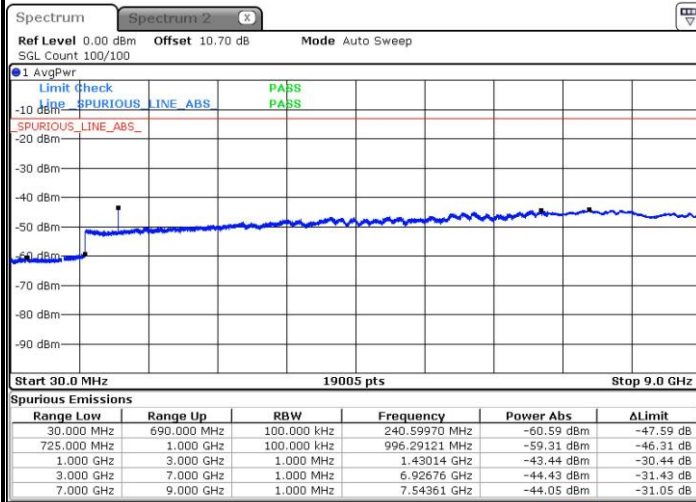




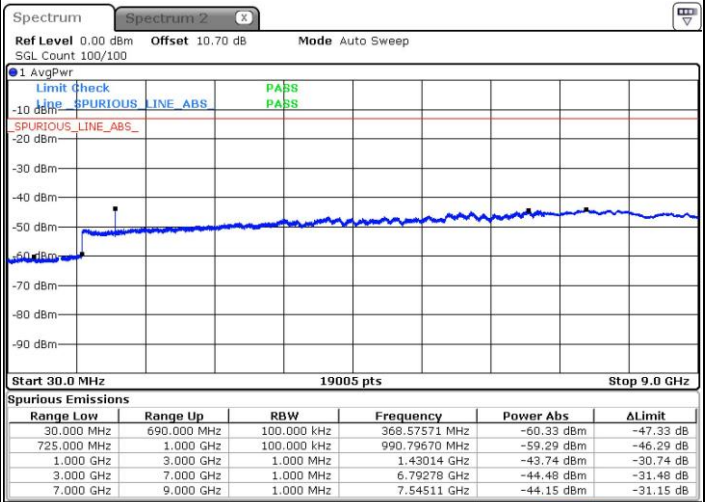
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 31.OCT.2018 23:56:57

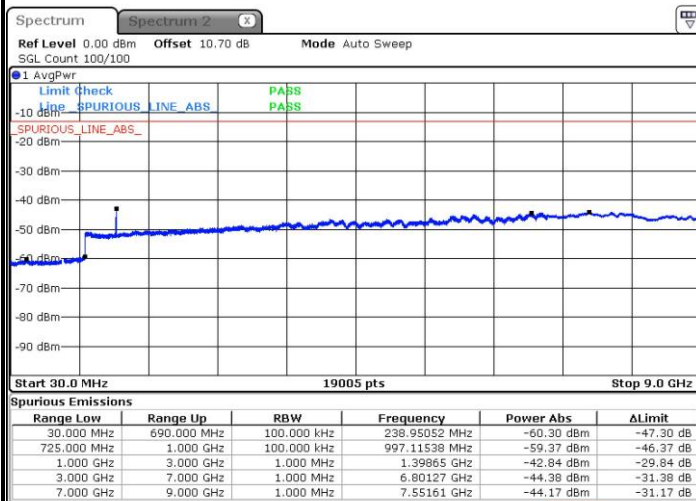
Highest Channel / 16QAM



Date: 31.OCT.2018 23:57:47

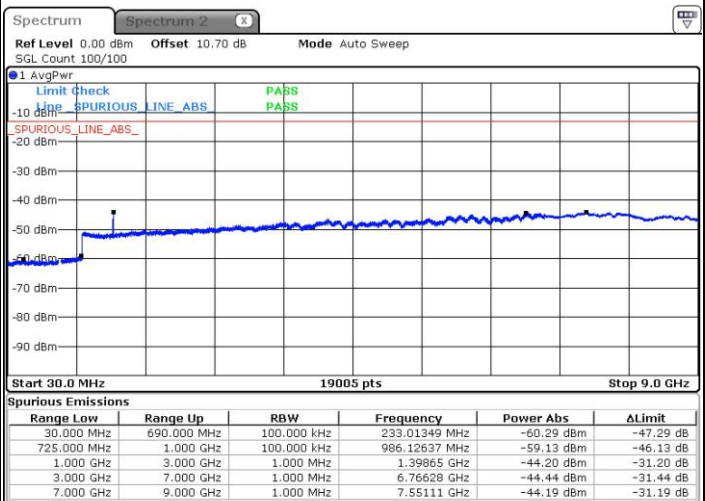
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 31.OCT.2018 22:57:18

