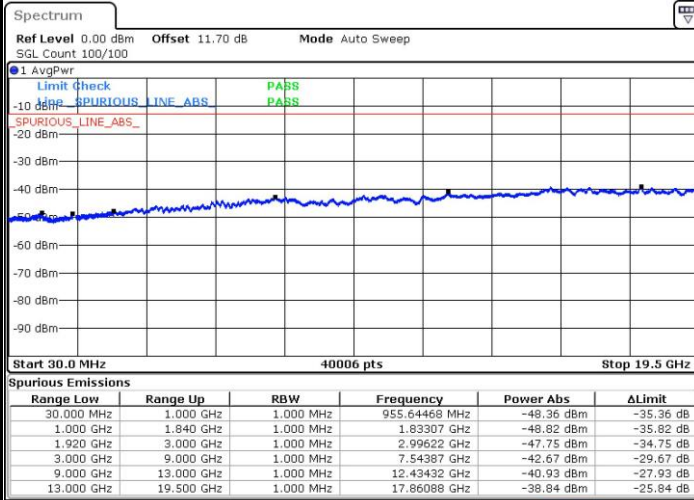




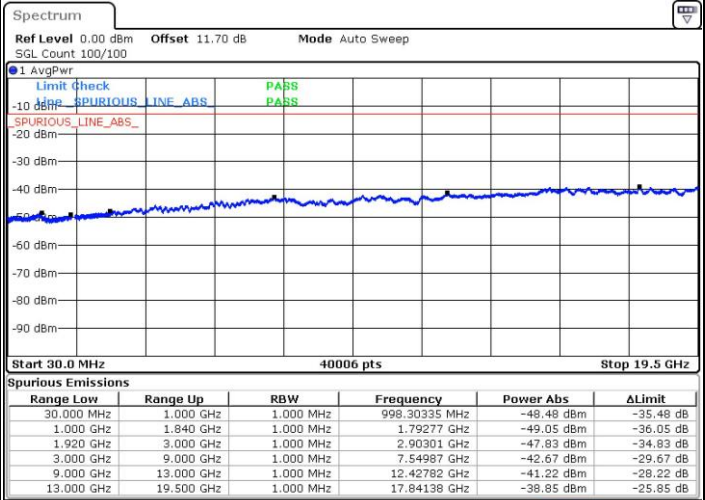
LTE Band 2 / 10MHz

Lowest Channel / 64QAM



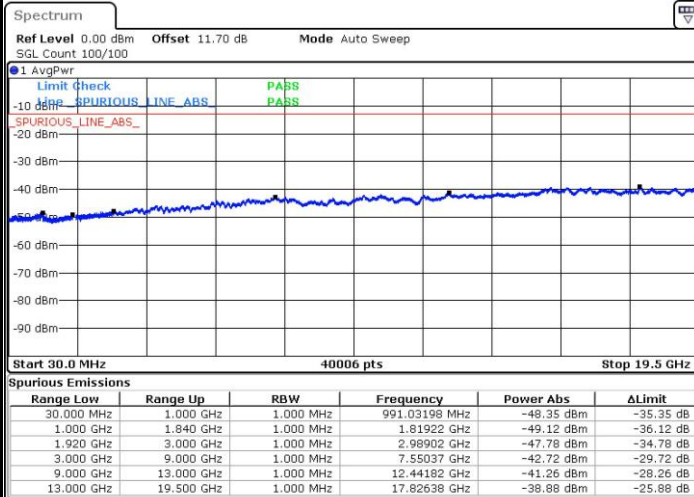
Date: 4 MAY 2018 15:12:40

Middle Channel / 64QAM



Date: 4 MAY 2018 15:13:55

Highest Channel / 64QAM

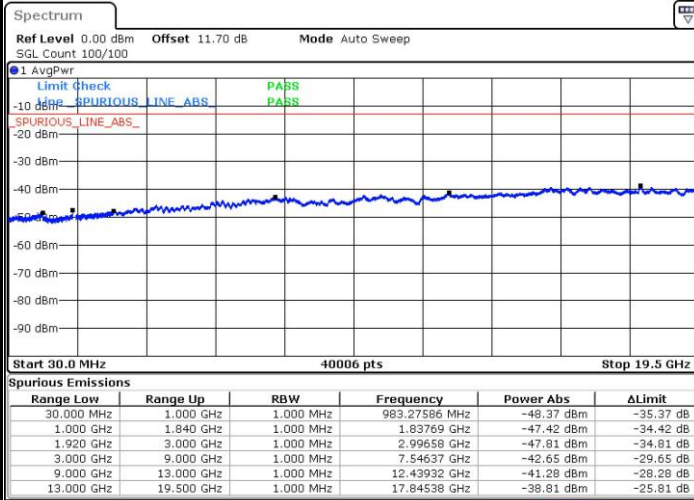


Date: 4 MAY 2018 15:17:28



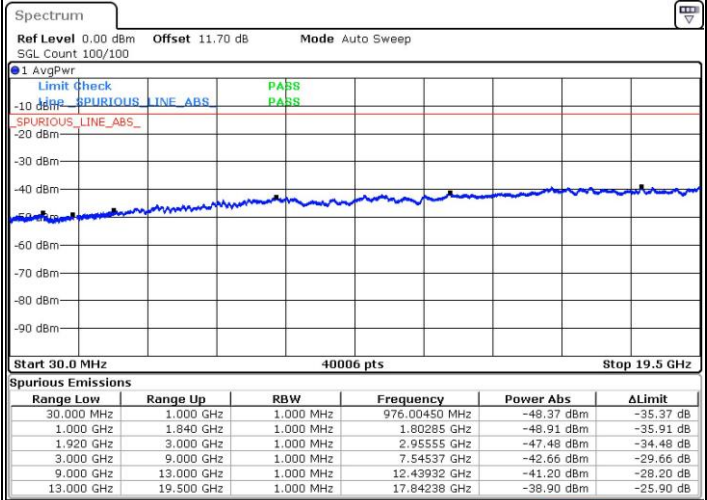
LTE Band 2 / 15MHz

Lowest Channel / 64QAM



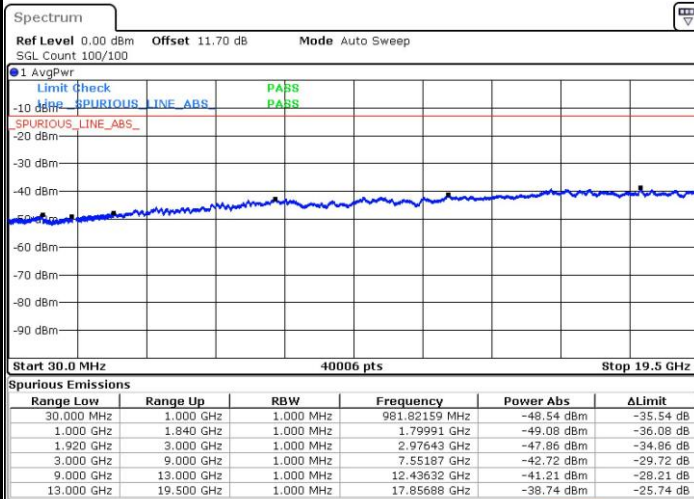
Date: 4 MAY 2018 15:21:34

Middle Channel / 64QAM



Date: 4 MAY 2018 15:22:49

Highest Channel / 64QAM

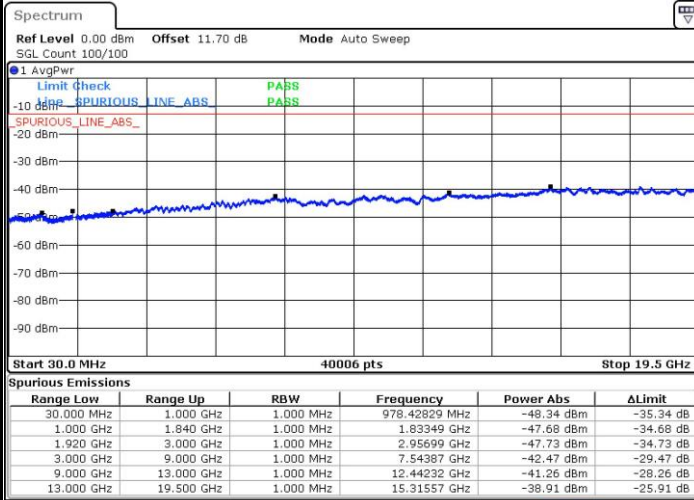


Date: 4 MAY 2018 15:26:23



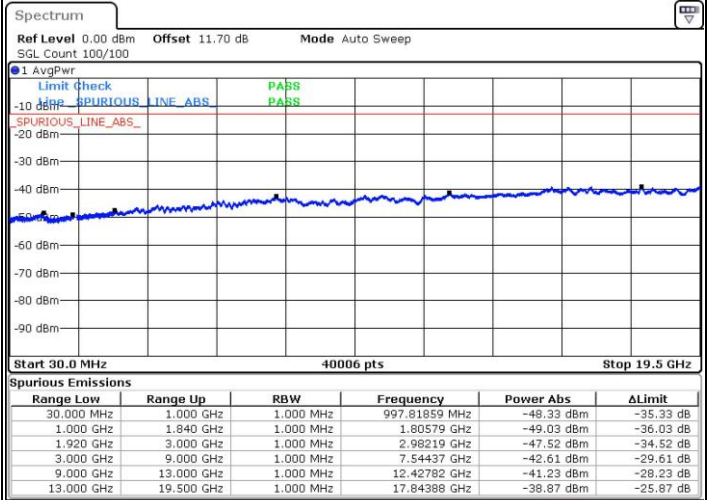
LTE Band 2 / 20MHz

Lowest Channel / 64QAM



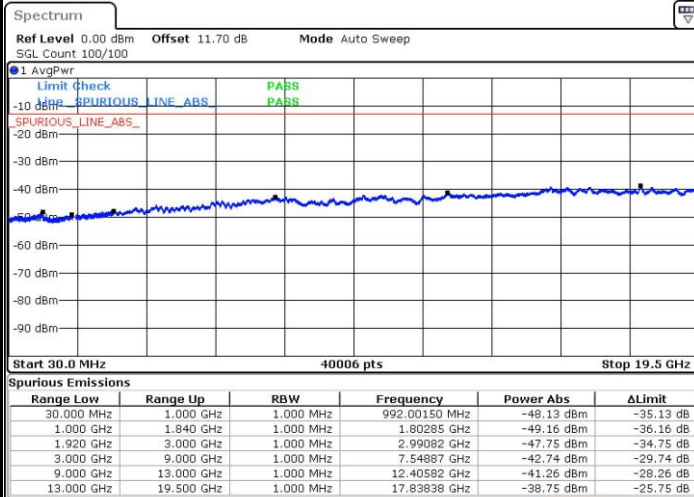
Date: 4 MAY 2018 15:29:57

Middle Channel / 64QAM



Date: 4 MAY 2018 15:31:12

Highest Channel / 64QAM



Date: 4 MAY 2018 15:34:46

Frequency Stability

Test Conditions		LTE Band 2 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0036	PASS
40	Normal Voltage	0.0003	
30	Normal Voltage	0.0002	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0021	
0	Normal Voltage	0.0040	
-10	Normal Voltage	0.0004	
-20	Normal Voltage	0.0002	
-30	Normal Voltage	0.0031	
20	Maximum Voltage	0.0018	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0004	

Note:

1. Normal Voltage =3.85 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 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	4.17	5.01	5.01	6	PASS
Middle CH	4.35	4.99	5.16	5.86	
Highest CH	3.8	4.75	4.96	5.65	
Mode	LTE Band 5 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.71	6.58	-	-	PASS
