



**Frequency Stability**

Test Conditions		LTE Band 26 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0065	PASS
40	Normal Voltage	0.0071	
30	Normal Voltage	0.0068	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0053	
0	Normal Voltage	0.0112	
-10	Normal Voltage	0.0051	
-20	Normal Voltage	0.0112	
-30	Normal Voltage	0.0042	
20	Maximum Voltage	0.0047	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0014	

**Note:**

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



# LTE Band 38

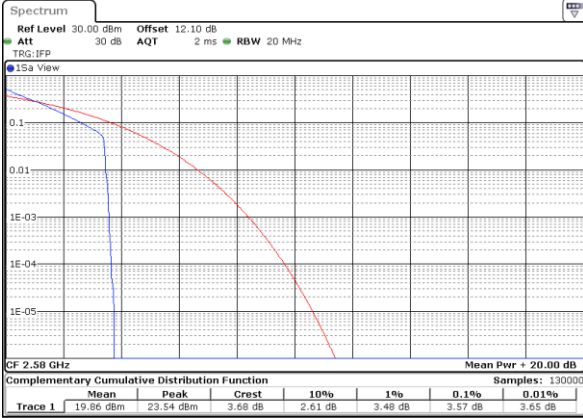
## Peak-to-Average Ratio

Mode	LTE Band 38 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.57	4.64	5.57	5.94	PASS
Middle CH	3.59	4.64	5.36	5.94	
Highest CH	3.65	4.61	5.36	5.94	
Mode	LTE Band 38 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.49	6.46	-	-	PASS
Middle CH	6.52	6.49	-	-	
Highest CH	6.46	6.43	-	-	