Lowest Channel / 16QAM

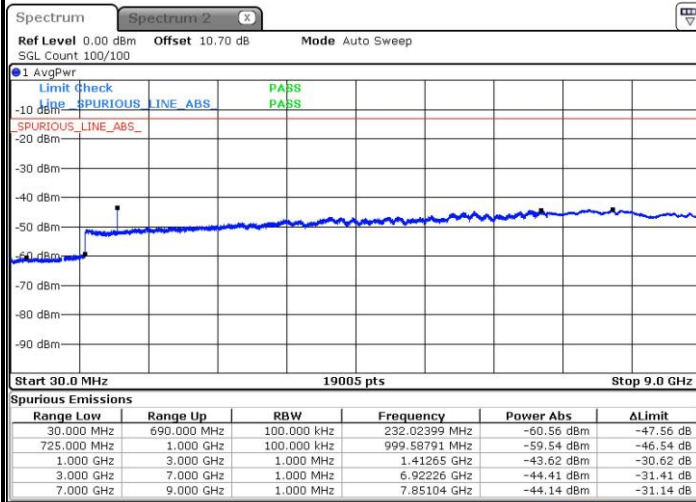


Date: 31.OCT.2018 22:58:09



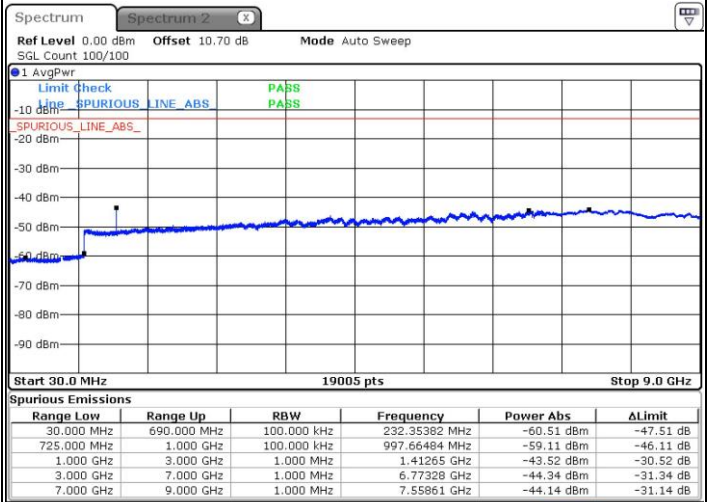
LTE Band 12 / 3MHz

Middle Channel / QPSK



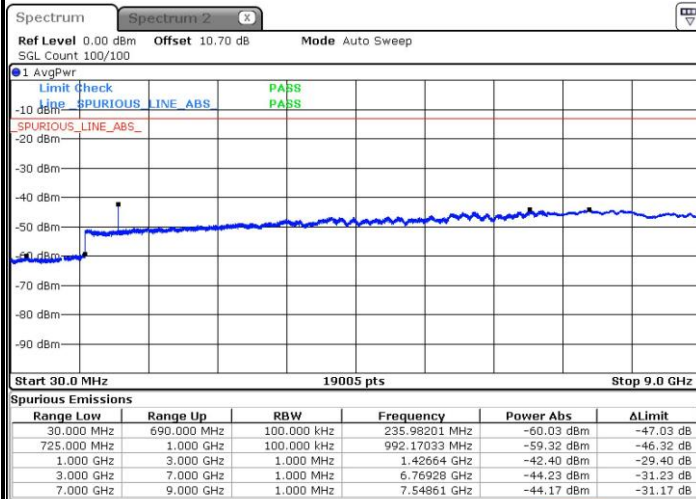
Date: 31.OCT.2018 23:00:35

Middle Channel / 16QAM



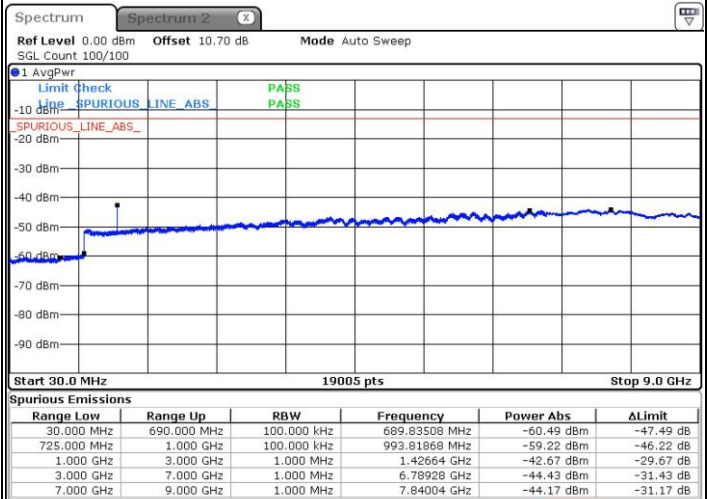
Date: 31.OCT.2018 22:59:45

Highest Channel / QPSK



Date: 31.OCT.2018 23:06:52

Highest Channel / 16QAM

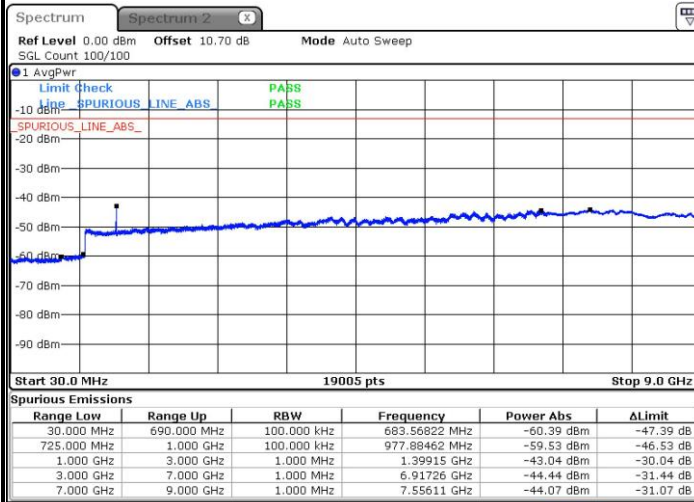


Date: 31.OCT.2018 23:07:43



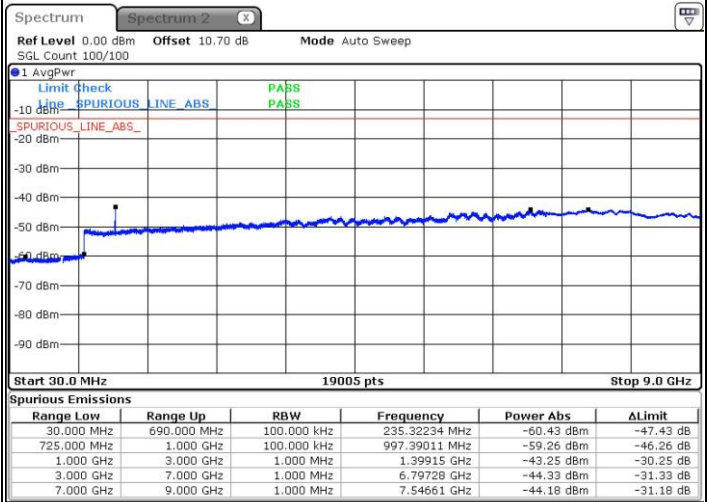
LTE Band 12 / 5MHz

Lowest Channel / QPSK



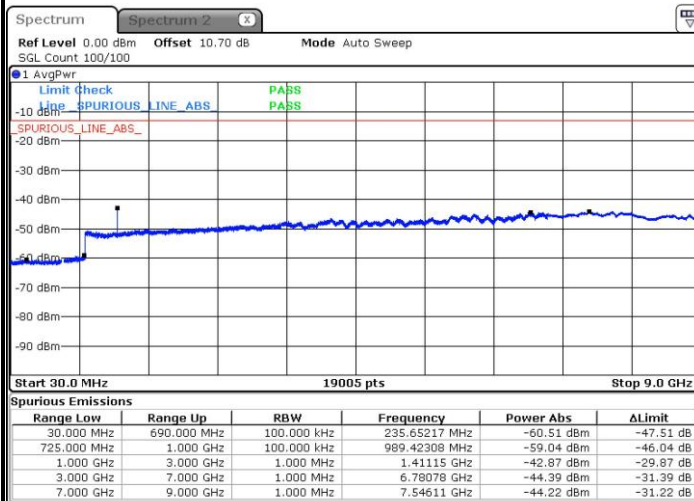
Date: 31.OCT.2018 23:14:00

Lowest Channel / 16QAM



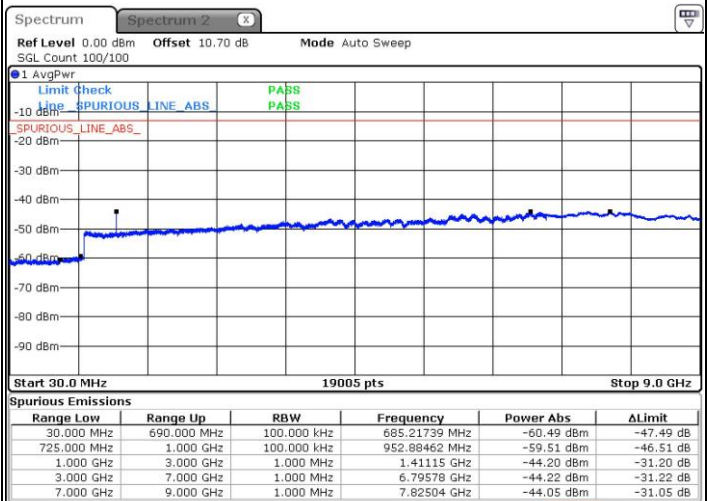
Date: 31.OCT.2018 23:14:50

Middle Channel / QPSK



Date: 31.OCT.2018 23:17:16

Middle Channel / 16QAM

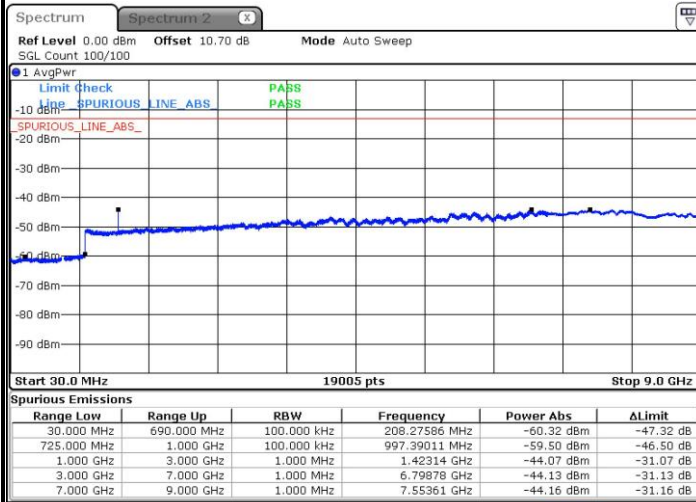


Date: 31.OCT.2018 23:16:26



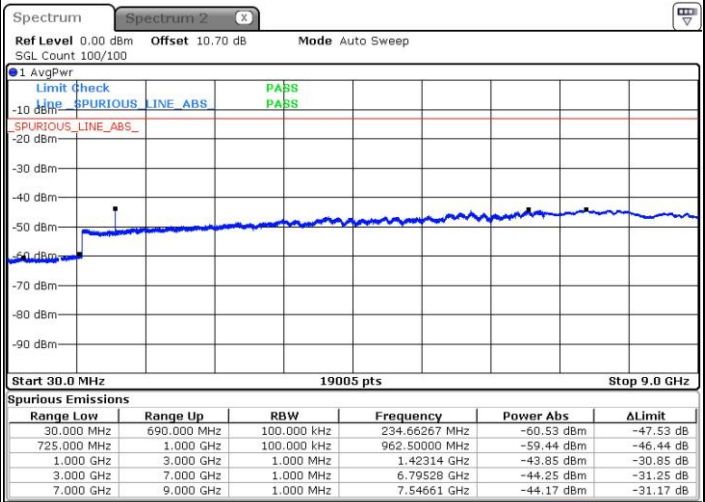
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 31.OCT.2018 23:24:24

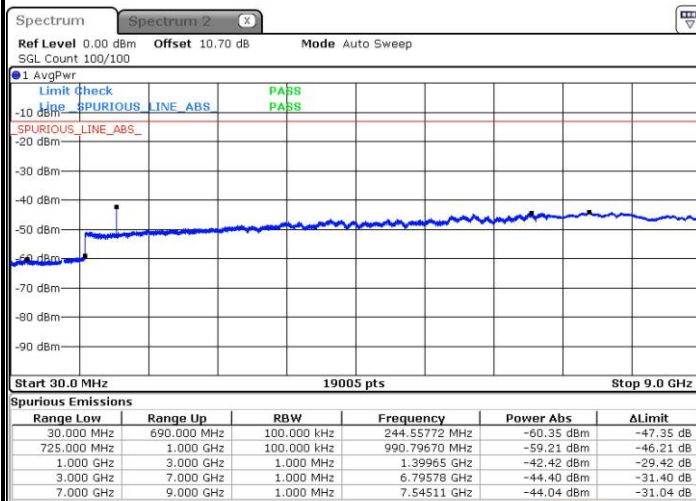
Highest Channel / 16QAM



Date: 31.OCT.2018 23:23:33

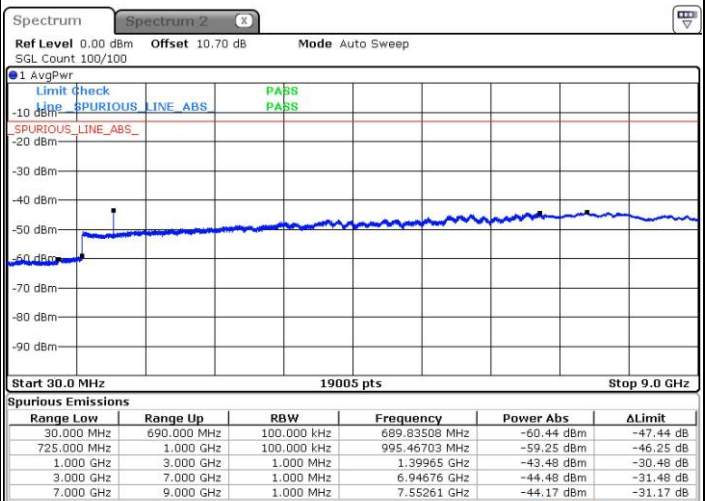
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 31.OCT.2018 23:30:41

