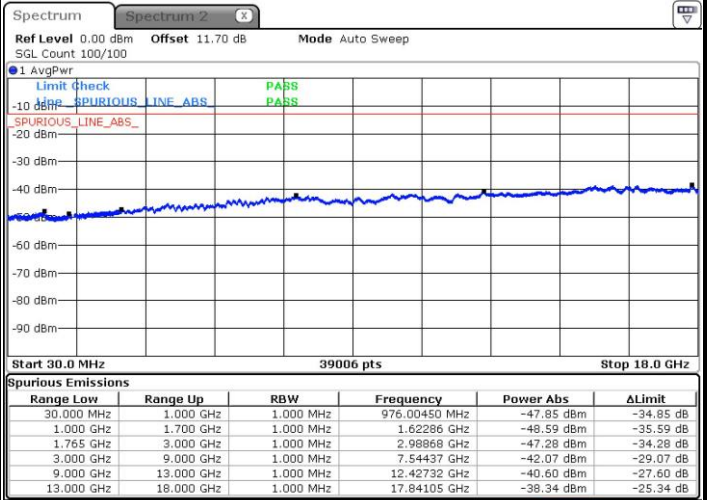
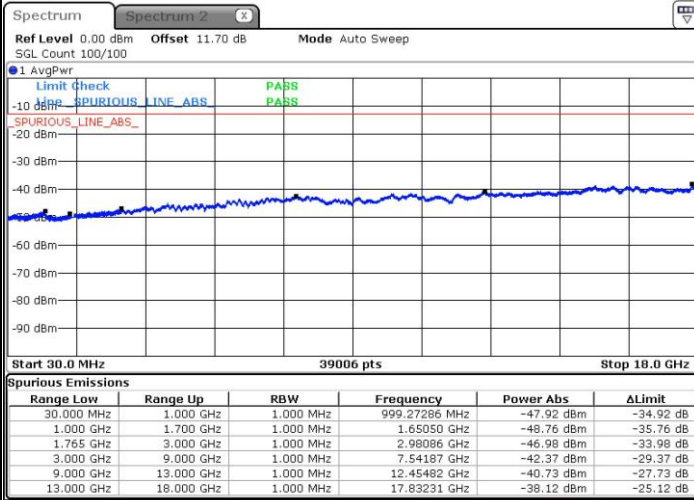




LTE Band 4 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

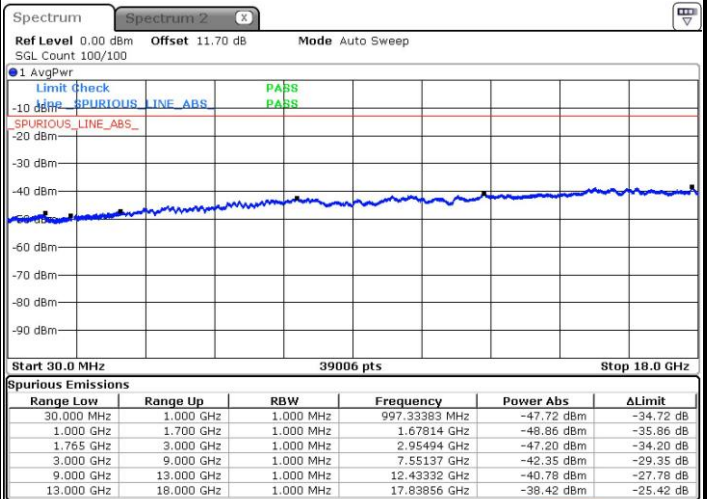
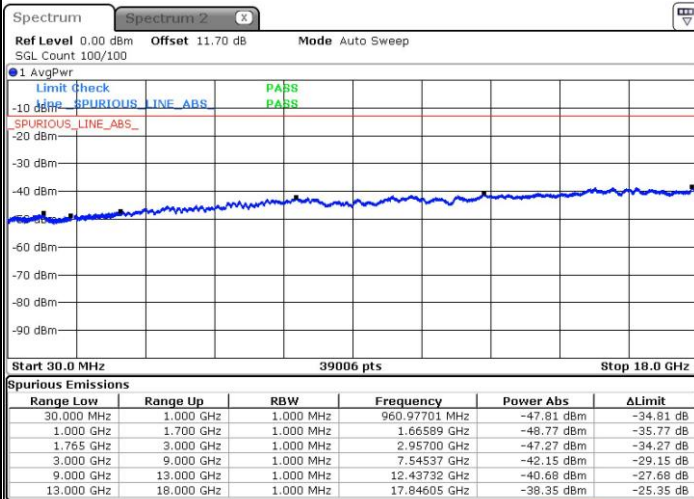


Date: 10 JUL 2018 06:44:35

Date: 10 JUL 2018 06:45:30

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 10 JUL 2018 06:51:53

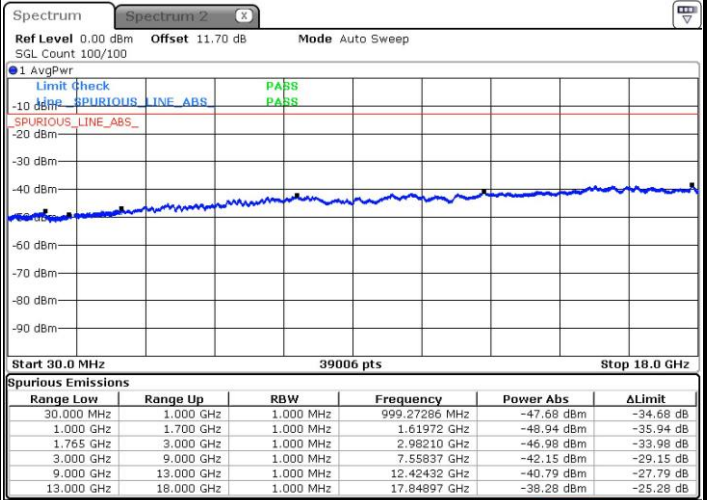
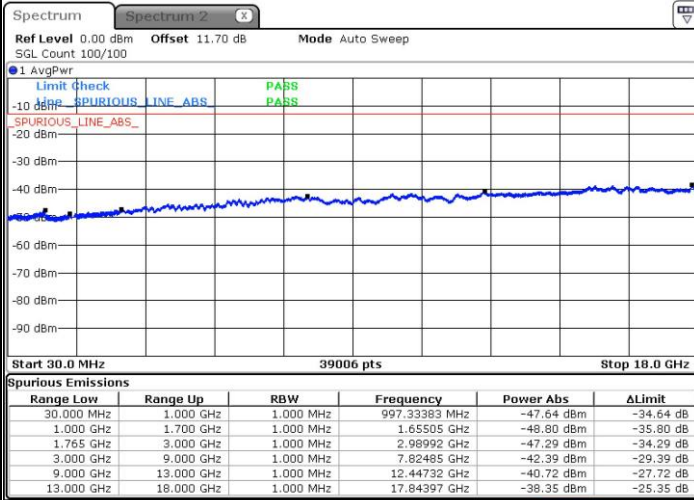
Date: 10 JUL 2018 06:52:49



LTE Band 4 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

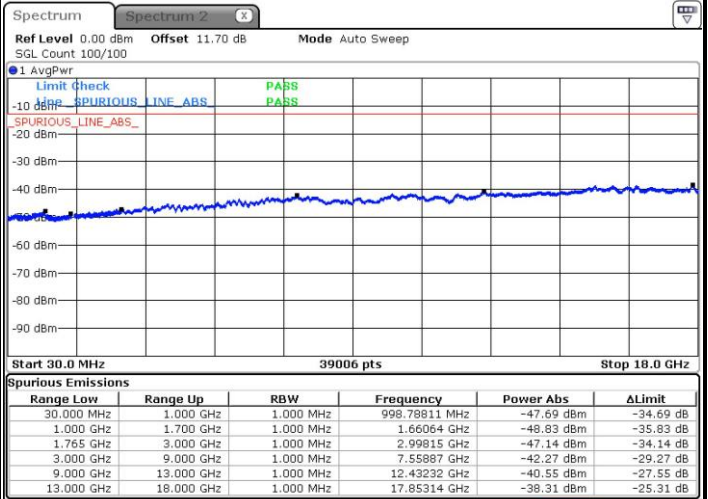
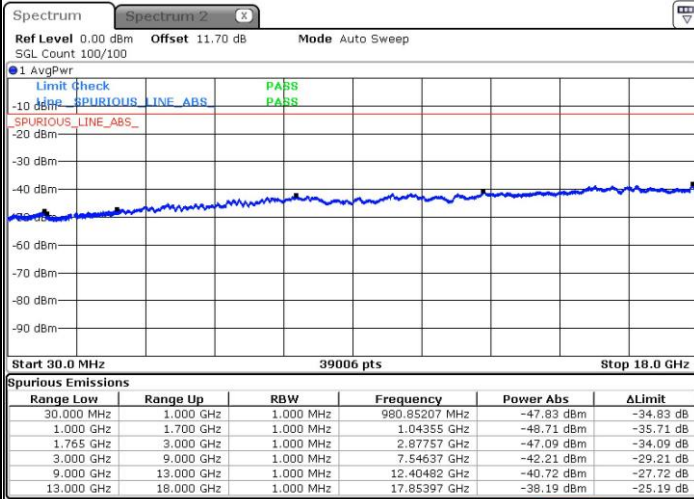


