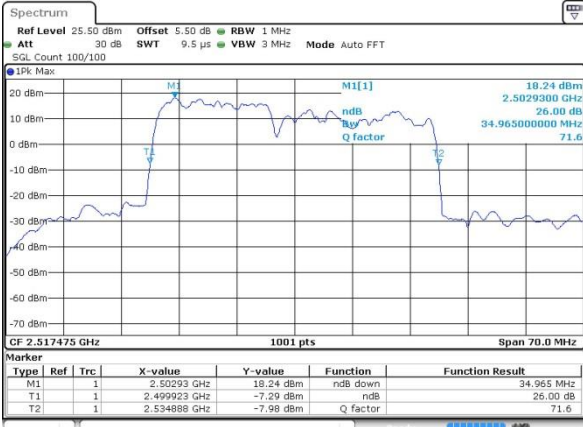




LTE Band 7

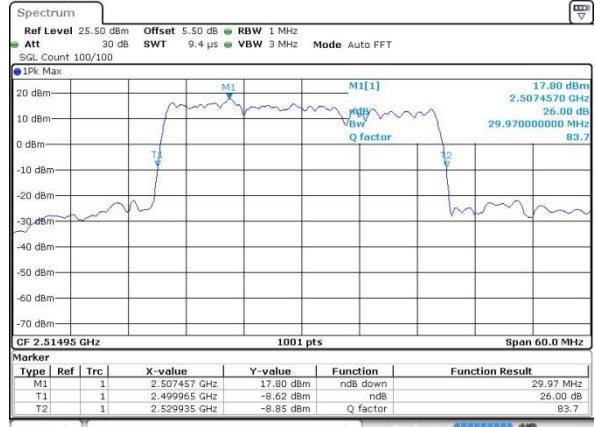
16QAM

Lowest Channel / 15MHz+20MHz



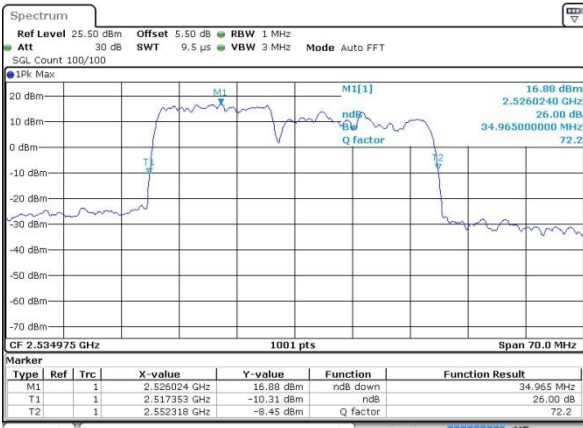
Date: 7 JUN 2019 14:23:23

Lowest Channel / 20MHz+10MHz



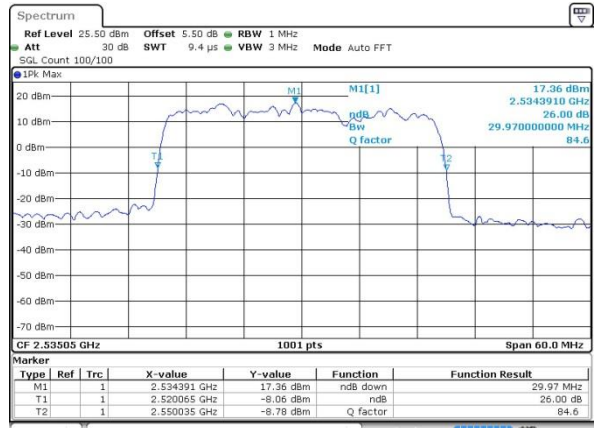
Date: 7 JUN 2019 12:00:40

Middle Channel / 15MHz+20MHz



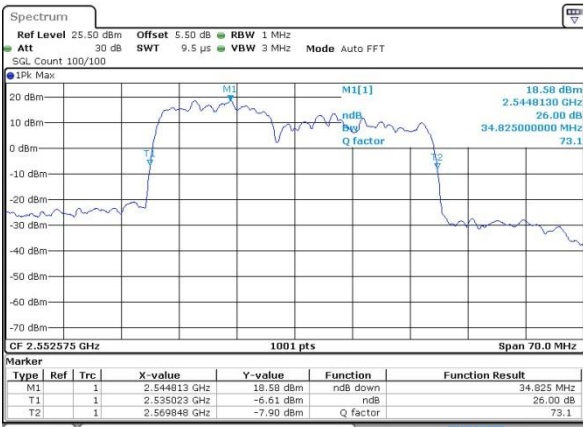
Date: 7 JUN 2019 14:46:55

Middle Channel / 20MHz+10MHz



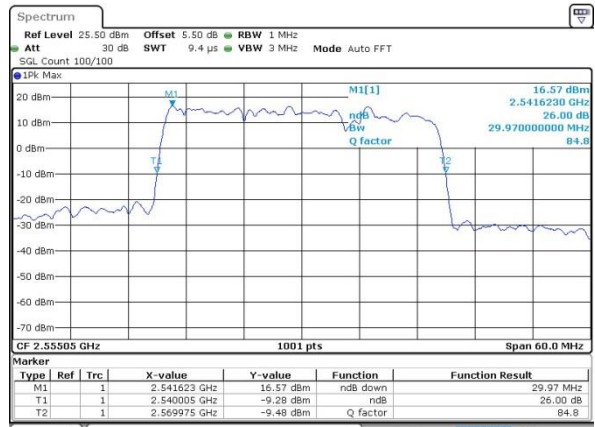
Date: 7 JUN 2019 12:59:16

Highest Channel / 15MHz+20MHz



Date: 7 JUN 2019 14:51:55

Highest Channel / 20MHz+10MHz



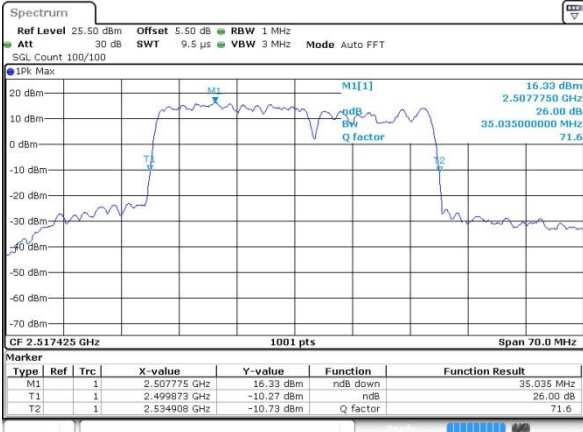
Date: 7 JUN 2019 13:03:32



LTE Band 7

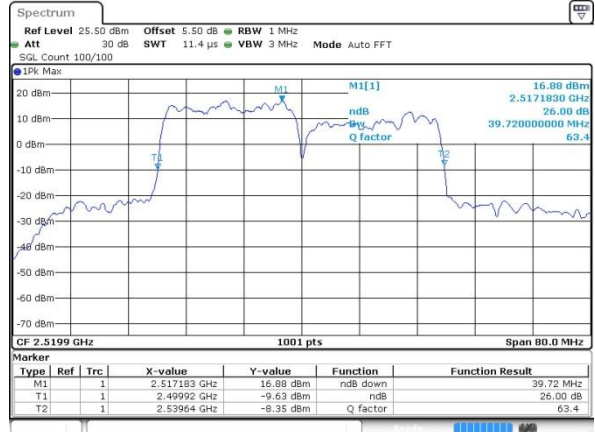
16QAM

Lowest Channel / 20MHz+15MHz



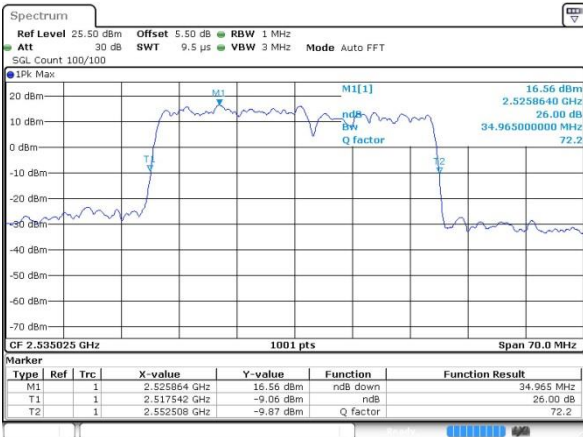
Date: 7 JUN 2019 15:35:15

Lowest Channel / 20MHz+20MHz



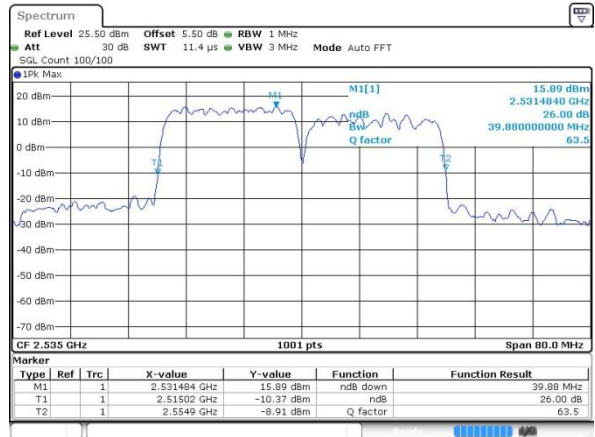
Date: 7 JUN 2019 16:23:35

Middle Channel / 20MHz+15MHz



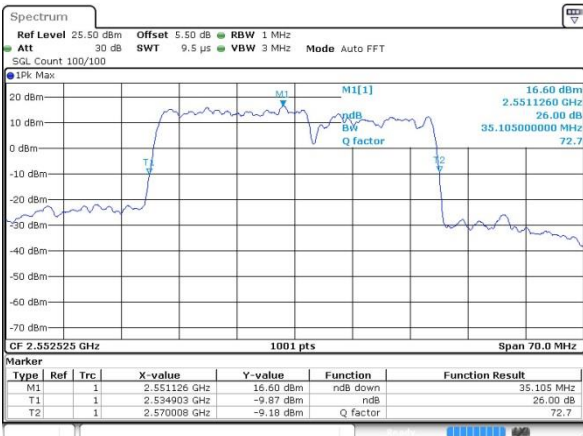
Date: 7 JUN 2019 15:57:12

Middle Channel / 20MHz+20MHz



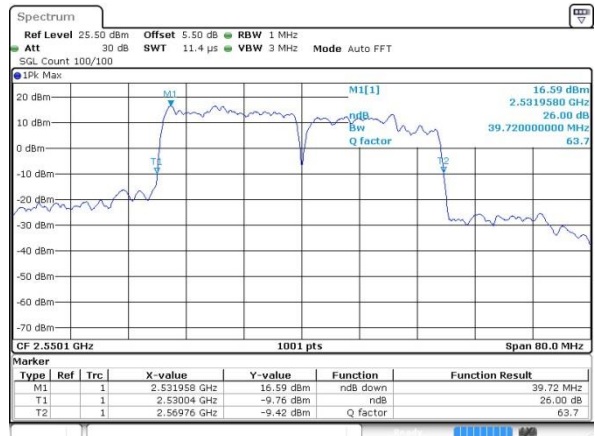
Date: 7 JUN 2019 16:28:06

Highest Channel / 20MHz+15MHz



Date: 7 JUN 2019 16:00:27

Highest Channel / 20MHz+20MHz



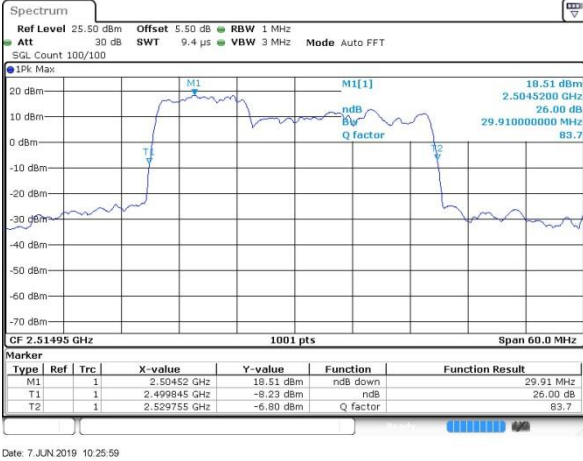
Date: 7 JUN 2019 16:30:28



LTE Band 7

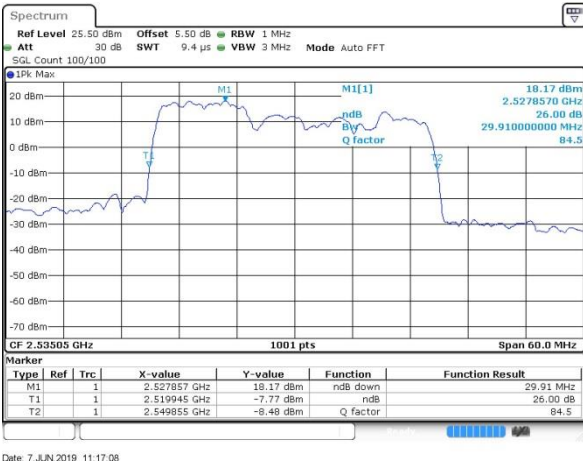
64QAM

