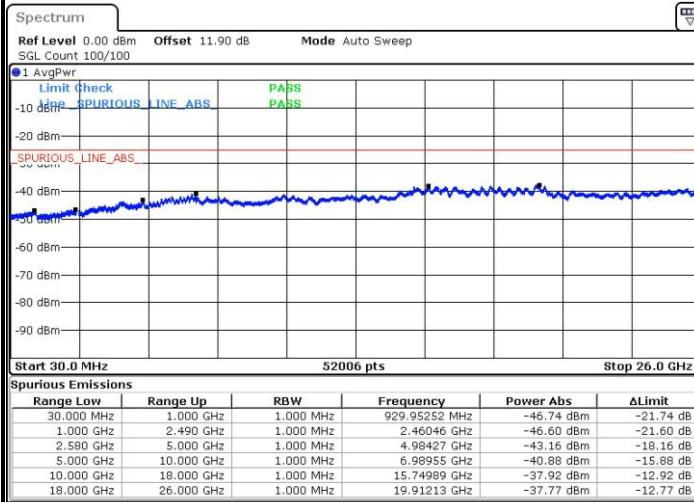




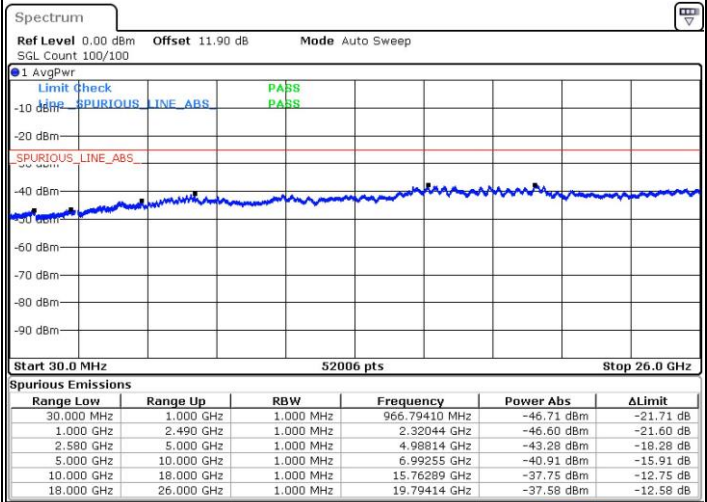
LTE Band7 / 15MHz

Highest Channel / QPSK



Date: 14 JUN 2017 09:43:37

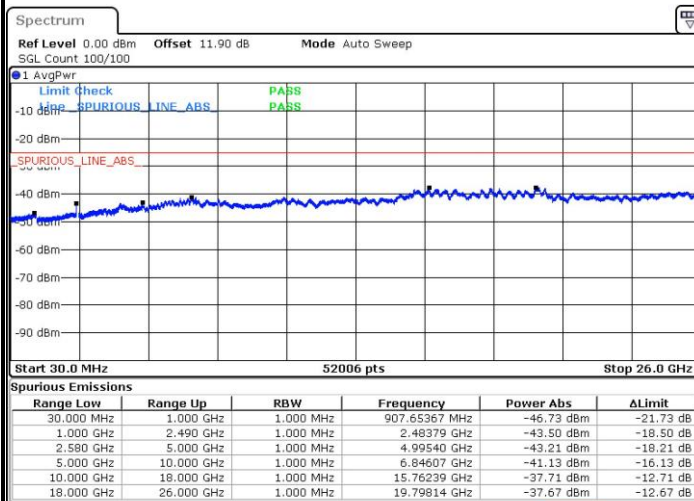
Highest Channel / 16QAM



Date: 14 JUN 2017 09:44:30

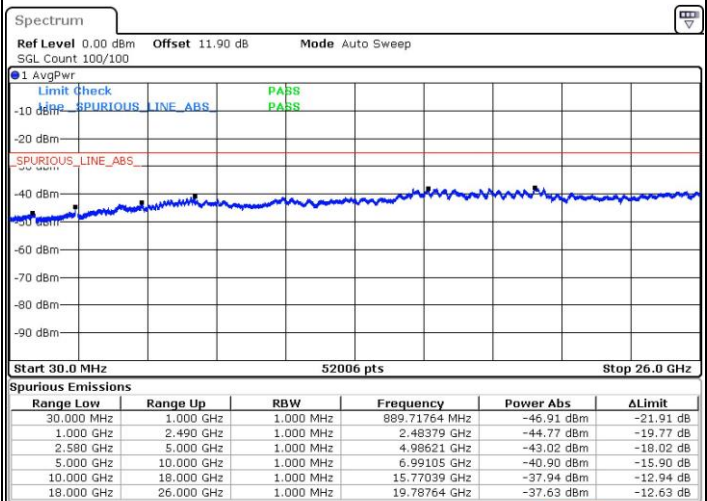
LTE Band 7 / 20MHz

Lowest Channel / QPSK



Date: 14 JUN 2017 09:50:44

Lowest Channel / 16QAM

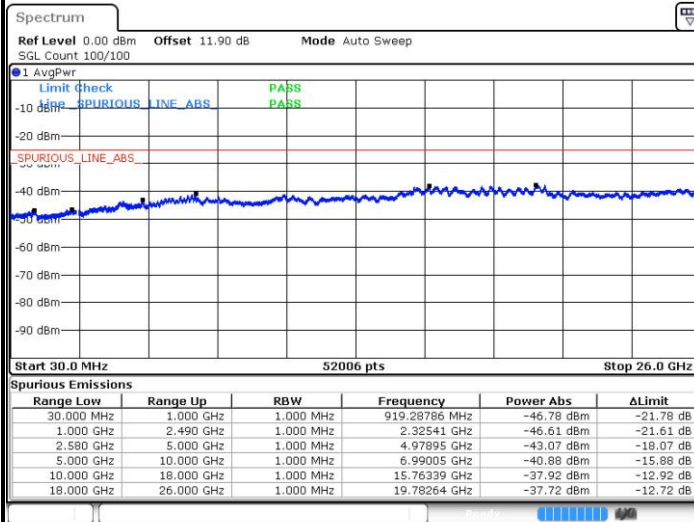


Date: 14 JUN 2017 09:51:38



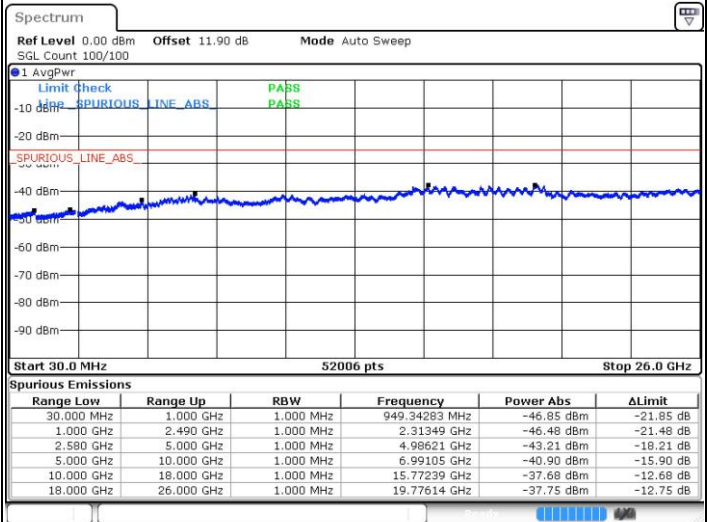
LTE Band 7 / 20MHz

Middle Channel / QPSK



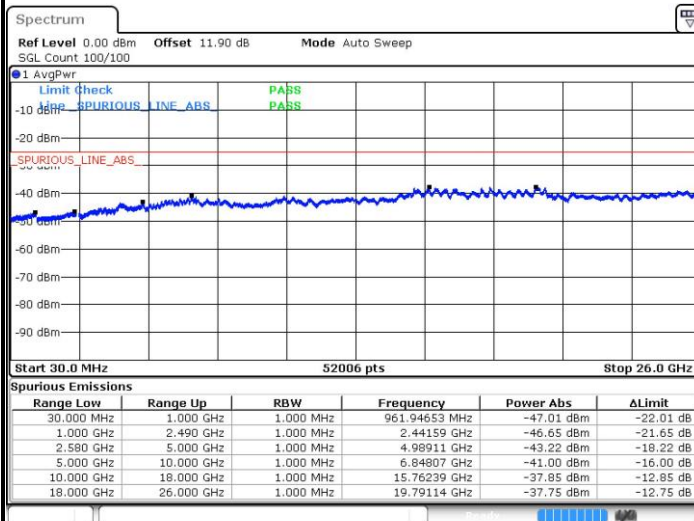
Date: 14 JUN 2017 09:53:13

Middle Channel / 16QAM



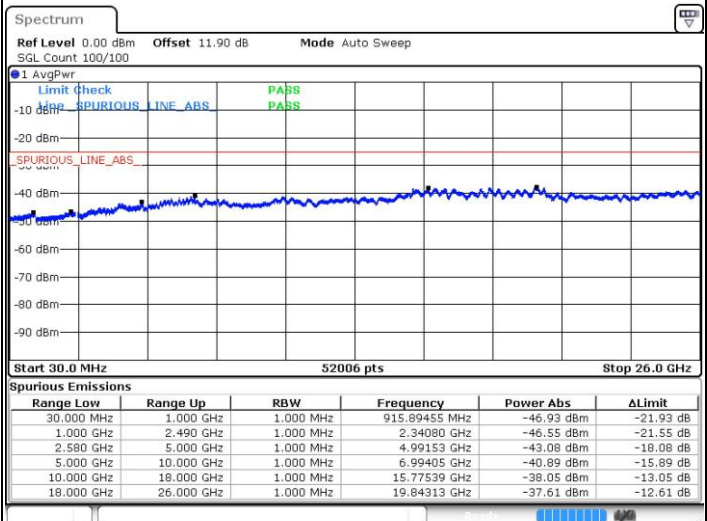
Date: 14 JUN 2017 09:54:07

Highest Channel / QPSK



Date: 14 JUN 2017 10:00:21

Highest Channel / 16QAM

