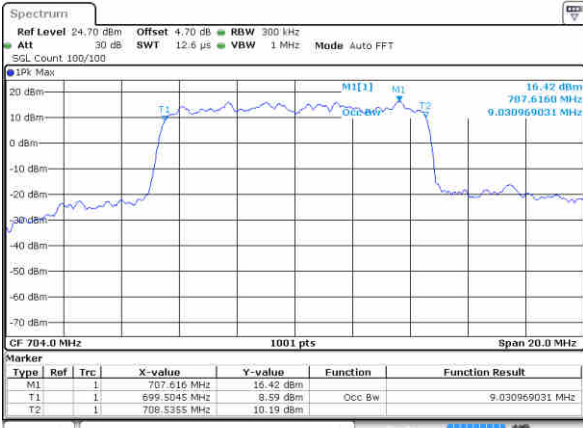




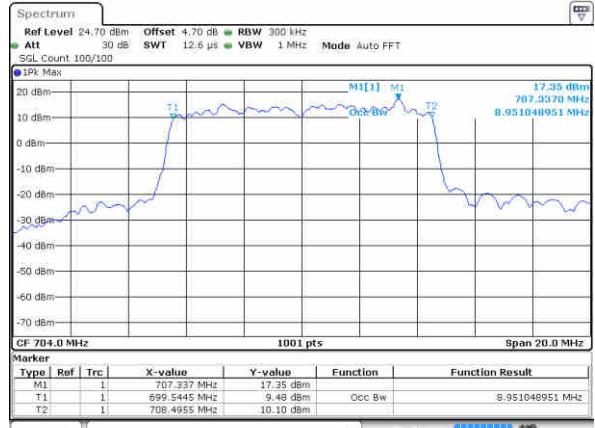
LTE Band 12

Lowest Channel / 10MHz / QPSK



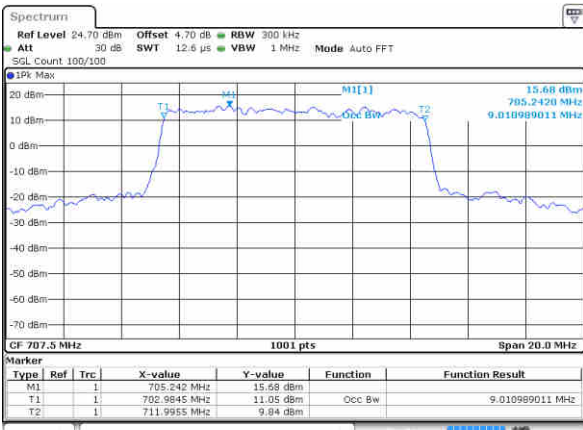
Date: 30 AUG 2020 13:46:29

Lowest Channel / 10MHz / 16QAM



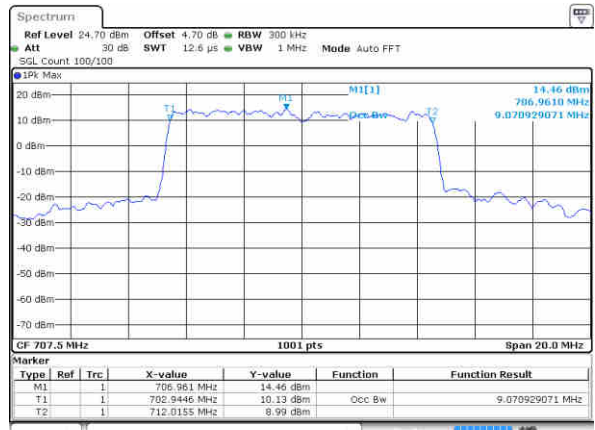
Date: 30 AUG 2020 13:46:39

Middle Channel / 10MHz / QPSK



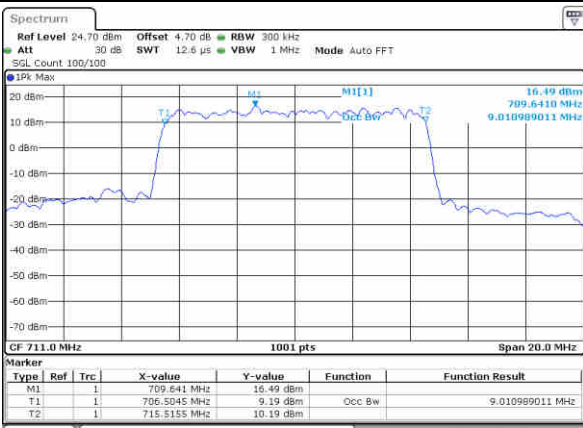
Date: 30 AUG 2020 13:46:59

Middle Channel / 10MHz / 16QAM



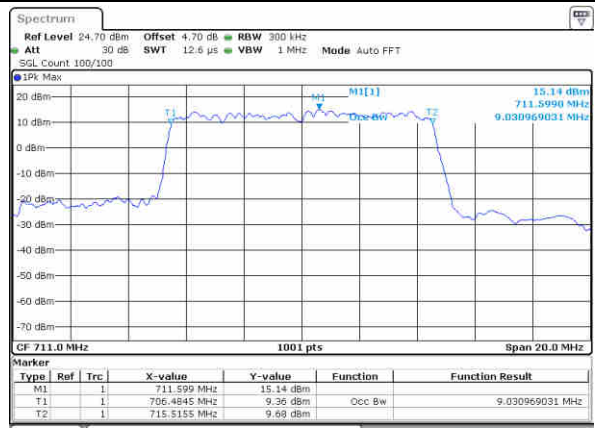
Date: 30 AUG 2020 13:46:49

Highest Channel / 10MHz / QPSK



Date: 30 AUG 2020 13:47:09

Highest Channel / 10MHz / 16QAM

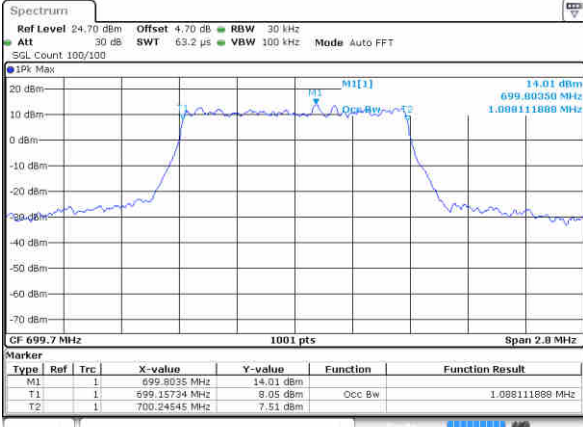


Date: 30 AUG 2020 13:47:19



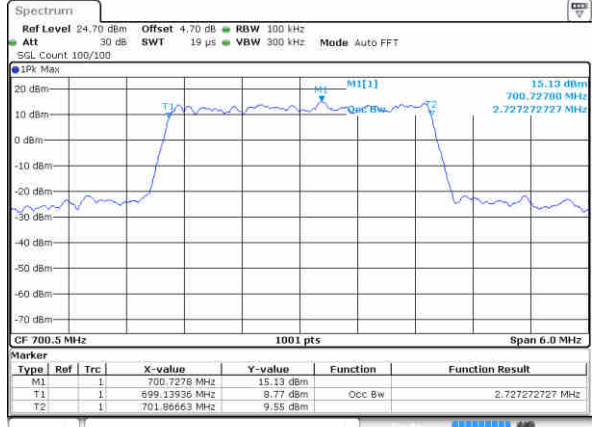
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



