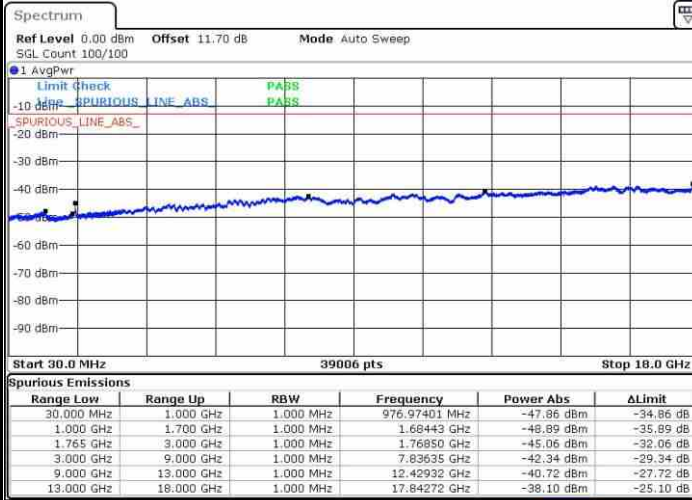




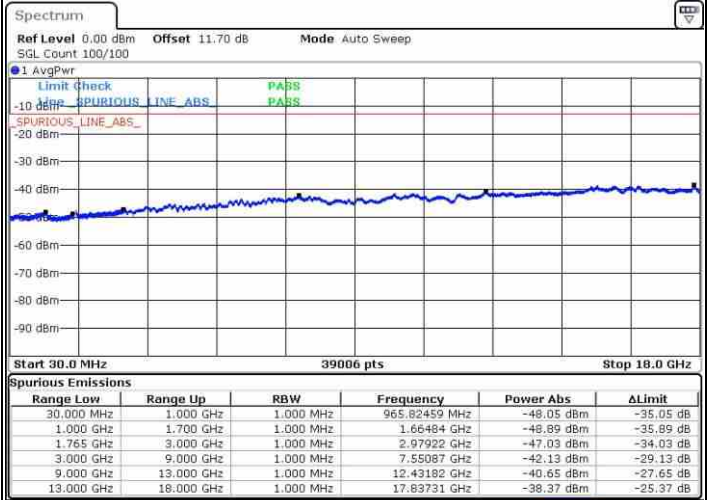
LTE Band 4 / 1.4MHz

Highest Channel / QPSK



Date: 24 FEB 2019 17:50:25

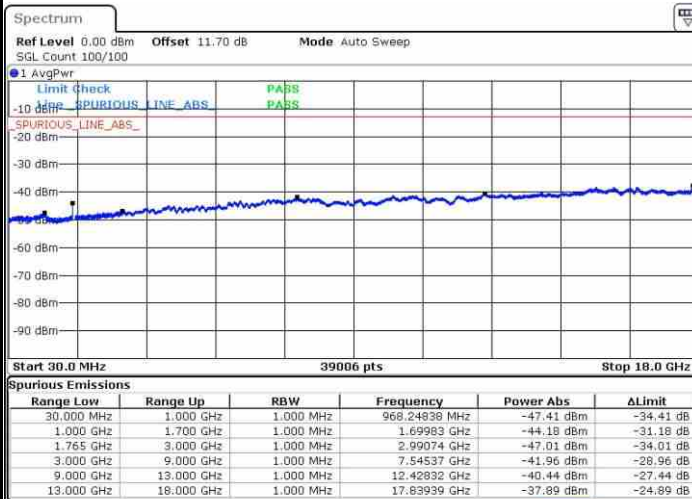
Highest Channel / 16QAM



Date: 24 FEB 2019 17:51:16

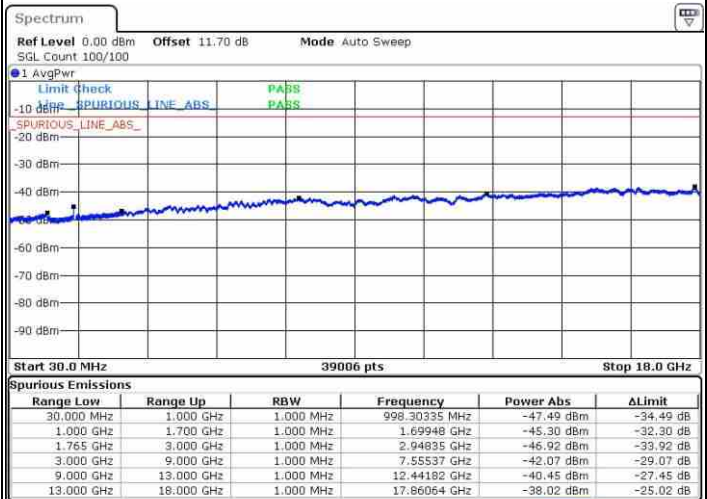
LTE Band 4 / 3MHz

Lowest Channel / QPSK



Date: 23 FEB 2019 01:29:17

Lowest Channel / 16QAM

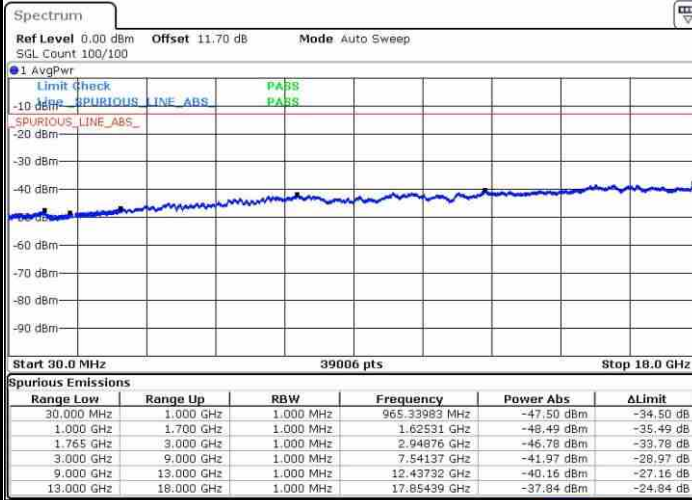


Date: 23 FEB 2019 01:30:07



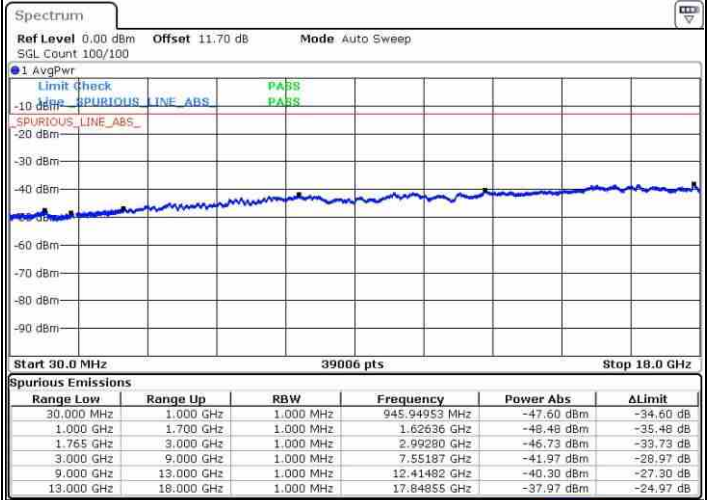
LTE Band 4 / 3MHz

Middle Channel / QPSK



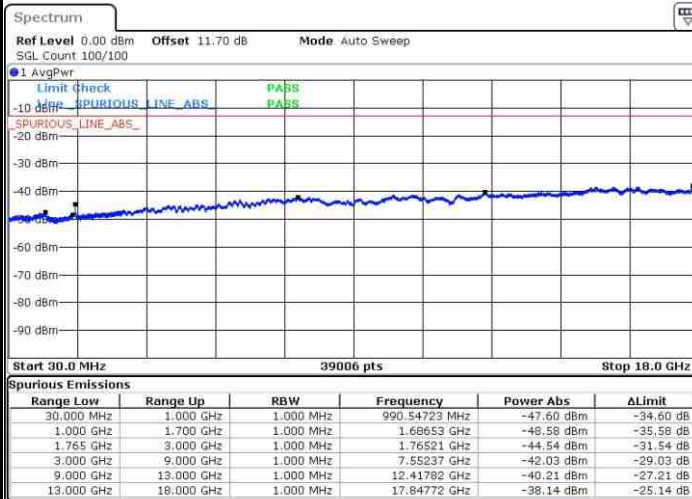
Date: 23 FEB 2019 01:31:44

Middle Channel / 16QAM



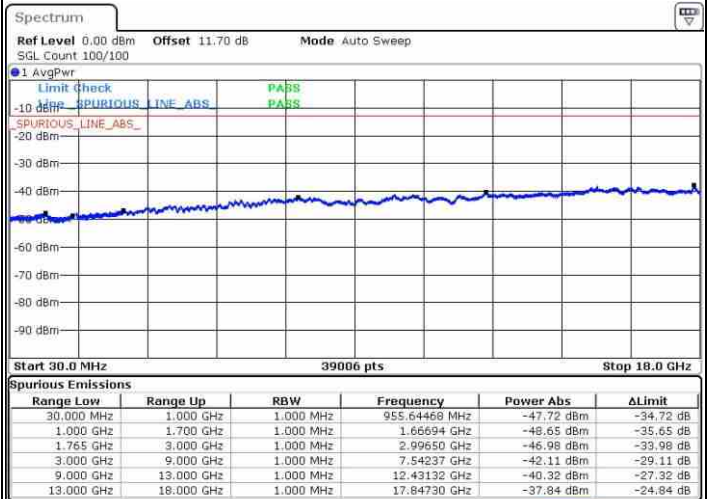
Date: 23 FEB 2019 01:32:35

Highest Channel / QPSK



Date: 23 FEB 2019 01:36:52

Highest Channel / 16QAM

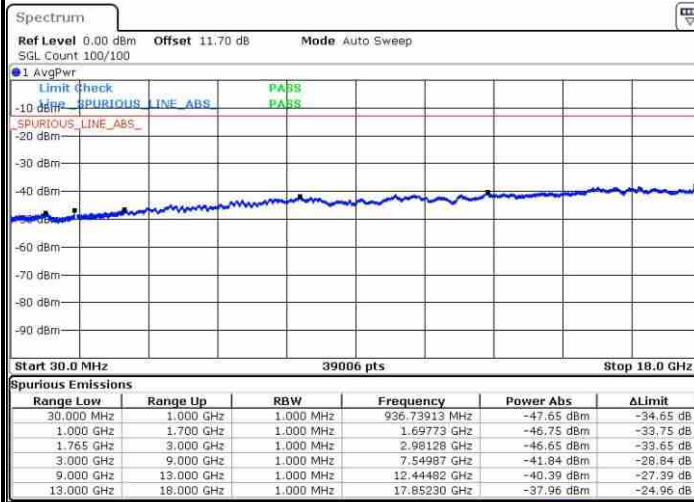


Date: 23 FEB 2019 01:37:42



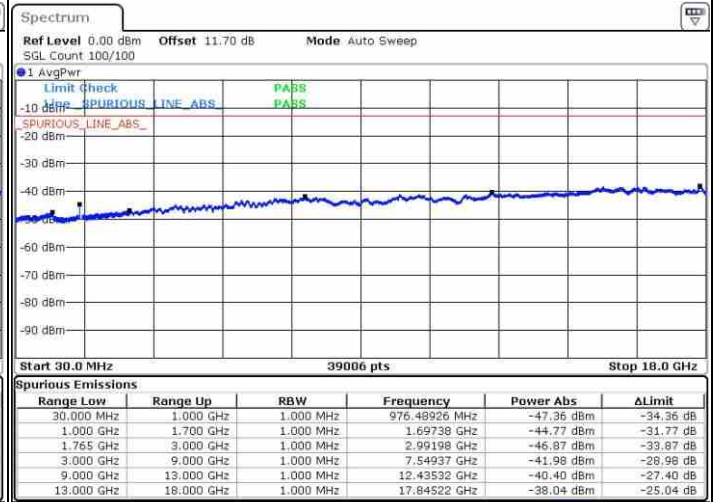
LTE Band 4 / 5MHz

Lowest Channel / QPSK



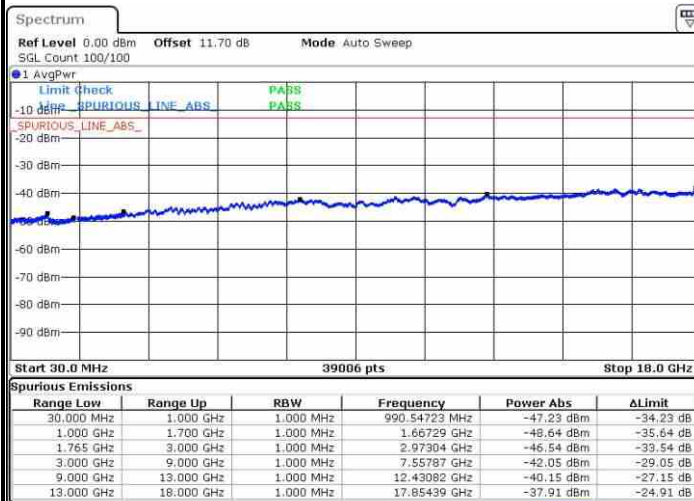
Date: 23 FEB 2019 01:41:59

Lowest Channel / 16QAM



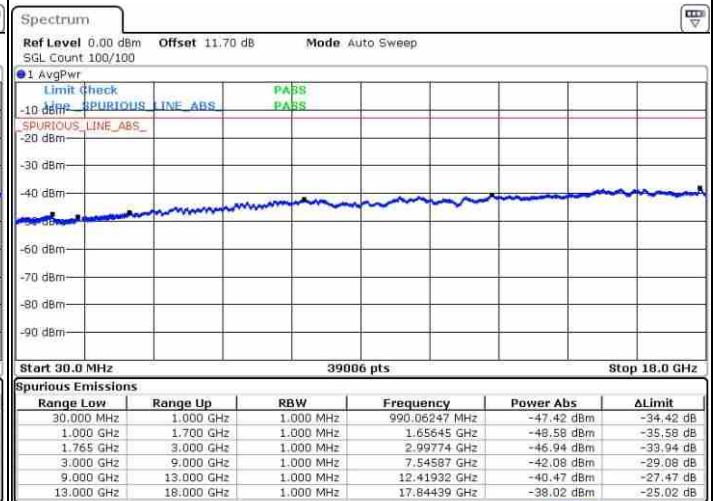
Date: 23 FEB 2019 01:42:50

Middle Channel / QPSK



Date: 23 FEB 2019 01:44:25

Middle Channel / 16QAM

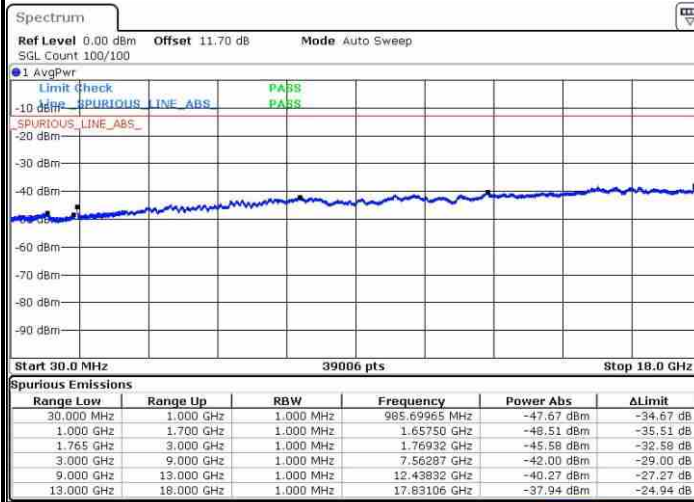


Date: 23 FEB 2019 01:45:16



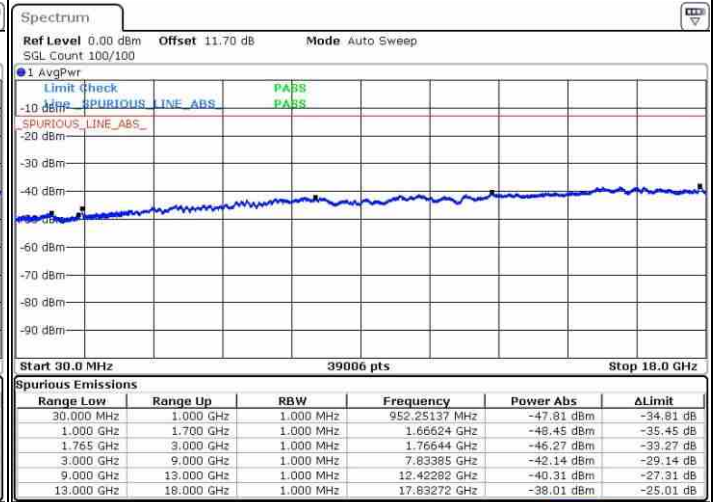
LTE Band 4 / 5MHz

Highest Channel / QPSK



Date: 23 FEB 2019 01:49:33

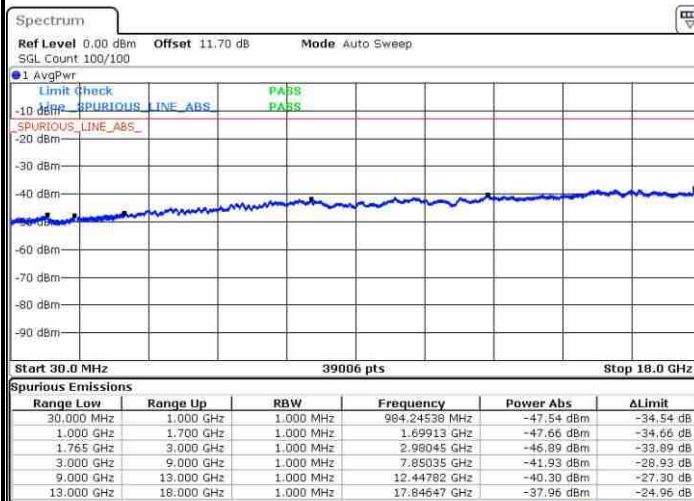
