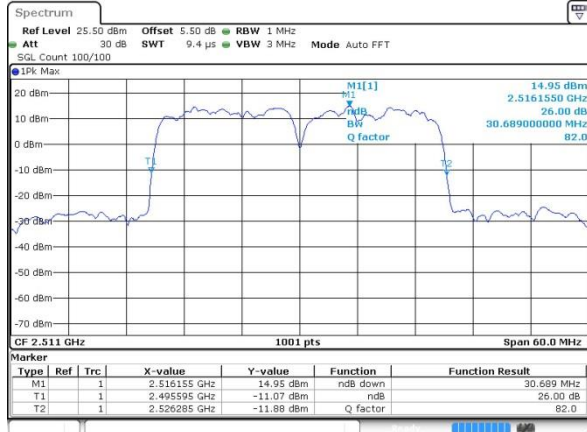




LTE Band 41

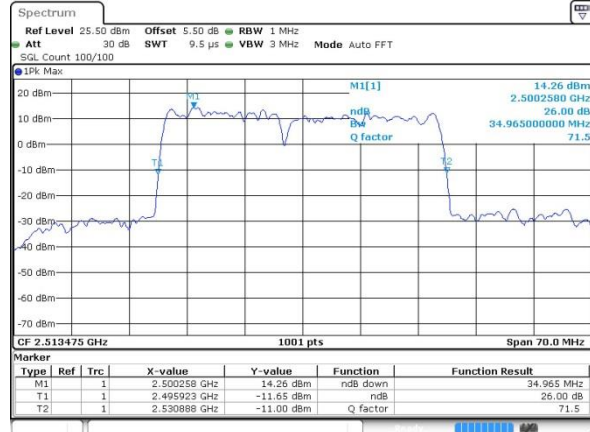
64QAM

Lowest Channel / 15MHz+15MHz



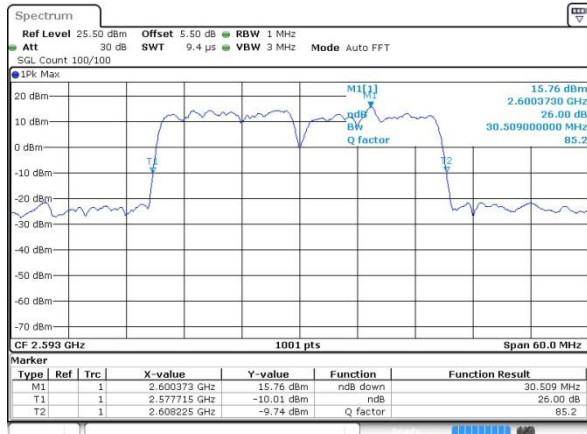
Date: 15.FEB.2019 14:17:48

Lowest Channel / 15MHz+20MHz



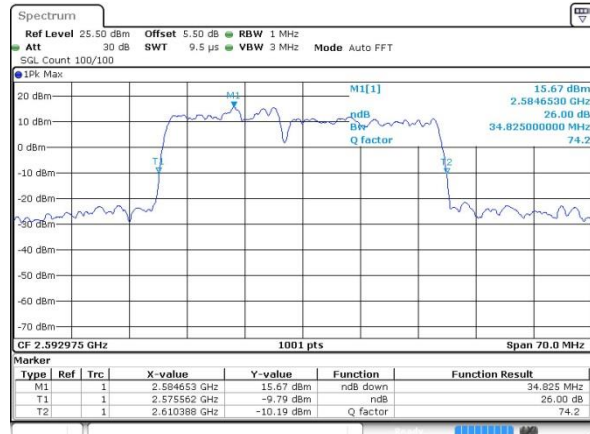
Date: 15.FEB.2019 14:24:28

Middle Channel / 15MHz+15MHz



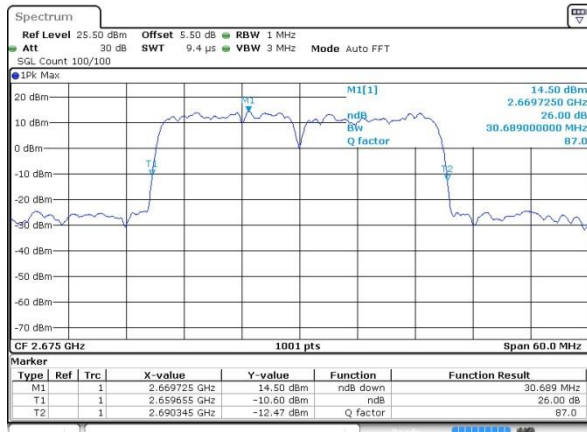
Date: 15.FEB.2019 14:18:53

Middle Channel / 15MHz+20MHz



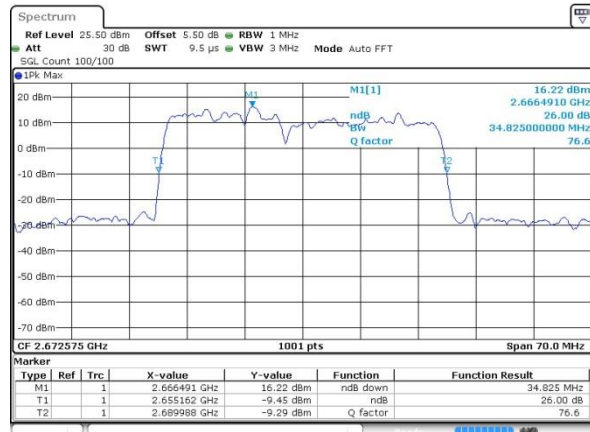
Date: 15.FEB.2019 14:44:05

Highest Channel / 15MHz+15MHz



Date: 15.FEB.2019 14:23:08

Highest Channel / 15MHz+20MHz



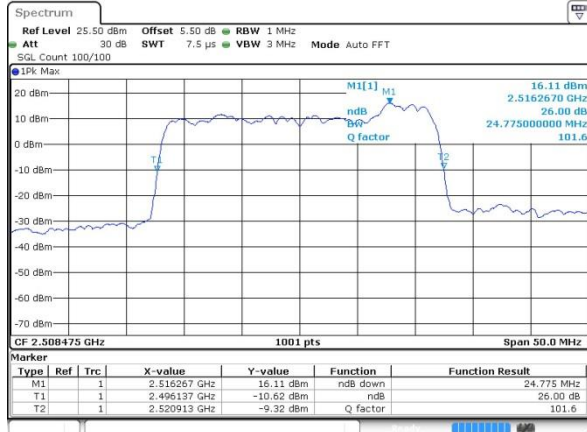
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LTE Band 41