Lowest Channel / 10MHz+20MHz



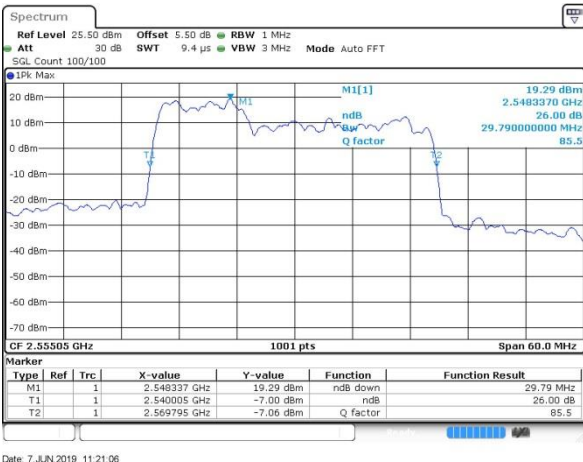
Date: 7 JUN 2019 10:25:59

Middle Channel / 10MHz+20MHz



Date: 7 JUN 2019 11:17:08

Highest Channel / 10MHz+20MHz



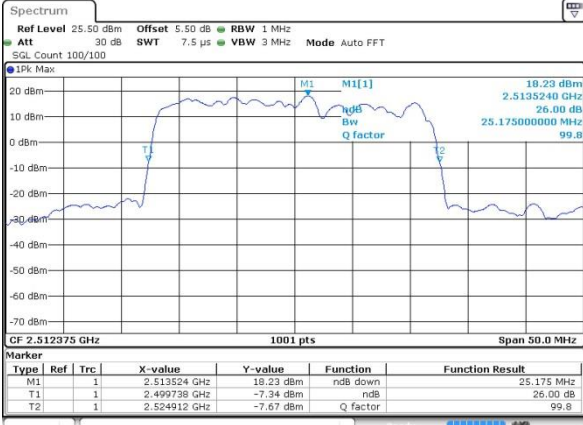
Date: 7 JUN 2019 11:21:06



LTE Band 7

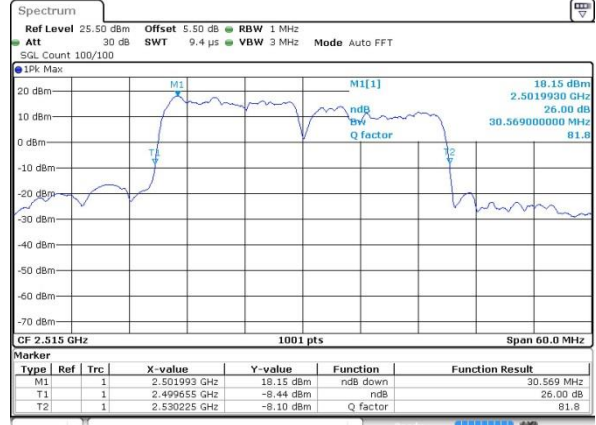
64QAM

Lowest Channel / 15MHz+10MHz



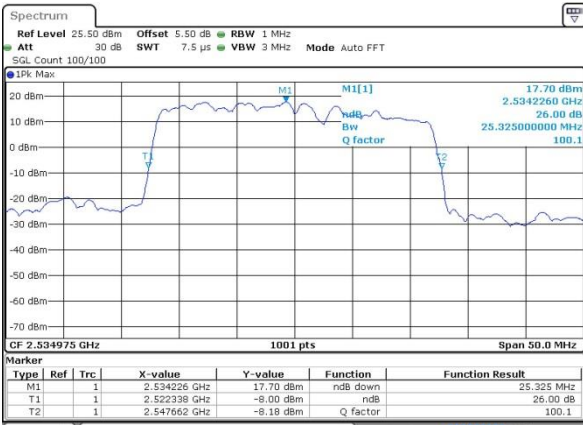
Date: 7 JUN 2019 17:12:28

Lowest Channel / 15MHz+15MHz



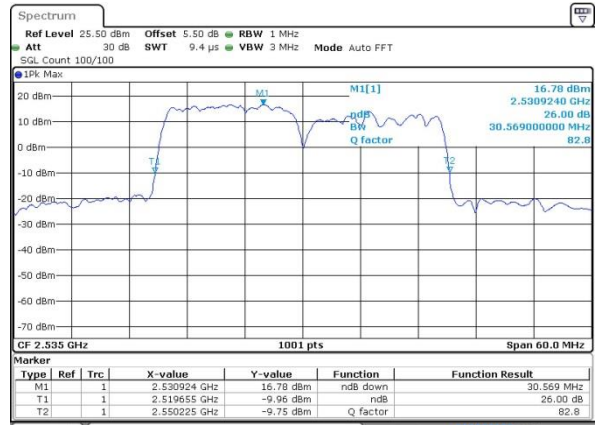
Date: 7 JUN 2019 13:30:35

Middle Channel / 15MHz+10MHz



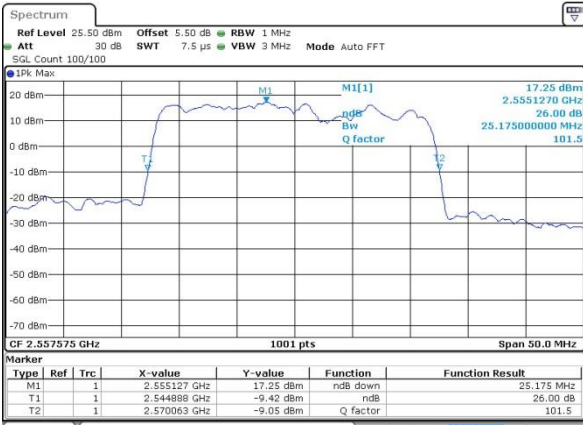
Date: 7 JUN 2019 17:13:48

Middle Channel / 15MHz+15MHz



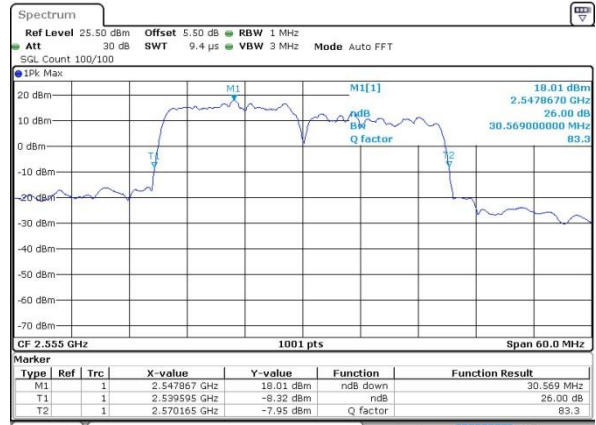
Date: 7 JUN 2019 13:58:07

Highest Channel / 15MHz+10MHz



Date: 7 JUN 2019 17:18:09

Highest Channel / 15MHz+15MHz



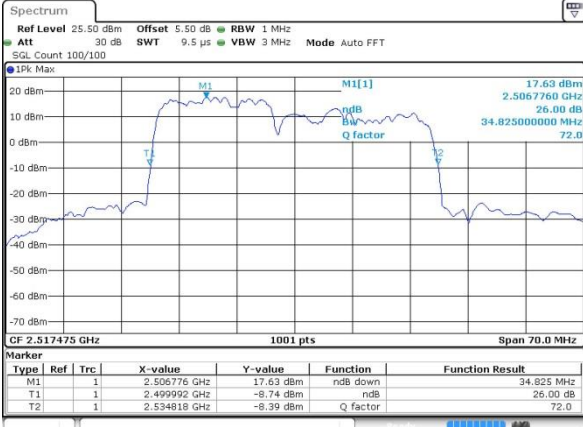
Date: 7 JUN 2019 14:03:32



LTE Band 7

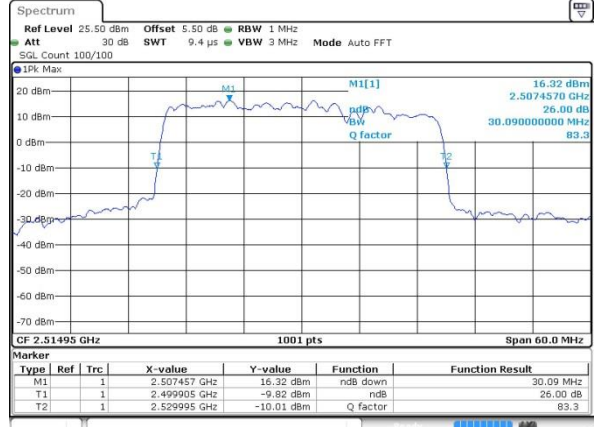
64QAM

Lowest Channel / 15MHz+20MHz



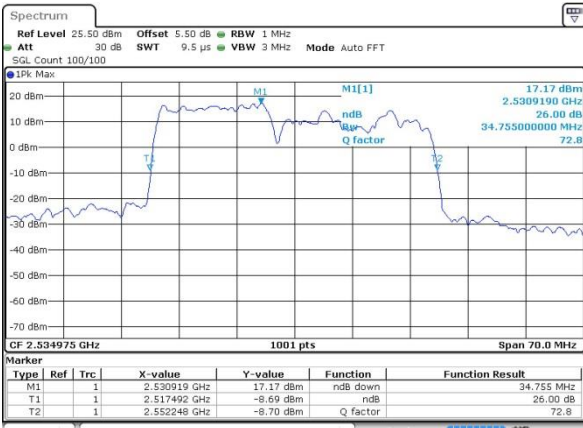
Date: 7 JUN 2019 14:25:46

Lowest Channel / 20MHz+10MHz



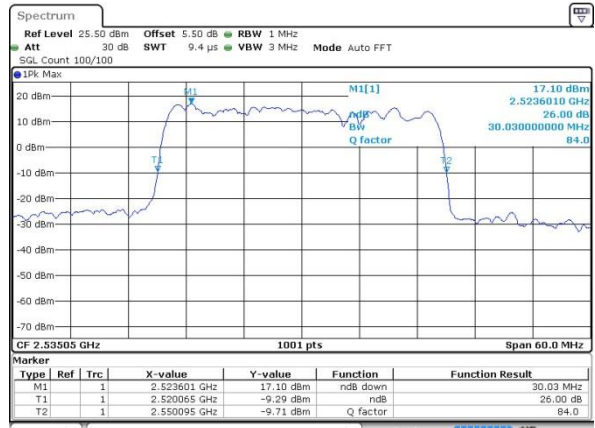
Date: 7 JUN 2019 12:01:39

Middle Channel / 15MHz+20MHz



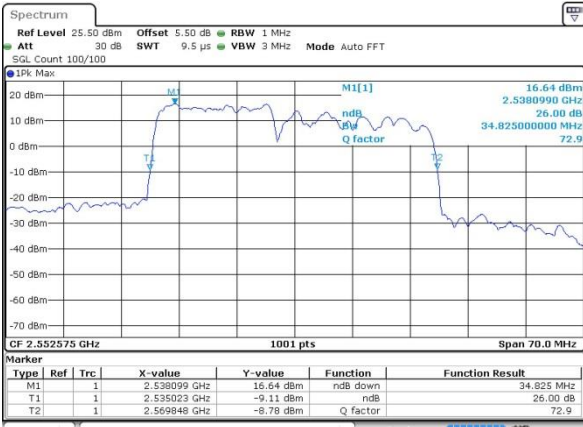
Date: 7 JUN 2019 14:47:31

Middle Channel / 20MHz+10MHz



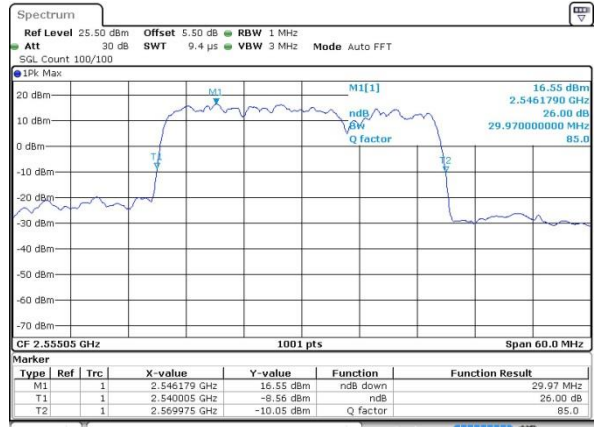
Date: 7 JUN 2019 13:00:35

Highest Channel / 15MHz+20MHz



