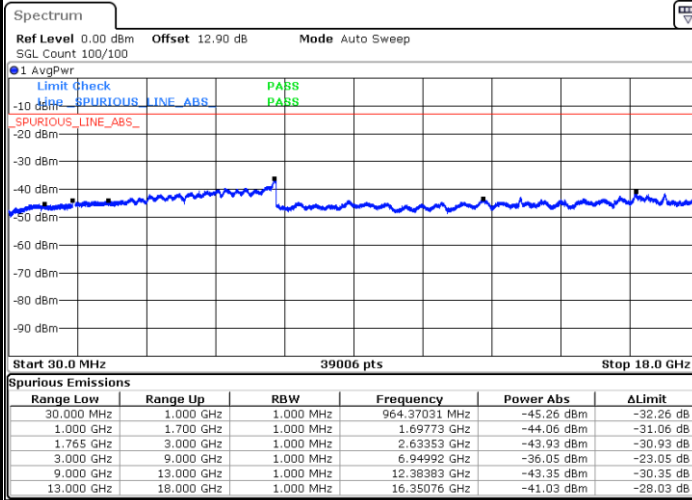




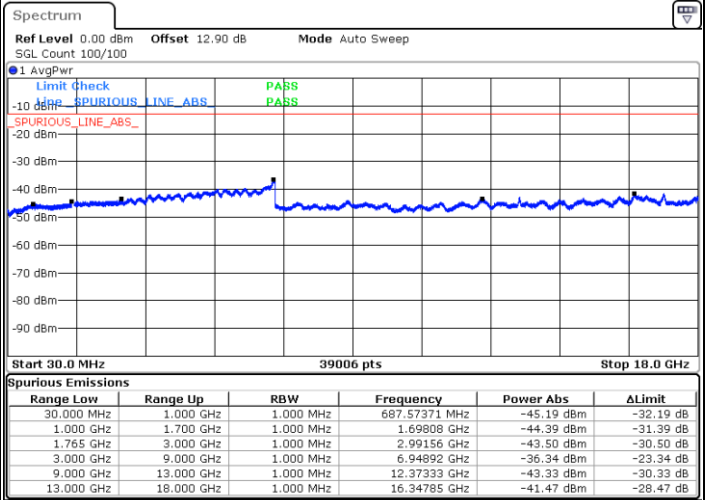
LTE Band 4 / 15MHz

Lowest Channel / QPSK



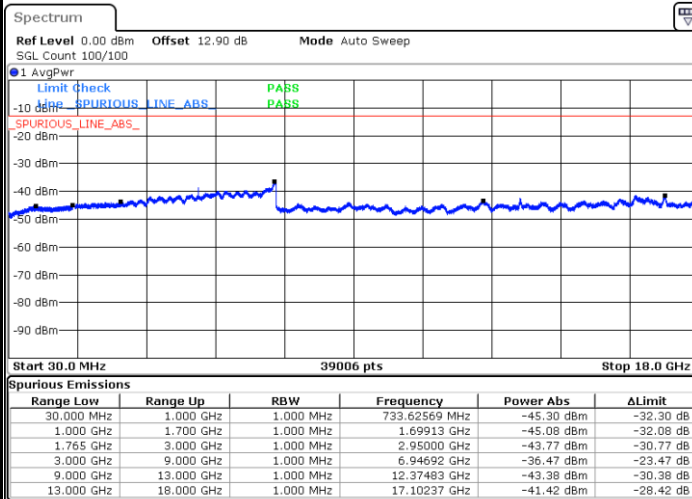
Date: 23.FEB.2018 09:18:06

Lowest Channel / 16QAM



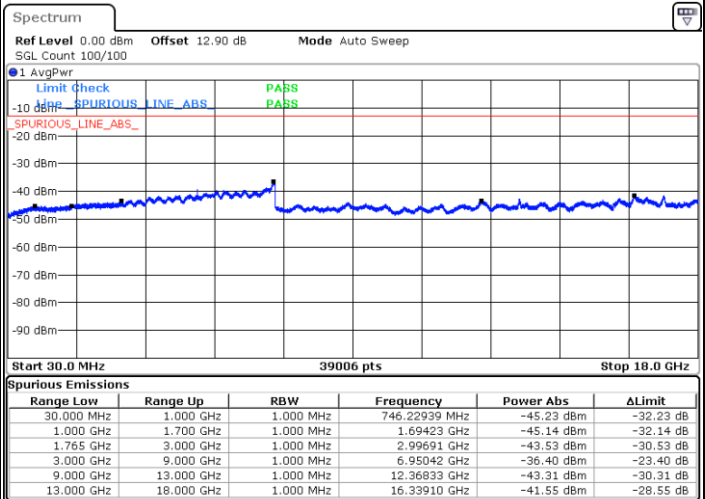
Date: 23.FEB.2018 09:19:04

Middle Channel / QPSK



Date: 23.FEB.2018 09:20:47

Middle Channel / 16QAM

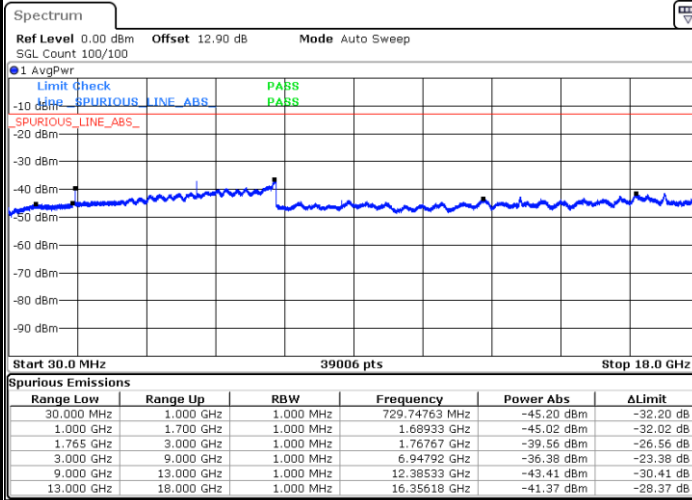


Date: 23.FEB.2018 09:21:45



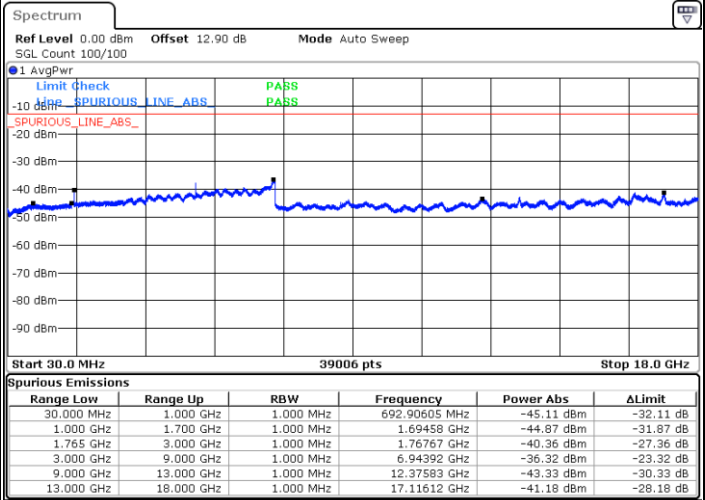
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 23.FEB.2018 09:28:04

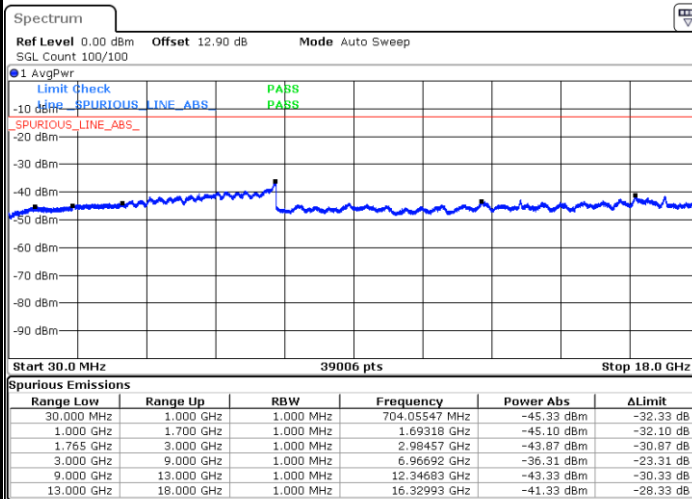
Highest Channel / 16QAM



Date: 23.FEB.2018 09:29:01

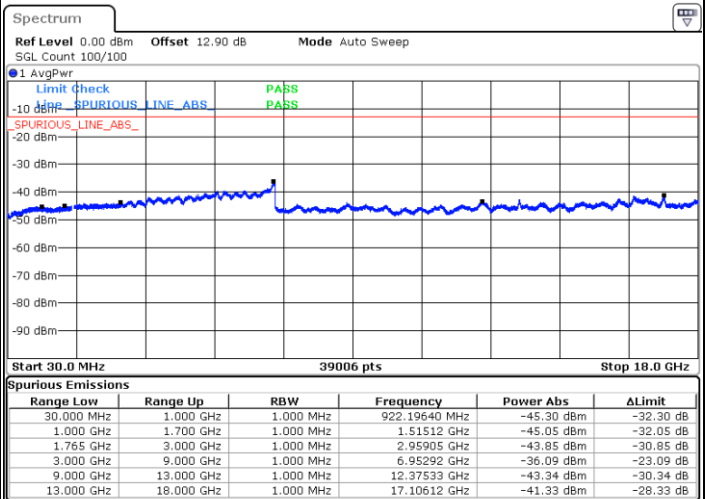
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 23.FEB.2018 09:35:20