Lowest Channel / 16QAM

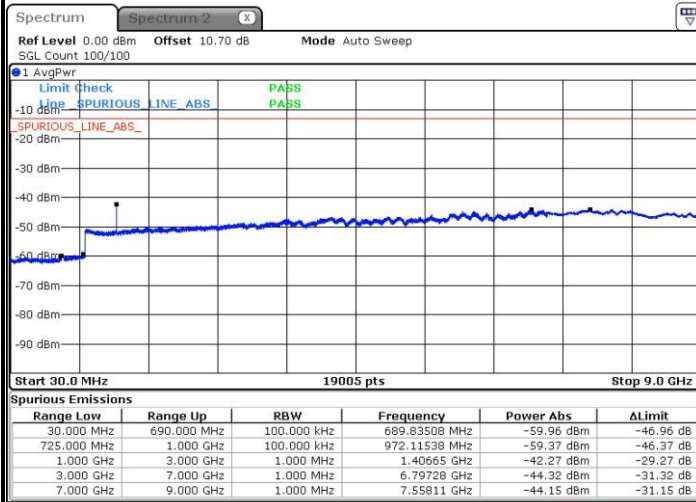


Date: 31.OCT.2018 23:31:31



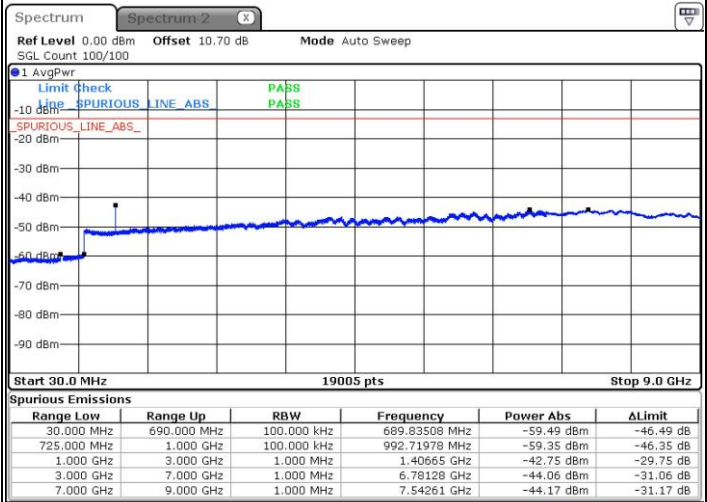
LTE Band 12 / 10MHz

Middle Channel / QPSK



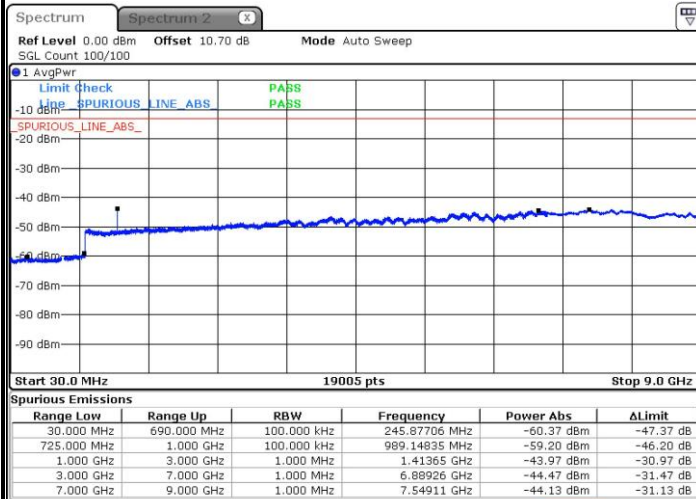
Date: 31.OCT.2018 23:33:57

Middle Channel / 16QAM



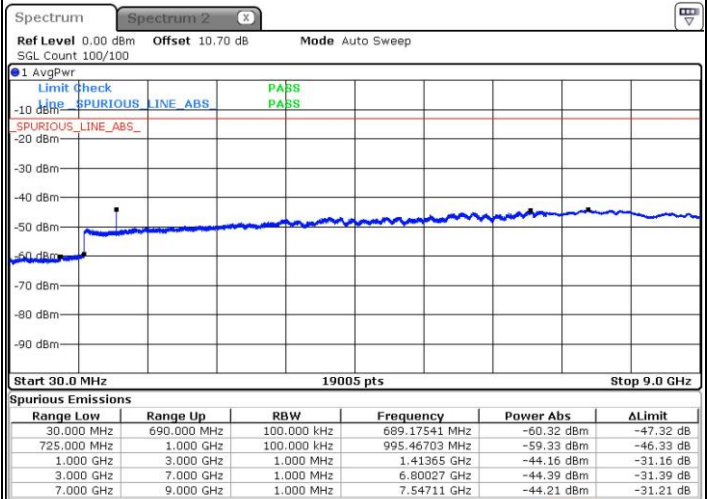
Date: 31.OCT.2018 23:33:07

Highest Channel / QPSK



Date: 31.OCT.2018 23:40:14

Highest Channel / 16QAM

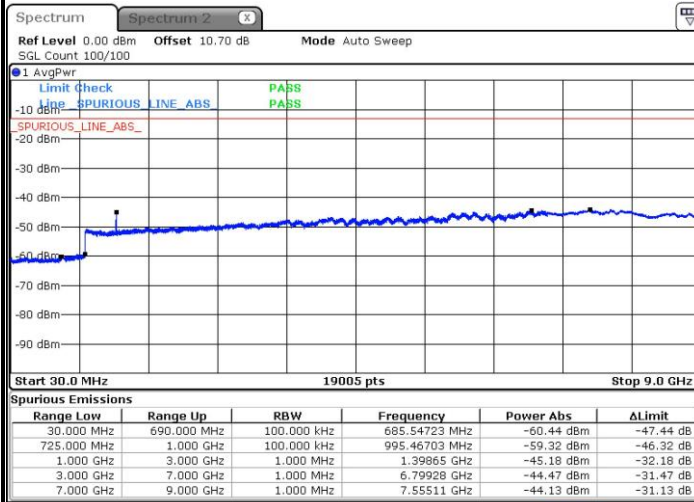


Date: 31.OCT.2018 23:41:04



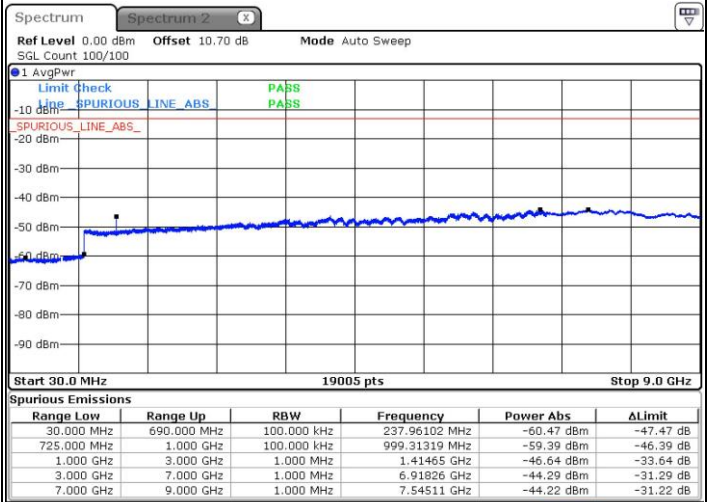
LTE Band 12 / 1.4MHz

Lowest Channel / 64QAM



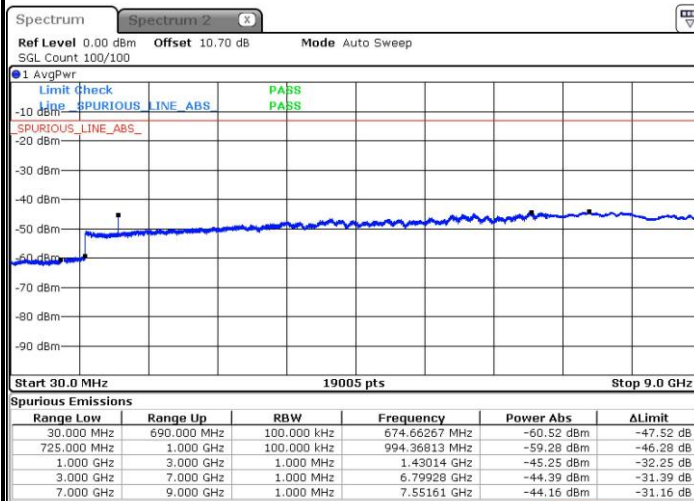
Date: 1.NOV.2018 00:26:57

Middle Channel / 64QAM



Date: 1.NOV.2018 00:28:10

Highest Channel / 64QAM

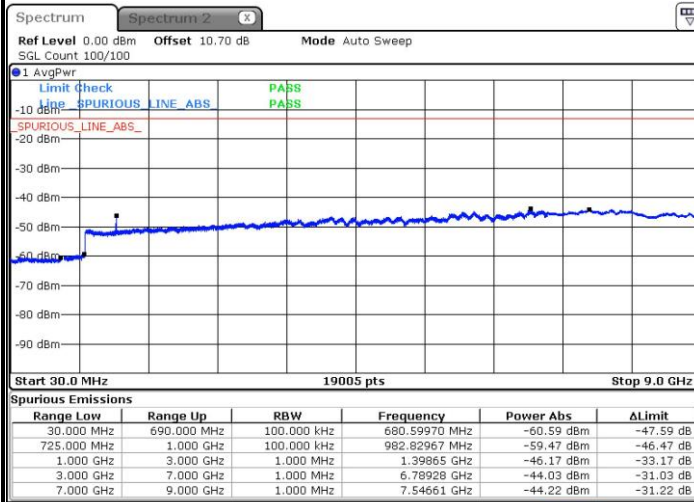


Date: 1.NOV.2018 00:31:44



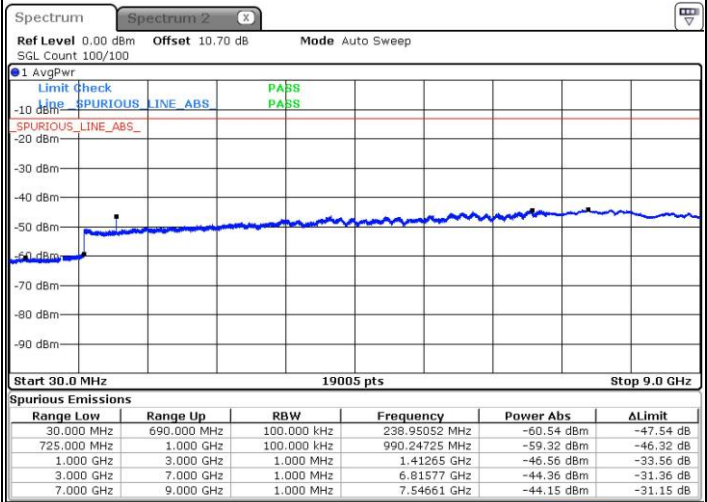
LTE Band 12 / 3MHz

Lowest Channel / 64QAM



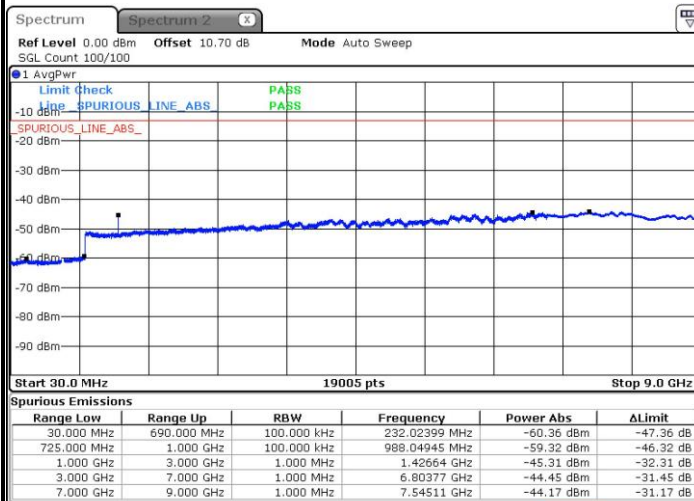
Date: 1.NOV.2018 00:01:21

Middle Channel / 64QAM



Date: 1.NOV.2018 00:02:34

Highest Channel / 64QAM

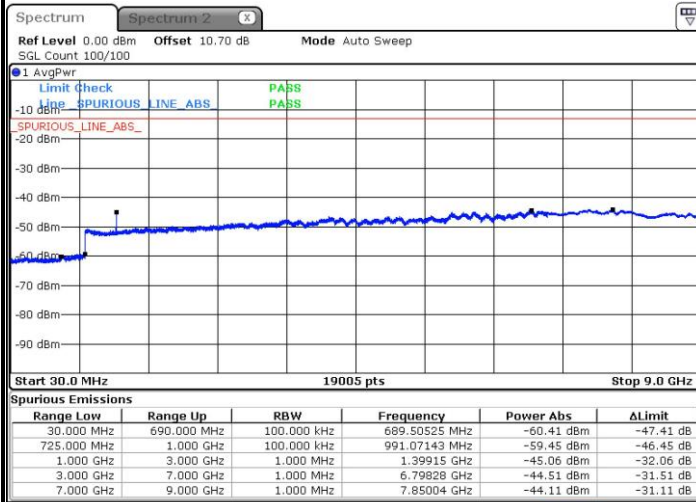


Date: 1.NOV.2018 00:06:08



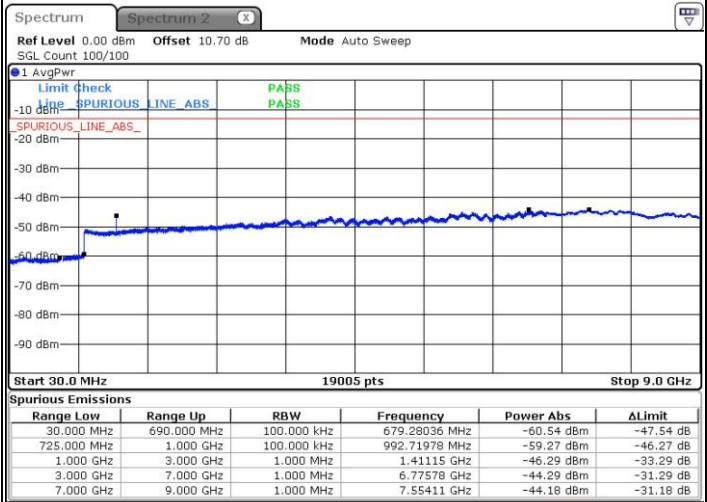
LTE Band 12 / 5MHz

Lowest Channel / 64QAM



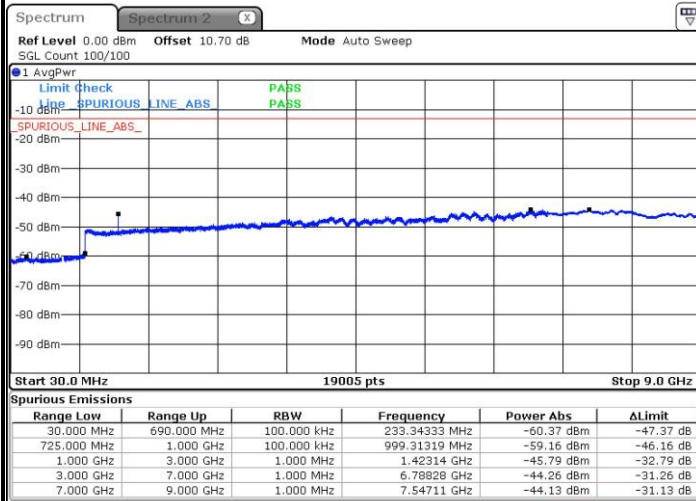
Date: 1.NOV.2018 00:09:41

Middle Channel / 64QAM