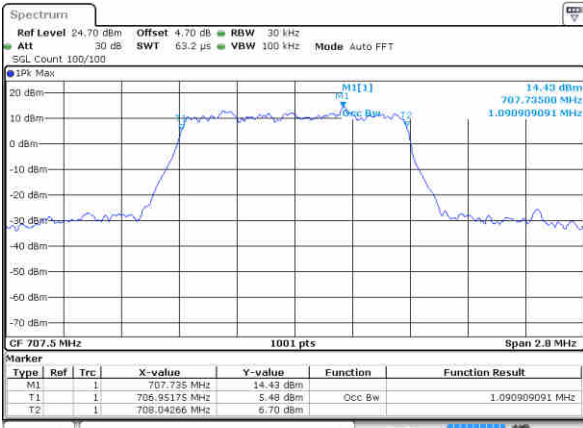
Date: 30 AUG 2020 14:05:08

Lowest Channel / 3MHz / 64QAM



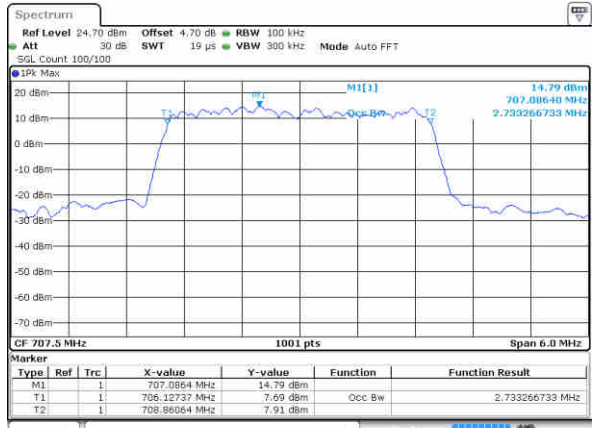
Date: 30 AUG 2020 14:28:18

Middle Channel / 1.4MHz / 64QAM



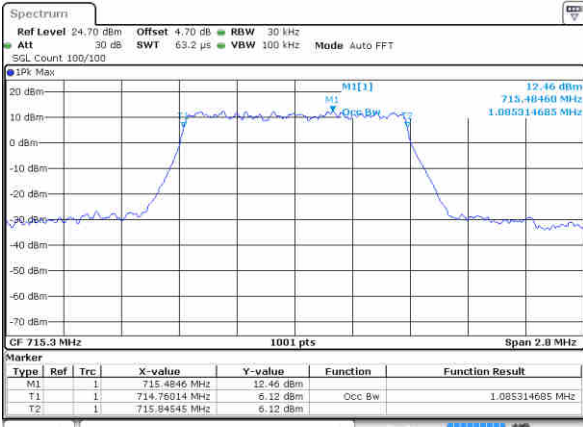
Date: 30 AUG 2020 14:05:28

Middle Channel / 3MHz / 64QAM



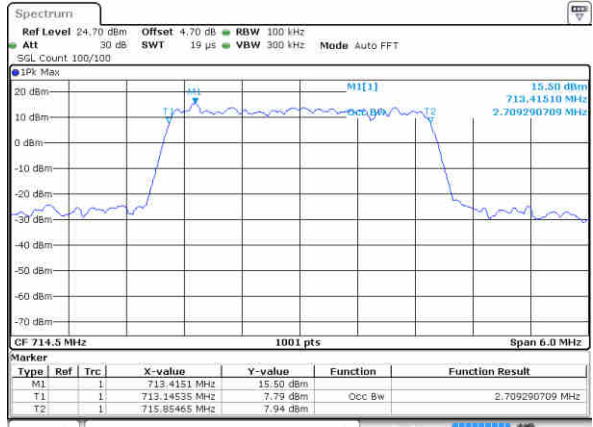
Date: 30 AUG 2020 14:28:38

Highest Channel / 1.4MHz / 64QAM



Date: 30 AUG 2020 14:05:48

Highest Channel / 3MHz / 64QAM

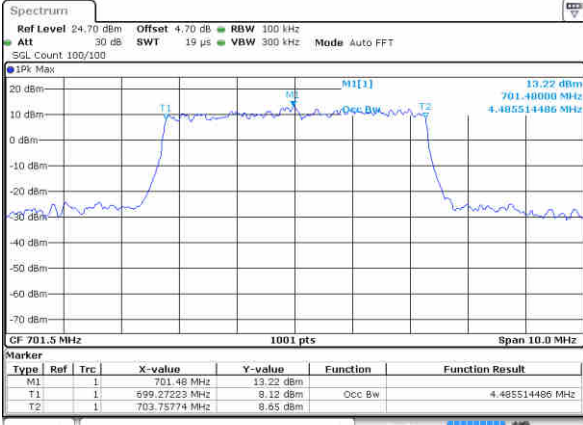


Date: 30 AUG 2020 14:28:59



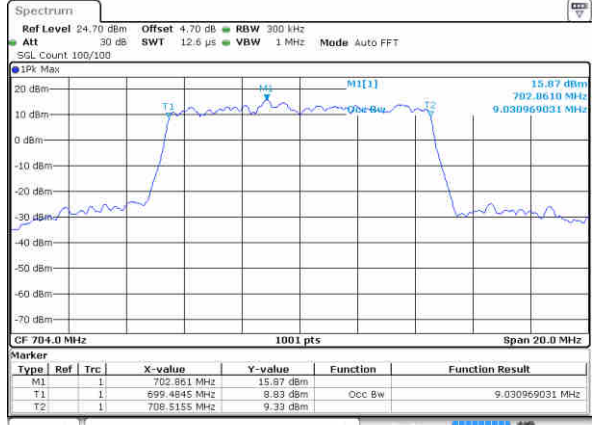
LTE Band 12

Lowest Channel / 5MHz / 64QAM



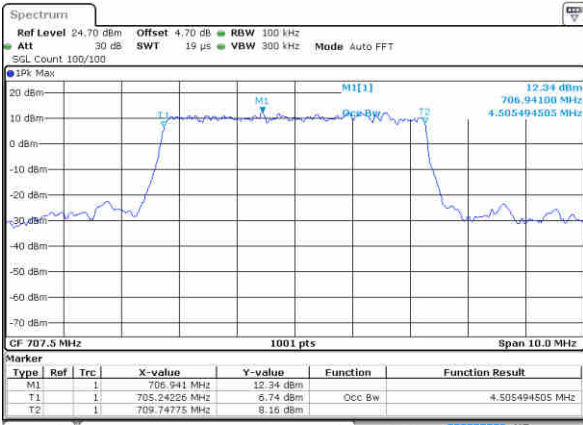
Date: 30 AUG 2020 14:34:32

Lowest Channel / 10MHz / 64QAM



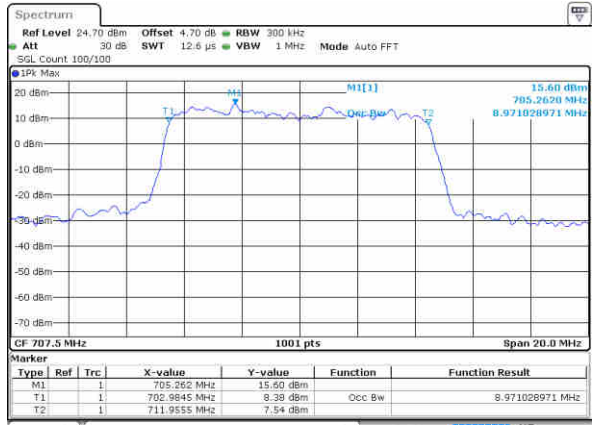
Date: 30 AUG 2020 14:46:06

Middle Channel / 5MHz / 64QAM



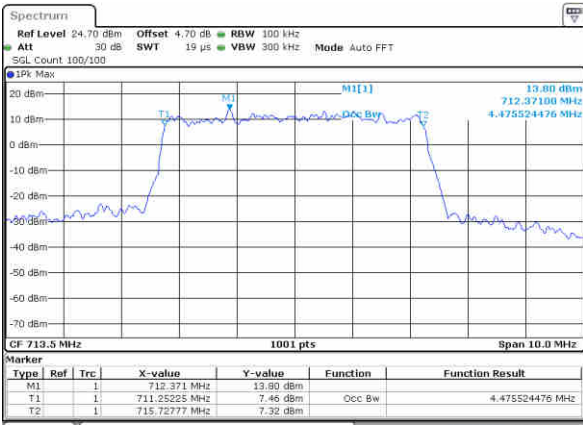
Date: 30 AUG 2020 14:34:52

Middle Channel / 10MHz / 64QAM



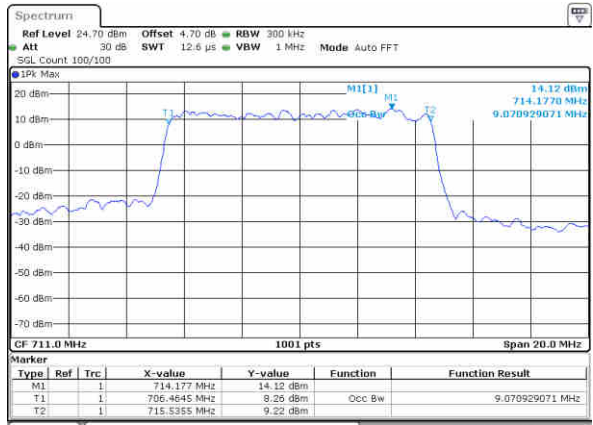
Date: 30 AUG 2020 14:46:26

Highest Channel / 5MHz / 64QAM



Date: 30 AUG 2020 14:35:12

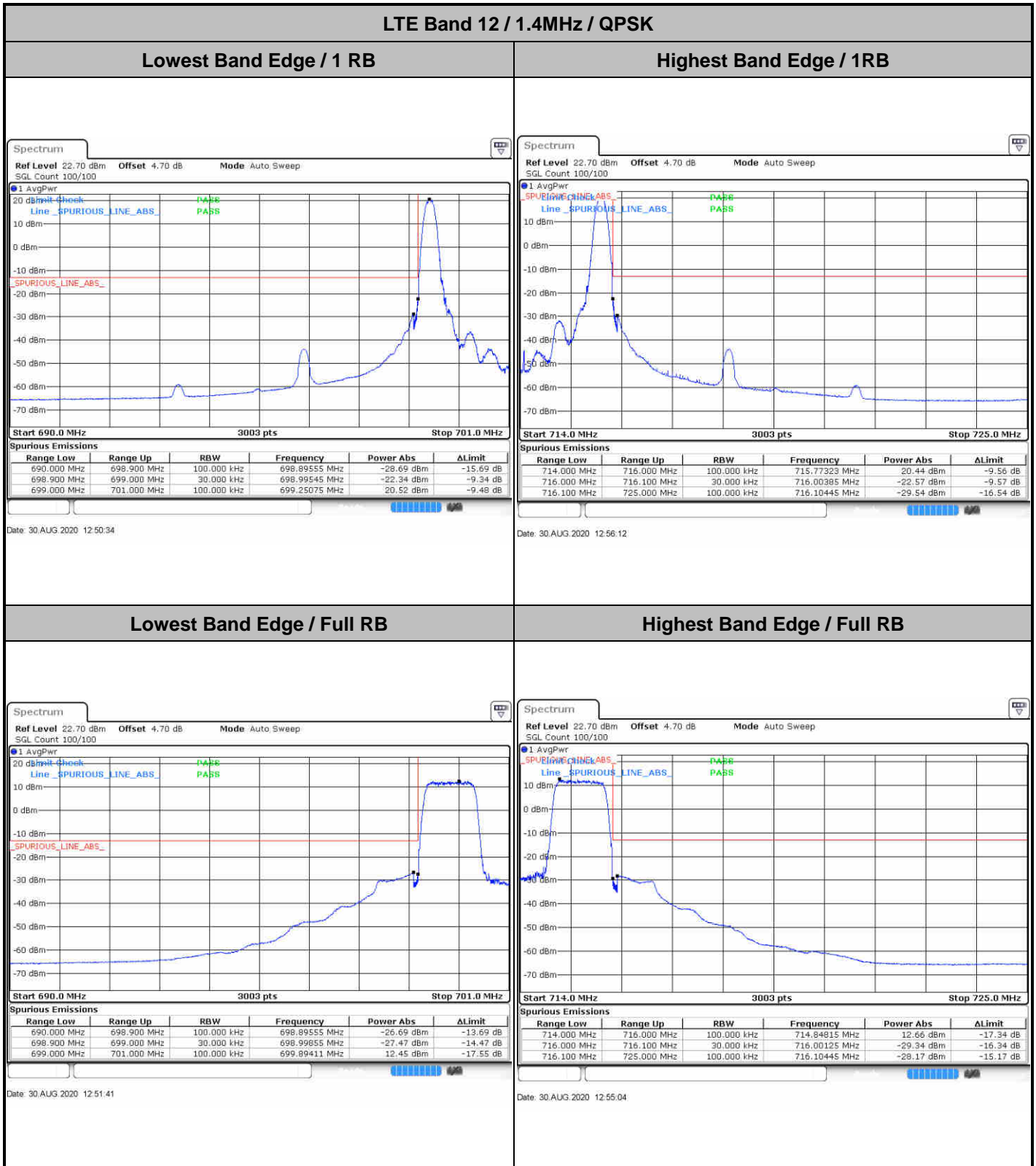
Highest Channel / 10MHz / 64QAM



Date: 30 AUG 2020 14:46:46



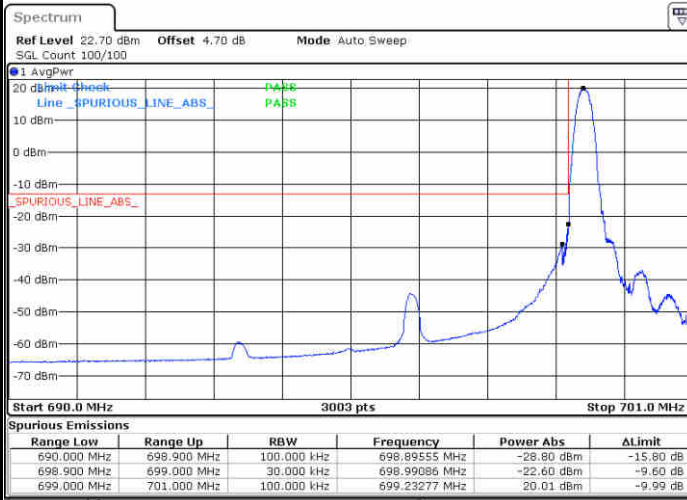
Conducted Band Edge





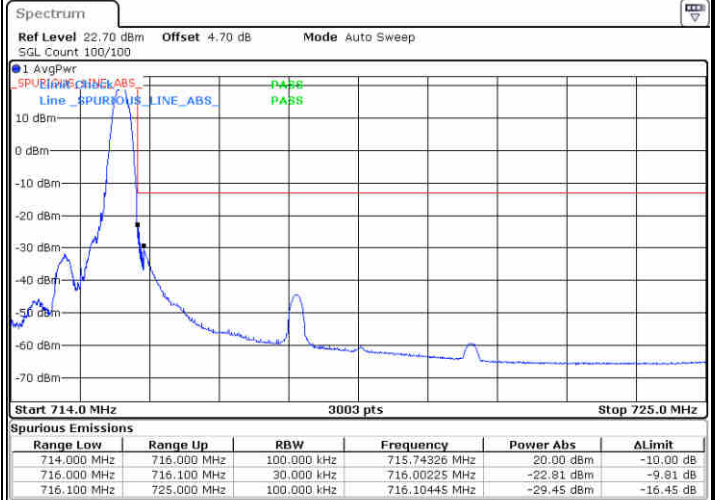
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 30 AUG 2020 12:49:26

Highest Band Edge / 1 RB



Date: 30 AUG 2020 12:57:19

Lowest Band Edge / Full RB



Date: 30 AUG 2020 12:52:49

Highest Band Edge / Full RB

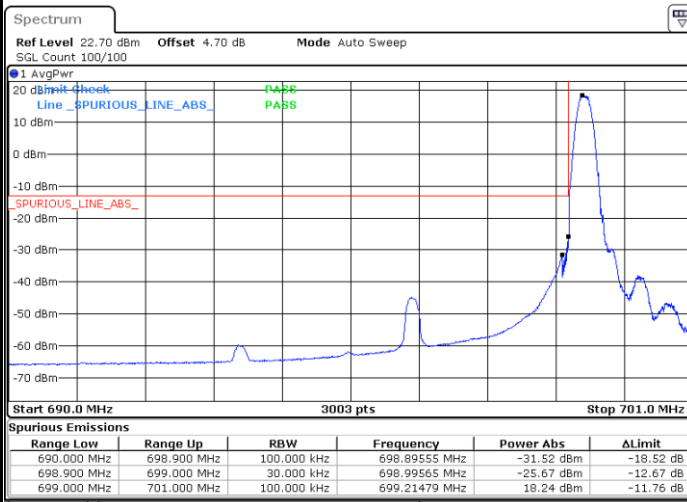


Date: 30 AUG 2020 12:53:56



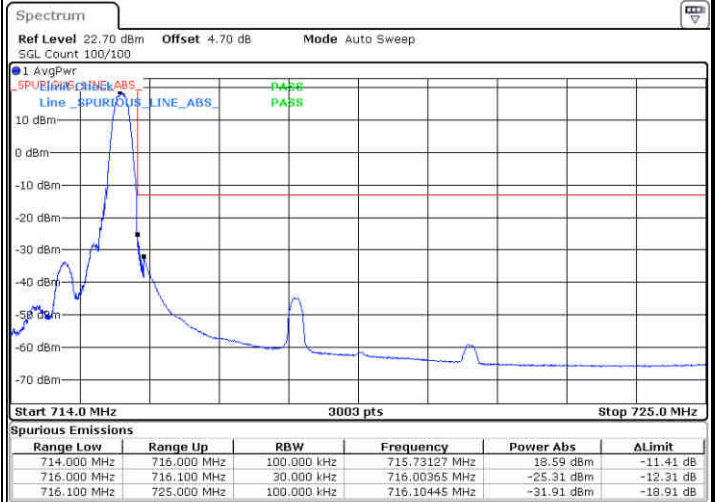
LTE Band 12 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



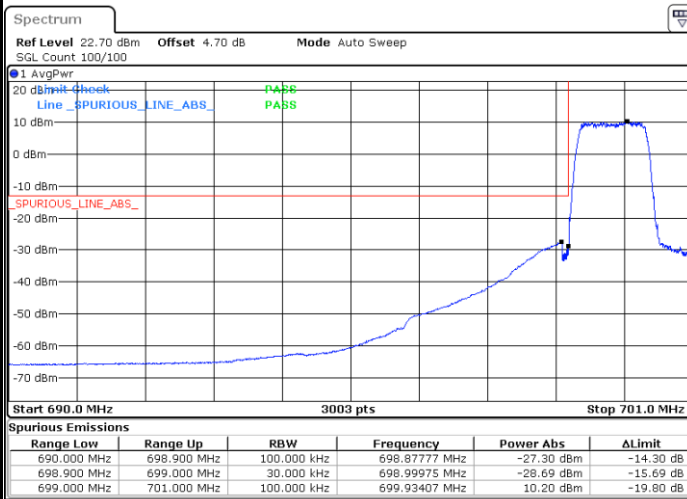
Date: 30 AUG 2020 14:09:21

Highest Band Edge / 1 RB



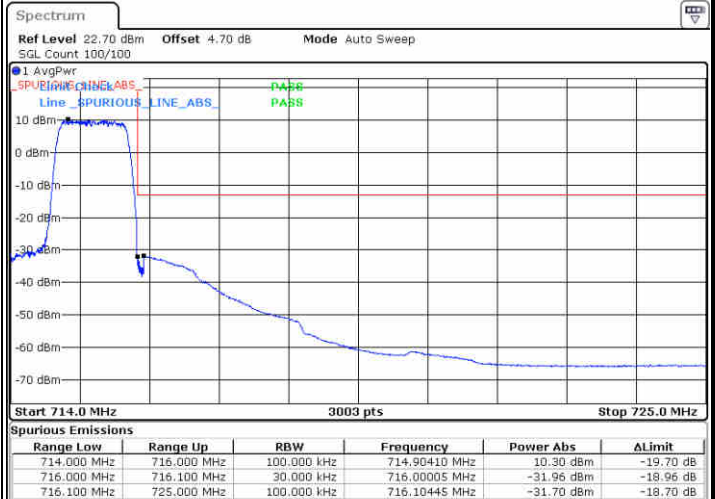
Date: 30 AUG 2020 14:07:08

Lowest Band Edge / Full RB



Date: 30 AUG 2020 14:10:29

Highest Band Edge / Full RB

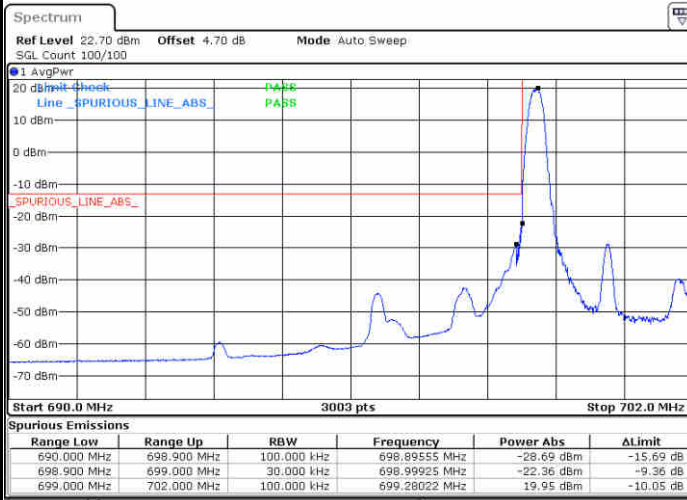


Date: 30 AUG 2020 14:08:14



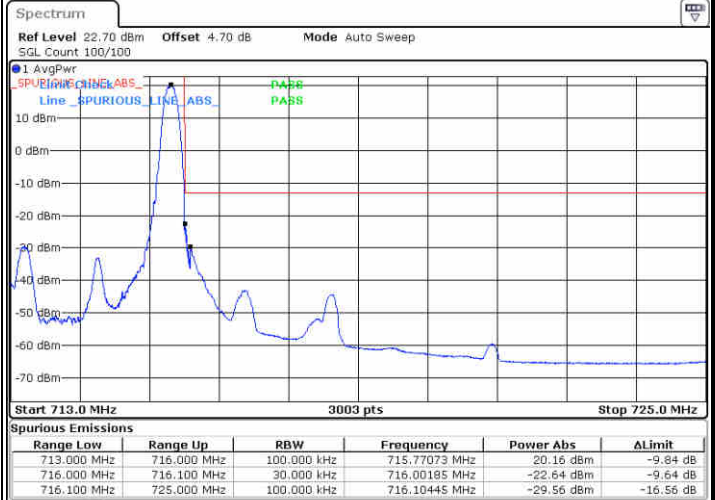
LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



Date: 30 AUG 2020 13:08:07

Highest Band Edge / 1 RB



Date: 30 AUG 2020 13:13:45

Lowest Band Edge / Full RB



Date: 30 AUG 2020 13:09:14

Highest Band Edge / Full RB

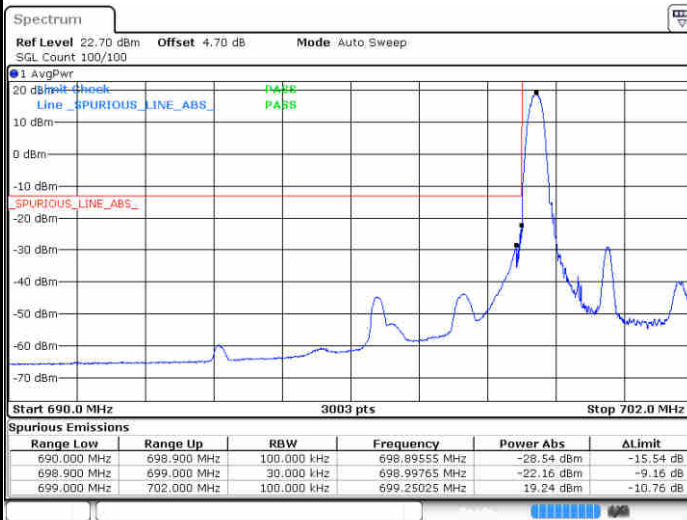


Date: 30 AUG 2020 13:12:37



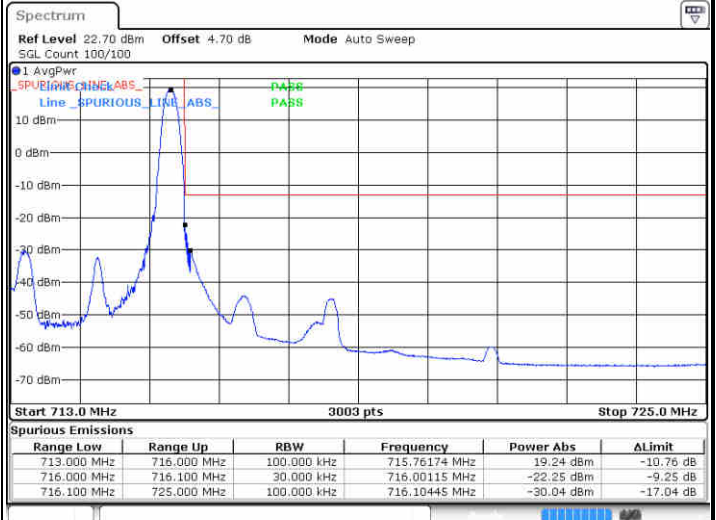
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



