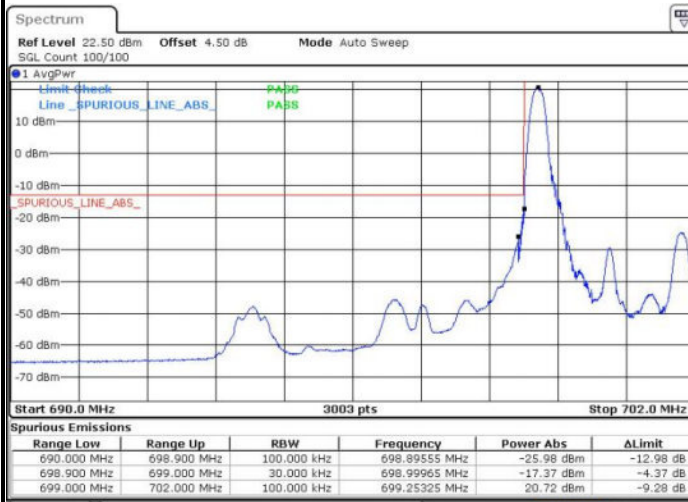




LTE Band 12 / 3MHz / QPSK

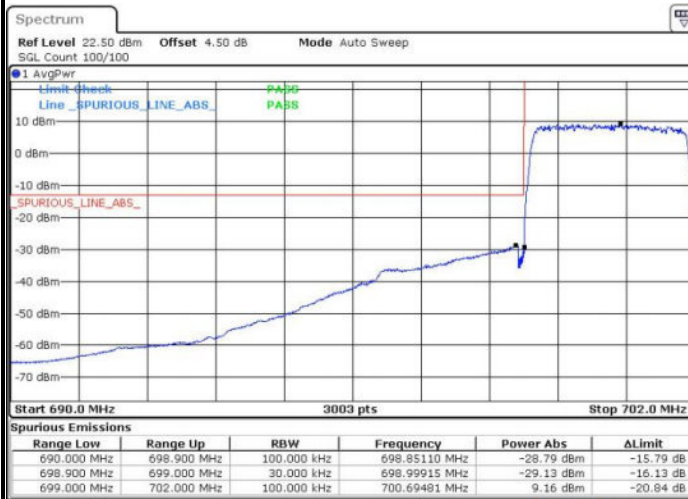
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



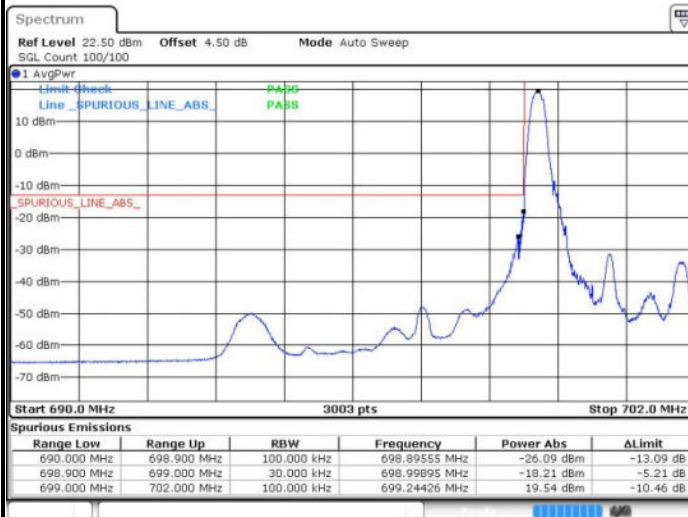
Highest Band Edge / Full RB



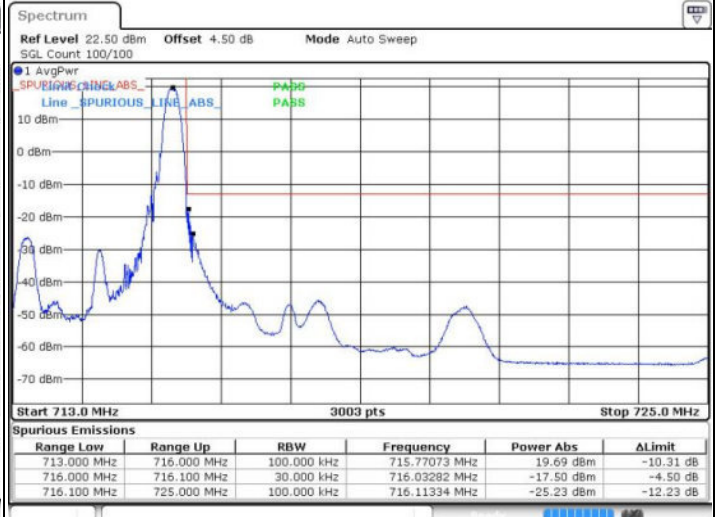


LTE Band 12 / 3MHz / 16QAM

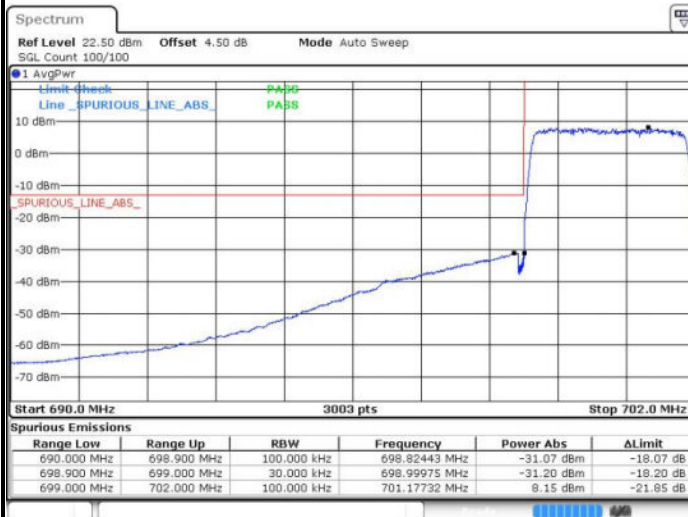
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB



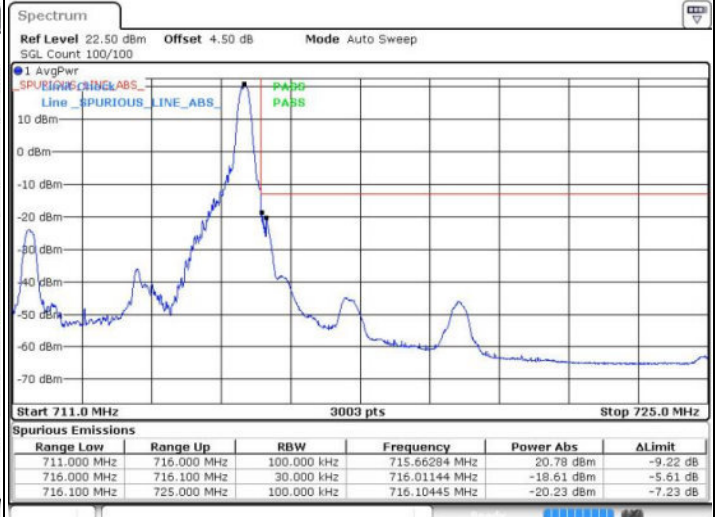


LTE Band 12 / 5MHz / QPSK

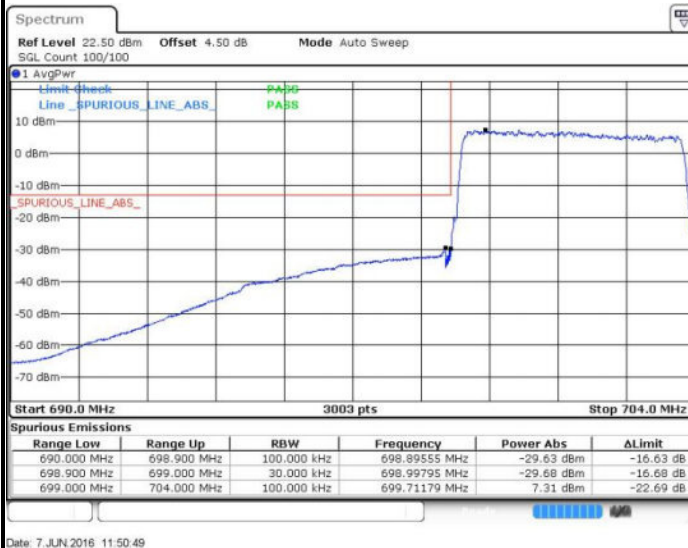
Lowest Band Edge / 1 RB



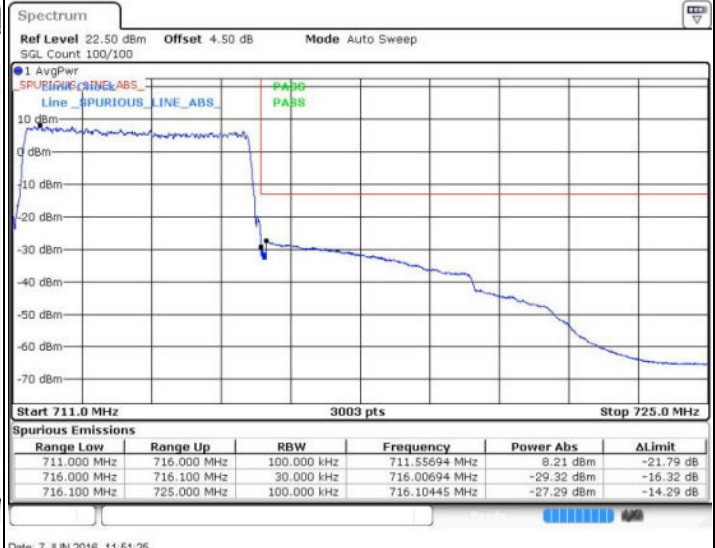
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



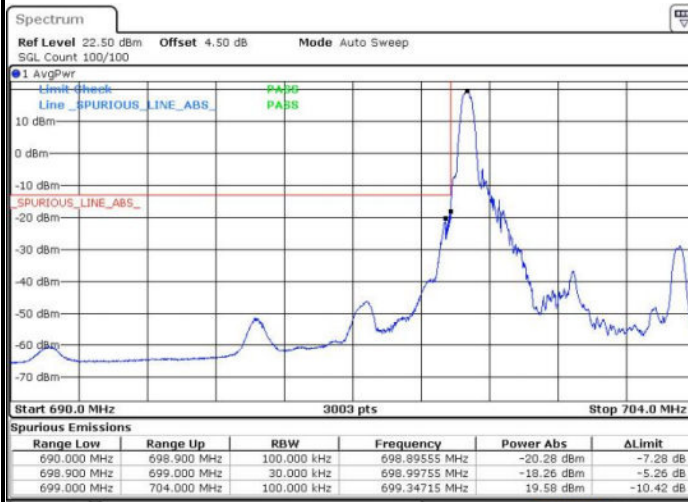
Highest Band Edge / Full RB





LTE Band 12 / 5MHz / 16QAM

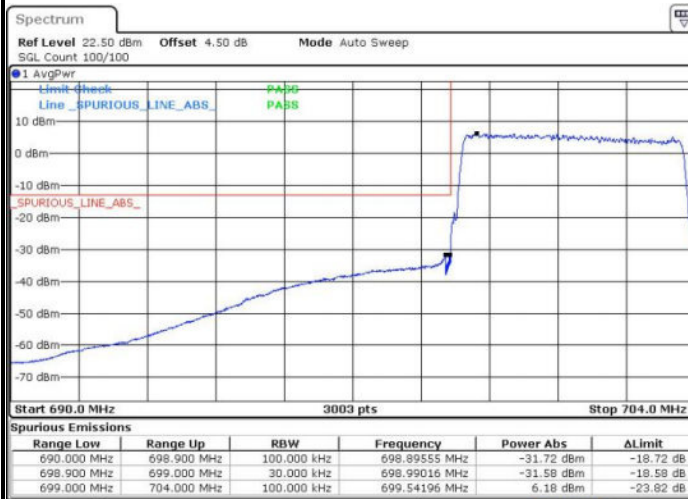
Lowest Band Edge / 1RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



