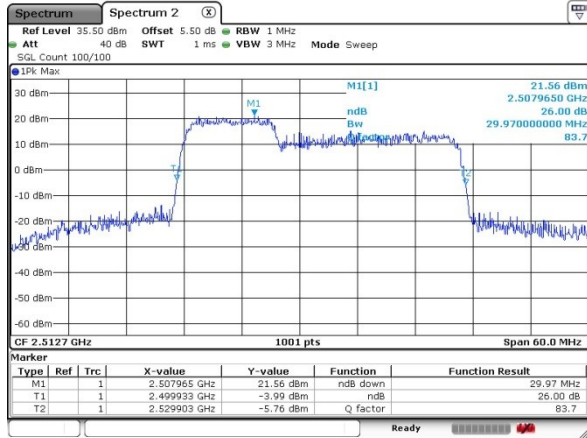




LTE Band 7

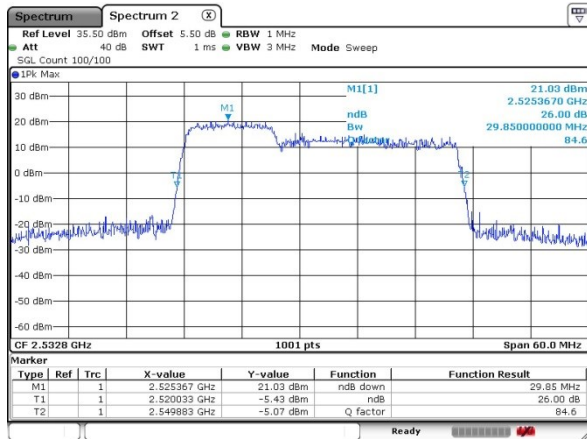
16QAM

Lowest Channel / 10MHz+20MHz



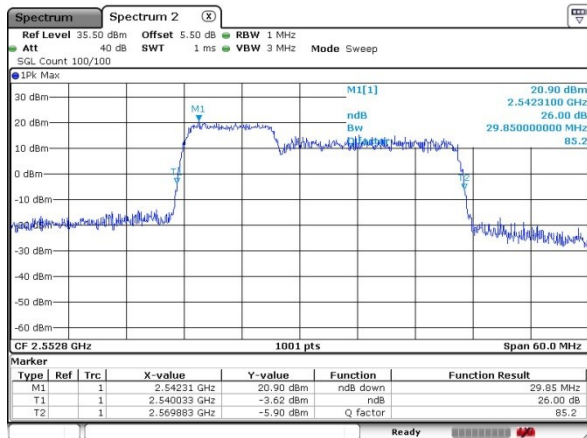
Date: 12 JUL 2018 11:00:23

Middle Channel / 10MHz+20MHz



Date: 12 JUL 2018 11:04:00

Highest Channel / 10MHz+20MHz



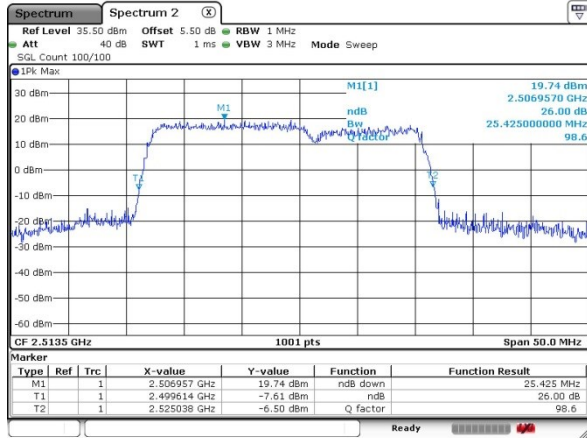
Date: 12 JUL 2018 11:07:53



LTE Band 7

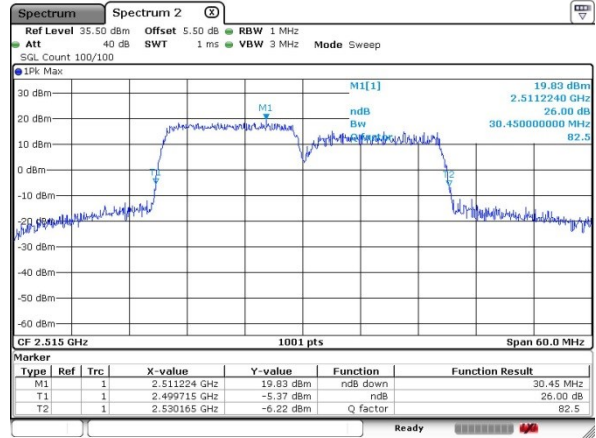
16QAM

Lowest Channel / 15MHz+10MHz



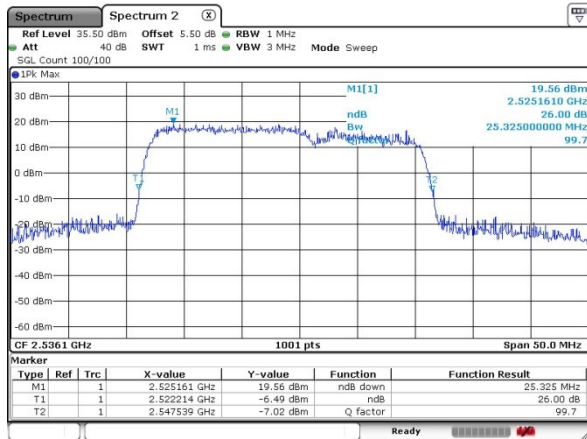
Date: 12 JUL 2018 10:46:57

Lowest Channel / 15MHz+15MHz



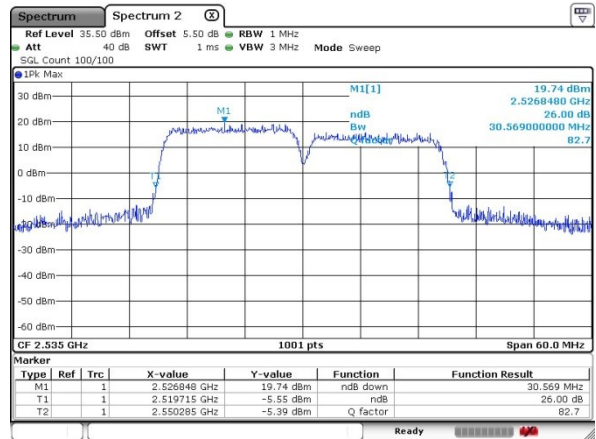
Date: 12 JUL 2018 13:58:54

Middle Channel / 15MHz+10MHz



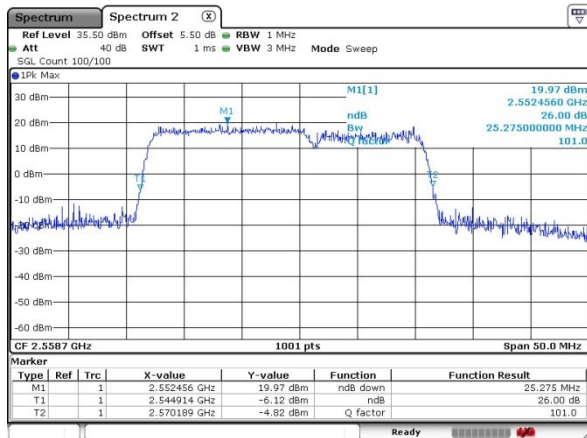
Date: 12 JUL 2018 10:42:55

Middle Channel / 15MHz+15MHz



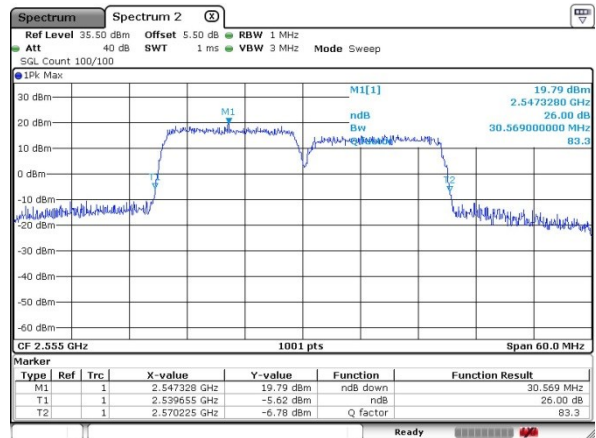
Date: 12 JUL 2018 14:03:57

Highest Channel / 15MHz+10MHz



Date: 12 JUL 2018 10:36:13

Highest Channel / 15MHz+15MHz



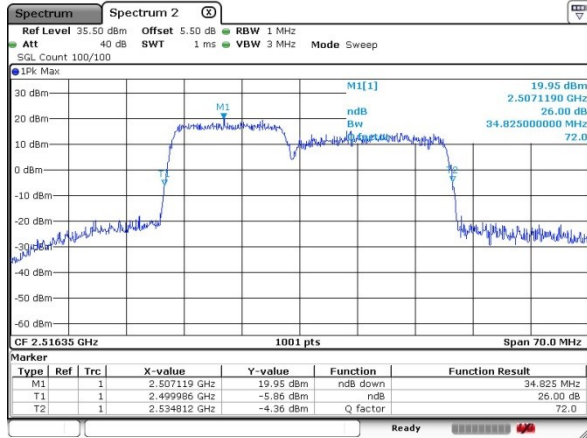
Date: 12 JUL 2018 14:07:17



LTE Band 7

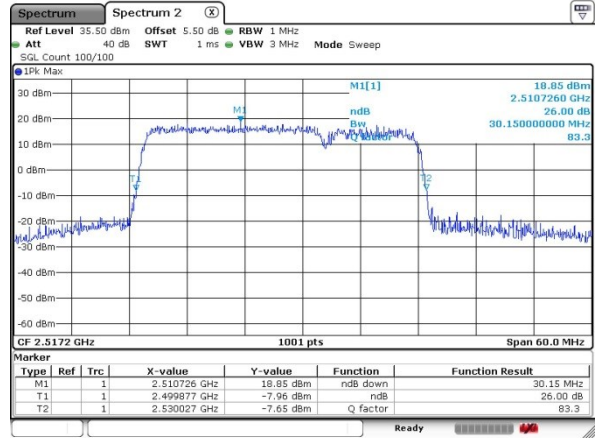
16QAM

Lowest Channel / 15MHz+20MHz



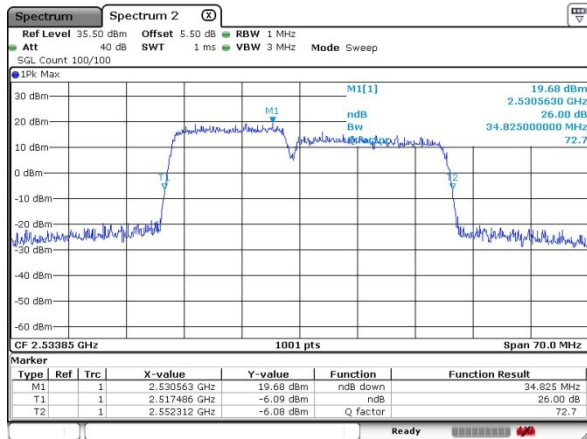
Date: 12 JUL 2018 14:13:59

Lowest Channel / 20MHz+10MHz



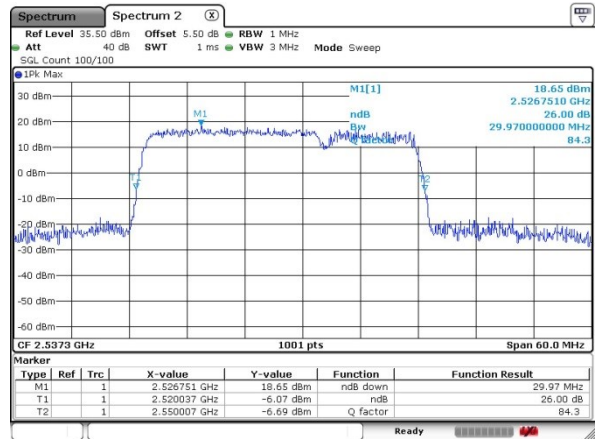
Date: 12 JUL 2018 11:13:03

Middle Channel / 15MHz+20MHz



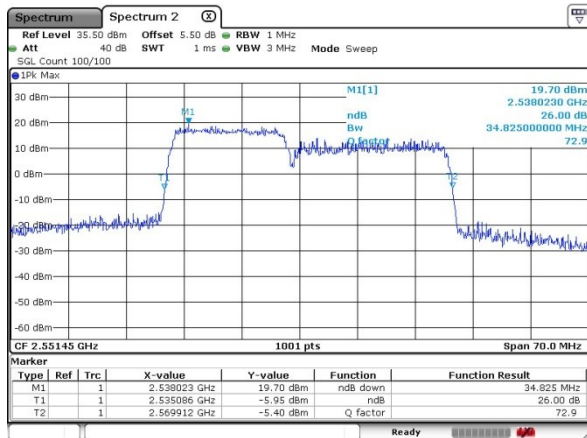
Date: 12 JUL 2018 14:24:19

Middle Channel / 20MHz+10MHz



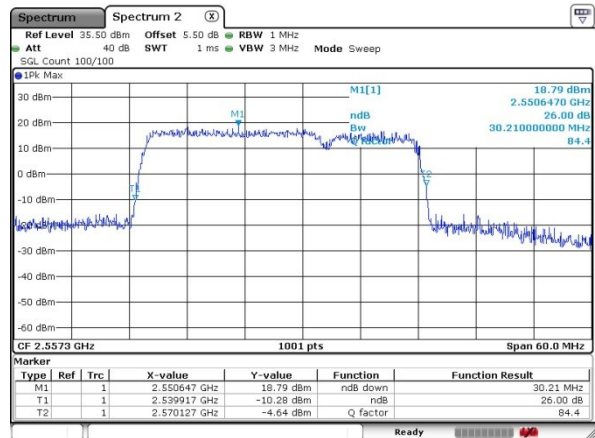