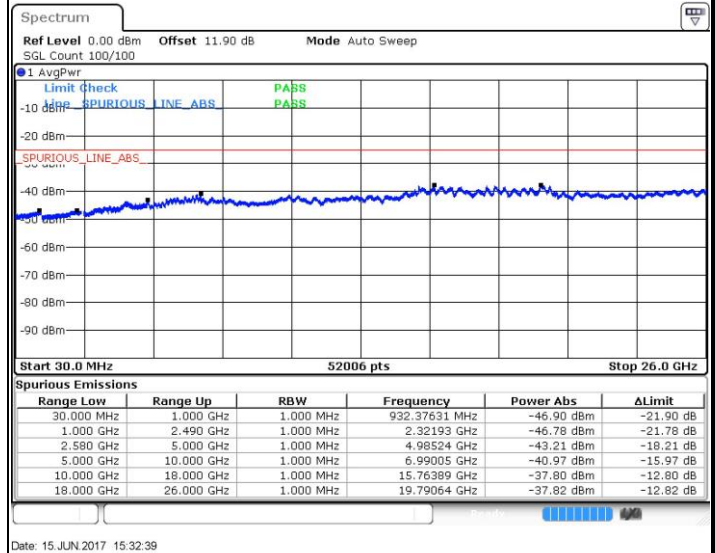


Date: 14 JUN 2017 10:01:15

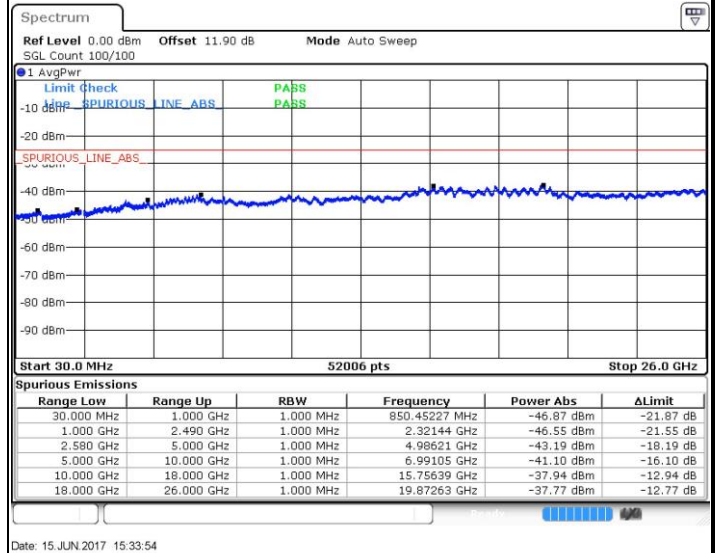


LTE Band 7 / 5MHz

Lowest Channel / 64QAM



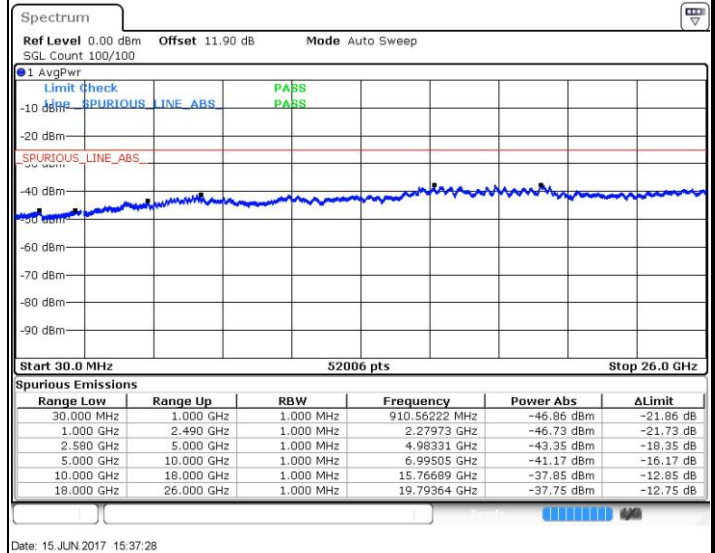
Middle Channel / 64QAM





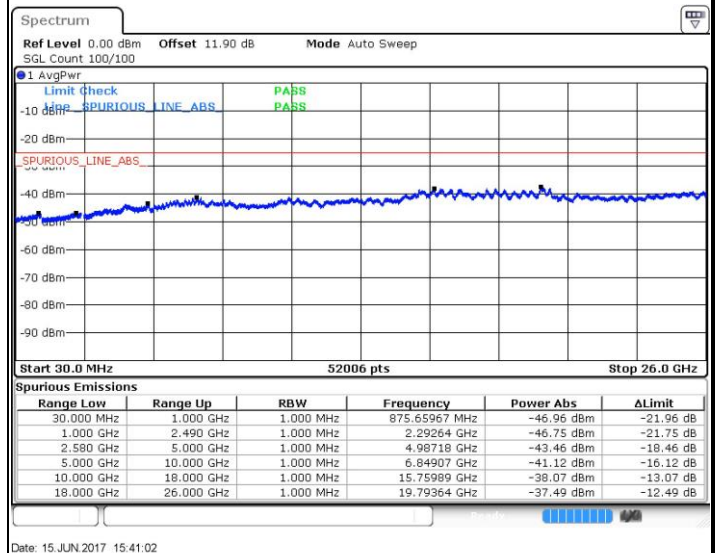
LTE Band 7 / 5MHz

Highest Channel / 64QAM



LTE Band 7 / 10MHz

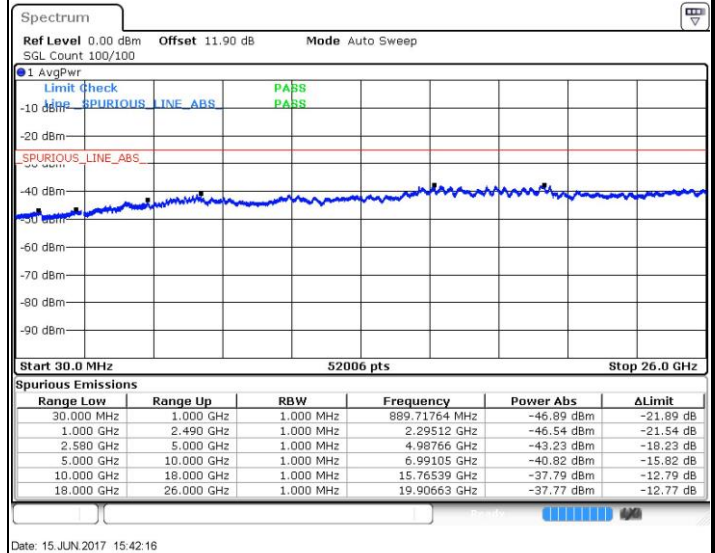
Lowest Channel / 64QAM



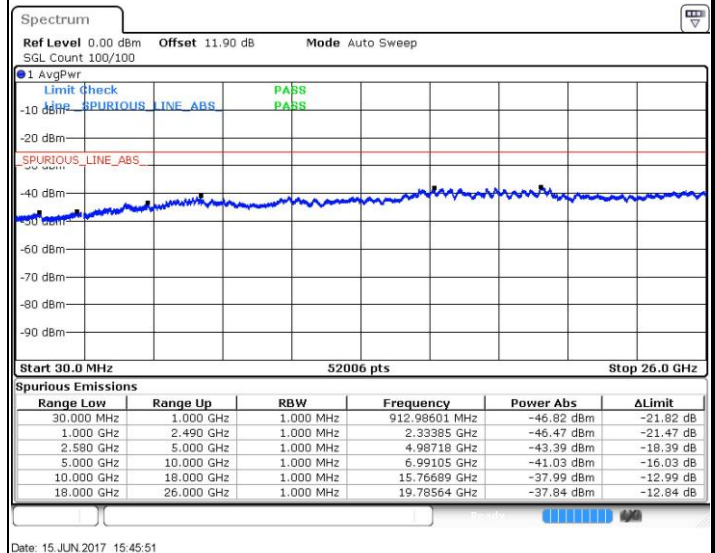


LTE Band 7 / 10MHz

Middle Channel / 64QAM



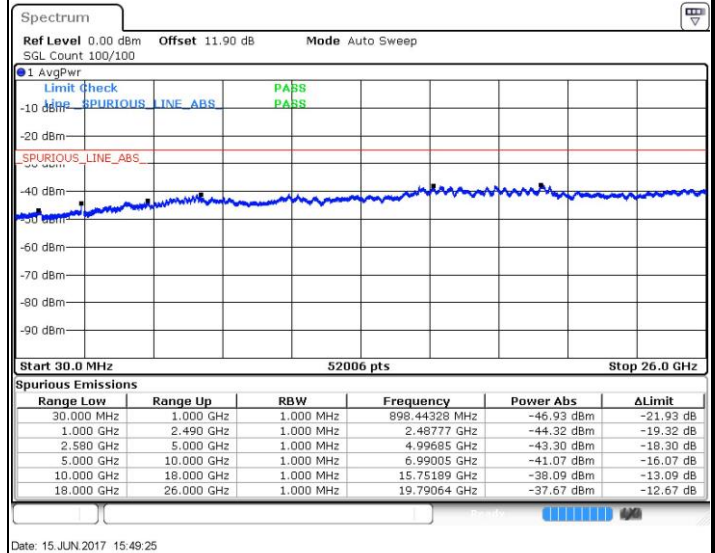
Highest Channel / 64QAM



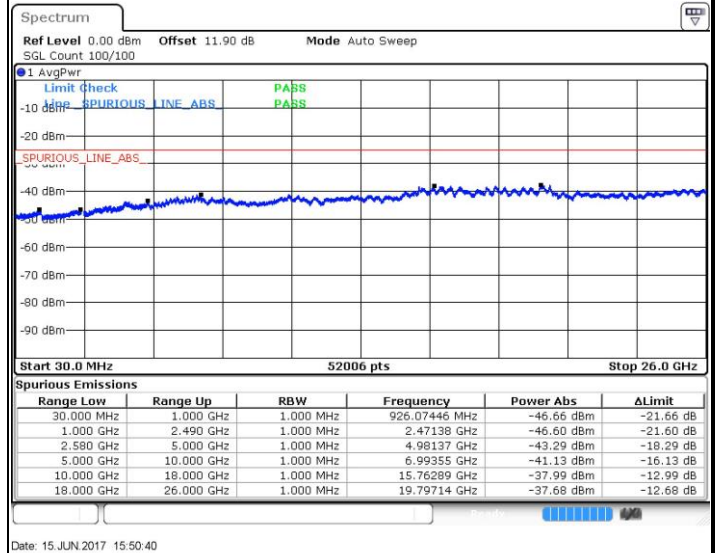


LTE Band 7 / 15MHz

Lowest Channel / 64QAM



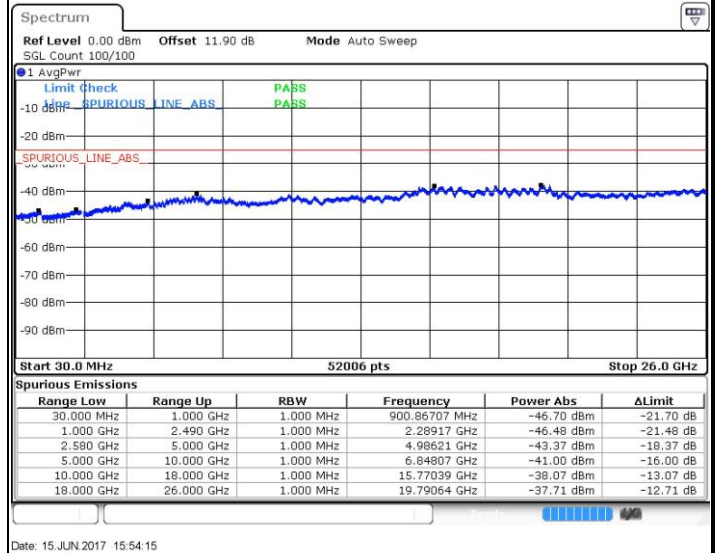
Middle Channel / 64QAM





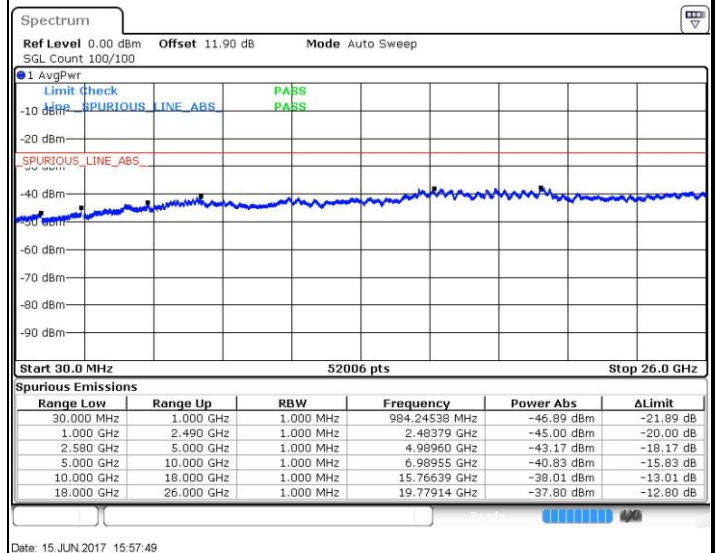
LTE Band7 / 15MHz

Highest Channel / 64QAM



LTE Band 7 / 20MHz

