

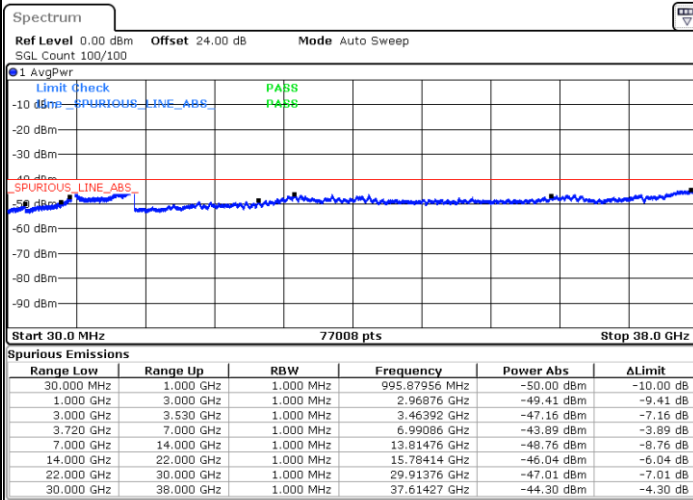


LTE Band 48 / 10MHz

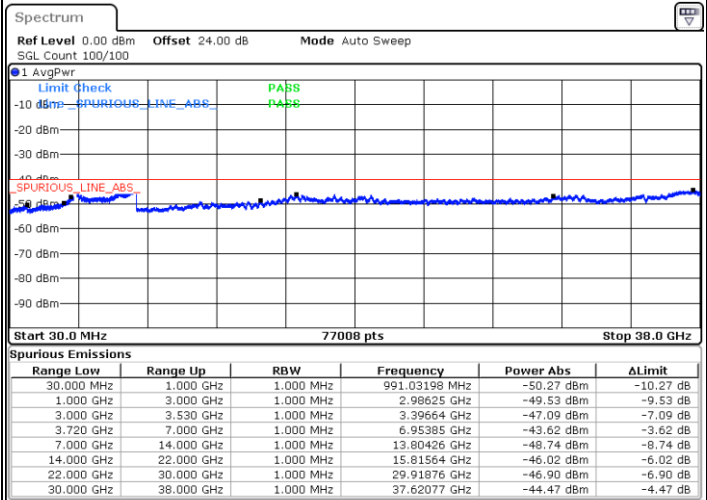
64QAM

MiddleChannel / 1RB0

Middle Channel / 1RBmax



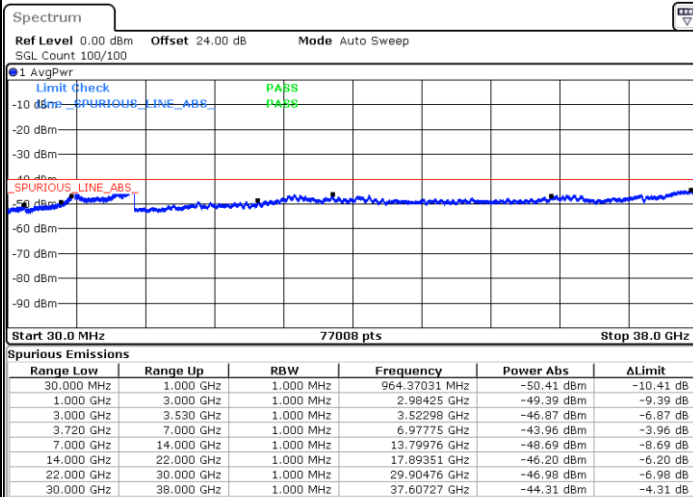
Date: 6 AUG 2020 06:17:09



Date: 6 AUG 2020 06:37:15

Middle Channel / FullIRB

N/A



Date: 6 AUG 2020 06:27:12

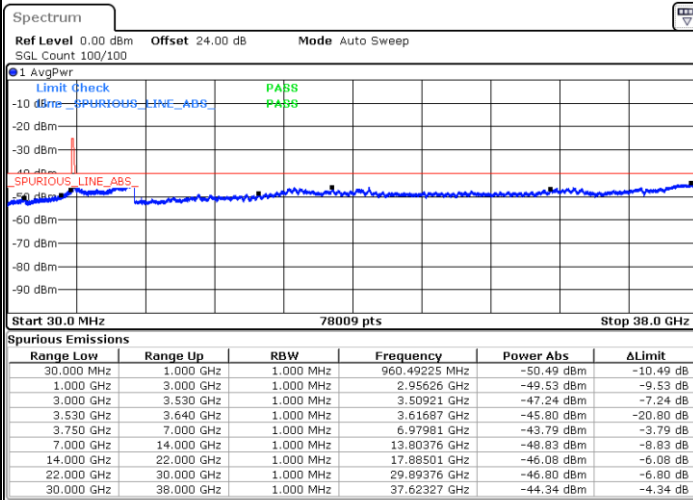


LTE Band 48 / 10MHz

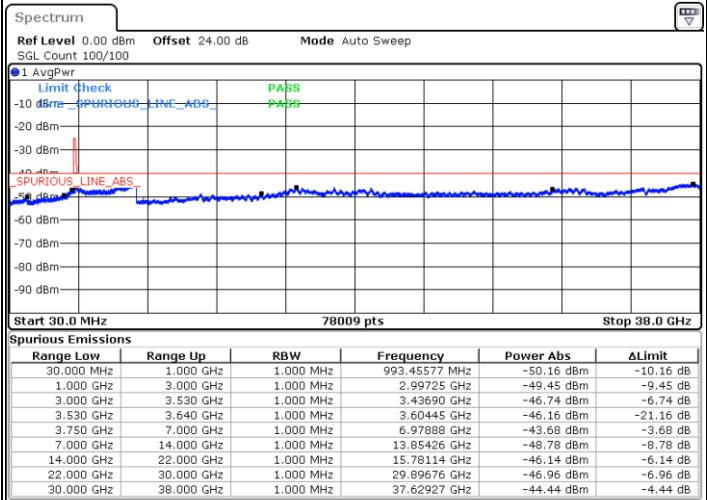
64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



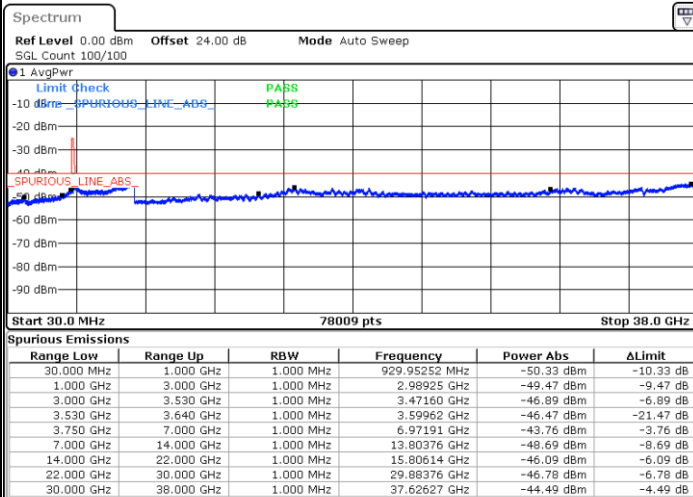
Date: 6 AUG 2020 06:18:16



Date: 6 AUG 2020 06:38:22

Highest Channel / FullIRB

N/A



Date: 6 AUG 2020 06:28:19

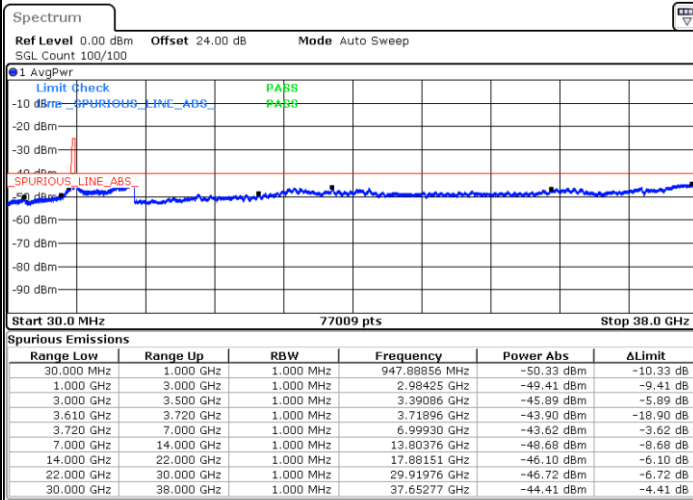


LTE Band 48 / 15MHz

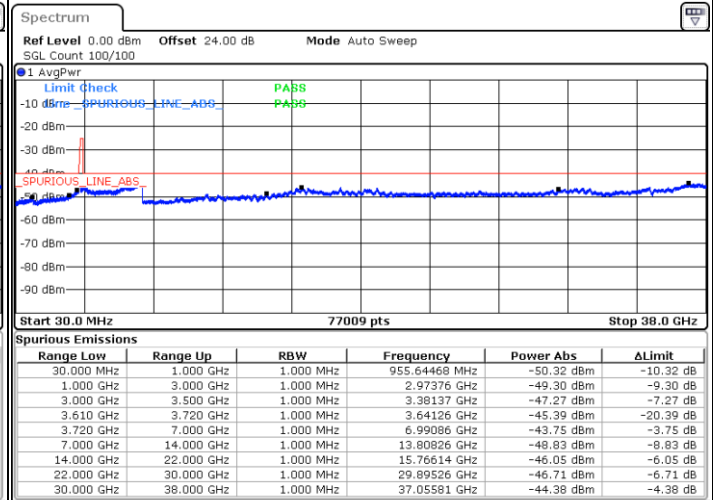
64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



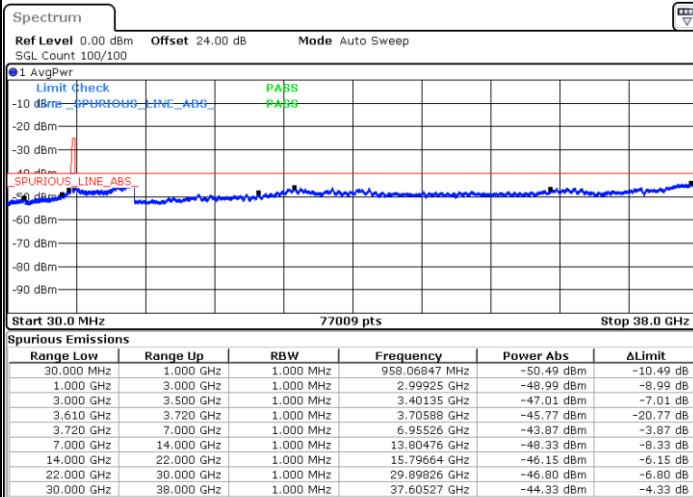
Date: 6 AUG 2020 06:44:00



Date: 6 AUG 2020 07:04:06

Lowest Channel / FullIRB

N/A



Date: 6 AUG 2020 06:54:03

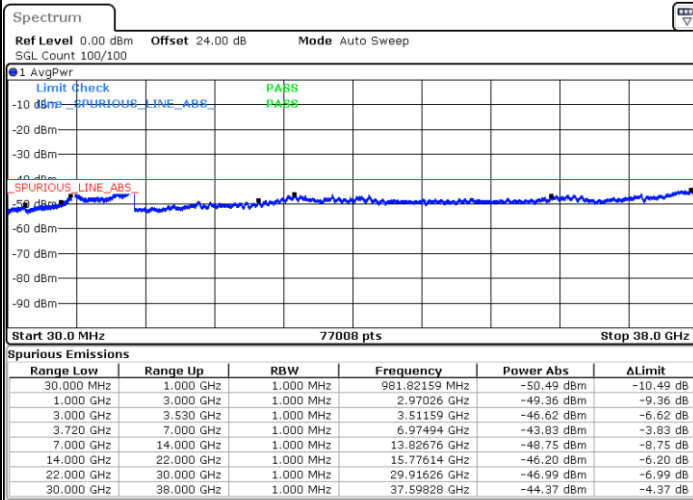


LTE Band 48 / 15MHz

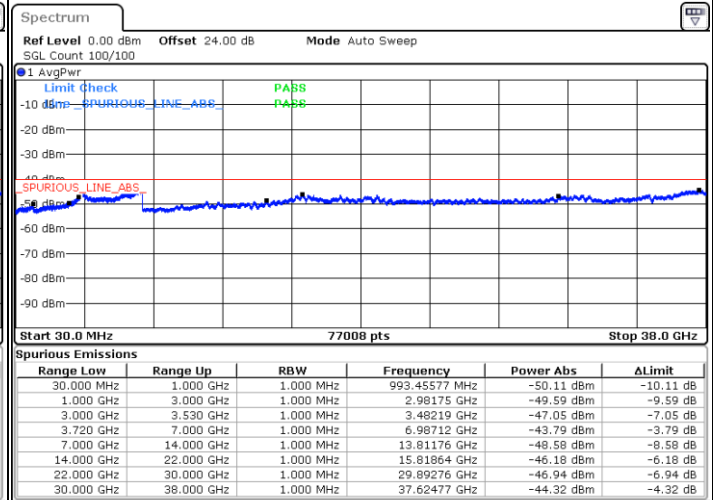
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



