



## LTE Band 7

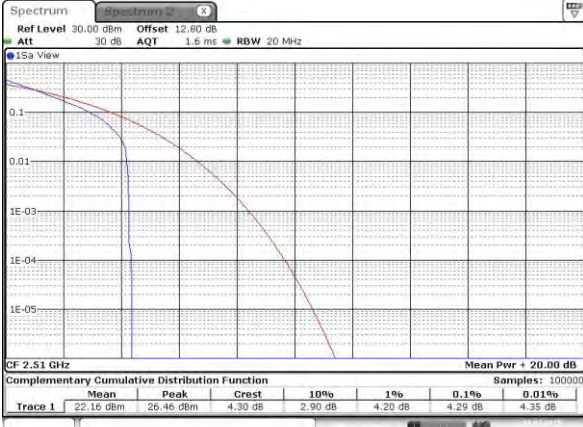
### Peak-to-Average Ratio

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	



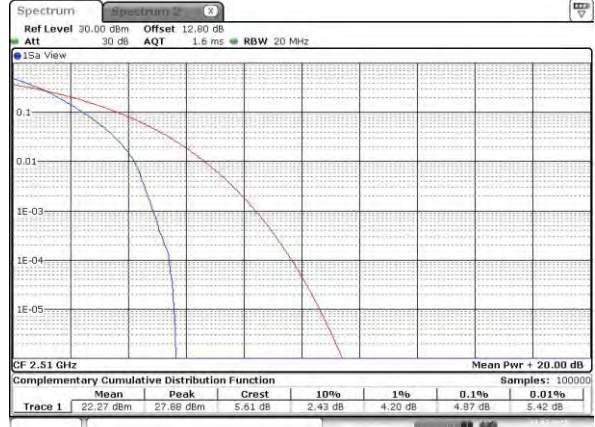
LTE Band 7 / 20MHz / QPSK

Lowest Channel / 1RB



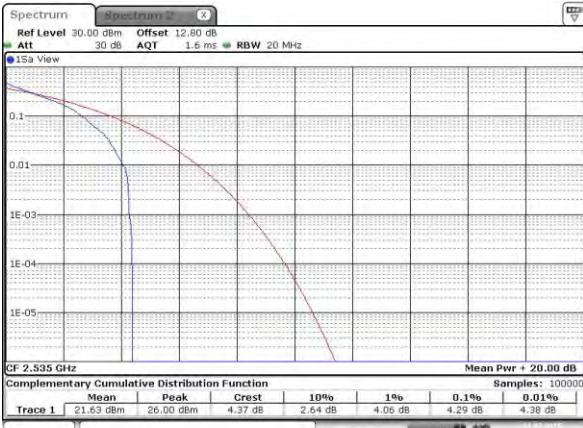
Date: 21\_JUL\_2015 00:04:00

Lowest Channel / Full RB



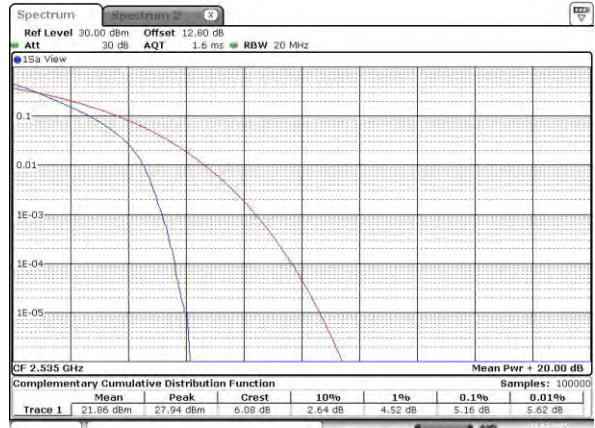
Date: 21\_JUL\_2015 00:04:18

Middle Channel / 1RB



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

Middle Channel / Full RB



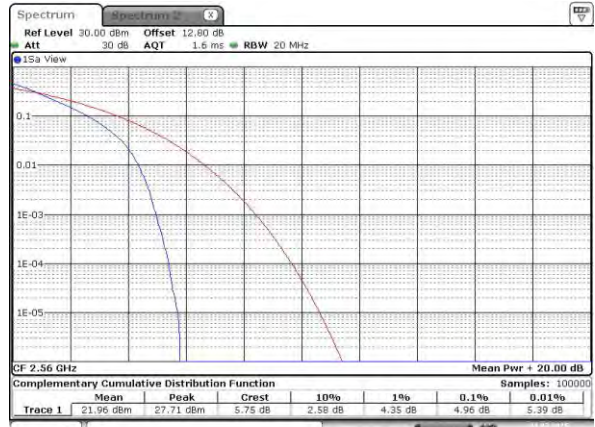
Date: 21\_JUL\_2015 00:04:41

Highest Channel / 1RB



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

Highest Channel / Full RB

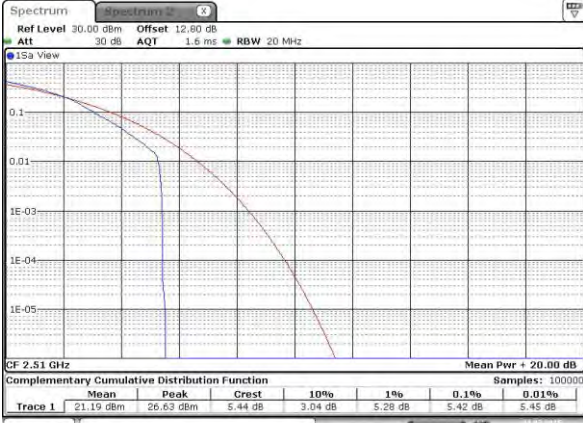


Date: 21\_JUL\_2015 00:05:04



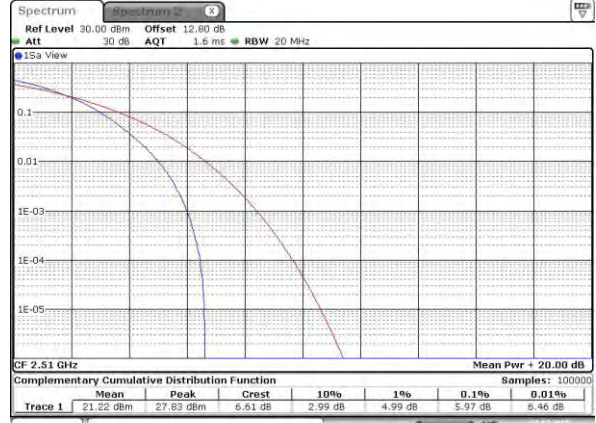
LTE Band 7 / 20MHz / 16QAM

Lowest Channel / 1RB



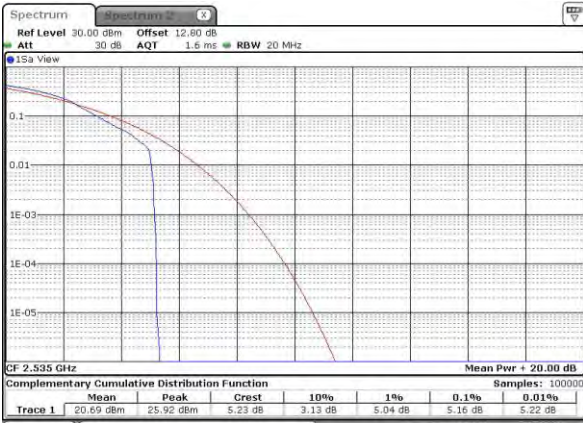
Date: 21\_JUL\_2015 00:02:50

Lowest Channel / Full RB



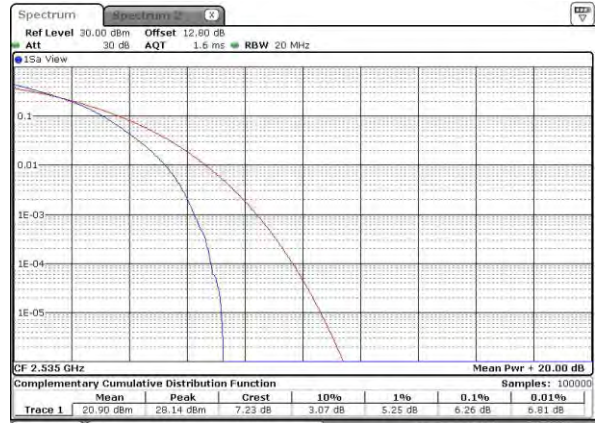
Date: 21\_JUL\_2015 00:03:02

Middle Channel / 1RB



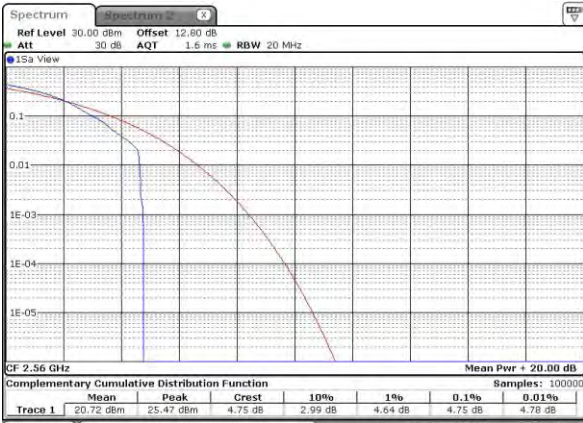
Date: 21\_JUL\_2015 00:03:13

Middle Channel / Full RB



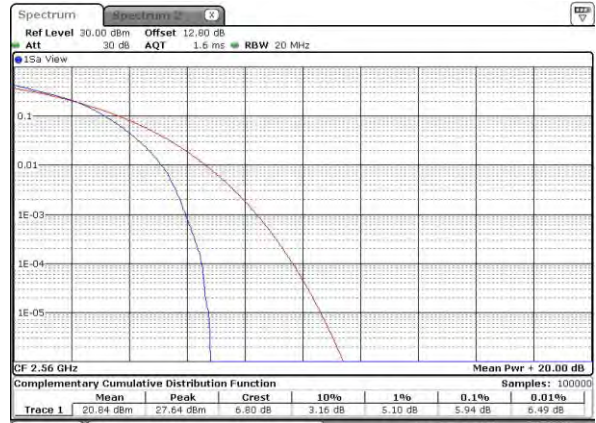
Date: 21\_JUL\_2015 00:03:25

Highest Channel / 1RB



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

Highest Channel / Full RB



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



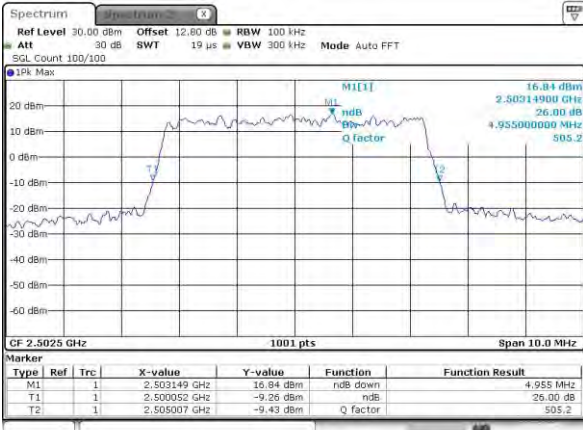
**26dB Bandwidth**

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



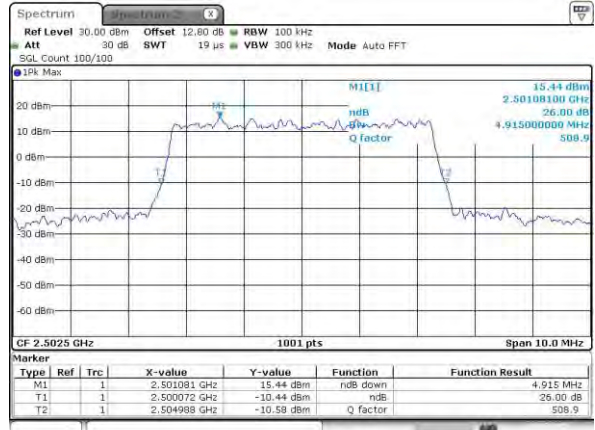
LTE Band 7

Lowest Channel / 5MHz / QPSK



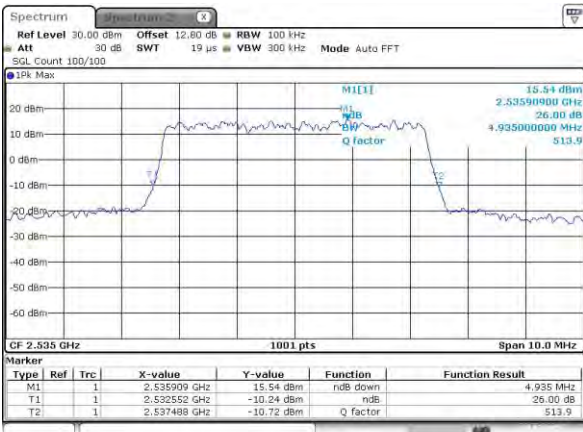
Date: 20-Jul-2018 23:15:14

Lowest Channel / 5MHz / 16QAM



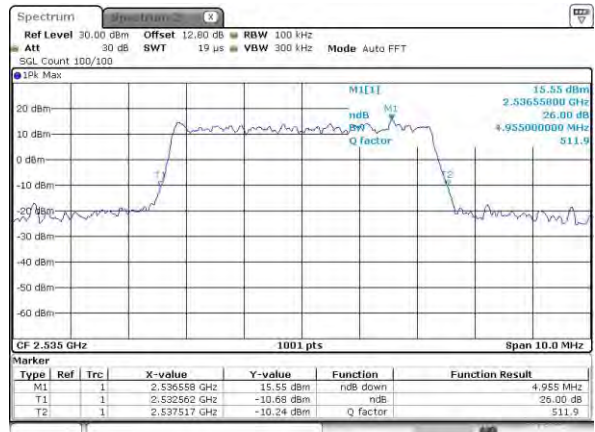
Date: 20-Jul-2018 23:15:55

Middle Channel / 5MHz / QPSK



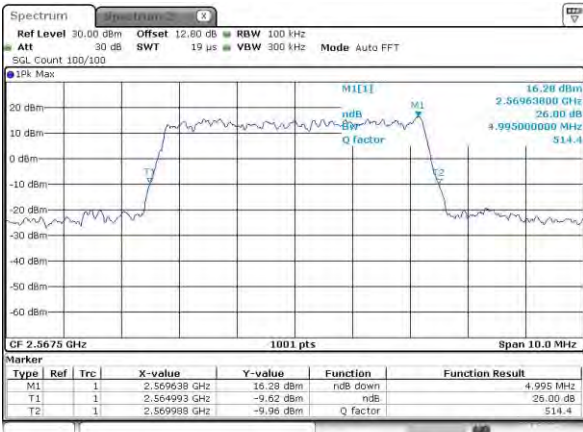
Date: 20-Jul-2018 23:18:59

Middle Channel / 5MHz / 16QAM



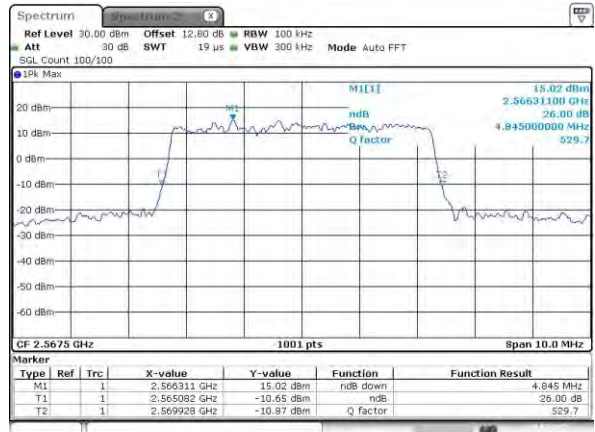
Date: 20-Jul-2018 23:19:10

Highest Channel / 5MHz / QPSK



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

Highest Channel / 5MHz / 16QAM

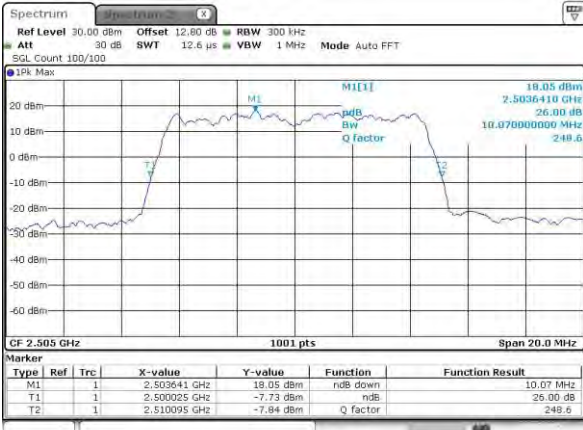


Date: 20-Jul-2018 23:19:47



