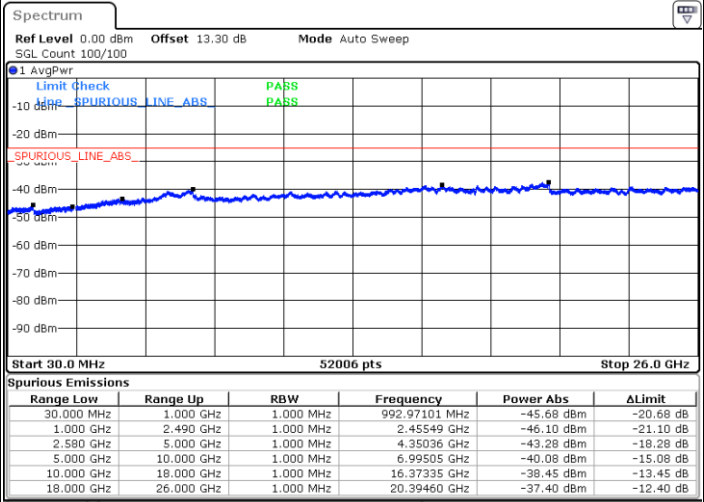
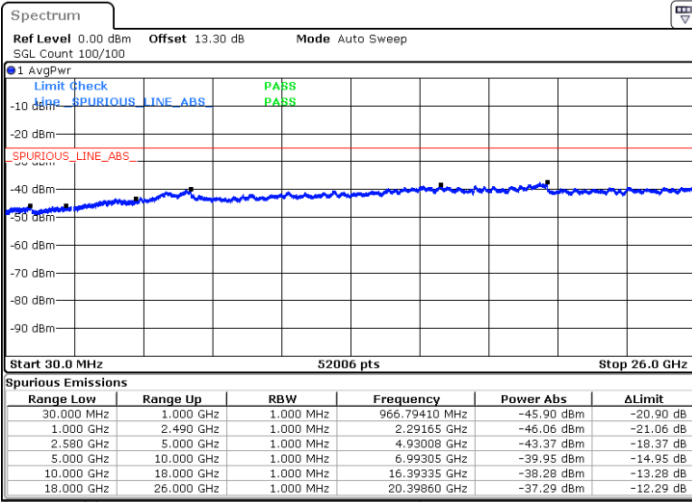




LTE Band 7 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

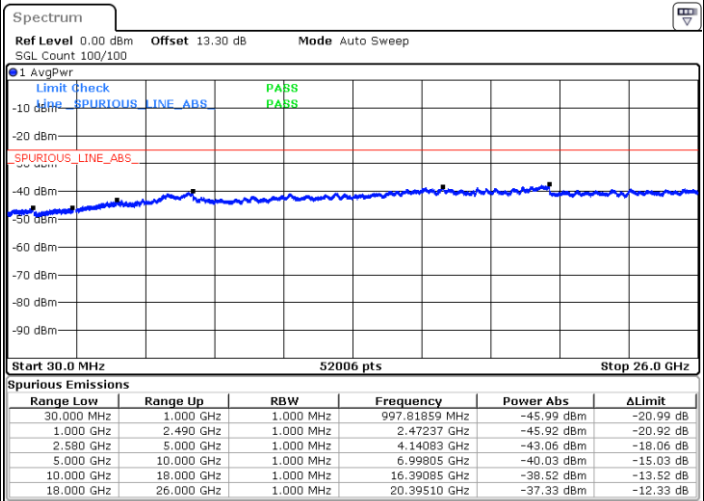
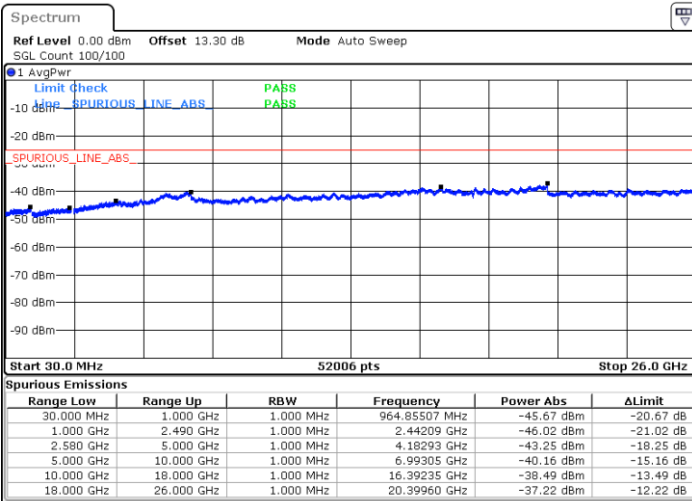


Date: 6.JAN.2018 22:05:19

Date: 6.JAN.2018 22:06:11

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 6.JAN.2018 22:12:16

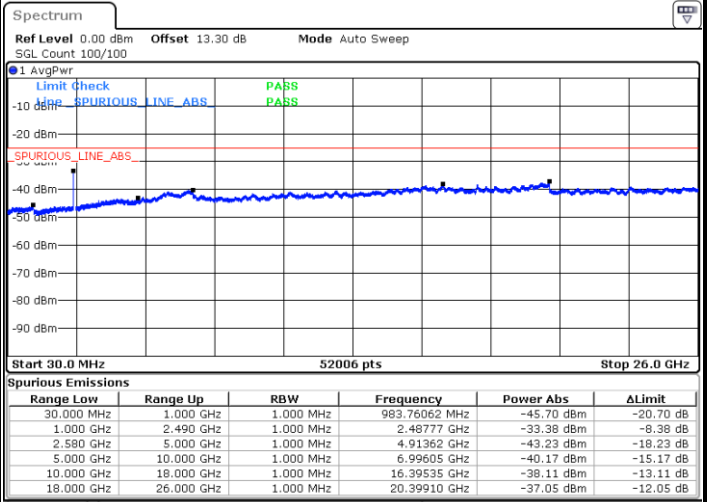
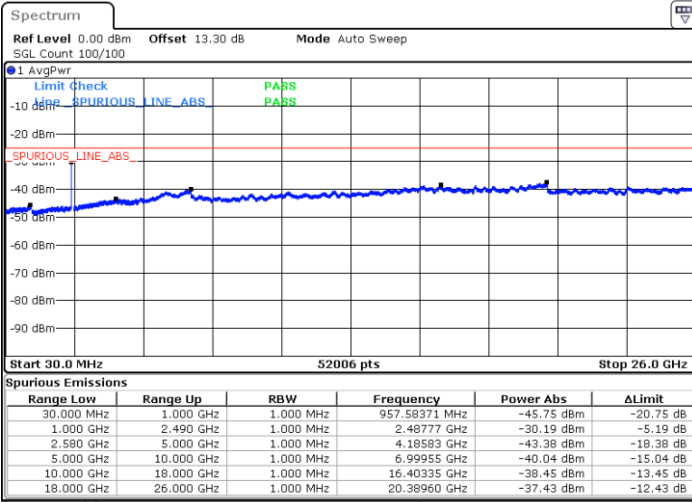
Date: 6.JAN.2018 22:13:09



LTE Band 7 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

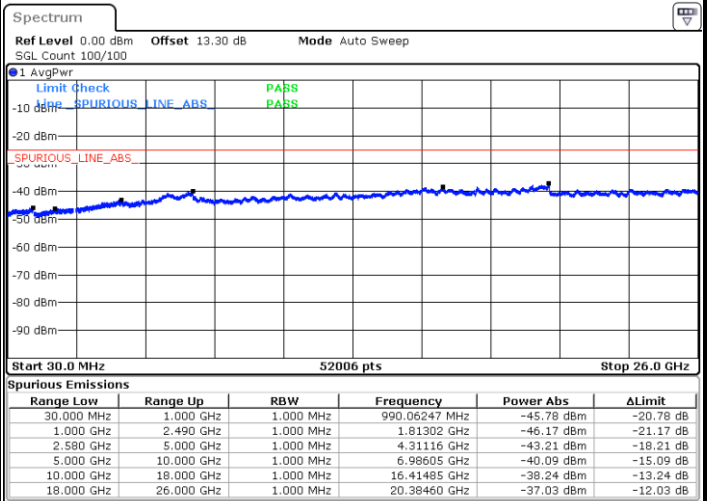
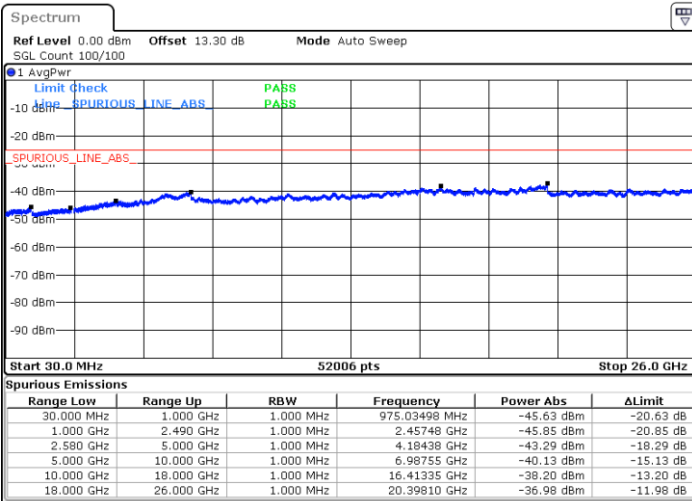


Date: 6.JAN.2018 22:19:14

Date: 6.JAN.2018 22:20:07

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 6.JAN.2018 22:21:39

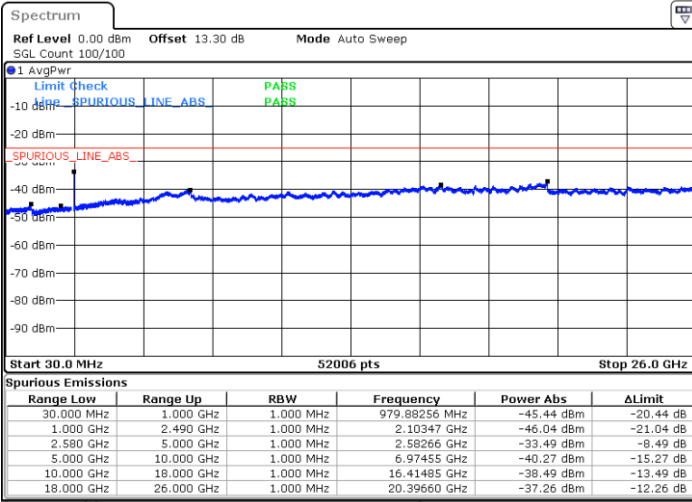
Date: 6.JAN.2018 22:22:31



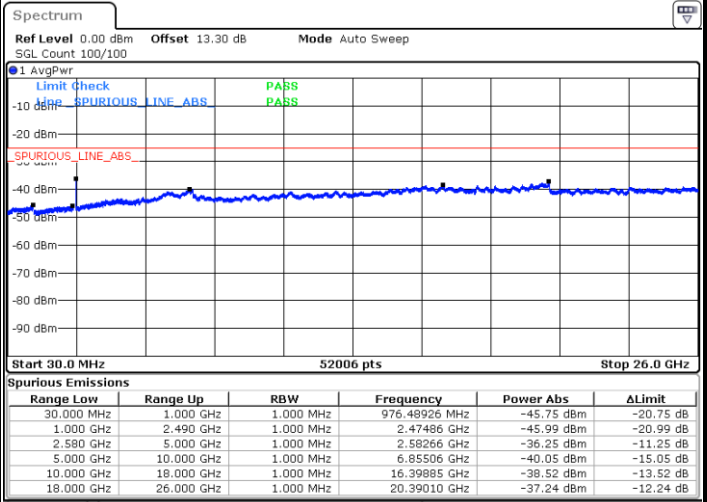
LTE Band7 / 15MHz

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 6.JAN.2018 22:28:37

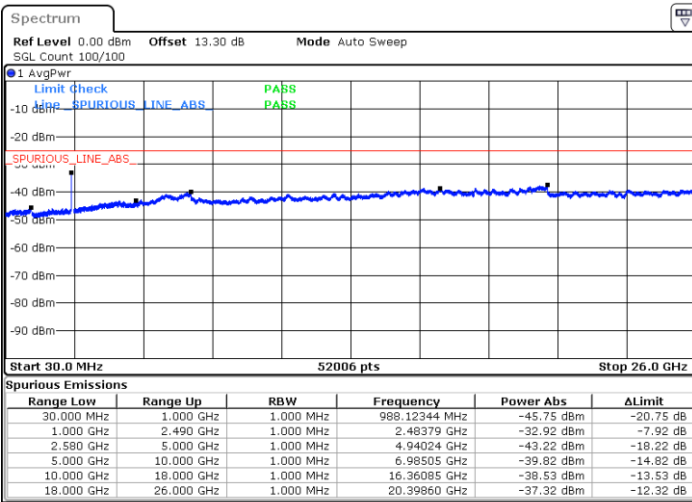


Date: 6.JAN.2018 22:29:29

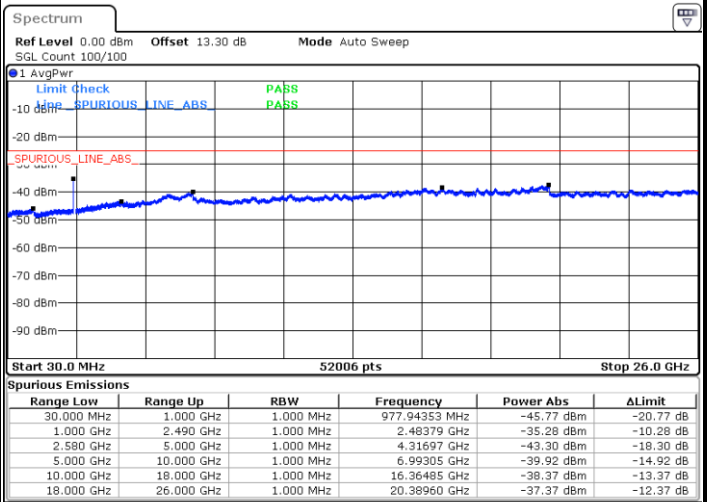
LTE Band 7 / 20MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 6.JAN.2018 22:35:34



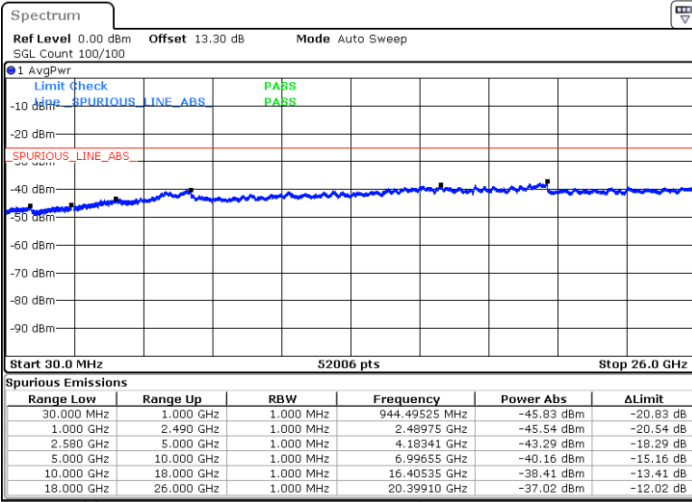
Date: 6.JAN.2018 22:36:26



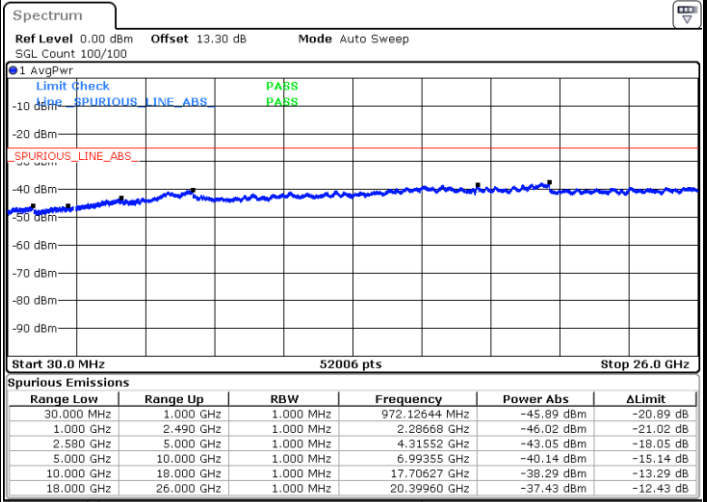
LTE Band 7 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM



