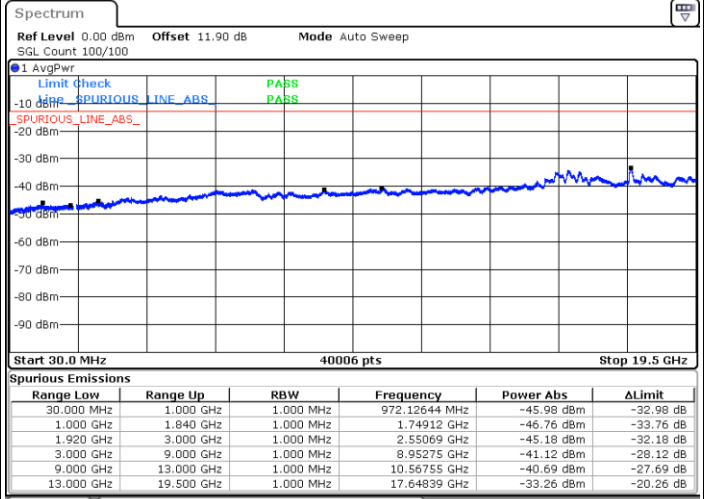
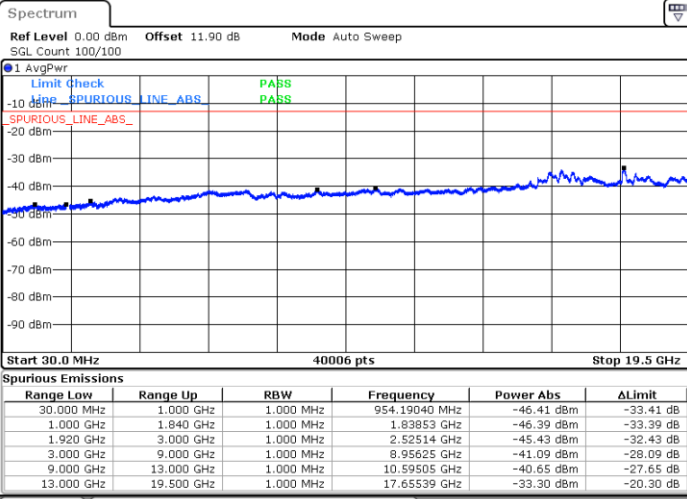




LTE Band 2 / 5MHz

Lowest Channel / 256QAM

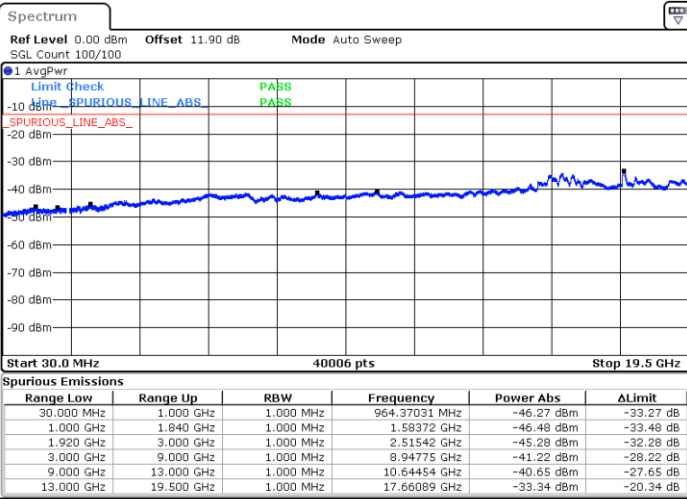
Middle Channel / 256QAM



Date: 16.JUL.2020 09:46:51

Date: 16.JUL.2020 09:43:27

Highest Channel / 256QAM



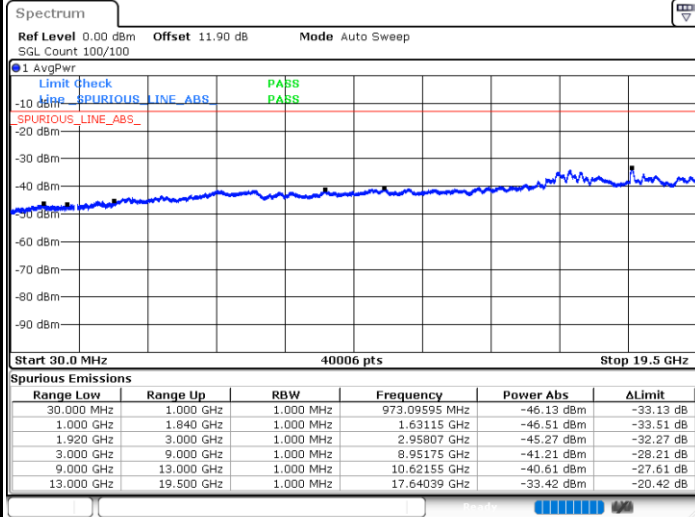
Date: 16.JUL.2020 09:48:10



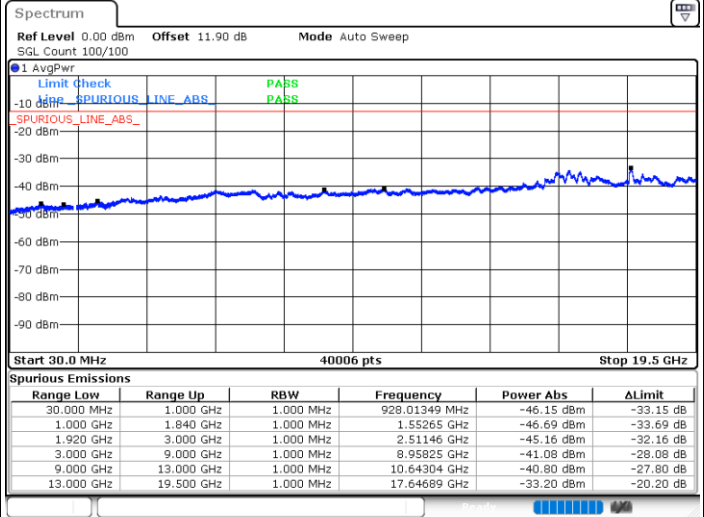
LTE Band 2 / 10MHz

Lowest Channel / 256QAM

Middle Channel / 256QAM

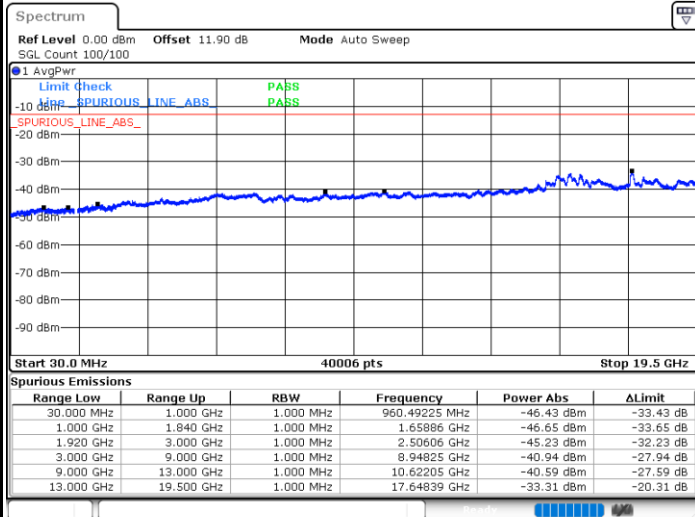


Date: 16.JUL.2020 09:52:31



Date: 16.JUL.2020 09:51:32

Highest Channel / 256QAM



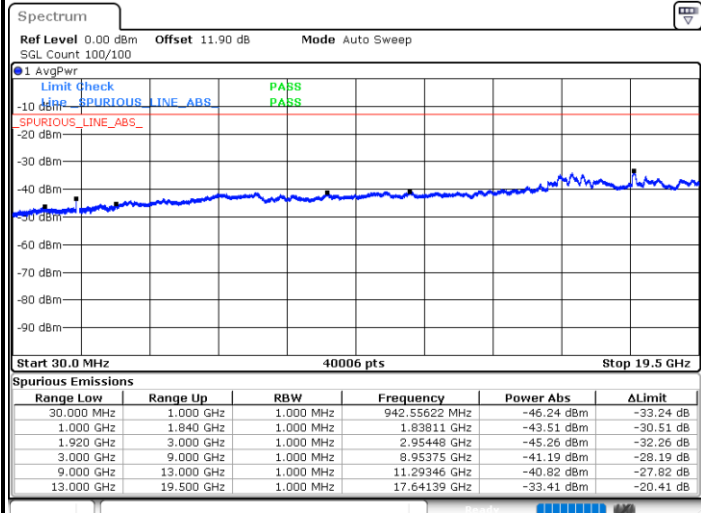
Date: 16.JUL.2020 09:55:45



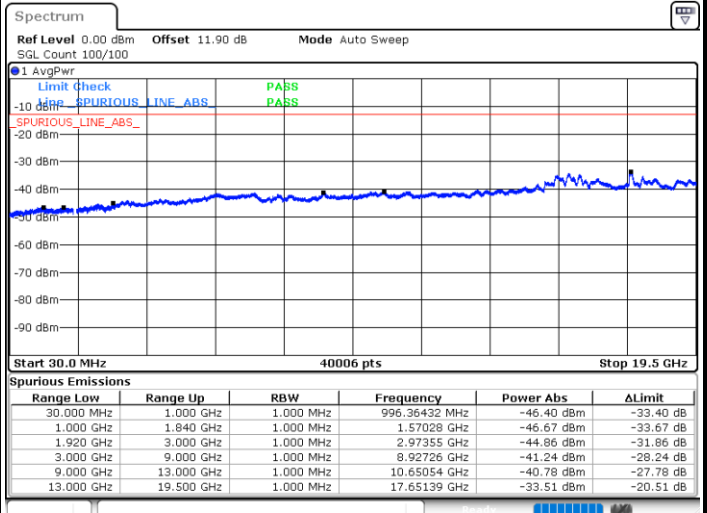
LTE Band 2 / 15MHz

Lowest Channel / 256QAM

Middle Channel / 256QAM

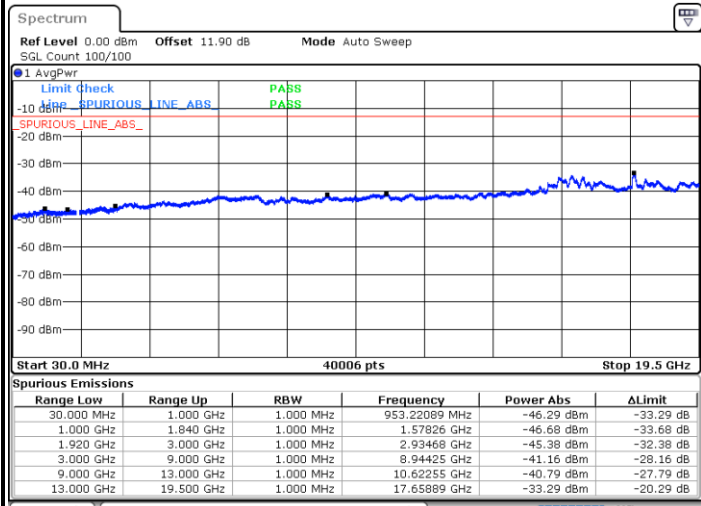


Date: 16.JUL.2020 10:01:14



Date: 16.JUL.2020 09:57:49

Highest Channel / 256QAM



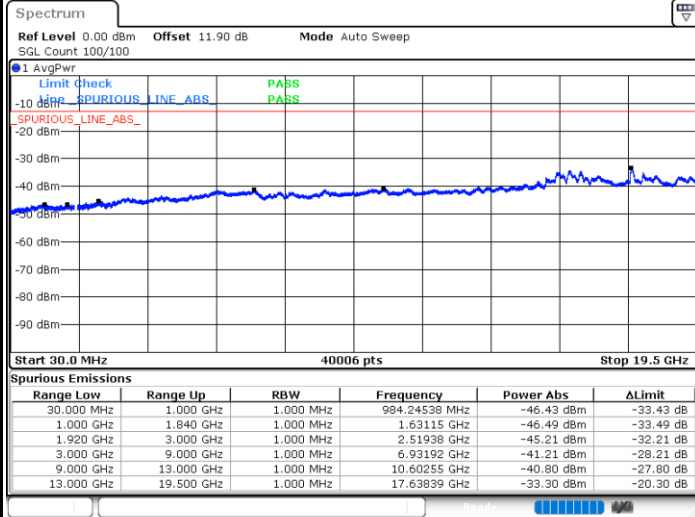
Date: 16.JUL.2020 10:03:39



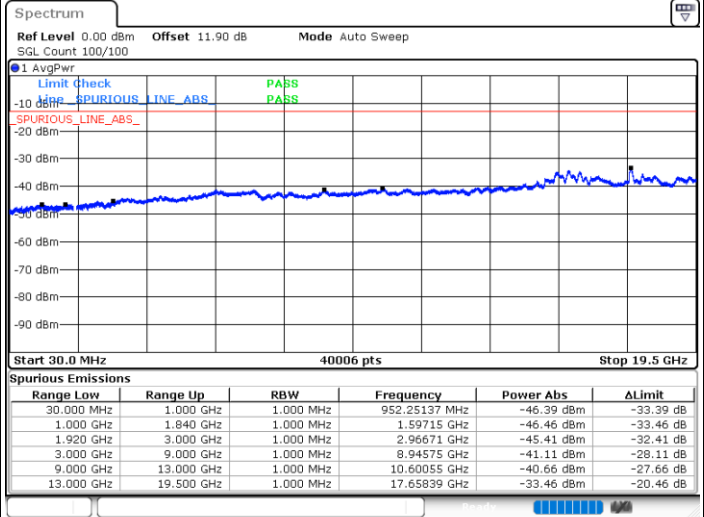
LTE Band 2 / 20MHz

Lowest Channel / 256QAM

Middle Channel / 256QAM

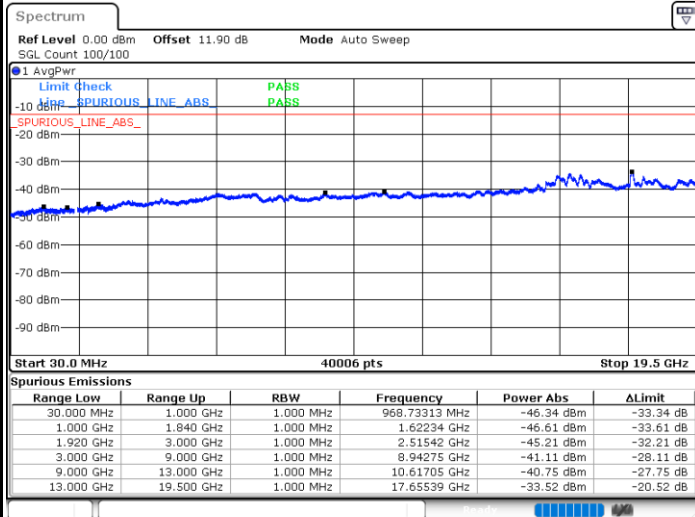


Date: 16.JUL.2020 10:07:33



Date: 16.JUL.2020 10:06:12

Highest Channel / 256QAM



Date: 16.JUL.2020 10:11:13



Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0004	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0097	
0	Normal Voltage	0.0004	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0003	
-30	Normal Voltage	0.0003	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.30V. ; Maximum Voltage =4.25 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