Middle CH	6.23	6.46	-	-	
Highest CH	5.91	6.20	-	-	

LTE Band 5 / 10MHz / QPSK
Lowest Channel / 1RB


Date: 4 MAY 2018 00:35:44

Lowest Channel / Full RB


Date: 4 MAY 2018 00:35:54

Middle Channel / 1RB


Date: 4 MAY 2018 00:36:03

Middle Channel / Full RB


Date: 4 MAY 2018 00:36:11

Highest Channel / 1RB


Date: 4 MAY 2018 00:36:20

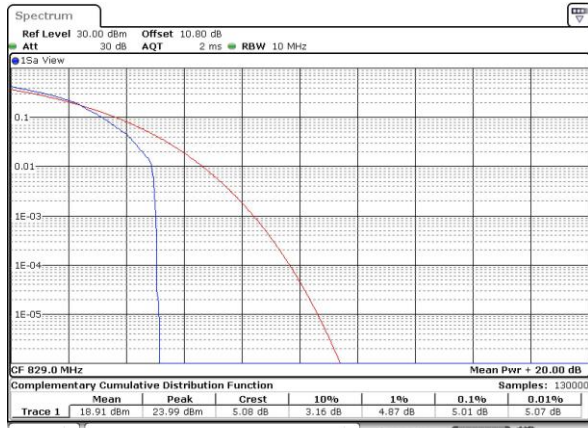
Highest Channel / Full RB


Date: 4 MAY 2018 00:36:29

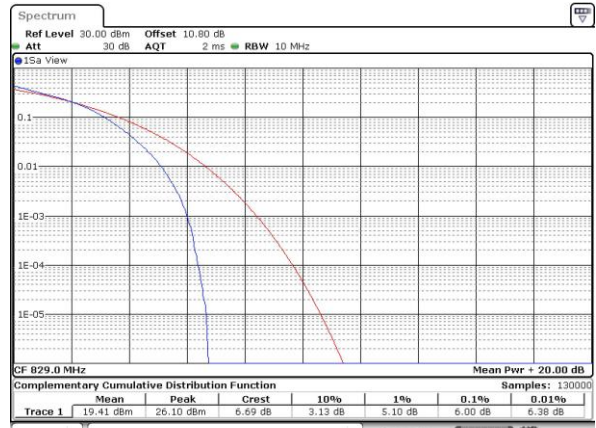


LTE Band 5 / 10MHz / 16QAM

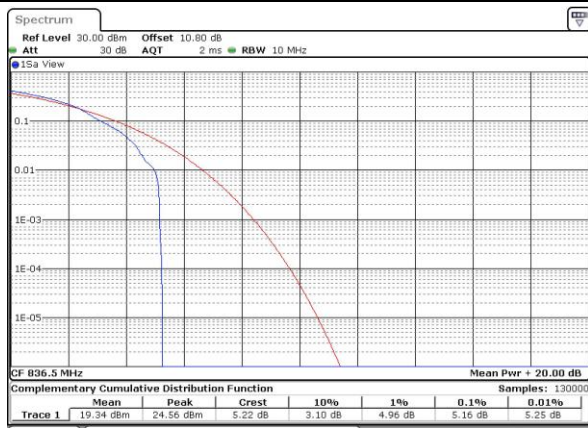
Lowest Channel / 1RB



Lowest Channel / Full RB



Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB

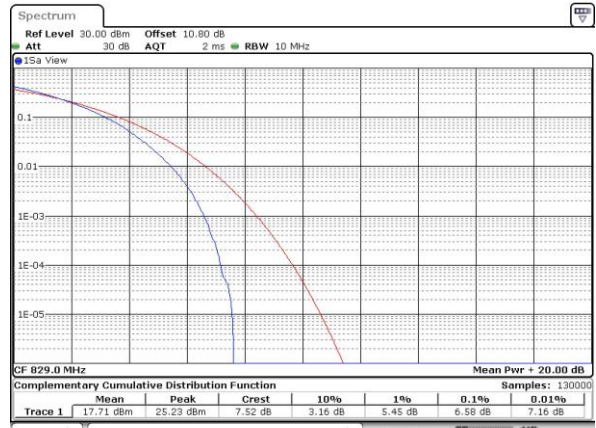


Highest Channel / Full RB



LTE Band 5 / 10MHz / 64QAM
Lowest Channel / 1RB


Date: 4 MAY 2018 17:20:41

Lowest Channel / Full RB


Date: 4 MAY 2018 17:20:51

Middle Channel / 1RB


Date: 4 MAY 2018 17:21:02

Middle Channel / Full RB


Date: 4 MAY 2018 17:21:11

Highest Channel / 1RB


Date: 4 MAY 2018 17:21:21

Highest Channel / Full RB


Date: 4 MAY 2018 17:21:34

**26dB Bandwidth**

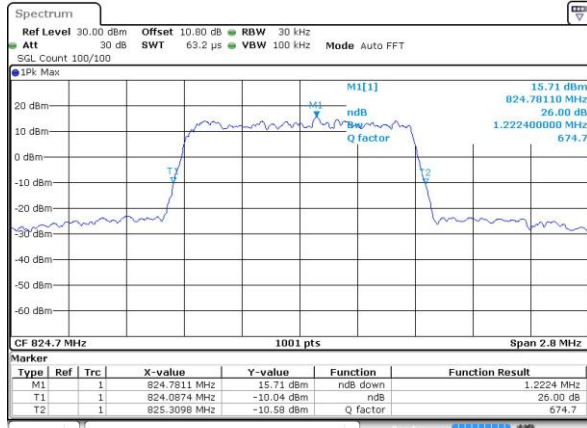
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.22	1.23	2.98	3.06	4.97	4.91	9.81	9.69	-	-	-	-
Middle CH	1.24	1.23	3.02	3.03	4.81	4.82	9.83	9.79	-	-	-	-
Highest CH	1.23	1.23	3.03	3.03	4.96	5.02	9.89	9.75	-	-	-	-

Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.22	-	3.02	-	4.92	-	9.71	-	-	-	-	-
Middle CH	1.22	-	3.03	-	4.90	-	9.83	-	-	-	-	-
Highest CH	1.22	-	2.96	-	4.81	-	9.73	-	-	-	-	-



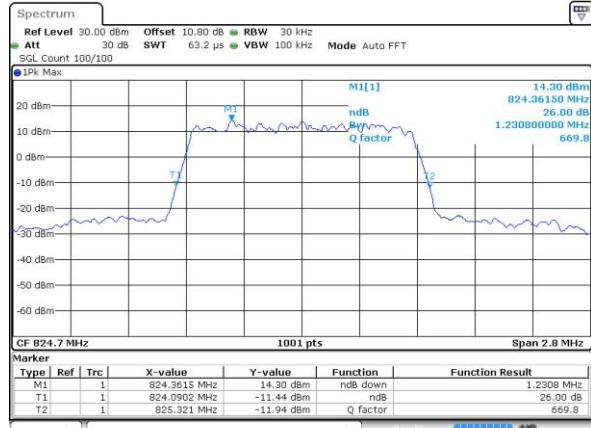
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



