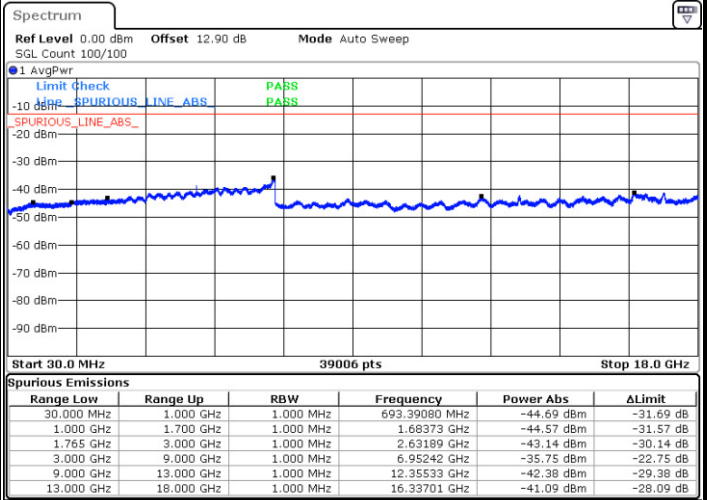
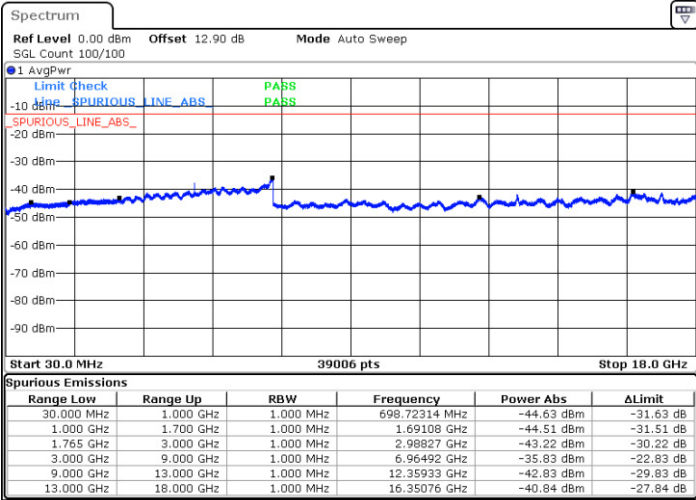




LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

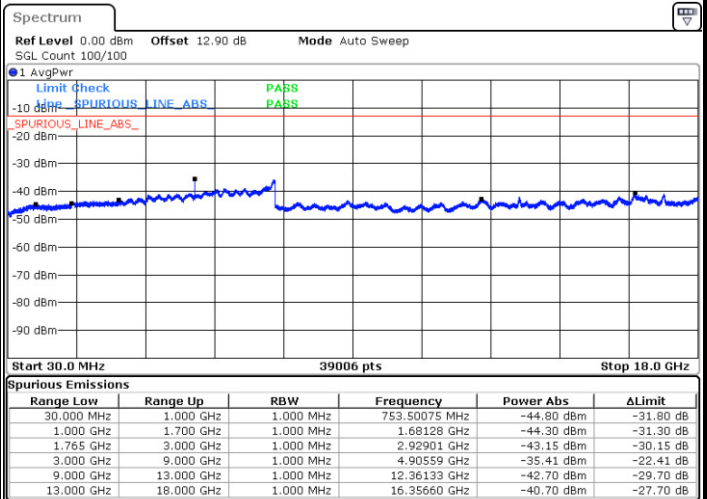
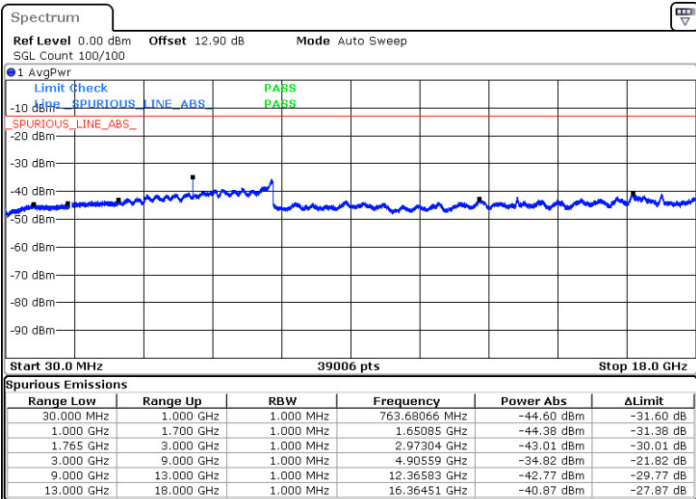


Date: 24.JAN.2018 21:45:34

Date: 24.JAN.2018 21:46:33

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24.JAN.2018 21:52:55

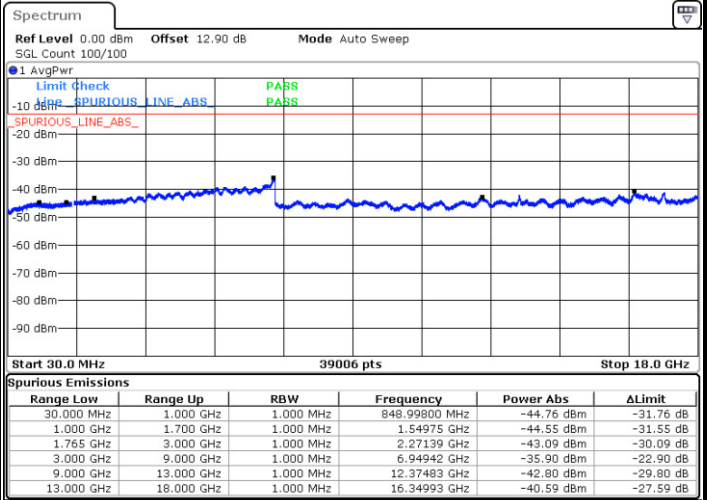
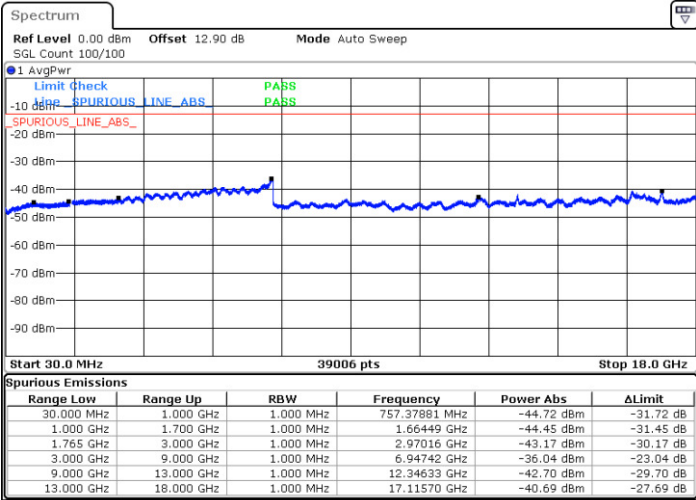
Date: 24.JAN.2018 21:53:52



LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

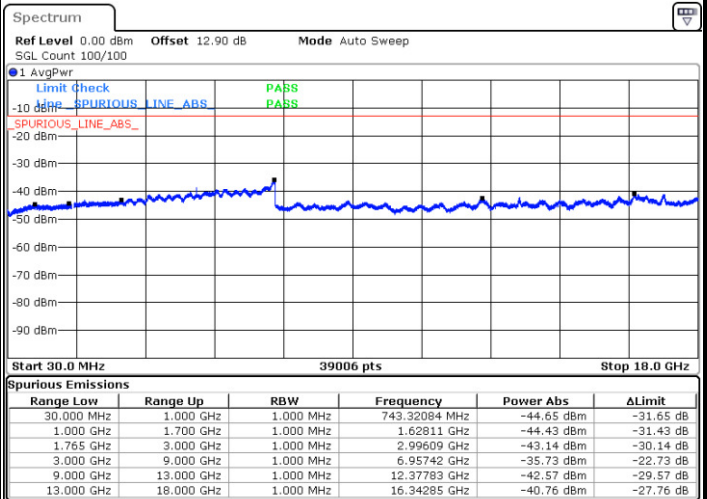
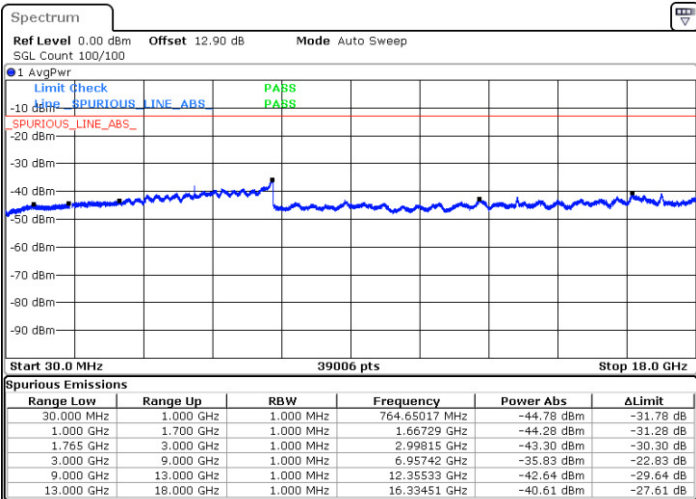


Date: 24.JAN.2018 22:00:13

Date: 24.JAN.2018 22:01:11

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 24.JAN.2018 22:02:54

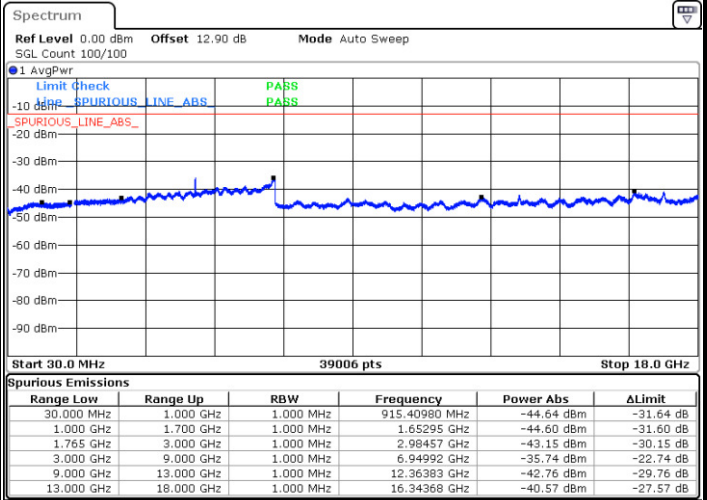
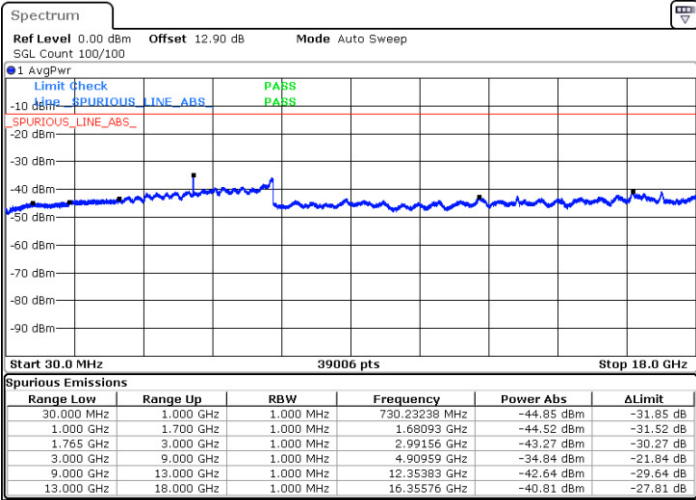
Date: 24.JAN.2018 22:03:52



LTE Band 4 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



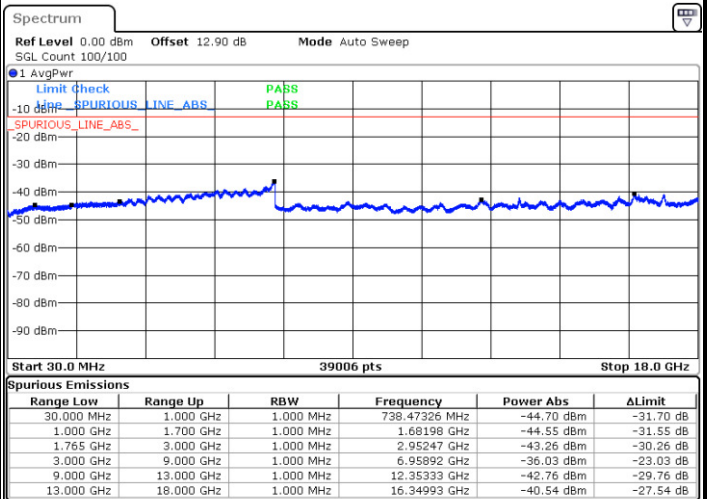
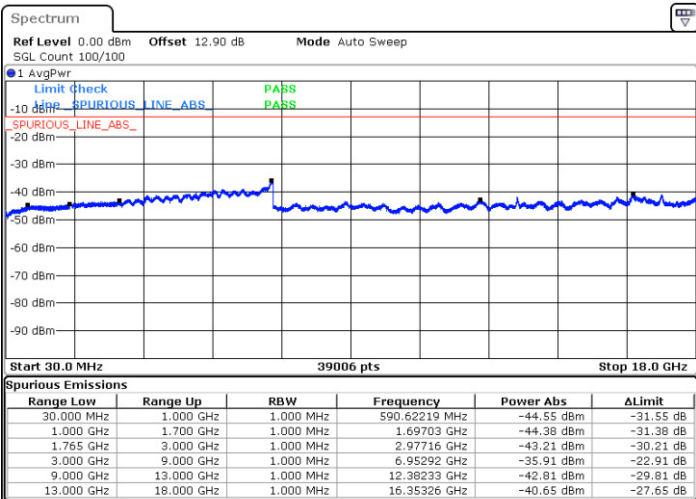
Date: 24.JAN.2018 22:10:12

