



# FCC RF Test Report

**APPLICANT** : ZTE CORPORATION  
**EQUIPMENT** : CDMA / LTE Multi-mode Digital Mobile Phone  
**BRAND NAME** : ZTE  
**MODEL NAME** : ZTE N9521  
**FCC ID** : SRQ-ZTEN9521  
**STANDARD** : 47 CFR Part 2, 24(E)  
**CLASSIFICATION** : PCS Licensed Transmitter Held to Ear (PCE)

The product was received on May 18, 2015 and completely tested on Jun. 10, 2015. We, SPORTON INTERNATIONAL (SHENZHEN) INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures given in ANSI / TIA / EIA-603-C-2004 and the testing has shown the tested sample to be in compliance with the applicable technical standards.

The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL (SHENZHEN) INC., the test report shall not be reproduced except in full.

Reviewed by: Joseph Lin / Supervisor

Approved by: Jones Tsai / Manager



**SPORTON INTERNATIONAL (SHENZHEN) INC.**

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### SUMMARY OF TEST RESULT

Report Section	FCC Rule	Description	Limit	Result	Remark
3.4	§2.1046	Conducted Output Power	Reporting Only	PASS	-
3.5	§24.232(d)	Peak-to-Average Ratio	<13 dB	PASS	-
3.6	§2.1049	Occupied Bandwidth	Reporting Only	PASS	-
3.7	§2.1051 §24.238(a)	Conducted Band Edge Measurement (Band 25)	$< 43+10\log_{10}(P[\text{Watts}])$	PASS	-
3.8	§2.1051 §24.238(a)	Conducted Spurious Emission (Band 25)	$< 43+10\log_{10}(P[\text{Watts}])$	PASS	-
3.9	§2.1055 §24.235	Frequency Stability Temperature & Voltage	Within Authorized Band	PASS	-
4.4	§24.232(c)	Equivalent Isotropic Radiated Power (Band 25)	EIRP < 2Watt	PASS	-
4.5	§2.1053 §24.238(a)	Radiated Spurious Emission (Band 25)	$< 43+10\log_{10}(P[\text{Watts}])$	PASS	Under limit 32.43 dB at 7511.000 MHz



# 1 General Description

## 1.1 Applicant

**ZTE CORPORATION**

ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P. R. China

## 1.2 Manufacturer

**ZTE CORPORATION**

ZTE Plaza, Keji Road South, Hi-Tech Industrial Park, Nanshan District, Shenzhen, Guangdong, 518057, P. R. China

## 1.3 Product Feature of Equipment Under Test

Product Feature	
Equipment	CDMA / LTE Multi-mode Digital Mobile Phone
Brand Name	ZTE
Model Name	ZTE N9521
FCC ID	SRQ-ZTEN9521
EUT supports Radios application	CDMA/EV-DO/LTE WLAN2.4GHz 802.11b/g/n HT20 Bluetooth v3.0+EDR Bluetooth v4.0 LE
MEID Code	Conducted: 99000222979575 Radiation: 990002229795552 EIRP: 99000222979537
HW Version	cvjA
SW Version	N9521V1.0.0B02
EUT Stage	Production Unit

## 1.4 Product Specification subjective to this standard

Product Specification subjective to this standard	
Tx Frequency	LTE Band 25 : 1850.7MHz ~ 1914.3 MHz
Rx Frequency	LTE Band 25 : 1930.7MHz ~ 1994.3 MHz
Bandwidth	LTE Band 25 : 1.4MHz / 3MHz / 5MHz / 10MHz / 15MHz / 20MHz
Maximum Output Power to Antenna	LTE Band 25 : 23.21 dBm
Type of Modulation	QPSK / 16QAM



### 1.5 Modification of EUT

No modifications are made to the EUT during all test items.

### 1.6 Emission Designator

LTE Band 25	QPSK			16QAM		
	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)	Emission Designator (99%OBW)	Frequency Tolerance (ppm)	Maximum EIRP(W)
1.4	1M10G7D	-	0.1919	1M10W7D	-	0.1702
3	2M73G7D	-	0.2070	2M73W7D	-	0.1807
5	4M51G7D	-	0.2377	4M50W7D	-	0.2042
10	9M07G7D	0.0021	0.2004	9M03W7D	-	0.1726
15	13M5G7D	-	0.2291	13M5W7D	-	0.1858
20	18M5G7D	-	0.1986	18M4W7D	-	0.1986



### 1.7 Testing Location

<b>Test Site</b>	SPORTON INTERNATIONAL (SHENZHEN) INC.	
<b>Test Site Location</b>	1F & 2F, Building A, Morning Business Center, No. 4003 ShiGu Rd., Xili Town, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755-8637-9589 FAX: +86-755-8637-9595	
<b>Test Site No.</b>	<b>Sporton Site No.</b>	
	TH01-SZ	

<b>Test Site</b>	SPORTON INTERNATIONAL (SHENZHEN) INC.	
<b>Test Site Location</b>	No. 3 Building, the third floor of south, Shahe River west, Fengzeyuan warehouse, Nanshan District, Shenzhen, Guangdong, P. R. China TEL: +86-755- 3320-2398	
<b>Test Site No.</b>	<b>Sporton Site No.</b>	<b>FCC Registration No.</b>
	03CH02-SZ	566869

**Note:** The test site complies with ANSI C63.4 2009 requirement.

### 1.8 Applicable Standards

According to the specifications of the manufacturer, the EUT must comply with the requirements of the following standards:

- ♦ 47 CFR Part 2, 24(E)
- ♦ ANSI / TIA / EIA-603-C-2004
- ♦ FCC KDB 971168 D01 Power Meas. License Digital Systems v02r02

**Remark:**

1. All test items were verified and recorded according to the standards and without any deviation during the test.
2. This EUT has also been tested and complied with the requirements of FCC Part 15, Subpart B, recorded in a separate test report.



## 2 Test Configuration of Equipment Under Test

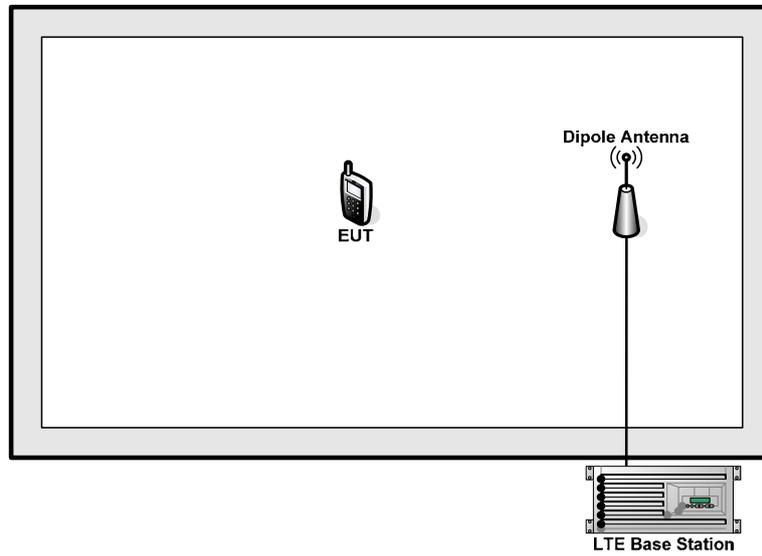
### 2.1 Test Mode

Antenna port conducted and radiated test items listed below are performed according to KDB 971168 D01 Power Meas. License Digital Systems v02r02 with maximum output power.

Radiated measurements are performed by rotating the EUT in three different orthogonal test planes to find the maximum emission.

Test Items	Band	Bandwidth (MHz)						Modulation		RB #			Test Channel		
		1.4	3	5	10	15	20	QPSK	16QAM	1	Half	Full	L	M	H
Max. Output Power	25	v	v	v	v	v	v	v	v	v	v	v	v	v	v
Peak-to-Average Ratio	25						v	v	v	v		v	v	v	v
26dB and 99% Bandwidth	25	v	v	v	v	v	v	v	v			v	v	v	v
Conducted Band Edge	25	v	v	v	v	v	v	v	v	v		v	v		v
Conducted Spurious Emission	25	v	v	v	v	v	v	v	v	v			v	v	v
Frequency Stability	25				v			v				v		v	
E.R.P./ E.I.R.P.	25	v	v	v	v	v	v	v	v	v			v	v	v
Radiated Spurious Emission	25	v	v	v	v	v	v	v		v			v	v	v
Note	<ol style="list-style-type: none"> <li>The mark "v" means that this configuration is chosen for testing</li> <li>The mark "-" means that this bandwidth is not supported.</li> <li>The device is investigated from 30MHz to 10 times of fundamental signal for radiated spurious emission test under different RB size/offset and modulations in exploratory test. Subsequently, only the worst case emissions are reported.</li> </ol>														

## 2.2 Connection Diagram of Test System





### 2.3 Support Unit used in test configuration and system

Item	Equipment	Trade Name	Model No.	FCC ID	Data Cable	Power Cord
1.	DC Power Supply	GW INSTEK	GPS-3030D	N/A	N/A	Unshielded, 1.8 m
2.	LTE Base Station	Anritsu	MT8820C	N/A	N/A	Unshielded, 1.8 m

### 2.4 Measurement Results Explanation Example

For all conducted test items:

The offset level is set in the spectrum analyzer to compensate the RF cable loss and attenuator factor between EUT conducted output port and spectrum analyzer. With the offset compensation, the spectrum analyzer reading level is exactly the EUT RF output level.

The spectrum analyzer offset is derived from RF cable loss and attenuator factor.

*Offset = RF cable loss + attenuator factor.*

Following shows an offset computation example with cable loss 5.0 dB and 10dB attenuator.

Example :

$$\begin{aligned} \text{Offset(dB)} &= \text{RF cable loss(dB)} + \text{attenuator factor(dB)}. \\ &= 5.0 + 10 = 15.0 \text{ (dB)} \end{aligned}$$

### 3 Conducted Test Items

#### 3.1 Measuring Instruments

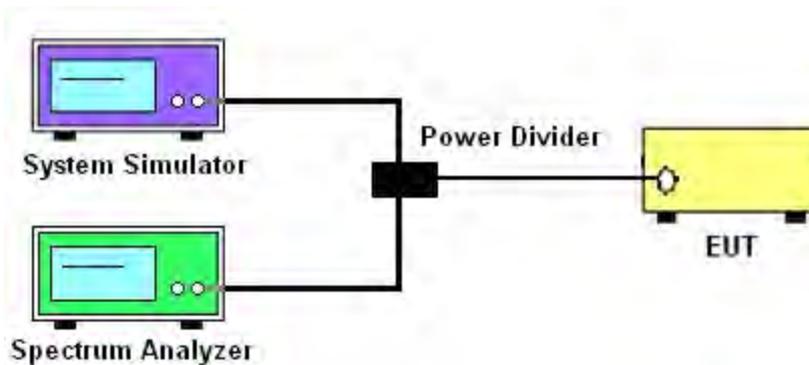
See list of measuring instruments of this test report.

#### 3.2 Test Setup

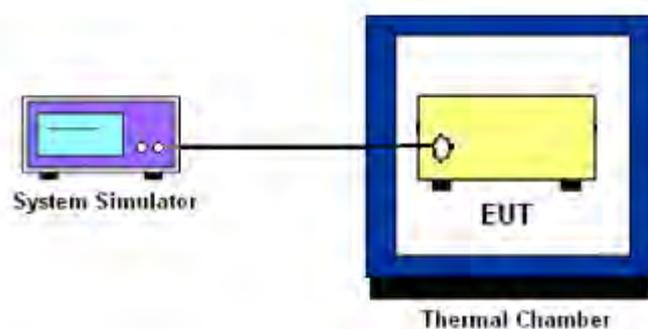
##### 3.2.1 Conducted Output Power



##### 3.2.2 Peak-to-Average Ratio, Occupied Bandwidth ,Conducted Band-Edge and Conducted Spurious Emission



##### 3.2.3 Frequency Stability



### 3.3 Test Result of Conducted Test

Please refer to Appendix A.



### **3.4 Conducted Output Power**

#### **3.4.1 Description of the Conducted Output Power Measurement**

A system simulator was used to establish communication with the EUT. Its parameters were set to force the EUT transmitting at maximum output power. The measured power in the radio frequency on the transmitter output terminals shall be reported.

#### **3.4.2 Test Procedures**

1. The transmitter output port was connected to the system simulator.
2. Set EUT at maximum power through the system simulator.
3. Select lowest, middle, and highest channels for each band and different modulation.
4. Measure and record the power level from the system simulator.

### **3.5 Peak-to-Average Ratio**

#### **3.5.1 Description of the PAR Measurement**

Power Complementary Cumulative Distribution Function (CCDF) curves provide a means for characterizing the power peaks of a digitally modulated signal on a statistical basis. A CCDF curve depicts the probability of the peak signal amplitude exceeding the average power level. Most contemporary measurement instrumentation include the capability to produce CCDF curves for an input signal provided that the instrument's resolution bandwidth can be set wide enough to accommodate the entire input signal bandwidth. In measuring transmissions in this band using an average power technique, the peak-to-average ratio (PAR) of the transmission may not exceed 13 dB.

#### **3.5.2 Test Procedures**

1. The testing follows FCC KDB 971168 v02r02 Section 5.7.1.
2. The EUT was connected to spectrum and system simulator via a power divider.
3. Set the CCDF (Complementary Cumulative Distribution Function) option in spectrum analyzer.
4. The highest RF powers were measured and recorded the maximum PAPR level associated with a probability of 0.1 %.
5. Record the deviation as Peak to Average Ratio.



## **3.6 Occupied Bandwidth**

### **3.6.1 Description of Occupied Bandwidth Measurement**

The occupied bandwidth is the width of a frequency band such that, below the lower and above the upper frequency limits, the mean powers emitted are each equal to a specified percentage 0.5% of the total mean transmitted power.

The 26 dB emission bandwidth is defined as the frequency range between two points, one above and one below the carrier frequency, at which the spectral density of the emission is attenuated 26 dB below the maximum in-band spectral density of the modulated signal. Spectral density (power per unit bandwidth) is to be measured with a detector of resolution bandwidth equal to approximately 1.0% of the emission bandwidth.

### **3.6.2 Test Procedures**

1. The testing follows FCC KDB 971168 v02r02 Section 4.2.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.



### 3.7 Conducted Band Edge

#### 3.7.1 Description of Conducted Band Edge Measurement

24.238 (a) for Band 25

For operations in the 1850-1910 and 1930-1990 MHz band, the FCC limit is  $43 + 10\log_{10}(P[\text{Watts}])$  dB below the transmitter power  $P(\text{Watts})$  in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

#### 3.7.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. The band edges of low and high channels for the highest RF powers were measured. Set RBW  $\geq 1\%$  EBW in the 1MHz band immediately outside and adjacent to the band edge.
4. Set spectrum analyzer with RMS detector.
5. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
6. The limit line is derived from  $43 + 10\log(P)\text{dB}$  below the transmitter power  $P(\text{Watts})$   
 $= P(\text{W}) - [43 + 10\log(P)] (\text{dB})$   
 $= [30 + 10\log(P)] (\text{dBm}) - [43 + 10\log(P)] (\text{dB})$   
 $= -13\text{dBm}.$



### 3.8 Conducted Spurious Emission

#### 3.8.1 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.

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

#### 3.8.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 6.0.
2. The EUT was connected to spectrum analyzer and system simulator via a power divider.
3. 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.
4. The middle channel for the highest RF power within the transmitting frequency was measured.
5. The conducted spurious emission for the whole frequency range was taken.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.
8. The limit line is derived from  $43 + 10\log(P)$ dB below the transmitter power P(Watts)  
=  $P(W) - [43 + 10\log(P)]$  (dB)  
=  $[30 + 10\log(P)]$  (dBm) -  $[43 + 10\log(P)]$  (dB)  
= -13dBm.



## 3.9 Frequency Stability

### 3.9.1 Description of Frequency Stability Measurement

The frequency stability shall be measured by variation of ambient temperature and variation of primary supply voltage to ensure that the fundamental emission stays within the authorized frequency block. The frequency stability of the transmitter shall be maintained within  $\pm 0.00025\%$  ( $\pm 2.5\text{ppm}$ ) of the center frequency.

### 3.9.2 Test Procedures for Temperature Variation

1. The EUT was set up in the thermal chamber and connected with the system simulator.
2. With power OFF, the temperature was decreased to  $-30^{\circ}\text{C}$  and the EUT was stabilized before testing. Power was applied and the maximum change in frequency was recorded within one minute.
3. With power OFF, the temperature was raised in  $10^{\circ}\text{C}$  step up to  $50^{\circ}\text{C}$ . The EUT was stabilized at each step for at least half an hour. Power was applied and the maximum frequency change was recorded within one minute.

### 3.9.3 Test Procedures for Voltage Variation

1. The testing follows FCC KDB 971168 v02r02 Section 9.0.
2. The EUT was placed in a temperature chamber at  $25\pm 5^{\circ}\text{C}$  and connected with the system simulator.
3. The power supply voltage to the EUT was varied from 85% to 115% of the nominal value measured at the input to the EUT.
4. The variation in frequency was measured for the worst case.

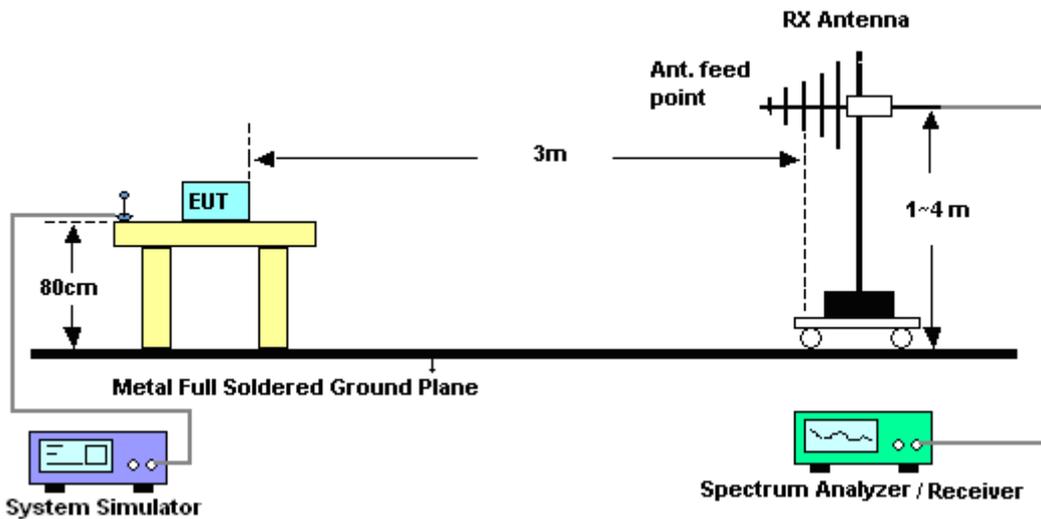
## 4 Radiated Test Items

### 4.1 Measuring Instruments

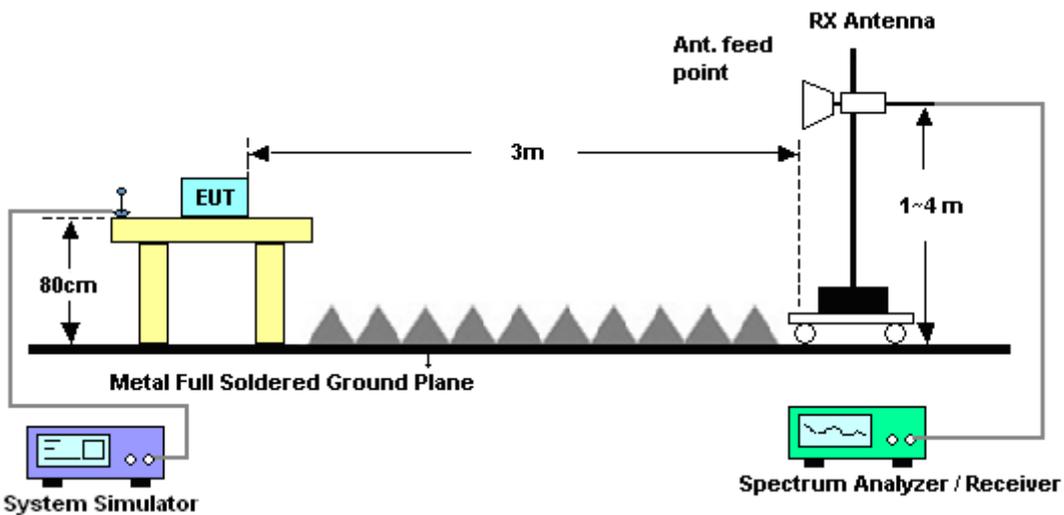
See list of measuring instruments of this test report.

### 4.2 Test Setup

#### 4.2.1 For radiated test from 30MHz to 1GHz



#### 4.2.2 For radiated test above 1GHz



### 4.3 Test Result of Radiated Test

Please refer to Appendix B.



## **4.4 Effective Isotropic Radiated Power**

### **4.4.1 Description of the EIRP Measurement**

Equivalent isotropic radiated power output measurements by substitution method according to ANSI / TIA / EIA-603-C-2004, and the spectrum analyzer configuration follows KDB 971168 D01 Power Meas. License Digital Systems v02r02. Mobile and portable (hand-held) stations operating are limited to average EIRP of 2 watts with LTE band 25.

### **4.4.2 Test Procedures**

1. The testing follows FCC KDB 971168 v02r02 Section 5.2.1. and ANSI / TIA-603-C-2004 Section 2.2.17.
2. The EUT was placed on a non-conductive rotating platform 0.8 meters high in a semi-anechoic chamber. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and a spectrum analyzer with RMS detector per section 5. of KDB 971168 D01.
3. During the measurement, the system simulator parameters were set to force the EUT transmitting at maximum output power. The maximum emission was recorded from analyzer power level (LVL) from the 360 degrees rotation of the turntable and the test antenna raised and lowered over a range from 1 to 4 meters in both horizontally and vertically polarized orientations.
4. Effective Isotropic Radiated Power (EIRP) was measured by substitution method according to TIA/EIA-603-C. The EUT was replaced by the substitution antenna at same location, and then a known power from S.G. was applied into the dipole antenna through a Tx cable, and then recorded the maximum Analyzer reading through raised and lowered the test antenna. The correction factor (in dB) = S.G. - Tx Cable loss + Substitution antenna gain - Analyzer reading. Then the EUT's EIRP was calculated with the correction factor,  $EIRP = LVL + \text{Correction factor}$  and  $ERP = EIRP - 2.15$ . Take the record of the output power at substitution antenna.