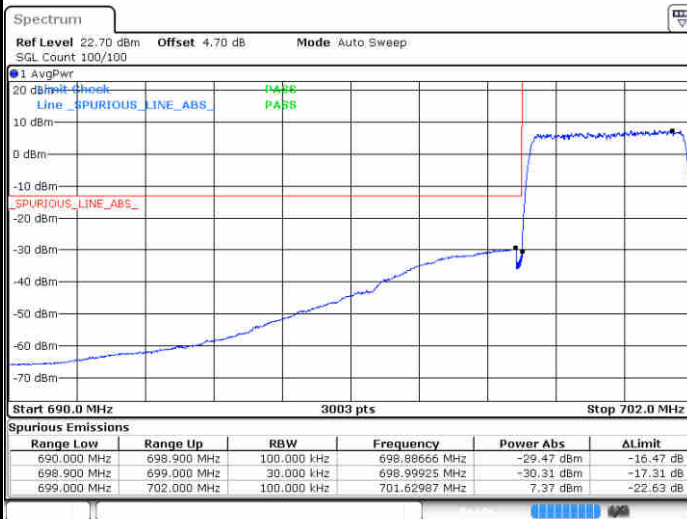
Date: 30 AUG 2020 13:06:59

Highest Band Edge / 1 RB



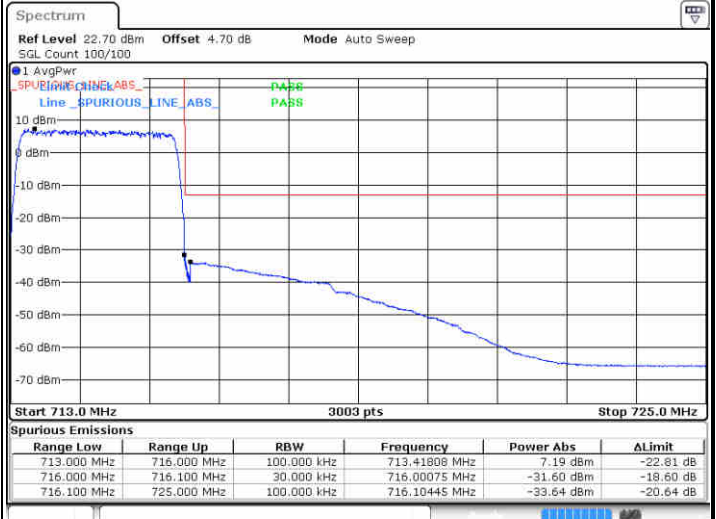
Date: 30 AUG 2020 13:14:52

Lowest Band Edge / Full RB



Date: 30 AUG 2020 13:10:22

Highest Band Edge / Full RB

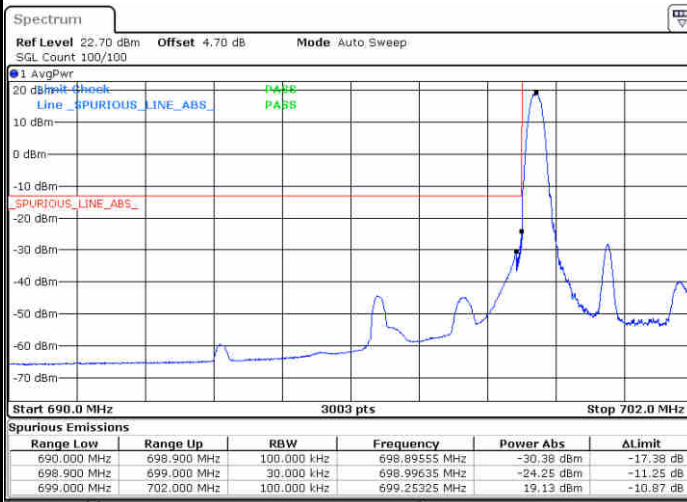


Date: 30 AUG 2020 13:11:30



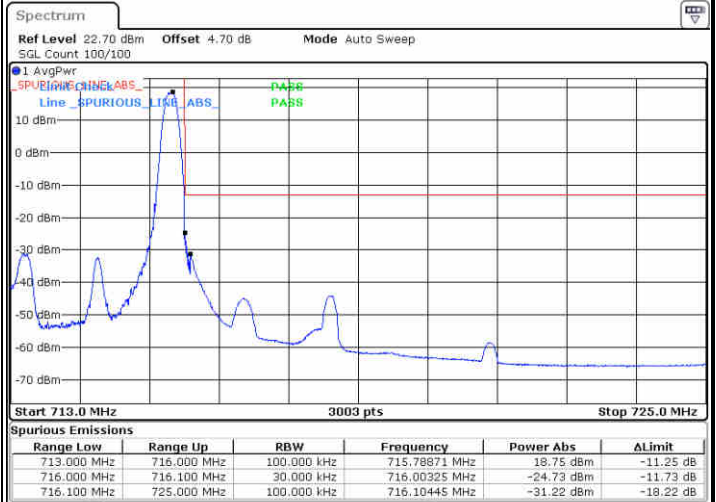
LTE Band 12 / 3MHz / 64QAM

Lowest Band Edge / 1 RB



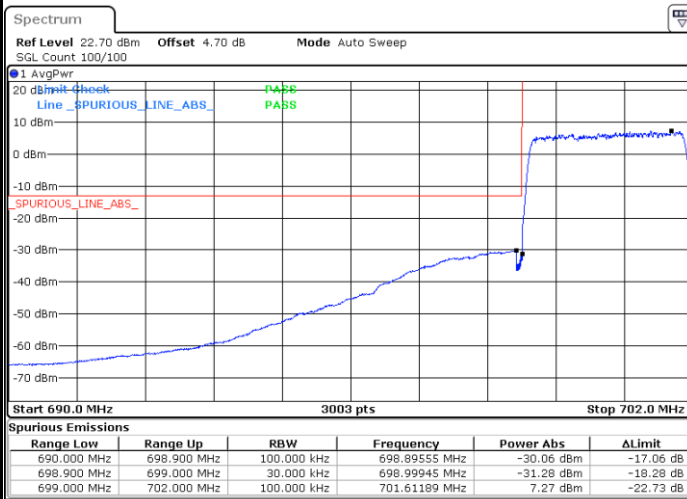
Date: 30 AUG 2020 14:30:17

Highest Band Edge / 1 RB



Date: 30 AUG 2020 14:33:39

Lowest Band Edge / Full RB



Date: 30 AUG 2020 14:31:24

Highest Band Edge / Full RB

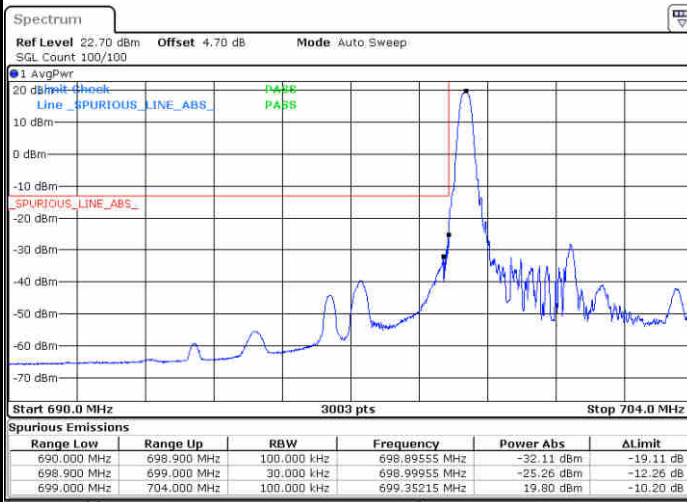


Date: 30 AUG 2020 14:32:32



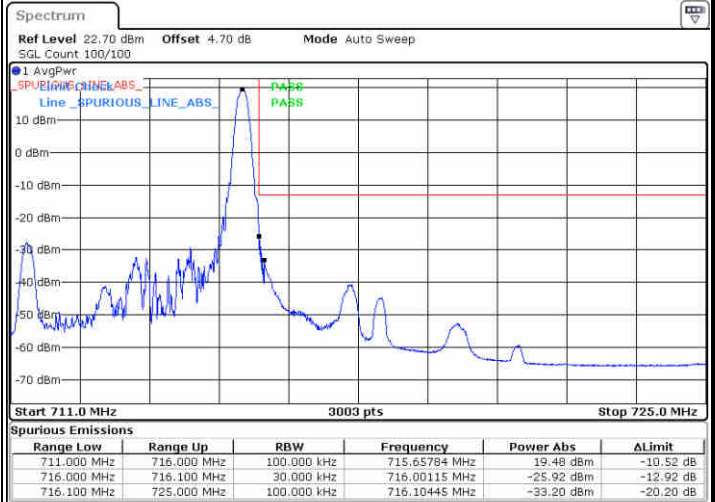
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



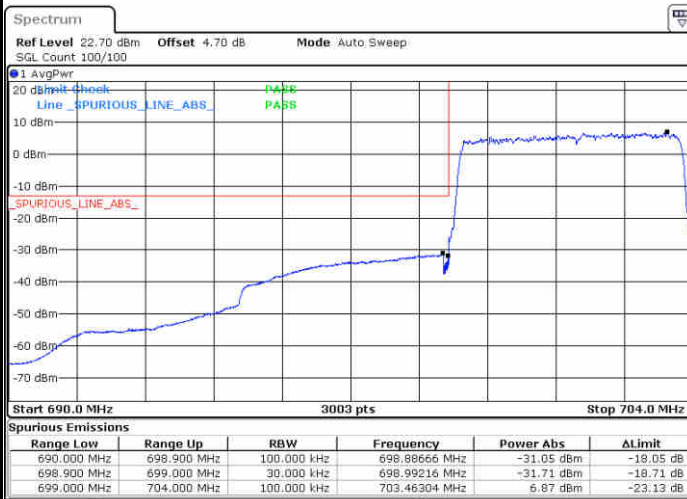
Date: 30 AUG 2020 13:25:05

Highest Band Edge / 1 RB



Date: 30 AUG 2020 13:30:43

Lowest Band Edge / Full RB



Date: 30 AUG 2020 13:26:13

Highest Band Edge / Full RB

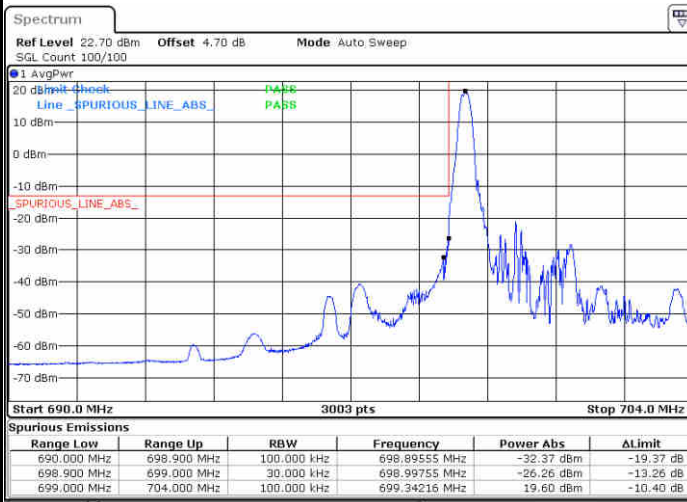


Date: 30 AUG 2020 13:29:35



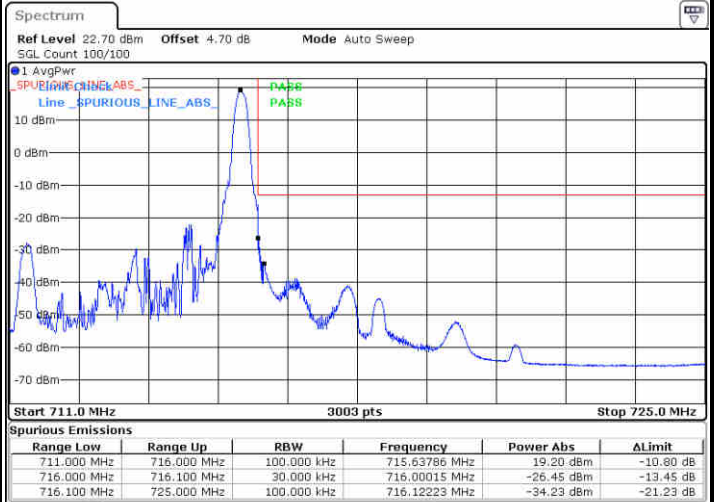
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