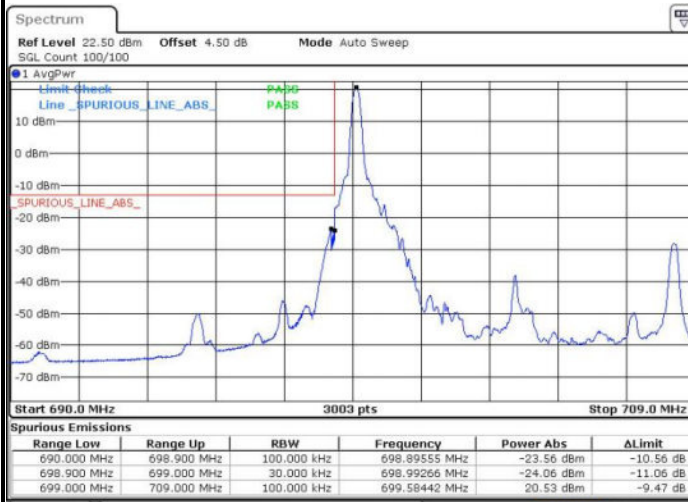
Highest Band Edge / Full RB



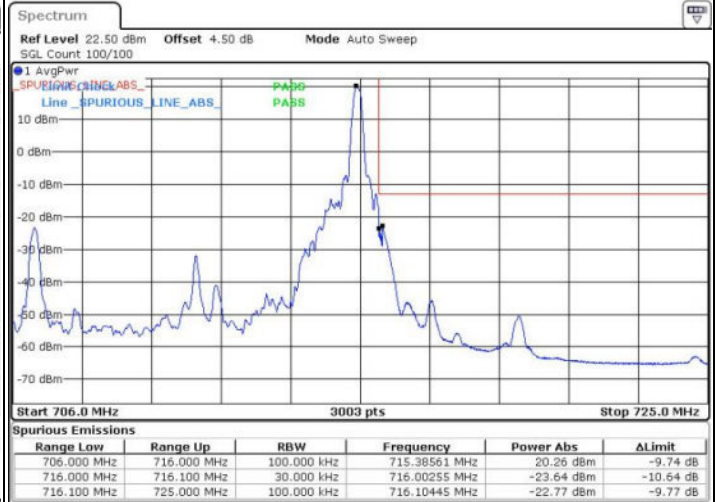


LTE Band 12 / 10MHz / QPSK

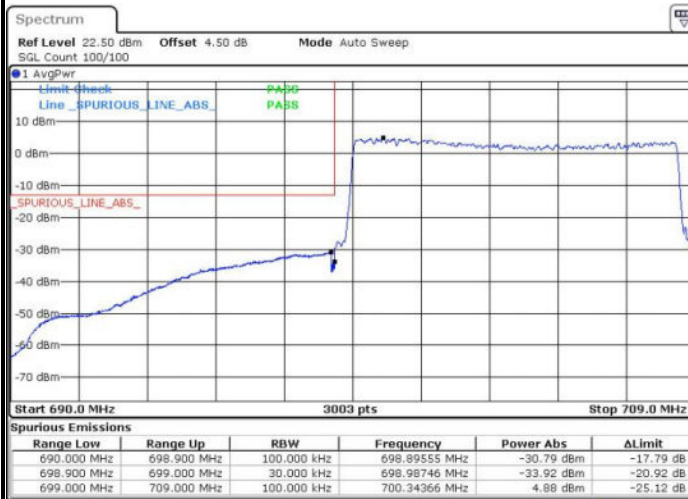
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



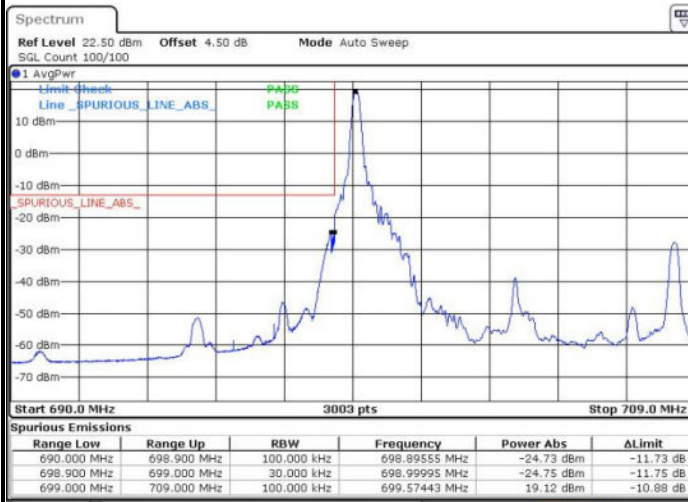
Highest Band Edge / Full RB



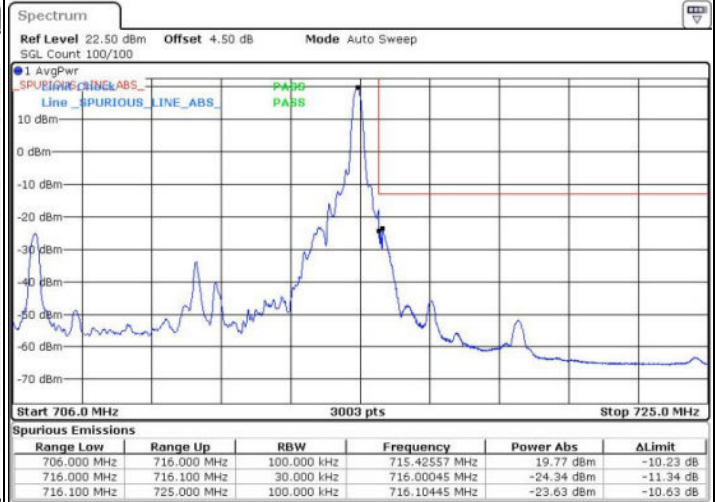


LTE Band 12 / 10MHz / 16QAM

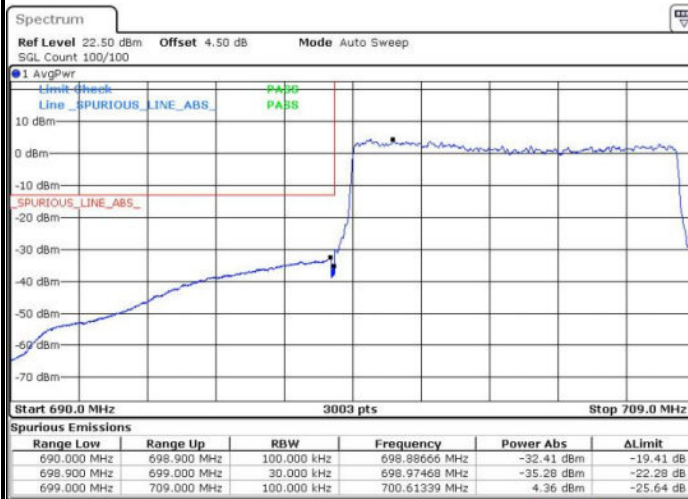
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

