



Frequency Stability

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0038	PASS
40	Normal Voltage	0.0032	
30	Normal Voltage	0.0072	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0038	
0	Normal Voltage	0.0037	
-10	Normal Voltage	0.0027	
-20	Normal Voltage	0.0033	
-30	Normal Voltage	0.0012	
20	Maximum Voltage	0.0020	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0019	

Note:

1. Normal Voltage =12 V. ; Battery End Point (BEP) =11.4 V. ; Maximum Voltage =12.60 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	3.77	4.75	4.29	5.59	PASS
Middle CH	3.8	4.64	4.64	5.54	
Highest CH	3.65	4.78	4.58	5.54	



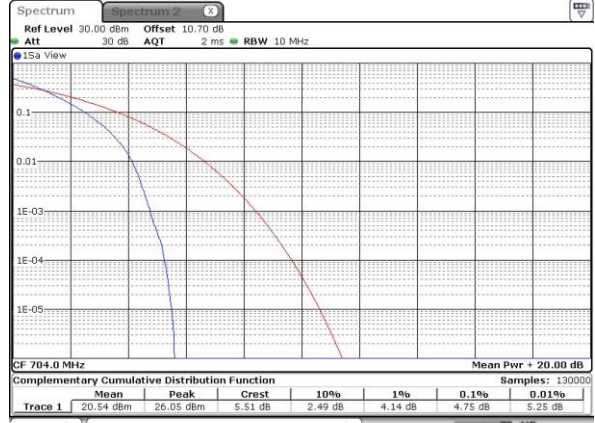
LTE Band 12 / 10MHz / QPSK

Lowest Channel / 1RB



Date: 25 APR 2018 20:38:52

Lowest Channel / Full RB



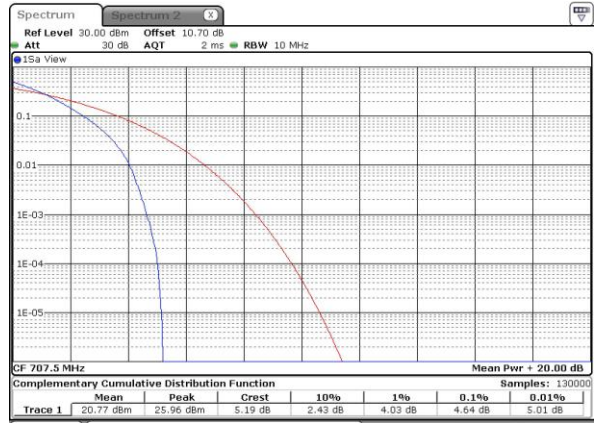
Date: 25 APR 2018 20:38:30

Middle Channel / 1RB



Date: 25 APR 2018 20:39:10

Middle Channel / Full RB



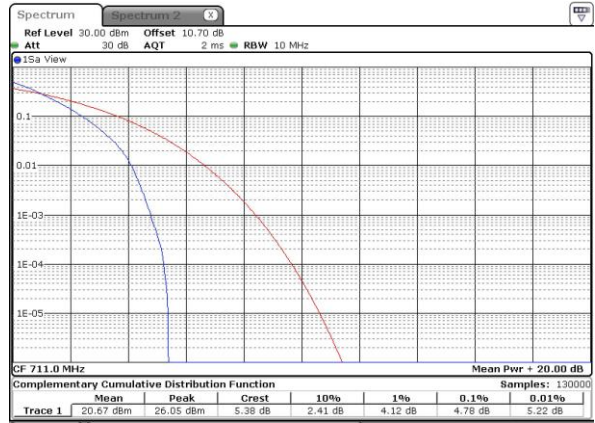
Date: 25 APR 2018 20:39:19

Highest Channel / 1RB



Date: 25 APR 2018 20:39:39

Highest Channel / Full RB



Date: 25 APR 2018 20:39:29



LTE Band 12 / 10MHz / 16QAM

Lowest Channel / 1RB



Date: 25 APR 2018 20:36:34

Lowest Channel / Full RB



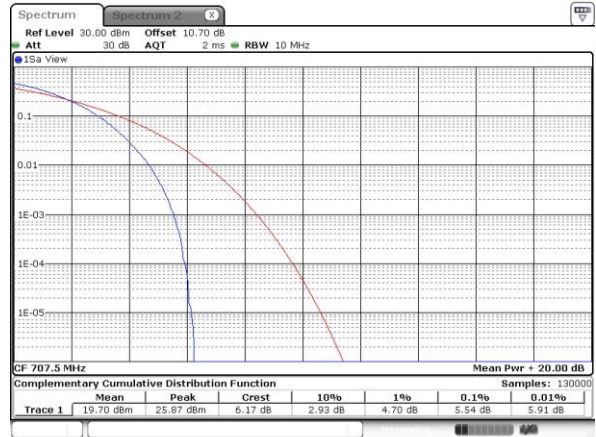
Date: 25 APR 2018 20:36:24

Middle Channel / 1RB



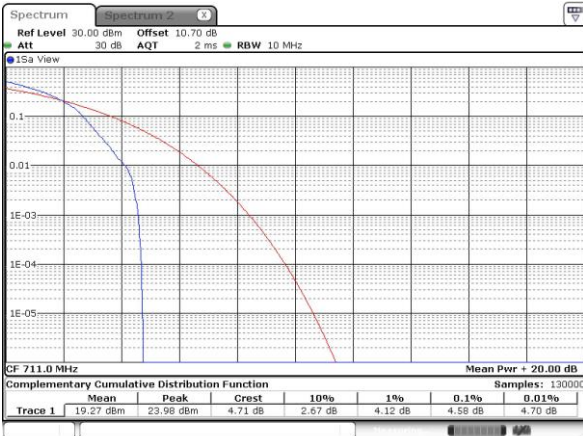
Date: 25 APR 2018 20:37:33

Middle Channel / Full RB



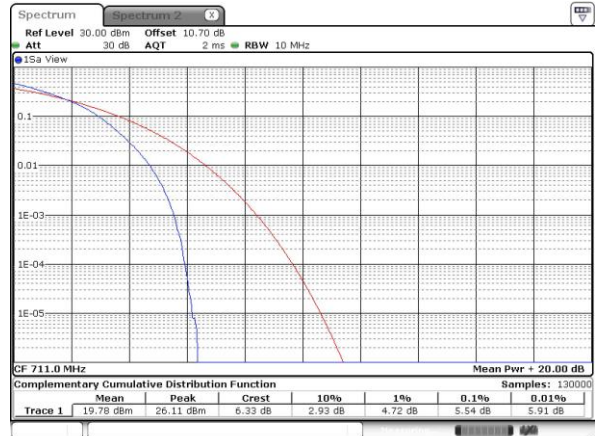
Date: 25 APR 2018 20:37:44

Highest Channel / 1RB



Date: 25 APR 2018 20:38:20

Highest Channel / Full RB



Date: 25 APR 2018 20:38:03



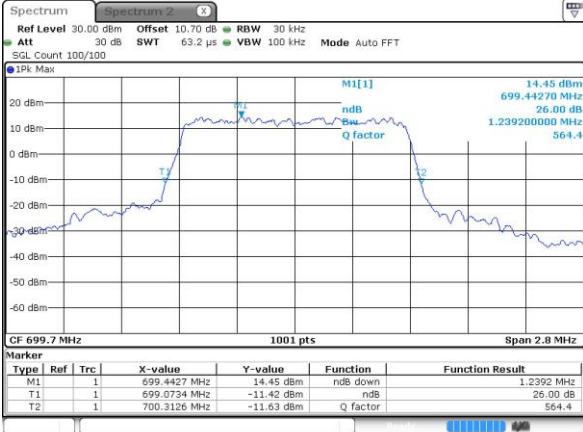
26dB Bandwidth

Mode	LTE Band 12 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.24	1.22	3.05	2.98	4.89	4.97	9.67	9.83	-	-	-	-
Middle CH	1.23	1.24	2.97	3.06	4.88	4.88	9.73	9.81	-	-	-	-
Highest CH	1.25	1.22	3.05	3.02	4.91	4.88	9.95	9.75	-	-	-	-



