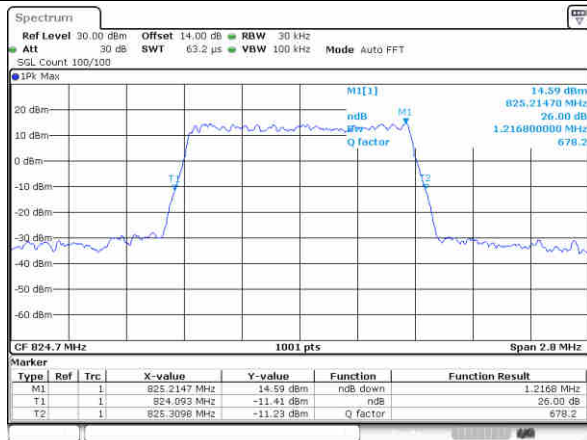


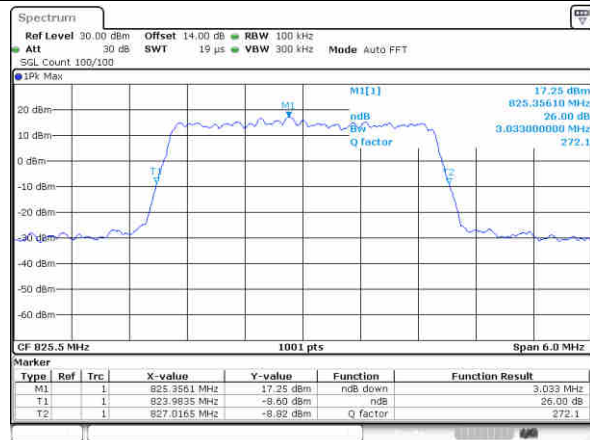
LTE Band 5

Lowest Channel / 1.4MHz / 64QAM



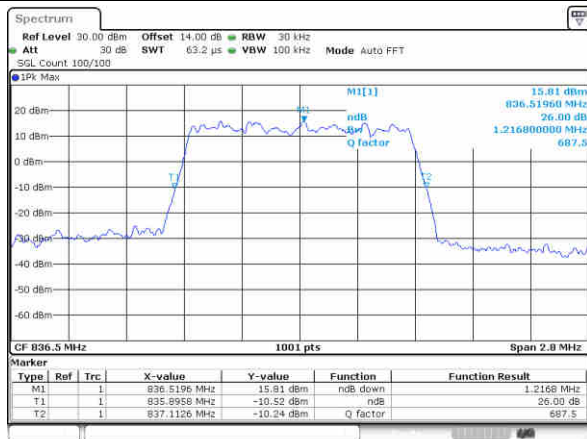
Date: 15, DEC, 2019 21:27:23

Lowest Channel / 3MHz / 64QAM



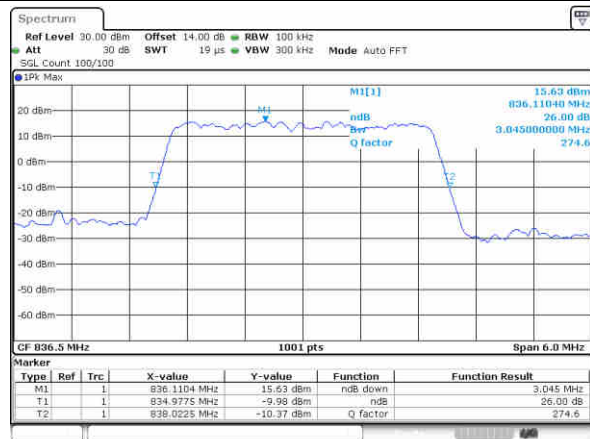
Date: 15.DEC.2019 19:54:58

Middle Channel / 1.4MHz / 64QAM



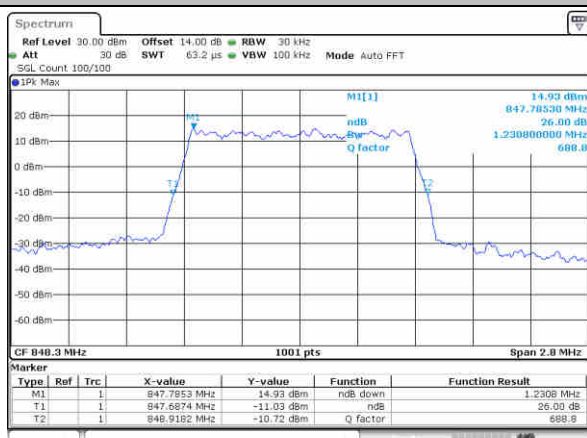
Date: 15.DEC.2019 21:31:48

Middle Channel / 3MHz / 64QAM



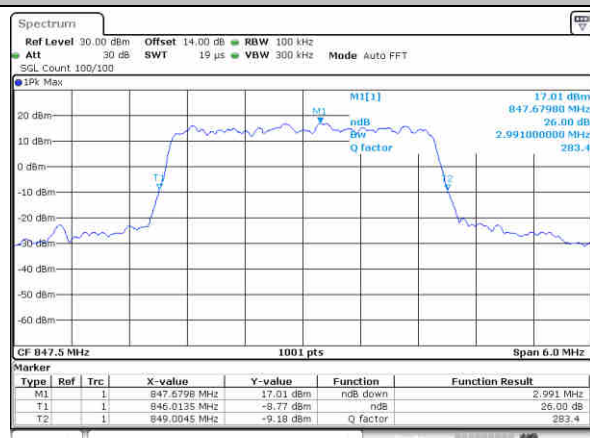
Date: 15.DEC.2019 19:59:23

Highest Channel / 1.4MHz / 64QAM



Date: 15, DEC, 2019 21:32:52

Highest Channel / 3MHz / 64QAM

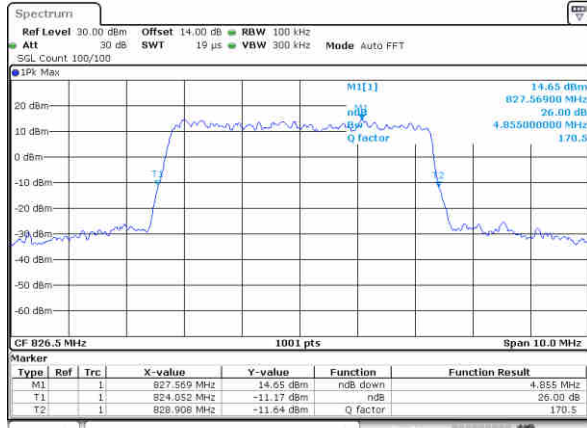


Date: 15, DEC, 2019 20:00:17



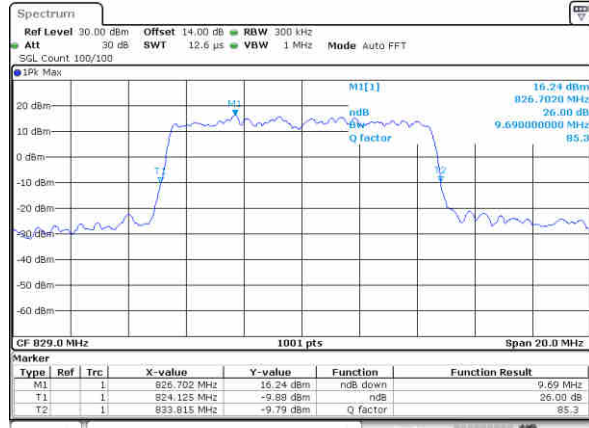
LTE Band 5

Lowest Channel / 5MHz / 64QAM



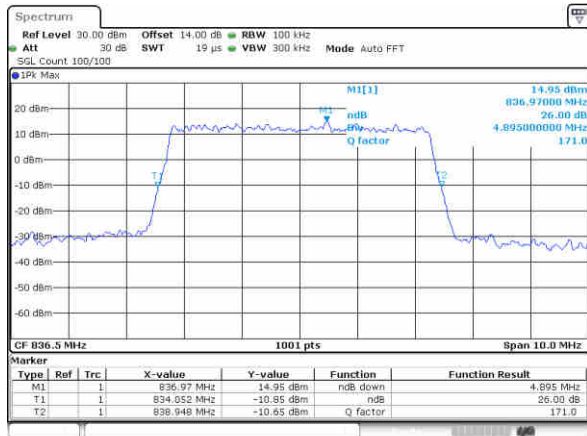
Date: 15, DEC, 2019 20:24:44

Lowest Channel / 10MHz / 64QAM



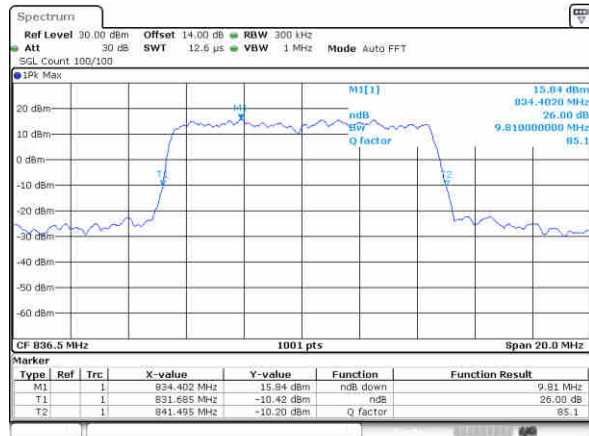
Date: 15, DEC, 2019 20:54:29

Middle Channel / 5MHz / 64QAM



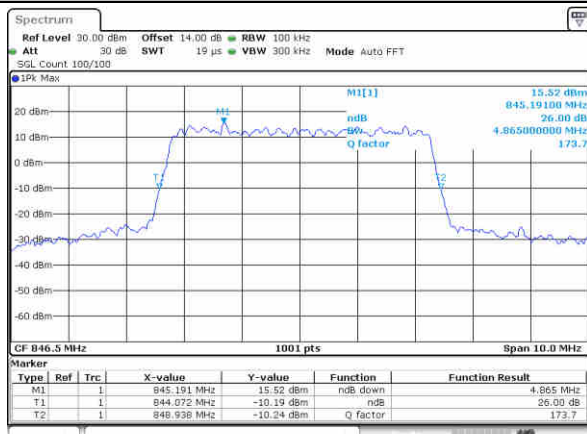
Date: 15, DEC, 2019 20:28:09

Middle Channel / 10MHz / 64QAM



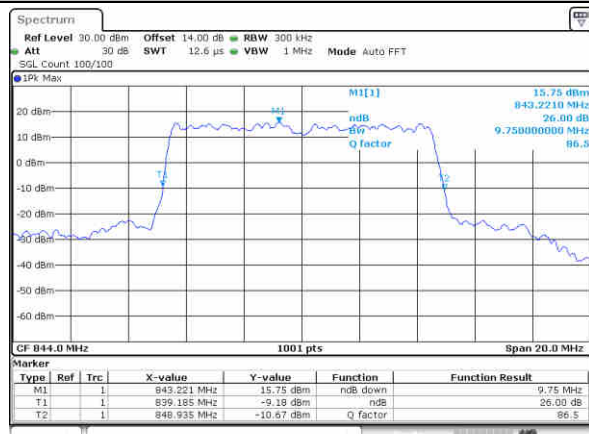
Date: 15, DEC, 2019 20:56:54

Highest Channel / 5MHz / 64QAM



Date: 15, DEC, 2019 20:38:13

Highest Channel / 10MHz / 64QAM



Date: 15, DEC, 2019 20:59:59

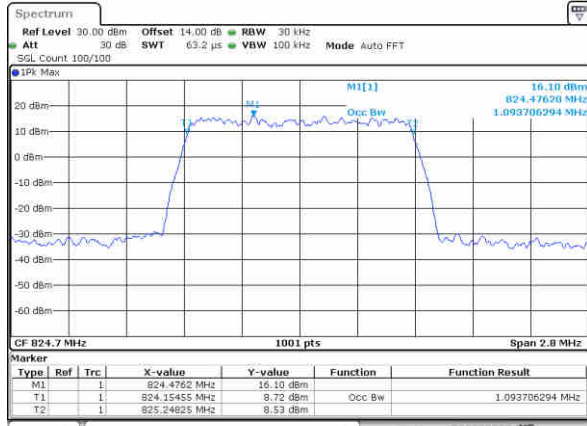
**Occupied Bandwidth**

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	2.72	2.72	4.49	4.48	9.01	9.05	-	-	-	-
Middle CH	1.09	1.09	2.73	2.74	4.50	4.49	8.99	8.97	-	-	-	-
Highest CH	1.08	1.09	2.70	2.71	4.50	4.50	9.05	8.99	-	-	-	-
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	-	2.72	-	4.49	-	9.05	-	-	-	-	-
Middle CH	1.09	-	2.74	-	4.50	-	8.95	-	-	-	-	-
Highest CH	1.09	-	2.71	-	4.49	-	9.05	-	-	-	-	-