Date: 1.NOV.2018 00:10:55

Highest Channel / 64QAM

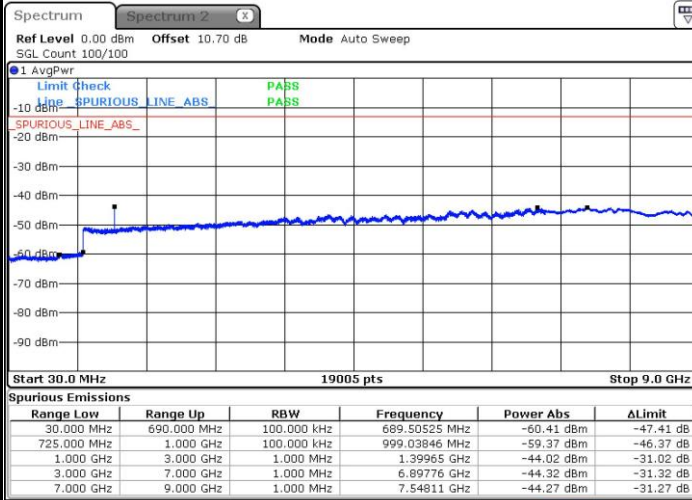


Date: 1.NOV.2018 00:14:28



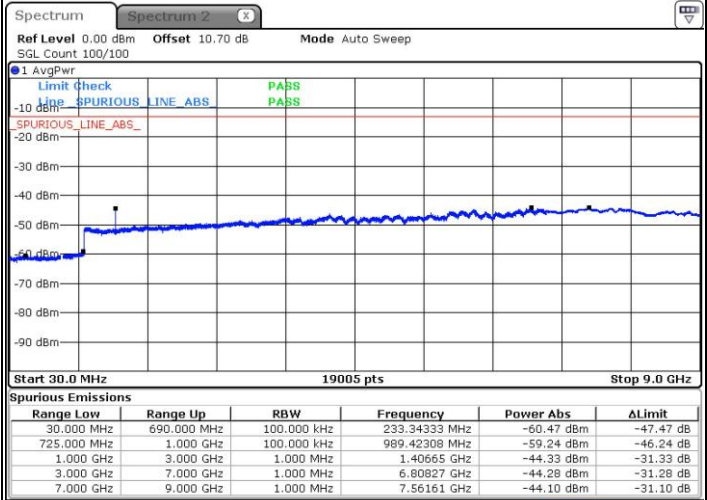
LTE Band 12 / 10MHz

Lowest Channel / 64QAM



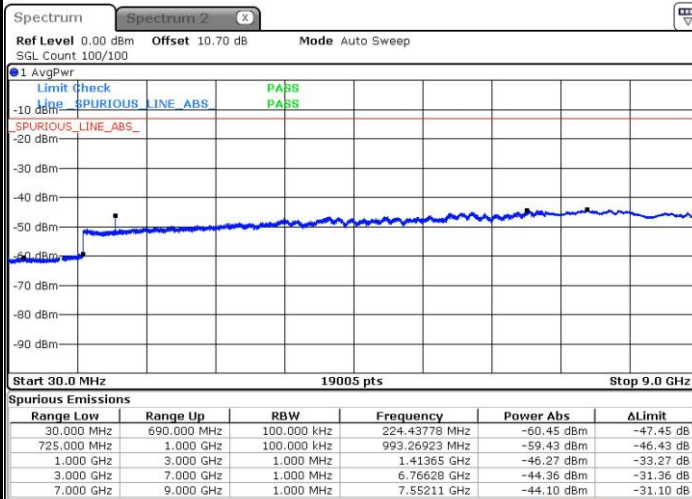
Date: 1.NOV.2018 00:18:02

Middle Channel / 64QAM



Date: 1.NOV.2018 00:19:15

Highest Channel / 64QAM



Date: 1.NOV.2018 00:22:49

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	0.0034	PASS
40	Normal Voltage	0.0059	
30	Normal Voltage	0.0007	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0004	
0	Normal Voltage	0.0059	
-10	Normal Voltage	0.0014	
-20	Normal Voltage	0.0024	
-30	Normal Voltage	0.0061	
20	Maximum Voltage	0.0021	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0059	

Note:

1. Normal Voltage =3.8 V. ; Battery End Point (BEP) =3.6 V. ; Maximum Voltage =4.4 V.
2. Note: The frequency fundamental emissions stay within the authorized frequency block.

LTE Band 13

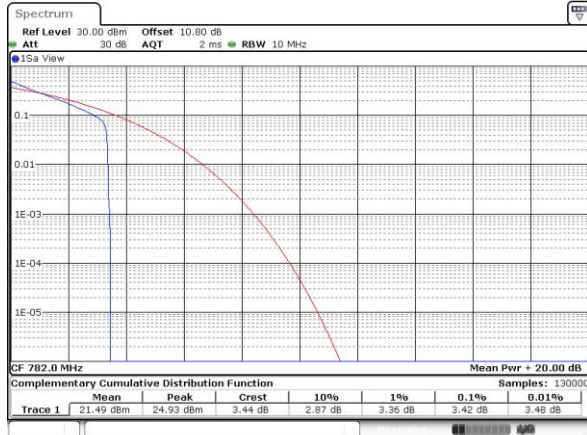
Peak-to-Average Ratio

Mode	LTE Band 13 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	-	-	-	-	PASS
Middle CH	3.42	4.64	4.32	5.88	
Highest CH	-	-	-	-	
Mode	LTE Band 13 / 10MHz				
Mod.	64QAM				Limit: 13dB
RB Size	1RB	Full RB			Result
Lowest CH	-	-	-	-	PASS
Middle CH	5.45	6.43	-	-	
Highest CH	-	-	-	-	