Date: 7 JUN 2019 14:49:58

Highest Channel / 20MHz+10MHz



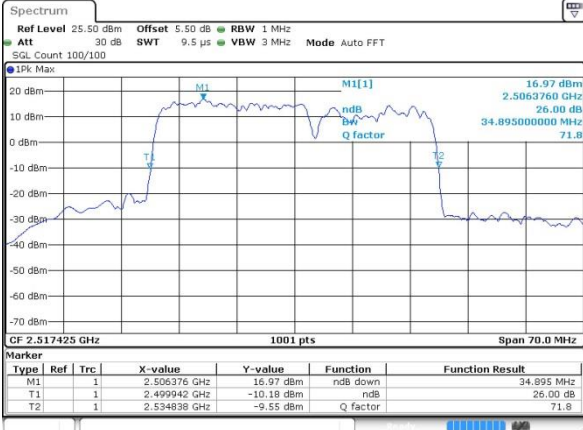
Date: 7 JUN 2019 13:02:47



LTE Band 7

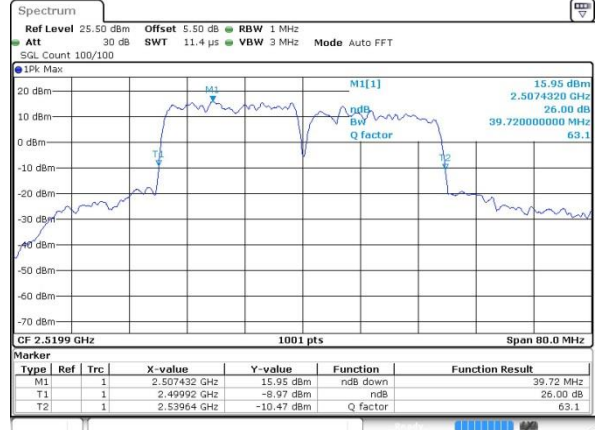
64QAM

Lowest Channel / 20MHz+15MHz



Date: 7 JUN 2019 15:35:46

Lowest Channel / 20MHz+20MHz



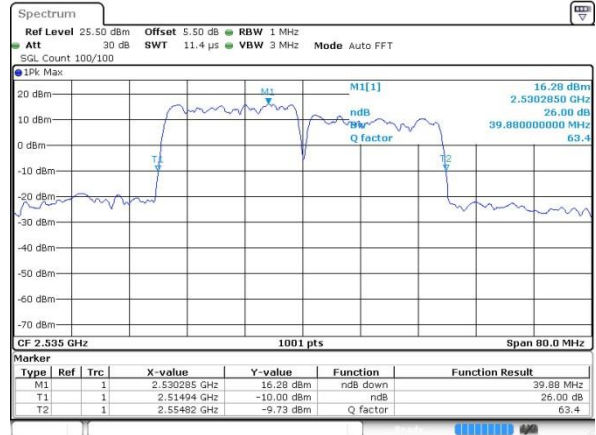
Date: 7 JUN 2019 16:24:14

Middle Channel / 20MHz+15MHz



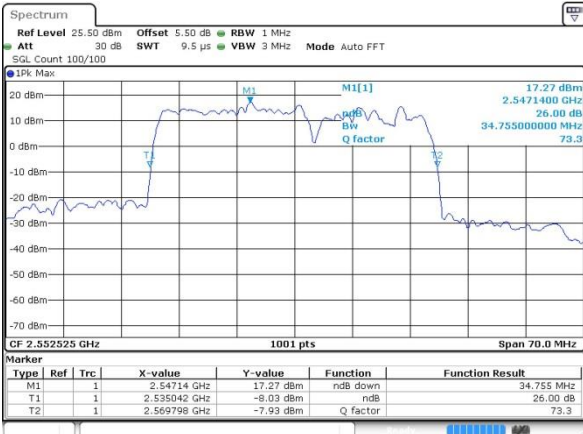
Date: 7 JUN 2019 15:57:44

Middle Channel / 20MHz+20MHz



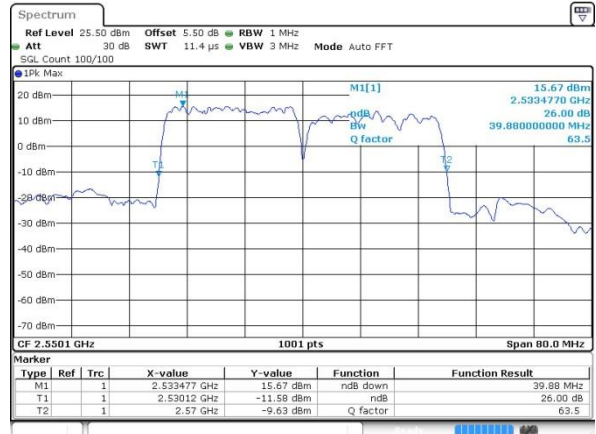
Date: 7 JUN 2019 16:27:36

Highest Channel / 20MHz+15MHz



Date: 7 JUN 2019 15:59:55

Highest Channel / 20MHz+20MHz



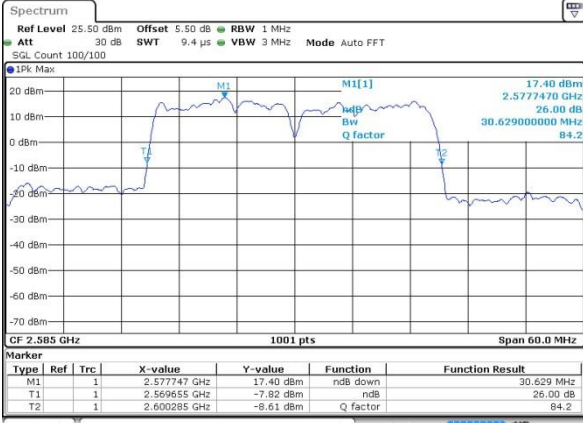
Date: 7 JUN 2019 16:31:06



LTE Band 38

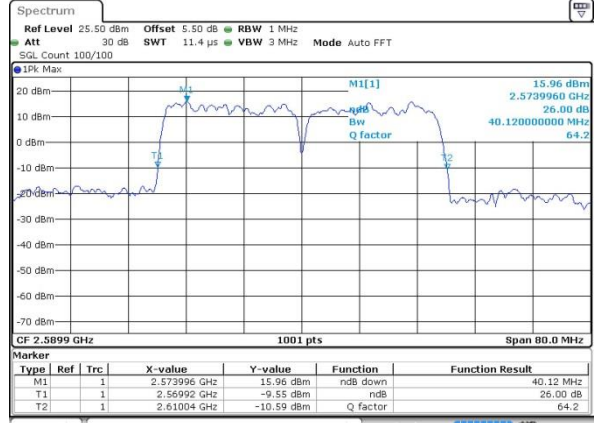
QPSK

Lowest Channel / 15MHz+15MHz



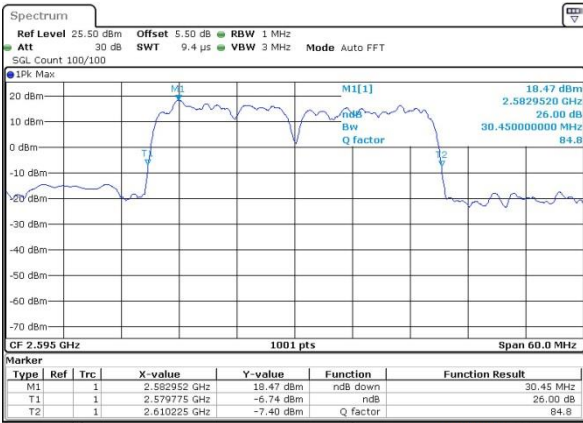
Date: 8 JUN 2019 15:43:34

Lowest Channel / 20MHz+20MHz



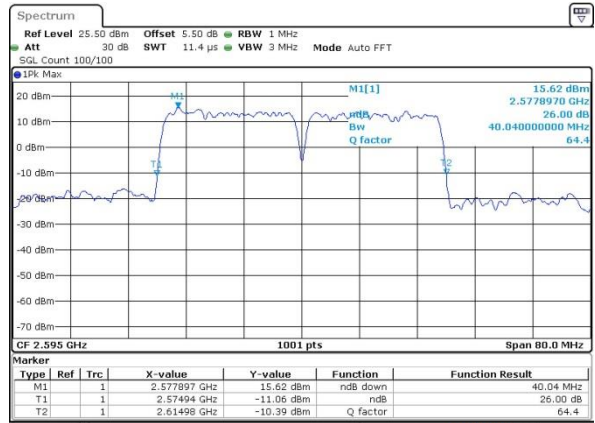
Date: 8 JUN 2019 16:21:46

Middle Channel / 15MHz+15MHz



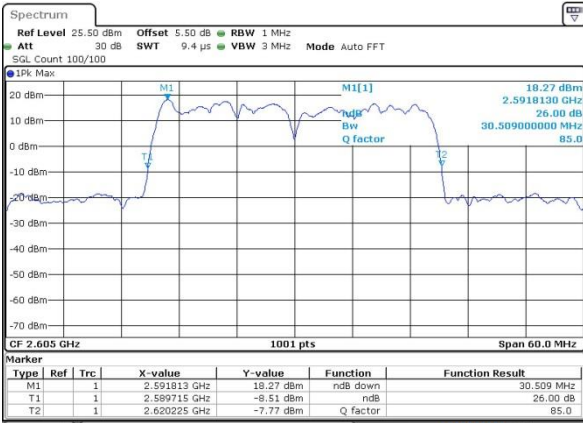
Date: 8 JUN 2019 16:12:32

Middle Channel / 20MHz+20MHz



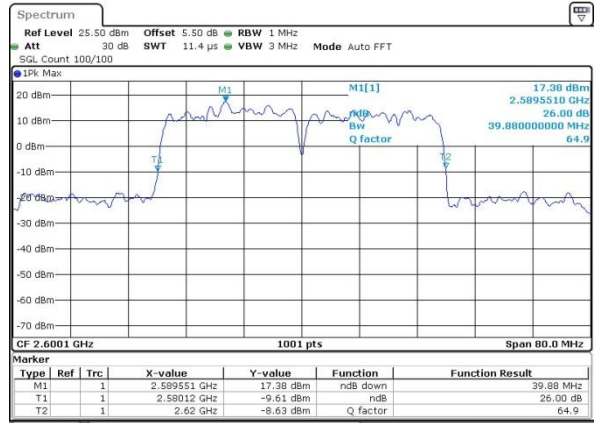
Date: 8 JUN 2019 16:22:55

Highest Channel / 15MHz+15MHz



Date: 8 JUN 2019 16:14:21

Highest Channel / 20MHz+20MHz



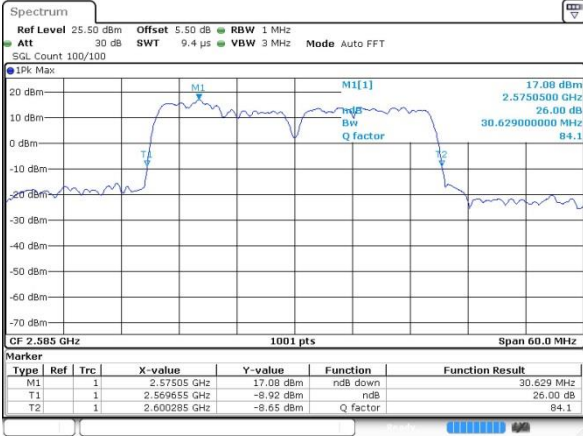
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LTE Band 38

