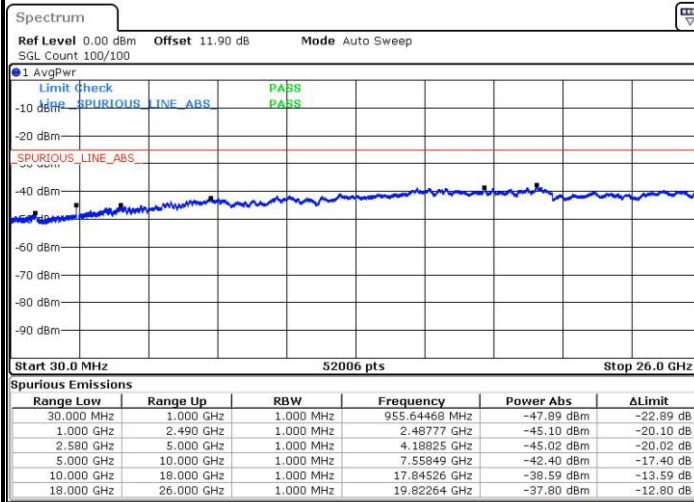




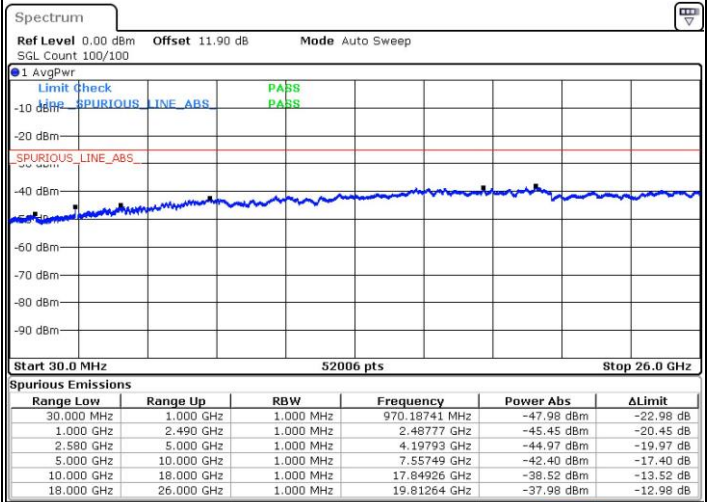
LTE Band 7 / 15MHz

Lowest Channel / QPSK



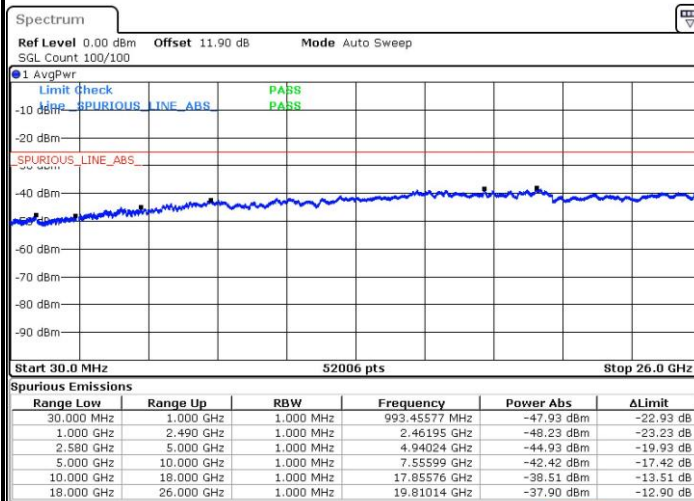
Date: 12 JUN 2018 23:48:54

Lowest Channel / 16QAM



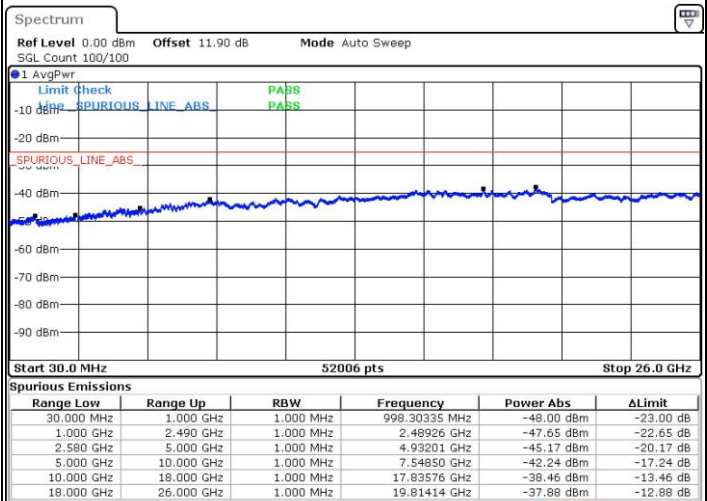
Date: 12 JUN 2018 23:49:48

Middle Channel / QPSK



Date: 12 JUN 2018 23:51:24

Middle Channel / 16QAM

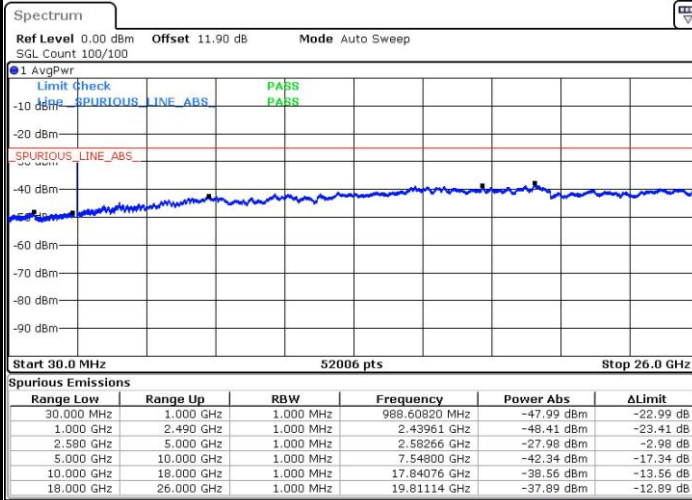


Date: 12 JUN 2018 23:52:18



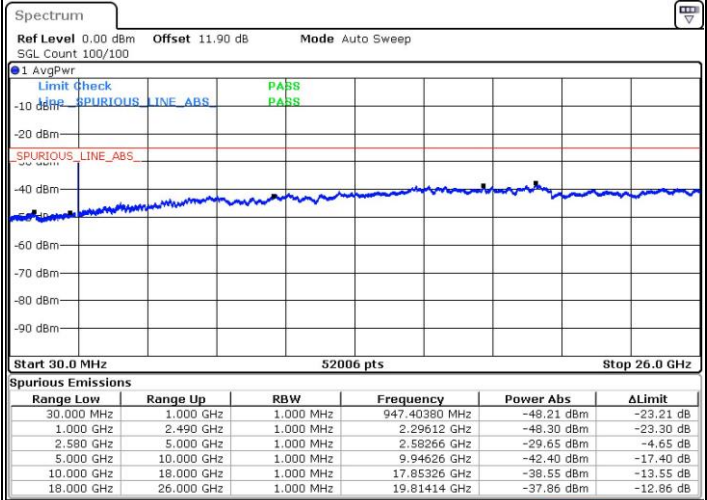
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 12 JUN 2018 23:58:33

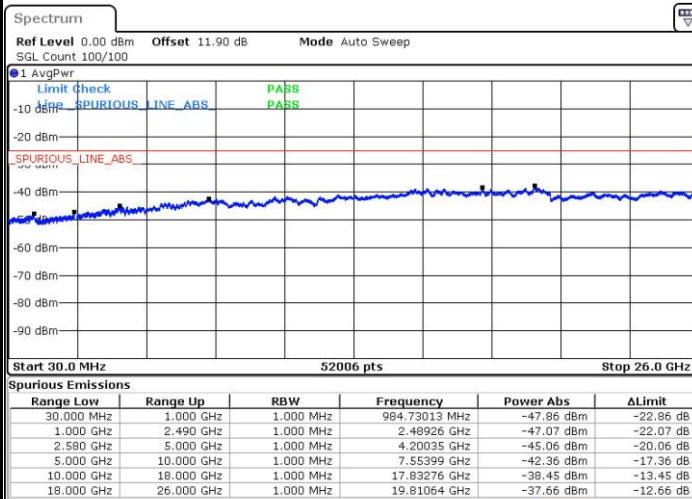
Highest Channel / 16QAM



Date: 12 JUN 2018 23:59:27

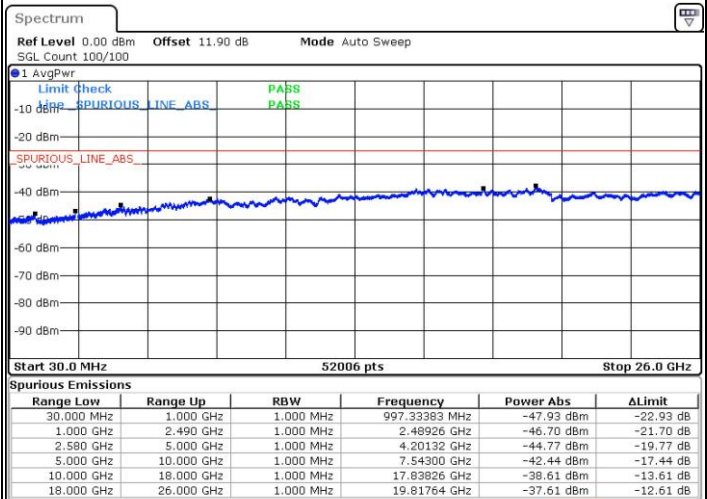
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 13 JUN 2018 00:18:02

