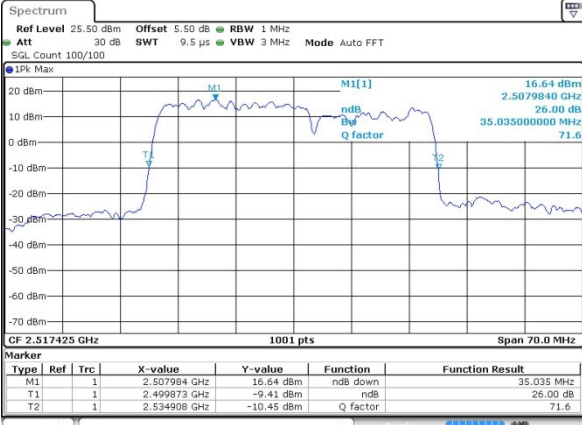




LTE Band 7

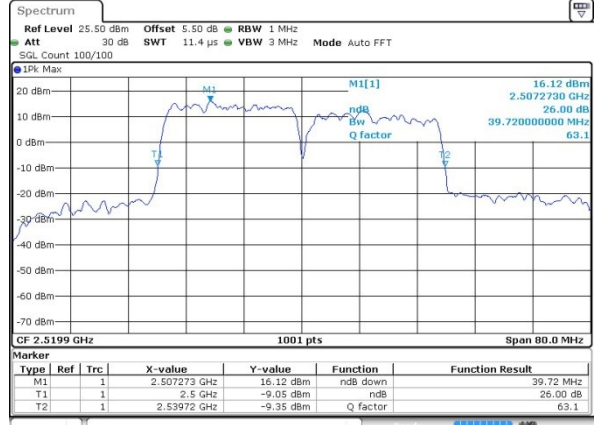
QPSK

Lowest Channel / 20MHz+15MHz



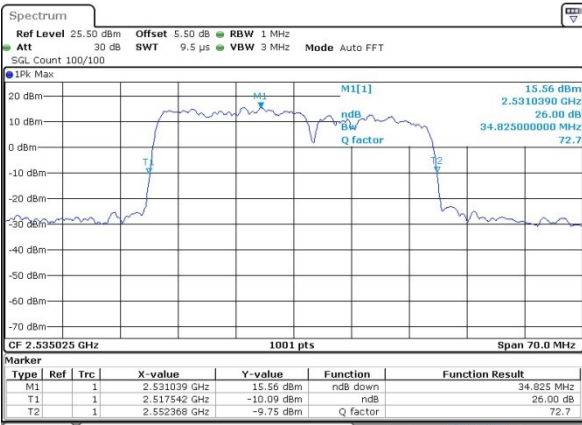
Date: 27 MAR 2019 13:09:09

Lowest Channel / 20MHz+20MHz



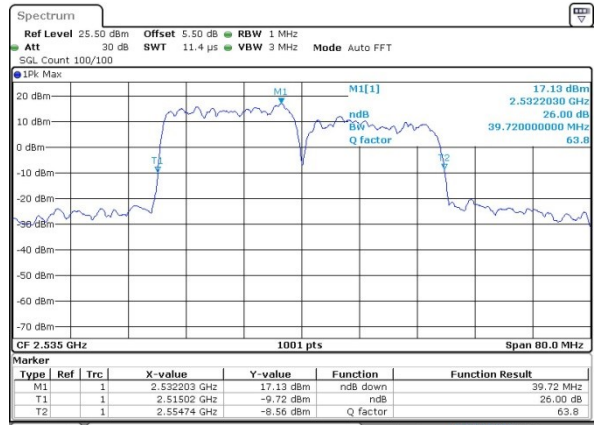
Date: 27 MAR 2019 13:09:11

Middle Channel / 20MHz+15MHz



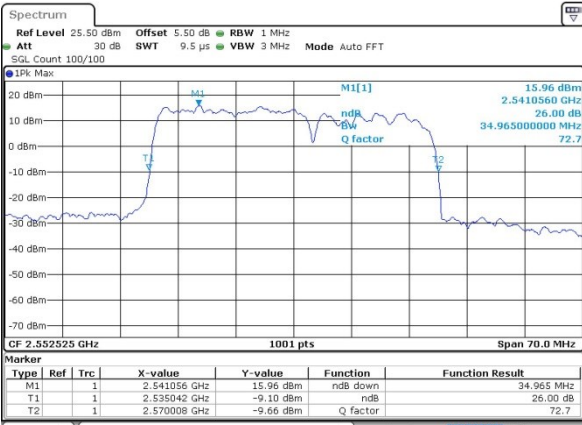
Date: 27 MAR 2019 13:06:44

Middle Channel / 20MHz+20MHz



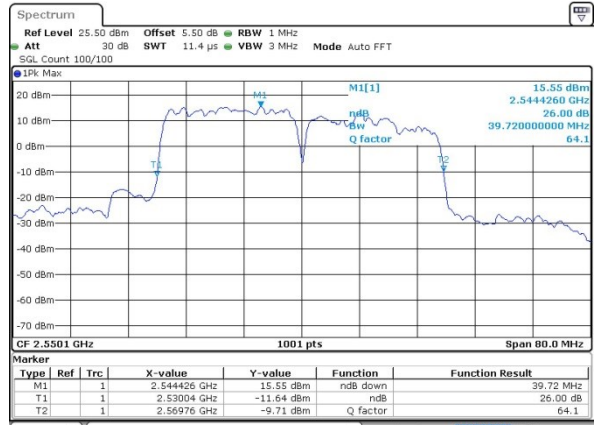
Date: 27 MAR 2019 13:10:21

Highest Channel / 20MHz+15MHz



Date: 27 MAR 2019 13:08:28

Highest Channel / 20MHz+20MHz



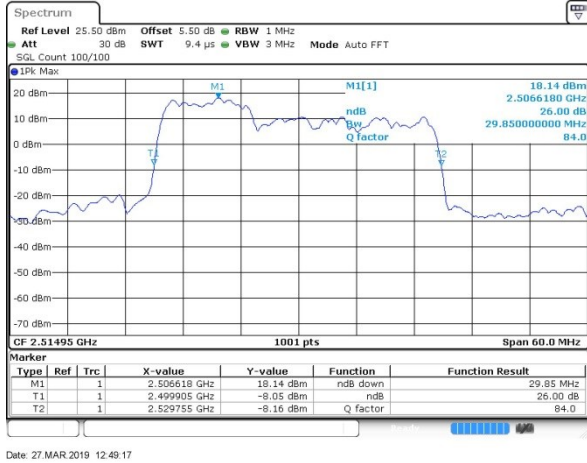
Date: 27 MAR 2019 13:10:55



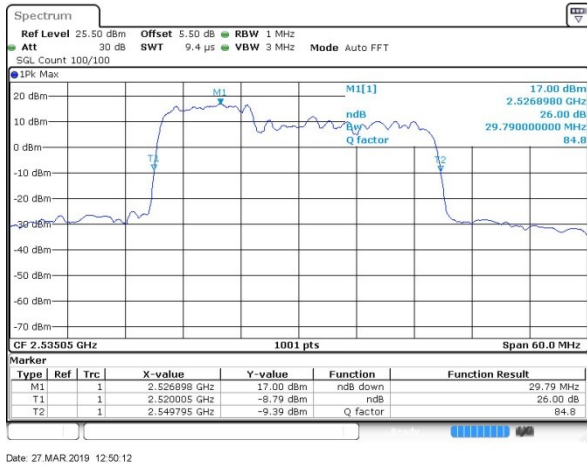
LTE Band 7

16QAM

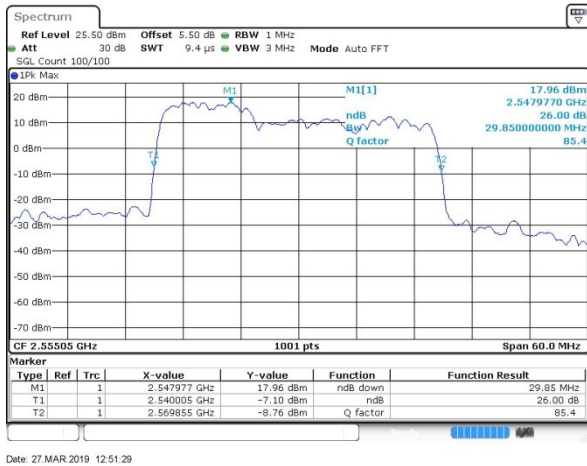
Lowest Channel / 10MHz+20MHz



Middle Channel / 10MHz+20MHz



Highest Channel / 10MHz+20MHz

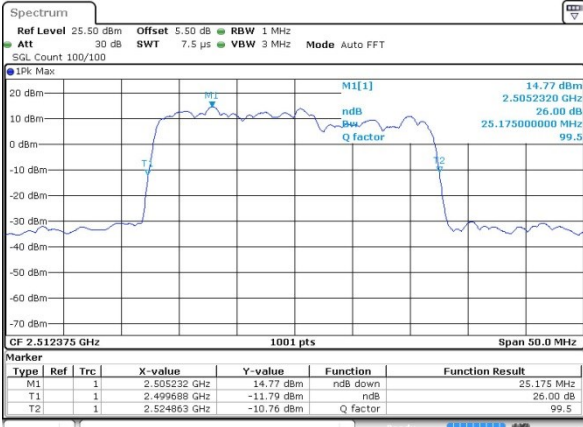




LTE Band 7

