



FCC 47 CFR PART 22 SUBPART H AND PART 24 SUBPART E

TEST REPORT

For

Product Name: Mobile Phone

Brand Name: Innos

Model No.: Innos a35

Series Model: N/A

Test Report Number:

KS121018A05-RP1

Issued for

JSR Limited

Room 8, 12/F, Lucida Industrial Building, No. 43-4 Wang Lung Street, Tsuen Wan, HongKong

Issued by

Compliance Certification Services Inc.

Kun shan Laboratory

**No.10 Weiye Rd., Innovation park, Eco&Tec,
Development Zone, Kunshan City, Jiangsu, China**

TEL: 86-512-57355888

FAX: 86-512-57370818



TESTING CERT #2541.01

Note: This report shall not be reproduced except in full, without the written approval of Compliance Certification Services Inc. This document may be altered or revised by Compliance Certification Services Inc. personnel only, and shall be noted in the revision section of the document. The client should not use it to claim product endorsement by A2LA or any government agencies. The test results in the report only apply to the tested sample.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

REVISION HISTORY

| Rev. | Issue Date | Revisions | Effect Page | Revised By |
|------|------------------|---------------|-------------|------------|
| 00 | November 6, 2012 | Initial Issue | ALL | Hadiif Hoo |
| | | | | |



TABLE OF CONTENTS

| | | |
|----------|--|-----------|
| 1 | TEST RESULT CERTIFICATION | 4 |
| 2 | EUT DESCRIPTION | 5 |
| 3 | TEST METHODOLOGY | 6 |
| 3.1. | EUT CONFIGURATION | 6 |
| 3.2. | EUT EXERCISE | 6 |
| 3.3. | GENERAL TEST PROCEDURES | 6 |
| 3.4. | DESCRIPTION OF TEST MODES | 6 |
| 4 | INSTRUMENT CALIBRATION | 7 |
| 4.1. | MEASURING INSTRUMENT CALIBRATION | 7 |
| 4.2. | MEASUREMENT EQUIPMENT USED | 7 |
| 4.3. | MEASUREMENT UNCERTAINTY | 8 |
| 5 | FACILITIES AND ACCREDITATIONS | 9 |
| 5.1. | FACILITIES | 9 |
| 5.2. | EQUIPMENT | 9 |
| 5.3. | ACCREDITATIONS | 9 |
| 6 | SETUP OF EQUIPMENT UNDER TEST | 10 |
| 6.1. | SETUP CONFIGURATION OF EUT | 10 |
| 6.2. | SUPPORT EQUIPMENT | 10 |
| 7 | FCC PART 22 & 24 REQUIREMENTS | 11 |
| 7.1. | PEAK POWER | 11 |
| 7.2. | AVERAGE POWER | 13 |
| 7.3. | ERP & EIRP MEASUREMENT | 15 |
| 7.4. | OCCUPIED BANDWIDTH MEASUREMENT | 21 |
| 7.5. | OUT OF BAND EMISSION AT ANTENNA TERMINALS | 38 |
| 7.6. | FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT | 67 |
| 7.7. | FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT | 99 |
| 7.8. | REQUENCY STABILITY V.S. VOLTAGE MEASUREMENT | 104 |
| 7.9. | POWERLINE CONDUCTED EMISSIONS | 107 |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

1 TEST RESULT CERTIFICATION

| | |
|---------------------------------|--|
| Product Name: | Mobile Phone |
| Trade Name: | Innos |
| Model Name.: | Innos a35 |
| Series Model: | N/A |
| Applicant Discrepancy: | Initial |
| Devices supporting GPRS: | Class B |
| GPRS /EDGE Level: | Multi-Class 12 |
| Multi-slot Class: | 1 Uplink +4 Downlink |
| Device Category: | PORTABLE DEVICES |
| Exposure Category: | GENERAL POPULATION/UNCONTROLLED EXPOSURE |
| Date of Test: | November 1, 2012 |
| Applicant: | JSR Limited Room 8, 12/F, Lucida Industrial Building, No. 43-4 Wang Lung Street, Tsuen Wan, HongKong |
| Manufacturer: | JSR Limited Room 8, 12/F, Lucida Industrial Building, No. 43-4 Wang Lung Street, Tsuen Wan, HongKong |
| Application Type: | Certification |

APPLICABLE STANDARDS

| STANDARD | TEST RESULT |
|--|-------------------------|
| FCC 47 CFR Part 22 Subpart H & Part 24 Subpart E | No non-compliance noted |

The above equipment was tested by Compliance Certification Services Inc. The test data, data evaluation, test procedures, and equipment configurations shown in this report were made in accordance with the procedures given in ANSI C63.4: 2003 and the energy emitted by the sample EUT tested as described in this report is in compliance with conducted and radiated emission limits of FCC Rule FCC PART 22 Subpart H and PART 24 Subpart E.

The test results of this report relate only to the tested sample identified in this report.

Approved by:

Hadiif Hoo
RF Manager
Compliance Certification Service Inc.