# LTE Band 4

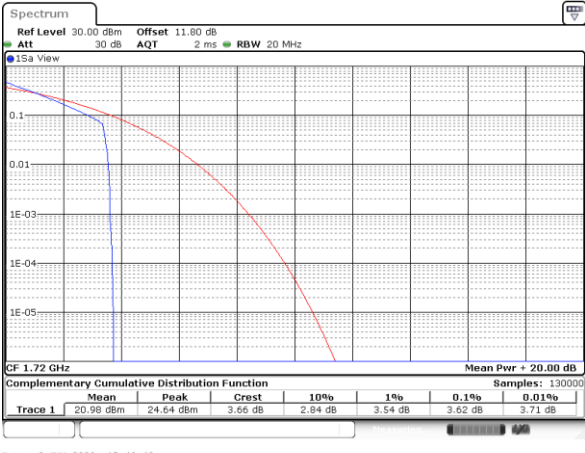
## Peak-to-Average Ratio

Mode	LTE Band 4 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.62	4.81	5.68	5.80	<b>PASS</b>
Middle CH	3.62	4.96	5.65	5.94	
Highest CH	3.68	5.25	5.51	5.91	
Mode	LTE Band 4 / 20MHz				
Mod.	64QAM		256QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	6.96	6.35	6.72	6.43	<b>PASS</b>
Middle CH	7.01	6.46	7.54	6.58	
Highest CH	6.93	6.38	7.91	6.55	



