RF TEST REPORT

Test item	:	Mobile Router
Model No.	:	IML-C4300W
Order No.	:	DTNC1502-00483
Date of receipt	:	2015-02-02
Test duration	:	2015-02-11 ~ 2015-03-19, 2015-04-01
Date of issue	:	2015-04-03
Use of report	:	FCC Original Grant

Applicant : Infomark Co., Ltd.
3rd Floor, Humaxvillage, 216, Hwangsaeul-ro Bundang-gu Seongnam-Si, Gyonggi-Do South Korea, 463-875

Test laboratory : DT&C Co., Ltd.
42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 449-935

Test specification	:	FCC Part 90
Test environment	:	See appended test report
Test result	:	☒ Pass ☐ Fail

Tested by:

Engineer
Jaejin Lee

Reviewed by:

Technical Manager
Geunki Son

Test Report Version

Test Report No.	Date	Description
DRTFCC1503-0059	Mar. 25, 2015	Initial issue
DRTFCC1503-0059(1)	Apr. 03, 2015	Added the test result of ERP

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1. GENERAL INFORMATION

Applicant Name: **Infomark Co., Ltd.**

Address: **3rd Floor, Humaxvillage, 216, Hwangsaeul-ro Bundang-gu Seongnam-Si, Gyonggi-Do South Korea, 463-875**

FCC ID	:	YCO-IML-C4300W
FCC Classification	:	PCS Licensed Transmitter (PCB)
EUT Type	:	Mobile Router
Model Name	:	IML-C4300W
Add Model Name	:	N/A
Supplying power	:	DC 3.8 V
Antenna Information	:	Internal Antenna

Mode	Tx Frequency (MHz)	Emission Designator	Modulation	Conducted Power.		Effective Radiated Power	
				Max power(dBm)	Max power(W)	Max power(dBm)	Max power(W)
LTE Band 26	814.7 ~ 823.3	1M09G7D	QPSK	22.750	0.188	20.93	0.124
LTE Band 26	814.7 ~ 823.3	1M09W7D	16QAM	22.140	0.164	20.22	0.105
LTE Band 26	815.5 ~ 822.5	2M69G7D	QPSK	22.680	0.185	21.26	0.134
LTE Band 26	815.5 ~ 822.5	2M70W7D	16QAM	22.150	0.164	20.59	0.115
LTE Band 26	816.5 ~ 821.5	4M49G7D	QPSK	22.860	0.193	21.37	0.137
LTE Band 26	816.5 ~ 821.5	4M48W7D	16QAM	22.080	0.161	20.52	0.113
LTE Band 26	819	8M95G7D	QPSK	22.840	0.192	21.02	0.126
LTE Band 26	819	8M95W7D	16QAM	21.930	0.156	19.92	0.098

2. INTRODUCTION

2.1 EUT DESCRIPTION

The Equipment Under Test(EUT) supports Band 26 (1.4, 3, 5, 10MHz BW / 15 MHz BW is the only part 22), Band 25 (1.4, 3, 5, 10, 15, 20 MHz BW), Band 41 (5, 10, 15, 20 MHz BW) LTE, 802.11a/b/g/n WLAN.

2.2 MEASURING INSTRUMENT CALIBRATION

The measuring equipment, which was utilized in performing the tests documented herein, has been calibrated in accordance with the manufacturer's recommendations for utilizing calibration equipment, which is traceable to recognized national standards.

2.3 TEST FACILITY

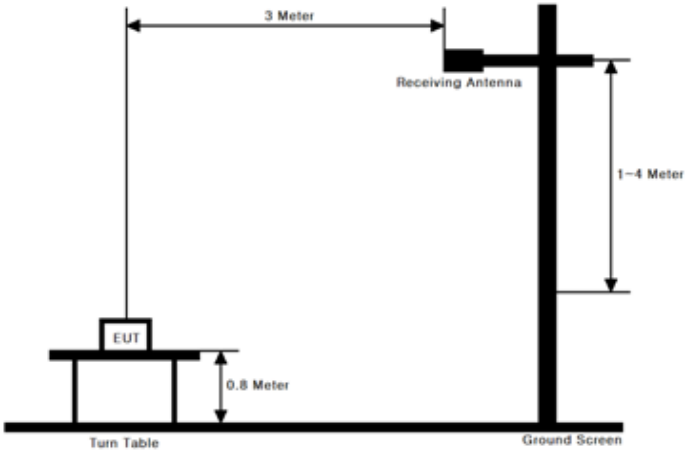
The 3M test site and conducted measurement facility used to collect the radiated data are located at the 42, Yurim-ro, 154beon-gil, Cheoin-gu, Yongin-si, Gyeonggi-do, Korea 449-935. The site is constructed in conformance with the requirements.

- 3M test site registration Number: 165783

3. DESCRIPTION OF TESTS

3.1 ERP&EIRP
(Effective Radiated Power & Equivalent Isotropic Radiated Power)

Test Set-up



Test Procedure

- **ANSI/TIA-603-C-2004 - Section 2.2.17**
- **KDB971168 v02r02 - Section 5.2.1**

These measurements were performed at 3 &10 m test site. The equipment under test is placed on a non-conductive table 0.8-meters above a turntable which is flush with the ground plane and 3 meters from the receive antenna.

Test setting

1. Set span to at least 1.5 times the OBW.
2. Set RBW = 1-5 % of the OBW, not to exceed 1 MHz.
3. Set VBW ≥ 3 x RBW.
4. Set number of points in sweep ≥ 2 × span / RBW.
5. Sweep time = auto couple.
6. Detector = RMS (power averaging).
7. If the EUT can be configured to transmit continuously (i.e., burst duty cycle ≥ 98 %), then set the trigger to free run.
8. If the EUT cannot be configured to transmit continuously (i.e., burst duty cycle < 98 %), then use a sweep trigger with the level set to enable triggering only on full power bursts and configure the EUT to transmit at full power for the entire duration of each sweep.
   Ensure that the sweep time is less than or equal to the transmission burst duration.
9. Trace average at least 100 traces in power averaging (i.e., RMS) mode.
10. Compute the power by integrating the spectrum across the OBW of the signal using the instrument's band power measurement function, with the band limits set equal to the OBW band edges. If the instrument does not have a band power function, then sum the spectrum levels (in linear power units) at intervals equal to the RBW extending across the entire OBW of the spectrum.

The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer.

A half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same receive spectrum analyzer reading. The conducted power at the terminal of the substitute antenna is measured.

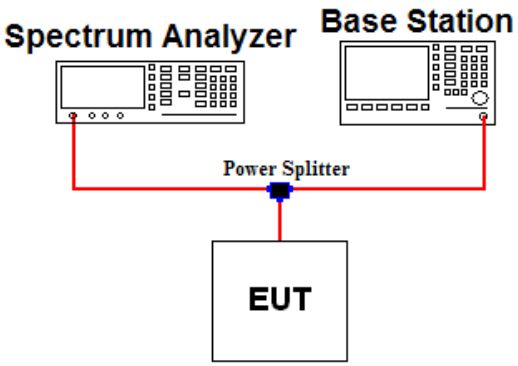
The ERP/EIRP is calculated using the following formula:

ERP/EIRP = The conducted power at the substitute antenna`s terminal [dBm] + Substitute Antenna gain [dBd for ERP , dBi for EIRP]

For readings above 1 GHz, the above procedure is repeated using horn antennas and the difference between the gain of the horn antenna and an isotropic antenna are taken into consideration.

3.2 OCCUPIED BANDWIDTH.

Test set-up



Test Procedure

- **KDB971168 v02r02 - Section 4.2**

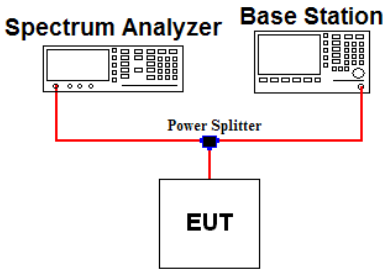
The occupied bandwidth, that is the frequency bandwidth such that, below its lower and above its upper frequency limits, the mean powers radiated are each equal to 0.5 percent of the total mean power of a given emission.

Test setting

1. The signal analyzer`s automatic bandwidth measurement capability was used to perform the 99 % occupied bandwidth and the 26 dB bandwidth. The bandwidth measurement was not influenced by any intermediate power nulls in the fundamental emission.
2. RBW = 1 ~ 5 % of the expected OBW & VBW ≥ 3 X RBW
3. Detector = Peak
4. Trance mode = Max hold
5. Sweep = Auto couple
6. The trace was allowed to stabilize
7. If necessary, step 2 ~ 6 were repeated after changing the RBW such that it would be within 1 ~ 5 % of the 99 % occupied bandwidth observed in step 6.

3.3 BAND EDGE EMISSIONS (Conducted)

Test set-up



Test Procedure

- **KDB971168 v02r02 - Section 6.0**

All out of band emissions are measured by means of a calibrated spectrum analyzer. Out-of-band emission requirement shall apply only to the “outer” channels included in an EA license and to spectrum adjacent to interior channels used by incumbent licensees. The EUT was setup to maximum output power at its lowest and highest channel with all bandwidths, modulations and RB configurations.

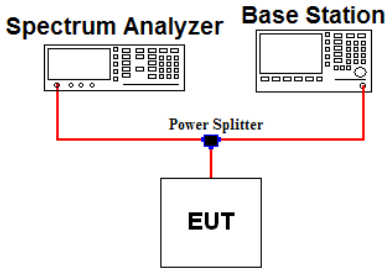
For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 $Log_{10}(f/6.1)$ decibels or 50 + 10 $Log_{10}(P)$ decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz..

Test setting

1. Span was set large enough so as to capture all out of band emissions near the band edge
2. RBW = 100 KHz & VBW ≥ 3 X RBW
3. Detector = RMS & Trace mode = Max hold
4. Sweep time = Auto couple or 20 ms
5. The trace was allowed to stabilize

3.4 SPURIOUS AND HARMONIC EMISSIONS (Conducted)

Test set-up



Test Procedure

- **KDB971168 v02r02 - Section 6.0**

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The EUT was setup to maximum output power at its low, middle, high channel with all bandwidths, modulations and RB configurations. The spectrum is scanned from 30 MHz up to a frequency including its 10th harmonic.