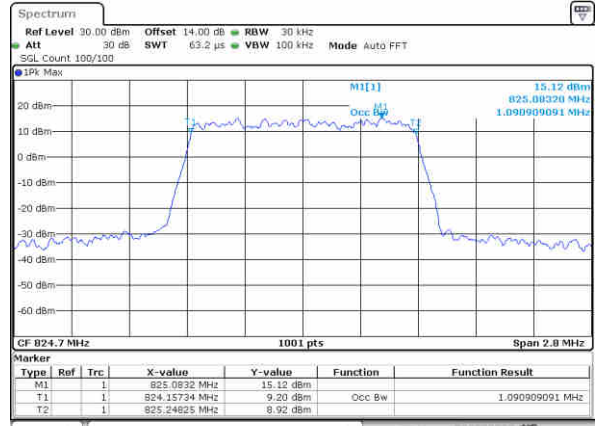


LTE Band 5

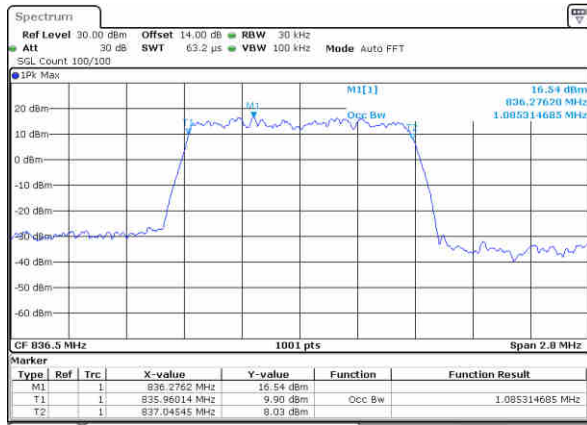
Lowest Channel / 1.4MHz / QPSK



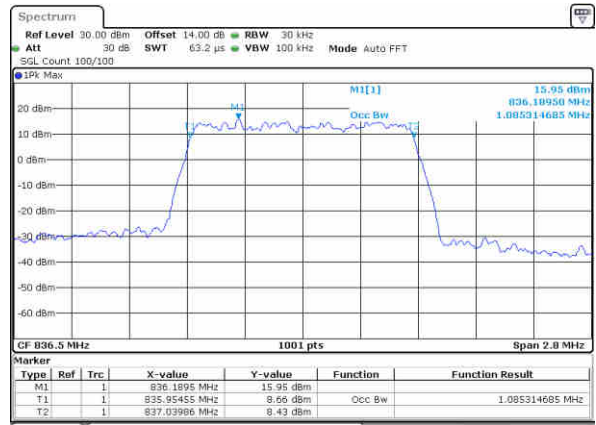
Lowest Channel / 1.4MHz / 16QAM



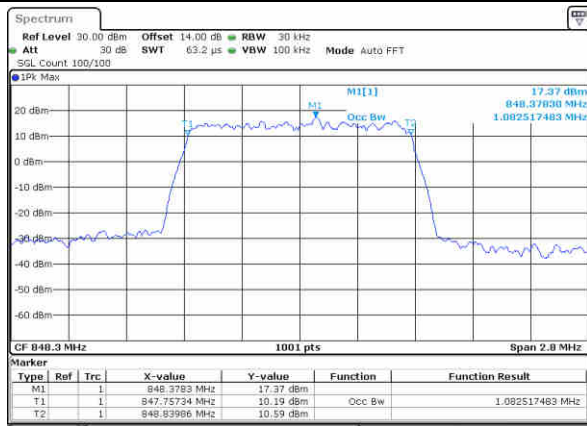
Middle Channel / 1.4MHz / QPSK



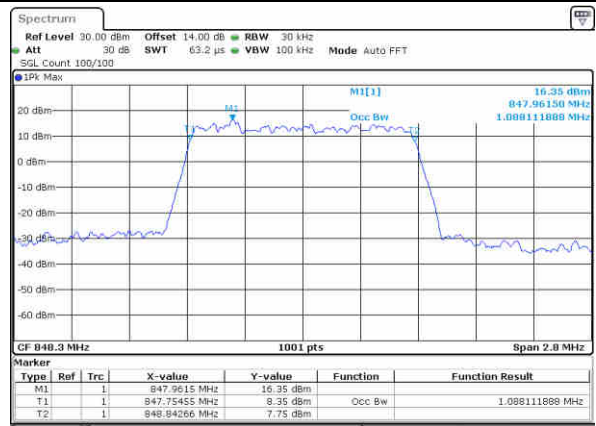
Middle Channel / 1.4MHz / 16QAM



Highest Channel / 1.4MHz / QPSK



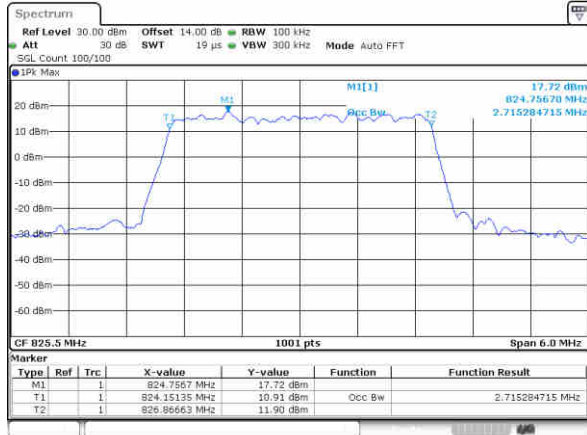
Highest Channel / 1.4MHz / 16QAM



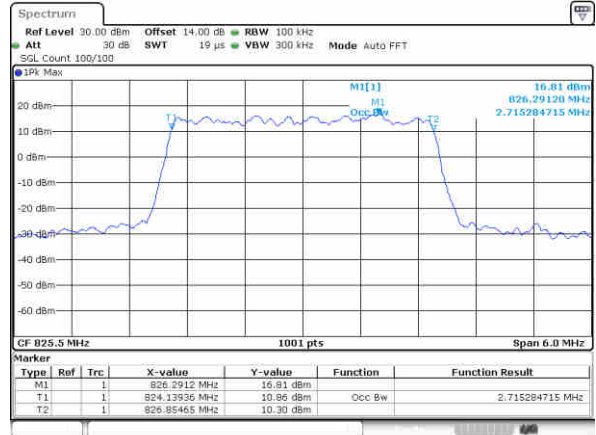


LTE Band 5

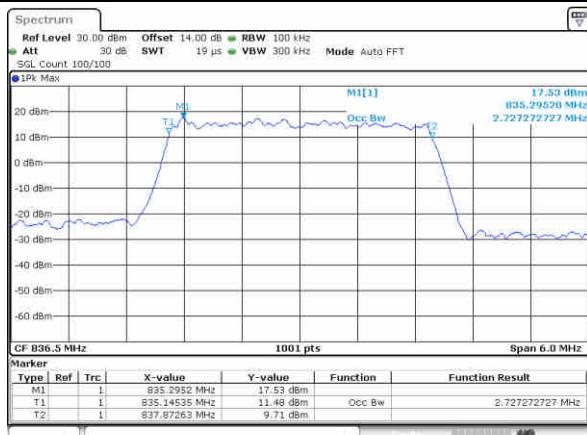
Lowest Channel / 3MHz / QPSK



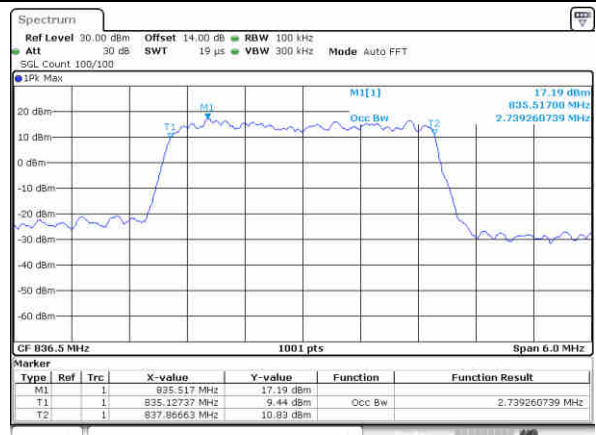
Lowest Channel / 3MHz / 16QAM



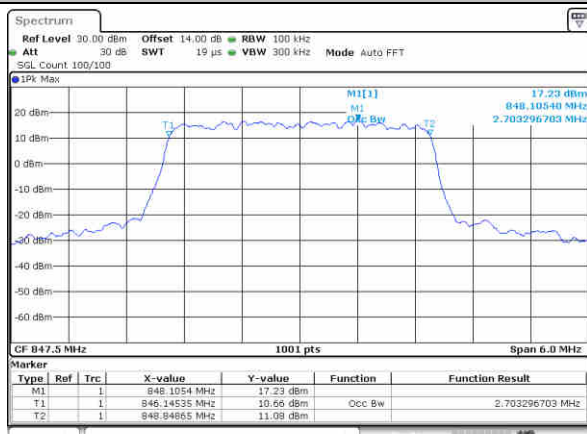
Middle Channel / 3MHz / QPSK



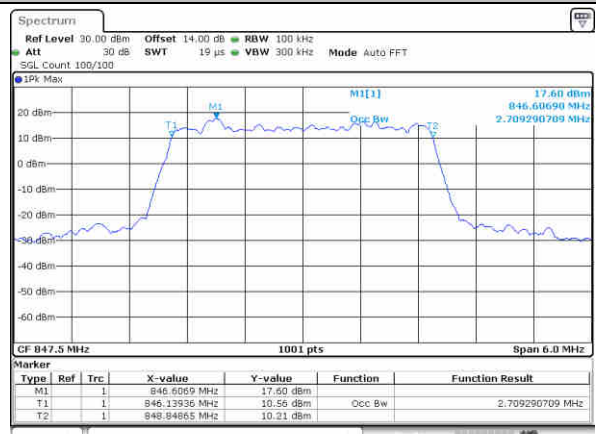
Middle Channel / 3MHz / 16QAM



Highest Channel / 3MHz / QPSK



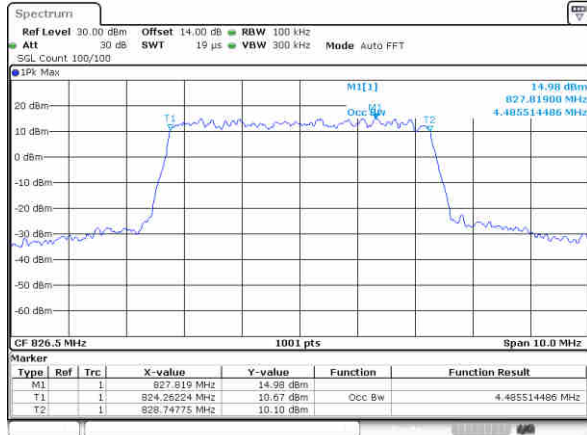
Highest Channel / 3MHz / 16QAM



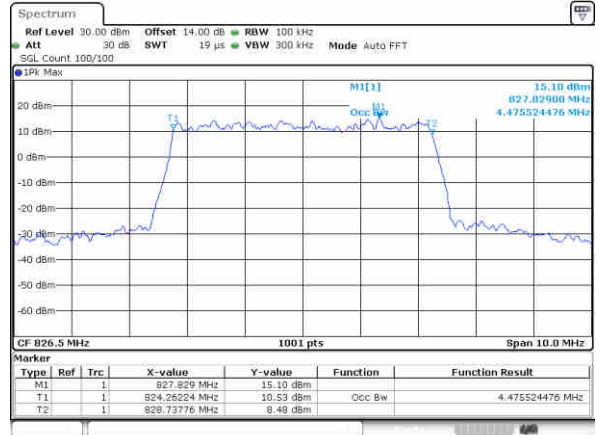


LTE Band 5

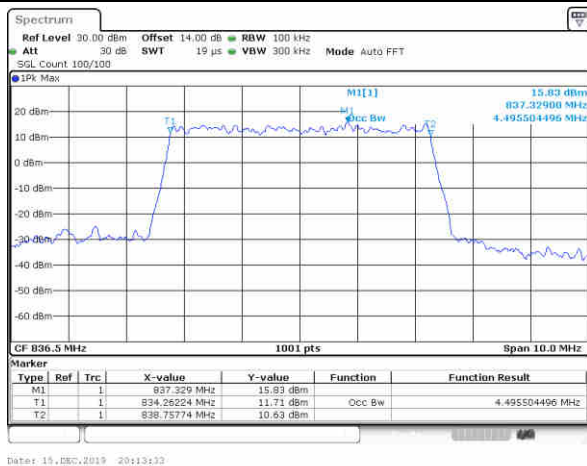
Lowest Channel / 5MHz / QPSK



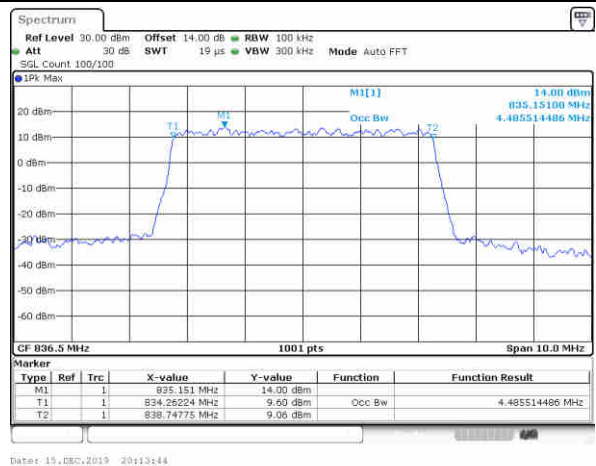
Lowest Channel / 5MHz / 16QAM



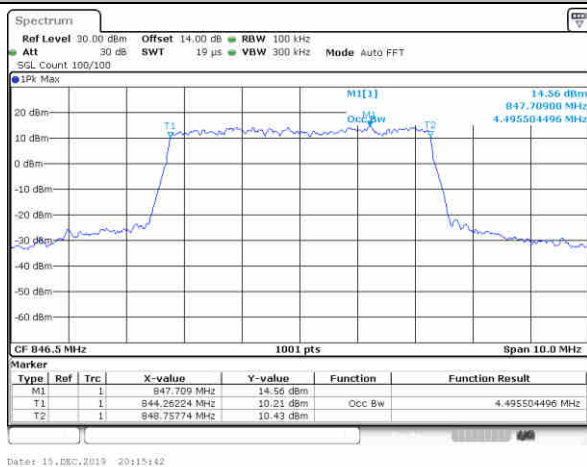
Middle Channel / 5MHz / QPSK



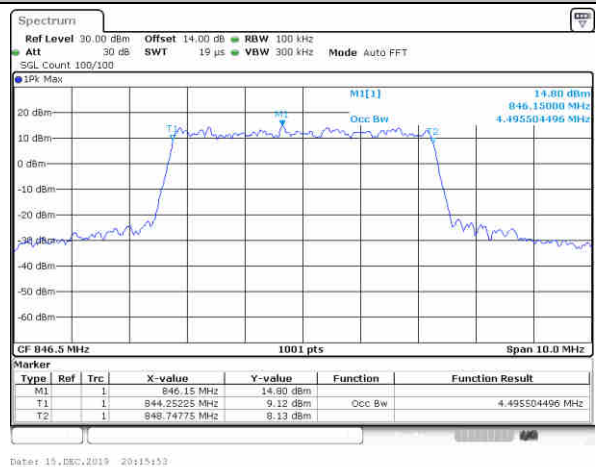
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



