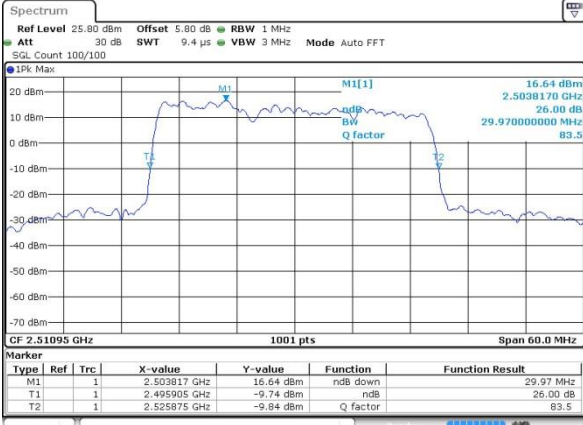




LTE Band 41

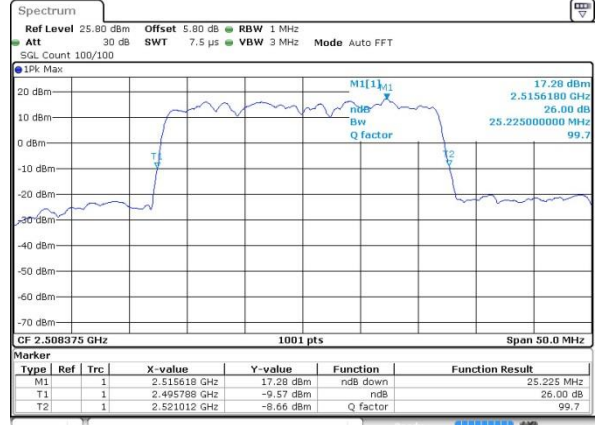
QPSK

Lowest Channel / 10MHz+20MHz



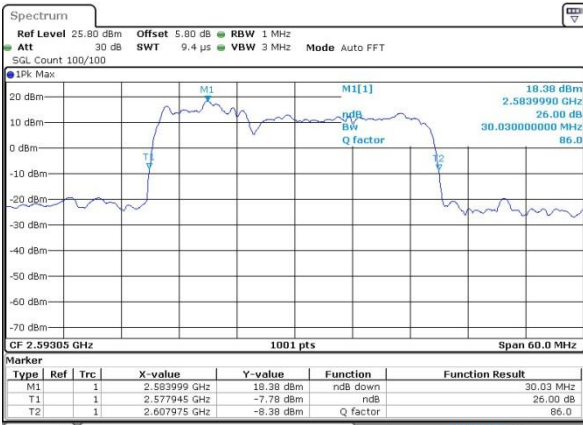
Date: 16.JAN.2019 16:56:23

Lowest Channel / 15MHz+10MHz



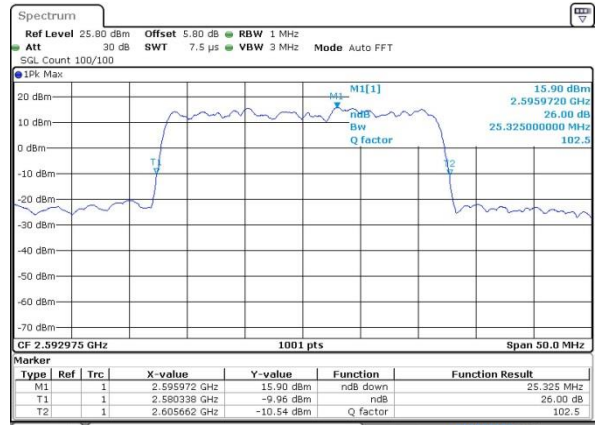
Date: 16.JAN.2019 16:05:30

Middle Channel / 10MHz+20MHz



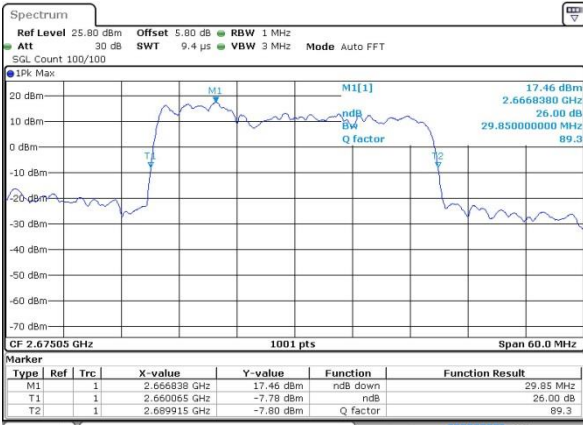
Date: 16.JAN.2019 16:57:22

Middle Channel / 15MHz+10MHz



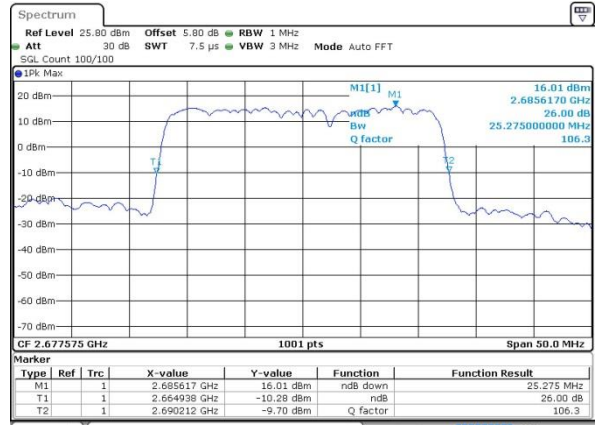
Date: 16.JAN.2019 16:13:08

Highest Channel / 10MHz+20MHz



Date: 16.JAN.2019 16:54:56

Highest Channel / 15MHz+10MHz



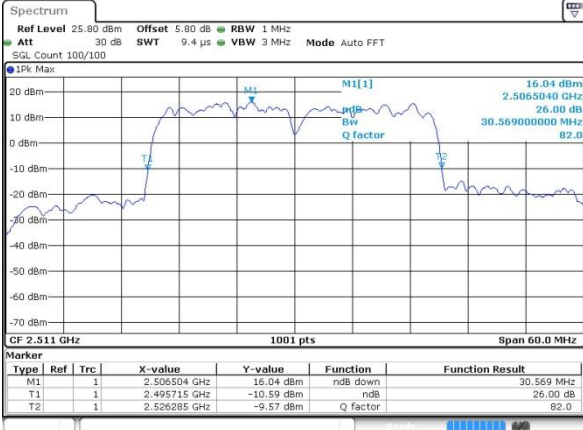
Date: 16.JAN.2019 16:14:03



LTE Band 41

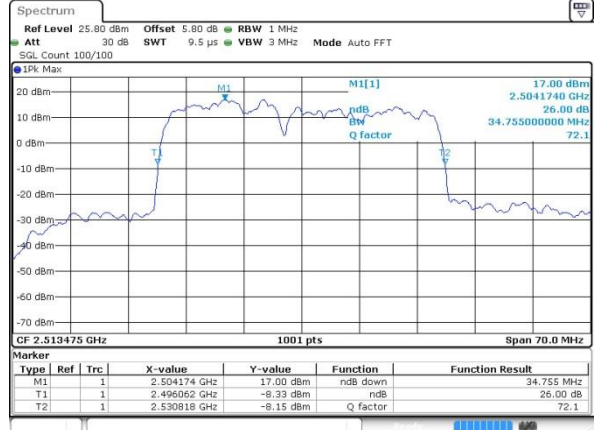
QPSK

Lowest Channel / 15MHz+15MHz



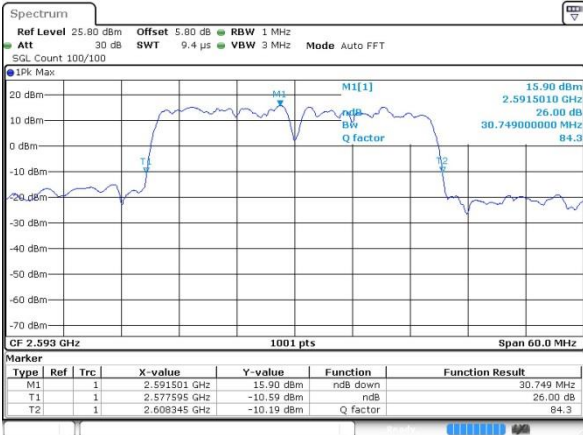
Date: 16.JAN.2019 18:32:51

Lowest Channel / 15MHz+20MHz



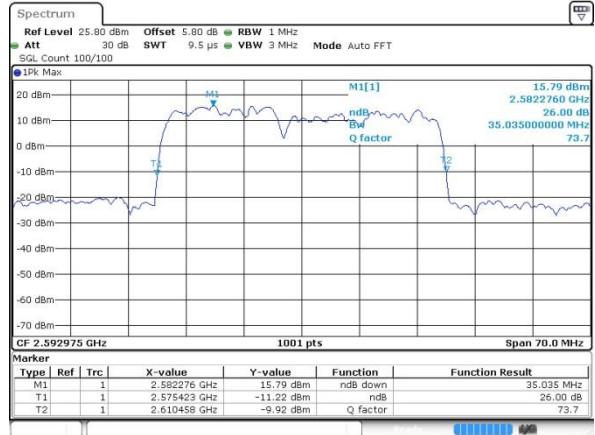
Date: 16.JAN.2019 18:35:08

Middle Channel / 15MHz+15MHz



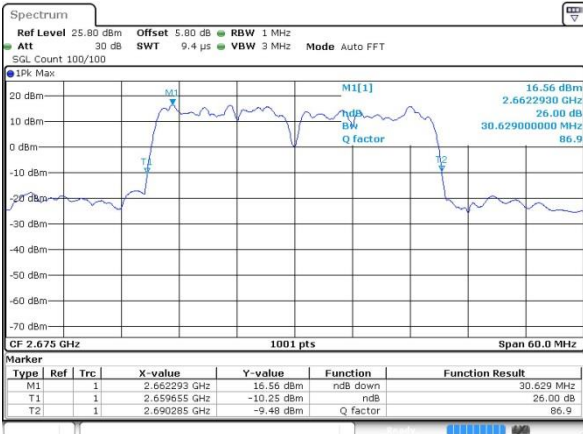
Date: 16.JAN.2019 18:29:01

Middle Channel / 15MHz+20MHz



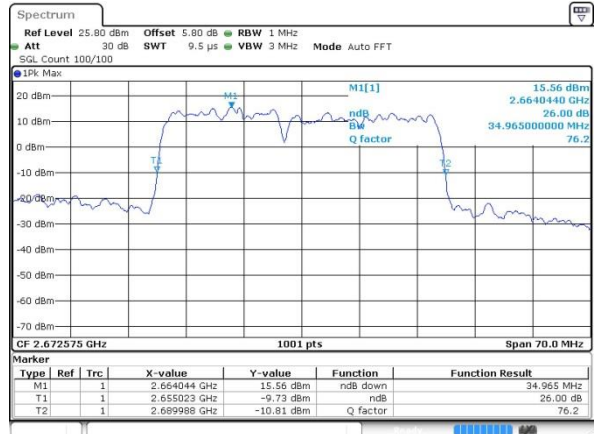
Date: 16.JAN.2019 18:38:05

Highest Channel / 15MHz+15MHz



