

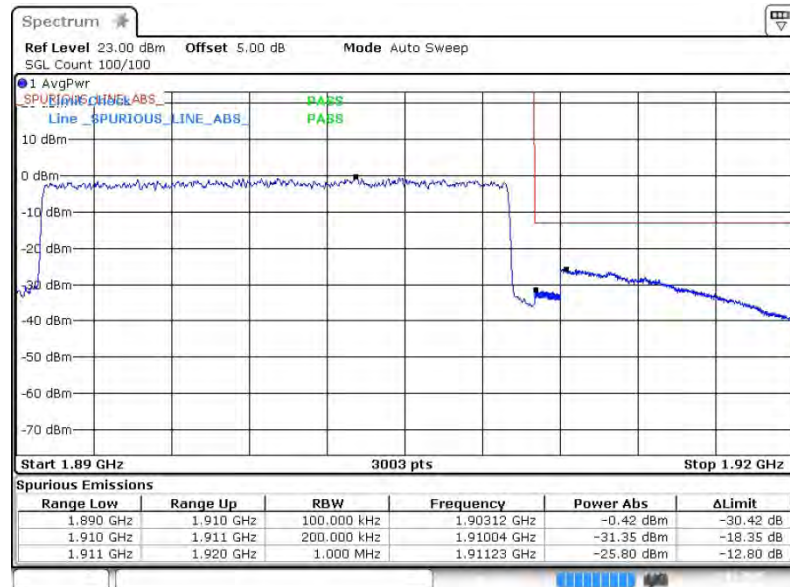


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99



Date: 22.JAN.2015 13:54:11

Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0

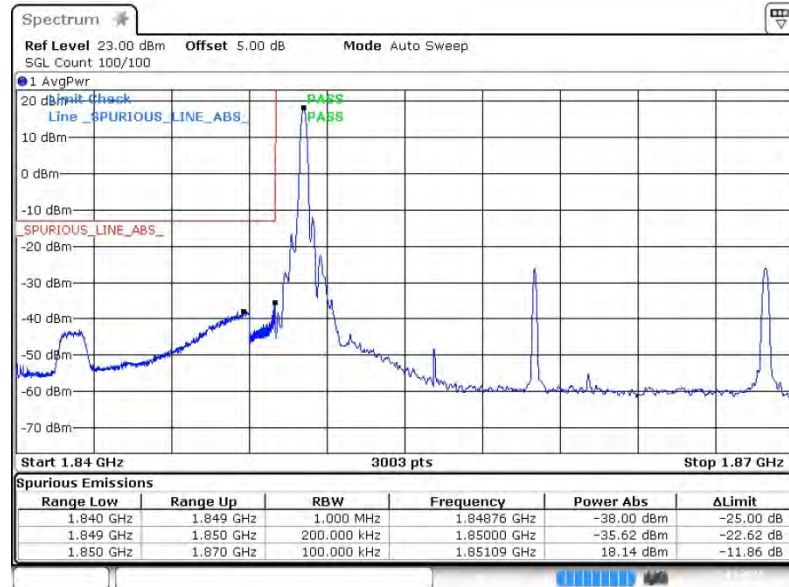


Date: 22.JAN.2015 13:53:52



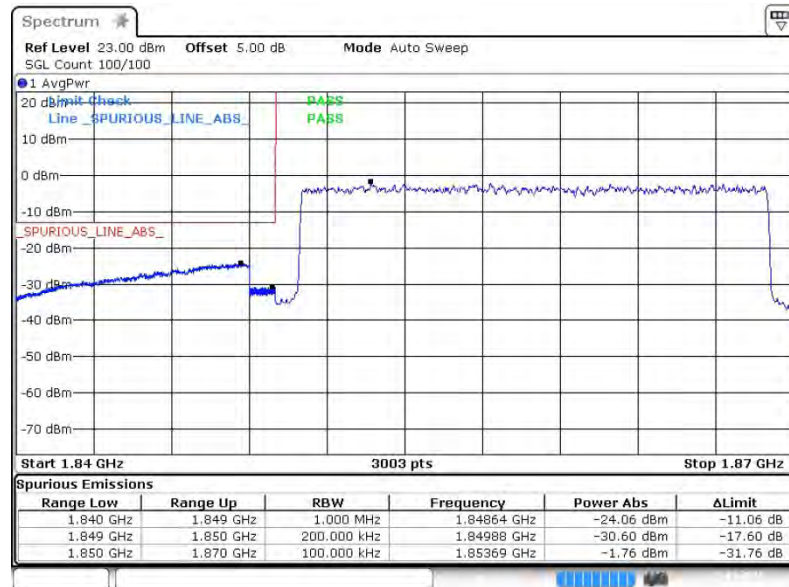
Band :	LTE Band 2	Band Width :	20MHz / 16QAM
--------	------------	--------------	---------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 13:51:58

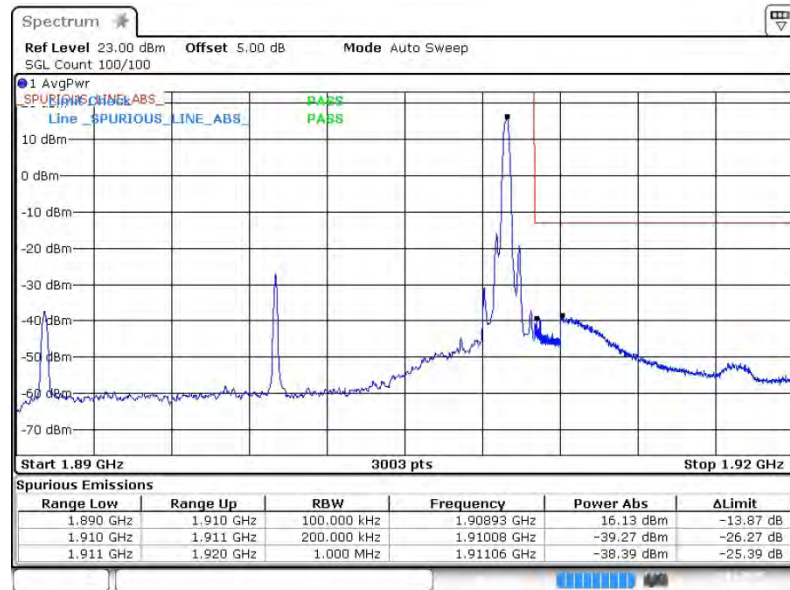
Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Date: 22.JAN.2015 13:53:06

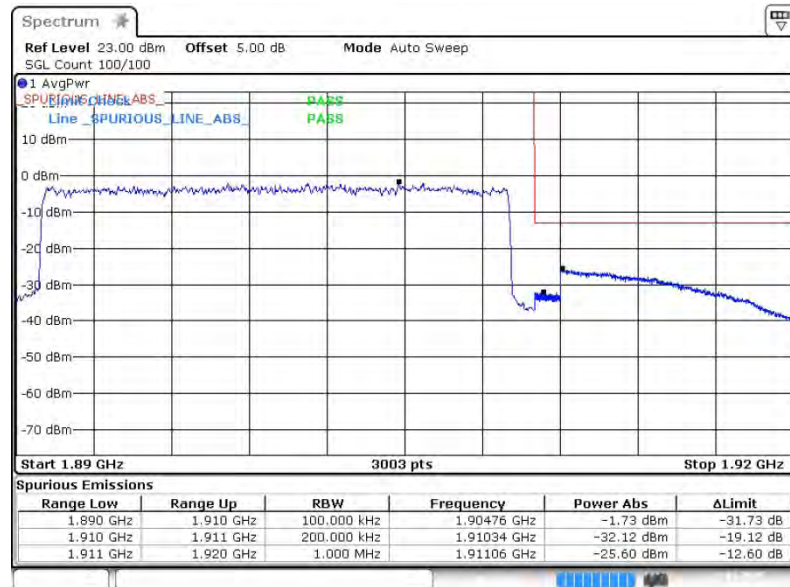


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99



Date: 22.JAN.2015 13:54:28

Higher Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Date: 22.JAN.2015 13:53:30



<b>Band :</b>	LTE Band 4	<b>Band Width :</b>	1.4MHz / QPSK
---------------	------------	---------------------	---------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:15:12

Lower Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 22.JAN.2015 15:16:44

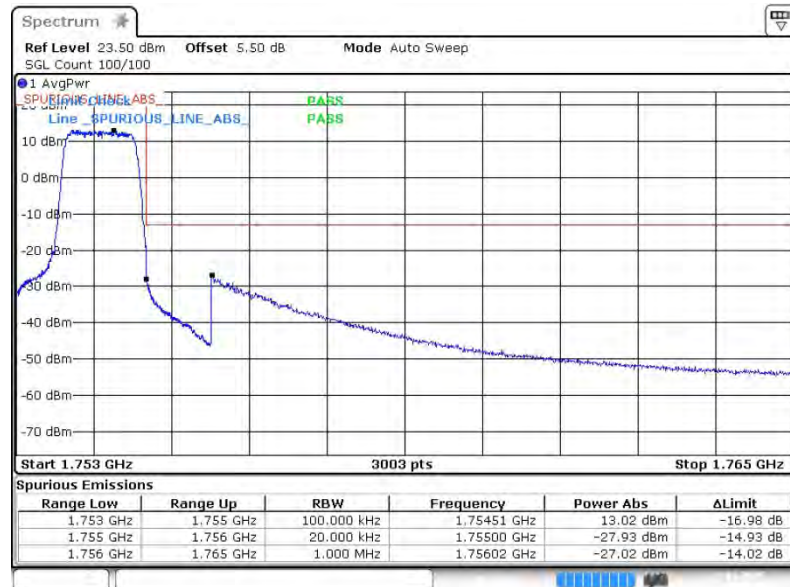


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 5



Date: 22.JAN.2015 15:23:09

Higher Band Edge Plot for QPSK-RB Size 6, RB Offset 0



Date: 22.JAN.2015 15:21:36



Band :	LTE Band 4	Band Width :	1.4MHz / 16QAM
--------	------------	--------------	----------------

Lower Band Edge Plot for 16QAM -RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:13:54

Lower Band Edge Plot for 16QAM-RB Size 6, RB Offset 0



Date: 22.JAN.2015 15:18:09

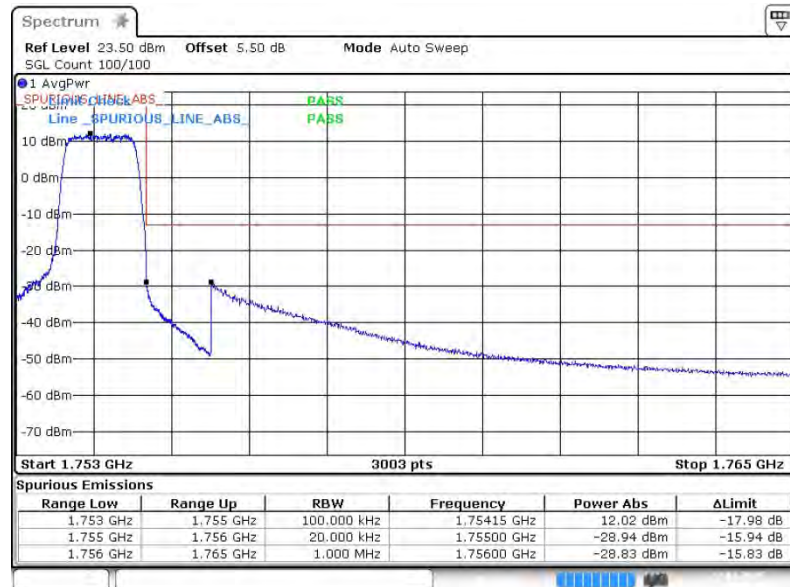


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 5



Date: 22.JAN.2015 15:24:19

Higher Band Edge Plot for 16QAM-RB Size 6, RB Offset 0

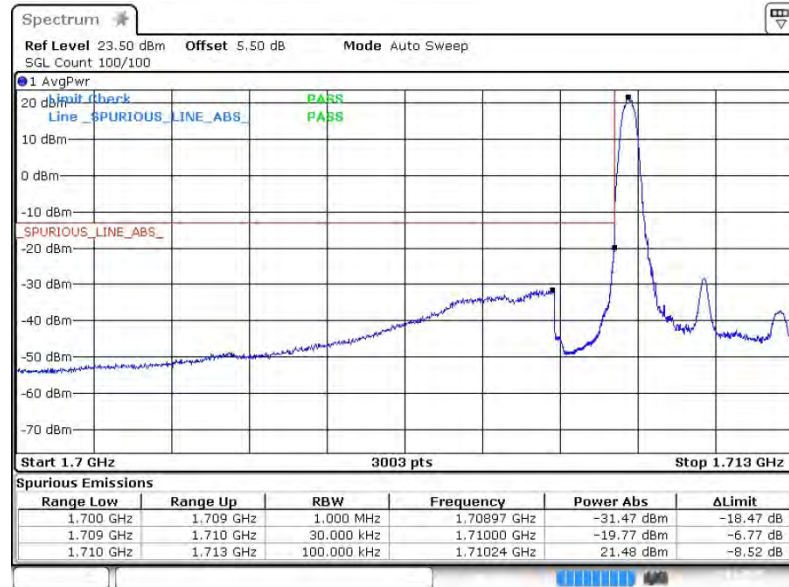


Date: 22.JAN.2015 15:19:58



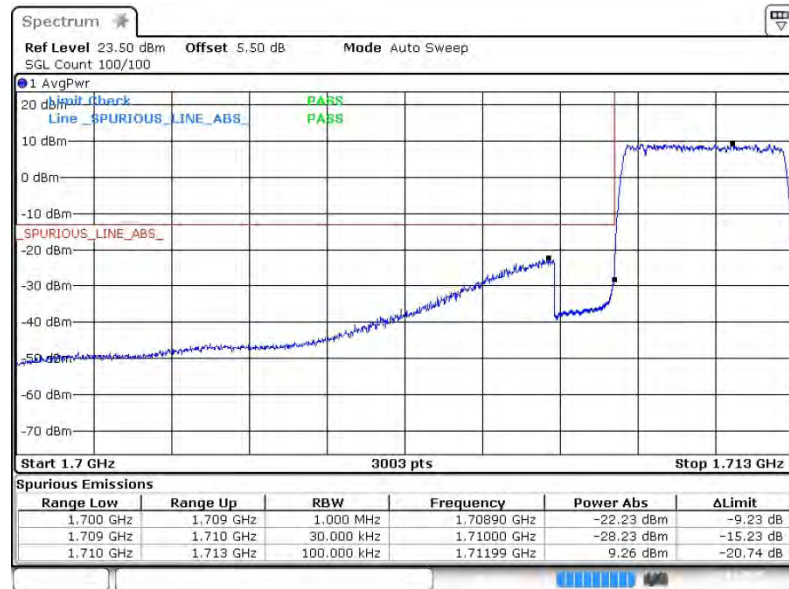
Band :	LTE Band 4	Band Width :	3MHz / QPSK
--------	------------	--------------	-------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:26:32

Lower Band Edge Plot for QPSK-RB Size 15, RB Offset 0

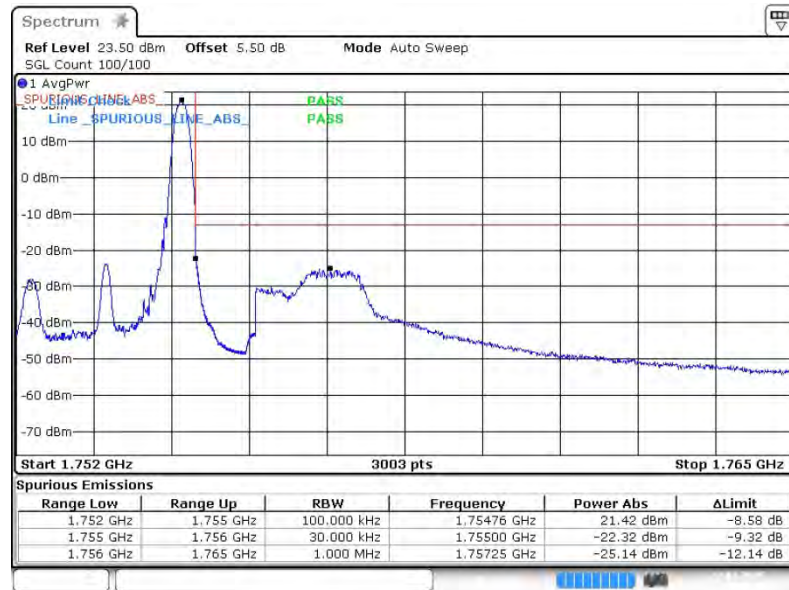


Date: 22.JAN.2015 15:27:16



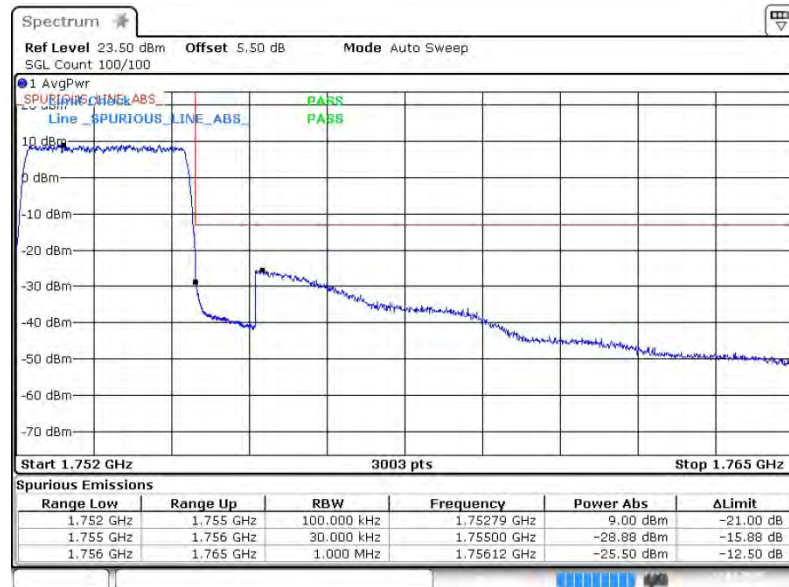


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 14



Date: 22.JAN.2015 15:30:29

Higher Band Edge Plot for QPSK-RB Size 15, RB Offset 0



Date: 22.JAN.2015 15:29:46



Band :	LTE Band 4	Band Width :	3MHz / 16QAM
--------	------------	--------------	--------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:25:50

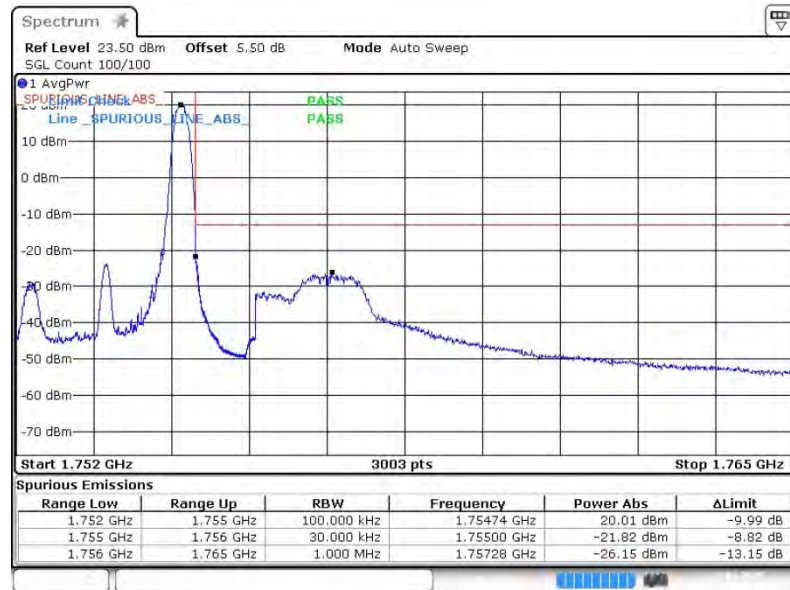
Lower Band Edge Plot for 16QAM-RB Size 15, RB Offset 0