	LTE					
LTE BW	1.4M	3M	5M	10M	15M	20M
Span	3MHz	6MHz	10MHz	20MHz	30MHz	40MHz
RBW	30kHz	100kHz	100kHz	300kHz	300kHz	300kHz
VBW	100kHz	300kHz	300kHz	1MHz	1MHz	1MHz
Detector	RMS	RMS	RMS	RMS	RMS	RMS
Trace	Average	Average	Average	Average	Average	Average
Average Type	Power	Power	Power	Power	Power	Power
Sweep Count	100	100	100	100	100	100



## 4.5 Radiated Spurious Emission

### 4.5.1 Description of Radiated Spurious Emission

The radiated spurious emission was measured by substitution method according to ANSI / TIA / EIA-603-C-2004. The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitter power (P) by a factor of at least  $43 + 10 \log (P)$  dB.

The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

### 4.5.2 Test Procedures

1. The testing follows FCC KDB 971168 v02r02 Section 5.8 and ANSI / TIA-603-C-2004 Section 2.2.12.
2. The EUT was placed on a rotatable wooden table with 0.8 meter above ground.
3. The EUT was set 3 meters from the receiving antenna, which was mounted on the antenna tower.
4. The table was rotated 360 degrees to determine the position of the highest spurious emission.
5. The height of the receiving antenna is varied between one meter and four meters to search the maximum spurious emission for both horizontal and vertical polarizations.
6. Make the measurement with the spectrum analyzer's RBW = 1MHz, VBW = 3MHz, taking the record of maximum spurious emission.
7. A horn antenna was substituted in place of the EUT and was driven by a signal generator.
8. Tune the output power of signal generator to the same emission level with EUT maximum spurious emission.
9. Taking the record of output power at antenna port.
10. Repeat step 7 to step 8 for another polarization.
11. The RF fundamental frequency should be excluded against the limit line in the operating frequency band.

The limit line is derived from  $43 + 10\log(P)$ dB below the transmitter power P(Watts)

$$= P(W) - [43 + 10\log(P)] \text{ (dB)}$$

$$= [30 + 10\log(P)] \text{ (dBm)} - [43 + 10\log(P)] \text{ (dB)}$$

$$= -13\text{dBm.}$$

12. EIRP (dBm) = S.G. Power – Tx Cable Loss + Tx Antenna Gain
13. ERP (dBm) = EIRP - 2.15



## 5 List of Measuring Equipment

Instrument	Manufacturer	Model No.	Serial No.	Characteristics	Calibration Date	Test Date	Due Date	Remark
Spectrum Analyzer	R&S	FSV40	101078	9kHz~40GHz	May 05, 2015	May 24, 2015~ Jun. 10, 2015	May 04, 2016	Conducted (TH01-SZ)
Thermal Chamber	Hongzhangroup	LP-150U	H2014081803	-40~+150°C	Sep. 16, 2014	May 24, 2015~ Jun. 10, 2015	Sep. 15, 2015	Conducted (TH01-SZ)
EMI Test Receiver	R&S	ESR7	101404	9kHz~7GHz;Max 30dBm	Oct. 14, 2014	Jun. 06, 2015	Oct. 13, 2015	Radiation (03CH02-SZ)
Spectrum Analyzer	R&S	FSV40	101041	10kHz~40GHz;Ma x 30dBm	Oct. 15, 2014	Jun. 06, 2015	Oct. 14, 2015	Radiation (03CH02-SZ)
Bilog Antenna	TeseQ	CBL6112D	23188	30MHz-2GHz	Nov. 07, 2014	Jun. 06, 2015	Sep. 06, 2015	Radiation (03CH02-SZ)
Double Ridge Horn Antenna	ETS-Lindgren	3117	00119436	1GHz~18GHz	Oct. 15, 2014	Jun. 06, 2015	Oct. 14, 2015	Radiation (03CH02-SZ)
SHF-EHF Horn	com-power	AH-840	101071	18GHz~40GHz	Sep. 04, 2014	Jun. 06, 2015	Sep. 03, 2015	Radiation (03CH02-SZ)
Amplifier	ADVANTEST	BB525C	E9007003	9kHz~3000MHz / 30 dB	Jan. 28, 2015	Jun. 06, 2015	Jan. 27, 2016	Radiation (03CH02-SZ)
Amplifier	Agilent	8449B	3008A01023	1GHz~26.5GHz	Oct. 29, 2014	Jun. 06, 2015	Oct. 28, 2015	Radiation (03CH02-SZ)
AC Power Source	Chroma	61601	616010002470	N/A	NCR	Jun. 06, 2015	NCR	Radiation (03CH02-SZ)
Turn Table	Chaintek	T-200	N/A	0~360 degree	NCR	Jun. 06, 2015	NCR	Radiation (03CH02-SZ)
Antenna Mast	Chaintek	MBS-400	N/A	1 m~4 m	NCR	Jun. 06, 2015	NCR	Radiation (03CH02-SZ)



## 6 Uncertainty of Evaluation

### Uncertainty of Radiated Emission Measurement (30 MHz ~ 1000 MHz)

Measuring Uncertainty for a Level of Confidence of 95% ( $U = 2Uc(y)$ )	4.5 dB
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## Appendix A. Test Results of Conducted Test

### Conducted Output Power(Average power)

LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
1.4	1	0	QPSK	22.87	22.48	22.16
1.4	1	2		22.88	22.38	22.02
1.4	1	5		22.79	22.46	21.89
1.4	3	0		22.75	22.35	22.00
1.4	3	1		22.79	22.36	22.07
1.4	3	2		22.69	22.43	22.08
1.4	6	0		21.71	21.47	21.24
1.4	1	0	16-QAM	22.21	21.69	21.35
1.4	1	2		22.01	21.37	21.62
1.4	1	5		21.90	21.55	21.10
1.4	3	0		21.75	21.45	21.18
1.4	3	1		21.66	21.34	21.21
1.4	3	2		21.81	21.38	21.22
1.4	6	0		20.71	20.48	20.27
3	1	0	QPSK	23.01	22.46	22.57
3	1	7		22.84	22.43	22.16
3	1	14		23.06	22.39	22.05
3	8	0		21.76	21.38	21.36
3	8	4		21.86	21.36	21.43
3	8	7		21.89	21.33	21.36
3	15	0		21.85	21.31	21.36
3	1	0	16-QAM	22.20	21.44	22.04
3	1	7		22.30	21.62	21.50
3	1	14		22.31	22.02	21.29
3	8	0		20.81	20.49	20.70
3	8	4		20.73	20.56	20.50
3	8	7		20.98	20.51	20.48
3	15	0		20.76	20.51	20.50



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
5	1	0	QPSK	23.15	22.79	22.76
5	1	12		22.98	22.37	22.50
5	1	24		23.17	22.43	22.41
5	12	0		21.95	21.54	21.67
5	12	6		22.02	21.58	21.57
5	12	11		22.19	21.59	21.42
5	25	0		22.08	21.54	21.52
5	1	0	16-QAM	22.31	22.11	22.28
5	1	12		21.98	21.38	21.90
5	1	24		22.36	21.51	21.38
5	12	0		20.85	20.70	20.76
5	12	6		20.97	20.49	20.63
5	12	11		21.12	20.48	20.45
5	25	0		21.00	20.45	20.63
10	1	0	QPSK	23.04	22.59	22.87
10	1	24		23.08	22.57	22.72
10	1	49		23.10	22.62	22.32
10	25	0		22.10	21.56	21.88
10	25	12		22.27	21.42	21.65
10	25	24		22.37	21.52	21.70
10	50	0		22.26	21.53	21.67
10	1	0	16-QAM	22.43	21.99	22.13
10	1	24		22.14	21.87	21.77
10	1	49		22.49	22.27	21.36
10	25	0		21.10	20.78	20.88
10	25	12		21.23	20.53	20.69
10	25	24		21.34	20.63	20.80
10	50	0		21.21	20.61	20.69



LTE Band 25 Maximum Average Power [dBm]						
BW [MHz]	RB Size	RB Offset	Mod	Lowest	Middle	Highest
15	1	0	QPSK	22.98	22.69	22.53
15	1	37		23.03	22.36	22.75
15	1	74		23.12	22.58	22.32
15	36	0		22.19	21.59	21.69
15	36	18		22.15	21.48	21.81
15	36	37		22.16	21.52	21.66
15	75	0		22.11	21.60	21.73
15	1	0	16-QAM	22.23	21.91	22.14
15	1	37		22.43	21.56	21.86
15	1	74		22.26	21.73	21.71
15	36	0		21.06	20.57	20.66
15	36	18		21.16	20.58	20.80
15	36	37		21.16	20.57	20.67
15	75	0		21.15	20.51	20.71
20	1	0	QPSK	22.72	22.42	22.19
20	1	49		23.21	22.52	22.66
20	1	99		22.54	22.24	22.08
20	50	0		22.01	21.48	21.56
20	50	24		22.07	21.42	21.76
20	50	49		22.06	21.37	21.68
20	100	0		22.07	21.48	21.66
20	1	0	16-QAM	21.74	22.00	21.39
20	1	49		22.37	21.59	22.34
20	1	99		21.74	21.69	21.41
20	50	0		20.98	20.49	20.68
20	50	24		21.06	20.51	20.85
20	50	49		21.08	20.45	20.72
20	100	0		21.09	20.48	20.68



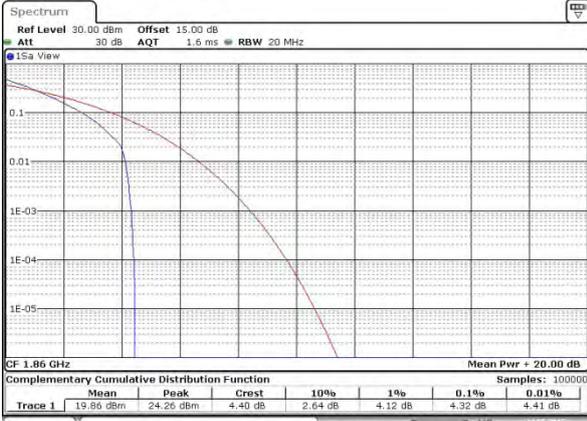
**Peak-to-Average Ratio**

Mode	LTE Band 25 / 20MHz				
Mod.	QPSK		16QAM		Limit: 13dB
RB Size	1RB	Full RB	1RB	RB Size	Result
Lowest CH	4.32	4.70	4.84	5.68	<b>PASS</b>
Middle CH	4.52	4.81	5.28	5.71	
Highest CH	4.35	4.87	5.04	5.83	



LTE Band 25 / 20MHz / QPSK

Lowest Channel / 1RB



Date: 24 MAY 2015 15:32:57

Lowest Channel / Full RB



Date: 24 MAY 2015 15:33:38

Middle Channel / 1RB



Date: 24 MAY 2015 15:33:50

Middle Channel / Full RB



Date: 24 MAY 2015 15:33:49

Highest Channel / 1RB



Date: 24 MAY 2015 15:34:50

Highest Channel / Full RB



Date: 24 MAY 2015 15:35:54



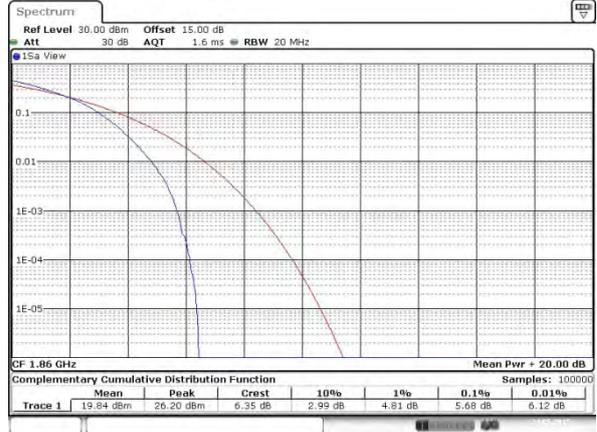
LTE Band 25 / 20MHz / 16QAM

Lowest Channel / 1RB



Date: 24 MAY 2015 15:27:45

Lowest Channel / Full RB



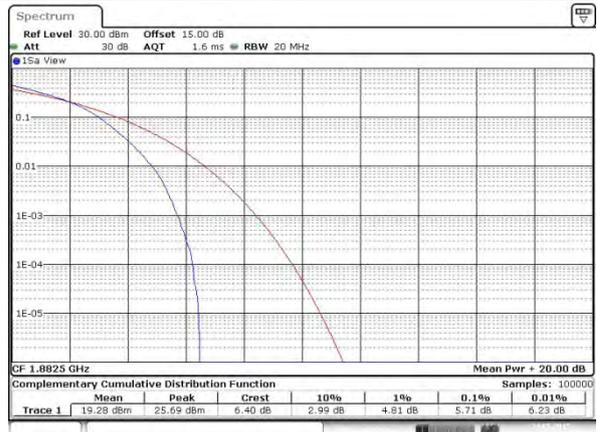
Date: 24 MAY 2015 15:28:03

Middle Channel / 1RB



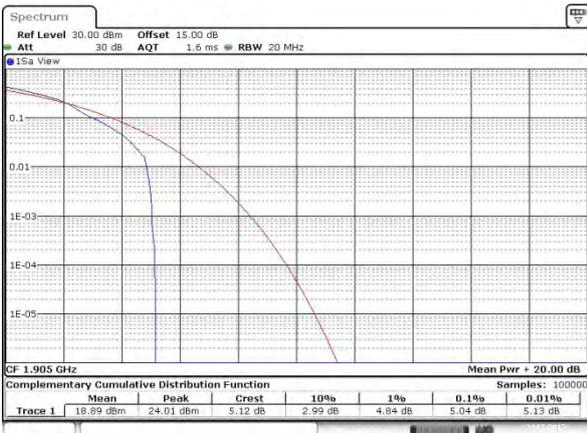
Date: 24 MAY 2015 15:28:15

Middle Channel / Full RB



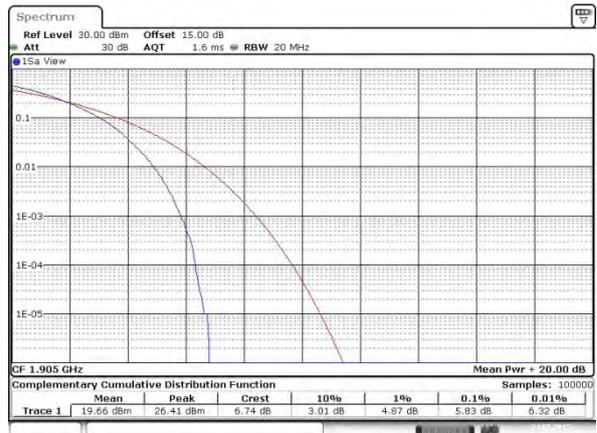
Date: 24 MAY 2015 15:28:29

Highest Channel / 1RB



Date: 24 MAY 2015 15:32:05

Highest Channel / Full RB



Date: 24 MAY 2015 15:32:36



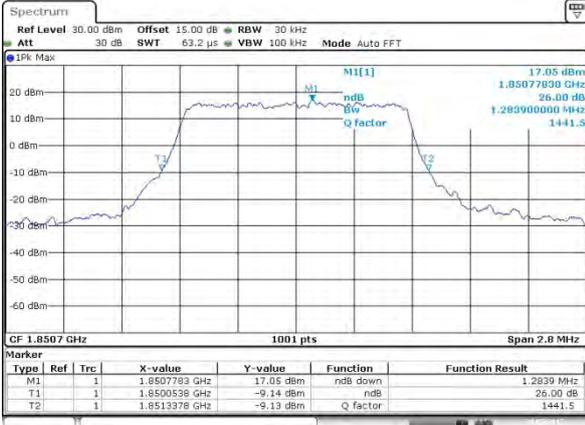
**26dB Bandwidth**

Mode	LTE Band 25 : 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	1.284	1.298	3.039	3.057	5.015	5.025	10.050	9.950	14.715	14.595	20.340	20.220
Middle CH	1.290	1.304	3.033	3.051	5.065	5.005	10.170	9.930	14.775	14.715	20.340	20.100
Highest CH	1.346	1.348	3.051	3.051	5.045	5.015	10.070	9.890	14.715	14.745	20.220	20.220



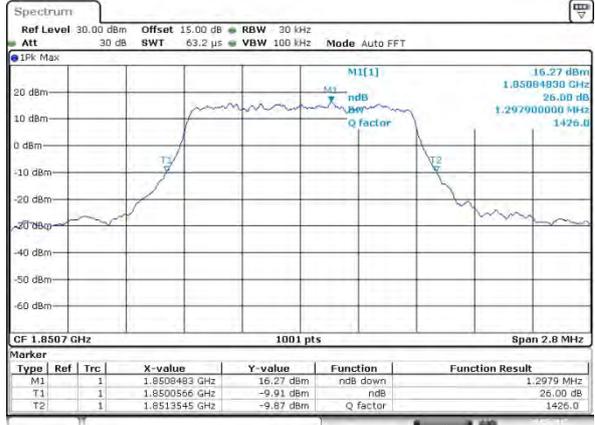
LTE Band 25

Lowest Channel / 1.4MHz / QPSK



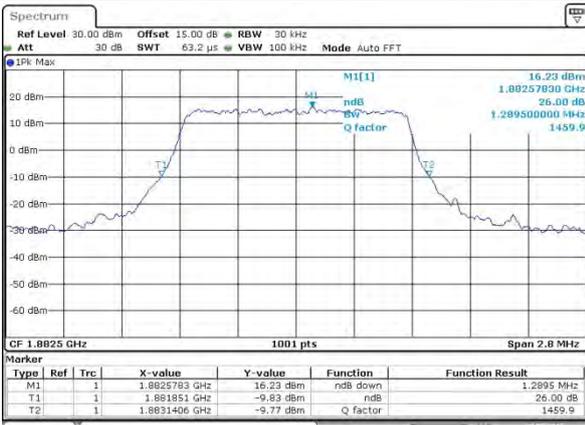
Date: 24 MAY 2015 13:54:59

Lowest Channel / 1.4MHz / 16QAM



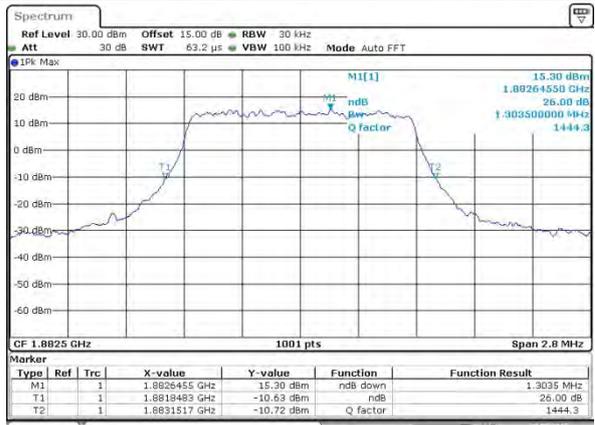
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Middle Channel / 1.4MHz / QPSK