Lowest Channel / 16QAM

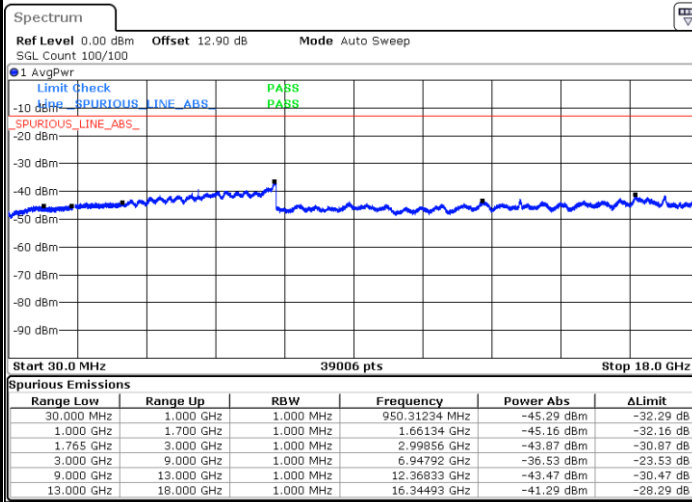


Date: 23.FEB.2018 09:36:18



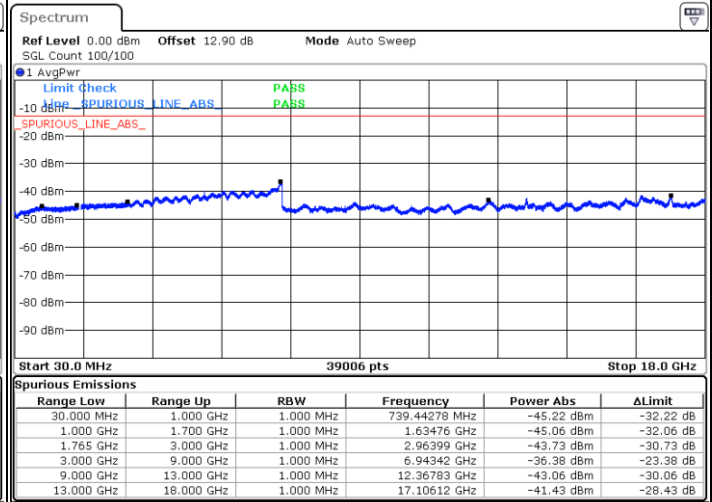
LTE Band 4 / 20MHz

Middle Channel / QPSK



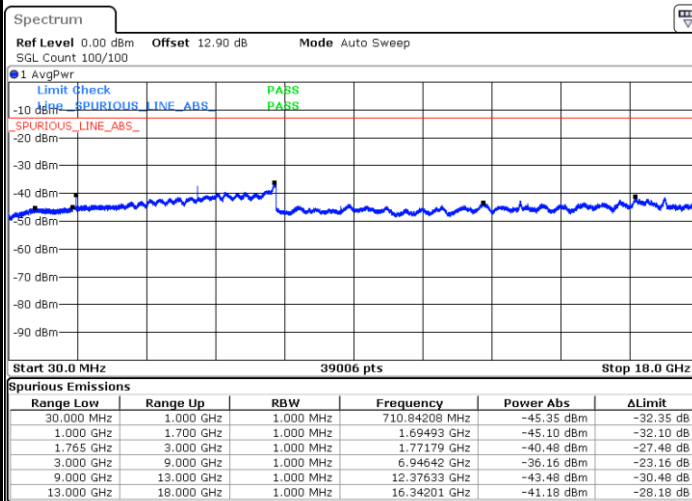
Date: 23.FEB.2018 09:38:01

Middle Channel / 16QAM



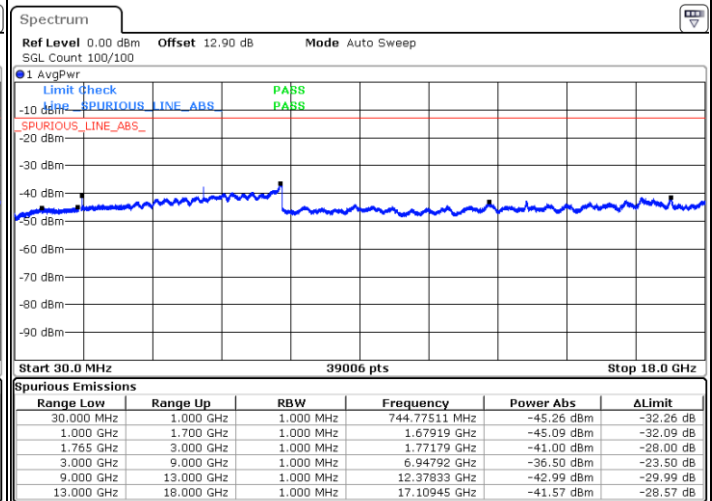
Date: 23.FEB.2018 09:38:59

Highest Channel / QPSK



Date: 23.FEB.2018 09:45:18

Highest Channel / 16QAM

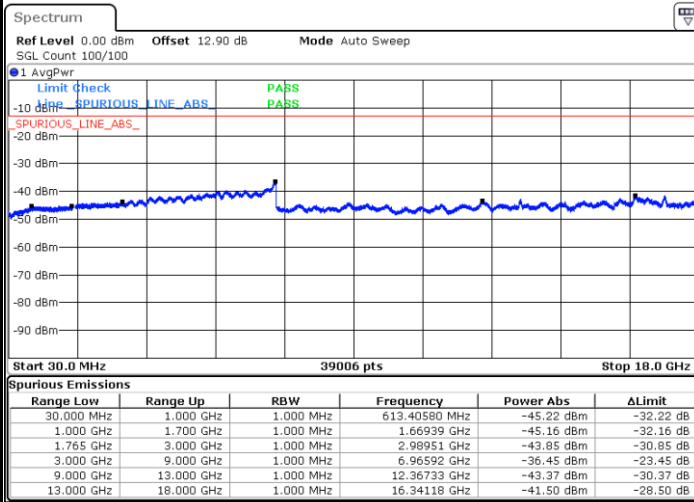


Date: 23.FEB.2018 09:46:15



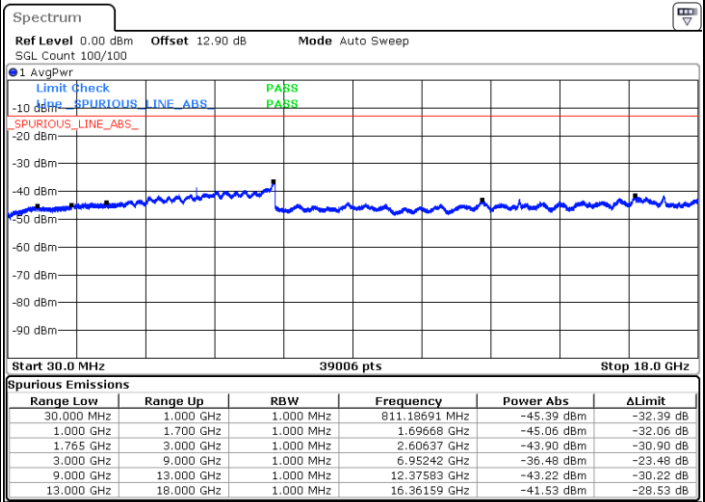
LTE Band 4 / 1.4MHz

Lowest Channel / 64QAM



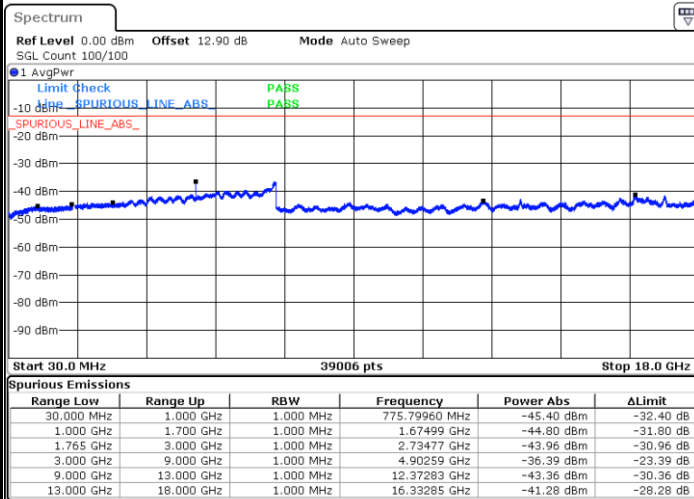
Date: 23.FEB.2018 11:05:21

Middle Channel / 64QAM



Date: 23.FEB.2018 11:06:41

Highest Channel / 64QAM

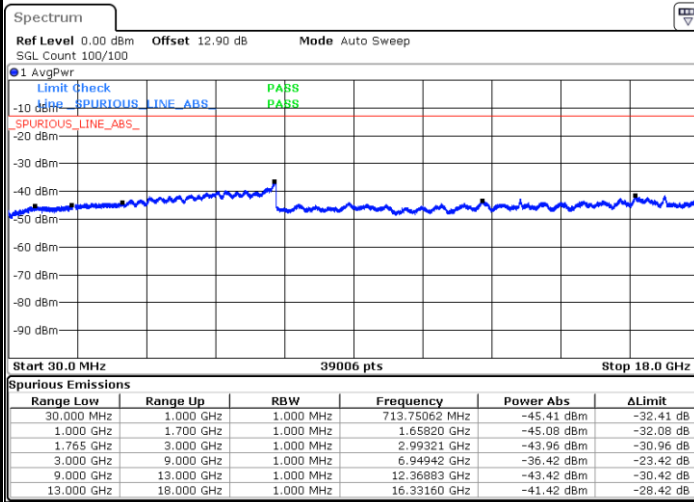


Date: 23.FEB.2018 11:10:19



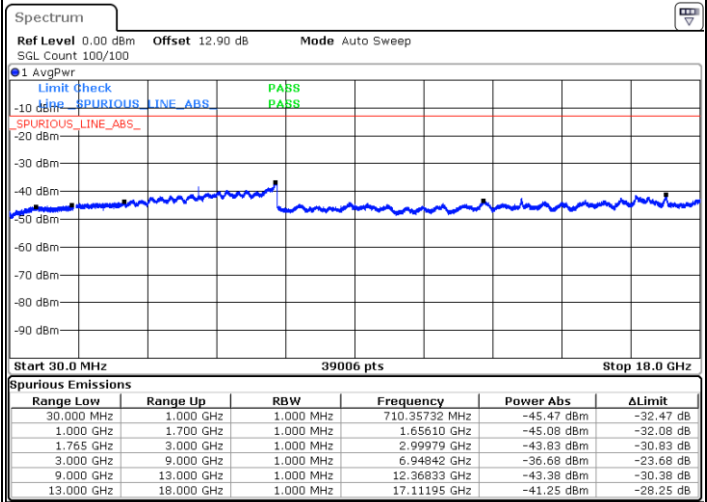
LTE Band 4 / 3MHz

Lowest Channel / 64QAM



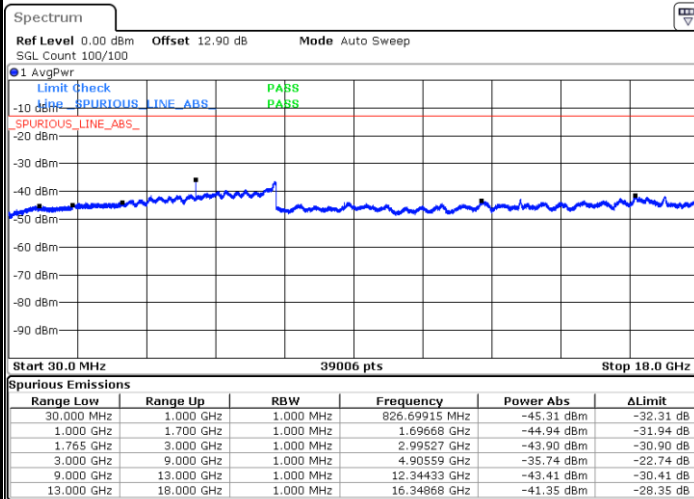
Date: 23.FEB.2018 10:22:17

Middle Channel / 64QAM



Date: 23.FEB.2018 10:23:38

Highest Channel / 64QAM

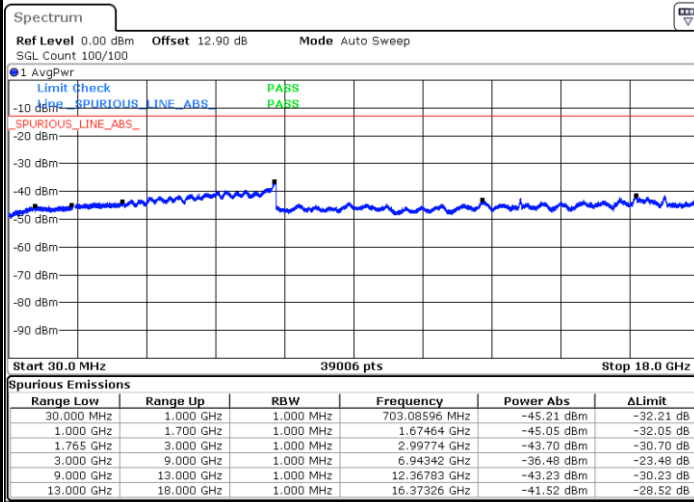


Date: 23.FEB.2018 10:27:16



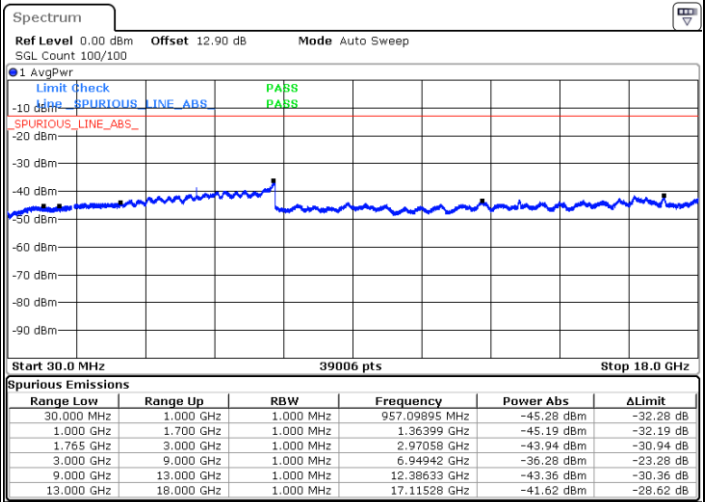
LTE Band 4 / 5MHz

Lowest Channel / 64QAM



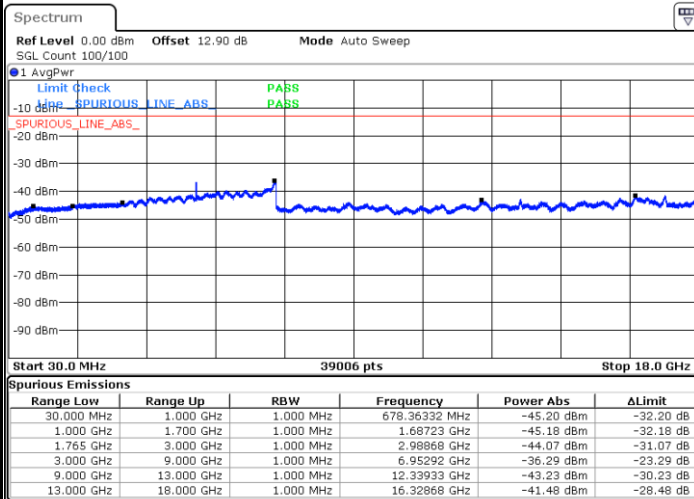
Date: 23.FEB.2018 10:30:54

Middle Channel / 64QAM



Date: 23.FEB.2018 10:32:14

Highest Channel / 64QAM

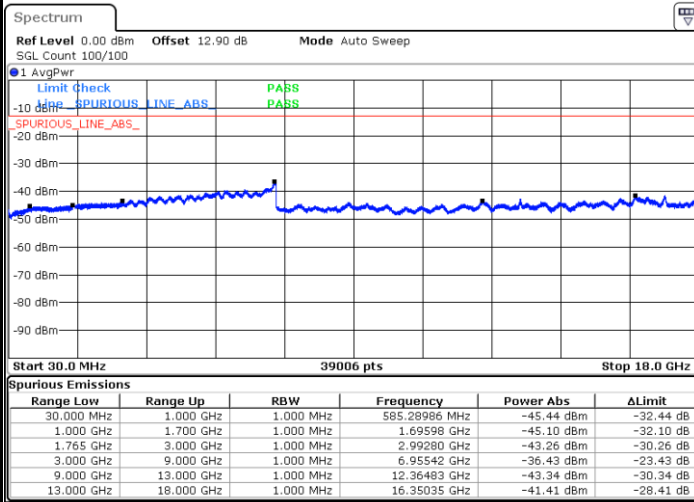


Date: 23.FEB.2018 10:35:52



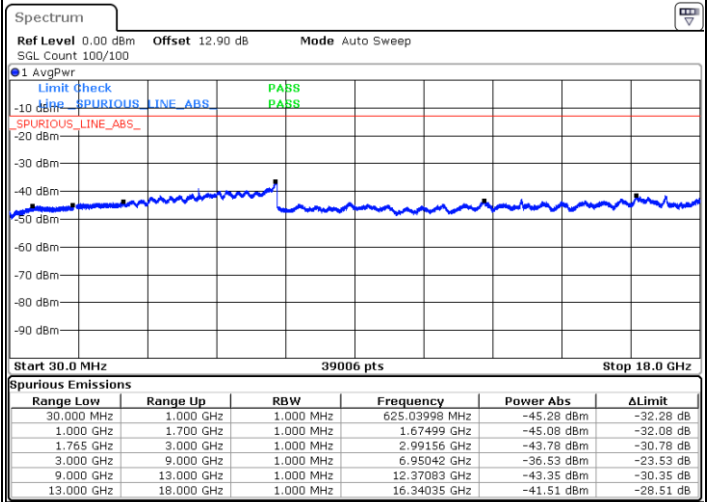
LTE Band 4 / 10MHz

Lowest Channel / 64QAM



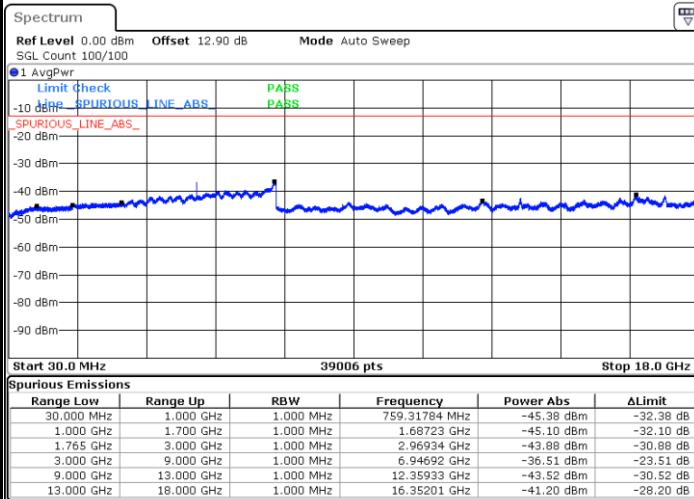
Date: 23.FEB.2018 10:39:30