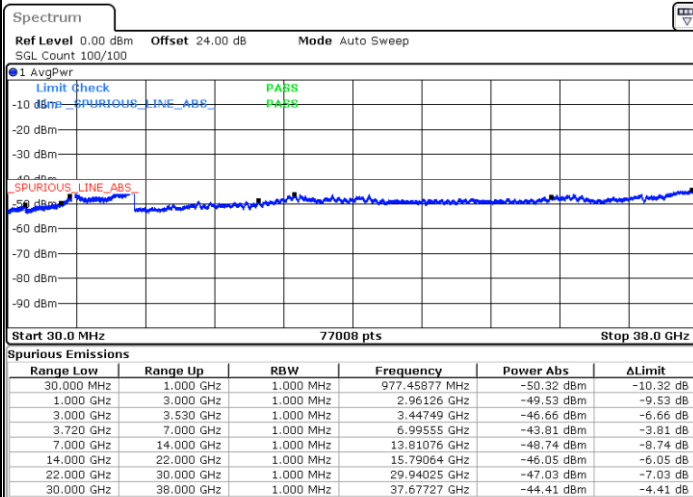
Date: 6 AUG 2020 06:45:06



Date: 6 AUG 2020 07:05:13

Middle Channel / FullIRB

N/A



Date: 6 AUG 2020 06:55:10

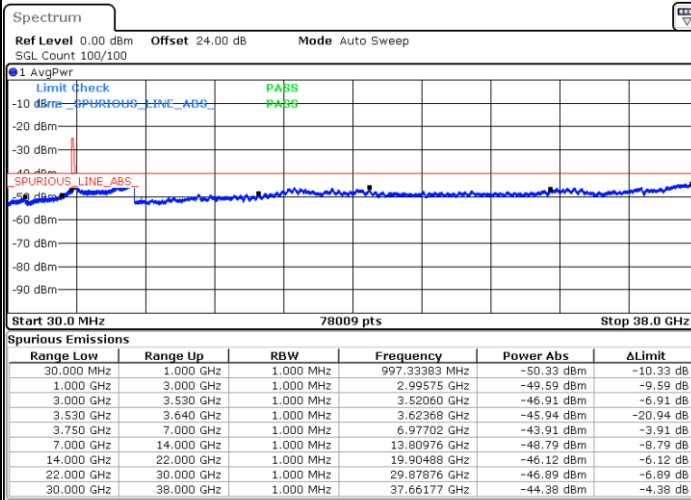


LTE Band 48 / 15MHz

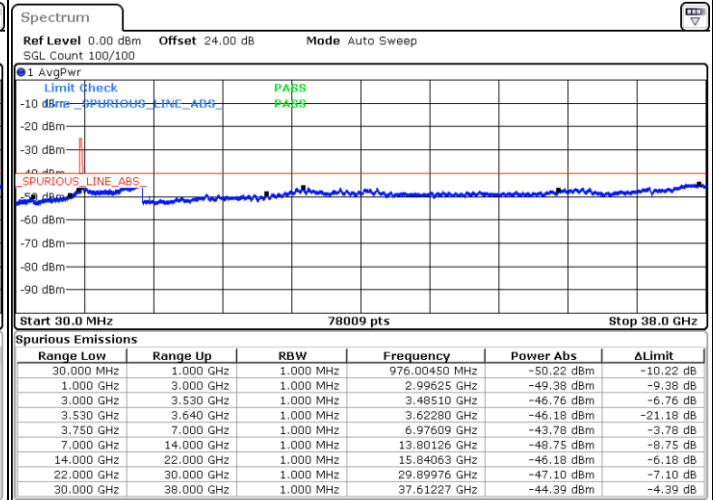
64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