Date: 12 JUL 2018 11:18:07

Highest Channel / 15MHz+20MHz



Date: 12 JUL 2018 14:27:45

Highest Channel / 20MHz+10MHz



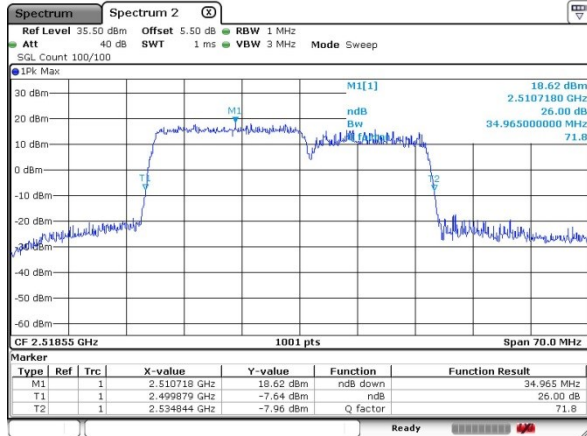
Date: 12 JUL 2018 11:28:00



LTE Band 7

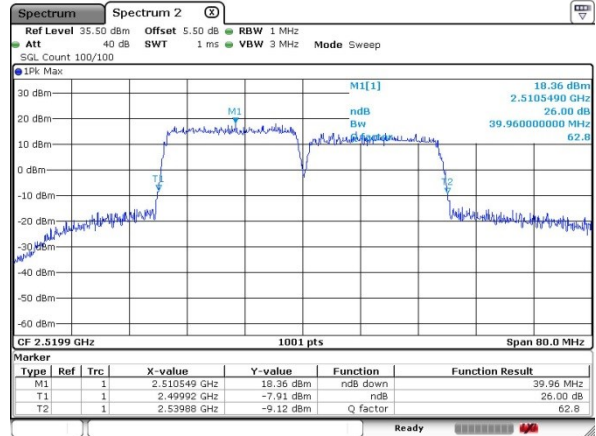
16QAM

Lowest Channel / 20MHz+15MHz



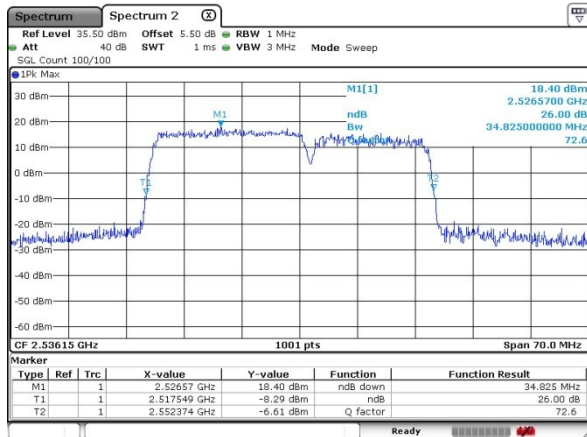
Date: 12 JUL 2018 14:37:20

Lowest Channel / 20MHz+20MHz



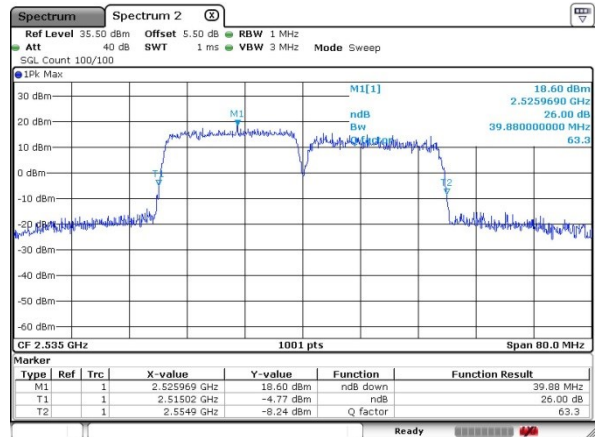
Date: 12 JUL 2018 14:52:32

Middle Channel / 20MHz+15MHz



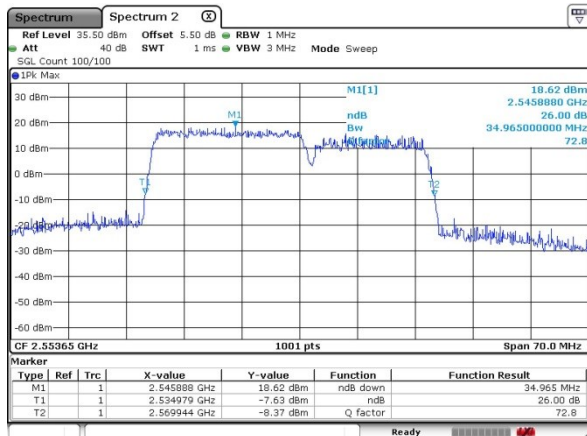
Date: 12 JUL 2018 14:40:58

Middle Channel / 20MHz+20MHz



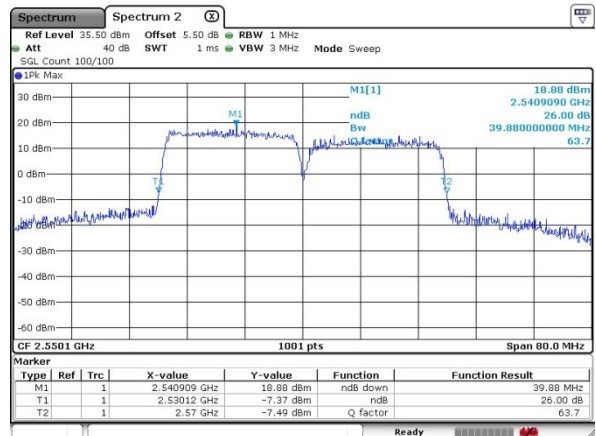
Date: 12 JUL 2018 15:07:40

Highest Channel / 20MHz+15MHz



Date: 12 JUL 2018 14:45:11

Highest Channel / 20MHz+20MHz



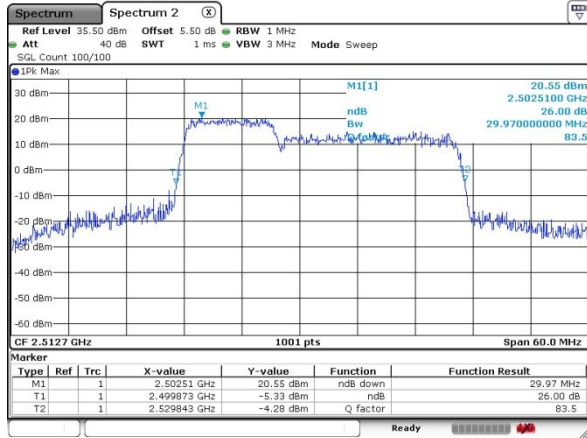
Date: 12 JUL 2018 15:12:08



LTE Band 7

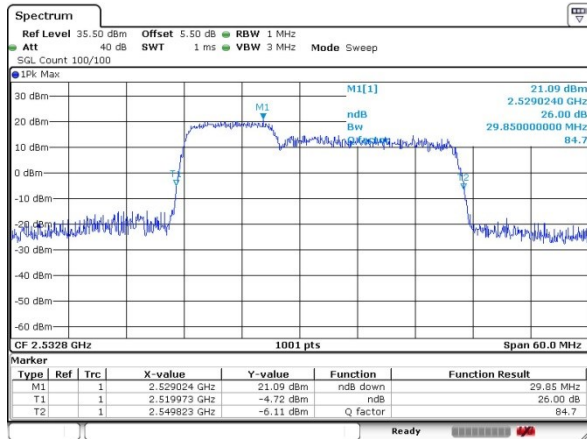
64QAM

Lowest Channel / 10MHz+20MHz



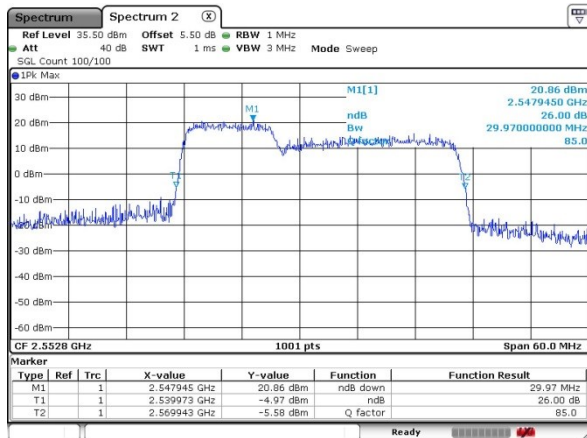
Date: 12 JUL 2018 11:00:58

Middle Channel / 10MHz+20MHz



Date: 13 JUL 2018 09:19:49

Highest Channel / 10MHz+20MHz



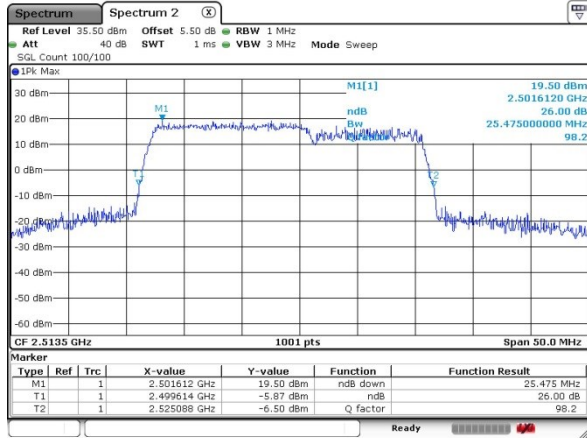
Date: 12 JUL 2018 11:08:41



LTE Band 7

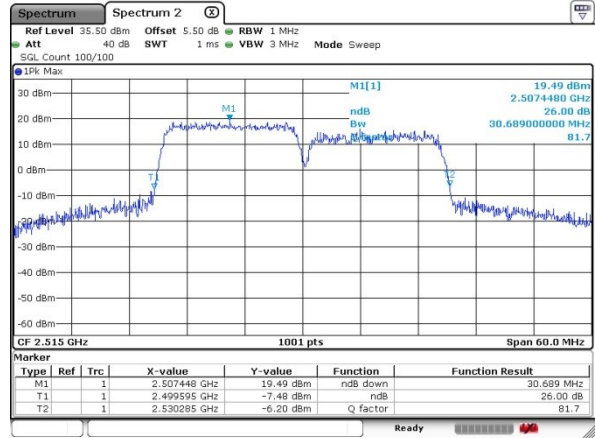
64QAM

Lowest Channel / 15MHz+10MHz



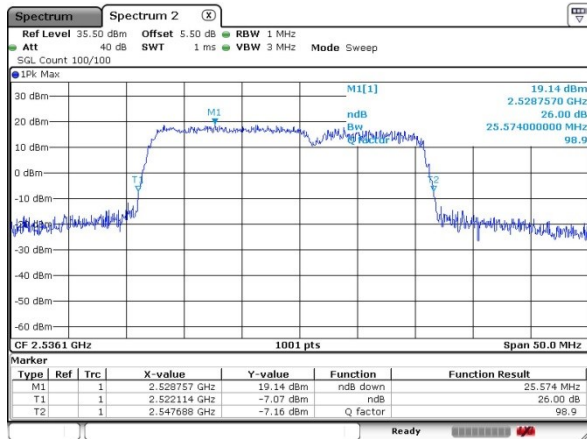
Date: 12 JUL 2018 10:46:33

Lowest Channel / 15MHz+15MHz



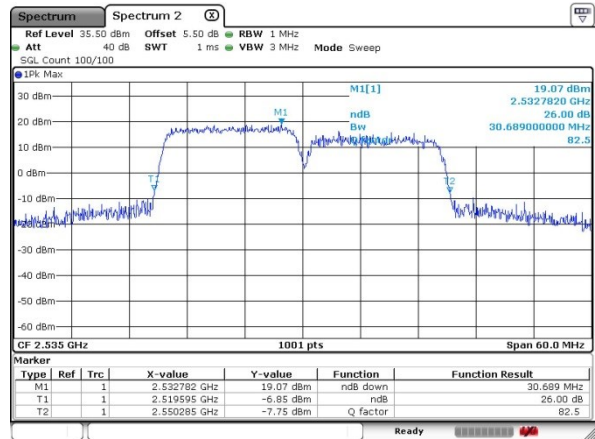
Date: 12 JUL 2018 13:59:39