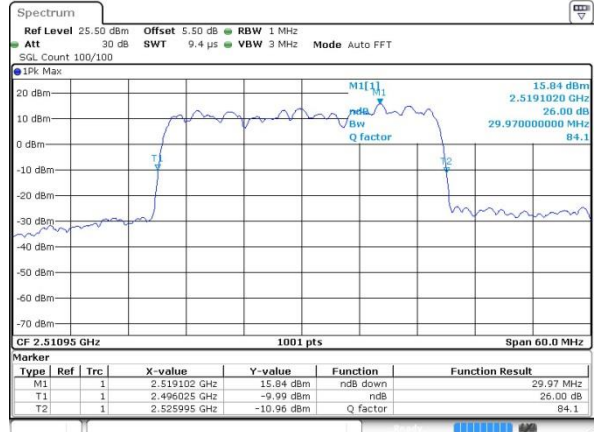
64QAM

Lowest Channel / 20MHz+5MHz



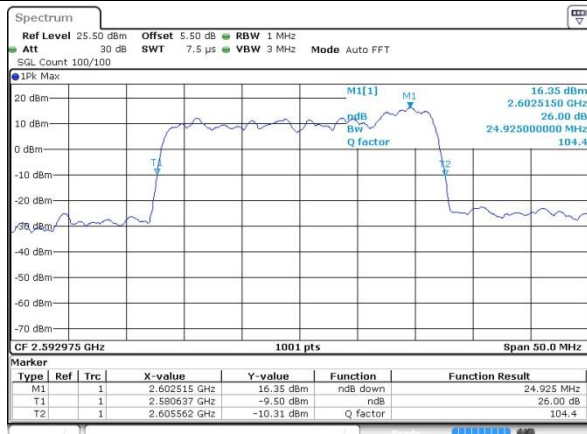
Date: 12.FEB.2019 14:42:37

Lowest Channel / 20MHz+10MHz



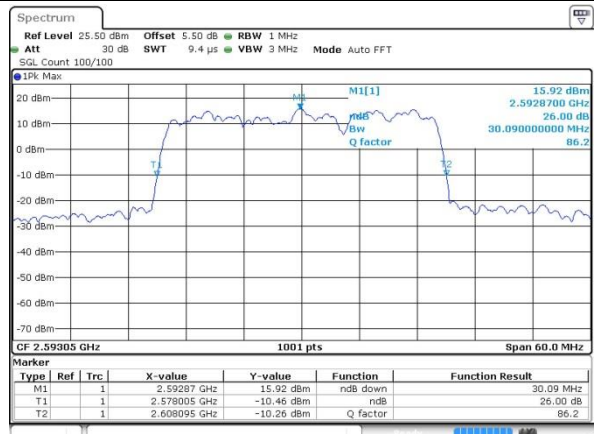
Date: 13.FEB.2019 16:57:01

Middle Channel / 20MHz+5MHz



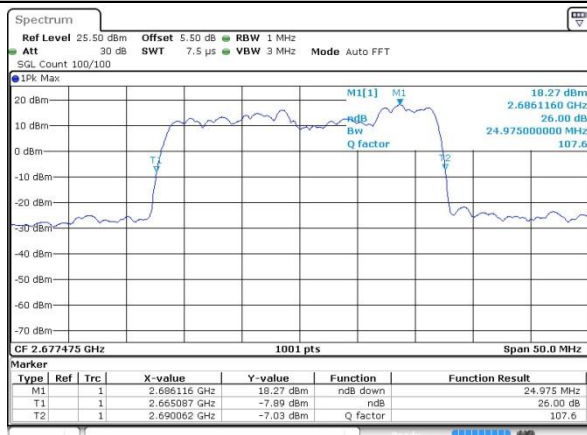
Date: 12.FEB.2019 14:55:27

Middle Channel / 20MHz+10MHz



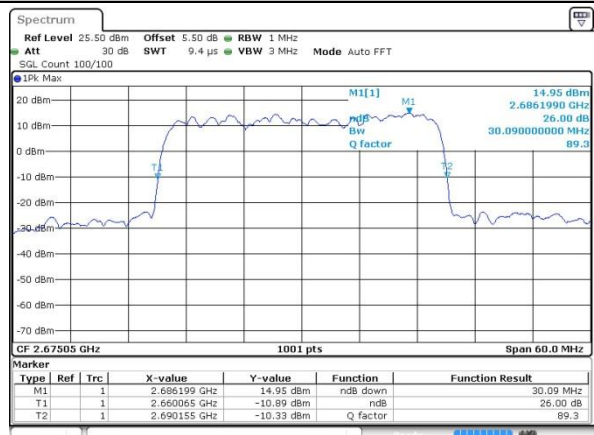
Date: 13.FEB.2019 16:59:51

Highest Channel / 20MHz+5MHz



Date: 12.FEB.2019 15:40:29

Highest Channel / 20MHz+10MHz



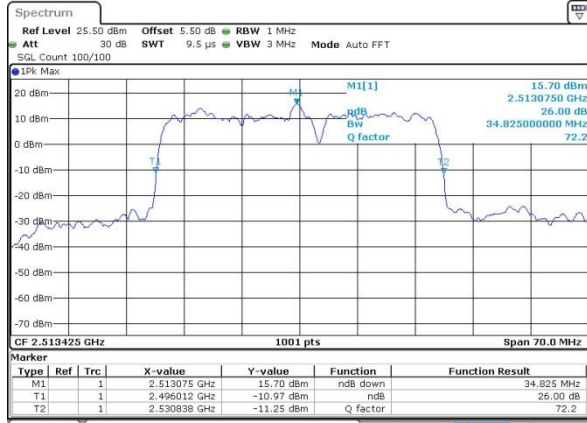
Date: 13.FEB.2019 17:11:35



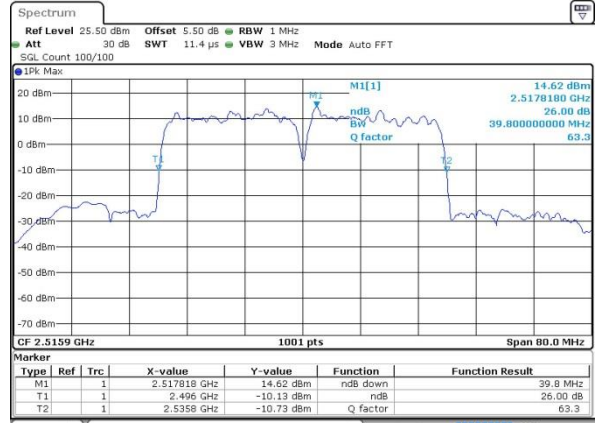
LTE Band 41

64QAM

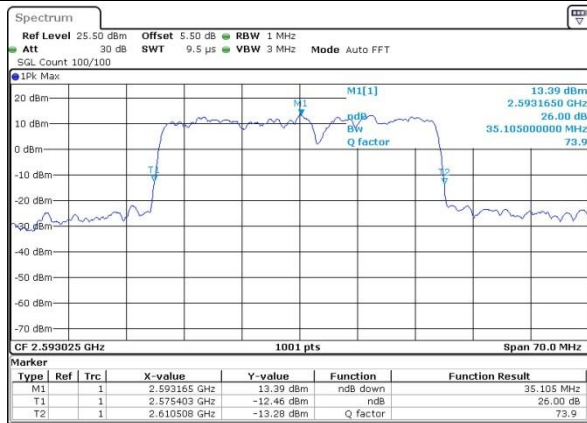
Lowest Channel / 20MHz+15MHz



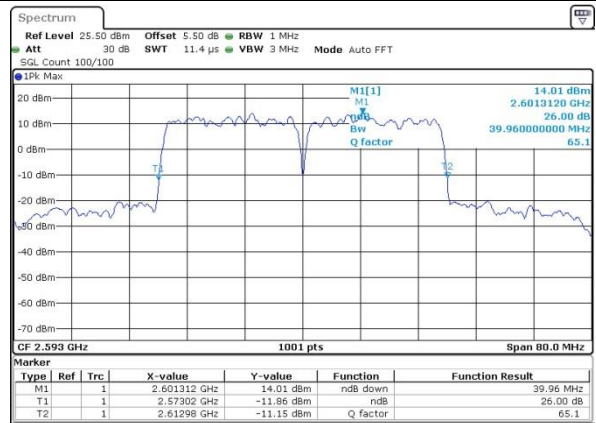
Lowest Channel / 20MHz+20MHz



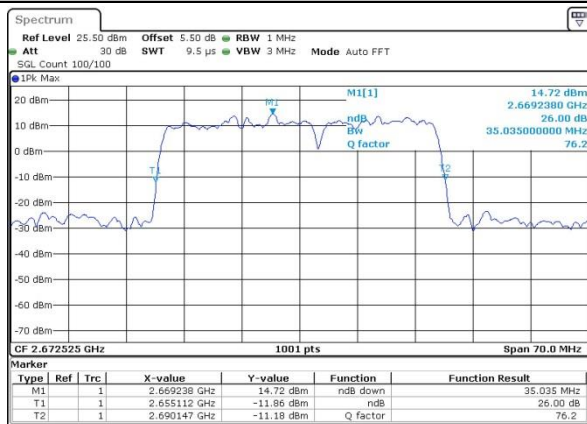
Middle Channel / 20MHz+15MHz



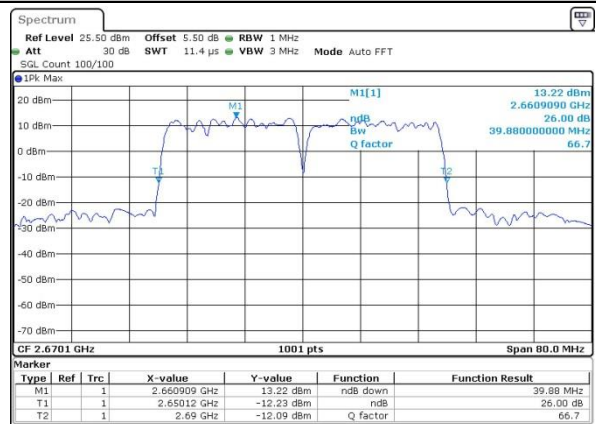
Middle Channel / 20MHz+20MHz



Highest Channel / 20MHz+15MHz



Highest Channel / 20MHz+20MHz

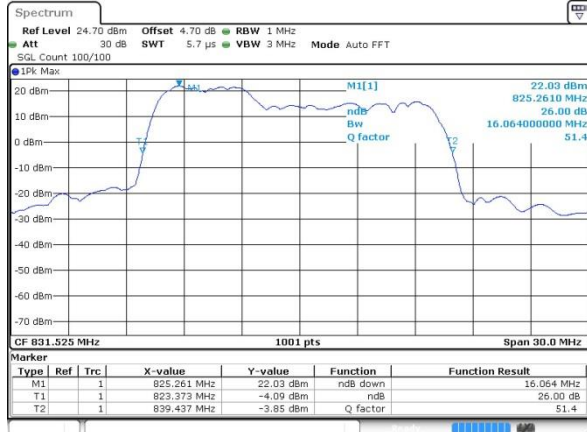




LTE Band 5

QPSK

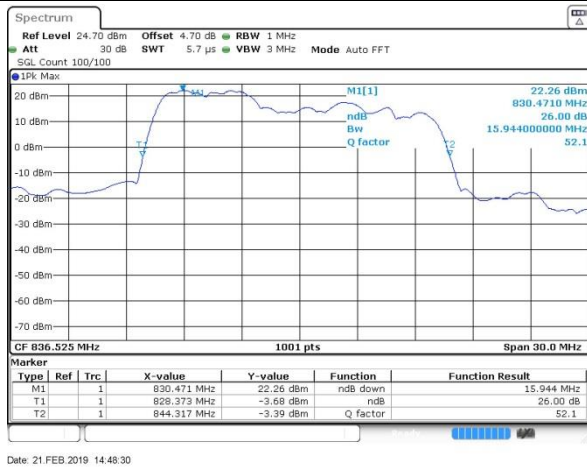
Lowest Channel / 5MHz+10MHz



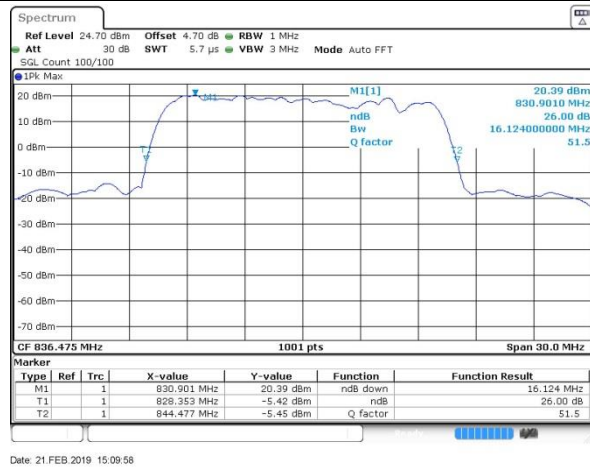
Lowest Channel / 10MHz+5MHz



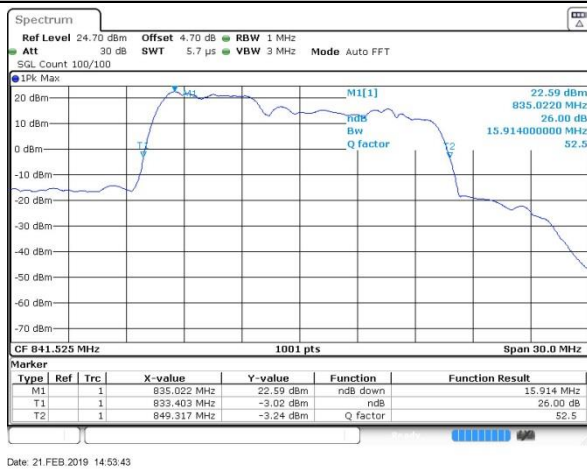
Middle Channel / 5MHz+10MHz



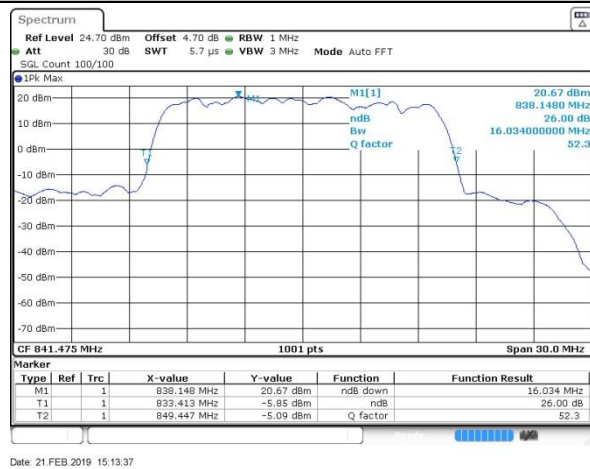
Middle Channel / 10MHz+5MHz



Highest Channel / 5MHz+10MHz



Highest Channel / 10MHz+5MHz

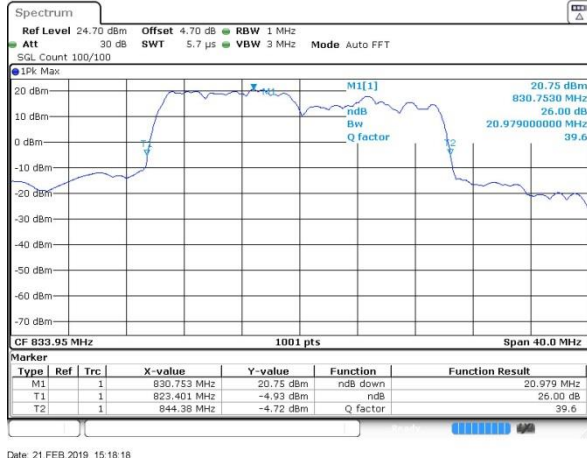




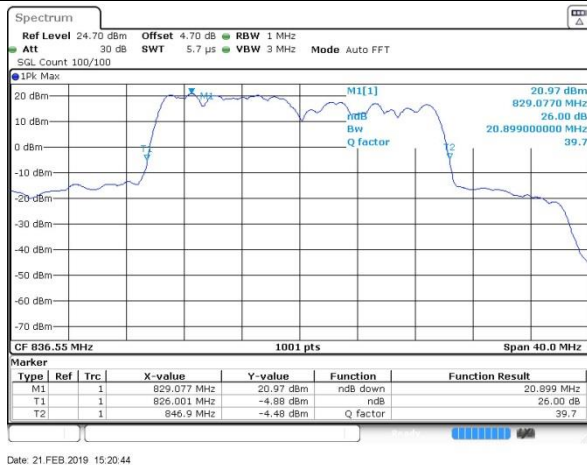
LTE Band 5

QPSK

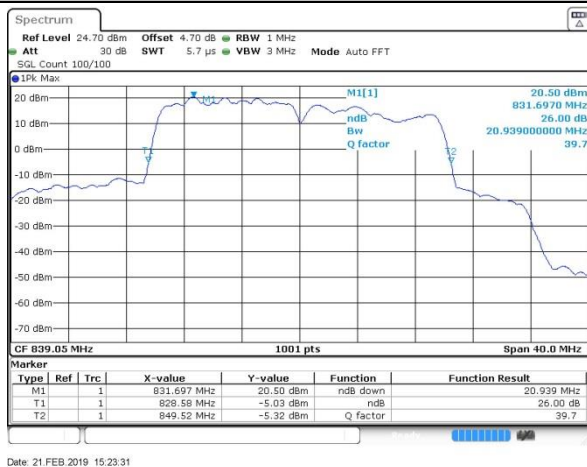
Lowest Channel / 10MHz+10MHz



Middle Channel / 10MHz+10MHz



Highest Channel / 10MHz+10MHz

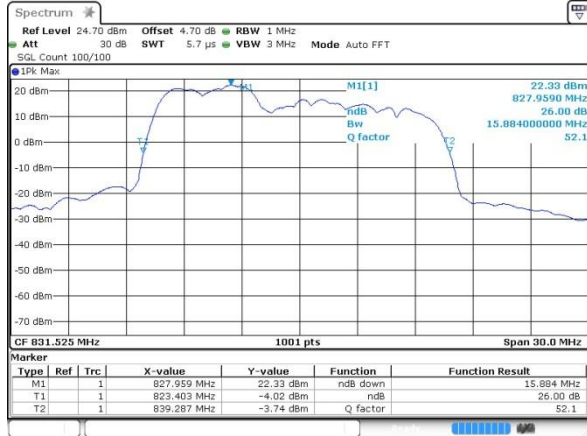




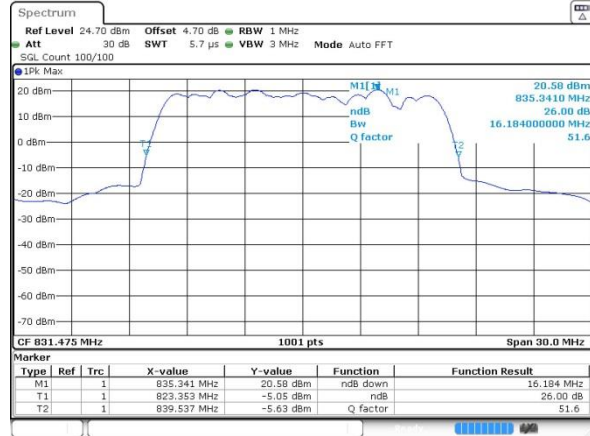
LTE Band 5

16QAM

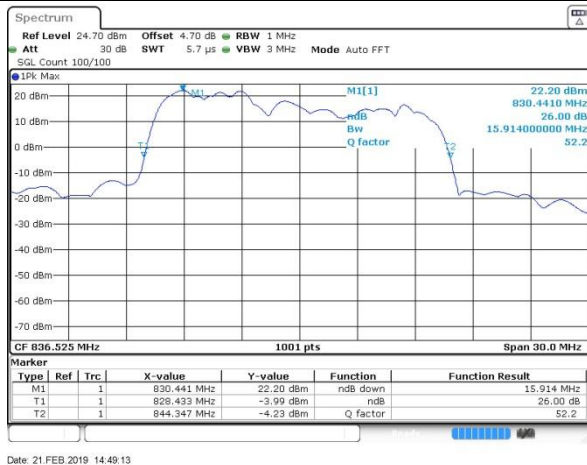
Lowest Channel / 5MHz+10MHz



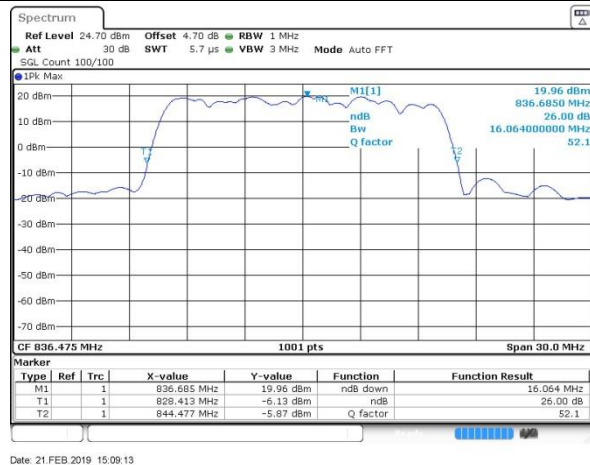
Lowest Channel / 10MHz+5MHz



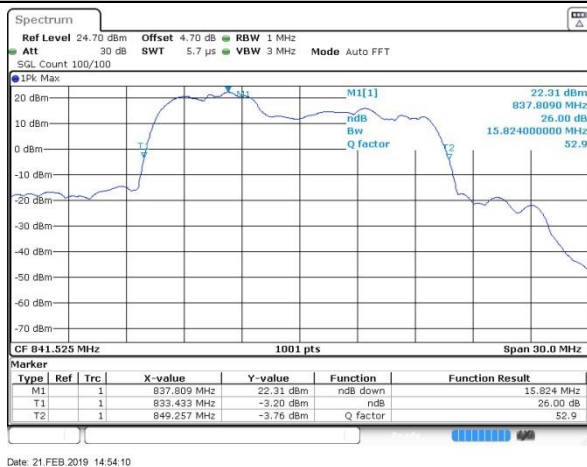
Middle Channel / 5MHz+10MHz



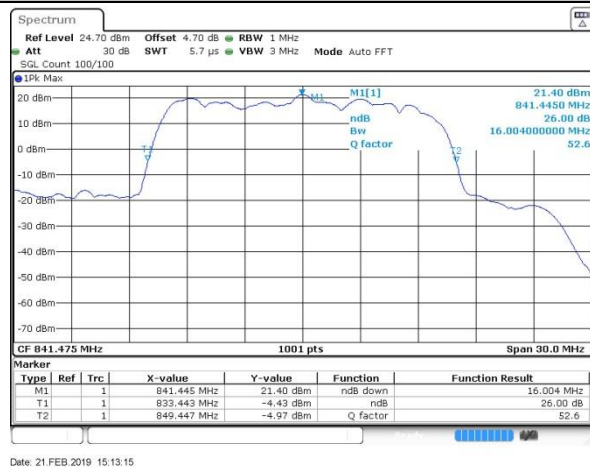
Middle Channel / 10MHz+5MHz



Highest Channel / 5MHz+10MHz



Highest Channel / 10MHz+5MHz

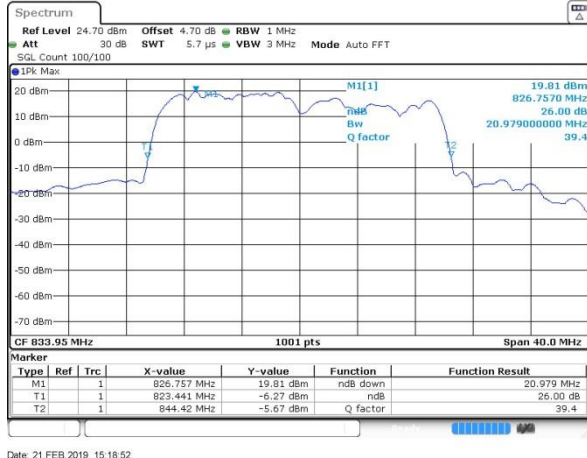




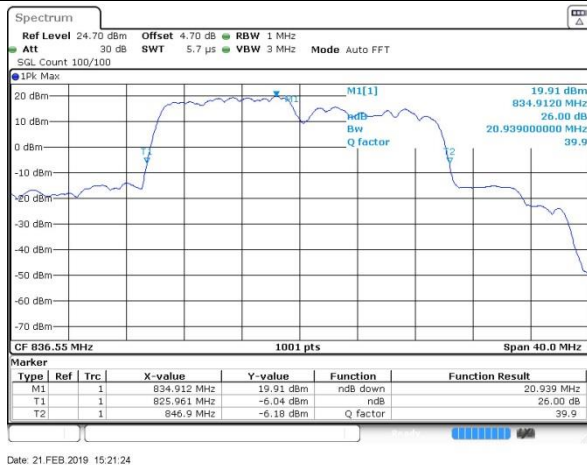
LTE Band 5

16QAM

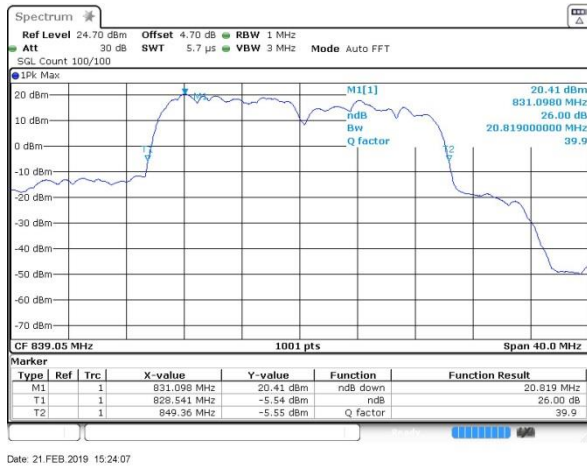
Lowest Channel / 10MHz+10MHz



Middle Channel / 10MHz+10MHz



Highest Channel / 10MHz+10MHz

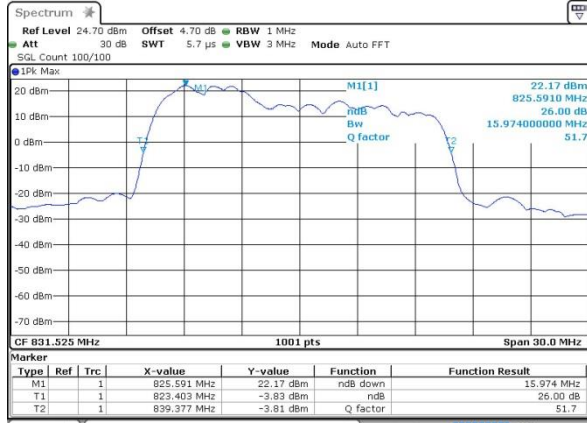




LTE Band 5

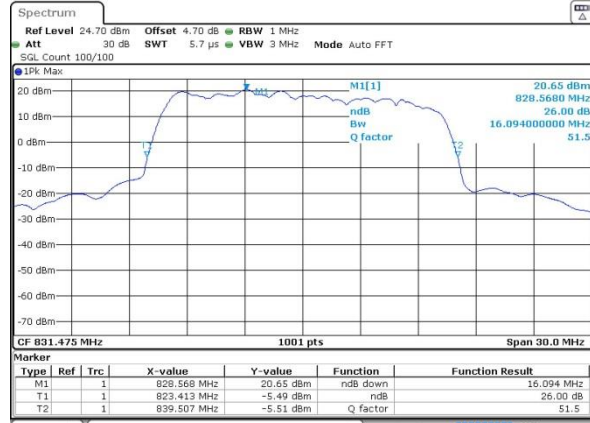
64QAM

Lowest Channel / 5MHz+10MHz



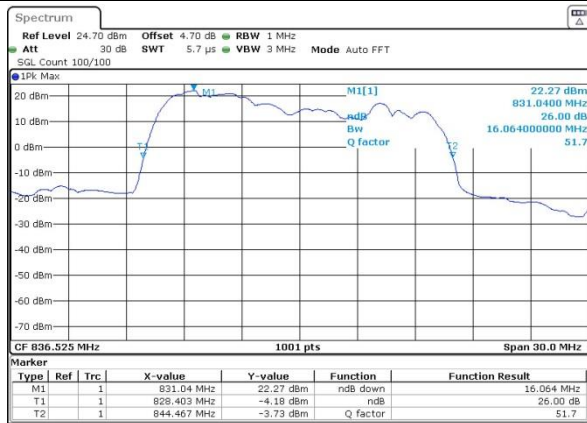
Date: 21 FEB 2019 14:45:00

Lowest Channel / 10MHz+5MHz



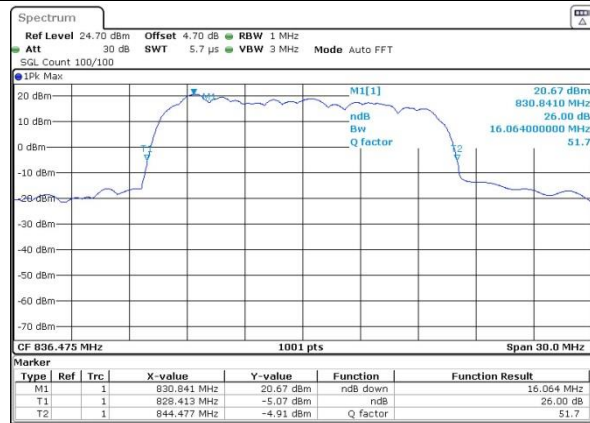
Date: 21 FEB 2019 15:05:06

Middle Channel / 5MHz+10MHz



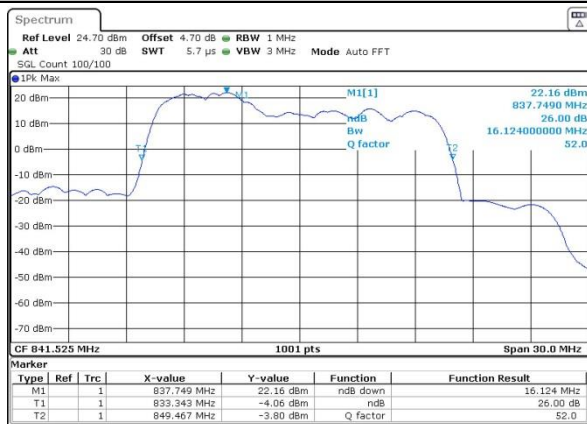
Date: 21 FEB 2019 14:49:50

Middle Channel / 10MHz+5MHz



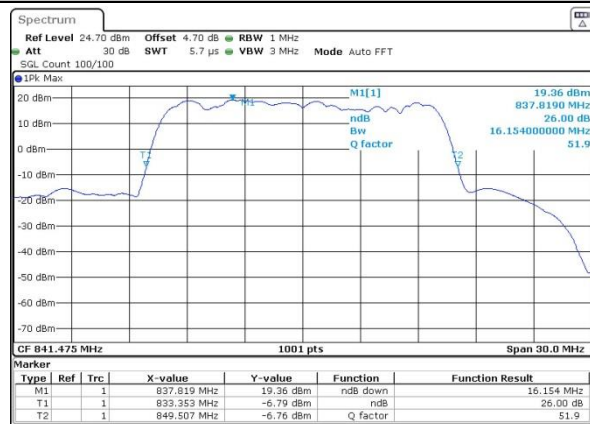
Date: 21 FEB 2019 15:05:45

Highest Channel / 5MHz+10MHz



Date: 21 FEB 2019 14:54:40

Highest Channel / 10MHz+5MHz



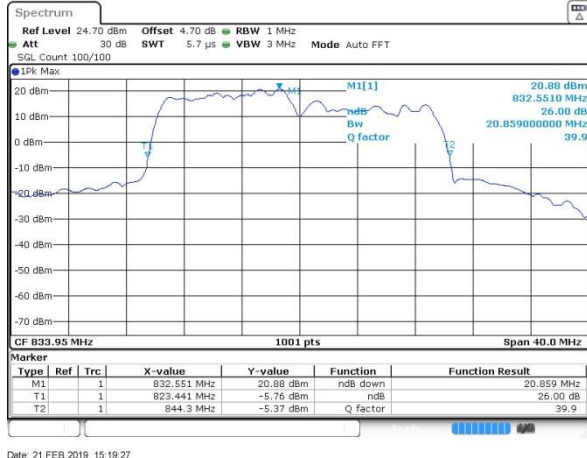
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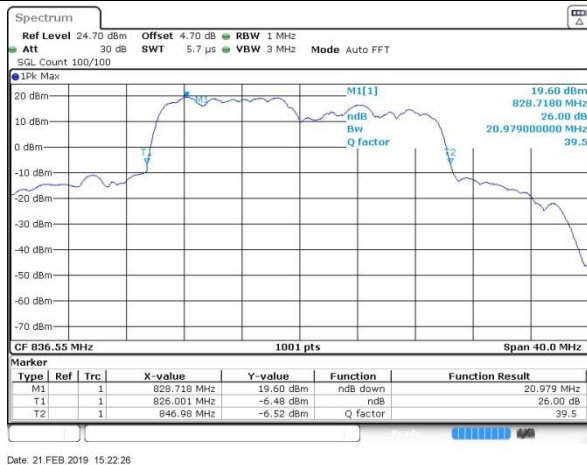
LTE Band 5

64QAM