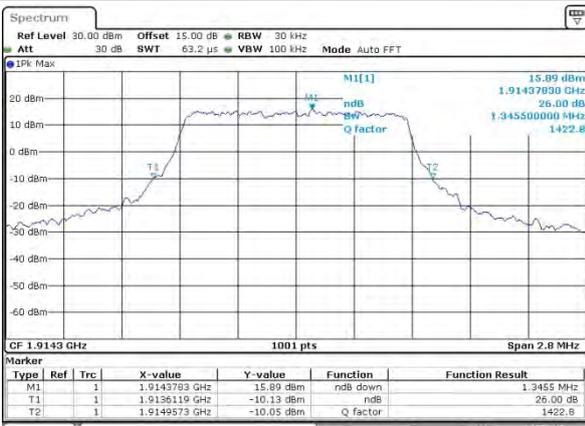
Date: 24 MAY 2015 14:04:01

Middle Channel / 1.4MHz / 16QAM



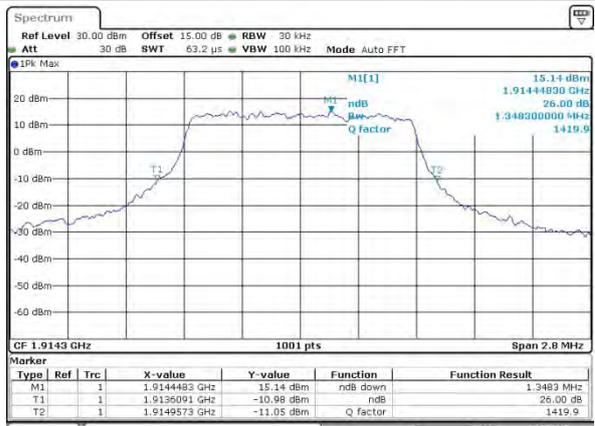
Date: 24 MAY 2015 14:04:14

Highest Channel / 1.4MHz / QPSK



Date: 24 MAY 2015 14:07:11

Highest Channel / 1.4MHz / 16QAM

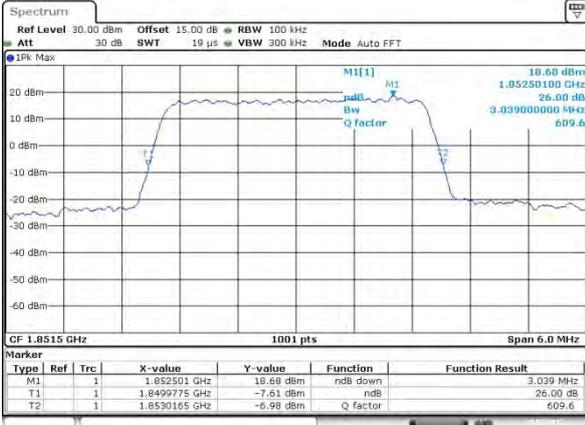


Date: 24 MAY 2015 14:07:24



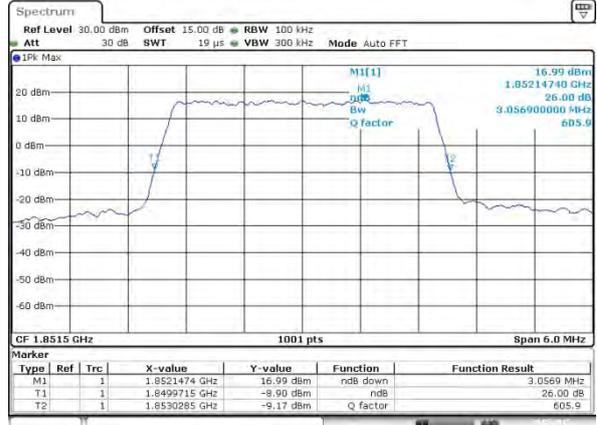
LTE Band 25

Lowest Channel / 3MHz / QPSK



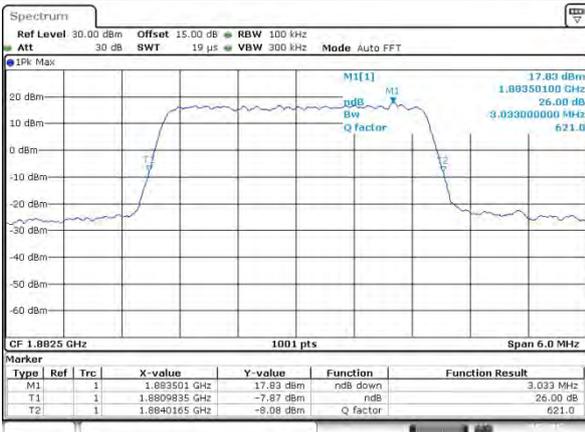
Date: 24 MAY 2015 14:14:56

Lowest Channel / 3MHz / 16QAM



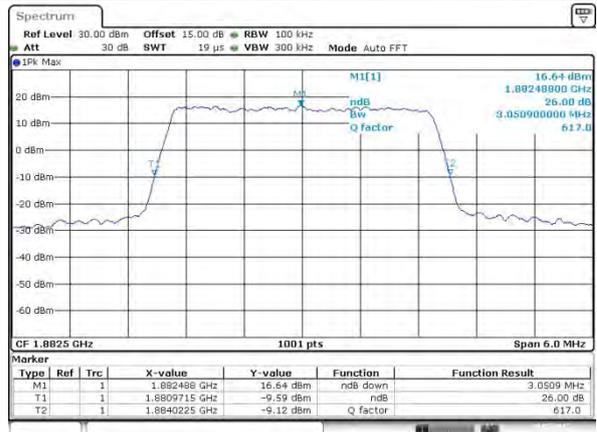
Date: 24 MAY 2015 14:15:09

Middle Channel / 3MHz / QPSK



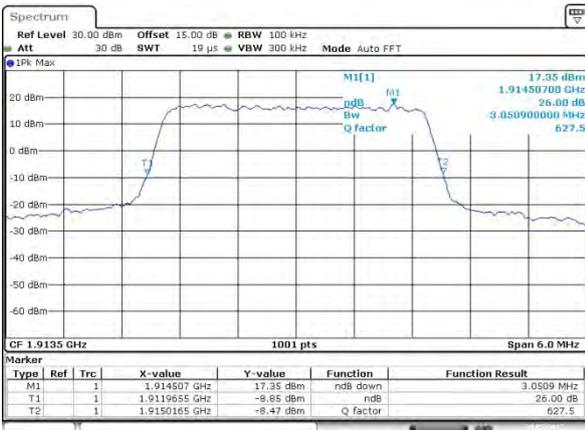
Date: 24 MAY 2015 14:18:06

Middle Channel / 3MHz / 16QAM



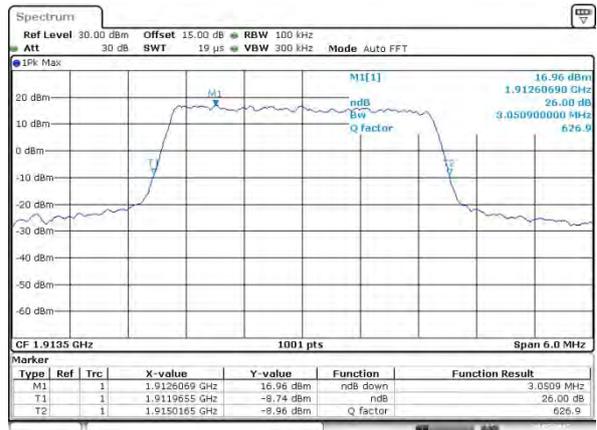
Date: 24 MAY 2015 14:18:19

Highest Channel / 3MHz / QPSK



Date: 24 MAY 2015 14:21:16

Highest Channel / 3MHz / 16QAM

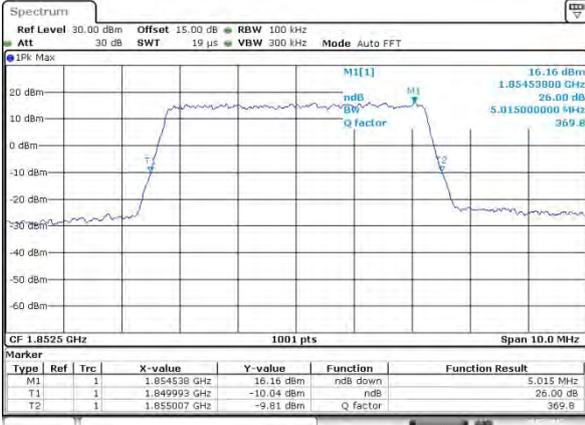


Date: 24 MAY 2015 14:21:29



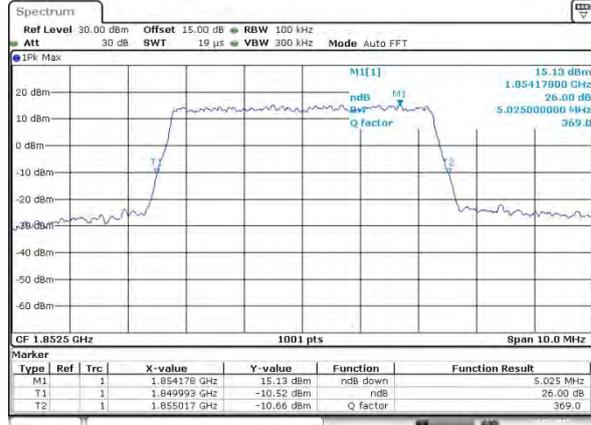
LTE Band 25

Lowest Channel / 5MHz / QPSK



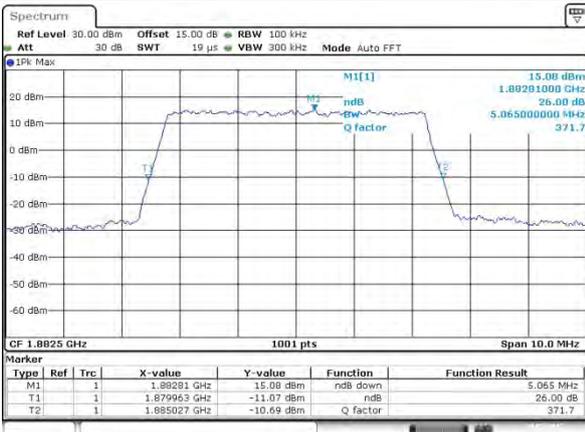
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Lowest Channel / 5MHz / 16QAM



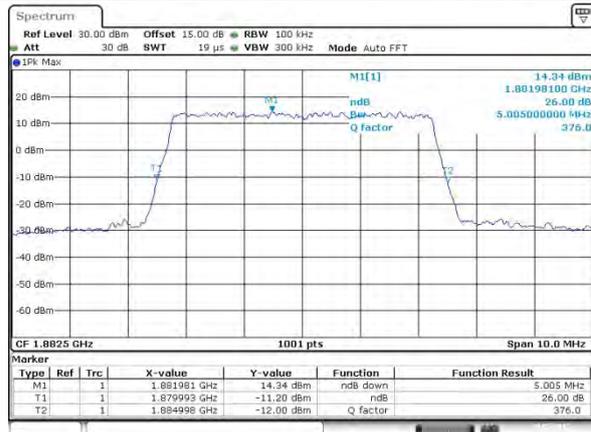
Date: 24 MAY 2015 14:28:15

Middle Channel / 5MHz / QPSK



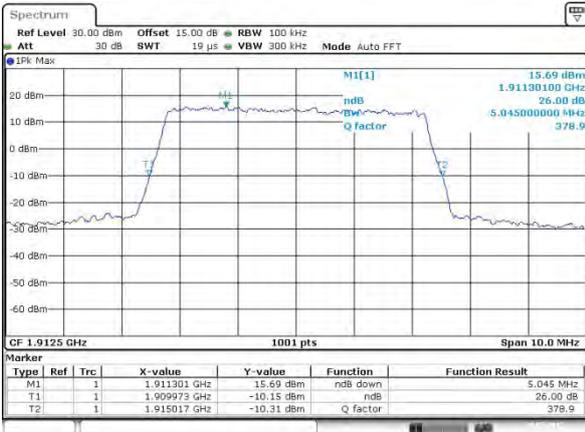
Date: 24 MAY 2015 14:32:12

Middle Channel / 5MHz / 16QAM



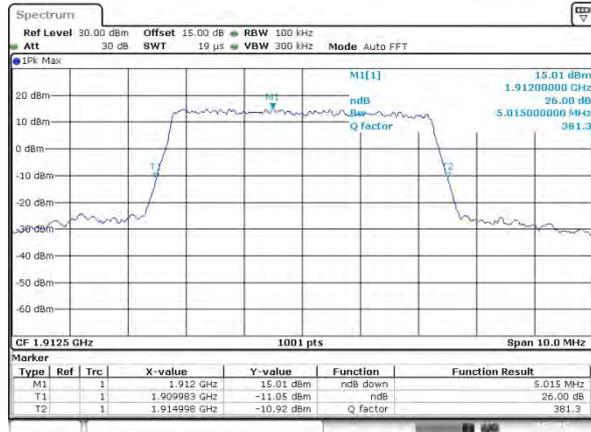
Date: 24 MAY 2015 14:32:25

Highest Channel / 5MHz / QPSK



Date: 24 MAY 2015 14:35:22

Highest Channel / 5MHz / 16QAM

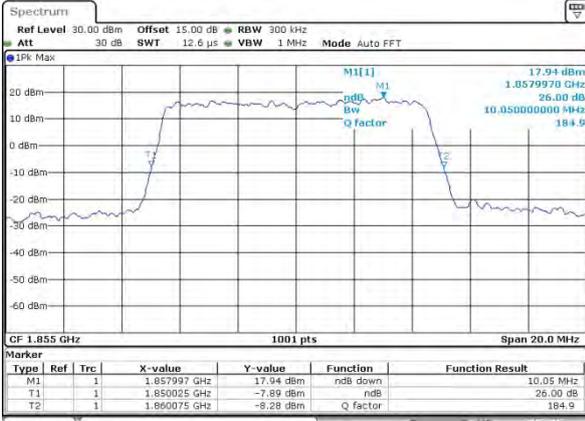


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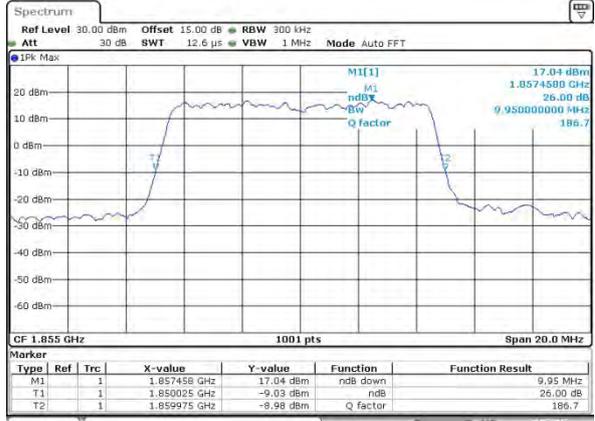
LTE Band 25

Lowest Channel / 10MHz / QPSK



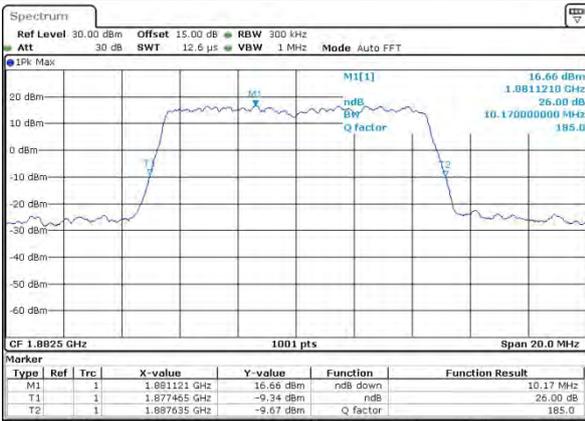
Date 24 MAY 2015 14:43:07

Lowest Channel / 10MHz / 16QAM



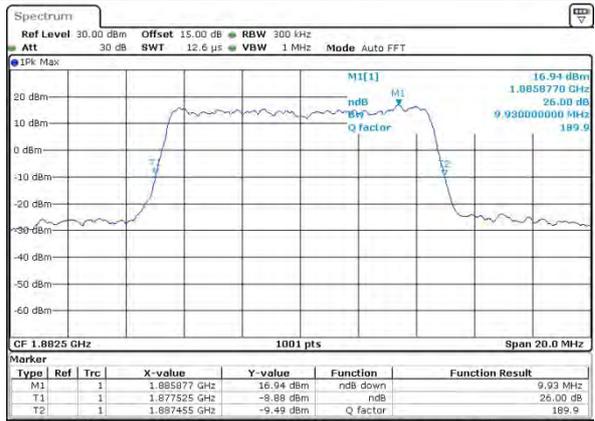
Date 24 MAY 2015 14:43:20

Middle Channel / 10MHz / QPSK



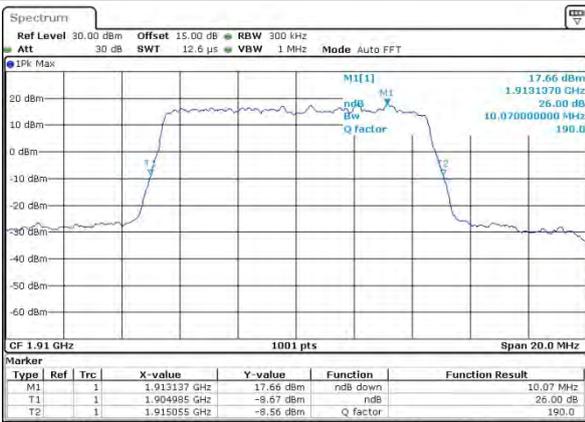
Date 24 MAY 2015 14:46:16

Middle Channel / 10MHz / 16QAM



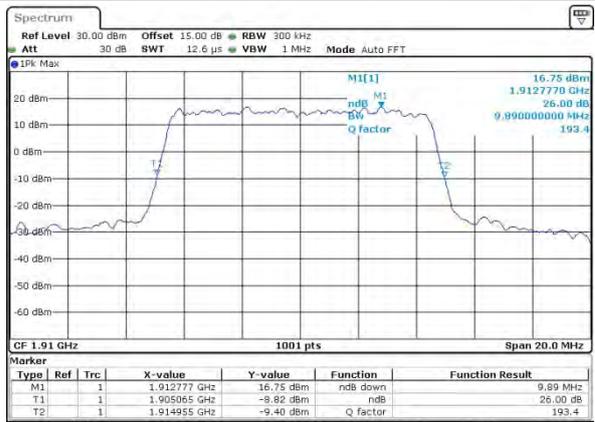
Date 24 MAY 2015 14:46:29

Highest Channel / 10MHz / QPSK



Date 24 MAY 2015 14:49:26

Highest Channel / 10MHz / 16QAM

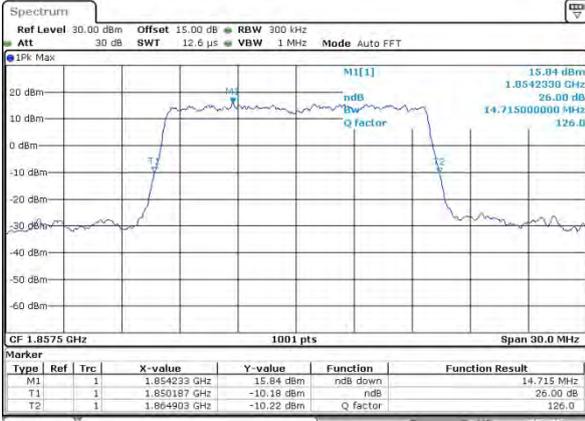


Date 24 MAY 2015 14:49:39



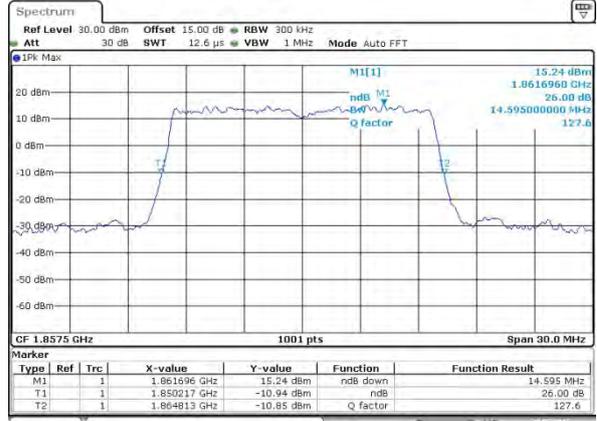
LTE Band 25

Lowest Channel / 15MHz / QPSK



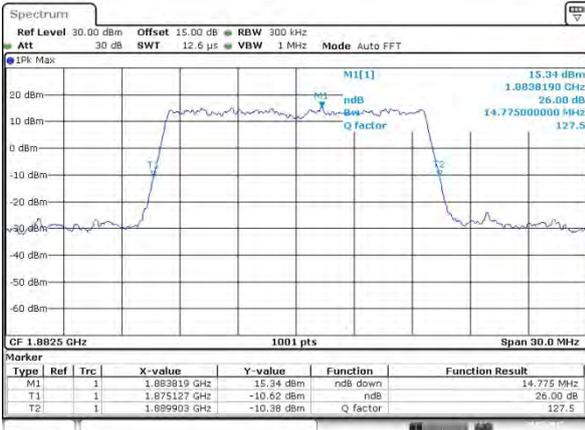
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Lowest Channel / 15MHz / 16QAM



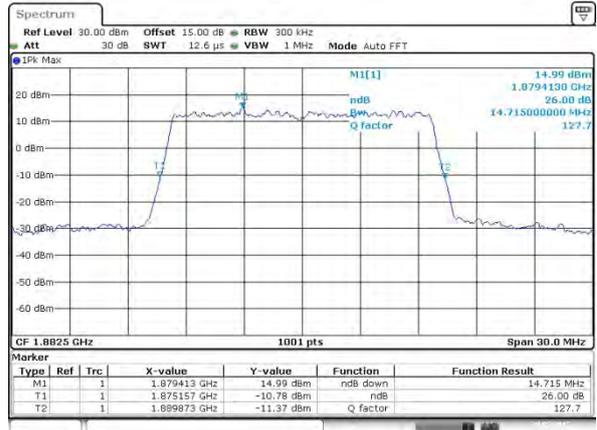
Date: 24 MAY 2015 14:57:24

Middle Channel / 15MHz / QPSK



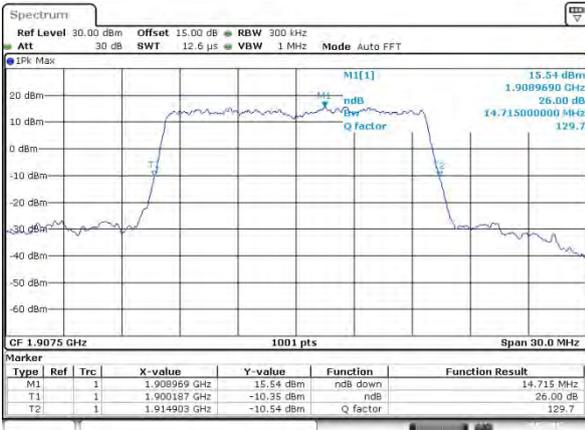
Date: 24 MAY 2015 15:02:32

Middle Channel / 15MHz / 16QAM



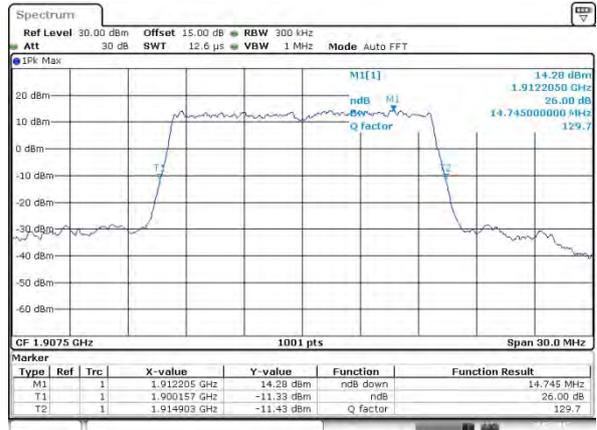
Date: 24 MAY 2015 15:02:45

Highest Channel / 15MHz / QPSK



Date: 24 MAY 2015 15:05:41

Highest Channel / 15MHz / 16QAM

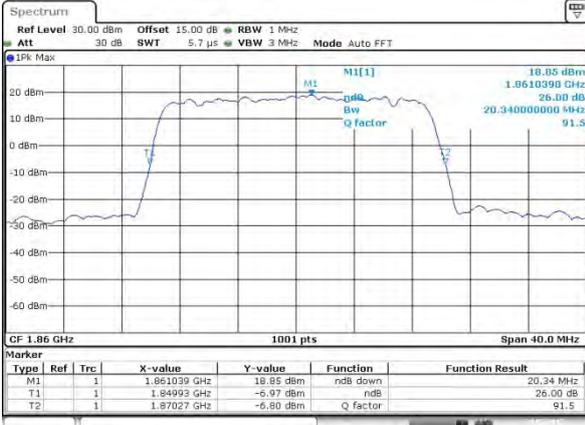


Date: 24 MAY 2015 15:05:54



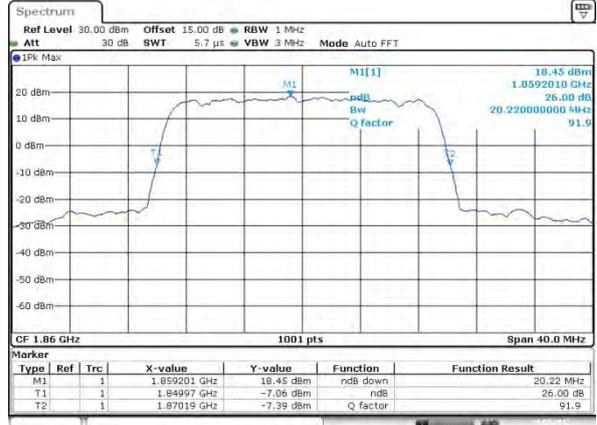
LTE Band 25

Lowest Channel / 20MHz / QPSK



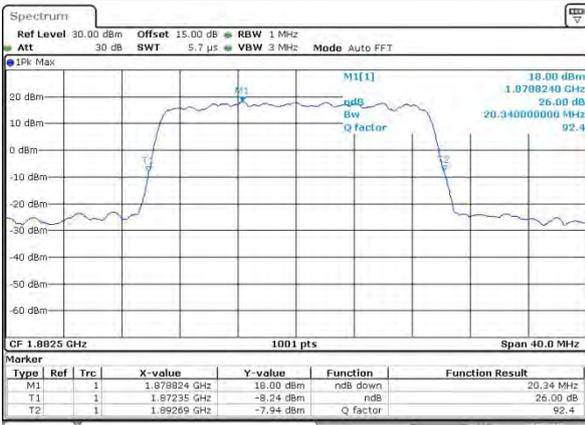
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Lowest Channel / 20MHz / 16QAM