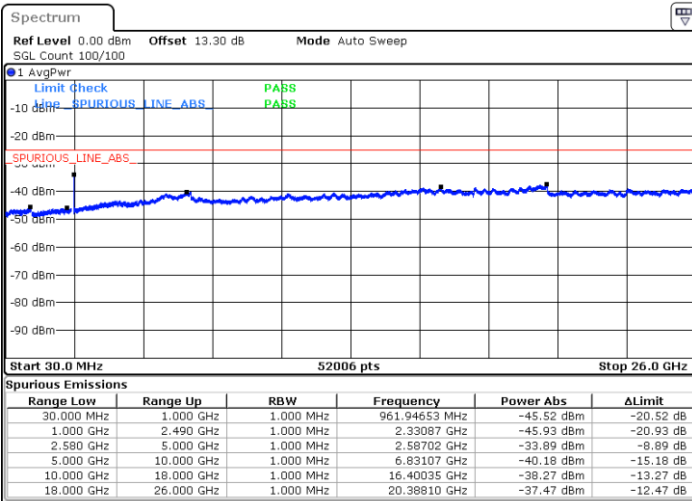
Date: 6.JAN.2018 22:37:59



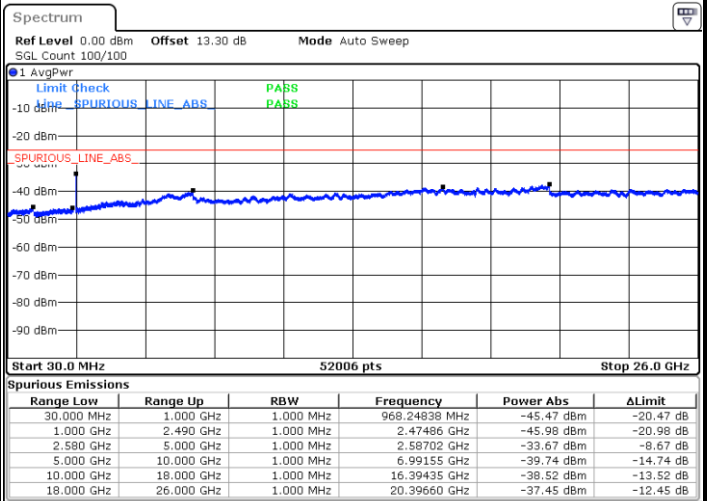
Date: 6.JAN.2018 22:38:51

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 6.JAN.2018 22:44:56



Date: 6.JAN.2018 22:45:49



**Frequency Stability**

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0022	
30	Normal Voltage	0.0003	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0006	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0020	
-20	Normal Voltage	0.0014	
-30	Normal Voltage	0.0007	
20	Maximum Voltage	0.0017	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0007	

**Note:**

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.40 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.



## LTE Band 12

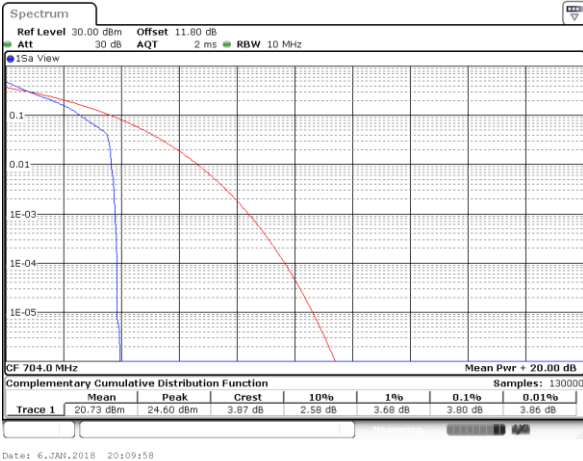
### Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.8	4.78	4.78	5.68	<b>PASS</b>
Middle CH	3.71	4.84	4.17	5.71	
Highest CH	3.77	4.75	4.7	5.77	



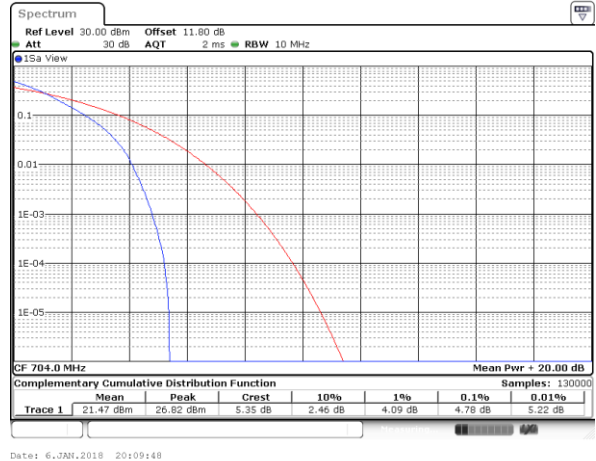
LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



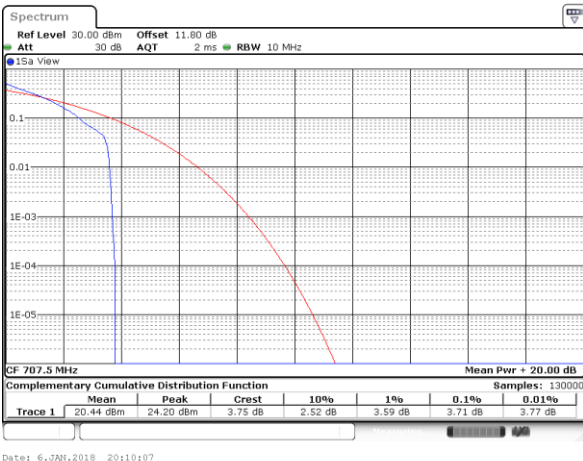
Date: 6 JAN 2018 20:09:58

Lowest Channel / Full RB



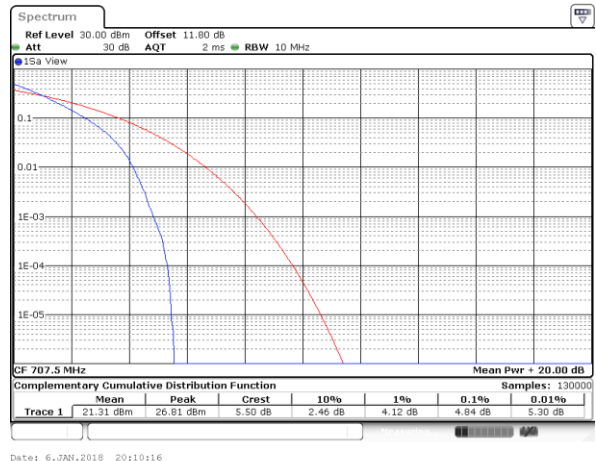
Date: 6 JAN 2018 20:09:48

Middle Channel / 1RB



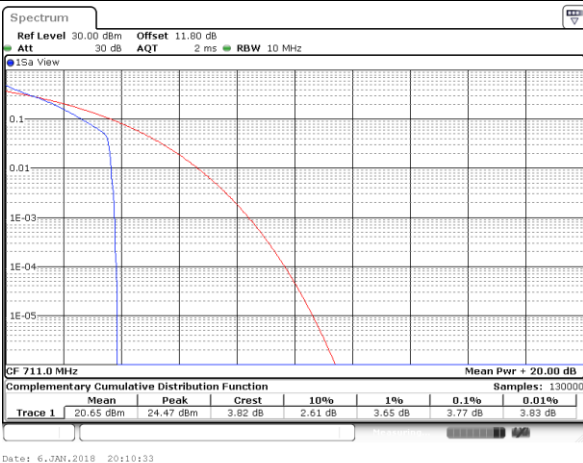
Date: 6 JAN 2018 20:10:07

Middle Channel / Full RB



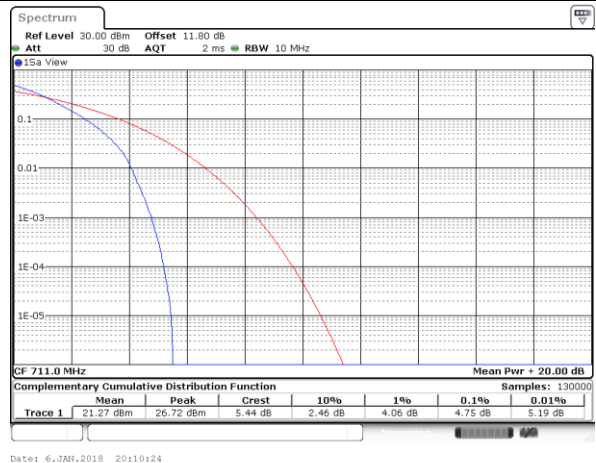
Date: 6 JAN 2018 20:10:16

Highest Channel / 1RB



Date: 6 JAN 2018 20:10:33

Highest Channel / Full RB

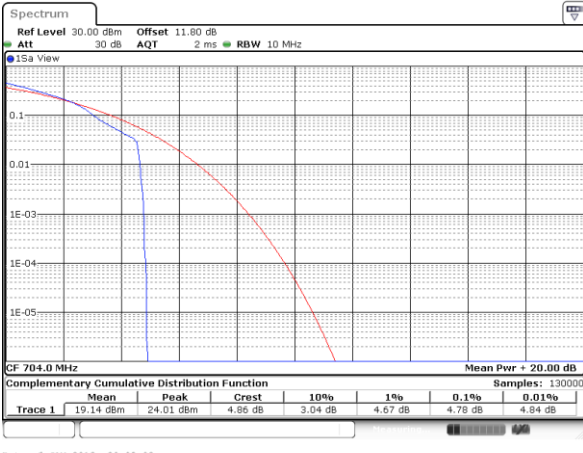


Date: 6 JAN 2018 20:10:24



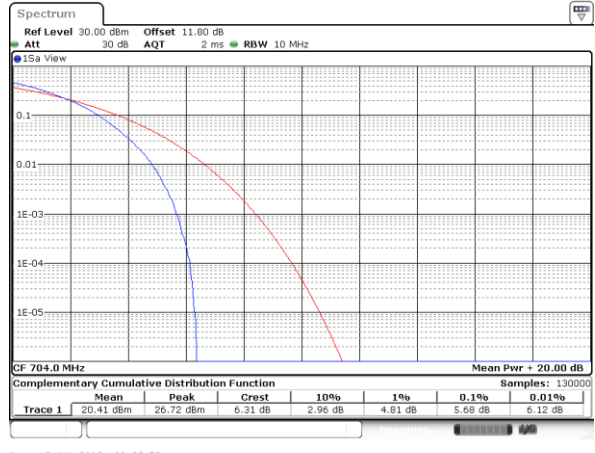
LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



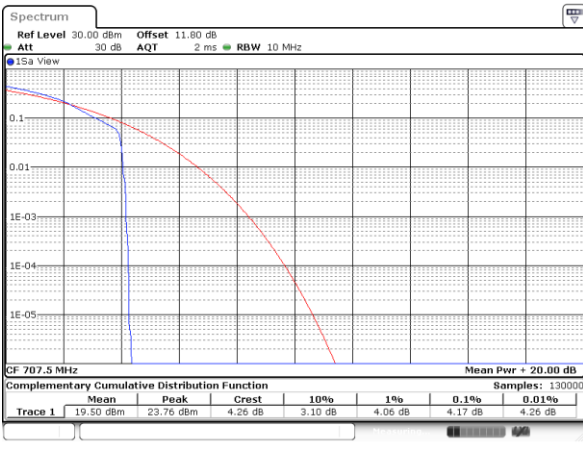
Date: 6 JAN 2018 20:09:02

Lowest Channel / Full RB



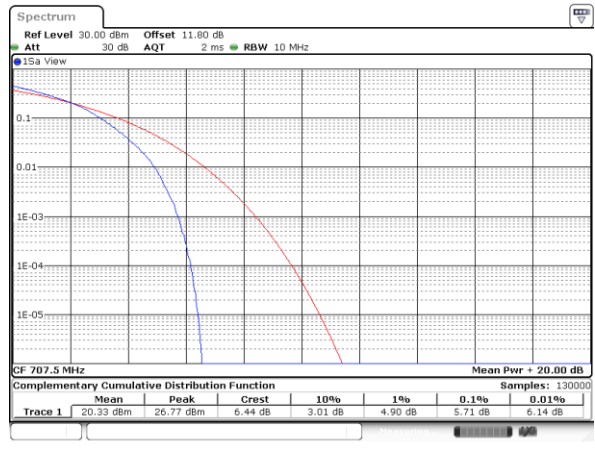
Date: 6 JAN 2018 20:08:53

Middle Channel / 1RB



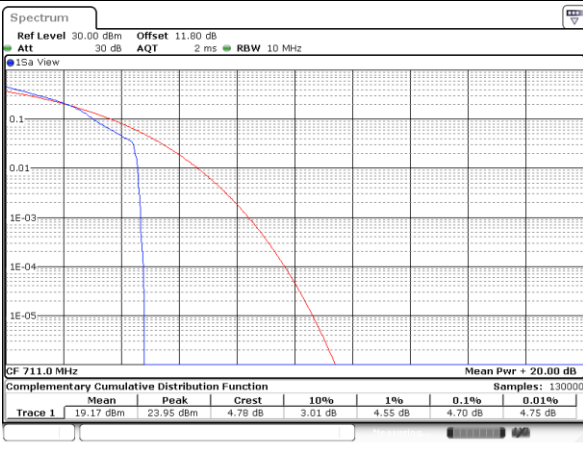
Date: 6 JAN 2018 20:09:11

Middle Channel / Full RB



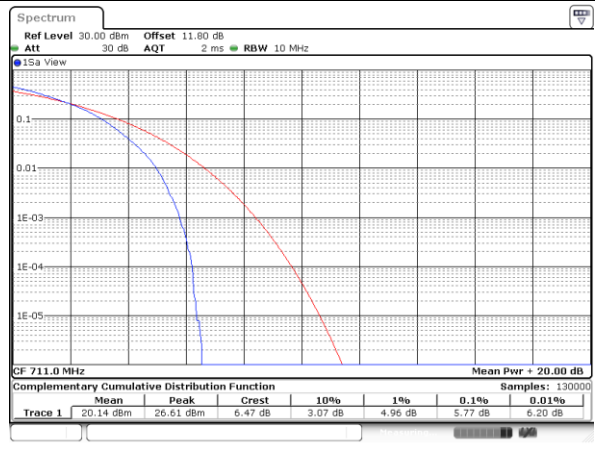
Date: 6 JAN 2018 20:09:19

Highest Channel / 1RB



Date: 6 JAN 2018 20:09:39

Highest Channel / Full RB



Date: 6 JAN 2018 20:09:28





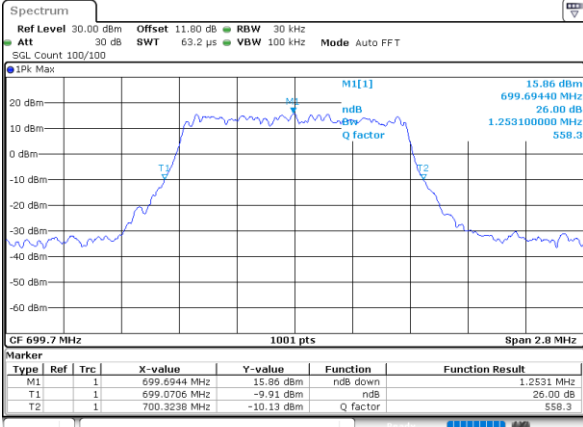
**26dB Bandwidth**

Mode	LTE Band 12 : 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	1.25	1.29	2.98	2.93	4.90	4.86	9.87	9.71	-	-	-	-
Middle CH	1.26	1.26	3.00	2.99	4.90	4.97	9.89	9.85	-	-	-	-
Highest CH	1.28	1.26	2.99	3.02	4.93	4.91	9.81	9.85	-	-	-	-