Tested by:

Sean.Yu
Test Engineer
Compliance Certification Service Inc.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

2 EUT DESCRIPTION

| | |
|-------------------------------------|--|
| Product Name: | Mobile Phone |
| Brand Name: | Innos |
| Model Name: | Innos a35 |
| Series Model: | N/A |
| Model Discrepancy: | N/A |
| Power Adapter Power Rating : | Power supply and ADP (rating): Brand: innos Model: DGL-C01-01 INPUT:100~240V---50/60Hz 0.2A OUTPUT:5.0V --- 700mA Battery (rating): Brand: innos Model:BL-5H-i Capacitance:63.5x34x5.7mm 3.7V 1350mAh |
| Frequency Range: | GSM/GPRS/EDGE 850: 824.20 ~ 848.80 MHz GSM/GPRS/EDGE1900: 1850.20 ~ 1909.80 MHz WCDMA/HSDPA Band V:826.40 ~ 846.60 MHz WCDMA/HSDPA Band II:1852.40~1907.60 MHz Bluetooth:2402 ~ 2480 MHz WIFI:2412~2462 MHz |
| Transmit Power: | GSM 850: 30.09 dBm GSM 1900: 27.66 dBm GPRS 850: 30.06 dBm GPRS 1900: 27.64 dBm EDGE 850: 30.05 dBm EDGE 1900: 27.65 dBm WCDMA BAND V:21.30 dBm HSDPA BAND V: 21.50dBm WCDMA BAND II:20.49dBm HSDPA BAND II: 21.09dBm |
| Modulation Technique: | GSM/GPRS: GMSK WCDMA/HSDPA: QPSK IEEE 802.11b mode: DSSS (1, 2, 5.5 and 11 Mbps) IEEE 802.11g mode: DSSS /OFDM (6, 9, 12, 18, 24, 36, 48 and 54 Mbps) Bluetooth:GFSK(1 Mbps), $\pi/4$ -DQPSK(2 Mbps),8-DPSK(3 Mbps) |
| Antenna Gain: | GSM/WCDMA : 2 dBi |
| Antenna Type: | GSM/WCDMA: PIFA Antenna BT,WIFI: PIFA Antenna |

Remark:

1. The sample selected for test was engineering sample that approximated to production product and was provided by manufacturer.
2. This submittal(s) (test report) is intended for FCC ID: COYA35 filing to comply with Part 22 and Part 24 of the FCC 47 CFR Rules.



3 TEST METHODOLOGY

Both conducted and radiated testing were performed according to the procedures document on chapter 13 of ANSI C63.4: 2003, TIA/EIA-603-C: 2004 and FCC CFR 47, Part 2, PART 22 SUBPART H AND PART 24 SUBPART E

3.1. EUT CONFIGURATION

The EUT configuration for testing is installed on RF field strength measurement to meet the Commissions requirement and operating in a manner that intends to maximize its emission characteristics in a continuous normal application.

3.2. EUT EXERCISE

The EUT was operated in the engineering mode to fix the TX frequency that was for the purpose of the measurements.

3.3. GENERAL TEST PROCEDURES

Conducted Emissions

The EUT is placed on the turntable, which is 0.8 m above ground plane. According to the requirements in Section 13.1.4.1 of ANSI C63.4: 2003. Conducted emissions from the EUT measured in the frequency range between 0.15 MHz and 30MHz using CISPR Quasi-peak and average detector modes.

RADIATED EMISSIONS

The EUT is placed on a turn table, which is 0.8 m above ground plane. The turntable shall rotate 360 degrees to determine the position of maximum emission level. EUT is set 3m away from the receiving antenna, which varied from 1m to 4m to find out the highest emission. And also, each emission was to be maximized by changing the polarization of receiving antenna both horizontal and vertical. In order to find out the maximum emissions, exploratory radiated emission measurements were made according to the requirements in Section 13.1.4.1 of ANSI C63.4: 2003.

3.4. DESCRIPTION OF TEST MODES

The EUT (model: Gobi2) had been tested under operating condition.

After verification, all tests were carried out with the worst case test modes as shown below except radiated spurious emission below 1GHz and power line conducted emissions below 30MHz, which worst case was in normal link mode only.

EUT staying in continuous transmitting mode was programmed.

GSM/GPRS / 850:

Channel Low (CH128), Channel Mid (CH190) and Channel High (CH251) were chosen for full testing.

GSM/GPRS / 1900:

Channel Low (CH512), Channel Mid (CH661) and Channel High (CH810) were chosen for full testing.

WCDMA Band V:

Channel Low (CH4132), Channel Mid (CH4182) and Channel High (CH4233) were chosen for full testing.

HSDPA Band V:

Channel Low (CH4132), Channel Mid (CH4182) and Channel High (CH4233) were chosen for full testing.

WCDMA Band II:

Channel Low (CH9262), Channel Mid (CH9400) and Channel High (CH9538) were chosen for full testing.

HSDPA Band II:

Channel Low (CH9262), Channel Mid (CH9400) and Channel High (CH9538) were chosen for full testing.



4 INSTRUMENT CALIBRATION

4.1. 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.

4.2. MEASUREMENT EQUIPMENT USED

| Conducted Emissions Test Site | | | | |
|-------------------------------|---------------|-----------|---------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| Spectrum Analyzer | Agilent | E4446A | MY44020154 | 2013-5-12 |
| DETECTOR NEGATIVE | Agilent | 8473B | MY42240176 | 2013-5-12 |
| OSCILLOSCOPE | Agilent | DSO6104A | MY44002585 | 2013-3-25 |
| Peak and Avg Power Sensor | Agilent | E9327A | US40441788 | 2013-3-25 |
| EPM-P Series Power Meter | Agilent | E4416A | GB41292714 | 2013-5-12 |
| Power SPLITTER | Mini-Circuits | ZN2PD-9G | SF078500430 | 2013-5-12 |
| DC POWER SUPPLY | GW instek | GPS-3303C | E903131 | 2013-5-12 |
| Temp. / Humidity Chamber | Kingson | THS-M1 | 242 | 2013-3-13 |
| Test Software | | | EZ-EMC | |