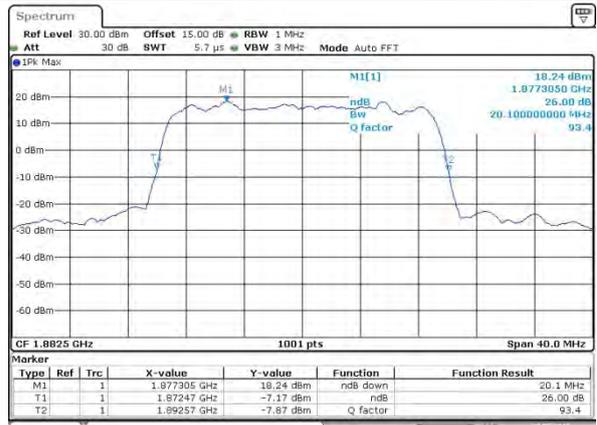
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Middle Channel / 20MHz / QPSK



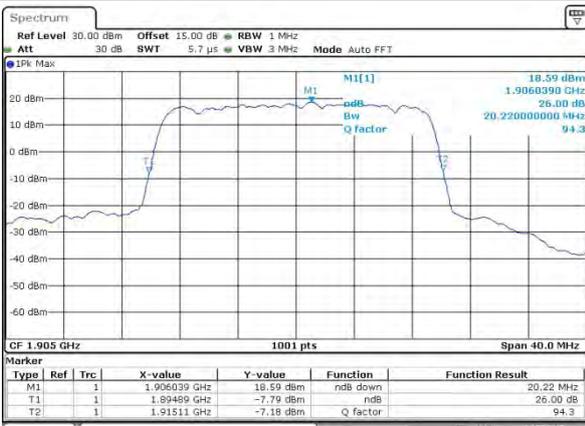
Date: 24 MAY 2015 15:16:36

Middle Channel / 20MHz / 16QAM



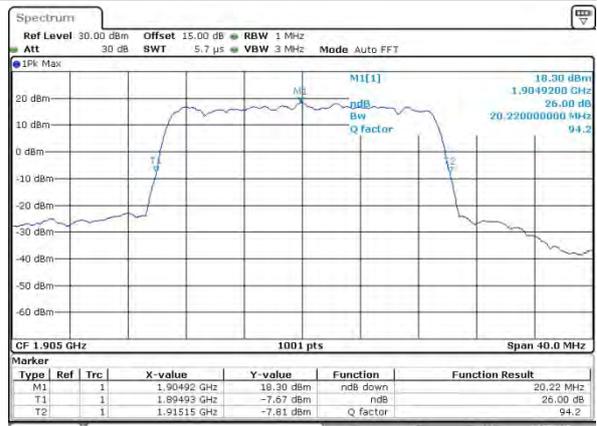
Date: 24 MAY 2015 15:16:48

Highest Channel / 20MHz / QPSK



Date: 24 MAY 2015 15:19:46

Highest Channel / 20MHz / 16QAM



Date: 24 MAY 2015 15:19:59



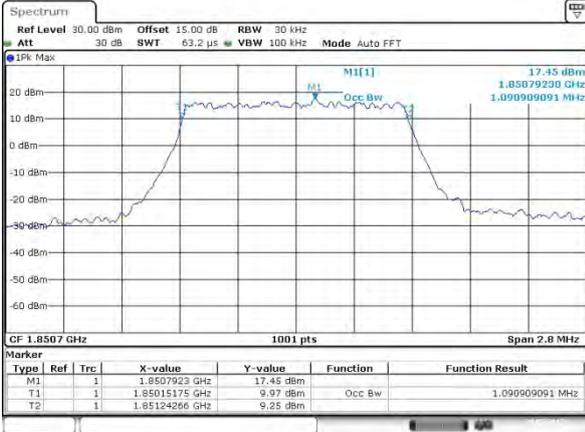
## Occupied Bandwidth

Mode	LTE Band 25 : 99%OBW(MHz)											
	1.4MHz		3MHz		5MHz		10MHz		15MHz		20MHz	
BW												
Mod.	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM	QPSK	16QAM
Lowest CH	1.091	1.097	2.715	2.721	4.496	4.486	9.051	8.971	13.457	13.427	18.262	18.262
Middle CH	1.097	1.097	2.733	2.727	4.505	4.496	9.071	9.031	13.487	13.487	18.462	18.422
Highest CH	1.097	1.099	2.721	2.721	4.496	4.496	9.071	9.011	13.427	13.397	18.262	18.222



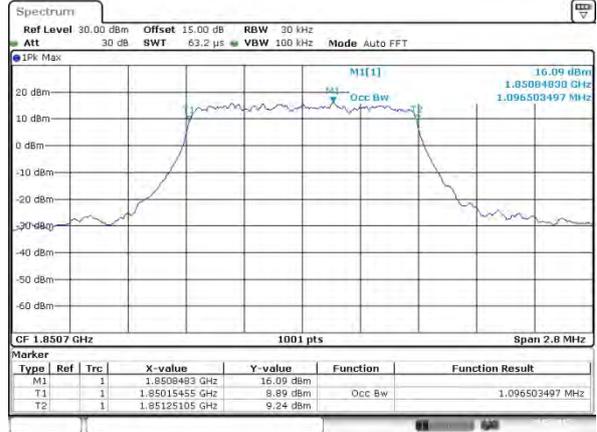
LTE Band 25

Lowest Channel / 1.4MHz / QPSK



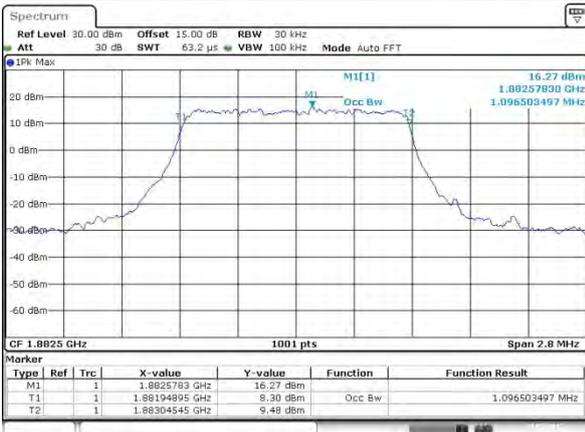
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Lowest Channel / 1.4MHz / 16QAM



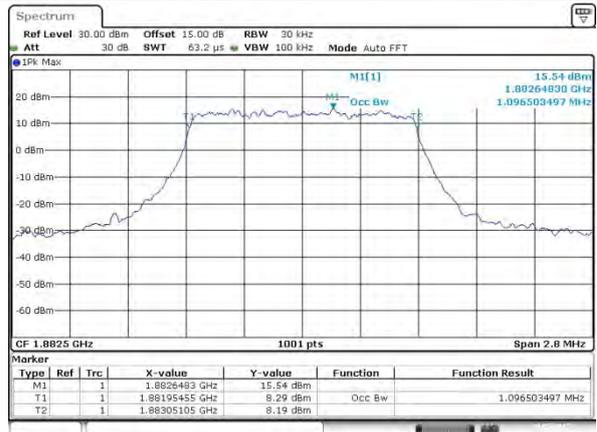
Date: 24 MAY 2015 13:54:47

Middle Channel / 1.4MHz / QPSK



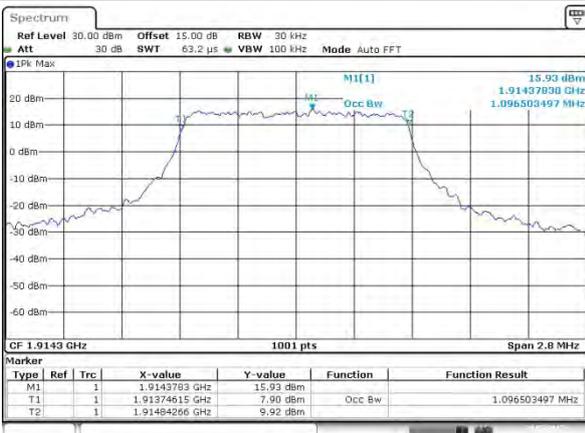
Date: 24 MAY 2015 14:03:37

Middle Channel / 1.4MHz / 16QAM



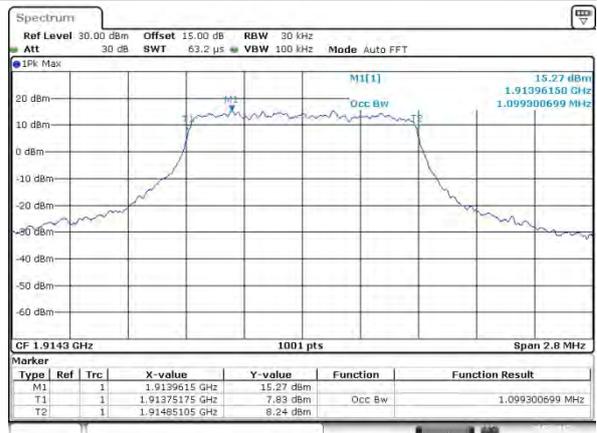
Date: 24 MAY 2015 14:03:48

Highest Channel / 1.4MHz / QPSK



Date: 24 MAY 2015 14:06:47

Highest Channel / 1.4MHz / 16QAM

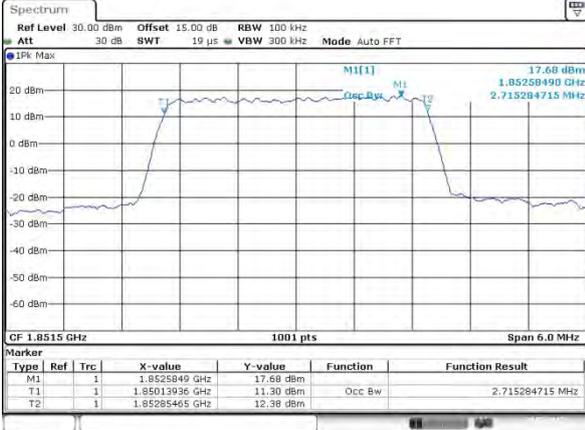


Date: 24 MAY 2015 14:06:58



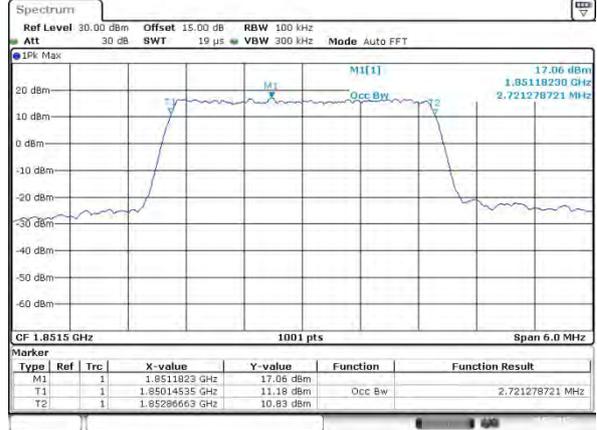
LTE Band 25

Lowest Channel / 3MHz / QPSK



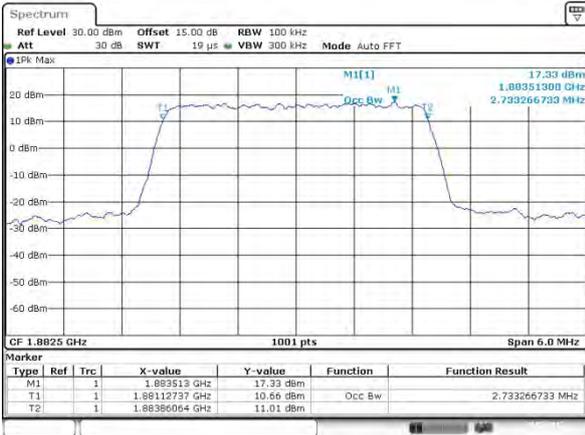
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Lowest Channel / 3MHz / 16QAM