Date: 22.JAN.2015 15:28:14

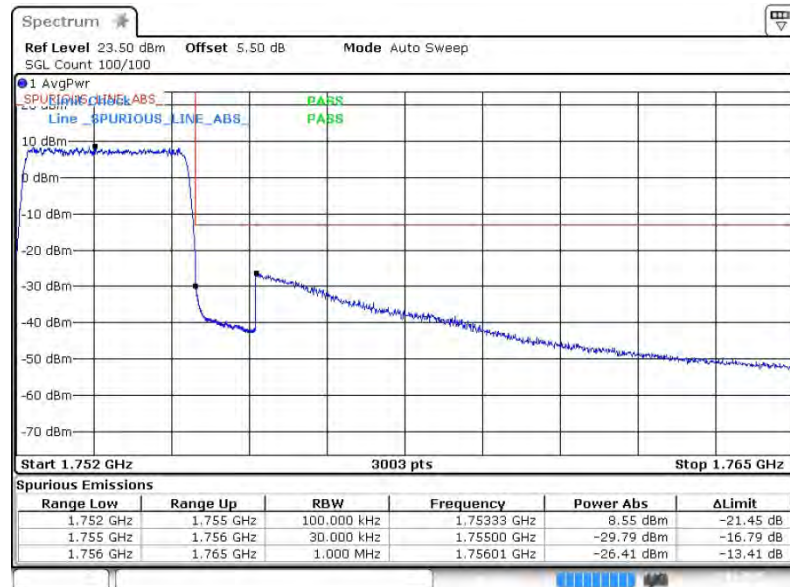


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 14



Date: 22.JAN.2015 15:31:10

Higher Band Edge Plot for 16QAM-RB Size 15, RB Offset 0

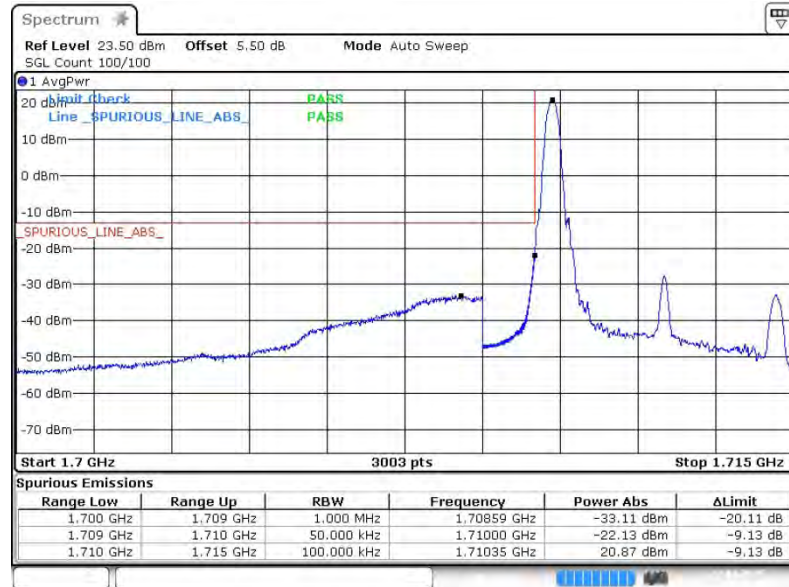


Date: 22.JAN.2015 15:29:08



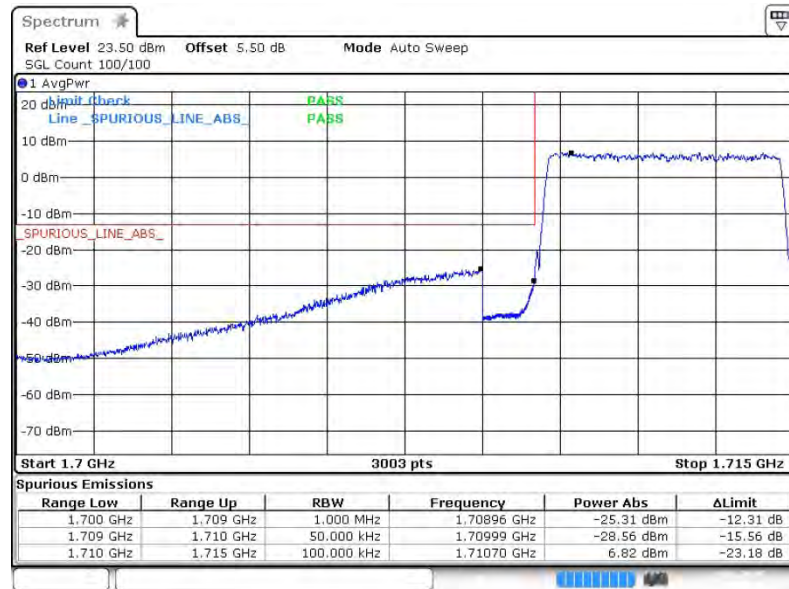
Band :	LTE Band 4	Band Width :	5MHz / QPSK
--------	------------	--------------	-------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:34:20

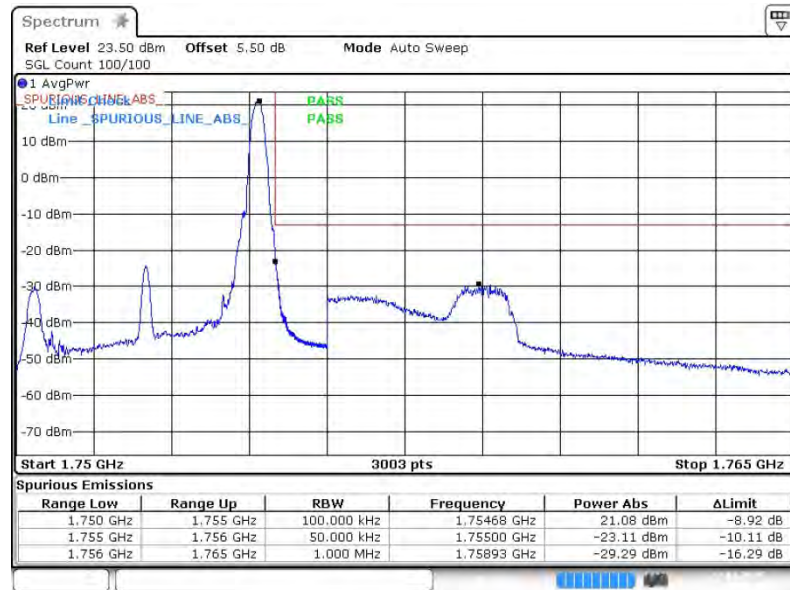
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 22.JAN.2015 15:34:52

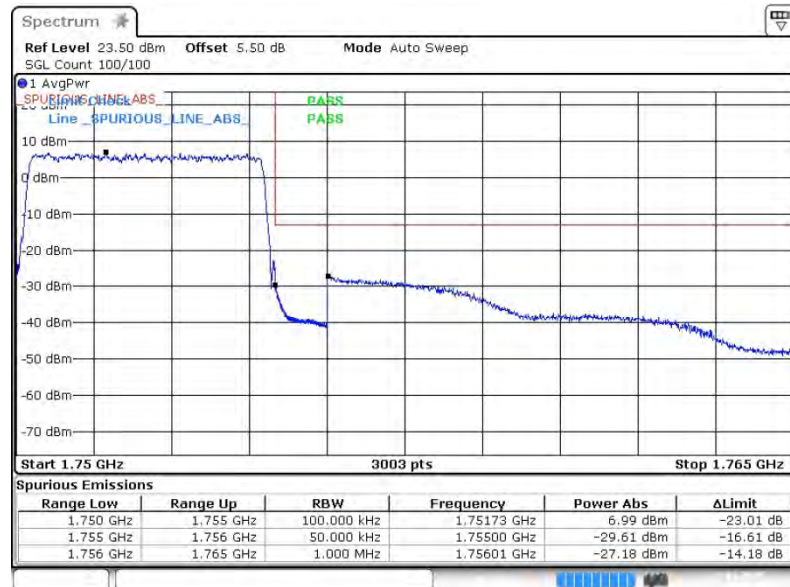


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 22.JAN.2015 15:37:05

Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

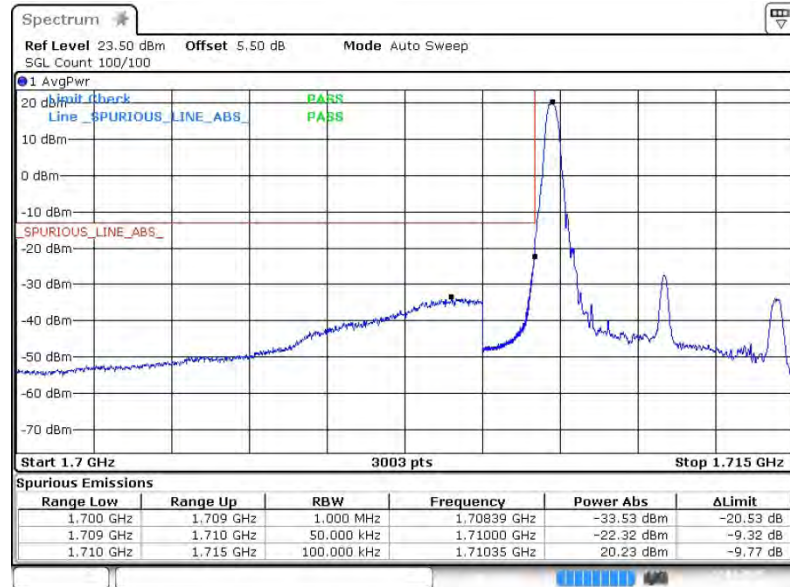


Date: 22.JAN.2015 15:36:43



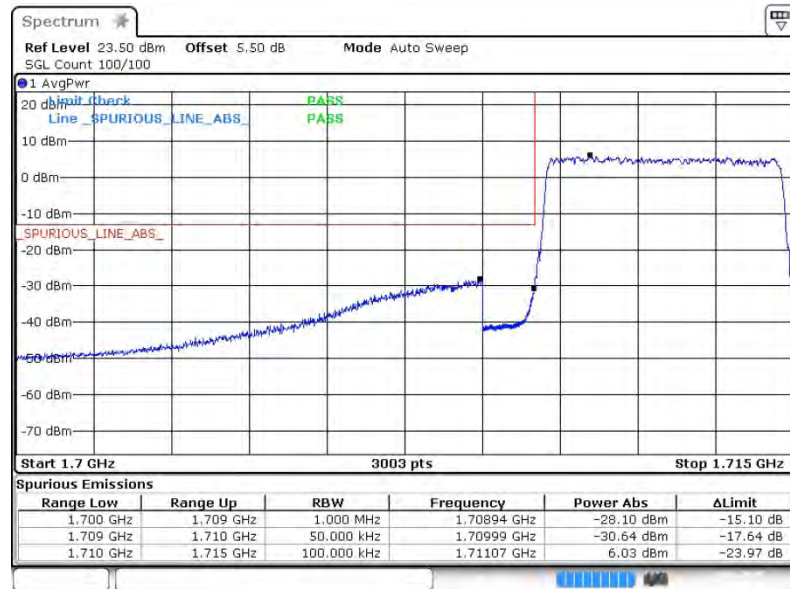
Band :	LTE Band 4	Band Width :	5MHz / 16QAM
--------	------------	--------------	--------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:33:53

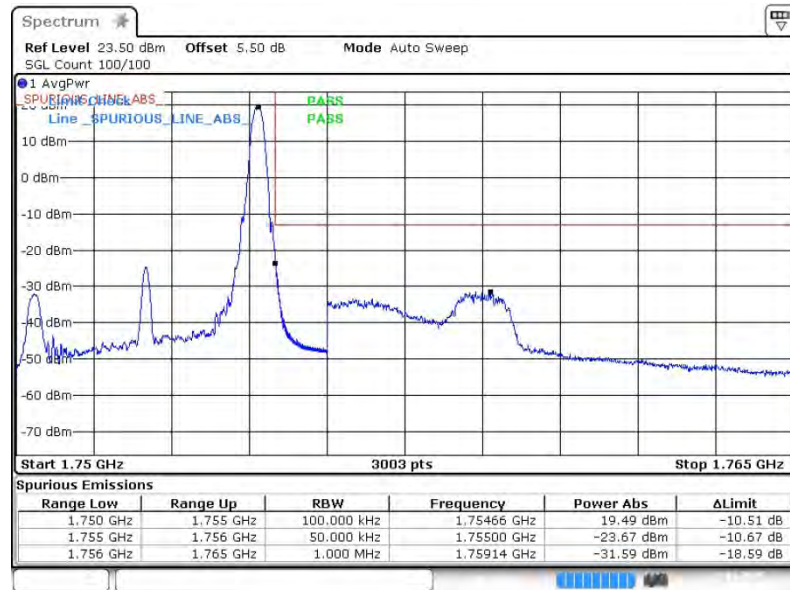
Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



Date: 22.JAN.2015 15:35:22

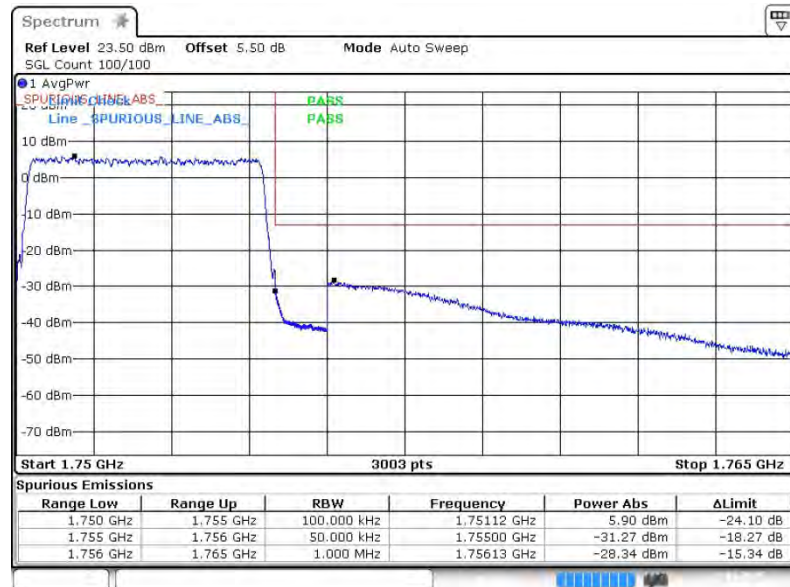


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 22.JAN.2015 15:37:32

Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0

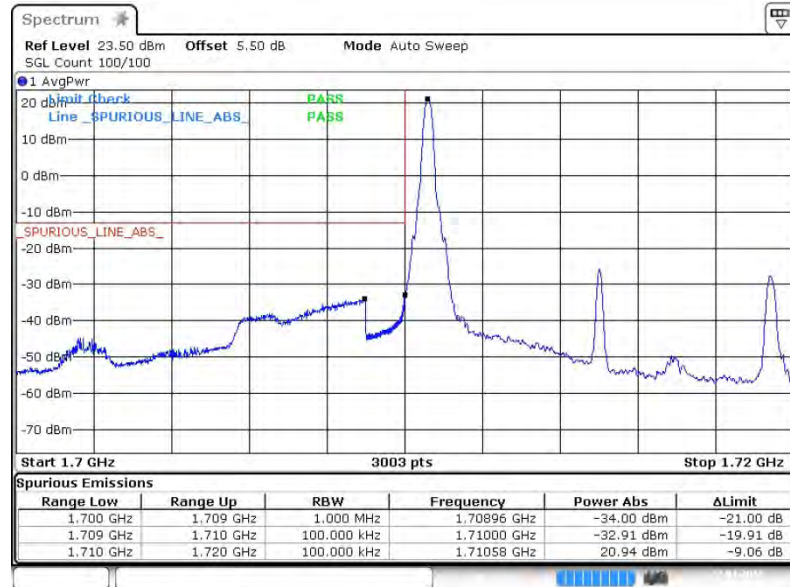


Date: 22.JAN.2015 15:36:20



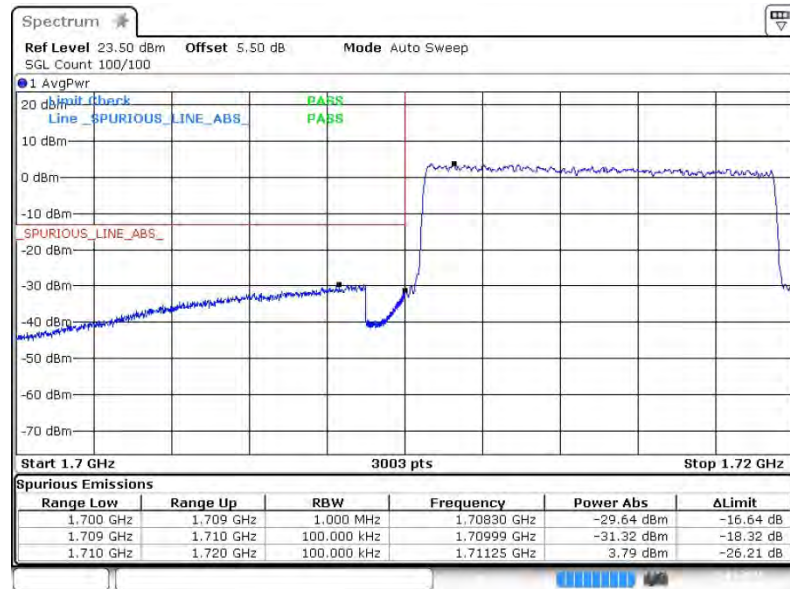
Band :	LTE Band 4	Band Width :	10MHz / QPSK
--------	------------	--------------	--------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:38:44

Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0

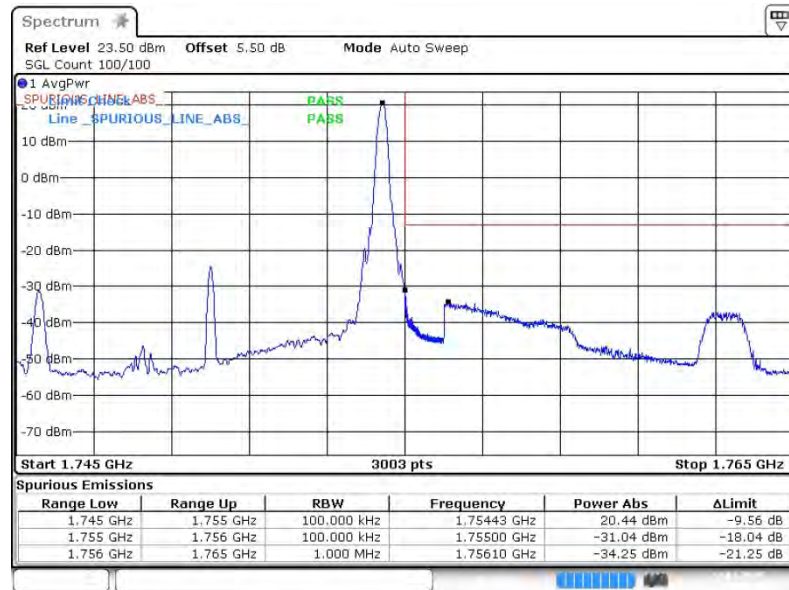


Date: 22.JAN.2015 15:39:20



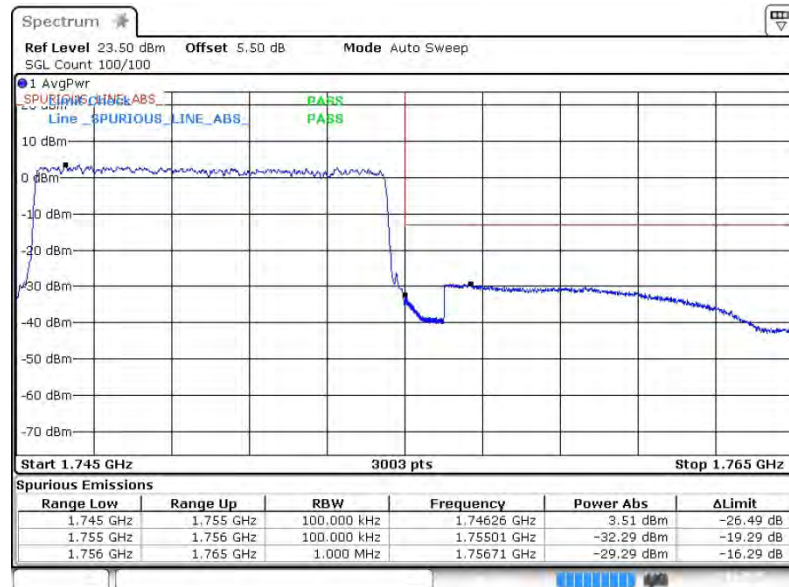


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 22.JAN.2015 15:41:24

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

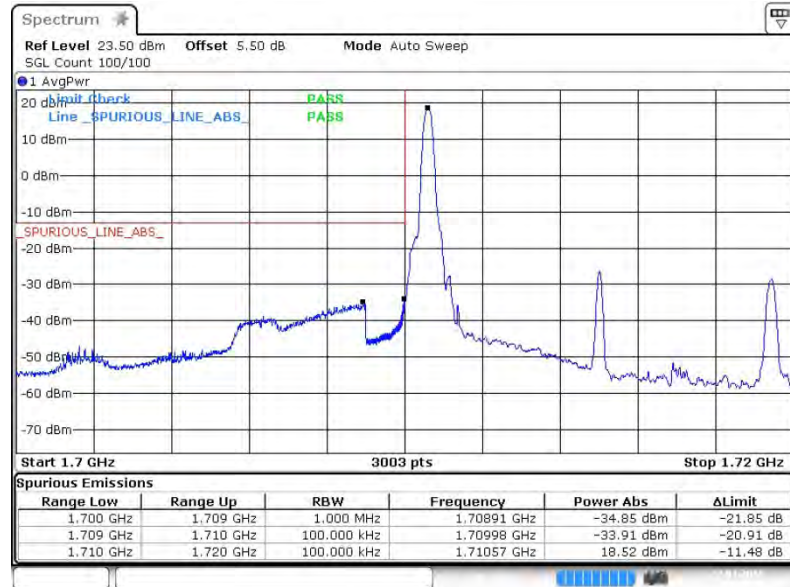


Date: 22.JAN.2015 15:40:36



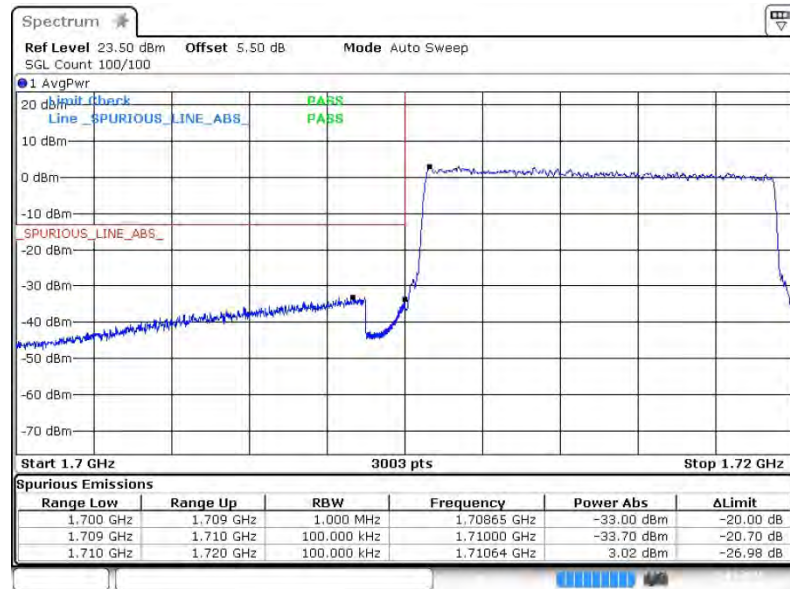
Band :	LTE Band 4	Band Width :	10MHz / 16QAM
--------	------------	--------------	---------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:38:20

