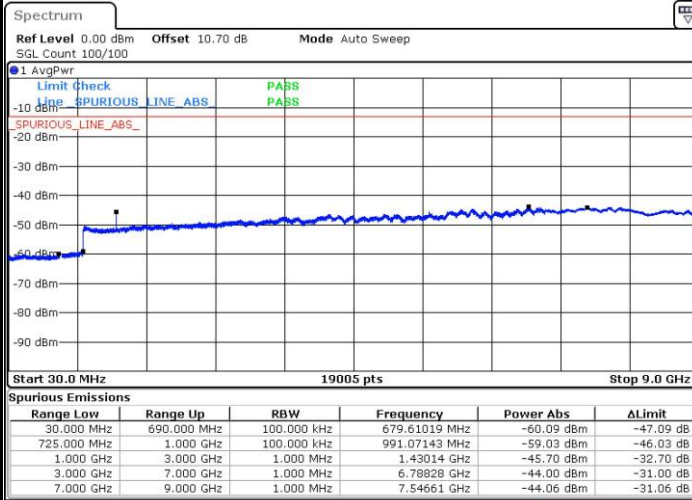




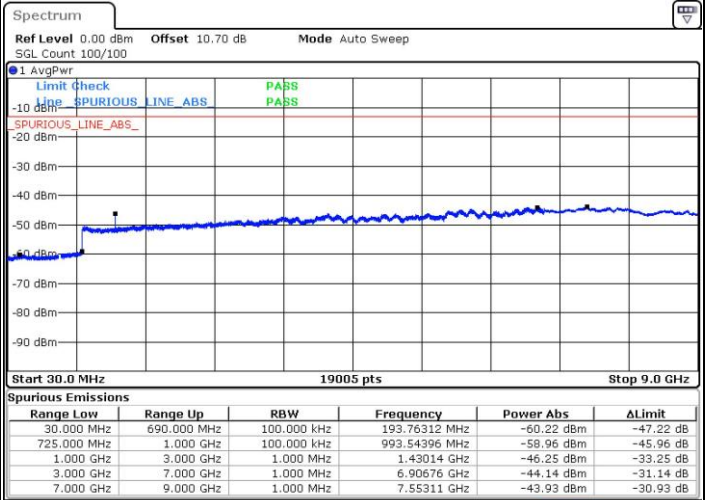
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 30 AUG 2018 09:37:59

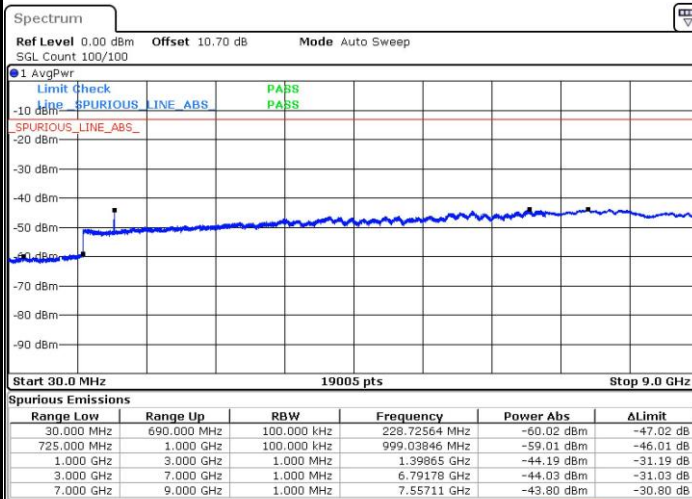
Highest Channel / 16QAM



Date: 30 AUG 2018 09:38:49

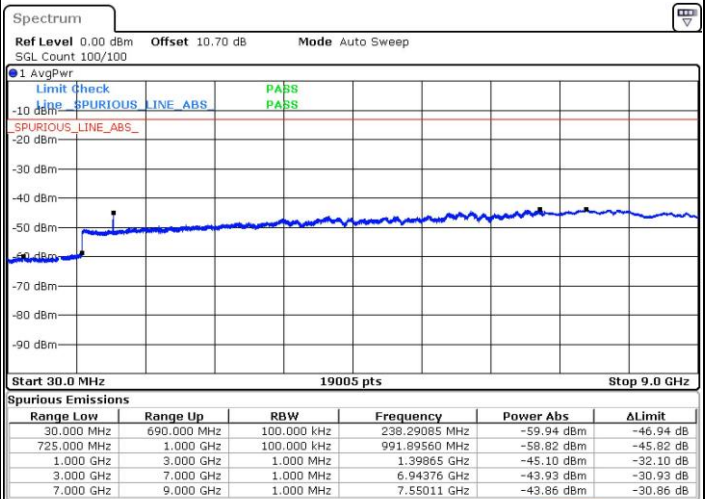
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 30 AUG 2018 08:07:38