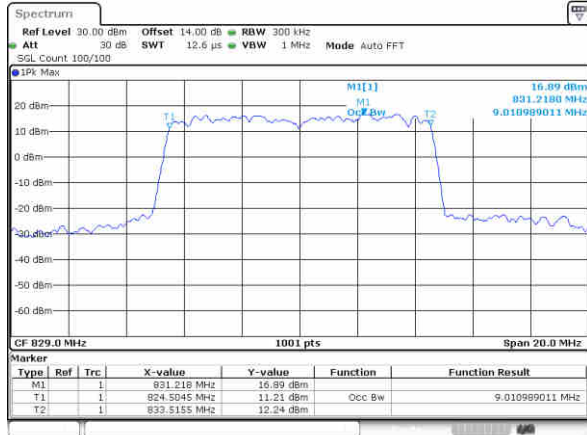
Highest Channel / 5MHz / 16QAM



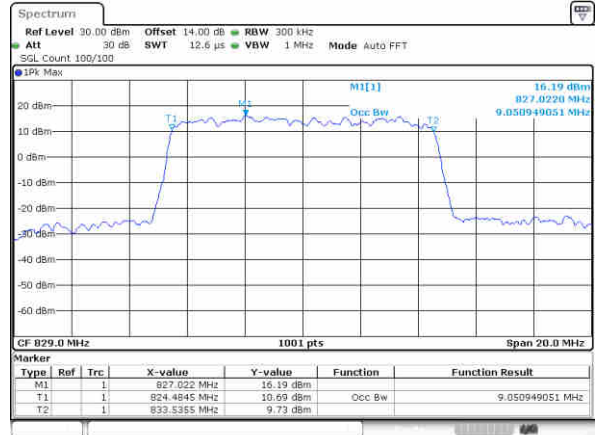


LTE Band 5

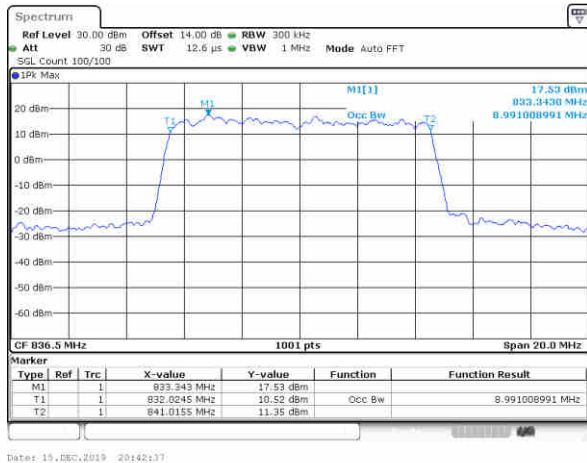
Lowest Channel / 10MHz / QPSK



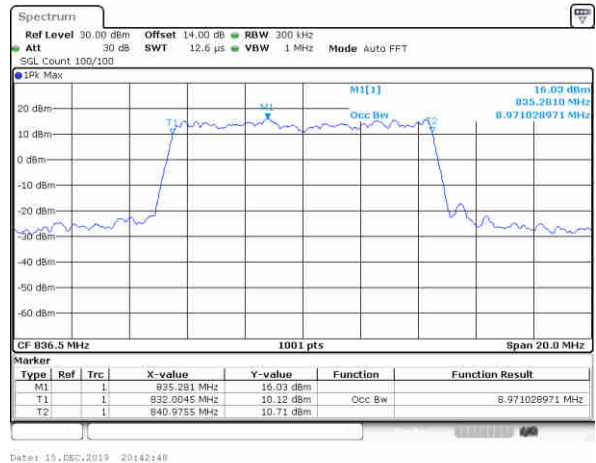
Lowest Channel / 10MHz / 16QAM



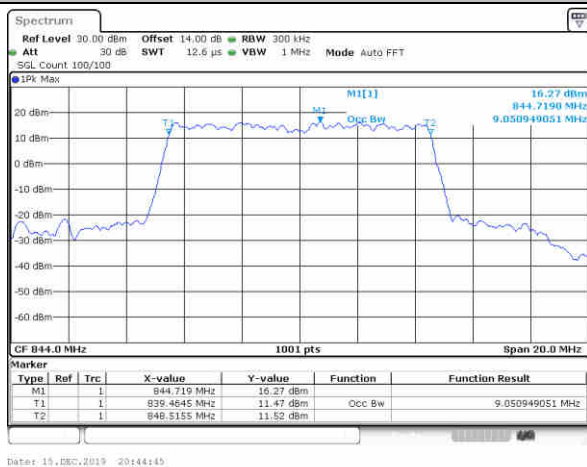
Middle Channel / 10MHz / QPSK



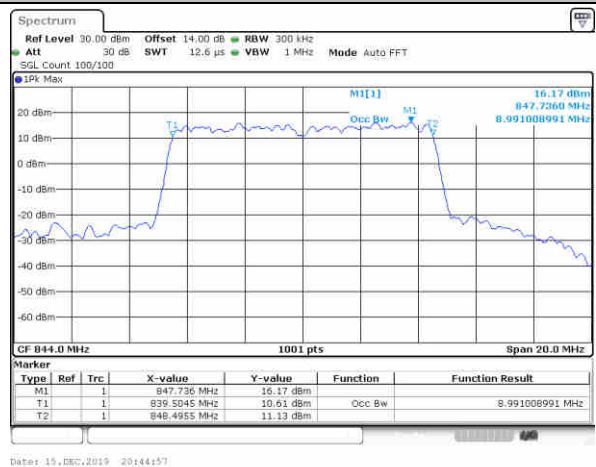
Middle Channel / 10MHz / 16QAM



Highest Channel / 10MHz / QPSK



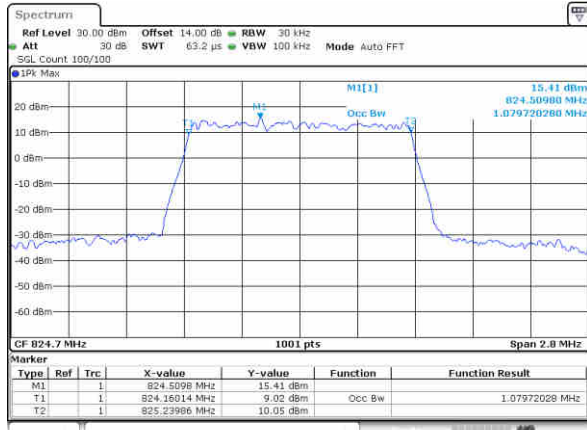
Highest Channel / 10MHz / 16QAM



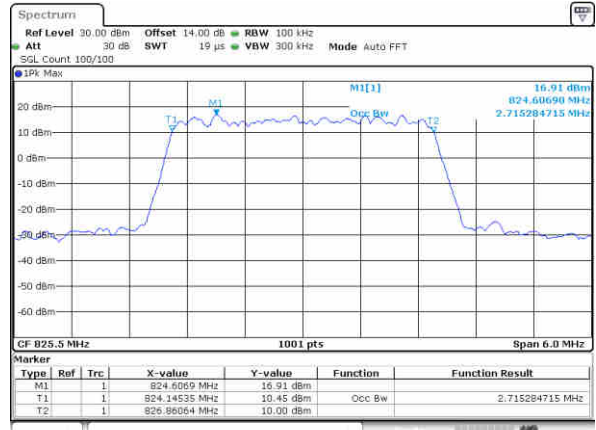


LTE Band 5

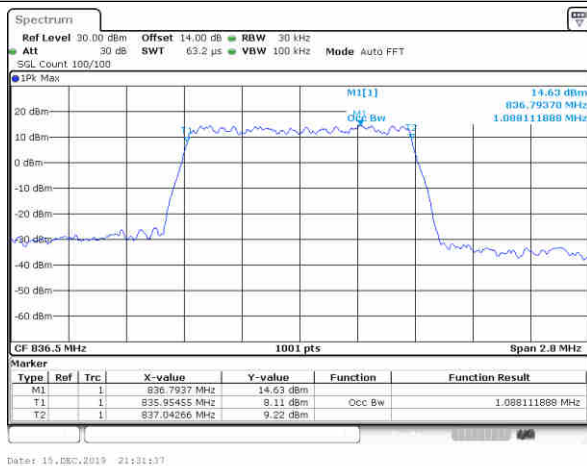
Lowest Channel / 1.4MHz / 64QAM



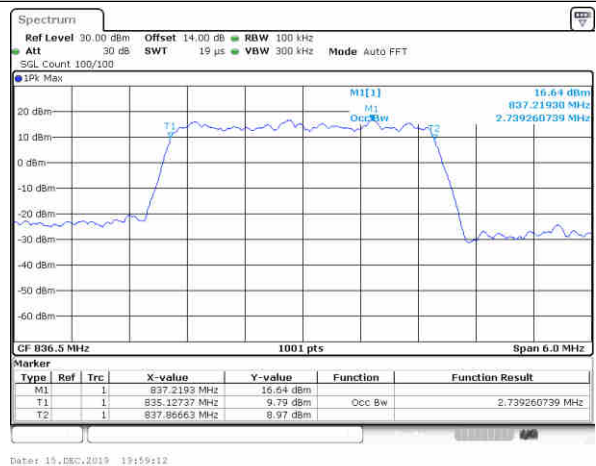
Lowest Channel / 3MHz / 64QAM



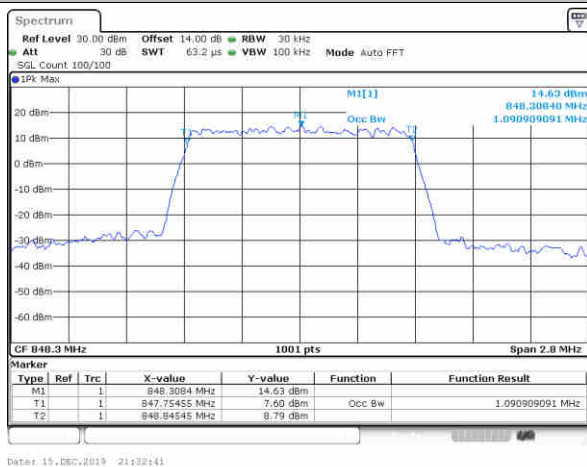
Middle Channel / 1.4MHz / 64QAM



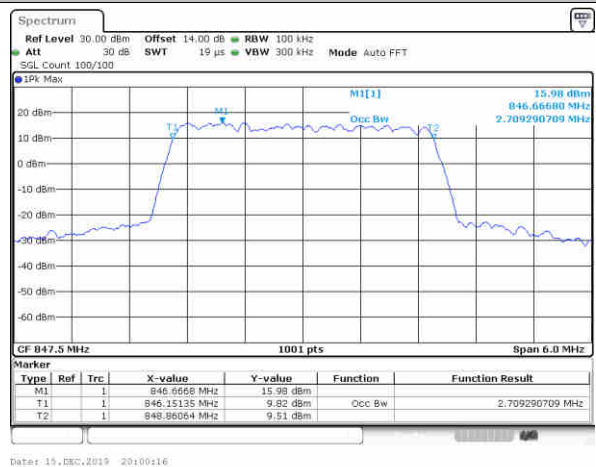
Middle Channel / 3MHz / 64QAM



Highest Channel / 1.4MHz / 64QAM



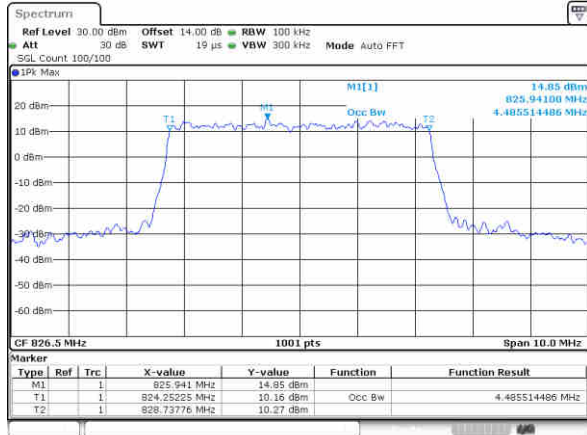
Highest Channel / 3MHz / 64QAM



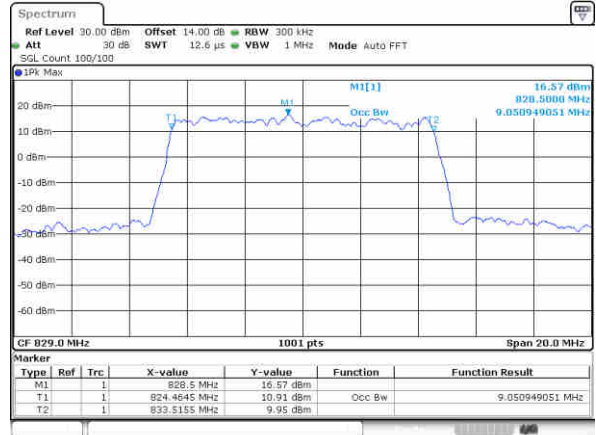


LTE Band 5

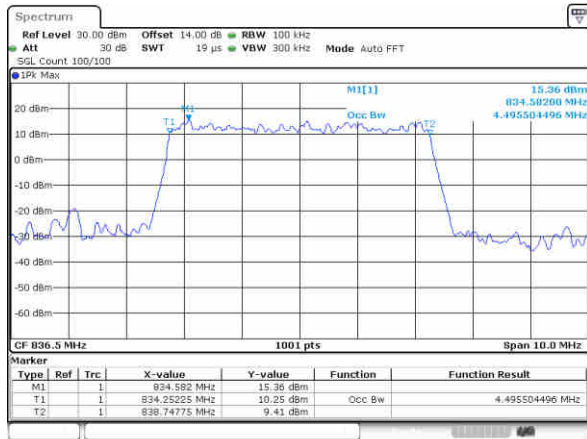
Lowest Channel / 5MHz / 64QAM



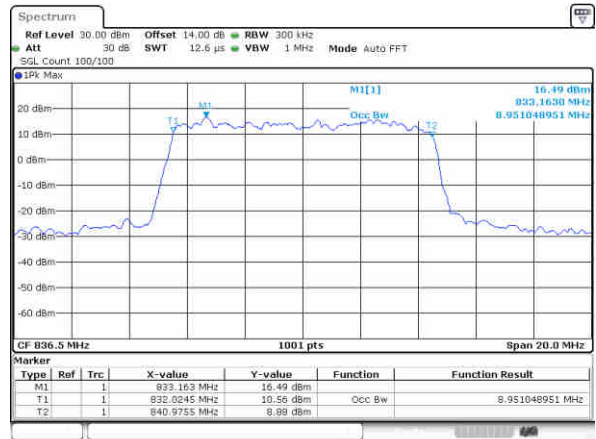
Lowest Channel / 10MHz / 64QAM



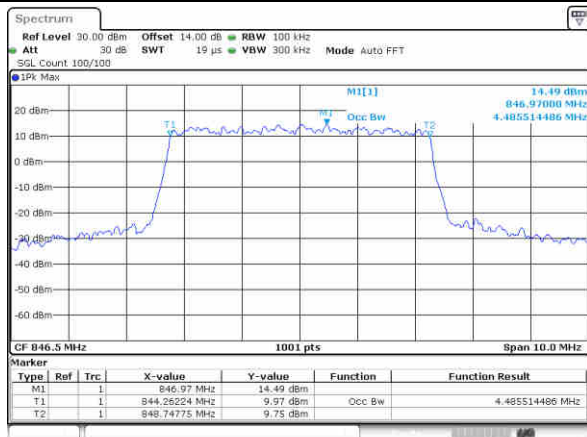
Middle Channel / 5MHz / 64QAM



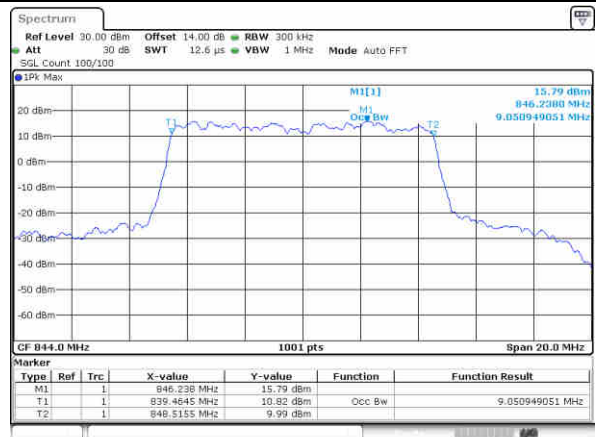
Middle Channel / 10MHz / 64QAM

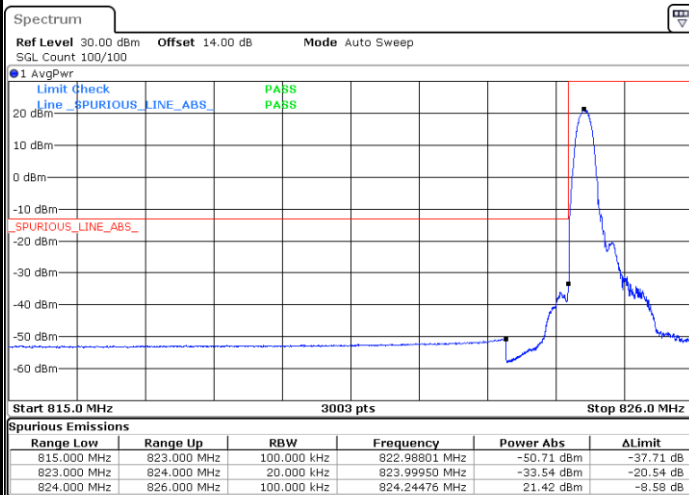
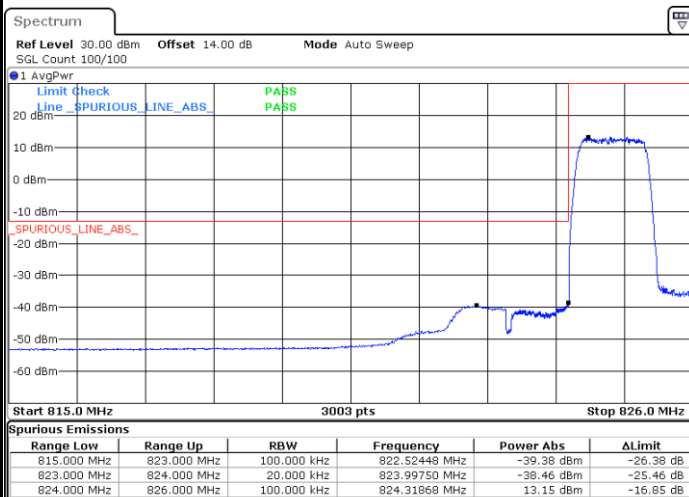


Highest Channel / 5MHz / 64QAM



Highest Channel / 10MHz / 64QAM

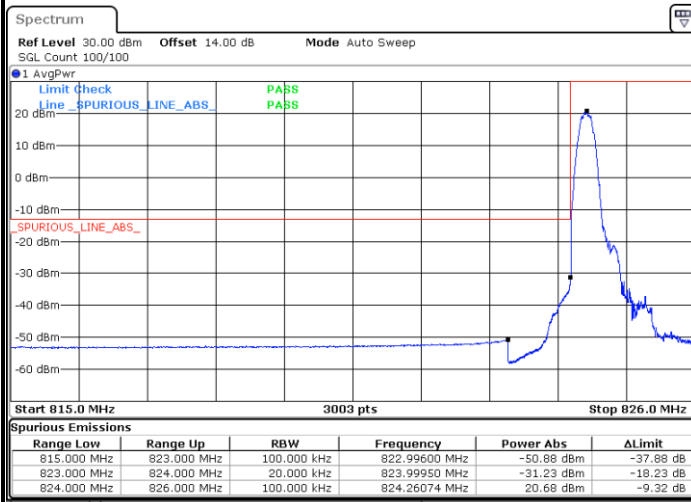


**Conducted Band Edge****LTE Band 5 / 1.4MHz / QPSK****Lowest Band Edge / 1RB****Highest Band Edge / 1RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**



LTE Band 5 / 1.4MHz / 16QAM

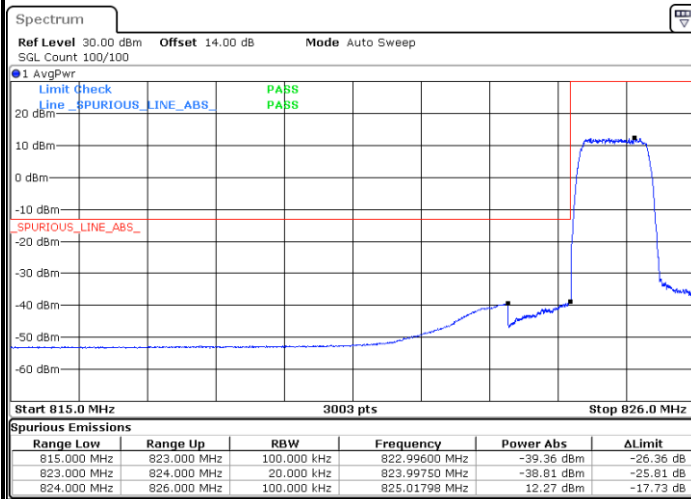
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



