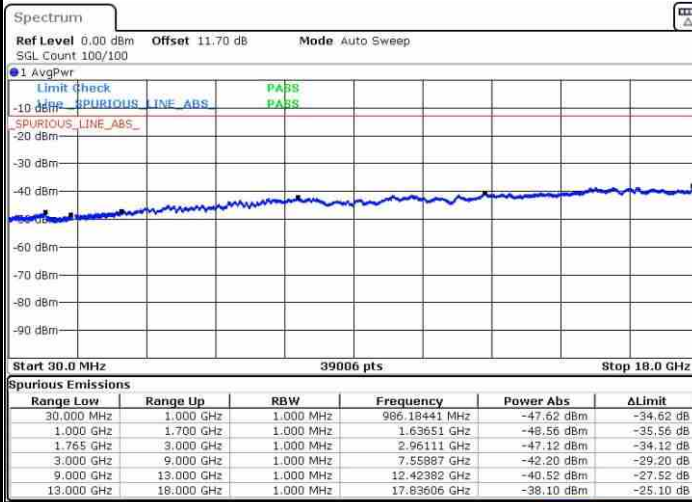




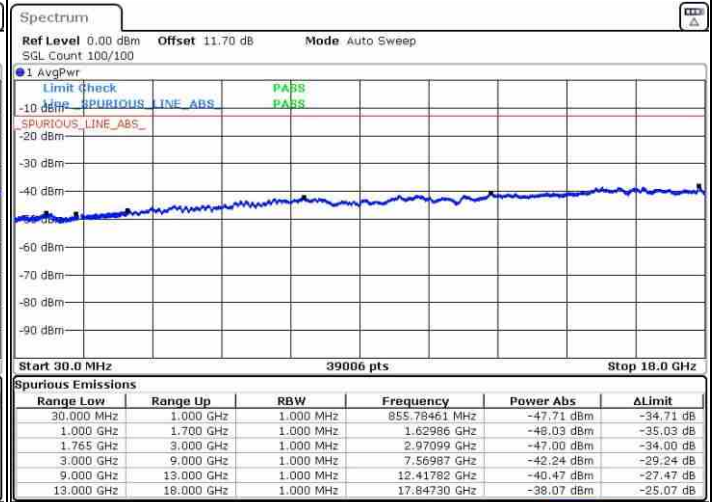
LTE Band 4 / 10MHz

Middle Channel / QPSK



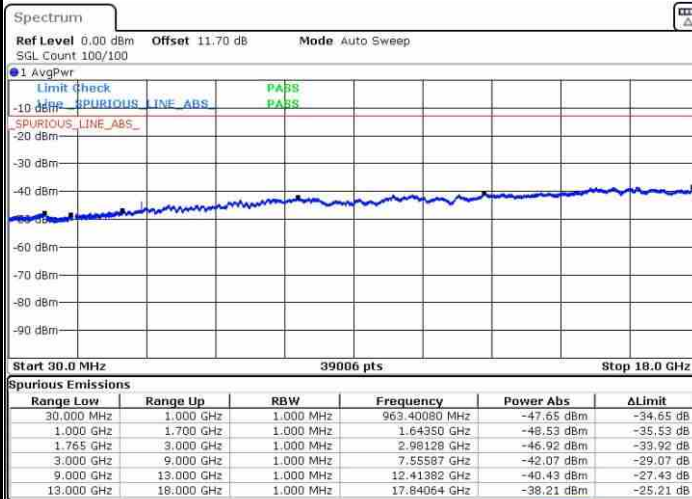
Date: 23 MAY 2019 17:40:24

Middle Channel / 16QAM



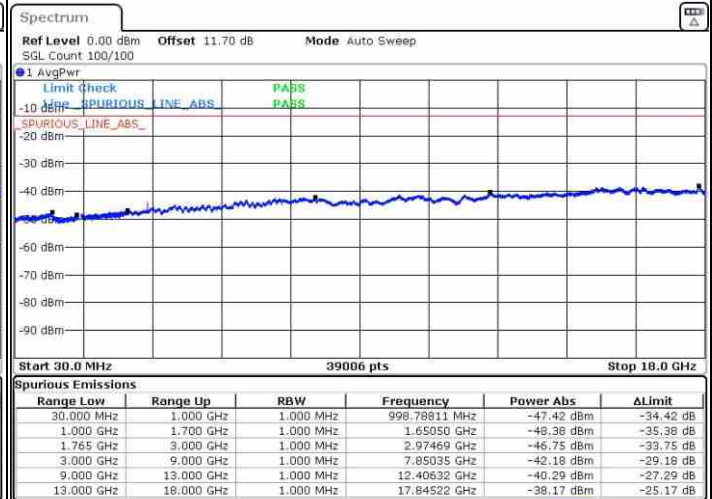
Date: 23 MAY 2019 17:41:04

Highest Channel / QPSK



Date: 23 MAY 2019 17:46:40

Highest Channel / 16QAM

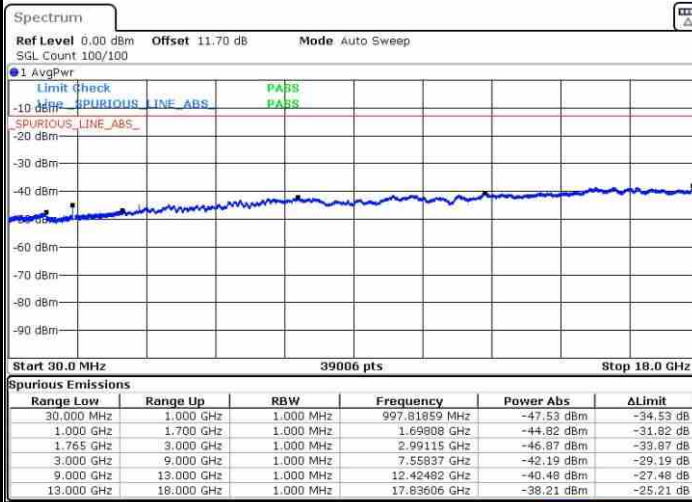


Date: 23 MAY 2019 17:47:22



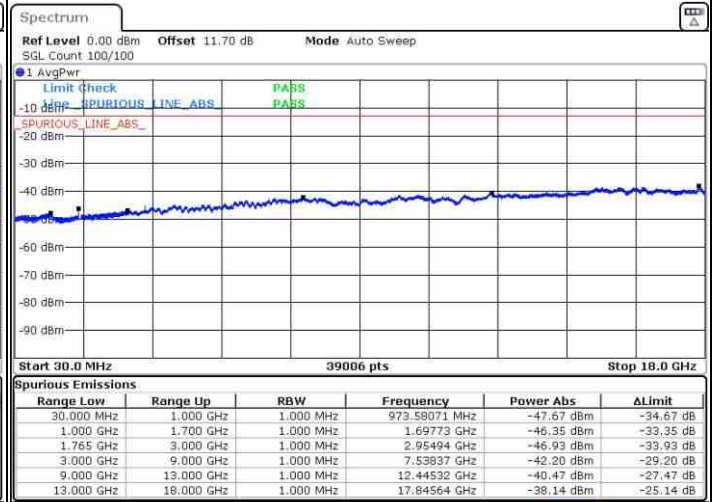
LTE Band 4 / 15MHz

Lowest Channel / QPSK



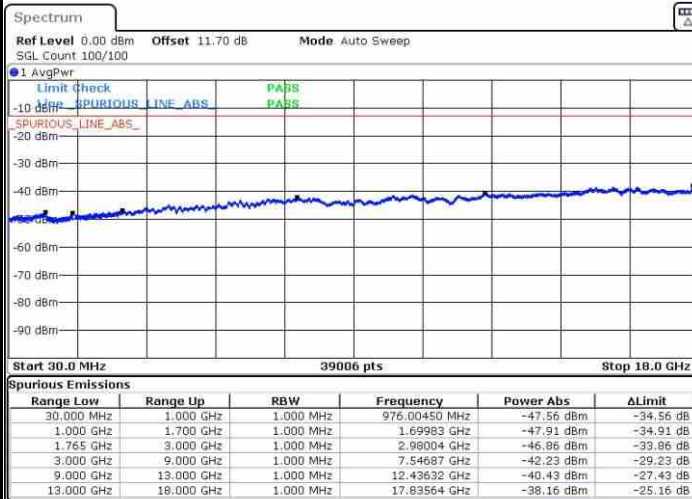
Date: 23 MAY 2019 17:52:58

Lowest Channel / 16QAM



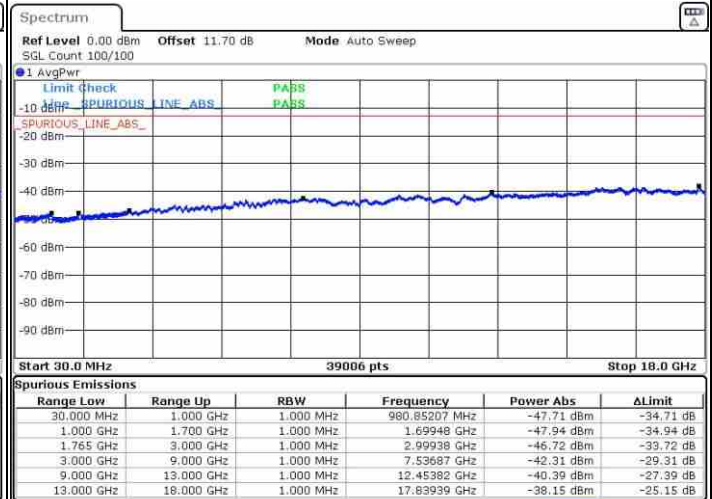
Date: 23 MAY 2019 17:53:39

Middle Channel / QPSK



Date: 23 MAY 2019 17:55:09

Middle Channel / 16QAM

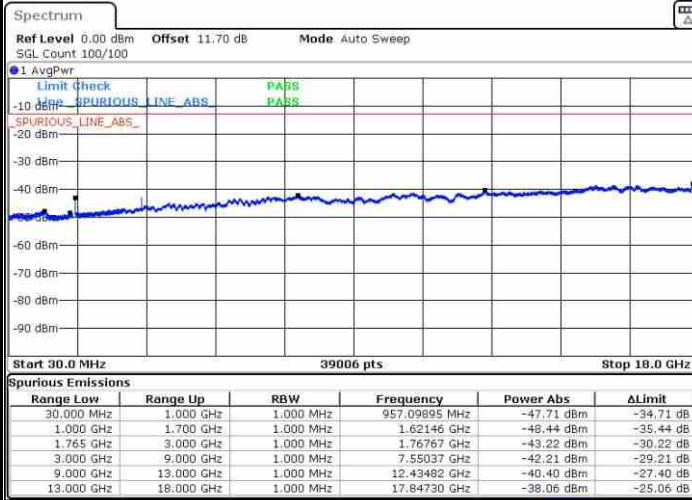


Date: 23 MAY 2019 17:55:49



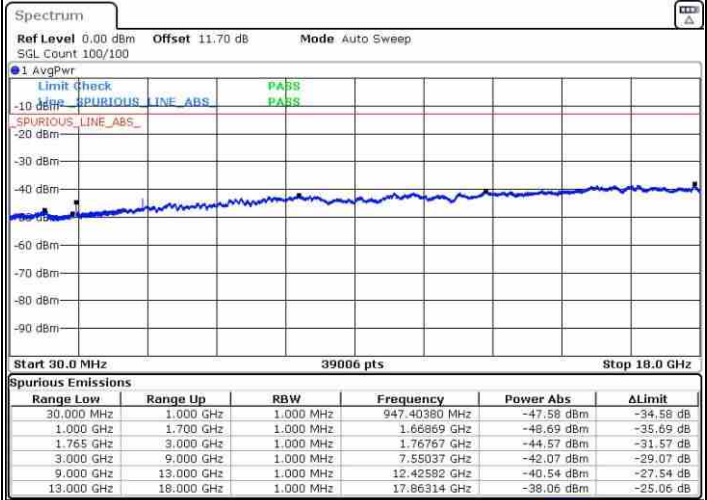
LTE Band 4 / 15MHz

Highest Channel / QPSK



Date: 23 MAY 2019 18:01:27

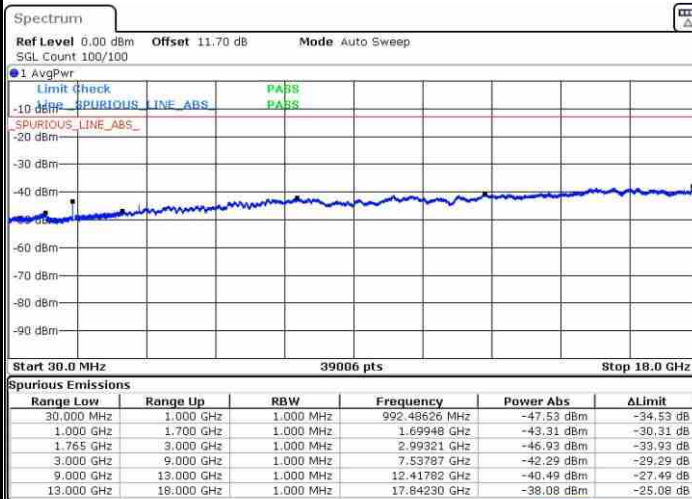
Highest Channel / 16QAM



Date: 23 MAY 2019 18:02:09

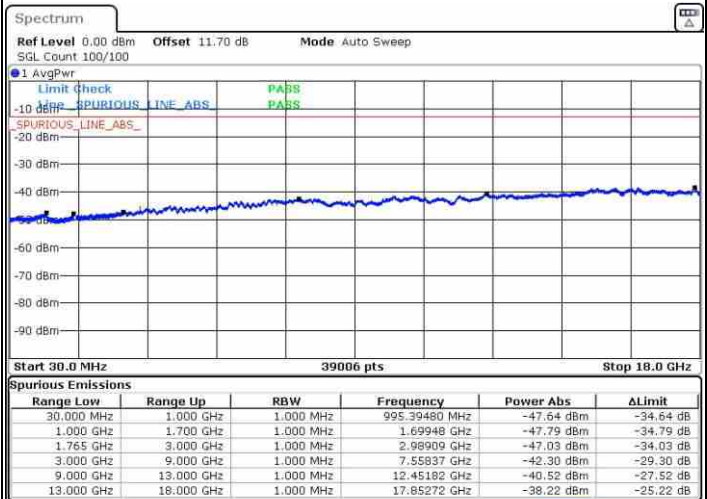
LTE Band 4 / 20MHz

Lowest Channel / QPSK



Date: 23 MAY 2019 18:07:45

Lowest Channel / 16QAM

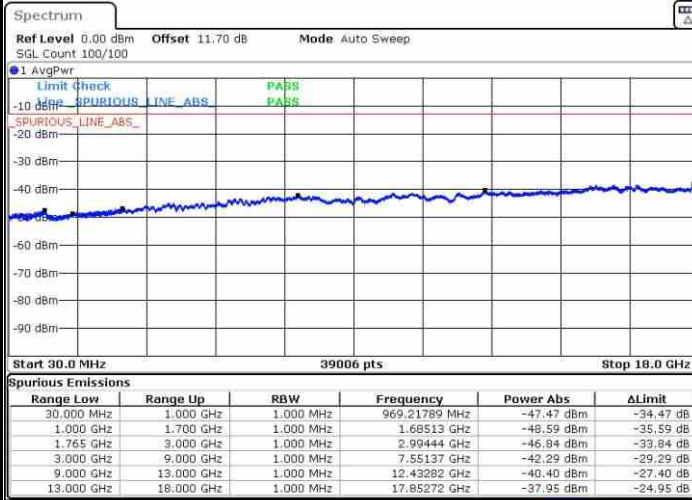


Date: 23 MAY 2019 18:08:27



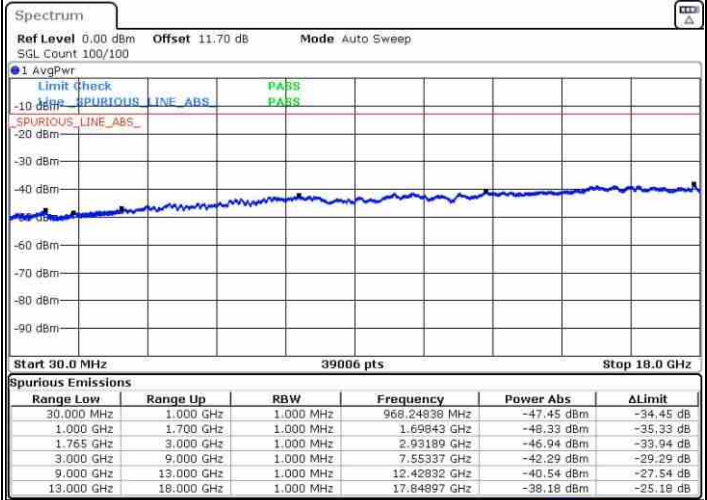
LTE Band 4 / 20MHz

Middle Channel / QPSK



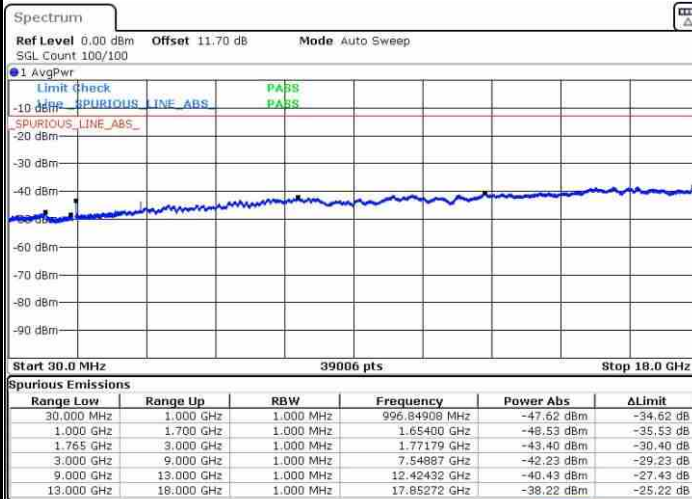
Date: 23 MAY 2019 18:09:55

Middle Channel / 16QAM



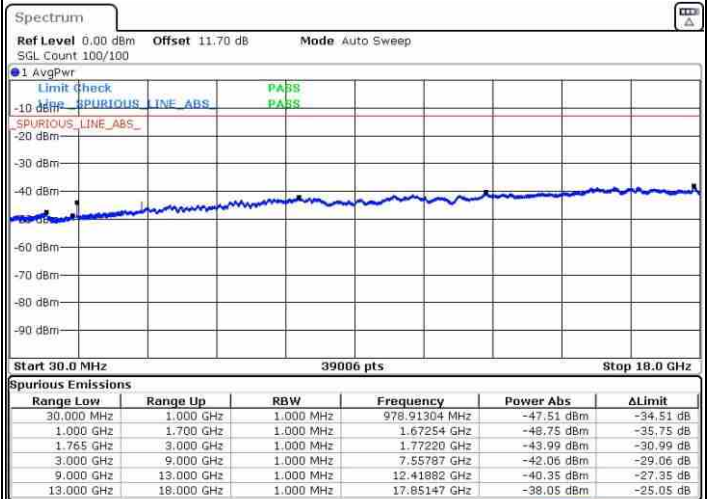
Date: 23 MAY 2019 18:10:36

Highest Channel / QPSK



Date: 23 MAY 2019 18:16:12

Highest Channel / 16QAM

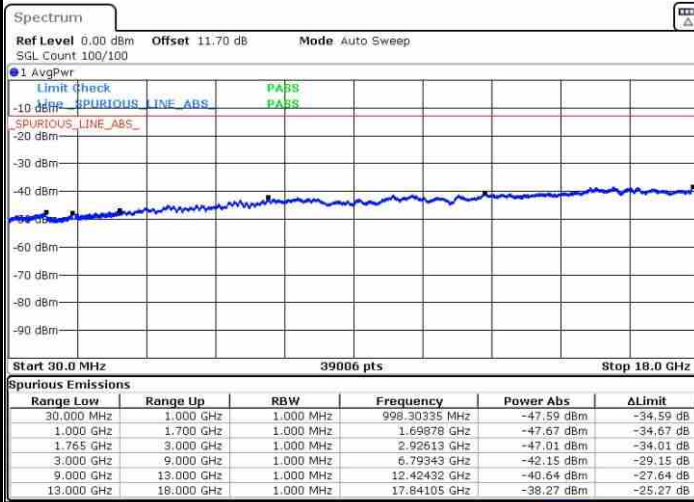


Date: 23 MAY 2019 18:16:54



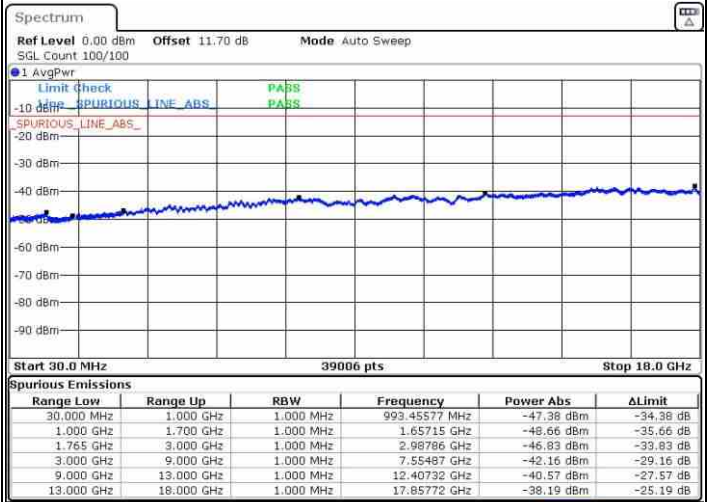
LTE Band 4 / 1.4MHz

Lowest Channel / 64QAM



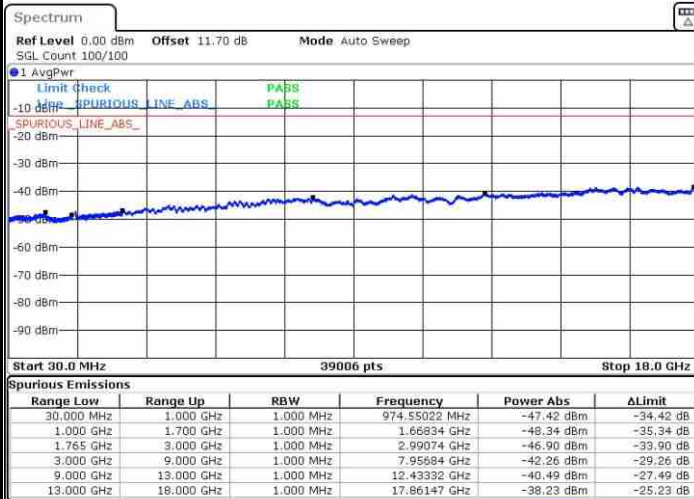
Date: 23 MAY 2019 16:41:58

Middle Channel / 64QAM



Date: 23 MAY 2019 16:43:02

Highest Channel / 64QAM

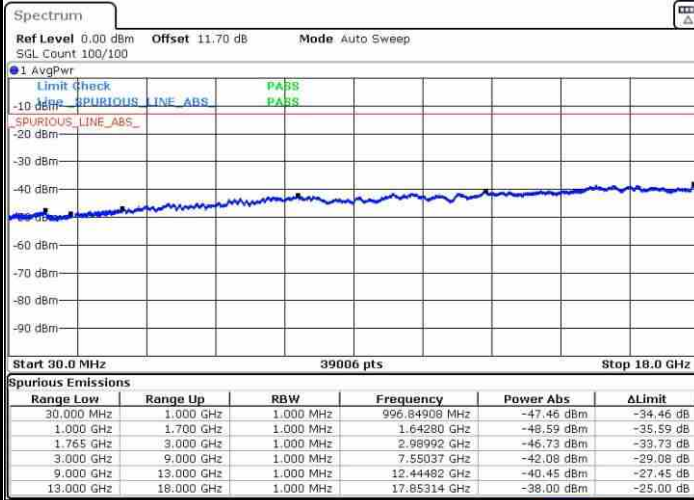


Date: 23 MAY 2019 16:46:17



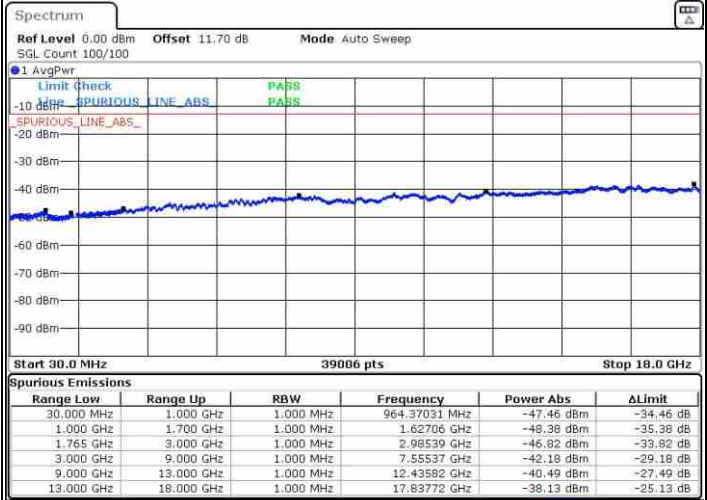