Middle Channel / 64QAM



Date: 23.FEB.2018 10:40:51

Highest Channel / 64QAM

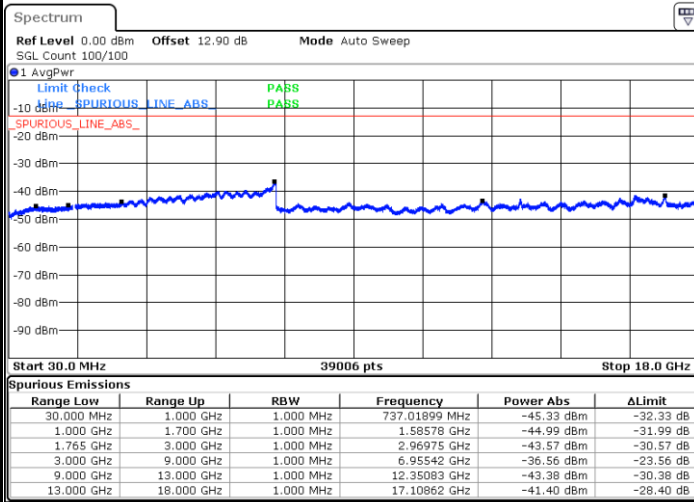


Date: 23.FEB.2018 10:44:29



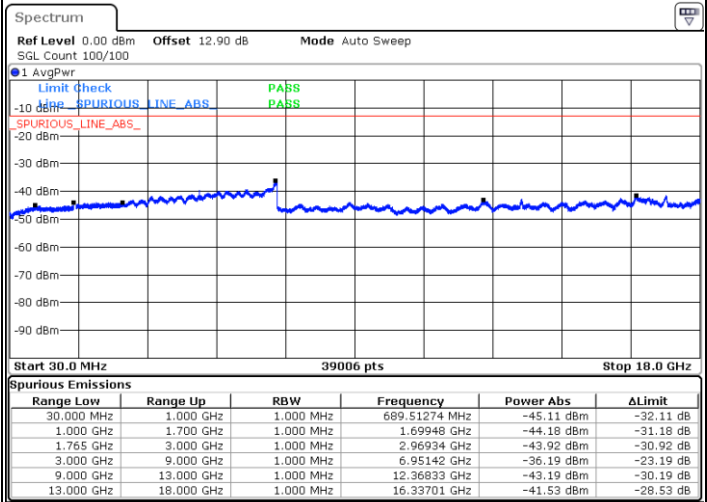
LTE Band 4 / 15MHz

Lowest Channel / 64QAM



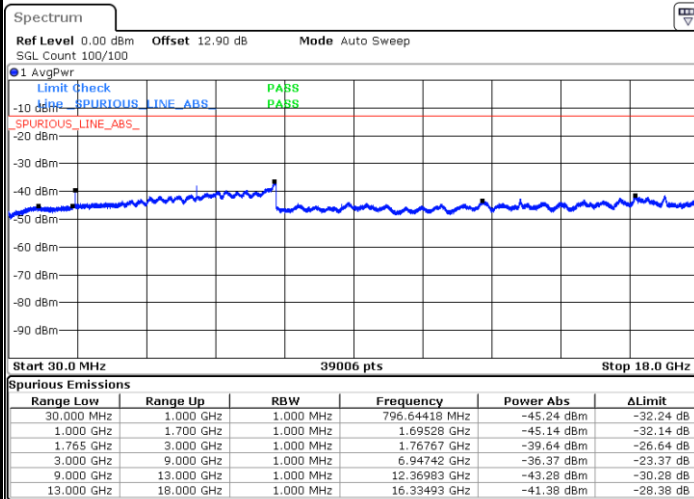
Date: 23.FEB.2018 10:48:07

Middle Channel / 64QAM



Date: 23.FEB.2018 10:49:28

Highest Channel / 64QAM

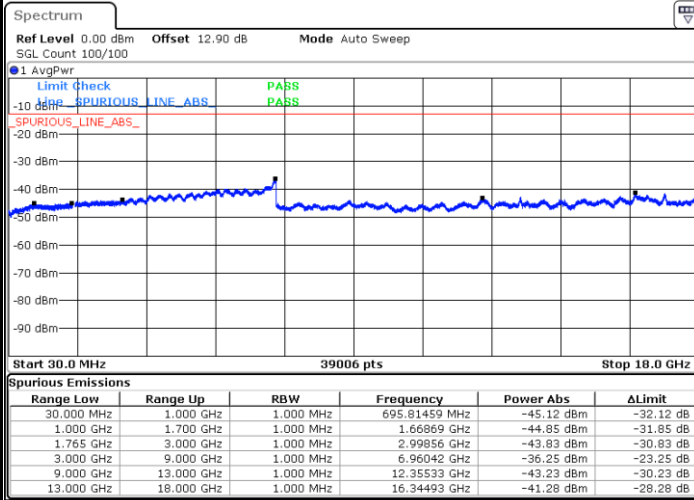


Date: 23.FEB.2018 10:53:06



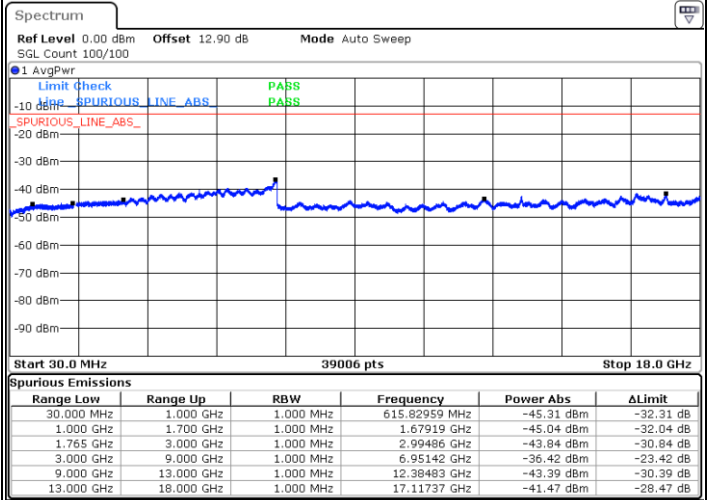
LTE Band 4 / 20MHz

Lowest Channel / 64QAM



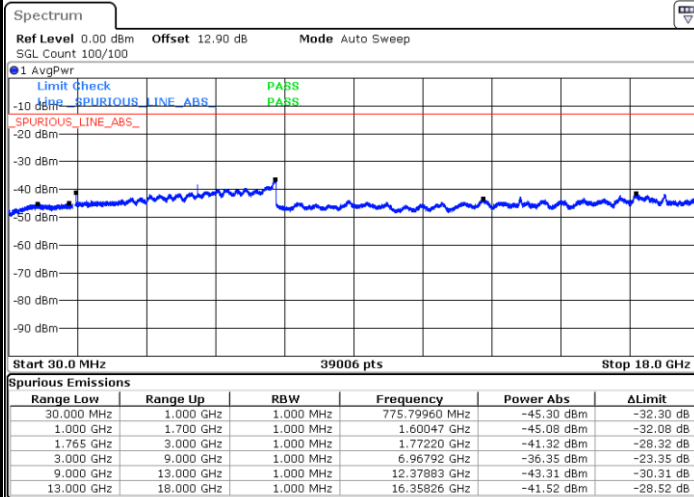
Date: 23.FEB.2018 10:56:44

Middle Channel / 64QAM



Date: 23.FEB.2018 10:58:04

Highest Channel / 64QAM



Date: 23.FEB.2018 11:01:42

Frequency Stability

Test Conditions		LTE Band 4 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0027	PASS
40	Normal Voltage	0.0029	
30	Normal Voltage	0.0034	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0014	
0	Normal Voltage	0.0016	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0014	
-30	Normal Voltage	0.0015	
20	Maximum Voltage	0.0058	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0017	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 38

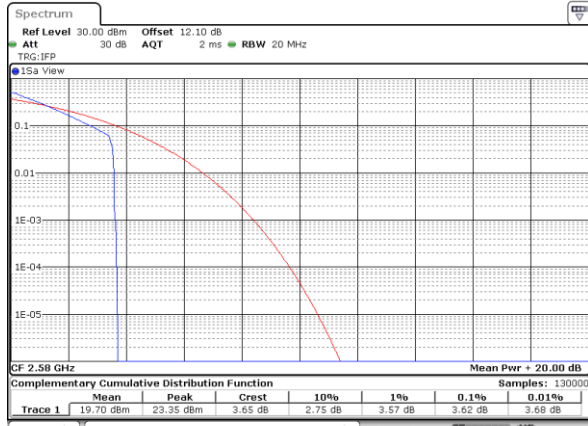
Peak-to-Average Ratio

Mode	LTE Band 38 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.62	4.58	5.45	5.86	PASS
Middle CH	3.57	4.55	5.45	5.86	
Highest CH	3.57	4.58	5.33	5.8	
Mode	LTE Band 38 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.14	6.38	-	-	PASS
Middle CH	6.32	6.41	-	-	
Highest CH	6.52	6.38	-	-	

