



## LTE Band 7

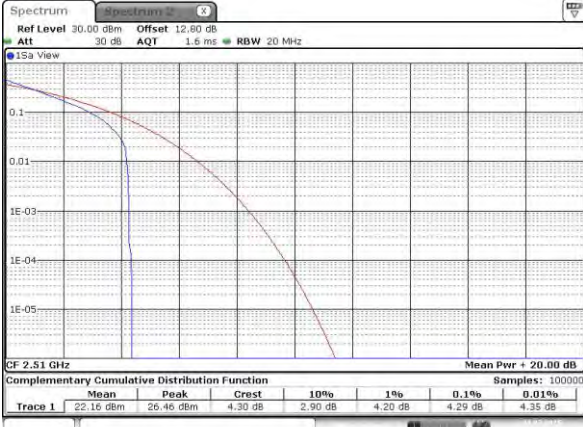
### Peak-to-Average Ratio

Mode	LTE Band 7 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	Full RB	Result
Lowest CH	4.29	4.87	5.42	5.97	<b>PASS</b>
Middle CH	4.29	5.16	5.16	6.26	
Highest CH	3.83	4.96	4.75	5.94	



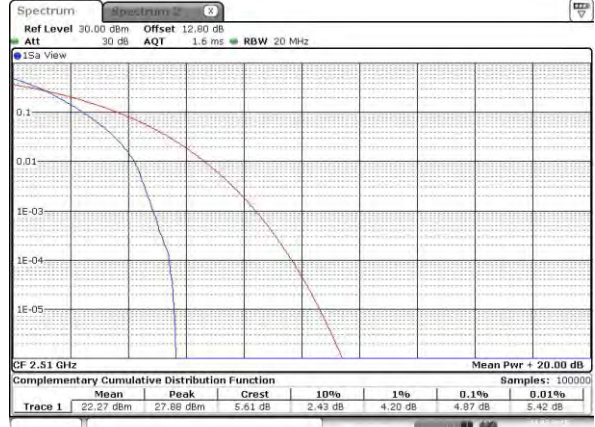
LTE Band 7 / 20MHz / QPSK

Lowest Channel / 1RB



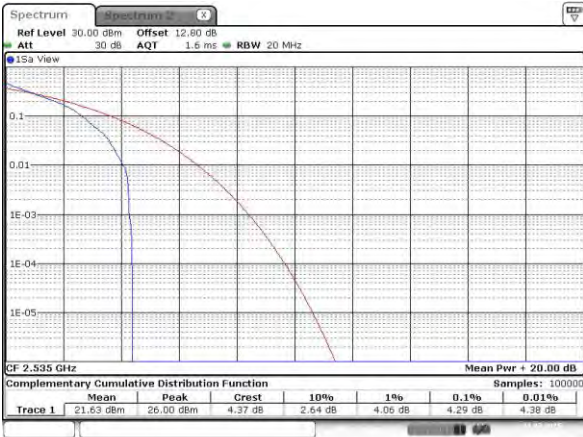
Date: 21\_JUL\_2015 00:04:00

Lowest Channel / Full RB



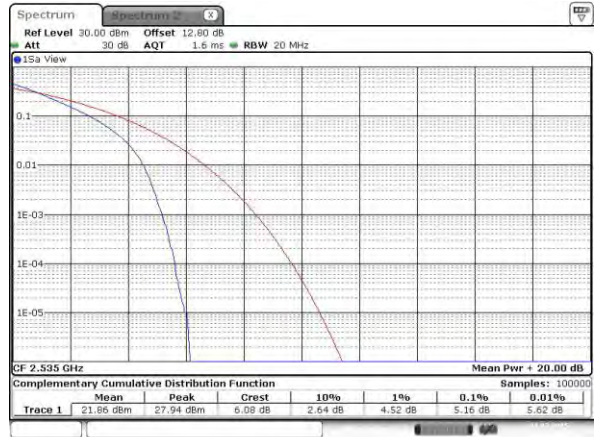
Date: 21\_JUL\_2015 00:04:18

Middle Channel / 1RB



Date: 21\_JUL\_2015 00:04:29

Middle Channel / Full RB



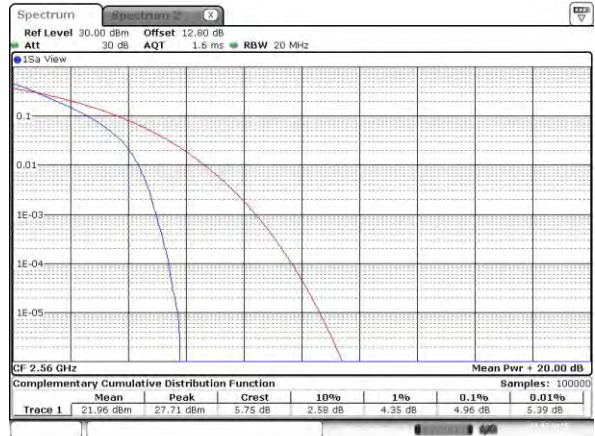
Date: 21\_JUL\_2015 00:04:41

Highest Channel / 1RB



Date: 21\_JUL\_2015 00:04:52

Highest Channel / Full RB

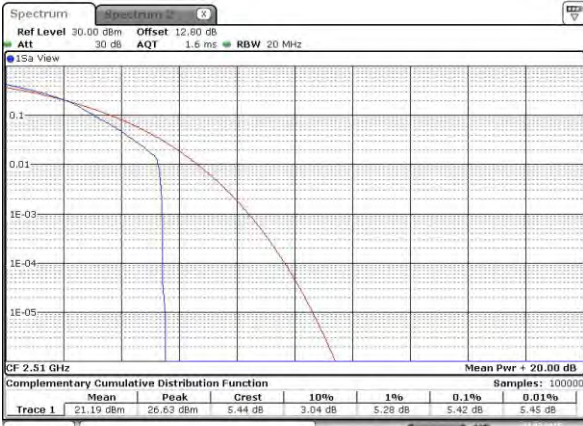


Date: 21\_JUL\_2015 00:05:04



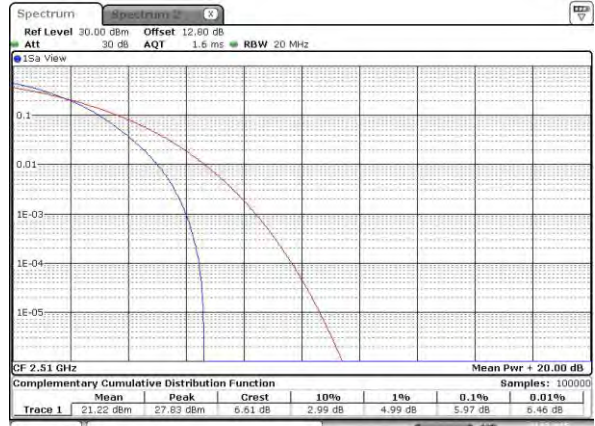
LTE Band 7 / 20MHz / 16QAM

Lowest Channel / 1RB



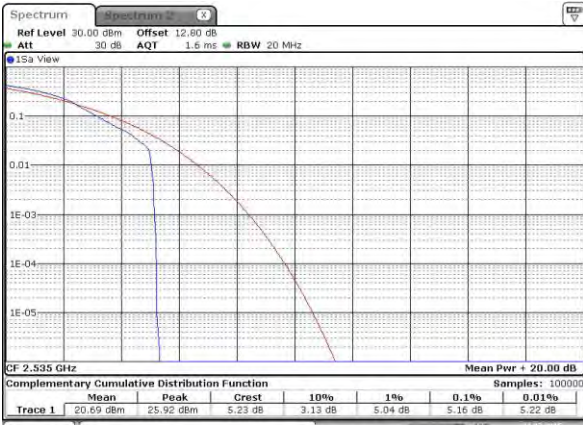
Date: 21\_JUL\_2015 00:02:50

Lowest Channel / Full RB



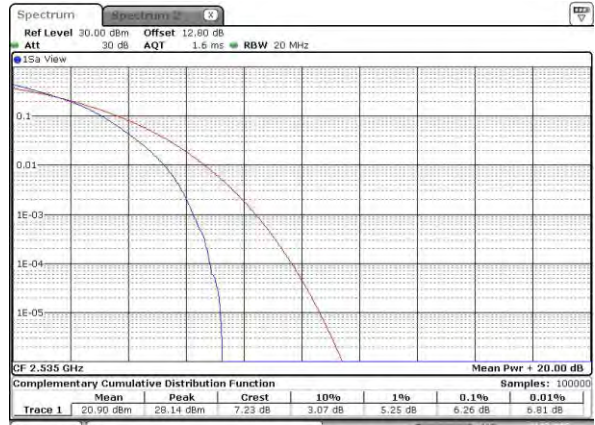
Date: 21\_JUL\_2015 00:03:02

Middle Channel / 1RB



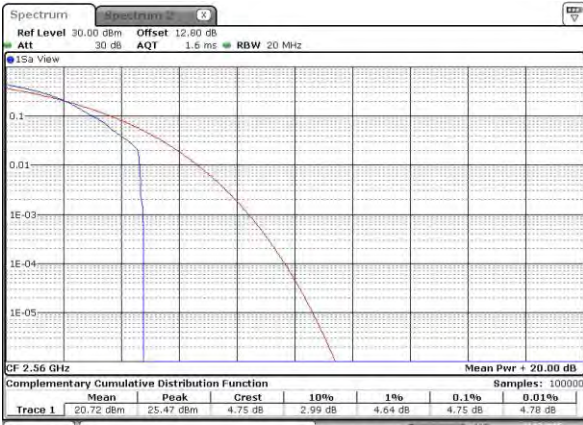
Date: 21\_JUL\_2015 00:03:13

Middle Channel / Full RB



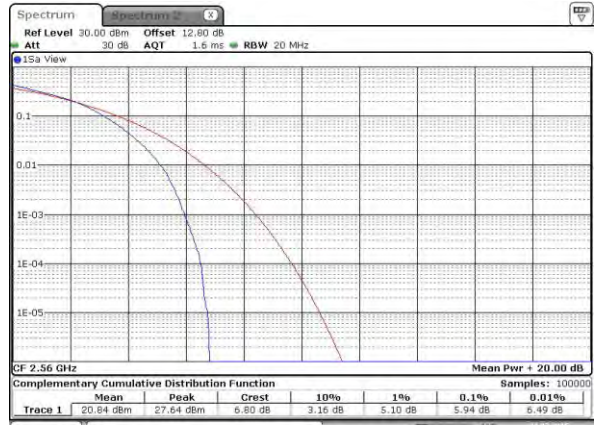
Date: 21\_JUL\_2015 00:03:25

Highest Channel / 1RB



Date: 21\_JUL\_2015 00:03:37

Highest Channel / Full RB



Date: 21\_JUL\_2015 00:03:49



**26dB Bandwidth**

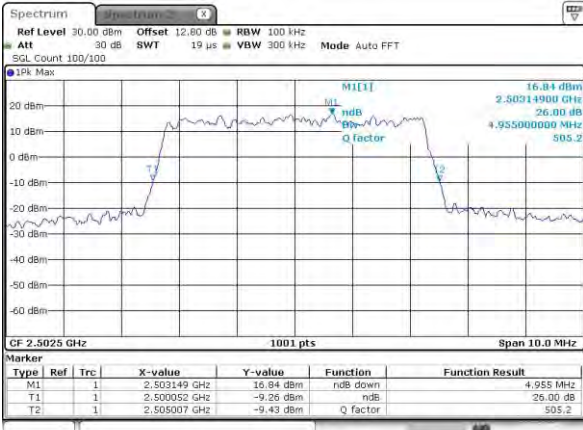
Mode	LTE Band 7 : 26dB BW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.96	4.92	10.07	9.77	14.39	14.12	20.18	20.06
Middle CH	-	-	-	-	4.94	4.96	9.83	9.93	14.15	14.54	20.3	20.38
Highest CH	-	-	-	-	5	4.85	9.87	9.65	14.21	14.63	20.3	20.22