LTE Band 4 / 3MHz

Lowest Channel / 64QAM



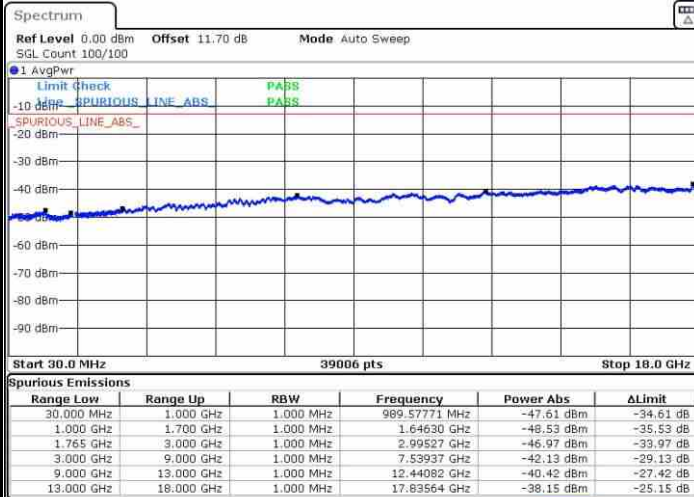
Date: 23 MAY 2019 18:20:02

Middle Channel / 64QAM



Date: 23 MAY 2019 18:21:06

Highest Channel / 64QAM

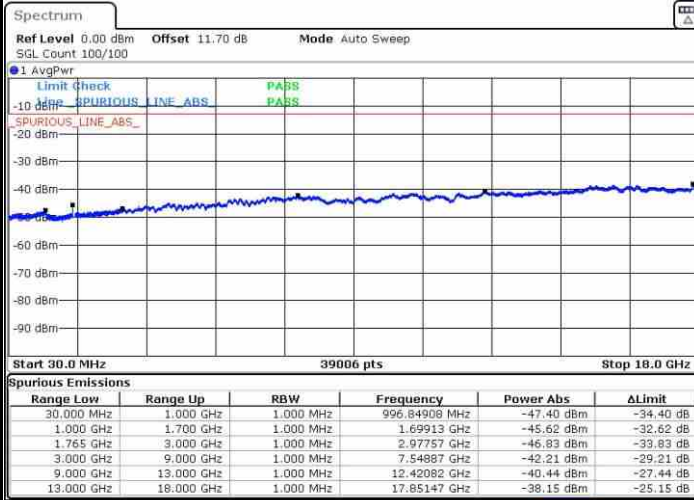


Date: 23 MAY 2019 18:24:14



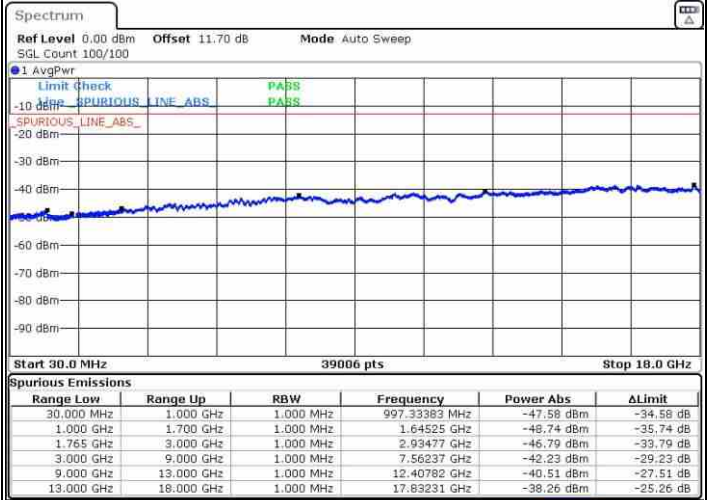
LTE Band 4 / 5MHz

Lowest Channel / 64QAM



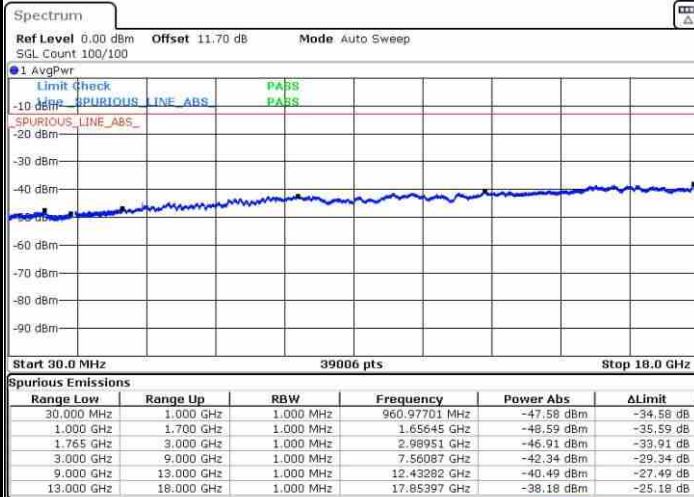
Date: 23 MAY 2019 18:27:22

Middle Channel / 64QAM



Date: 23 MAY 2019 18:28:27

Highest Channel / 64QAM

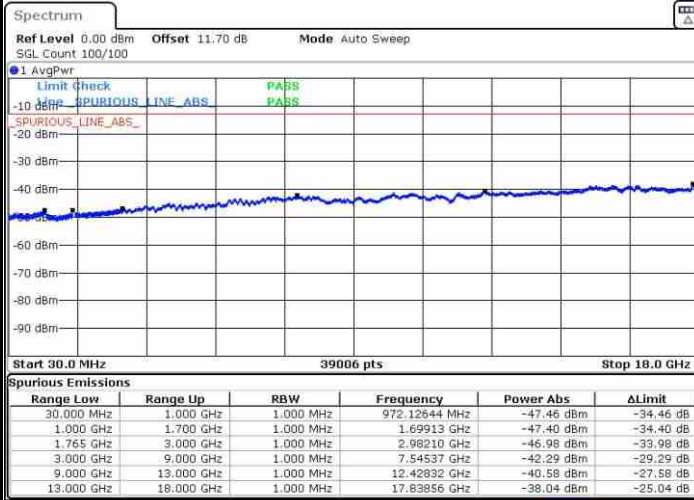


Date: 23 MAY 2019 18:31:35



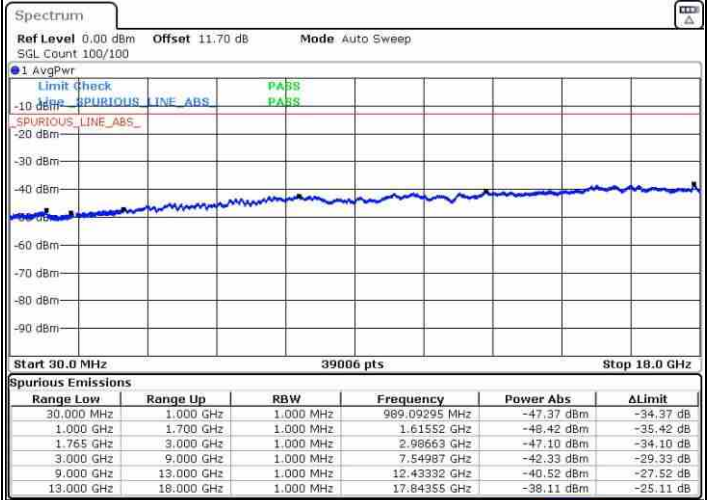
LTE Band 4 / 10MHz

Lowest Channel / 64QAM



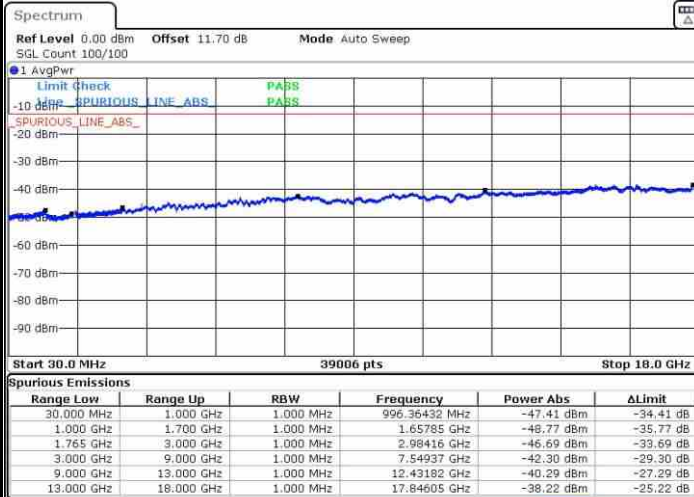
Date: 23 MAY 2019 18:34:43

Middle Channel / 64QAM



Date: 23 MAY 2019 18:35:48

Highest Channel / 64QAM

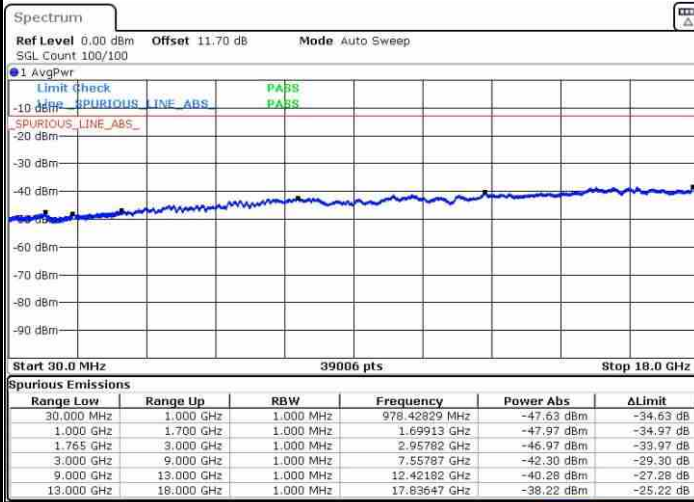


Date: 23 MAY 2019 18:38:56



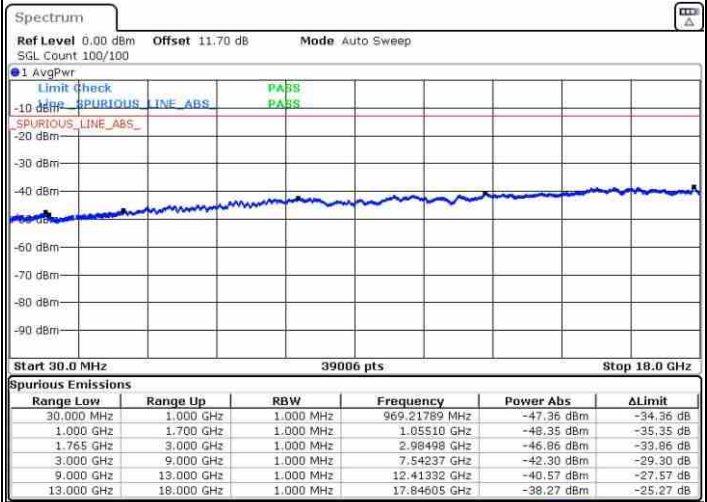
LTE Band 4 / 15MHz

Lowest Channel / 64QAM



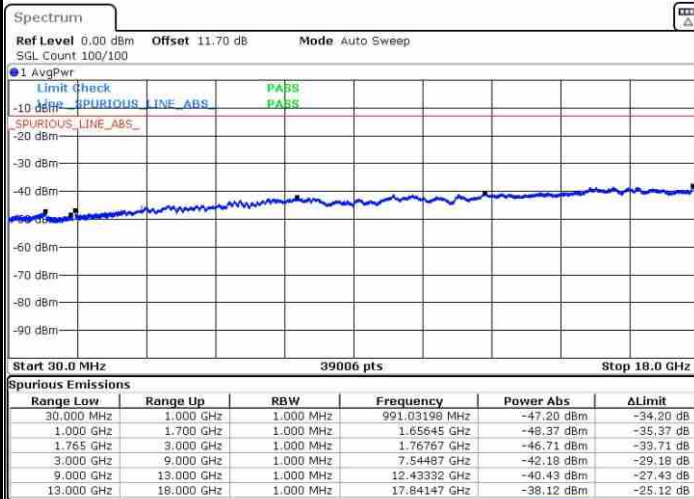
Date: 23 MAY 2019 18:42:05

Middle Channel / 64QAM



Date: 23 MAY 2019 18:43:09

Highest Channel / 64QAM

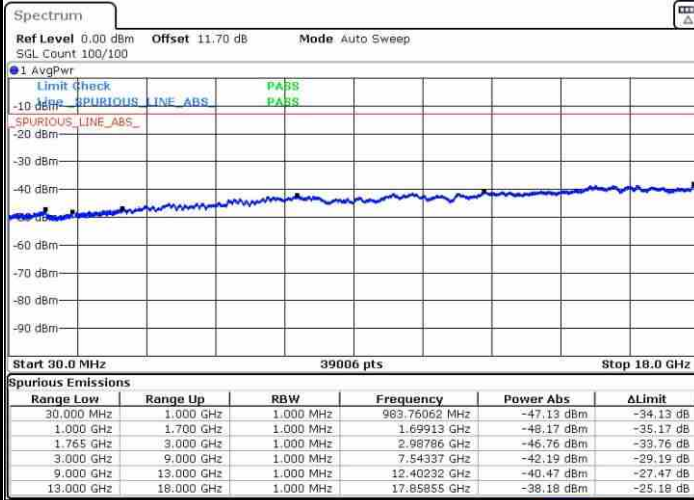


Date: 23 MAY 2019 18:46:17



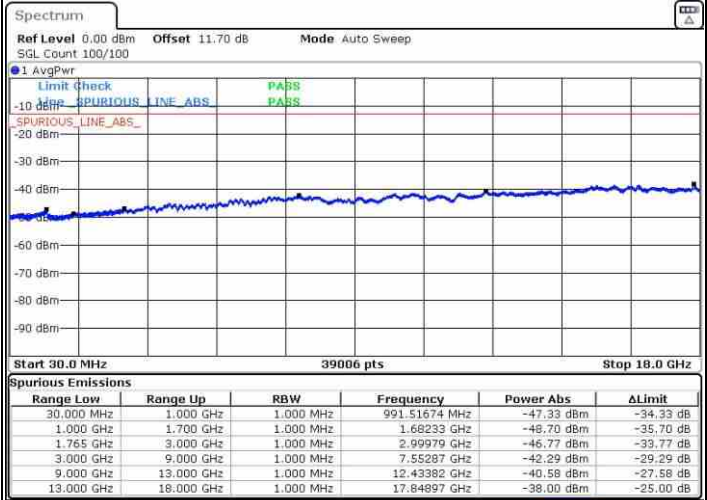
LTE Band 4 / 20MHz

Lowest Channel / 64QAM



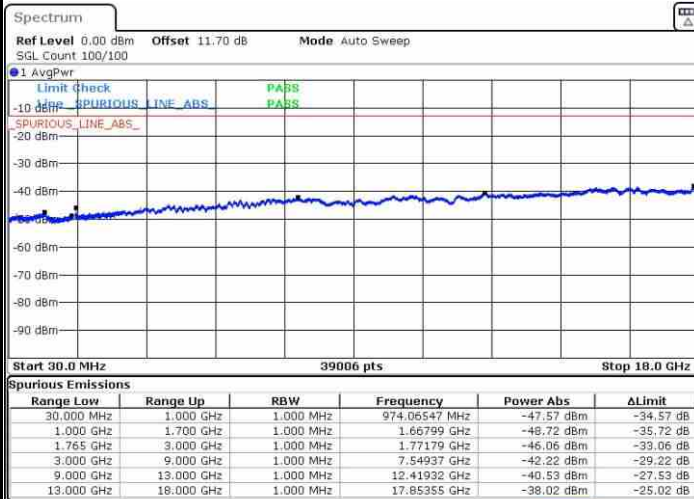
Date: 23 MAY 2019 18:49:26

Middle Channel / 64QAM



Date: 23 MAY 2019 18:50:30

Highest Channel / 64QAM



Date: 23 MAY 2019 18:53:38

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	0.0050	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0053	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0050	
0	Normal Voltage	0.0047	
-10	Normal Voltage	0.0054	
-20	Normal Voltage	0.0062	
-30	Normal Voltage	0.0013	
20	Maximum Voltage	0.0048	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0048	

Note:

1. Normal Voltage =3.85 V. ; Battery End Point (BEP) =3.65 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 5

Peak-to-Average Ratio

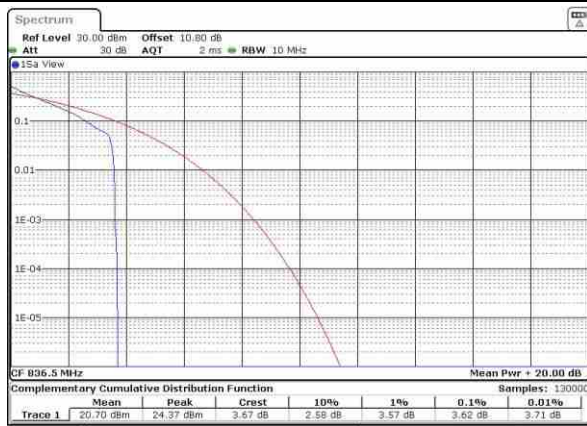
