

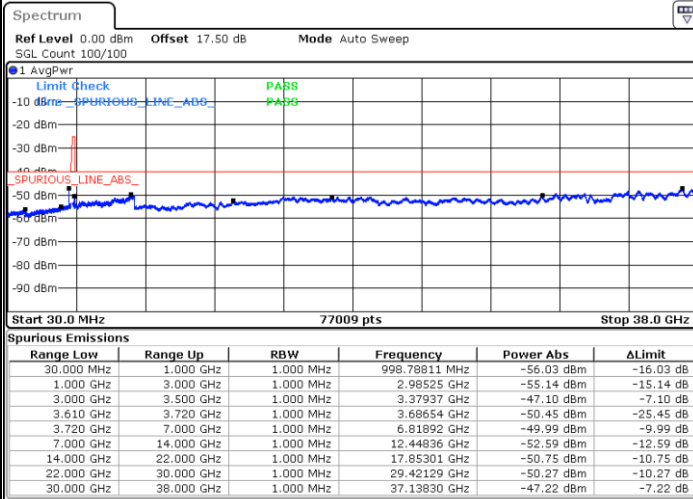


LTE Band 48 / 5MHz

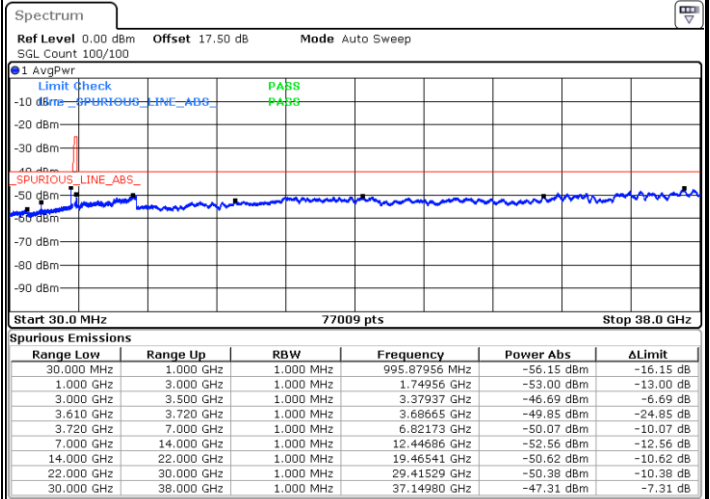
64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



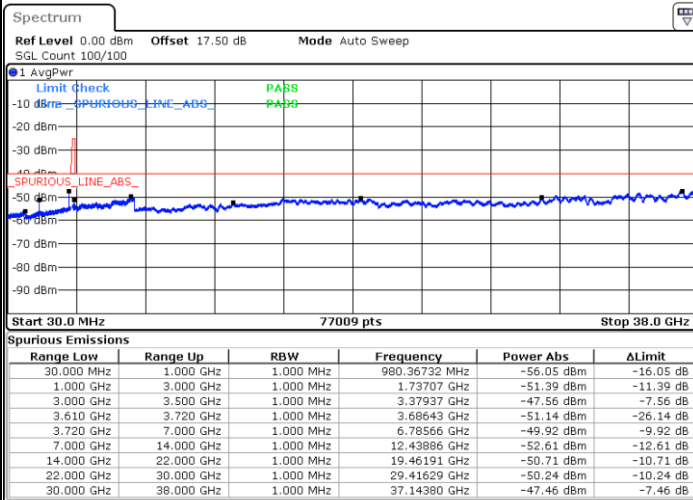
Date: 18 JAN 2020 13:23:09



Date: 18 JAN 2020 13:41:27

Lowest Channel / FullIRB

N/A



Date: 18 JAN 2020 13:32:18

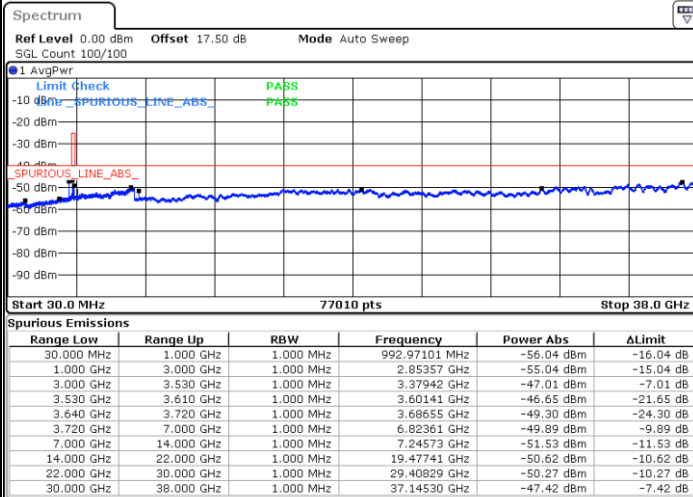


LTE Band 48 / 5MHz

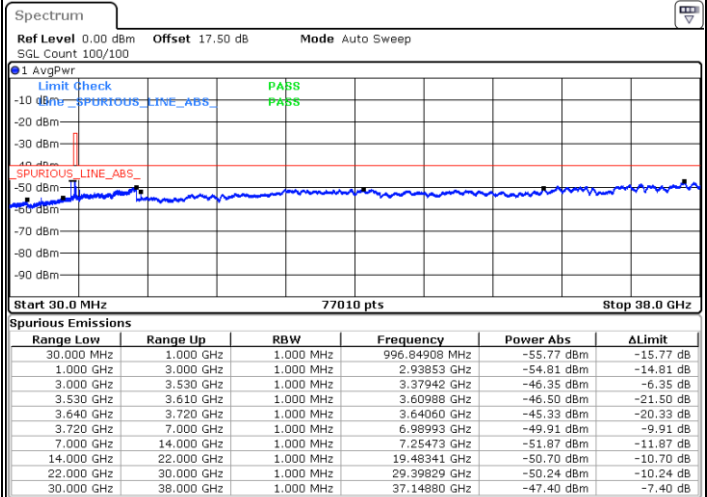
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



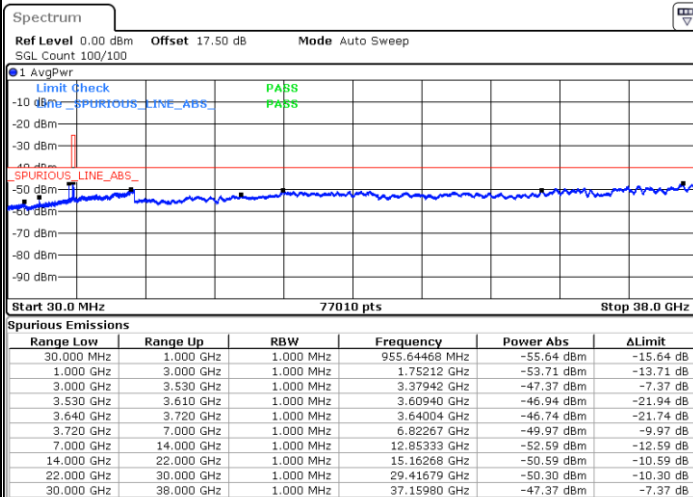
Date: 18 JAN 2020 13:24:10



Date: 18 JAN 2020 13:42:28

Middle Channel / FullRB

N/A



Date: 18 JAN 2020 13:33:19

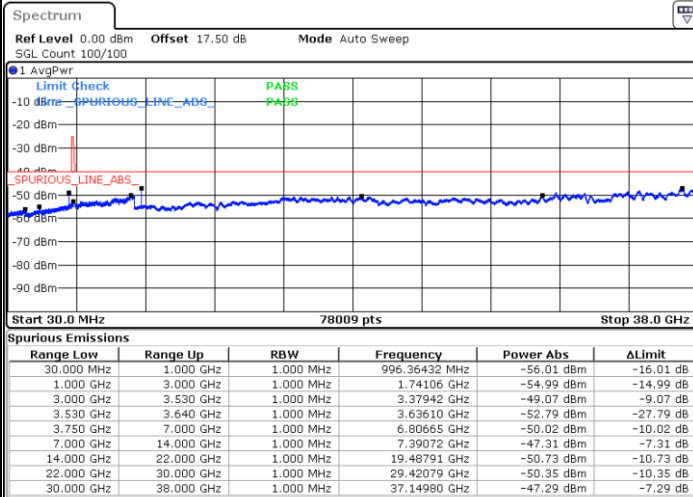


LTE Band 48 / 5MHz

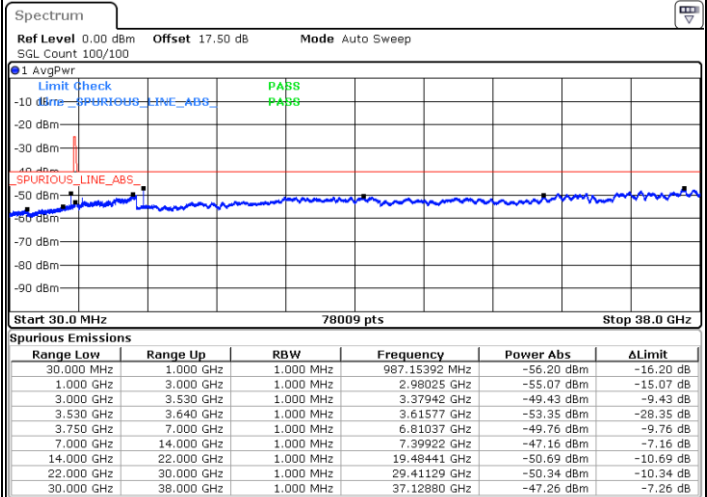
64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



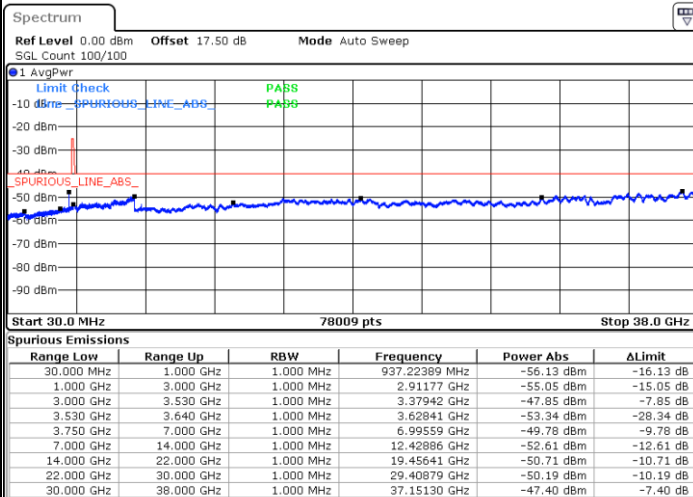
Date: 18 JAN 2020 13:29:15



Date: 18 JAN 2020 13:47:32

Highest Channel / FullIRB

N/A



Date: 18 JAN 2020 13:38:24

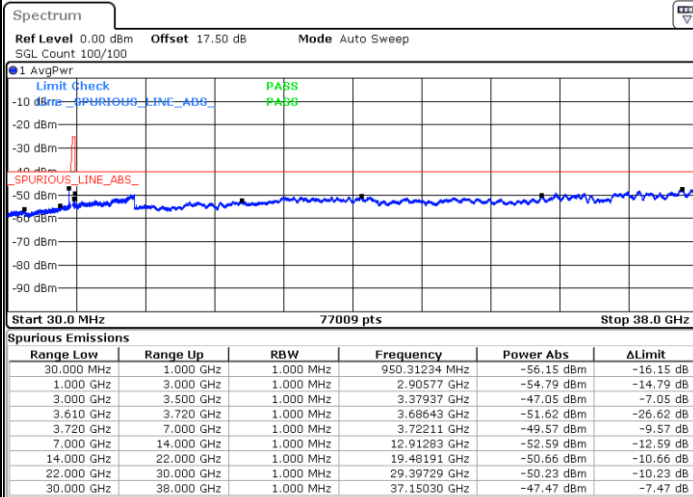


LTE Band 48 / 10MHz

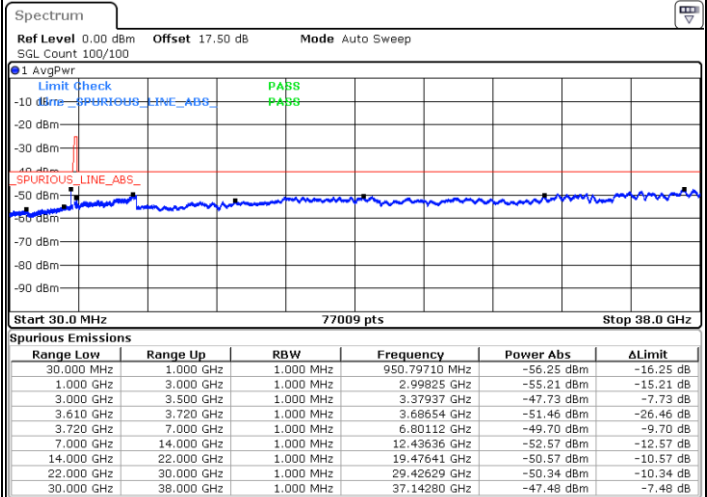
64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