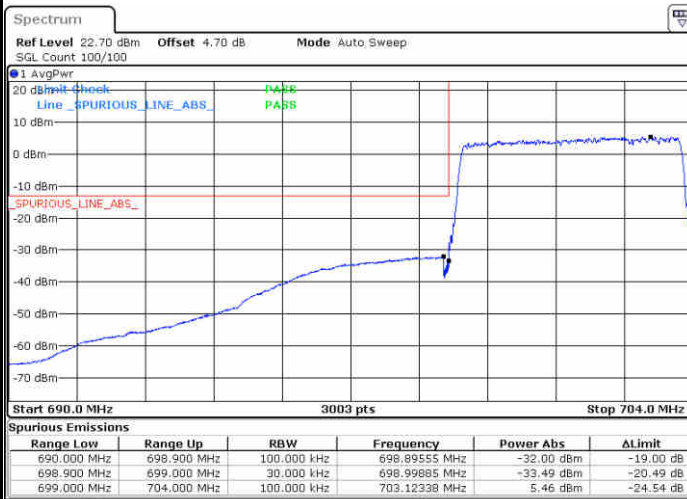
Date: 30 AUG 2020 13:23:57

Highest Band Edge / 1 RB



Date: 30 AUG 2020 13:31:50

Lowest Band Edge / Full RB



Date: 30 AUG 2020 13:27:20

Highest Band Edge / Full RB

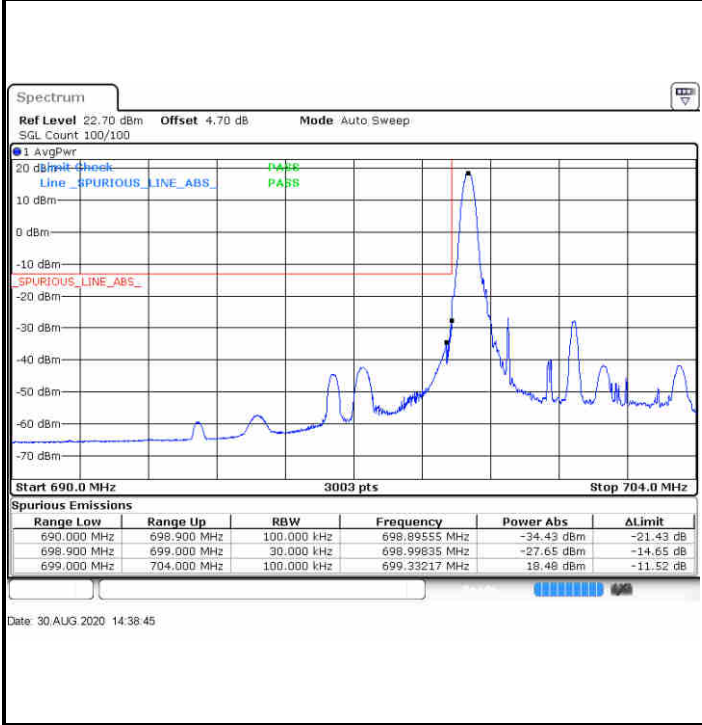


Date: 30 AUG 2020 13:28:28

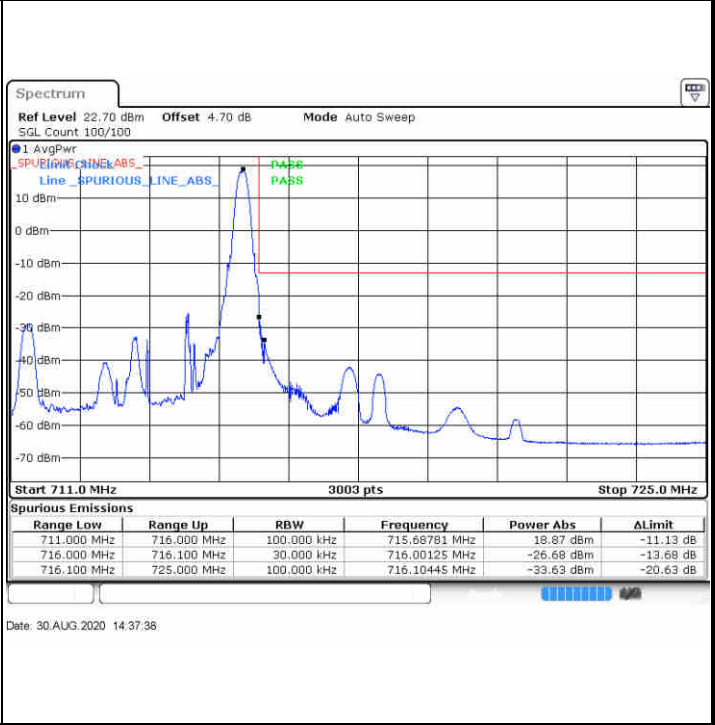


LTE Band 12 / 5MHz / 64QAM

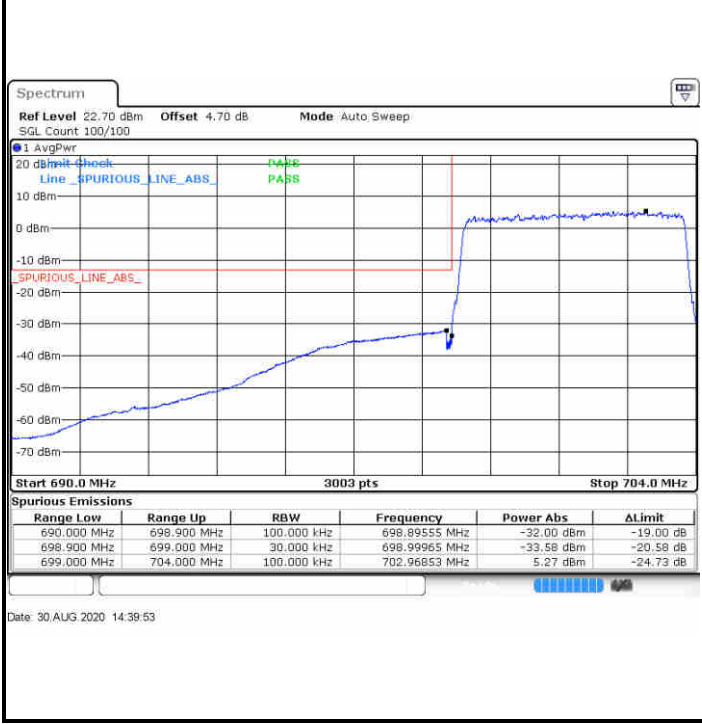
Lowest Band Edge / 1RB



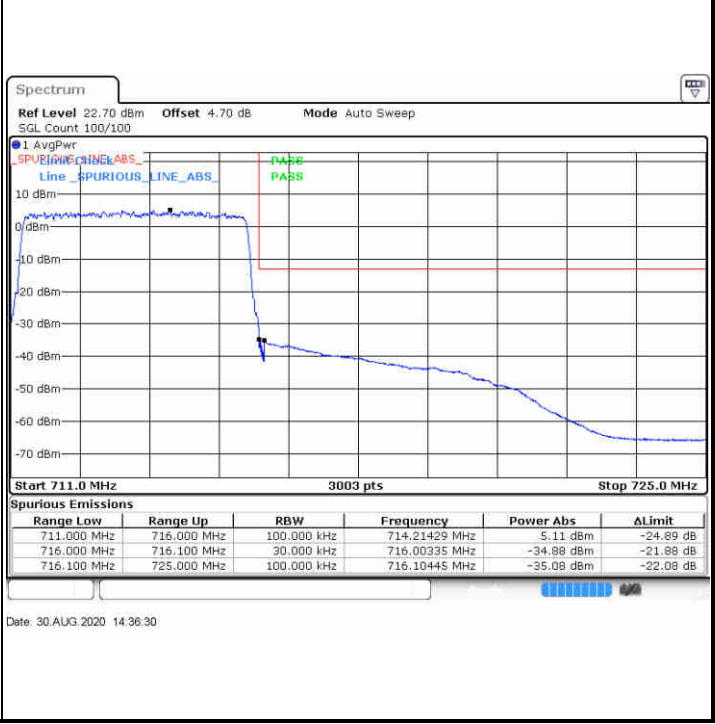
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



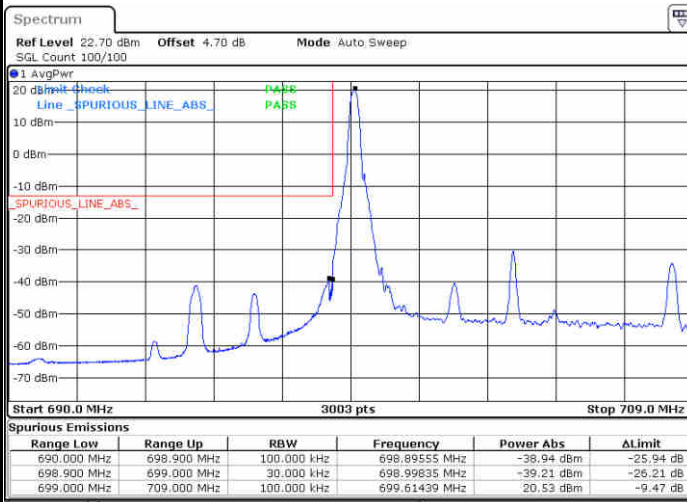
Highest Band Edge / Full RB





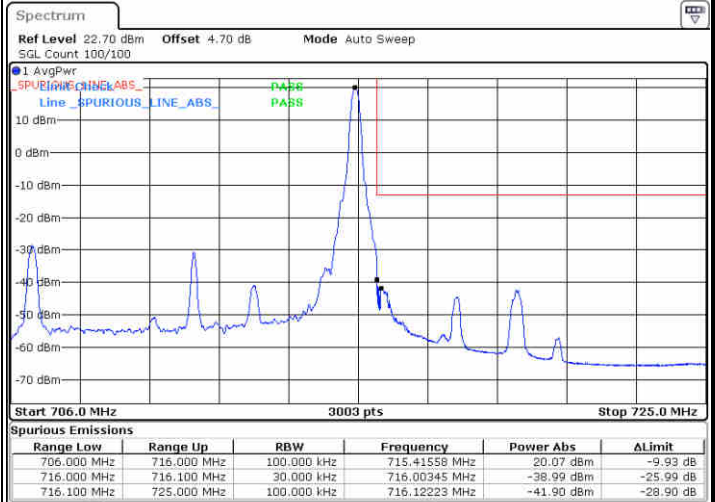
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



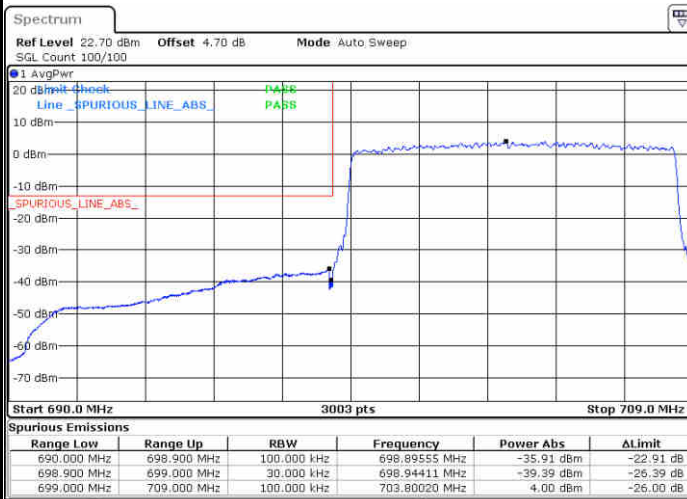
Date: 30 AUG 2020 13:56:03

Highest Band Edge / 1 RB



Date: 30 AUG 2020 14:01:41

Lowest Band Edge / Full RB



Date: 30 AUG 2020 13:57:10

Highest Band Edge / Full RB

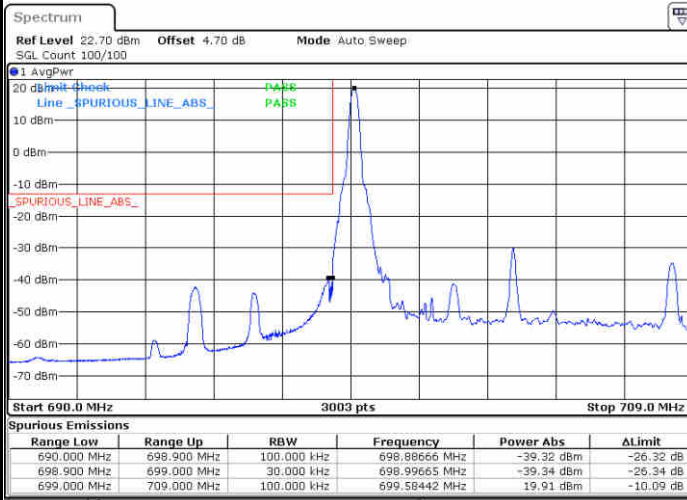


Date: 30 AUG 2020 14:00:33



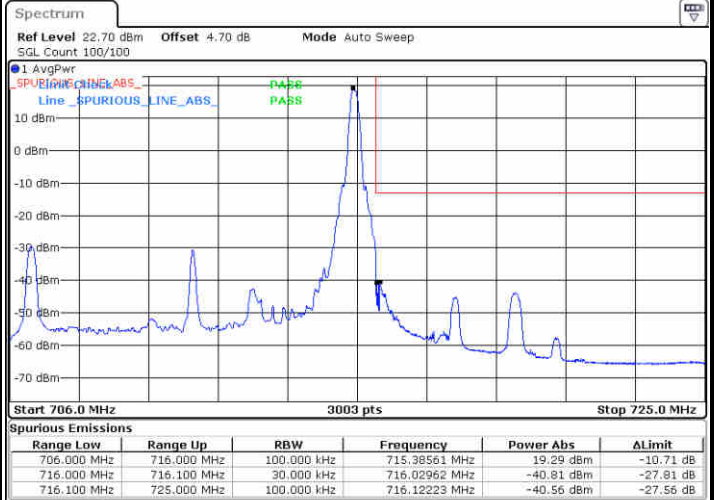
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



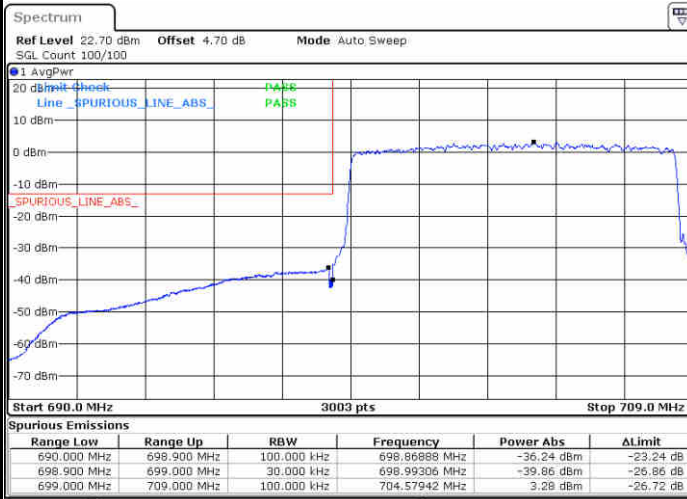
Date: 30 AUG 2020 13:54:55

Highest Band Edge / 1 RB



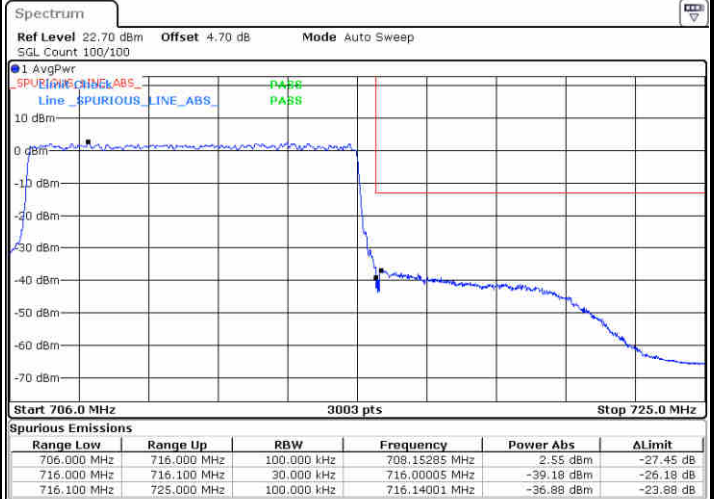
Date: 30 AUG 2020 14:02:46

Lowest Band Edge / Full RB



Date: 30 AUG 2020 13:56:18

Highest Band Edge / Full RB

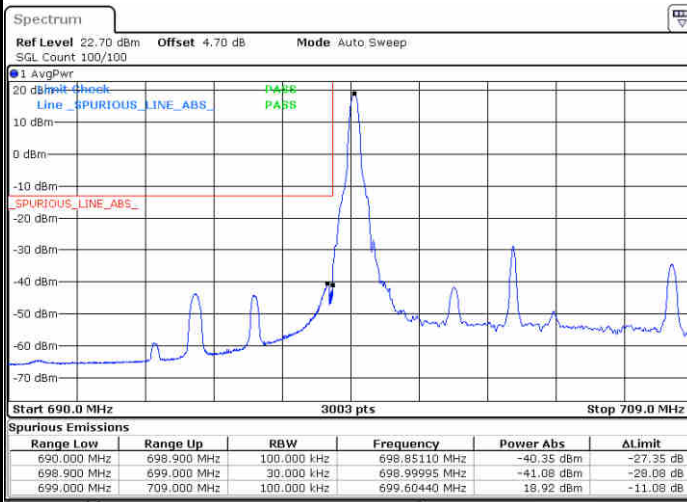


Date: 30 AUG 2020 13:59:26



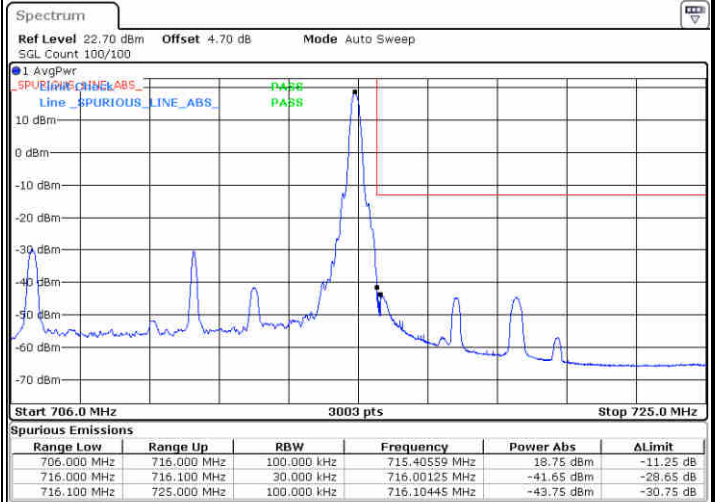
LTE Band 12 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