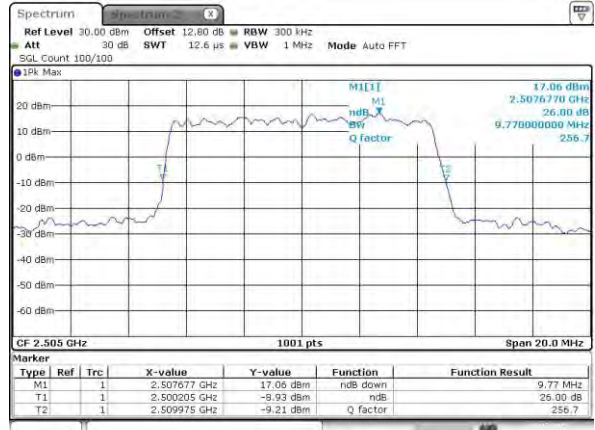
LTE Band 7

Lowest Channel / 10MHz / QPSK



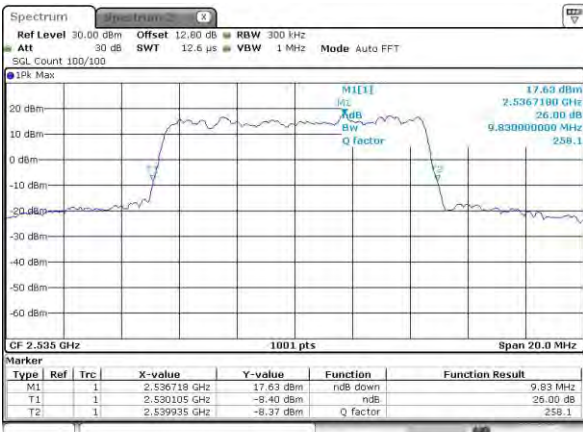
Date: 20-Jul-2018 23:11:51

Lowest Channel / 10MHz / 16QAM



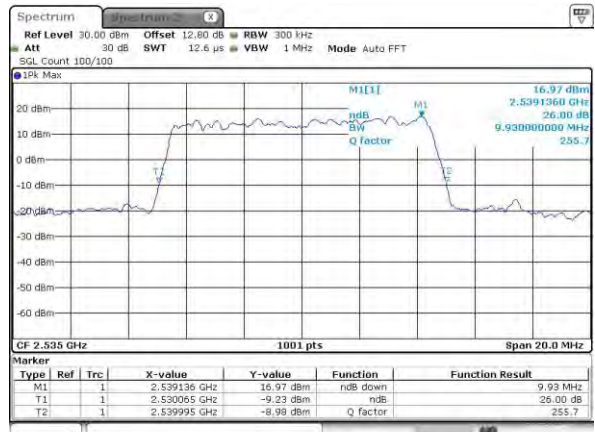
Date: 20-Jul-2018 23:11:53

Middle Channel / 10MHz / QPSK



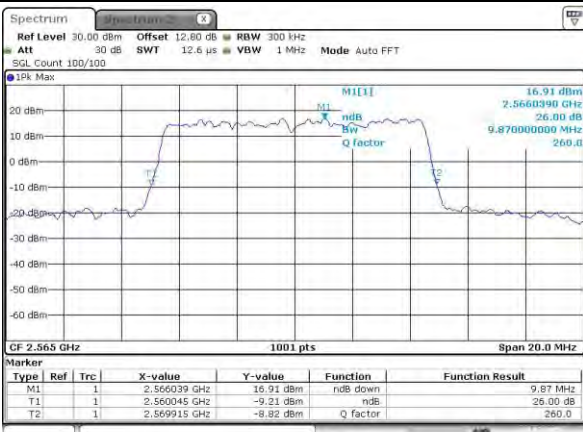
Date: 20-Jul-2018 23:18:07

Middle Channel / 10MHz / 16QAM



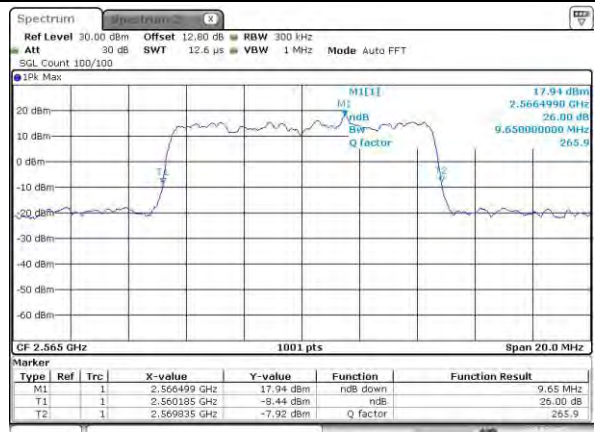
Date: 20-Jul-2018 23:18:19

Highest Channel / 10MHz / QPSK



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

Highest Channel / 10MHz / 16QAM

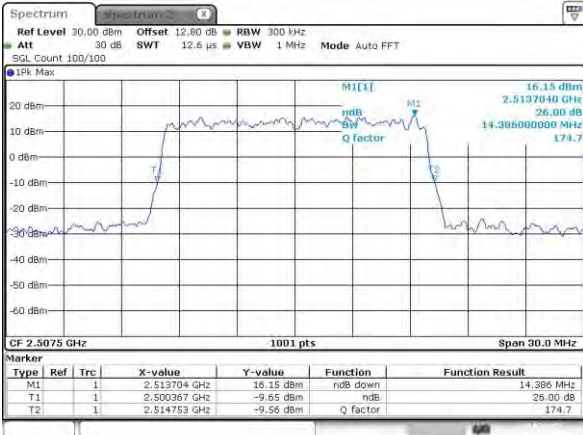


Date: 20-Jul-2018 23:20:55



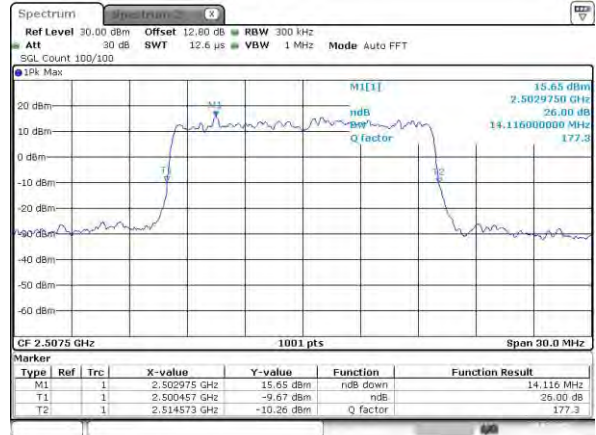
LTE Band 7

Lowest Channel / 15MHz / QPSK



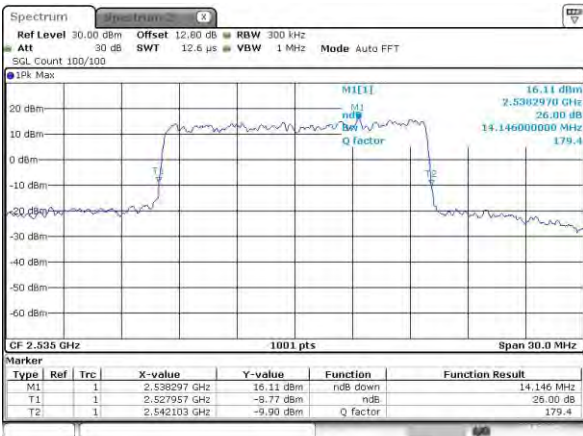
Date: 20-Jul-2018 23:28:10

Lowest Channel / 15MHz / 16QAM



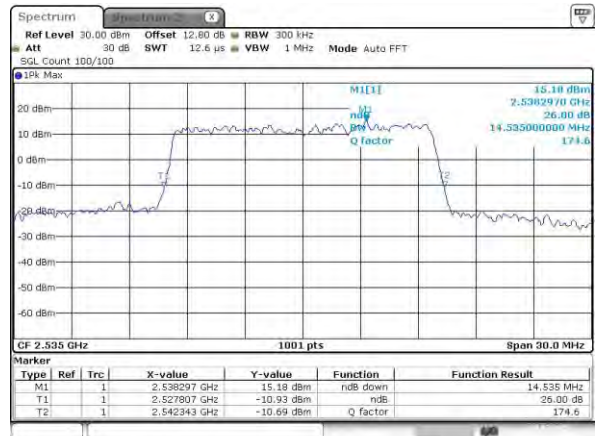
Date: 20-Jul-2018 23:28:11

Middle Channel / 15MHz / QPSK



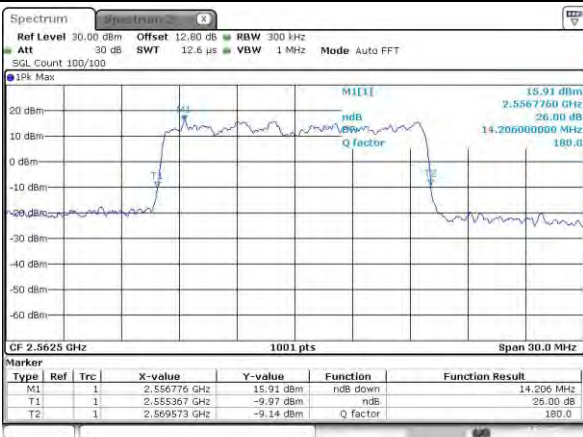
Date: 20-Jul-2018 23:35:16

Middle Channel / 15MHz / 16QAM



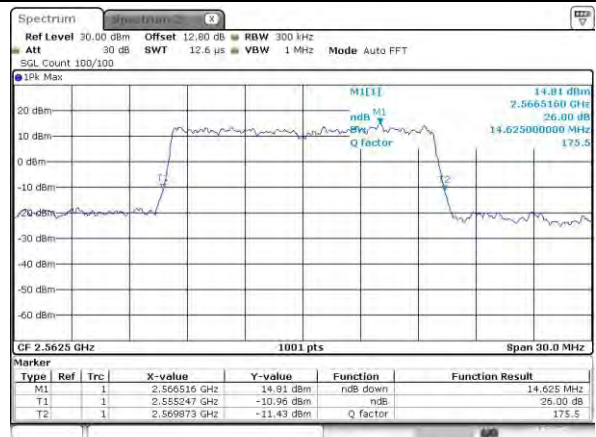
Date: 20-Jul-2018 23:35:17

Highest Channel / 15MHz / QPSK



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

Highest Channel / 15MHz / 16QAM

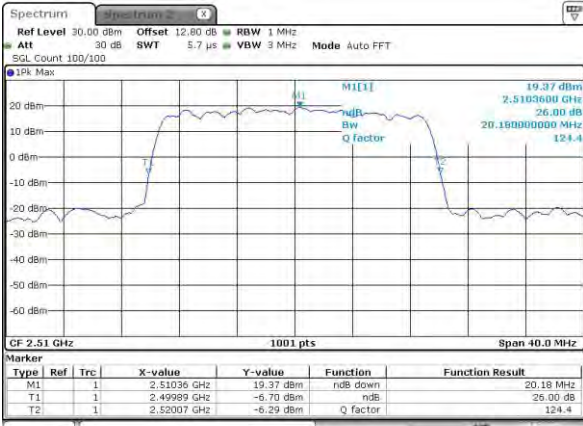


Date: 20-Jul-2018 23:38:08



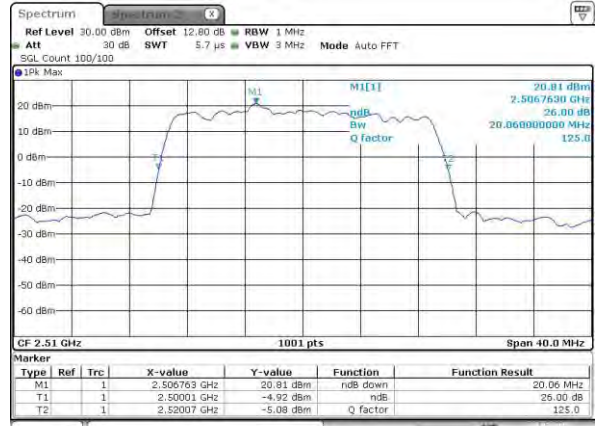
LTE Band 7

Lowest Channel / 20MHz / QPSK



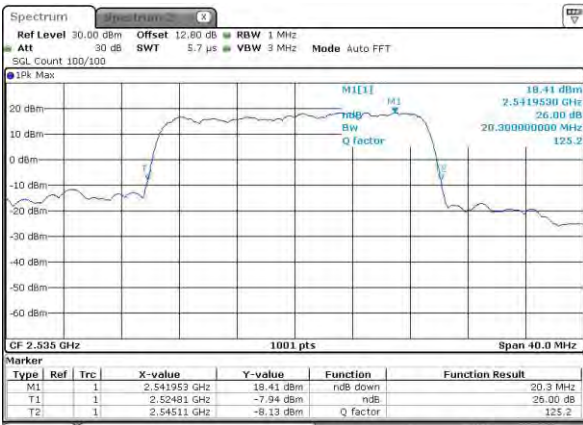
Date: 20-Jul-2018 23:45:09

Lowest Channel / 20MHz / 16QAM



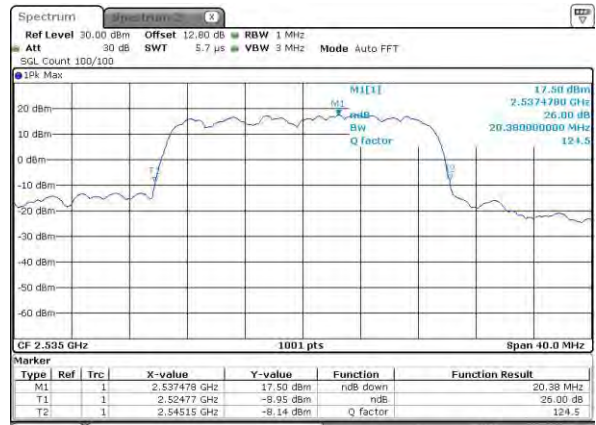
Date: 20-Jul-2018 23:45:10

Middle Channel / 20MHz / QPSK



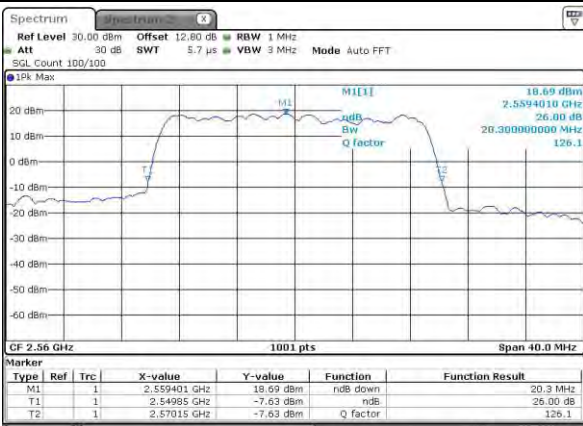
Date: 20-Jul-2018 23:52:05

Middle Channel / 20MHz / 16QAM



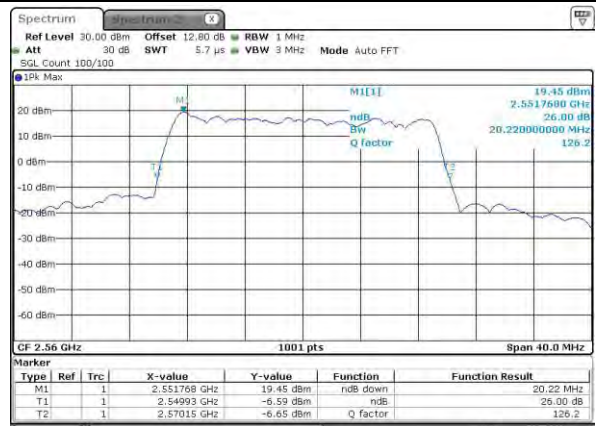
Date: 20-Jul-2018 23:52:06

Highest Channel / 20MHz / QPSK



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

Highest Channel / 20MHz / 16QAM



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





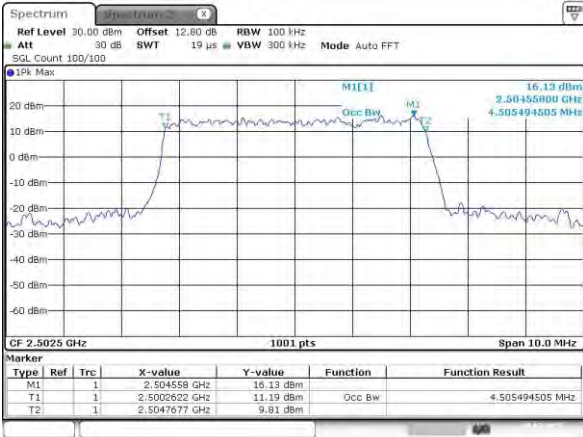
### Occupied Bandwidth

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
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