Highest Channel / 16QAM



Date: 23 FEB 2019 01:50:23

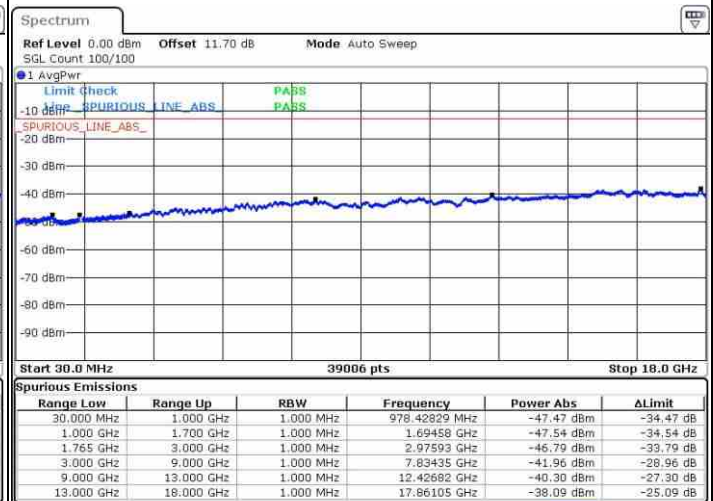
LTE Band 4 / 10MHz

Lowest Channel / QPSK



Date: 23 FEB 2019 01:54:40

Lowest Channel / 16QAM

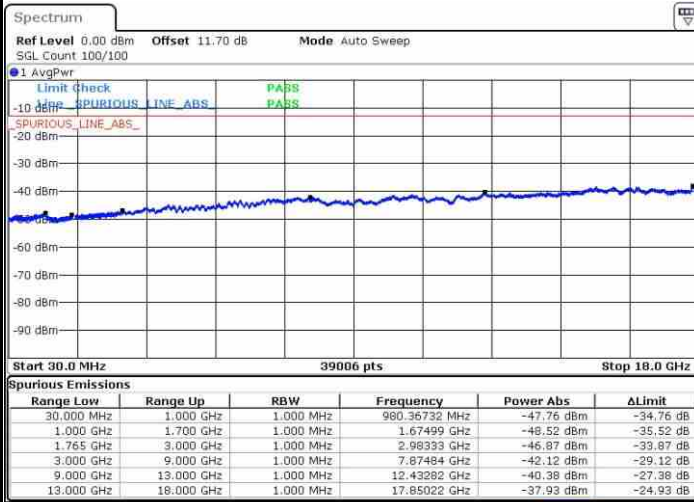


Date: 23 FEB 2019 01:55:31



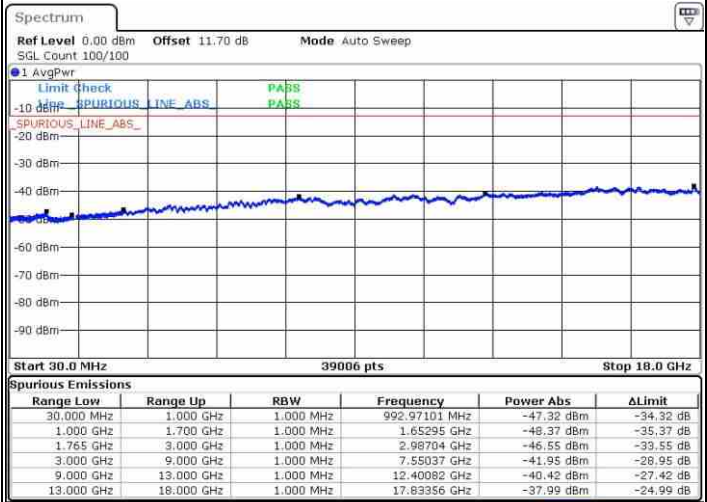
LTE Band 4 / 10MHz

Middle Channel / QPSK



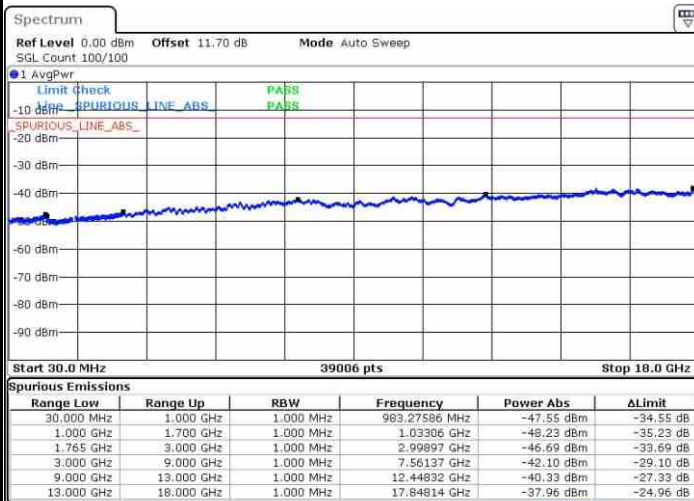
Date: 23 FEB 2019 01:57:07

Middle Channel / 16QAM



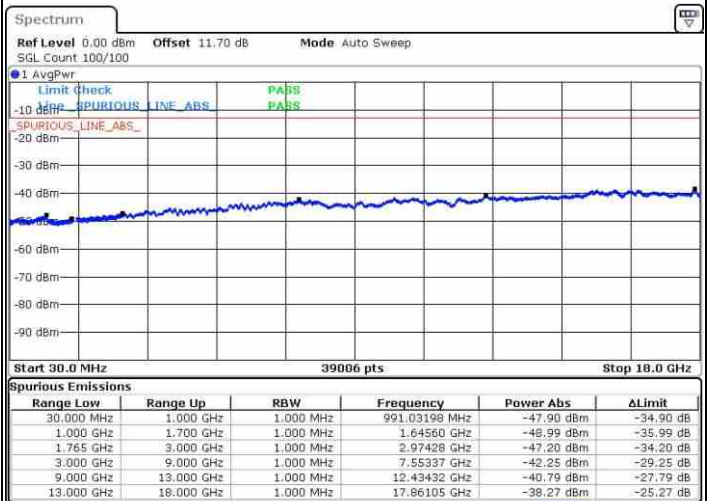
Date: 23 FEB 2019 01:57:57

Highest Channel / QPSK



Date: 23 FEB 2019 02:02:14

Highest Channel / 16QAM

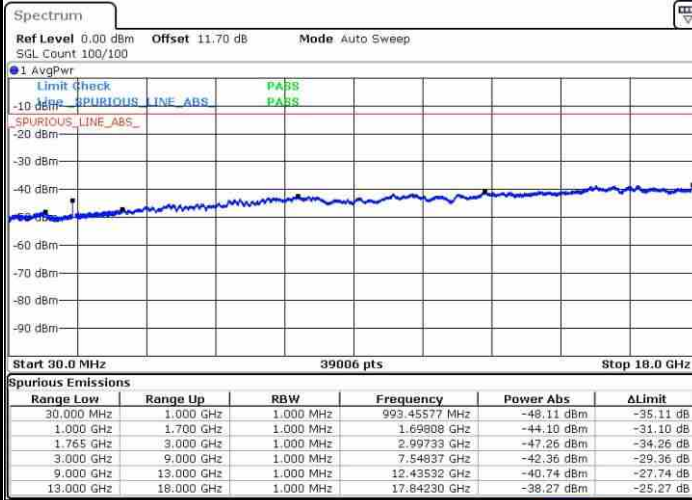


Date: 24 FEB 2019 16:17:01



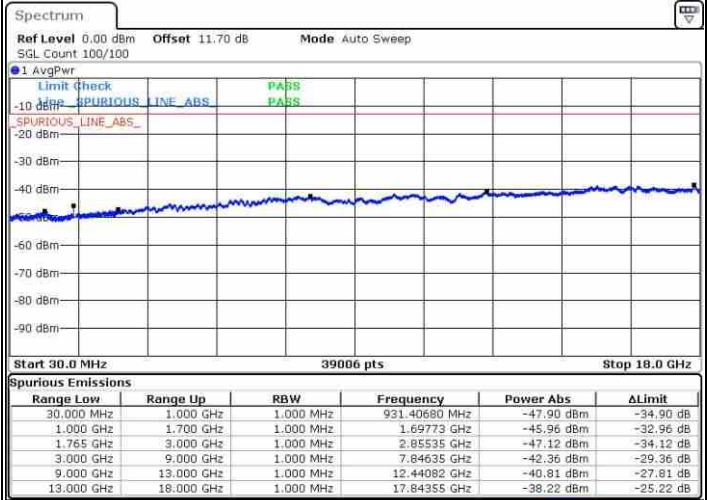
LTE Band 4 / 15MHz

Lowest Channel / QPSK



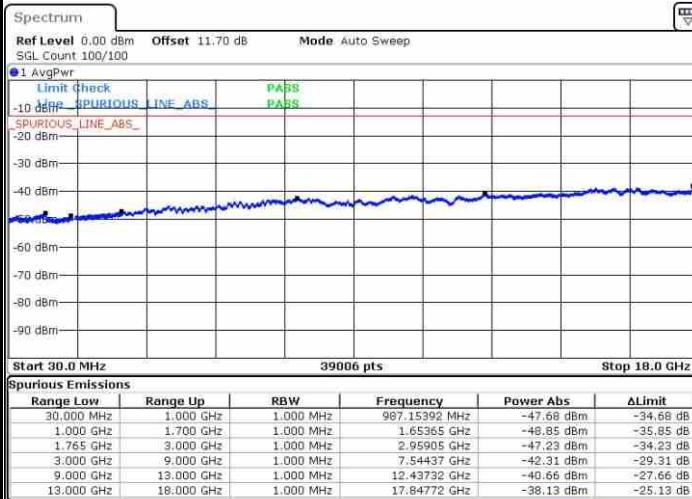
Date: 24 FEB 2019 16:21:18

Lowest Channel / 16QAM



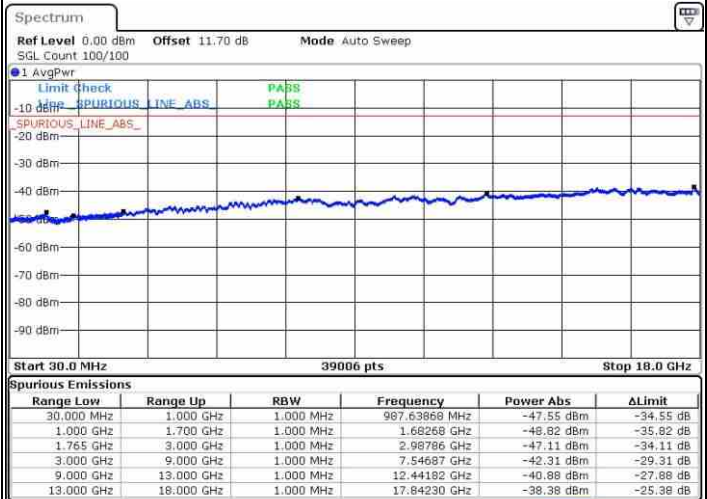
Date: 24 FEB 2019 16:22:08

Middle Channel / QPSK



Date: 24 FEB 2019 16:23:44

Middle Channel / 16QAM

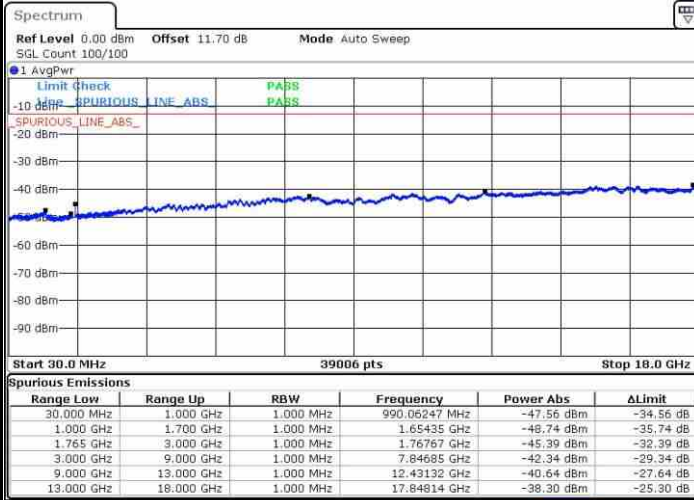


Date: 24 FEB 2019 16:24:35



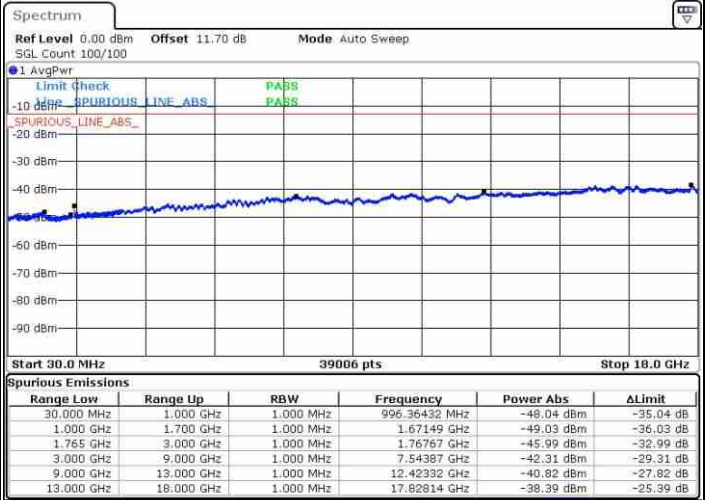
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 24 FEB 2019 16:28:51

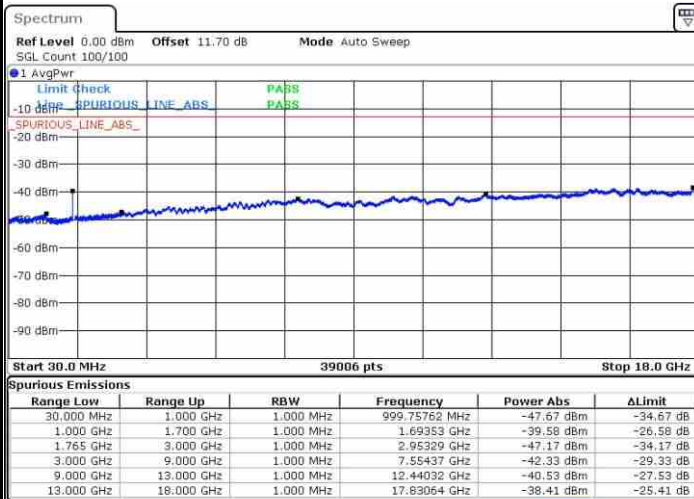
Highest Channel / 16QAM



Date: 24 FEB 2019 16:29:41

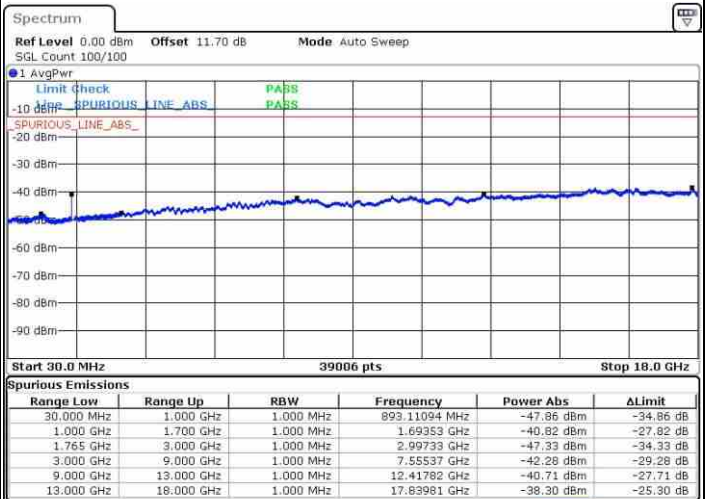
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 24 FEB 2019 16:33:57