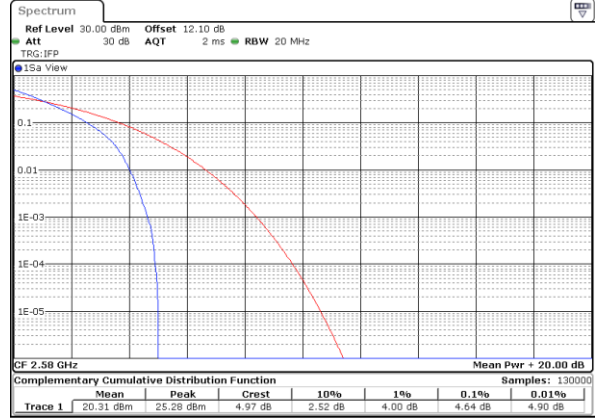
LTE Band 38 / 20MHz / QPSK

Lowest Channel / 1RB



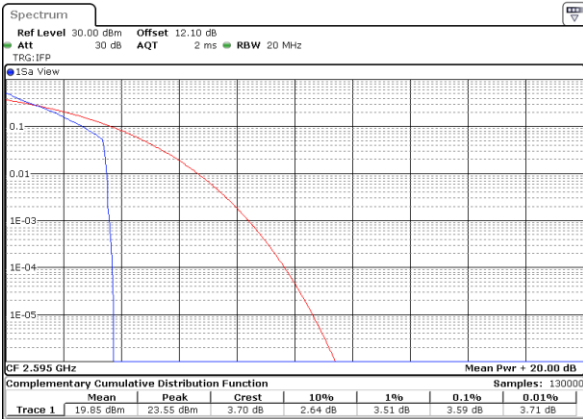
Date: 16 FEB 2018 12:00:07

Lowest Channel / Full RB



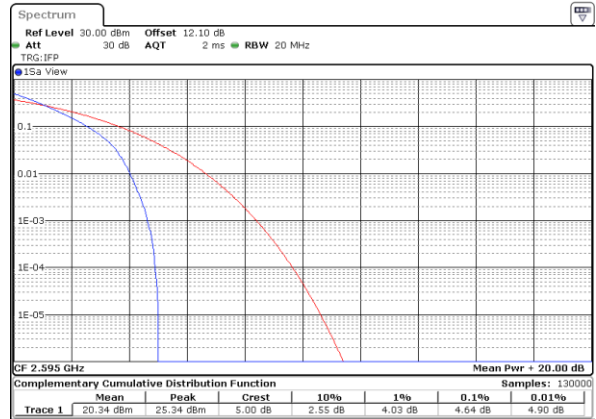
Date: 16 FEB 2018 12:00:21

Middle Channel / 1RB



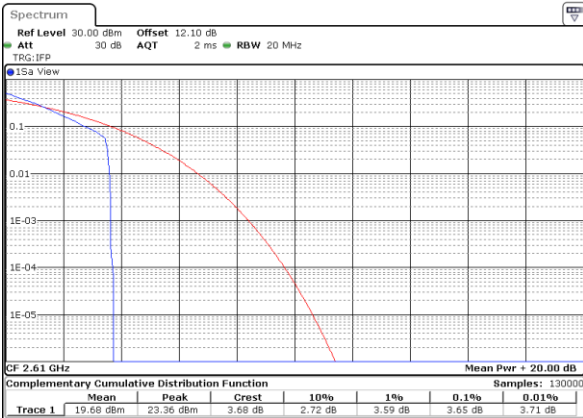
Date: 16 FEB 2018 12:00:33

Middle Channel / Full RB



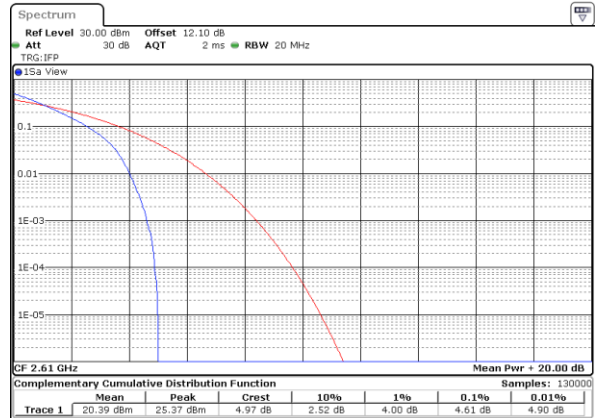
Date: 16 FEB 2018 12:00:50

Highest Channel / 1RB



Date: 16 FEB 2018 12:01:04

Highest Channel / Full RB

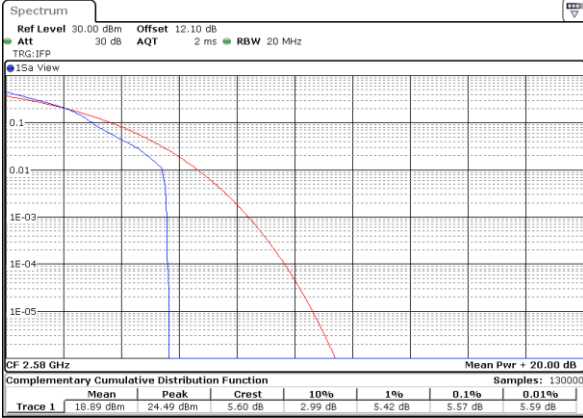


Date: 16 FEB 2018 12:01:27



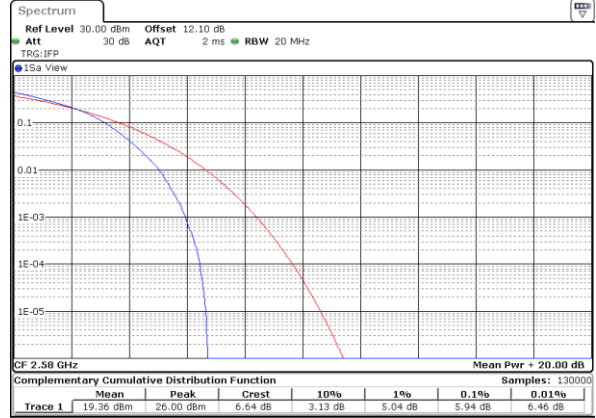
LTE Band 38 / 20MHz / 16QAM

Lowest Channel / 1RB



Date: 16 FEB 2018 11:58:18

Lowest Channel / Full RB



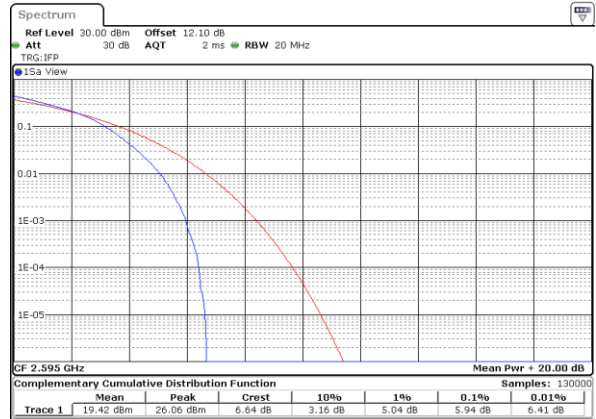
Date: 16 FEB 2018 11:58:36

Middle Channel / 1RB



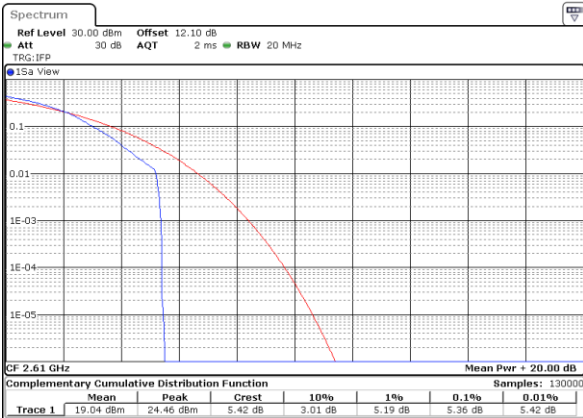
Date: 16 FEB 2018 11:59:01

Middle Channel / Full RB



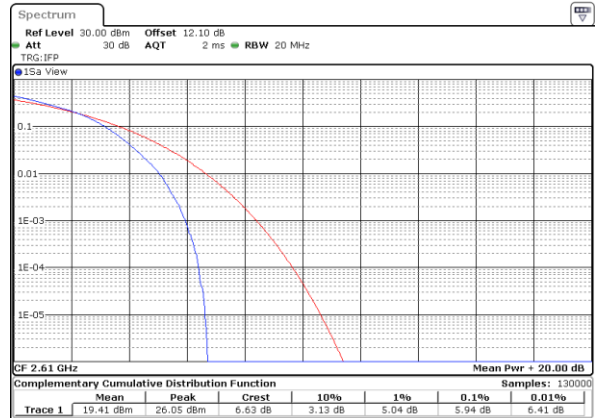
Date: 16 FEB 2018 11:59:24

Highest Channel / 1RB



Date: 16 FEB 2018 11:59:39

Highest Channel / Full RB



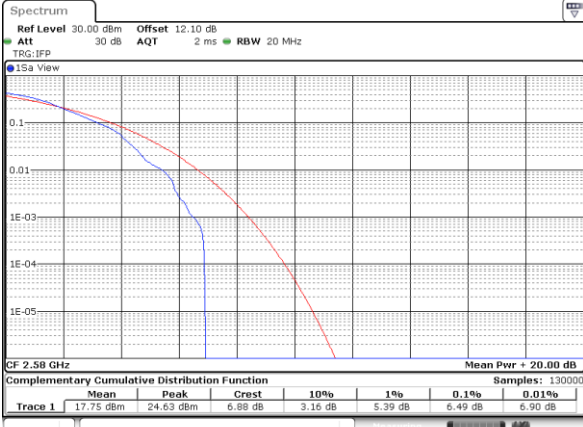
Date: 16 FEB 2018 11:59:54





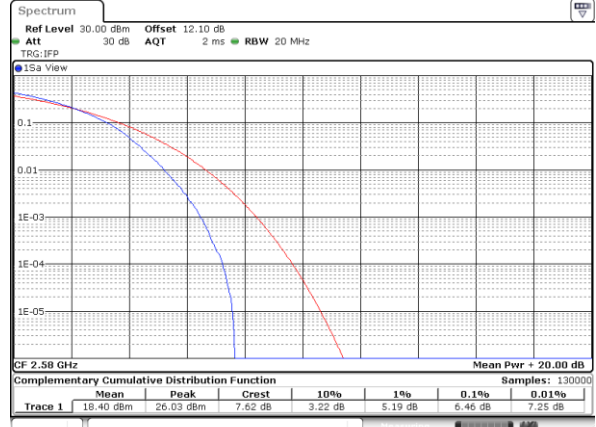
LTE Band 38 / 20MHz / 64QAM

Lowest Channel / 1RB



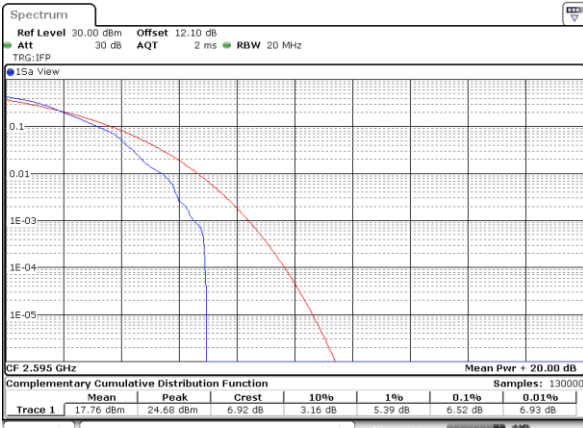
Date: 16 FEB 2018 11:55:18

Lowest Channel / Full RB



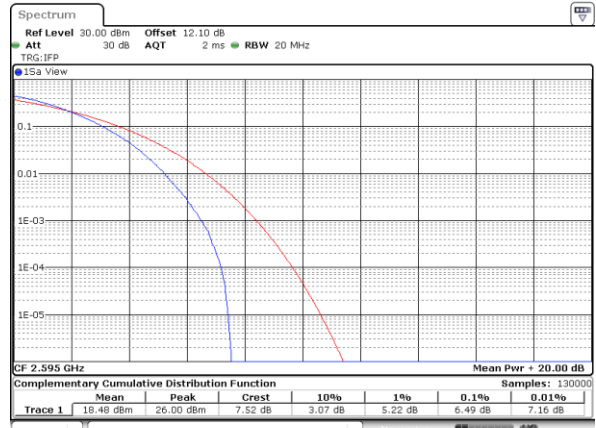
Date: 16 FEB 2018 11:56:33

Middle Channel / 1RB



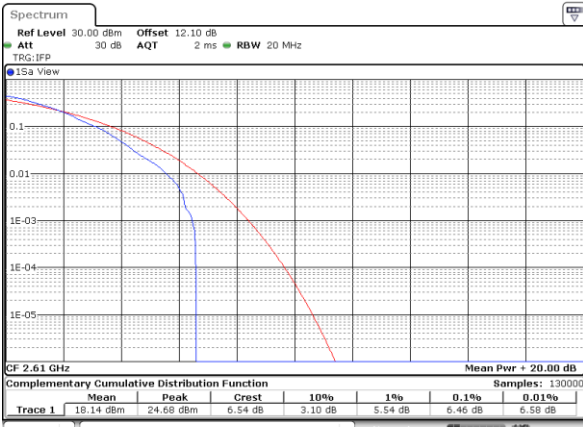
Date: 16 FEB 2018 11:56:49

Middle Channel / Full RB



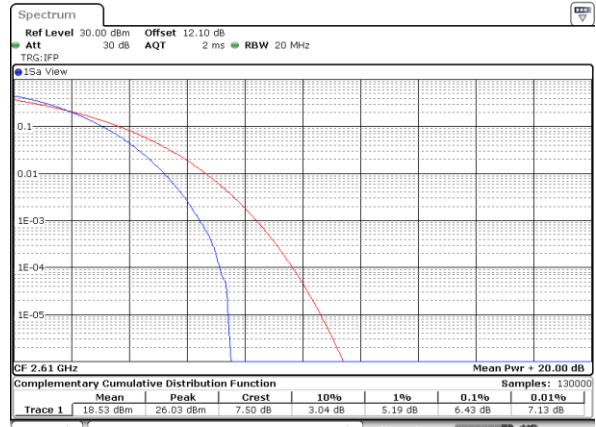
Date: 16 FEB 2018 11:57:05

Highest Channel / 1RB



Date: 16 FEB 2018 12:02:16

Highest Channel / Full RB



Date: 16 FEB 2018 11:58:02



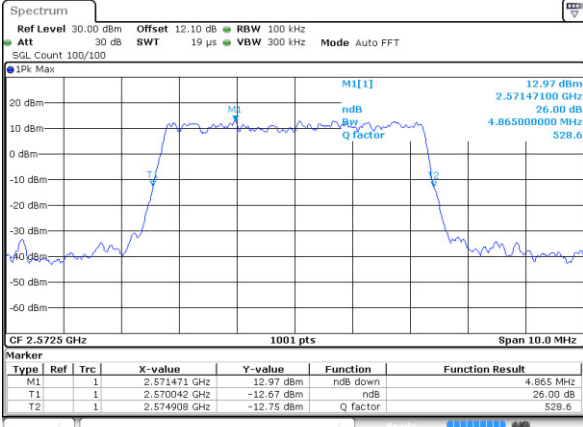
**26dB Bandwidth**

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	-	-	-	-	4.87	4.86	9.65	9.65	14.42	14.45	20.10	20.14
Middle CH	-	-	-	-	4.86	4.92	9.69	9.71	14.18	14.18	20.42	20.10
Highest CH	-	-	-	-	4.94	4.76	9.73	9.63	14.39	14.42	20.14	20.26
Mode	LTE Band 38 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.83	-	9.63	-	14.60	-	20.14	-
Middle CH	-	-	-	-	4.79	-	9.77	-	14.30	-	20.14	-
Highest CH	-	-	-	-	4.83	-	9.65	-	14.60	-	20.06	-