Mode	LTE Band 5 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.54	4.64	4.00	5.77	PASS
Middle CH	3.62	4.93	4.12	5.97	
Highest CH	3.65	4.93	4.32	5.80	
Mode	LTE Band 5 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.22	6.41	-	-	PASS
Middle CH	5.01	6.67	-	-	
Highest CH	5.19	6.41	-	-	

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

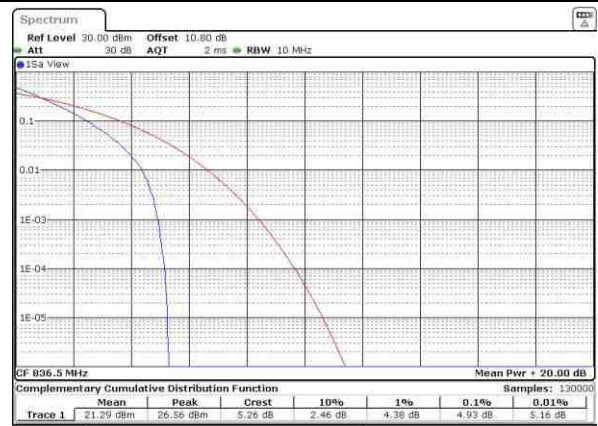

Date: 21 MAY 2019 22:11:58

Lowest Channel / Full RB

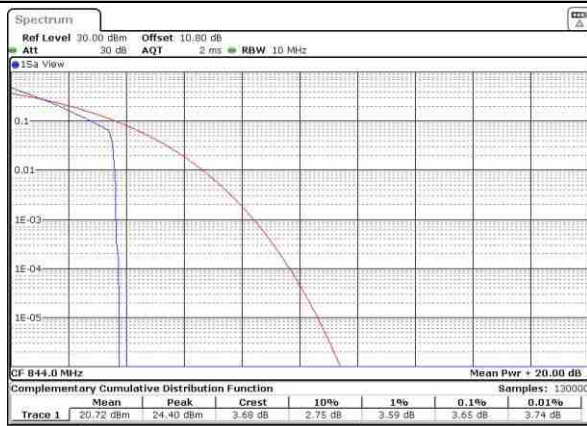

Date: 21 MAY 2019 22:12:23

Middle Channel / 1RB


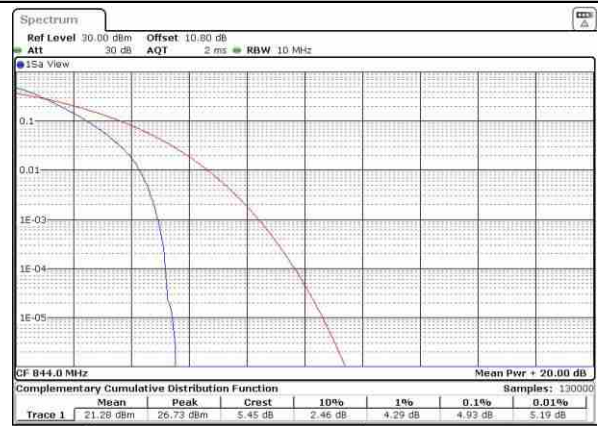
Date: 21 MAY 2019 22:13:02

Middle Channel / Full RB


Date: 21 MAY 2019 22:13:15

Highest Channel / 1RB


Date: 21 MAY 2019 22:13:31

Highest Channel / Full RB


Date: 21 MAY 2019 22:13:57

LTE Band 5 / 10MHz / 16QAM
Lowest Channel / 1RB


Date: 21 MAY 2019 22:08:52

Lowest Channel / Full RB

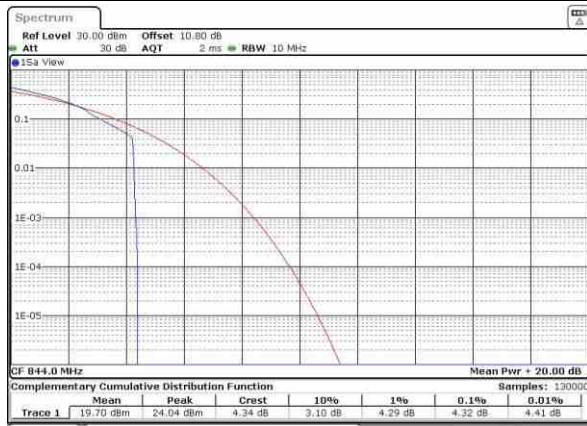

Date: 21 MAY 2019 22:09:12

Middle Channel / 1RB


Date: 21 MAY 2019 22:09:23

Middle Channel / Full RB


Date: 21 MAY 2019 22:09:34

Highest Channel / 1RB


Date: 21 MAY 2019 22:09:45

Highest Channel / Full RB


Date: 21 MAY 2019 22:09:56

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


Date: 21 MAY 2019 22:14:12

Lowest Channel / Full RB

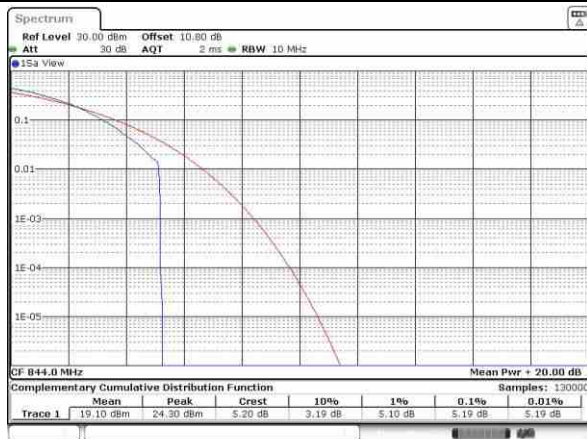

Date: 21 MAY 2019 22:14:27

Middle Channel / 1RB


Date: 21 MAY 2019 22:14:38

Middle Channel / Full RB


Date: 21 MAY 2019 22:15:08

Highest Channel / 1RB


Date: 21 MAY 2019 22:15:31

Highest Channel / Full RB


Date: 21 MAY 2019 22:17:33

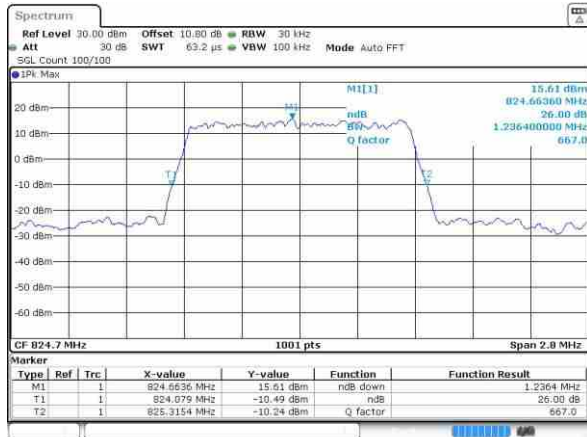
**26dB Bandwidth**

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	1.24	1.21	3.00	3.03	4.88	4.88	9.85	9.81	-	-	-	-
Middle CH	1.22	1.24	3.04	3.00	4.91	4.88	9.89	9.83	-	-	-	-
Highest CH	1.21	1.23	3.02	3.03	4.89	5.00	9.63	9.89	-	-	-	-
Mode	LTE Band 5 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	1.23	-	3.00	-	4.93	-	10.01	-	-	-	-	-
Middle CH	1.22	-	3.04	-	4.92	-	9.81	-	-	-	-	-
Highest CH	1.21	-	3.01	-	4.88	-	9.81	-	-	-	-	-