Lowest Channel / 16QAM

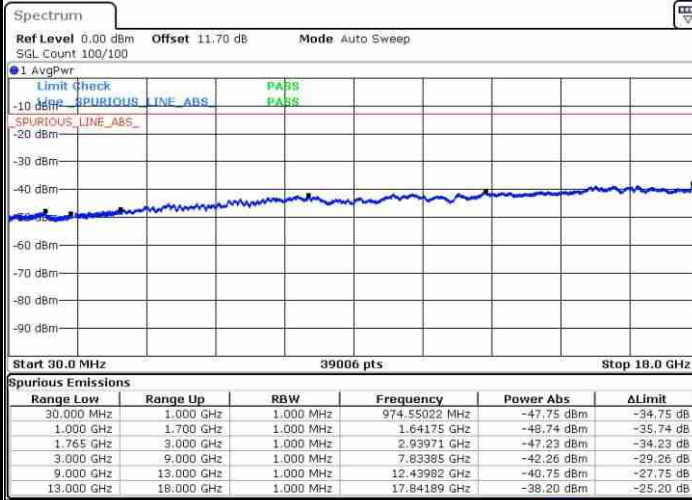


Date: 24 FEB 2019 16:34:48



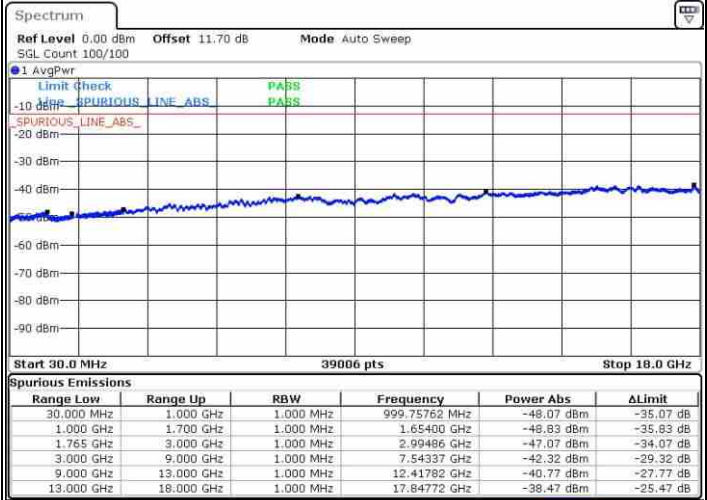
LTE Band 4 / 20MHz

Middle Channel / QPSK



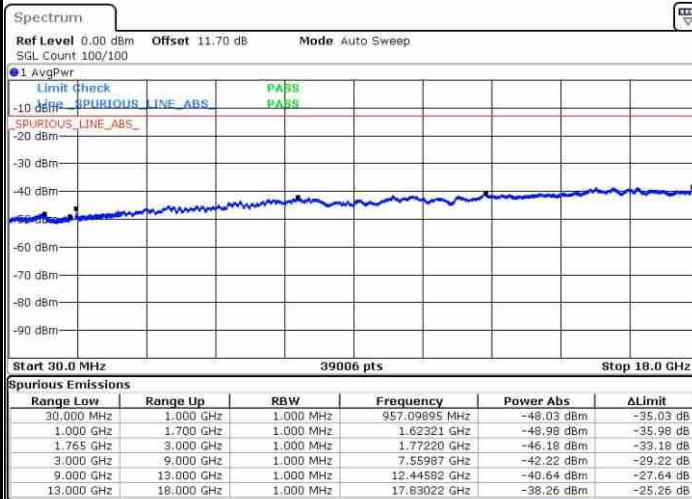
Date: 24 FEB 2019 16:36:24

Middle Channel / 16QAM



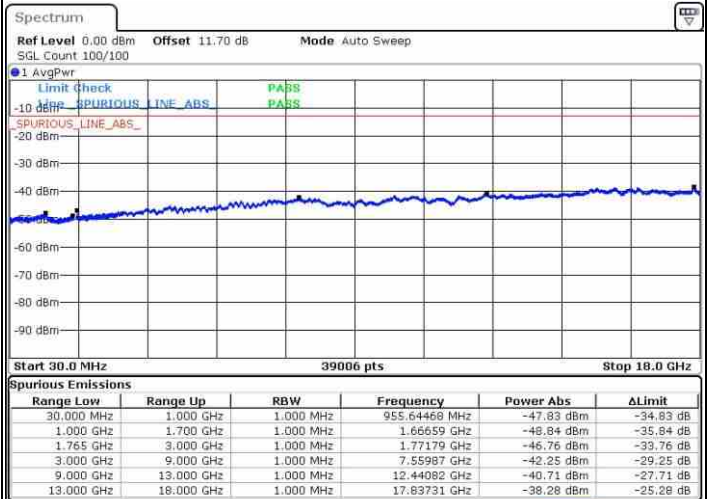
Date: 24 FEB 2019 16:37:14

Highest Channel / QPSK



Date: 24 FEB 2019 16:41:30

Highest Channel / 16QAM

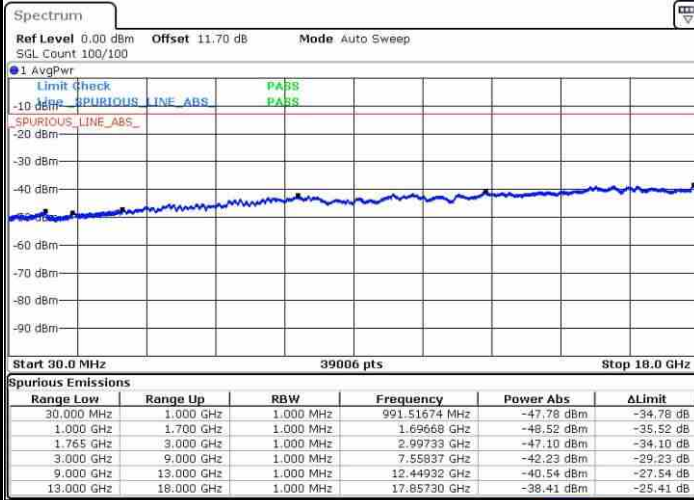


Date: 24 FEB 2019 16:42:21



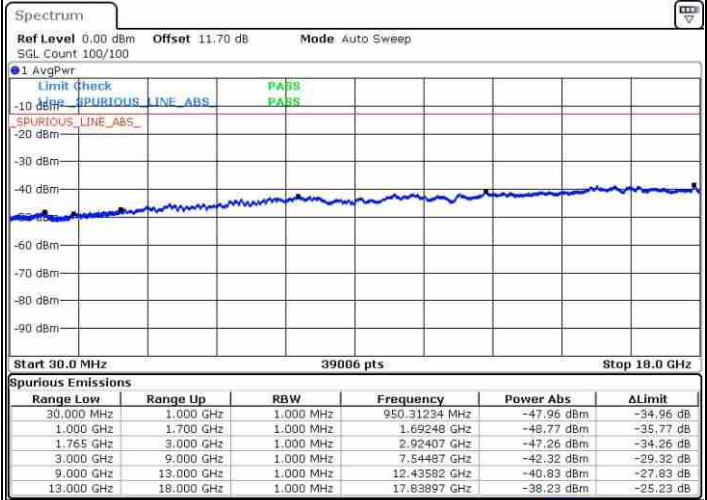
LTE Band 4 / 1.4MHz

Lowest Channel / 64QAM



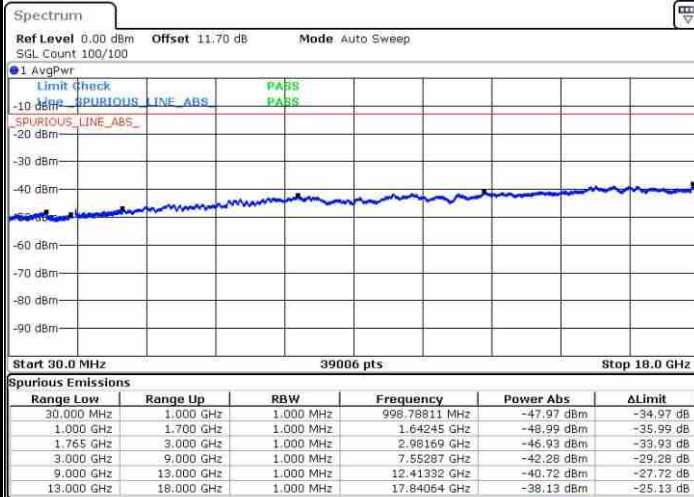
Date: 24 FEB 2019 17:29:46

Middle Channel / 64QAM



Date: 24 FEB 2019 17:31:00

Highest Channel / 64QAM

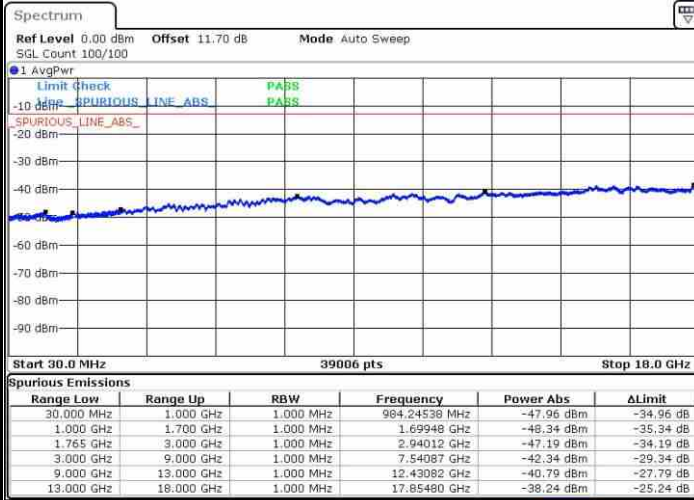


Date: 24 FEB 2019 17:34:34



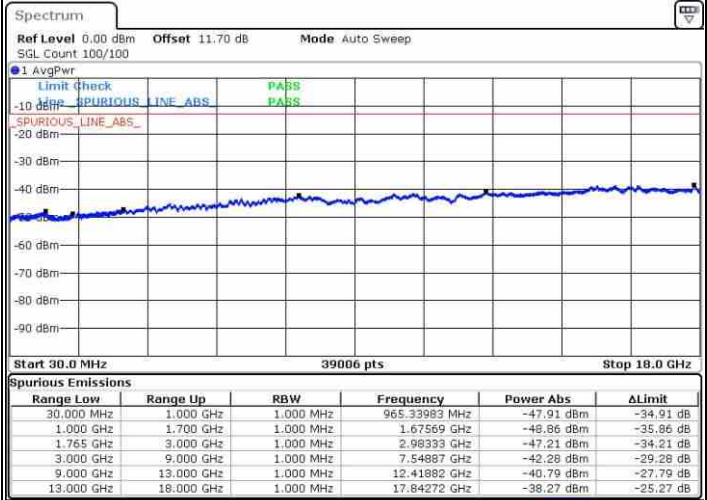
LTE Band 4 / 3MHz

Lowest Channel / 64QAM



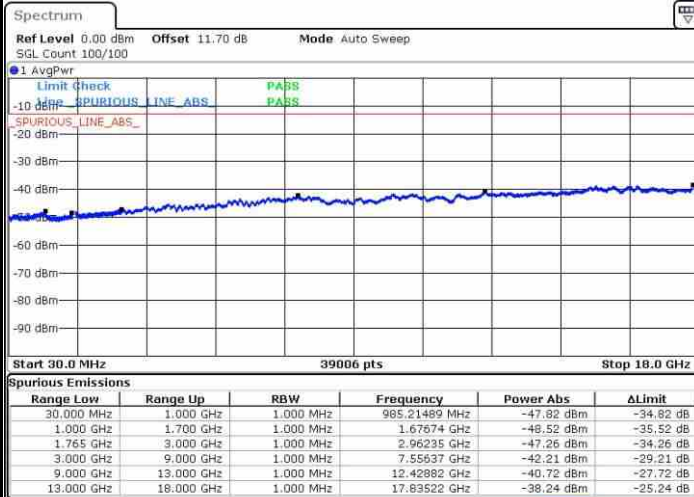
Date: 24 FEB 2019 16:44:54

Middle Channel / 64QAM



Date: 24 FEB 2019 16:46:07

Highest Channel / 64QAM

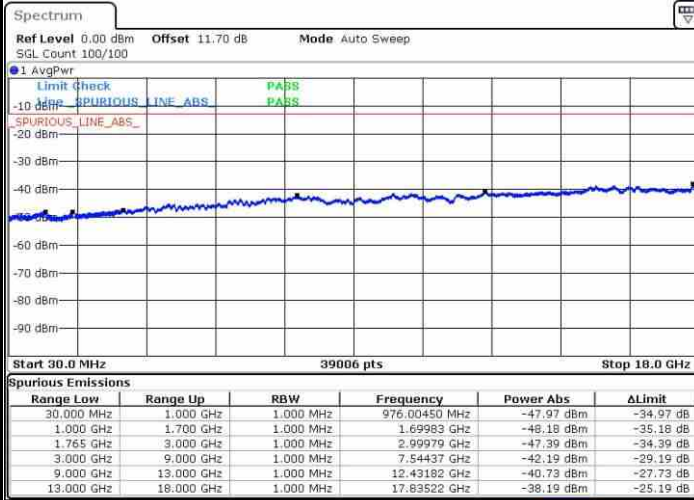


Date: 24 FEB 2019 16:48:40



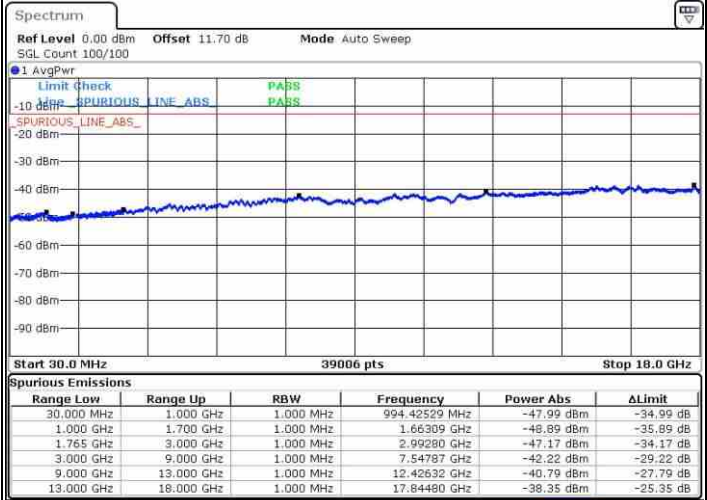
LTE Band 4 / 5MHz

Lowest Channel / 64QAM



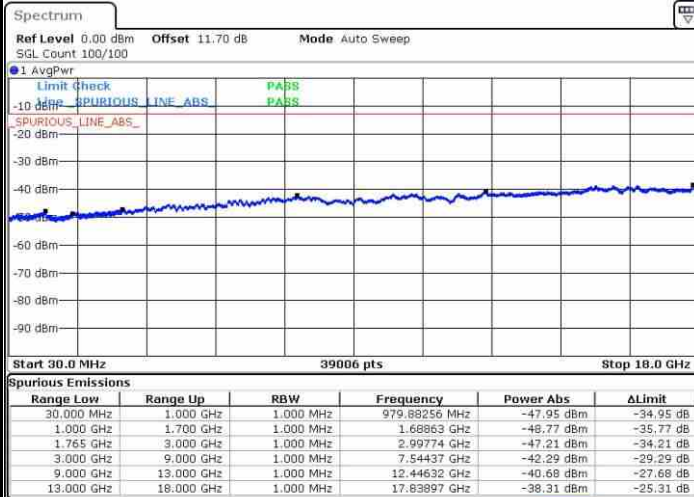
Date: 24 FEB 2019 16:51:14

Middle Channel / 64QAM



Date: 24 FEB 2019 16:52:27

Highest Channel / 64QAM

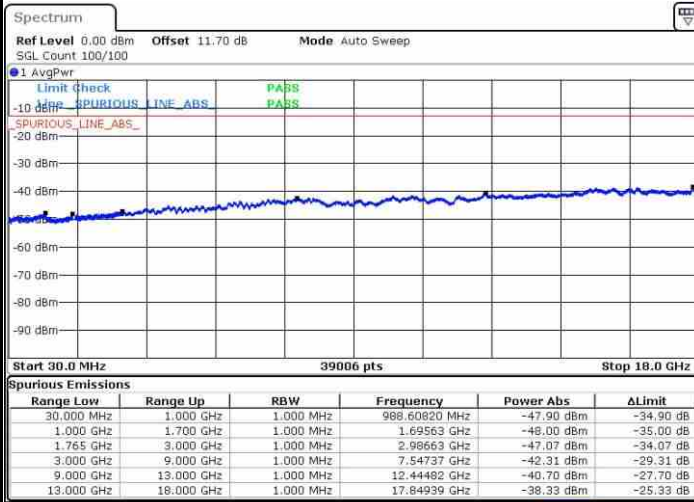


Date: 24 FEB 2019 16:55:00



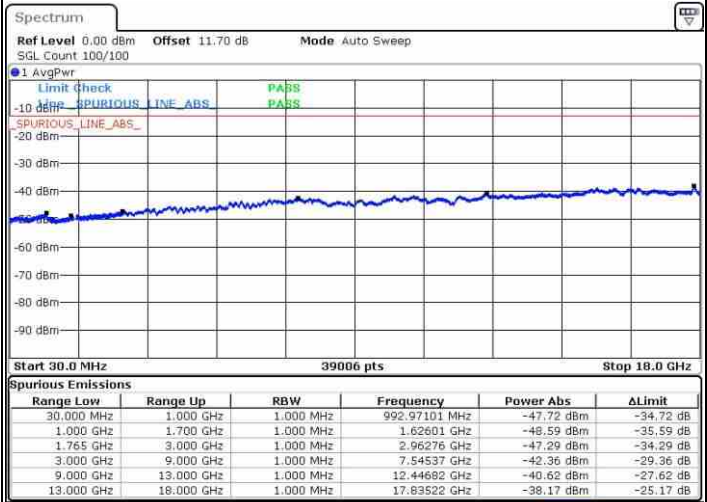
LTE Band 4 / 10MHz

Lowest Channel / 64QAM



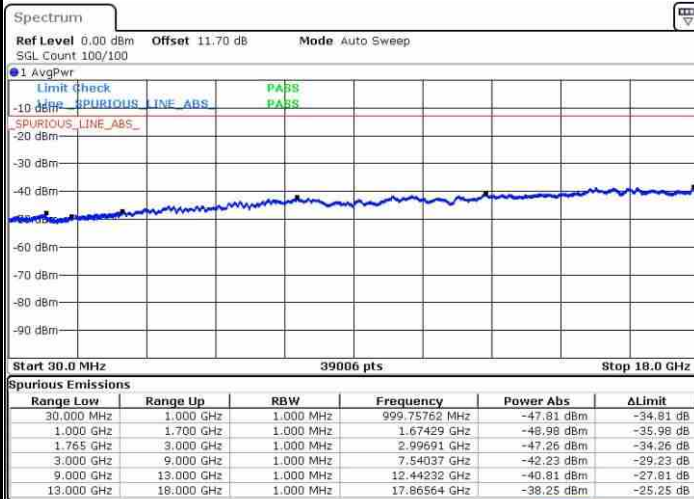
Date: 24 FEB 2019 16:57:33

Middle Channel / 64QAM



Date: 24 FEB 2019 16:58:46

Highest Channel / 64QAM

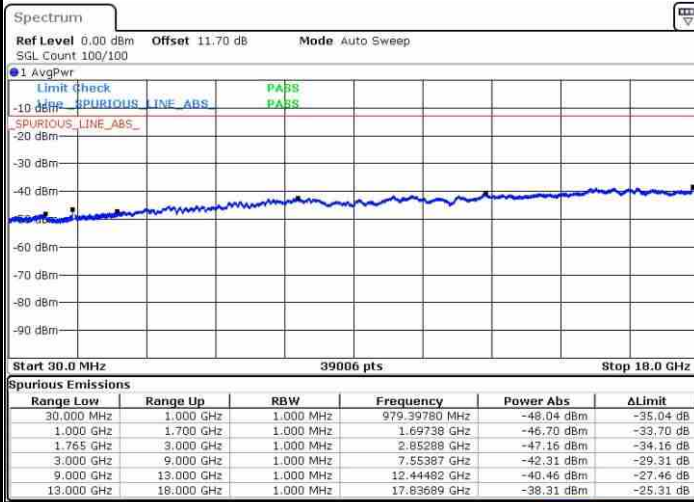


Date: 24 FEB 2019 17:01:20



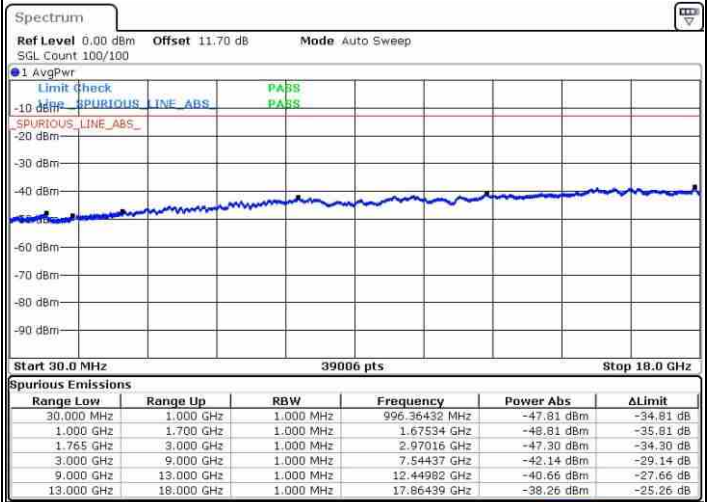
LTE Band 4 / 15MHz

Lowest Channel / 64QAM



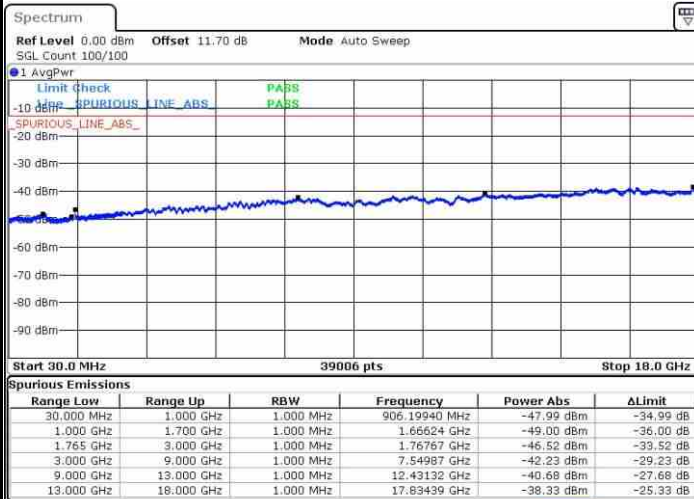
Date: 24 FEB 2019 17:03:53

Middle Channel / 64QAM



Date: 24 FEB 2019 17:05:06

Highest Channel / 64QAM

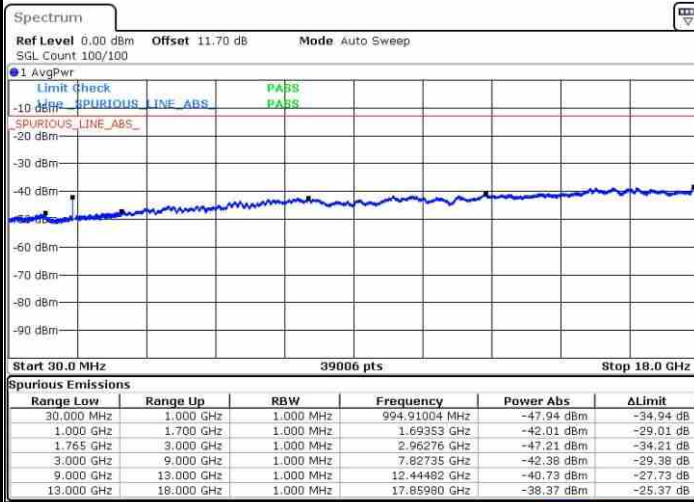


Date: 24 FEB 2019 17:07:39