Date: 10 JUL 2018 06:59:12

Date: 10 JUL 2018 07:00:07

Middle Channel / QPSK

Middle Channel / 16QAM



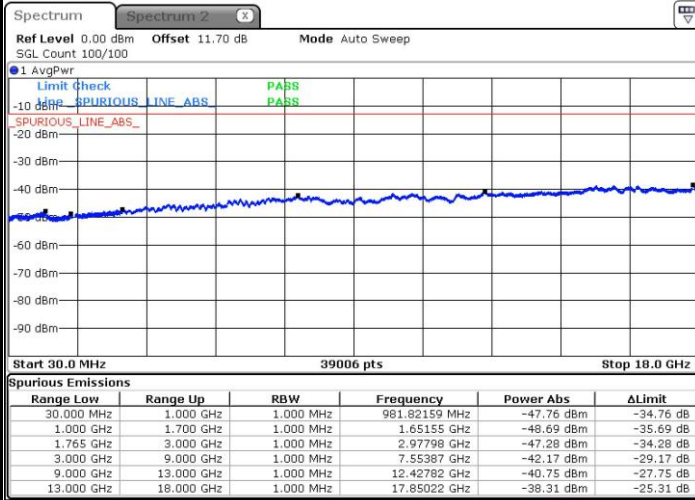
Date: 10 JUL 2018 07:01:49

Date: 10 JUL 2018 07:02:44



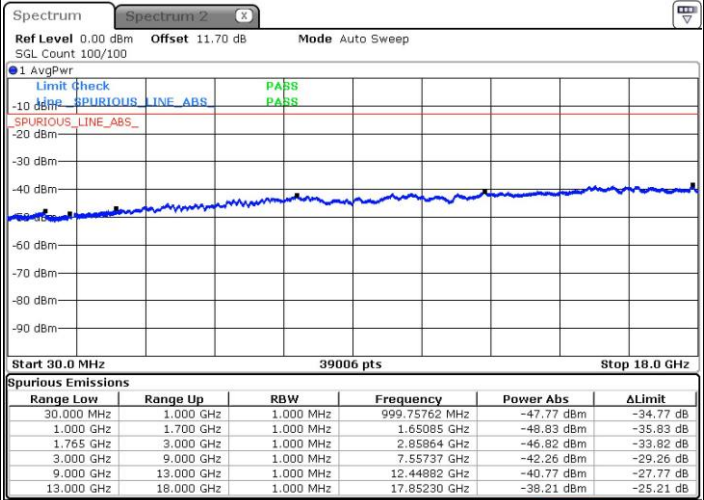
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 10 JUL 2018 07:09:07

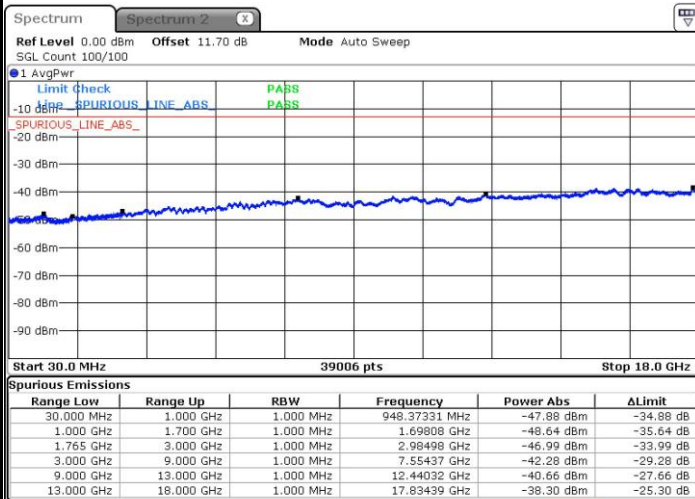
Highest Channel / 16QAM



Date: 10 JUL 2018 07:10:03

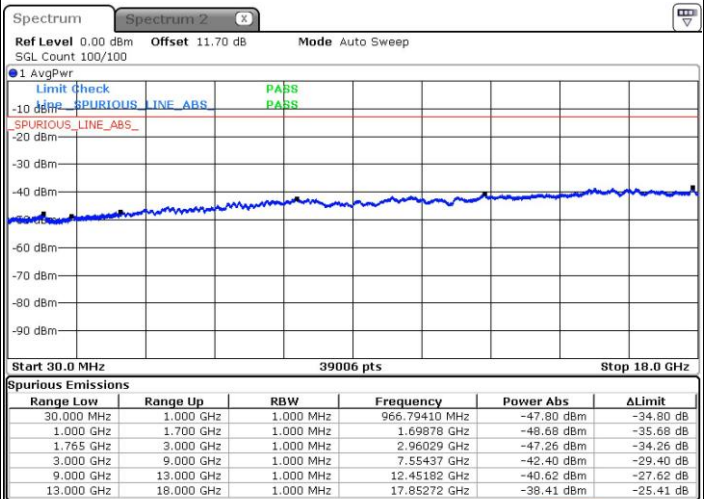
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 10 JUL 2018 07:16:26

Lowest Channel / 16QAM



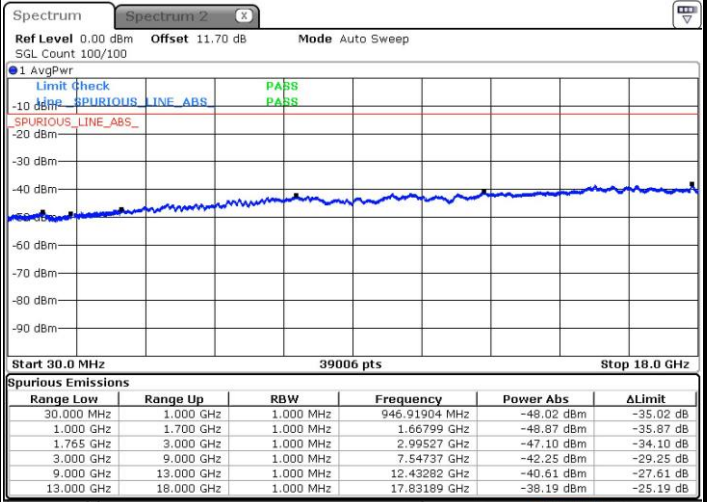
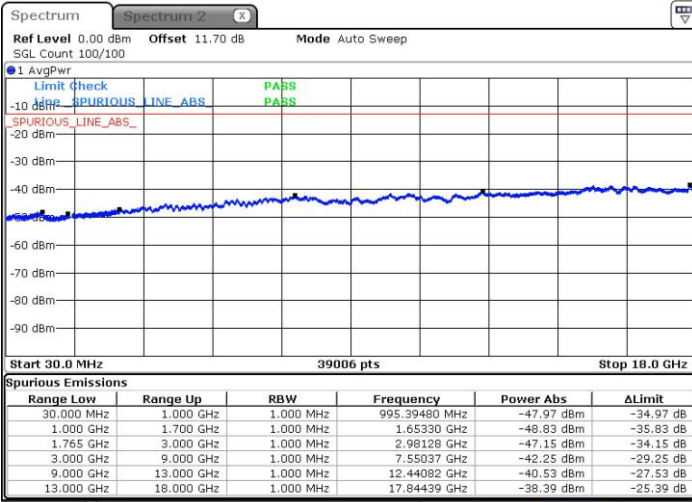
Date: 10 JUL 2018 07:17:21



LTE Band 4 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

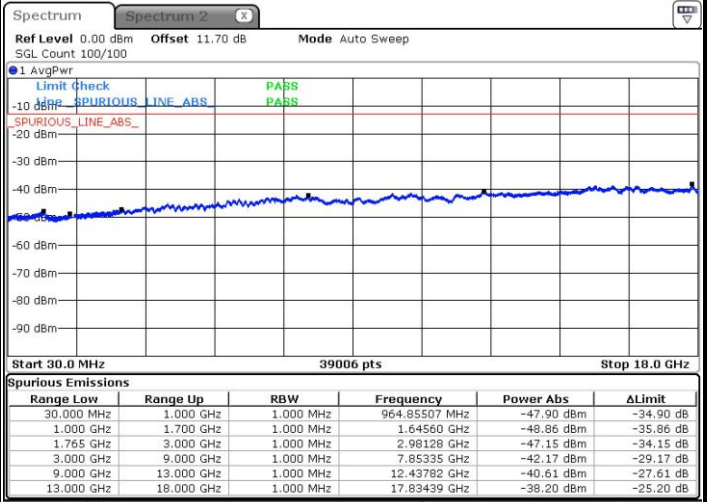
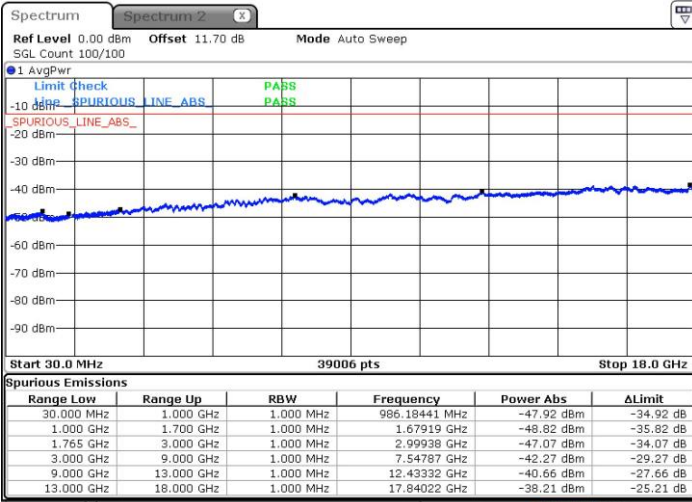