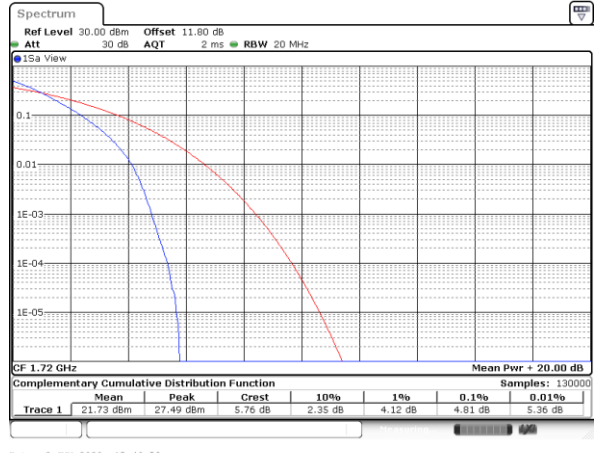
LTE Band 4 / 20MHz / QPSK

Lowest Channel / 1RB



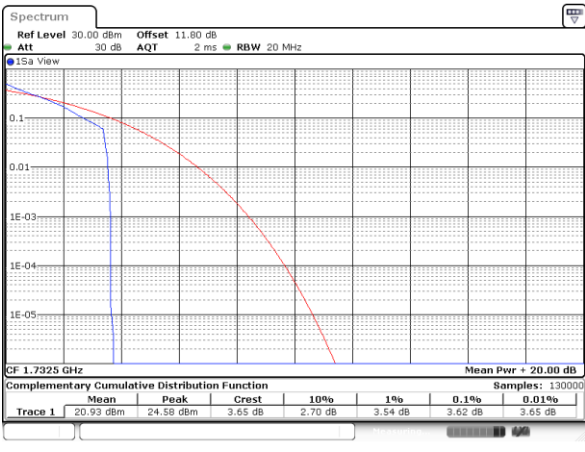
Date: 6 JUN 2020 15:40:42

Lowest Channel / Full RB



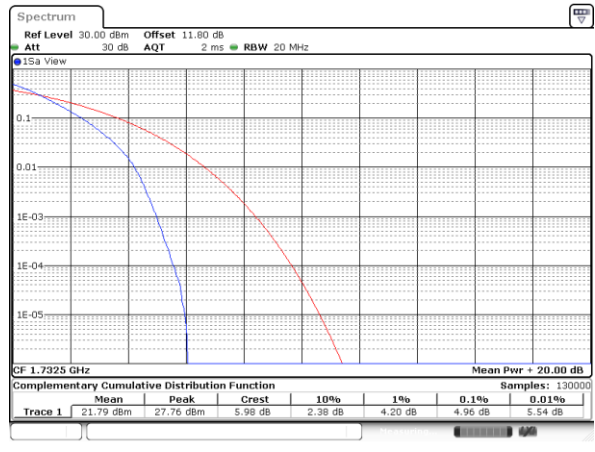
Date: 6 JUN 2020 15:40:53

Middle Channel / 1RB



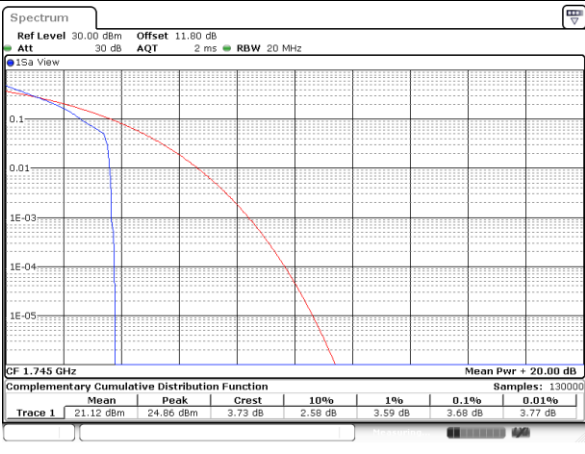
Date: 6 JUN 2020 15:41:03

Middle Channel / Full RB



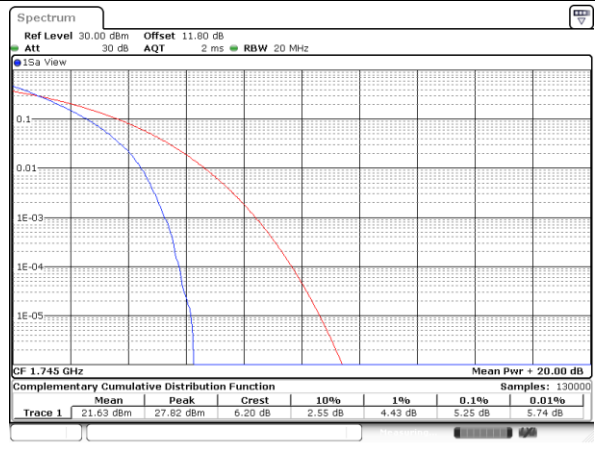
Date: 6 JUN 2020 15:41:14

Highest Channel / 1RB



Date: 6 JUN 2020 15:41:24

Highest Channel / Full RB



Date: 6 JUN 2020 15:41:36



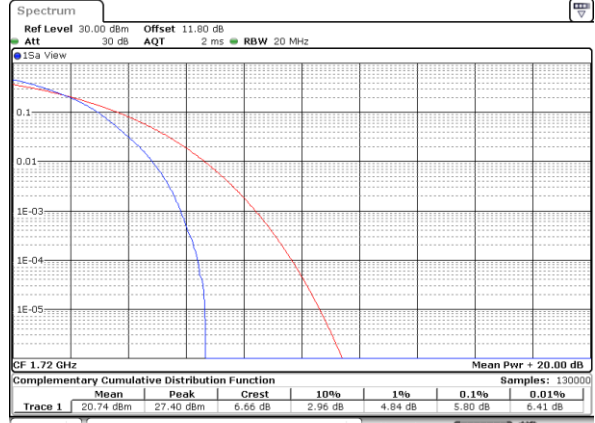
LTE Band 4 / 20MHz / 16QAM

Lowest Channel / 1RB



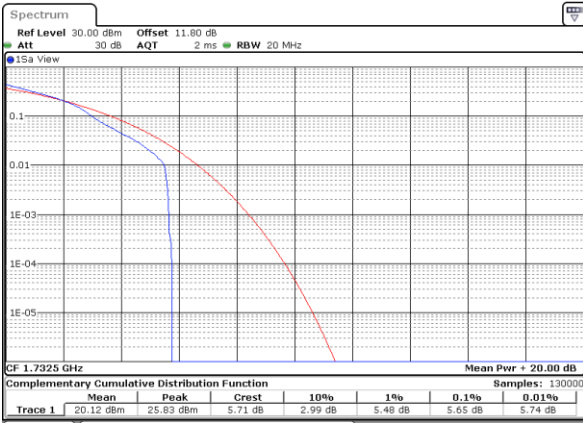
Date: 6 JUN 2020 15:39:36

Lowest Channel / Full RB



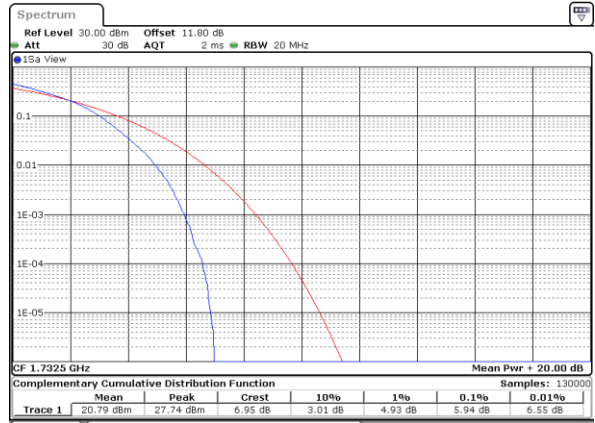
Date: 6 JUN 2020 15:39:48

Middle Channel / 1RB



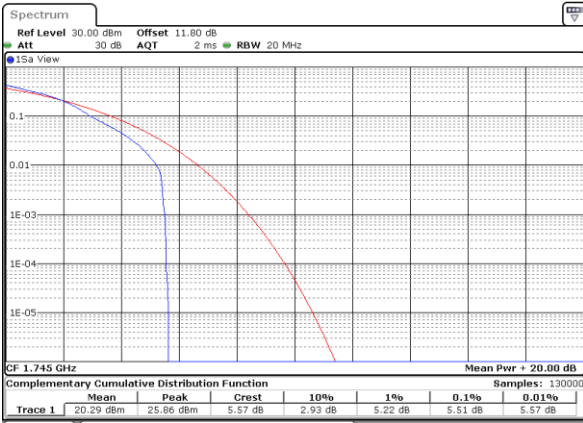
Date: 6 JUN 2020 15:39:58

Middle Channel / Full RB



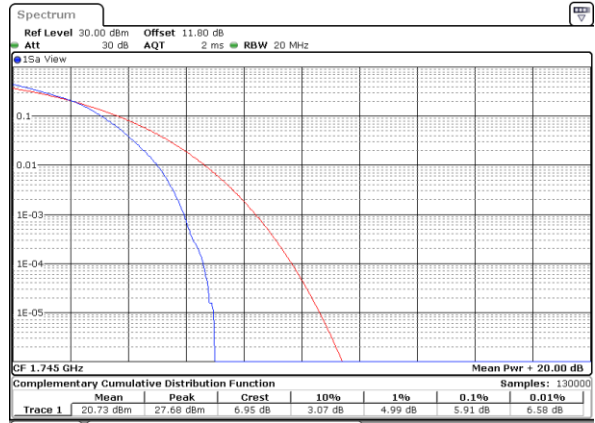
Date: 6 JUN 2020 15:40:09

Highest Channel / 1RB



Date: 6 JUN 2020 15:40:19

Highest Channel / Full RB



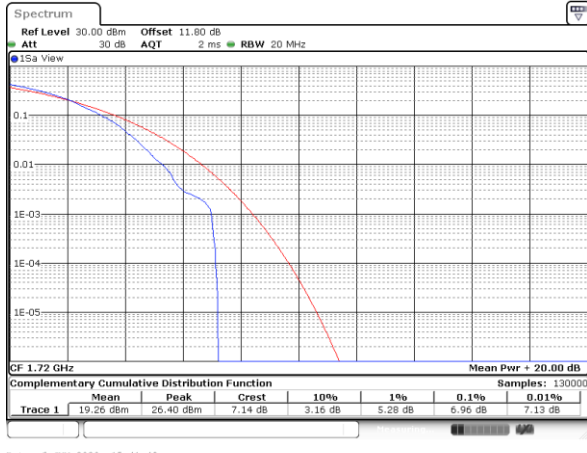
Date: 6 JUN 2020 15:40:31





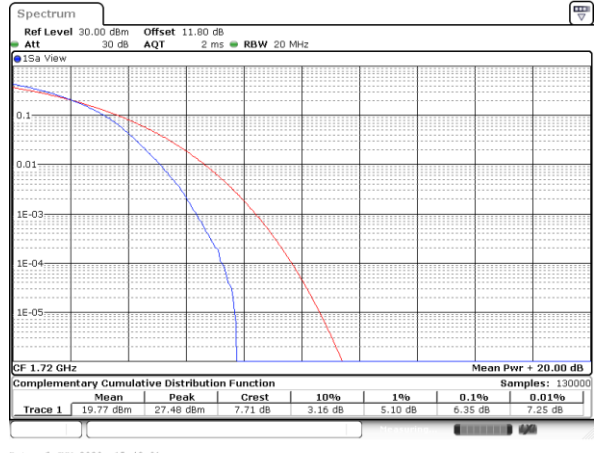
LTE Band 4 / 20MHz / 64QAM

Lowest Channel / 1RB



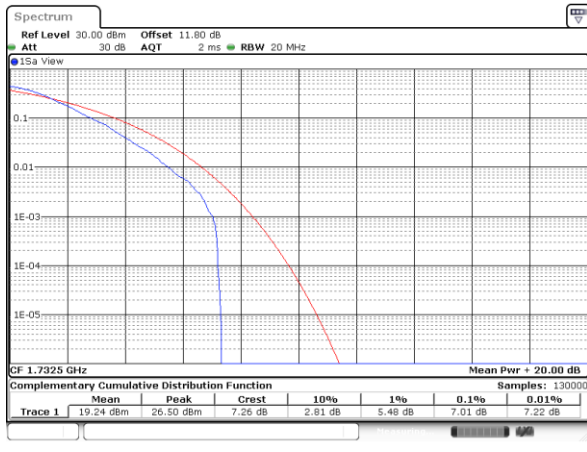
Date: 6 JUN 2020 15:41:49

Lowest Channel / Full RB



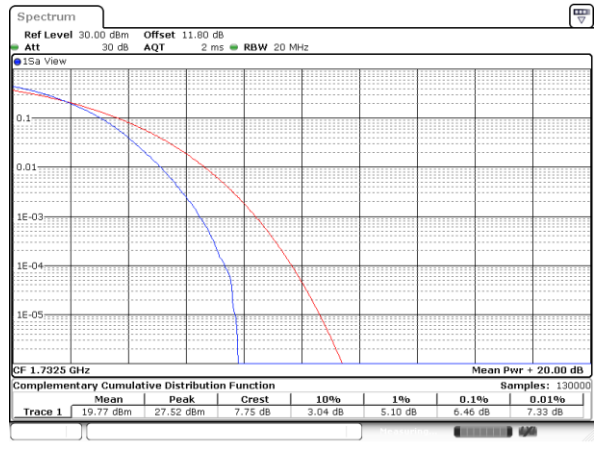
Date: 6 JUN 2020 15:42:01

Middle Channel / 1RB



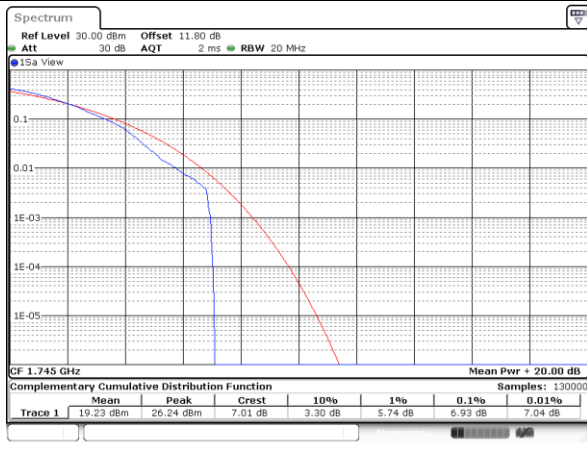
Date: 6 JUN 2020 15:42:12

Middle Channel / Full RB



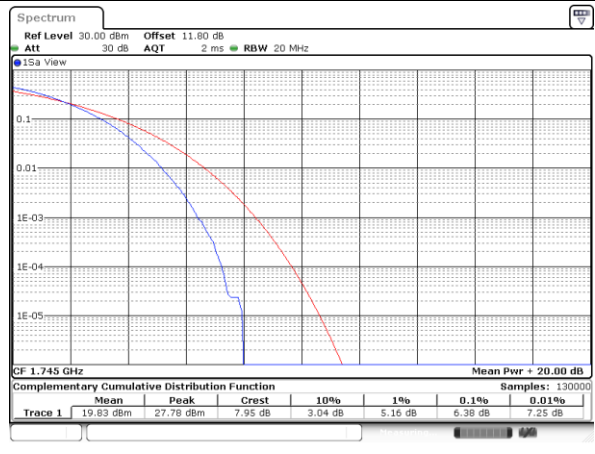
Date: 6 JUN 2020 15:42:23

Highest Channel / 1RB



Date: 6 JUN 2020 15:42:34

Highest Channel / Full RB

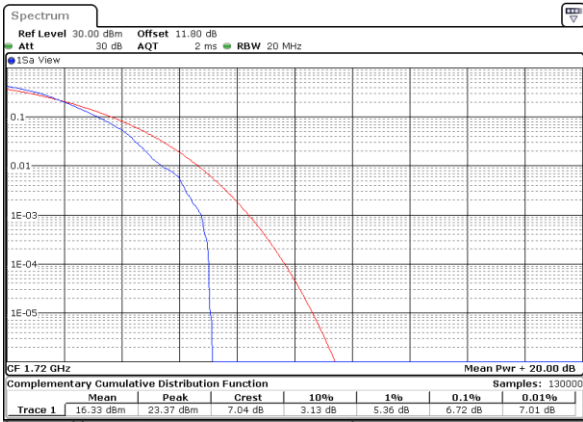


Date: 6 JUN 2020 15:42:55



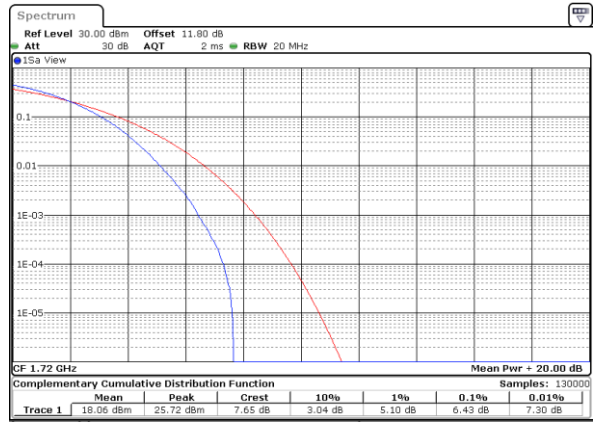
LTE Band 4 / 20MHz / 256QAM

Lowest Channel / 1RB



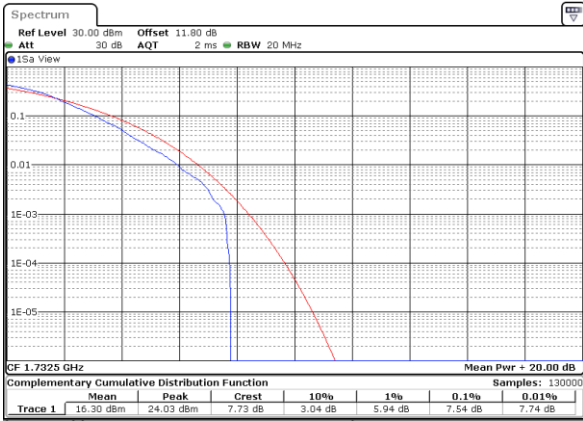
Date: 17\_JUL\_2020 10:51:02

Lowest Channel / Full RB



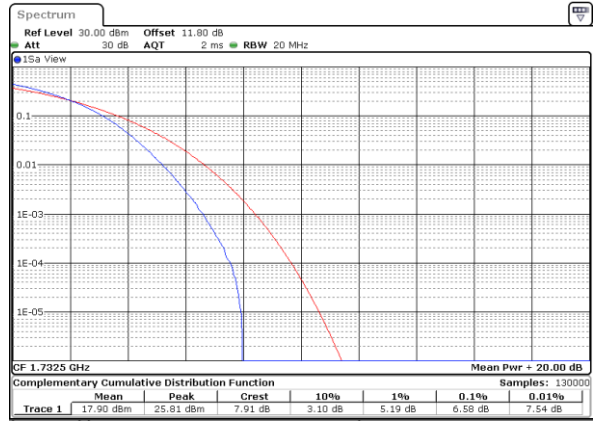
Date: 17\_JUL\_2020 10:50:39

Middle Channel / 1RB



Date: 17\_JUL\_2020 10:48:40

Middle Channel / Full RB



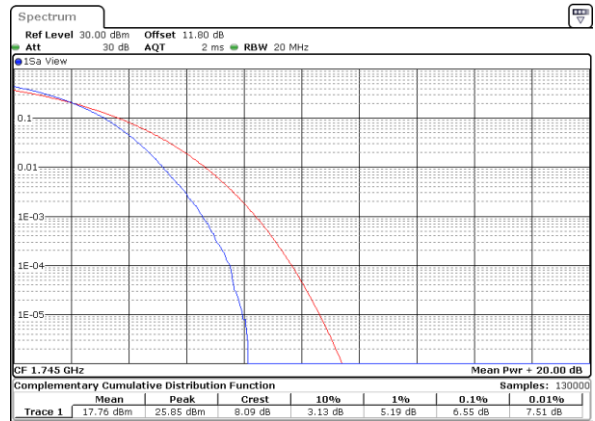
Date: 17\_JUL\_2020 10:48:22

Highest Channel / 1RB



Date: 17\_JUL\_2020 10:52:58

Highest Channel / Full RB



Date: 17\_JUL\_2020 10:52:41



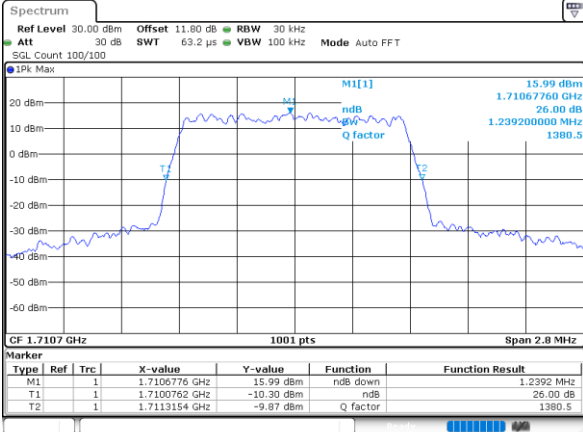
**26dB Bandwidth**

Mode	LTE Band 4 : 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	1.24	1.23	3.02	2.98	4.90	4.84	9.73	9.75	14.33	14.42	18.90	19.10
Middle CH	1.22	1.23	2.99	3.01	4.91	4.87	9.75	9.79	14.48	14.24	19.18	18.74
Highest CH	1.22	1.22	3.05	3.05	4.98	4.79	9.77	9.83	14.54	14.39	19.14	18.86
Mode	LTE Band 4 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	1.22	1.23	3.02	2.97	4.91	4.88	9.69	9.73	14.33	14.51	19.22	18.70
Middle CH	1.22	1.22	3.01	3.03	4.90	4.93	9.85	9.85	14.45	14.33	18.82	19.02
Highest CH	1.23	1.23	3.03	2.99	4.86	4.95	9.85	9.65	14.12	14.27	18.86	18.98



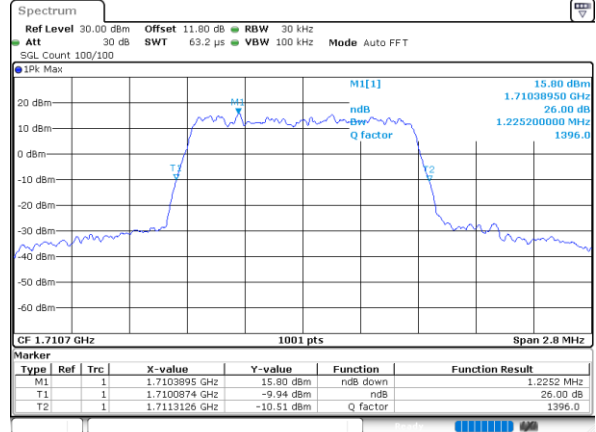
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