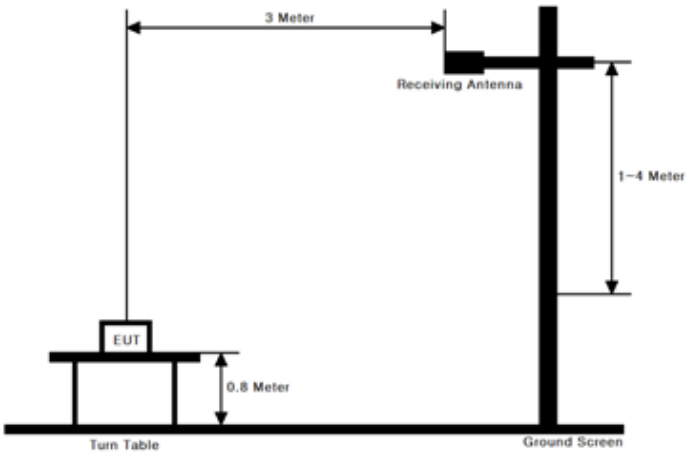
For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log$_{10}$(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz.

Test setting

1. RBW = 100 KHz or 1 MHz & VBW ≥ 3 X RBW
2. Detector = RMS & Trace mode = Max hold
3. Sweep time = Auto couple
4. Number of sweep point ≥ 2 X span / RBW
5. The trace was allowed to stabilize

3.5 UNDESIRABLE EMISSIONS (Radiated)

Test Set-up



Test Procedure

- **ANSI/TIA-603-C-2004 - Section 2.2.12**
- **KDB971168 v02r02 - Section 5.8**

These measurements were performed at 3 & 10m test site. The equipment under test is placed on a non-conductive table 0.8-meters above a turntable which is flush with the ground plane and 3 meters from the receive antenna.

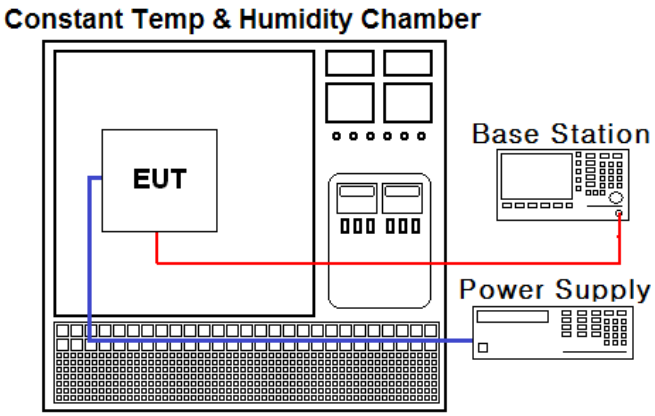
Test setting

1. RBW = 100 kHz for below 1 GHz and 1 MHz for above 1 GHz / VBW ≥ 3 X RBW
2. Detector = Peak & Trace mode = Max hold
3. Sweep time = Auto couple
4. Number of sweep point ≥ 2 X span / RBW
5. The trace was allowed to stabilize

The receive antenna height and turntable rotations were adjusted for the highest reading on the receive spectrum analyzer.
For radiated power measurements below 1 GHz, a half-wave dipole was substituted in place of the EUT. This dipole antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading.
For radiated power measurements above 1 GHz, a Horn antenna was substituted in place of the EUT. This Horn antenna was driven by a signal generator and the level of the signal generator was adjusted to obtain the same spectrum analyzer reading. The difference between the gain of the horn and an isotropic antenna are taken into consideration.
This measurement was performed with the EUT oriented in 3 orthogonal axis.

3.6 FREQUENCY STABILITY

Test Set-up



Test Procedure

- **ANSI/TIA-603-C-2004**
- **KDB971168 v02r02 - Section 9.0**

The frequency stability of the transmitter is measured by:

a.) **Temperature:**
The temperature is varied from - 30 °C to + 50 °C using an environmental chamber.

b.) **Primary Supply Voltage:**
The primary supply voltage is varied from 85 % to 115 % of the nominal value for non hand-carried battery and AC powered equipment. For hand-carried, battery-powered equipment, primary supply voltage is reduced to the battery operating end point which shall be specified by the manufacturer.

Specification:
For Part 90.213, the frequency stability of the transmitter shall be maintained within ±0.00025% (±2.5 ppm) of the center frequency.

Time Period and Procedure:

1. The carrier frequency of the transmitter is measured at room temperature.
   (25 °C to provide a reference)

2. The equipment is turned on in a “standby” condition for one minute before applying power to the transmitter. Measurement of the carrier frequency of the transmitter is made within one minute after applying power to the transmitter.

3. Frequency measurements are made at 10 °C intervals ranging from -30 °C to +50 °C.
   A period of at least one half-hour is provided to allow stabilization of the equipment at each temperature level.

4. LIST OF TEST EQUIPMENT

Type	Manufacturer	Model	Cal.Date (yy/mm/dd)	Next.Cal. Date (yy/mm/dd)	S/N
Multimeter	Fluke	17B	14/05/12	15/05/12	26030065WS
DC Power Supply	Agilent	66332A	15/01/22	16/01/22	GB37470200
Power Splitter	Anritsu	K241B	14/10/21	15/10/21	1701101
Thermohygrometer	BODYCOM	BJ5478	15/02/26	16/02/26	1209
Temp &Humi Test Chamber	SJ Science	SJ-TH-S50	14/10/21	15/10/21	SJ-TH-S50-130930
MXA Signal Analyzer	Agilent	N9020A	14/08/21	15/08/21	MY49060056
MXA Signal Analyzer	Agilent	N9020A	14/09/23	15/09/23	MY46471248
PXA Signal Analyzer	Agilent	N9030A	14/10/21	15/10/21	MY53310140
Signal Generator	Rohde Schwarz	SMF100A	14/07/01	15/07/01	102341
Vector Signal Generator	Rohde Schwarz	SMBV100A	15/01/06	16/01/06	255571
Loop Antenna	Schwarzbeck	FMZB1513	14/04/29	16/04/29	1513-128
Dipole Antenna	Schwarzbeck	VHA9103	13/10/24	15/10/24	2116
Dipole Antenna	Schwarzbeck	VHA9103	14/04/01	16/04/01	2117
Dipole Antenna	Schwarzbeck	UHA9105	13/10/24	15/10/24	2261
Dipole Antenna	Schwarzbeck	UHA9105	14/04/01	16/04/01	2262
Bilog Antenna	Schwarzbeck	VULB 9160	14/04/04	16/04/04	3357
HORN ANT	ETS	3115	15/02/09	17/02/09	00021097
HORN ANT	ETS	3117	14/05/12	16/05/12	140394
Low Noise Pre Amplifier	TSJ	MLA-010K01-B01-27	14/04/09	15/04/09	1844538
Amplifier (30dB)	Agilent	8449B	14/11/06	15/11/06	3008A02108
High-pass filter	Wainwright	WHKX12-935-1000-15000-40SS	14/09/11	15/09/11	7
RadioCommunication Analyzer	Anritsu	MT8820C	15/01/09	16/01/09	6201274516

5. SUMMARY OF TEST RESULTS

FCC Part Section(s)	Test Description	Test Limit	Test Condition	Status Note 1
2.1046 90.635	Conducted Output Power	< 50 dBm	Conducted	**C**
90.635	Effective Radiated Power	< 50 dBm		**C**
2.1049	Occupied Bandwidth	N/A		**C**
2.1051 90.691	Band Edge / conducted Spurious Emissions	> 50 + 10log$_{10}$ (P[Watts]) at Band Edge and > 43 + 10log$_{10}$ (P[Watts]) for all out-of-band emissions within 37.5kHz of Block Edge		**C**
2.1055 90.213	Frequency Stability	< 2.5 ppm		**C**
2.1053 90.691	Undesirable Emissions	> 43 + 10log$_{10}$ (P) dB at Band edge and for all out-of-band emissions	Radiated	**C**

Note 1: **C**=Comply **NC**=Not Comply **NT**=Not Tested **NA**=Not Applicable

The sample was tested according to the following specification:
ANSI/TIA/EIA-603-C-2004 and KDB 971168 D01 v02r02

6. SAMPLE CALCULATION

A. Emission Designator

LTE Band 26 (QPSK)

Emission Designator = **8M95G7D**
LTE OBW = 8.949 MHz
G = Phase Modulation
7 = Quantized/Digital Info
D = Data Transmission, telemetry, telecommand

LTE Band 26 (16QAM)

Emission Designator = **8M95W7D**
LTE OBW = 8.952 MHz
W = Amplitude/Angle Modulated
7 = Quantized/Digital Info
D = Data Transmission, telemetry, telecommand

B. UNDESIRABLE EMISSIONS(Radiated) Sample Calculation

B.W (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	Spectrum Reading Value(dBm)	EUT Axis	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain(dBi)	Result		Limit (dBc)
										(dBm)	(dBc)	
10	819	1/0	QPSK	1629.26	-43.71	X	H	-43.17	6.61	-36.56	59.28	35.72

Undesirable emissions Result(dBm) = @ Ant Terminal LEVEL(dBm) + Ant. Gain

1) The EUT mounted on a non-conductive turntable is 0.8 meter above test site ground level.
2) During the test, the turn table is rotated until the maximum signal is found.
3) Record the field strength meter's level.
4) Replace the EUT with dipole/Horn antenna that is connected to a calibrated signal generator.
5) Increase the signal generator output till the field strength meter's level is equal to the item (3).
6) The signal generator output level with Ant. Gain is the rating of effective Isotropic radiated power (EIRP).

7. TEST DATA

7.1 OCCUPIED BANDWIDTH

- Plots of the EUT's Occupied Bandwidth are shown in Clause 8.1

7.2 BAND EDGE EMISSIONS (Conducted)

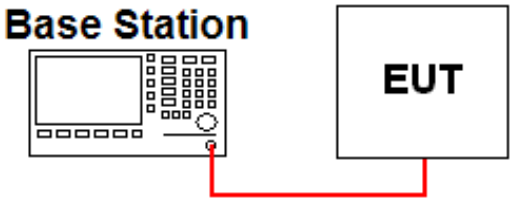
- Plots of the EUT's Band Edge Emissions are shown in Clause 8.2

7.3 SPURIOUS AND HARMONICS EMISSIONS (Conducted)

- Plots of the EUT's Spurious Emissions are shown in Clause 8.3

7.4 Conducted Power Output Data

A base station simulator was used to establish communication with the EUT. The base station simulator parameters were set to produce the maximum power from the EUT. This device was tested under all configurations and the highest power is reported. Conducted Output Powers of EUT are reported below.