Lowest Channel / 16QAM

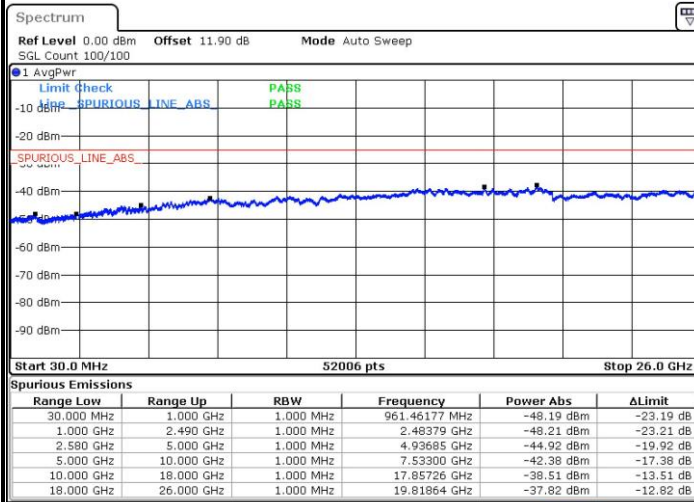


Date: 13 JUN 2018 00:18:56



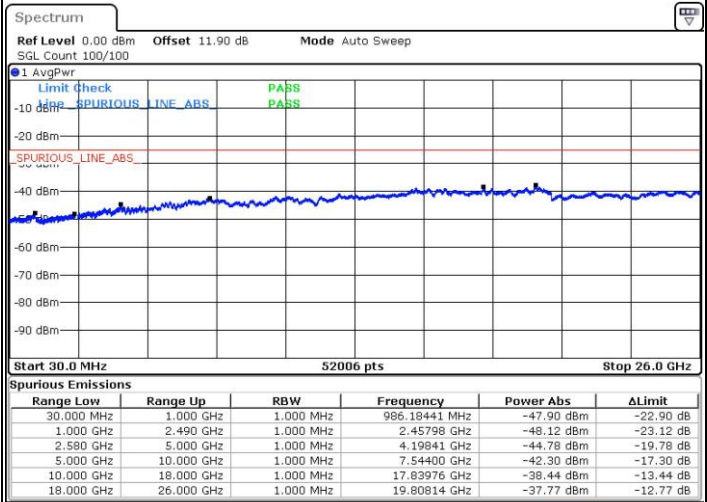
LTE Band 7 / 20MHz

Middle Channel / QPSK



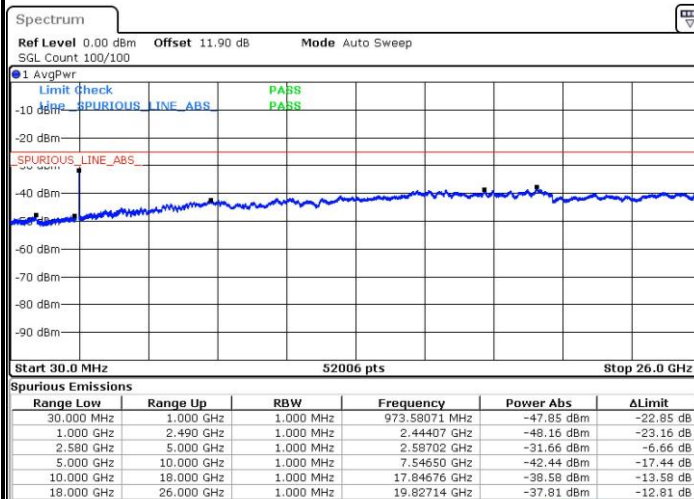
Date: 13 JUN 2018 00:20:32

Middle Channel / 16QAM



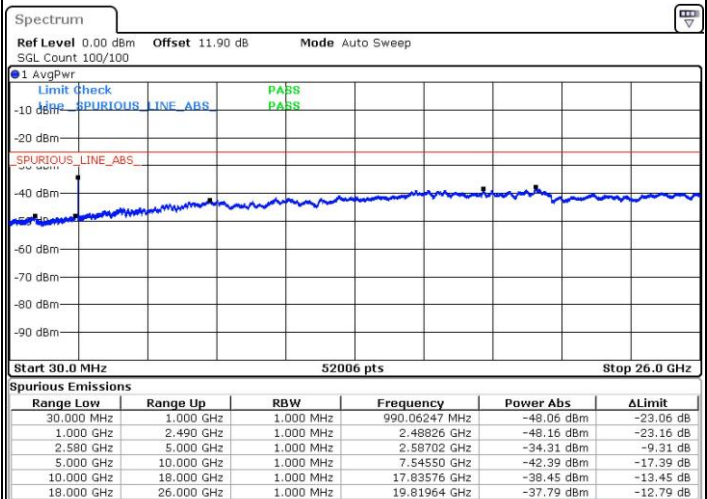
Date: 13 JUN 2018 00:21:25

Highest Channel / QPSK



Date: 13 JUN 2018 00:27:40

Highest Channel / 16QAM

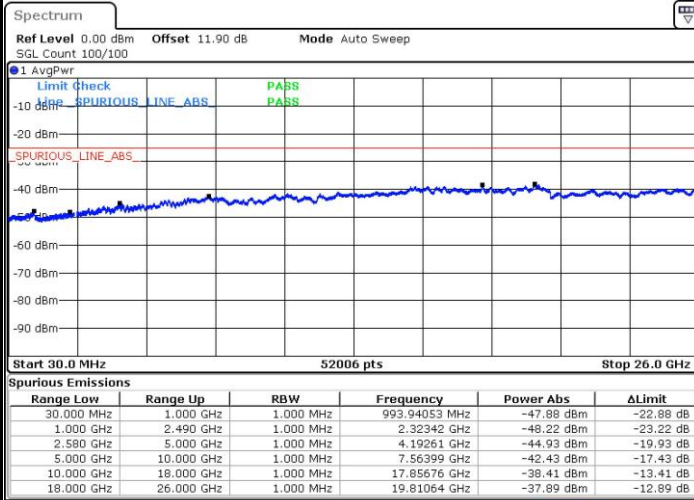


Date: 13 JUN 2018 00:28:34



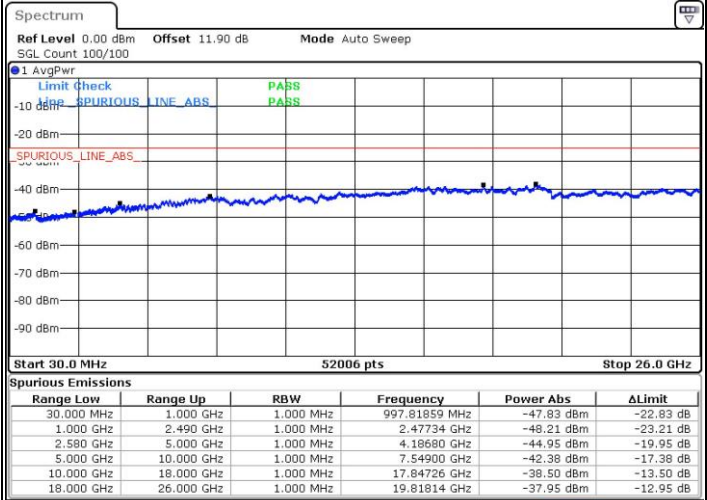
LTE Band 7 / 5MHz

Lowest Channel / 64QAM



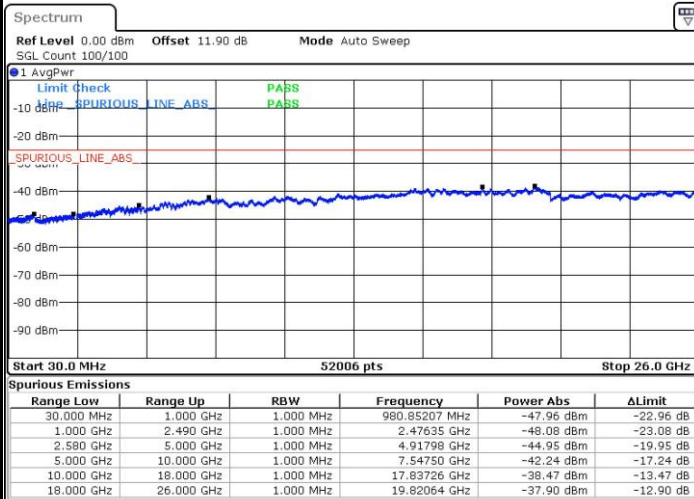
Date: 12 JUN 2018 23:12:39

Middle Channel / 64QAM



Date: 12 JUN 2018 23:13:54

Highest Channel / 64QAM

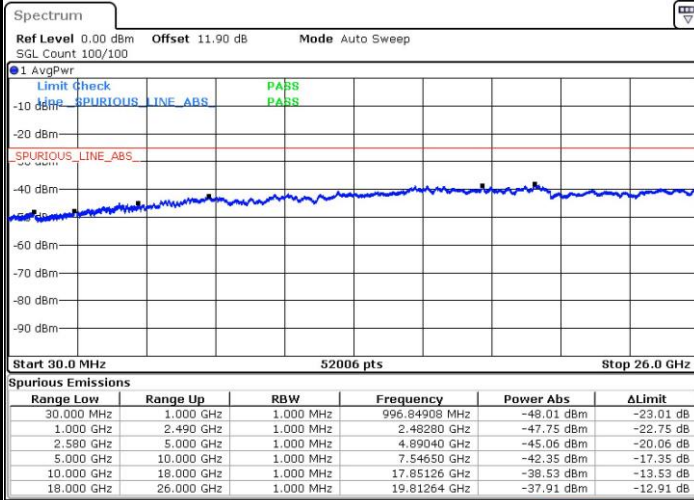


Date: 12 JUN 2018 23:17:28



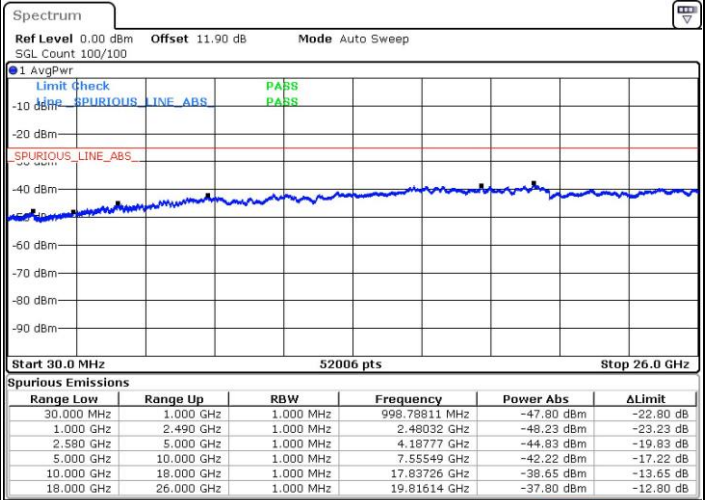
LTE Band 7 / 10MHz

Lowest Channel / 64QAM



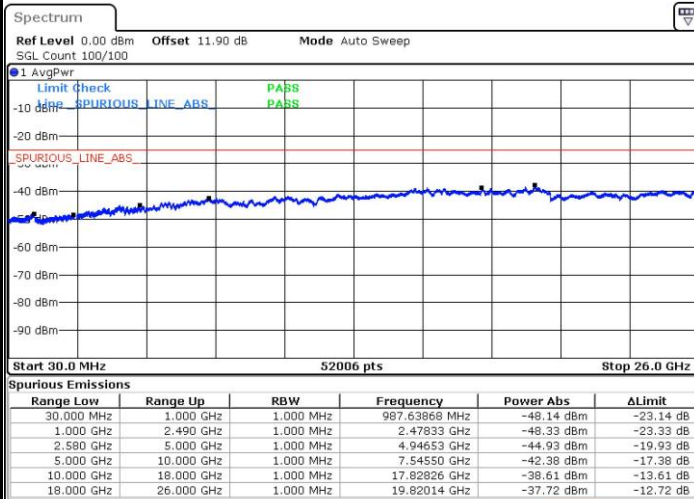
Date: 12 JUN 2018 23:37:50

Middle Channel / 64QAM



Date: 12 JUN 2018 23:39:05

Highest Channel / 64QAM