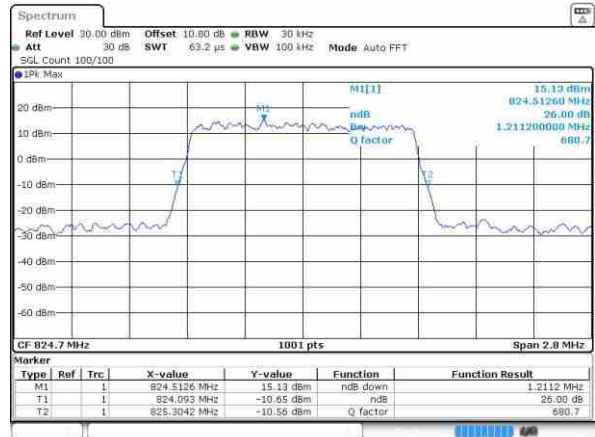
LTE Band 5

Lowest Channel / 1.4MHz / QPSK



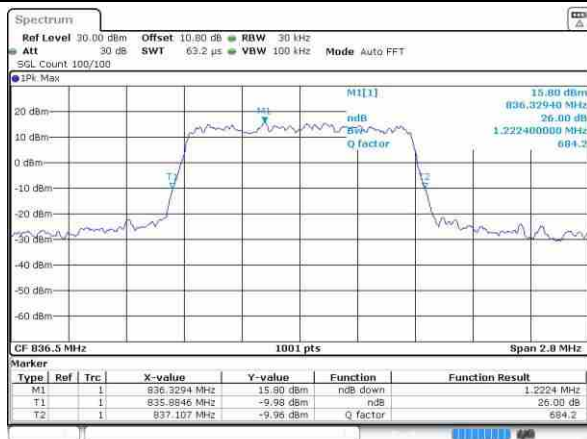
Date: 21 MAY 2019 21:04:43

Lowest Channel / 1.4MHz / 16QAM



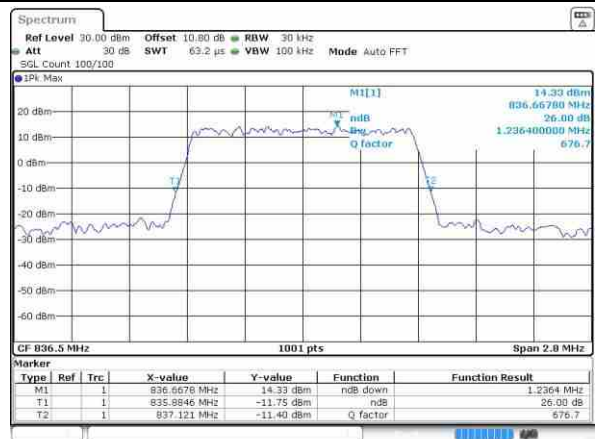
Date: 21 MAY 2019 21:04:31

Middle Channel / 1.4MHz / QPSK



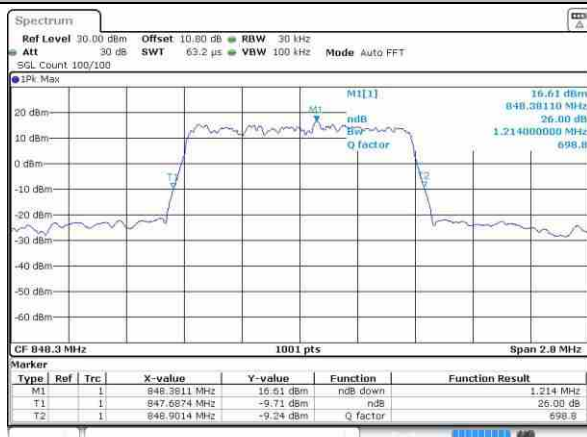
Date: 21 MAY 2019 21:13:36

Middle Channel / 1.4MHz / 16QAM



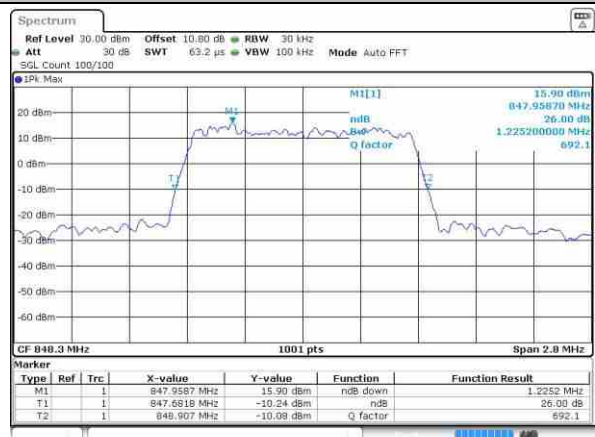
Date: 21 MAY 2019 21:13:48

Highest Channel / 1.4MHz / QPSK



Date: 21 MAY 2019 21:15:56

Highest Channel / 1.4MHz / 16QAM

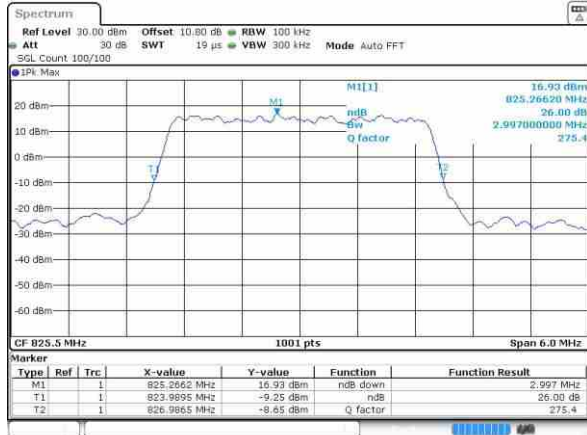


Date: 21 MAY 2019 21:16:08

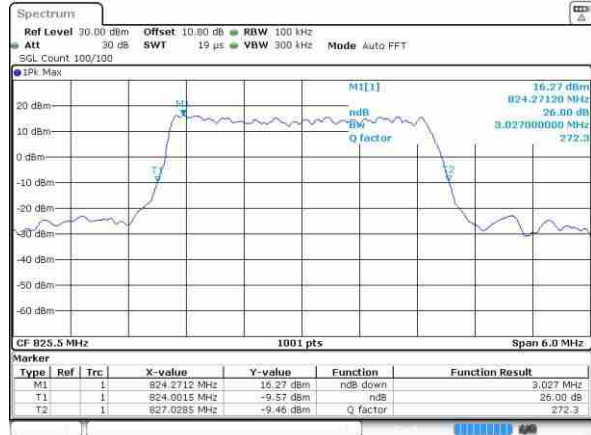


LTE Band 5

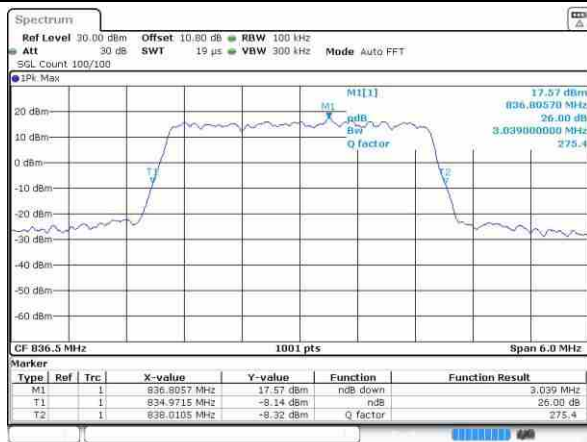
Lowest Channel / 3MHz / QPSK



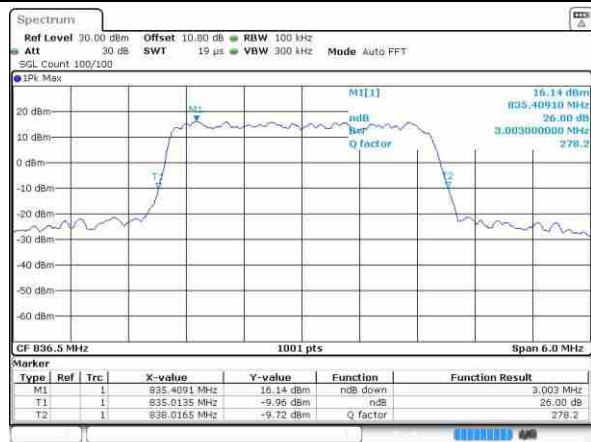
Lowest Channel / 3MHz / 16QAM



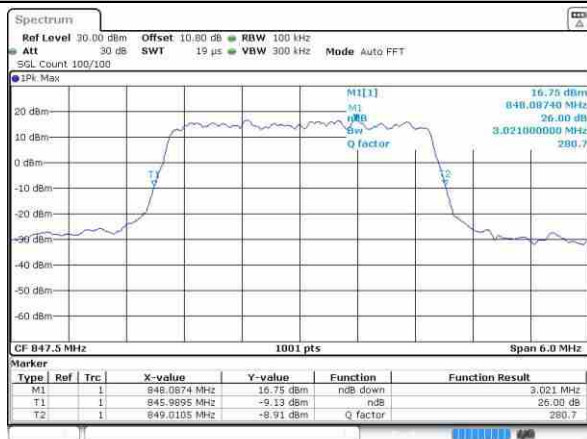
Middle Channel / 3MHz / QPSK



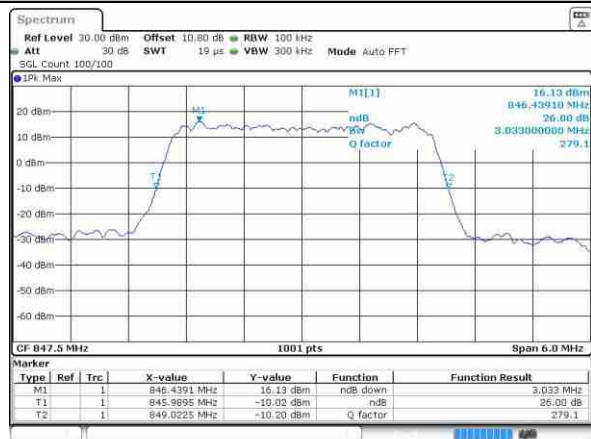
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



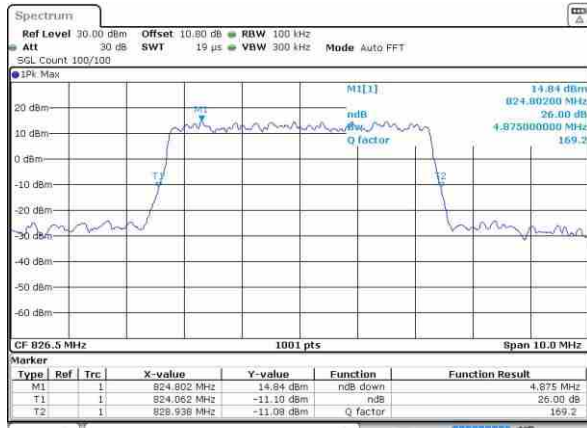
Highest Channel / 3MHz / 16QAM



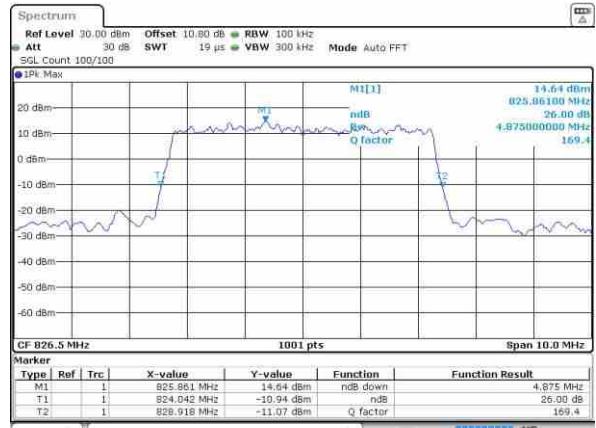


LTE Band 5

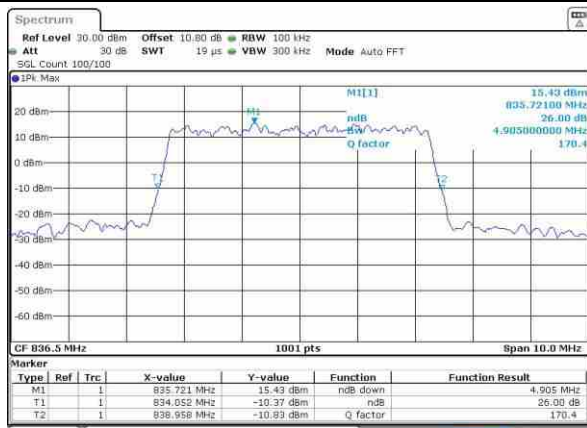
Lowest Channel / 5MHz / QPSK



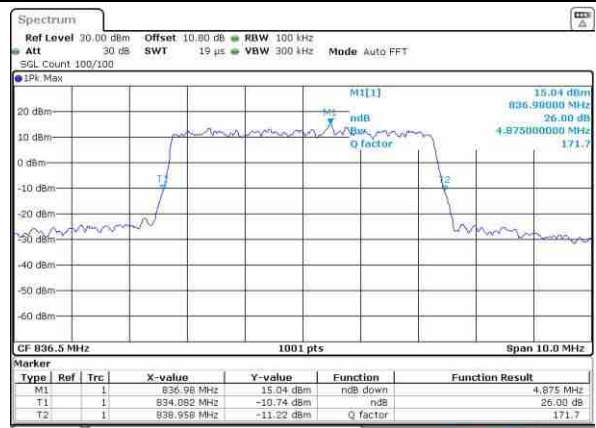
Lowest Channel / 5MHz / 16QAM



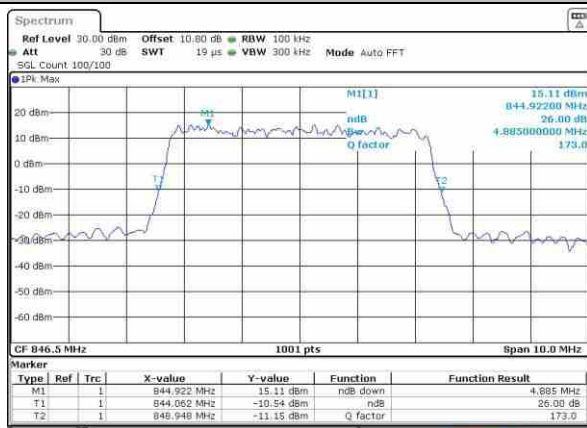
Middle Channel / 5MHz / QPSK



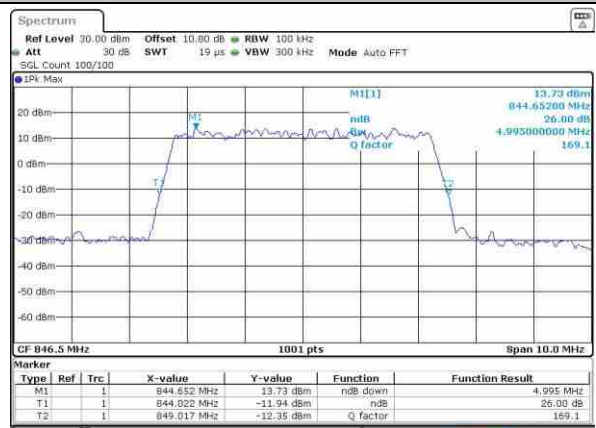
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



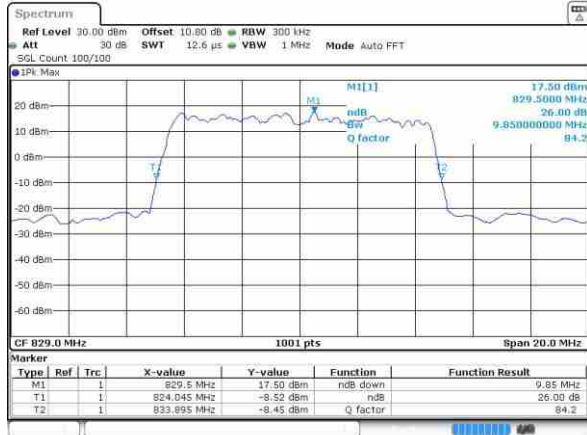
Highest Channel / 5MHz / 16QAM



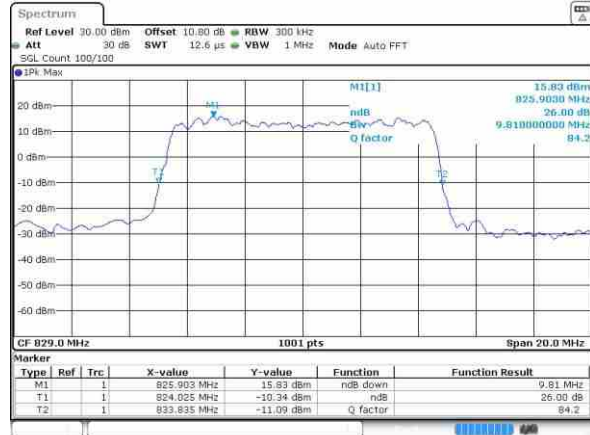


LTE Band 5

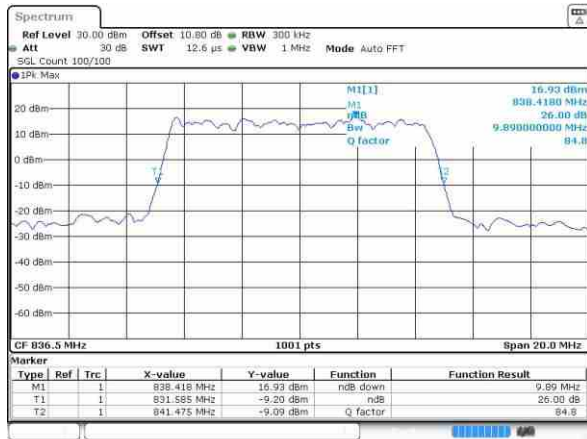
Lowest Channel / 10MHz / QPSK



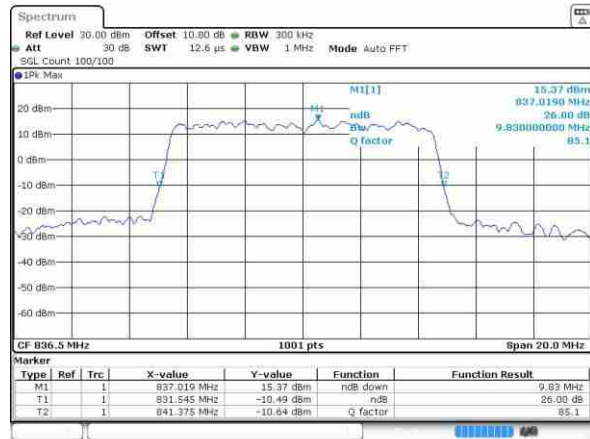
Lowest Channel / 10MHz / 16QAM



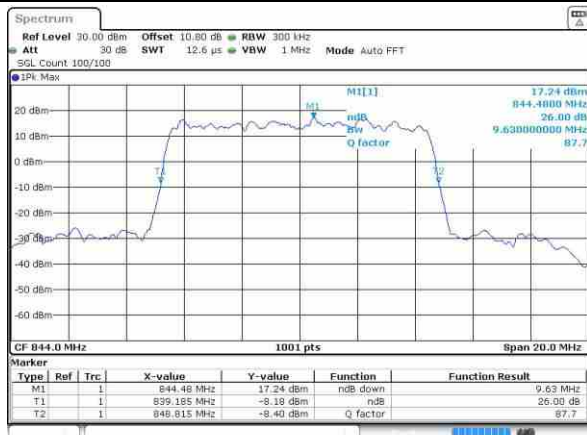
Middle Channel / 10MHz / QPSK



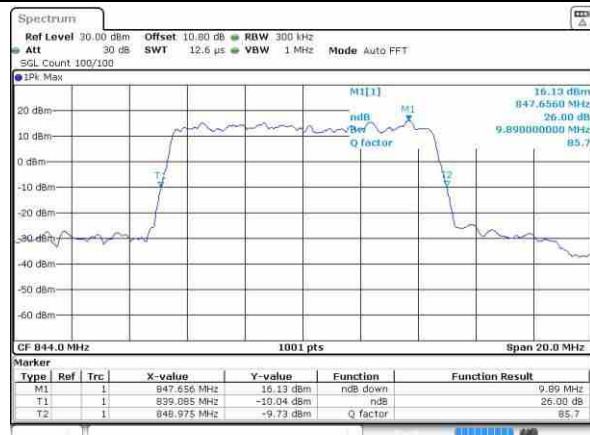
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