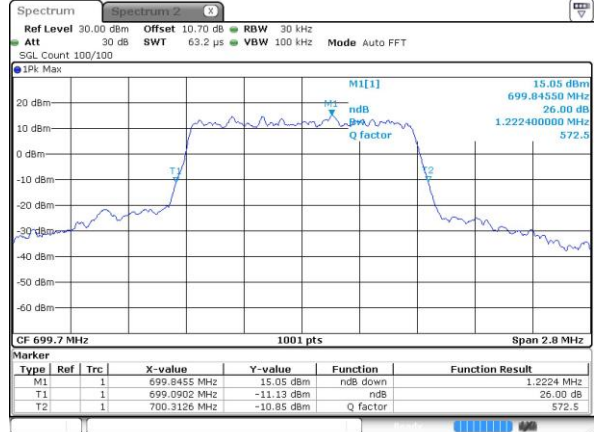
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



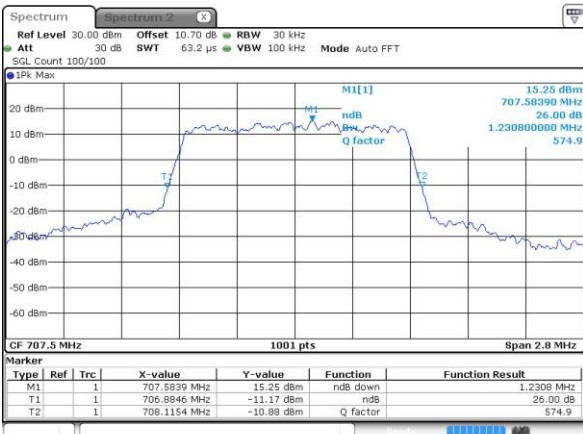
Date: 25 APR 2018 20:19:15

Lowest Channel / 1.4MHz / 16QAM



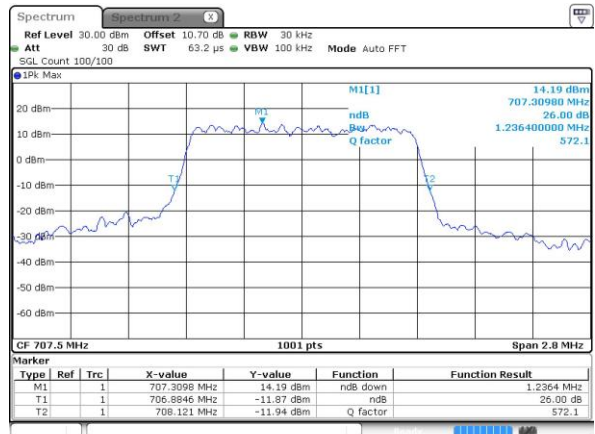
Date: 25 APR 2018 20:19:04

Middle Channel / 1.4MHz / QPSK



Date: 25 APR 2018 20:26:11

Middle Channel / 1.4MHz / 16QAM



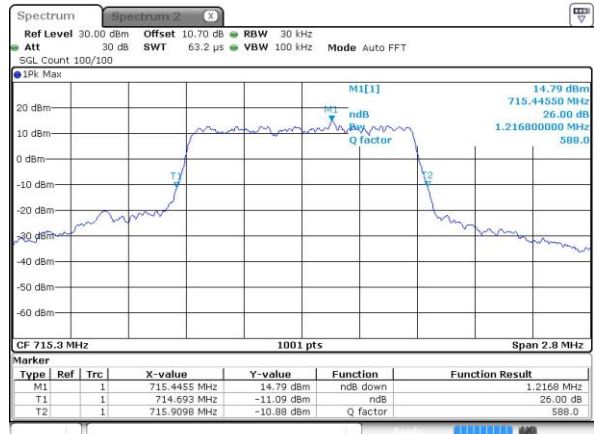
Date: 25 APR 2018 20:26:22

Highest Channel / 1.4MHz / QPSK



Date: 25 APR 2018 20:28:52

Highest Channel / 1.4MHz / 16QAM

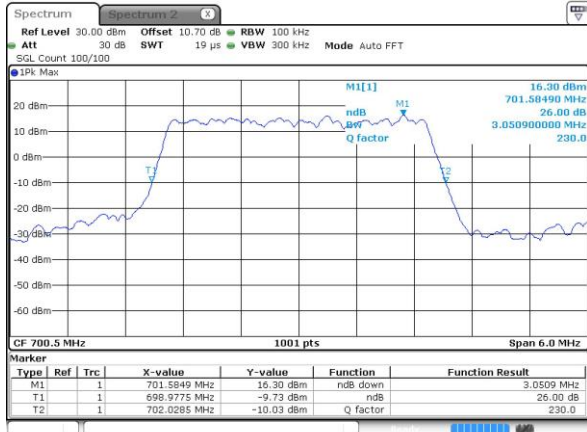


Date: 25 APR 2018 20:28:42



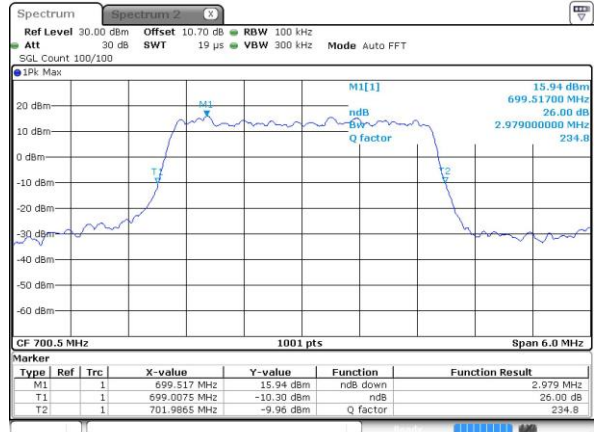
LTE Band 12

Lowest Channel / 3MHz / QPSK



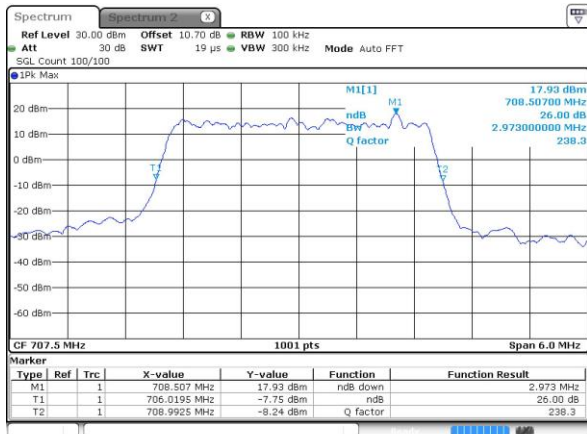
Date: 25 APR 2018 19:24:41

Lowest Channel / 3MHz / 16QAM



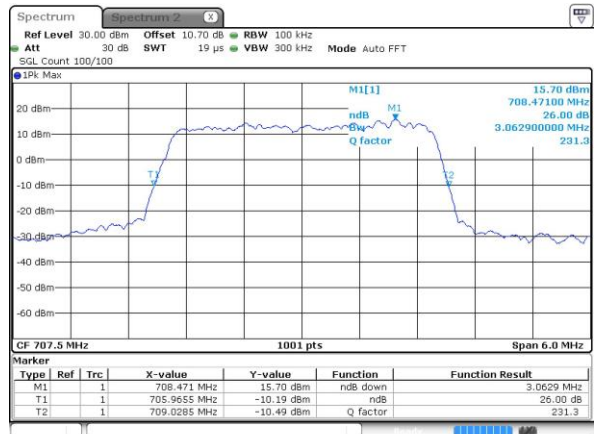
Date: 25 APR 2018 19:24:30

Middle Channel / 3MHz / QPSK



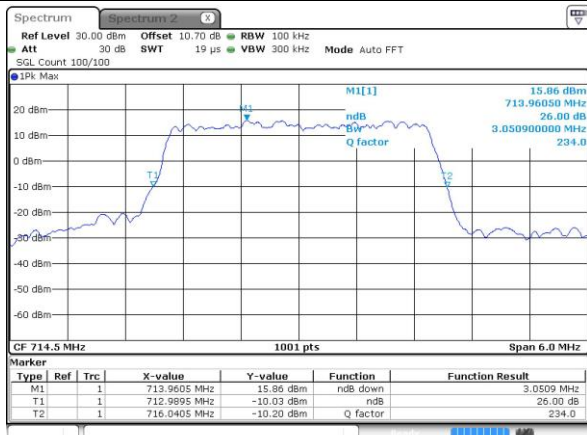