Date: 16.JAN.2019 18:27:52

Highest Channel / 15MHz+20MHz



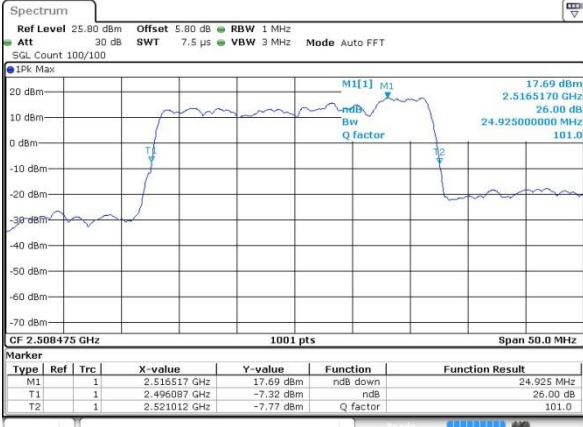
Date: 16.JAN.2019 18:39:21



LTE Band 41

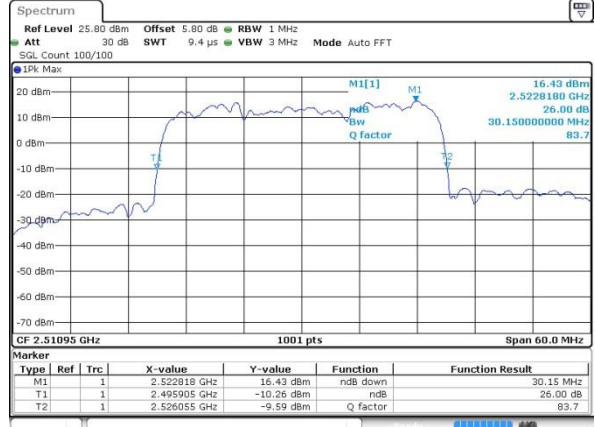
QPSK

Lowest Channel / 20MHz+5MHz



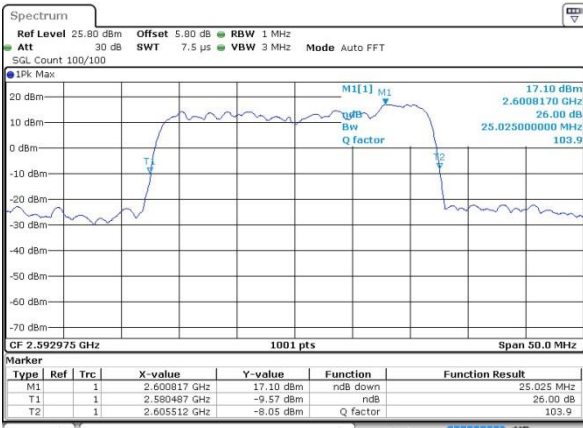
Date: 16.JAN.2019 15:11:31

Lowest Channel / 20MHz+10MHz



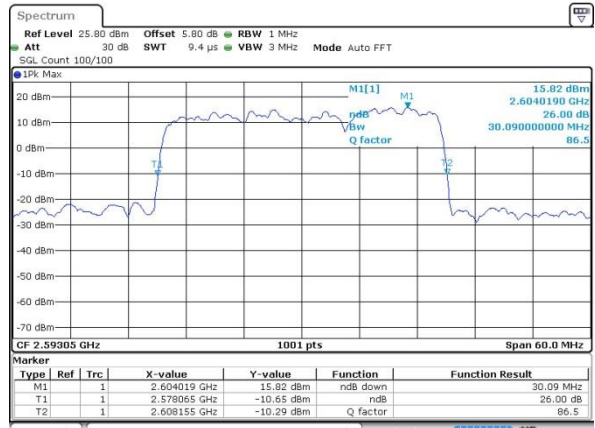
Date: 16.JAN.2019 17:37:49

Middle Channel / 20MHz+5MHz



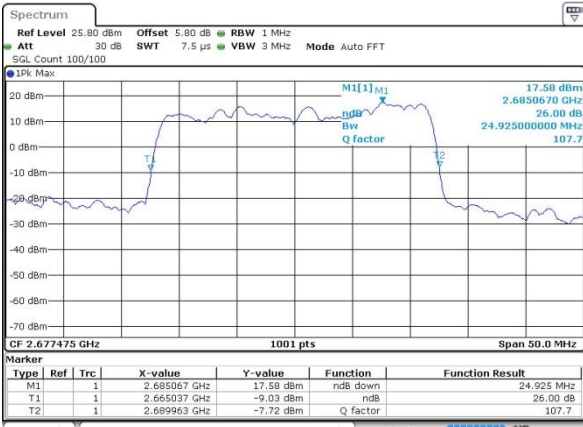
Date: 16.JAN.2019 15:14:14

Middle Channel / 20MHz+10MHz



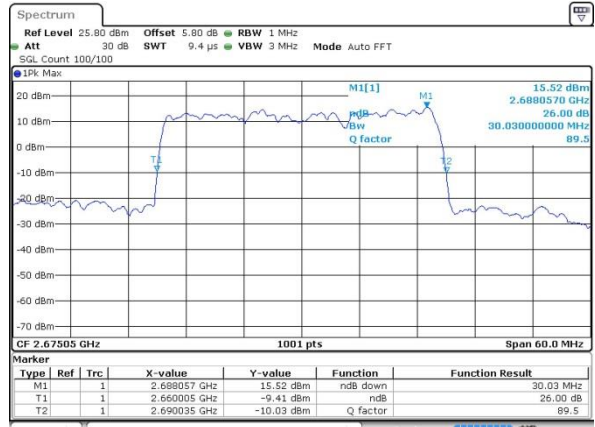
Date: 16.JAN.2019 17:38:56

Highest Channel / 20MHz+5MHz



Date: 16.JAN.2019 15:14:53

Highest Channel / 20MHz+10MHz



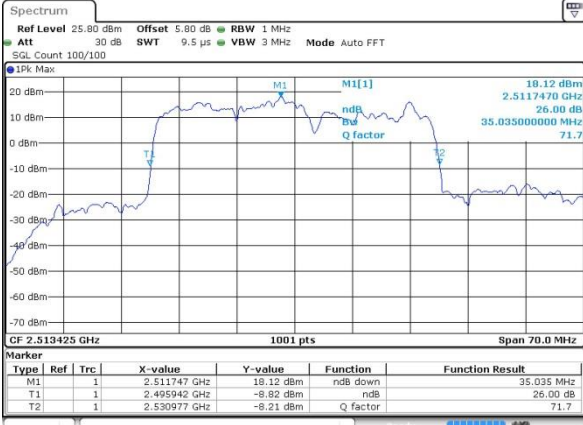
Date: 16.JAN.2019 17:41:52



LTE Band 41

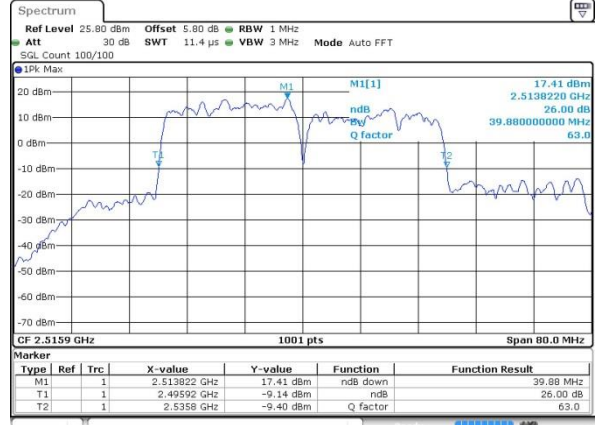
QPSK

Lowest Channel / 20MHz+15MHz



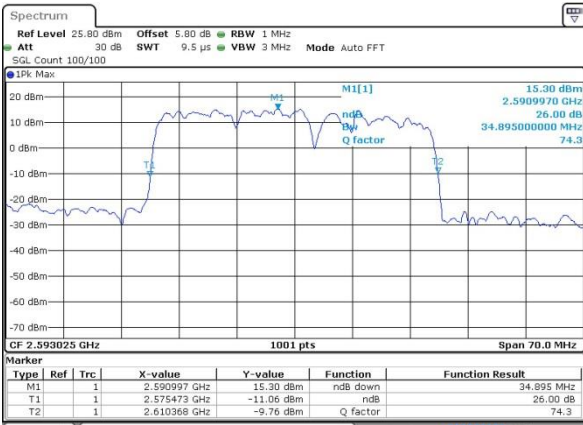
Date: 17.JAN.2019 08:17:03

Lowest Channel / 20MHz+20MHz



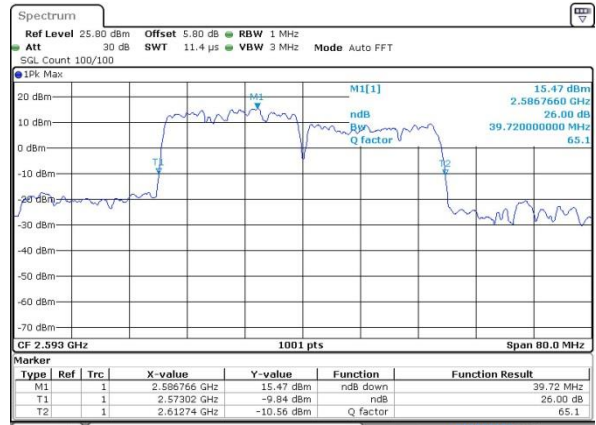
Date: 17.JAN.2019 08:41:51

Middle Channel / 20MHz+15MHz



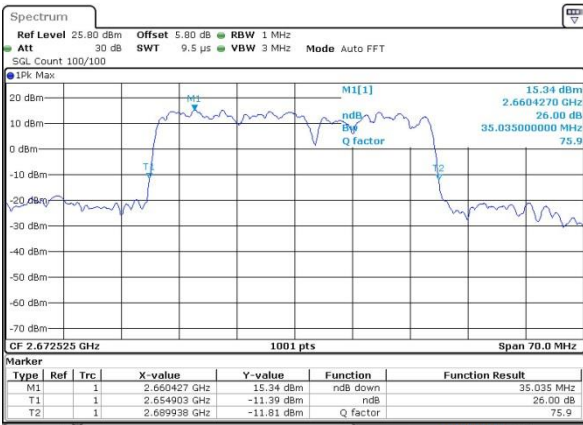
Date: 17.JAN.2019 08:20:10

Middle Channel / 20MHz+20MHz