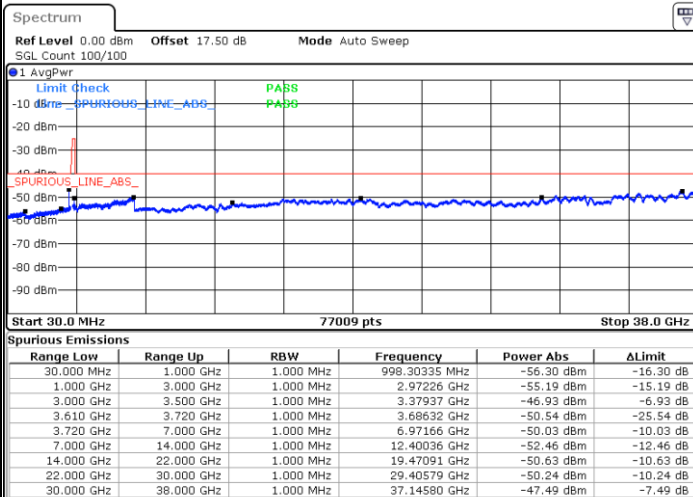
Date: 18 JAN 2020 13:48:34



Date: 18 JAN 2020 14:06:52

Lowest Channel / FullIRB

N/A



Date: 18 JAN 2020 13:57:43

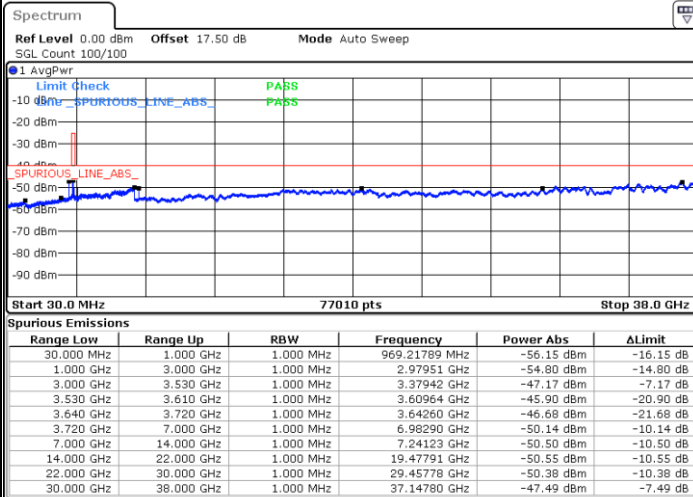


LTE Band 48 / 10MHz

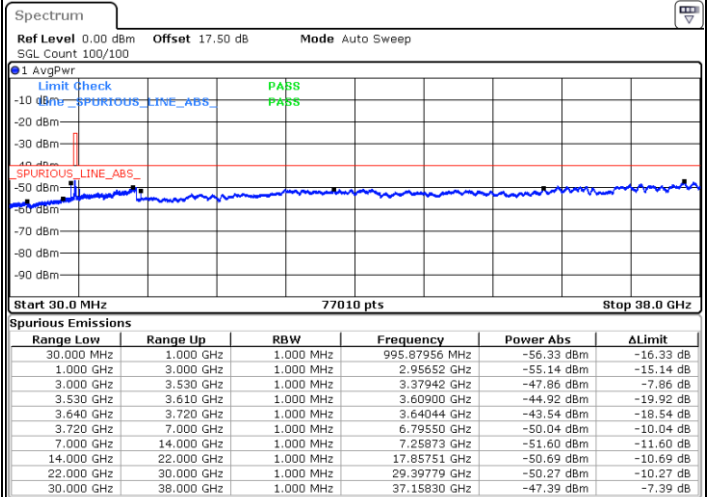
64QAM

MiddleChannel / 1RB0

Middle Channel / 1RBmax



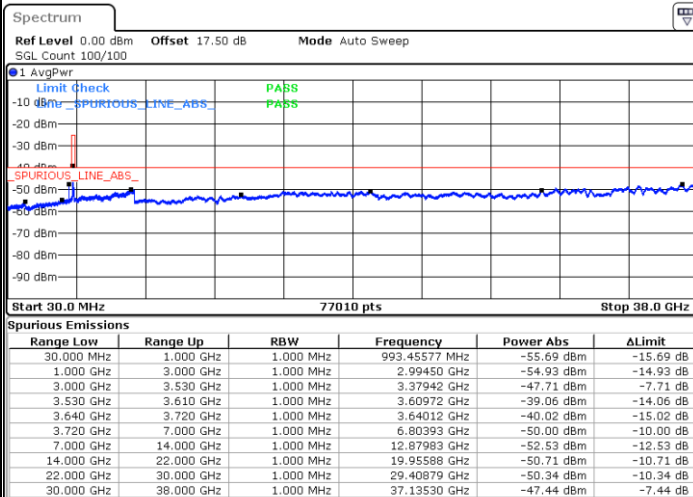
Date: 18 JAN 2020 13:53:39



Date: 18 JAN 2020 14:11:56

Middle Channel / FullRB

N/A



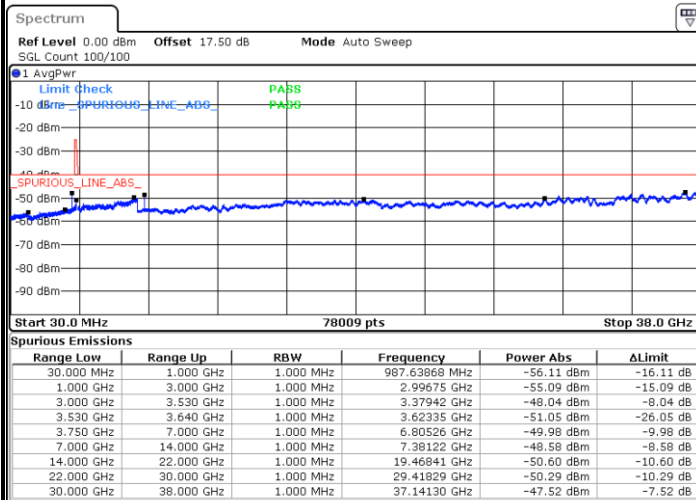
Date: 18 JAN 2020 14:02:47



LTE Band 48 / 10MHz

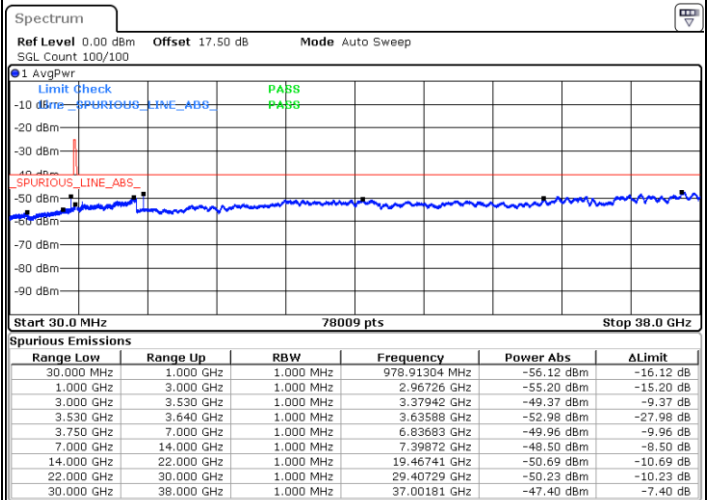
64QAM

Highest Channel / 1RB0



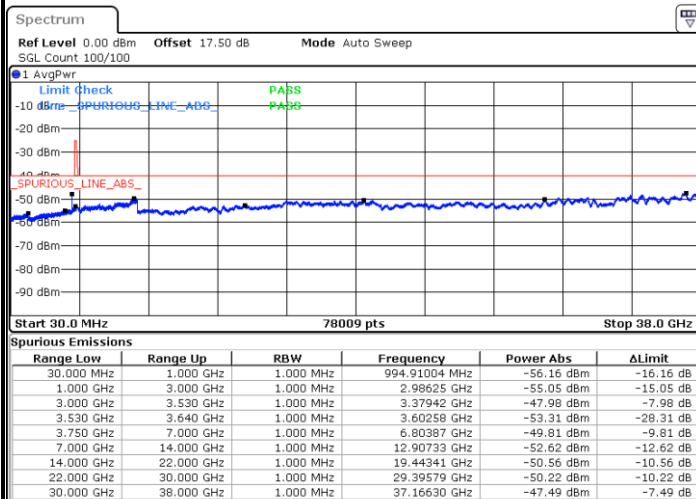
Date: 18 JAN 2020 13:54:39

Highest Channel / 1RBmax



Date: 18 JAN 2020 14:12:57

Highest Channel / FullIRB



Date: 18 JAN 2020 14:03:48

N/A

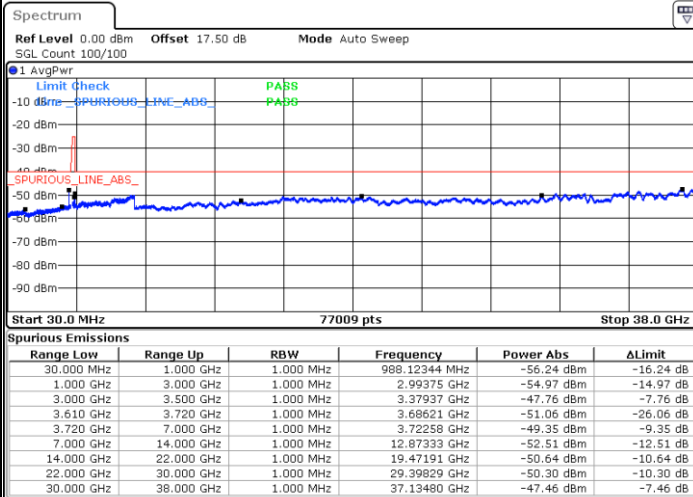


LTE Band 48 / 15MHz

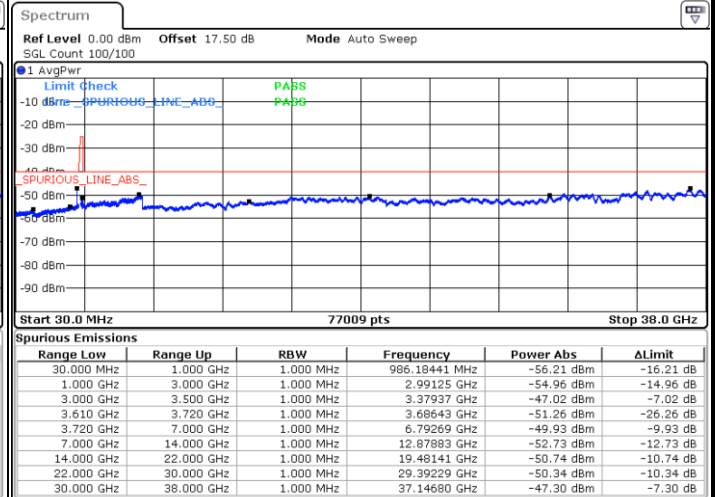
64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



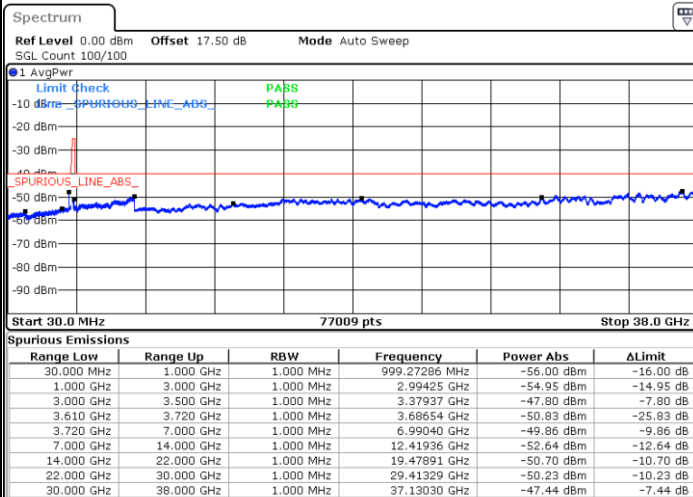
Date: 18 JAN 2020 14:18:04



Date: 18 JAN 2020 14:36:21

Lowest Channel / FullIRB

N/A



Date: 18 JAN 2020 14:27:13

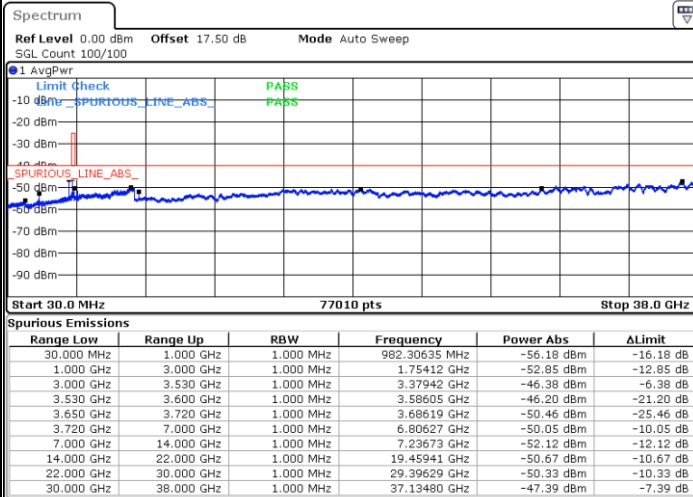


LTE Band 48 / 15MHz

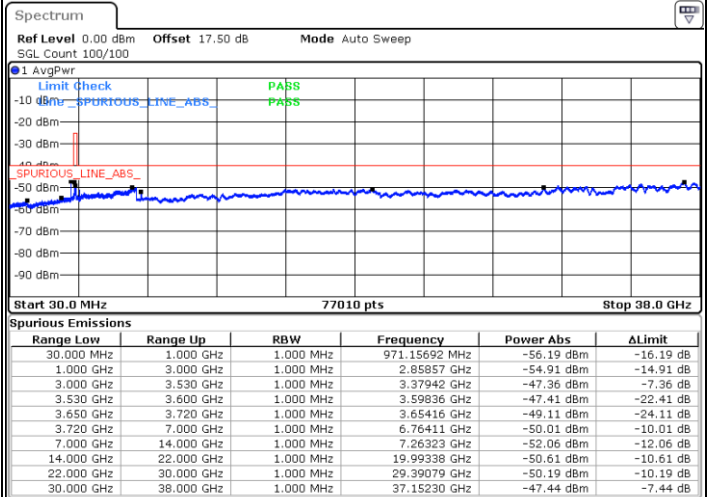
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