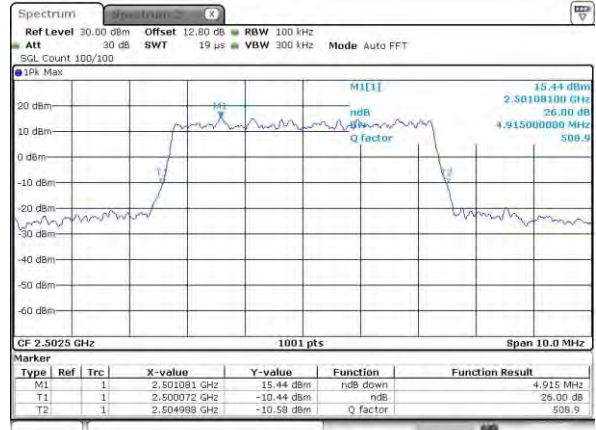
LTE Band 7

Lowest Channel / 5MHz / QPSK



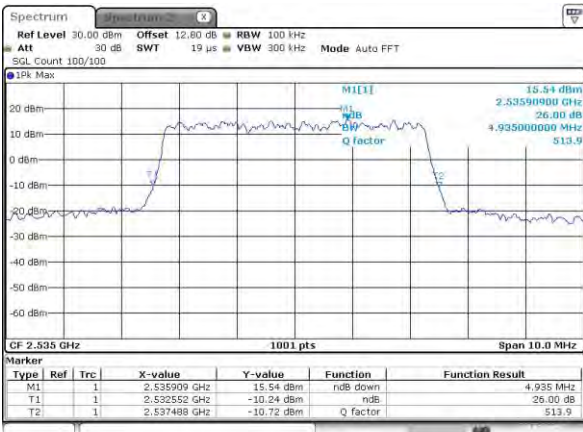
Date: 20-Jul-2018 23:15:14

Lowest Channel / 5MHz / 16QAM



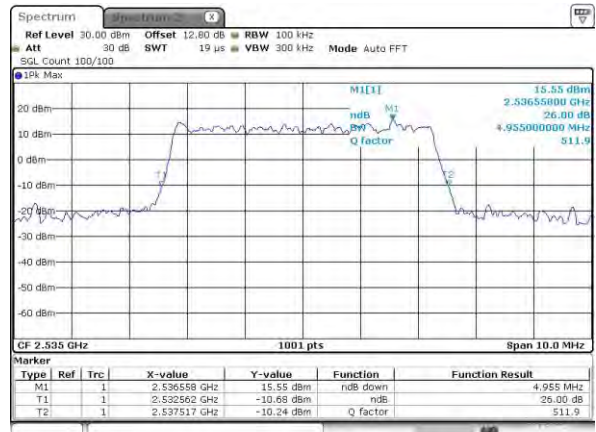
Date: 20-Jul-2018 23:15:55

Middle Channel / 5MHz / QPSK



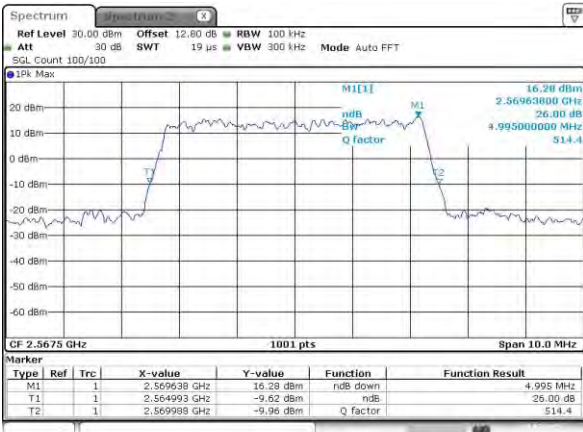
Date: 20-Jul-2018 23:18:59

Middle Channel / 5MHz / 16QAM



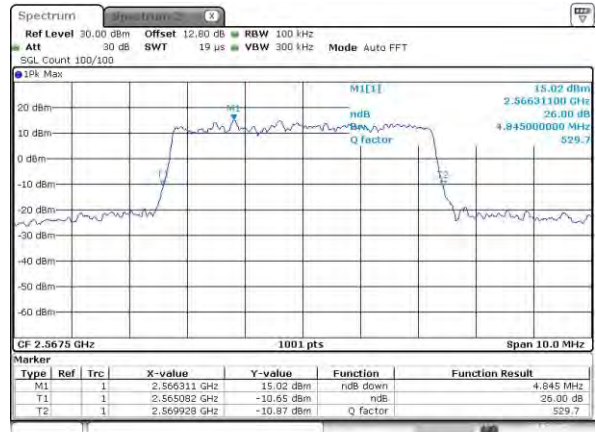
Date: 20-Jul-2018 23:19:10

Highest Channel / 5MHz / QPSK



Date: 20-Jul-2018 23:19:35

Highest Channel / 5MHz / 16QAM

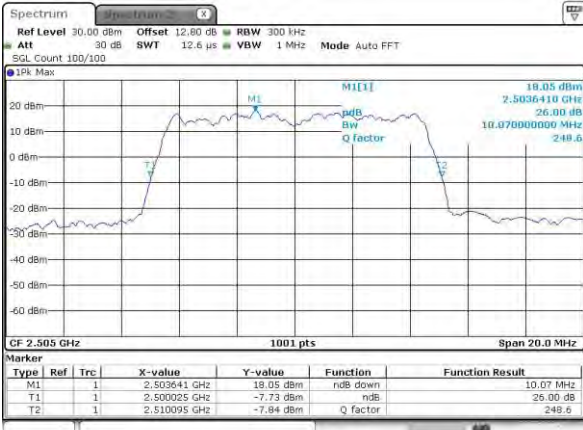


Date: 20-Jul-2018 23:19:47



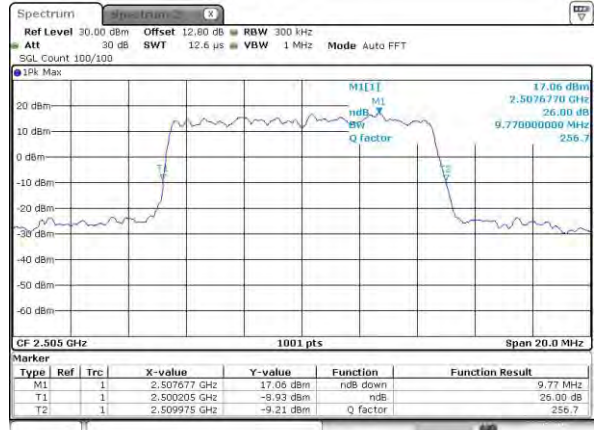
LTE Band 7

Lowest Channel / 10MHz / QPSK



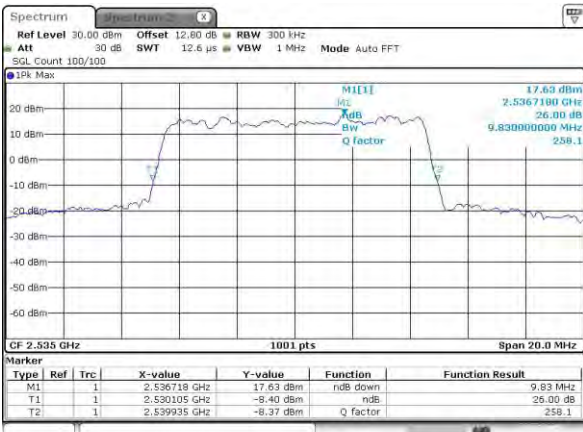
Date: 20-Jul-2018 23:11:51

Lowest Channel / 10MHz / 16QAM



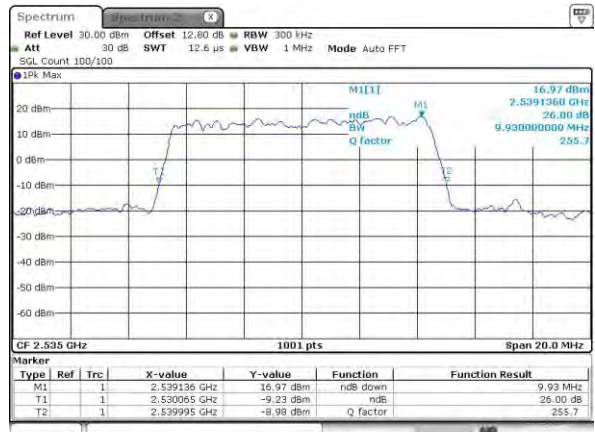
Date: 20-Jul-2018 23:11:53

Middle Channel / 10MHz / QPSK



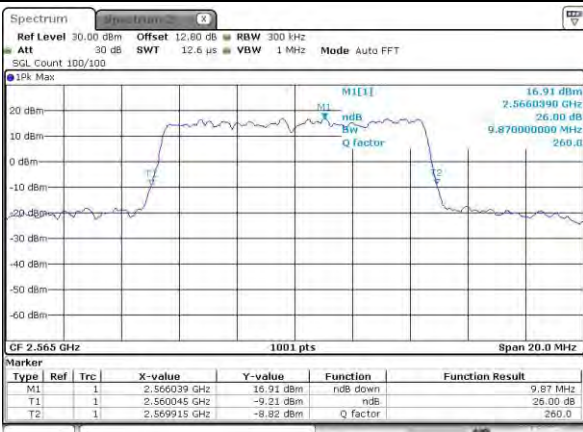
Date: 20-Jul-2018 23:18:07

Middle Channel / 10MHz / 16QAM



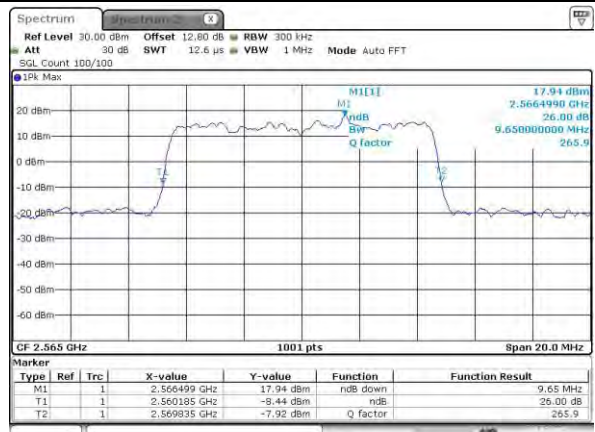
Date: 20-Jul-2018 23:18:19

Highest Channel / 10MHz / QPSK



Date: 20-Jul-2018 23:20:44

Highest Channel / 10MHz / 16QAM



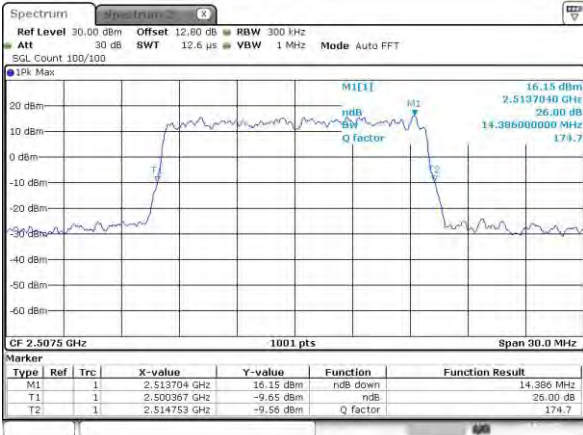
Date: 20-Jul-2018 23:20:55





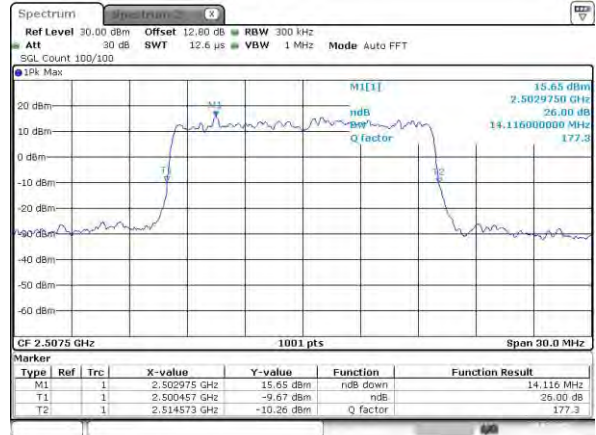
LTE Band 7

Lowest Channel / 15MHz / QPSK



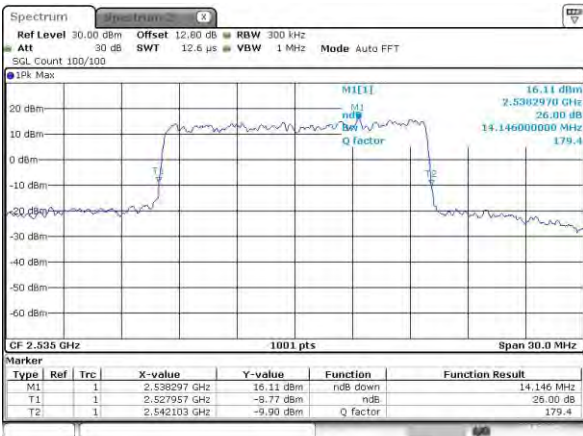
Date: 20-Jul-2018 23:28:10

Lowest Channel / 15MHz / 16QAM



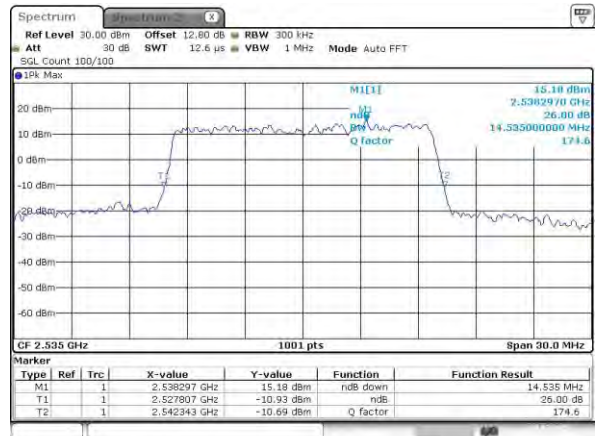
Date: 20-Jul-2018 23:28:11

Middle Channel / 15MHz / QPSK



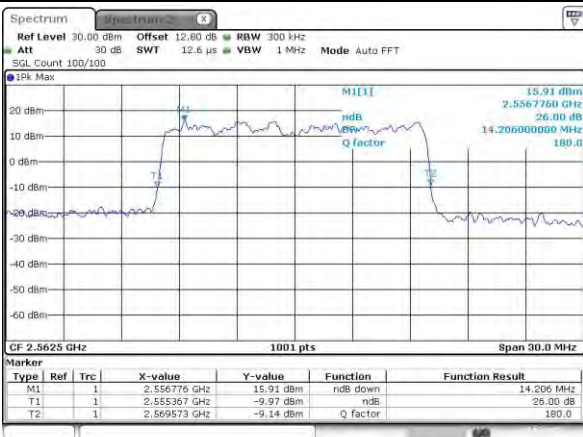
Date: 20-Jul-2018 23:35:16

Middle Channel / 15MHz / 16QAM



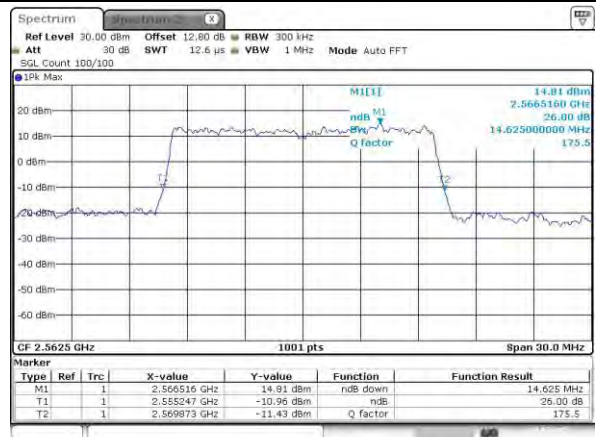
Date: 20-Jul-2018 23:35:17

Highest Channel / 15MHz / QPSK



Date: 20-Jul-2018 23:37:52

Highest Channel / 15MHz / 16QAM

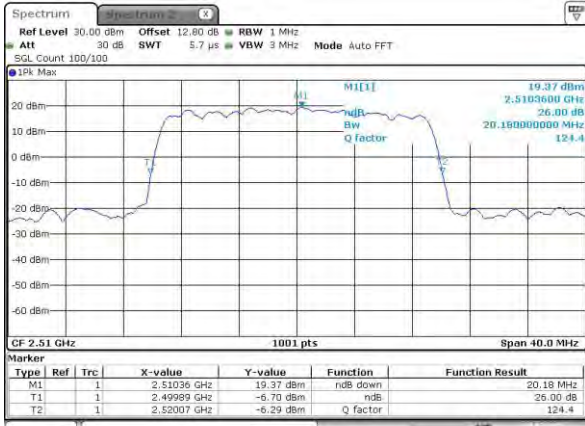


Date: 20-Jul-2018 23:38:08



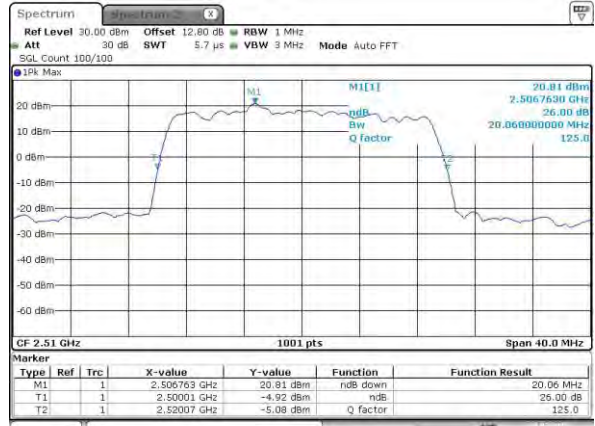
LTE Band 7

Lowest Channel / 20MHz / QPSK



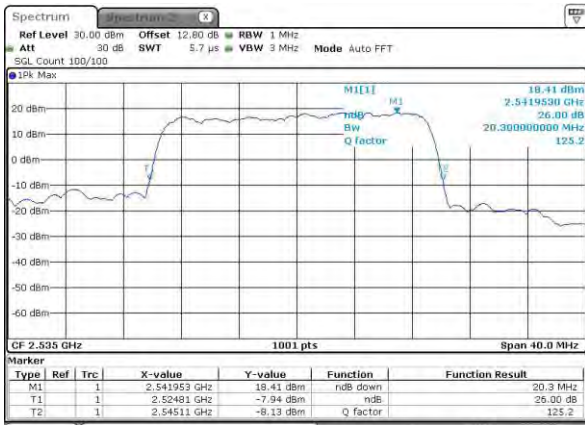
Date: 20-Jul-2018 23:45:09

Lowest Channel / 20MHz / 16QAM



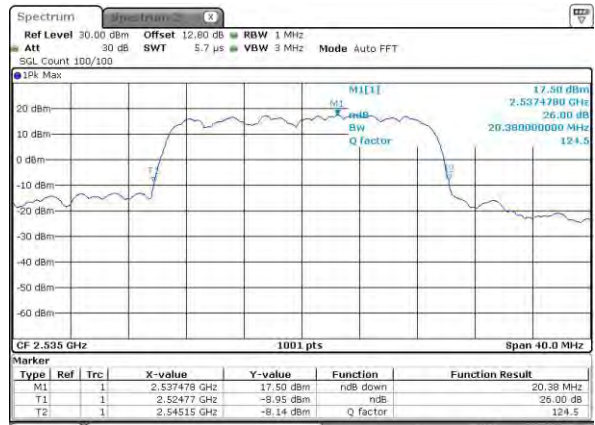
Date: 20-Jul-2018 23:45:10

Middle Channel / 20MHz / QPSK



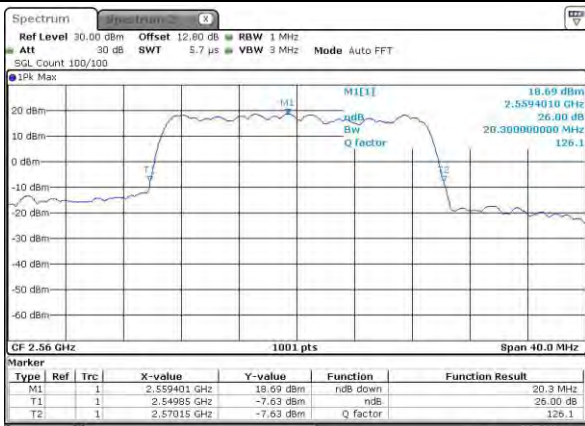
Date: 20-Jul-2018 23:52:05

Middle Channel / 20MHz / 16QAM



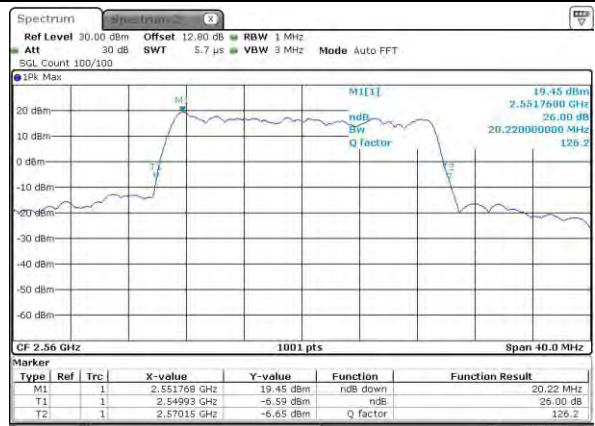
Date: 20-Jul-2018 23:52:16

Highest Channel / 20MHz / QPSK



Date: 20-Jul-2018 23:55:01

Highest Channel / 20MHz / 16QAM



Date: 20-Jul-2018 23:55:12





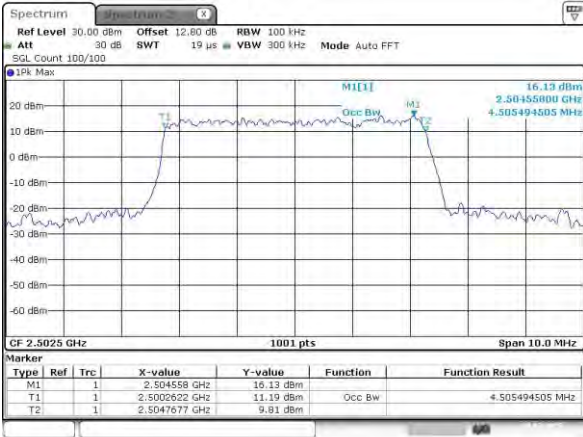
### Occupied Bandwidth

Mode	LTE Band 7 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	-	-	-	-	4.51	4.51	8.97	8.97	13.4	13.37	18.26	18.26
Middle CH	-	-	-	-	4.49	4.49	9.03	8.99	13.46	13.43	18.38	18.34
Highest CH	-	-	-	-	4.49	4.51	9.03	9.03	13.46	13.49	18.54	18.54

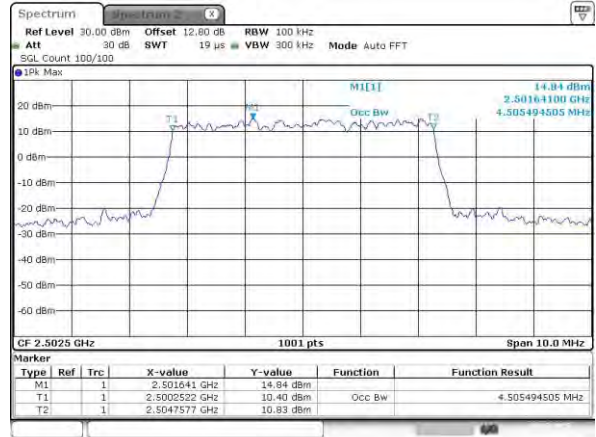


LTE Band 7

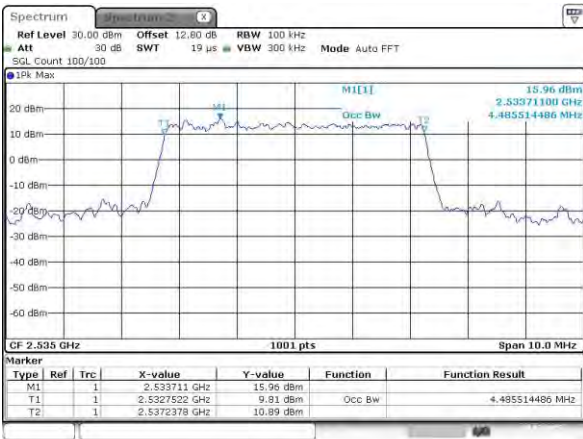
Lowest Channel / 5MHz / QPSK



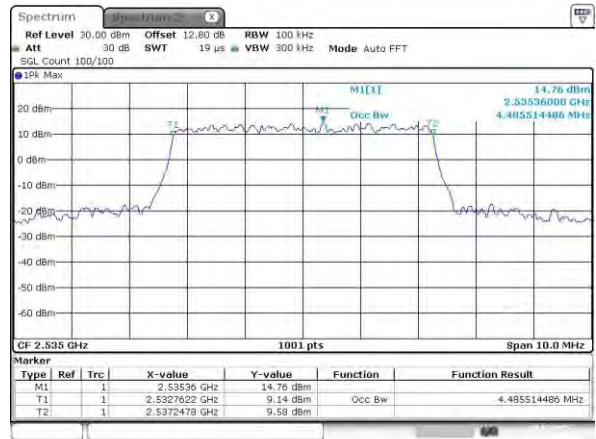
Lowest Channel / 5MHz / 16QAM



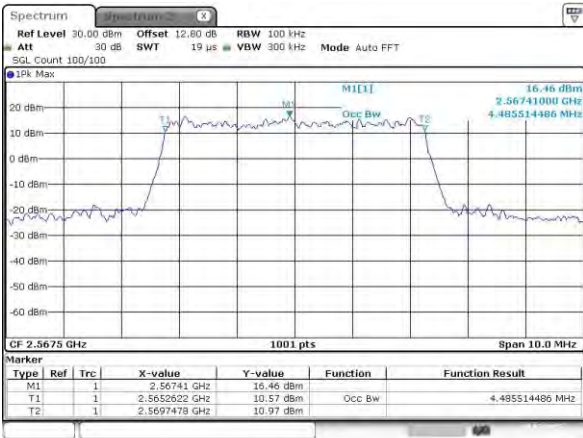
Middle Channel / 5MHz / QPSK



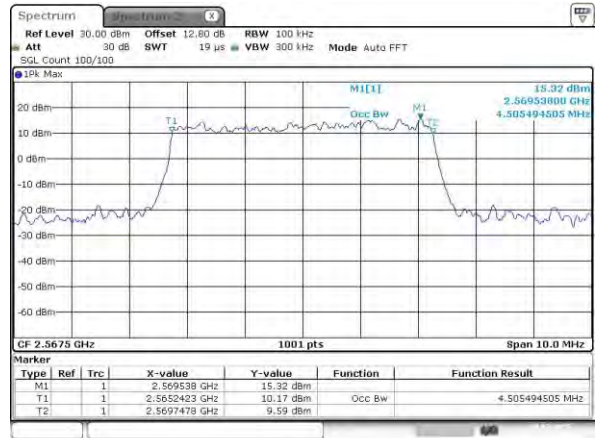
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



