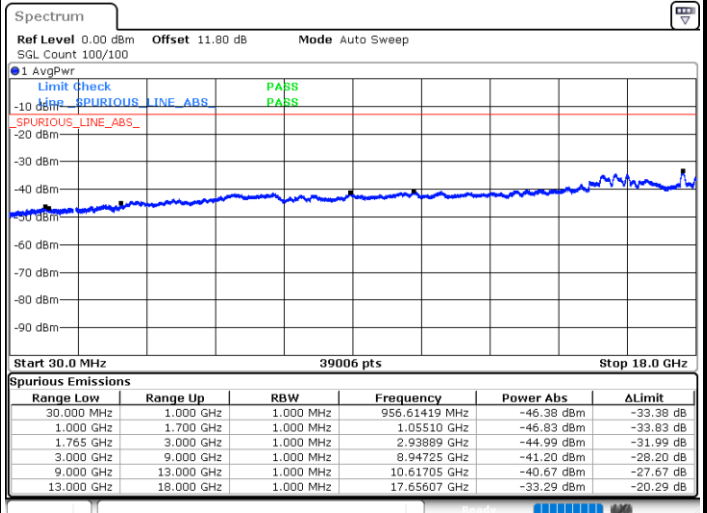
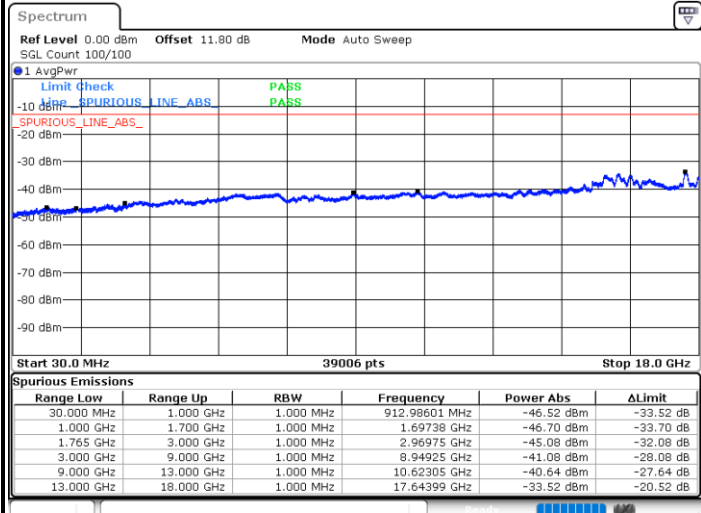




LTE Band 4 / 3MHz

Lowest Channel / 256QAM

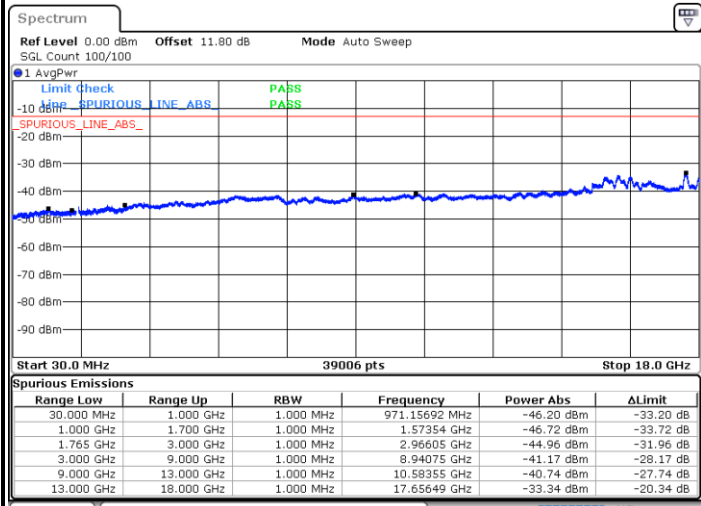
Middle Channel / 256QAM



Date: 17.JUL.2020 10:17:51

Date: 17.JUL.2020 10:16:27

Highest Channel / 256QAM



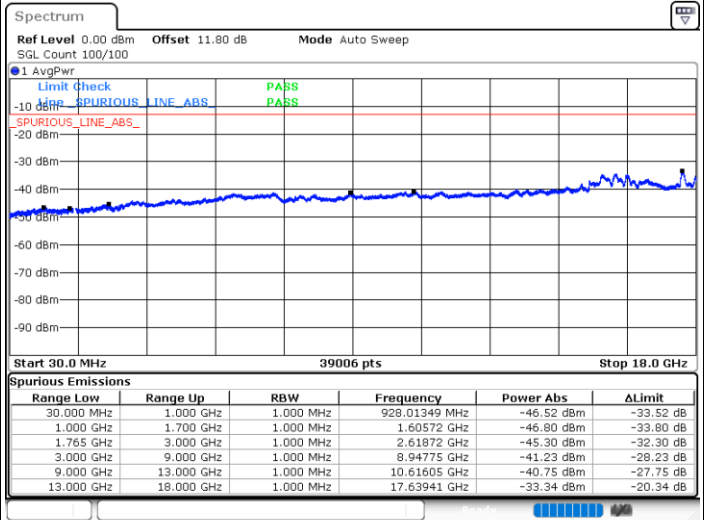
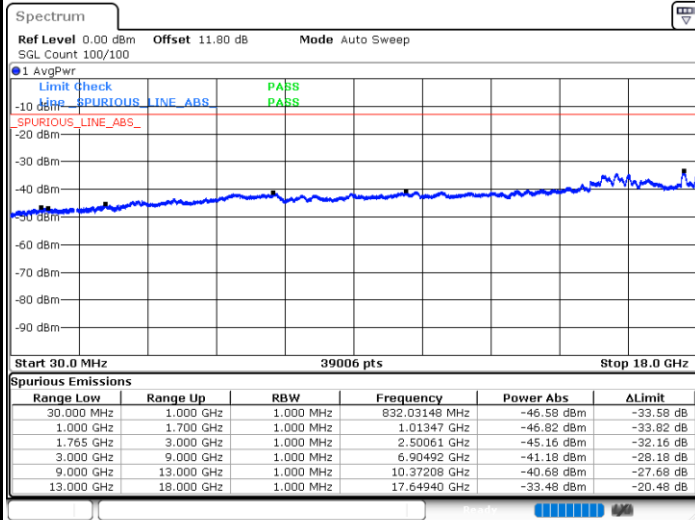
Date: 17.JUL.2020 10:22:23



LTE Band 4 / 5MHz

Lowest Channel / 256QAM

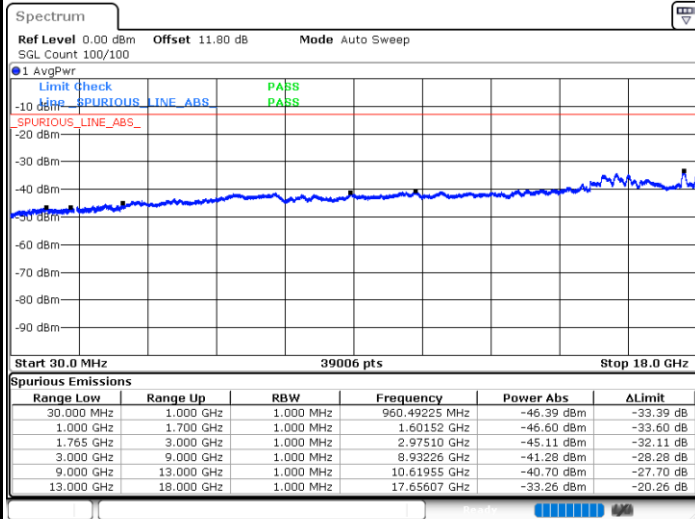
Middle Channel / 256QAM



Date: 17.JUL.2020 10:28:25

Date: 17.JUL.2020 10:25:23

Highest Channel / 256QAM



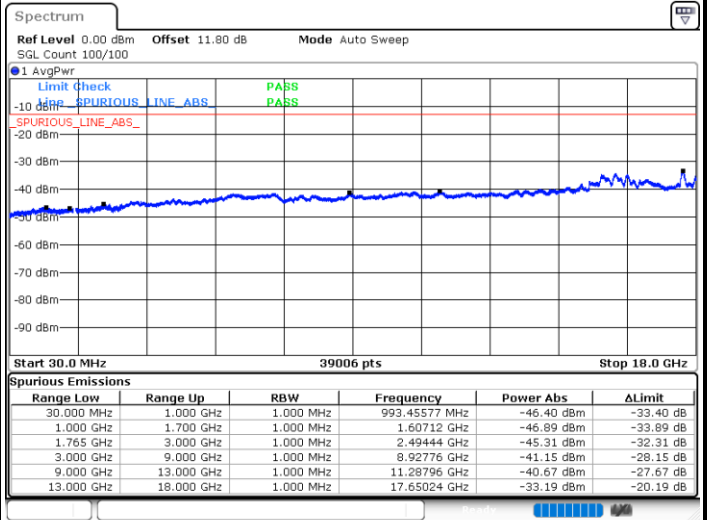
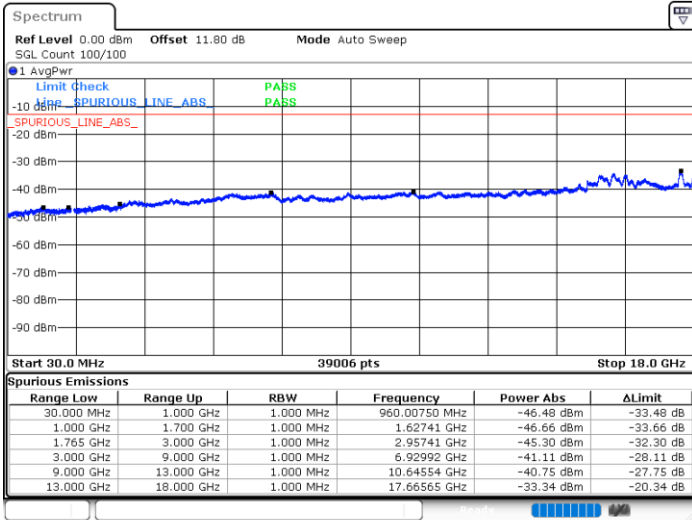
Date: 17.JUL.2020 10:30:43



LTE Band 4 / 10MHz

Lowest Channel / 256QAM

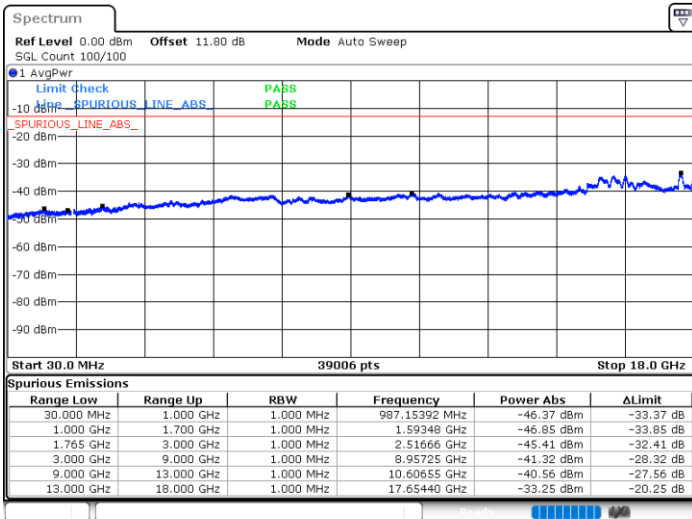
Middle Channel / 256QAM



Date: 17.JUL.2020 10:36:17

Date: 17.JUL.2020 10:33:16

Highest Channel / 256QAM



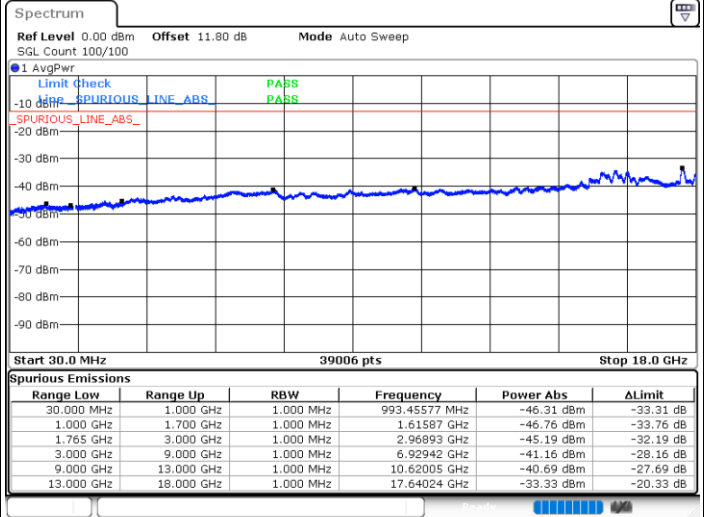
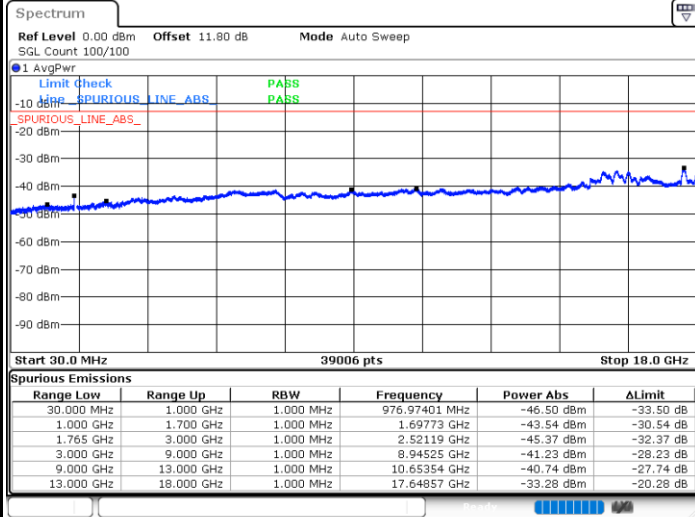
Date: 17.JUL.2020 10:38:38