Date: 25 APR 2018 19:31:36

Middle Channel / 3MHz / 16QAM



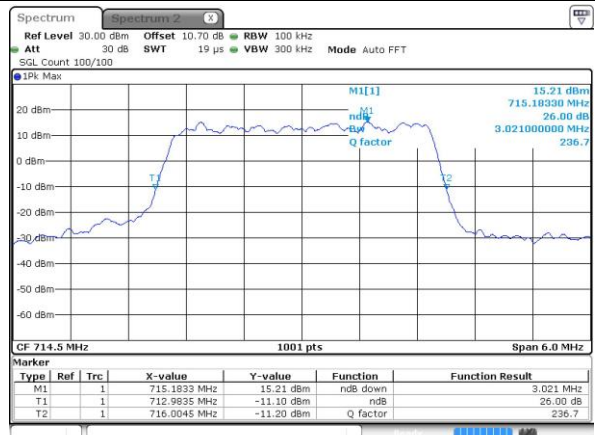
Date: 25 APR 2018 19:31:46

Highest Channel / 3MHz / QPSK



Date: 25 APR 2018 19:34:16

Highest Channel / 3MHz / 16QAM

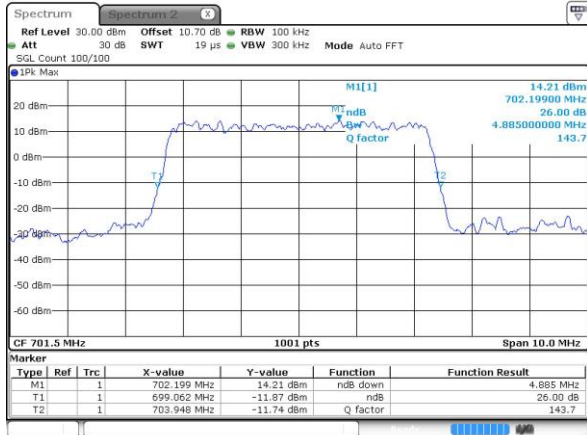


Date: 25 APR 2018 19:34:06



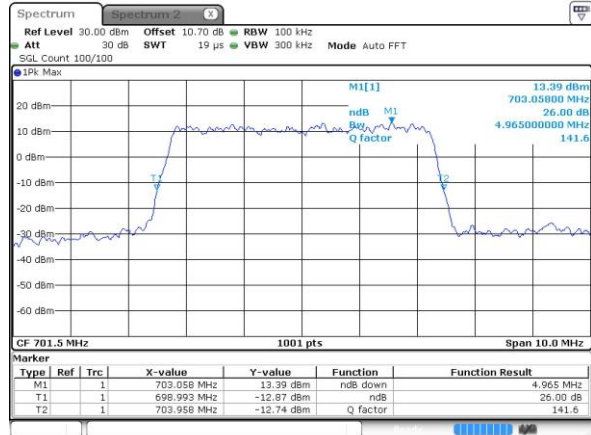
LTE Band 12

Lowest Channel / 5MHz / QPSK



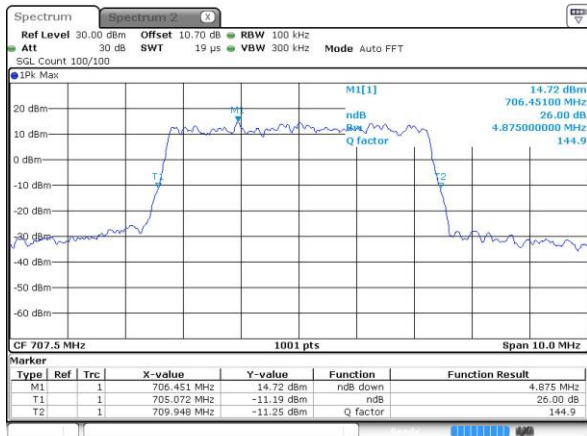
Date: 25 APR 2018 19:41:22

Lowest Channel / 5MHz / 16QAM



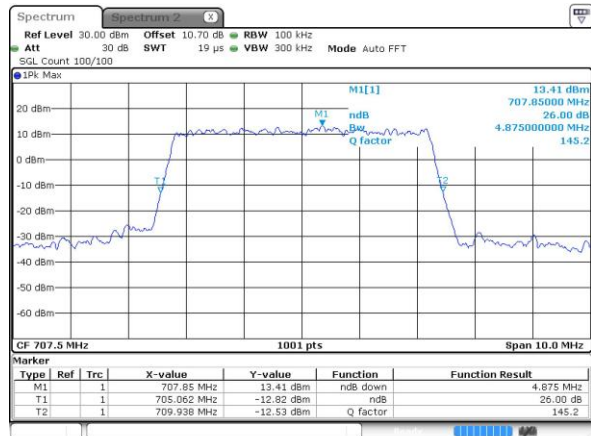
Date: 25 APR 2018 19:41:12

Middle Channel / 5MHz / QPSK



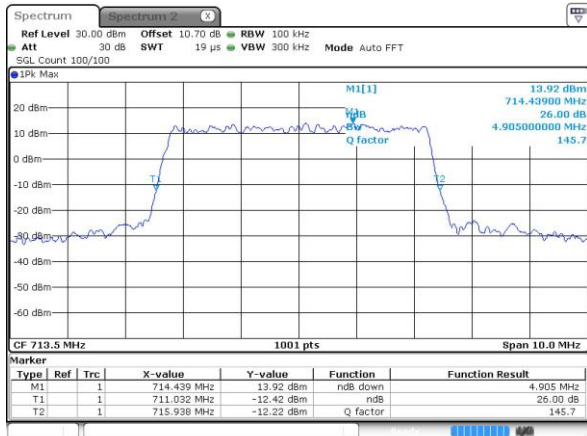
Date: 25 APR 2018 19:48:18

Middle Channel / 5MHz / 16QAM



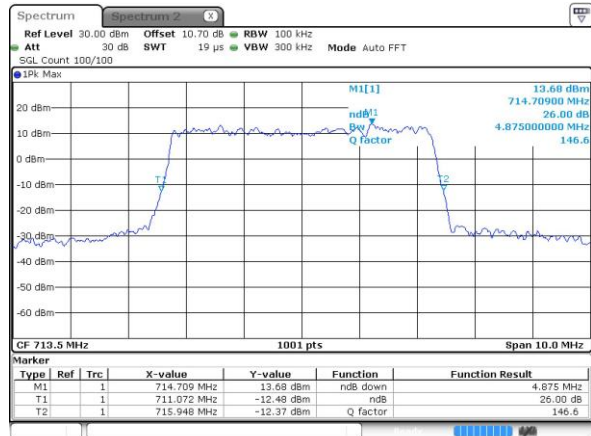
Date: 25 APR 2018 19:48:28

Highest Channel / 5MHz / QPSK



Date: 25 APR 2018 19:50:57

Highest Channel / 5MHz / 16QAM

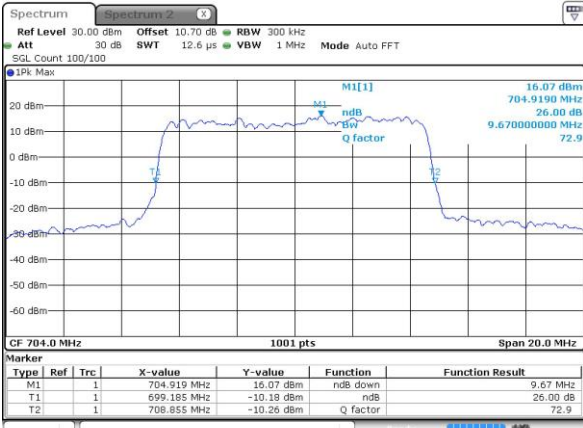


Date: 25 APR 2018 19:50:47