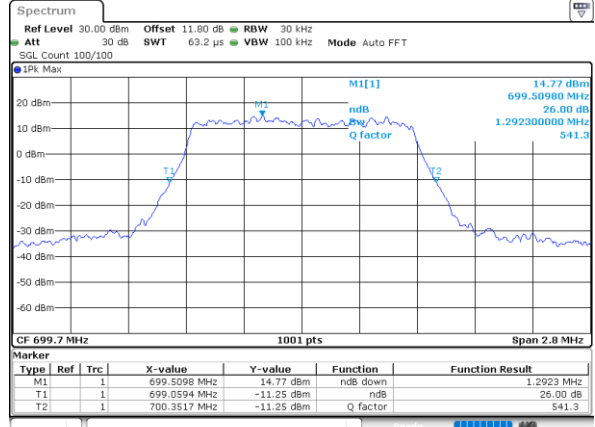
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



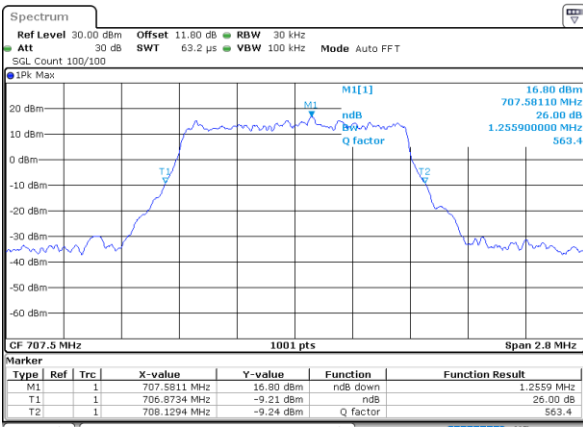
Date: 6, JAN, 2018 19:50:11

Lowest Channel / 1.4MHz / 16QAM



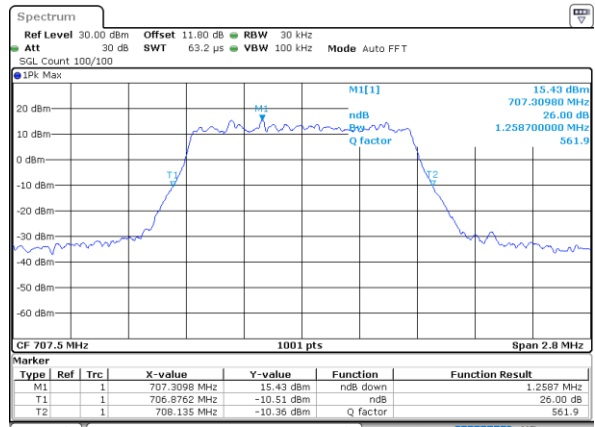
Date: 6, JAN, 2018 19:50:01

Middle Channel / 1.4MHz / QPSK



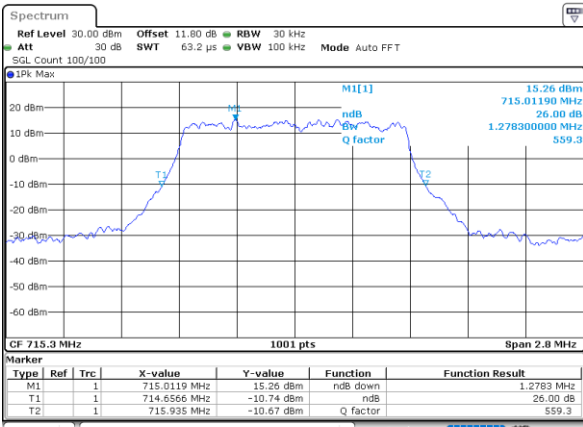
Date: 6, JAN, 2018 19:56:57

Middle Channel / 1.4MHz / 16QAM



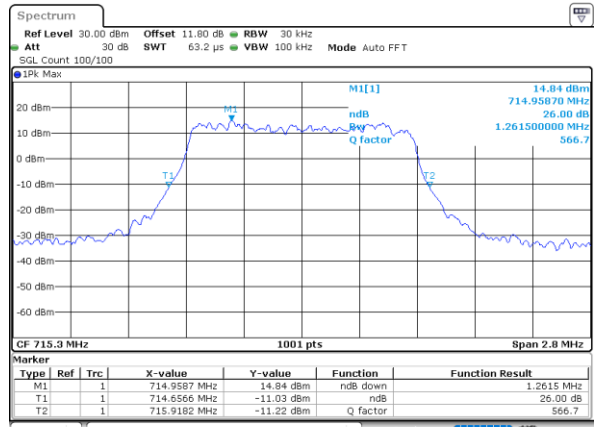
Date: 6, JAN, 2018 19:57:07

Highest Channel / 1.4MHz / QPSK



Date: 6, JAN, 2018 19:59:32

Highest Channel / 1.4MHz / 16QAM

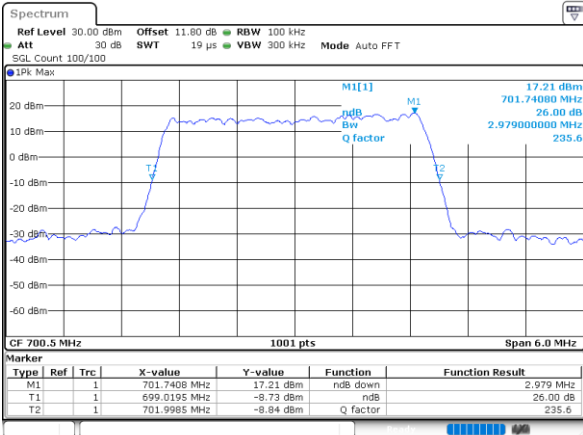


Date: 6, JAN, 2018 19:59:22



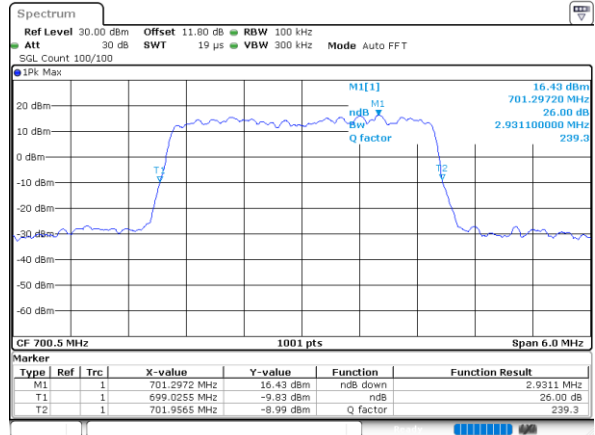
LTE Band 12

Lowest Channel / 3MHz / QPSK



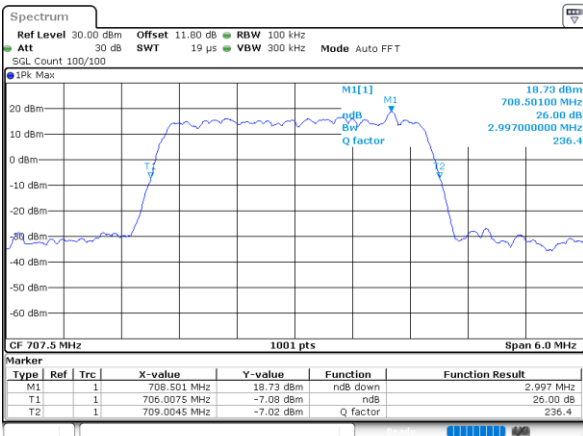
Date: 6,JAN,2018 19:00:05

Lowest Channel / 3MHz / 16QAM



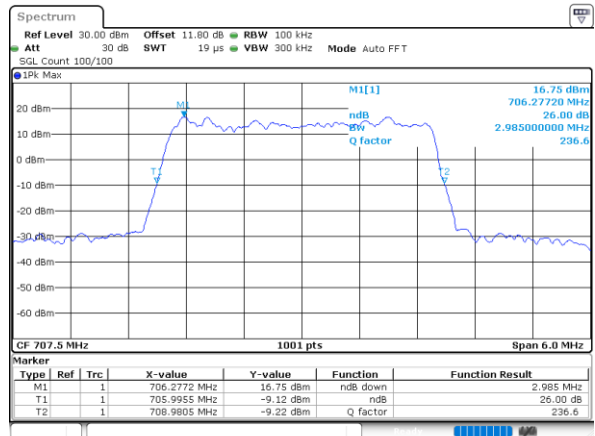
Date: 6,JAN,2018 18:59:55

Middle Channel / 3MHz / QPSK



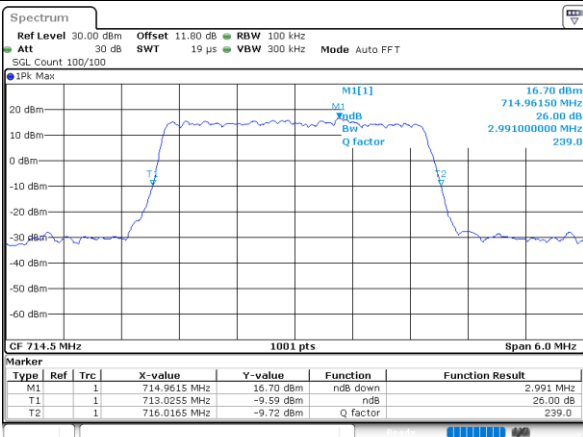
Date: 6,JAN,2018 19:06:52

Middle Channel / 3MHz / 16QAM



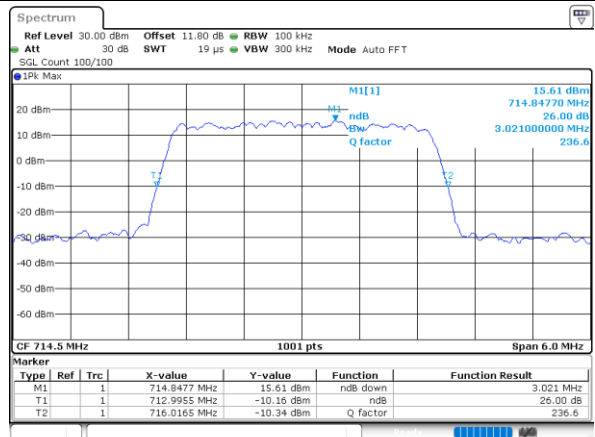
Date: 6,JAN,2018 19:07:02

Highest Channel / 3MHz / QPSK



Date: 6,JAN,2018 19:09:27

Highest Channel / 3MHz / 16QAM

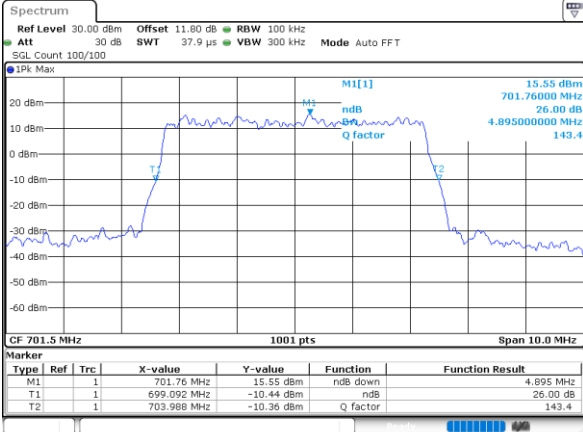


Date: 6,JAN,2018 19:09:18



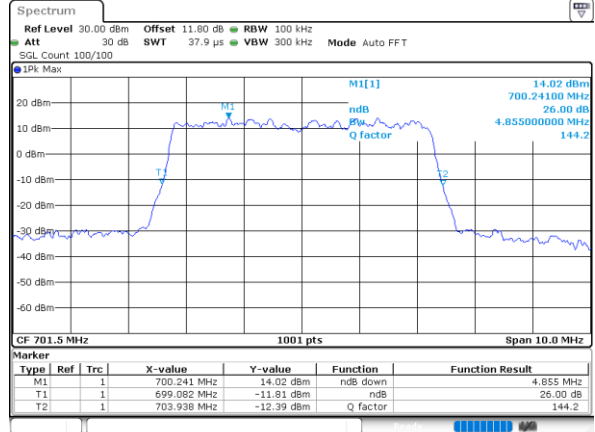
LTE Band 12

Lowest Channel / 5MHz / QPSK



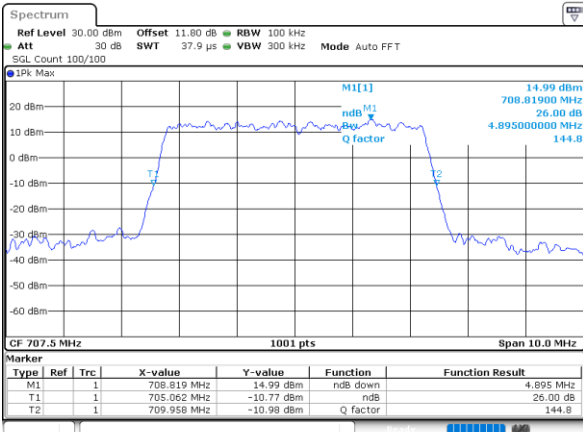
Date: 6, JAN, 2018 19:16:25