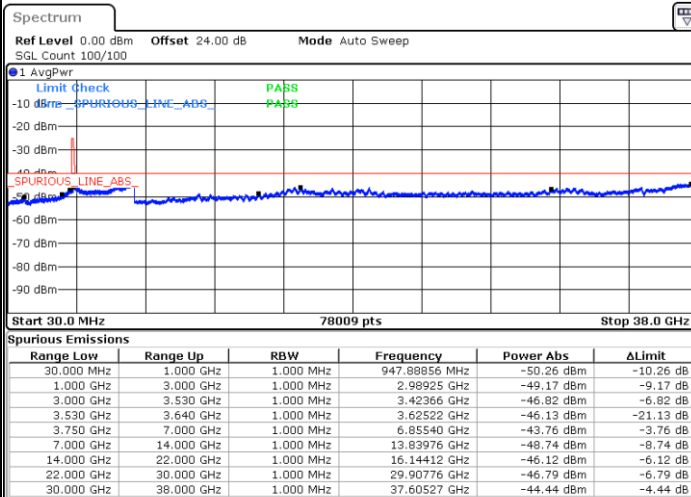
Date: 6 AUG 2020 06:50:42



Date: 6 AUG 2020 07:10:48

Highest Channel / FullIRB

N/A



Date: 6 AUG 2020 07:00:45

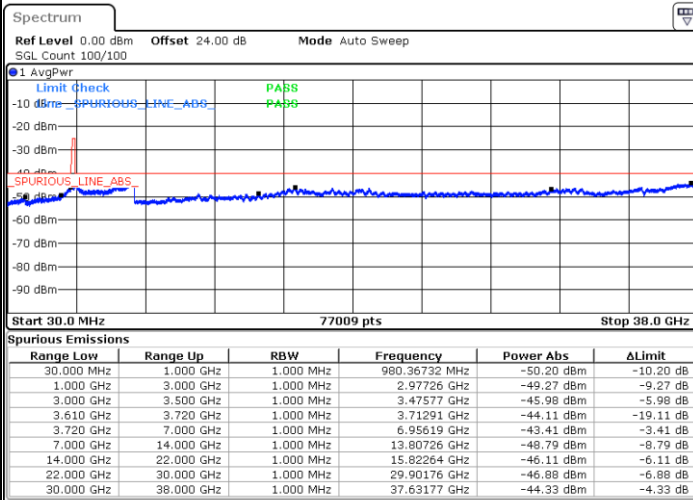


LTE Band 48 / 20MHz

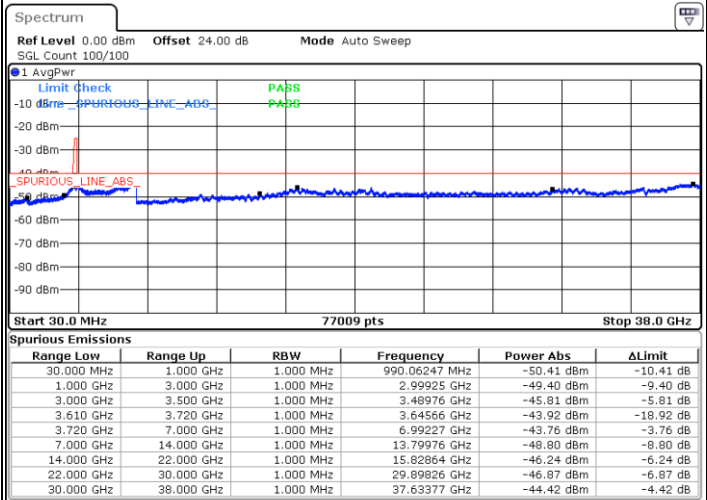
64QAM

Lowest Channel / 1RB0

Lowest Channel / 1RBmax



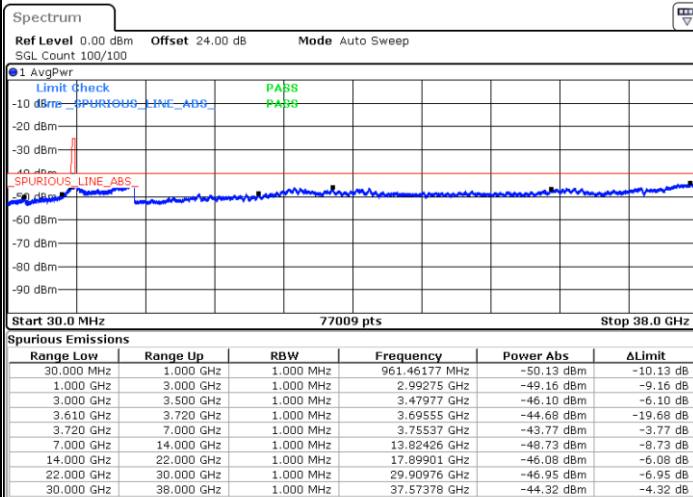
Date: 6 AUG 2020 07:56:58



Date: 6 AUG 2020 08:07:01

Lowest Channel / FullIRB

N/A



Date: 6 AUG 2020 07:48:56

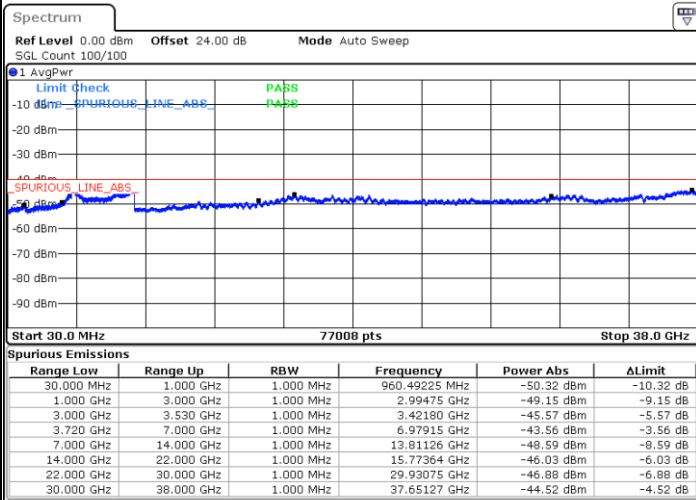


LTE Band 48 / 20MHz

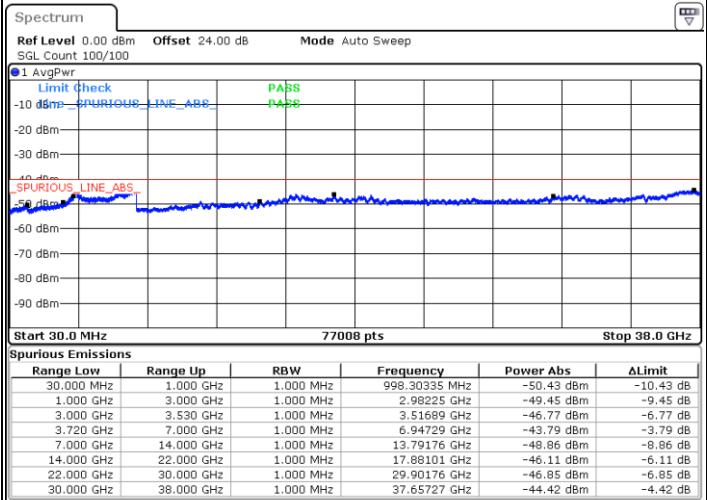
64QAM

Middle Channel / 1RB0

Middle Channel / 1RBmax



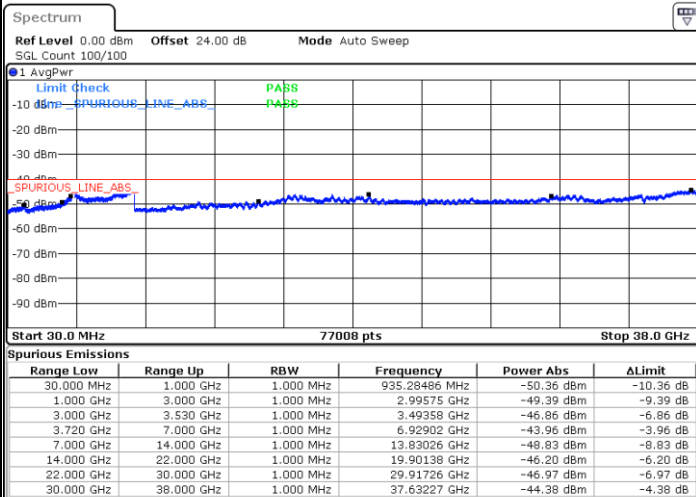
Date: 6 AUG 2020 08:02:32



Date: 6 AUG 2020 08:12:35

Middle Channel / FullIRB

N/A



Date: 6 AUG 2020 07:52:29

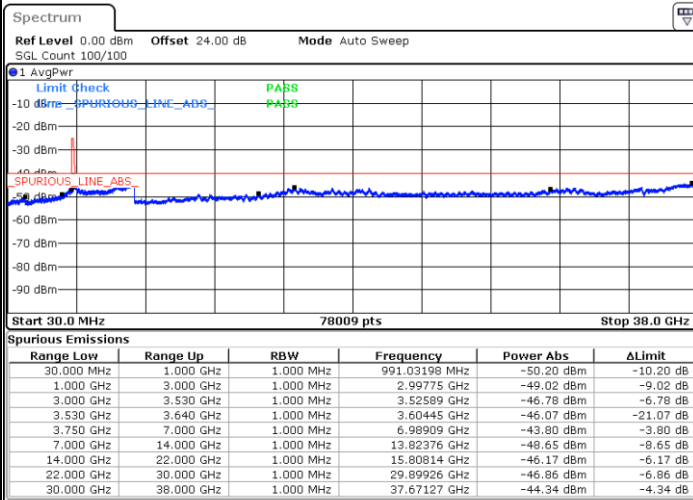


LTE Band 48 / 20MHz

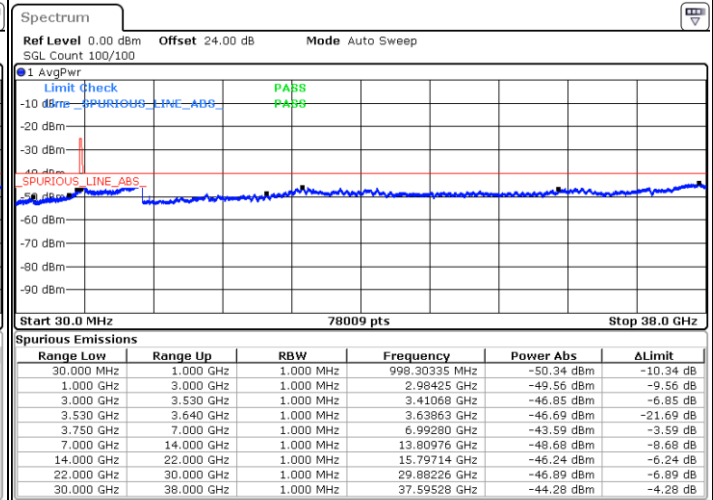
64QAM

Highest Channel / 1RB0

Highest Channel / 1RBmax



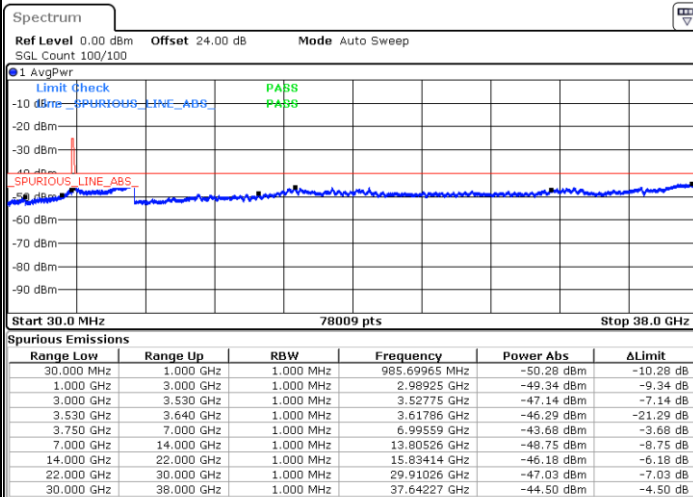
Date: 6 AUG 2020 08:03:39



Date: 6 AUG 2020 08:13:42

Highest Channel / FullRB

N/A



Date: 6 AUG 2020 07:53:36

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	0.0002	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0035	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0008	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0038	

Note:

1. Normal Voltage = DC 48 V. ; Battery End Point (BEP) = DC 36 V. ; Maximum Voltage = DC 55 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



<MIMO Mode for Sample 1>

<Ant. 1>

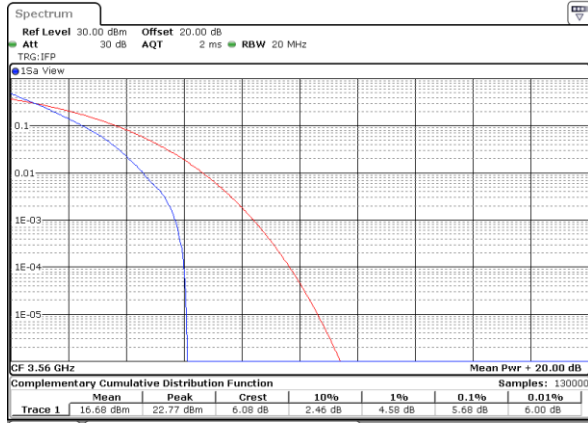
Peak-to-Average Ratio

Mode	LTE Band 48 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	5.68	5.33	6.87	6.20	PASS
Middle CH	6.55	5.22	6.84	6.14	
Highest CH	5.68	5.39	6.84	6.29	
Mode	LTE Band 48 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.52	6.38	-	-	PASS
Middle CH	6.43	6.38	-	-	
Highest CH	6.46	6.41	-	-	

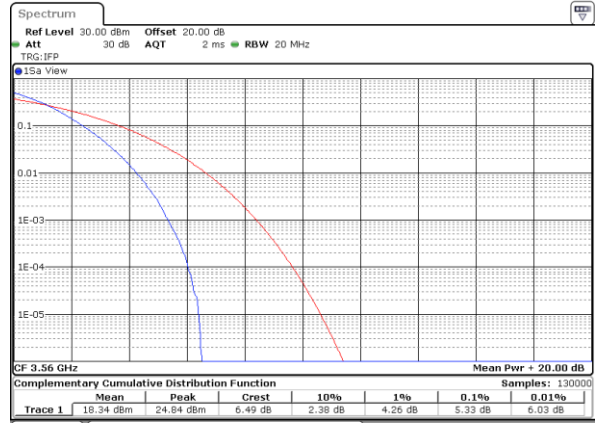


LTE Band 48 / 20MHz / QPSK

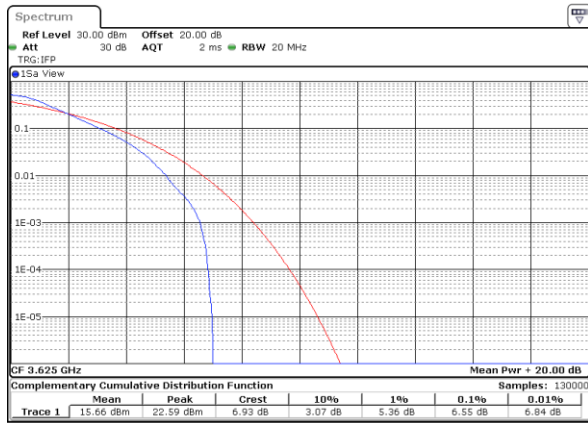
Lowest Channel / 1RB



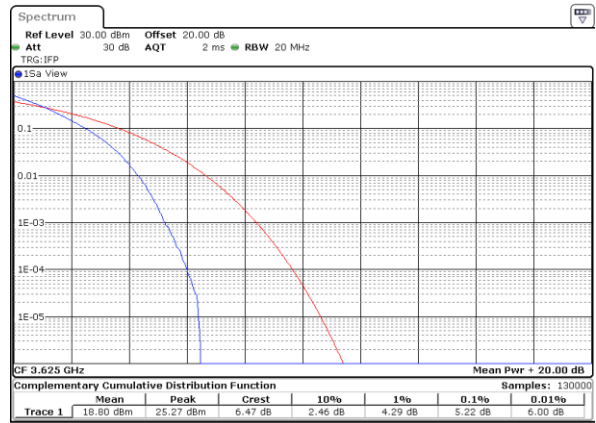
Lowest Channel / Full RB



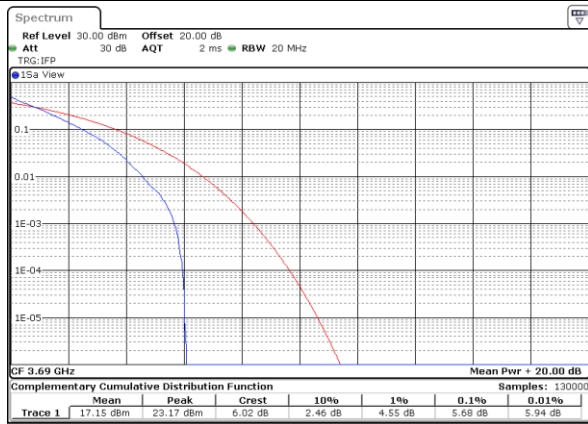
Middle Channel / 1RB



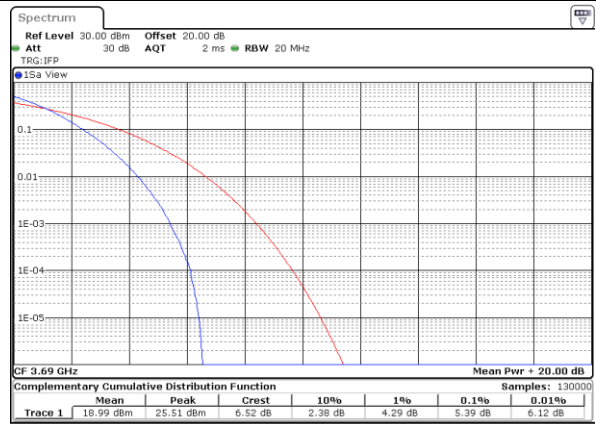
Middle Channel / Full RB



Highest Channel / 1RB



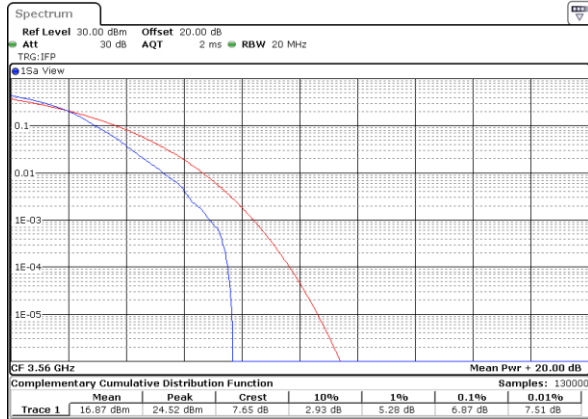
Highest Channel / Full RB



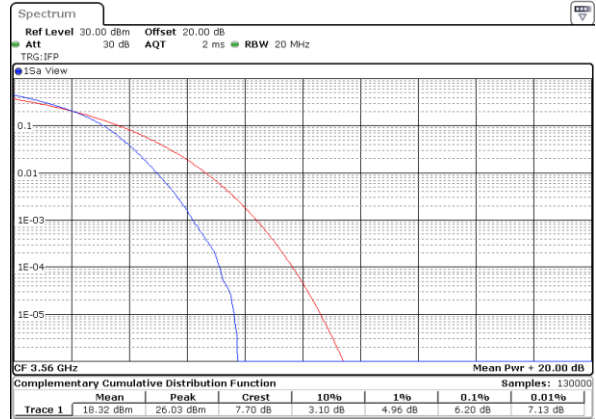


LTE Band 48 / 20MHz / 16QAM

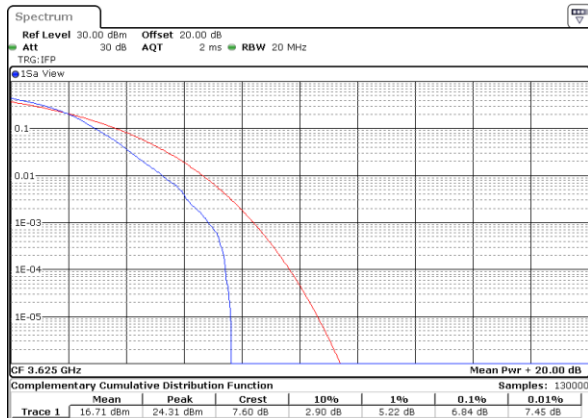
Lowest Channel / 1RB



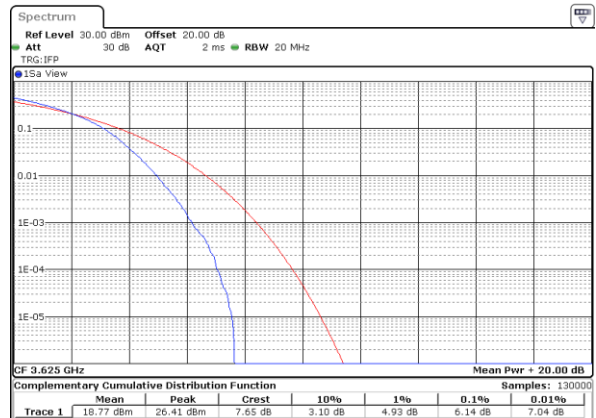
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