Lowest Channel / 16QAM

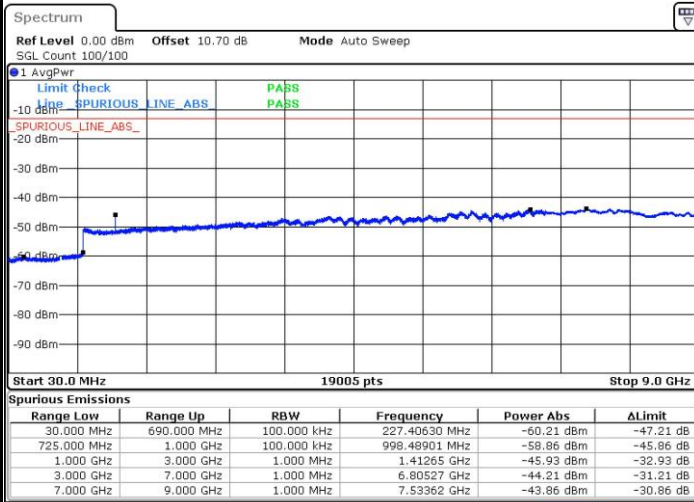


Date: 30 AUG 2018 08:14:08



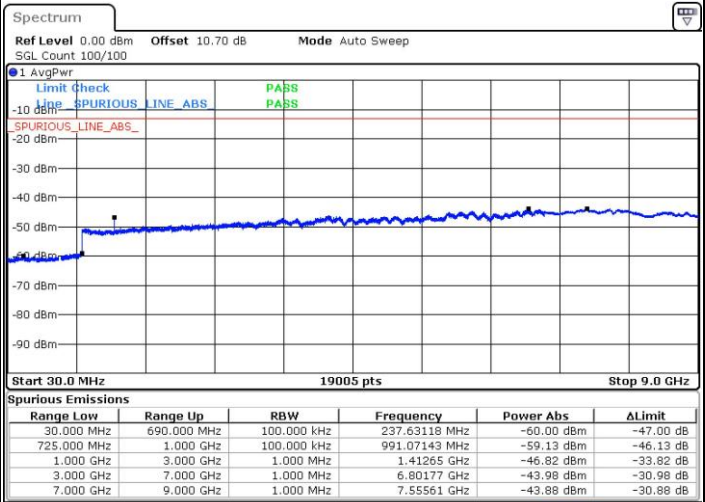
LTE Band 12 / 3MHz

Middle Channel / QPSK



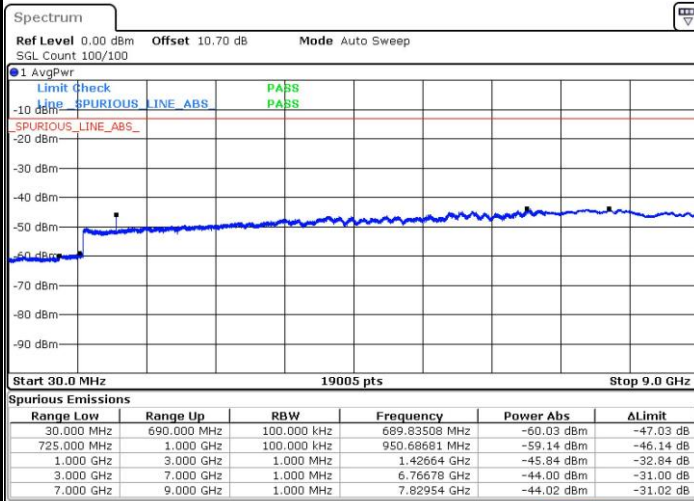
Date: 30 AUG 2018 08:16:34

Middle Channel / 16QAM



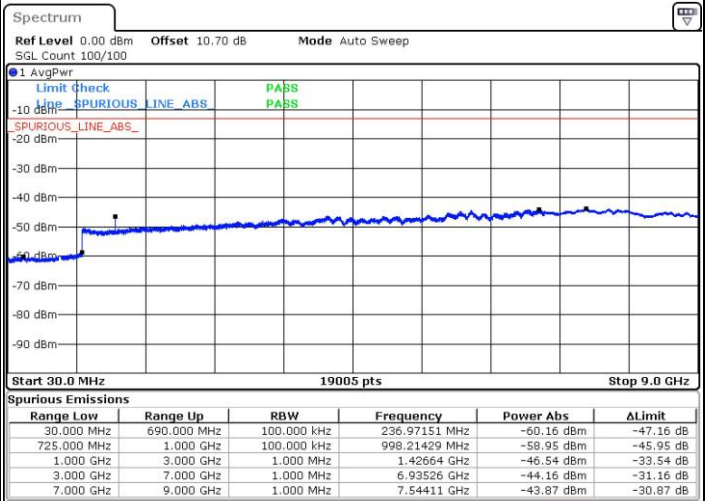
Date: 30 AUG 2018 08:15:44

Highest Channel / QPSK



Date: 30 AUG 2018 08:22:11

Highest Channel / 16QAM

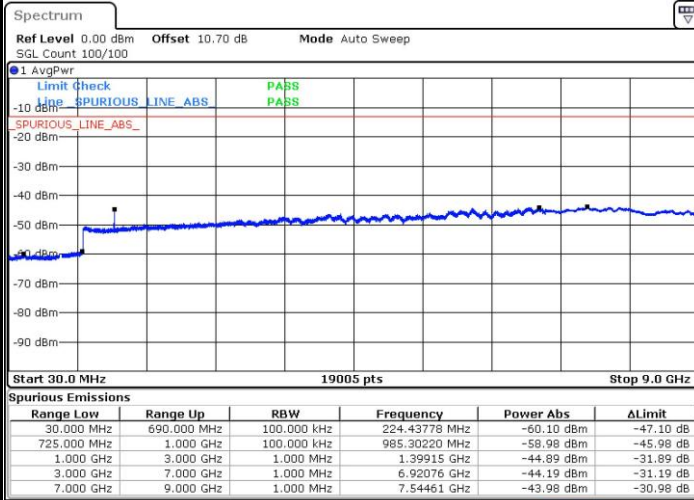


Date: 30 AUG 2018 08:23:01



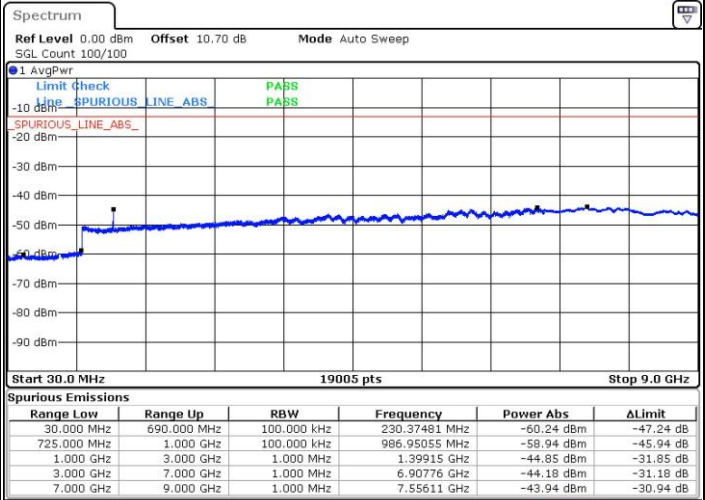
LTE Band 12 / 5MHz

Lowest Channel / QPSK



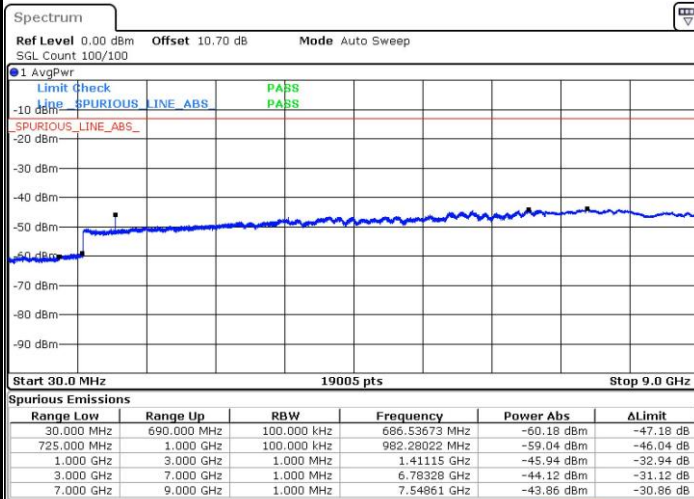
Date: 30 AUG.2018 08:28:37

Lowest Channel / 16QAM



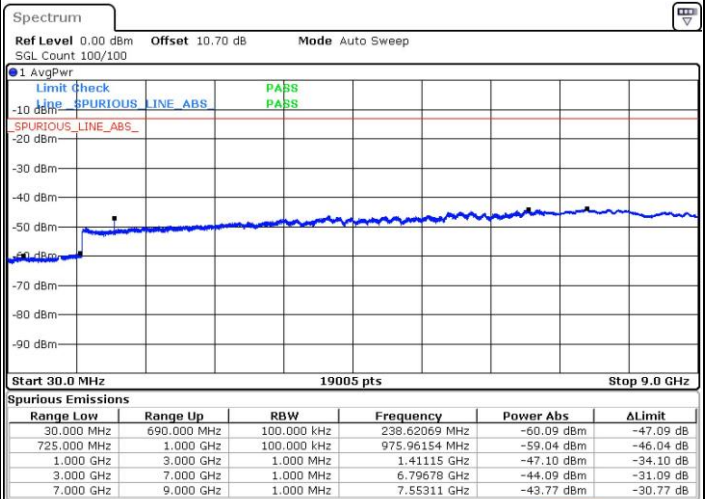
Date: 30 AUG.2018 08:29:28

Middle Channel / QPSK



Date: 30 AUG.2018 08:31:54

Middle Channel / 16QAM

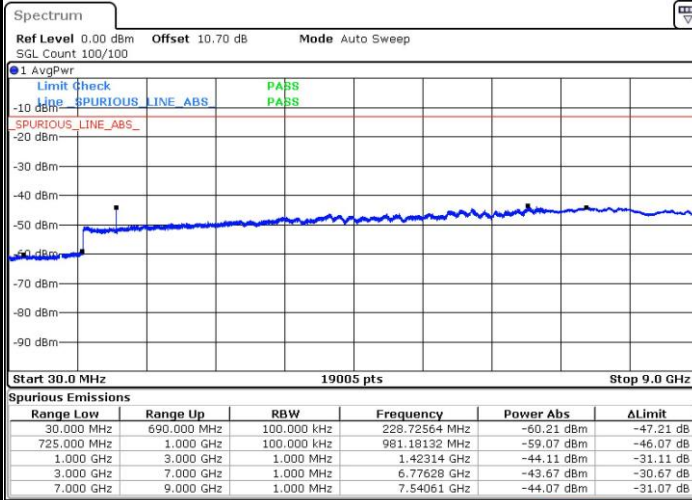


Date: 30 AUG.2018 08:31:03



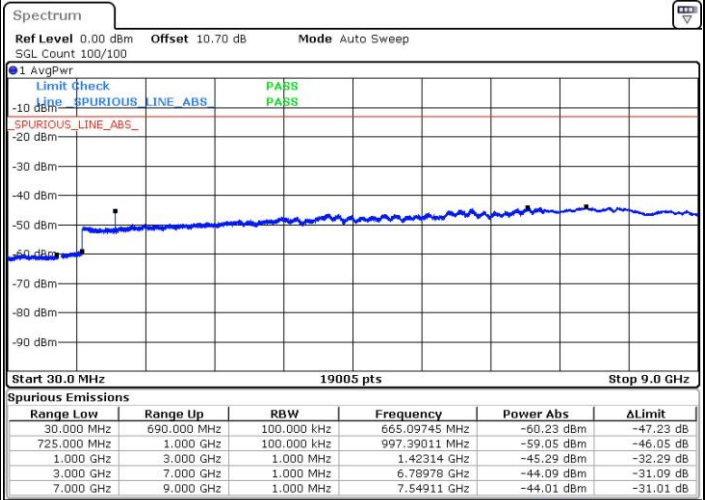
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 30 AUG 2018 08:38:20

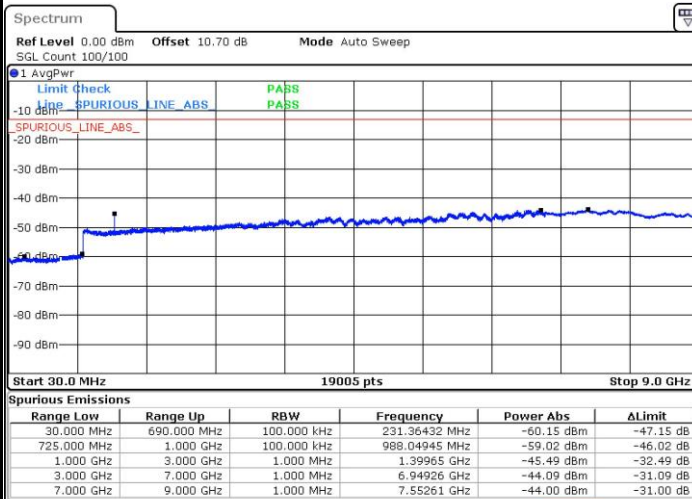
Highest Channel / 16QAM



Date: 30 AUG 2018 08:37:30

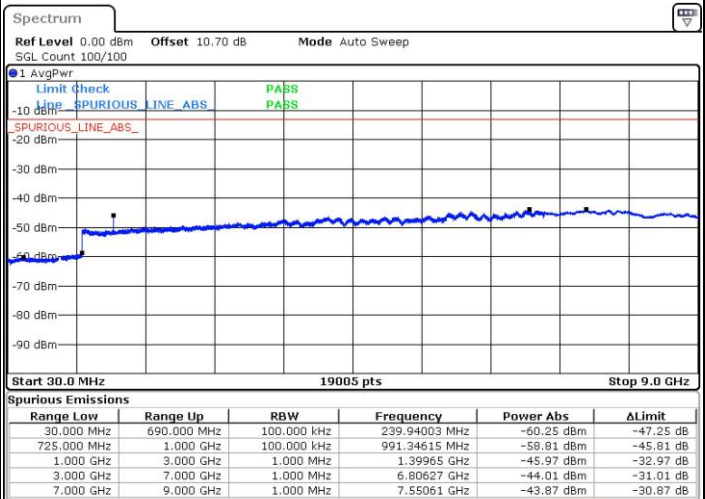
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 30 AUG 2018 08:43:56