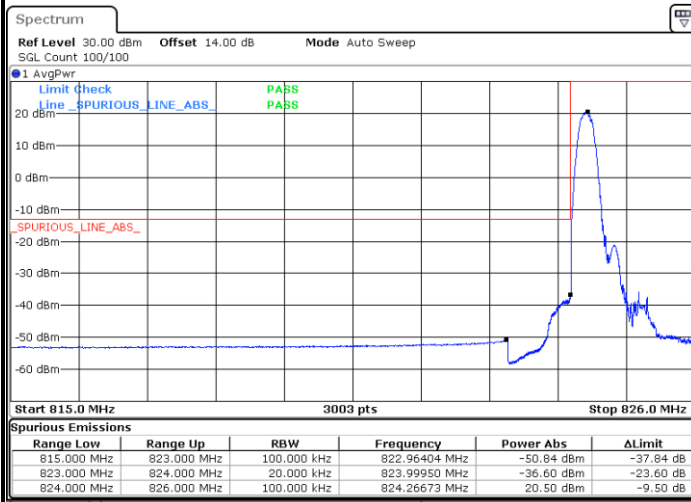
Highest Band Edge / Full RB





LTE Band 5 / 1.4MHz / 64QAM

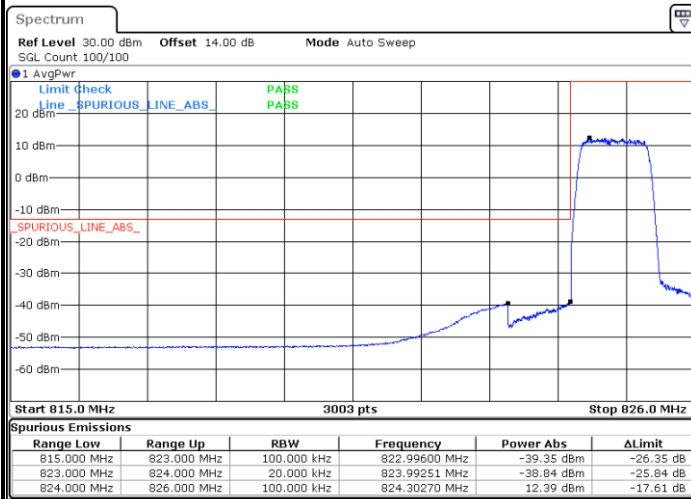
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



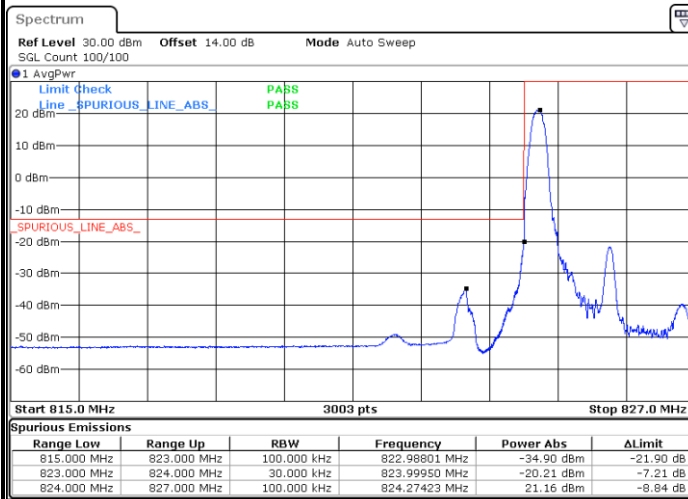
Highest Band Edge / Full RB





LTE Band 5 / 3MHz / QPSK

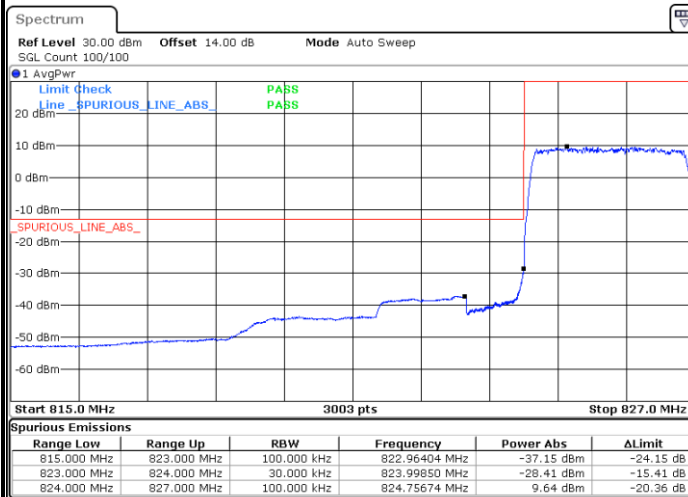
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



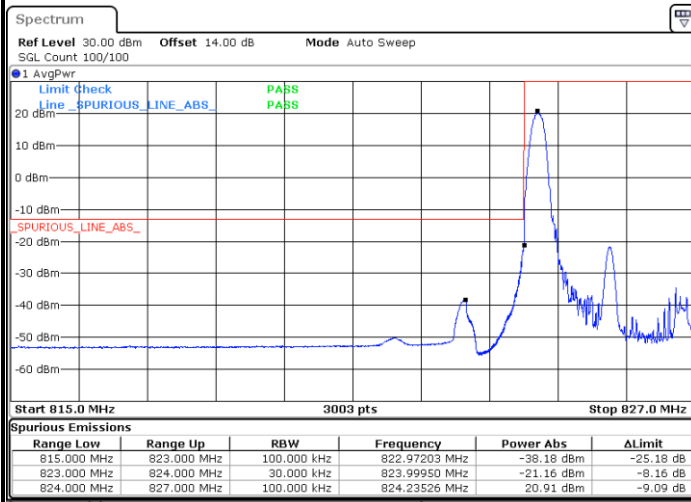
Highest Band Edge / Full RB





LTE Band 5 / 3MHz / 16QAM

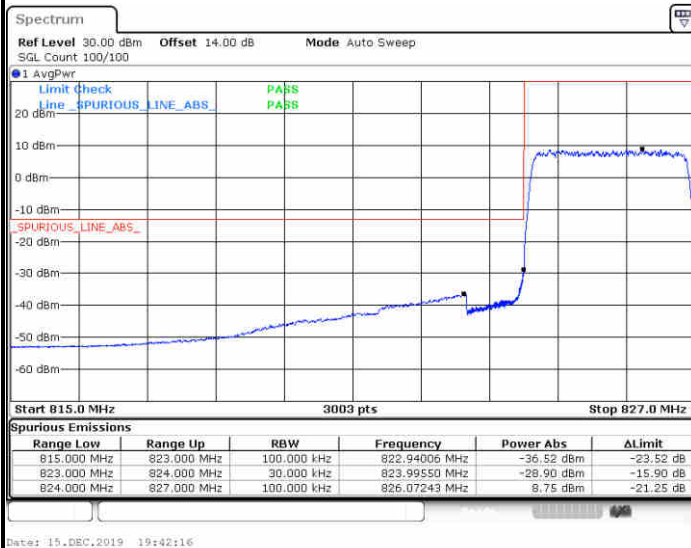
Lowest Band Edge / 1 RB



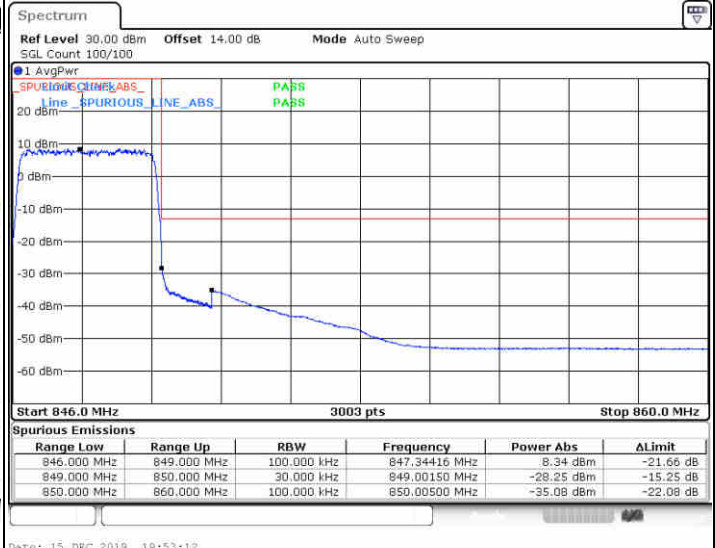
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



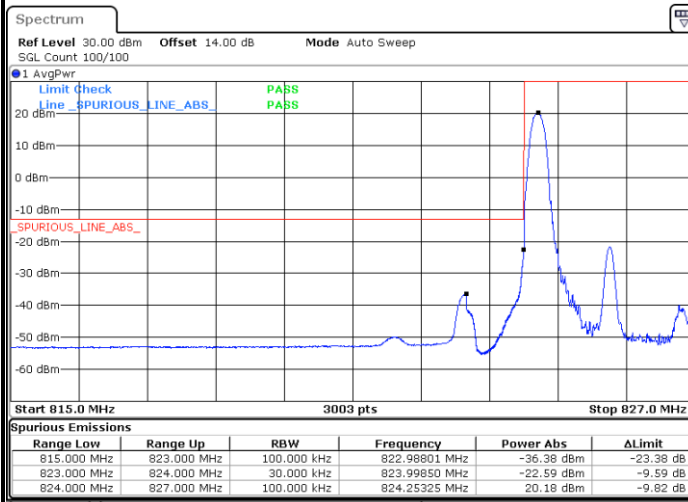
Highest Band Edge / Full RB





LTE Band 5 / 3MHz / 64QAM

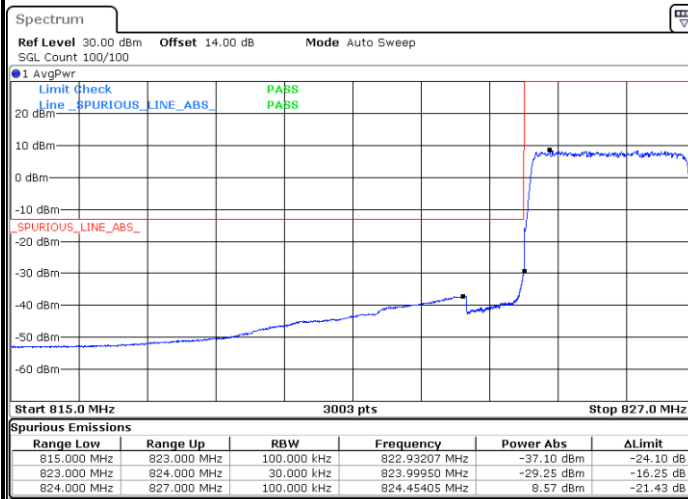
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



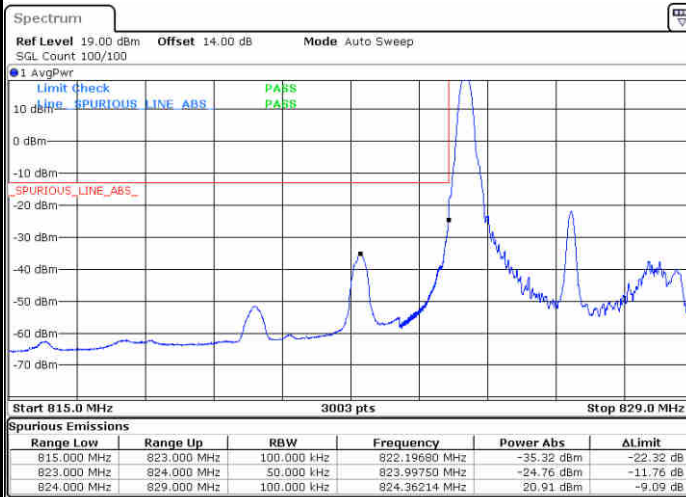
Highest Band Edge / Full RB



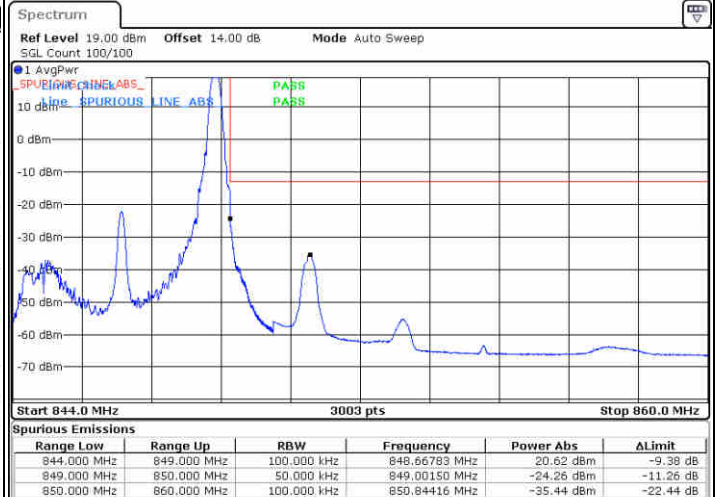


LTE Band 5 / 5MHz / QPSK

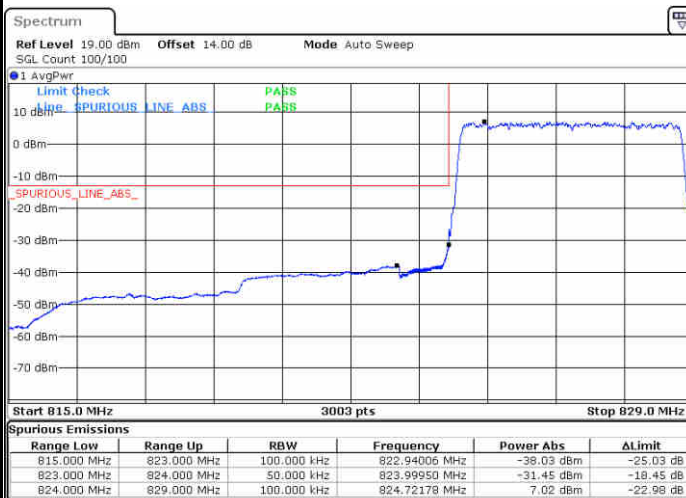
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



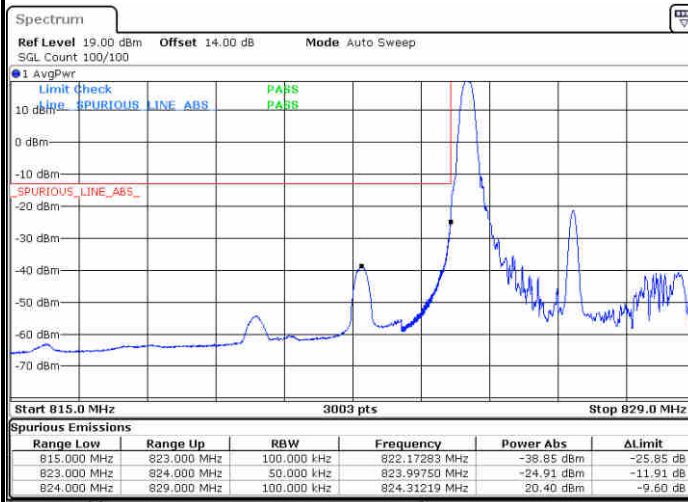
Highest Band Edge / Full RB



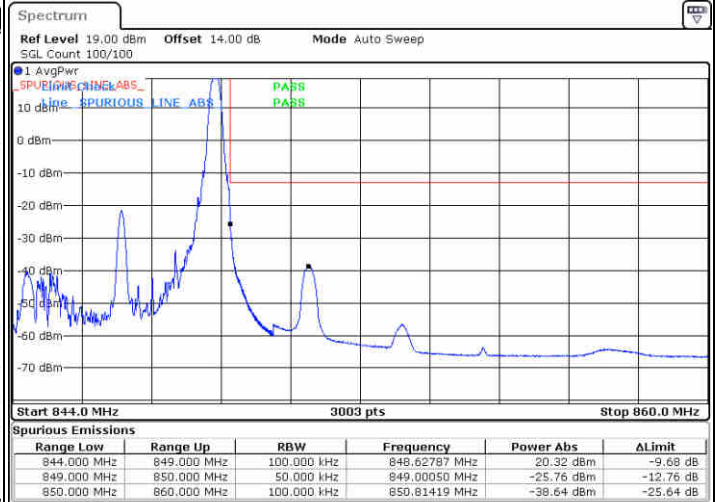


LTE Band 5 / 5MHz / 16QAM

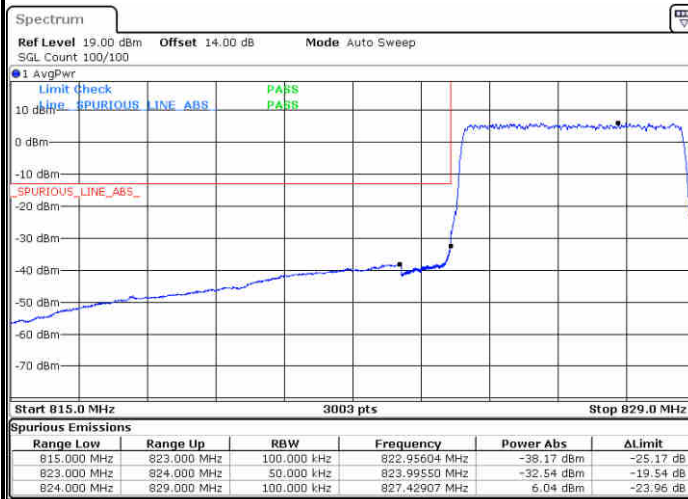
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