977 Chamber

| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
|-------------------|--------------|-------------|---------------|-----------------|
| Spectrum Analyzer | Agilent | E4446A | MY44020154 | 2013-5-12 |
| EMI Test Receiver | R&S | ESPI3 | 101026 | 2013-3-16 |
| Pre-Amplifier | MINI | ZFL-1000VH2 | d041703 | 2013-6-30 |
| Pre-Amplifier | Miteq | NSP4000-NF | 870629 | 2013-6-30 |
| Bilog Antenna | Sunol | JB1 | A110204-2 | 2013-6-24 |
| Horn-antenna | SCHWARZBECK | BBHA9120D | D:266 | 2013-5-12 |
| Turn Table | CT | CT123 | 4165 | N.C.R |
| Antenna Tower | CT | CTERG23 | 3256 | N.C.R |
| Controller | CT | CT100 | 95637 | N.C.R |
| Test Software | | | EZ-EMC | |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| Conducted Emission | | | | |
|--------------------|--------------|-------------------------|---------------|-----------------|
| Name of Equipment | Manufacturer | Model | Serial Number | Calibration Due |
| EMI TEST RECEIVER | R&S | ESCI3 | 100781 | 2013-3-16 |
| V (V-LISN) | Schwarzbeck | NNLK 8129 | 8129-143 | 2013-3-16 |
| LISN (EUT) | FCC | FCC-LISN-50/250-50-2-02 | SN:05012 | 2013-3-16 |
| TRANSIENT LIMITER | SCHAFFNER | CFL9206 | 1710 | 2013-4-9 |
| Test Software | | EZ-EMC | | |

Remark: Each piece of equipment is scheduled for calibration once a year.

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the EUT as specified in CISPR 16-4-2:

| Measurement | Frequency | | Uncertainty |
|------------------------------------|---------------|------------------|-------------|
| Conducted emissions | 0.15MHz~30MHz | | ± 3.43 dB |
| Measurement | Polarity | Frequency | Uncertainty |
| Radiated emissions (below 1GHz) | H | 30MHz ~ 200MHz | +/- 4.72dB |
| | | 200MHz ~1000MHz | +/- 4.72dB |
| | V | 30MHz ~ 200MHz | +/- 4.83dB |
| | | 200MHz ~1000MHz | +/- 4.70dB |
| Radiated emissions (above 1GHz) | H | 1000MHz ~5000MHz | +/- 3.94dB |
| | | 5000MHz ~6000MHz | +/- 3.94dB |
| | V | 1000MHz ~5000MHz | +/- 3.94dB |
| | | 5000MHz ~6000MHz | +/- 3.94dB |

This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.



5 FACILITIES AND ACCREDITATIONS

5.1. FACILITIES

No.10Weiye Rd, Innovation park, Eco&Tec, Development Zone, Kunshan City, Jiangsu, China.

The sites are constructed in conformance with the requirements of ANSI C63.4 and CISPR Publication 22.

5.2. EQUIPMENT

Radiated emissions are measured with one or more of the following types of linearly polarized antennas: tuned dipole, biconical, log periodic, bi-log, and/or ridged waveguide, horn. Spectrum analyzers with pre-selectors and quasi-peak detectors are used to perform radiated measurements.

Conducted emissions are measured with Line Impedance Stabilization Networks and EMI Test Receivers.

Calibrated wideband preamplifiers, coaxial cables, and coaxial attenuators are also used for making measurements.

All receiving equipment conforms to CISPR Publication 16-1, "Radio Interference Measuring Apparatus and Measurement Methods."

5.3. ACCREDITATIONS

Our laboratories are accredited and approved by the following accreditation body according to ISO/IEC 17025.

| | |
|-------|------|
| USA | A2LA |
| China | CNAS |

The measuring facility of laboratories has been authorized or registered by the following approval agencies.

| | |
|--------|-----------------|
| Canada | Industry Canada |
| Japan | VCCI |
| Taiwan | BSMI |
| USA | FCC |

Copies of granted accreditation certificates are available for downloading from our web site, <http://www.ccsrf.com>



6 SETUP OF EQUIPMENT UNDER TEST

6.1. SETUP CONFIGURATION OF EUT

See test photographs attached in Appendix I for the actual connections between EUT and support equipment.

6.2. SUPPORT EQUIPMENT

| No. | Device Type | Brand | Model | FCC ID | Series No. | Data Cable | Power Cord |
|-----|-------------|-------|-------|--------|------------|------------|------------|
| N/A | | | | | | | |

Remark:

1. All the equipment/cables were placed in the worst-case configuration to maximize the emission during the test.
2. Grounding was established in accordance with the manufacturer's requirements and conditions for the intended use.



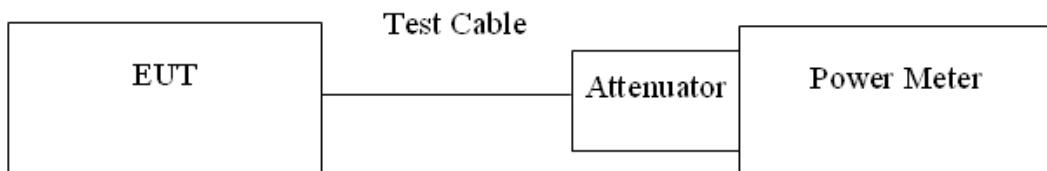
7 FCC PART 22 & 24 REQUIREMENTS

7.1. PEAK POWER

LIMIT

According to FCC §2.1046.