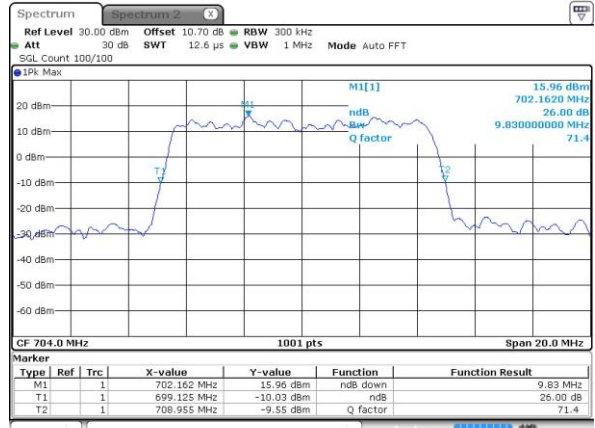
LTE Band 12

Lowest Channel / 10MHz / QPSK



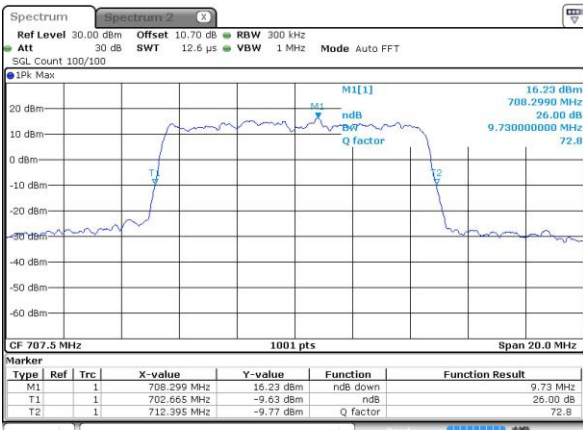
Date: 25 APR 2018 19:58:04

Lowest Channel / 10MHz / 16QAM



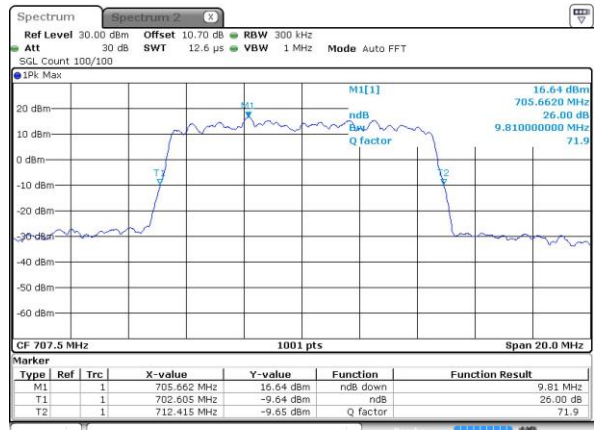
Date: 25 APR 2018 19:57:54

Middle Channel / 10MHz / QPSK



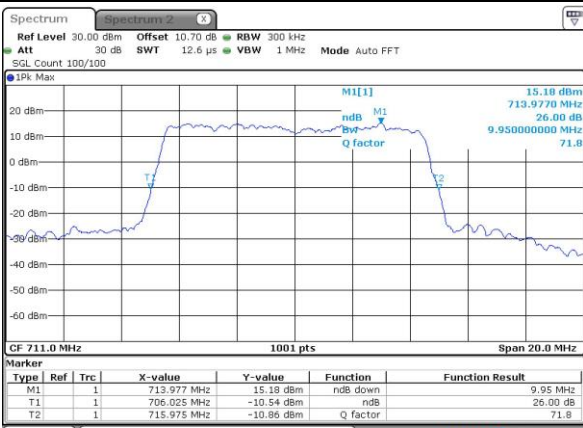
Date: 25 APR 2018 20:05:01

Middle Channel / 10MHz / 16QAM



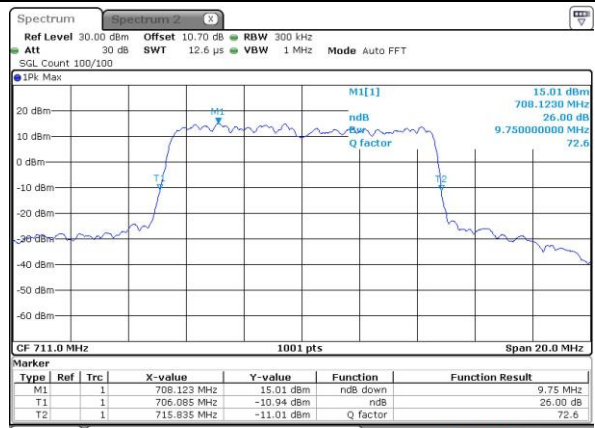
Date: 25 APR 2018 20:05:11

Highest Channel / 10MHz / QPSK



Date: 25 APR 2018 20:07:41

Highest Channel / 10MHz / 16QAM



Date: 25 APR 2018 20:07:31



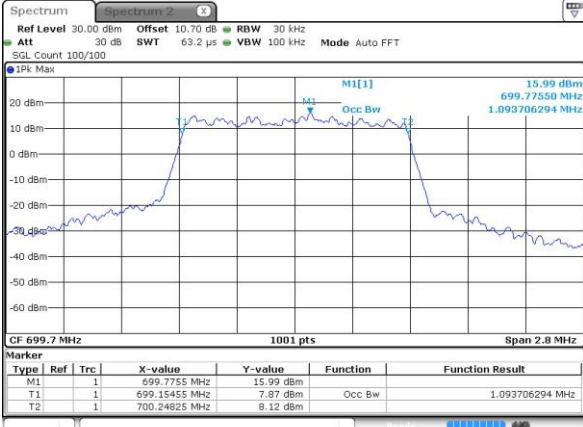
Occupied Bandwidth

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	2.72	2.72	4.5	4.5	9.03	9.05	-	-	-	-
Middle CH	1.09	1.09	2.71	2.71	4.49	4.47	8.95	9.01	-	-	-	-
Highest CH	1.09	1.09	2.73	2.72	4.46	4.49	9.03	9.03	-	-	-	-



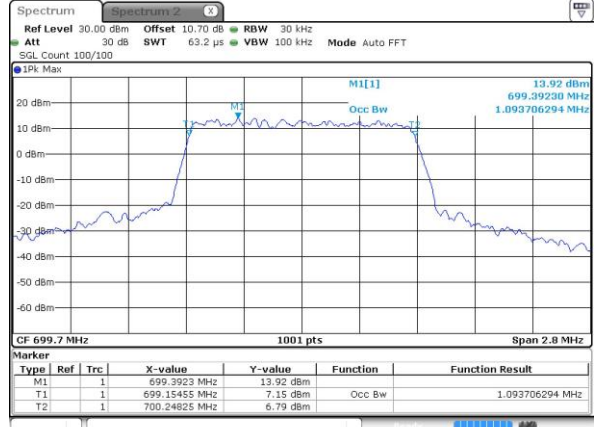
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