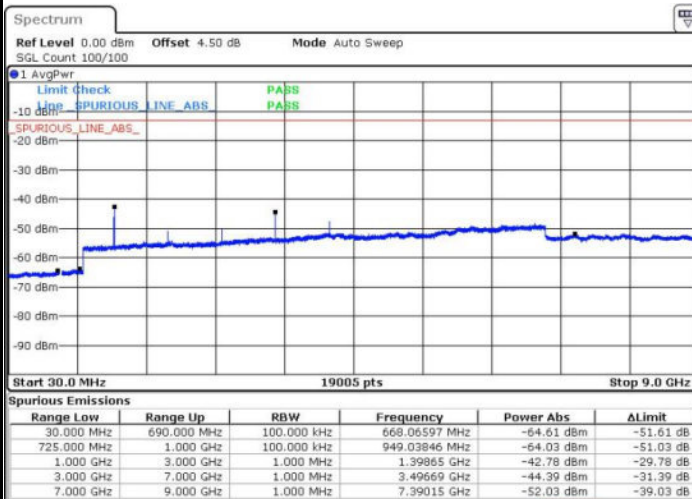




Conducted Spurious Emission

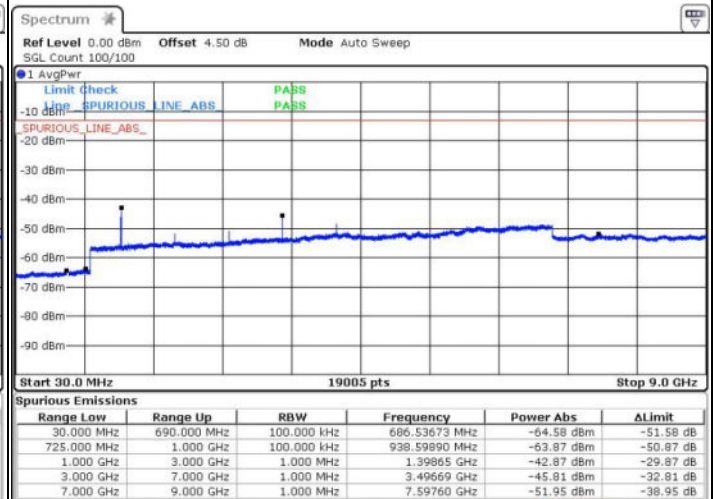
LTE Band 12 / 1.4MHz

Lowest Channel / QPSK



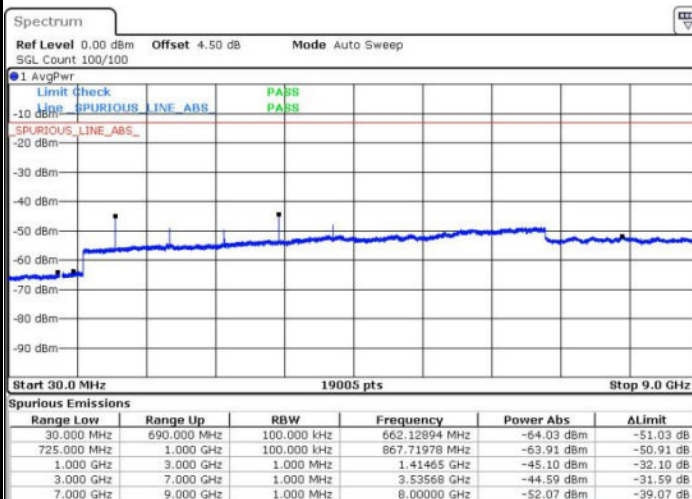
Date: 7 JUN 2016 11:27:29

Lowest Channel / 16QAM



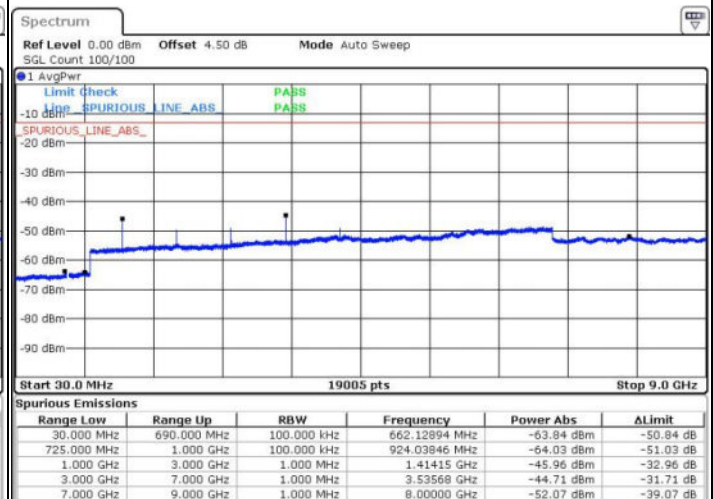
Date: 7 JUN 2016 11:27:03

Middle Channel / QPSK



Date: 7 JUN 2016 11:28:59

Middle Channel / 16QAM

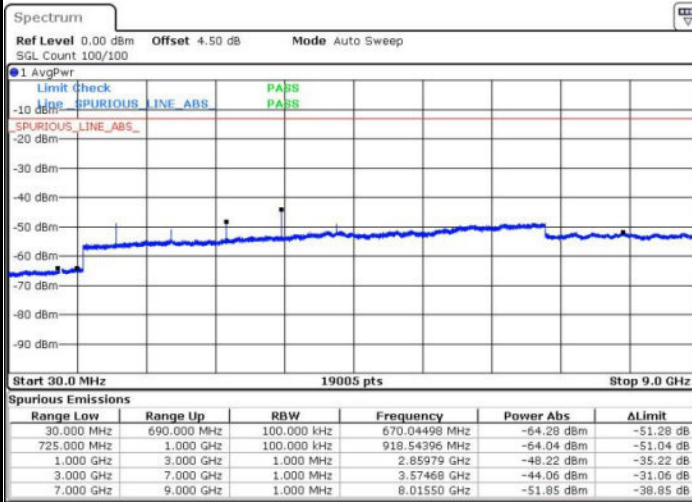


Date: 7 JUN 2016 11:29:35



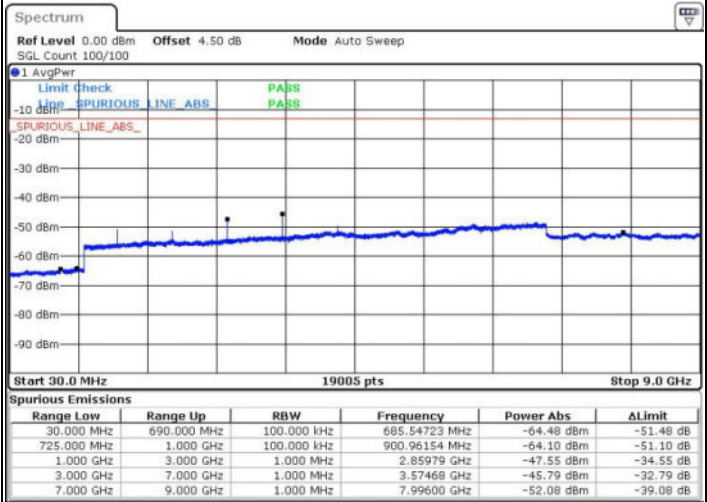
LTE Band 12 / 1.4MHz

Highest Channel / QPSK



Date: 7 JUN 2016 11:30:45

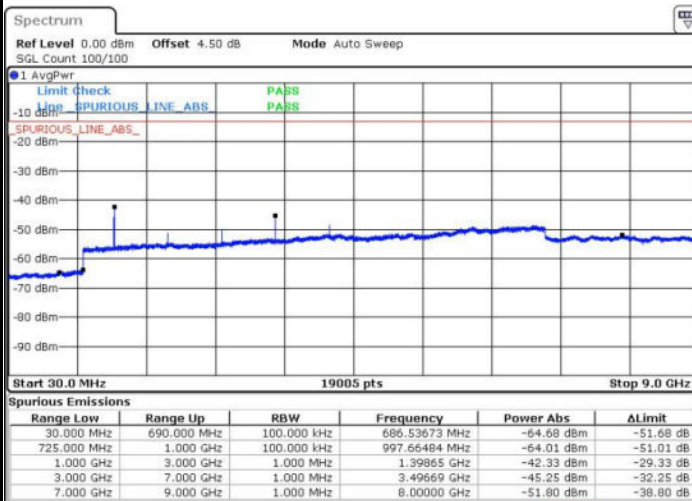
Highest Channel / 16QAM



Date: 7 JUN 2016 11:30:15

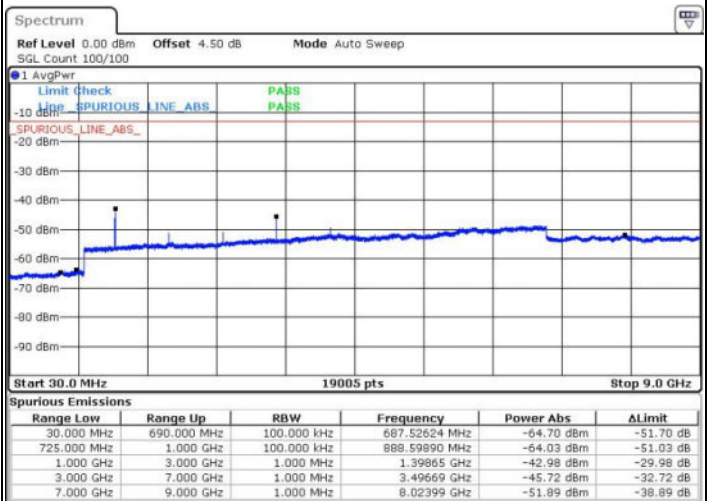
LTE Band 12 / 3MHz

Lowest Channel / QPSK



Date: 7 JUN 2016 11:43:25

Lowest Channel / 16QAM

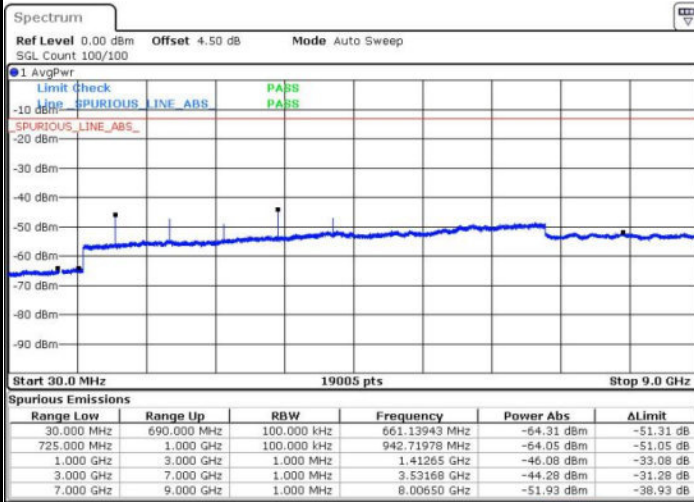


Date: 7 JUN 2016 11:41:38



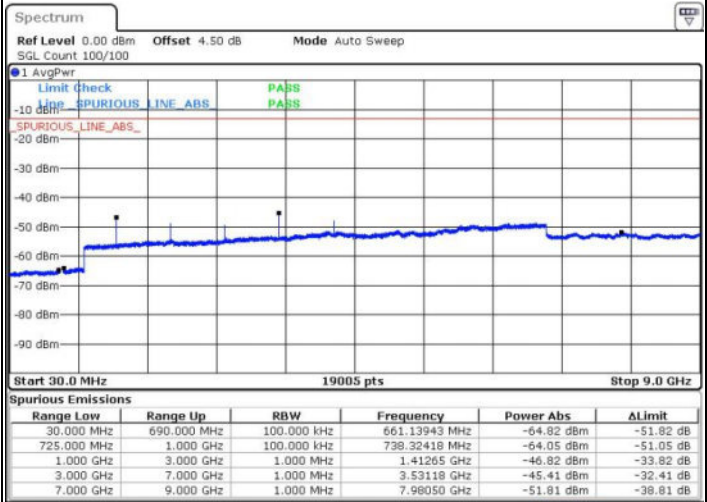
LTE Band 12 / 3MHz

Middle Channel / QPSK



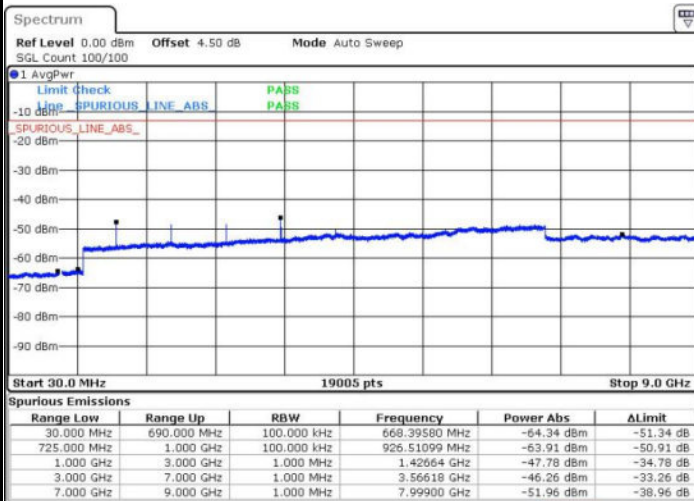
Date: 7 JUN 2016 11:43:50

Middle Channel / 16QAM



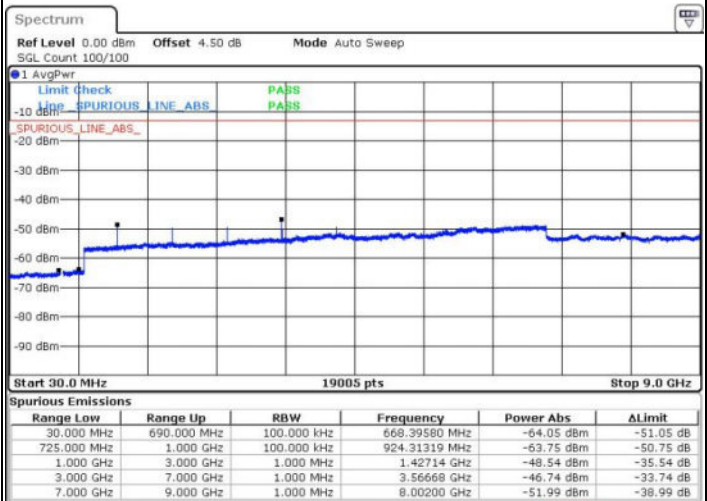
Date: 7 JUN 2016 11:44:13

Highest Channel / QPSK



Date: 7 JUN 2016 11:45:25

Highest Channel / 16QAM

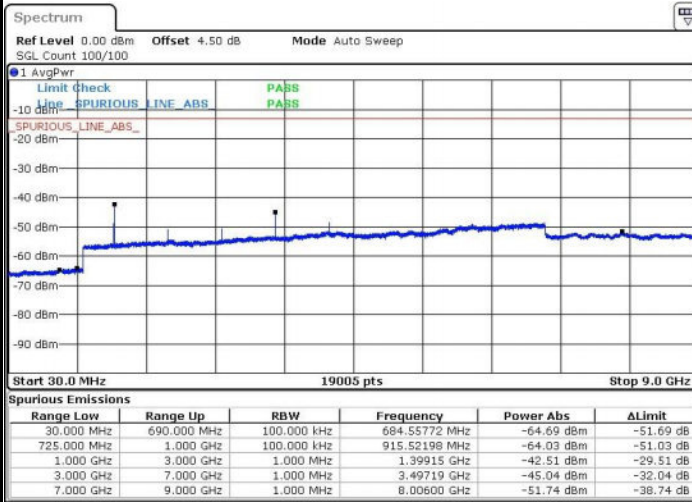


Date: 7 JUN 2016 11:44:59



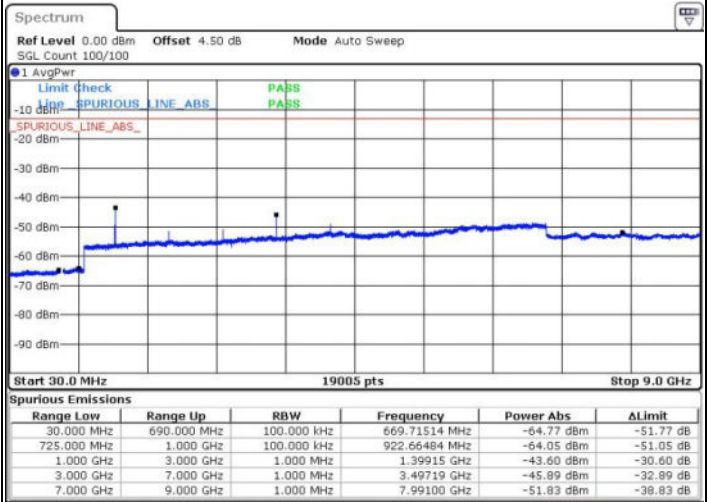
LTE Band 12 / 5MHz

Lowest Channel / QPSK



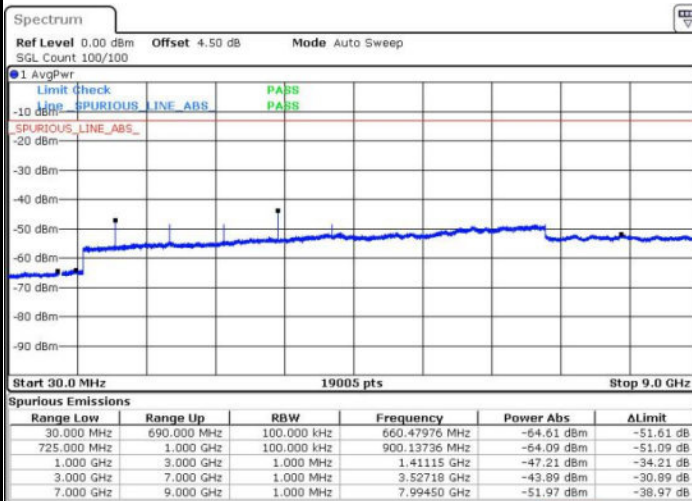
Date: 7 JUN 2016 14:16:34

Lowest Channel / 16QAM



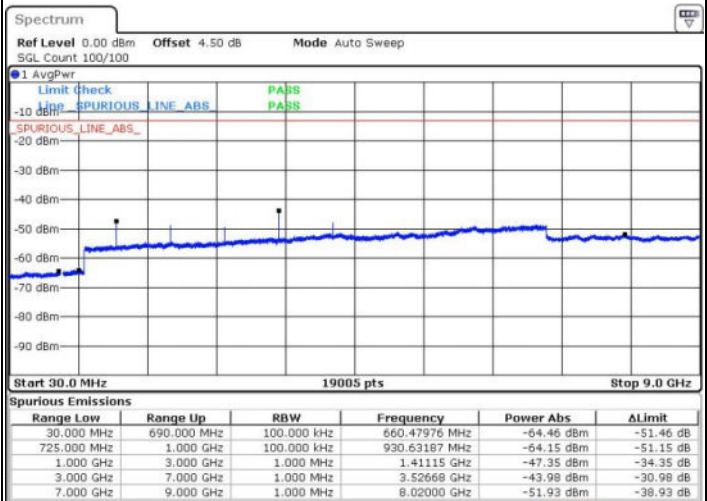
Date: 7 JUN 2016 14:17:02