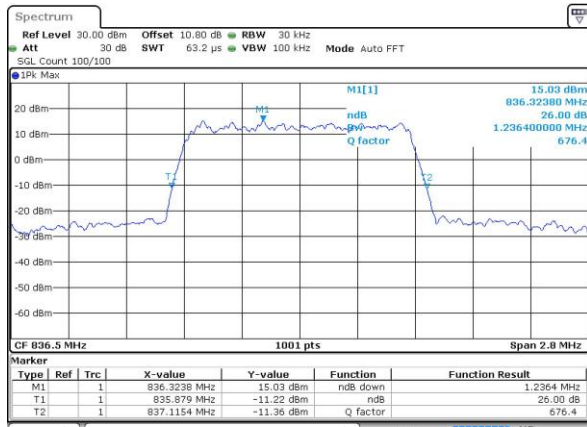
Date: 3 MAY 2018 22:31:37

Lowest Channel / 1.4MHz / 16QAM



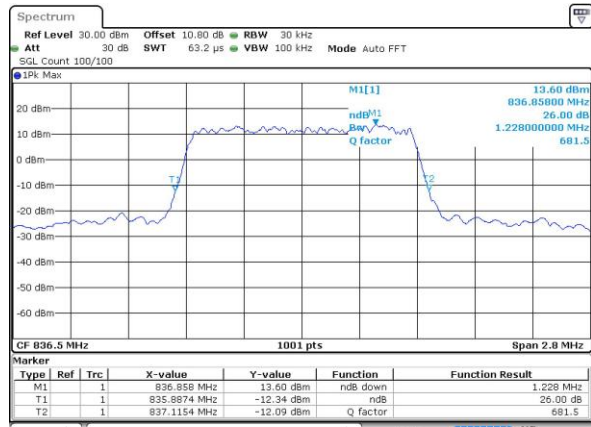
Date: 3 MAY 2018 22:31:26

Middle Channel / 1.4MHz / QPSK



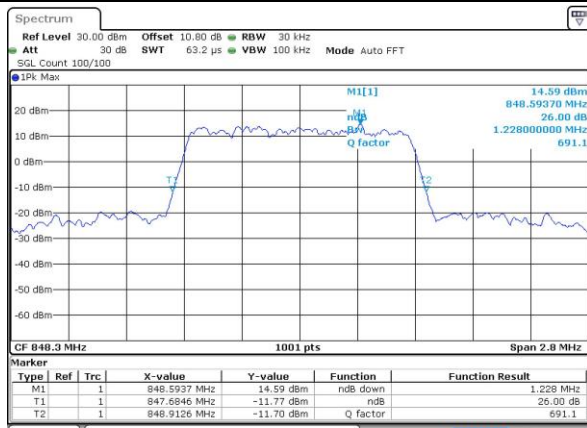
Date: 3 MAY 2018 22:40:33

Middle Channel / 1.4MHz / 16QAM



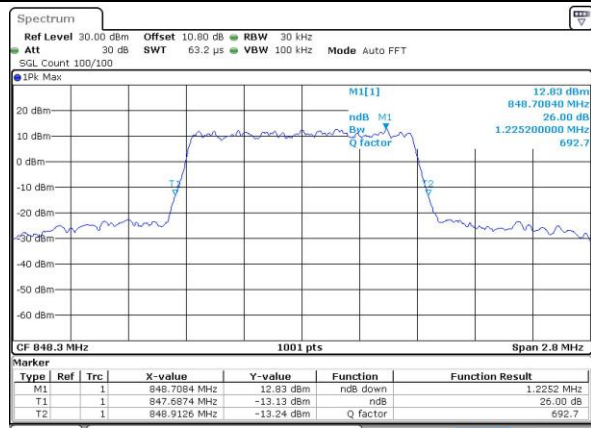
Date: 3 MAY 2018 22:40:44

Highest Channel / 1.4MHz / QPSK



Date: 3 MAY 2018 22:43:04

Highest Channel / 1.4MHz / 16QAM

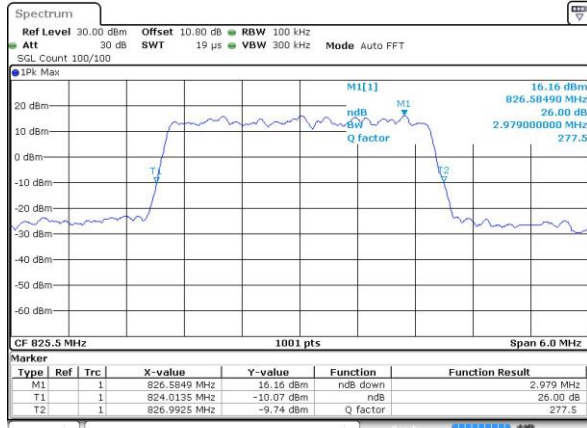


Date: 3 MAY 2018 22:43:14



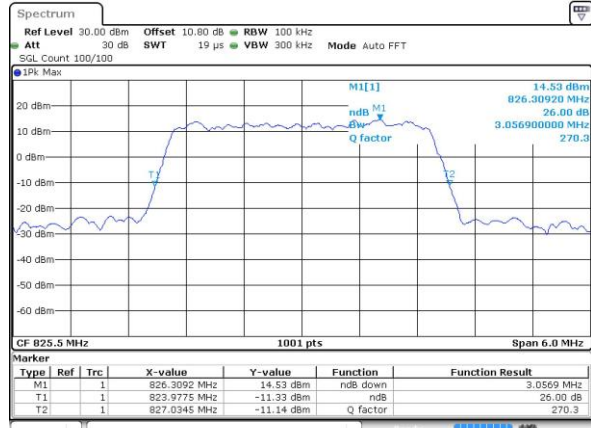
LTE Band 5

Lowest Channel / 3MHz / QPSK



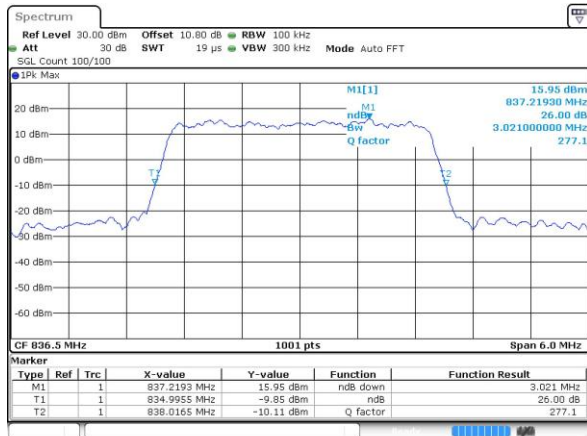
Date: 3 MAY 2018 21:25:46

Lowest Channel / 3MHz / 16QAM



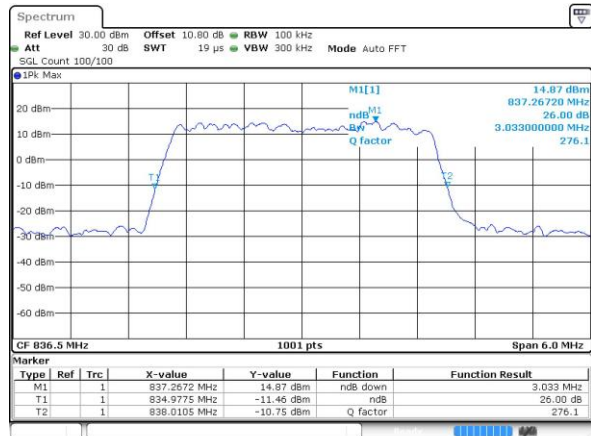
Date: 3 MAY 2018 21:25:57

Middle Channel / 3MHz / QPSK



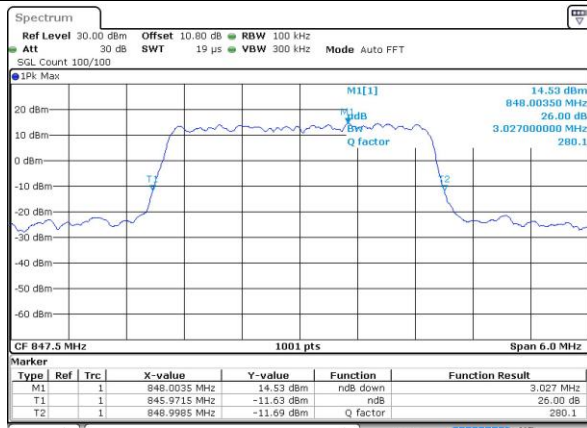
Date: 3 MAY 2018 21:34:54

Middle Channel / 3MHz / 16QAM