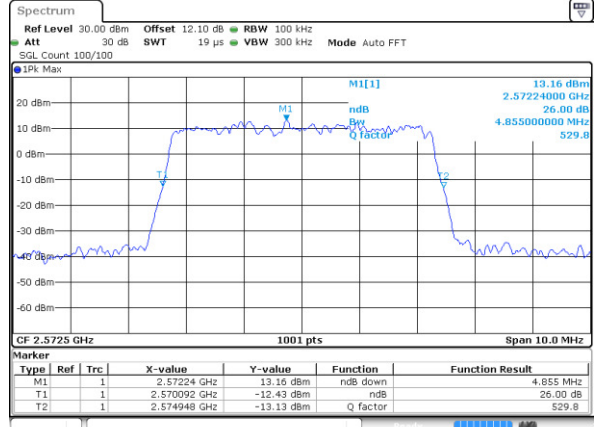
LTE Band 38

Lowest Channel / 5MHz / QPSK



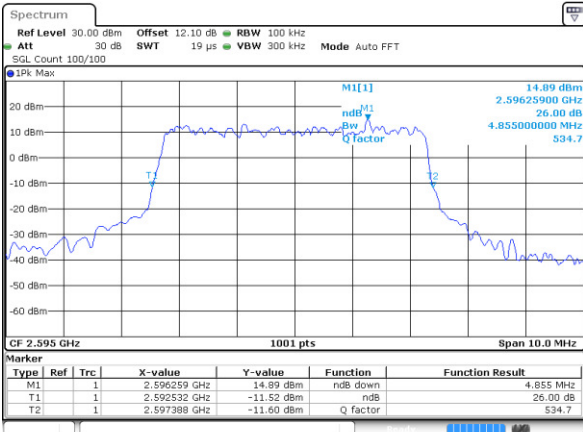
Date: 16 FEB 2018 11:42:26

Lowest Channel / 5MHz / 16QAM



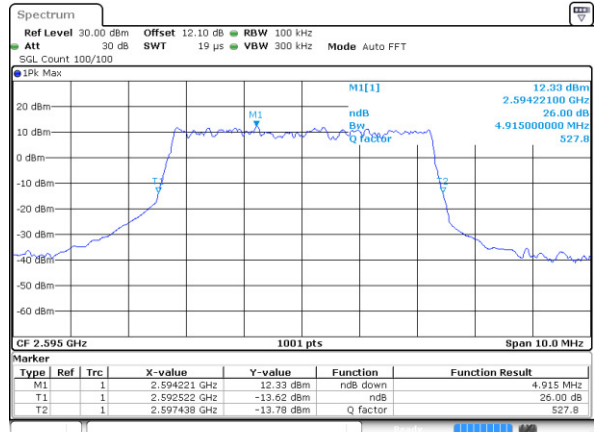
Date: 16 FEB 2018 11:43:47

Middle Channel / 5MHz / QPSK



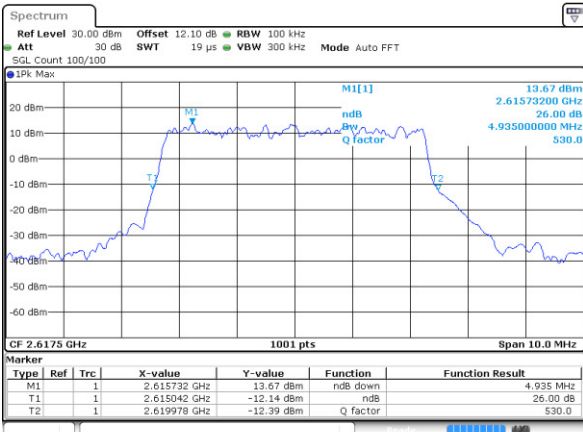
Date: 16 FEB 2018 11:44:17

Middle Channel / 5MHz / 16QAM



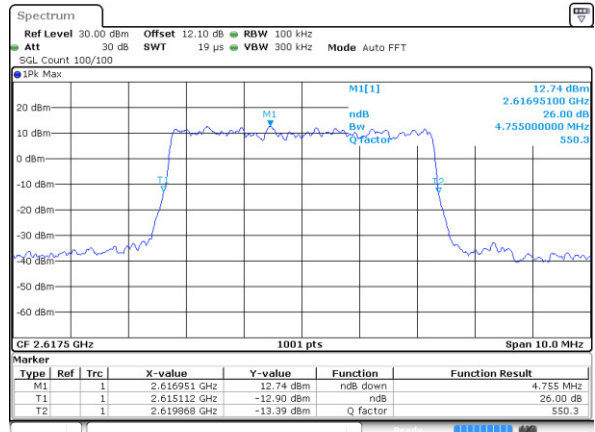
Date: 16 FEB 2018 11:44:27

Highest Channel / 5MHz / QPSK



Date: 16 FEB 2018 11:44:57

Highest Channel / 5MHz / 16QAM

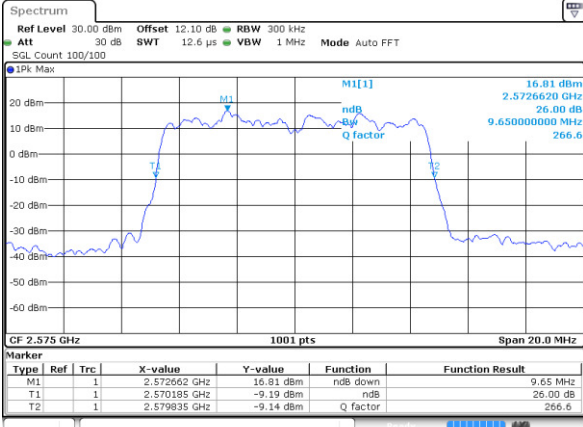


Date: 16 FEB 2018 11:45:06



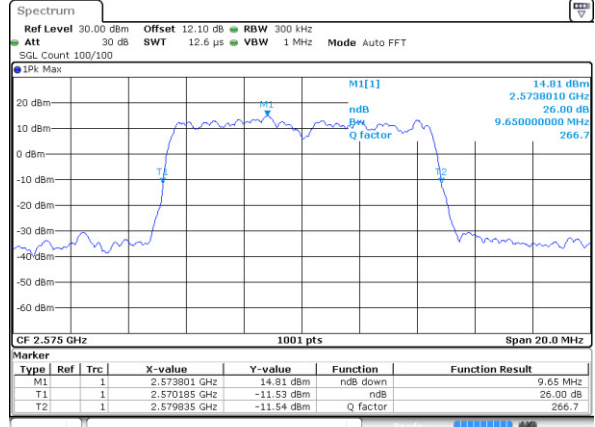
LTE Band 38

Lowest Channel / 10MHz / QPSK



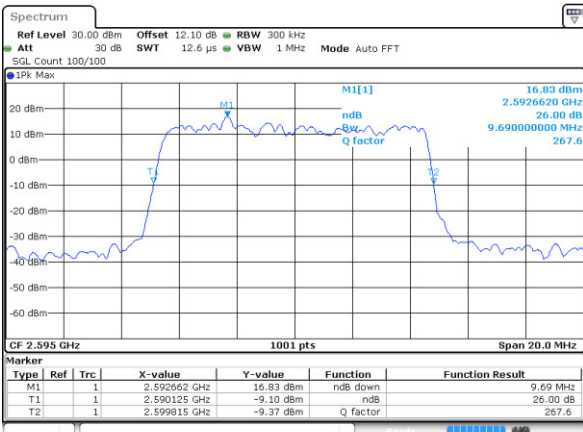
Date: 16 FEB 2018 11:45:36

Lowest Channel / 10MHz / 16QAM



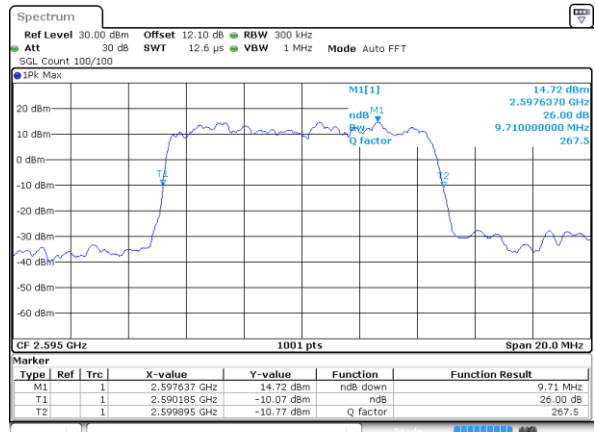
Date: 16 FEB 2018 11:45:46

Middle Channel / 10MHz / QPSK



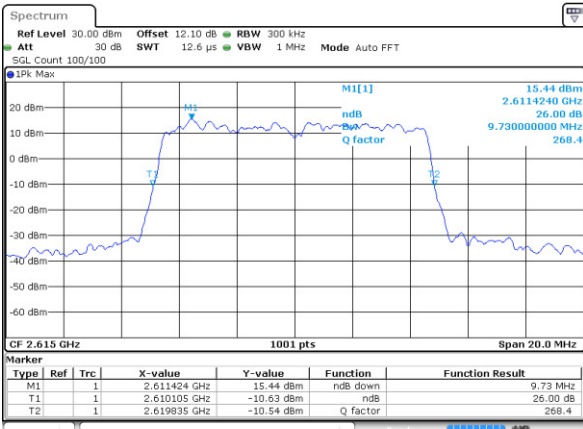
Date: 16 FEB 2018 11:46:16

Middle Channel / 10MHz / 16QAM



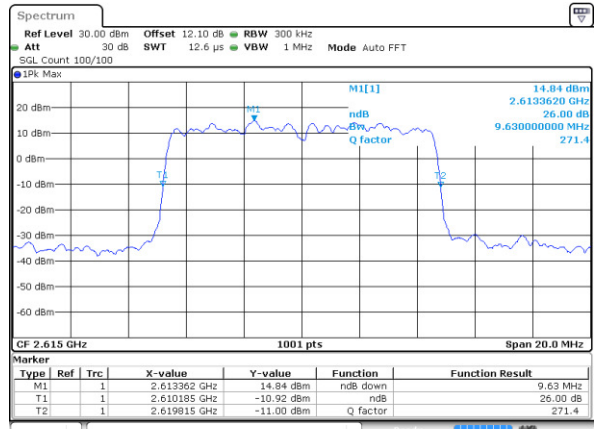
Date: 16 FEB 2018 11:46:26

Highest Channel / 10MHz / QPSK



Date: 16 FEB 2018 11:46:55

Highest Channel / 10MHz / 16QAM

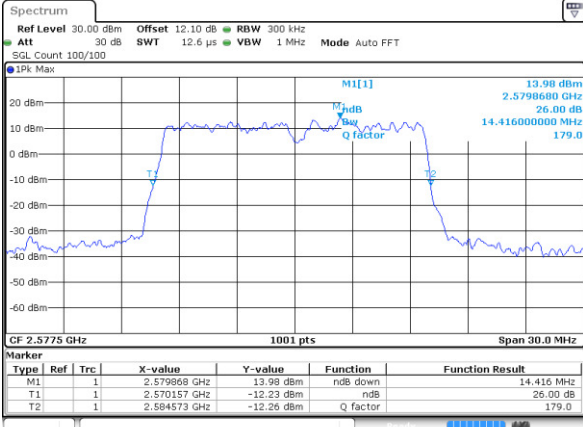


Date: 16 FEB 2018 11:47:05



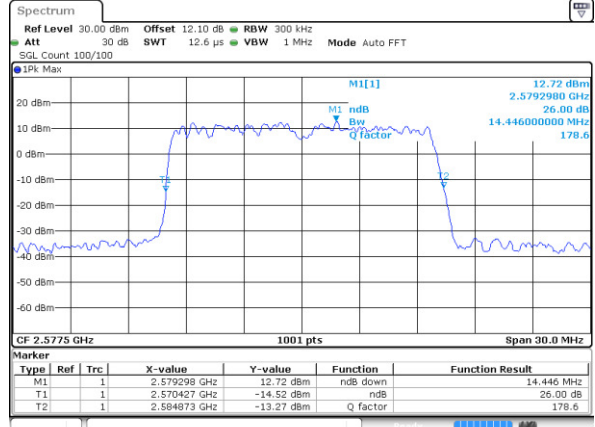
LTE Band 38

Lowest Channel / 15MHz / QPSK



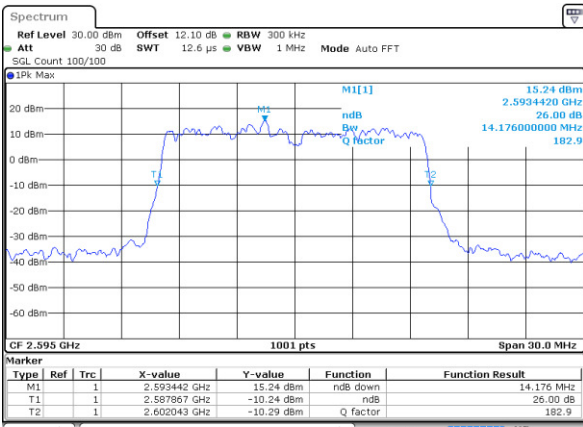
Date: 16 FEB 2018 11:47:35

Lowest Channel / 15MHz / 16QAM



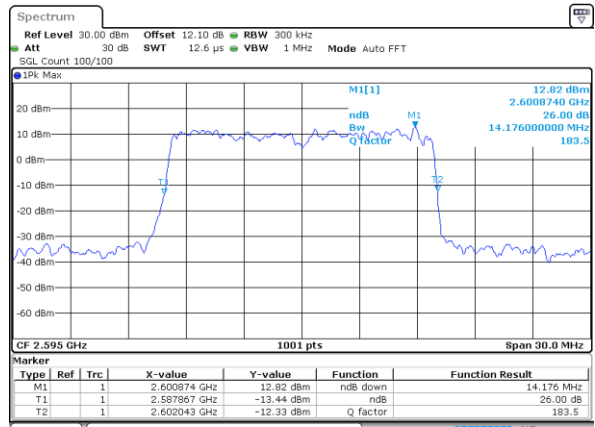
Date: 16 FEB 2018 11:47:45

Middle Channel / 15MHz / QPSK



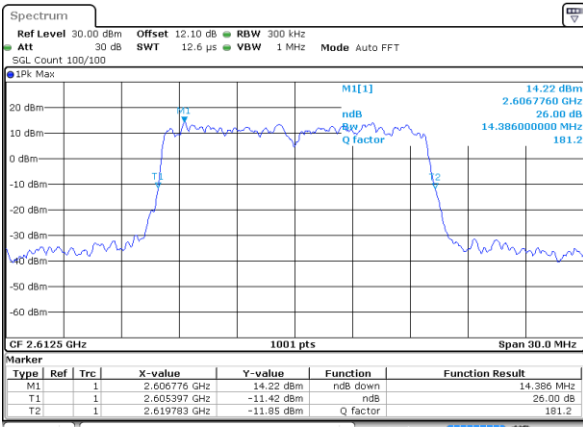
Date: 16 FEB 2018 11:48:14

Middle Channel / 15MHz / 16QAM



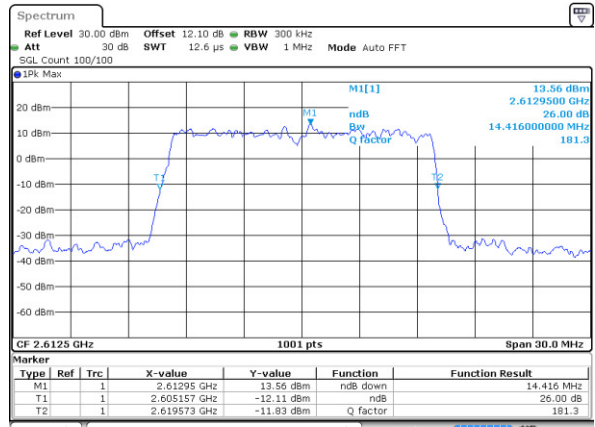
Date: 16 FEB 2018 11:48:24

Highest Channel / 15MHz / QPSK



Date: 16 FEB 2018 11:48:54

Highest Channel / 15MHz / 16QAM

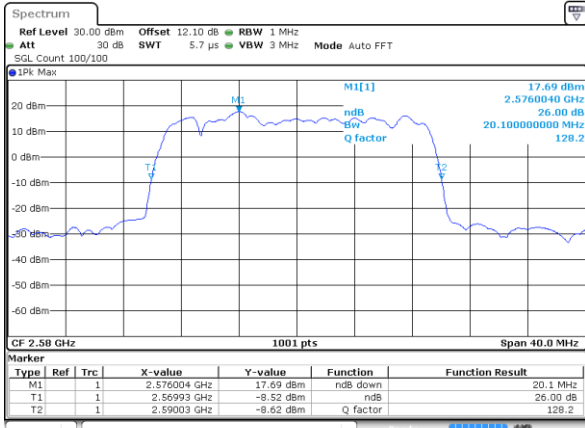


Date: 16 FEB 2018 11:49:04



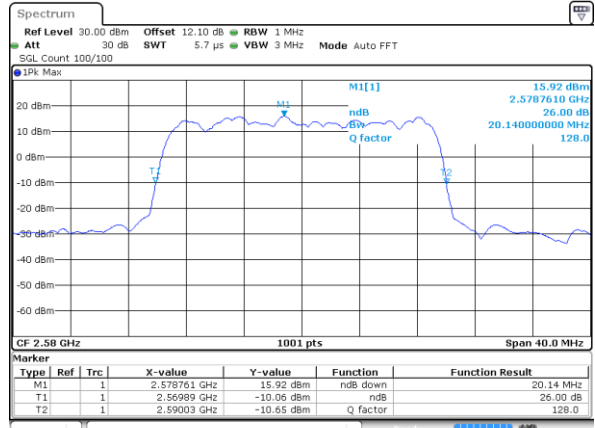
LTE Band 38

Lowest Channel / 20MHz / QPSK



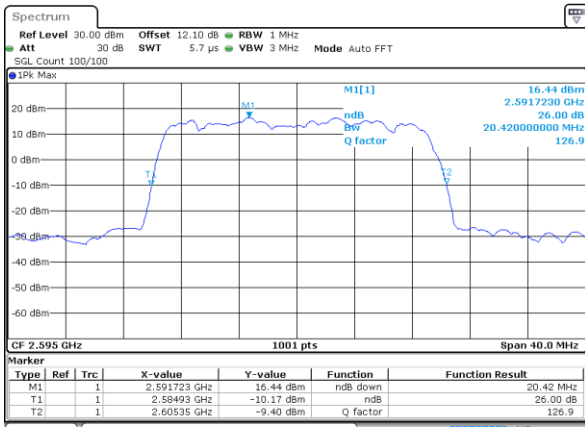
Date: 16 FEB 2018 11:49:34

Lowest Channel / 20MHz / 16QAM



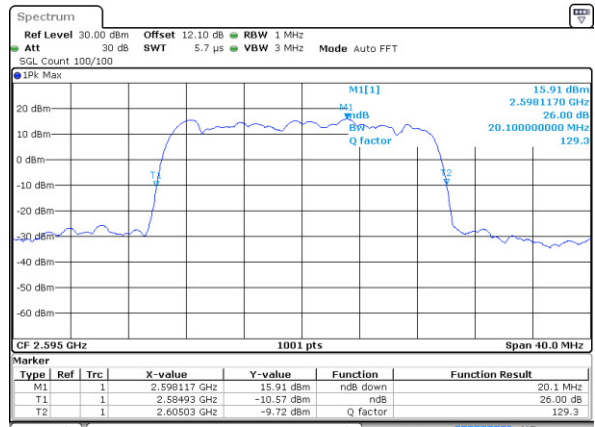