Middle Channel / QPSK



Date: 7 JUN 2016 14:17:59

Middle Channel / 16QAM

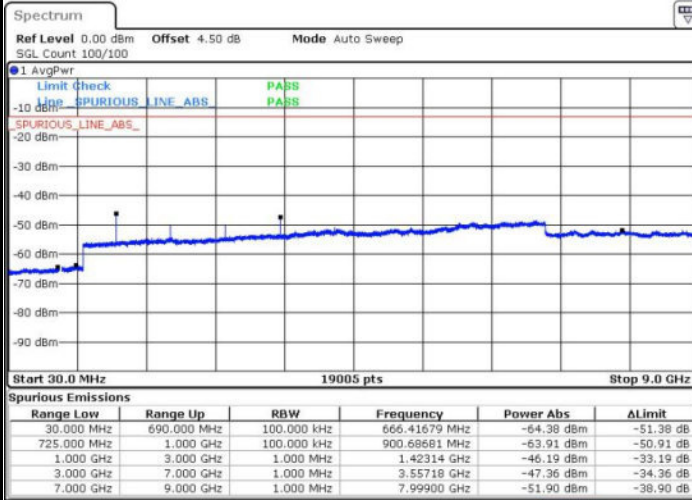


Date: 7 JUN 2016 14:17:31



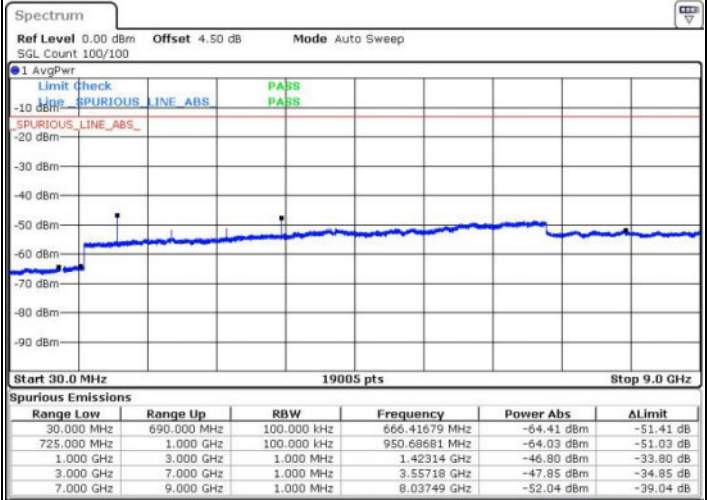
LTE Band 12 / 5MHz

Highest Channel / QPSK



Date: 7 JUN 2016 14:18:24

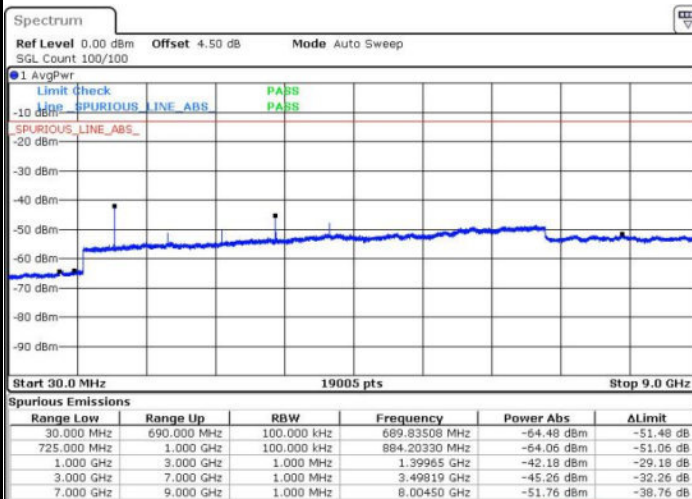
Highest Channel / 16QAM



Date: 7 JUN 2016 14:18:55

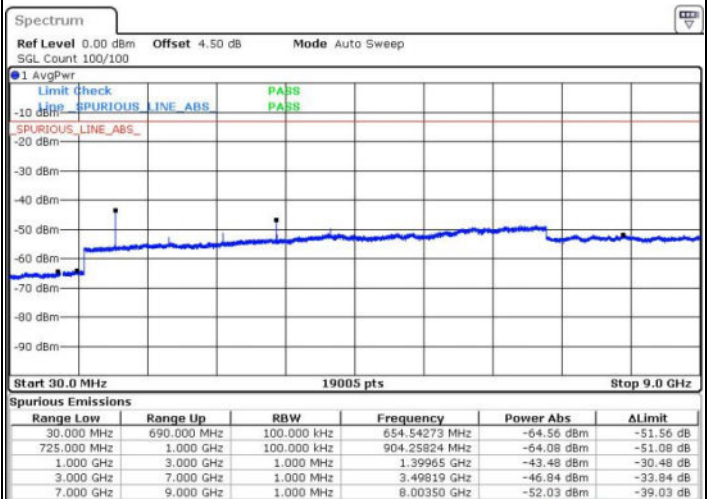
LTE Band 12 / 10MHz

Lowest Channel / QPSK



Date: 7 JUN 2016 14:29:19

Lowest Channel / 16QAM

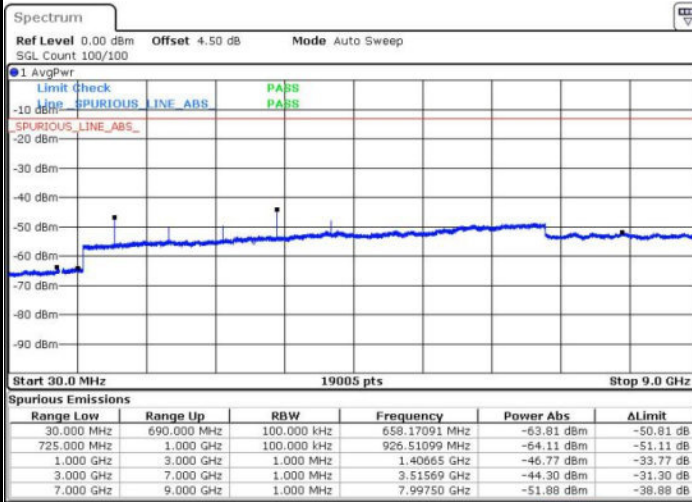


Date: 7 JUN 2016 14:29:44



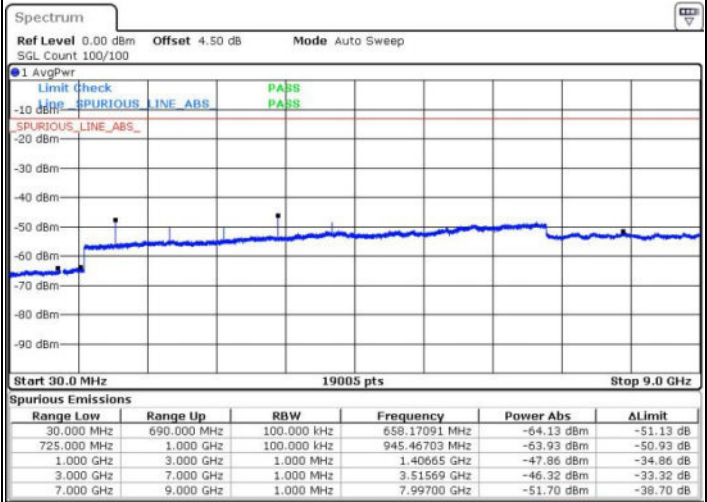
LTE Band 12 / 10MHz

Middle Channel / QPSK



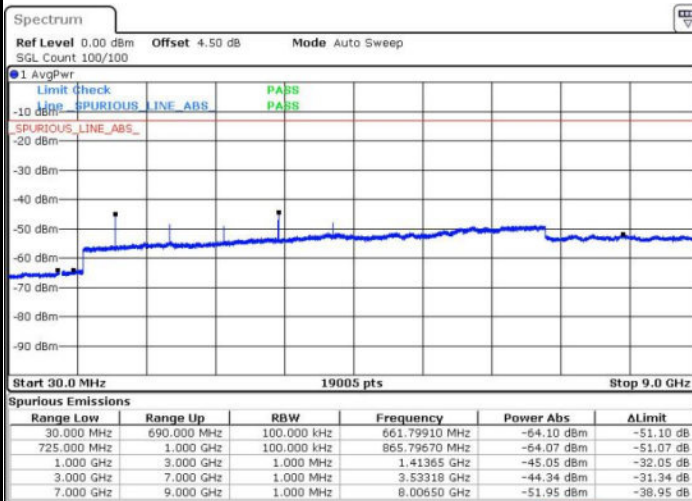
Date: 7 JUN 2016 14:30:33

Middle Channel / 16QAM



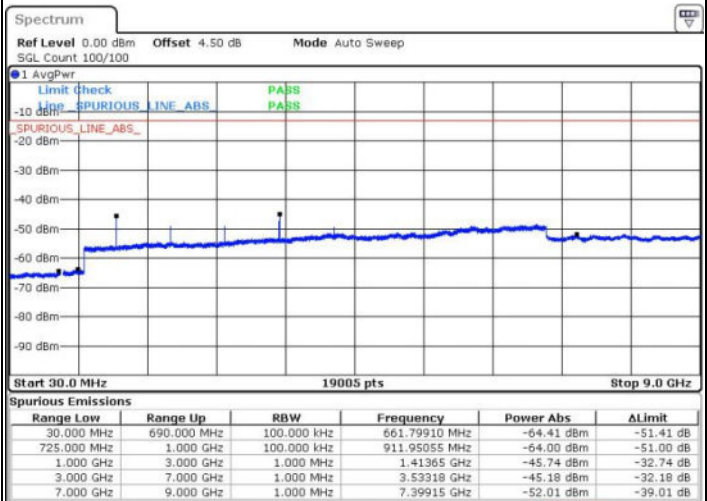
Date: 7 JUN 2016 14:30:09

Highest Channel / QPSK



Date: 7 JUN 2016 14:30:57

Highest Channel / 16QAM



Date: 7 JUN 2016 14:32:10

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	0.0021	PASS
40	Normal Voltage	0.0068	
30	Normal Voltage	0.0051	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0054	
0	Normal Voltage	0.0045	
-10	Normal Voltage	0.0057	
-20	Normal Voltage	0.0014	
-30	Normal Voltage	0.0008	
20	Maximum Voltage	0.0020	
20	Normal Voltage	0.0033	
20	Battery End Point	0.0040	

Note:

1. Normal Voltage = 3.8V. ; Battery End Point (BEP) = 3.7 V. ; Maximum Voltage =4.2 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



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	3.07	5.19	3.91	6.12	
Highest CH	-	-	-	-	