Test Configuration



Remark: Measurement setup for testing on Antenna connector

TEST PROCEDURE

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading.

TEST RESULTS

No non-compliance noted.

Test Data

| Test Mode | CH | Frequency (MHz) | Peak Power (dBm) |
|------------------------|-----|-----------------|------------------|
| GPRS 850 (Class 12) | 128 | 824.20 | 30.06 |
| | 190 | 836.40 | 29.94 |
| | 251 | 848.80 | 29.92 |
| EDGE 850 (Class 12) | 128 | 824.20 | 30.05 |
| | 190 | 836.40 | 29.69 |
| | 251 | 848.80 | 29.91 |
| GSM 850 | 128 | 824.20 | 30.09 |
| | 190 | 836.40 | 29.94 |
| | 251 | 848.80 | 30.07 |

| Test Mode | CH | Frequency (MHz) | Peak Power (dBm) |
|-------------------------|-----|-----------------|------------------|
| GPRS 1900 (Class 12) | 512 | 1850.20 | 27.64 |
| | 661 | 1880.00 | 27.47 |
| | 810 | 1909.80 | 26.90 |
| EDGE 1900 (Class 12) | 512 | 1850.20 | 27.65 |
| | 661 | 1880.00 | 27.50 |
| | 810 | 1909.80 | 26.96 |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|----------|-----|---------|--------------|
| GSM 1900 | 512 | 1850.20 | 27.66 |
| | 661 | 1880.00 | 27.48 |
| | 810 | 1909.80 | 26.94 |

| Test Mode | CH | Frequency (MHz) | Peak Power (dBm) |
|----------------|------|-----------------|------------------|
| WCDMA (BAND V) | 4132 | 826.40 | 21.30 |
| | 4182 | 836.40 | 20.00 |
| | 4233 | 846.60 | 20.84 |
| HSDPA (BAND V) | 4132 | 826.40 | 21.50 |
| | 4182 | 836.40 | 21.81 |
| | 4233 | 846.60 | 20.38 |

| Test Mode | CH | Frequency (MHz) | Peak Power (dBm) |
|-----------------|------|-----------------|------------------|
| HSDPA (BAND II) | 9262 | 1852.40 | 20.29 |
| | 9400 | 1880.00 | 20.00 |
| | 9538 | 1907.60 | 20.49 |
| WCDMA (BAND II) | 9262 | 1852.40 | 20.79 |
| | 9400 | 1880.00 | 20.46 |
| | 9538 | 1907.60 | 21.09 |

Remark: The value of factor includes both the loss of cable and external attenuator

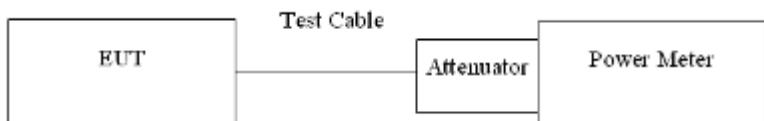


7.2. AVERAGE POWER

LIMIT

For reporting purposes only.

TEST CONFIGURATION



Remark: Measurement setup for testing on Antenna connector

TEST PROCEDURE

The transmitter output was connected to a calibrated attenuator, the other end of which was connected to a power meter. Transmitter output was read off the power meter in dBm. The power output at the transmitter antenna port was determined by adding the value of the attenuator to the power meter reading.

TEST RESULTS

No non-compliance noted.

Test Data

| Test Mode | CH | Frequency (MHz) | AVG Power (dBm) |
|------------------------|-----|-----------------|-----------------|
| GPRS 850 (Class 12) | 128 | 824.20 | 29.99 |
| | 190 | 836.40 | 29.85 |
| | 251 | 848.80 | 29.75 |
| EDGE 850 (Class 12) | 128 | 824.20 | 29.86 |
| | 190 | 836.40 | 29.42 |
| | 251 | 848.80 | 29.12 |
| GSM 850 | 128 | 824.20 | 30.01 |
| | 190 | 836.40 | 29.65 |
| | 251 | 848.80 | 30.12 |

| Test Mode | CH | Frequency (MHz) | AVG Power (dBm) |
|-------------------------|-----|-----------------|-----------------|
| GPRS 1900 (Class 12) | 512 | 1850.20 | 27.55 |
| | 661 | 1880.00 | 27.41 |
| | 810 | 1909.80 | 26.25 |
| EDGE 1900 (Class 12) | 512 | 1850.20 | 27.35 |
| | 661 | 1880.00 | 27.42 |
| | 810 | 1909.80 | 26.26 |
| GSM 1900 | 512 | 1850.20 | 27.24 |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|--|-----|---------|-------|
| | 661 | 1880.00 | 27.25 |
| | 810 | 1909.80 | 26.62 |

| Test Mode | CH | Frequency (MHz) | AVG Power (dBm) |
|----------------|------|-----------------|-----------------|
| WCDMA (BAND V) | 4132 | 826.40 | 21.01 |
| | 4182 | 836.40 | 19.85 |
| | 4233 | 846.60 | 20.32 |
| HSDPA (BAND V) | 4132 | 826.40 | 21.10 |
| | 4182 | 836.40 | 21.41 |
| | 4233 | 846.60 | 20.23 |

| Test Mode | CH | Frequency (MHz) | Peak Power (dBm) |
|-----------------|------|-----------------|------------------|
| HSDPA (BAND II) | 9262 | 1852.40 | 20.21 |
| | 9400 | 1880.00 | 19.68 |
| | 9538 | 1907.60 | 20.01 |
| WCDMA (BAND II) | 9262 | 1852.40 | 20.02 |
| | 9400 | 1880.00 | 20.14 |
| | 9538 | 1907.60 | 21.03 |