Lowest Channel / 16QAM

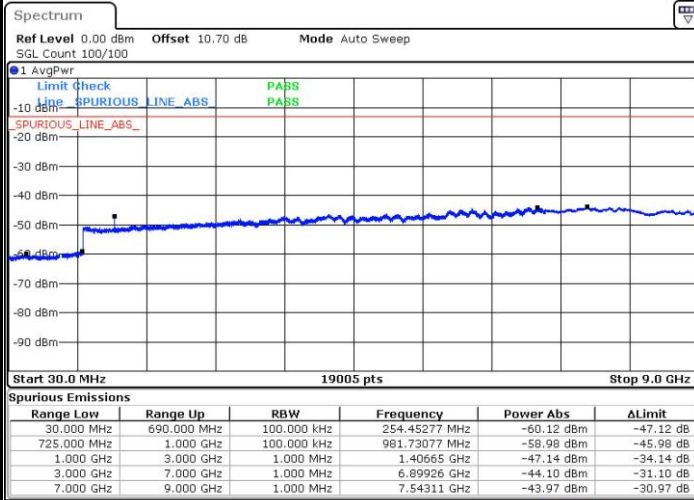


Date: 30 AUG 2018 08:44:47



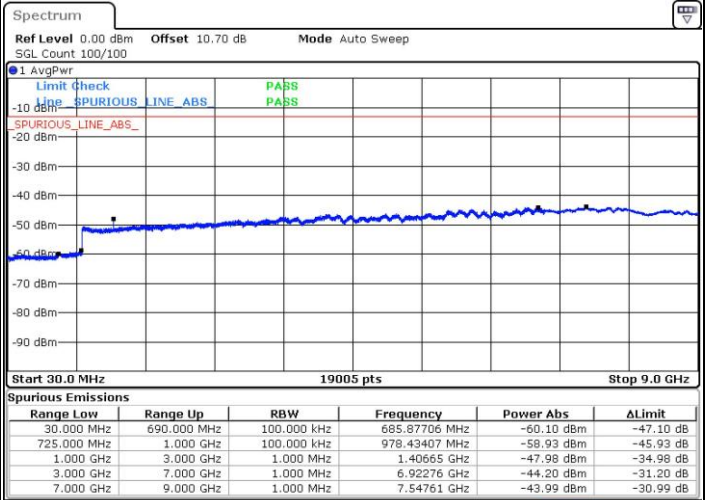
LTE Band 12 / 10MHz

Middle Channel / QPSK



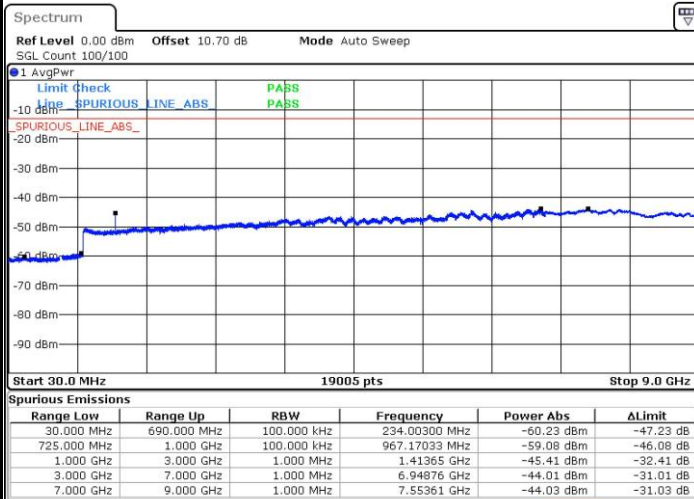
Date: 30 AUG.2018 08:47:13

Middle Channel / 16QAM



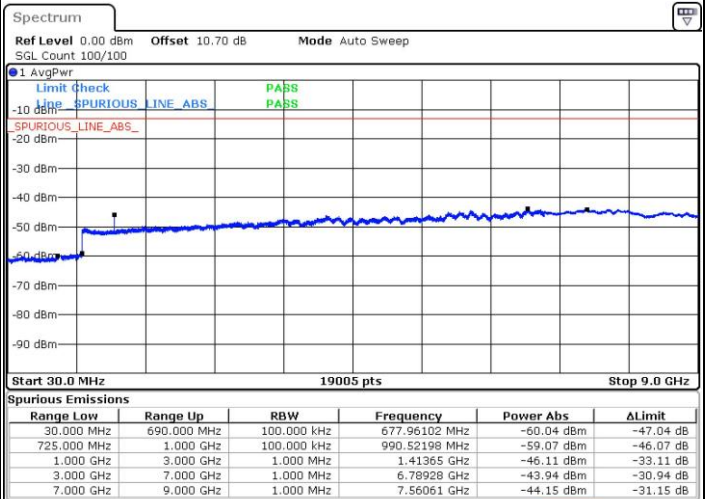
Date: 30 AUG.2018 08:46:23

Highest Channel / QPSK



Date: 30 AUG.2018 08:52:49

Highest Channel / 16QAM

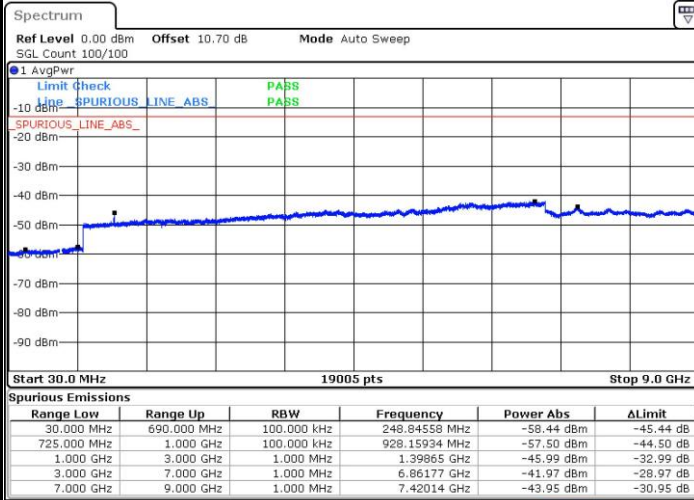


Date: 30 AUG.2018 08:53:39



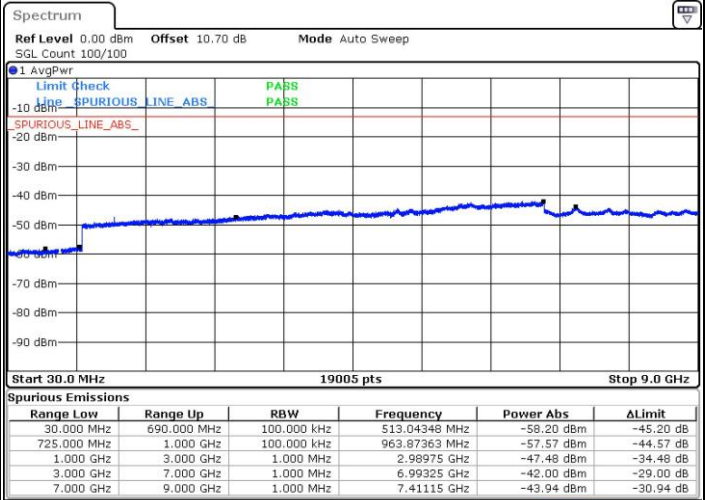
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



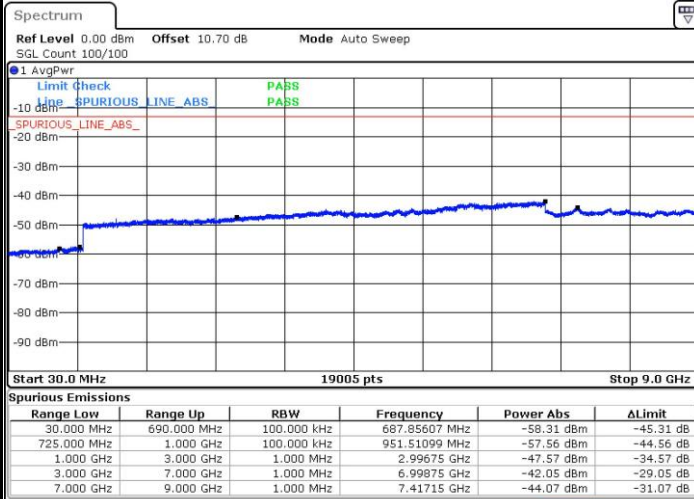
Date: 15 NOV 2018 02:20:13

Middle Channel / 64QAM



Date: 15 NOV 2018 02:21:38

Highest Channel / 64QAM

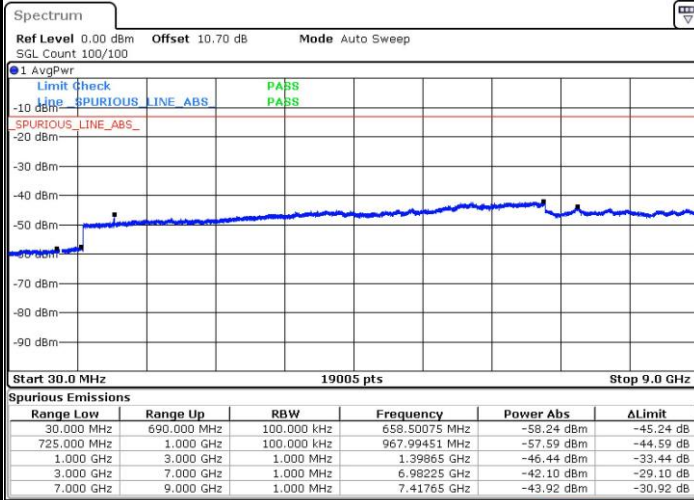


Date: 15 NOV 2018 02:25:02



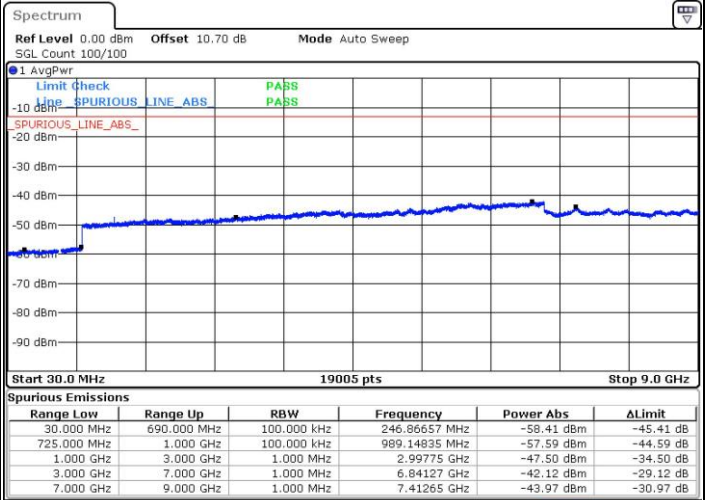
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