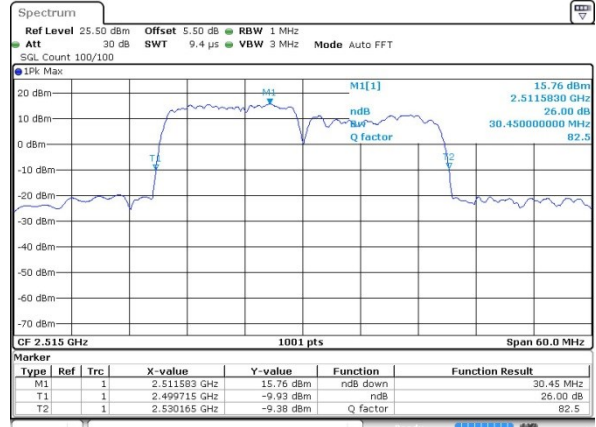
16QAM

Lowest Channel / 15MHz+10MHz



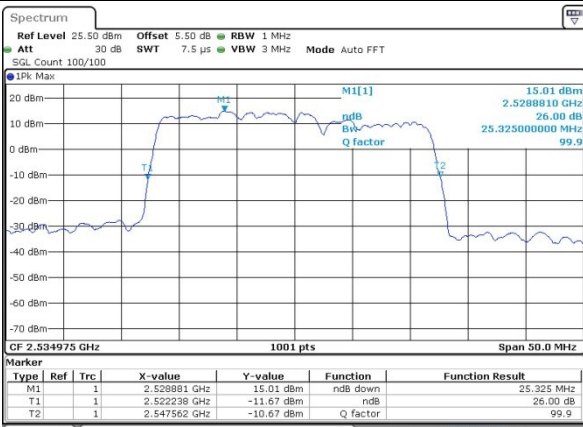
Date: 27 MAR 2019 12:47:44

Lowest Channel / 15MHz+15MHz



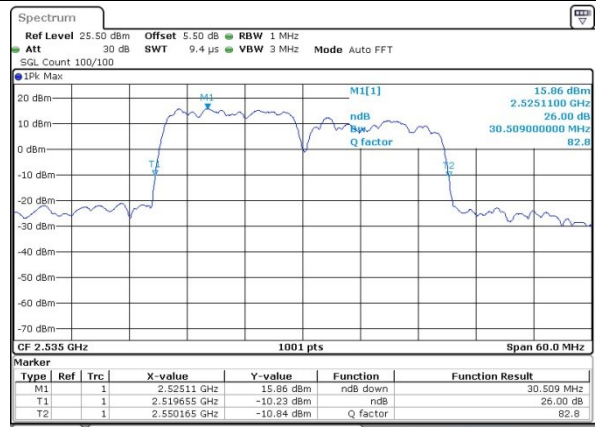
Date: 27 MAR 2019 12:58:05

Middle Channel / 15MHz+10MHz



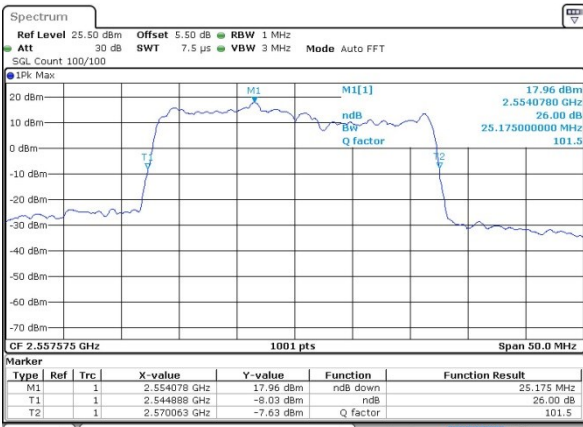
Date: 27 MAR 2019 12:46:29

Middle Channel / 15MHz+15MHz



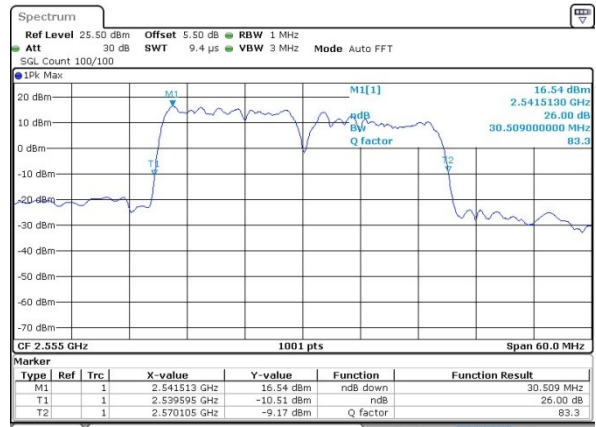
Date: 27 MAR 2019 12:59:45

Highest Channel / 15MHz+10MHz



Date: 27 MAR 2019 12:44:49

Highest Channel / 15MHz+15MHz



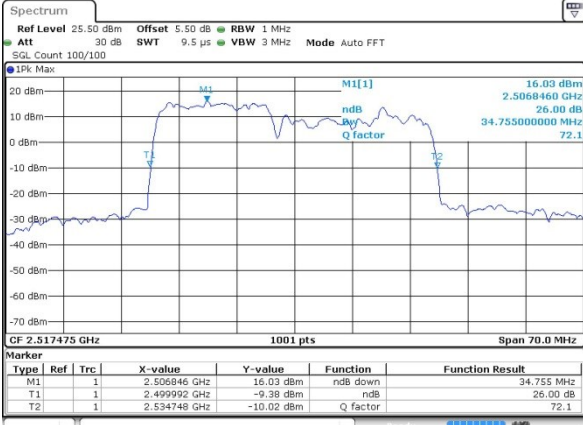
Date: 27 MAR 2019 13:00:51



LTE Band 7

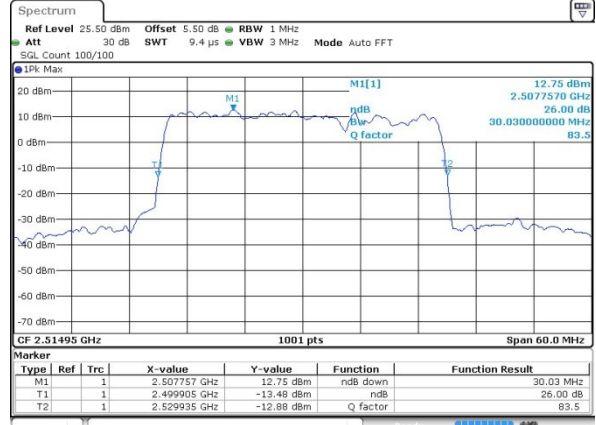
16QAM

Lowest Channel / 15MHz+20MHz



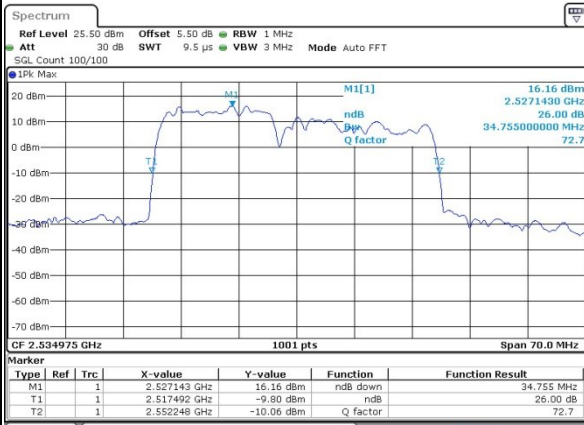
Date: 27 MAR 2019 13:02:24

Lowest Channel / 20MHz+10MHz



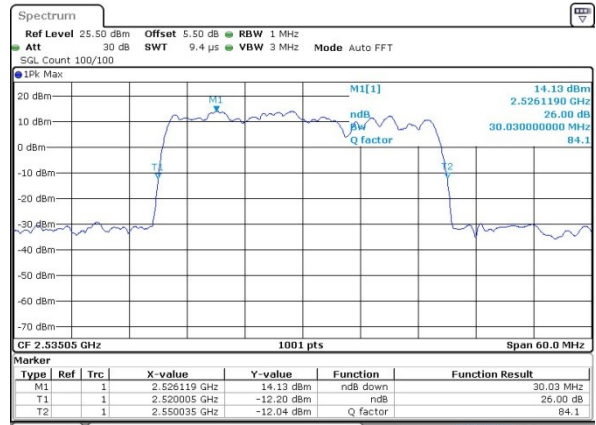
Date: 27 MAR 2019 12:54:30

Middle Channel / 15MHz+20MHz