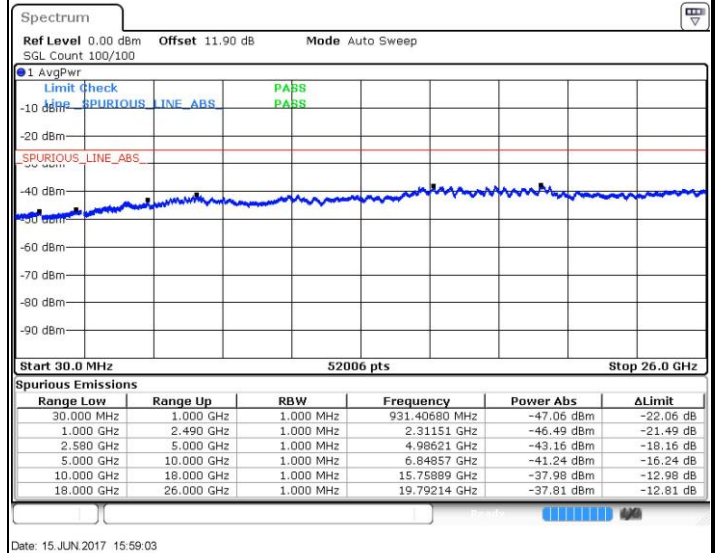
Lowest Channel / 64QAM



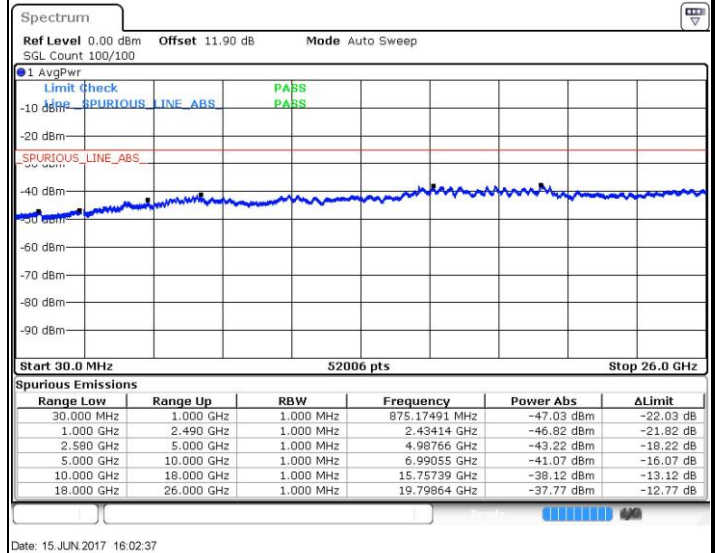


LTE Band 7 / 20MHz

Middle Channel / 64QAM



Highest Channel / 64QAM



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	0.0008	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0003	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0009	
-30	Normal Voltage	0.0002	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0002	

Note:

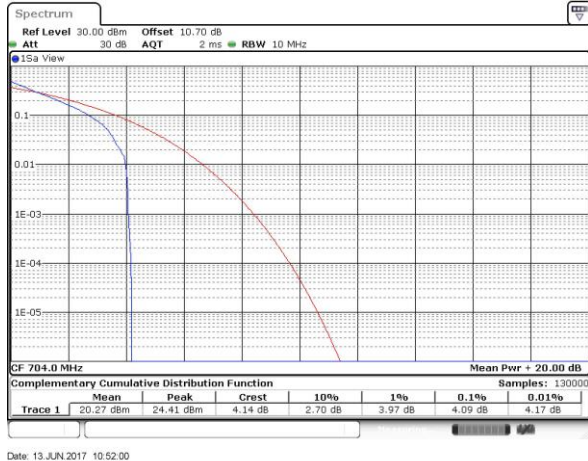
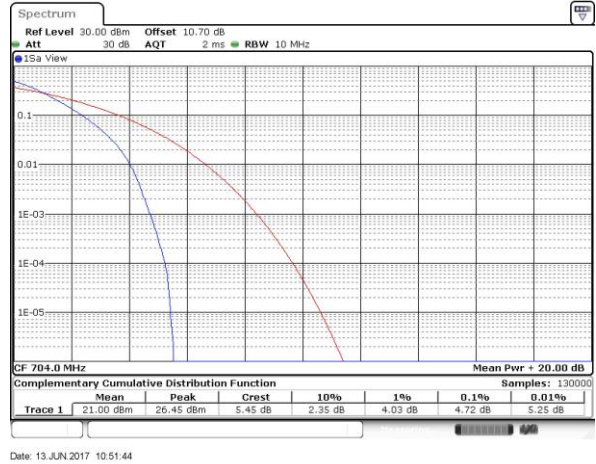
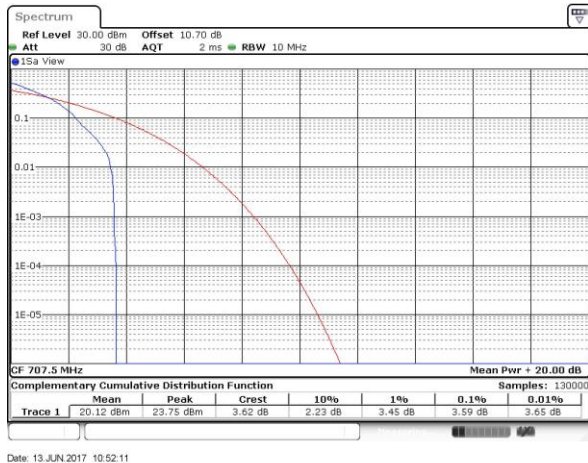
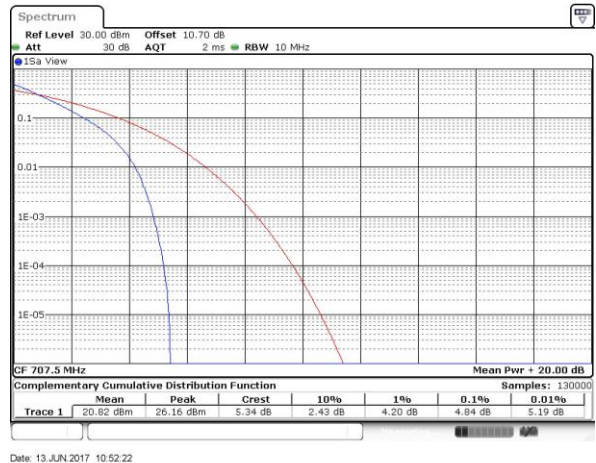
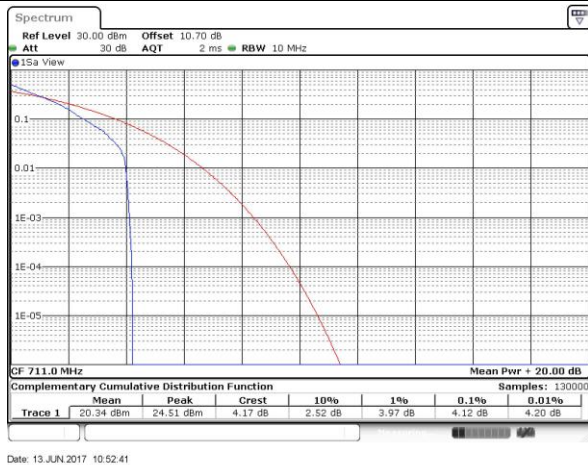
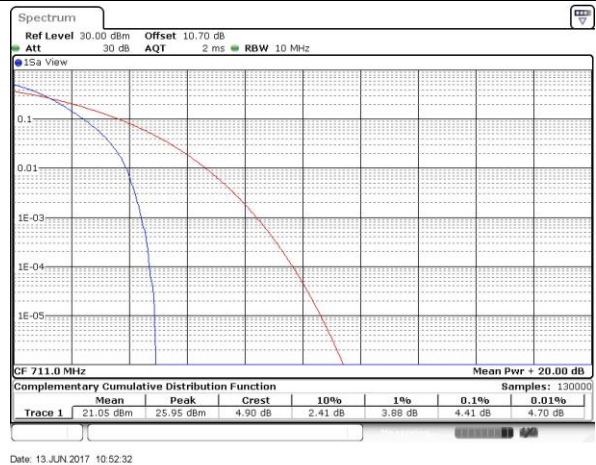
1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.2 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

