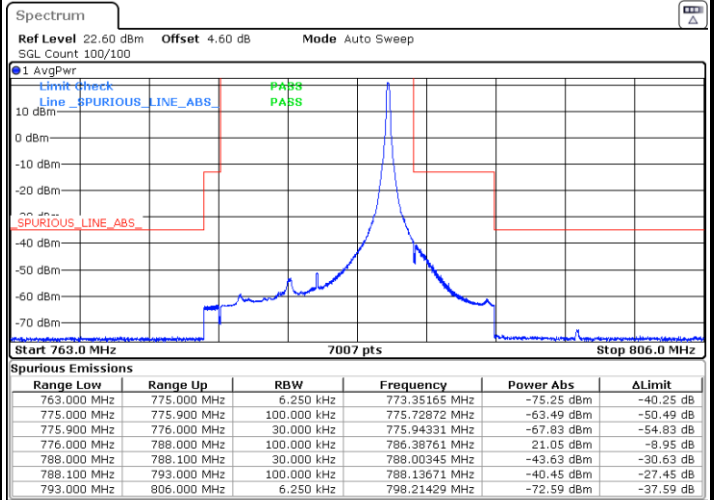
LTE Band 13 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



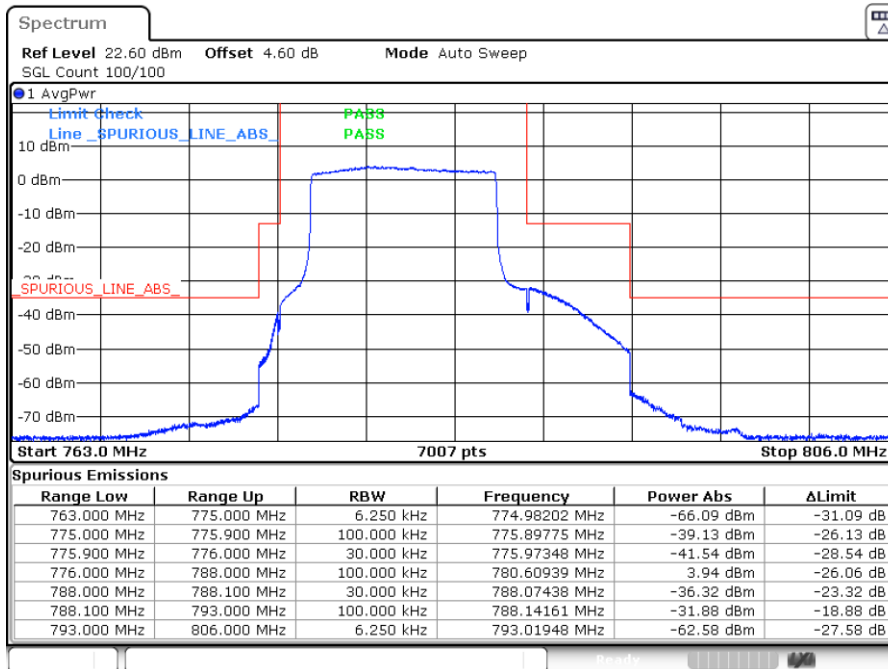
Date: 7 JUN.2020 12:01:24

Highest Band Edge / 1 RB



Date: 7 JUN.2020 12:07:55

Band Edge / Full RB



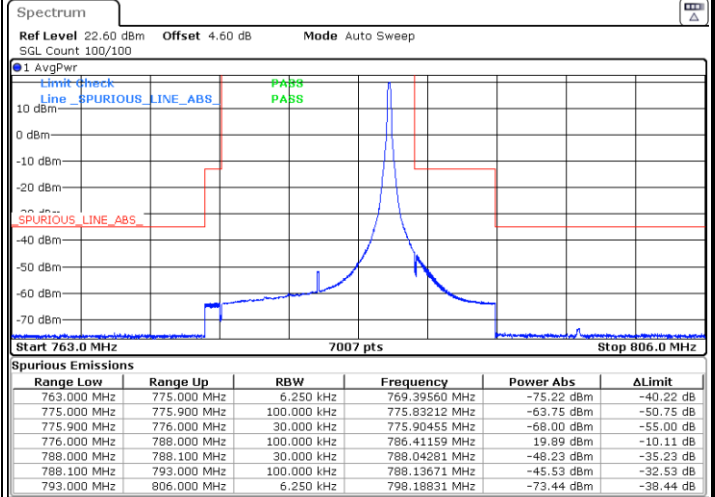