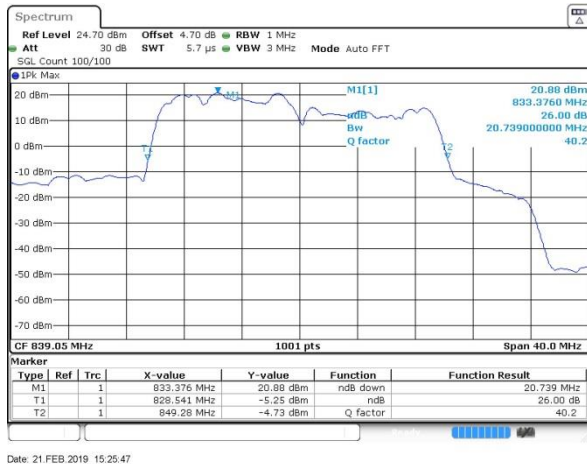
Lowest Channel / 10MHz+10MHz



Middle Channel / 10MHz+10MHz



Highest Channel / 10MHz+10MHz



**Occupied Bandwidth**

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					4.48	4.51	9.05	9.03	13.40	13.46	18.30	18.50
Middle CH					4.51	4.51	9.01	8.97	13.37	13.43	18.38	18.22
Highest CH					4.49	4.49	9.03	8.99	13.46	13.52	18.34	18.18
Mode	LTE Band 7 : 99%OBW(MHz)											
BW	5MHz		10MHz		15MHz		20MHz					
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	4.50		9.01		13.34		18.30					
Middle CH	4.50		8.99		13.43		18.26					
Highest CH	4.51		9.07		13.43		18.42					

Mode	LTE Band 12 : 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	4.5	4.51	9.09	9.05				
Middle CH	1.09	1.09	2.72	2.71	4.52	4.5	9.11	9.03				
Highest CH	1.09	1.1	2.73	2.72	4.51	4.51	8.99	8.99				
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.08		2.73		4.5		9.07					
Middle CH	1.08		2.72		4.5		9.03					
Highest CH	1.09		2.73		4.5		9.05					

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	5MHz		10MHz		5MHz	10MHz						
Mod.	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM						
Lowest CH	4.51	4.48			4.50							
Middle CH	4.50	4.50	9.03	8.97	4.49	8.97						
Highest CH	4.51	4.48			4.50							



Mode	LTE Band 25 : 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	2.71	2.73	4.51	4.52	9.03	9.05	13.43	13.46	18.42	18.34
Middle CH	1.08	1.08	2.72	2.73	4.5	4.52	9.15	9.01	13.49	13.43	18.3	18.46
Highest CH	1.1	1.09	2.72	2.7	4.5	4.49	9.01	9.01	13.37	13.4	18.34	18.22
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09		2.74		4.48		9.05		13.4		18.34	
Middle CH	1.09		2.72		4.54		9.05		13.49		18.46	
Highest CH	1.09		2.73		4.48		9.01		13.37		18.42	

Mode	LTE Band 26 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		CH26765	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.08	1.09	2.73	2.73	4.48	4.52	8.97	8.99	13.34	13.4	13.46	13.43
Middle CH	1.09	1.09	2.72	2.73	4.49	4.5	9.09	9.01	13.37	13.46	-	-
Highest CH	1.09	1.09	2.72	2.73	4.5	4.51	8.99	9.03	13.49	13.49	-	-
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	26765						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH	1.09	2.75	4.49	8.99	13.37	13.43						
Middle CH	1.09	2.72	4.50	9.09	13.49	-						
Highest CH	1.09	2.74	4.51	9.01	13.43	-						

Mode	LTE Band 41 : 99%OBW(MHz)											
BW	5MHz		10MHz		15MHz		20MHz		5MHz	10MHz	15MHz	20MHz
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	4.51	4.48	9.03	8.97	13.40	13.43	18.46	18.10	4.52	9.03	13.31	18.26
Middle CH	4.47	4.51	8.97	9.05	13.43	13.46	18.38	18.22	4.51	8.97	13.40	18.42
Highest CH	4.52	4.52	8.99	9.03	13.49	13.46	18.26	18.42	4.51	8.97	13.43	18.30



Mode	LTE Band 66 : 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	1.08	1.09	2.73	2.71	4.49	4.49	9.05	8.99	13.4	13.49	18.46	18.3
Middle CH	1.09	1.09	2.72	2.73	4.47	4.49	9.11	9.07	13.46	13.4	18.26	18.22
Highest CH	1.08	1.09	2.71	2.74	4.5	4.49	8.99	8.97	13.43	13.46	18.34	18.34
Mode	LTE Band 66: 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09		2.72		4.49		8.95		13.43		18.46	
Middle CH	1.09		2.73		4.50		9.09		13.40		18.54	
Highest CH	1.09		2.72		4.46		9.07		13.37		18.46	

