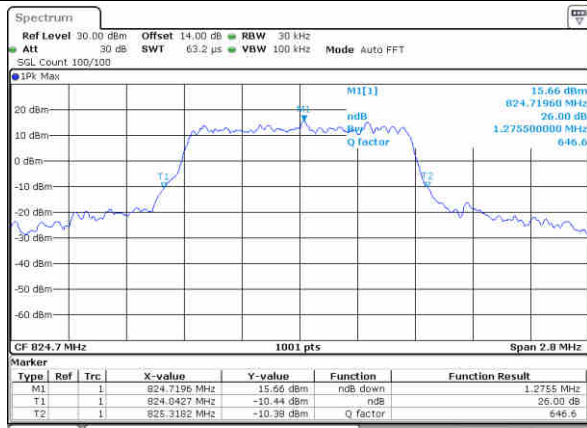




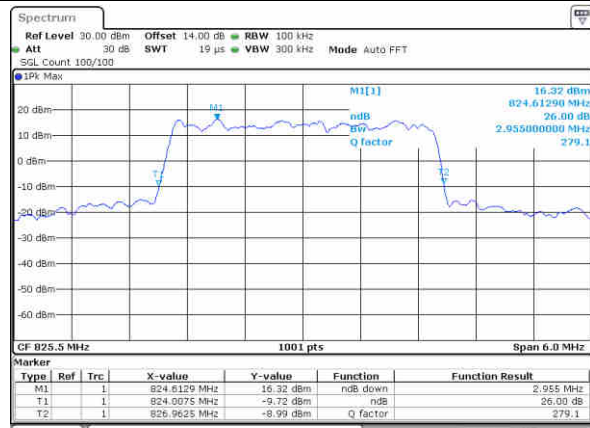
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



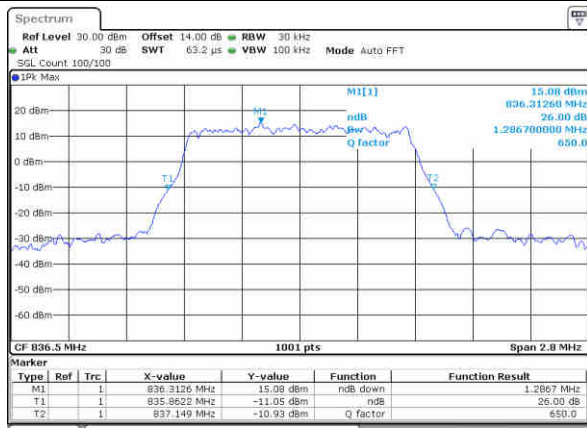
Date: 11-Jan-2020 20:35:32

Lowest Channel / 3MHz / 64QAM



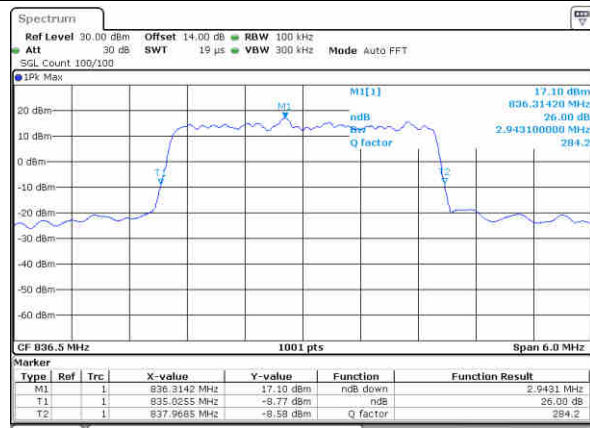
Date: 11-Jan-2020 20:05:56

Middle Channel / 1.4MHz / 64QAM



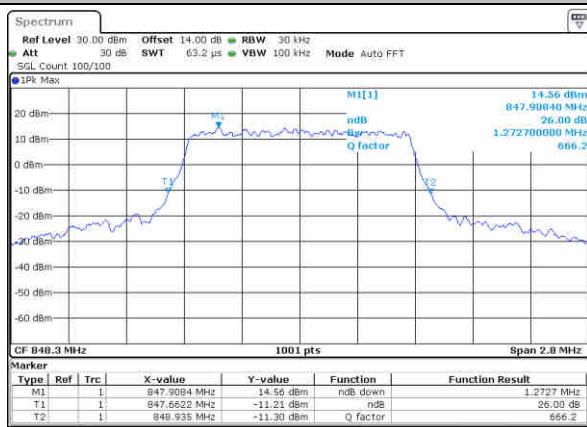
Date: 11-Jan-2020 20:35:56

Middle Channel / 3MHz / 64QAM



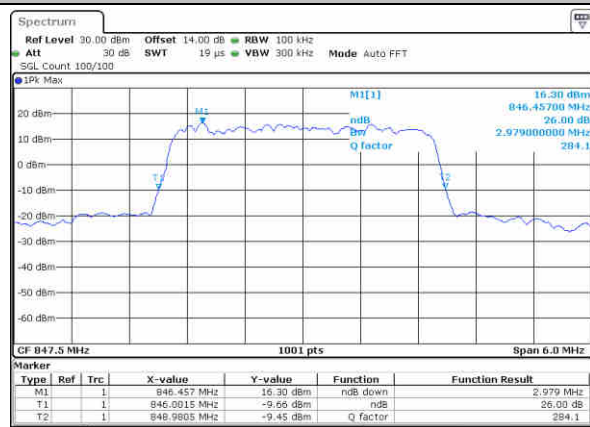
Date: 11-Jan-2020 20:10:21

Highest Channel / 1.4MHz / 64QAM



Date: 11-Jan-2020 20:41:00

Highest Channel / 3MHz / 64QAM

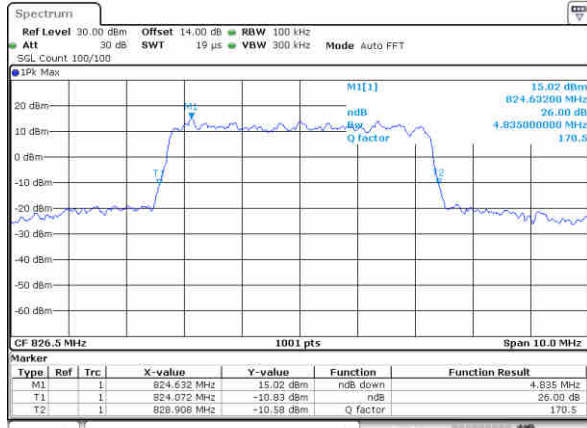


Date: 11-Jan-2020 20:11:25

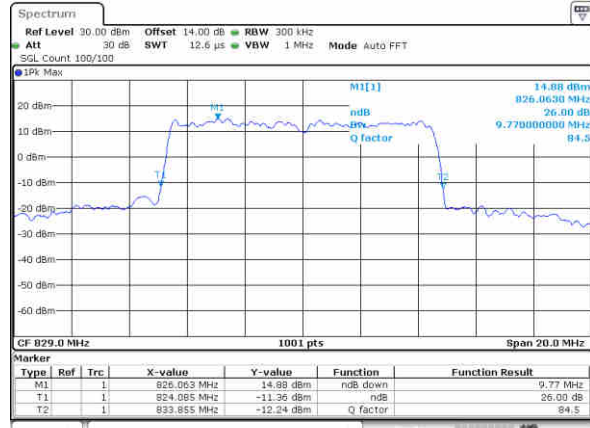


LTE Band 5

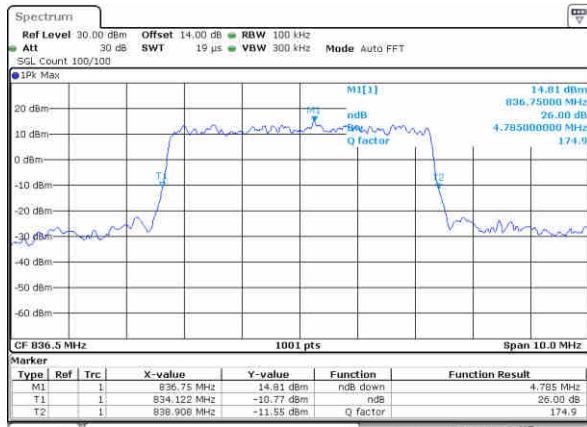
Lowest Channel / 5MHz / 64QAM



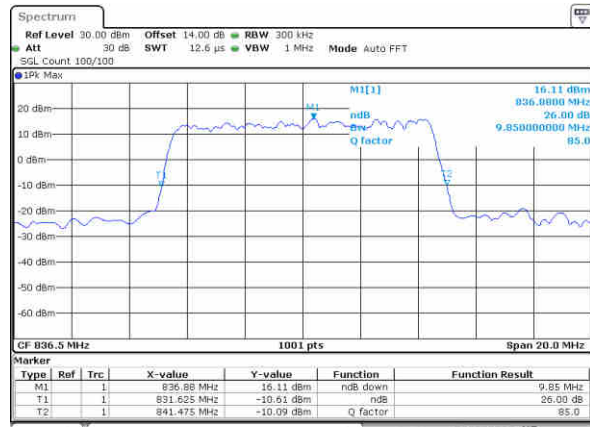
Lowest Channel / 10MHz / 64QAM



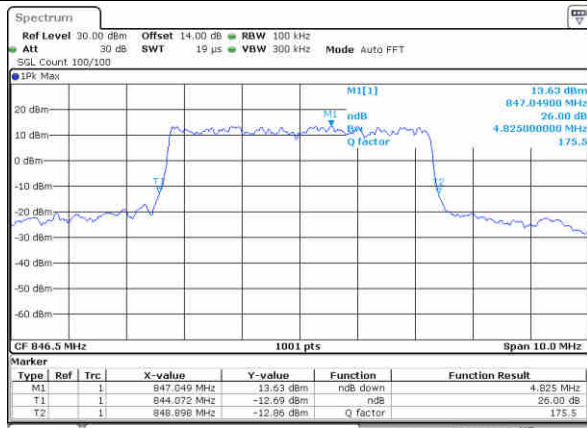
Middle Channel / 5MHz / 64QAM



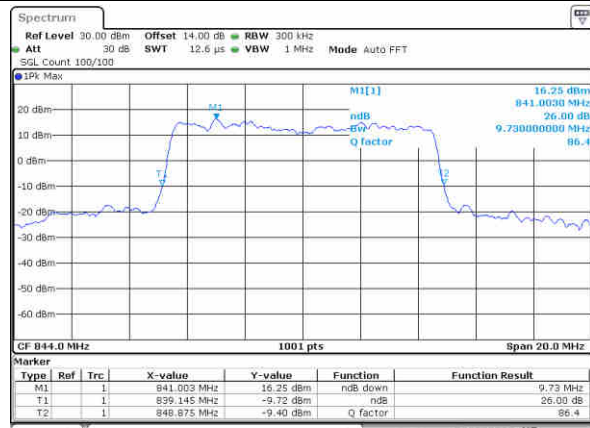
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



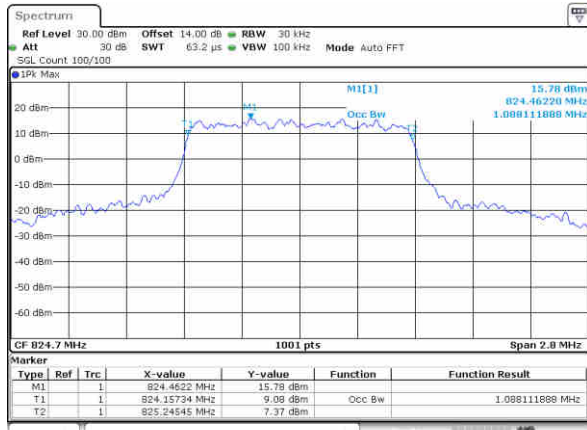
**Occupied Bandwidth**

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	2.71	2.70	4.48	4.48	9.05	9.11	-	-	-	-
Middle CH	1.09	1.11	2.72	2.70	4.48	4.47	9.05	9.03	-	-	-	-
Highest CH	1.10	1.08	2.71	2.69	4.48	4.50	9.05	9.03	-	-	-	-
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	-	2.71	-	4.48	-	9.03	-	-	-	-	-
Middle CH	1.09	-	2.71	-	4.48	-	8.99	-	-	-	-	-
Highest CH	1.09	-	2.72	-	4.50	-	9.05	-	-	-	-	-

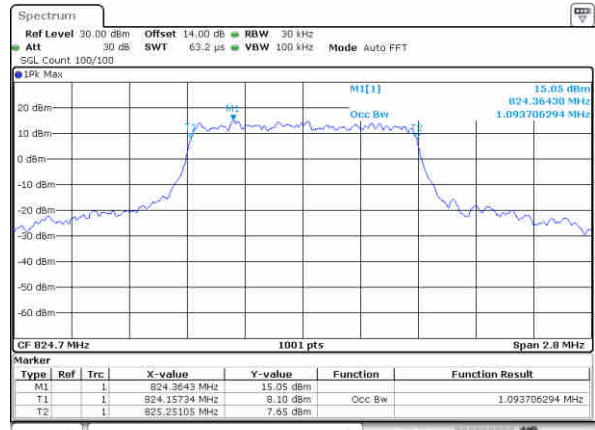


LTE Band 5

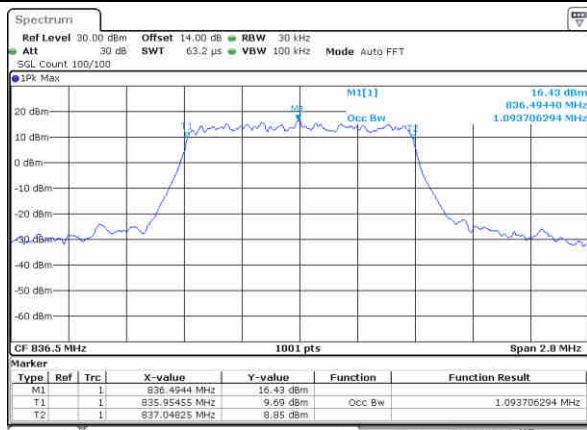
Lowest Channel / 1.4MHz / QPSK



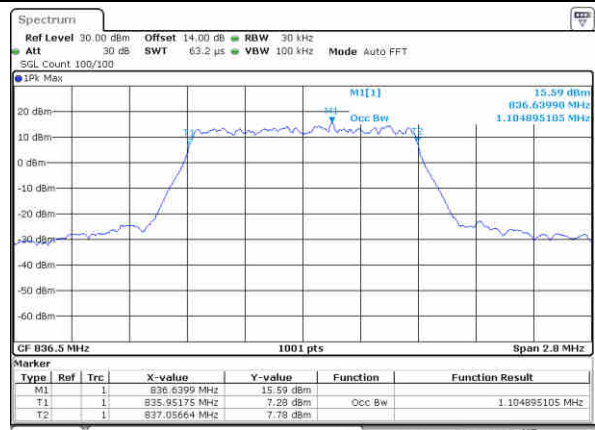
Lowest Channel / 1.4MHz / 16QAM



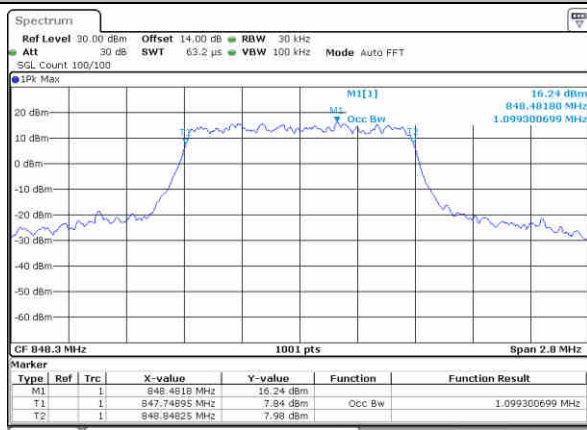
Middle Channel / 1.4MHz / QPSK



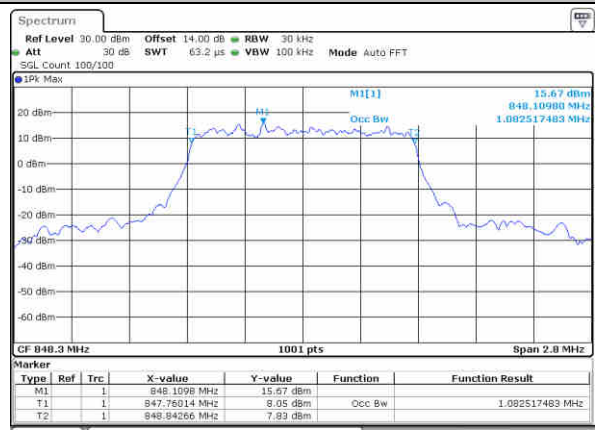
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