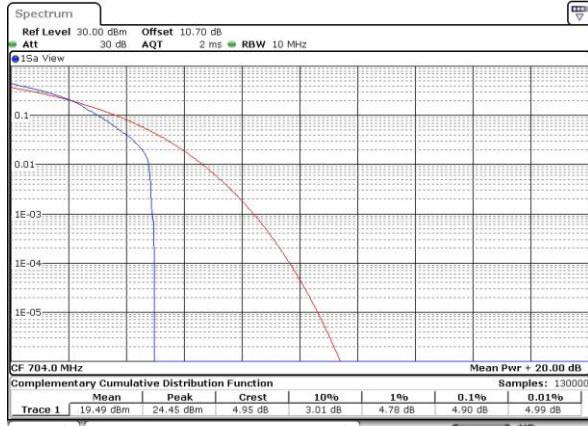


LTE Band 12

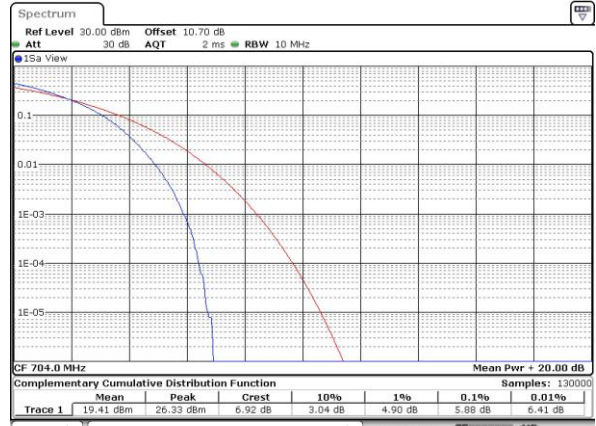
Peak-to-Average Ratio

Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.09	4.72	4.9	5.88	PASS
Middle CH	3.59	4.84	4.38	5.77	
Highest CH	4.12	4.41	4.9	5.54	
Mode	LTE Band 12 / 10MHz				
Mod.	QPSK		64QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	5.13	5.57	PASS
Middle CH	-	-	4.32	5.65	
Highest CH	-	-	5.04	5.54	

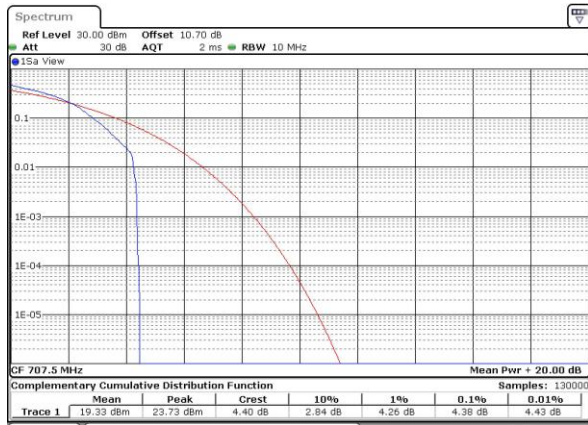
LTE Band 12 / 10MHz / QPSK
Lowest Channel / 1RB

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


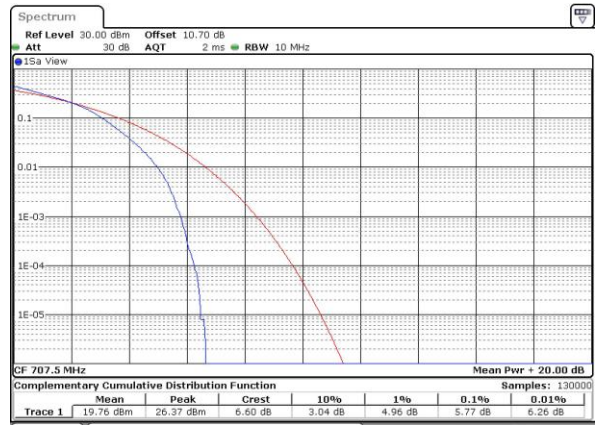
Date: 13 JUN 2017 10:50:01

Lowest Channel / Full RB


Date: 13 JUN 2017 10:49:50

Middle Channel / 1RB


Date: 13 JUN 2017 10:50:10

Middle Channel / Full RB


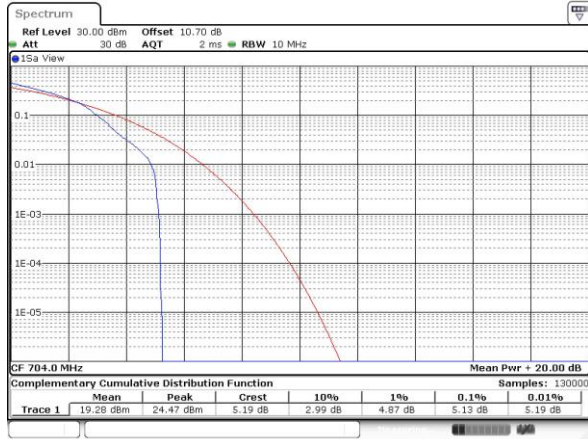
Date: 13 JUN 2017 10:51:14

Highest Channel / 1RB

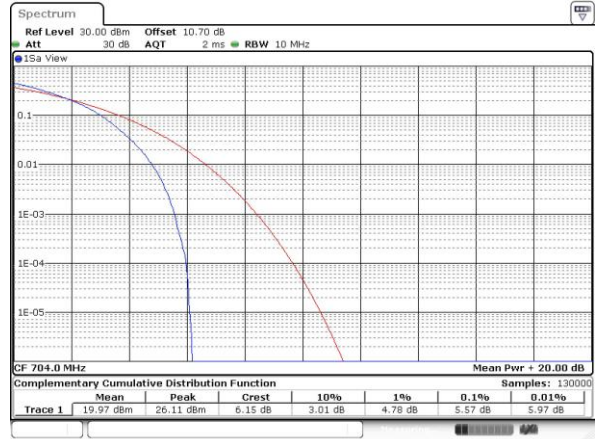

Date: 13 JUN 2017 10:51:34

Highest Channel / Full RB

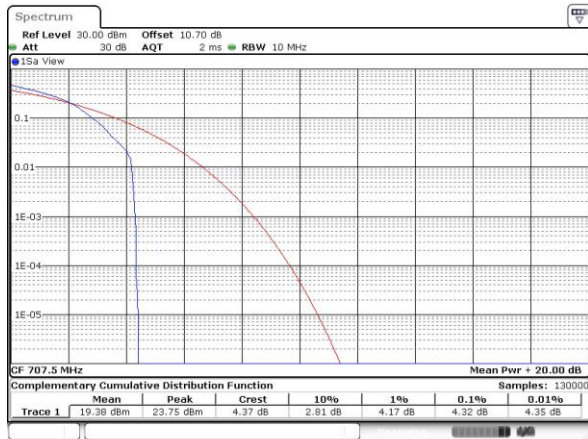

Date: 13 JUN 2017 10:51:24

LTE Band 12 / 10MHz / 64QAM
Lowest Channel / 1RB


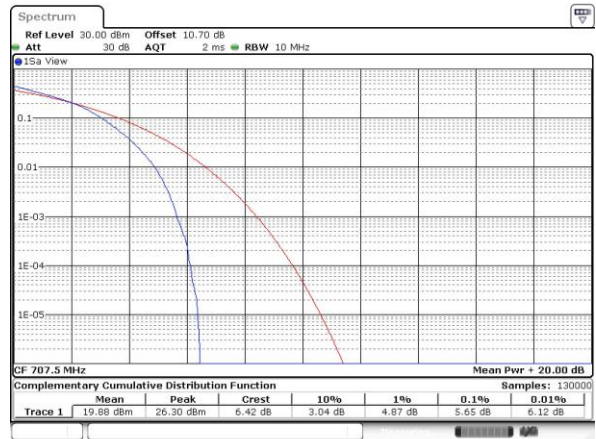
Date: 15 JUN 2017 14:17:26

Lowest Channel / Full RB


Date: 15 JUN 2017 14:17:15

Middle Channel / 1RB


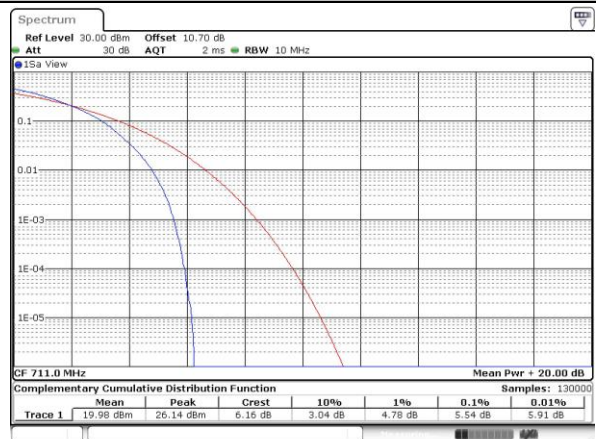
Date: 15 JUN 2017 14:17:35

Middle Channel / Full RB


Date: 15 JUN 2017 14:17:45

Highest Channel / 1RB


Date: 15 JUN 2017 14:18:05

Highest Channel / Full RB


Date: 15 JUN 2017 14:17:54

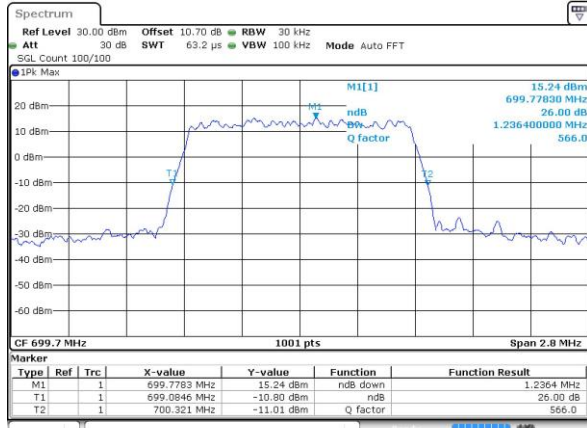
**26dB Bandwidth**

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	1.236	1.236	3.051	3.015	4.955	4.835	9.79	9.73	-	-	-	-
Middle CH	1.231	1.225	3.027	3.039	4.965	4.915	9.83	9.71	-	-	-	-
Highest CH	1.225	1.225	3.015	3.075	4.875	4.925	9.73	9.77	-	-	-	-
Mode	LTE Band 12 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	64QAM	QPSK	64QAM	QPSK	64QAM	QPSK	64QAM	QPSK	64QAM	QPSK	64QAM
Lowest CH	-	1.22	-	3.021	-	4.935	-	9.81	-	-	-	-
Middle CH	-	1.225	-	3.039	-	4.865	-	9.77	-	-	-	-
Highest CH	-	1.253	-	3.045	-	4.845	-	9.63	-	-	-	-