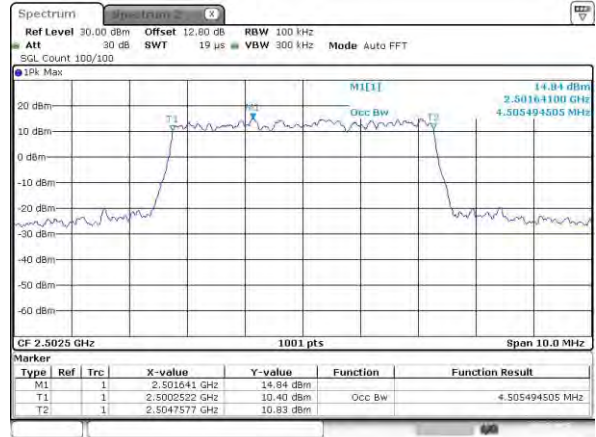


LTE Band 7

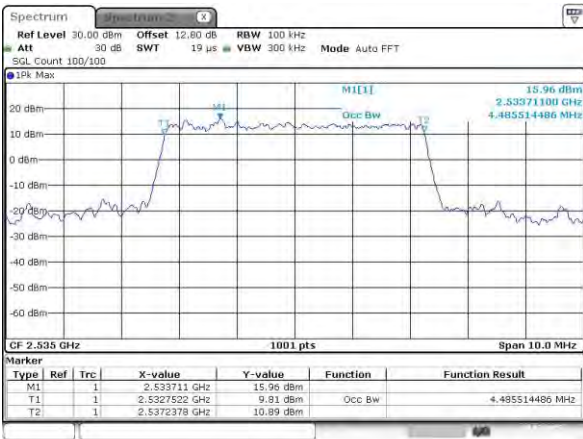
Lowest Channel / 5MHz / QPSK



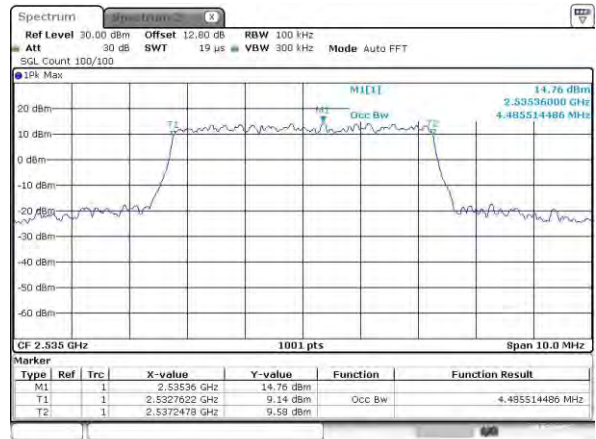
Lowest Channel / 5MHz / 16QAM



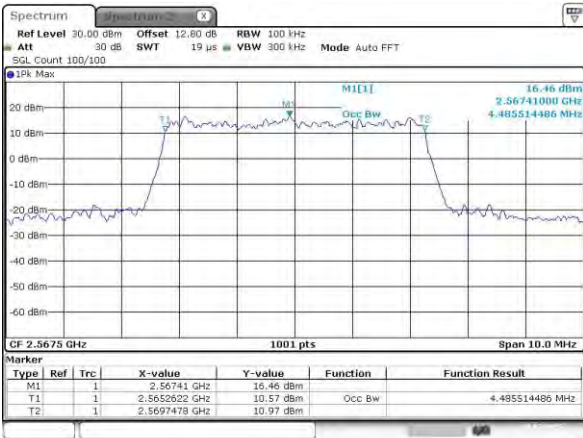
Middle Channel / 5MHz / QPSK



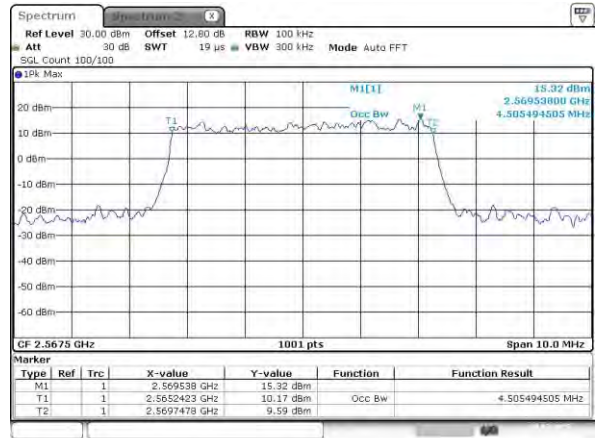
Middle Channel / 5MHz / 16QAM



Highest Channel / 5MHz / QPSK



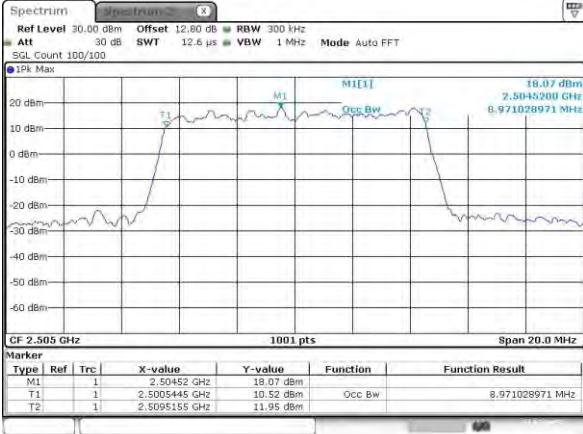
Highest Channel / 5MHz / 16QAM





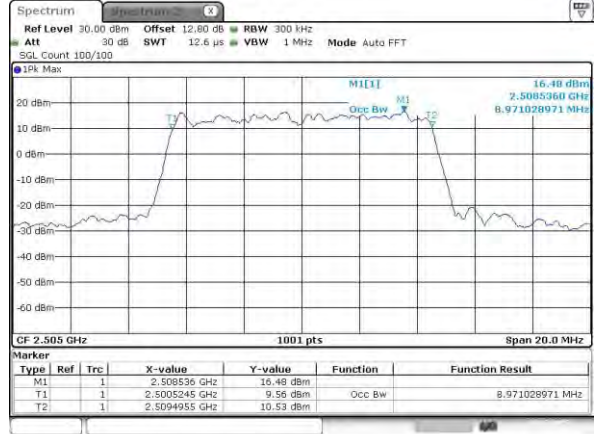
LTE Band 7

Lowest Channel / 10MHz / QPSK



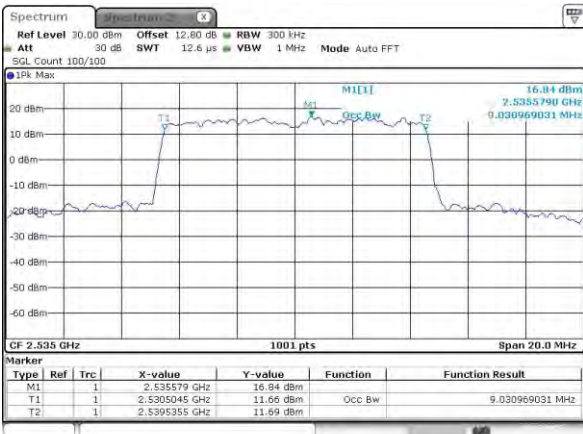
Date: 21.JUL.2018 00:06:24

Lowest Channel / 10MHz / 16QAM



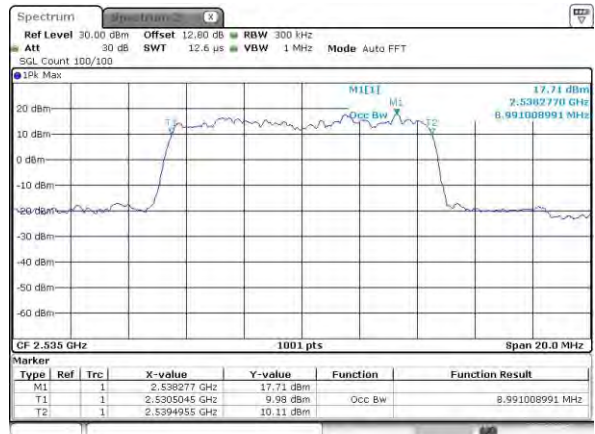
Date: 20.JUL.2018 23:11:40

Middle Channel / 10MHz / QPSK



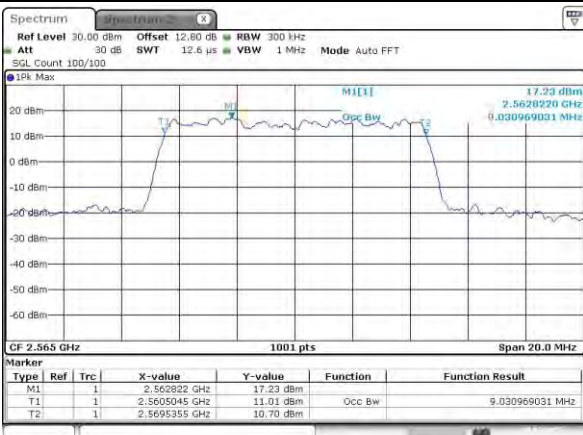
Date: 20.JUL.2018 23:17:44

Middle Channel / 10MHz / 16QAM



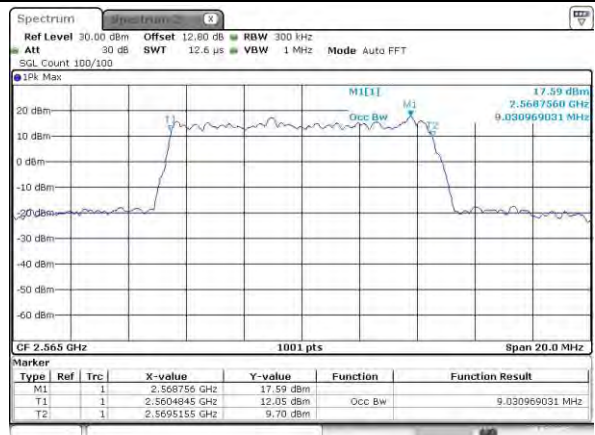
Date: 20.JUL.2018 23:17:55

Highest Channel / 10MHz / QPSK



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

Highest Channel / 10MHz / 16QAM

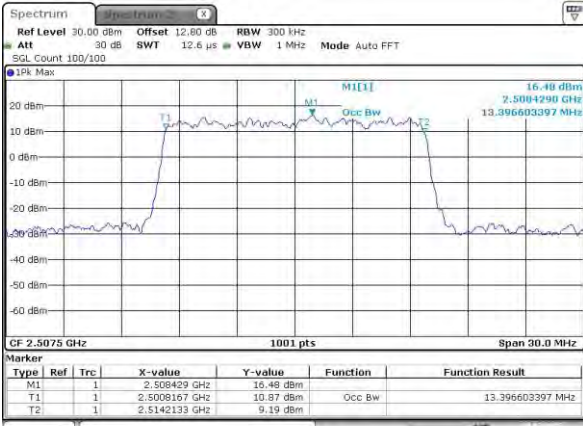


Date: 20.JUL.2018 23:20:32



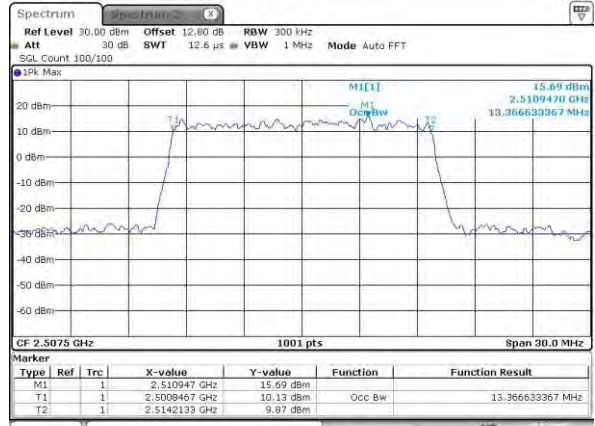
LTE Band 7

Lowest Channel / 15MHz / QPSK



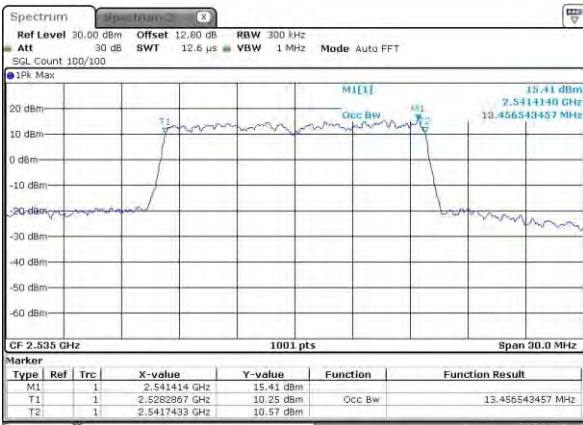
Date: 20-Jul-2018 23:27:36

Lowest Channel / 15MHz / 16QAM



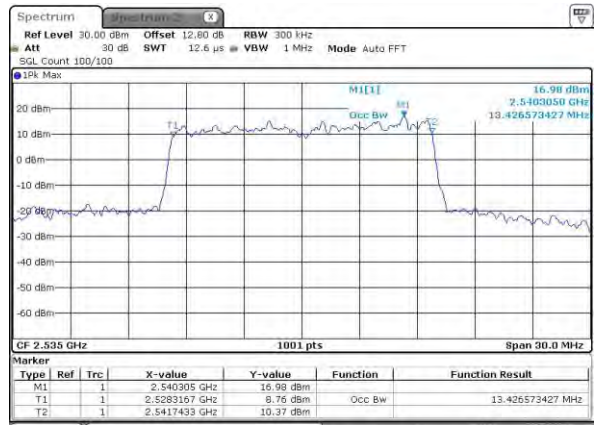
Date: 20-Jul-2018 23:27:48

Middle Channel / 15MHz / QPSK



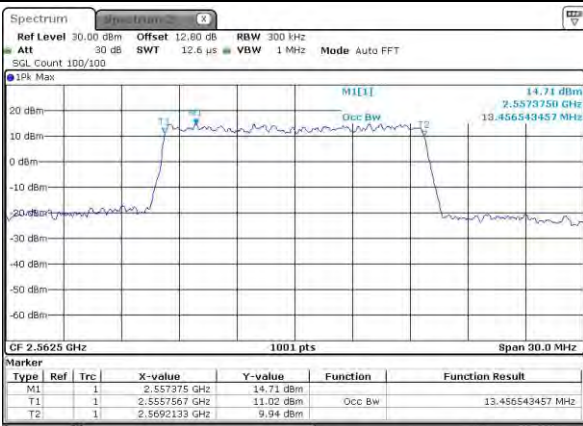
Date: 20-Jul-2018 23:34:02

Middle Channel / 15MHz / 16QAM



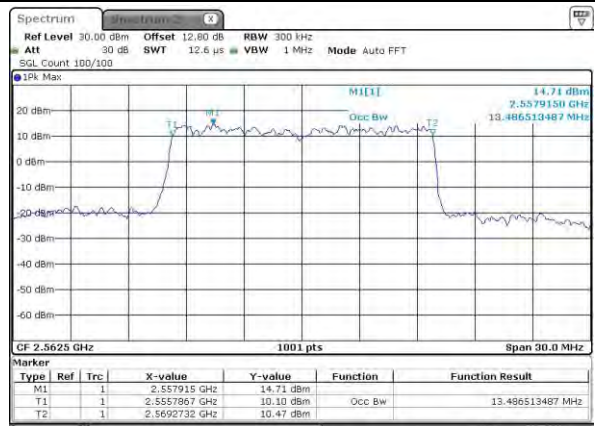
Date: 20-Jul-2018 23:35:08

Highest Channel / 15MHz / QPSK



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

Highest Channel / 15MHz / 16QAM

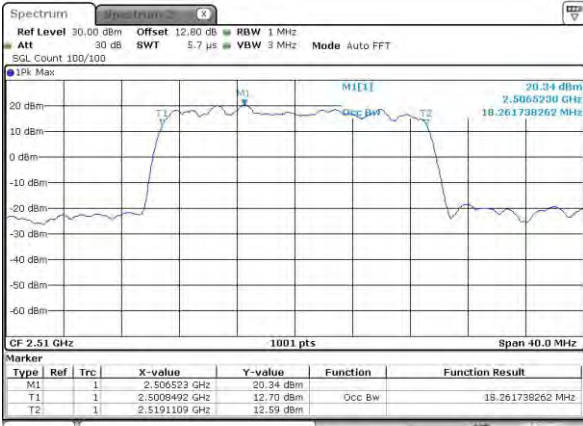