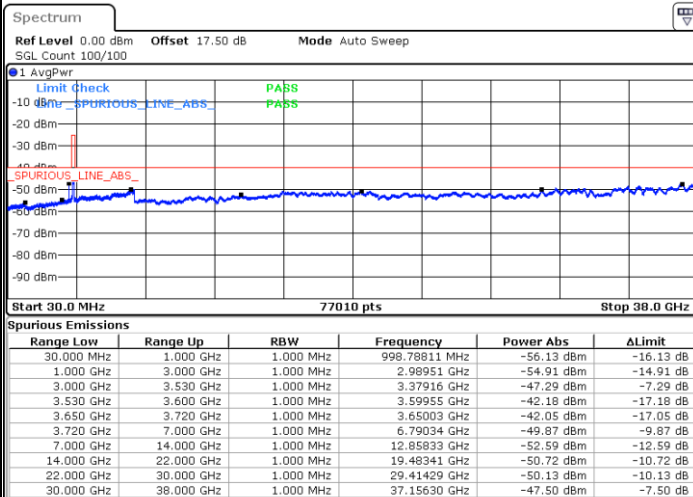
Date: 18 JAN 2020 14:19:04



Date: 18 JAN 2020 14:37:22

Middle Channel / FullRB

N/A



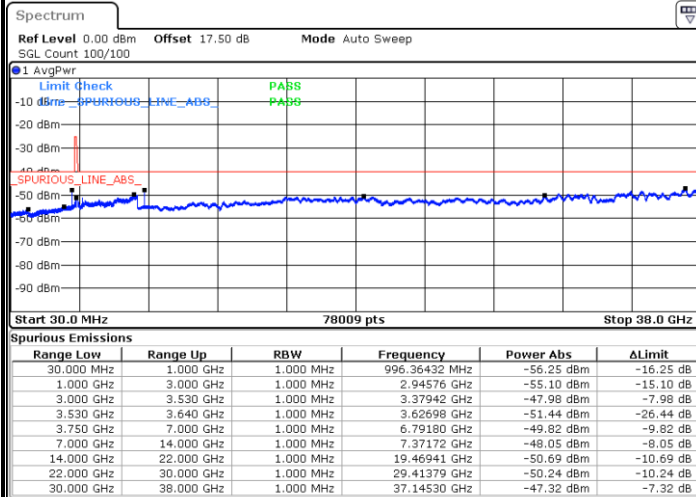
Date: 18 JAN 2020 14:28:14



LTE Band 48 / 15MHz

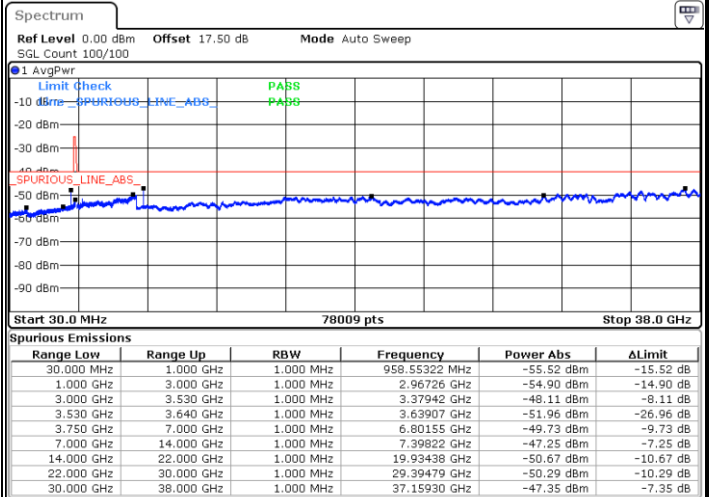
64QAM

Highest Channel / 1RB0



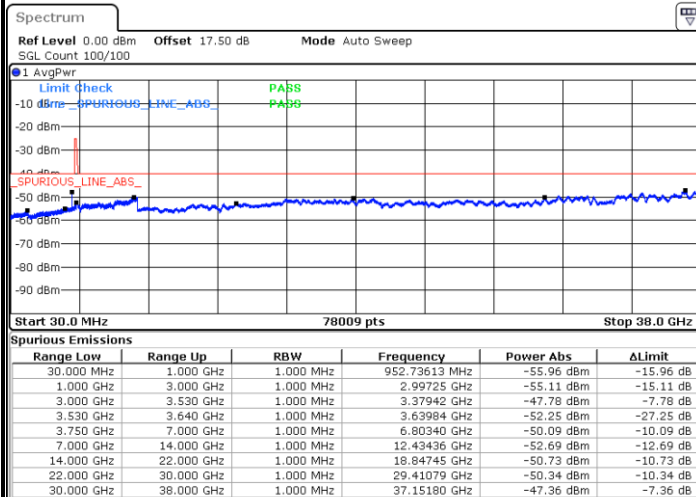
Date: 18 JAN 2020 14:24:09

Highest Channel / 1RBmax



Date: 18 JAN 2020 14:42:27

Highest Channel / FullIRB



Date: 18 JAN 2020 14:33:18

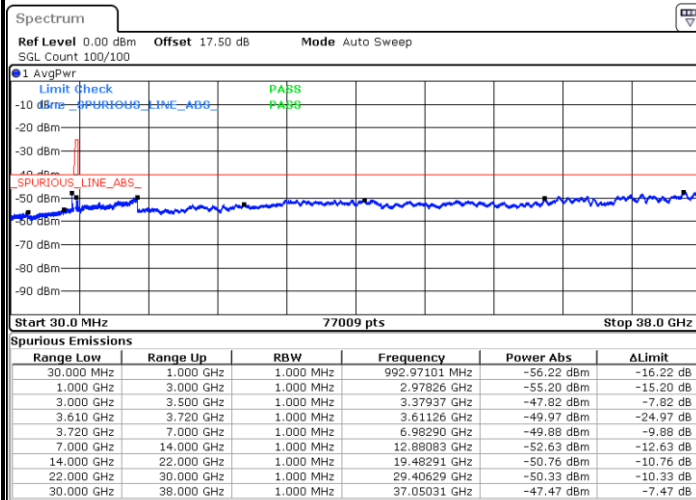
N/A



LTE Band 48 / 20MHz

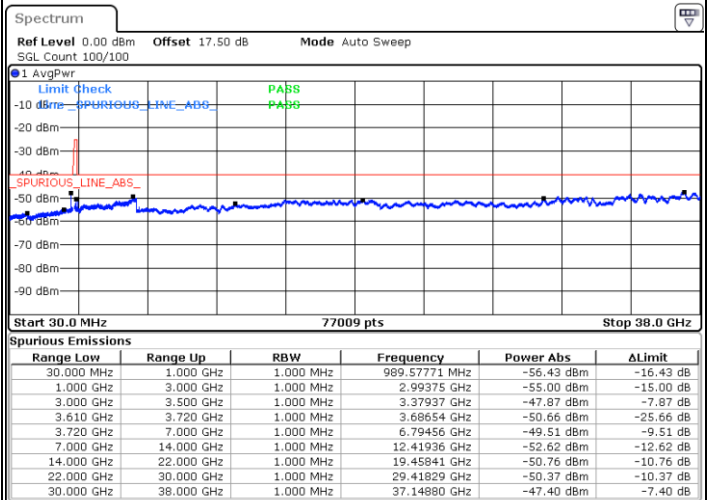
64QAM

Lowest Channel / 1RB0



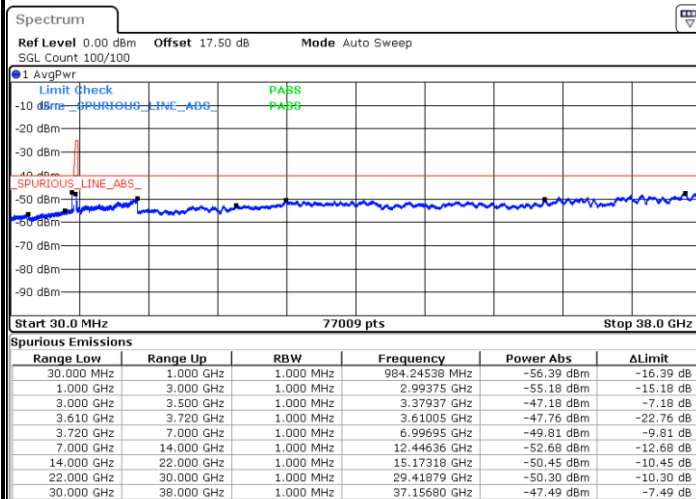
Date: 18 JAN 2020 14:52:38

Lowest Channel / 1RBmax



Date: 18 JAN 2020 15:01:47

Lowest Channel / FullIRB



Date: 18 JAN 2020 14:43:29

N/A

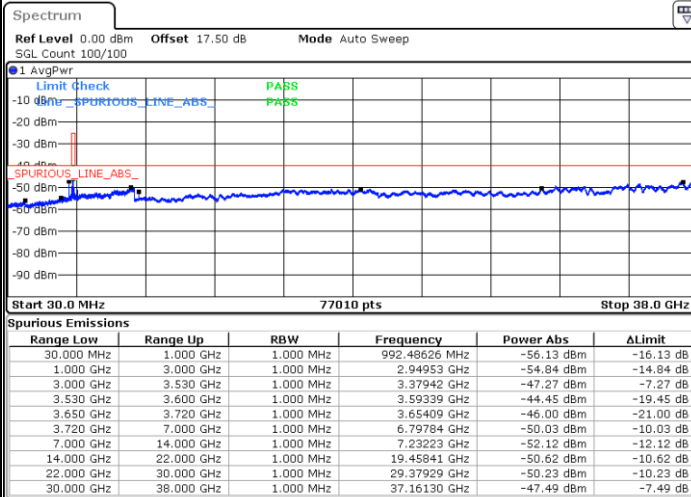


LTE Band 48 / 20MHz

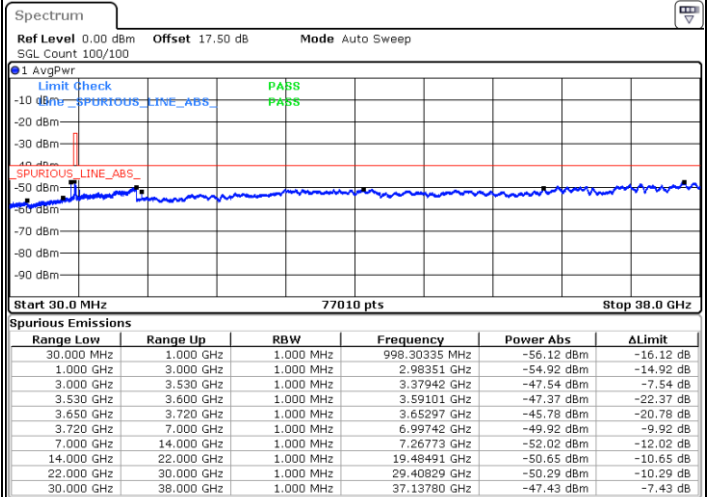
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