Remark: The value of factor includes both the loss of cable and external attenuator

7.3. ERP & EIRP MEASUREMENT

LIMIT

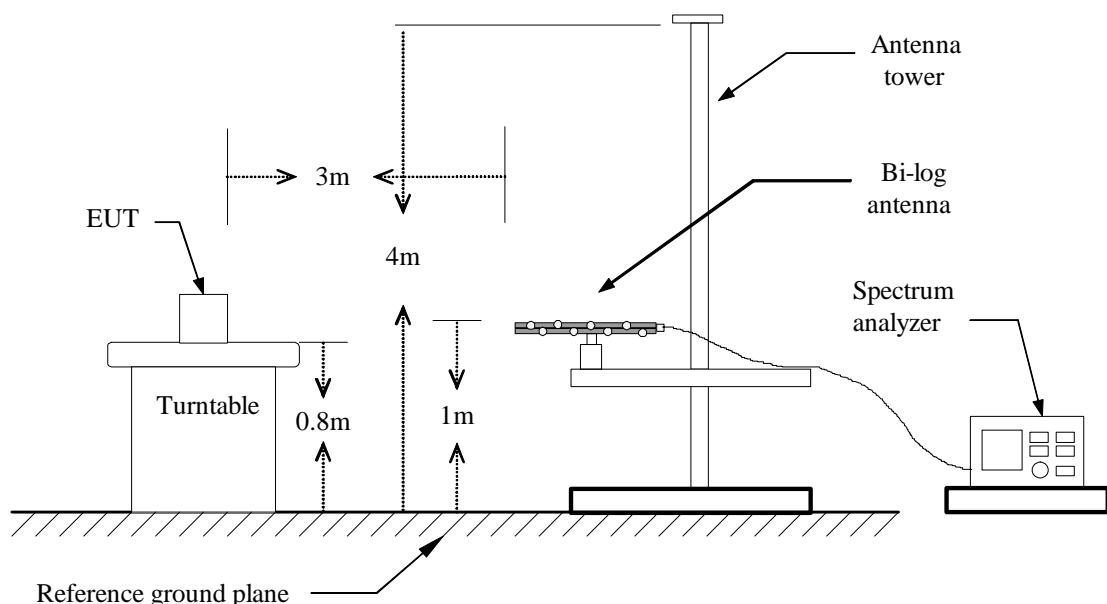
According to FCC §2.1046

FCC 22.913(a): The Effective Radiated Power (ERP) of mobile transmitters must not exceed 7 Watts.

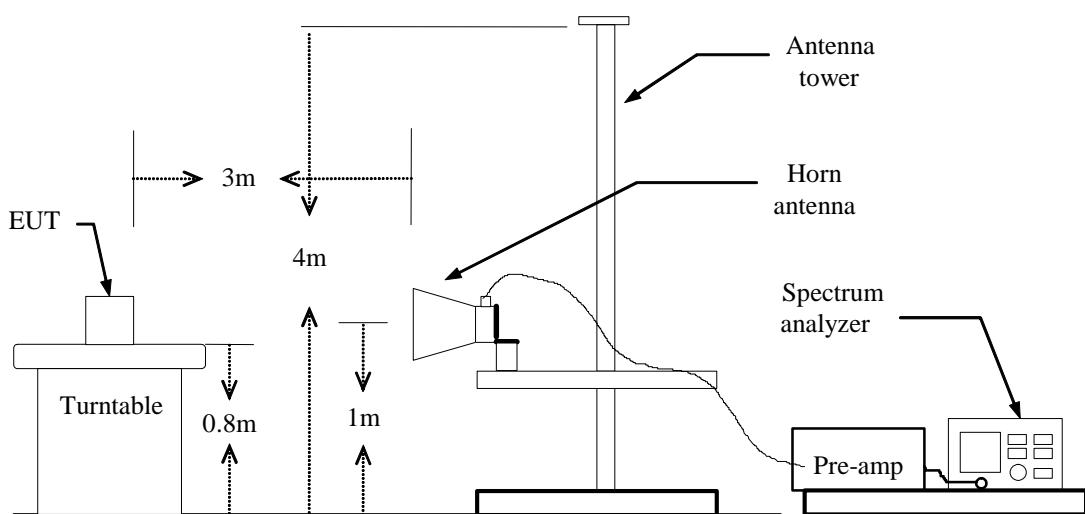
FCC 24.232(b): The equivalent Isotropic Radiated Power (EIRP) must not exceed 2 Watts.