Mode	LTE Band 71 : 99%OBW(MHz)											
BW	5MHz		10MHz		15MHz		20MHz		5MHz	10MHz	15MHz	20MHz
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	64QAM	64QAM	64QAM	64QAM
Lowest CH	4.50	4.51	9.07	9.07	13.43	13.46	18.46	18.26	4.49	9.01	13.40	18.34
Middle CH	4.51	4.51	9.11	9.01	13.43	13.46	18.22	18.30	4.51	9.01	13.43	18.46
Highest CH	4.51	4.50	9.05	8.97	13.37	13.40	18.42	18.42	4.49	9.01	13.40	18.26



For CA

Mode	LTE Band 41 : 99%OBW(MHz)				
QPSK					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	23.03	23.53	28.05	23.28	28.53
Middle CH	23.18	23.43	28.23	23.48	28.53
Highest CH	23.18	23.58	28.23	23.43	28.77
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.66	23.38	27.93	32.80	37.72
Middle CH	32.94	23.28	28.05	32.87	37.80
Highest CH	32.87	23.08	28.17	32.73	37.80

Mode	LTE Band 41 : 99%OBW(MHz)				
16QAM					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	23.03	23.48	27.93	23.33	28.65
Middle CH	23.13	23.58	28.23	23.48	28.41
Highest CH	23.08	23.58	28.17	23.38	28.71
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	33.08	23.48	28.11	32.94	37.80
Middle CH	32.73	23.18	27.81	33.08	37.80
Highest CH	32.80	23.18	27.99	32.94	37.40

Mode	LTE Band 41 : 99%OBW(MHz)				
64QAM					
BW	5MHz+20MHz	10MHz+15MHz	10MHz+20MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	23.18	23.48	27.99	23.53	28.53
Middle CH	23.32	23.43	27.99	23.58	28.53
Highest CH	23.18	23.38	28.11	23.38	28.77
BW	15MHz+20MHz	20MHz+5MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.87	23.13	28.11	32.66	37.72
Middle CH	32.94	23.28	28.29	32.80	37.72
Highest CH	32.80	23.28	28.35	32.94	37.56



Mode	LTE Band 5 : 99%OBW(MHz)				
QPSK					
BW	5MHz+10MHz	10MHz+5MHz	10MHz+10MHz		
Lowest CH	14.45	14.42	19.26		
Middle CH	14.42	14.51	19.26		
Highest CH	14.15	14.48	19.22		

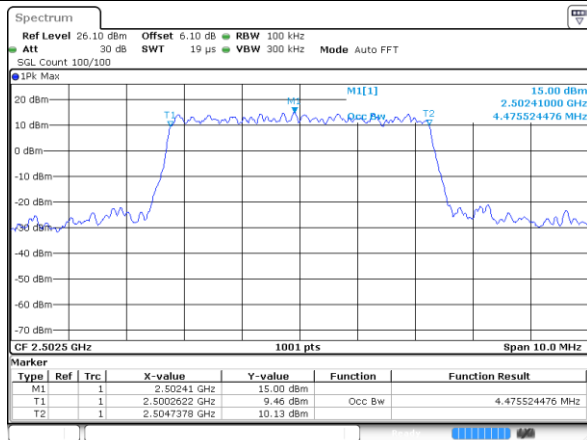
Mode	LTE Band 5 : 99%OBW(MHz)				
16QAM					
BW	5MHz+10MHz	10MHz+5MHz	10MHz+10MHz		
Lowest CH	14.48	14.51	19.06		
Middle CH	14.33	14.33	19.22		
Highest CH	14.51	14.42	18.98		

Mode	LTE Band 5 : 99%OBW(MHz)				
64QAM					
BW	5MHz+10MHz	10MHz+5MHz	10MHz+10MHz		
Lowest CH	14.36	14.36	19.30		
Middle CH	14.27	14.48	19.26		
Highest CH	14.42	14.30	19.30		

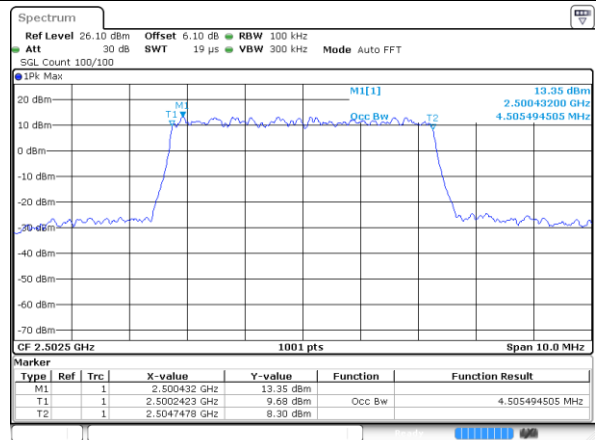


LTE Band 7

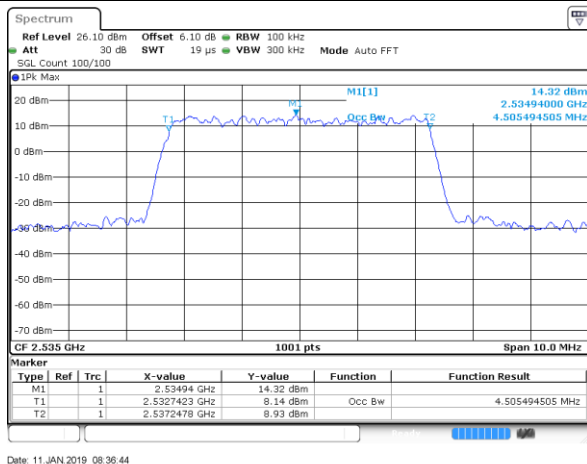
Lowest Channel / 5MHz / QPSK



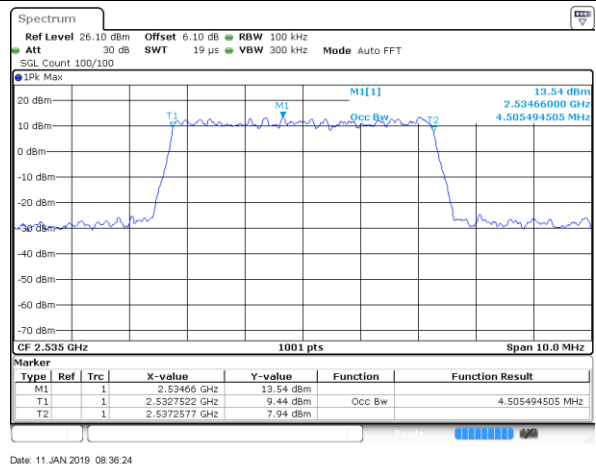
Lowest Channel / 5MHz / 16QAM



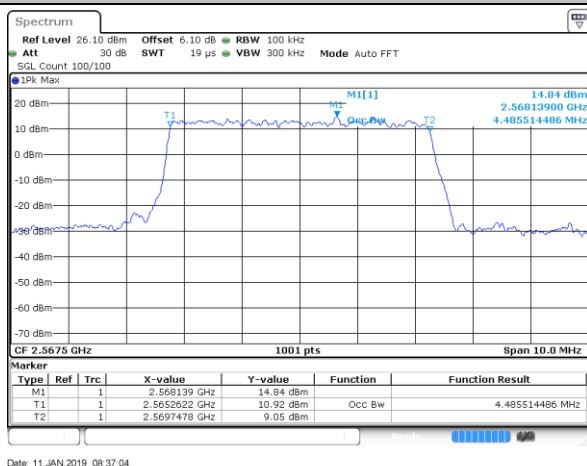
Middle Channel / 5MHz / QPSK



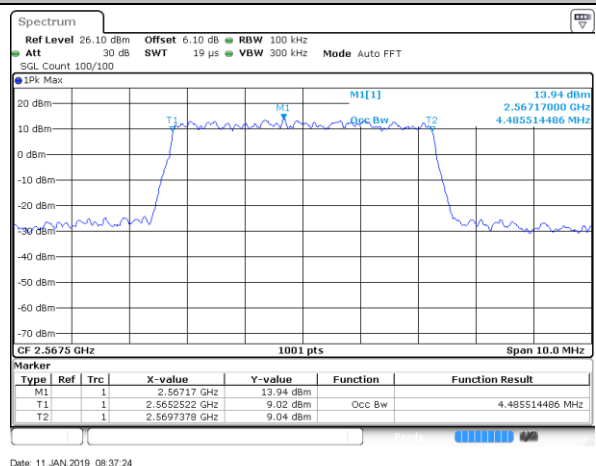
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



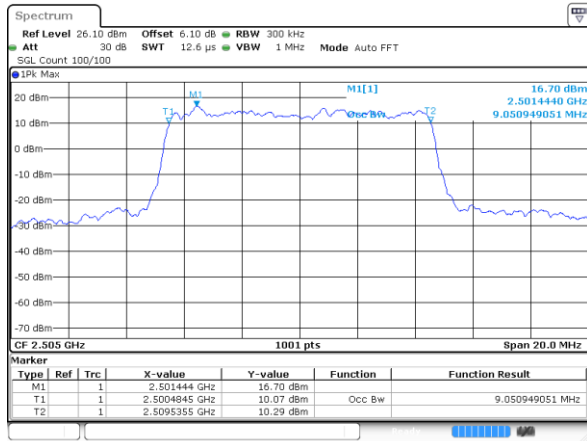
Highest Channel / 5MHz / 16QAM



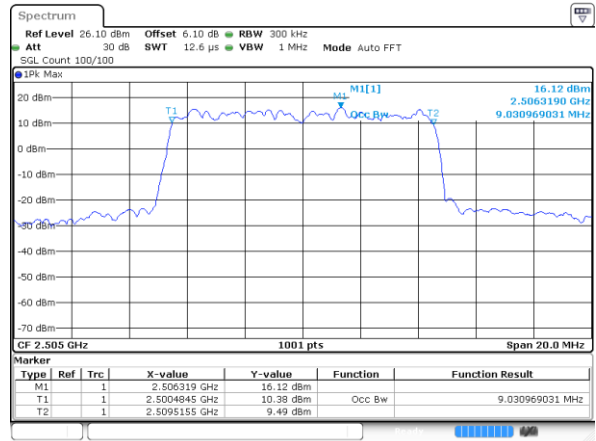


LTE Band 7

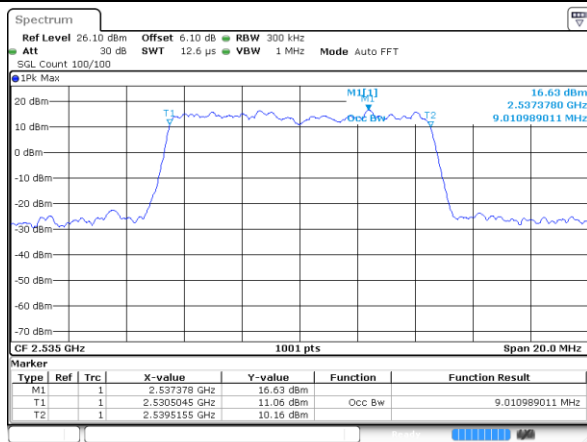
Lowest Channel / 10MHz / QPSK



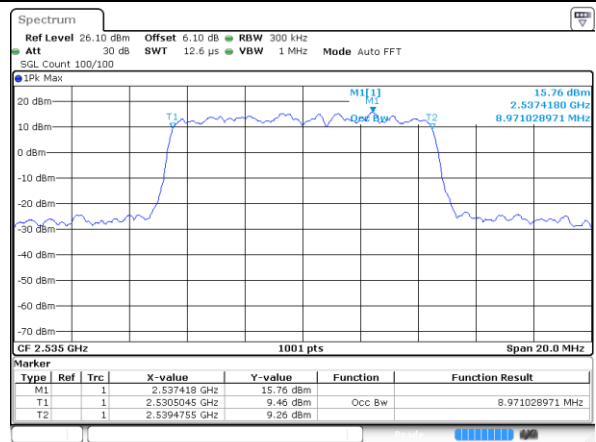
Lowest Channel / 10MHz / 16QAM



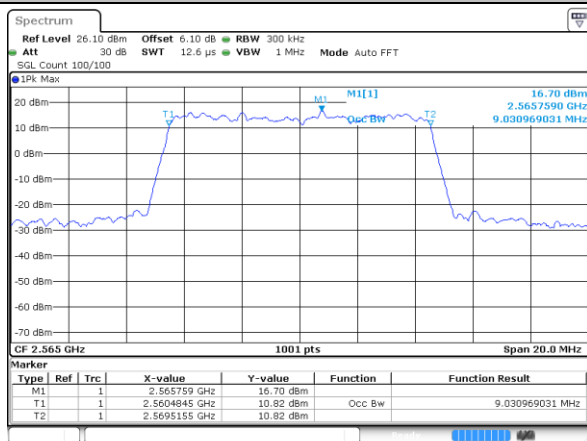
Middle Channel / 10MHz / QPSK



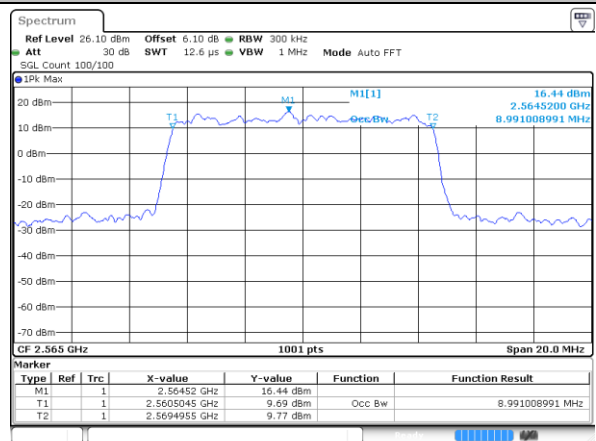
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