LTE Band 4 / 15MHz

Lowest Channel / 256QAM

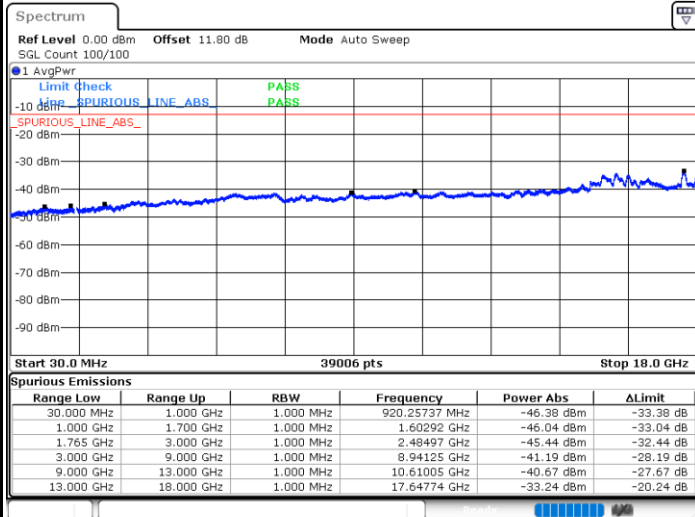
Middle Channel / 256QAM



Date: 17.JUL.2020 10:43:18

Date: 17.JUL.2020 10:41:06

Highest Channel / 256QAM



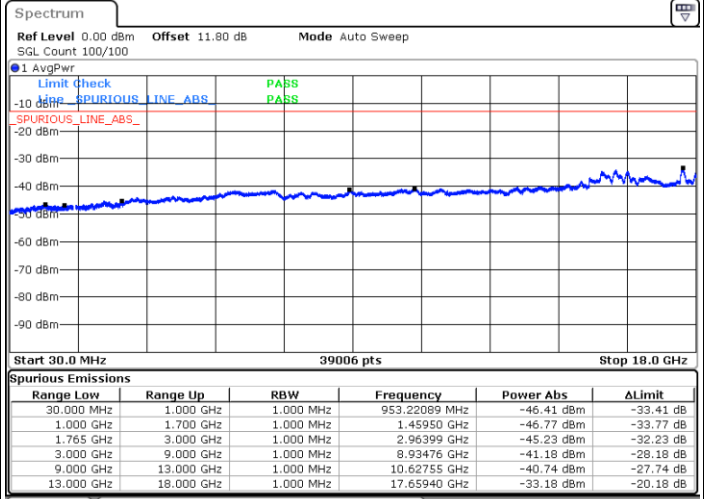
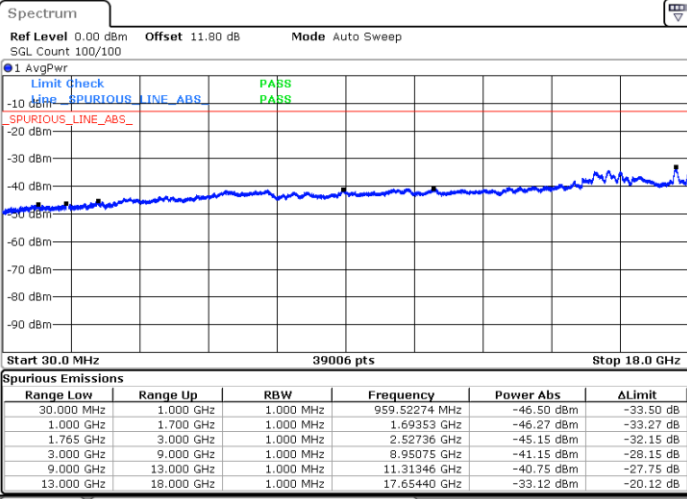
Date: 17.JUL.2020 10:46:23



LTE Band 4 / 20MHz

Lowest Channel / 256QAM

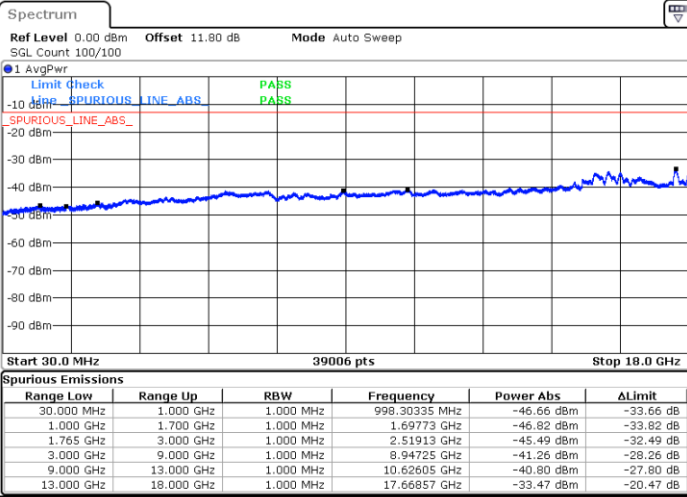
Middle Channel / 256QAM



Date: 17.JUL.2020 10:51:40

Date: 17.JUL.2020 10:49:24

Highest Channel / 256QAM



Date: 17.JUL.2020 10:53:38



Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0003	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0007	
0	Normal Voltage	0.0118	
-10	Normal Voltage	0.0124	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0112	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.30 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 5

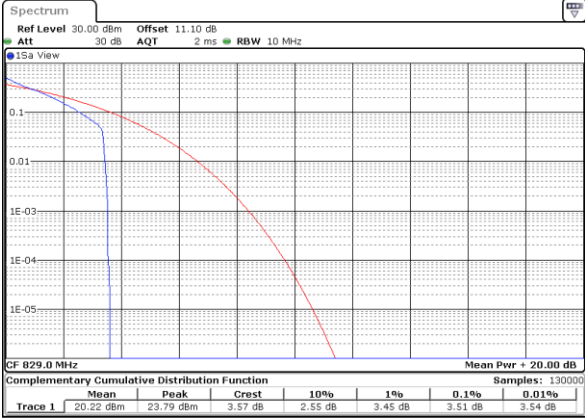
### Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.51	4.49	4.55	5.62	<b>PASS</b>
Middle CH	3.62	4.49	4.55	5.54	
Highest CH	3.48	4.96	4.41	5.88	
Mode	LTE Band 5 / 10MHz				
Mod.	64QAM		256QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	6.87	6.43	6.00	6.72	<b>PASS</b>
Middle CH	6.84	6.38	6.75	6.58	
Highest CH	6.81	6.35	6.32	6.41	