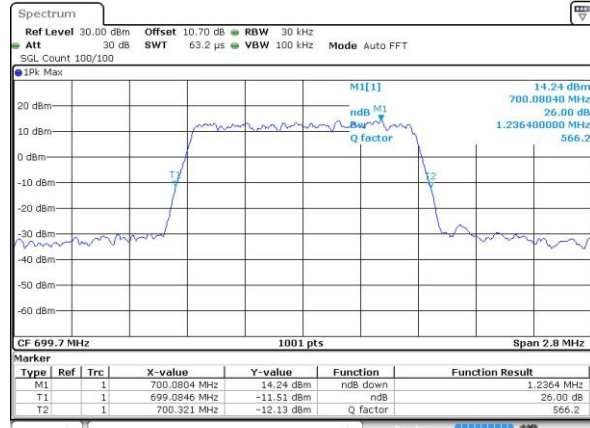
LTE Band 12

Lowest Channel / 1.4MHz / QPSK



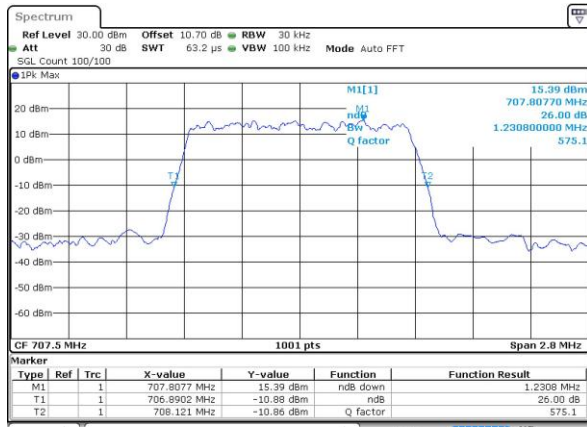
Date: 13 JUN 2017 10:25:54

Lowest Channel / 1.4MHz / 16QAM



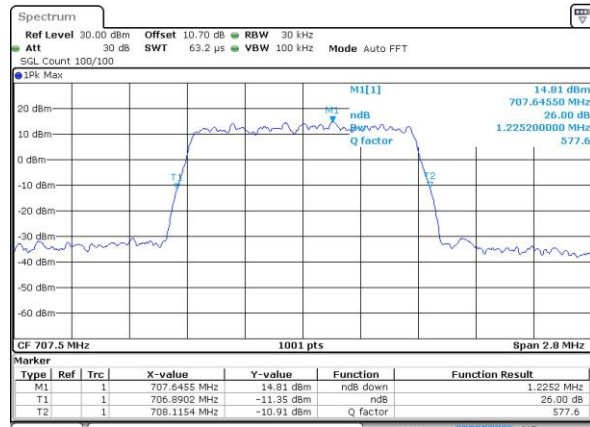
Date: 13 JUN 2017 10:25:44

Middle Channel / 1.4MHz / QPSK



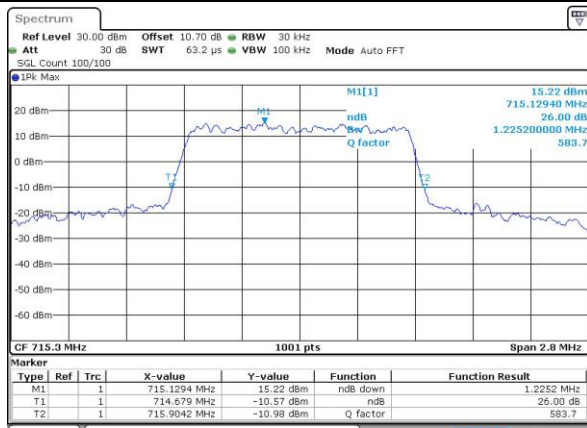
Date: 13 JUN 2017 10:32:50

Middle Channel / 1.4MHz / 16QAM



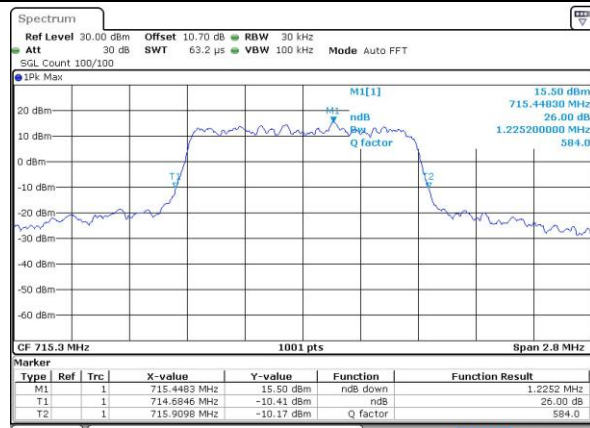
Date: 13 JUN 2017 10:33:01

Highest Channel / 1.4MHz / QPSK



Date: 13 JUN 2017 10:35:31

Highest Channel / 1.4MHz / 16QAM

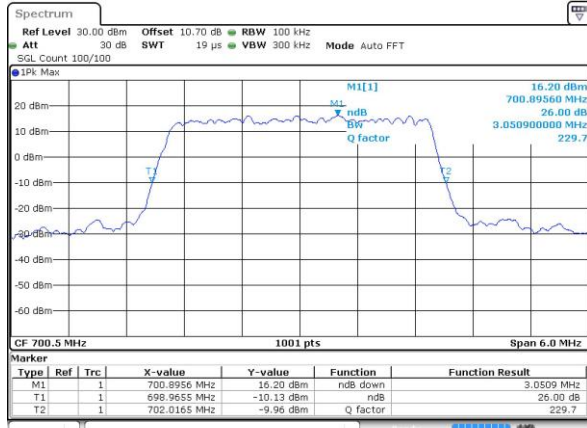


Date: 13 JUN 2017 10:35:21

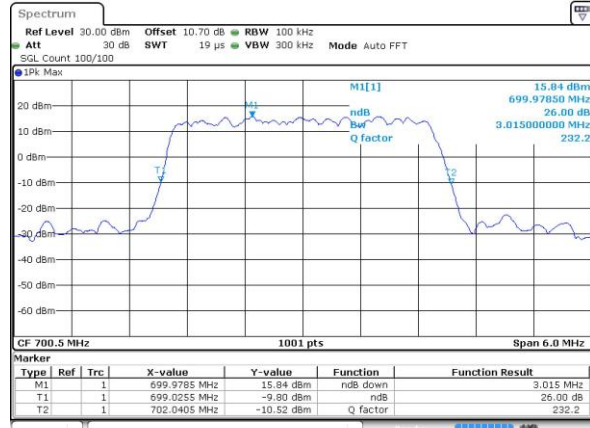


LTE Band 12

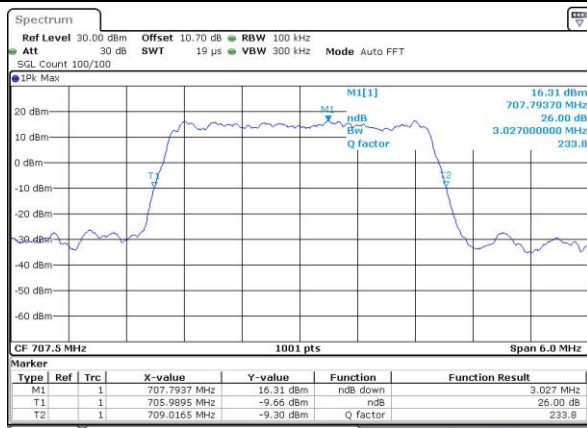
Lowest Channel / 3MHz / QPSK



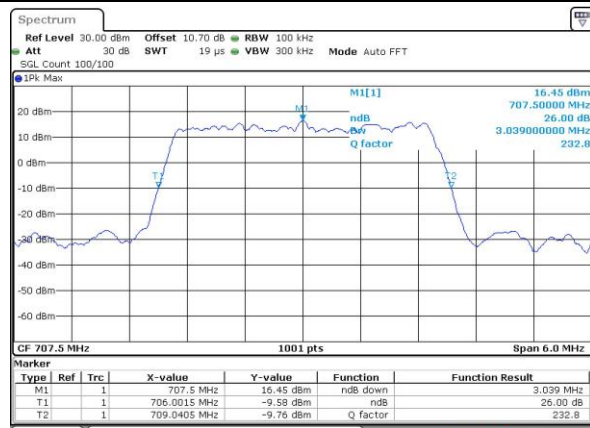
Lowest Channel / 3MHz / 16QAM



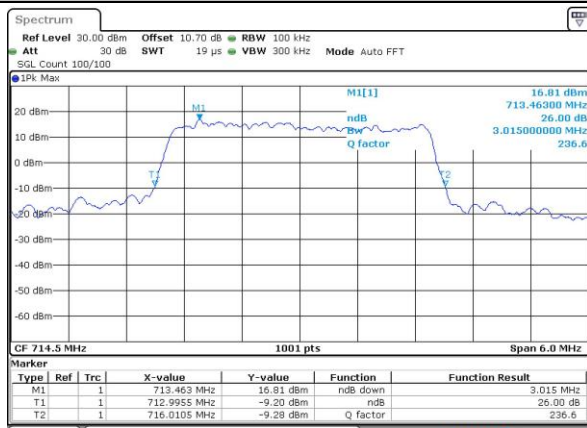
Middle Channel / 3MHz / QPSK



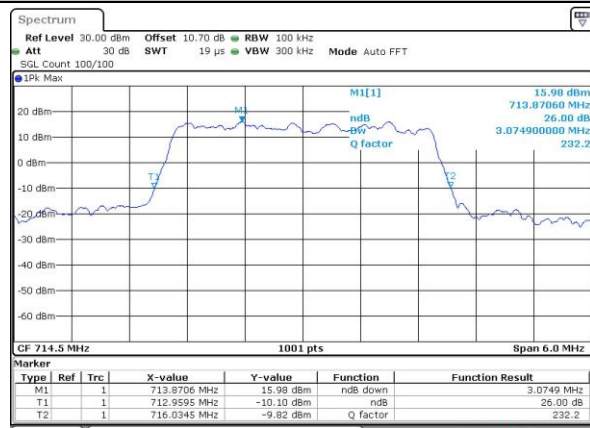
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