Date: 24.JAN.2018 22:11:09

LTE Band 4 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



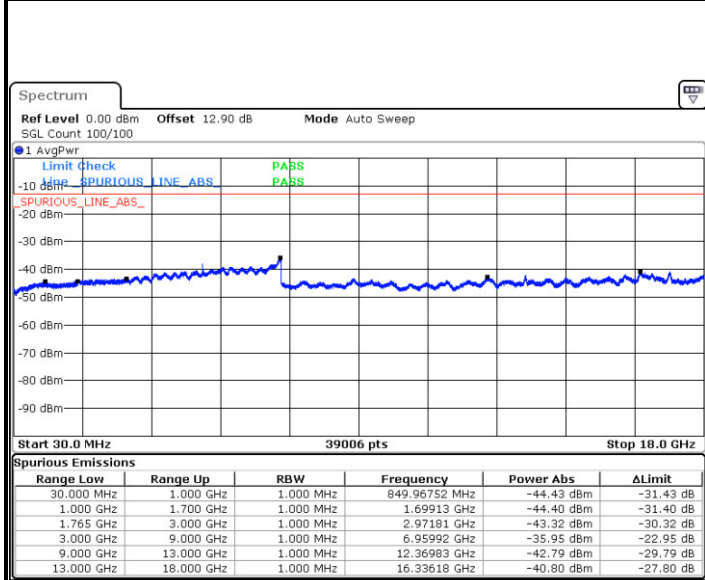
Date: 24.JAN.2018 22:17:29

Date: 24.JAN.2018 22:18:27



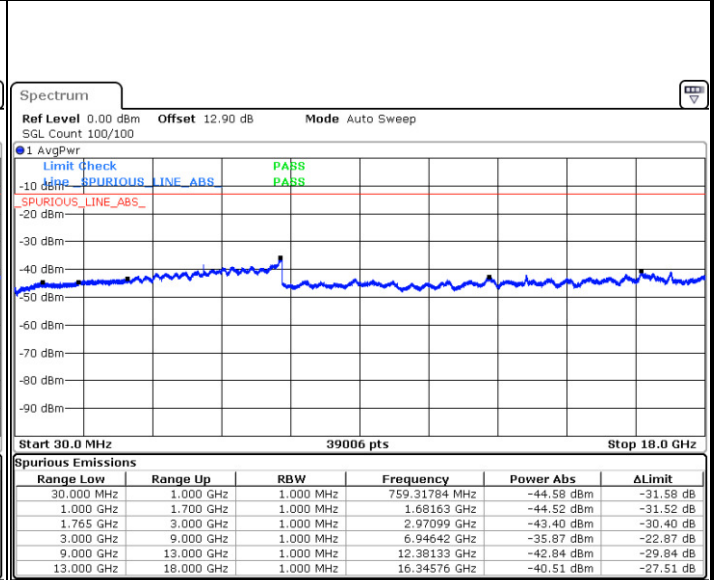
**LTE Band 4 / 10MHz**

**Middle Channel / QPSK**



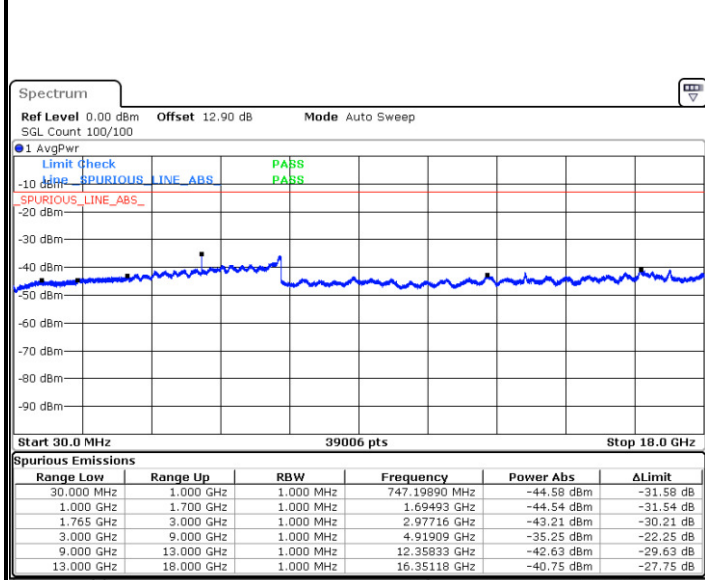
Date: 24.JAN.2018 22:20:10

**Middle Channel / 16QAM**



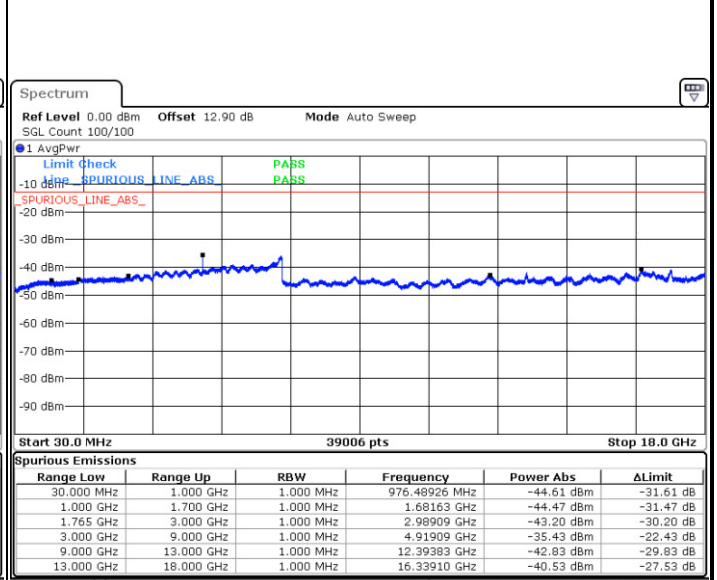
Date: 24.JAN.2018 22:21:08

**Highest Channel / QPSK**



Date: 24.JAN.2018 22:27:28

**Highest Channel / 16QAM**



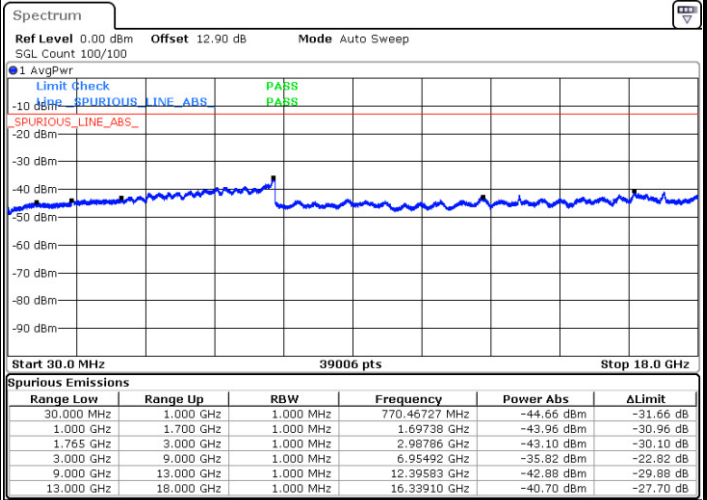
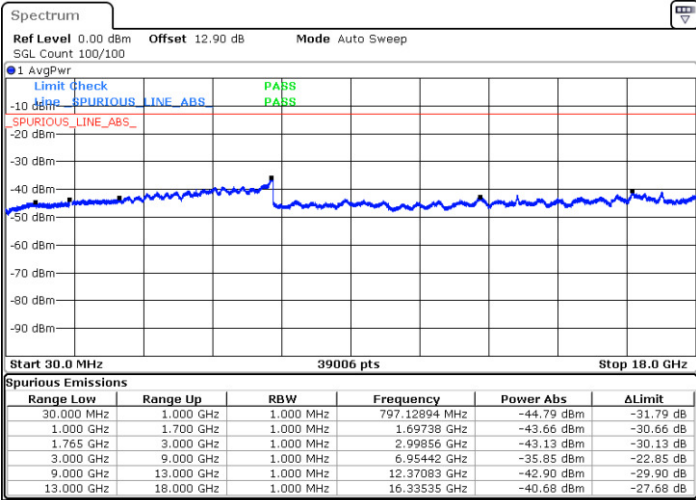
Date: 24.JAN.2018 22:28:26



LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

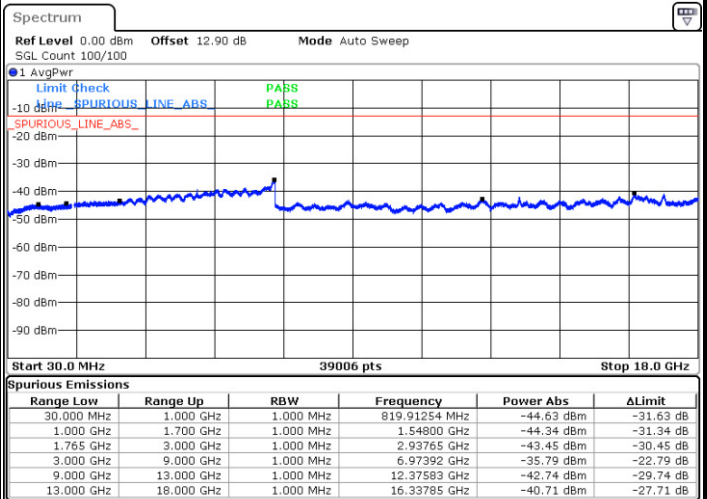
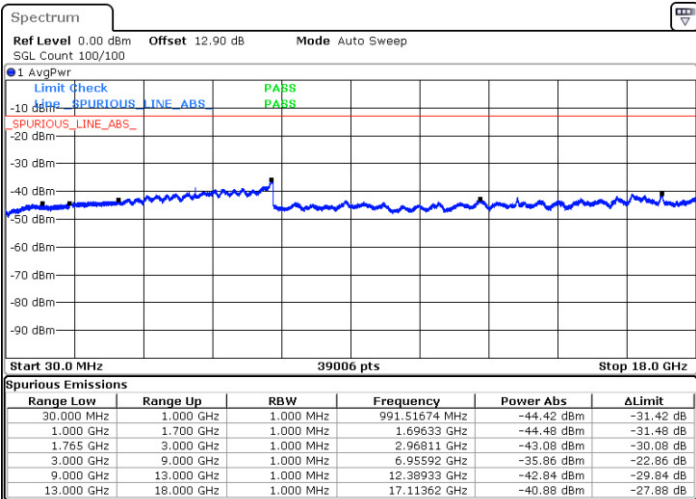


Date: 24.JAN.2018 22:34:47

Date: 24.JAN.2018 22:35:44

Middle Channel / QPSK

Middle Channel / 16QAM



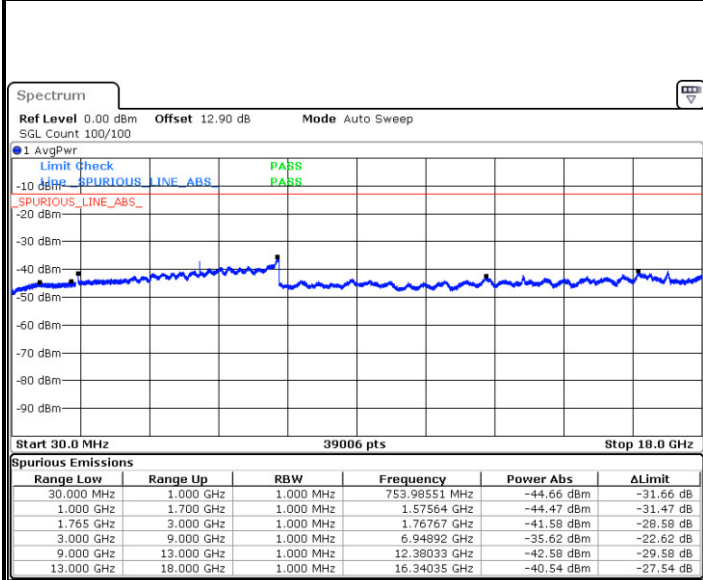
Date: 24.JAN.2018 22:37:27

Date: 24.JAN.2018 22:38:25



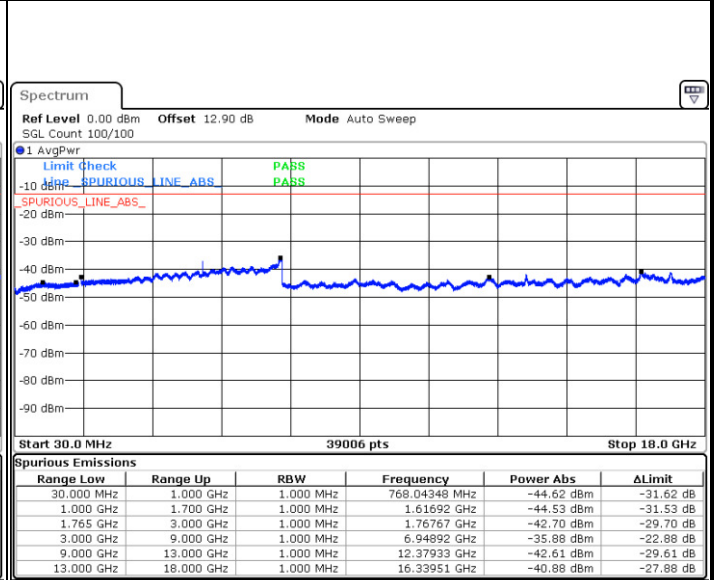
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 24.JAN.2018 22:44:44