(Model: MT8820C)

7.4.1 LTE Band 26

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	Cond. PWR (dBm)	Cond. PWR (W)	Cond. PWR Limit (dBm)	Margin (dB)
10	819	QPSK	22.84	0.192	50.00	27.16
		16QAM	21.93	0.156	50.00	28.07
5	816.5	QPSK	22.61	0.182	50.00	27.39
		16QAM	21.96	0.157	50.00	28.04
	821.5	QPSK	22.86	0.193	50.00	27.14
		16QAM	22.08	0.161	50.00	27.92
3	815.5	QPSK	22.50	0.178	50.00	27.50
		16QAM	21.95	0.157	50.00	28.05
	819	QPSK	22.65	0.184	50.00	27.35
		16QAM	22.15	0.164	50.00	27.85
	822.5	QPSK	22.68	0.185	50.00	27.32
		16QAM	22.06	0.161	50.00	27.94
1.4	814.7	QPSK	22.66	0.185	50.00	27.34
		16QAM	21.95	0.157	50.00	28.05
	819	QPSK	22.75	0.188	50.00	27.25
		16QAM	22.14	0.164	50.00	27.86
	823.3	QPSK	22.65	0.184	50.00	27.35
		16QAM	21.82	0.152	50.00	28.18

Note: This device was tested under all bandwidths, modulations and RB configurations and the worst case data are reported in the table above.

7.5 Effective Radiated Power

7.5.1 LTE Band 26

Channel Bandwidth (MHz)	Test Frequency (MHz)	Test Mode	RB Size/ Offset	EUT Axis	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain (dBd)	ERP (dBm)	ERP (W)
10	819	QPSK	1/0	X	H	19.76	1.26	21.02	0.126
		16QAM	1/25	X	H	18.66	1.26	19.92	0.098
5	816.5	QPSK	1/24	X	H	19.21	1.27	20.48	0.112
		16QAM	1/12	X	H	18.37	1.27	19.64	0.092
	821.5	QPSK	1/0	X	H	20.13	1.24	21.37	0.137
		16QAM	1/12	X	H	19.28	1.24	20.52	0.113
3	815.5	QPSK	1/14	X	H	19.51	1.27	20.78	0.120
		16QAM	1/14	X	H	18.56	1.27	19.83	0.096
	819	QPSK	1/0	X	H	18.98	1.26	20.24	0.106
		16QAM	1/0	X	H	18.14	1.26	19.40	0.087
	822.5	QPSK	1/0	X	H	20.02	1.24	21.26	0.134
		16QAM	1/0	X	H	19.35	1.24	20.59	0.115
1.4	814.7	QPSK	1/0	X	H	19.52	1.28	20.80	0.120
		16QAM	1/2	X	H	18.43	1.28	19.71	0.094
	819	QPSK	1/0	X	H	18.59	1.26	19.85	0.097
		16QAM	1/0	X	H	17.77	1.26	19.03	0.080
	823.3	QPSK	1/0	X	H	19.70	1.23	20.93	0.124
		16QAM	1/0	X	H	18.99	1.23	20.22	0.105

Note: This device was tested under all bandwidths, modulations and RB configurations and the worst case data are reported in the table above.

7.6 UNDESIRABLE EMISSIONS (Radiated)

7.6.1 LTE Band 26

B.W (MHz)	Test Freq. (MHz)	RB Size/ Offset	Test Mode	Freq.(MHz)	EUT Axis	Ant Pol (H/V)	Level(dBm) @ Ant Terminal	TX Ant Gain(dBi)	Result		Limit (dBc)
									(dBm)	(dBc)	
10	819	1/0	QPSK	1629.26	X	H	-43.17	6.61	-36.56	57.58	34.02
				-	-	-	-	-	-	-	
		1/25	16QAM	1638.20	X	H	-45.67	6.62	-39.05	58.97	32.92
				-	-	-	-	-	-	-	
5	816.5	1/24	QPSK	1637.37	X	H	-46.95	6.62	-40.33	60.81	33.48
				-	-	-	-	-	-	-	
	821.5	1/0	QPSK	1638.68	X	H	-47.05	6.63	-40.42	61.79	34.37
				-	-	-	-	-	-	-	
	816.5	1/13	16QAM	1633.33	X	H	-45.32	6.62	-38.70	58.34	32.64
				-	-	-	-	-	-	-	
	821.5	1/13	16QAM	1643.38	X	H	-46.60	6.63	-39.97	60.49	33.52
				-	-	-	-	-	-	-	
3	815.5	1/14	QPSK	1633.49	X	H	-45.78	6.62	-39.16	59.54	33.78
				-	-	-	-	-	-	-	
	819	1/0	QPSK	1635.49	X	H	-46.39	6.62	-39.77	60.01	33.24
				-	-	-	-	-	-	-	
	822.5	1/0	QPSK	1642.45	X	H	-49.16	6.63	-42.53	63.79	34.26
				-	-	-	-	-	-	-	
	815.5	1/14	16QAM	1633.48	X	H	-45.82	6.62	-39.20	59.03	32.83
				-	-	-	-	-	-	-	
	819	1/0	16QAM	1635.42	X	H	-46.75	6.62	-40.13	59.53	32.40
				-	-	-	-	-	-	-	
	822.5	1/0	16QAM	1645.29	X	H	-48.27	6.63	-41.64	62.23	33.59
				-	-	-	-	-	-	-	
1.4	814.7	1/0	QPSK	1628.46	X	H	-41.46	6.61	-34.85	55.65	33.80
				-	-	-	-	-	-	-	
	819	1/0	QPSK	1637.18	X	H	-45.58	6.62	-38.96	58.81	32.85
				-	-	-	-	-	-	-	
	823.3	1/0	QPSK	1663.83	X	H	-50.40	6.65	-43.75	64.68	33.93
				-	-	-	-	-	-	-	
	814.7	1/3	16QAM	1629.68	X	H	-42.45	6.62	-35.83	55.54	32.71
				-	-	-	-	-	-	-	
	819	1/0	16QAM	1637.07	X	H	-46.45	6.62	-39.83	58.86	32.03
				-	-	-	-	-	-	-	
	823.3	1/0	16QAM	1663.71	X	H	-50.53	6.65	-43.88	64.10	33.22
				-	-	-	-	-	-	-	

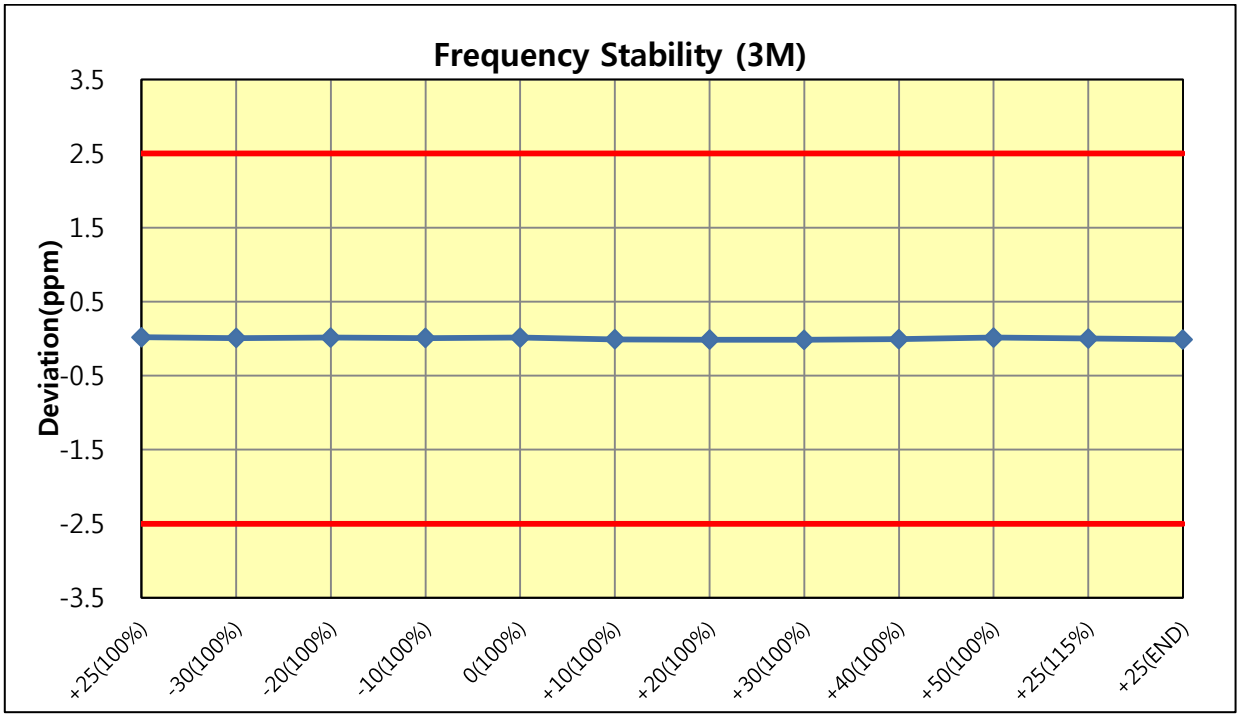
Note 1: Limit Calculation = 43 + $10\log_{10}$ (P[Watts])
Note 2: This device was tested under all bandwidths, modulations and RB configurations and the worst case data are reported in the table above.
Note 3: The frequency spectrum is examined from 9 kHz to the 10th harmonic of the fundamental frequency of the transmitter. No other spurious and harmonic emissions were reported greater than listed emissions above table.