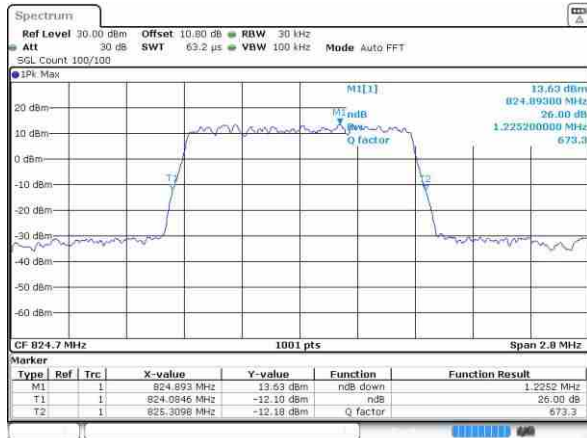
Highest Channel / 10MHz / 16QAM



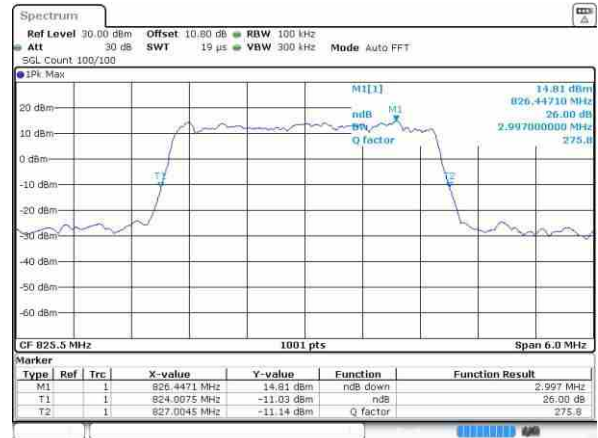


LTE Band 5

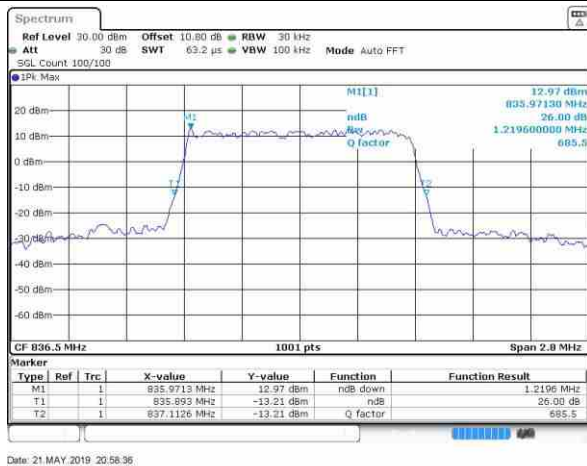
Lowest Channel / 1.4MHz / 64QAM



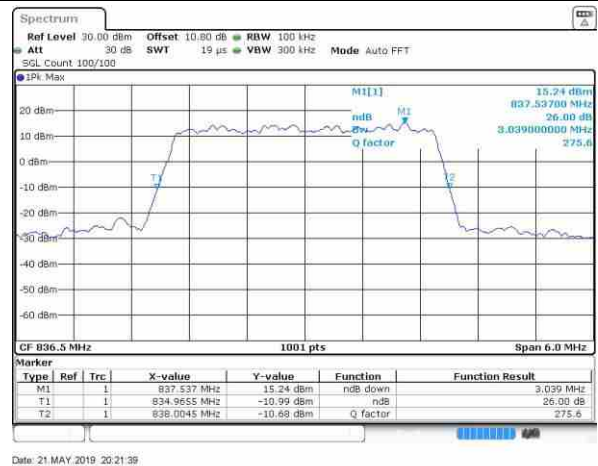
Lowest Channel / 3MHz / 64QAM



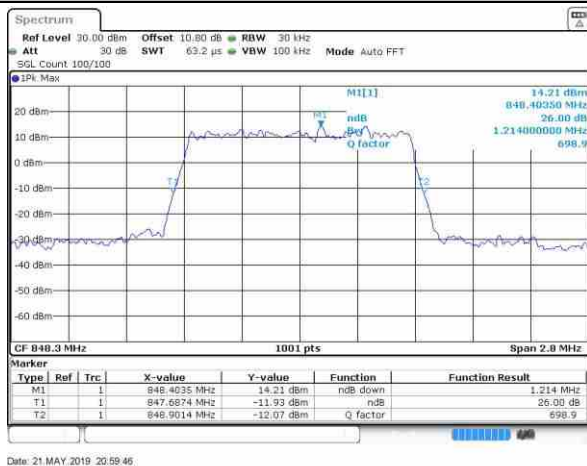
Middle Channel / 1.4MHz / 64QAM



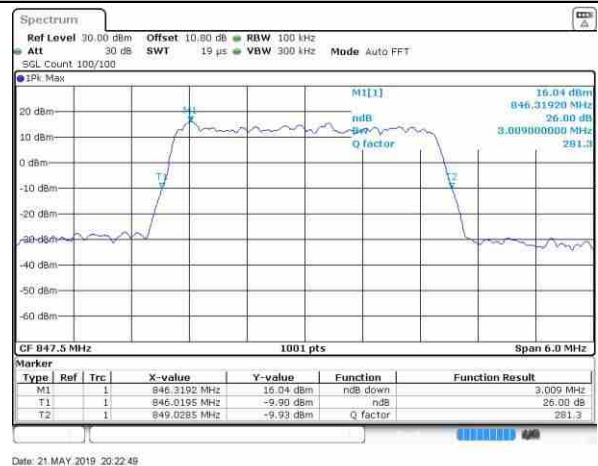
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



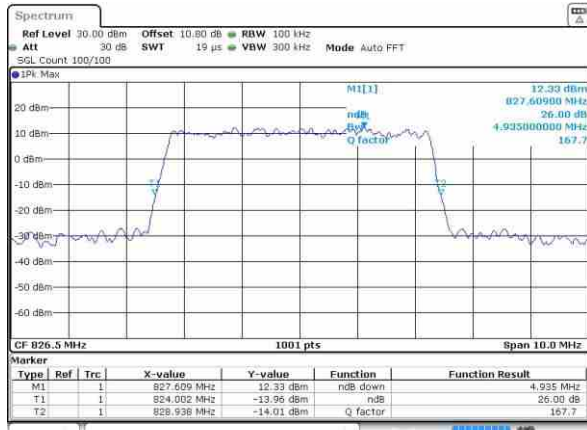
Highest Channel / 3MHz / 64QAM





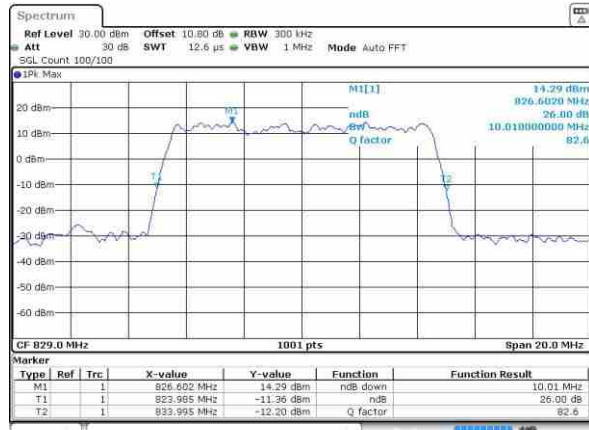
LTE Band 5

Lowest Channel / 5MHz / 64QAM



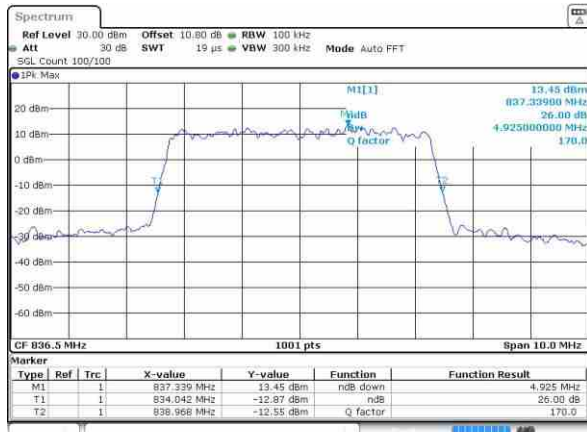
Date: 21 MAY 2019 20:27:23

Lowest Channel / 10MHz / 64QAM



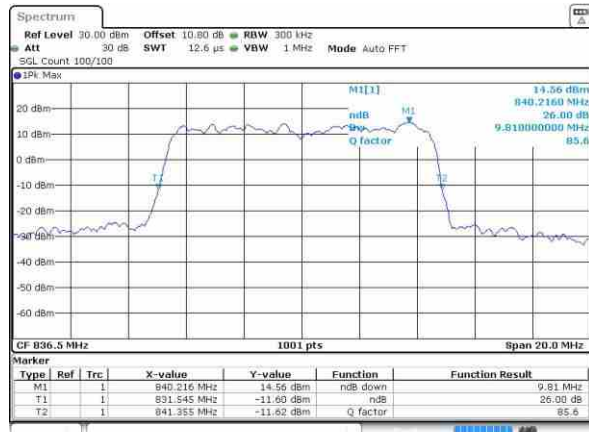
Date: 21 MAY 2019 20:37:44

Middle Channel / 5MHz / 64QAM



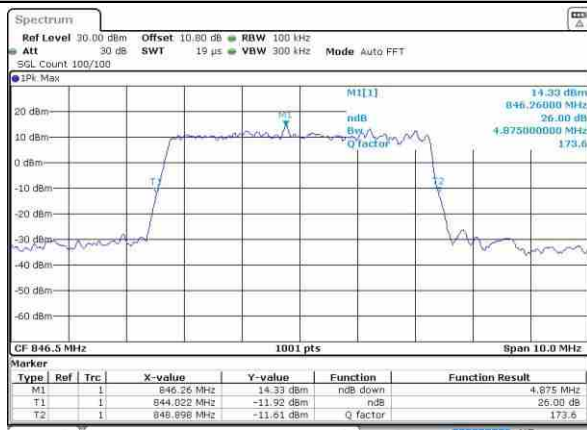
Date: 21 MAY 2019 20:31:57

Middle Channel / 10MHz / 64QAM



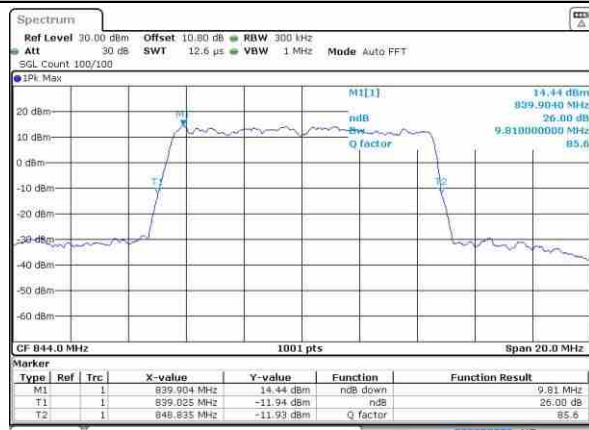
Date: 21 MAY 2019 20:42:16

Highest Channel / 5MHz / 64QAM



Date: 21 MAY 2019 20:33:09

Highest Channel / 10MHz / 64QAM



Date: 21 MAY 2019 20:43:26

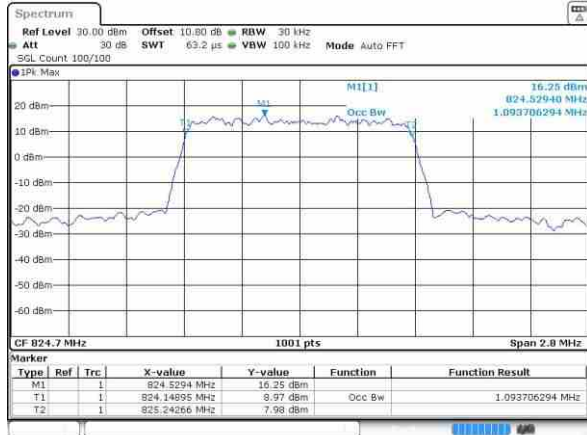
**Occupied Bandwidth**

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	2.70	2.72	4.49	4.50	9.01	9.01	-	-	-	-
Middle CH	1.09	1.09	2.71	2.70	4.49	4.51	9.07	9.01	-	-	-	-
Highest CH	1.09	1.09	2.72	2.72	4.49	4.49	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	1.08	-	2.71	-	4.48	-	9.05	-	-	-	-	-
Middle CH	1.09	-	2.72	-	4.50	-	9.03	-	-	-	-	-
Highest CH	1.08	-	2.73	-	4.50	-	9.03	-	-	-	-	-

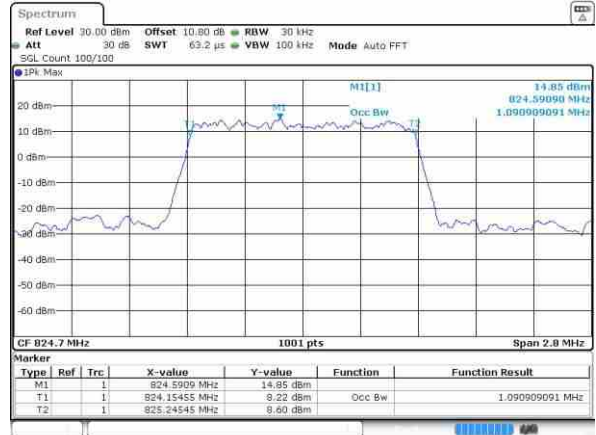


LTE Band 5

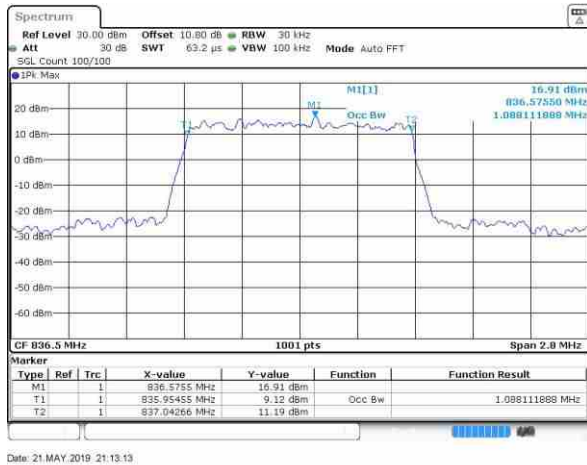
Lowest Channel / 1.4MHz / QPSK



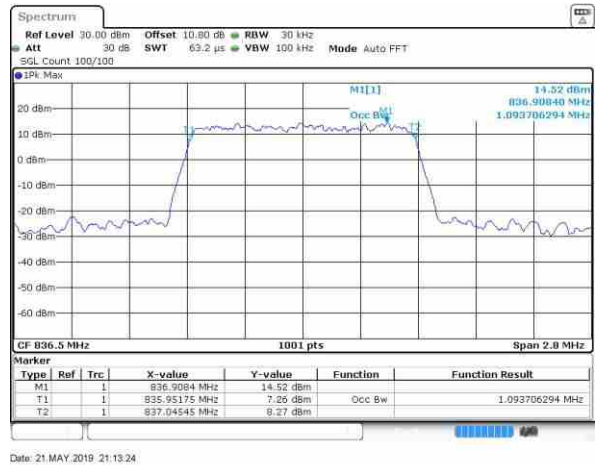
Lowest Channel / 1.4MHz / 16QAM



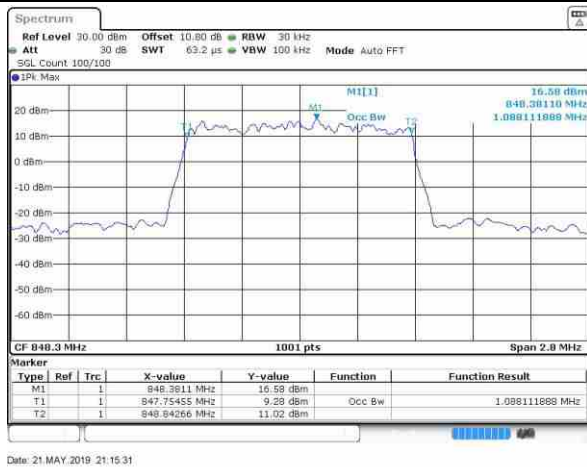
Middle Channel / 1.4MHz / QPSK



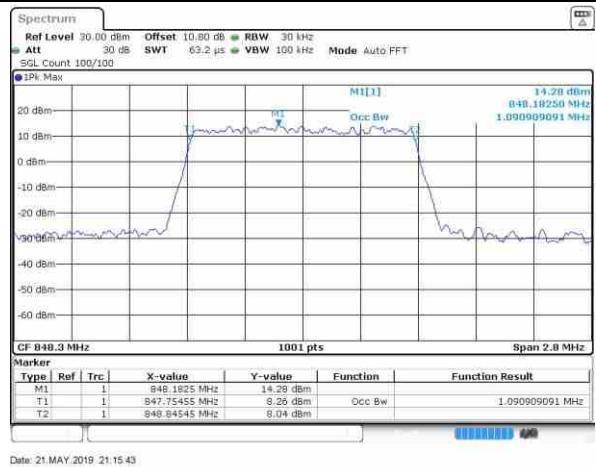
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