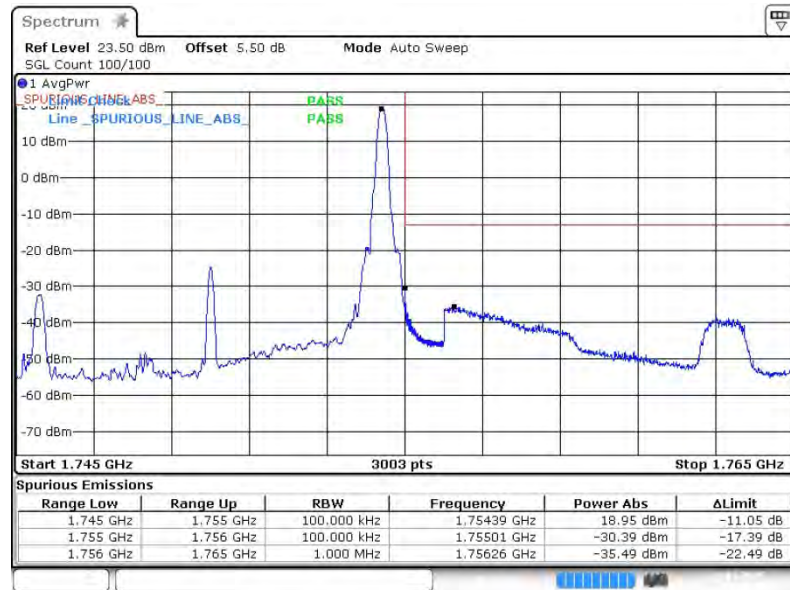
Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Date: 22.JAN.2015 15:39:42

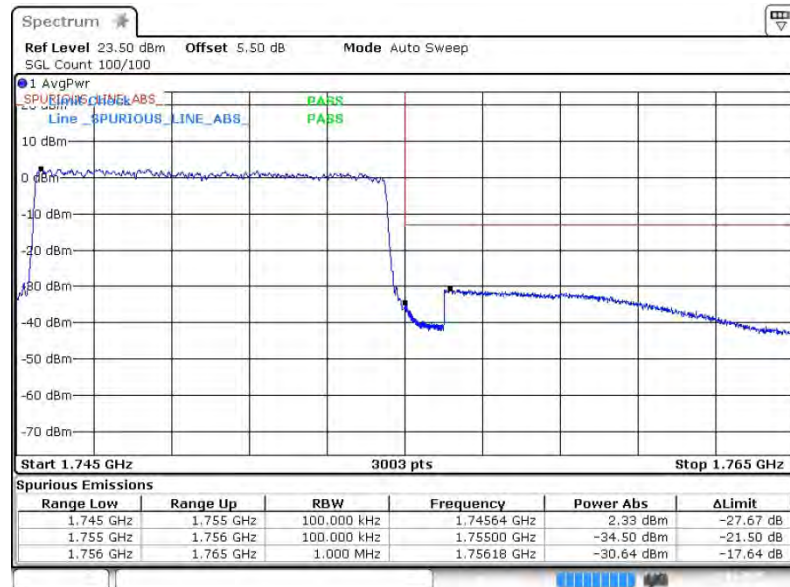


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Date: 22.JAN.2015 15:41:46

Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0

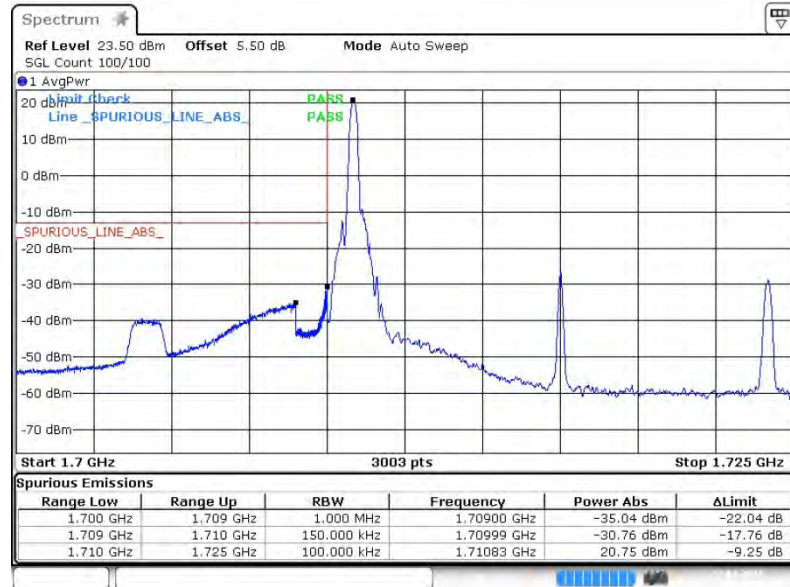


Date: 22.JAN.2015 15:40:17



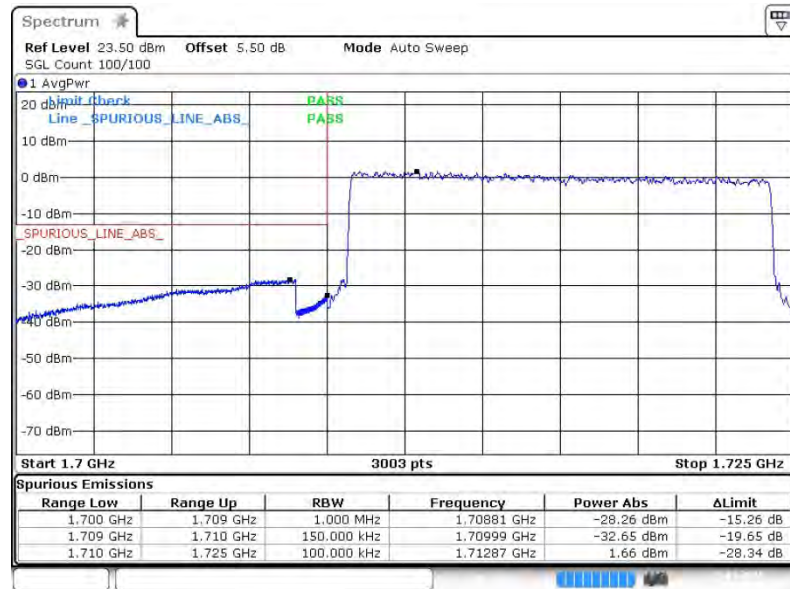
Band :	LTE Band 4	Band Width :	15MHz / QPSK
--------	------------	--------------	--------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:42:53

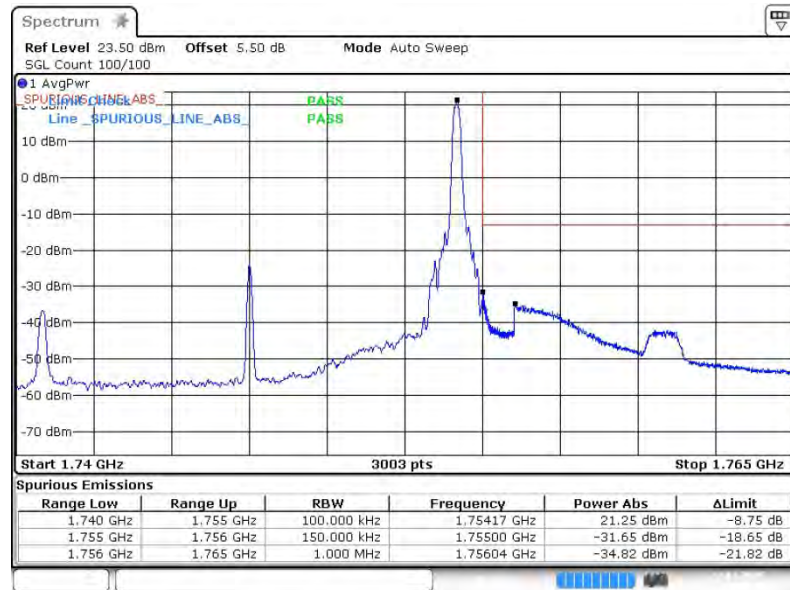
Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



Date: 22.JAN.2015 15:43:15

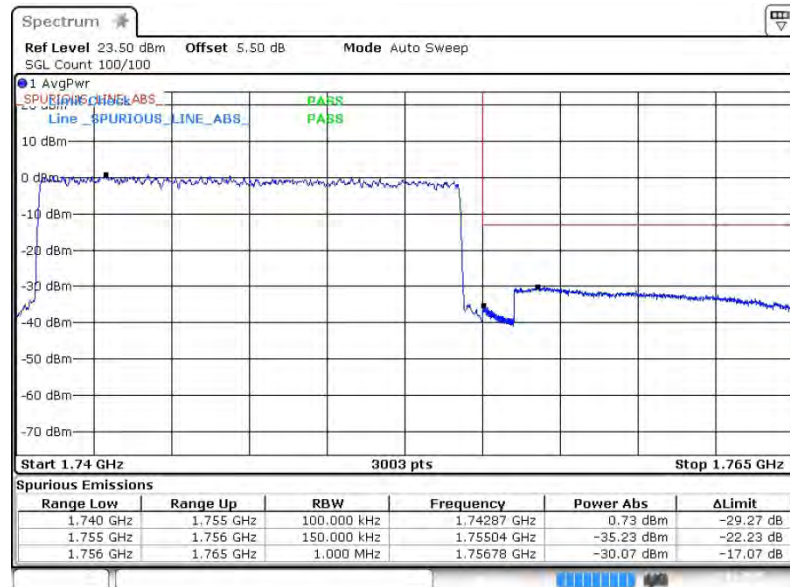


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74



Date: 22.JAN.2015 15:44:35

Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0

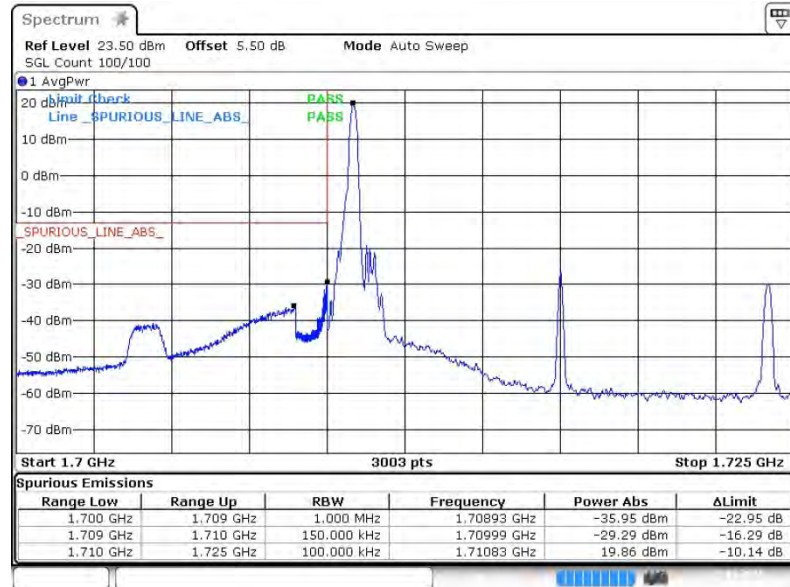


Date: 22.JAN.2015 15:44:15



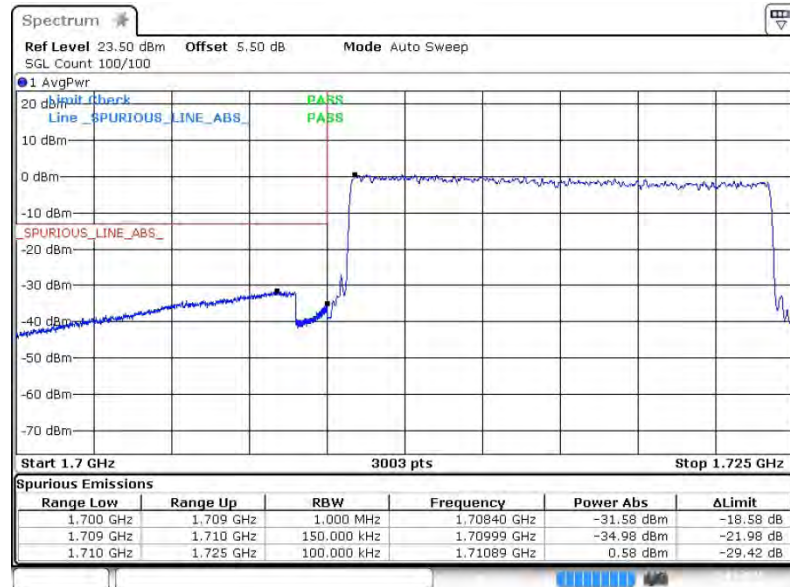
<b>Band :</b>	LTE Band 4	<b>Band Width :</b>	15MHz / 16QAM
---------------	------------	---------------------	---------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:42:35

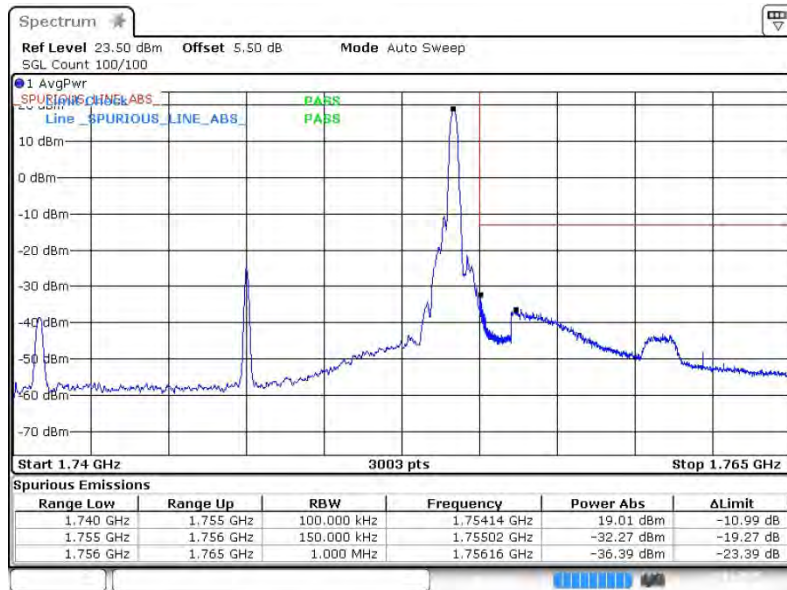
Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



Date: 22.JAN.2015 15:43:33

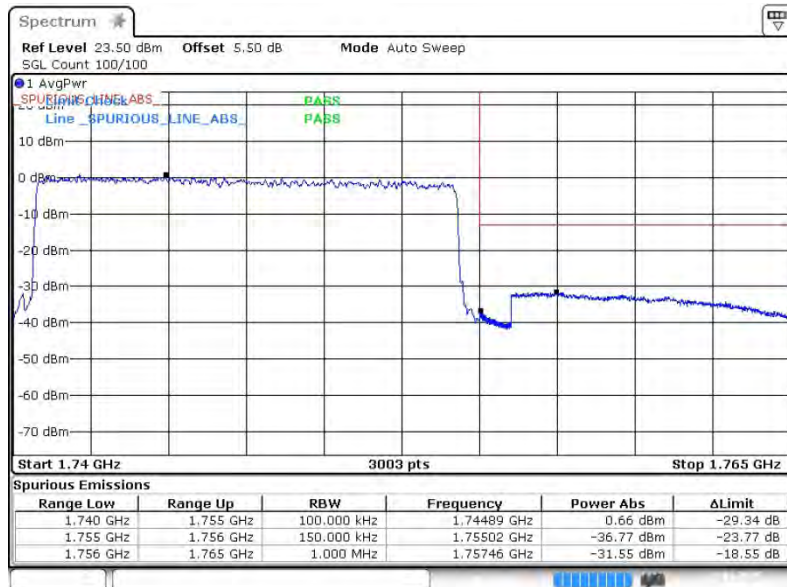


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74



Date: 22.JAN.2015 15:44:57

Higher Band Edge Plot for 16QAM-RB Size 75, RB Offset 0

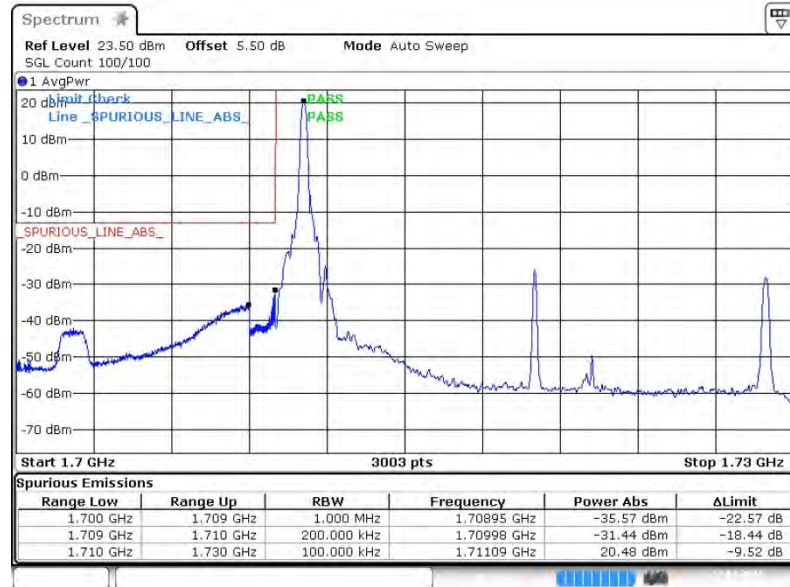


Date: 22.JAN.2015 15:43:57



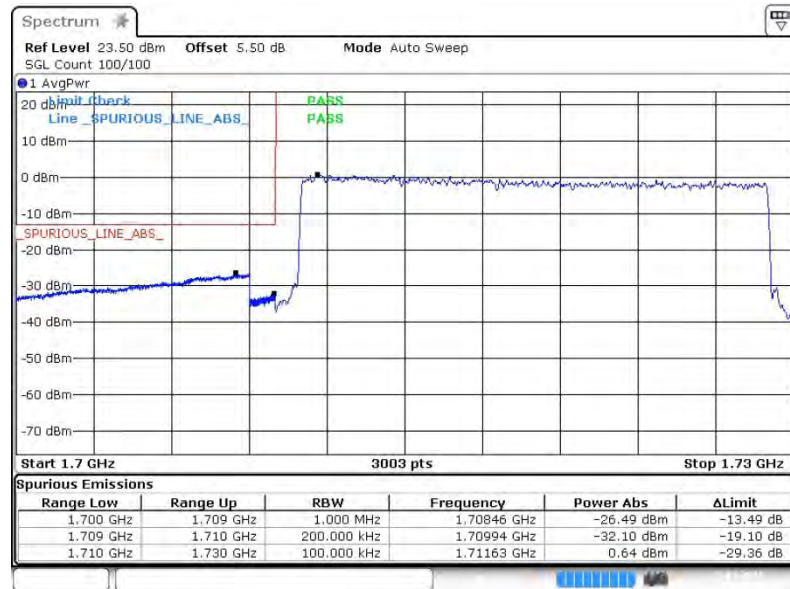
<b>Band :</b>	LTE Band 4	<b>Band Width :</b>	20MHz / QPSK
---------------	------------	---------------------	--------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:46:00

Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0

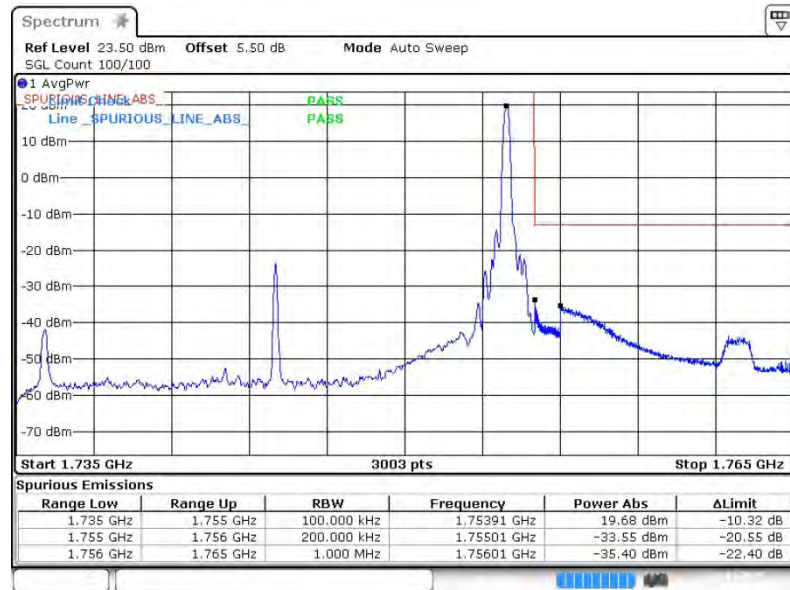


Date: 22.JAN.2015 15:46:21



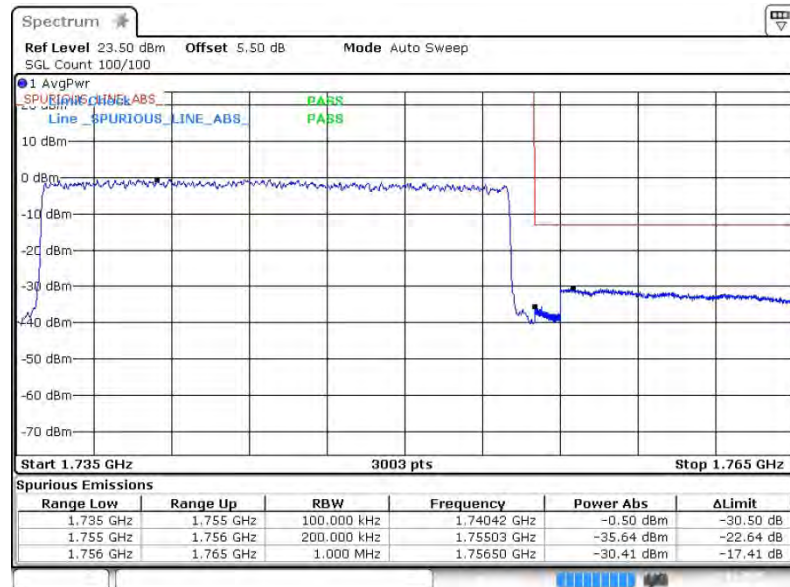


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99



Date: 22.JAN.2015 15:47:52

Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0

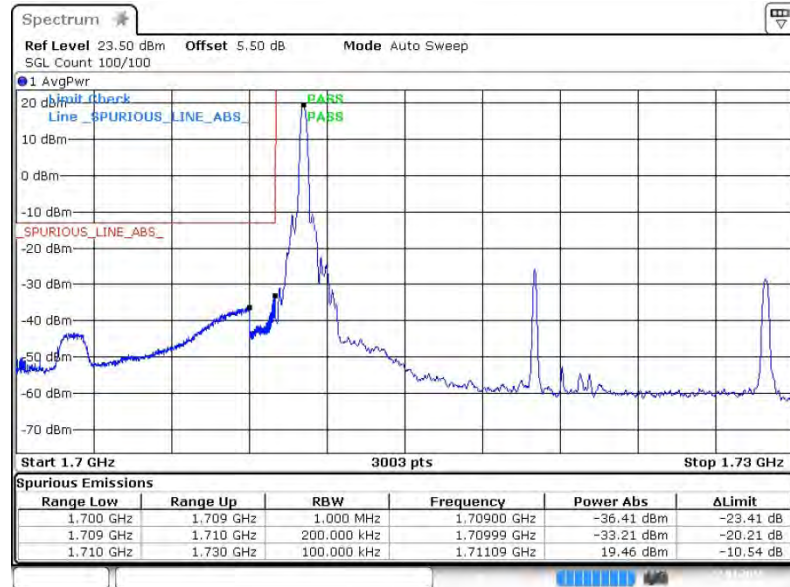


Date: 22.JAN.2015 15:47:28



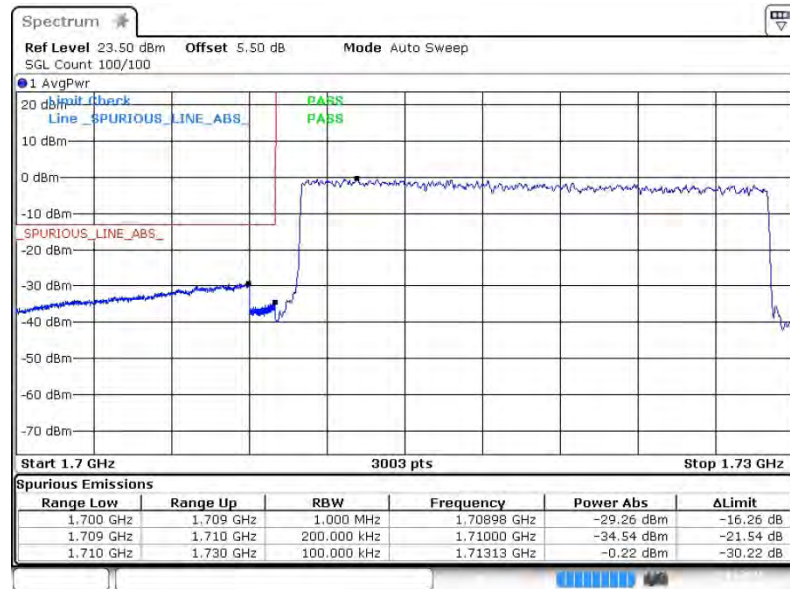
<b>Band :</b>	LTE Band 4	<b>Band Width :</b>	20MHz / 16QAM
---------------	------------	---------------------	---------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 15:45:43

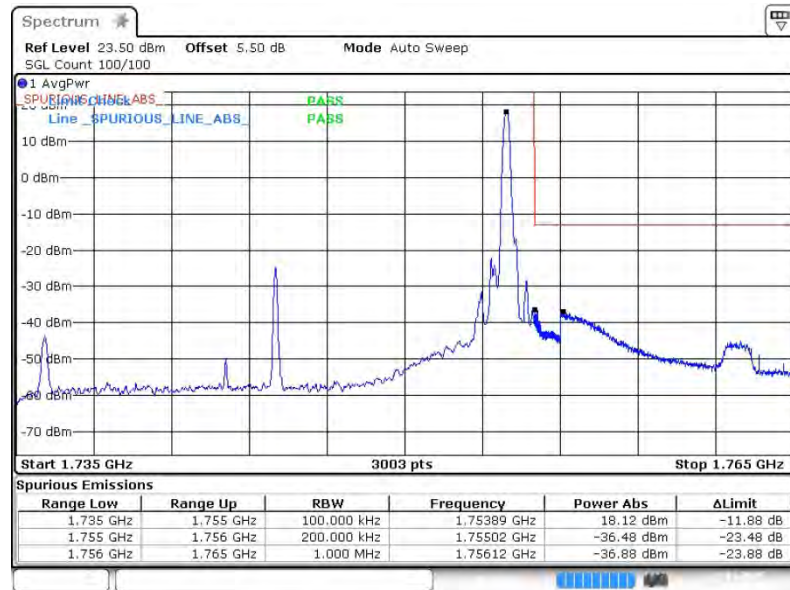
Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Date: 22.JAN.2015 15:46:43

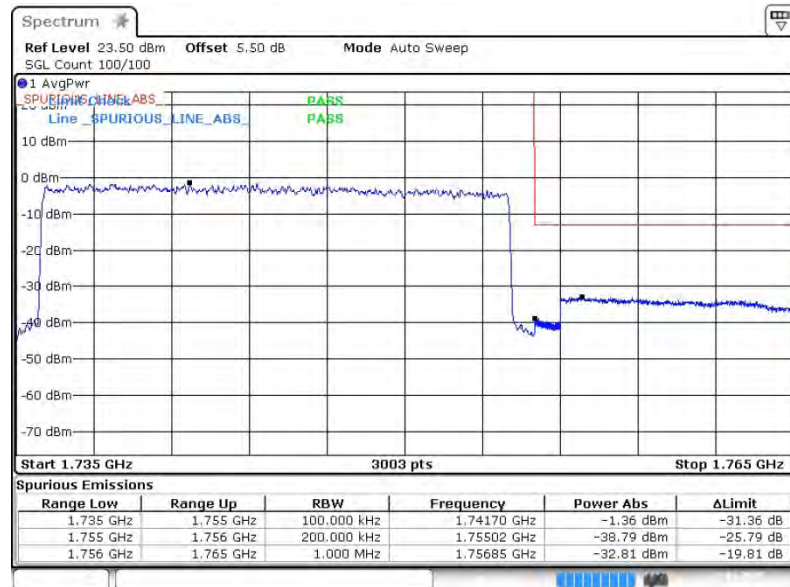


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99



Date: 22.JAN.2015 15:48:09

Higher Band Edge Plot for 16QAM-RB Size 100, RB Offset 0

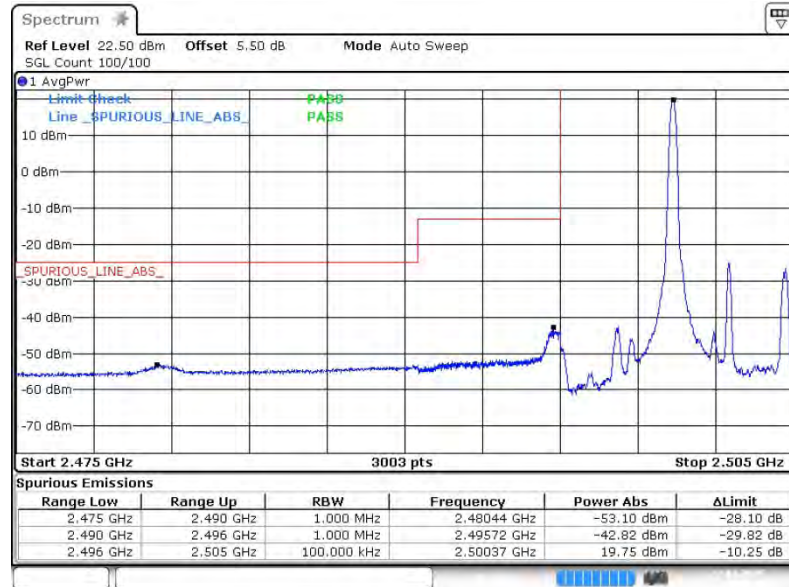


Date: 22.JAN.2015 15:47:10



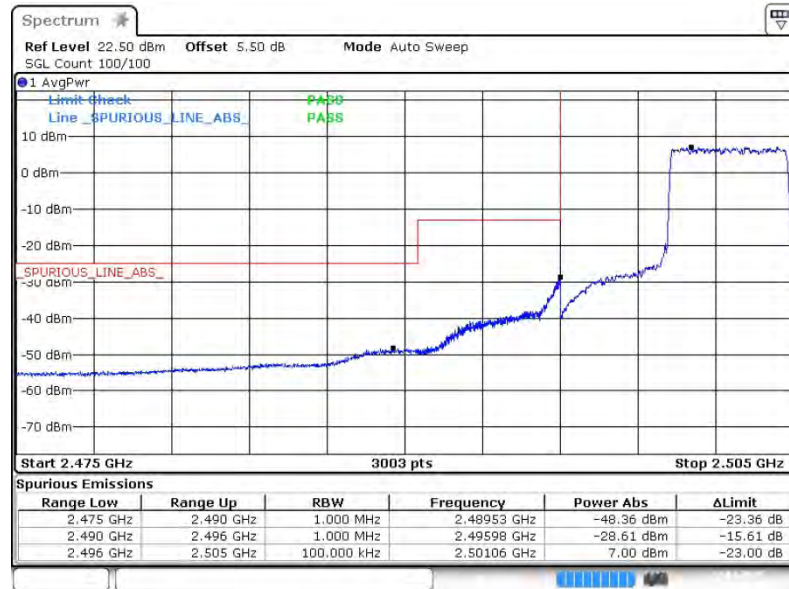
<b>Band :</b>	LTE Band 7	<b>Band Width :</b>	5MHz / QPSK
---------------	------------	---------------------	-------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 16:50:08

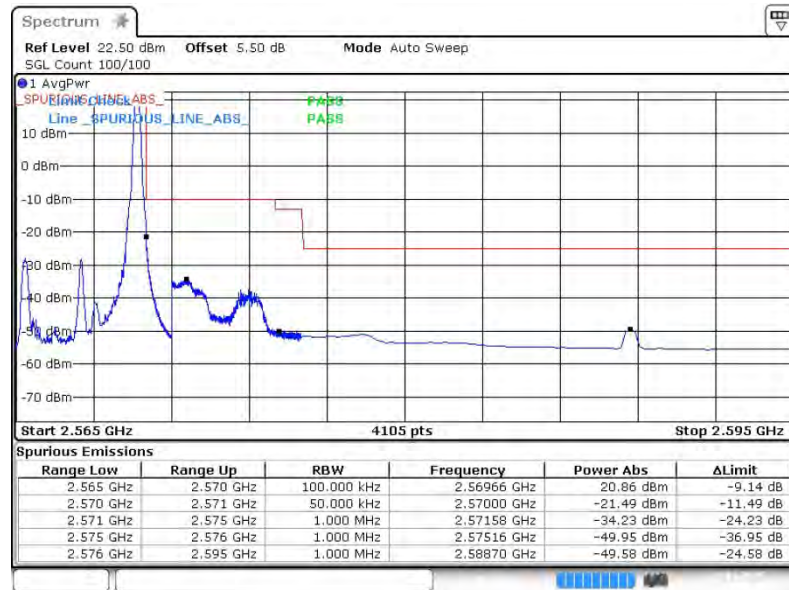
Lower Band Edge Plot for QPSK-RB Size 25, RB Offset 0



Date: 22.JAN.2015 16:51:04

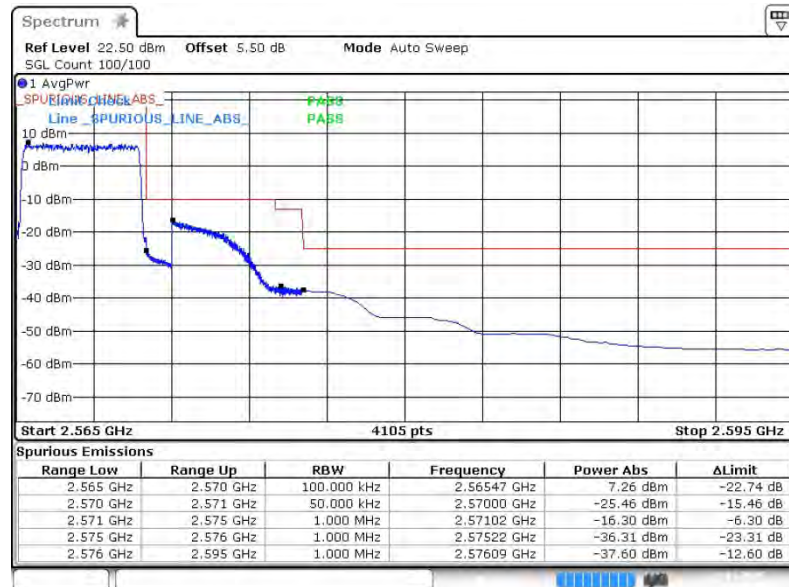


Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 24



Date: 22.JAN.2015 16:52:49

Higher Band Edge Plot for QPSK-RB Size 25, RB Offset 0

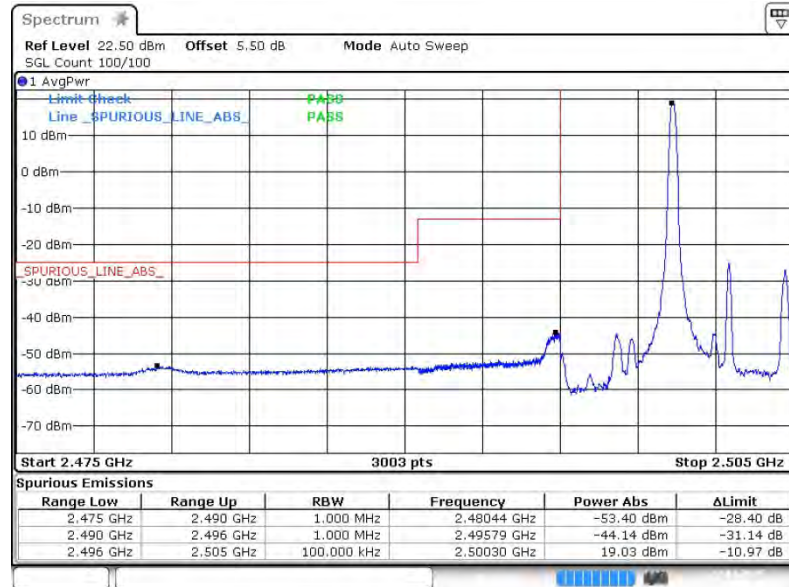


Date: 22.JAN.2015 16:51:27



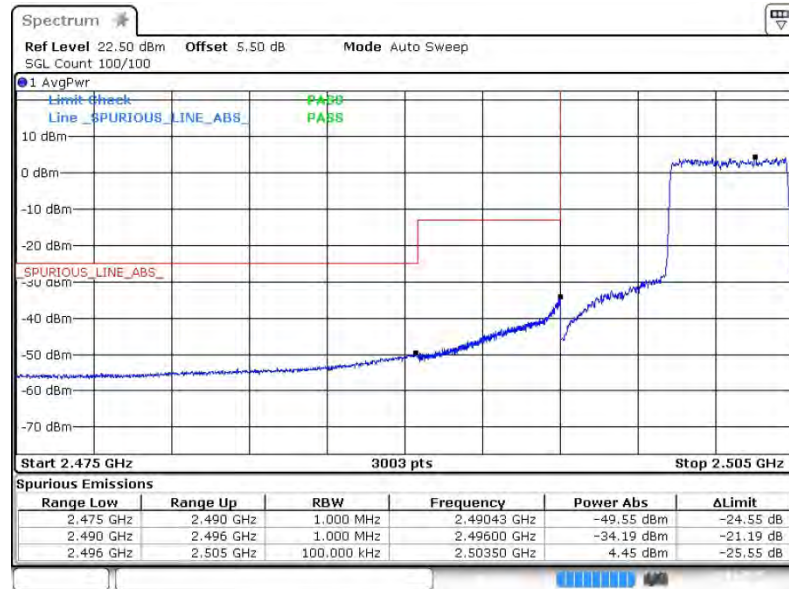
<b>Band :</b>	LTE Band 7	<b>Band Width :</b>	5MHz / 16QAM
---------------	------------	---------------------	--------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 16:50:24

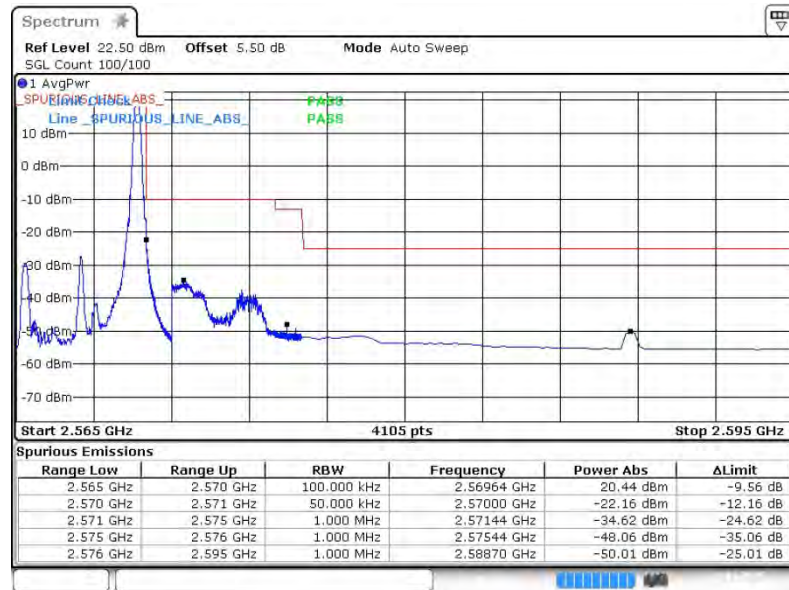
Lower Band Edge Plot for 16QAM-RB Size 25, RB Offset 0



Date: 22.JAN.2015 16:50:41

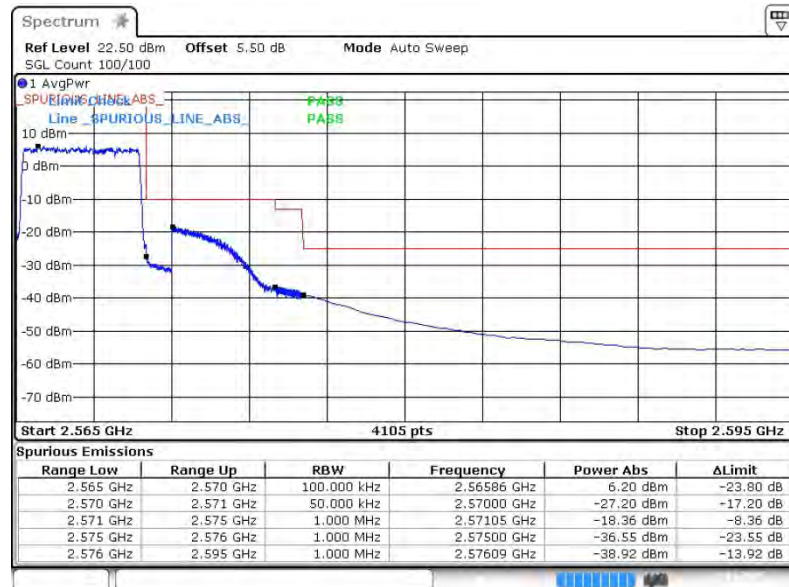


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 24



Date: 22.JAN.2015 16:52:25

Higher Band Edge Plot for 16QAM-RB Size 25, RB Offset 0

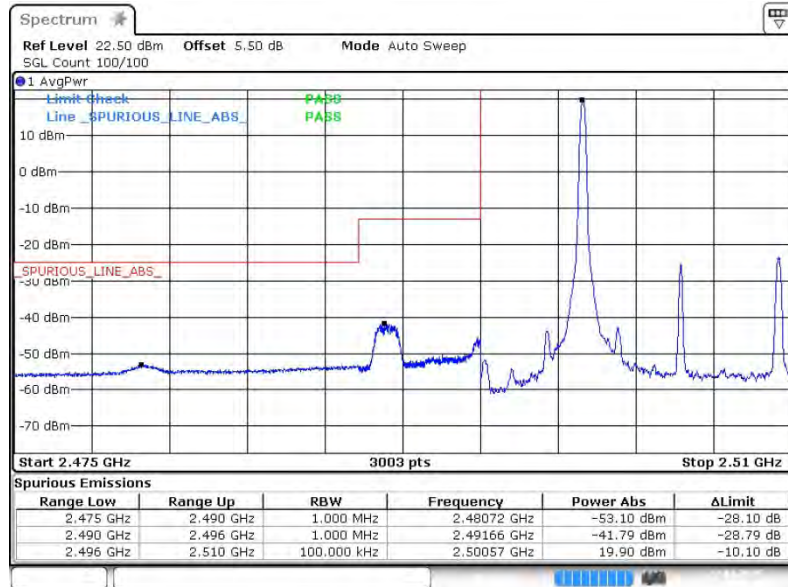


Date: 22.JAN.2015 16:52:01



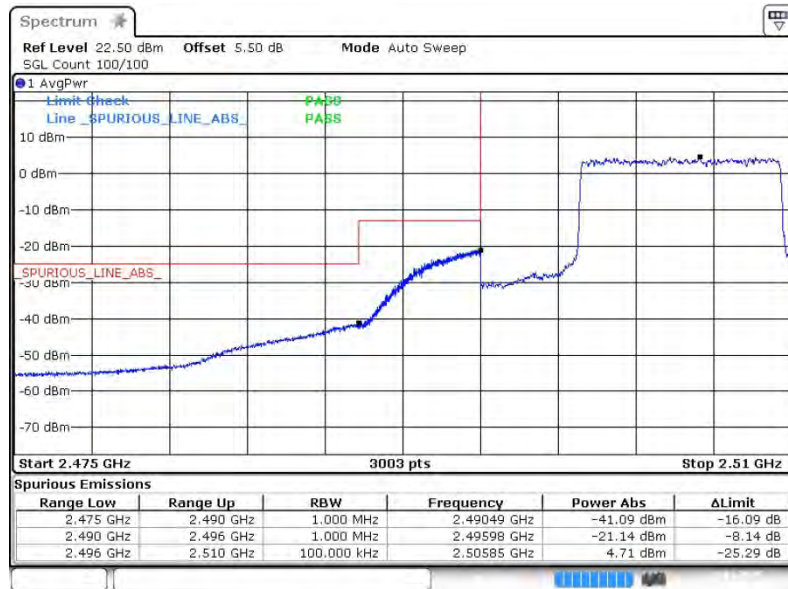
Band :	LTE Band 7	Band Width :	10MHz / QPSK
--------	------------	--------------	--------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 16:53:23