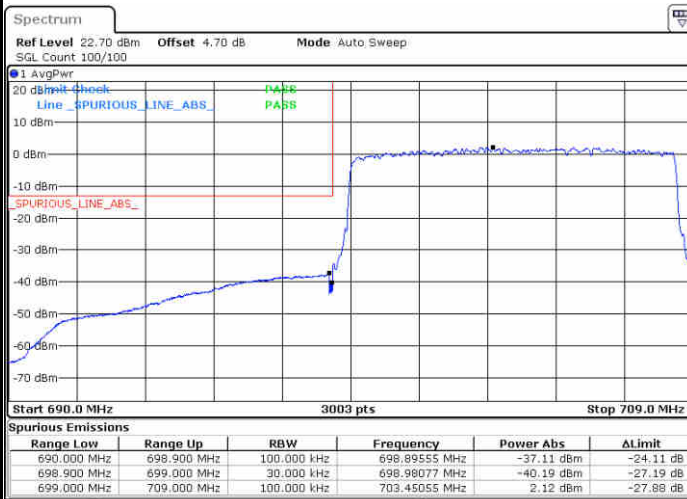
Date: 30 AUG 2020 14:50:19

Highest Band Edge / 1 RB



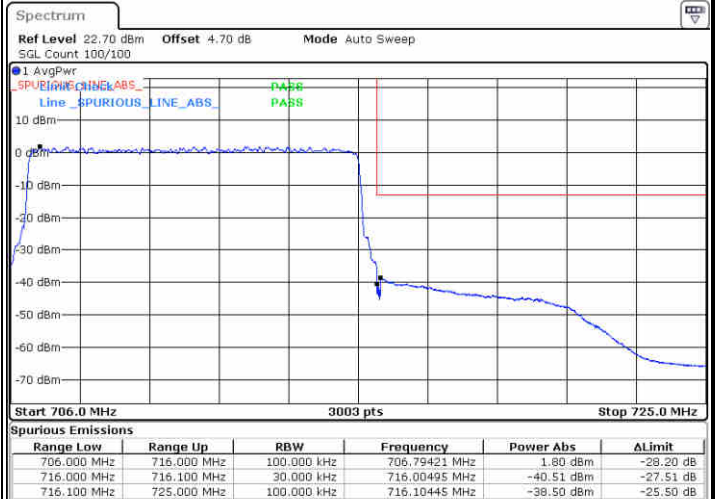
Date: 30 AUG 2020 14:49:12

Lowest Band Edge / Full RB



Date: 30 AUG 2020 14:51:27

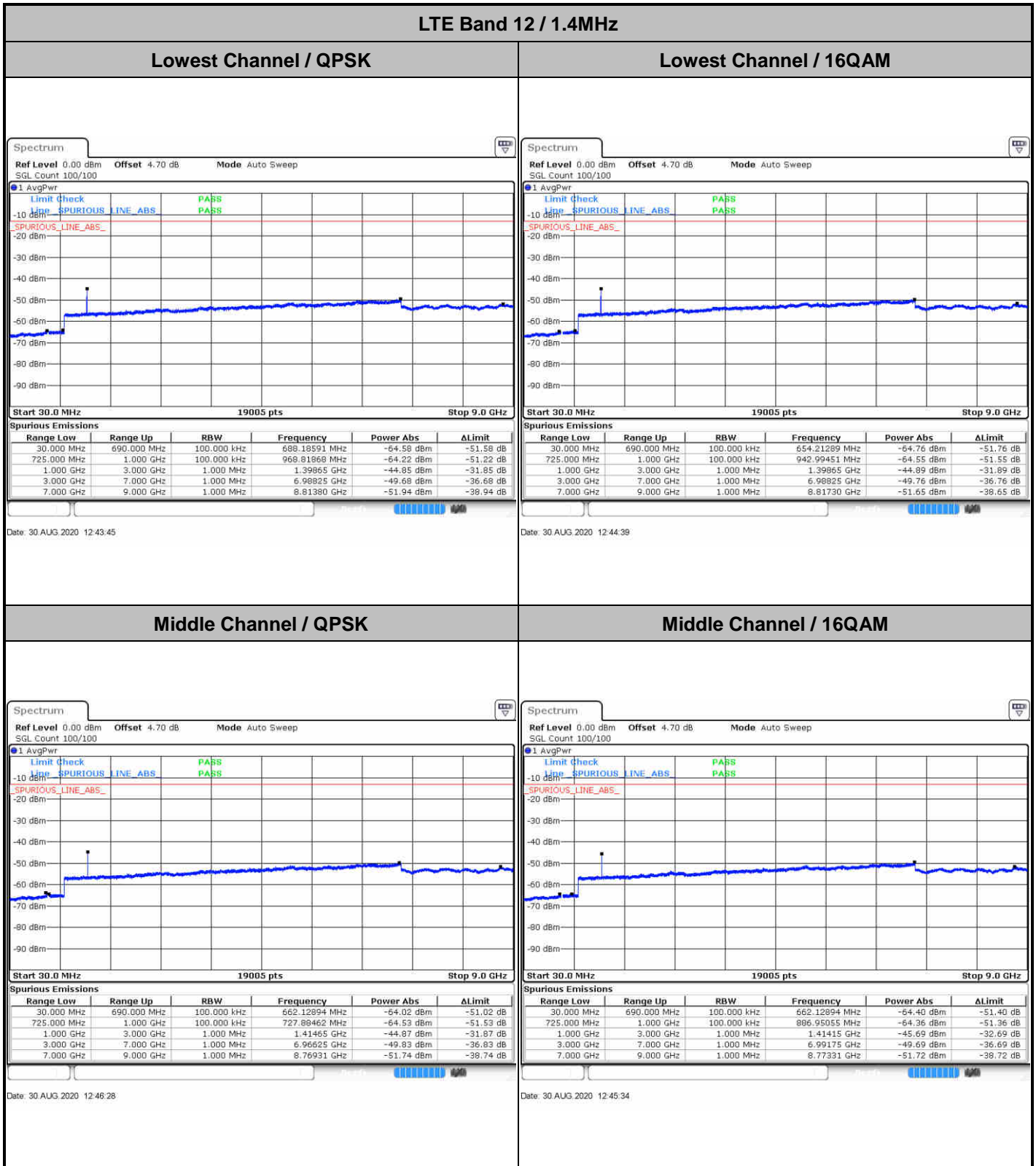
Highest Band Edge / Full RB



Date: 30 AUG 2020 14:48:04



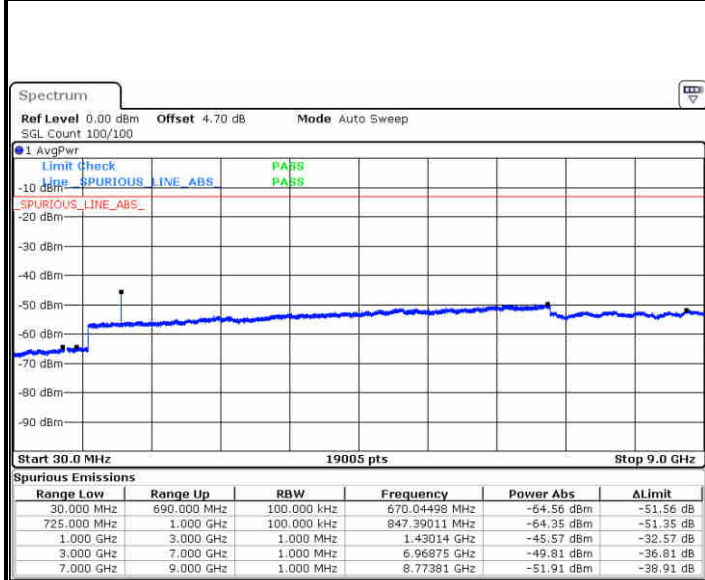
Conducted Spurious Emission





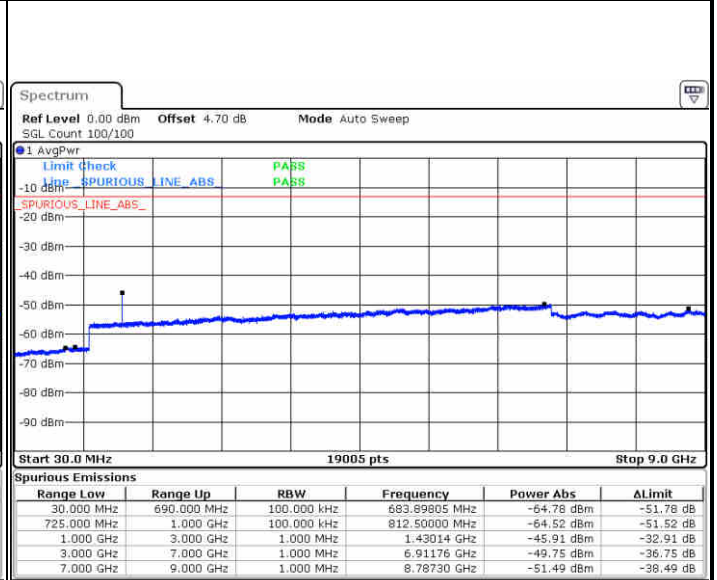
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 30 AUG 2020 12:47:23

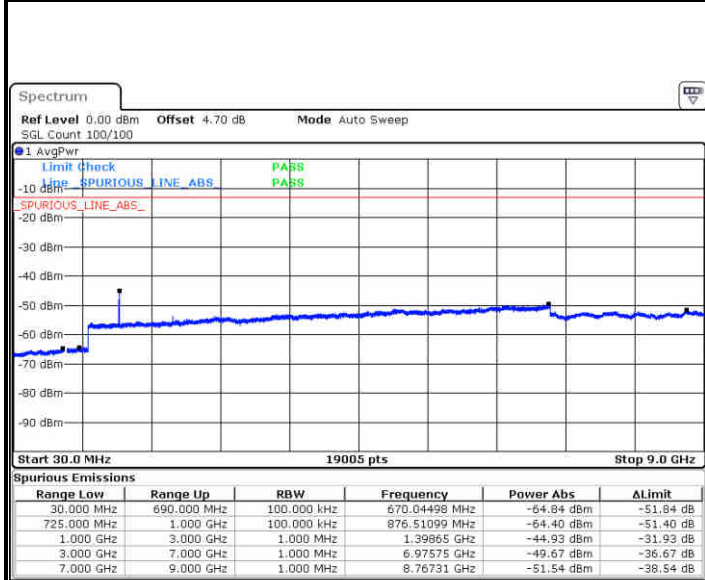
Highest Channel / 16QAM



Date: 30 AUG 2020 12:48:18

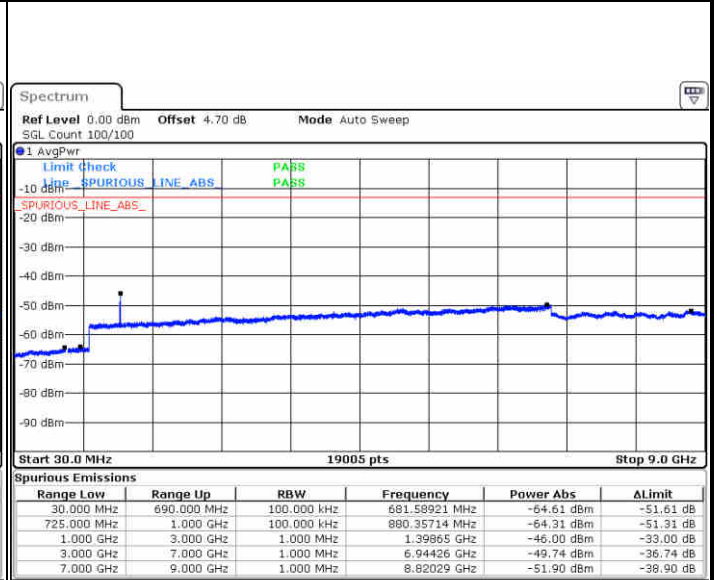
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 30 AUG 2020 13:01:18

Lowest Channel / 16QAM



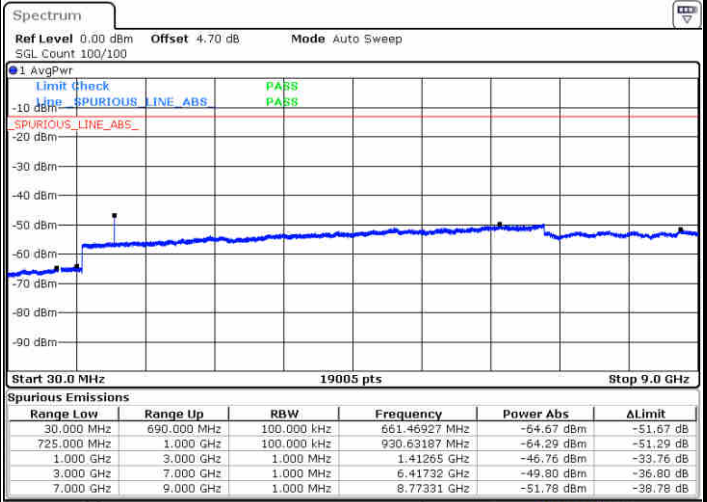
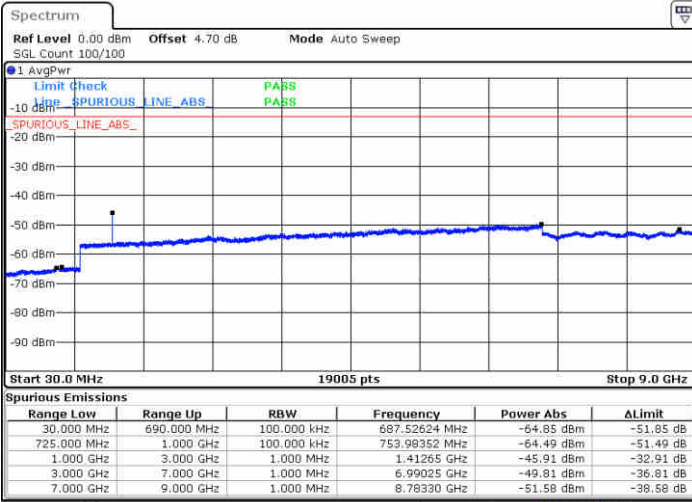
Date: 30 AUG 2020 13:02:12



LTE Band 12 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

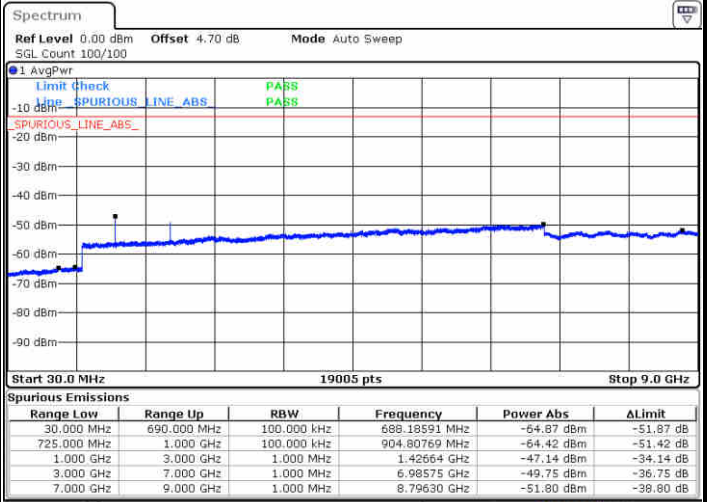
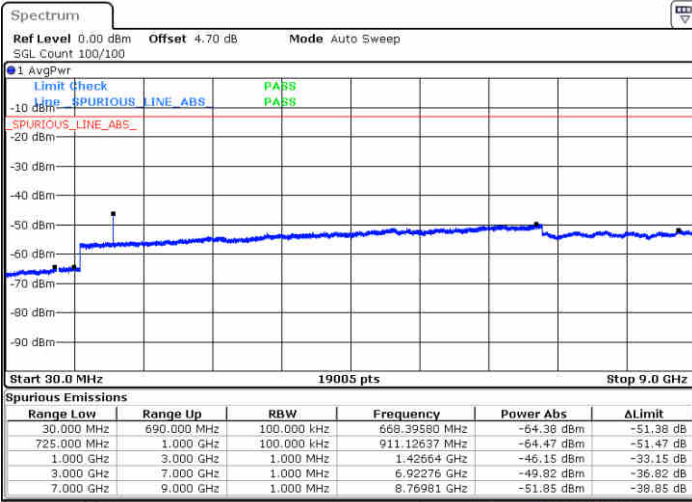