Date: 20-Jul-2018 23:37:40



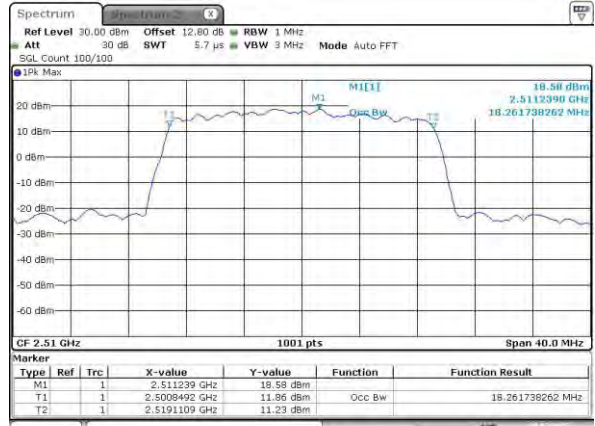
LTE Band 7

Lowest Channel / 20MHz / QPSK



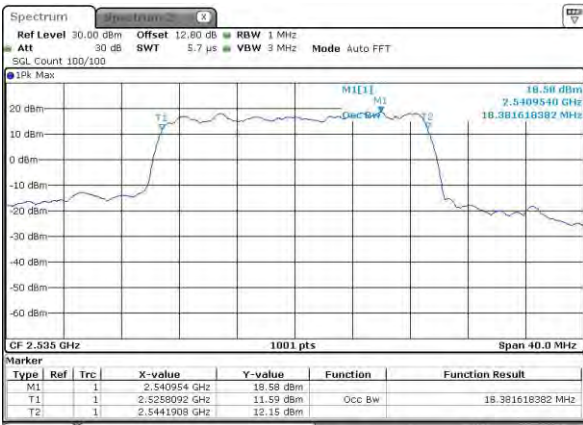
Date: 20/05/2019 23:44:45

Lowest Channel / 20MHz / 16QAM



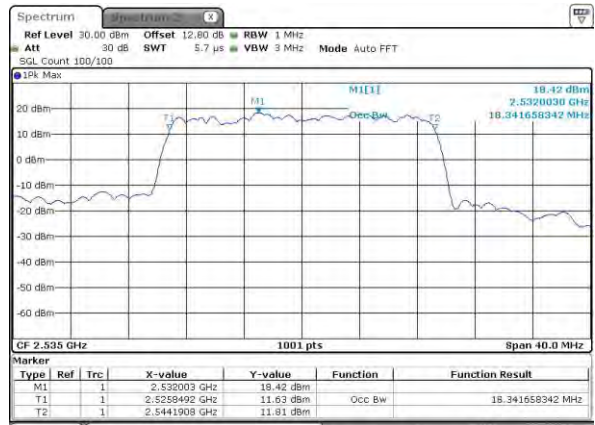
Date: 20/05/2019 23:44:57

Middle Channel / 20MHz / QPSK



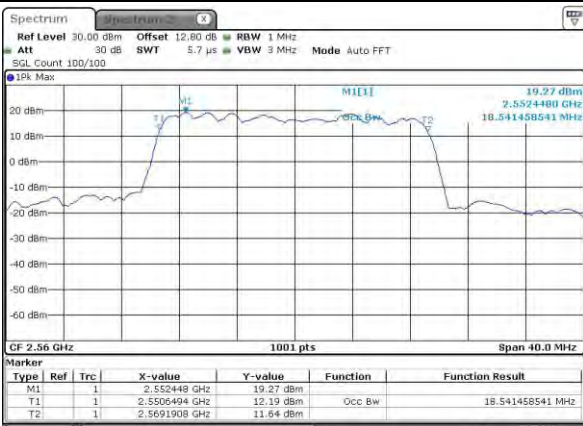
Date: 20/05/2019 23:52:01

Middle Channel / 20MHz / 16QAM



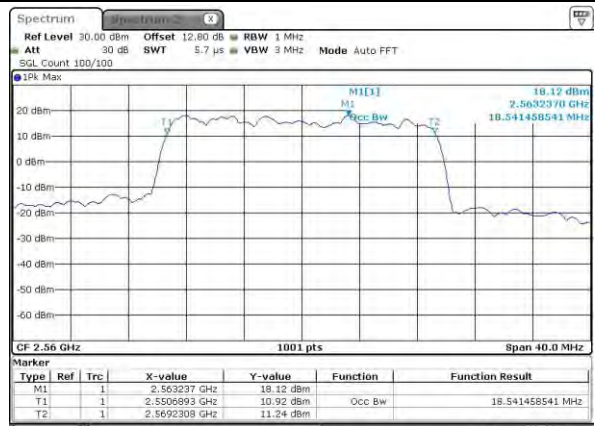
Date: 20/05/2019 23:52:13

Highest Channel / 20MHz / QPSK



Date: 20/05/2019 23:54:37

Highest Channel / 20MHz / 16QAM



Date: 20/05/2019 23:54:49

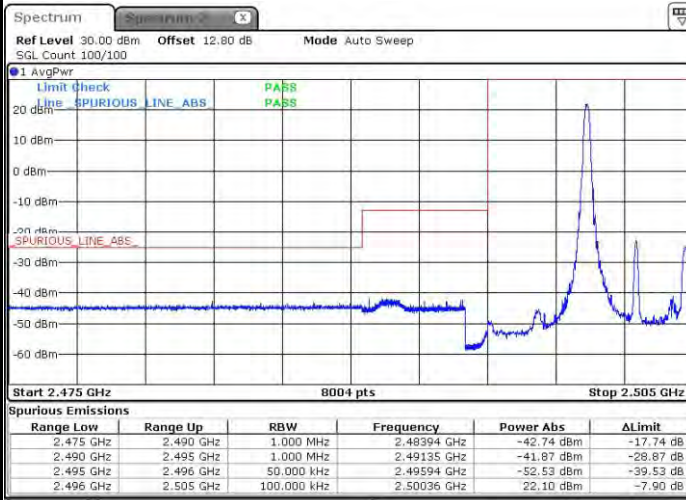


**Conducted Band Edge**

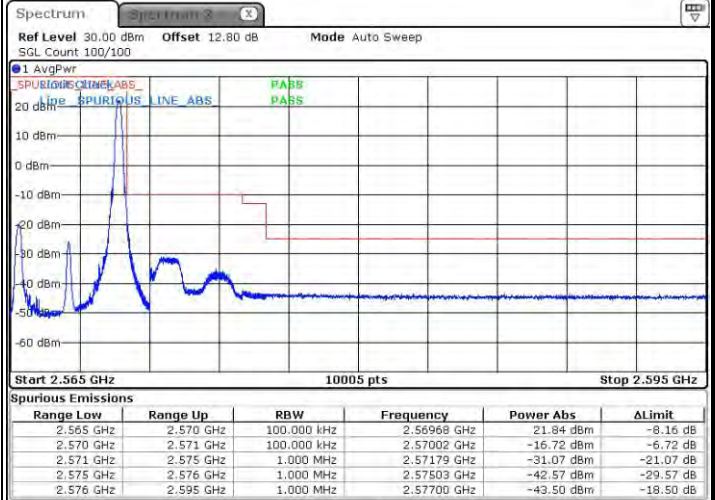


LTE Band 7 / 5MHz / QPSK

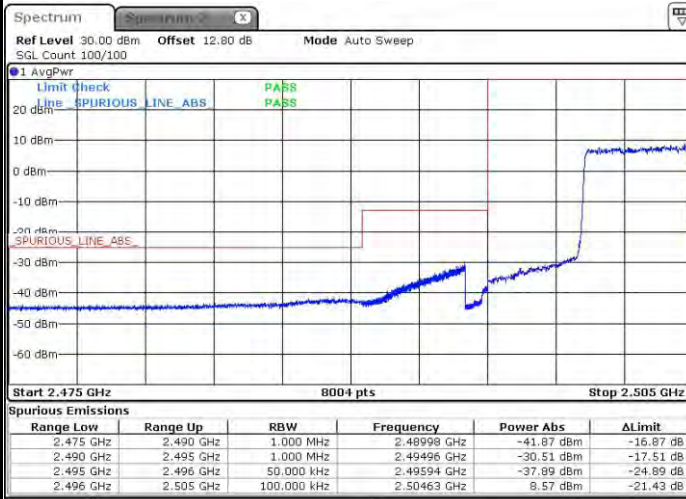
Lowest Band Edge / 1 RB



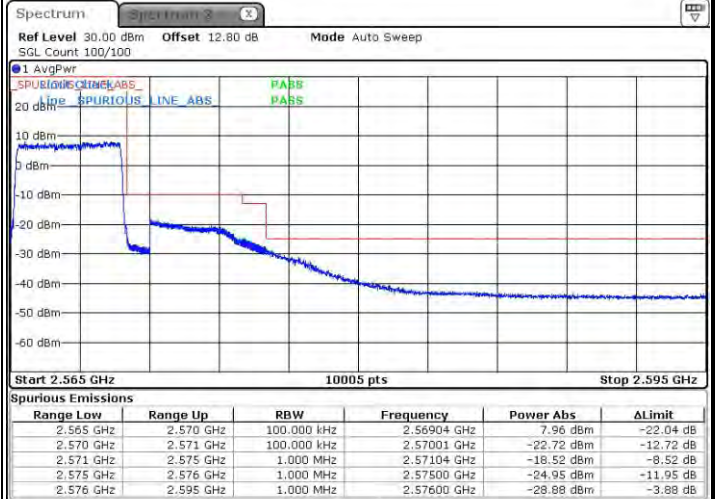
Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



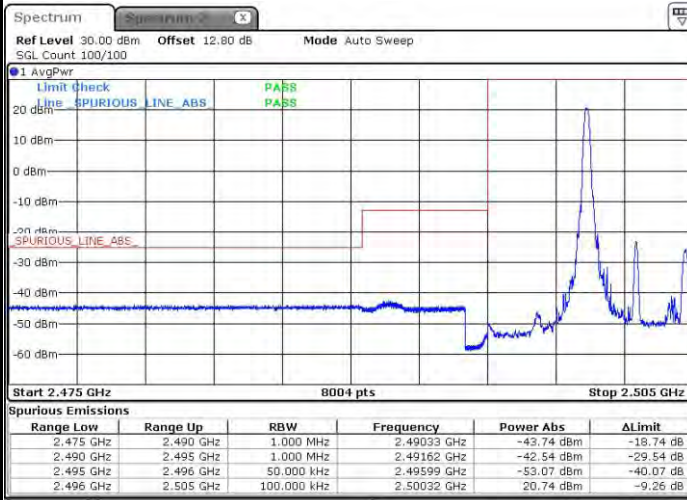
Highest Band Edge / Full RB



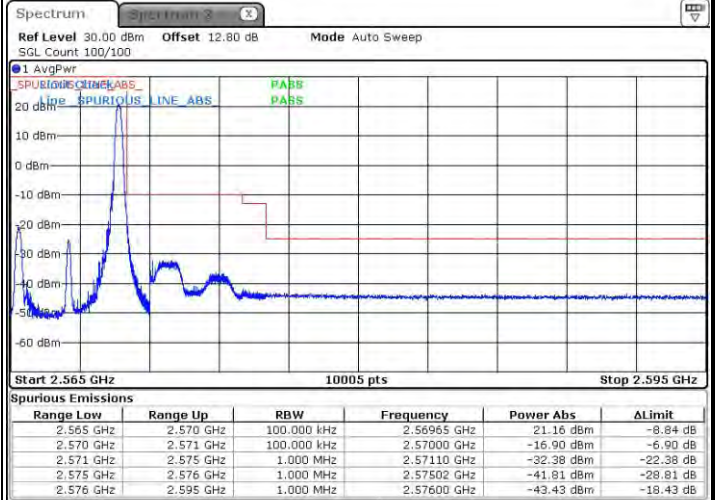


LTE Band 7 / 5MHz / 16QAM

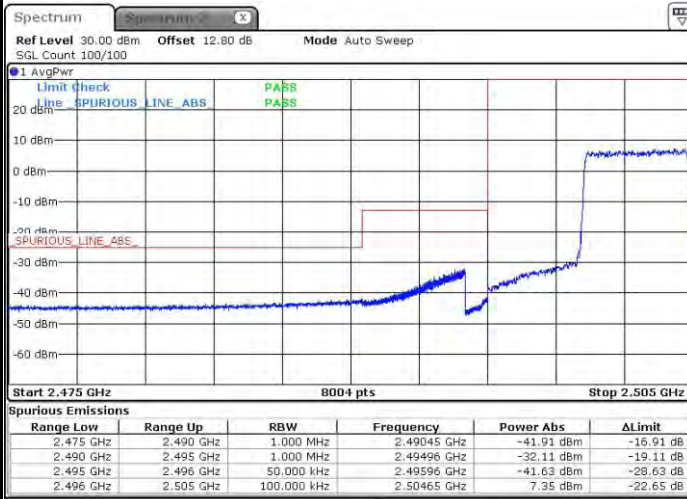
Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB

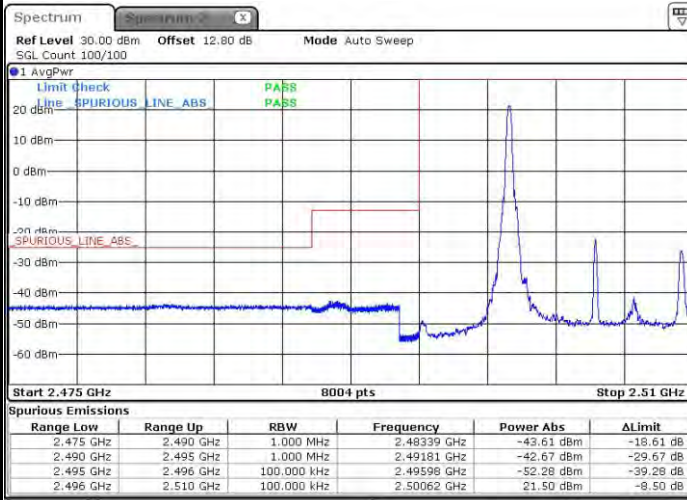






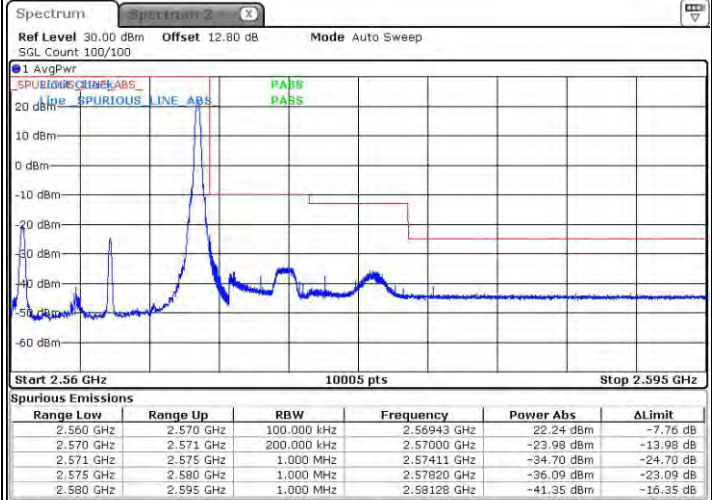
LTE Band 7 / 10MHz / QPSK

Lowest Band Edge / 1 RB



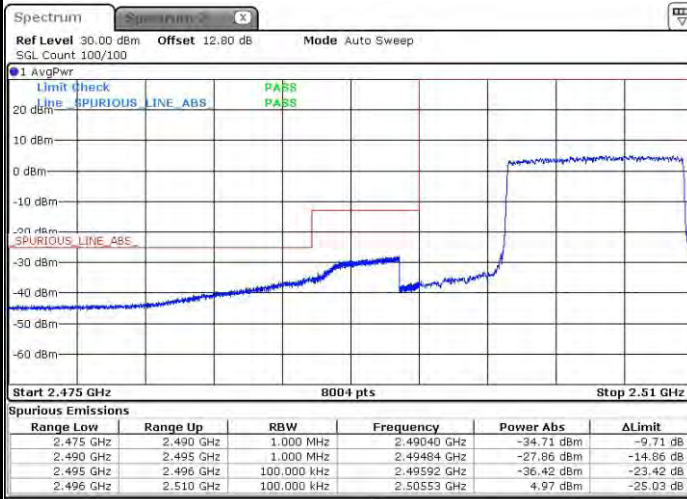
Date: 20.JUL.2015 23:12:13

Highest Band Edge / 1 RB



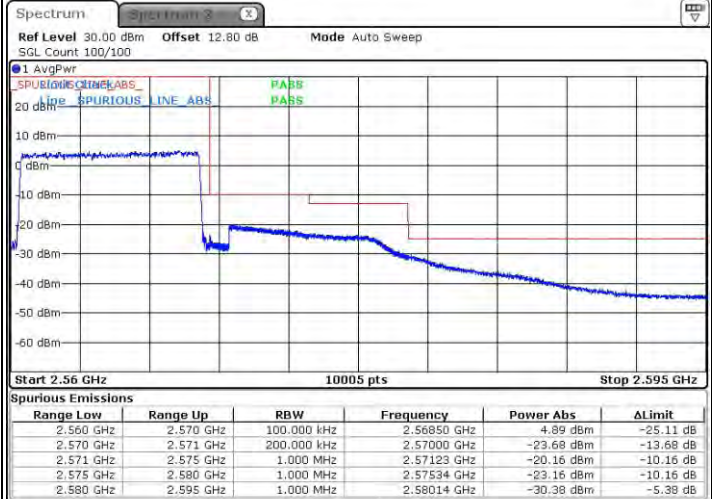
Date: 20.JUL.2015 23:22:05

Lowest Band Edge / Full RB



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

Highest Band Edge / Full RB

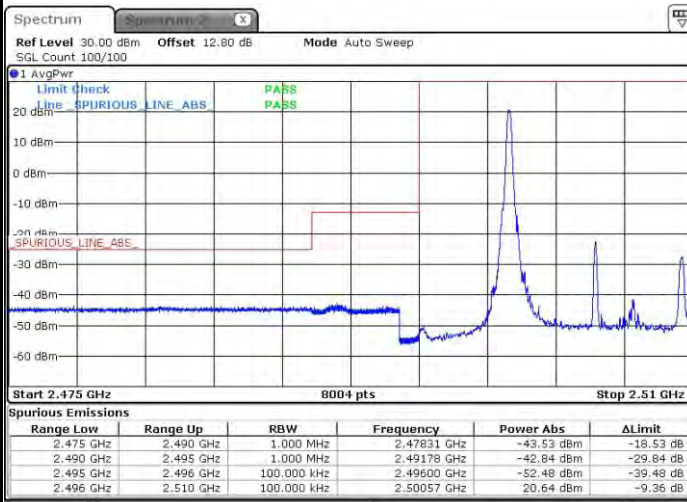


Date: 20.JUL.2015 23:24:25



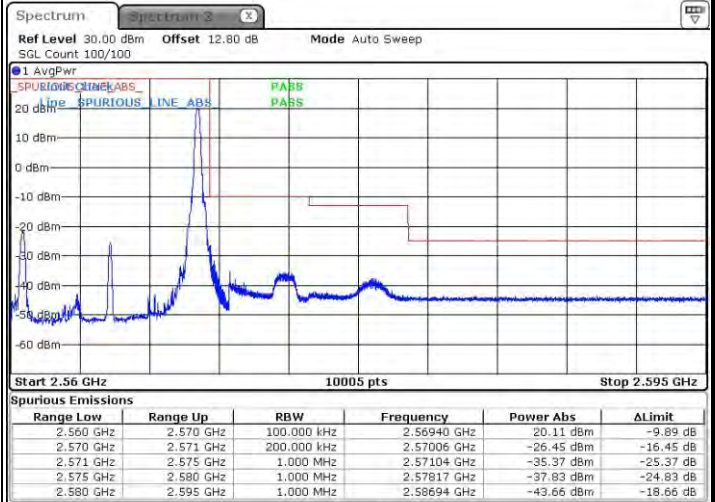
LTE Band 7 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



