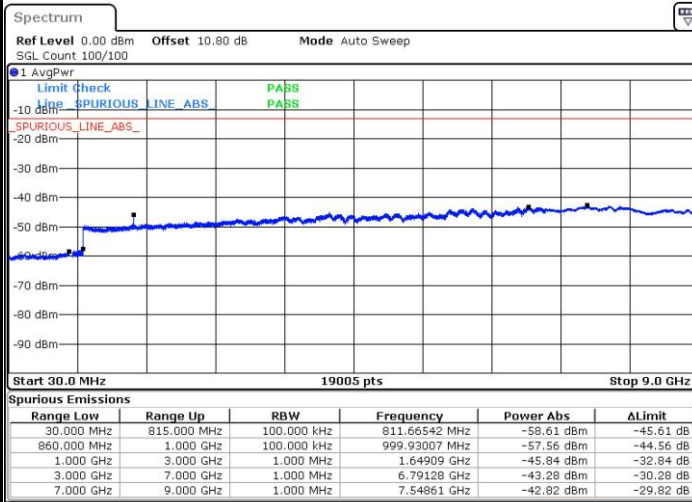




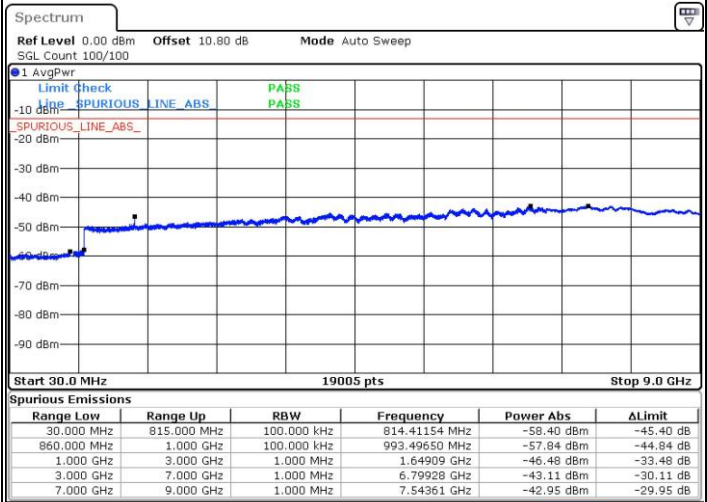
LTE Band 5 / 5MHz

Lowest Channel / QPSK



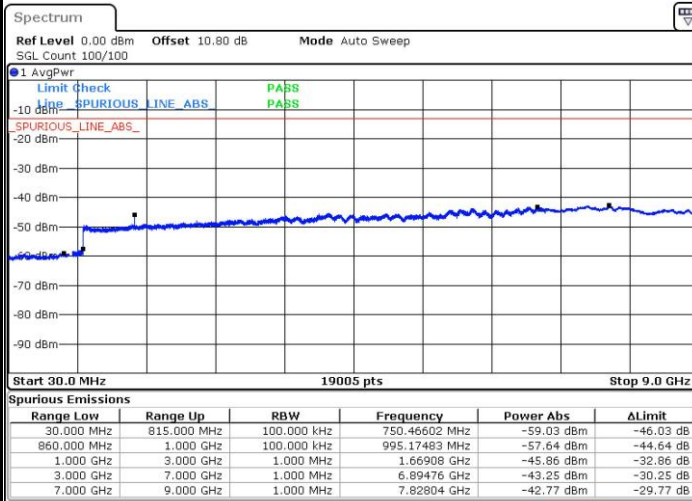
Date: 22.OCT.2018 19:42:06

Lowest Channel / 16QAM



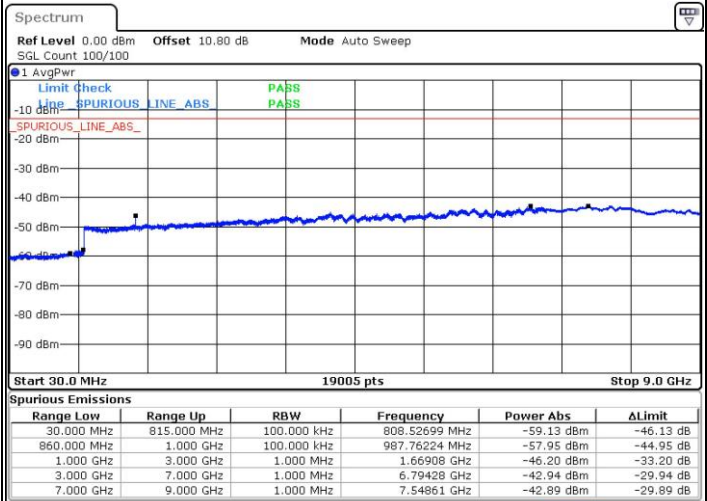
Date: 22.OCT.2018 19:42:47

Middle Channel / QPSK



Date: 22.OCT.2018 19:44:12

Middle Channel / 16QAM

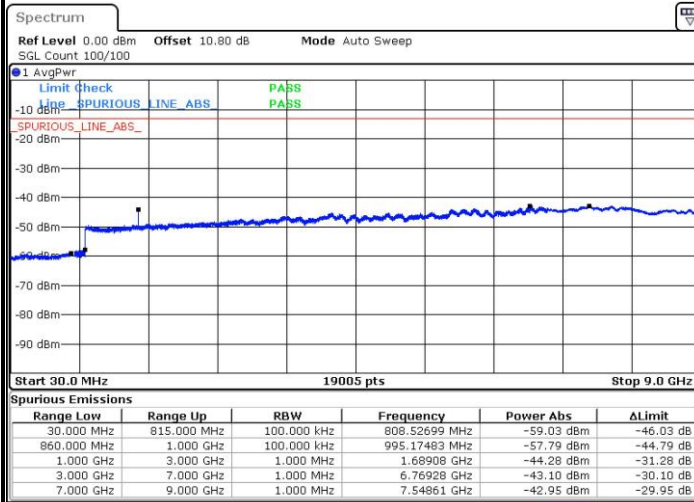


Date: 22.OCT.2018 19:44:53



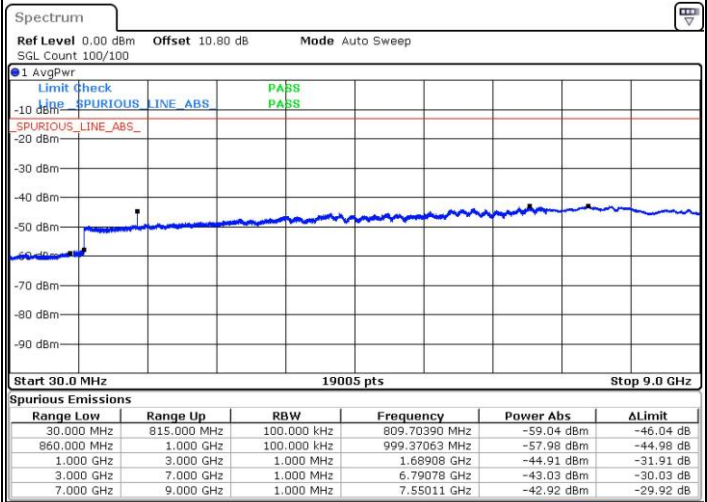
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 22 OCT 2018 19:52:59

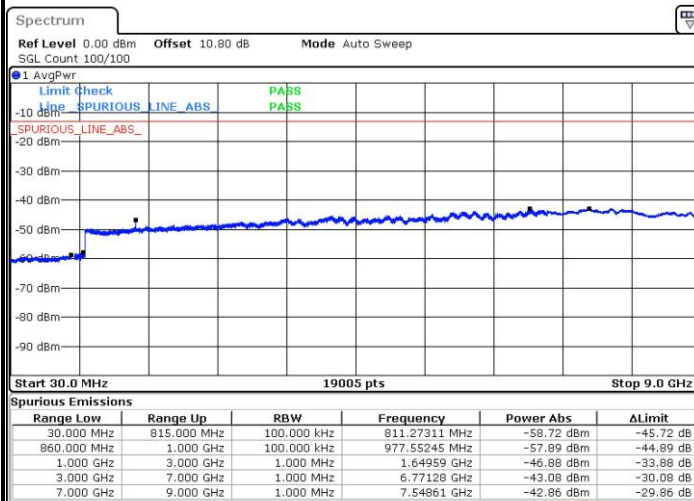
Highest Channel / 16QAM



Date: 22 OCT 2018 19:53:39

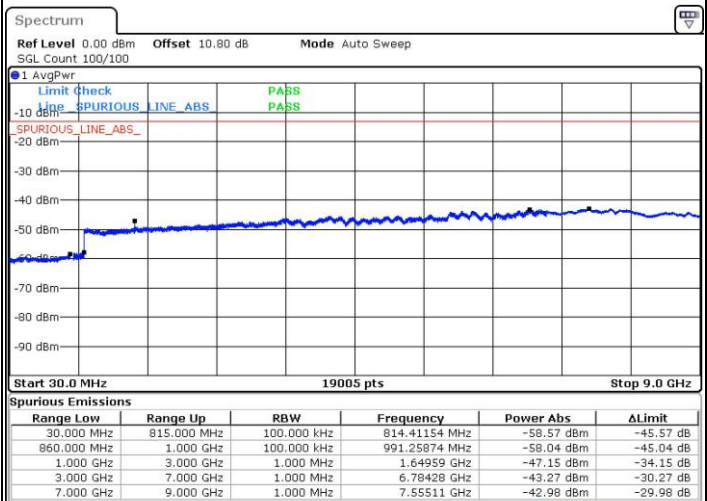
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 22 OCT 2018 20:14:36