Lower Band Edge Plot for QPSK-RB Size 50, RB Offset 0

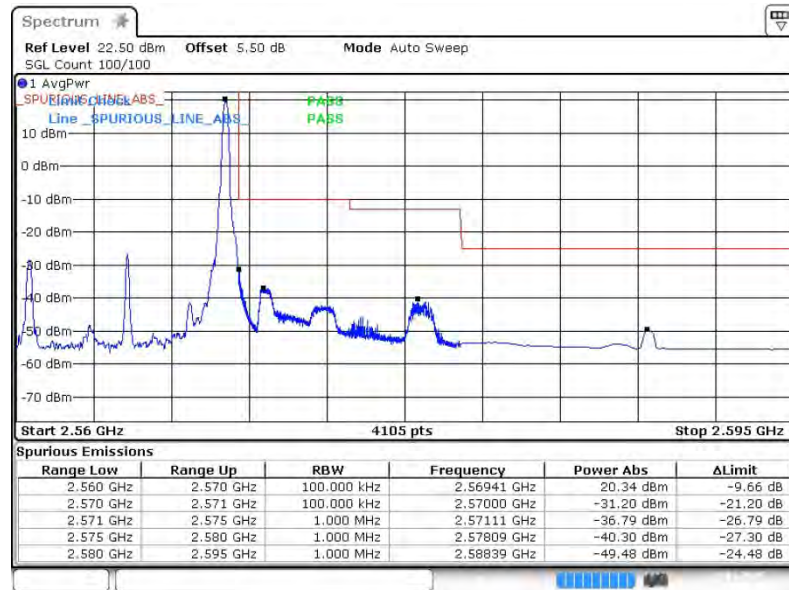


Date: 22.JAN.2015 16:54:24





Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 49



Date: 22.JAN.2015 16:58:28

Higher Band Edge Plot for QPSK-RB Size 50, RB Offset 0

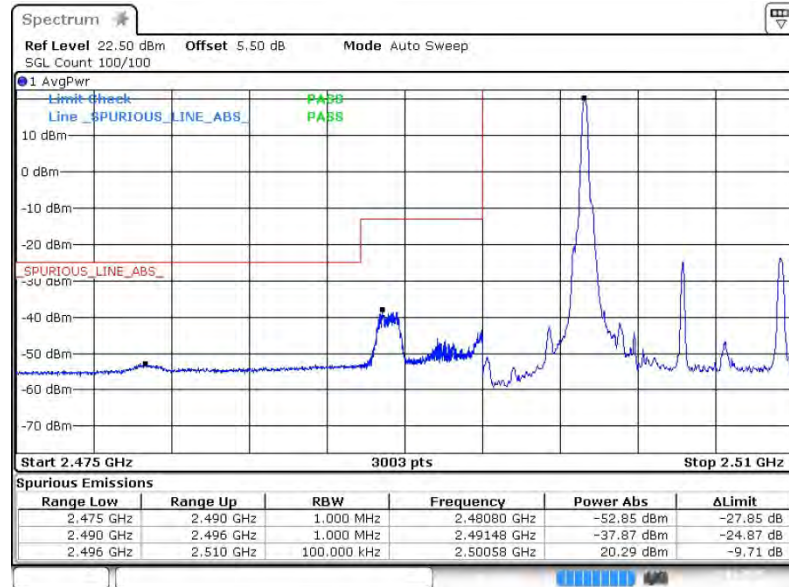


Date: 22.JAN.2015 16:56:53



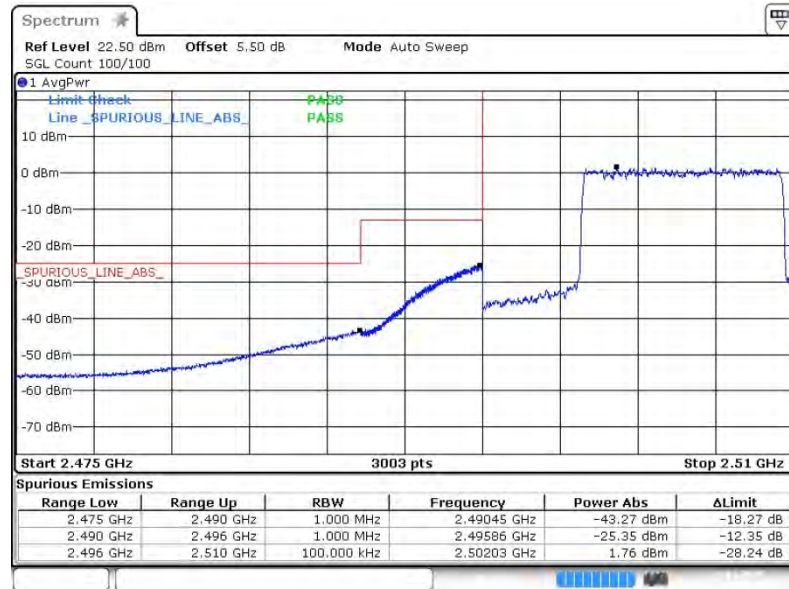
Band :	LTE Band 7	Band Width :	10MHz / 16QAM
--------	------------	--------------	---------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 16:53:45

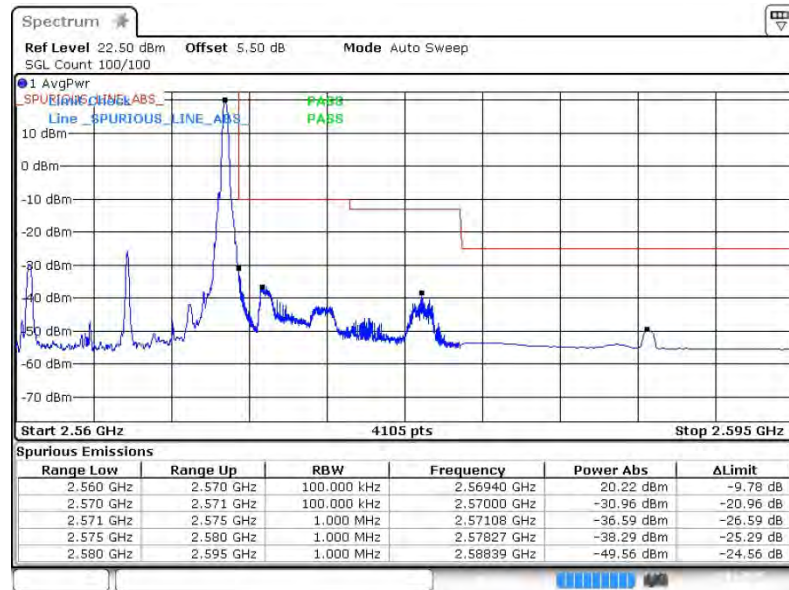
Lower Band Edge Plot for 16QAM-RB Size 50, RB Offset 0



Date: 22.JAN.2015 16:54:03

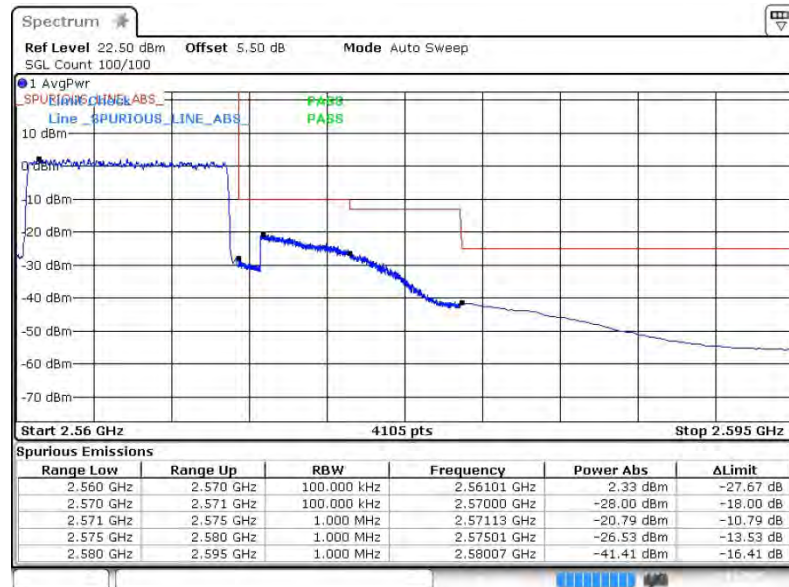


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 49



Date: 22.JAN.2015 16:57:41

Higher Band Edge Plot for 16QAM-RB Size 50, RB Offset 0

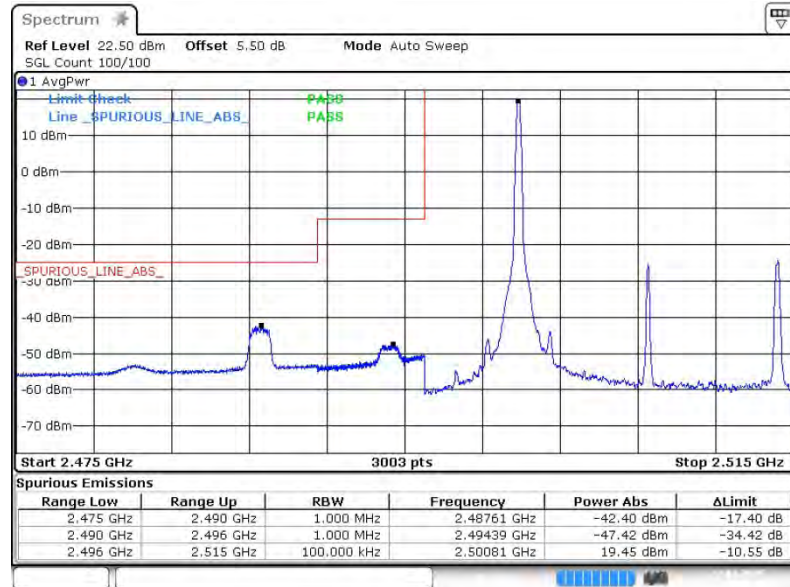


Date: 22.JAN.2015 16:57:14



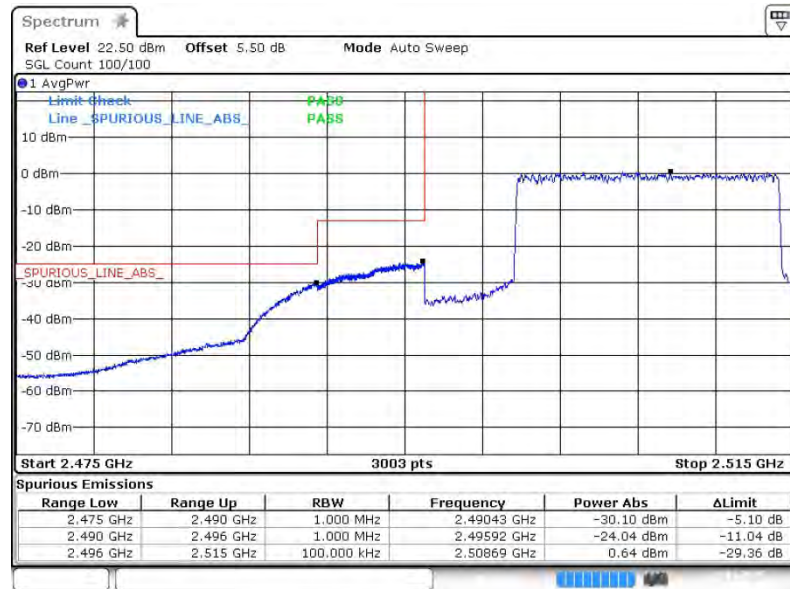
Band :	LTE Band 7	Band Width :	15MHz / QPSK
--------	------------	--------------	--------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 17:00:36

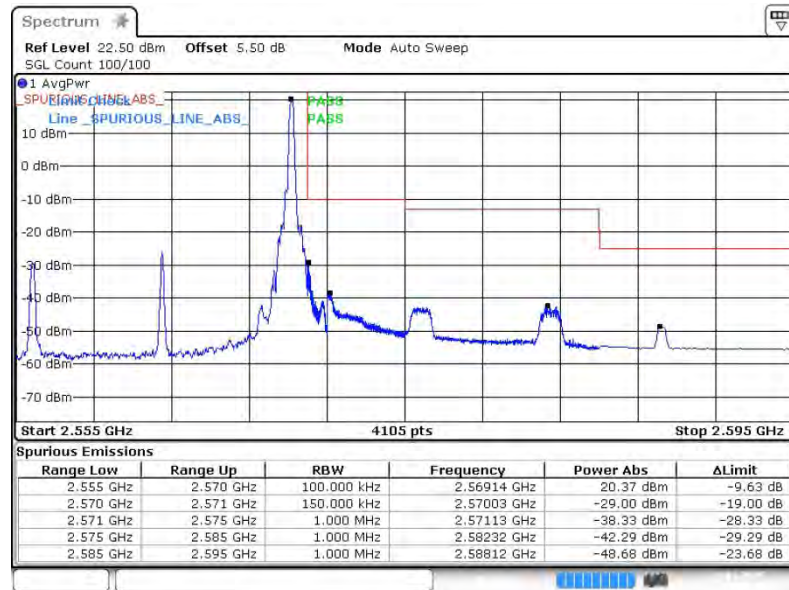
Lower Band Edge Plot for QPSK-RB Size 75, RB Offset 0



Date: 22.JAN.2015 17:01:29

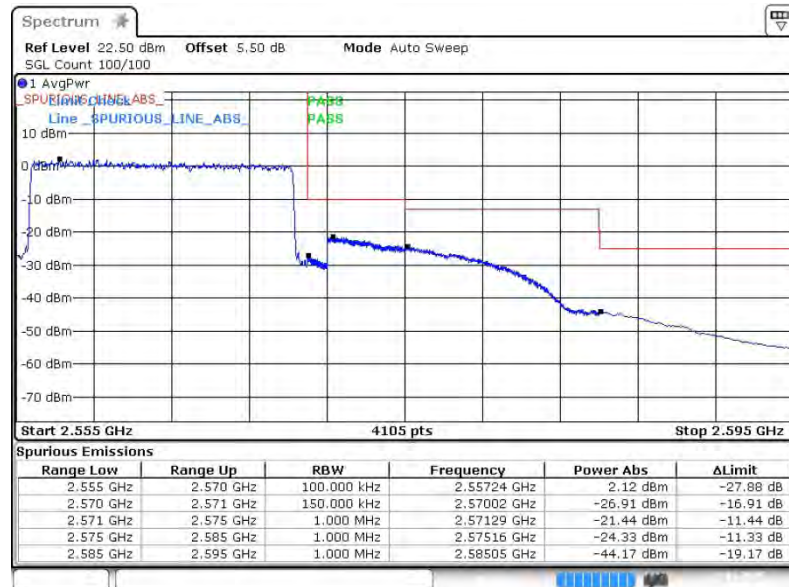


### Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 74



Date: 22.JAN.2015 17:04:46

### Higher Band Edge Plot for QPSK-RB Size 75, RB Offset 0

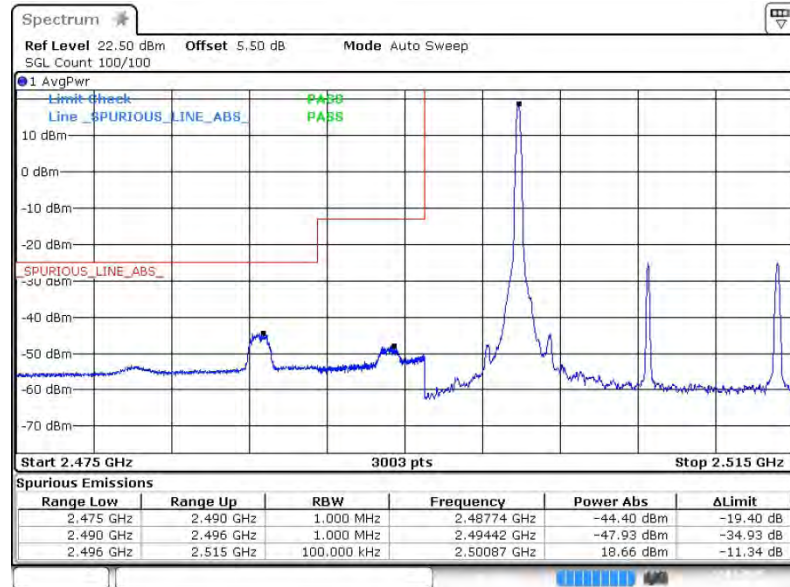


Date: 22.JAN.2015 17:01:54



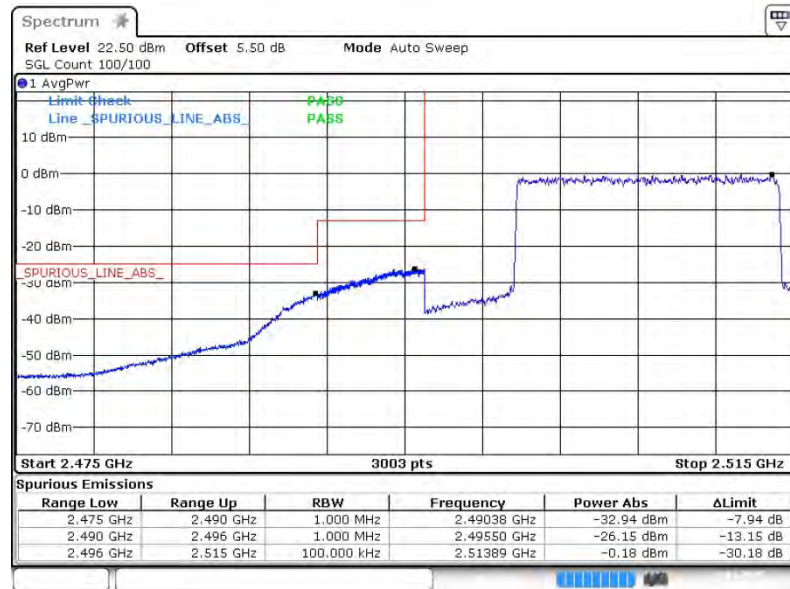
<b>Band :</b>	LTE Band 7	<b>Band Width :</b>	15MHz / 16QAM
---------------	------------	---------------------	---------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 17:00:55

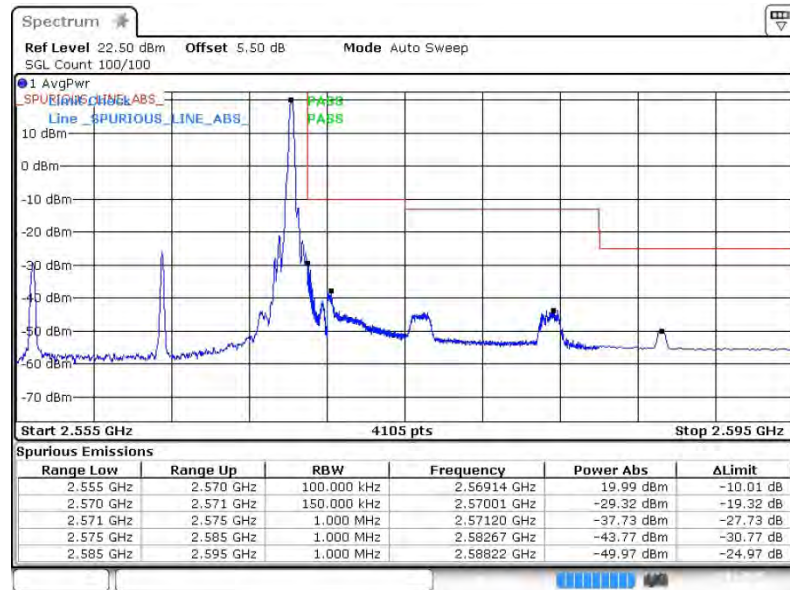
Lower Band Edge Plot for 16QAM-RB Size 75, RB Offset 0