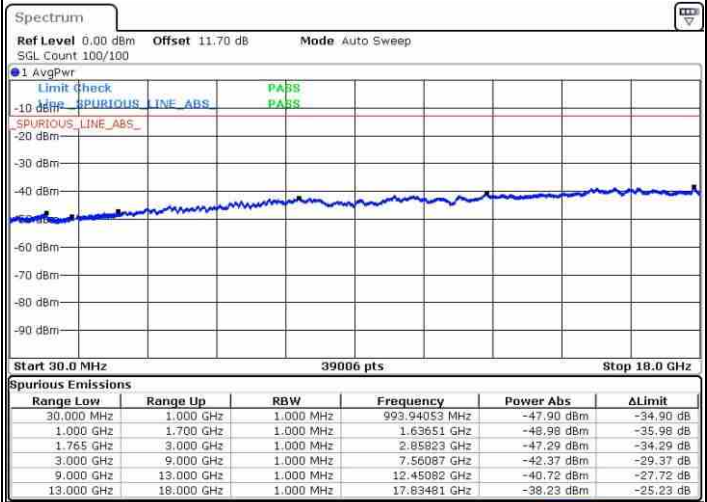
LTE Band 4 / 20MHz

Lowest Channel / 64QAM



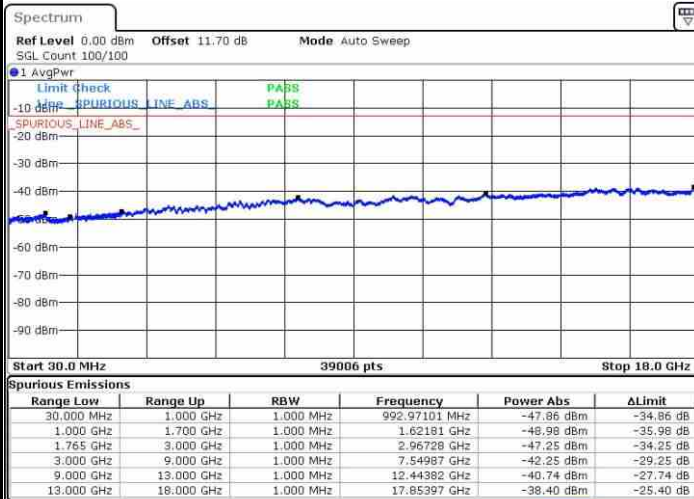
Date: 24 FEB 2019 17:10:12

Middle Channel / 64QAM



Date: 24 FEB 2019 17:11:26

Highest Channel / 64QAM



Date: 24 FEB 2019 17:13:59

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	0.0006	PASS
40	Normal Voltage	0.0080	
30	Normal Voltage	0.0064	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0007	
-10	Normal Voltage	0.0001	
-20	Normal Voltage	0.0080	
-30	Normal Voltage	0.0001	
20	Maximum Voltage	0.0068	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0003	

Note:

1. Normal Voltage =3.8 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.

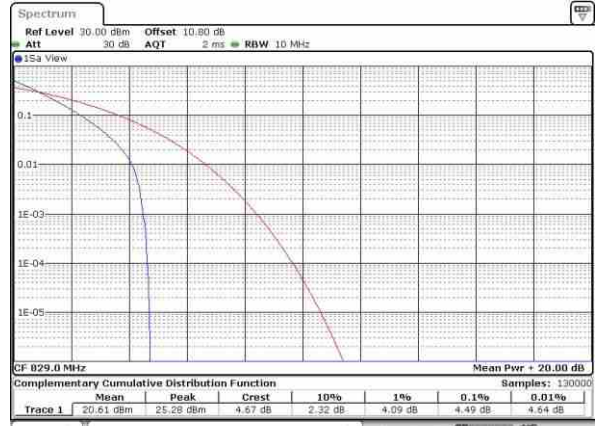
LTE Band 5

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	3.25	4.49	3.88	5.51	PASS
Middle CH	3.42	4.41	4.09	5.51	
Highest CH	3.48	4.75	4.43	5.65	
Mode	LTE Band 5 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.10	6.14	-	-	PASS
Middle CH	5.36	6.14	-	-	
Highest CH	5.13	6.17	-	-	

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


Date: 24 FEB 2019 20:18:23

Lowest Channel / Full RB


Date: 24 FEB 2019 20:18:33

Middle Channel / 1RB


Date: 24 FEB 2019 20:18:43

Middle Channel / Full RB


Date: 24 FEB 2019 20:18:53

Highest Channel / 1RB


Date: 24 FEB 2019 20:19:03

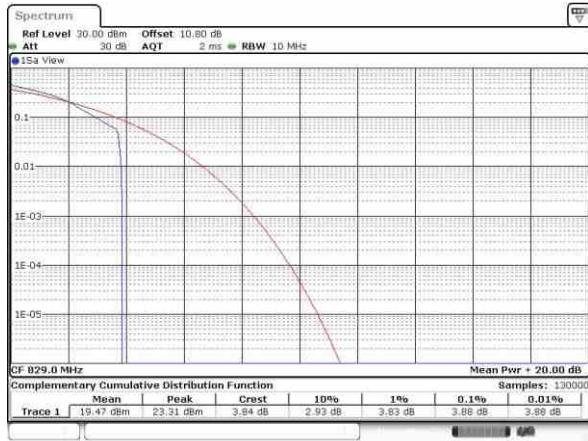
Highest Channel / Full RB


Date: 24 FEB 2019 20:19:13

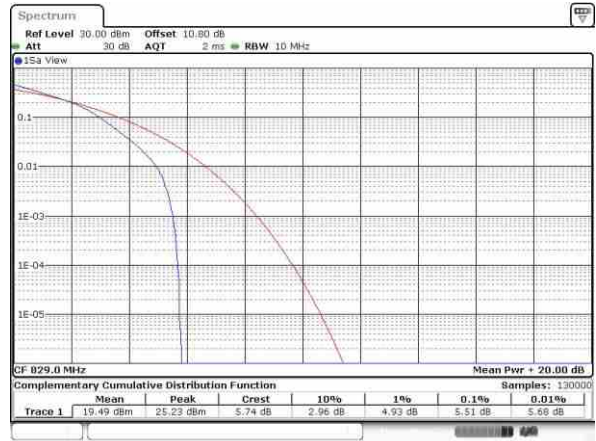


LTE Band 5 / 10MHz / 16QAM

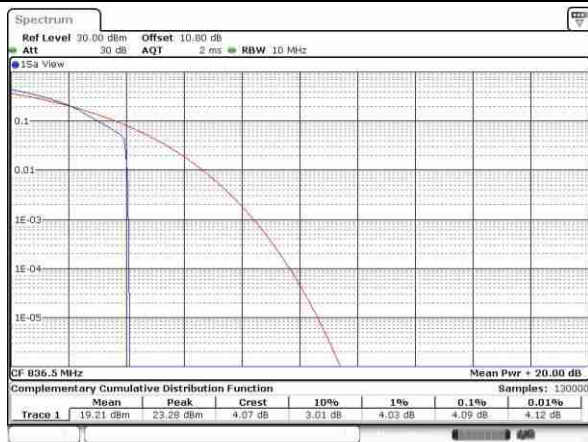
Lowest Channel / 1RB



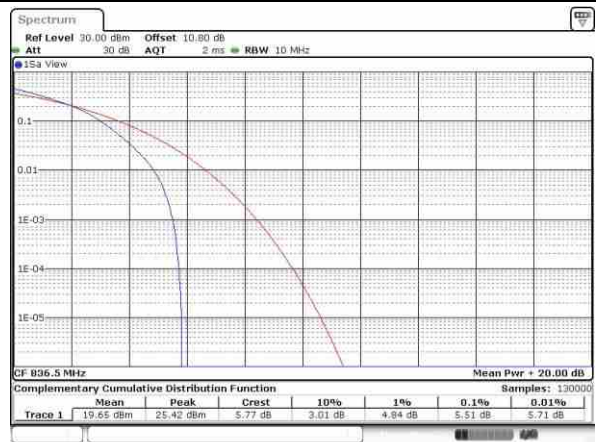
Lowest Channel / Full RB



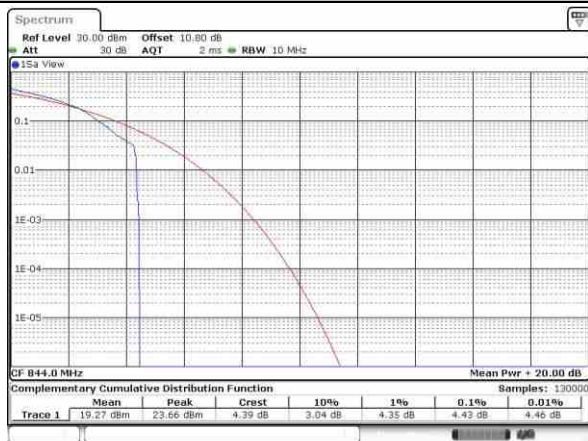
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB





LTE Band 5 / 10MHz / 64QAM

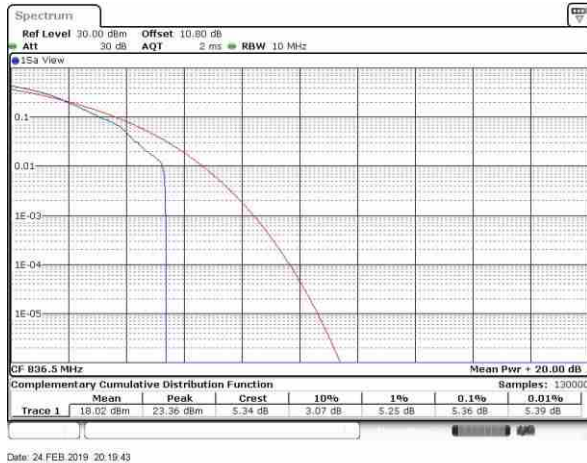
Lowest Channel / 1RB



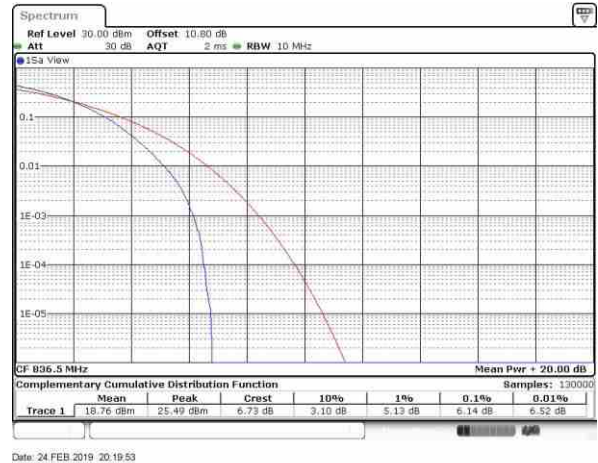
Lowest Channel / Full RB



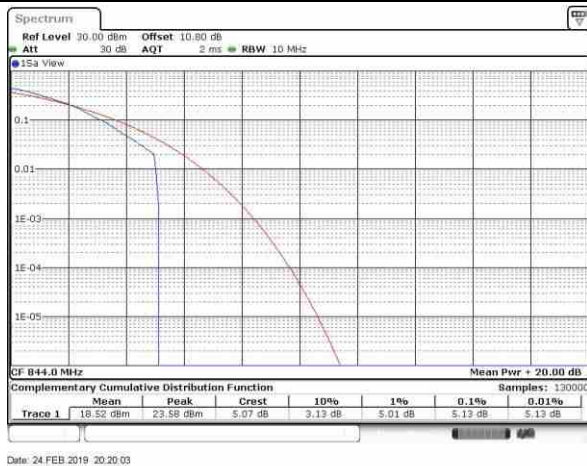
Middle Channel / 1RB



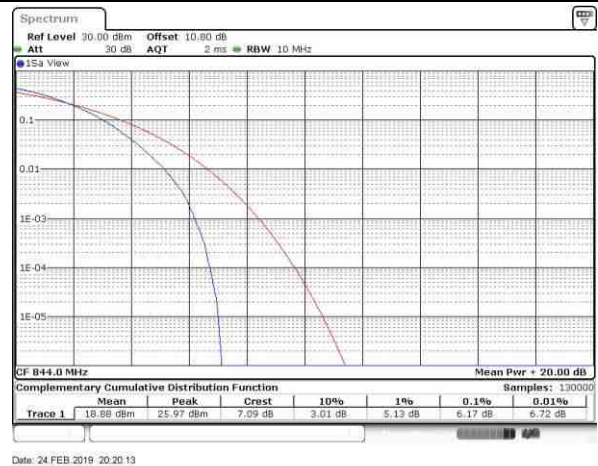
Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB



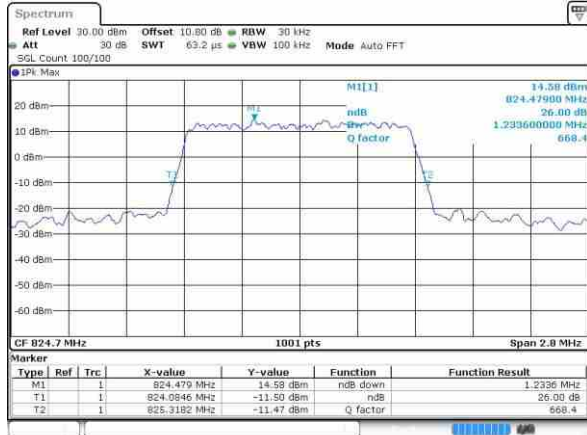
**26dB Bandwidth**

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	1.23	1.22	3.05	3.01	4.93	4.85	9.87	9.83	-	-	-	-
Middle CH	1.23	1.23	3.02	3.00	4.87	4.89	9.81	9.91	-	-	-	-
Highest CH	1.23	1.25	3.03	3.02	4.97	4.85	9.75	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	1.21	-	3.02	-	4.88	-	9.93	-	-	-	-	-
Middle CH	1.23	-	3.03	-	4.87	-	9.89	-	-	-	-	-
Highest CH	1.24	-	3.02	-	4.91	-	9.77	-	-	-	-	-



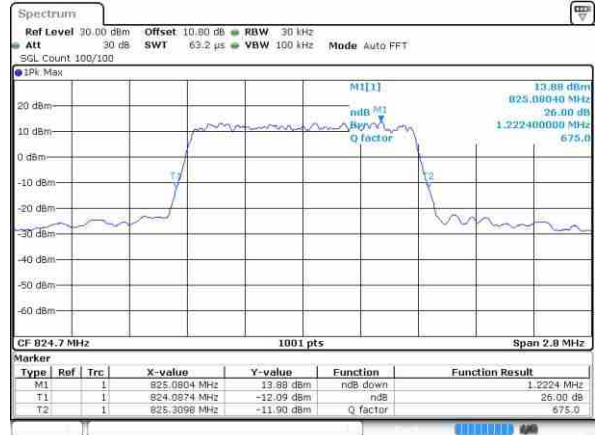
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



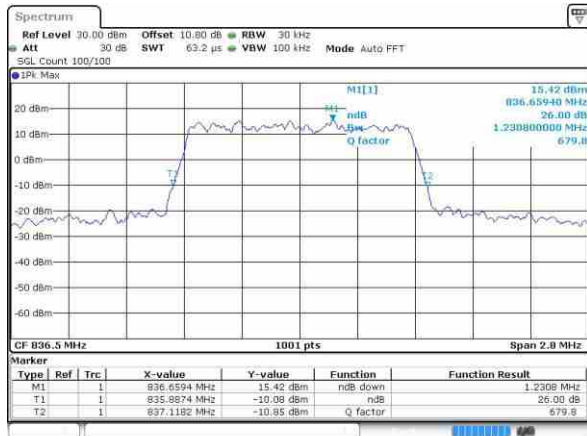
Date: 24 FEB 2019 19:58:13

Lowest Channel / 1.4MHz / 16QAM



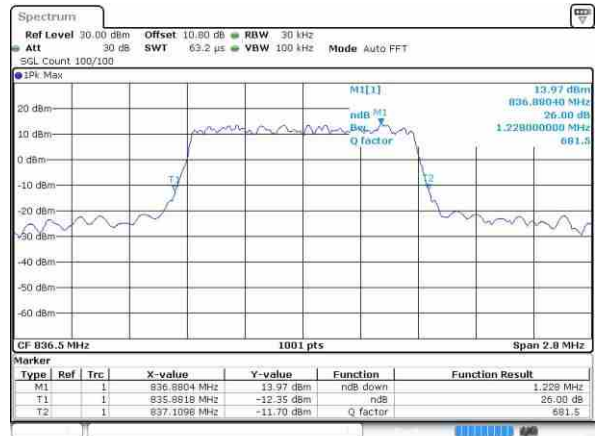
Date: 24 FEB 2019 19:58:02

Middle Channel / 1.4MHz / QPSK



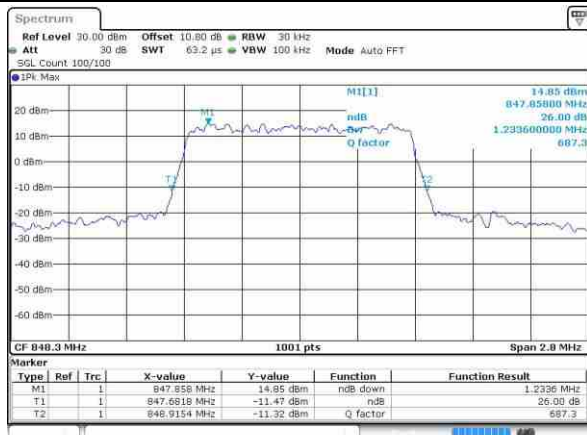
Date: 24 FEB 2019 20:05:08

Middle Channel / 1.4MHz / 16QAM



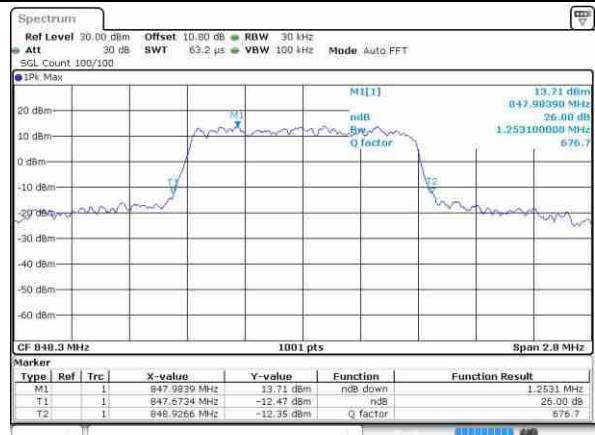
Date: 24 FEB 2019 20:05:20

Highest Channel / 1.4MHz / QPSK



Date: 24 FEB 2019 20:07:35

Highest Channel / 1.4MHz / 16QAM

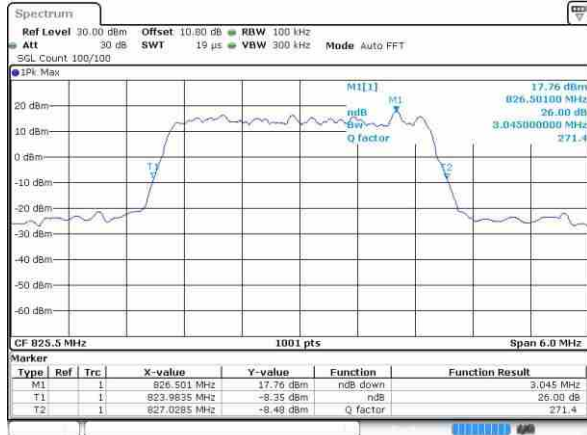


Date: 24 FEB 2019 20:07:46



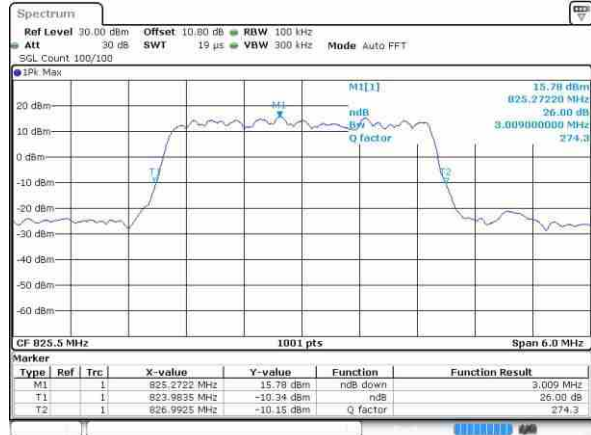
LTE Band 5

Lowest Channel / 3MHz / QPSK



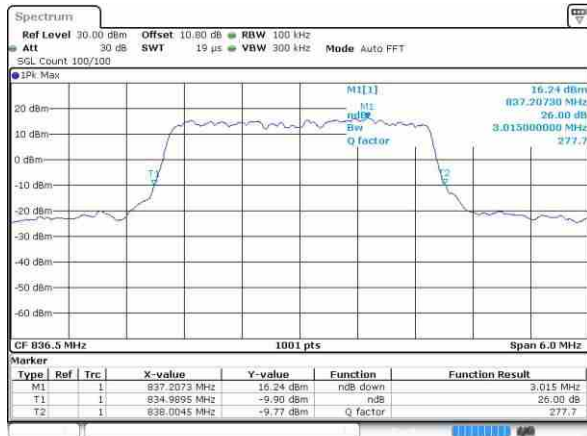
Date: 24 FEB 2019 18:07:21

Lowest Channel / 3MHz / 16QAM



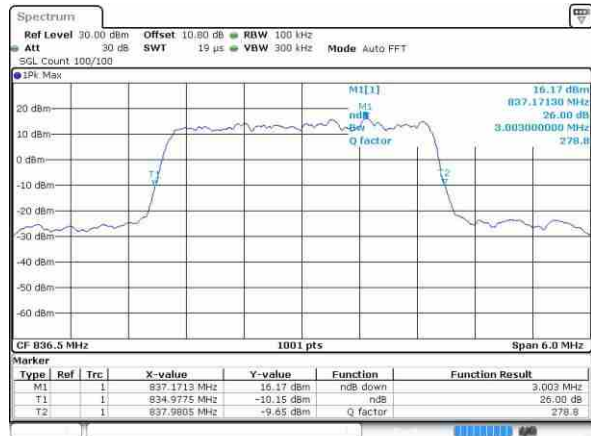
Date: 24 FEB 2019 18:07:32

Middle Channel / 3MHz / QPSK



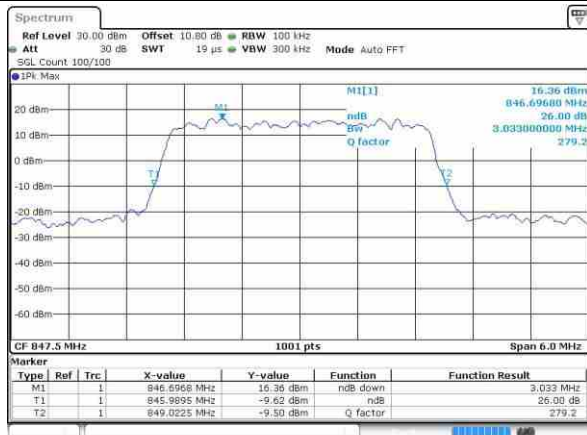
Date: 24 FEB 2019 18:16:27

Middle Channel / 3MHz / 16QAM



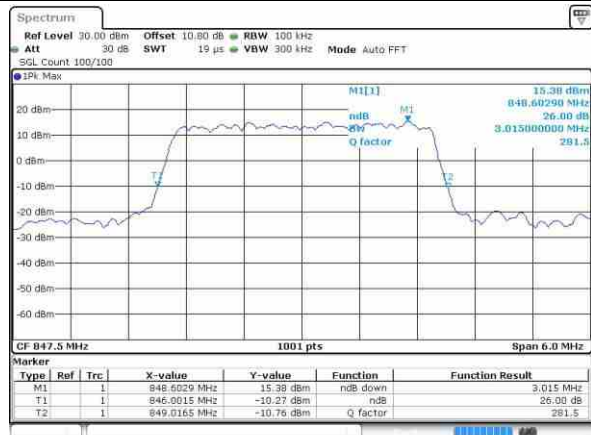
Date: 24 FEB 2019 18:16:39

Highest Channel / 3MHz / QPSK



Date: 24 FEB 2019 18:18:54

Highest Channel / 3MHz / 16QAM

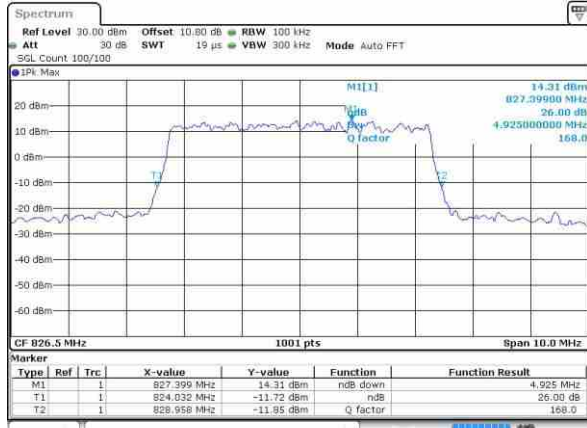


Date: 24 FEB 2019 18:19:05

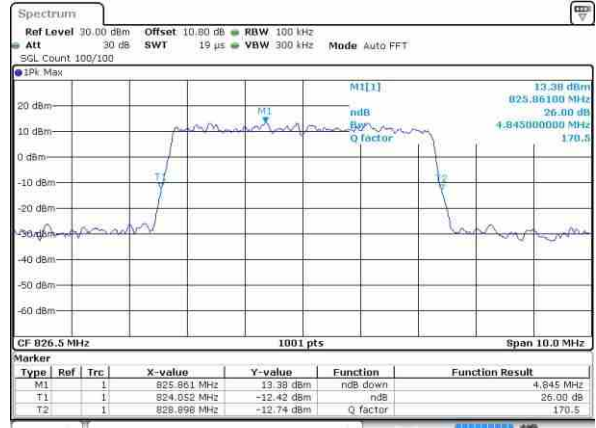


LTE Band 5

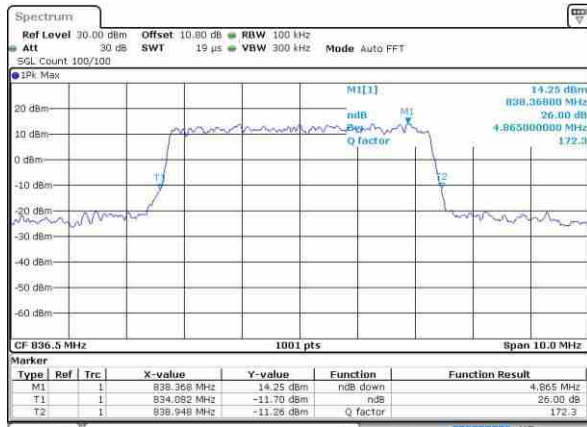
Lowest Channel / 5MHz / QPSK



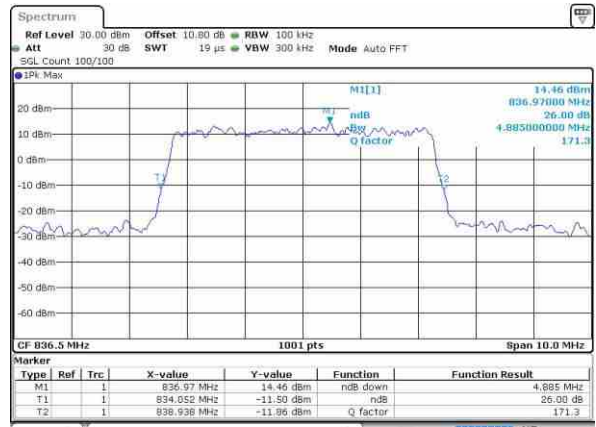
Lowest Channel / 5MHz / 16QAM



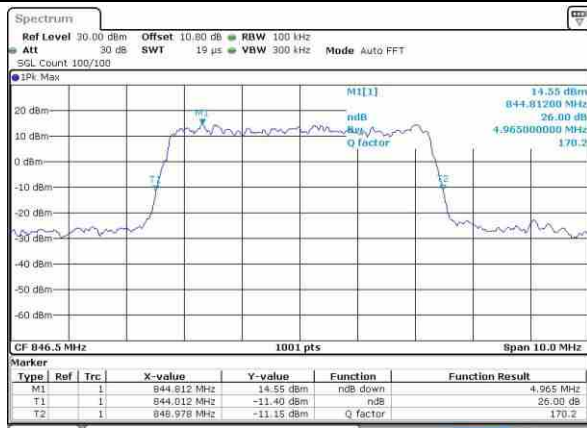
Middle Channel / 5MHz / QPSK



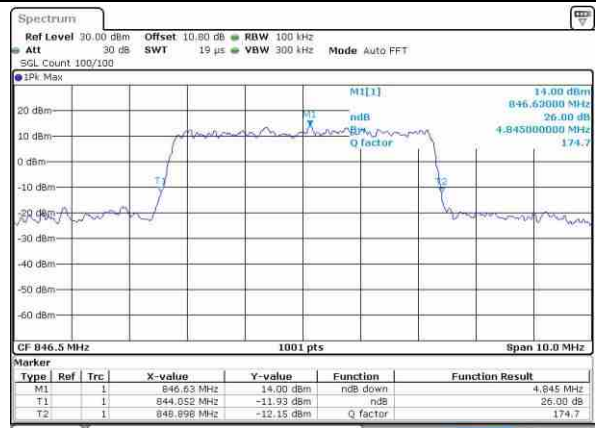
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