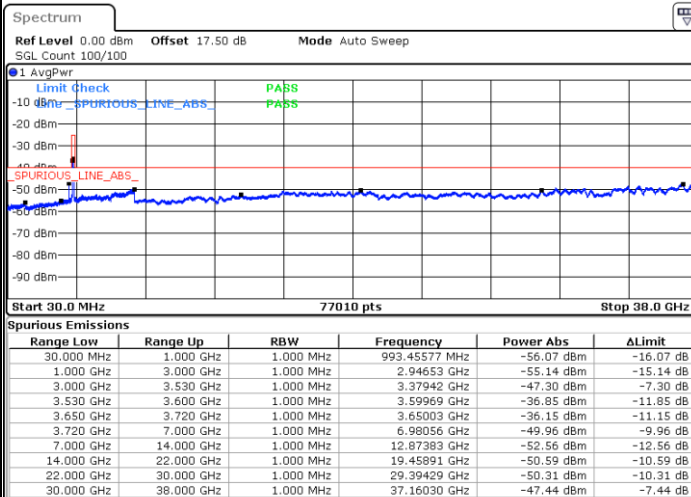
Date: 18 JAN 2020 14:57:43



Date: 18 JAN 2020 15:06:51

Middle Channel / FullRB

N/A



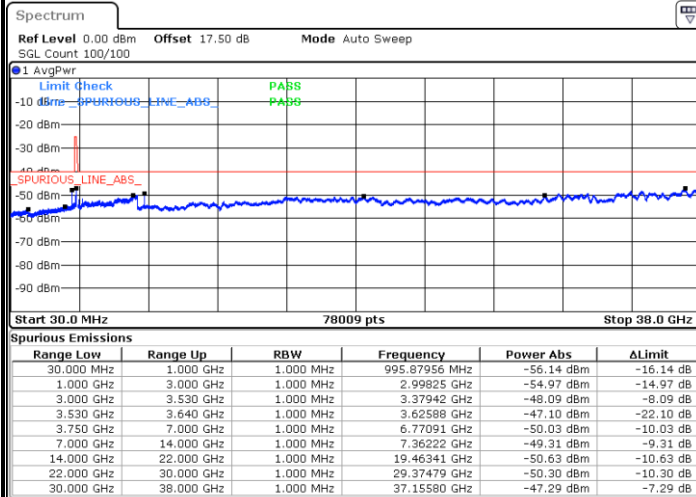
Date: 18 JAN 2020 14:48:33



LTE Band 48 / 20MHz

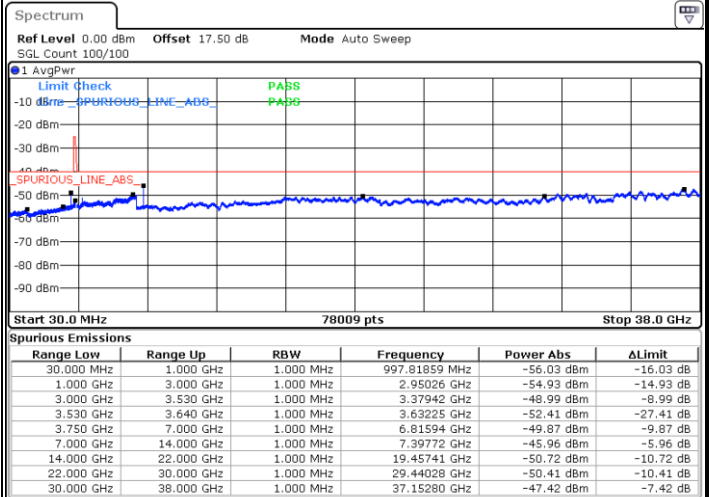
64QAM

Highest Channel / 1RB0



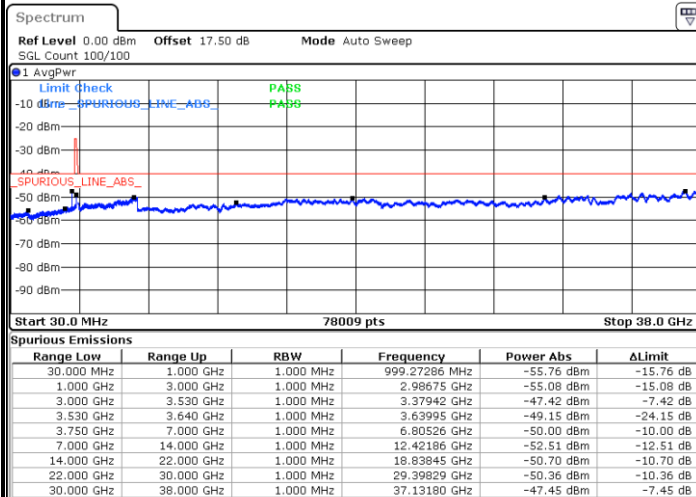
Date: 18 JAN 2020 14:58:43

Highest Channel / 1RBmax



Date: 18 JAN 2020 15:07:52

Highest Channel / FullIRB



Date: 18 JAN 2020 14:49:34

N/A

Frequency Stability

Test Conditions		LTE Band 48 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0060	PASS
40	Normal Voltage	0.0057	
30	Normal Voltage	0.0061	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0062	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0061	
-30	Normal Voltage	0.0005	
20	Maximum Voltage	0.0057	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0057	

Note:

1. Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.60 V. ; Maximum Voltage =4.45 V.
2. The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 48C

26dB Bandwidth

Mode	LTE Band 48C : 26dB BW(MHz)			
QPSK				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Lowest CH	24.73	30.09	34.90	24.88
Middle CH	24.83	30.09	34.90	25.08
Highest CH	24.93	29.91	35.04	24.93
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Lowest CH	30.21	35.11	39.88	-
Middle CH	29.97	34.90	39.80	-
Highest CH	29.97	34.97	39.80	-

Mode	LTE Band 48C : 26dB BW(MHz)			
16QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Lowest CH	24.83	29.97	34.83	24.78
Middle CH	24.83	30.03	34.90	24.88
Highest CH	24.88	29.97	34.97	24.88
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Lowest CH	30.03	34.90	39.96	-
Middle CH	30.03	35.18	39.80	-
Highest CH	29.97	35.04	39.80	-

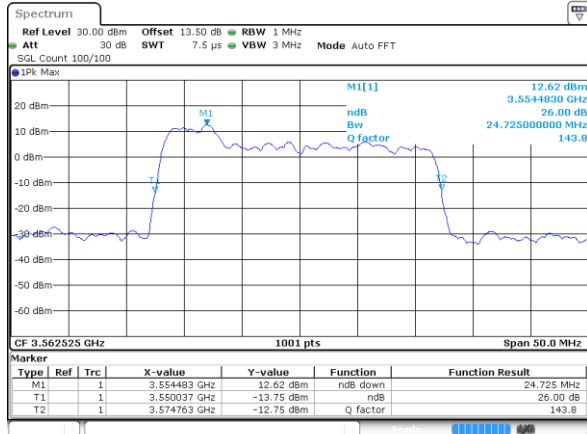
Mode	LTE Band 48C : 26dB BW(MHz)			
64QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Lowest CH	24.73	29.91	34.76	24.88
Middle CH	24.83	29.97	35.04	24.88
Highest CH	24.68	29.97	34.83	24.83
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Lowest CH	29.91	34.97	39.96	-
Middle CH	30.03	34.97	39.88	-
Highest CH	29.85	34.90	39.88	-