Date: 22.JAN.2015 17:01:12

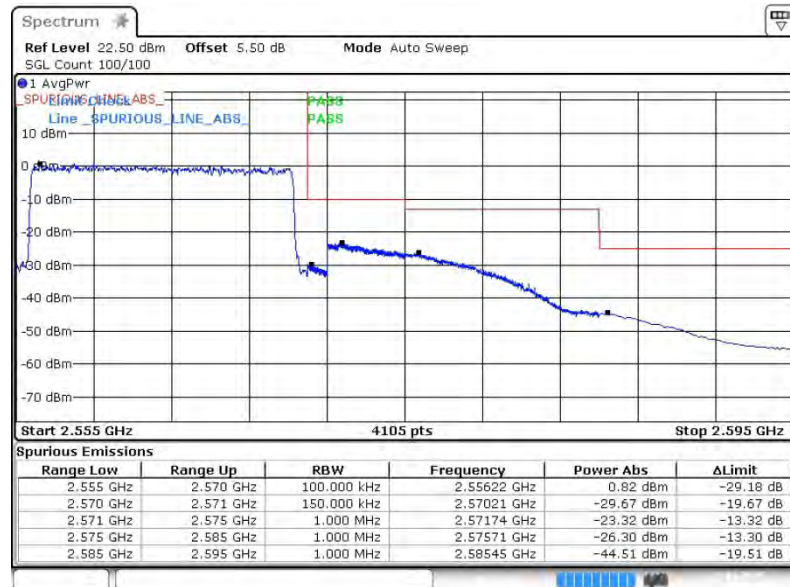


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 74



Date: 22.JAN.2015 17:02:44

Higher Band Edge Plot for 16QAM-RB Size 75, RB Offset 0

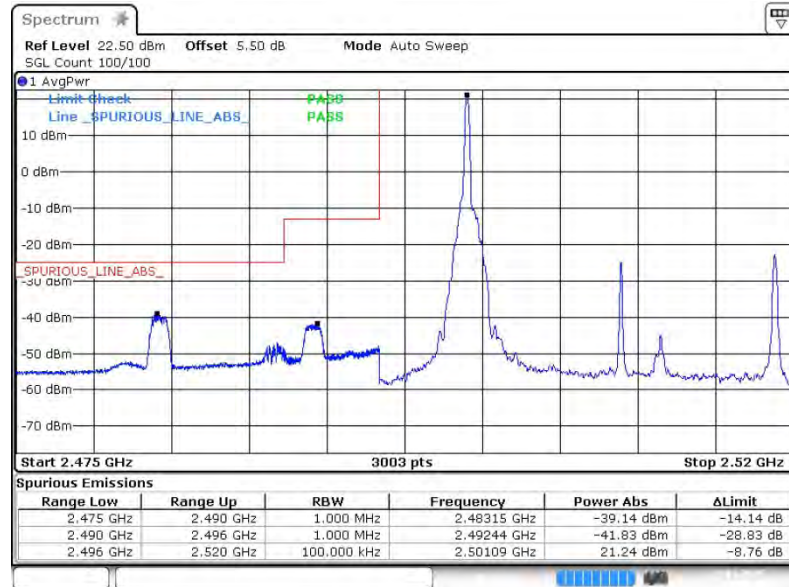


Date: 22.JAN.2015 17:02:18



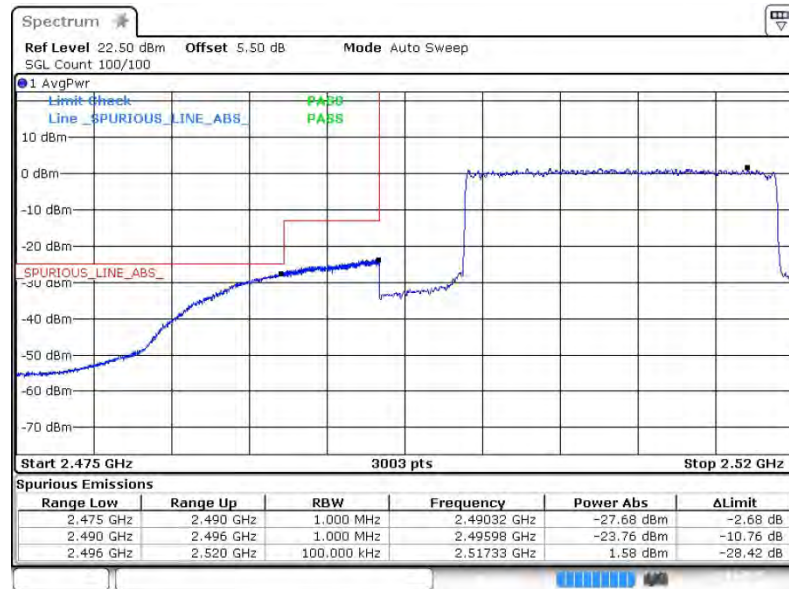
Band :	LTE Band 7	Band Width :	20MHz / QPSK
--------	------------	--------------	--------------

Lower Band Edge Plot for QPSK-RB Size 1, RB Offset 0



Date: 22.JAN.2015 17:08:19

Lower Band Edge Plot for QPSK-RB Size 100, RB Offset 0

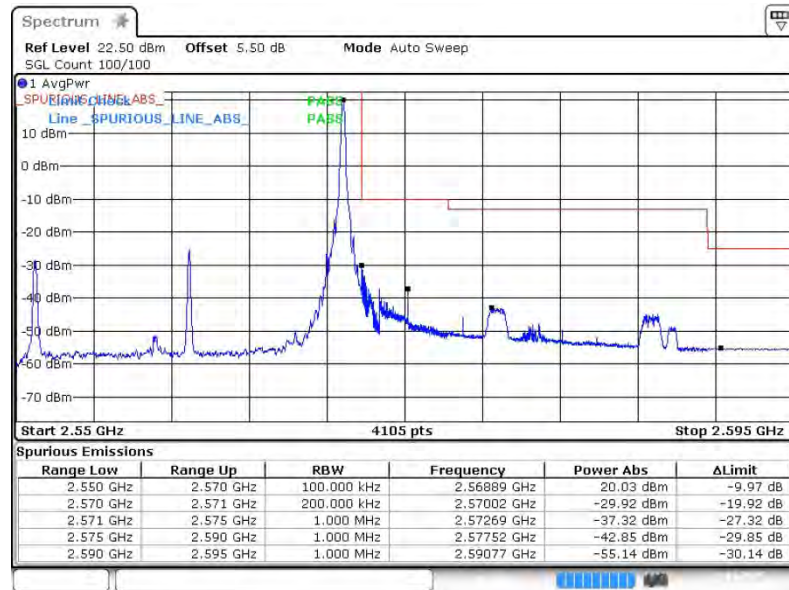


Date: 22.JAN.2015 17:10:30



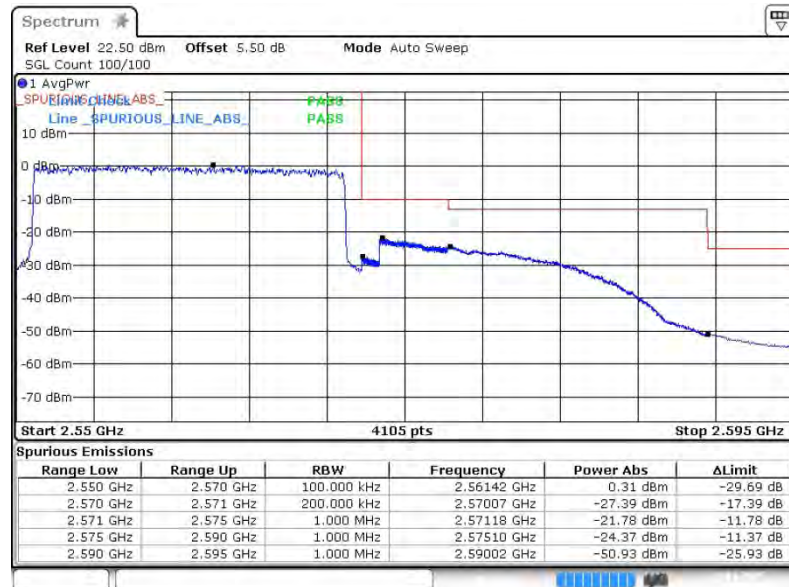


### Higher Band Edge Plot for QPSK-RB Size 1, RB Offset 99



Date: 22.JAN.2015 17:12:43

### Higher Band Edge Plot for QPSK-RB Size 100, RB Offset 0

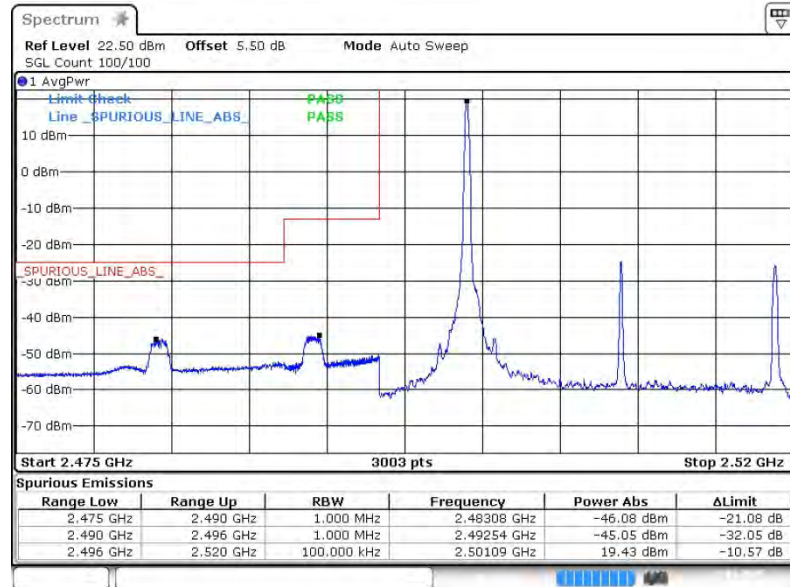


Date: 22.JAN.2015 17:10:58



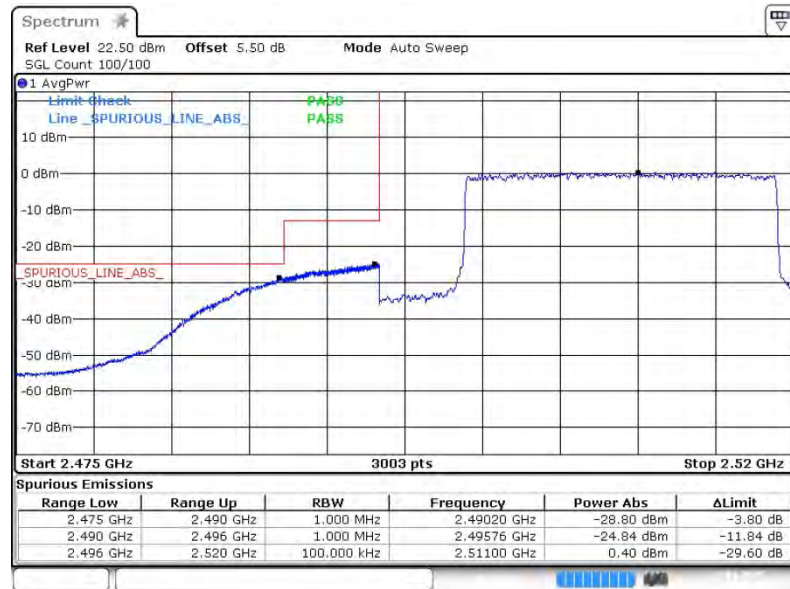
Band :	LTE Band 7	Band Width :	20MHz / 16QAM
--------	------------	--------------	---------------

Lower Band Edge Plot for 16QAM-RB Size 1, RB Offset 0



Date: 22.JAN.2015 17:08:36

Lower Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Date: 22.JAN.2015 17:10:06

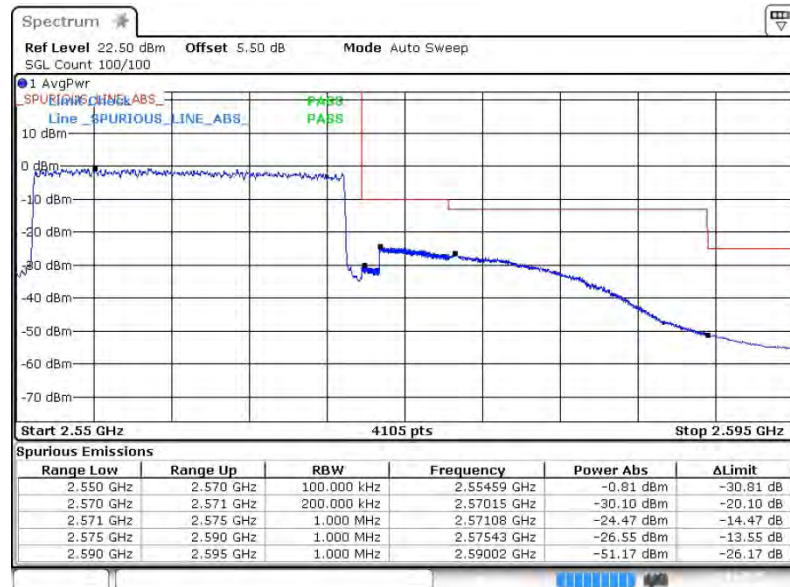


Higher Band Edge Plot for 16QAM-RB Size 1, RB Offset 99



Date: 22.JAN.2015 17:12:26

Higher Band Edge Plot for 16QAM-RB Size 100, RB Offset 0



Date: 22.JAN.2015 17:11:18



## 3.6 Conducted Spurious Emission Measurement

### 3.6.1 Description of Conducted Spurious Emission Measurement

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

For Band 7

The power of any emission outside of the authorized operating frequency ranges must be lower than the transmitter power (P) by a factor of at least  $55 + 10 \log (P)$  dB.

It is measured by means of a calibrated spectrum analyzer and scanned from 30MHz up to a frequency including its 10<sup>th</sup> harmonic.

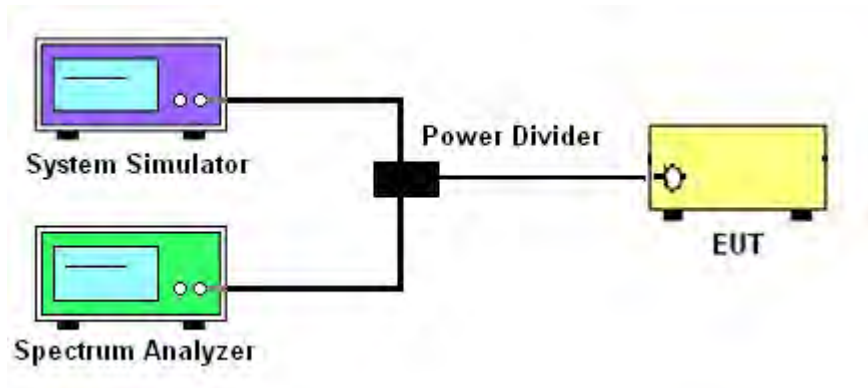
### 3.6.2 Measuring Instruments

The measuring equipment is listed in the section 4 of this test report.

### 3.6.3 Test Procedures

1. The EUT was connected to spectrum analyzer and system simulator via a power divider.
2. The RF output of EUT was connected to the spectrum analyzer by RF cable and attenuator. The path loss was compensated to the results for each measurement.
3. The middle channel for the highest RF power within the transmitting frequency was measured.
4. The conducted spurious emission for the whole frequency range was taken.
5. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
6. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
7. The limit line is derived from  $43 + 10\log(P)$ dB below the transmitter power P(Watts)  
= P(W)- [43 + 10log(P)] (dB)  
= [30 + 10log(P)] (dBm) - [43 + 10log(P)] (dB)  
= -13dBm.
8. For Band 7  
The limit line is derived from  $55 + 10\log(P)$ dB below the transmitter power P(Watts)  
= P(W)- [55 + 10log(P)] (dB)  
= [30 + 10log(P)] (dBm) - [55 + 10log(P)] (dB)  
= -25dBm.

### 3.6.4 Test Setup

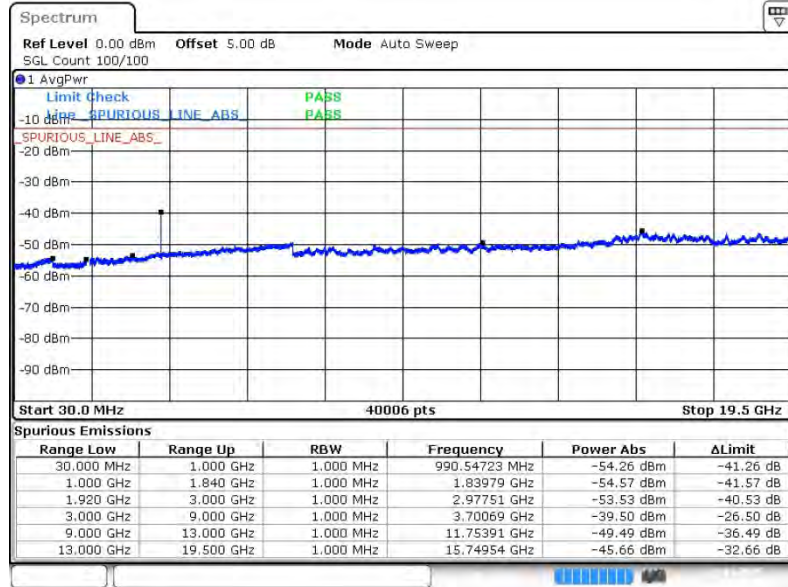




### 3.6.5 Test Result (Plots) of Conducted Spurious Emission

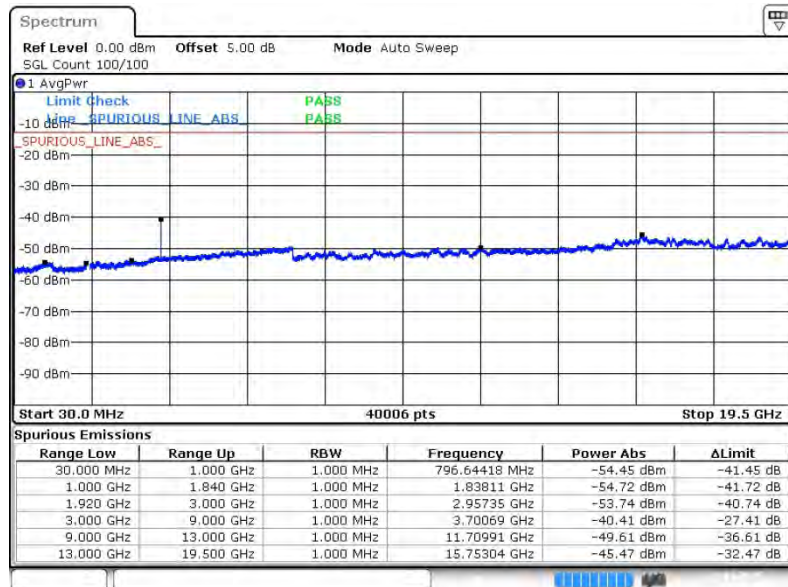
Band :	LTE Band 2	Channel :	CH18607 (Low)
Band Width :	1.4MHz		

#### QPSK (RB Size 3, RB Offset 0)



Date: 22.JAN.2015 11:32:37

#### 16QAM (RB Size 1, RB Offset 5)

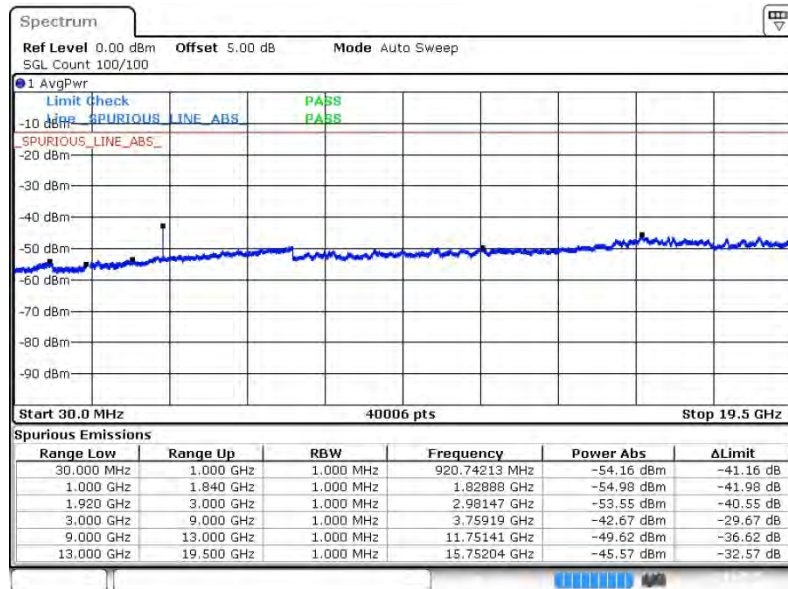


Date: 22.JAN.2015 11:33:55



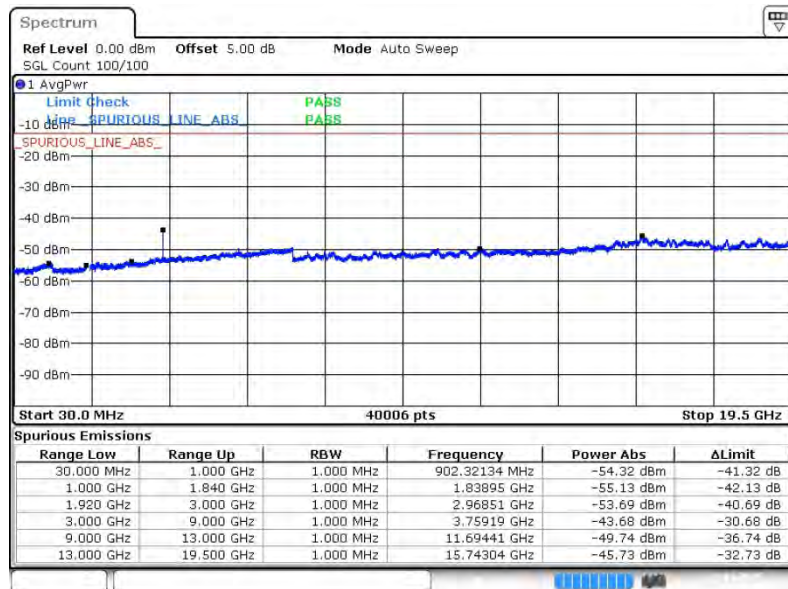
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH18900 (Middle)
<b>Band Width :</b>	1.4MHz		