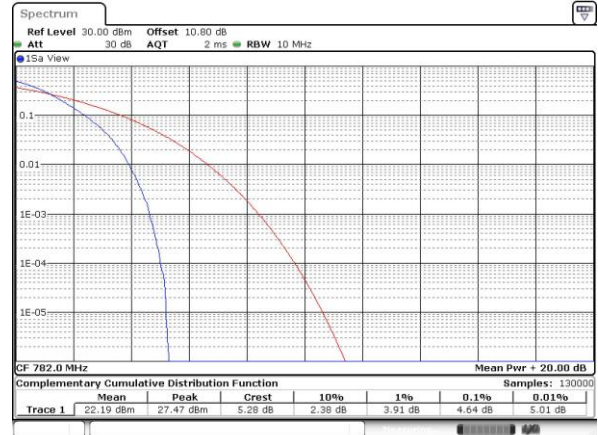


LTE Band 13 / 10MHz / QPSK

Middle Channel / 1RB

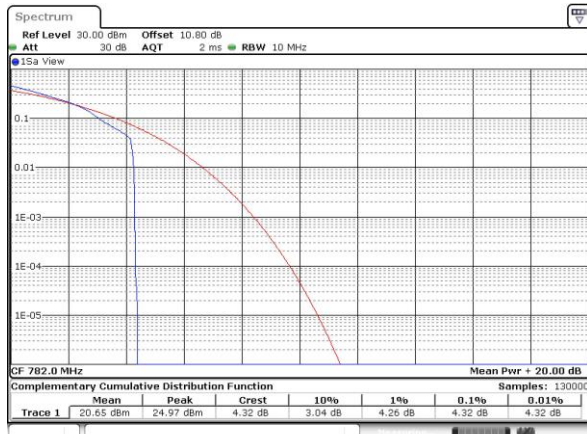


Middle Channel / Full RB

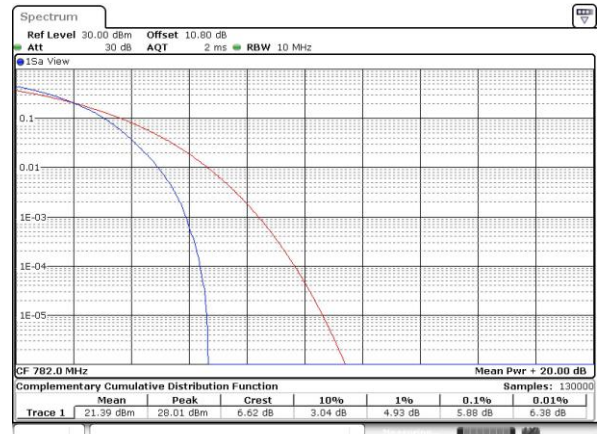


LTE Band 13 / 10MHz / 16QAM

Middle Channel / 1RB

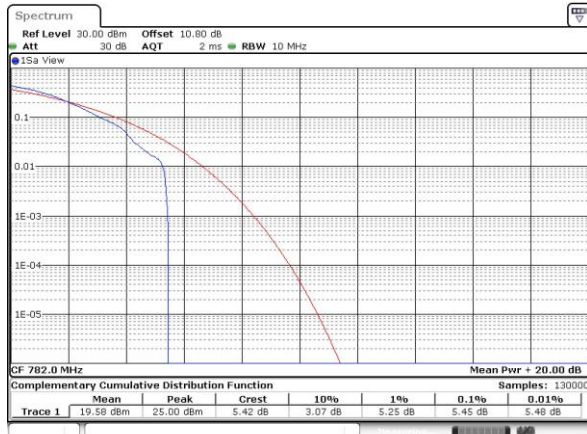


Middle Channel / Full RB

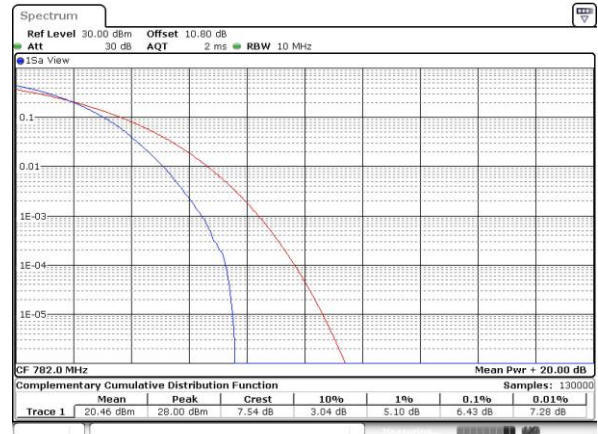


LTE Band 13 / 10MHz / 64QAM

Middle Channel / 1RB



Middle Channel / Full RB



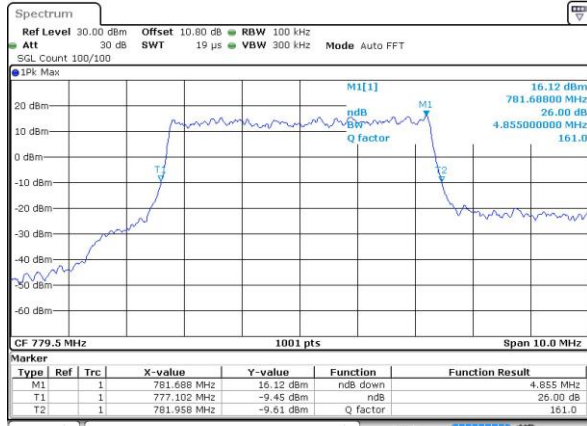
**26dB Bandwidth**

Mode BW Mod.	LTE Band 13 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.86	4.91	-	-	-	-	-	-
Middle CH	-	-	-	-	5.00	4.92	9.75	9.87	-	-	-	-
Highest CH	-	-	-	-	4.82	4.94	-	-	-	-	-	-
Mode BW Mod.	LTE Band 13 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.93	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.99	-	9.75	-	-	-	-	-
Highest CH	-	-	-	-	4.90	-	-	-	-	-	-	-



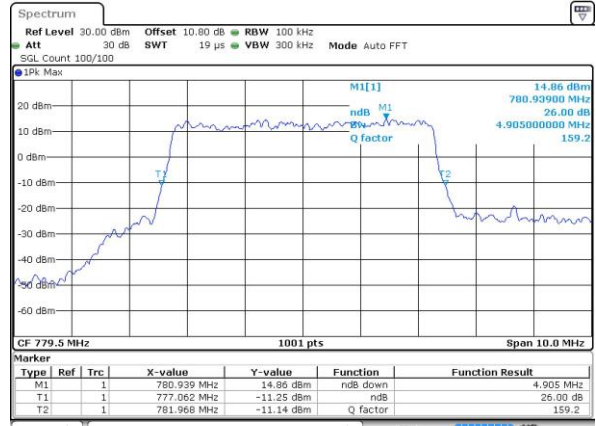
LTE Band 13

Lowest Channel / 5MHz / QPSK



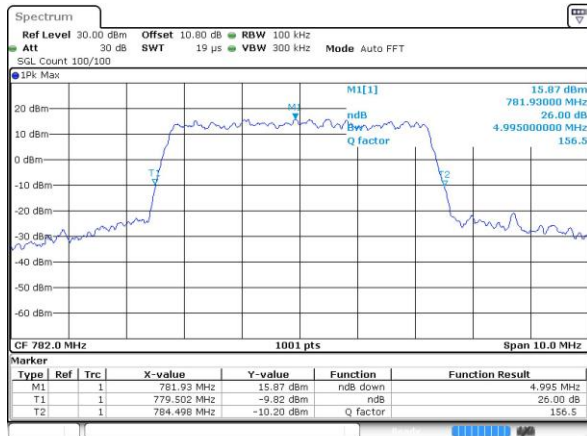
Date: 22.OCT.2018 23:01:06

Lowest Channel / 5MHz / 16QAM



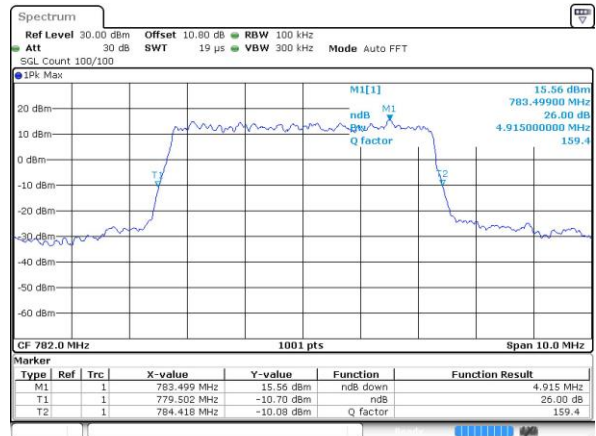
Date: 22.OCT.2018 23:00:55

Middle Channel / 5MHz / QPSK



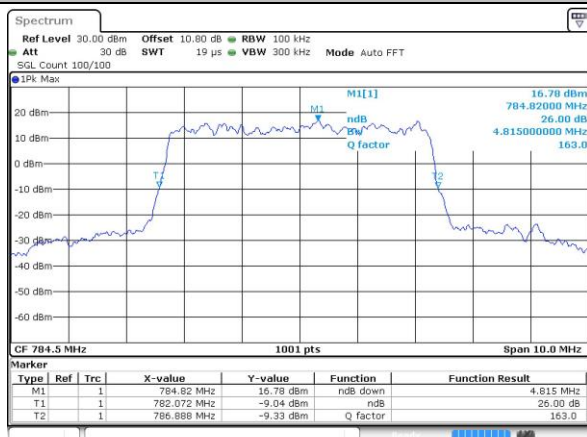
Date: 22.OCT.2018 23:10:38

Middle Channel / 5MHz / 16QAM



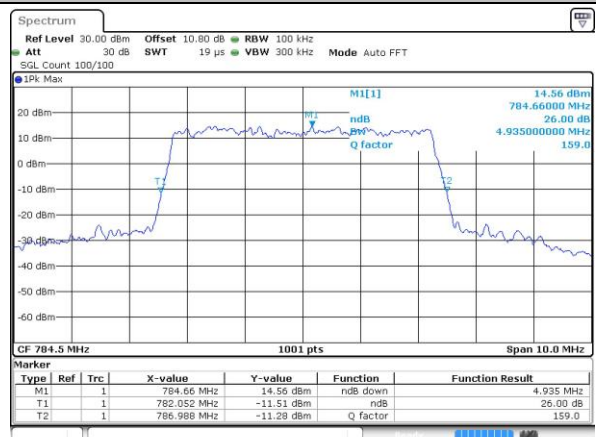
Date: 22.OCT.2018 23:10:49

Highest Channel / 5MHz / QPSK



Date: 22.OCT.2018 23:11:58

Highest Channel / 5MHz / 16QAM

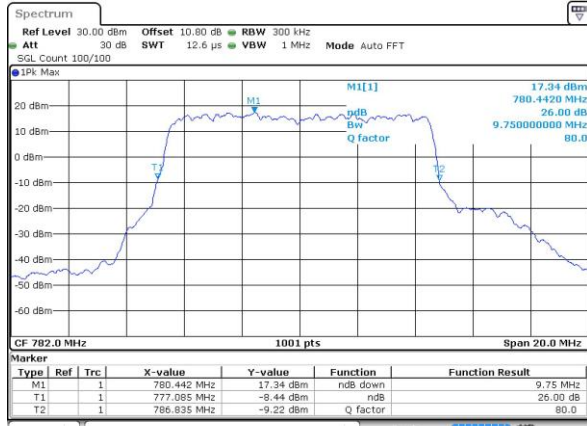


Date: 22.OCT.2018 23:11:46



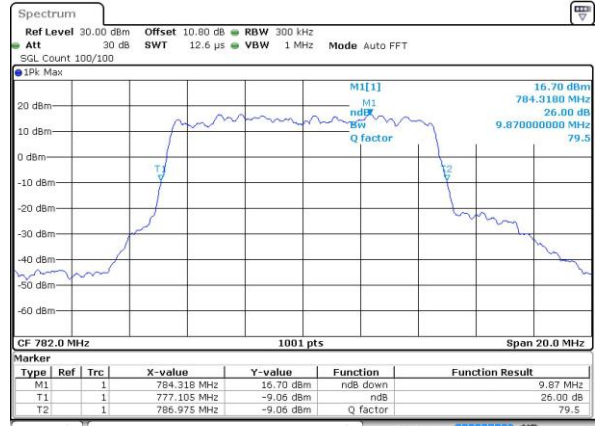
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 22.OCT.2018 23:30:33