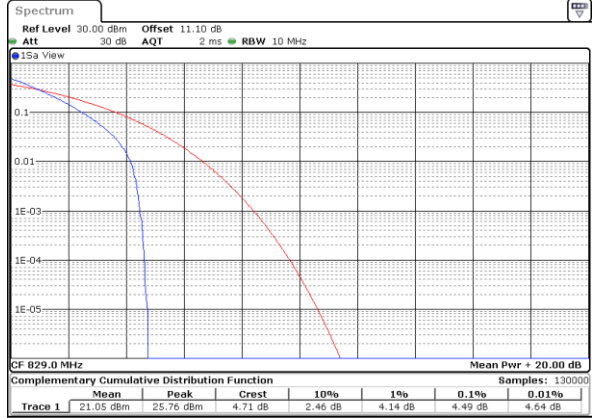
LTE Band 5 / 10MHz / QPSK

Lowest Channel / 1RB



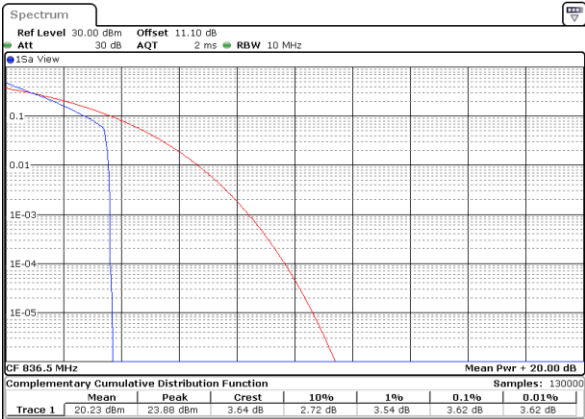
Date: 6 JUN 2020 11:38:42

Lowest Channel / Full RB



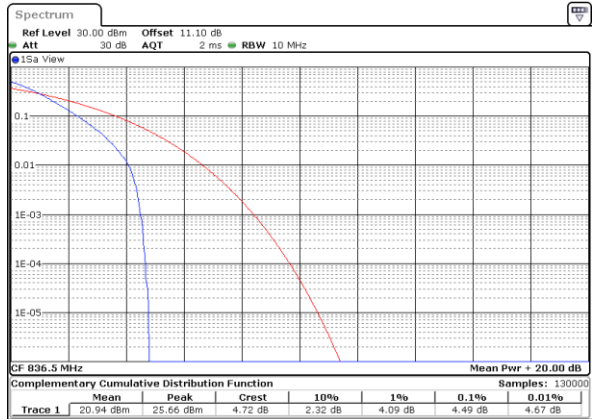
Date: 6 JUN 2020 11:38:53

Middle Channel / 1RB



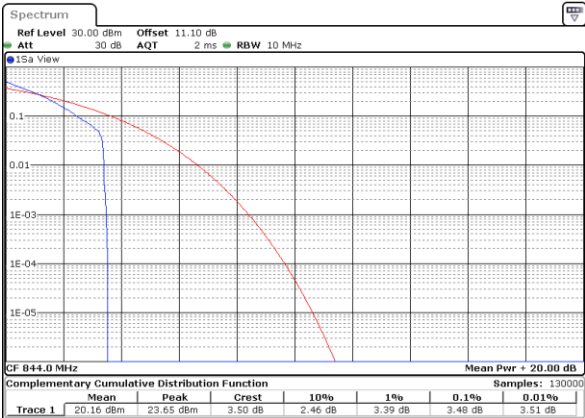
Date: 6 JUN 2020 11:39:04

Middle Channel / Full RB



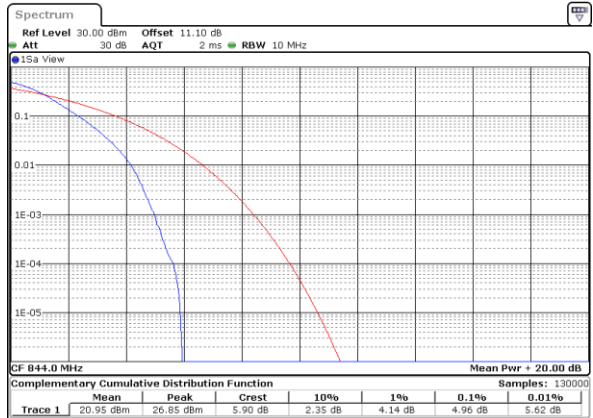
Date: 6 JUN 2020 11:39:14

Highest Channel / 1RB



Date: 6 JUN 2020 11:39:25

Highest Channel / Full RB



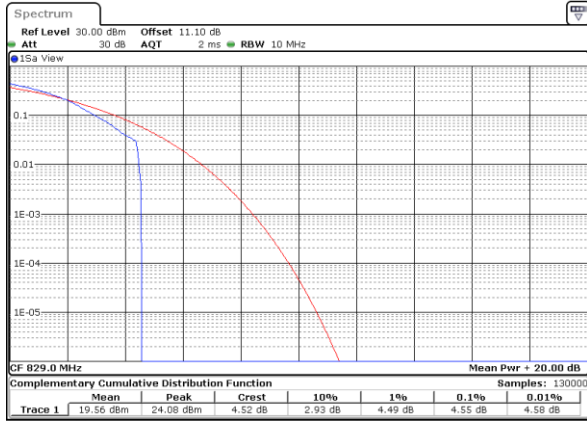
Date: 6 JUN 2020 11:39:36





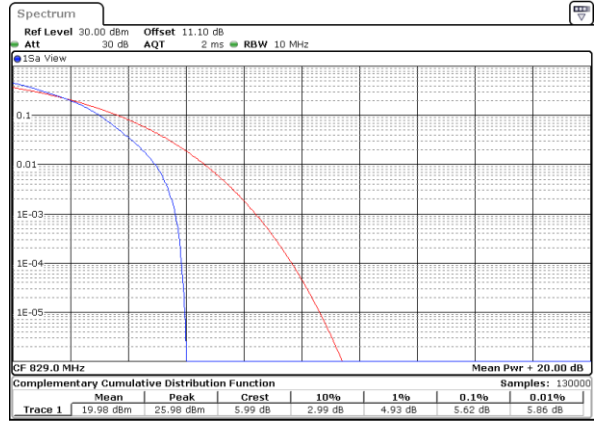
LTE Band 5 / 10MHz / 16QAM

Lowest Channel / 1RB



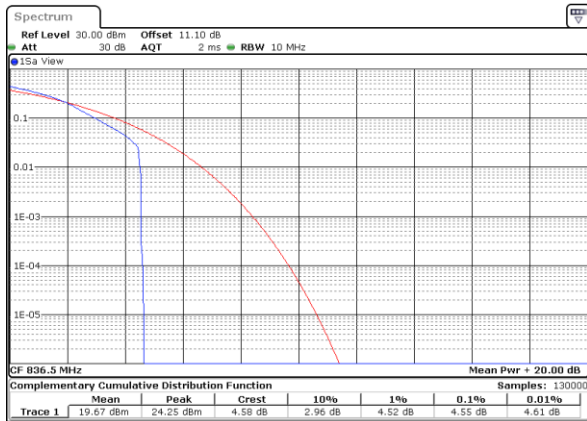
Date: 6 JUN 2020 11:37:33

Lowest Channel / Full RB



Date: 6 JUN 2020 11:37:45

Middle Channel / 1RB



Date: 6 JUN 2020 11:37:57

Middle Channel / Full RB



Date: 6 JUN 2020 11:38:07

Highest Channel / 1RB



Date: 6 JUN 2020 11:38:20

Highest Channel / Full RB

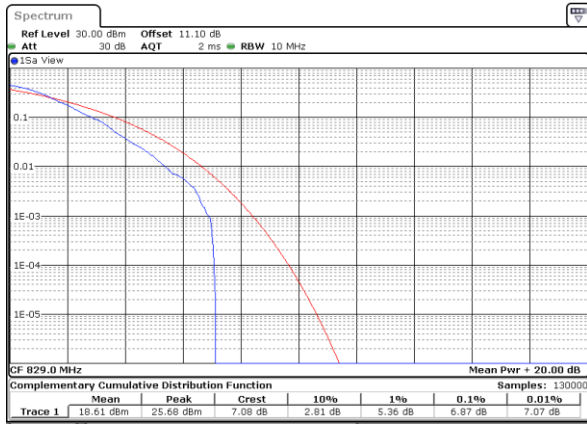


Date: 6 JUN 2020 11:38:31



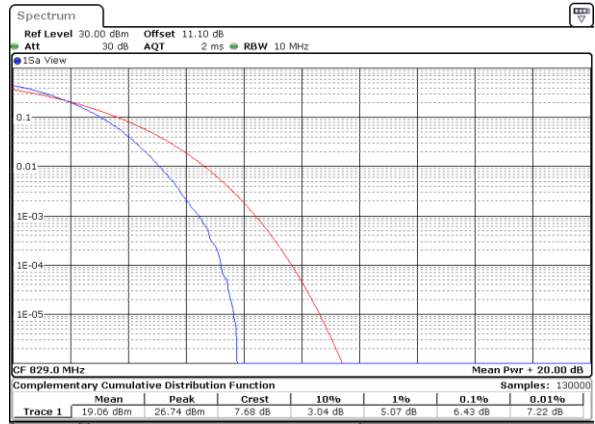
LTE Band 5 / 10MHz / 64QAM

Lowest Channel / 1RB



Date: 6 JUN 2020 11:39:48

Lowest Channel / Full RB



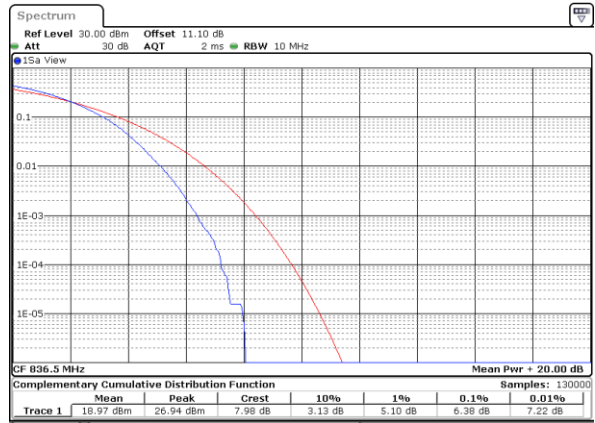
Date: 6 JUN 2020 11:39:59

Middle Channel / 1RB



Date: 6 JUN 2020 11:40:10

Middle Channel / Full RB



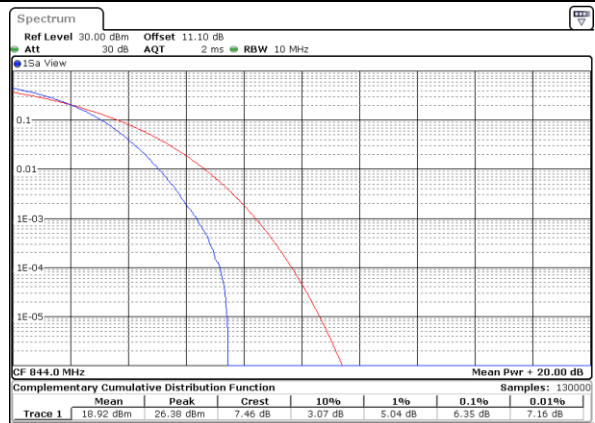
Date: 6 JUN 2020 11:40:20

Highest Channel / 1RB



Date: 6 JUN 2020 11:40:32

Highest Channel / Full RB

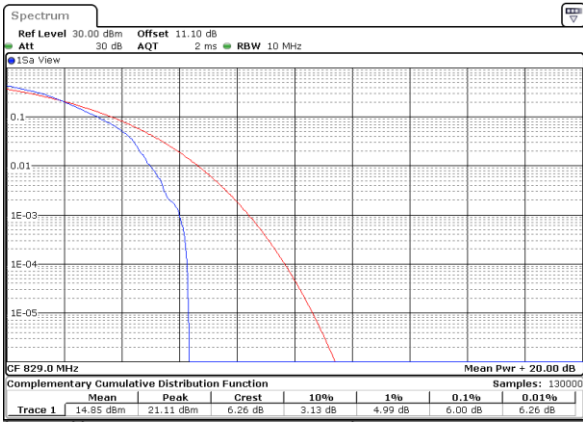


Date: 6 JUN 2020 11:40:43



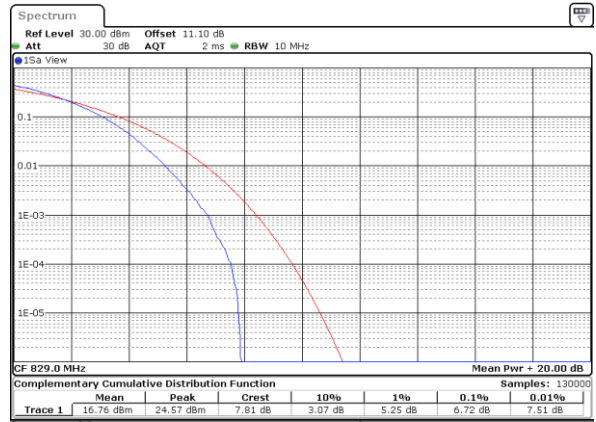
LTE Band 5 / 10MHz / 256QAM

Lowest Channel / 1RB



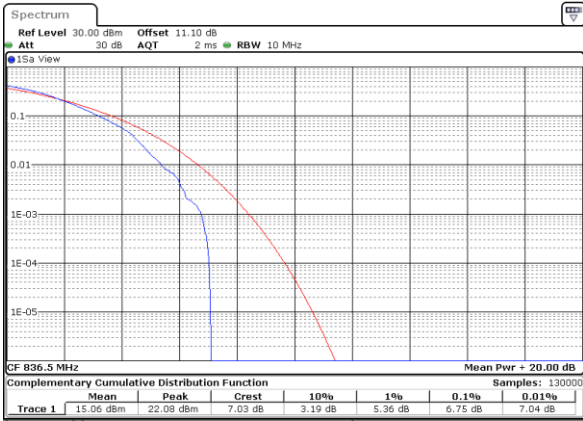
Date: 16.JUL.2020 11:00:46

Lowest Channel / Full RB



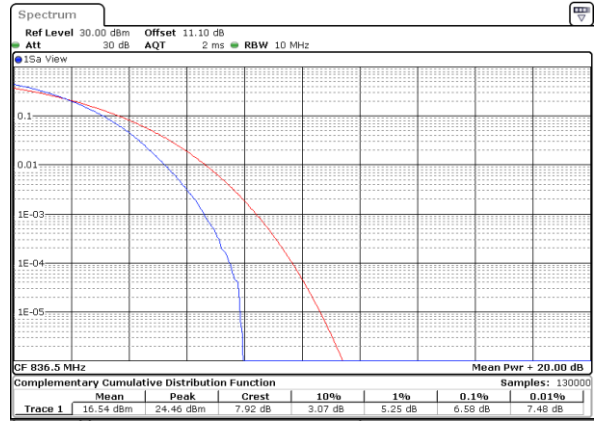
Date: 16.JUL.2020 11:02:06

Middle Channel / 1RB



Date: 16.JUL.2020 11:03:36

Middle Channel / Full RB



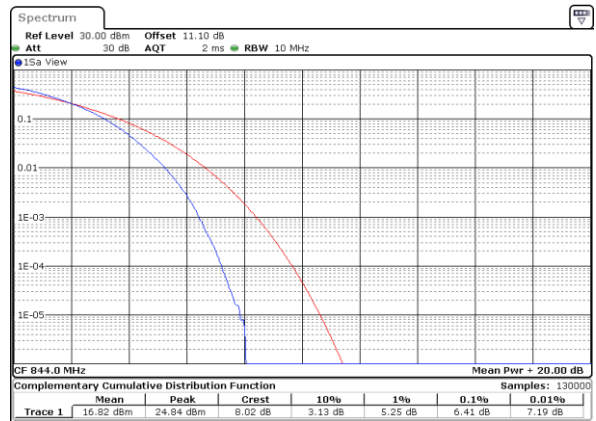
Date: 16.JUL.2020 11:03:21

Highest Channel / 1RB



Date: 16.JUL.2020 11:04:12

Highest Channel / Full RB



Date: 16.JUL.2020 11:05:15



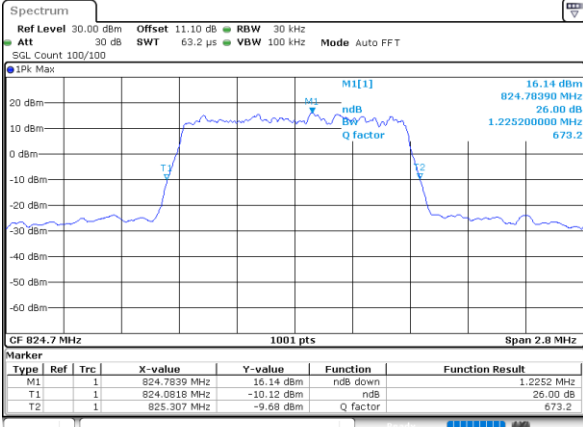
**26dB Bandwidth**

Mode	LTE Band 5 : 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	1.23	1.21	3.02	3.01	4.94	4.86	9.83	9.83	-	-	-	-
Middle CH	1.23	1.23	2.98	3.05	4.88	4.91	9.73	9.69	-	-	-	-
Highest CH	1.22	1.23	3.03	3.05	4.87	4.88	9.73	9.75	-	-	-	-
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM		64QAM	
Lowest CH	1.23	1.21	2.99	3.08	4.87	4.92	9.81	9.61	-	-	-	-
Middle CH	1.23	1.22	3.05	3.03	4.87	4.80	9.73	9.81	-	-	-	-
Highest CH	1.23	1.23	3.02	3.02	4.91	4.87	9.83	9.85	-	-	-	-



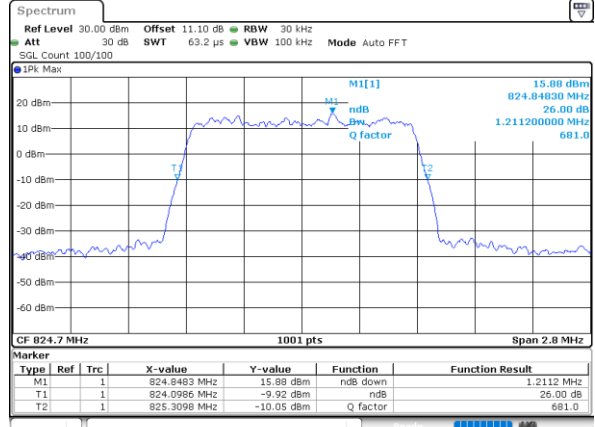
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