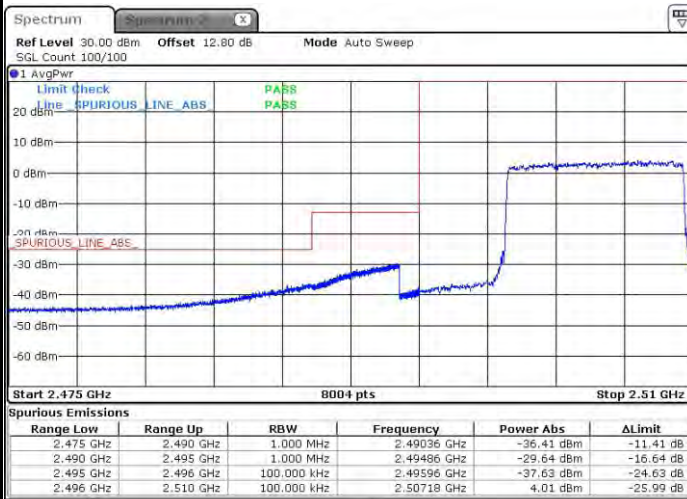
Date: 20.JUL.2015 23:13:23

Highest Band Edge / 1 RB



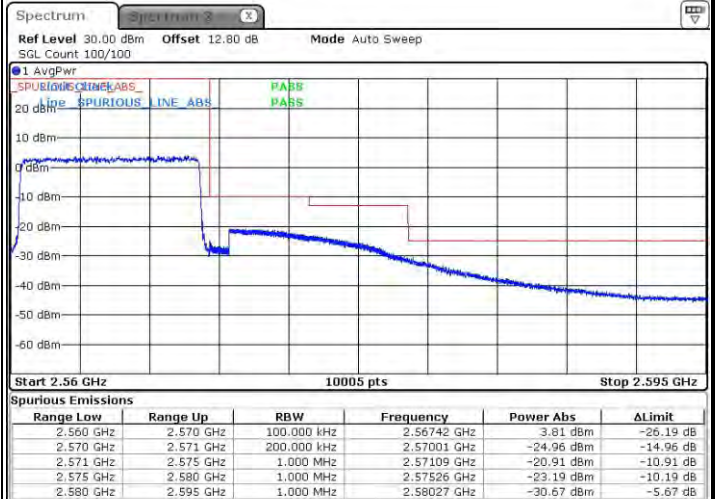
Date: 20.JUL.2015 23:23:15

Lowest Band Edge / Full RB



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

Highest Band Edge / Full RB

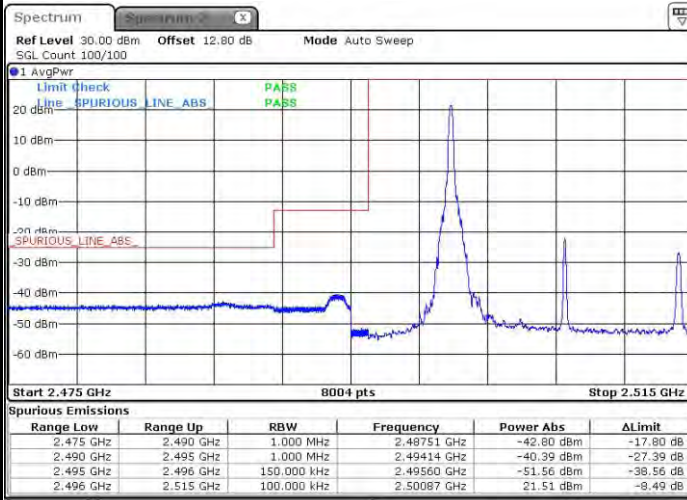


Date: 20.JUL.2015 23:25:35



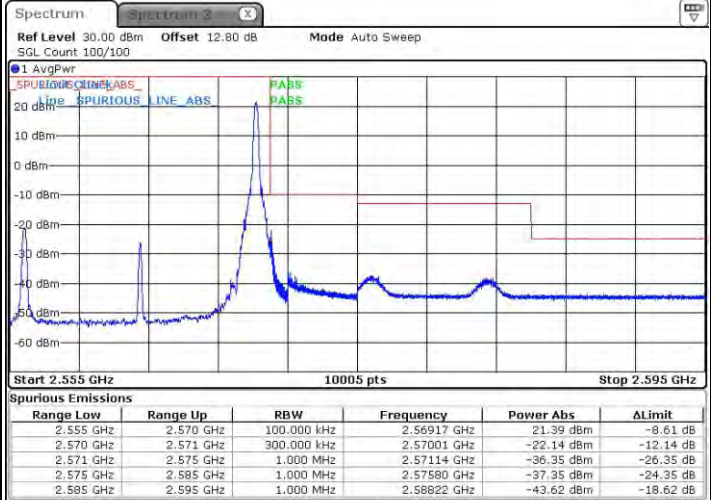
LTE Band 7 / 15MHz / QPSK

Lowest Band Edge / 1 RB



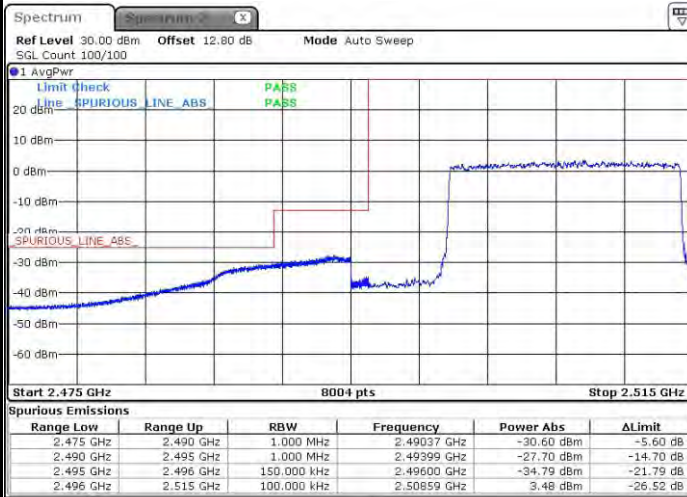
Date: 20.JUL.2015 23:29:21

Highest Band Edge / 1 RB



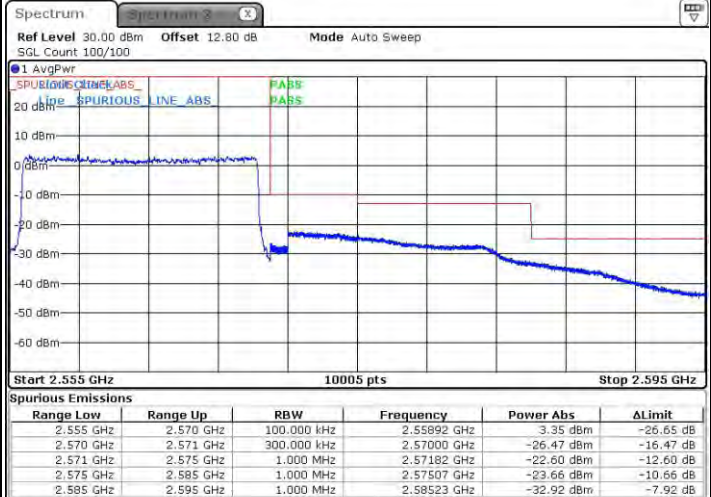
Date: 20.JUL.2015 23:39:14

Lowest Band Edge / Full RB



Date: 20.JUL.2015 23:31:41

Highest Band Edge / Full RB

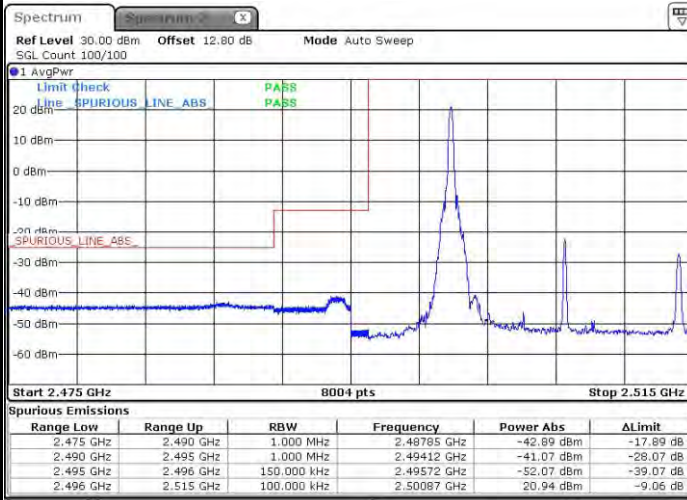


Date: 20.JUL.2015 23:41:34



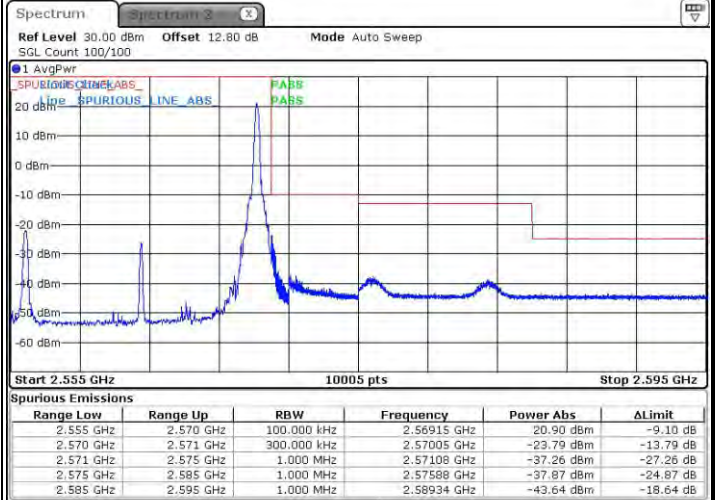
LTE Band 7 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



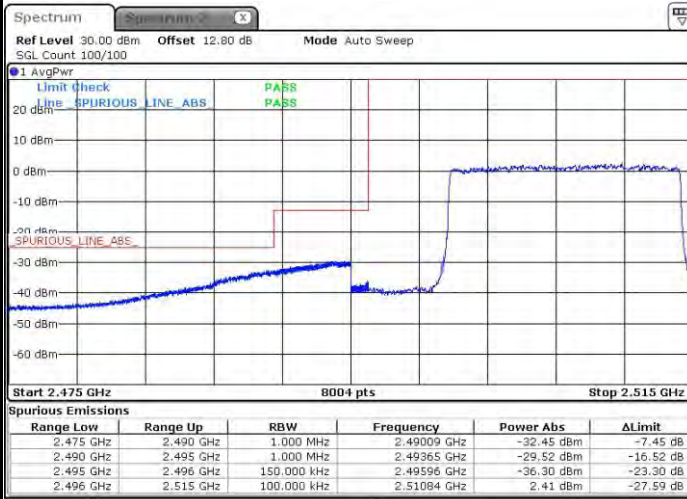
Date: 20.JUL.2015 23:30:31

Highest Band Edge / 1 RB



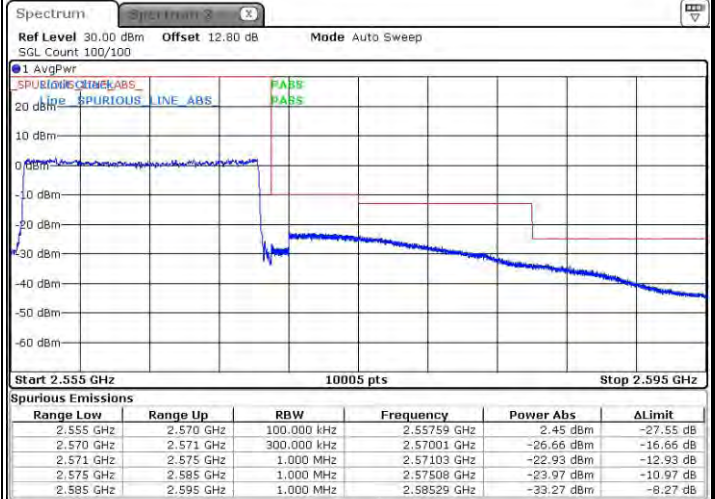
Date: 20.JUL.2015 23:40:24

Lowest Band Edge / Full RB



Date: 20.JUL.2015 23:32:51

Highest Band Edge / Full RB

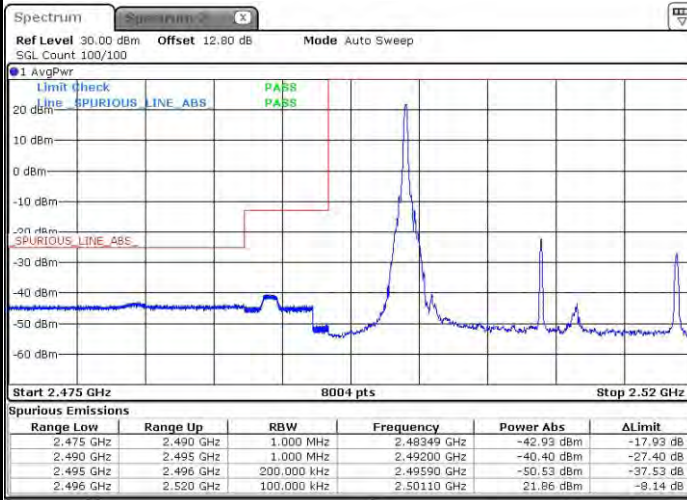


Date: 20.JUL.2015 23:42:44



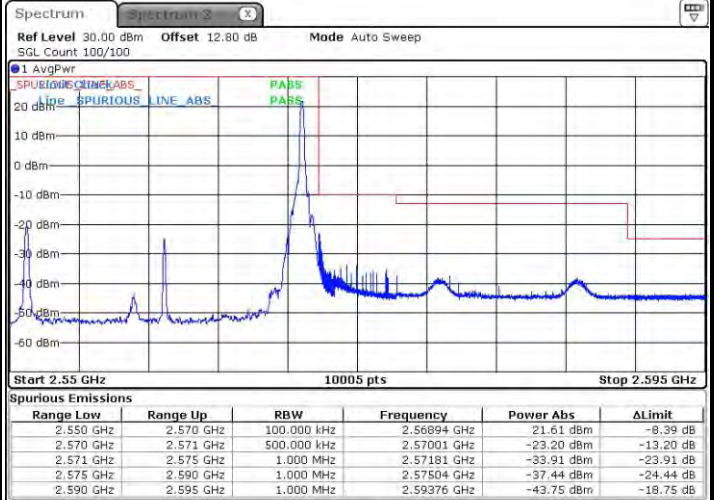
LTE Band 7 / 20MHz / QPSK

Lowest Band Edge / 1 RB



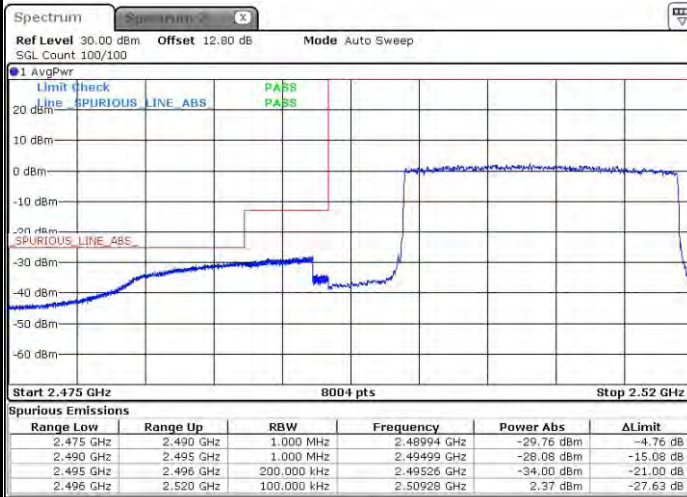
Date: 20 JUL 2015 23:46:30

Highest Band Edge / 1 RB



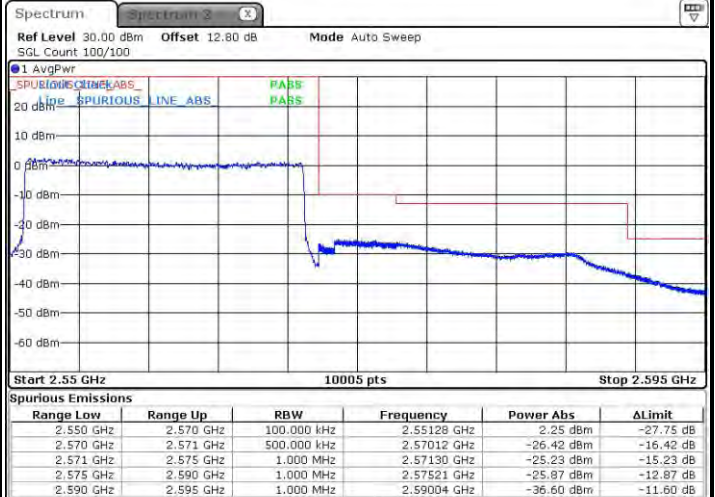
Date: 20 JUL 2015 23:56:22

Lowest Band Edge / Full RB



Date: 20 JUL 2015 23:48:50

Highest Band Edge / Full RB

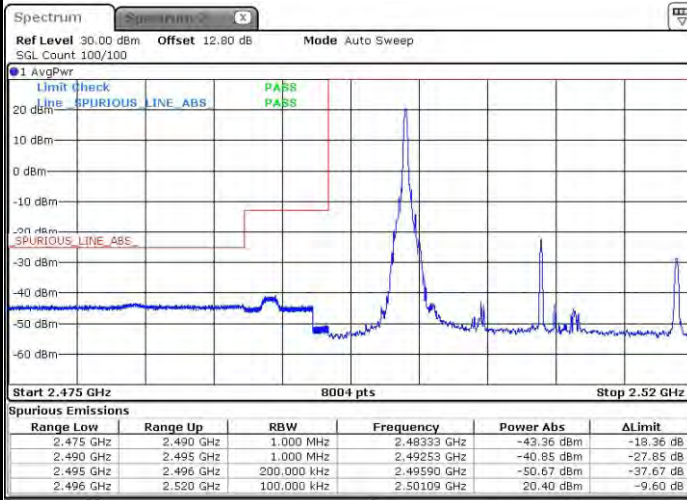


Date: 20 JUL 2015 23:59:52



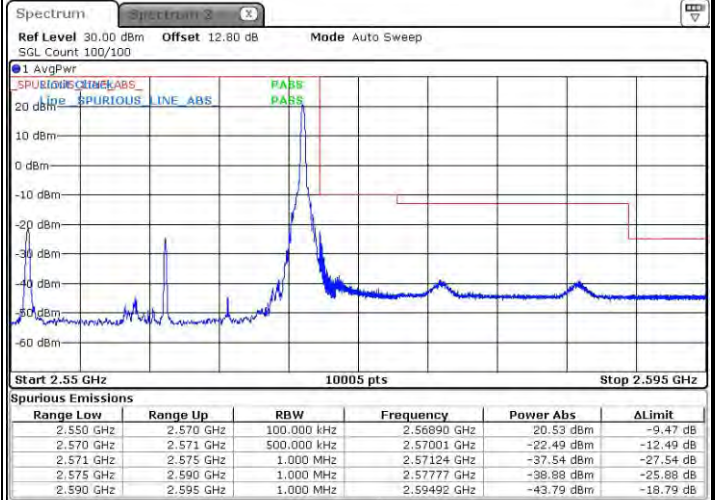
LTE Band 7 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