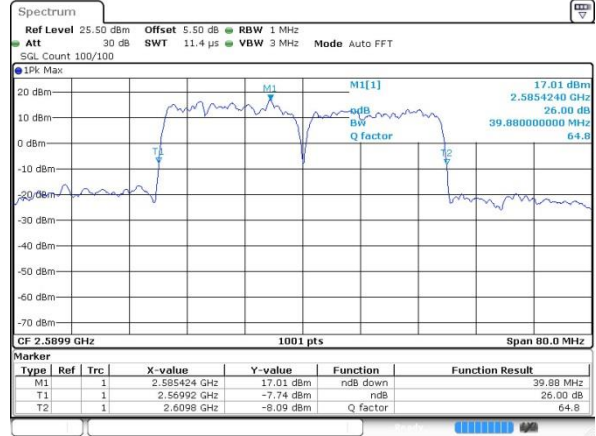
16QAM

Lowest Channel / 15MHz+15MHz



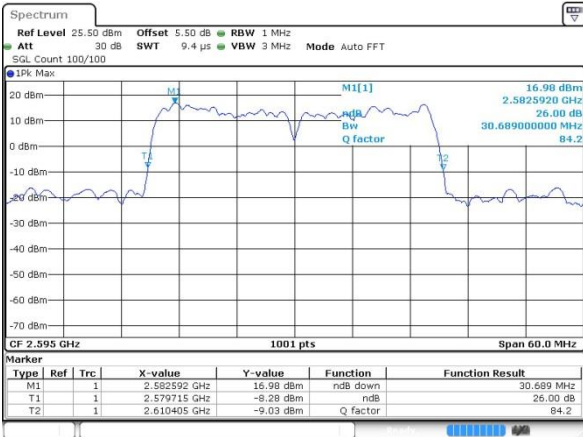
Date: 8 JUN 2019 15:44:39

Lowest Channel / 20MHz+20MHz



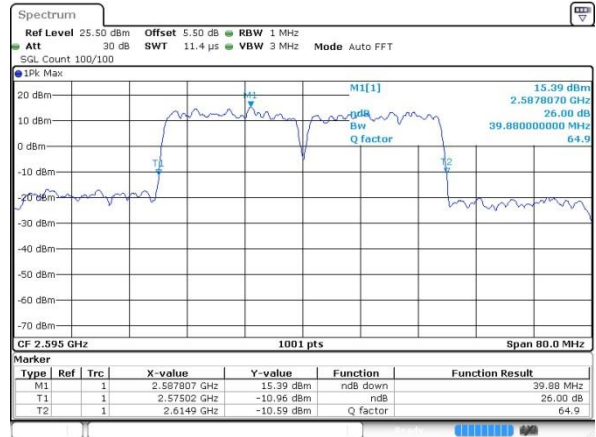
Date: 8 JUN 2019 16:21:04

Middle Channel / 15MHz+15MHz



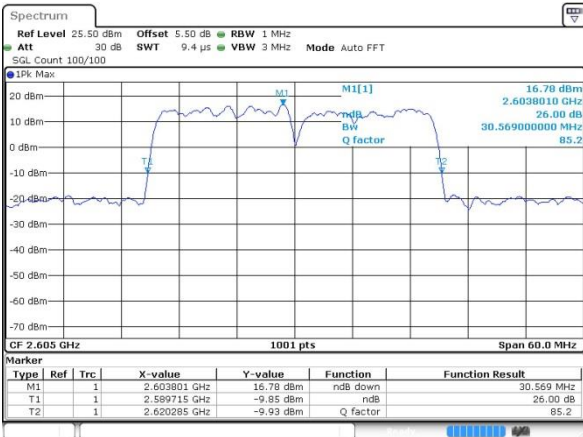
Date: 8 JUN 2019 16:11:44

Middle Channel / 20MHz+20MHz



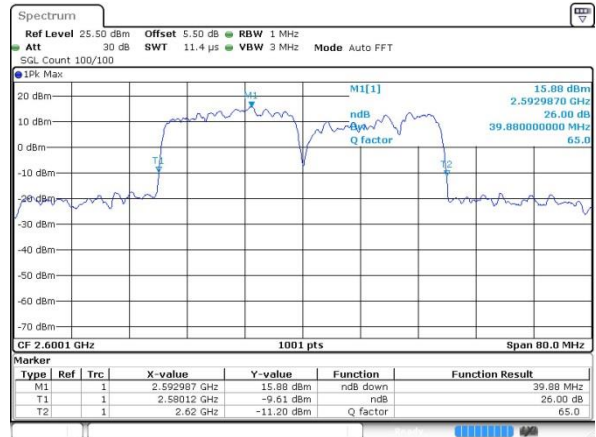
Date: 8 JUN 2019 16:23:34

Highest Channel / 15MHz+15MHz



Date: 8 JUN 2019 16:15:07

Highest Channel / 20MHz+20MHz



Date: 8 JUN 2019 16:28:32

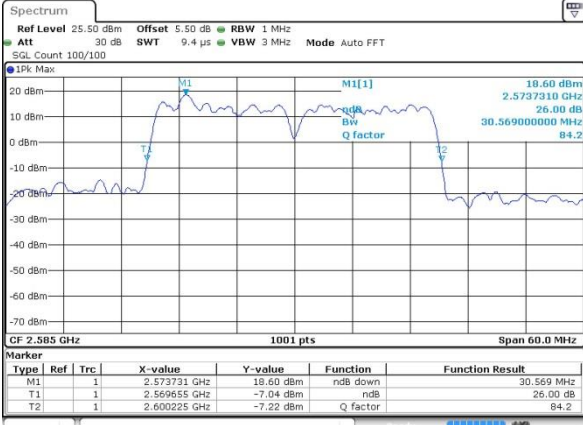




LTE Band 38

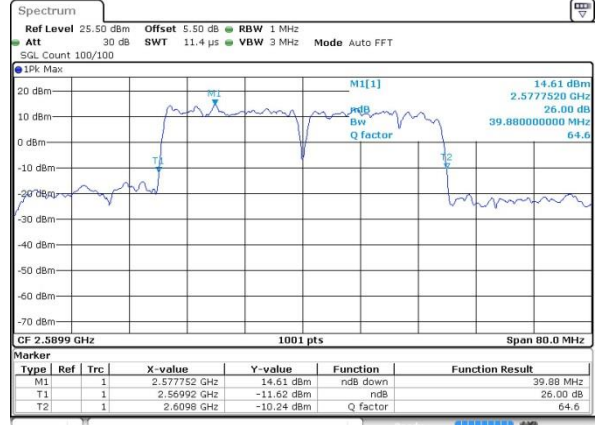
64QAM

Lowest Channel / 15MHz+15MHz



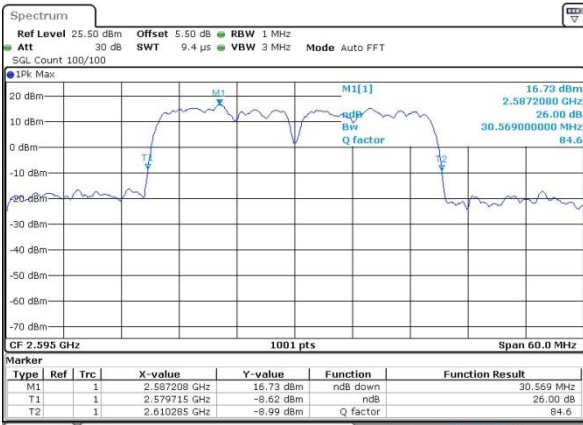
Date: 8 JUN 2019 15:45:36

Lowest Channel / 20MHz+20MHz



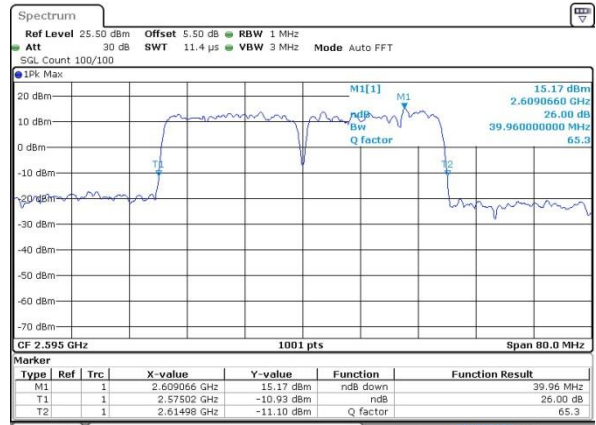
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Middle Channel / 15MHz+15MHz



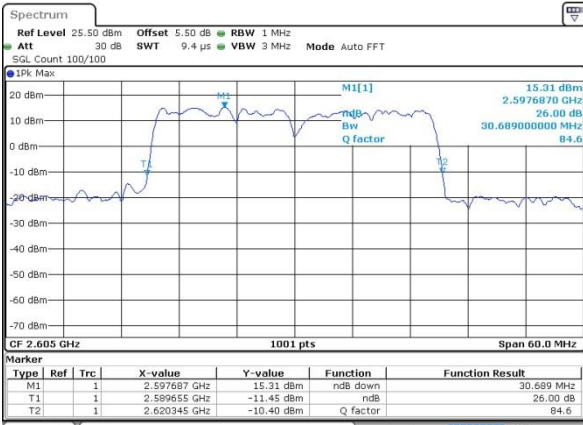
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Middle Channel / 20MHz+20MHz



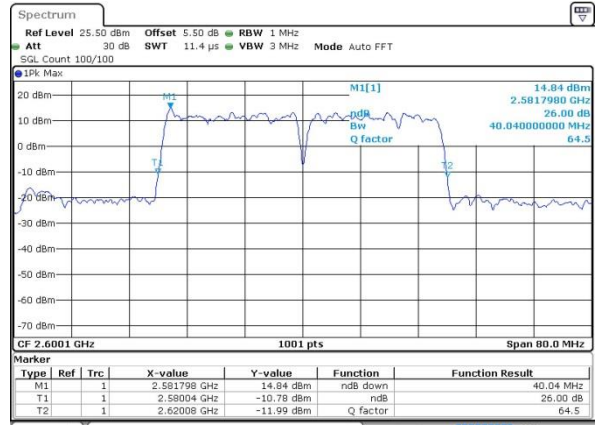
Date: 8 JUN 2019 16:24:26

Highest Channel / 15MHz+15MHz



Date: 8 JUN 2019 16:15:52

Highest Channel / 20MHz+20MHz



Date: 8 JUN 2019 16:25:58



**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	2.71	2.70	4.53	4.50	9.03	9.01	13.40	13.49	18.42	18.54
Middle CH	1.09	1.09	2.73	2.72	4.48	4.51	9.05	9.03	13.43	13.43	18.30	18.30
Highest CH	1.10	1.10	2.73	2.73	4.50	4.49	9.07	9.03	13.43	13.43	18.30	18.38
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		2.73		4.49		9.05		13.43		18.38	
Middle CH	1.09		2.72		4.51		9.01		13.43		18.34	
Highest CH	1.09		2.71		4.51		9.05		13.49		18.54	

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	1.10	2.72	2.73	4.48	4.50	9.03	9.01	13.46	13.40	18.22	18.38
Middle CH	1.09	1.09	2.72	2.75	4.51	4.51	9.09	9.03	13.46	13.46	18.22	18.46
Highest CH	1.10	1.10	2.73	2.73	4.51	4.49	9.03	9.03	13.46	13.40	18.26	18.30
Mode	LTE Band 4 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.10		2.72		4.50		9.05		13.43		18.30	
Middle CH	1.09		2.72		4.52		9.05		13.46		18.30	
Highest CH	1.10		2.72		4.51		9.03		13.37		18.22	



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	1.08	1.09	2.73	2.73	4.49	4.50	9.05	9.01				
Middle CH	1.09	1.09	2.75	2.71	4.49	4.53	9.01	9.05				
Highest CH	1.09	1.09	2.73	2.70	4.50	4.48	9.01	8.99				
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz					
Mod.	64QAM		64QAM		64QAM		64QAM					
Lowest CH	1.08		2.72		4.50		9.03					
Middle CH	1.08		2.72		4.51		9.07					
Highest CH	1.09		2.71		4.52		9.01					

Mode	LTE Band 7 : 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	4.50	9.01	9.03	13.43	13.37	18.18	18.22	4.48	8.99	13.40	18.38
Middle CH	4.50	4.50	8.99	9.01	13.49	13.46	18.22	18.38	4.49	8.97	13.40	18.42
Highest CH	4.48	4.50	9.03	9.09	13.49	13.46	18.50	18.38	4.51	8.99	13.46	18.42

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	4.50	9.01	8.99	13.40	13.43	18.38	18.50
Middle CH					4.50	4.47	9.07	9.05	13.43	13.46	18.30	18.26
Highest CH					4.49	4.50	9.03	9.07	13.43	13.43	18.38	18.30
Mode	LTE Band 38 : 99%OBW(MHz)											
BW					5MHz		10MHz		15MHz		20MHz	
Mod.					64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.50		9.03		13.37		18.34	
Middle CH	-	-	-	-	4.49		9.01		13.46		18.46	
Highest CH	-	-	-	-	4.49		9.03		13.40		18.26	



For CA

Mode	LTE Band 7 : 99%OBW(MHz)			
QPSK				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	27.93		23.38	28.53
Middle CH	27.81		23.18	28.47
Highest CH	27.93		23.43	28.35
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.94	27.93	32.59	37.48
Middle CH	32.73	27.93	32.66	37.24
Highest CH	32.45	27.99	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		23.38	28.23
Middle CH	28.11		23.28	28.29
Highest CH	27.93		23.53	28.71
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.80	27.99	32.94	37.48
Middle CH	32.66	27.99	32.52	37.56
Highest CH	32.87	27.87	32.73	37.48

Mode	LTE Band 7 : 99%OBW(MHz)			
64QAM				
BW	10MHz+20MHz	15MHz+5MHz	15MHz+10MHz	15MHz+15MHz
Lowest CH	27.81		23.43	28.65
Middle CH	27.93		23.18	28.65
Highest CH	27.99		23.48	28.41
BW	15MHz+20MHz	20MHz+10MHz	20MHz+15MHz	20MHz+20MHz
Lowest CH	32.73	27.99	32.66	37.40
Middle CH	32.66	27.51	32.73	37.32
Highest CH	32.80	27.99	32.52	37.56



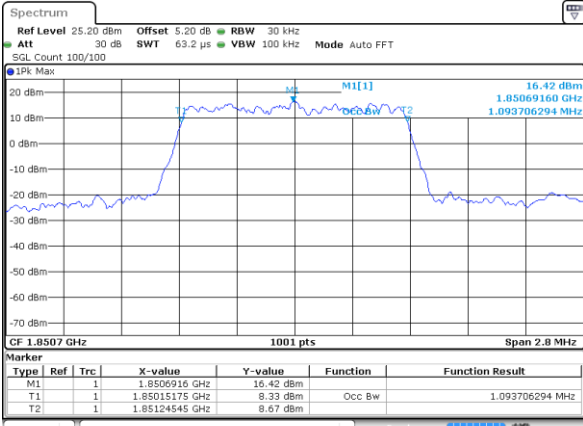
Mode	LTE Band 38 : 99%OBW(MHz)			
Mod.	QPSK		16QAM	
BW	15MHz+15MHz	20MHz+20MHz	15MHz+15MHz	20MHz+20MHz
Lowest CH	28.71	37.80	28.77	37.72
Middle CH	28.71	37.96	28.53	37.88
Highest CH	28.71	37.80	28.71	37.88

Mode	LTE Band 38 : 99%OBW(MHz)			
Mod.	64QAM		-	
BW	15MHz+15MHz	20MHz+20MHz	-	-
Lowest CH	28.65	37.88	-	-
Middle CH	28.53	37.80	-	-
Highest CH	28.65	38.04	-	--