Middle Channel / 10MHz / 16QAM

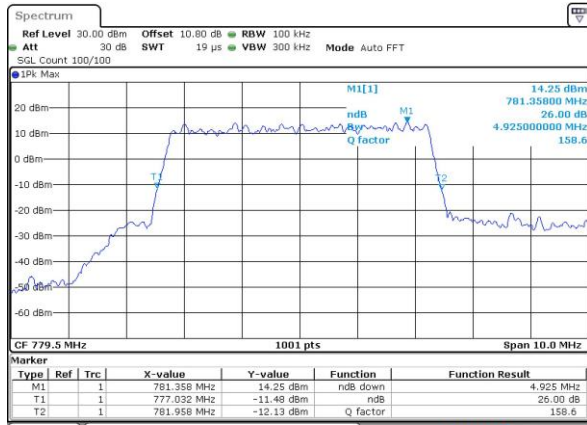


Date: 22.OCT.2018 23:30:22

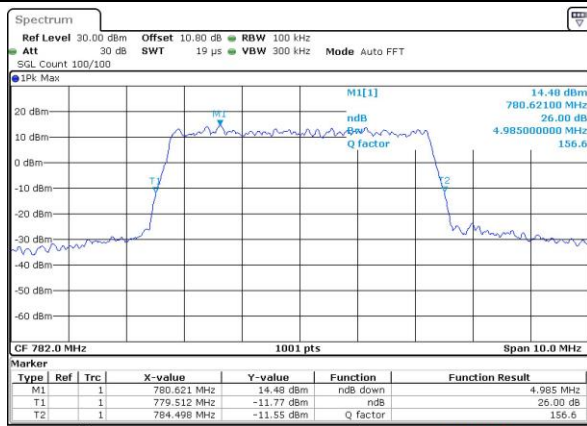


LTE Band 13

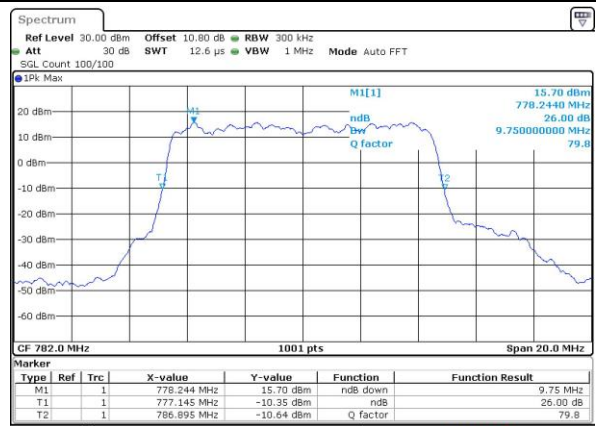
Lowest Channel / 5MHz / 64QAM



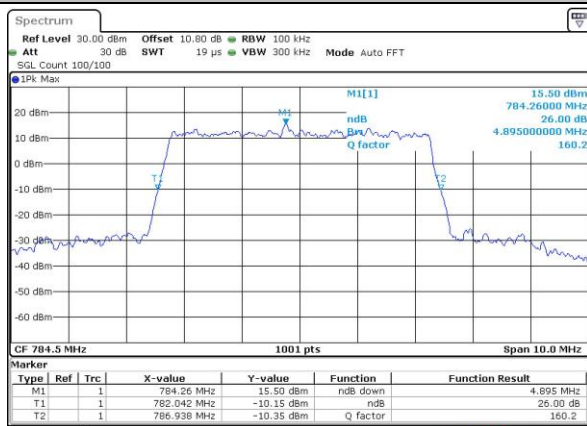
Middle Channel / 5MHz / 64QAM



Middle Channel / 10MHz / 64QAM



Highest Channel / 5MHz / 64QAM



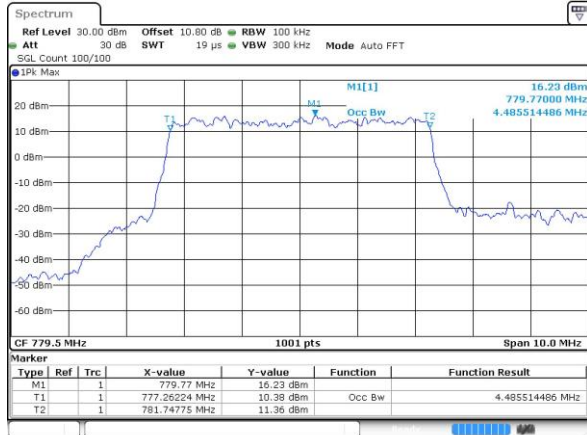
**Occupied Bandwidth**

Mode BW Mod.	LTE Band 13 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.49	4.5	-	-	-	-	-	-
Middle CH	-	-	-	-	4.51	4.49	9.01	9.01	-	-	-	-
Highest CH	-	-	-	-	4.48	4.51	-	-	-	-	-	-
Mode BW Mod.	LTE Band 13 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
	64QAM		64QAM		64QAM		64QAM		64QAM		64QAM	
Lowest CH	-	-	-	-	4.50	-	-	-	-	-	-	-
Middle CH	-	-	-	-	4.49	-	8.99	-	-	-	-	-
Highest CH	-	-	-	-	4.49	-	-	-	-	-	-	-

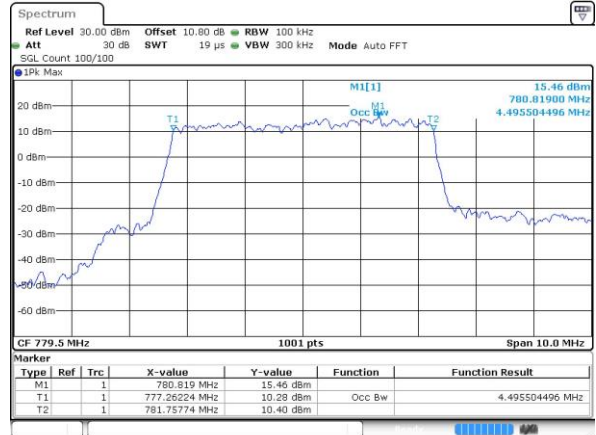


LTE Band 13

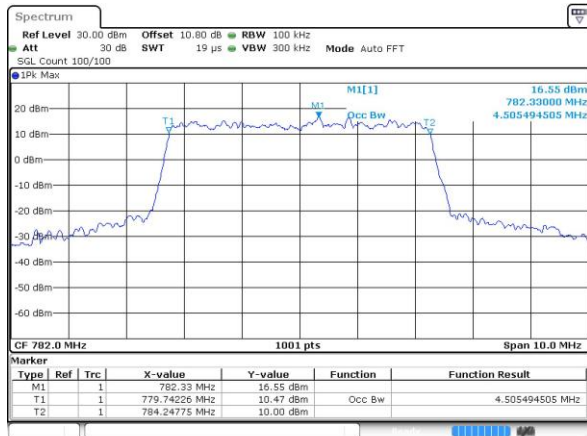
Lowest Channel / 5MHz / QPSK



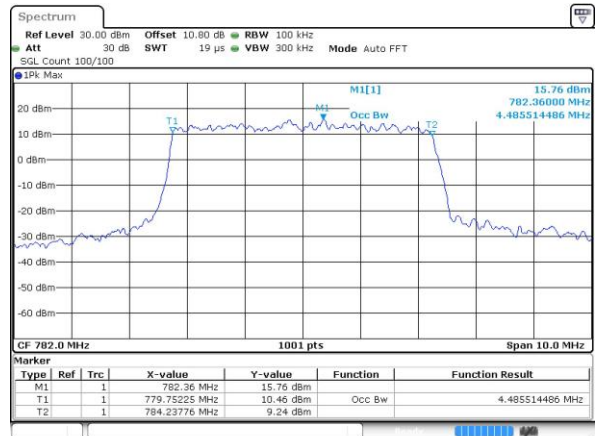
Lowest Channel / 5MHz / 16QAM



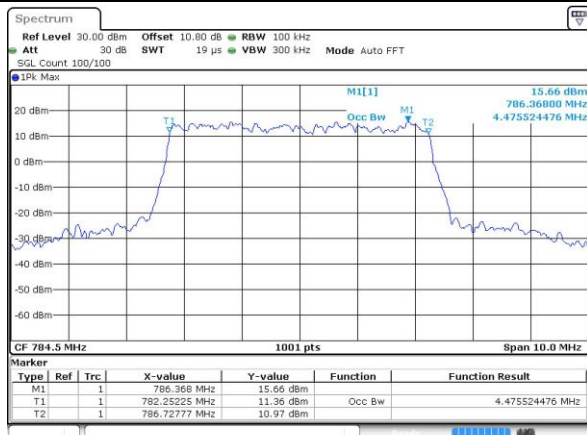
Middle Channel / 5MHz / QPSK



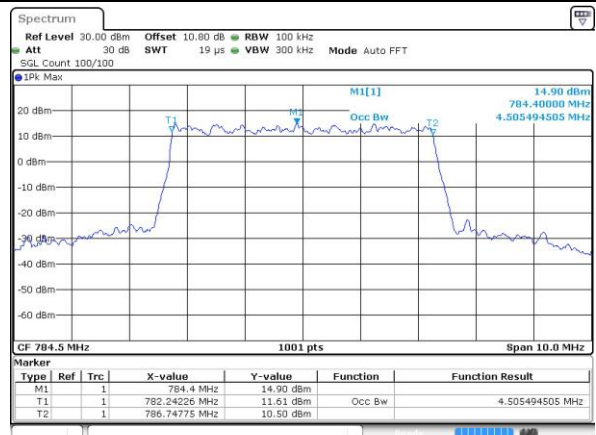
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



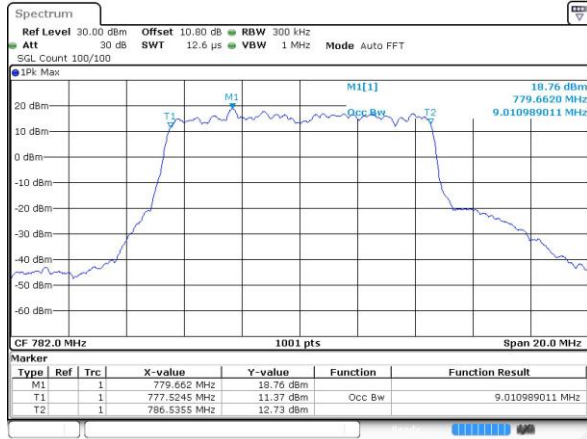
Highest Channel / 5MHz / 16QAM





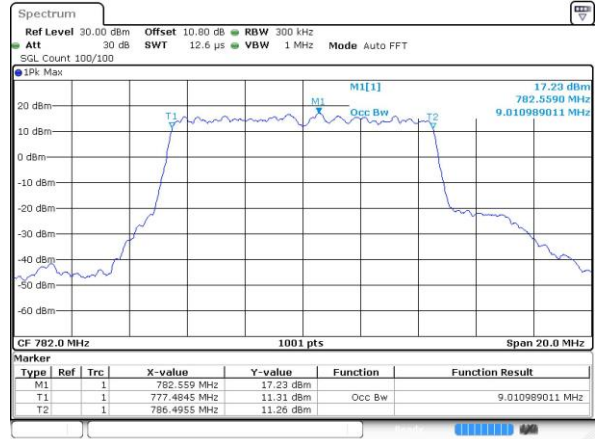
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 22.OCT.2018 23:29:59