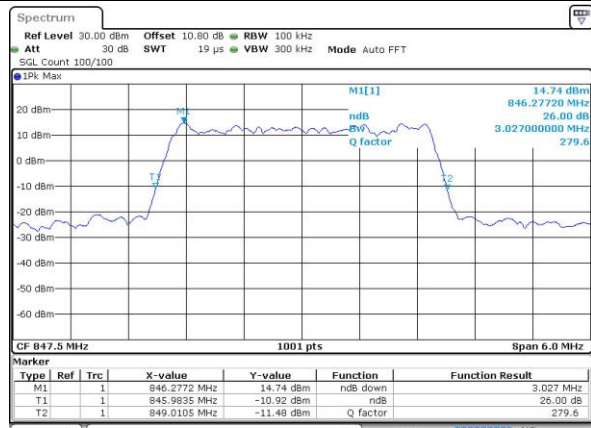
Date: 3 MAY 2018 21:35:04

Highest Channel / 3MHz / QPSK



Date: 3 MAY 2018 21:37:24

Highest Channel / 3MHz / 16QAM

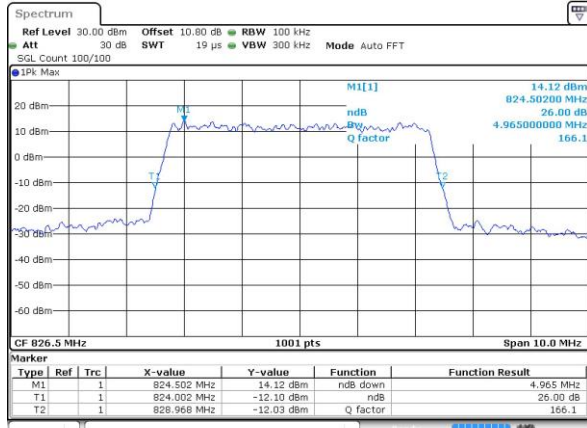


Date: 3 MAY 2018 21:37:34



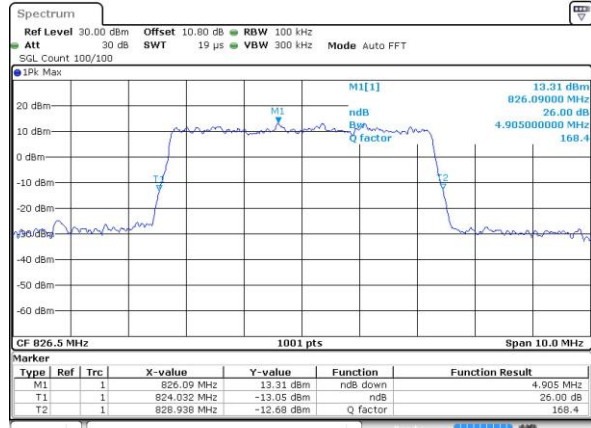
LTE Band 5

Lowest Channel / 5MHz / QPSK



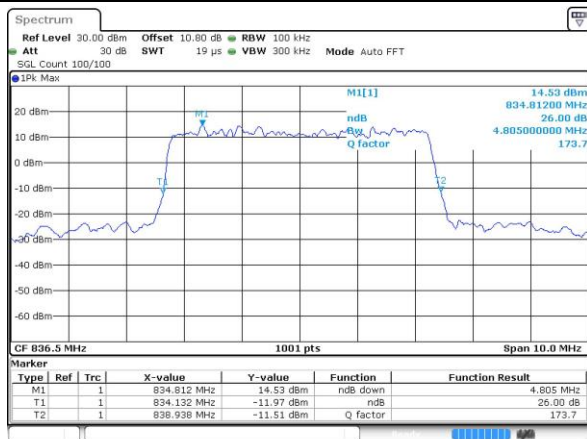
Date: 3 MAY 2018 21:46:31

Lowest Channel / 5MHz / 16QAM



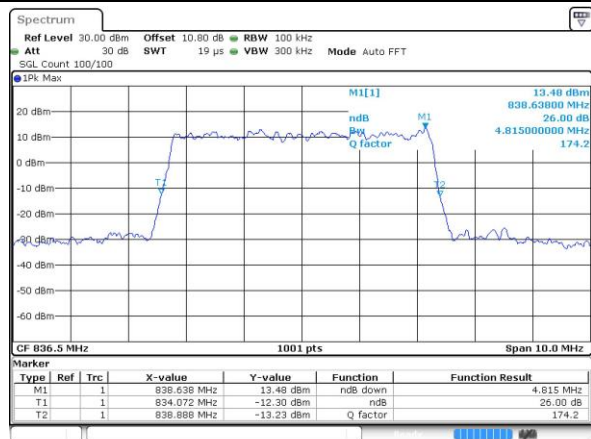
Date: 3 MAY 2018 21:46:42

Middle Channel / 5MHz / QPSK



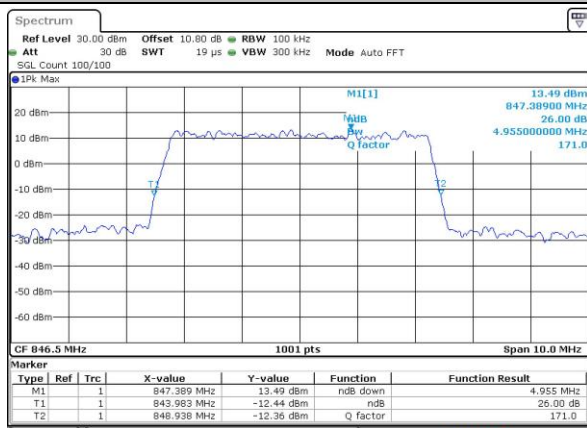
Date: 3 MAY 2018 21:55:38

Middle Channel / 5MHz / 16QAM



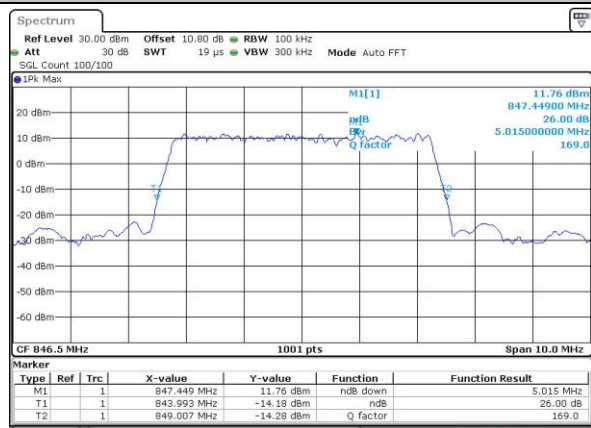
Date: 3 MAY 2018 21:55:49

Highest Channel / 5MHz / QPSK



Date: 3 MAY 2018 21:58:09

Highest Channel / 5MHz / 16QAM

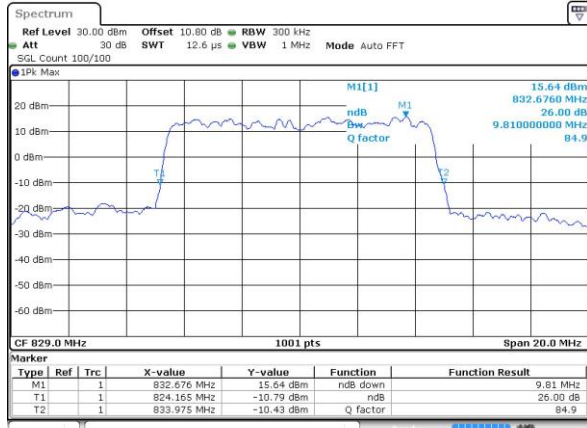


Date: 3 MAY 2018 21:58:19



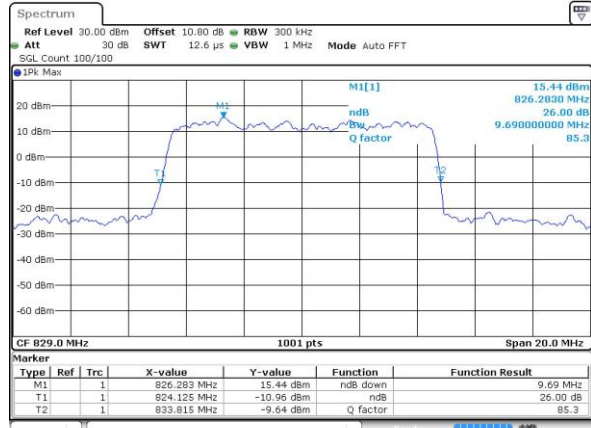
LTE Band 5

Lowest Channel / 10MHz / QPSK