**QPSK (RB Size 3, RB Offset 1)**



Date: 22.JAN.2015 11:35:57

**16QAM (RB Size 3, RB Offset 1)**

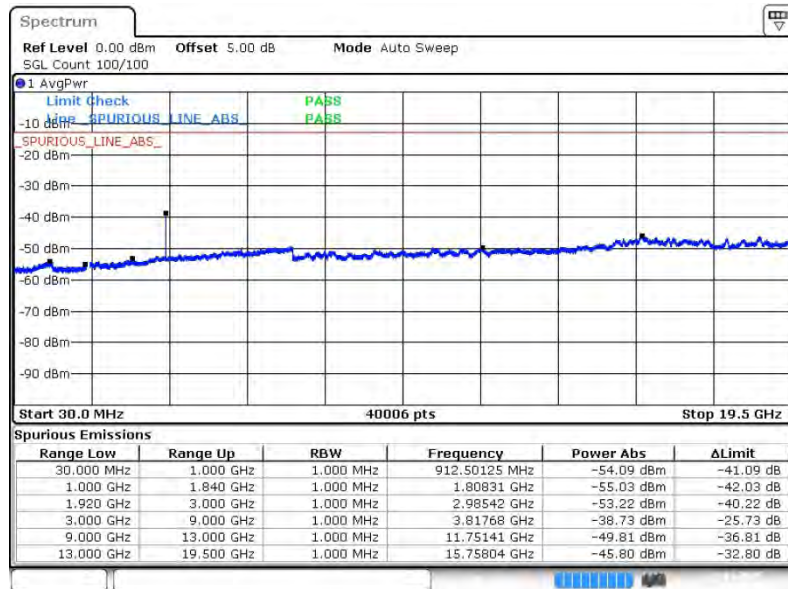


Date: 22.JAN.2015 11:37:16



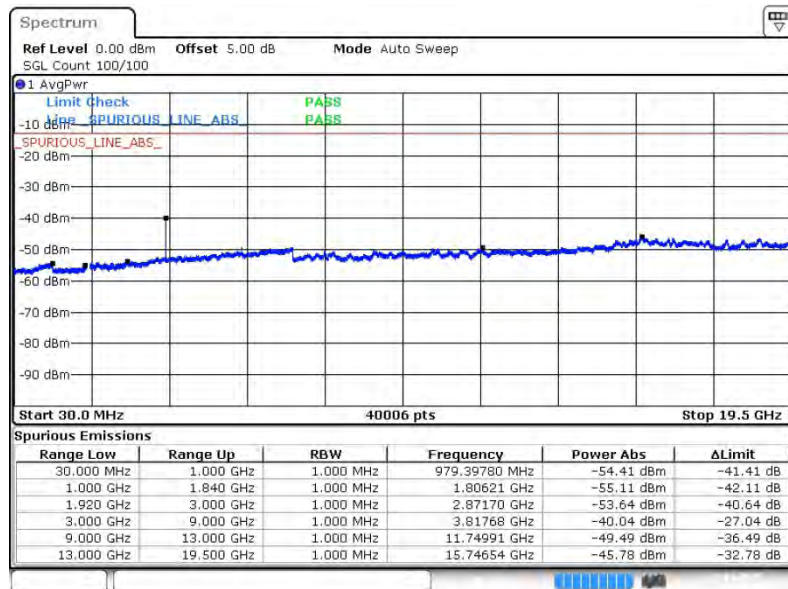
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH19193 (High)
<b>Band Width :</b>	1.4MHz		

**QPSK (RB Size 1, RB Offset 2)**



Date: 22.JAN.2015 11:39:18

**16QAM (RB Size 3, RB Offset 1)**



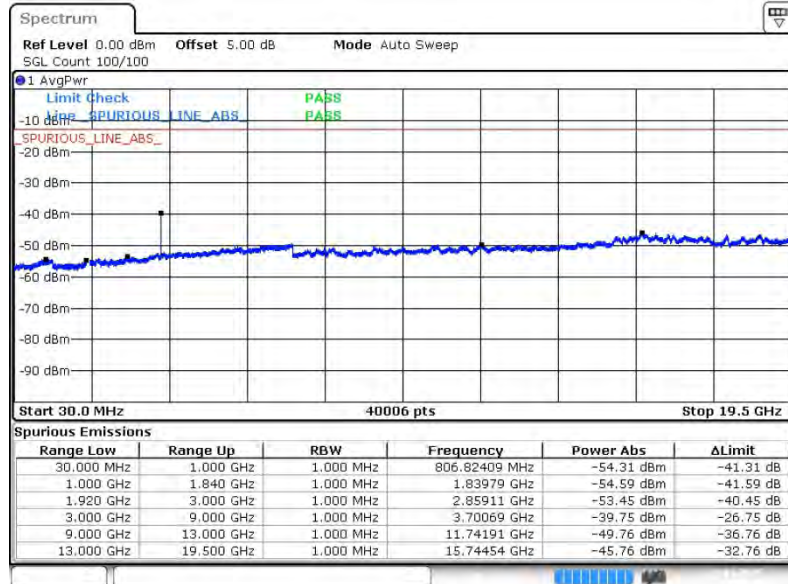
Date: 22.JAN.2015 11:40:37





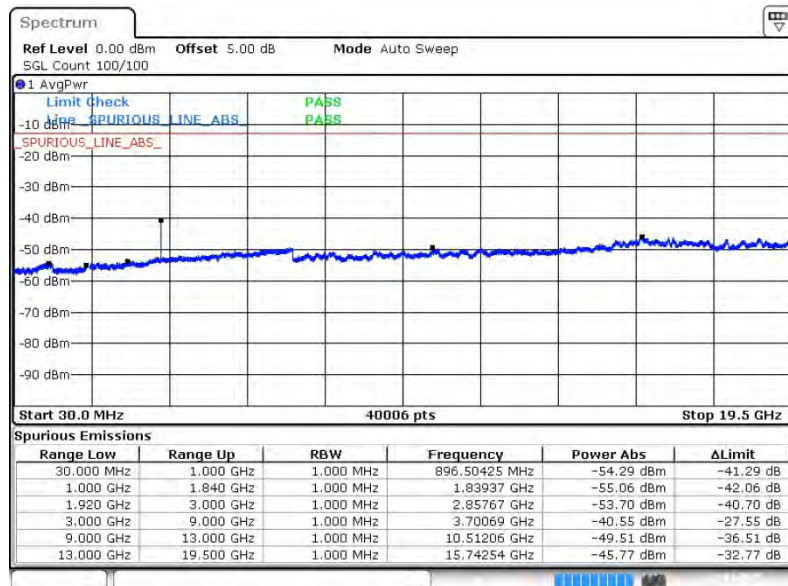
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH18615 (Low)
<b>Band Width :</b>	3MHz		

**QPSK (RB Size 8, RB Offset 0)**



Date: 22.JAN.2015 11:42:39

**16QAM (RB Size 1, RB Offset 0)**

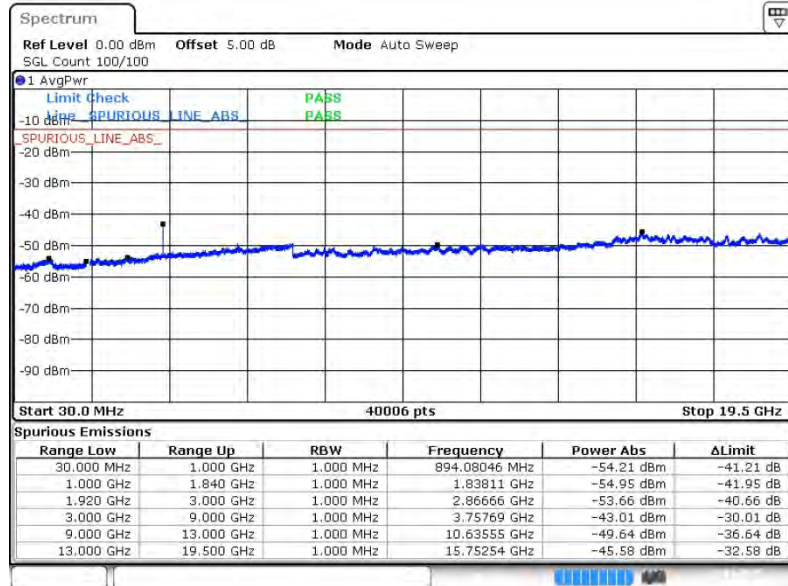


Date: 22.JAN.2015 11:43:57



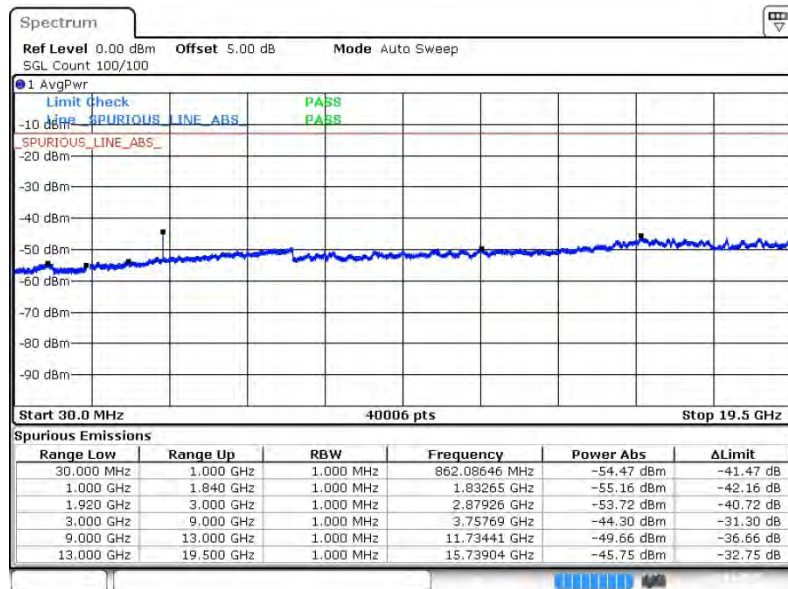
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH18900 (Middle)
<b>Band Width :</b>	3MHz		

**QPSK (RB Size 8, RB Offset 0)**



Date: 22.JAN.2015 11:45:59

**16QAM (RB Size 1, RB Offset 0)**

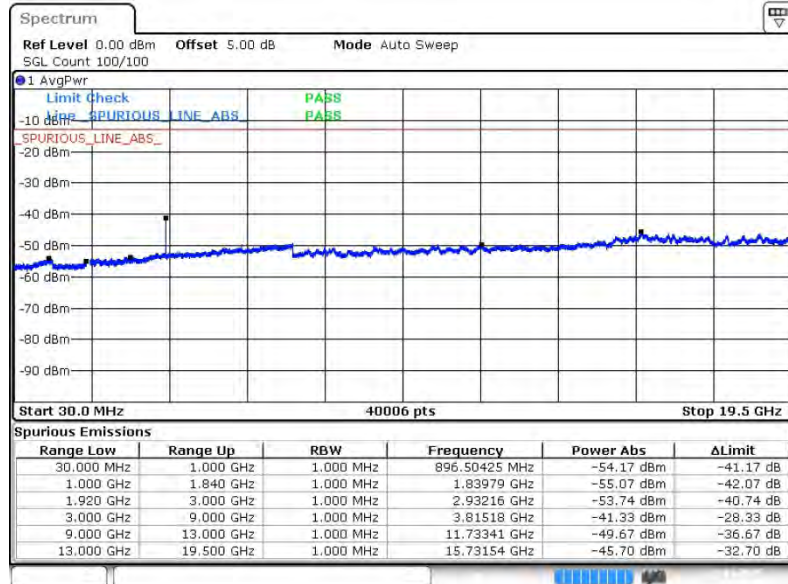


Date: 22.JAN.2015 11:47:18



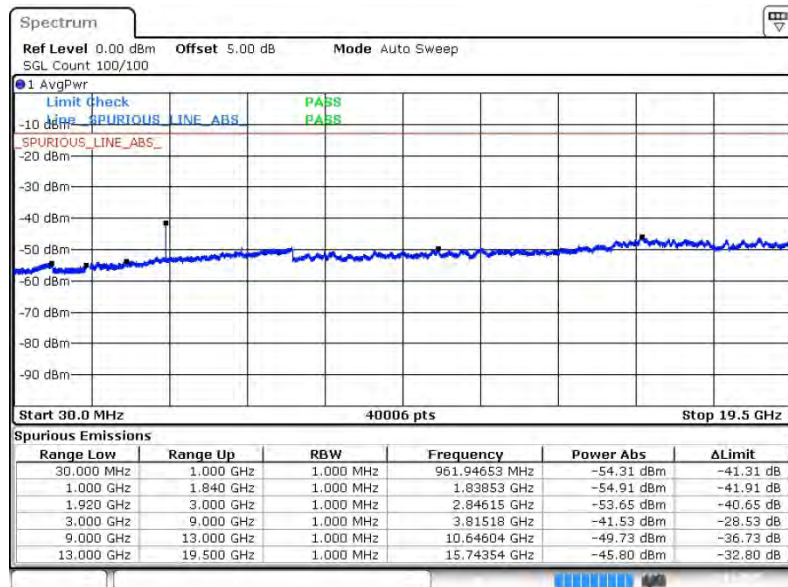
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH19185 (High)
<b>Band Width :</b>	3MHz		

**QPSK (RB Size 1, RB Offset 7)**



Date: 22.JAN.2015 11:49:20

**16QAM (RB Size 1, RB Offset 14)**

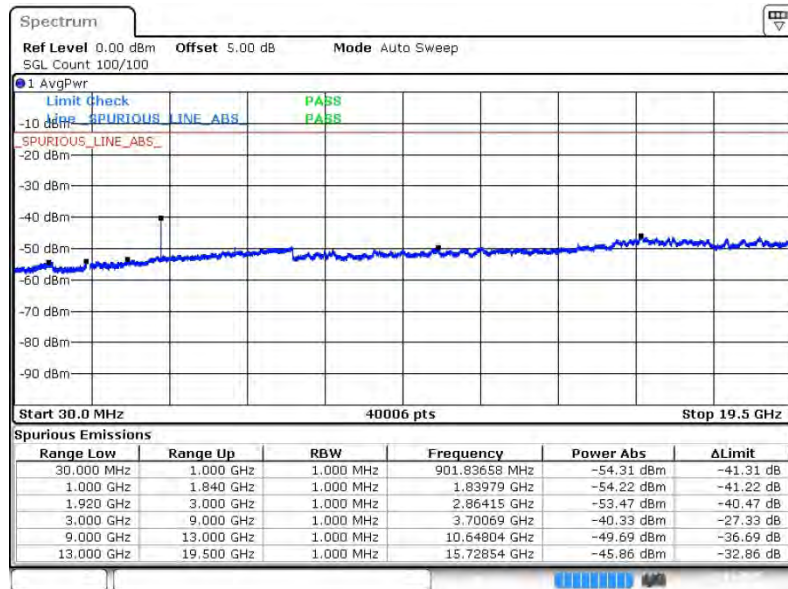


Date: 22.JAN.2015 11:50:38



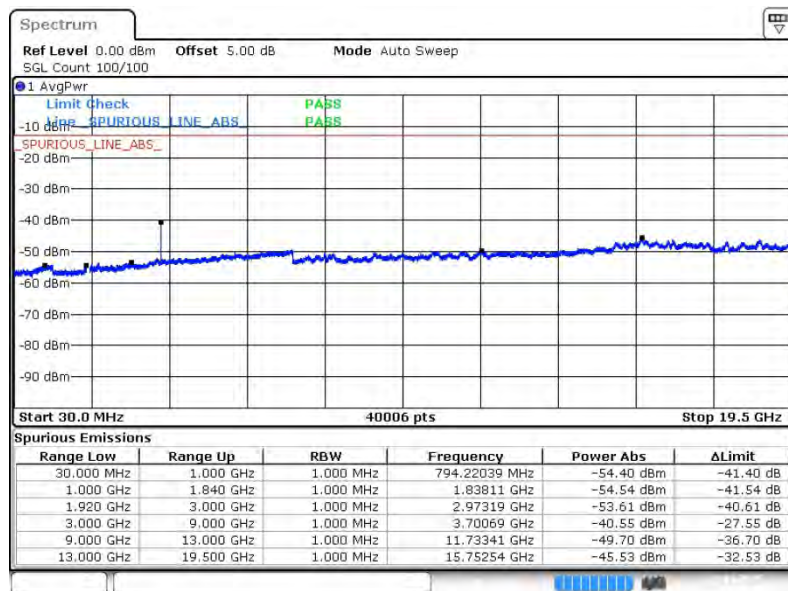
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH18625 (Low)
<b>Band Width :</b>	5MHz		

QPSK (RB Size 1, RB Offset 12)



Date: 22.JAN.2015 11:52:40

16QAM (RB Size 1, RB Offset 12)

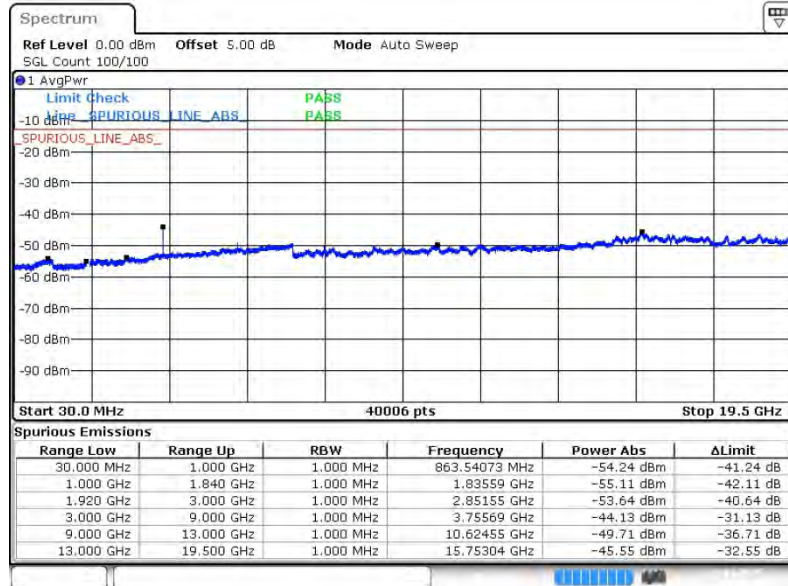


Date: 22.JAN.2015 11:53:59



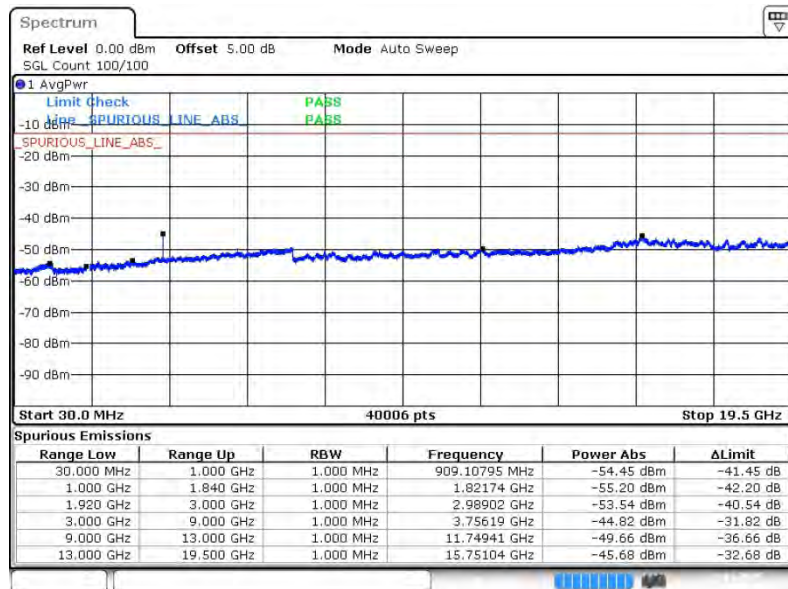
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH18900 (Middle)
<b>Band Width :</b>	5MHz		

QPSK (RB Size 1, RB Offset 12)



Date: 22.JAN.2015 11:56:01

16QAM (RB Size 1, RB Offset 12)