Middle Channel / 15MHz+10MHz



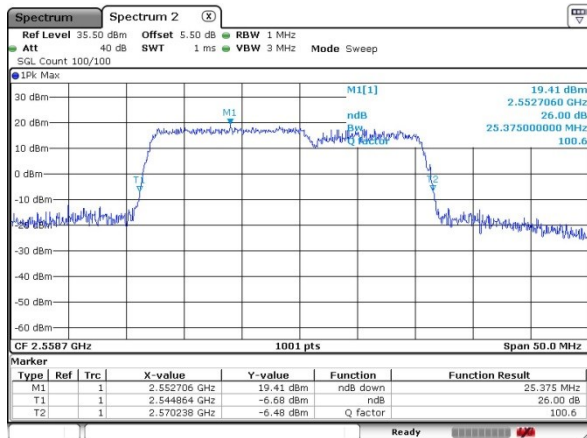
Date: 12 JUL 2018 10:44:14

Middle Channel / 15MHz+15MHz



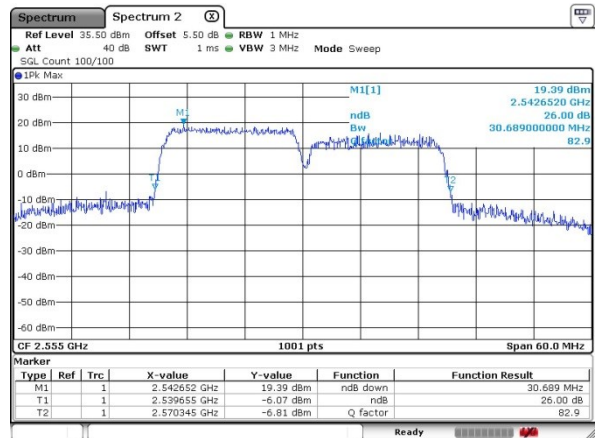
Date: 12 JUL 2018 14:02:14

Highest Channel / 15MHz+10MHz



Date: 12 JUL 2018 10:34:23

Highest Channel / 15MHz+15MHz



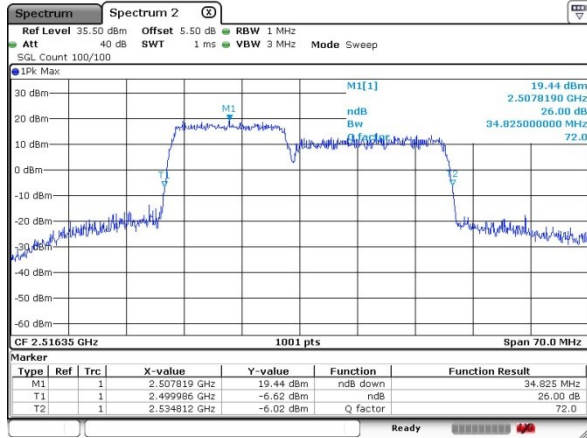
Date: 12 JUL 2018 14:07:52



LTE Band 7

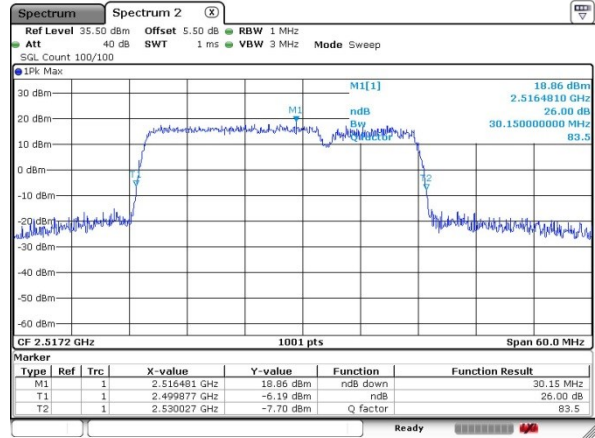
64QAM

Lowest Channel / 15MHz+20MHz



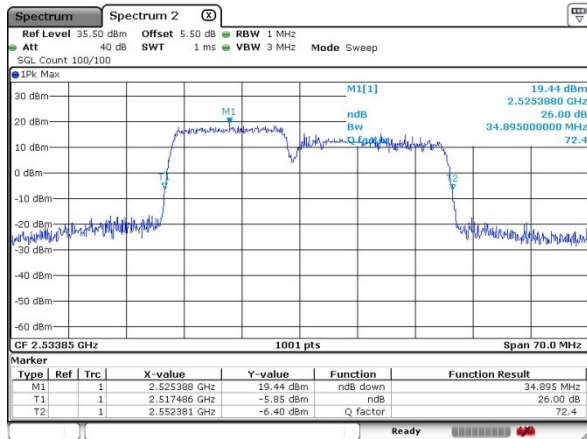
Date: 12 JUL 2018 14:13:17

Lowest Channel / 20MHz+10MHz



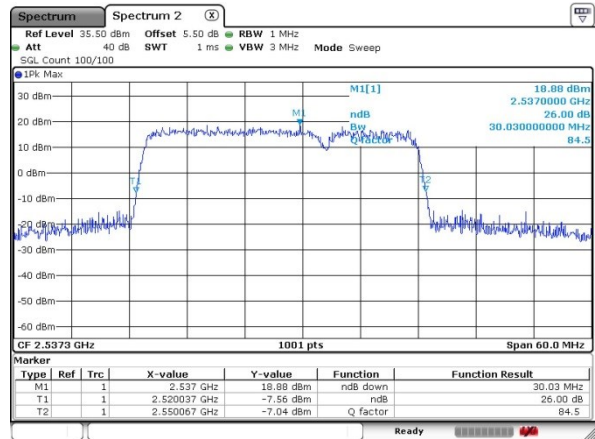
Date: 12 JUL 2018 11:11:17

Middle Channel / 15MHz+20MHz



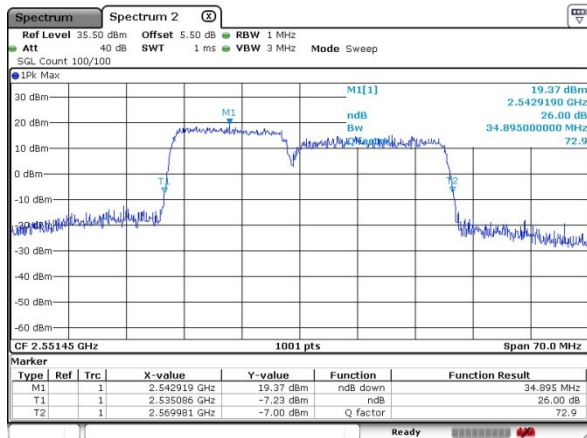
Date: 12 JUL 2018 14:25:22

Middle Channel / 20MHz+10MHz



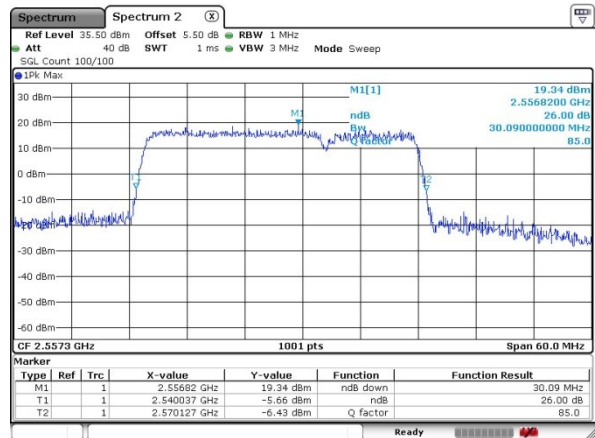
Date: 12 JUL 2018 11:19:37

Highest Channel / 15MHz+20MHz



Date: 12 JUL 2018 14:27:06

Highest Channel / 20MHz+10MHz



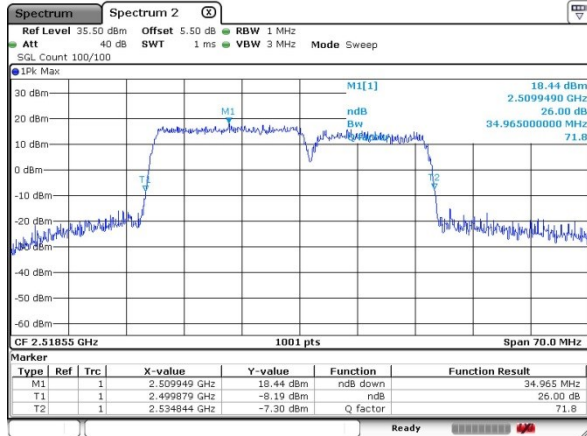
Date: 12 JUL 2018 11:22:48



LTE Band 7

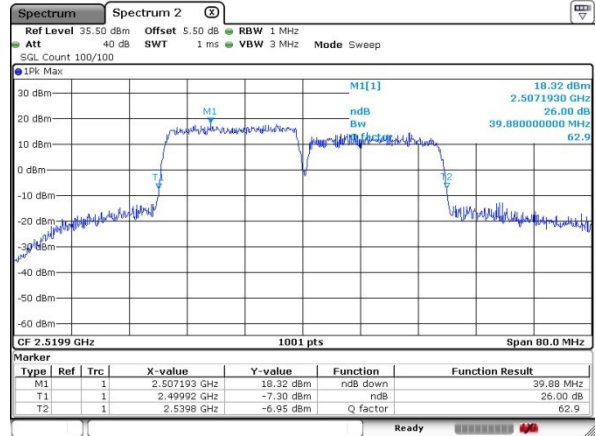
64QAM

Lowest Channel / 20MHz+15MHz



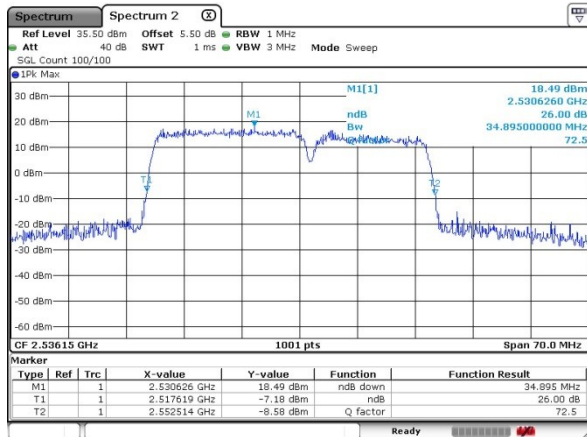
Date: 12 JUL 2018 14:38:09

Lowest Channel / 20MHz+20MHz



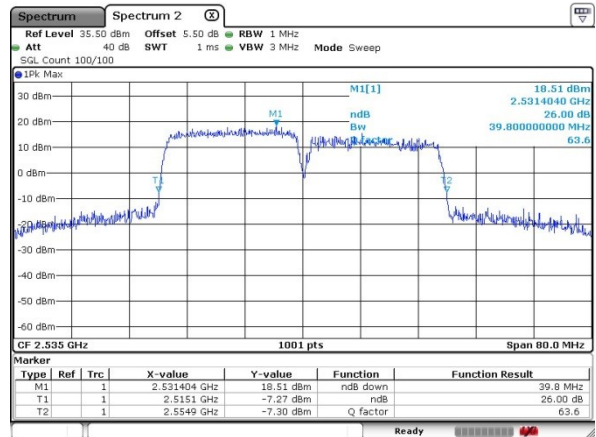
Date: 12 JUL 2018 14:51:48

Middle Channel / 20MHz+15MHz



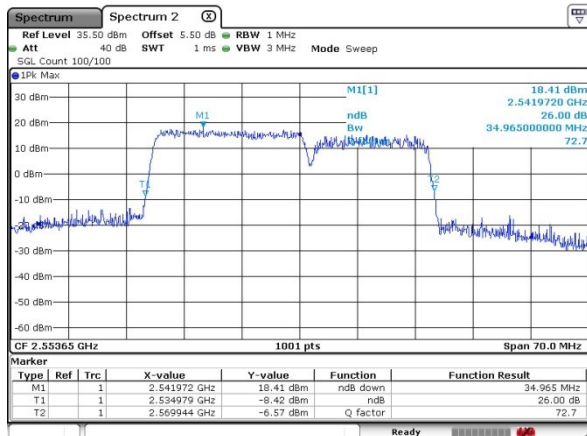
Date: 12 JUL 2018 14:40:29

Middle Channel / 20MHz+20MHz