Lowest Channel / 16QAM

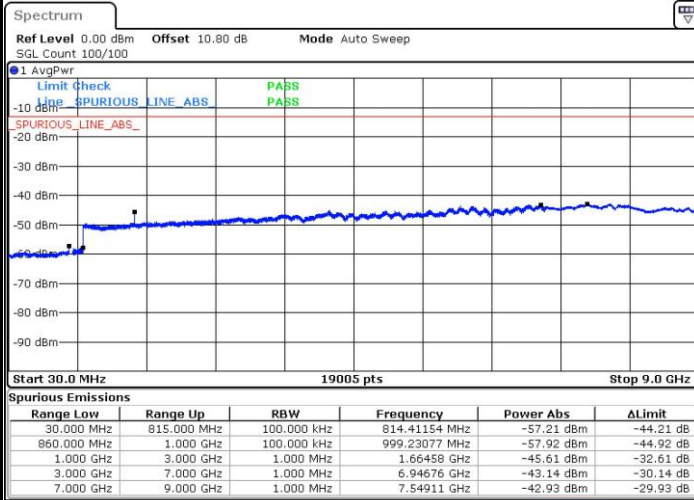


Date: 22 OCT 2018 20:15:16



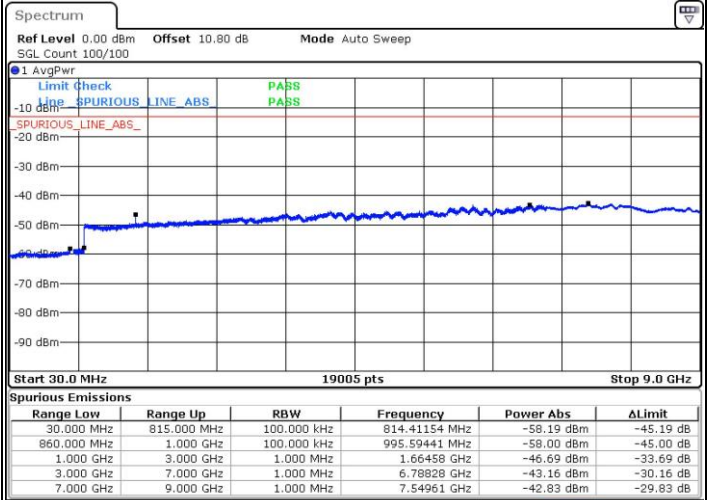
LTE Band 5 / 10MHz

Middle Channel / QPSK



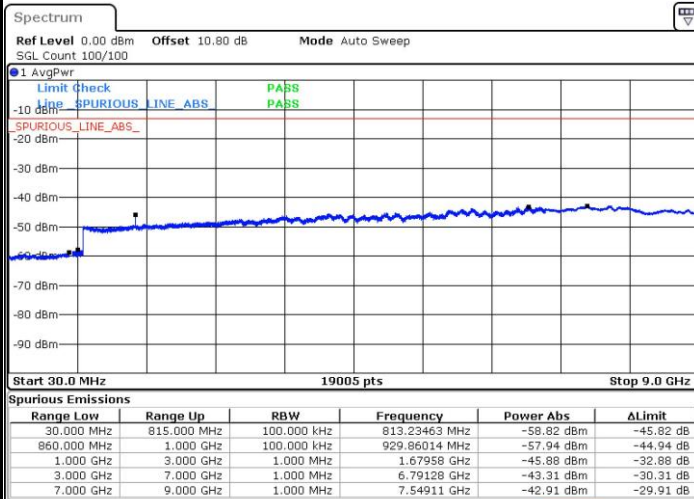
Date: 22.OCT.2018 20:16:42

Middle Channel / 16QAM



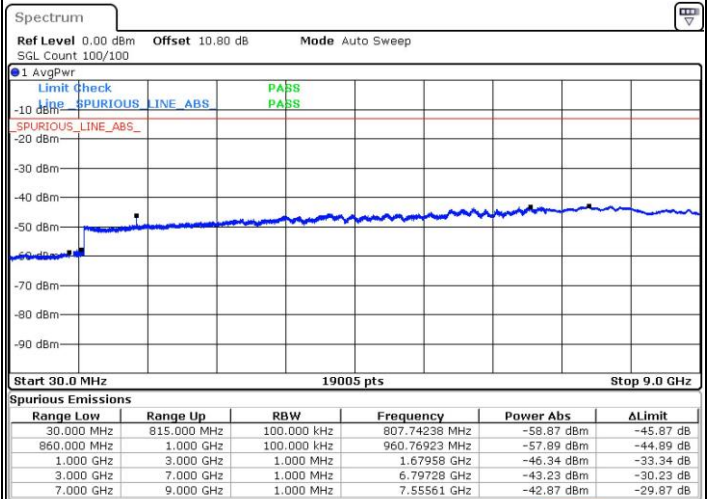
Date: 22.OCT.2018 20:17:22

Highest Channel / QPSK



Date: 22.OCT.2018 20:25:28

Highest Channel / 16QAM

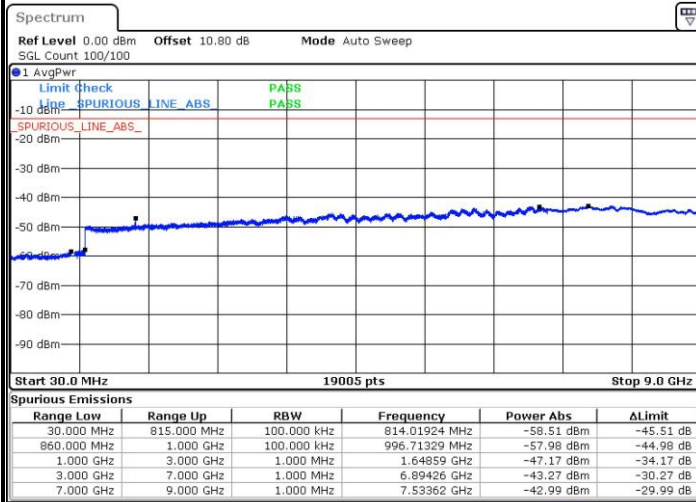


Date: 22.OCT.2018 20:26:08



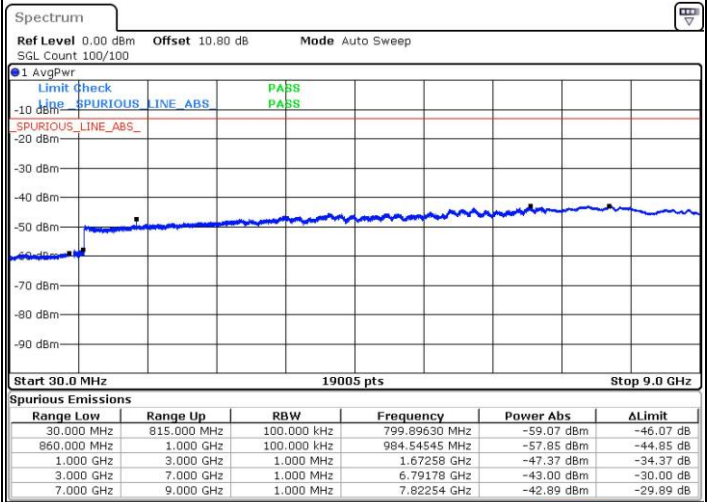
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM



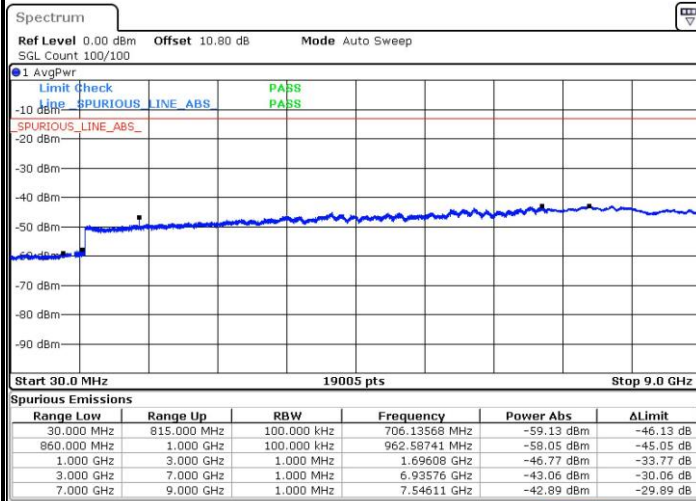
Date: 22 OCT.2018 21:03:16

Middle Channel / 64QAM



Date: 22 OCT.2018 21:04:19

Highest Channel / 64QAM

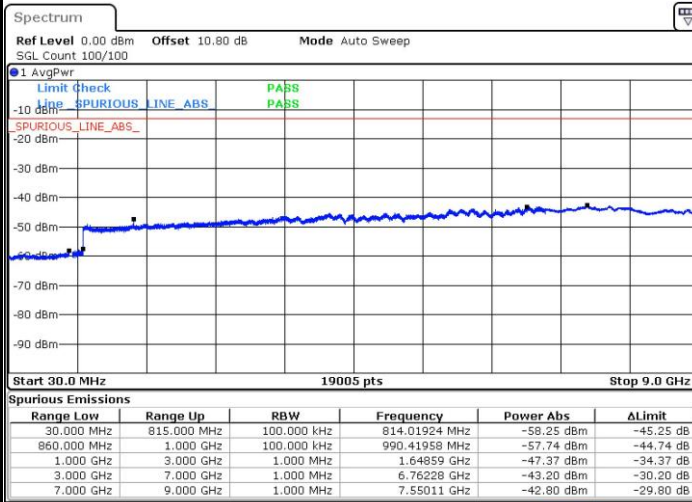


Date: 22 OCT.2018 21:08:42



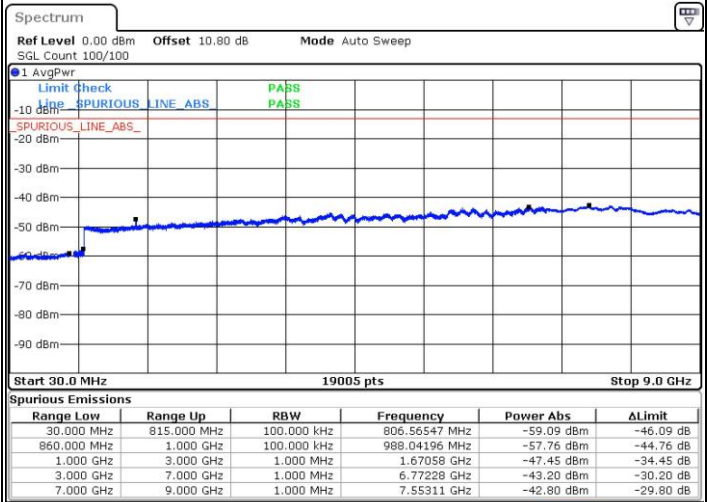
LTE Band 5 / 3MHz

Lowest Channel / 64QAM



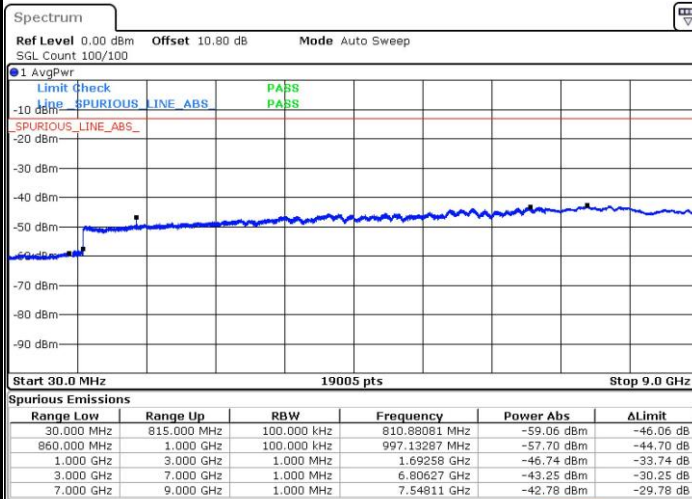
Date: 22 OCT.2018 20:30:31

Middle Channel / 64QAM



Date: 22 OCT.2018 20:31:34

Highest Channel / 64QAM

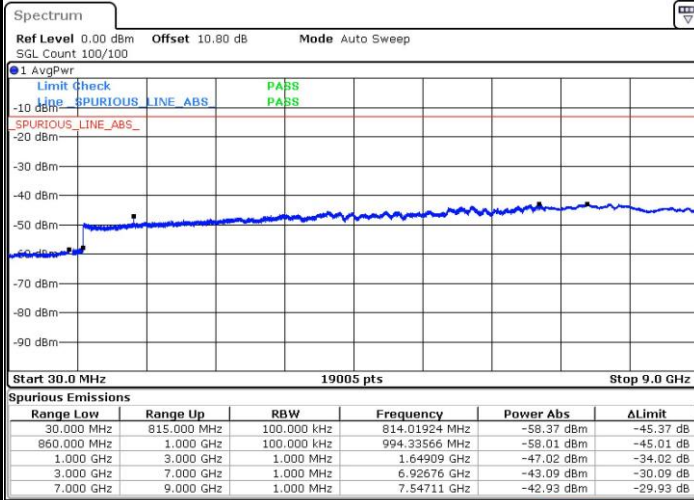


Date: 22 OCT.2018 20:35:57



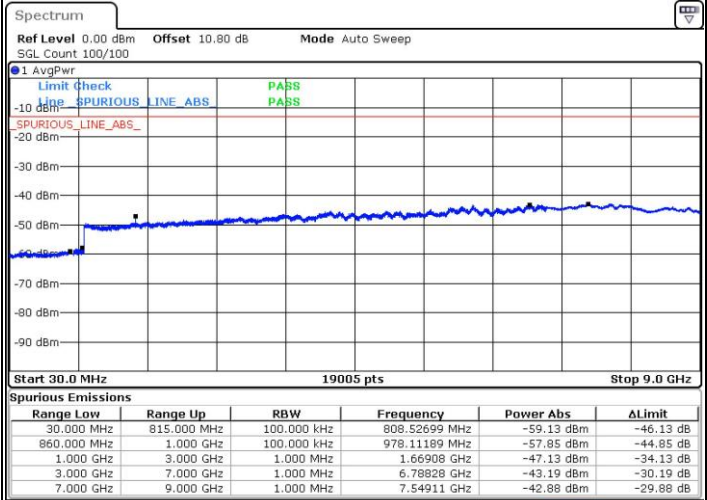
LTE Band 5 / 5MHz

Lowest Channel / 64QAM



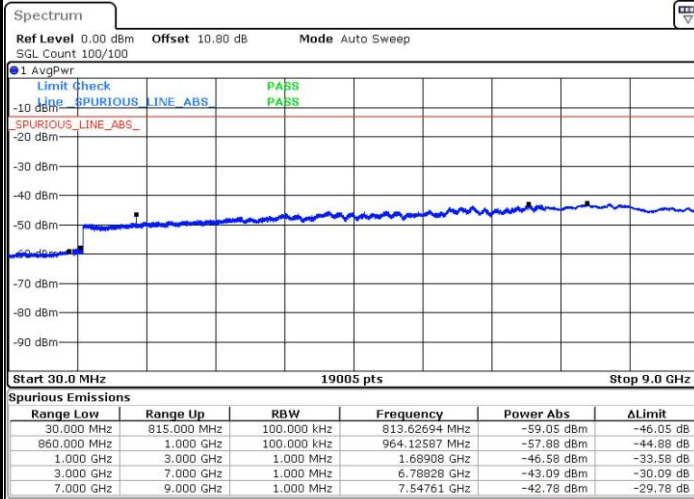
Date: 22 OCT.2018 20:40:20

Middle Channel / 64QAM



Date: 22 OCT.2018 20:41:23

Highest Channel / 64QAM

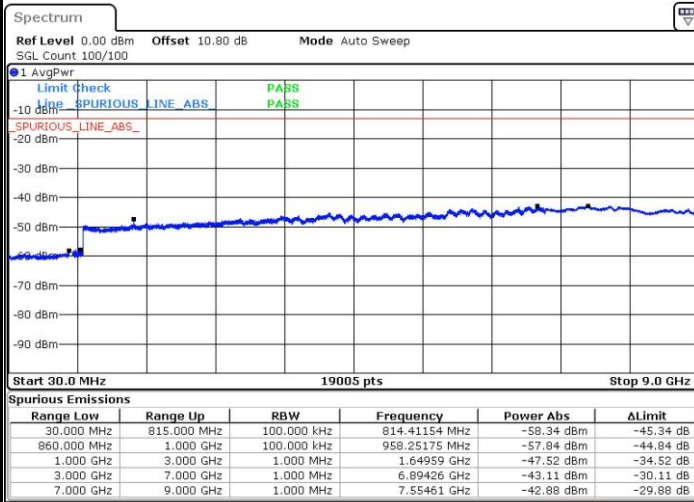


Date: 22 OCT.2018 20:45:46



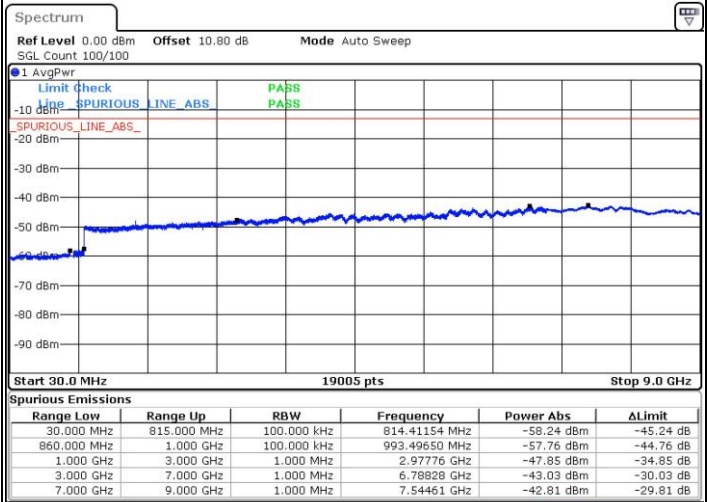
LTE Band 5 / 10MHz

Lowest Channel / 64QAM



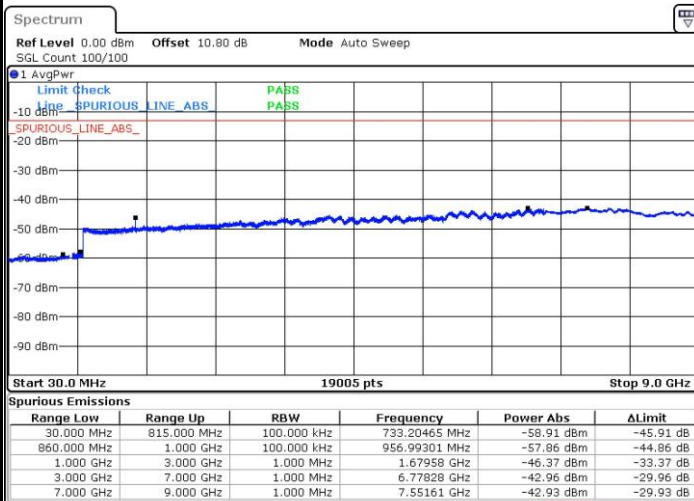
Date: 22 OCT.2018 20:50:09

Middle Channel / 64QAM



Date: 22 OCT.2018 20:51:12

Highest Channel / 64QAM



Date: 22 OCT.2018 20:55:35

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	0.0036	PASS
40	Normal Voltage	0.0033	
30	Normal Voltage	0.0081	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0041	
0	Normal Voltage	0.0022	
-10	Normal Voltage	0.0024	
-20	Normal Voltage	0.0001	
-30	Normal Voltage	0.0027	
20	Maximum Voltage	0.0106	
20	Normal Voltage	0.0056	
20	Battery End Point	0.0005	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.4 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	3.62	4.64	5.45	5.88	PASS
Middle CH	3.62	4.67	5.13	5.97	
Highest CH	3.62	4.67	5.13	6.14	
Mode	LTE Band 12 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	6.41	6.58	-	-	PASS
Middle CH	6.32	6.35	-	-	
Highest CH	6.41	6.49	-	-	