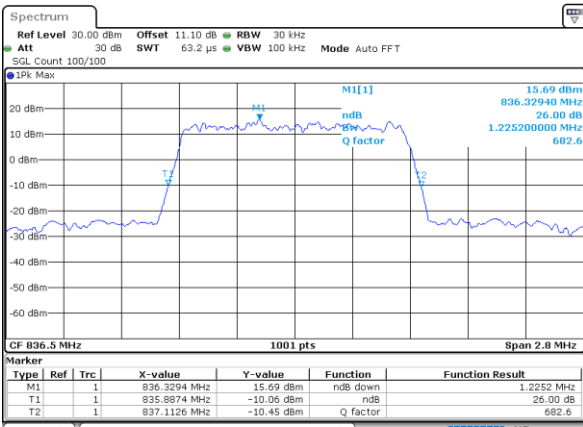
Date: 6 JUN 2020 11:12:21

Lowest Channel / 1.4MHz / 16QAM



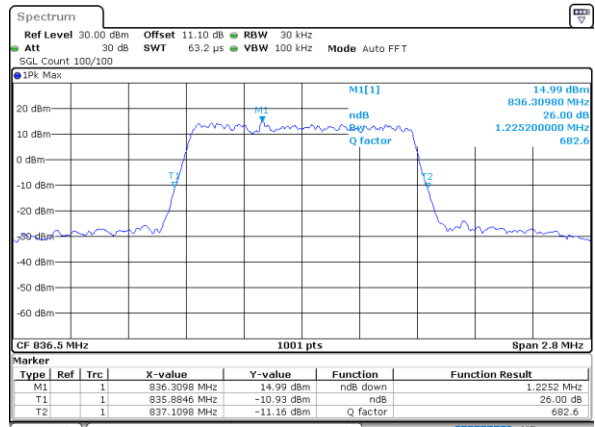
Date: 6 JUN 2020 11:12:09

Middle Channel / 1.4MHz / QPSK



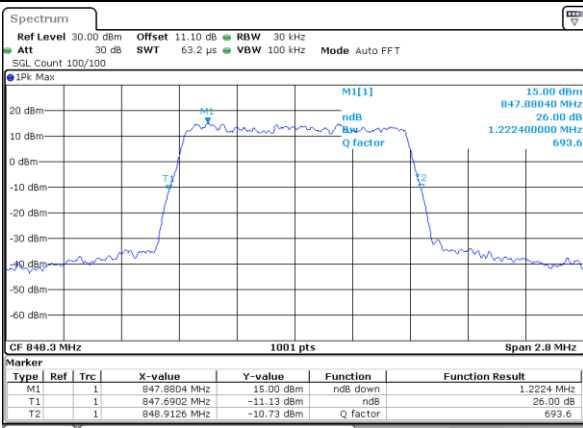
Date: 6 JUN 2020 11:17:48

Middle Channel / 1.4MHz / 16QAM



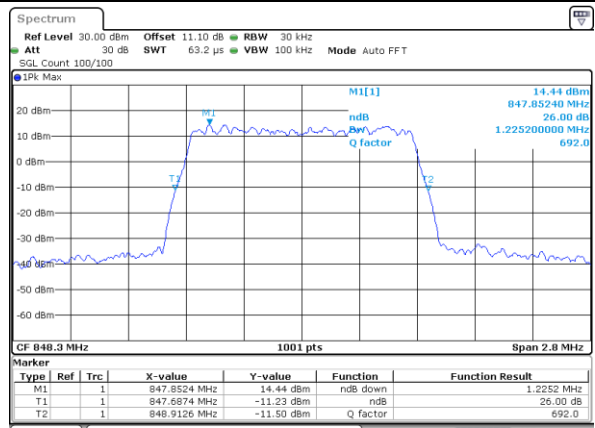
Date: 6 JUN 2020 11:17:59

Highest Channel / 1.4MHz / QPSK



Date: 6 JUN 2020 11:20:03

Highest Channel / 1.4MHz / 16QAM

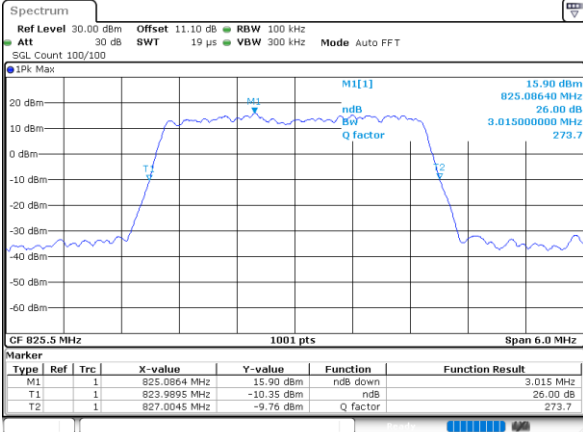


Date: 6 JUN 2020 11:20:15



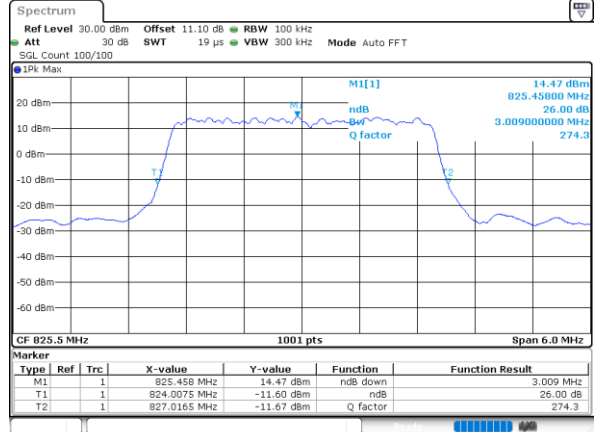
LTE Band 5

Lowest Channel / 3MHz / QPSK



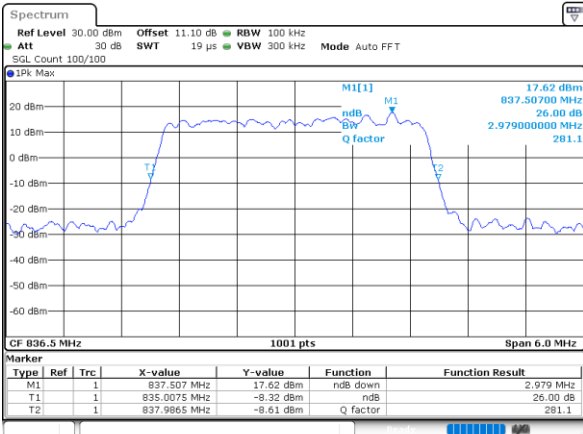
Date: 6 JUN 2020 00:55:54

Lowest Channel / 3MHz / 16QAM



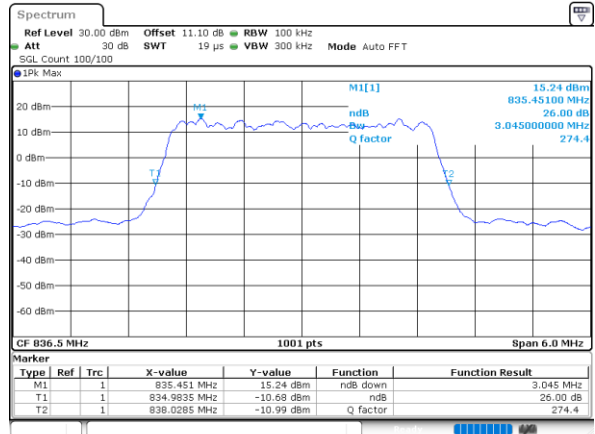
Date: 6 JUN 2020 00:56:06

Middle Channel / 3MHz / QPSK



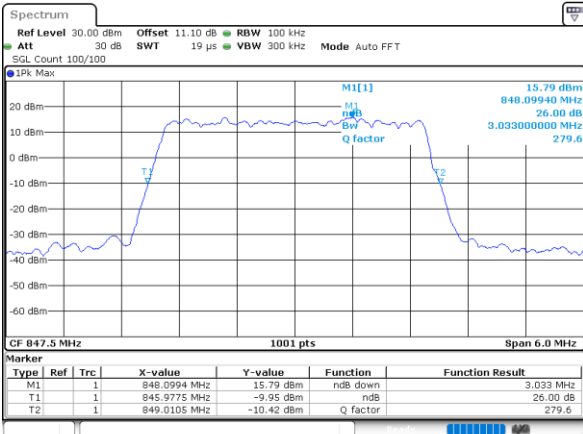
Date: 6 JUN 2020 01:04:51

Middle Channel / 3MHz / 16QAM



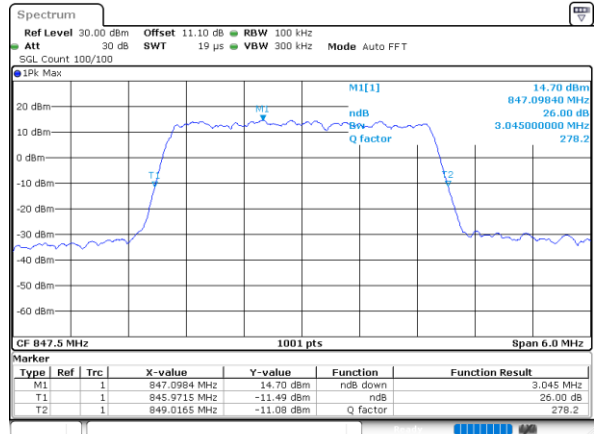
Date: 6 JUN 2020 01:05:02

Highest Channel / 3MHz / QPSK



Date: 6 JUN 2020 01:07:07

Highest Channel / 3MHz / 16QAM

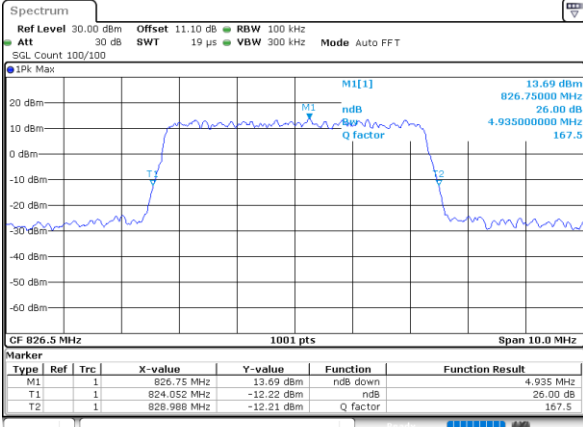


Date: 6 JUN 2020 01:07:19



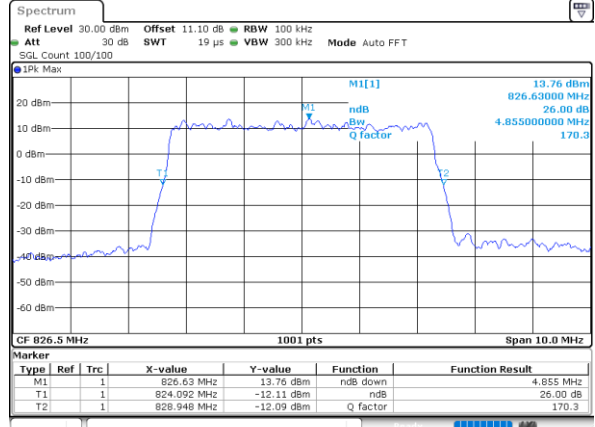
LTE Band 5

Lowest Channel / 5MHz / QPSK