Date: 10 JUL 2018 07:19:03

Date: 10 JUL 2018 07:19:59

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 10 JUL 2018 07:26:22

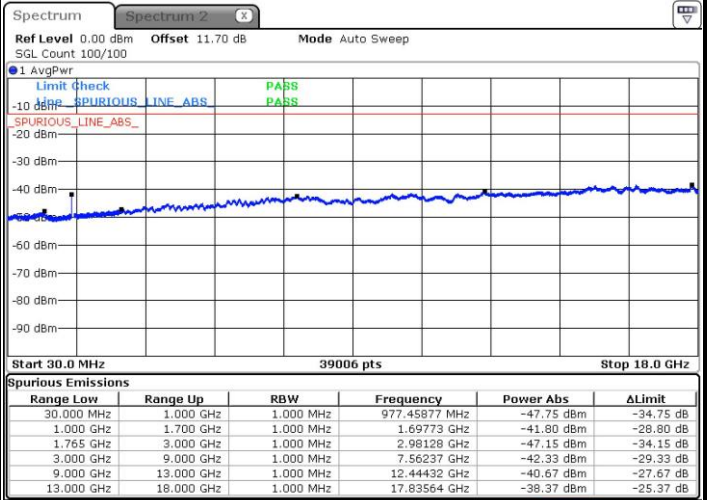
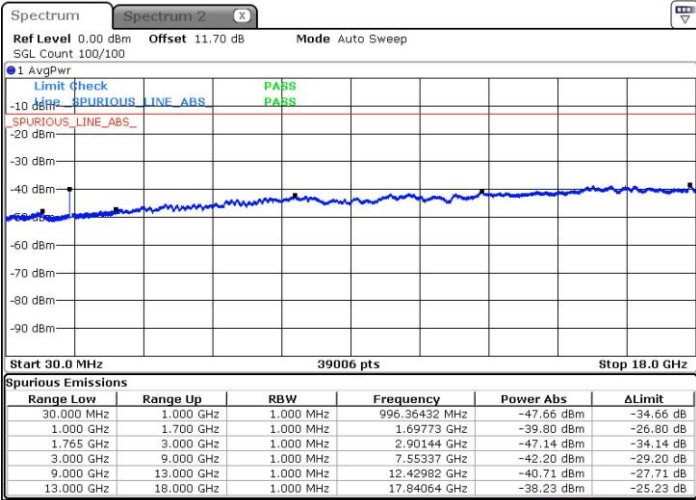
Date: 10 JUL 2018 07:27:18



LTE Band 4 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

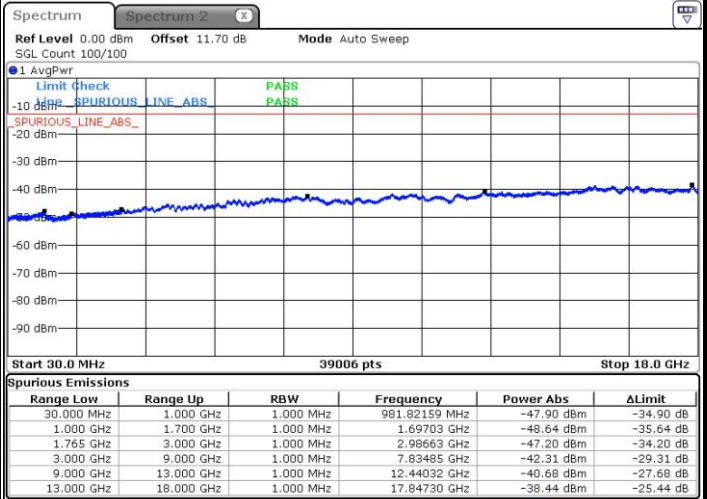
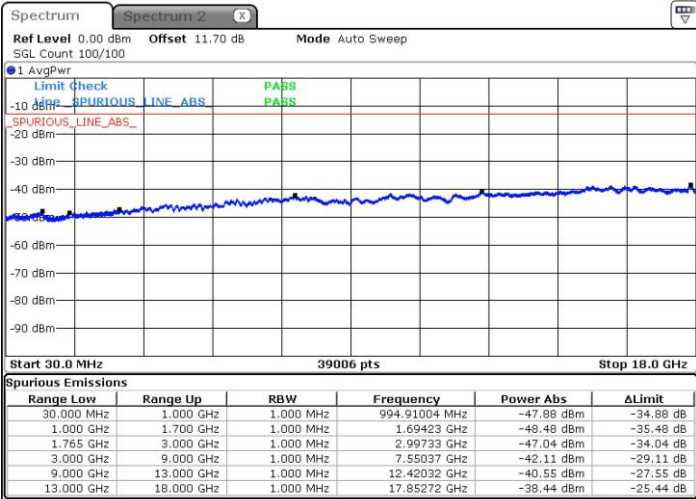


Date: 10 JUL 2018 07:36:11

Date: 10 JUL 2018 07:37:06

Middle Channel / QPSK

Middle Channel / 16QAM



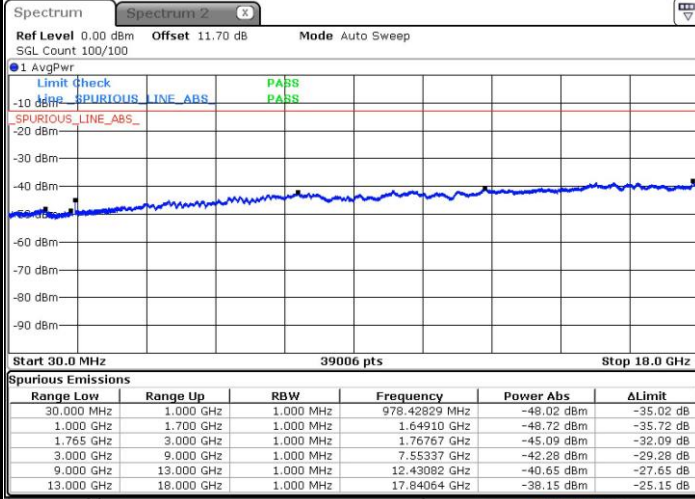
Date: 10 JUL 2018 07:38:48

Date: 10 JUL 2018 07:39:44



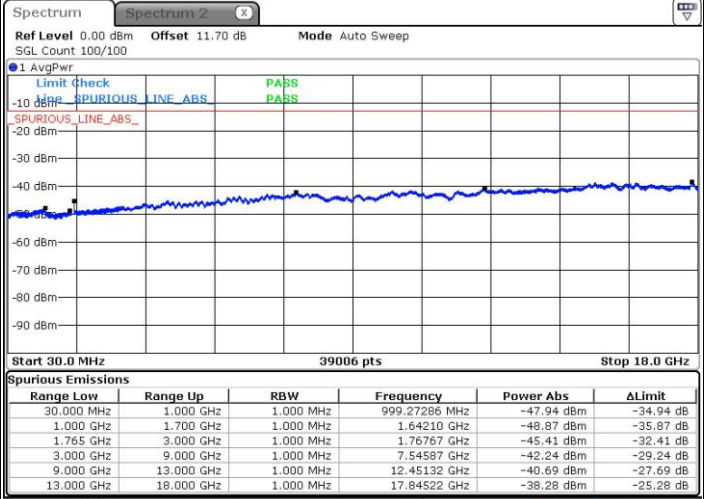
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 10 JUL 2018 07:46:07

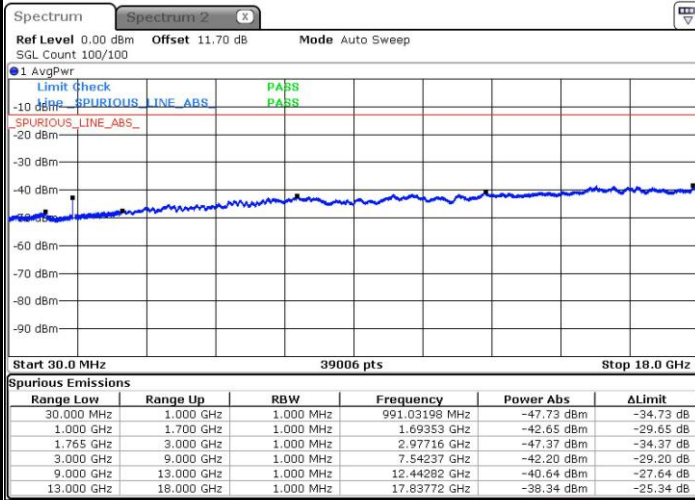
Highest Channel / 16QAM



Date: 10 JUL 2018 07:47:02

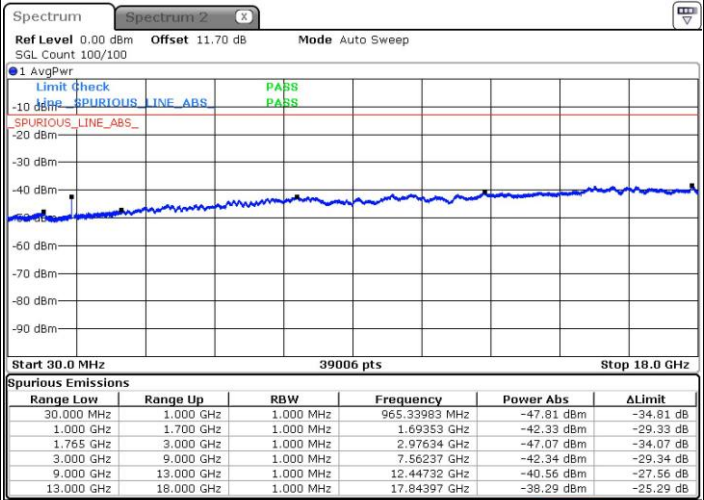
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 10 JUL 2018 07:53:26