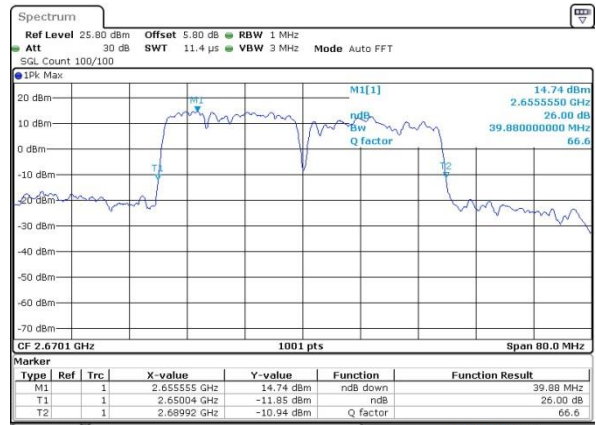
Date: 17.JAN.2019 08:45:28

Highest Channel / 20MHz+15MHz



Date: 17.JAN.2019 08:21:11

Highest Channel / 20MHz+20MHz



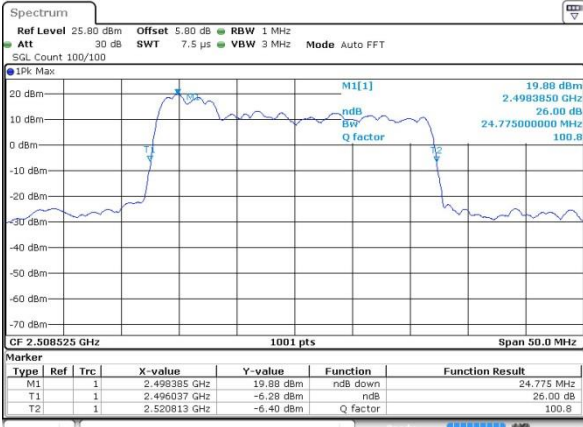
Date: 17.JAN.2019 08:46:23



LTE Band 41

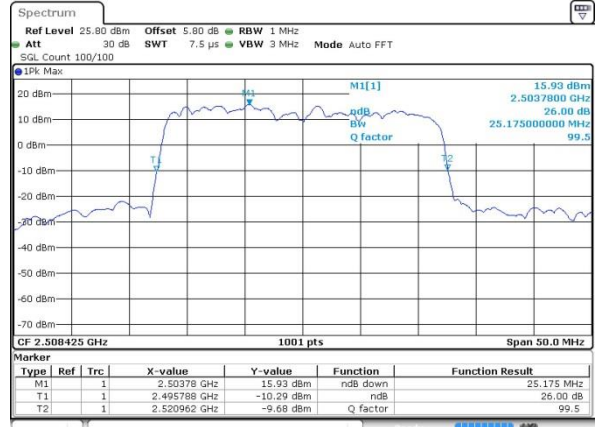
16QAM

Lowest Channel / 5MHz+20MHz



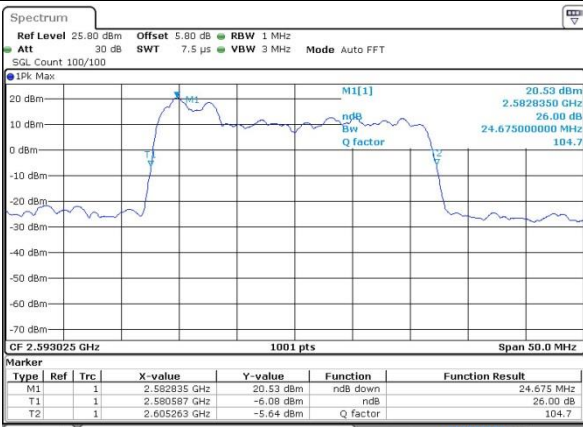
Date: 16.JAN.2019 14:10:35

Lowest Channel / 10MHz+15MHz



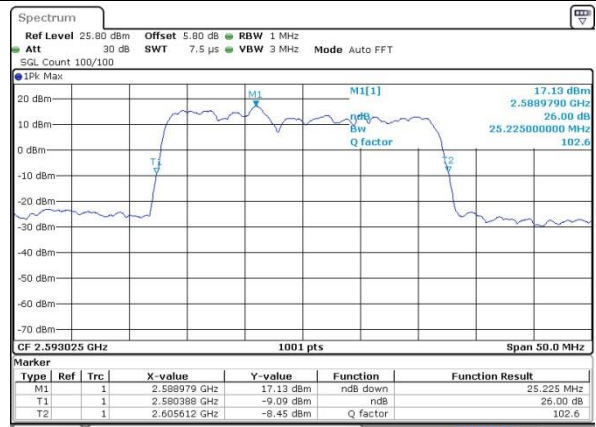
Date: 16.JAN.2019 16:03:59

Middle Channel / 5MHz+20MHz



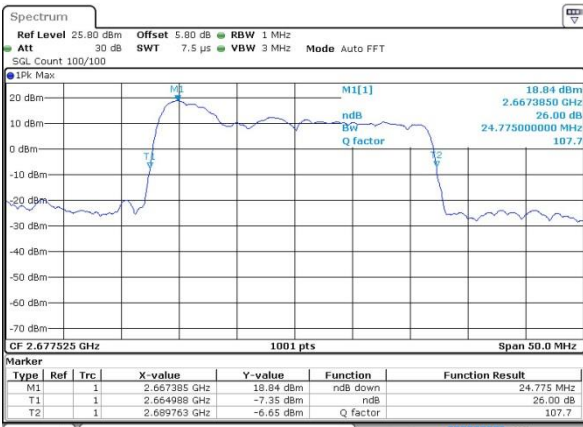
Date: 16.JAN.2019 14:40:02

Middle Channel / 10MHz+15MHz



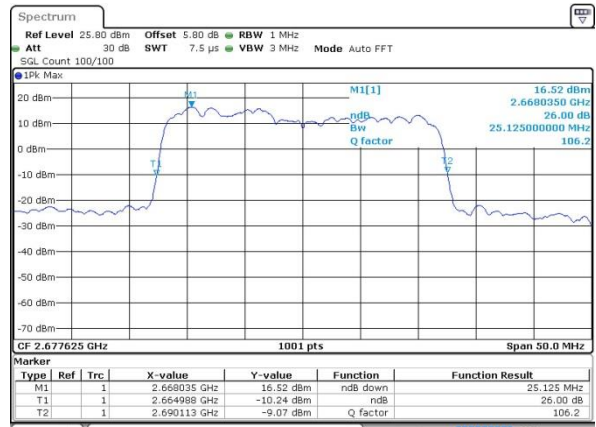
Date: 16.JAN.2019 16:02:16

Highest Channel / 5MHz+20MHz



Date: 16.JAN.2019 15:09:59

Highest Channel / 10MHz+15MHz



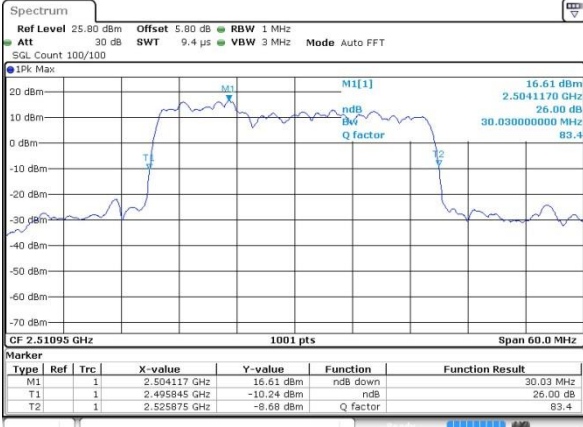
Date: 16.JAN.2019 16:00:37



LTE Band 41

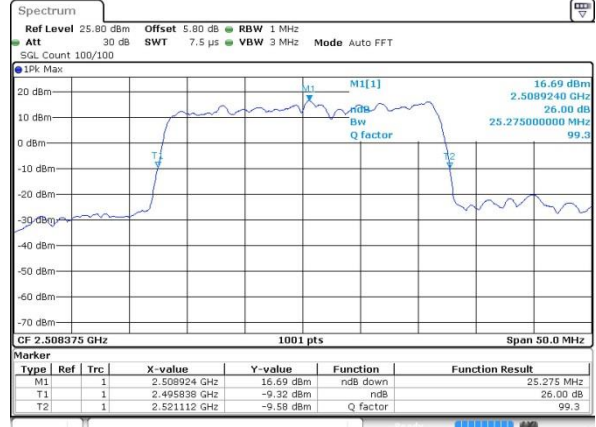
16QAM

Lowest Channel / 10MHz+20MHz



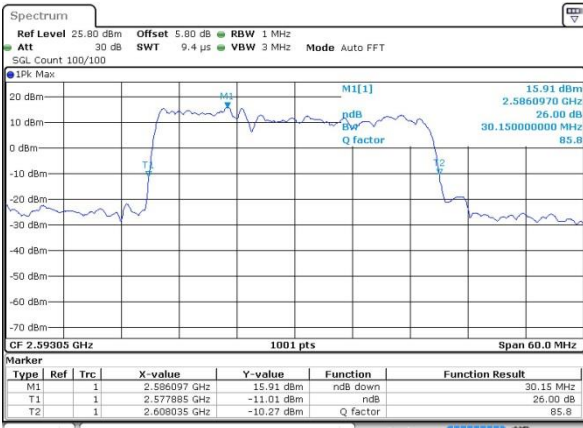
Date: 16.JAN.2019 16:56:48

Lowest Channel / 15MHz+10MHz



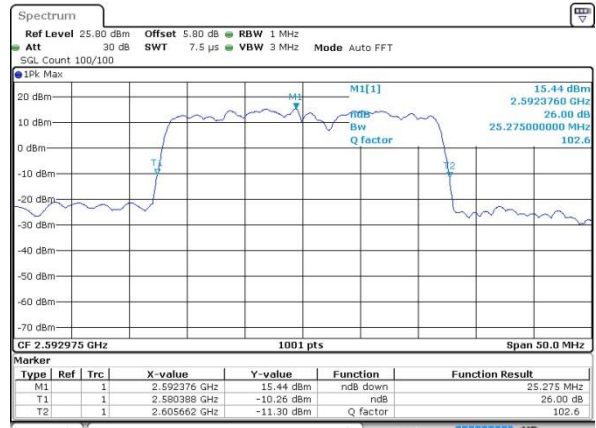
Date: 16.JAN.2019 16:09:15

Middle Channel / 10MHz+20MHz



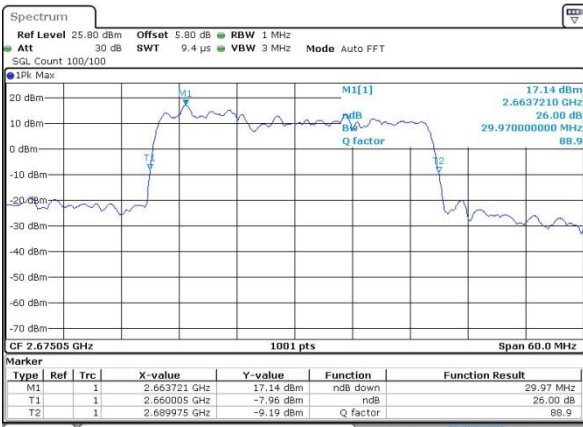