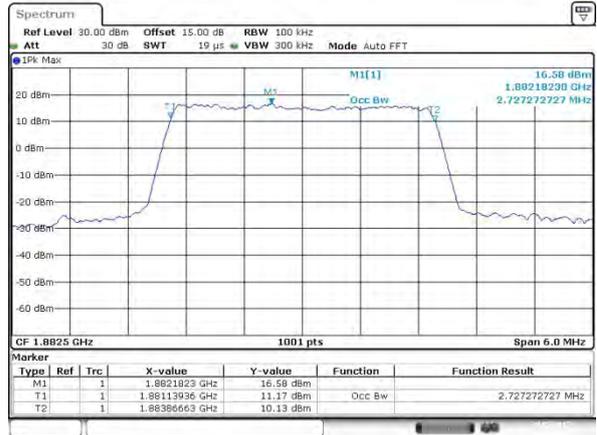
Date: 24 MAY 2015 14:14:43

Middle Channel / 3MHz / QPSK



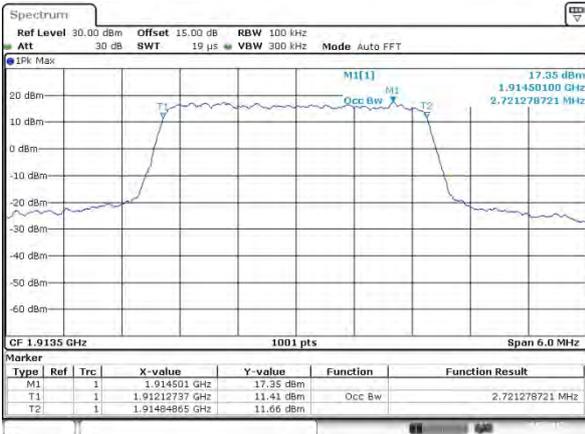
Date: 24 MAY 2015 14:17:42

Middle Channel / 3MHz / 16QAM



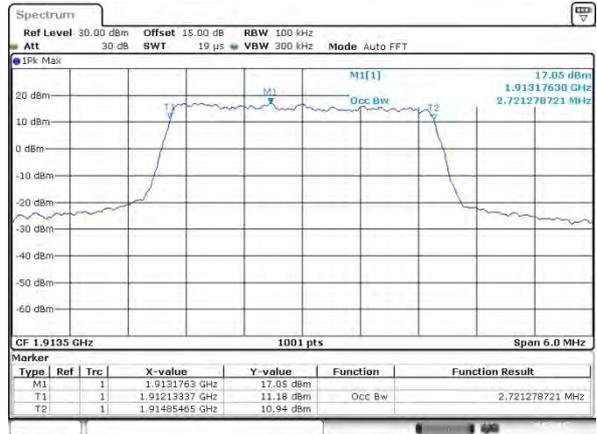
Date: 24 MAY 2015 14:17:53

Highest Channel / 3MHz / QPSK



Date: 24 MAY 2015 14:20:53

Highest Channel / 3MHz / 16QAM

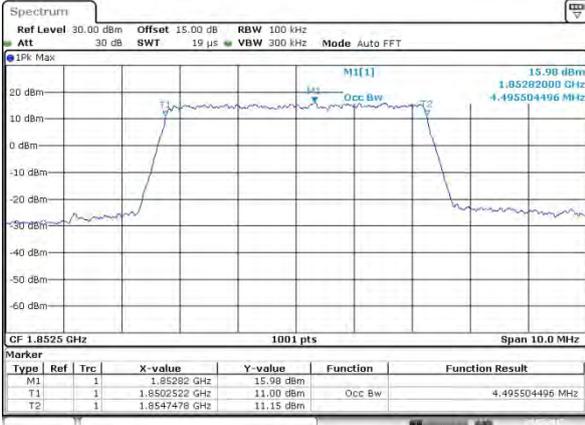


Date: 24 MAY 2015 14:21:03



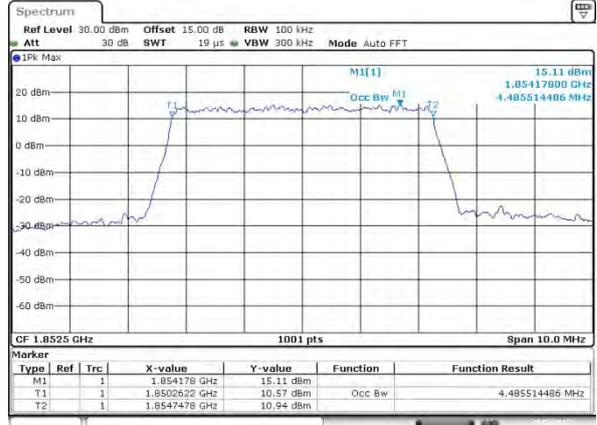
LTE Band 25

Lowest Channel / 5MHz / QPSK



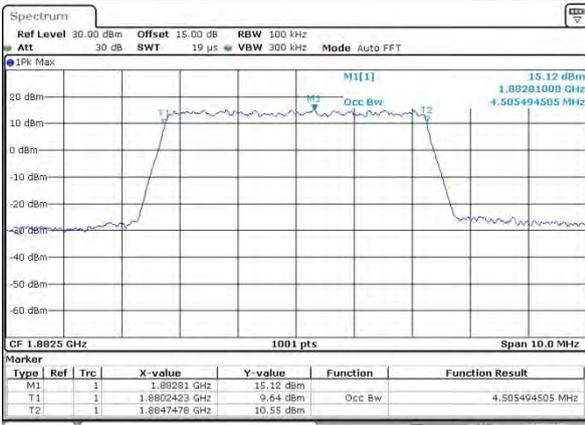
Date: 24 MAY 2015 14:28:38

Lowest Channel / 5MHz / 16QAM



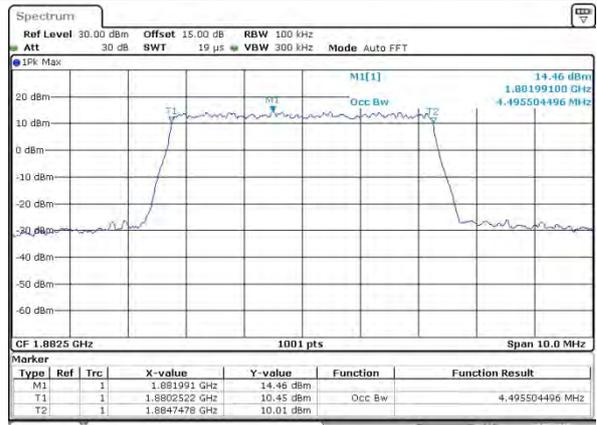
Date: 24 MAY 2015 14:28:49

Middle Channel / 5MHz / QPSK



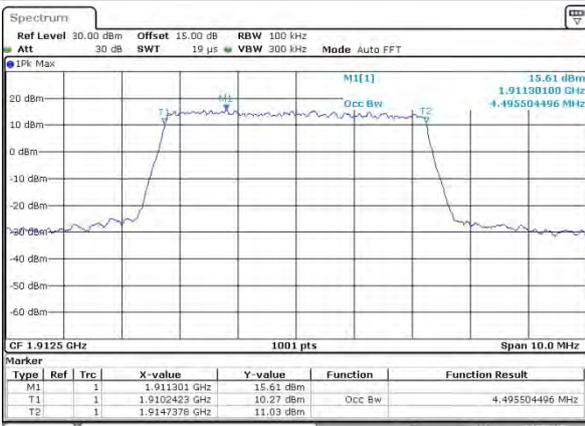
Date: 24 MAY 2015 14:31:48

Middle Channel / 5MHz / 16QAM



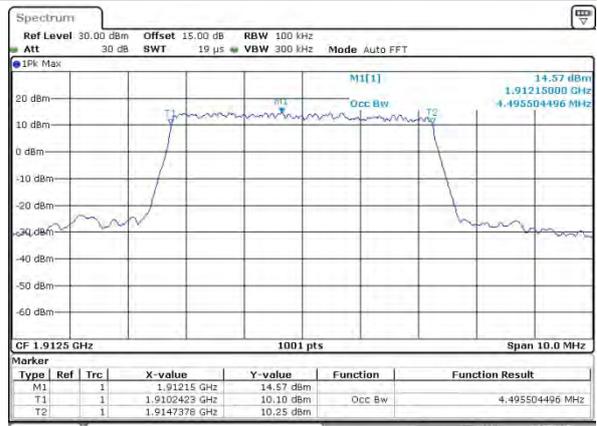
Date: 24 MAY 2015 14:31:59

Highest Channel / 5MHz / QPSK



Date: 24 MAY 2015 14:34:58

Highest Channel / 5MHz / 16QAM

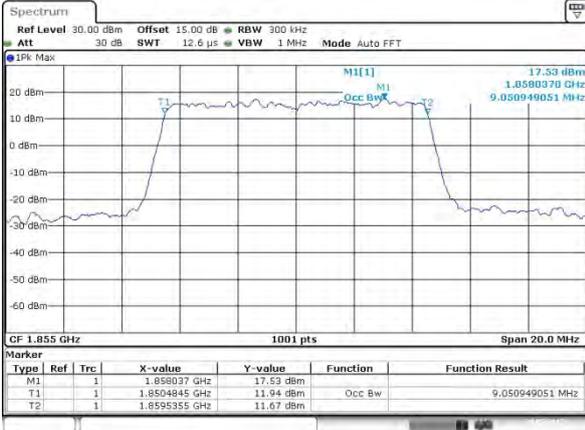


Date: 24 MAY 2015 14:35:09



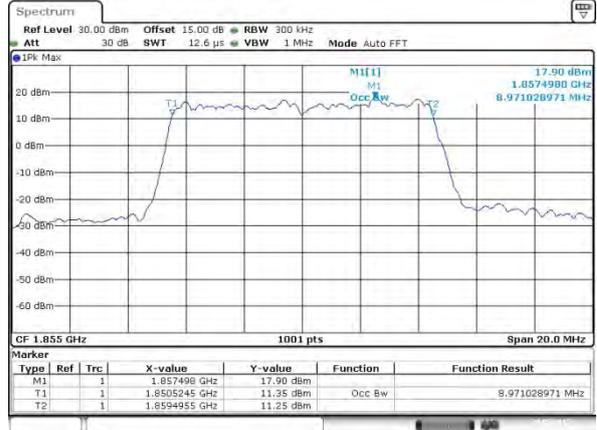
LTE Band 25

Lowest Channel / 10MHz / QPSK



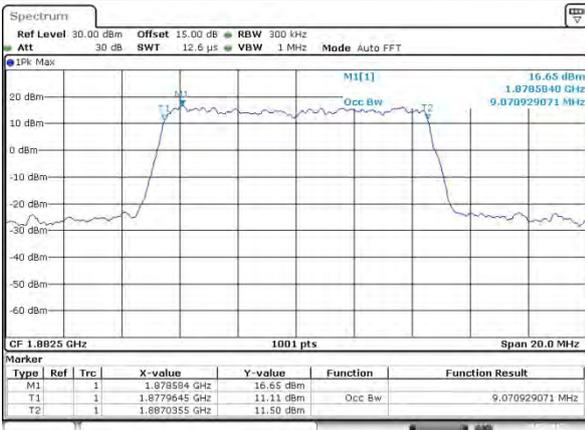
Date 24 MAY 2015 14:42:43

Lowest Channel / 10MHz / 16QAM



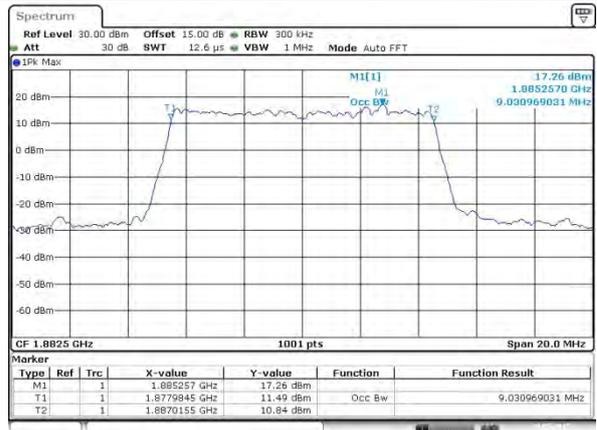
Date 24 MAY 2015 14:42:54

Middle Channel / 10MHz / QPSK



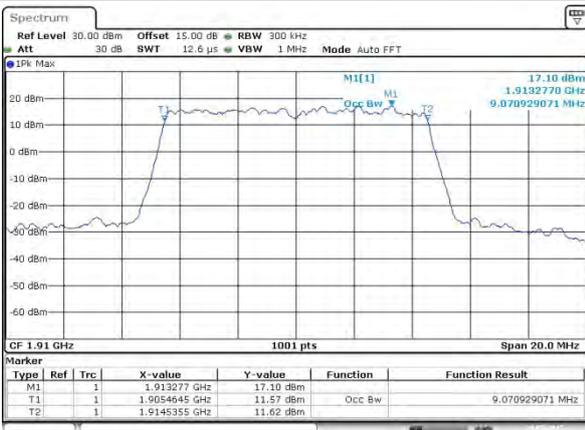
Date 24 MAY 2015 14:45:53

Middle Channel / 10MHz / 16QAM



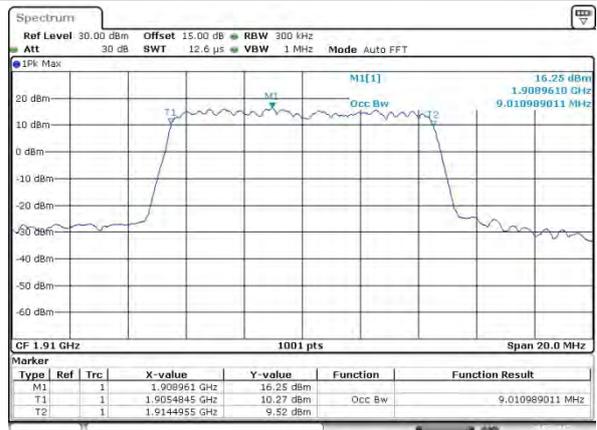
Date 24 MAY 2015 14:46:04

Highest Channel / 10MHz / QPSK



Date 24 MAY 2015 14:49:03

Highest Channel / 10MHz / 16QAM

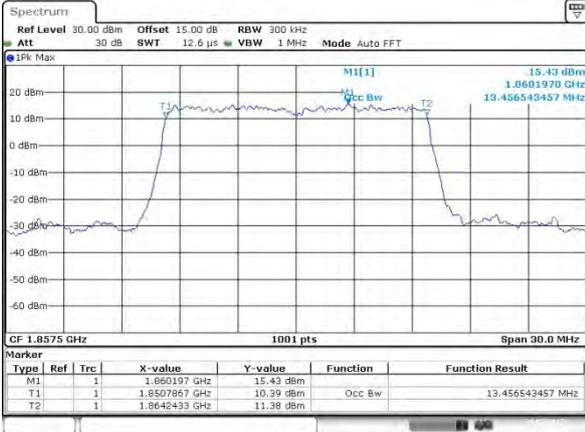


Date 24 MAY 2015 14:49:13



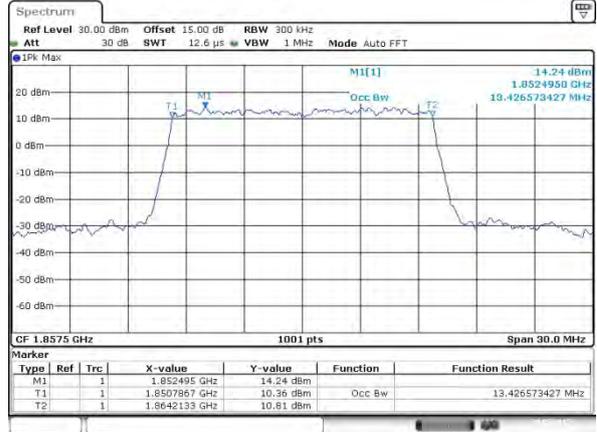
LTE Band 25

Lowest Channel / 15MHz / QPSK



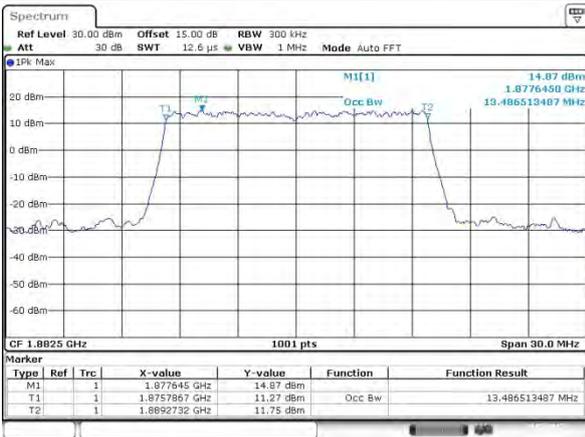
Date: 24 MAY 2015 14:56:48

Lowest Channel / 15MHz / 16QAM



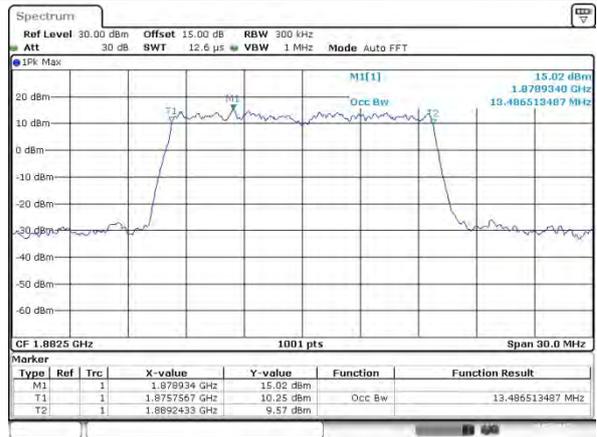
Date: 24 MAY 2015 14:56:58

Middle Channel / 15MHz / QPSK



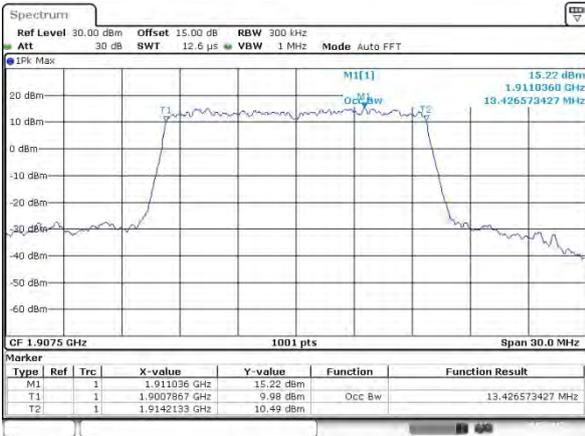
Date: 24 MAY 2015 15:55:48

Middle Channel / 15MHz / 16QAM



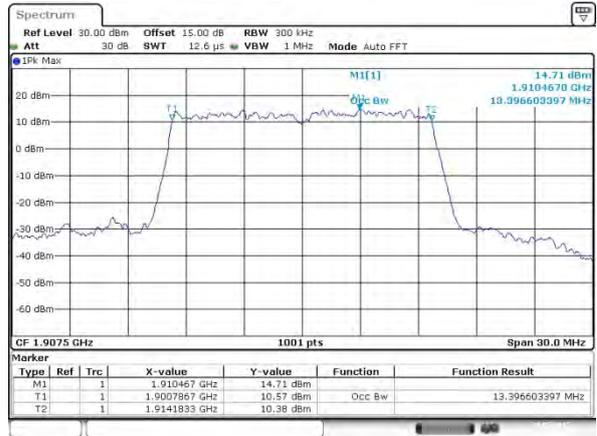
Date: 24 MAY 2015 15:02:19

Highest Channel / 15MHz / QPSK



Date: 24 MAY 2015 15:05:18

Highest Channel / 15MHz / 16QAM

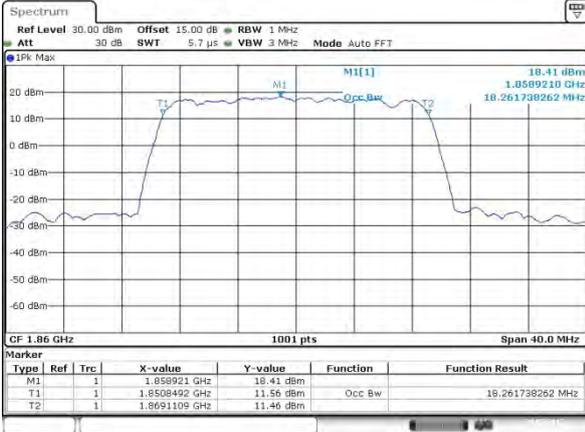


Date: 24 MAY 2015 15:05:29



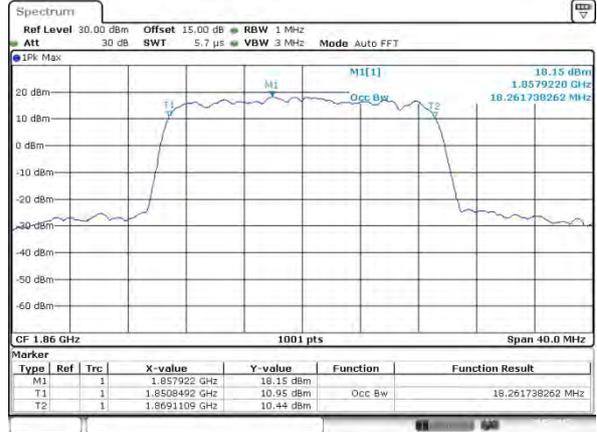
LTE Band 25

Lowest Channel / 20MHz / QPSK



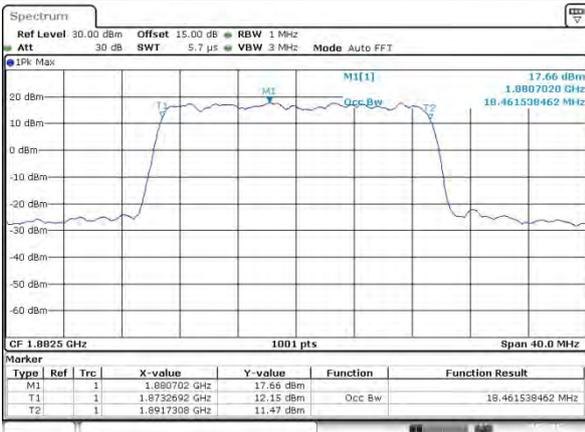
Date 24 MAY 2015 15:13:03

Lowest Channel / 20MHz / 16QAM



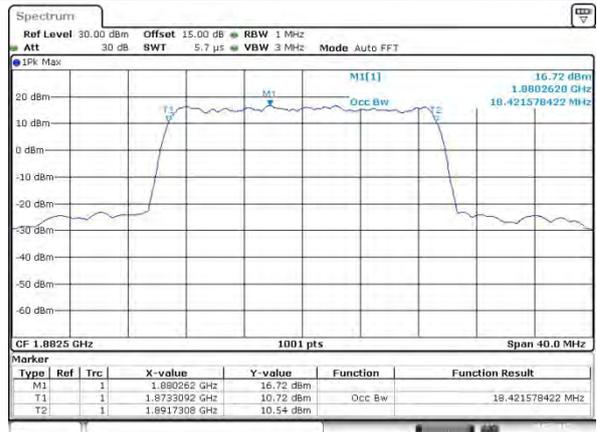
Date 24 MAY 2015 15:13:13

Middle Channel / 20MHz / QPSK



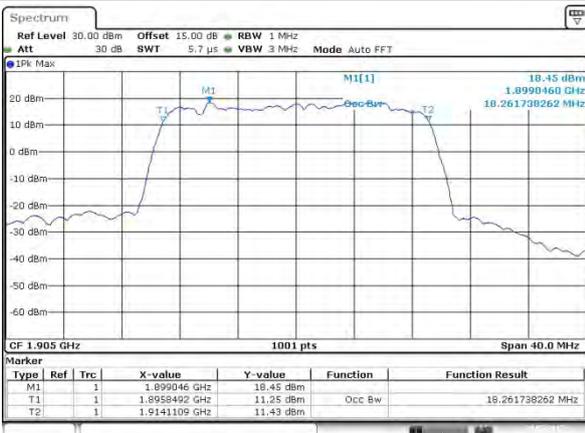
Date 24 MAY 2015 15:18:12

Middle Channel / 20MHz / 16QAM



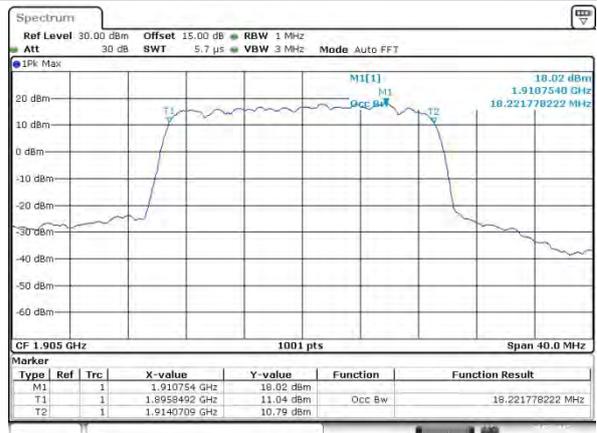
Date 24 MAY 2015 15:18:23