Lowest Channel / 16QAM



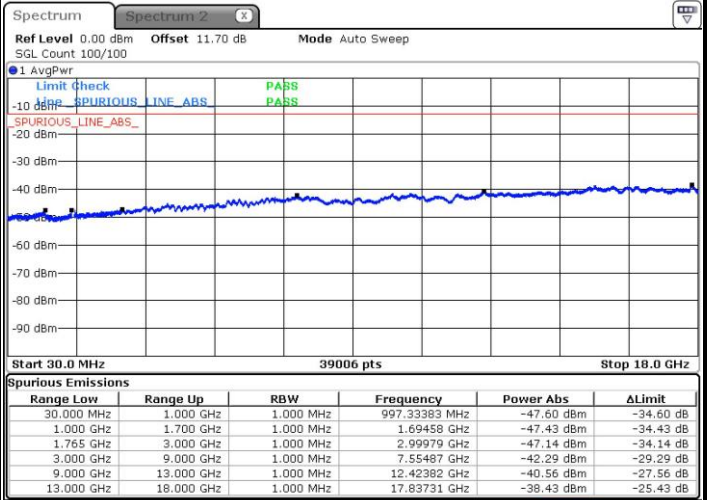
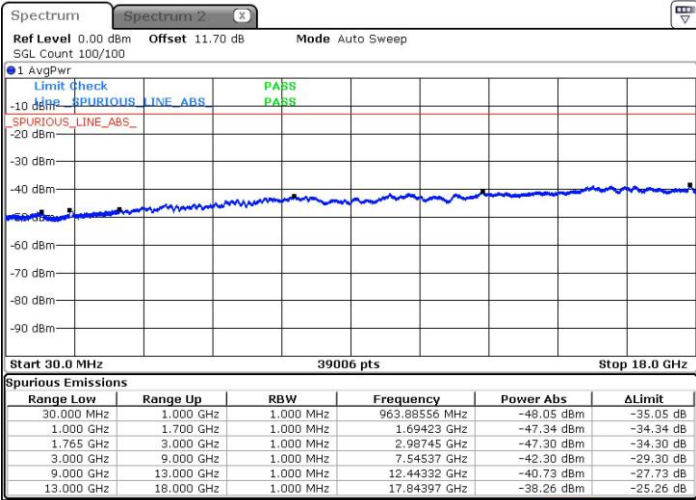
Date: 10 JUL 2018 07:54:21



LTE Band 4 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

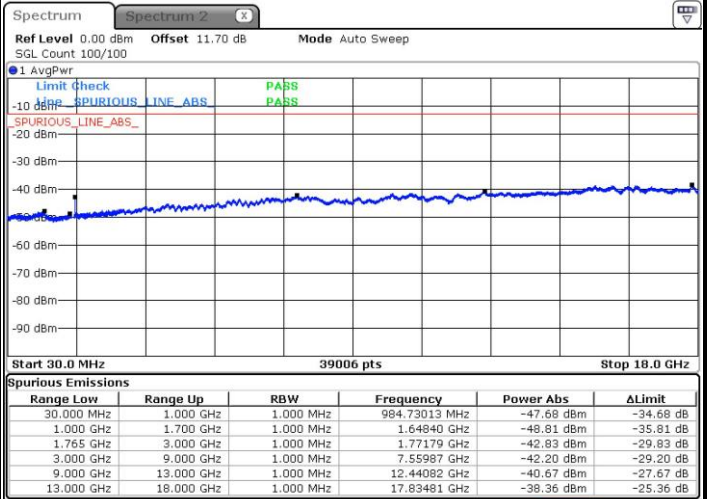
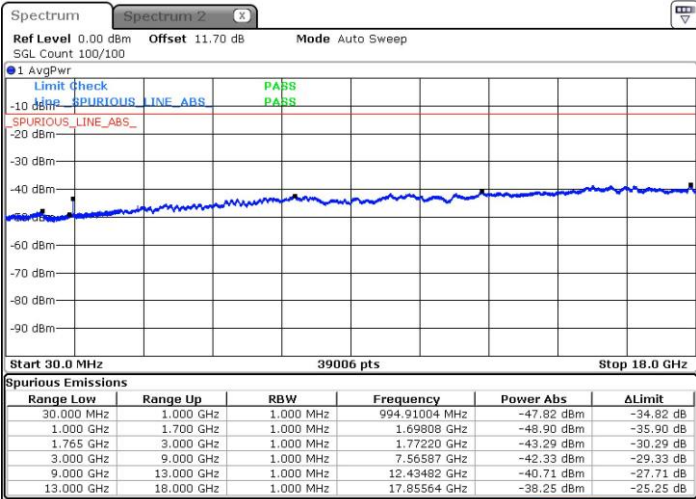


Date: 10 JUL 2018 07:56:03

Date: 10 JUL 2018 07:56:58

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 10 JUL 2018 08:03:21

Date: 10 JUL 2018 08:04:17



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	0.0019	PASS
40	Normal Voltage	0.0025	
30	Normal Voltage	0.0012	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0019	
0	Normal Voltage	0.0017	
-10	Normal Voltage	0.0019	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0029	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0013	

Note:

1. Normal Voltage =54 V. ; Battery End Point (BEP) =44 V. ; Maximum Voltage =57 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	4.43	4.9	5.25	5.91	<b>PASS</b>
Middle CH	4.14	5.04	4.84	6.03	
Highest CH	4.46	5.04	5.25	6.06	