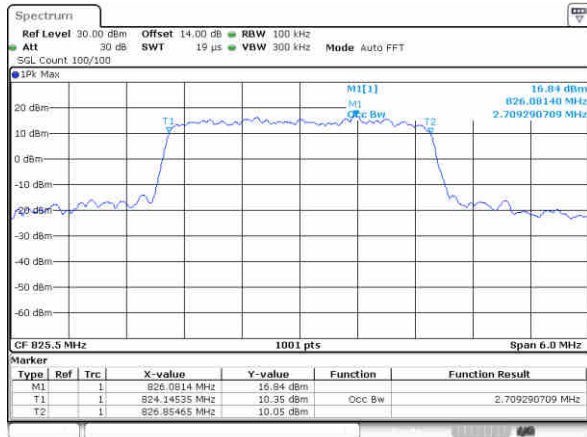
Highest Channel / 1.4MHz / 16QAM



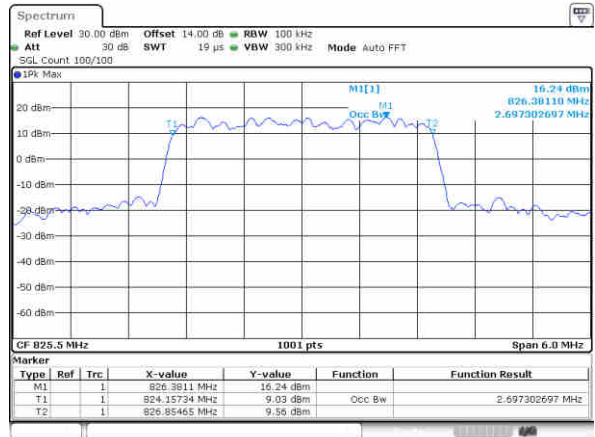


LTE Band 5

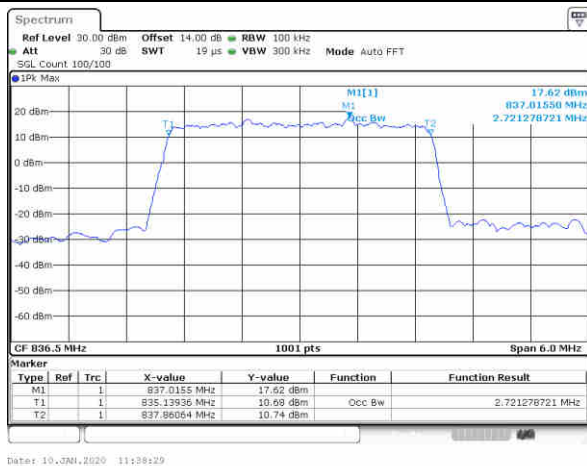
Lowest Channel / 3MHz / QPSK



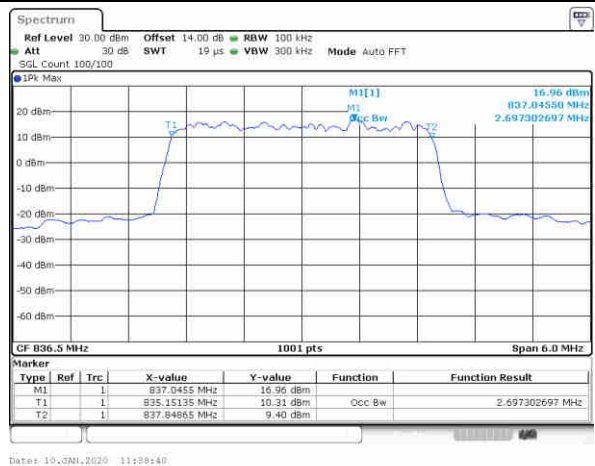
Lowest Channel / 3MHz / 16QAM



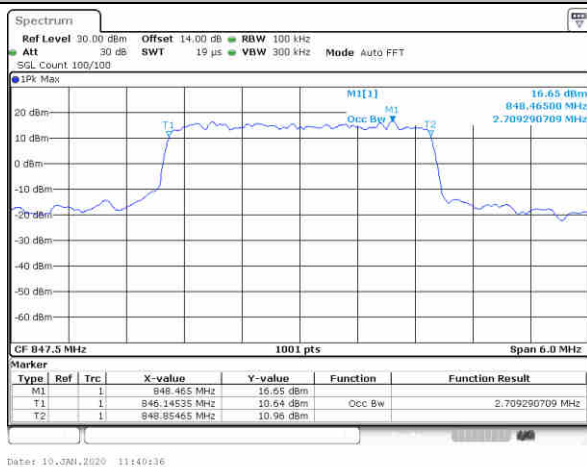
Middle Channel / 3MHz / QPSK



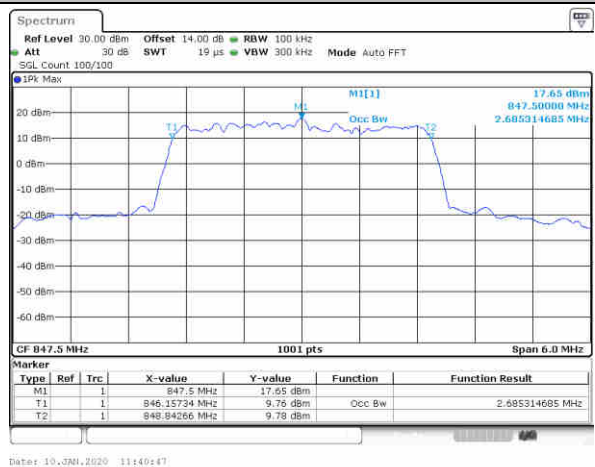
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



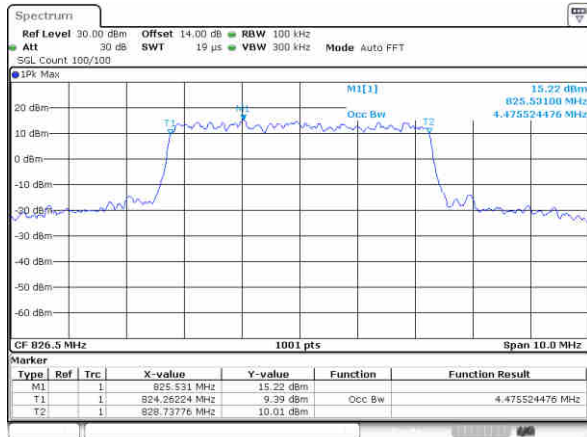
Highest Channel / 3MHz / 16QAM



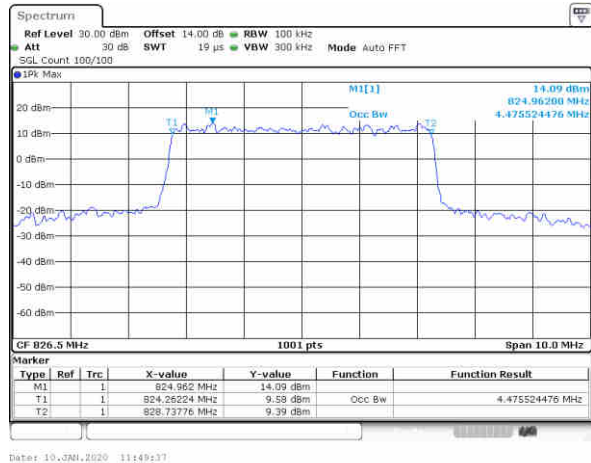


LTE Band 5

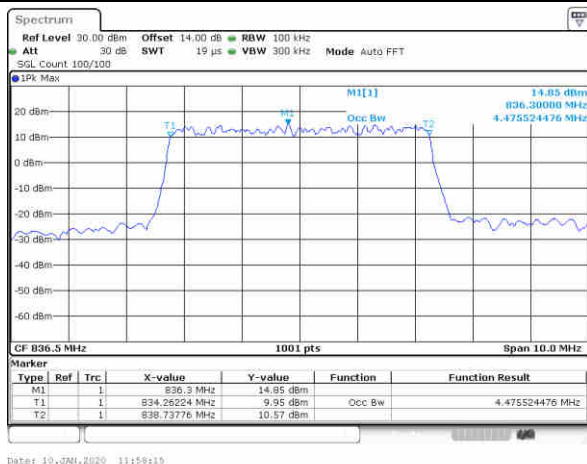
Lowest Channel / 5MHz / QPSK



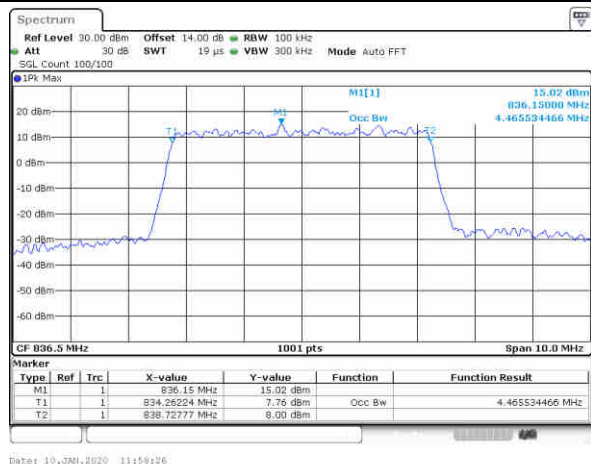
Lowest Channel / 5MHz / 16QAM



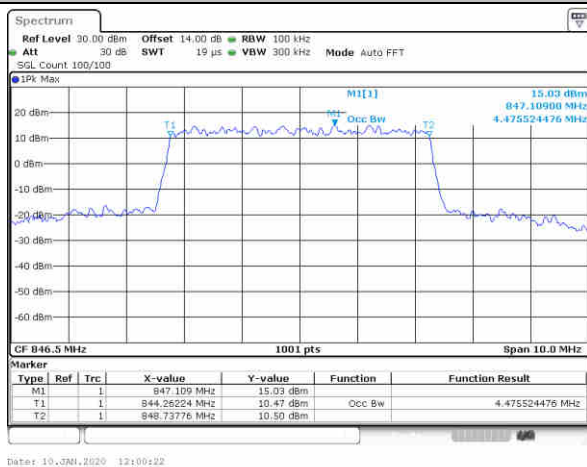
Middle Channel / 5MHz / QPSK



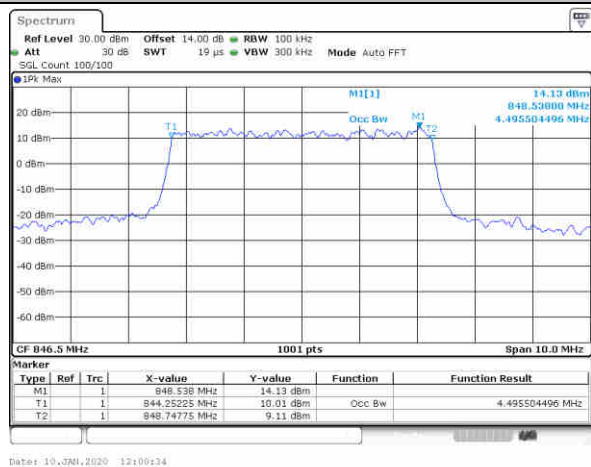
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



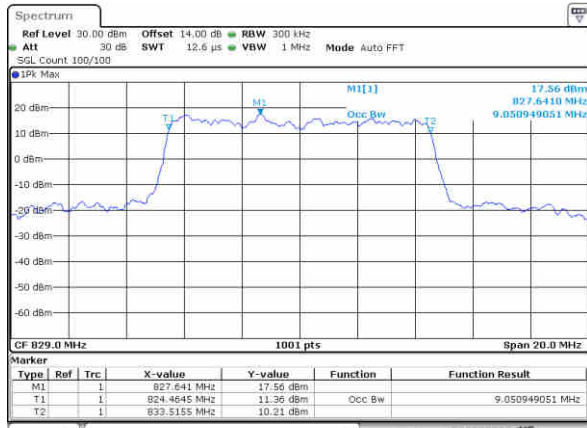
Highest Channel / 5MHz / 16QAM





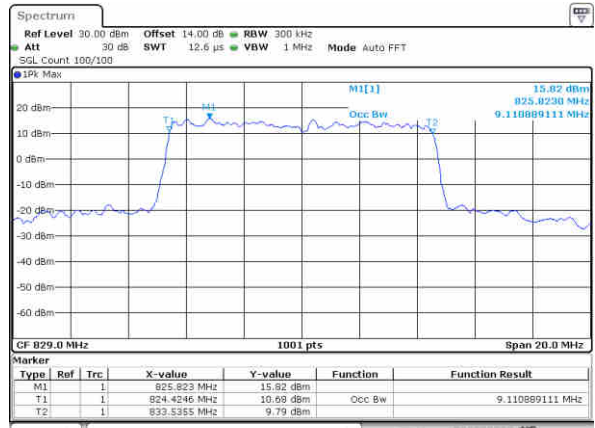
LTE Band 5

Lowest Channel / 10MHz / QPSK



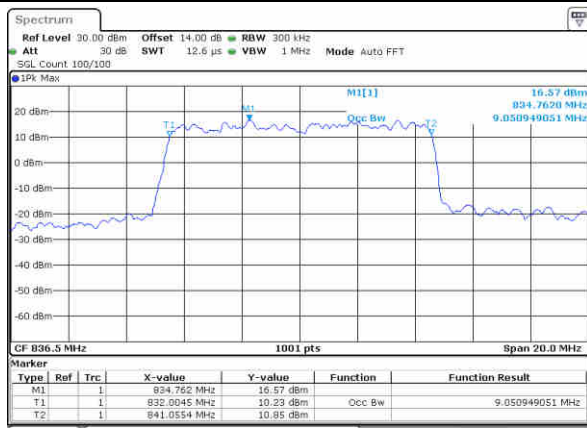
Date: 10_JAN, 2020 12:09:11

Lowest Channel / 10MHz / 16QAM



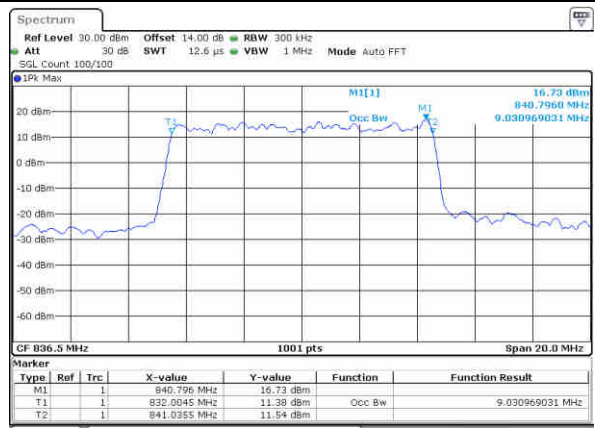
Date: 10_JAN, 2020 12:09:22

Middle Channel / 10MHz / QPSK



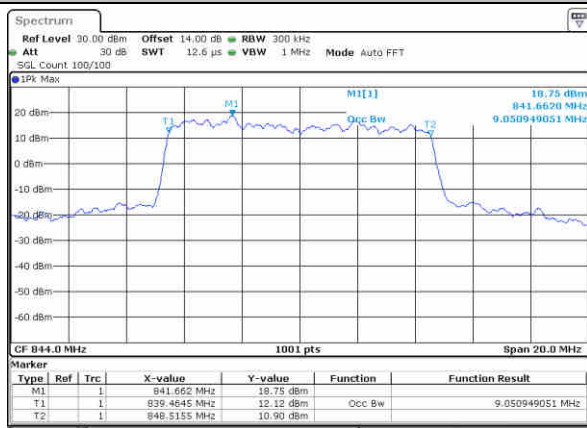
Date: 10_JAN, 2020 12:18:00

Middle Channel / 10MHz / 16QAM



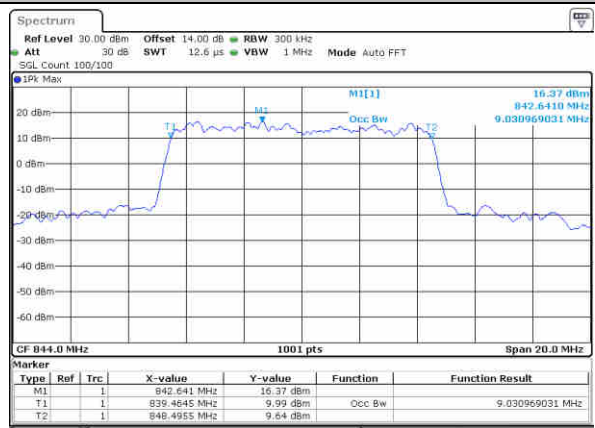
Date: 10_JAN, 2020 12:18:11

Highest Channel / 10MHz / QPSK



Date: 10_JAN, 2020 12:28:08

Highest Channel / 10MHz / 16QAM

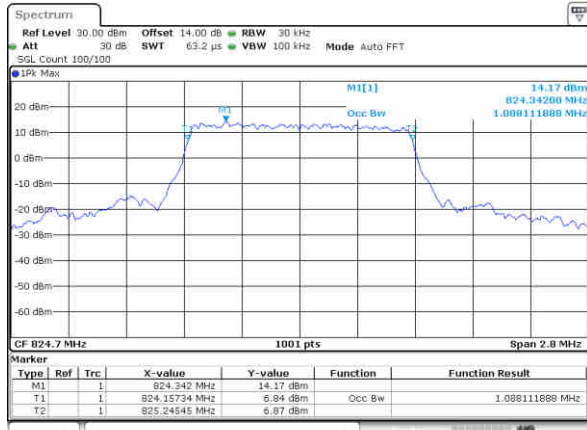


Date: 10_JAN, 2020 12:28:19



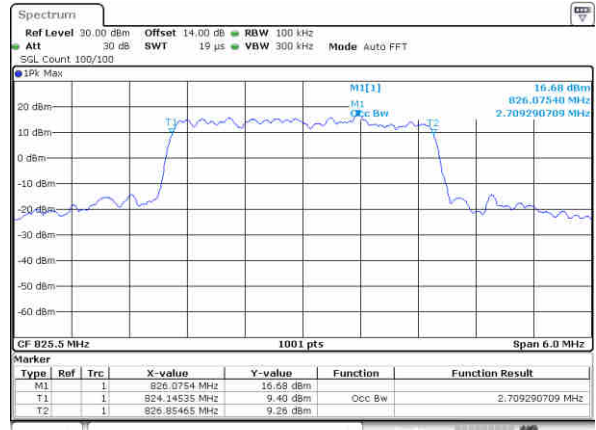
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