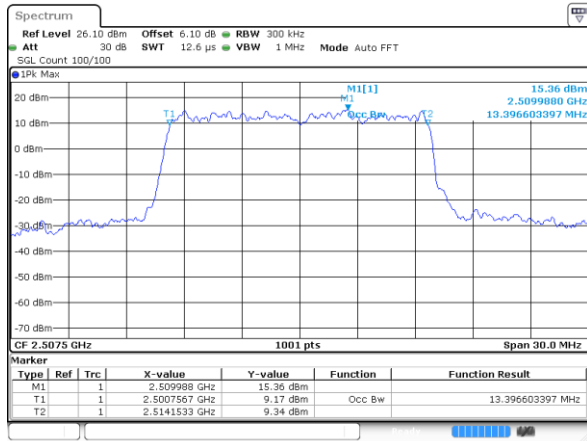
Highest Channel / 10MHz / 16QAM



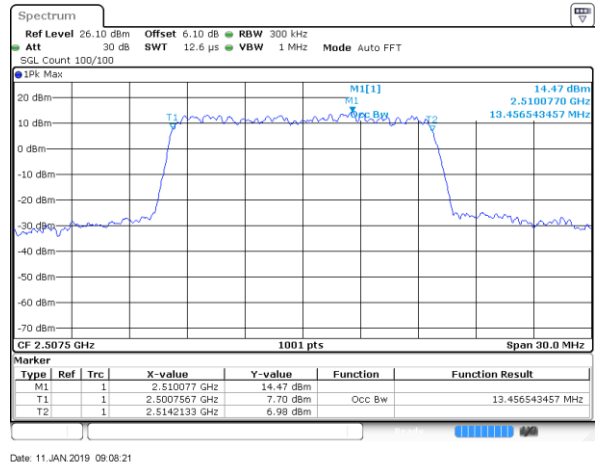


LTE Band 7

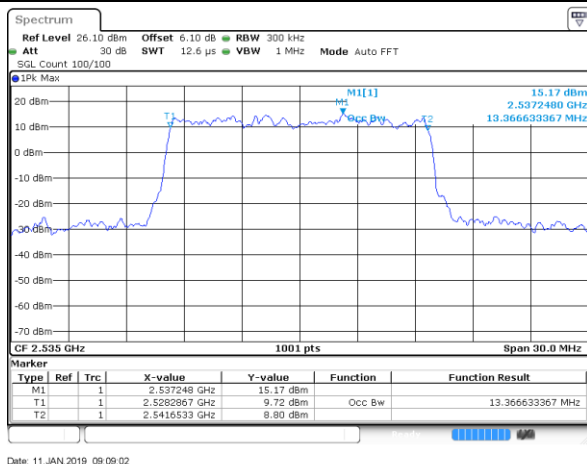
Lowest Channel / 15MHz / QPSK



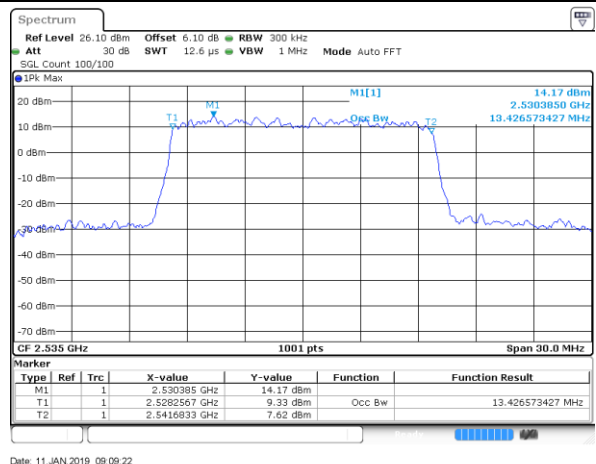
Lowest Channel / 15MHz / 16QAM



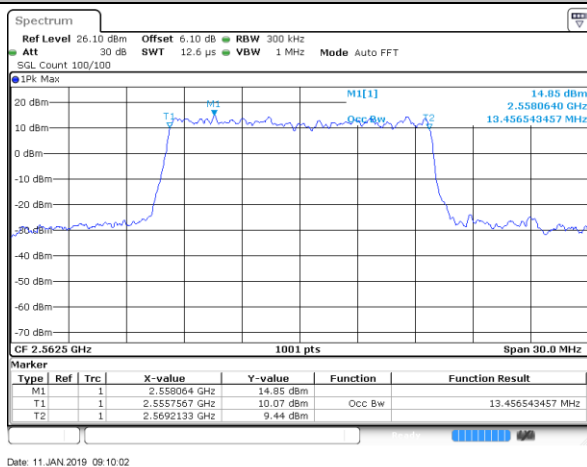
Middle Channel / 15MHz / QPSK



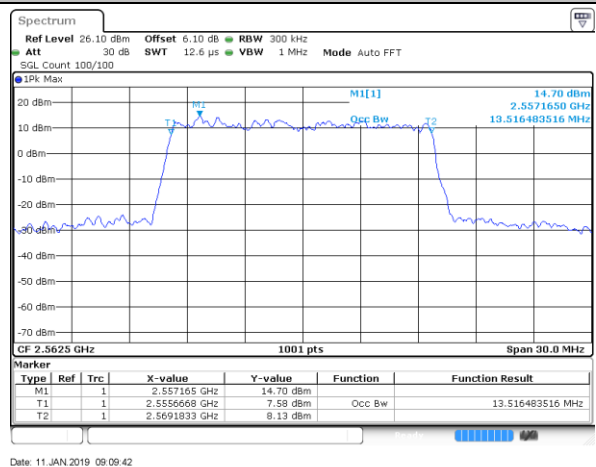
Middle Channel / 15MHz / 16QAM



Highest Channel / 15MHz / QPSK



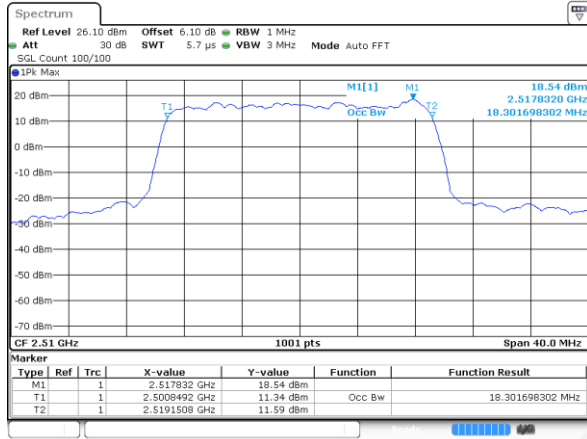
Highest Channel / 15MHz / 16QAM



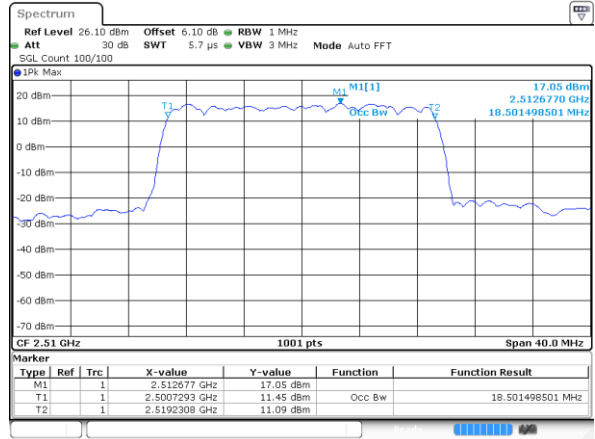


LTE Band 7

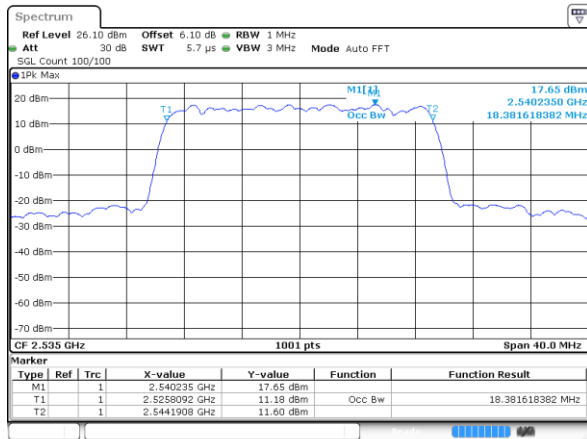
Lowest Channel / 20MHz / QPSK



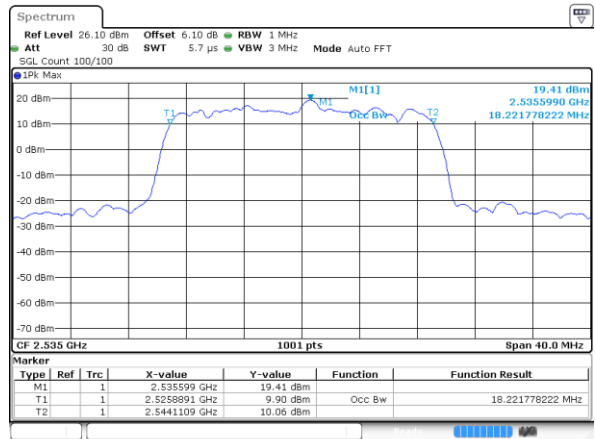
Lowest Channel / 20MHz / 16QAM



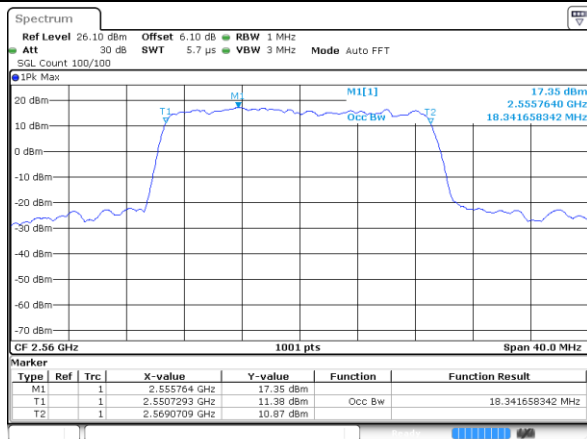
Middle Channel / 20MHz / QPSK



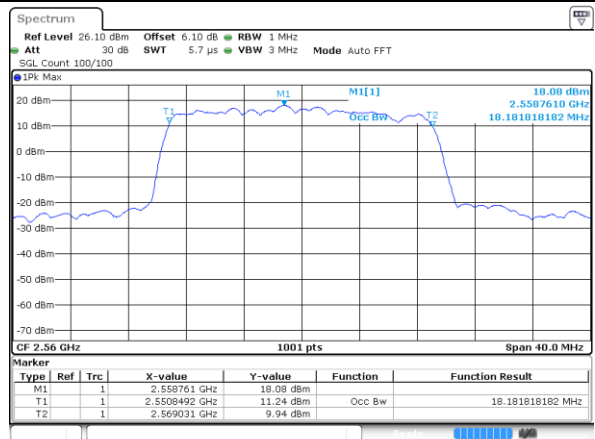
Middle Channel / 20MHz / 16QAM



Highest Channel / 20MHz / QPSK



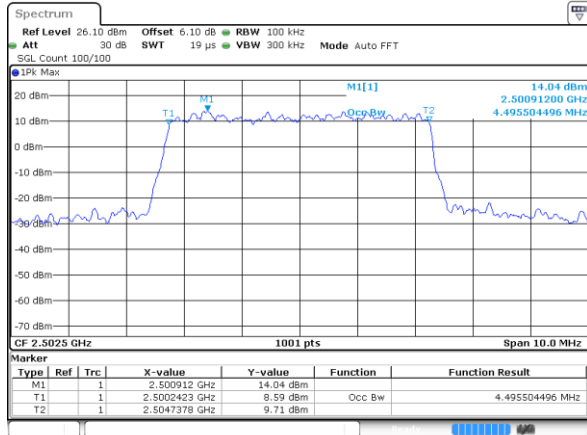
Highest Channel / 20MHz / 16QAM



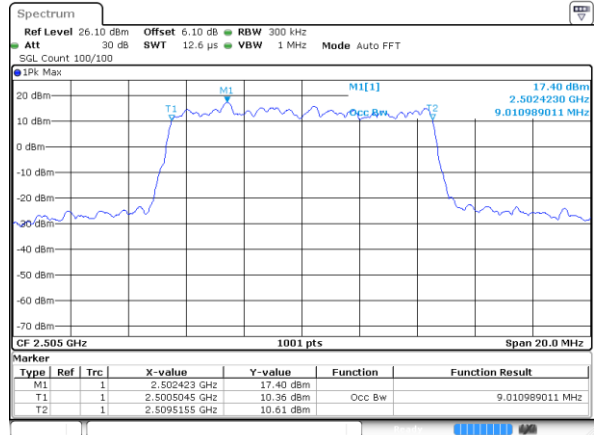


LTE Band 7

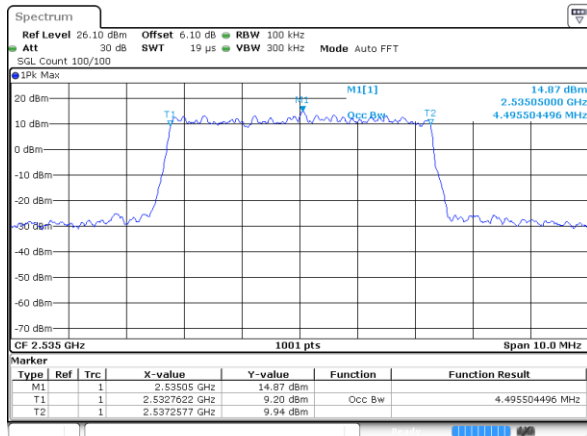
Lowest Channel / 5MHz / 64QAM



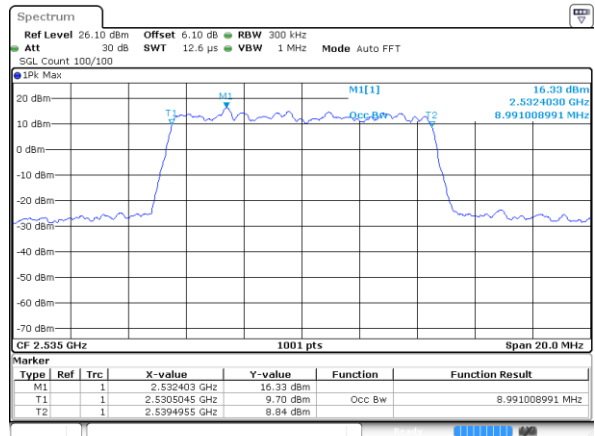
Lowest Channel / 10MHz / 64QAM



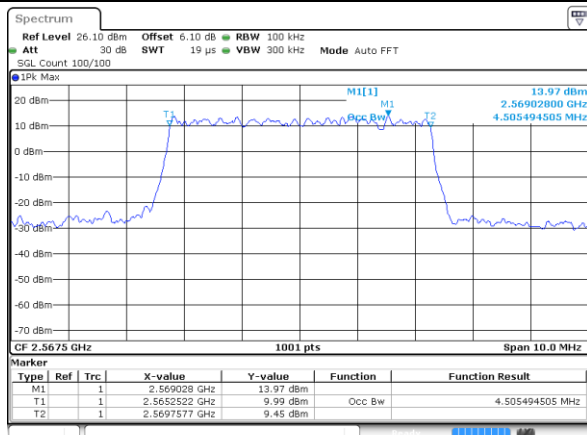
Middle Channel / 5MHz / 64QAM



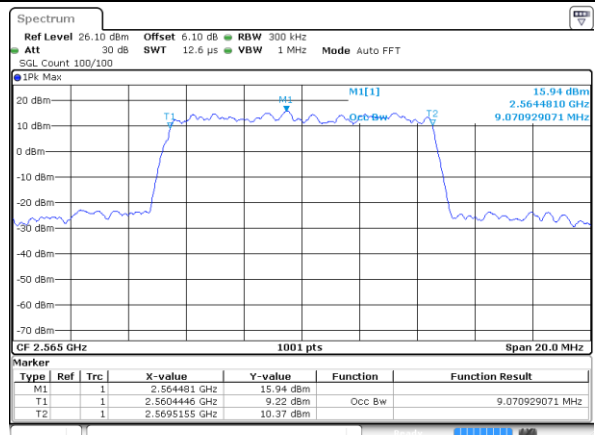
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