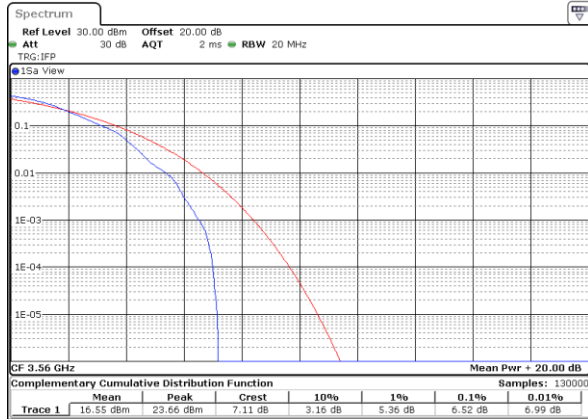
Highest Channel / Full RB



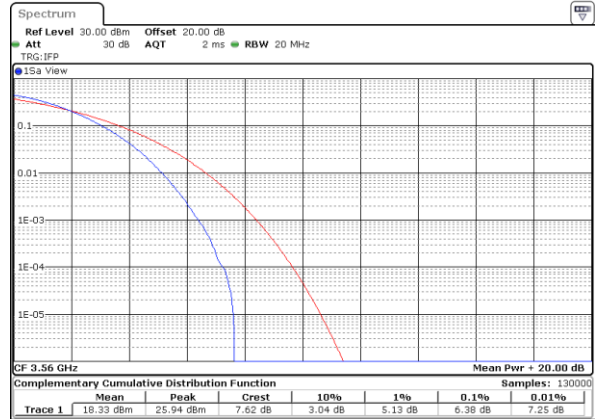


LTE Band 48 / 20MHz / 64QAM

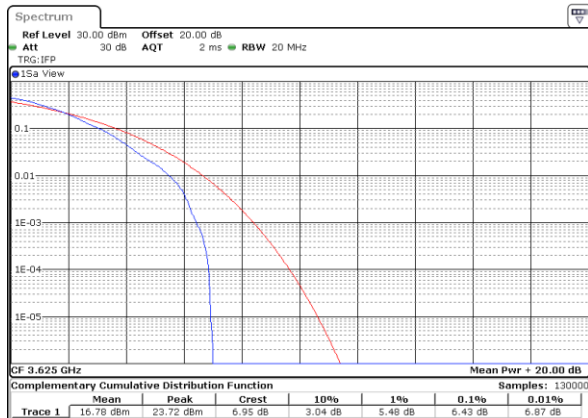
Lowest Channel / 1RB



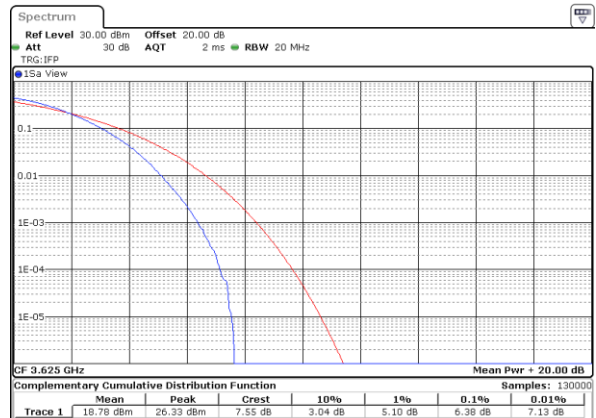
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



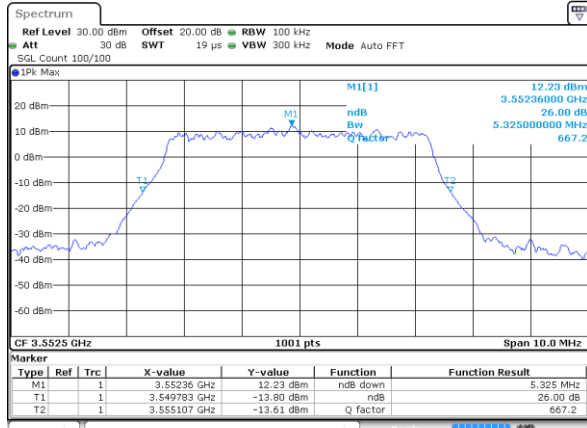
**26dB Bandwidth**

Mode	LTE Band 48 : 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	-	-	-	-	5.33	4.84	9.65	9.83	14.21	14.33	18.86	18.78
Middle CH	-	-	-	-	5.03	5.02	9.69	9.93	14.30	14.09	18.66	18.70
Highest CH	-	-	-	-	5.24	4.86	10.07	9.63	14.30	14.48	18.94	18.74
Mode	LTE Band 48 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	5.04	-	9.73	-	14.24	-	18.86	-
Middle CH	-	-	-	-	4.93	-	9.87	-	14.21	-	19.02	-
Highest CH	-	-	-	-	5.02	-	9.67	-	14.33	-	18.66	-