Date: 16.JAN.2019 16:56:58

Middle Channel / 15MHz+10MHz



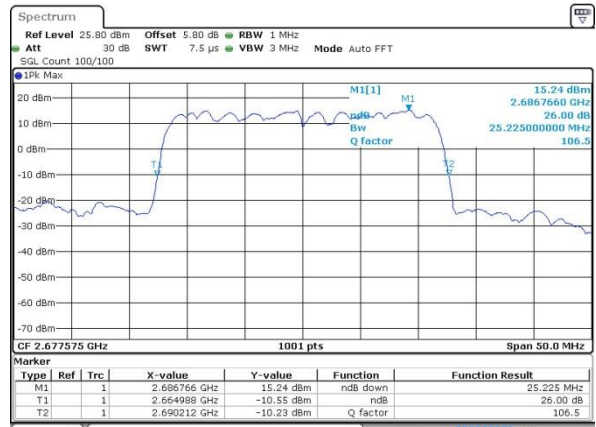
Date: 16.JAN.2019 16:12:29

Highest Channel / 10MHz+20MHz



Date: 16.JAN.2019 16:55:26

Highest Channel / 15MHz+10MHz



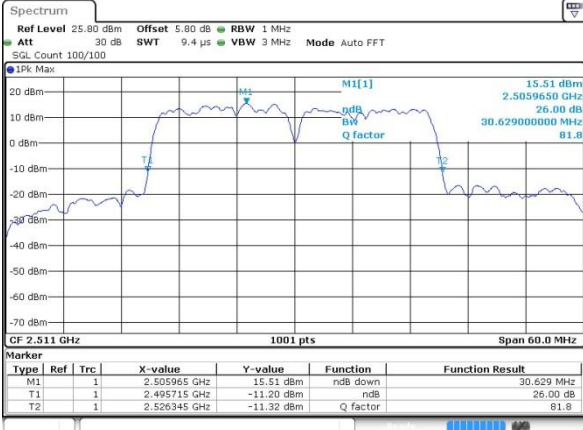
Date: 16.JAN.2019 16:14:54



LTE Band 41

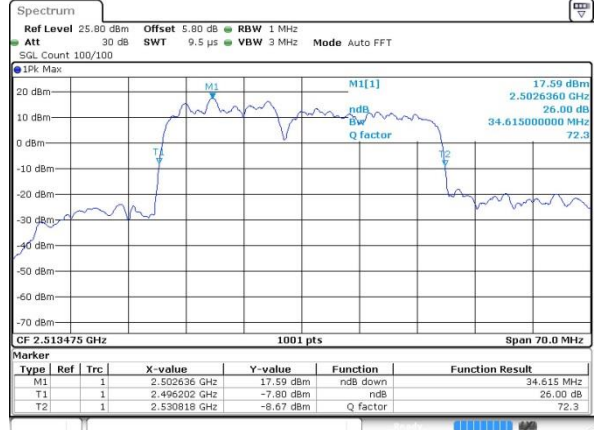
16QAM

Lowest Channel / 15MHz+15MHz



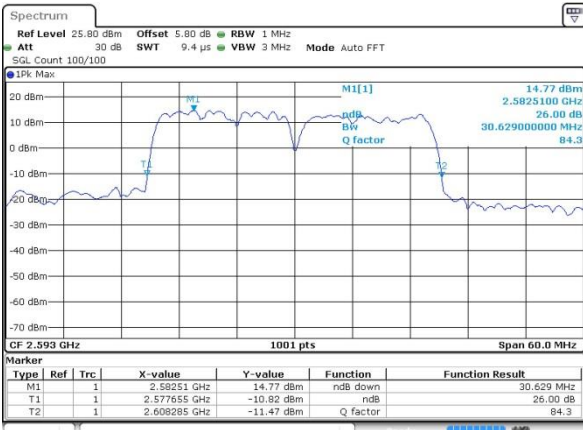
Date: 16.JAN.2019 18:31:48

Lowest Channel / 15MHz+20MHz



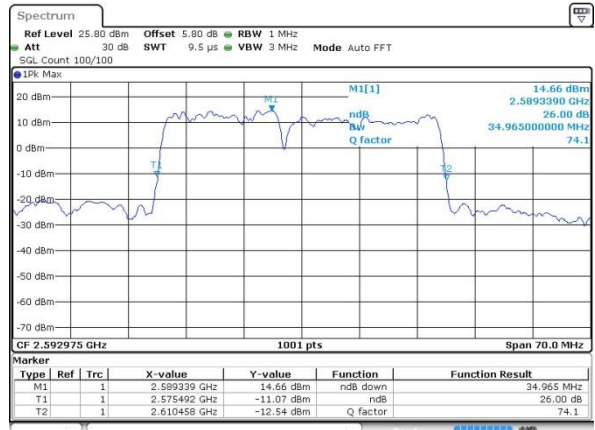
Date: 16.JAN.2019 18:35:33

Middle Channel / 15MHz+15MHz



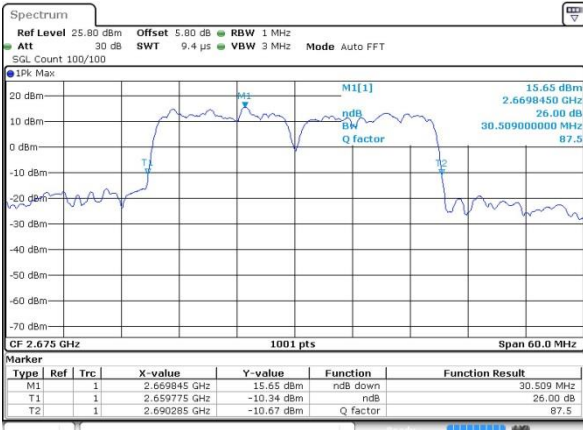
Date: 16.JAN.2019 18:29:33

Middle Channel / 15MHz+20MHz



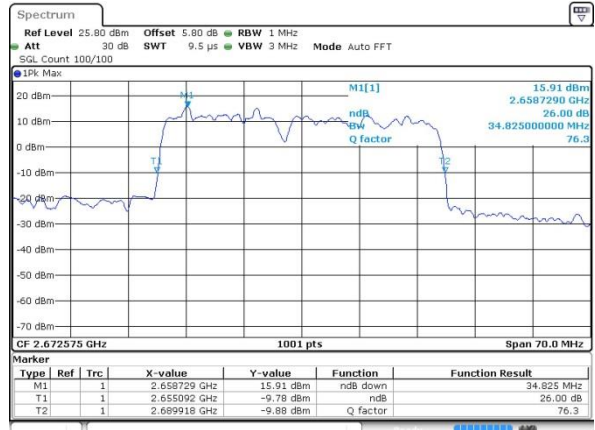
Date: 16.JAN.2019 18:37:39

Highest Channel / 15MHz+15MHz



Date: 16.JAN.2019 18:27:18

Highest Channel / 15MHz+20MHz



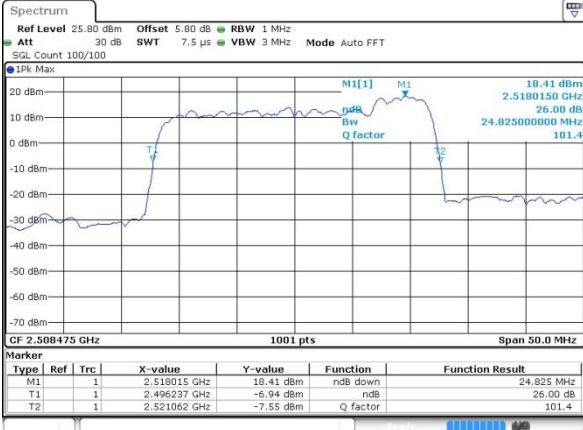
Date: 16.JAN.2019 18:39:47



LTE Band 41

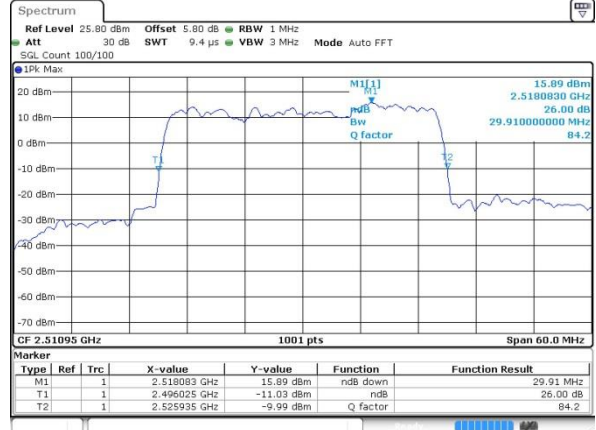
16QAM

Lowest Channel / 20MHz+5MHz



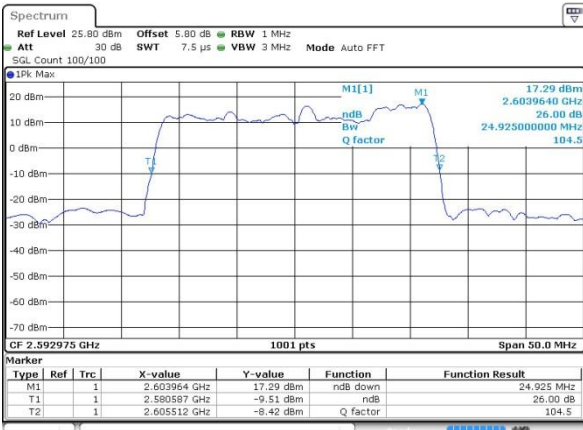
Date: 16.JAN.2019 15:12:01

Lowest Channel / 20MHz+10MHz



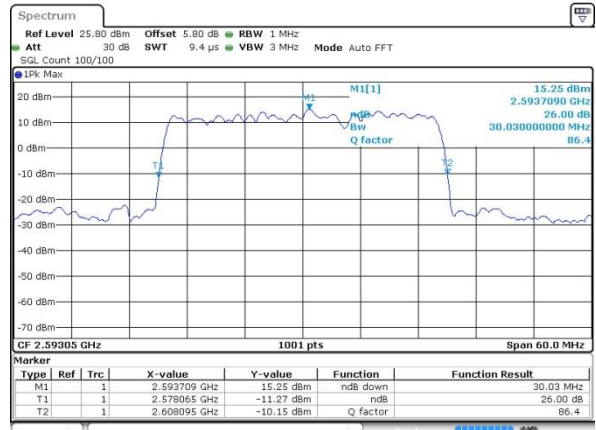