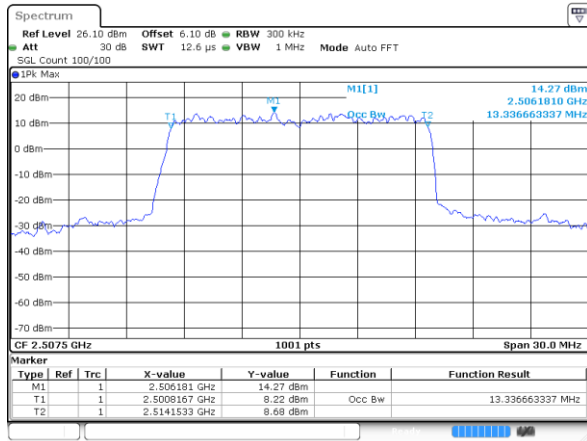
Highest Channel / 10MHz / 64QAM





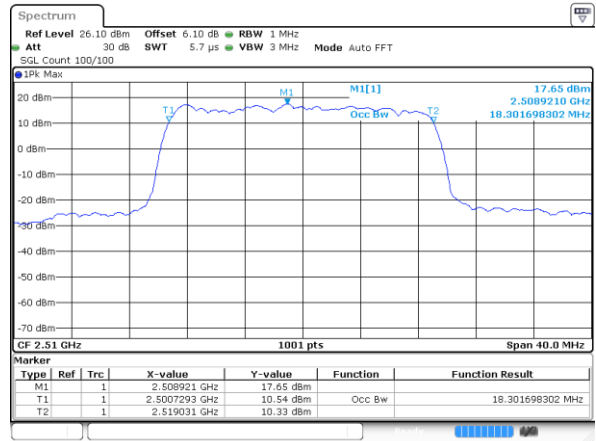
LTE Band 7

Lowest Channel / 15MHz / 64QAM



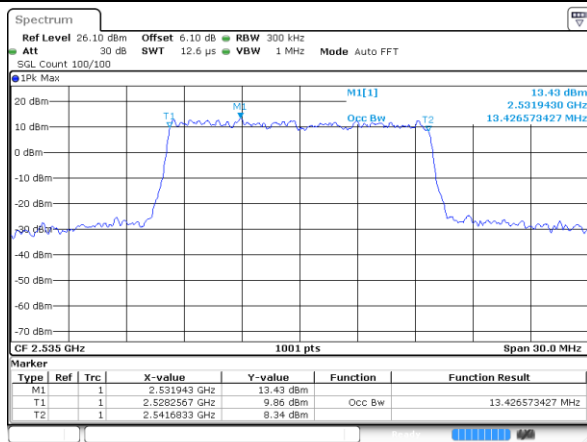
Date: 11 JAN 2019 09:56:30

Lowest Channel / 20MHz / 64QAM



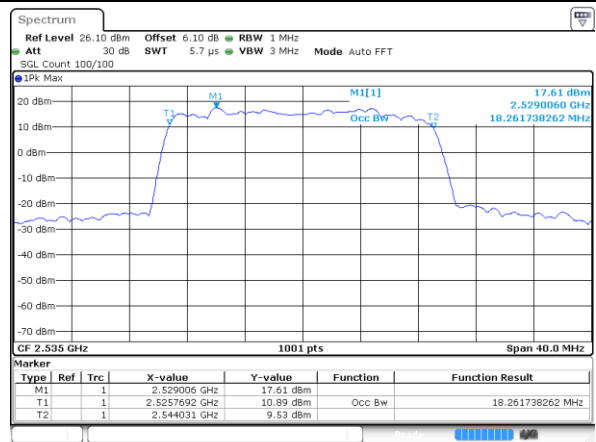
Date: 11 JAN 2019 10:02:25

Middle Channel / 15MHz / 64QAM



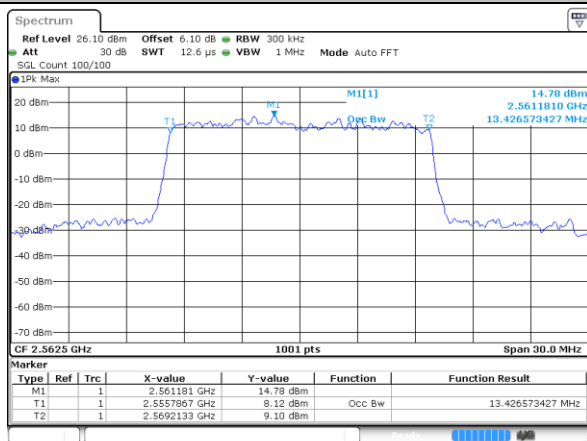
Date: 11 JAN 2019 09:56:41

Middle Channel / 20MHz / 64QAM



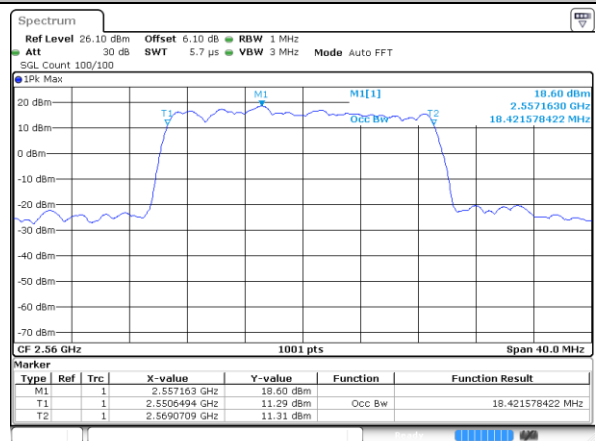
Date: 11 JAN 2019 10:02:35

Highest Channel / 15MHz / 64QAM



Date: 11 JAN 2019 09:56:51

Highest Channel / 20MHz / 64QAM

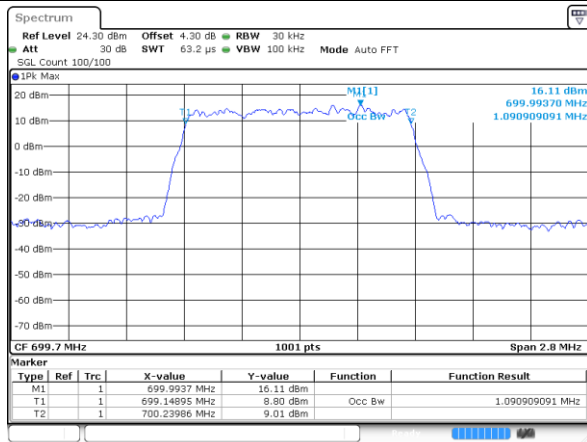


Date: 11 JAN 2019 10:02:46

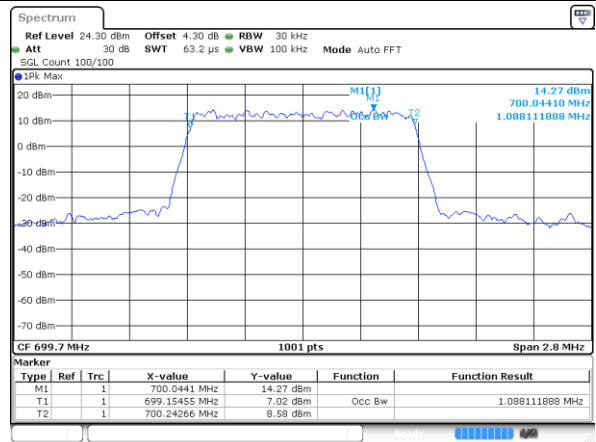


LTE Band 12

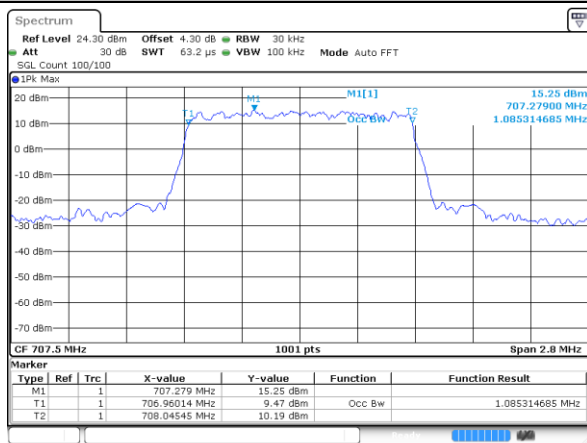
Lowest Channel / 1.4MHz / QPSK



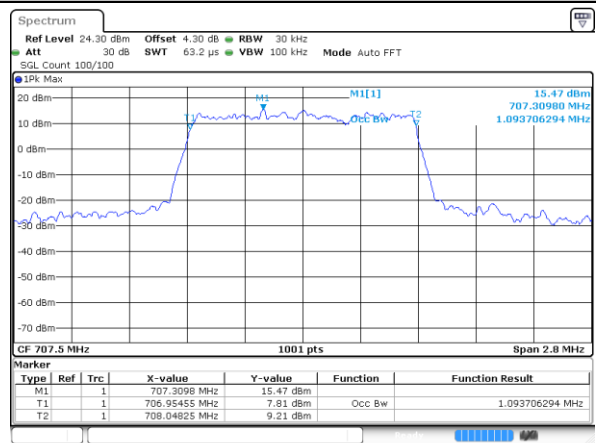
Lowest Channel / 1.4MHz / 16QAM



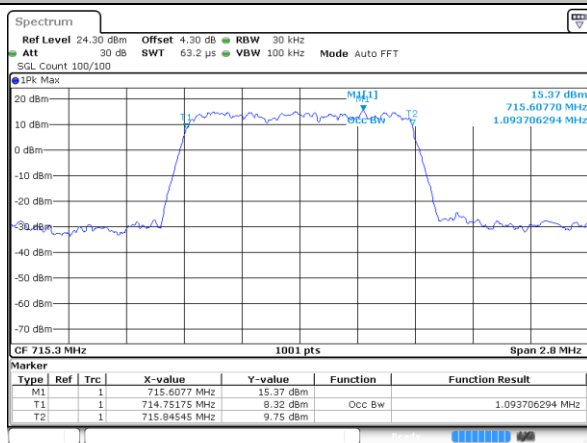
Middle Channel / 1.4MHz / QPSK



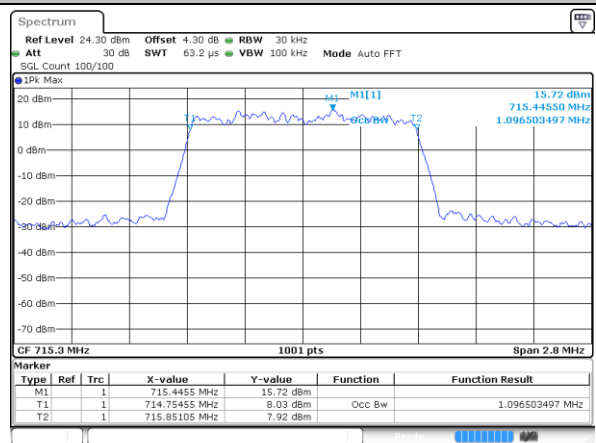
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