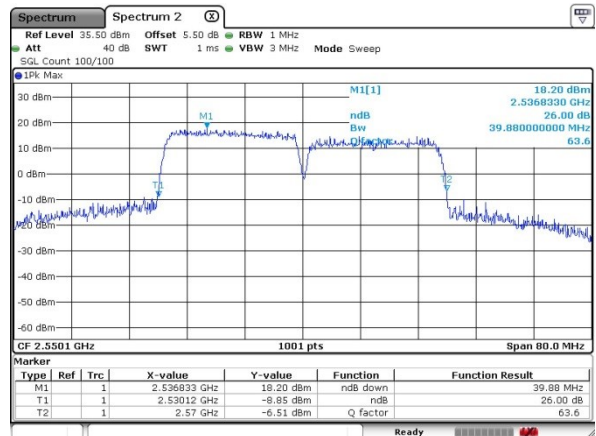
Date: 12 JUL 2018 15:08:52

Highest Channel / 20MHz+15MHz



Date: 12 JUL 2018 14:46:19

Highest Channel / 20MHz+20MHz



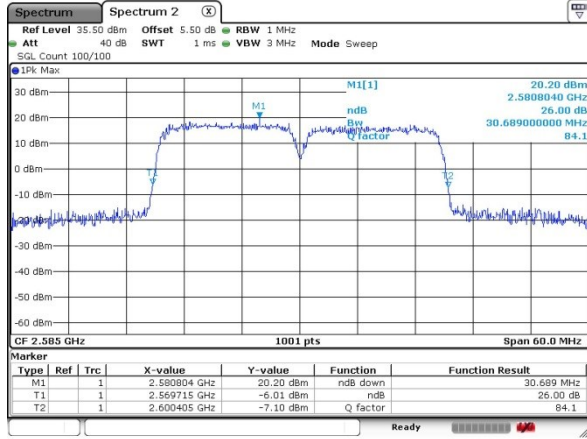
Date: 12 JUL 2018 15:10:20



LTE Band 38

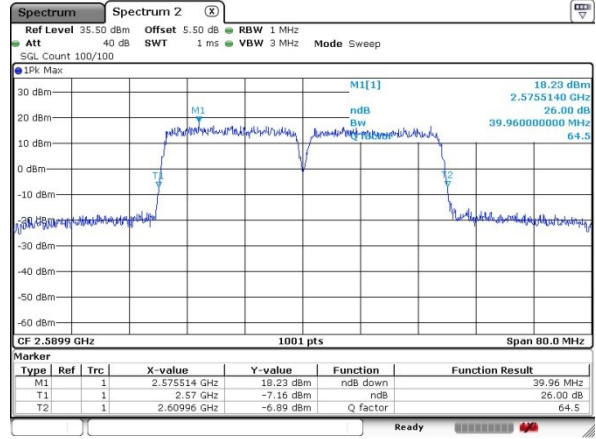
QPSK

Lowest Channel / 15MHz+15MHz



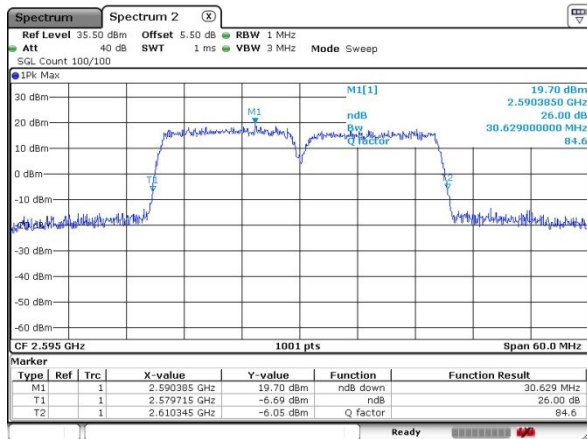
Date: 11 JUL 2018 13:57:51

Lowest Channel / 20MHz+20MHz



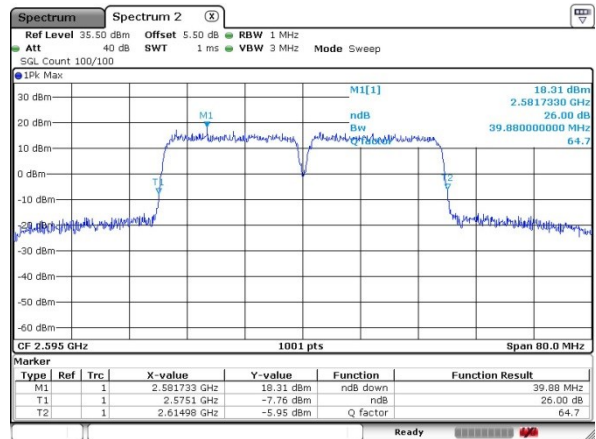
Date: 11 JUL 2018 14:00:52

Middle Channel / 15MHz+15MHz



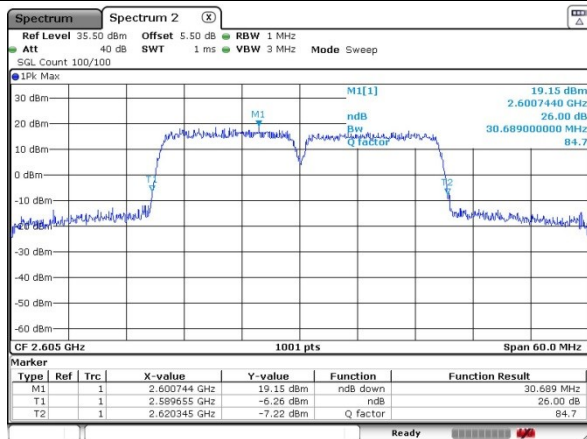
Date: 11 JUL 2018 13:49:43

Middle Channel / 20MHz+20MHz



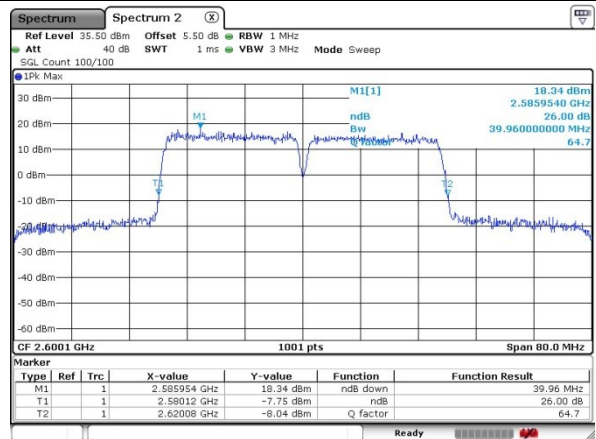
Date: 11 JUL 2018 14:06:48

Highest Channel / 15MHz+15MHz



Date: 11 JUL 2018 11:50:48

Highest Channel / 20MHz+20MHz



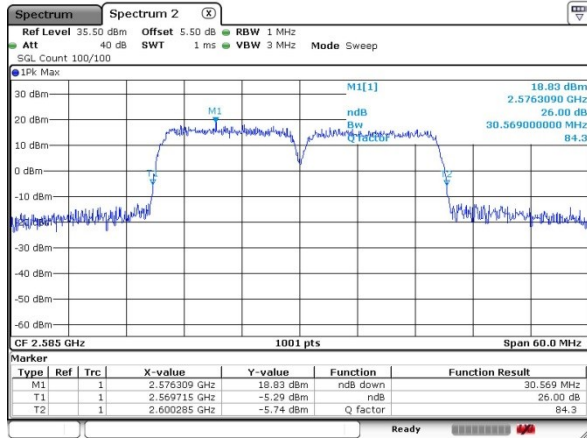
Date: 11 JUL 2018 14:08:47



LTE Band 38

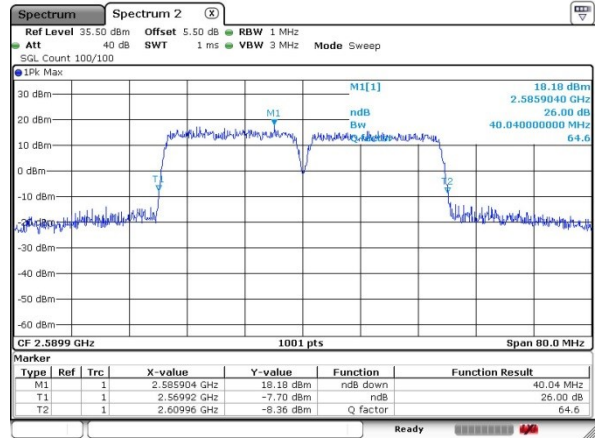
16QAM

Lowest Channel / 15MHz+15MHz



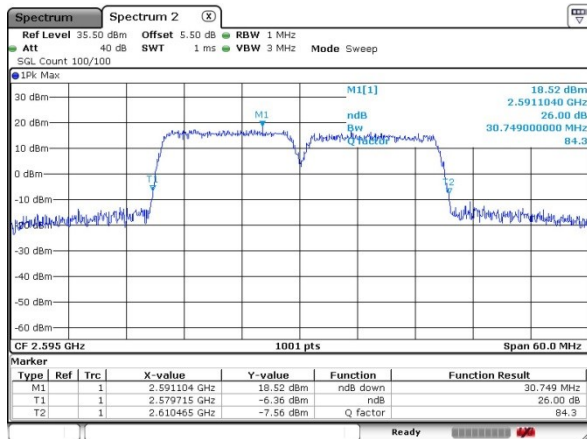
Date: 11 JUL 2018 13:56:42

Lowest Channel / 20MHz+20MHz



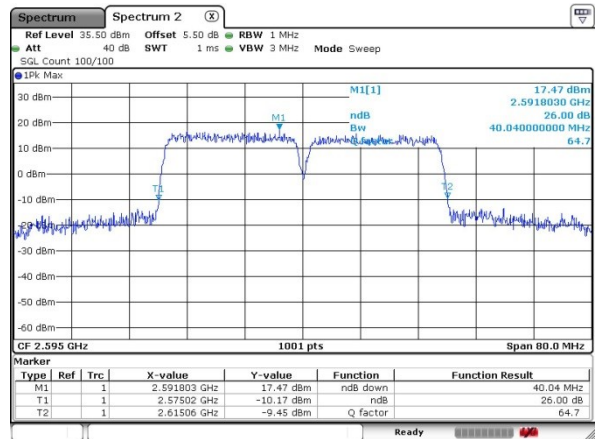
Date: 11 JUL 2018 14:01:22

Middle Channel / 15MHz+15MHz



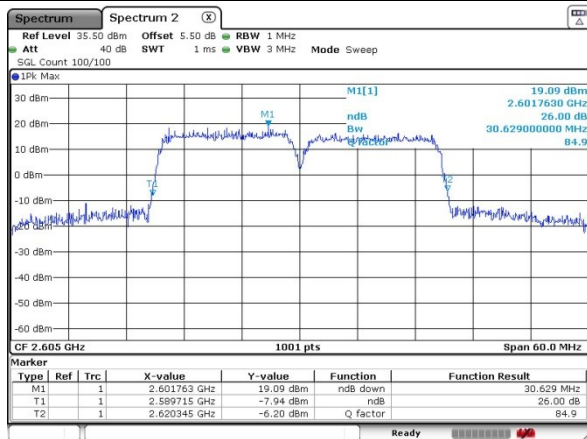
Date: 11 JUL 2018 13:51:52

Middle Channel / 20MHz+20MHz



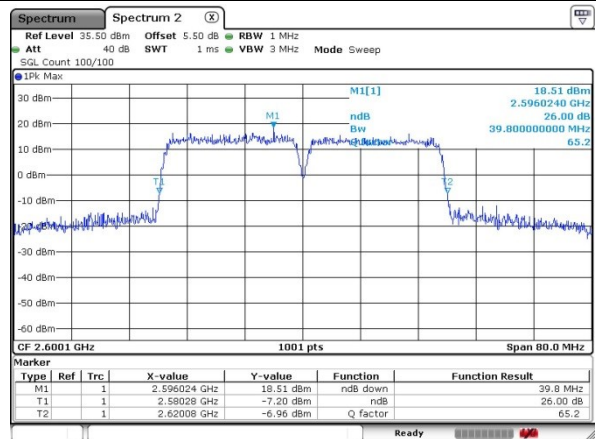
Date: 11 JUL 2018 14:05:29

Highest Channel / 15MHz+15MHz



Date: 11 JUL 2018 11:50:12

Highest Channel / 20MHz+20MHz