Date: 16.JAN.2019 17:37:21

Middle Channel / 20MHz+5MHz



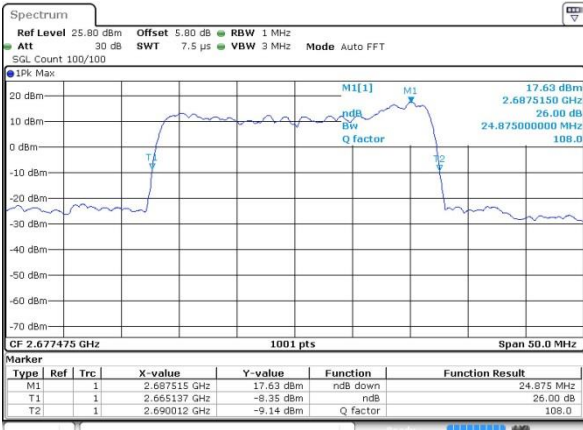
Date: 16.JAN.2019 15:13:48

Middle Channel / 20MHz+10MHz



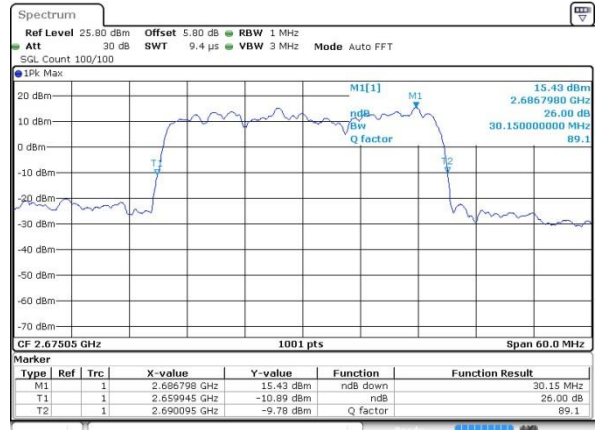
Date: 16.JAN.2019 17:39:32

Highest Channel / 20MHz+5MHz



Date: 16.JAN.2019 15:15:22

Highest Channel / 20MHz+10MHz



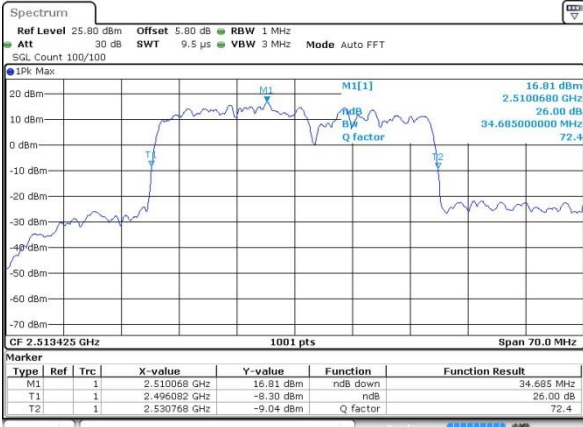
Date: 16.JAN.2019 17:41:27



LTE Band 41

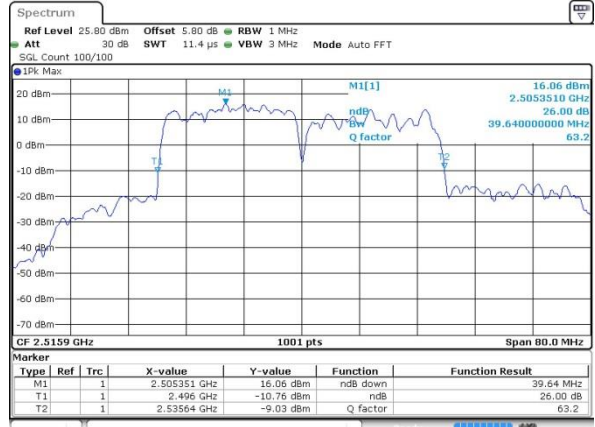
16QAM

Lowest Channel / 20MHz+15MHz



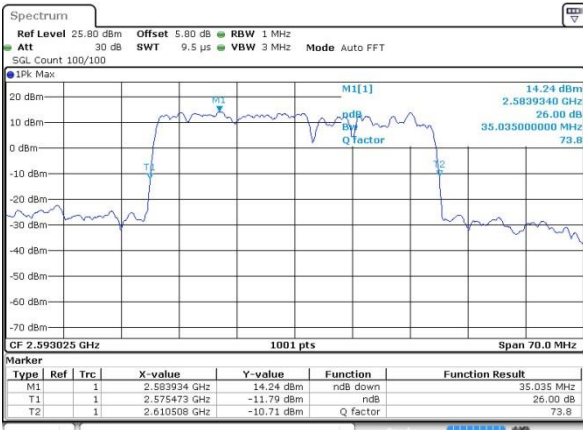
Date: 17.JAN.2019 08:17:34

Lowest Channel / 20MHz+20MHz



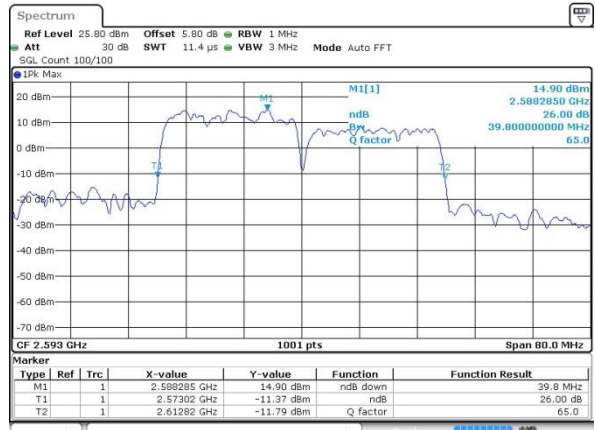
Date: 17.JAN.2019 08:42:19

Middle Channel / 20MHz+15MHz



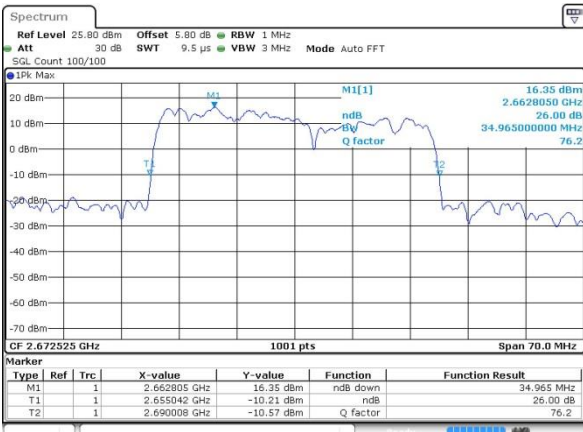
Date: 17.JAN.2019 08:19:30

Middle Channel / 20MHz+20MHz



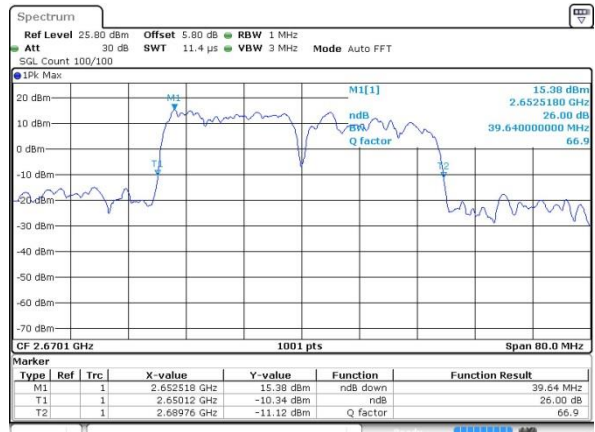
Date: 17.JAN.2019 08:44:44

Highest Channel / 20MHz+15MHz



Date: 17.JAN.2019 08:21:40

Highest Channel / 20MHz+20MHz



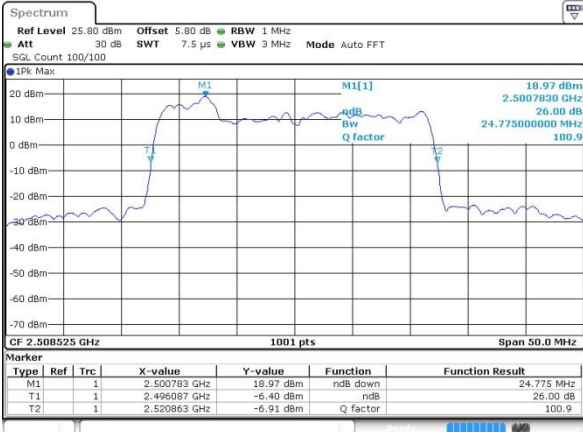
Date: 17.JAN.2019 08:46:53



LTE Band 41

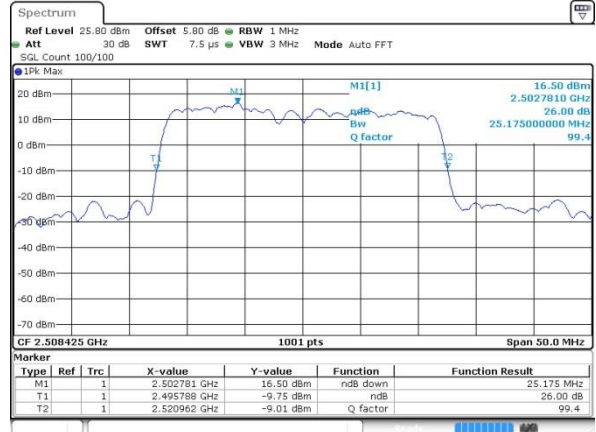
64QAM

Lowest Channel / 5MHz+20MHz



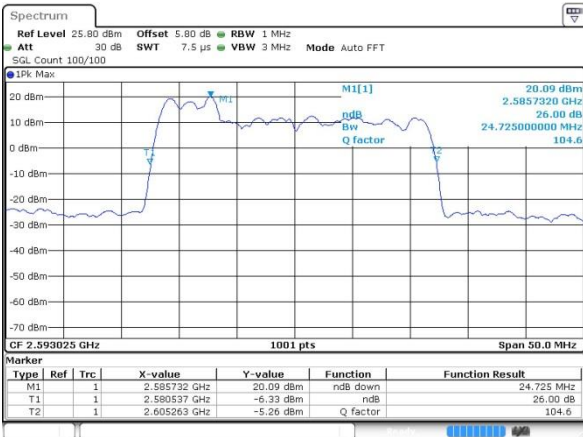