Highest Channel / 20MHz / QPSK



Date 24 MAY 2015 15:19:22

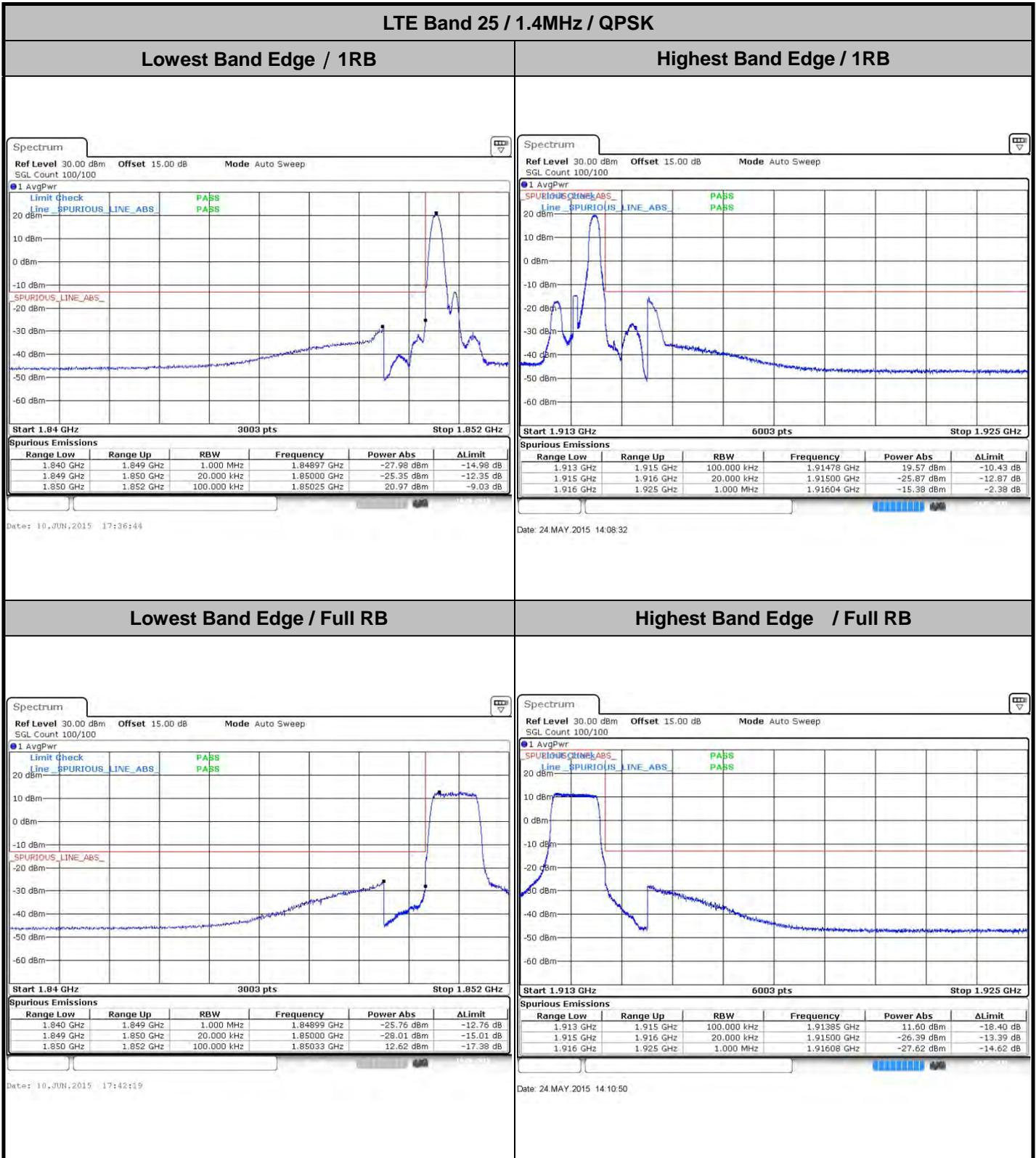
Highest Channel / 20MHz / 16QAM



Date 24 MAY 2015 15:19:32



# Conducted Band Edge





LTE Band 25 / 1.4MHz / 16QAM

Lowest Band Edge / 1 RB



Highest Band Edge / 1 RB



Lowest Band Edge / Full RB



Highest Band Edge / Full RB





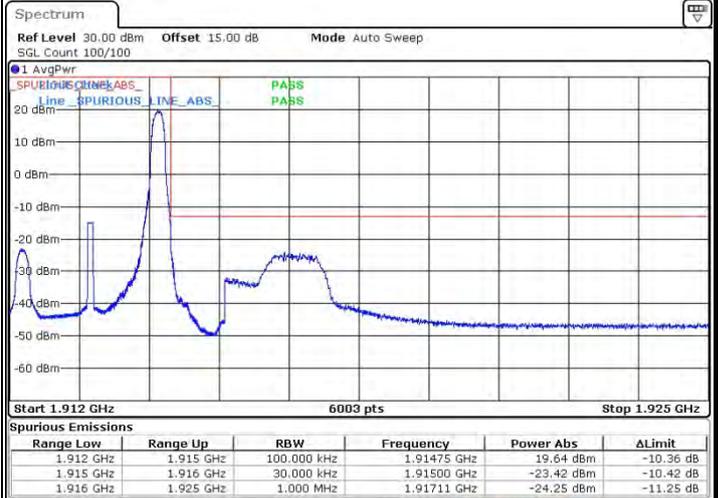
LTE Band 25 / 3MHz / QPSK

Lowest Band Edge / 1RB



Date: 10 JUN 2015 17:45:47

Highest Band Edge / 1 RB



Date: 24 MAY 2015 14:22:38

Lowest Band Edge / Full RB



Date: 10 JUN 2015 17:43:04

Highest Band Edge / Full RB

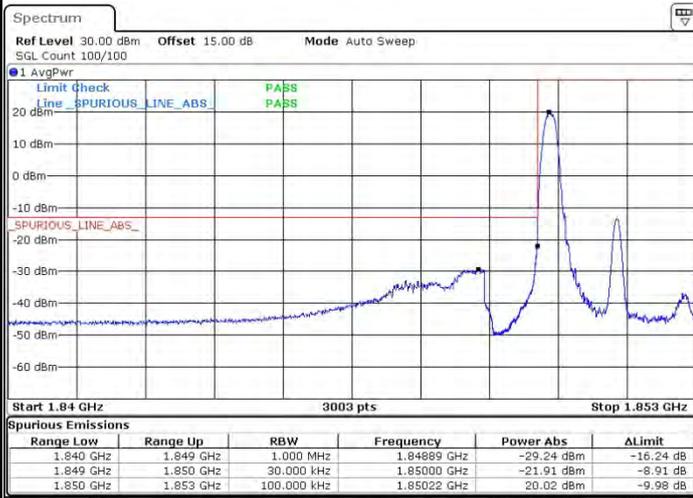


Date: 24 MAY 2015 14:24:56



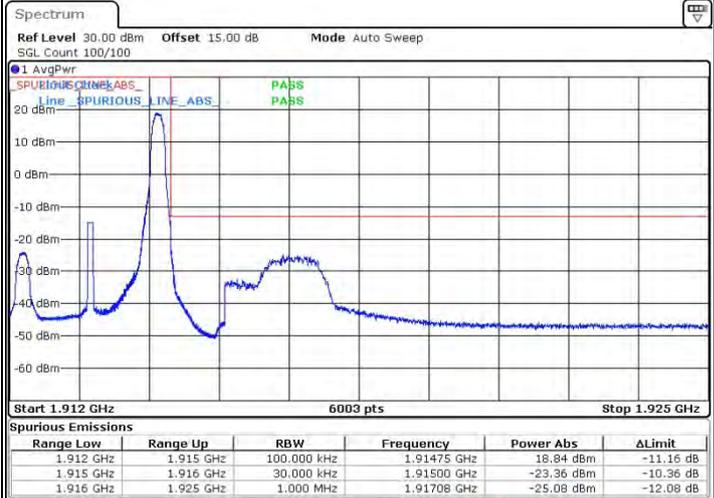
LTE Band 25 / 3MHz / 16QAM

Lowest Band Edge / 1 RB



Date: 10 JUN 2015 17:45:03

Highest Band Edge / 1 RB



Date: 24 MAY 2015 14:23:47

Lowest Band Edge / Full RB



Date: 10 JUN 2015 17:43:43

Highest Band Edge / Full RB

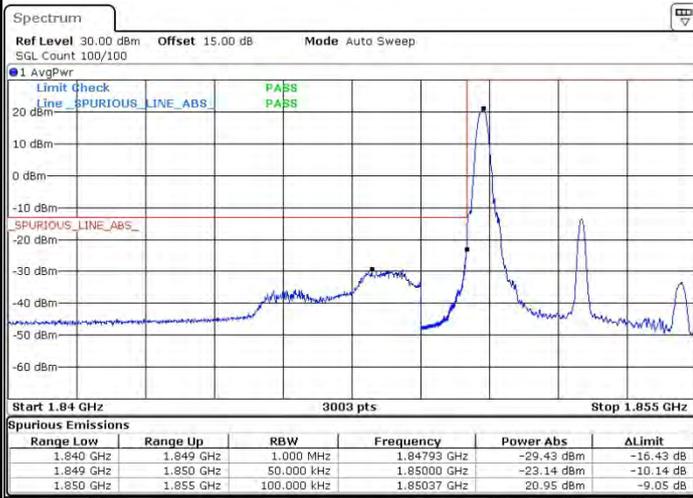


Date: 24 MAY 2015 14:26:04



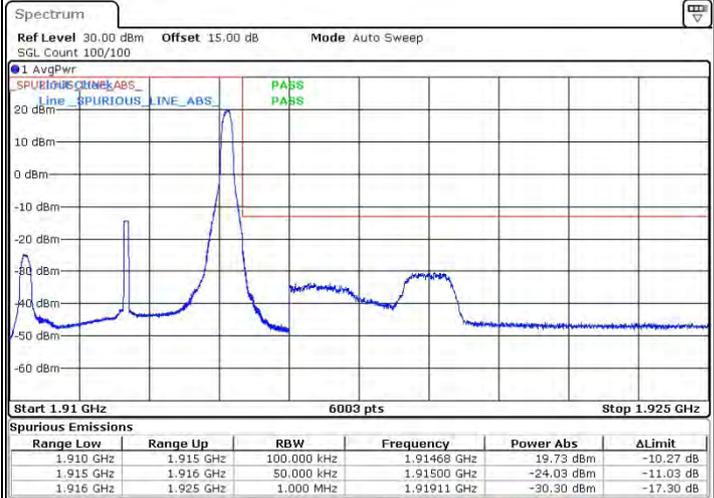
LTE Band 25 / 5MHz / QPSK

Lowest Band Edge / 1 RB



Date: 10 JUN 2015 17:46:55

Highest Band Edge / 1 RB



Date: 24 MAY 2015 14:36:43

Lowest Band Edge / Full RB



Date: 10 JUN 2015 17:48:45

Highest Band Edge / Full RB

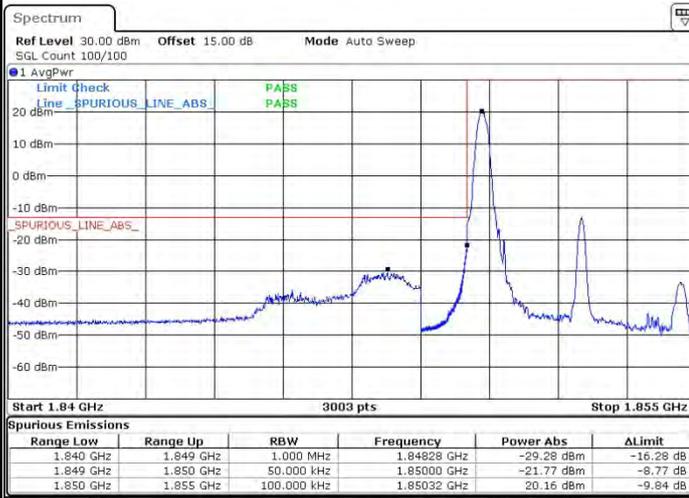


Date: 24 MAY 2015 14:38:01



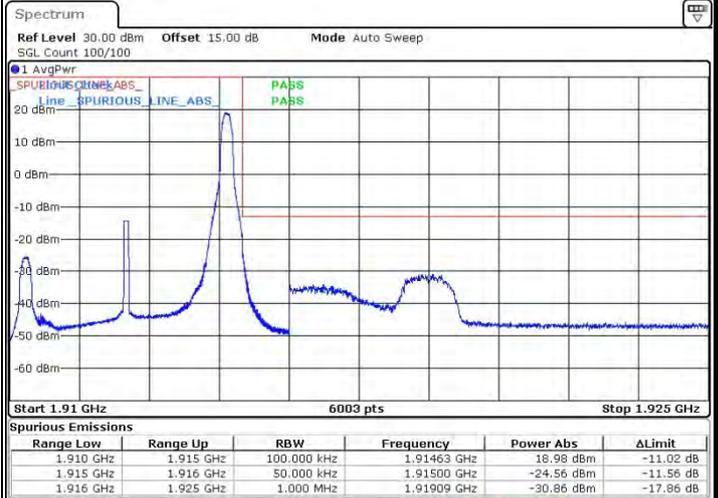
LTE Band 25 / 5MHz / 16QAM

Lowest Band Edge / 1RB



Date: 10 JUN 2015 17:47:39

Highest Band Edge / 1 RB



Date: 24 MAY 2015 14:37:52

Lowest Band Edge / Full RB



Date: 10 JUN 2015 17:48:20

Highest Band Edge / Full RB

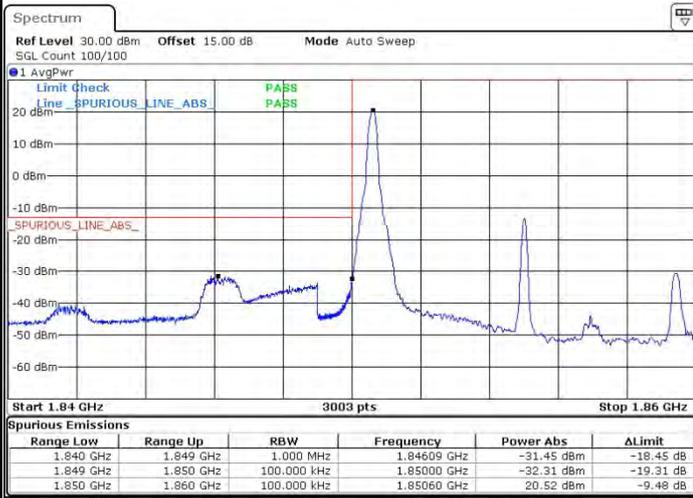


Date: 24 MAY 2015 14:40:10



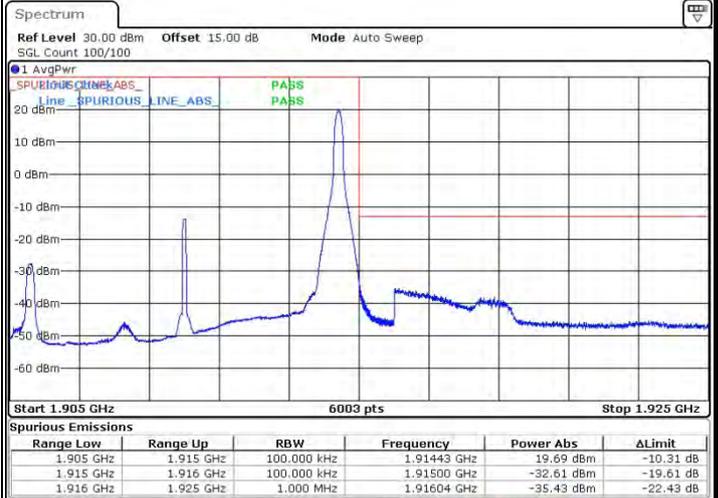
LTE Band 25 / 10MHz / QPSK

Lowest Band Edge / 1 RB



Date: 10. JUN. 2015 17:51:00

Highest Band Edge / 1 RB



Date: 24 MAY. 2015 14:50:47

Lowest Band Edge / Full RB



Date: 10. JUN. 2015 17:49:12

Highest Band Edge / Full RB

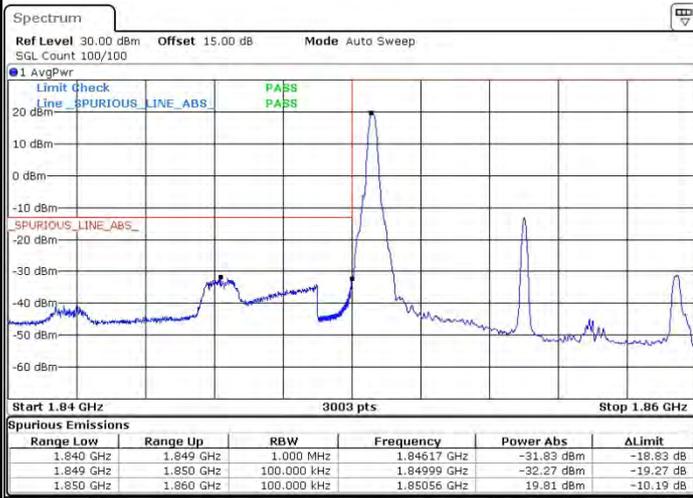


Date: 24 MAY. 2015 14:53:05



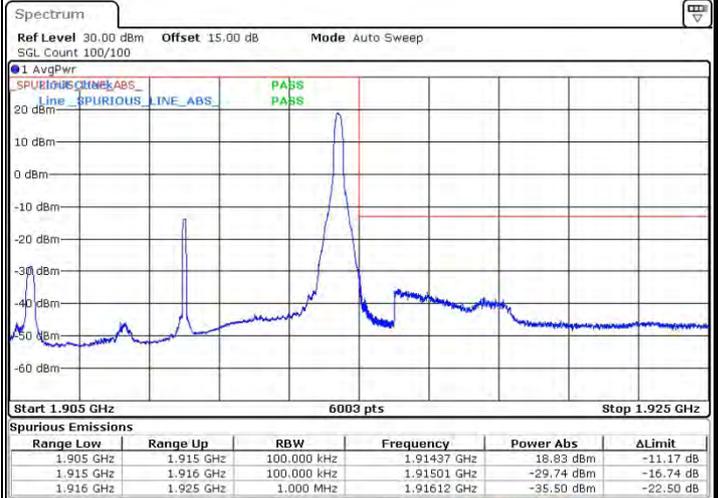
LTE Band 25 / 10MHz / 16QAM

Lowest Band Edge / 1 RB



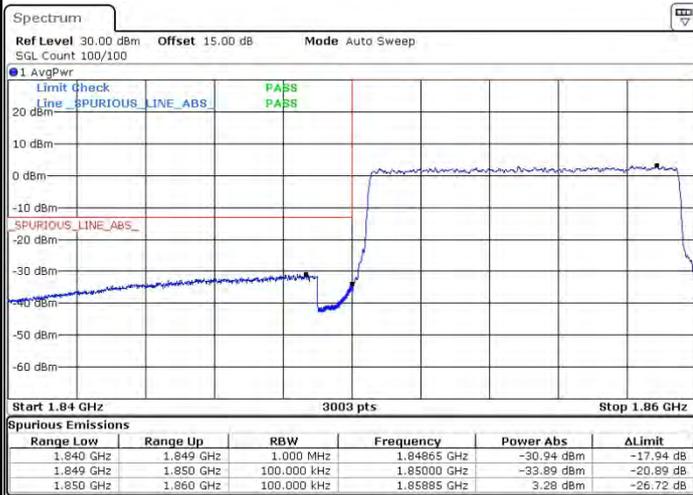
Date: 10 JUN 2015 17:50:15

Highest Band Edge / 1 RB



Date: 24 MAY 2015 14:51:56

Lowest Band Edge / Full RB



Date: 10 JUN 2015 17:49:31

Highest Band Edge / Full RB



Date: 24 MAY 2015 14:54:14



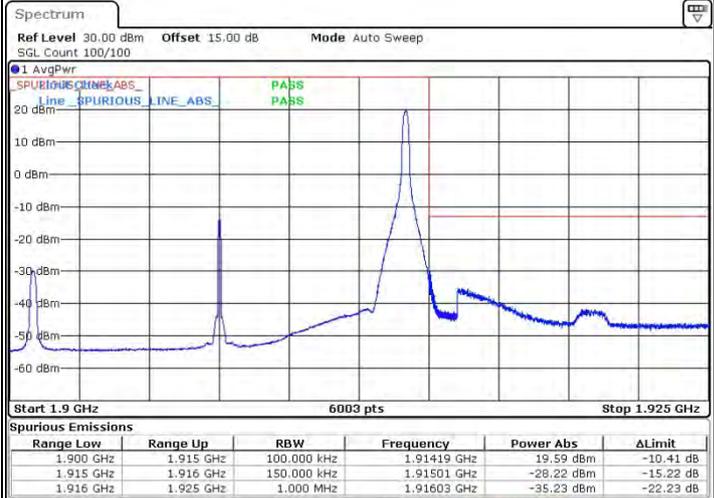
LTE Band 25 / 15MHz / QPSK

Lowest Band Edge / 1 RB



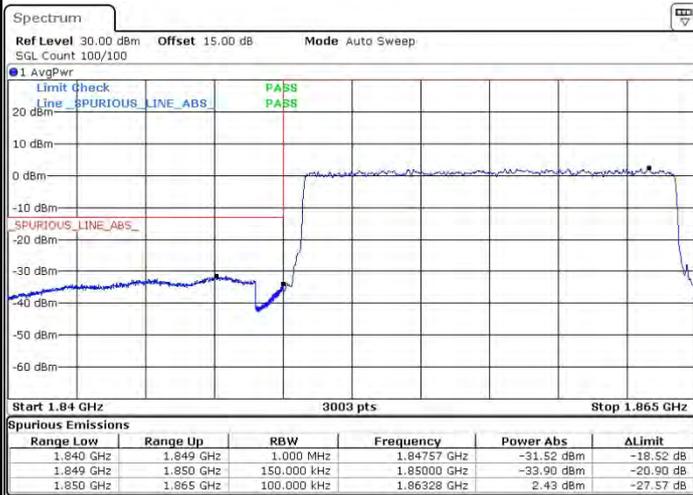
Date: 10 JUN 2015 17:51:36

Highest Band Edge / 1 RB



Date: 24 MAY 2015 15:07:03

Lowest Band Edge / Full RB



Date: 10 JUN 2015 17:53:00

Highest Band Edge / Full RB

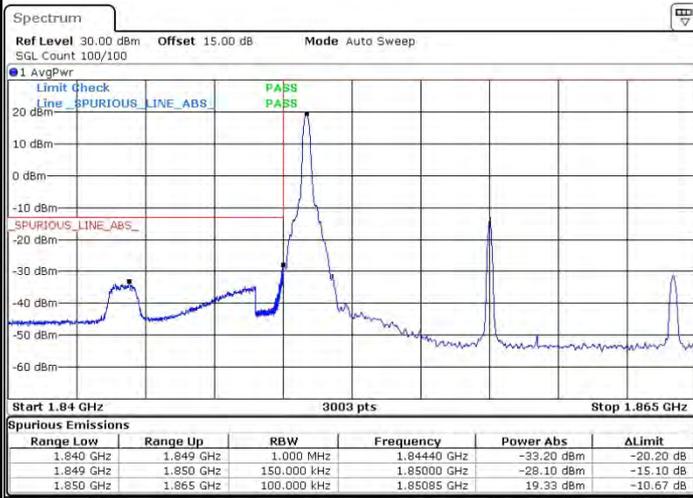


Date: 24 MAY 2015 15:09:20



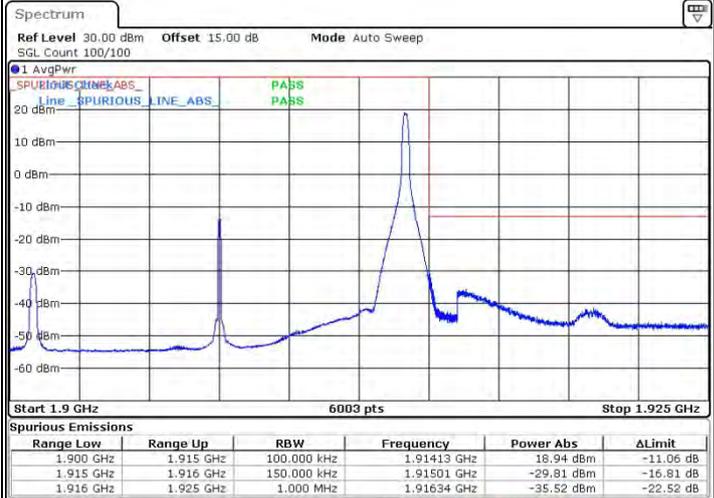