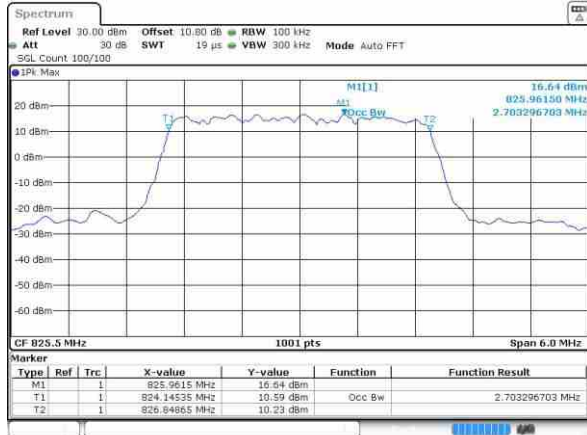
Highest Channel / 1.4MHz / 16QAM





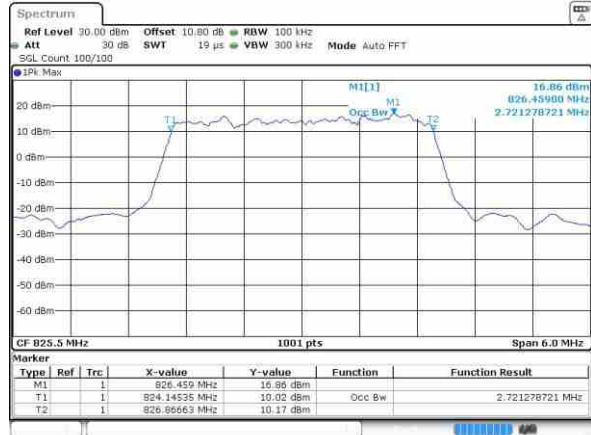
LTE Band 5

Lowest Channel / 3MHz / QPSK



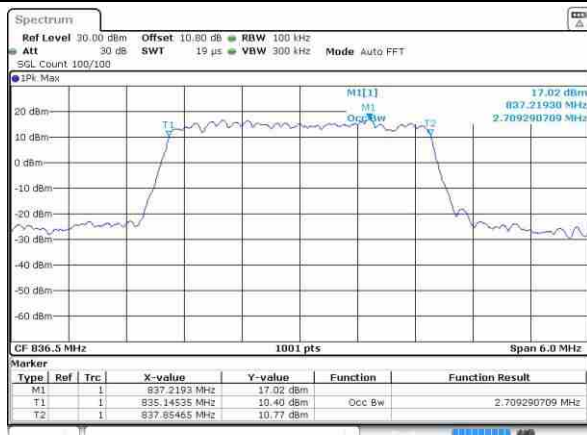
Date: 21 MAY 2019 19:15:17

Lowest Channel / 3MHz / 16QAM



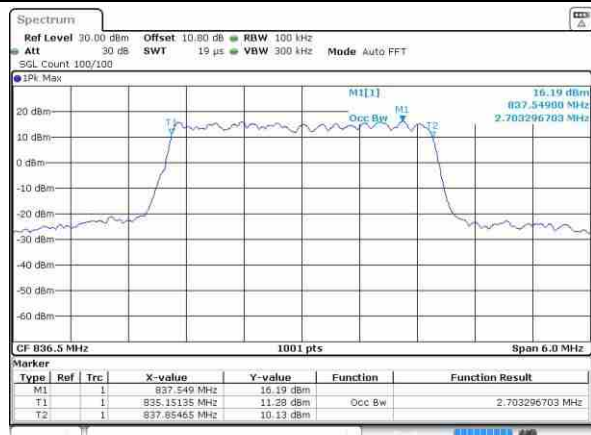
Date: 21 MAY 2019 19:15:30

Middle Channel / 3MHz / QPSK



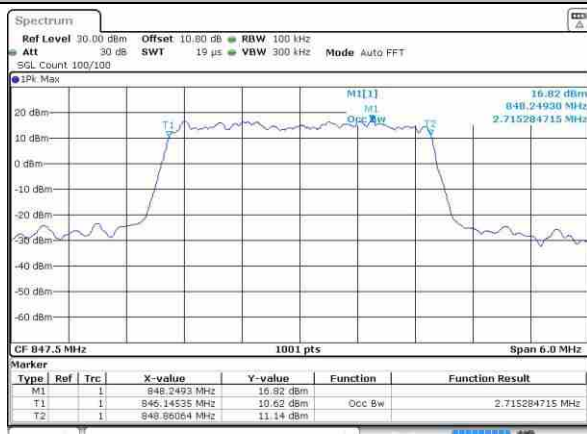
Date: 21 MAY 2019 19:24:24

Middle Channel / 3MHz / 16QAM



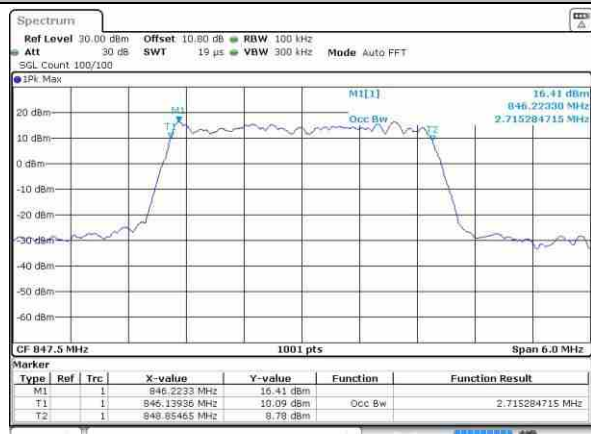
Date: 21 MAY 2019 19:24:35

Highest Channel / 3MHz / QPSK



Date: 21 MAY 2019 19:26:43

Highest Channel / 3MHz / 16QAM

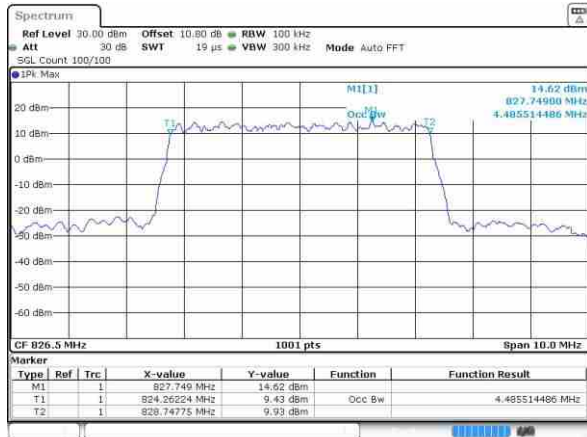


Date: 21 MAY 2019 19:26:55



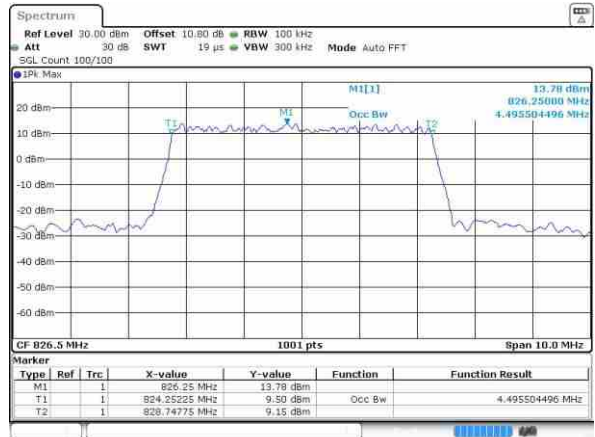
LTE Band 5

Lowest Channel / 5MHz / QPSK



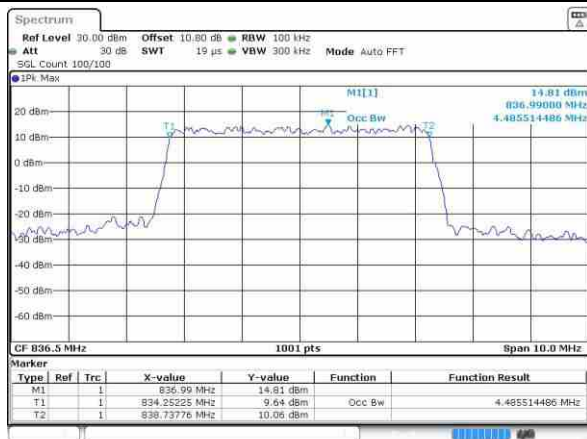
Date: 21 MAY 2019 19:35:50

Lowest Channel / 5MHz / 16QAM



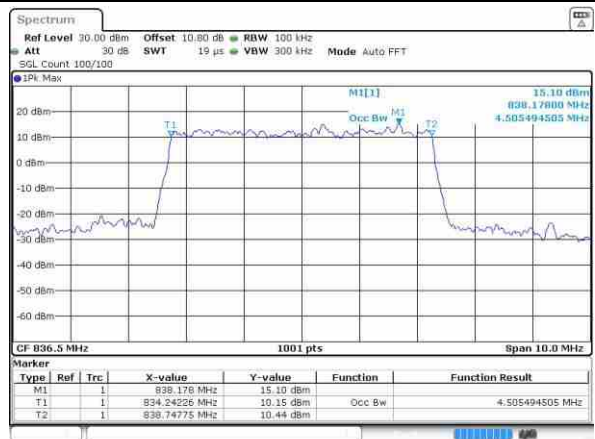
Date: 21 MAY 2019 19:36:02

Middle Channel / 5MHz / QPSK



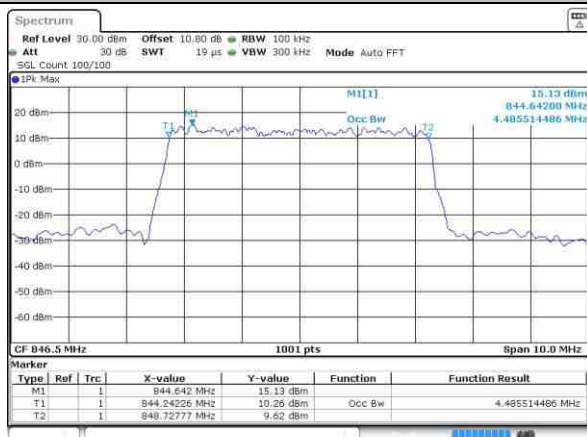
Date: 21 MAY 2019 19:44:56

Middle Channel / 5MHz / 16QAM



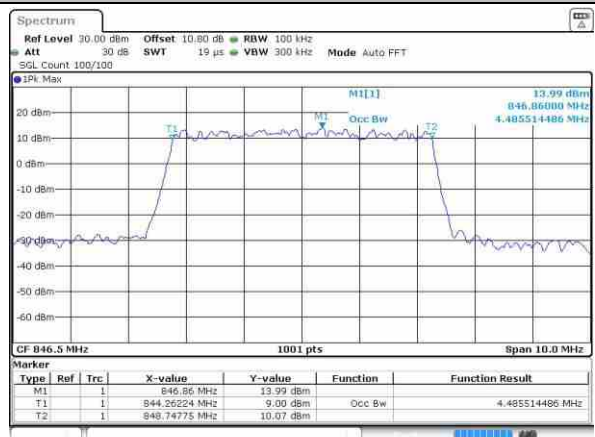
Date: 21 MAY 2019 19:45:08

Highest Channel / 5MHz / QPSK



Date: 21 MAY 2019 19:47:15

Highest Channel / 5MHz / 16QAM

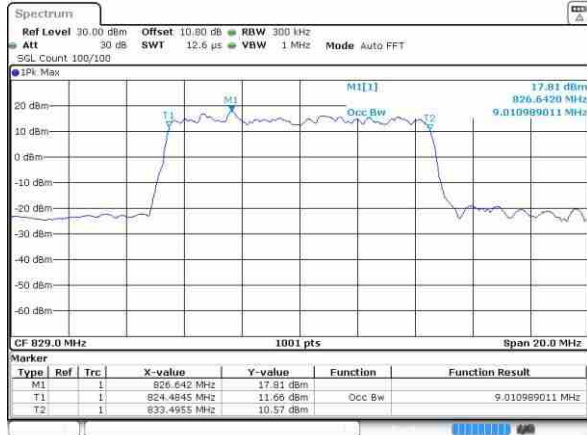


Date: 21 MAY 2019 19:47:27



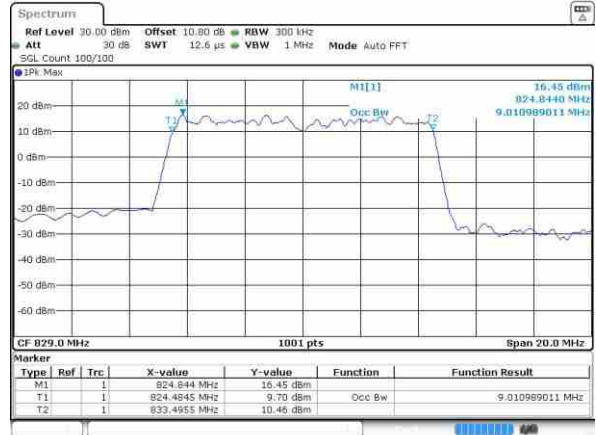
LTE Band 5

Lowest Channel / 10MHz / QPSK



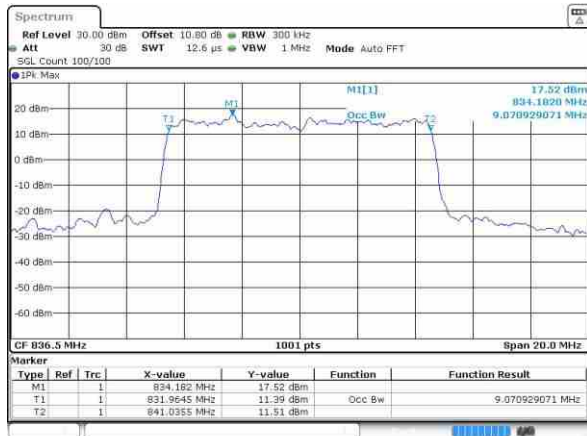
Date: 21 MAY 2019 19:56:22

Lowest Channel / 10MHz / 16QAM



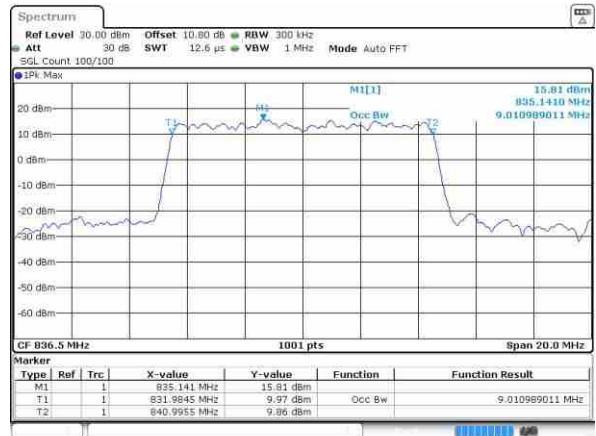
Date: 21 MAY 2019 19:56:34

Middle Channel / 10MHz / QPSK



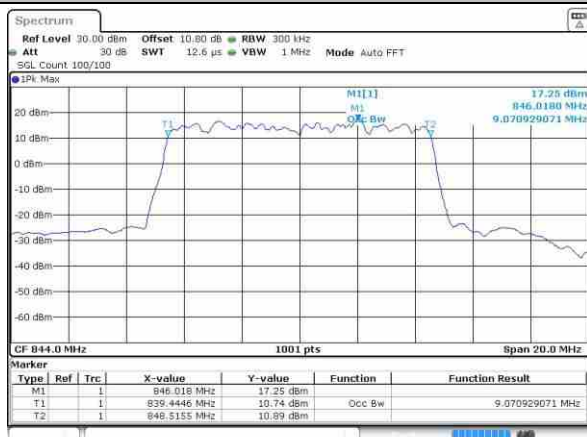
Date: 21 MAY 2019 20:05:28

Middle Channel / 10MHz / 16QAM



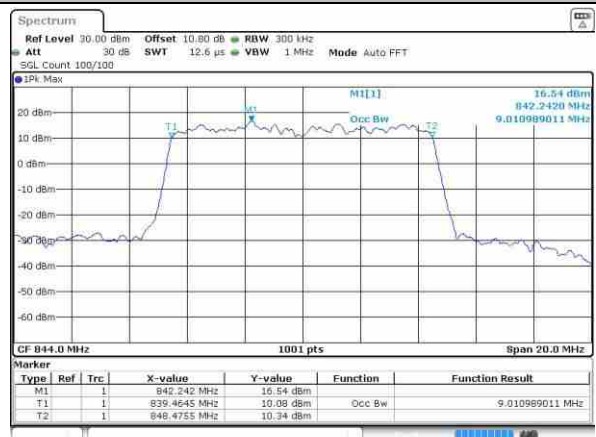
Date: 21 MAY 2019 20:05:40

Highest Channel / 10MHz / QPSK



Date: 21 MAY 2019 20:07:47

Highest Channel / 10MHz / 16QAM

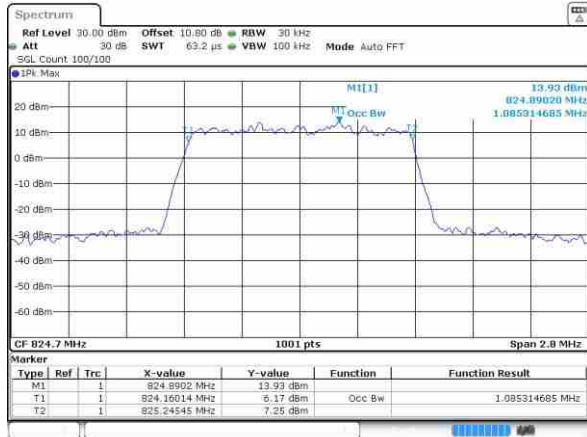


Date: 21 MAY 2019 20:08:00

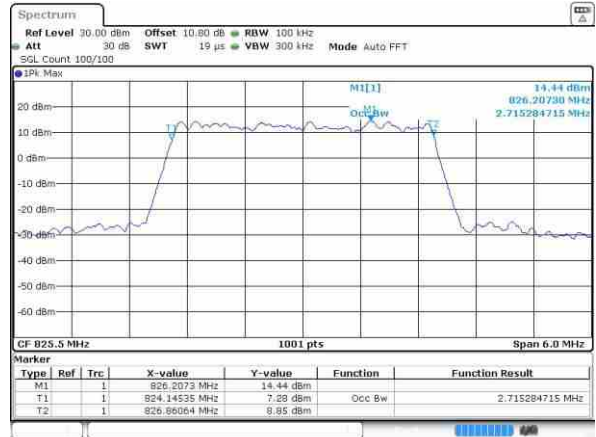


LTE Band 5

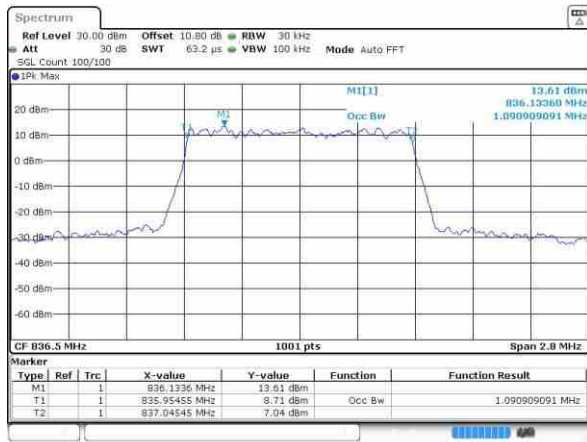
Lowest Channel / 1.4MHz / 64QAM



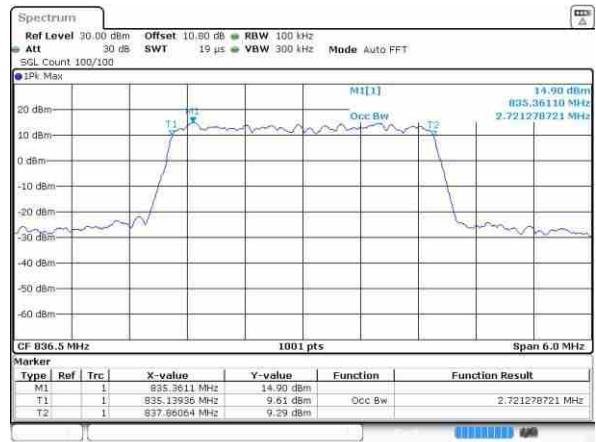
Lowest Channel / 3MHz / 64QAM



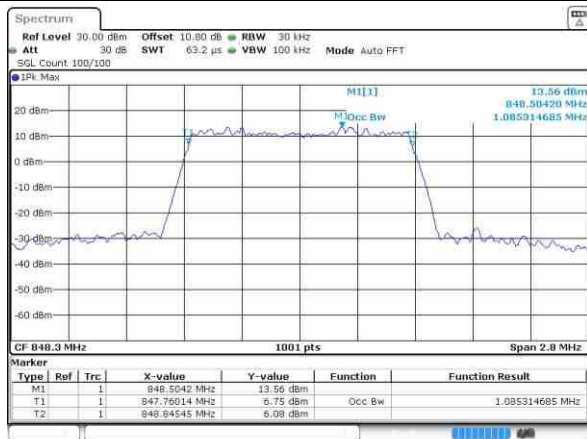
Middle Channel / 1.4MHz / 64QAM



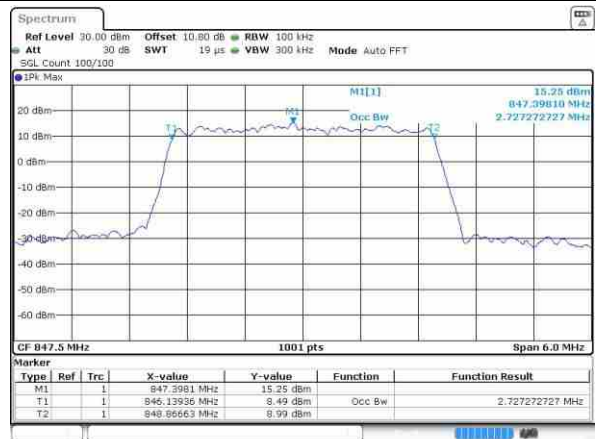
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