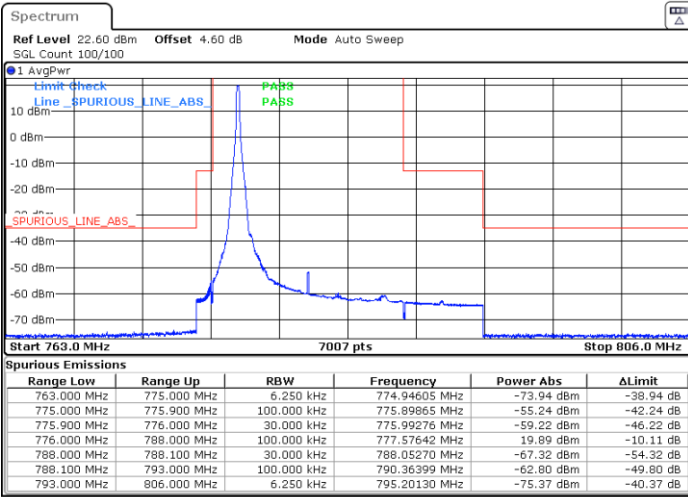
Date: 7 JUN.2020 12:06:17



LTE Band 13 / 10MHz / 64QAM

Lowest Band Edge / 1 RB

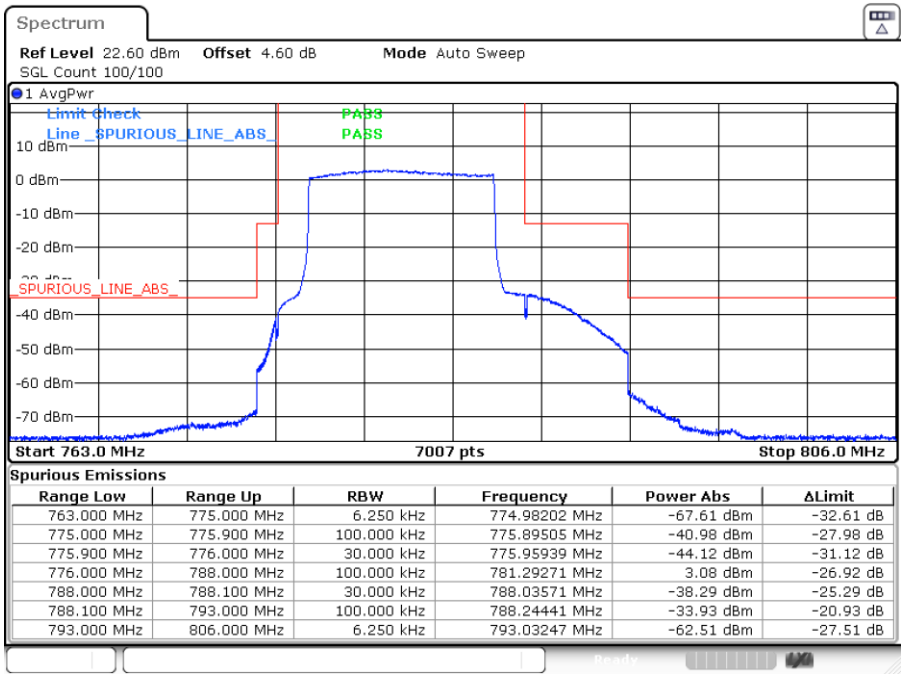
Highest Band Edge / 1 RB



Date: 7 JUN 2020 12:23:32

Date: 7 JUN 2020 12:25:10

Band Edge / Full RB



Date: 7 JUN 2020 12:26:47



# Conducted Spurious Emission