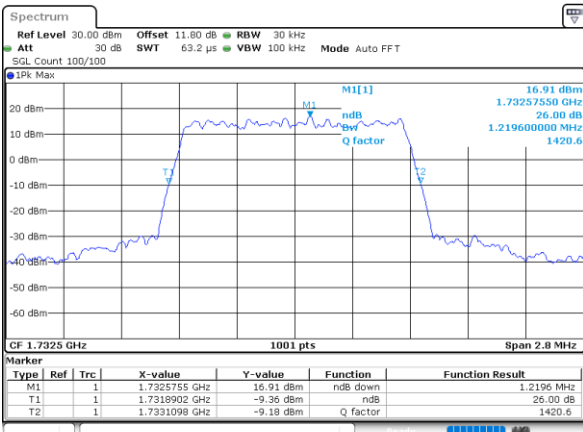
Date: 6 JUN 2020 15:10:20

Lowest Channel / 1.4MHz / 16QAM



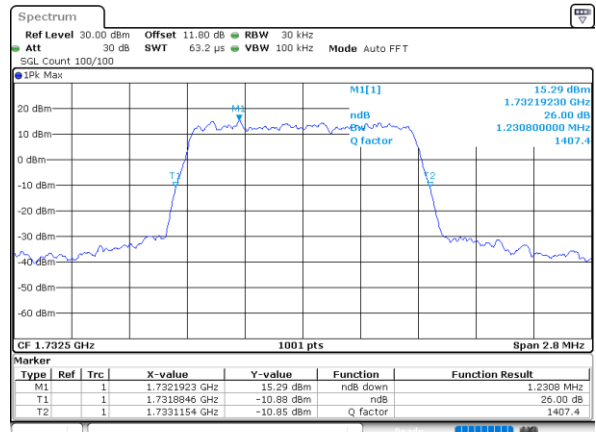
Date: 6 JUN 2020 15:10:32

Middle Channel / 1.4MHz / QPSK



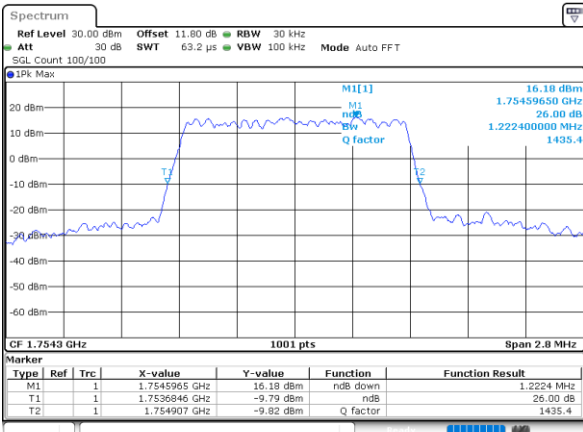
Date: 6 JUN 2020 15:16:49

Middle Channel / 1.4MHz / 16QAM



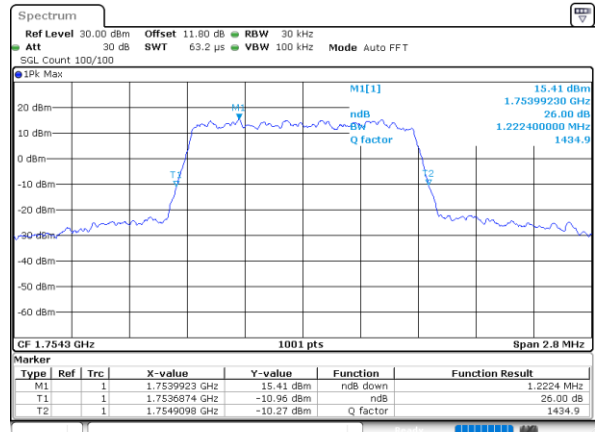
Date: 6 JUN 2020 15:17:01

Highest Channel / 1.4MHz / QPSK



Date: 6 JUN 2020 15:19:07

Highest Channel / 1.4MHz / 16QAM

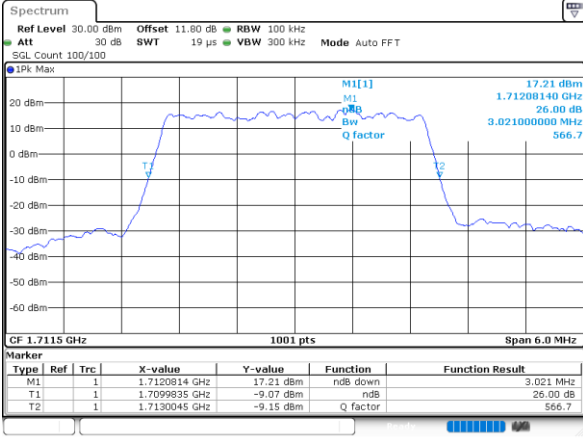


Date: 6 JUN 2020 15:19:19



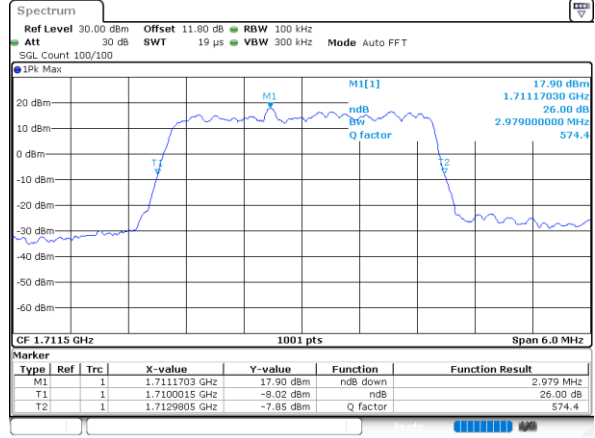
LTE Band 4

Lowest Channel / 3MHz / QPSK



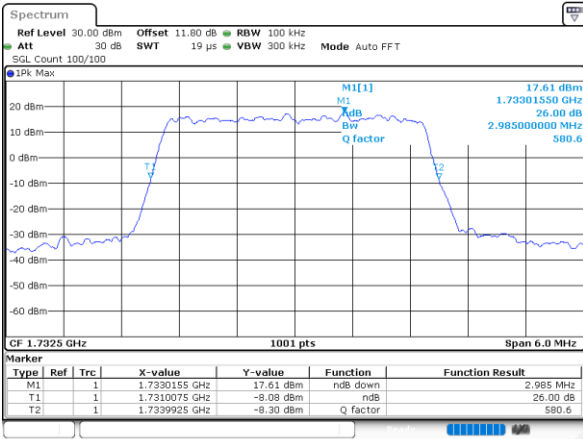
Date: 6 JUN 2020 12:48:56

Lowest Channel / 3MHz / 16QAM



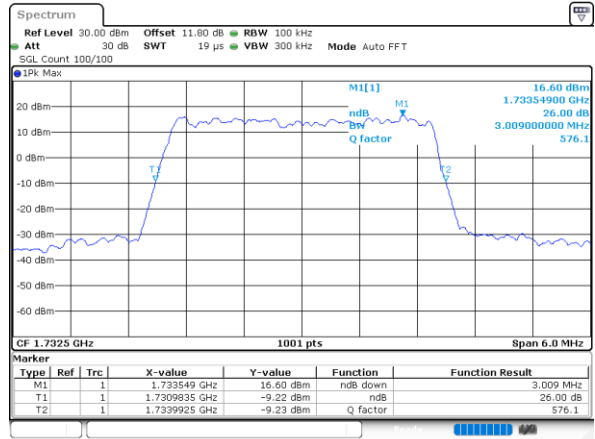
Date: 6 JUN 2020 12:49:08

Middle Channel / 3MHz / QPSK



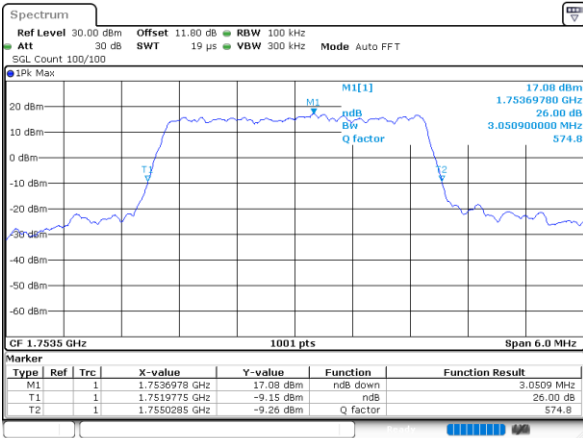
Date: 6 JUN 2020 12:54:13

Middle Channel / 3MHz / 16QAM



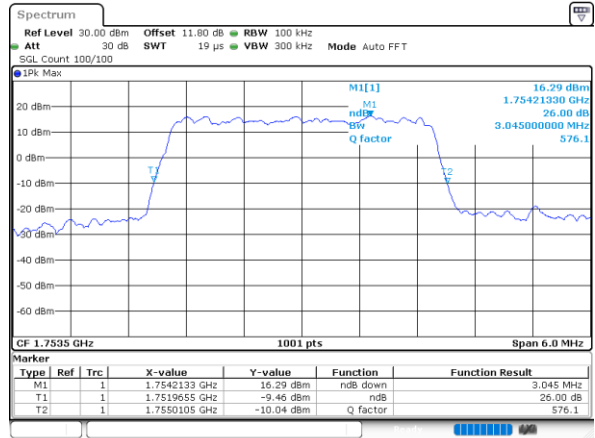
Date: 6 JUN 2020 12:54:25

Highest Channel / 3MHz / QPSK



Date: 6 JUN 2020 12:56:30

Highest Channel / 3MHz / 16QAM

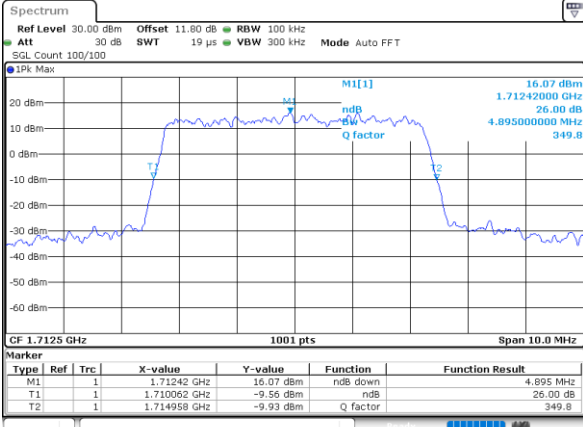


Date: 6 JUN 2020 12:56:42



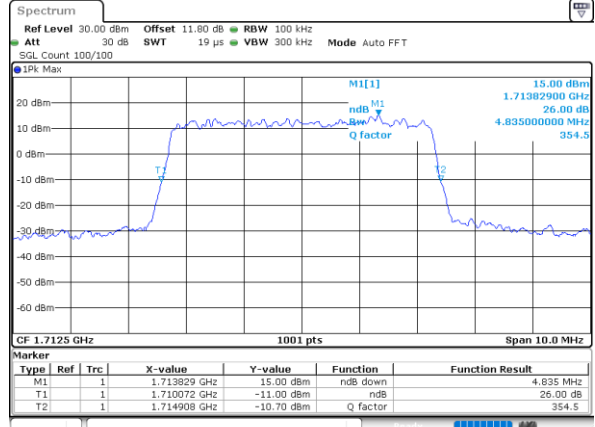
LTE Band 4

Lowest Channel / 5MHz / QPSK



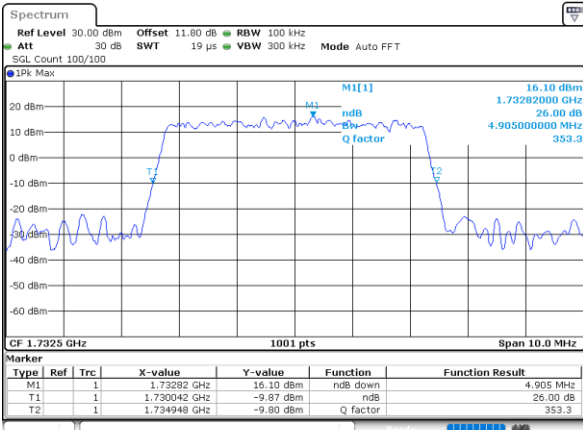
Date: 6 JUN 2020 13:01:49

Lowest Channel / 5MHz / 16QAM



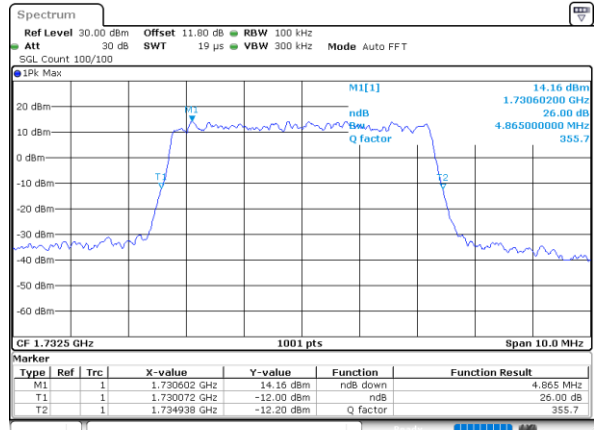
Date: 6 JUN 2020 13:02:01

Middle Channel / 5MHz / QPSK



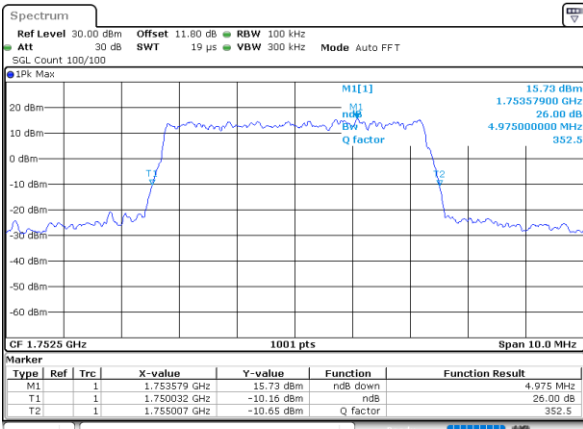
Date: 6 JUN 2020 13:07:06

Middle Channel / 5MHz / 16QAM



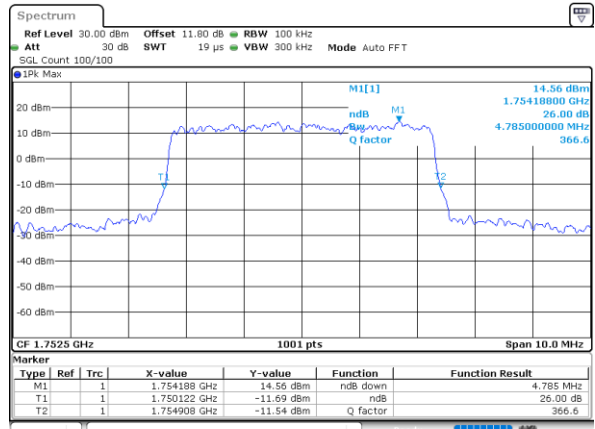
Date: 6 JUN 2020 13:07:17

Highest Channel / 5MHz / QPSK



Date: 6 JUN 2020 13:09:22

Highest Channel / 5MHz / 16QAM

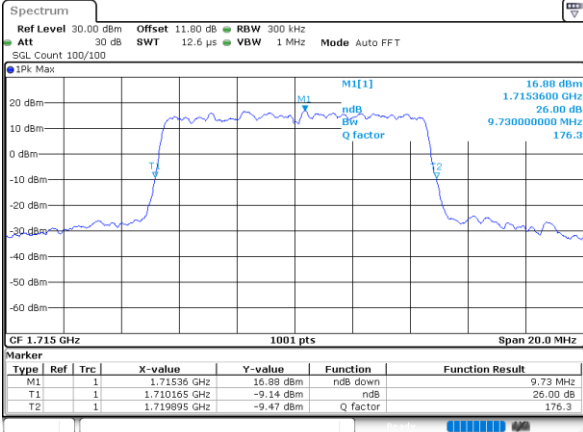


Date: 6 JUN 2020 13:09:34



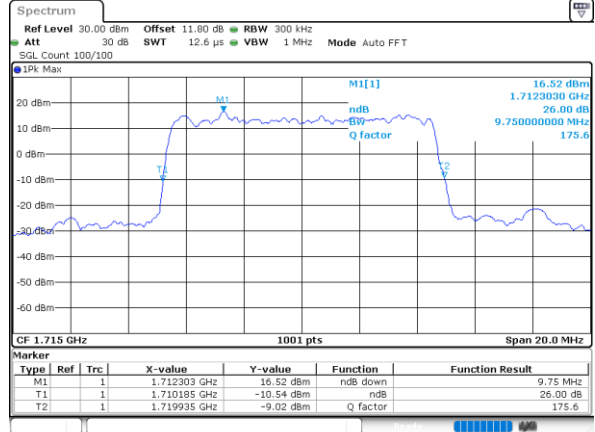
LTE Band 4

Lowest Channel / 10MHz / QPSK