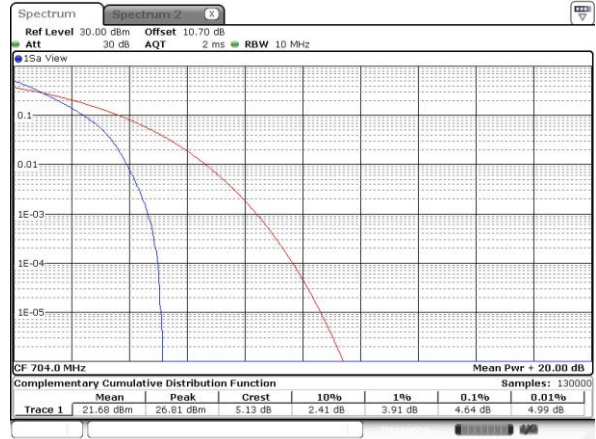


LTE Band 12 / 10MHz / QPSK

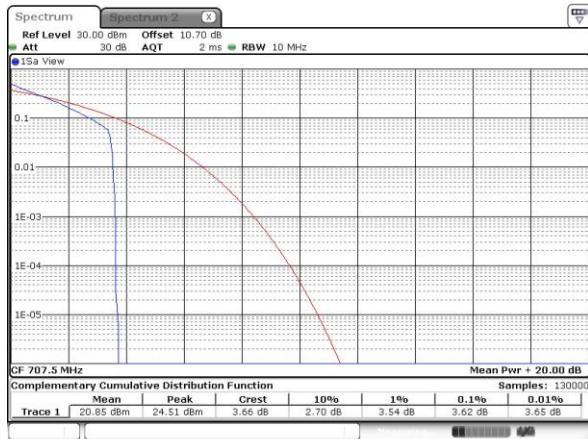
Lowest Channel / 1RB



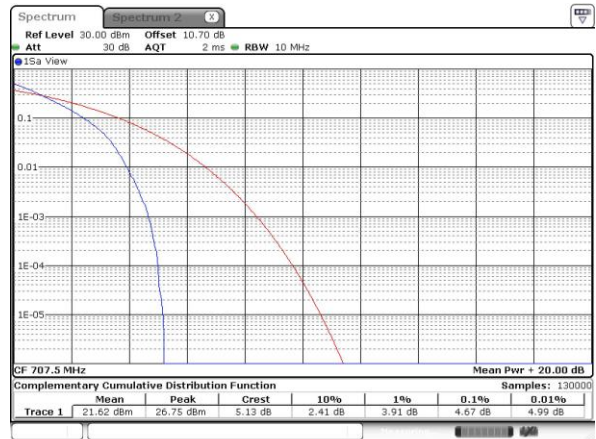
Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



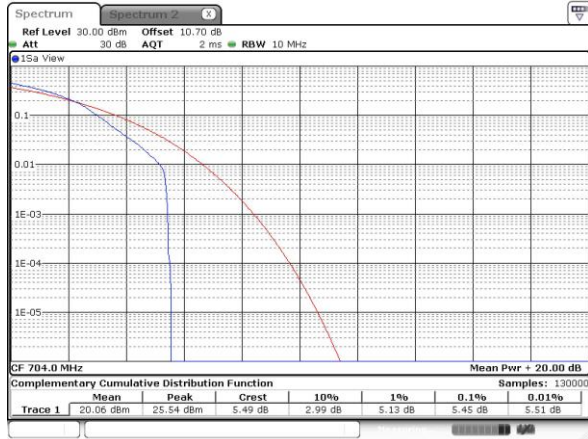
Highest Channel / Full RB



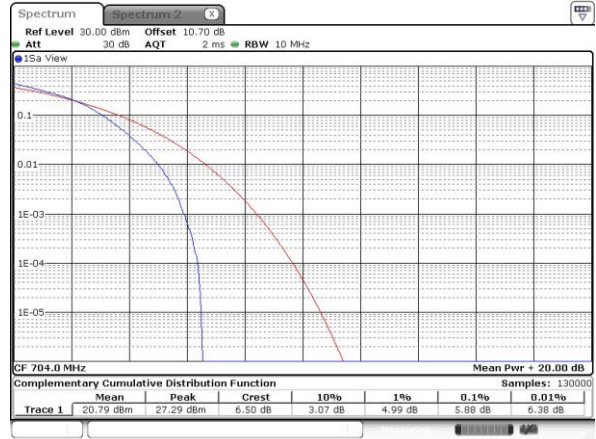


LTE Band 12 / 10MHz / 16QAM

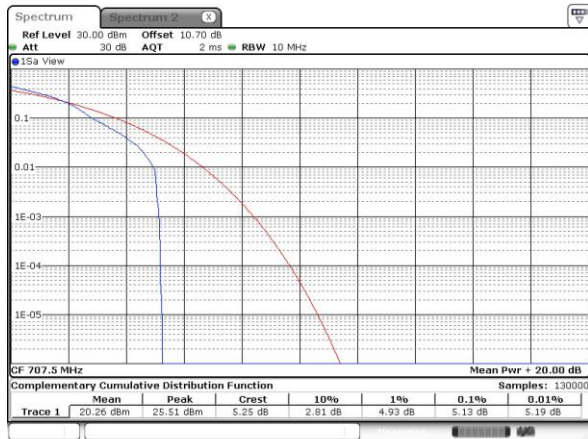
Lowest Channel / 1RB



Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



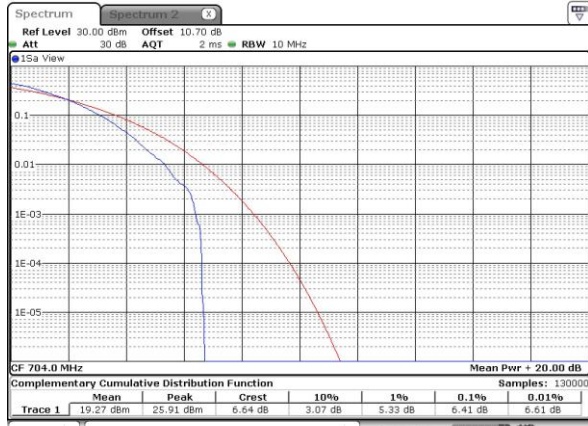
Highest Channel / Full RB





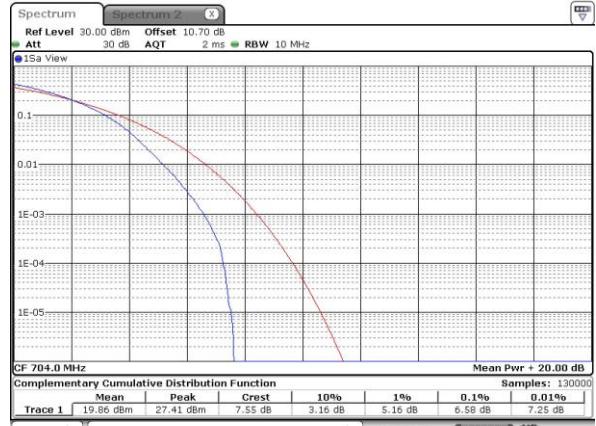
LTE Band 12 / 10MHz / 64QAM

Lowest Channel / 1RB



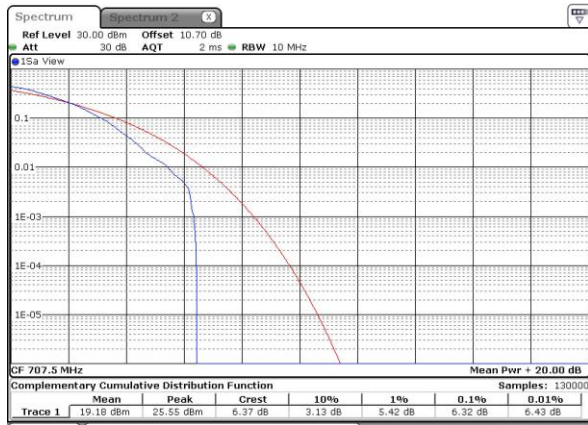
Date: 1 NOV 2018 00:32:04

Lowest Channel / Full RB



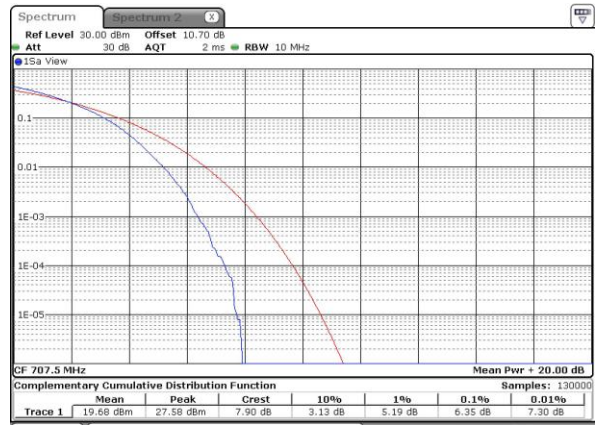
Date: 1 NOV 2018 00:31:54

Middle Channel / 1RB



Date: 1 NOV 2018 00:32:15

Middle Channel / Full RB



Date: 1 NOV 2018 00:32:25

Highest Channel / 1RB



Date: 1 NOV 2018 00:32:45

Highest Channel / Full RB



Date: 1 NOV 2018 00:32:35

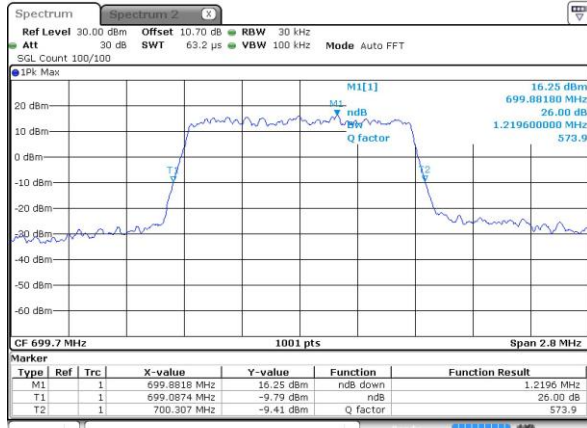
**26dB Bandwidth**

Mode BW Mod.	LTE Band 12 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.22	1.23	2.99	3.02	4.97	4.91	9.73	9.65	-	-	-	-
Middle CH	1.23	1.23	3.03	3.04	4.92	4.88	9.83	9.77	-	-	-	-
Highest CH	1.22	1.22	3.03	2.99	4.99	4.86	9.89	9.89	-	-	-	-
Mode BW Mod.	LTE Band 12 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.24	-	3.02	-	4.98	-	9.79	-	-	-	-	-
Middle CH	1.23	-	3.00	-	4.96	-	9.87	-	-	-	-	-
Highest CH	1.23	-	2.99	-	4.87	-	9.67	-	-	-	-	-