7.7 FREQUENCY STABILITY

7.7.1 LTE Band 26

OPERATING FREQUENCY : 819,000,000 Hz
CHANNEL : 26740
REFERENCE VOLTAGE : 3.80 V DC
DEVIATION LIMIT : ± 0.00025 % or 2.5 ppm

VOLTAGE (%)	POWER (V DC)	TEMP (℃)	FREQUENCY (Hz)	FREQ.Dev (Hz)	Deviation	
					(ppm)	(%)
100%	3.80	+25(Ref)	819,000,014	14	0.0175	0.000001746
100%		-30	819,000,007	7	0.0082	0.000000818
100%		-20	819,000,011	11	0.0129	0.000001294
100%		-10	819,000,006	6	0.0073	0.000000733
100%		0	819,000,012	12	0.0147	0.000001465
100%		10	818,999,992	-8	-0.0096	-0.000000965
100%		20	818,999,988	-12	-0.0144	-0.000001441
100%		30	818,999,987	-13	-0.0159	-0.000001587
100%		40	818,999,993	-7	-0.0088	-0.000000879
100%		50	819,000,011	11	0.0139	0.000001392
115%	4.37	25	818,999,990	-11	-0.0128	-0.000001282
BATT.ENDPOINT	3.30	25	818,999,983	-17	-0.0204	-0.000002039

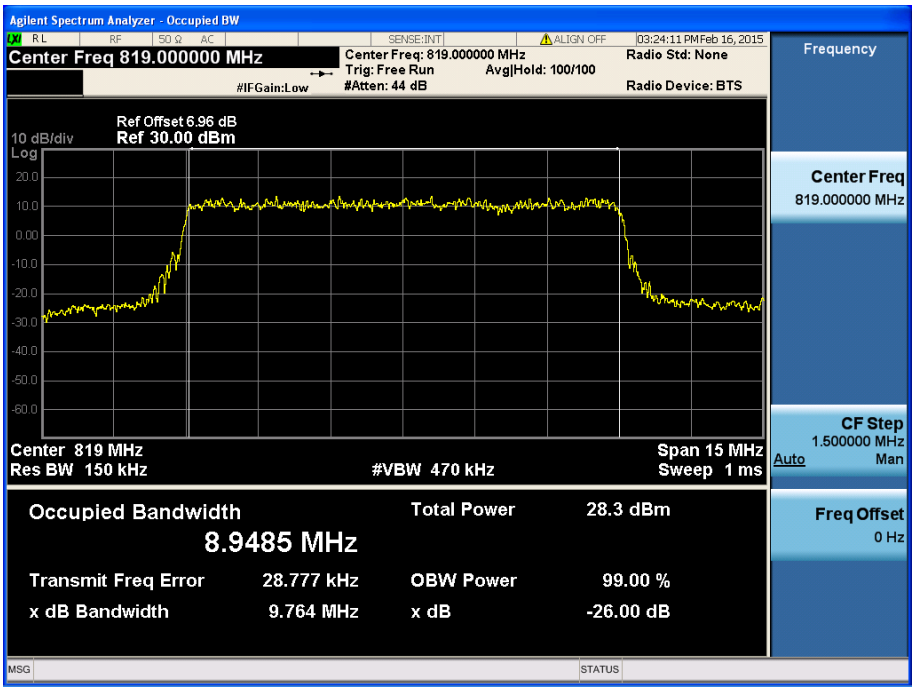


8. TEST PLOTS

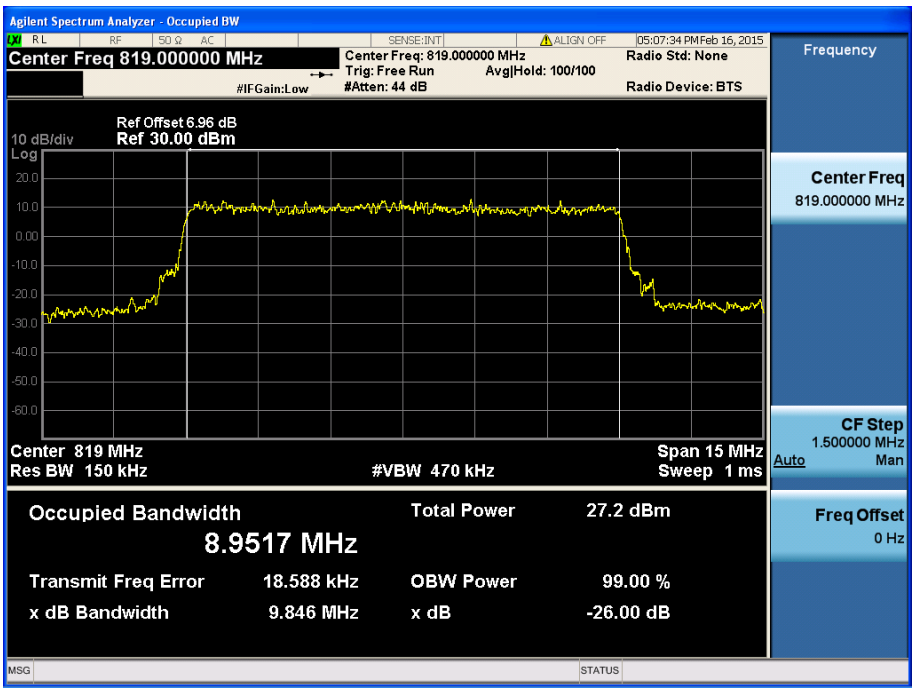
Note: All bandwidths, RB configurations, and modulations were investigated. The worst case test results are reported below.

8.1 OCCUPIED BANDWIDTH

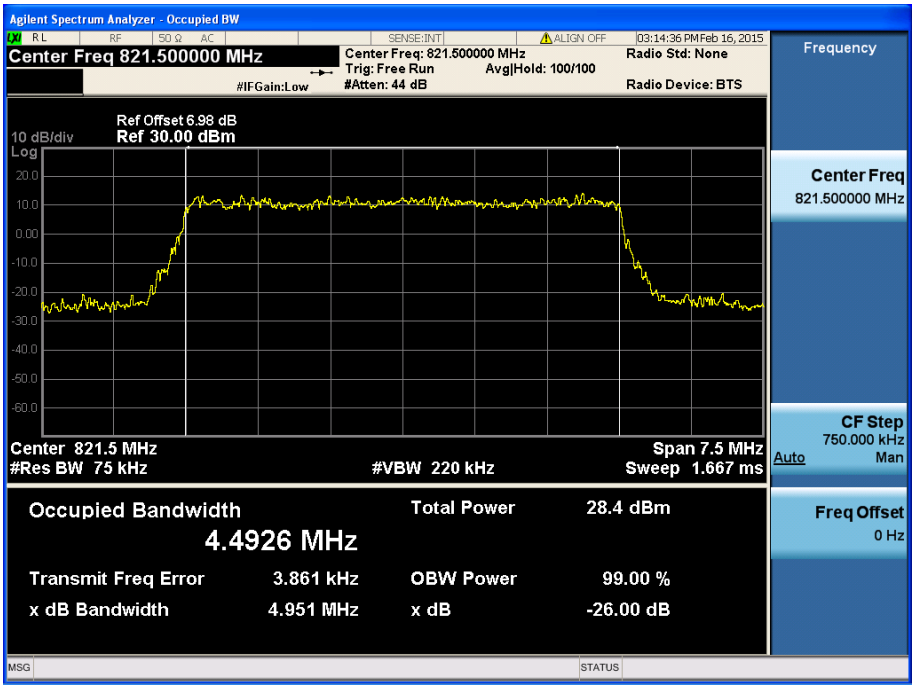
8.1.1 LTE Band 26



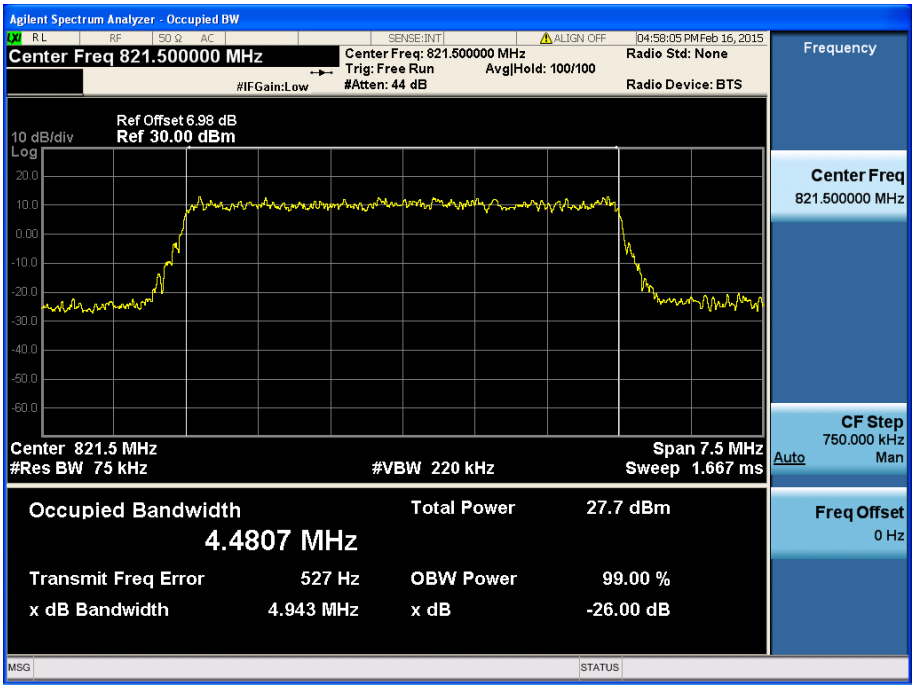
LTE Band 26 / 10MHz / QPSK - RB Size 50



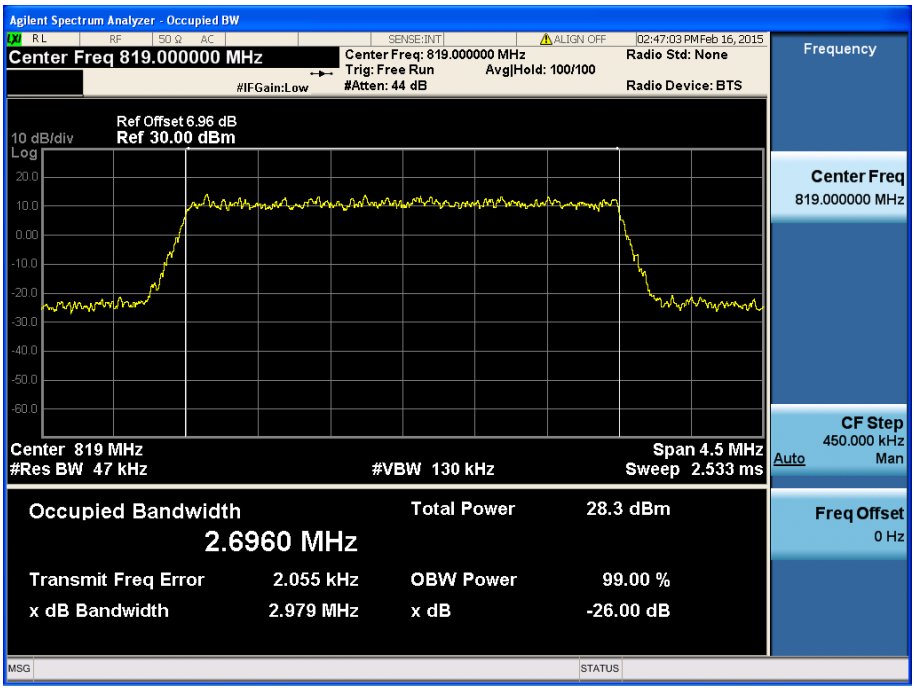
LTE Band 26 / 10MHz / 16QAM - RB Size 50