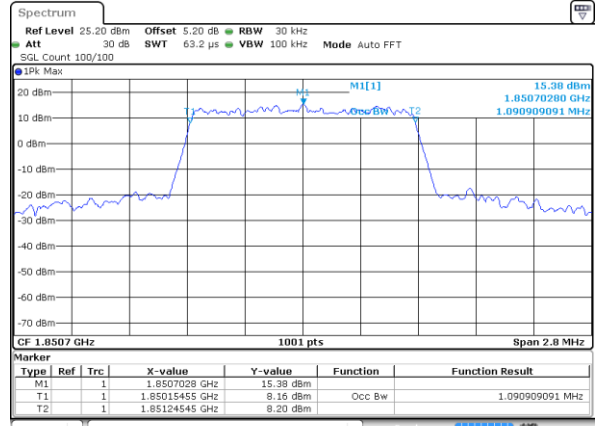
LTE Band 2

Lowest Channel / 1.4MHz / QPSK



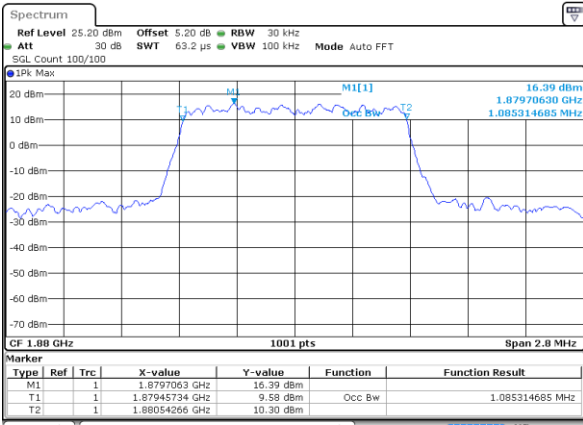
Date: 25 MAY 2019 01:12:28

Lowest Channel / 1.4MHz / 16QAM



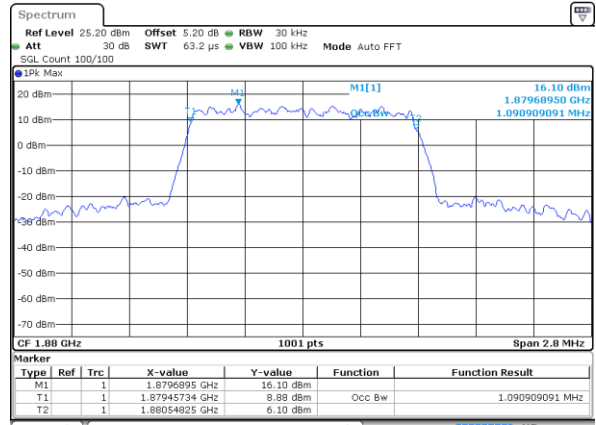
Date: 25 MAY 2019 01:12:38

Middle Channel / 1.4MHz / QPSK



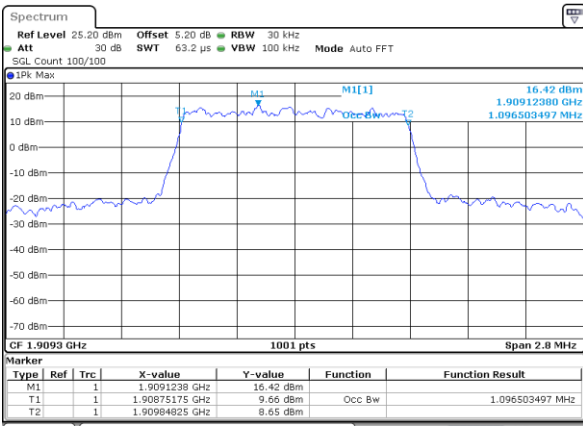
Date: 25 MAY 2019 01:21:58

Middle Channel / 1.4MHz / 16QAM



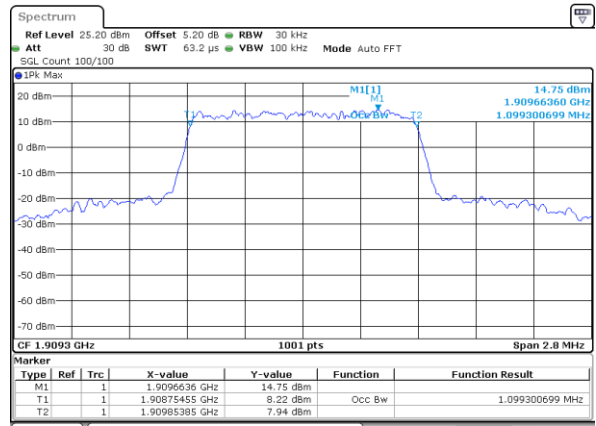
Date: 25 MAY 2019 01:22:08

Highest Channel / 1.4MHz / QPSK



Date: 25 MAY 2019 01:24:28

Highest Channel / 1.4MHz / 16QAM

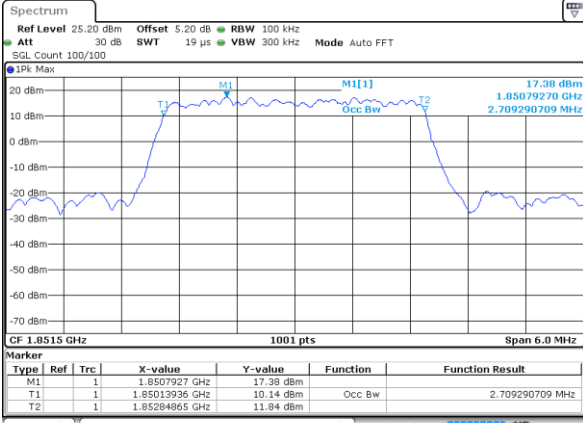


Date: 25 MAY 2019 01:24:38



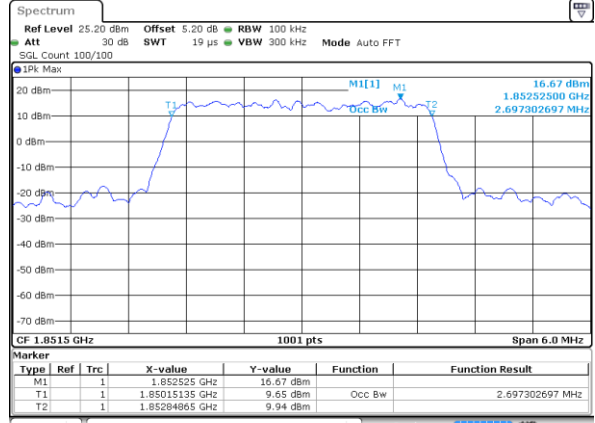
LTE Band 2

Lowest Channel / 3MHz / QPSK



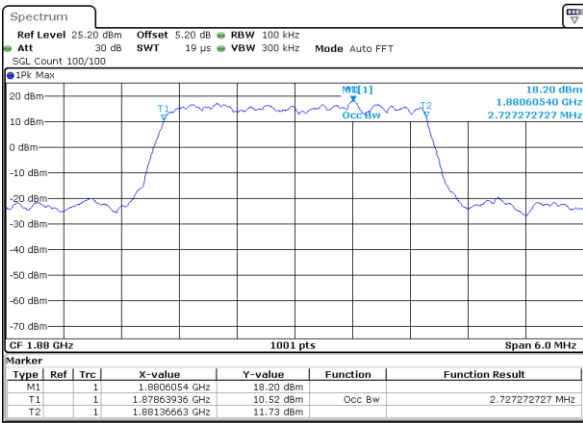
Date: 25 MAY 2019 01:31:28

Lowest Channel / 3MHz / 16QAM



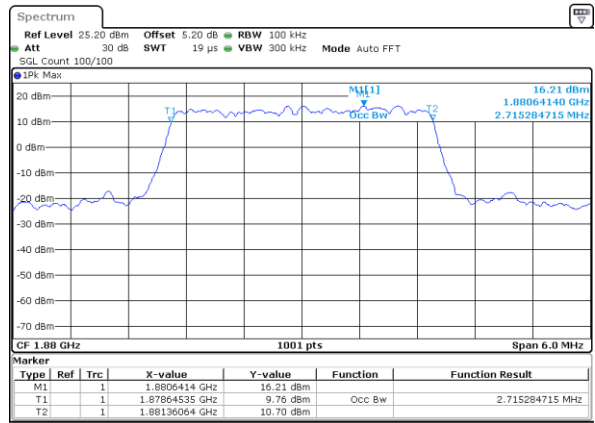
Date: 25 MAY 2019 01:31:38

Middle Channel / 3MHz / QPSK



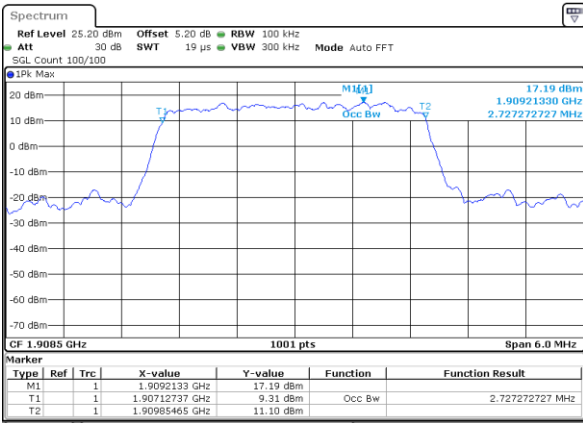
Date: 25 MAY 2019 01:38:27

Middle Channel / 3MHz / 16QAM



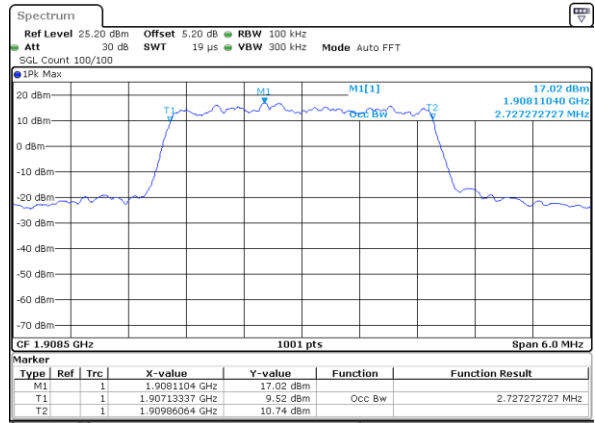
Date: 25 MAY 2019 01:38:37

Highest Channel / 3MHz / QPSK



Date: 25 MAY 2019 01:40:57

Highest Channel / 3MHz / 16QAM

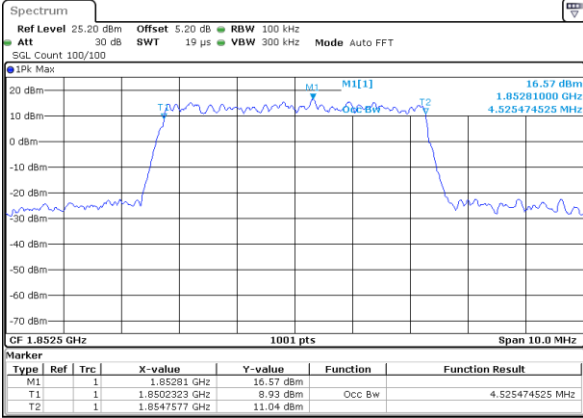


Date: 25 MAY 2019 01:41:07



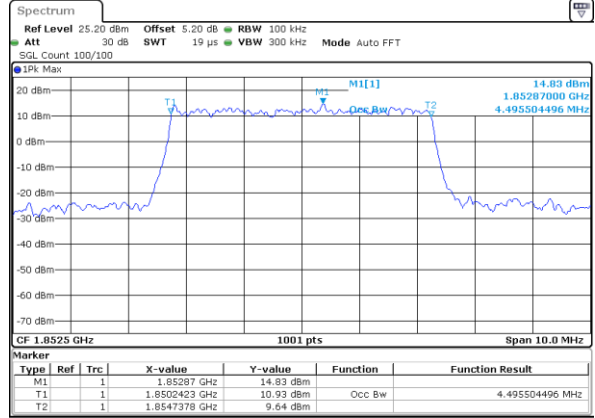
LTE Band 2

Lowest Channel / 5MHz / QPSK



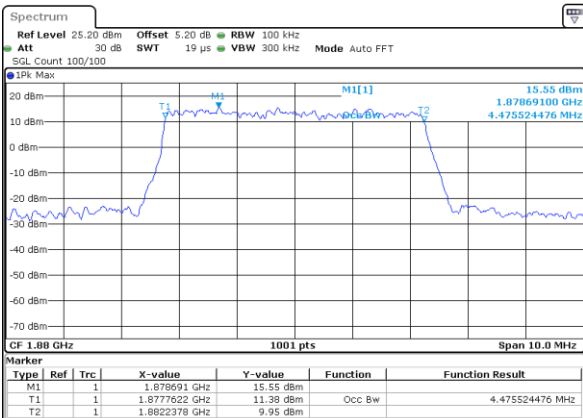
Date: 25 MAY 2019 01:47:57

Lowest Channel / 5MHz / 16QAM