LTE Band 5 / 10MHz / QPSK

Lowest Channel / 1RB



Date: 14.JUL.2018 05:33:26

Lowest Channel / Full RB



Date: 14.JUL.2018 05:33:36

Middle Channel / 1RB



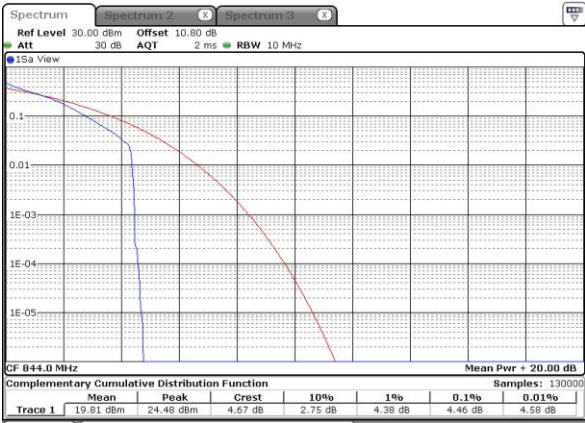
Date: 14.JUL.2018 05:33:46

Middle Channel / Full RB



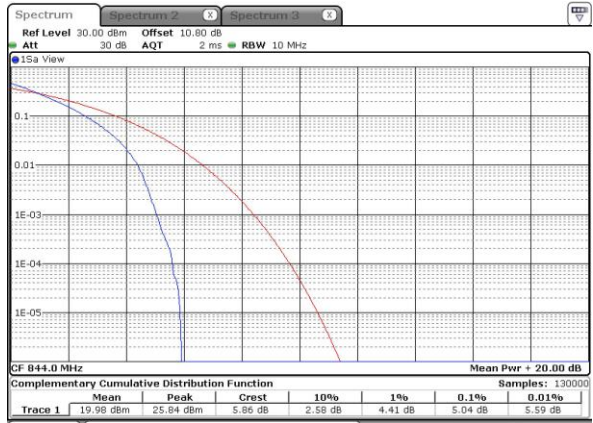
Date: 14.JUL.2018 05:33:56

Highest Channel / 1RB



Date: 14.JUL.2018 05:34:06

Highest Channel / Full RB



Date: 14.JUL.2018 05:34:16



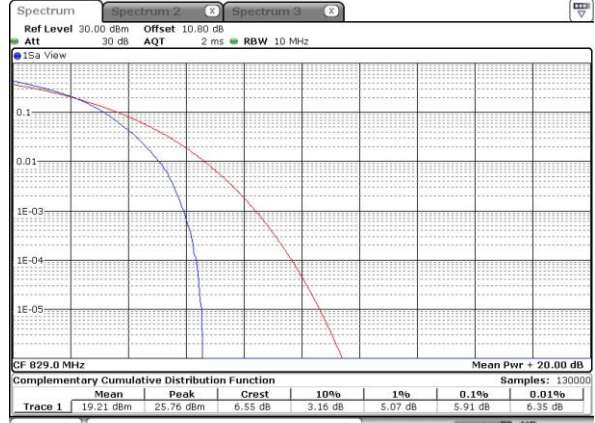
LTE Band 5 / 10MHz / 16QAM

Lowest Channel / 1RB



Date: 14.JUL.2018 05:32:24

Lowest Channel / Full RB



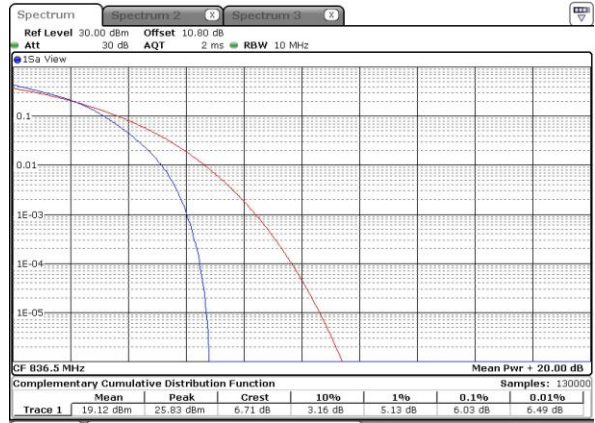
Date: 14.JUL.2018 05:32:36

Middle Channel / 1RB



Date: 14.JUL.2018 05:32:46

Middle Channel / Full RB



Date: 14.JUL.2018 05:32:56

Highest Channel / 1RB



Date: 14.JUL.2018 05:33:06

Highest Channel / Full RB



Date: 14.JUL.2018 05:33:16



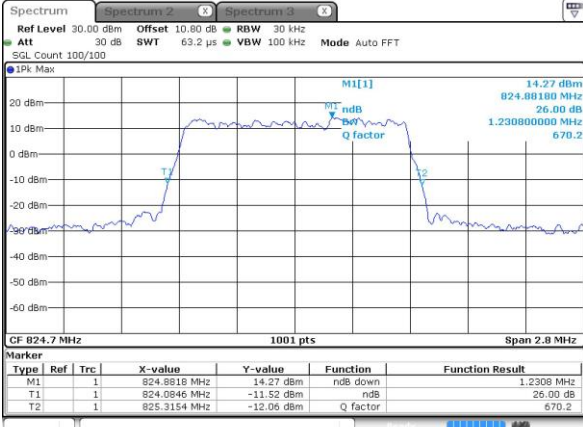
**26dB Bandwidth**

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	1.231	1.239	3.045	3.039	4.875	4.885	9.83	9.83	-	-	-	-
Middle CH	1.234	1.228	3.039	3.003	4.905	4.925	9.81	9.73	-	-	-	-
Highest CH	1.239	1.234	3.051	3.045	4.925	4.875	9.85	9.69	-	-	-	-



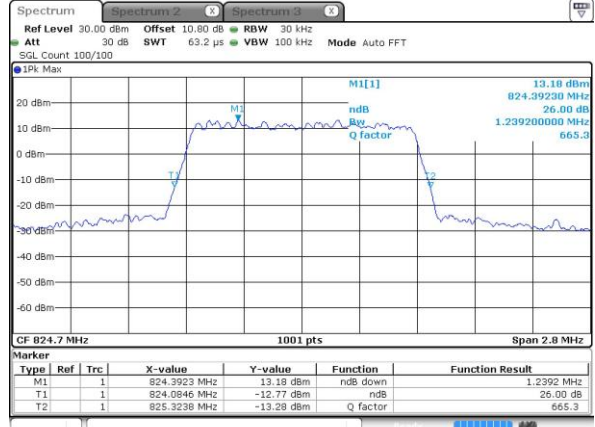
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