Lowest Channel / 5MHz / 16QAM



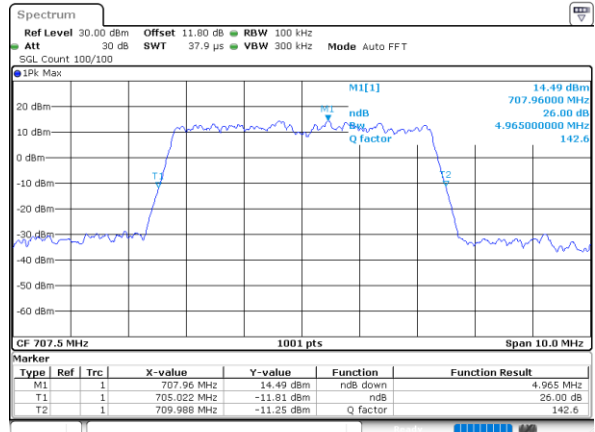
Date: 6, JAN, 2018 19:16:15

Middle Channel / 5MHz / QPSK



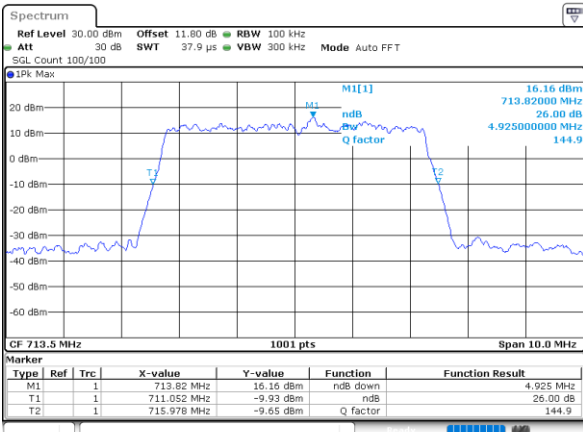
Date: 6, JAN, 2018 19:23:11

Middle Channel / 5MHz / 16QAM



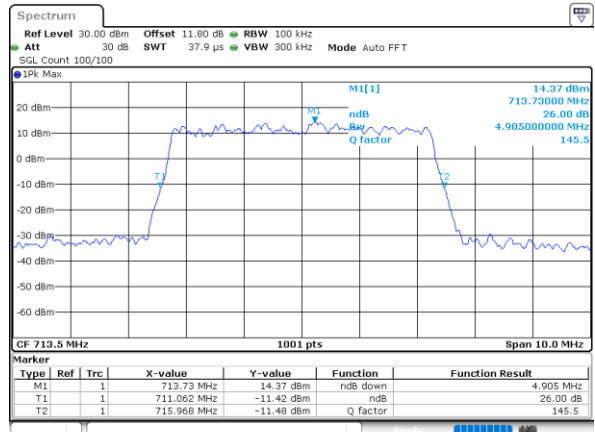
Date: 6, JAN, 2018 19:23:21

Highest Channel / 5MHz / QPSK



Date: 6, JAN, 2018 19:25:46

Highest Channel / 5MHz / 16QAM

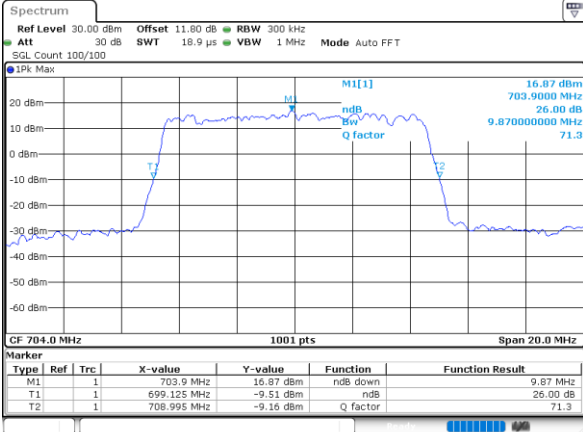


Date: 6, JAN, 2018 19:25:36



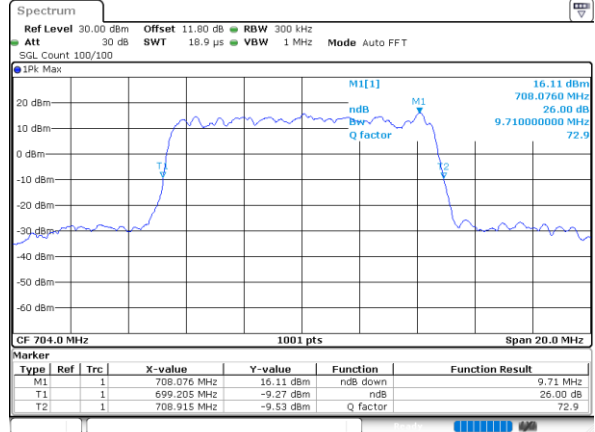
LTE Band 12

Lowest Channel / 10MHz / QPSK



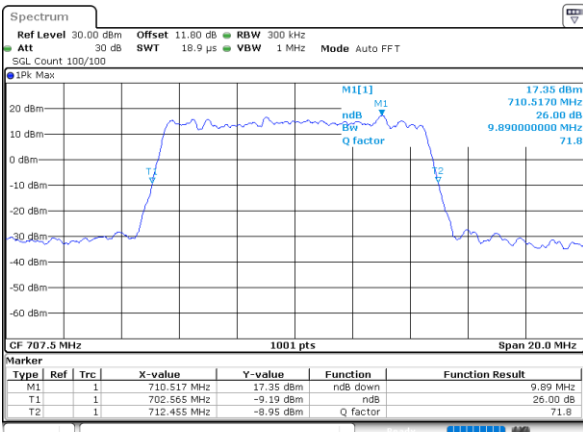
Date: 6, JAN, 2018 19:32:43

Lowest Channel / 10MHz / 16QAM



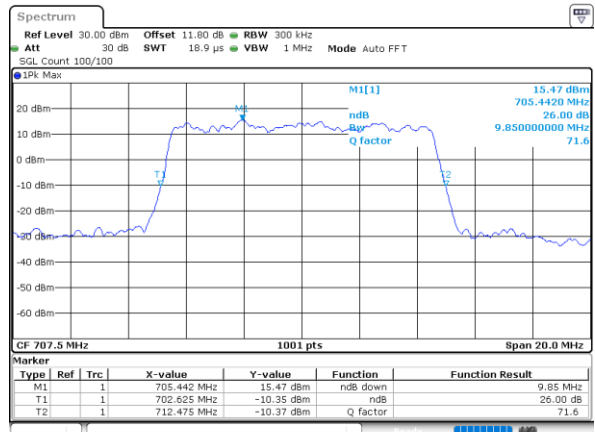
Date: 6, JAN, 2018 19:32:33

Middle Channel / 10MHz / QPSK



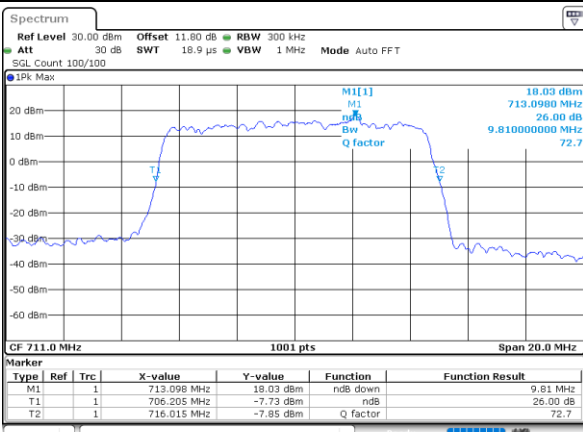
Date: 6, JAN, 2018 19:39:20

Middle Channel / 10MHz / 16QAM



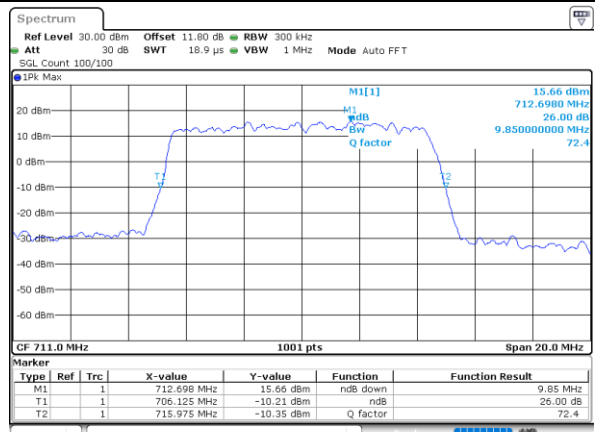
Date: 6, JAN, 2018 19:39:39

Highest Channel / 10MHz / QPSK



Date: 6, JAN, 2018 19:42:03

Highest Channel / 10MHz / 16QAM



Date: 6, JAN, 2018 19:41:54



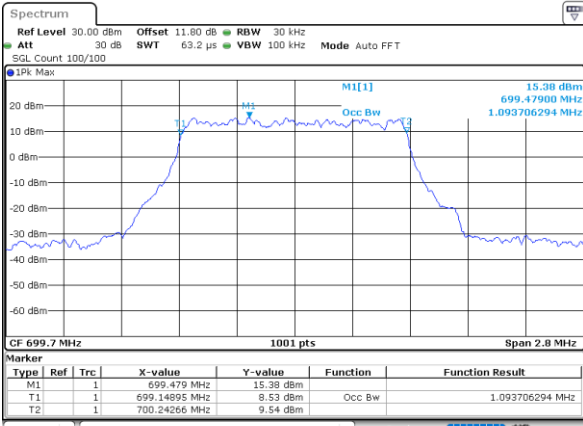
### Occupied Bandwidth

Mode	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.71	2.73	4.51	4.47	8.93	9.03	-	-	-	-
Middle CH	1.09	1.1	2.7	2.73	4.5	4.49	8.99	8.99	-	-	-	-
Highest CH	1.09	1.09	2.72	2.7	4.49	4.49	8.97	8.97	-	-	-	-



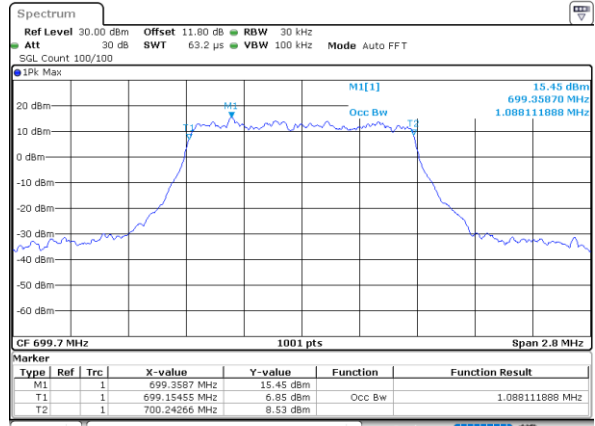
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