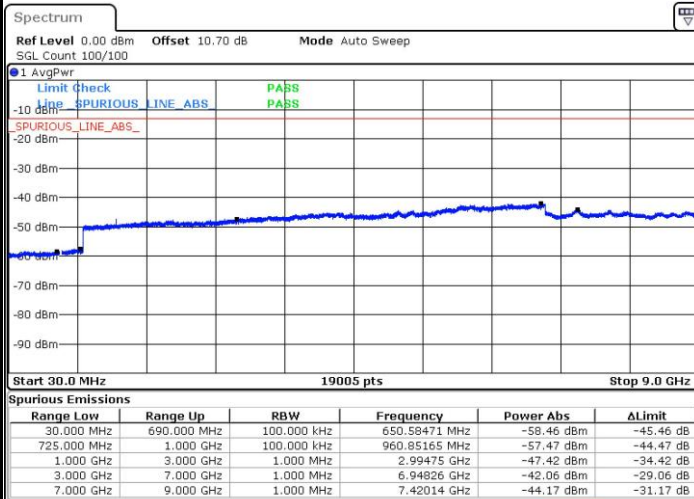
Date: 15 NOV 2018 01:48:03

Middle Channel / 64QAM



Date: 15 NOV 2018 01:49:27

Highest Channel / 64QAM

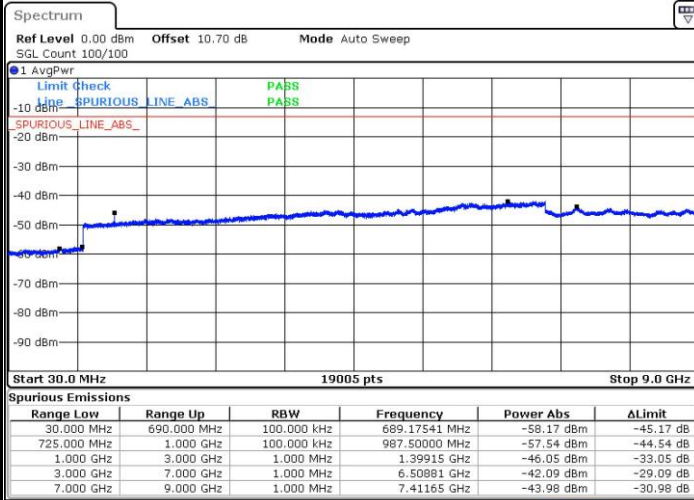


Date: 15 NOV 2018 01:52:51



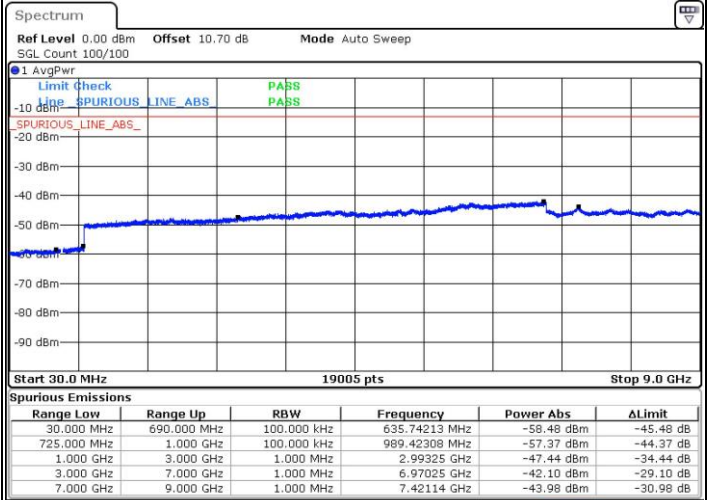
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



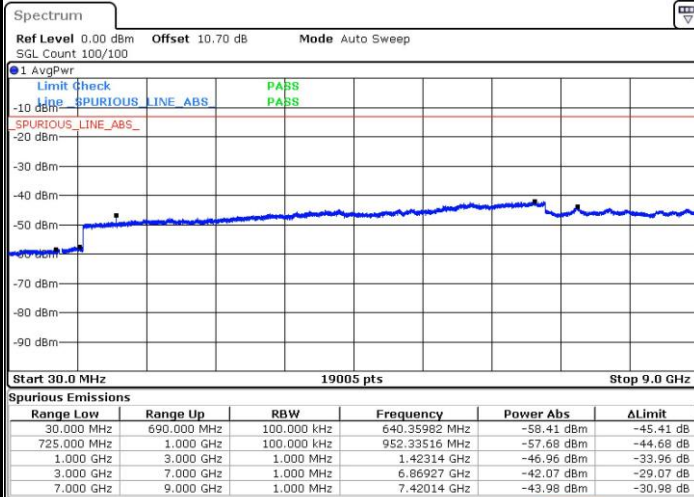
Date: 15.NOV.2018 01:56:16

Middle Channel / 64QAM



Date: 15.NOV.2018 01:57:40

Highest Channel / 64QAM

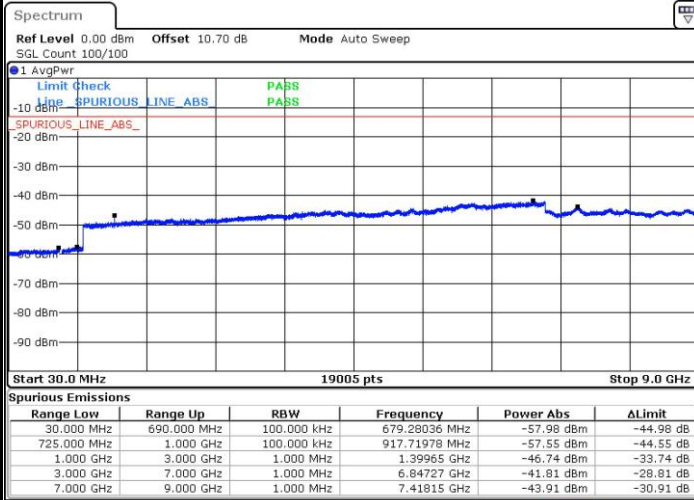


Date: 15.NOV.2018 02:01:04



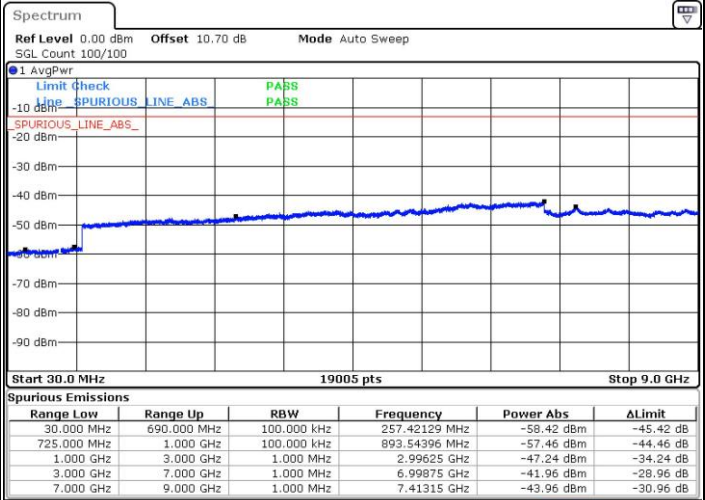
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



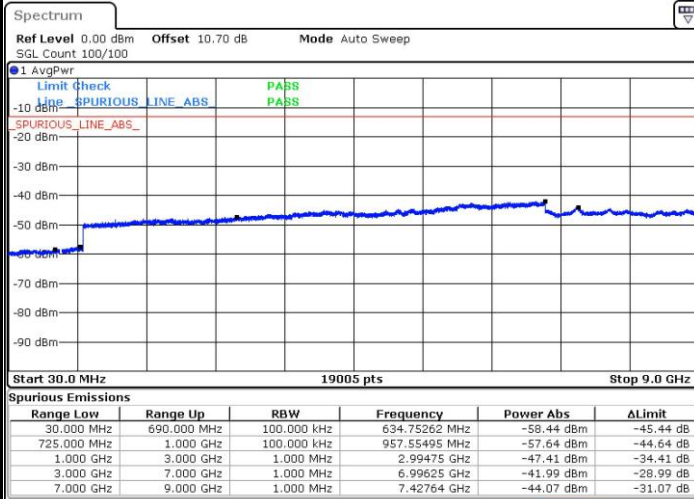
Date: 15 NOV 2018 02:04:28

Middle Channel / 64QAM



Date: 15 NOV 2018 02:05:52

Highest Channel / 64QAM



Date: 15 NOV 2018 02:09:15

Frequency Stability

Test Conditions		LTE Band 12 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0129	PASS
40	Normal Voltage	0.0013	
30	Normal Voltage	0.0126	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0110	
0	Normal Voltage	0.0001	
-10	Normal Voltage	0.0107	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0107	
20	Maximum Voltage	0.0103	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0122	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.4 V. ; Maximum Voltage =4.35 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

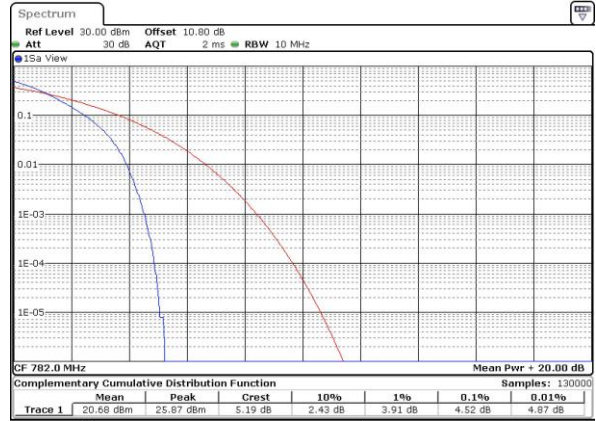
LTE Band 13

Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.16	4.52	4.12	5.74	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	4.46	6.06	-	-	
Highest CH	-	-	-	-	

LTE Band 13 / 10MHz / QPSK
Middle Channel / 1RB


Date: 30 AUG 2018 07:34:45

Middle Channel / Full RB


Date: 30 AUG 2018 07:35:02

LTE Band 13 / 10MHz / 16QAM
Middle Channel / 1RB

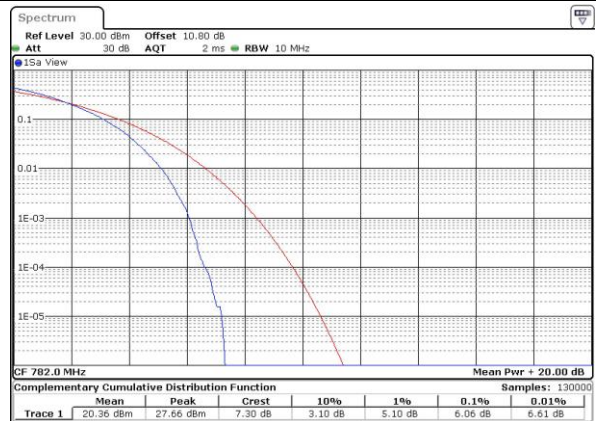

Date: 30 AUG 2018 07:34:23

Middle Channel / Full RB


Date: 30 AUG 2018 07:34:34

LTE Band 13 / 10MHz / 64QAM
Middle Channel / 1RB


Date: 14 NOV 2018 07:15:17

Middle Channel / Full RB


Date: 14 NOV 2018 07:15:27

**26dB Bandwidth**

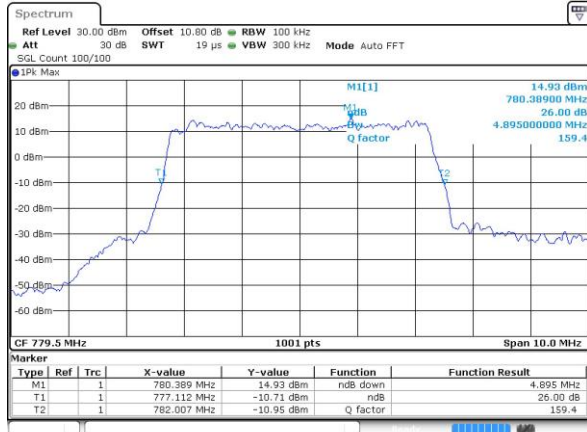
Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.90	4.87	-	-	-	-	-	-
Middle CH	-	-	-	-	4.96	4.92	9.75	9.83	-	-	-	-
Highest CH	-	-	-	-	4.88	4.87	-	-	-	-	-	-