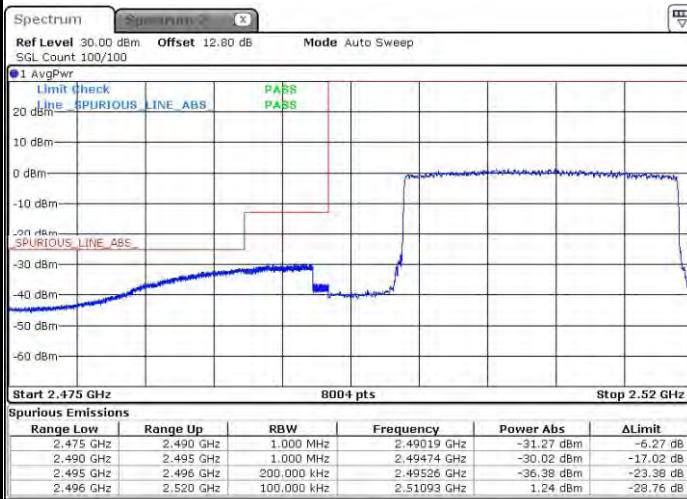
Date: 20 JUL 2015 23:47:40

Highest Band Edge / 1RB



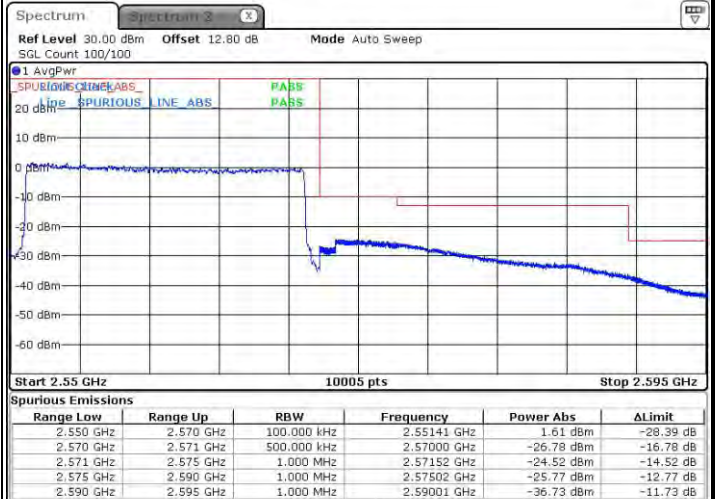
Date: 20 JUL 2015 23:57:32

Lowest Band Edge / Full RB



Date: 20 JUL 2015 23:50:00

Highest Band Edge / Full RB



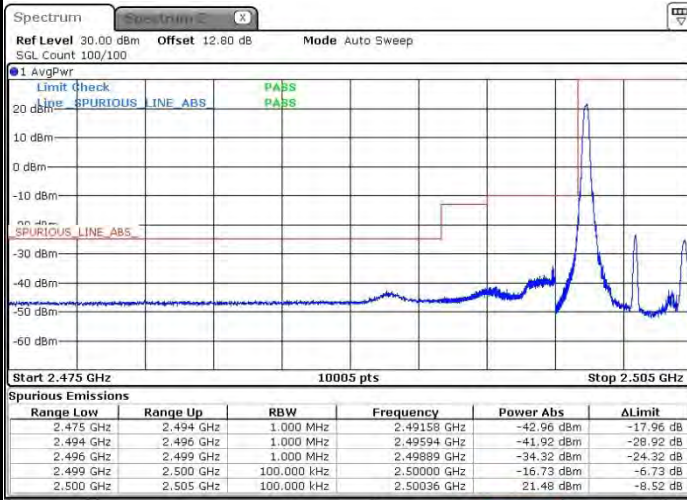
Date: 20 JUL 2015 23:58:42



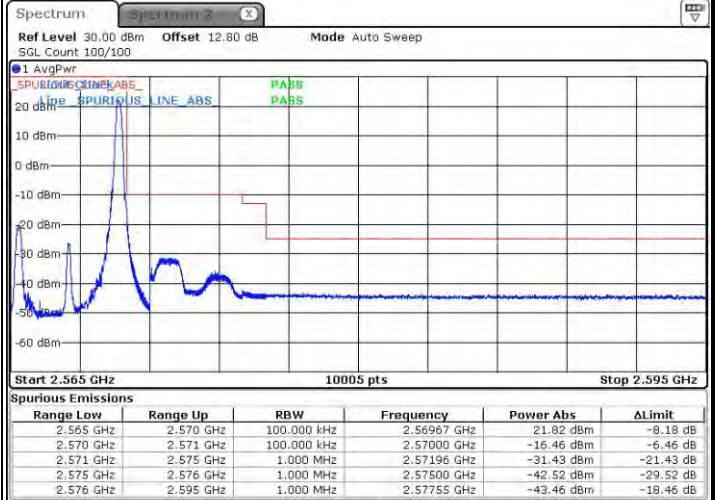
LTE Band 7 / 5MHz / QPSK (IC)

Lowest Band Edge / 1 RB

Highest Band Edge / 1 RB



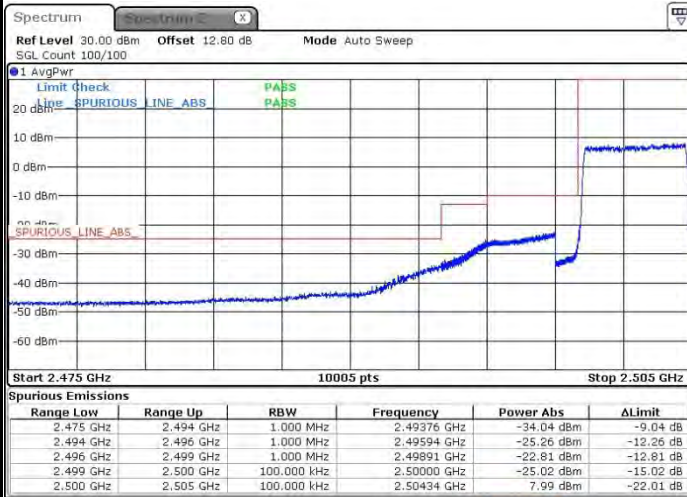
Date: 23 JUL 2015 19:08:33



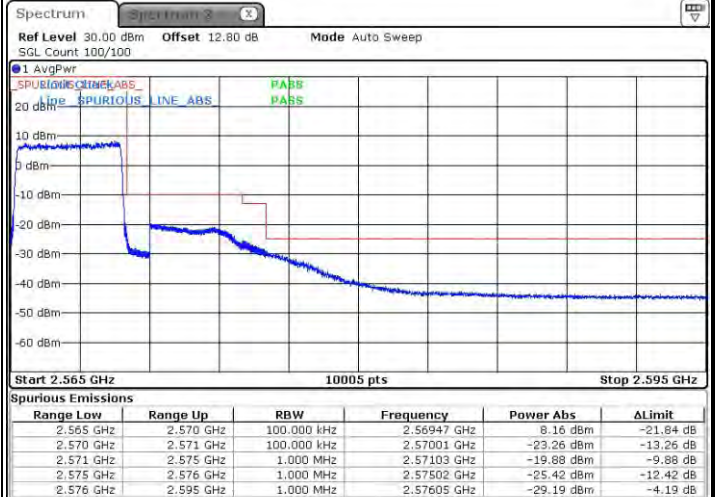
Date: 21 JUL 2015 00:13:26

Lowest Band Edge / Full RB

Highest Band Edge / Full RB



Date: 23 JUL 2015 19:10:53

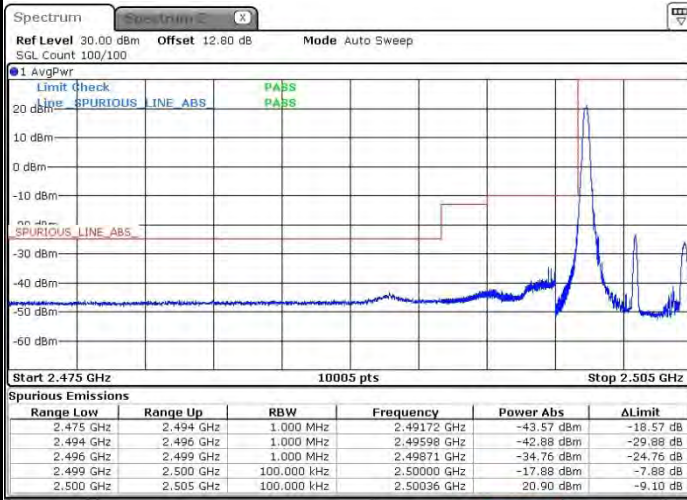


Date: 21 JUL 2015 00:15:46



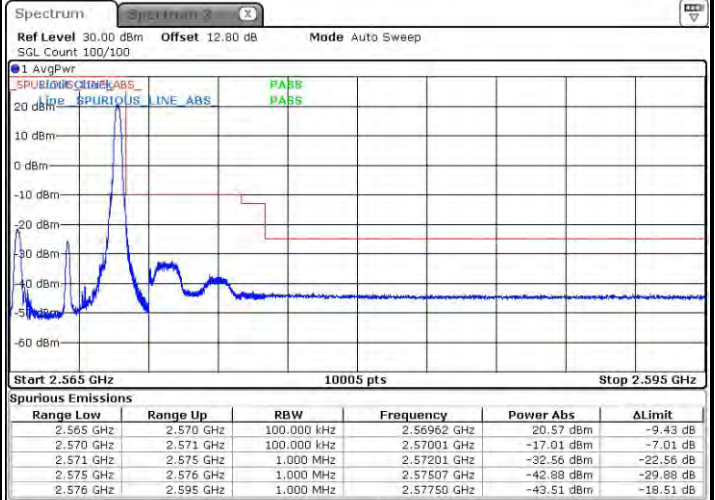
LTE Band 7 / 5MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



Date: 23 JUL 2015 19:09:43

Highest Band Edge / 1 RB



Date: 21 JUL 2015 00:14:38

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:12:03

Highest Band Edge / Full RB



Date: 21 JUL 2015 00:16:58

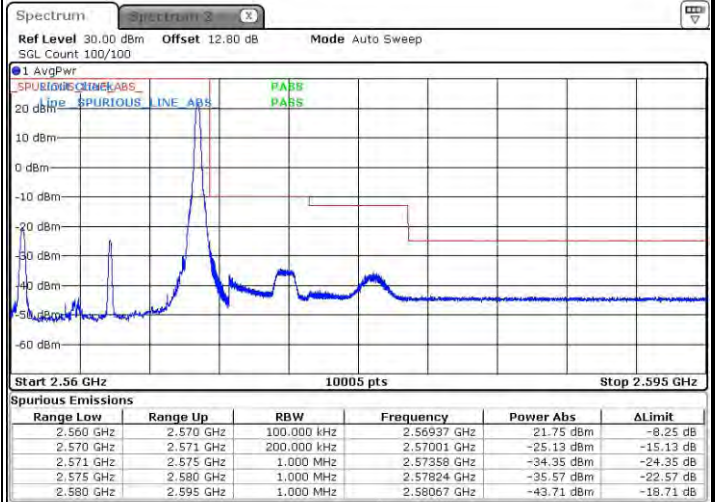
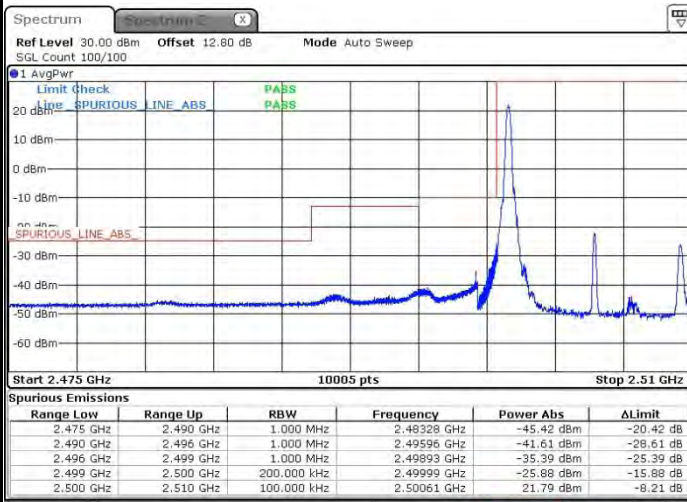




LTE Band 7 / 10MHz / QPSK (IC)

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



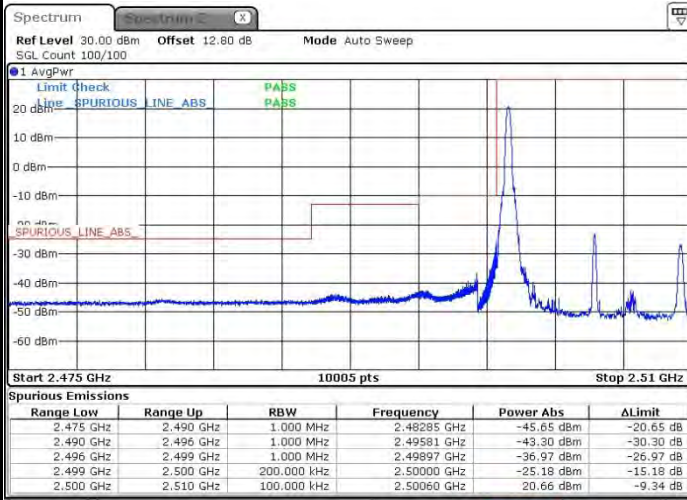
Date: 23 JUL 2015 19:27:36

Date: 21 JUL 2015 00:25:08



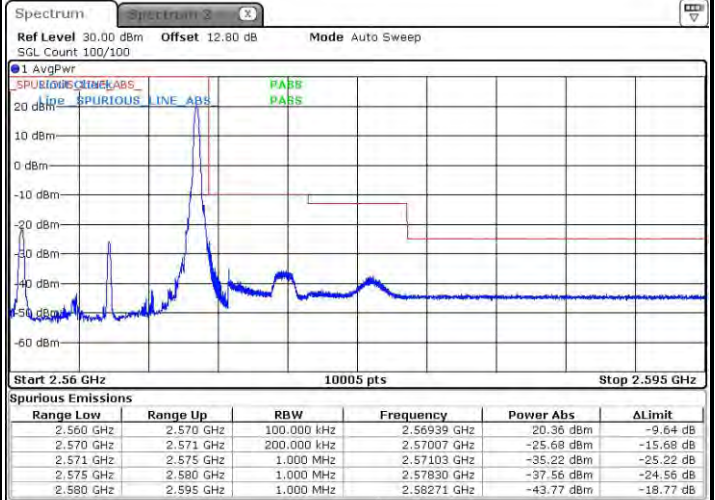
LTE Band 7 / 10MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



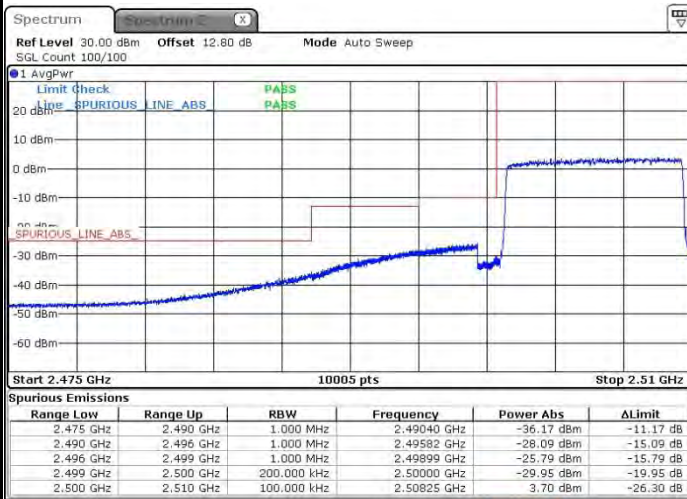
Date: 23 JUL 2015 19:26:26

Highest Band Edge / 1 RB



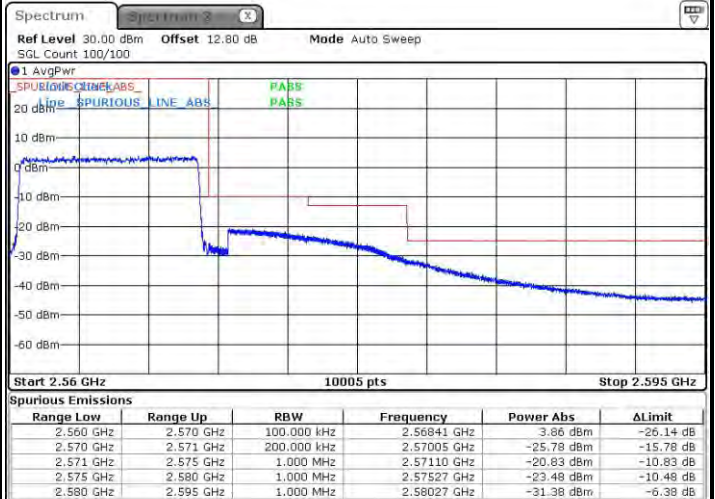
Date: 21 JUL 2015 00:23:58

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:28:46

Highest Band Edge / Full RB

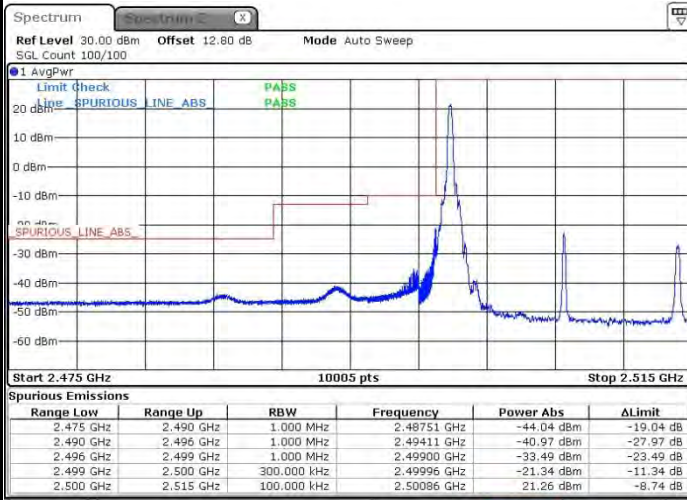


Date: 21 JUL 2015 00:26:18



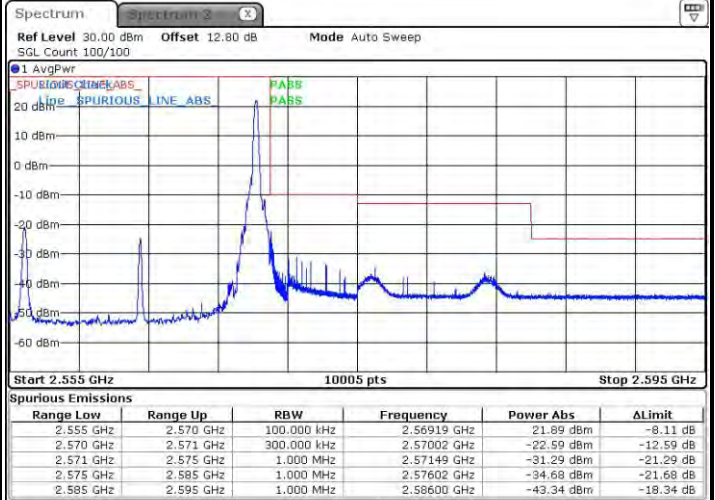
LTE Band 7 / 15MHz / QPSK (IC)