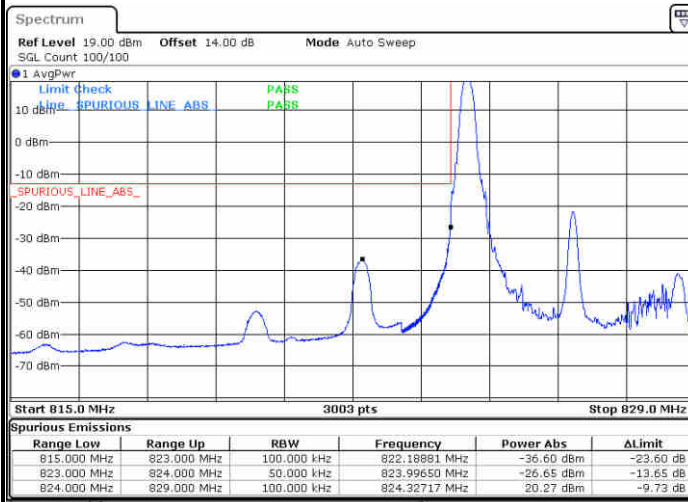
Highest Band Edge / Full RB



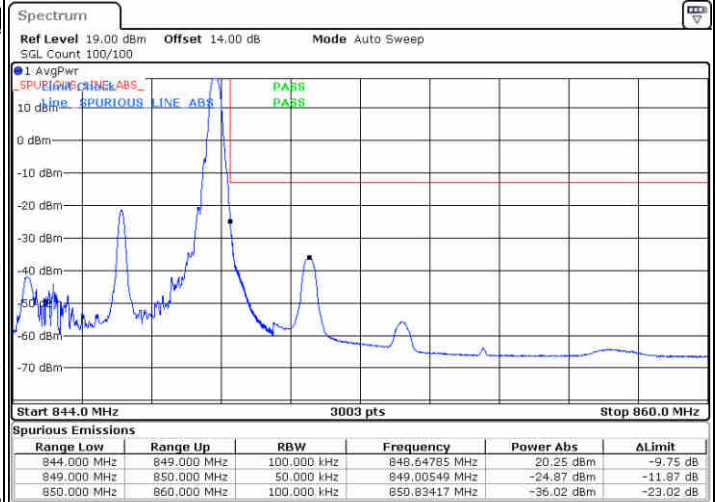


LTE Band 5 / 5MHz / 64QAM

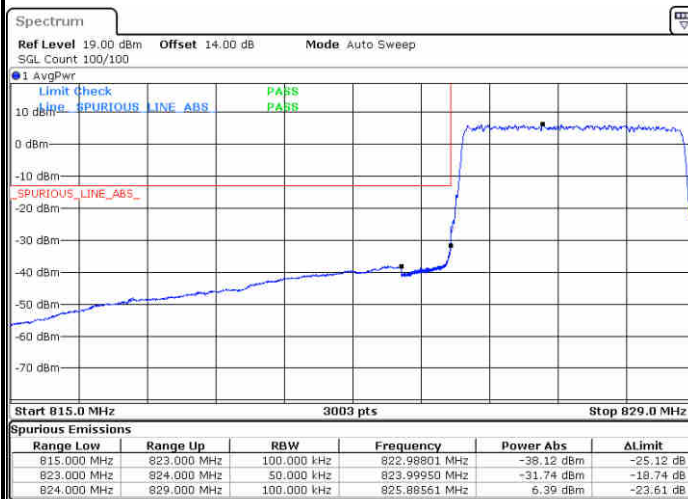
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



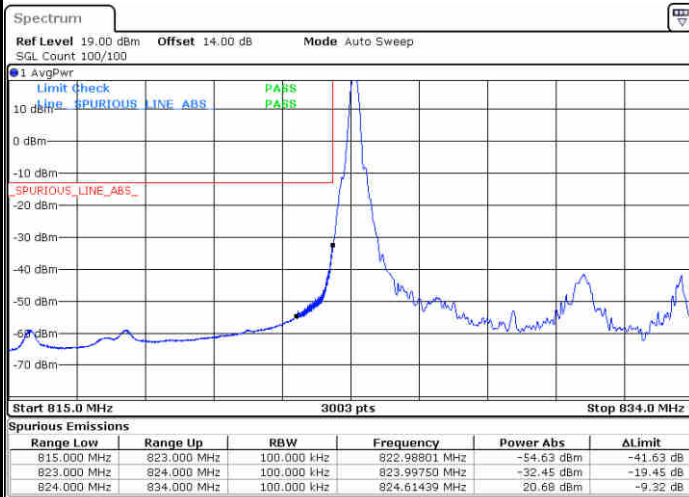
Highest Band Edge / Full RB



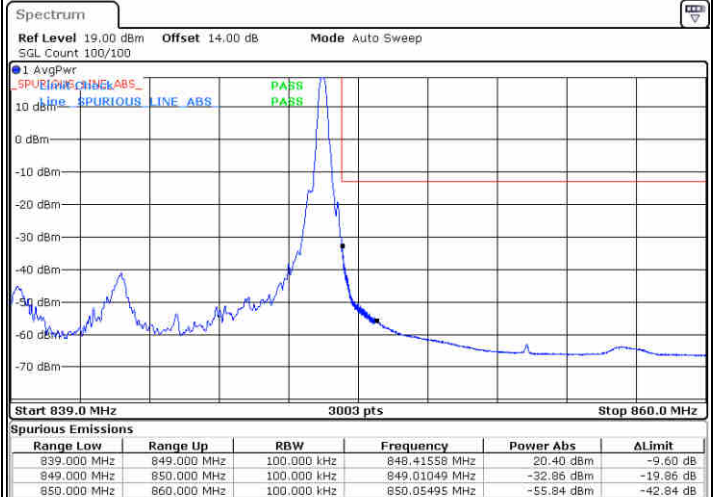


LTE Band 5 / 10MHz / QPSK

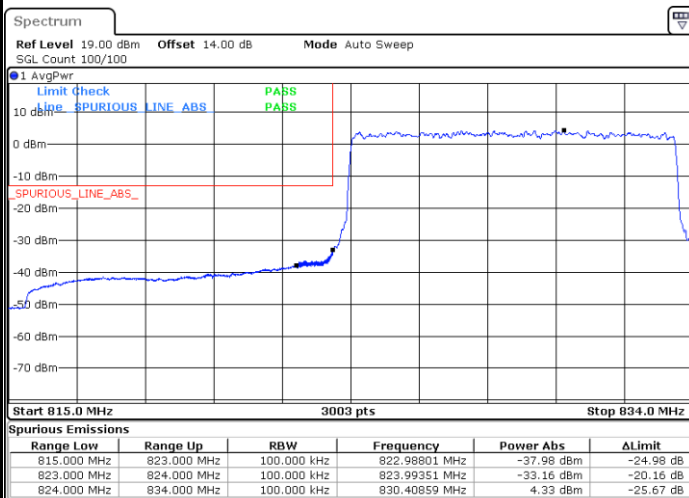
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



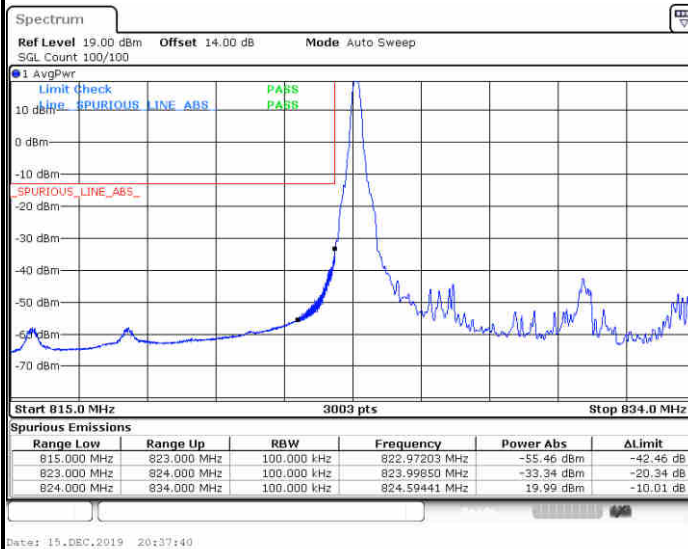
Highest Band Edge / Full RB



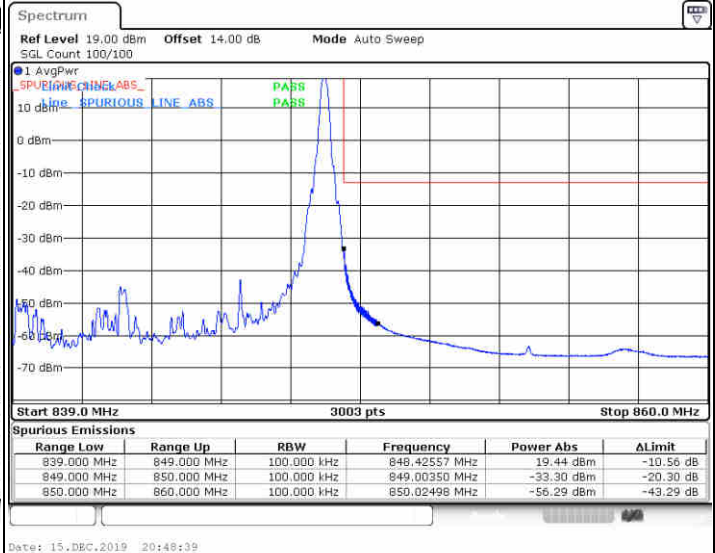


LTE Band 5 / 10MHz / 16QAM

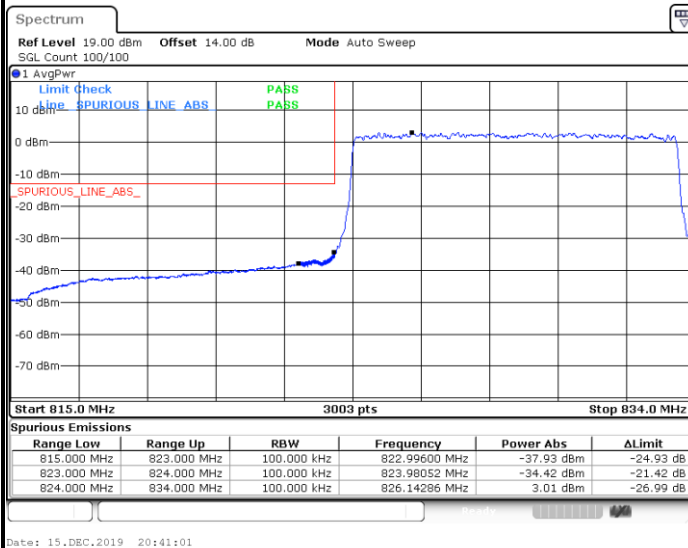
Lowest Band Edge / 1 RB



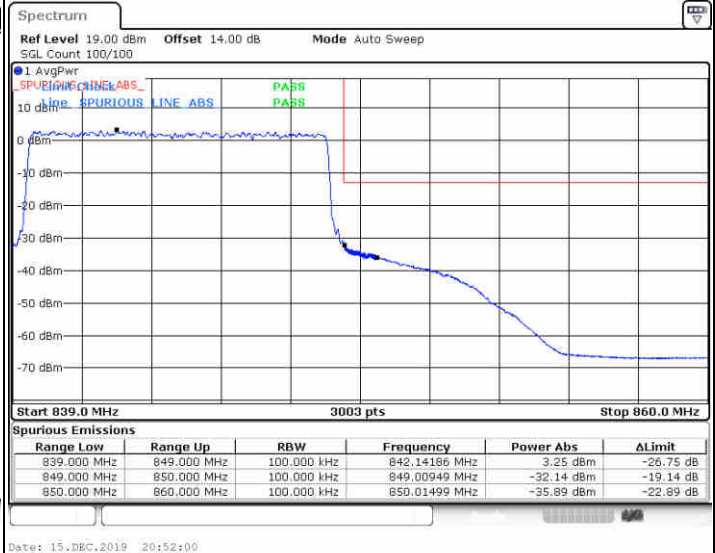
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



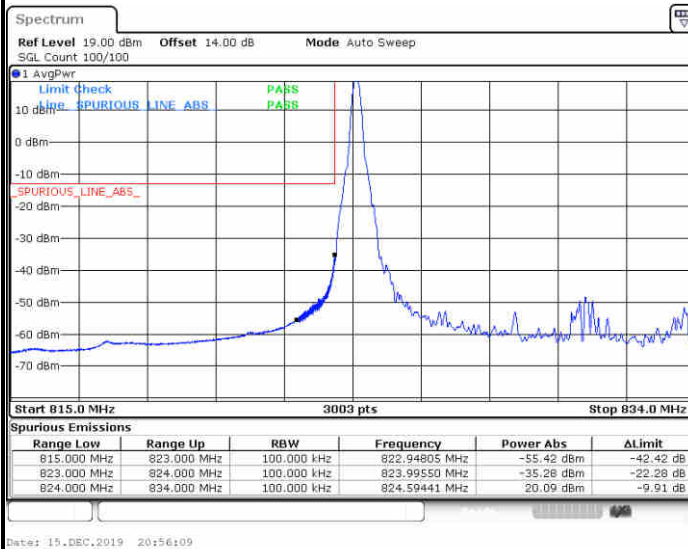
Highest Band Edge / Full RB



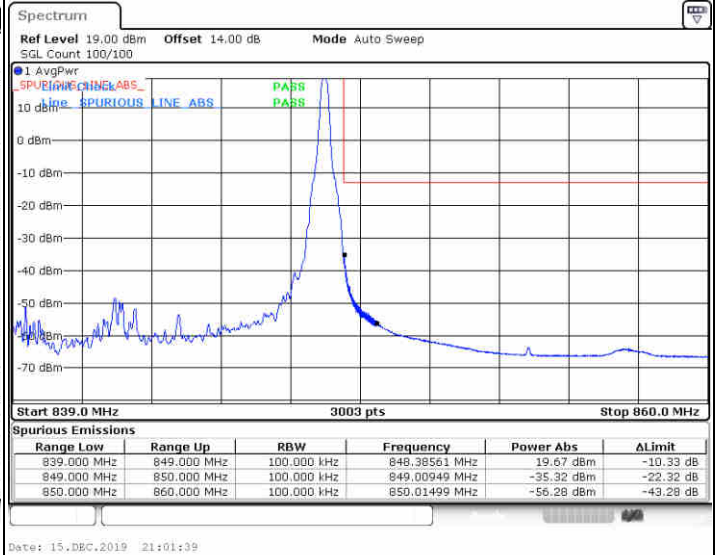


LTE Band 5 / 10MHz / 64QAM

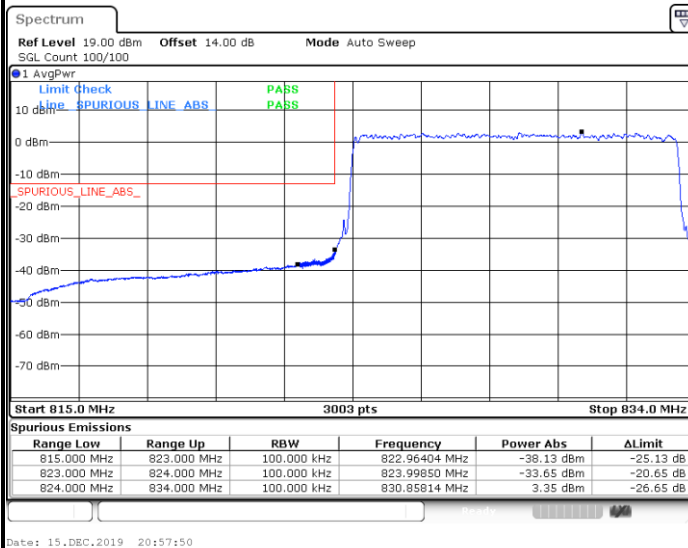
Lowest Band Edge / 1 RB



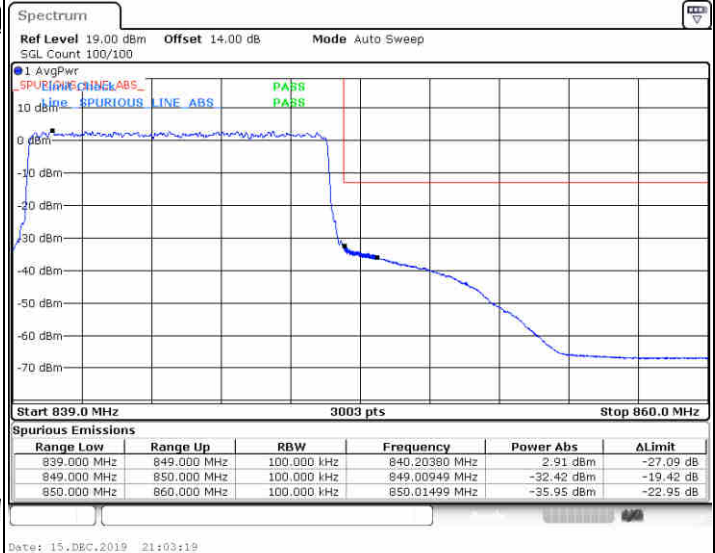
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