Middle Channel / 10MHz / 16QAM

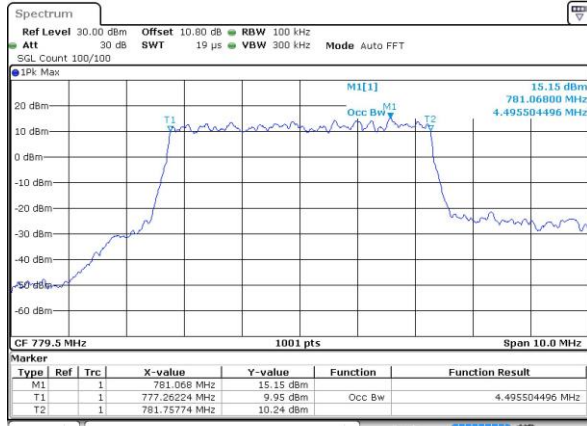


Date: 22.OCT.2018 23:30:11



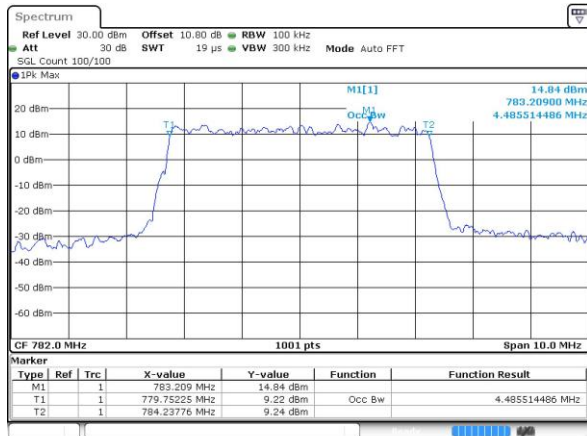
LTE Band 13

Lowest Channel / 5MHz / 64QAM



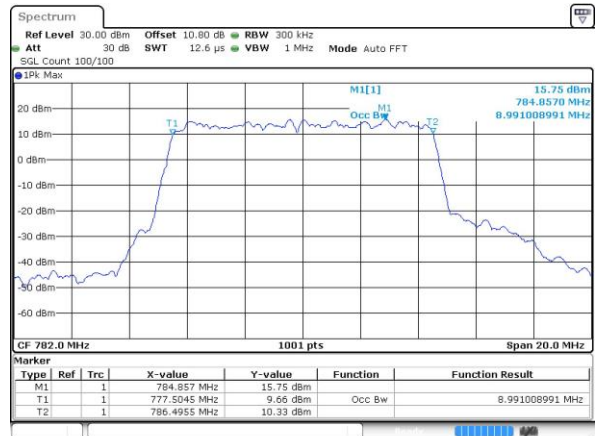
Date: 22 OCT 2018 23:20:10

Middle Channel / 5MHz / 64QAM



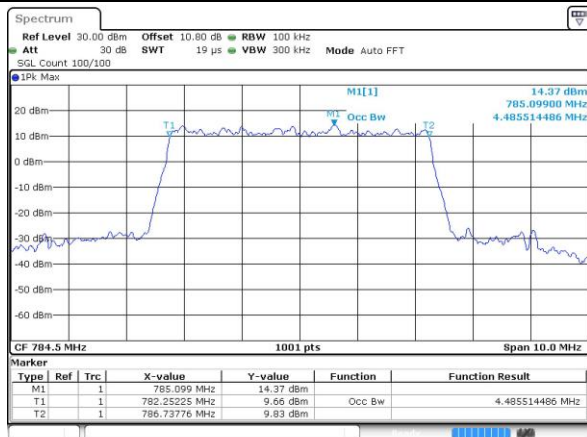
Date: 22 OCT 2018 23:25:24

Middle Channel / 10MHz / 64QAM

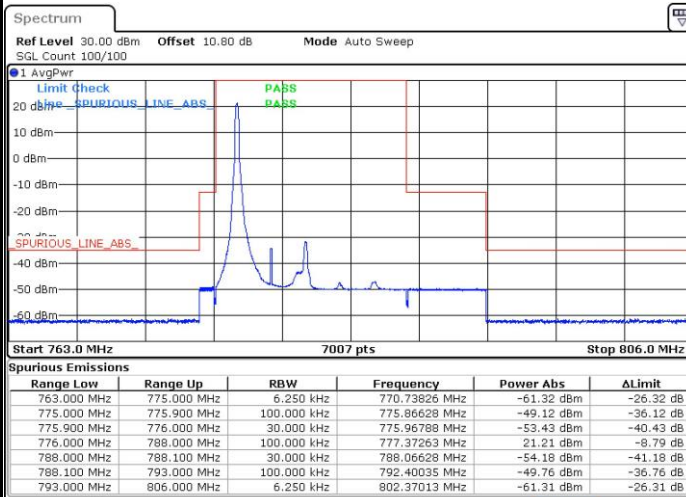
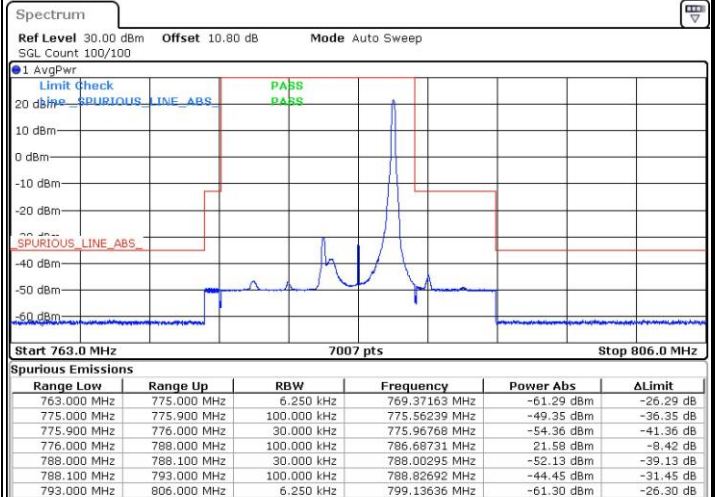
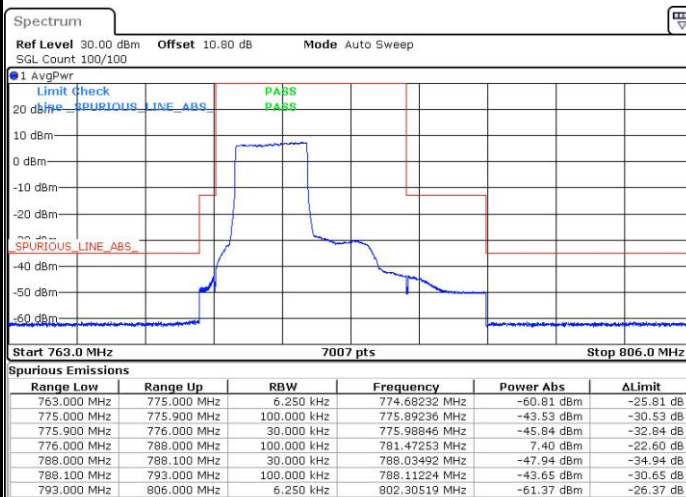
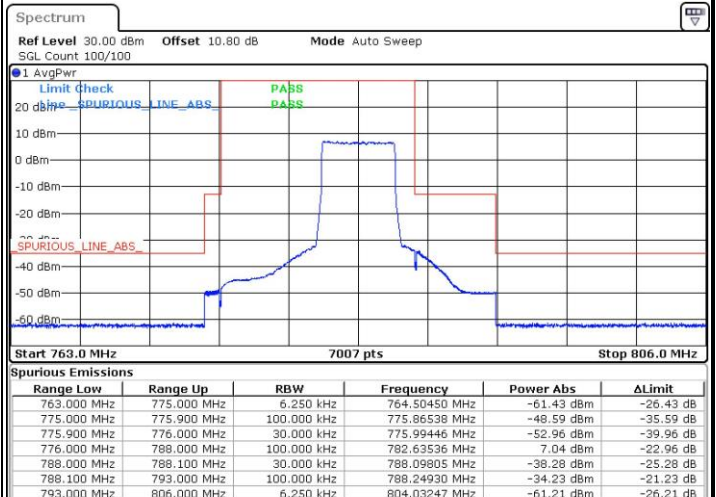


Date: 22 OCT 2018 23:42:06

Highest Channel / 5MHz / 64QAM



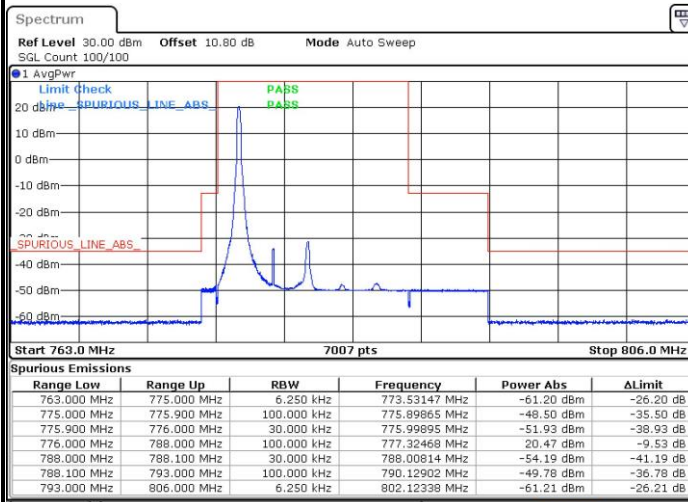
Date: 22 OCT 2018 23:25:36

**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**



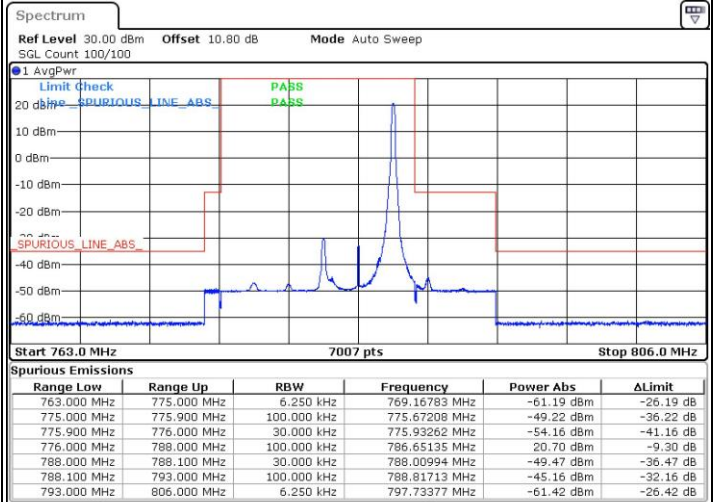
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



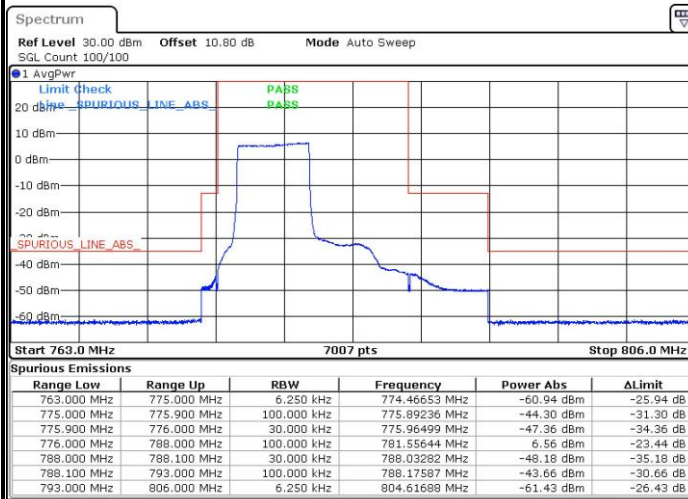
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Highest Band Edge / 1 RB