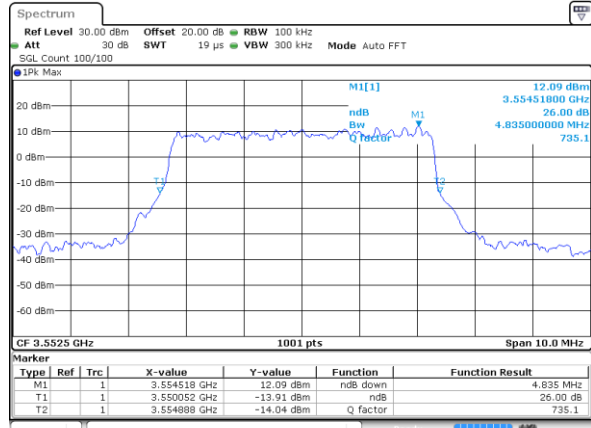
LTE Band 48

Lowest Channel / 5MHz / QPSK



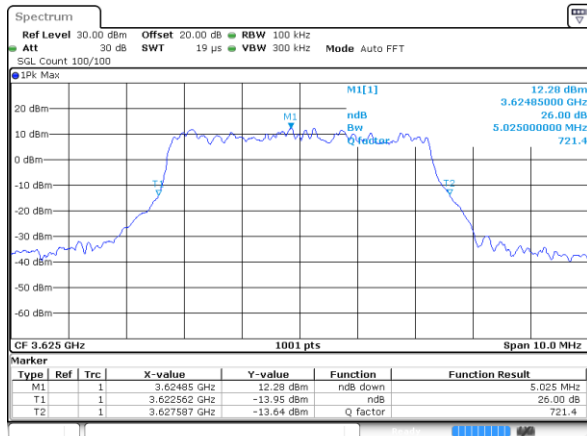
Date: 6 AUG 2020 17:37:52

Lowest Channel / 5MHz / 16QAM



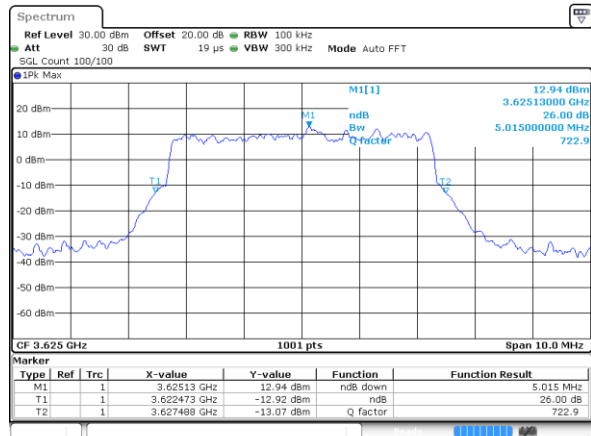
Date: 6 AUG 2020 17:38:04

Middle Channel / 5MHz / QPSK



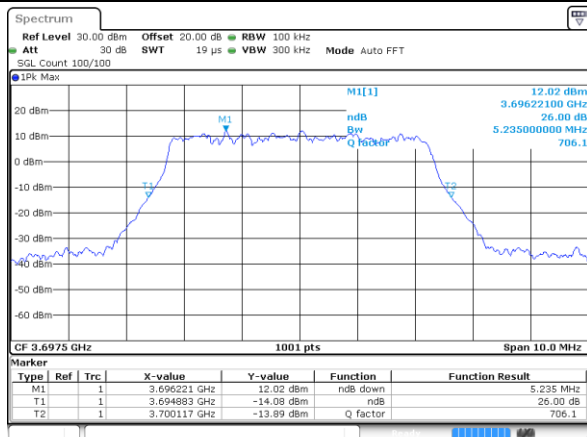
Date: 6 AUG 2020 17:38:39

Middle Channel / 5MHz / 16QAM



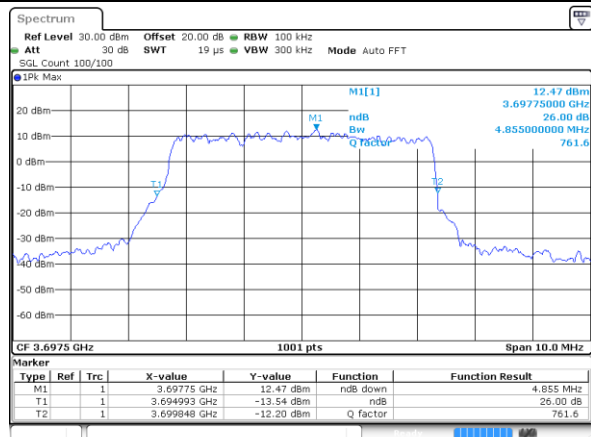
Date: 6 AUG 2020 17:38:51

Highest Channel / 5MHz / QPSK



Date: 6 AUG 2020 17:39:27

Highest Channel / 5MHz / 16QAM

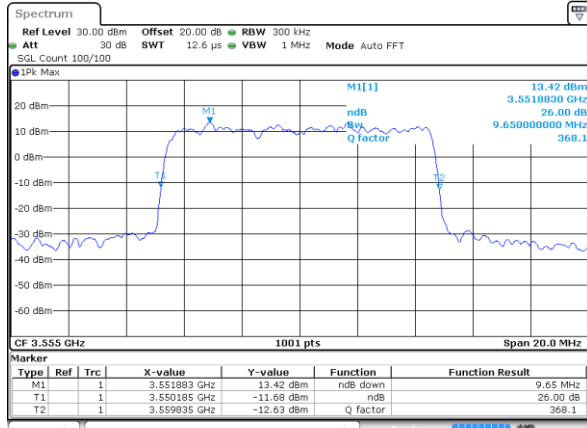


Date: 6 AUG 2020 17:39:39



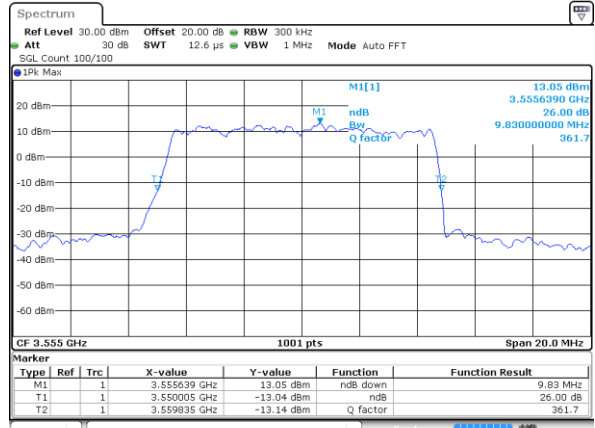
LTE Band 48

Lowest Channel / 10MHz / QPSK



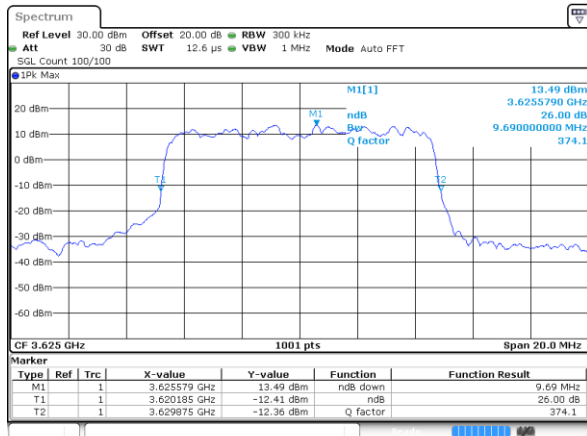
Date: 6 AUG 2020 17:40:16

Lowest Channel / 10MHz / 16QAM



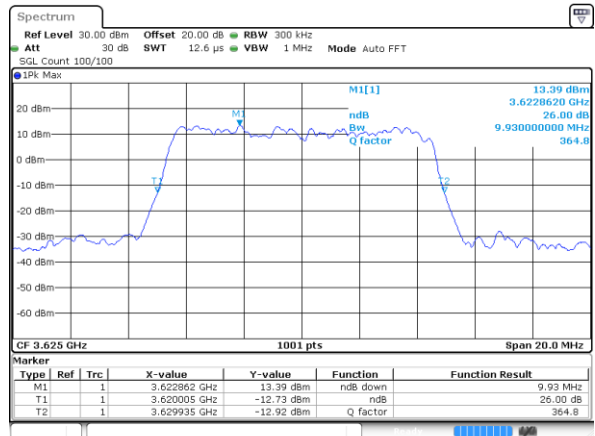
Date: 6 AUG 2020 17:40:28

Middle Channel / 10MHz / QPSK



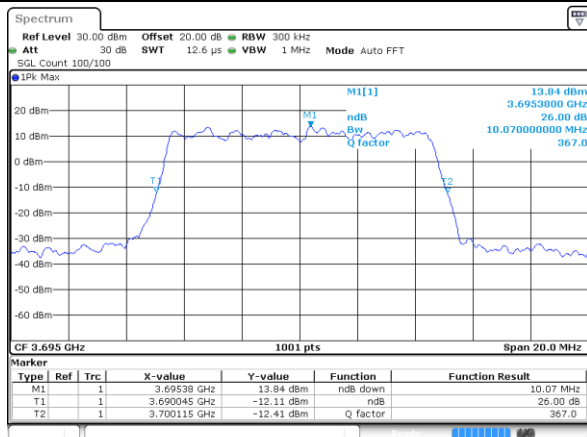
Date: 6 AUG 2020 17:41:02

Middle Channel / 10MHz / 16QAM



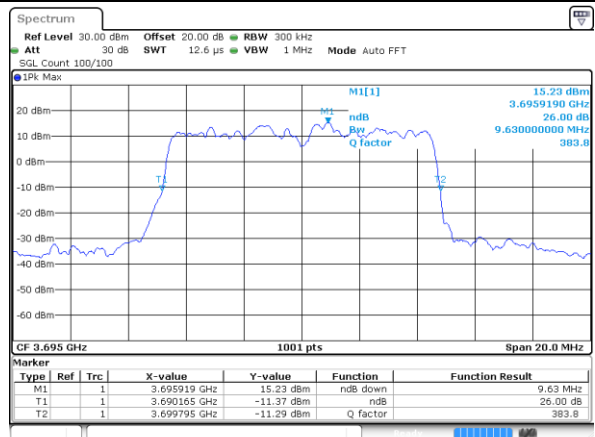
Date: 6 AUG 2020 17:41:14

Highest Channel / 10MHz / QPSK



Date: 6 AUG 2020 17:41:50

Highest Channel / 10MHz / 16QAM

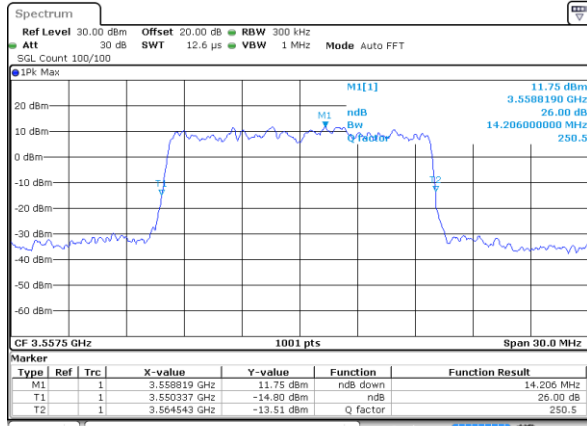


Date: 6 AUG 2020 17:42:02



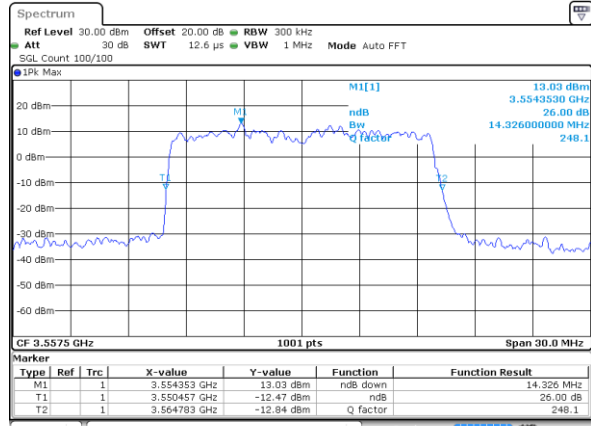
LTE Band 48

Lowest Channel / 15MHz / QPSK



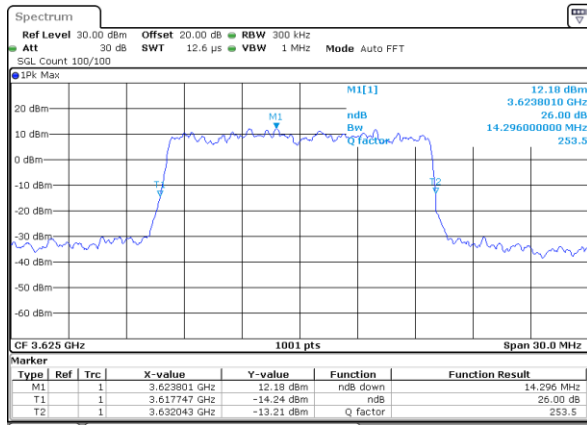
Date: 6 AUG 2020 17:42:39

Lowest Channel / 15MHz / 16QAM



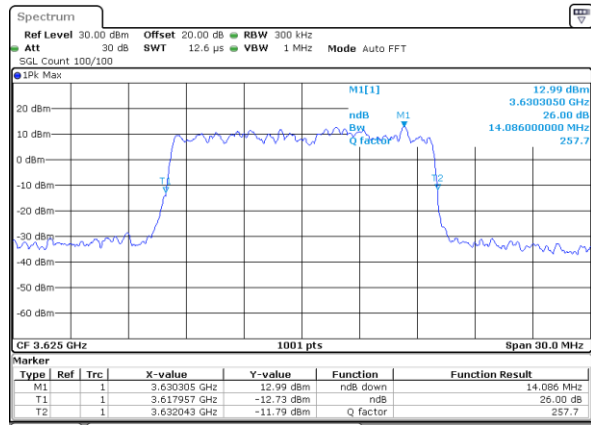
Date: 6 AUG 2020 17:42:51

Middle Channel / 15MHz / QPSK



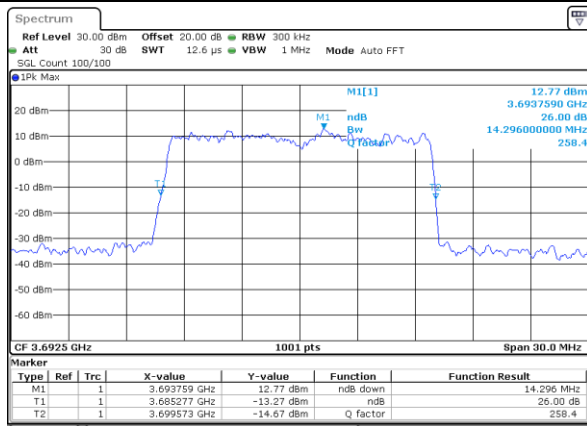
Date: 6 AUG 2020 17:43:25

Middle Channel / 15MHz / 16QAM



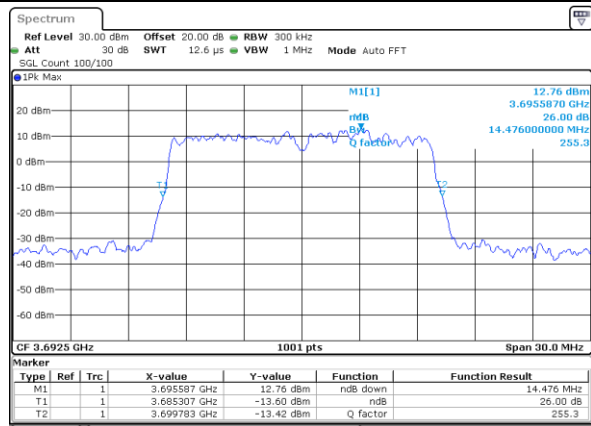
Date: 6 AUG 2020 17:43:37

Highest Channel / 15MHz / QPSK



Date: 6 AUG 2020 17:44:13

Highest Channel / 15MHz / 16QAM

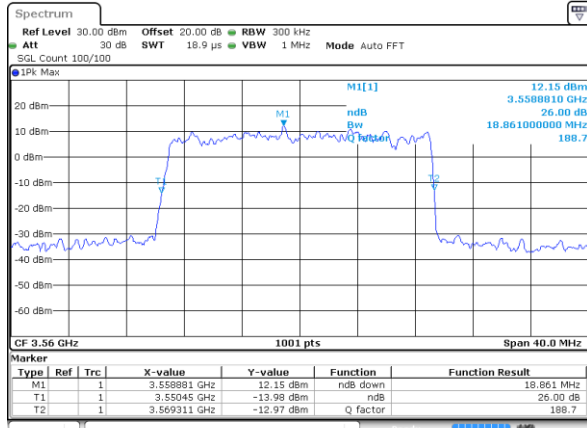


Date: 6 AUG 2020 17:44:25

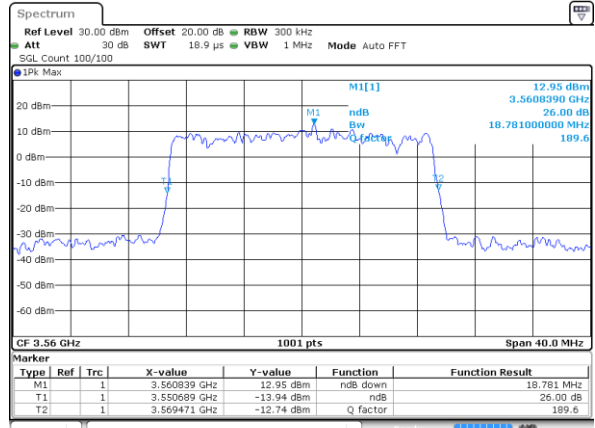


LTE Band 48

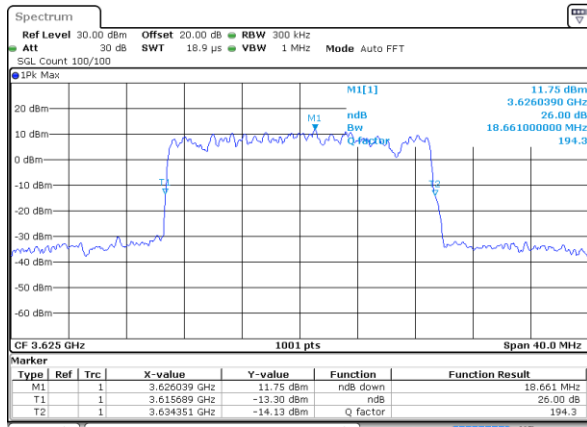
Lowest Channel / 20MHz / QPSK



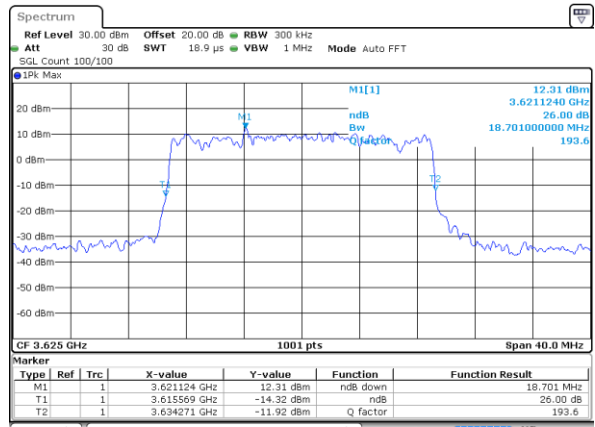
Lowest Channel / 20MHz / 16QAM



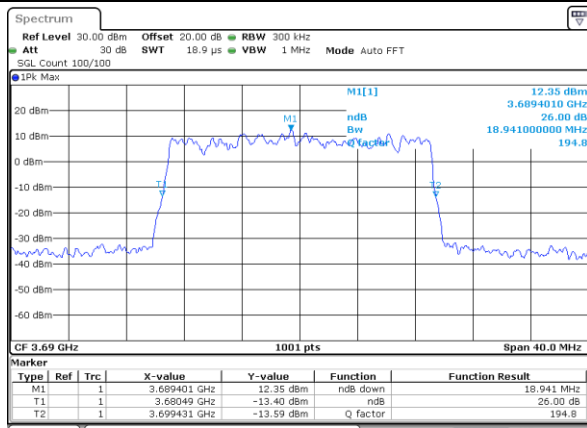
Middle Channel / 20MHz / QPSK



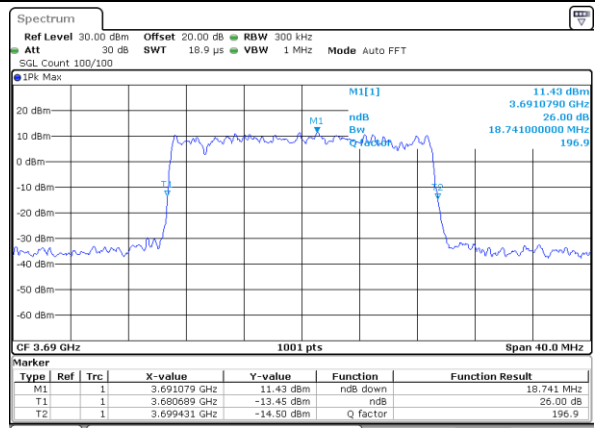
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