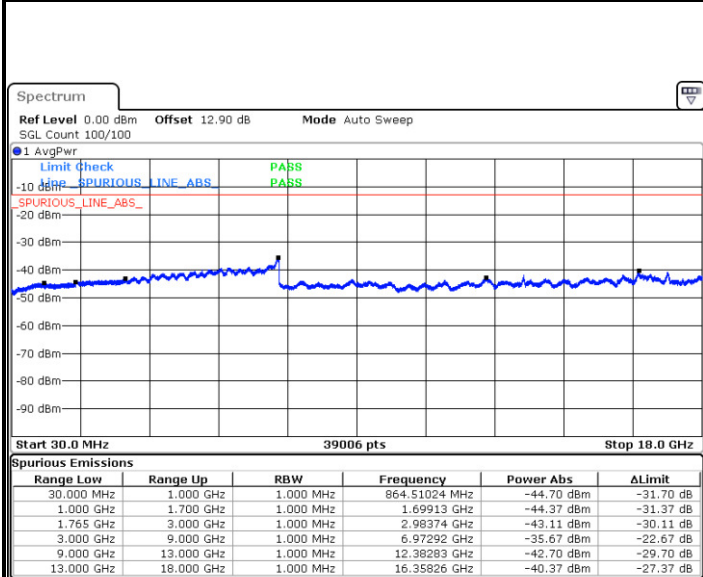
Highest Channel / 16QAM



Date: 24.JAN.2018 22:45:42

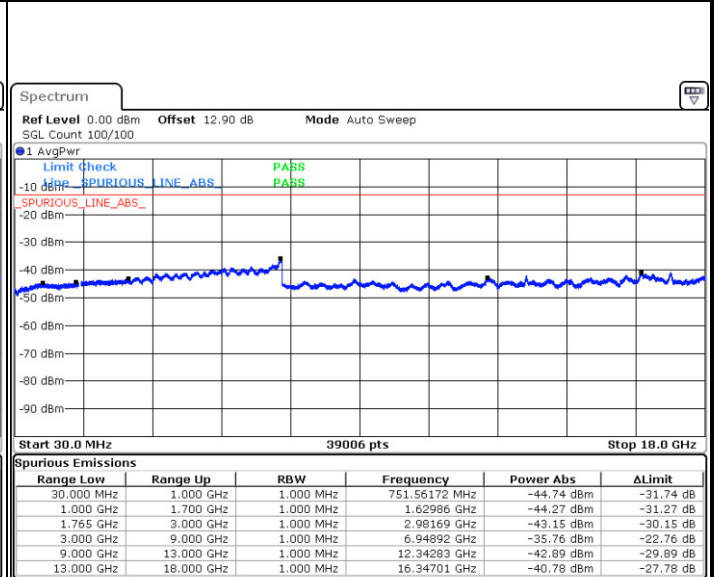
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 24.JAN.2018 22:52:01

Lowest Channel / 16QAM



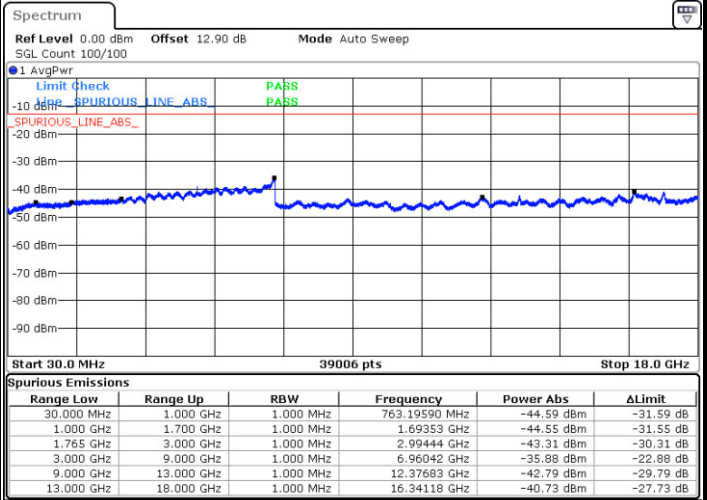
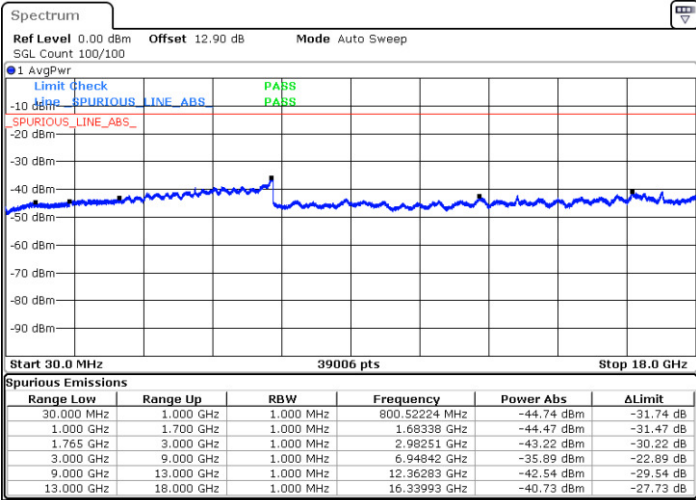
Date: 24.JAN.2018 22:52:58



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

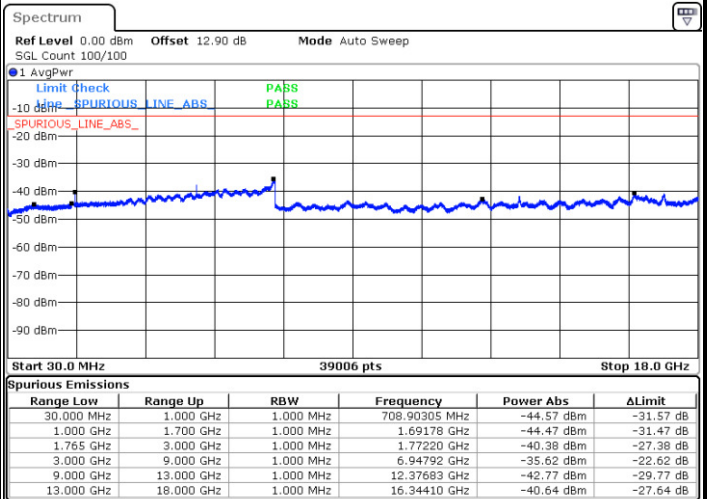
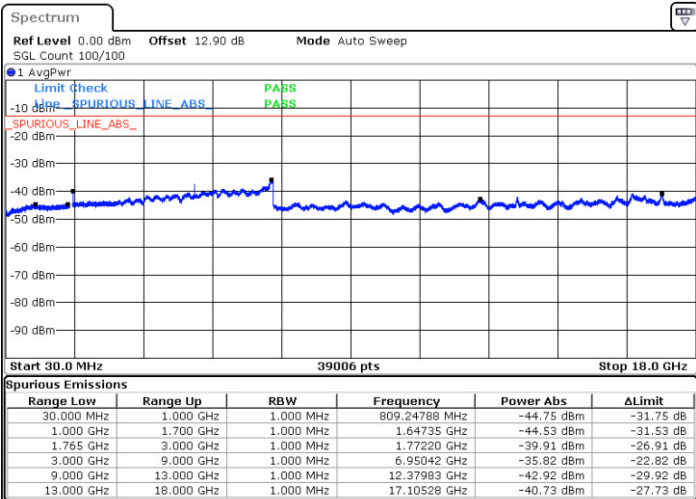


Date: 24.JAN.2018 22:54:42

Date: 24.JAN.2018 22:55:40

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24.JAN.2018 23:01:59

Date: 24.JAN.2018 23:02:57



**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	0.0005	PASS
40	Normal Voltage	0.0001	
30	Normal Voltage	0.0015	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0043	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0003	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0022	

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.





## LTE Band 5

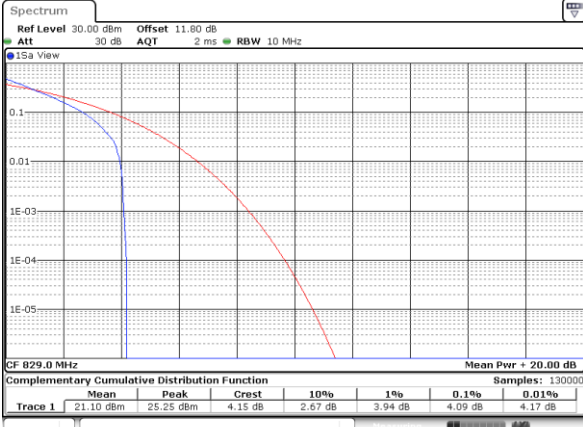
### Peak-to-Average Ratio

Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.09	4.61	5.1	5.57	PASS
Middle CH	3.8	4.75	4.46	5.68	
Highest CH	4.32	4.78	5.3	5.71	