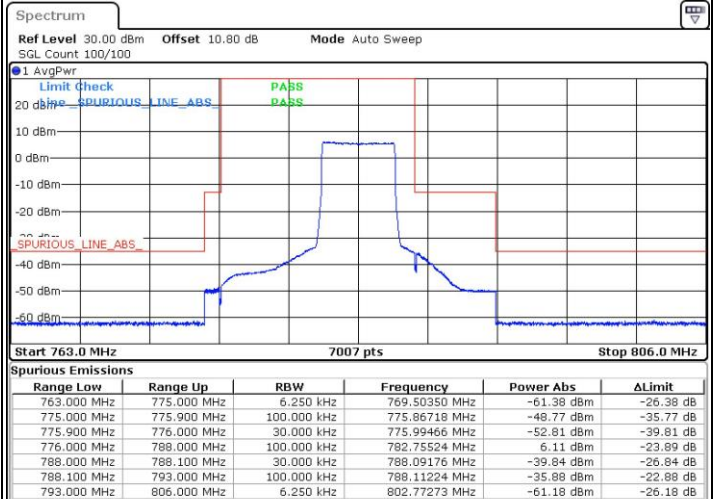
Date: 22.OCT.2018 23:16:58

Lowest Band Edge / Full RB



Date: 22.OCT.2018 23:04:26

Highest Band Edge / Full RB

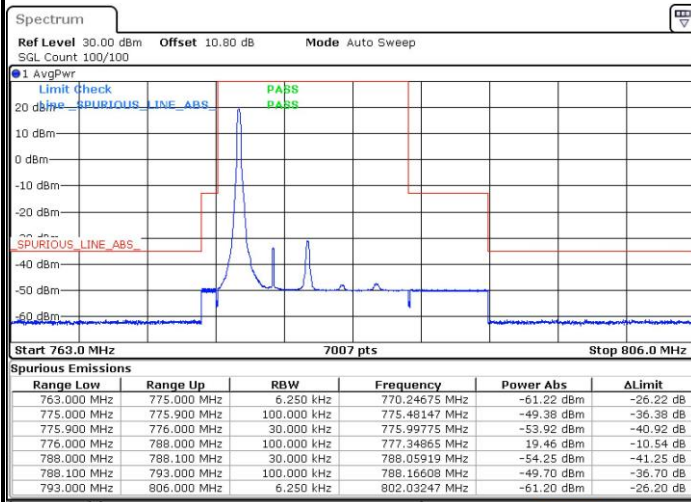


Date: 22.OCT.2018 23:15:18



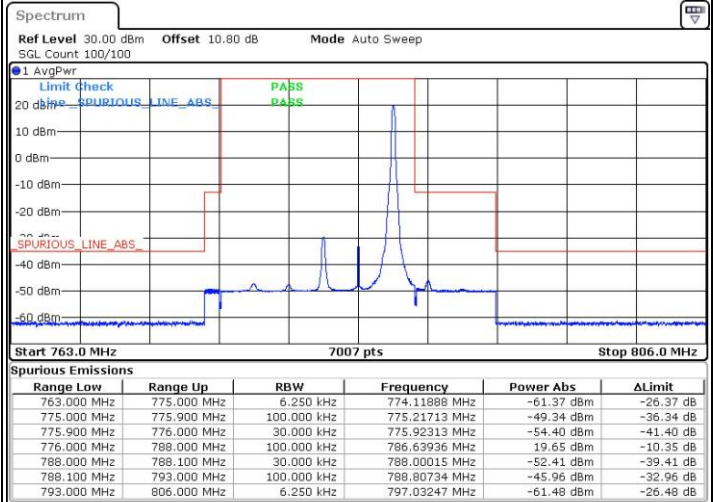
LTE Band 13 / 5MHz / 64QAM

Lowest Band Edge / 1 RB



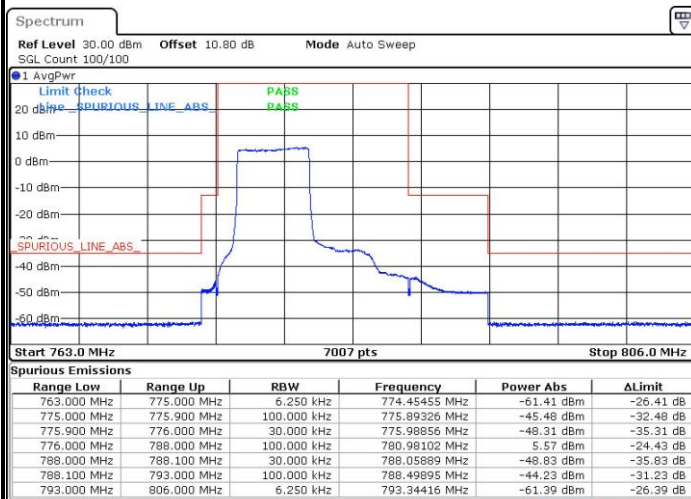
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Highest Band Edge / 1 RB



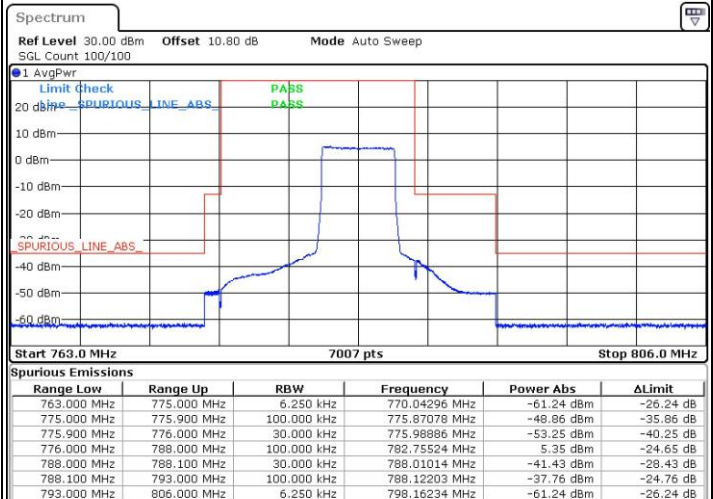
Date: 22.OCT.2018 23:29:07

Lowest Band Edge / Full RB



Date: 22.OCT.2018 23:22:01

Highest Band Edge / Full RB

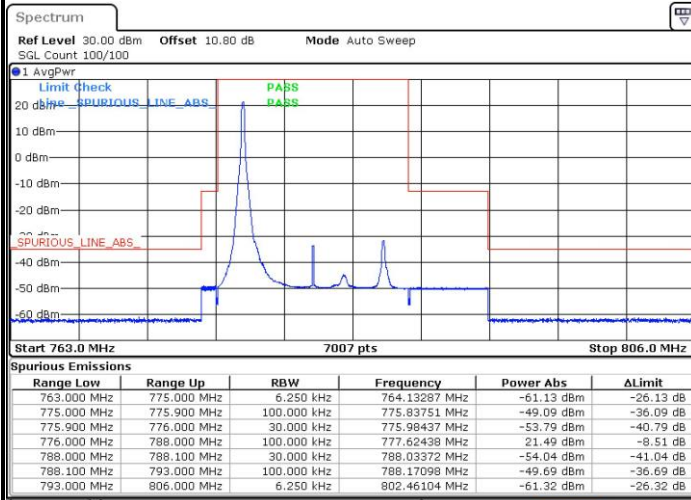


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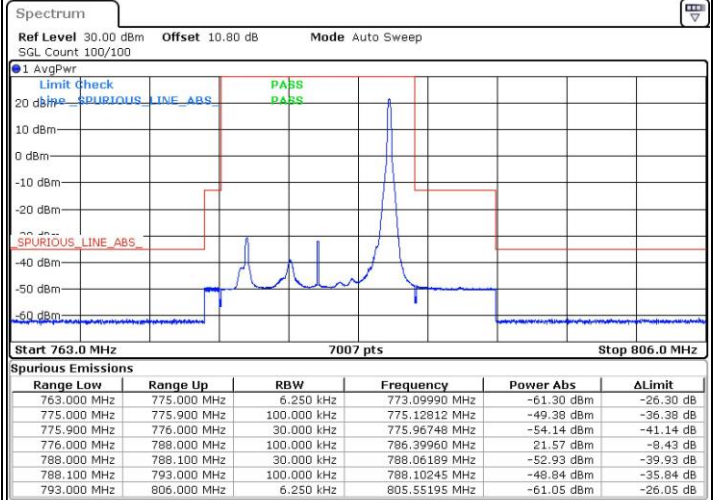
LTE Band 13 / 10MHz / QPSK

Lowest Band Edge / 1 RB



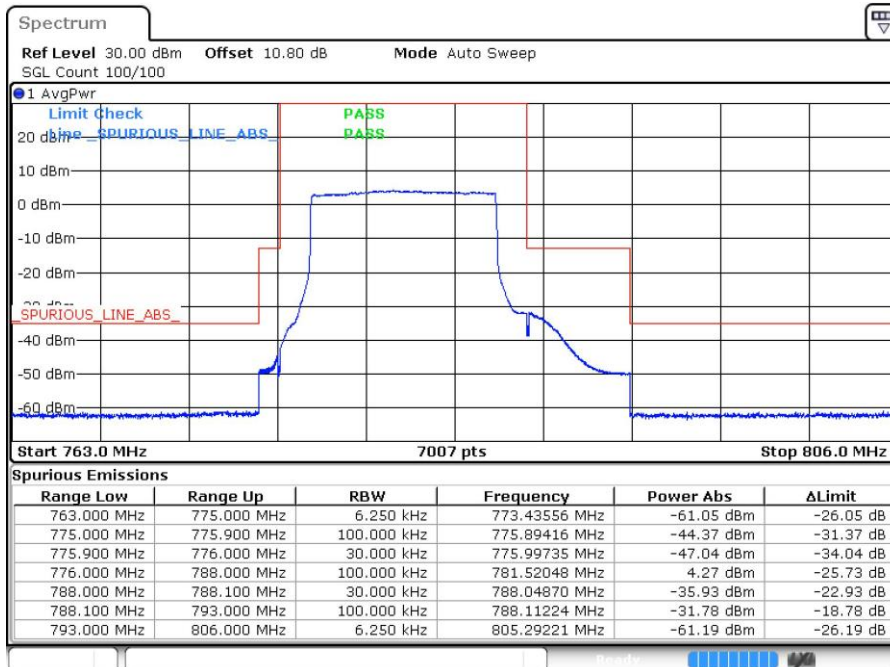
Date: 22.OCT.2018 23:37:14

Highest Band Edge / 1 RB



Date: 22.OCT.2018 23:38:54

Band Edge / Full RB



Date: 22.OCT.2018 23:32:13