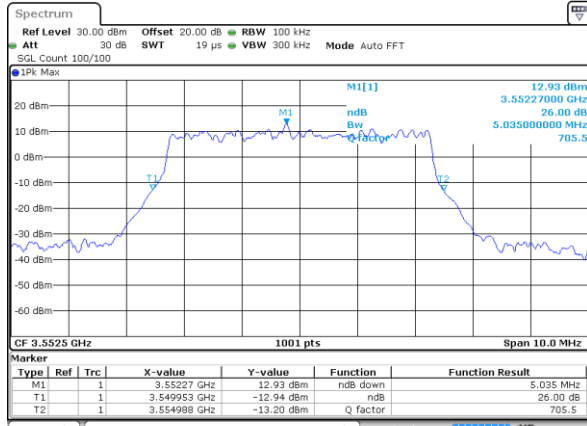
Highest Channel / 20MHz / 16QAM





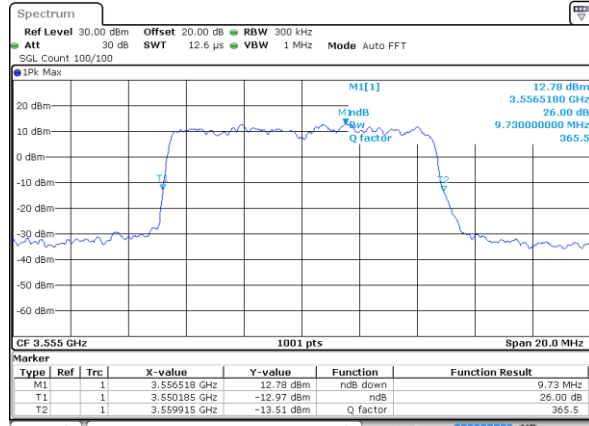
LTE Band 48

Lowest Channel / 5MHz / 64QAM



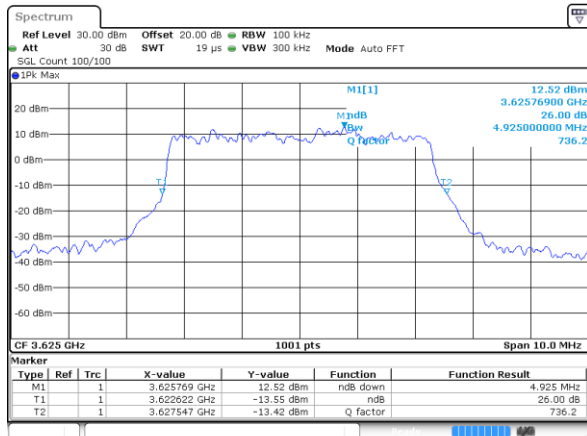
Date: 6 AUG 2020 17:47:12

Lowest Channel / 10MHz / 64QAM



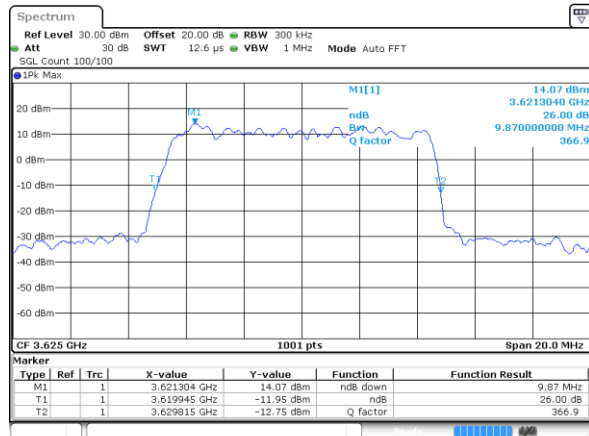
Date: 6 AUG 2020 17:48:24

Middle Channel / 5MHz / 64QAM



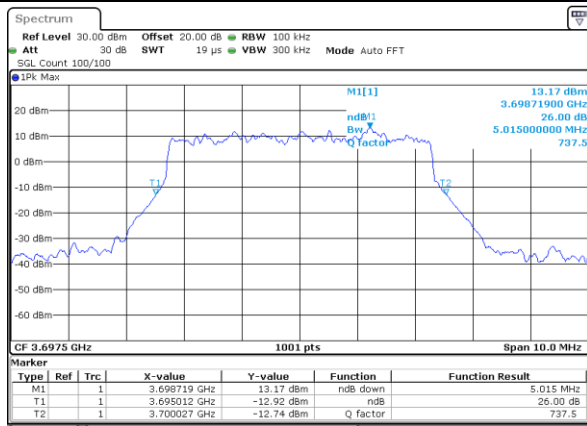
Date: 6 AUG 2020 17:47:36

Middle Channel / 10MHz / 64QAM



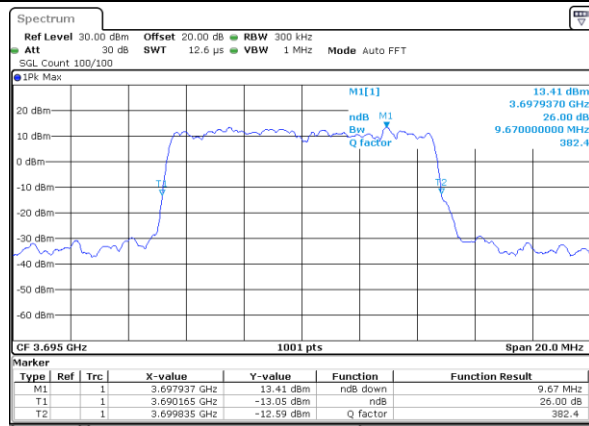
Date: 6 AUG 2020 17:48:47

Highest Channel / 5MHz / 64QAM



Date: 6 AUG 2020 17:47:59

Highest Channel / 10MHz / 64QAM

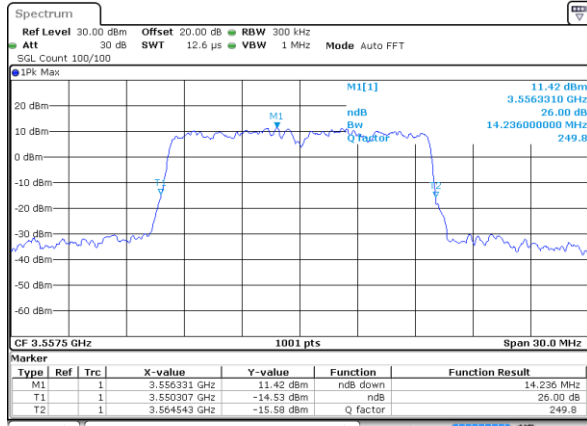


Date: 6 AUG 2020 17:49:10



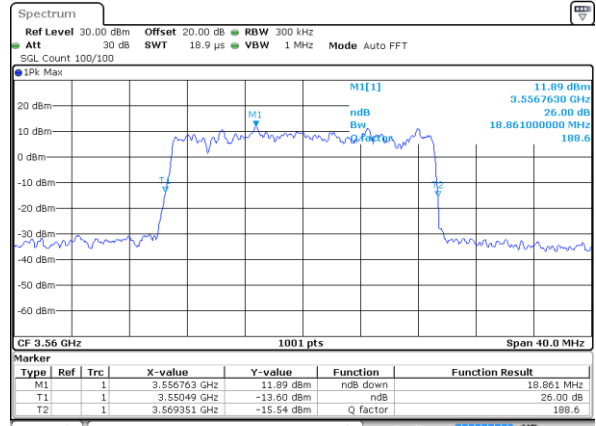
LTE Band 48

Lowest Channel / 15MHz / 64QAM



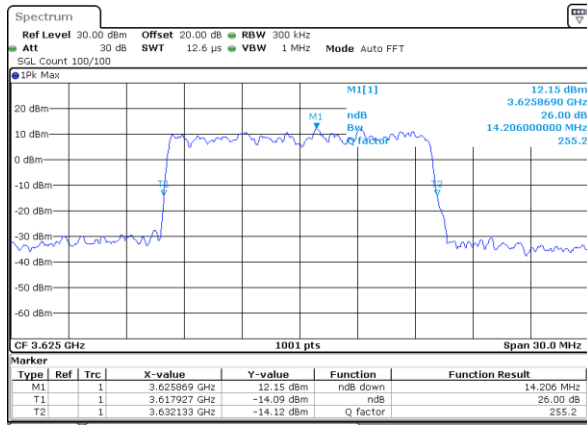
Date: 6 AUG 2020 17:49:35

Lowest Channel / 20MHz / 64QAM



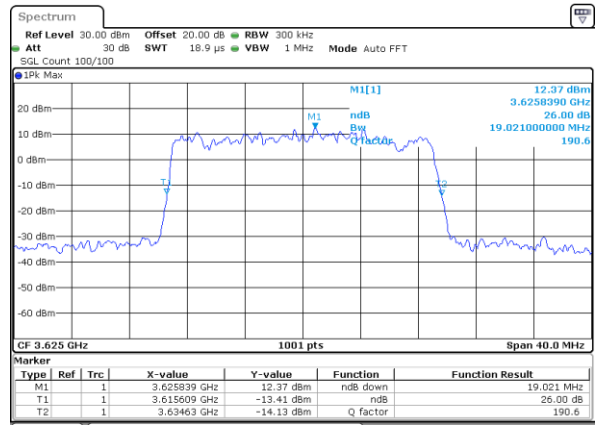
Date: 6 AUG 2020 17:50:46

Middle Channel / 15MHz / 64QAM



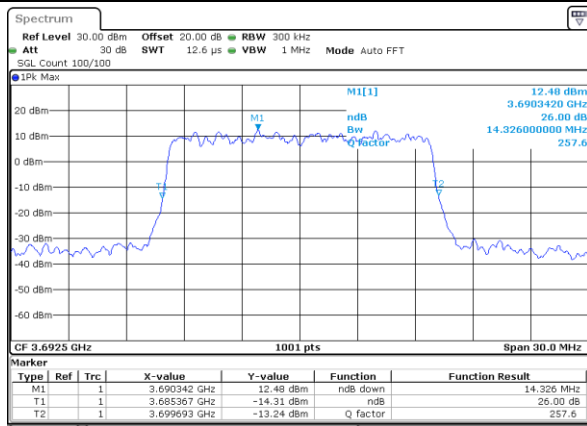
Date: 6 AUG 2020 17:49:58

Middle Channel / 20MHz / 64QAM



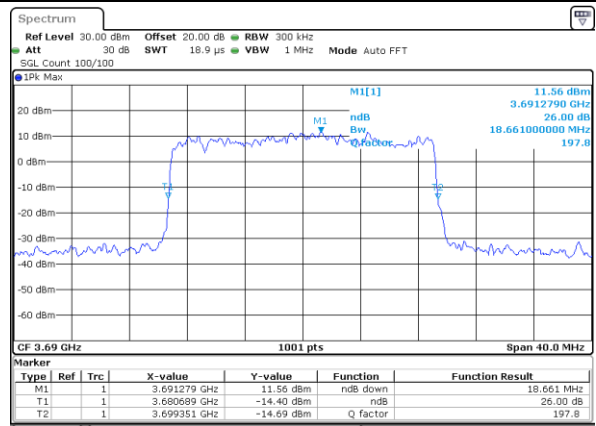
Date: 6 AUG 2020 17:51:09

Highest Channel / 15MHz / 64QAM



Date: 6 AUG 2020 17:50:21

Highest Channel / 20MHz / 64QAM



Date: 6 AUG 2020 17:51:32

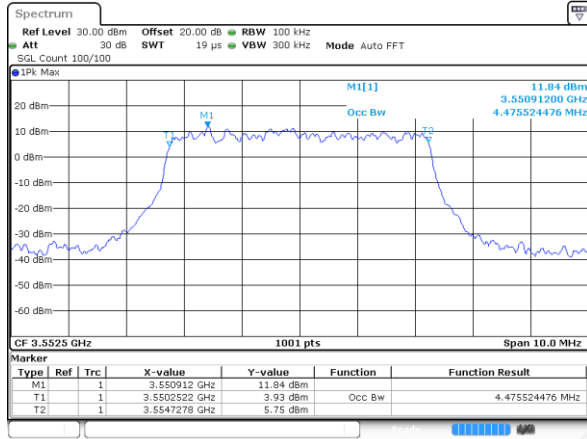
**Occupied Bandwidth**

Mode	LTE Band 48 : 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	4.54	9.03	9.03	13.52	13.49	17.90	17.82
Middle CH	-	-	-	-	4.50	4.49	8.99	9.11	13.40	13.46	17.94	17.90
Highest CH	-	-	-	-	4.48	4.50	9.07	9.05	13.40	13.46	17.94	17.86
Mode	LTE Band 48 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.50	-	8.99	-	13.49	-	17.90	-
Middle CH	-	-	-	-	4.49	-	8.97	-	13.43	-	17.90	-
Highest CH	-	-	-	-	4.53	-	9.11	-	13.40	-	17.78	-