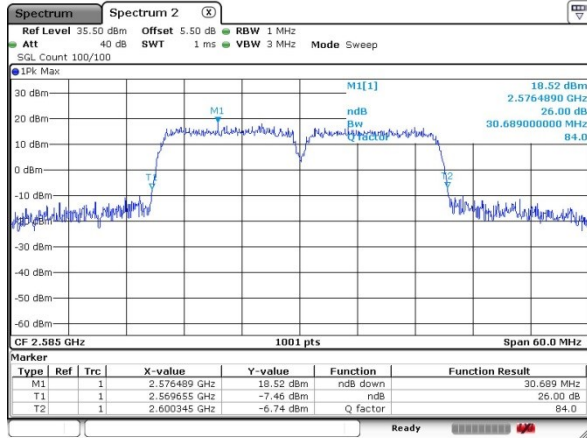
Date: 11 JUL 2018 14:09:14



LTE Band 38

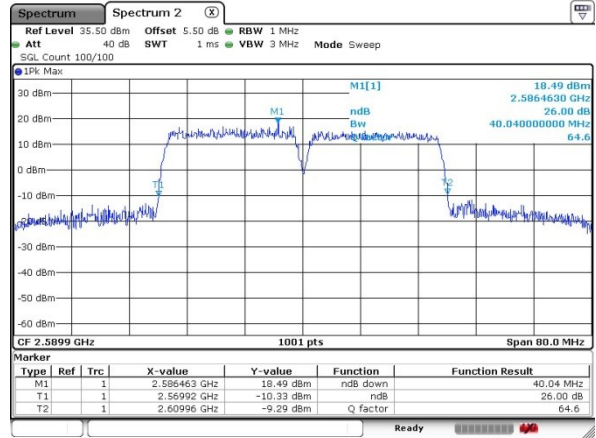
64QAM

Lowest Channel / 15MHz+15MHz



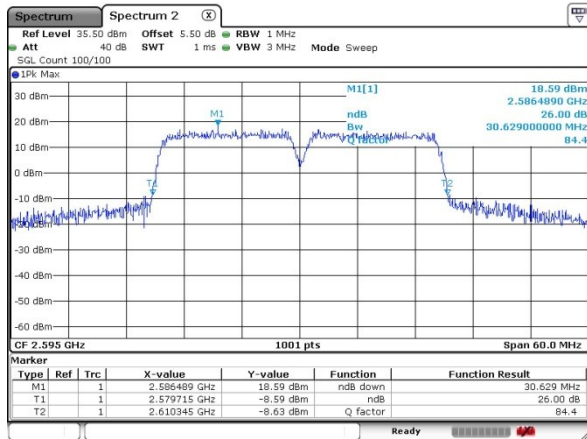
Date: 11 JUL 2018 13:55:58

Lowest Channel / 20MHz+20MHz



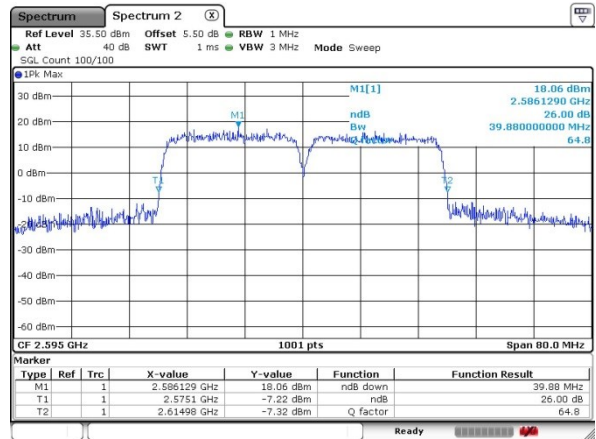
Date: 11 JUL 2018 14:02:49

Middle Channel / 15MHz+15MHz



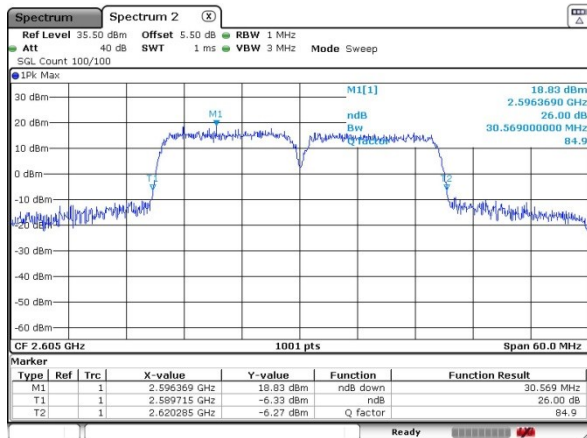
Date: 11 JUL 2018 13:52:59

Middle Channel / 20MHz+20MHz



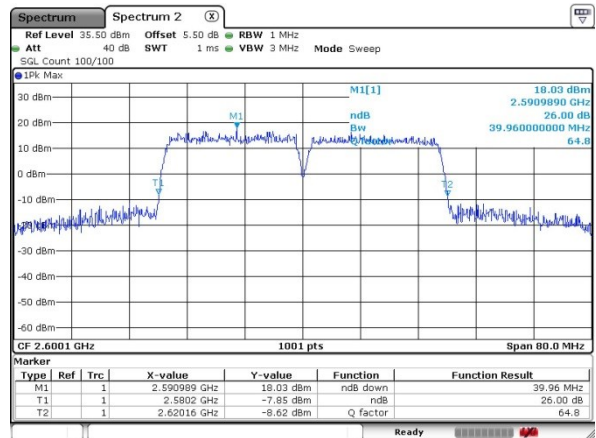
Date: 11 JUL 2018 14:04:53

Highest Channel / 15MHz+15MHz



Date: 11 JUL 2018 11:47:11

Highest Channel / 20MHz+20MHz



Date: 11 JUL 2018 14:20:32

**Occupied Bandwidth**

Mode	LTE Band 2 : 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	1.10	2.73	2.72	4.51	4.50	9.01	9.01	13.43	13.43	18.38	18.38
Middle CH	1.09	1.09	2.72	2.72	4.49	4.47	9.05	8.95	13.37	13.43	18.18	18.34
Highest CH	1.09	1.09	2.72	2.72	4.50	4.50	9.03	9.01	13.46	13.46	18.38	18.50
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.10		2.73		4.53		9.05		13.43		18.54	
Middle CH	1.09		2.73		4.50		9.03		13.46		18.43	
Highest CH	1.09		2.72		4.52		9.09		13.43		18.46	

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	1.09	2.73	2.74	4.48	4.51	8.97	9.01	13.37	13.40	18.26	18.46
Middle CH	1.09	1.09	2.72	2.72	4.49	4.49	9.03	9.01	13.37	13.43	18.34	18.34
Highest CH	1.09	1.09	2.71	2.74	4.49	4.50	9.01	8.99	13.46	13.43	18.34	18.14