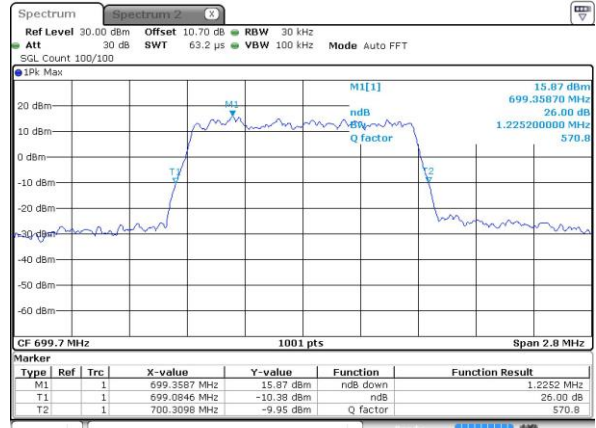


LTE Band 12

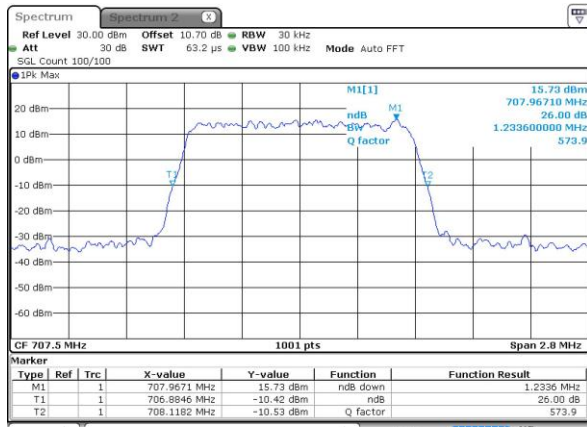
Lowest Channel / 1.4MHz / QPSK



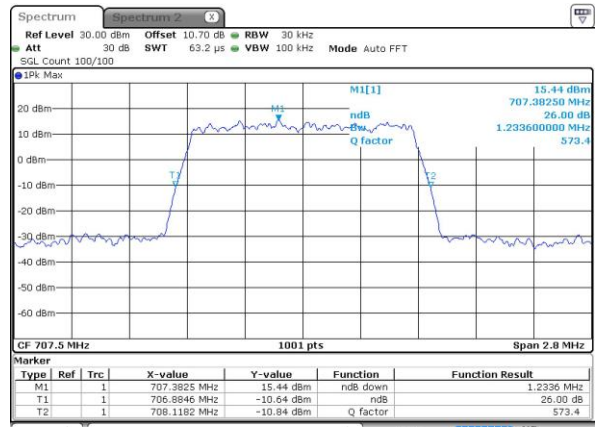
Lowest Channel / 1.4MHz / 16QAM



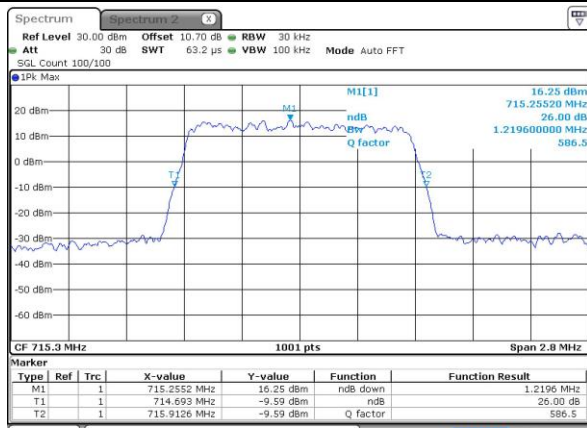
Middle Channel / 1.4MHz / QPSK



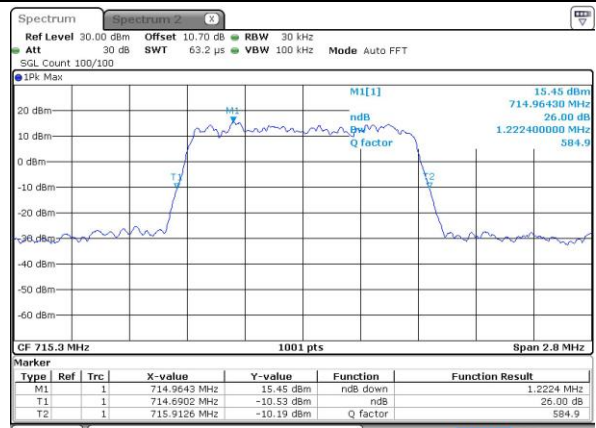
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



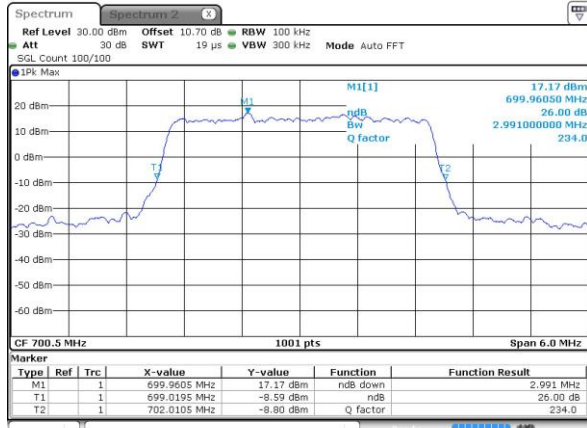
Highest Channel / 1.4MHz / 16QAM



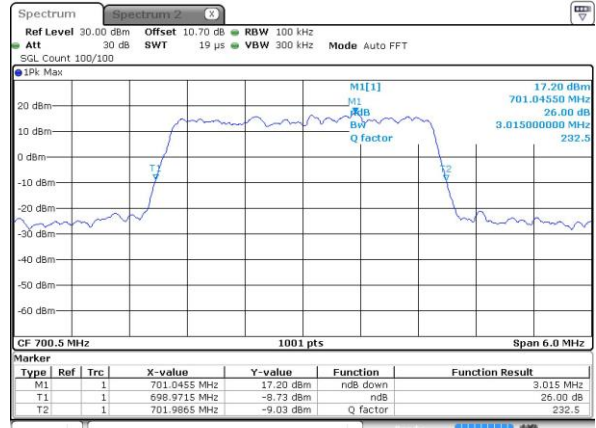


LTE Band 12

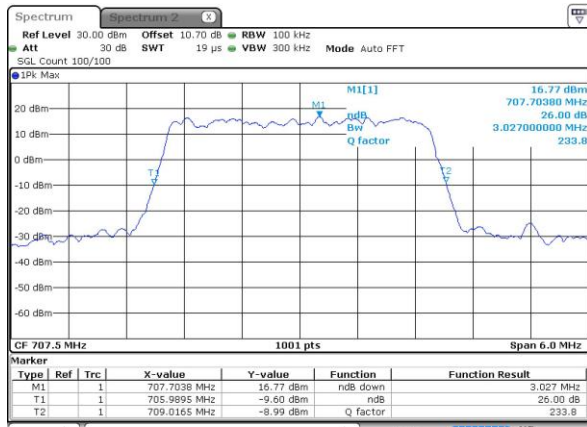
Lowest Channel / 3MHz / QPSK



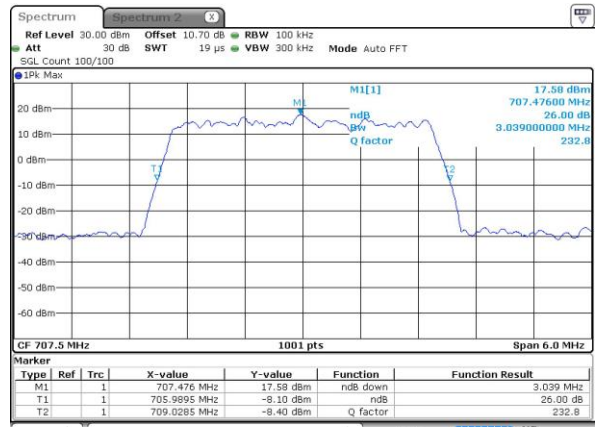
Lowest Channel / 3MHz / 16QAM



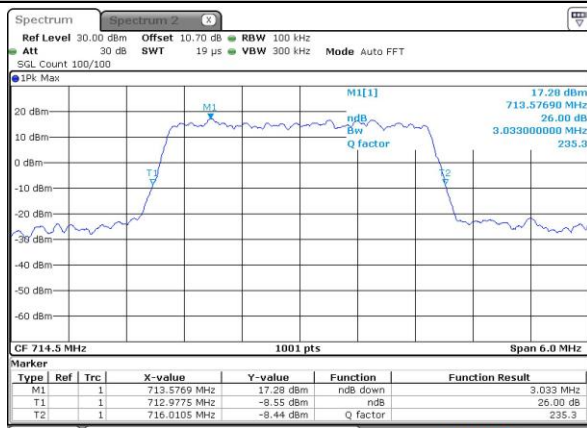
Middle Channel / 3MHz / QPSK



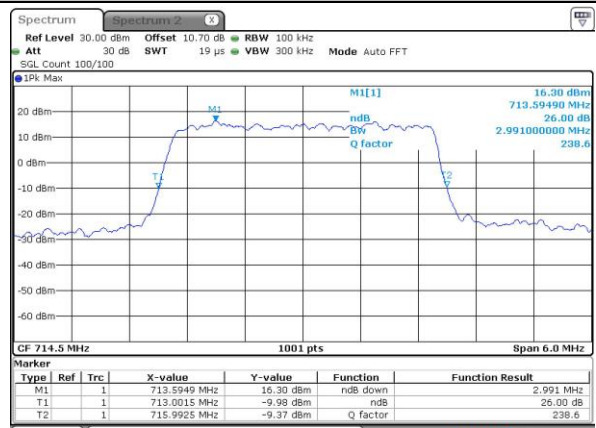
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