Date: 16.JAN.2019 14:09:45

Lowest Channel / 10MHz+15MHz



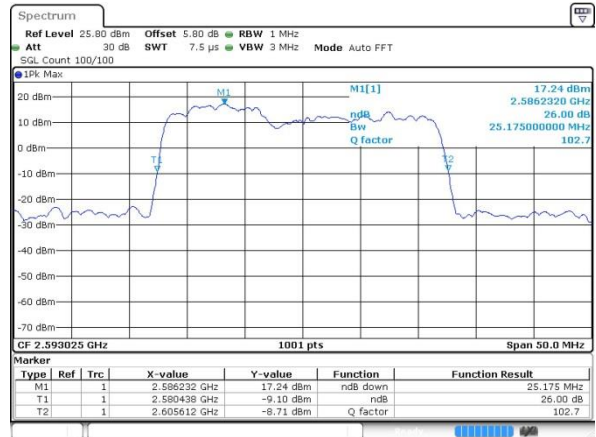
Date: 16.JAN.2019 16:03:28

Middle Channel / 5MHz+20MHz



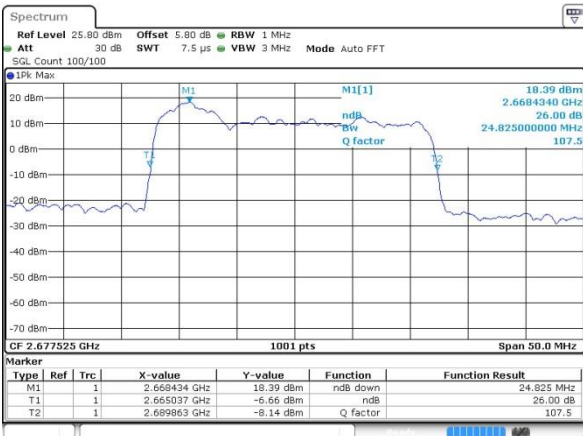
Date: 16.JAN.2019 14:40:32

Middle Channel / 10MHz+15MHz



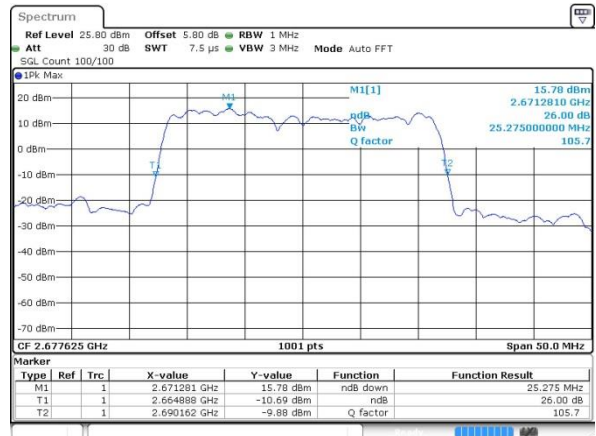
Date: 16.JAN.2019 16:02:45

Highest Channel / 5MHz+20MHz



Date: 16.JAN.2019 15:09:31

Highest Channel / 10MHz+15MHz



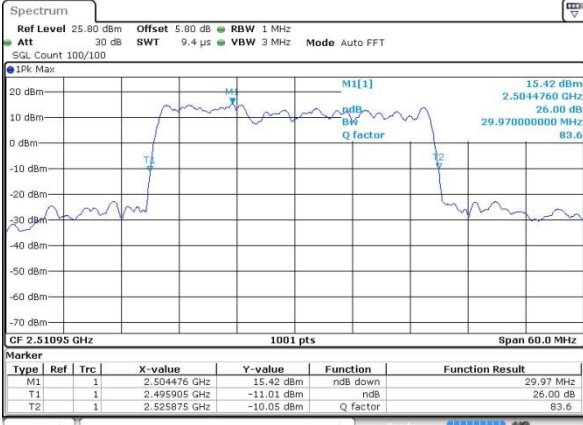
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LTE Band 41

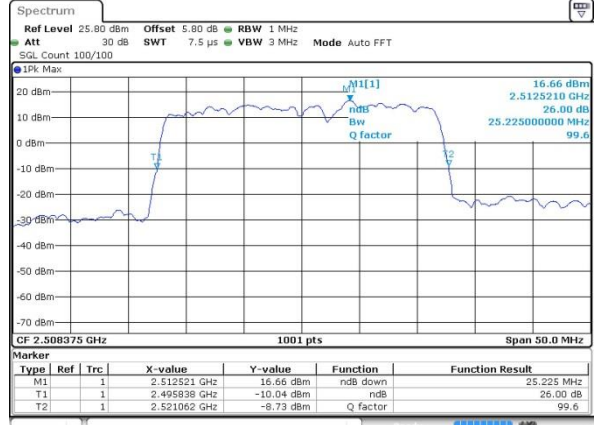
64QAM

Lowest Channel / 10MHz+20MHz



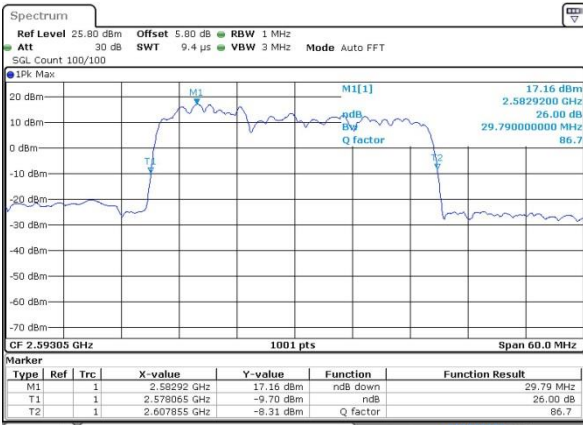
Date: 16.JAN.2019 16:58:18

Lowest Channel / 15MHz+10MHz



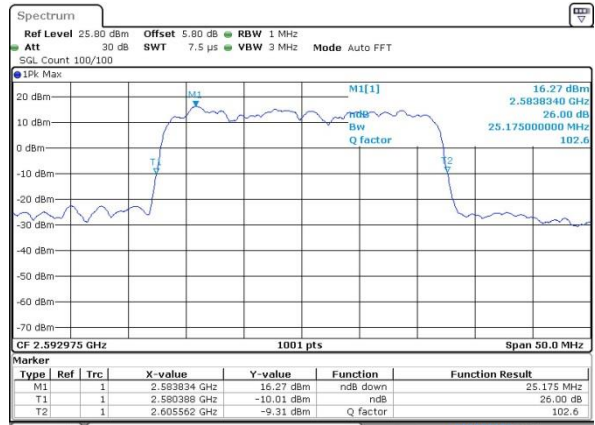
Date: 16.JAN.2019 16:09:51

Middle Channel / 10MHz+20MHz



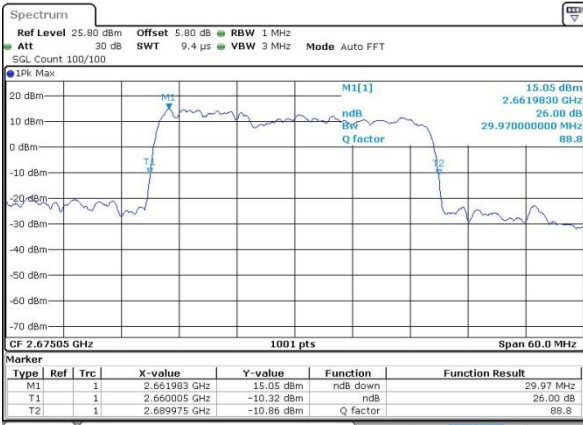
Date: 16.JAN.2019 16:56:32

Middle Channel / 15MHz+10MHz



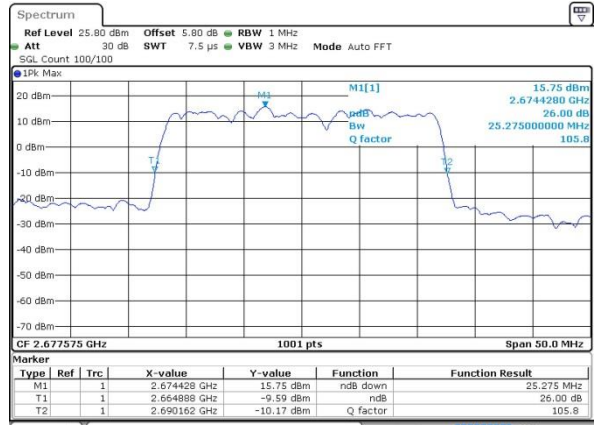
Date: 16.JAN.2019 16:11:56

Highest Channel / 10MHz+20MHz



Date: 16.JAN.2019 16:55:51

Highest Channel / 15MHz+10MHz



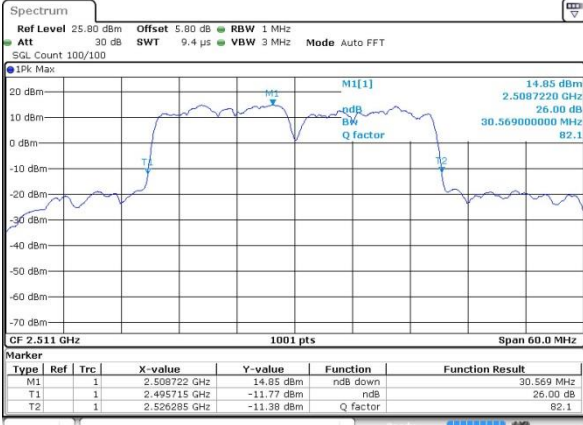
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LTE Band 41