Lowest Band Edge / 1 RB



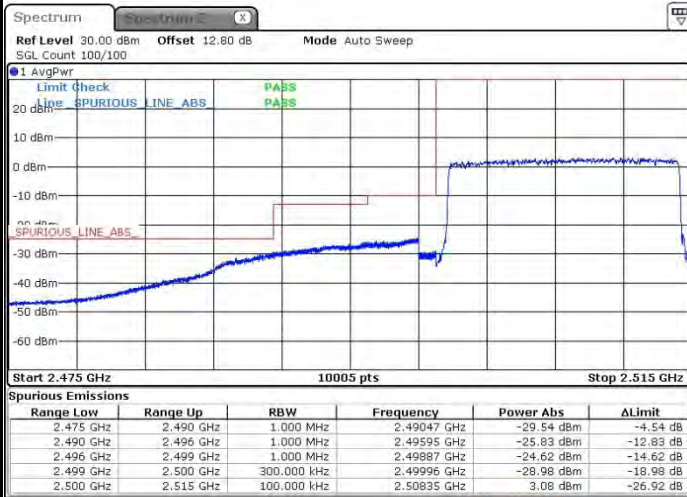
Date: 23 JUL 2015 19:30:27

Highest Band Edge / 1 RB



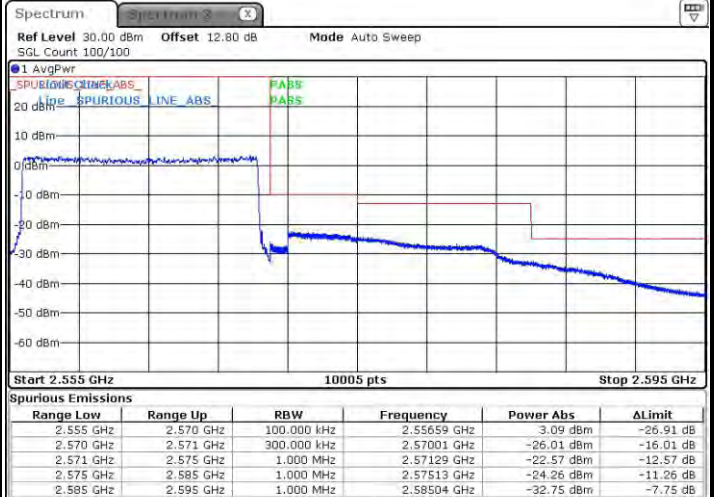
Date: 21 JUL 2015 00:32:06

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:32:47

Highest Band Edge / Full RB

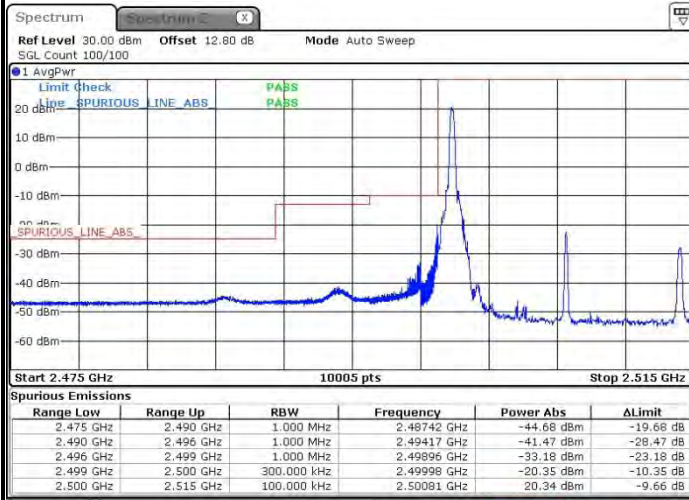


Date: 21 JUL 2015 00:34:26



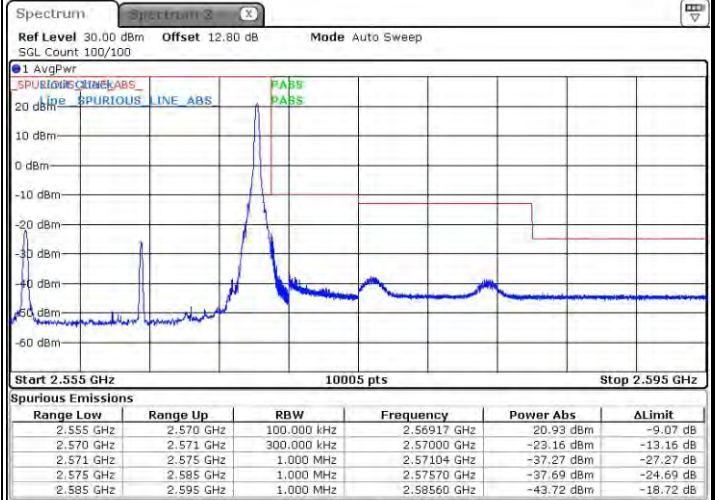
LTE Band 7 / 15MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



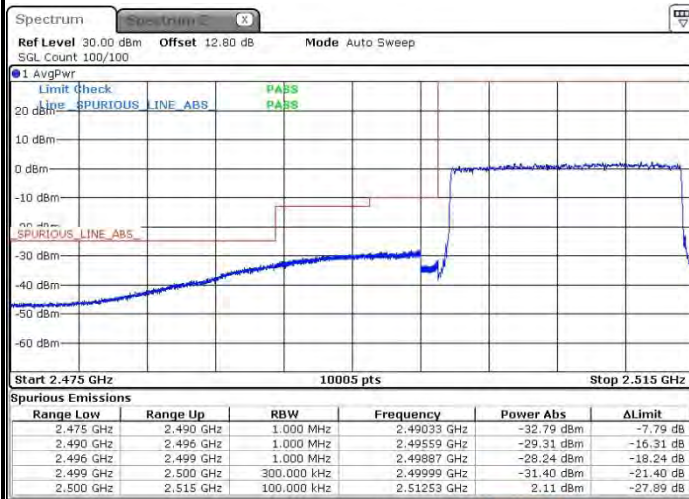
Date: 23 JUL 2015 19:31:37

Highest Band Edge / 1 RB



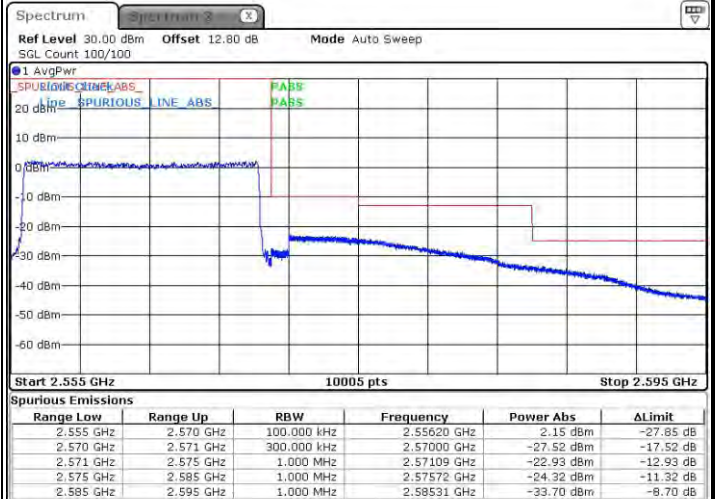
Date: 21 JUL 2015 00:33:18

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:33:57

Highest Band Edge / Full RB

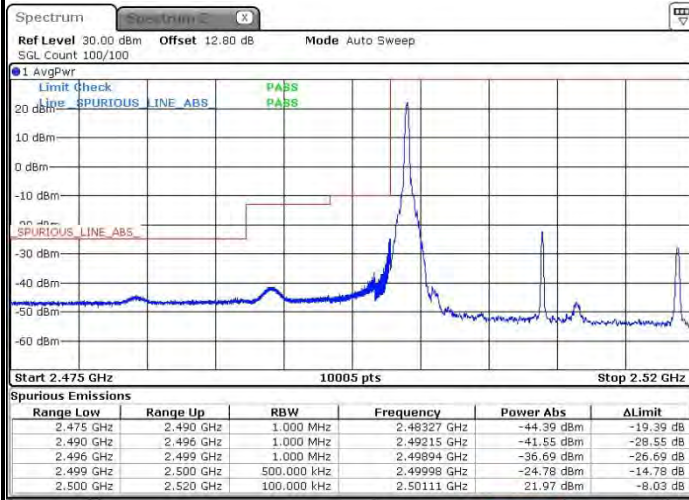


Date: 21 JUL 2015 00:35:38



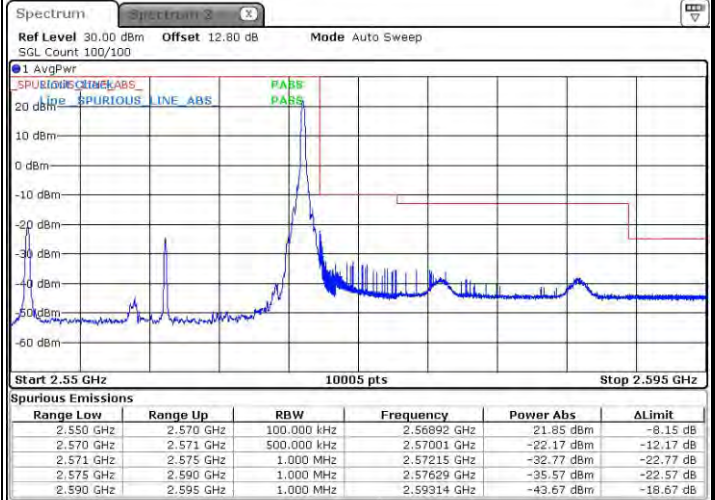
LTE Band 7 / 20MHz / QPSK (IC)

Lowest Band Edge / 1 RB



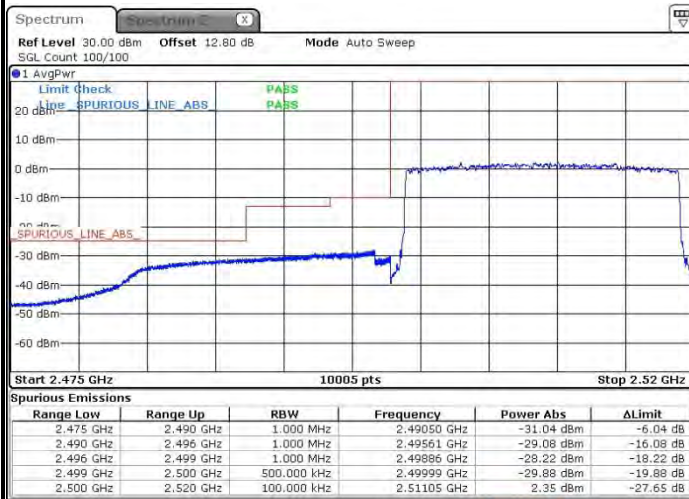
Date: 23 JUL 2015 19:35:43

Highest Band Edge / 1 RB



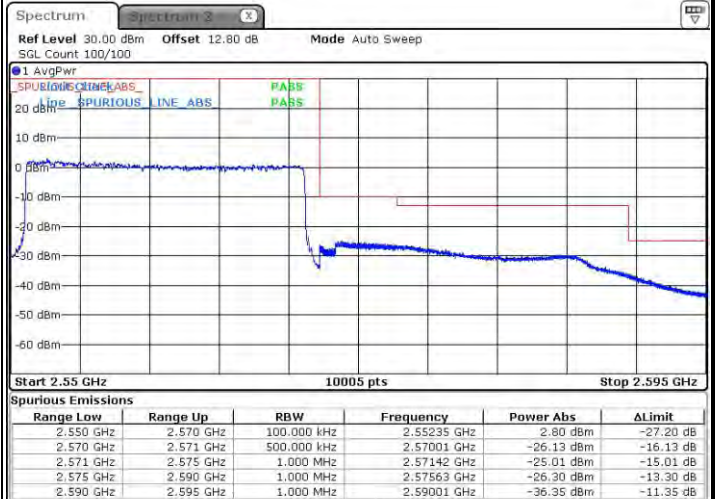
Date: 21 JUL 2015 00:41:26

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:38:03

Highest Band Edge / Full RB

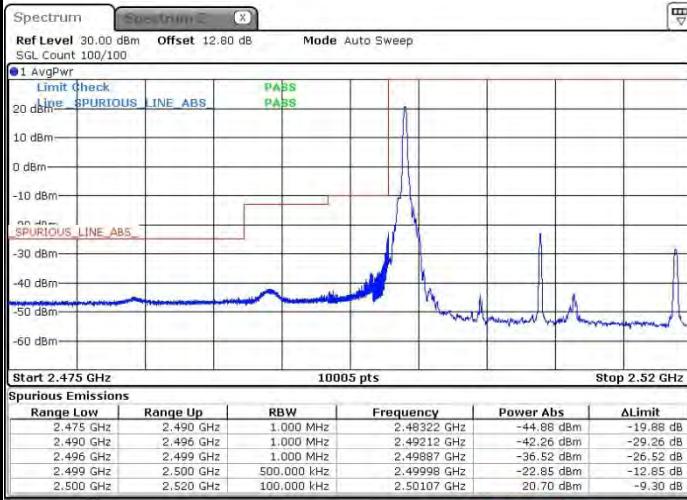


Date: 21 JUL 2015 00:44:58



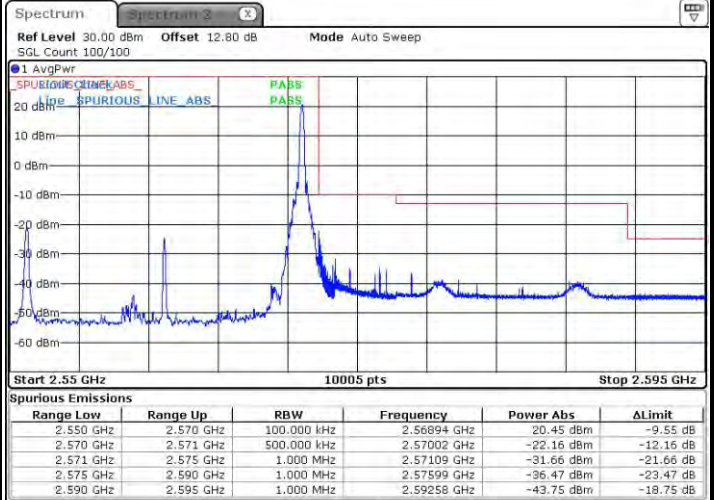
LTE Band 7 / 20MHz / 16QAM (IC)

Lowest Band Edge / 1 RB



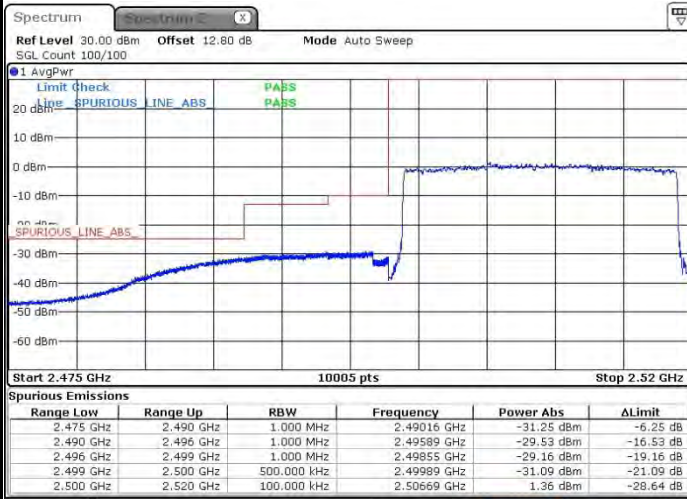
Date: 23 JUL 2015 19:36:53

Highest Band Edge / 1RB



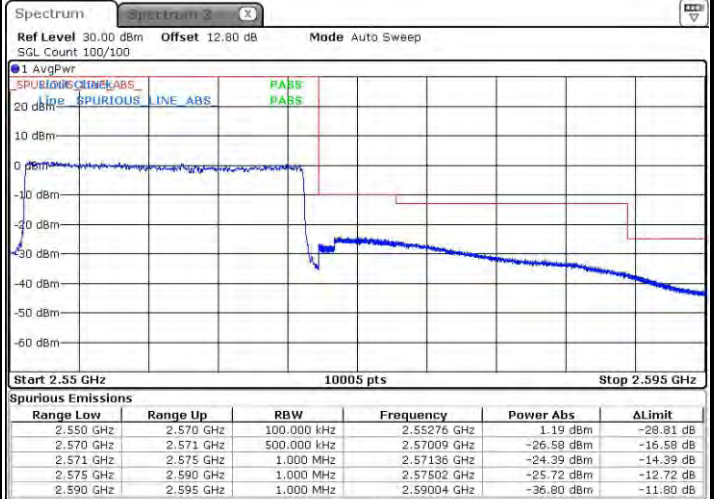
Date: 21 JUL 2015 00:42:38

Lowest Band Edge / Full RB



Date: 23 JUL 2015 19:39:13

Highest Band Edge / Full RB



Date: 21 JUL 2015 00:43:46



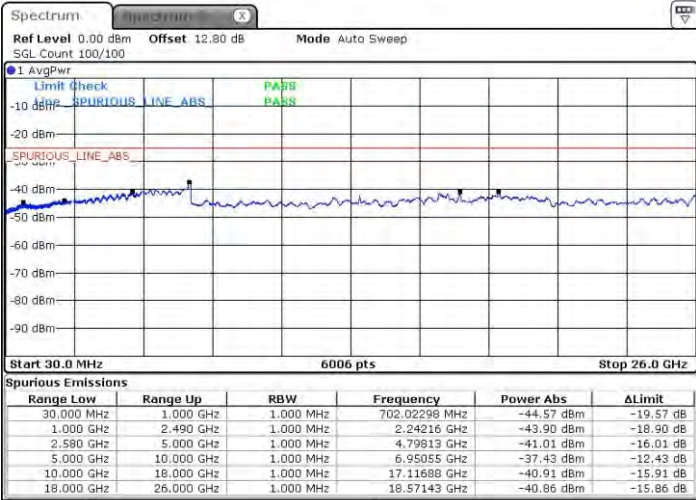
**Conducted Spurious Emission**



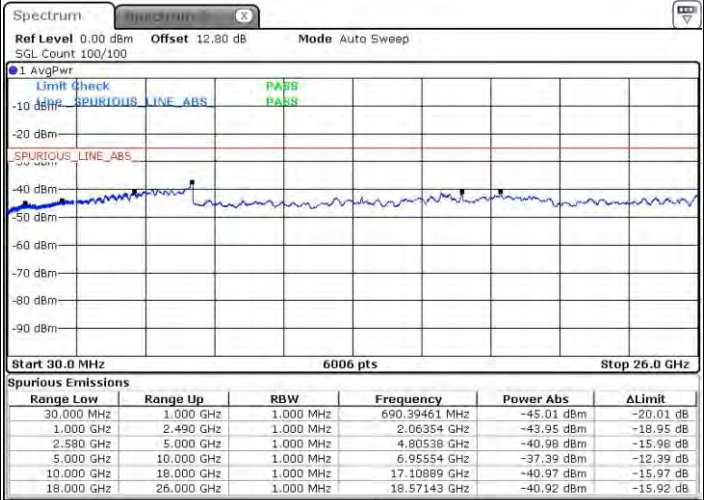
LTE Band 7 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