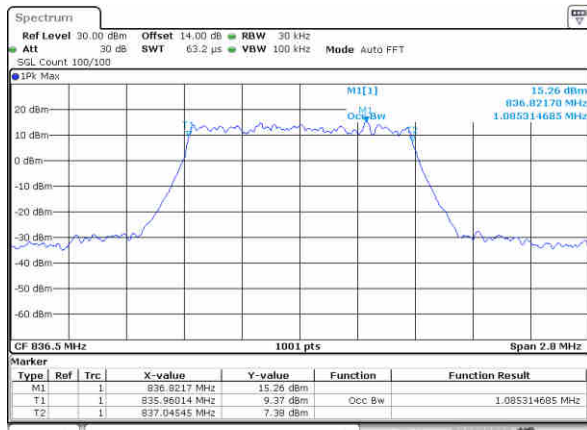
Date: 11-Jan-2020 20:35:21

Lowest Channel / 3MHz / 64QAM



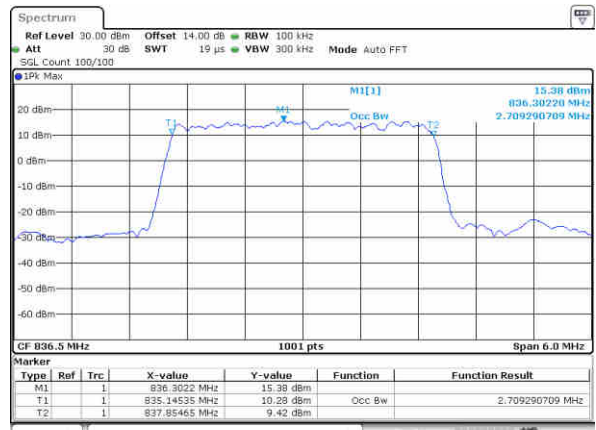
Date: 11-Jan-2020 20:10:45

Middle Channel / 1.4MHz / 64QAM



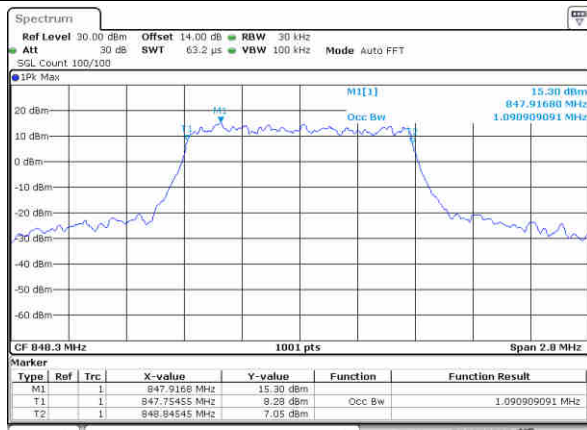
Date: 11-Jan-2020 20:39:45

Middle Channel / 3MHz / 64QAM



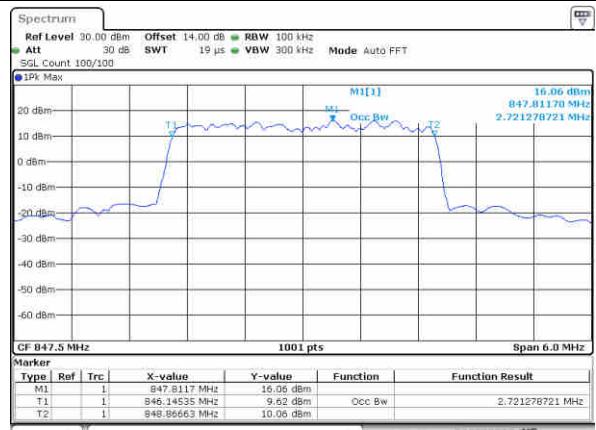
Date: 11-Jan-2020 20:10:10

Highest Channel / 1.4MHz / 64QAM



Date: 11-Jan-2020 20:40:49

Highest Channel / 3MHz / 64QAM

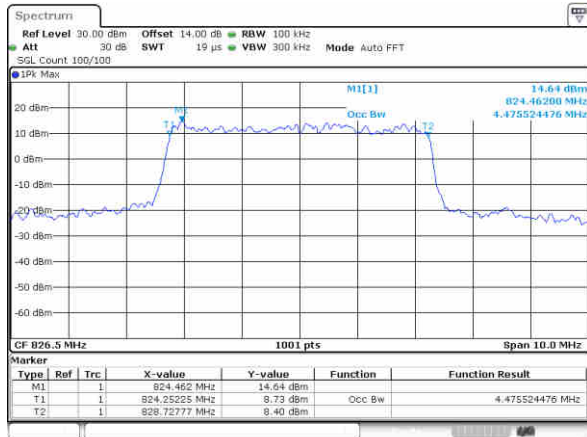


Date: 11-Jan-2020 20:11:14

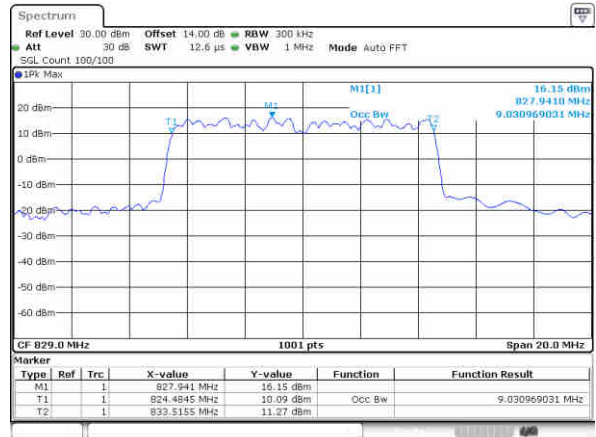


LTE Band 5

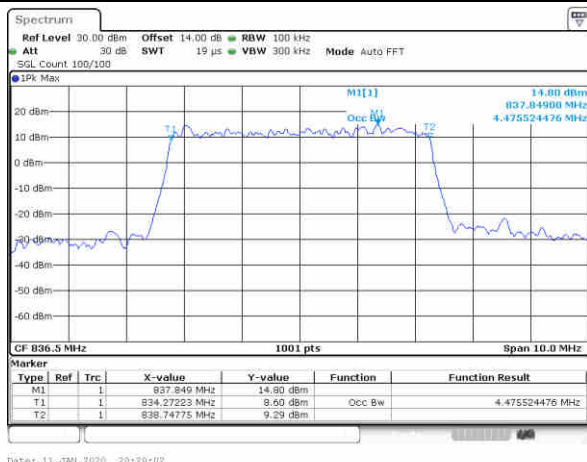
Lowest Channel / 5MHz / 64QAM



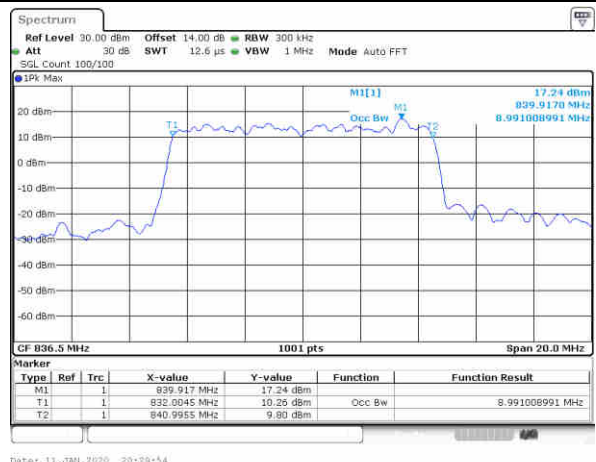
Lowest Channel / 10MHz / 64QAM



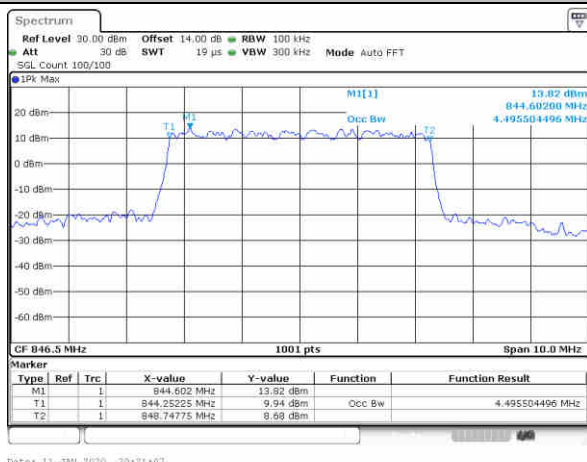
Middle Channel / 5MHz / 64QAM



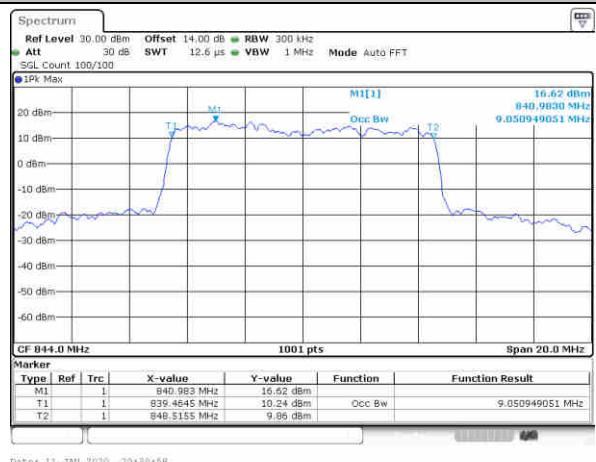
Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM



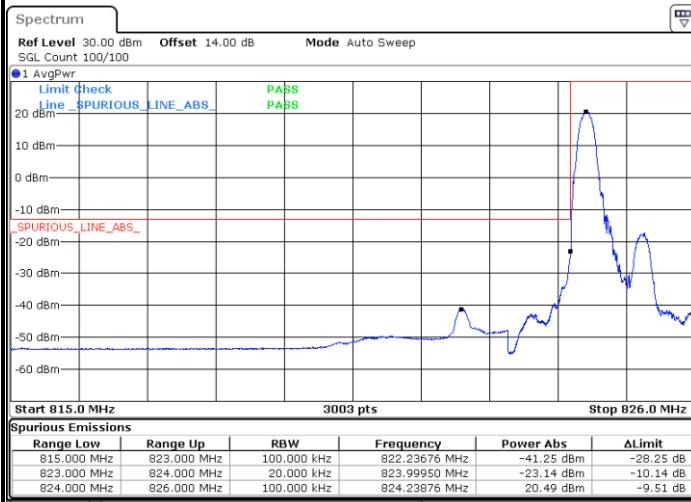


Conducted Band Edge



LTE Band 5 / 1.4MHz / QPSK

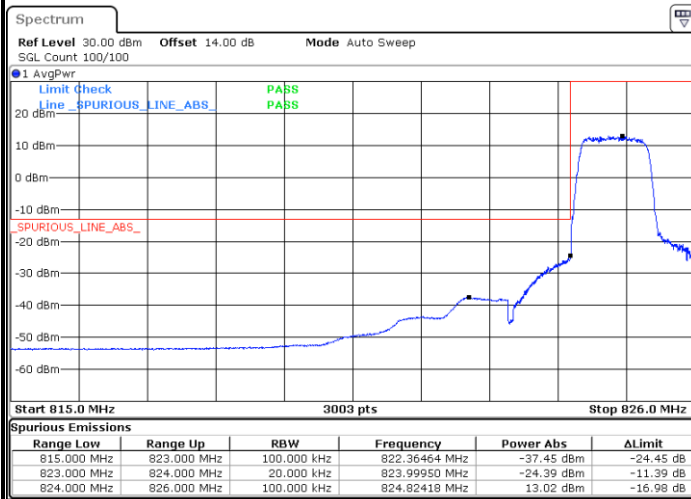
Lowest Band Edge / 1RB



Highest Band Edge / 1RB



Lowest Band Edge / Full RB



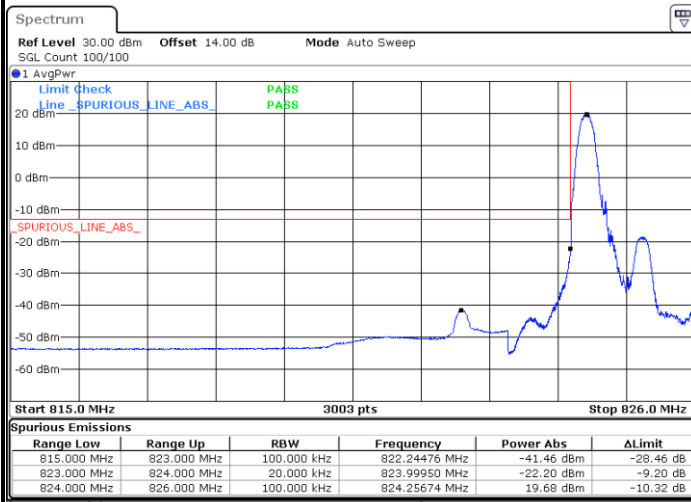
Highest Band Edge / Full RB





LTE Band 5 / 1.4MHz / 16QAM

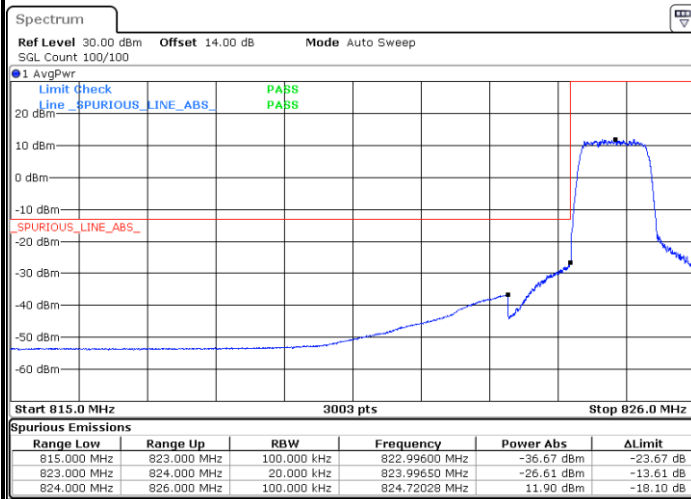
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