Mode	LTE Band 13 : 26dB BW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.90	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.93	-	9.77	-	-	-	-	-
Highest CH	-	-	-	-	4.91	-	-	-	-	-	-	-

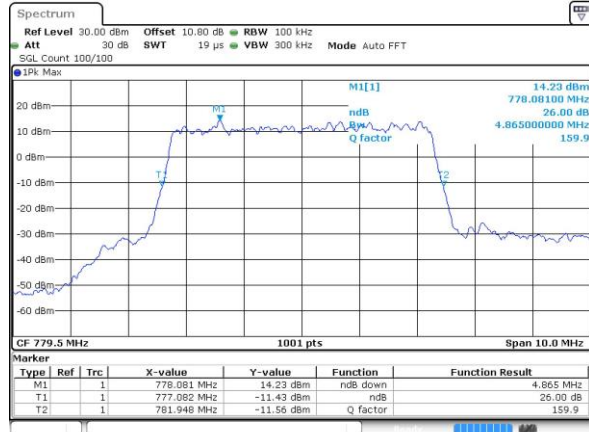


LTE Band 13

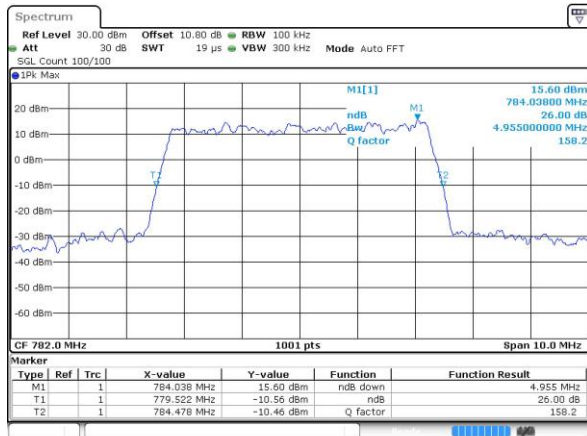
Lowest Channel / 5MHz / QPSK



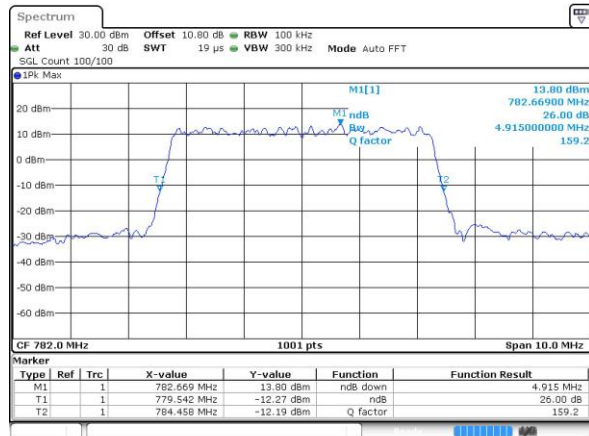
Lowest Channel / 5MHz / 16QAM



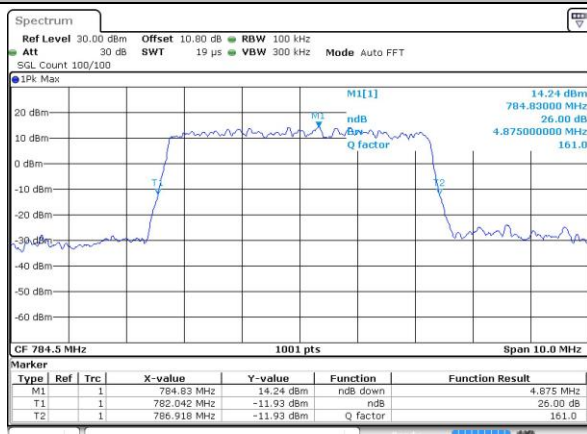
Middle Channel / 5MHz / QPSK



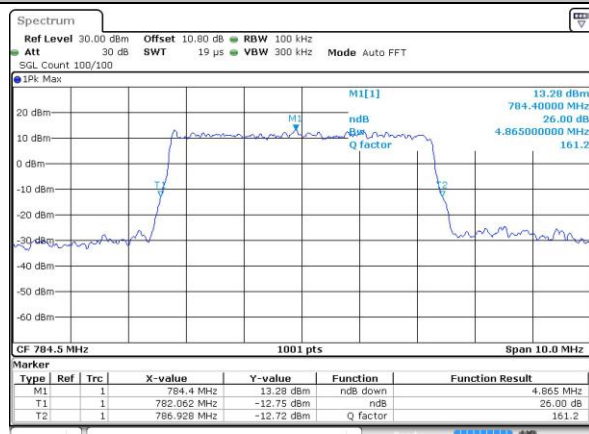
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



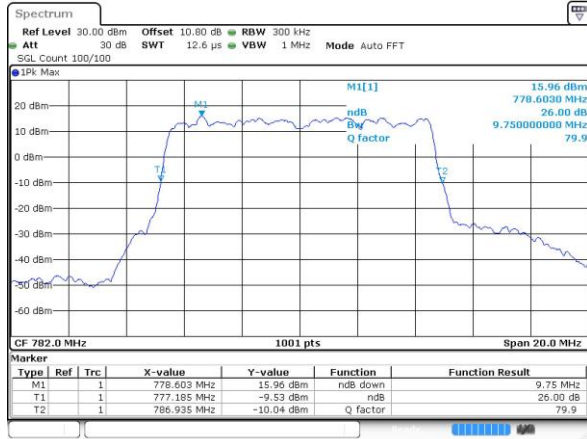
Highest Channel / 5MHz / 16QAM





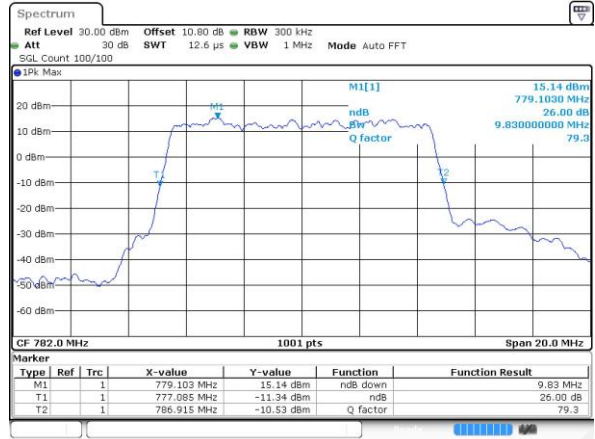
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 30 AUG 2018 07:19:07