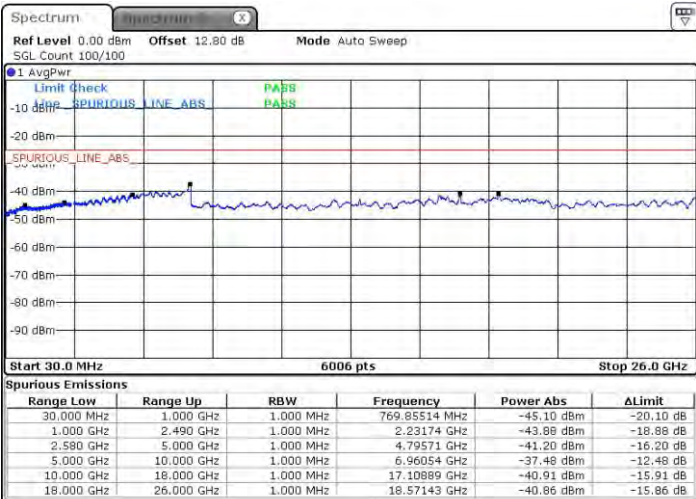
Date: 20.JUL.2015 22:59:29



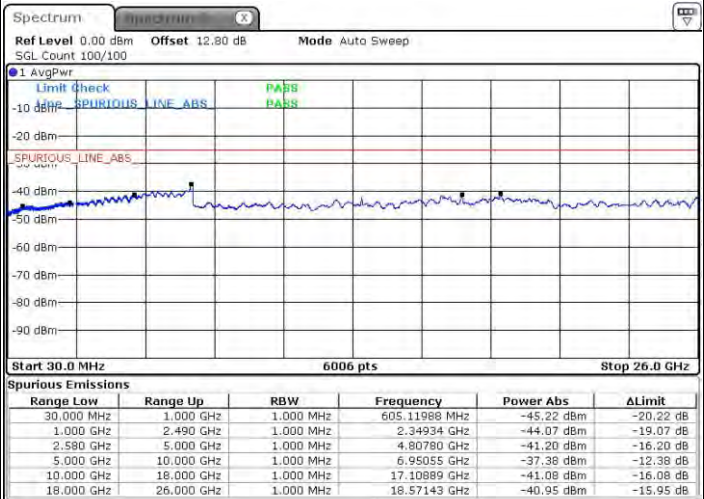
Date: 20.JUL.2015 23:00:23

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



Highest Channel / 16QAM



LTE Band 7 / 10MHz

Lowest Channel / QPSK



Lowest Channel / 16QAM

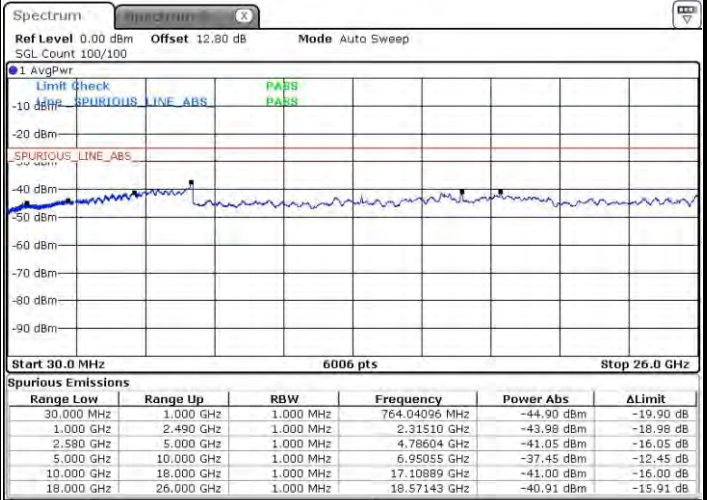
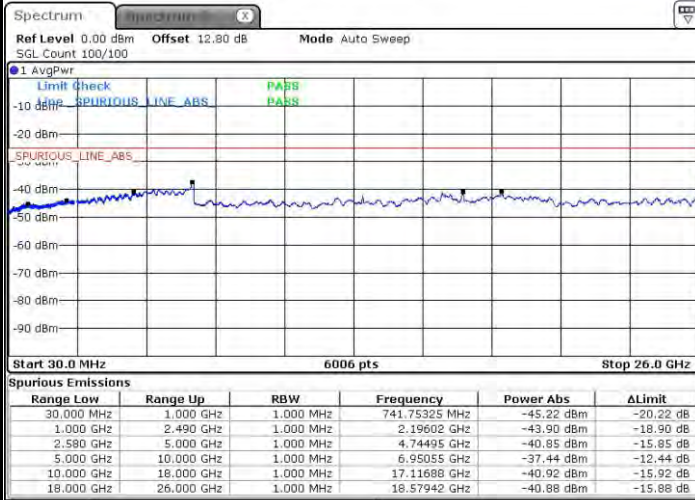




LTE Band 7 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

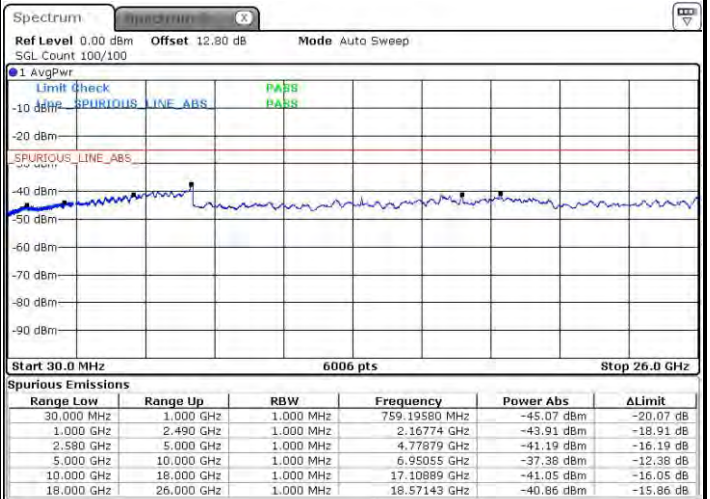
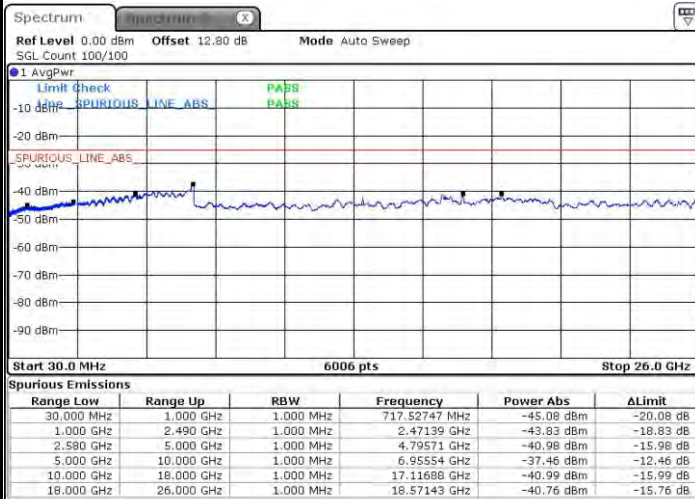


Date: 20.JUL.2015 23:19:13

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

Highest Channel / QPSK

Highest Channel / 16QAM



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

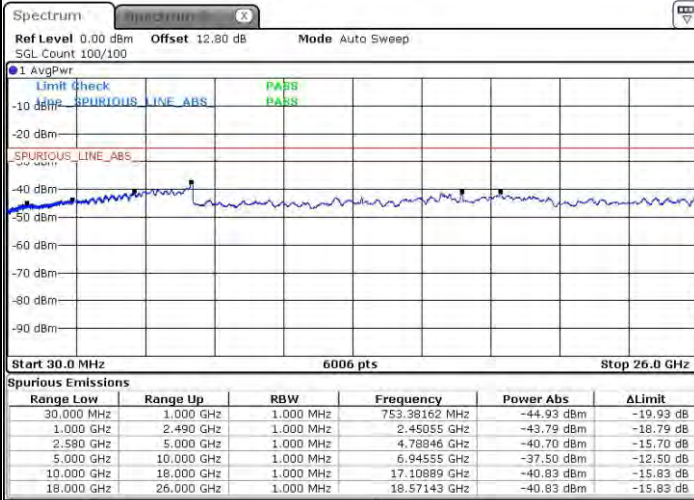
Date: 20.JUL.2015 23:27:24



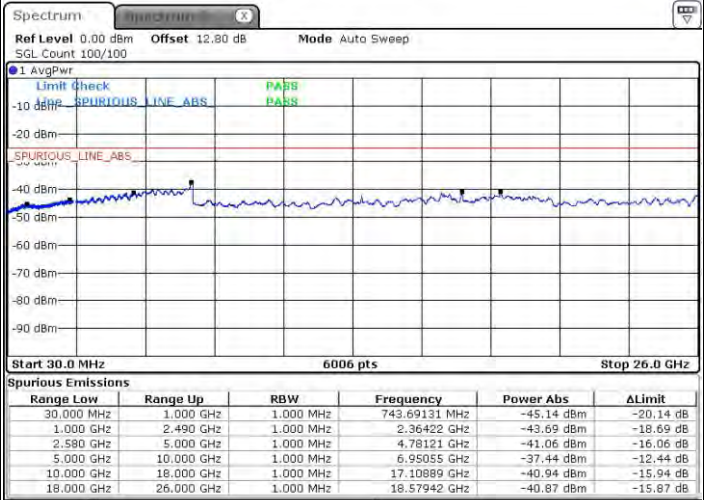
LTE Band 7 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



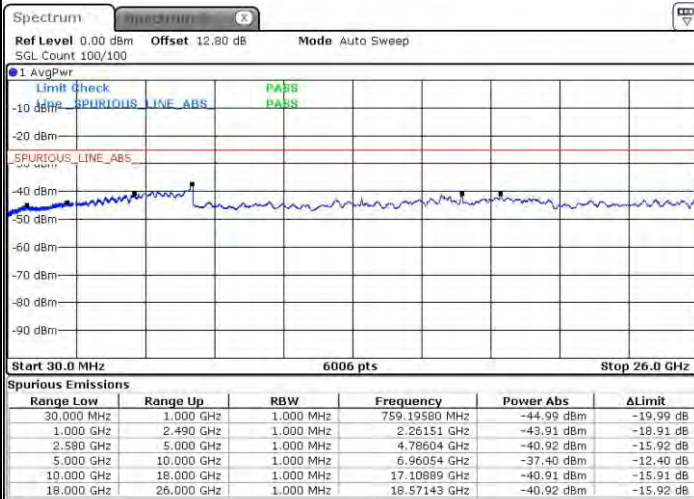
Date: 20.JUL.2015 23:33:46



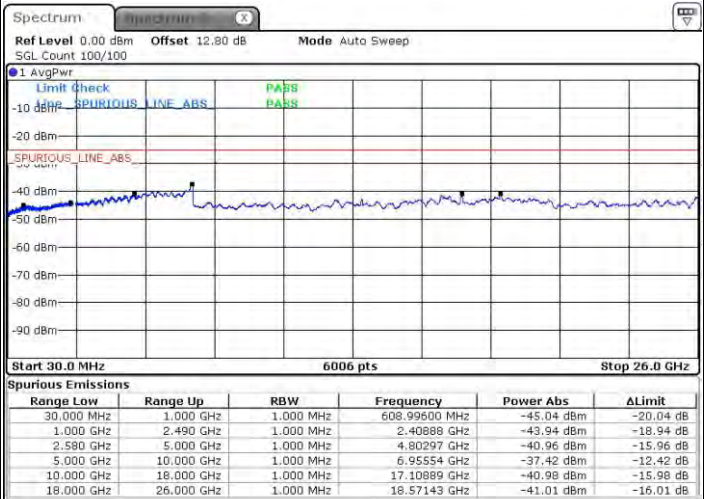
Date: 20.JUL.2015 23:34:40

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

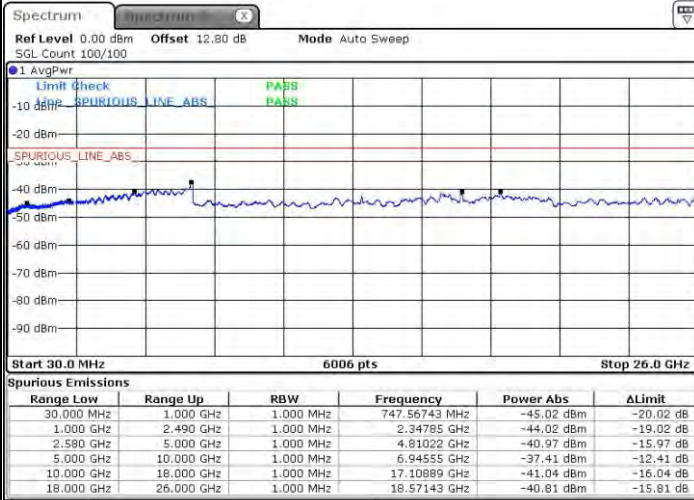




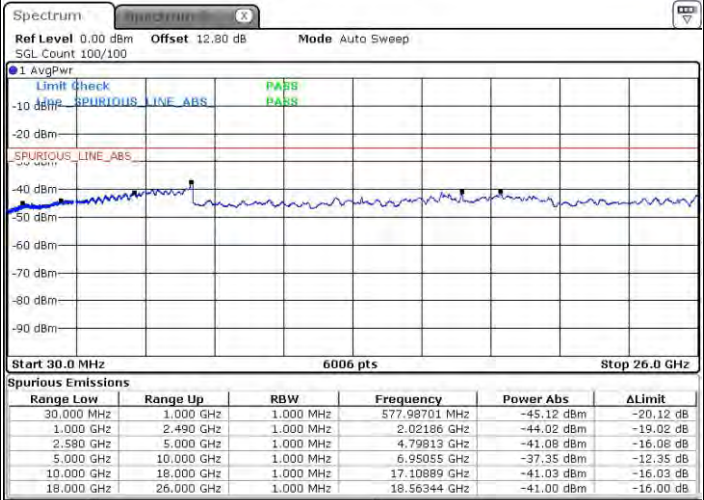
LTE Band 7 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM



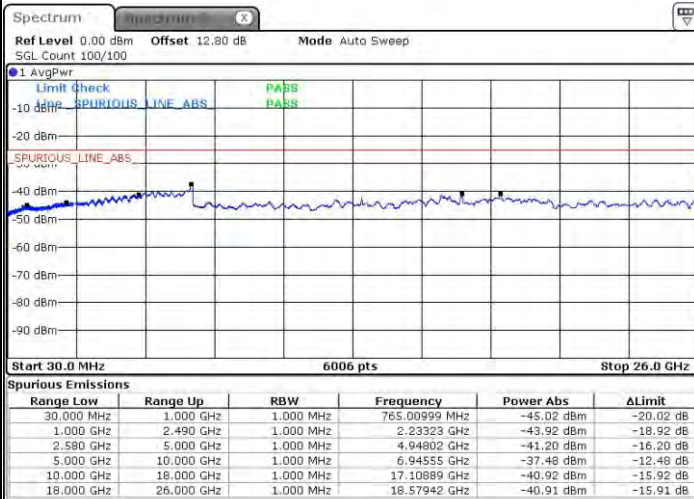
Date: 20.JUL.2015 23:53:33



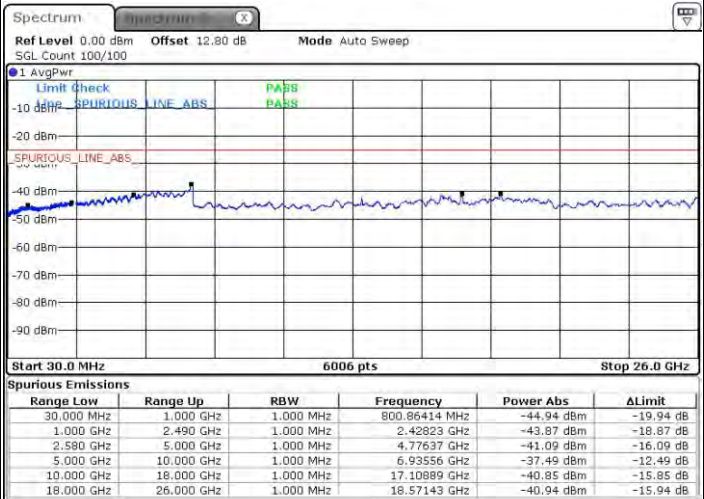
Date: 20.JUL.2015 23:54:26

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.