Date: 16 FEB 2018 11:49:44

Middle Channel / 20MHz / QPSK



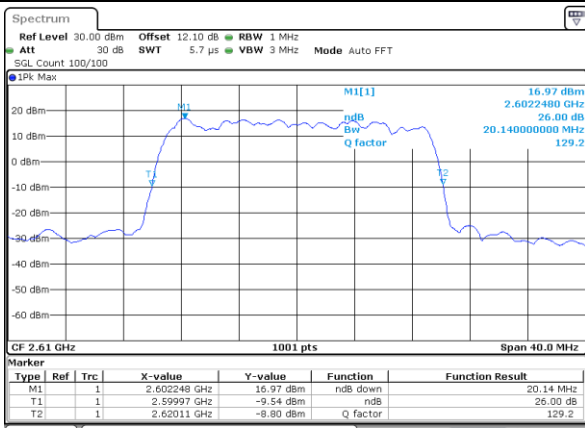
Date: 16 FEB 2018 11:50:13

Middle Channel / 20MHz / 16QAM



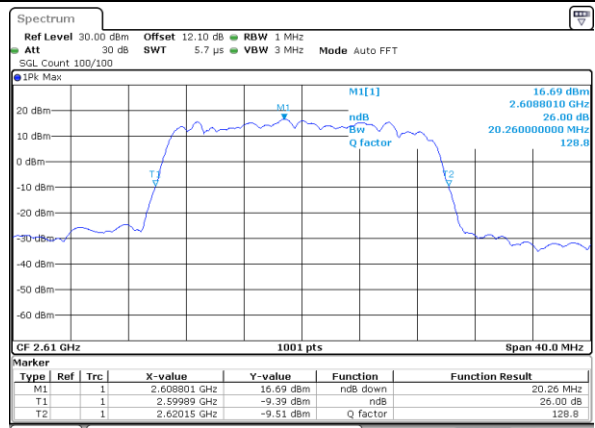
Date: 16 FEB 2018 11:50:23

Highest Channel / 20MHz / QPSK



Date: 16 FEB 2018 11:50:53

Highest Channel / 20MHz / 16QAM

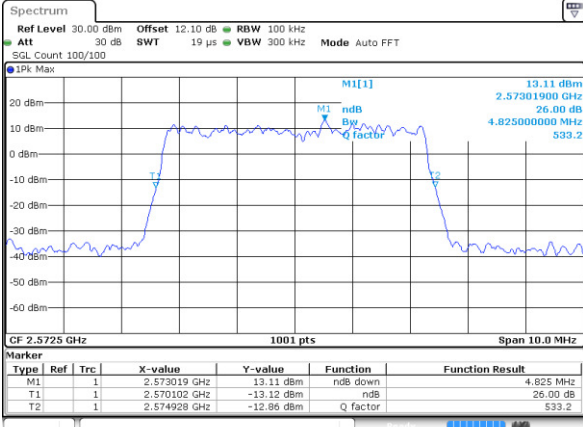


Date: 16 FEB 2018 11:51:03



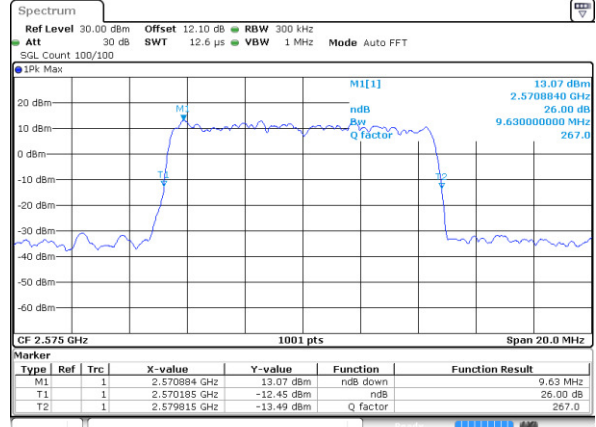
LTE Band 38

Lowest Channel / 5MHz / 64QAM



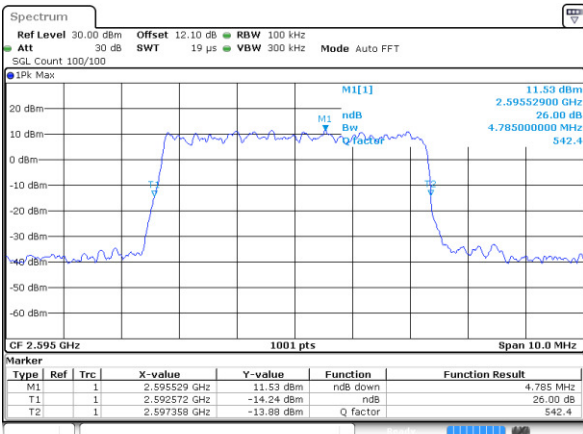
Date: 16 FEB 2018 11:51:23

Lowest Channel / 10MHz / 64QAM



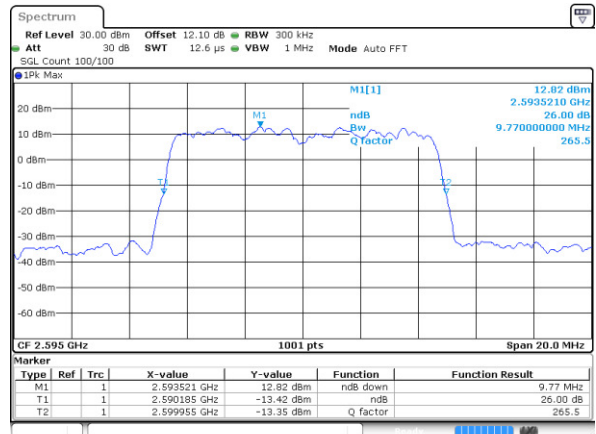
Date: 16 FEB 2018 11:52:23

Middle Channel / 5MHz / 64QAM



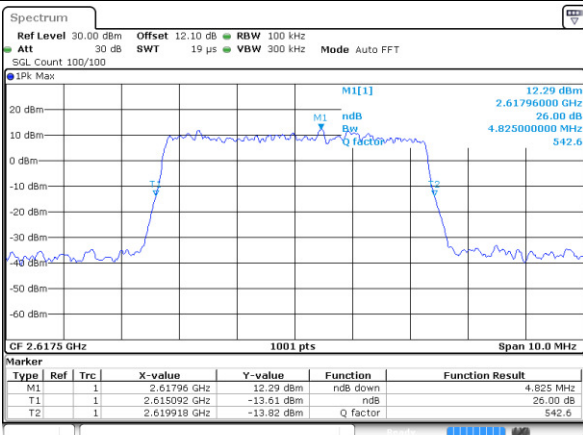
Date: 16 FEB 2018 11:51:43

Middle Channel / 10MHz / 64QAM



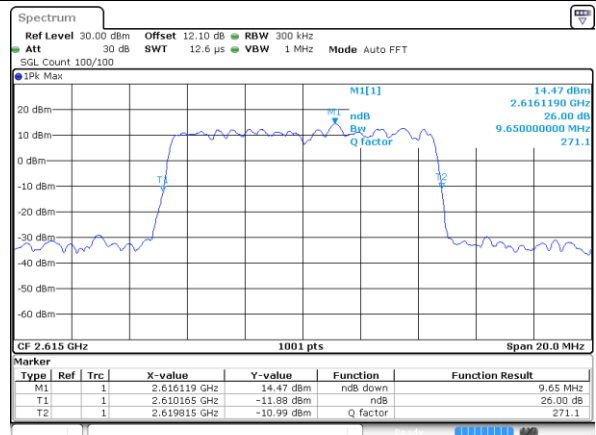
Date: 16 FEB 2018 11:52:43

Highest Channel / 5MHz / 64QAM



Date: 16 FEB 2018 11:52:03

Highest Channel / 10MHz / 64QAM



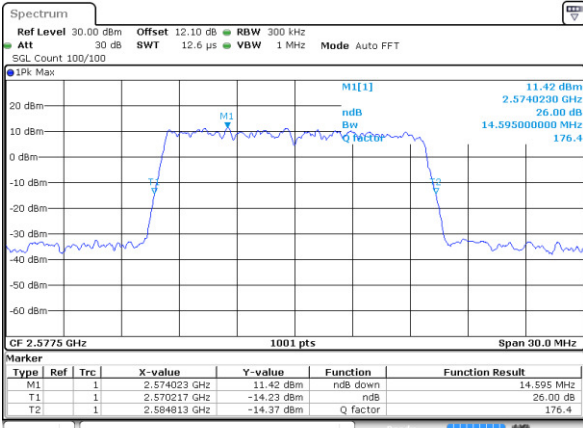
Date: 16 FEB 2018 11:53:03





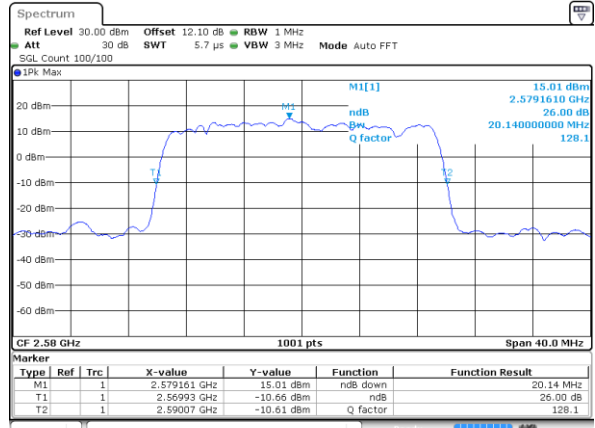
LTE Band 38

Lowest Channel / 15MHz / 64QAM



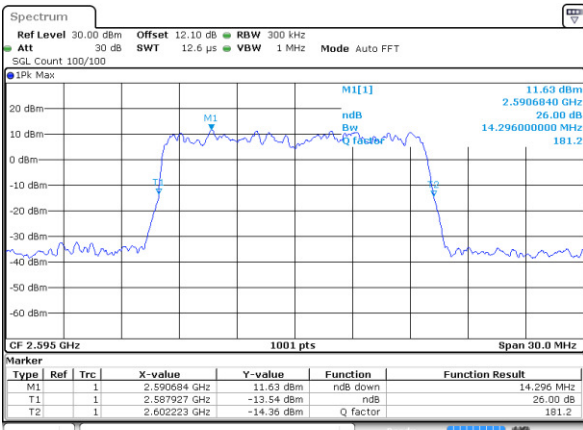
Date: 16 FEB 2018 11:53:23

Lowest Channel / 20MHz / 64QAM



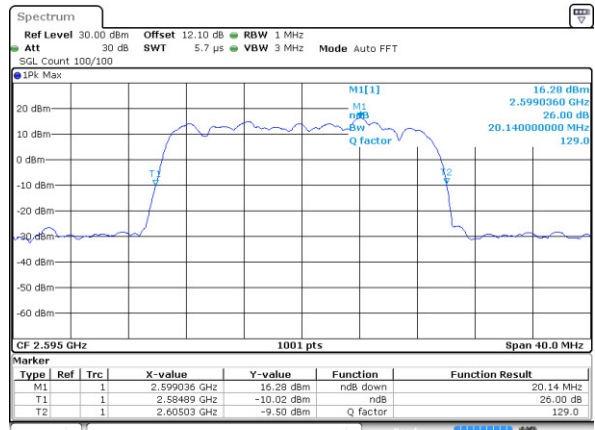
Date: 16 FEB 2018 11:54:22

Middle Channel / 15MHz / 64QAM



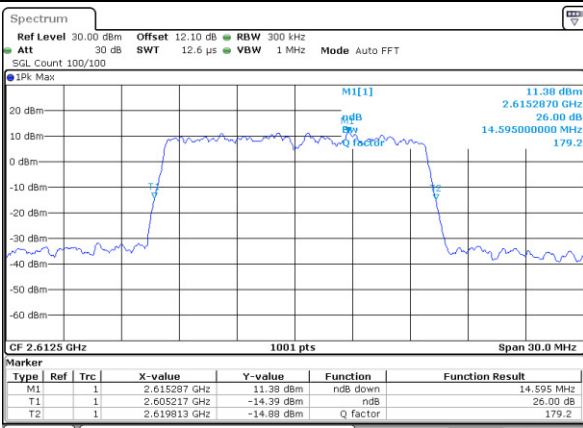
Date: 16 FEB 2018 11:53:42

Middle Channel / 20MHz / 64QAM



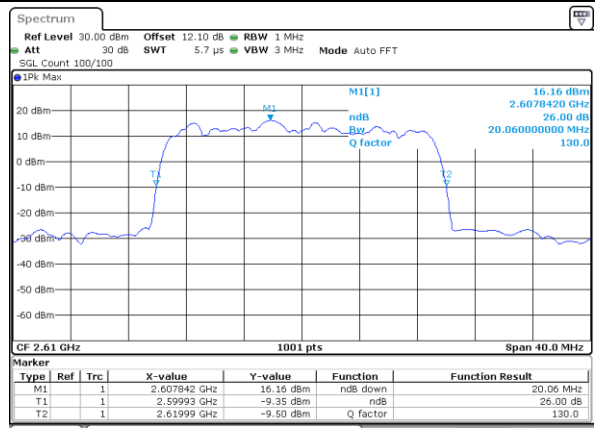
Date: 16 FEB 2018 11:54:42

Highest Channel / 15MHz / 64QAM



Date: 16 FEB 2018 11:54:02

Highest Channel / 20MHz / 64QAM



Date: 16 FEB 2018 11:55:02





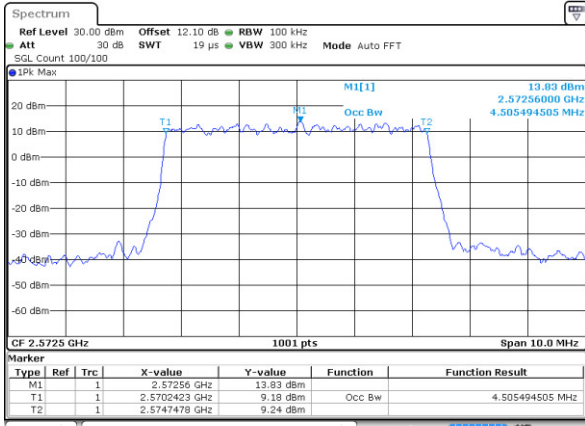
**Occupied Bandwidth**

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	-	-	-	-	4.51	4.49	8.95	8.97	13.49	13.43	18.3	18.18
Middle CH	-	-	-	-	4.47	4.5	9.01	9.03	13.34	13.43	18.1	18.42
Highest CH	-	-	-	-	4.49	4.49	9.01	9.05	13.46	13.46	18.38	18.42
Mode	LTE Band 38 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.49	-	9.01	-	13.43	-	18.30	-
Middle CH	-	-	-	-	4.48	-	9.03	-	13.31	-	18.34	-
Highest CH	-	-	-	-	4.51	-	8.99	-	13.43	-	18.42	-