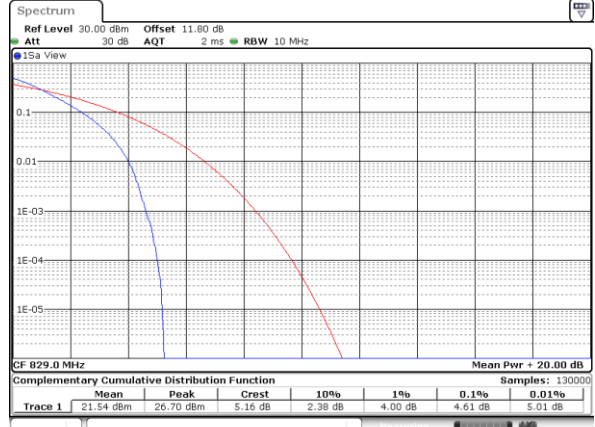
LTE Band 5 / 10MHz / QPSK

Lowest Channel / 1RB



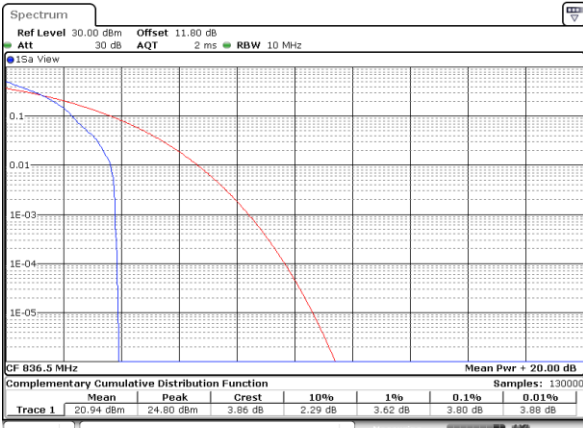
Date: 25\_JAN.2018 01:03:55

Lowest Channel / Full RB



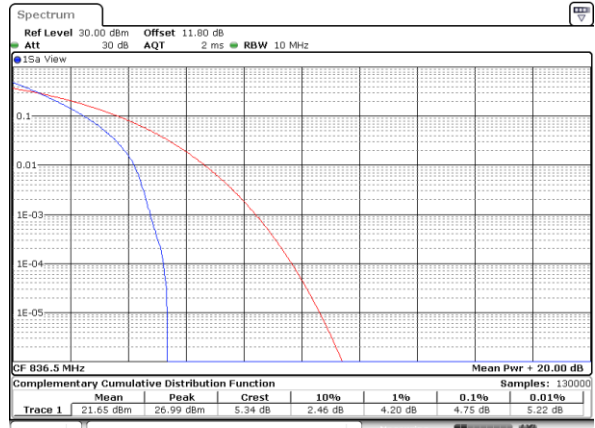
Date: 25\_JAN.2018 01:04:05

Middle Channel / 1RB



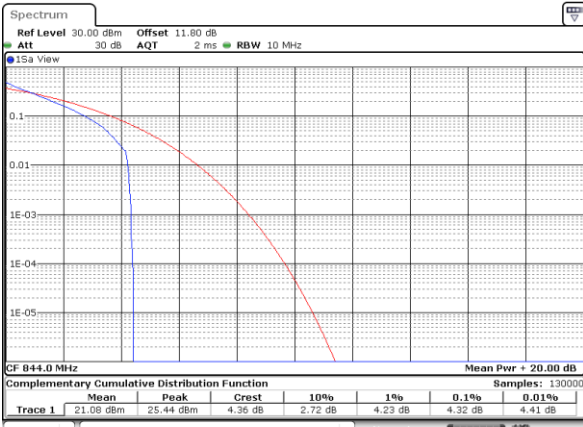
Date: 25\_JAN.2018 01:04:15

Middle Channel / Full RB



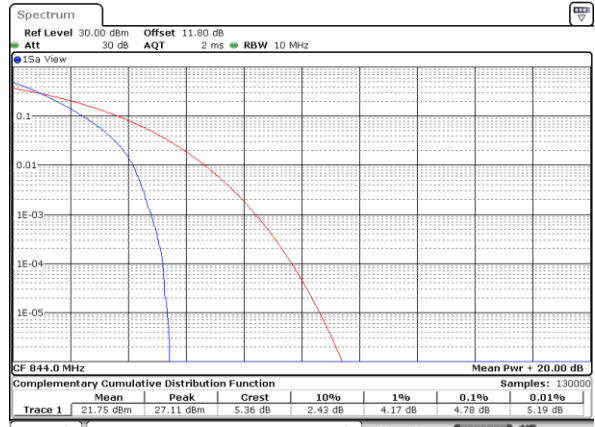
Date: 25\_JAN.2018 01:04:25

Highest Channel / 1RB



Date: 25\_JAN.2018 01:04:37

Highest Channel / Full RB

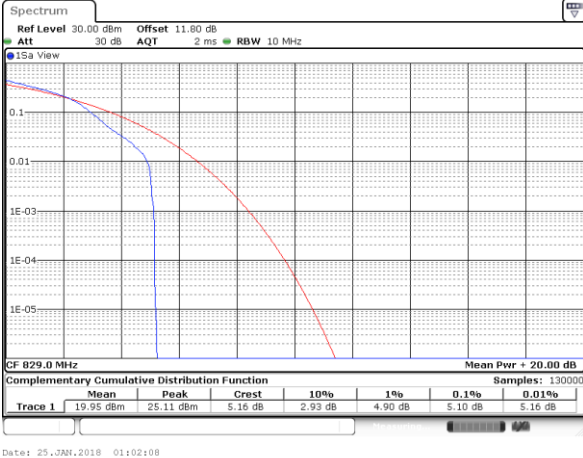


Date: 25\_JAN.2018 01:04:49



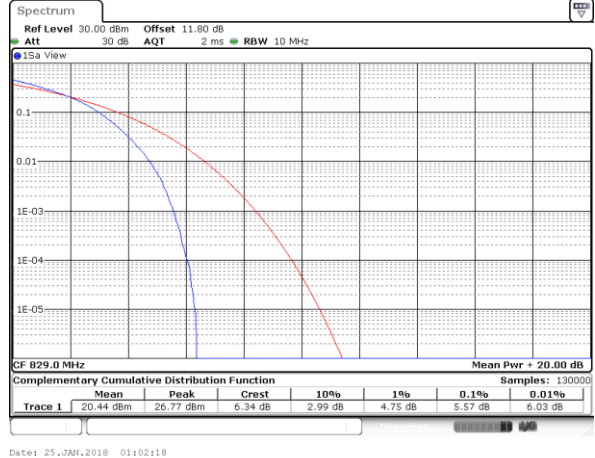
LTE Band 5 / 10MHz / 16QAM

Lowest Channel / 1RB



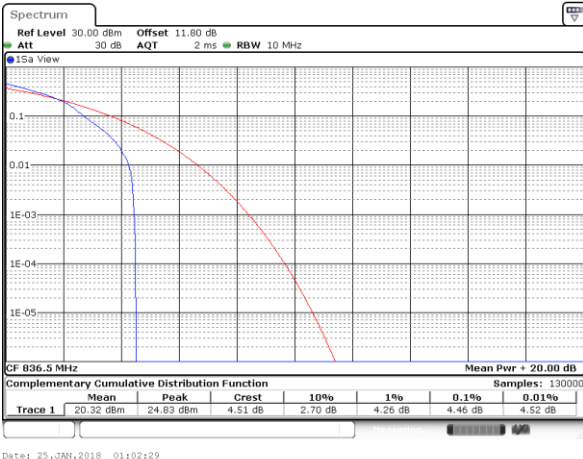
Date: 25\_JAN.2018 01:02:08

Lowest Channel / Full RB



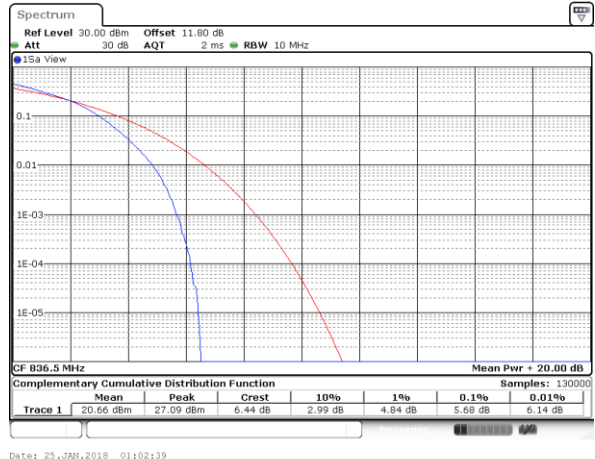
Date: 25\_JAN.2018 01:02:18

Middle Channel / 1RB



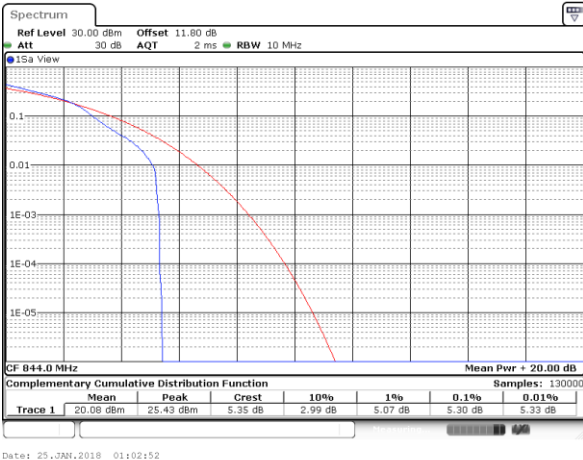
Date: 25\_JAN.2018 01:02:09

Middle Channel / Full RB



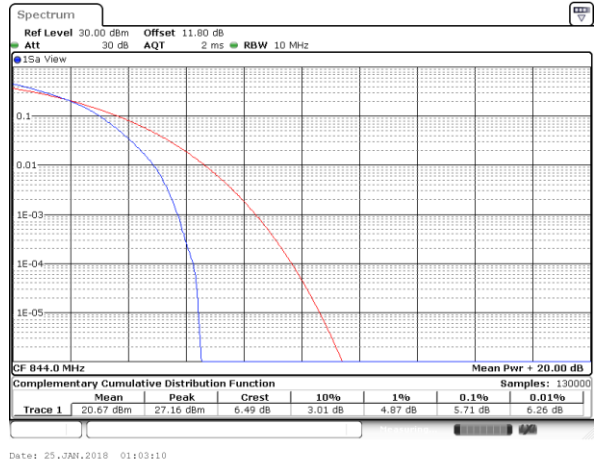
Date: 25\_JAN.2018 01:02:19

Highest Channel / 1RB



Date: 25\_JAN.2018 01:02:52

Highest Channel / Full RB



Date: 25\_JAN.2018 01:03:10



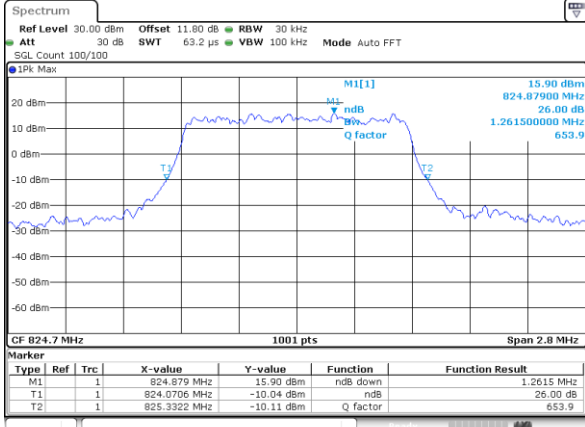
**26dB Bandwidth**

Mode	LTE Band 5 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.26	1.29	3.00	3.04	4.91	4.91	9.99	9.83	-	-	-	-
Middle CH	1.27	1.28	2.95	3.00	4.94	4.92	9.71	9.79	-	-	-	-
Highest CH	1.24	1.26	3.02	3.03	4.88	4.91	9.75	9.87	-	-	-	-



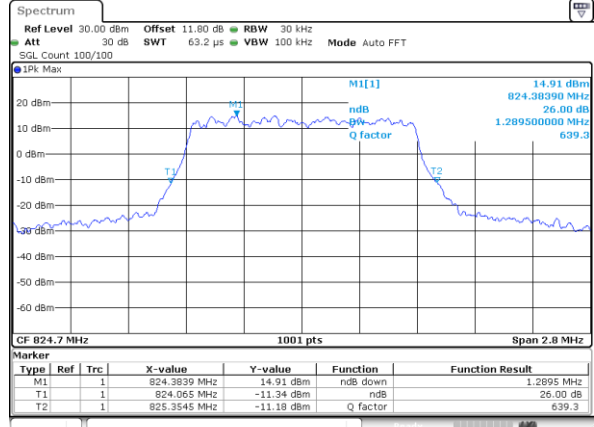
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