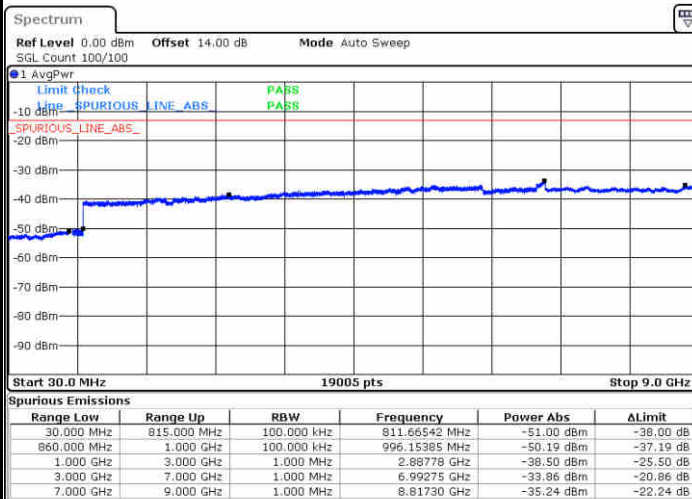




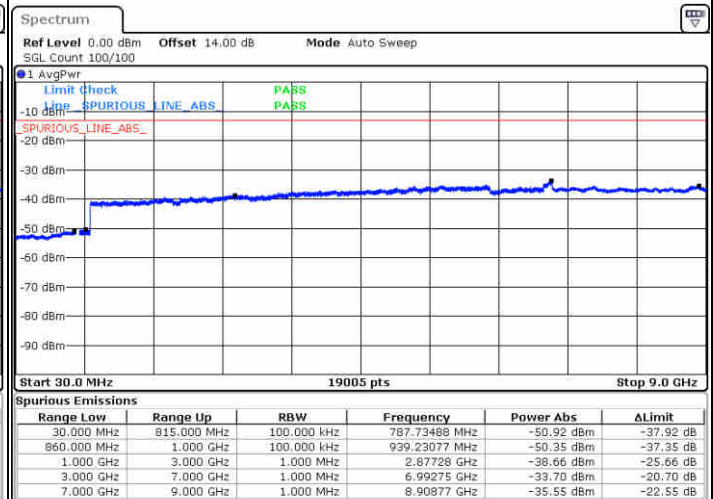
Conducted Spurious Emission

LTE Band 5 / 1.4MHz

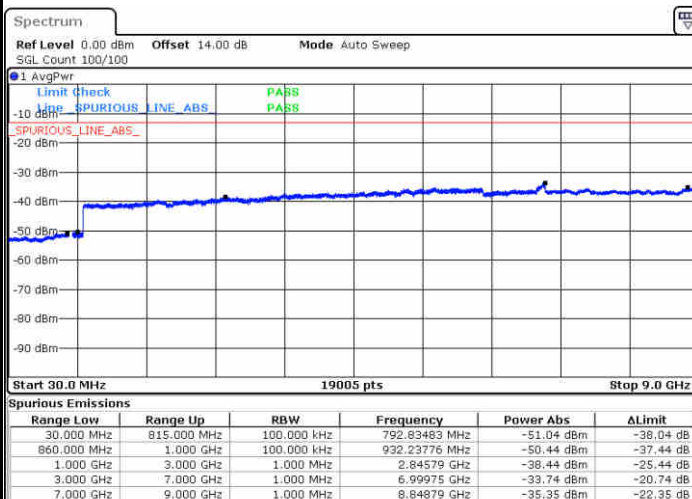
Lowest Channel / QPSK



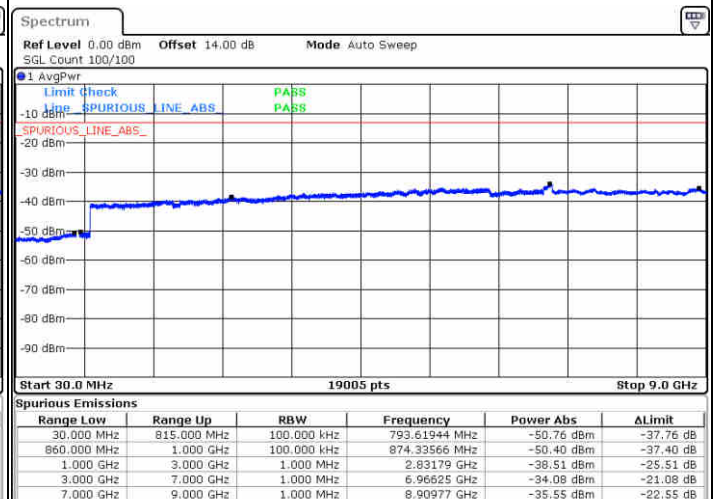
Lowest Channel / 16QAM



Middle Channel / QPSK



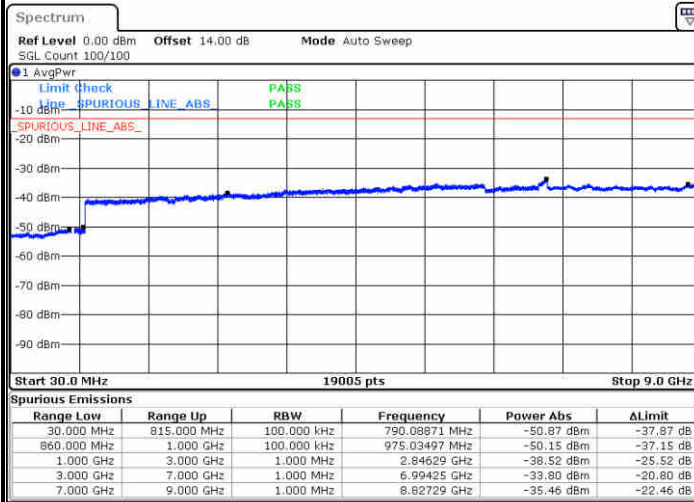
Middle Channel / 16QAM





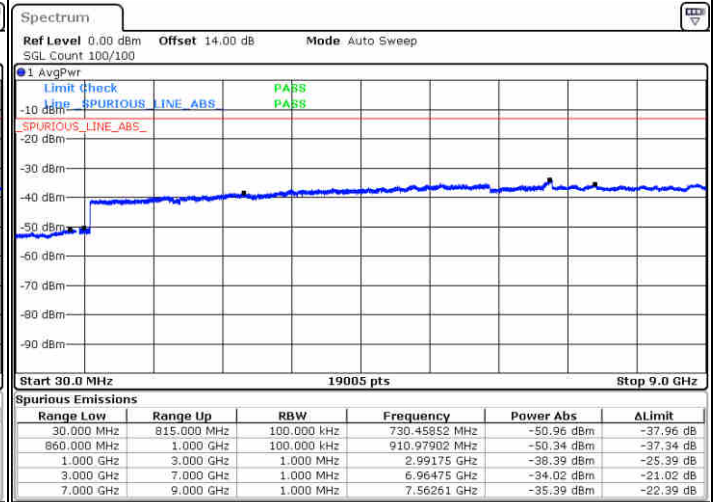
LTE Band 5 / 1.4MHz

Highest Channel / QPSK



Date: 15.DEC.2019 21:26:19

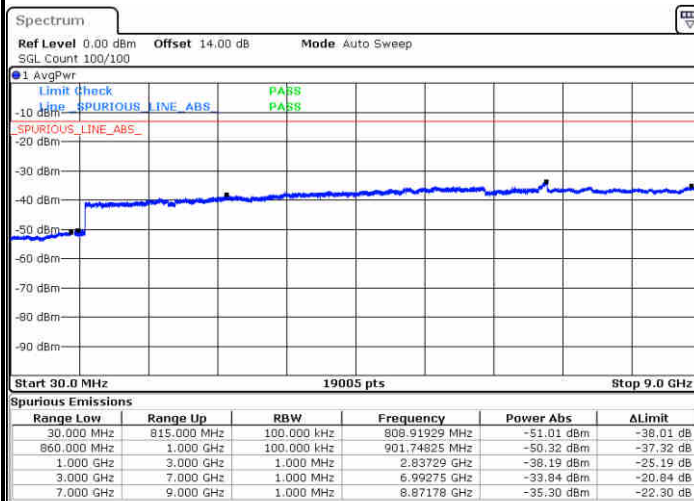
Highest Channel / 16QAM



Date: 15.DEC.2019 21:27:01

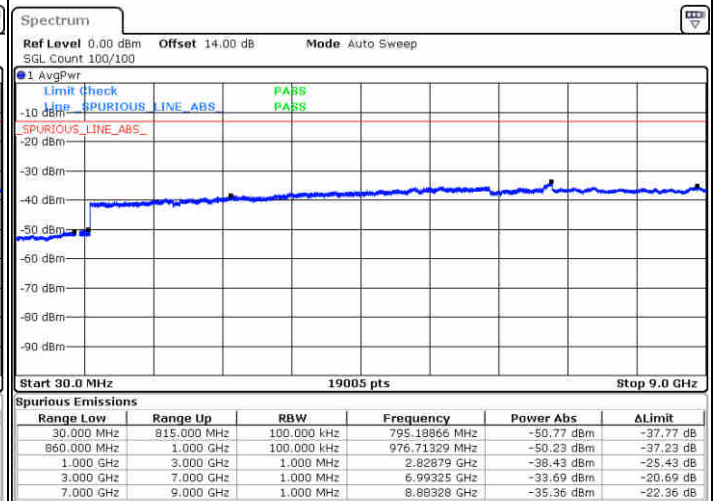
LTE Band 5 / 3MHz

Lowest Channel / QPSK



Date: 15.DEC.2019 19:42:57

Lowest Channel / 16QAM

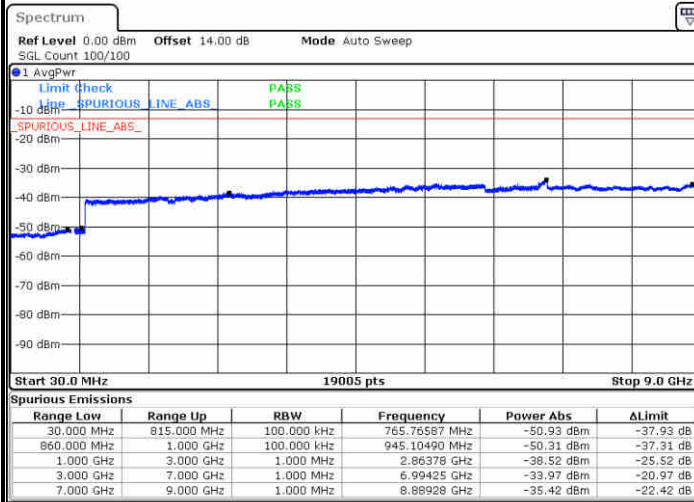


Date: 15.DEC.2019 19:43:38



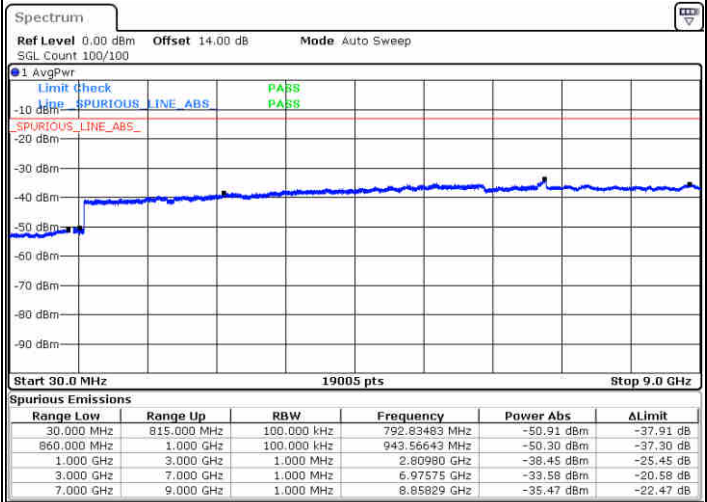
LTE Band 5 / 3MHz

Middle Channel / QPSK



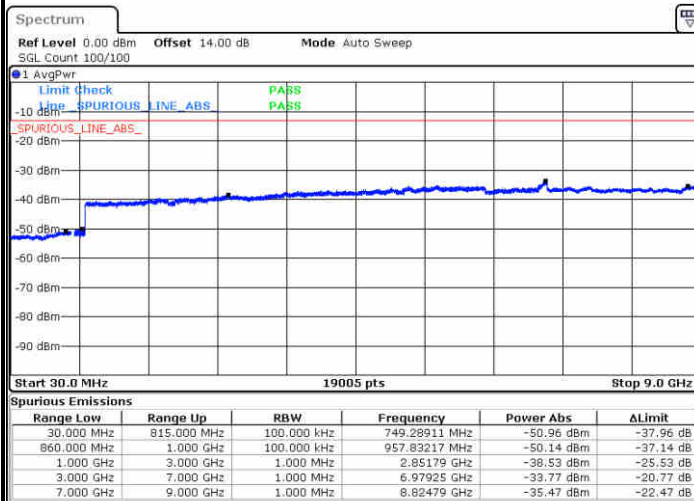
Date: 15.DEC.2019 19:45:04

Middle Channel / 16QAM



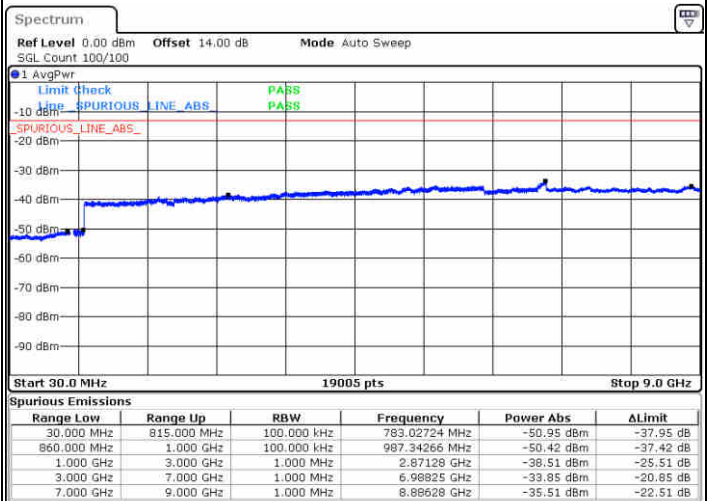
Date: 15.DEC.2019 19:45:45

Highest Channel / QPSK



Date: 15.DEC.2019 19:53:54

Highest Channel / 16QAM

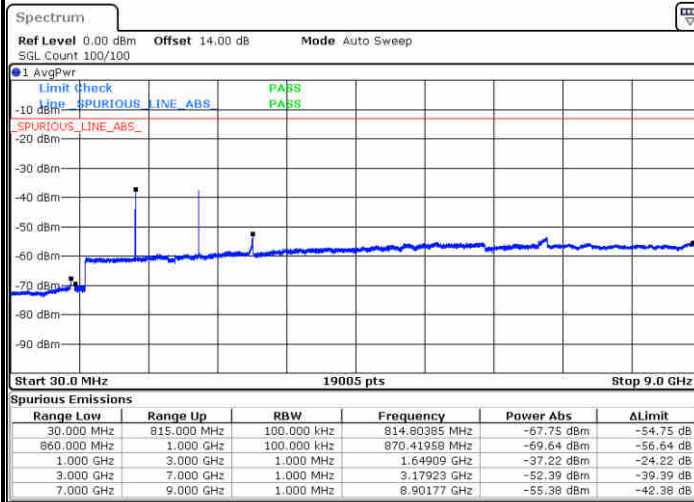


Date: 15.DEC.2019 19:54:36



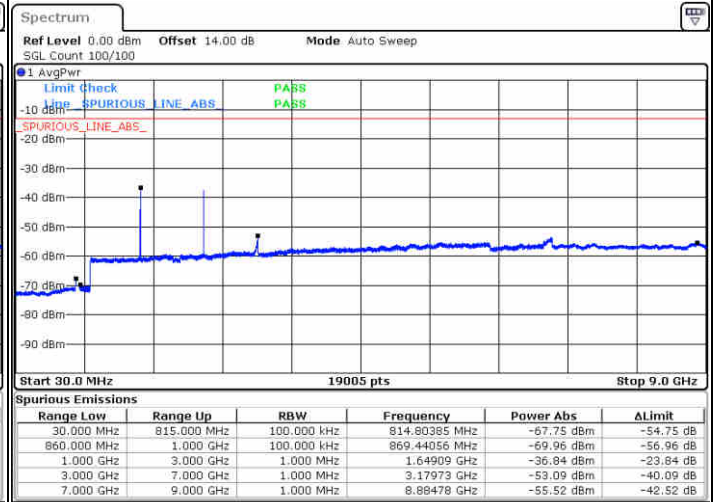
LTE Band 5 / 5MHz

Lowest Channel / QPSK



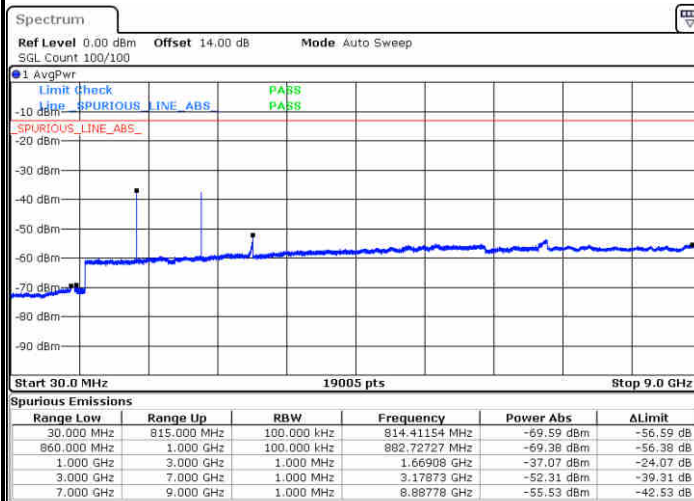
Date: 15.DEC.2019 20:12:40

Lowest Channel / 16QAM



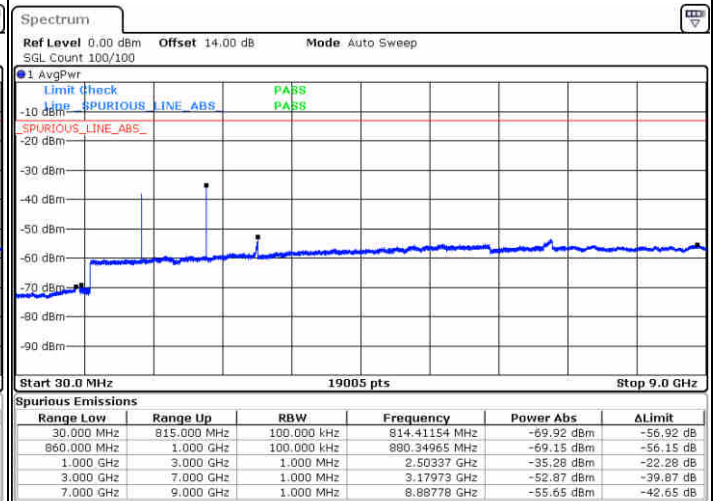
Date: 15.DEC.2019 20:13:22

Middle Channel / QPSK



Date: 15.DEC.2019 20:14:48

Middle Channel / 16QAM

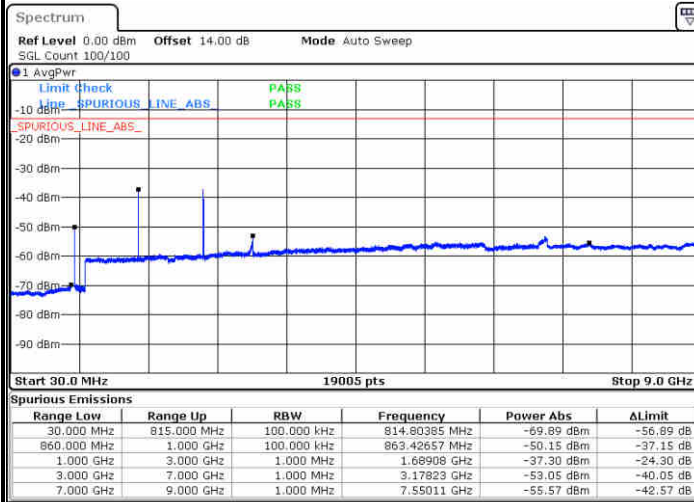


Date: 15.DEC.2019 20:15:30



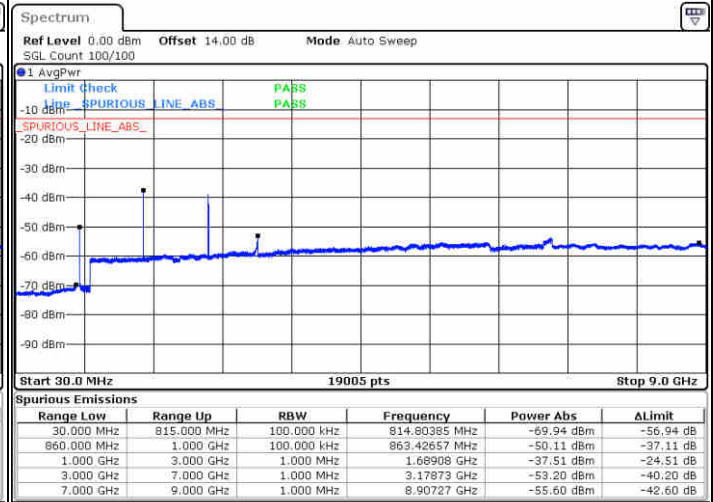
LTE Band 5 / 5MHz