TEST CONFIGURATION

Below 1 GHz

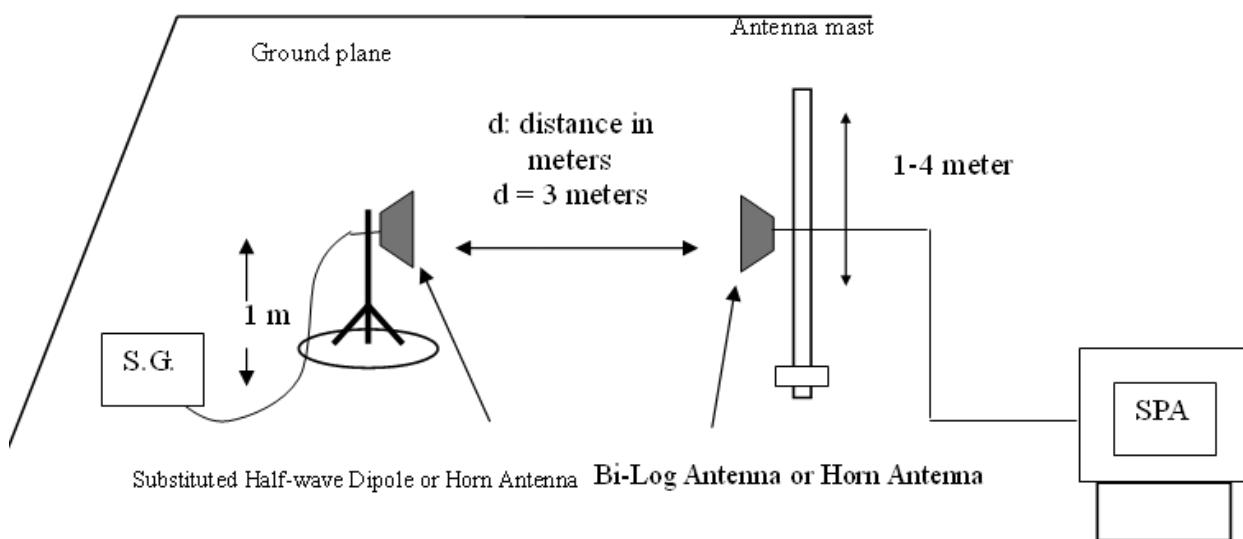


Above 1 GHz





FOR SUBSTITUTED METHOD TEST SET-UP



TEST PROCEDURE

The EUT was placed on a non-conductive turntable using a non-conductive support. The radiated emission at the fundamental frequency was measured at 3 m with a test antenna and EMI spectrum analyzer.

During the measurement of the EUT, the resolution bandwidth was set to 3MHz and the average bandwidth was set to 3MHz. The highest emission was recorded with the rotation of the turntable and the lowering of the test antenna. The reading was recorded and the field strength (E in dBuV/m) was calculated.

ERP in frequency band 824-849MHz, and EIRP in frequency band 1851.25 –1910MHz were measured using a substitution method. The EUT was replaced by half-wave dipole (824-849MHz) or horn antenna (1851.25-1910MHz) connected to a signal generator. The spectrum analyzer reading was recorded and ERP/EIRP was calculated as follows:

$$\text{ERP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)}$$

$$\text{EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)}$$

TEST RESULTS

No non-compliance noted.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

GSM 850 TEST DATA

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | rection Fa (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|-----------------|----------------------|-------------|-------------|
| 128 | 824.18 | V | -9.36 | 34.61 | 25.25 | 38.5 | -13.25 |
| | 824.3 | H | -3.89 | 34.26 | 30.37 | 38.5 | -8.13 |
| 190 | 836.66 | V | -10.36 | 34.45 | 24.09 | 38.5 | -14.41 |
| | 836.78 | H | -6.36 | 34.26 | 27.9 | 38.5 | -10.6 |
| 251 | 848.84 | V | -6.98 | 34.64 | 27.66 | 38.5 | -10.84 |
| | 848.84 | H | -6.32 | 34.44 | 28.12 | 38.5 | -10.38 |

GSM 1900 TEST DATA

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | rection Fa (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|-----------------|----------------------|-------------|-------------|
| 512 | 1850.1 | V | -11.36 | 41.19 | 29.83 | 33 | -3.17 |
| | 1850 | H | -13.26 | 40.29 | 27.03 | 33 | -5.97 |
| 661 | 1880 | V | -12.69 | 41.19 | 28.5 | 33 | -4.5 |
| | 1879.8 | H | -15.36 | 41.75 | 26.39 | 33 | -6.61 |
| 810 | 1909.9 | V | -16.35 | 41.35 | 25 | 33 | -8 |
| | 1909.9 | H | -15.69 | 41.16 | 25.47 | 33 | -7.53 |

GPRS 850 TEST DATA

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | rection Fa (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|-----------------|----------------------|-------------|-------------|
| 128 | 824.18 | V | -8.36 | 34.61 | 26.25 | 38.5 | -12.25 |
| | 824.18 | H | -5.23 | 34.26 | 29.03 | 38.5 | -9.47 |
| 190 | 836.54 | V | -12.36 | 34.45 | 22.09 | 38.5 | -16.41 |
| | 836.54 | H | -6.85 | 34.26 | 27.41 | 38.5 | -11.09 |
| 251 | 848.78 | V | -9.68 | 34.64 | 24.96 | 38.5 | -13.54 |
| | 849.08 | H | -10.34 | 34.44 | 24.1 | 38.5 | -14.4 |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

GPRS 1900 TEST DATA

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | rection Fa | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|------------|----------------------|-------------|-------------|
| 512 | 1850.2 | V | -10.36 | 41.17 | 30.81 | 33 | -2.19 |
| | 1850.2 | H | -11.36 | 40.79 | 29.43 | 33 | -3.57 |
| 661 | 1879.8 | V | -12.35 | 41.23 | 28.88 | 33 | -4.12 |
| | 1879.8 | H | -11.36 | 41.14 | 29.78 | 33 | -3.22 |
| 810 | 1909.7 | V | -12.36 | 41.3 | 28.94 | 33 | -4.06 |
| | 1909.7 | H | -12.34 | 41.38 | 29.04 | 33 | -3.96 |