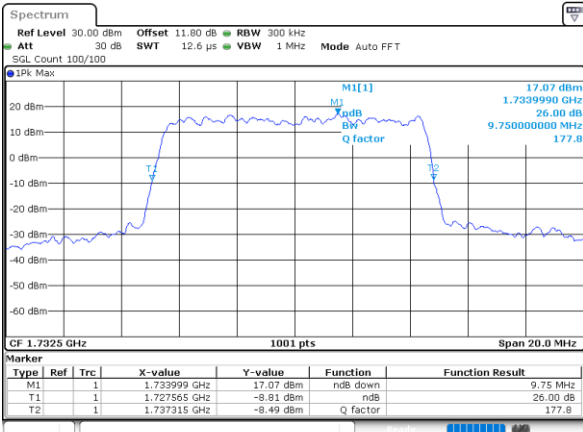
Date: 6 JUN 2020 13:48:15

Lowest Channel / 10MHz / 16QAM



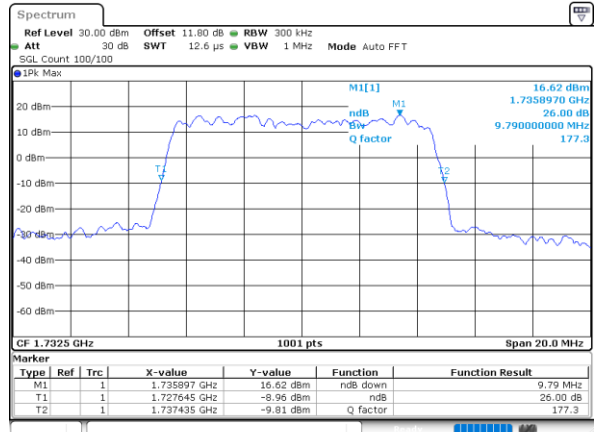
Date: 6 JUN 2020 13:48:27

Middle Channel / 10MHz / QPSK



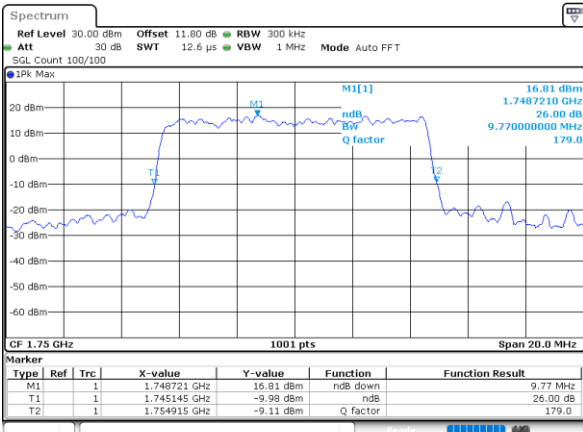
Date: 6 JUN 2020 13:53:32

Middle Channel / 10MHz / 16QAM



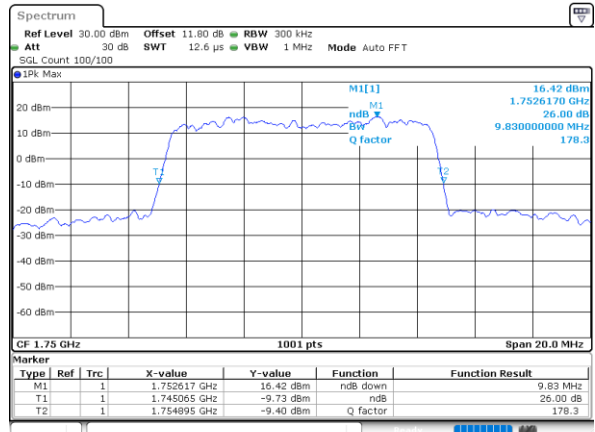
Date: 6 JUN 2020 13:53:43

Highest Channel / 10MHz / QPSK



Date: 6 JUN 2020 13:55:47

Highest Channel / 10MHz / 16QAM

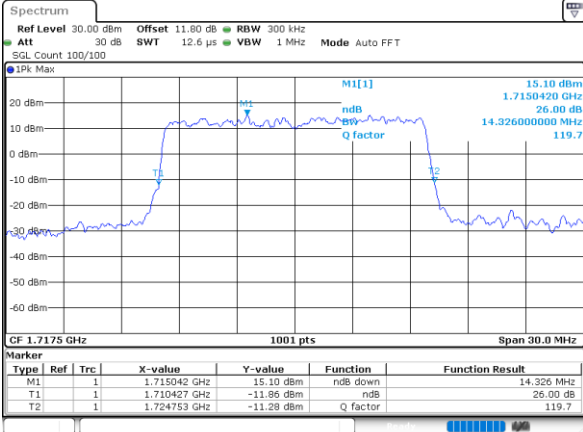


Date: 6 JUN 2020 13:55:59



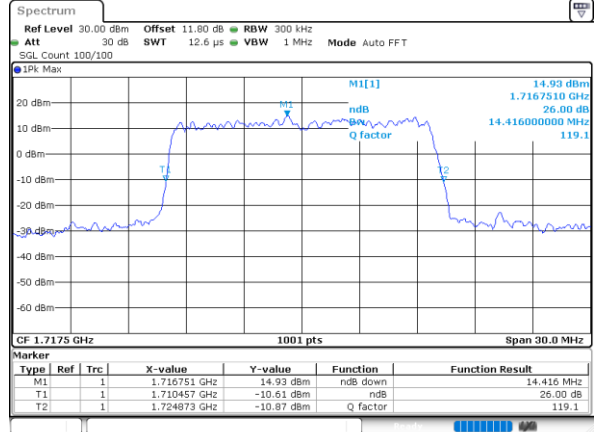
LTE Band 4

Lowest Channel / 15MHz / QPSK



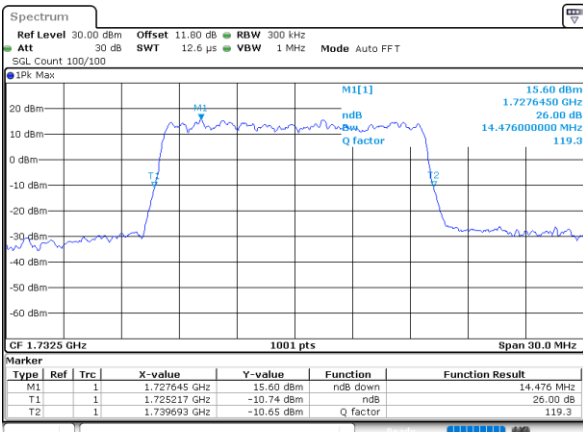
Date: 6 JUN 2020 14:01:07

Lowest Channel / 15MHz / 16QAM



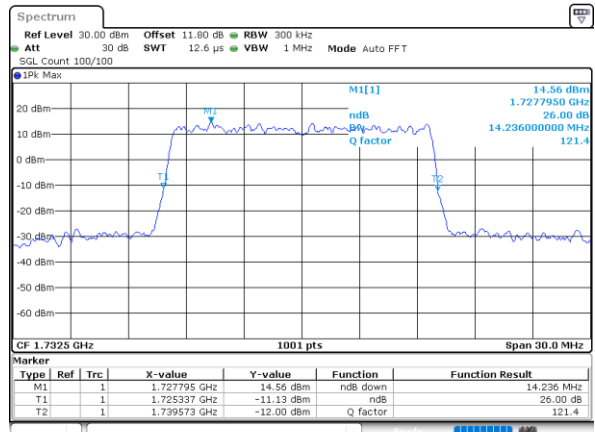
Date: 6 JUN 2020 14:01:19

Middle Channel / 15MHz / QPSK



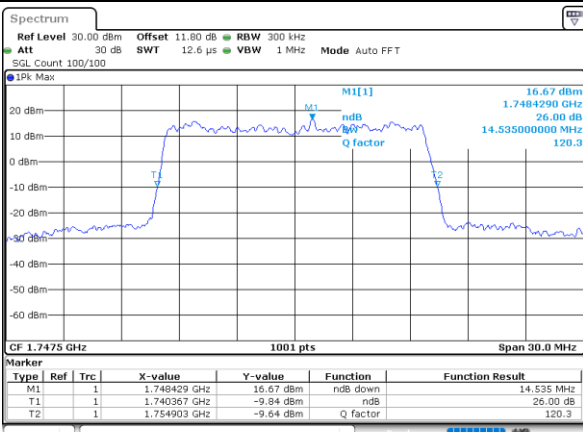
Date: 6 JUN 2020 14:06:23

Middle Channel / 15MHz / 16QAM



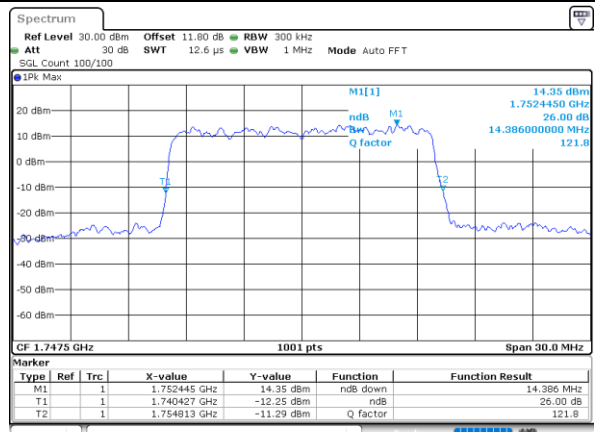
Date: 6 JUN 2020 14:06:35

Highest Channel / 15MHz / QPSK



Date: 6 JUN 2020 14:08:39

Highest Channel / 15MHz / 16QAM



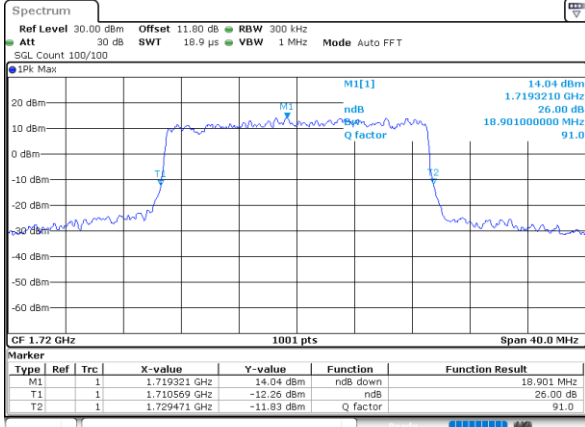
Date: 6 JUN 2020 14:08:51





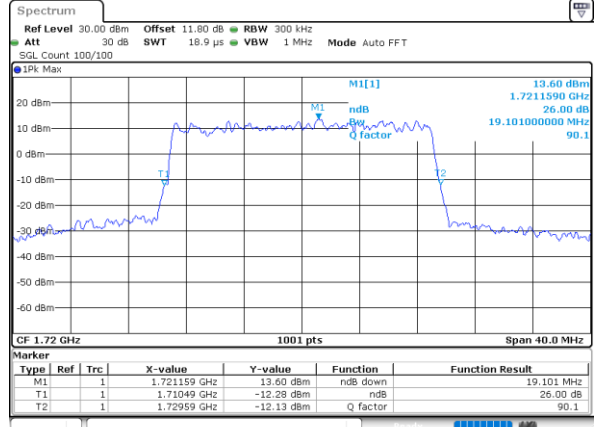
LTE Band 4

Lowest Channel / 20MHz / QPSK



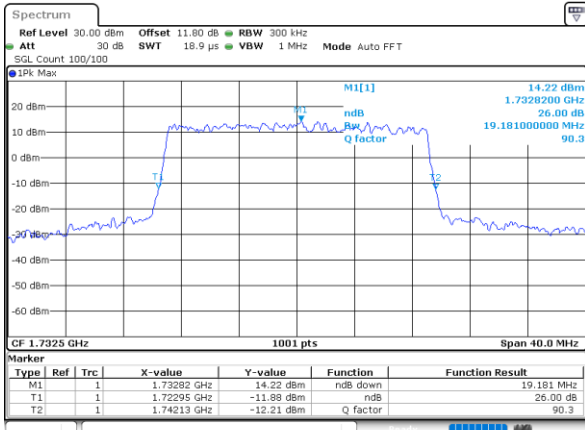
Date: 6 JUN 2020 14:11:54

Lowest Channel / 20MHz / 16QAM



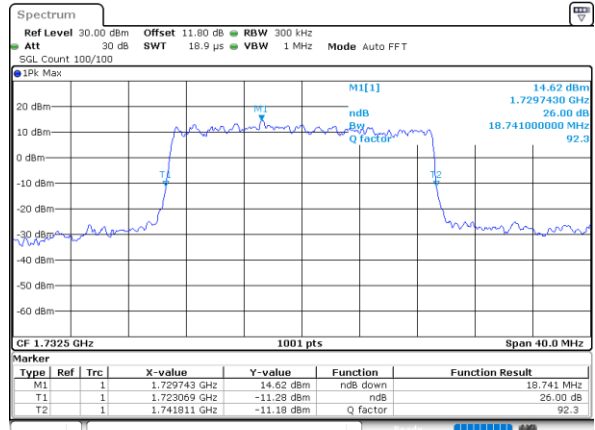
Date: 6 JUN 2020 14:15:06

Middle Channel / 20MHz / QPSK



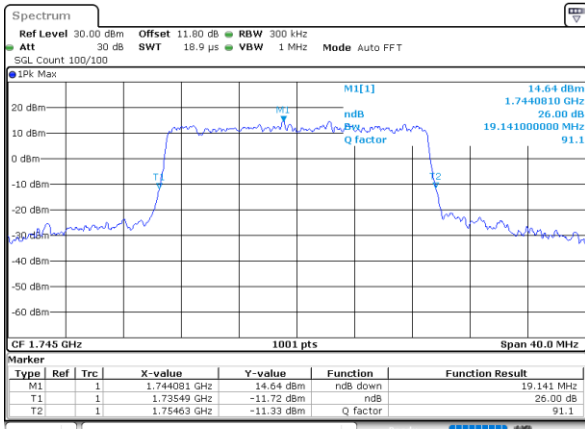
Date: 6 JUN 2020 14:20:10

Middle Channel / 20MHz / 16QAM



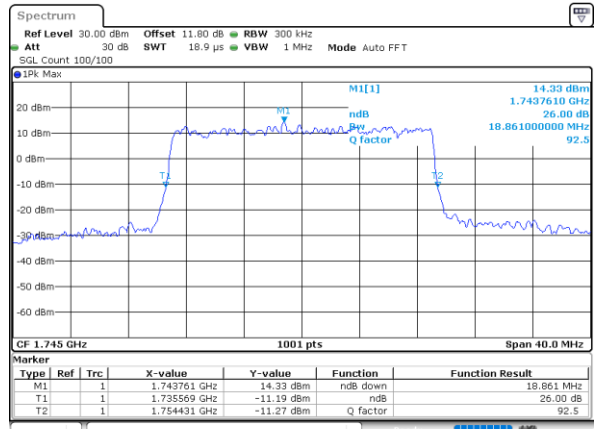
Date: 6 JUN 2020 14:20:22

Highest Channel / 20MHz / QPSK



Date: 6 JUN 2020 14:22:26

Highest Channel / 20MHz / 16QAM

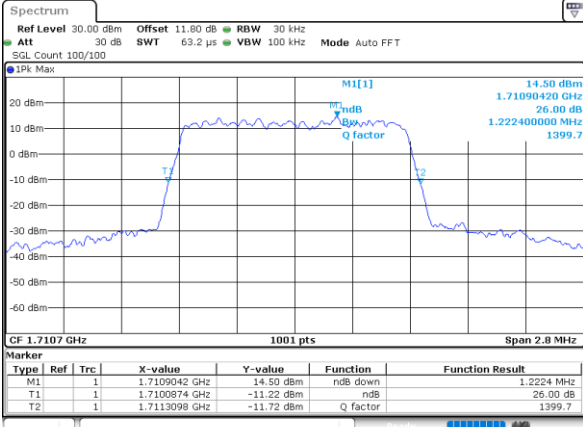


Date: 6 JUN 2020 14:22:38



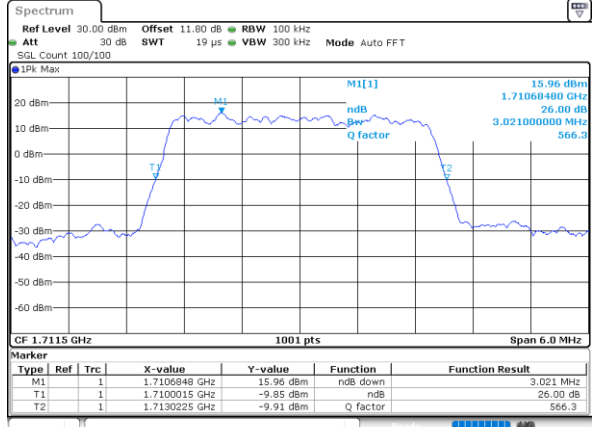
LTE Band 4

Lowest Channel / 1.4MHz / 64QAM