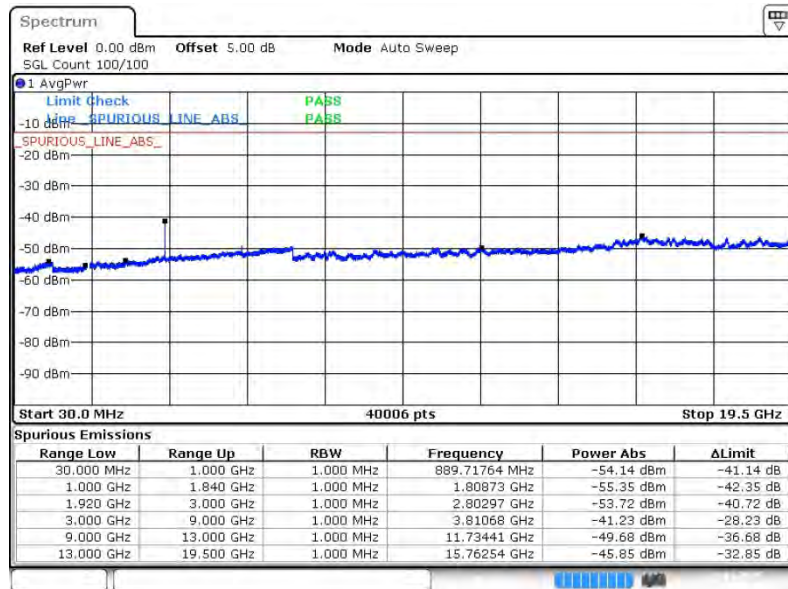


Date: 22.JAN.2015 11:57:19



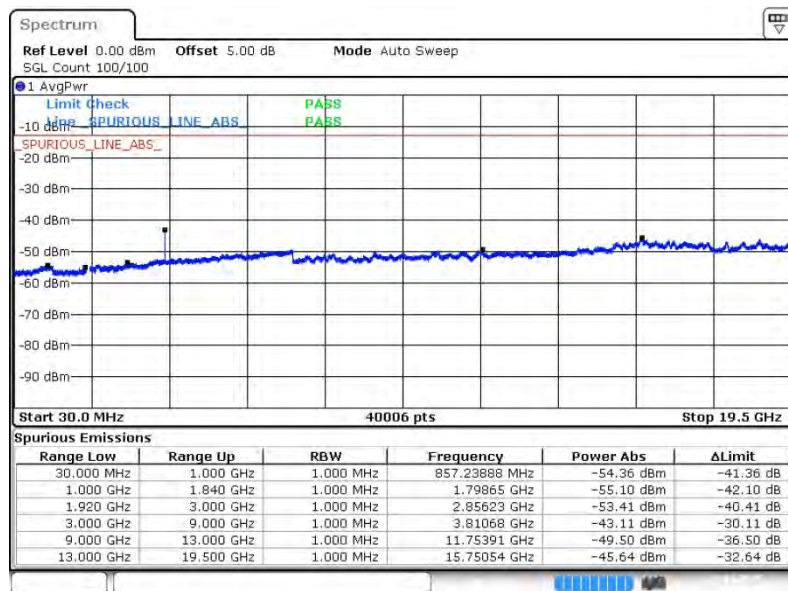
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH19175 (High)
<b>Band Width :</b>	5MHz		

**QPSK (RB Size 1, RB Offset 12)**



Date: 22.JAN.2015 11:59:21

**16QAM (RB Size 1, RB Offset 12)**

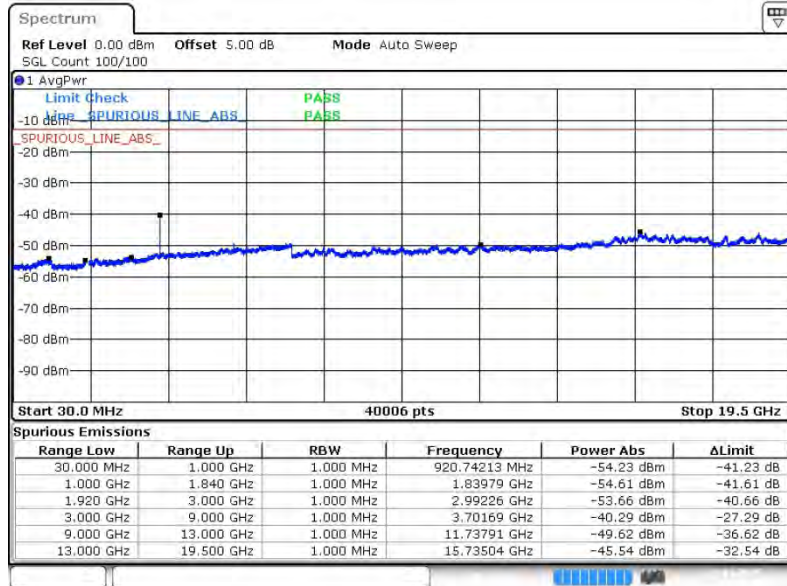


Date: 22.JAN.2015 12:00:39



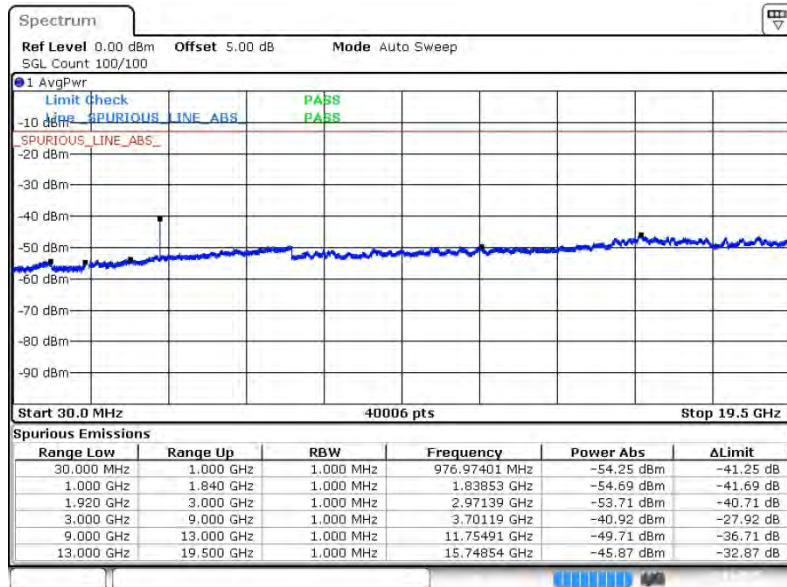
Band :	LTE Band 2	Channel :	CH18650 (Low)
Band Width :	10MHz		

QPSK (RB Size 1, RB Offset 0)



Date: 22.JAN.2015 12:02:42

16QAM (RB Size 1, RB Offset 0)

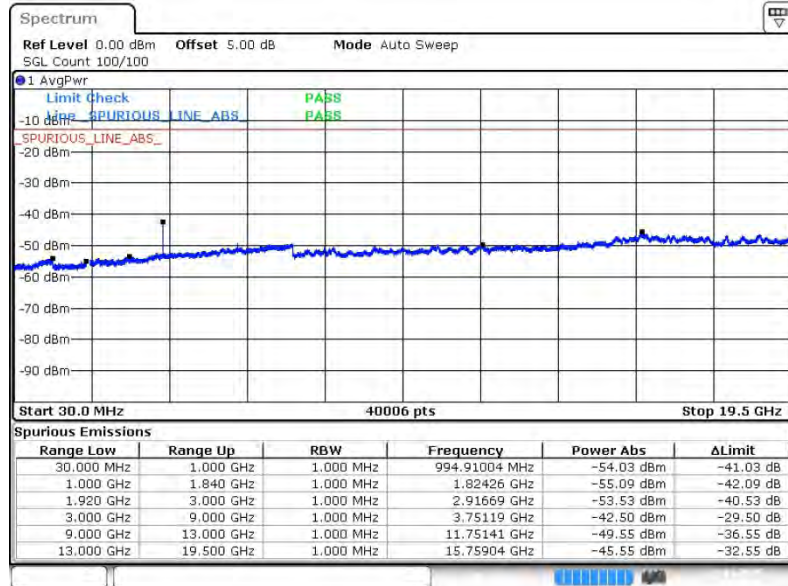


Date: 22.JAN.2015 12:04:00



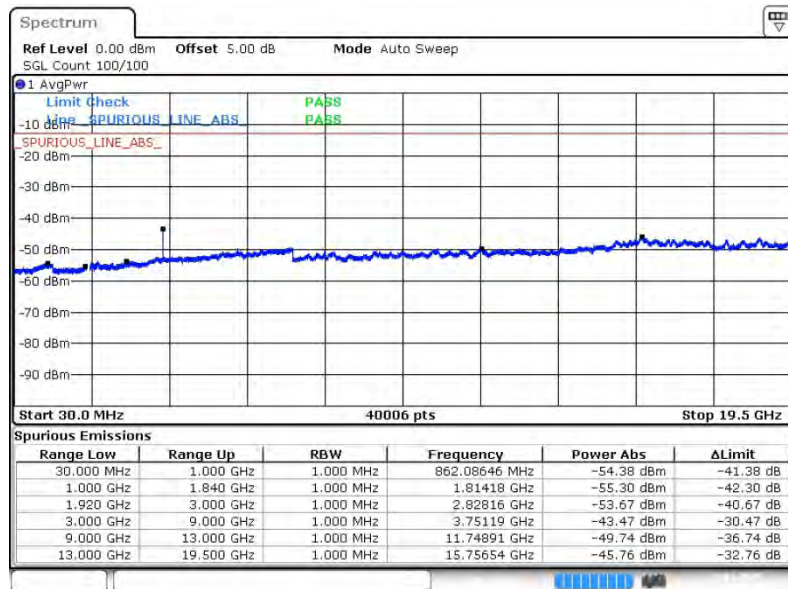
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH18900 (Middle)
<b>Band Width :</b>	10MHz		

QPSK (RB Size 1, RB Offset 24)



Date: 22.JAN.2015 12:06:02

16QAM (RB Size 1, RB Offset 49)



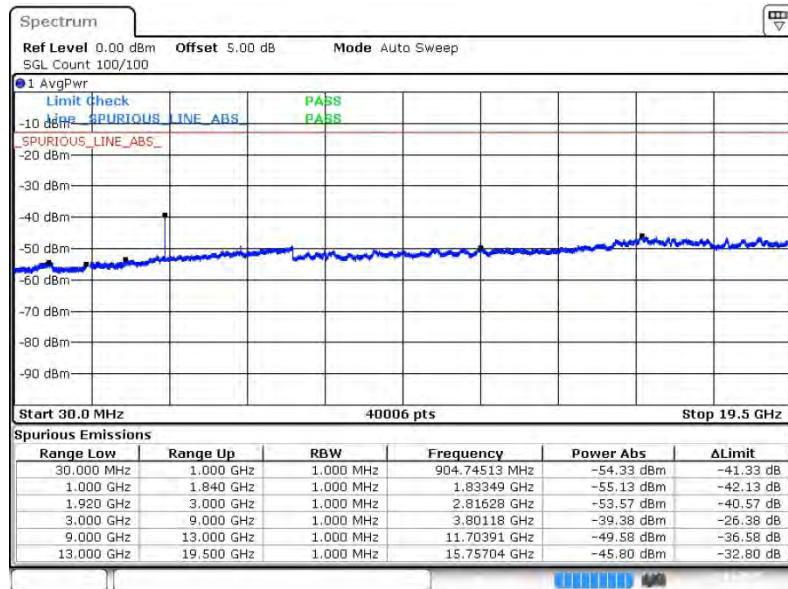
Date: 22.JAN.2015 12:07:21





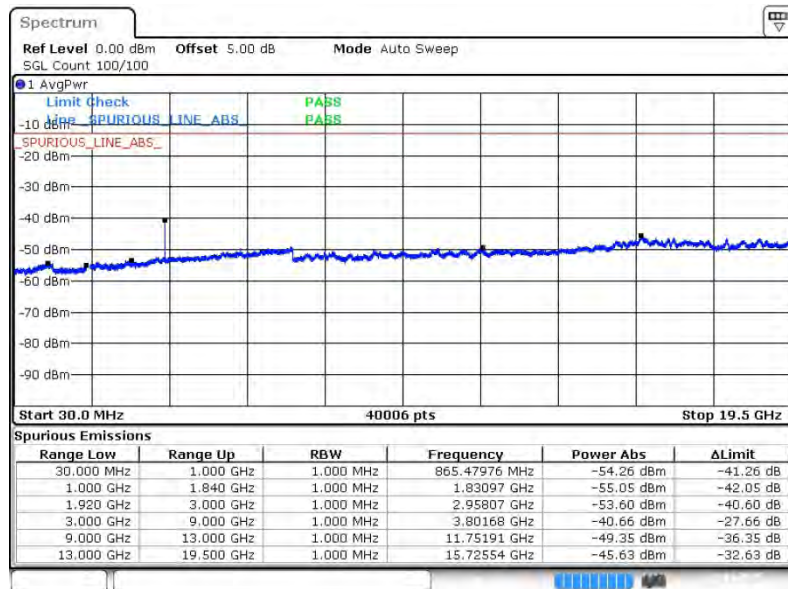
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH19150 (High)
<b>Band Width :</b>	10MHz		

**QPSK (RB Size 1, RB Offset 0)**



Date: 22.JAN.2015 12:09:23

**16QAM (RB Size 1, RB Offset 0)**

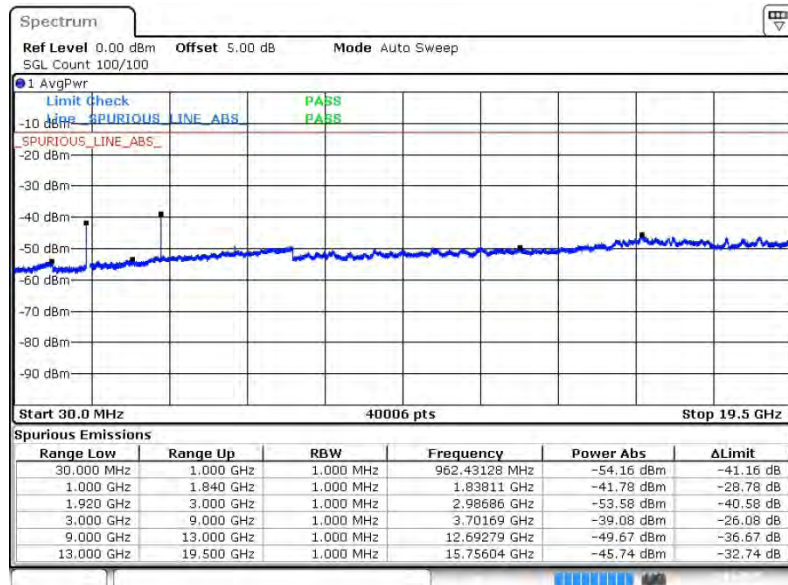


Date: 22.JAN.2015 12:10:42



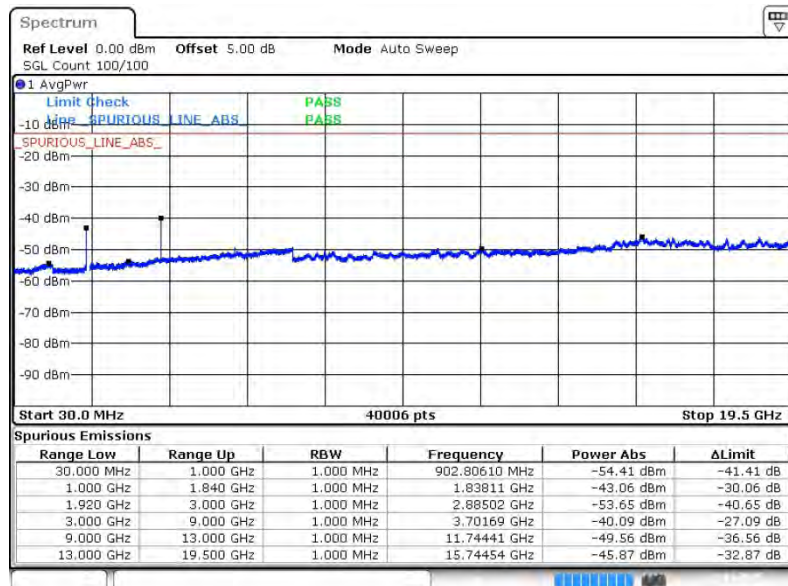
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH18675 (Low)
<b>Band Width :</b>	15MHz		

QPSK (RB Size 1, RB Offset 37)



Date: 22.JAN.2015 12:12:44

16QAM (RB Size 1, RB Offset 37)

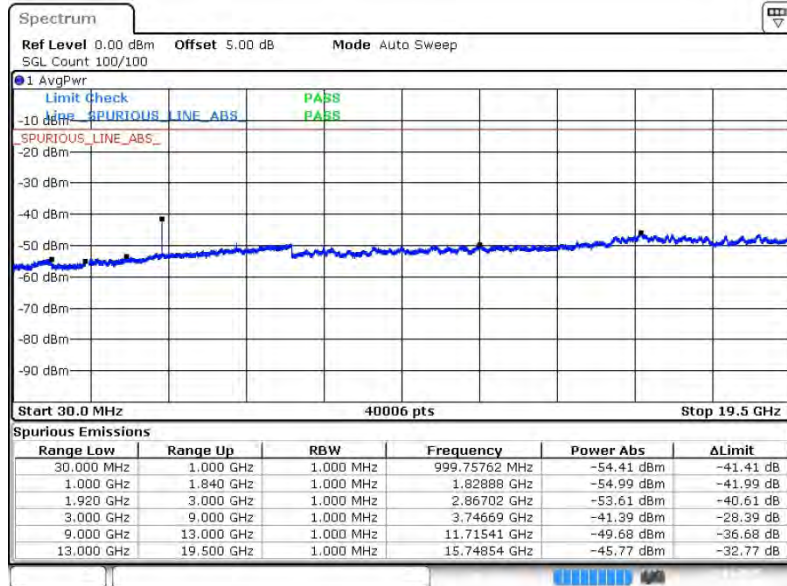


Date: 22.JAN.2015 12:14:02



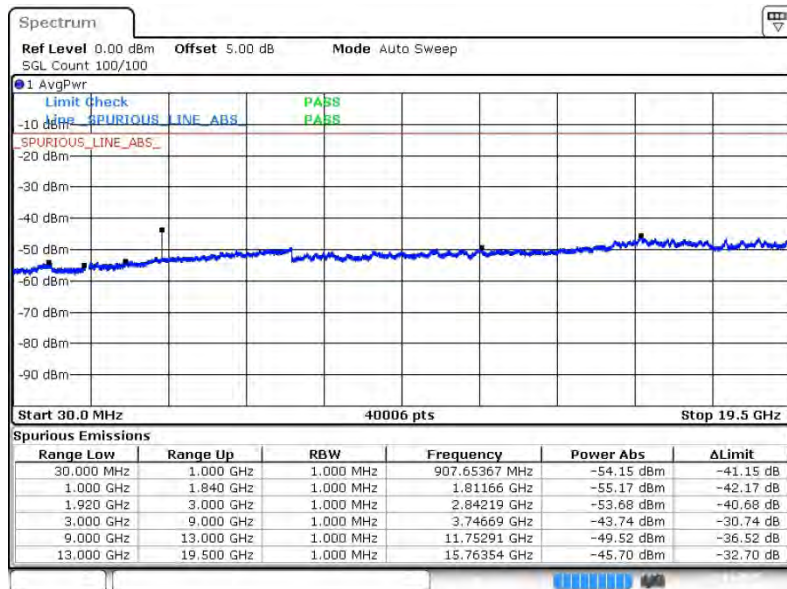
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH18900 (Middle)
<b>Band Width :</b>	15MHz		

**QPSK (RB Size 1, RB Offset 0)**



Date: 22.JAN.2015 12:16:05

**16QAM (RB Size 1, RB Offset 0)**

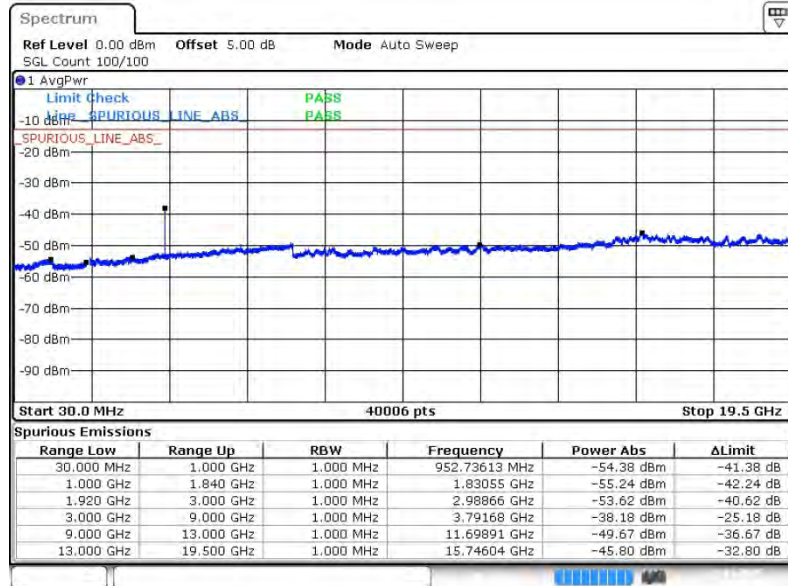


Date: 22.JAN.2015 12:17:23



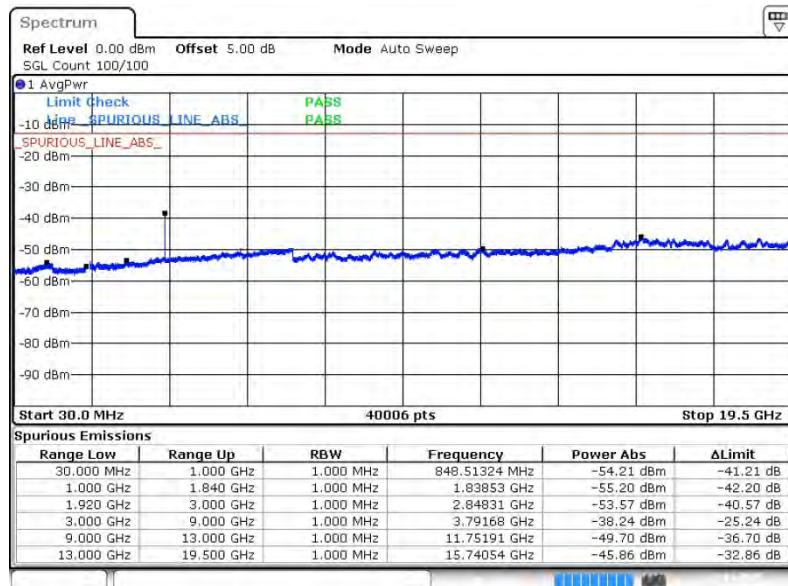
<b>Band :</b>	LTE Band 2	<b>Channel :</b>	CH19125 (High)
<b>Band Width :</b>	15MHz		

**QPSK (RB Size 1, RB Offset 74)**



Date: 22.JAN.2015 12:19:26

**16QAM (RB Size 1, RB Offset 0)**



Date: 22.JAN.2015 12:20:44