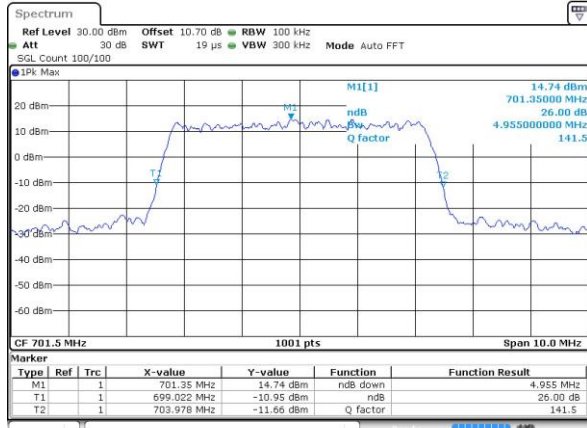
Highest Channel / 3MHz / 16QAM





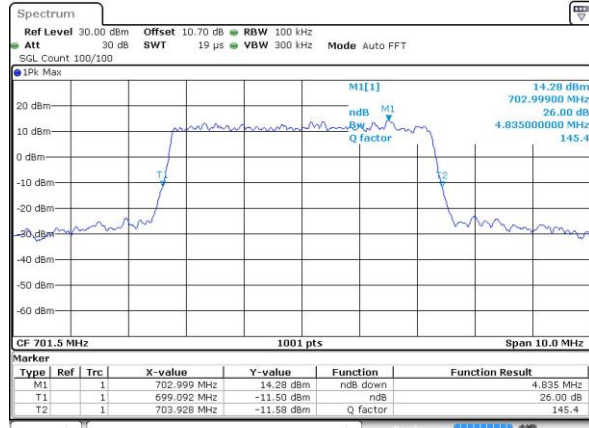
LTE Band 12

Lowest Channel / 5MHz / QPSK



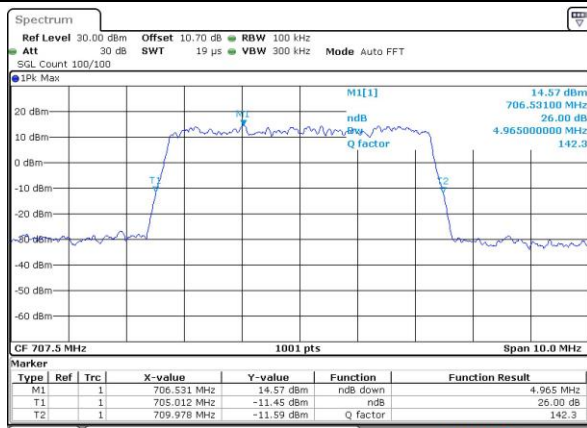
Date: 13 JUN 2017 09:20:50

Lowest Channel / 5MHz / 16QAM



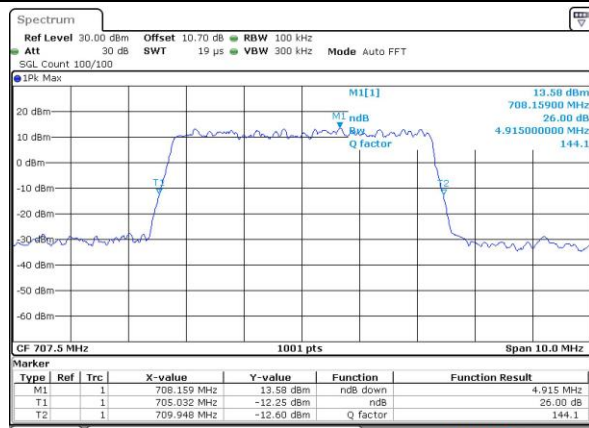
Date: 13 JUN 2017 09:20:40

Middle Channel / 5MHz / QPSK



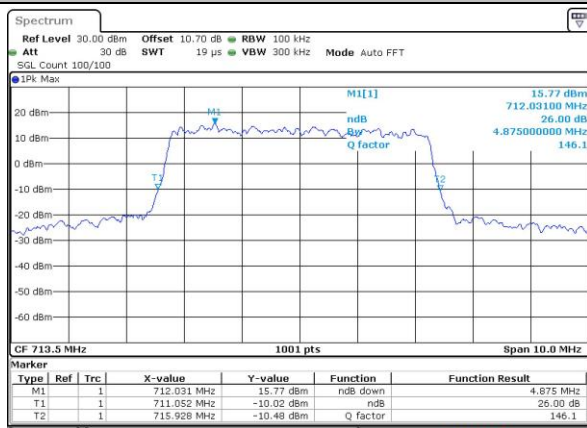
Date: 13 JUN 2017 09:27:48

Middle Channel / 5MHz / 16QAM



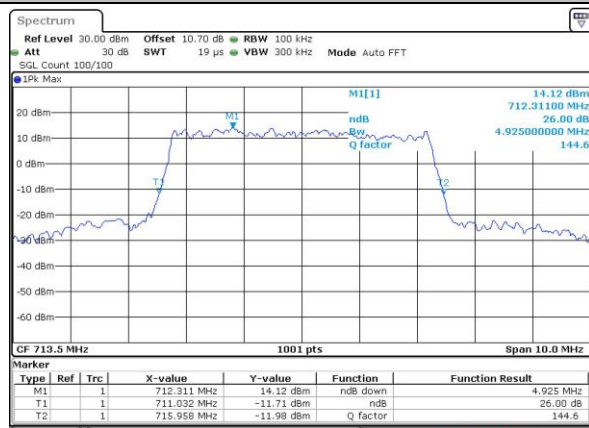
Date: 13 JUN 2017 09:27:57

Highest Channel / 5MHz / QPSK



Date: 13 JUN 2017 09:30:27

Highest Channel / 5MHz / 16QAM

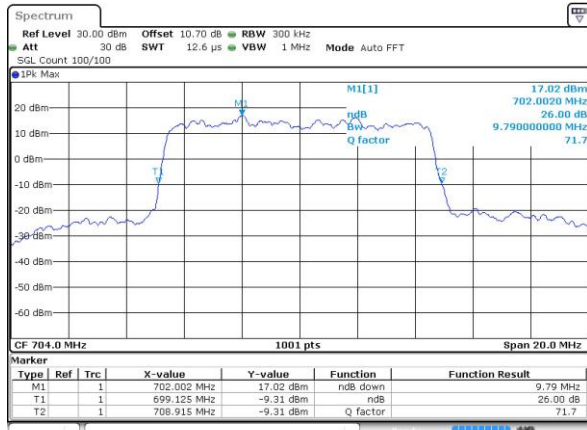


Date: 13 JUN 2017 09:30:17



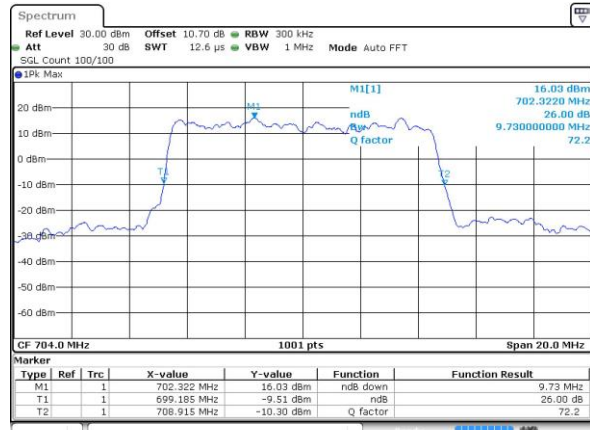
LTE Band 12

Lowest Channel / 10MHz / QPSK



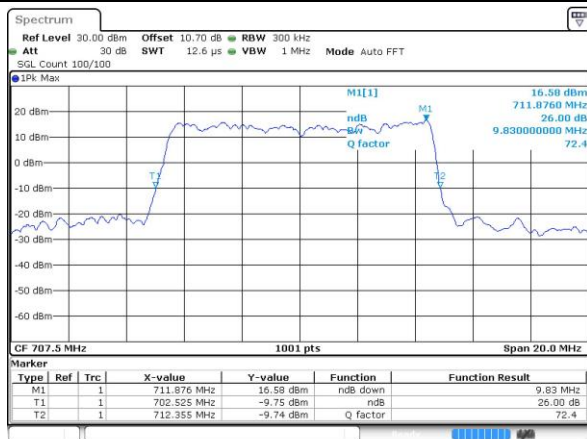
Date: 13 JUN 2017 09:37:34

Lowest Channel / 10MHz / 16QAM



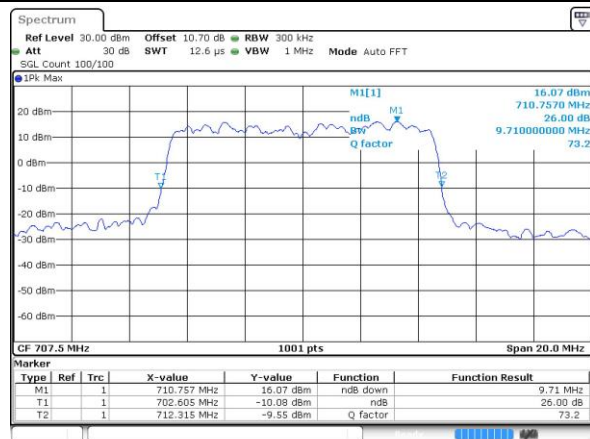
Date: 13 JUN 2017 09:37:23

Middle Channel / 10MHz / QPSK



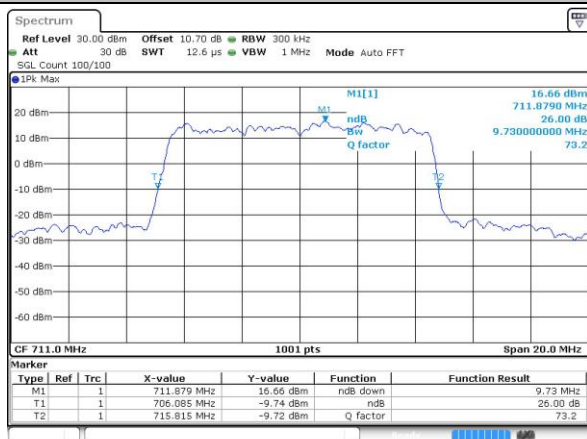
Date: 13 JUN 2017 09:44:30

Middle Channel / 10MHz / 16QAM



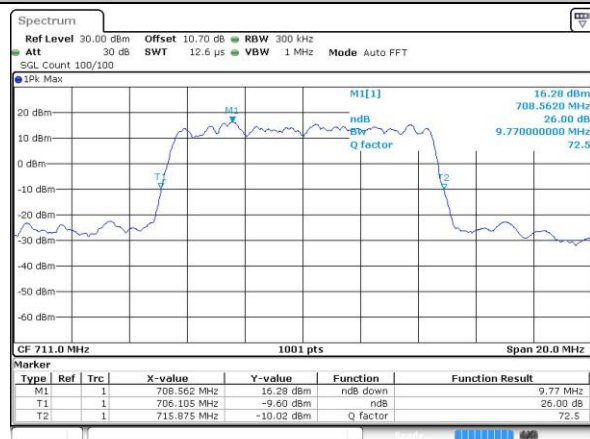
Date: 13 JUN 2017 09:44:40