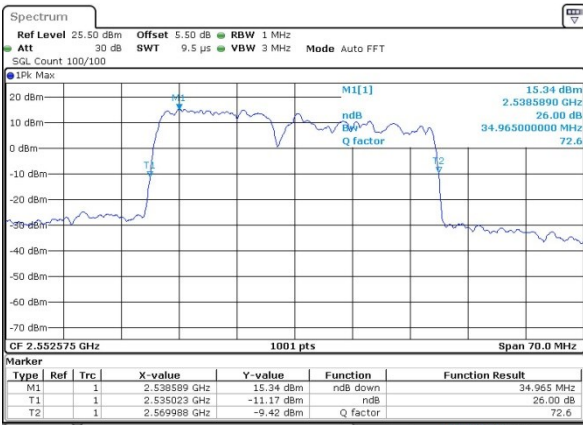
Date: 27 MAR 2019 13:03:40

Middle Channel / 20MHz+10MHz



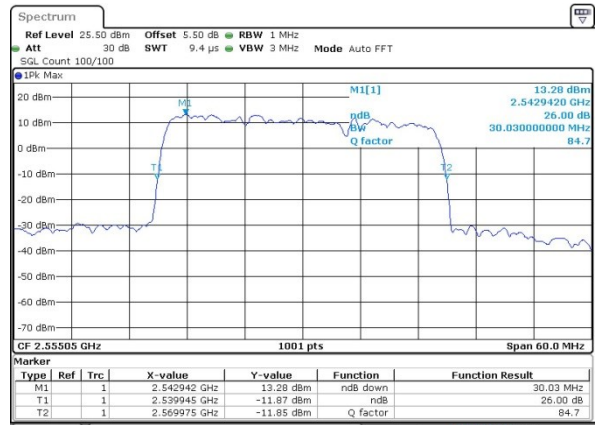
Date: 27 MAR 2019 12:55:26

Highest Channel / 15MHz+20MHz



Date: 27 MAR 2019 13:04:33

Highest Channel / 20MHz+10MHz



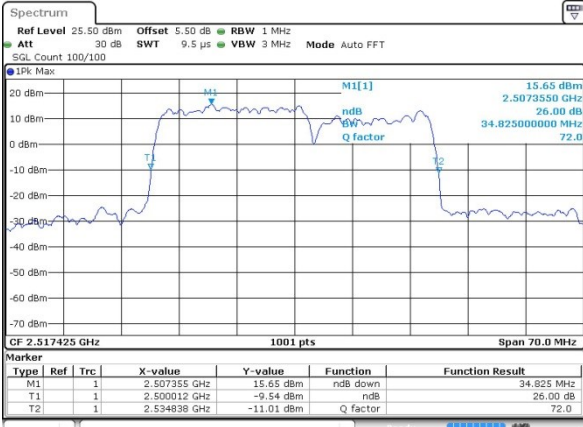
Date: 27 MAR 2019 12:56:29



LTE Band 7

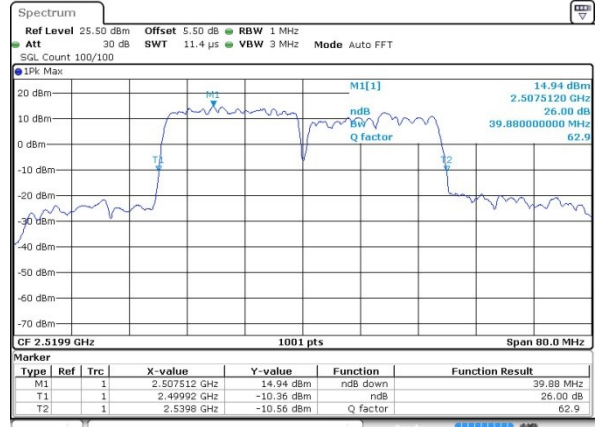
16QAM

Lowest Channel / 20MHz+15MHz



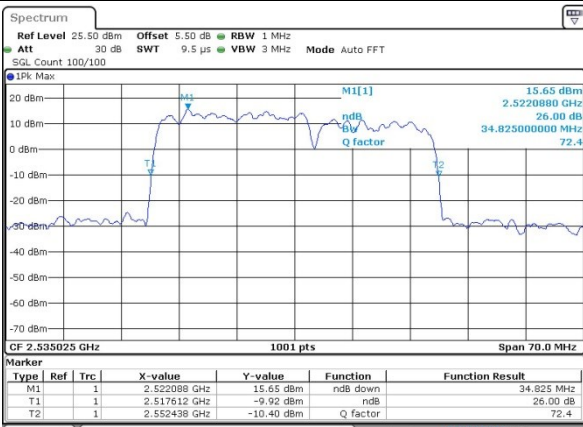
Date: 27 MAR 2019 13:05:50

Lowest Channel / 20MHz+20MHz



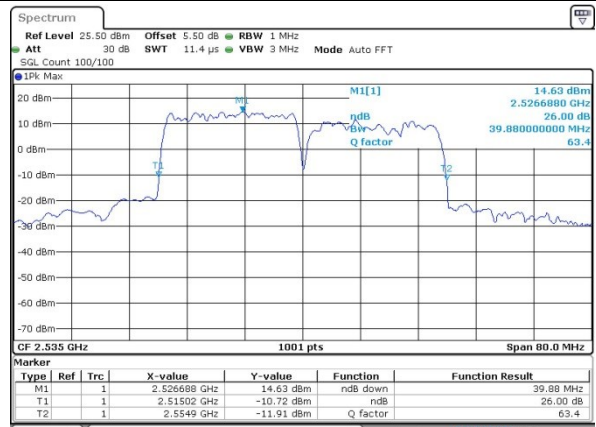
Date: 27 MAR 2019 13:09:22

Middle Channel / 20MHz+15MHz



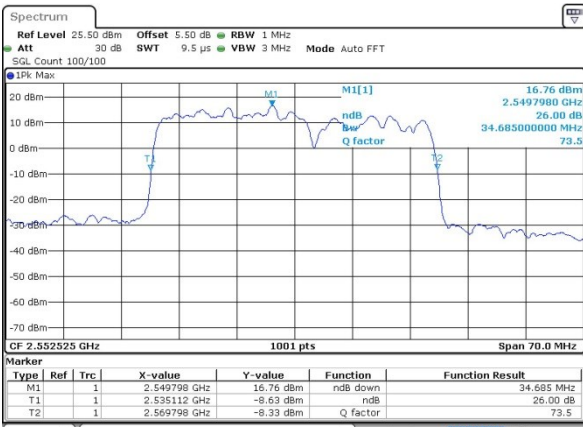
Date: 27 MAR 2019 13:06:56

Middle Channel / 20MHz+20MHz



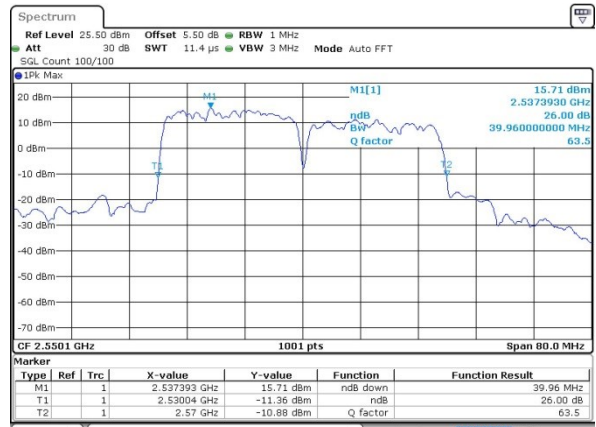
Date: 27 MAR 2019 13:10:10

Highest Channel / 20MHz+15MHz



Date: 27 MAR 2019 13:08:16

Highest Channel / 20MHz+20MHz



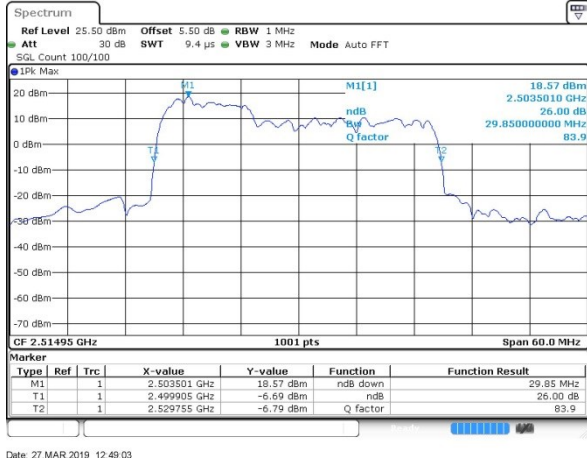