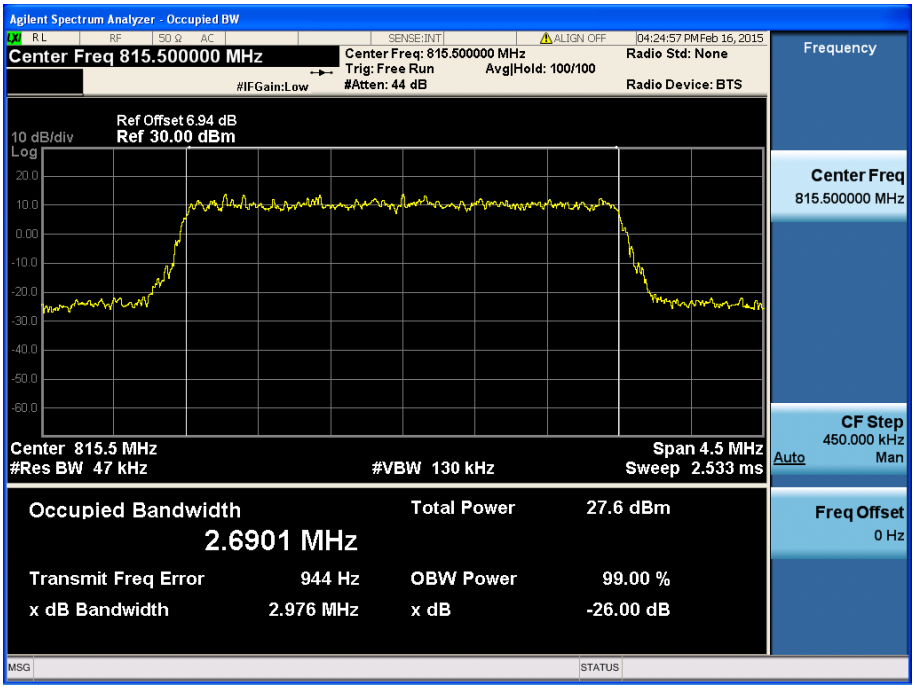
LTE Band 26 / 5MHz / QPSK - RB Size 25



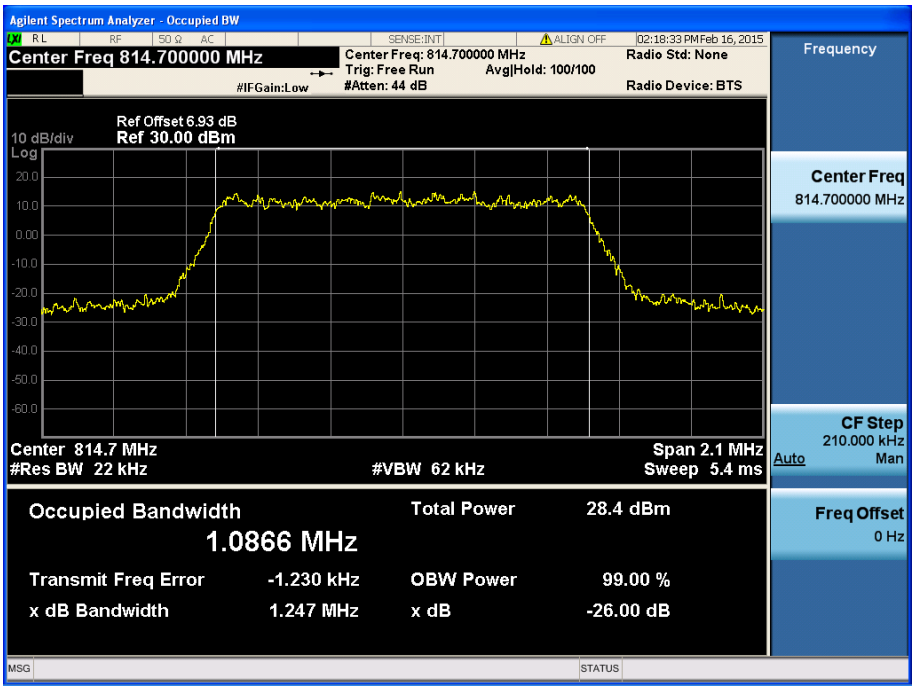
LTE Band 26 / 5MHz / 16QAM - RB Size 25



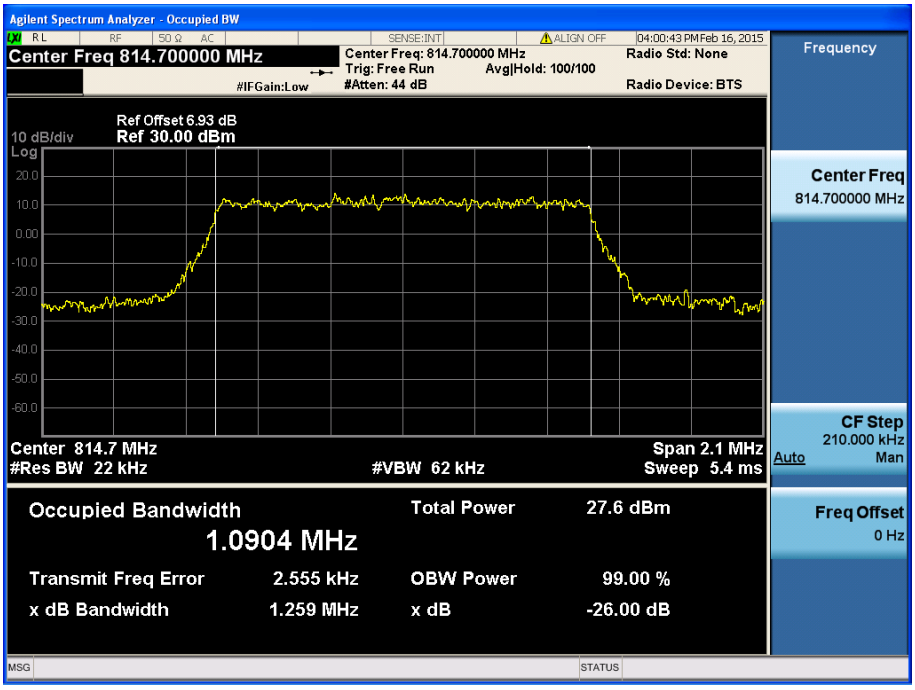
LTE Band 26 / 3MHz / QPSK - RB Size 15



LTE Band 26 / 3MHz / 16QAM - RB Size 15



LTE Band 26 / 1.4MHz / QPSK - RB Size 6



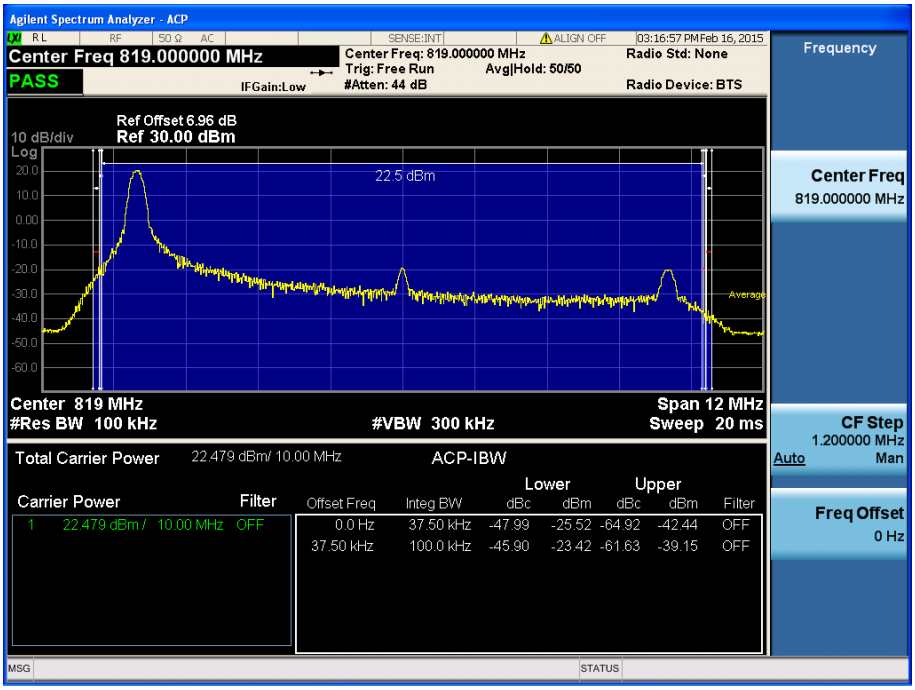
LTE Band 26 / 1.4MHz / 16QAM - RB Size 6

8.2 BAND EDGE EMISSIONS(Conducted)

Note: All bandwidths, RB configurations, and modulations were investigated. The worst case test results are reported below.