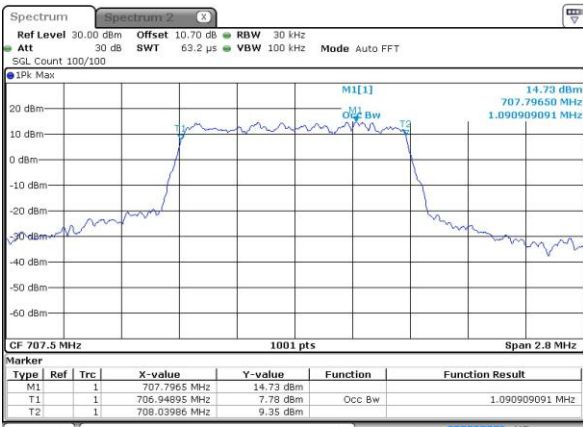
Date: 25 APR 2018 20:18:43

Lowest Channel / 1.4MHz / 16QAM



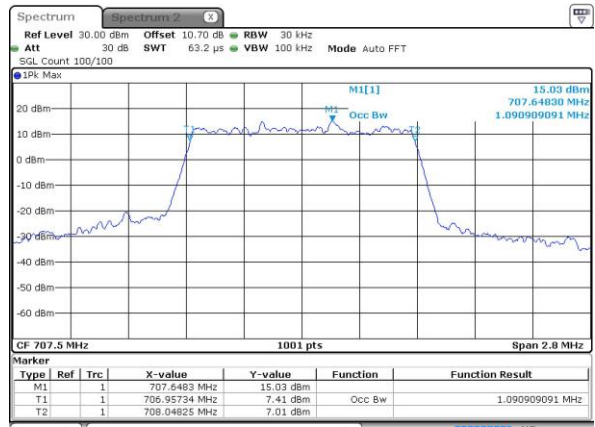
Date: 25 APR 2018 20:18:54

Middle Channel / 1.4MHz / QPSK



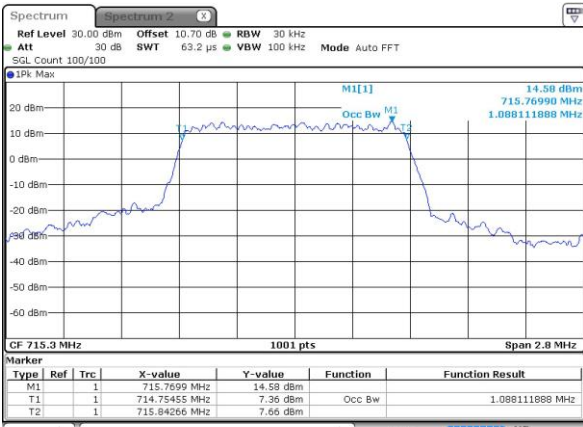
Date: 25 APR 2018 20:26:01

Middle Channel / 1.4MHz / 16QAM



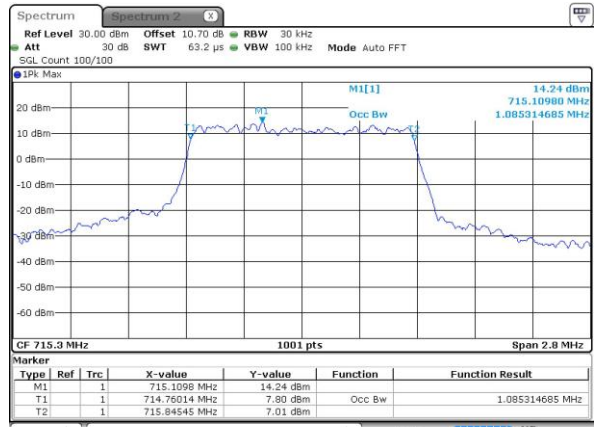
Date: 25 APR 2018 20:25:50

Highest Channel / 1.4MHz / QPSK



Date: 25 APR 2018 20:28:21

Highest Channel / 1.4MHz / 16QAM

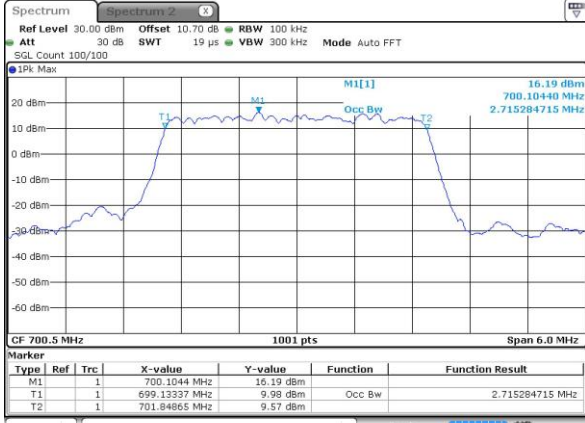


Date: 25 APR 2018 20:28:31



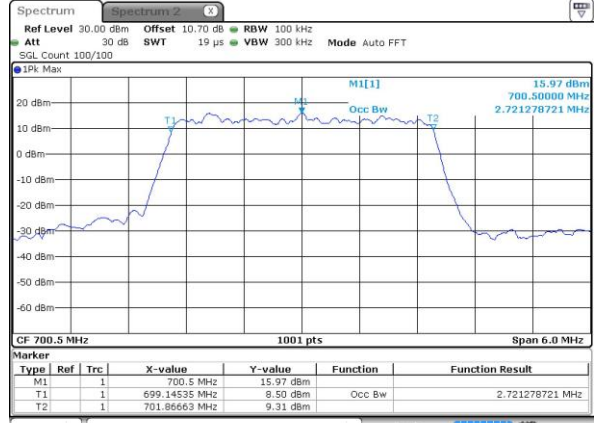
LTE Band 12

Lowest Channel / 3MHz / QPSK



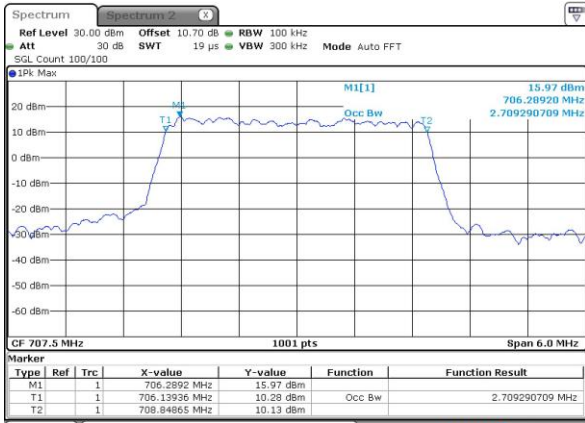
Date: 25 APR 2018 19:24:09

Lowest Channel / 3MHz / 16QAM



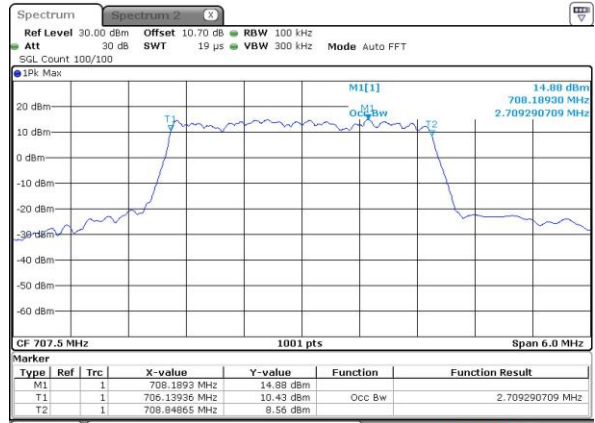
Date: 25 APR 2018 19:24:20

Middle Channel / 3MHz / QPSK



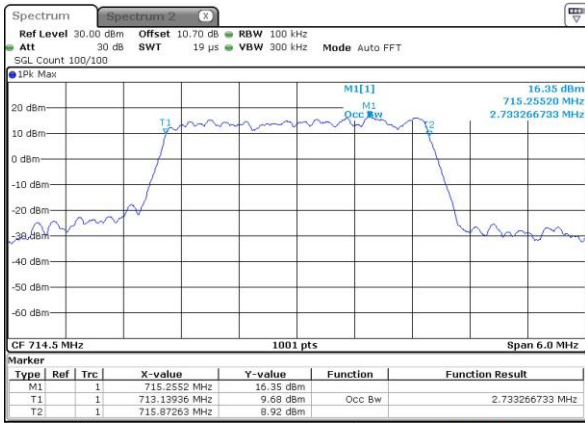
Date: 25 APR 2018 19:31:28

Middle Channel / 3MHz / 16QAM