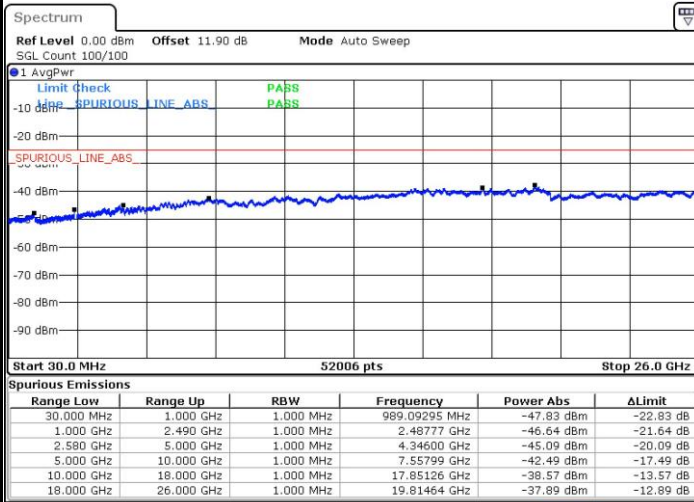


Date: 12 JUN 2018 23:42:39



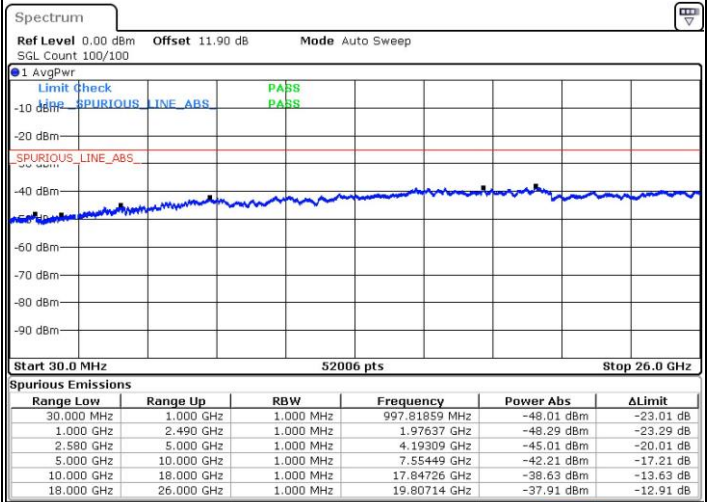
LTE Band 7 / 15MHz

Lowest Channel / 64QAM



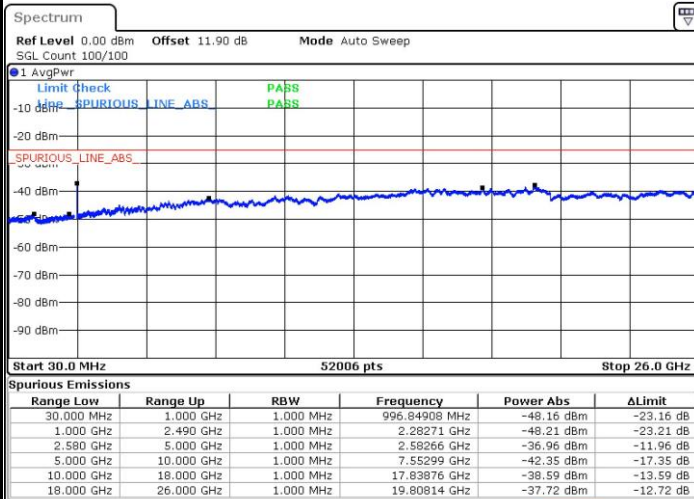
Date: 13 JUN 2018 00:03:01

Middle Channel / 64QAM



Date: 13 JUN 2018 00:04:16

Highest Channel / 64QAM

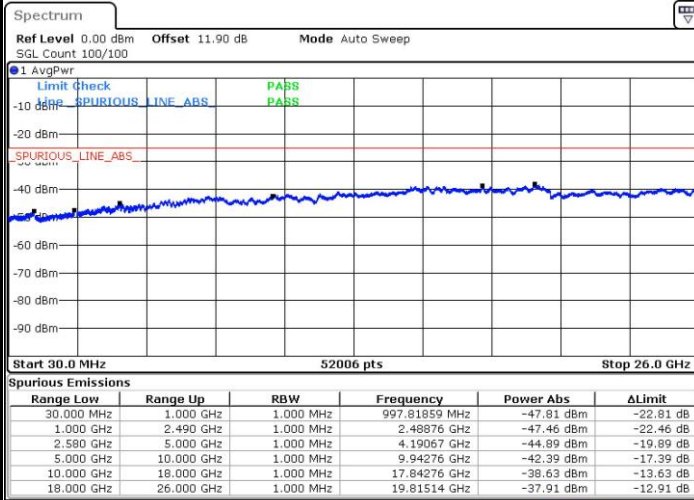


Date: 13 JUN 2018 00:07:50



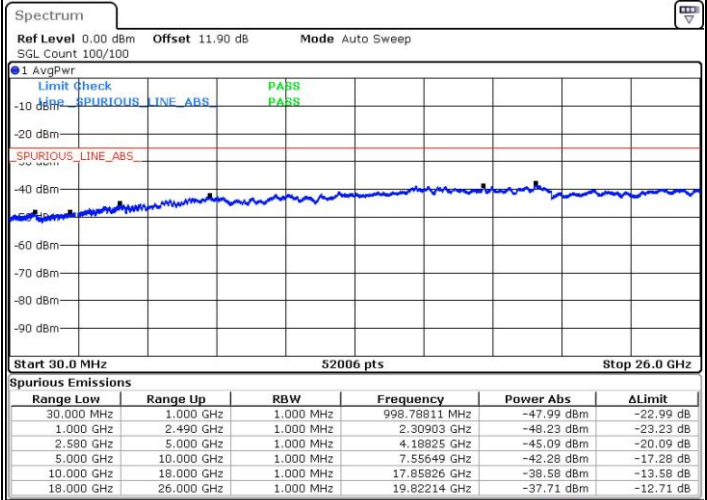
LTE Band 7 / 20MHz

Lowest Channel / 64QAM



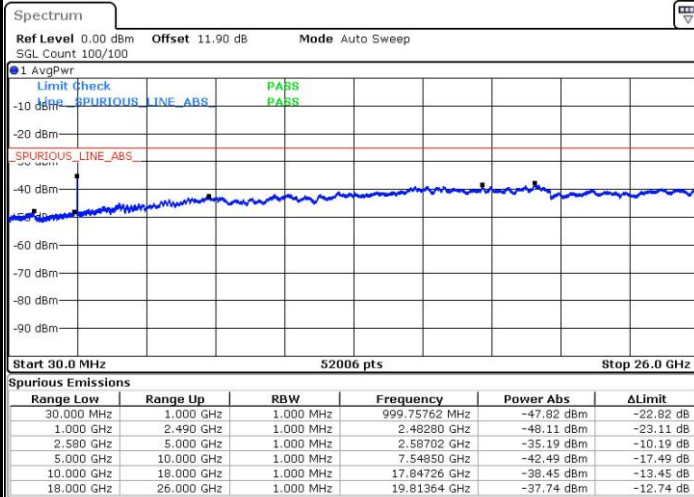
Date: 13 JUN 2018 00:32:09

Middle Channel / 64QAM



Date: 13 JUN 2018 00:38:51

Highest Channel / 64QAM



Date: 13 JUN 2018 00:42:25

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	0.0003	PASS
40	Normal Voltage	0.0014	
30	Normal Voltage	0.0013	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0013	
0	Normal Voltage	0.0006	
-10	Normal Voltage	0.0017	
-20	Normal Voltage	0.0037	
-30	Normal Voltage	0.0025	
20	Maximum Voltage	0.0026	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0041	

Note:

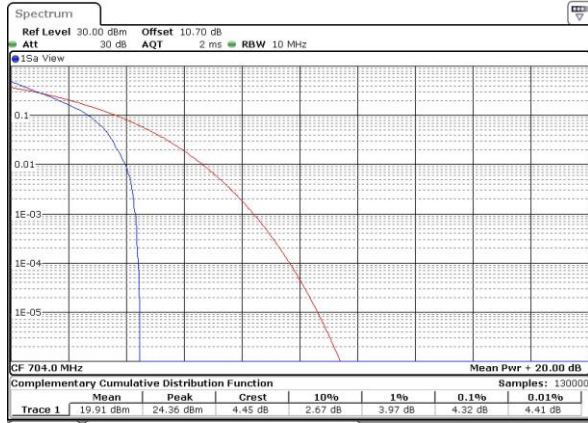
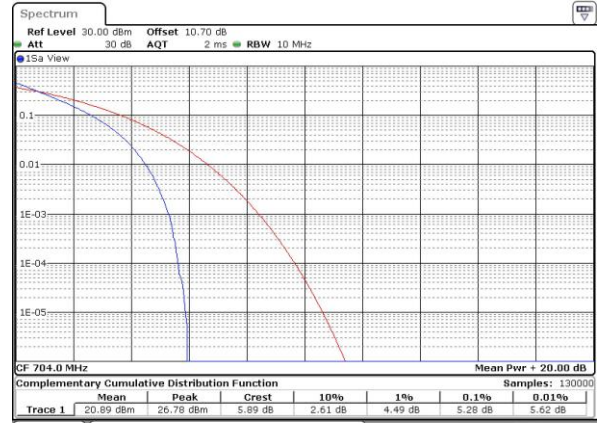
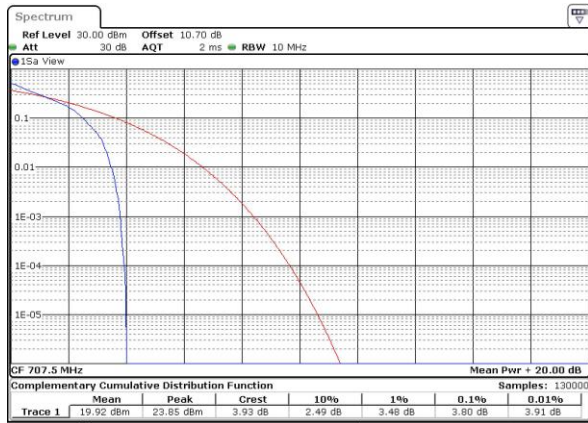
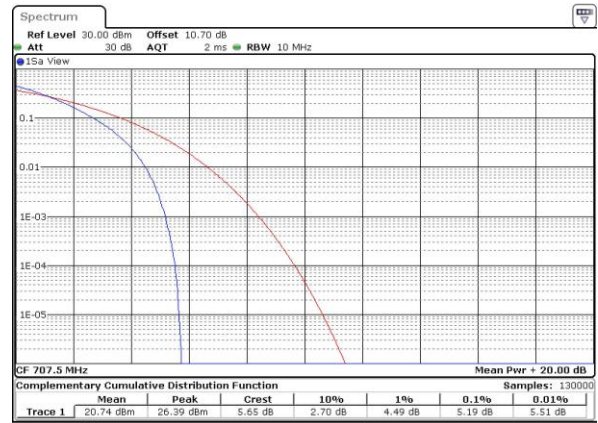
1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.5 V. ; Maximum Voltage =4.2 V.
2. The frequency fundamental emissions stay within the authorized frequency block.



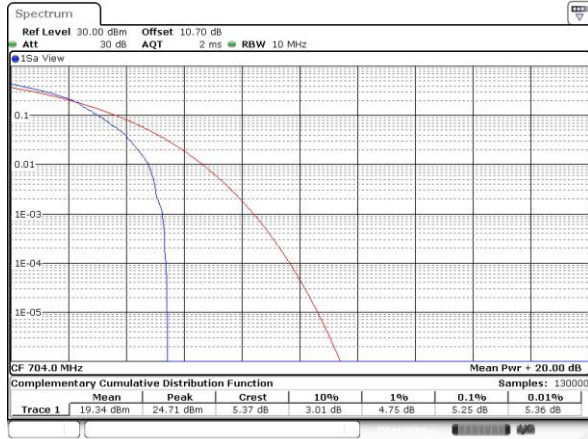
LTE Band 12

Peak-to-Average Ratio

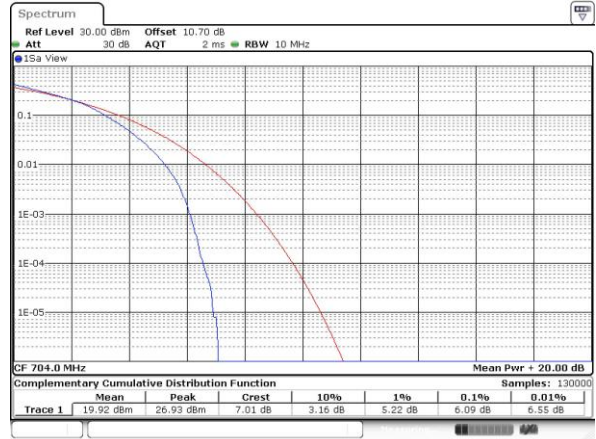
Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.32	5.28	5.25	6.09	PASS
Middle CH	3.8	5.19	4.67	6.17	
Highest CH	4.67	5.07	5.54	6.2	
Mode	LTE Band 12 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.94	6.49	-	-	PASS
Middle CH	5.68	6.64	-	-	
Highest CH	5.91	6.52	-	-	

LTE Band 12 / 10MHz / QPSK
Lowest Channel / 1RB

Lowest Channel / Full RB

Middle Channel / 1RB

Middle Channel / Full RB

Highest Channel / 1RB

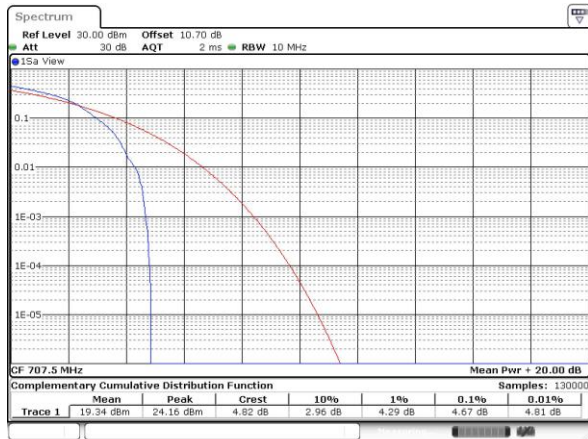
Highest Channel / Full RB


LTE Band 12 / 10MHz / 16QAM
Lowest Channel / 1RB


Date: 13 JUN 2018 10:06:11

Lowest Channel / Full RB


Date: 13 JUN 2018 10:05:55

Middle Channel / 1RB


Date: 13 JUN 2018 10:06:22

Middle Channel / Full RB


Date: 13 JUN 2018 10:06:32

Highest Channel / 1RB


Date: 13 JUN 2018 10:06:52

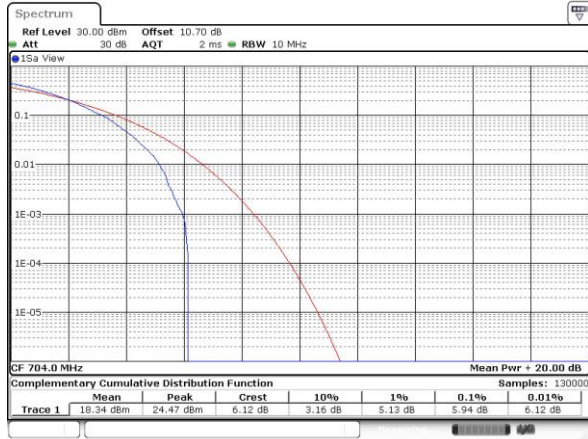
Highest Channel / Full RB


Date: 13 JUN 2018 10:06:42

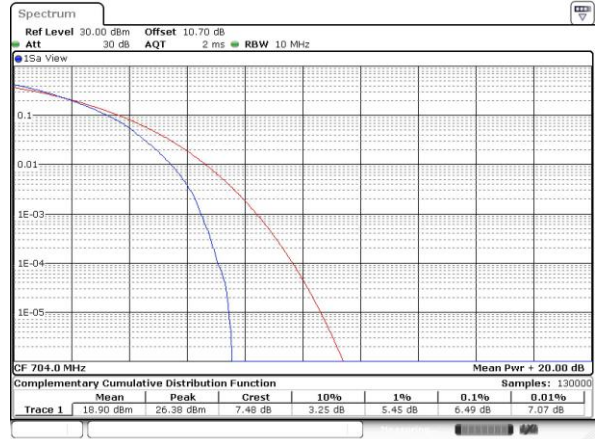


LTE Band 12 / 10MHz / 64QAM

Lowest Channel / 1RB



Lowest Channel / Full RB



Middle Channel / 1RB



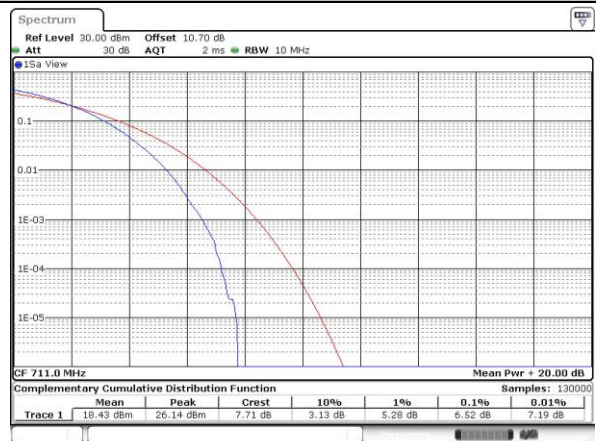
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