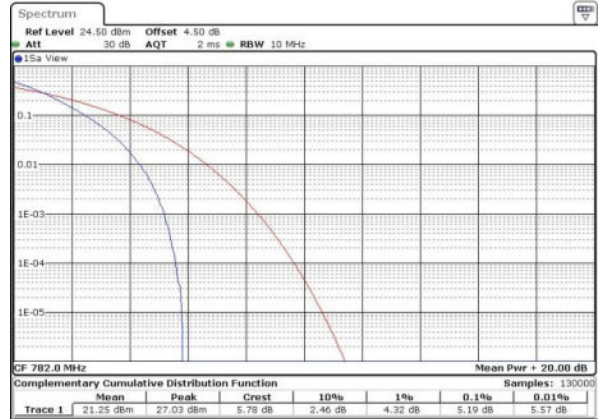
LTE Band 13 / 10MHz / QPSK

Middle Channel/ 1RB



Date: 7 JUN 2016 15:34:43

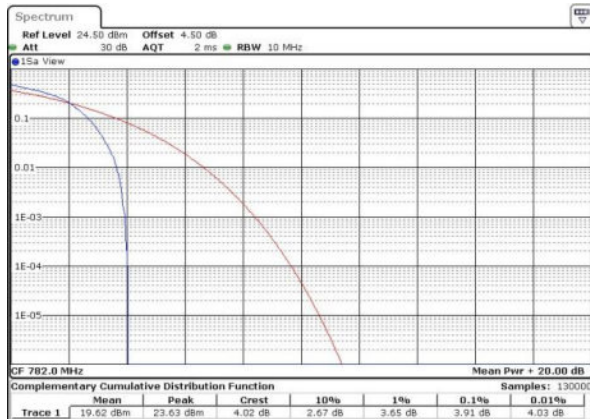
Middle Channel / Full RB



Date: 7 JUN 2016 15:35:46

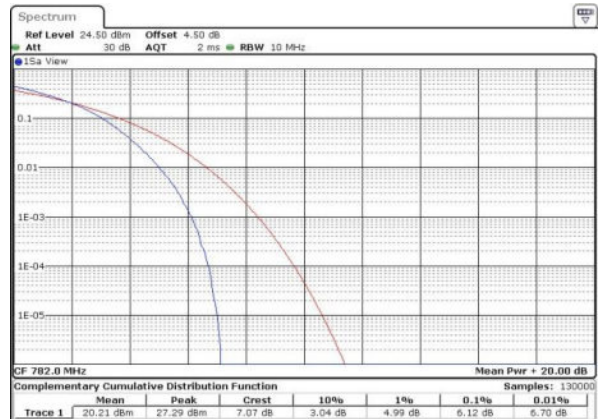
LTE Band 13 / 10MHz / 16QAM

Middle Channel/ 1RB



Date: 7 JUN 2016 15:35:08

Middle Channel / Full RB



Date: 7 JUN 2016 15:35:33

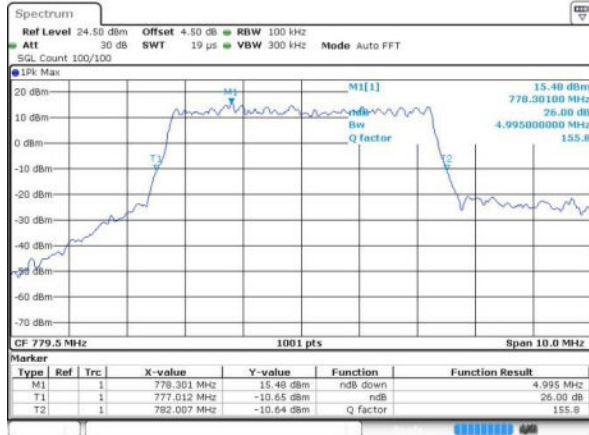
**26dB Bandwidth**

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	-	-	-	-	4.995	5.005	-	-	-	-	-	-
Middle CH	-	-	-	-	5.015	4.915	9.650	9.710	-	-	-	-
Highest CH	-	-	-	-	4.915	5.005	-	-	-	-	-	-

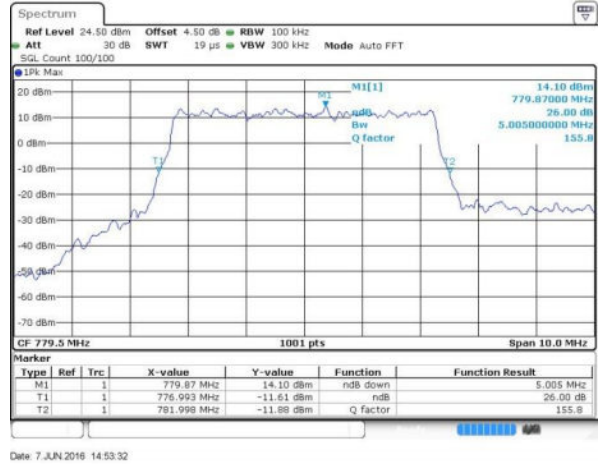


LTE Band 13

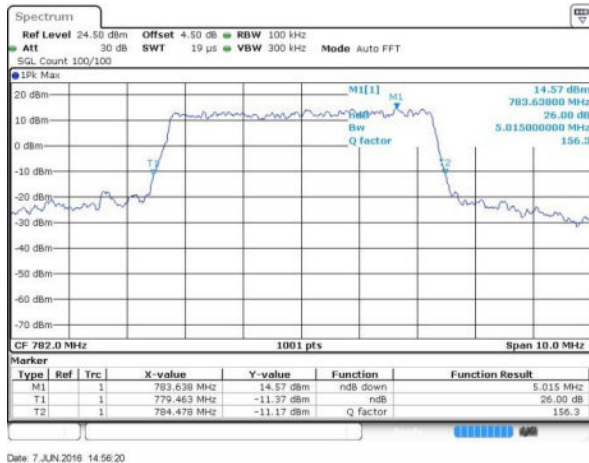
Lowest Channel / 5MHz / QPSK



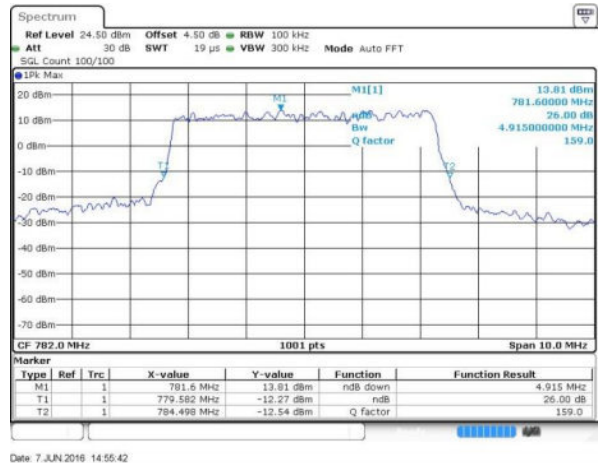
Lowest Channel / 5MHz / 16QAM



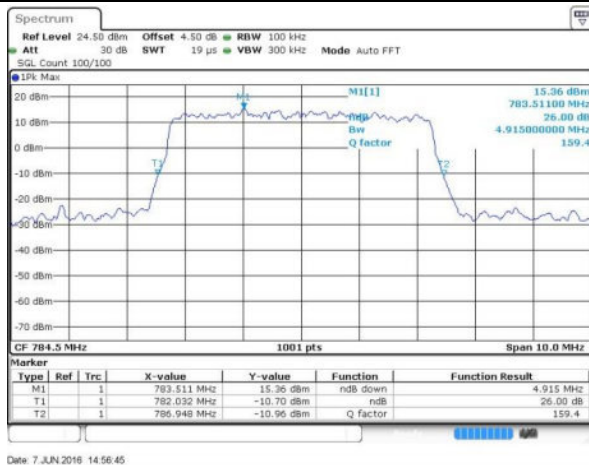
Middle Channel / 5MHz / QPSK



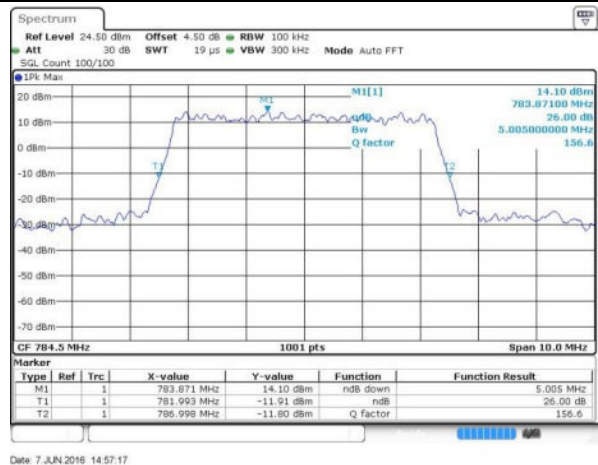
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



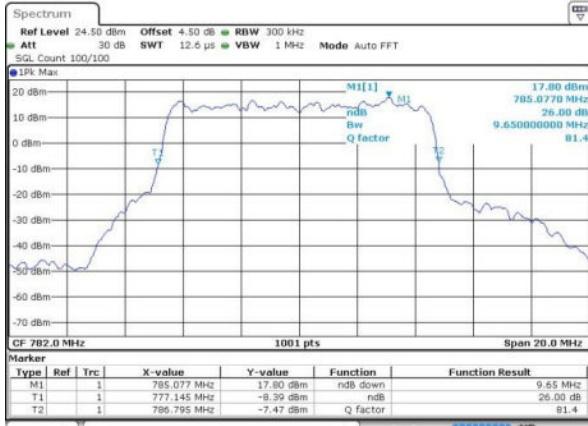
Highest Channel / 5MHz / 16QAM





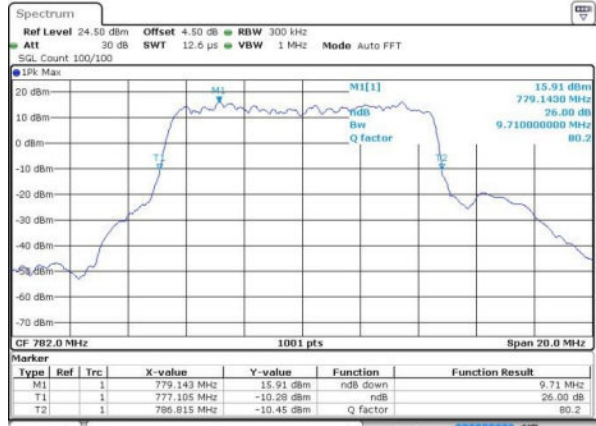
LTE Band 13

Middle Channel / 10MHz / QPSK



Date: 7 JUN 2016 15:20:10

Middle Channel / 10MHz / 16QAM



Date: 7 JUN 2016 15:19:26

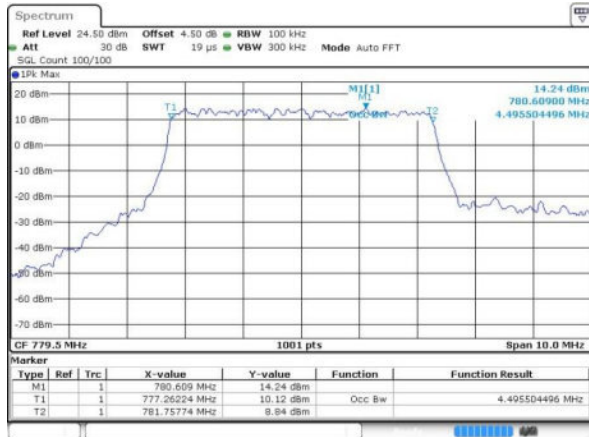
**Occupied Bandwidth**

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	-	-	-	-	4.50	4.50	-	-	-	-	-	-
Middle CH	-	-	-	-	4.51	4.49	9.07	8.97	-	-	-	-
Highest CH	-	-	-	-	4.49	4.48	-	-	-	-	-	-

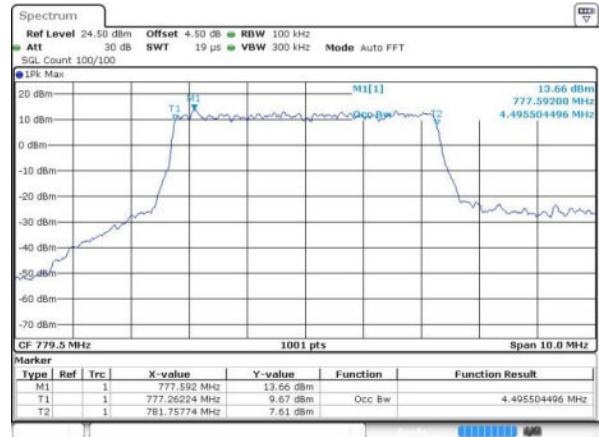


LTE Band 13

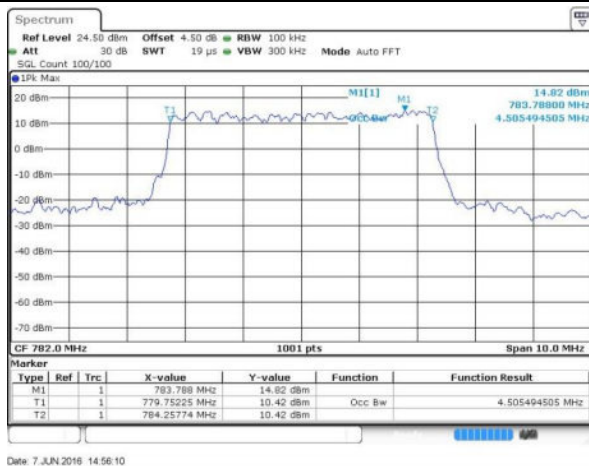
Lowest Channel / 5MHz / QPSK



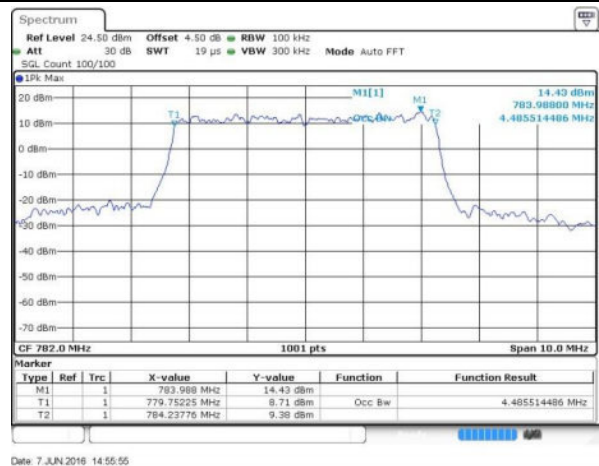
Lowest Channel / 5MHz / 16QAM



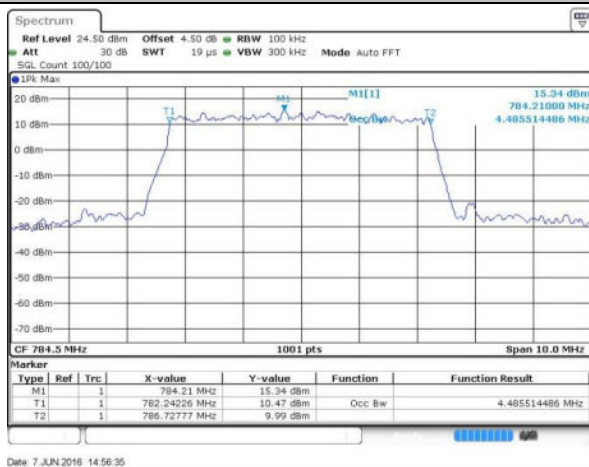
Middle Channel / 5MHz / QPSK



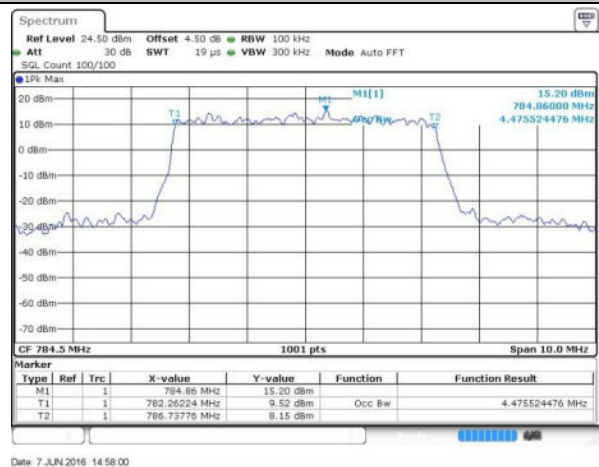
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