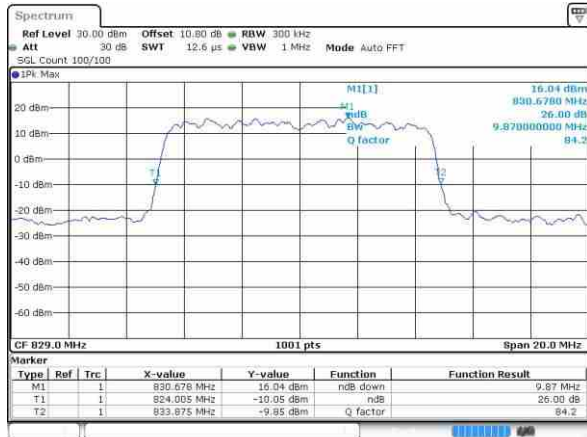
Highest Channel / 5MHz / 16QAM



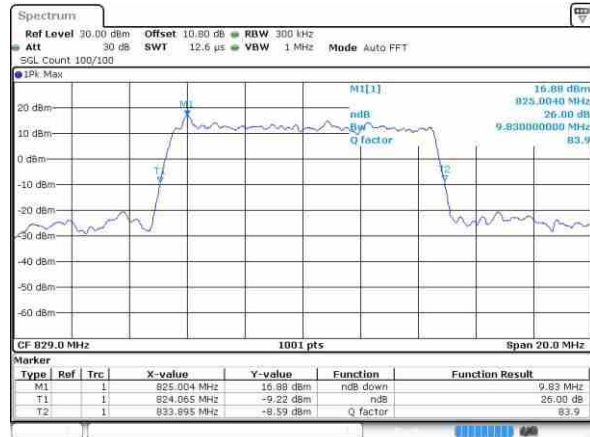


LTE Band 5

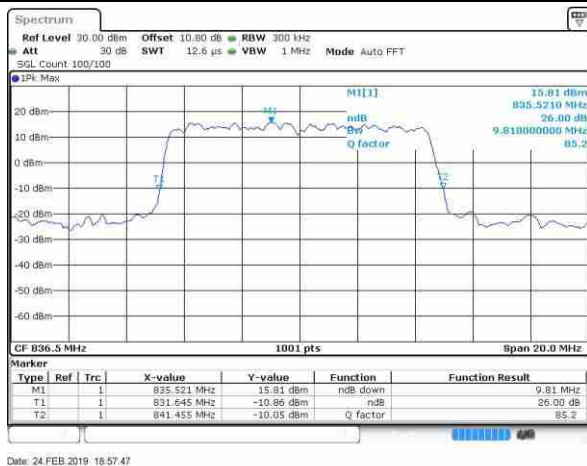
Lowest Channel / 10MHz / QPSK



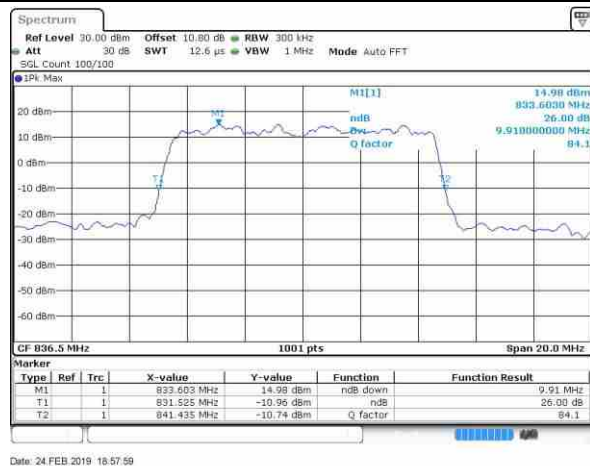
Lowest Channel / 10MHz / 16QAM



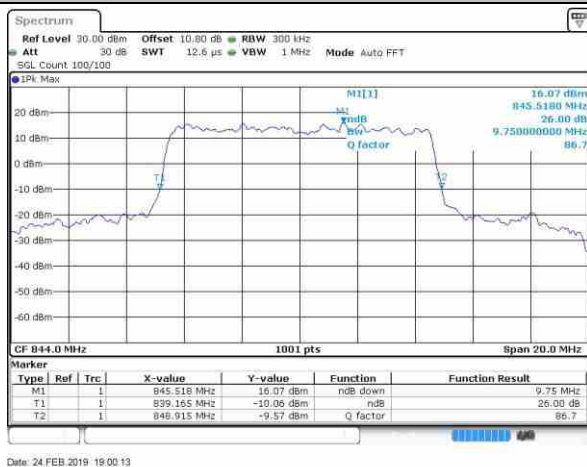
Middle Channel / 10MHz / QPSK



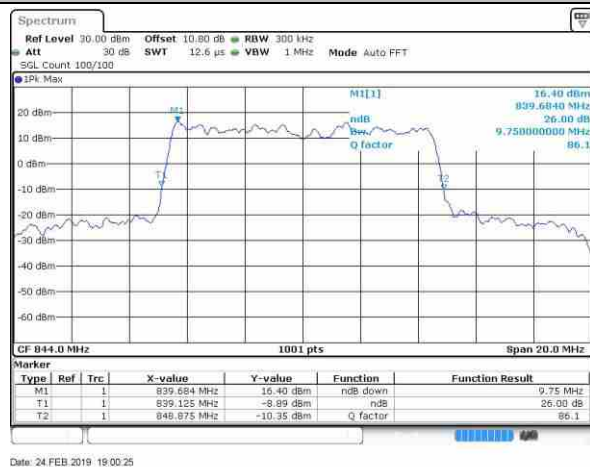
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



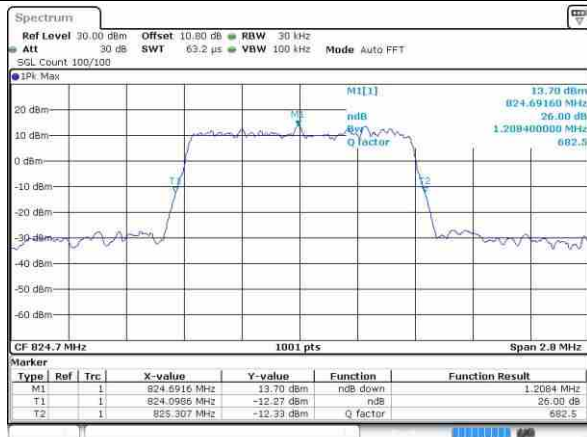
Highest Channel / 10MHz / 16QAM





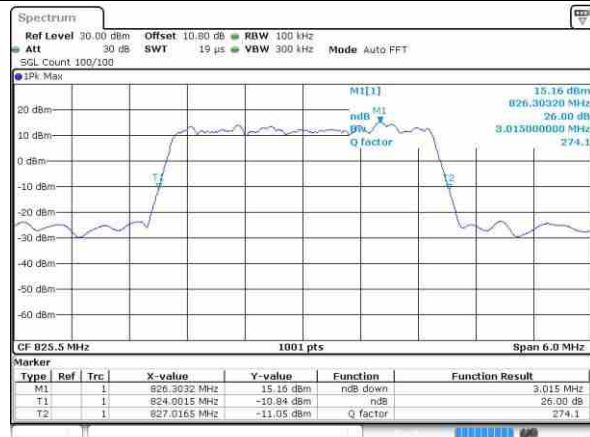
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



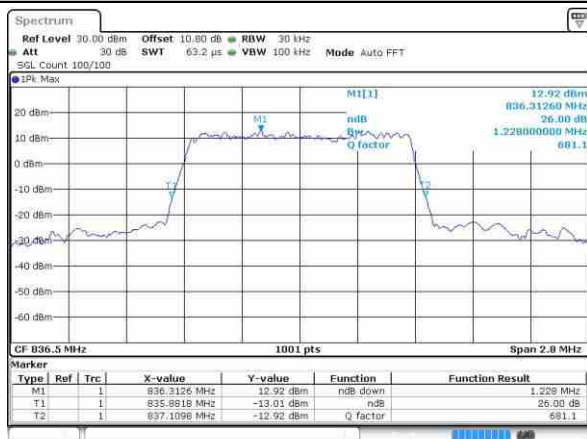
Date: 24 FEB 2019 19:45:31

Lowest Channel / 3MHz / 64QAM



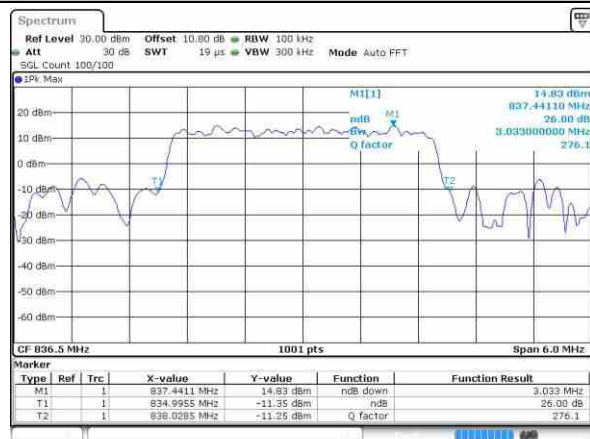
Date: 24 FEB 2019 19:09:09

Middle Channel / 1.4MHz / 64QAM



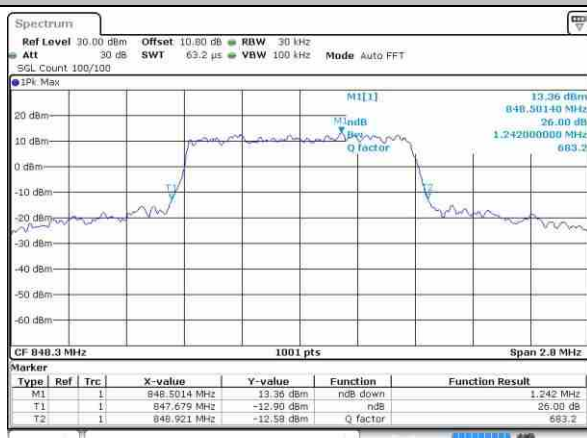
Date: 24 FEB 2019 19:50:04

Middle Channel / 3MHz / 64QAM



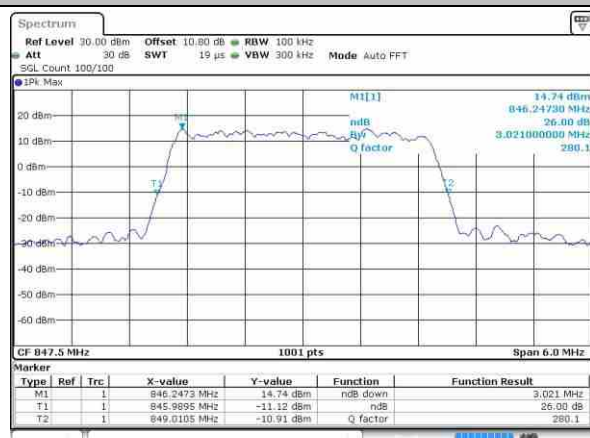
Date: 24 FEB 2019 19:13:42

Highest Channel / 1.4MHz / 64QAM



Date: 24 FEB 2019 19:51:17

Highest Channel / 3MHz / 64QAM

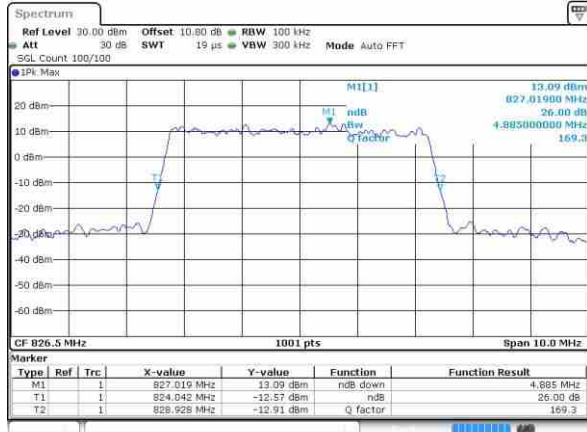


Date: 24 FEB 2019 19:14:55

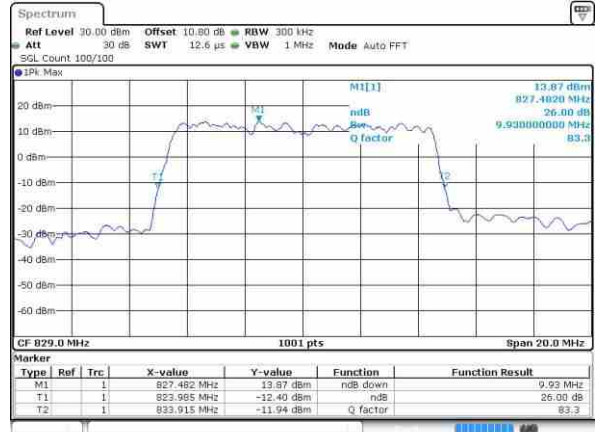


LTE Band 5

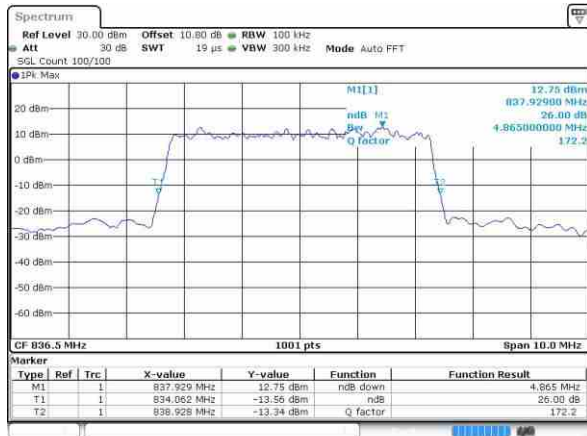
Lowest Channel / 5MHz / 64QAM



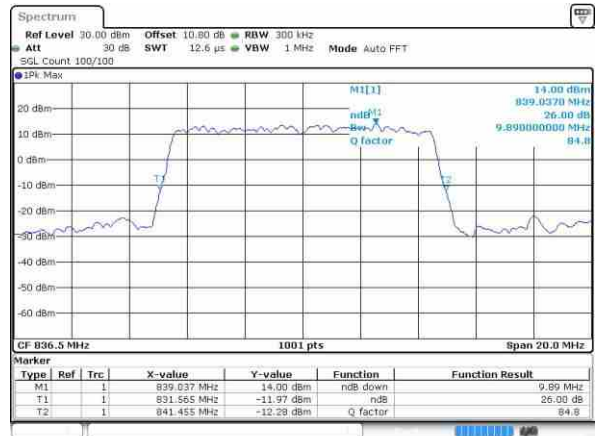
Lowest Channel / 10MHz / 64QAM



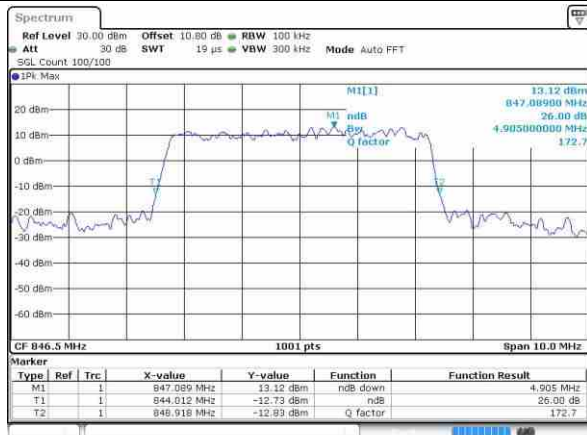
Middle Channel / 5MHz / 64QAM



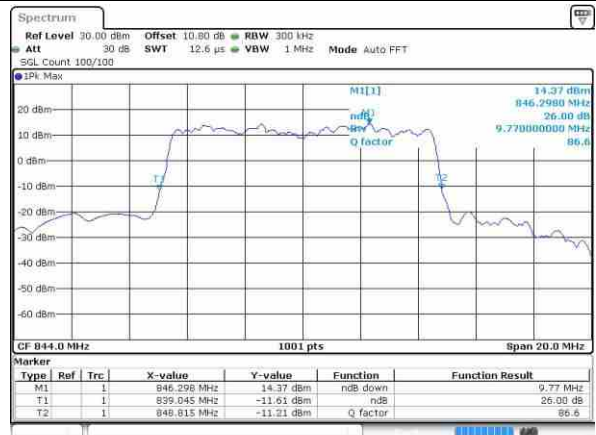
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



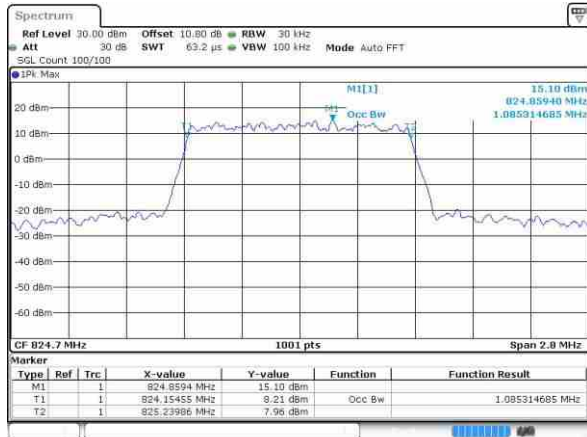
**Occupied Bandwidth**

Mode	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	1.09	2.75	2.73	4.48	4.49	9.05	9.07	-	-	-	-
Middle CH	1.09	1.09	2.73	2.73	4.48	4.48	9.01	8.99	-	-	-	-
Highest CH	1.1	1.09	2.73	2.71	4.49	4.5	9.05	8.97	-	-	-	-
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	-	4.50	-	9.05	-	-	-	-	-
Middle CH	1.09	-	2.72	-	4.47	-	9.05	-	-	-	-	-
Highest CH	1.09	-	2.70	-	4.50	-	9.09	-	-	-	-	-