EDGE 850 TEST DATA

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | rection Fa | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|------------|----------------------|-------------|-------------|
| 128 | 824.18 | V | -12.69 | 34.61 | 21.92 | 38.5 | -16.58 |
| | 824.18 | H | -10.65 | 34.26 | 23.61 | 38.5 | -14.89 |
| 190 | 836.54 | V | -10.69 | 34.45 | 23.76 | 38.5 | -14.74 |
| | 836.54 | H | -11.23 | 34.26 | 23.03 | 38.5 | -15.47 |
| 251 | 848.78 | V | -12.39 | 34.64 | 22.25 | 38.5 | -16.25 |
| | 849.08 | H | -13.65 | 34.44 | 20.79 | 38.5 | -17.71 |

EDGE 1900 TEST DATA

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | rection Fa | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|------------|----------------------|-------------|-------------|
| 512 | 1850.2 | V | -12.15 | 41.17 | 29.02 | 33 | -3.98 |
| | 1850.2 | H | -12.36 | 40.79 | 28.43 | 33 | -4.57 |
| 661 | 1879.8 | V | -16.11 | 41.23 | 25.12 | 33 | -7.88 |
| | 1879.8 | H | -16.11 | 41.14 | 25.03 | 33 | -7.97 |
| 810 | 1909.7 | V | -11.01 | 41.3 | 30.29 | 33 | -2.71 |
| | 1909.7 | H | -13.62 | 41.38 | 27.76 | 33 | -5.24 |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

WCDMA BAND V Test Data

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | rection Fa | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|------------|----------------------|-------------|-------------|
| 4132 | 826.4 | V | -17.26 | 34.59 | 17.33 | 38.5 | -21.17 |
| | 826.4 | H | -14.36 | 37.66 | 23.3 | 38.5 | -15.2 |
| 4182 | 836.4 | V | -15.69 | 34.54 | 18.85 | 38.5 | -19.65 |
| | 836.4 | H | -14.36 | 34.63 | 20.27 | 38.5 | -18.23 |
| 4233 | 846.6 | V | -15.62 | 34.58 | 18.96 | 38.5 | -19.54 |
| | 846.6 | H | -14.36 | 34.7 | 20.34 | 38.5 | -18.16 |

HSDPA BAND V Test Data

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | rection Fa | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|------------|----------------------|-------------|-------------|
| 4132 | 826.4 | V | -16.35 | 34.59 | 18.24 | 38.5 | -20.26 |
| | 826.4 | H | -15.26 | 37.66 | 22.4 | 38.5 | -16.1 |
| 4182 | 836.4 | V | -15.36 | 34.54 | 19.18 | 38.5 | -19.32 |
| | 836.4 | H | -16.34 | 34.63 | 18.29 | 38.5 | -20.21 |
| 4233 | 846.6 | V | -16.36 | 34.58 | 18.22 | 38.5 | -20.28 |
| | 846.6 | H | -14.26 | 34.7 | 20.44 | 38.5 | -18.06 |

WCDMA BAND II Test Data

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | rection Fa | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|------------|----------------------|-------------|-------------|
| 9262 | 1852.4 | V | -15.62 | 41.17 | 25.55 | 33 | -7.45 |
| | 1852.4 | H | -16.23 | 40.79 | 24.56 | 33 | -8.44 |
| 9400 | 1880 | V | -18.69 | 41.23 | 22.54 | 33 | -10.46 |
| | 1880 | H | -17.36 | 41.14 | 23.78 | 33 | -9.22 |
| 9538 | 1907.6 | V | -19.25 | 41.3 | 22.05 | 33 | -10.95 |
| | 1907.6 | H | -17.36 | 41.38 | 24.02 | 33 | -8.98 |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

HSDPA BAND II Test Data

| Channel | Frequency (MHz) | Antenna Pol. | Reading level (dB) | Direction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|---------|-----------------|--------------|--------------------|-----------------------|----------------------|-------------|-------------|
| 9262 | 1852.4 | V | -19.01 | 41.17 | 22.16 | 33 | -10.84 |
| | 1852.4 | H | -19.16 | 40.79 | 21.63 | 33 | -11.37 |
| 9400 | 1880 | V | -19.52 | 41.23 | 21.71 | 33 | -11.29 |
| | 1880 | H | -19.19 | 41.14 | 21.95 | 33 | -11.05 |
| 9538 | 1907.6 | V | -19.49 | 41.3 | 21.81 | 33 | -11.19 |
| | 1907.6 | H | -19.27 | 41.38 | 22.11 | 33 | -10.89 |

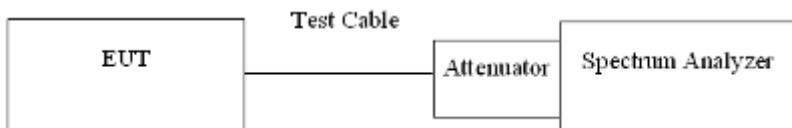


7.4. OCCUPIED BANDWIDTH MEASUREMENT

LIMIT

According to §FCC 2.1049.

TEST CONFIGURATION



Remark: Measurement setup for testing on Antenna connector

TEST PROCEDURE

The EUT's output RF connector was connected with a short cable to the spectrum analyzer, RBW was set to about 1% of emission BW, VBW is set to 3 times the RBW, -26dBc display line was placed on the screen (or 99% bandwidth), the occupied bandwidth is the delta frequency between the two points where the display line intersects the signal trace.