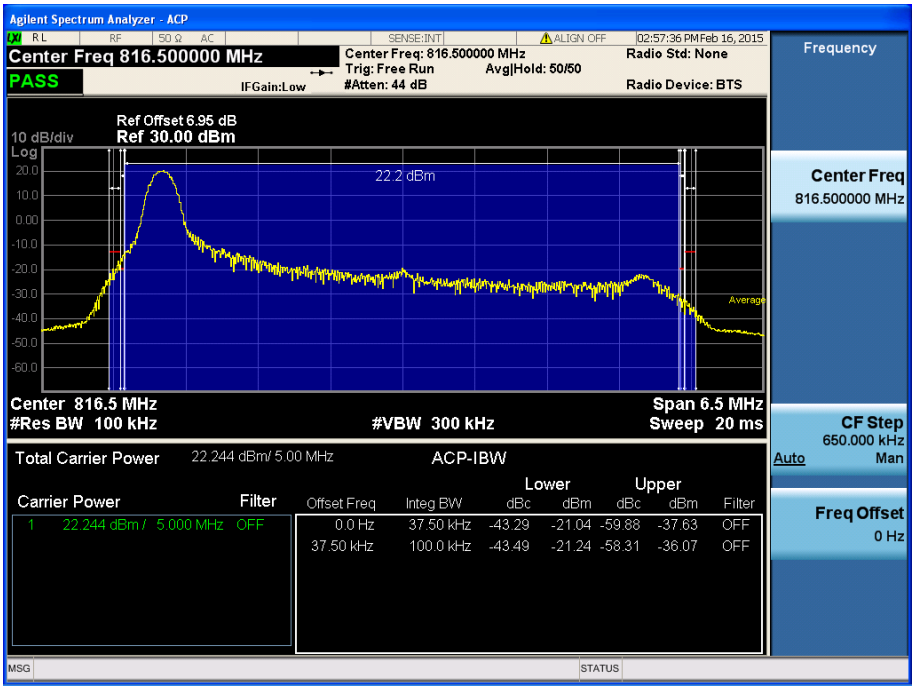
8.2.1 LTE Band 26

- Band Edge



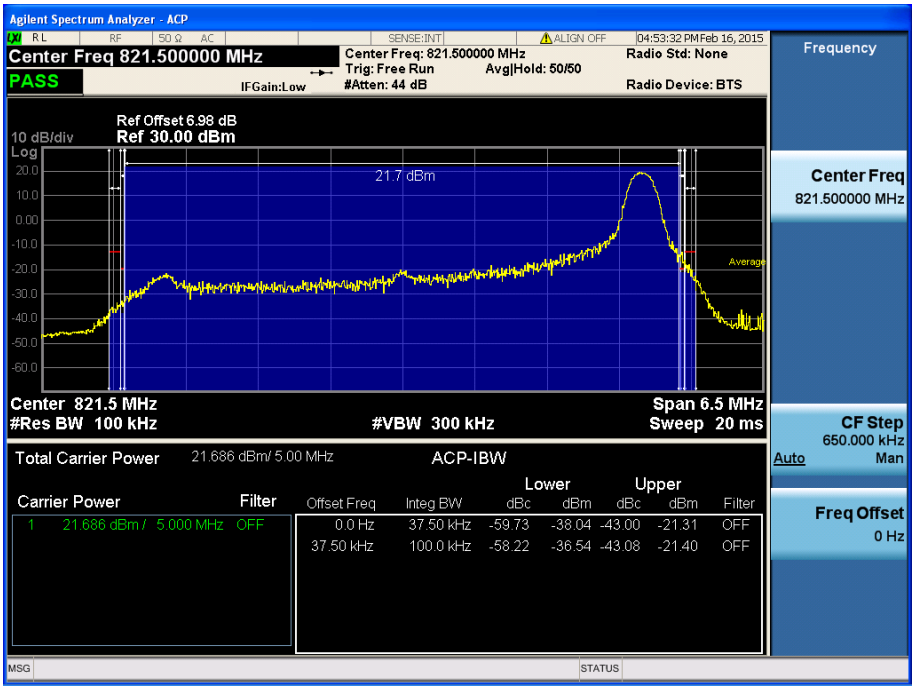
LTE Band 26 / 10MHz / QPSK - RB Size/Offset (1/0)

- Lower Band Edge



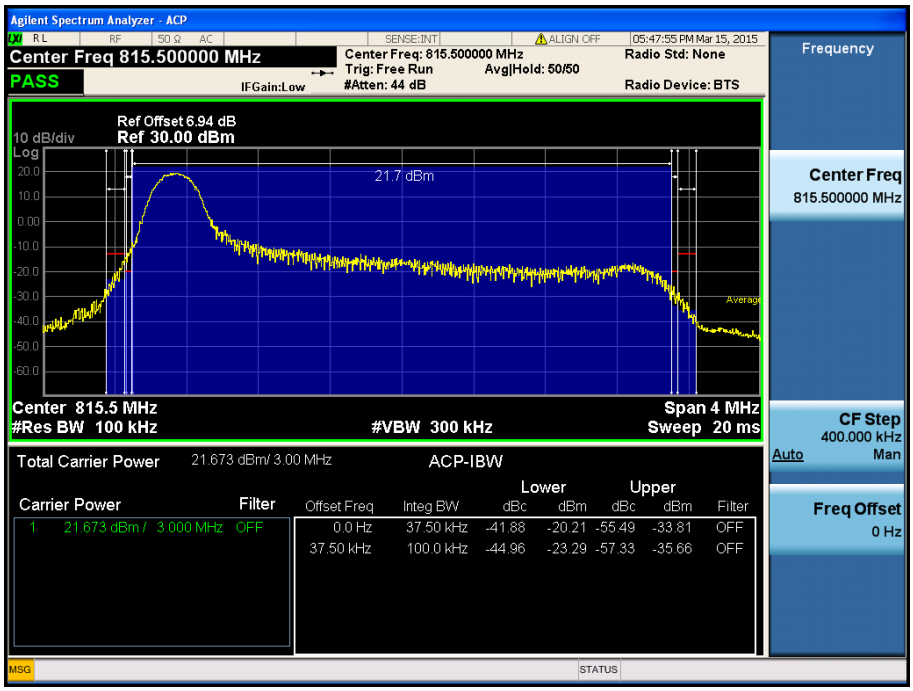
LTE Band 26 / 5MHz / QPSK - RB Size/Offset (1/0)

- Upper Band Edge



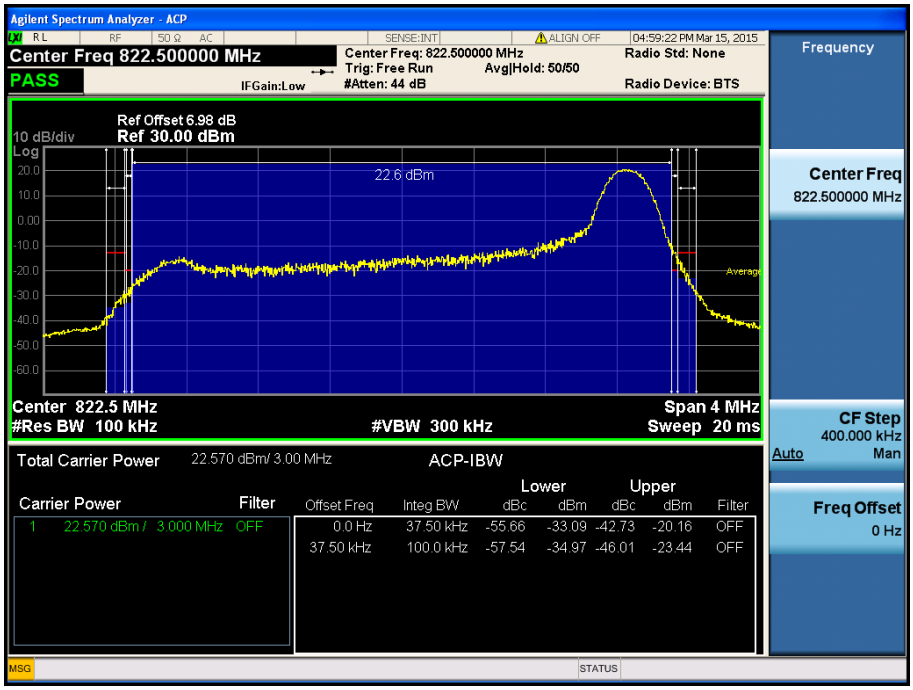
LTE Band 26 / 5MHz / 16QAM - RB Size/Offset (1/24)

- Lower Band Edge



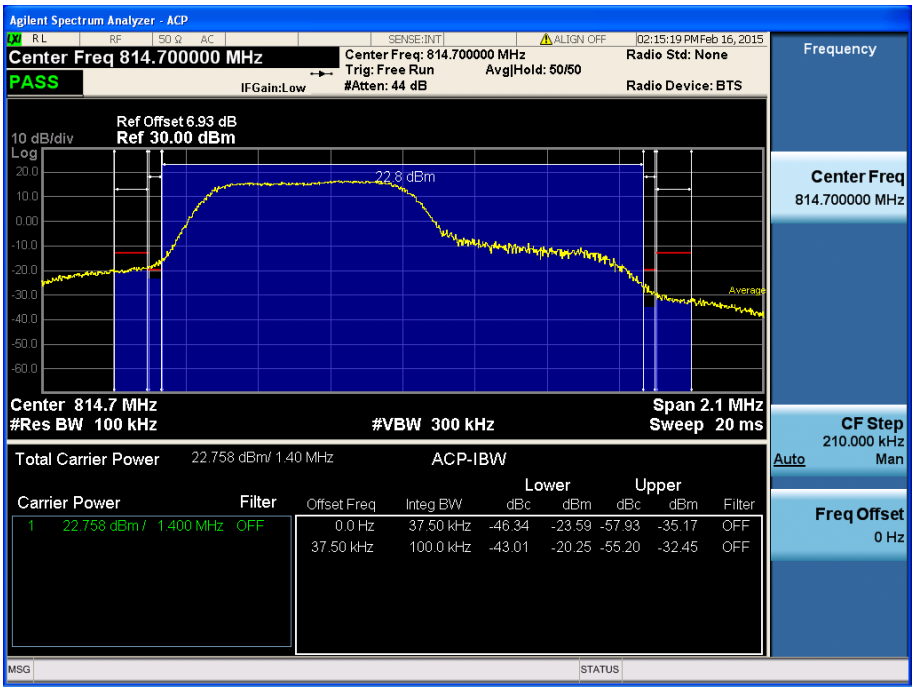
LTE Band 26 / 3MHz / 16QAM - RB Size/Offset (1/0)