LTE Band 48C

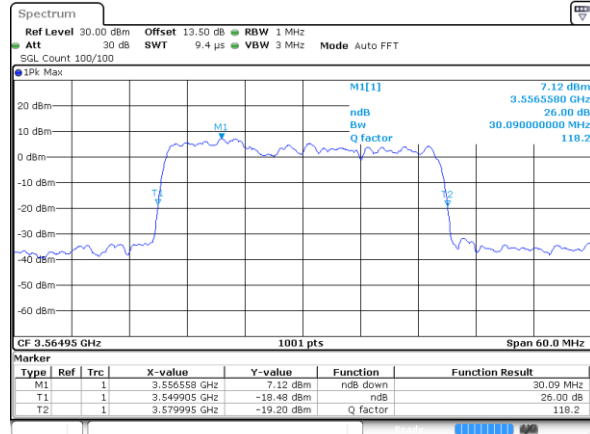
QPSK

Lowest Channel / 5MHz+20MHz



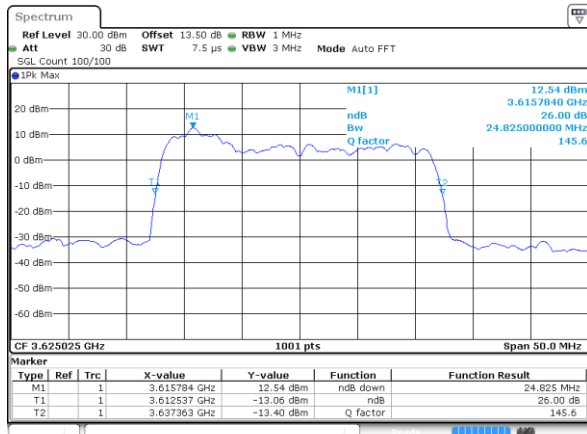
Date: 19 FEB 2020 18:02:28

Lowest Channel / 10MHz+20MHz



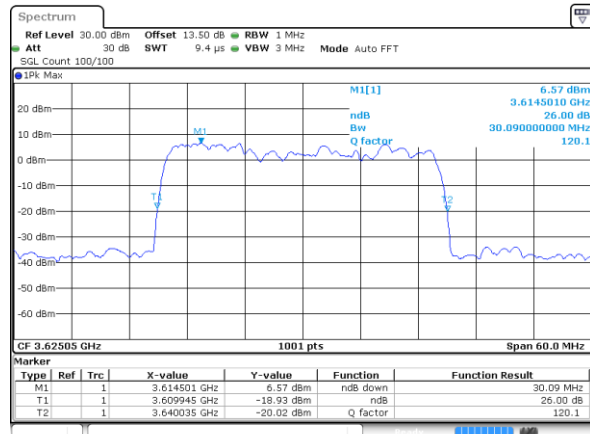
Date: 14 FEB 2020 09:28:56

Middle Channel / 5MHz+20MHz



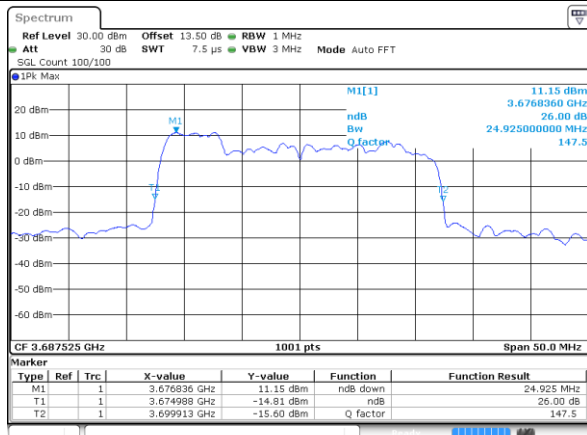
Date: 19 FEB 2020 18:10:31

Middle Channel / 10MHz+20MHz



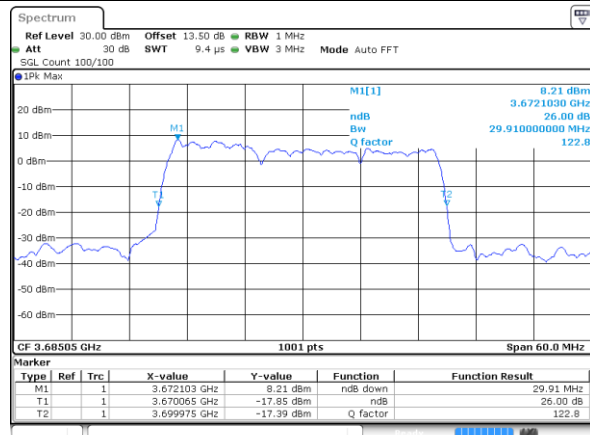
Date: 14 FEB 2020 10:08:08

Highest Channel / 5MHz+20MHz



Date: 19 FEB 2020 18:12:40

Highest Channel / 10MHz+20MHz



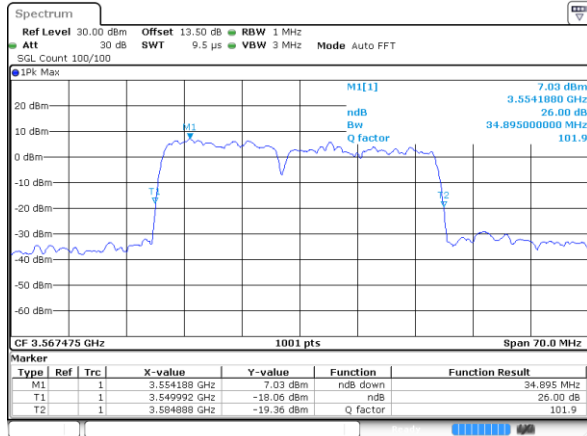
Date: 19 FEB 2020 10:22:05



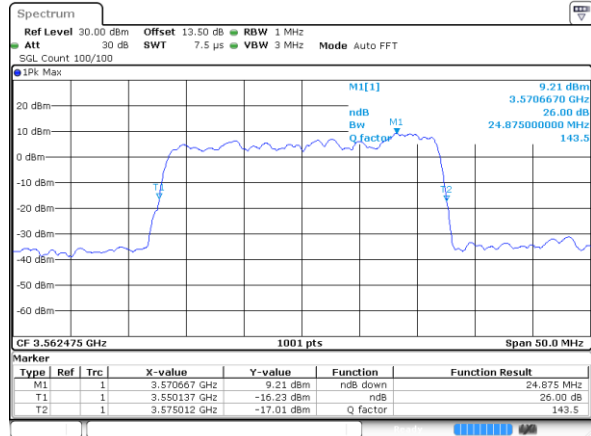
LTE Band 48C

QPSK

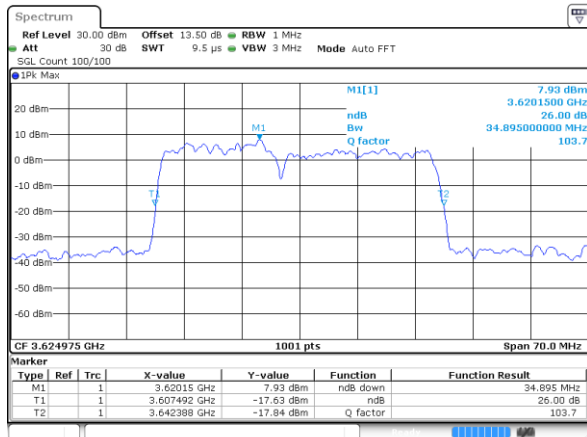
Lowest Channel / 15MHz+20MHz



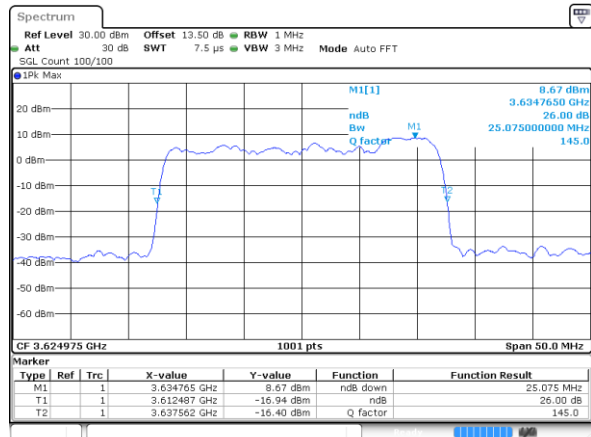
Lowest Channel / 20MHz+5MHz



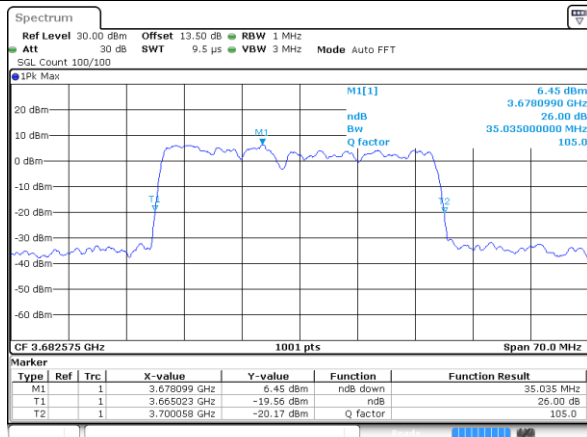
Middle Channel / 15MHz+20MHz



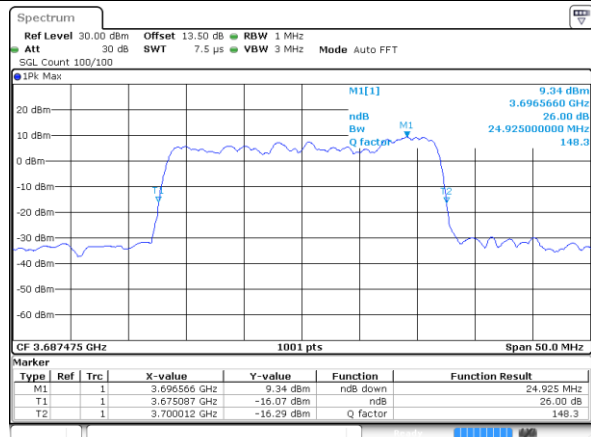
Middle Channel / 20MHz+5MHz



Highest Channel / 15MHz+20MHz



Highest Channel / 20MHz+5MHz

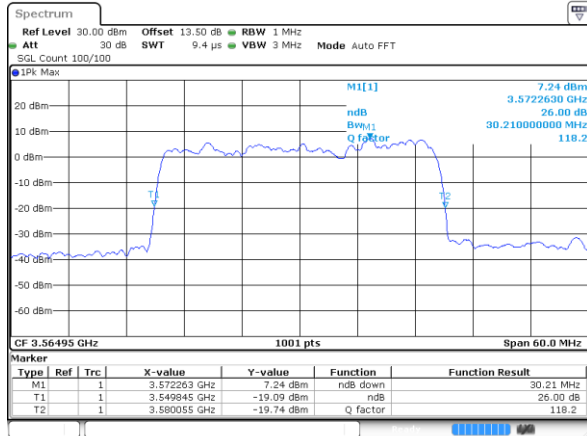




LTE Band 48C

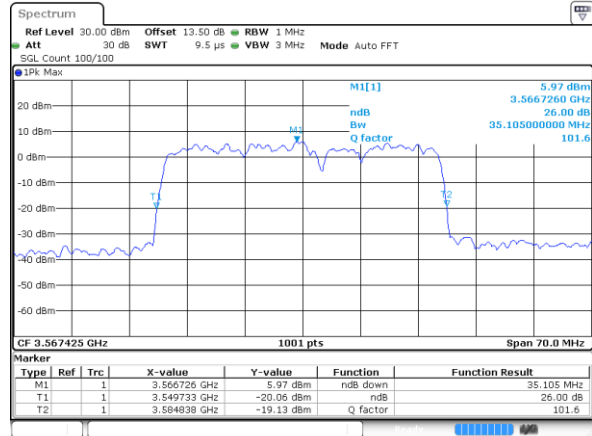
QPSK

Lowest Channel / 20MHz+10MHz



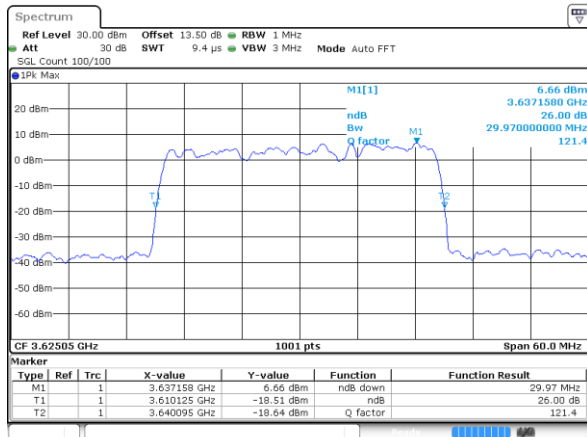
Date: 10 FEB 2020 17:37:37

Lowest Channel / 20MHz+15MHz



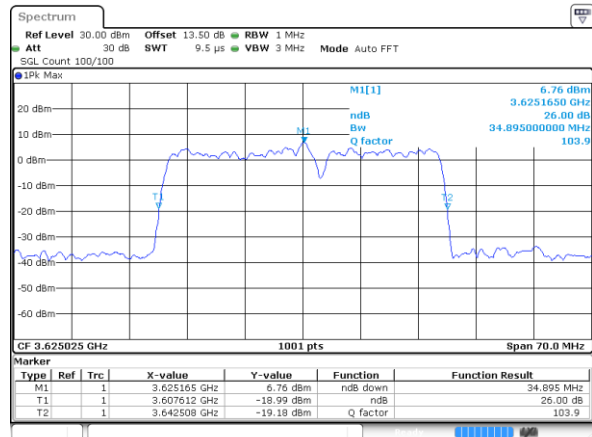
Date: 10 FEB 2020 16:44:26

Middle Channel / 20MHz+10MHz



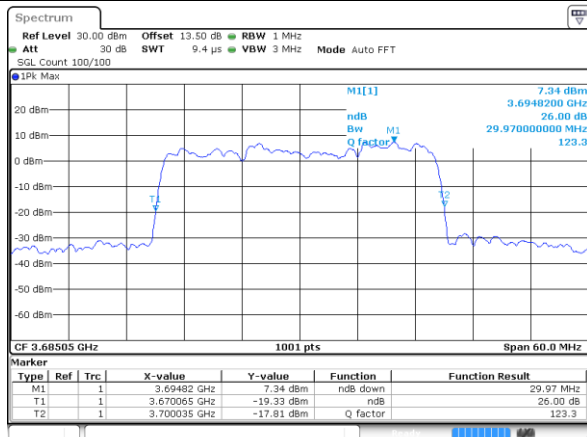
Date: 10 FEB 2020 19:11:25

Middle Channel / 20MHz+15MHz



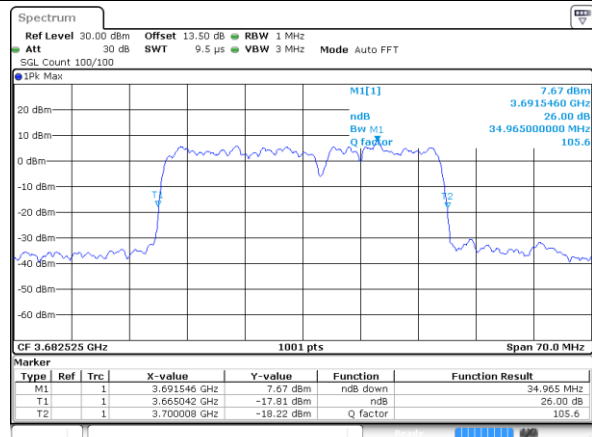
Date: 10 FEB 2020 16:39:10

Highest Channel / 20MHz+10MHz



Date: 10 FEB 2020 19:18:53

Highest Channel / 20MHz+15MHz



Date: 10 FEB 2020 16:47:08

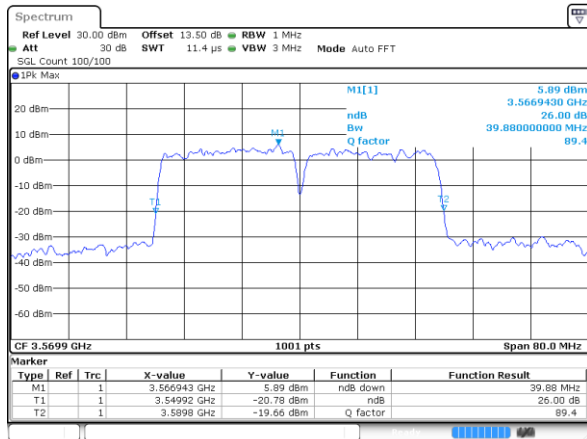


LTE Band 48C

QPSK

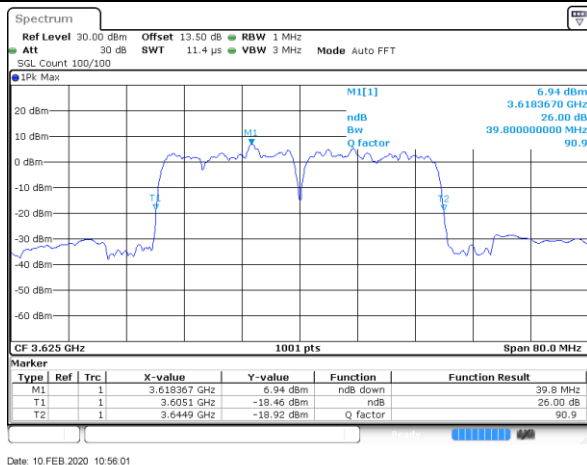
Lowest Channel / 20MHz+20MHz