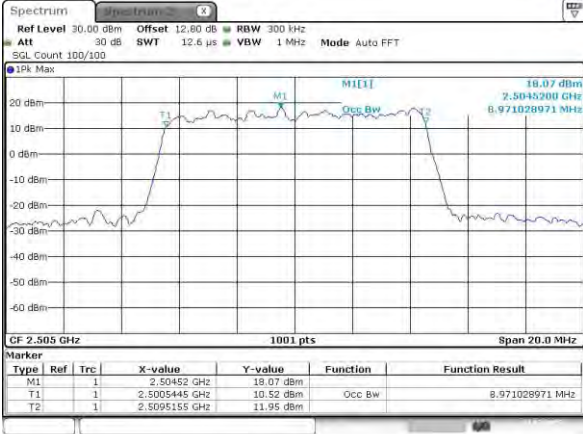
Highest Channel / 5MHz / 16QAM





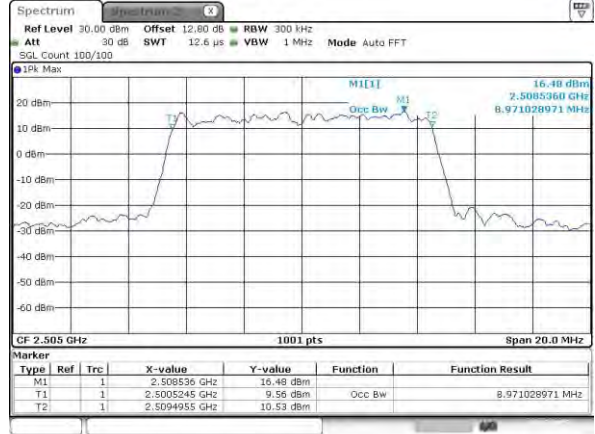
LTE Band 7

Lowest Channel / 10MHz / QPSK



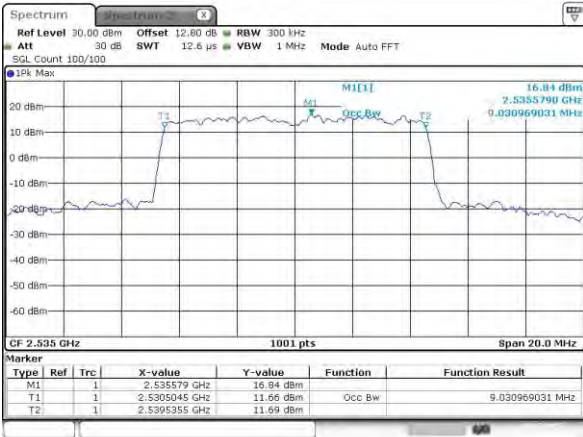
Date: 21.JUL.2018 00:06:24

Lowest Channel / 10MHz / 16QAM



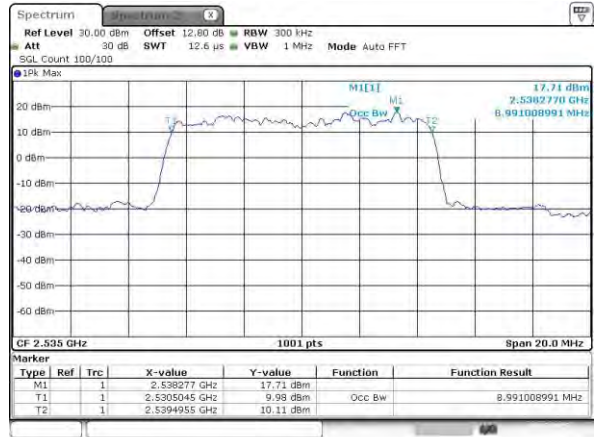
Date: 20.JUL.2018 23:11:40

Middle Channel / 10MHz / QPSK



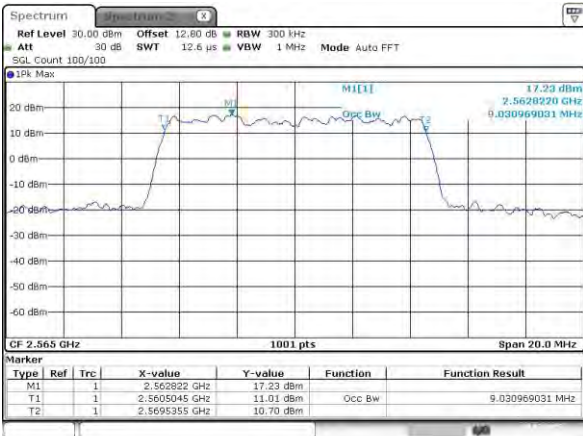
Date: 20.JUL.2018 23:17:44

Middle Channel / 10MHz / 16QAM



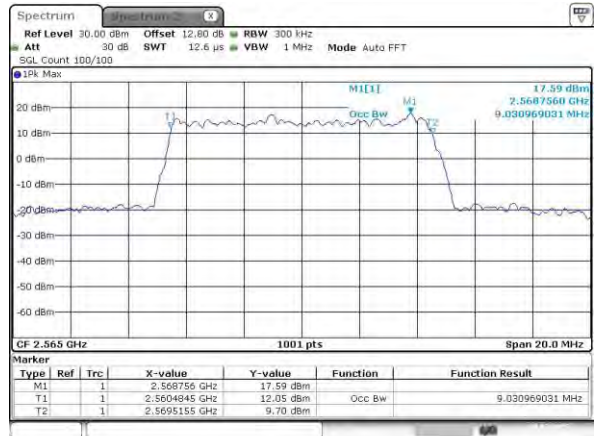
Date: 20.JUL.2018 23:17:55

Highest Channel / 10MHz / QPSK



Date: 20.JUL.2018 23:20:20

Highest Channel / 10MHz / 16QAM



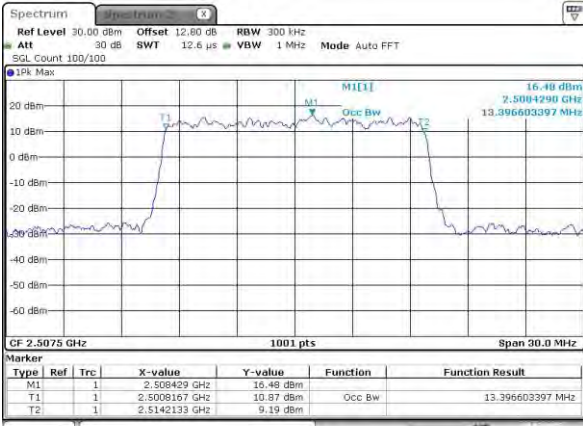
Date: 20.JUL.2018 23:20:32





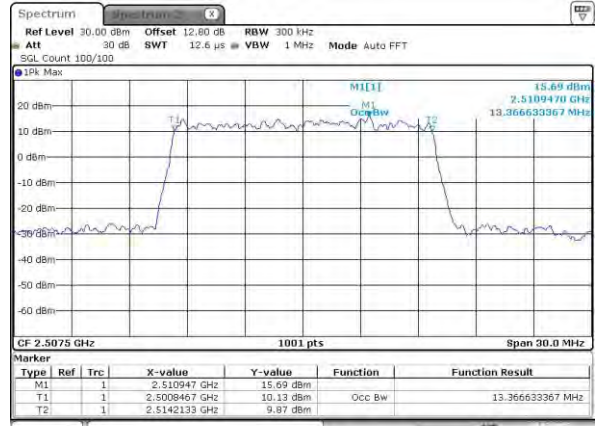
LTE Band 7

Lowest Channel / 15MHz / QPSK



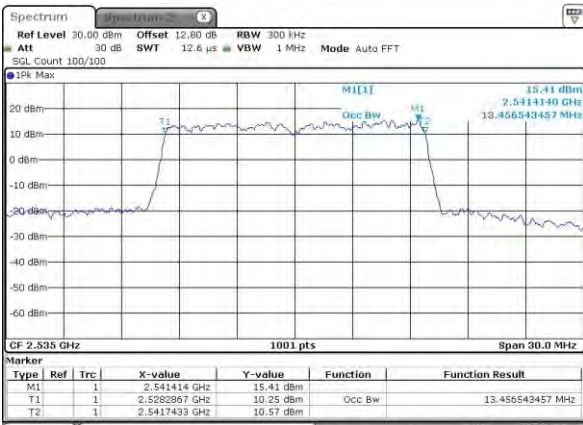
Date: 20-Jul-2018 23:27:36

Lowest Channel / 15MHz / 16QAM



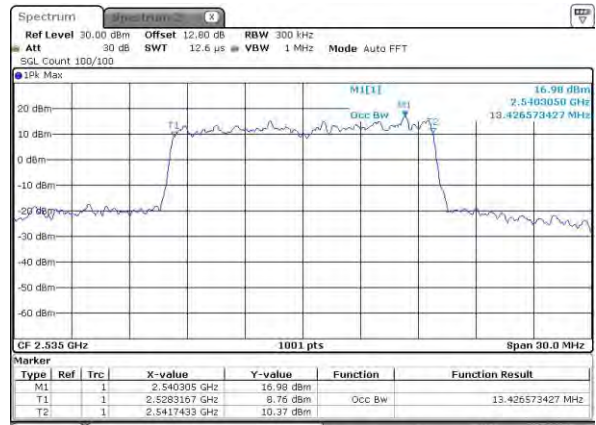
Date: 20-Jul-2018 23:27:48

Middle Channel / 15MHz / QPSK



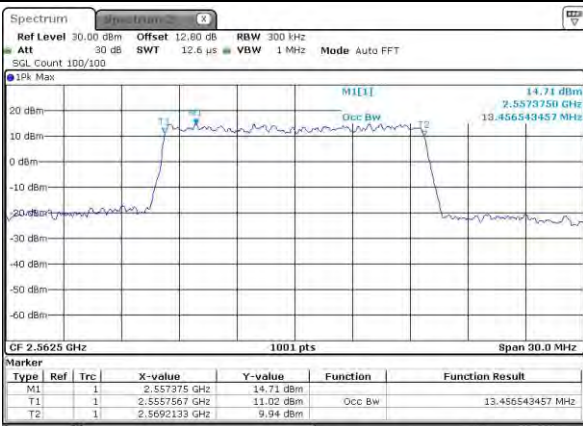
Date: 20-Jul-2018 23:34:02

Middle Channel / 15MHz / 16QAM



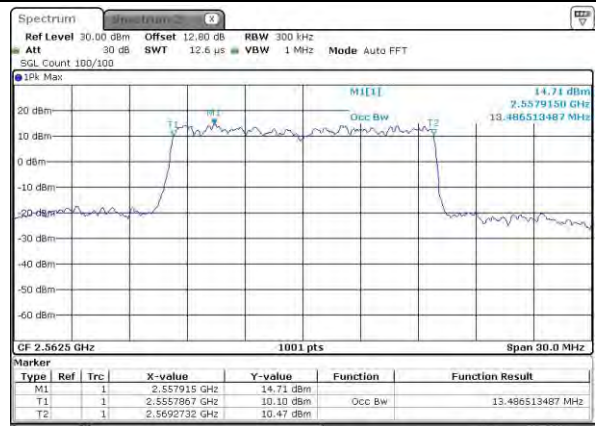
Date: 20-Jul-2018 23:35:08

Highest Channel / 15MHz / QPSK



Date: 20-Jul-2018 23:37:29

Highest Channel / 15MHz / 16QAM

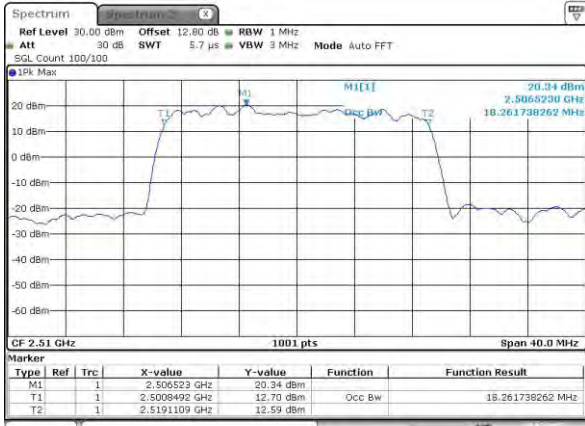


Date: 20-Jul-2018 23:37:40



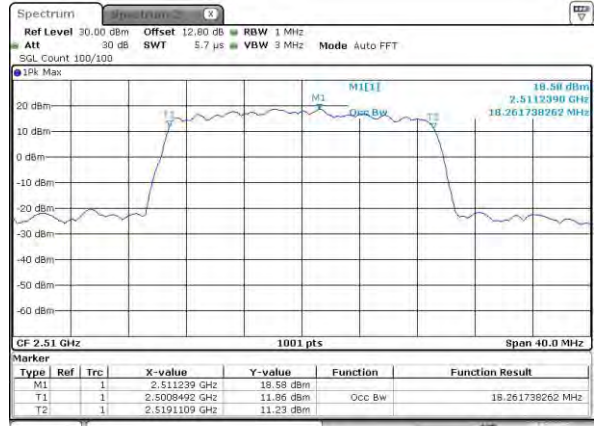
LTE Band 7

Lowest Channel / 20MHz / QPSK



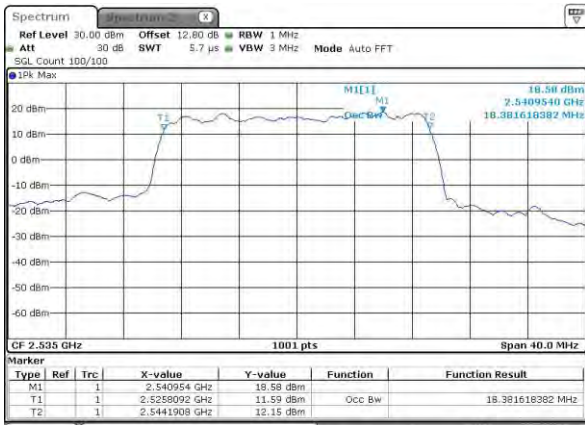
Date: 20/05/2018 23:44:45

Lowest Channel / 20MHz / 16QAM



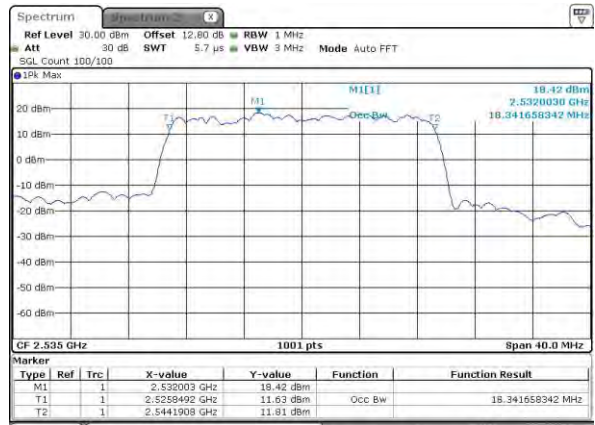
Date: 20/05/2018 23:44:57

Middle Channel / 20MHz / QPSK



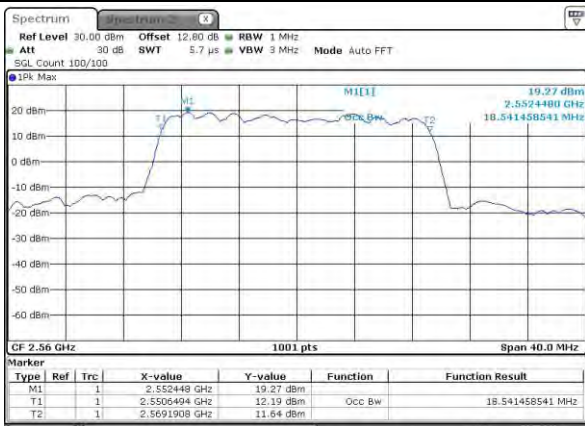
Date: 20/05/2018 23:52:01

Middle Channel / 20MHz / 16QAM



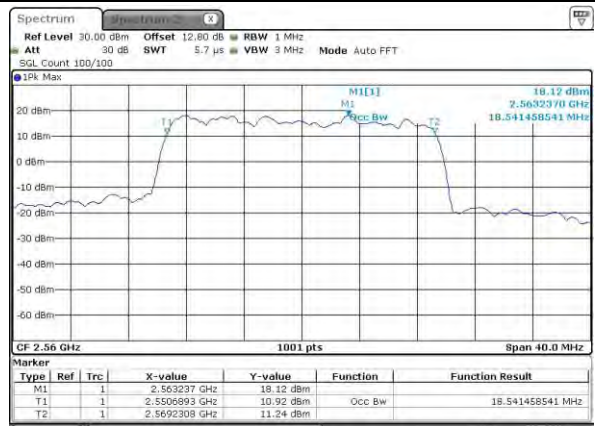
Date: 20/05/2018 23:52:13

Highest Channel / 20MHz / QPSK



Date: 20/05/2018 23:54:37