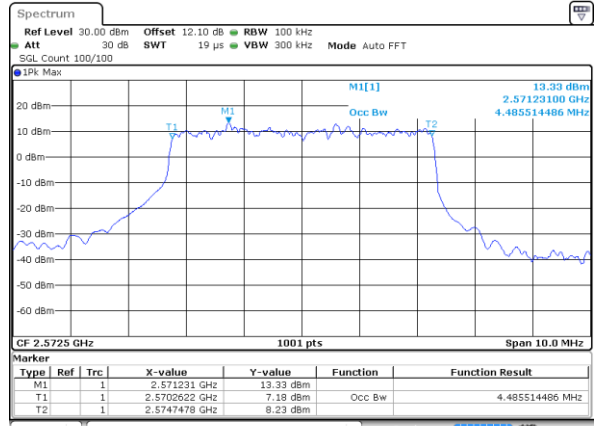
LTE Band 38

Lowest Channel / 5MHz / QPSK



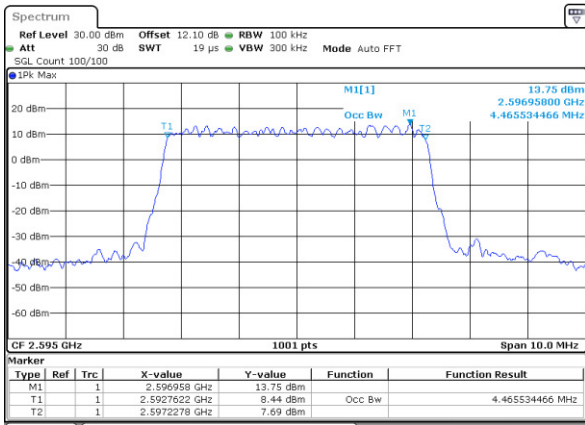
Date: 16 FEB 2018 11:42:06

Lowest Channel / 5MHz / 16QAM



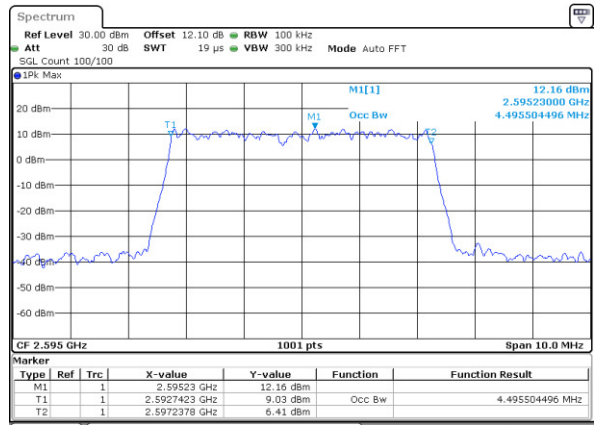
Date: 16 FEB 2018 11:42:16

Middle Channel / 5MHz / QPSK



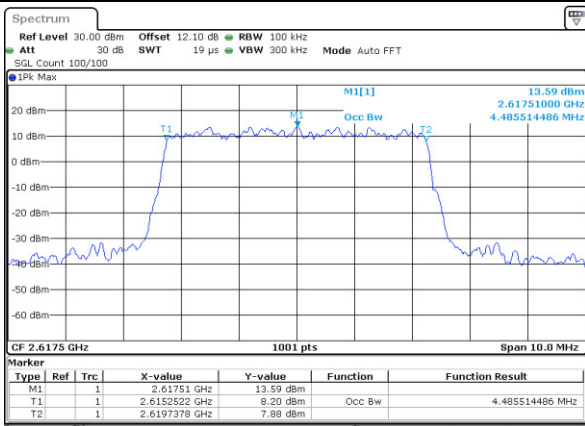
Date: 16 FEB 2018 11:43:57

Middle Channel / 5MHz / 16QAM



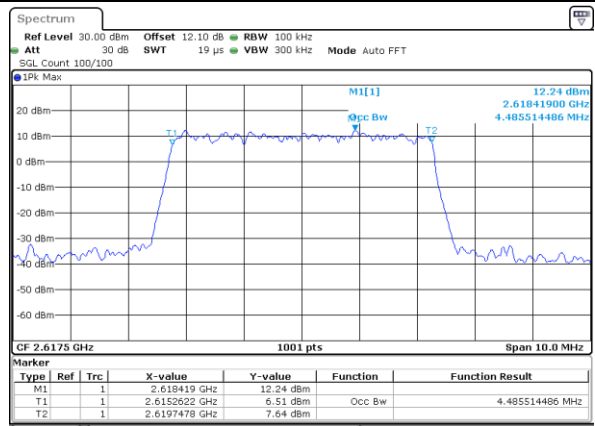
Date: 16 FEB 2018 11:44:07

Highest Channel / 5MHz / QPSK



Date: 16 FEB 2018 11:44:37

Highest Channel / 5MHz / 16QAM

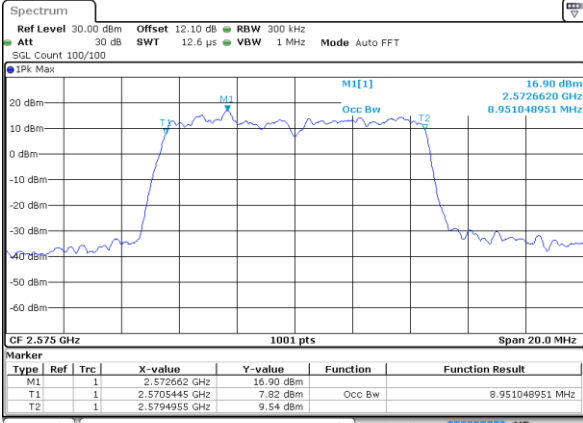


Date: 16 FEB 2018 11:44:47



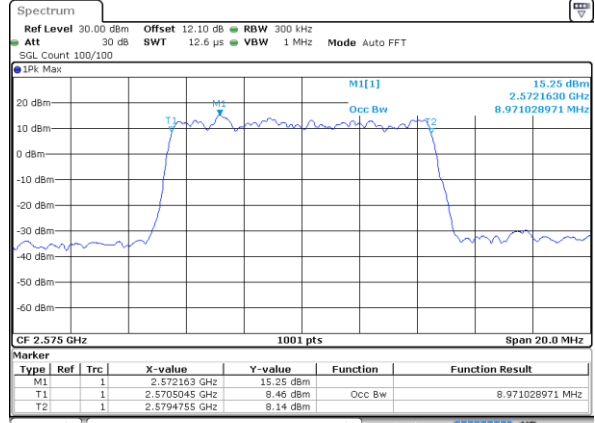
LTE Band 38

Lowest Channel / 10MHz / QPSK



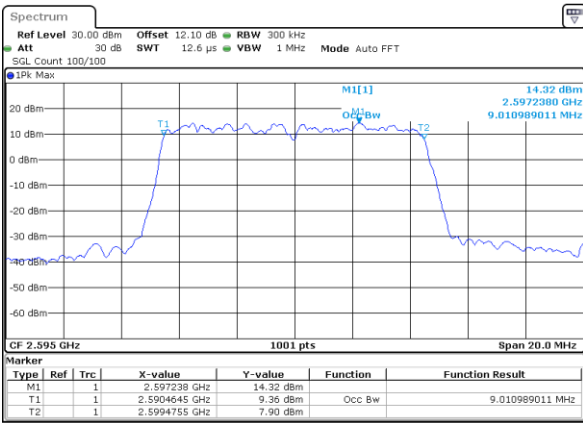
Date: 16 FEB 2018 11:45:16

Lowest Channel / 10MHz / 16QAM



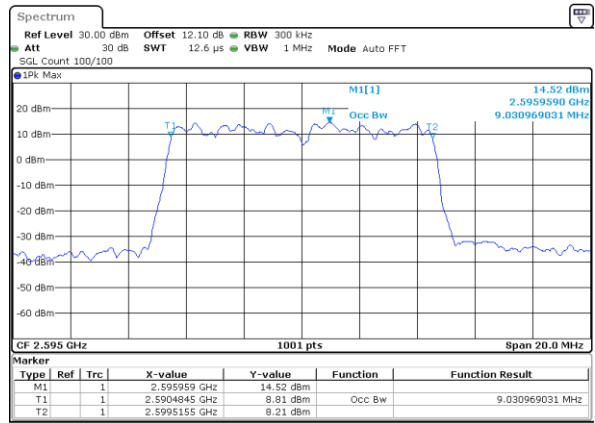
Date: 16 FEB 2018 11:45:26

Middle Channel / 10MHz / QPSK



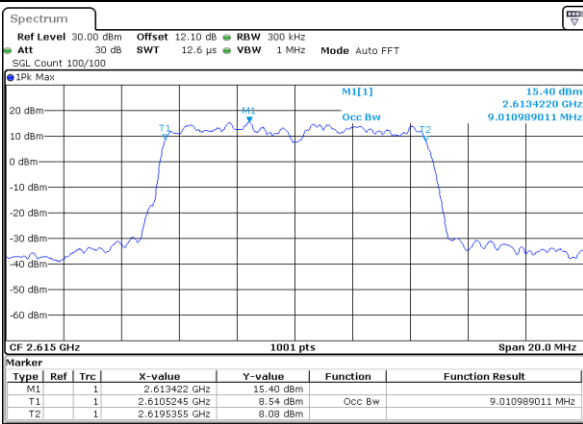
Date: 16 FEB 2018 11:45:56

Middle Channel / 10MHz / 16QAM



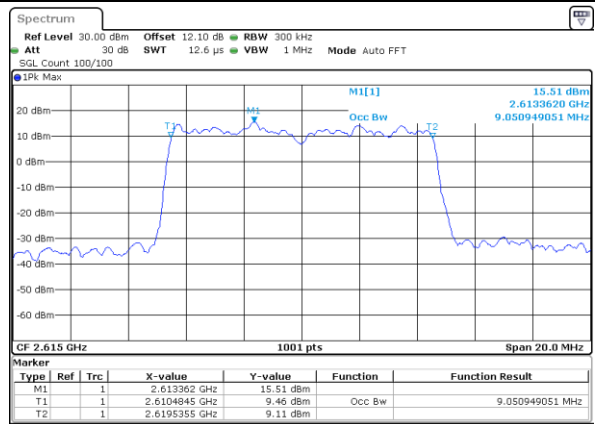
Date: 16 FEB 2018 11:46:06

Highest Channel / 10MHz / QPSK



Date: 16 FEB 2018 11:46:35

Highest Channel / 10MHz / 16QAM

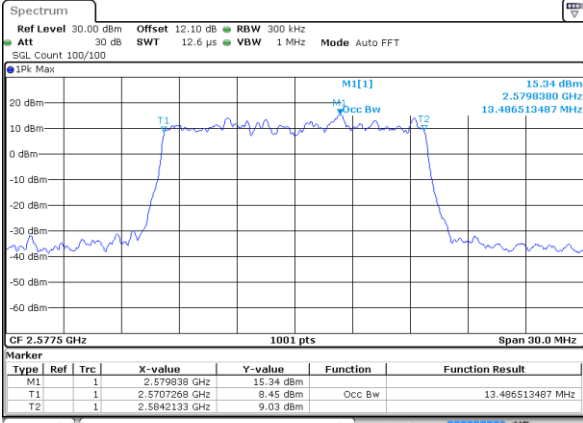


Date: 16 FEB 2018 11:46:45



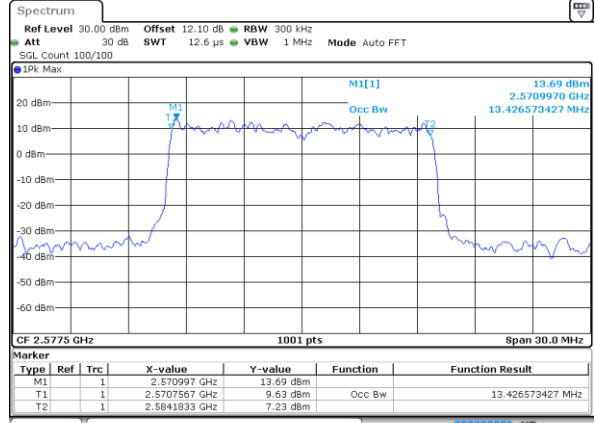
LTE Band 38

Lowest Channel / 15MHz / QPSK



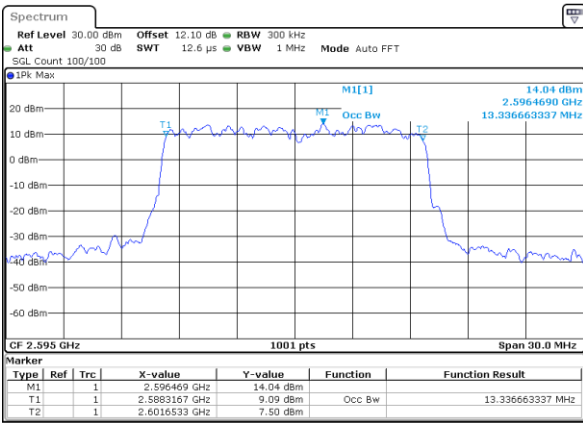
Date: 16 FEB 2018 11:47:15

Lowest Channel / 15MHz / 16QAM



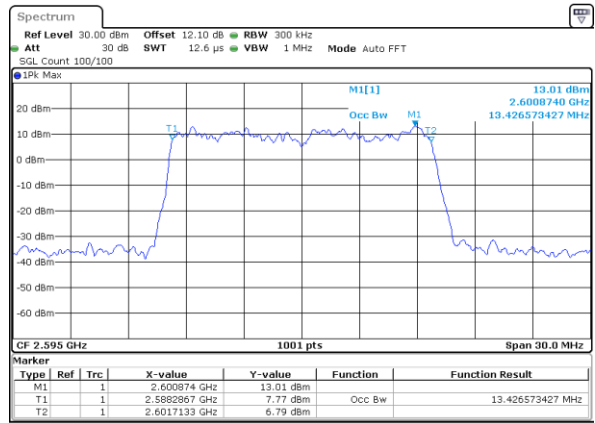
Date: 16 FEB 2018 11:47:25

Middle Channel / 15MHz / QPSK



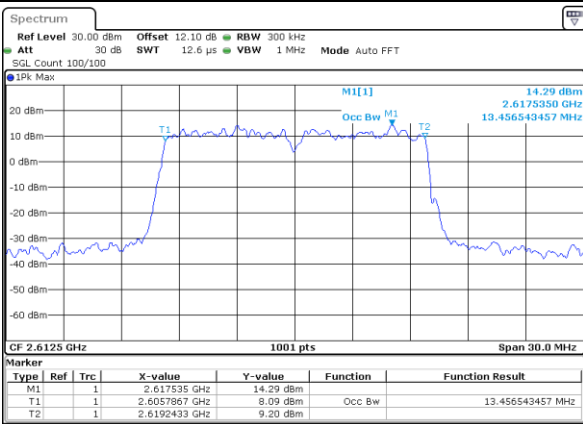