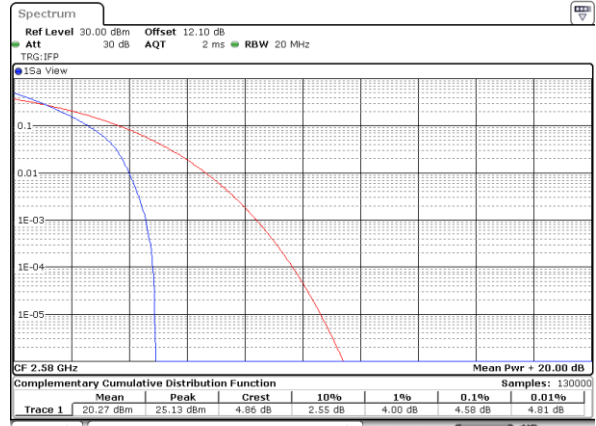


LTE Band 38 / 20MHz / QPSK

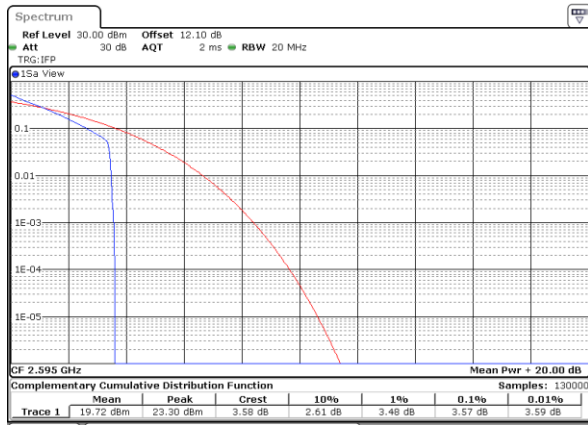
Lowest Channel / 1RB



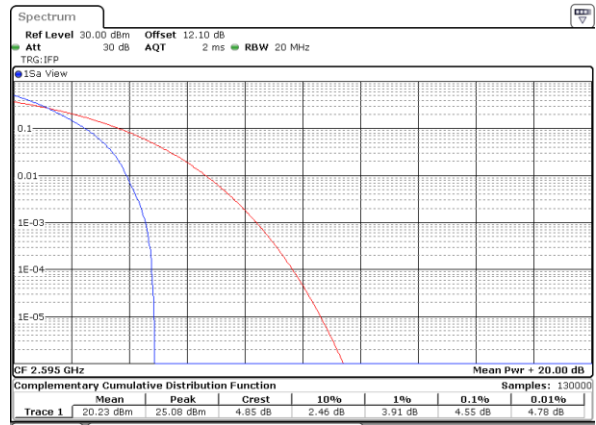
Lowest Channel / Full RB



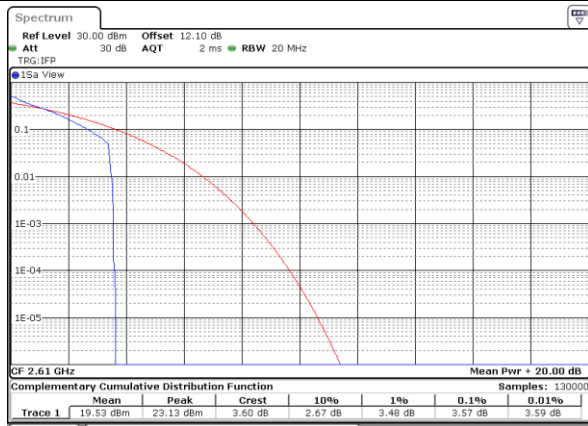
Middle Channel / 1RB



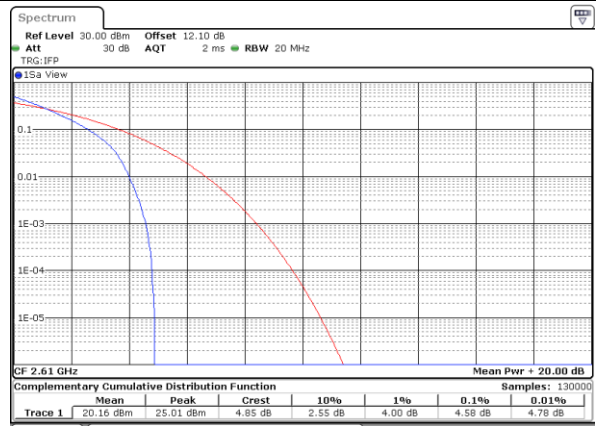
Middle Channel / Full RB



Highest Channel / 1RB



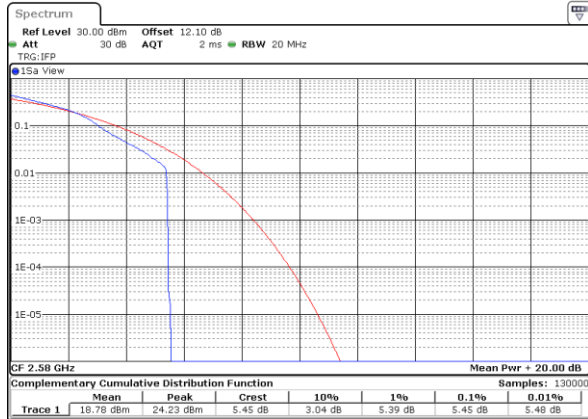
Highest Channel / Full RB



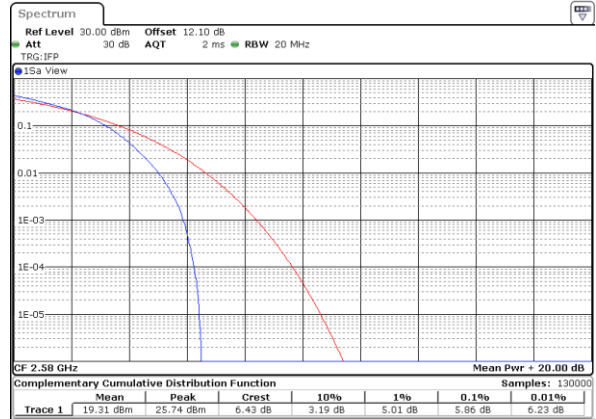


LTE Band 38 / 20MHz / 16QAM

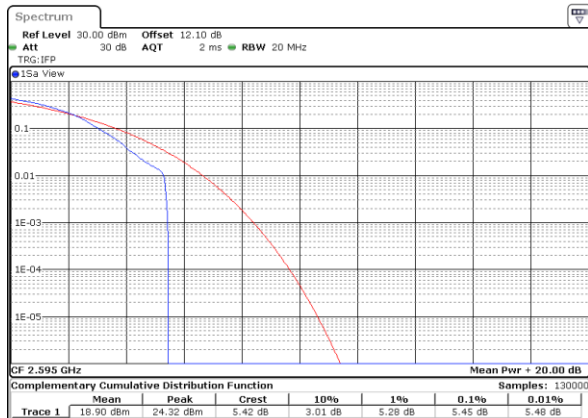
Lowest Channel / 1RB



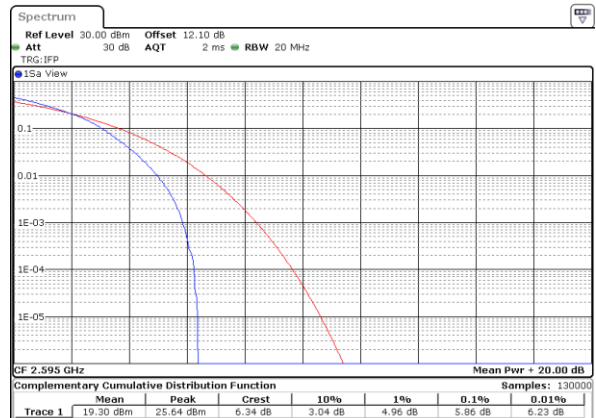
Lowest Channel / Full RB



Middle Channel / 1RB



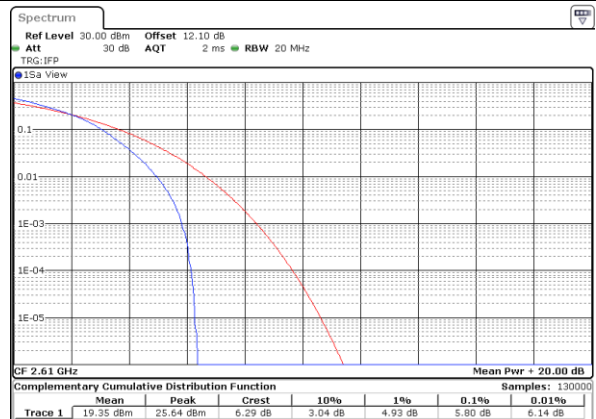
Middle Channel / Full RB



Highest Channel / 1RB



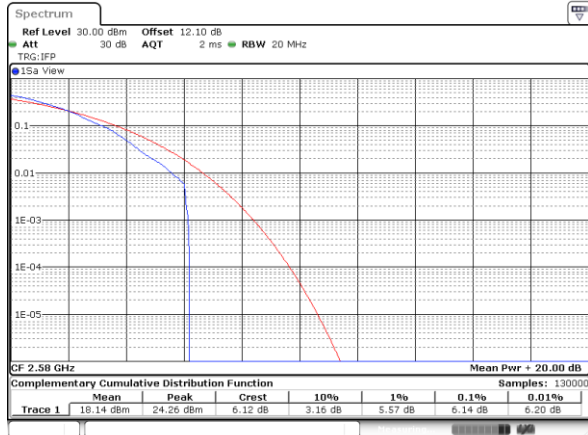
Highest Channel / Full RB



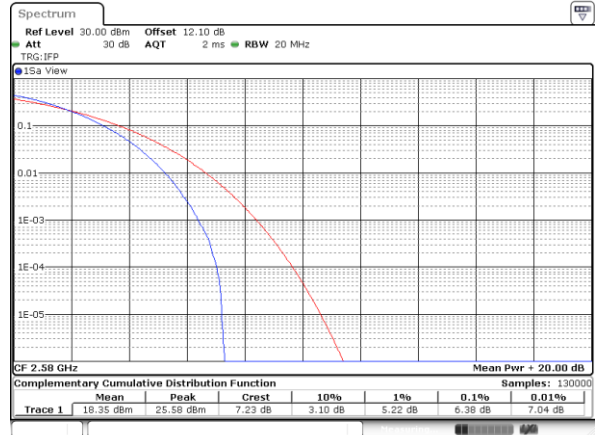


LTE Band 38 / 20MHz / 64QAM

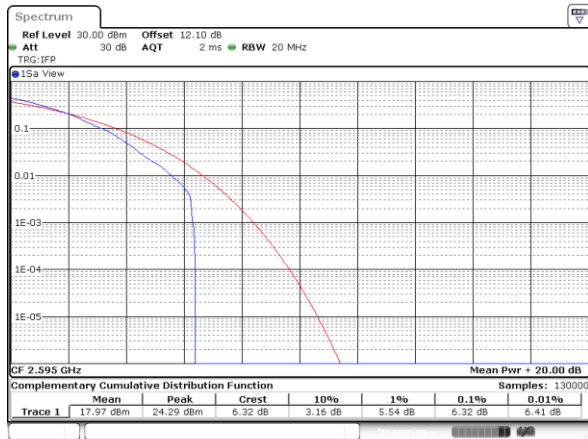
Lowest Channel / 1RB



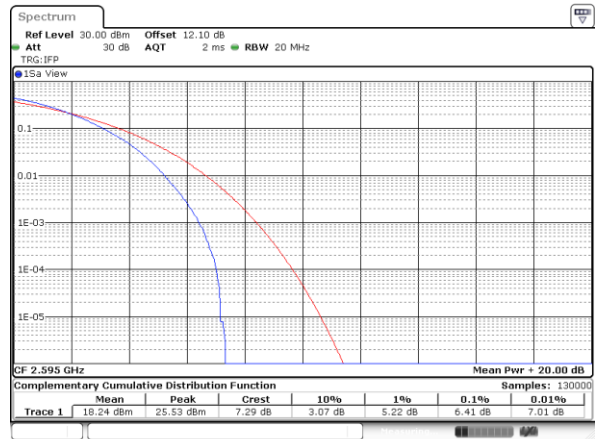
Lowest Channel / Full RB



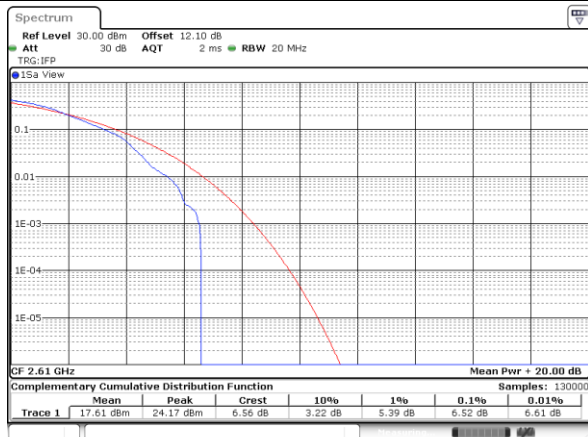
Middle Channel / 1RB



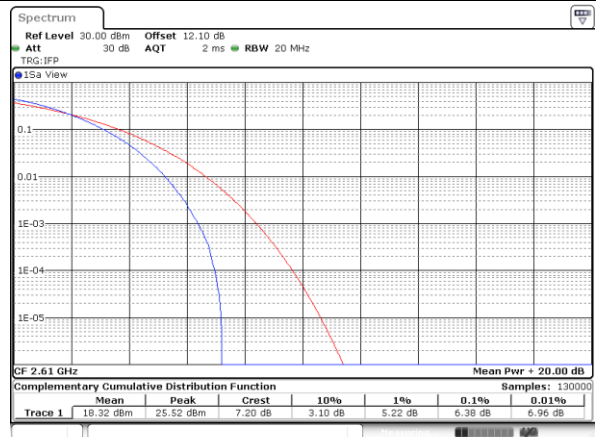
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



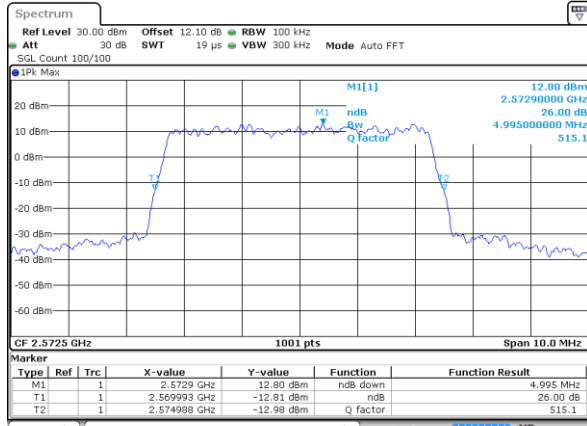
**26dB Bandwidth**

Mode	LTE Band 38 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	5.00	4.87	9.71	9.91	14.21	14.15	20.14	20.18
Middle CH	-	-	-	-	4.92	4.86	9.65	9.63	14.39	14.36	20.14	20.26
Highest CH	-	-	-	-	4.83	4.88	9.65	9.69	14.21	14.24	20.26	20.14
Mode	LTE Band 38 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.86	-	9.70	-	14.48	-	20.1	-
Middle CH	-	-	-	-	4.92	-	9.95	-	14.27	-	20.18	-
Highest CH	-	-	-	-	4.89	-	9.69	-	14.54	-	20.26	-