Highest Channel / 20MHz / 16QAM



Date: 20/05/2018 23:54:49



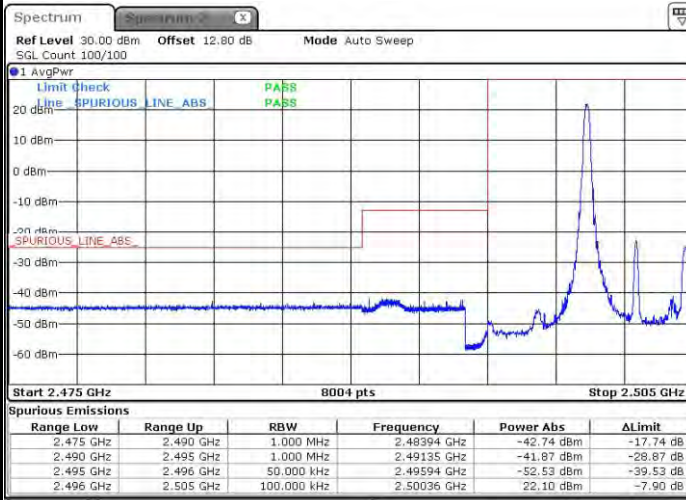
**Conducted Band Edge**





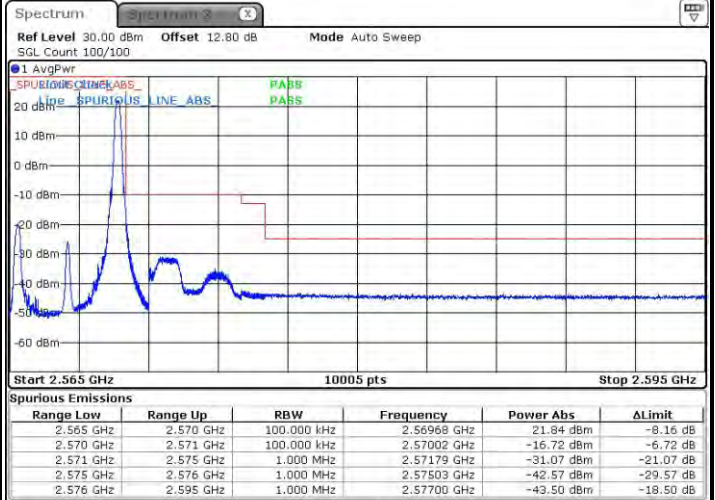
LTE Band 7 / 5MHz / QPSK

Lowest Band Edge / 1 RB



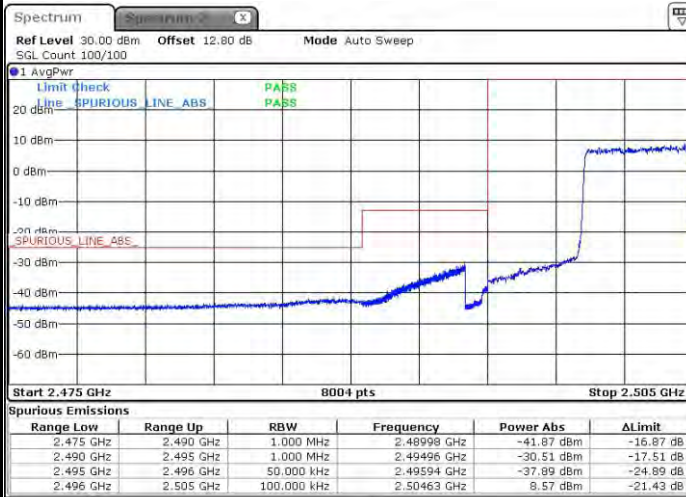
Date: 20.JUL.2015 22:55:04

Highest Band Edge / 1 RB



Date: 20.JUL.2015 23:04:57

Lowest Band Edge / Full RB



Date: 20.JUL.2015 22:57:24

Highest Band Edge / Full RB

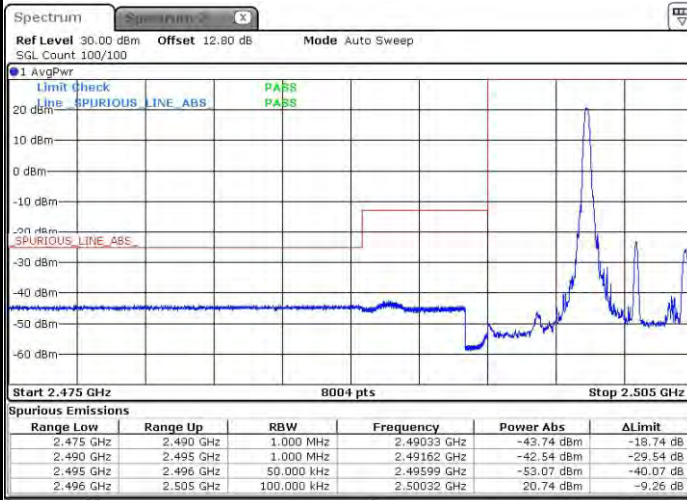


Date: 20.JUL.2015 23:07:17



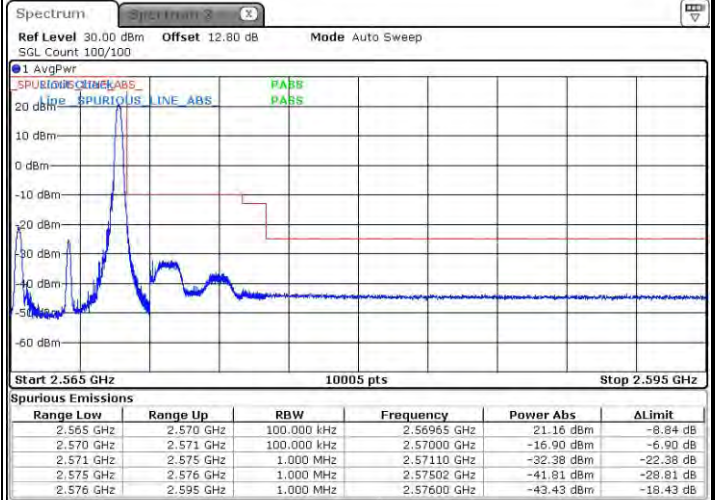
LTE Band 7 / 5MHz / 16QAM

Lowest Band Edge / 1 RB



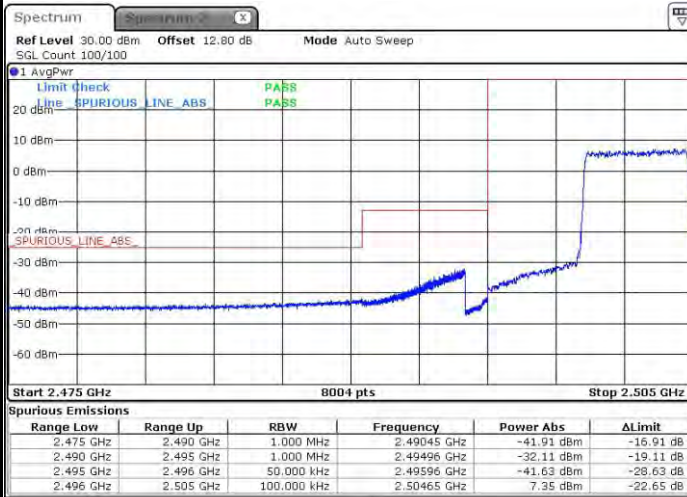
Date: 20.JUL.2015 22:56:14

Highest Band Edge / 1 RB



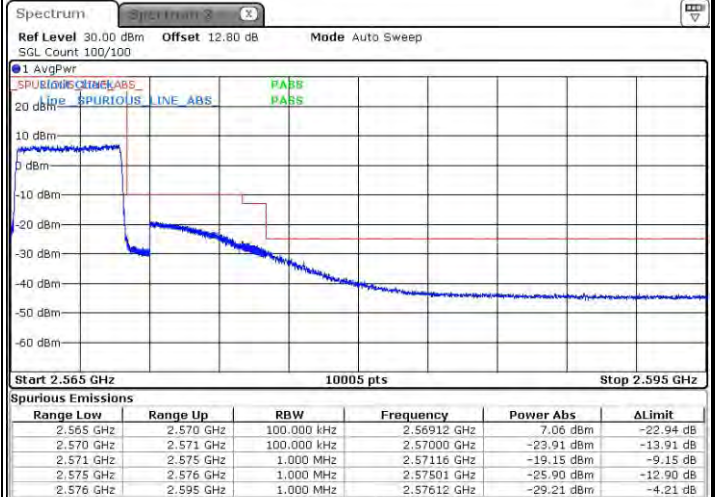
Date: 20.JUL.2015 23:06:07

Lowest Band Edge / Full RB



Date: 20.JUL.2015 22:58:34

Highest Band Edge / Full RB



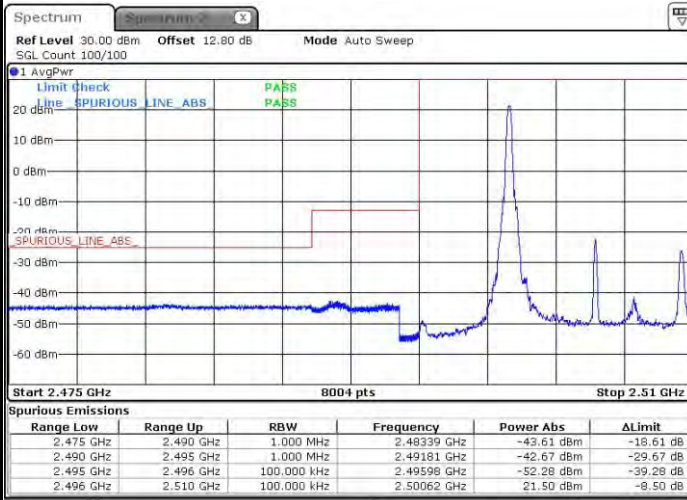
Date: 20.JUL.2015 23:08:27





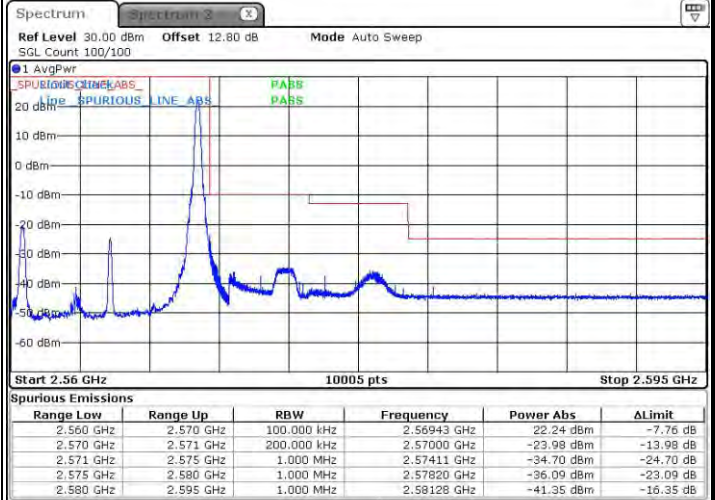
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB



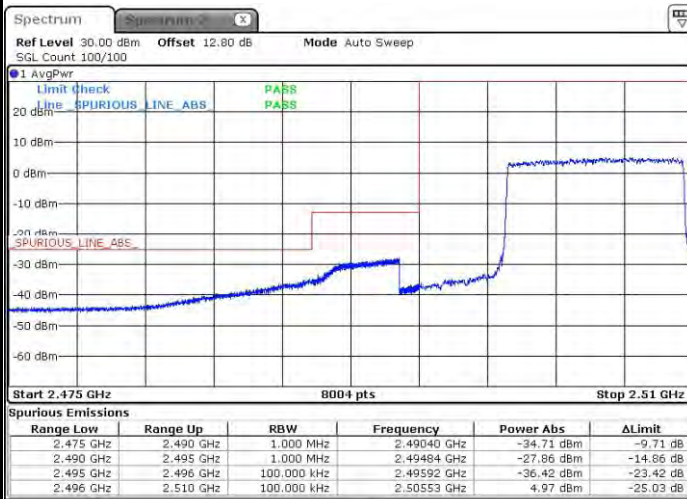
Date: 20.JUL.2015 23:12:13

Highest Band Edge / 1 RB



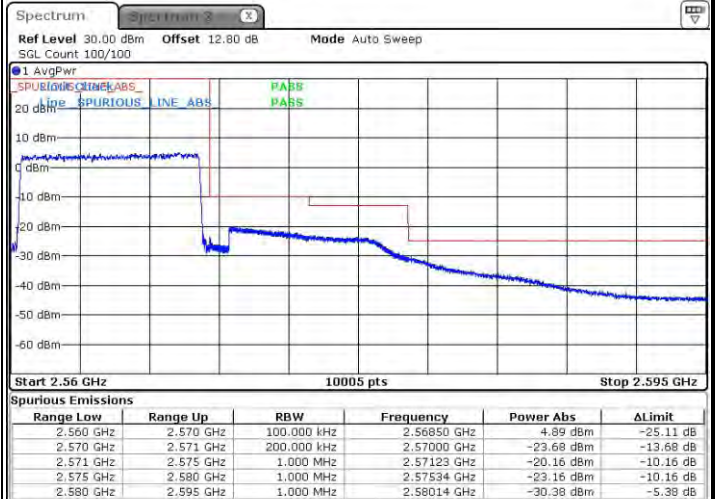
Date: 20.JUL.2015 23:22:05

Lowest Band Edge / Full RB



Date: 20.JUL.2015 23:14:33

Highest Band Edge / Full RB



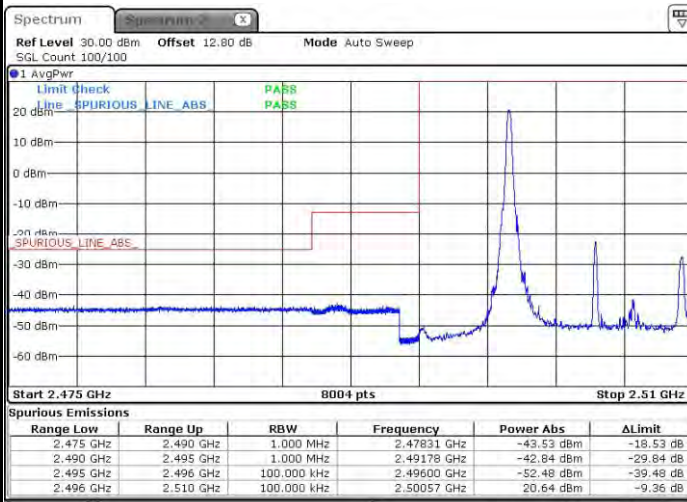
Date: 20.JUL.2015 23:24:25





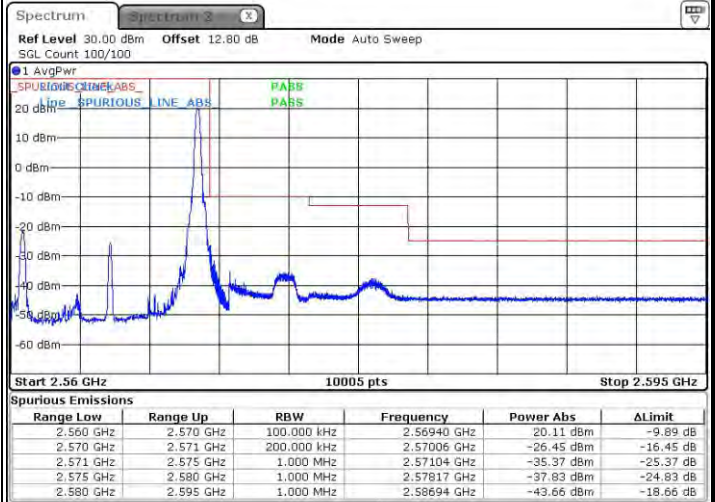
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



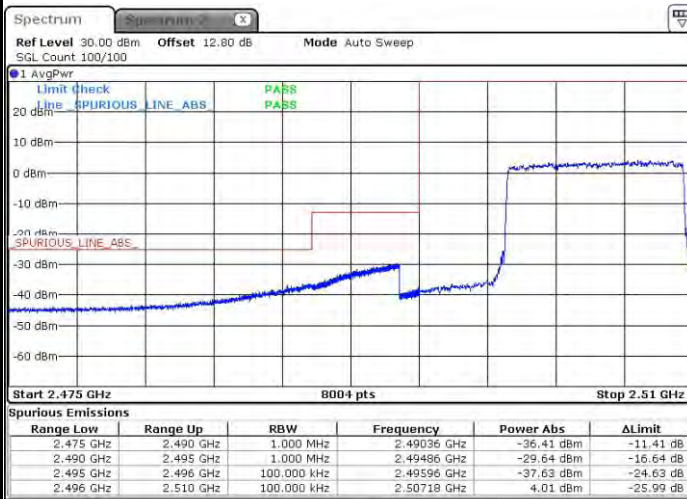
Date: 20.JUL.2015 23:13:23

Highest Band Edge / 1 RB



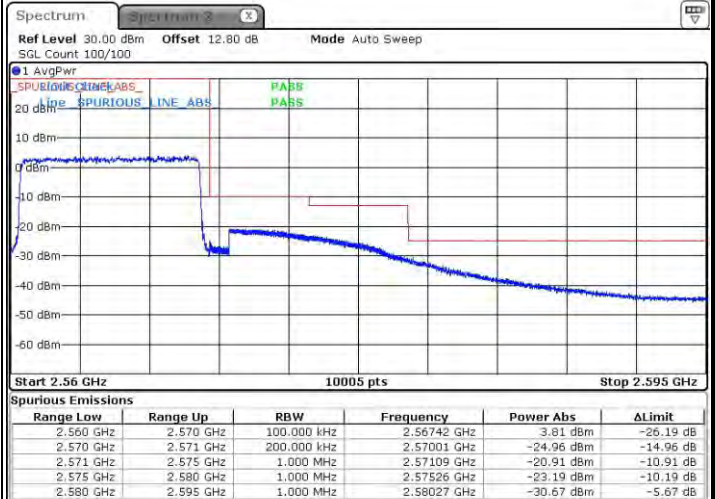
Date: 20.JUL.2015 23:23:15

Lowest Band Edge / Full RB



Date: 20.JUL.2015 23:15:43

Highest Band Edge / Full RB

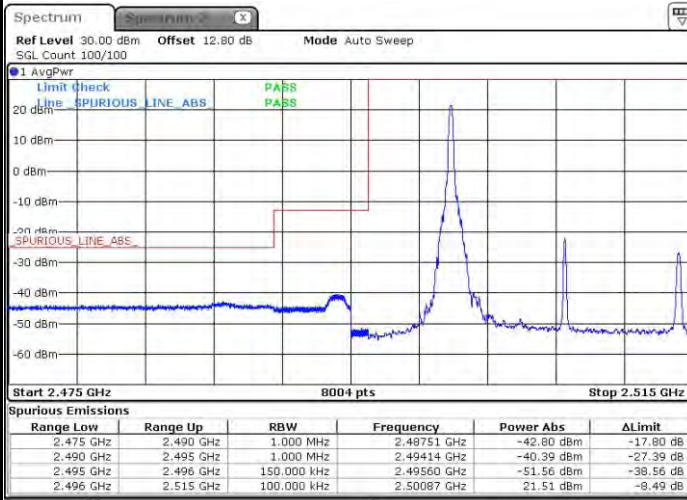


Date: 20.JUL.2015 23:25:35



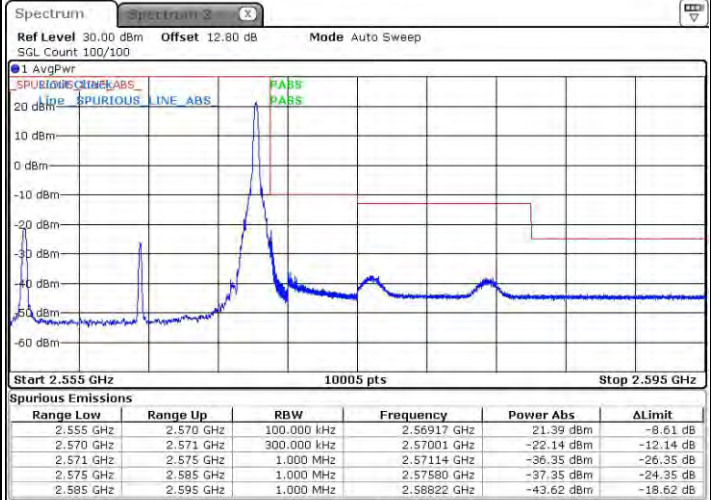
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