- Upper Band Edge



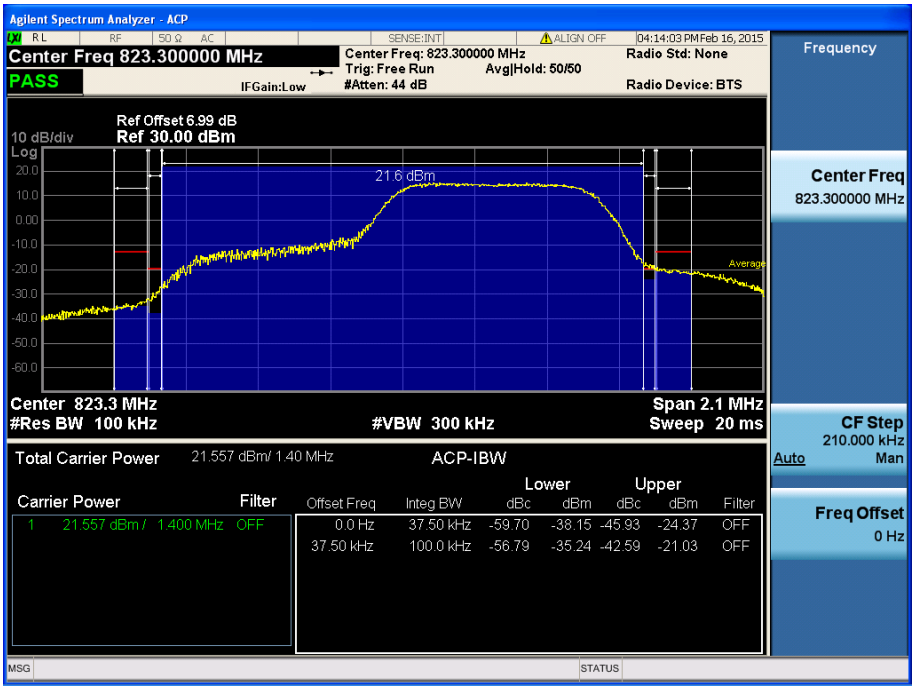
LTE Band 26 / 3MHz / QPSK - RB Size/Offset (1/14)

- Lower Band Edge



LTE Band 26 / 1.4MHz / QPSK - RB Size/Offset (3/0)

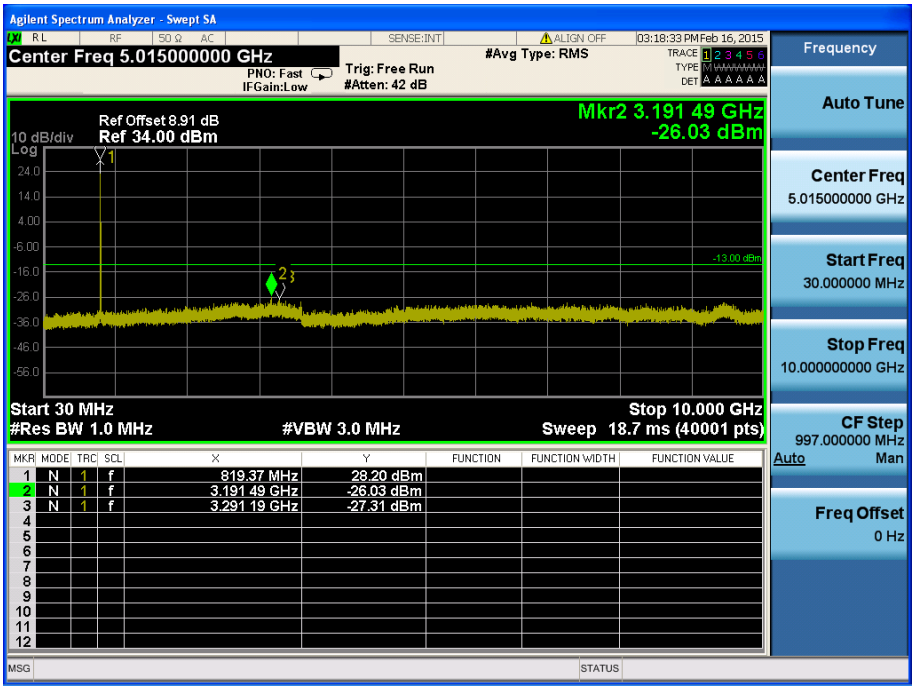
- Upper Band Edge



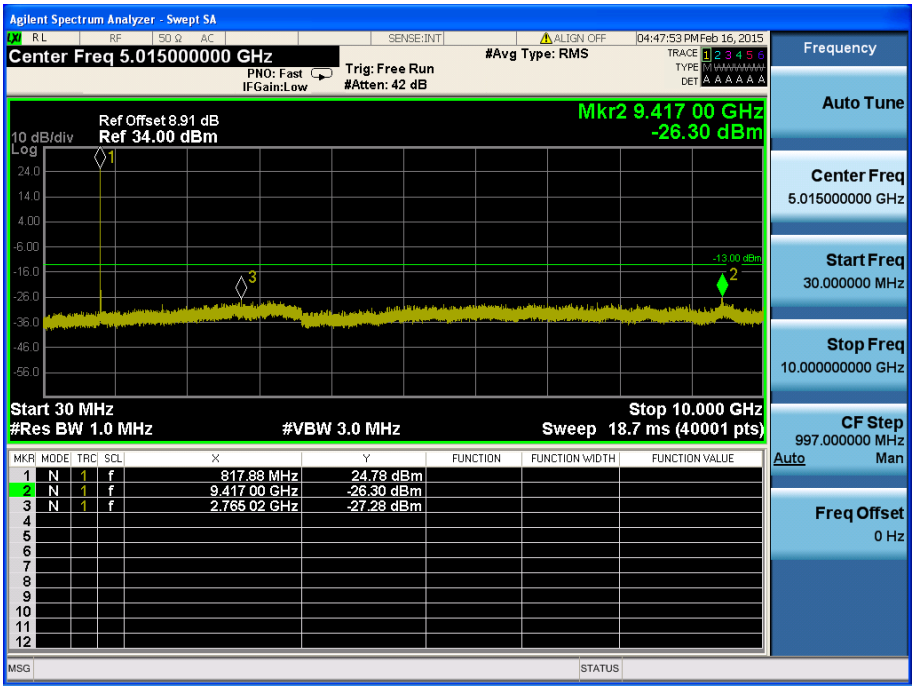
LTE Band 26 / 1.4MHz / 16QAM - RB Size/Offset (3/3)

8.3 SPURIOUS AND HARMONICS EMISSIONS(Conducted)

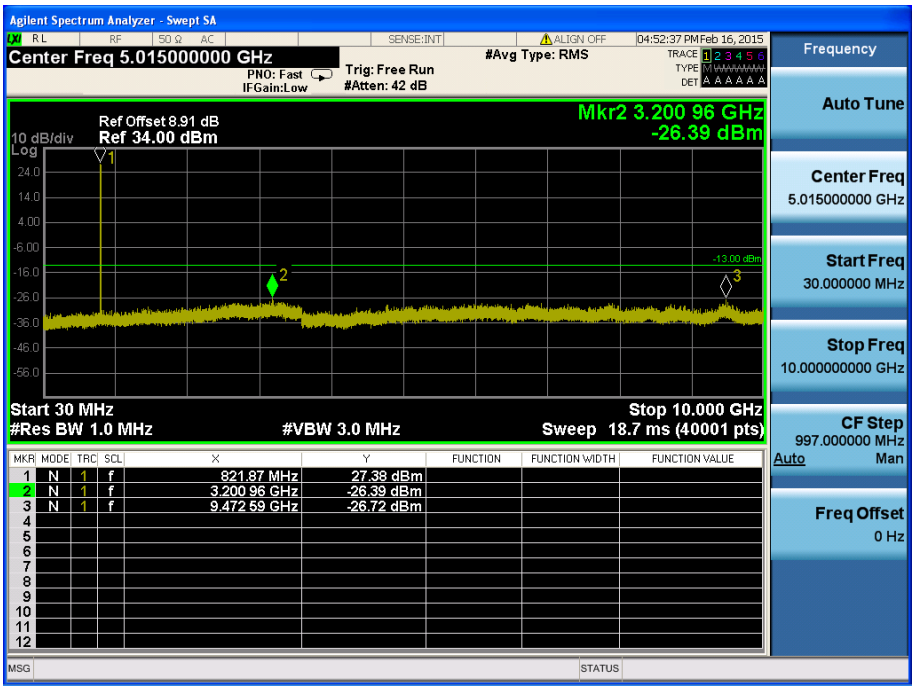
8.3.1 LTE Band 26



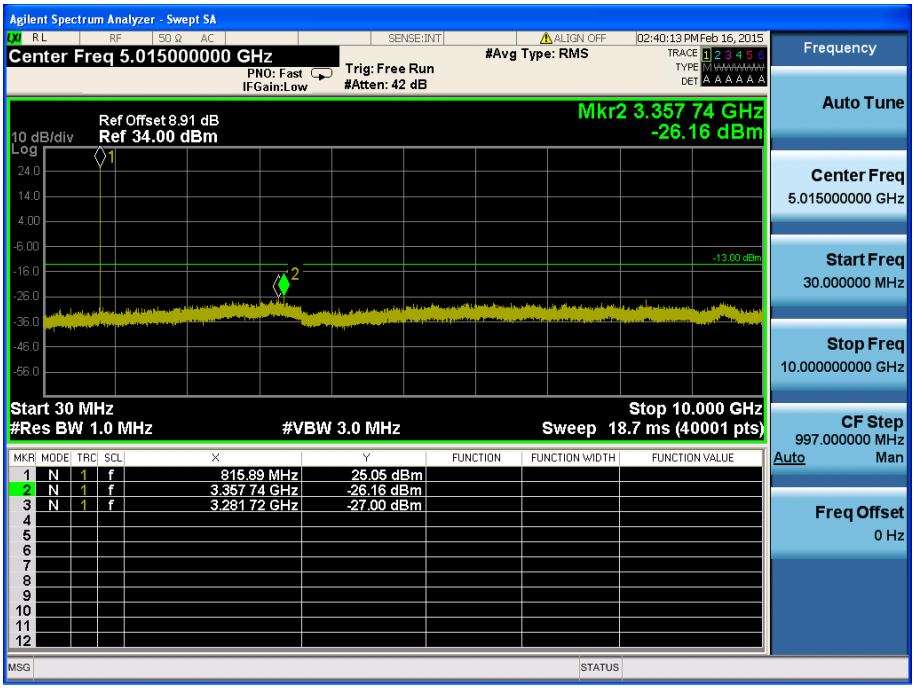
LTE Band 26 / 10MHz / QPSK - RB Size/Offset (1/25))–Mid Channel