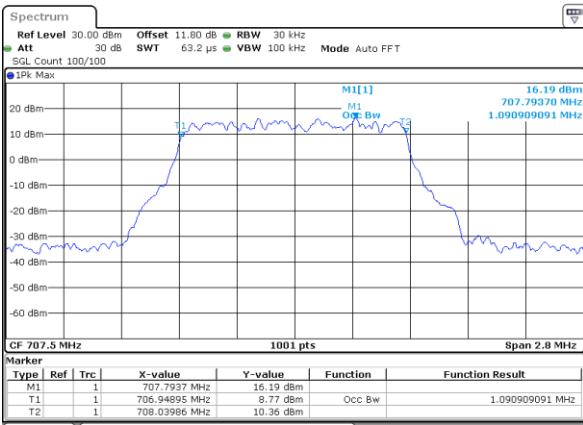
Date: 6 JAN 2018 19:49:42

Lowest Channel / 1.4MHz / 16QAM



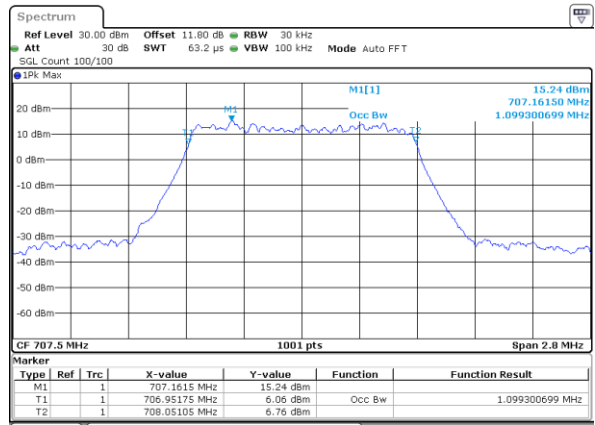
Date: 6 JAN 2018 19:49:52

Middle Channel / 1.4MHz / QPSK



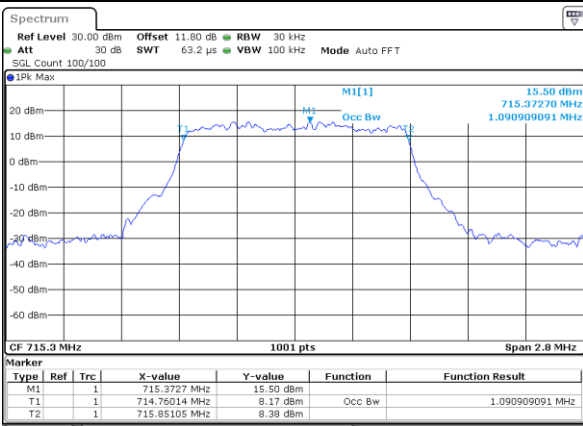
Date: 6 JAN 2018 19:56:48

Middle Channel / 1.4MHz / 16QAM



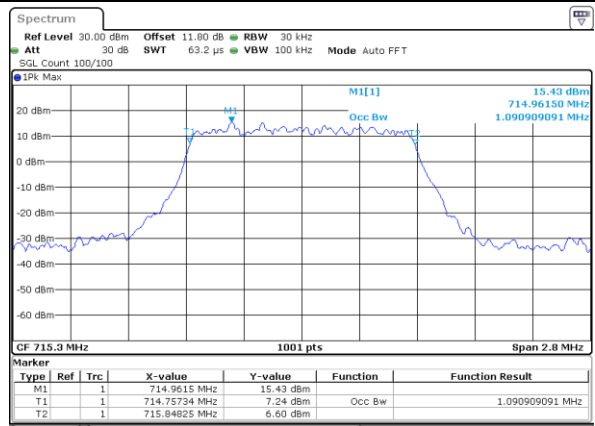
Date: 6 JAN 2018 19:56:38

Highest Channel / 1.4MHz / QPSK



Date: 6 JAN 2018 19:59:03

Highest Channel / 1.4MHz / 16QAM

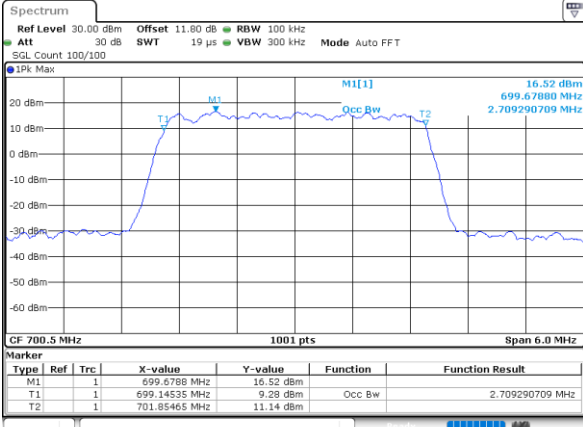


Date: 6 JAN 2018 19:59:13



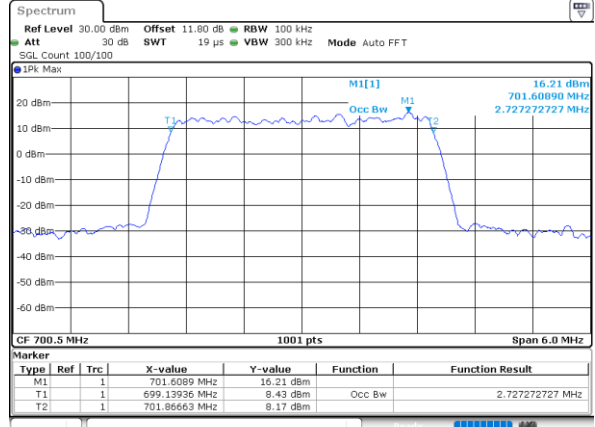
LTE Band 12

Lowest Channel / 3MHz / QPSK



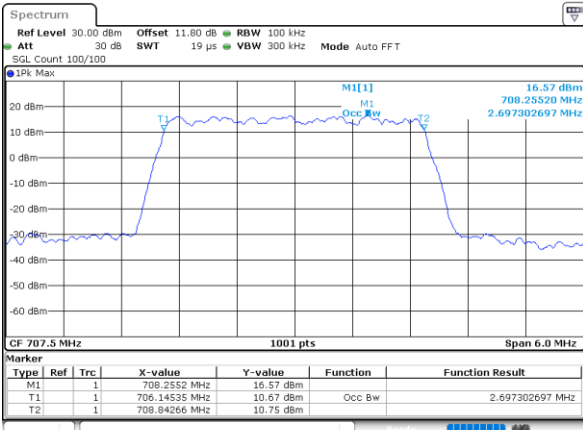
Date: 6 JAN 2018 18:59:35

Lowest Channel / 3MHz / 16QAM



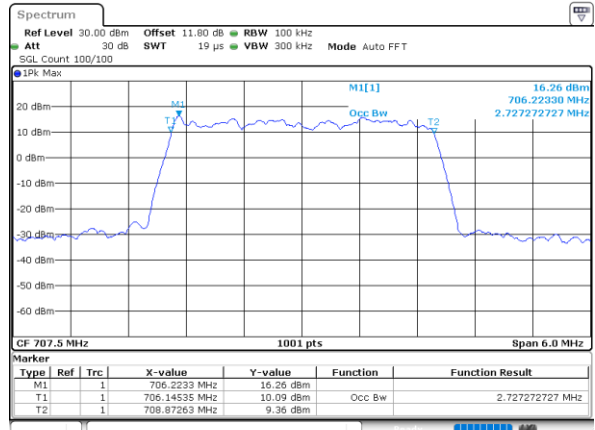
Date: 6 JAN 2018 18:59:45

Middle Channel / 3MHz / QPSK



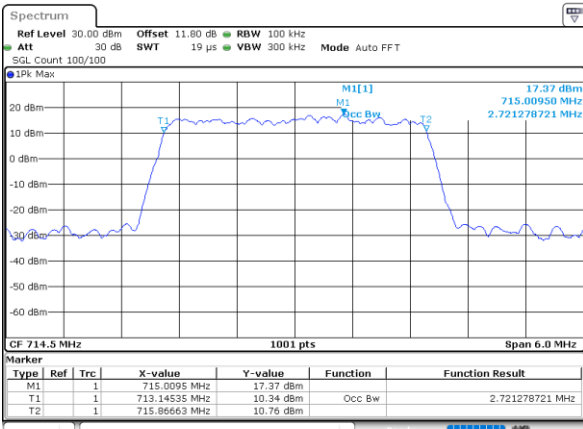
Date: 6 JAN 2018 19:06:42

Middle Channel / 3MHz / 16QAM



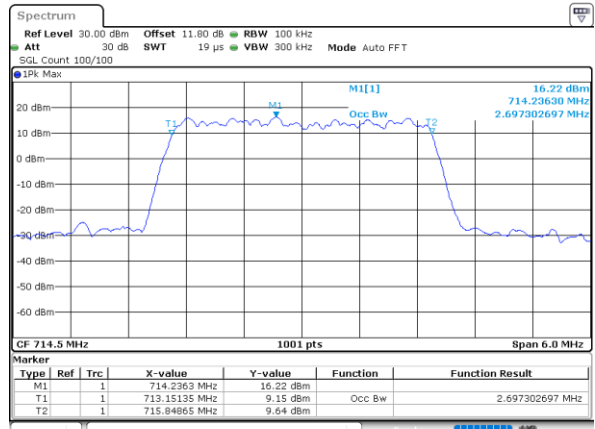
Date: 6 JAN 2018 19:06:32

Highest Channel / 3MHz / QPSK



Date: 6 JAN 2018 19:08:58

Highest Channel / 3MHz / 16QAM



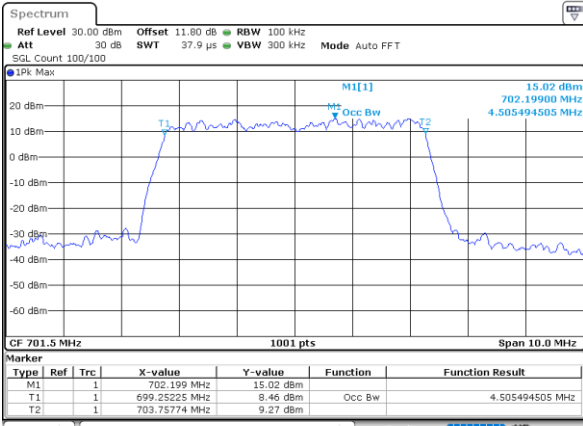
Date: 6 JAN 2018 19:09:08





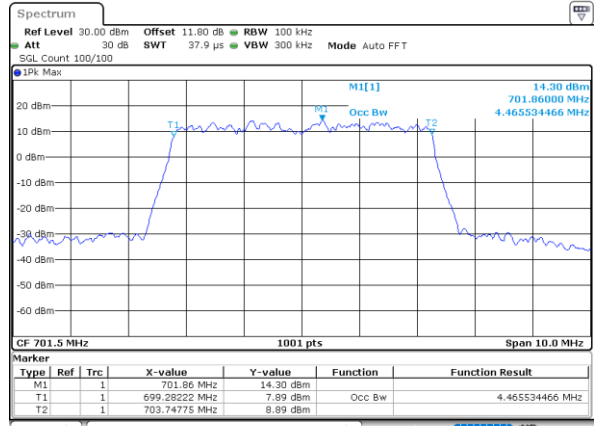
LTE Band 12

Lowest Channel / 5MHz / QPSK



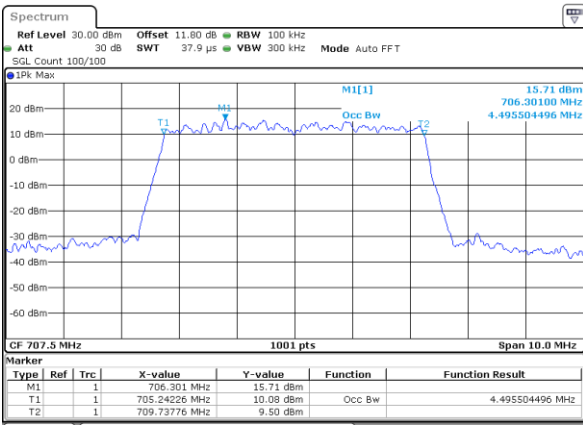
Date: 6 JAN 2018 19:15:55

Lowest Channel / 5MHz / 16QAM



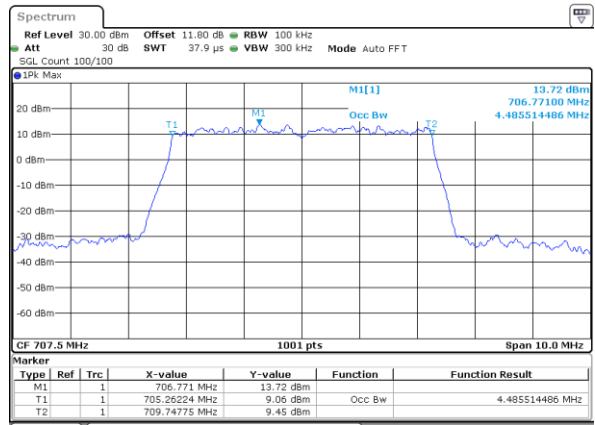
Date: 6 JAN 2018 19:16:05

Middle Channel / 5MHz / QPSK



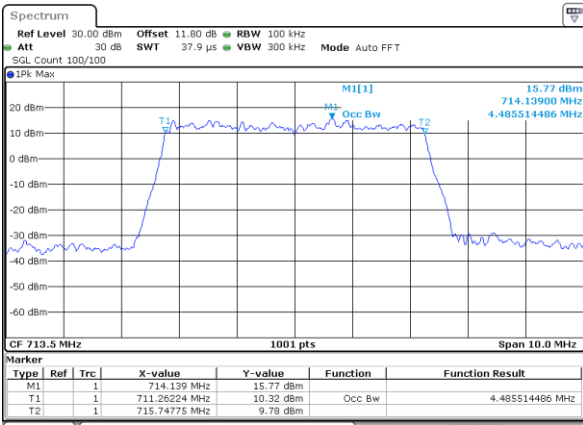
Date: 6 JAN 2018 19:23:01

Middle Channel / 5MHz / 16QAM



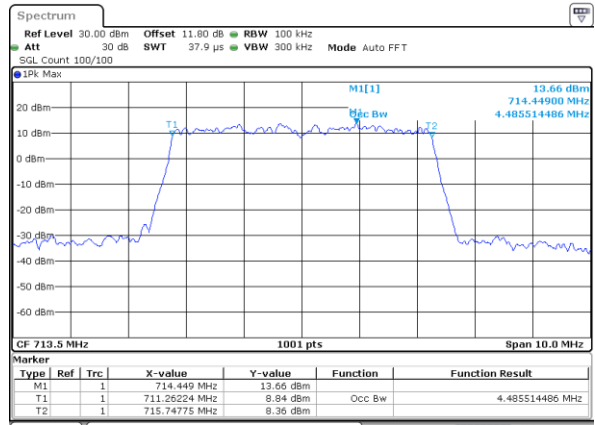
Date: 6 JAN 2018 19:22:52

Highest Channel / 5MHz / QPSK



Date: 6 JAN 2018 19:25:17

Highest Channel / 5MHz / 16QAM

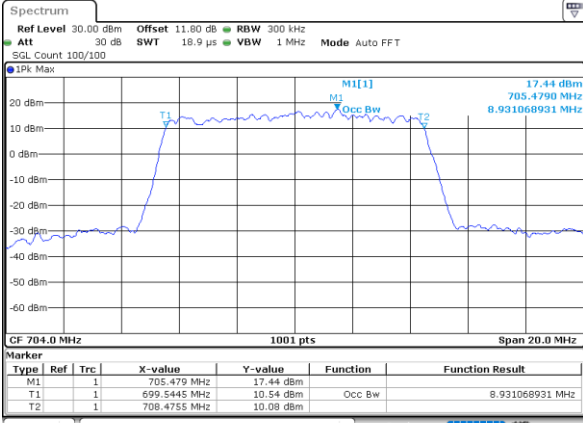


Date: 6 JAN 2018 19:25:27