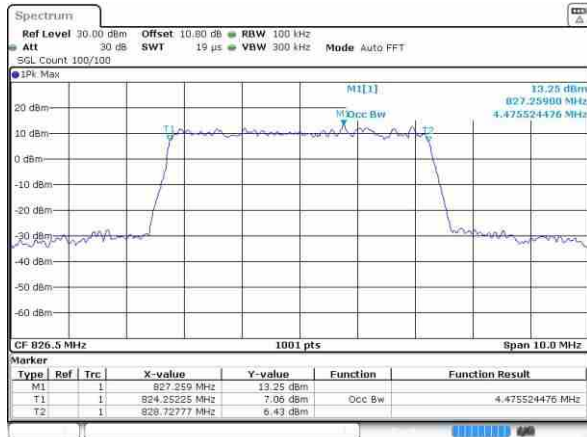
Highest Channel / 3MHz / 64QAM



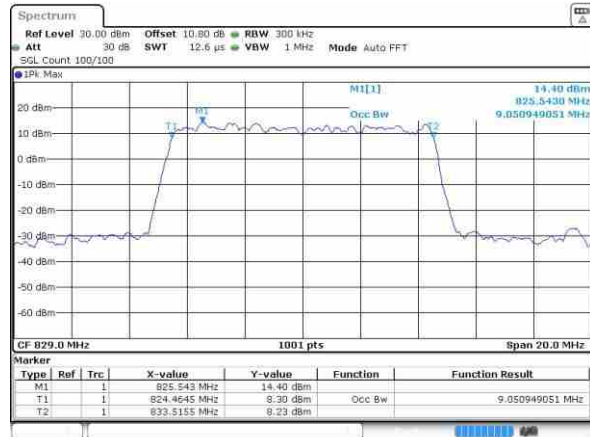


LTE Band 5

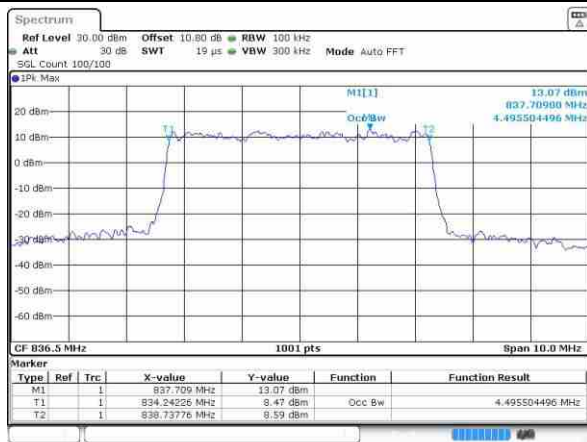
Lowest Channel / 5MHz / 64QAM



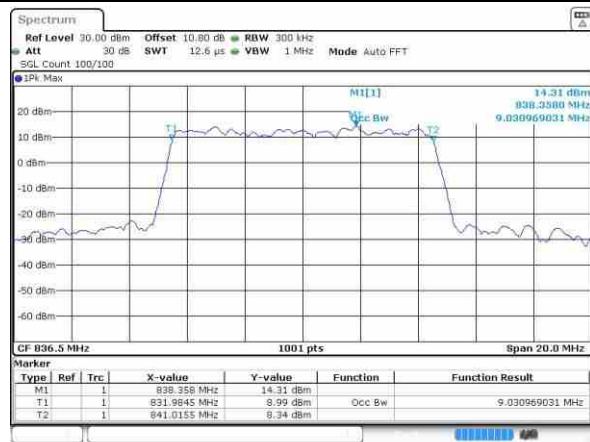
Lowest Channel / 10MHz / 64QAM



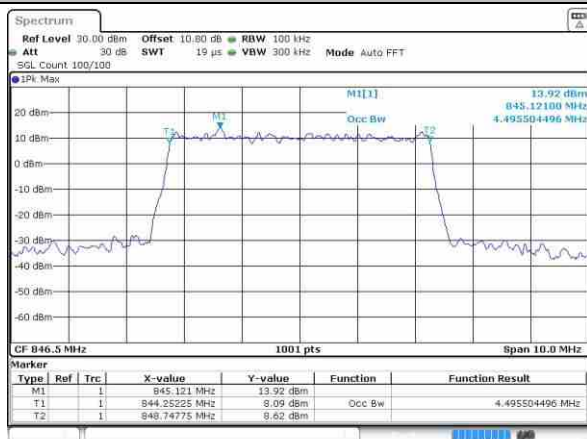
Middle Channel / 5MHz / 64QAM



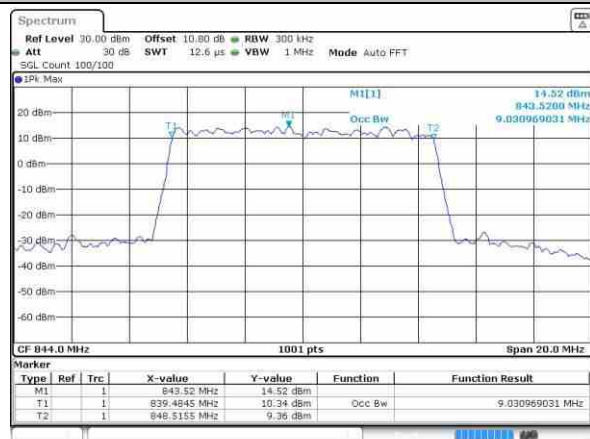
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



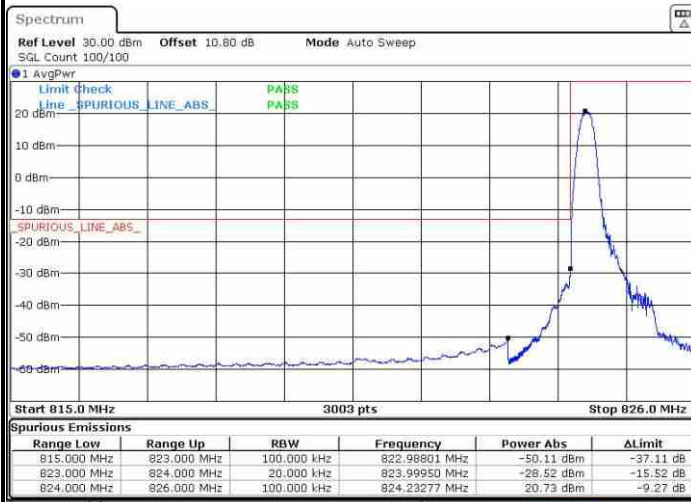


Conducted Band Edge



LTE Band 5 / 1.4MHz / QPSK

Lowest Band Edge / 1RB



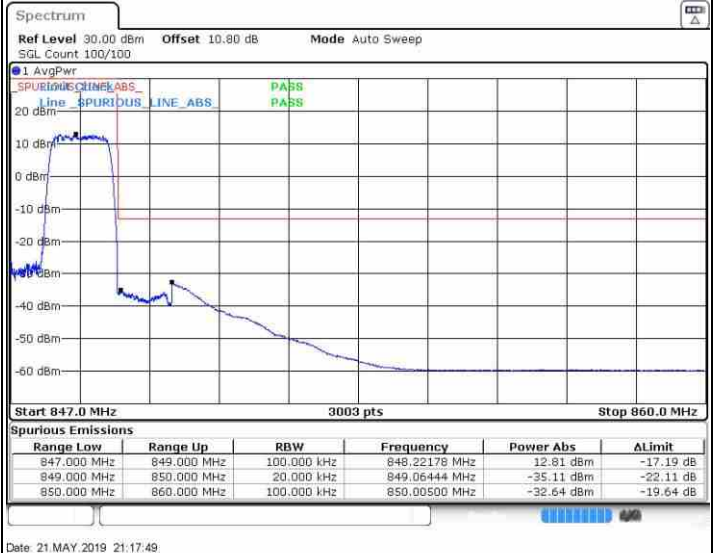
Highest Band Edge / 1RB



Lowest Band Edge / Full RB



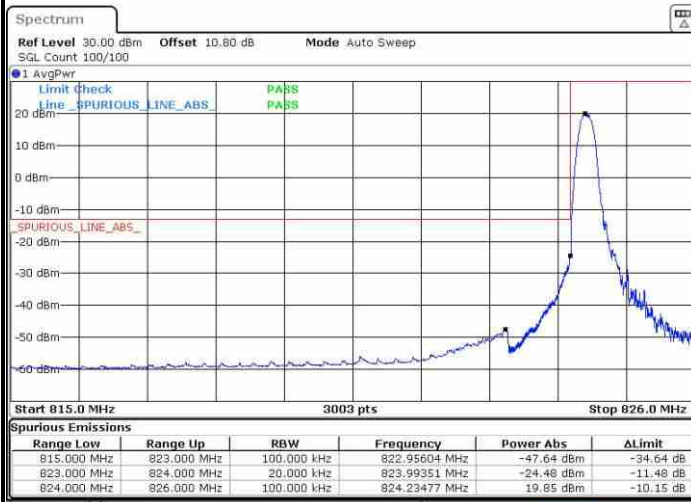
Highest Band Edge / Full RB





LTE Band 5 / 1.4MHz / 16QAM

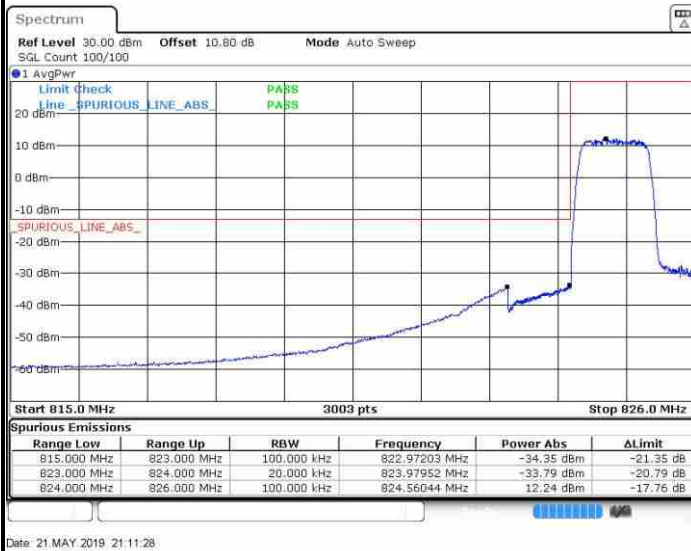
Lowest Band Edge / 1 RB



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



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



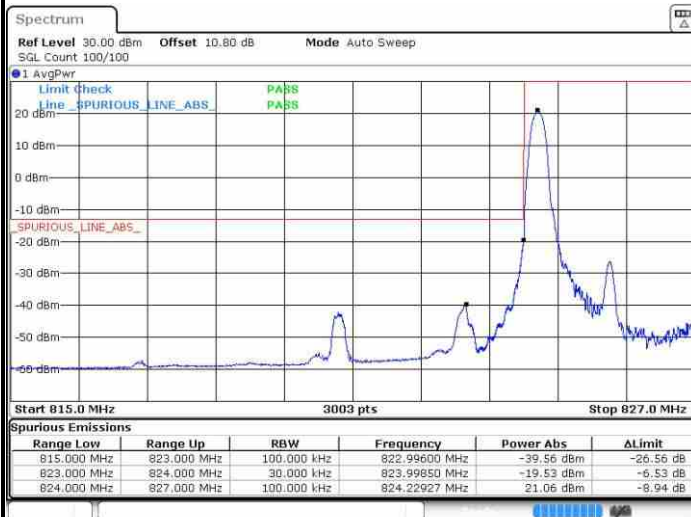
Highest Band Edge / Full RB





LTE Band 5 / 3MHz / QPSK

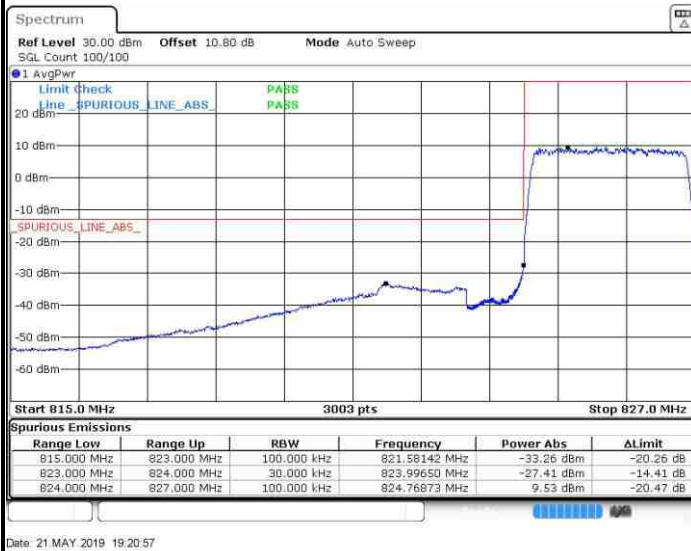
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



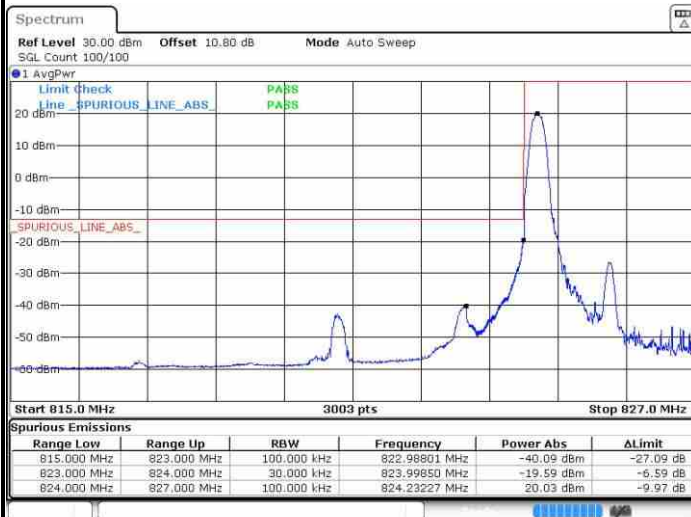
Highest Band Edge / Full RB



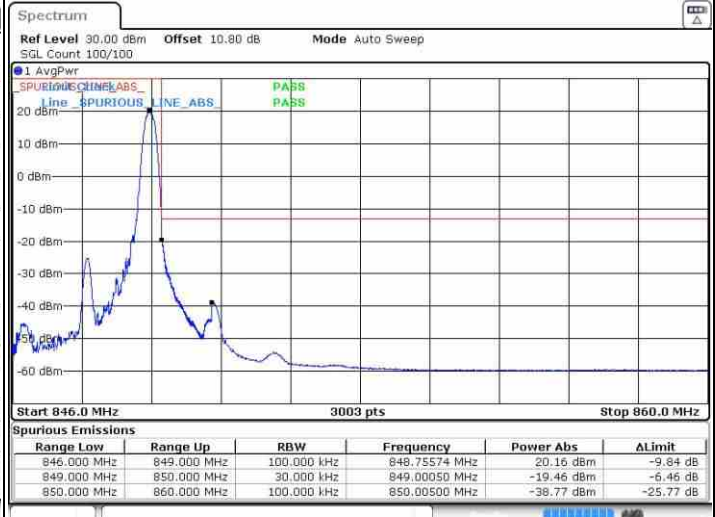


LTE Band 5 / 3MHz / 16QAM

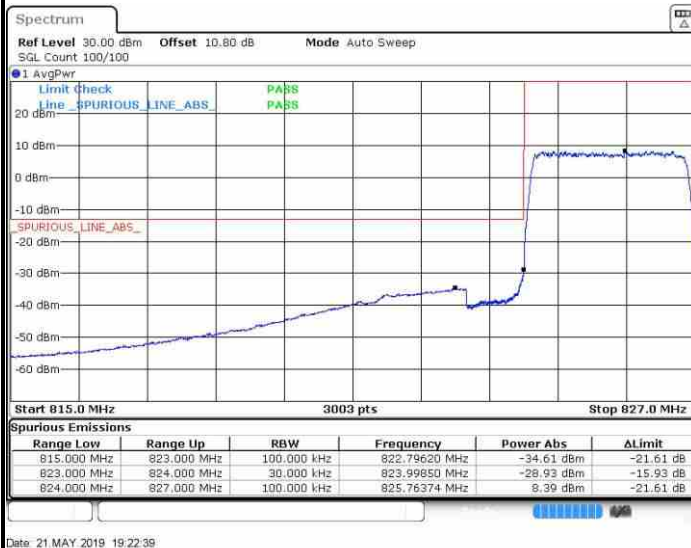
Lowest Band Edge / 1 RB



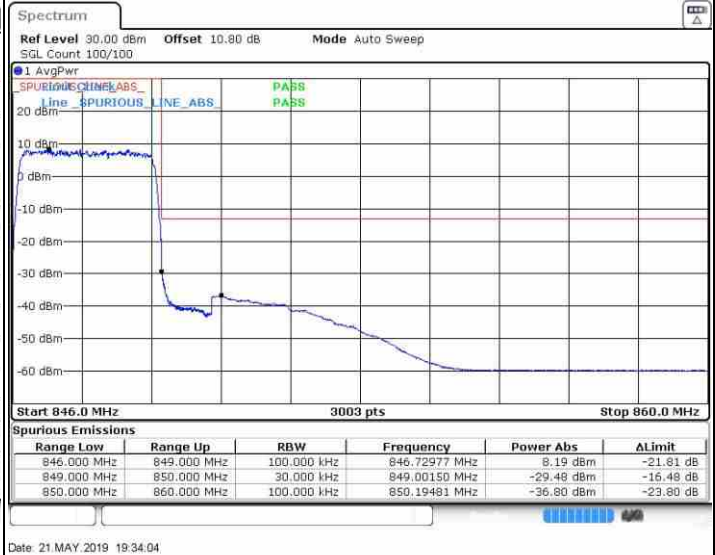
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