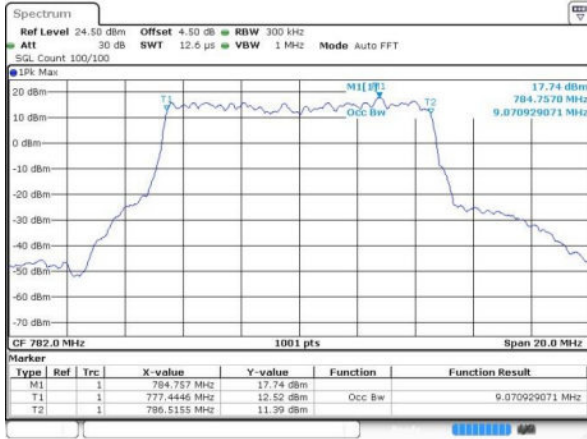
Highest Channel / 5MHz / 16QAM



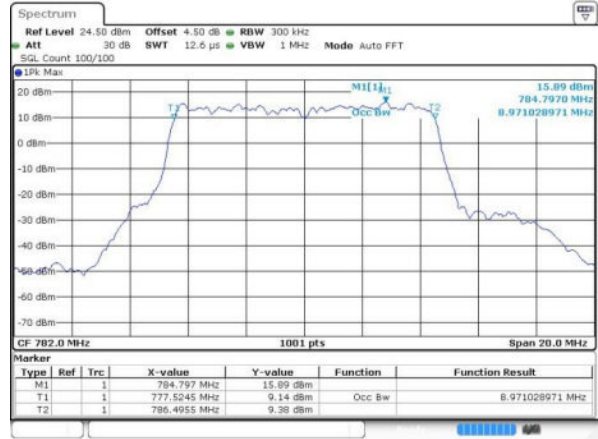


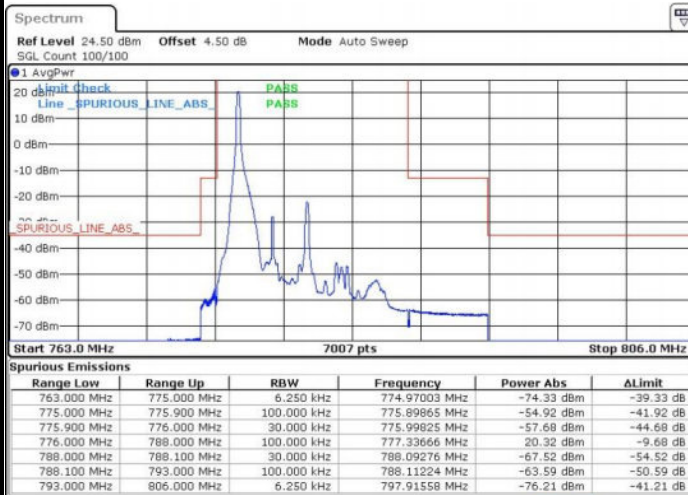
LTE Band 13

Middle Channel / 10MHz / QPSK

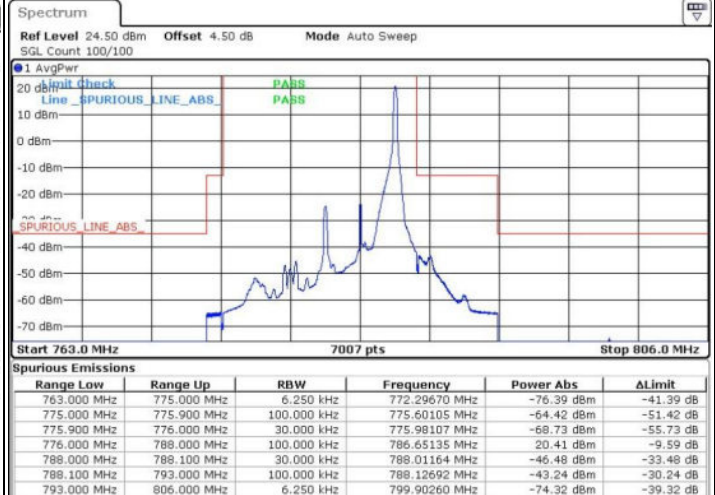


Middle Channel / 10MHz / 16QAM

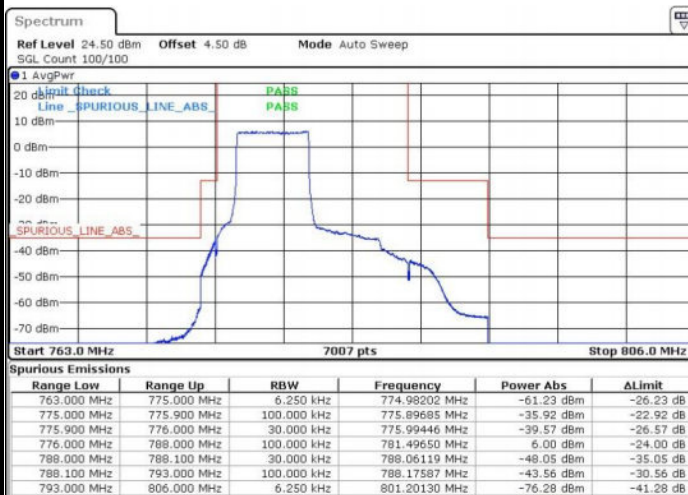


**Conducted Band Edge****LTE Band 13 / 5MHz / QPSK****Lowest Band Edge / 1 RB**

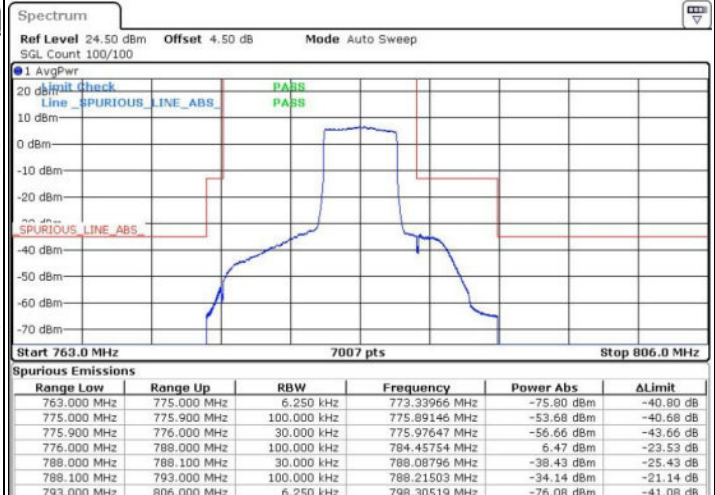
Date: 7 JUN 2016 15:02:22

Highest Band Edge / 1 RB

Date: 7 JUN 2016 15:14:57

Lowest Band Edge / Full RB

Date: 7 JUN 2016 15:09:59

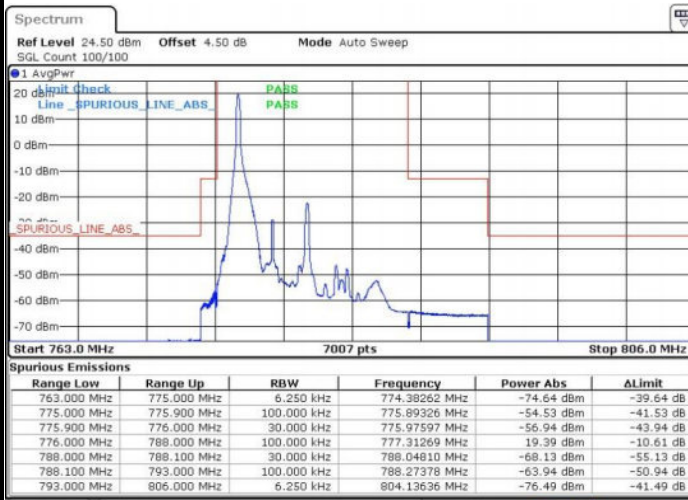
Highest Band Edge / Full RB

Date: 7 JUN 2016 15:11:16



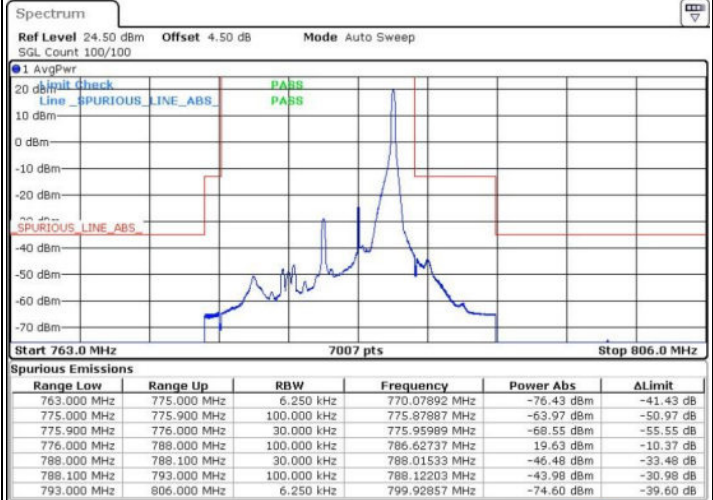
LTE Band 13 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