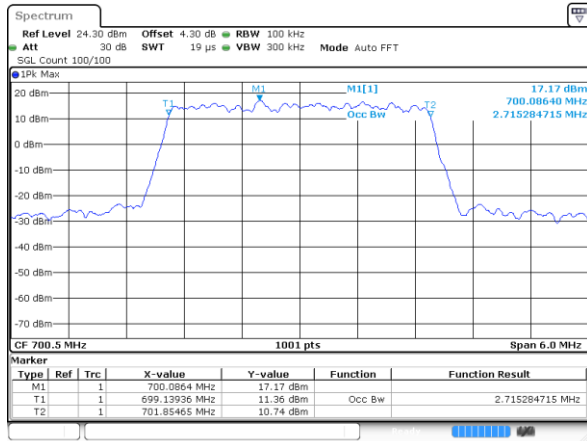
Highest Channel / 1.4MHz / 16QAM



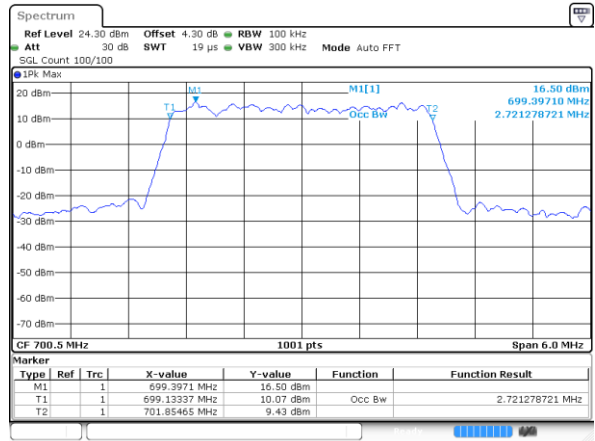


LTE Band 12

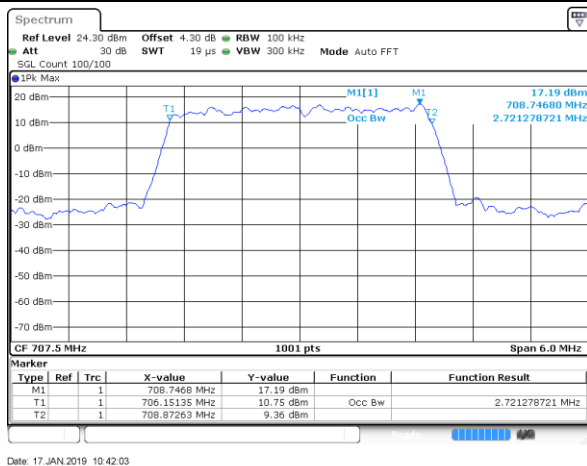
Lowest Channel / 3MHz / QPSK



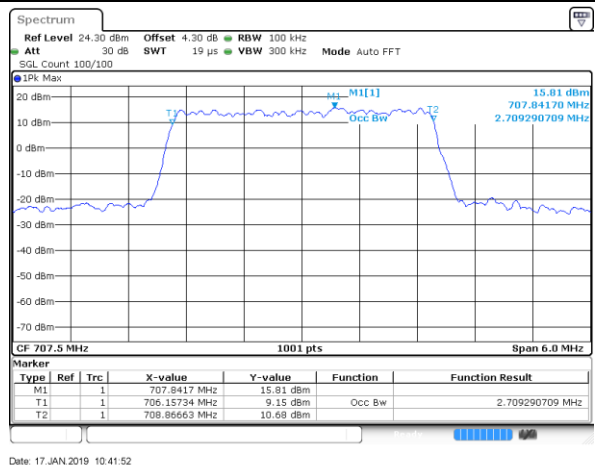
Lowest Channel / 3MHz / 16QAM



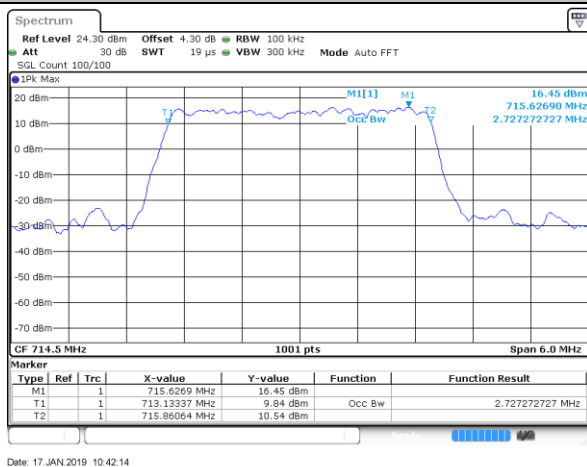
Middle Channel / 3MHz / QPSK



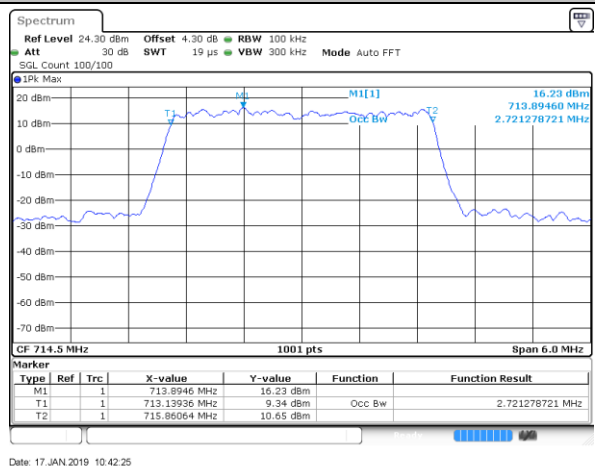
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



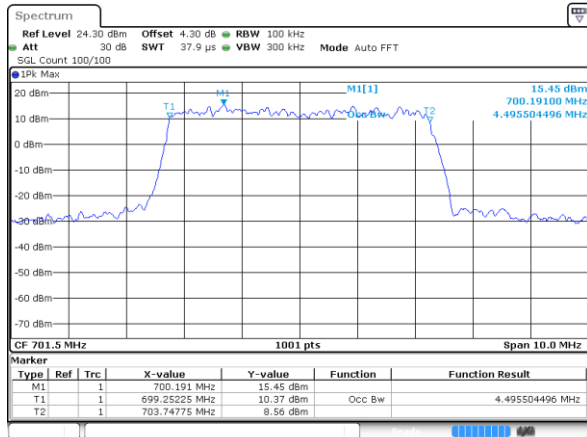
Highest Channel / 3MHz / 16QAM





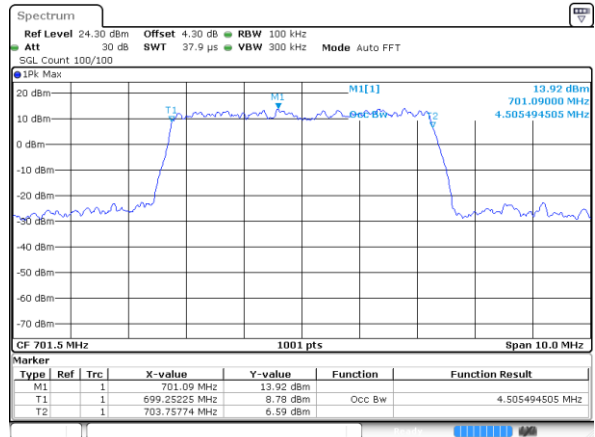
LTE Band 12

Lowest Channel / 5MHz / QPSK



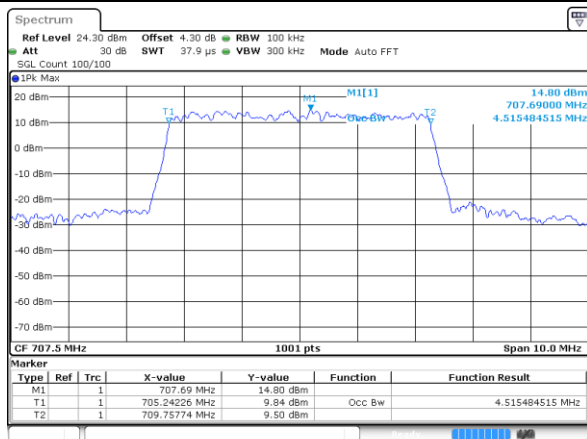
Date: 17 JAN 2019 10:58:35

Lowest Channel / 5MHz / 16QAM



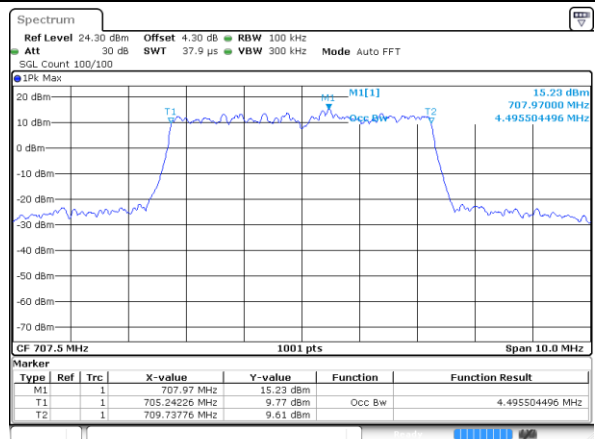
Date: 17 JAN 2019 10:58:46

Middle Channel / 5MHz / QPSK



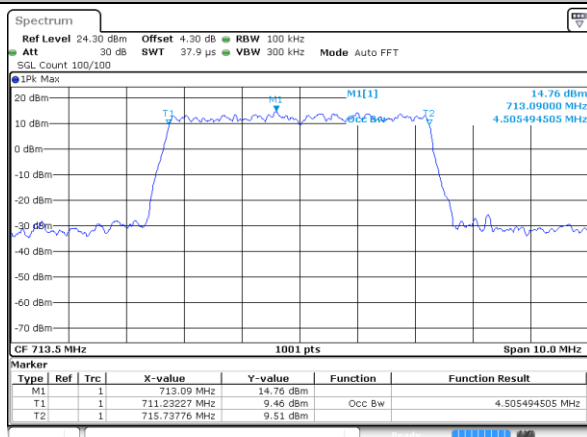
Date: 17 JAN 2019 10:59:08

Middle Channel / 5MHz / 16QAM



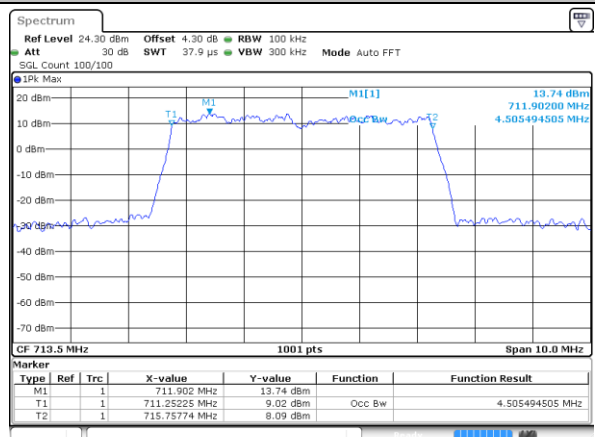
Date: 17 JAN 2019 10:59:57

Highest Channel / 5MHz / QPSK



Date: 17 JAN 2019 10:59:19

Highest Channel / 5MHz / 16QAM

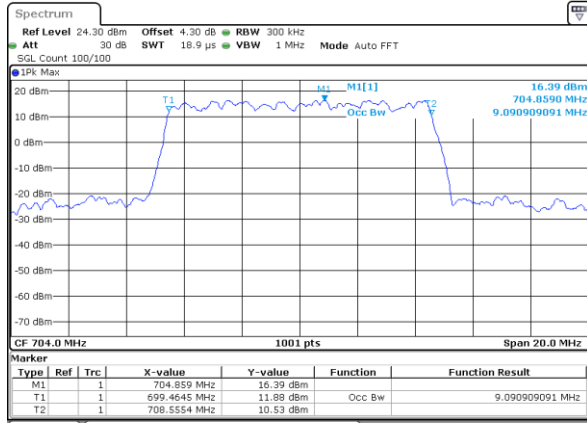


Date: 17 JAN 2019 10:59:30



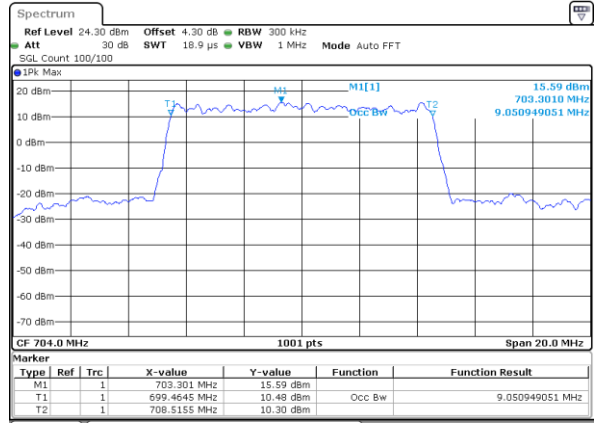
LTE Band 12

Lowest Channel / 10MHz / QPSK



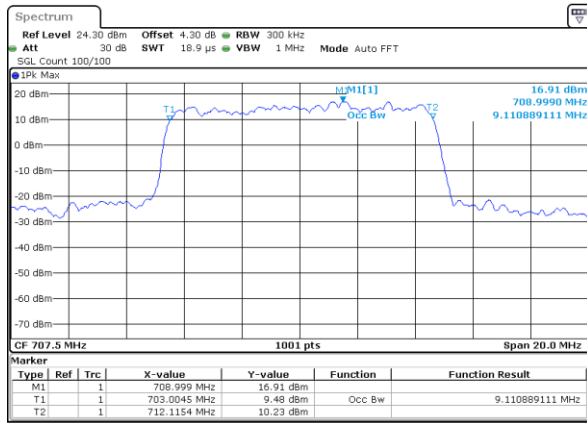
Date: 17 JAN 2019 11:23:14

Lowest Channel / 10MHz / 16QAM



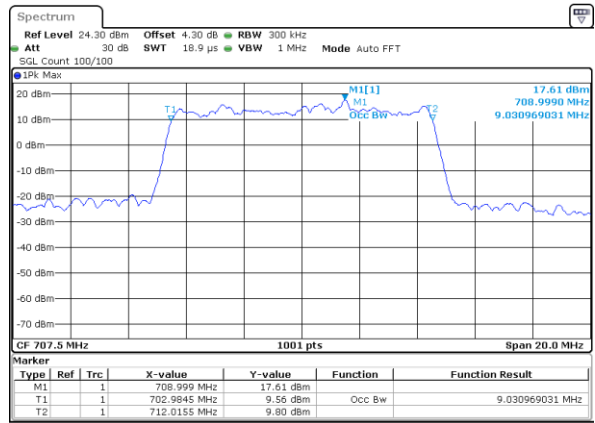
Date: 17 JAN 2019 11:23:25

Middle Channel / 10MHz / QPSK



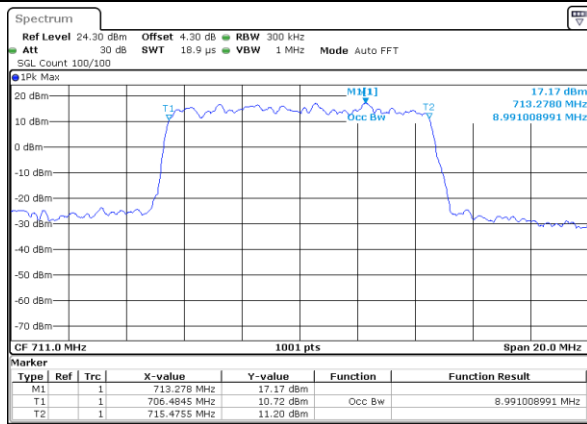
Date: 17 JAN 2019 11:23:47

Middle Channel / 10MHz / 16QAM



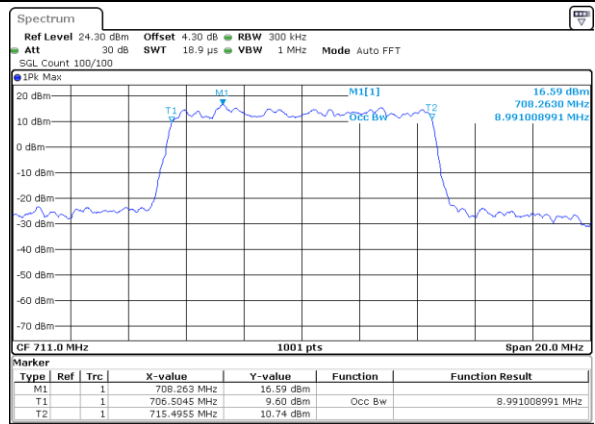
Date: 17 JAN 2019 11:23:36

Highest Channel / 10MHz / QPSK



Date: 17 JAN 2019 11:23:58

Highest Channel / 10MHz / 16QAM

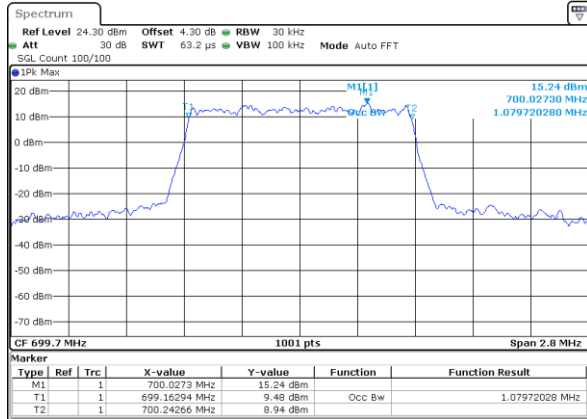


Date: 17 JAN 2019 11:24:09



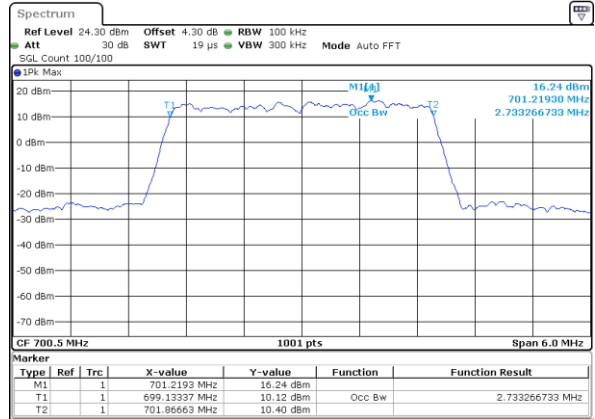
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