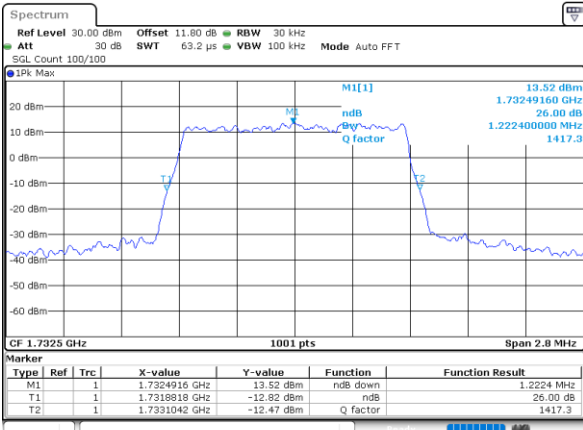
Date: 6 JUN 2020 14:59:43

Lowest Channel / 3MHz / 64QAM



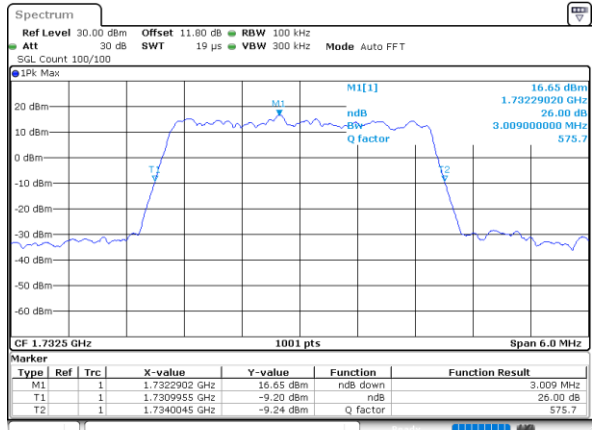
Date: 6 JUN 2020 14:27:33

Middle Channel / 1.4MHz / 64QAM



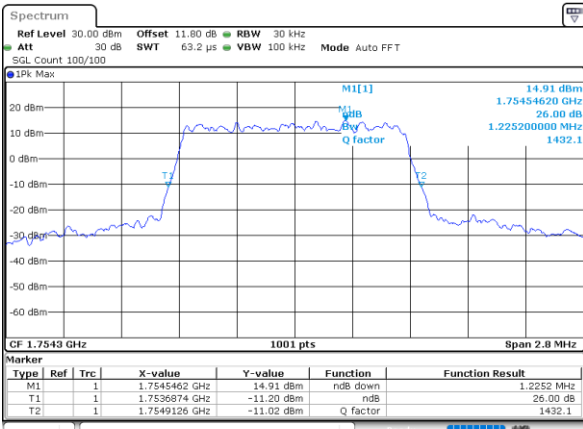
Date: 6 JUN 2020 15:05:44

Middle Channel / 3MHz / 64QAM



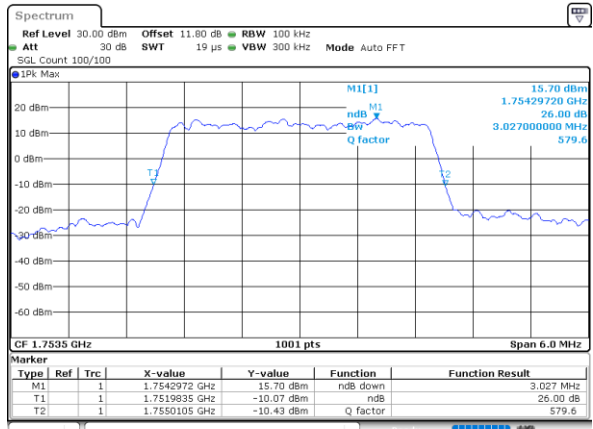
Date: 6 JUN 2020 14:30:11

Highest Channel / 1.4MHz / 64QAM



Date: 6 JUN 2020 15:06:52

Highest Channel / 3MHz / 64QAM

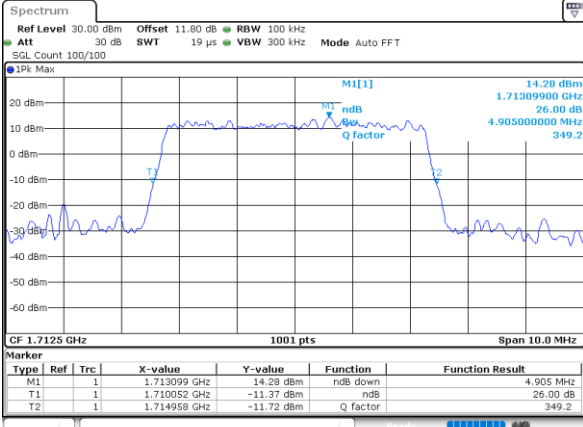


Date: 6 JUN 2020 14:31:19



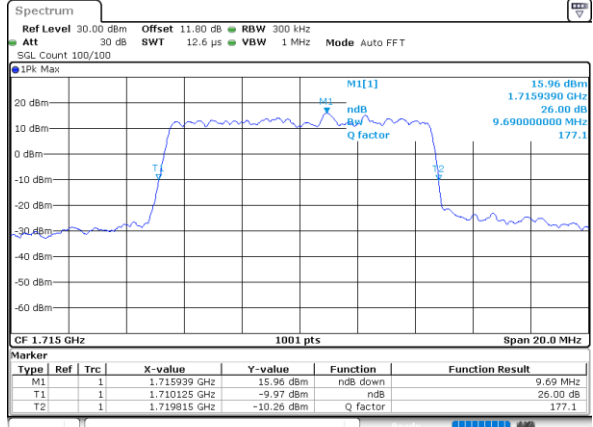
LTE Band 4

Lowest Channel / 5MHz / 64QAM



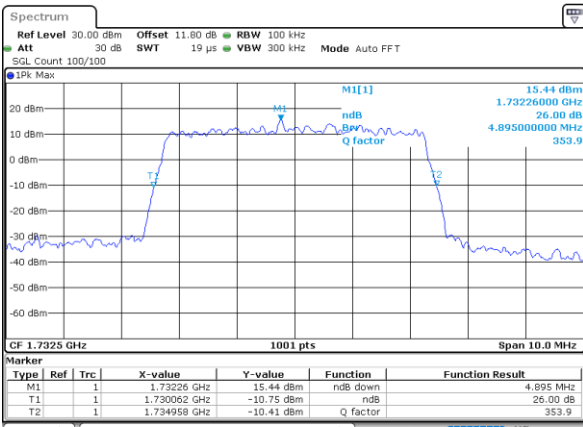
Date: 6 JUN 2020 14:13:10

Lowest Channel / 10MHz / 64QAM



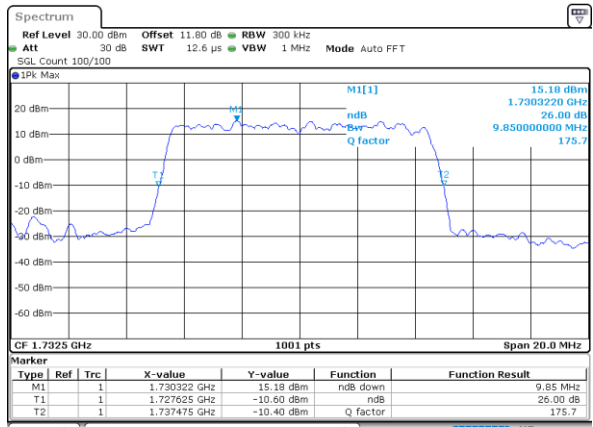
Date: 6 JUN 2020 14:14:25

Middle Channel / 5MHz / 64QAM



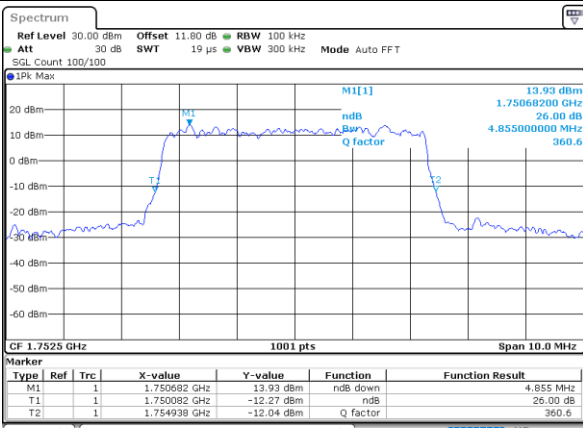
Date: 6 JUN 2020 14:16:18

Middle Channel / 10MHz / 64QAM



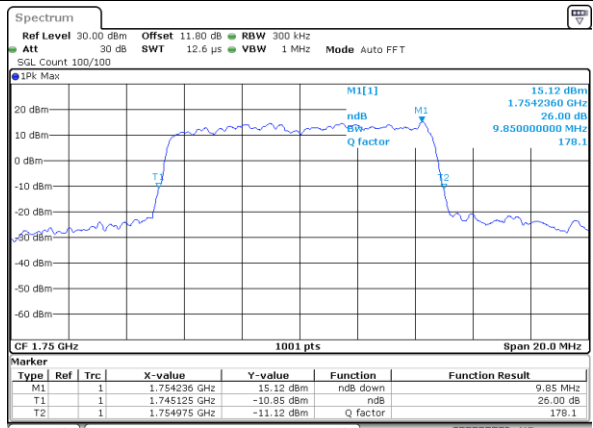
Date: 6 JUN 2020 14:14:03

Highest Channel / 5MHz / 64QAM



Date: 6 JUN 2020 14:13:46

Highest Channel / 10MHz / 64QAM

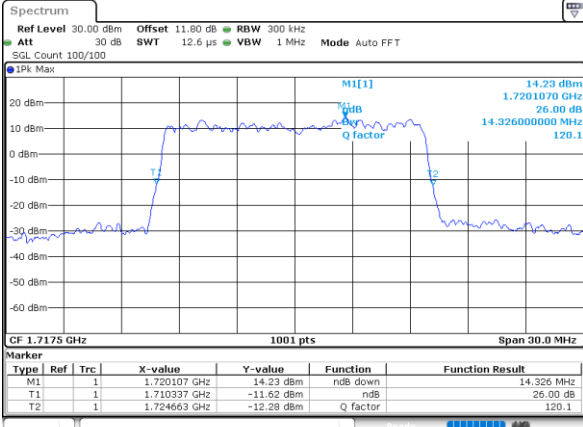


Date: 6 JUN 2020 14:14:11



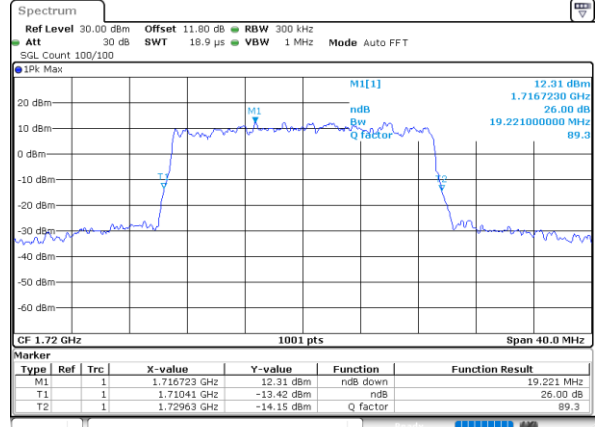
LTE Band 4

Lowest Channel / 15MHz / 64QAM



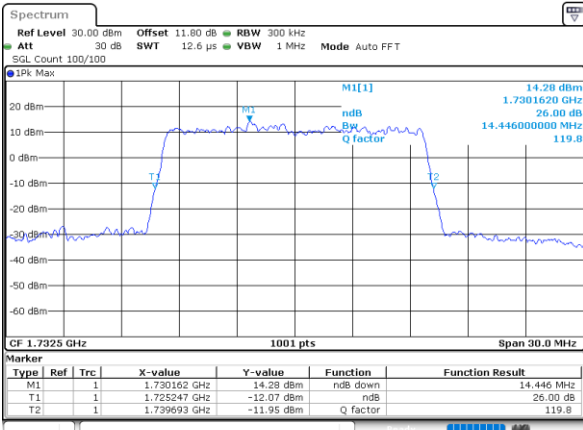
Date: 6 JUN 2020 14:46:51

Lowest Channel / 20MHz / 64QAM



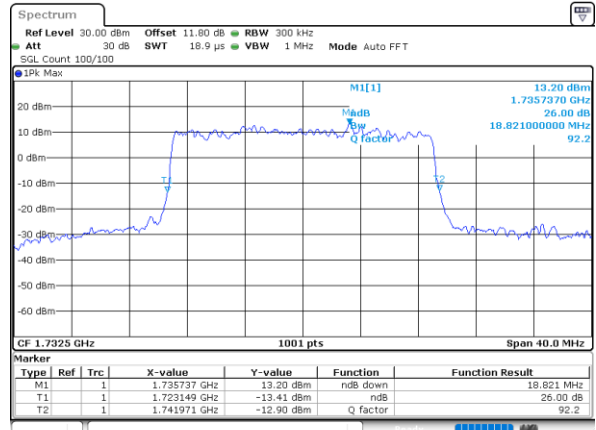
Date: 6 JUN 2020 14:53:17

Middle Channel / 15MHz / 64QAM



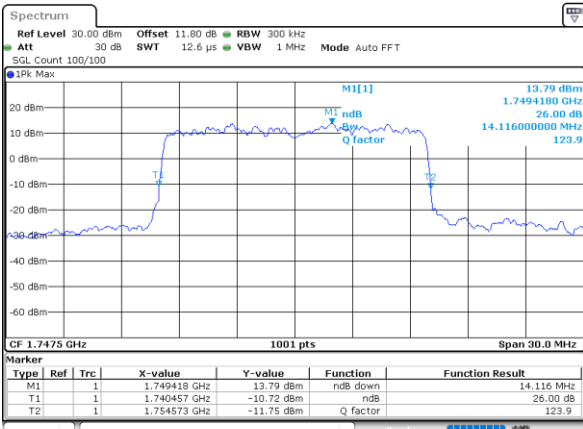
Date: 6 JUN 2020 14:49:29

Middle Channel / 20MHz / 64QAM



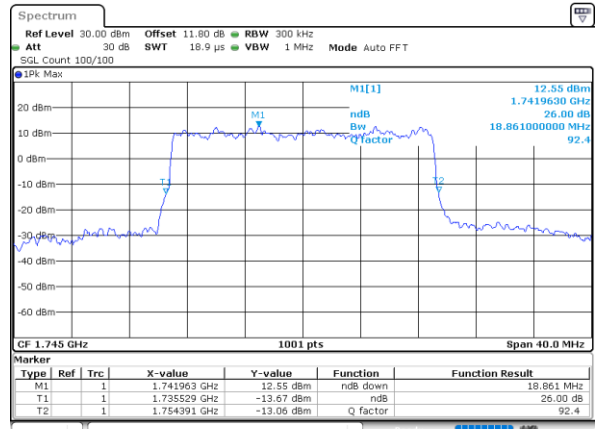
Date: 6 JUN 2020 14:55:55

Highest Channel / 15MHz / 64QAM



Date: 6 JUN 2020 14:50:37

Highest Channel / 20MHz / 64QAM

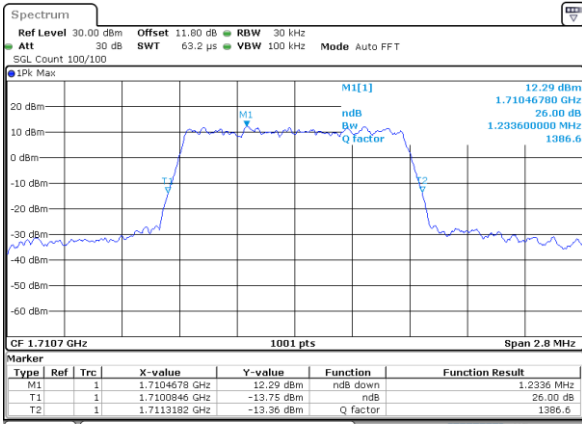


Date: 6 JUN 2020 14:57:03



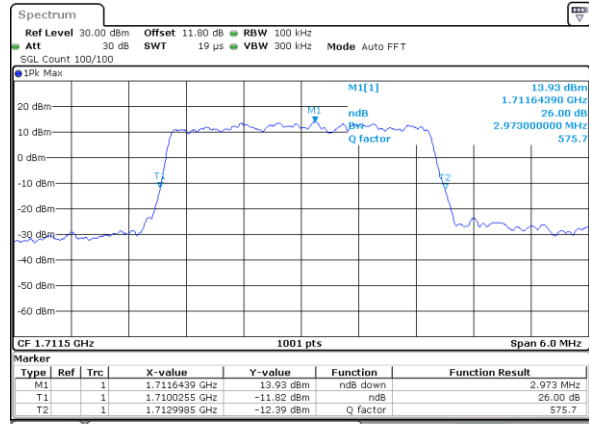
LTE Band 4

Lowest Channel / 1.4MHz / 256QAM