Date: 27 MAR 2019 13:11:06



LTE Band 7

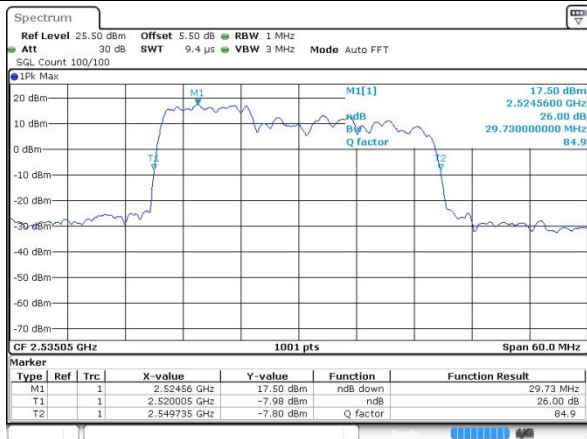
64QAM

Lowest Channel / 10MHz+20MHz



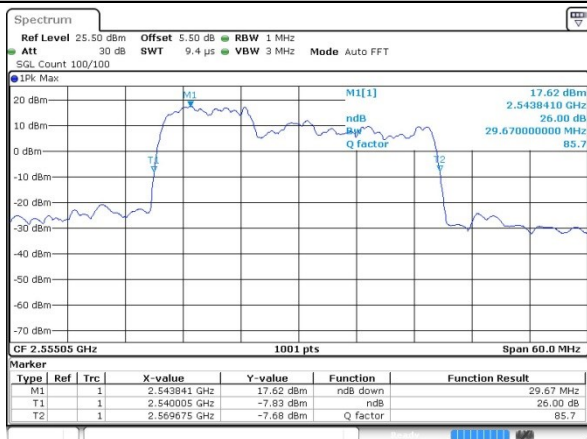
Date: 27 MAR 2019 12:49:03

Middle Channel / 10MHz+20MHz



Date: 27 MAR 2019 12:50:24

Highest Channel / 10MHz+20MHz



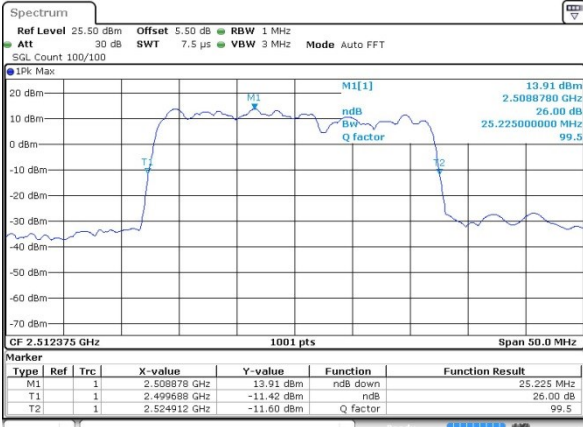
Date: 27 MAR 2019 12:51:04



LTE Band 7

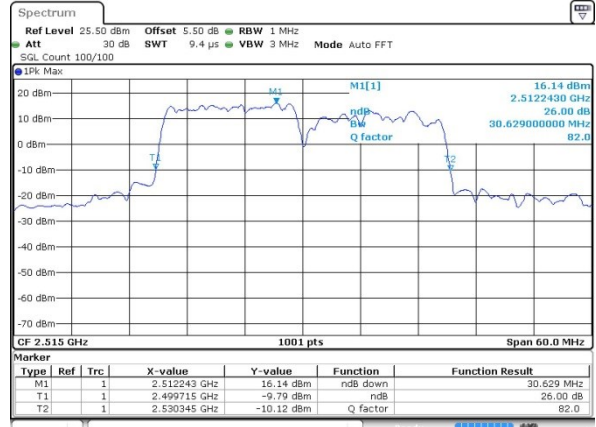
64QAM

Lowest Channel / 15MHz+10MHz



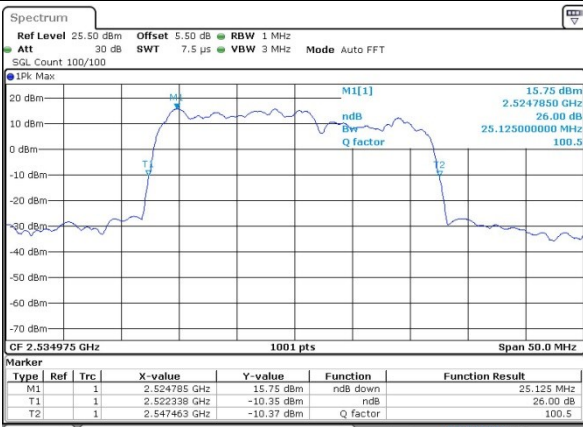
Date: 27 MAR 2019 12:47:58

Lowest Channel / 15MHz+15MHz



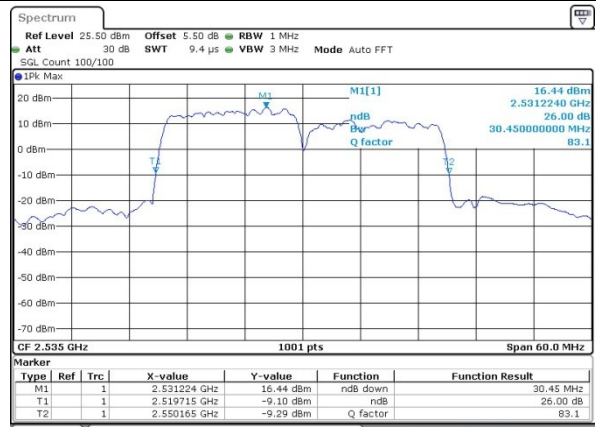
Date: 27 MAR 2019 12:57:46

Middle Channel / 15MHz+10MHz



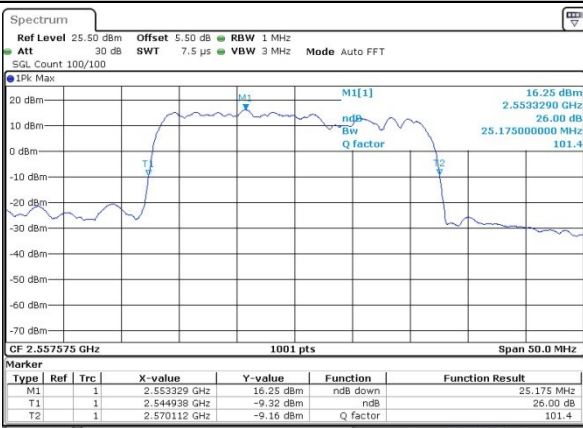
Date: 27 MAR 2019 12:46:14

Middle Channel / 15MHz+15MHz



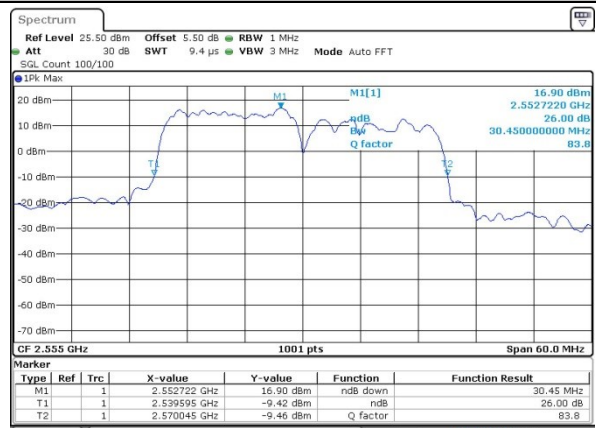
Date: 27 MAR 2019 13:00:00

Highest Channel / 15MHz+10MHz



Date: 27 MAR 2019 12:45:23

Highest Channel / 15MHz+15MHz