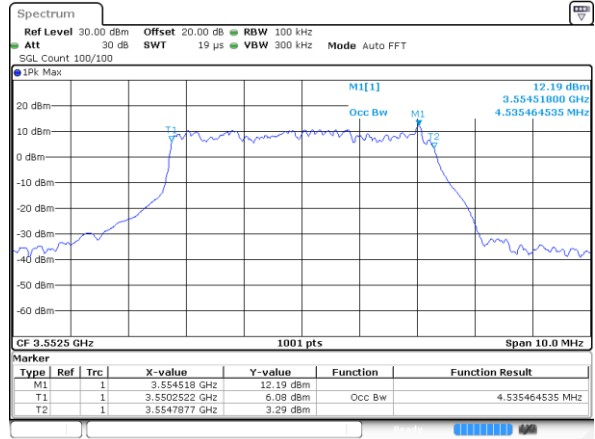


LTE Band 48

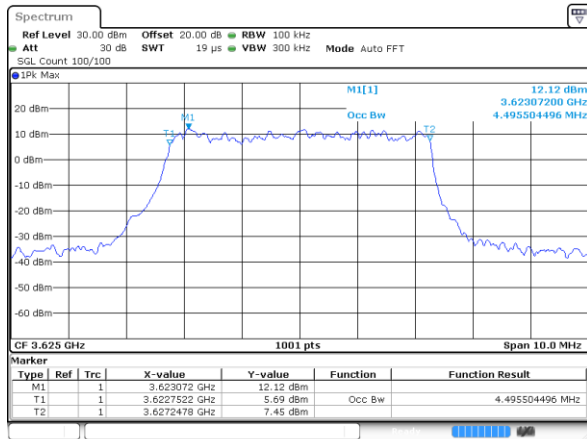
Lowest Channel / 5MHz / QPSK



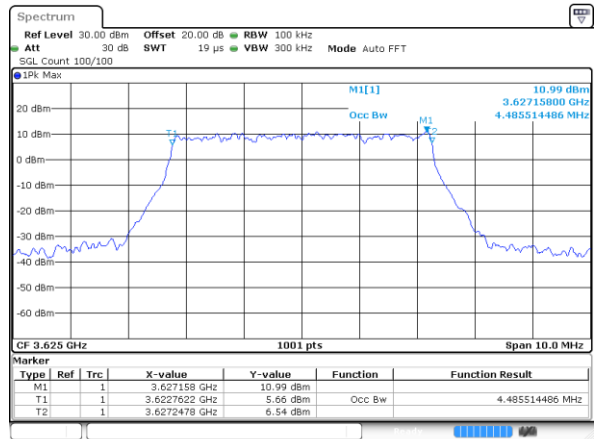
Lowest Channel / 5MHz / 16QAM



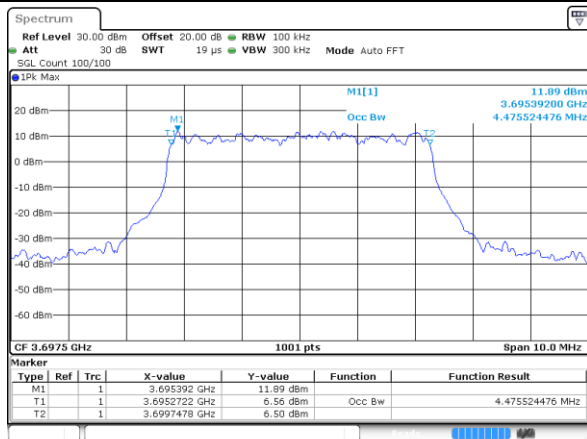
Middle Channel / 5MHz / QPSK



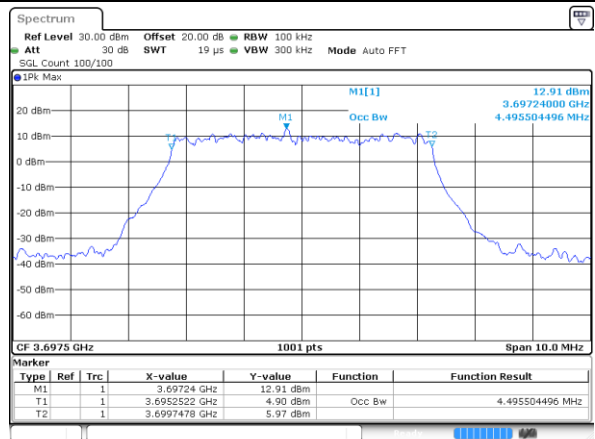
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