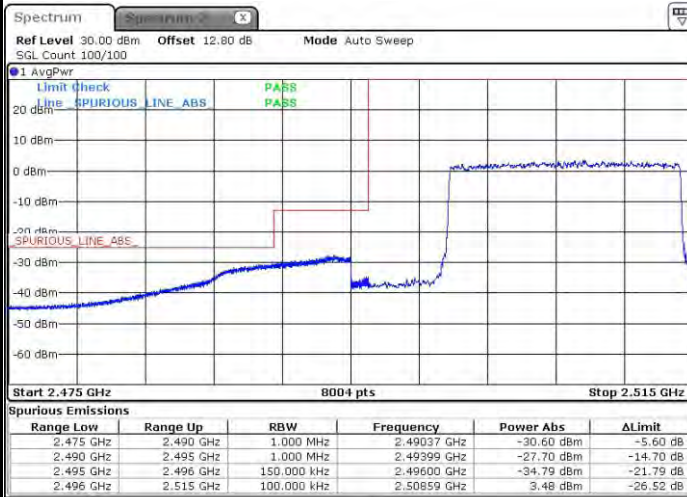
Date: 20 JUL 2015 23:29:21

Highest Band Edge / 1 RB



Date: 20 JUL 2015 23:39:14

Lowest Band Edge / Full RB



Date: 20 JUL 2015 23:31:41

Highest Band Edge / Full RB



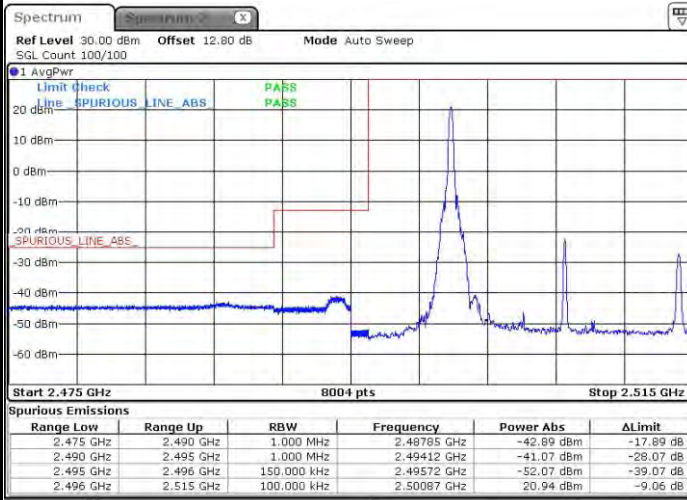
Date: 20 JUL 2015 23:41:34



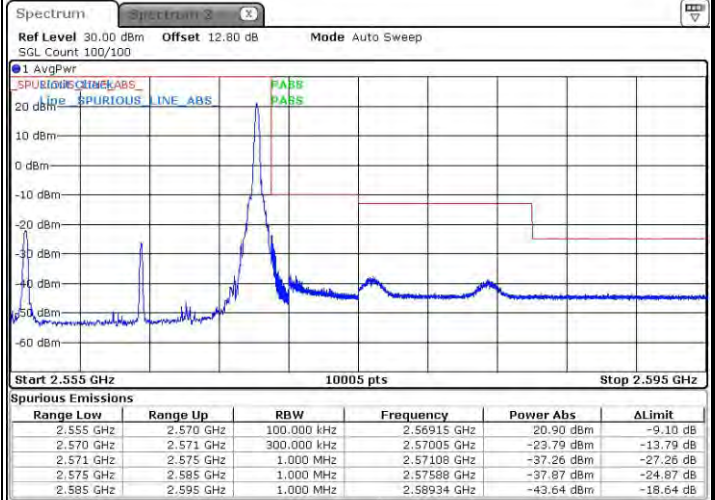


LTE Band 7 / 15MHz / 16QAM

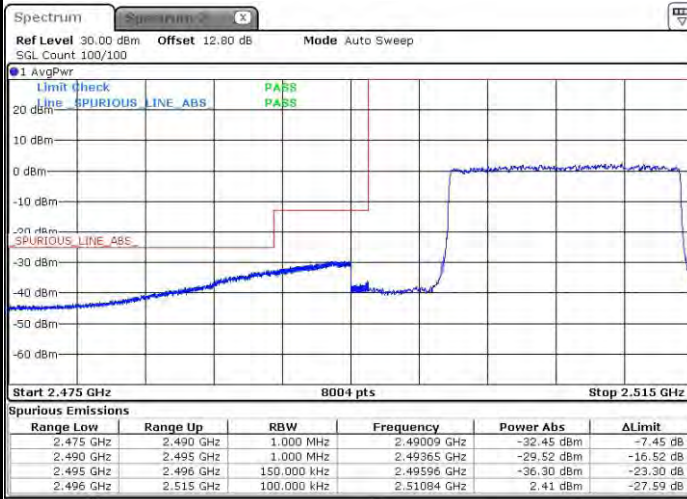
Lowest Band Edge / 1 RB



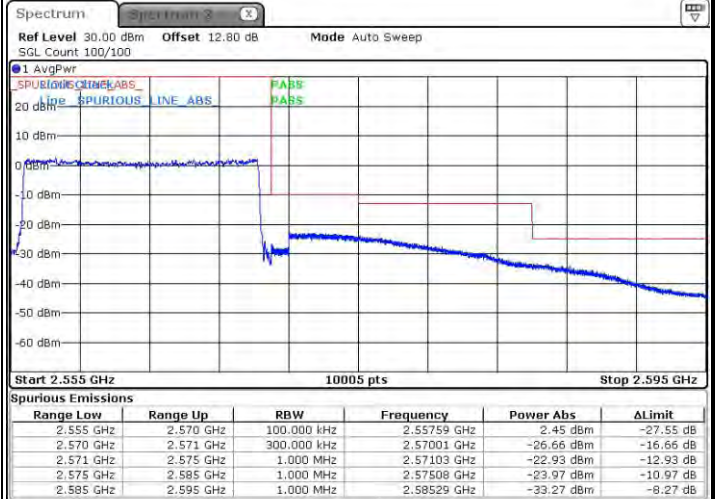
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

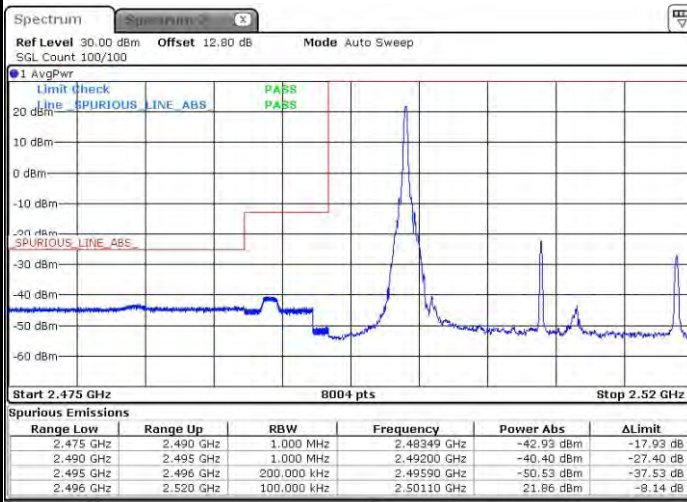




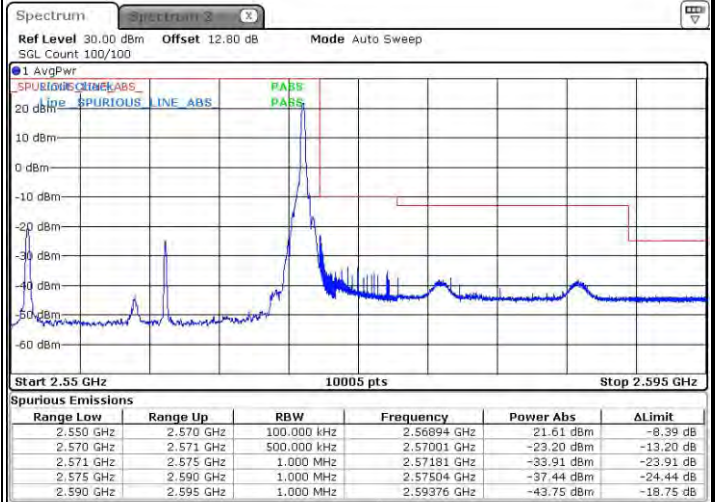


LTE Band 7 / 20MHz / QPSK

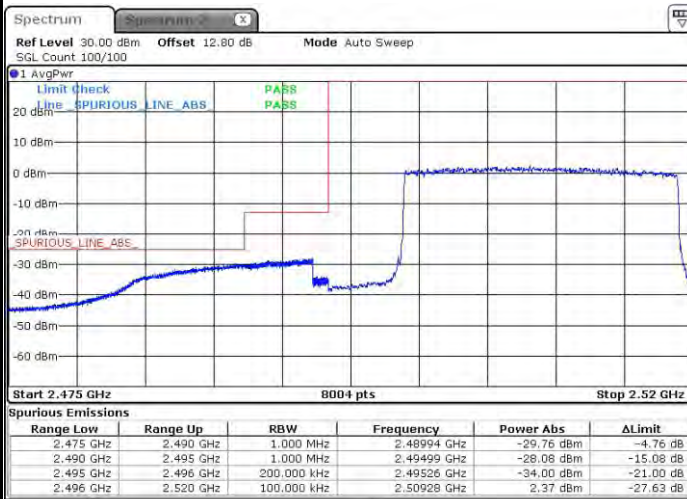
Lowest Band Edge / 1 RB



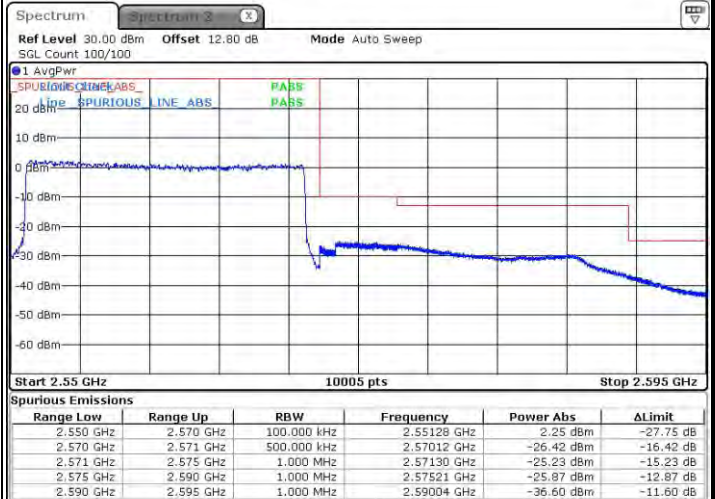
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



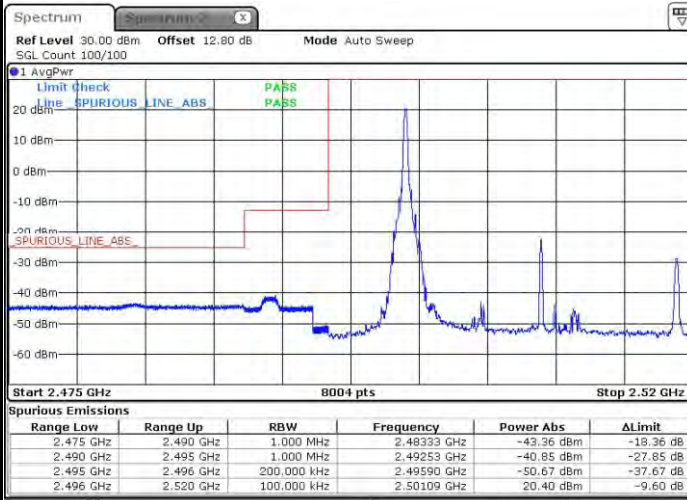
Highest Band Edge / Full RB





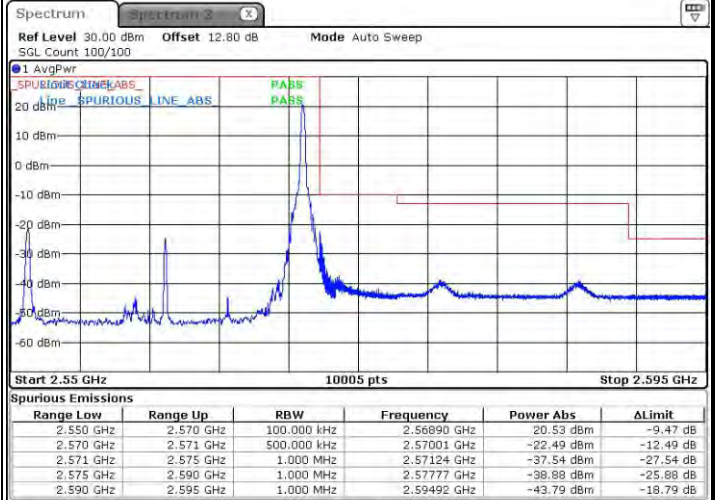
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



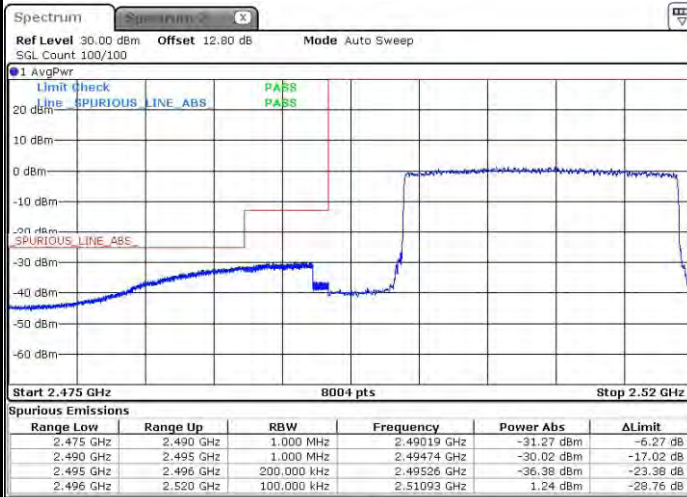
Date: 20 JUL 2015 23:47:40

Highest Band Edge / 1RB



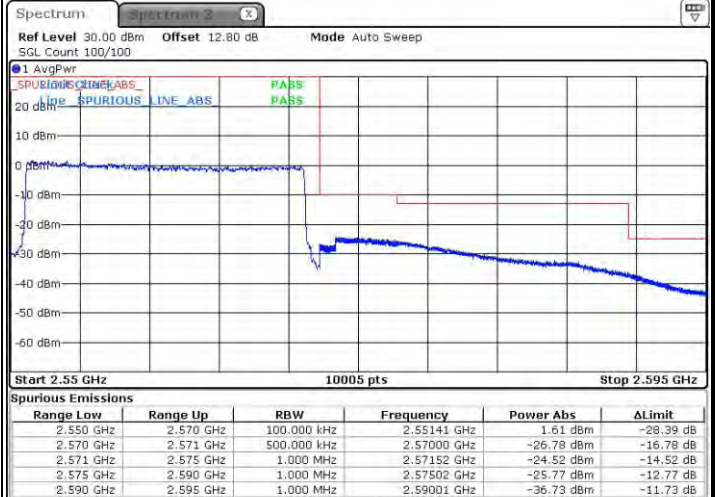
Date: 20 JUL 2015 23:57:32

Lowest Band Edge / Full RB



Date: 20 JUL 2015 23:50:00

Highest Band Edge / Full RB



Date: 20 JUL 2015 23:58:42

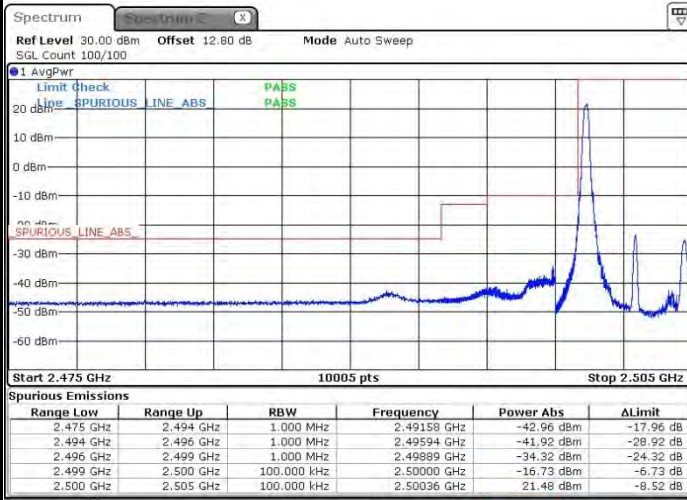




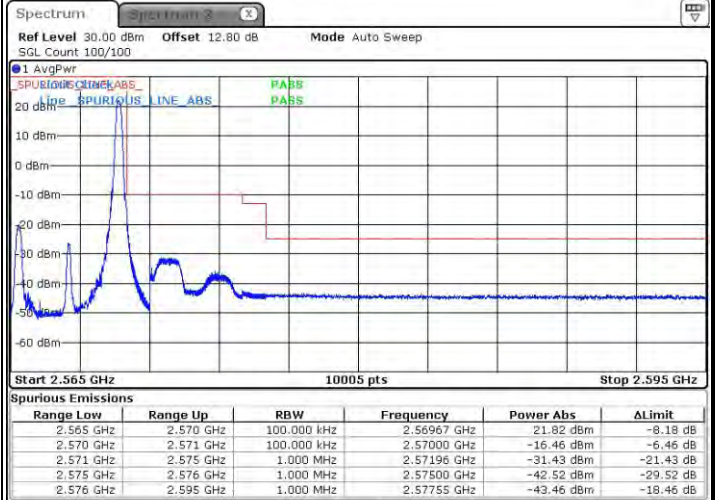
LTE Band 7 / 5MHz / QPSK (IC)