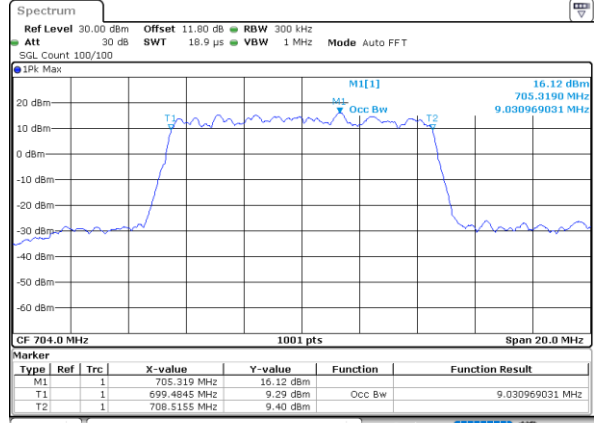
LTE Band 12

Lowest Channel / 10MHz / QPSK



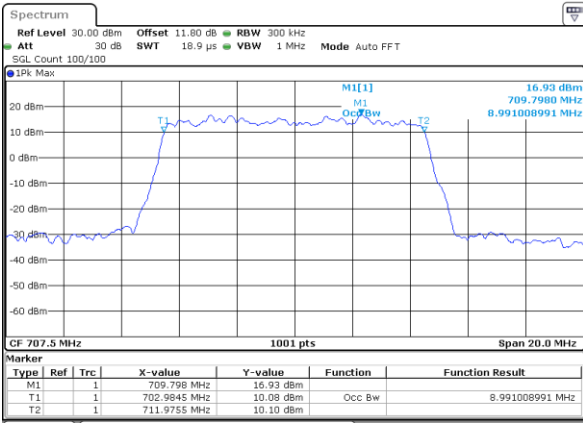
Date: 6 JAN 2018 19:32:13

Lowest Channel / 10MHz / 16QAM



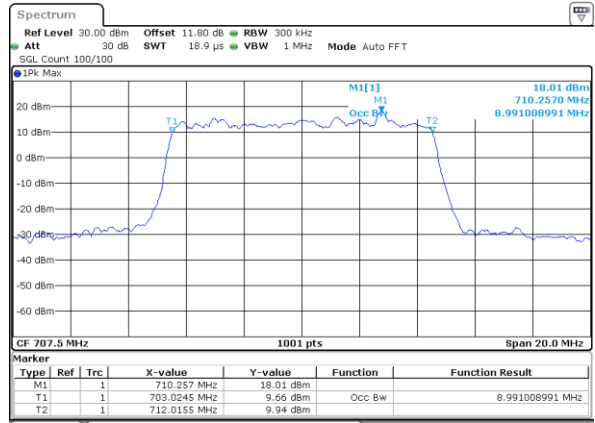
Date: 6 JAN 2018 19:32:23

Middle Channel / 10MHz / QPSK



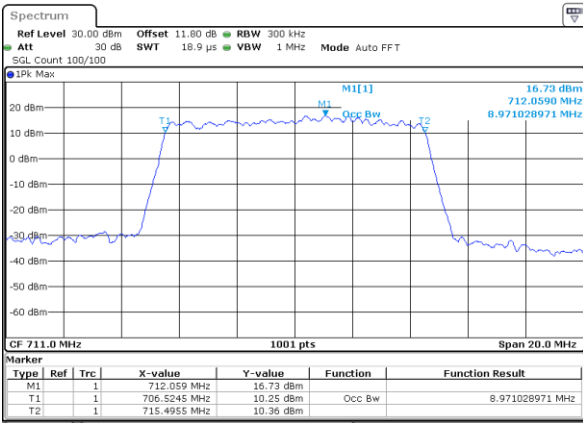
Date: 6 JAN 2018 19:39:19

Middle Channel / 10MHz / 16QAM



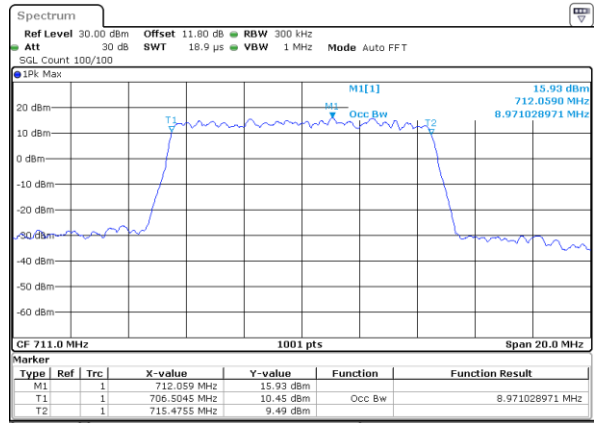
Date: 6 JAN 2018 19:39:09

Highest Channel / 10MHz / QPSK



Date: 6 JAN 2018 19:41:34

Highest Channel / 10MHz / 16QAM



Date: 6 JAN 2018 19:41:44

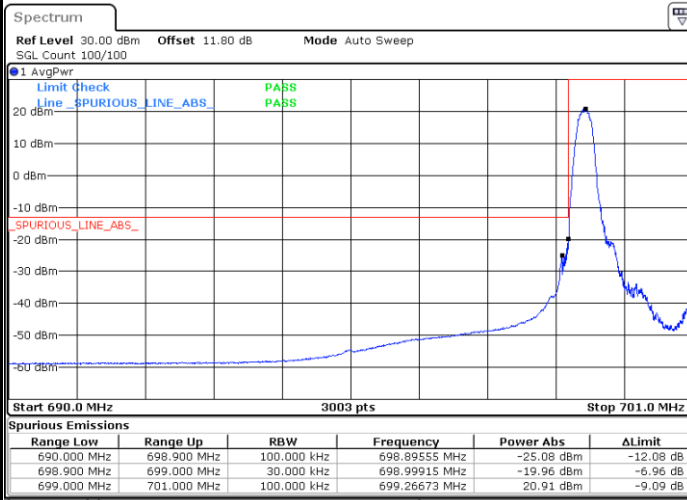


**Conducted Band Edge**



LTE Band 12 / 1.4MHz / QPSK

Lowest Band Edge / 1 RB



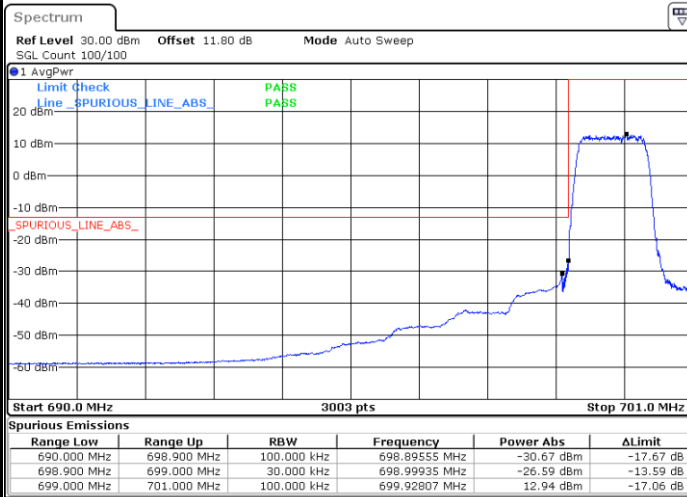
Date: 6.JAN.2018 19:54:42

Highest Band Edge / 1RB



Date: 6.JAN.2018 20:04:03

Lowest Band Edge / Full RB



Date: 6.JAN.2018 19:51:19

Highest Band Edge / Full RB



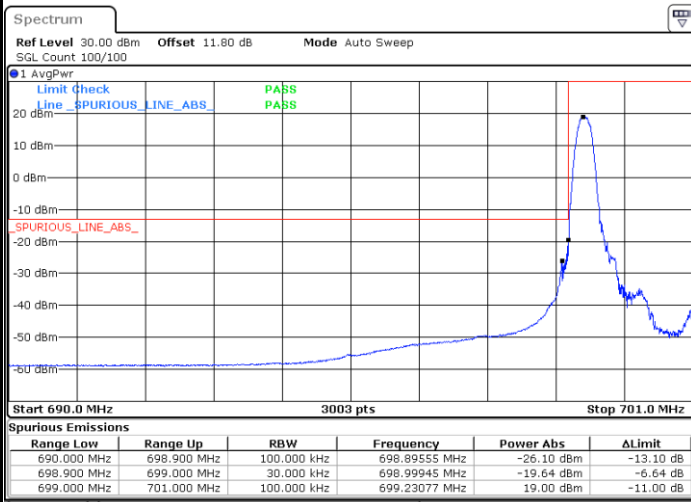
Date: 6.JAN.2018 20:00:40



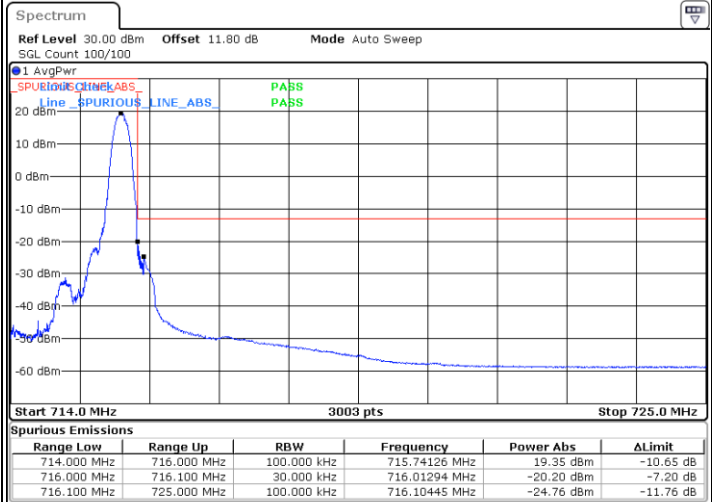
LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



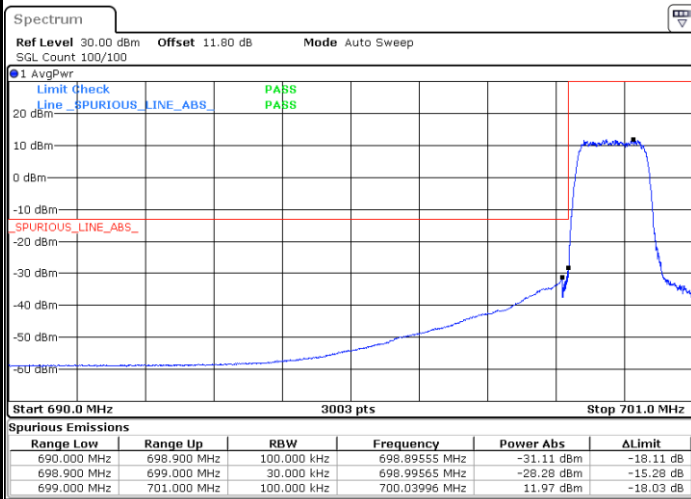
Date: 6.JAN.2018 19:53:34



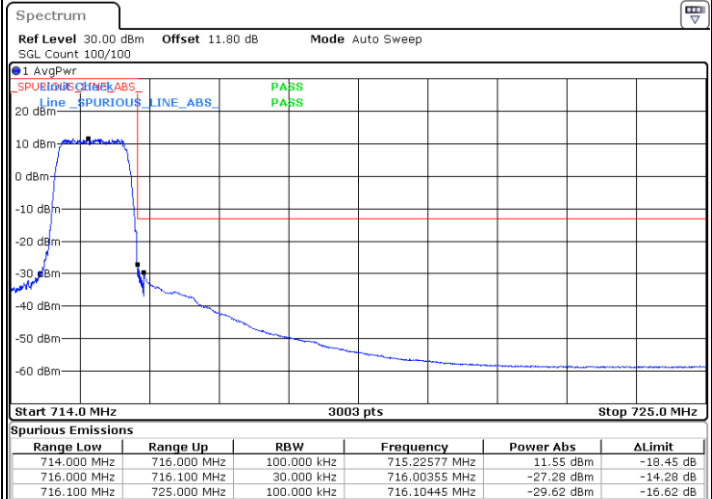
Date: 6.JAN.2018 20:02:55

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 6.JAN.2018 19:52:26

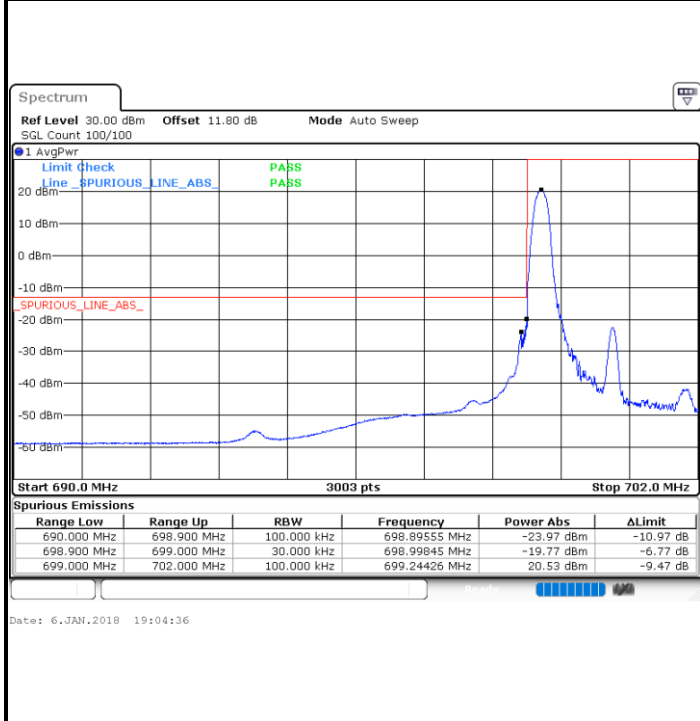


Date: 6.JAN.2018 20:01:48

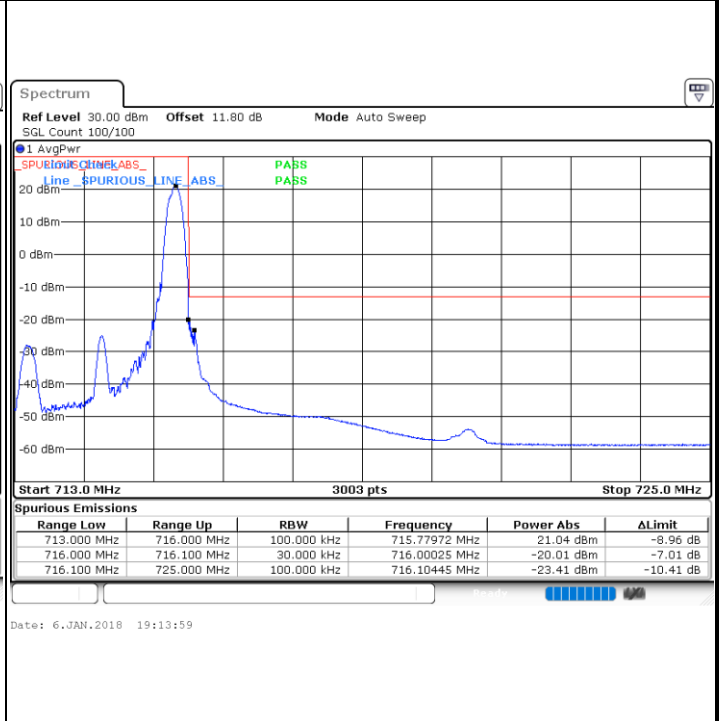


**LTE Band 12 / 3MHz / QPSK**

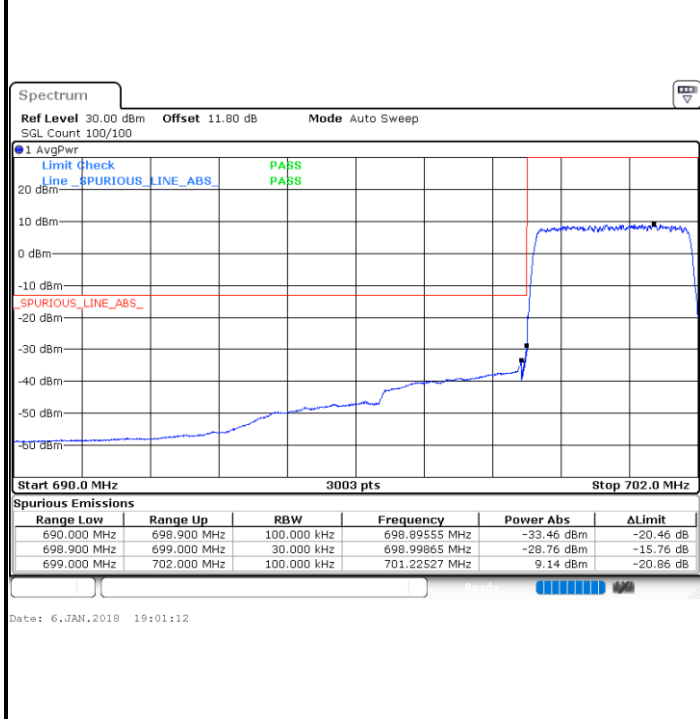
**Lowest Band Edge / 1RB**



**Highest Band Edge / 1 RB**



**Lowest Band Edge / Full RB**



**Highest Band Edge / Full RB**

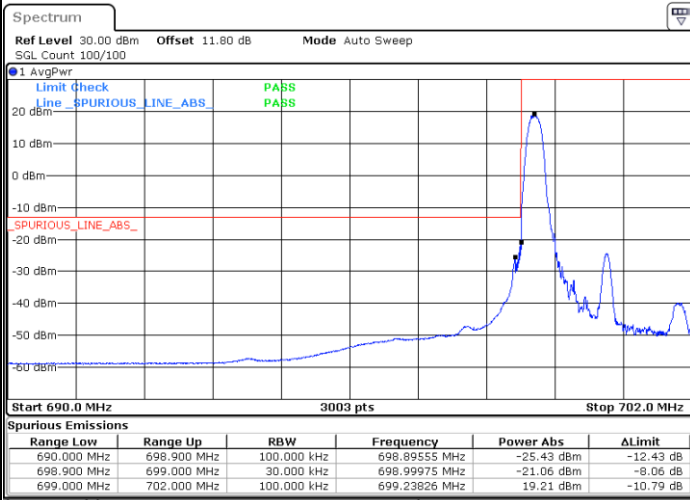




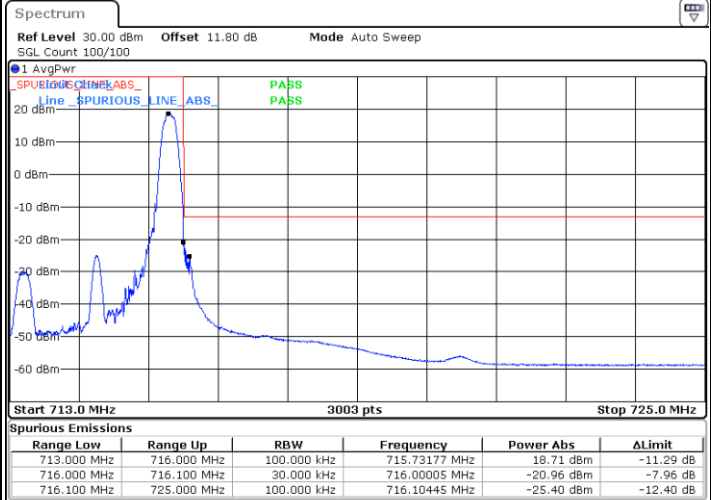
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