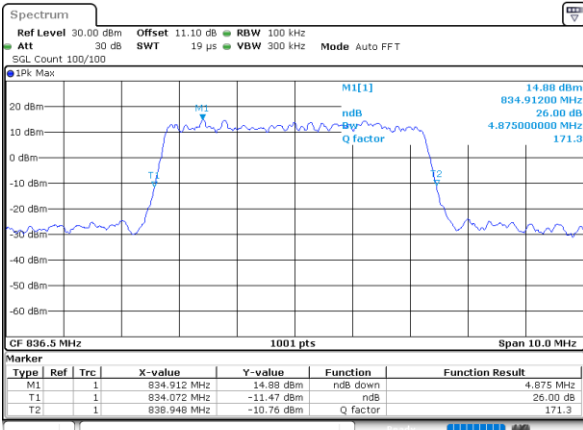
Date: 6 JUN 2020 01:28:17

Lowest Channel / 5MHz / 16QAM



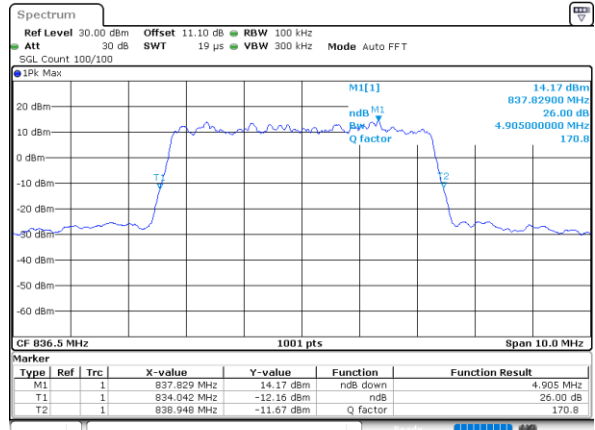
Date: 6 JUN 2020 01:28:28

Middle Channel / 5MHz / QPSK



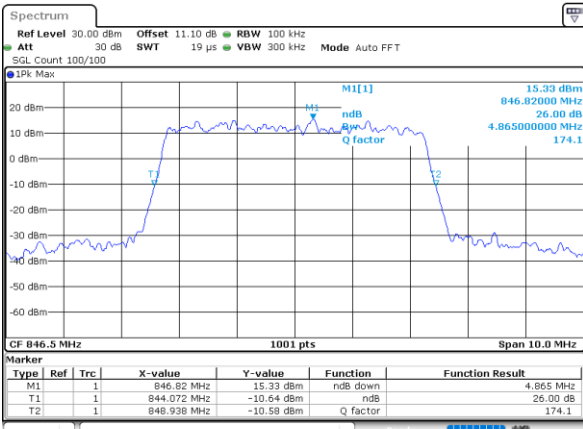
Date: 6 JUN 2020 08:34:33

Middle Channel / 5MHz / 16QAM



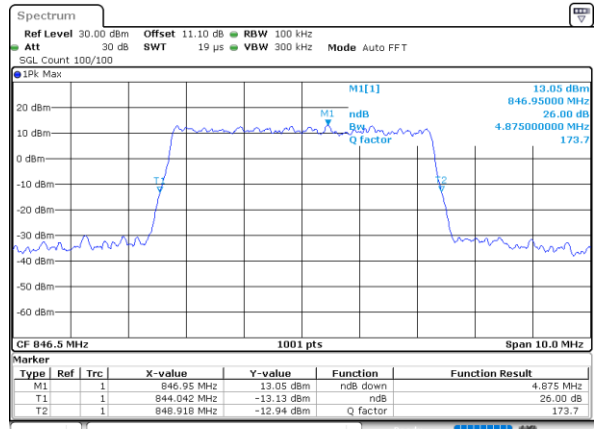
Date: 6 JUN 2020 08:34:45

Highest Channel / 5MHz / QPSK



Date: 6 JUN 2020 08:36:49

Highest Channel / 5MHz / 16QAM

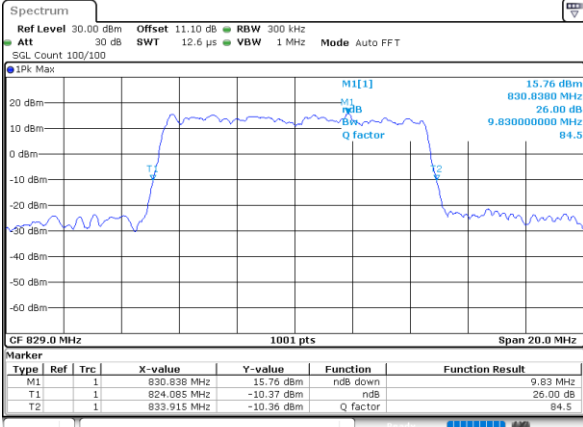


Date: 6 JUN 2020 08:37:01



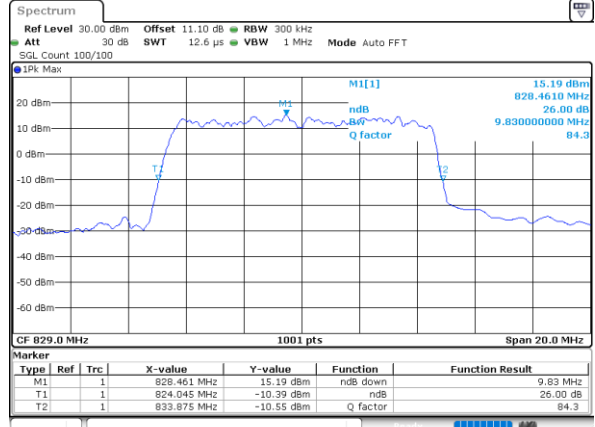
LTE Band 5

Lowest Channel / 10MHz / QPSK



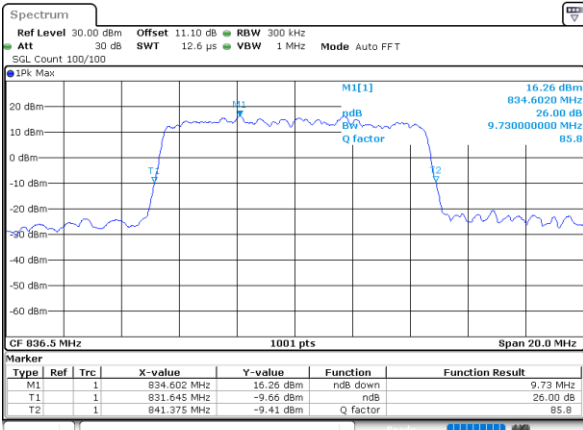
Date: 6 JUN 2020 08:55:06

Lowest Channel / 10MHz / 16QAM



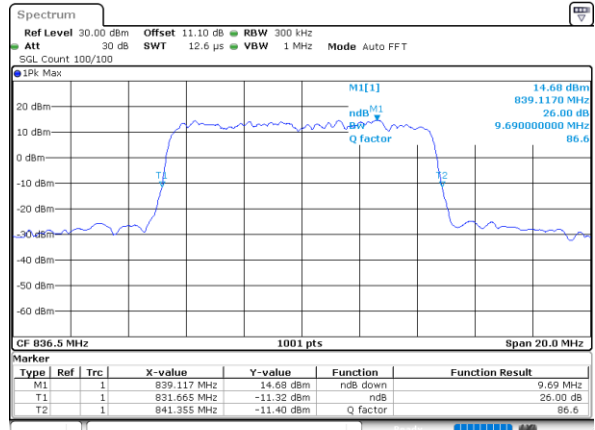
Date: 6 JUN 2020 08:55:18

Middle Channel / 10MHz / QPSK



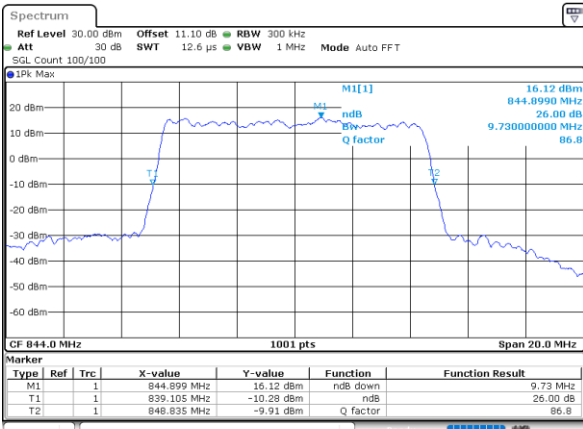
Date: 6 JUN 2020 09:04:02

Middle Channel / 10MHz / 16QAM



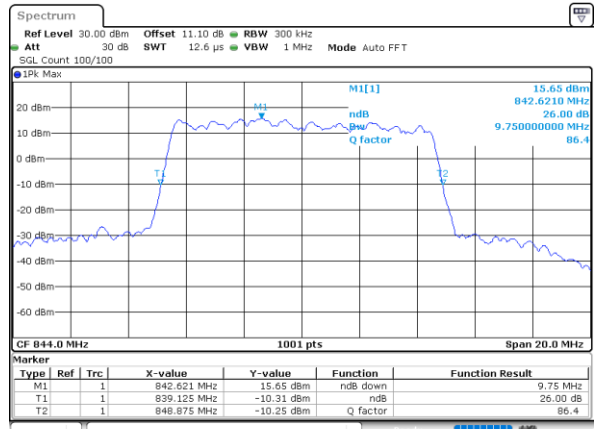
Date: 6 JUN 2020 09:04:14

Highest Channel / 10MHz / QPSK



Date: 6 JUN 2020 09:06:18

Highest Channel / 10MHz / 16QAM



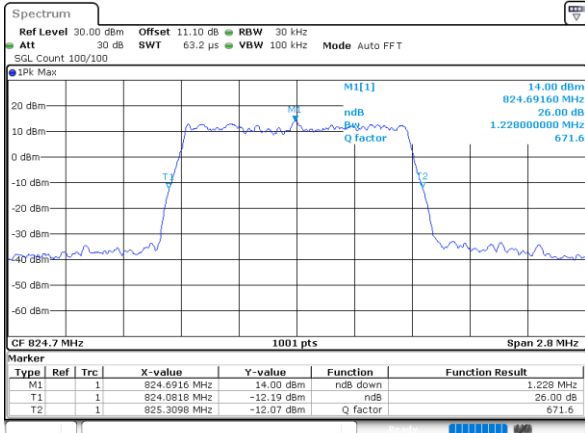
Date: 6 JUN 2020 09:06:30





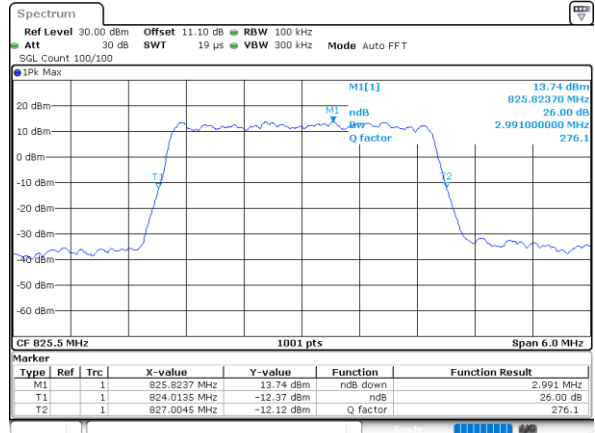
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