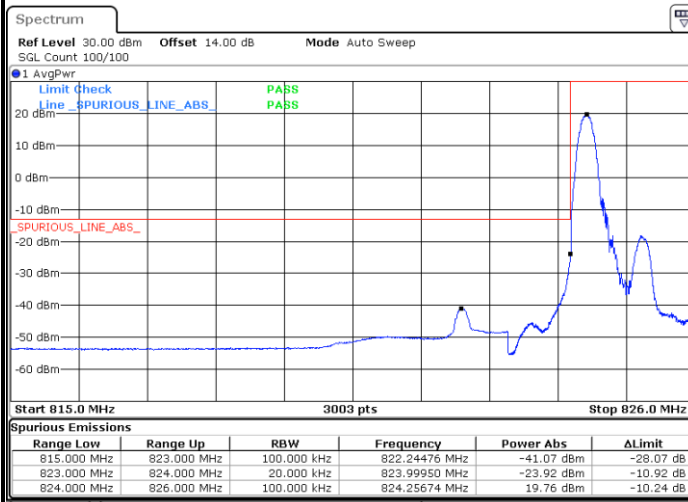
Highest Band Edge / Full RB





LTE Band 5 / 1.4MHz / 64QAM

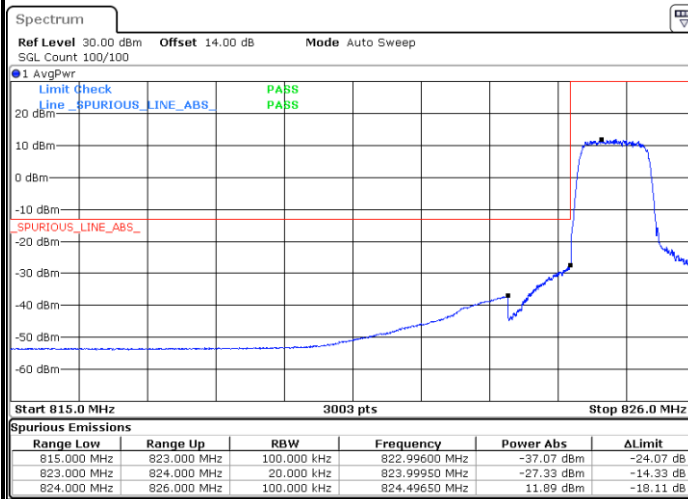
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



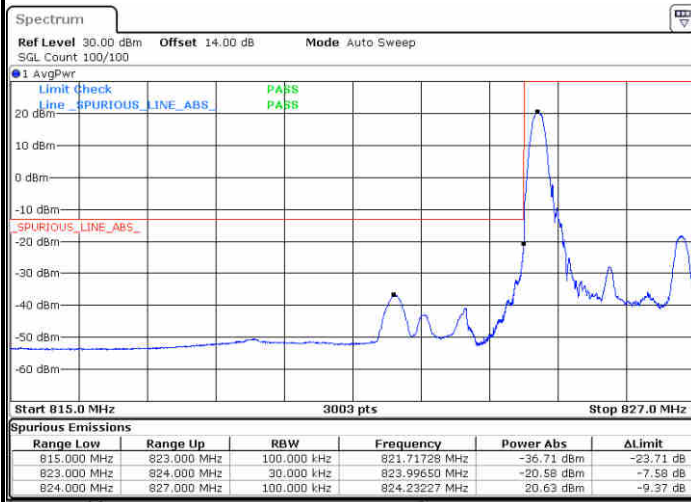
Highest Band Edge / Full RB





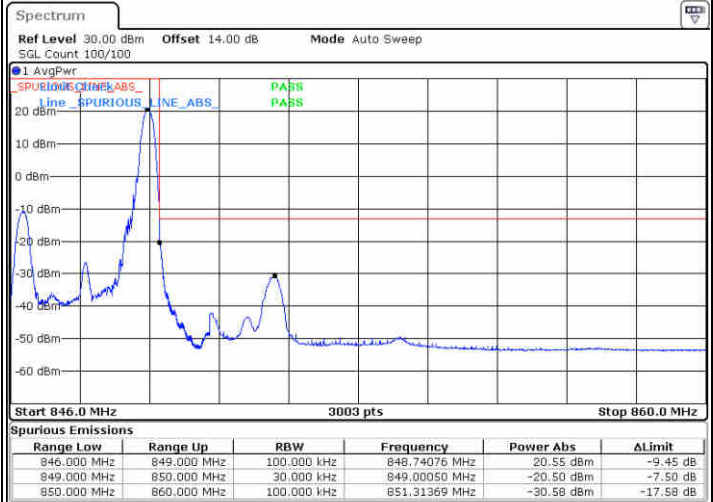
LTE Band 5 / 3MHz / QPSK

Lowest Band Edge / 1RB



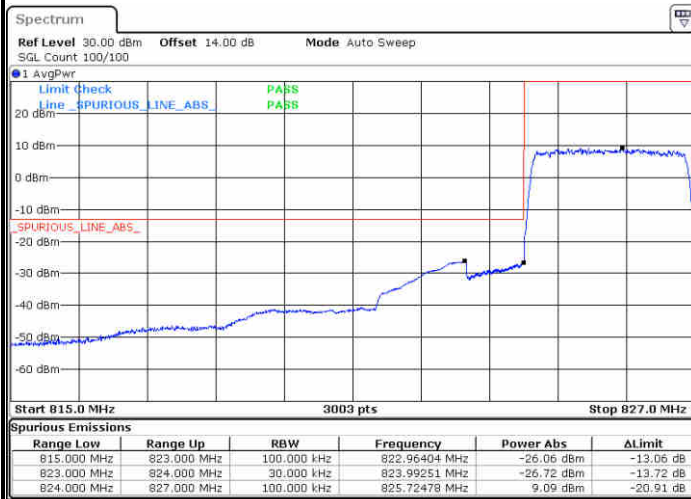
Date: 10, JAN, 2020 11:31:52

Highest Band Edge / 1 RB



Date: 10, JAN, 2020 11:42:49

Lowest Band Edge / Full RB



Date: 10, JAN, 2020 11:35:14

Highest Band Edge / Full RB

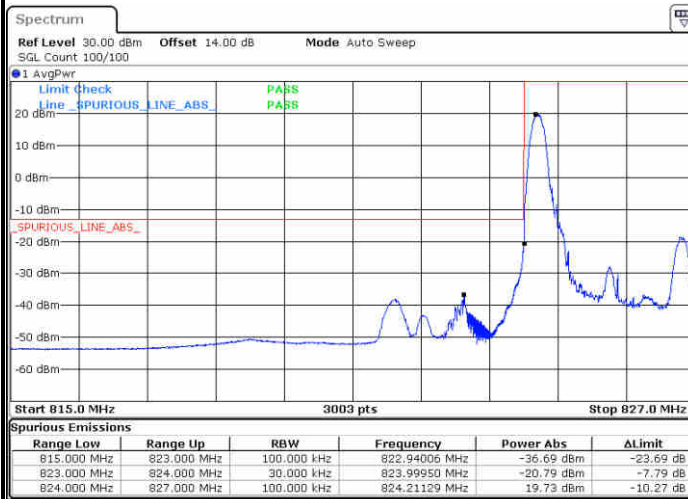


Date: 10, JAN, 2020 11:46:10



LTE Band 5 / 3MHz / 16QAM

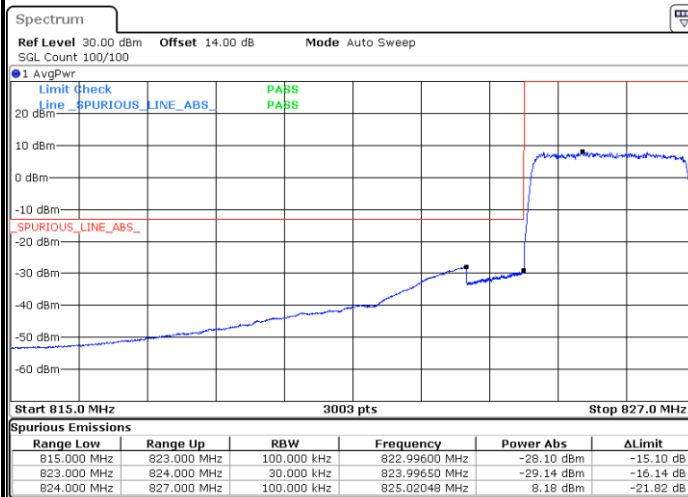
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



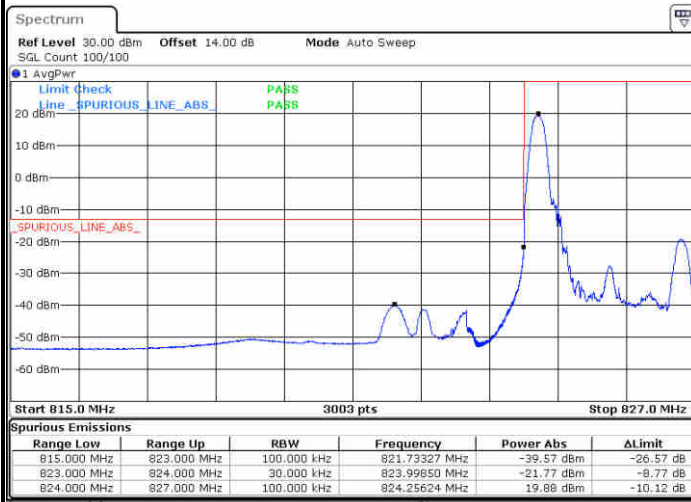
Highest Band Edge / Full RB



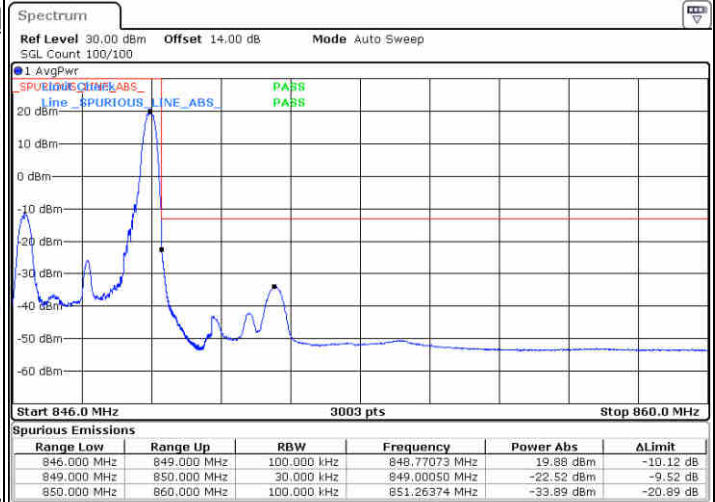


LTE Band 5 / 3MHz / 64QAM

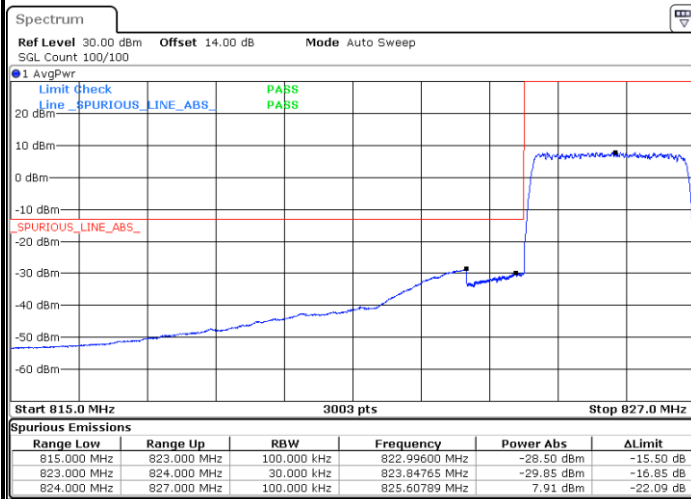
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



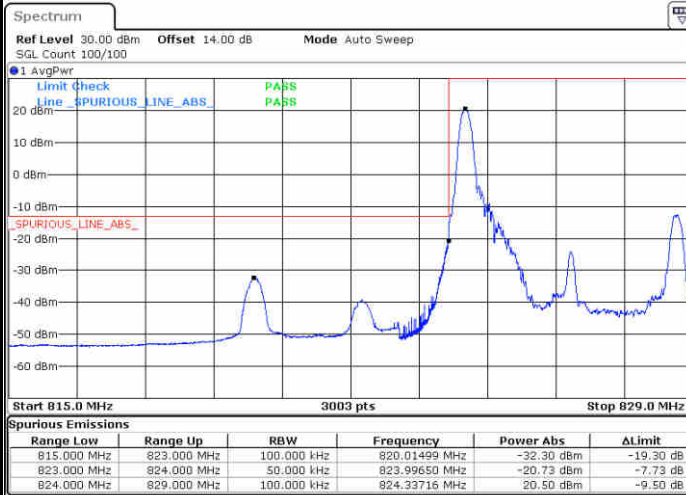
Highest Band Edge / Full RB





LTE Band 5 / 5MHz / QPSK

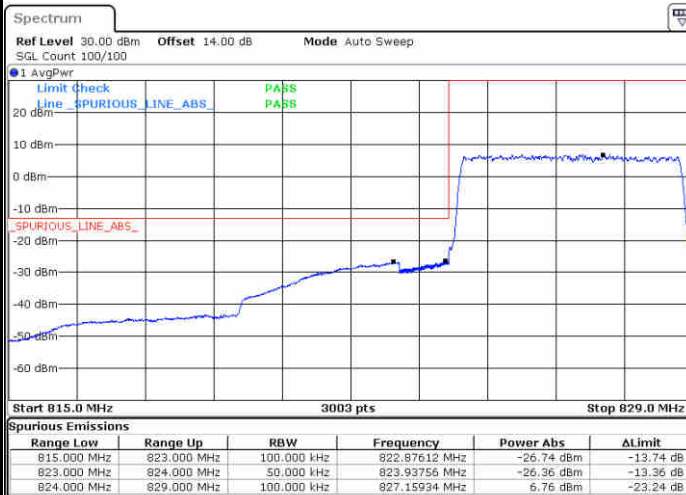
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



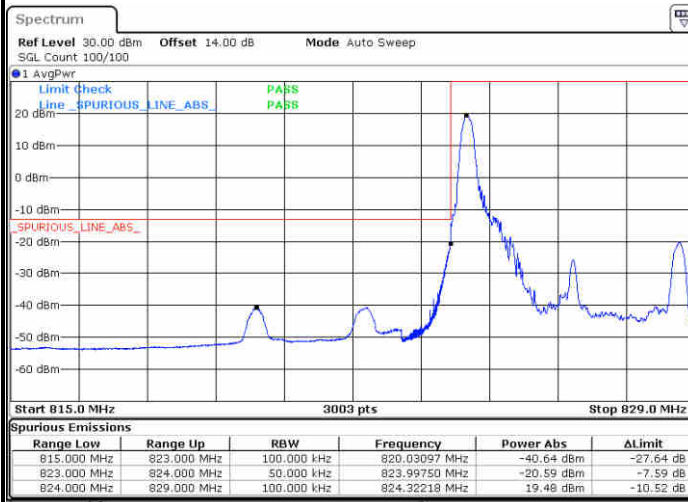
Highest Band Edge / Full RB



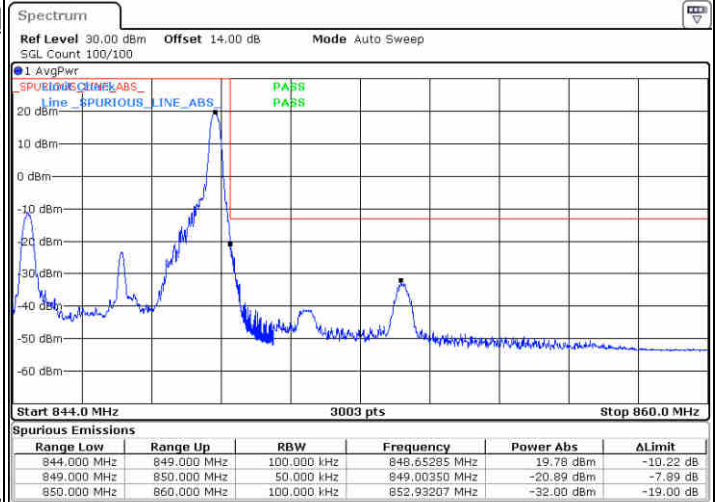


LTE Band 5 / 5MHz / 16QAM

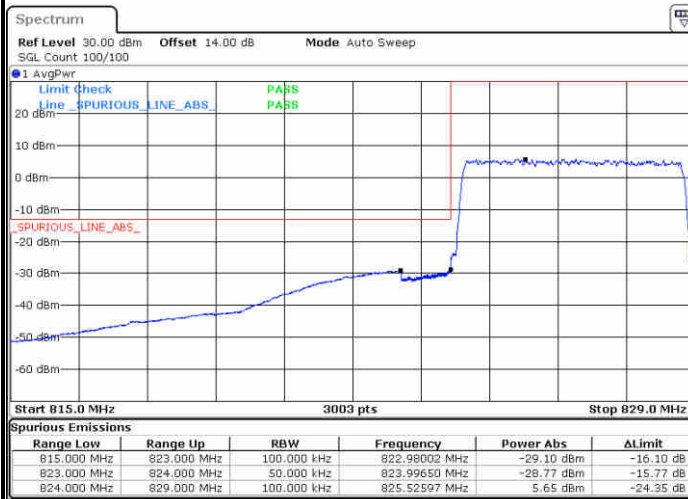
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