N/A



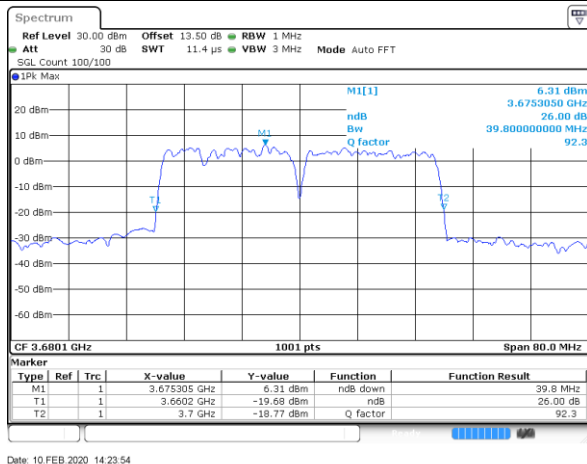
Middle Channel / 20MHz+20MHz

N/A



Highest Channel / 20MHz+20MHz

N/A

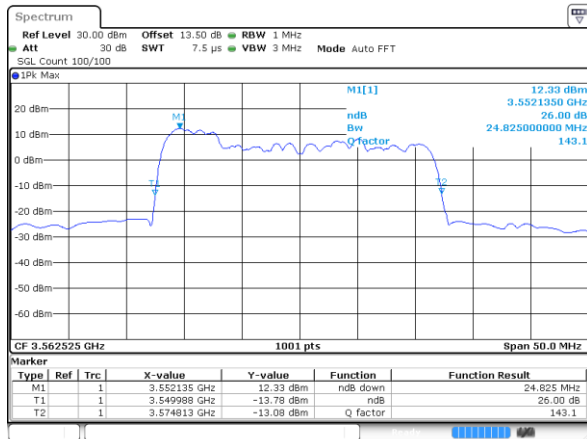




LTE Band 48C

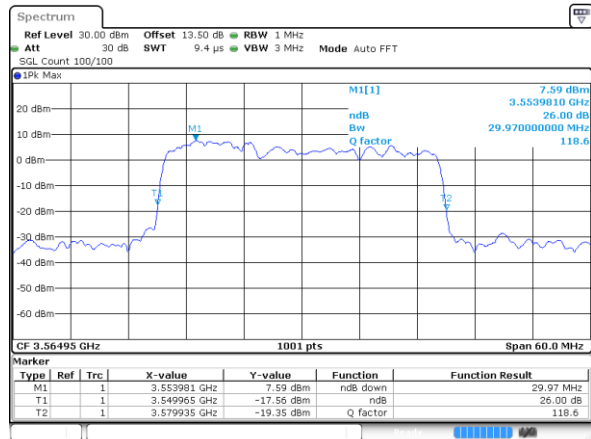
16QAM

Lowest Channel / 5MHz+20MHz



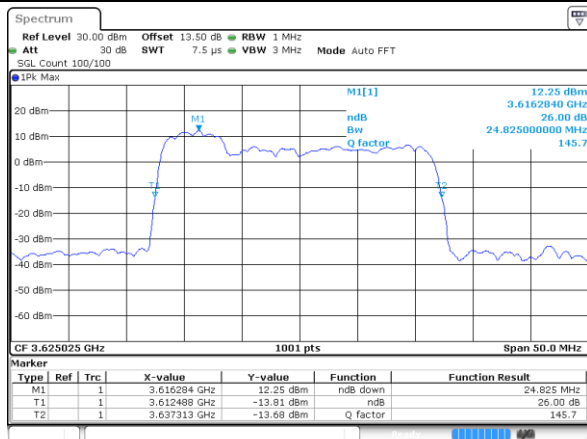
Date: 19 FEB 2020 16:02:05

Lowest Channel / 10MHz+15MHz



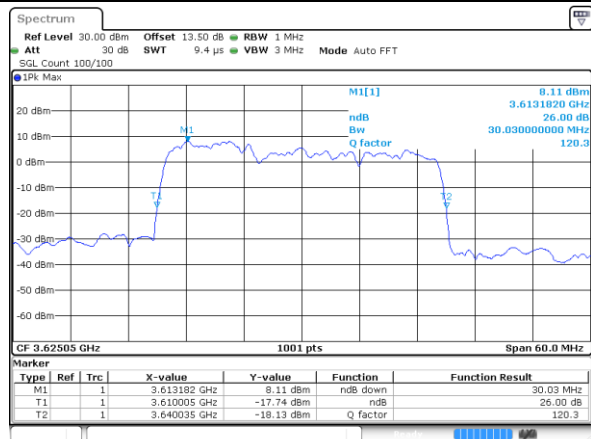
Date: 14 FEB 2020 09:28:33

Middle Channel / 5MHz+20MHz



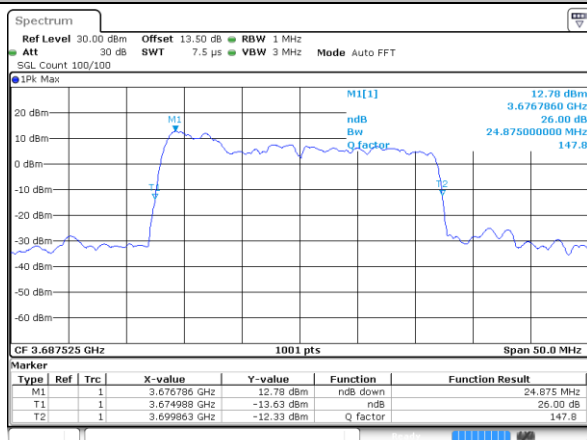
Date: 19 FEB 2020 18:10:08

Middle Channel / 10MHz+20MHz



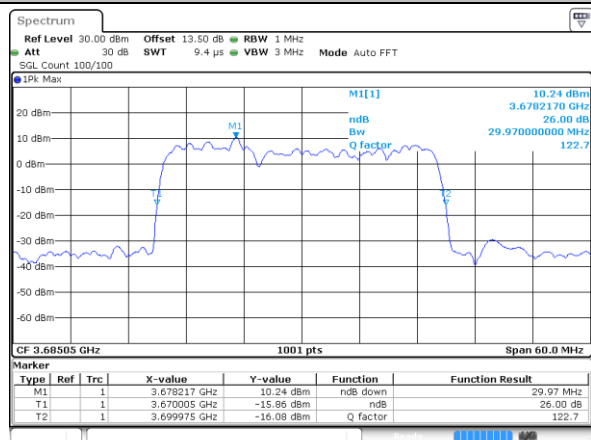
Date: 14 FEB 2020 10:07:45

Highest Channel / 5MHz+20MHz



Date: 19 FEB 2020 18:13:03

Highest Channel / 10MHz+20MHz



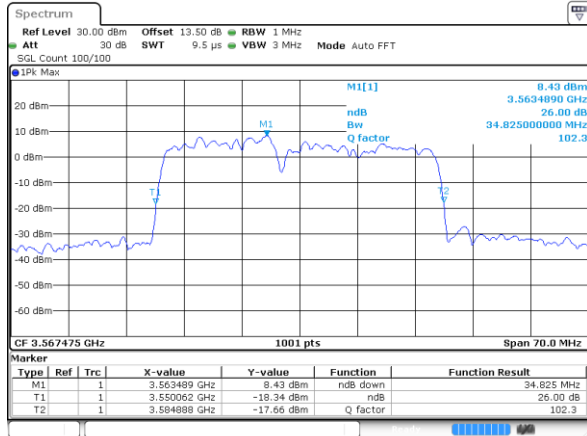
Date: 19 FEB 2020 10:22:29



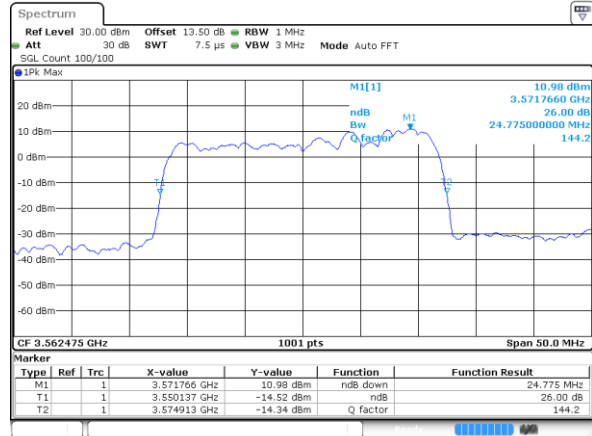
LTE Band 48C

16QAM

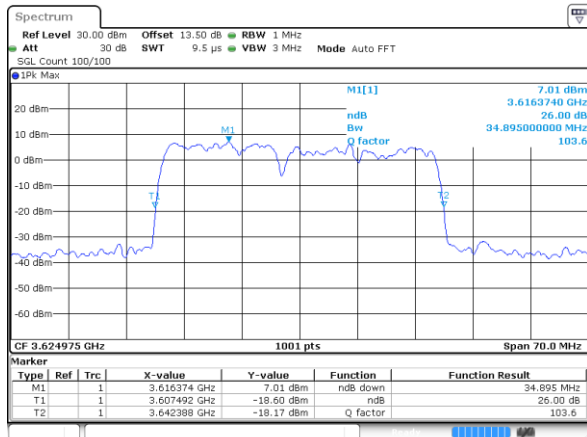
Lowest Channel / 10MHz+20MHz



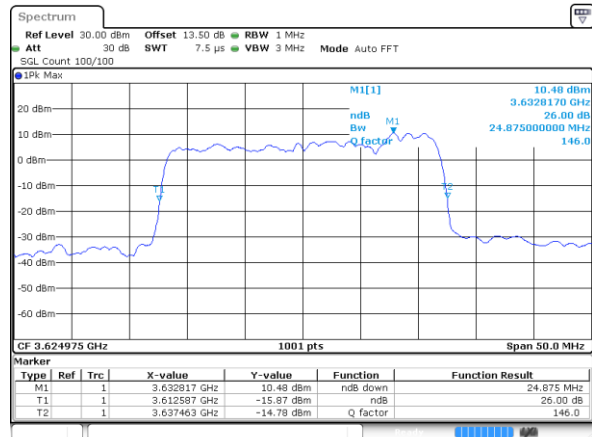
Lowest Channel / 15MHz+10MHz



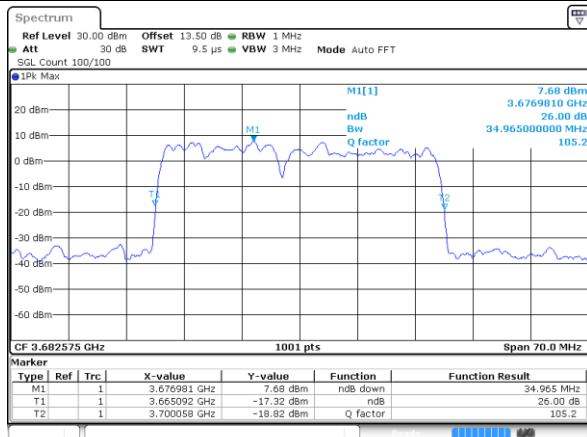
Middle Channel / 15MHz+20MHz



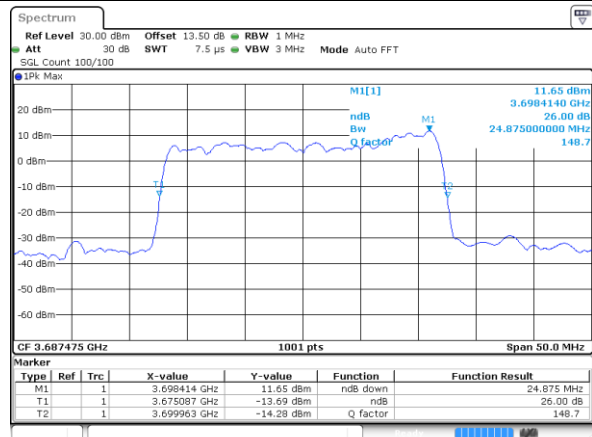
Middle Channel / 20MHz+5MHz



Highest Channel / 15MHz+20MHz



Highest Channel / 20MHz+5MHz

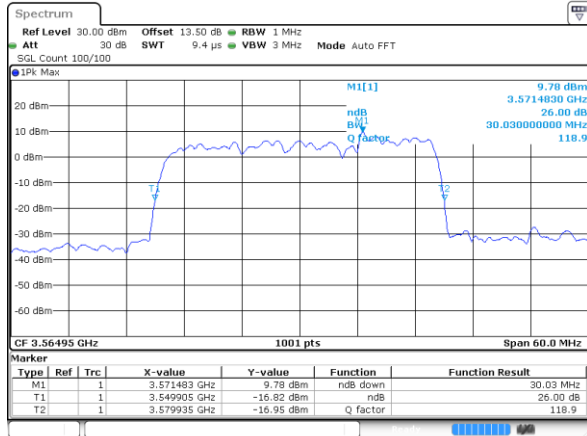




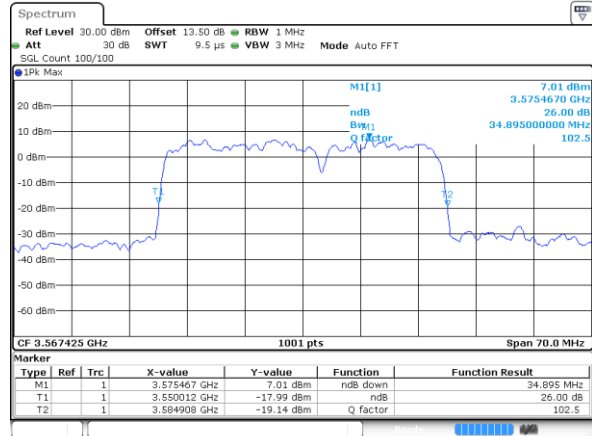
LTE Band 48C

16QAM

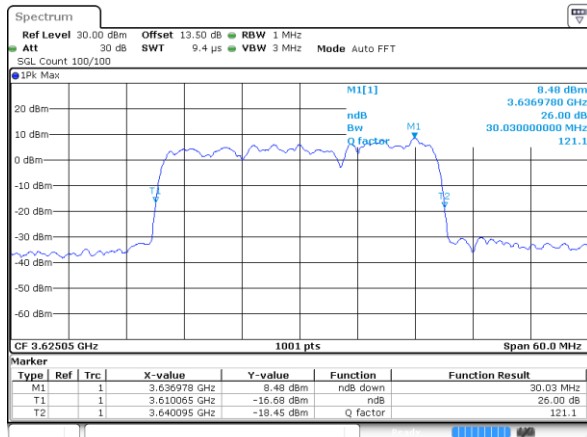
Lowest Channel / 15MHz+15MHz



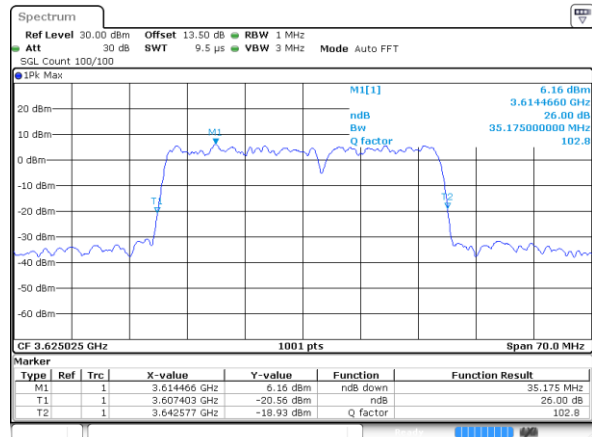
Lowest Channel / 15MHz+20MHz



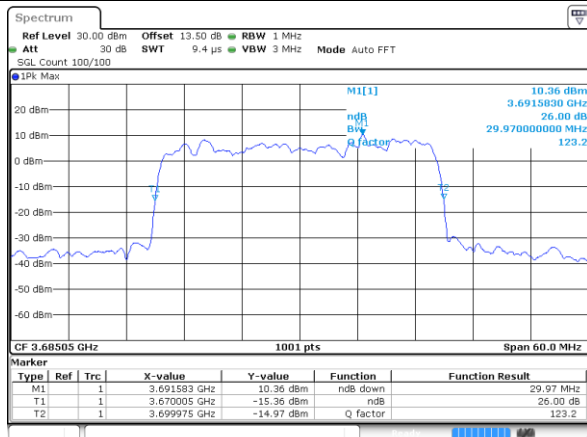
Middle Channel / 20MHz+10MHz



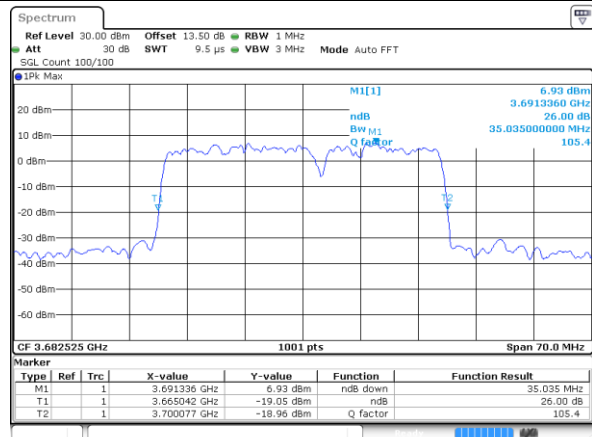
Middle Channel / 20MHz+15MHz



Highest Channel / 20MHz+10MHz



Highest Channel / 20MHz+15MHz



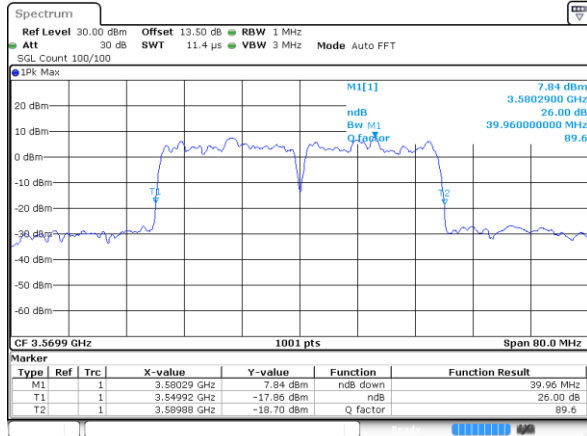


LTE Band 48C

16QAM

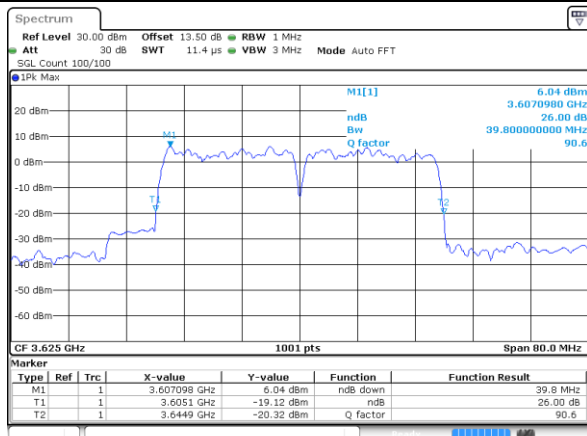