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



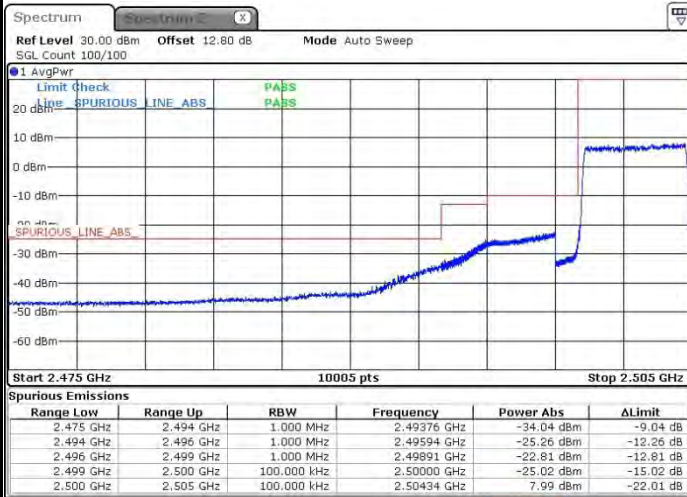
Date: 23 JUL 2015 19:08:33



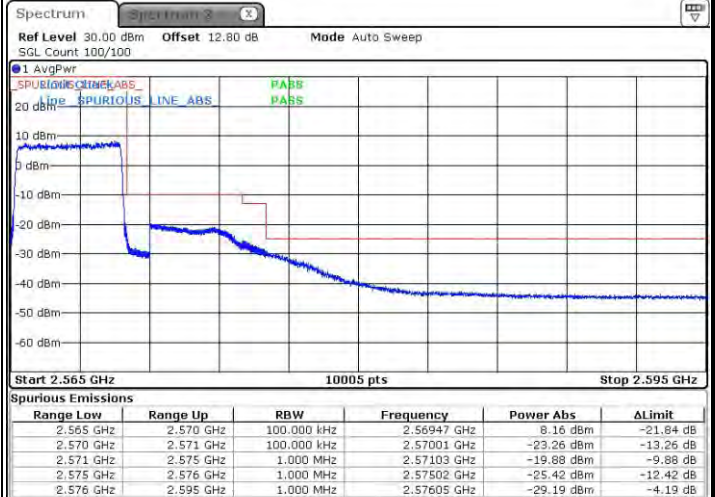
Date: 21 JUL 2015 00:13:26

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 23 JUL 2015 19:10:53



Date: 21 JUL 2015 00:15:46

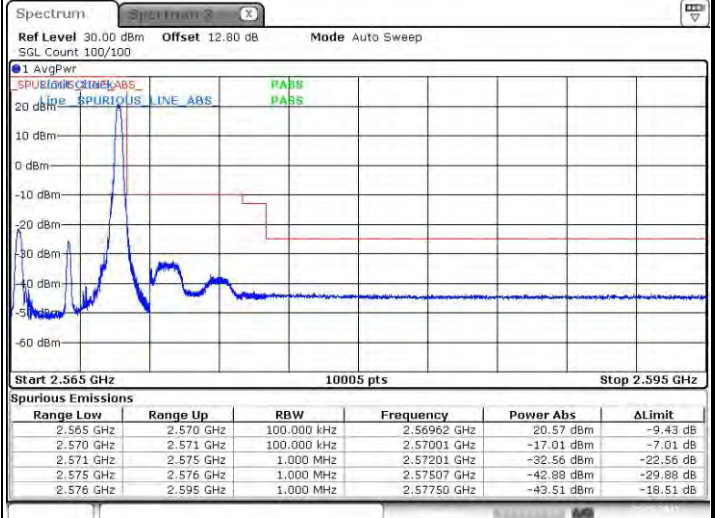
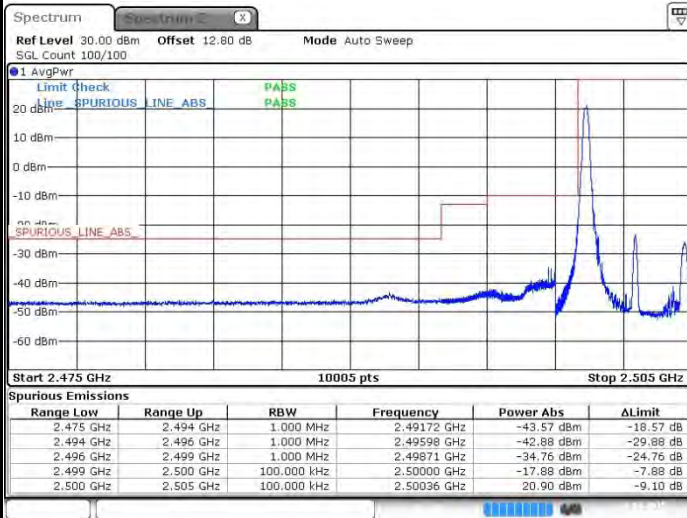




LTE Band 7 / 5MHz / 16QAM (IC)

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



Date: 23 JUL 2015 19:09:43

Date: 21 JUL 2015 00:14:38

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 23 JUL 2015 19:12:03

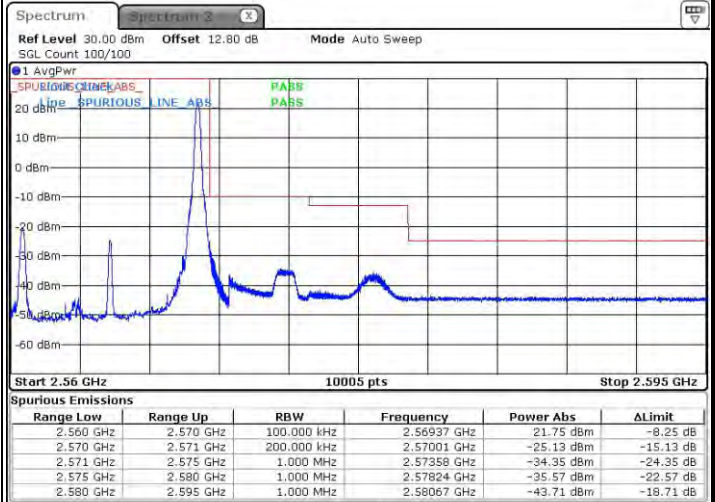
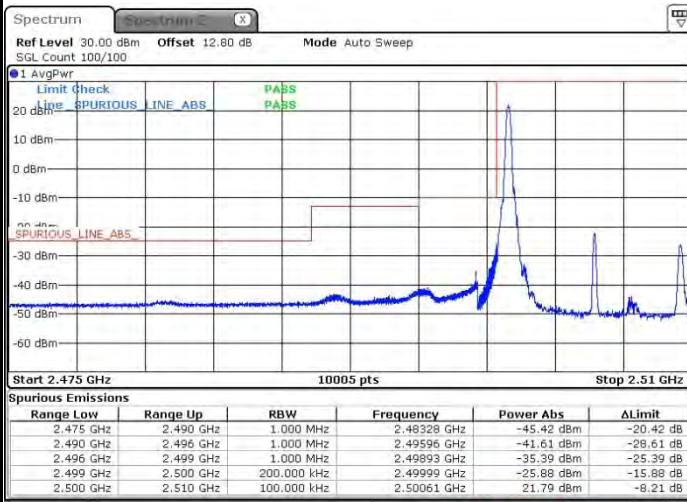
Date: 21 JUL 2015 00:16:58



LTE Band 7 / 10MHz / QPSK (IC)

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB

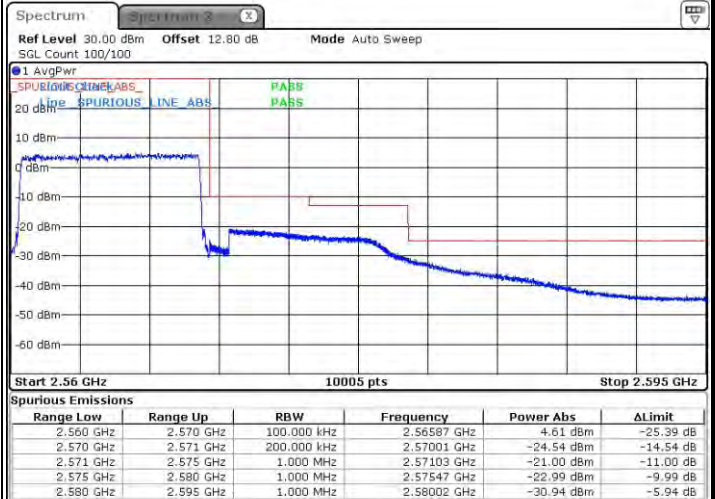
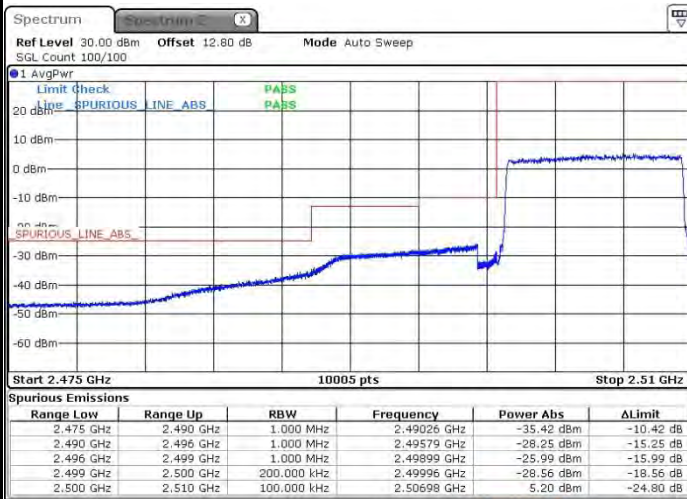


Date: 23 JUL 2015 19:25:16

Date: 21 JUL 2015 00:22:48

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 23 JUL 2015 19:27:36

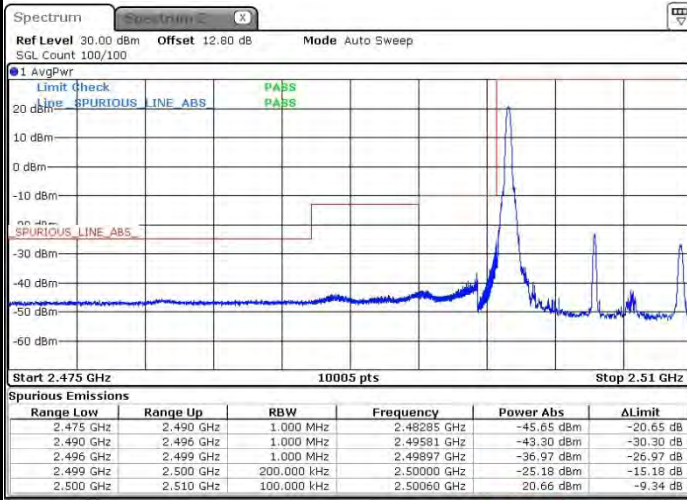
Date: 21 JUL 2015 00:25:08





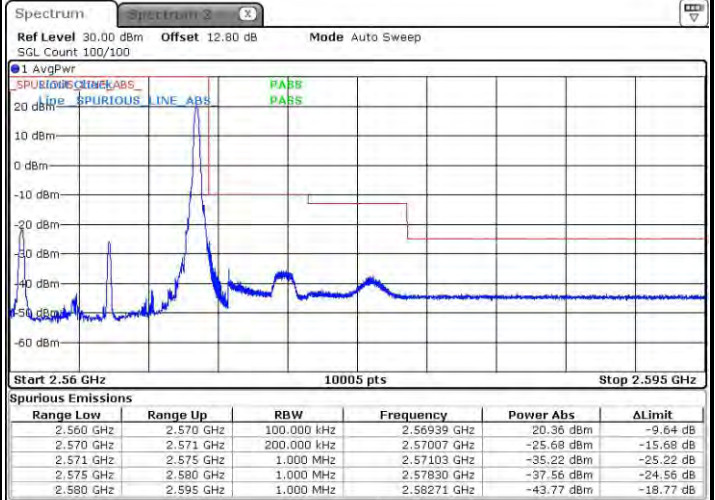
LTE Band 7 / 10MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



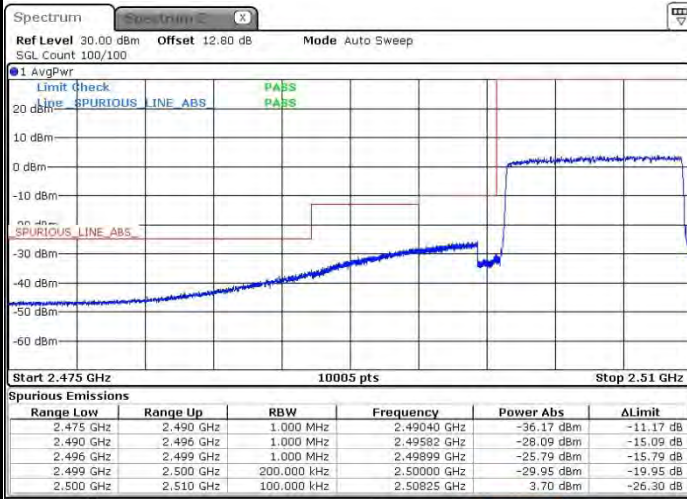
Date: 23 JUL 2015 19:26:26

Highest Band Edge / 1 RB



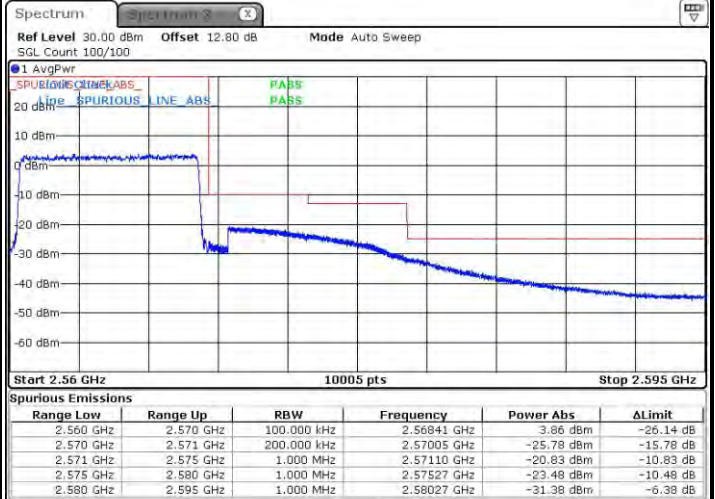
Date: 21 JUL 2015 00:23:58

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:28:46

Highest Band Edge / Full RB



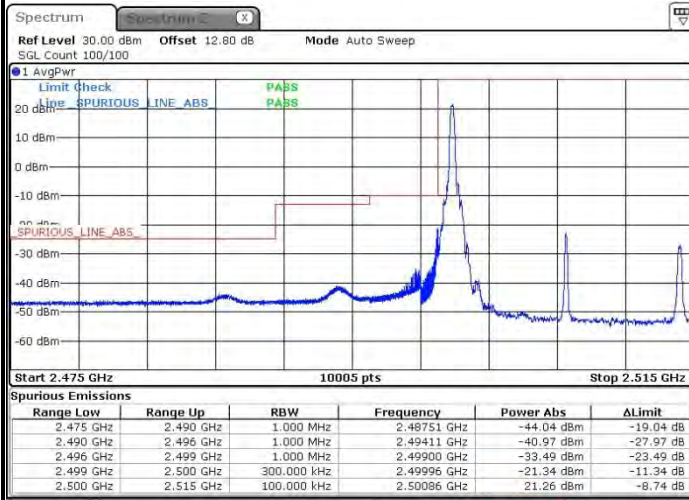
Date: 21 JUL 2015 00:26:18





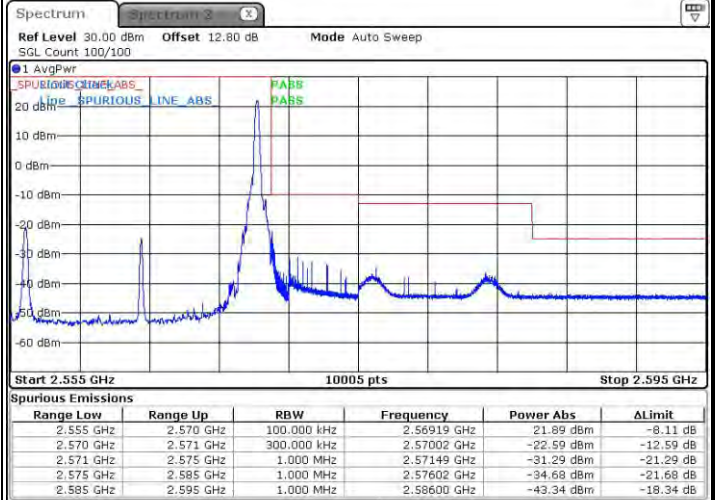
LTE Band 7 / 15MHz / QPSK (IC)

Lowest Band Edge / 1 RB



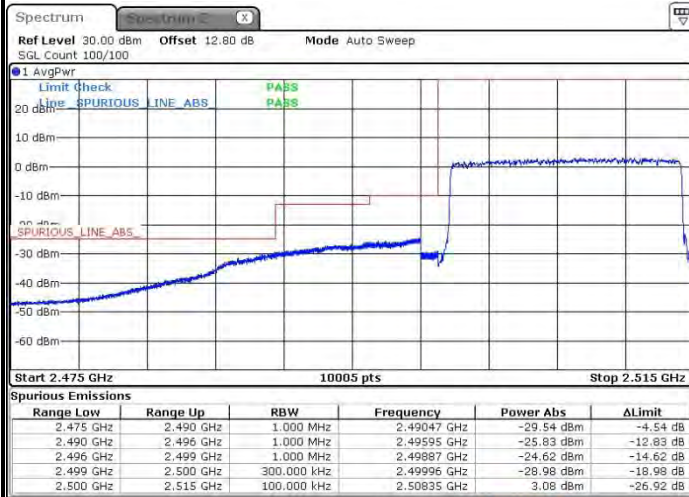
Date: 23 JUL 2015 19:30:27

Highest Band Edge / 1 RB



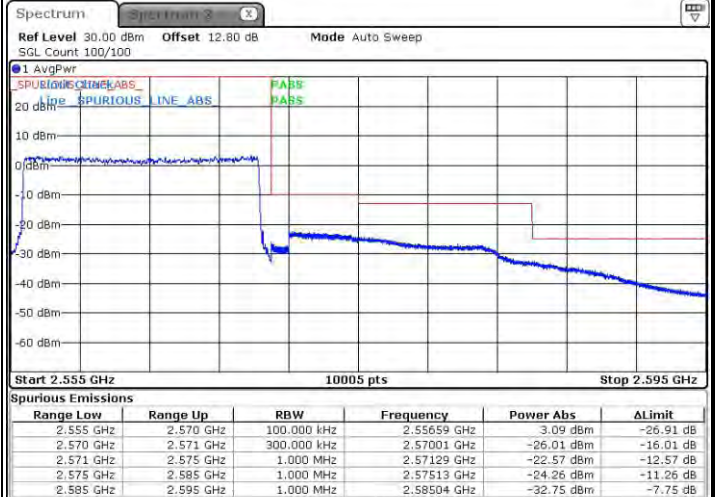
Date: 21 JUL 2015 00:32:08

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:32:47

Highest Band Edge / Full RB

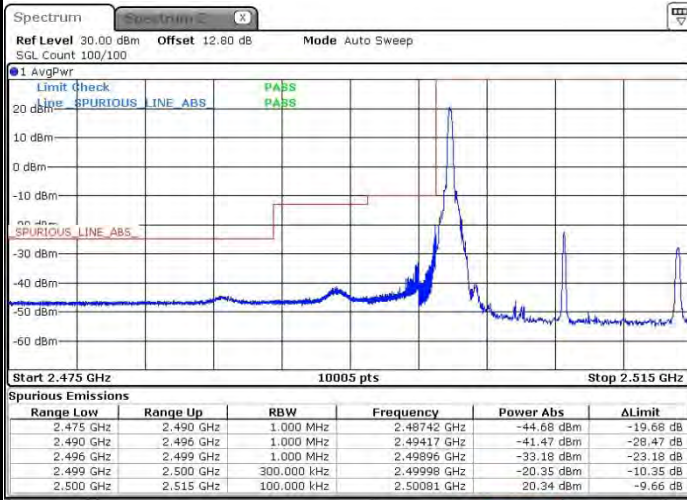


Date: 21 JUL 2015 00:34:28



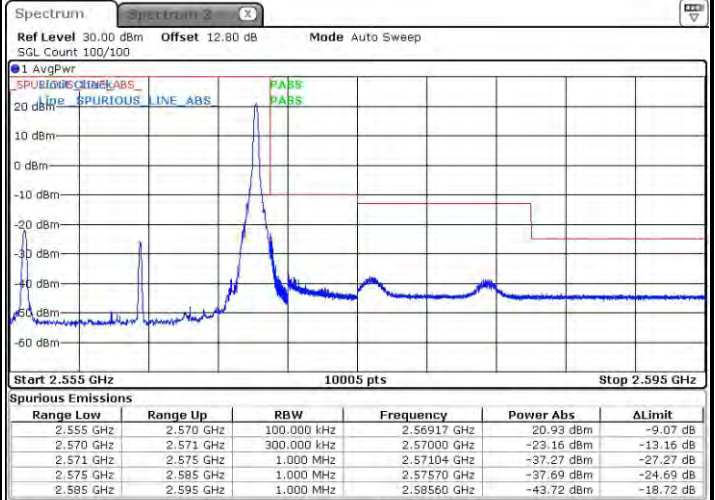
LTE Band 7 / 15MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