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09		2.72		4.51		9.03		13.37		18.26	
Middle CH	1.10		2.73		4.50		9.05		13.43		18.34	
Highest CH	1.09		2.73		4.49		9.01		13.46		18.18	



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	1.09	1.09	2.72	2.72	4.51	4.50	9.07	8.99	-	-	-	-
Middle CH	1.09	1.09	2.72	2.72	4.50	4.51	9.05	9.01	-	-	-	-
Highest CH	1.09	1.10	2.72	2.72	4.50	4.48	8.97	9.03	-	-	-	-
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	1.09		2.73		4.49		9.05		-	-	-	-
Middle CH	1.09		2.74		4.50		9.05		-	-	-	-
Highest CH	1.08		2.72		4.48		8.97		-	-	-	-

Mode	LTE Band 7 : 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	-	-	-	-	4.51	4.51	9.05	8.95	13.46	13.40	18.38	18.54
Middle CH	-	-	-	-	4.49	4.49	9.01	8.99	13.40	13.43	18.30	18.34
Highest CH	-	-	-	-	4.49	4.49	9.01	8.97	13.46	13.43	18.26	18.30
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.					64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.50		9.07		13.43		18.38	
Middle CH	-	-	-	-	4.51		9.11		13.34		18.30	
Highest CH	-	-	-	-	4.52		9.05		13.40		18.30	

Mode	LTE Band 38 : 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	4.51	9.03	9.09	13.34	13.40	18.34	18.34
Middle CH	-	-	-	-	4.49	4.51	9.05	9.07	13.46	13.43	18.42	18.30
Highest CH	-	-	-	-	4.47	4.51	9.07	9.05	13.43	13.40	18.22	18.34
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-		-		4.49		9.05		13.43		18.34	
Middle CH	-		-		4.49		9.03		13.43		18.34	