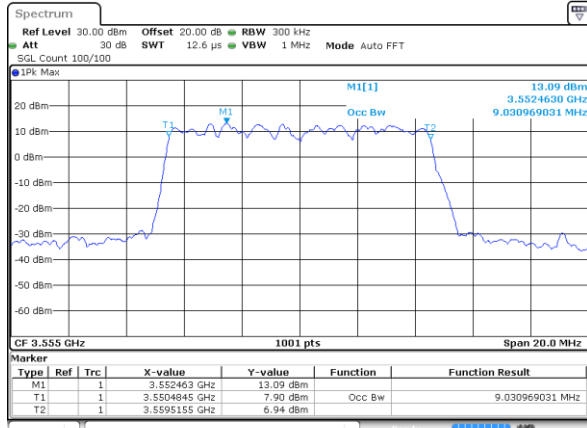
Highest Channel / 5MHz / 16QAM





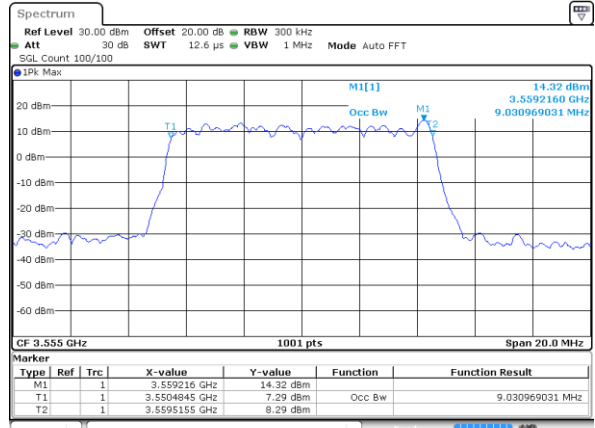
LTE Band 48

Lowest Channel / 10MHz / QPSK



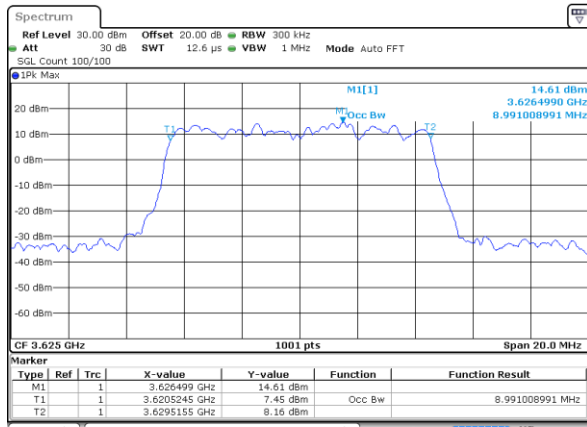
Date: 6 AUG 2020 17:39:52

Lowest Channel / 10MHz / 16QAM



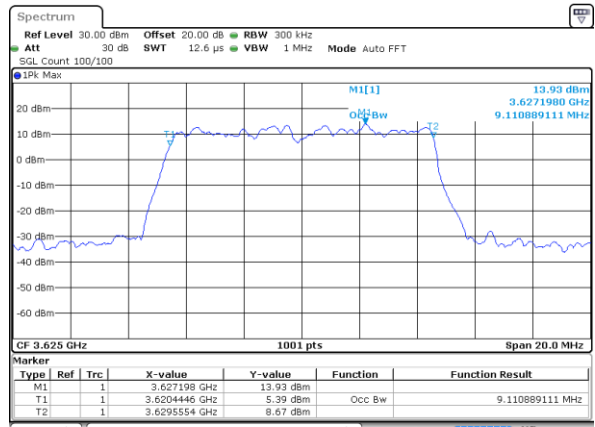
Date: 6 AUG 2020 17:40:04

Middle Channel / 10MHz / QPSK



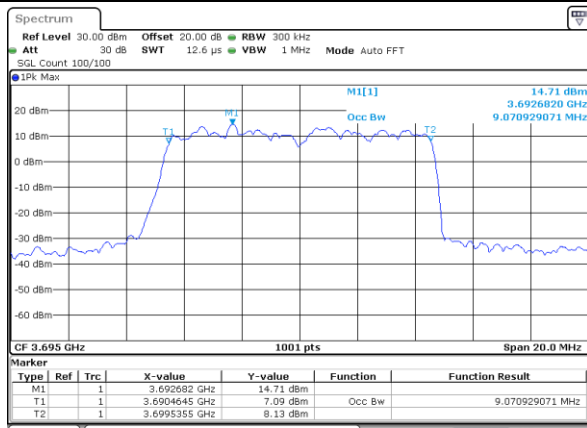
Date: 6 AUG 2020 17:40:39

Middle Channel / 10MHz / 16QAM



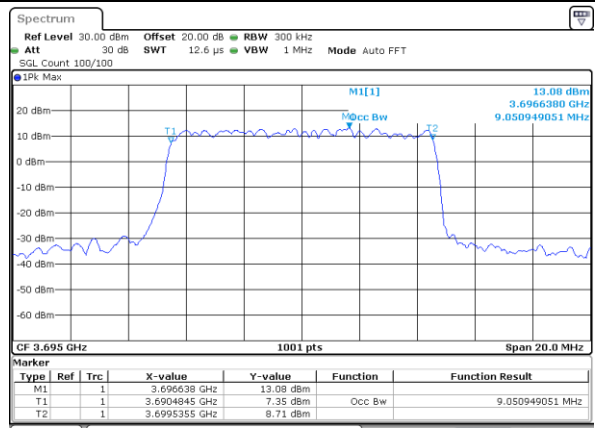
Date: 6 AUG 2020 17:40:51

Highest Channel / 10MHz / QPSK



Date: 6 AUG 2020 17:41:26

Highest Channel / 10MHz / 16QAM

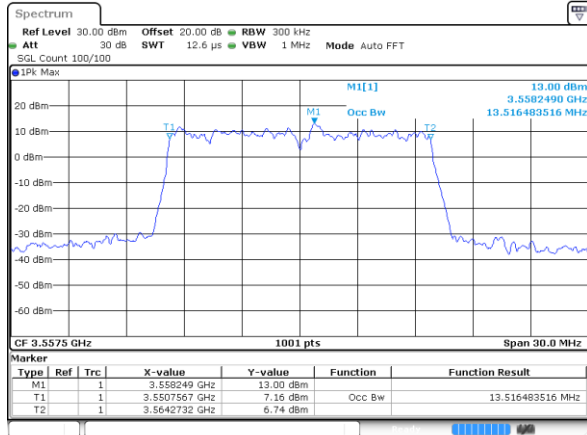


Date: 6 AUG 2020 17:41:38

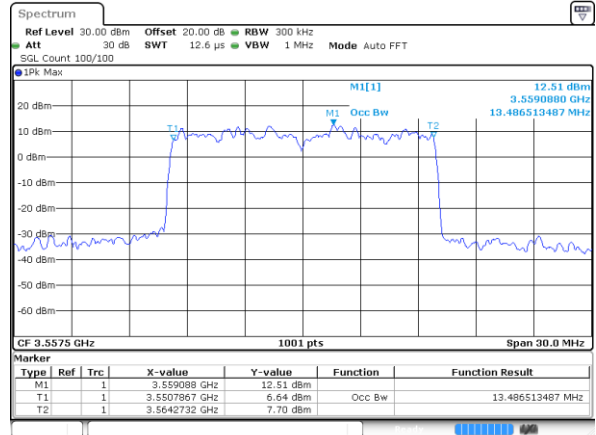


LTE Band 48

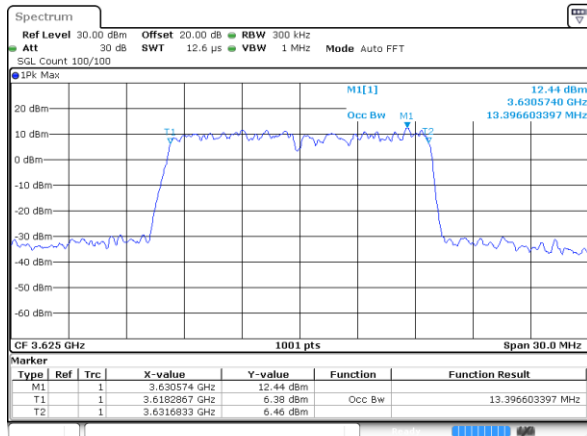
Lowest Channel / 15MHz / QPSK



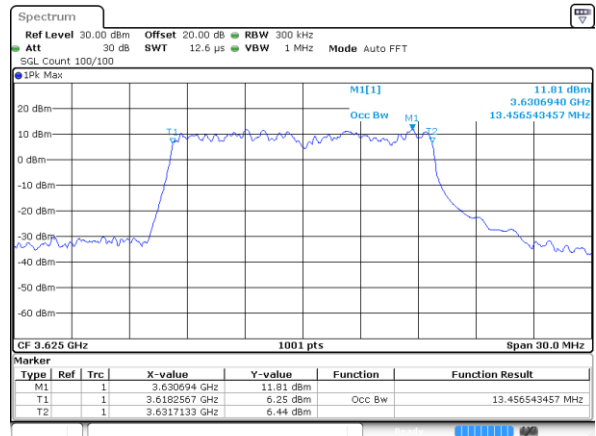
Lowest Channel / 15MHz / 16QAM



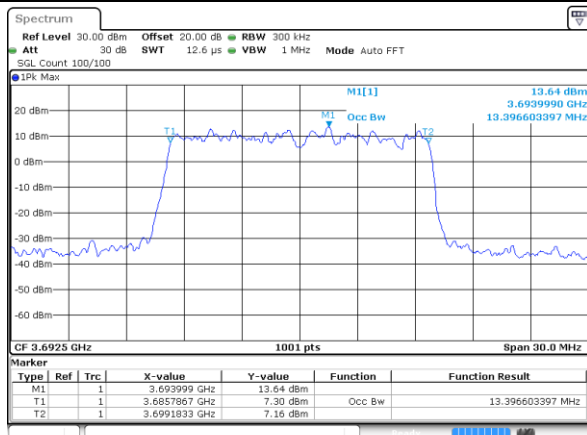
Middle Channel / 15MHz / QPSK



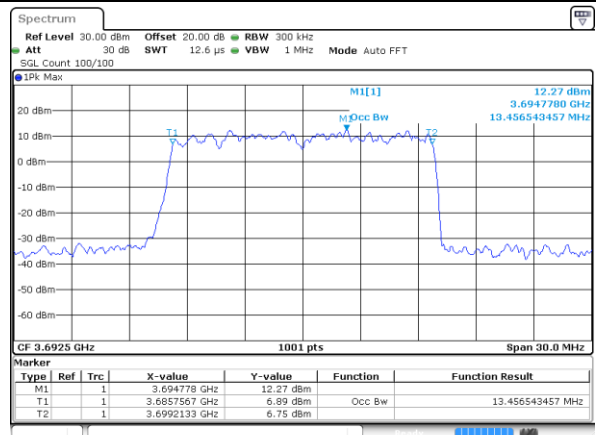
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



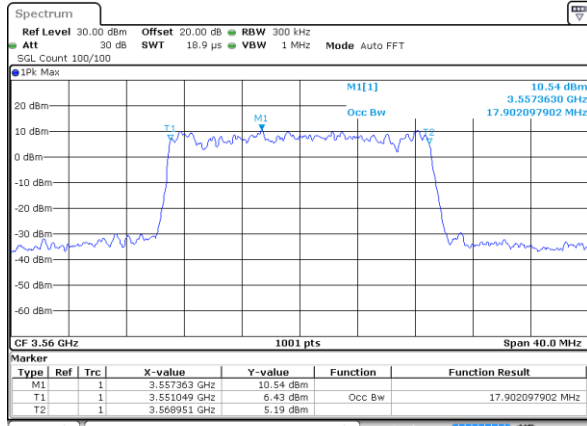
Highest Channel / 15MHz / 16QAM



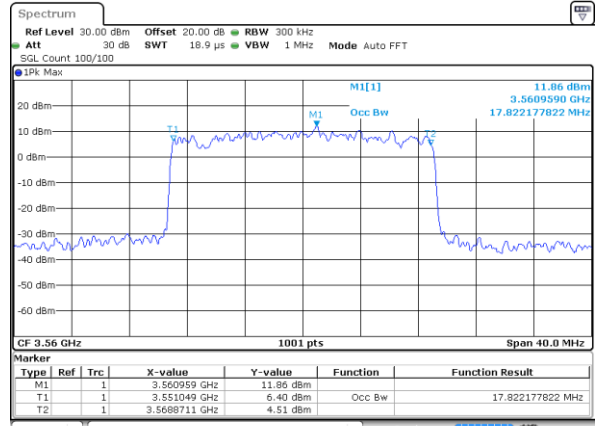


LTE Band 48

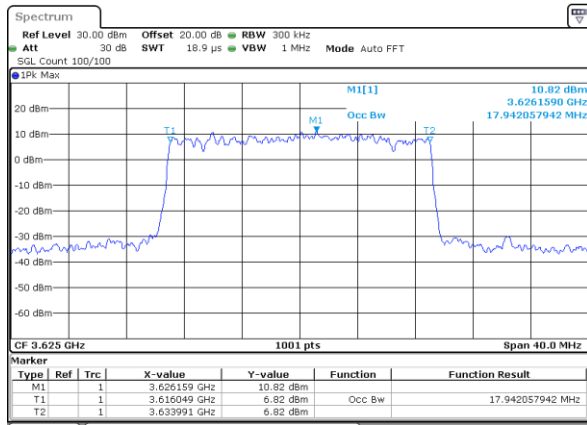
Lowest Channel / 20MHz / QPSK



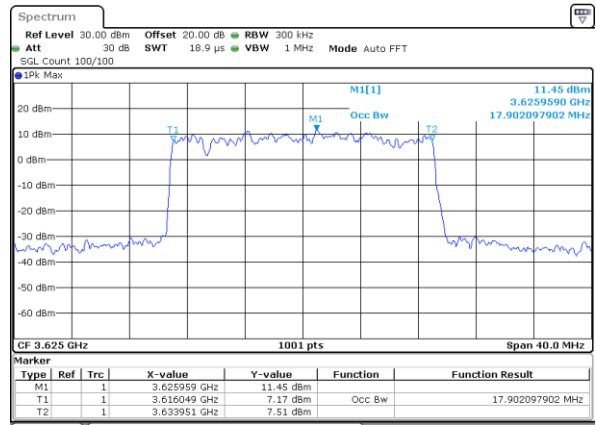
Lowest Channel / 20MHz / 16QAM



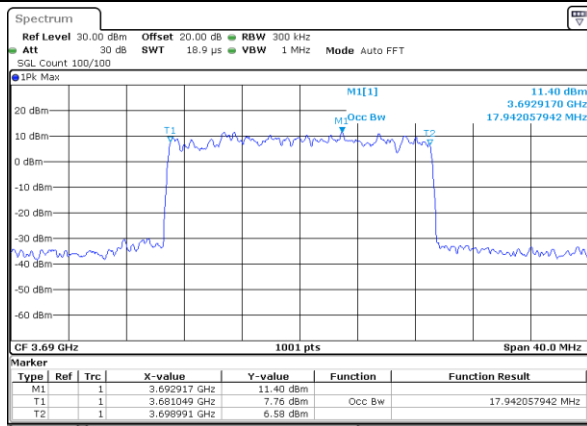
Middle Channel / 20MHz / QPSK



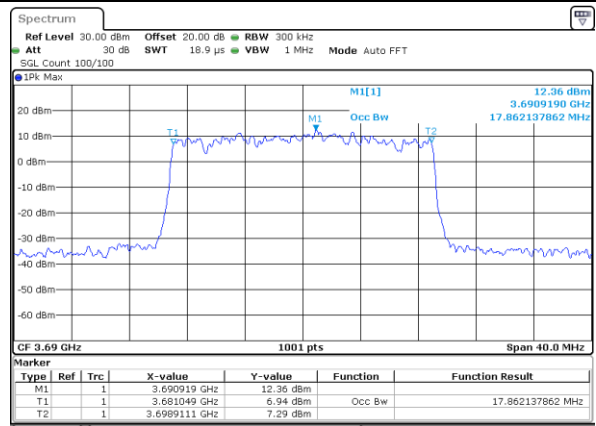
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



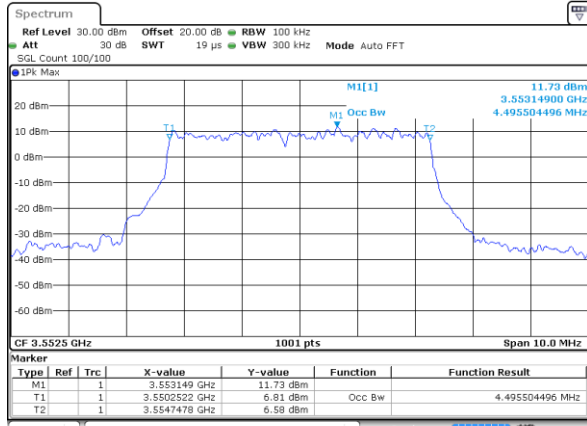
Highest Channel / 20MHz / 16QAM



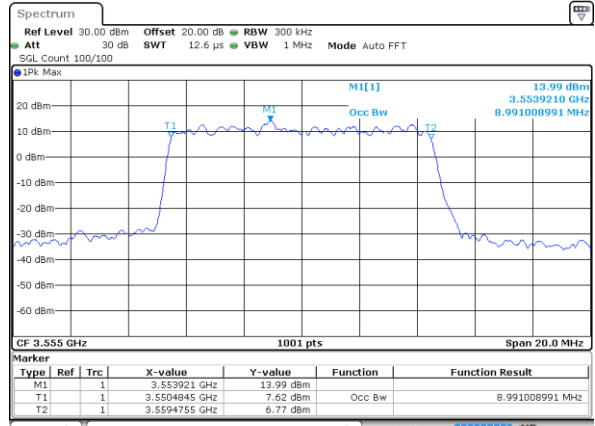


LTE Band 48

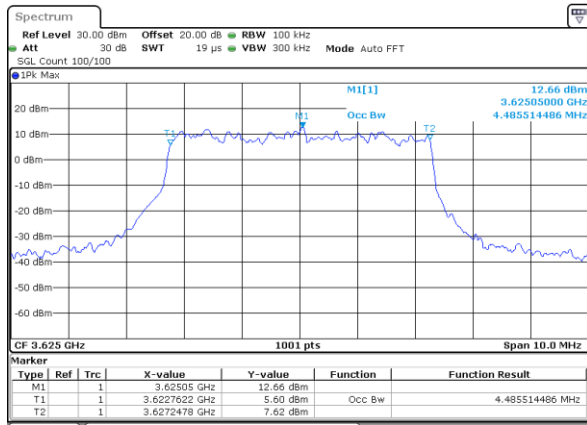
Lowest Channel / 5MHz / 64QAM



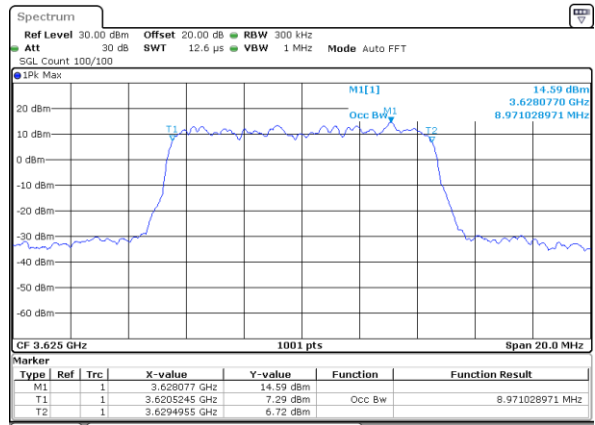
Lowest Channel / 10MHz / 64QAM



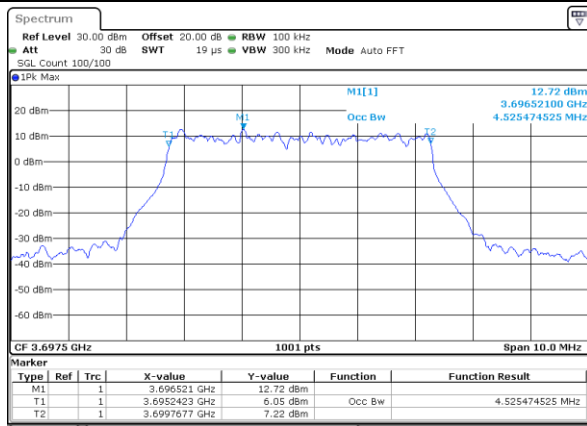
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM