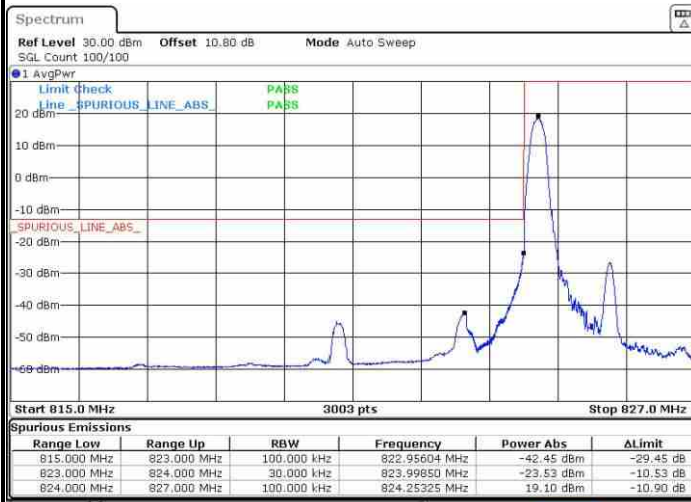
Highest Band Edge / Full RB





LTE Band 5 / 3MHz / 64QAM

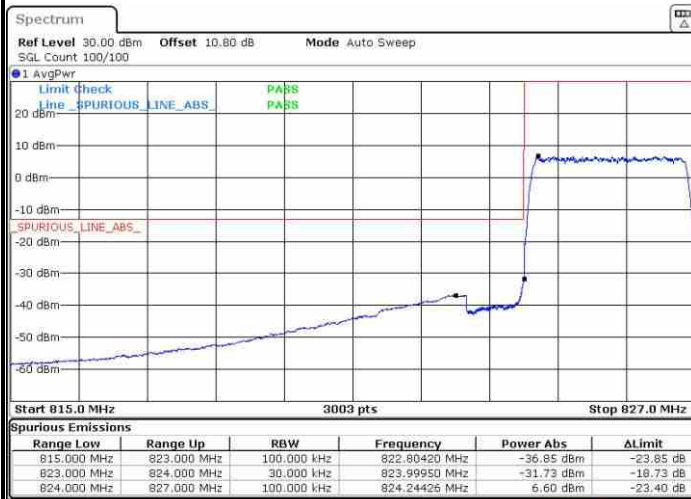
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



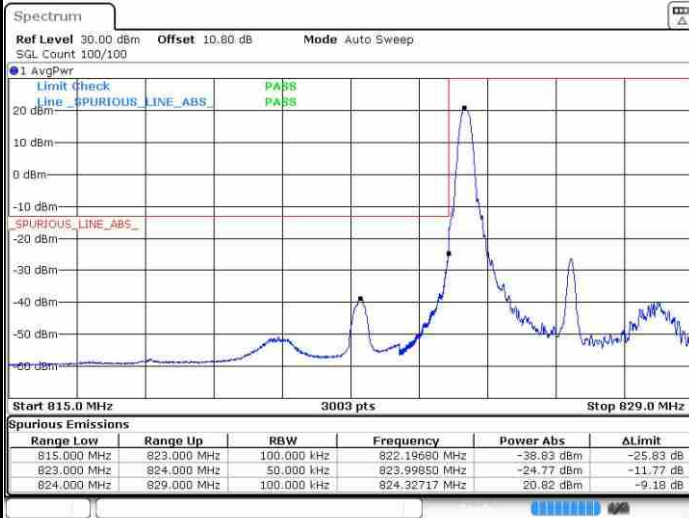
Highest Band Edge / Full RB





LTE Band 5 / 5MHz / QPSK

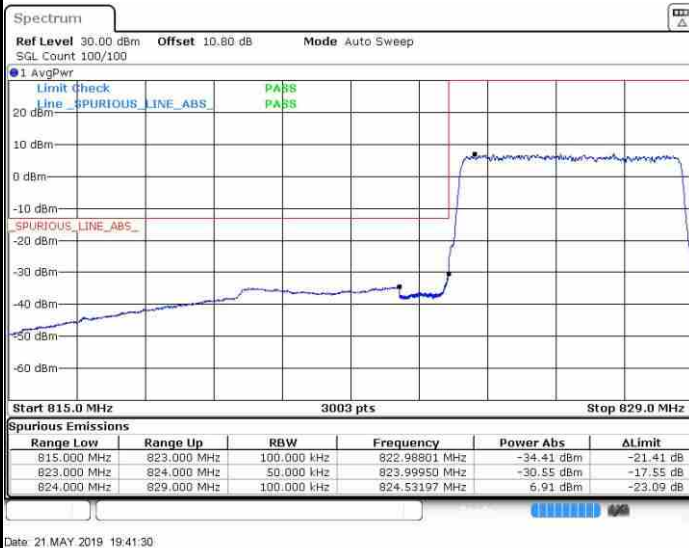
Lowest Band Edge / 1 RB



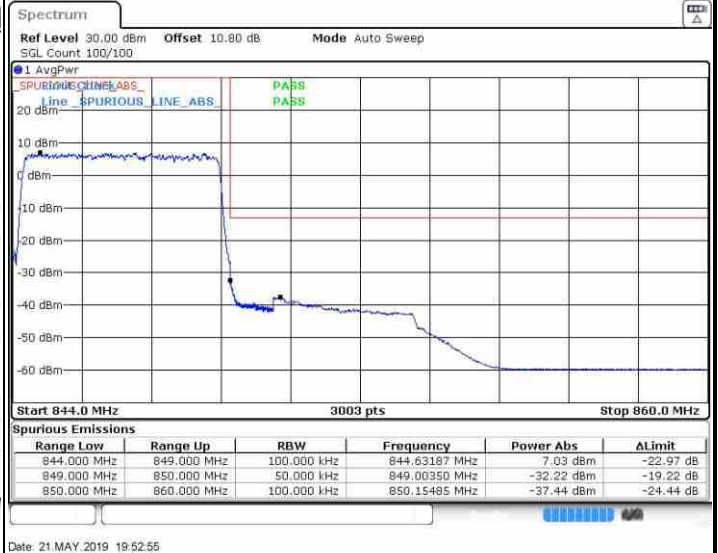
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



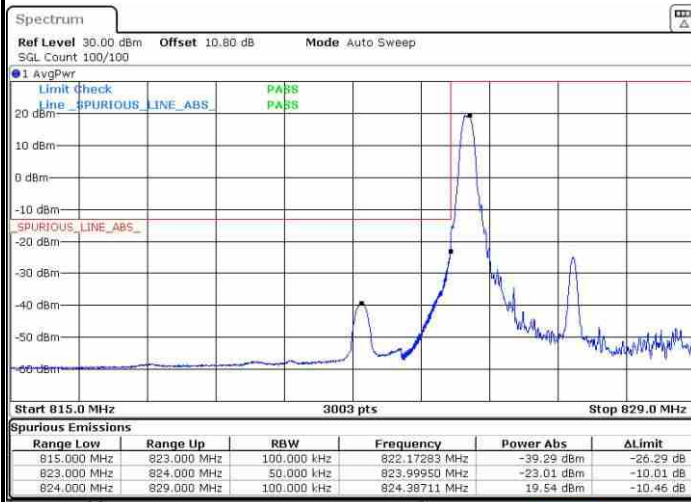
Highest Band Edge / Full RB



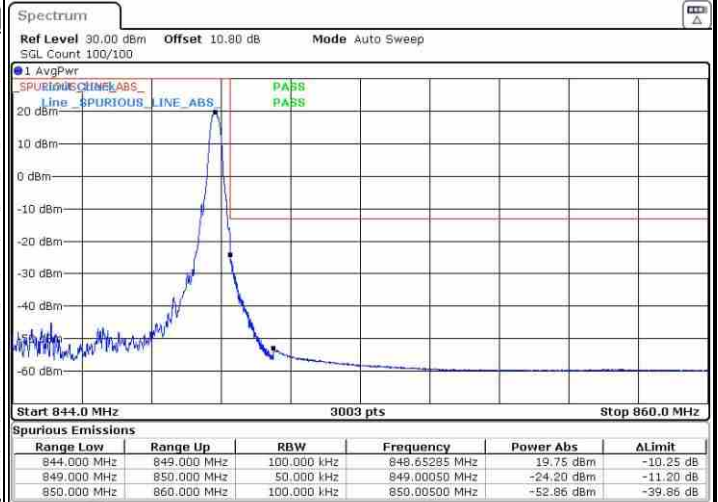


LTE Band 5 / 5MHz / 16QAM

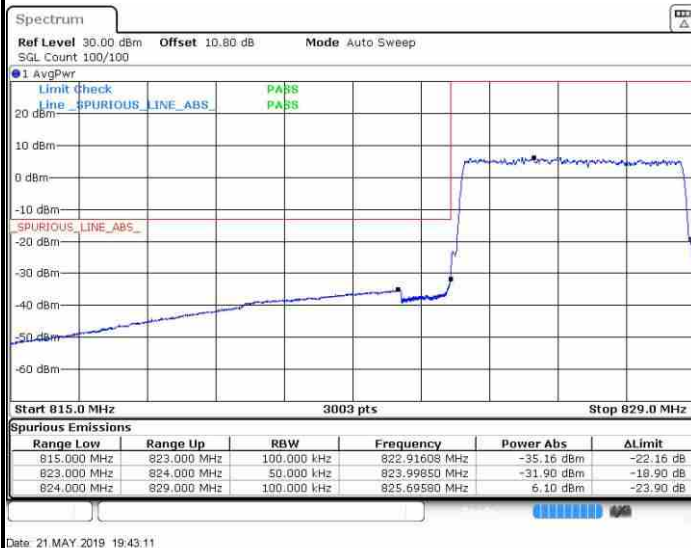
Lowest Band Edge / 1RB



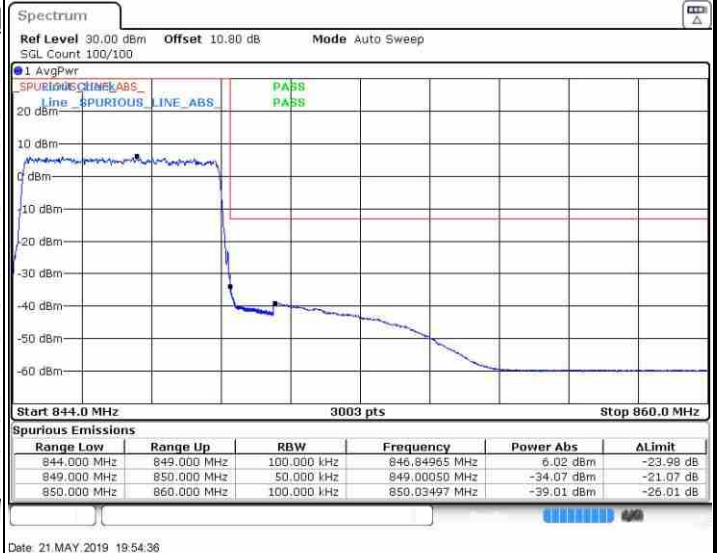
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



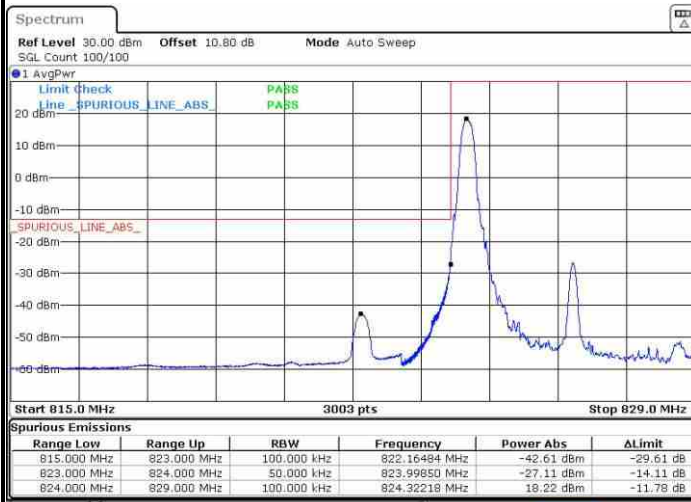
Highest Band Edge / Full RB





LTE Band 5 / 5MHz / 64QAM

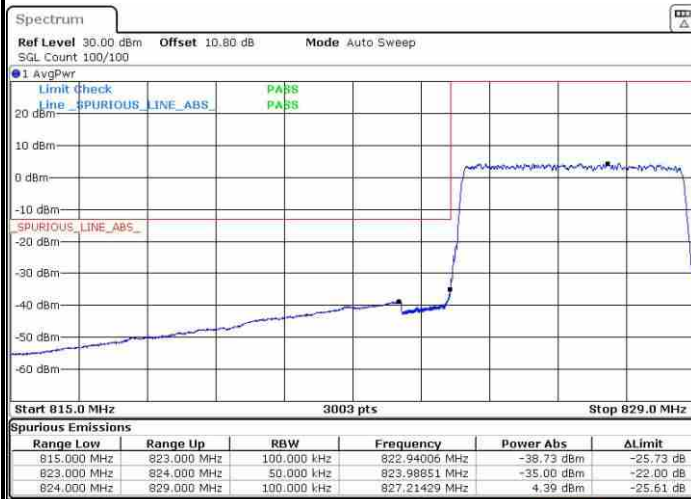
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



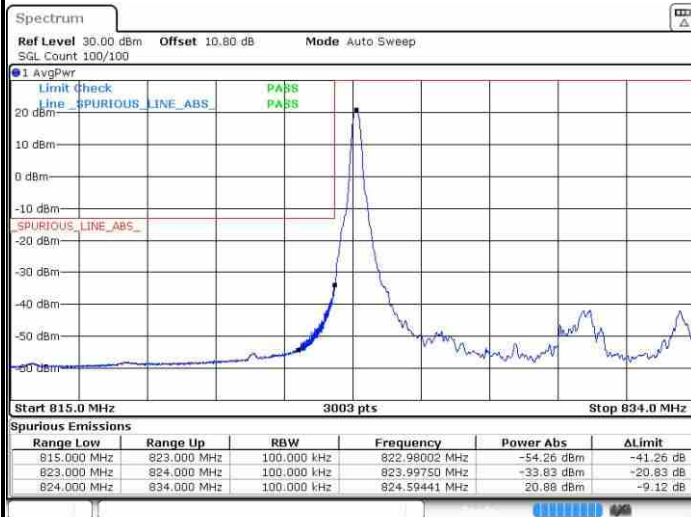
Highest Band Edge / Full RB



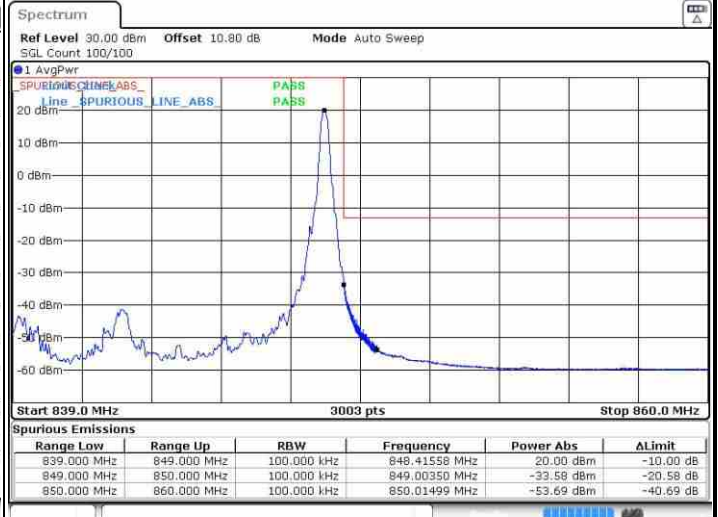


LTE Band 5 / 10MHz / QPSK

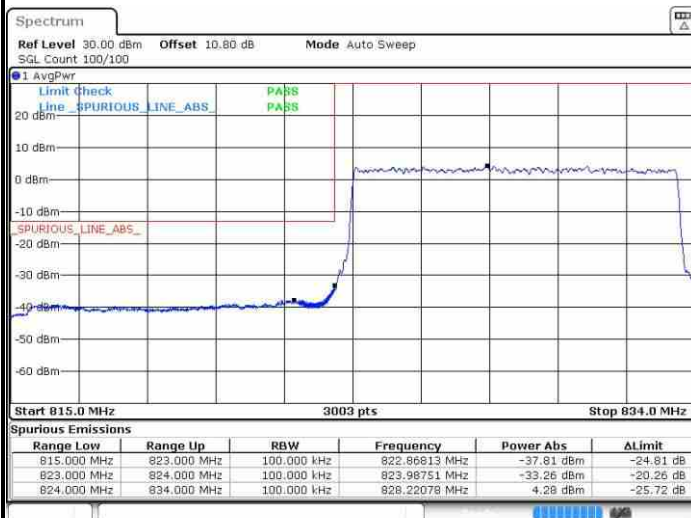
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