Highest CH	-		-		4.50		8.99		13.40		18.30	



For CA

Mode	LTE Band 7 : 99%OBW(MHz)			
QPSK				
BW	10MHz+20MHz	-	15MHz+10MHz	15MHz+15MHz
Lowest CH	27.99	-	23.53	28.71
Middle CH	27.81	-	23.43	28.53
Highest CH	28.05	-	23.43	28.59
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.80	27.99	33.08	37.56
Middle CH	32.73	27.99	32.87	37.64
Highest CH	32.80	28.05	32.94	37.64

Mode	LTE Band 7 : 99%OBW(MHz)			
16QAM				
BW	10MHz+20MHz	-	15MHz+10MHz	15MHz+15MHz
Lowest CH	27.99	-	23.53	28.59
Middle CH	27.87	-	23.48	28.53
Highest CH	27.93	-	23.53	28.71
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.87	28.05	32.80	37.64
Middle CH	32.66	27.93	32.80	37.48
Highest CH	33.01	27.93	33.01	37.72

Mode	LTE Band 7 : 99%OBW(MHz)			
64QAM				
BW	10MHz+20MHz	-	15MHz+10MHz	15MHz+15MHz
Lowest CH	28.05	-	23.48	28.59
Middle CH	27.87	-	23.38	28.47
Highest CH	27.99	-	23.33	28.65
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.73	27.93	32.73	37.56
Middle CH	32.59	27.99	32.66	37.56
Highest CH	32.94	27.99	32.80	37.64



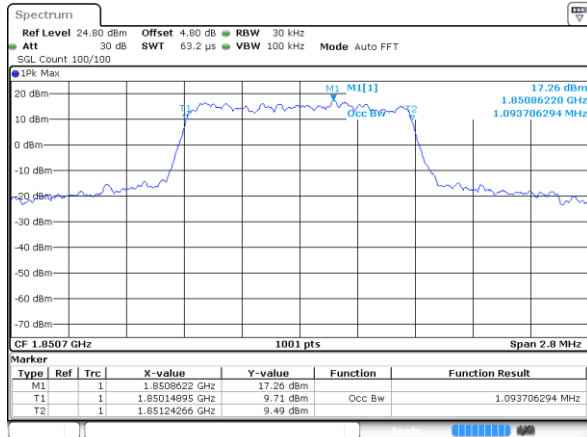
Mode	LTE Band 38 : 99%OBW(MHz)			
Mod.	QPSK		16QAM	
BW	15MHz+15MHz	20MHz+20MHz	15MHz+15MHz	20MHz+20MHz
Lowest CH	28.65	37.72	28.65	37.88
Middle CH	28.65	37.80	28.65	37.88
Highest CH	28.65	37.80	28.71	37.80

Mode	LTE Band 38 : 99%OBW(MHz)			
Mod.	64QAM		-	
BW	15MHz+15MHz	20MHz+20MHz	-	-
Lowest CH	28.59	37.72	-	-
Middle CH	28.59	37.72	-	-
Highest CH	28.59	37.72	-	--