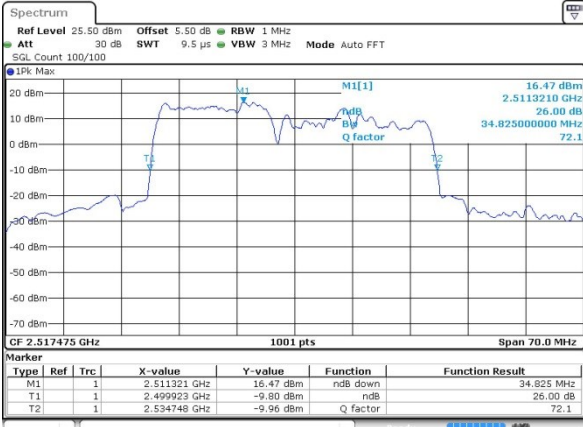
Date: 27 MAR 2019 13:00:36



LTE Band 7

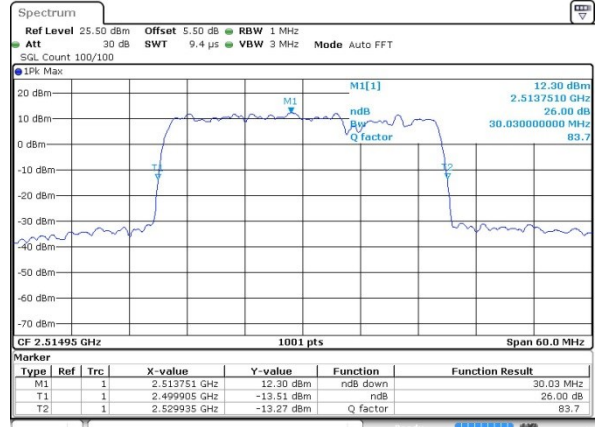
64QAM

Lowest Channel / 15MHz+20MHz



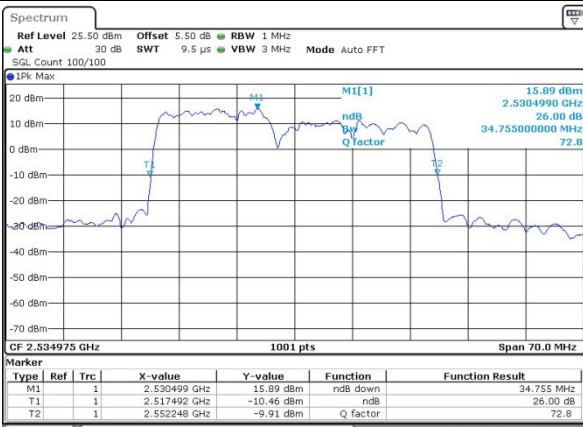
Date: 27 MAR 2019 13:02:39

Lowest Channel / 20MHz+10MHz



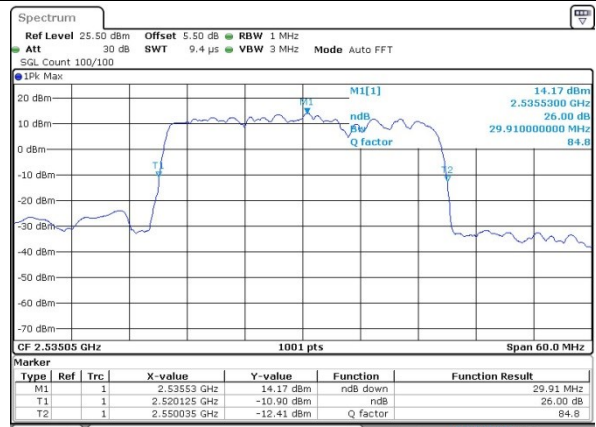
Date: 27 MAR 2019 12:54:46

Middle Channel / 15MHz+20MHz



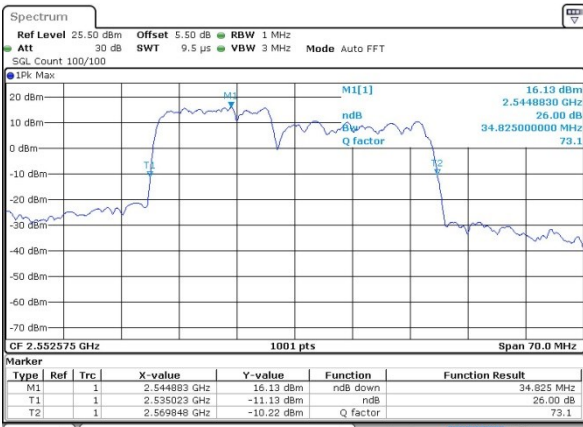
Date: 27 MAR 2019 13:03:26

Middle Channel / 20MHz+10MHz



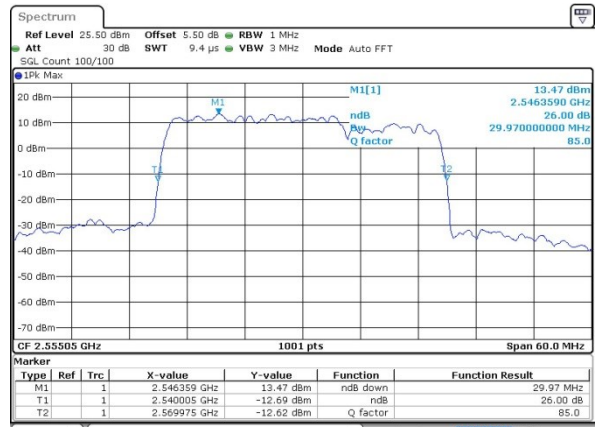
Date: 27 MAR 2019 12:55:13

Highest Channel / 15MHz+20MHz



Date: 27 MAR 2019 13:04:48

Highest Channel / 20MHz+10MHz



Date: 27 MAR 2019 12:56:49

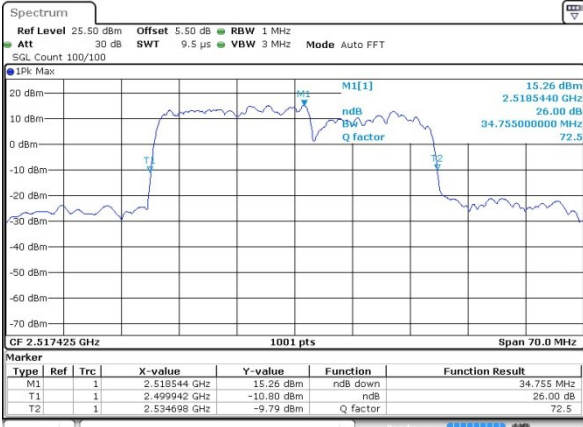




LTE Band 7

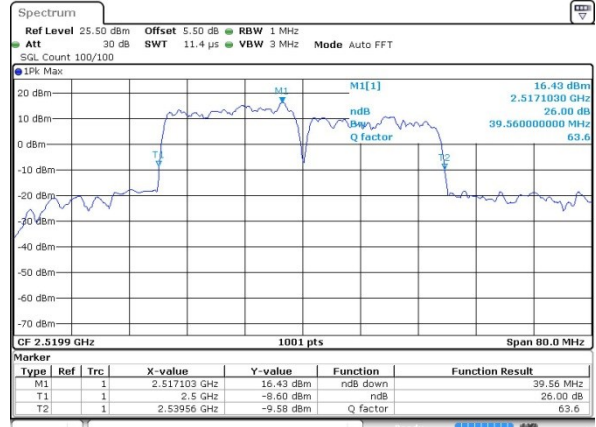
64QAM

Lowest Channel / 20MHz+15MHz



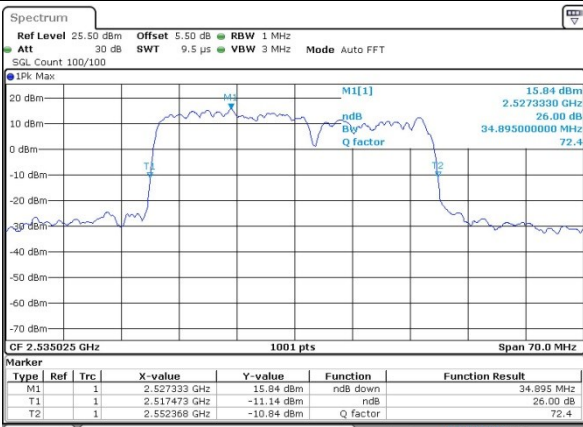
Date: 27 MAR 2019 13:05:37

Lowest Channel / 20MHz+20MHz



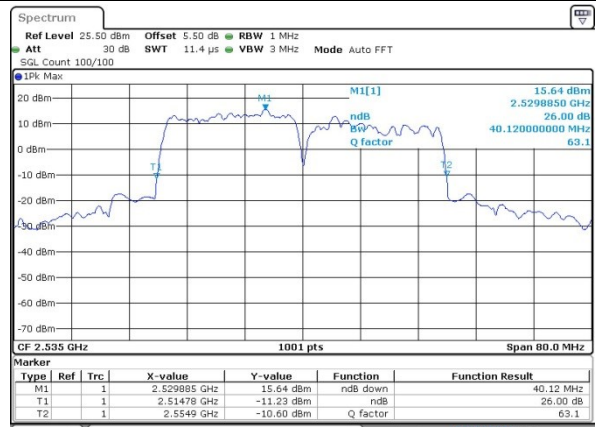