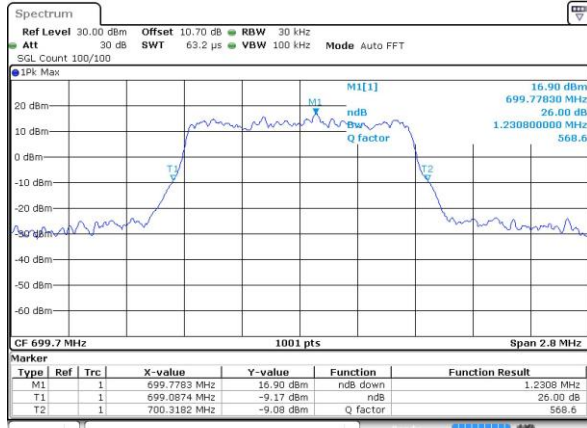
**26dB Bandwidth**

Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.23	1.25	2.97	2.91	4.91	4.98	10.17	10.05	-	-	-	-
Middle CH	1.28	1.28	2.94	2.96	5.05	4.99	9.75	9.67	-	-	-	-
Highest CH	1.27	1.29	2.97	2.91	5.05	5.08	9.65	9.73	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.29	-	2.92	-	5.12	-	10.01	-	-	-	-	-
Middle CH	1.26	-	2.94	-	4.97	-	10.15	-	-	-	-	-
Highest CH	1.27	-	2.93	-	5.02	-	9.95	-	-	-	-	-



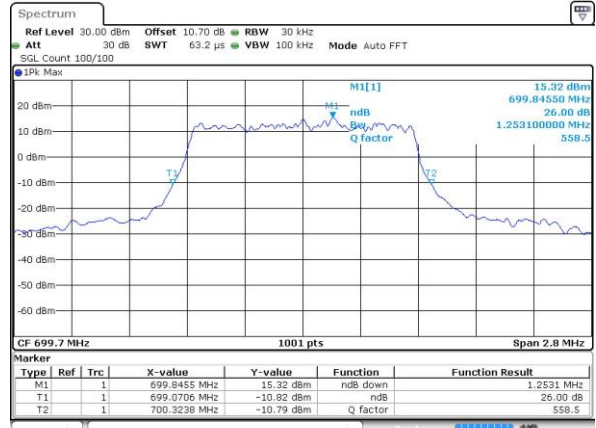
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