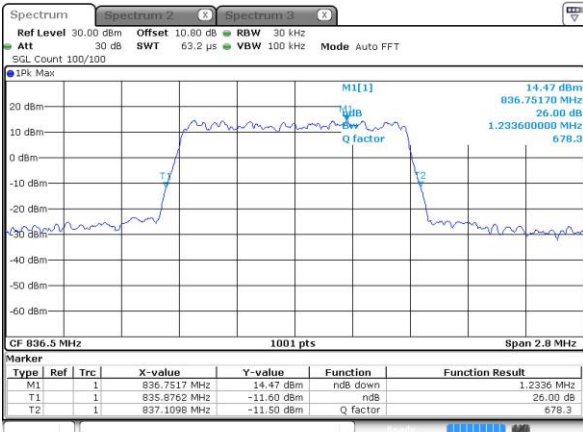
Date: 14 JUL 2018 04:53:48

Lowest Channel / 1.4MHz / 16QAM



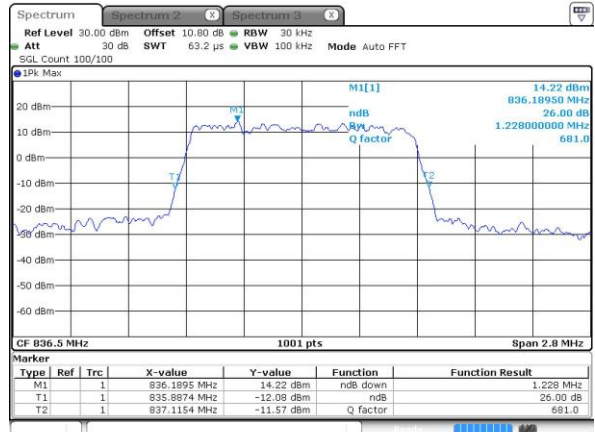
Date: 14 JUL 2018 04:53:37

Middle Channel / 1.4MHz / QPSK



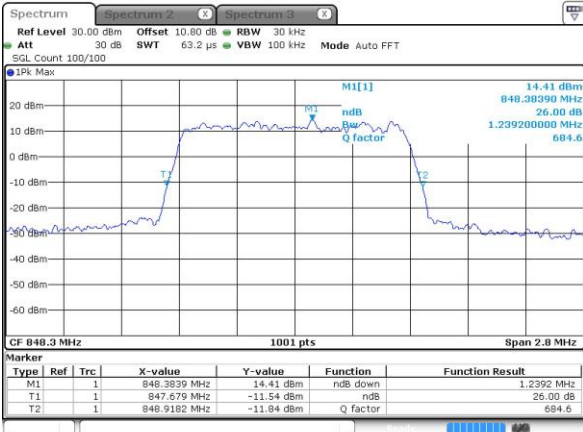
Date: 14 JUL 2018 05:03:23

Middle Channel / 1.4MHz / 16QAM



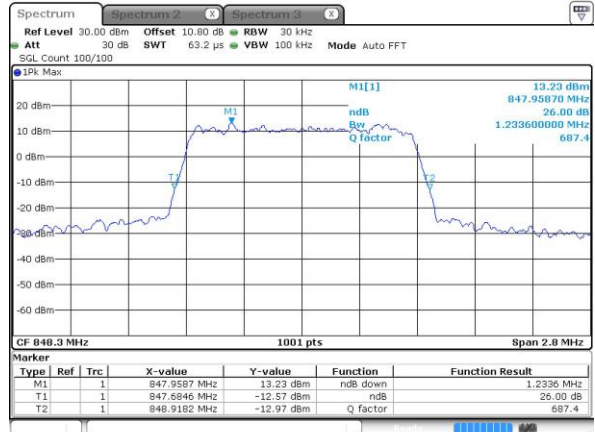
Date: 14 JUL 2018 05:03:35

Highest Channel / 1.4MHz / QPSK



Date: 14 JUL 2018 05:06:29

Highest Channel / 1.4MHz / 16QAM

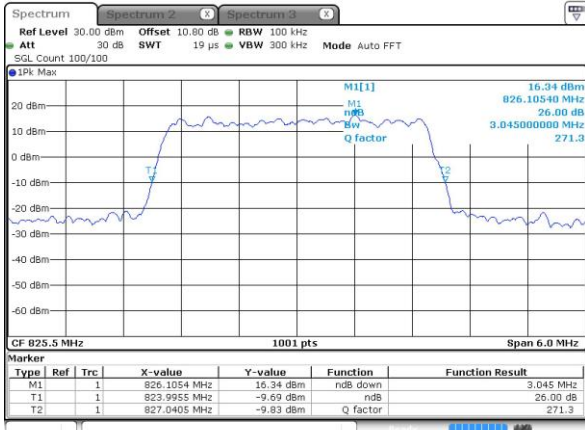


Date: 14 JUL 2018 05:06:41



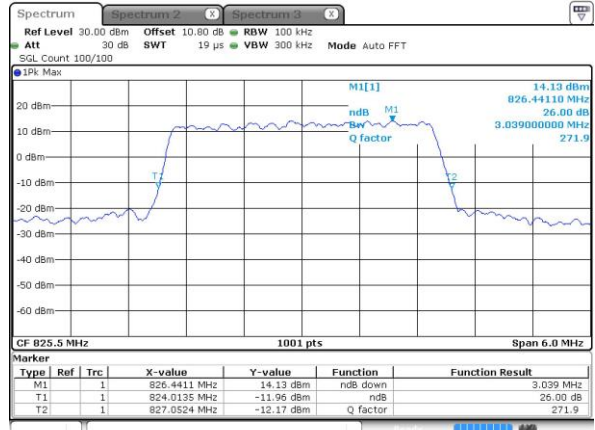
LTE Band 5

Lowest Channel / 3MHz / QPSK



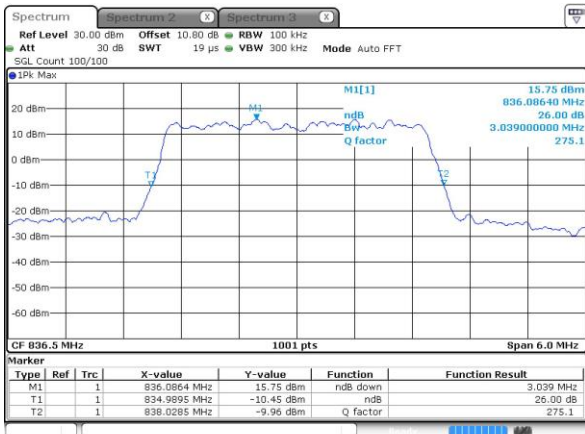
Date: 14.JUL.2018 03:36:14

Lowest Channel / 3MHz / 16QAM



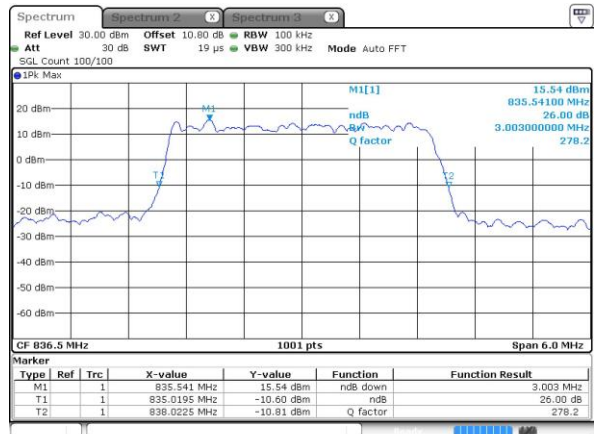
Date: 14.JUL.2018 03:36:26

Middle Channel / 3MHz / QPSK



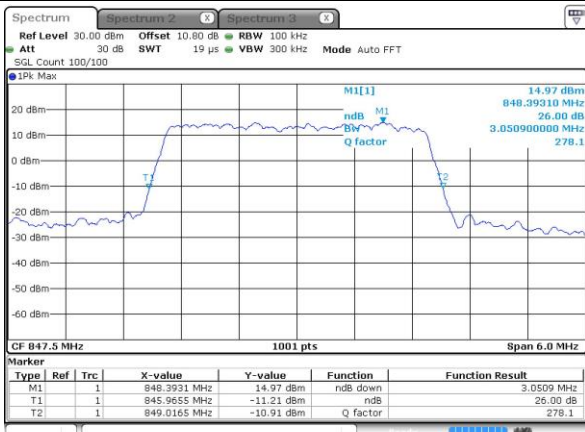
Date: 14.JUL.2018 03:46:01

Middle Channel / 3MHz / 16QAM



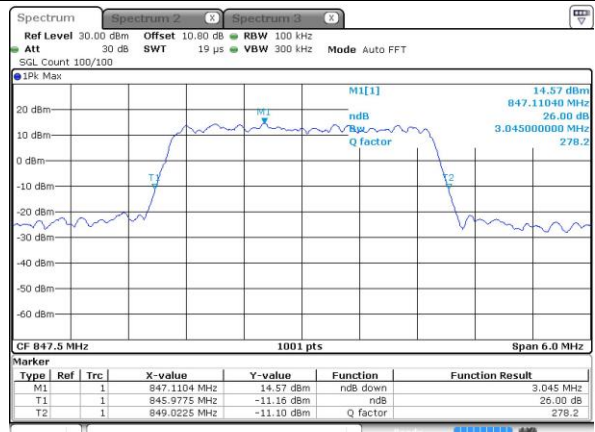
Date: 14.JUL.2018 03:46:12

Highest Channel / 3MHz / QPSK



Date: 14.JUL.2018 03:49:07

Highest Channel / 3MHz / 16QAM

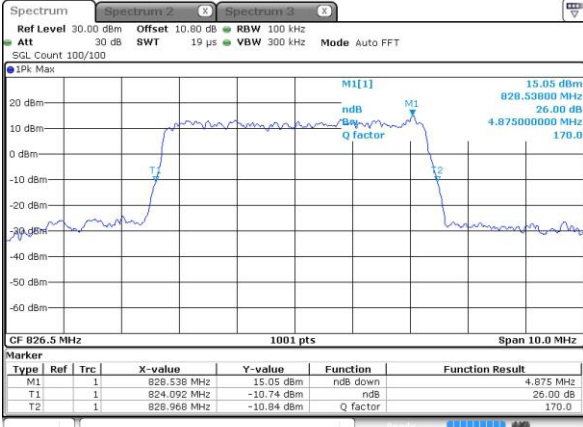


Date: 14.JUL.2018 03:49:18



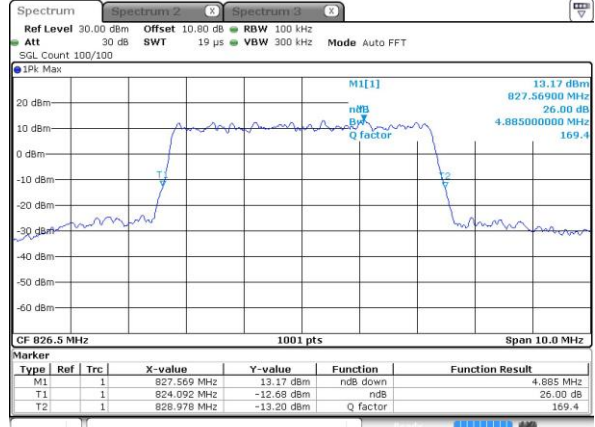
LTE Band 5

Lowest Channel / 5MHz / QPSK



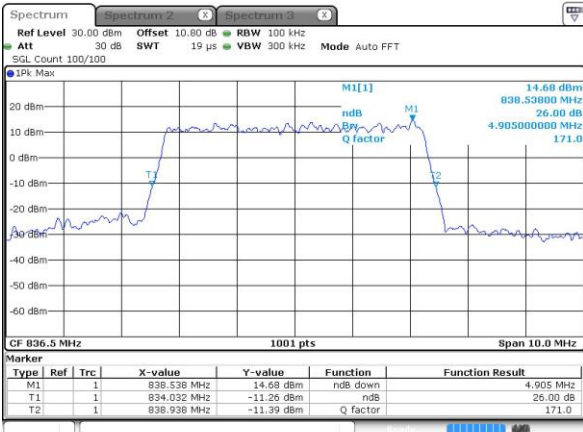
Date: 14 JUL 2018 03:58:53

Lowest Channel / 5MHz / 16QAM



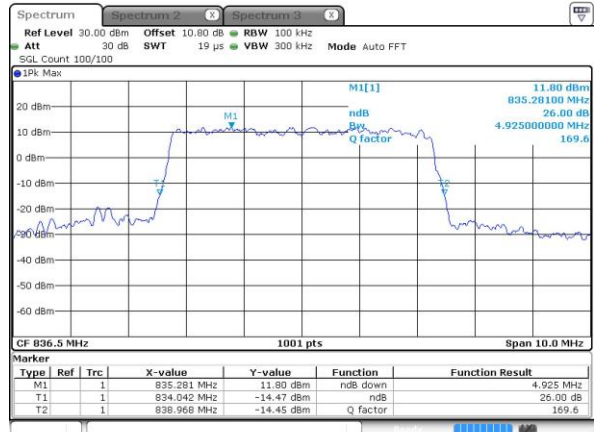