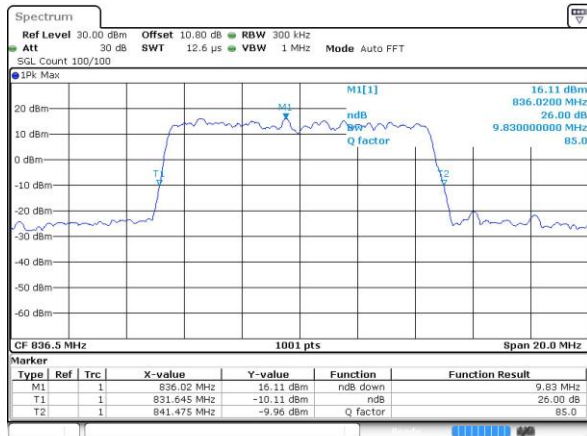
Date: 3 MAY 2018 22:07:16

Lowest Channel / 10MHz / 16QAM



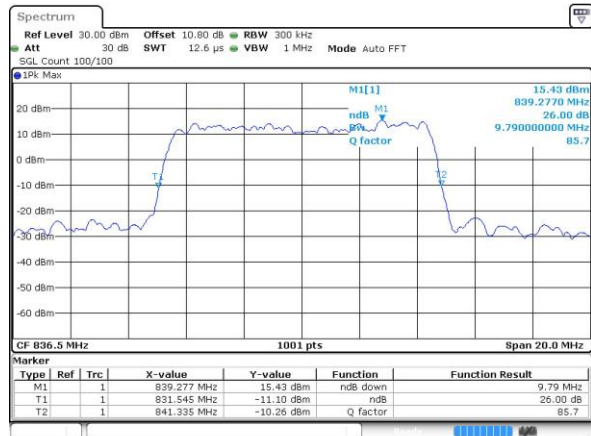
Date: 3 MAY 2018 22:07:26

Middle Channel / 10MHz / QPSK



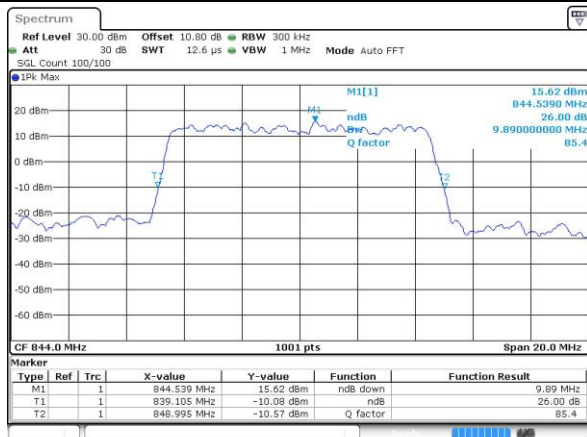
Date: 3 MAY 2018 22:16:23

Middle Channel / 10MHz / 16QAM



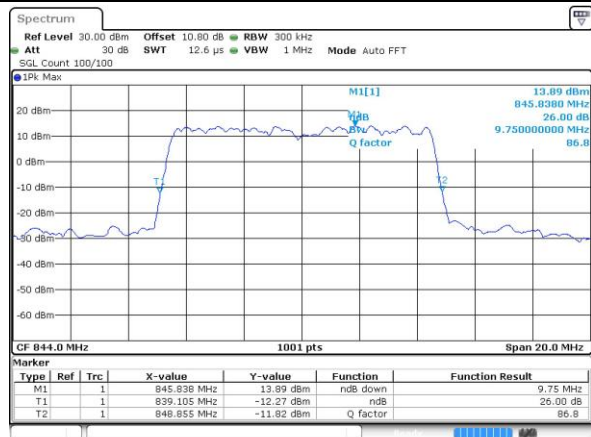
Date: 3 MAY 2018 22:16:34

Highest Channel / 10MHz / QPSK



Date: 3 MAY 2018 22:22:19

Highest Channel / 10MHz / 16QAM

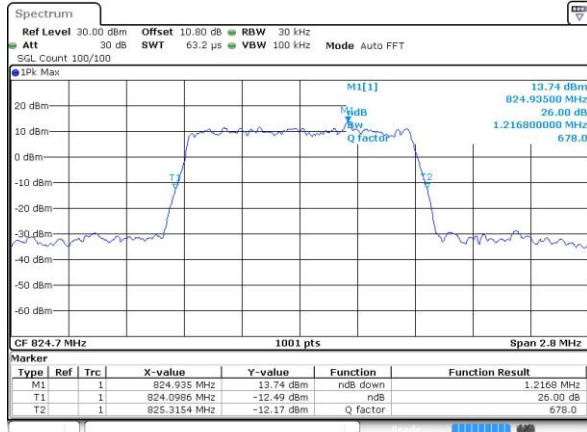


Date: 3 MAY 2018 22:22:29

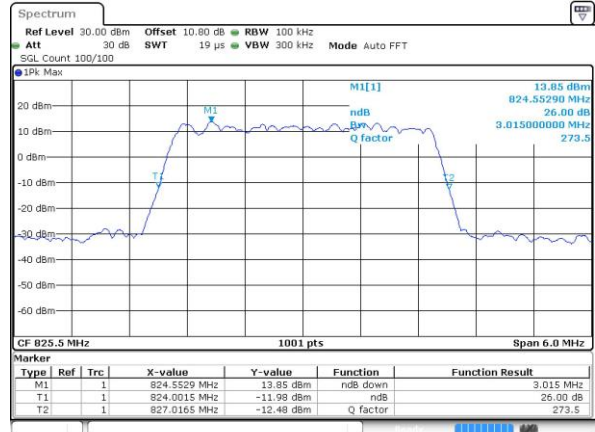


LTE Band 5

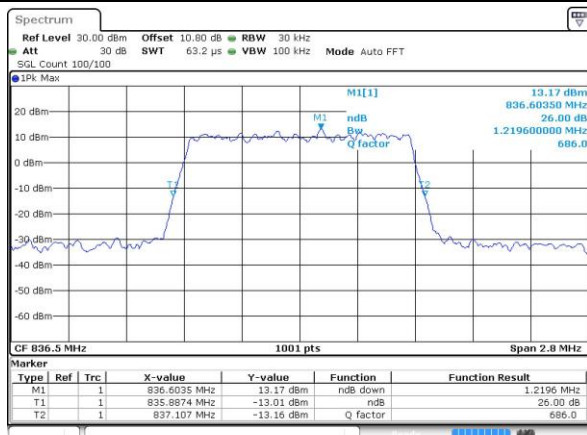
Lowest Channel / 1.4MHz / 64QAM



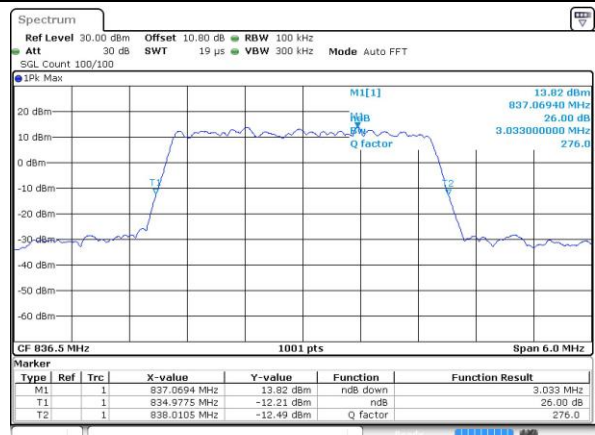
Lowest Channel / 3MHz / 64QAM



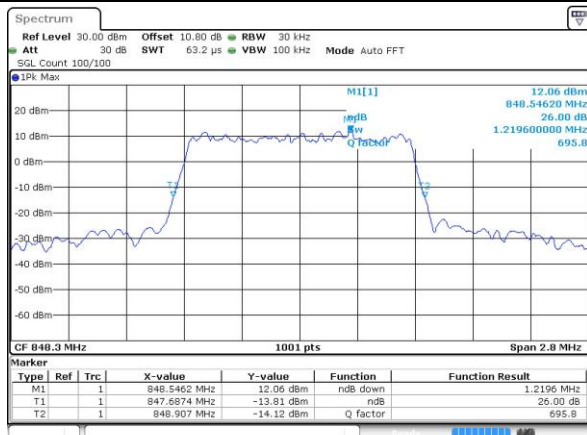
Middle Channel / 1.4MHz / 64QAM



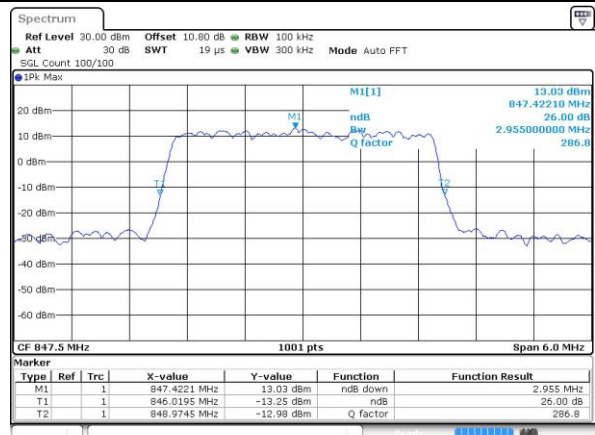
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