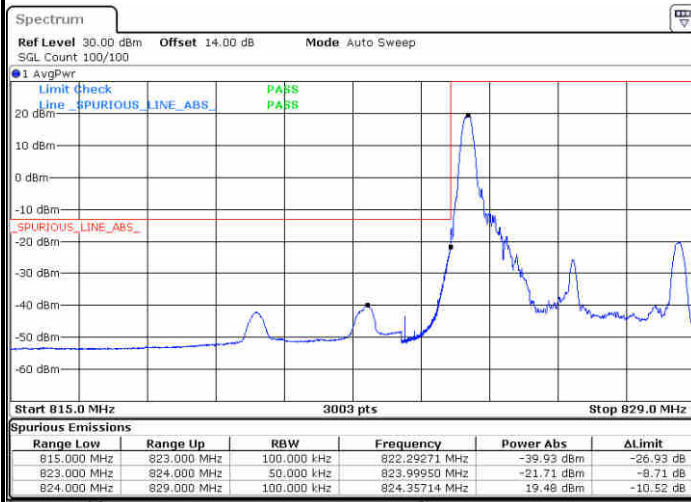
Highest Band Edge / Full RB





LTE Band 5 / 5MHz / 64QAM

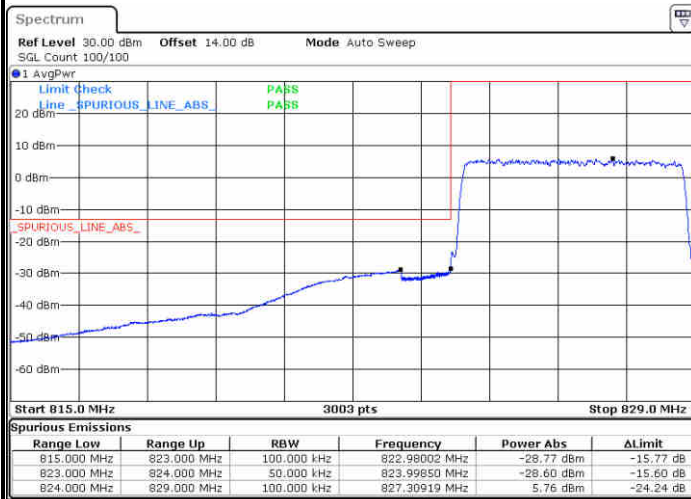
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



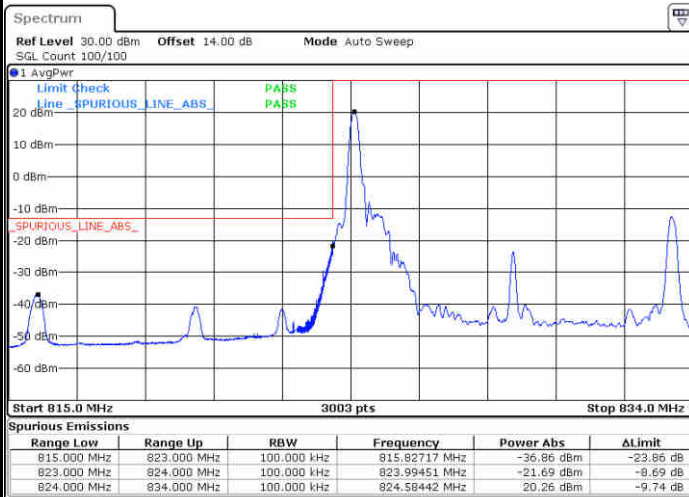
Highest Band Edge / Full RB



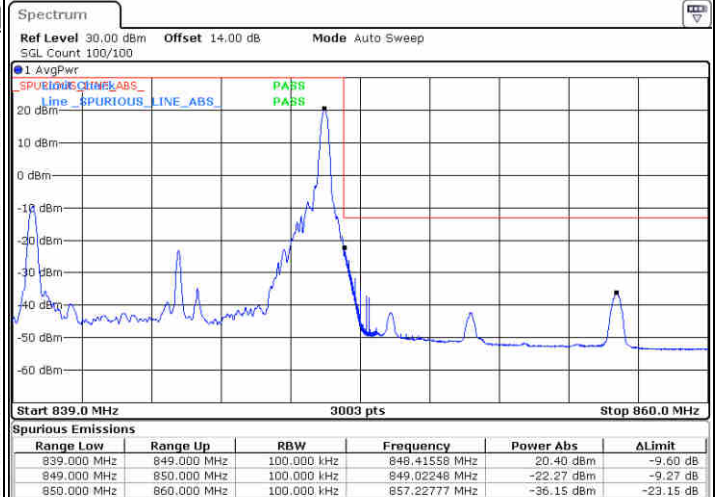


LTE Band 5 / 10MHz / QPSK

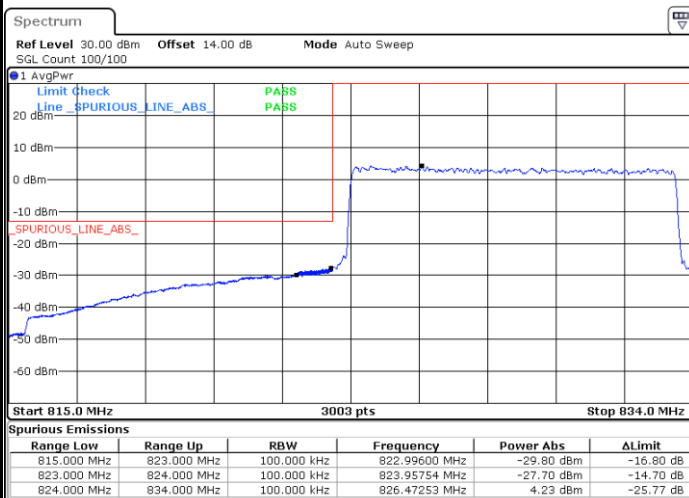
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



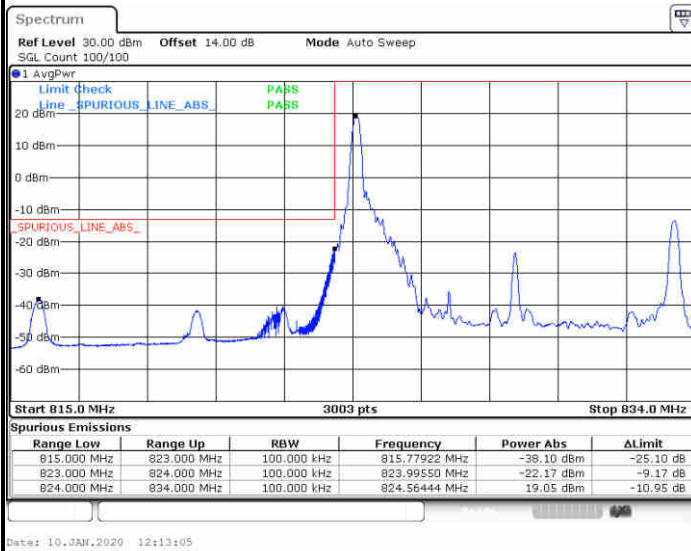
Highest Band Edge / Full RB



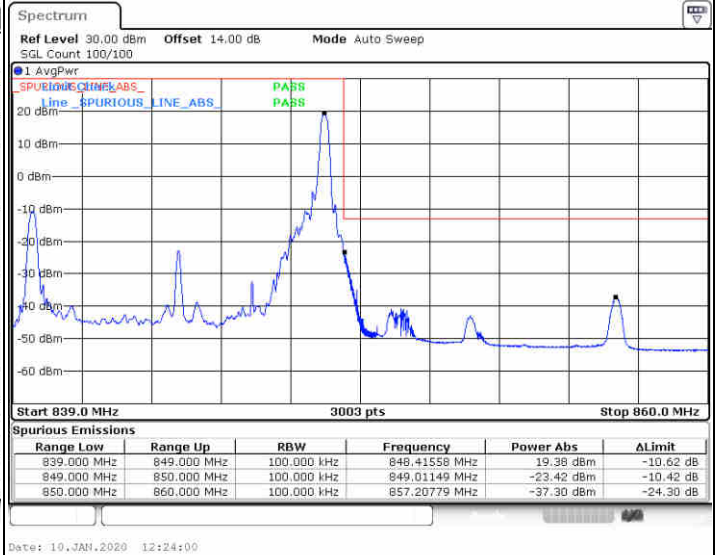


LTE Band 5 / 10MHz / 16QAM

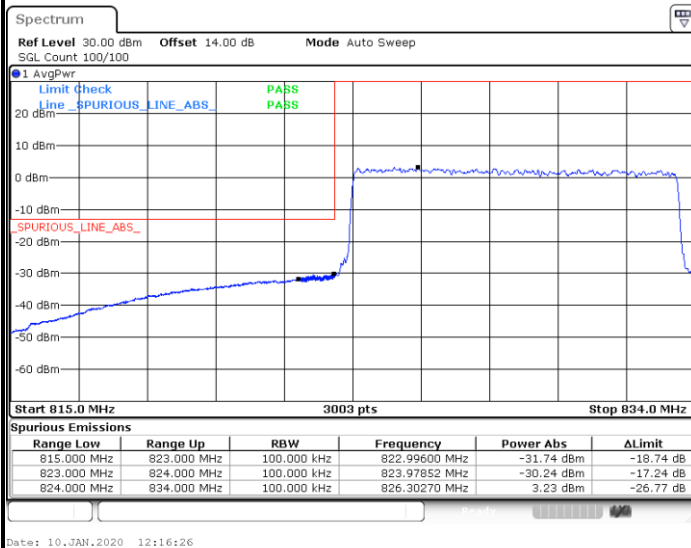
Lowest Band Edge / 1 RB



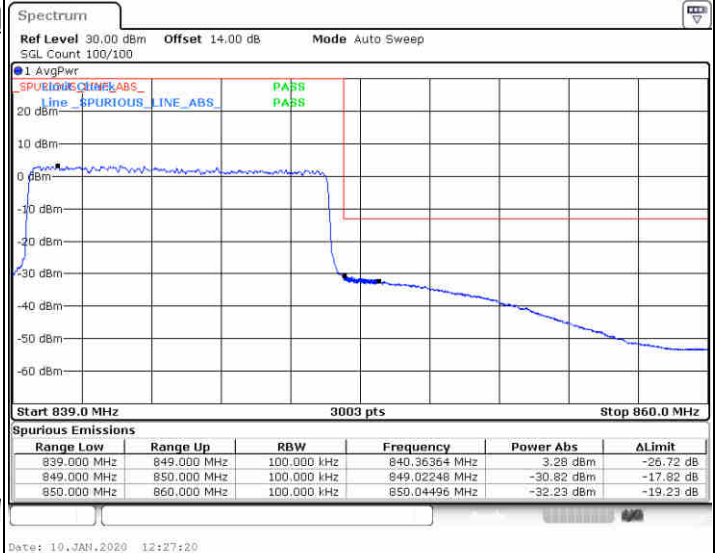
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



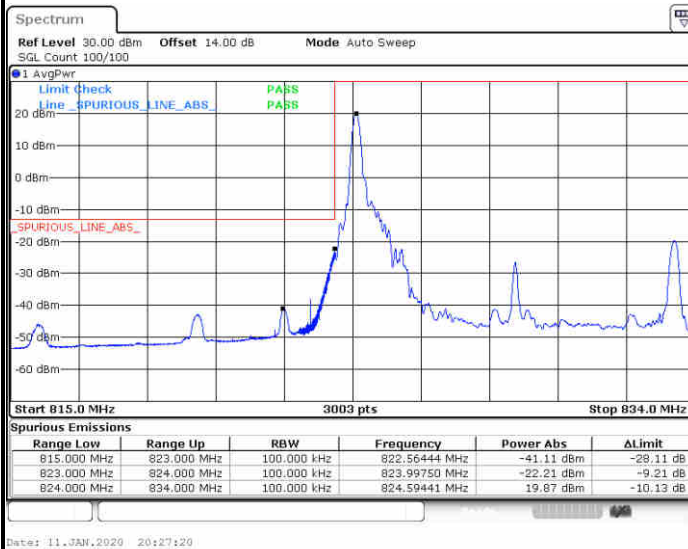
Highest Band Edge / Full RB



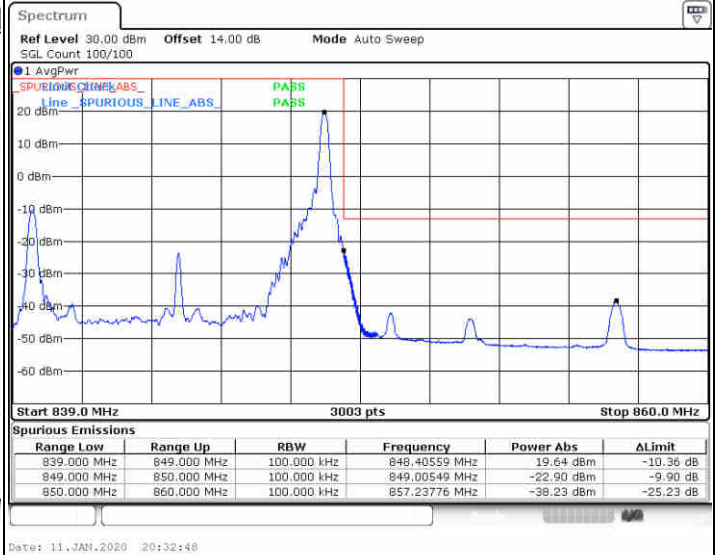


LTE Band 5 / 10MHz / 64QAM

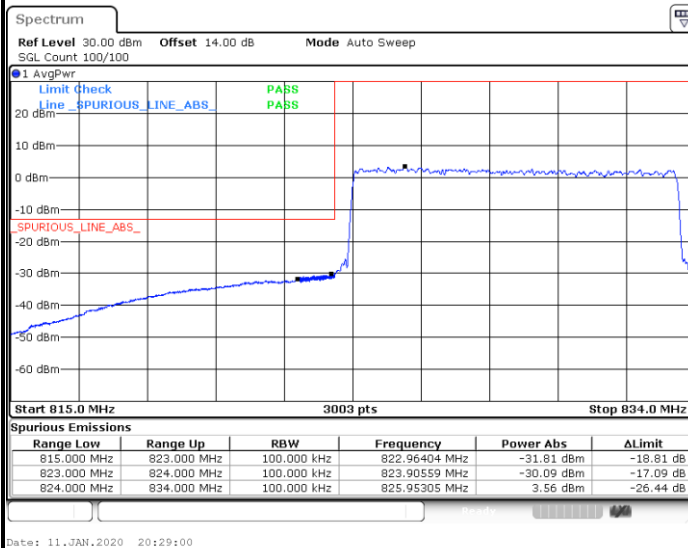
Lowest Band Edge / 1 RB



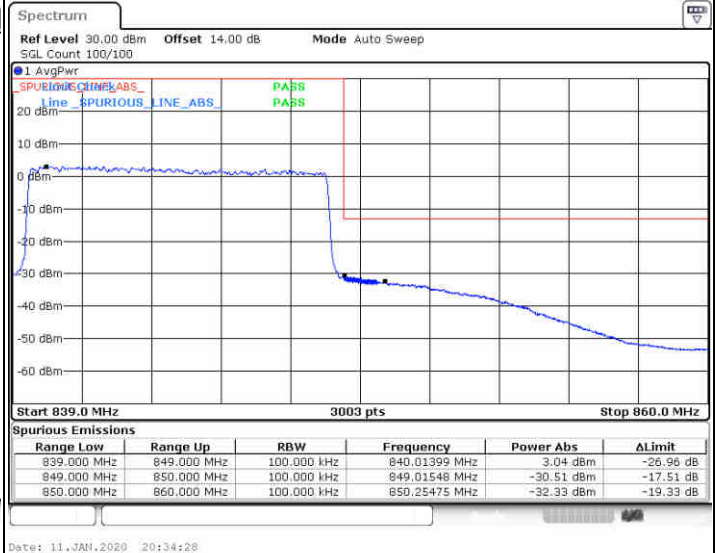
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB



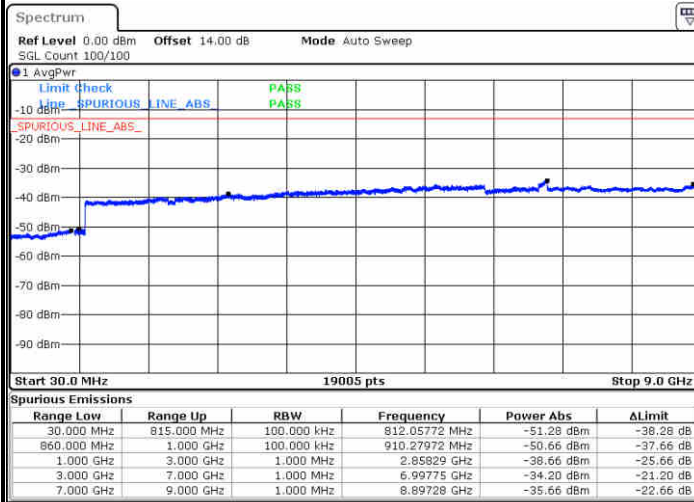


Conducted Spurious Emission



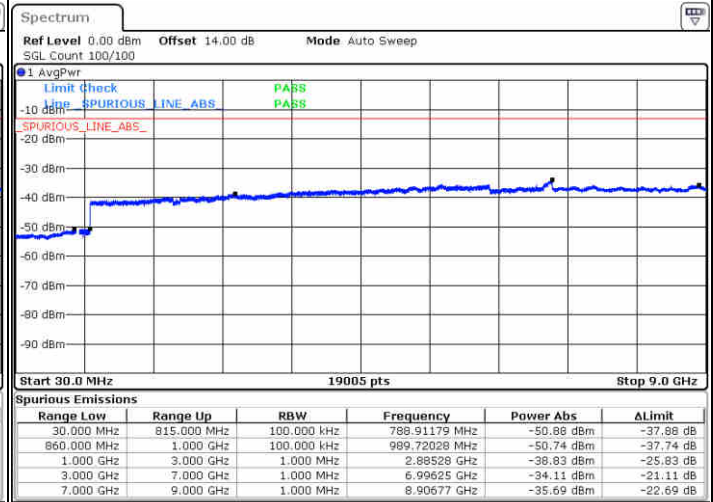
LTE Band 5 / 1.4MHz

Lowest Channel / QPSK



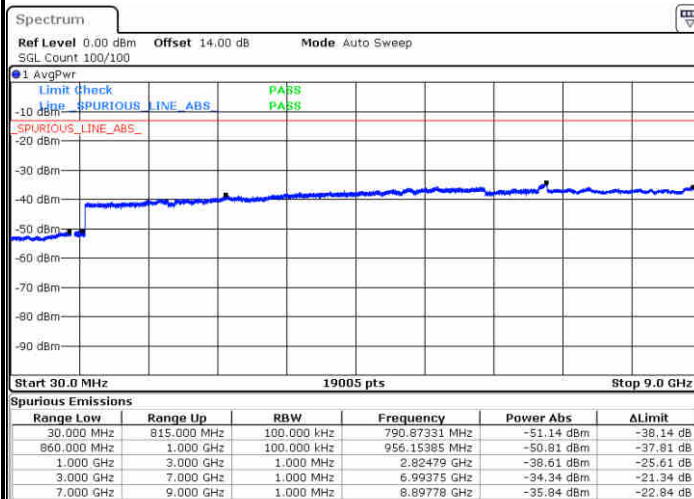
Date: 10.JAN.2020 12:36:52

Lowest Channel / 16QAM



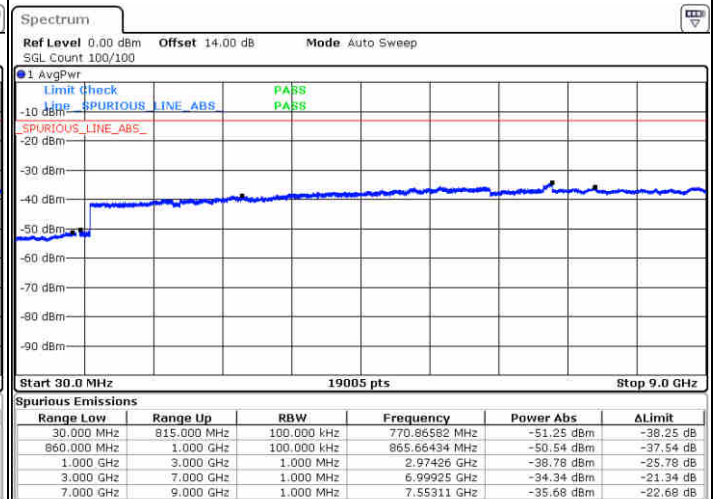
Date: 10.JAN.2020 12:37:33

Middle Channel / QPSK



Date: 10.JAN.2020 12:38:59

Middle Channel / 16QAM

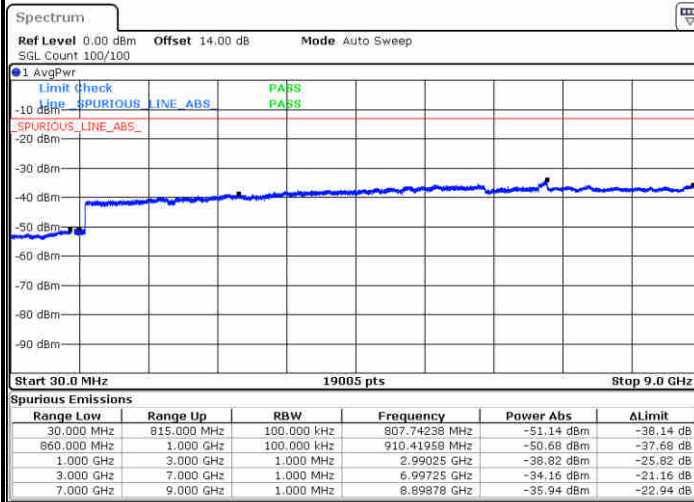


Date: 10.JAN.2020 12:39:41



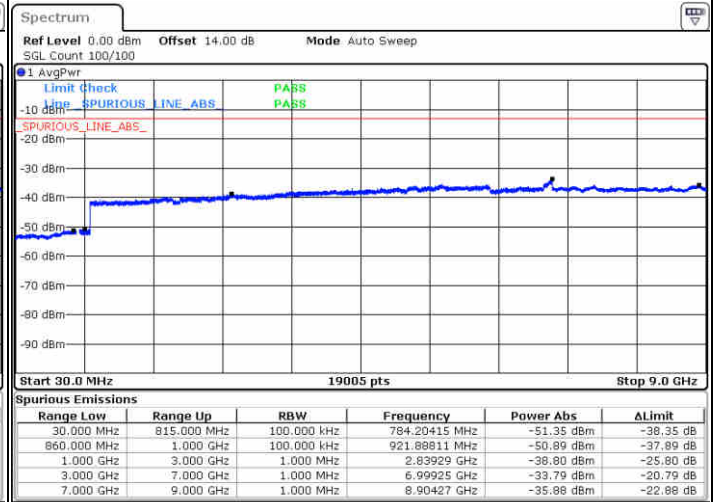
LTE Band 5 / 1.4MHz

Highest Channel / QPSK



Date: 10.JAN.2020 12:47:47

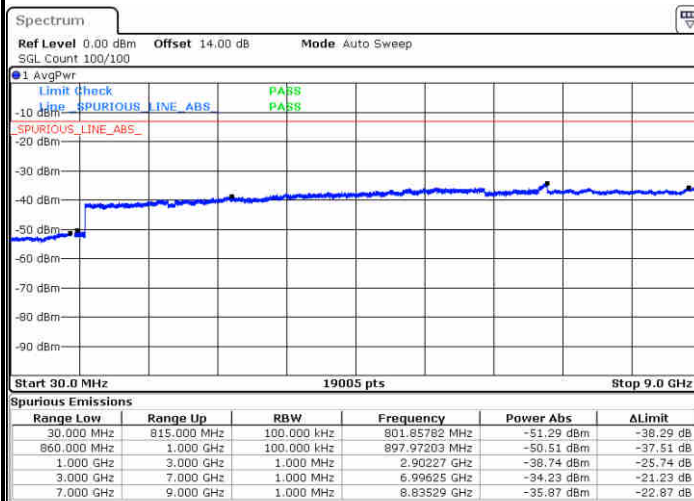
Highest Channel / 16QAM



Date: 10.JAN.2020 12:48:29

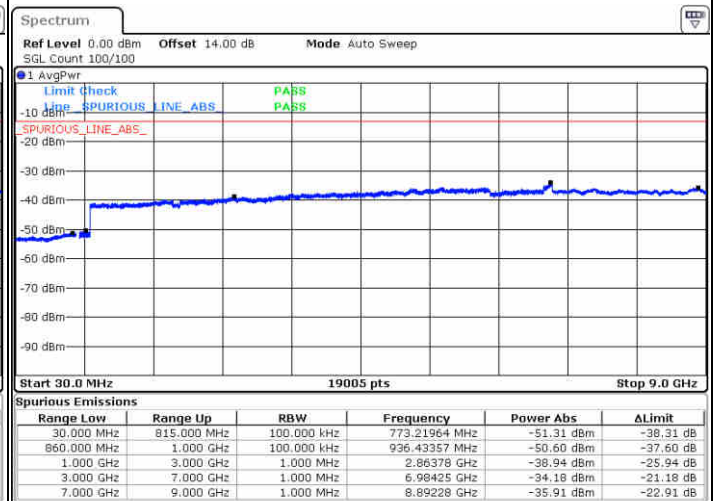
LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 10.JAN.2020 11:37:36