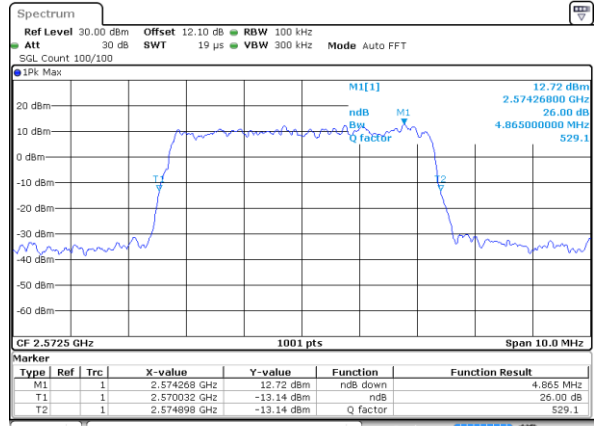
LTE Band 38

Lowest Channel / 5MHz / QPSK



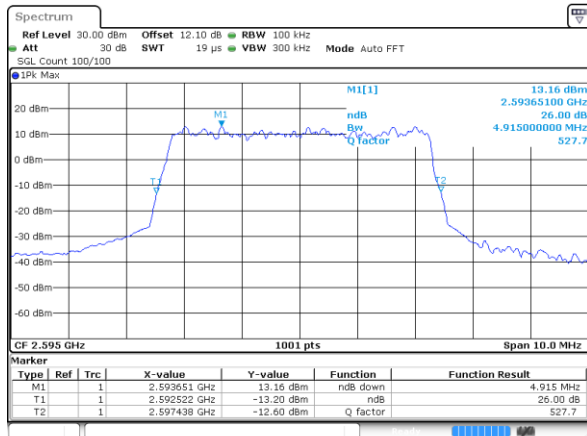
Date: 22 FEB 2018 21:38:13

Lowest Channel / 5MHz / 16QAM



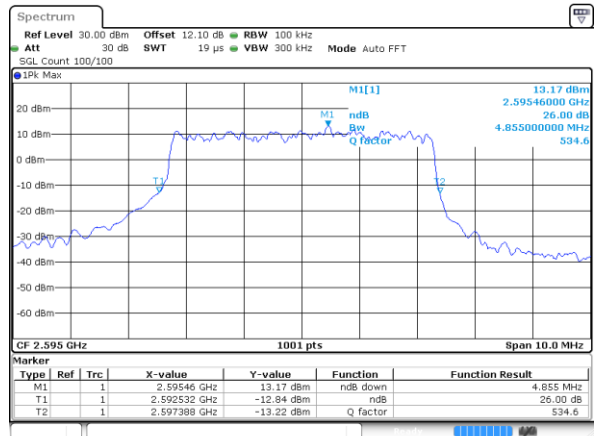
Date: 22 FEB 2018 21:38:23

Middle Channel / 5MHz / QPSK



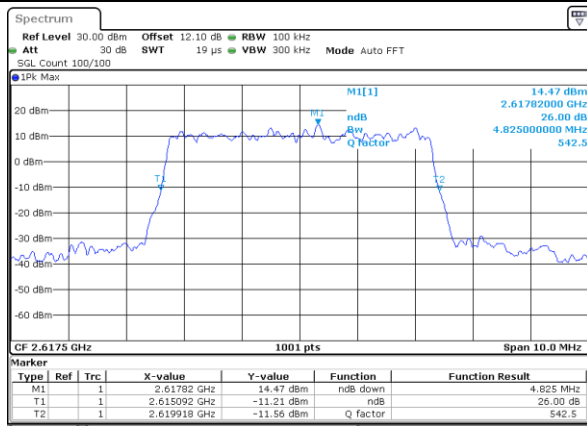
Date: 22 FEB 2018 21:38:52

Middle Channel / 5MHz / 16QAM



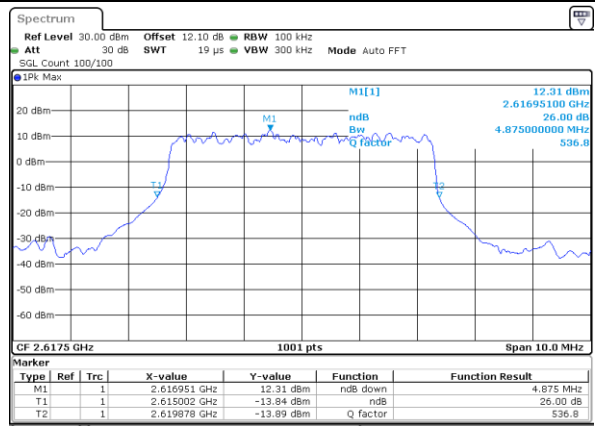
Date: 22 FEB 2018 21:39:02

Highest Channel / 5MHz / QPSK



Date: 22 FEB 2018 21:39:32

Highest Channel / 5MHz / 16QAM

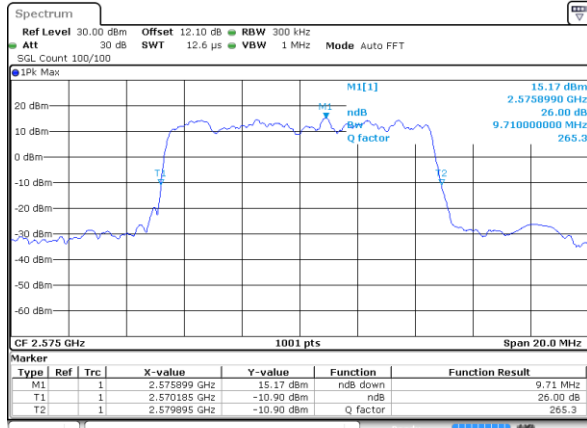


Date: 22 FEB 2018 21:39:42



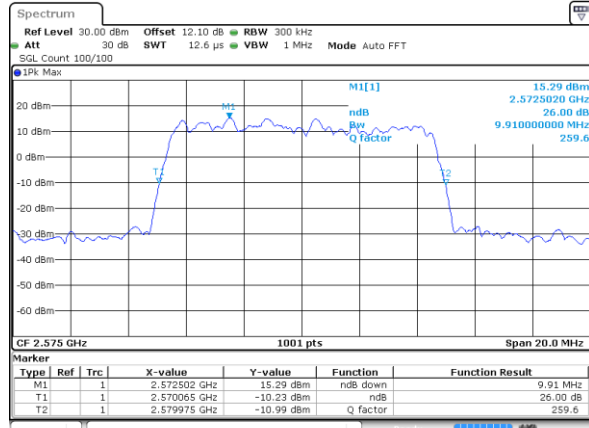
LTE Band 38

Lowest Channel / 10MHz / QPSK



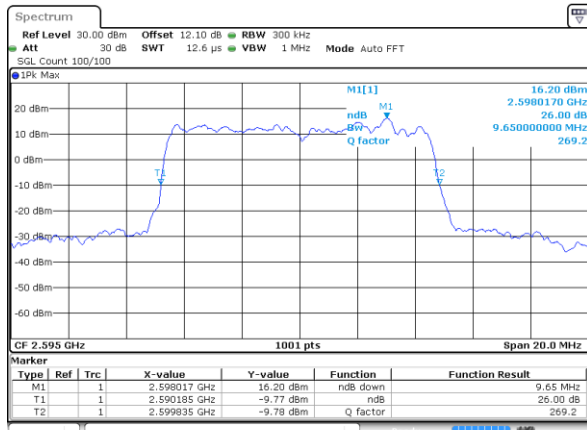
Date: 22 FEB 2018 21:40:11

Lowest Channel / 10MHz / 16QAM



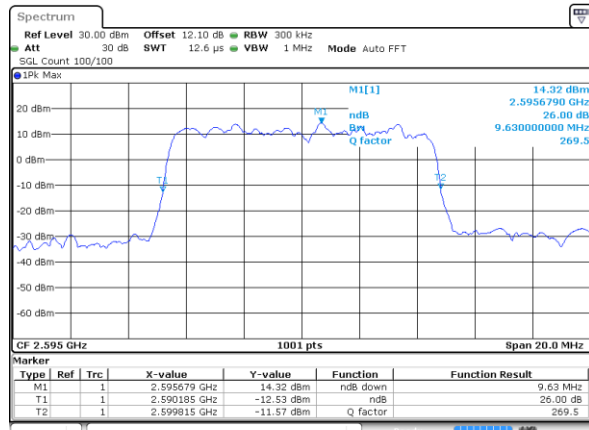
Date: 22 FEB 2018 21:40:21

Middle Channel / 10MHz / QPSK



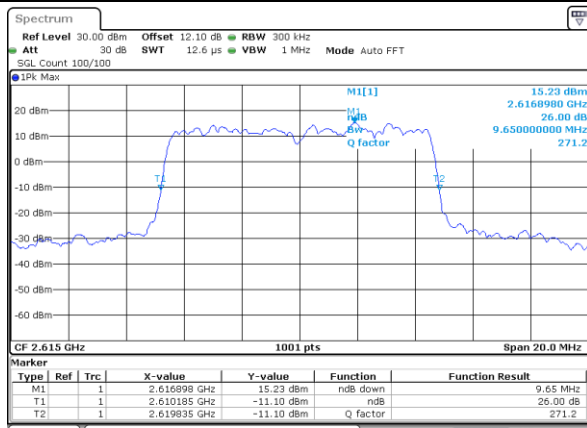
Date: 22 FEB 2018 21:40:51

Middle Channel / 10MHz / 16QAM



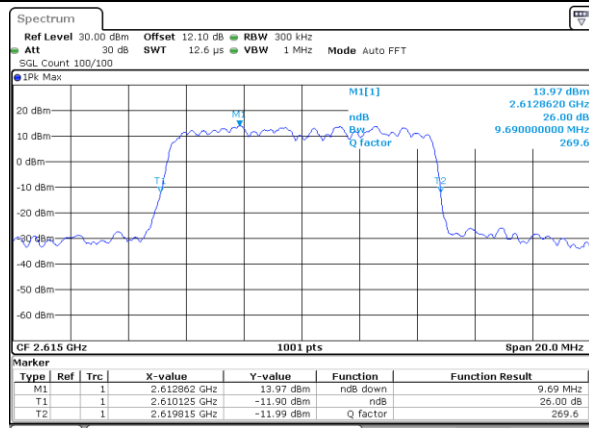
Date: 22 FEB 2018 21:41:01

Highest Channel / 10MHz / QPSK



Date: 22 FEB 2018 21:41:30

Highest Channel / 10MHz / 16QAM

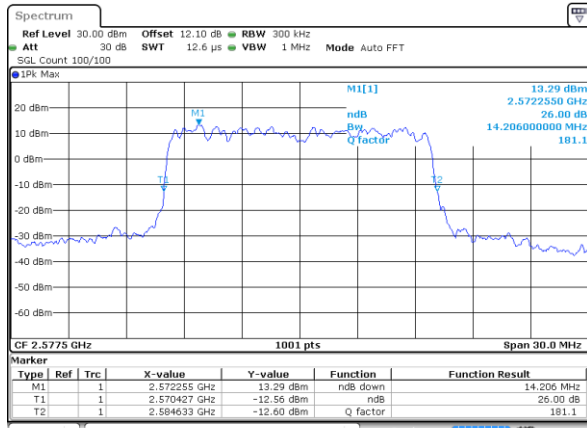


Date: 22 FEB 2018 21:41:40



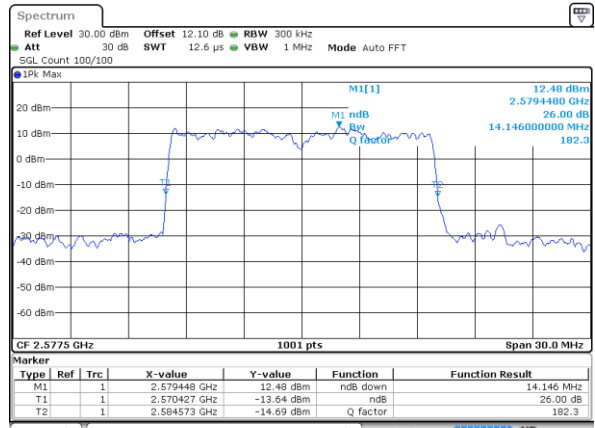
LTE Band 38

Lowest Channel / 15MHz / QPSK



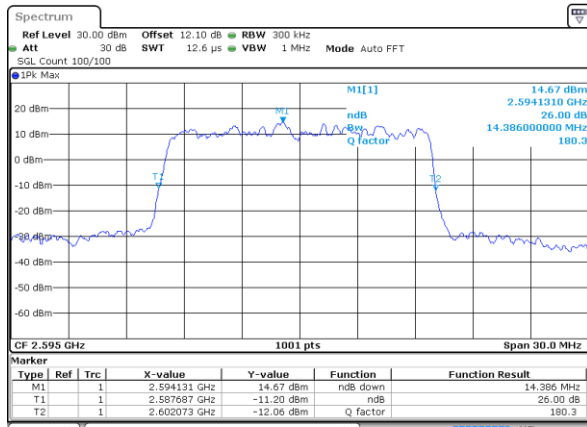
Date: 22 FEB 2018 21:42:10

Lowest Channel / 15MHz / 16QAM



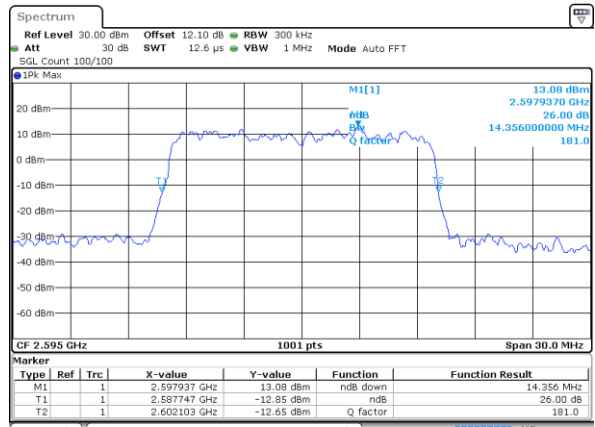
Date: 22 FEB 2018 21:42:20

Middle Channel / 15MHz / QPSK



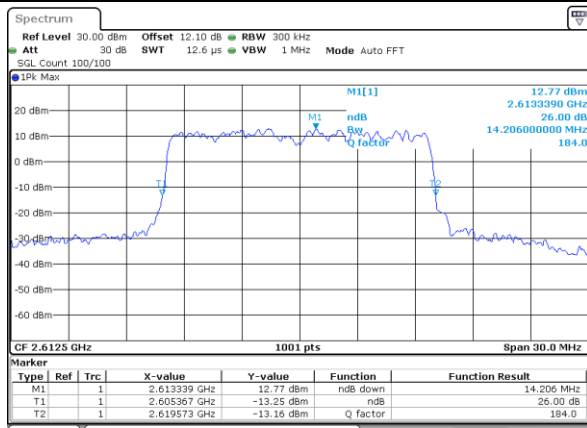
Date: 22 FEB 2018 21:42:49

Middle Channel / 15MHz / 16QAM



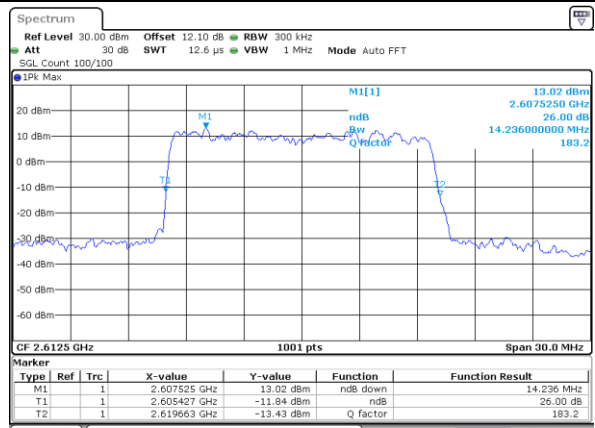
Date: 22 FEB 2018 21:42:59

Highest Channel / 15MHz / QPSK



Date: 22 FEB 2018 21:43:29

Highest Channel / 15MHz / 16QAM

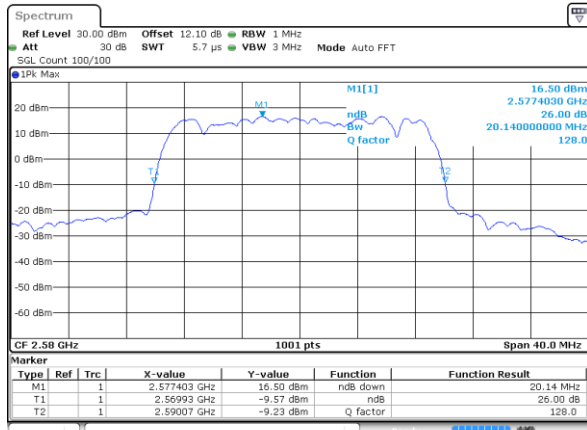


Date: 22 FEB 2018 21:43:39



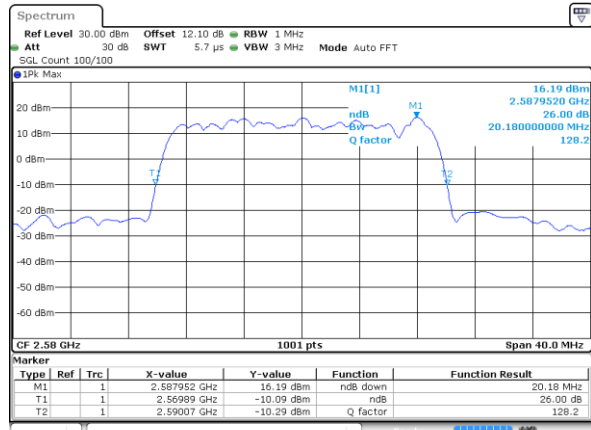
LTE Band 38

Lowest Channel / 20MHz / QPSK



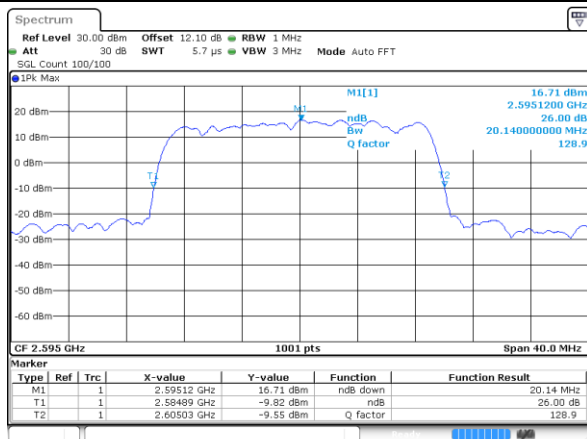
Date: 22 FEB 2018 21:44:08

Lowest Channel / 20MHz / 16QAM



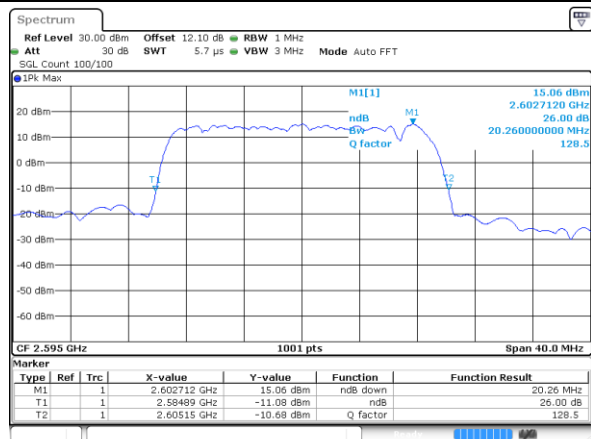