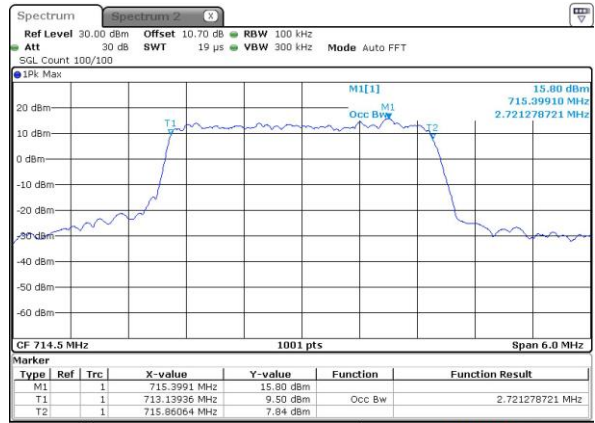
Date: 25 APR 2018 19:31:16

Highest Channel / 3MHz / QPSK



Date: 25 APR 2018 19:33:45

Highest Channel / 3MHz / 16QAM

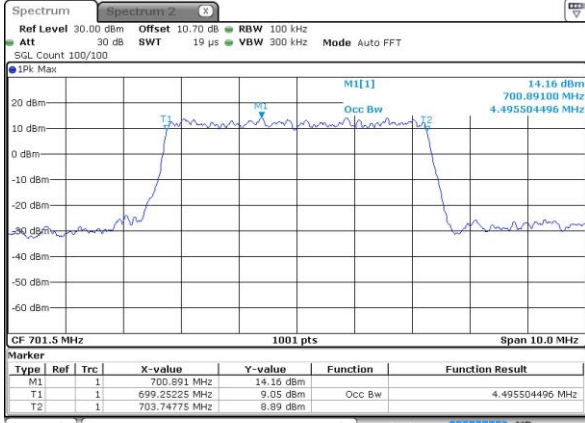


Date: 25 APR 2018 19:33:55



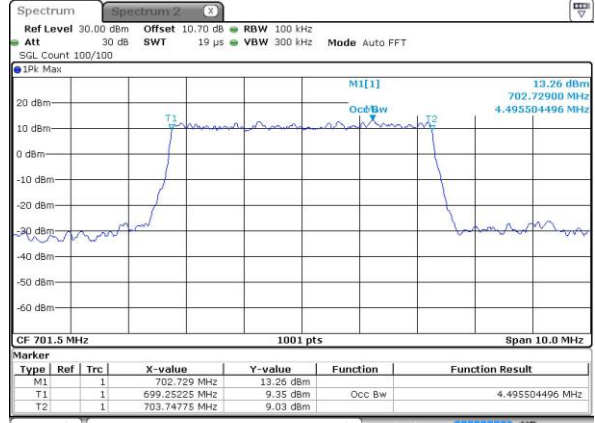
LTE Band 12

Lowest Channel / 5MHz / QPSK



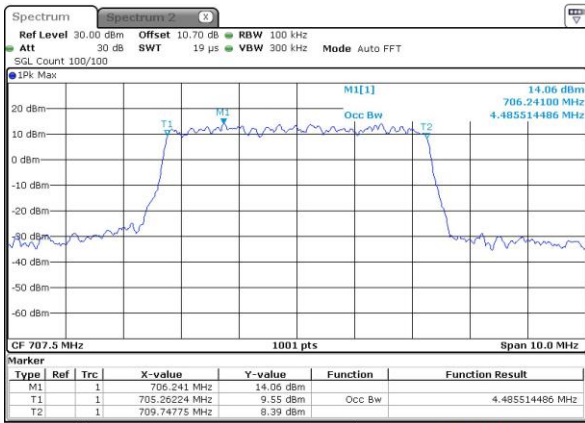
Date: 25 APR 2018 19:40:51

Lowest Channel / 5MHz / 16QAM



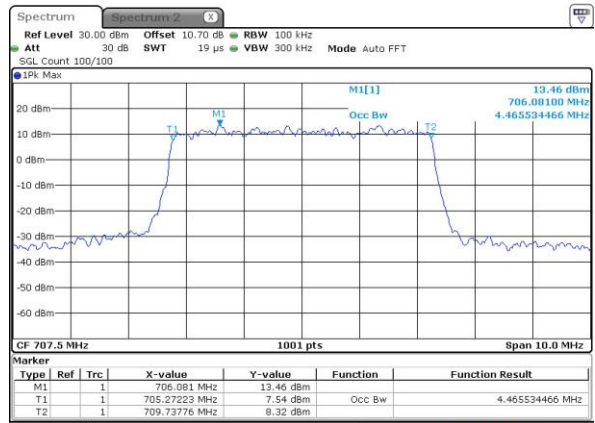
Date: 25 APR 2018 19:41:02

Middle Channel / 5MHz / QPSK



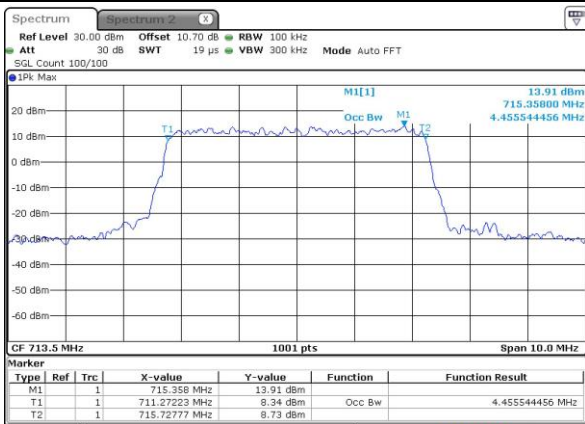
Date: 25 APR 2018 19:48:07

Middle Channel / 5MHz / 16QAM



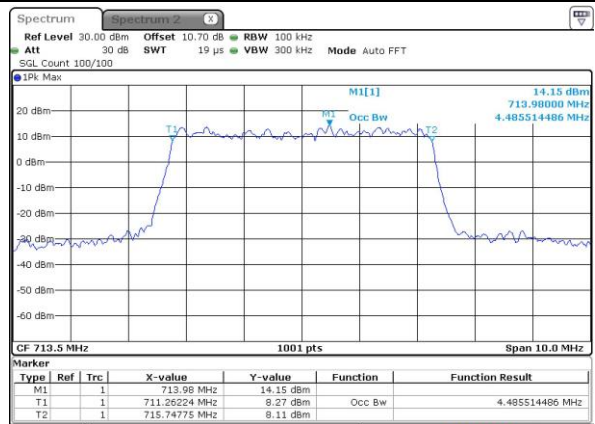
Date: 25 APR 2018 19:47:57

Highest Channel / 5MHz / QPSK



Date: 25 APR 2018 19:50:27

Highest Channel / 5MHz / 16QAM

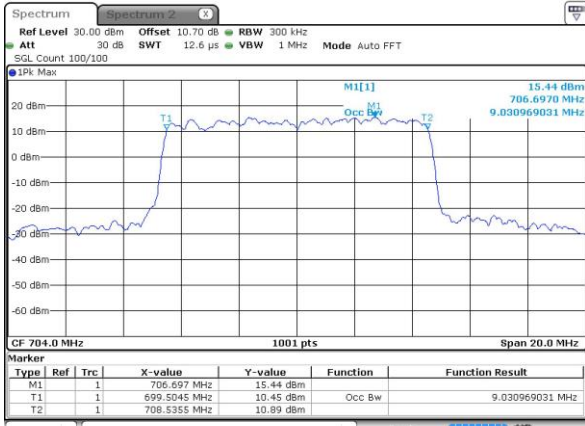


Date: 25 APR 2018 19:50:37



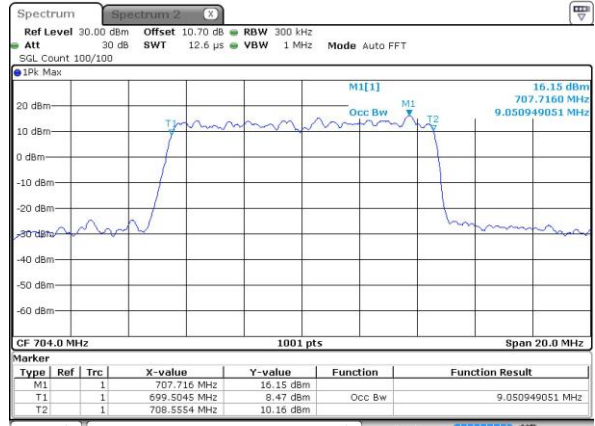
LTE Band 12

Lowest Channel / 10MHz / QPSK



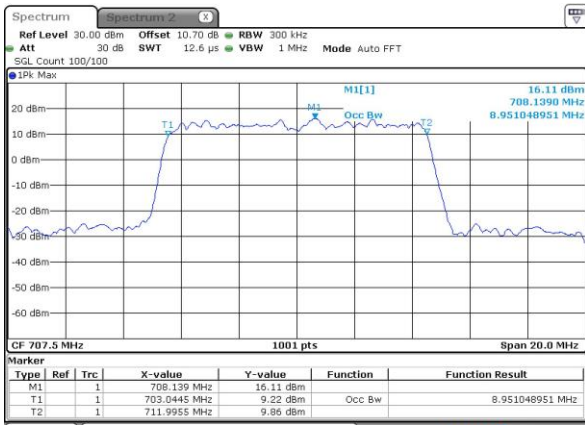