Highest Channel / 10MHz / QPSK



Date: 13 JUN 2017 09:47:10

Highest Channel / 10MHz / 16QAM

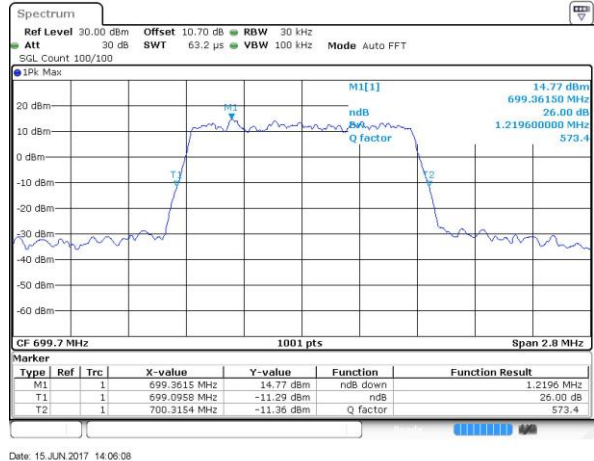


Date: 13 JUN 2017 09:46:59

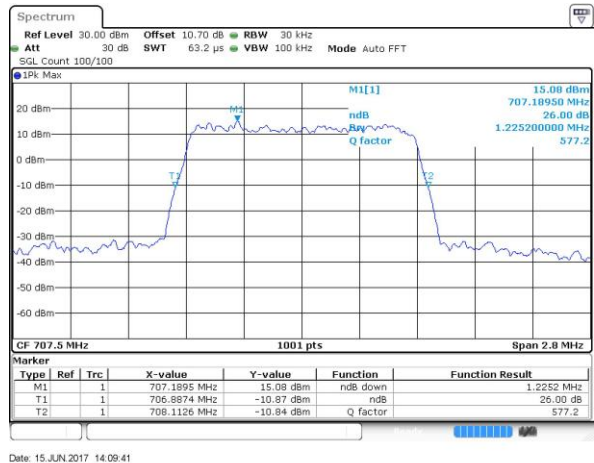


LTE Band 12

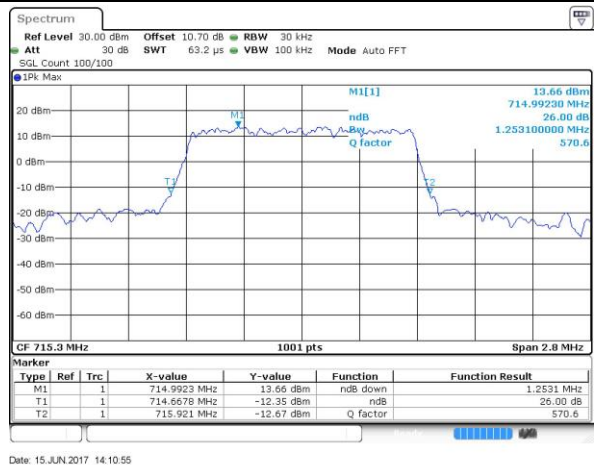
Lowest Channel / 1.4MHz / 64QAM



Middle Channel / 1.4MHz / 64QAM



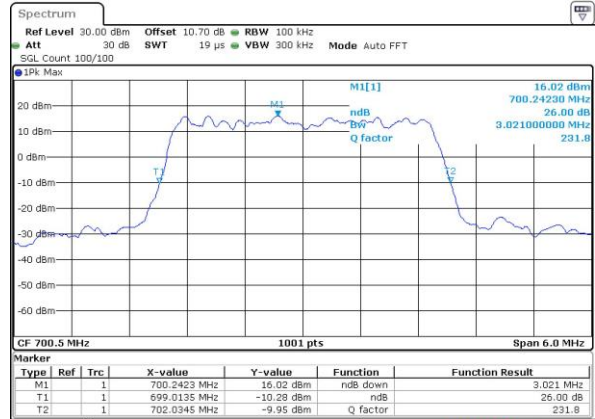
Highest Channel / 1.4MHz / 64QAM





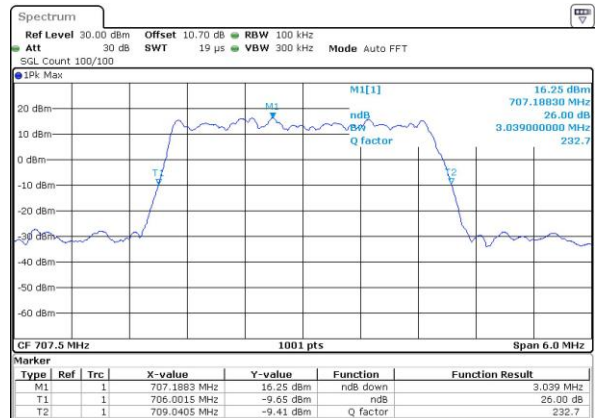
LTE Band 12

Lowest Channel / 3MHz / 64QAM



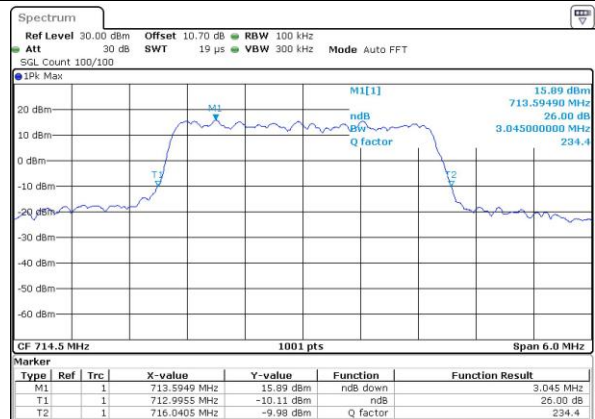
Date: 15 JUN 2017 13:40:32

Middle Channel / 3MHz / 64QAM



Date: 15 JUN 2017 13:44:06

Highest Channel / 3MHz / 64QAM

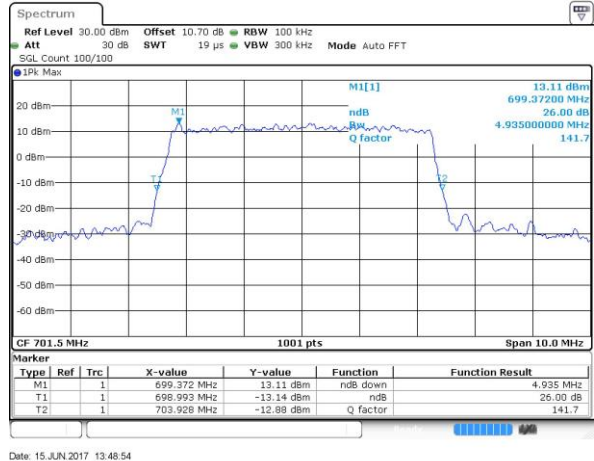


Date: 15 JUN 2017 13:45:21

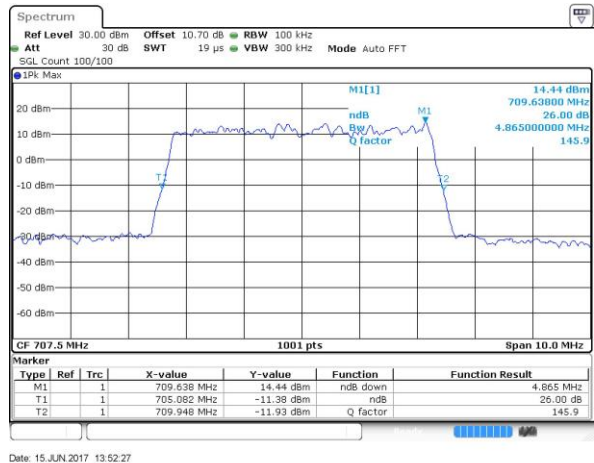


LTE Band 12

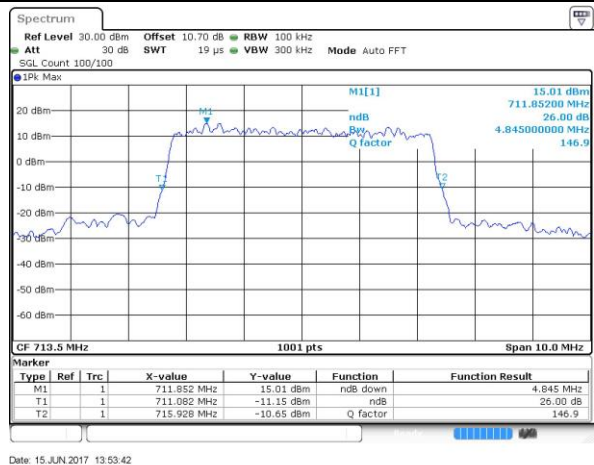
Lowest Channel / 5MHz / 64QAM



Middle Channel / 5MHz / 64QAM



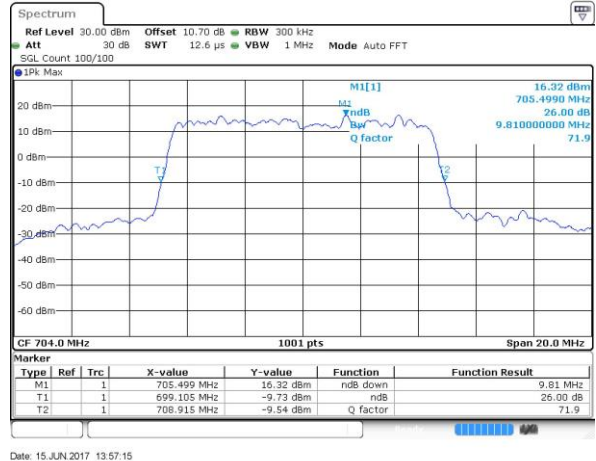
Highest Channel / 5MHz / 64QAM



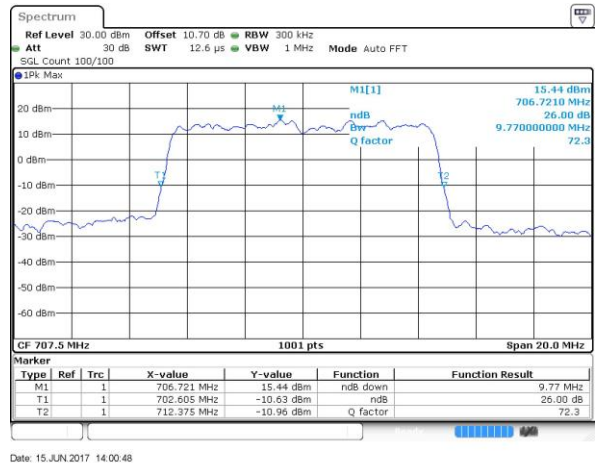


LTE Band 12

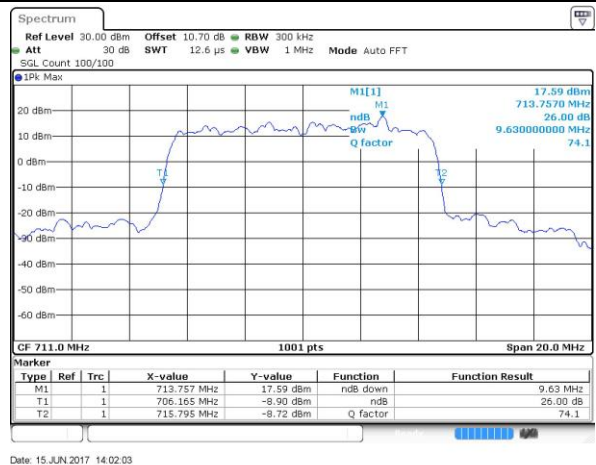
Lowest Channel / 10MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 10MHz / 64QAM