Date: 22 FEB 2018 21:44:18

Middle Channel / 20MHz / QPSK



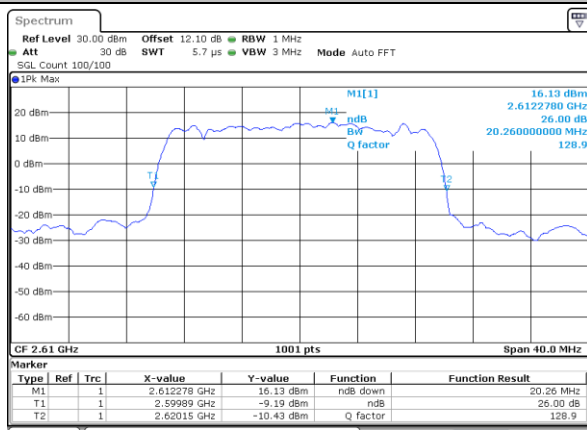
Date: 22 FEB 2018 21:44:48

Middle Channel / 20MHz / 16QAM



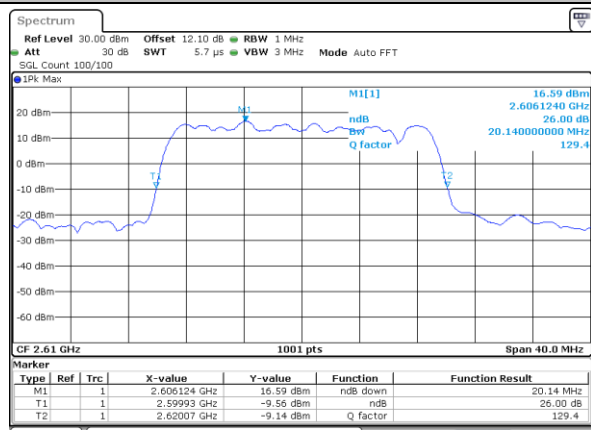
Date: 22 FEB 2018 21:44:58

Highest Channel / 20MHz / QPSK



Date: 22 FEB 2018 21:45:27

Highest Channel / 20MHz / 16QAM

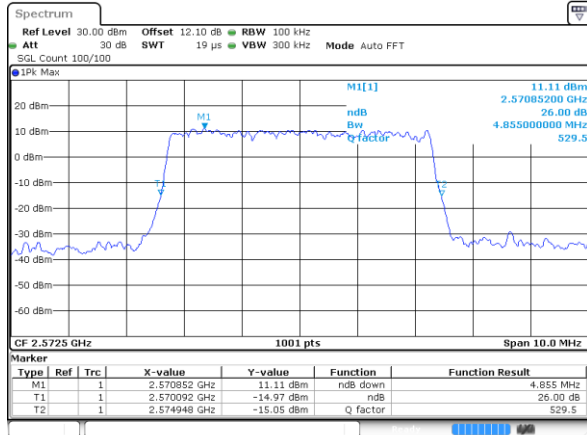


Date: 22 FEB 2018 21:45:37



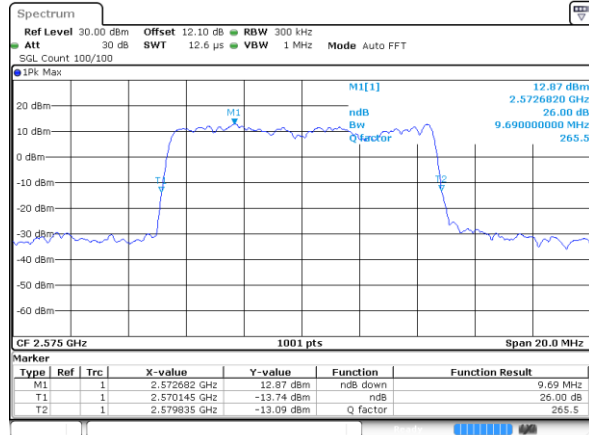
LTE Band 38

Lowest Channel / 5MHz / 64QAM



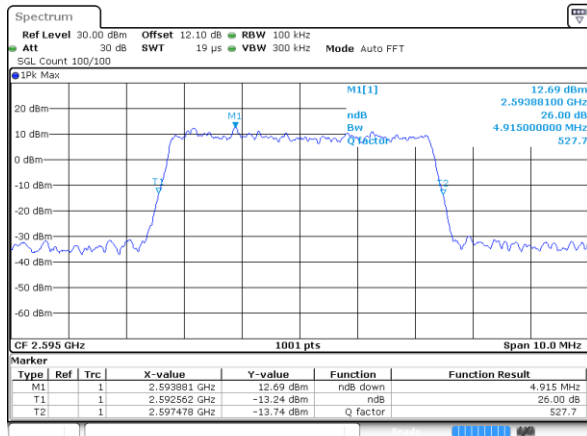
Date: 22 FEB 2018 21:45:57

Lowest Channel / 10MHz / 64QAM



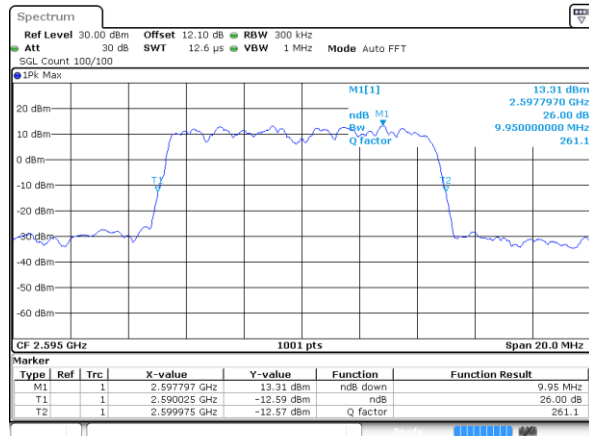
Date: 22 FEB 2018 21:46:56

Middle Channel / 5MHz / 64QAM



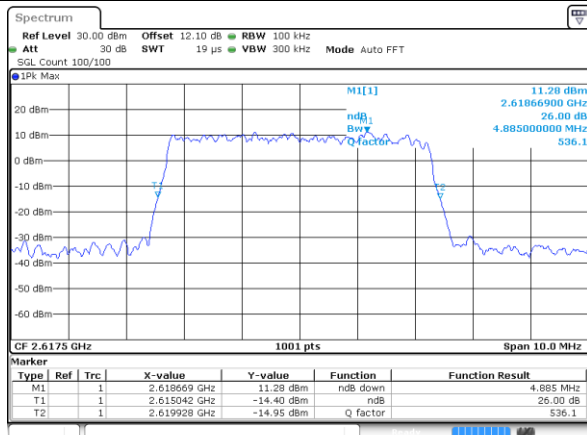
Date: 22 FEB 2018 21:46:17

Middle Channel / 10MHz / 64QAM



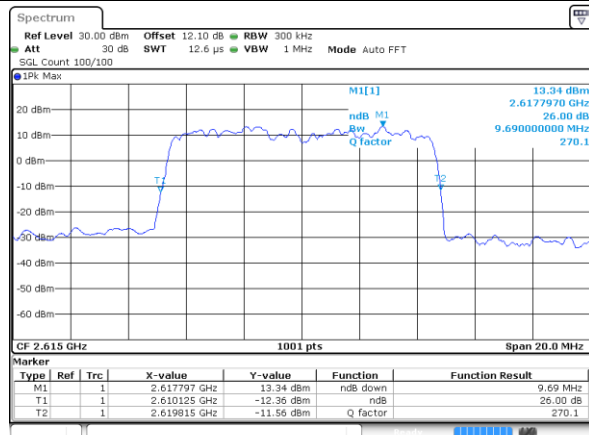
Date: 22 FEB 2018 21:47:16

Highest Channel / 5MHz / 64QAM



Date: 22 FEB 2018 21:46:37

Highest Channel / 10MHz / 64QAM

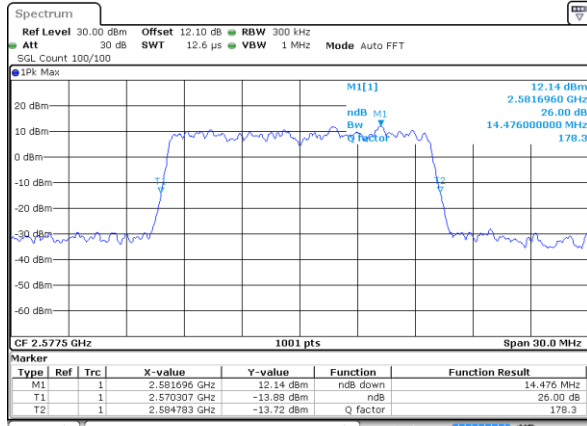


Date: 22 FEB 2018 21:47:36



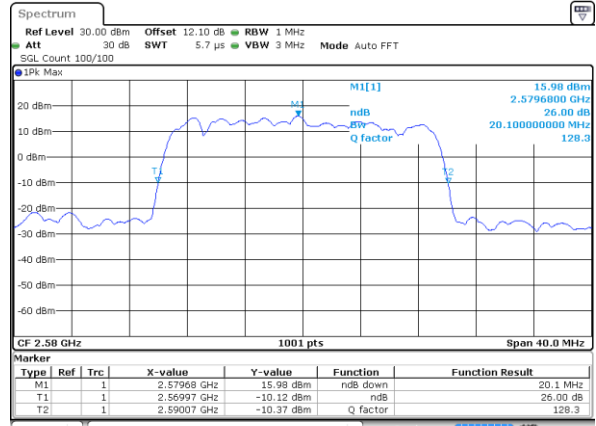
LTE Band 38

Lowest Channel / 15MHz / 64QAM



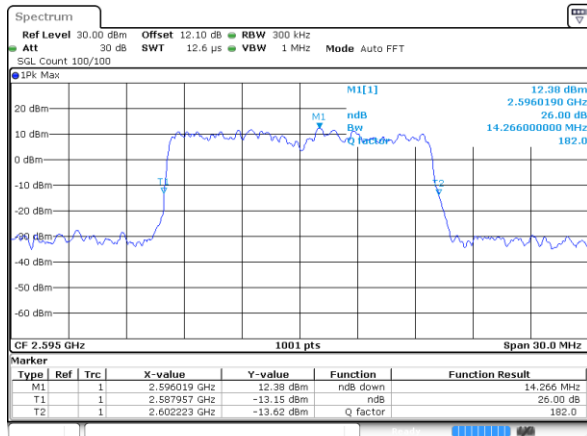
Date: 22 FEB 2018 21:47:56

Lowest Channel / 20MHz / 64QAM



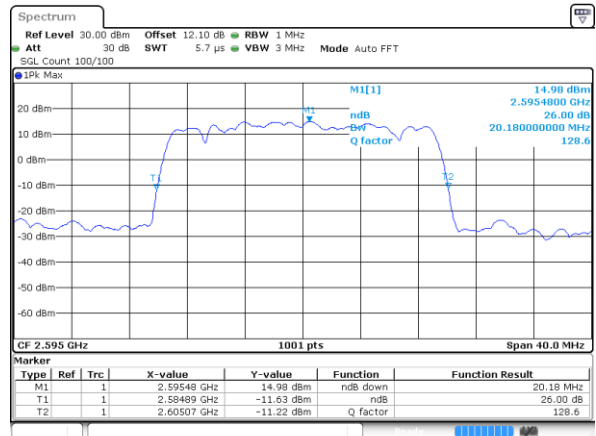
Date: 22 FEB 2018 21:48:55

Middle Channel / 15MHz / 64QAM



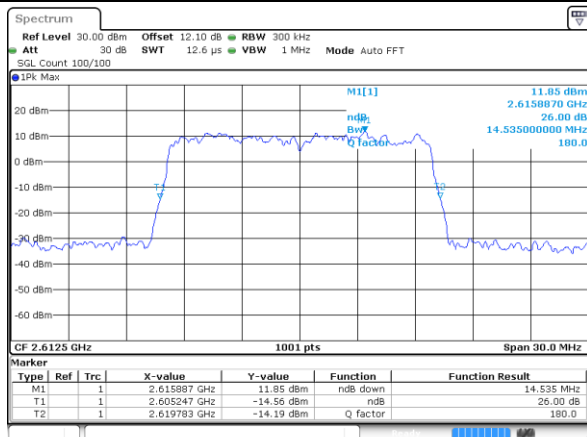
Date: 22 FEB 2018 21:48:15

Middle Channel / 20MHz / 64QAM



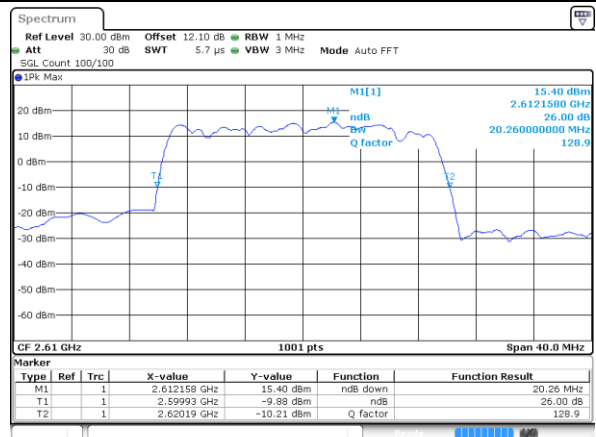
Date: 22 FEB 2018 21:48:15

Highest Channel / 15MHz / 64QAM



Date: 22 FEB 2018 21:48:35

Highest Channel / 20MHz / 64QAM



Date: 22 FEB 2018 21:49:34

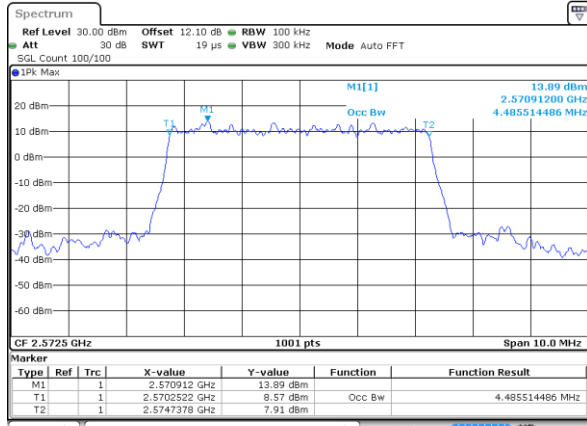
**Occupied Bandwidth**

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	-	-	-	-	4.49	4.46	8.95	9.01	13.49	13.37	18.22	18.34
Middle CH	-	-	-	-	4.5	4.48	8.99	9.01	13.4	13.49	18.38	18.38
Highest CH	-	-	-	-	4.48	4.48	9.05	9.05	13.4	13.43	18.38	18.22
Mode	LTE Band 38 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.47	-	9.05	-	13.43	-	18.10	-
Middle CH	-	-	-	-	4.50	-	9.01	-	13.43	-	18.38	-
Highest CH	-	-	-	-	4.53	-	9.03	-	13.46	-	18.38	-