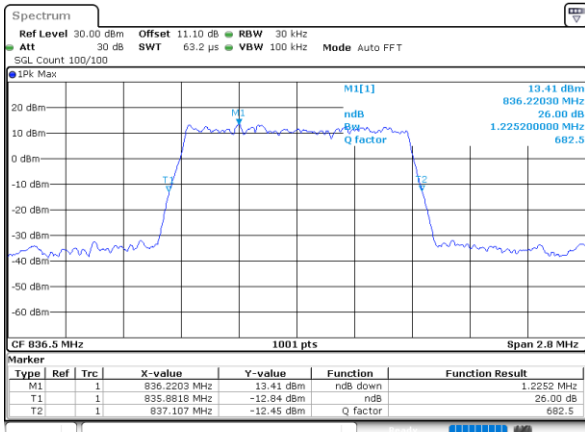
Date: 6 JUN 2020 11:28:48

Lowest Channel / 3MHz / 64QAM



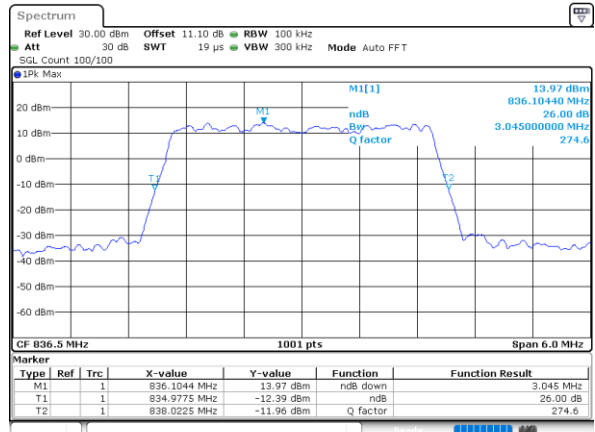
Date: 6 JUN 2020 01:17:59

Middle Channel / 1.4MHz / 64QAM



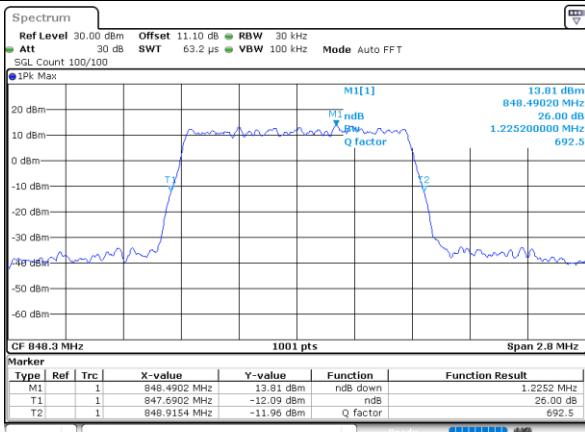
Date: 6 JUN 2020 11:01:37

Middle Channel / 3MHz / 64QAM



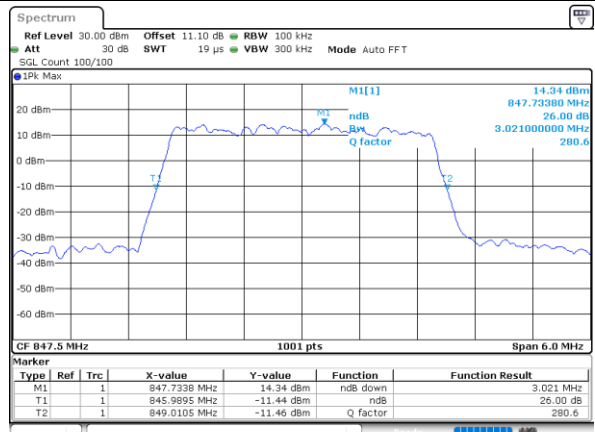
Date: 6 JUN 2020 01:22:27

Highest Channel / 1.4MHz / 64QAM



Date: 6 JUN 2020 11:32:45

Highest Channel / 3MHz / 64QAM

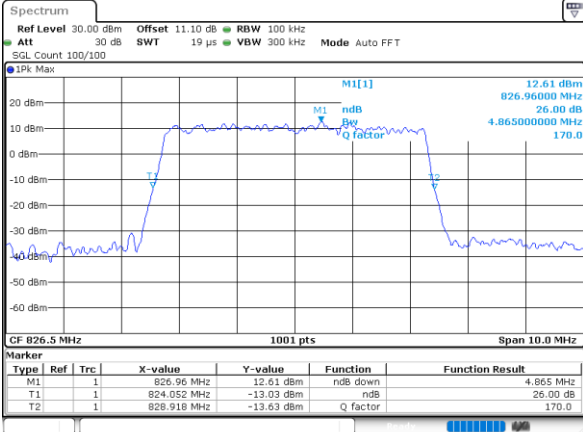


Date: 6 JUN 2020 01:23:35



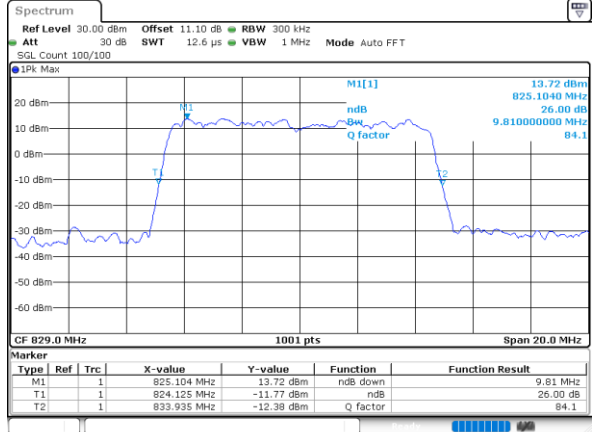
LTE Band 5

Lowest Channel / 5MHz / 64QAM



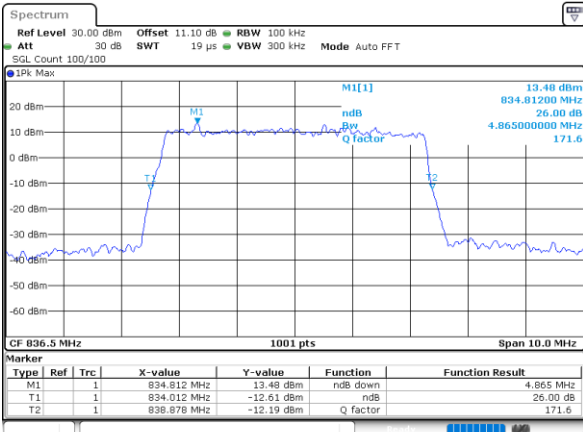
Date: 6 JUN 2020 08:45:34

Lowest Channel / 10MHz / 64QAM



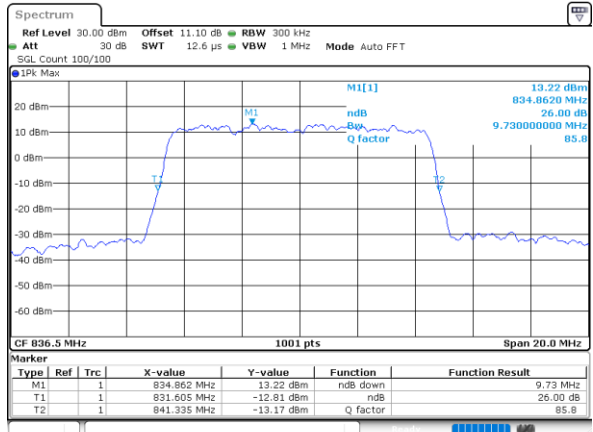
Date: 6 JUN 2020 09:15:50

Middle Channel / 5MHz / 64QAM



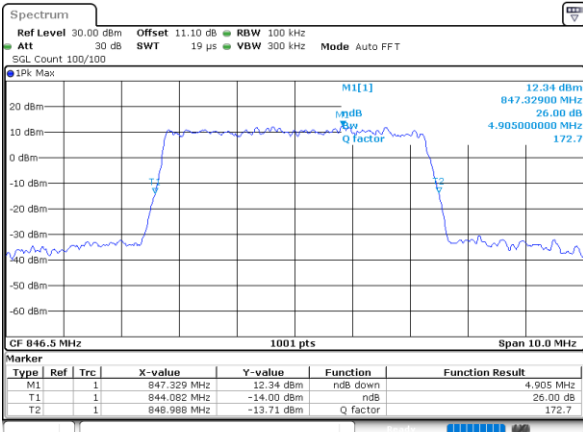
Date: 6 JUN 2020 08:50:03

Middle Channel / 10MHz / 64QAM



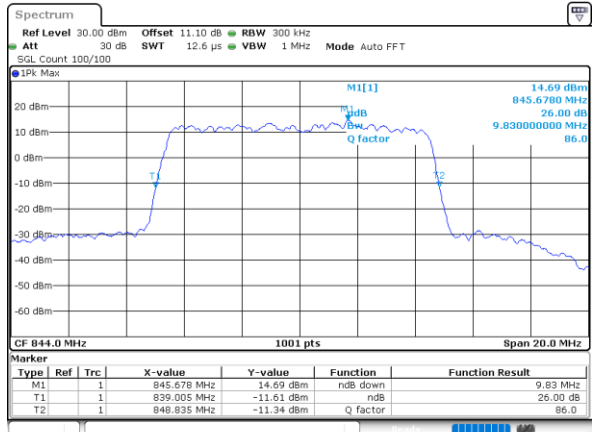
Date: 6 JUN 2020 09:20:18

Highest Channel / 5MHz / 64QAM



Date: 6 JUN 2020 08:51:10

Highest Channel / 10MHz / 64QAM

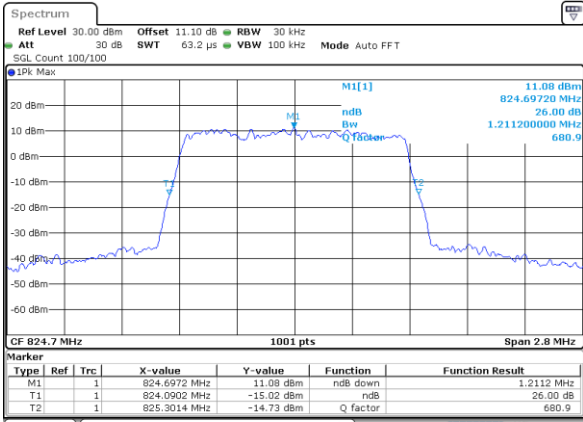


Date: 6 JUN 2020 09:21:26



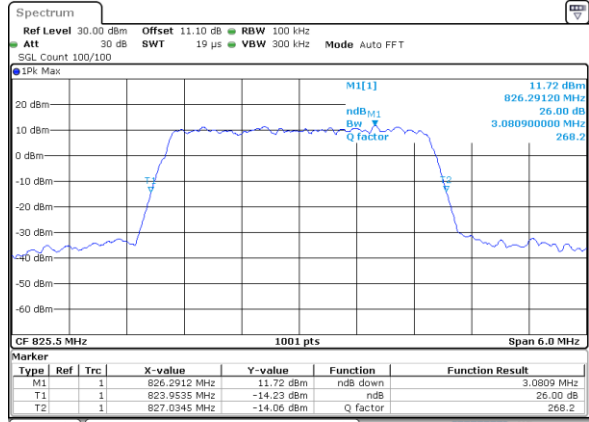
LTE Band 5

Lowest Channel / 1.4MHz / 256QAM



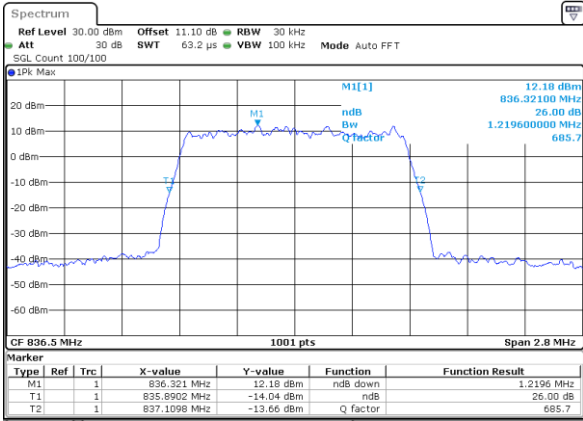
Date: 16.JUL.2020 10:21:33

Lowest Channel / 3MHz / 256QAM



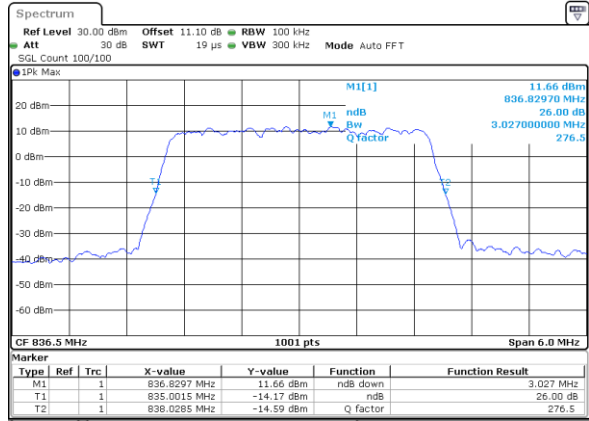
Date: 16.JUL.2020 10:36:50

Middle Channel / 1.4MHz / 256QAM



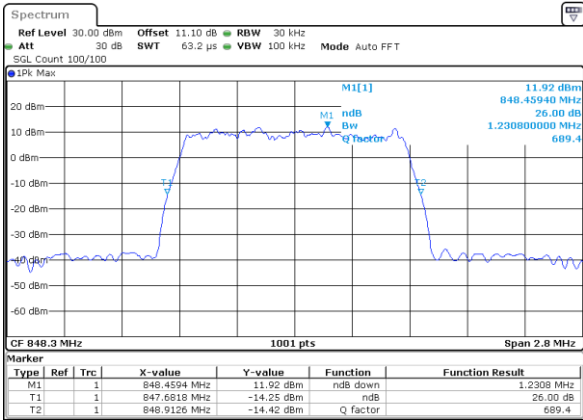
Date: 16.JUL.2020 10:16:41

Middle Channel / 3MHz / 256QAM



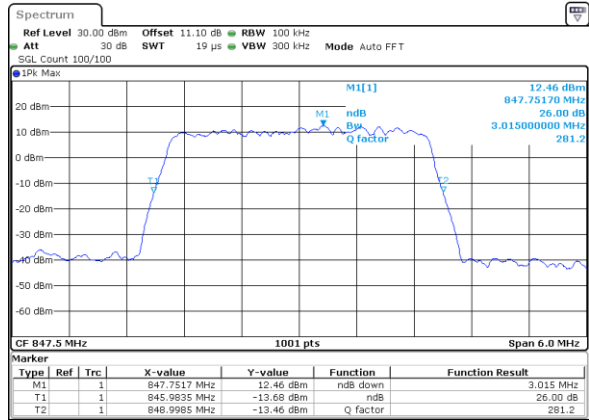
Date: 16.JUL.2020 10:33:04

Highest Channel / 1.4MHz / 256QAM



Date: 16.JUL.2020 10:25:58

Highest Channel / 3MHz / 256QAM

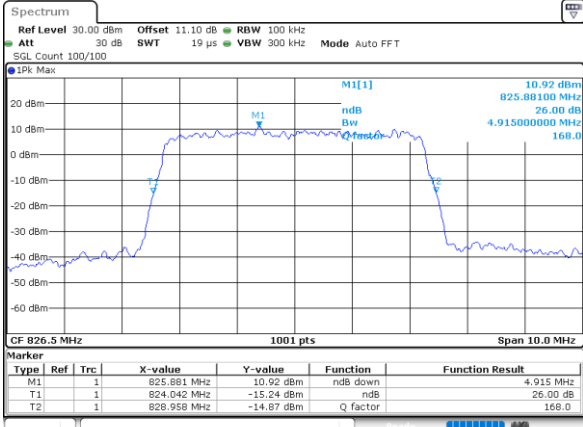


Date: 16.JUL.2020 10:42:27



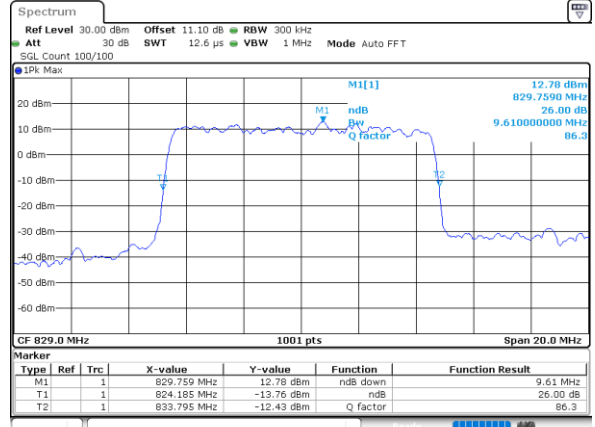
LTE Band 5

Lowest Channel / 5MHz / 256QAM



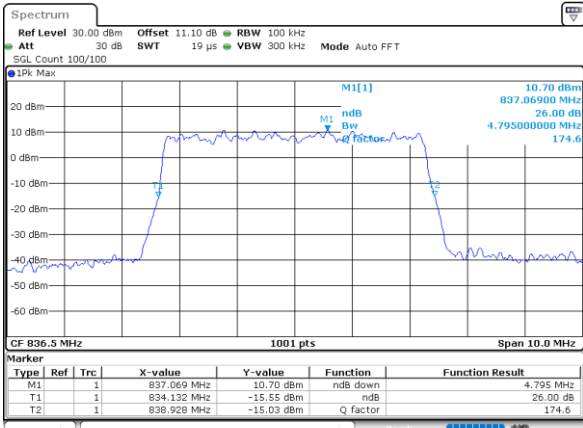
Date: 16.JUL.2020 10:53:03

Lowest Channel / 10MHz / 256QAM



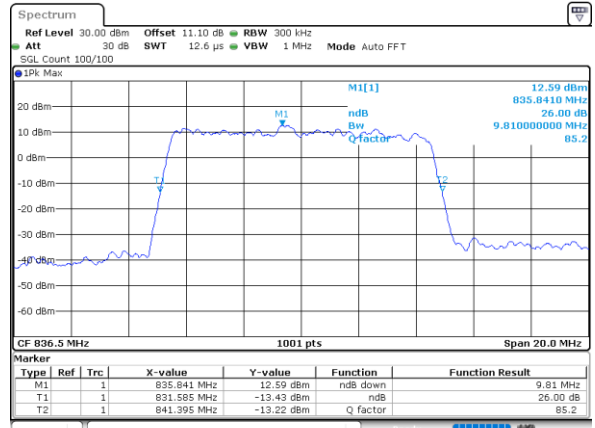
Date: 16.JUL.2020 11:01:58

Middle Channel / 5MHz / 256QAM



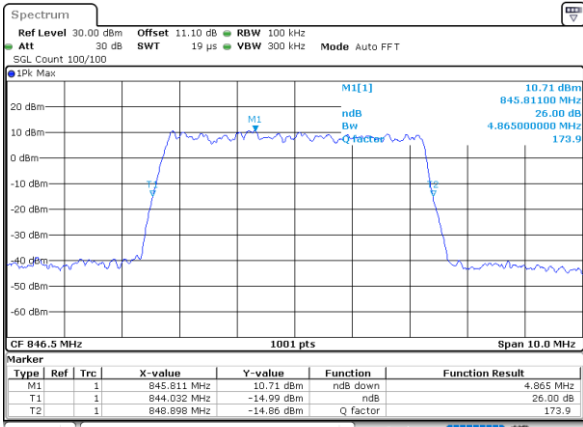
Date: 16.JUL.2020 10:49:38

Middle Channel / 10MHz / 256QAM



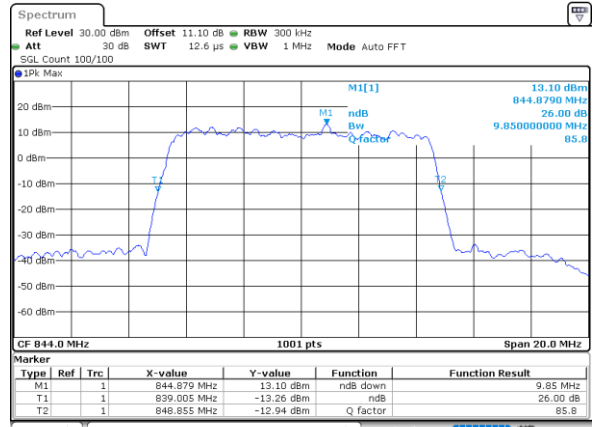
Date: 16.JUL.2020 10:58:42

Highest Channel / 5MHz / 256QAM



Date: 16.JUL.2020 10:54:42

Highest Channel / 10MHz / 256QAM



Date: 16.JUL.2020 11:05:30



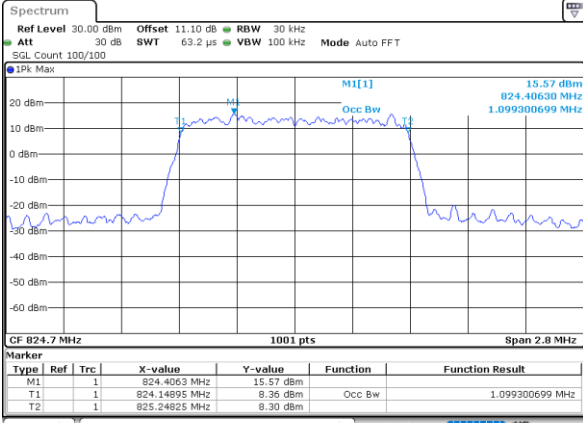
**Occupied Bandwidth**

Mode	LTE Band 5 : 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	1.10	1.09	2.72	2.72	4.50	4.50	9.05	9.03	-	-	-	-
Middle CH	1.09	1.09	2.72	2.73	4.49	4.47	9.03	8.99	-	-	-	-
Highest CH	1.09	1.08	2.70	2.72	4.49	4.49	9.05	9.05	-	-	-	-
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM		64QAM	
Lowest CH	1.09	1.08	2.71	2.73	4.49	4.49	9.01	8.95	-	-	-	-
Middle CH	1.09	1.08	2.72	2.72	4.51	4.50	9.03	9.01	-	-	-	-
Highest CH	1.09	1.08	2.72	2.72	4.50	4.47	9.03	8.93	-	-	-	-