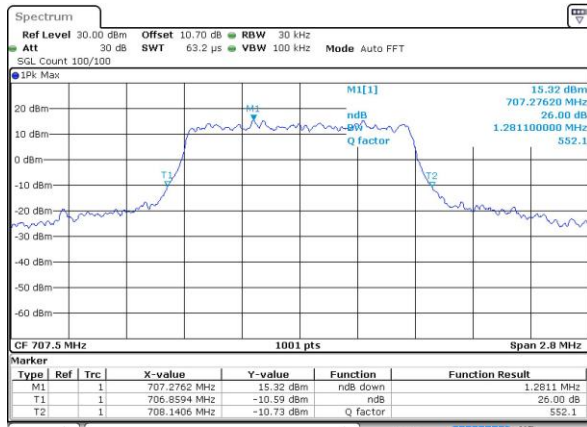
Date: 13 JUN 2018 01:40:50

Lowest Channel / 1.4MHz / 16QAM



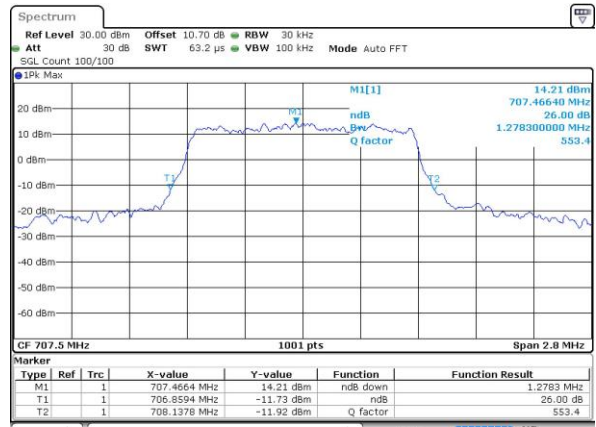
Date: 13 JUN 2018 01:40:40

Middle Channel / 1.4MHz / QPSK



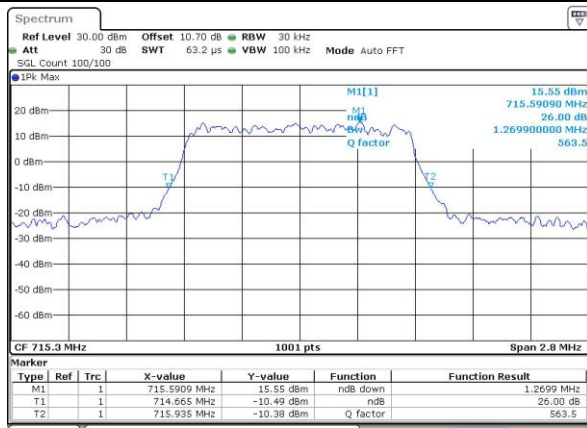
Date: 13 JUN 2018 01:47:48

Middle Channel / 1.4MHz / 16QAM



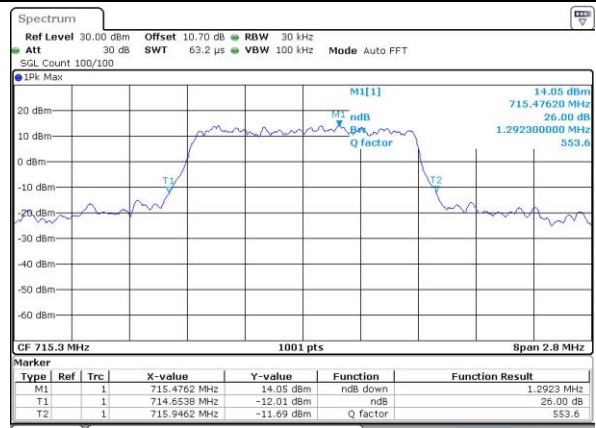
Date: 13 JUN 2018 01:47:58

Highest Channel / 1.4MHz / QPSK



Date: 13 JUN 2018 09:20:36

Highest Channel / 1.4MHz / 16QAM

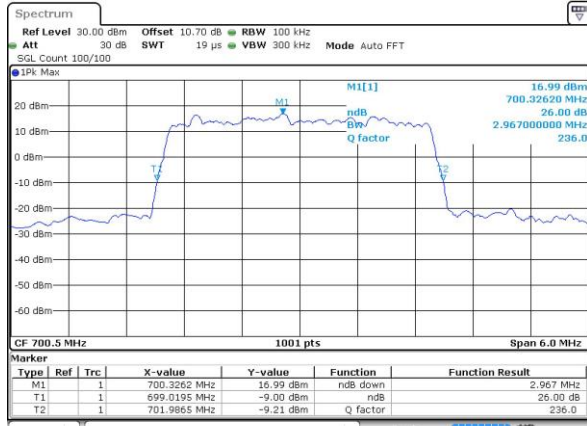


Date: 13 JUN 2018 09:20:25



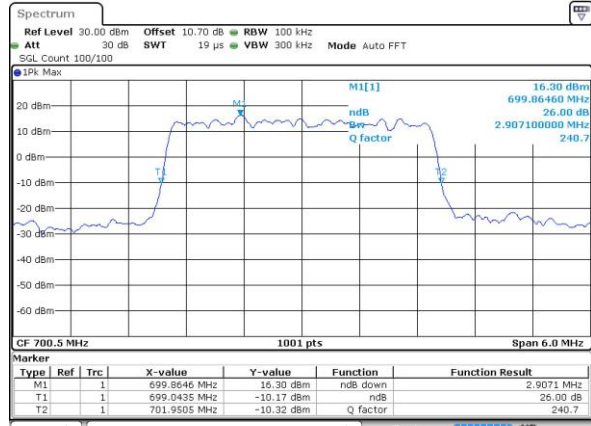
LTE Band 12

Lowest Channel / 3MHz / QPSK



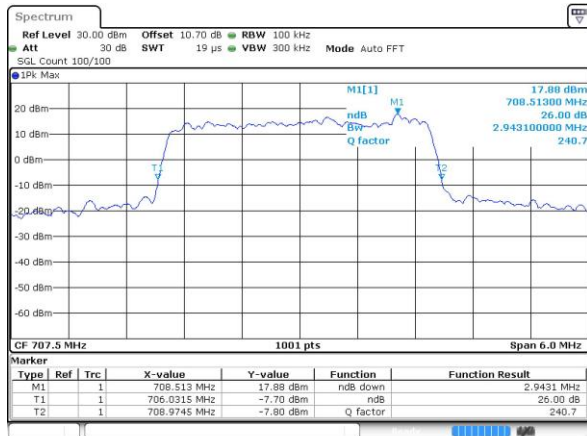
Date: 13 JUN 2018 00:48:00

Lowest Channel / 3MHz / 16QAM



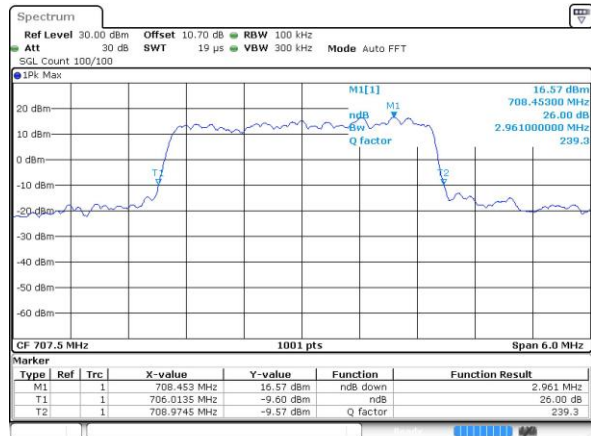
Date: 13 JUN 2018 00:48:50

Middle Channel / 3MHz / QPSK



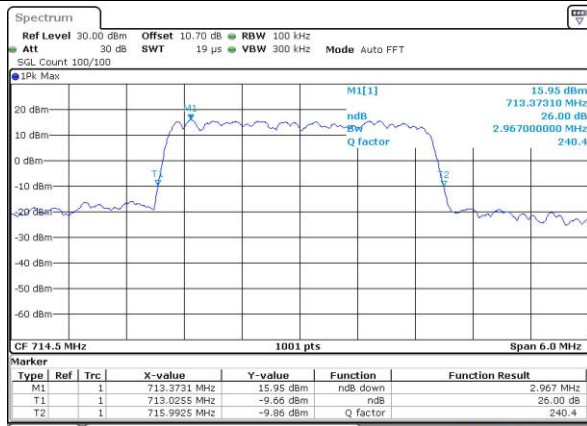
Date: 13 JUN 2018 00:55:57

Middle Channel / 3MHz / 16QAM



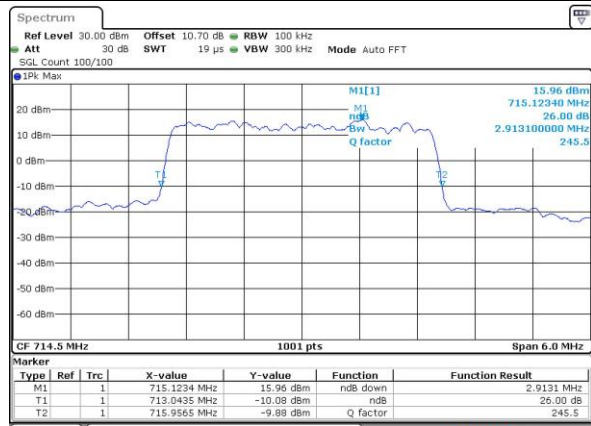
Date: 13 JUN 2018 00:56:08

Highest Channel / 3MHz / QPSK



Date: 13 JUN 2018 00:58:38

Highest Channel / 3MHz / 16QAM

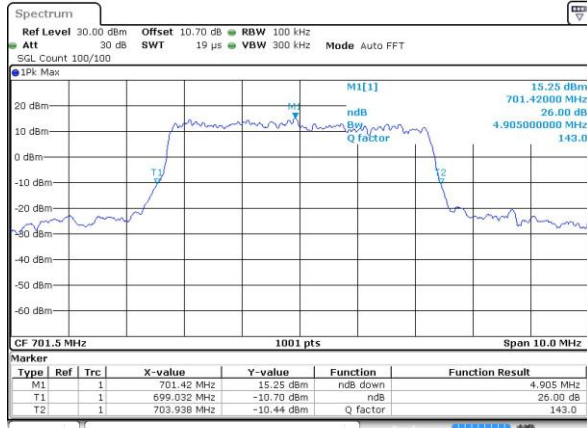


Date: 13 JUN 2018 00:58:28



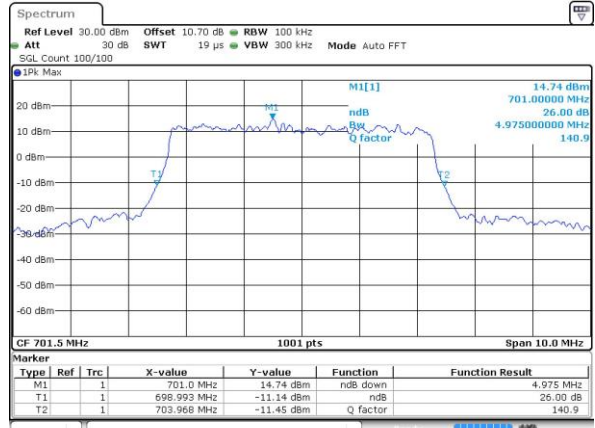
LTE Band 12

Lowest Channel / 5MHz / QPSK