Date: 27 MAR 2019 13:09:34

Middle Channel / 20MHz+15MHz



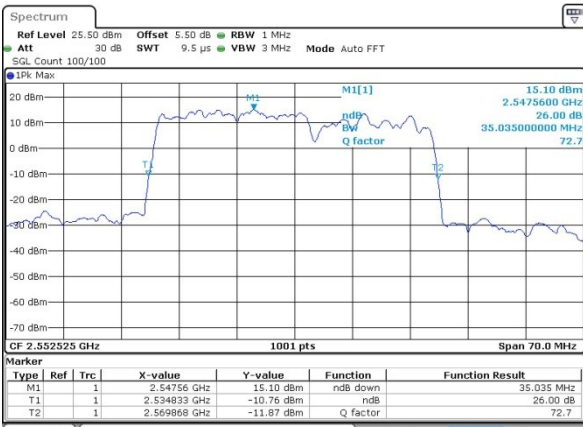
Date: 27 MAR 2019 13:07:07

Middle Channel / 20MHz+20MHz



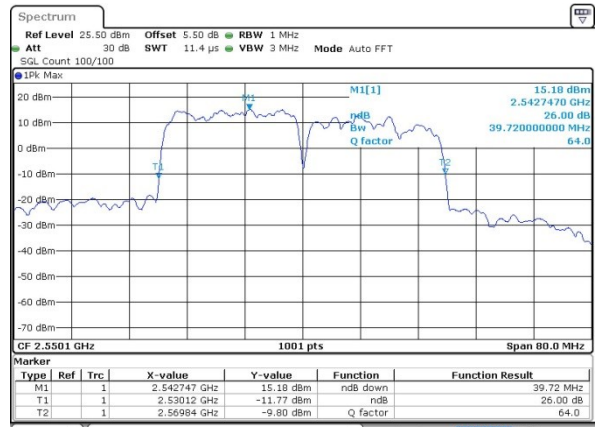
Date: 27 MAR 2019 13:09:58

Highest Channel / 20MHz+15MHz



Date: 27 MAR 2019 13:08:04

Highest Channel / 20MHz+20MHz



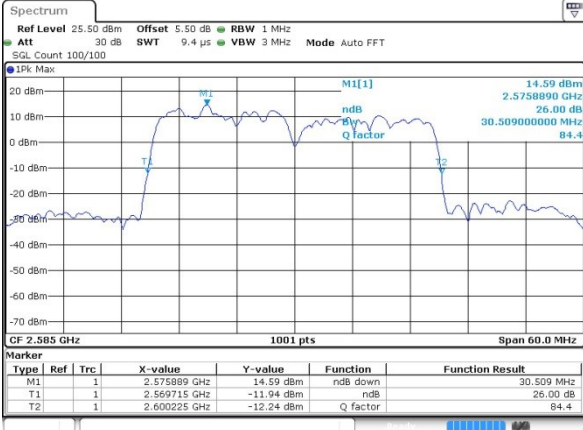
Date: 27 MAR 2019 13:11:17



LTE Band 38

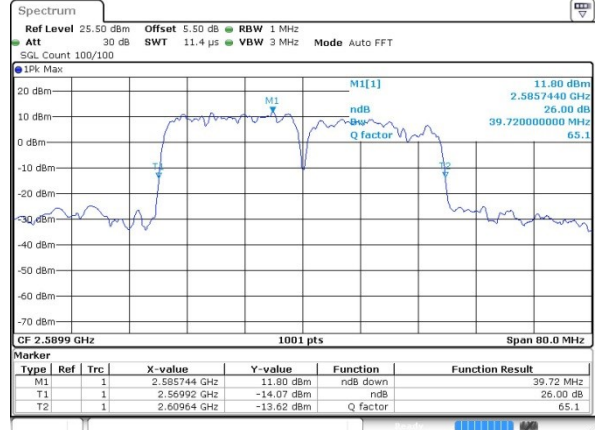
QPSK

Lowest Channel / 15MHz+15MHz



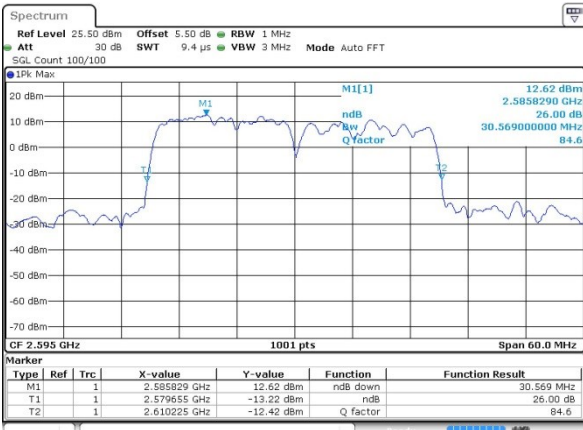
Date: 4 APR 2019 17:53:48

Lowest Channel / 20MHz+20MHz



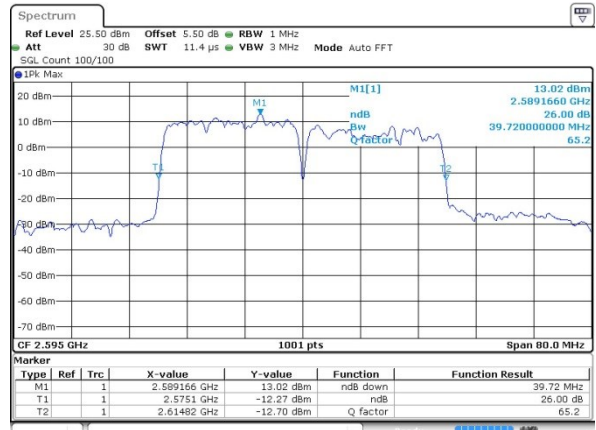
Date: 4 APR 2019 18:49:32

Middle Channel / 15MHz+15MHz



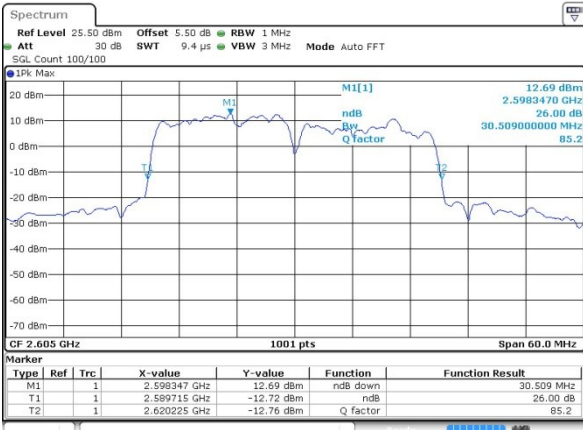
Date: 4 APR 2019 17:56:39

Middle Channel / 20MHz+20MHz



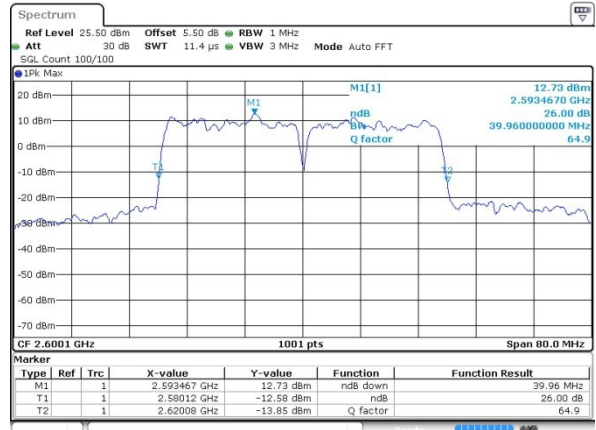
Date: 4 APR 2019 19:00:39

Highest Channel / 15MHz+15MHz



Date: 4 APR 2019 18:48:07

Highest Channel / 20MHz+20MHz