Highest Channel / QPSK



Date: 15.DEC.2019 20:23:40

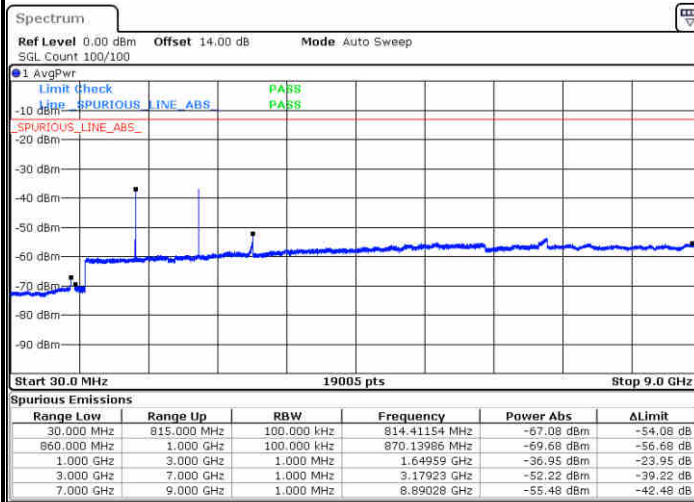
Highest Channel / 16QAM



Date: 15.DEC.2019 20:24:22

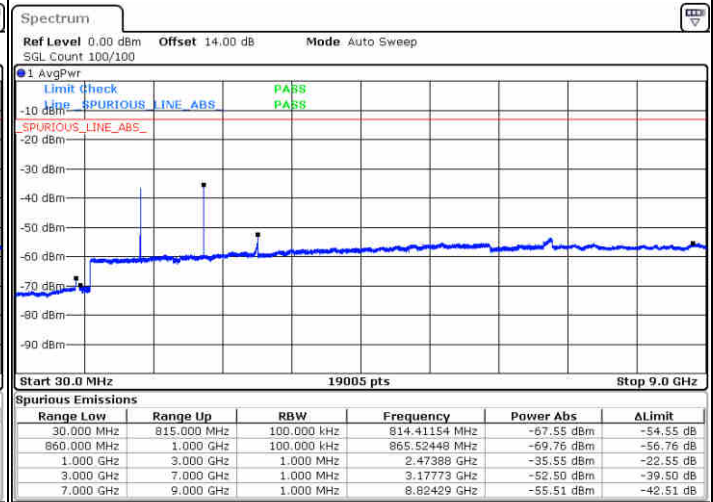
LTE Band 5 / 10MHz

Lowest Channel / QPSK



Date: 15.DEC.2019 20:41:44

Lowest Channel / 16QAM

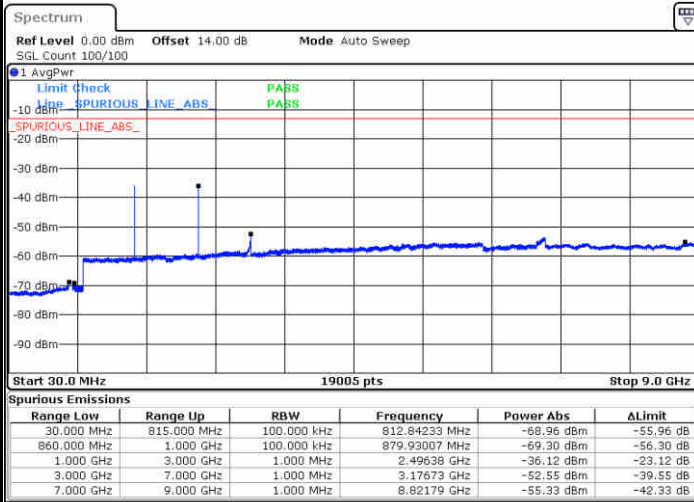


Date: 15.DEC.2019 20:42:26



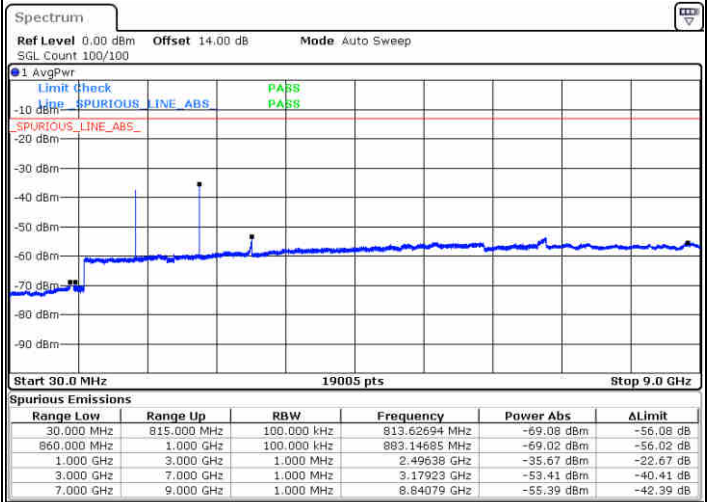
LTE Band 5 / 10MHz

Middle Channel / QPSK



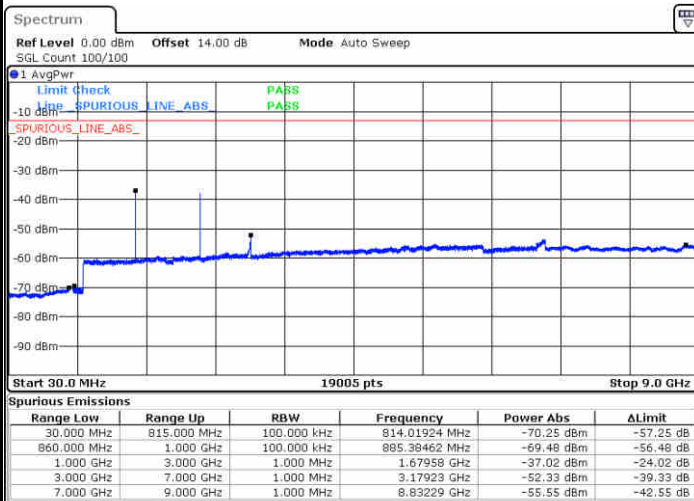
Date: 15.DEC.2019 20:43:52

Middle Channel / 16QAM



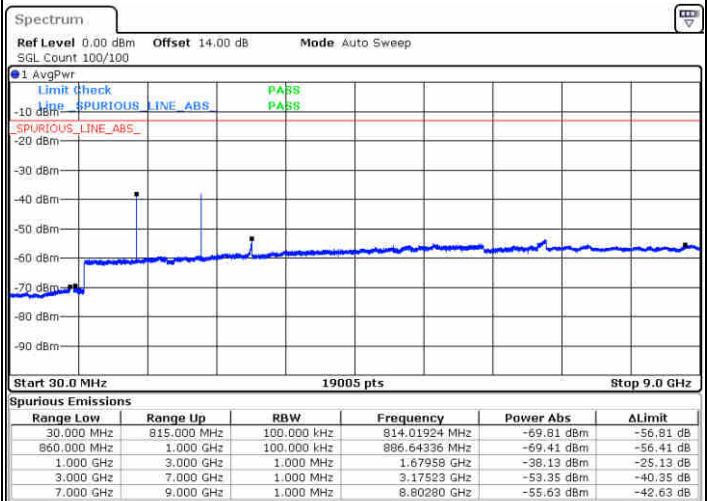
Date: 15.DEC.2019 20:44:34

Highest Channel / QPSK



Date: 15.DEC.2019 20:52:43

Highest Channel / 16QAM

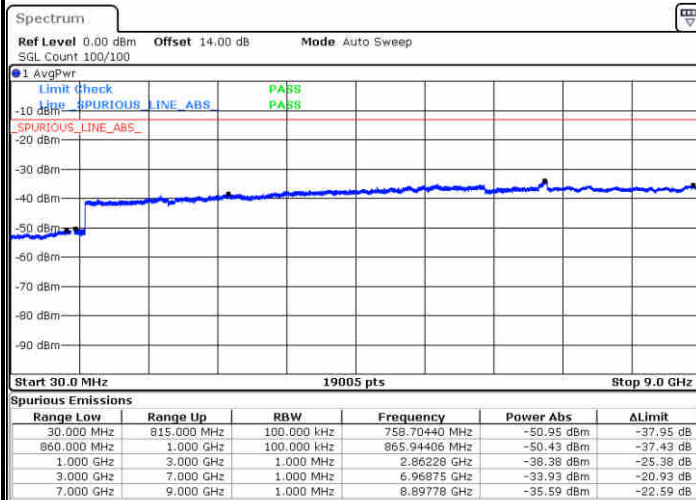


Date: 15.DEC.2019 20:53:25



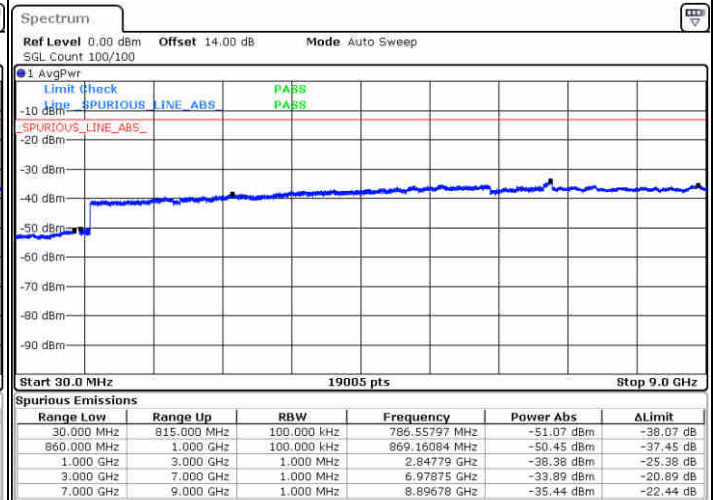
LTE Band 5 / 1.4MHz

Lowest Channel / 64QAM



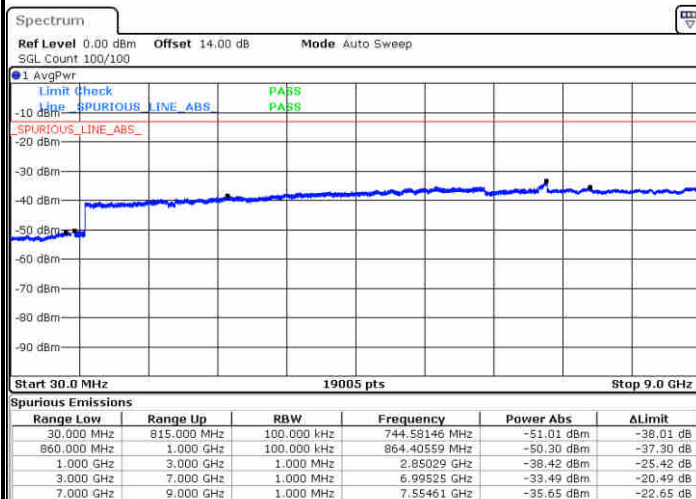
Date: 15.DEC.2019 21:31:26

Middle Channel / 64QAM



Date: 15.DEC.2019 21:32:30

Highest Channel / 64QAM

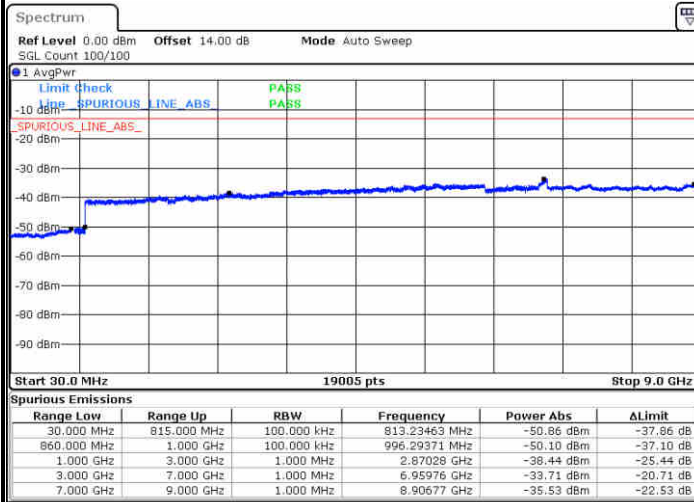


Date: 15.DEC.2019 21:36:56



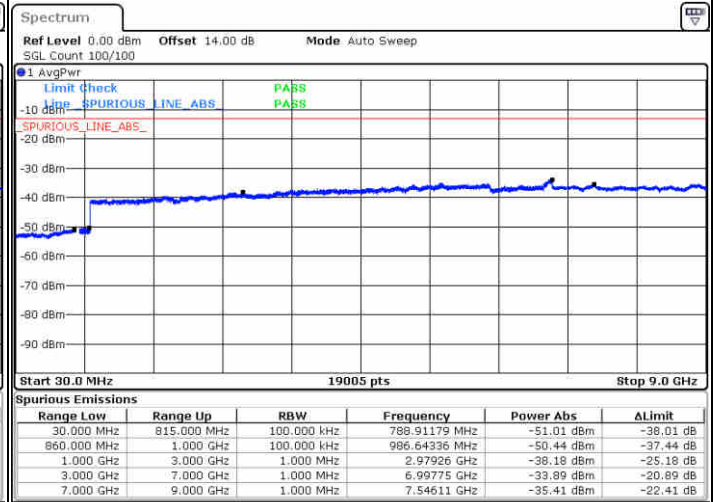
LTE Band 5 / 3MHz

Lowest Channel / 64QAM



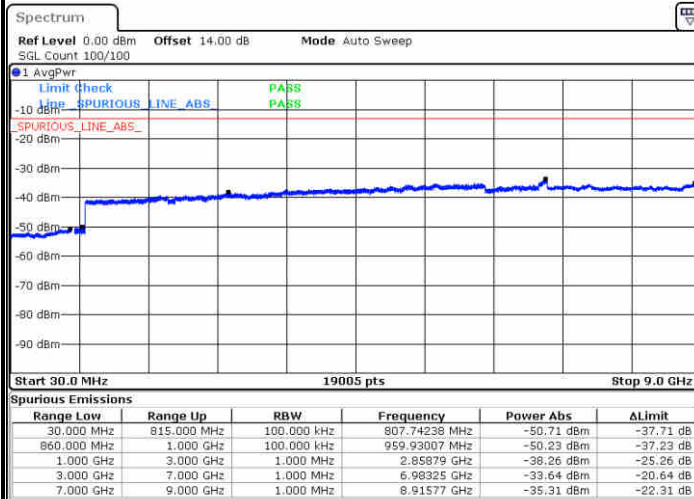
Date: 15.DEC.2019 19:59:01

Middle Channel / 64QAM



Date: 15.DEC.2019 20:00:05

Highest Channel / 64QAM

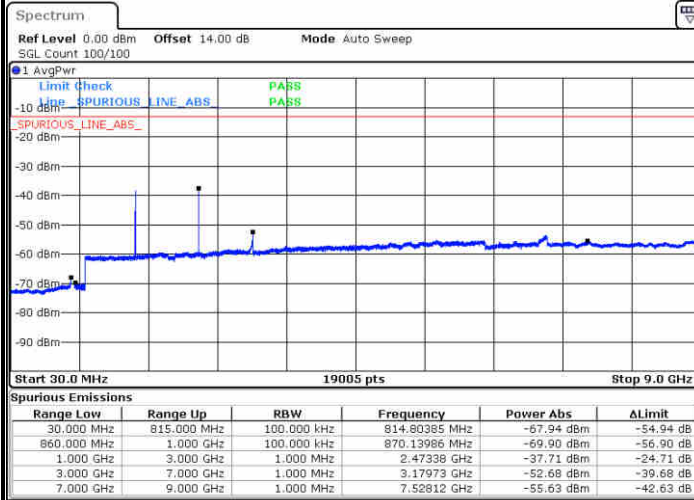


Date: 15.DEC.2019 20:04:31



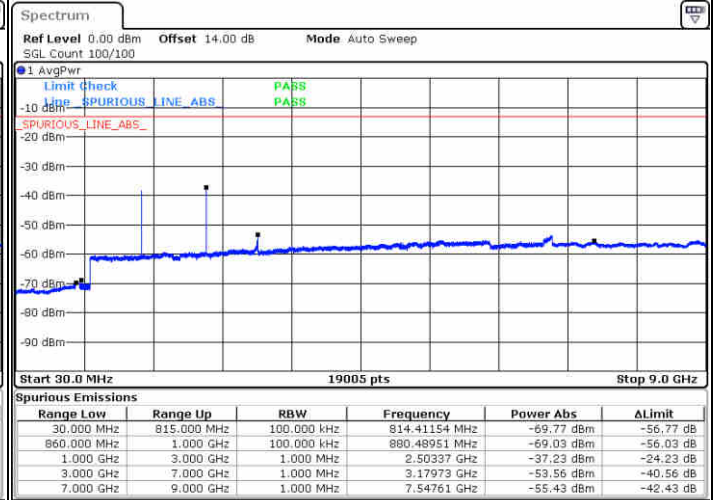
LTE Band 5 / 5MHz

Lowest Channel / 64QAM



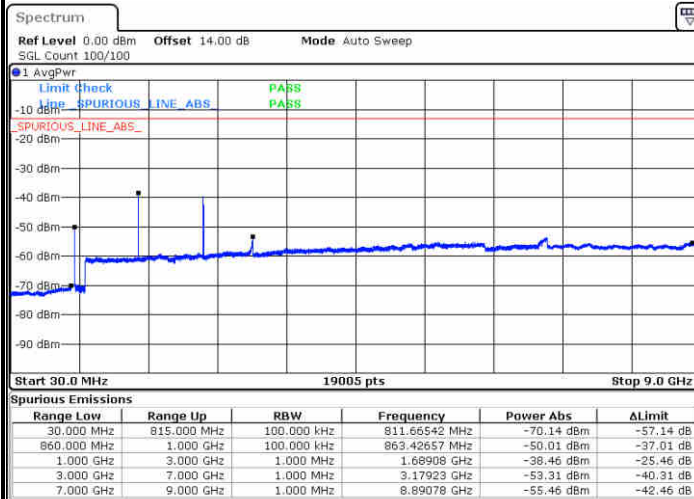
Date: 15.DEC.2019 20:28:47

Middle Channel / 64QAM



Date: 15.DEC.2019 20:29:52

Highest Channel / 64QAM

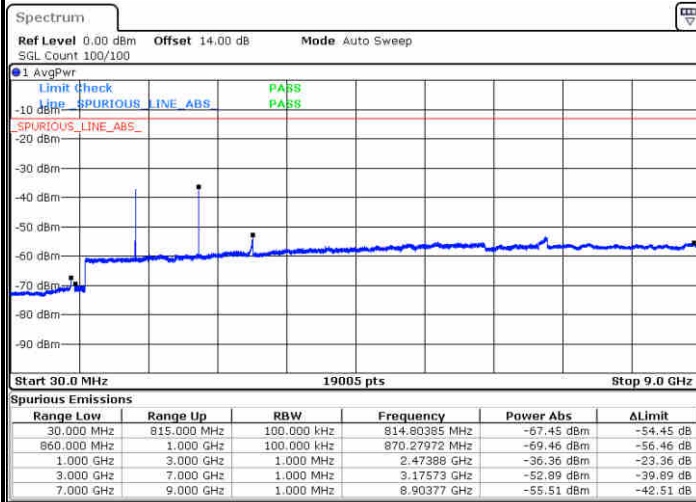