LTE Band 25 / 15MHz / 16QAM

Lowest Band Edge / 1 RB



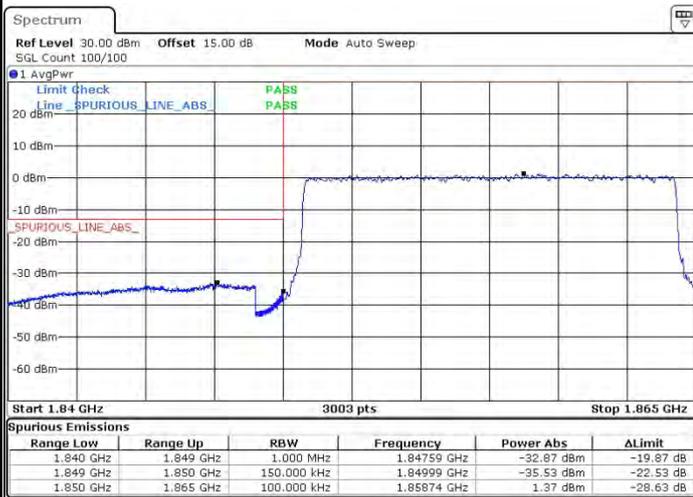
Date: 10 JUN 2015 17:52:02

Highest Band Edge / 1 RB



Date: 24 MAY 2015 15:08:12

Lowest Band Edge / Full RB



Date: 10 JUN 2015 17:52:36

Highest Band Edge / Full RB

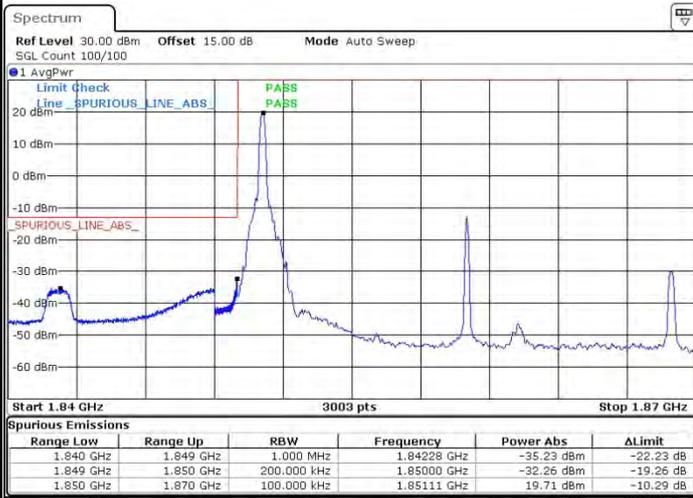


Date: 24 MAY 2015 15:10:29



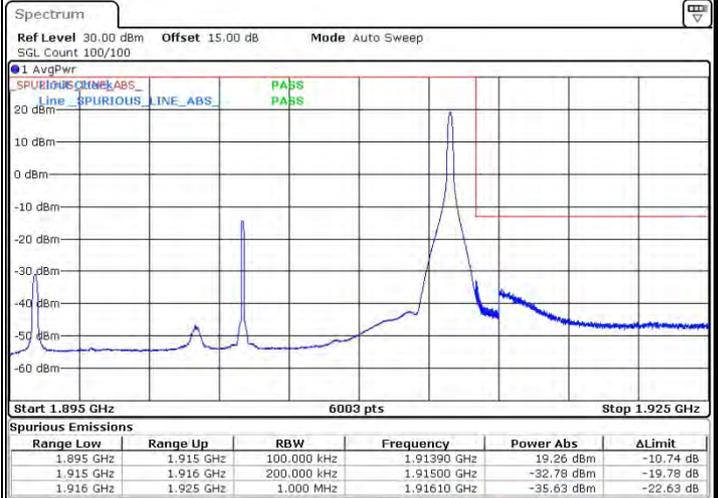
LTE Band 25 / 20MHz / QPSK

Lowest Band Edge / 1 RB



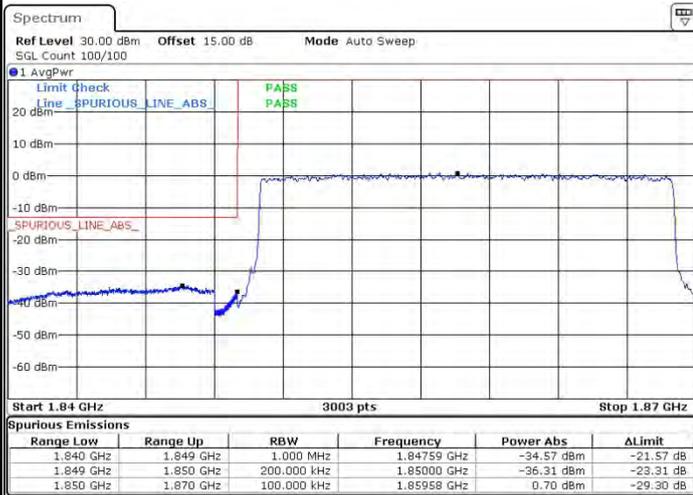
Date: 10 JUN 2015 17:57:37

Highest Band Edge / 1 RB



Date: 24 MAY 2015 15:21:07

Lowest Band Edge / Full RB



Date: 10 JUN 2015 17:53:20

Highest Band Edge / Full RB

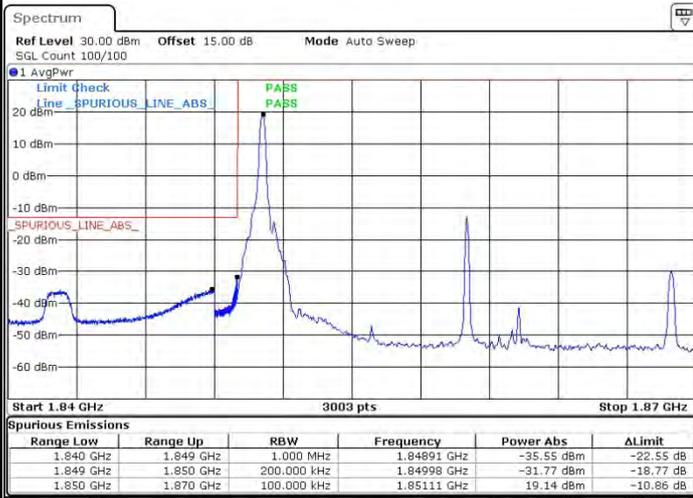


Date: 24 MAY 2015 15:23:25



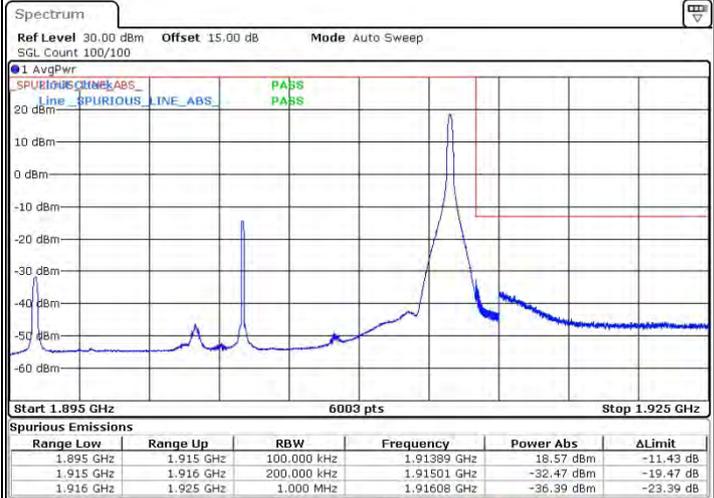
LTE Band 25 / 20MHz / 16QAM

Lowest Band Edge / 1 RB



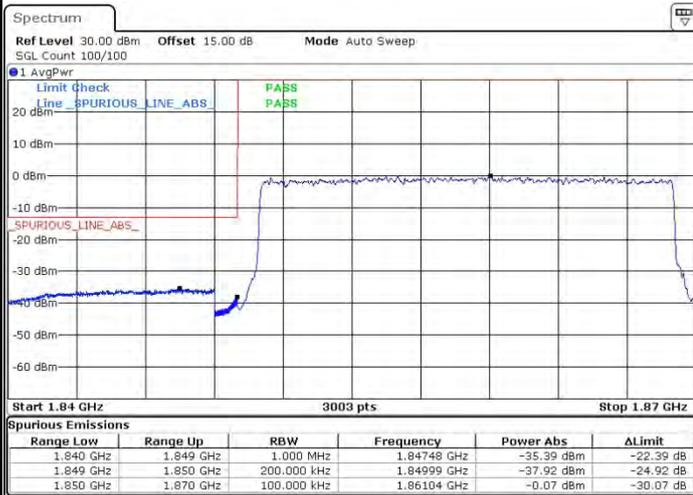
Date: 10 JUN 2015 17:57:19

Highest Band Edge / 1 RB



Date: 24 MAY 2015 15:22:16

Lowest Band Edge / Full RB



Date: 10 JUN 2015 17:56:59

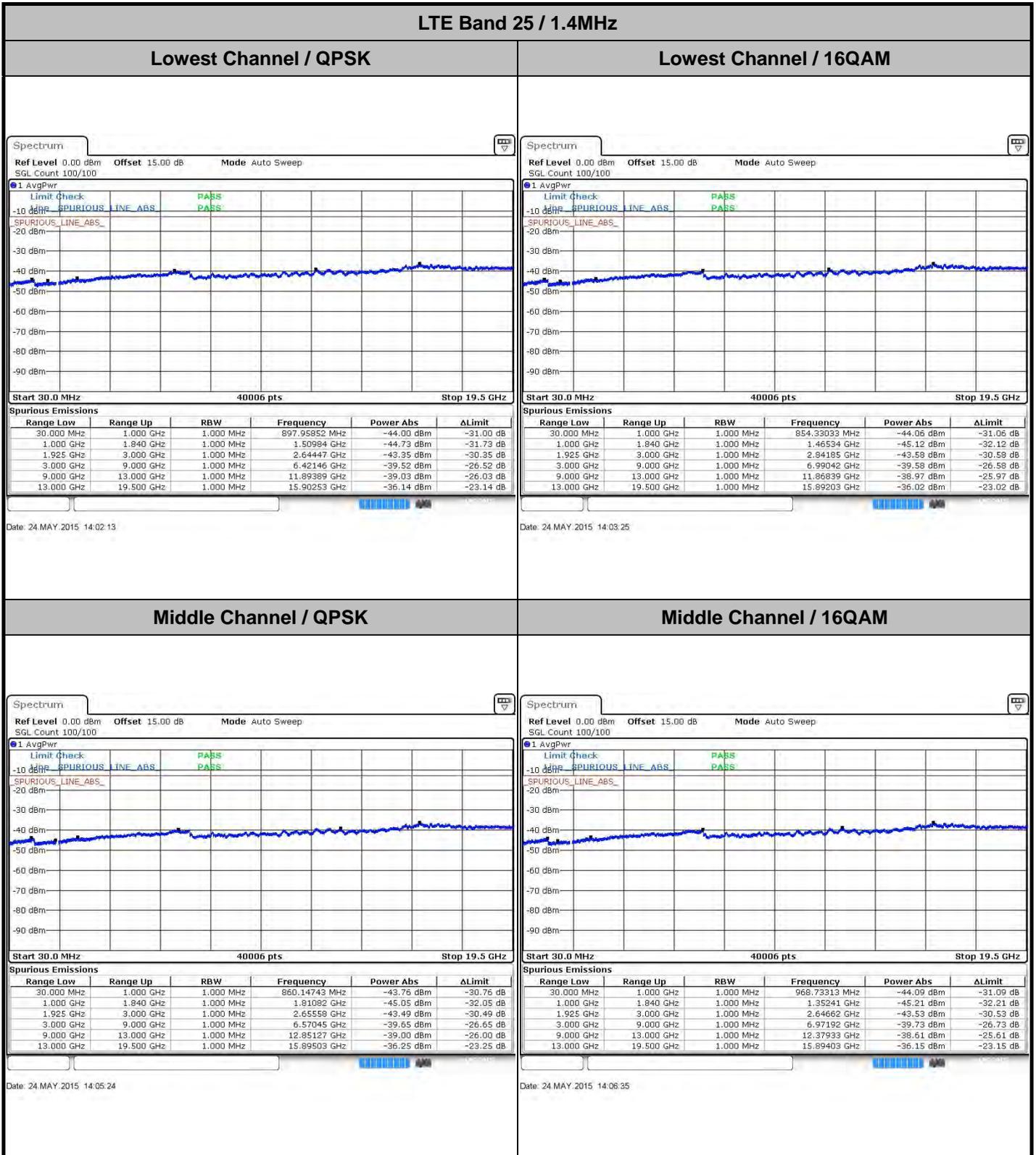
Highest Band Edge / Full RB



Date: 24 MAY 2015 15:24:34



# Conducted Spurious Emission





LTE Band 25 / 1.4MHz

Highest Channel / QPSK



Date: 24 MAY 2015 14:13:09

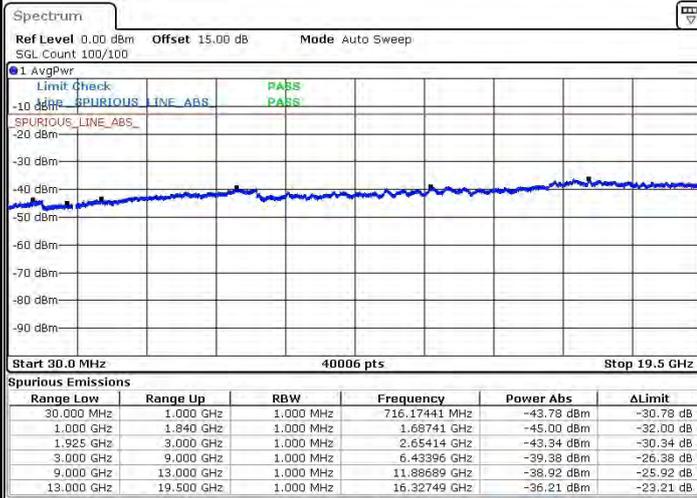
Highest Channel / 16QAM



Date: 24 MAY 2015 14:14:20

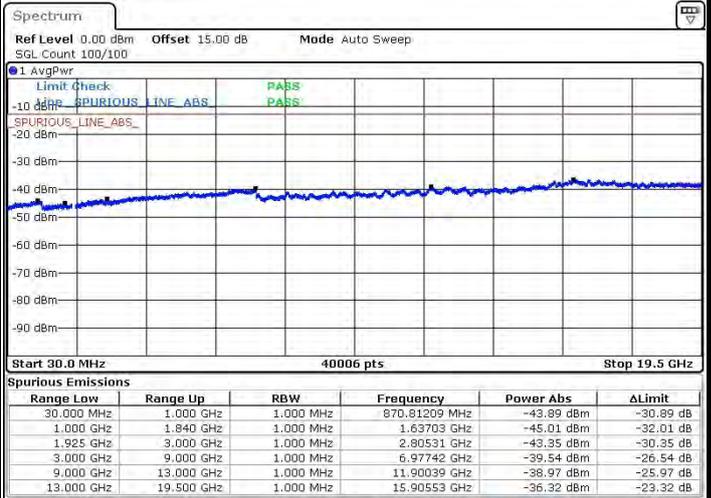
LTE Band 25 / 3MHz

Lowest Channel / QPSK



Date: 24 MAY 2015 14:16:19

Lowest Channel / 16QAM



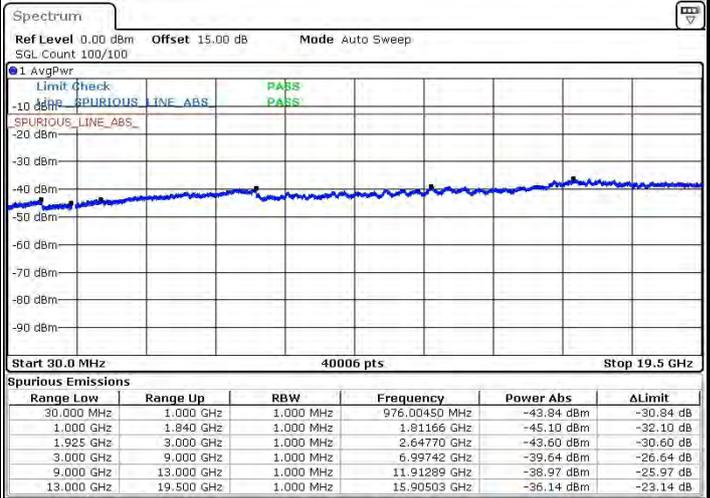
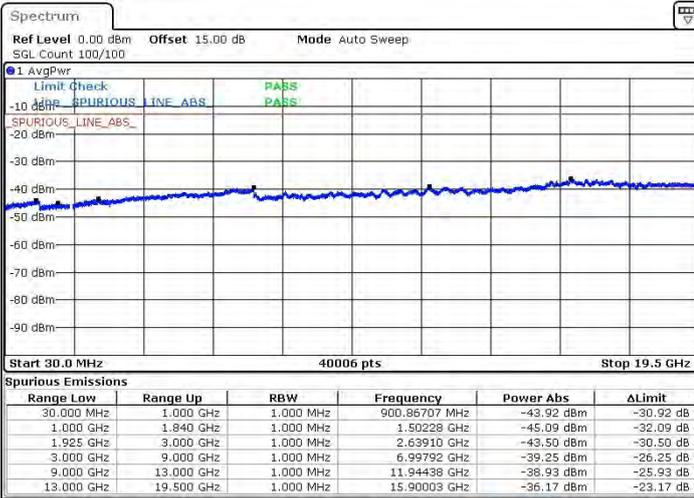
Date: 24 MAY 2015 14:17:30



LTE Band 25 / 3MHz

Middle Channel / QPSK

Middle Channel / 16QAM

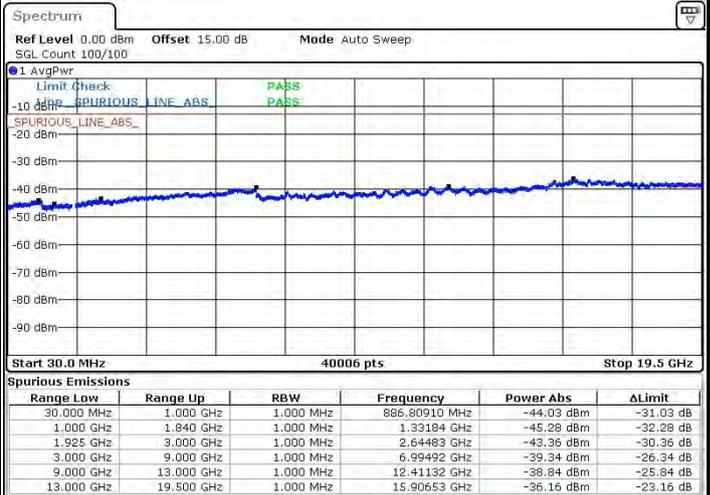


Date: 24 MAY 2015 14:19:29

Date: 24 MAY 2015 14:20:40

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24 MAY 2015 14:27:14

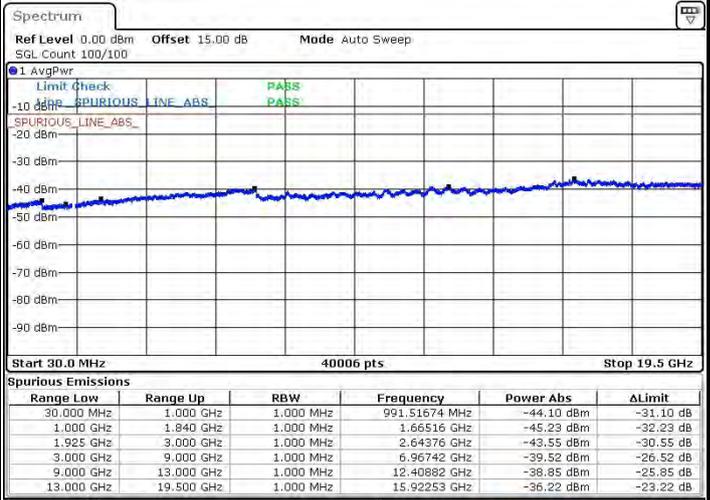
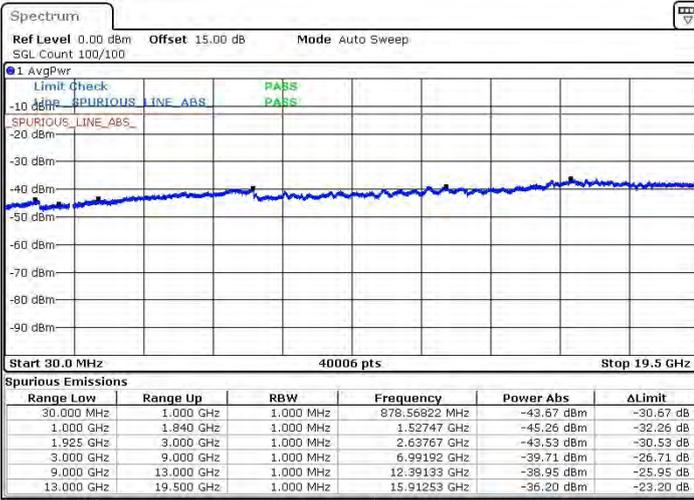
Date: 24 MAY 2015 14:28:26



LTE Band 25 / 5MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

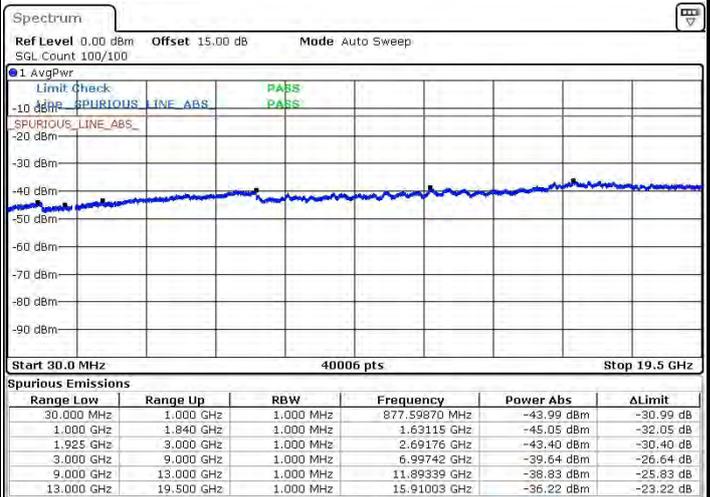
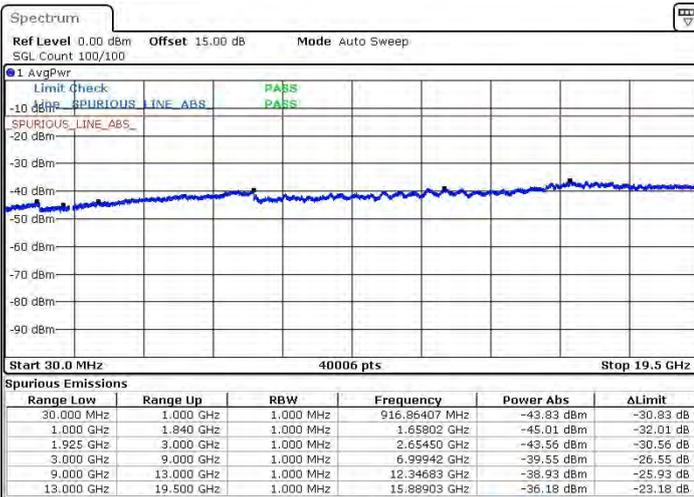


Date: 24 MAY 2015 14:30:25

Date: 24 MAY 2015 14:31:36

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 24 MAY 2015 14:33:35

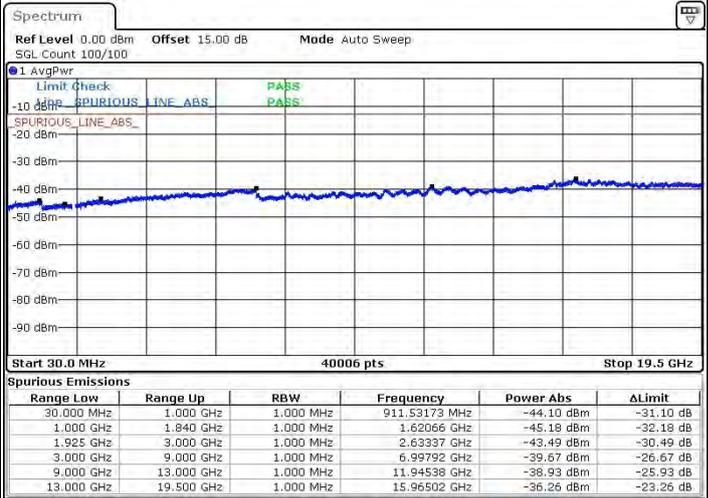
Date: 24 MAY 2015 14:34:46



LTE Band 25 / 5MHz

Highest Channel / QPSK

Highest Channel / 16QAM



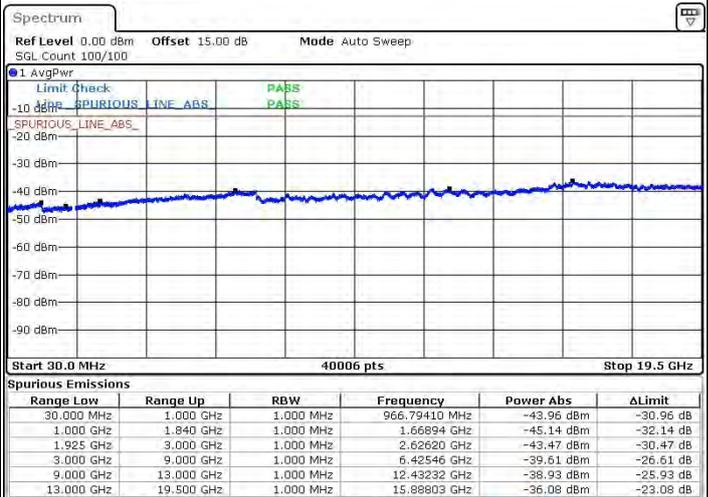
Date: 24 MAY 2015 14:41:20

Date: 24 MAY 2015 14:42:31

LTE Band 25 / 10MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM



Date: 24 MAY 2015 14:44:29

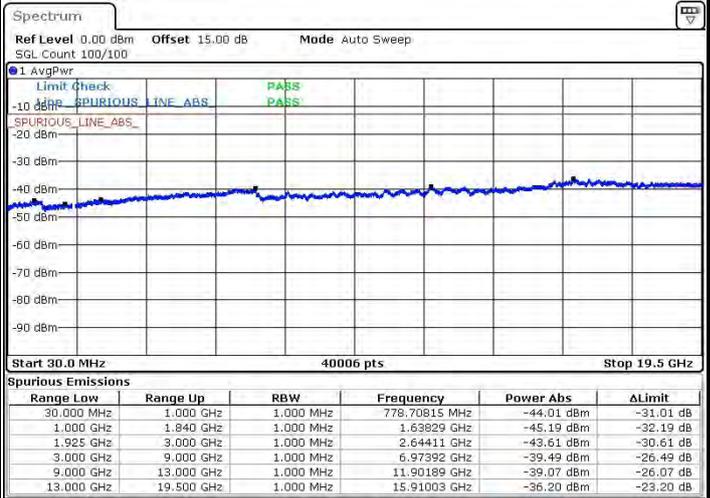
Date: 24 MAY 2015 14:45:41



LTE Band 25 / 10MHz

Middle Channel / QPSK

Middle Channel / 16QAM

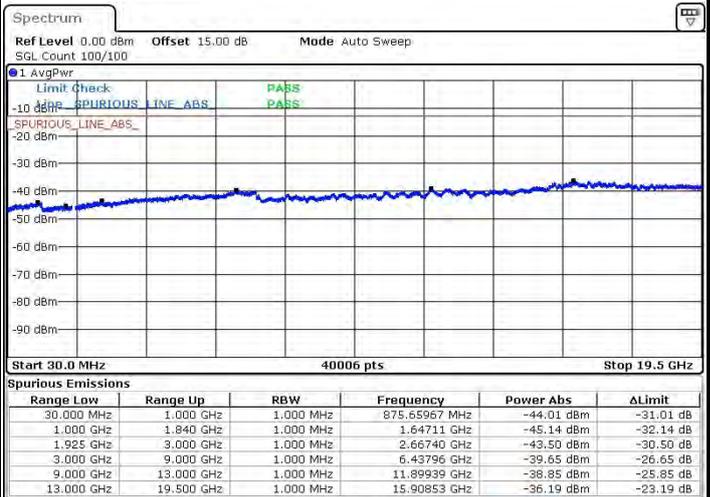
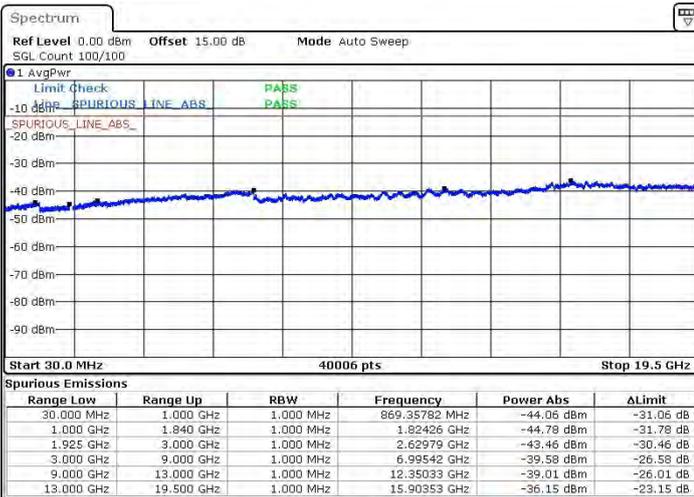