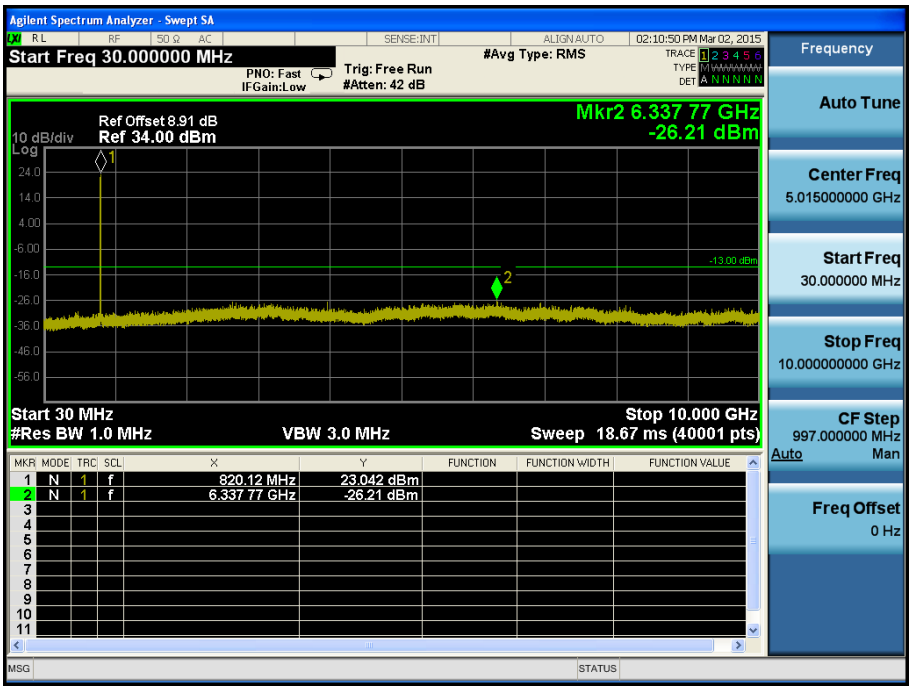
LTE Band 26 / 5MHz / 16QAM - RB Size/Offset (12/13))–Low Channel



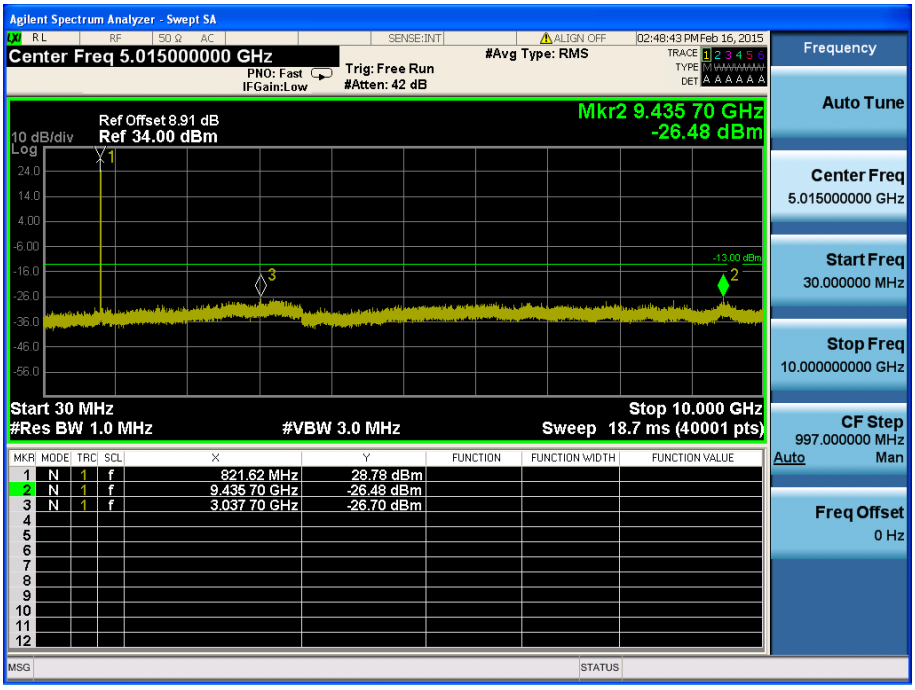
LTE Band 26 / 5MHz / 16QAM - RB Size/Offset (1/12) – High Channel



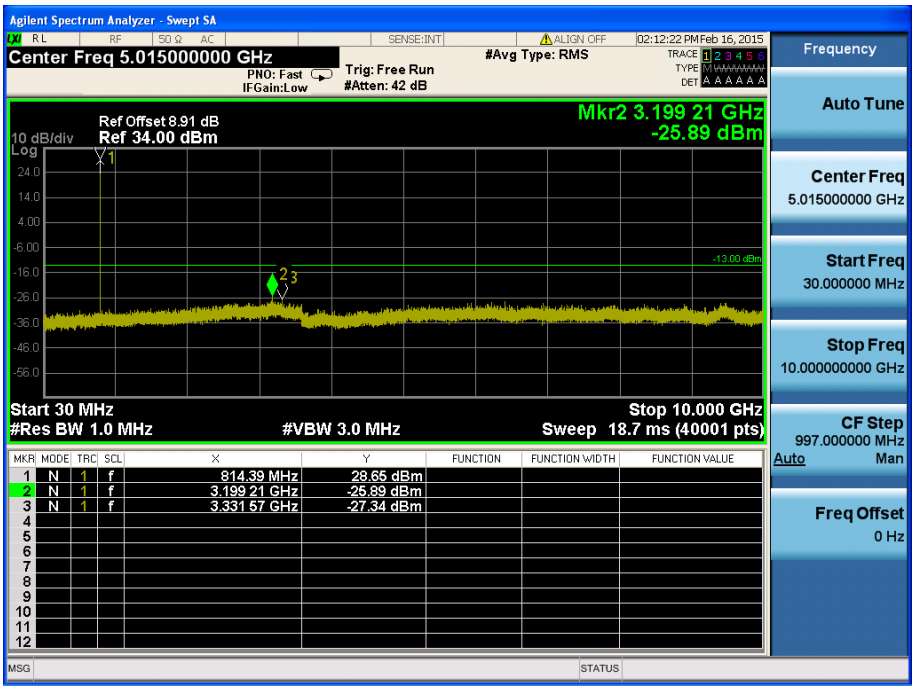
LTE Band 26 / 3MHz / QPSK - RB Size/Offset (8/7) – Low Channel



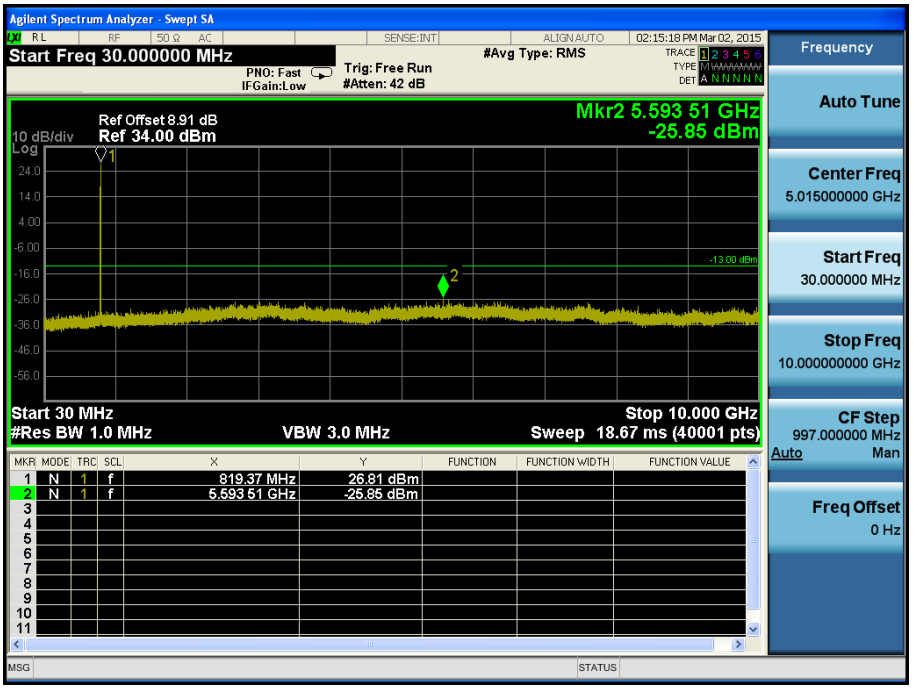
LTE Band 26 / 3MHz / QPSK - RB Size/Offset (15/0) – Mid Channel



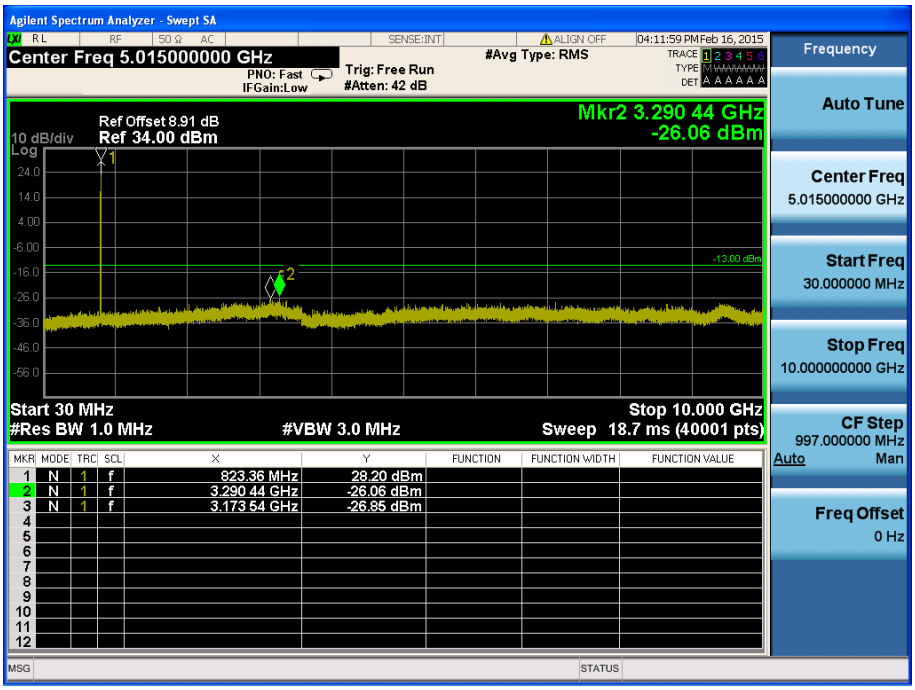
LTE Band 26 / 3MHz / QPSK - RB Size/Offset (1/0) – High Channel



LTE Band 26 / 1.4MHz / QPSK - RB Size/Offset (1/0))–Low Channel



LTE Band 26 / 1.4MHz / 16QAM - RB Size/Offset (6/0))– Mid Channel



LTE Band 26 / 1.4MHz / 16QAM - RB Size/Offset (3/0) – High Channel