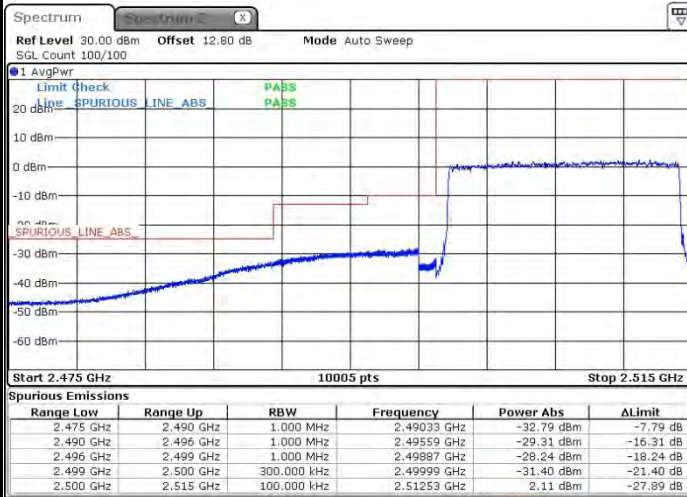
Date: 23 JUL 2015 19:31:37

Highest Band Edge / 1 RB



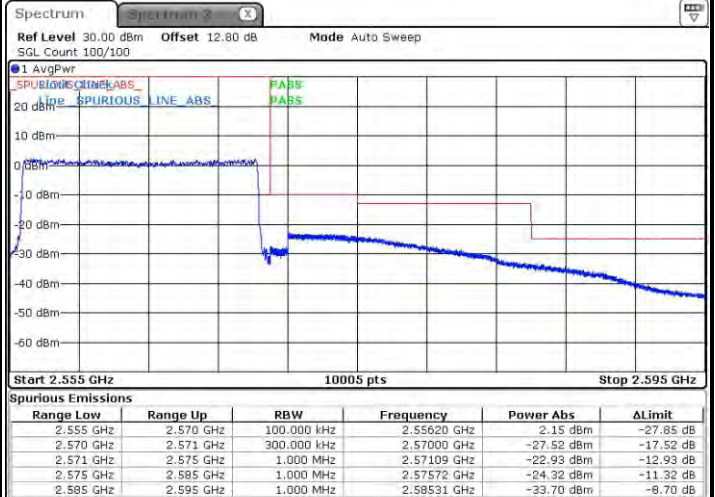
Date: 21 JUL 2015 00:33:18

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:33:57

Highest Band Edge / Full RB



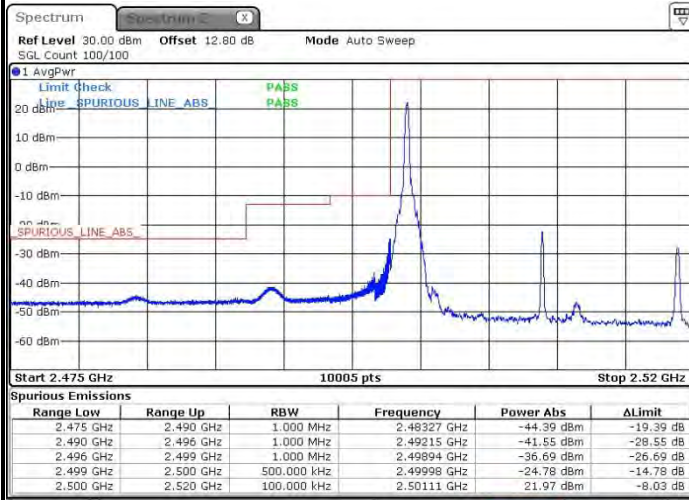
Date: 21 JUL 2015 00:35:38





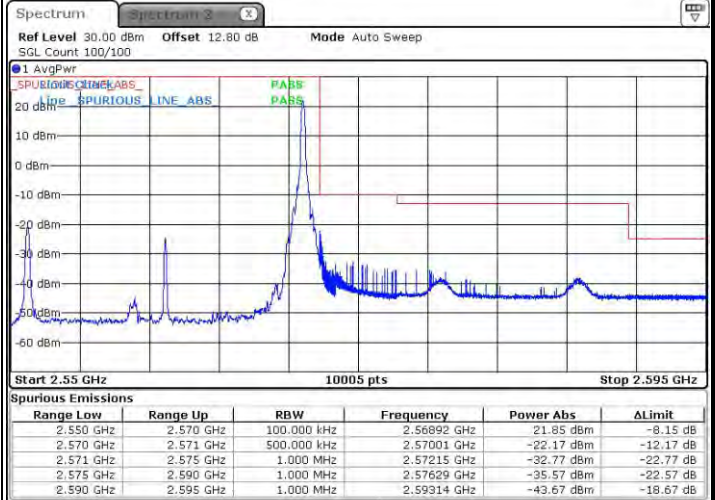
LTE Band 7 / 20MHz / QPSK (IC)

Lowest Band Edge / 1 RB



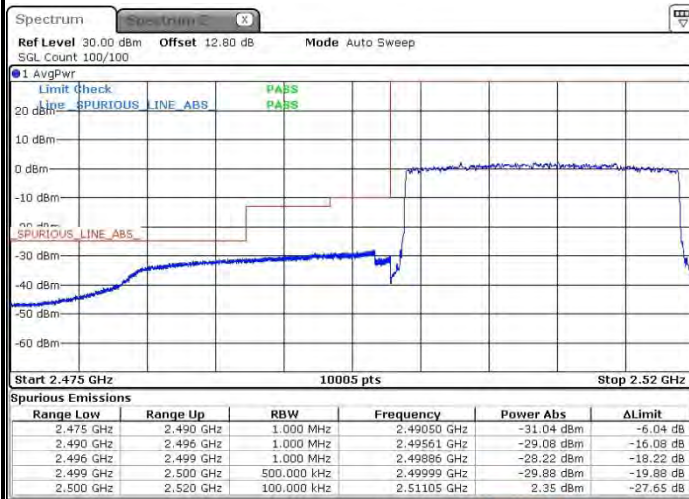
Date: 23 JUL 2015 19:35:43

Highest Band Edge / 1 RB



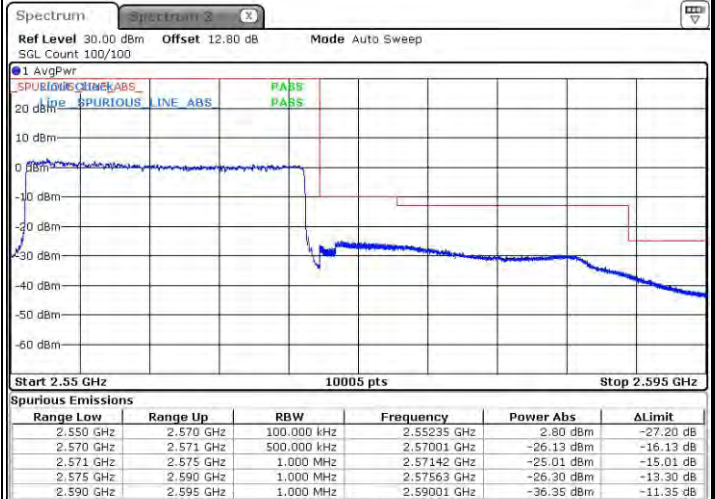
Date: 21 JUL 2015 00:41:26

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:38:03

Highest Band Edge / Full RB



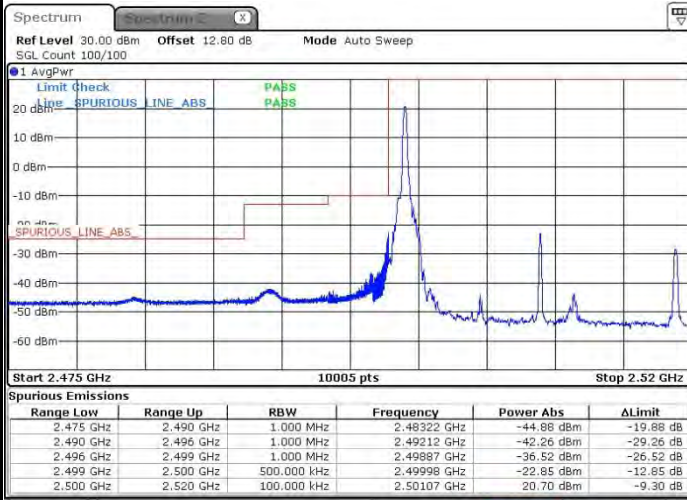
Date: 21 JUL 2015 00:44:58





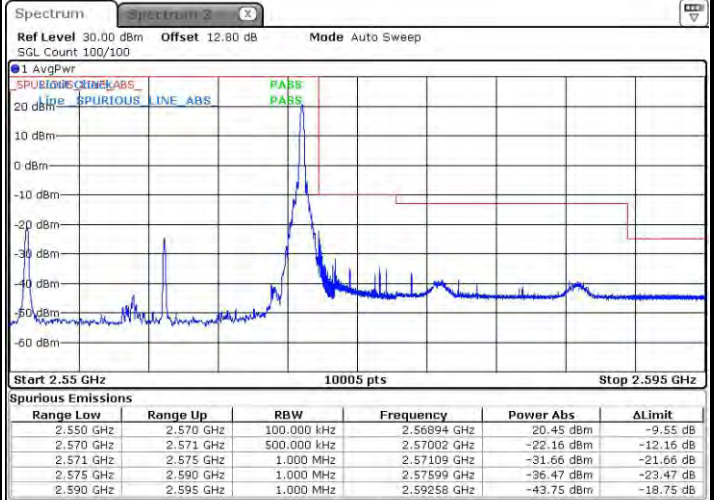
LTE Band 7 / 20MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



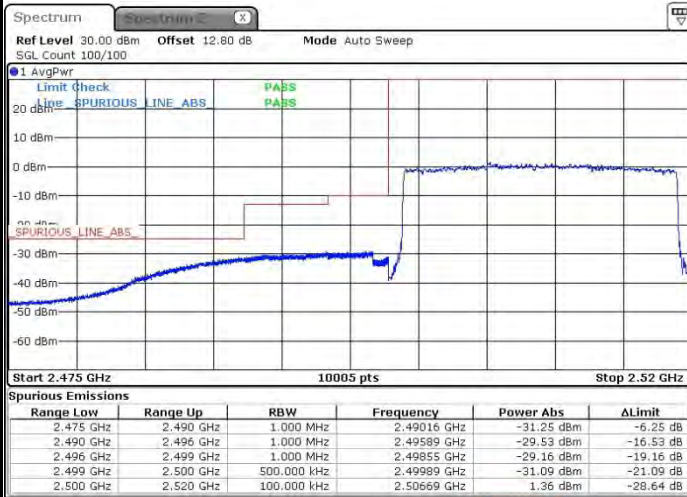
Date: 23 JUL 2015 19:36:53

Highest Band Edge / 1RB



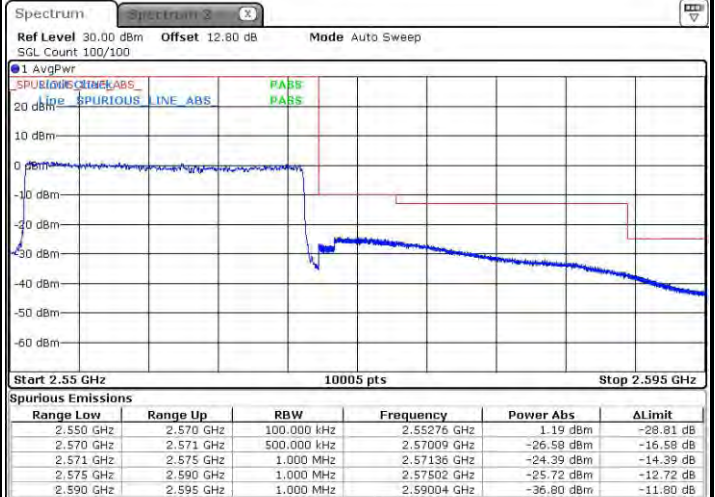
Date: 21 JUL 2015 00:42:38

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:39:13

Highest Band Edge / Full RB



Date: 21 JUL 2015 00:43:46



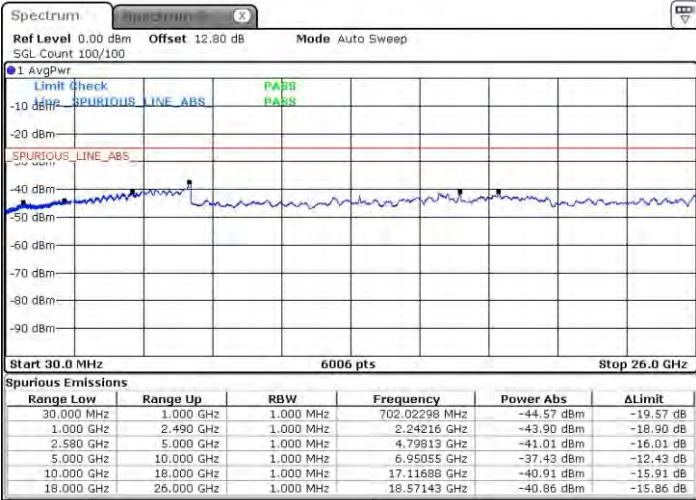
**Conducted Spurious Emission**



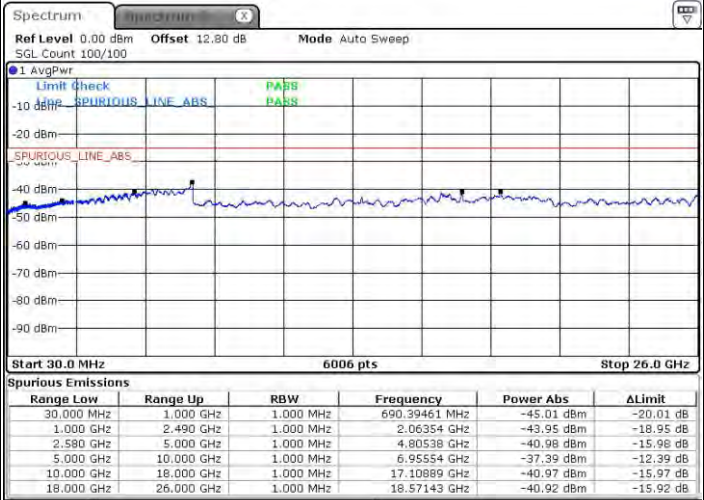
LTE Band 7 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