Date: 16 FEB 2018 11:47:55

Middle Channel / 15MHz / 16QAM



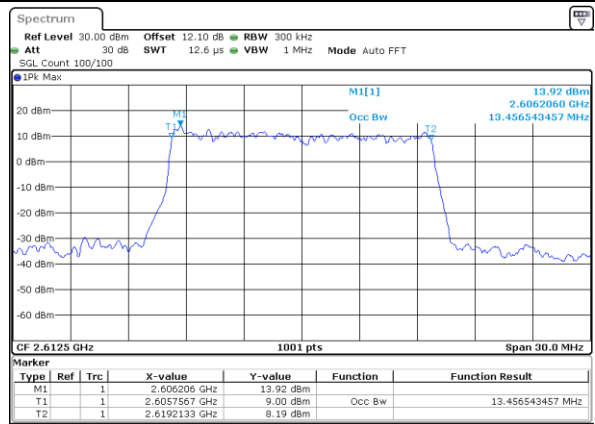
Date: 16 FEB 2018 11:48:04

Highest Channel / 15MHz / QPSK



Date: 16 FEB 2018 11:48:34

Highest Channel / 15MHz / 16QAM

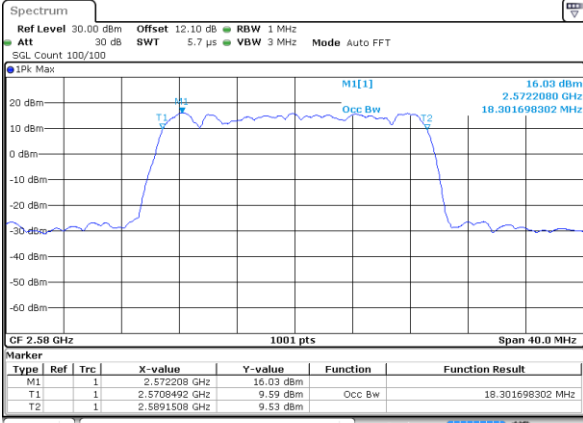


Date: 16 FEB 2018 11:48:44



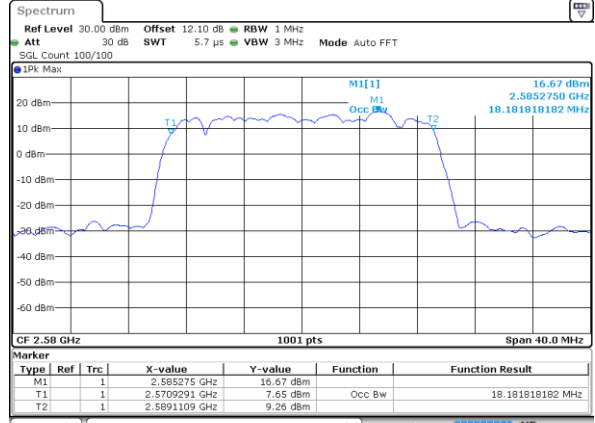
LTE Band 38

Lowest Channel / 20MHz / QPSK



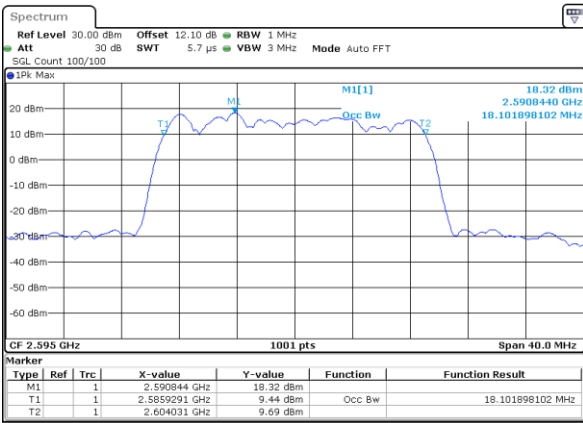
Date: 16 FEB 2018 11:49:14

Lowest Channel / 20MHz / 16QAM



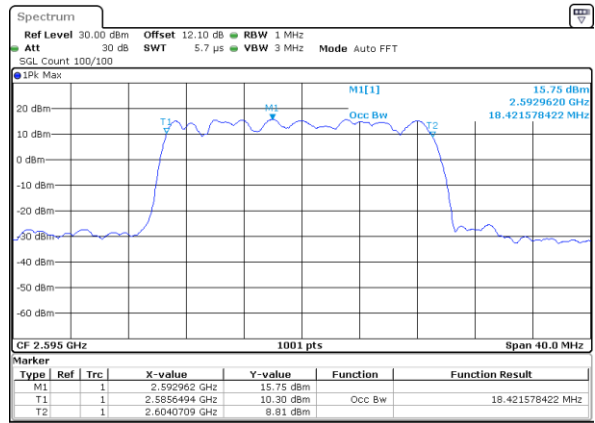
Date: 16 FEB 2018 11:49:24

Middle Channel / 20MHz / QPSK



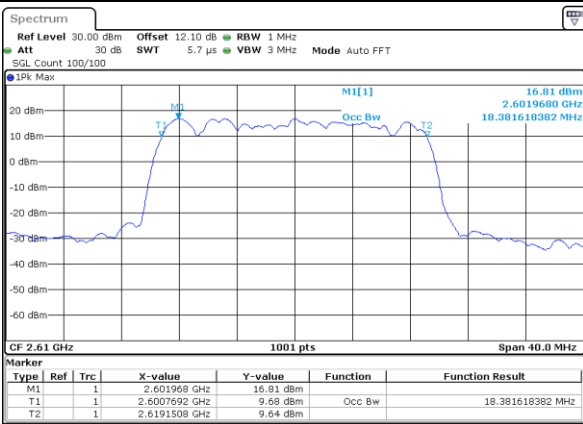
Date: 16 FEB 2018 11:49:54

Middle Channel / 20MHz / 16QAM



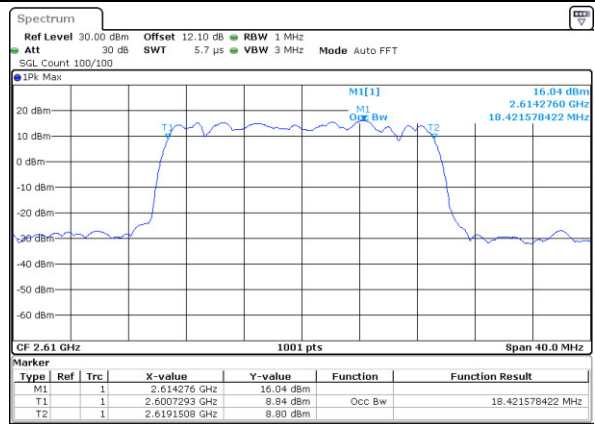
Date: 16 FEB 2018 11:50:04

Highest Channel / 20MHz / QPSK



Date: 16 FEB 2018 11:50:33

Highest Channel / 20MHz / 16QAM

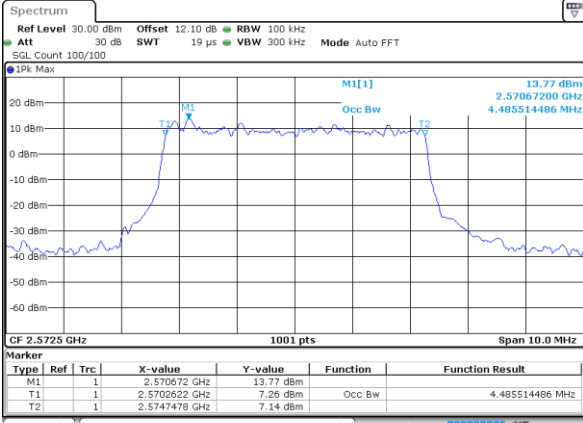


Date: 16 FEB 2018 11:50:43



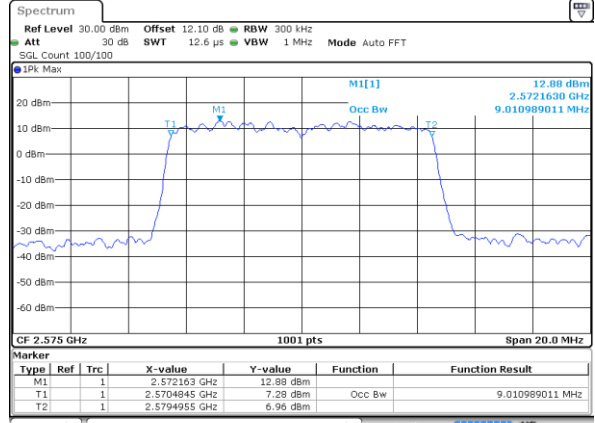
LTE Band 38

Lowest Channel / 5MHz / 64QAM



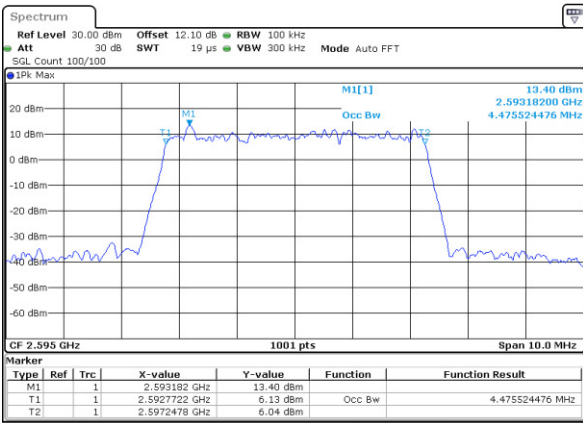
Date: 16 FEB 2018 11:51:13

Lowest Channel / 10MHz / 64QAM



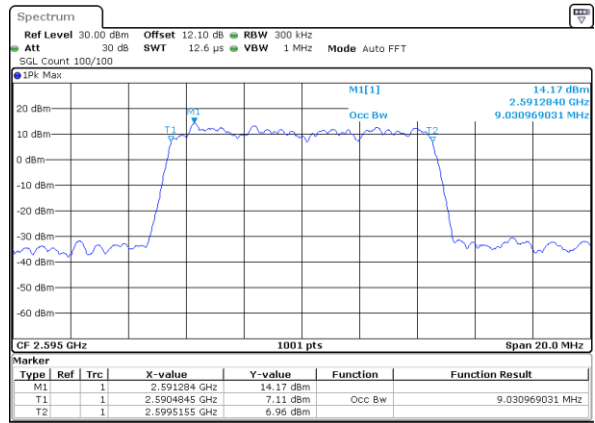
Date: 16 FEB 2018 11:52:13

Middle Channel / 5MHz / 64QAM



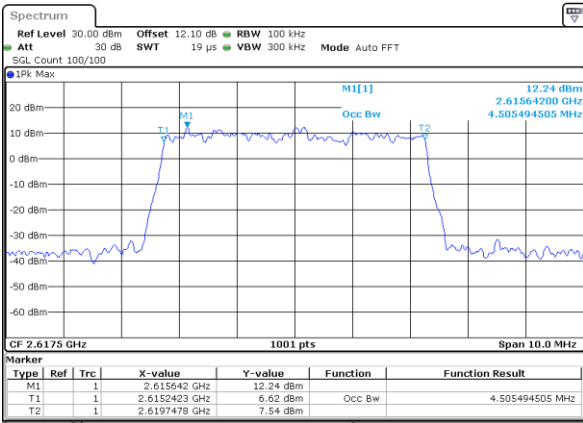
Date: 16 FEB 2018 11:51:33

Middle Channel / 10MHz / 64QAM



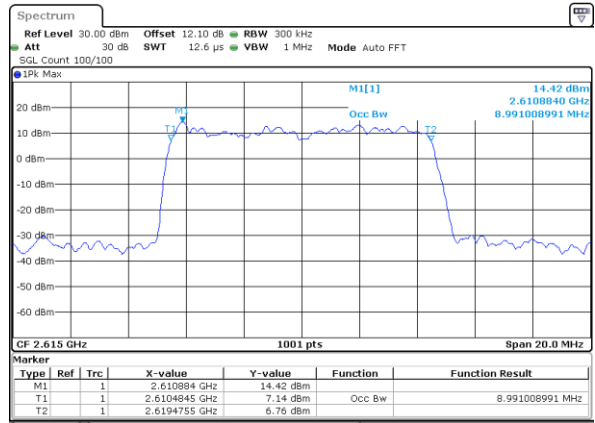
Date: 16 FEB 2018 11:52:33

Highest Channel / 5MHz / 64QAM



Date: 16 FEB 2018 11:51:53

Highest Channel / 10MHz / 64QAM

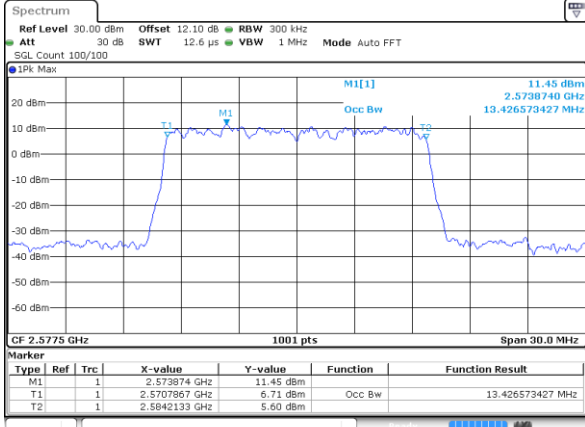


Date: 16 FEB 2018 11:52:53



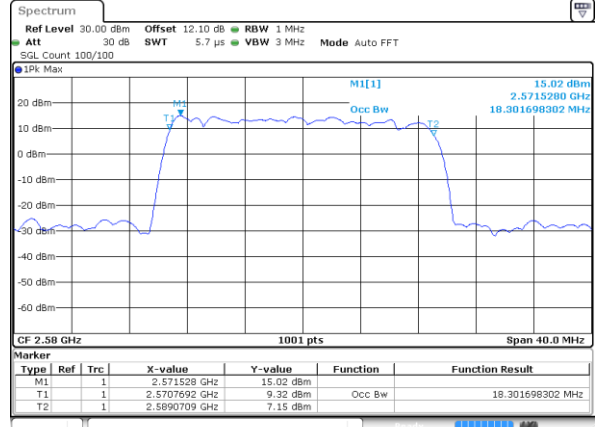