Date: 14 JUL 2018 03:59:04

Middle Channel / 5MHz / QPSK



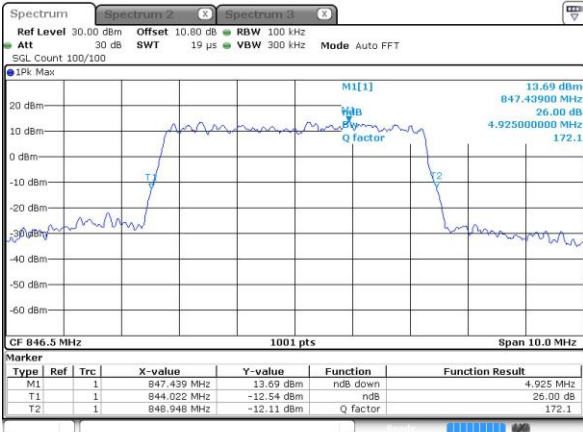
Date: 14 JUL 2018 04:08:39

Middle Channel / 5MHz / 16QAM



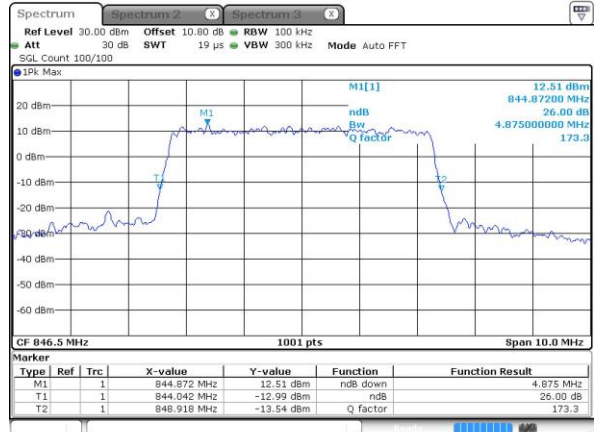
Date: 14 JUL 2018 04:08:51

Highest Channel / 5MHz / QPSK



Date: 14 JUL 2018 04:11:46

Highest Channel / 5MHz / 16QAM

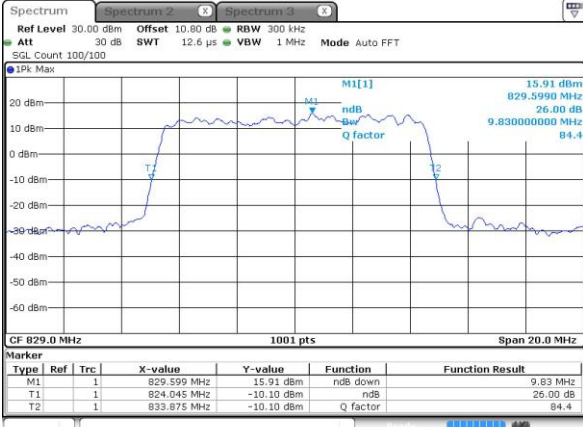


Date: 14 JUL 2018 04:11:57



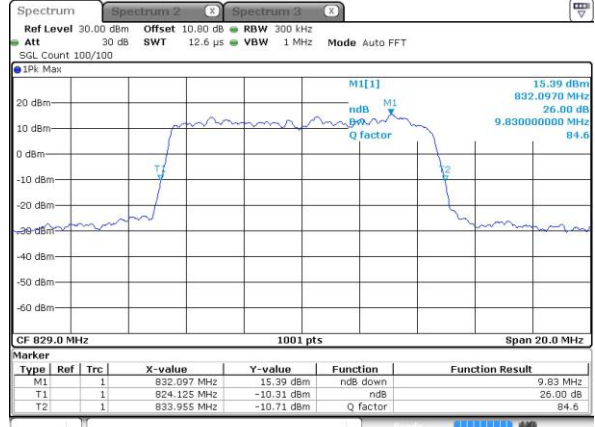
LTE Band 5

Lowest Channel / 10MHz / QPSK



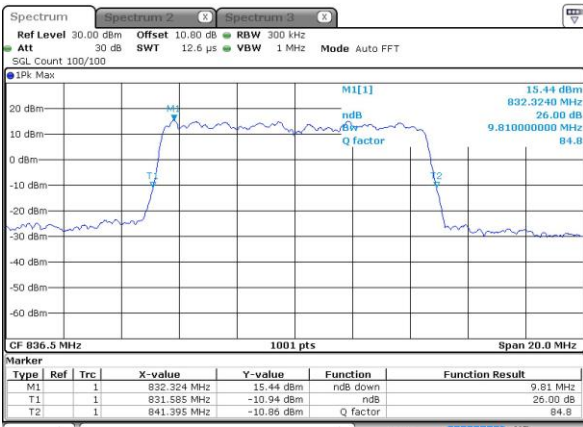
Date: 14 JUL 2018 04:21:32

Lowest Channel / 10MHz / 16QAM



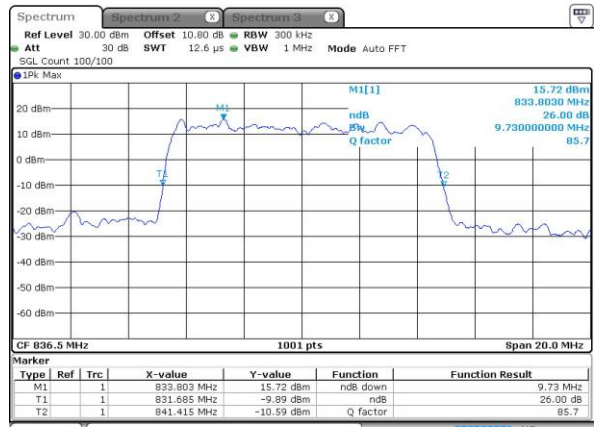
Date: 14 JUL 2018 04:21:44

Middle Channel / 10MHz / QPSK



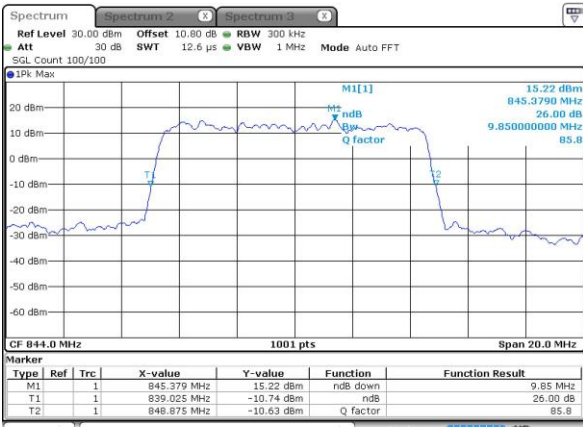
Date: 14 JUL 2018 04:31:19

Middle Channel / 10MHz / 16QAM



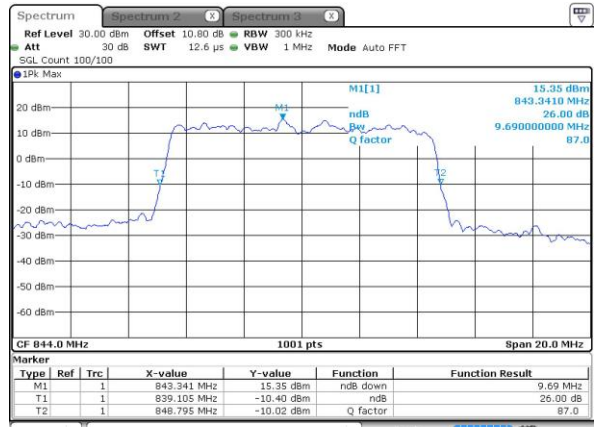
Date: 14 JUL 2018 04:31:30

Highest Channel / 10MHz / QPSK



Date: 14 JUL 2018 04:34:25

Highest Channel / 10MHz / 16QAM



Date: 14 JUL 2018 04:34:36





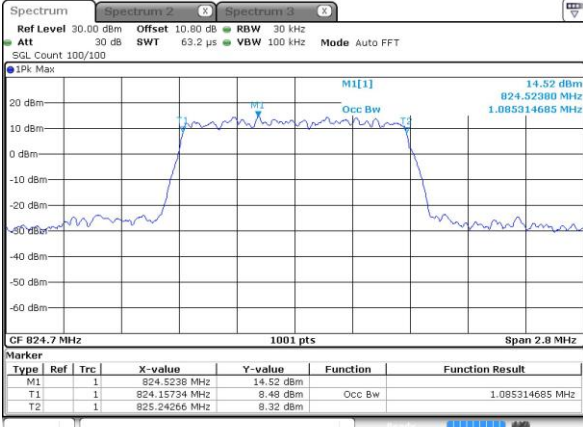
### Occupied Bandwidth

Mode	LTE Band 5 : 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	4.49	4.49	9.01	8.97	-	-	-	-
Middle CH	1.09	1.09	2.72	2.72	4.49	4.49	9.01	9.05	-	-	-	-
Highest CH	1.08	1.09	2.72	2.72	4.49	4.48	9.03	9.01	-	-	-	-



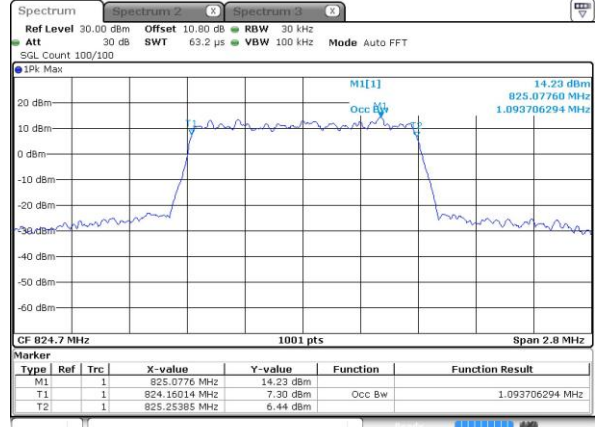
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