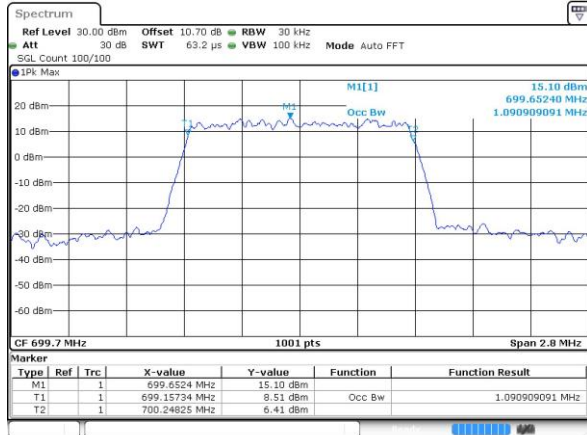
**Occupied Bandwidth**

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	1.08	2.73	2.71	4.48	4.48	9.01	8.99	-	-	-	-
Middle CH	1.09	1.09	2.72	2.72	4.5	4.49	9.07	9.05	-	-	-	-
Highest CH	1.09	1.1	2.71	2.73	4.48	4.48	9.05	8.95	-	-	-	-
Mode	LTE Band 12 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	64QAM	QPSK	64QAM	QPSK	64QAM	QPSK	64QAM	QPSK	64QAM	QPSK	64QAM
Lowest CH	-	1.09	-	2.73	-	4.49	-	8.97	-	-	-	-
Middle CH	-	1.09	-	2.72	-	4.5	-	9.03	-	-	-	-
Highest CH	-	1.09	-	2.71	-	4.49	-	8.95	-	-	-	-

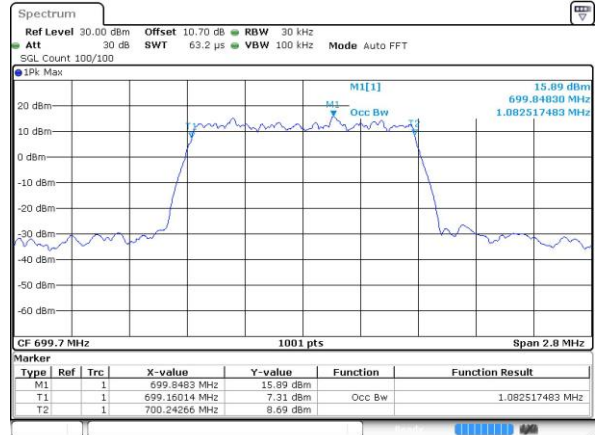


LTE Band 12

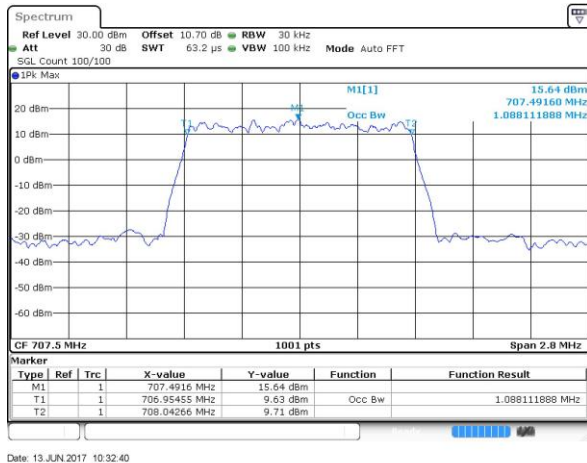
Lowest Channel / 1.4MHz / QPSK



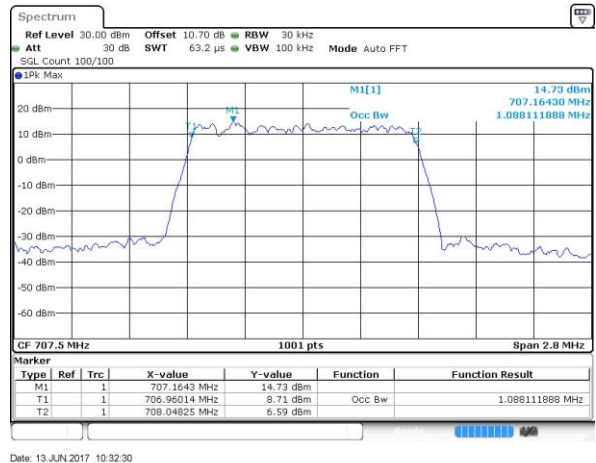
Lowest Channel / 1.4MHz / 16QAM



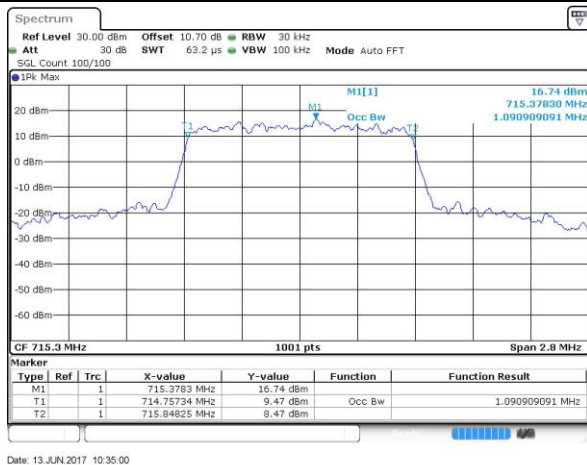
Middle Channel / 1.4MHz / QPSK



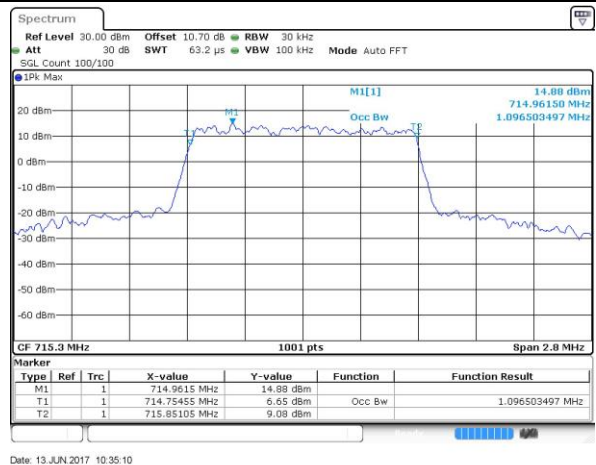
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



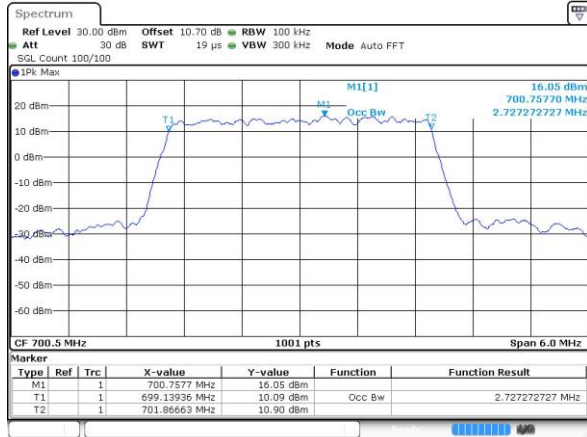
Highest Channel / 1.4MHz / 16QAM



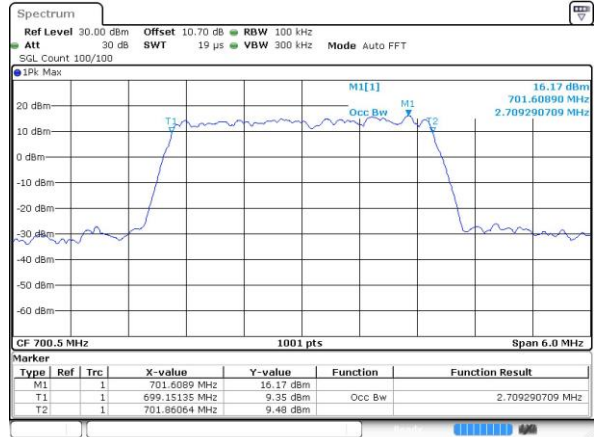


LTE Band 12

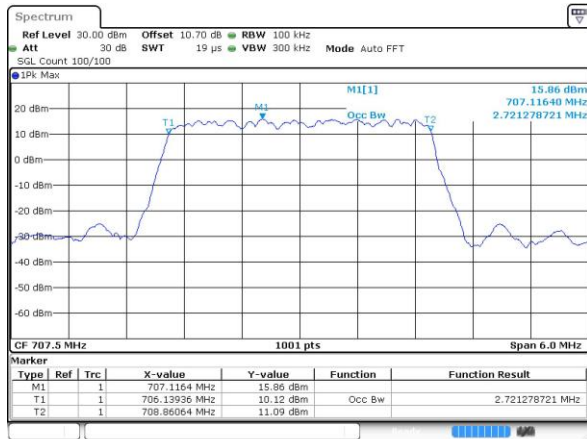
Lowest Channel / 3MHz / QPSK



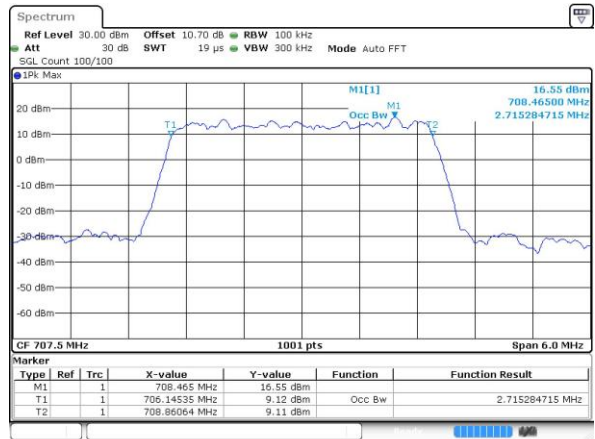
Lowest Channel / 3MHz / 16QAM



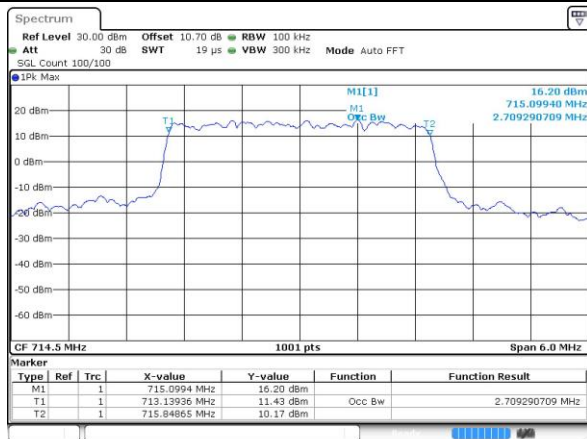
Middle Channel / 3MHz / QPSK



Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



Highest Channel / 3MHz / 16QAM