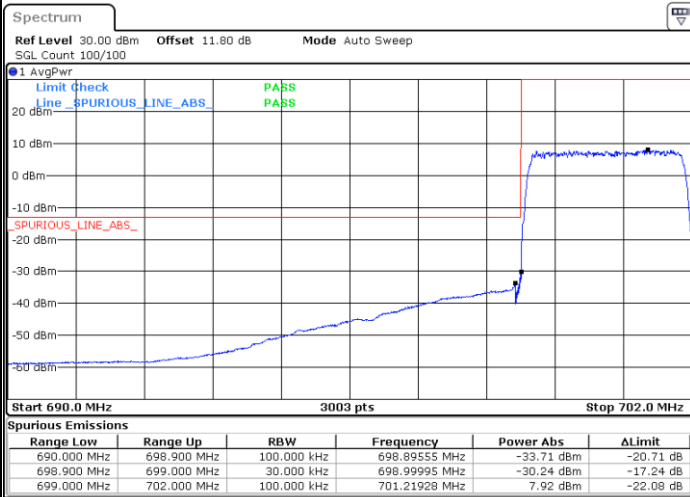
Date: 6.JAN.2018 19:03:28



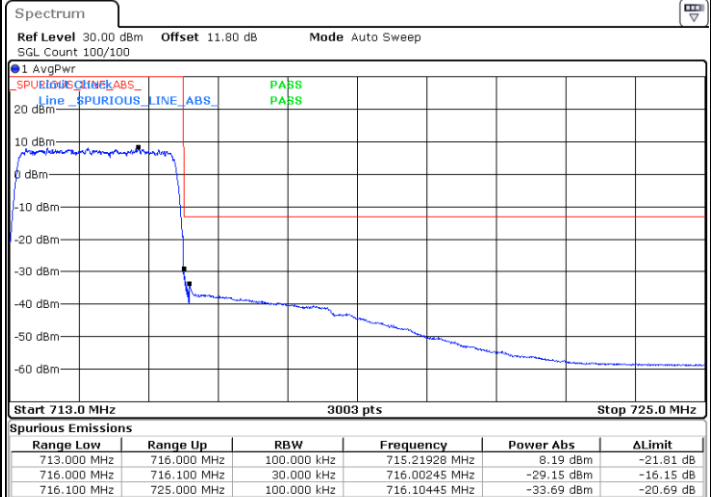
Date: 6.JAN.2018 19:12:51

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 6.JAN.2018 19:02:20

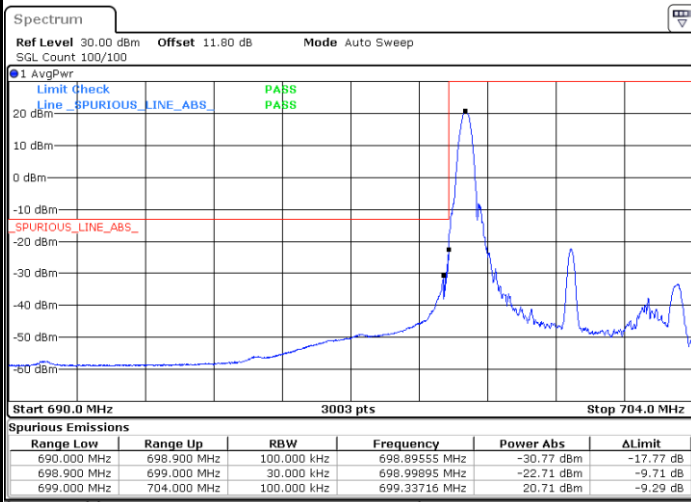


Date: 6.JAN.2018 19:11:43



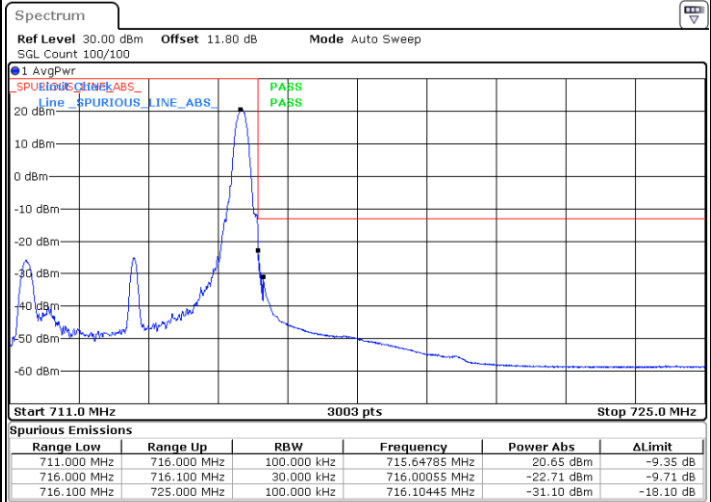
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



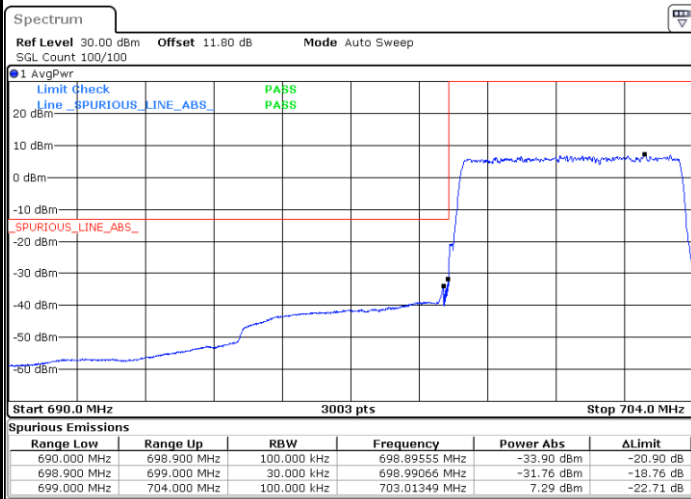
Date: 6.JAN.2018 19:20:56

Highest Band Edge / 1 RB



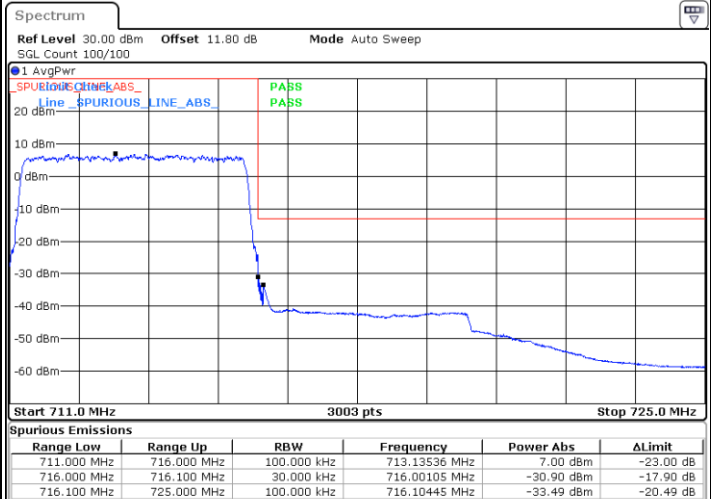
Date: 6.JAN.2018 19:29:10

Lowest Band Edge / Full RB



Date: 6.JAN.2018 19:17:33

Highest Band Edge / Full RB



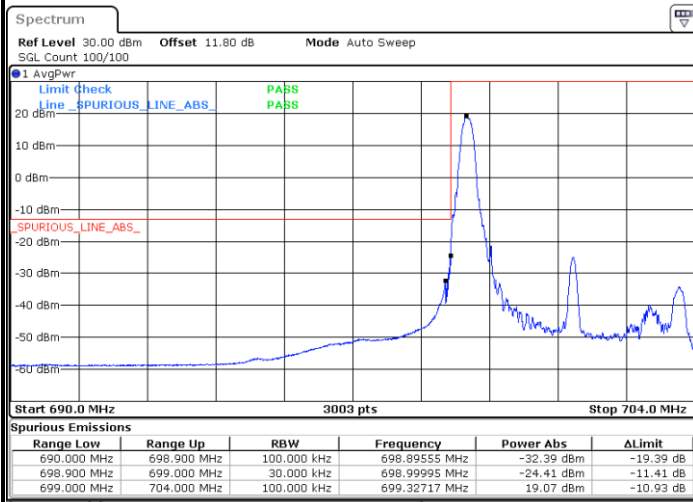
Date: 6.JAN.2018 19:26:54





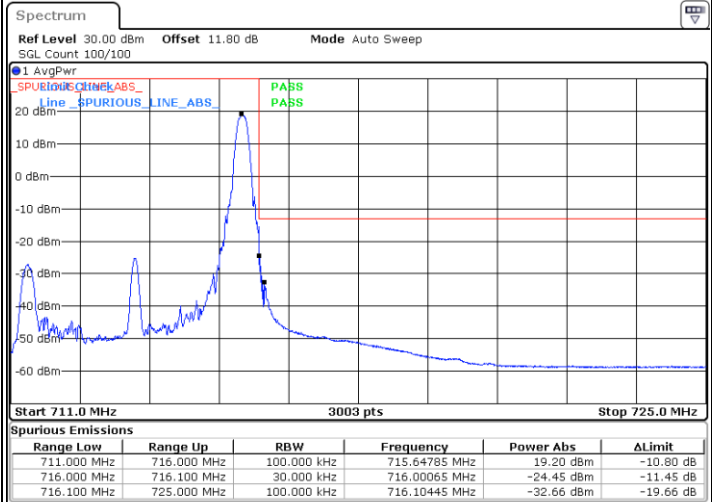
LTE Band 12 / 5MHz / 16QAM

Lowest Band Edge / 1RB



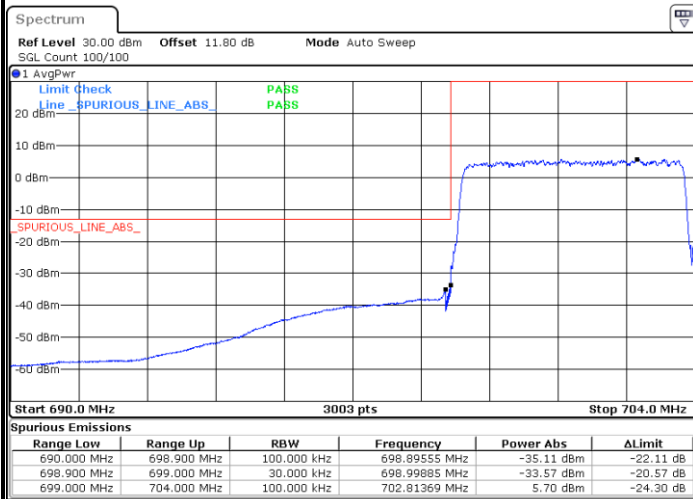
Date: 6.JAN.2018 19:19:48

Highest Band Edge / 1 RB



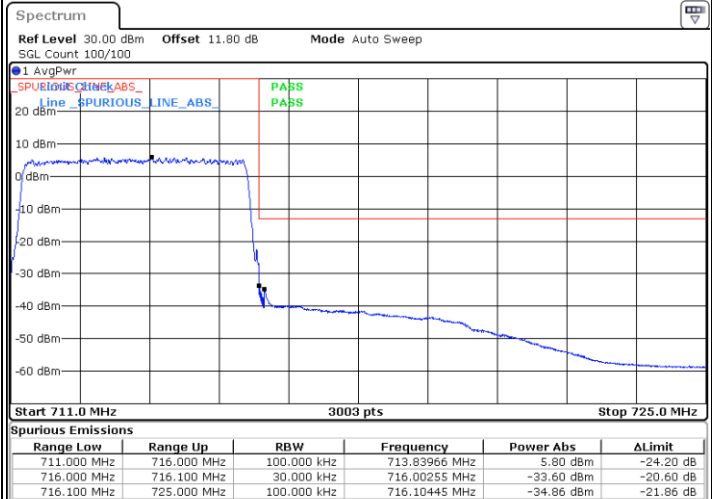
Date: 6.JAN.2018 19:30:18

Lowest Band Edge / Full RB



Date: 6.JAN.2018 19:18:40

Highest Band Edge / Full RB

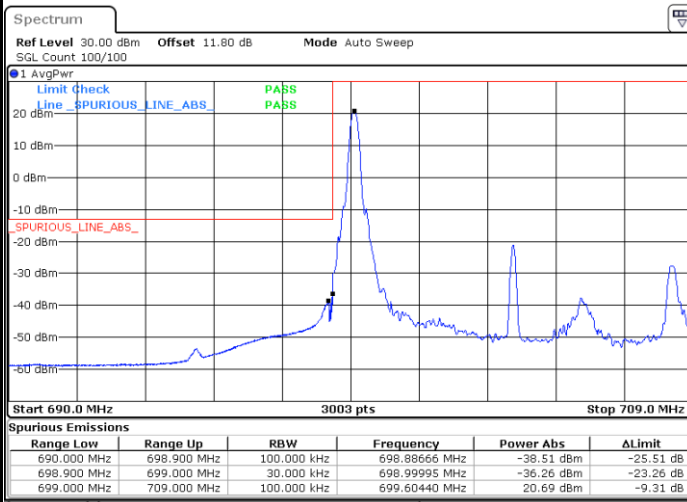


Date: 6.JAN.2018 19:28:02



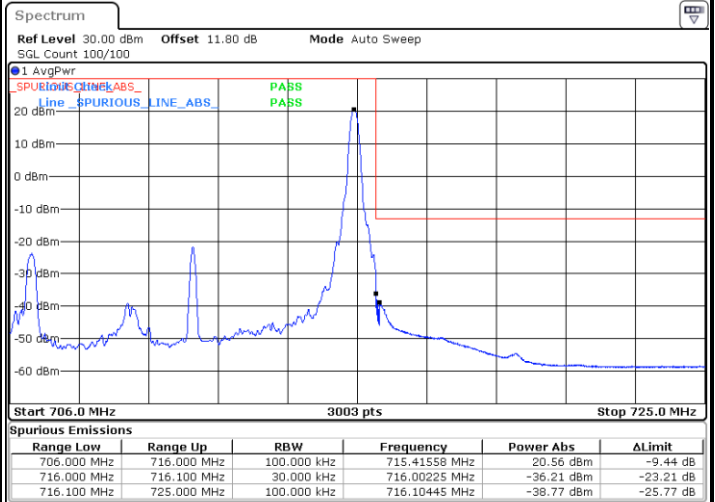
LTE Band 12 / 10MHz / QPSK

Lowest Band Edge / 1 RB



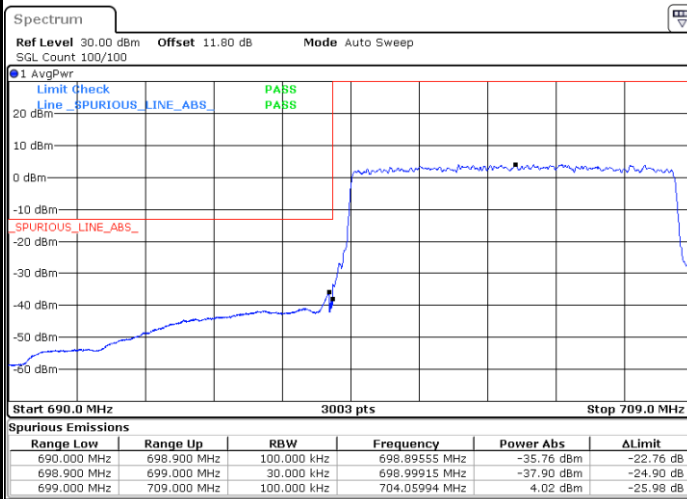
Date: 6.JAN.2018 19:37:14

Highest Band Edge / 1 RB



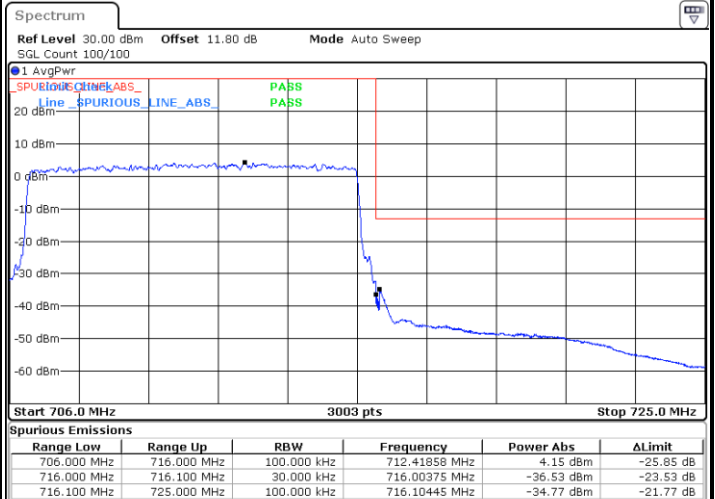
Date: 6.JAN.2018 19:46:34

Lowest Band Edge / Full RB



Date: 6.JAN.2018 19:33:50

Highest Band Edge / Full RB

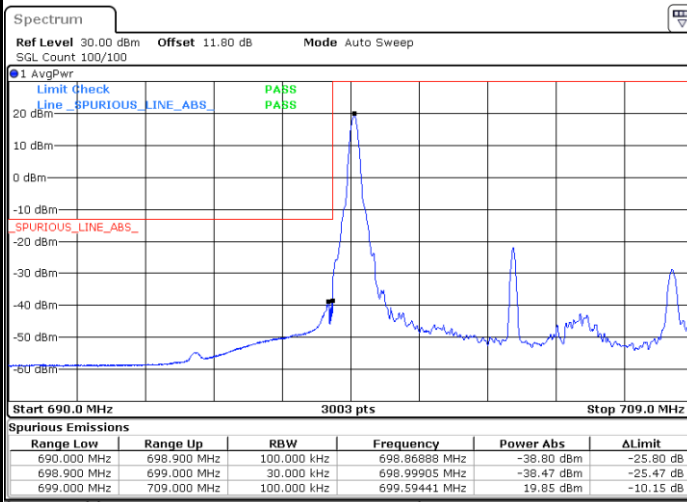


Date: 6.JAN.2018 19:43:11



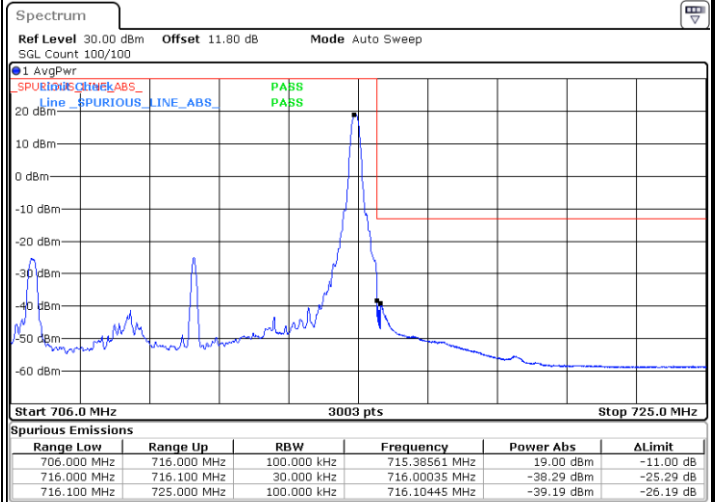
LTE Band 12 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