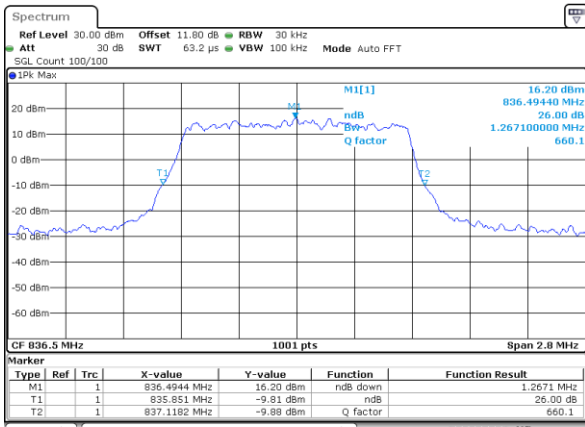
Date: 25\_JAN.2018 00:38:56

Lowest Channel / 1.4MHz / 16QAM



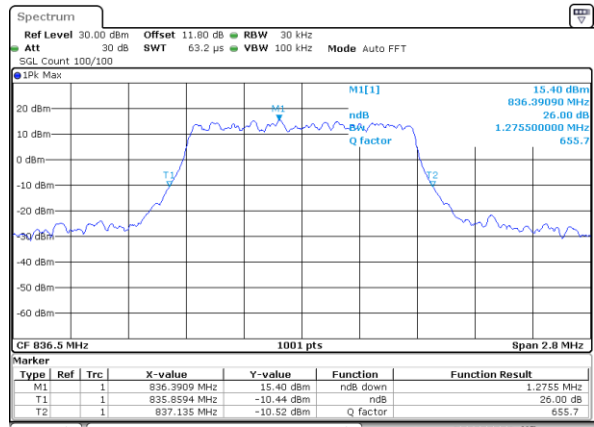
Date: 25\_JAN.2018 00:38:45

Middle Channel / 1.4MHz / QPSK



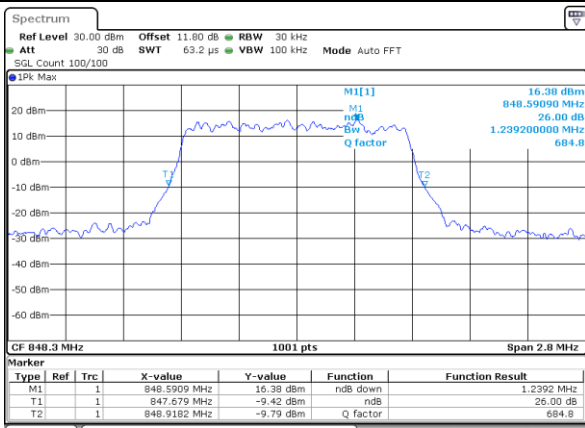
Date: 25\_JAN.2018 00:48:03

Middle Channel / 1.4MHz / 16QAM



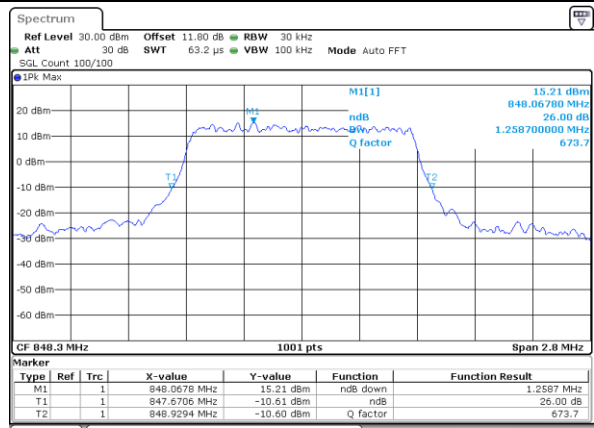
Date: 25\_JAN.2018 00:48:14

Highest Channel / 1.4MHz / QPSK



Date: 25\_JAN.2018 00:53:13

Highest Channel / 1.4MHz / 16QAM

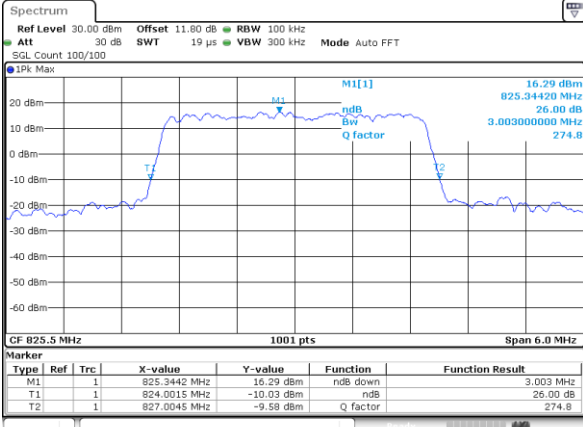


Date: 25\_JAN.2018 00:53:24



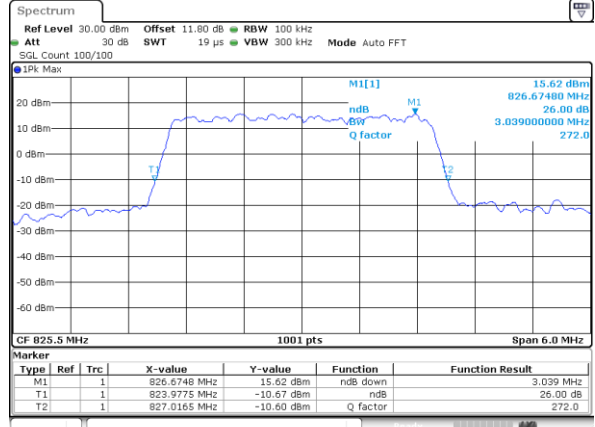
LTE Band 5

Lowest Channel / 3MHz / QPSK



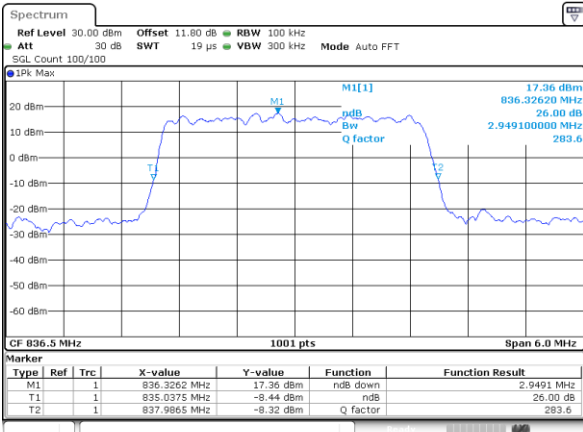
Date: 24\_JAN.2018 23:32:20

Lowest Channel / 3MHz / 16QAM



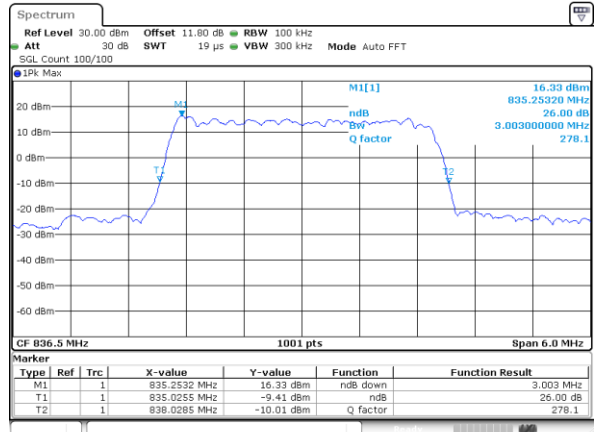
Date: 24\_JAN.2018 23:32:31

Middle Channel / 3MHz / QPSK



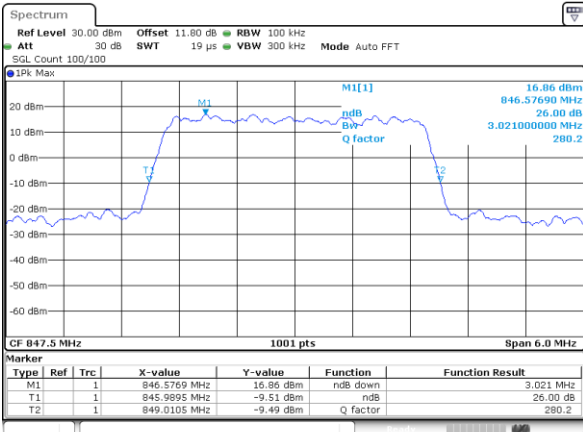
Date: 24\_JAN.2018 23:41:37

Middle Channel / 3MHz / 16QAM



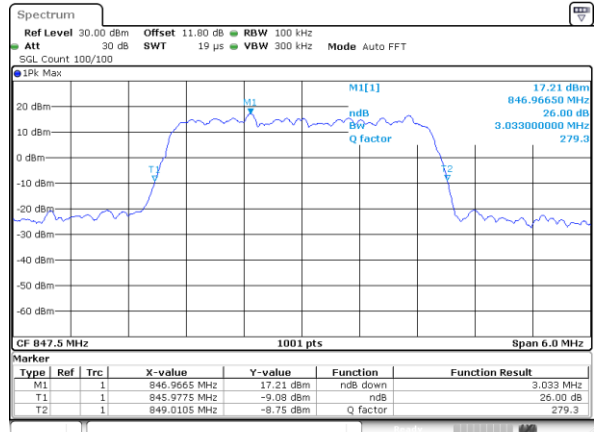
Date: 24\_JAN.2018 23:41:48

Highest Channel / 3MHz / QPSK



Date: 24\_JAN.2018 23:44:18

Highest Channel / 3MHz / 16QAM

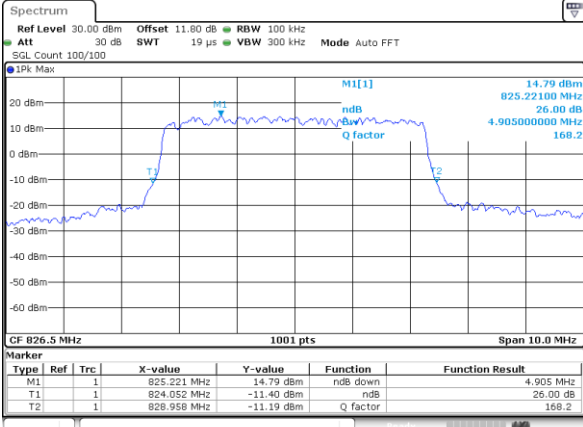


Date: 24\_JAN.2018 23:44:30



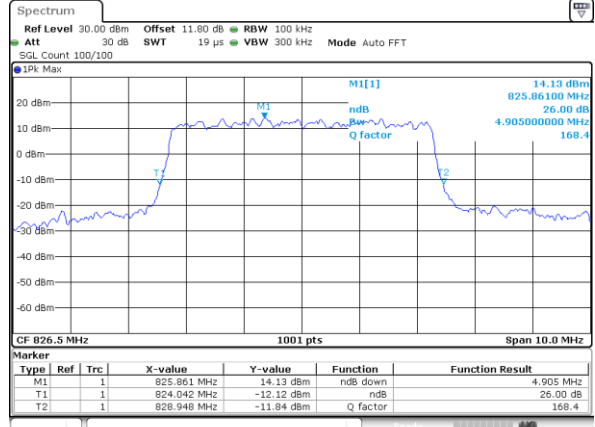
LTE Band 5

Lowest Channel / 5MHz / QPSK



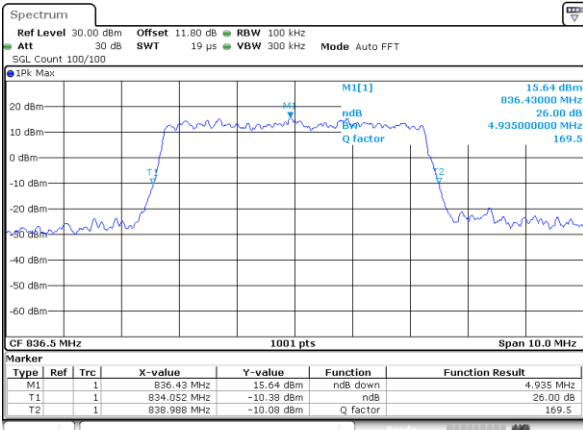
Date: 24\_JAN.2018 23:53:35

Lowest Channel / 5MHz / 16QAM



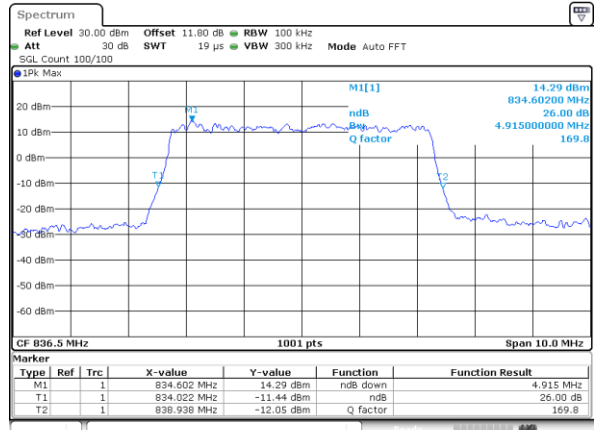
Date: 24\_JAN.2018 23:53:47

Middle Channel / 5MHz / QPSK



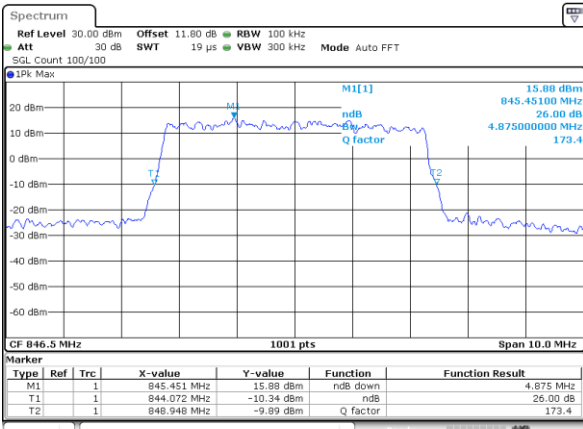
Date: 25\_JAN.2018 00:02:53

Middle Channel / 5MHz / 16QAM



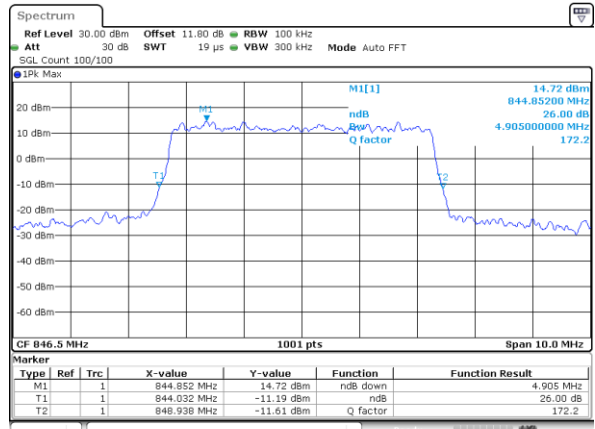
Date: 25\_JAN.2018 00:03:04

Highest Channel / 5MHz / QPSK



Date: 25\_JAN.2018 00:05:35

Highest Channel / 5MHz / 16QAM

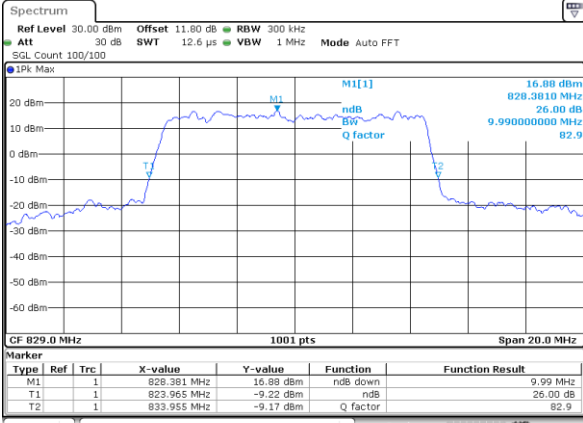


Date: 25\_JAN.2018 00:05:46



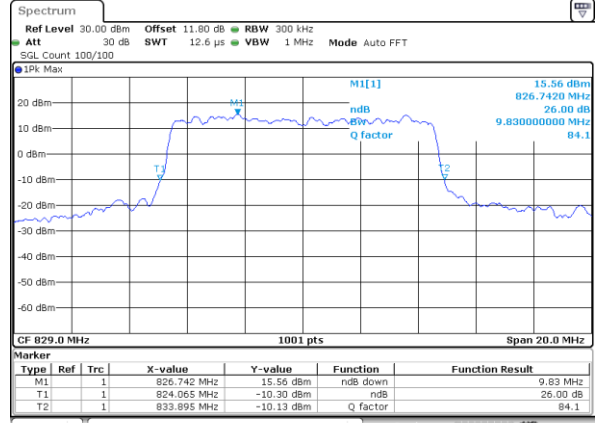
LTE Band 5

Lowest Channel / 10MHz / QPSK



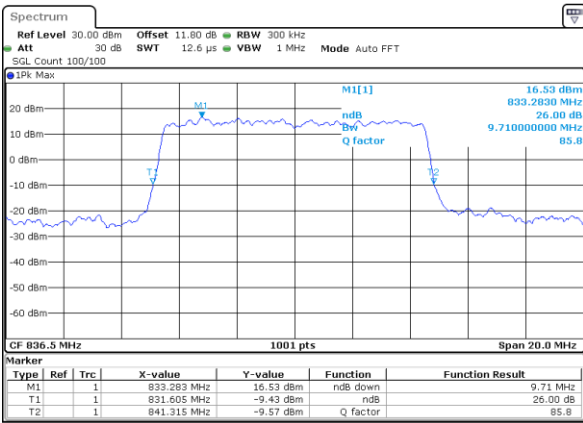
Date: 25\_JAN.2018 00:14:52

Lowest Channel / 10MHz / 16QAM



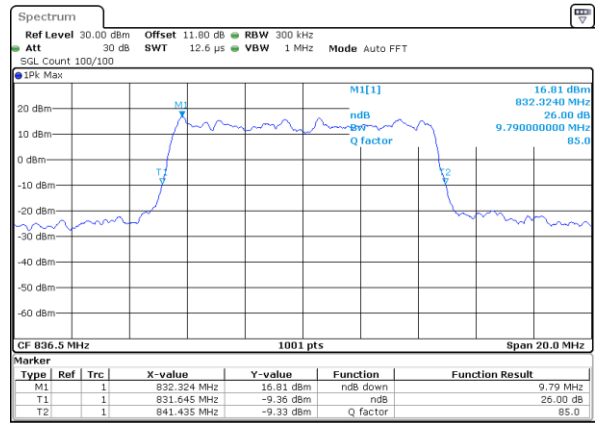
Date: 25\_JAN.2018 00:15:03

Middle Channel / 10MHz / QPSK



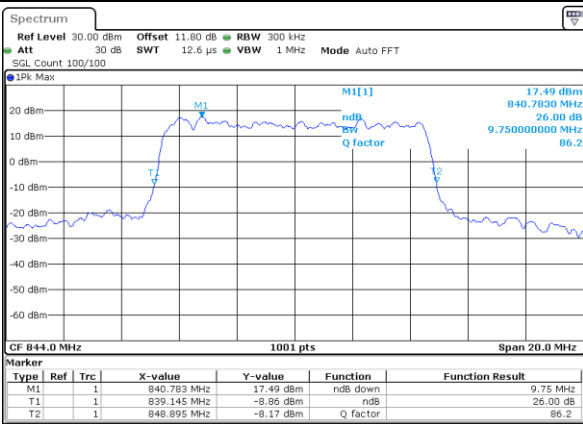
Date: 25\_JAN.2018 00:24:10

Middle Channel / 10MHz / 16QAM



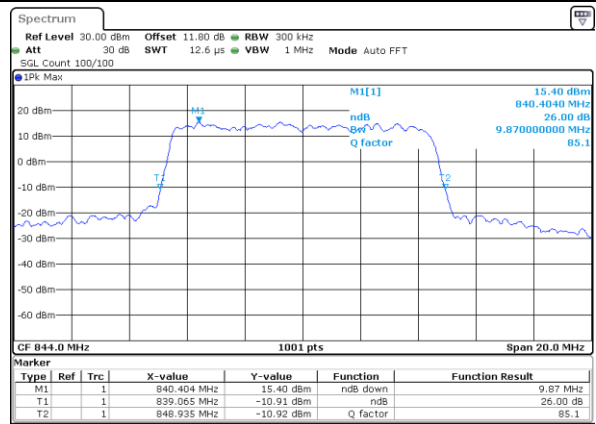
Date: 25\_JAN.2018 00:24:21

Highest Channel / 10MHz / QPSK



Date: 25\_JAN.2018 00:26:51

Highest Channel / 10MHz / 16QAM



Date: 25\_JAN.2018 00:27:03





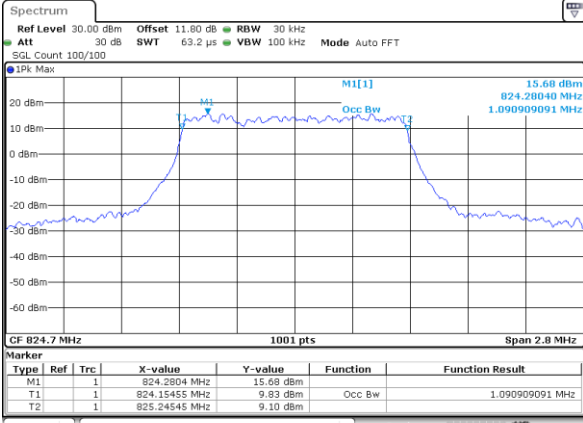
### Occupied Bandwidth

Mode	LTE Band 5 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.72	2.72	4.49	4.50	9.05	8.99	-	-	-	-
Middle CH	1.09	1.09	2.71	2.72	4.48	4.50	9.11	9.01	-	-	-	-
Highest CH	1.09	1.10	2.74	2.70	4.48	4.50	9.07	9.03	-	-	-	-



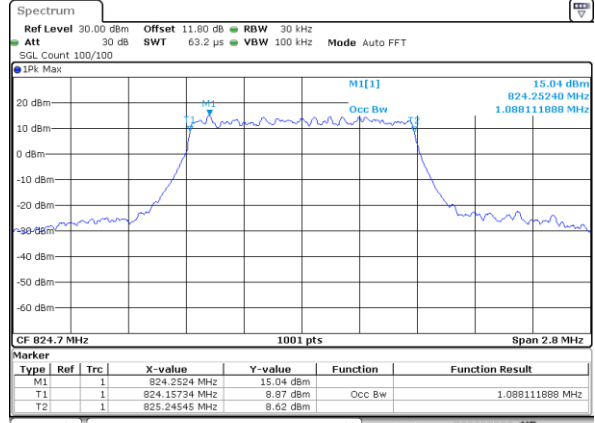
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