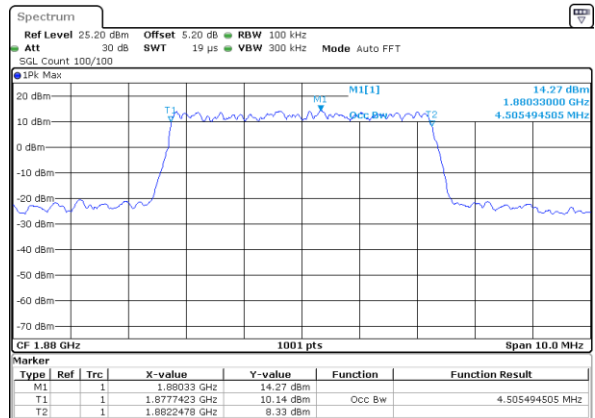
Date: 25 MAY 2019 01:48:07

Middle Channel / 5MHz / QPSK



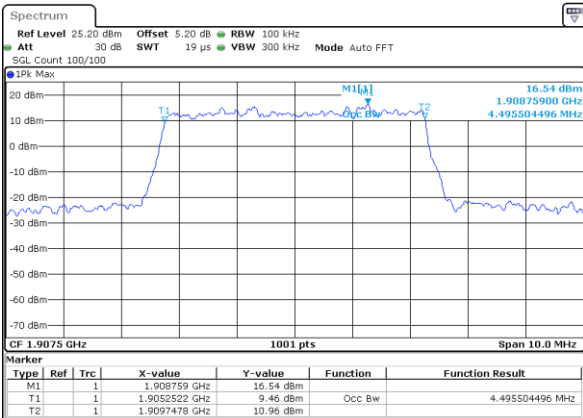
Date: 25 MAY 2019 01:54:57

Middle Channel / 5MHz / 16QAM



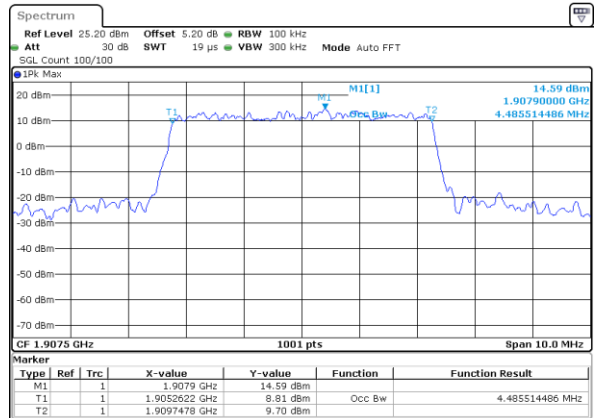
Date: 25 MAY 2019 01:55:07

Highest Channel / 5MHz / QPSK



Date: 25 MAY 2019 01:57:26

Highest Channel / 5MHz / 16QAM



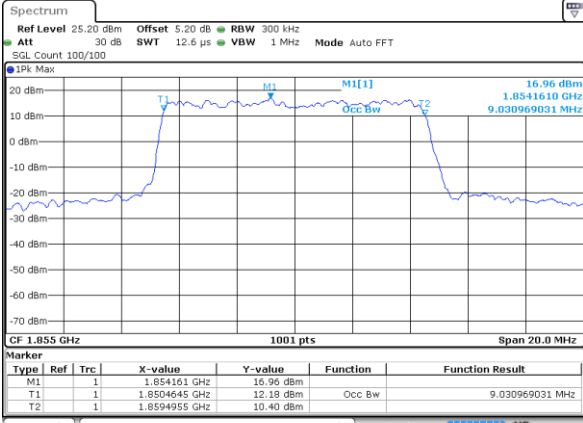
Date: 25 MAY 2019 01:57:36





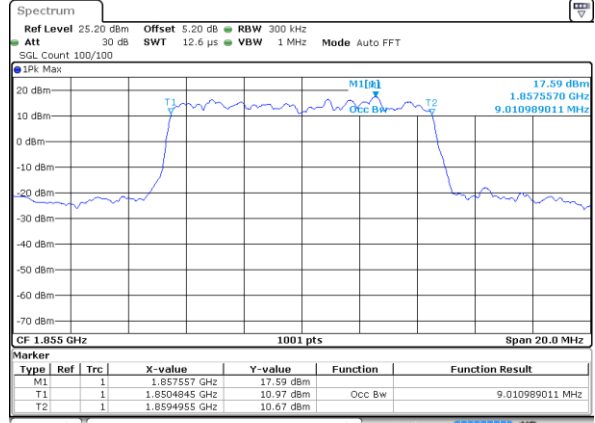
LTE Band 2

Lowest Channel / 10MHz / QPSK



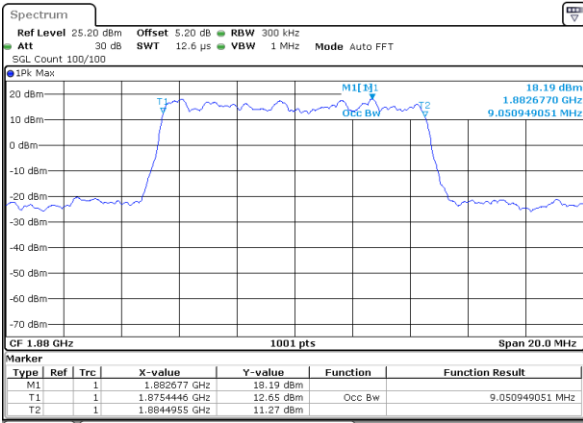
Date: 25 MAY 2019 02:04:26

Lowest Channel / 10MHz / 16QAM



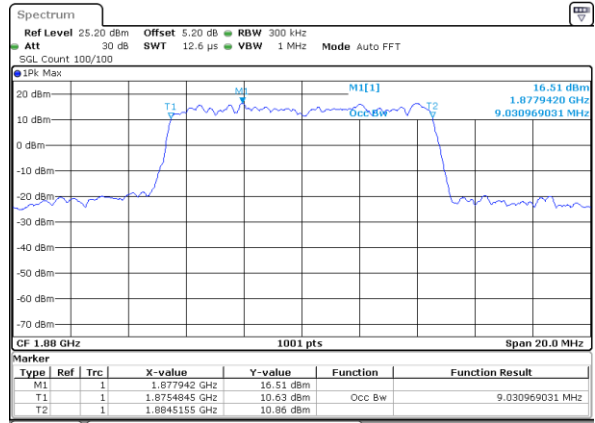
Date: 25 MAY 2019 02:04:36

Middle Channel / 10MHz / QPSK



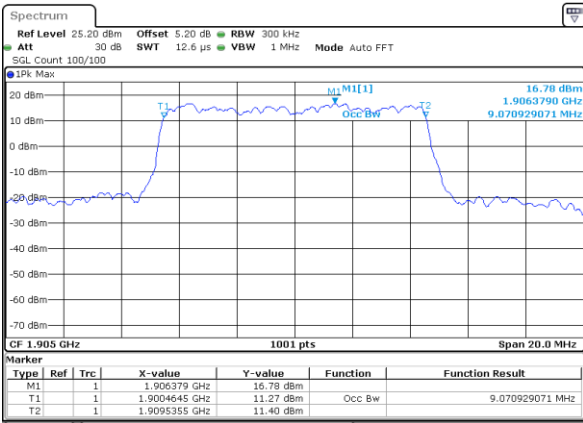
Date: 25 MAY 2019 02:11:26

Middle Channel / 10MHz / 16QAM



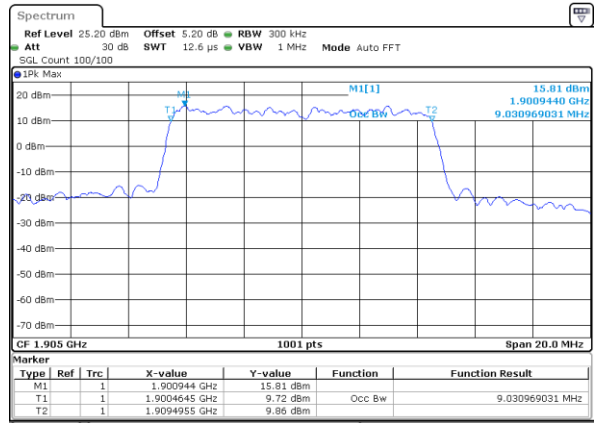
Date: 25 MAY 2019 02:11:36

Highest Channel / 10MHz / QPSK



Date: 25 MAY 2019 02:13:55

Highest Channel / 10MHz / 16QAM

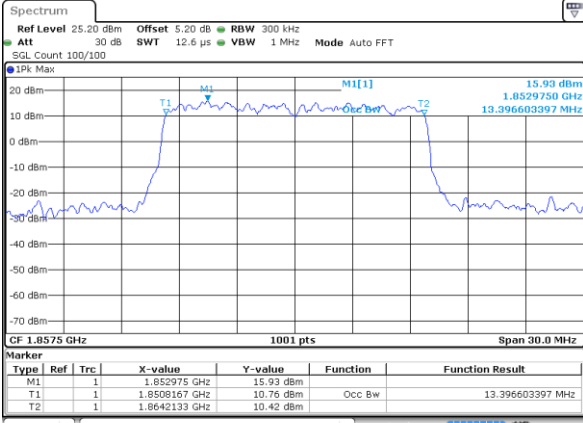


Date: 25 MAY 2019 02:14:05



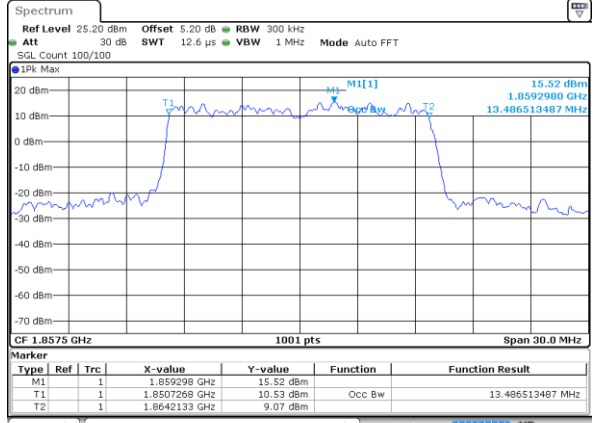
LTE Band 2

Lowest Channel / 15MHz / QPSK



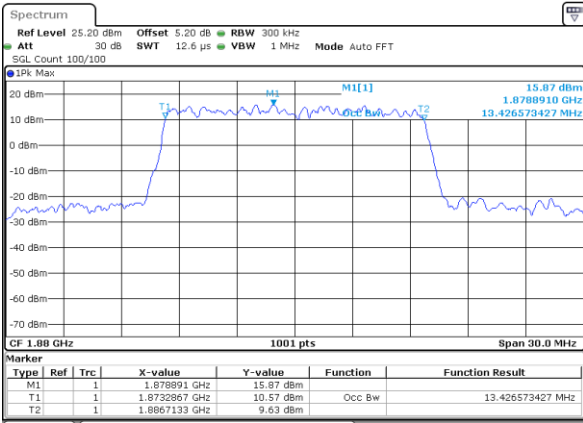
Date: 25 MAY 2019 02:20:55

Lowest Channel / 15MHz / 16QAM



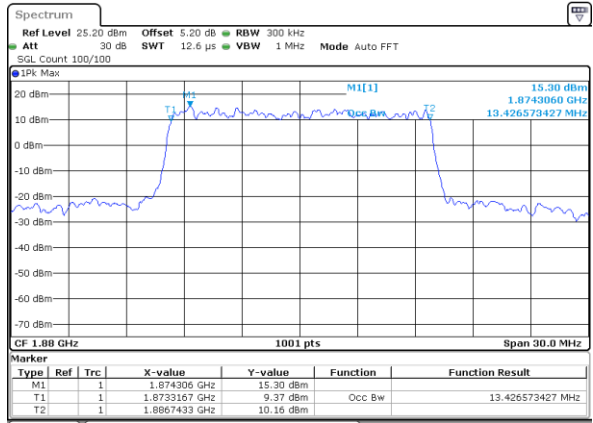
Date: 25 MAY 2019 02:21:05

Middle Channel / 15MHz / QPSK



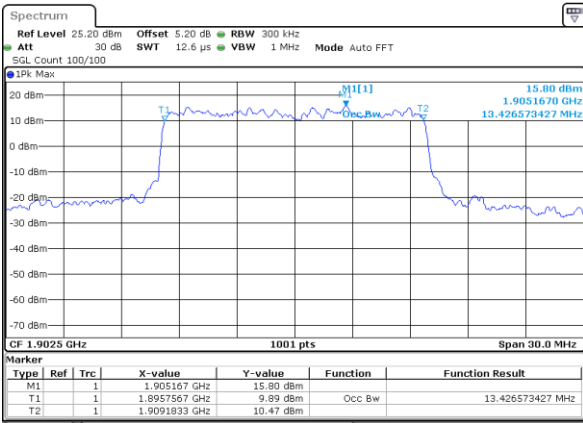
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Middle Channel / 15MHz / 16QAM