Lowest Channel / 20MHz+20MHz

N/A



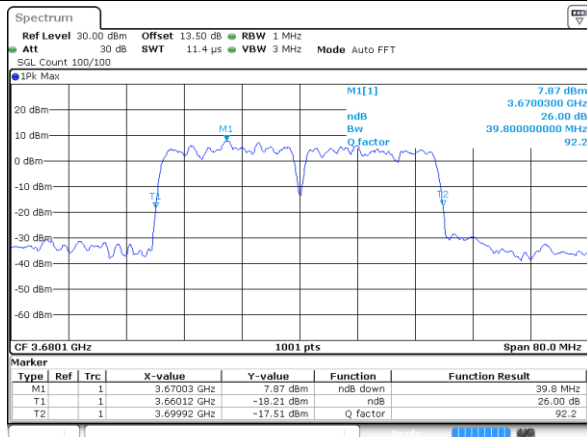
Middle Channel / 20MHz+20MHz

N/A



Highest Channel / 20MHz+20MHz

N/A

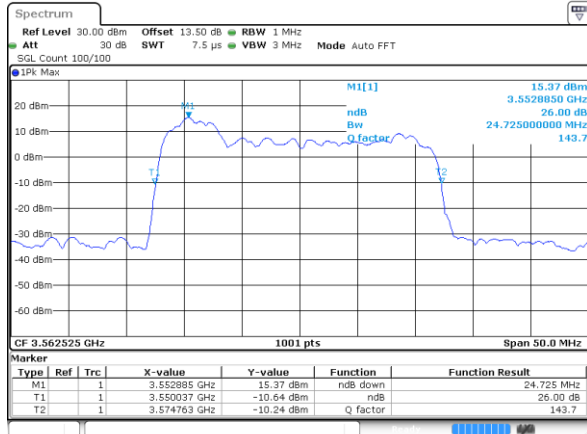




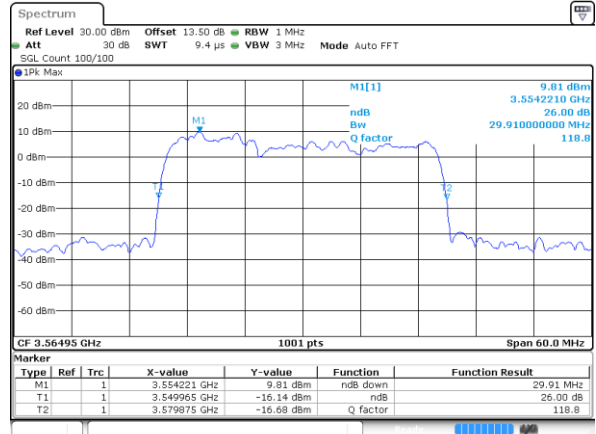
LTE Band 48C

64QAM

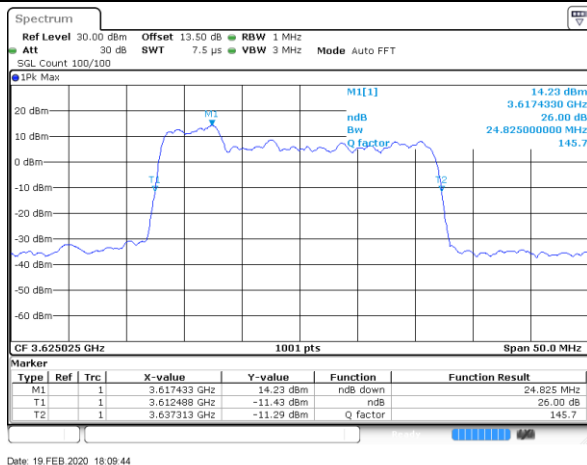
Lowest Channel / 5MHz+20MHz



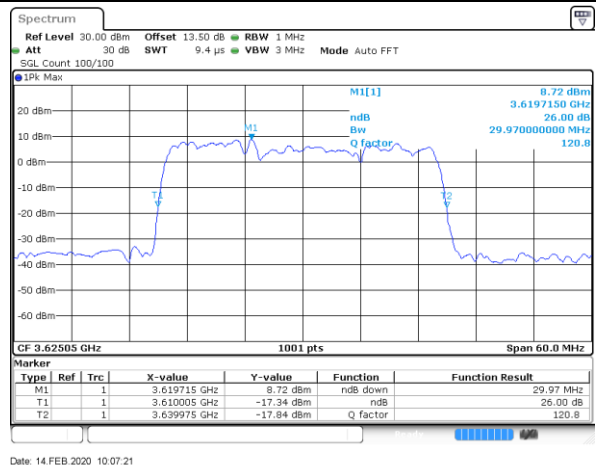
Lowest Channel / 10MHz+15MHz



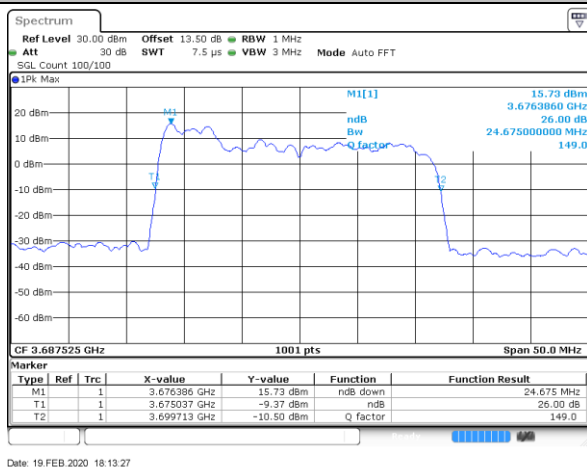
Middle Channel / 5MHz+20MHz



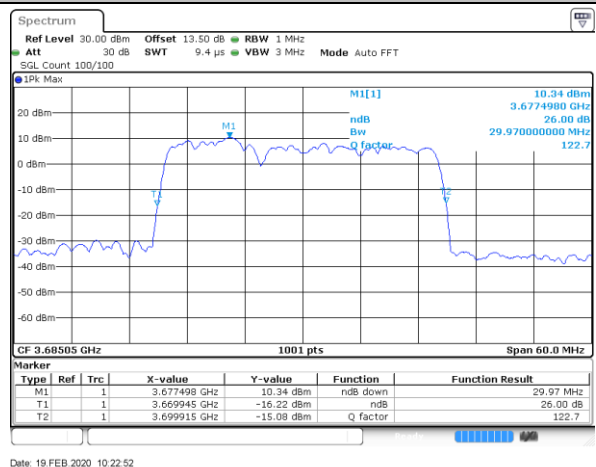
Middle Channel / 10MHz+20MHz



Highest Channel / 5MHz+20MHz



Highest Channel / 10MHz+20MHz

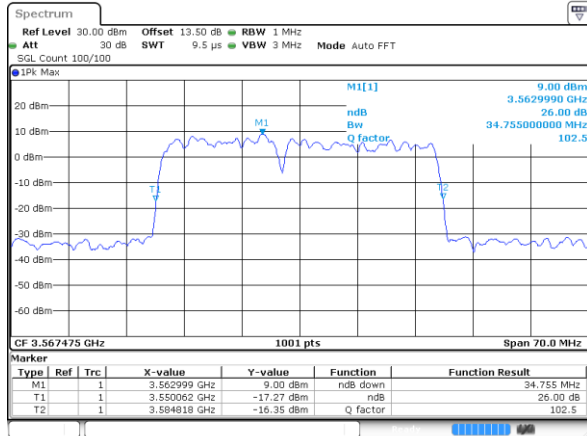




LTE Band 48C

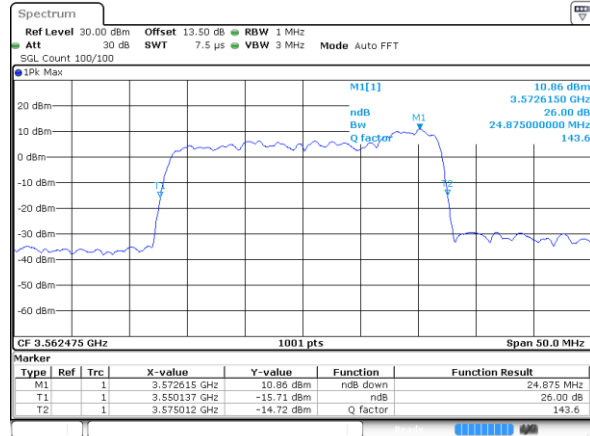
64QAM

Lowest Channel / 10MHz+20MHz



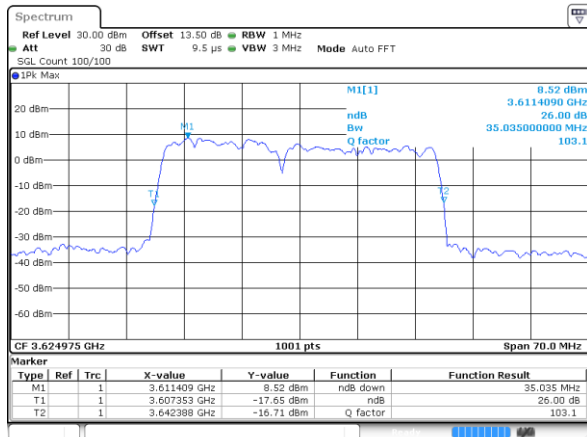
Date: 10 FEB 2020 21:26:14

Lowest Channel / 15MHz+10MHz



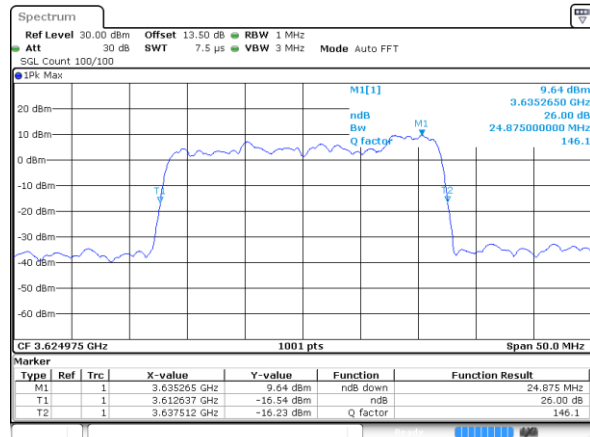
Date: 19 FEB 2020 11:11:06

Middle Channel / 15MHz+20MHz



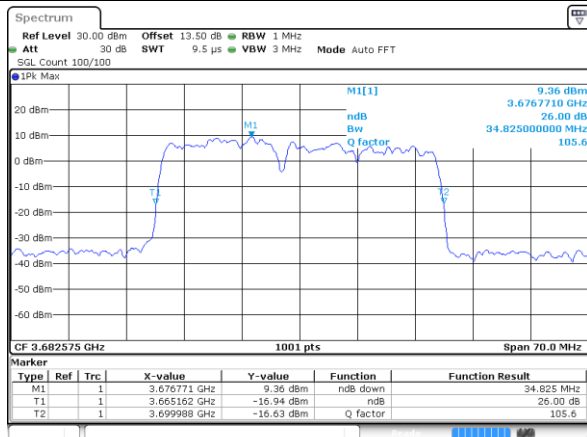
Date: 10 FEB 2020 22:08:56

Middle Channel / 20MHz+5MHz



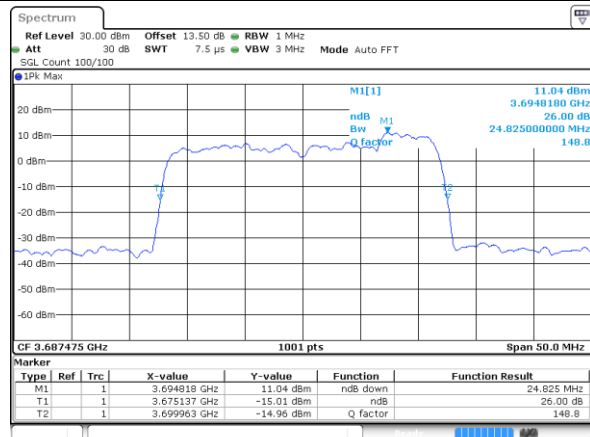
Date: 19 FEB 2020 14:20:14

Highest Channel / 15MHz+20MHz



Date: 10 FEB 2020 22:18:06

Highest Channel / 20MHz+5MHz



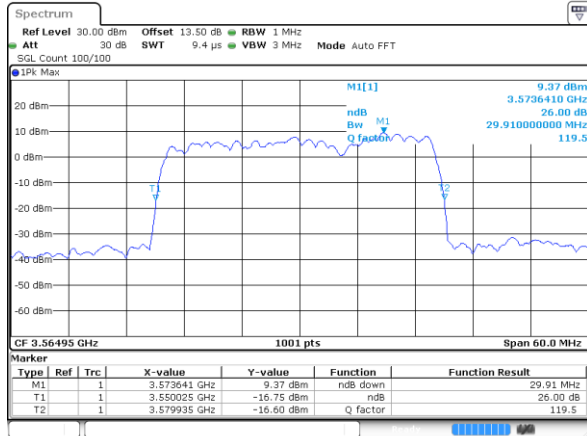
Date: 19 FEB 2020 15:11:58



LTE Band 48C

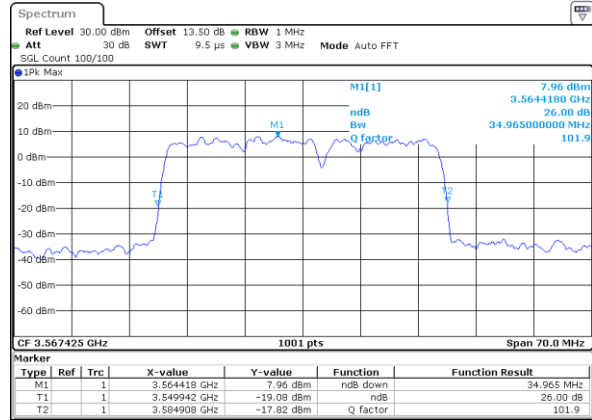
64QAM

Lowest Channel / 15MHz+15MHz



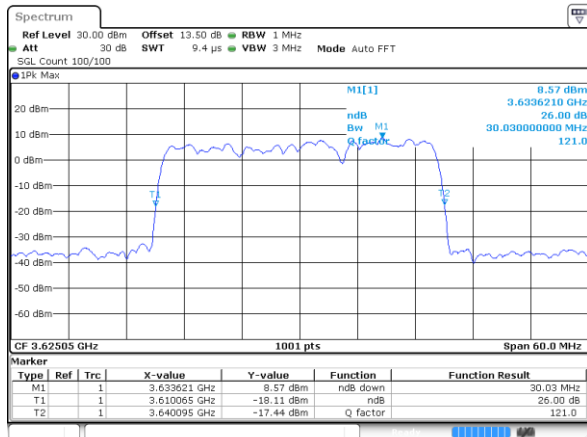
Date: 10 FEB 2020 17:36:52

Lowest Channel / 15MHz+20MHz



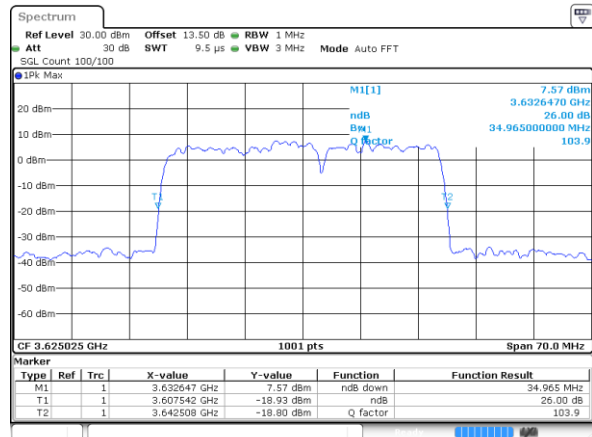
Date: 10 FEB 2020 16:43:41

Middle Channel / 20MHz+10MHz



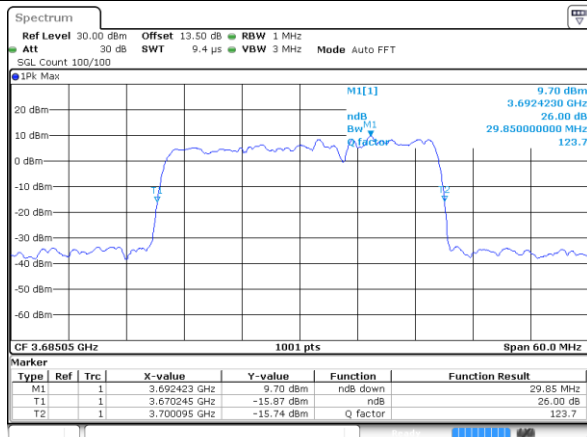
Date: 10 FEB 2020 19:10:41

Middle Channel / 20MHz+15MHz



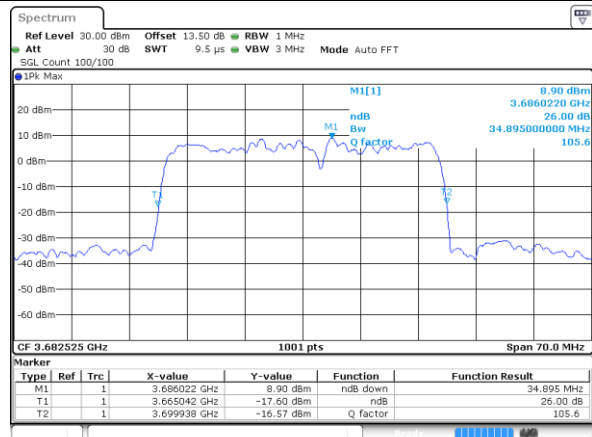
Date: 10 FEB 2020 16:38:25

Highest Channel / 20MHz+10MHz



Date: 10 FEB 2020 19:19:38