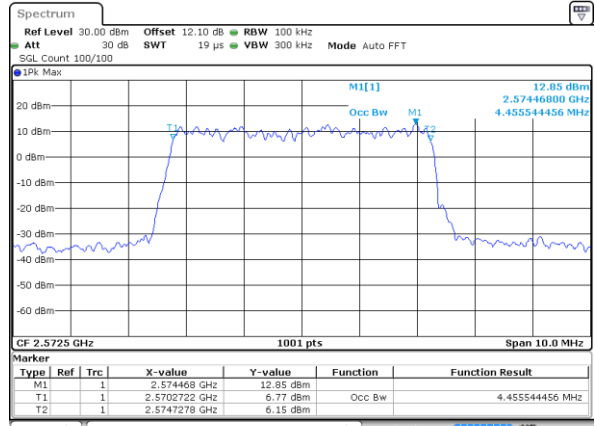
LTE Band 38

Lowest Channel / 5MHz / QPSK



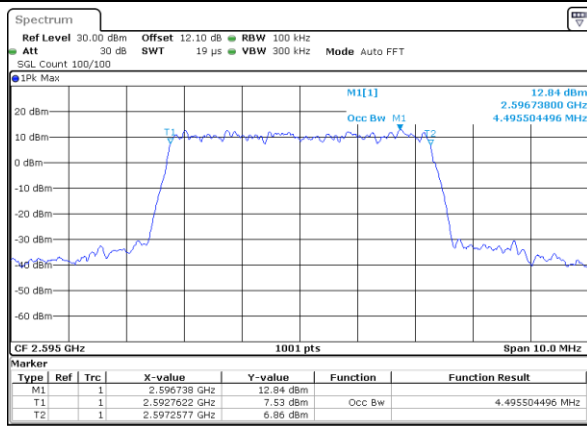
Date: 22 FEB 2018 21:37:53

Lowest Channel / 5MHz / 16QAM



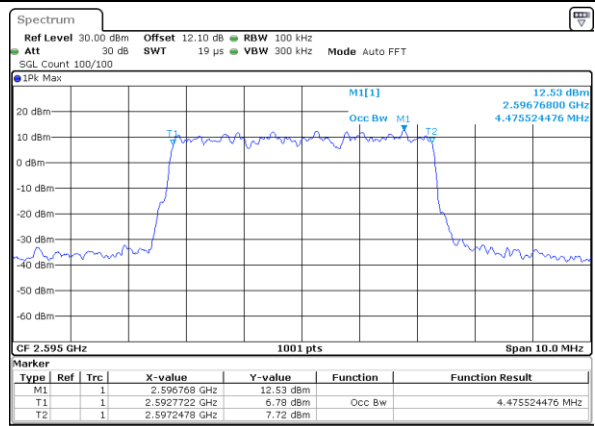
Date: 22 FEB 2018 21:38:03

Middle Channel / 5MHz / QPSK



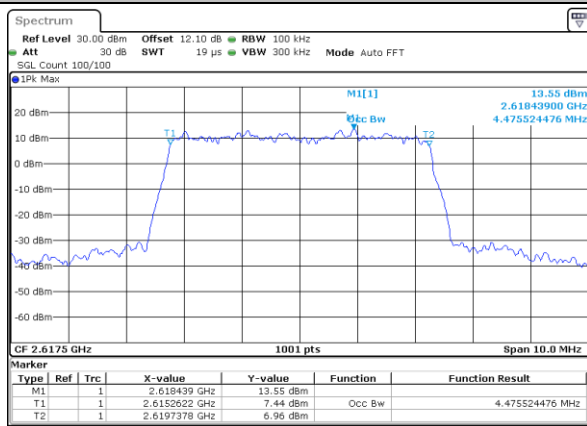
Date: 22 FEB 2018 21:38:32

Middle Channel / 5MHz / 16QAM



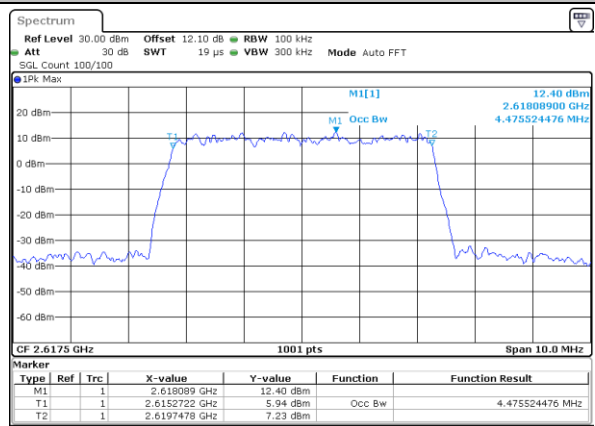
Date: 22 FEB 2018 21:38:42

Highest Channel / 5MHz / QPSK



Date: 22 FEB 2018 21:39:12

Highest Channel / 5MHz / 16QAM

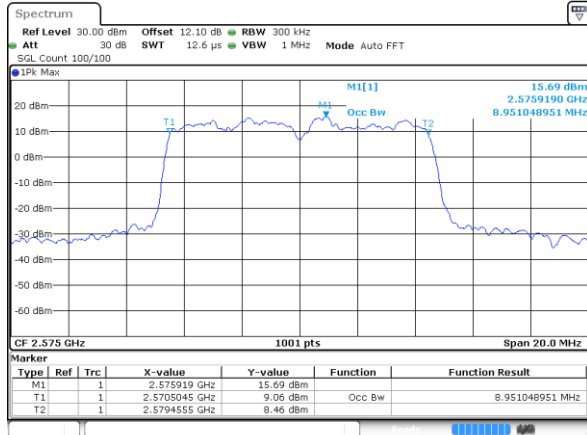


Date: 22 FEB 2018 21:39:22



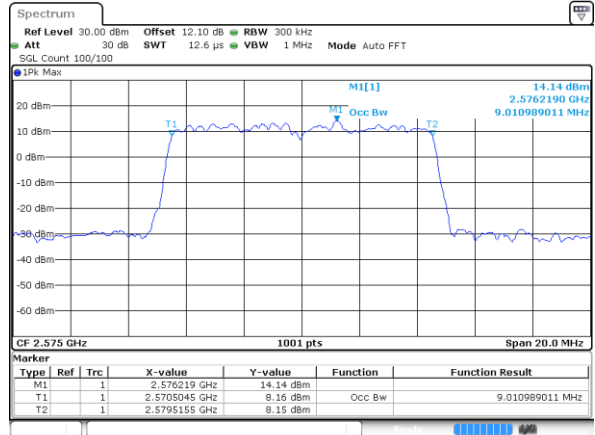
LTE Band 38

Lowest Channel / 10MHz / QPSK



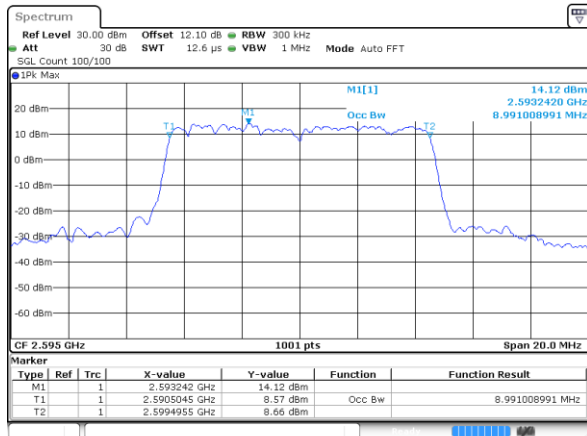
Date: 22 FEB 2018 21:39:52

Lowest Channel / 10MHz / 16QAM



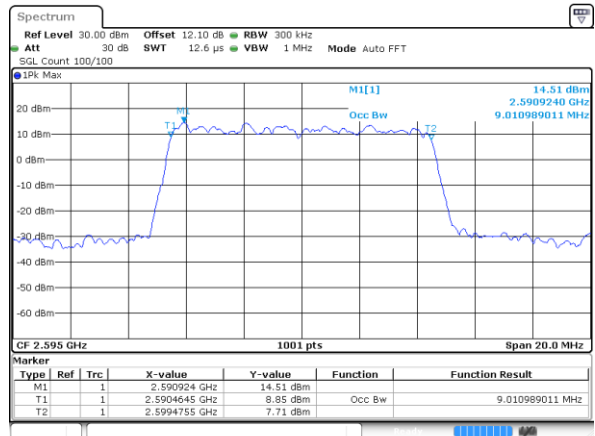
Date: 22 FEB 2018 21:40:01

Middle Channel / 10MHz / QPSK



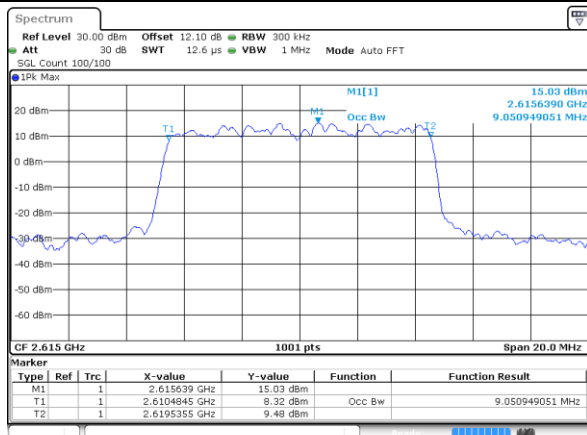
Date: 22 FEB 2018 21:40:31

Middle Channel / 10MHz / 16QAM



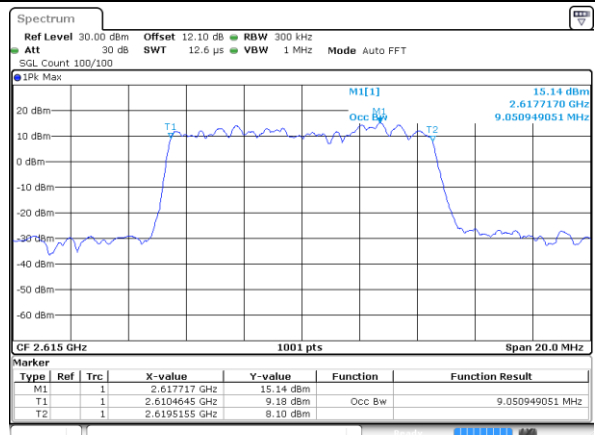
Date: 22 FEB 2018 21:40:41

Highest Channel / 10MHz / QPSK



Date: 22 FEB 2018 21:41:11

Highest Channel / 10MHz / 16QAM

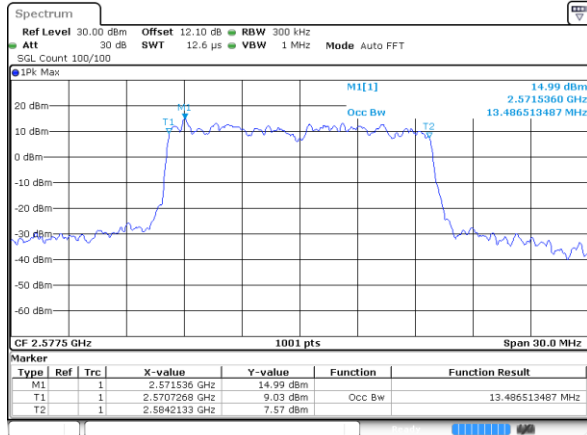


Date: 22 FEB 2018 21:41:20



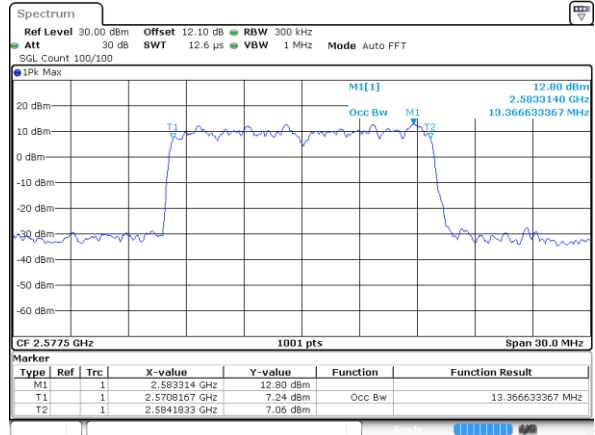
LTE Band 38

Lowest Channel / 15MHz / QPSK



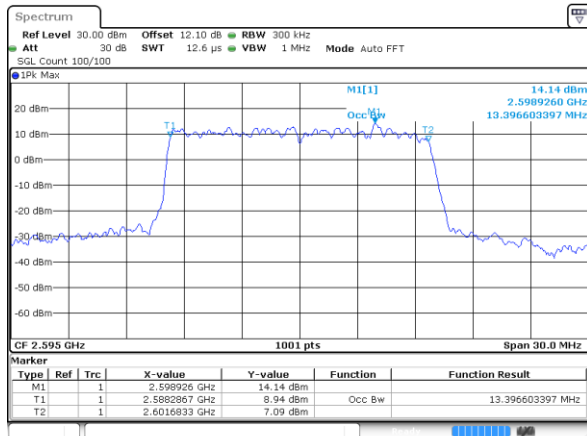
Date: 22 FEB 2018 21:41:50

Lowest Channel / 15MHz / 16QAM



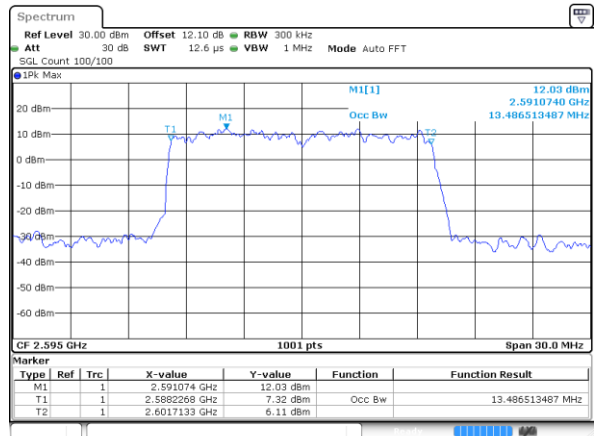
Date: 22 FEB 2018 21:42:00

Middle Channel / 15MHz / QPSK