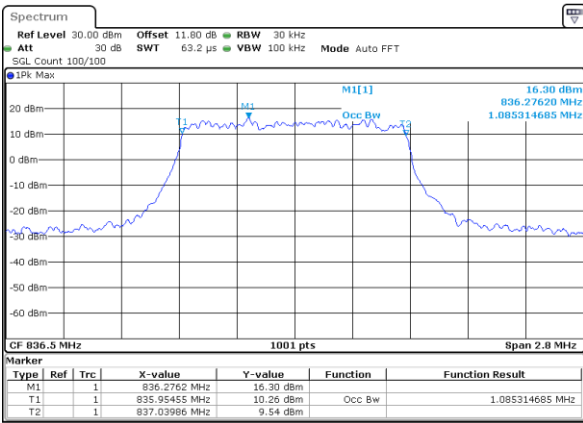
Date: 25\_JAN.2018 00:38:22

Lowest Channel / 1.4MHz / 16QAM



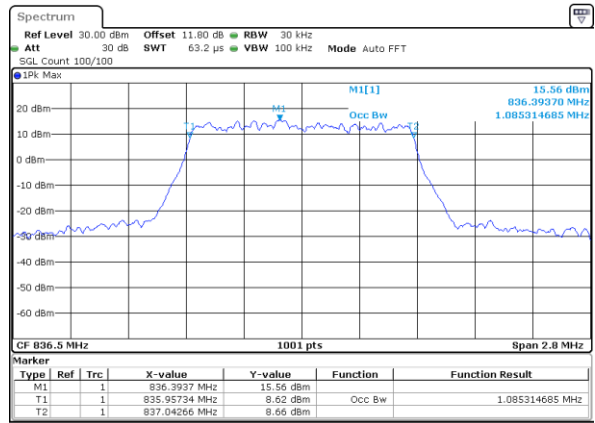
Date: 25\_JAN.2018 00:38:34

Middle Channel / 1.4MHz / QPSK



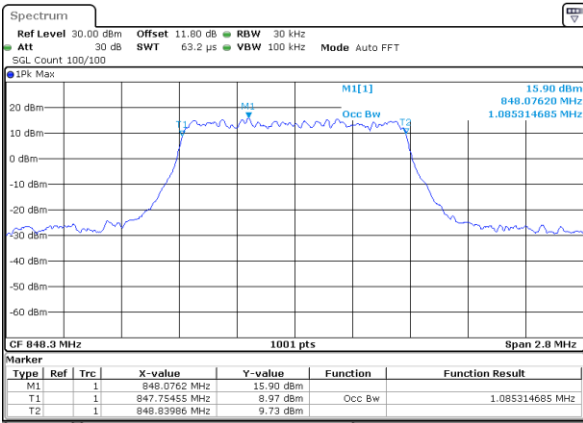
Date: 25\_JAN.2018 00:47:40

Middle Channel / 1.4MHz / 16QAM



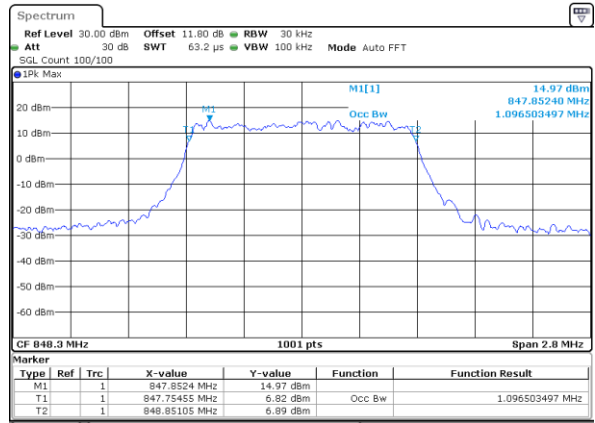
Date: 25\_JAN.2018 00:47:51

Highest Channel / 1.4MHz / QPSK



Date: 25\_JAN.2018 00:52:50

Highest Channel / 1.4MHz / 16QAM

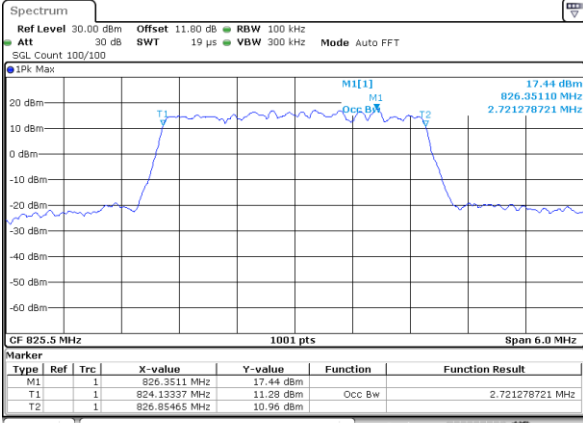


Date: 25\_JAN.2018 00:53:02



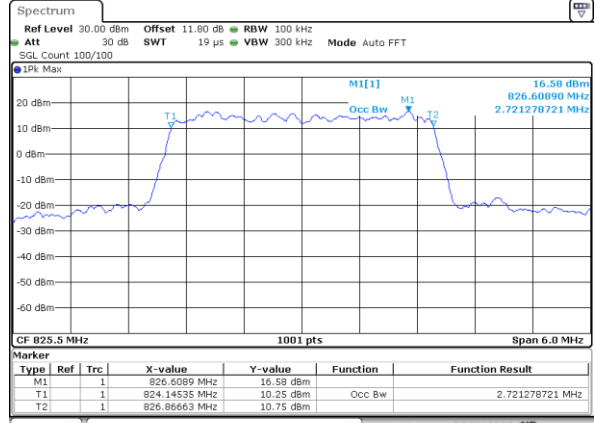
LTE Band 5

Lowest Channel / 3MHz / QPSK



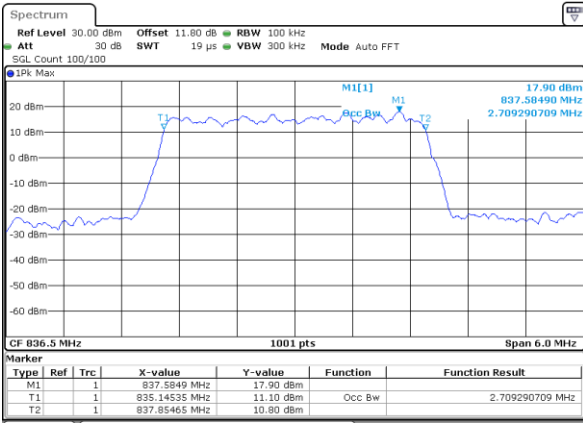
Date: 24\_JAN.2018 23:31:57

Lowest Channel / 3MHz / 16QAM



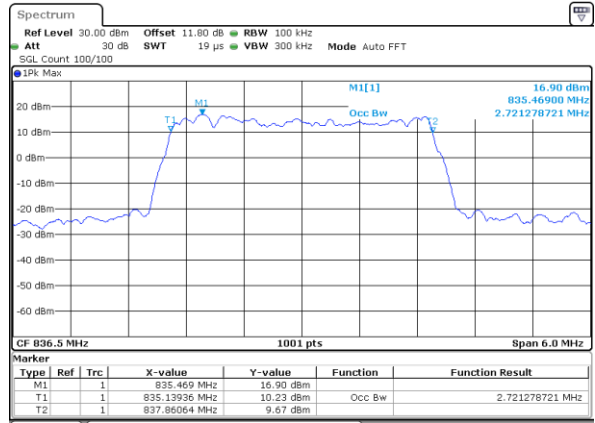
Date: 24\_JAN.2018 23:32:09

Middle Channel / 3MHz / QPSK



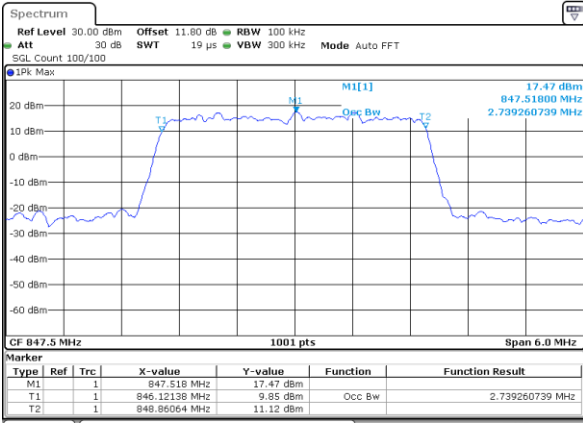
Date: 24\_JAN.2018 23:41:14

Middle Channel / 3MHz / 16QAM



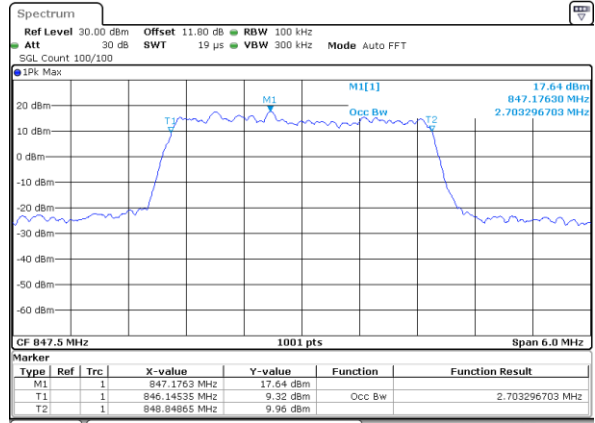
Date: 24\_JAN.2018 23:41:26

Highest Channel / 3MHz / QPSK



Date: 24\_JAN.2018 23:43:56

Highest Channel / 3MHz / 16QAM

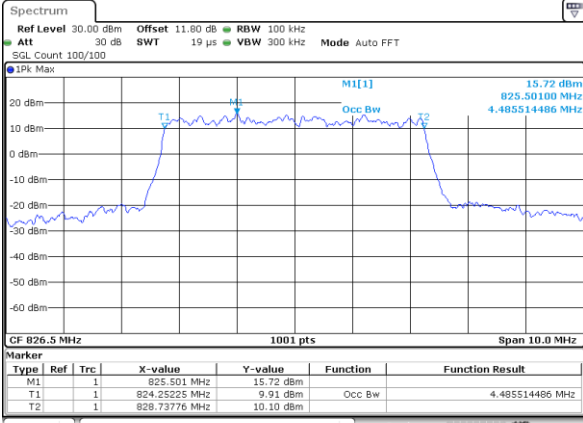


Date: 24\_JAN.2018 23:44:07



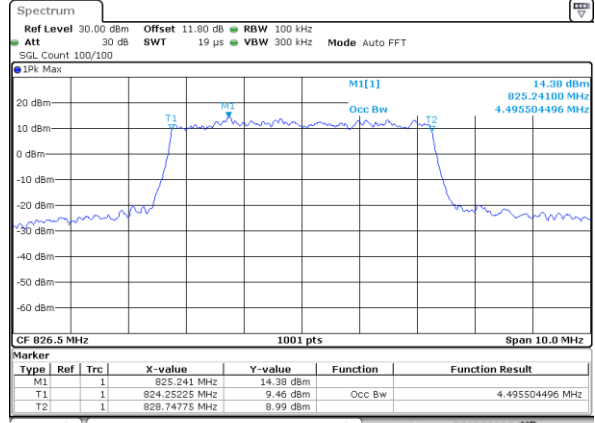
LTE Band 5

Lowest Channel / 5MHz / QPSK



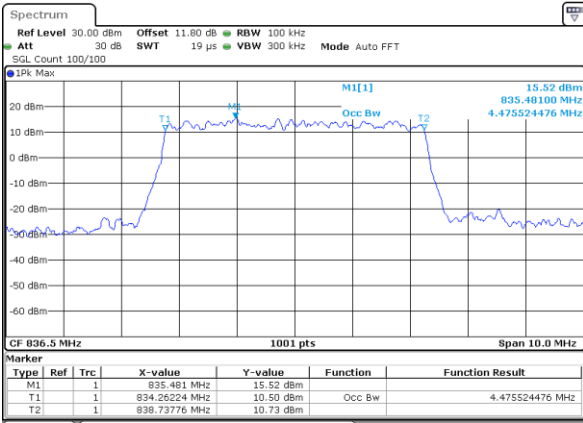