Date: 24 MAY 2015 14:47:39

Date: 24 MAY 2015 14:48:50

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24 MAY 2015 14:55:24

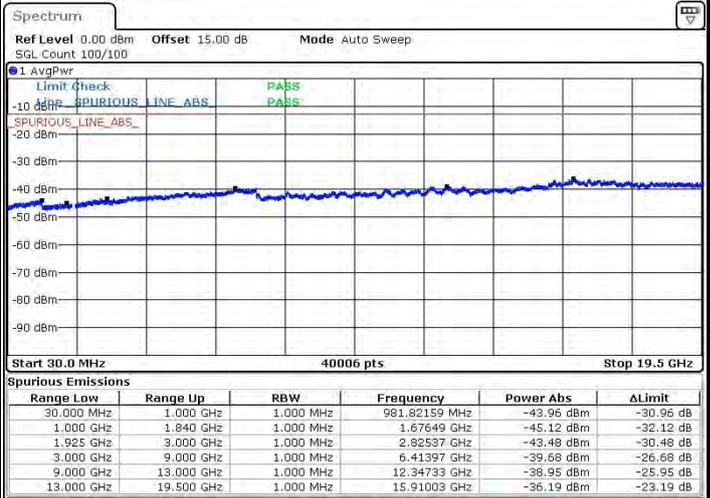
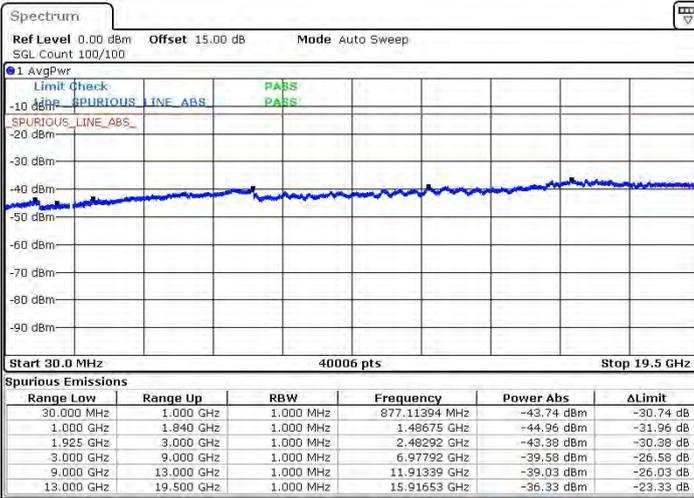
Date: 24 MAY 2015 14:56:35



LTE Band 25 / 15MHz

Lowest Channel / QPSK

Lowest Channel / 16QAM

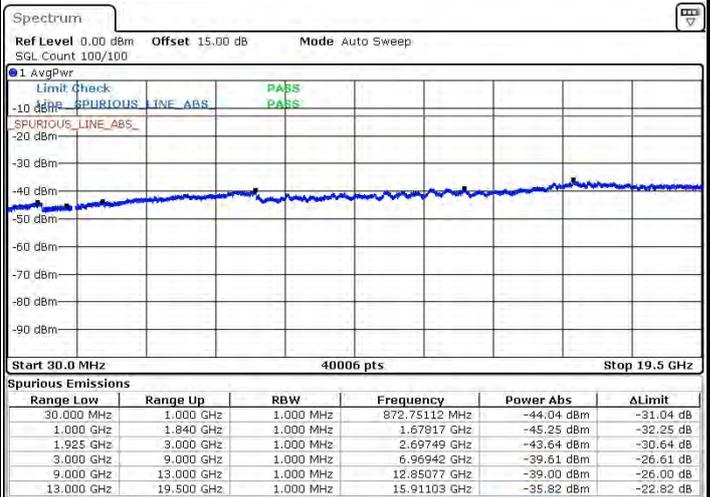
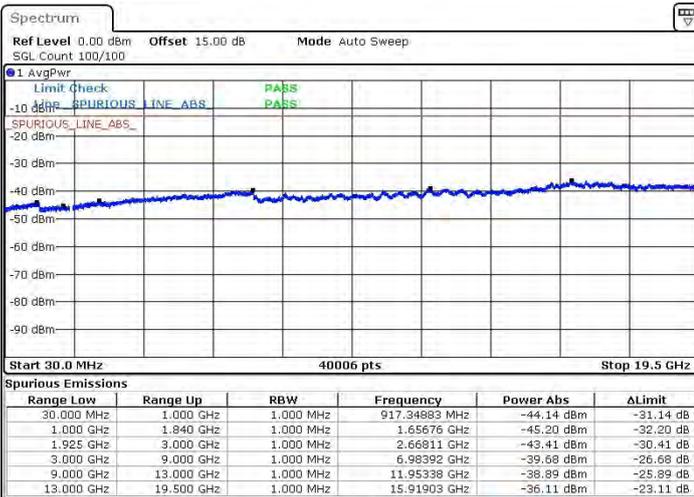


Date: 24 MAY 2015 14:58:34

Date: 24 MAY 2015 14:59:45

Middle Channel / QPSK

Middle Channel / 16QAM



Date: 24 MAY 2015 15:03:55

Date: 24 MAY 2015 15:05:06



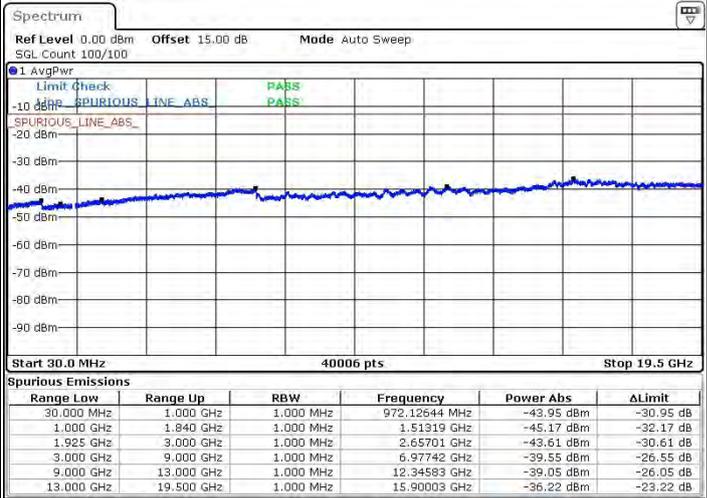
LTE Band 25 / 15MHz

Highest Channel / QPSK



Date: 24 MAY 2015 15:11:39

Highest Channel / 16QAM



Date: 24 MAY 2015 15:57:51

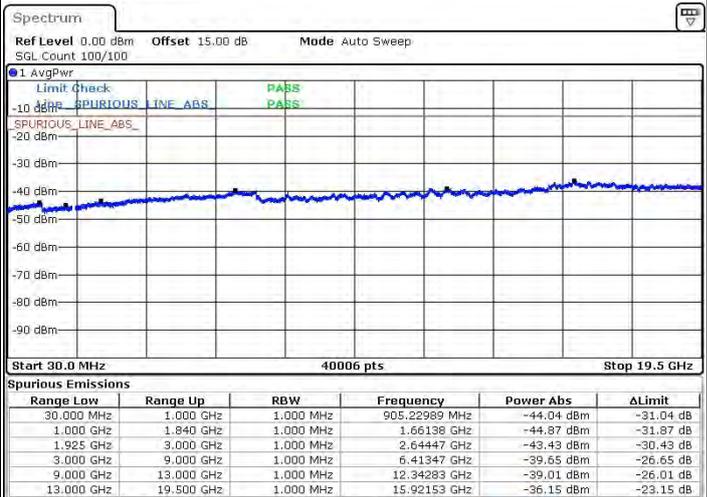
LTE Band 25 / 20MHz

Lowest Channel / QPSK



Date: 24 MAY 2015 15:14:49

Lowest Channel / 16QAM



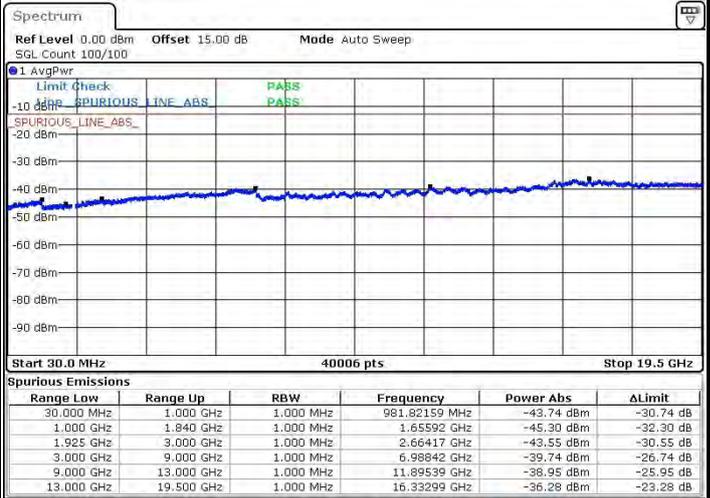
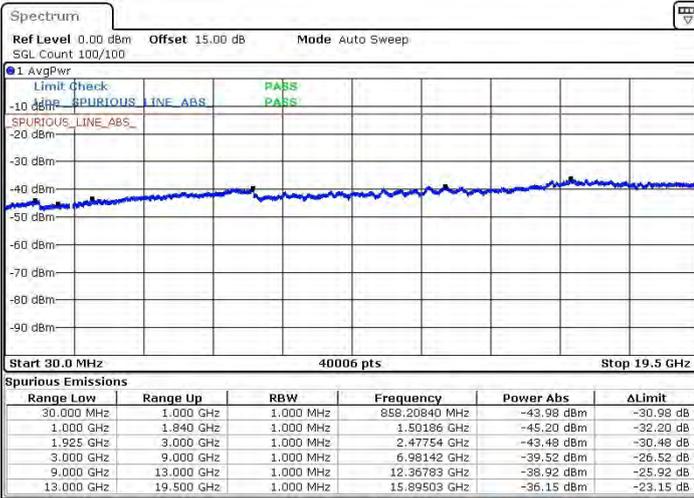
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LTE Band 25 / 20MHz

Middle Channel / QPSK

Middle Channel / 16QAM

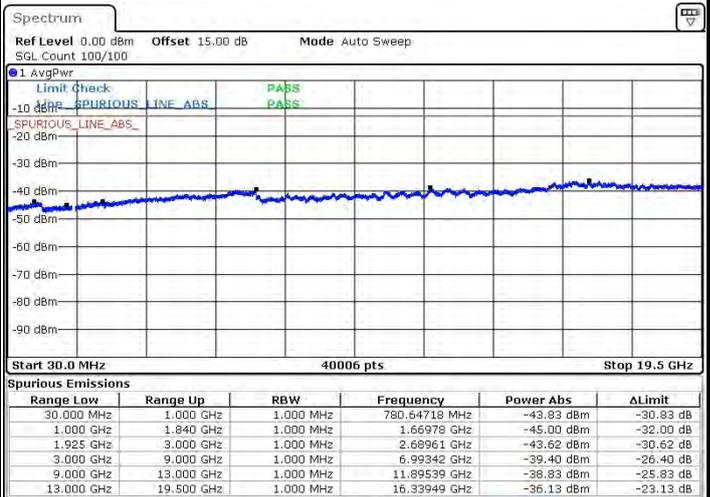
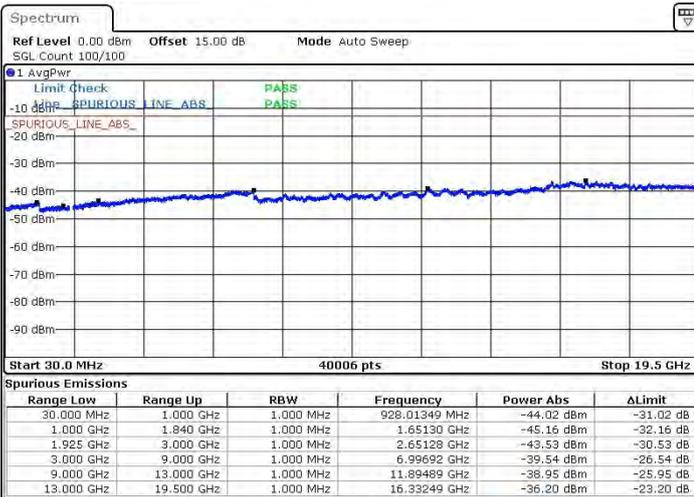


Date: 24 MAY 2015 15:17:58

Date: 24 MAY 2015 15:19:10

Highest Channel / QPSK

Highest Channel / 16QAM



Date: 24 MAY 2015 15:25:44

Date: 24 MAY 2015 15:26:55



**Frequency Stability**

Test Conditions		LTE Band 25 (QPSK) / Middle Channel	Limit
Temperature (°C)	Voltage (Volt)	BW 10MHz	Note 2.
		Deviation (ppm)	Result
50	Normal Voltage	0.0005	PASS
40	Normal Voltage	0.0000	
30	Normal Voltage	0.0005	
20(Ref.)	Normal Voltage	0.0000	
10	Normal Voltage	0.0011	
0	Normal Voltage	0.0000	
-10	Normal Voltage	0.0011	
-20	Normal Voltage	0.0005	
-30	Normal Voltage	0.0021	
20	Maximum Voltage	0.0005	
20	Normal Voltage	0.0000	
20	Battery End Point	0.0011	

**Note:**

1. Normal Voltage = 3.80 V. ; Battery End Point (BEP) = 3.50 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.



## Appendix B. Test Results of Radiated Test

### EIRP

LTE Band 25 / 1.4MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	2	22.32	0.1706	22.82	0.1914
Middle		1	0	22.83	0.1919	22.51	0.1782
Highest		1	0	21.76	0.1500	21.56	0.1432
Lowest	16QAM	1	0	21.70	0.1479	22.18	0.1652
Middle		1	0	22.31	0.1702	21.90	0.1549
Highest		1	2	21.20	0.1318	21.00	0.1259
Limit	EIRP < 2W			Result		PASS	

LTE Band 25 / 3MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	14	22.76	0.1888	22.73	0.1875
Middle		1	0	23.16	0.2070	22.54	0.1795
Highest		1	0	23.09	0.2037	22.86	0.1932
Lowest	16QAM	1	14	22.06	0.1607	22.57	0.1807
Middle		1	14	22.55	0.1799	21.98	0.1578
Highest		1	0	22.54	0.1795	22.22	0.1667
Limit	EIRP < 2W			Result		PASS	



LTE Band 25 / 5MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	24	23.21	0.2094	23.43	0.2203
Middle		1	0	23.42	0.2198	23.23	0.2104
Highest		1	0	23.76	0.2377	23.72	0.2355
Lowest	16QAM	1	24	22.67	0.1849	22.96	0.1977
Middle		1	0	22.91	0.1954	22.72	0.1871
Highest		1	0	23.06	0.2023	23.10	0.2042
Limit	EIRP < 2W			Result		PASS	



LTE Band 25 / 10MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	22.95	0.1972	22.90	0.1950
Middle		1	49	23.00	0.1995	22.84	0.1923
Highest		1	0	22.99	0.1991	23.02	0.2004
Lowest	16QAM	1	49	22.20	0.1660	22.20	0.1660
Middle		1	49	22.37	0.1726	22.12	0.1629
Highest		1	0	22.34	0.1714	22.33	0.1710
Limit	EIRP < 2W			Result		PASS	

LTE Band 25 / 15MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	74	22.43	0.1750	22.51	0.1782
Middle		1	0	23.06	0.2023	22.77	0.1892
Highest		1	37	23.56	0.2270	23.60	0.2291
Lowest	16QAM	1	37	22.40	0.1738	22.42	0.1746
Middle		1	0	22.69	0.1858	22.20	0.1660
Highest		1	0	21.04	0.1271	20.77	0.1194
Limit	EIRP < 2W			Result		PASS	

LTE Band 25 / 20MHz							
Channel	Modulation	RB		Horizontal		Vertical	
		Size	Offset	EIRP(dBm)	EIRP(W)	EIRP(dBm)	EIRP(W)
Lowest	QPSK	1	49	22.48	0.1770	22.42	0.1746
Middle		1	49	22.98	0.1986	22.51	0.1782
Highest		1	49	22.85	0.1928	22.71	0.1866
Lowest	16QAM	1	49	21.94	0.1563	21.82	0.1521
Middle		1	0	22.98	0.1986	22.51	0.1782
Highest		1	49	21.88	0.1542	21.76	0.1500
Limit	EIRP < 2W			Result		PASS	



### Radiated Spurious Emission

LTE Band 25 / 1.4MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3758.74	-53.12	-13	-40.12	-65.89	-60.31	0.81	8.00	H
	5638.11	-49.66	-13	-36.66	-68.41	-59.65	1.01	11.00	H
	7517.48	-46.48	-13	-33.48	-68.65	-58.72	1.46	13.70	H
	3758.74	-53.14	-13	-40.14	-66.21	-60.33	0.81	8.00	V
	5638.11	-49.09	-13	-36.09	-68.15	-59.08	1.01	11.00	V
	7517.48	-45.60	-13	-32.60	-68.09	-57.84	1.46	13.70	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 25 / 3MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3757.3	-53.17	-13	-40.17	-65.94	-60.36	0.81	8.00	H
	5635.95	-49.19	-13	-36.19	-67.94	-59.18	1.01	11.00	H
	7514.6	-46.02	-13	-33.02	-68.19	-58.26	1.46	13.70	H
	3757.3	-53.34	-13	-40.34	-66.41	-60.53	0.81	8.00	V
	5635.95	-49.16	-13	-36.16	-68.22	-59.15	1.01	11.00	V
	7514.6	-45.54	-13	-32.54	-68.03	-57.78	1.46	13.70	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 25 / 5MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3755.5	-53.10	-13	-40.10	-65.87	-60.29	0.81	8.00	H
	5633.25	-49.43	-13	-36.43	-68.18	-59.42	1.01	11.00	H
	7511	-46.47	-13	-33.47	-68.64	-58.71	1.46	13.70	H
	3755.5	-53.32	-13	-40.32	-66.39	-60.51	0.81	8.00	V
	5633.25	-49.10	-13	-36.10	-68.16	-59.09	1.01	11.00	V
	7511	-45.43	-13	-32.43	-67.92	-57.67	1.46	13.70	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 25 / 10MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3751	-53.66	-13	-40.66	-66.43	-60.85	0.81	8.00	H
	5626.5	-49.39	-13	-36.39	-68.14	-59.38	1.01	11.00	H
	7502	-46.17	-13	-33.17	-68.34	-58.41	1.46	13.70	H
	3751	-52.80	-13	-39.80	-65.87	-59.99	0.81	8.00	V
	5626.5	-49.49	-13	-36.49	-68.55	-59.48	1.01	11.00	V
	7502	-46.20	-13	-33.20	-68.69	-58.44	1.46	13.70	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.



LTE Band 25 / 15MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3746.5	-53.53	-13	-40.53	-66.30	-60.72	0.81	8.00	H
	5619.75	-49.64	-13	-36.64	-68.39	-59.63	1.01	11.00	H
	7493	-46.12	-13	-33.12	-68.29	-58.36	1.46	13.70	H
	3746.5	-52.05	-13	-39.05	-65.12	-59.24	0.81	8.00	V
	5619.75	-49.26	-13	-36.26	-68.32	-59.25	1.01	11.00	V
	7493	-45.83	-13	-32.83	-68.32	-58.07	1.46	13.70	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.

LTE Band 25 / 20MHz / QPSK / RB Size 1 Offset 0									
Channel	Frequency ( MHz )	EIRP ( dBm )	Limit ( dBm )	Over Limit ( dB )	SPA Reading (dBm)	S.G. Power ( dBm )	TX Cable loss ( dB )	TX Antenna Gain (dBi)	Polarization (H/V)
Middle	3742	-53.60	-13	-40.60	-66.37	-60.79	0.81	8.00	H
	5613	-48.98	-13	-35.98	-67.73	-58.97	1.01	11.00	H
	7484	-46.30	-13	-33.30	-68.47	-58.54	1.46	13.70	H
	3742	-53.31	-13	-40.31	-66.38	-60.50	0.81	8	V
	5613	-48.63	-13	-35.63	-67.69	-58.62	1.01	11	V
	7484	-46.30	-13	-33.30	-68.79	-58.54	1.46	13.7	V

Remark: Spurious emissions within 30-1000MHz were found more than 20dB below limit line.