Middle Channel / 10MHz / 16QAM

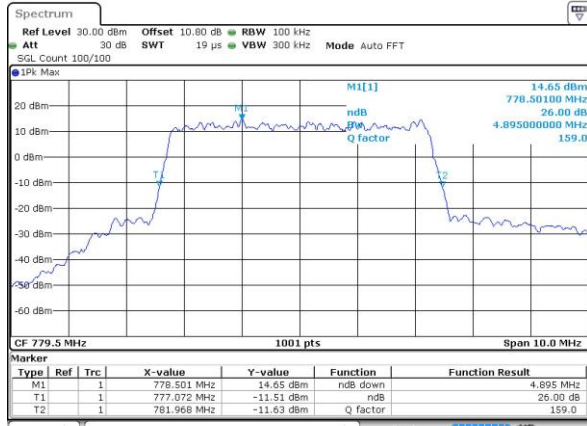


Date: 30 AUG 2018 07:18:56



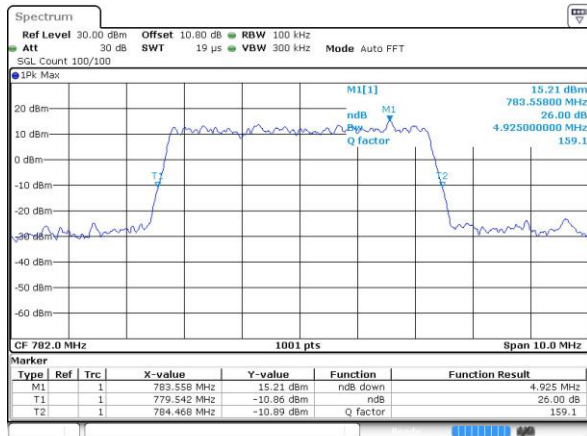
LTE Band 13

Lowest Channel / 5MHz / 64QAM



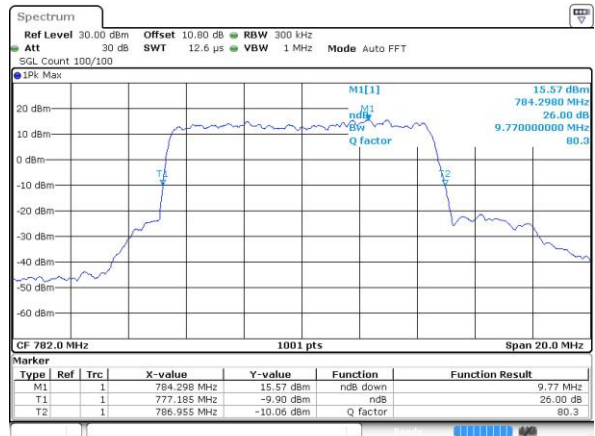
Date: 14 NOV 2018 06:57:45

Middle Channel / 5MHz / 64QAM



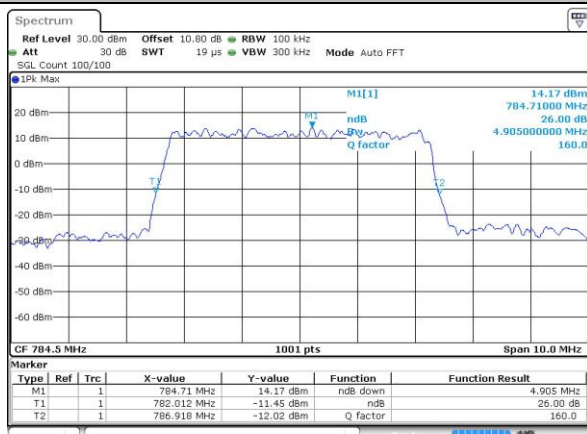
Date: 14 NOV 2018 07:03:16

Middle Channel / 10MHz / 64QAM



Date: 14 NOV 2018 07:08:35

Highest Channel / 5MHz / 64QAM



Date: 14 NOV 2018 07:03:51

**Occupied Bandwidth**

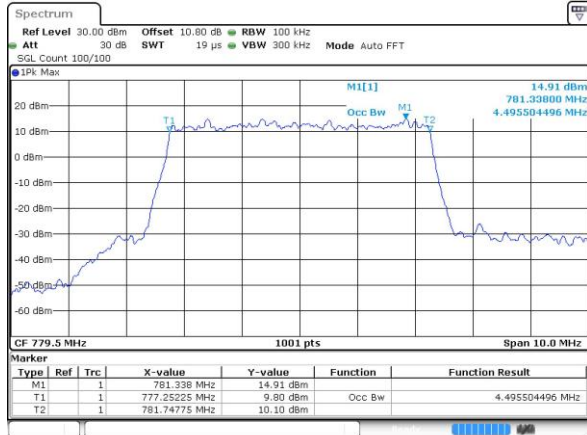
Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.5	4.5	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	4.51	8.99	8.93	-	-	-	-
Highest CH	-	-	-	-	4.48	4.49	-	-	-	-	-	-

Mode	LTE Band 13 : 99%OBW(MHz)											
BW	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
Mod.	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.50	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.52	-	8.99	-	-	-	-	-
Highest CH	-	-	-	-	4.50	-	-	-	-	-	-	-

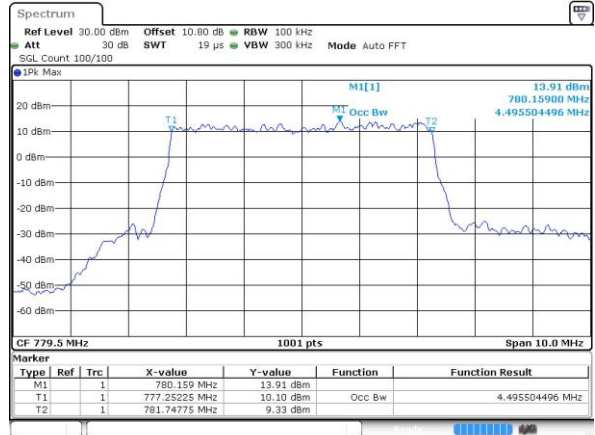


LTE Band 13

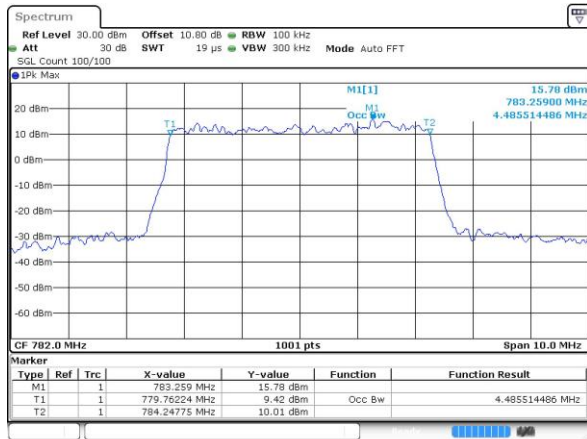
Lowest Channel / 5MHz / QPSK



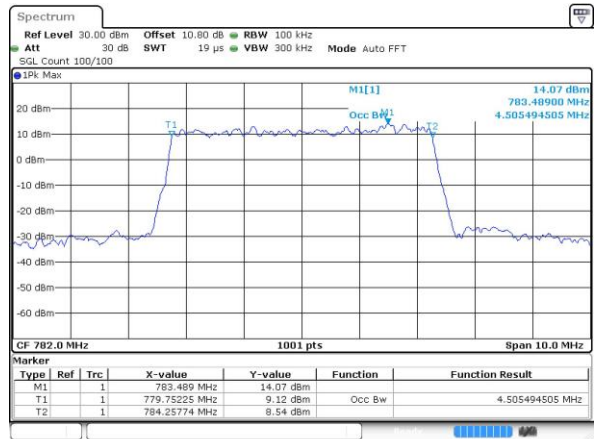
Lowest Channel / 5MHz / 16QAM



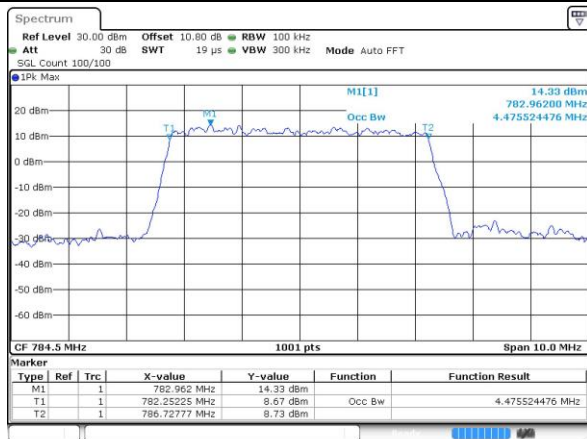
Middle Channel / 5MHz / QPSK



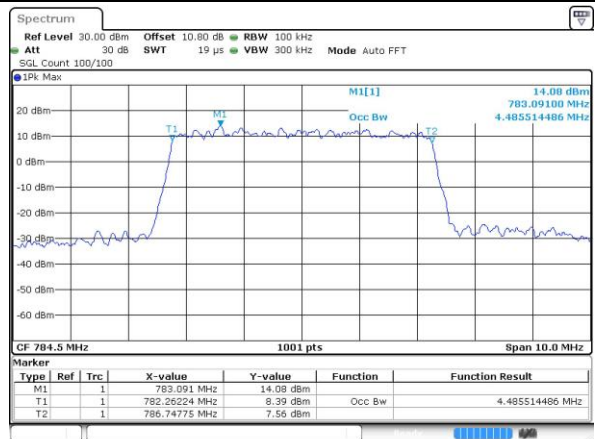
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