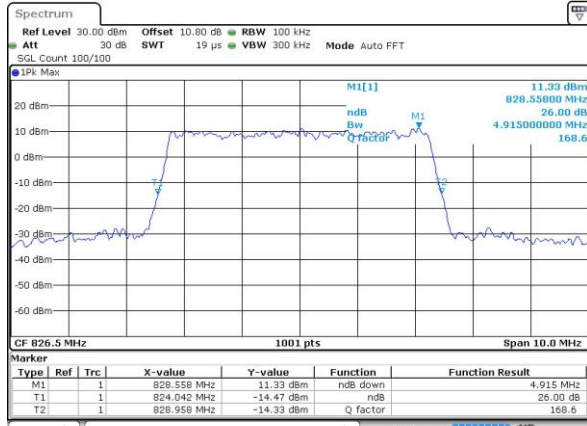
Highest Channel / 3MHz / 64QAM





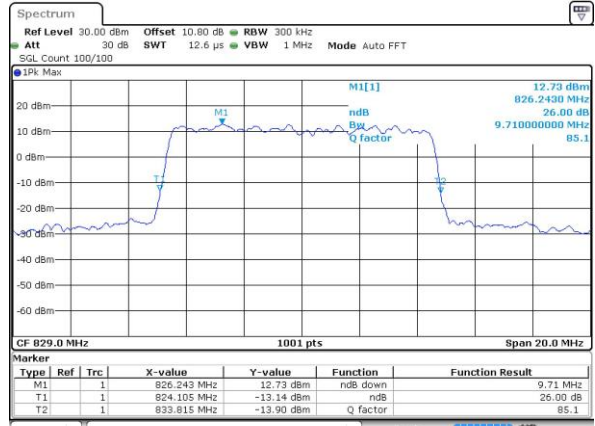
LTE Band 5

Lowest Channel / 5MHz / 64QAM



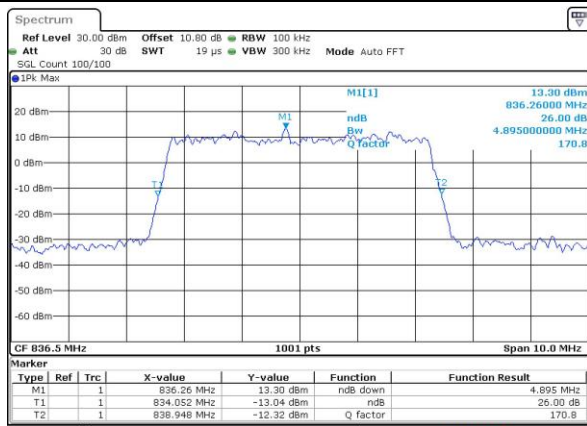
Date: 4 MAY 2018 16:48:45

Lowest Channel / 10MHz / 64QAM



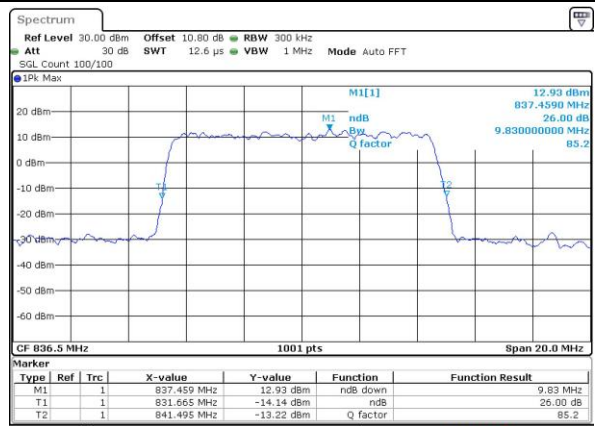
Date: 4 MAY 2018 16:59:06

Middle Channel / 5MHz / 64QAM



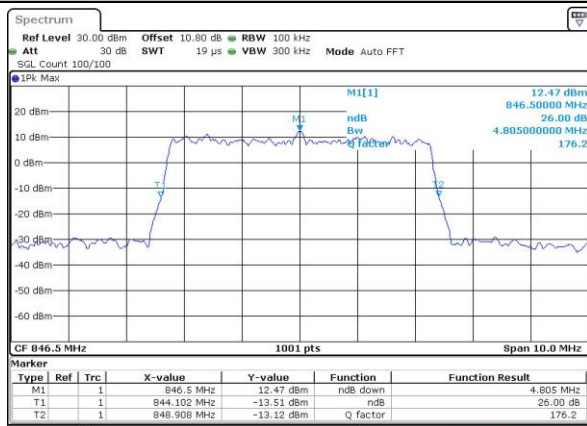
Date: 4 MAY 2018 16:53:18

Middle Channel / 10MHz / 64QAM



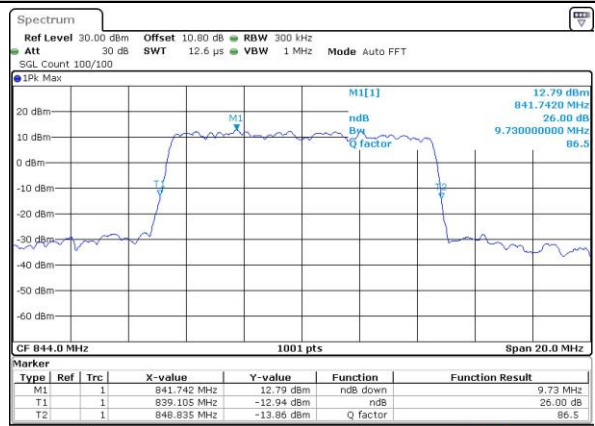
Date: 4 MAY 2018 17:03:39

Highest Channel / 5MHz / 64QAM



Date: 4 MAY 2018 16:54:33

Highest Channel / 10MHz / 64QAM



Date: 4 MAY 2018 17:04:54

**Occupied Bandwidth**

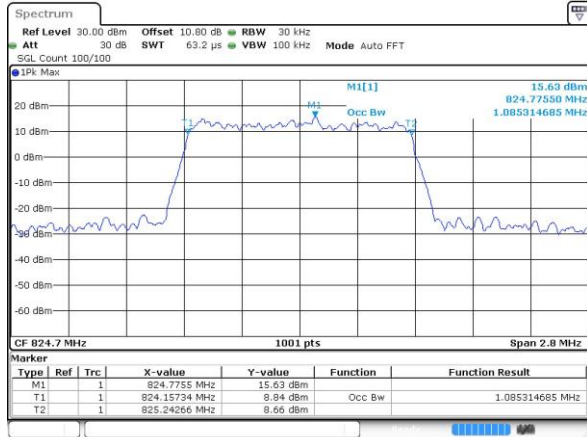
Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.09	1.1	2.72	2.73	4.48	4.49	9.03	9.05	-	-	-	-
Middle CH	1.09	1.09	2.72	2.72	4.51	4.49	9.01	9.03	-	-	-	-
Highest CH	1.09	1.09	2.72	2.73	4.52	4.47	9.07	9.01	-	-	-	-

Mode	LTE Band 5 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.09	-	2.73	-	4.48	-	9.05	-	-	-	-	-
Middle CH	1.09	-	2.73	-	4.49	-	8.97	-	-	-	-	-
Highest CH	1.09	-	2.73	-	4.48	-	9.01	-	-	-	-	-

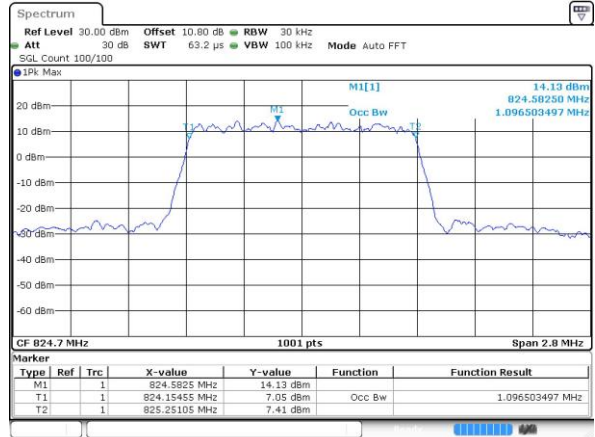


LTE Band 5

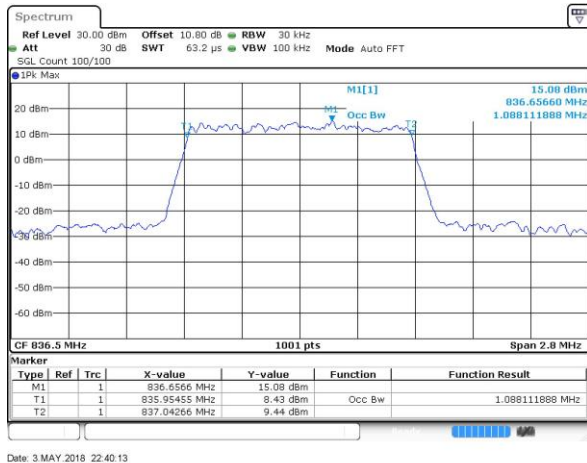
Lowest Channel / 1.4MHz / QPSK



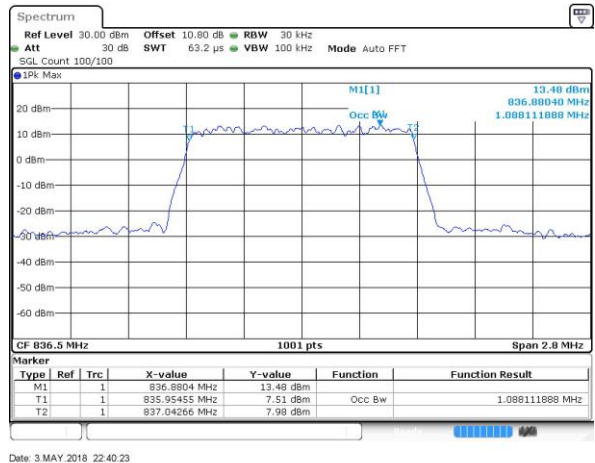
Lowest Channel / 1.4MHz / 16QAM



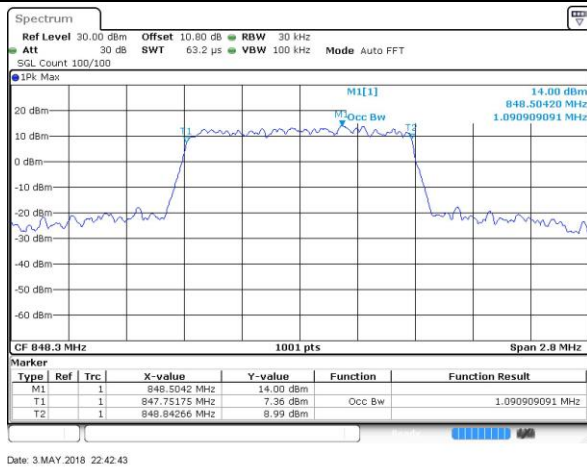
Middle Channel / 1.4MHz / QPSK



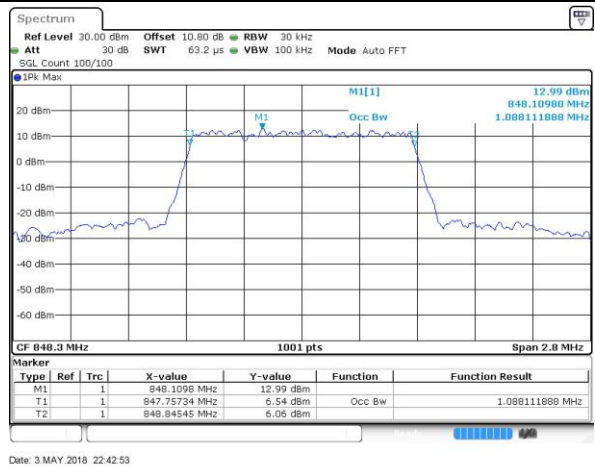
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