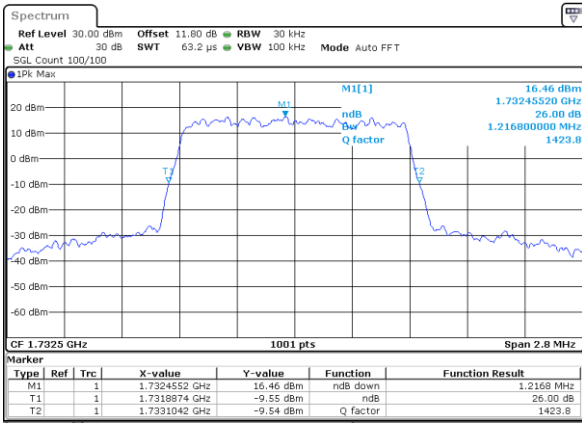
Date: 17\_JUL\_2020 09:49:23

Lowest Channel / 3MHz / 256QAM



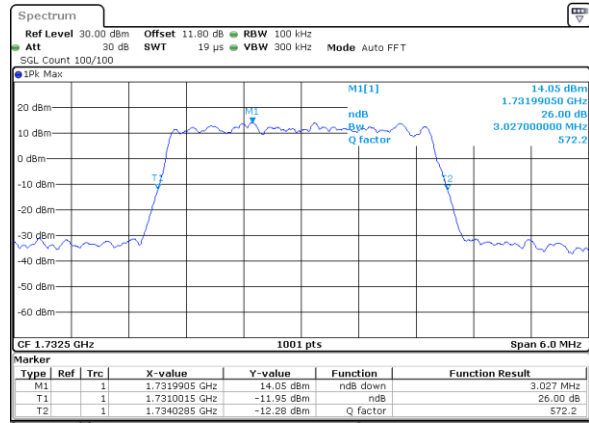
Date: 17\_JUL\_2020 10:19:07

Middle Channel / 1.4MHz / 256QAM



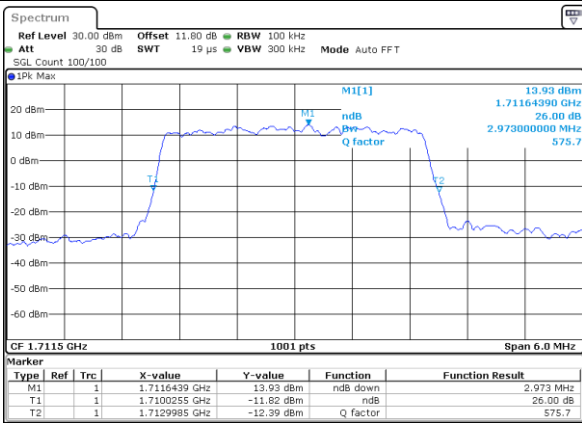
Date: 17\_JUL\_2020 09:39:17

Middle Channel / 3MHz / 256QAM



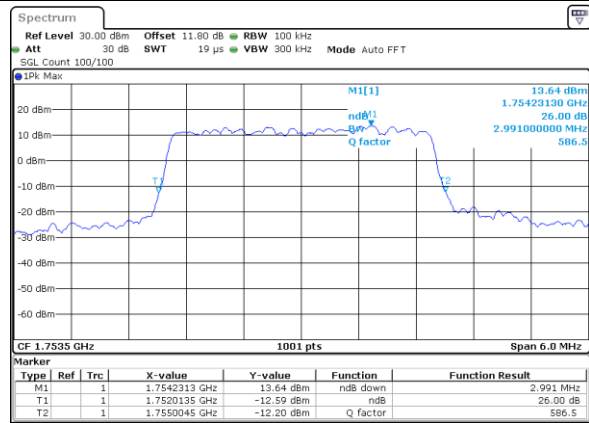
Date: 17\_JUL\_2020 10:15:37

Highest Channel / 1.4MHz / 256QAM

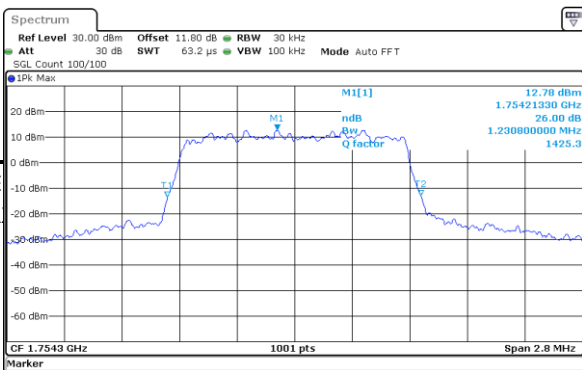


Date: 17\_JUL\_2020 10:19:07

Highest Channel / 3MHz / 256QAM



Date: 17\_JUL\_2020 10:21:02

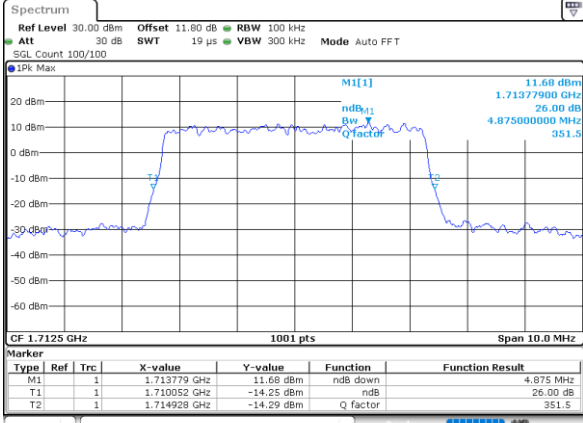


TE  
FA



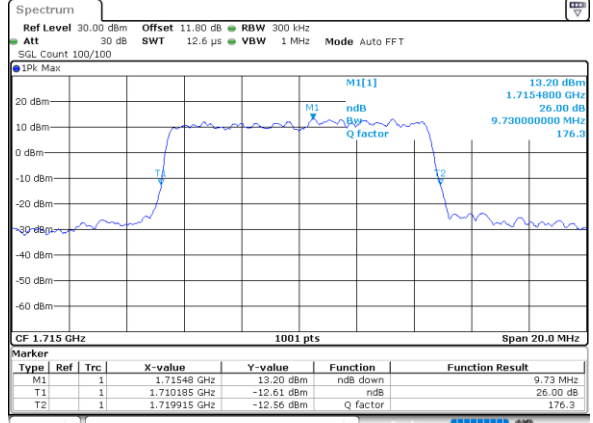
LTE Band 4

Lowest Channel / 5MHz / 256QAM



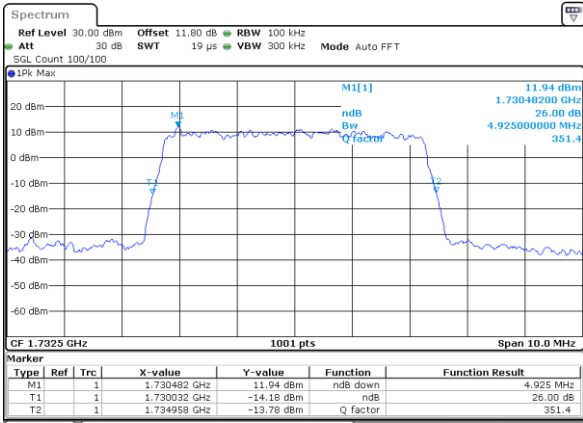
Date: 17\_JUL\_2020 10:26:56

Lowest Channel / 10MHz / 256QAM



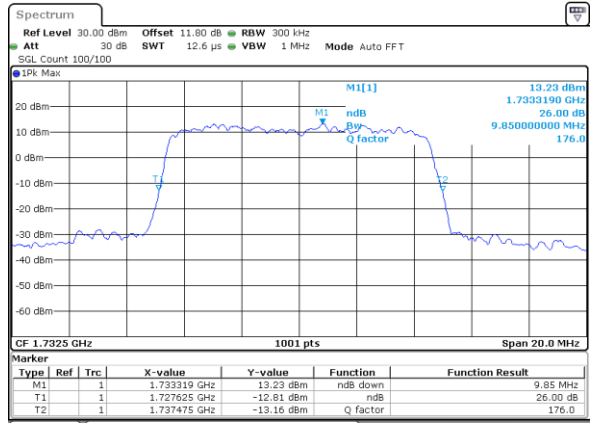
Date: 17\_JUL\_2020 10:34:49

Middle Channel / 5MHz / 256QAM



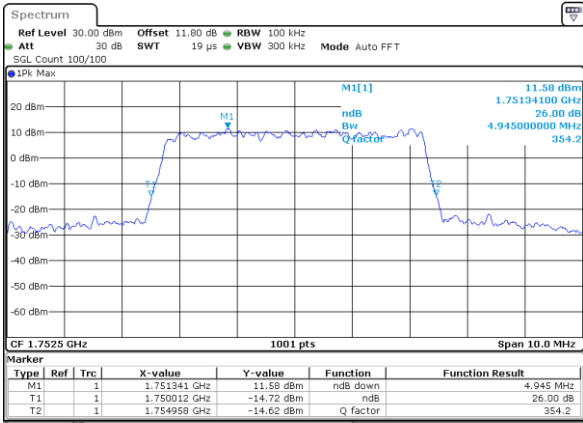
Date: 17\_JUL\_2020 10:24:40

Middle Channel / 10MHz / 256QAM



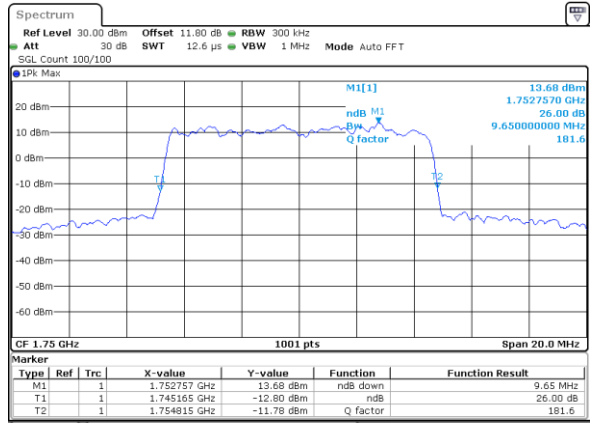
Date: 17\_JUL\_2020 10:32:29

Highest Channel / 5MHz / 256QAM



Date: 17\_JUL\_2020 10:29:33

Highest Channel / 10MHz / 256QAM

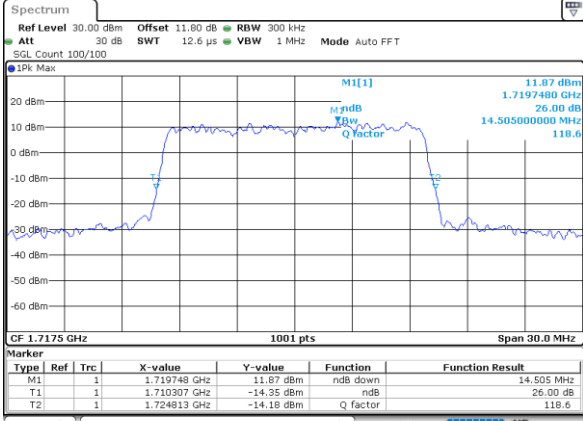


Date: 17\_JUL\_2020 10:37:02



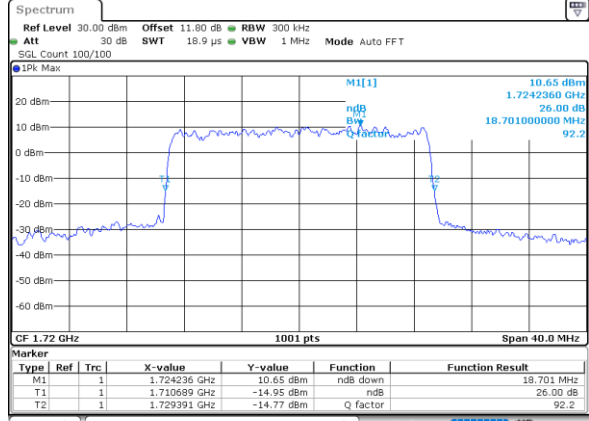
LTE Band 4

Lowest Channel / 15MHz / 256QAM



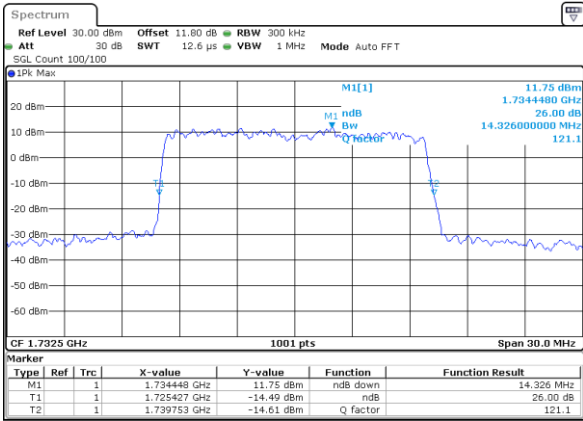
Date: 17\_JUL\_2020 10:41:54

Lowest Channel / 20MHz / 256QAM



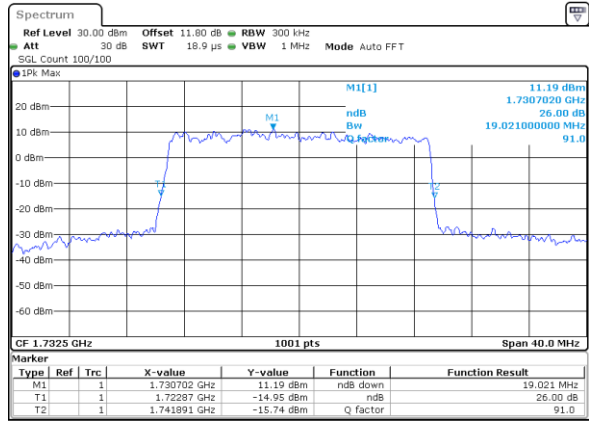
Date: 17\_JUL\_2020 10:50:19

Middle Channel / 15MHz / 256QAM



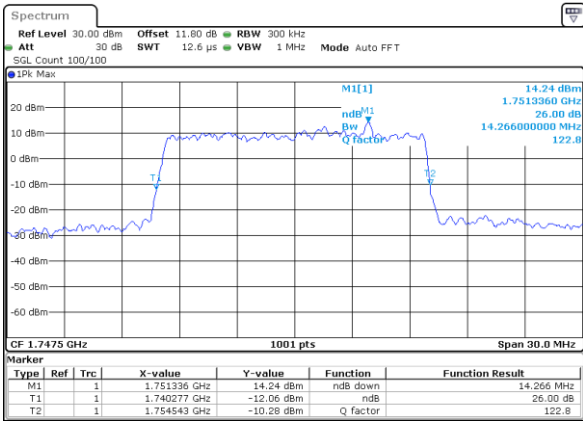
Date: 17\_JUL\_2020 10:40:21

Middle Channel / 20MHz / 256QAM



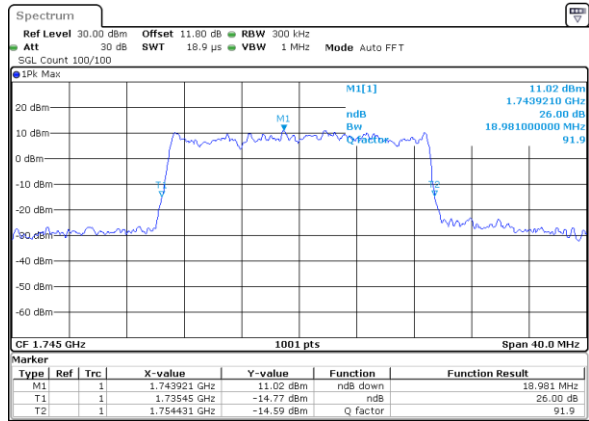
Date: 17\_JUL\_2020 10:48:13

Highest Channel / 15MHz / 256QAM



Date: 17\_JUL\_2020 10:45:25

Highest Channel / 20MHz / 256QAM



Date: 17\_JUL\_2020 10:52:23