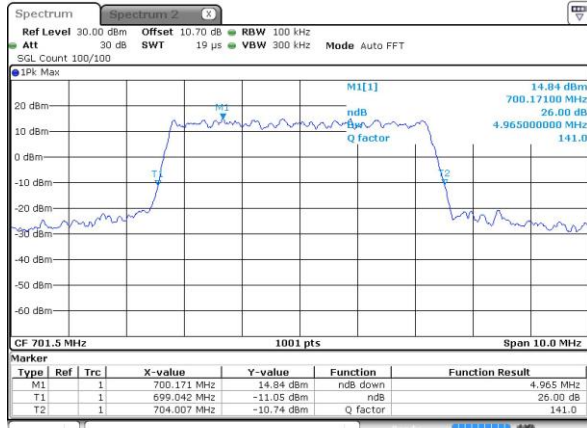
Highest Channel / 3MHz / 16QAM



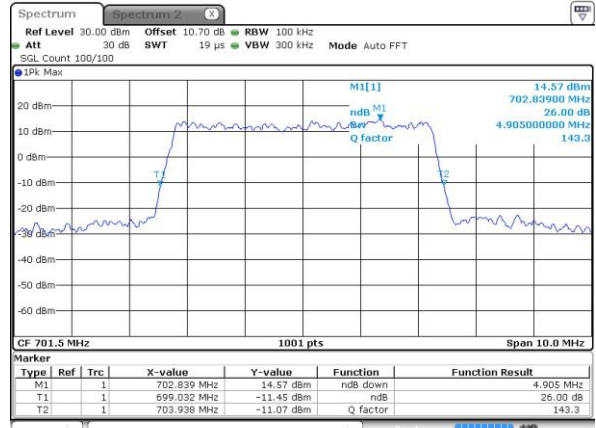


LTE Band 12

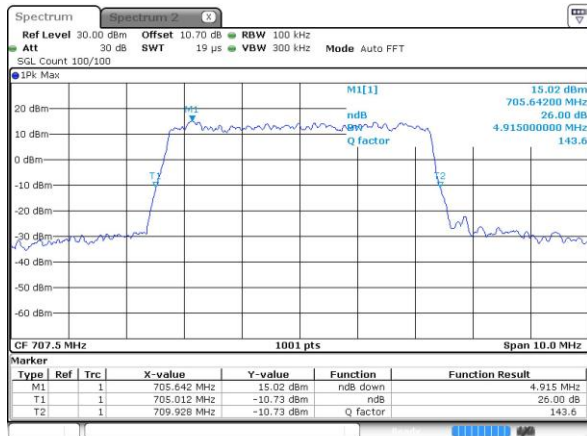
Lowest Channel / 5MHz / QPSK



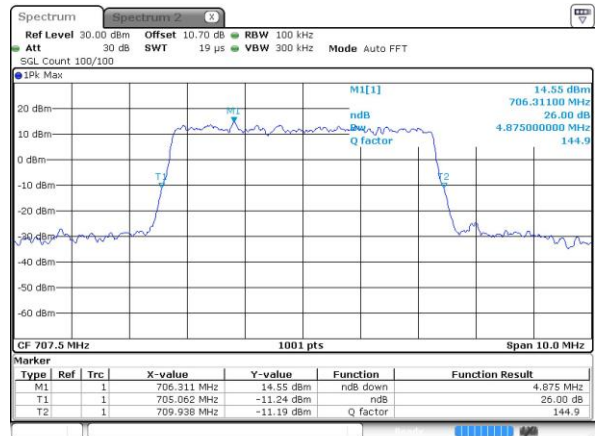
Lowest Channel / 5MHz / 16QAM



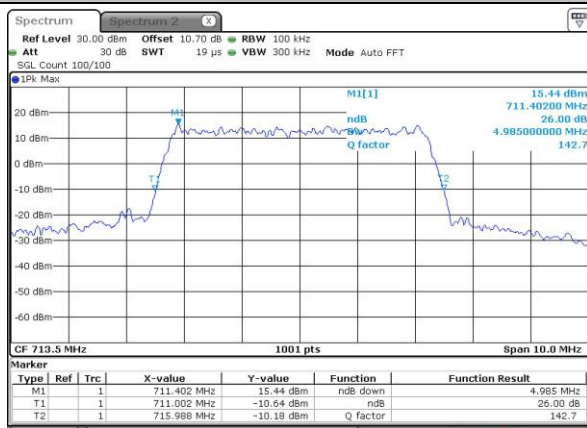
Middle Channel / 5MHz / QPSK



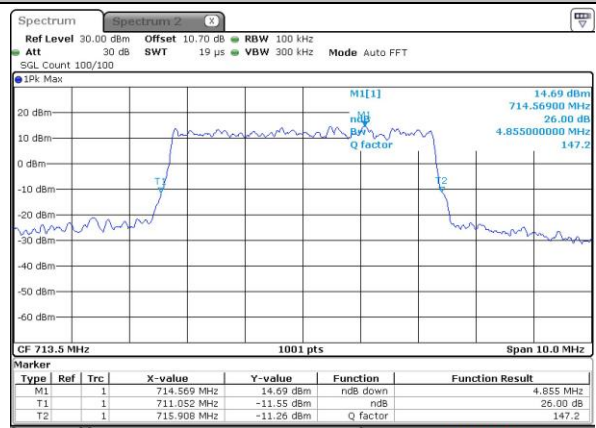
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