Highest Channel / 20MHz+15MHz



Date: 10 FEB 2020 16:47:53

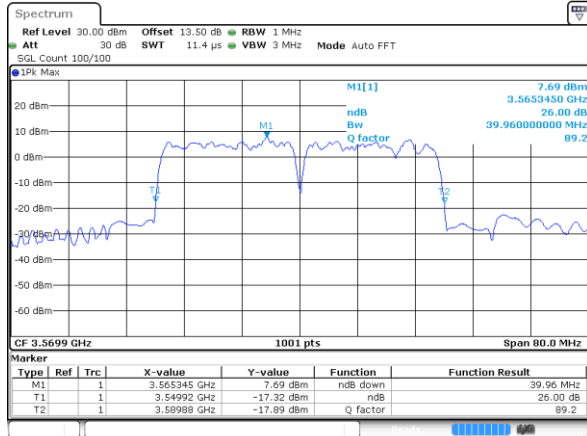


LTE Band 48C

64QAM

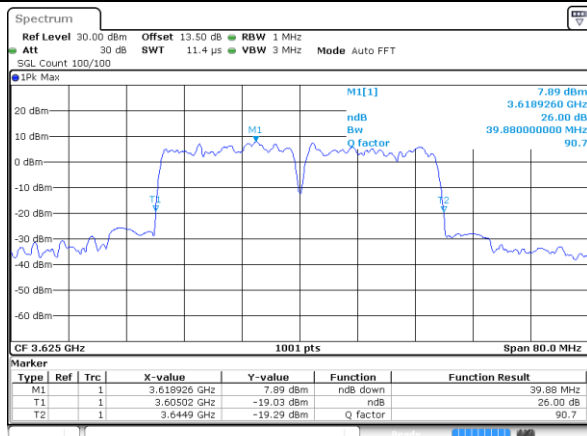
Lowest Channel / 20MHz+20MHz

N/A



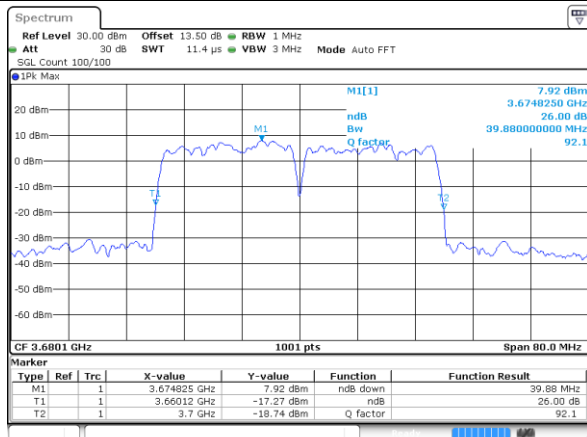
Middle Channel / 20MHz+20MHz

N/A



Highest Channel / 20MHz+20MHz

N/A



Occupied Bandwidth

Mode	LTE Band 48C : 99%OBW(MHz)			
QPSK				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Lowest CH	23.28	28.11	32.80	23.13
Middle CH	23.33	27.93	32.73	23.18
Highest CH	23.28	27.99	32.73	23.38
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Lowest CH	28.05	32.80	37.88	-
Middle CH	28.05	32.87	37.64	-
Highest CH	27.99	32.87	37.72	-

Mode	LTE Band 48C : 99%OBW(MHz)			
16QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Lowest CH	23.48	28.11	32.80	22.93
Middle CH	23.33	27.99	33.15	23.28
Highest CH	23.08	28.11	32.94	23.33
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Lowest CH	27.93	32.73	37.88	-
Middle CH	27.75	33.01	37.80	-
Highest CH	27.99	32.66	37.64	-

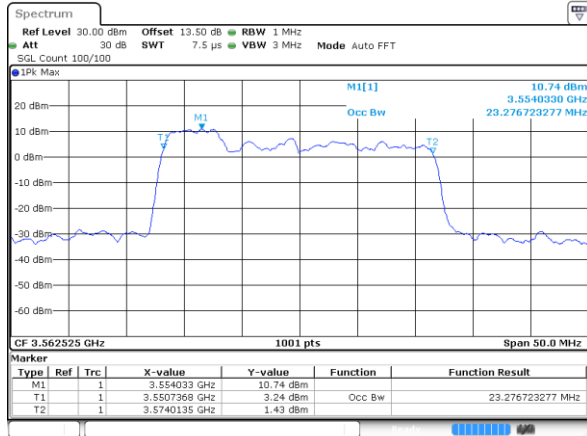
Mode	LTE Band 48C : 99%OBW(MHz)			
64QAM				
BW	5MHz+20MHz	10MHz+20MHz	15MHz+20MHz	20MHz+5MHz
Lowest CH	23.23	28.05	32.87	23.13
Middle CH	23.33	28.05	32.45	23.18
Highest CH	23.38	27.87	32.80	23.28
BW	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz	N/A
Lowest CH	27.99	32.87	37.72	-
Middle CH	28.41	32.73	37.72	-
Highest CH	27.87	32.94	37.88	-



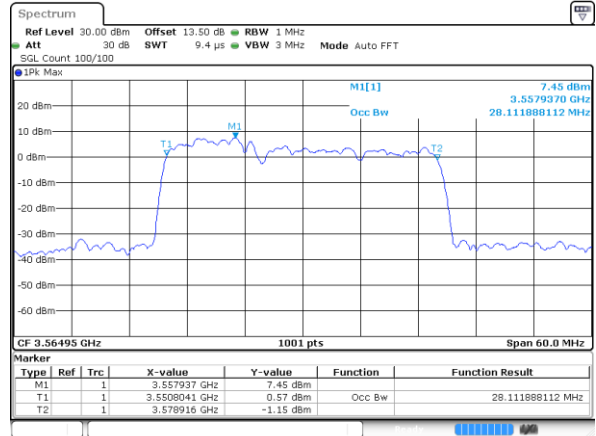
LTE Band 48C

QPSK

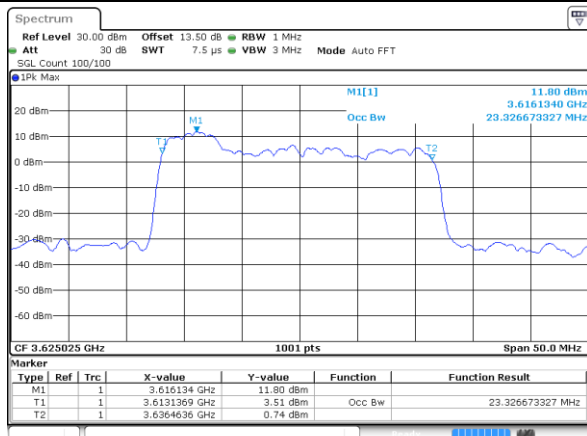
Lowest Channel / 5MHz+20MHz



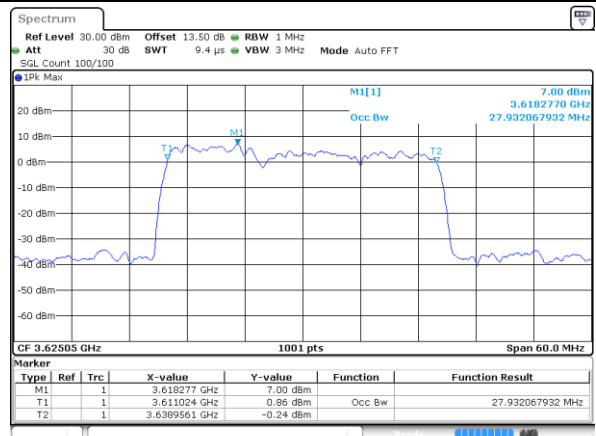
Lowest Channel / 10MHz+20MHz



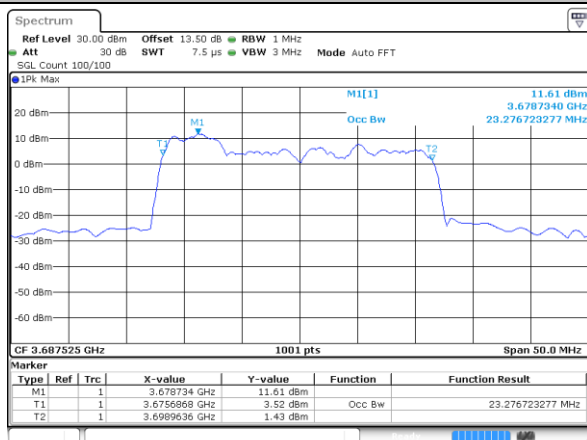
Middle Channel / 5MHz+20MHz



Middle Channel / 10MHz+20MHz



Highest Channel / 5MHz+20MHz



Highest Channel / 10MHz+20MHz