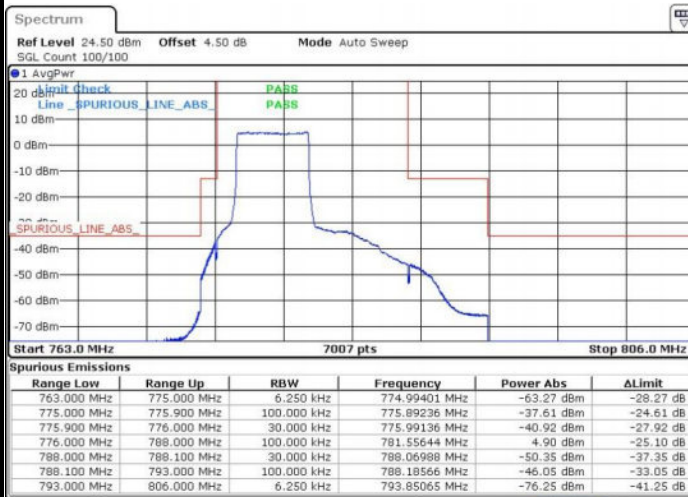
Date: 7 JUN 2016 15:03:29

Highest Band Edge / 1 RB



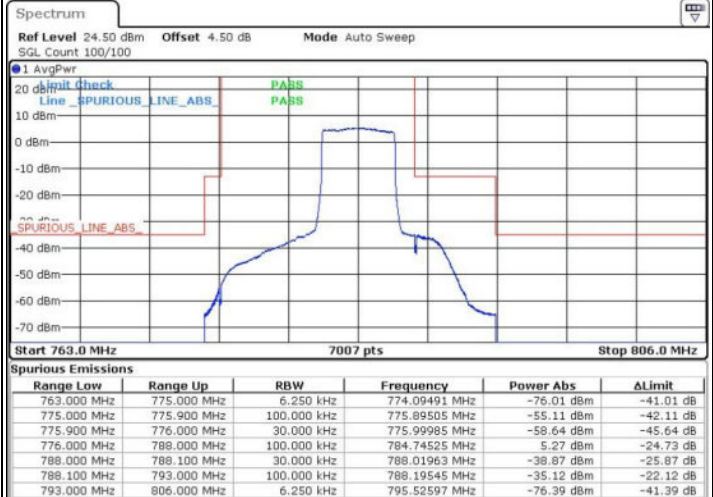
Date: 7 JUN 2016 15:13:37

Lowest Band Edge / Full RB



Date: 7 JUN 2016 15:08:53

Highest Band Edge / Full RB

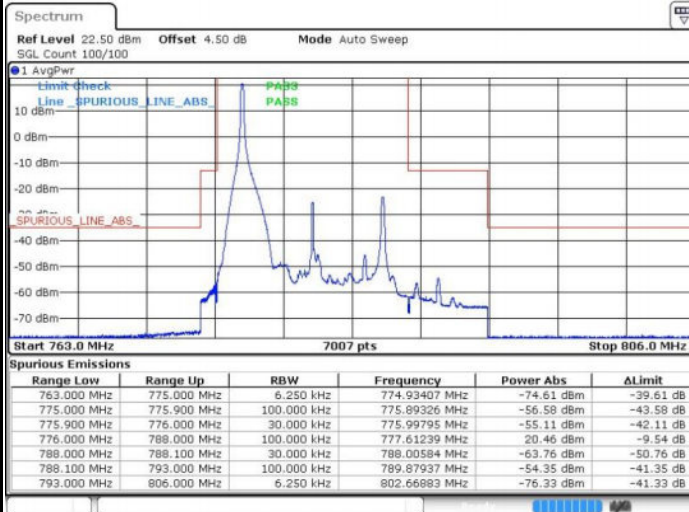


Date: 7 JUN 2016 15:12:30

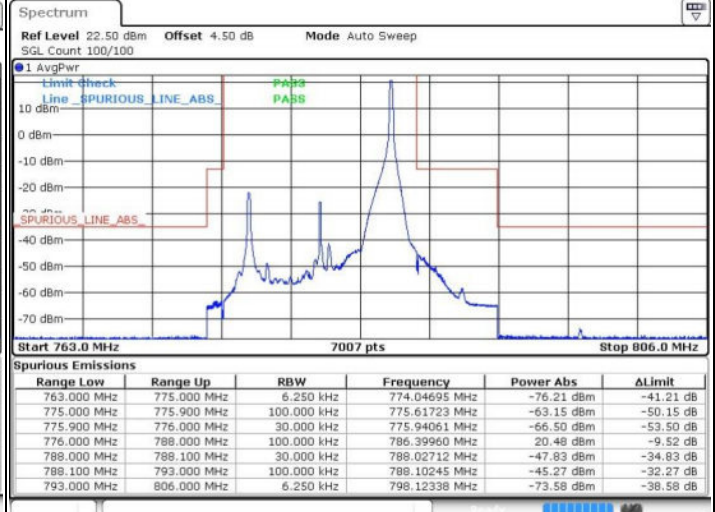


LTE Band 13 / 10MHz / QPSK

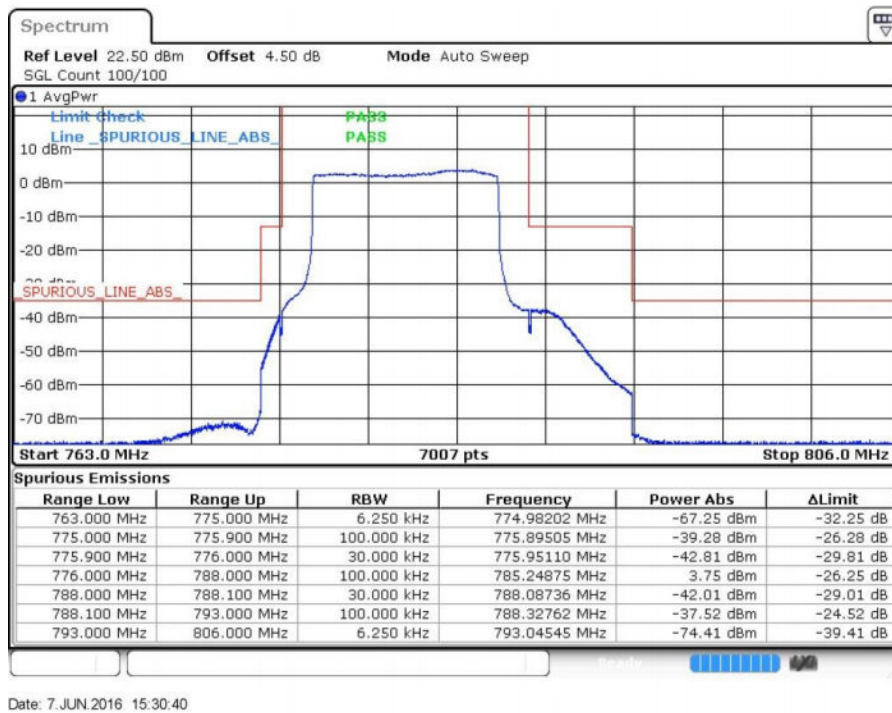
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



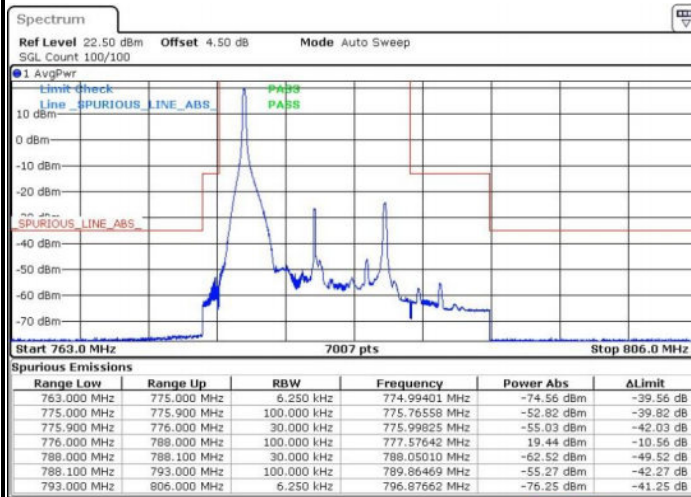
Band Edge / Full RB



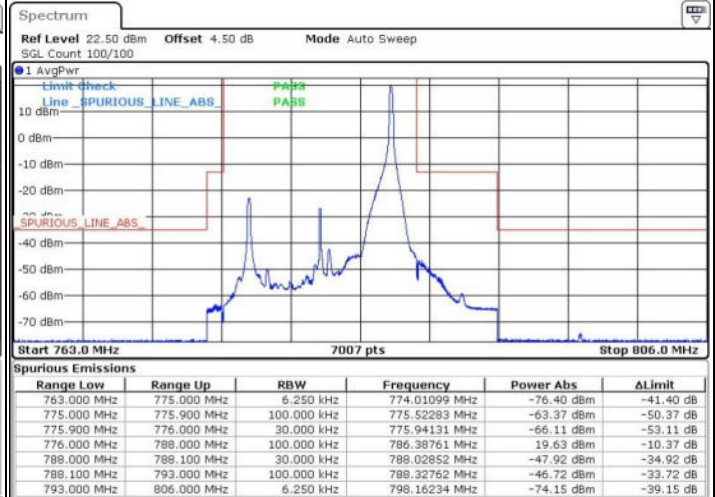


LTE Band 13 / 10MHz / 16QAM

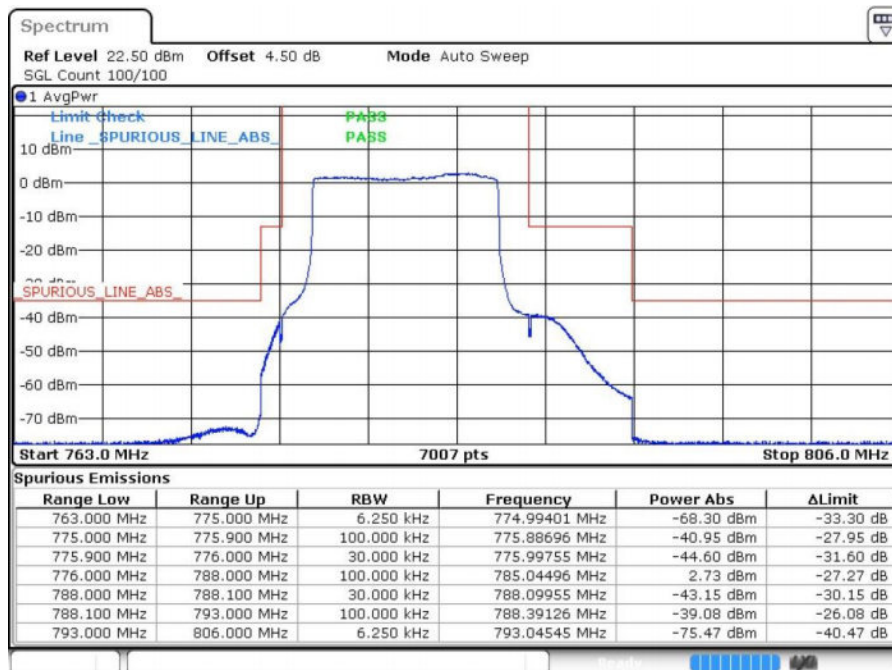
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Band Edge / Full RB