Date: 24\_JAN.2018 23:53:12

Lowest Channel / 5MHz / 16QAM



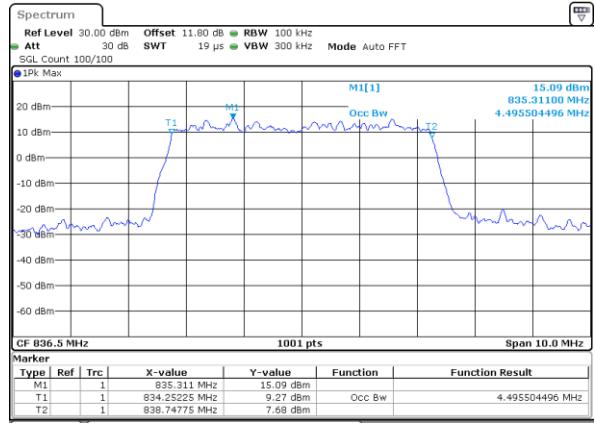
Date: 24\_JAN.2018 23:53:24

Middle Channel / 5MHz / QPSK



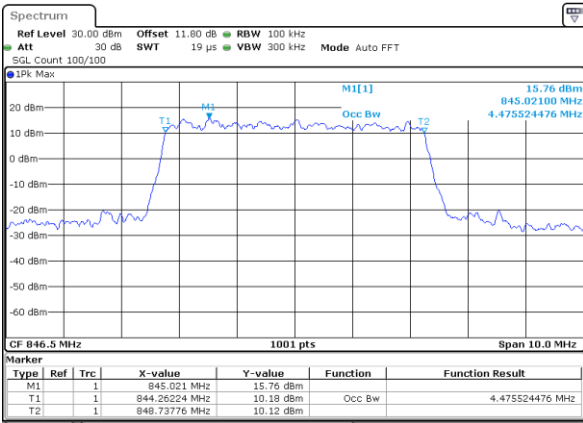
Date: 25\_JAN.2018 00:02:30

Middle Channel / 5MHz / 16QAM



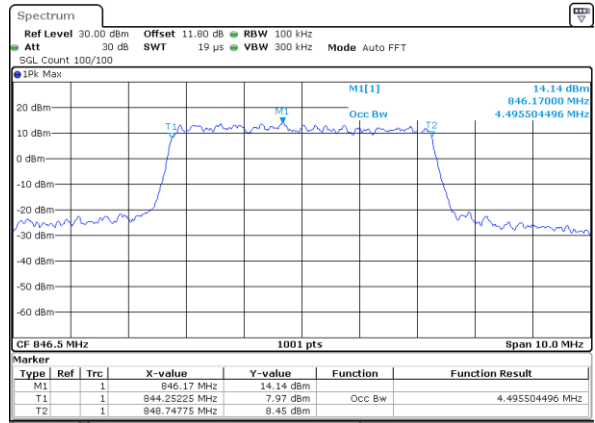
Date: 25\_JAN.2018 00:02:42

Highest Channel / 5MHz / QPSK



Date: 25\_JAN.2018 00:05:12

Highest Channel / 5MHz / 16QAM

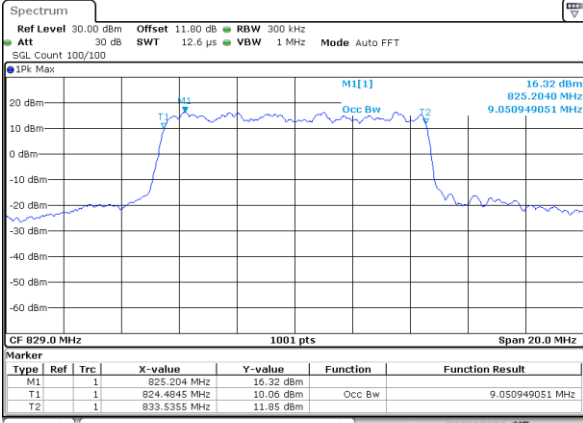


Date: 25\_JAN.2018 00:05:23



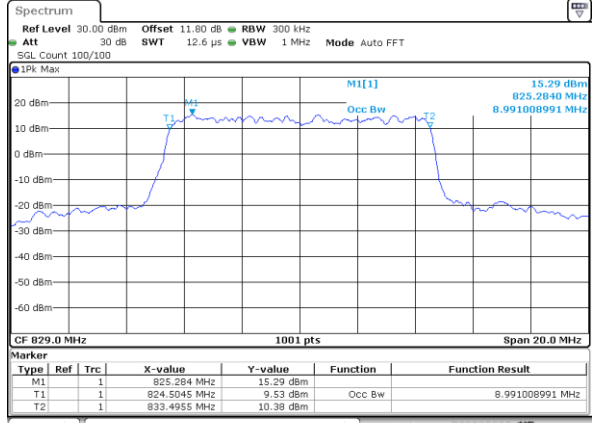
LTE Band 5

Lowest Channel / 10MHz / QPSK



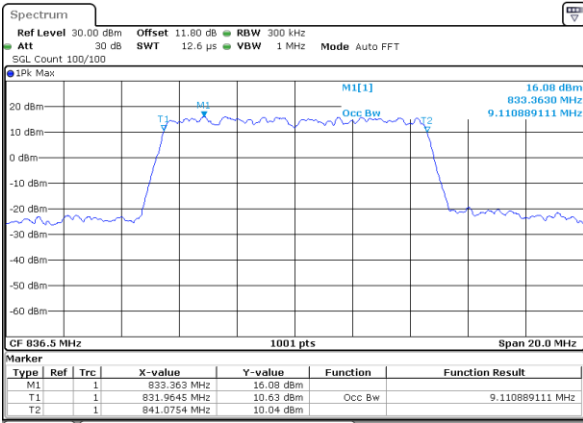
Date: 25\_JAN.2018 00:14:29

Lowest Channel / 10MHz / 16QAM



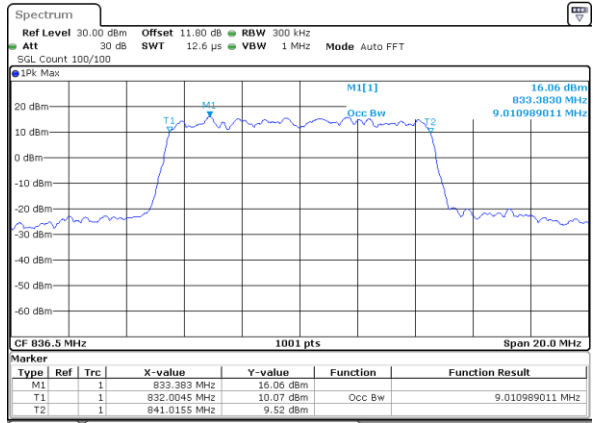
Date: 25\_JAN.2018 00:14:40

Middle Channel / 10MHz / QPSK



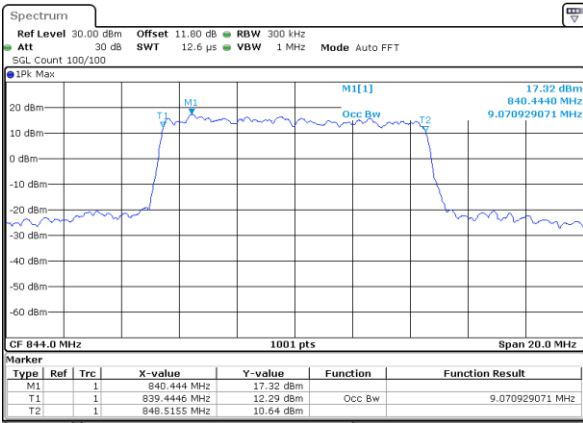
Date: 25\_JAN.2018 00:23:47

Middle Channel / 10MHz / 16QAM



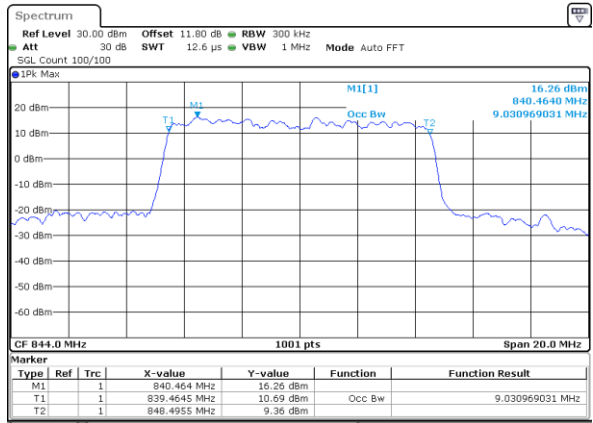
Date: 25\_JAN.2018 00:23:58

Highest Channel / 10MHz / QPSK



Date: 25\_JAN.2018 00:26:29

Highest Channel / 10MHz / 16QAM



Date: 25\_JAN.2018 00:26:40

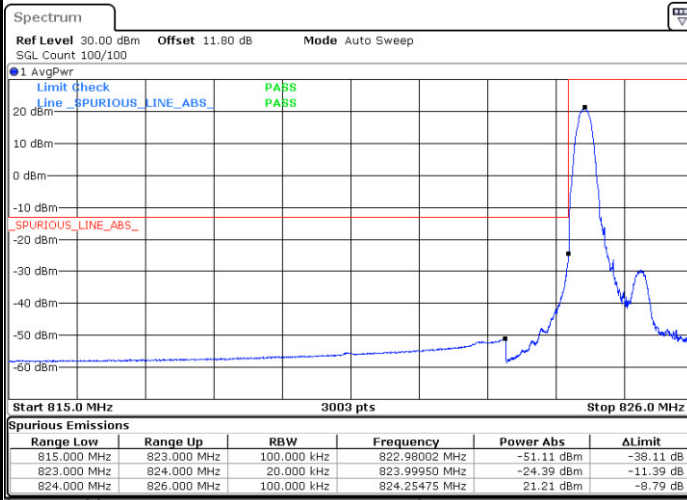


**Conducted Band Edge**



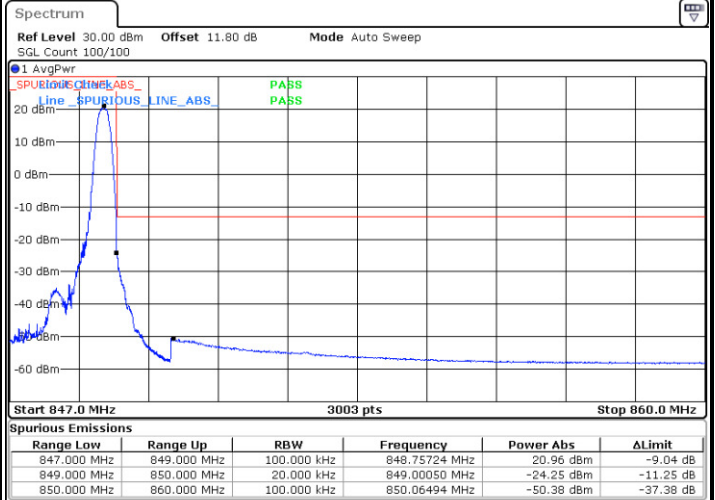
LTE Band 5 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