Date: 30 AUG 2020 13:04:02

Date: 30 AUG 2020 13:03:07

Highest Channel / QPSK

Highest Channel / 16QAM



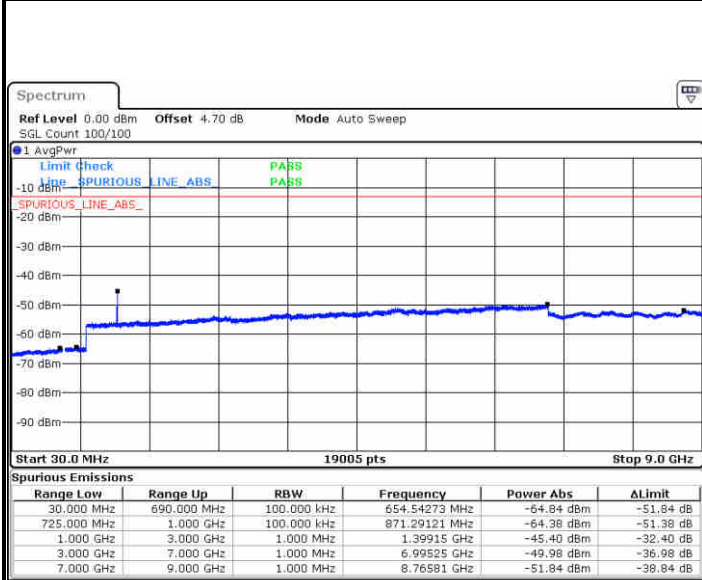
Date: 30 AUG 2020 13:04:56

Date: 30 AUG 2020 13:05:51



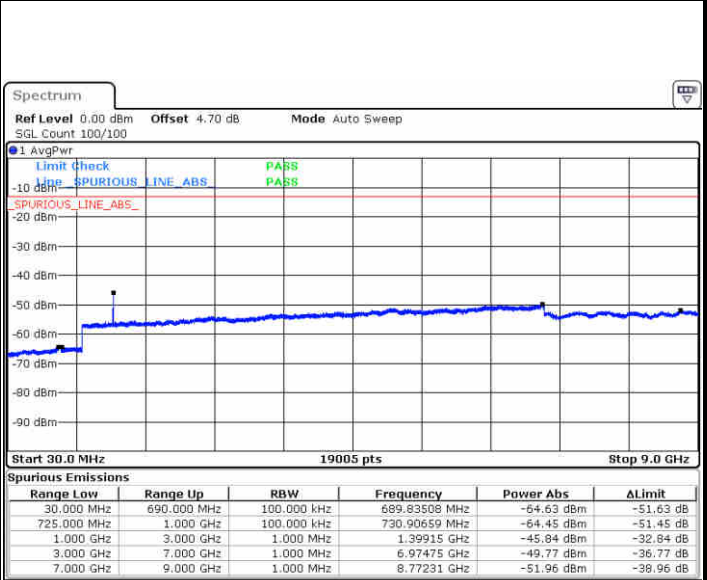
LTE Band 12 / 5MHz

Lowest Channel / QPSK



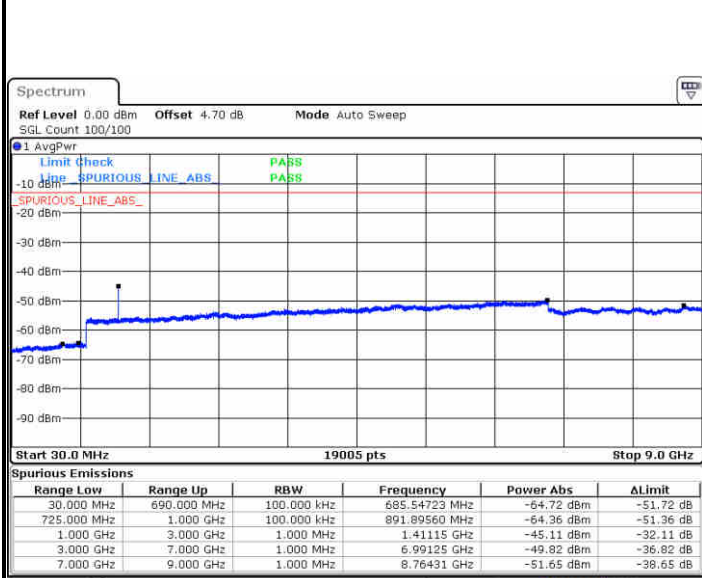
Date: 30 AUG 2020 13:18:16

Lowest Channel / 16QAM



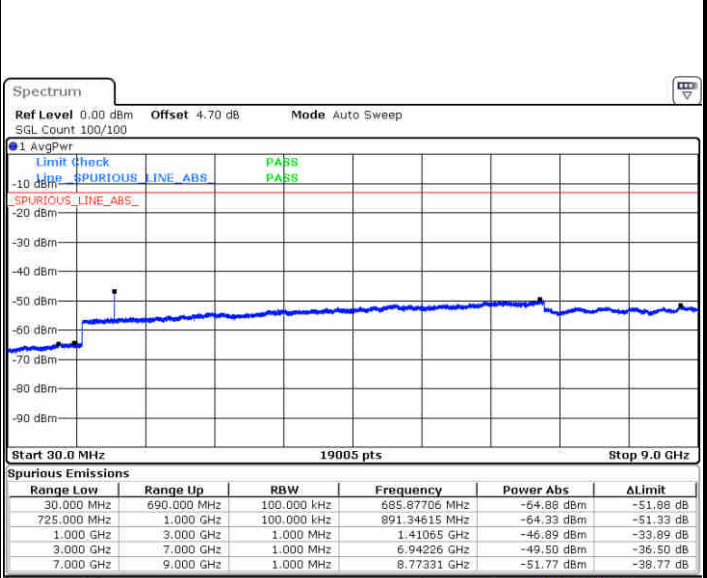
Date: 30 AUG 2020 13:19:11

Middle Channel / QPSK



Date: 30 AUG 2020 13:21:00

Middle Channel / 16QAM

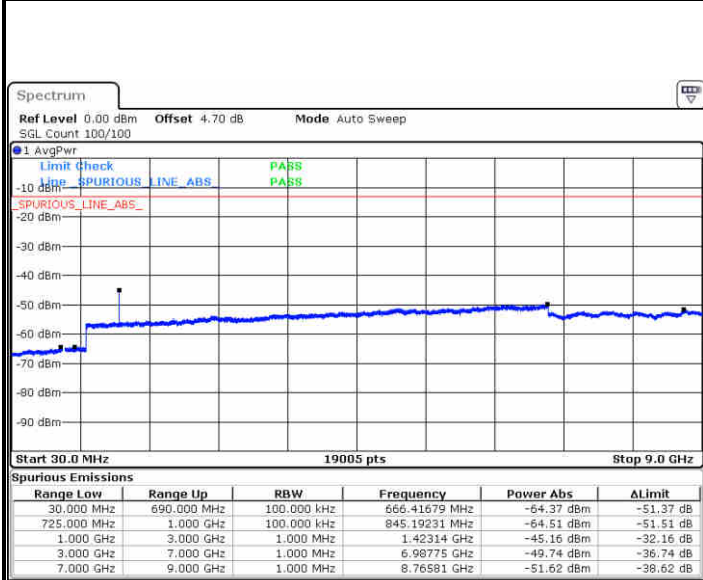


Date: 30 AUG 2020 13:20:05



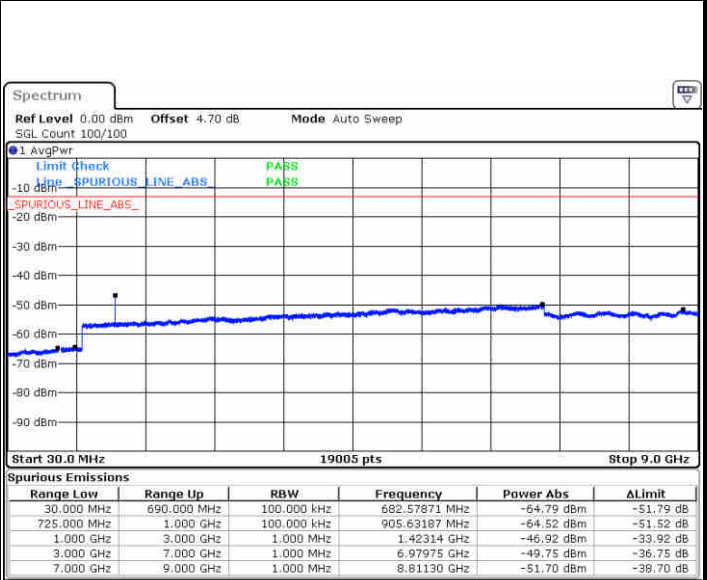
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 30 AUG 2020 13:21:54

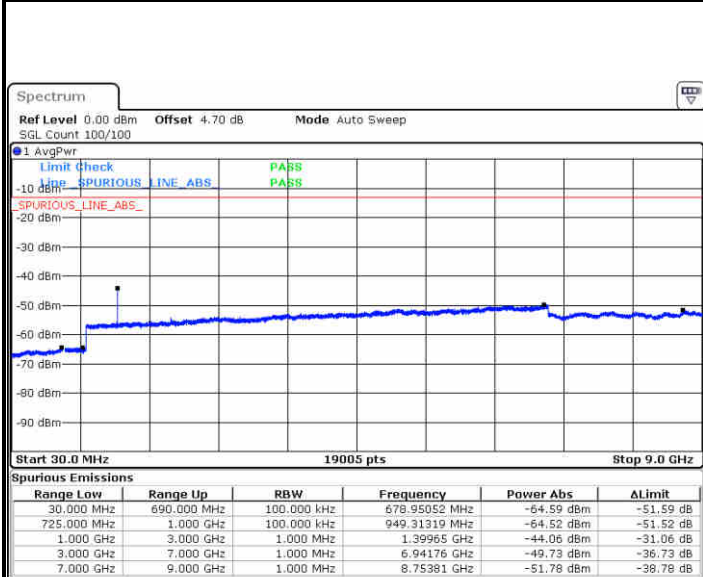
Highest Channel / 16QAM



Date: 30 AUG 2020 13:22:49

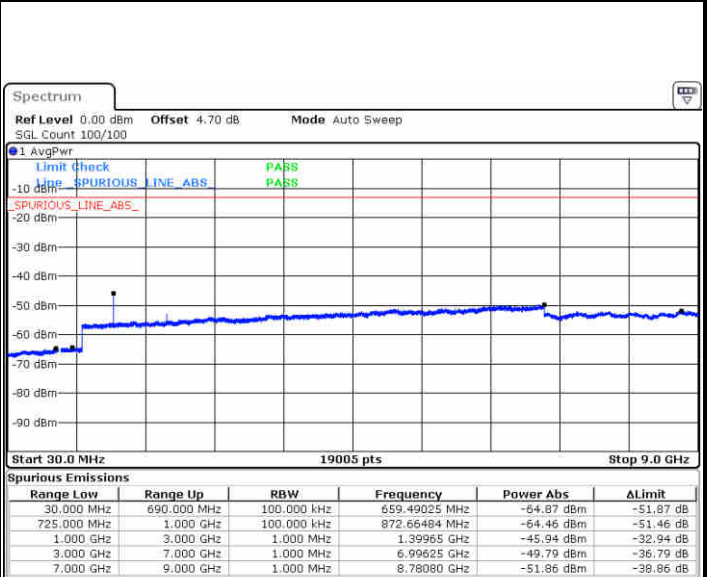
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 30 AUG 2020 13:49:14

Lowest Channel / 16QAM



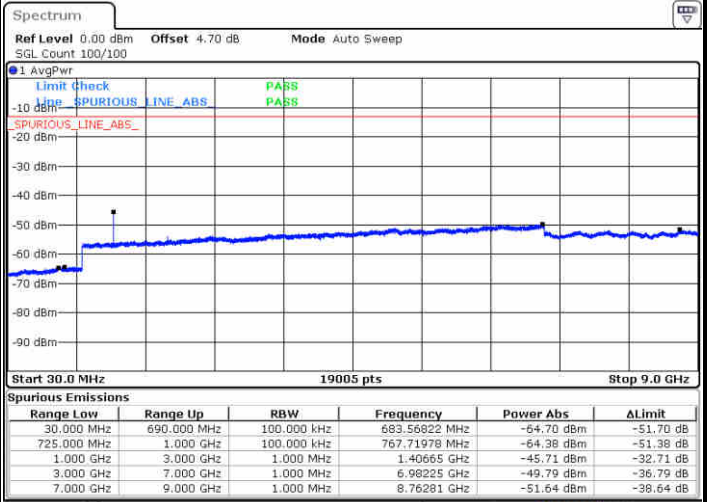
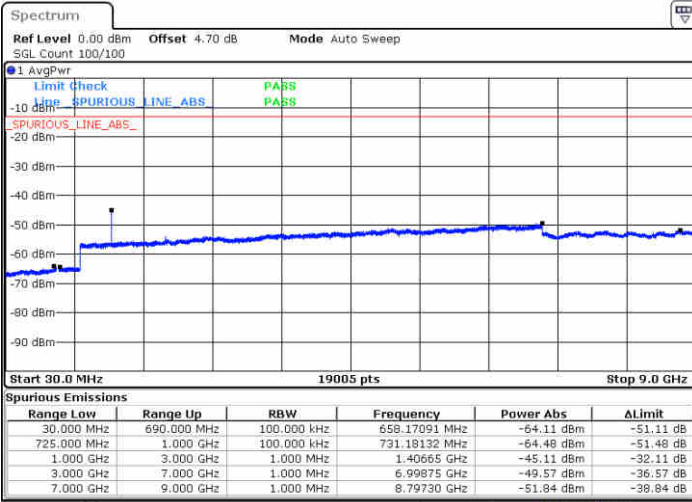
Date: 30 AUG 2020 13:50:08



LTE Band 12 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

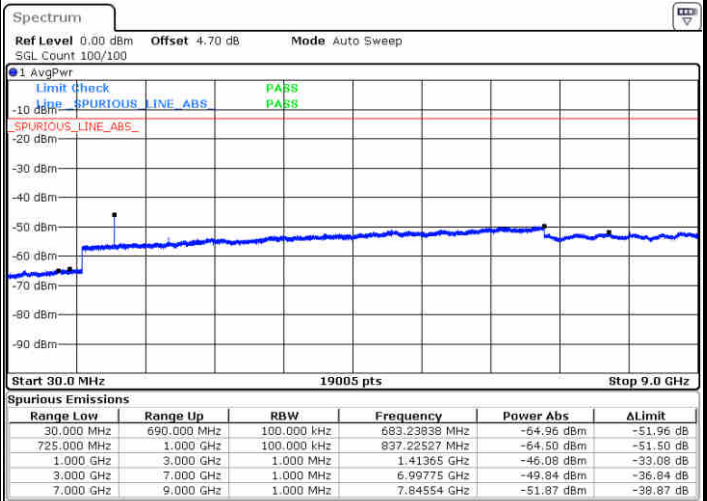
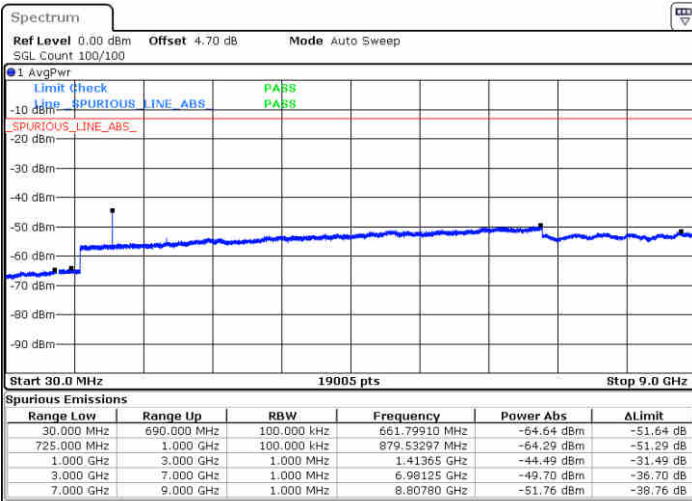


Date: 30 AUG 2020 13:51:58

Date: 30 AUG 2020 13:51:03

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 30 AUG 2020 13:52:52

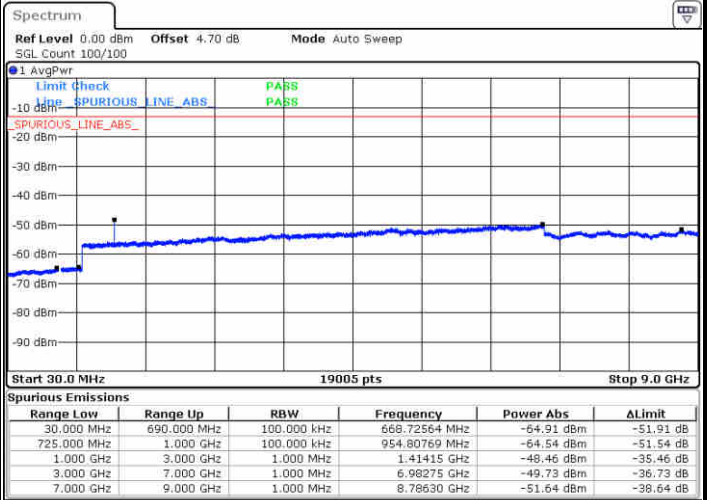
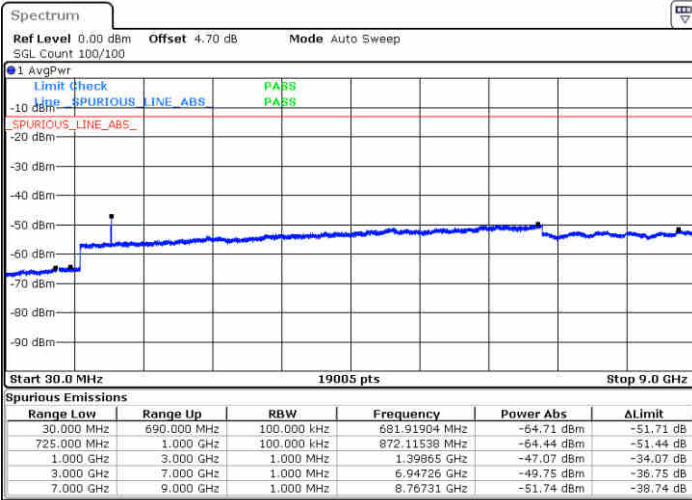
Date: 30 AUG 2020 13:53:47



LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM

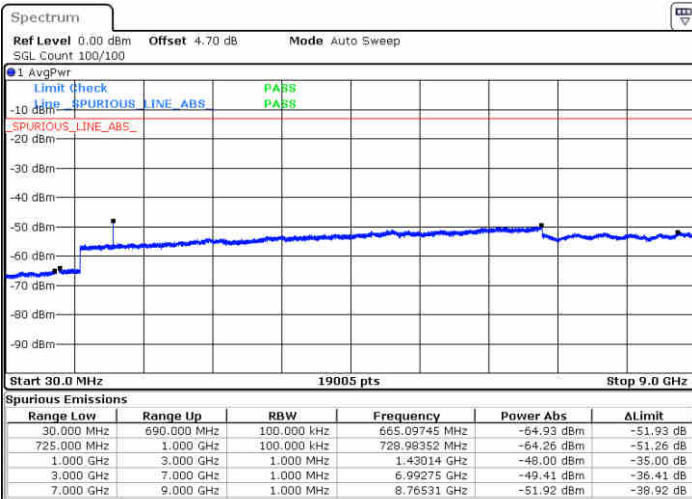
Middle Channel / 64QAM



Date: 30 AUG 2020 14:11:22

Date: 30 AUG 2020 14:12:17

Highest Channel / 64QAM

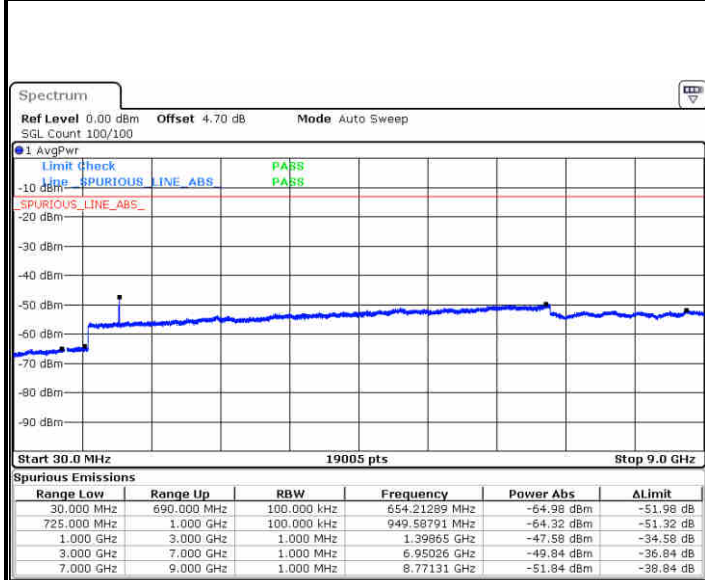


Date: 30 AUG 2020 14:13:11



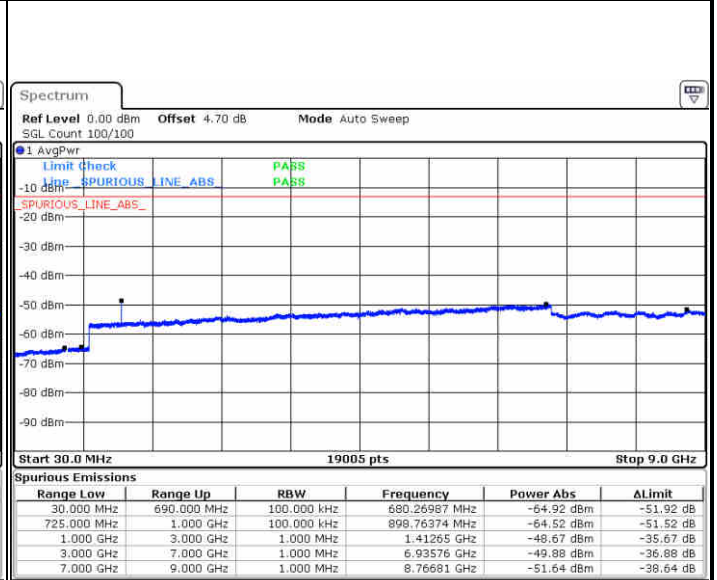
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



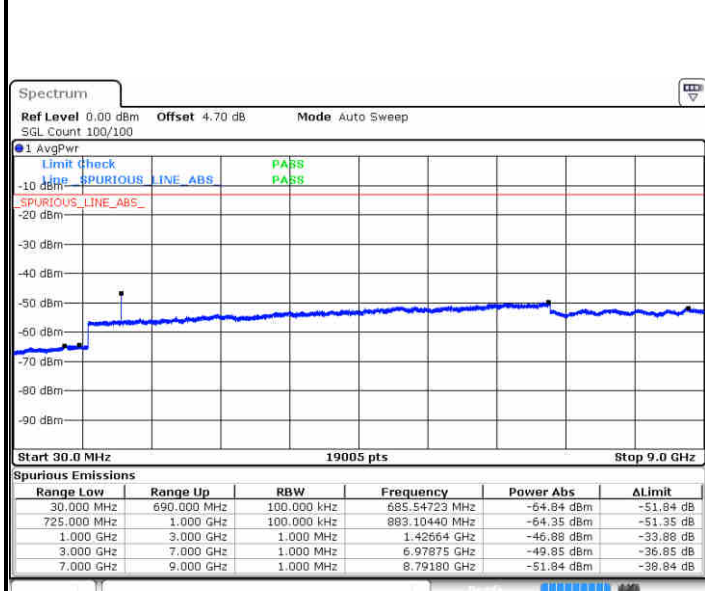
Date: 30 AUG 2020 14:26:18

Middle Channel / 64QAM



Date: 30 AUG 2020 14:27:13

Highest Channel / 64QAM



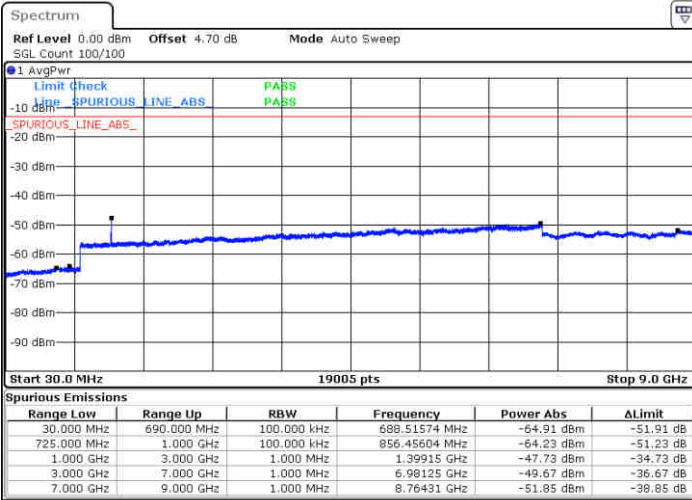
Date: 30 AUG 2020 14:28:08



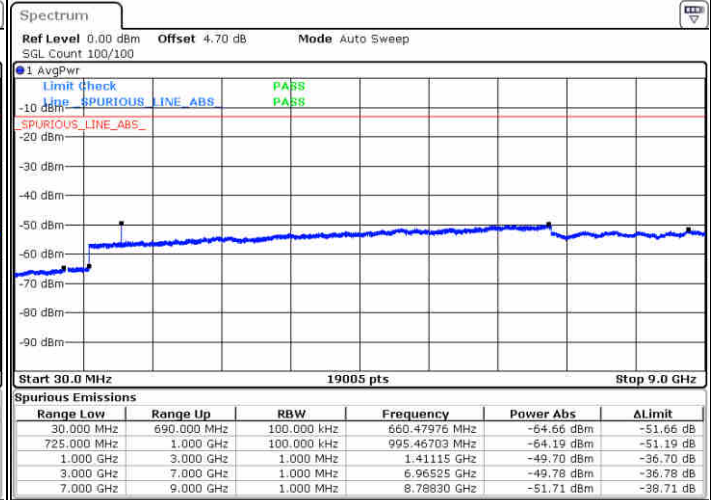
LTE Band 12 / 5MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

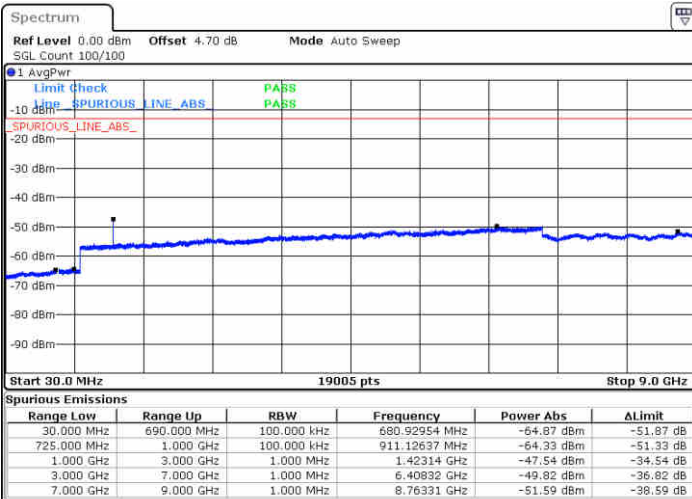


Date: 30 AUG 2020 14:40:47



Date: 30 AUG 2020 14:41:41

Highest Channel / 64QAM



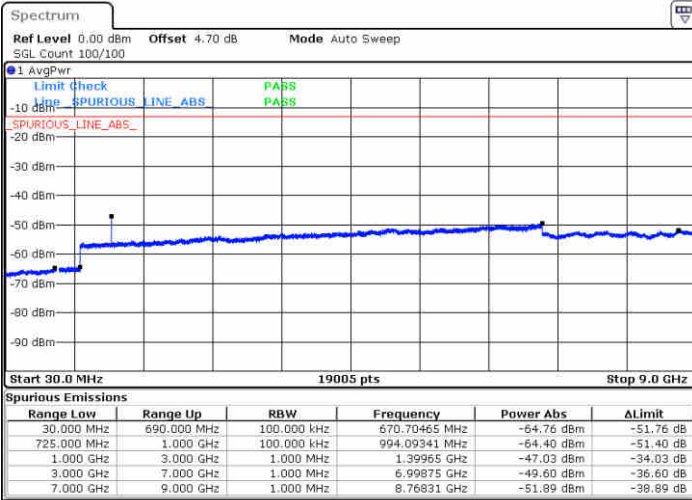
Date: 30 AUG 2020 14:42:36



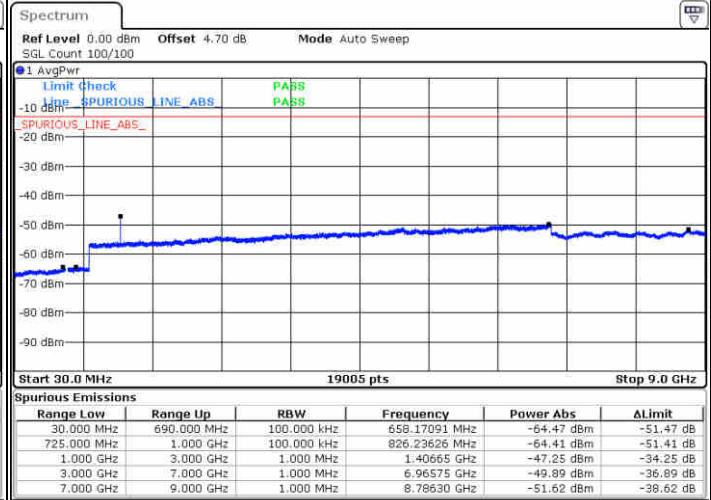
LTE Band 12 / 10MHz

Lowest Channel / 64QAM

Middle Channel / 64QAM

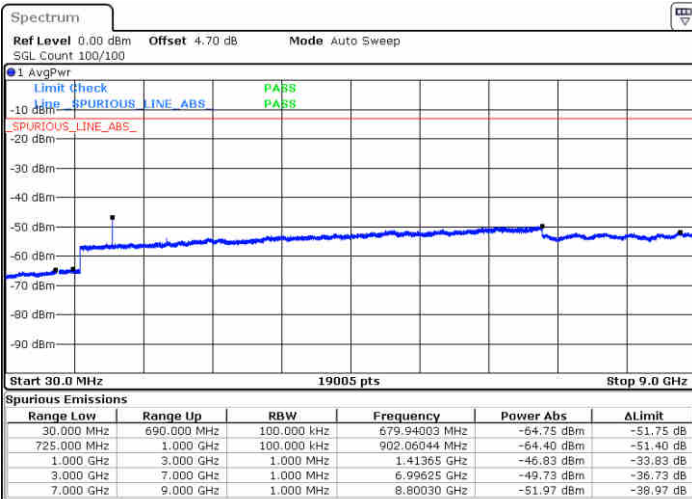


Date: 30 AUG 2020 14:44:06



Date: 30 AUG 2020 14:45:00

Highest Channel / 64QAM



Date: 30 AUG 2020 14:45:55



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	0.0037	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0058	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0054	
-10	Normal Voltage	0.0057	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0007	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3 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	5.10	5.13	6.09	6.06	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	6.72	6.41	-	-	
Highest CH	-	-	-	-	



LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB

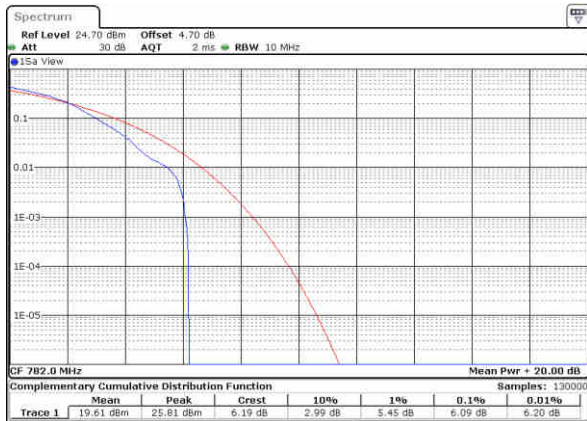


Middle Channel / Full RB

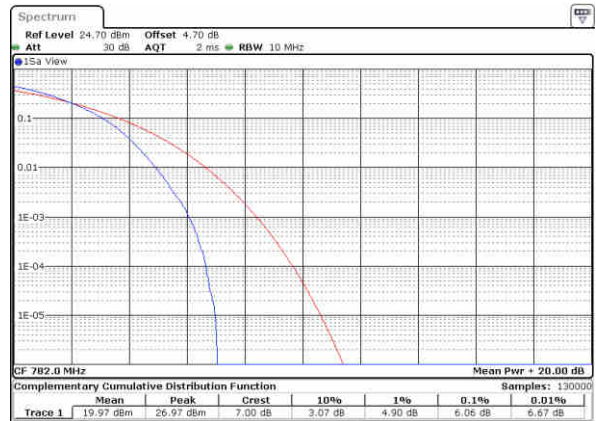


LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB



Middle Channel / Full RB

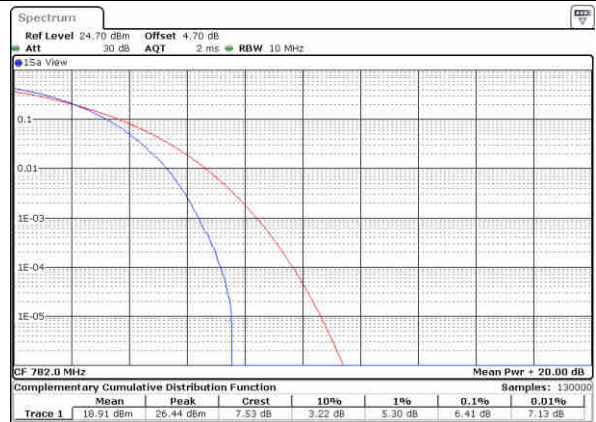


LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB



Date: 30 AUG 2020 12:07:34

Date: 30 AUG 2020 12:07:52



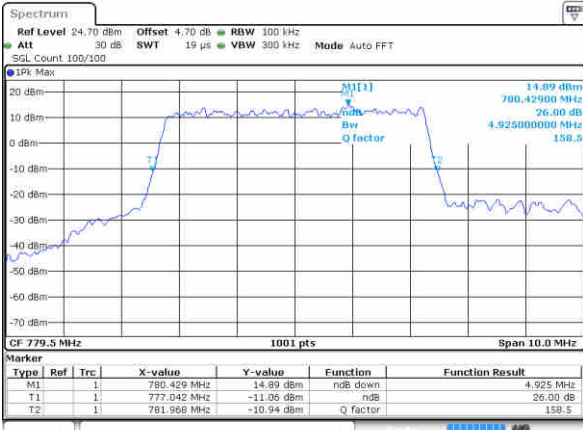
26dB Bandwidth

Mode	LTE Band 13 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.93	4.87	-	-
Middle CH	4.91	4.92	9.77	9.87
Highest CH	5.01	4.94	-	-
Mode	LTE Band 13 : 26dB BW(MHz)			
BW	5MHz		10MHz	
Mod.	64QAM		64QAM	
Lowest CH	4.98	-	-	-
Middle CH	4.88	-	9.67	-
Highest CH	4.97	-	-	-