Lowest Channel / 16QAM

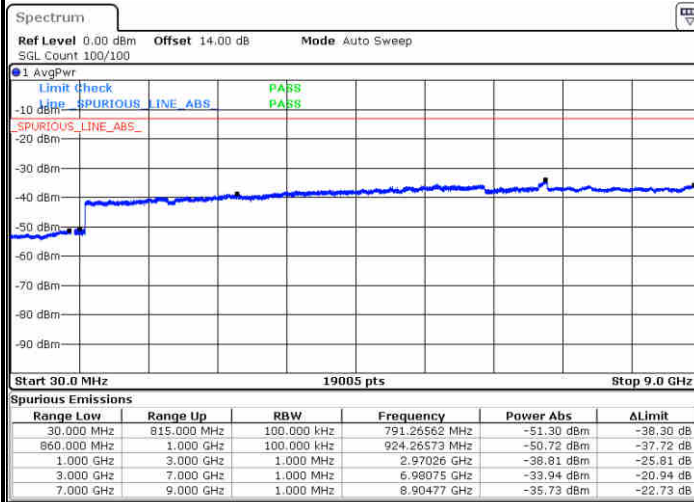


Date: 10.JAN.2020 11:38:17



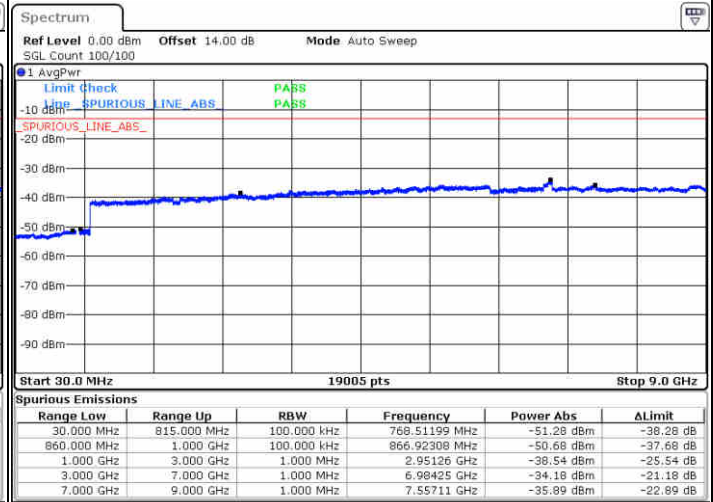
LTE Band 5 / 3MHz

Middle Channel / QPSK



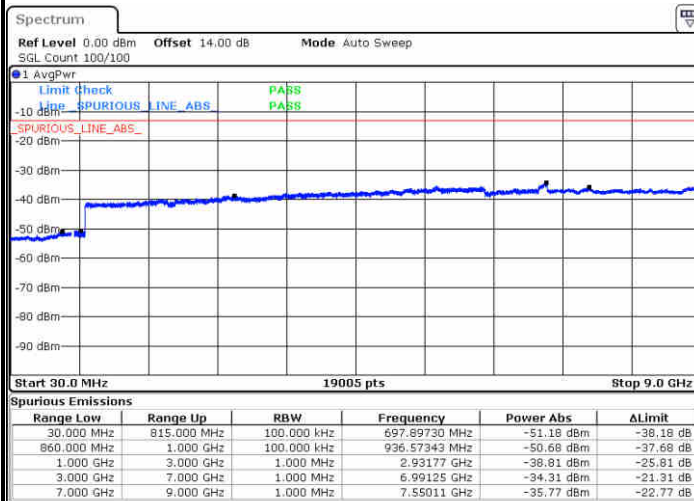
Date: 10.JAN.2020 11:39:43

Middle Channel / 16QAM



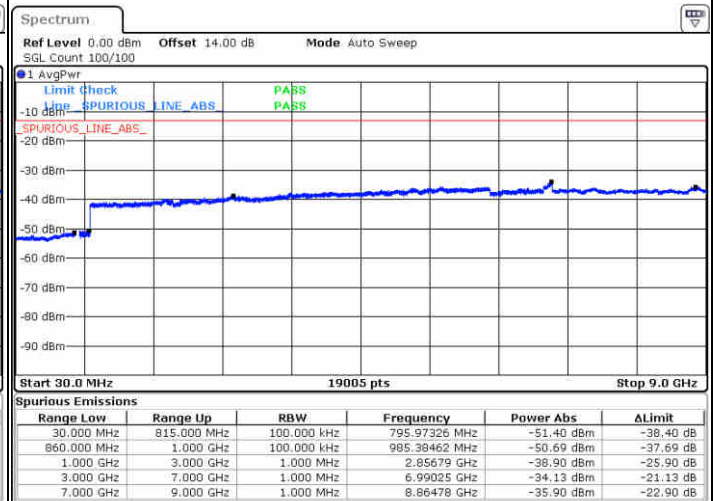
Date: 10.JAN.2020 11:40:25

Highest Channel / QPSK



Date: 10.JAN.2020 11:48:33

Highest Channel / 16QAM

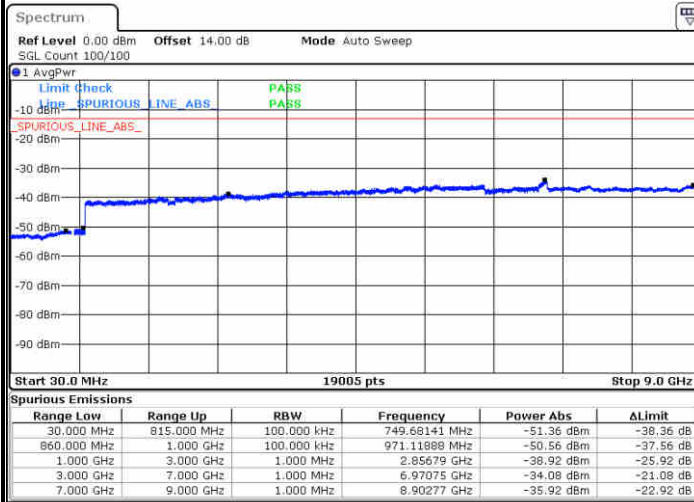


Date: 10.JAN.2020 11:49:14



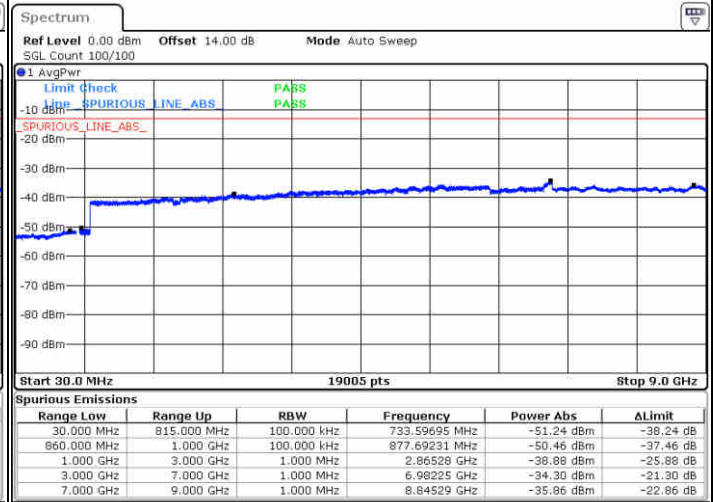
LTE Band 5 / 5MHz

Lowest Channel / QPSK



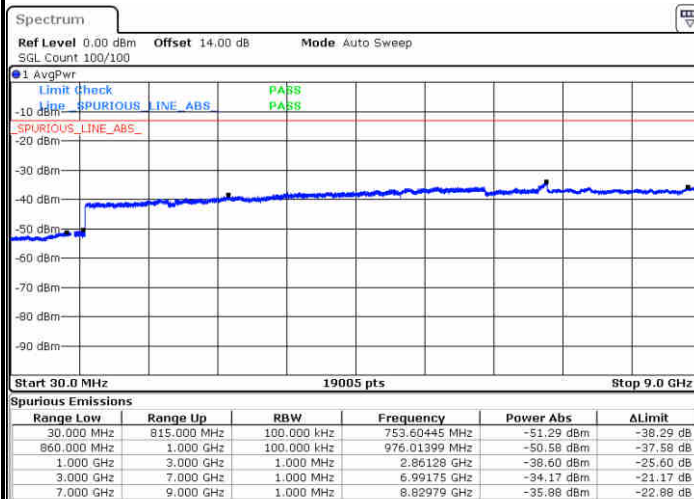
Date: 10.JAN.2020 11:57:22

Lowest Channel / 16QAM



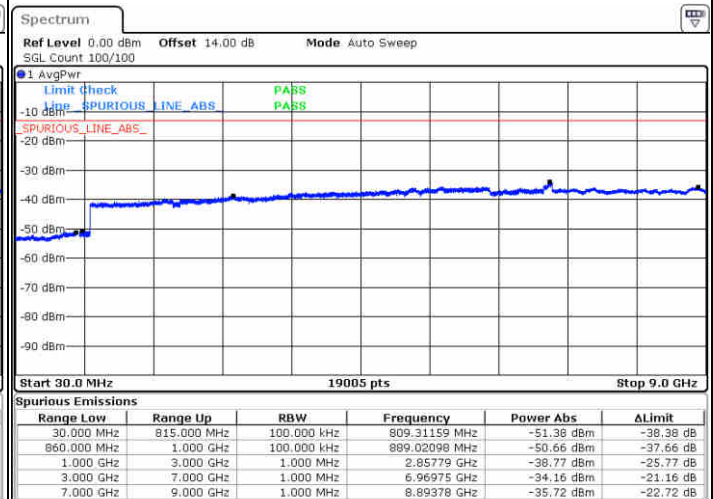
Date: 10.JAN.2020 11:58:04

Middle Channel / QPSK



Date: 10.JAN.2020 11:59:30

Middle Channel / 16QAM

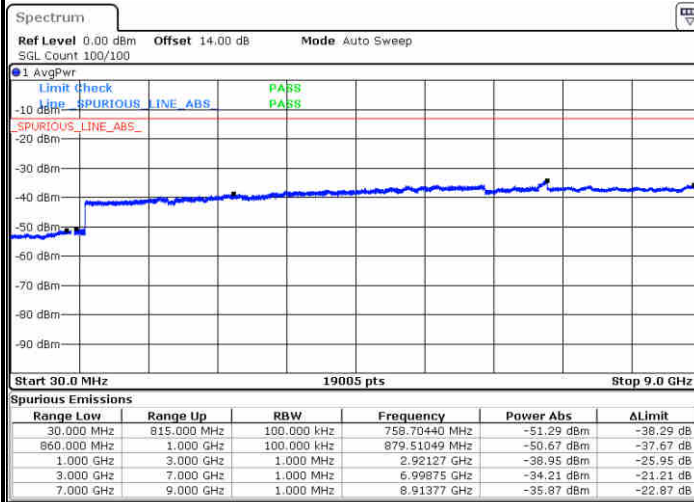


Date: 10.JAN.2020 12:00:11



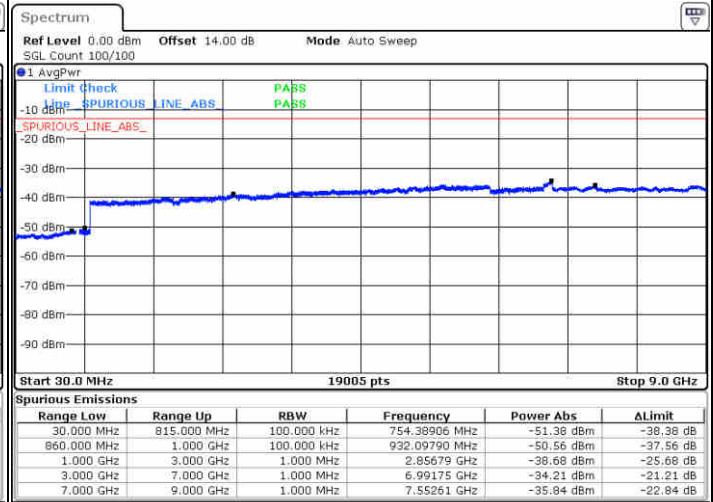
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 10.JAN.2020 12:08:18

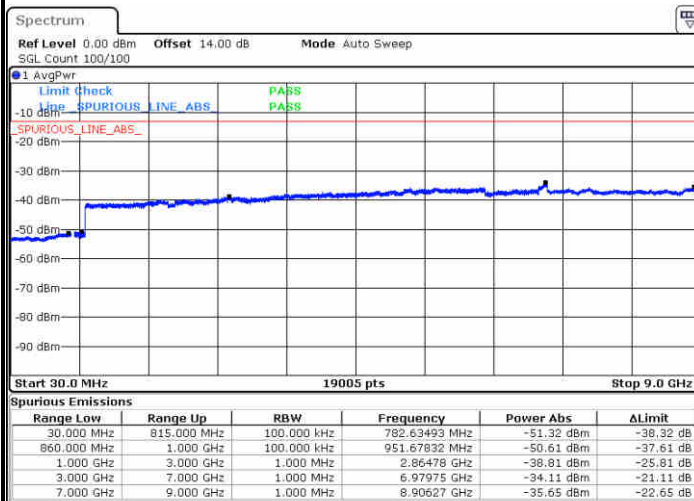
Highest Channel / 16QAM



Date: 10.JAN.2020 12:09:00

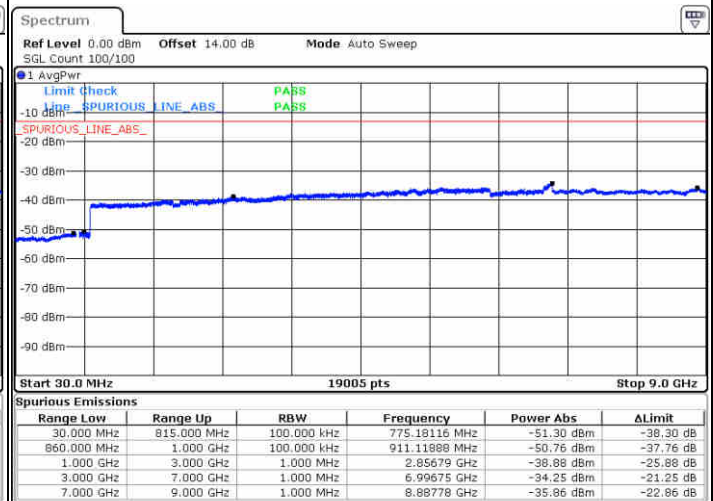
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 10.JAN.2020 12:17:08

Lowest Channel / 16QAM

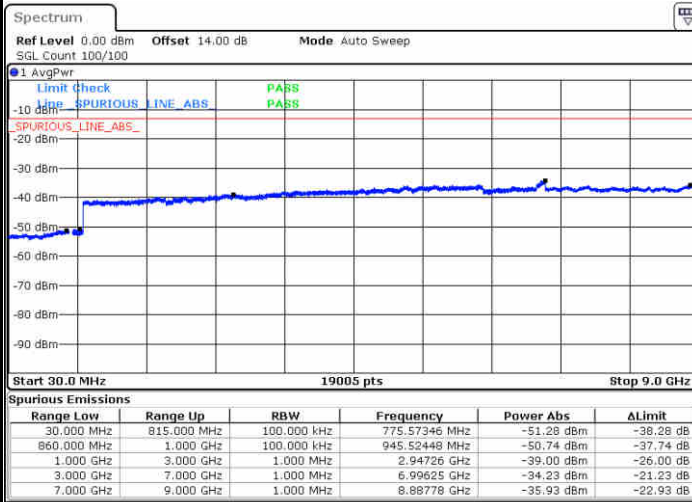


Date: 10.JAN.2020 12:17:49



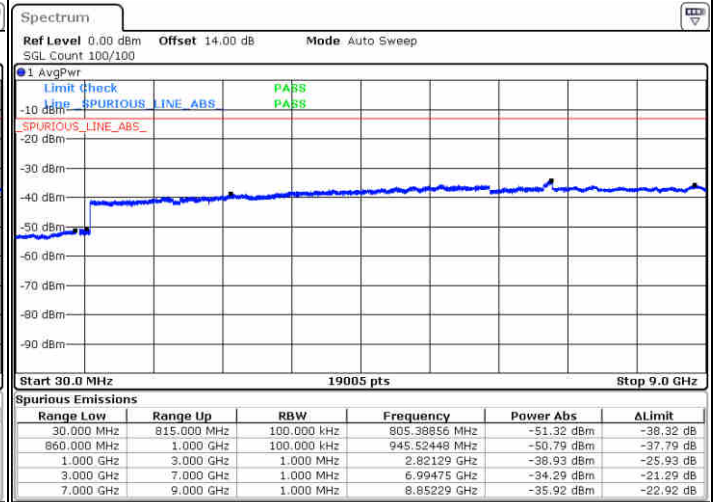
LTE Band 5 / 10MHz

Middle Channel / QPSK



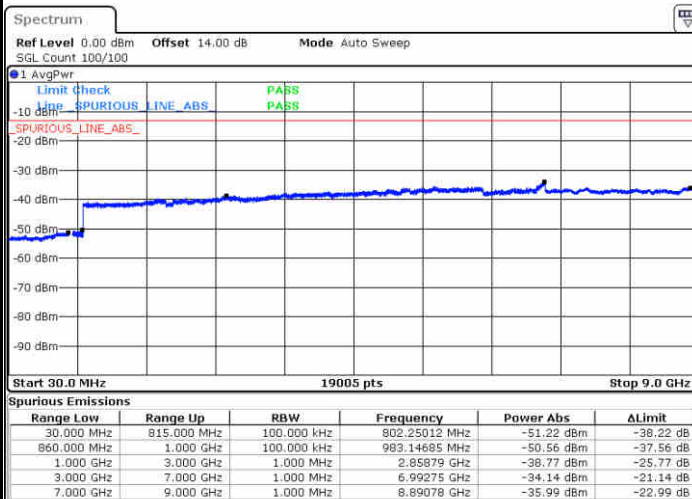
Date: 10.JAN.2020 12:19:15

Middle Channel / 16QAM



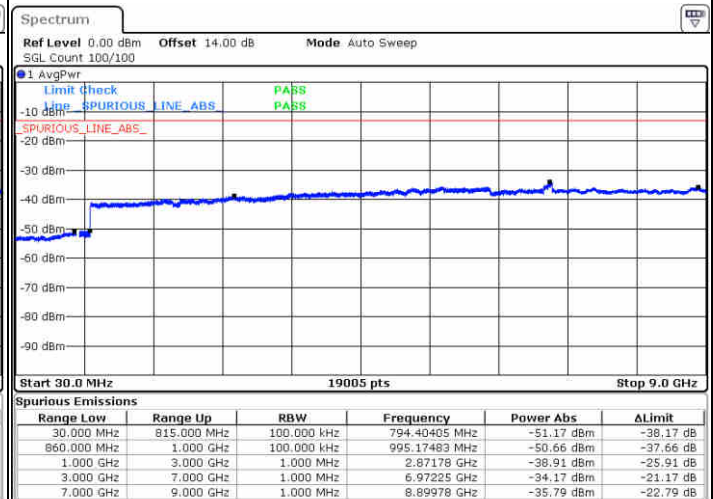
Date: 10.JAN.2020 12:19:57

Highest Channel / QPSK



Date: 10.JAN.2020 12:28:02

Highest Channel / 16QAM

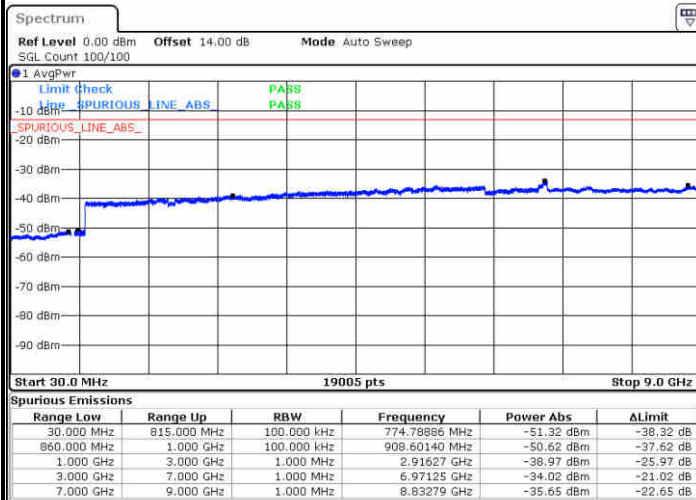


Date: 10.JAN.2020 12:28:44



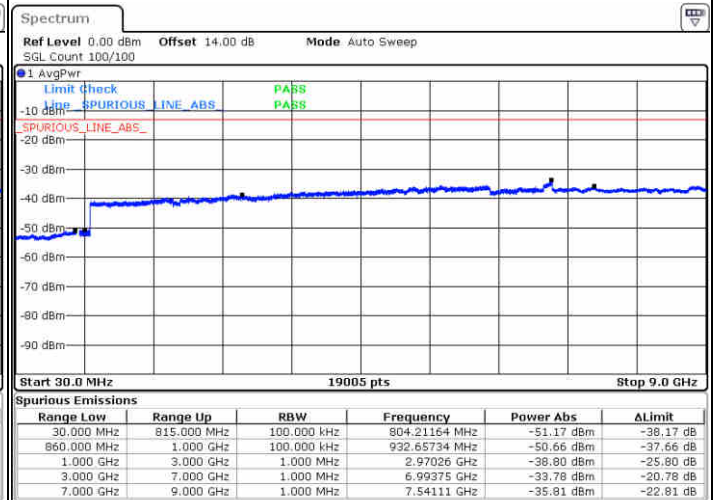
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM