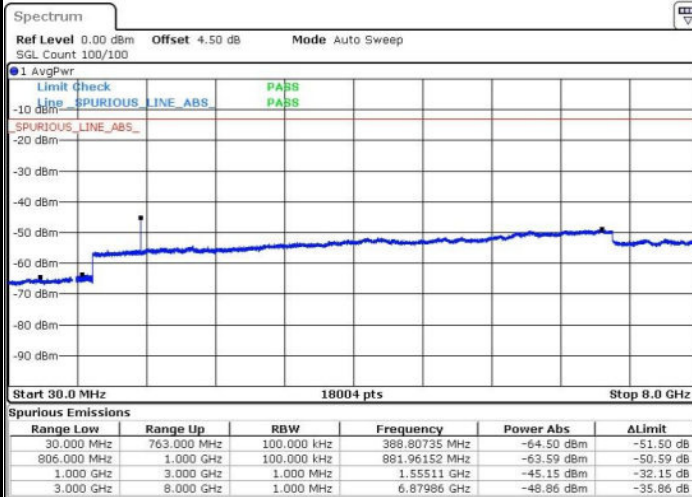




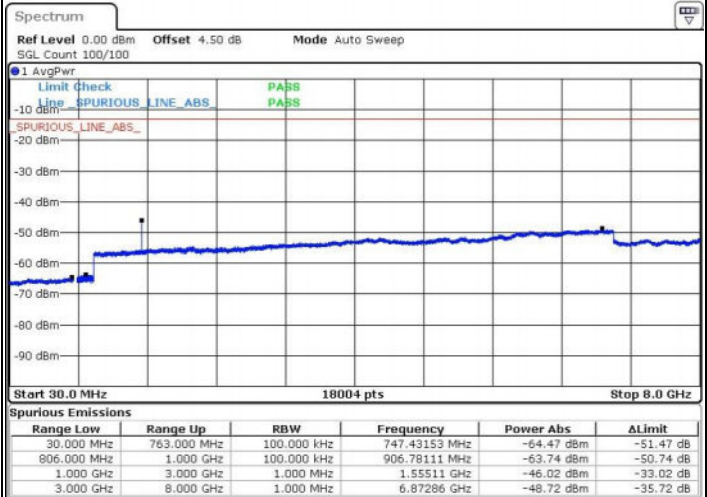
Conducted Spurious Emission

LTE Band 13 / 5MHz

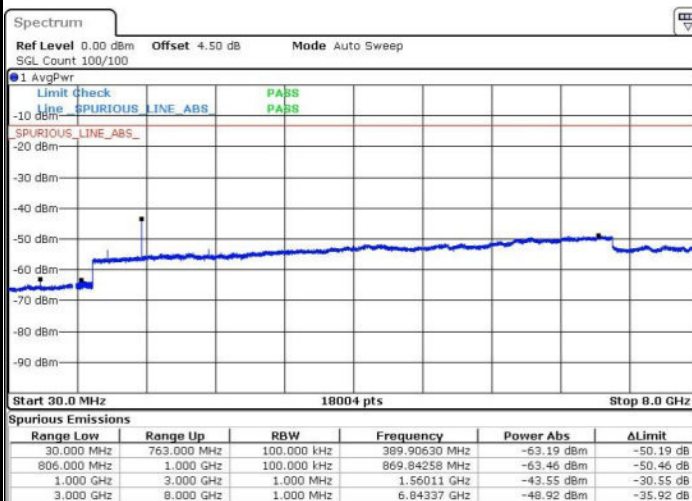
Lowest Channel / QPSK



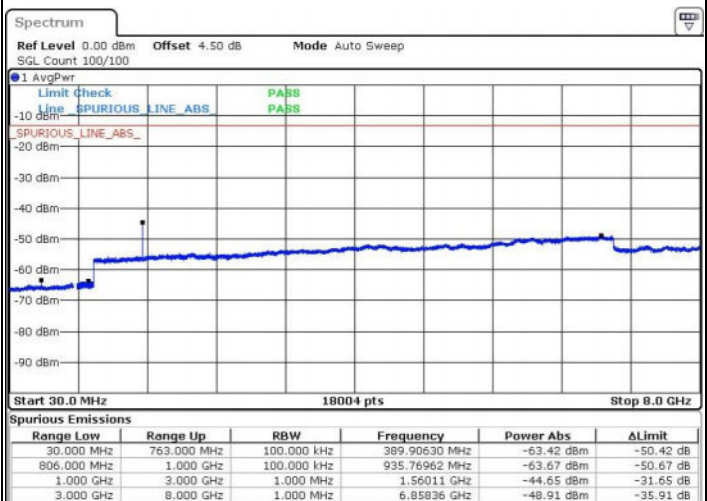
Lowest Channel / 16QAM



Middle Channel / QPSK



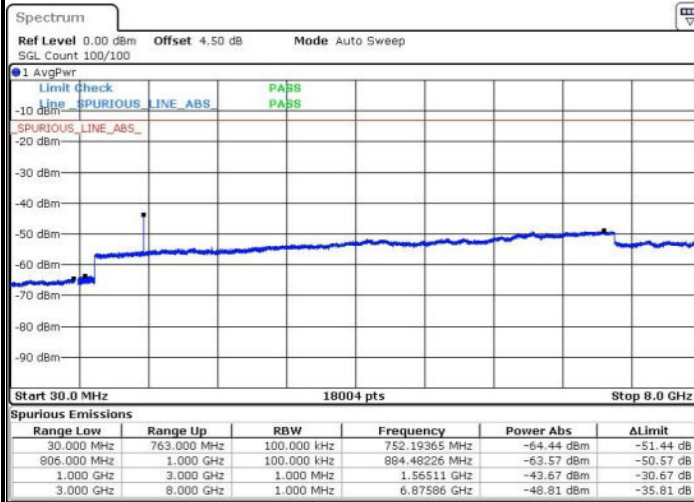
Middle Channel / 16QAM





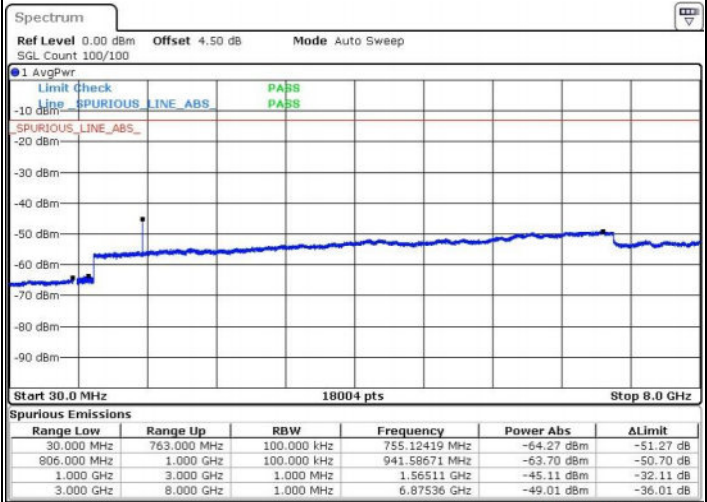
LTE Band 13 / 5MHz

Highest Channel / QPSK



Date: 7 JUN 2016 15:17:28

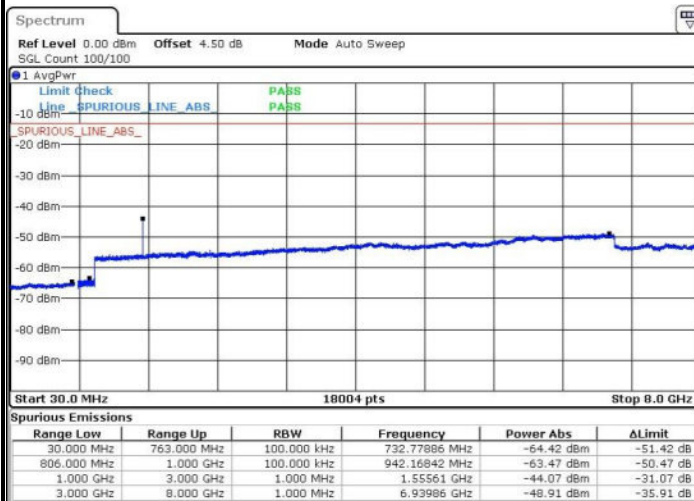
Highest Channel / 16QAM



Date: 7 JUN 2016 15:17:53

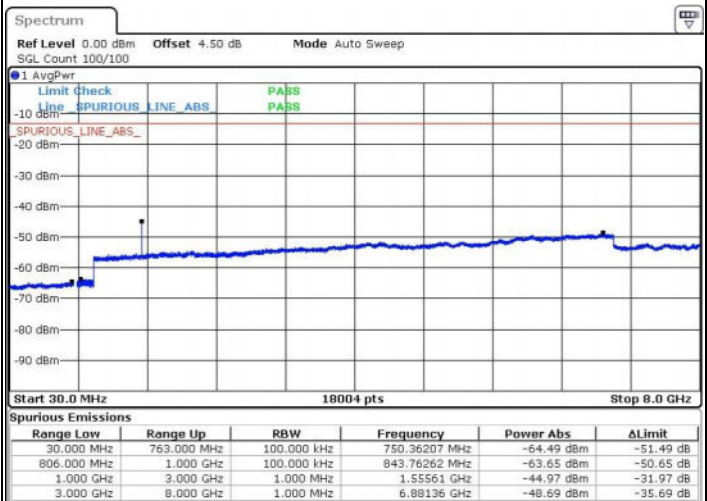
LTE Band 13 / 10MHz

Middle Channel / QPSK



Date: 7 JUN 2016 15:33:31

Middle Channel / 16QAM



Date: 7 JUN 2016 15:32:52

Frequency Stability

Test Conditions		LTE Band 13 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0054	PASS
40	Normal Voltage	0.0047	
30	Normal Voltage	0.0018	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0023	
0	Normal Voltage	0.0052	
-10	Normal Voltage	0.0061	
-20	Normal Voltage	0.0086	
-30	Normal Voltage	0.0072	
20	Maximum Voltage	0.0001	
20	Normal Voltage	0.0010	
20	Battery End Point	0.0058	

Note:

1. Normal Voltage = 3.8V. ; Battery End Point (BEP) = 3.7 V. ; Maximum Voltage =4.2 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.



LTE Band 17

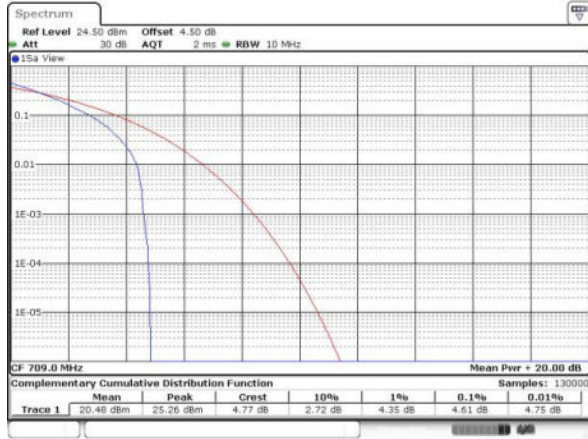
Peak-to-Average Ratio

Mode	LTE Band 17 / 10MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.61	5.25	5.28	6.17	PASS
Middle CH	4.58	5.42	5.51	6.14	
Highest CH	4.52	5.36	5.30	6.12	



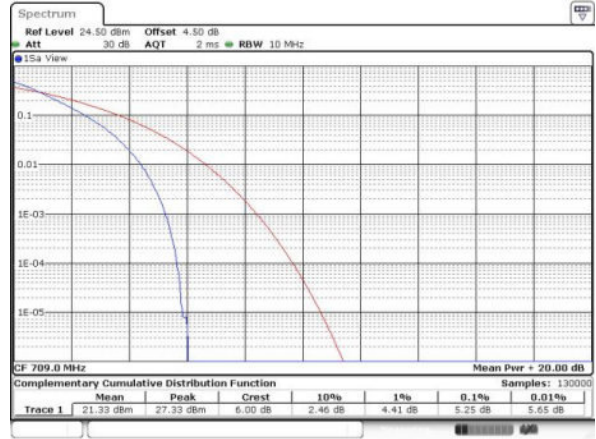
LTE Band 17 / 10MHz / QPSK

Lowest Channel / 1RB



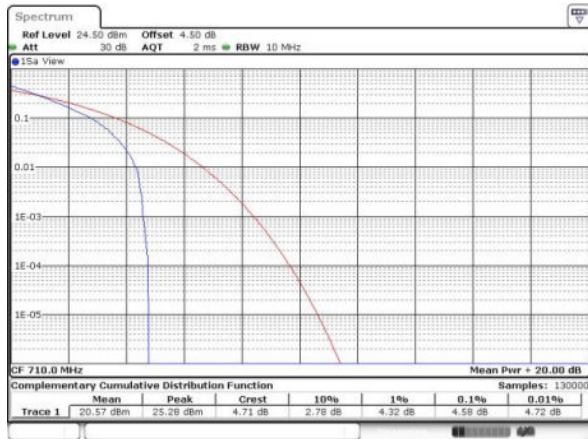
Date: 7 JUN 2016 13:37:36

Lowest Channel / Full RB



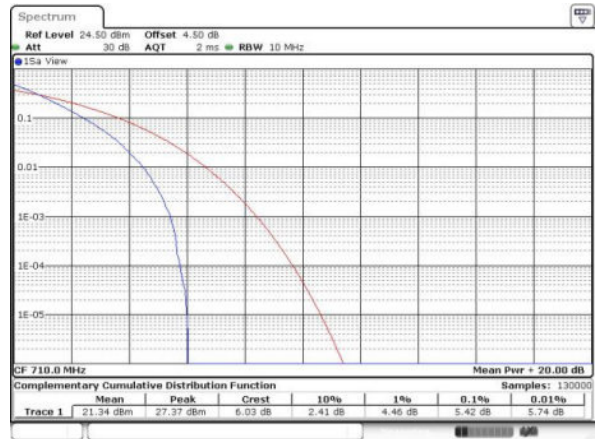
Date: 7 JUN 2016 13:37:49

Middle Channel/ 1RB



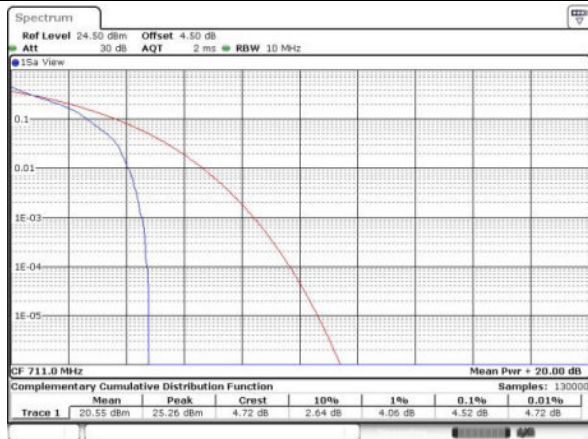
Date: 7 JUN 2016 13:38:11

Middle Channel / Full RB



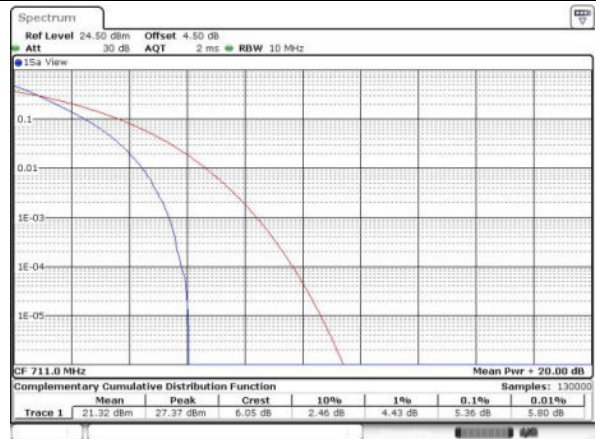
Date: 7 JUN 2016 13:38:00

Highest Channel/ 1RB



Date: 7 JUN 2016 13:38:25

Highest Channel / Full RB



Date: 7 JUN 2016 13:38:38