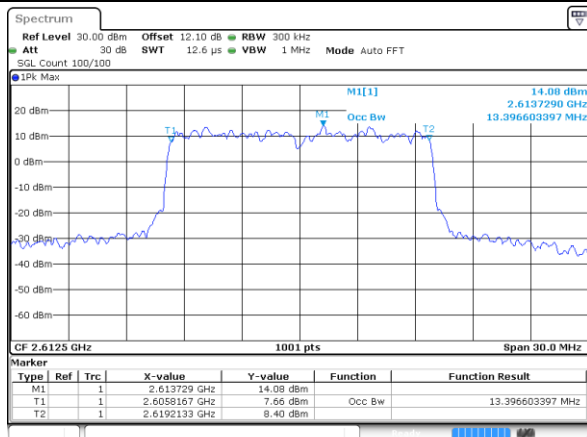
Date: 22 FEB 2018 21:42:30

Middle Channel / 15MHz / 16QAM



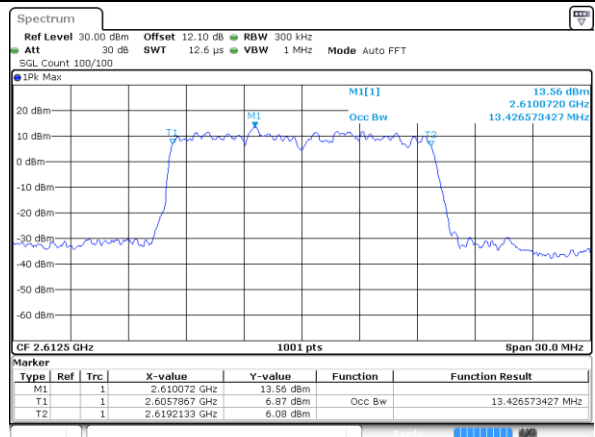
Date: 22 FEB 2018 21:42:40

Highest Channel / 15MHz / QPSK



Date: 22 FEB 2018 21:43:09

Highest Channel / 15MHz / 16QAM

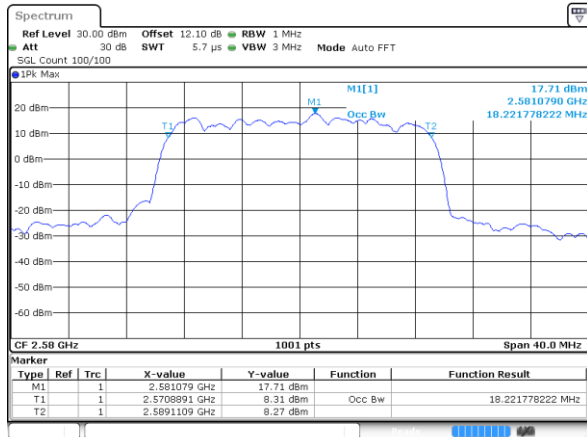


Date: 22 FEB 2018 21:43:19



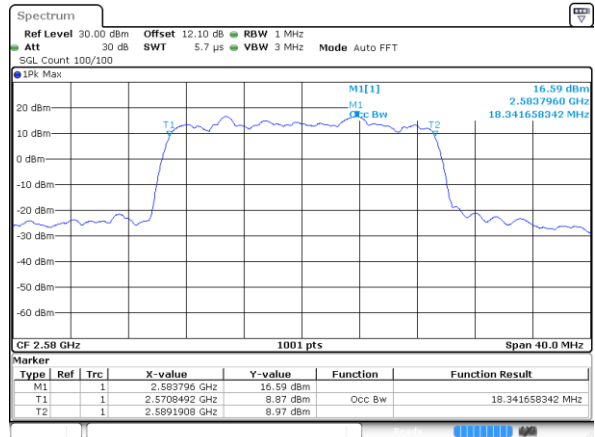
LTE Band 38

Lowest Channel / 20MHz / QPSK



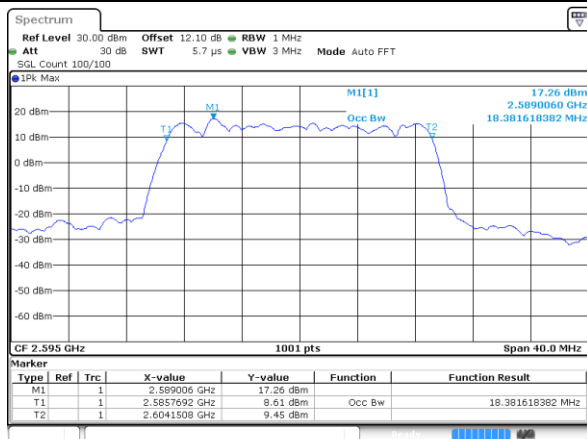
Date: 22 FEB 2018 21:43:49

Lowest Channel / 20MHz / 16QAM



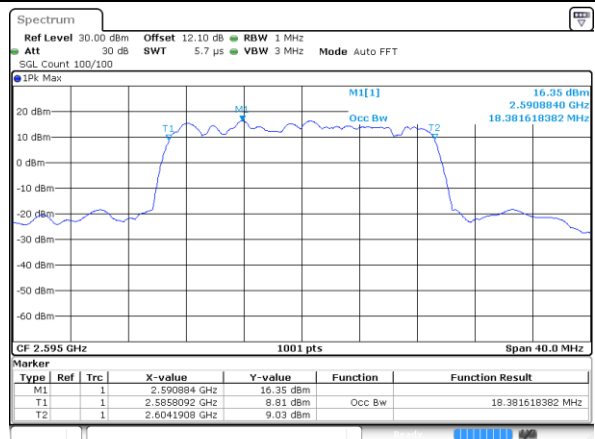
Date: 22 FEB 2018 21:43:59

Middle Channel / 20MHz / QPSK



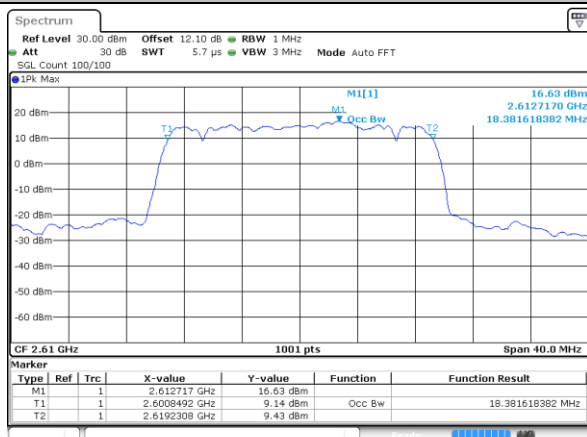
Date: 22 FEB 2018 21:44:28

Middle Channel / 20MHz / 16QAM



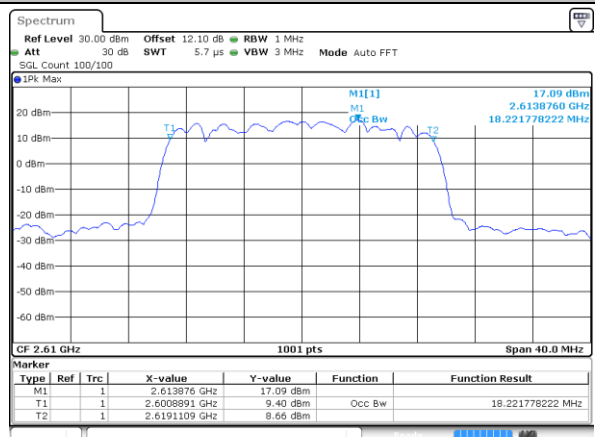
Date: 22 FEB 2018 21:44:38

Highest Channel / 20MHz / QPSK



Date: 22 FEB 2018 21:45:08

Highest Channel / 20MHz / 16QAM

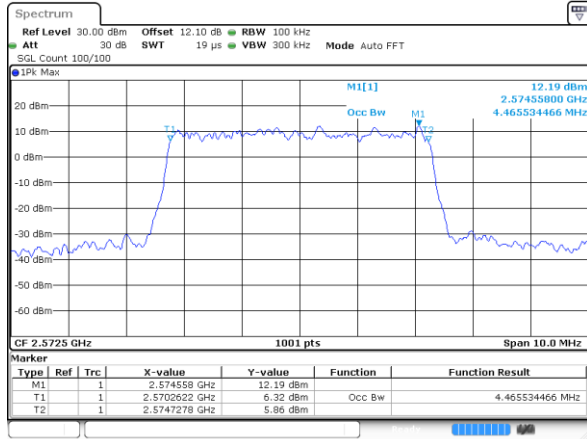


Date: 22 FEB 2018 21:45:18



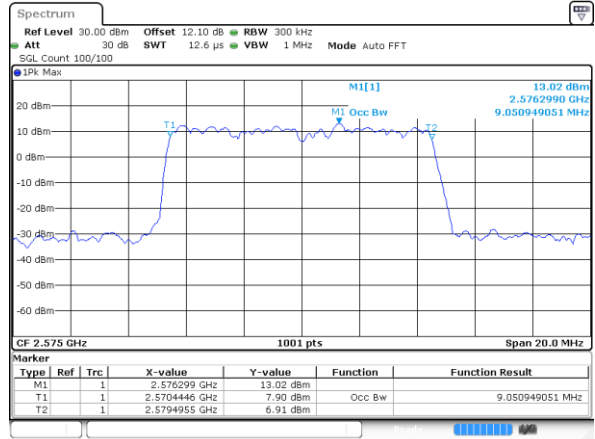
LTE Band 38

Lowest Channel / 5MHz / 64QAM



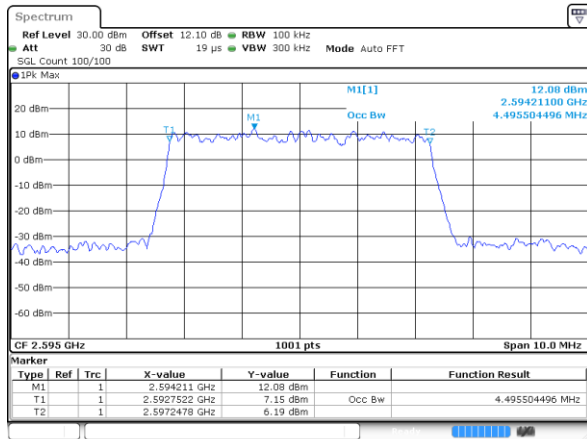
Date: 22 FEB 2018 21:45:47

Lowest Channel / 10MHz / 64QAM



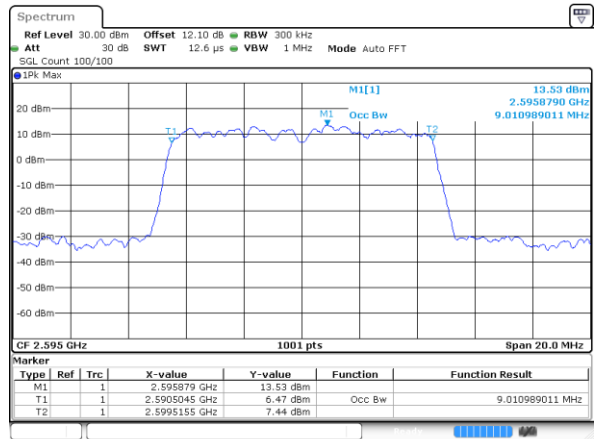
Date: 22 FEB 2018 21:46:46

Middle Channel / 5MHz / 64QAM



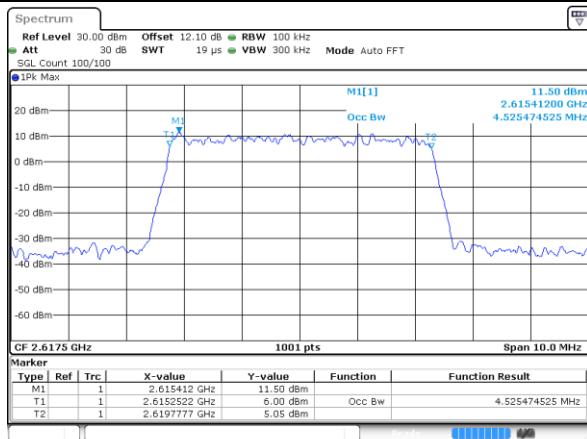
Date: 22 FEB 2018 21:46:07

Middle Channel / 10MHz / 64QAM



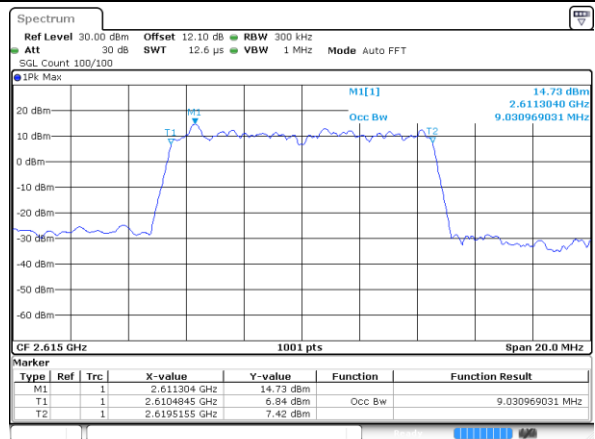
Date: 22 FEB 2018 21:47:06

Highest Channel / 5MHz / 64QAM



Date: 22 FEB 2018 21:46:27

Highest Channel / 10MHz / 64QAM



Date: 22 FEB 2018 21:47:26