Date: 25 APR 2018 19:57:33

Lowest Channel / 10MHz / 16QAM



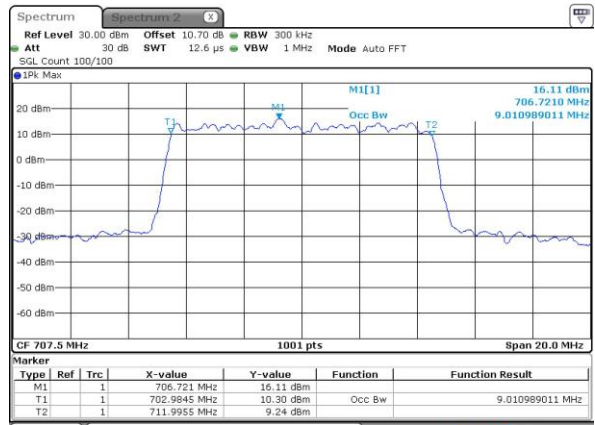
Date: 25 APR 2018 19:57:43

Middle Channel / 10MHz / QPSK



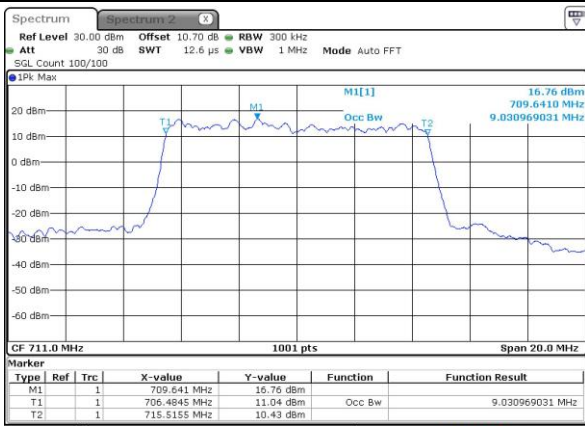
Date: 25 APR 2018 20:04:50

Middle Channel / 10MHz / 16QAM



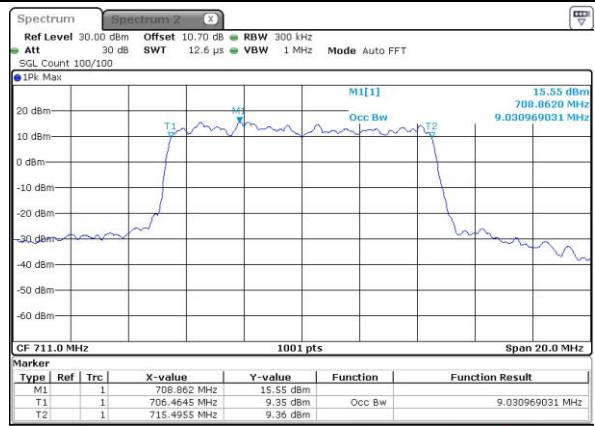
Date: 25 APR 2018 20:04:40

Highest Channel / 10MHz / QPSK



Date: 25 APR 2018 20:07:10

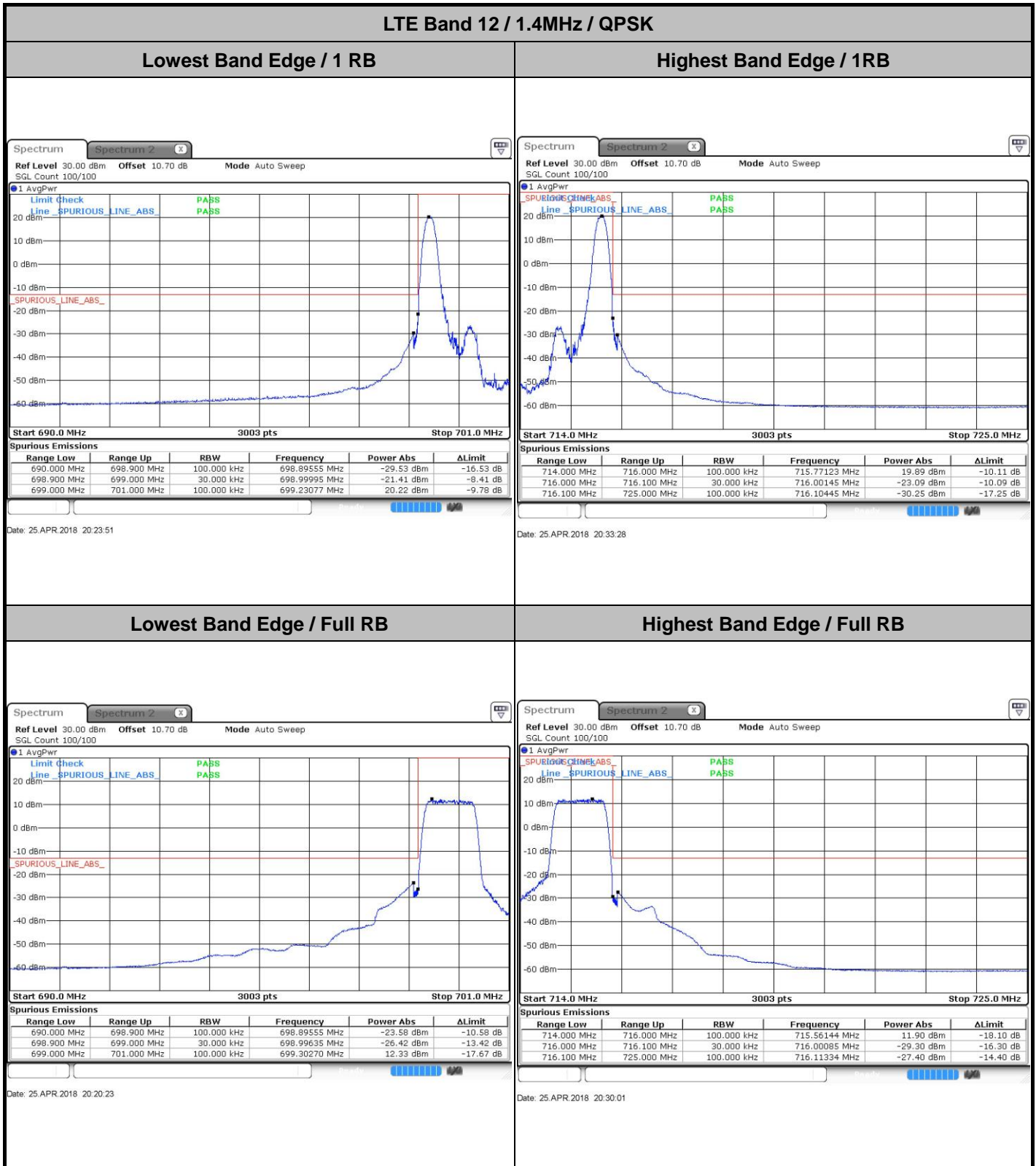
Highest Channel / 10MHz / 16QAM



Date: 25 APR 2018 20:07:21



Conducted Band Edge

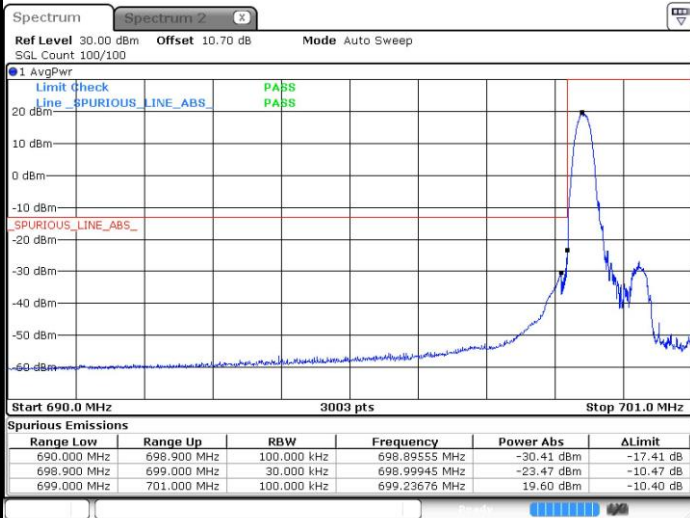




LTE Band 12 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

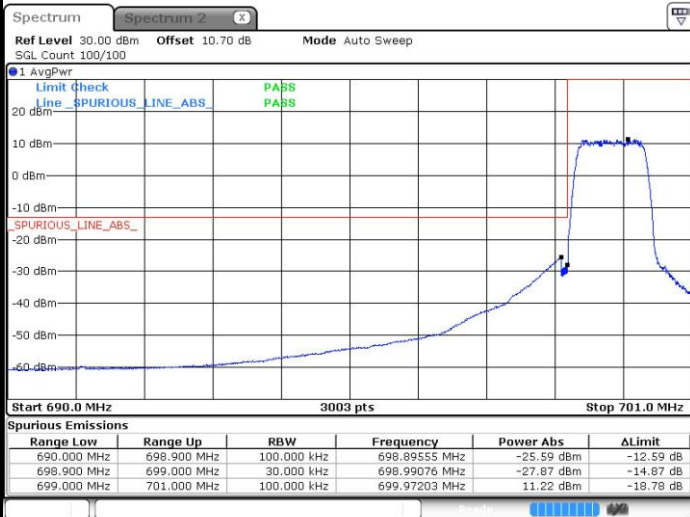


Date: 25 APR 2018 20:22:42

Date: 25 APR 2018 20:32:19

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



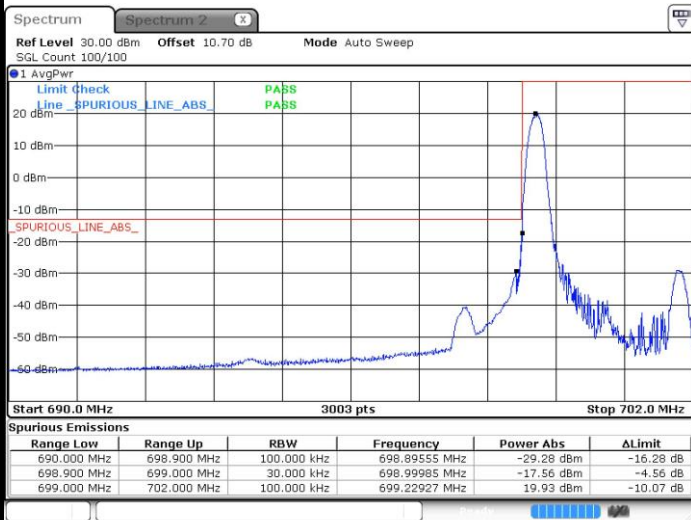
Date: 25 APR 2018 20:21:32

Date: 25 APR 2018 20:31:10



LTE Band 12 / 3MHz / QPSK

Lowest Band Edge / 1RB