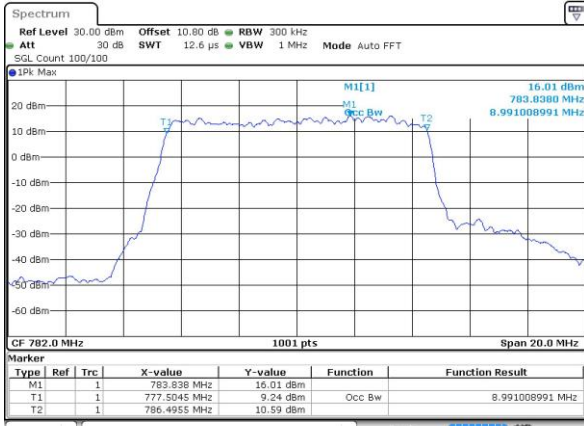
Highest Channel / 5MHz / 16QAM





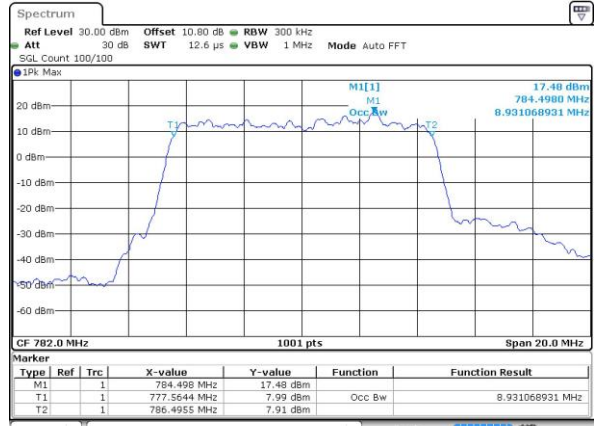
LTE Band 13

Middle Channel / 10MHz / QPSK

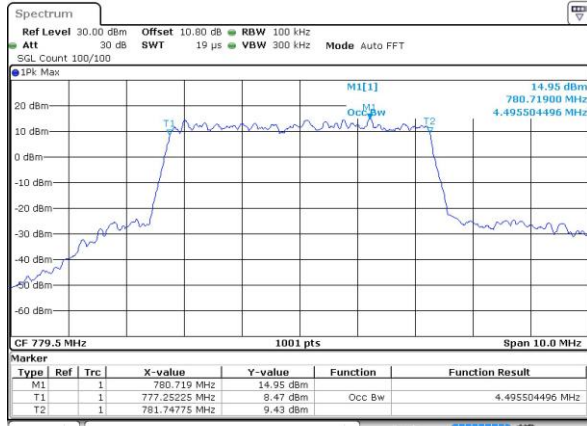
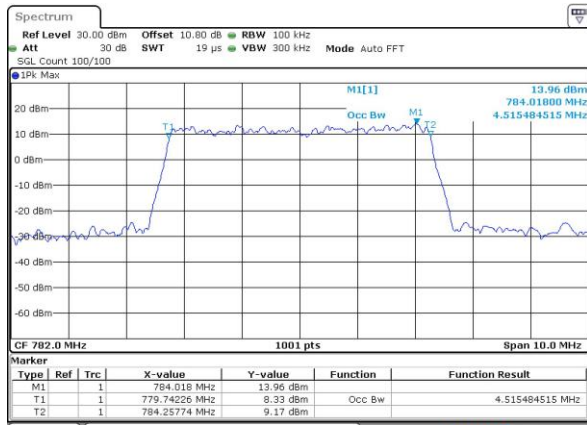
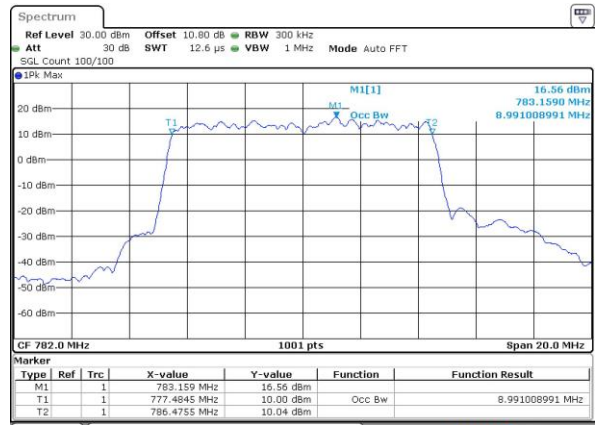
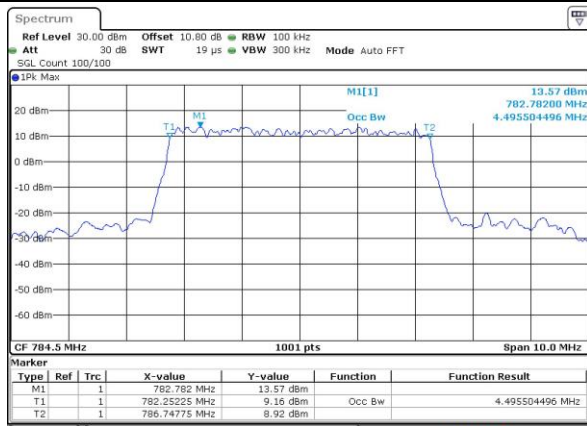


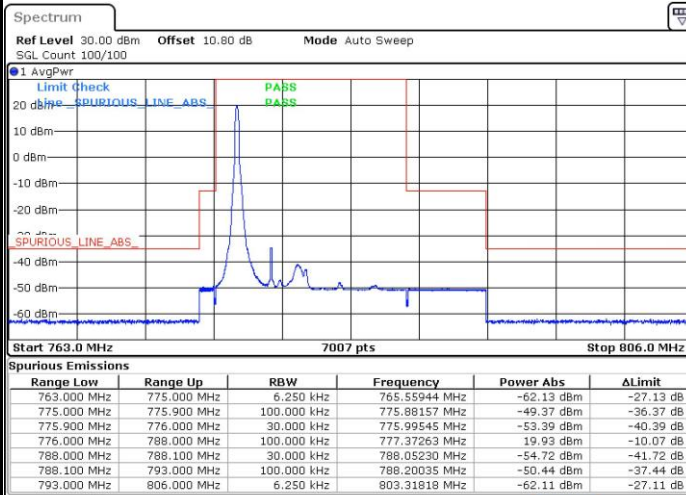
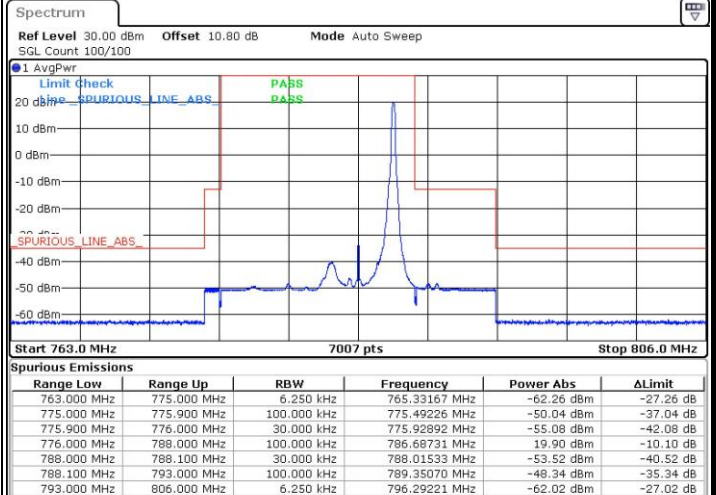
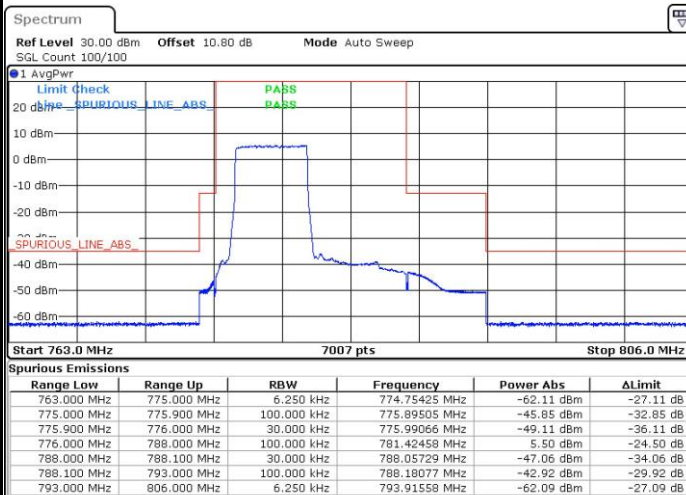
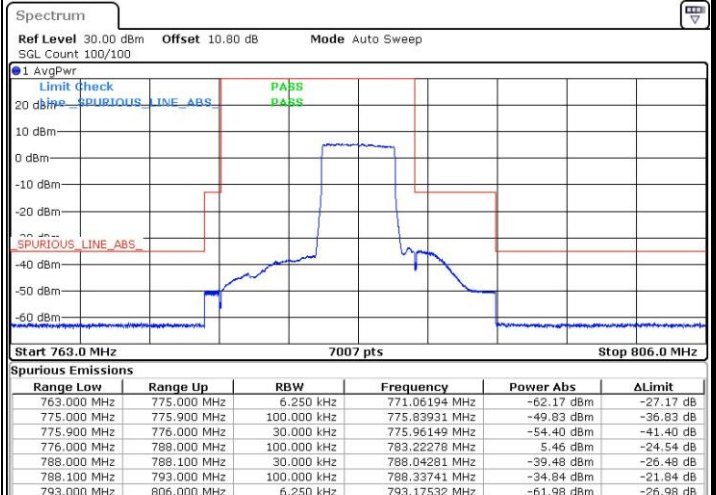
Date: 30 AUG 2018 07:18:33

Middle Channel / 10MHz / 16QAM



Date: 30 AUG 2018 07:18:44

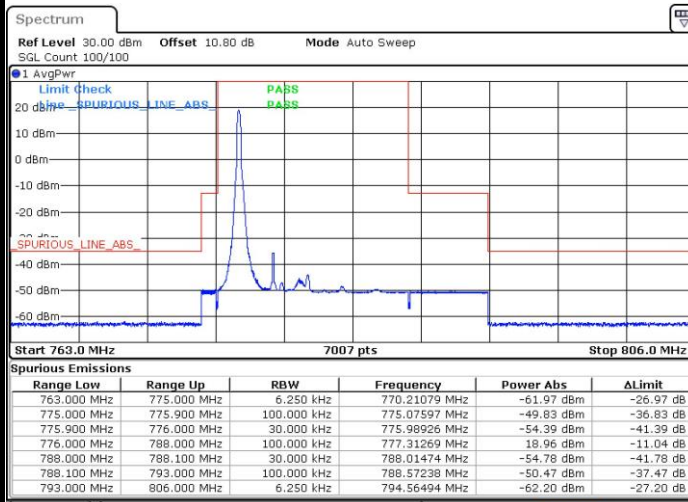
LTE Band 13
Lowest Channel / 5MHz / 64QAM

Middle Channel / 5MHz / 64QAM

Middle Channel / 10MHz / 64QAM

Highest Channel / 5MHz / 64QAM


**Conducted Band Edge****LTE Band 13 / 5MHz / QPSK****Lowest Band Edge / 1 RB****Highest Band Edge / 1 RB****Lowest Band Edge / Full RB****Highest Band Edge / Full RB**

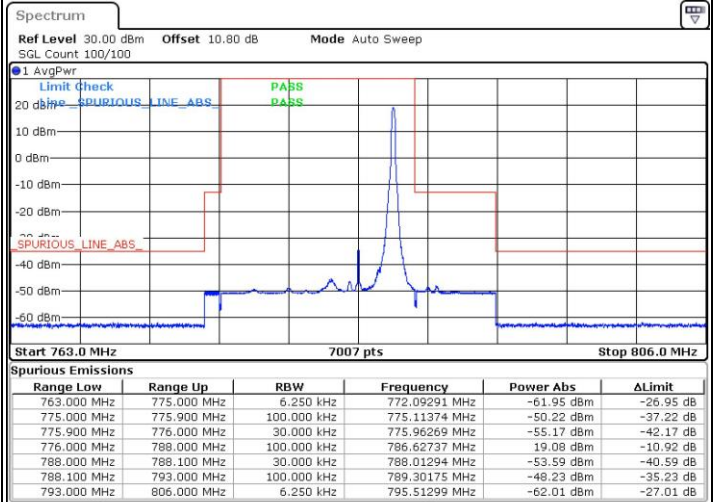


LTE Band 13 / 5MHz / 16QAM

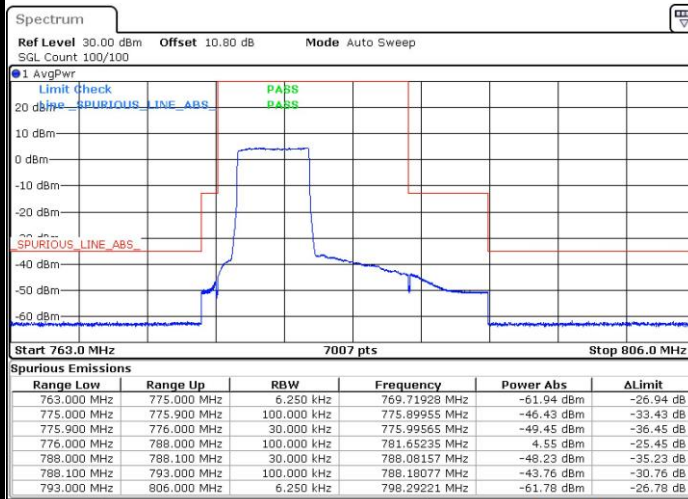
Lowest Band Edge / 1 RB



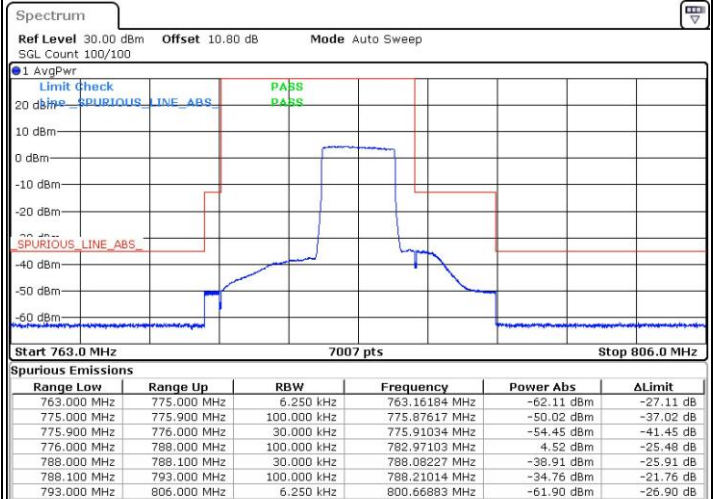
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