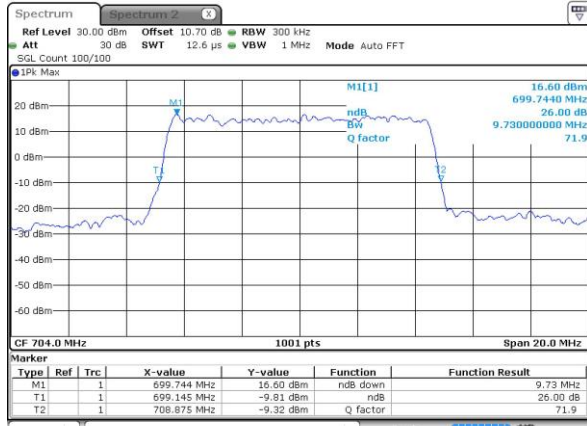
Highest Channel / 5MHz / 16QAM





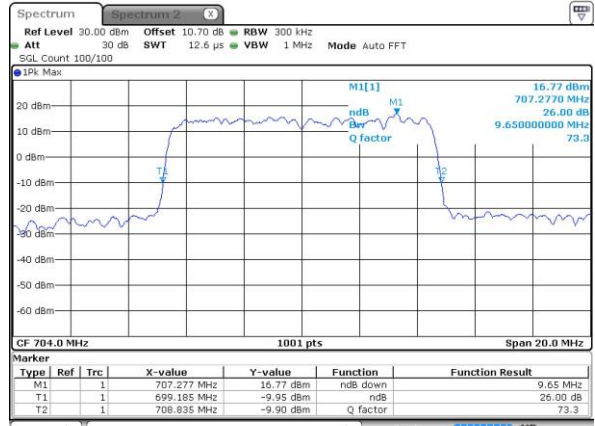
LTE Band 12

Lowest Channel / 10MHz / QPSK



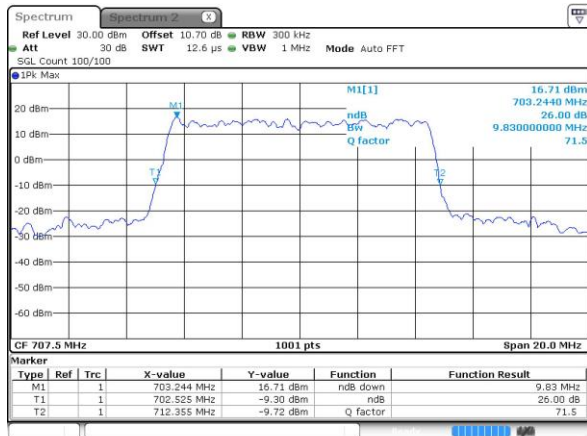
Date: 31 OCT 2018 23:25:10

Lowest Channel / 10MHz / 16QAM



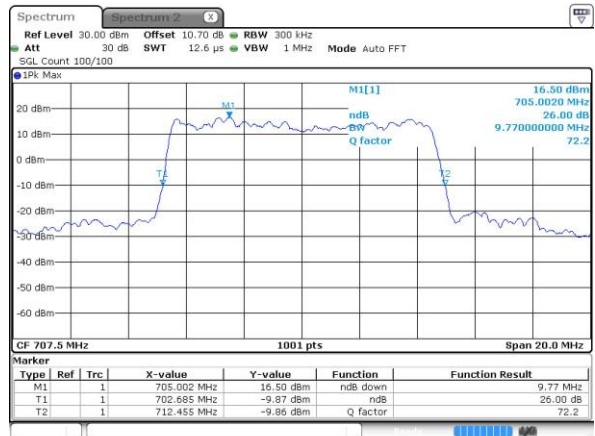
Date: 31 OCT 2018 23:24:58

Middle Channel / 10MHz / QPSK



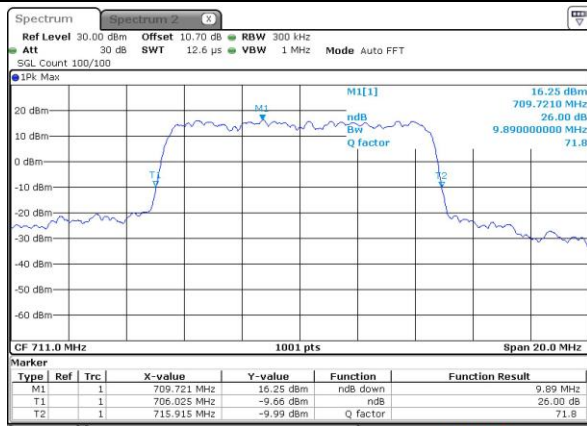
Date: 31 OCT 2018 23:32:05

Middle Channel / 10MHz / 16QAM



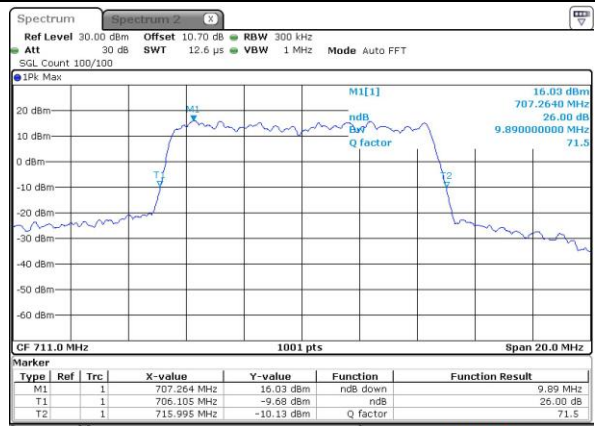
Date: 31 OCT 2018 23:32:17

Highest Channel / 10MHz / QPSK



Date: 31 OCT 2018 23:34:43

Highest Channel / 10MHz / 16QAM

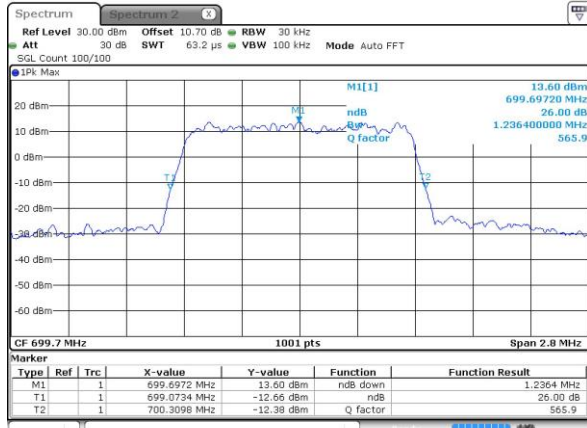


Date: 31 OCT 2018 23:34:31



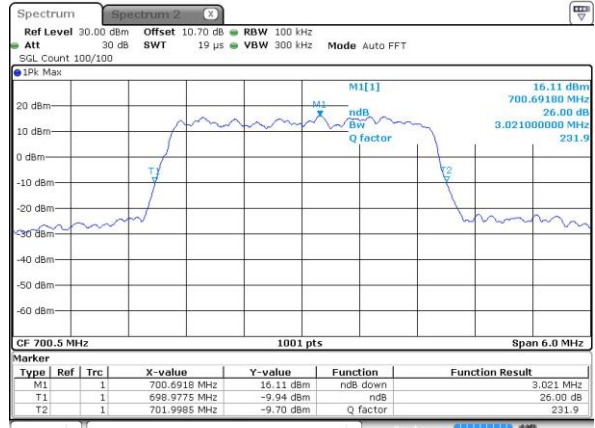
LTE Band 12

Lowest Channel / 1.4MHz / 64QAM



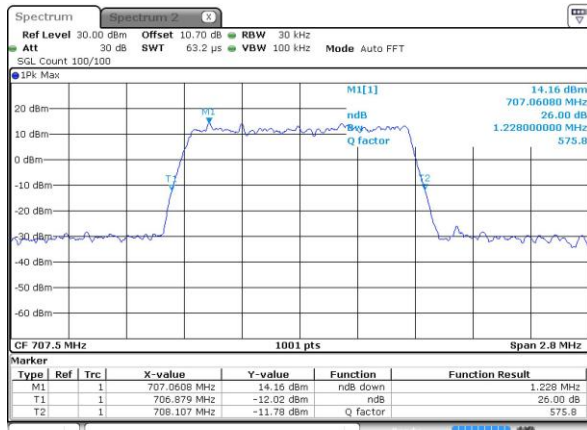
Date: 1 NOV 2018 00:23:12

Lowest Channel / 3MHz / 64QAM



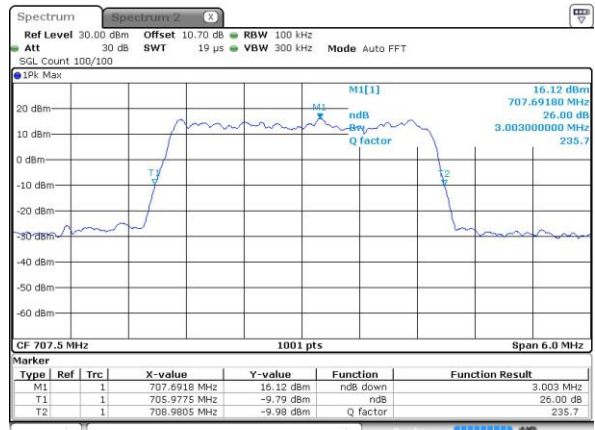
Date: 31 OCT 2018 23:58:10

Middle Channel / 1.4MHz / 64QAM



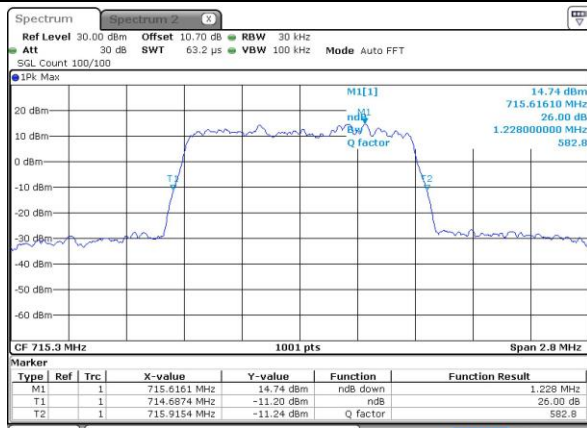
Date: 1 NOV 2018 00:27:20

Middle Channel / 3MHz / 64QAM



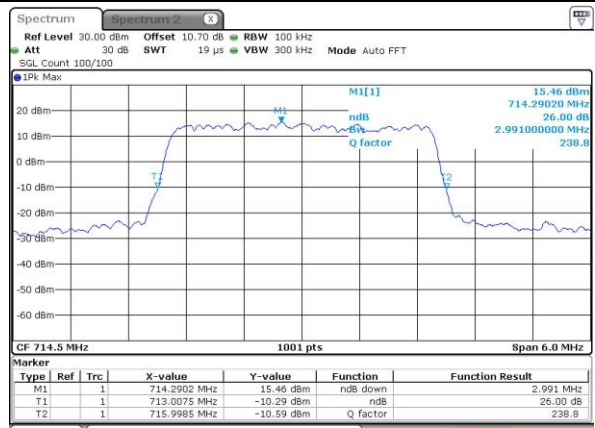
Date: 1 NOV 2018 00:01:44

Highest Channel / 1.4MHz / 64QAM



Date: 1 NOV 2018 00:28:33

Highest Channel / 3MHz / 64QAM

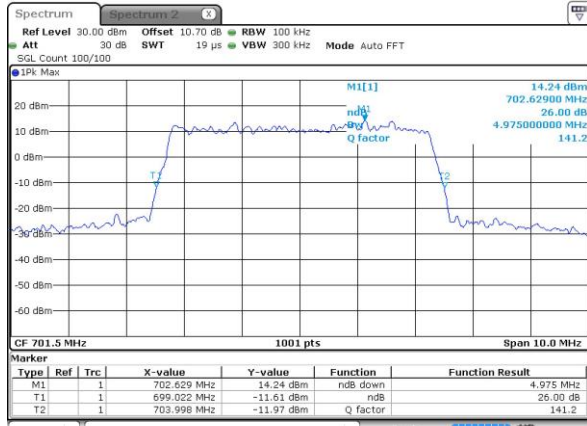


Date: 1 NOV 2018 00:02:57

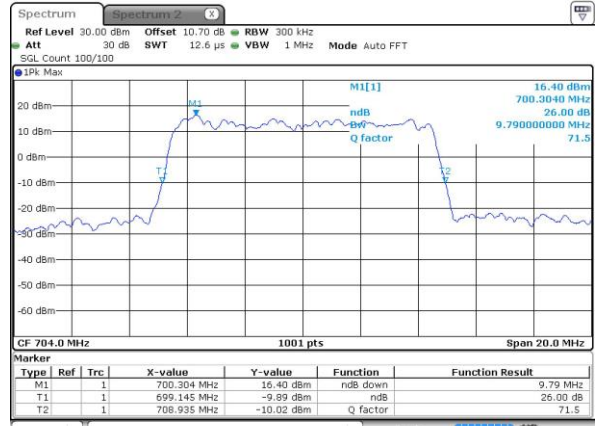


LTE Band 12

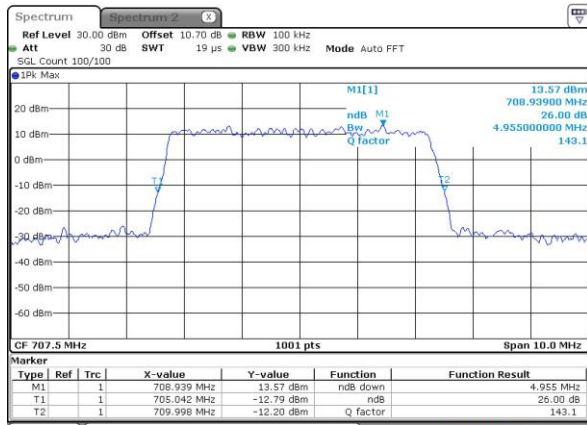