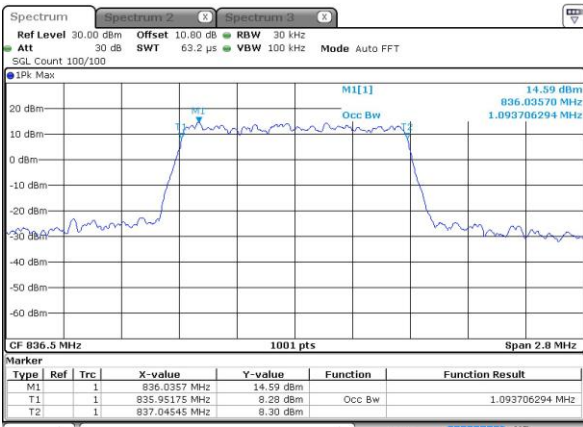
Date: 14 JUL 2018 04:53:14

Lowest Channel / 1.4MHz / 16QAM



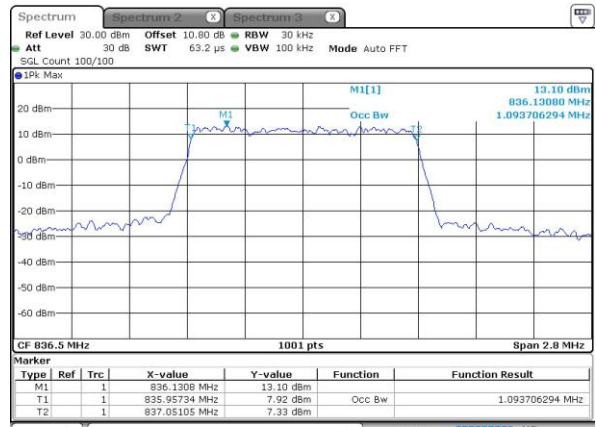
Date: 14 JUL 2018 04:53:25

Middle Channel / 1.4MHz / QPSK



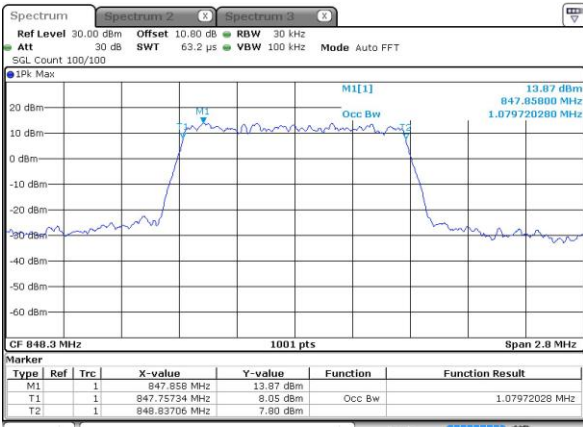
Date: 14 JUL 2018 05:03:00

Middle Channel / 1.4MHz / 16QAM



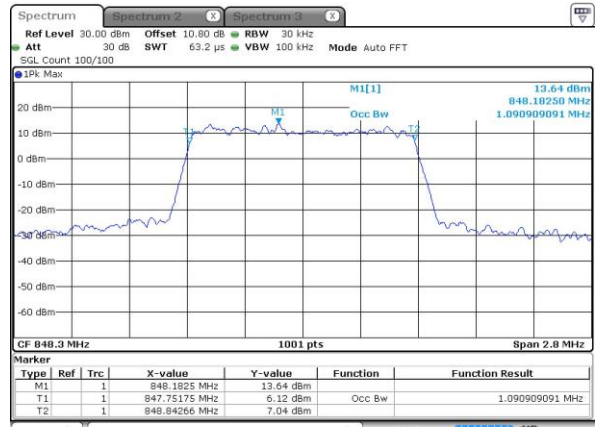
Date: 14 JUL 2018 05:03:12

Highest Channel / 1.4MHz / QPSK



Date: 14 JUL 2018 05:06:07

Highest Channel / 1.4MHz / 16QAM

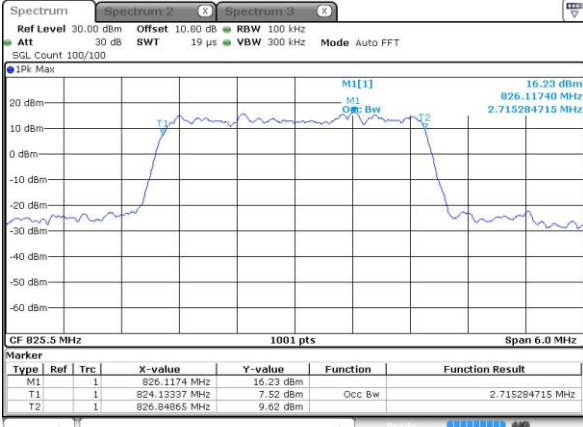


Date: 14 JUL 2018 05:06:18



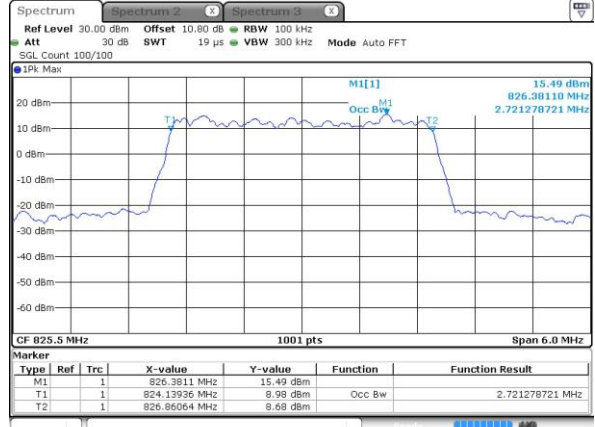
LTE Band 5

Lowest Channel / 3MHz / QPSK



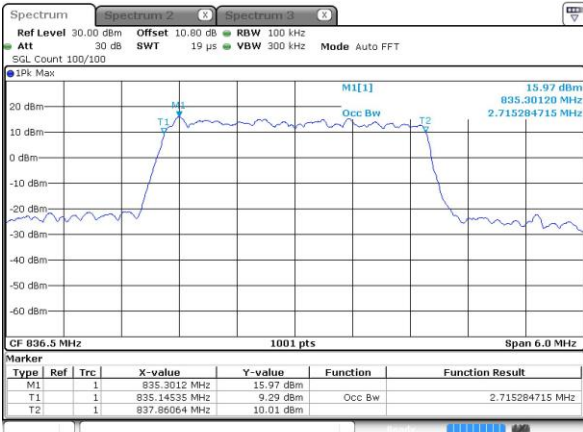
Date: 14 JUL 2018 07:01:02

Lowest Channel / 3MHz / 16QAM



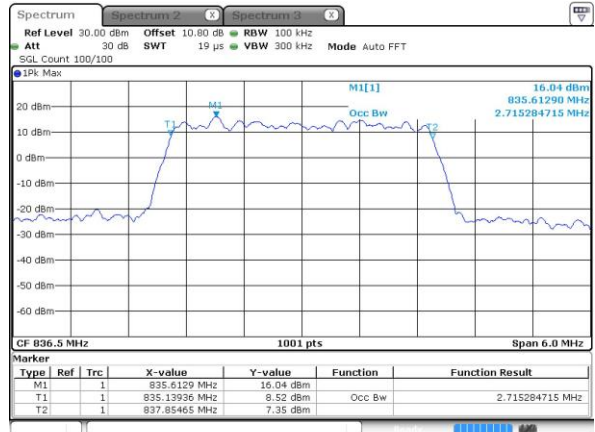
Date: 14 JUL 2018 03:36:03

Middle Channel / 3MHz / QPSK



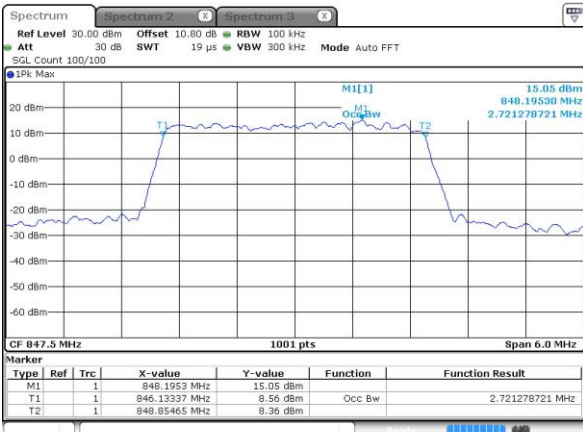
Date: 14 JUL 2018 03:45:38

Middle Channel / 3MHz / 16QAM



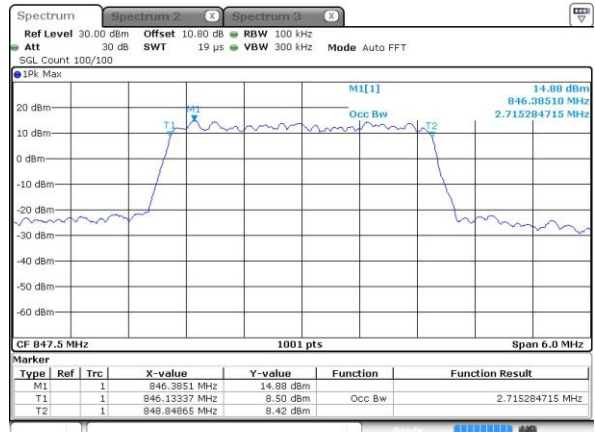
Date: 14 JUL 2018 03:45:49

Highest Channel / 3MHz / QPSK



Date: 14 JUL 2018 03:48:44

Highest Channel / 3MHz / 16QAM



Date: 14 JUL 2018 03:48:55