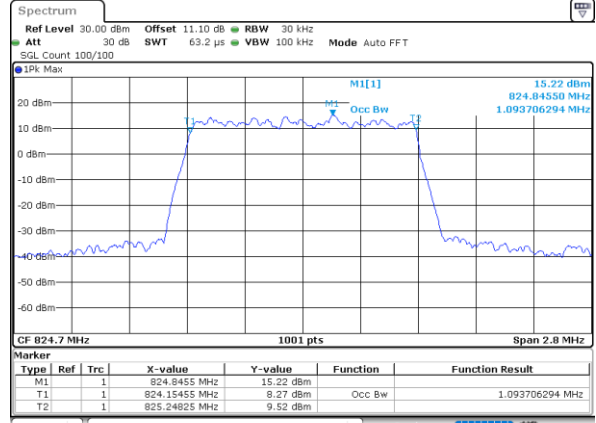
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



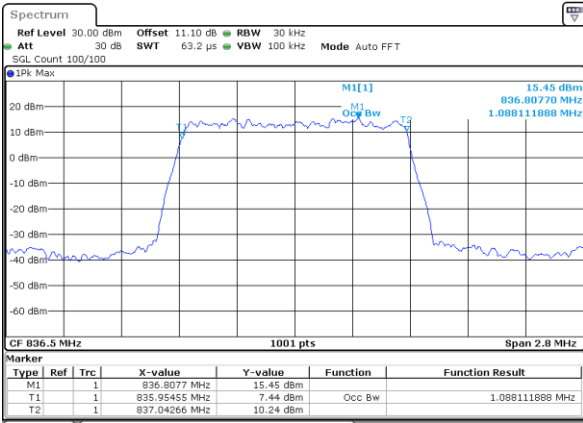
Date: 6 JUN 2020 11:11:45

Lowest Channel / 1.4MHz / 16QAM



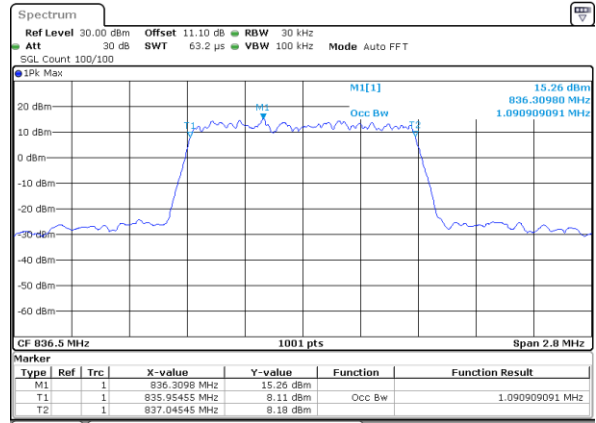
Date: 6 JUN 2020 11:11:57

Middle Channel / 1.4MHz / QPSK



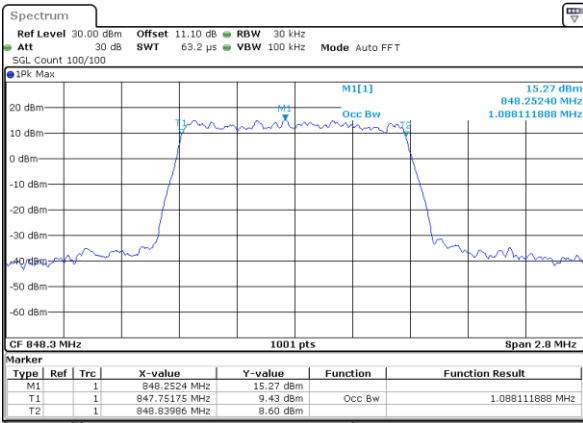
Date: 6 JUN 2020 11:17:25

Middle Channel / 1.4MHz / 16QAM



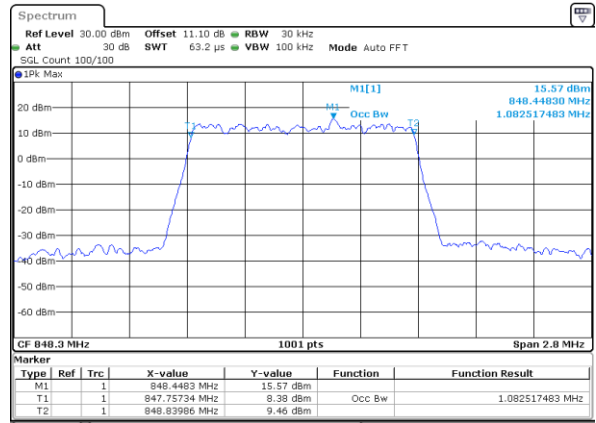
Date: 6 JUN 2020 11:17:36

Highest Channel / 1.4MHz / QPSK



Date: 6 JUN 2020 11:19:39

Highest Channel / 1.4MHz / 16QAM

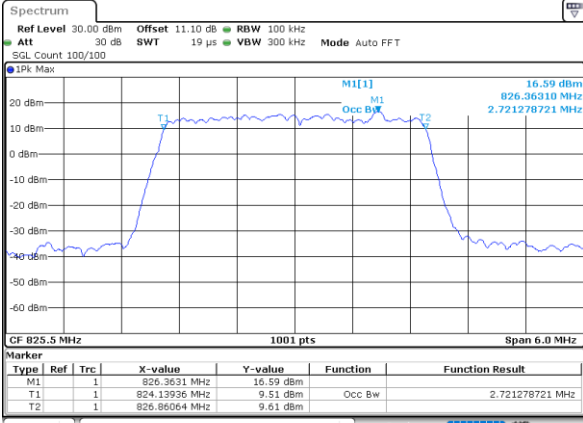


Date: 6 JUN 2020 11:19:51



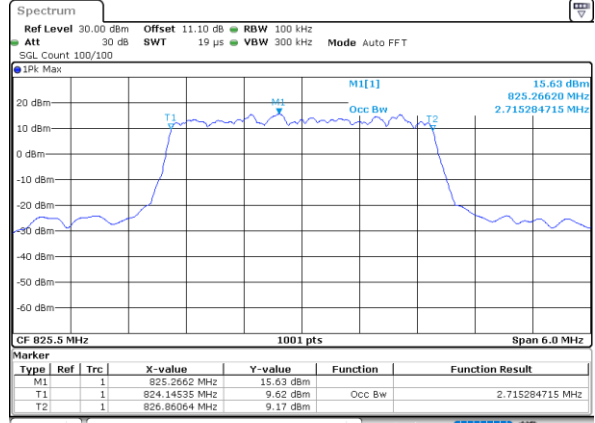
LTE Band 5

Lowest Channel / 3MHz / QPSK



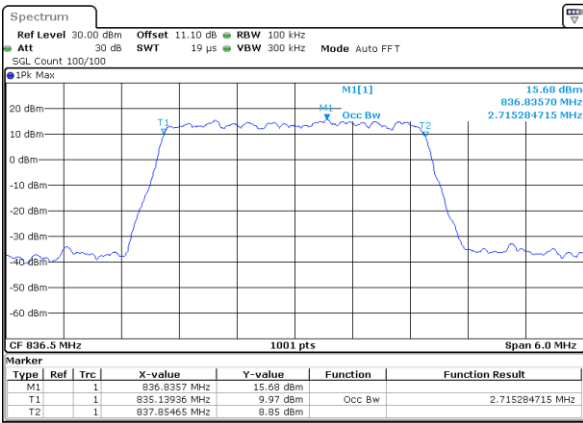
Date: 6 JUN 2020 00:55:30

Lowest Channel / 3MHz / 16QAM



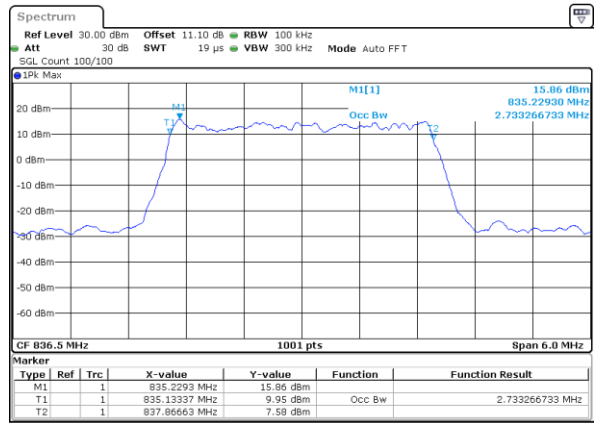
Date: 6 JUN 2020 00:55:42

Middle Channel / 3MHz / QPSK



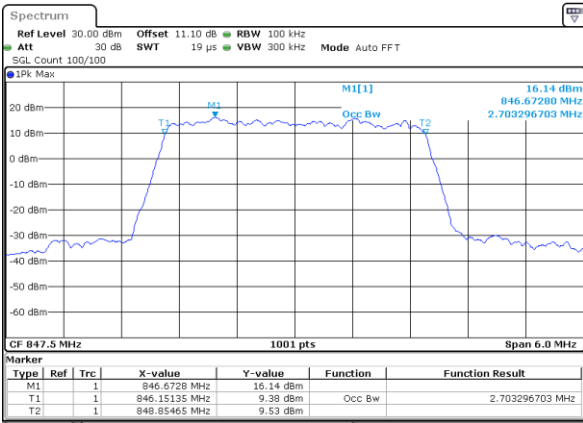
Date: 6 JUN 2020 01:04:28

Middle Channel / 3MHz / 16QAM



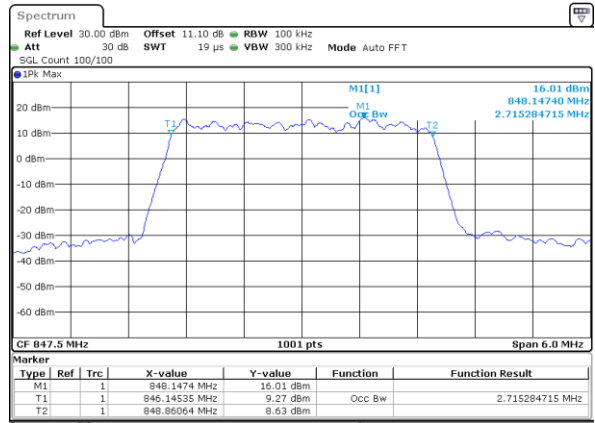
Date: 6 JUN 2020 01:04:39

Highest Channel / 3MHz / QPSK



Date: 6 JUN 2020 01:06:43

Highest Channel / 3MHz / 16QAM

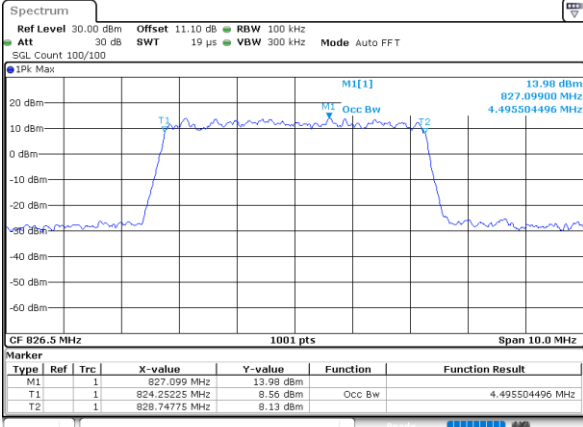


Date: 6 JUN 2020 01:06:55



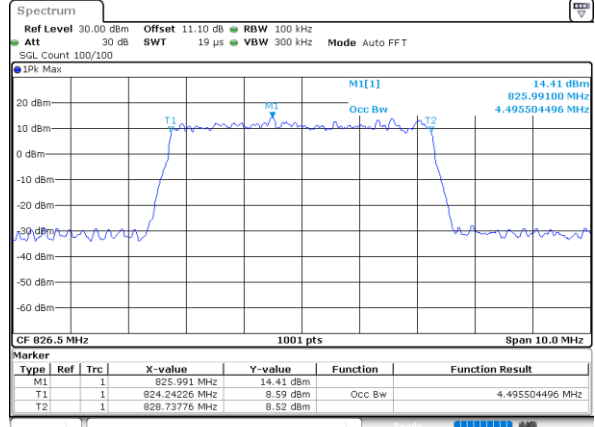
LTE Band 5

Lowest Channel / 5MHz / QPSK



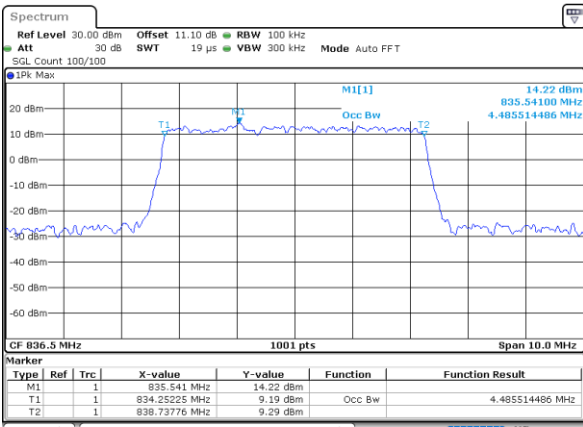
Date: 6 JUN 2020 01:27:53

Lowest Channel / 5MHz / 16QAM



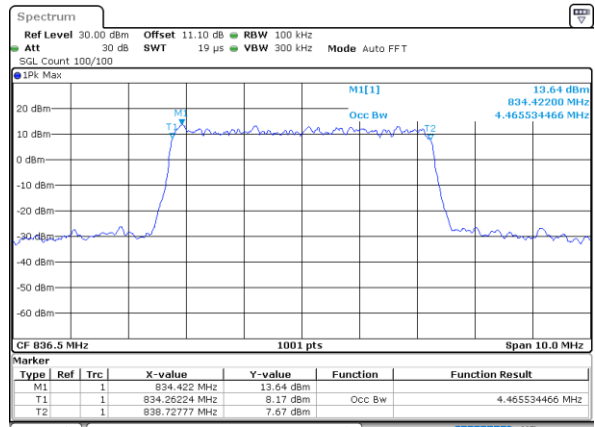
Date: 6 JUN 2020 01:28:05

Middle Channel / 5MHz / QPSK