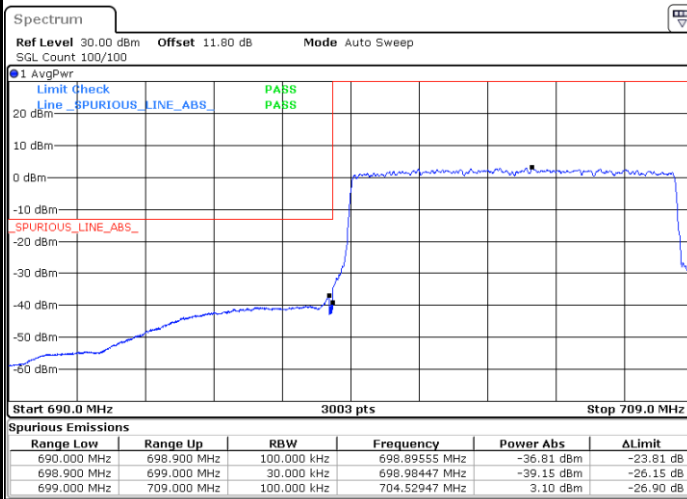
Date: 6.JAN.2018 19:36:06

Highest Band Edge / 1 RB



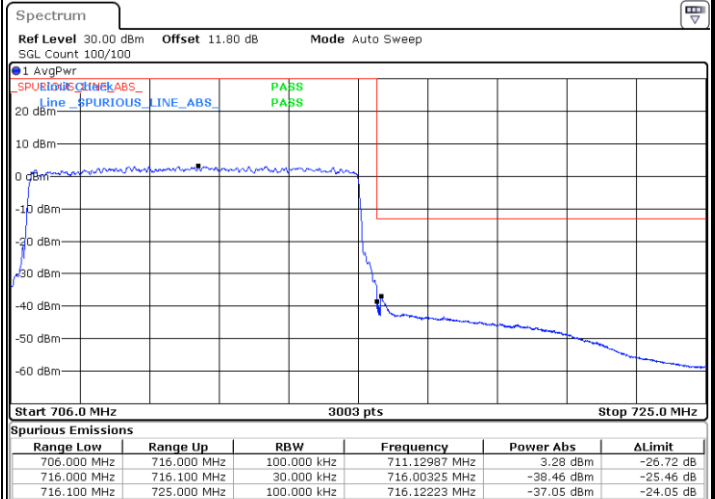
Date: 6.JAN.2018 19:45:27

Lowest Band Edge / Full RB



Date: 6.JAN.2018 19:34:58

Highest Band Edge / Full RB



Date: 6.JAN.2018 19:44:19

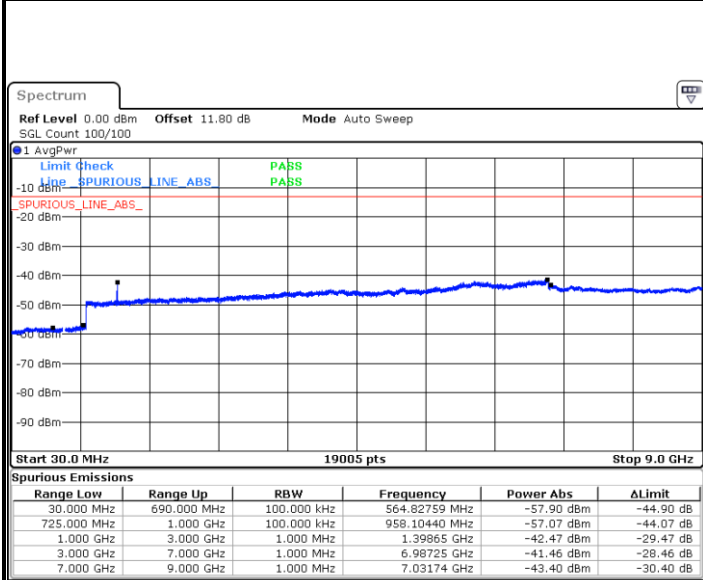


**Conducted Spurious Emission**



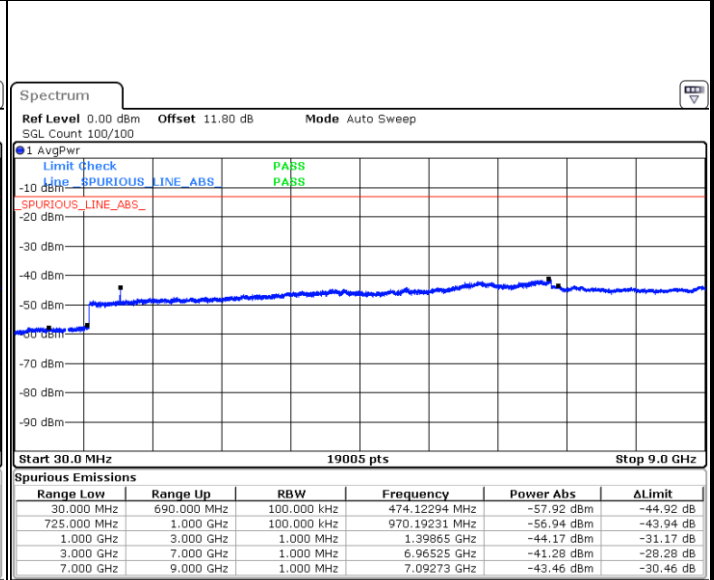
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



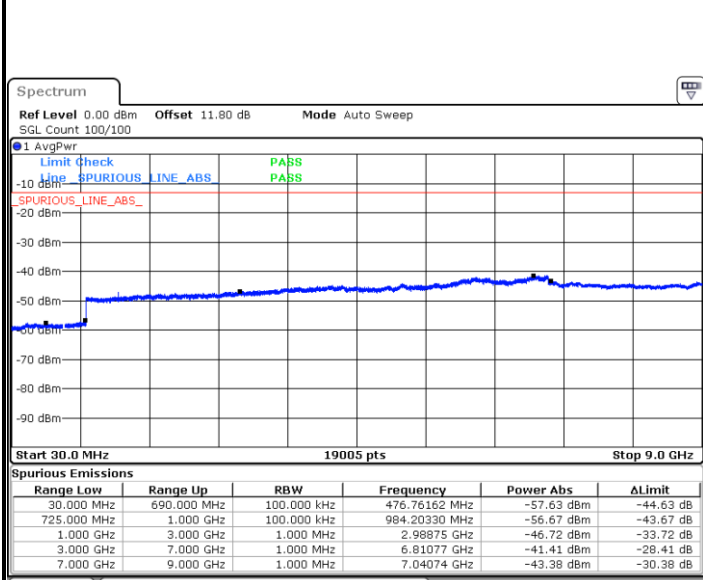
Date: 6. JAN. 2018 19:55:35

Lowest Channel / 16QAM



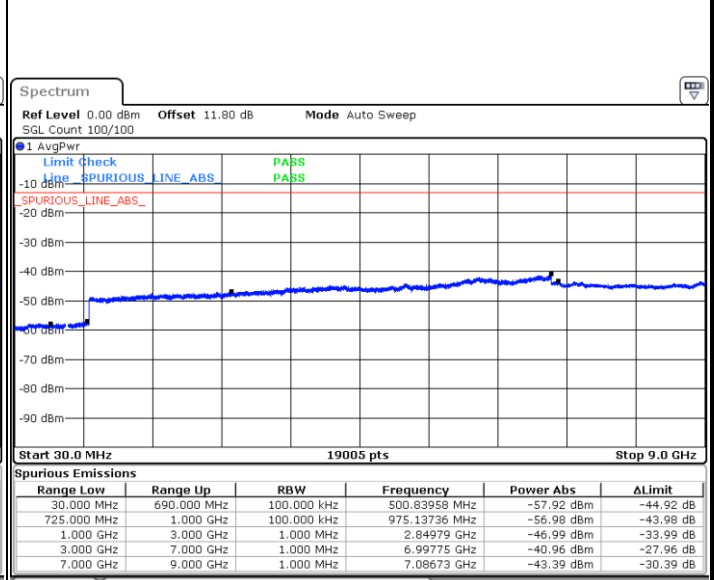
Date: 6. JAN. 2018 19:56:28

Middle Channel / QPSK



Date: 6. JAN. 2018 19:58:53

Middle Channel / 16QAM

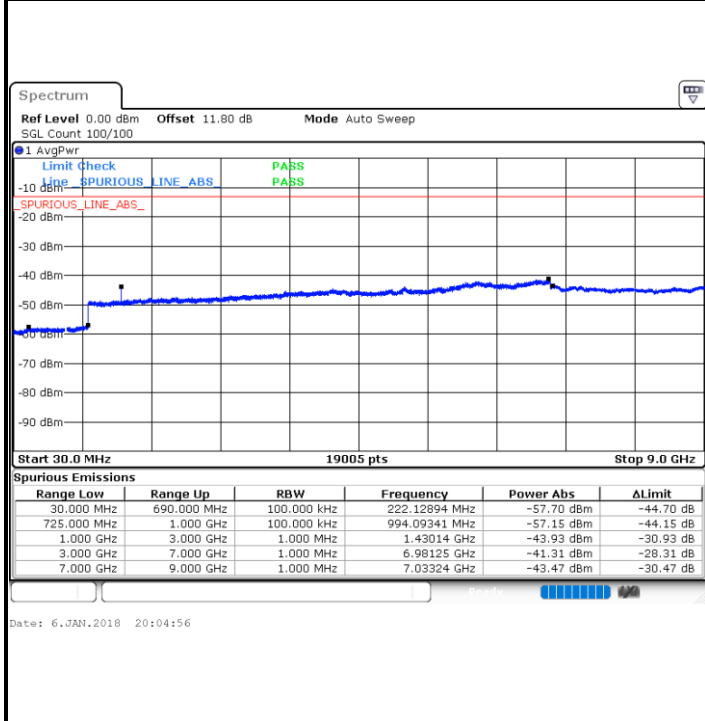


Date: 6. JAN. 2018 19:58:00

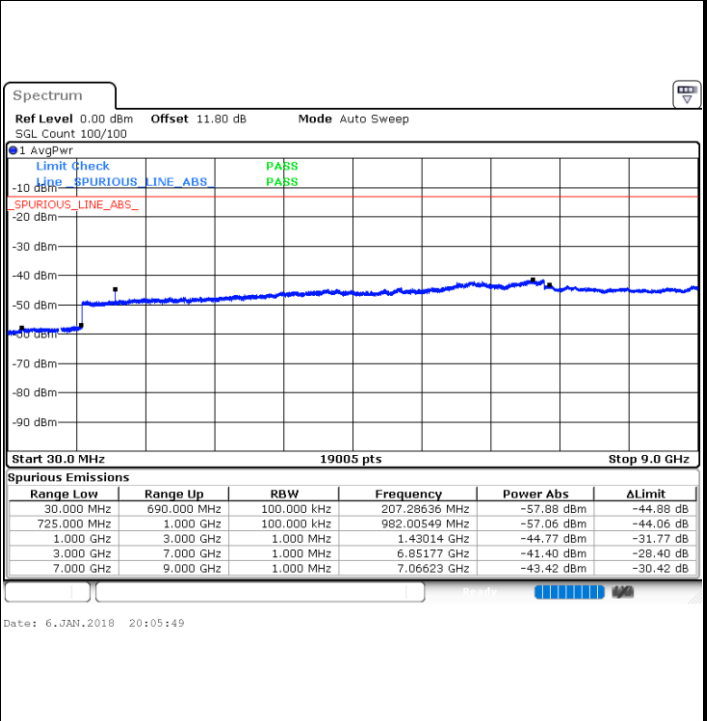


**LTE Band 12 / 1.4MHz**

**Highest Channel / QPSK**

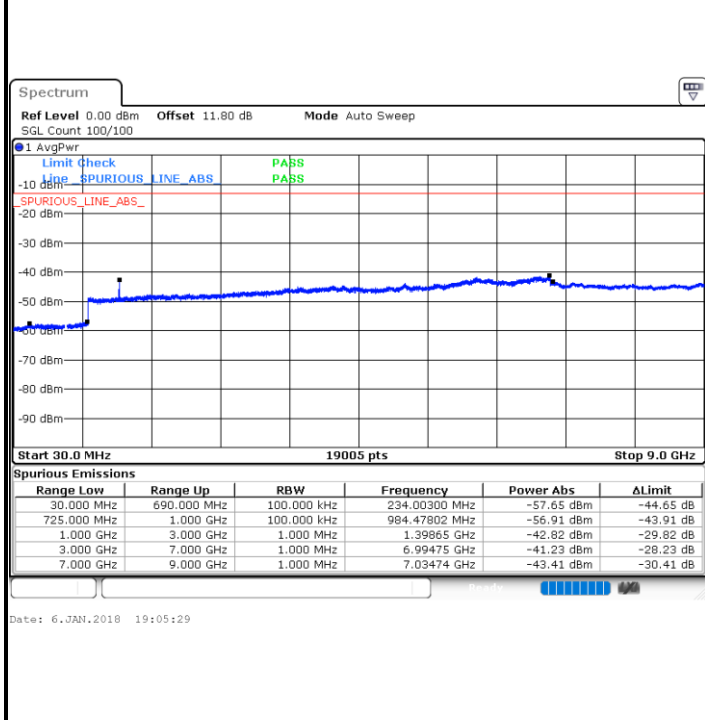


**Highest Channel / 16QAM**



**LTE Band 12 / 3MHz**

**Lowest Channel / QPSK**



**Lowest Channel / 16QAM**