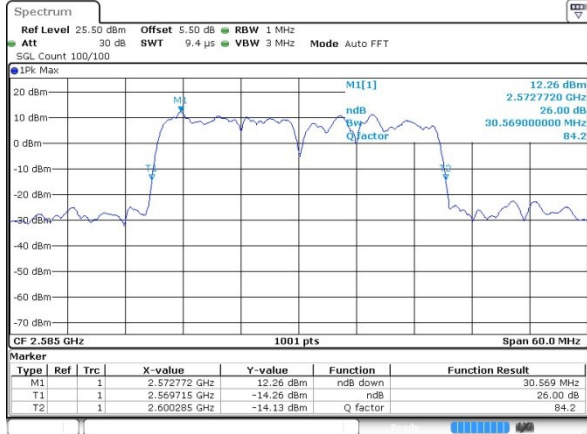
Date: 4 APR 2019 19:45:45



LTE Band 38

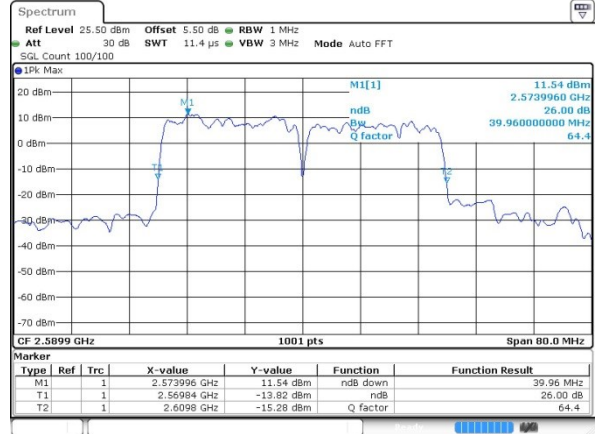
16QAM

Lowest Channel / 15MHz+15MHz



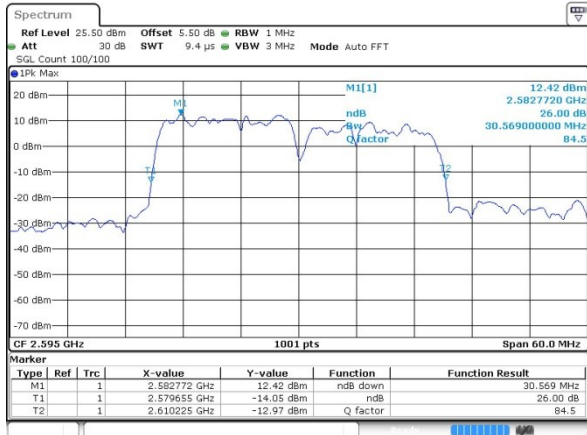
Date: 4 APR 2019 17:54:23

Lowest Channel / 20MHz+20MHz



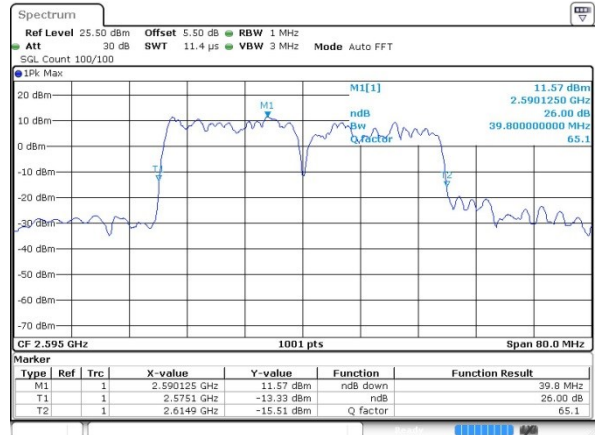
Date: 4 APR 2019 18:50:01

Middle Channel / 15MHz+15MHz



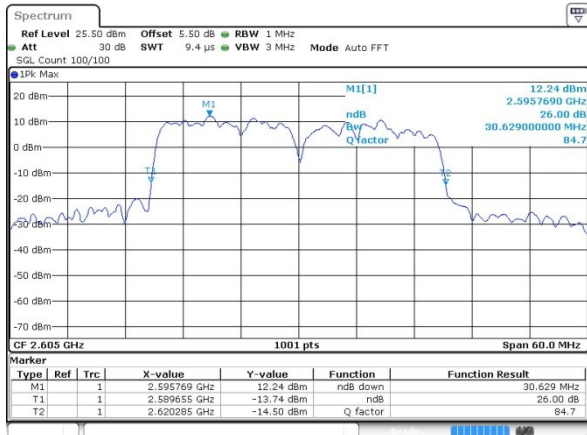
Date: 4 APR 2019 17:56:17

Middle Channel / 20MHz+20MHz



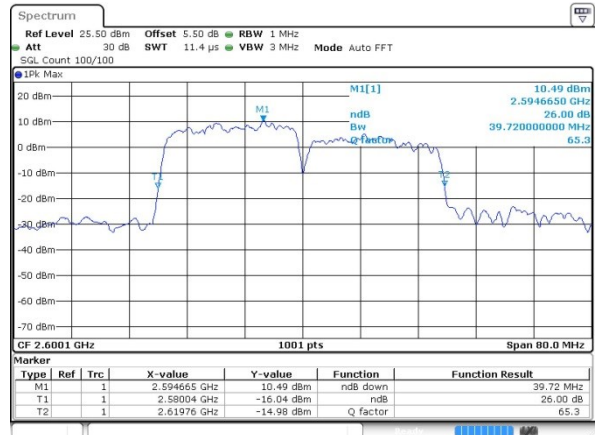
Date: 4 APR 2019 19:00:20

Highest Channel / 15MHz+15MHz



Date: 4 APR 2019 18:47:46

Highest Channel / 20MHz+20MHz



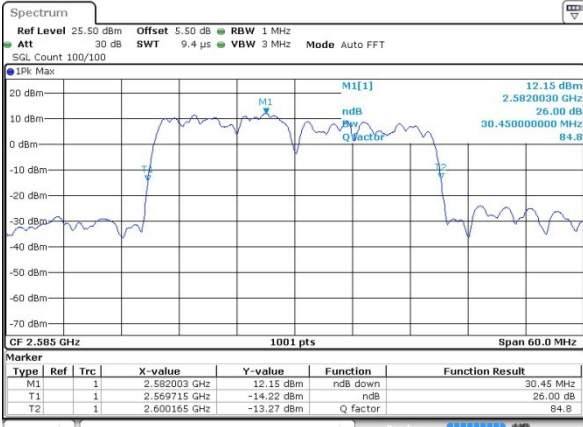
Date: 4 APR 2019 19:01:41



LTE Band 38

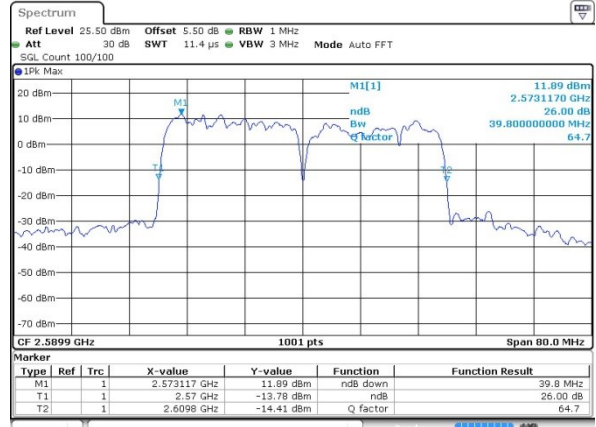
64QAM

Lowest Channel / 15MHz+15MHz



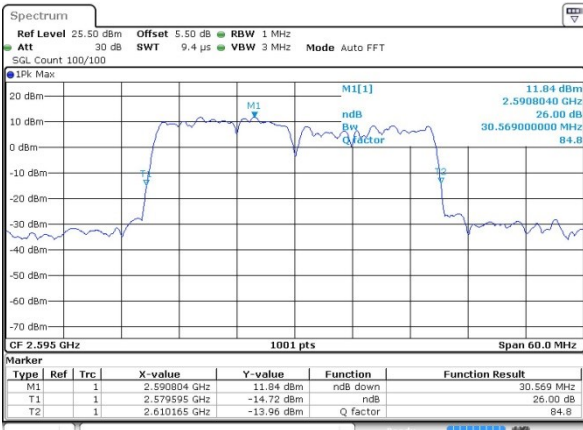
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Lowest Channel / 20MHz+20MHz