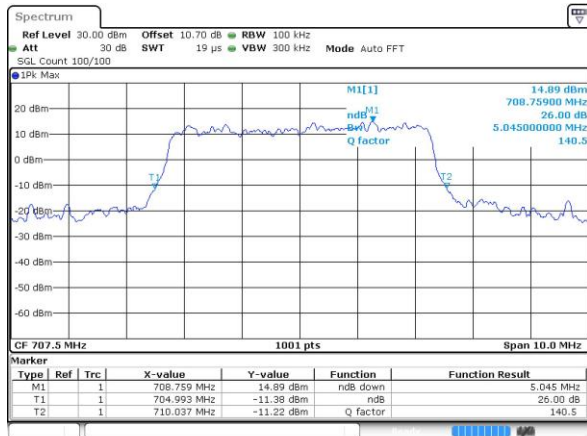
Date: 13 JUN 2018 01:05:45

Lowest Channel / 5MHz / 16QAM



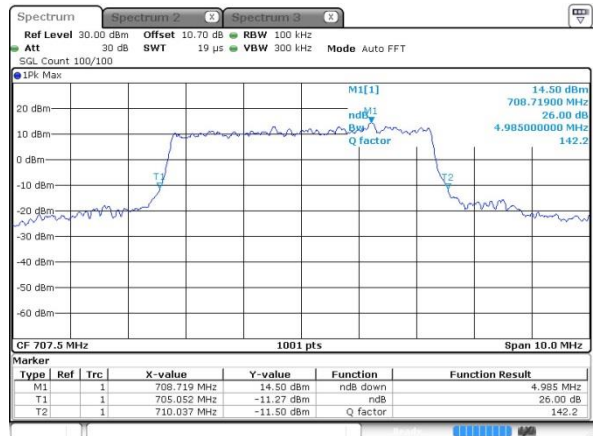
Date: 13 JUN 2018 01:05:35

Middle Channel / 5MHz / QPSK



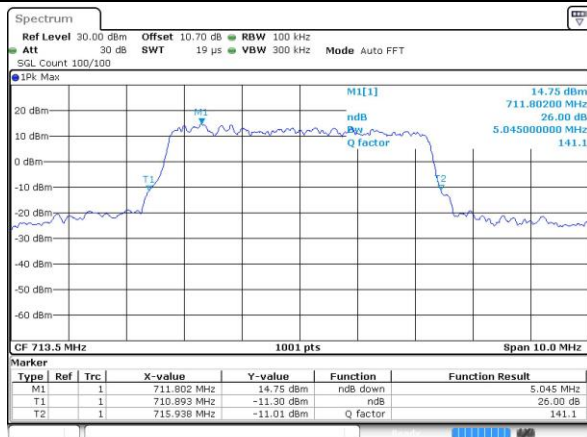
Date: 13 JUN 2018 01:12:42

Middle Channel / 5MHz / 16QAM



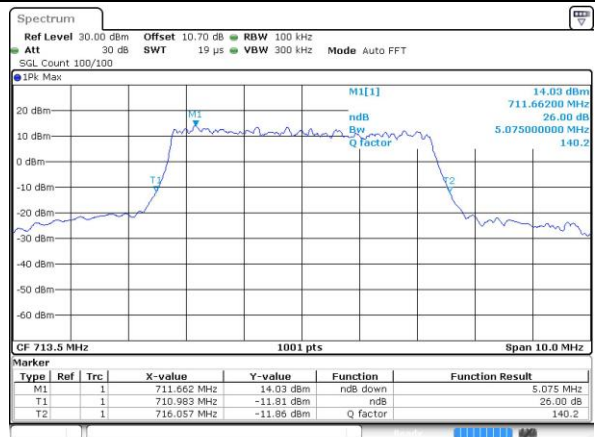
Date: 13 JUN 2018 20:35:24

Highest Channel / 5MHz / QPSK



Date: 13 JUN 2018 01:16:58

Highest Channel / 5MHz / 16QAM

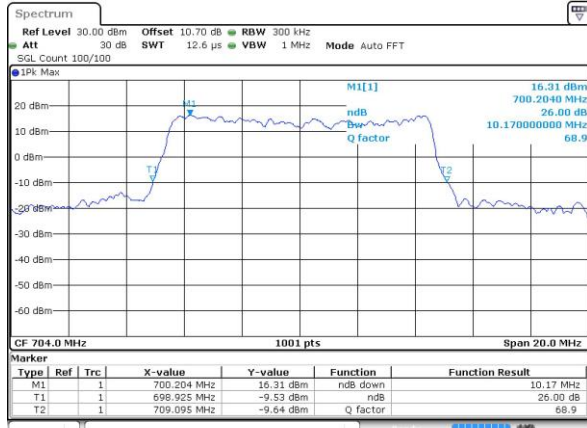


Date: 13 JUN 2018 01:16:47



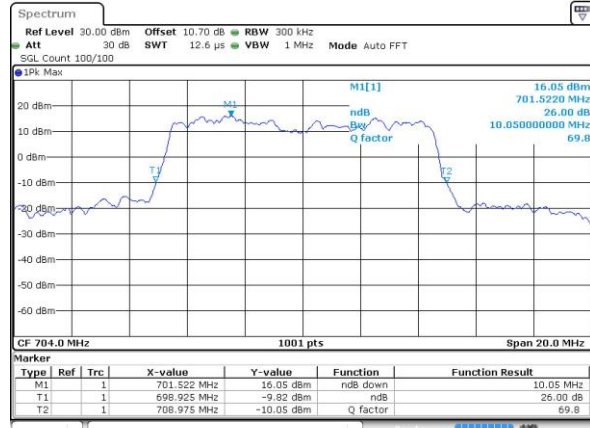
LTE Band 12

Lowest Channel / 10MHz / QPSK



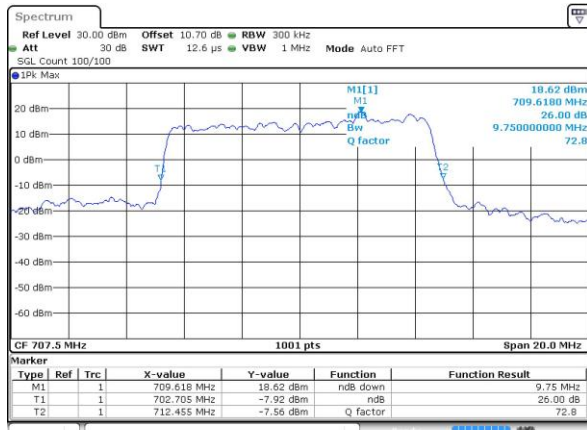
Date: 13 JUN 2018 01:24:05

Lowest Channel / 10MHz / 16QAM



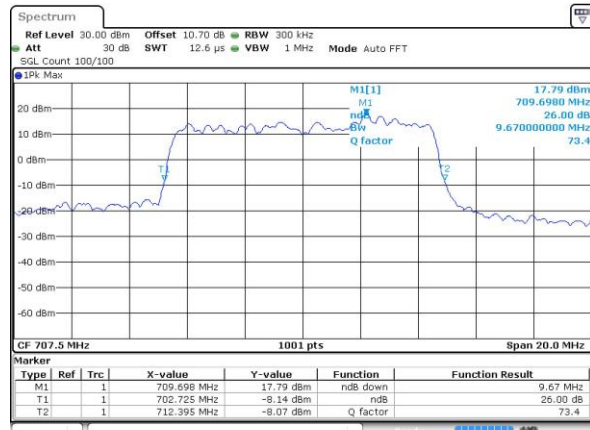
Date: 13 JUN 2018 01:23:55

Middle Channel / 10MHz / QPSK



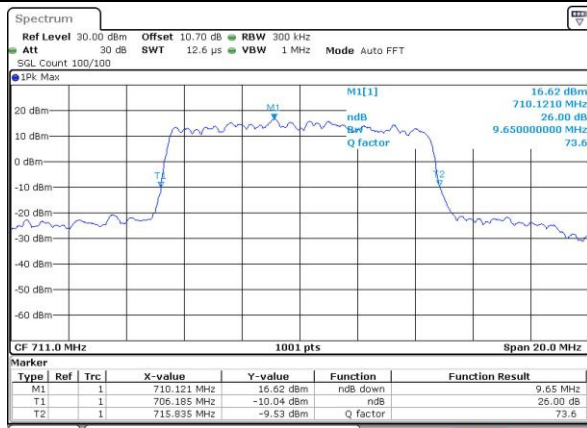
Date: 13 JUN 2018 01:31:02

Middle Channel / 10MHz / 16QAM



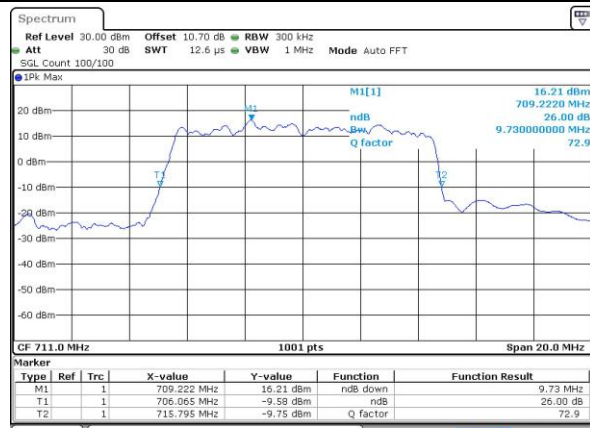
Date: 13 JUN 2018 01:31:12

Highest Channel / 10MHz / QPSK



Date: 13 JUN 2018 01:33:43

Highest Channel / 10MHz / 16QAM

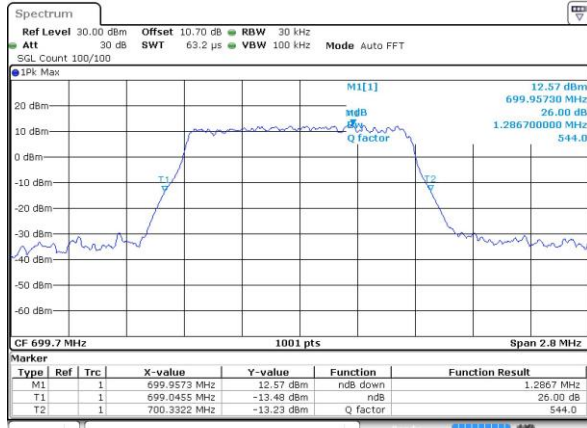


Date: 13 JUN 2018 01:33:33



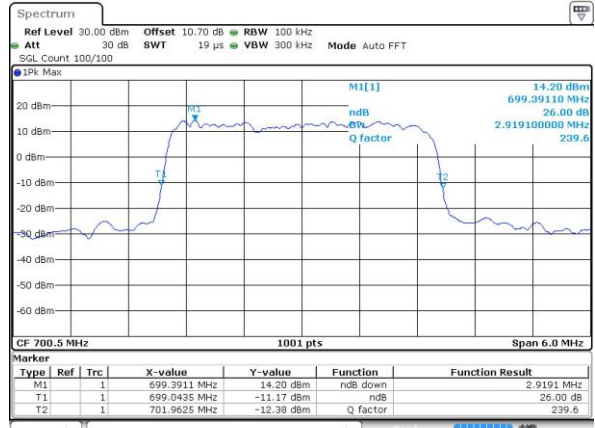
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