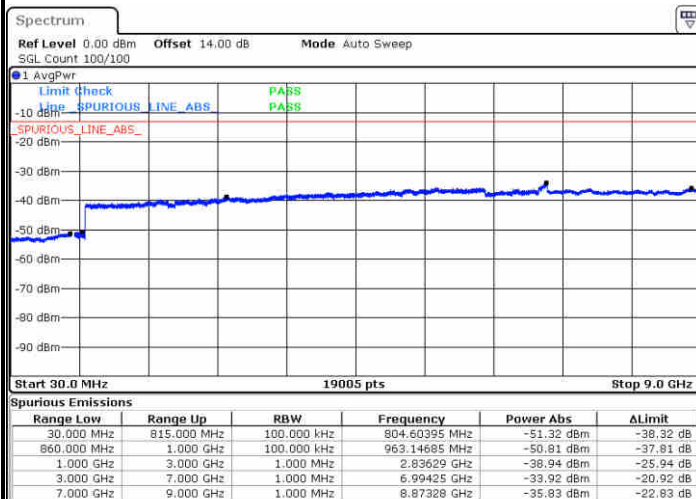
Date: 11.JAN.2020 20:39:34

Middle Channel / 64QAM



Date: 11.JAN.2020 20:40:38

Highest Channel / 64QAM

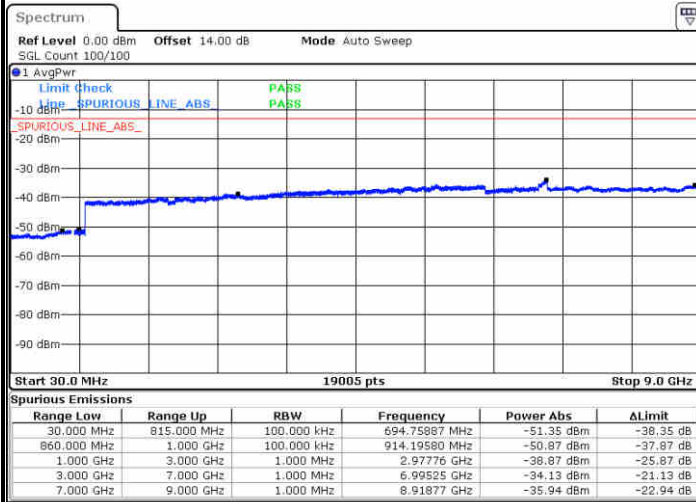


Date: 11.JAN.2020 20:45:01



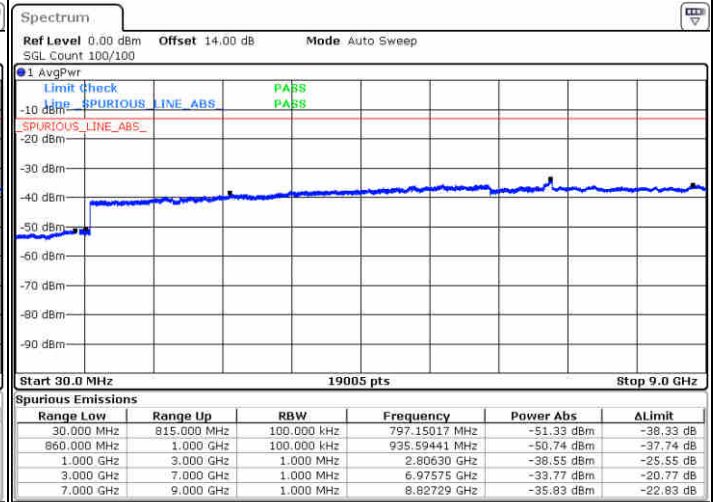
LTE Band 5 / 3MHz

Lowest Channel / 64QAM



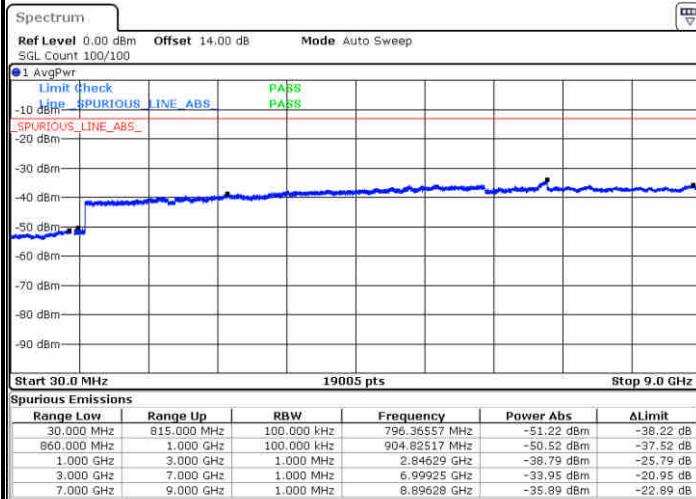
Date: 11.JAN.2020 20:09:58

Middle Channel / 64QAM



Date: 11.JAN.2020 20:11:03

Highest Channel / 64QAM

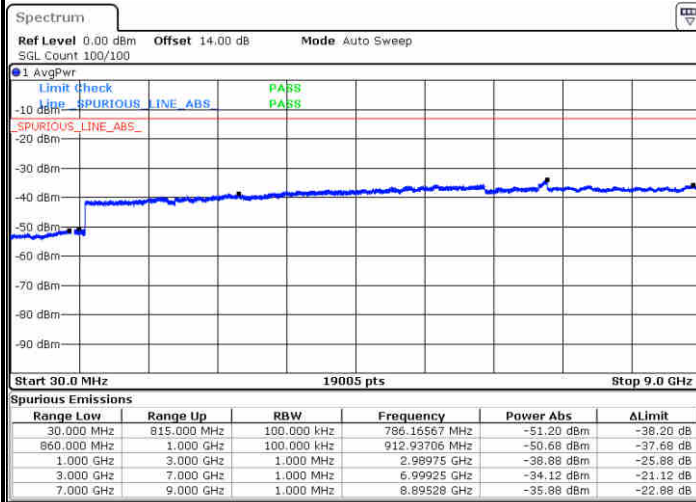


Date: 11.JAN.2020 20:15:27



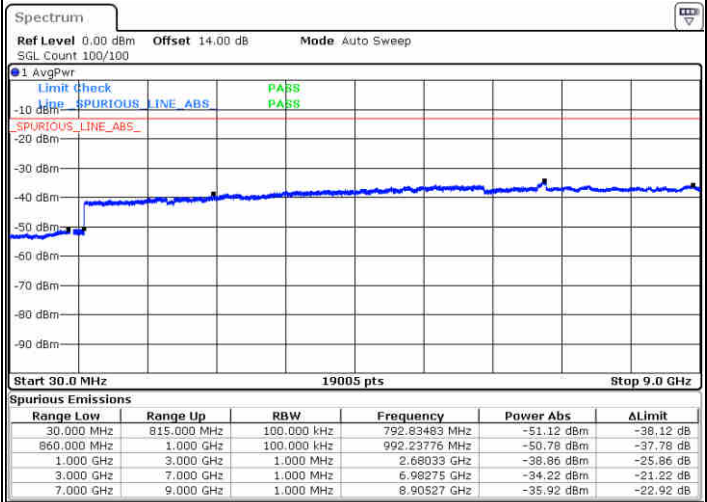
LTE Band 5 / 5MHz

Lowest Channel / 64QAM



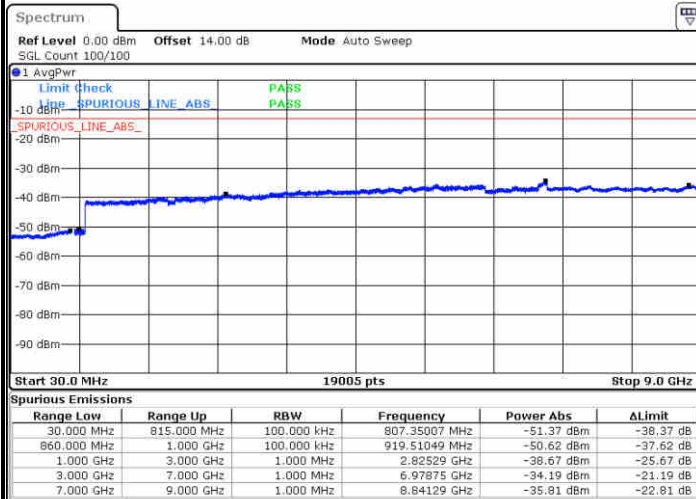
Date: 11.JAN.2020 20:19:51

Middle Channel / 64QAM



Date: 11.JAN.2020 20:20:55

Highest Channel / 64QAM

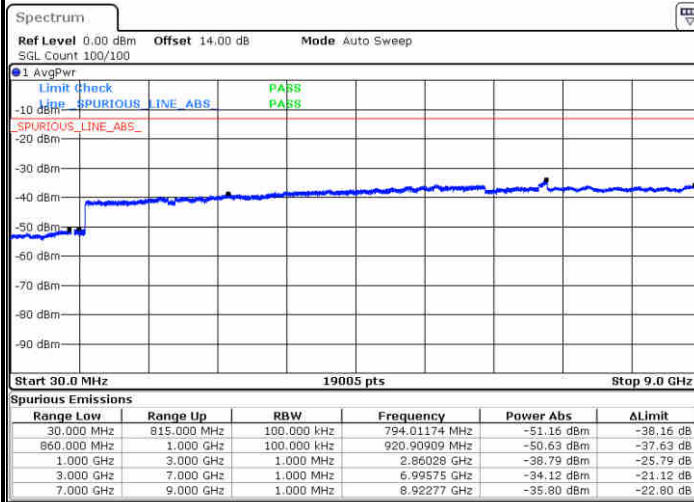


Date: 11.JAN.2020 20:25:19



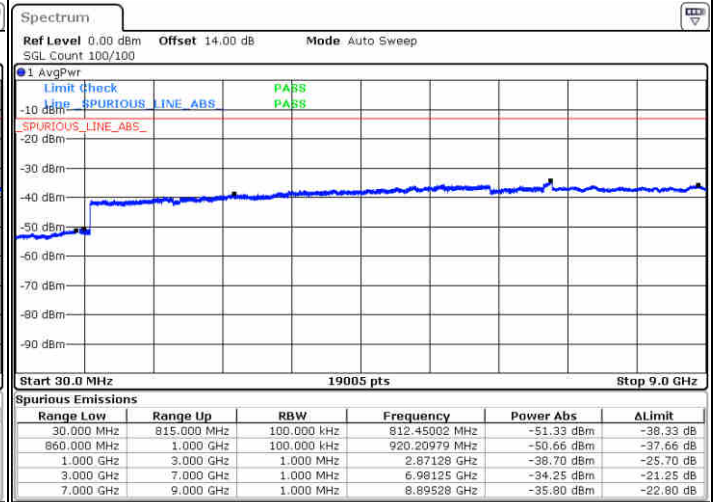
LTE Band 5 / 10MHz

Lowest Channel / 64QAM



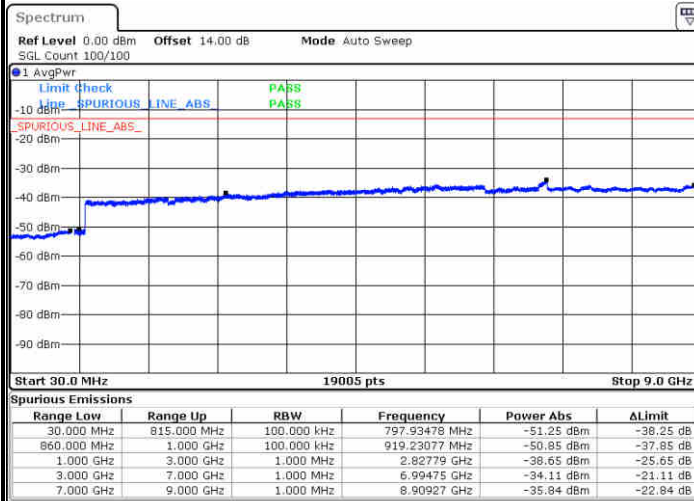
Date: 11.JAN.2020 20:29:43

Middle Channel / 64QAM



Date: 11.JAN.2020 20:30:47

Highest Channel / 64QAM



Date: 11.JAN.2020 20:35:10

**Frequency Stability**

Test Conditions		LTE Band 5 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	2.5ppm
		Deviation (ppm)	Result
50	Normal Voltage	0.0012	PASS
40	Normal Voltage	0.0010	
30	Normal Voltage	0.0006	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0002	
0	Normal Voltage	0.0013	
-10	Normal Voltage	0.0005	
-20	Normal Voltage	0.0013	
-30	Normal Voltage	0.0010	
20	Maximum Voltage	0.0008	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0010	

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 7

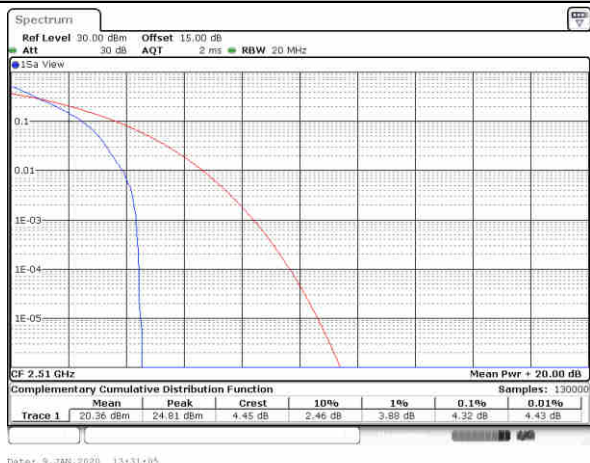
Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.32	4.93	5.30	5.77	PASS
Middle CH	5.10	5.22	6.09	6.09	
Highest CH	4.93	5.07	5.77	6.00	
Mode	LTE Band 7 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	4.81	5.80	-	-	PASS
Middle CH	6.00	6.03	-	-	
Highest CH	5.39	6.00	-	-	

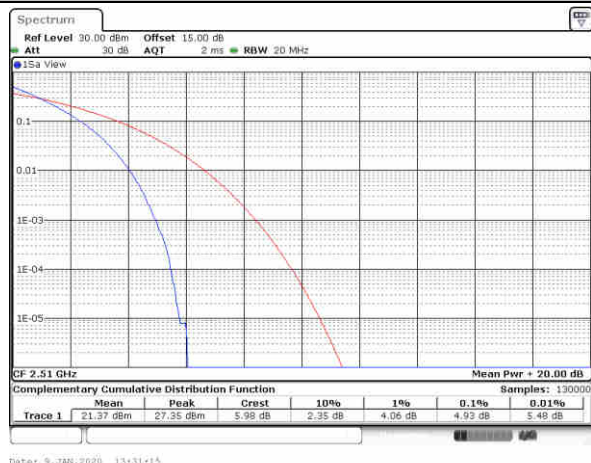


LTE Band 7 / 20MHz / QPSK

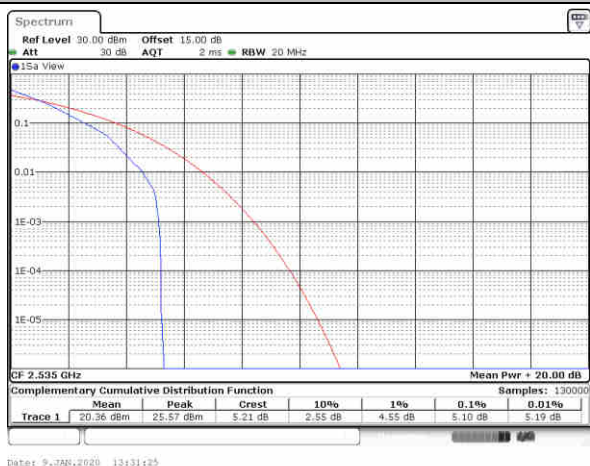
Lowest Channel / 1RB



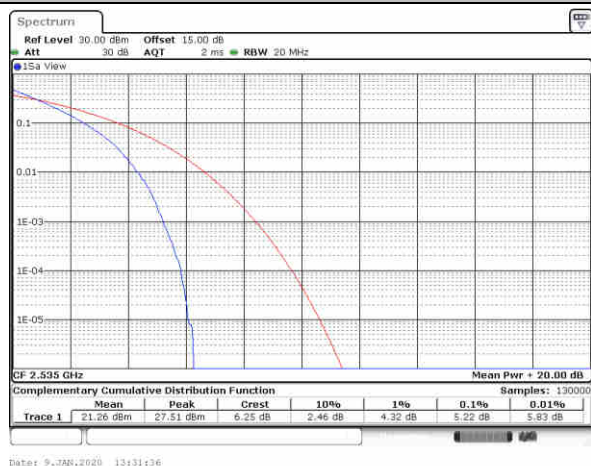
Lowest Channel / Full RB



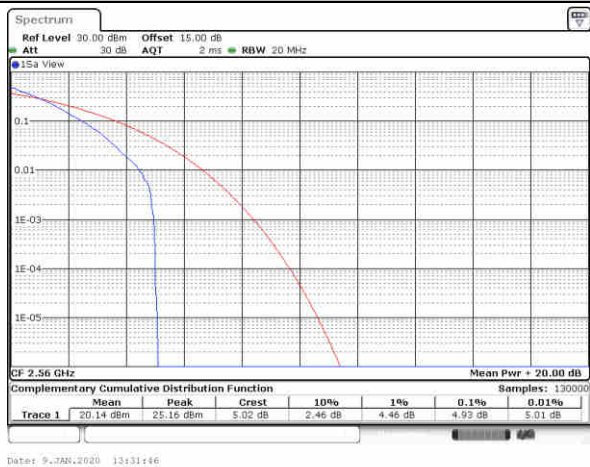
Middle Channel / 1RB



Middle Channel / Full RB



Highest Channel / 1RB



Highest Channel / Full RB