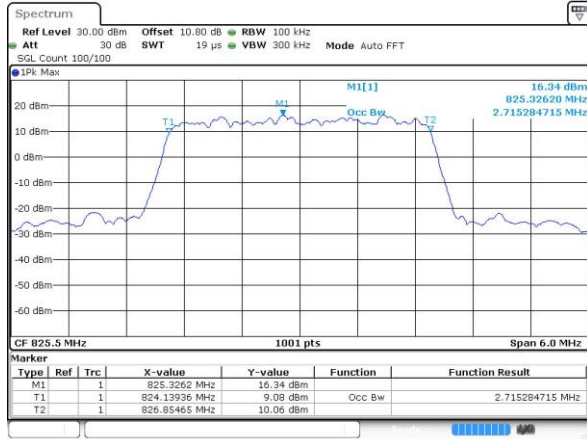
Highest Channel / 1.4MHz / 16QAM



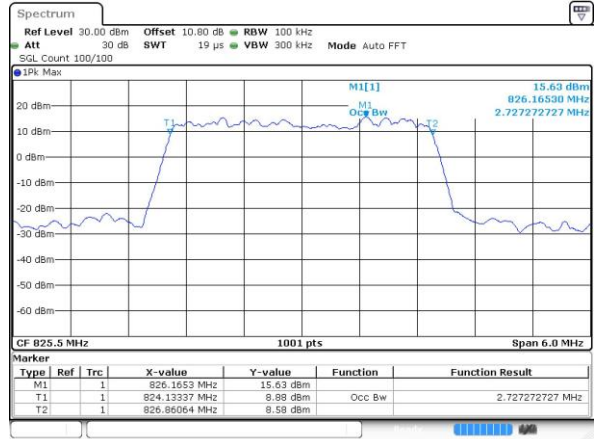


LTE Band 5

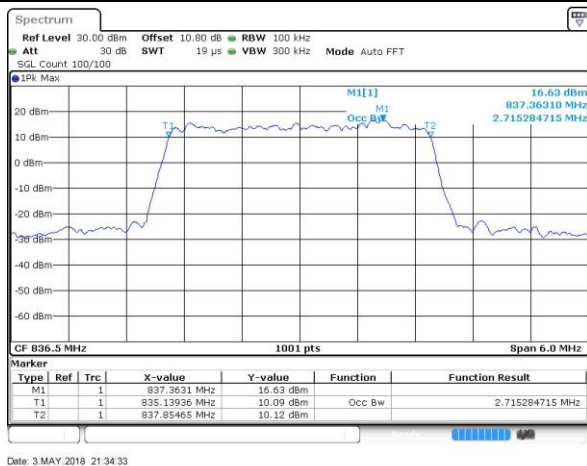
Lowest Channel / 3MHz / QPSK



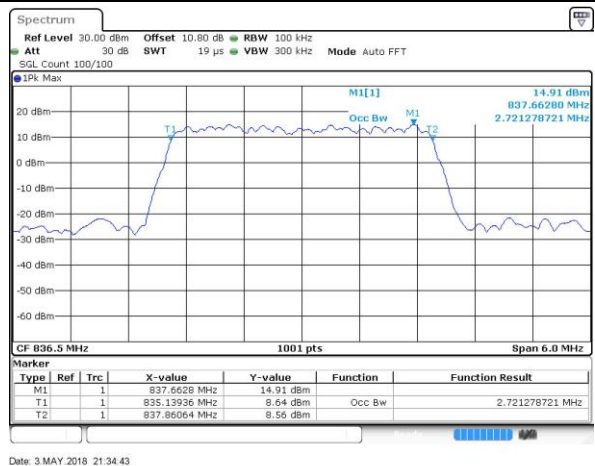
Lowest Channel / 3MHz / 16QAM



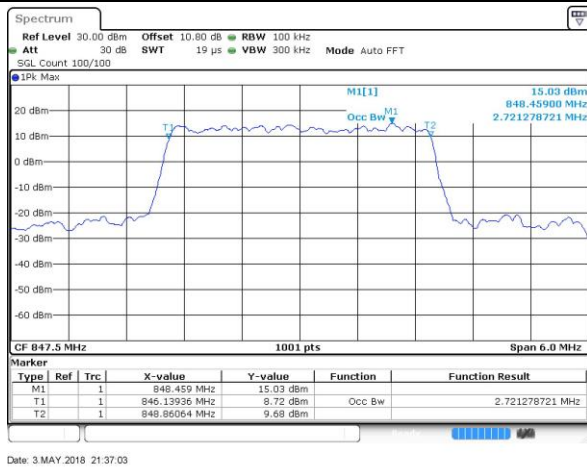
Middle Channel / 3MHz / QPSK



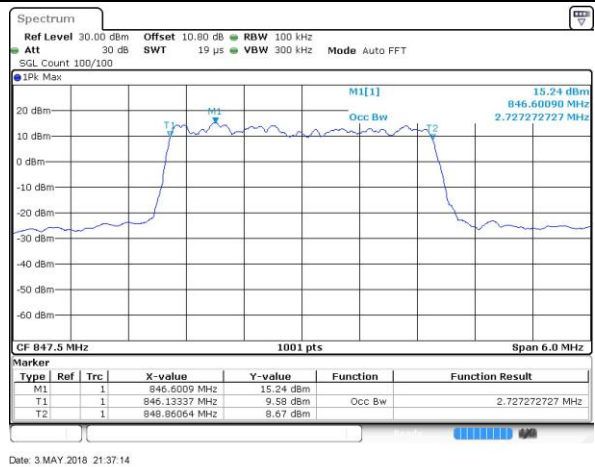
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