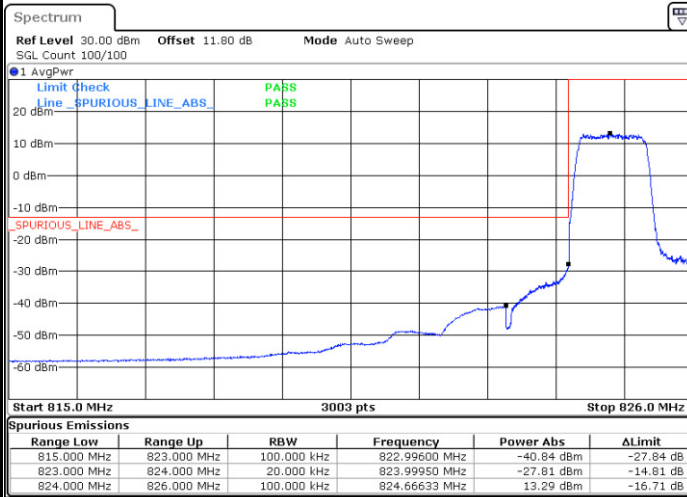
Date: 25.JAN.2018 00:40:35

Highest Band Edge / 1RB



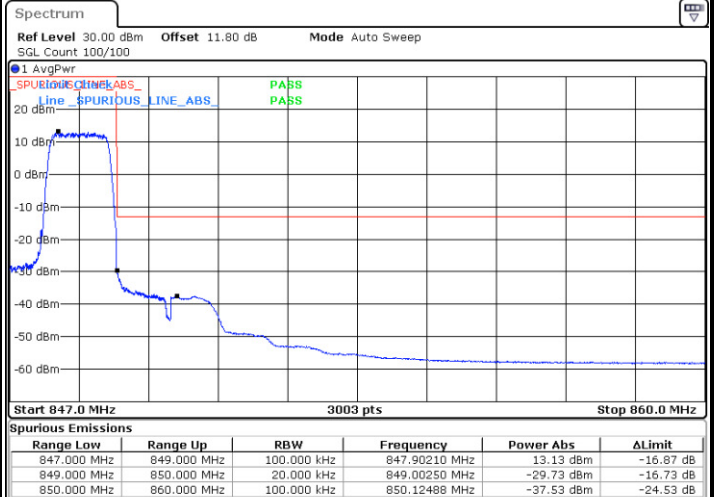
Date: 25.JAN.2018 00:58:21

Lowest Band Edge / Full RB



Date: 25.JAN.2018 00:43:54

Highest Band Edge / Full RB

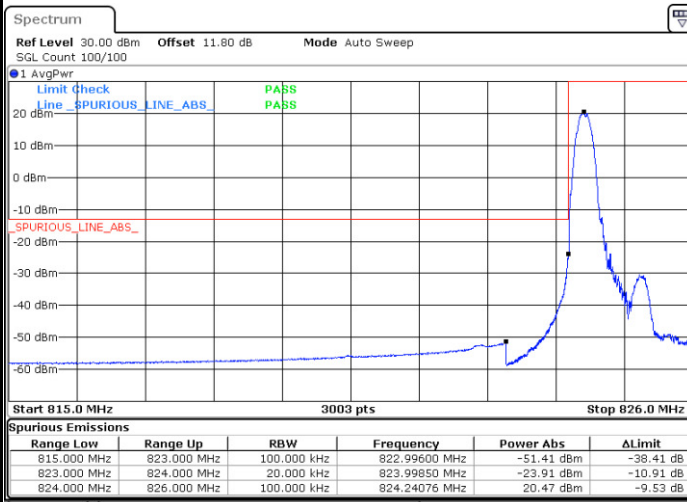


Date: 25.JAN.2018 00:55:03



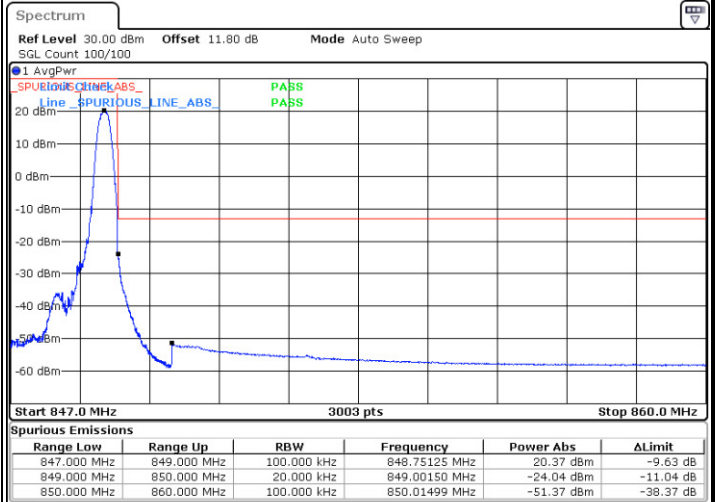
LTE Band 5 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



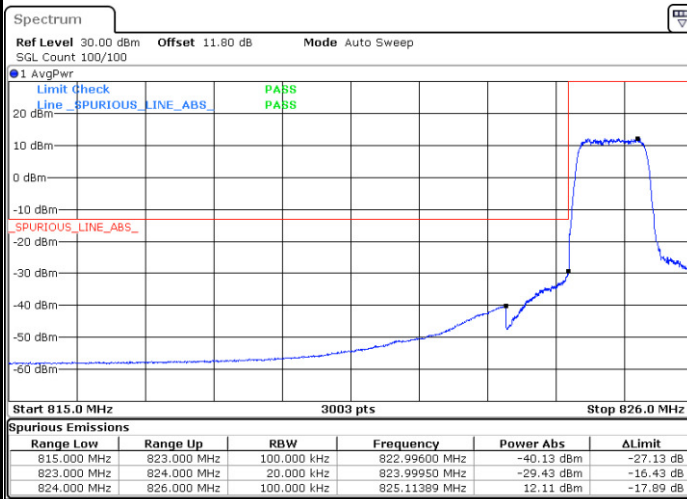
Date: 25.JAN.2018 00:42:14

Highest Band Edge / 1 RB



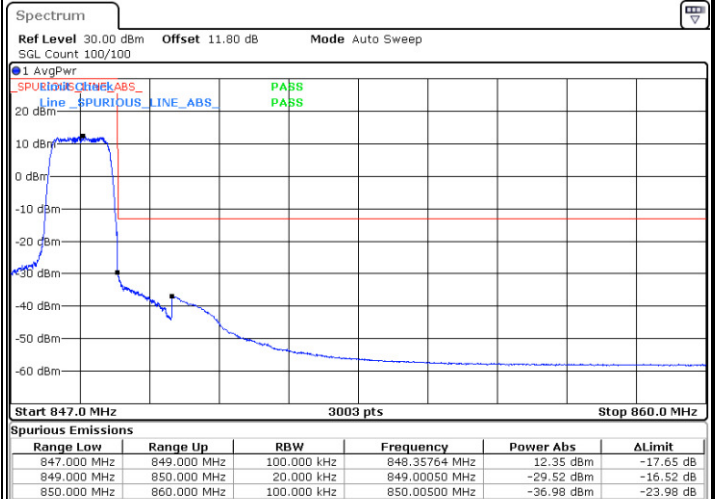
Date: 25.JAN.2018 01:00:00

Lowest Band Edge / Full RB



Date: 25.JAN.2018 00:45:32

Highest Band Edge / Full RB



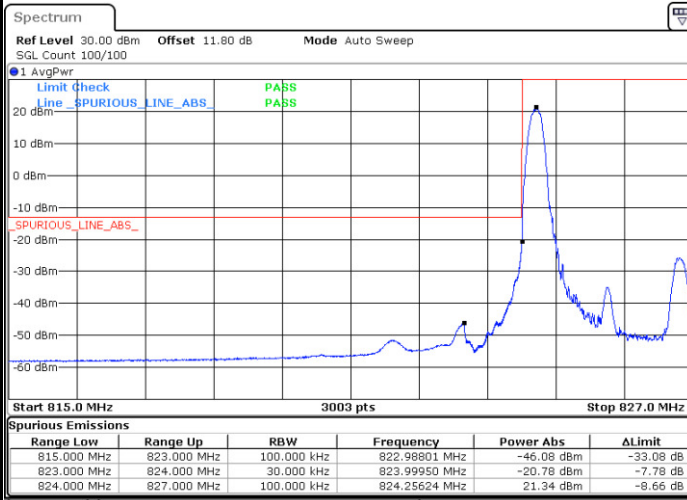
Date: 25.JAN.2018 00:56:42





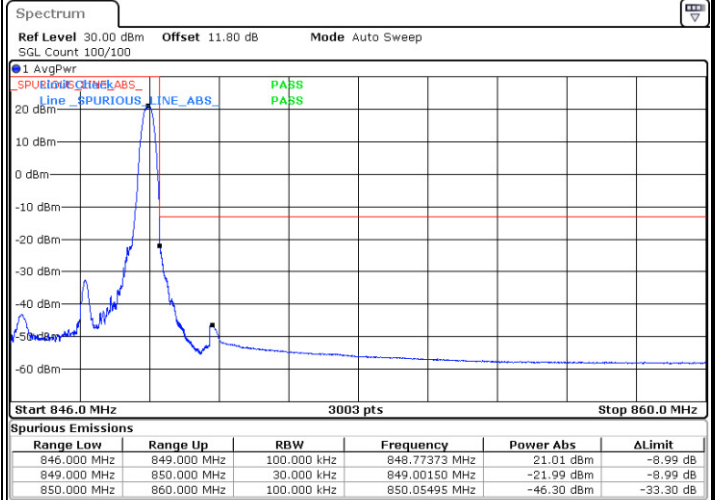
LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / 1RB



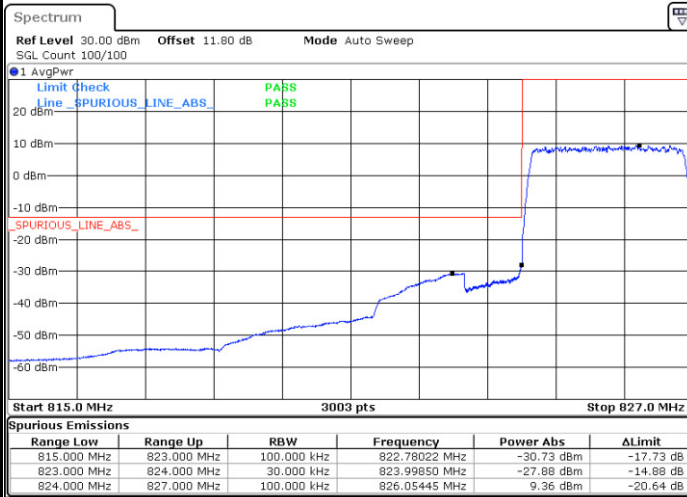
Date: 24.JAN.2018 23:34:11

Highest Band Edge / 1 RB



Date: 24.JAN.2018 23:46:09

Lowest Band Edge / Full RB



Date: 24.JAN.2018 23:37:29

Highest Band Edge / Full RB



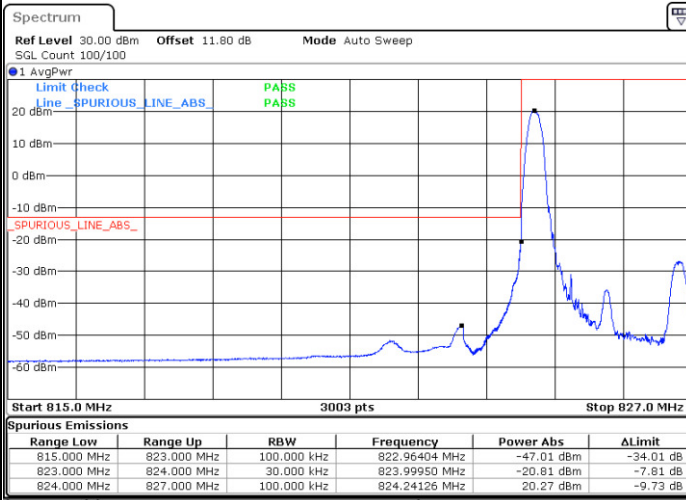
Date: 24.JAN.2018 23:49:26



LTE Band 5 / 3MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



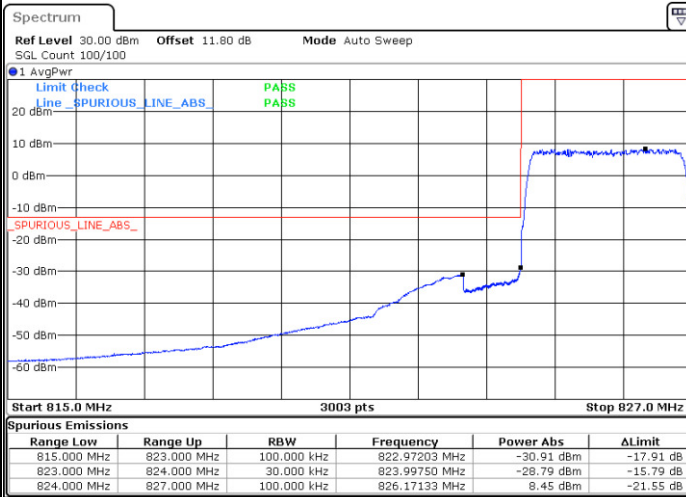
Date: 24.JAN.2018 23:35:50



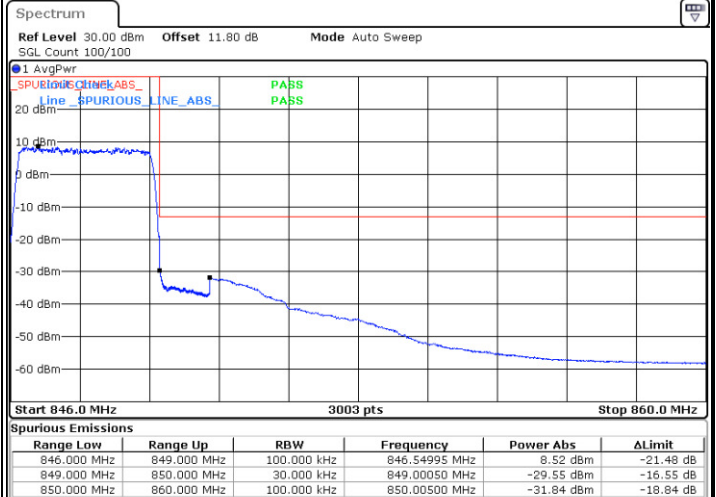
Date: 24.JAN.2018 23:47:47

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 24.JAN.2018 23:39:08



Date: 24.JAN.2018 23:51:05