Date: 15.DEC.2019 20:54:07



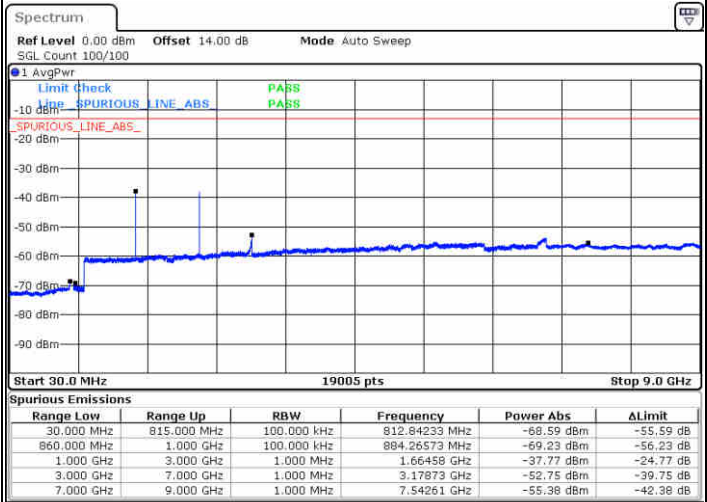
LTE Band 5 / 10MHz

Lowest Channel / 64QAM



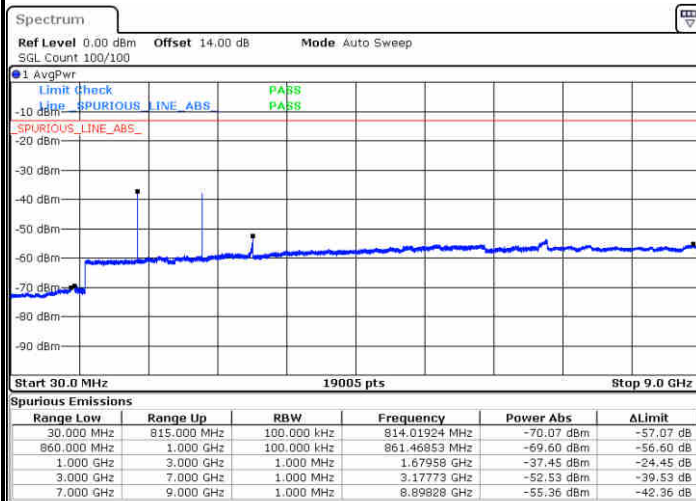
Date: 15.DEC.2019 20:58:32

Middle Channel / 64QAM



Date: 15.DEC.2019 20:59:36

Highest Channel / 64QAM



Date: 15.DEC.2019 21:04:02

**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	0.0001	PASS
40	Normal Voltage	0.0011	
30	Normal Voltage	0.0008	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0010	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0010	
-30	Normal Voltage	0.0016	
20	Maximum Voltage	0.0014	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0014	

Note: Normal Voltage =3.87 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.45 V.



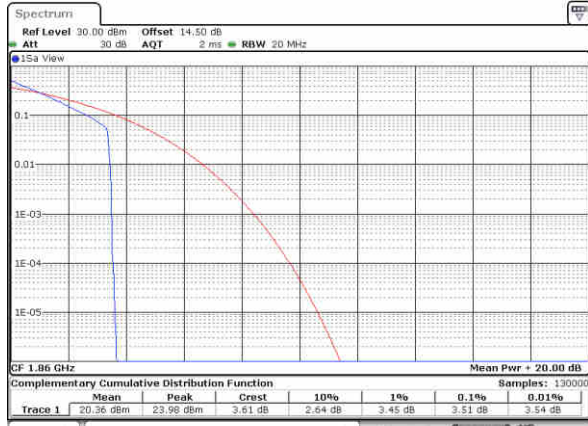
LTE Band 25

Peak-to-Average Ratio

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	3.51	4.87	5.10	5.80	PASS
Middle CH	3.54	4.93	4.99	5.88	
Highest CH	3.59	4.93	5.48	5.86	
Mode	LTE Band 25 / 20MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	5.28	5.86	-	-	PASS
Middle CH	5.19	5.80	-	-	
Highest CH	5.19	5.86	-	-	

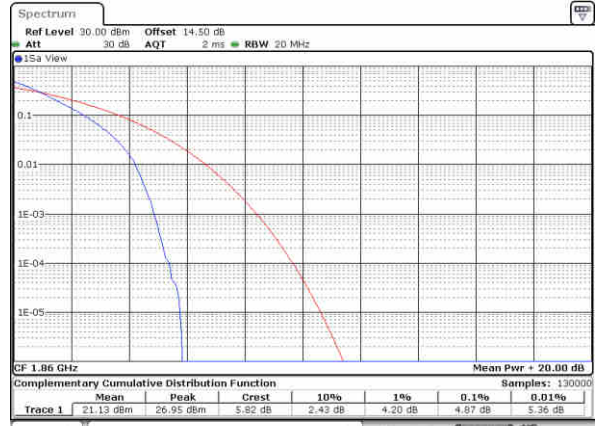
LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



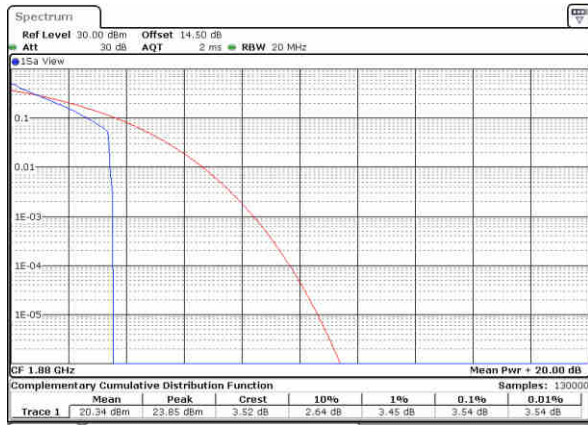
Date: 16, DEC, 2019 21:11:06

Lowest Channel / Full RB



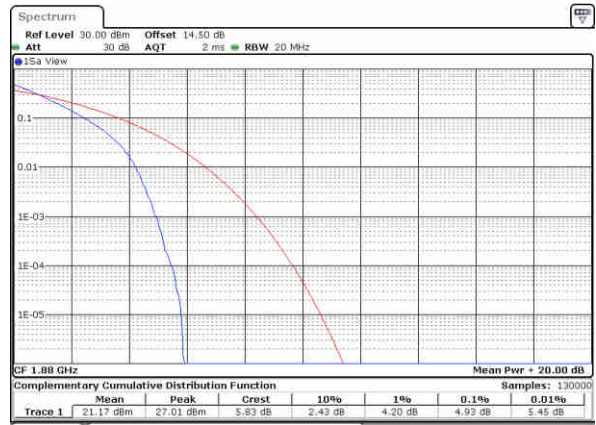
Date: 16, DEC, 2019 21:11:17

Middle Channel / 1RB



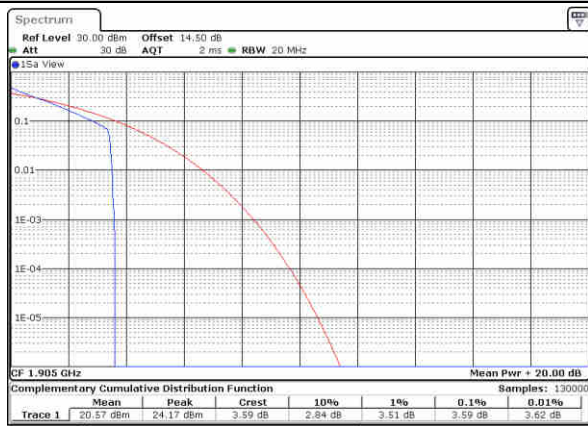
Date: 16, DEC, 2019 21:11:53

Middle Channel / Full RB



Date: 16, DEC, 2019 21:12:05

Highest Channel / 1RB



Date: 16, DEC, 2019 21:16:57

Highest Channel / Full RB



Date: 16, DEC, 2019 21:17:25