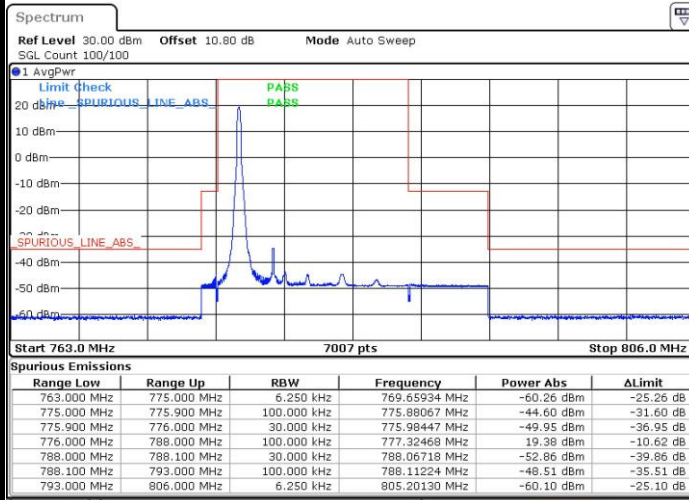
Highest Band Edge / Full RB





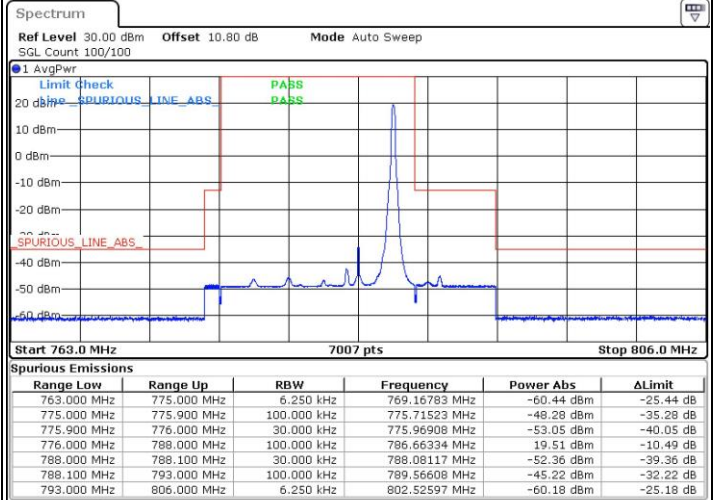
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



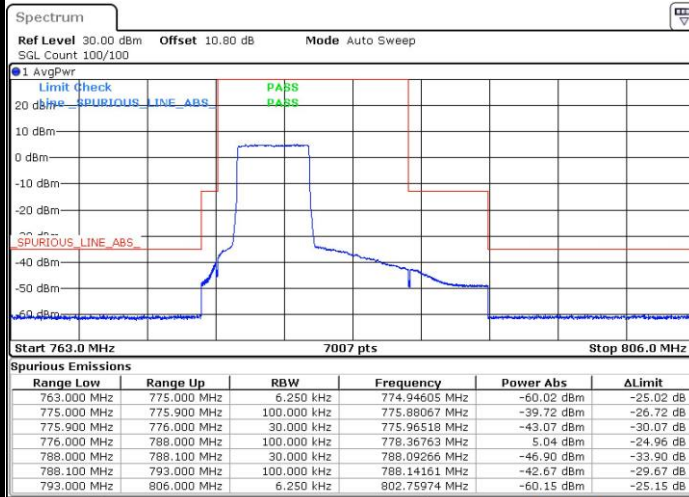
Date: 14.NOV.2018 07:01:04

Highest Band Edge / 1 RB



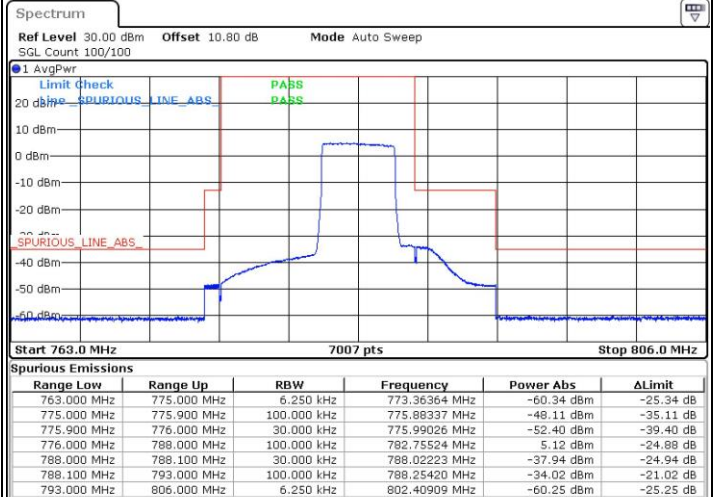
Date: 14.NOV.2018 07:07:10

Lowest Band Edge / Full RB



Date: 14.NOV.2018 06:59:25

Highest Band Edge / Full RB

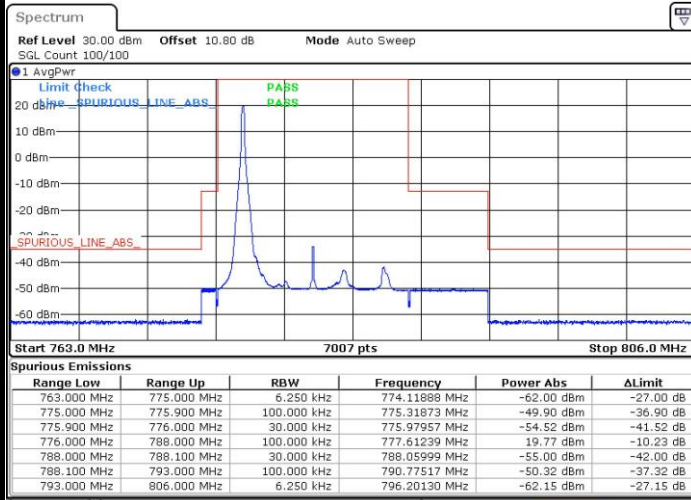


Date: 14.NOV.2018 07:05:31



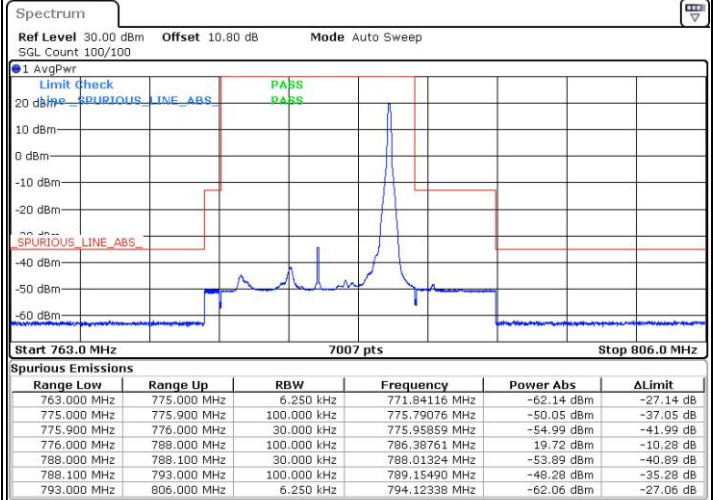
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



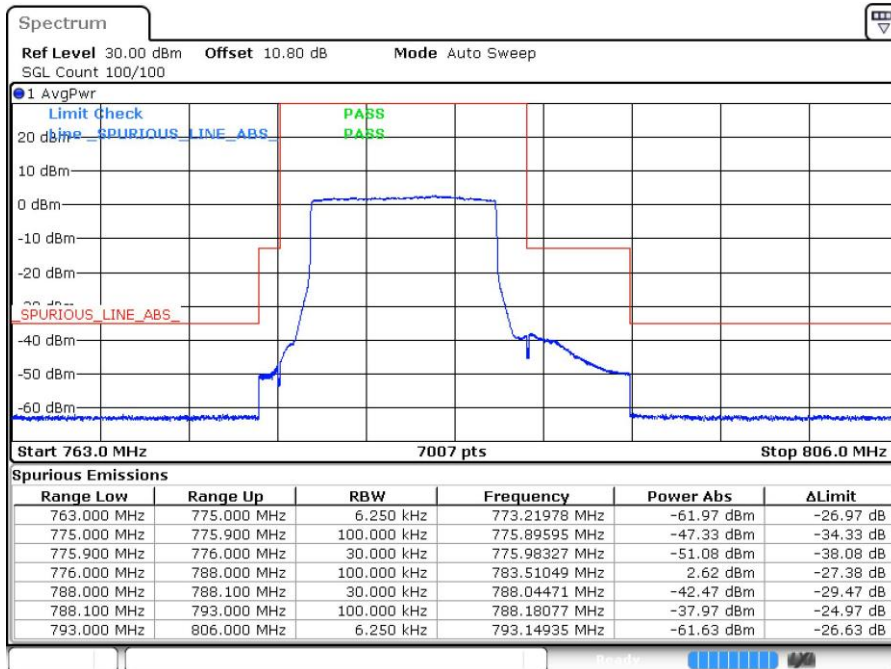
Date: 30 AUG 2018 07:25:48

Highest Band Edge / 1 RB



Date: 30 AUG 2018 07:27:28

Band Edge / Full RB



Date: 30 AUG 2018 07:20:47