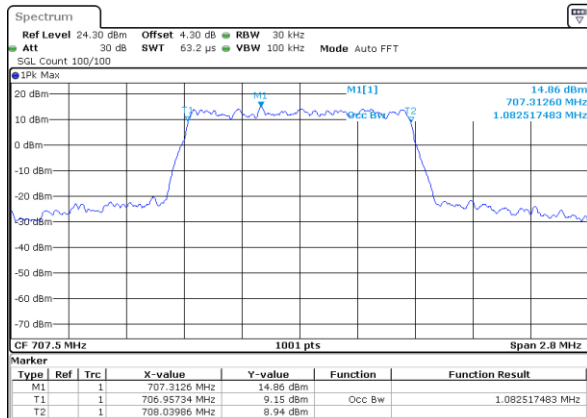
Date: 17 JAN 2019 11:50:45

Lowest Channel / 3MHz / 64QAM



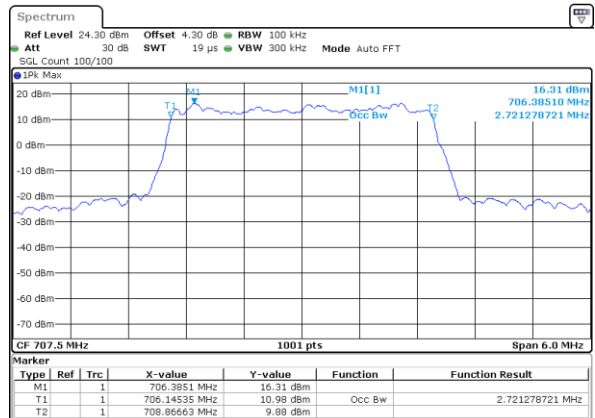
Date: 17 JAN 2019 11:54:07

Middle Channel / 1.4MHz / 64QAM



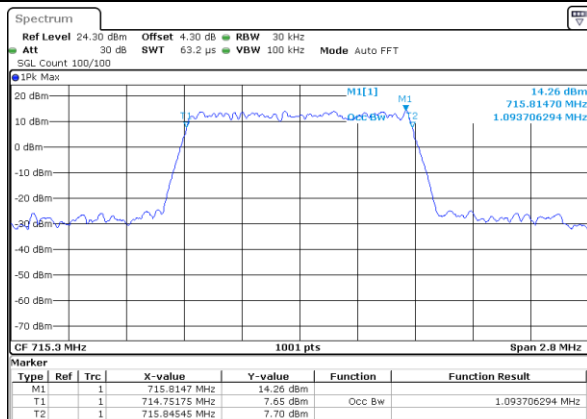
Date: 17 JAN 2019 11:52:03

Middle Channel / 3MHz / 64QAM



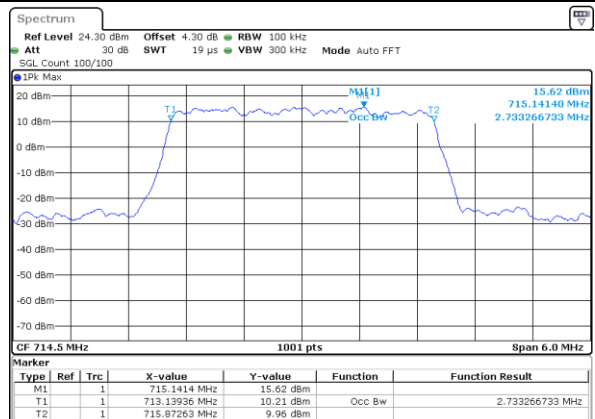
Date: 17 JAN 2019 11:54:29

Highest Channel / 1.4MHz / 64QAM



Date: 17 JAN 2019 11:53:45

Highest Channel / 3MHz / 64QAM

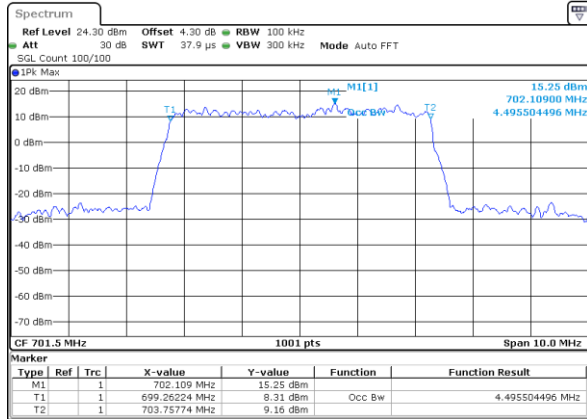


Date: 17 JAN 2019 11:54:51

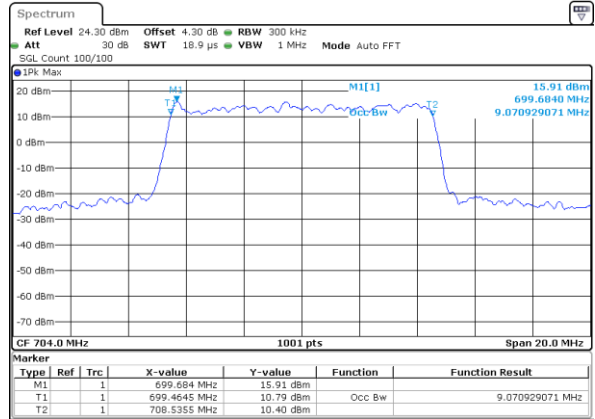


LTE Band 12

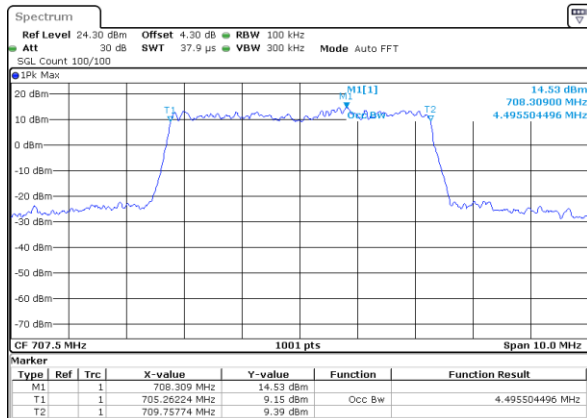
Lowest Channel / 5MHz / 64QAM



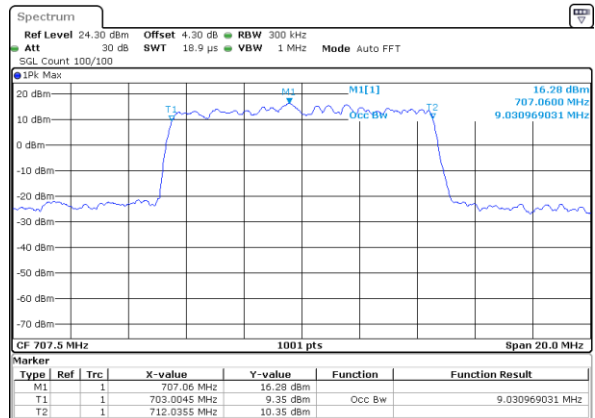
Lowest Channel / 10MHz / 64QAM



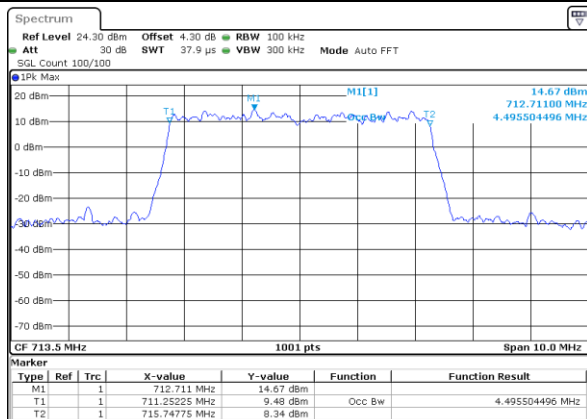
Middle Channel / 5MHz / 64QAM



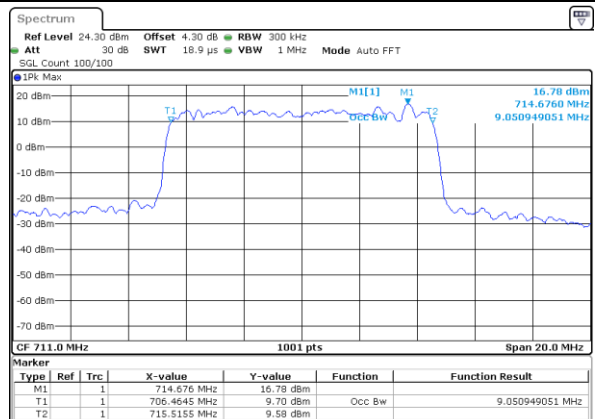
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



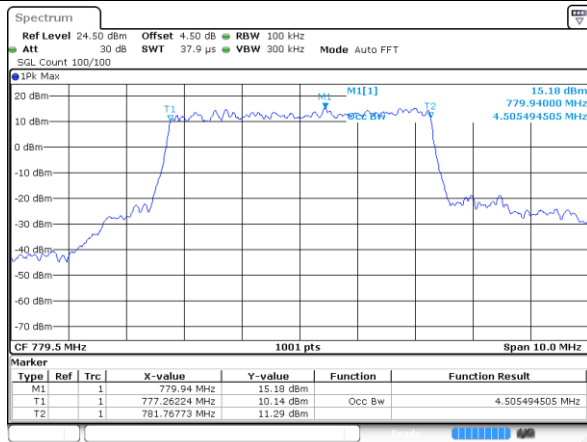
Highest Channel / 10MHz / 64QAM





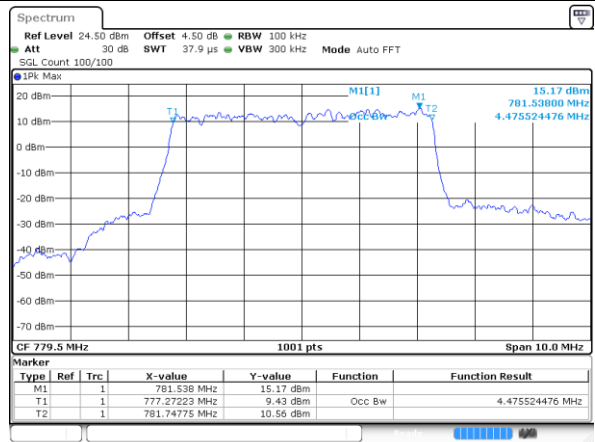
LTE Band 13

Lowest Channel / 5MHz / QPSK



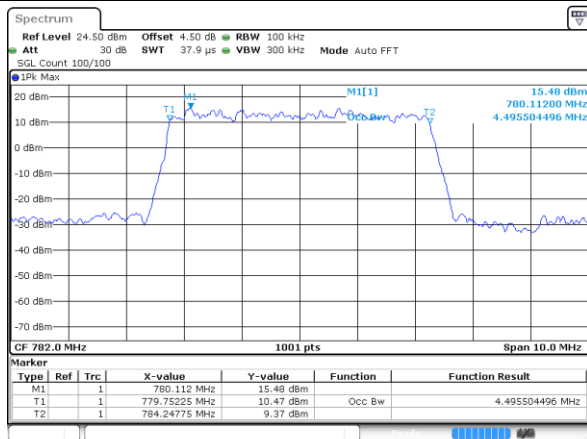
Date: 23 JAN 2019 18:29:15

Lowest Channel / 5MHz / 16QAM



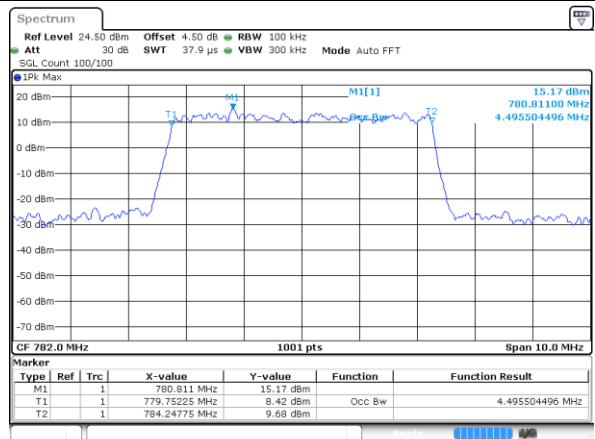
Date: 23 JAN 2019 18:34:36

Middle Channel / 5MHz / QPSK



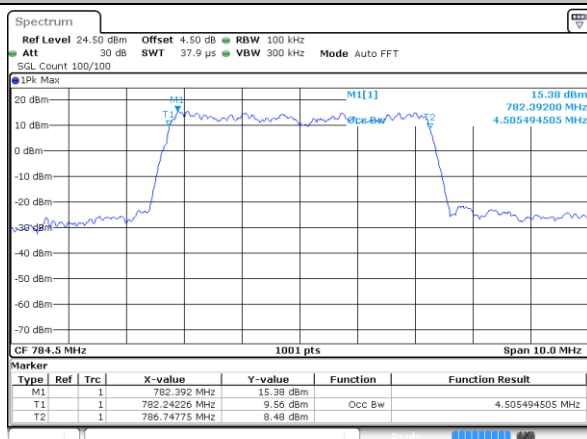
Date: 23 JAN 2019 19:16:35

Middle Channel / 5MHz / 16QAM



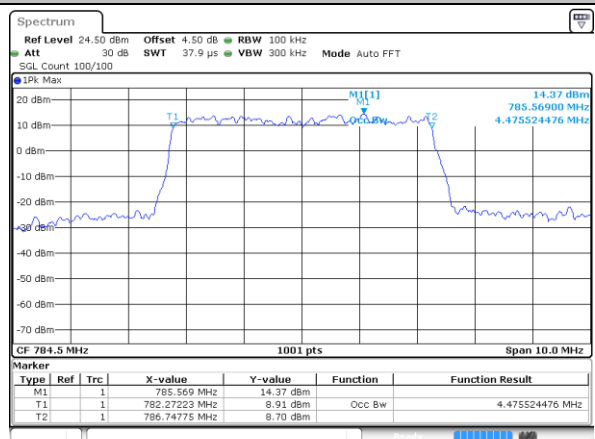
Date: 23 JAN 2019 19:15:50

Highest Channel / 5MHz / QPSK



Date: 23 JAN 2019 19:07:25

Highest Channel / 5MHz / 16QAM



Date: 23 JAN 2019 19:09:46