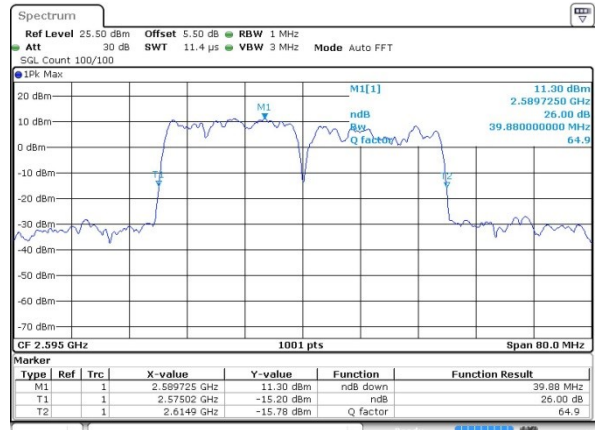
Date: 4 APR 2019 18:50:22

Middle Channel / 15MHz+15MHz



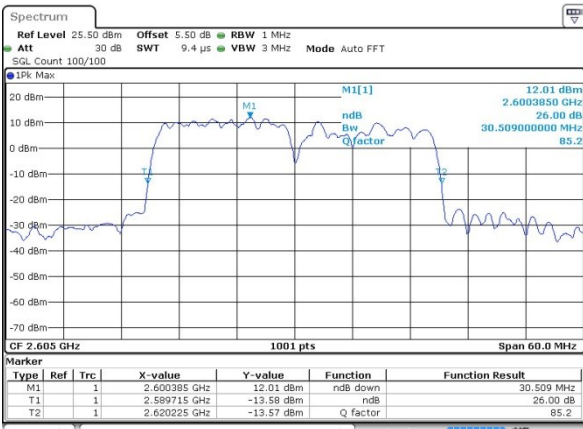
Date: 4 APR 2019 17:55:55

Middle Channel / 20MHz+20MHz



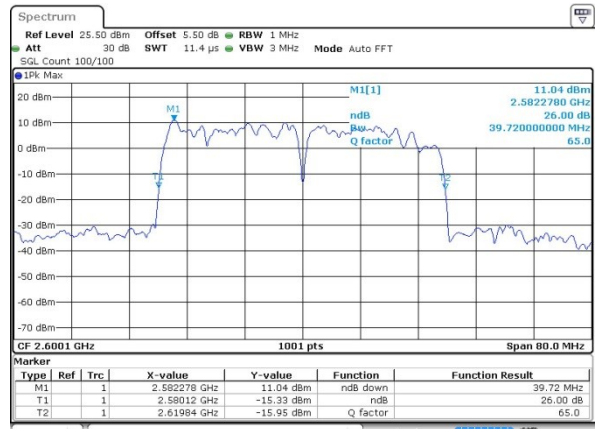
Date: 4 APR 2019 19:00:00

Highest Channel / 15MHz+15MHz



Date: 4 APR 2019 18:47:26

Highest Channel / 20MHz+20MHz



Date: 4 APR 2019 19:02:05



### 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	1.09	2.72	2.72	4.50	4.50	9.01	9.01	13.37	13.52	18.26	18.50	
Middle CH	1.09	1.09	2.71	2.73	4.49	4.50	9.11	9.03	13.43	13.43	18.50	18.34	
Highest CH	1.09	1.08	2.73	2.71	4.49	4.49	9.03	9.03	13.40	13.40	18.42	18.34	
Mode		LTE Band 2 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz		
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM		
Lowest CH	1.09		2.71		4.46		9.01		13.40		18.38		
Middle CH	1.08		2.72		4.48		9.09		13.49		18.54		
Highest CH	1.09		2.73		4.51		9.01		13.43		18.30		

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	1.08	1.09	2.73	2.73	4.53	4.51	9.01	9.07	13.46	13.49	18.38	18.34	
Middle CH	1.09	1.09	2.71	2.73	4.51	4.52	9.05	8.97	13.43	13.46	18.22	18.34	
Highest CH	1.09	1.09	2.70	2.73	4.50	4.53	9.09	9.03	13.46	13.46	18.34	18.34	
Mode		LTE Band 4 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz		
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM		
Lowest CH	1.09		2.73		4.50		9.03		13.49		18.50		
Middle CH	1.09		2.74		4.51		9.01		13.49		18.42		
Highest CH	1.09		2.72		4.49		9.01		13.19		18.38		



LTE Band 5 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
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	2.72	4.51	4.49	8.99	8.99				
Middle CH	1.09	1.10	2.72	2.73	4.48	4.49	9.03	8.99				
Highest CH	1.09	1.08	2.72	2.70	4.52	4.51	9.11	8.99				
LTE Band 5 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH	1.09		2.72		4.48		9.03					
Middle CH	1.09		2.72		4.50		9.09					
Highest CH	1.09		2.72		4.48		9.03					

LTE Band 7 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
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	4.50	9.09	9.05	13.37	13.43	18.22	18.38
Middle CH					4.50	4.51	8.99	8.99	13.43	13.40	18.38	18.30
Highest CH					4.49	4.49	9.11	9.01	13.49	13.43	18.22	18.42
LTE Band 7 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH					4.49		9.05		13.43		18.38	
Middle CH					4.50		9.01		13.43		18.38	
Highest CH					4.49		9.01		13.46		18.30	

LTE Band 38 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH					4.52	4.49	9.05	9.03	13.46	13.43	18.26	18.18
Middle CH					4.51	4.47	9.03	9.01	13.34	13.43	18.22	18.38
Highest CH					4.50	4.51	8.97	8.97	13.40	13.40	18.26	18.50
LTE Band 38 : 99%OBW(MHz)												
Mode	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	1.4MHz	3MHz	5MHz	10MHz	15MHz	20MHz						
Mod.	64QAM	64QAM	64QAM	64QAM	64QAM	64QAM						
Lowest CH					4.48		9.03		13.37		18.34	
Middle CH					4.48		9.01		13.43		18.18	
Highest CH					4.48		9.05		13.43		18.38	



For CA

Mode	LTE Band 7 : 99%OBW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	27.70		23.18	28.47
Middle CH	27.57		23.08	28.65
Highest CH	27.93		23.08	28.35
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.59	27.93	32.87	37.72
Middle CH	32.38	28.05	32.59	37.32
Highest CH	32.73	27.75	32.73	37.48

Mode	LTE Band 7 : 99%OBW(MHz)			
16QAM				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	28.05		23.23	28.71
Middle CH	27.63		23.38	28.35
Highest CH	27.51		23.03	28.47
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.73	27.87	32.66	37.40
Middle CH	32.87	27.87	32.52	37.64
Highest CH	32.38	28.17	32.73	37.48

Mode	LTE Band 7 : 99%OBW(MHz)			
64QAM				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	27.96		23.53	28.59
Middle CH	27.87		23.37	28.65
Highest CH	27.63		23.13	28.31
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.52	28.29	32.66	37.64
Middle CH	32.42	28.05	32.94	37.28
Highest CH	32.31	28.23	32.87	37.48



Mode	LTE Band 38 : 99%OBW(MHz)			
Mod.	QPSK		16QAM	
BW	15MHz+15MHz	20MHz+20MHz	15MHz+15MHz	20MHz+20MHz
Lowest CH	28.65	37.48	28.41	37.48
Middle CH	28.71	37.56	28.59	37.80
Highest CH	28.41	37.88	28.47	37.72

Mode	LTE Band 38 : 99%OBW(MHz)			
Mod.	64QAM		-	
BW	15MHz+15MHz	20MHz+20MHz	-	-
Lowest CH	28.59	37.96	-	-
Middle CH	28.35	37.72	-	-
Highest CH	28.17	37.40	-	--