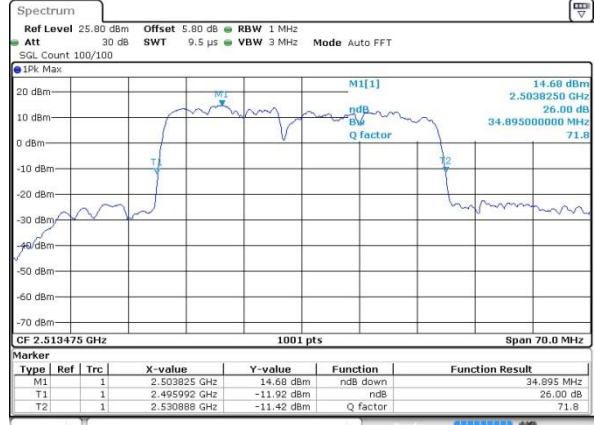
64QAM

Lowest Channel / 15MHz+15MHz



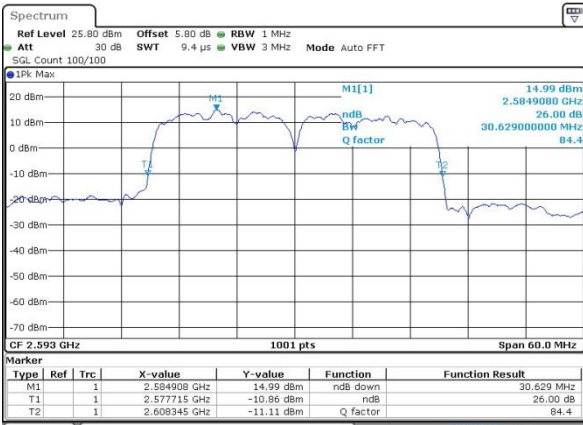
Date: 16.JAN.2019 18:31:15

Lowest Channel / 15MHz+20MHz



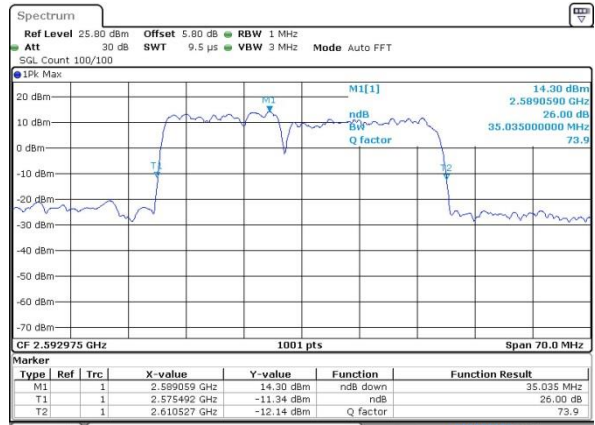
Date: 16.JAN.2019 18:35:58

Middle Channel / 15MHz+15MHz



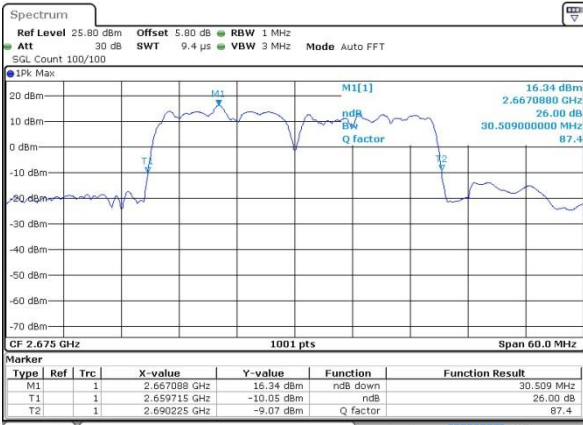
Date: 16.JAN.2019 18:30:26

Middle Channel / 15MHz+20MHz



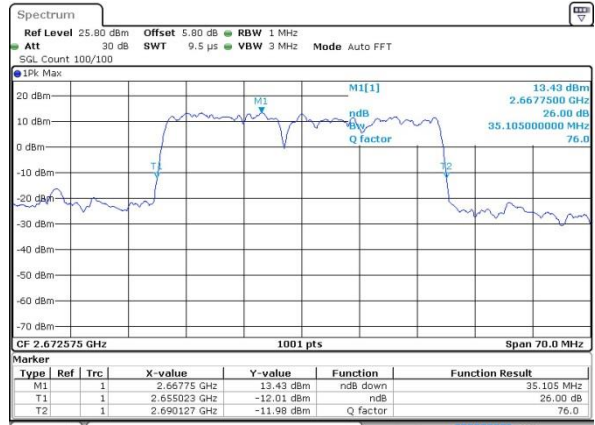
Date: 16.JAN.2019 18:37:05

Highest Channel / 15MHz+15MHz



Date: 16.JAN.2019 18:28:45

Highest Channel / 15MHz+20MHz



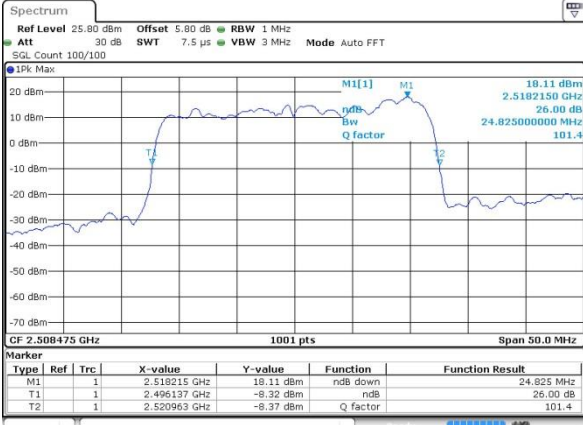
Date: 16.JAN.2019 18:40:14



LTE Band 41

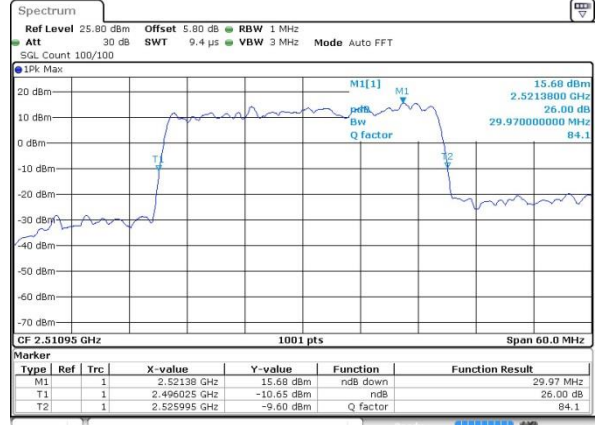
64QAM

Lowest Channel / 20MHz+5MHz



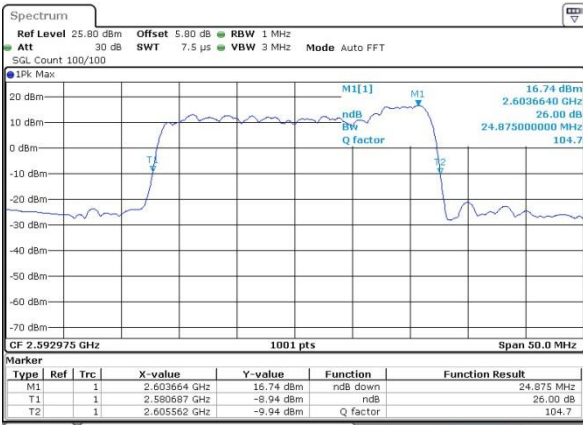
Date: 16.JAN.2019 15:12:33

Lowest Channel / 20MHz+10MHz



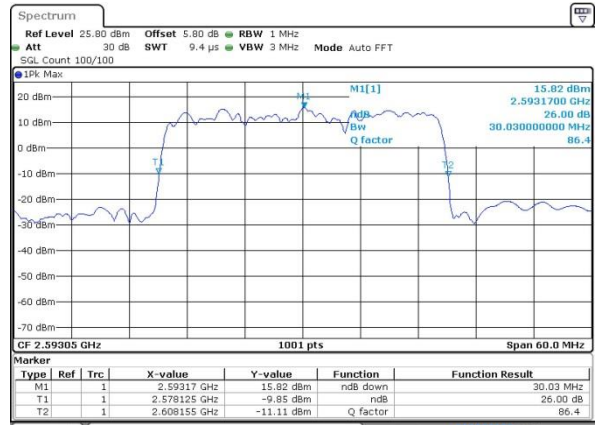
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Middle Channel / 20MHz+5MHz



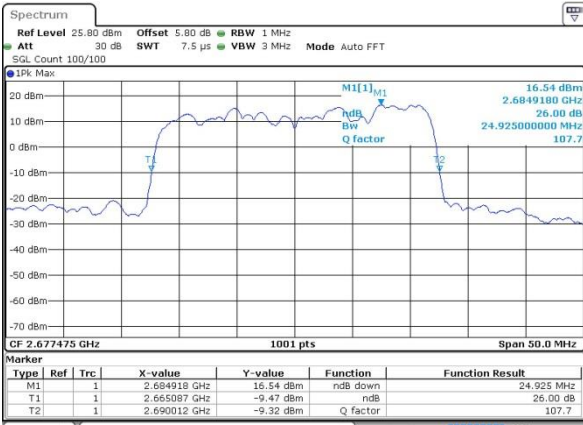
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Middle Channel / 20MHz+10MHz



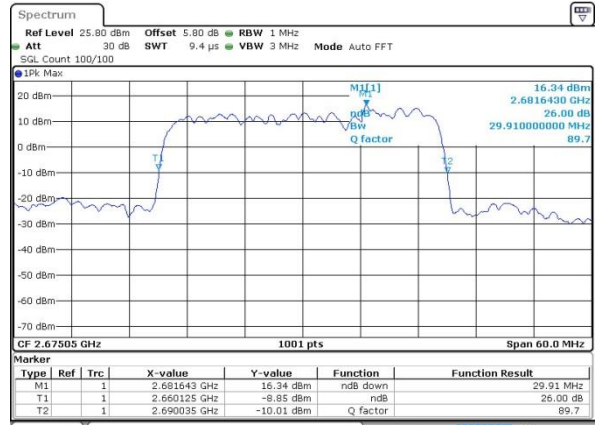
Date: 16.JAN.2019 17:39:58

Highest Channel / 20MHz+5MHz



Date: 16.JAN.2019 15:16:02

Highest Channel / 20MHz+10MHz



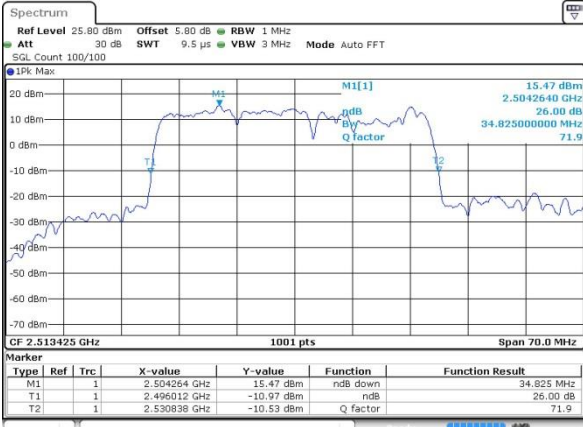
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LTE Band 41