Lowest Channel / 5MHz / 64QAM



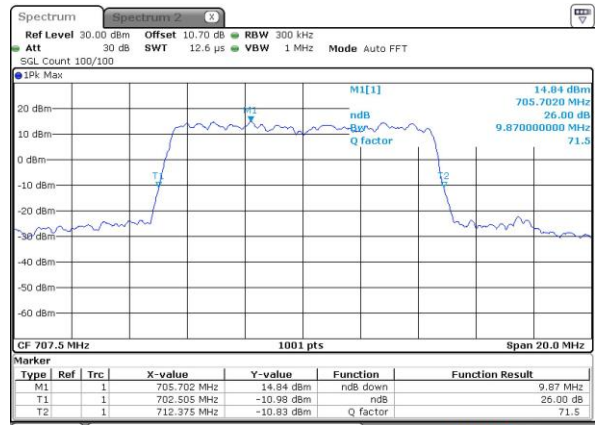
Lowest Channel / 10MHz / 64QAM



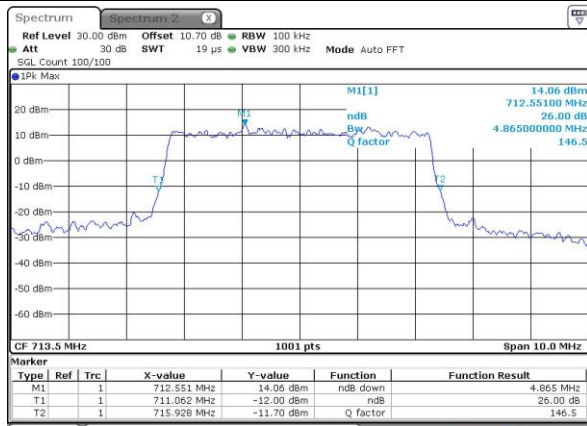
Middle Channel / 5MHz / 64QAM



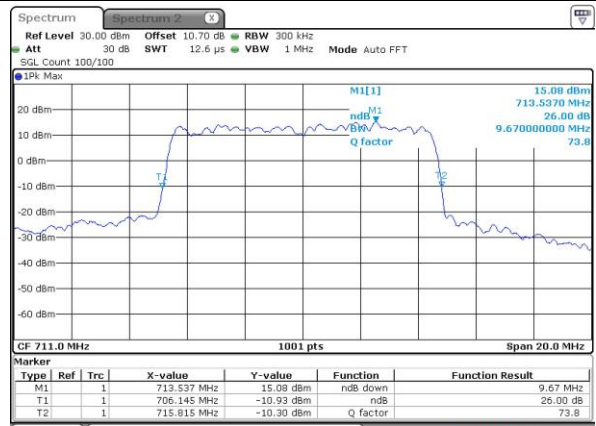
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



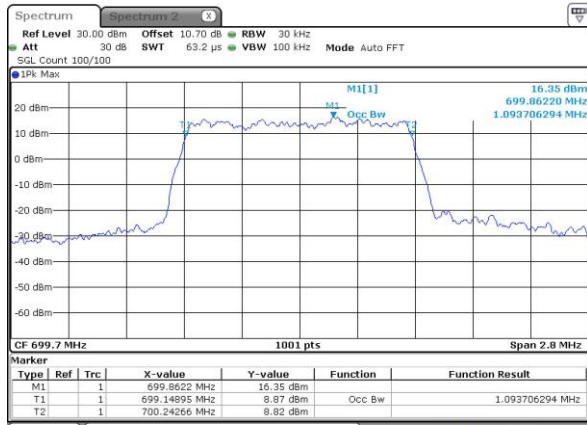
**Occupied Bandwidth**

Mode BW Mod.	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.09	2.72	2.72	4.47	4.51	9.03	9.01	-	-	-	-
Middle CH	1.09	1.09	2.72	2.71	4.49	4.49	9.05	9.05	-	-	-	-
Highest CH	1.08	1.08	2.71	2.72	4.5	4.49	9.01	9.05	-	-	-	-
Mode BW Mod.	LTE Band 12 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.73	-	4.50	-	9.01	-	-	-	-	-
Middle CH	1.09	-	2.74	-	4.51	-	9.03	-	-	-	-	-
Highest CH	1.09	-	2.72	-	4.49	-	9.01	-	-	-	-	-



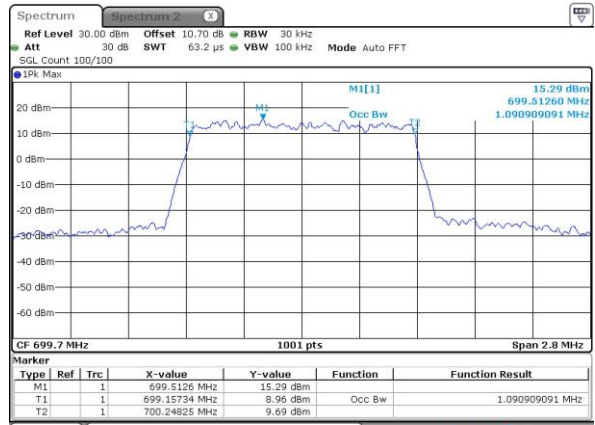
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



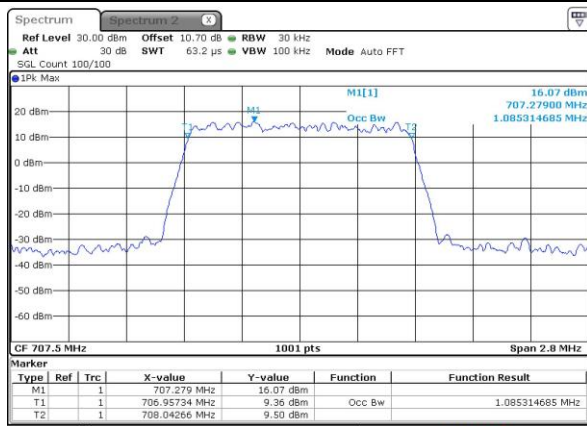
Date: 31 OCT 2018 23:41:15

Lowest Channel / 1.4MHz / 16QAM



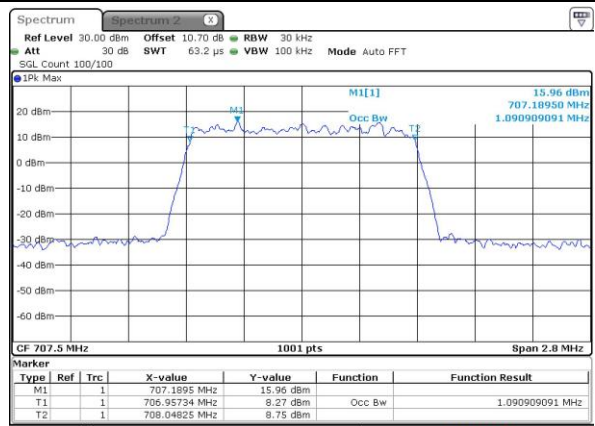
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Middle Channel / 1.4MHz / QPSK



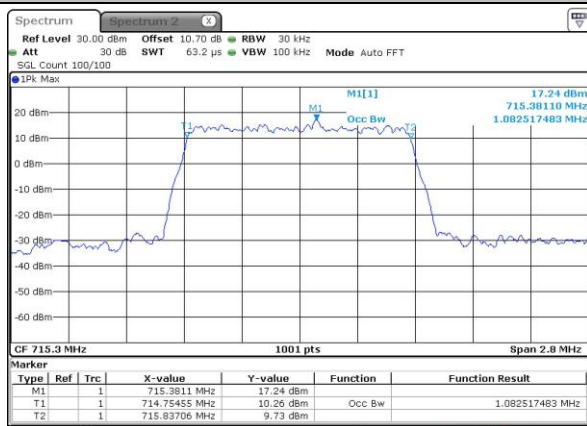
Date: 31 OCT 2018 23:48:34

Middle Channel / 1.4MHz / 16QAM



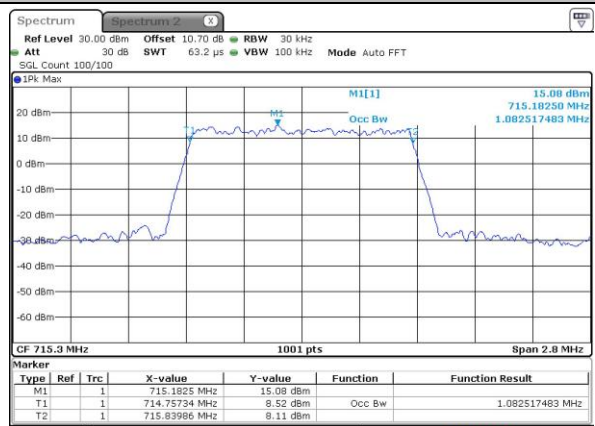
Date: 31 OCT 2018 23:48:23

Highest Channel / 1.4MHz / QPSK



Date: 31 OCT 2018 23:50:49

Highest Channel / 1.4MHz / 16QAM



Date: 31 OCT 2018 23:51:01