LTE Band 38

Lowest Channel / 15MHz / 64QAM



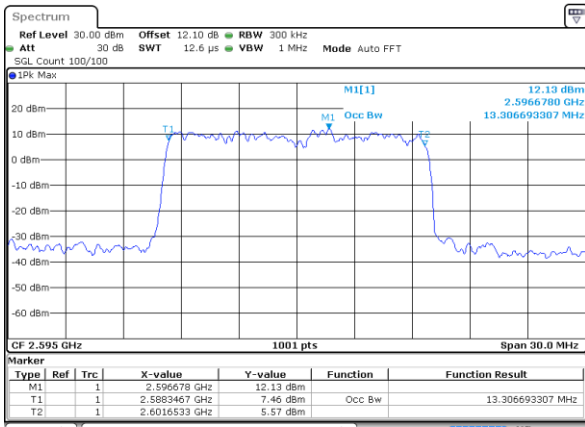
Date: 16 FEB 2018 11:53:13

Lowest Channel / 20MHz / 64QAM



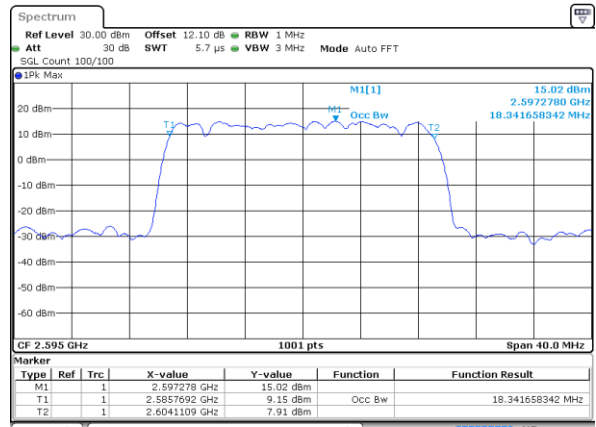
Date: 16 FEB 2018 11:54:12

Middle Channel / 15MHz / 64QAM



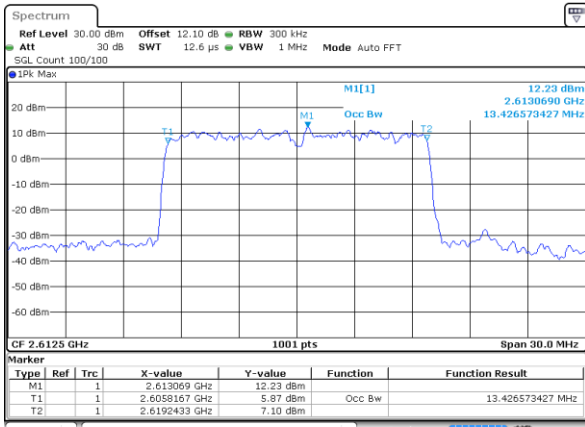
Date: 16 FEB 2018 11:53:33

Middle Channel / 20MHz / 64QAM



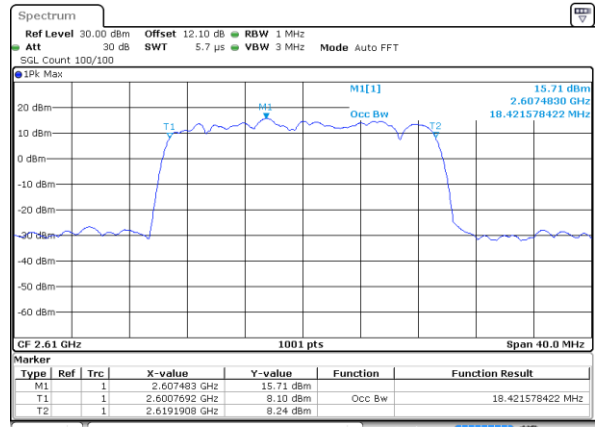
Date: 16 FEB 2018 11:54:32

Highest Channel / 15MHz / 64QAM



Date: 16 FEB 2018 11:53:52

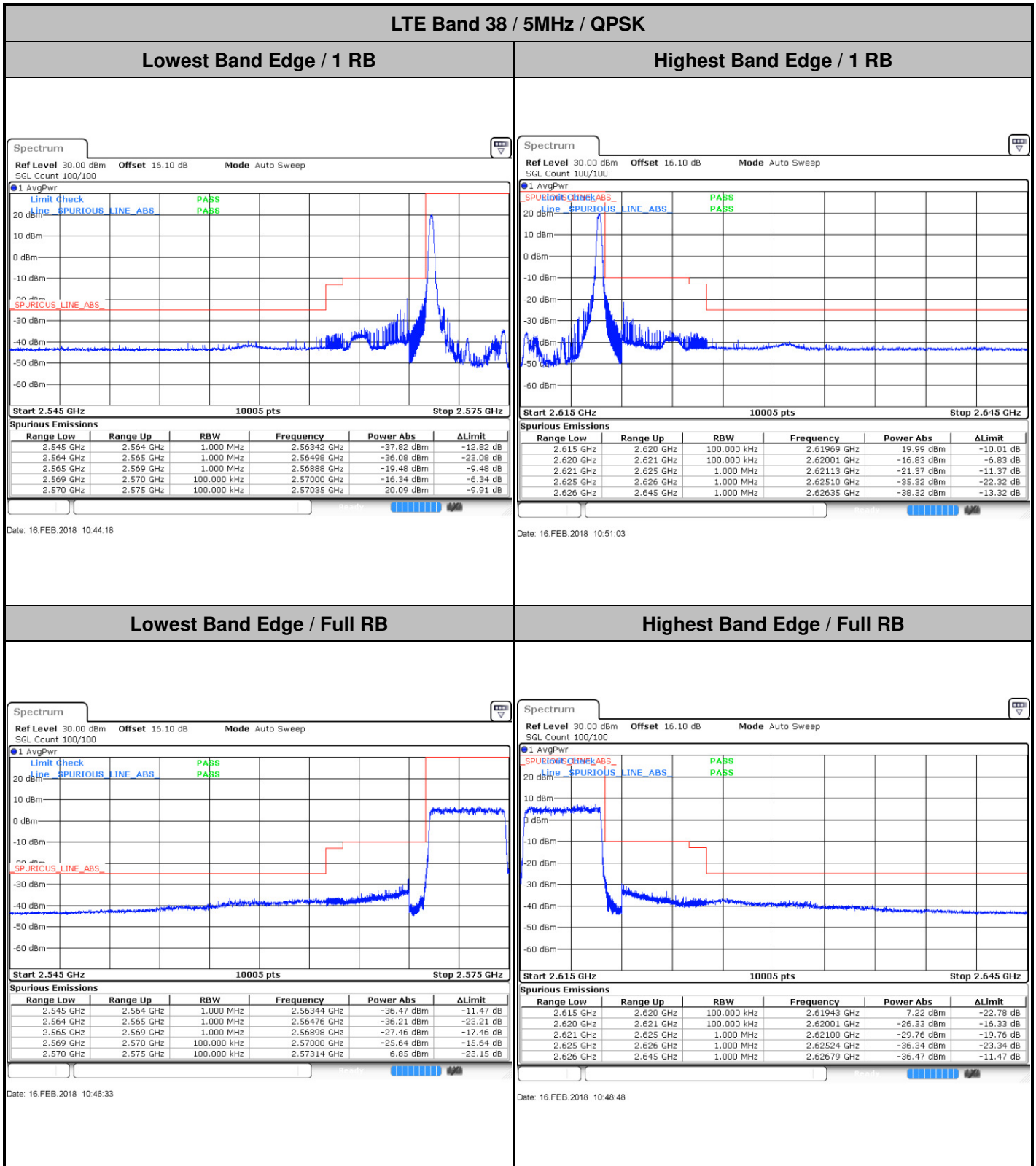
Highest Channel / 20MHz / 64QAM



Date: 16 FEB 2018 11:54:52



# Conducted Band Edge

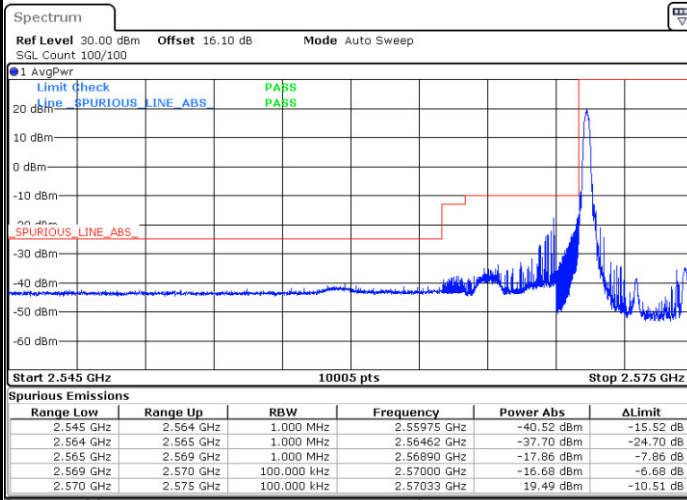






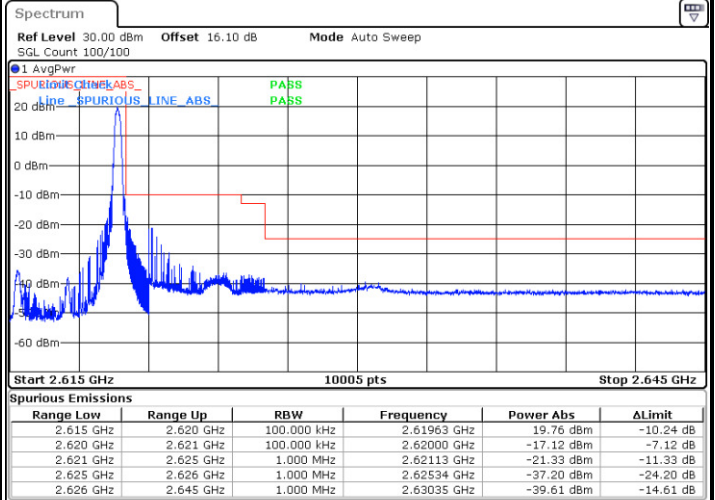
LTE Band 38 / 5MHz / 16QAM

Lowest Band Edge / 1RB



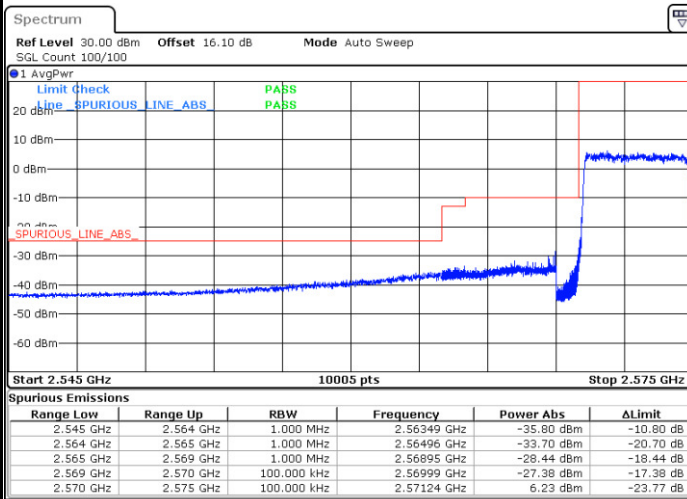
Date: 16.FEB.2018 10:45:25

Highest Band Edge / 1 RB



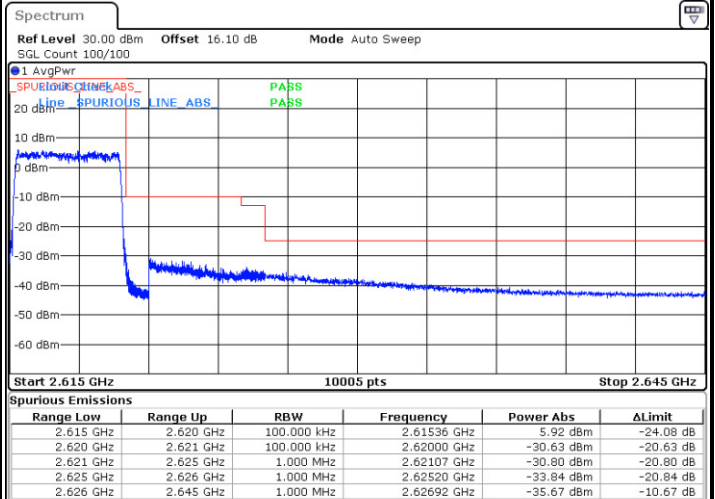
Date: 16.FEB.2018 10:52:11

Lowest Band Edge / Full RB



Date: 16.FEB.2018 10:47:40

Highest Band Edge / Full RB

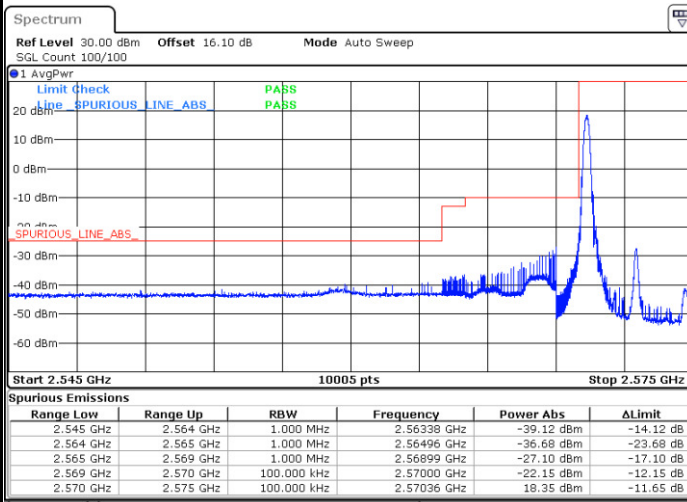


Date: 16.FEB.2018 10:49:56



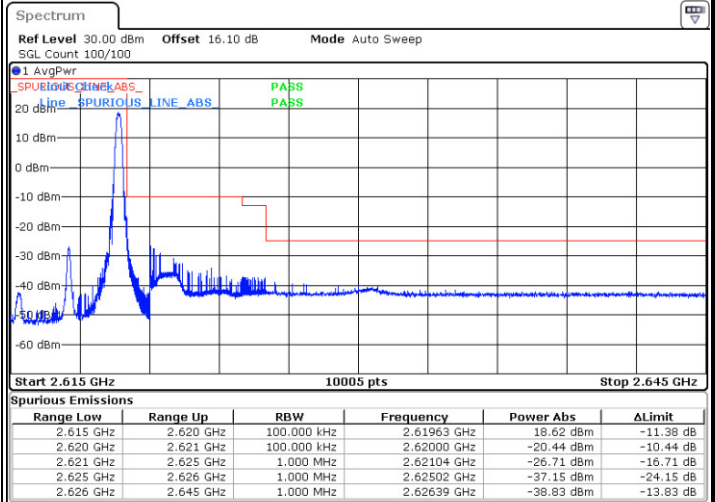
LTE Band 38 / 5MHz / 64QAM

Lowest Band Edge / 1RB



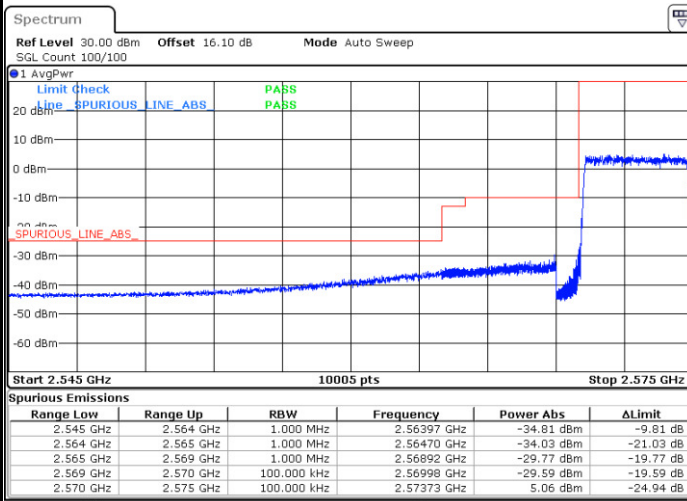
Date: 16.FEB.2018 12:04:01

Highest Band Edge / 1 RB



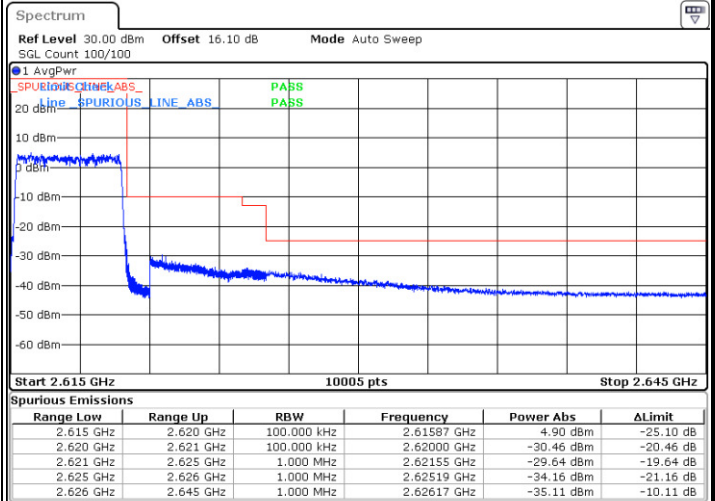
Date: 16.FEB.2018 12:07:24

Lowest Band Edge / Full RB



Date: 16.FEB.2018 12:05:08

Highest Band Edge / Full RB



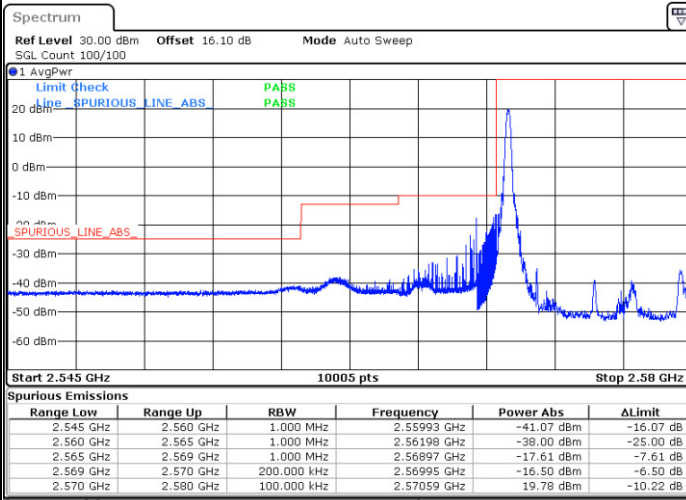
Date: 16.FEB.2018 12:06:16



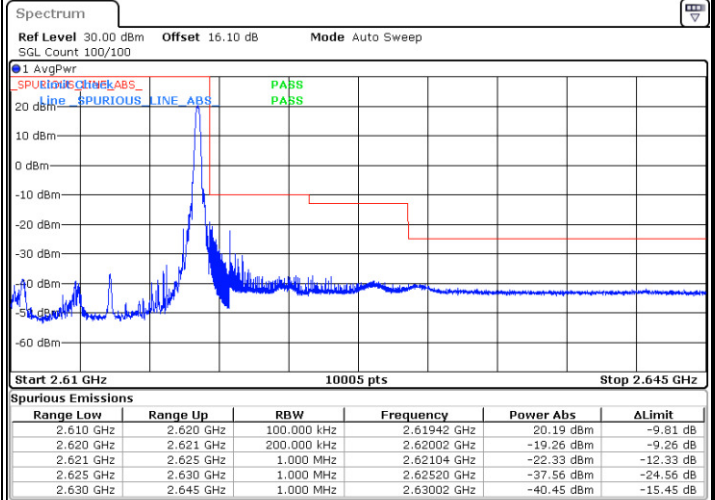
LTE Band 38 / 10MHz / QPSK