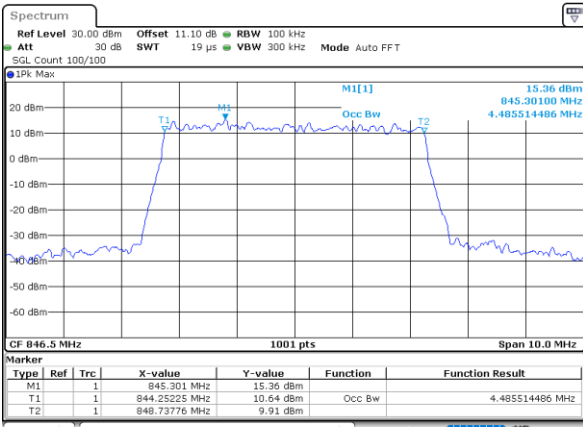
Date: 6 JUN 2020 08:34:11

Middle Channel / 5MHz / 16QAM



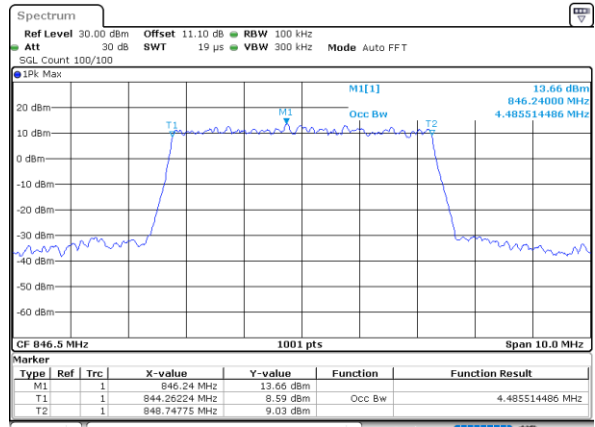
Date: 6 JUN 2020 08:34:22

Highest Channel / 5MHz / QPSK



Date: 6 JUN 2020 08:36:26

Highest Channel / 5MHz / 16QAM



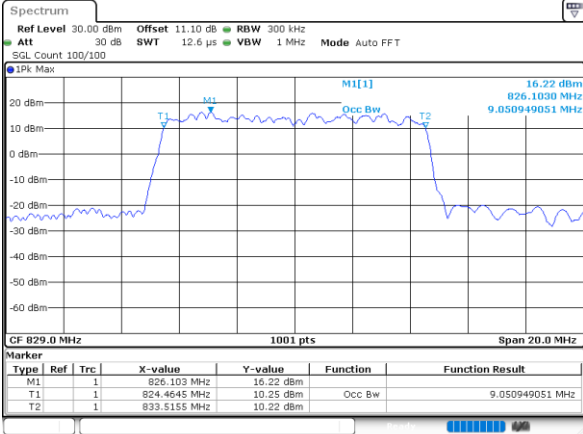
Date: 6 JUN 2020 08:36:37





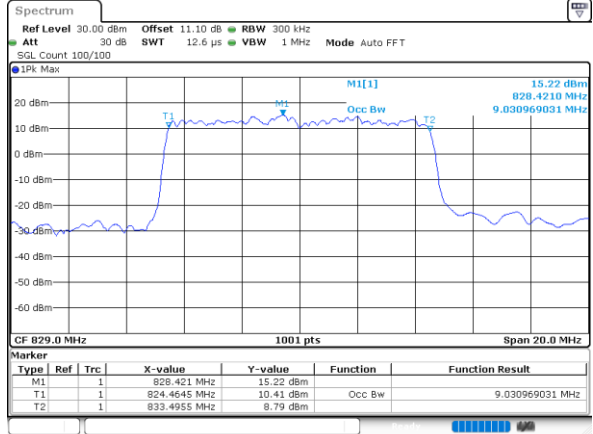
LTE Band 5

Lowest Channel / 10MHz / QPSK



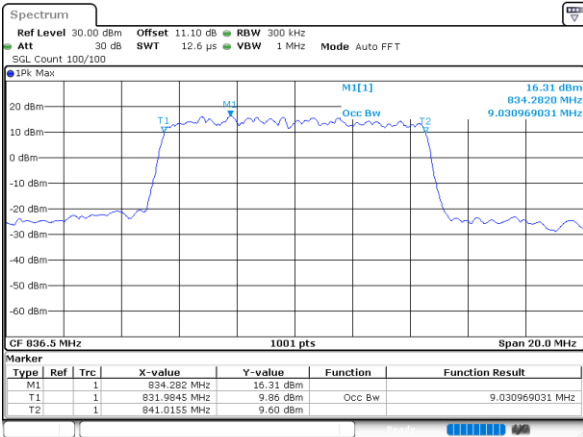
Date: 6 JUN 2020 08:54:43

Lowest Channel / 10MHz / 16QAM



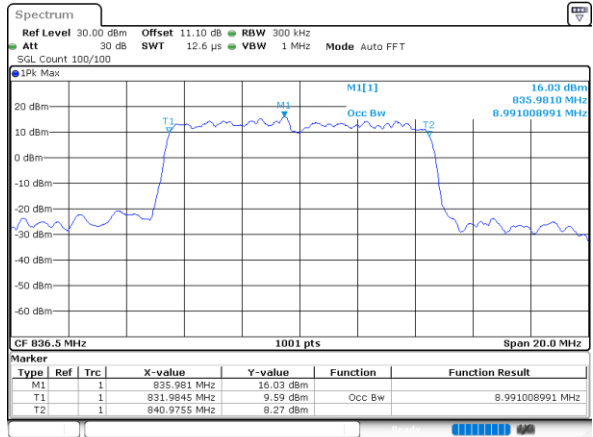
Date: 6 JUN 2020 08:54:54

Middle Channel / 10MHz / QPSK



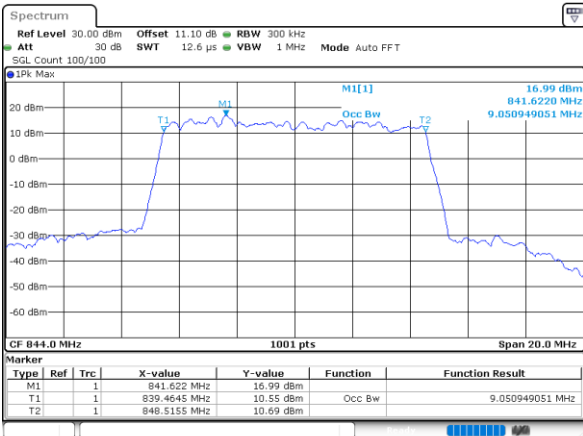
Date: 6 JUN 2020 09:03:40

Middle Channel / 10MHz / 16QAM



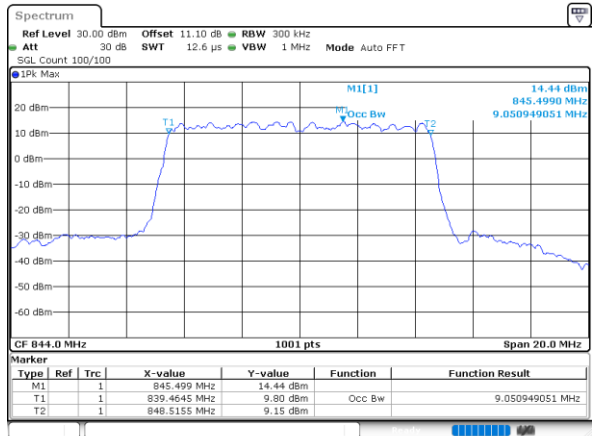
Date: 6 JUN 2020 09:03:51

Highest Channel / 10MHz / QPSK



Date: 6 JUN 2020 09:05:54

Highest Channel / 10MHz / 16QAM

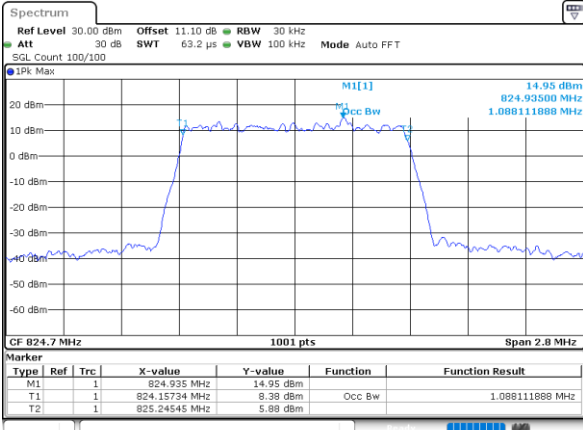


Date: 6 JUN 2020 09:06:06



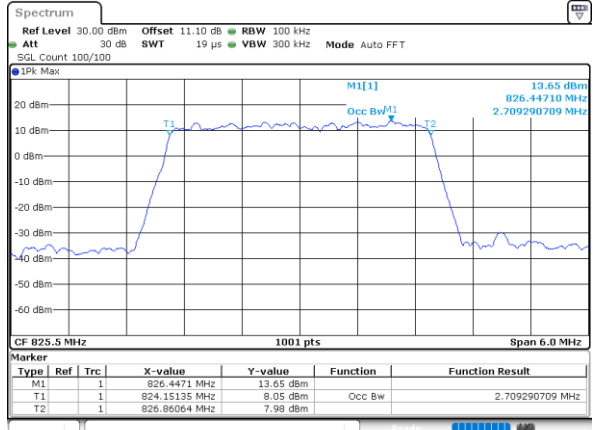
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



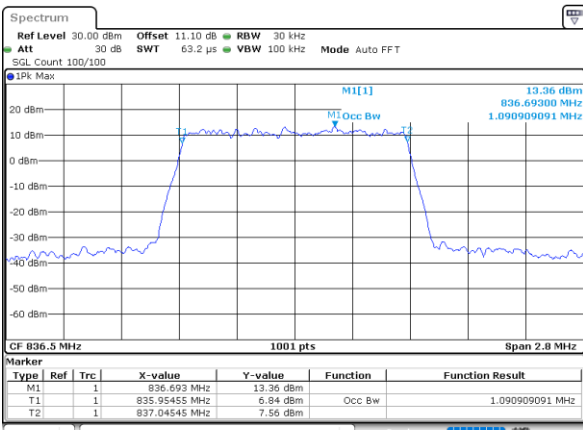
Date: 6 JUN 2020 11:28:36

Lowest Channel / 3MHz / 64QAM



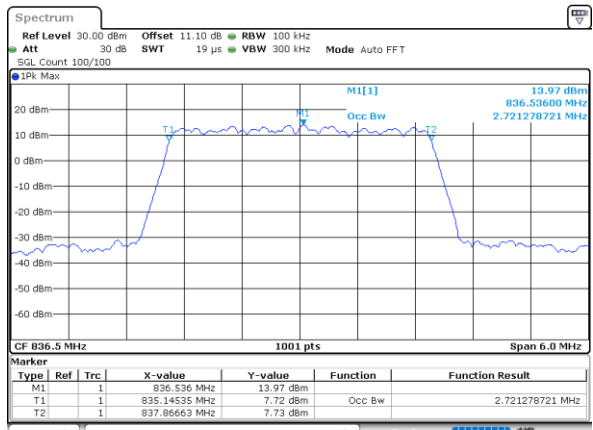
Date: 6 JUN 2020 01:17:47

Middle Channel / 1.4MHz / 64QAM



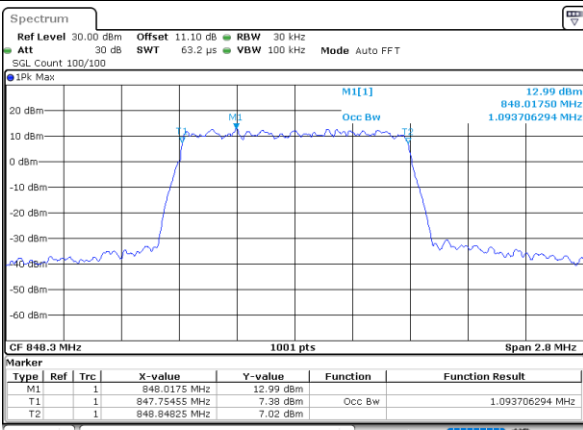
Date: 6 JUN 2020 11:31:26

Middle Channel / 3MHz / 64QAM



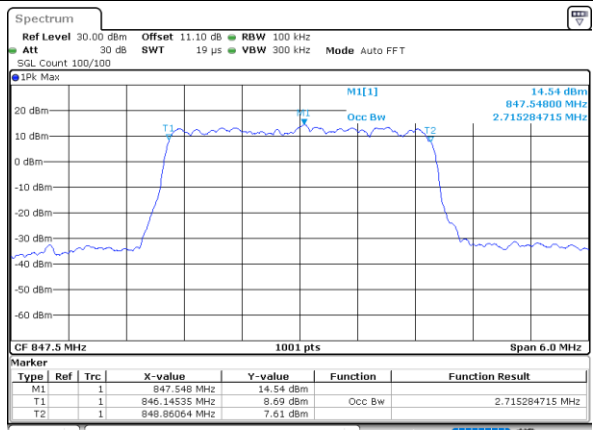
Date: 6 JUN 2020 01:22:16

Highest Channel / 1.4MHz / 64QAM



Date: 6 JUN 2020 11:32:33

Highest Channel / 3MHz / 64QAM



Date: 6 JUN 2020 01:23:23