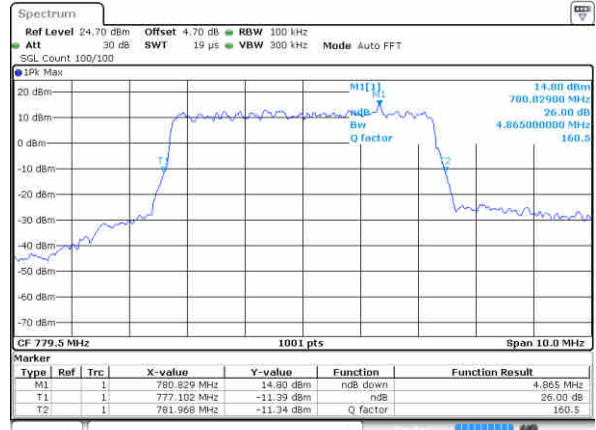
LTE Band 13

Lowest Channel / 5MHz / QPSK



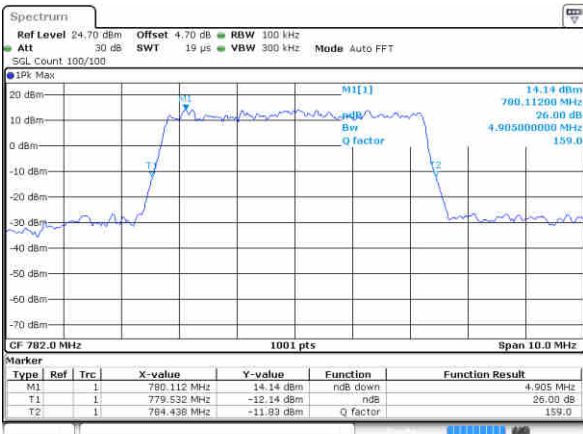
Date: 30 AUG 2020 09:44:57

Lowest Channel / 5MHz / 16QAM



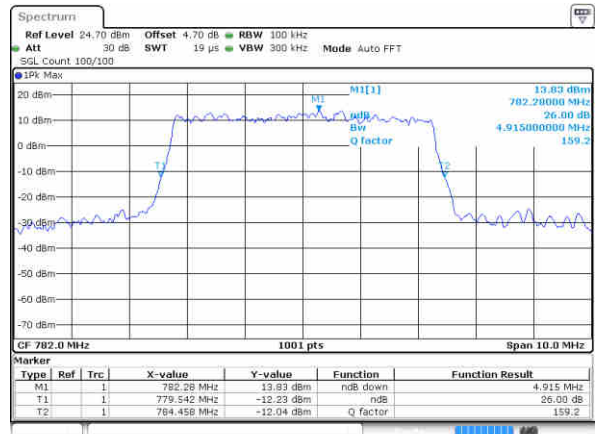
Date: 30 AUG 2020 09:45:07

Middle Channel / 5MHz / QPSK



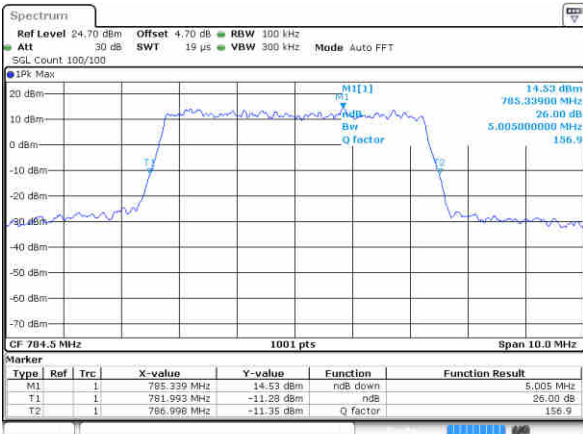
Date: 30 AUG 2020 09:53:57

Middle Channel / 5MHz / 16QAM



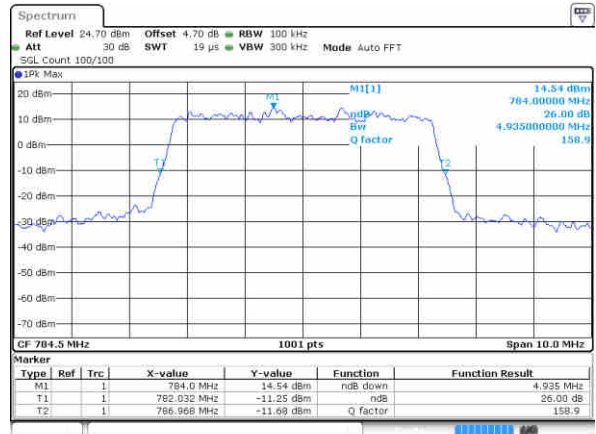
Date: 30 AUG 2020 09:54:07

Highest Channel / 5MHz / QPSK



Date: 30 AUG 2020 09:56:37

Highest Channel / 5MHz / 16QAM

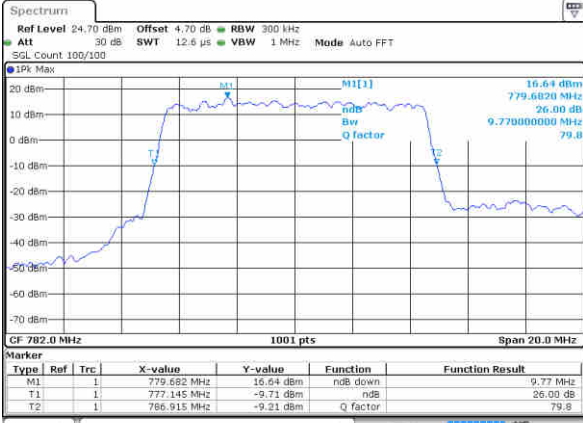


Date: 30 AUG 2020 09:56:28



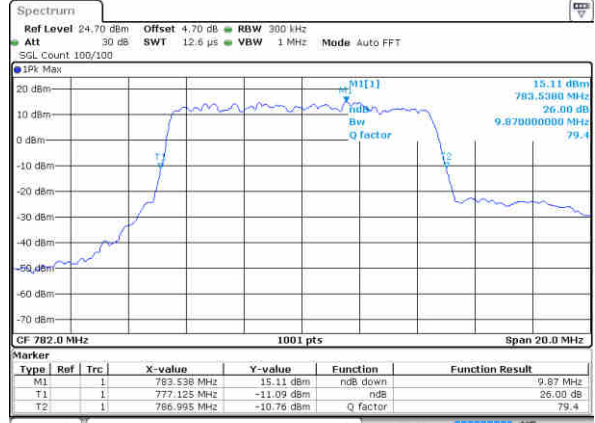
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 30 AUG 2020 10:11:53

Middle Channel / 10MHz / 16QAM

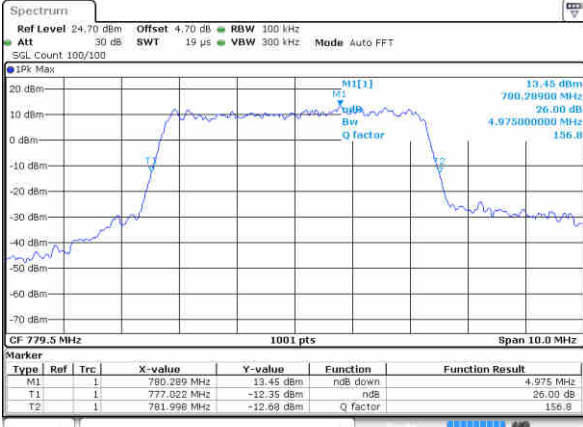


Date: 30 AUG 2020 10:11:43



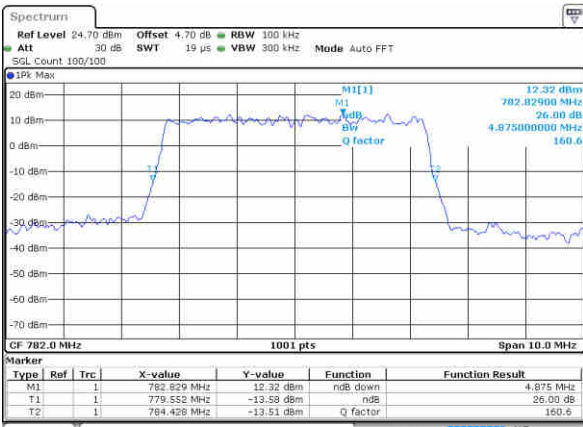
LTE Band 13

Lowest Channel / 5MHz / 64QAM



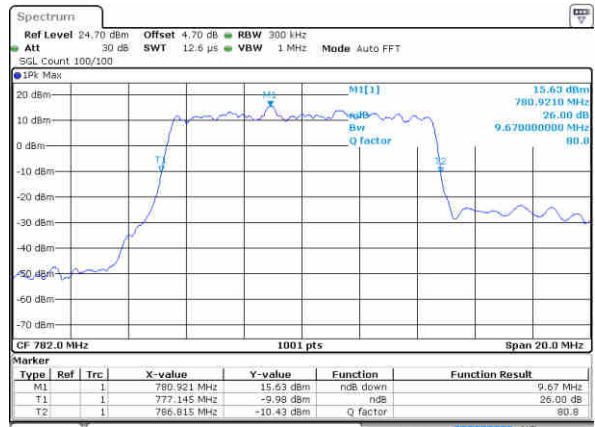
Date: 30 AUG 2020 10:26:25

Middle Channel / 5MHz / 64QAM



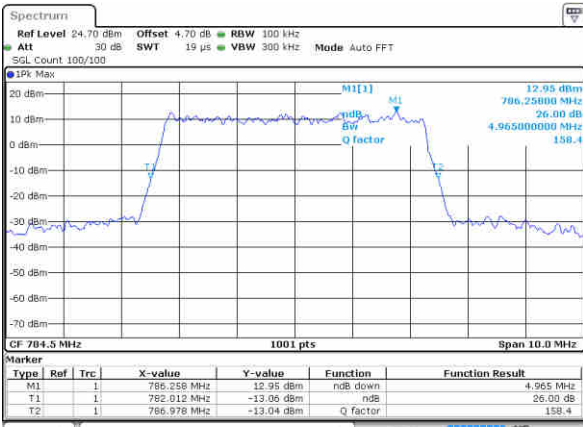
Date: 30 AUG 2020 10:26:55

Middle Channel / 10MHz / 64QAM



Date: 30 AUG 2020 10:40:45

Highest Channel / 5MHz / 64QAM



Date: 30 AUG 2020 10:26:45



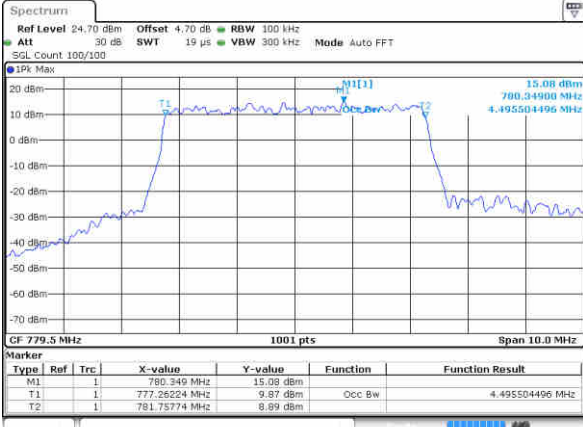
Occupied Bandwidth

Mode	LTE Band 13 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	QPSK	16QAM	QPSK	16QAM
Lowest CH	4.50	4.49	-	-
Middle CH	4.48	4.48	8.99	8.95
Highest CH	4.50	4.48	-	-
Mode	LTE Band 13 : 99%OBW(MHz)			
BW	5MHz		10MHz	
Mod.	64QAM		64QAM	
Lowest CH	4.49	-	-	-
Middle CH	4.50	-	8.97	-
Highest CH	4.49	-	-	-



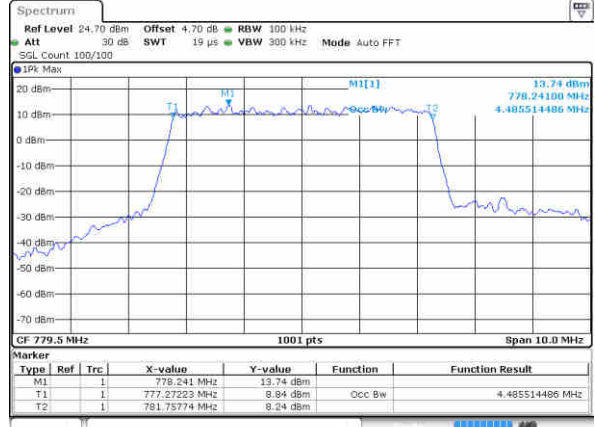
LTE Band 13

Lowest Channel / 5MHz / QPSK



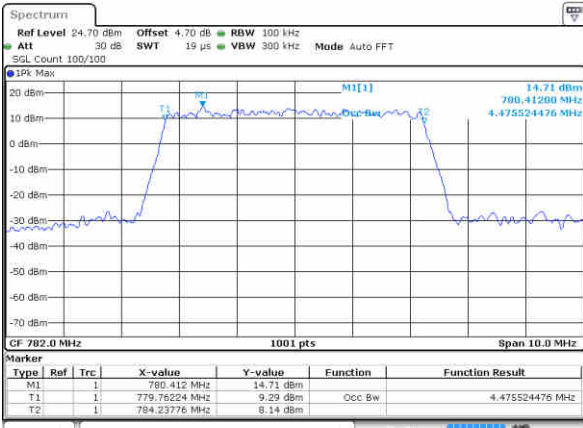
Date: 30 AUG 2020 09:45:28

Lowest Channel / 5MHz / 16QAM



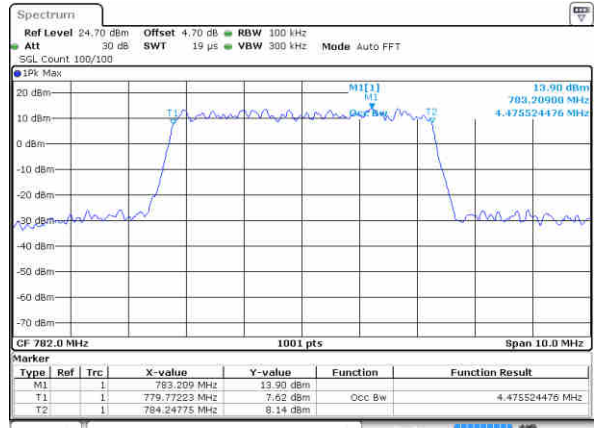
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Middle Channel / 5MHz / QPSK



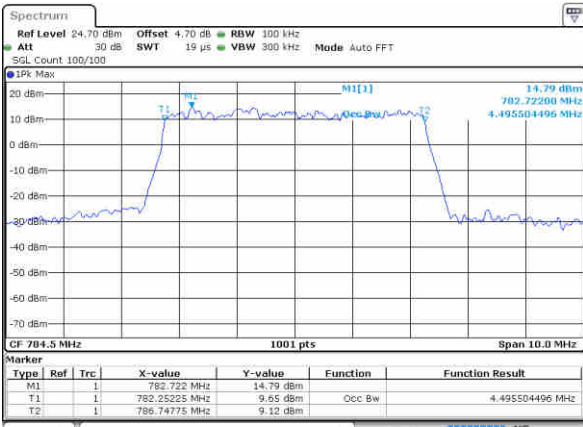
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Middle Channel / 5MHz / 16QAM



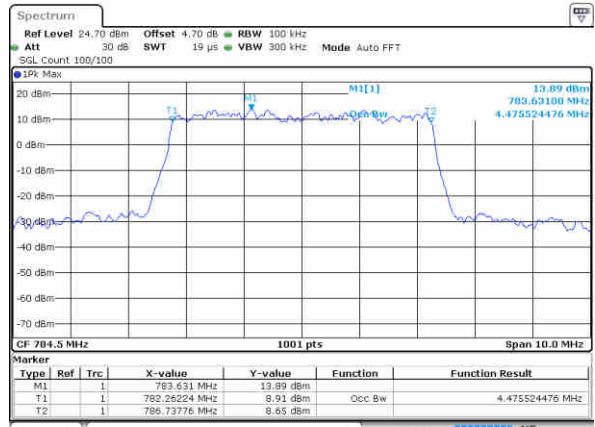
Date: 30 AUG 2020 09:54:28

Highest Channel / 5MHz / QPSK



Date: 30 AUG 2020 09:56:47

Highest Channel / 5MHz / 16QAM



Date: 30 AUG 2020 09:56:57