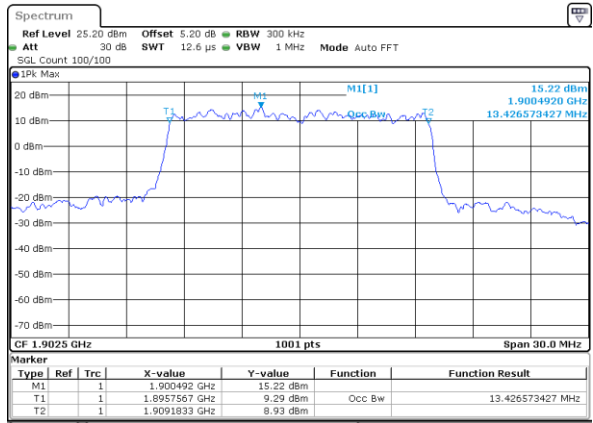
Date: 25 MAY 2019 02:28:05

Highest Channel / 15MHz / QPSK



Date: 25 MAY 2019 02:30:24

Highest Channel / 15MHz / 16QAM

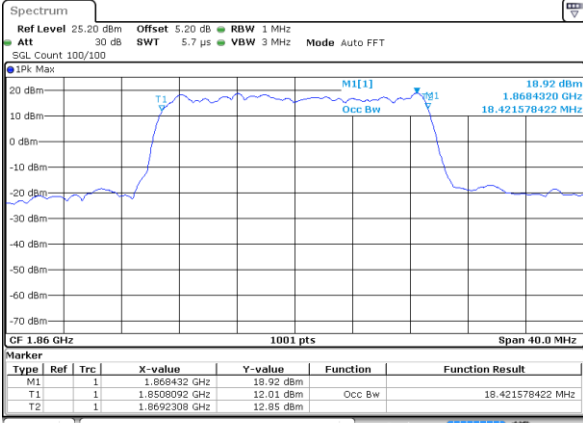


Date: 25 MAY 2019 02:30:34



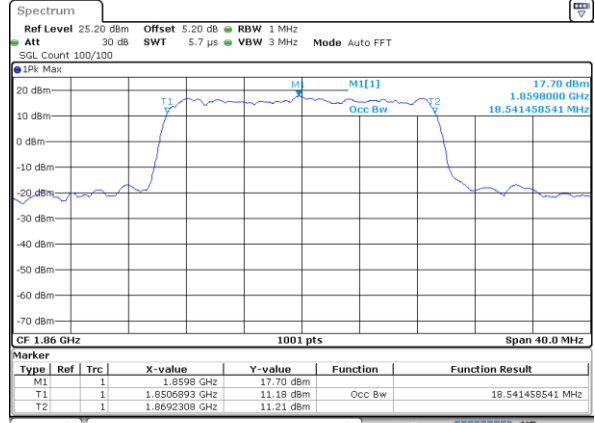
LTE Band 2

Lowest Channel / 20MHz / QPSK



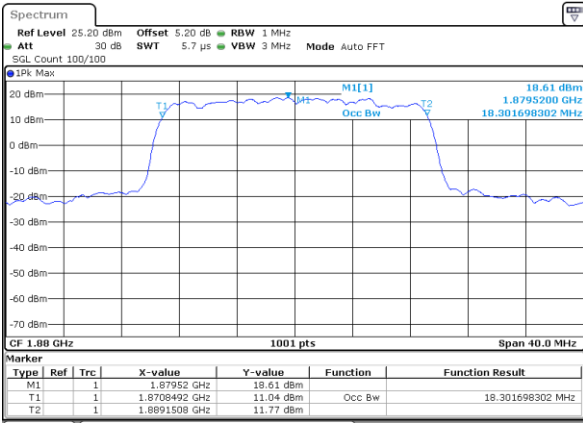
Date: 25 MAY 2019 02:37:24

Lowest Channel / 20MHz / 16QAM



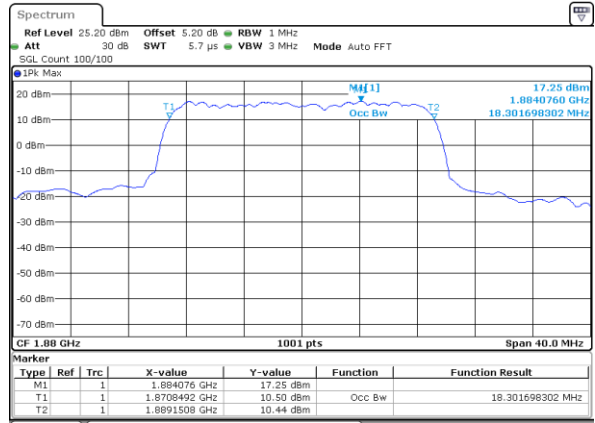
Date: 25 MAY 2019 02:37:34

Middle Channel / 20MHz / QPSK



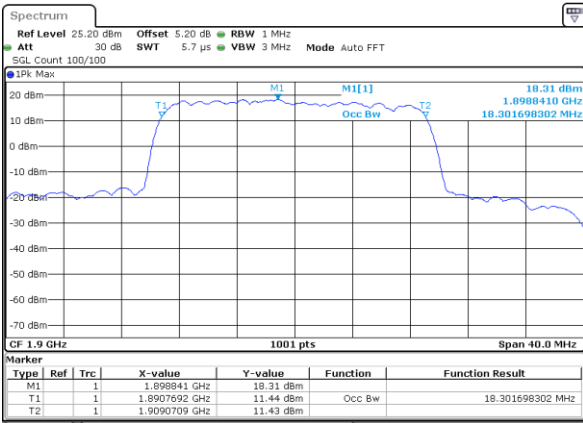
Date: 25 MAY 2019 02:44:24

Middle Channel / 20MHz / 16QAM



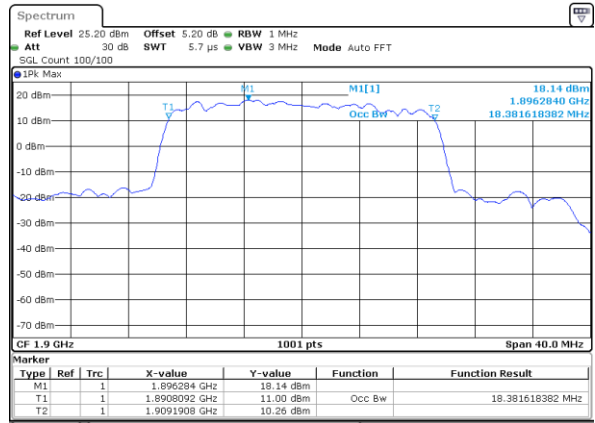
Date: 25 MAY 2019 02:44:34

Highest Channel / 20MHz / QPSK



Date: 25 MAY 2019 02:46:53

Highest Channel / 20MHz / 16QAM

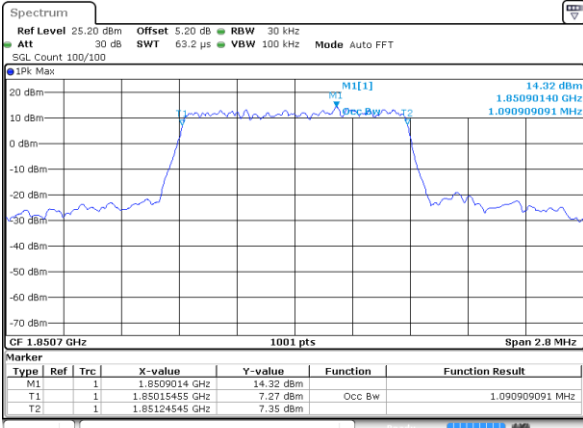


Date: 25 MAY 2019 02:47:03



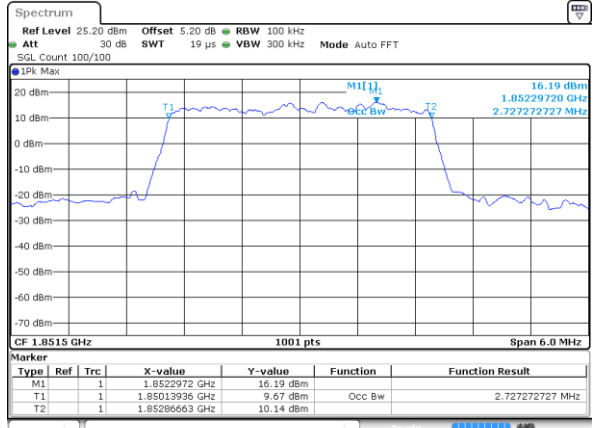
LTE Band 2

Lowest Channel / 1.4MHz / 64QAM



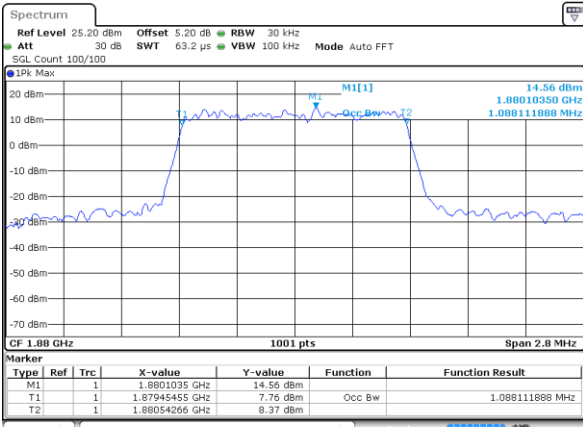
Date: 25 MAY 2019 02:58:32

Lowest Channel / 3MHz / 64QAM



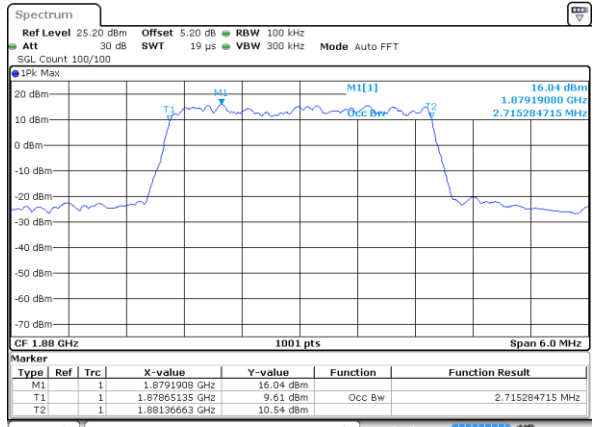
Date: 25 MAY 2019 02:58:02

Middle Channel / 1.4MHz / 64QAM



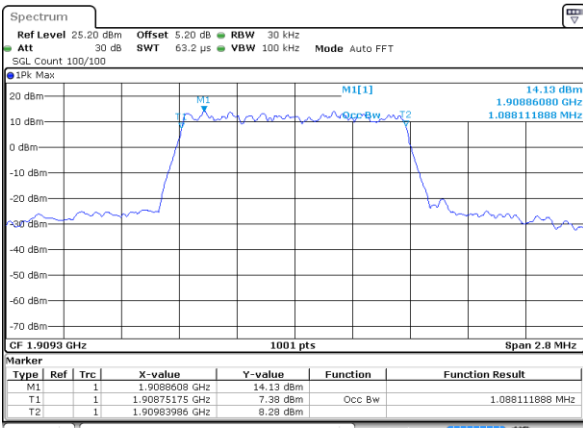
Date: 25 MAY 2019 02:58:42

Middle Channel / 3MHz / 64QAM



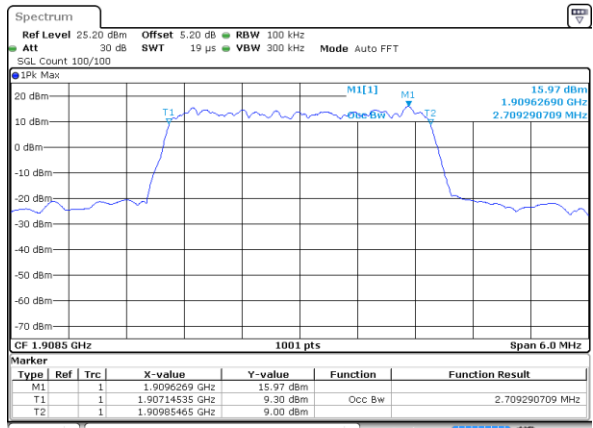
Date: 25 MAY 2019 02:58:12

Highest Channel / 1.4MHz / 64QAM



Date: 25 MAY 2019 02:58:52

Highest Channel / 3MHz / 64QAM

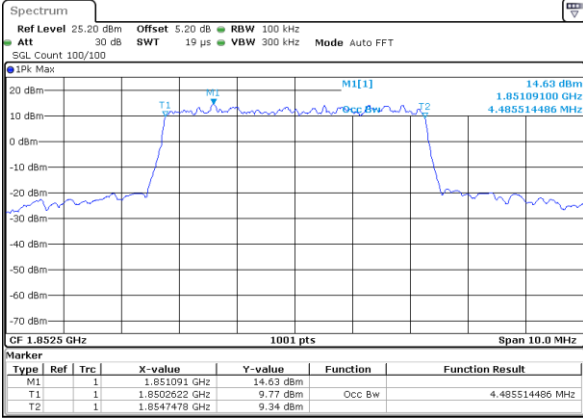


Date: 25 MAY 2019 02:58:22



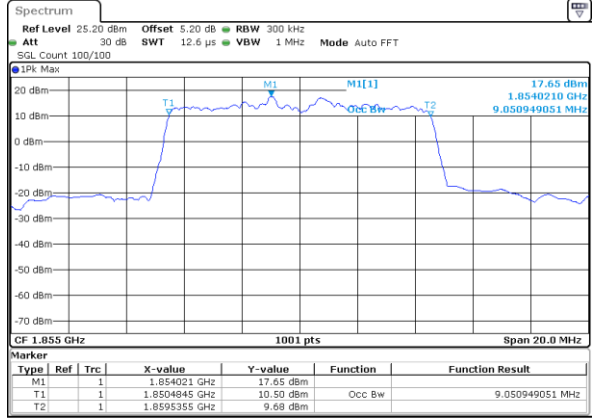
LTE Band 2

Lowest Channel / 5MHz / 64QAM



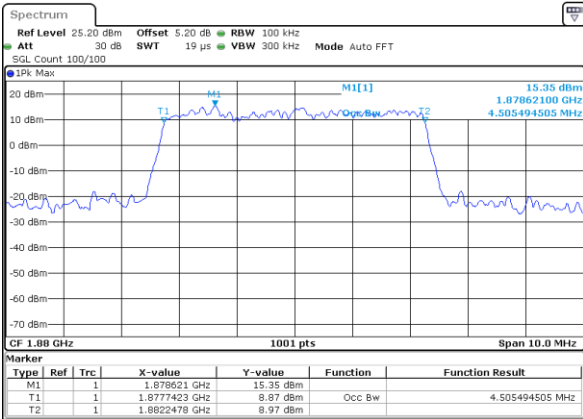
Date: 25 MAY 2019 02:59:32

Lowest Channel / 10MHz / 64QAM