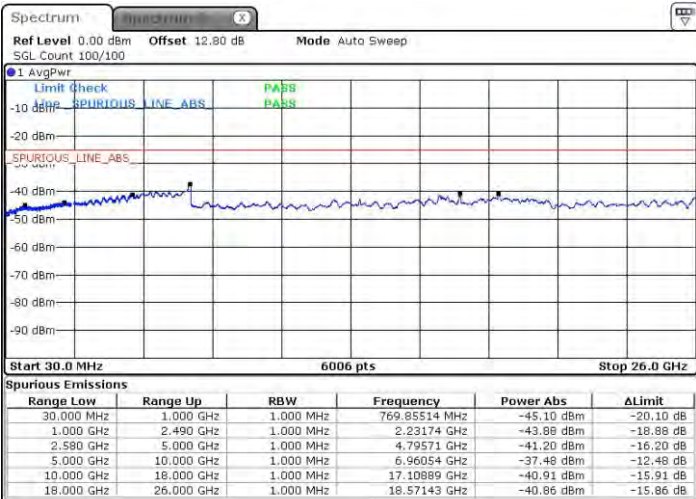
Date: 20.JUL.2015 22:59:29



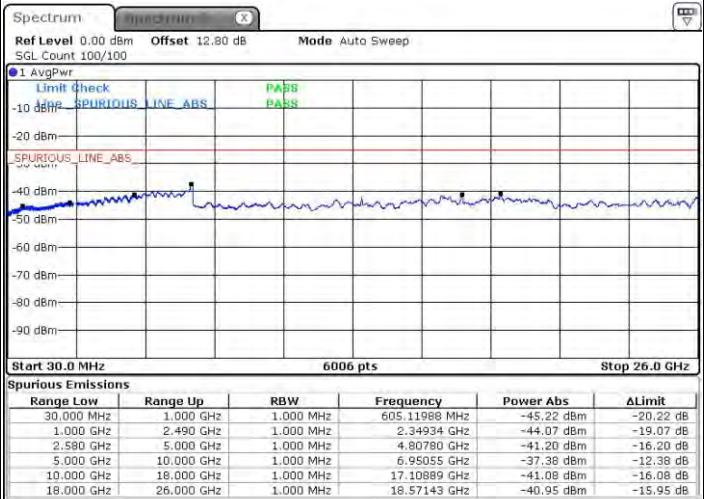
Date: 20.JUL.2015 23:00:23

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 20.JUL.2015 23:02:05



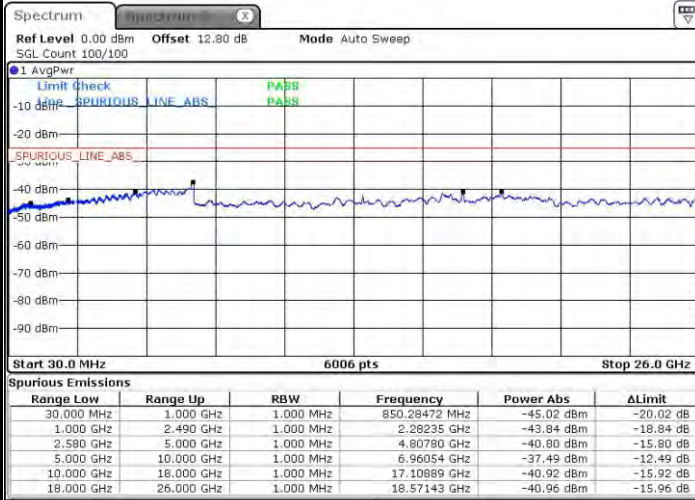
Date: 20.JUL.2015 23:03:00





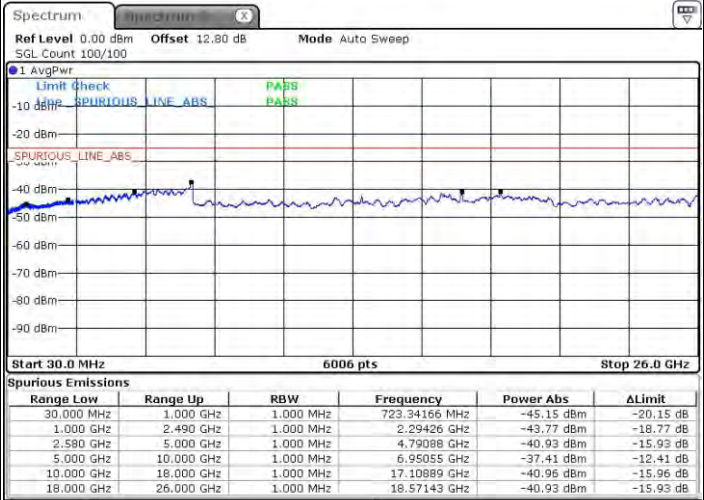
LTE Band 7 / 5MHz

Highest Channel / QPSK



Date: 20.JUL.2015 23:09:21

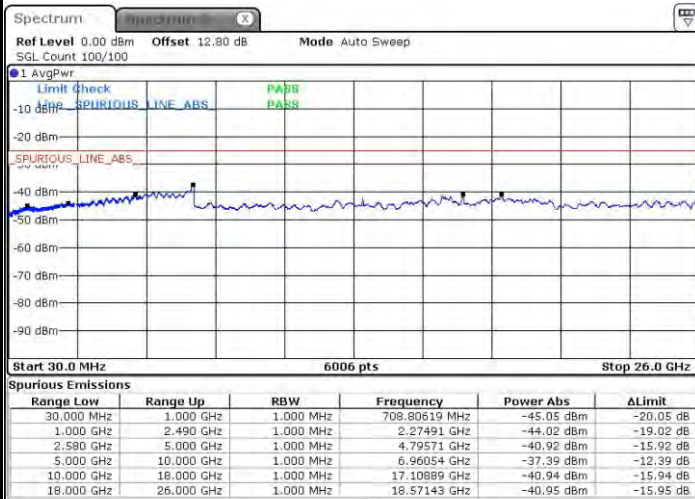
Highest Channel / 16QAM



Date: 20.JUL.2015 23:10:16

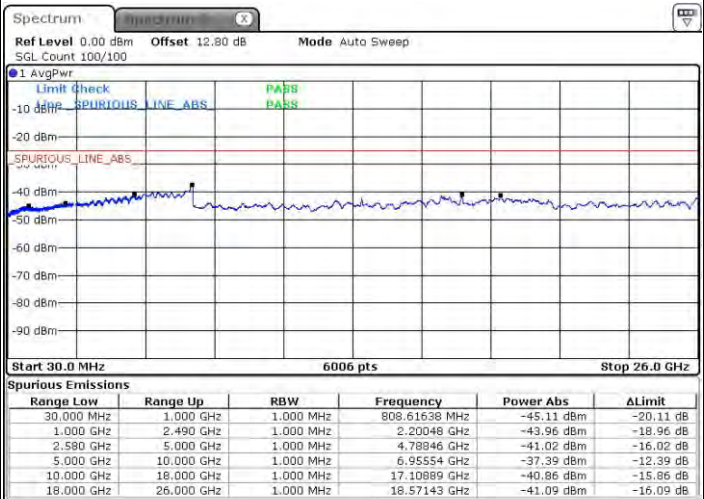
LTE Band 7 / 10MHz

Lowest Channel / QPSK



Date: 20.JUL.2015 23:16:37

Lowest Channel / 16QAM



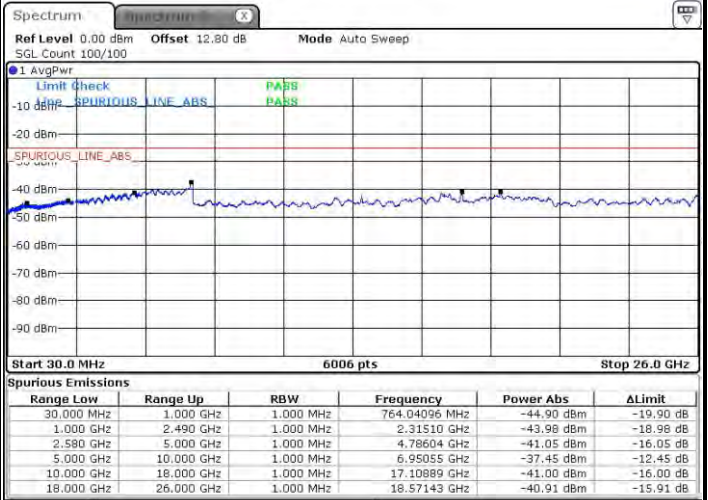
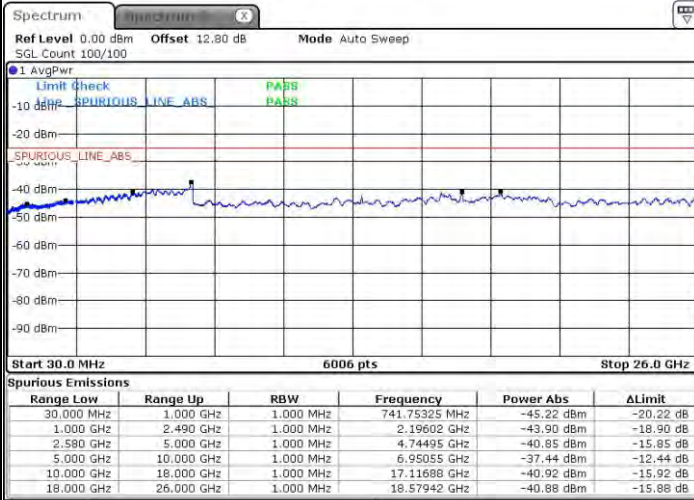
Date: 20.JUL.2015 23:17:32



LTE Band 7 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

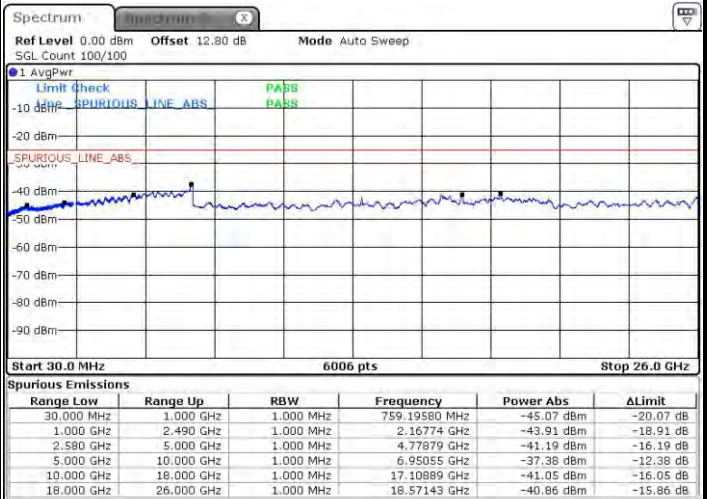
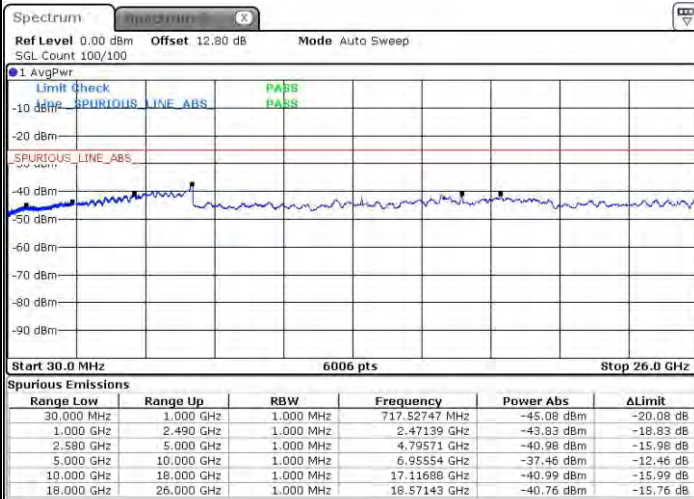


Date: 20.JUL.2015 23:19:13

Date: 20.JUL.2015 23:20:08

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 20.JUL.2015 23:26:30

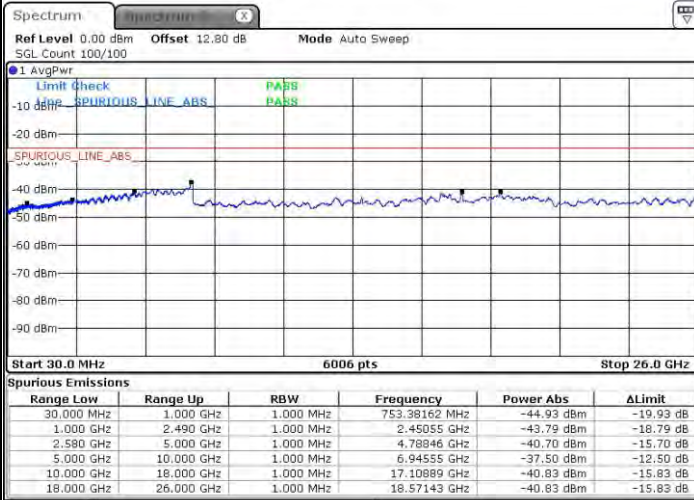
Date: 20.JUL.2015 23:27:24



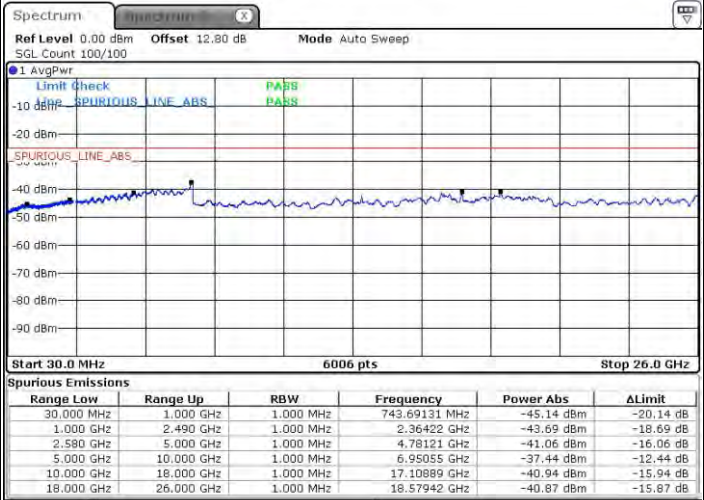
LTE Band 7 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



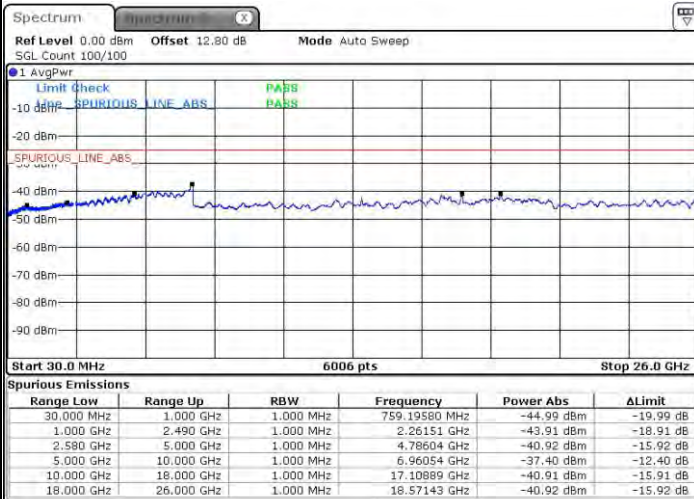
Date: 20.JUL.2015 23:33:46



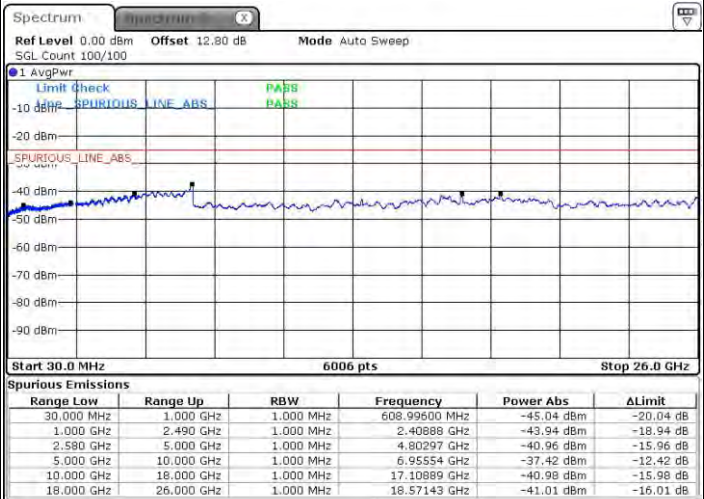
Date: 20.JUL.2015 23:34:40

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 20.JUL.2015 23:36:22



Date: 20.JUL.2015 23:37:17





LTE Band7 / 15MHz

Highest Channel / QPSK

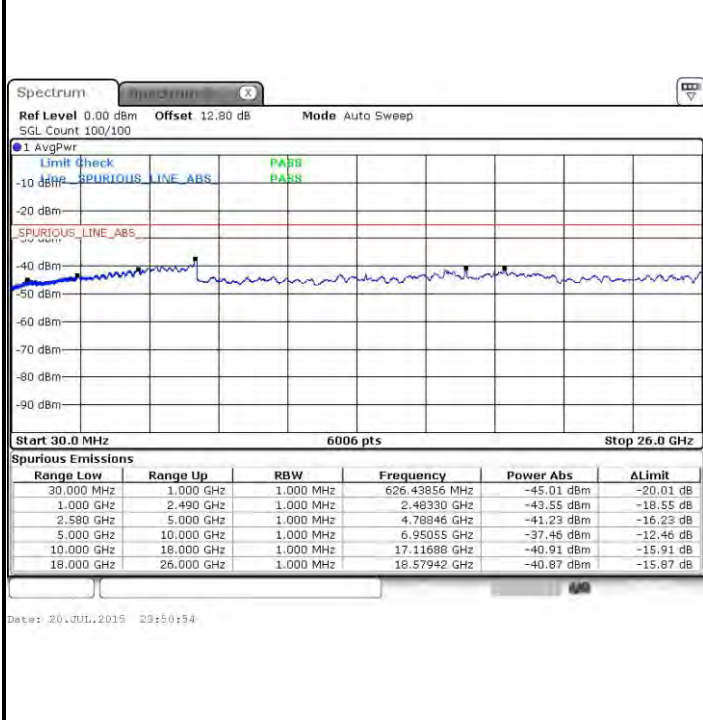


Highest Channel / 16QAM



LTE Band 7 / 20MHz

Lowest Channel / QPSK



Lowest Channel / 16QAM

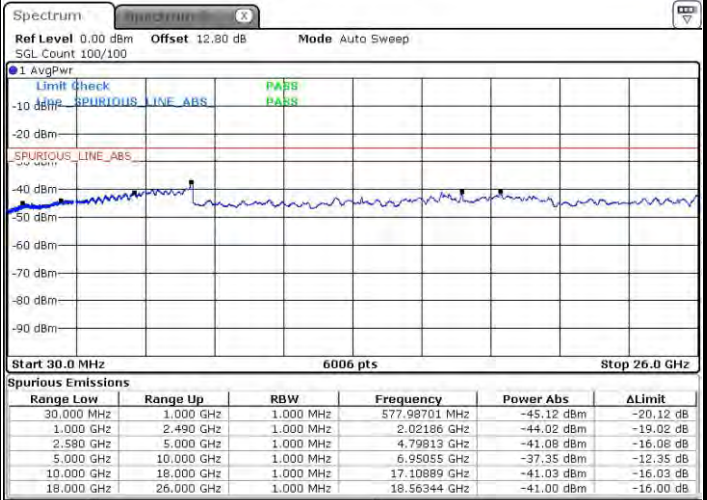




LTE Band 7 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

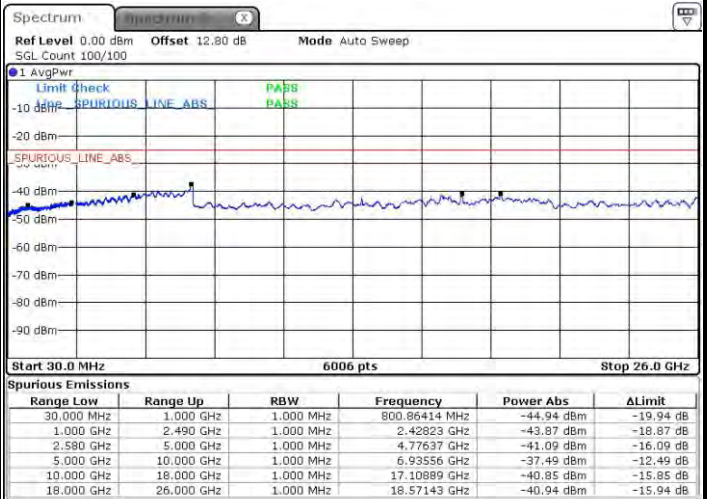
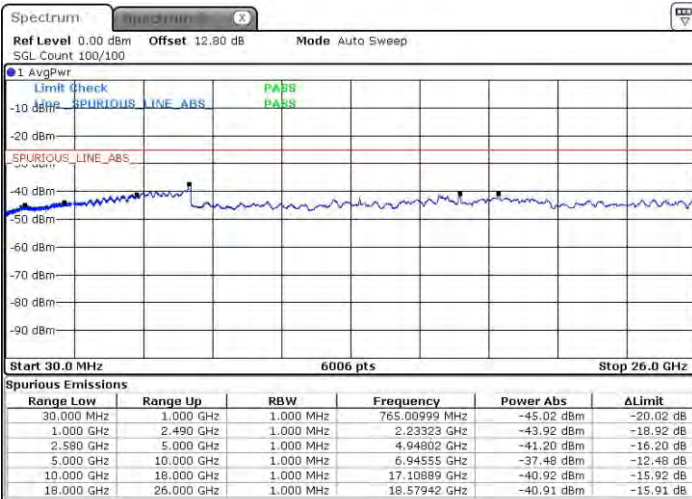


Date: 20.JUL.2015 23:53:33

Date: 20.JUL.2015 23:54:26

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 21.JUL.2015 00:00:47

Date: 21.JUL.2015 00:01:41



**Frequency Stability**

Test Conditions		LTE Band 7 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0024	PASS
40	Normal Voltage	0.0006	
30	Normal Voltage	0.0004	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0005	
0	Normal Voltage	0.0003	
-10	Normal Voltage	0.0006	
-20	Normal Voltage	0.0011	
-30	Normal Voltage	0.0014	
20	Maximum Voltage	0.0004	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0009	

**Note:**

1. Normal Voltage = 3.9V. ; Battery End Point (BEP) = 3.4 V. ; Maximum Voltage =4.35 V
2. Note: The frequency fundamental emissions stay within the authorized frequency block based on the frequency deviation measured is small.