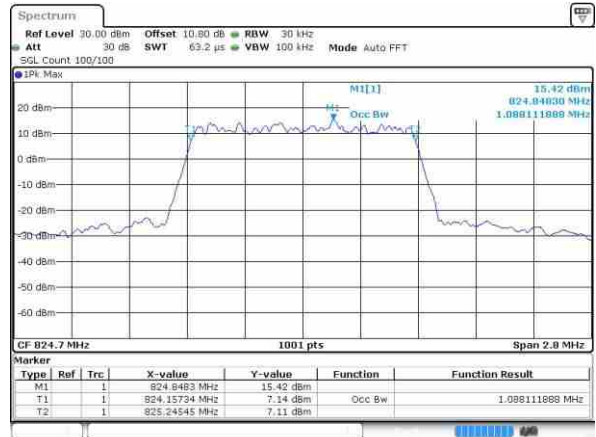


LTE Band 5

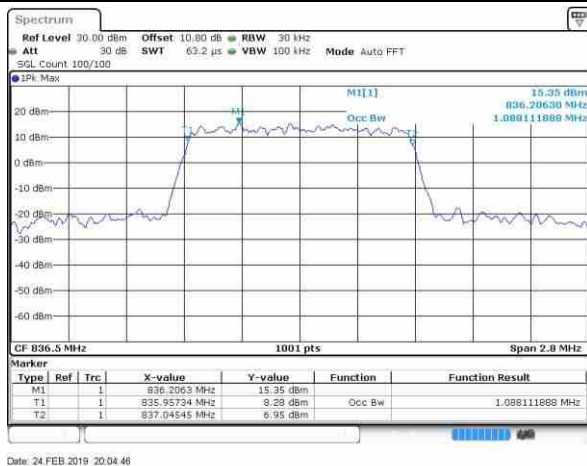
Lowest Channel / 1.4MHz / QPSK



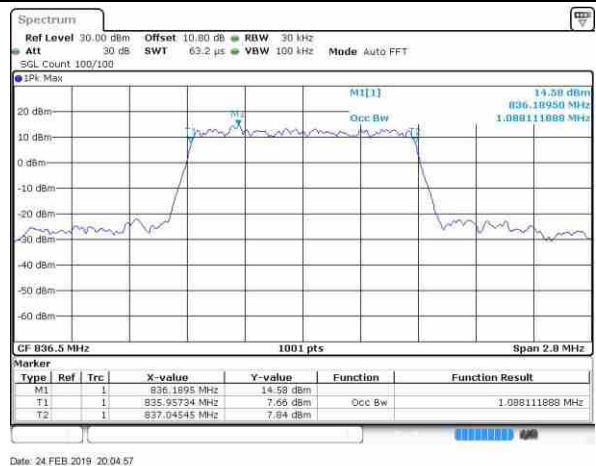
Lowest Channel / 1.4MHz / 16QAM



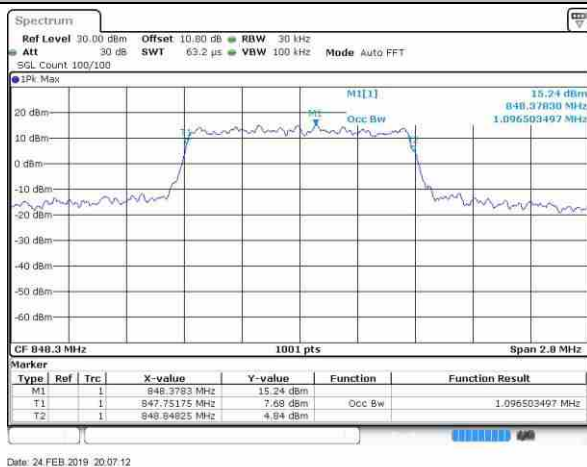
Middle Channel / 1.4MHz / QPSK



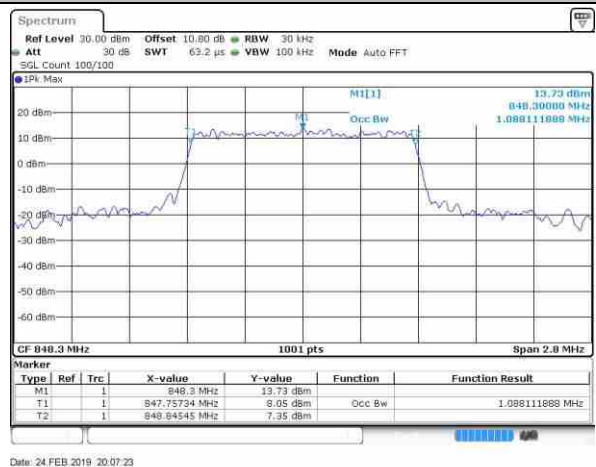
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



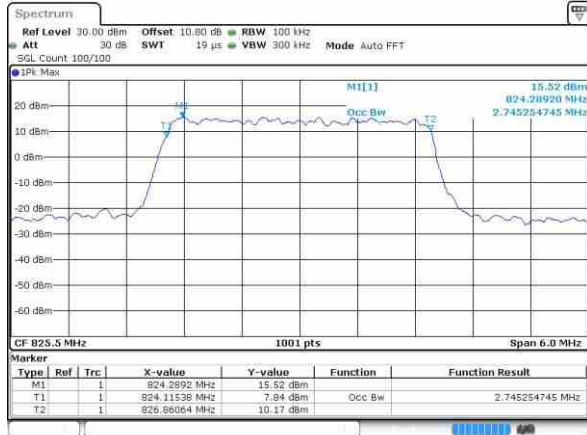
Highest Channel / 1.4MHz / 16QAM



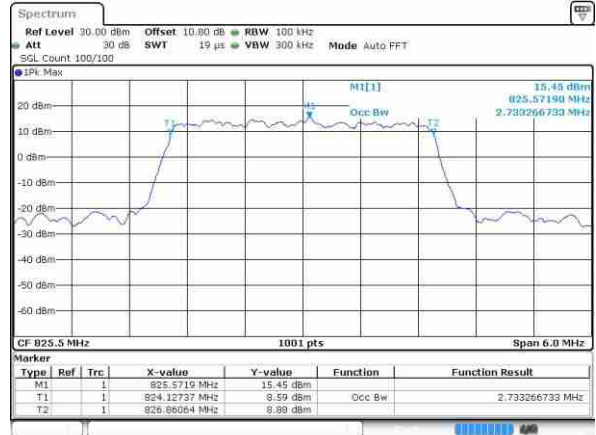


LTE Band 5

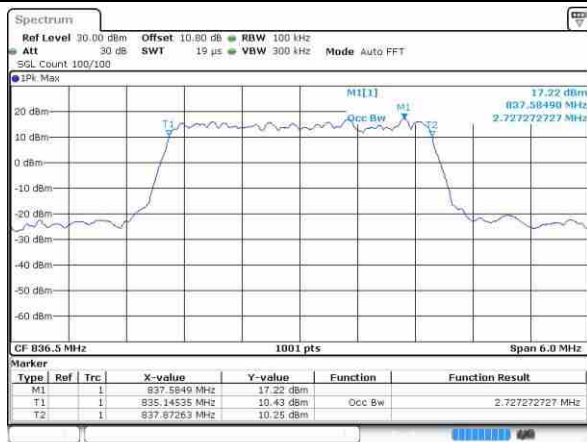
Lowest Channel / 3MHz / QPSK



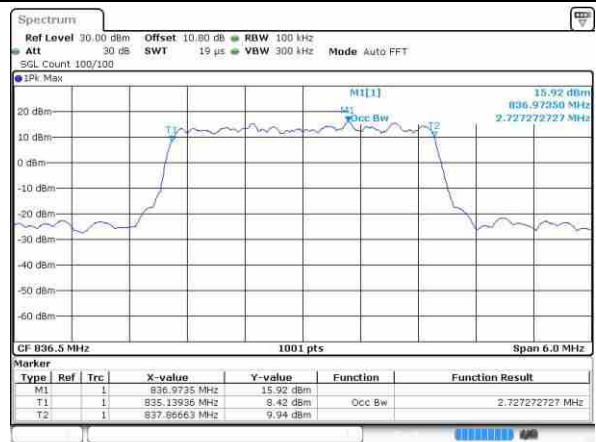
Lowest Channel / 3MHz / 16QAM



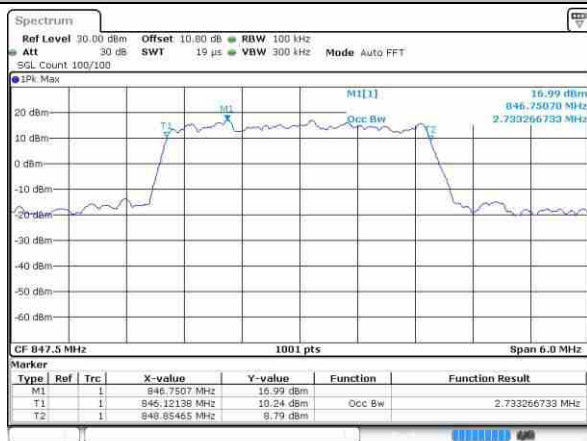
Middle Channel / 3MHz / QPSK



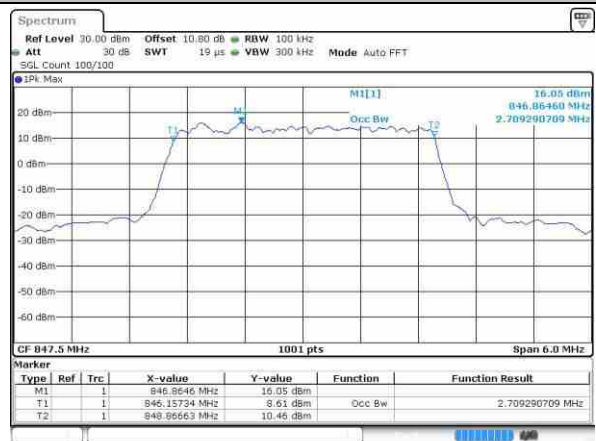
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



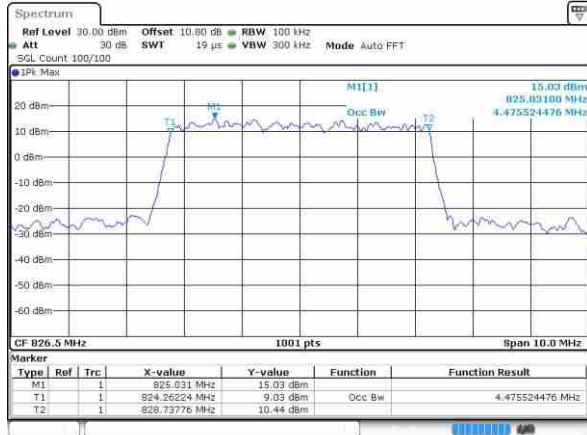
Highest Channel / 3MHz / 16QAM



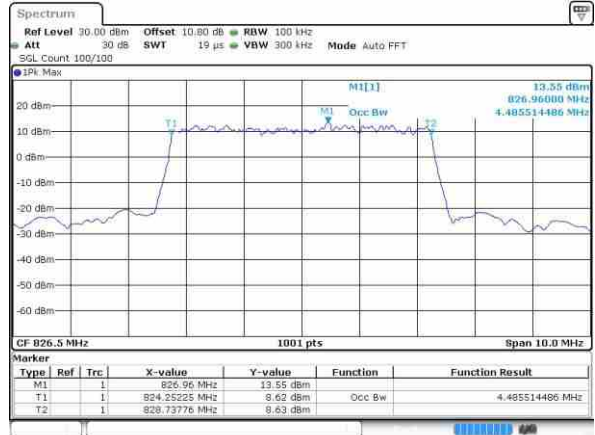


LTE Band 5

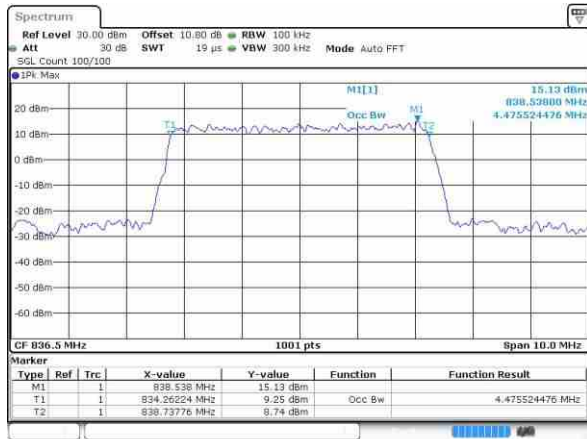
Lowest Channel / 5MHz / QPSK



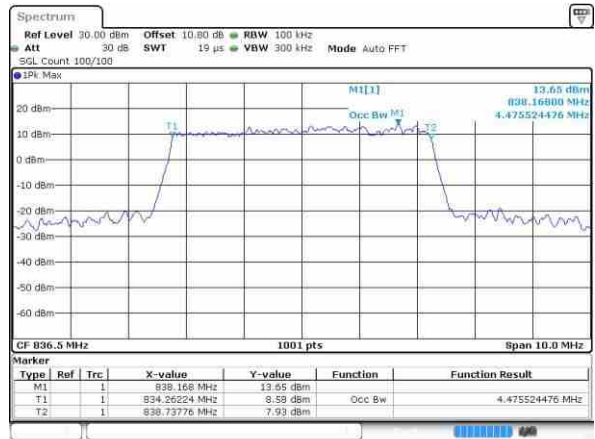
Lowest Channel / 5MHz / 16QAM



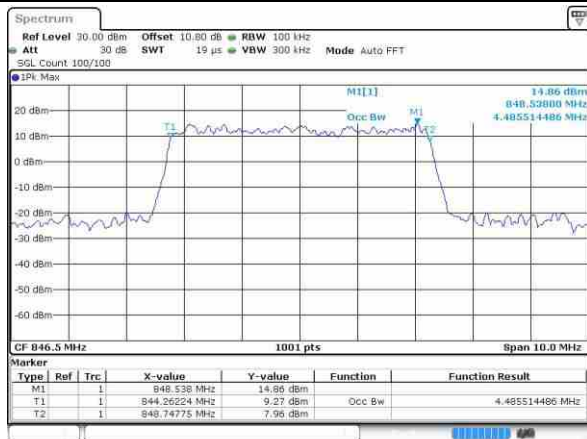
Middle Channel / 5MHz / QPSK



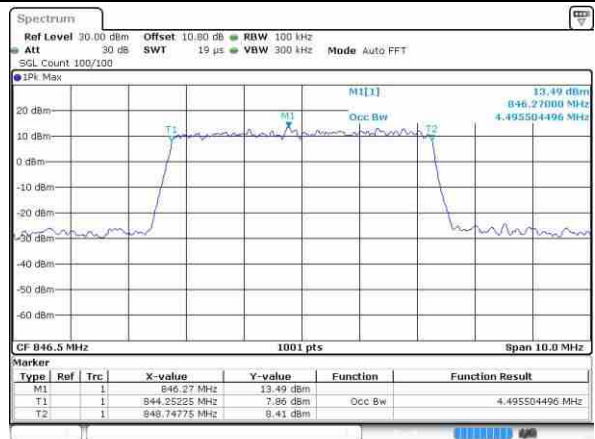
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