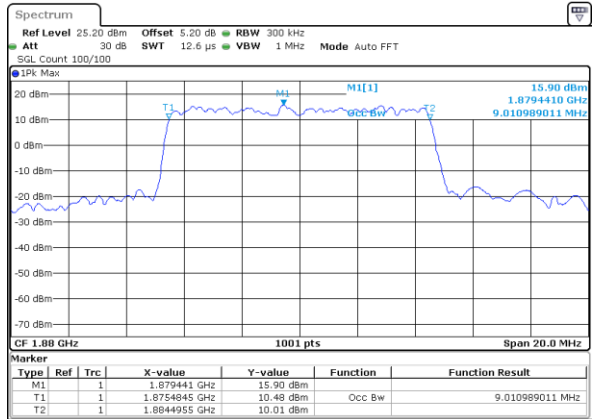
Date: 25 MAY 2019 03:00:02

Middle Channel / 5MHz / 64QAM



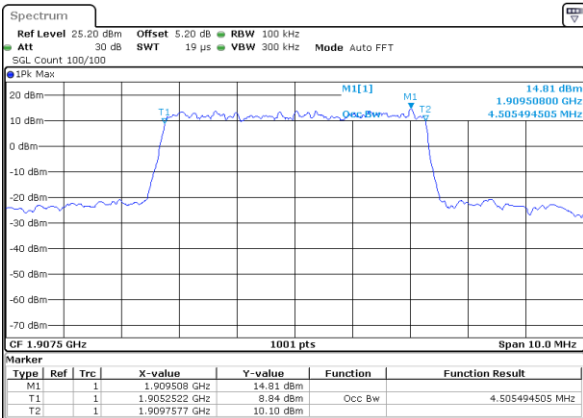
Date: 25 MAY 2019 02:59:42

Middle Channel / 10MHz / 64QAM



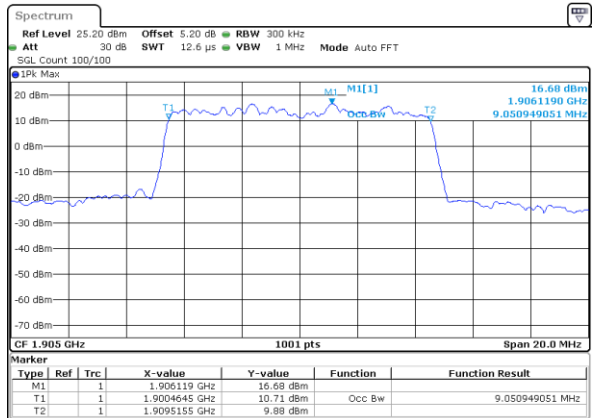
Date: 25 MAY 2019 03:00:12

Highest Channel / 5MHz / 64QAM



Date: 25 MAY 2019 02:59:52

Highest Channel / 10MHz / 64QAM

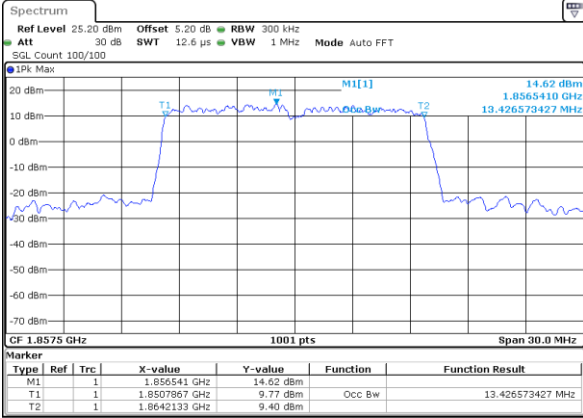


Date: 25 MAY 2019 03:00:22



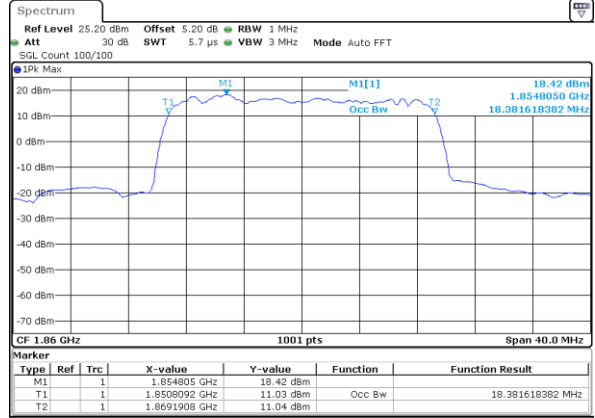
LTE Band 2

Lowest Channel / 15MHz / 64QAM



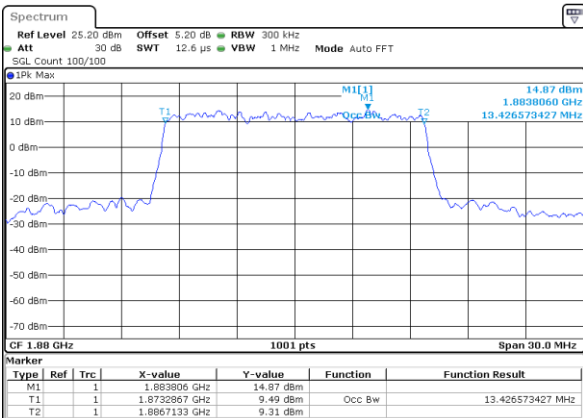
Date: 25 MAY 2019 03:00:32

Lowest Channel / 20MHz / 64QAM



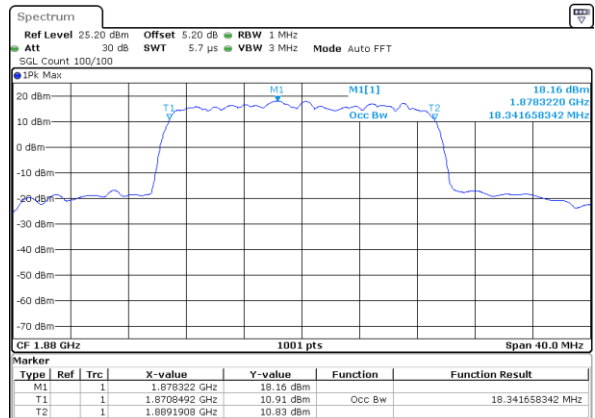
Date: 25 MAY 2019 03:01:03

Middle Channel / 15MHz / 64QAM



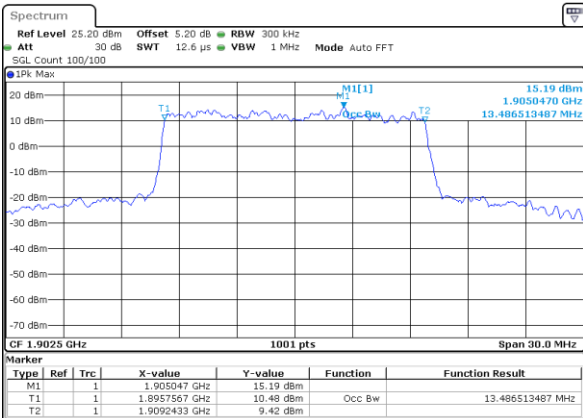
Date: 25 MAY 2019 03:00:43

Middle Channel / 20MHz / 64QAM



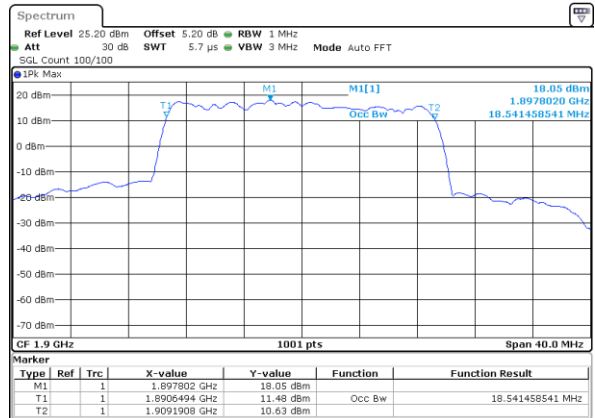
Date: 25 MAY 2019 03:01:13

Highest Channel / 15MHz / 64QAM



Date: 25 MAY 2019 03:00:53

Highest Channel / 20MHz / 64QAM

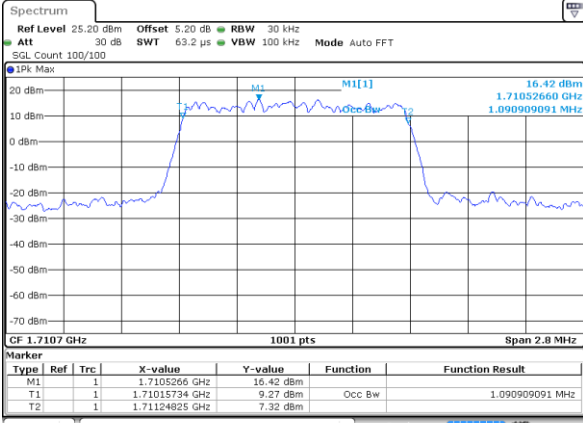


Date: 25 MAY 2019 03:01:23



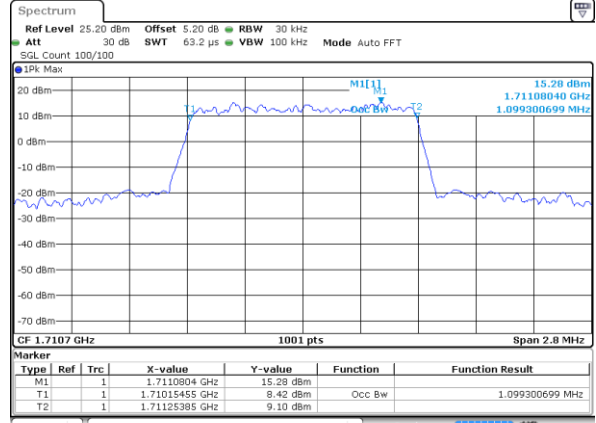
LTE Band 4

Lowest Channel / 1.4MHz / QPSK



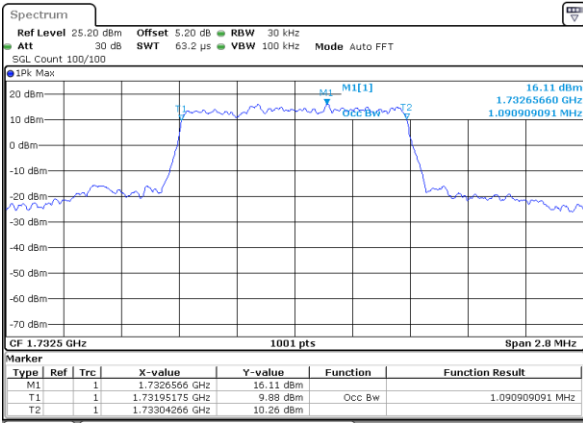
Date: 25 MAY 2019 09:51:46

Lowest Channel / 1.4MHz / 16QAM



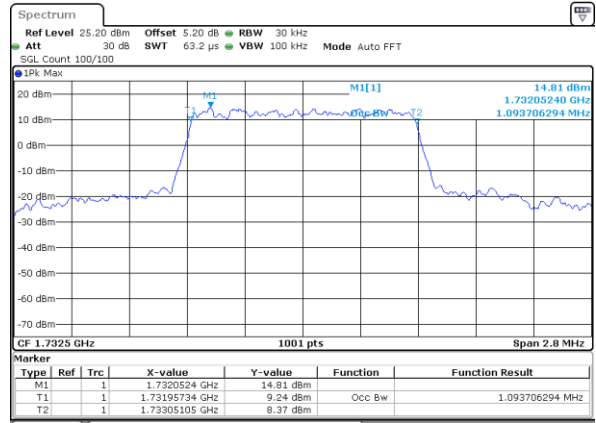
Date: 25 MAY 2019 09:51:56

Middle Channel / 1.4MHz / QPSK



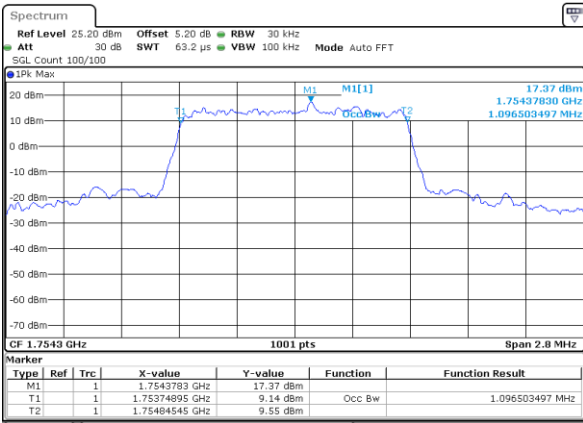
Date: 25 MAY 2019 09:58:46

Middle Channel / 1.4MHz / 16QAM



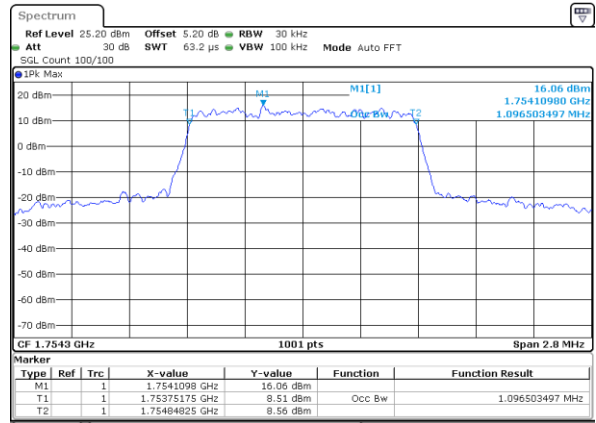
Date: 25 MAY 2019 09:58:56

Highest Channel / 1.4MHz / QPSK



Date: 25 MAY 2019 10:01:16

Highest Channel / 1.4MHz / 16QAM



Date: 25 MAY 2019 10:01:26