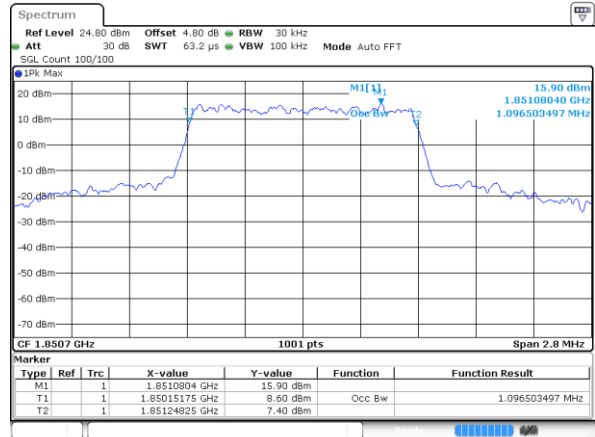


LTE Band 2

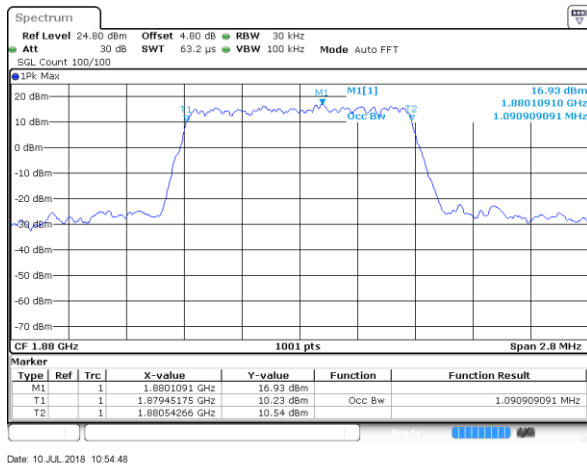
Lowest Channel / 1.4MHz / QPSK



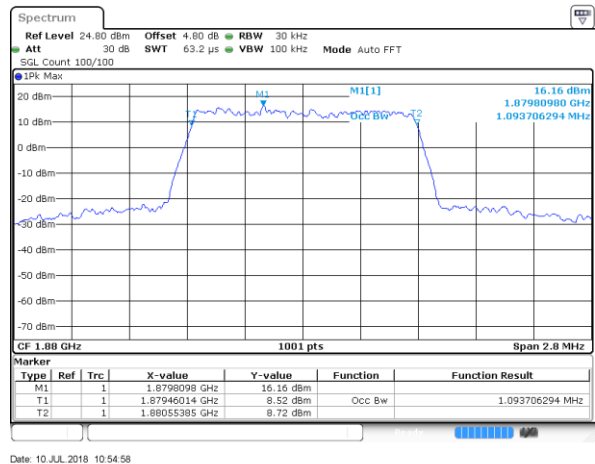
Lowest Channel / 1.4MHz / 16QAM



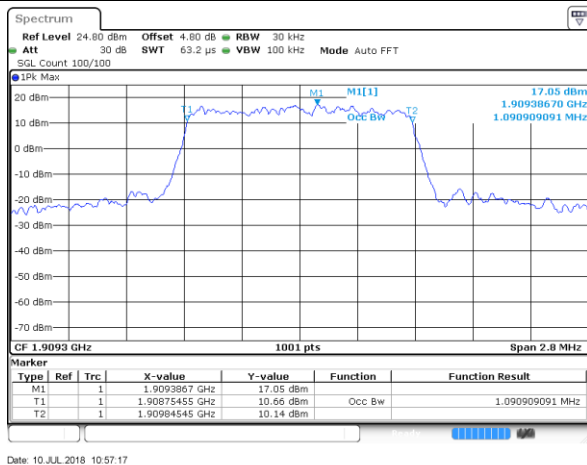
Middle Channel / 1.4MHz / QPSK



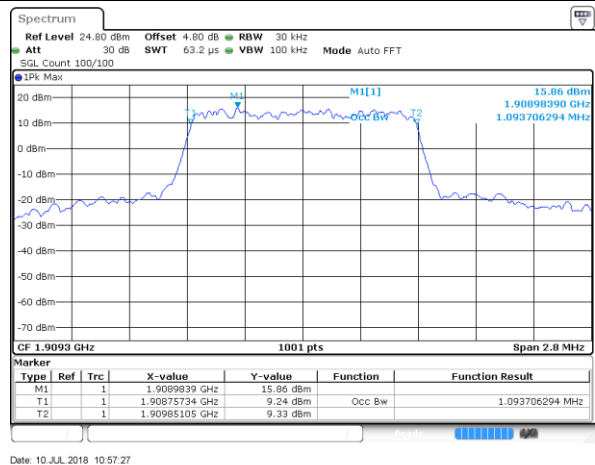
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



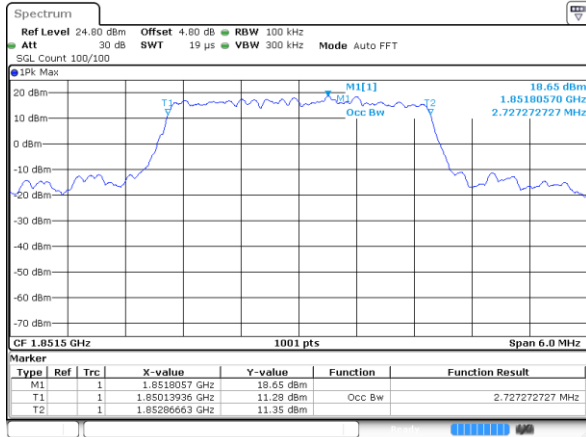
Highest Channel / 1.4MHz / 16QAM



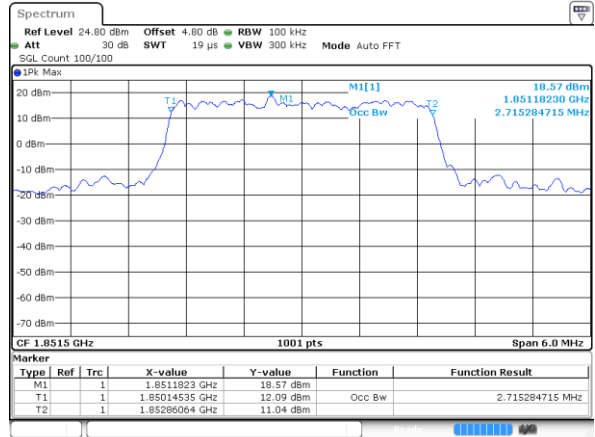


LTE Band 2

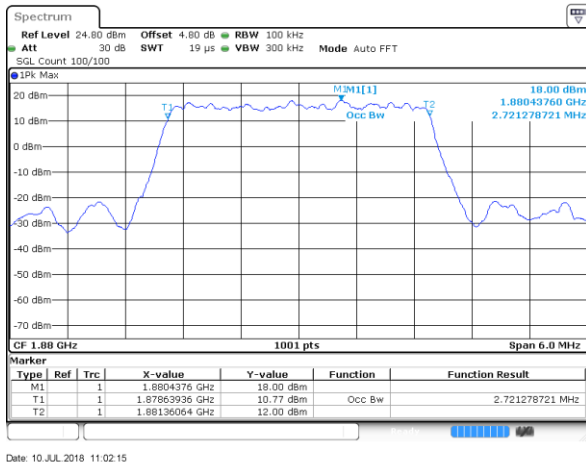
Lowest Channel / 3MHz / QPSK



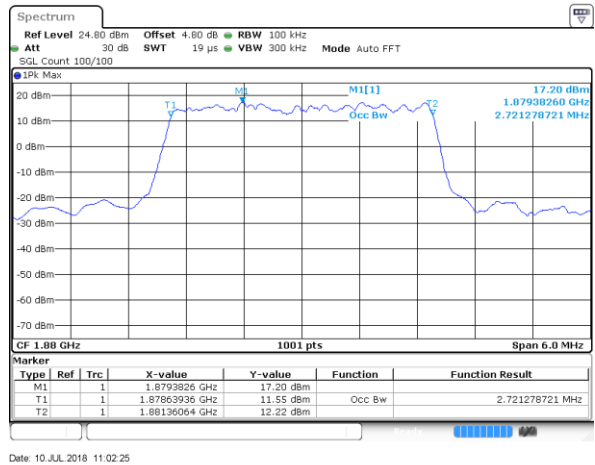
Lowest Channel / 3MHz / 16QAM



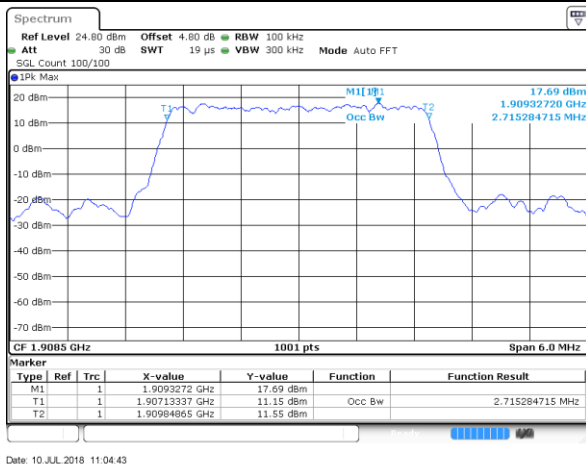
Middle Channel / 3MHz / QPSK



Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



Highest Channel / 3MHz / 16QAM