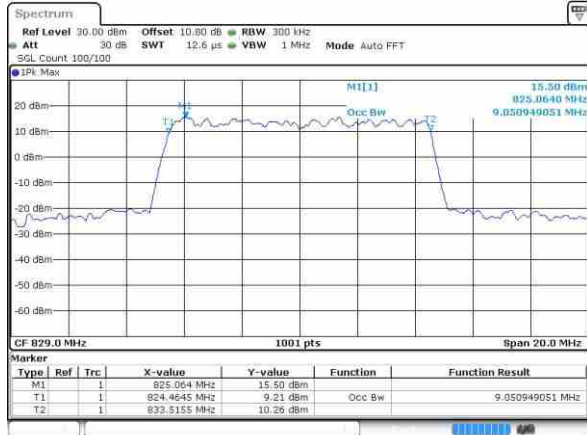
Highest Channel / 5MHz / 16QAM



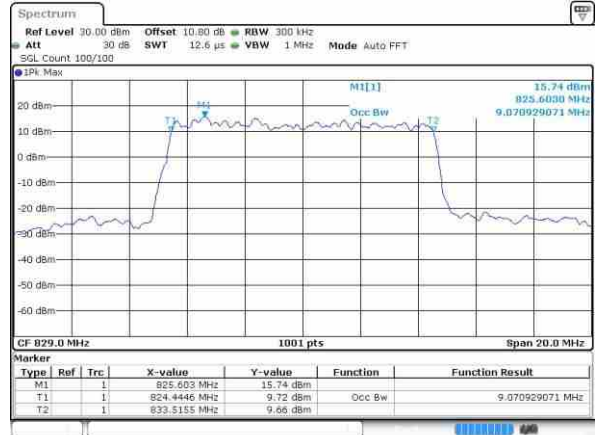


LTE Band 5

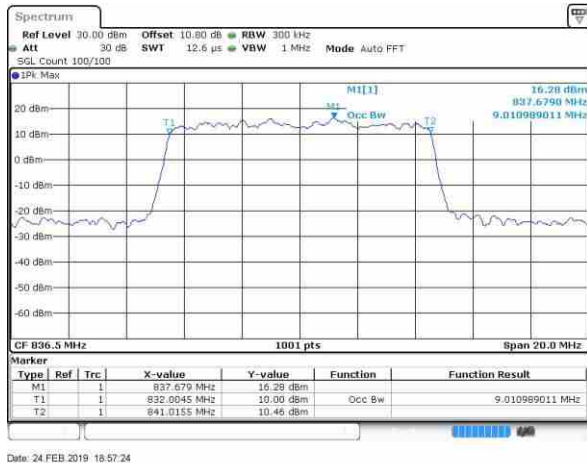
Lowest Channel / 10MHz / QPSK



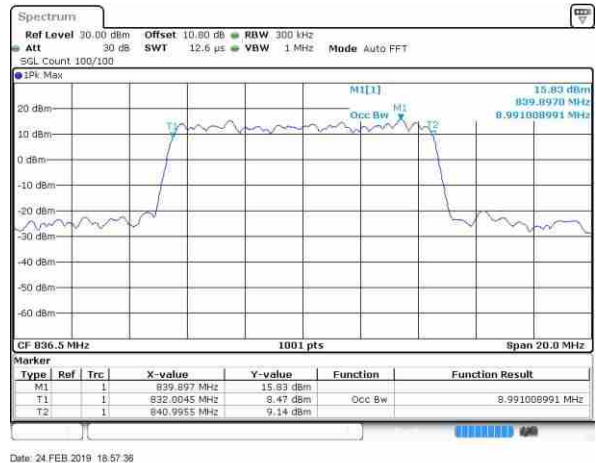
Lowest Channel / 10MHz / 16QAM



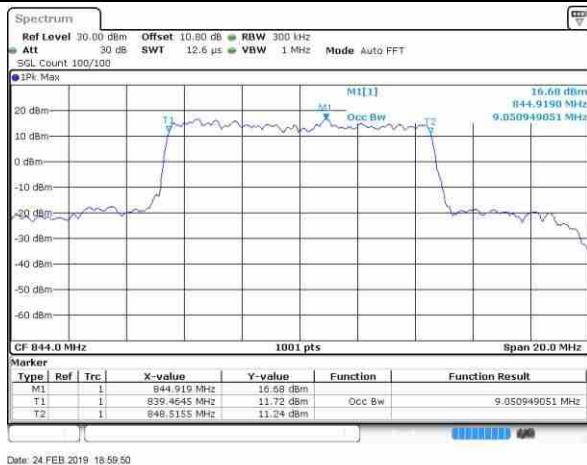
Middle Channel / 10MHz / QPSK



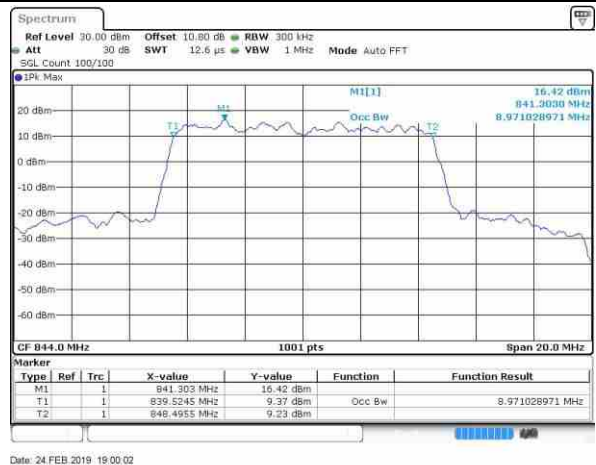
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



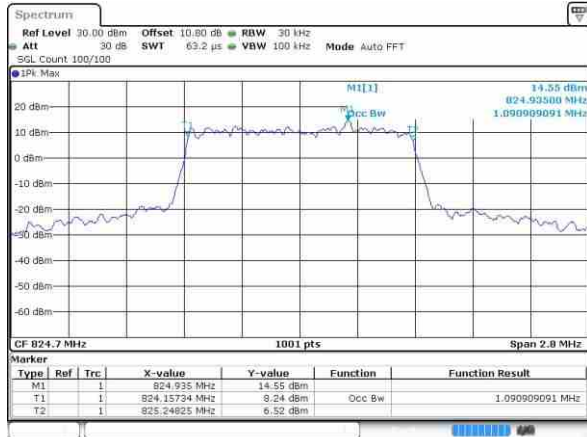
Highest Channel / 10MHz / 16QAM



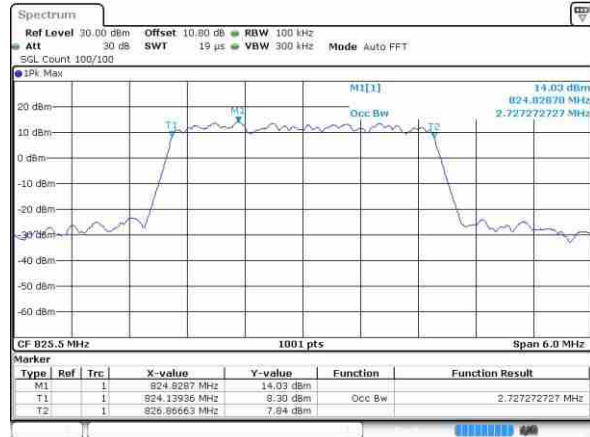


LTE Band 5

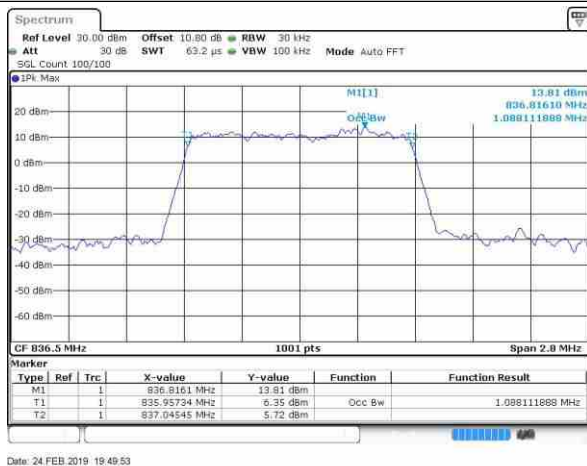
Lowest Channel / 1.4MHz / 64QAM



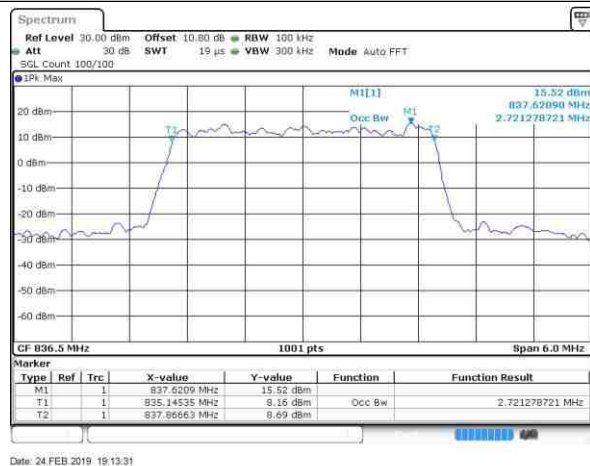
Lowest Channel / 3MHz / 64QAM



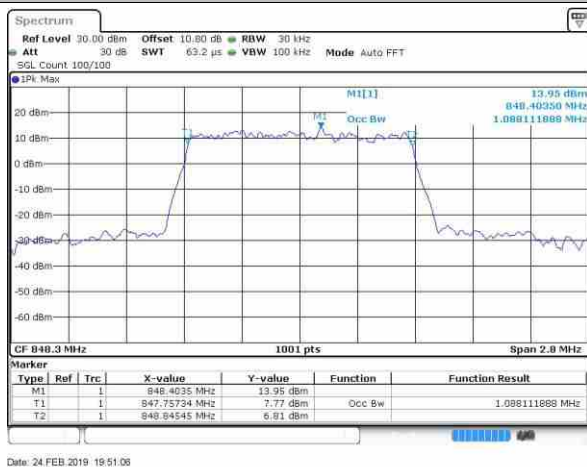
Middle Channel / 1.4MHz / 64QAM



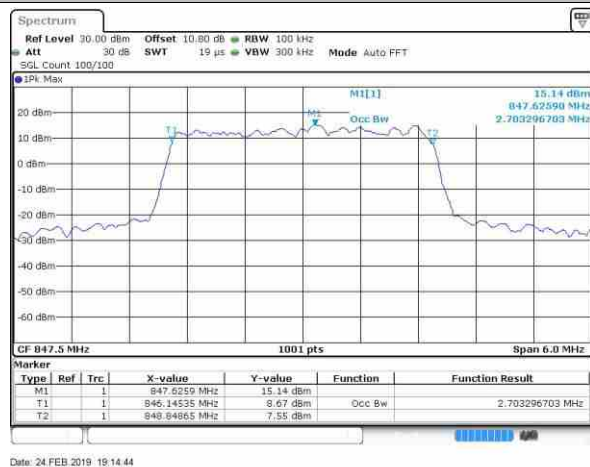
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



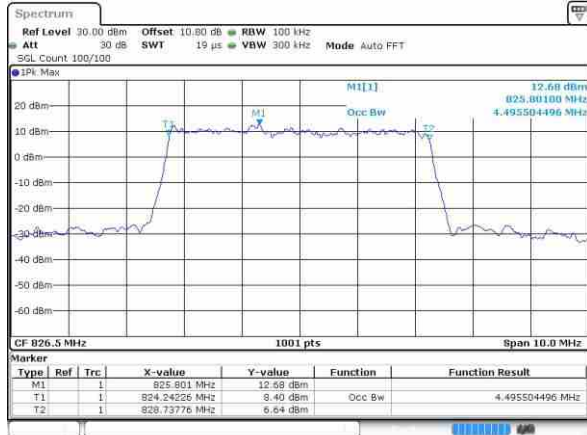
Highest Channel / 3MHz / 64QAM



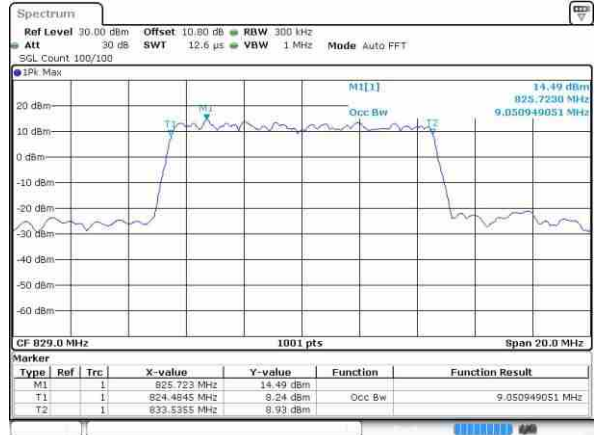


LTE Band 5

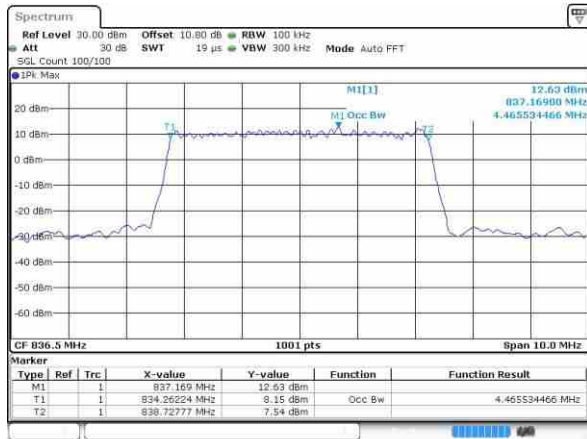
Lowest Channel / 5MHz / 64QAM



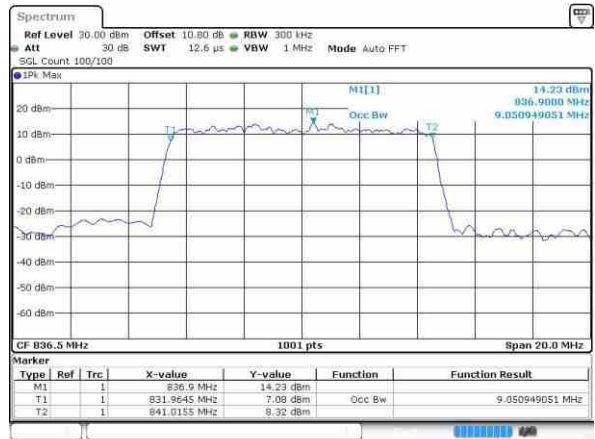
Lowest Channel / 10MHz / 64QAM



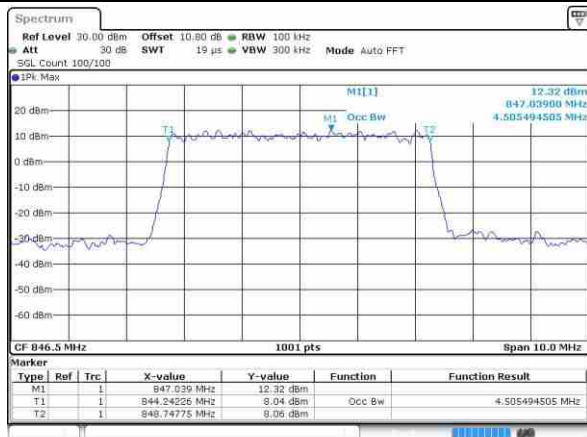
Middle Channel / 5MHz / 64QAM



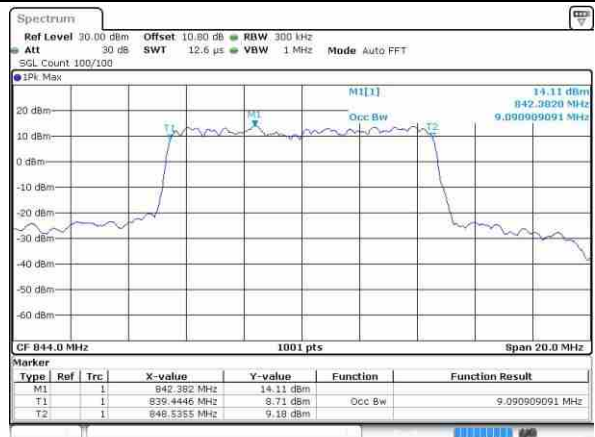
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



**Conducted Band Edge****LTE Band 5 / 1.4MHz / QPSK****Lowest Band Edge / 1RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**



LTE Band 5 / 1.4MHz / 16QAM

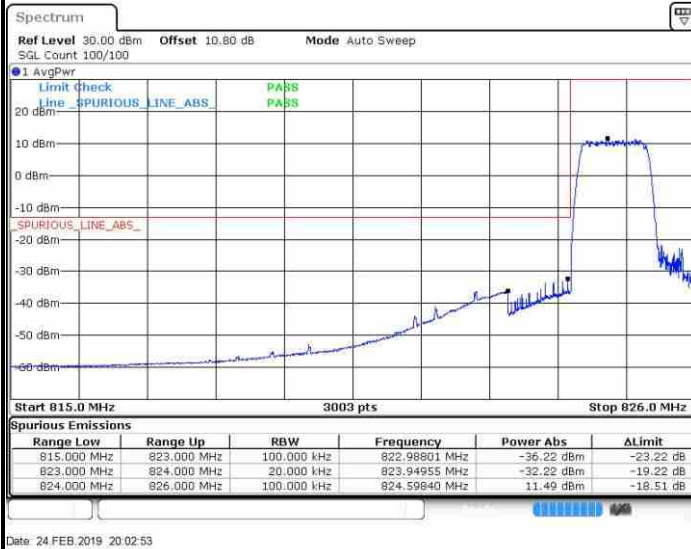
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB





LTE Band 5 / 1.4MHz / 64QAM

Lowest Band Edge / 1 RB



Date: 24 FEB 2019 19:47:11

Highest Band Edge / 1 RB



Date: 24 FEB 2019 19:54:37

Lowest Band Edge / Full RB



Date: 24 FEB 2019 19:48:51

Highest Band Edge / Full RB

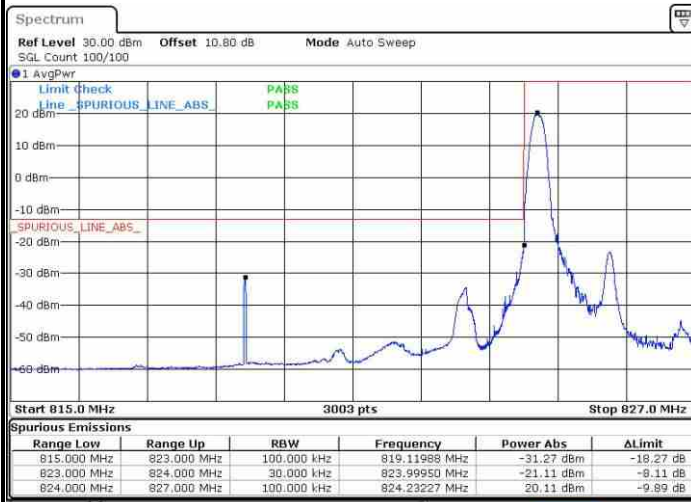


Date: 24 FEB 2019 19:52:57



LTE Band 5 / 3MHz / QPSK

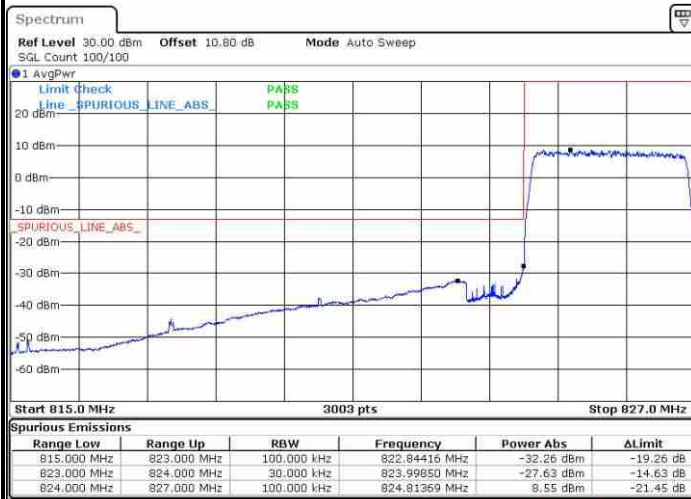
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