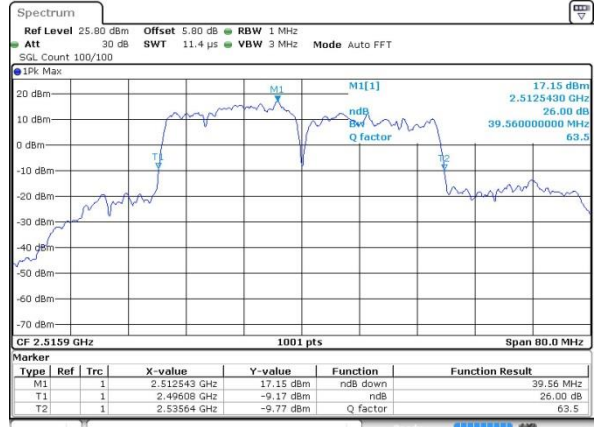
64QAM

Lowest Channel / 20MHz+15MHz



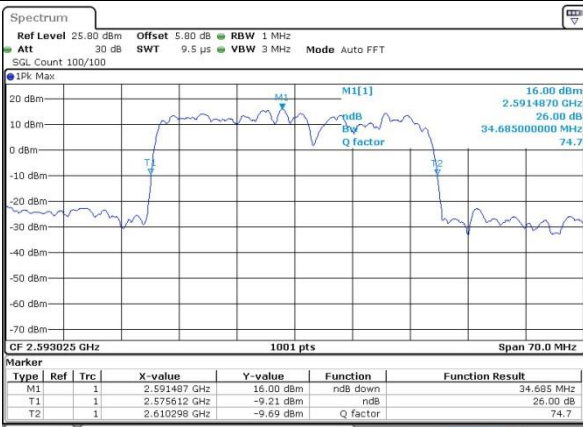
Date: 17.JAN.2019 08:16:04

Lowest Channel / 20MHz+20MHz



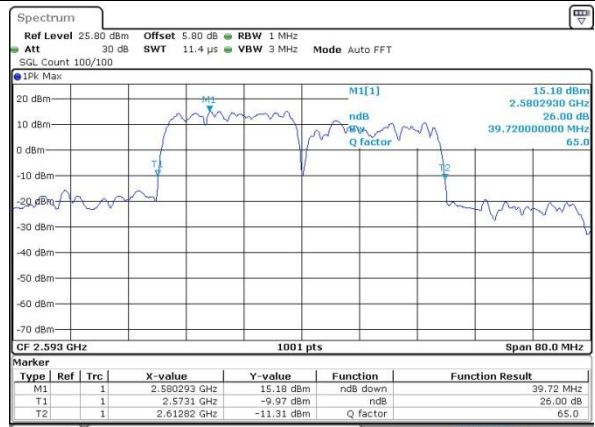
Date: 17.JAN.2019 08:42:47

Middle Channel / 20MHz+15MHz



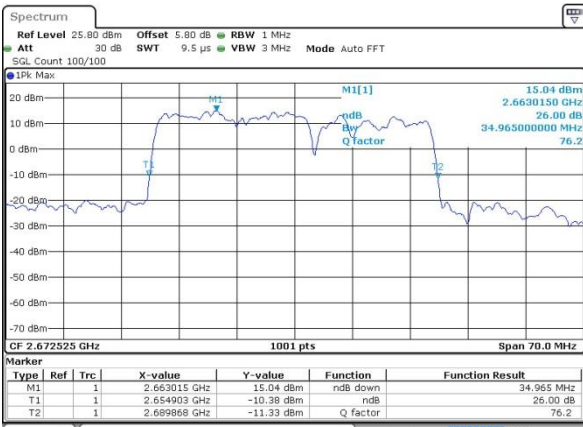
Date: 17.JAN.2019 08:19:01

Middle Channel / 20MHz+20MHz



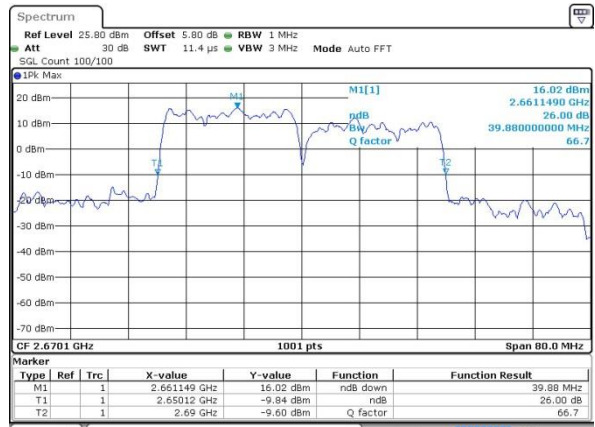
Date: 17.JAN.2019 08:43:54

Highest Channel / 20MHz+15MHz



Date: 17.JAN.2019 08:22:07

Highest Channel / 20MHz+20MHz



Date: 17.JAN.2019 08:47:24



Occupied Bandwidth

Mode	LTE Band 7 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.5	4.47	9.11	9.01	13.46	13.49	18.42	18.38
Middle CH	-	-	-	-	4.48	4.49	8.97	8.97	13.43	13.43	18.34	18.5
Highest CH	-	-	-	-	4.5	4.51	9.01	8.99	13.46	13.49	18.26	18.18
BW	5MHz	10MHz	15MHz	20MHz	-		-		-		-	
Mod.	64QAM	64QAM	64QAM	64QAM	-	-	-	-	-	-	-	-
Lowest CH	4.49	8.99	13.43	18.34	-	-	-	-	-	-	-	-
Middle CH	4.48	9.07	13.4	18.34	-	-	-	-	-	-	-	-
Highest CH	4.47	8.99	13.37	18.22	-	-	-	-	-	-	-	-

Mode	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.10	2.72	2.7	4.49	4.48	9.01	9.01	-	-	-	-
Middle CH	1.09	1.09	2.71	2.7	4.51	4.49	9.05	8.95	-	-	-	-
Highest CH	1.09	1.09	2.72	2.73	4.51	4.49	9.01	8.99	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz	3MHz	5MHz	10MHz	-		-		-		-	
Mod.	64QAM	64QAM	64QAM	64QAM	-	-	-	-	-	-	-	-
Lowest CH	1.09	2.73	4.48	9.05	-	-	-	-	-	-	-	-
Middle CH	1.09	2.73	4.5	9.03	-	-	-	-	-	-	-	-
Highest CH	1.09	2.74	4.51	9.07	-	-	-	-	-	-	-	-

Mode	LTE Band 13 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.5	4.48	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.51	9.07	9.03	-	-	-	-
Highest CH	-	-	-	-	4.49	4.49	-	-	-	-	-	-
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.48	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.48	-	9.05	-	-	-	-	-
Highest CH	-	-	-	-	4.5	-	-	-	-	-	-	-



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	1.08	2.72	2.71	4.48	4.49	9.05	9.03	13.40	13.40	18.38	18.06
Middle CH	1.09	1.08	2.72	2.73	4.49	4.49	9.03	9.07	13.46	13.49	18.38	18.30
Highest CH	1.10	1.09	2.72	2.72	4.49	4.50	8.97	9.01	13.46	13.40	18.42	18.26
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH	1.10	2.71	4.51	9.03	13.40	18.22						
Middle CH	1.09	2.72	4.50	9.05	13.49	18.34						
Highest CH	1.09	2.71	4.50	9.01	13.37	18.26						

Mode	LTE Band 26 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		26765	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.71	2.73	4.49	4.5	9.05	9.03	13.4	13.46	13.43	13.43
Middle CH	1.09	1.09	2.72	2.72	4.5	4.49	9.03	8.99	13.46	13.46	-	-
Highest CH	1.09	1.1	2.73	2.72	4.52	4.5	9.05	8.95	13.43	13.4	-	-
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	26765						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH	1.08	2.73	4.5	9.01	13.4	13.49						
Middle CH	1.1	2.72	4.5	9.01	13.43	-						
Highest CH	1.09	2.71	4.49	9.03	13.43	-						

Mode	LTE Band 41 : 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	-	-	-	-	4.49	4.49	9.01	8.99	13.46	13.52	18.34	18.3
Middle CH	-	-	-	-	4.47	4.49	9.03	8.97	13.4	13.34	18.34	18.3
Highest CH	-	-	-	-	4.48	4.5	9.05	9.01	13.46	13.46	18.34	18.3
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH	-	-	-	-	4.49	-	9.05	-	13.4	-	18.42	-
Middle CH	-	-	-	-	4.48	-	9.05	-	13.4	-	18.14	-
Highest CH	-	-	-	-	4.51	-	8.99	-	13.37	-	18.18	-



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	1.09	1.09	2.72	2.73	4.51	4.49	8.97	9.03	13.46	13.49	18.34	18.5
Middle CH	1.09	1.09	2.72	2.71	4.5	4.48	9.01	8.99	13.52	13.49	18.38	18.34
Highest CH	1.09	1.09	2.7	2.73	4.48	4.5	9.09	9.05	13.46	13.46	18.22	18.38
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	-	2.71	-	4.51	-	9.01	-	13.4	-	18.42	-
Middle CH	1.09	-	2.7	-	4.5	-	9.01	-	13.49	-	18.26	-
Highest CH	1.09	-	2.71	-	4.47	-	9.03	-	13.4	-	18.22	-



For CA:

Mode	LTE Band 7 : 99%OBW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	27.57	-	23.48	28.53
Middle CH	28.05	-	23.43	28.65
Highest CH	27.87	-	23.23	28.17
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.73	27.81	32.66	37.56
Middle CH	32.59	28.05	33.01	37.64
Highest CH	32.52	28.05	32.73	37.40

Mode	LTE Band 7 : 99%OBW(MHz)			
16QAM				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	28.11	-	23.33	28.47
Middle CH	27.99	-	23.18	28.41
Highest CH	28.05	-	23.13	28.59
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.59	27.63	32.38	37.40
Middle CH	32.87	28.05	33.15	37.08
Highest CH	32.45	27.93	32.59	37.16

Mode	LTE Band 7 : 99%OBW(MHz)			
64QAM				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	27.99	-	23.03	28.53
Middle CH	27.51	-	23.38	28.71
Highest CH	27.75	-	23.13	28.41
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.17	28.17	32.59	37.40
Middle CH	32.94	28.05	32.87	37.56
Highest CH	32.66	27.81	32.24	37.72