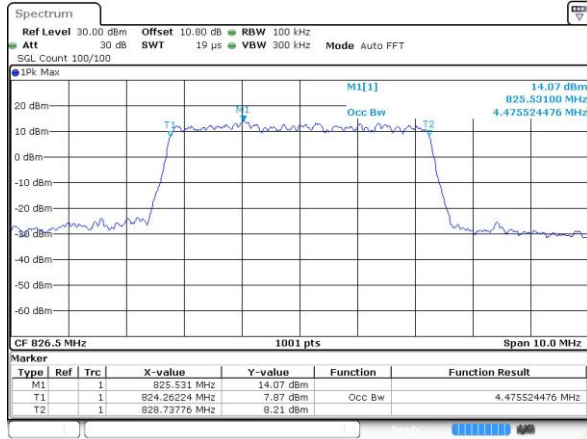
Highest Channel / 3MHz / 16QAM





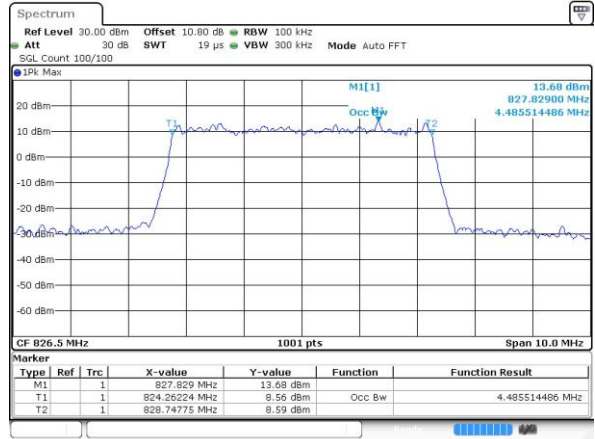
LTE Band 5

Lowest Channel / 5MHz / QPSK



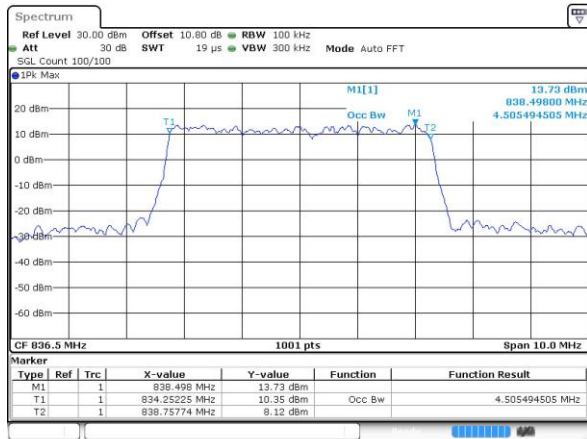
Date: 3 MAY 2018 21:46:10

Lowest Channel / 5MHz / 16QAM



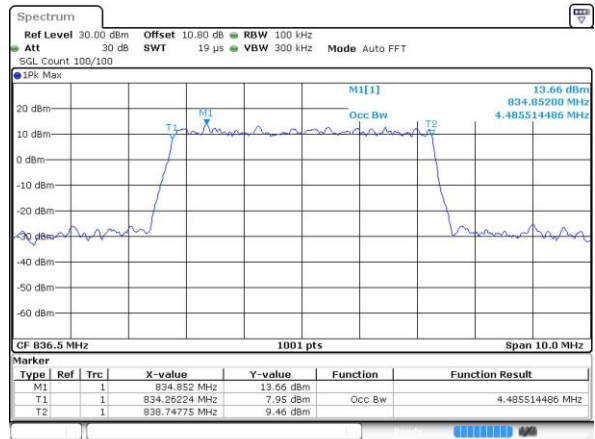
Date: 3 MAY 2018 21:46:21

Middle Channel / 5MHz / QPSK



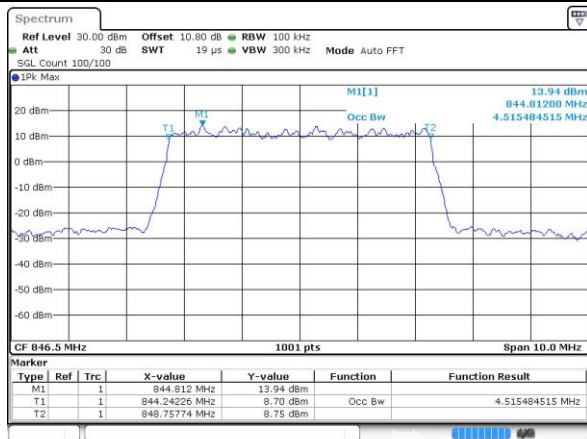
Date: 3 MAY 2018 21:55:18

Middle Channel / 5MHz / 16QAM



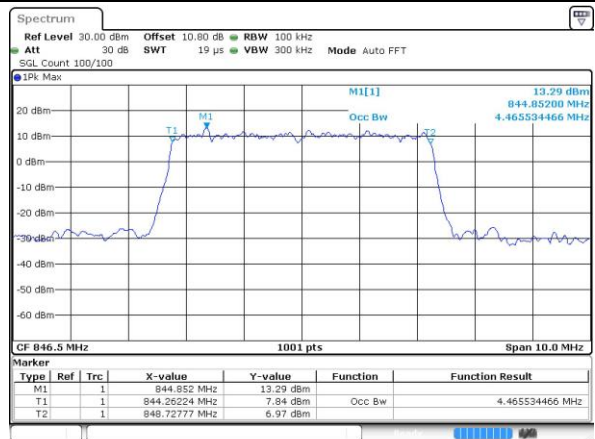
Date: 3 MAY 2018 21:55:26

Highest Channel / 5MHz / QPSK



Date: 3 MAY 2018 21:57:48

Highest Channel / 5MHz / 16QAM

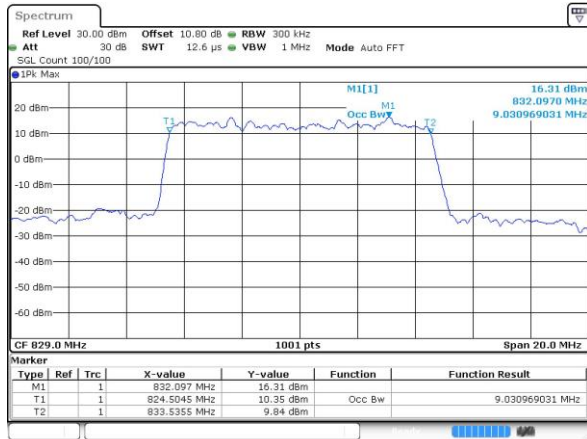


Date: 3 MAY 2018 21:57:58



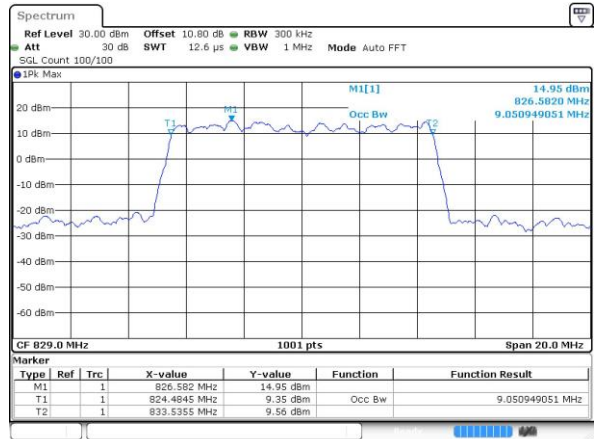
LTE Band 5

Lowest Channel / 10MHz / QPSK



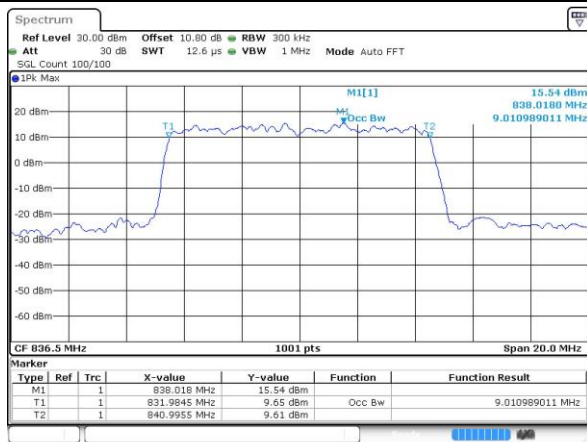
Date: 3 MAY 2018 22:06:55

Lowest Channel / 10MHz / 16QAM



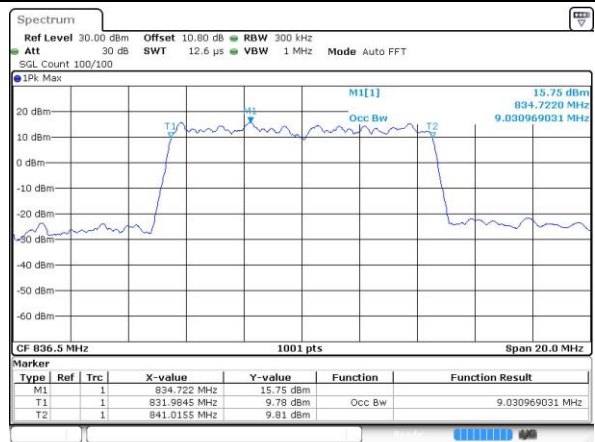
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Middle Channel / 10MHz / QPSK



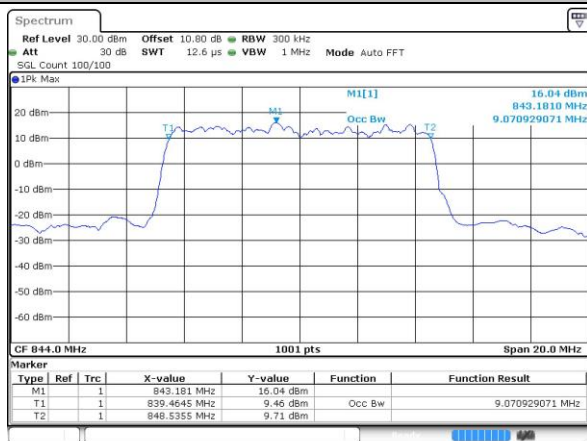
Date: 3 MAY 2018 22:16:03

Middle Channel / 10MHz / 16QAM



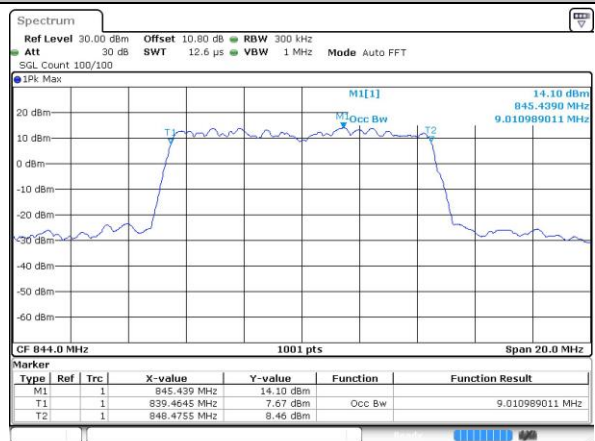
Date: 3 MAY 2018 22:16:13

Highest Channel / 10MHz / QPSK



Date: 3 MAY 2018 22:21:58

Highest Channel / 10MHz / 16QAM

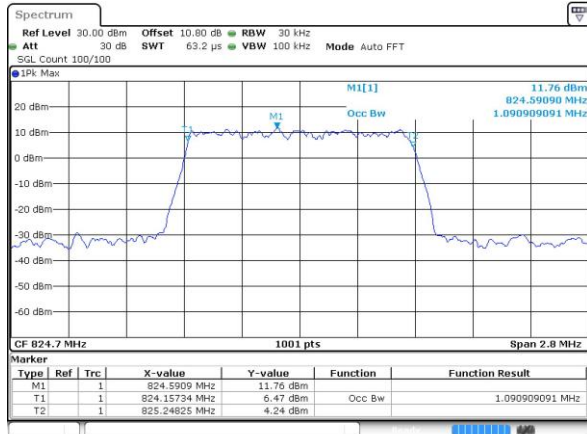


Date: 3 MAY 2018 22:22:08

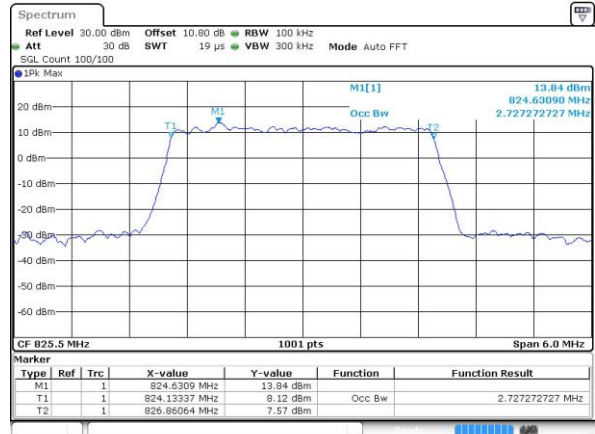


LTE Band 5

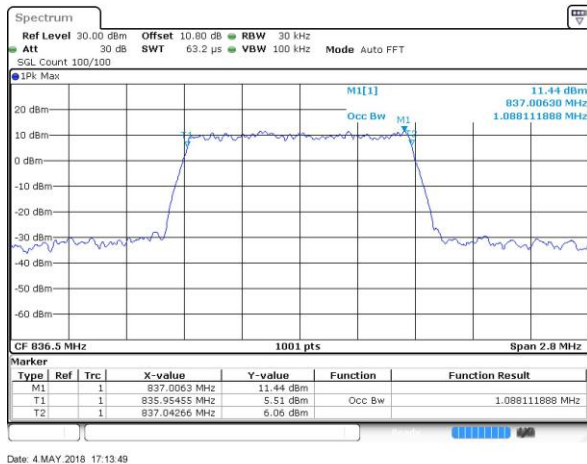
Lowest Channel / 1.4MHz / 64QAM



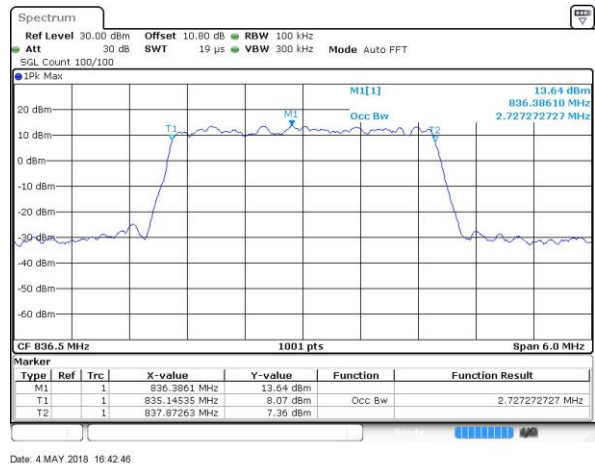
Lowest Channel / 3MHz / 64QAM



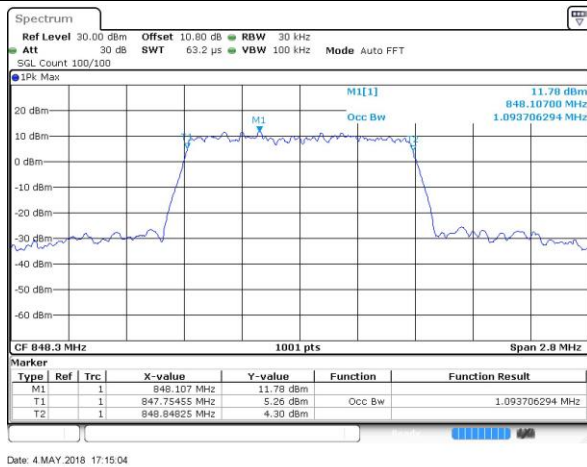
Middle Channel / 1.4MHz / 64QAM



Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



Highest Channel / 3MHz / 64QAM