**Occupied Bandwidth**

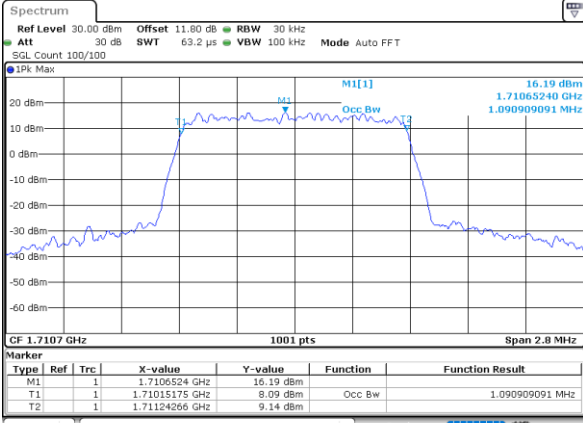
Mode	LTE Band 4 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.08	2.70	2.73	4.49	4.48	9.03	9.01	13.43	13.46	17.90	17.86
Middle CH	1.09	1.09	2.72	2.71	4.52	4.48	9.07	8.95	13.52	13.43	17.98	17.82
Highest CH	1.09	1.09	2.72	2.72	4.48	4.47	9.03	9.01	13.43	13.43	17.94	17.90
Mode	LTE Band 4 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM	64QAM	256QAM
Lowest CH	1.09	1.09	2.72	2.72	4.49	4.49	8.93	8.99	13.43	13.40	17.94	17.86
Middle CH	1.09	1.09	2.71	2.72	4.48	4.48	9.01	9.03	13.43	13.49	17.90	17.78
Highest CH	1.09	1.09	2.71	2.71	4.51	4.49	8.99	9.03	13.43	13.37	17.94	17.86





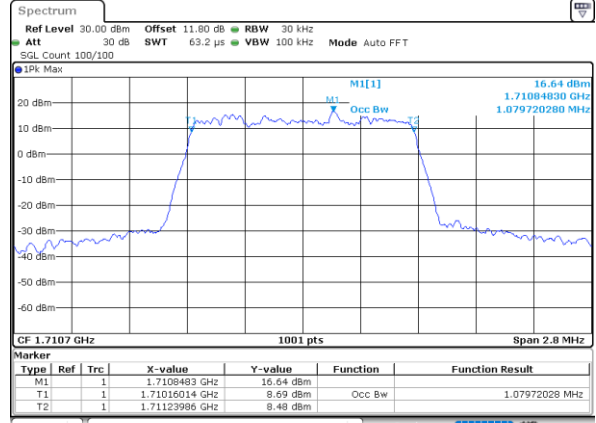
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



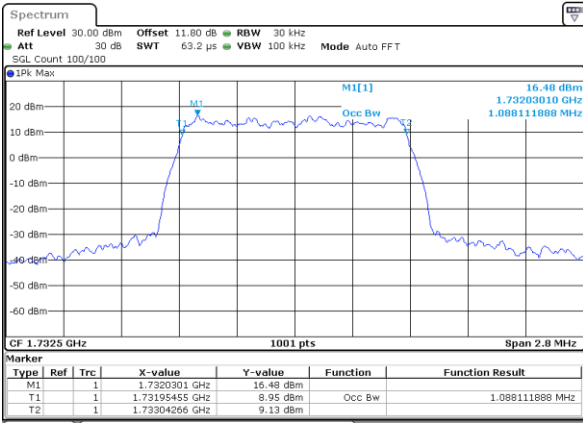
Date: 6 JUN 2020 15:10:56

Lowest Channel / 1.4MHz / 16QAM



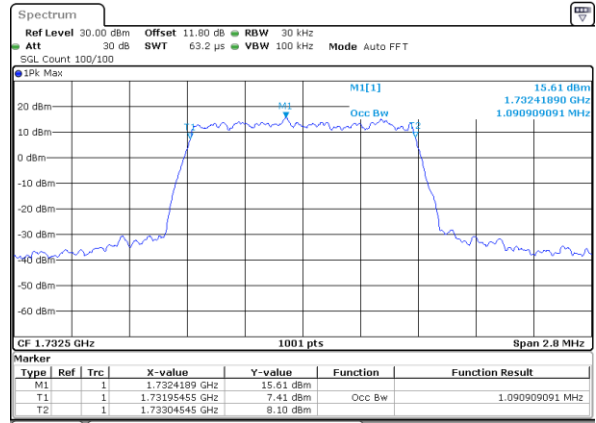
Date: 6 JUN 2020 15:10:07

Middle Channel / 1.4MHz / QPSK



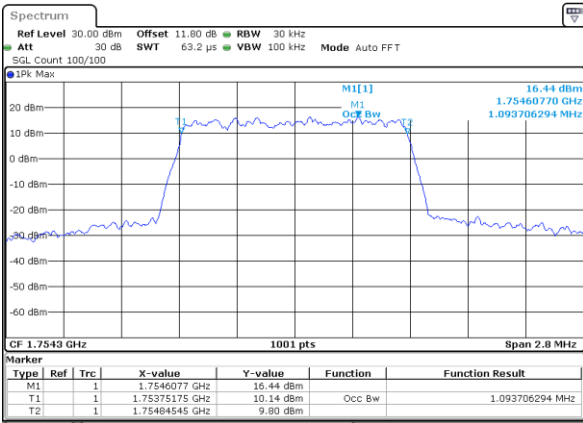
Date: 6 JUN 2020 15:16:26

Middle Channel / 1.4MHz / 16QAM



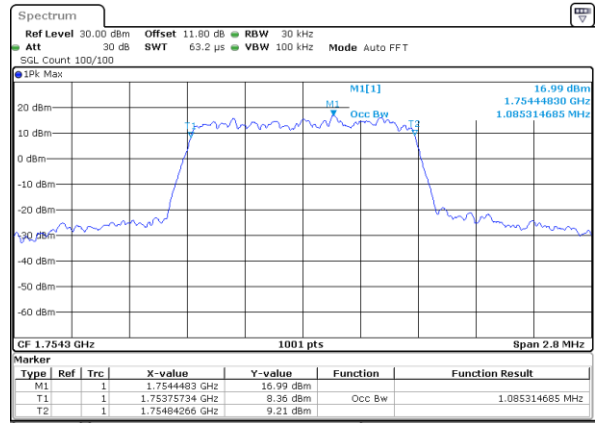
Date: 6 JUN 2020 15:16:38

Highest Channel / 1.4MHz / QPSK



Date: 6 JUN 2020 15:18:43

Highest Channel / 1.4MHz / 16QAM

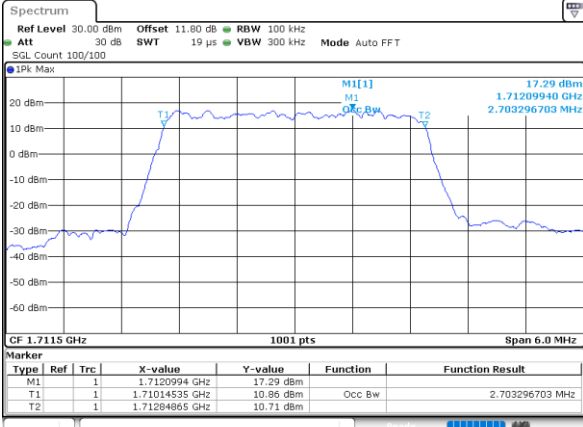


Date: 6 JUN 2020 15:18:54



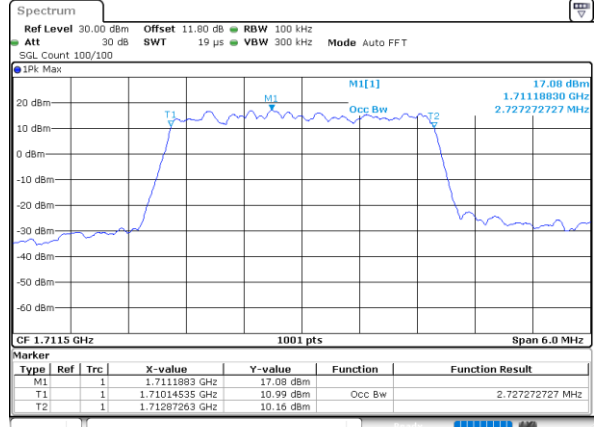
LTE Band 4

Lowest Channel / 3MHz / QPSK



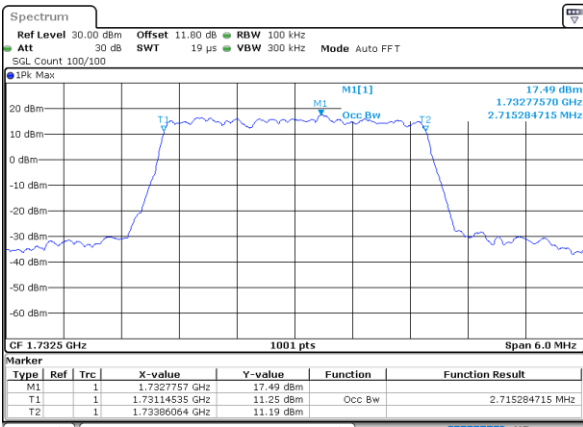
Date: 6 JUN 2020 12:48:29

Lowest Channel / 3MHz / 16QAM



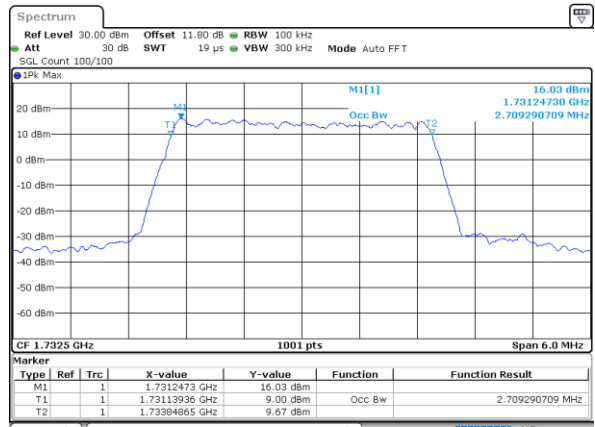
Date: 6 JUN 2020 12:48:44

Middle Channel / 3MHz / QPSK



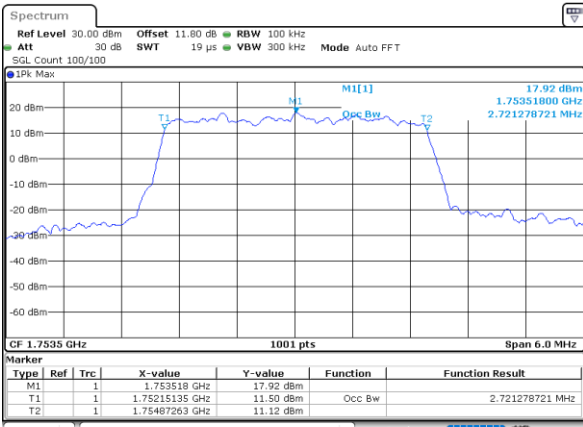
Date: 6 JUN 2020 12:53:51

Middle Channel / 3MHz / 16QAM



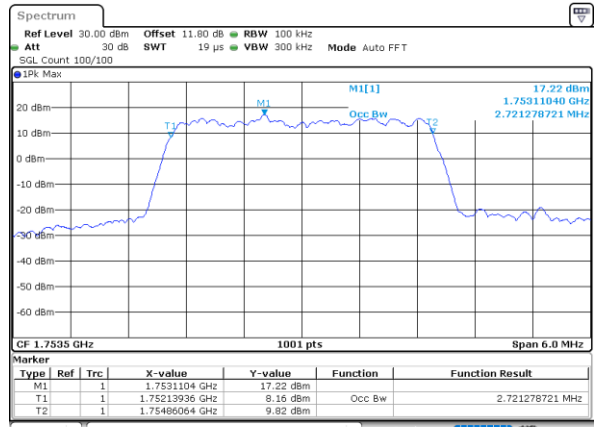
Date: 6 JUN 2020 12:54:02

Highest Channel / 3MHz / QPSK



Date: 6 JUN 2020 12:56:06

Highest Channel / 3MHz / 16QAM



Date: 6 JUN 2020 12:56:18