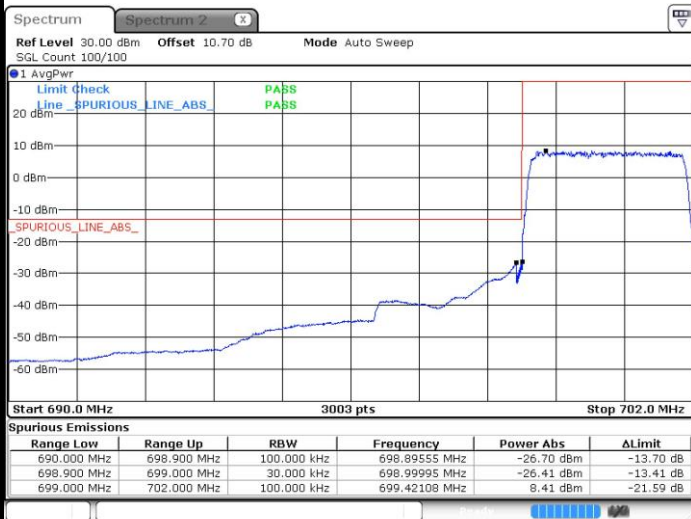
Date: 25 APR 2018 19:29:16

Highest Band Edge / 1 RB



Date: 25 APR 2018 19:38:52

Lowest Band Edge / Full RB



Date: 25 APR 2018 19:25:49

Highest Band Edge / Full RB

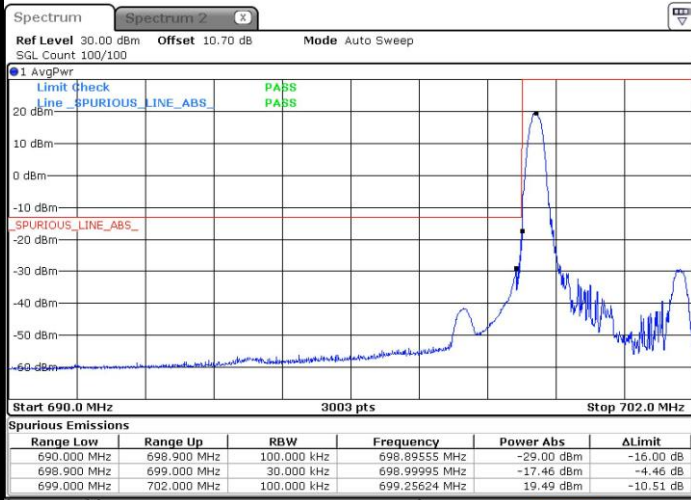


Date: 25 APR 2018 19:35:25



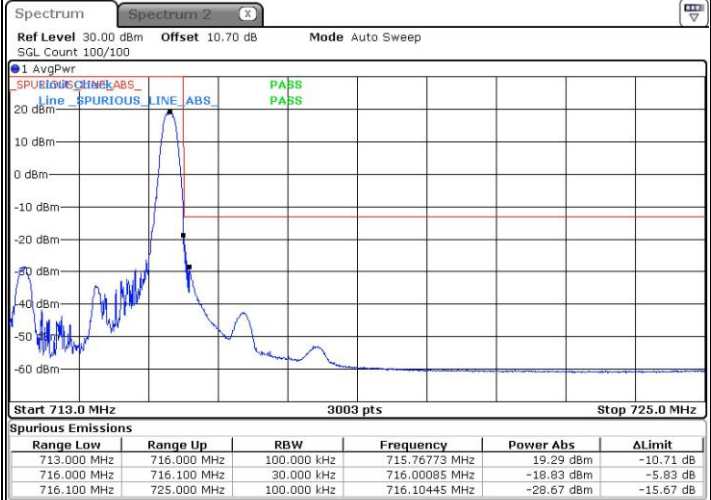
LTE Band 12 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 25 APR 2018 19:28:07

Highest Band Edge / 1 RB



Date: 25 APR 2018 19:37:43

Lowest Band Edge / Full RB



Date: 25 APR 2018 19:26:58

Highest Band Edge / Full RB

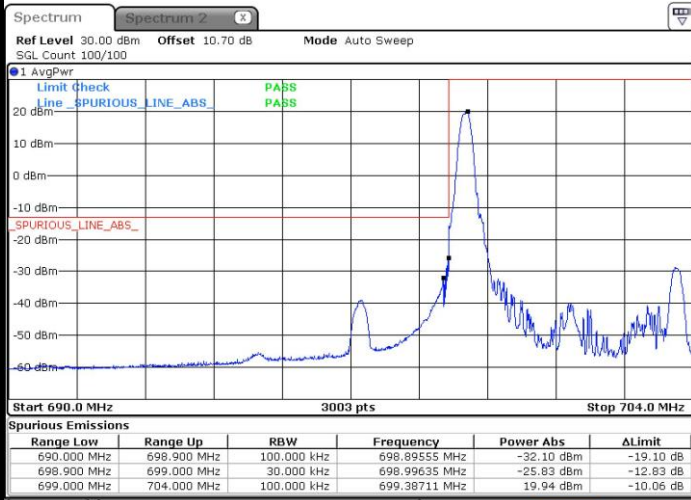


Date: 25 APR 2018 19:36:34



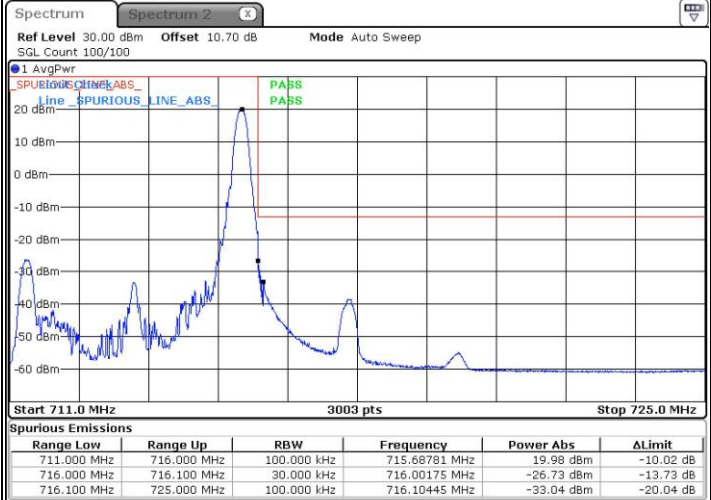
LTE Band 12 / 5MHz / QPSK

Lowest Band Edge / 1 RB



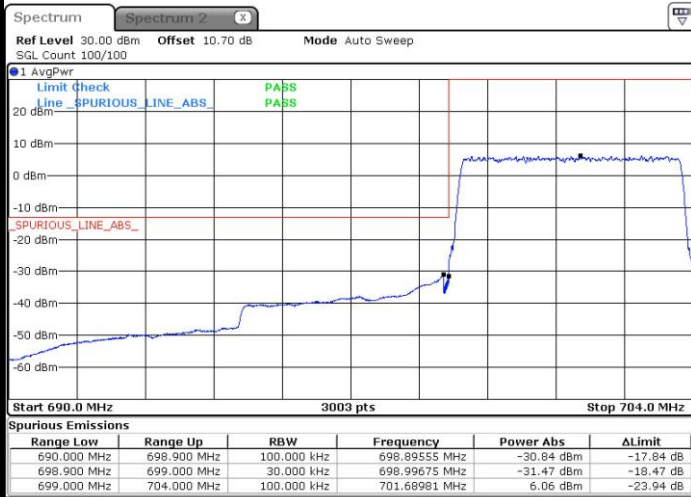
Date: 25 APR 2018 19:45:58

Highest Band Edge / 1 RB



Date: 25 APR 2018 19:54:24

Lowest Band Edge / Full RB



Date: 25 APR 2018 19:42:31

Highest Band Edge / Full RB



Date: 25 APR 2018 19:52:06