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



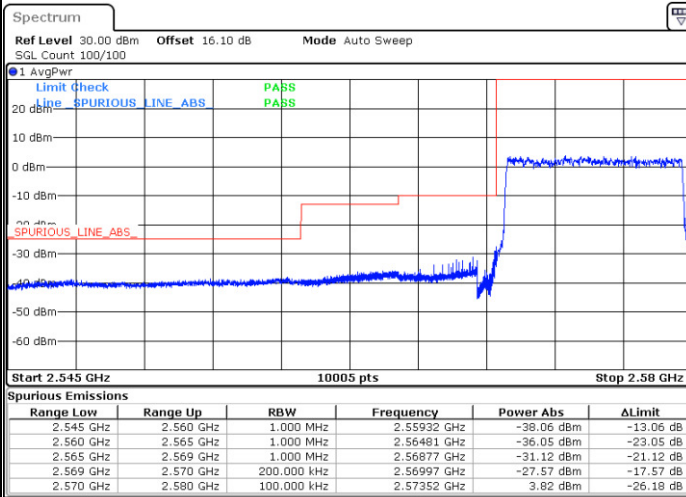
Date: 16.FEB.2018 10:53:18



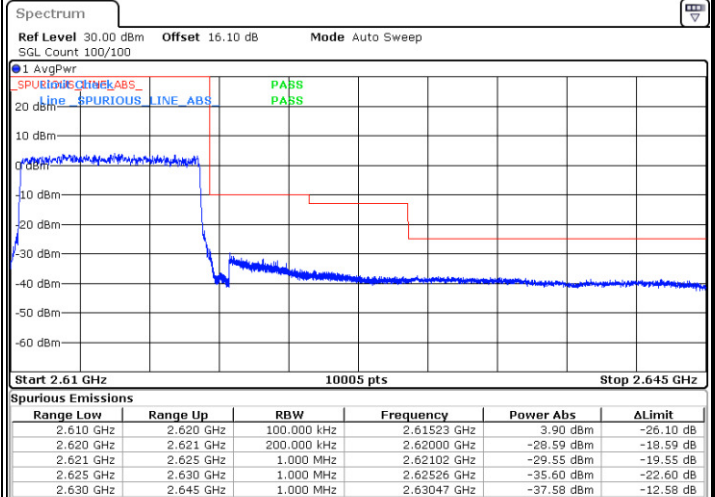
Date: 16.FEB.2018 11:00:04

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 16.FEB.2018 10:55:33

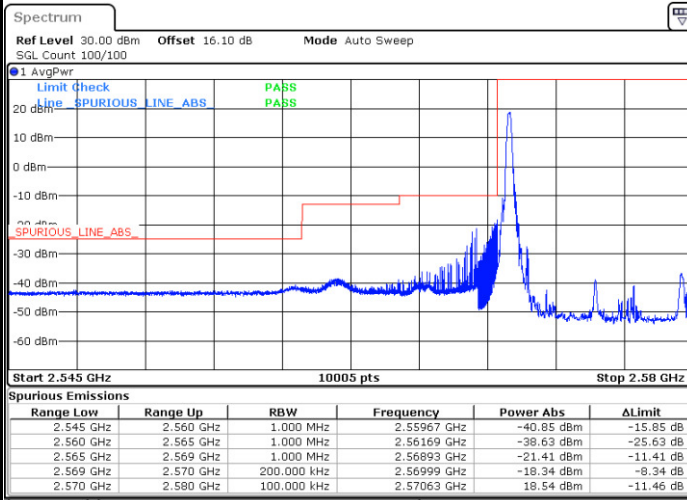


Date: 16.FEB.2018 10:57:49



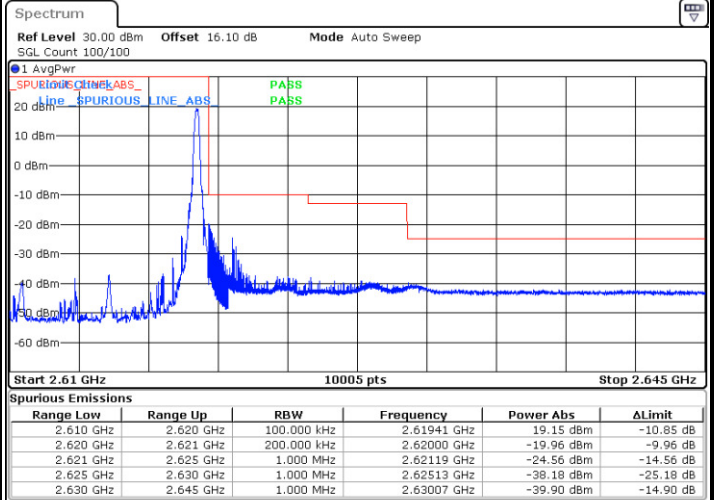
LTE Band 38 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



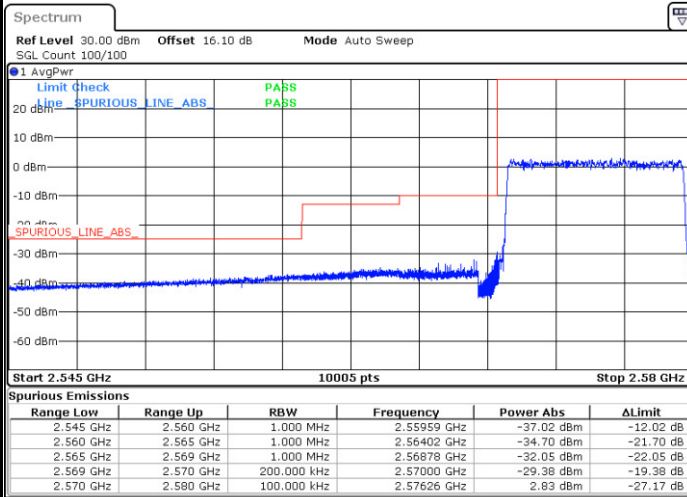
Date: 16.FEB.2018 10:54:26

Highest Band Edge / 1 RB



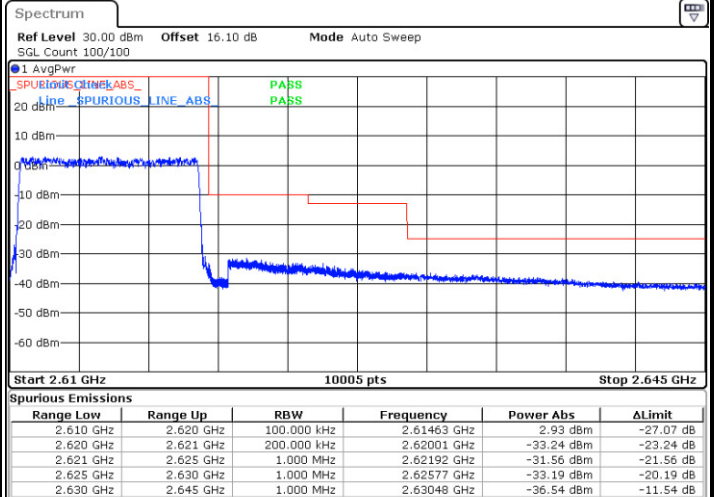
Date: 16.FEB.2018 11:01:11

Lowest Band Edge / Full RB



Date: 16.FEB.2018 10:56:41

Highest Band Edge / Full RB

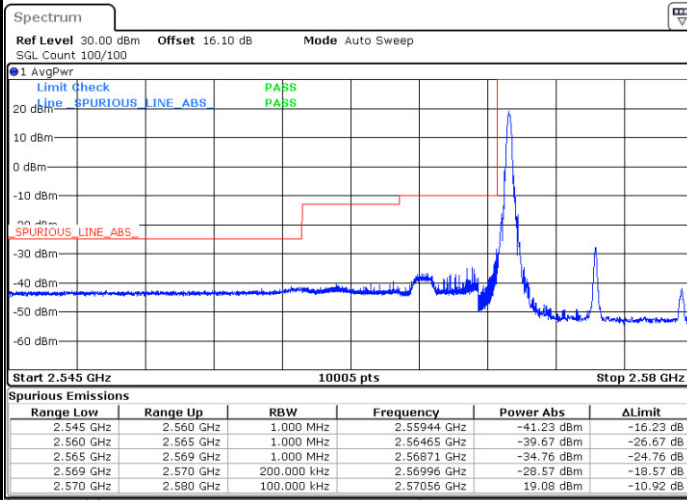


Date: 16.FEB.2018 10:58:56



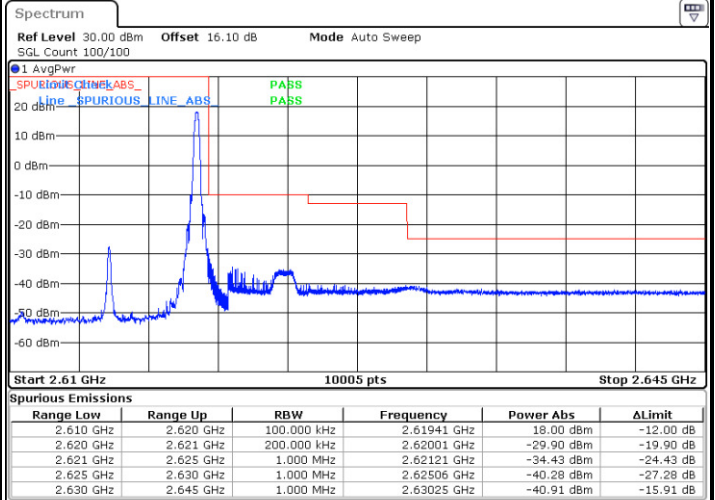
LTE Band 38 / 10MHz / 64QAM

Lowest Band Edge / 1 RB



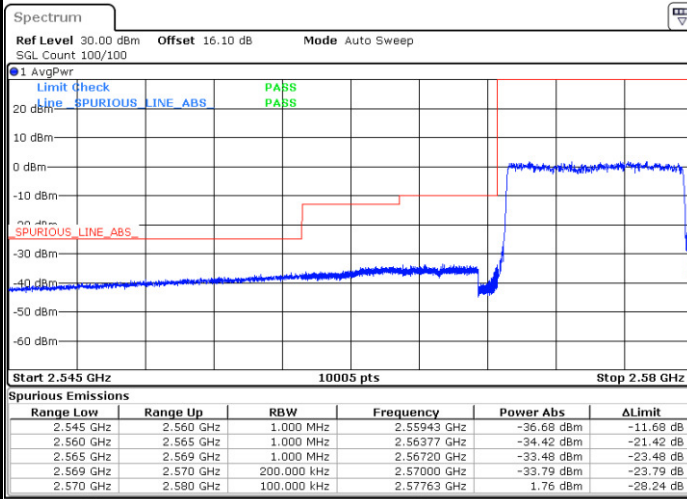
Date: 16.FEB.2018 12:08:31

Highest Band Edge / 1 RB



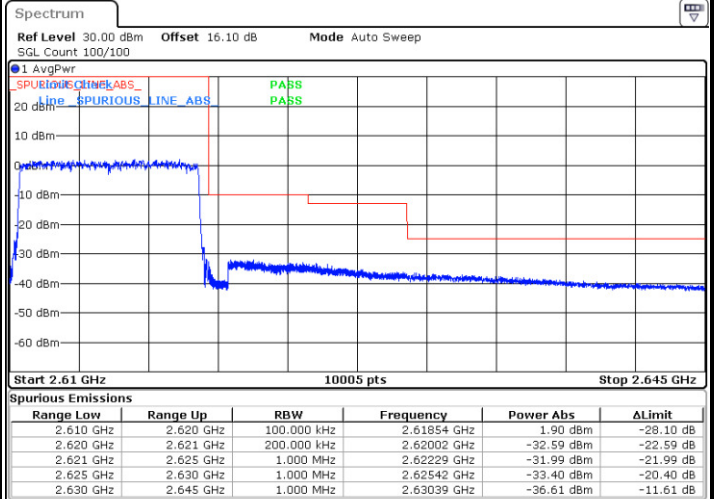
Date: 16.FEB.2018 12:11:54

Lowest Band Edge / Full RB



Date: 16.FEB.2018 12:09:39

Highest Band Edge / Full RB



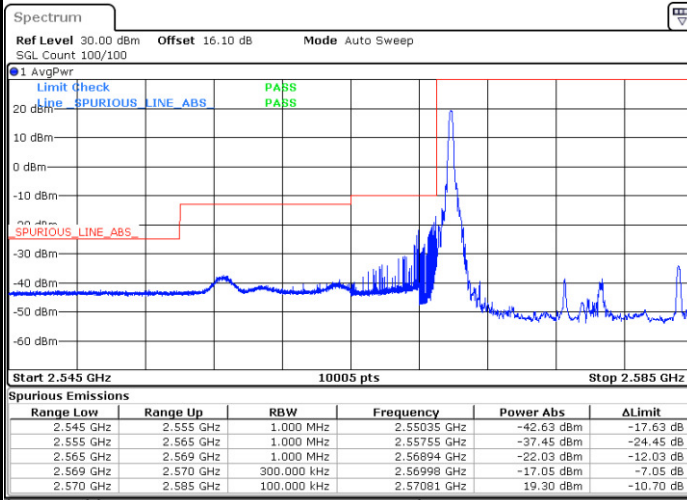
Date: 16.FEB.2018 12:10:46





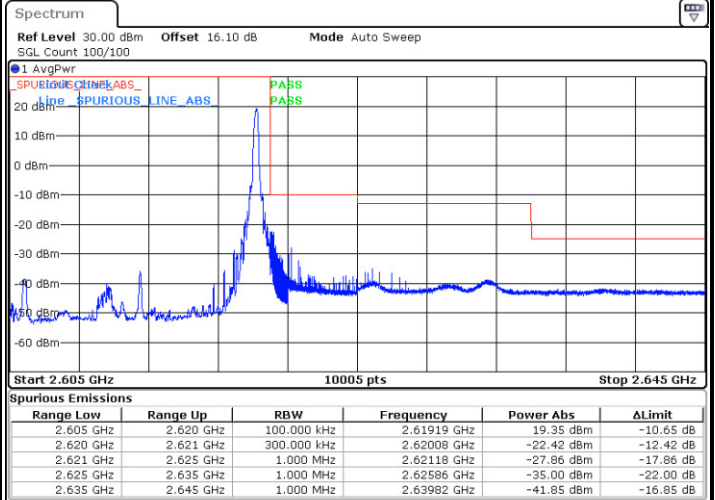
LTE Band 38 / 15MHz / QPSK

Lowest Band Edge / 1 RB



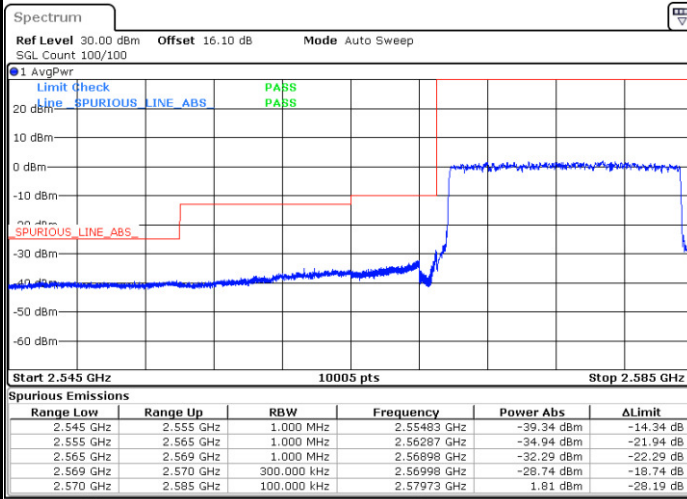
Date: 16.FEB.2018 11:02:19

Highest Band Edge / 1 RB



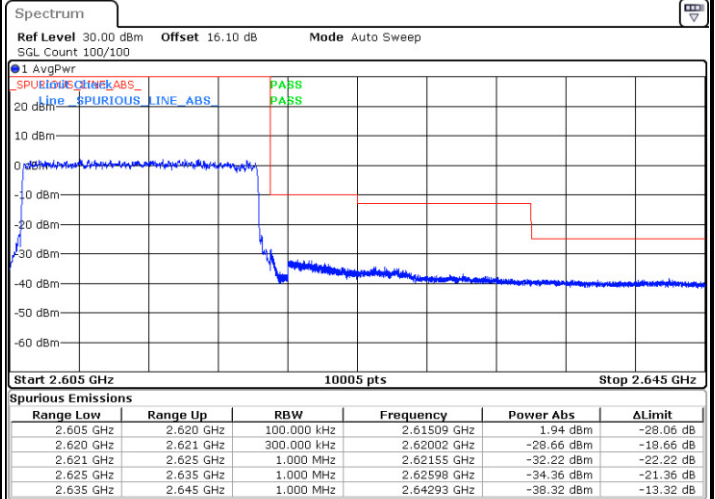
Date: 16.FEB.2018 11:09:04

Lowest Band Edge / Full RB



Date: 16.FEB.2018 11:04:34

Highest Band Edge / Full RB



Date: 16.FEB.2018 11:06:49