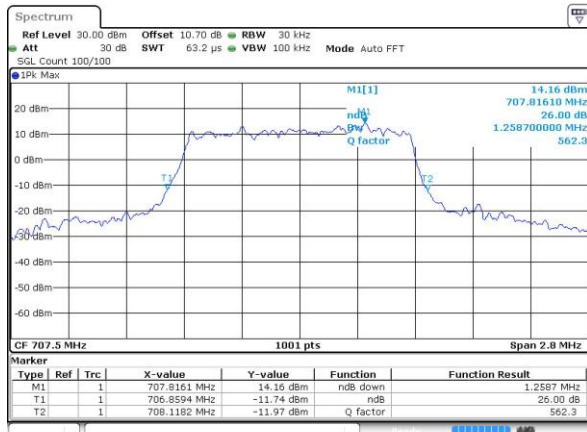
Date: 13 JUN 2018 09:52:31

Lowest Channel / 3MHz / 64QAM



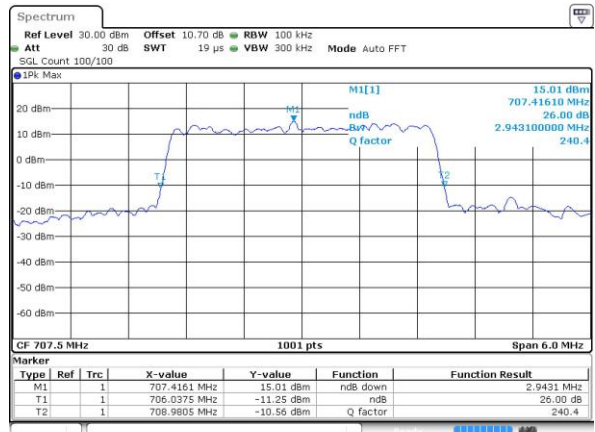
Date: 13 JUN 2018 09:27:22

Middle Channel / 1.4MHz / 64QAM



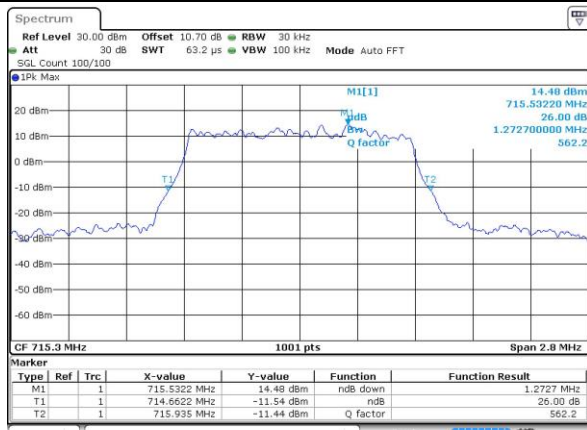
Date: 13 JUN 2018 09:56:04

Middle Channel / 3MHz / 64QAM



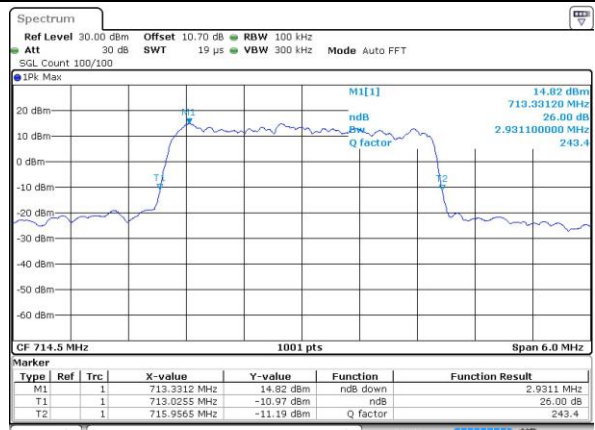
Date: 13 JUN 2018 09:30:56

Highest Channel / 1.4MHz / 64QAM



Date: 13 JUN 2018 09:57:20

Highest Channel / 3MHz / 64QAM

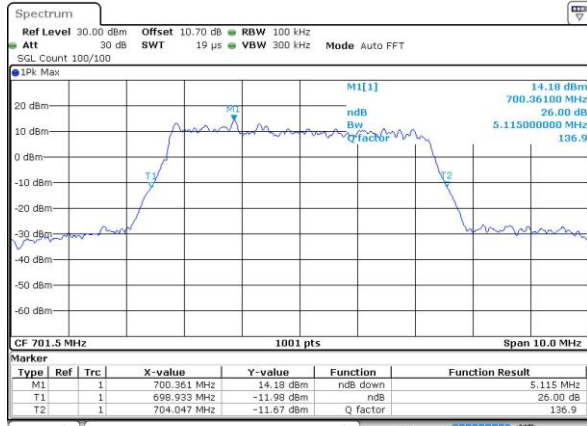


Date: 13 JUN 2018 09:32:11



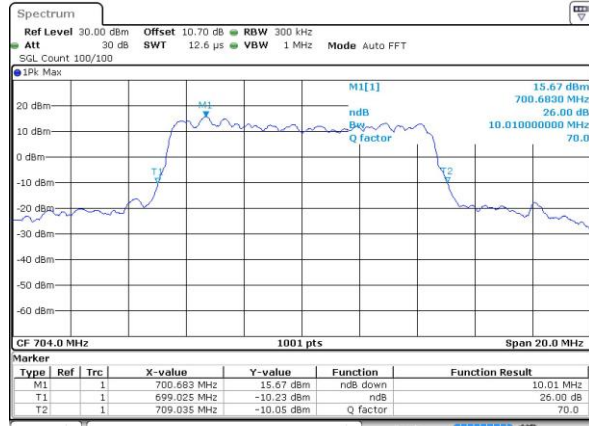
LTE Band 12

Lowest Channel / 5MHz / 64QAM



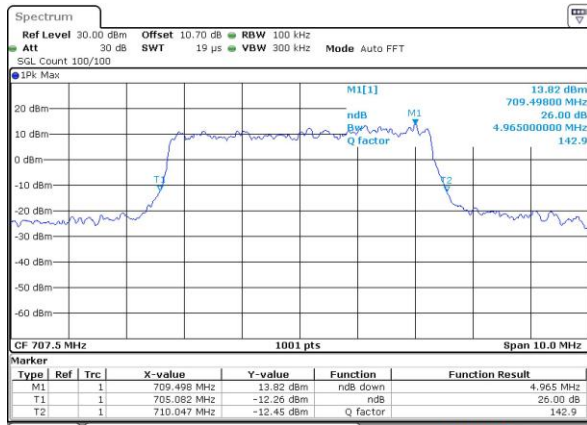
Date: 13 JUN 2018 09:35:45

Lowest Channel / 10MHz / 64QAM



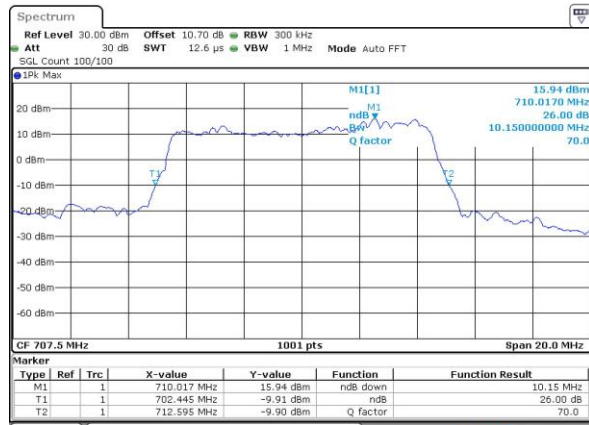
Date: 13 JUN 2018 09:44:08

Middle Channel / 5MHz / 64QAM



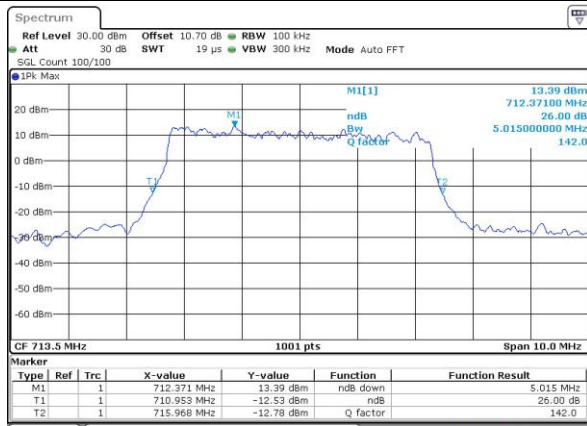
Date: 13 JUN 2018 09:38:19

Middle Channel / 10MHz / 64QAM



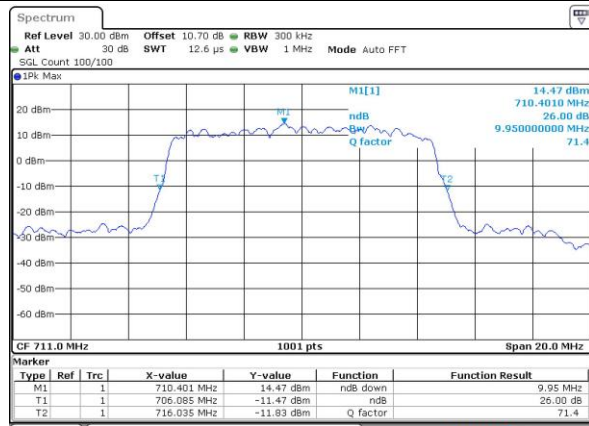
Date: 13 JUN 2018 09:47:42

Highest Channel / 5MHz / 64QAM



Date: 13 JUN 2018 09:40:34

Highest Channel / 10MHz / 64QAM



Date: 13 JUN 2018 09:48:57

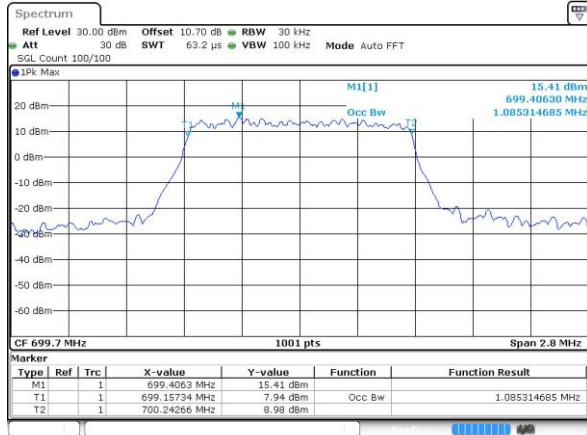
**Occupied Bandwidth**

Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.7	2.72	4.5	4.5	9.09	9.09	-	-	-	-
Middle CH	1.1	1.09	2.72	2.72	4.51	4.53	9.05	9.13	-	-	-	-
Highest CH	1.09	1.1	2.72	2.73	4.52	4.5	8.93	8.99	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09		2.70		4.50		9.09		-	-	-	-
Middle CH	1.09		2.71		4.50		9.05		-	-	-	-
Highest CH	1.09		2.72		4.52		8.91		-	-	-	-

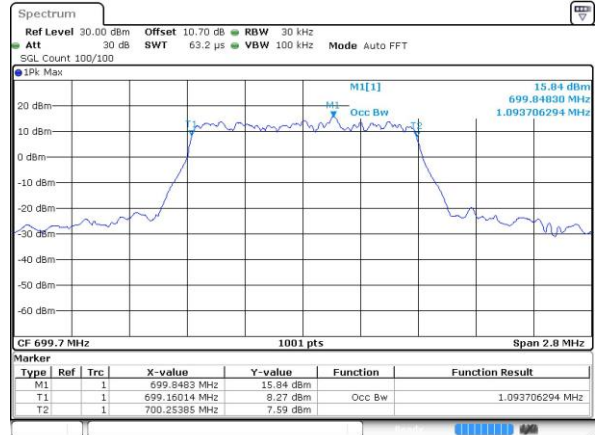


LTE Band 12

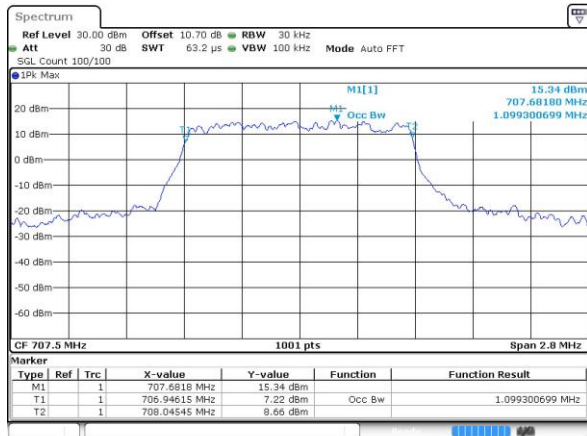
Lowest Channel / 1.4MHz / QPSK



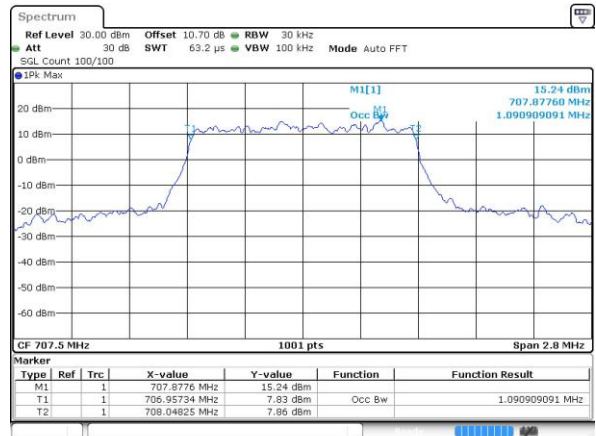
Lowest Channel / 1.4MHz / 16QAM



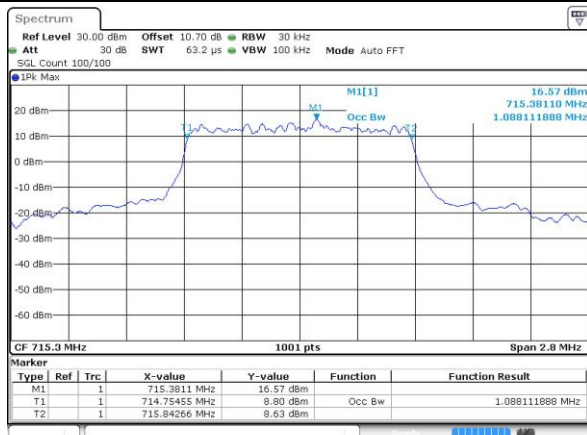
Middle Channel / 1.4MHz / QPSK



Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



Highest Channel / 1.4MHz / 16QAM