TEST RESULTS

No non-compliance noted

Test Data

| Test Mode | CH | Frequency (MHz) | 99% Bandwidth (kHz) | 26dB Bandwidth KHz |
|-----------|-----|-----------------|---------------------|--------------------|
| GPRS 850 | 128 | 824.20 | 247.4782 | 308.334 |
| | 190 | 836.40 | 252.1836 | 314.103 |
| | 251 | 848.80 | 246.0193 | 316.971 |
| EDGE 850 | 128 | 824.20 | 244.9208 | 317.403 |
| | 190 | 836.40 | 241.7320 | 311.321 |
| | 251 | 848.80 | 242.7511 | 318.500 |
| GSM 850 | 128 | 824.20 | 241.8861 | 313.169 |
| | 190 | 836.40 | 245.0211 | 311.413 |
| | 251 | 848.80 | 241.8861 | 313.169 |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| Test Mode | CH | Frequency (MHz) | 99% Bandwidth (kHz) | 26dB Bandwidth KHz |
|-----------|-----|-----------------|---------------------|--------------------|
| GPRS 1900 | 512 | 1850.20 | 243.9609 | 313.211 |
| | 661 | 1880.00 | 244.3364 | 317.308 |
| | 810 | 1909.80 | 248.5638 | 316.638 |
| EDGE 1900 | 512 | 1850.20 | 245.5962 | 315.067 |
| | 661 | 1880.00 | 243.7942 | 318.615 |
| | 810 | 1909.80 | 243.1749 | 314.401 |
| GSM 1900 | 512 | 1850.20 | 248.6729 | 315.666 |
| | 661 | 1880.00 | 246.4801 | 323.454 |
| | 810 | 1909.80 | 250.6187 | 316.859 |

| Test Mode | CH | Frequency (MHz) | 99% Bandwidth (MHz) | 26dB Bandwidth MHz |
|----------------|------|-----------------|---------------------|--------------------|
| WCDMA (Band V) | 4132 | 826.40 | 4.1606 | 4.640 |
| | 4182 | 836.40 | 4.1704 | 4.649 |
| | 4233 | 846.60 | 4.2074 | 4.706 |
| HSDPA (BAND V) | 4132 | 826.40 | 4.1578 | 4.655 |
| | 4182 | 836.40 | 4.1802 | 4.648 |
| | 4233 | 846.60 | 4.2213 | 4.683 |

| Test Mode | CH | Frequency (MHz) | 99% Bandwidth (MHz) | 26dB Bandwidth MHz |
|-----------------|------|-----------------|---------------------|--------------------|
| WCDMA (Band II) | 9262 | 1852.40 | 4.1636 | 4.666 |
| | 9400 | 1880.00 | 4.1968 | 4.664 |
| | 9538 | 1907.60 | 4.1639 | 4.662 |
| HSDPA (BAND II) | 9262 | 1852.40 | 4.1636 | 4.666 |
| | 9400 | 1880.00 | 4.1822 | 4.655 |
| | 9538 | 1907.60 | 4.1518 | 4.662 |



Compliance Certification Services Inc.

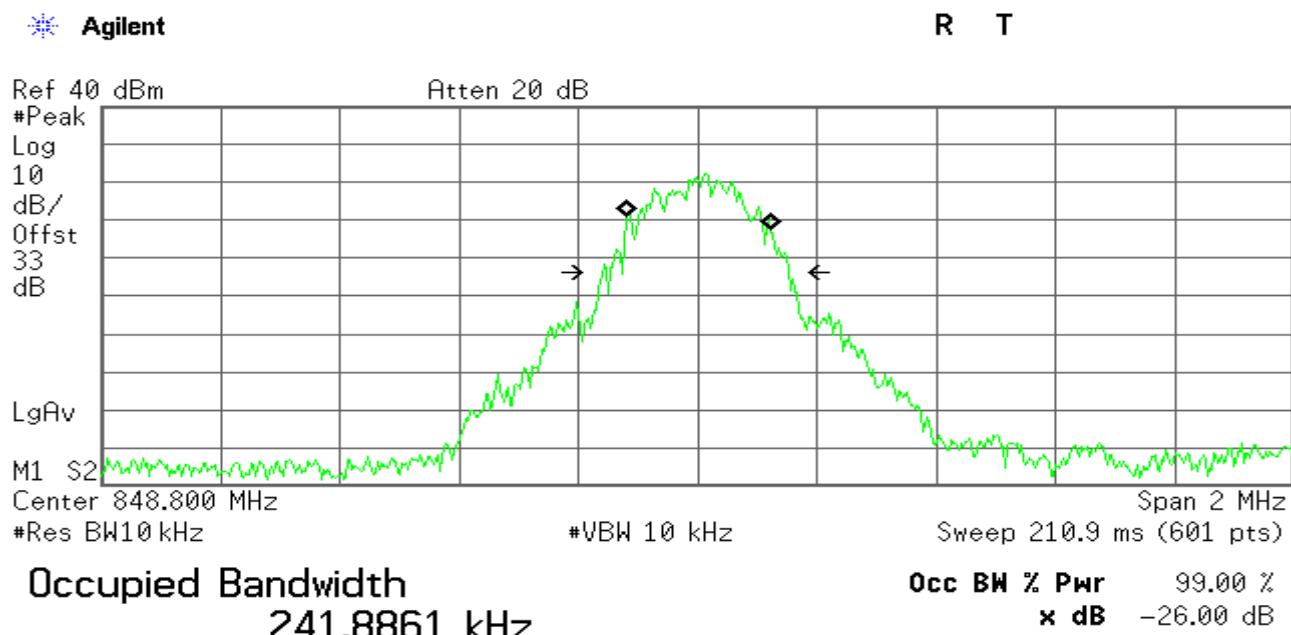
Report No: KS121018A05-RP1

FCC ID: COYA35

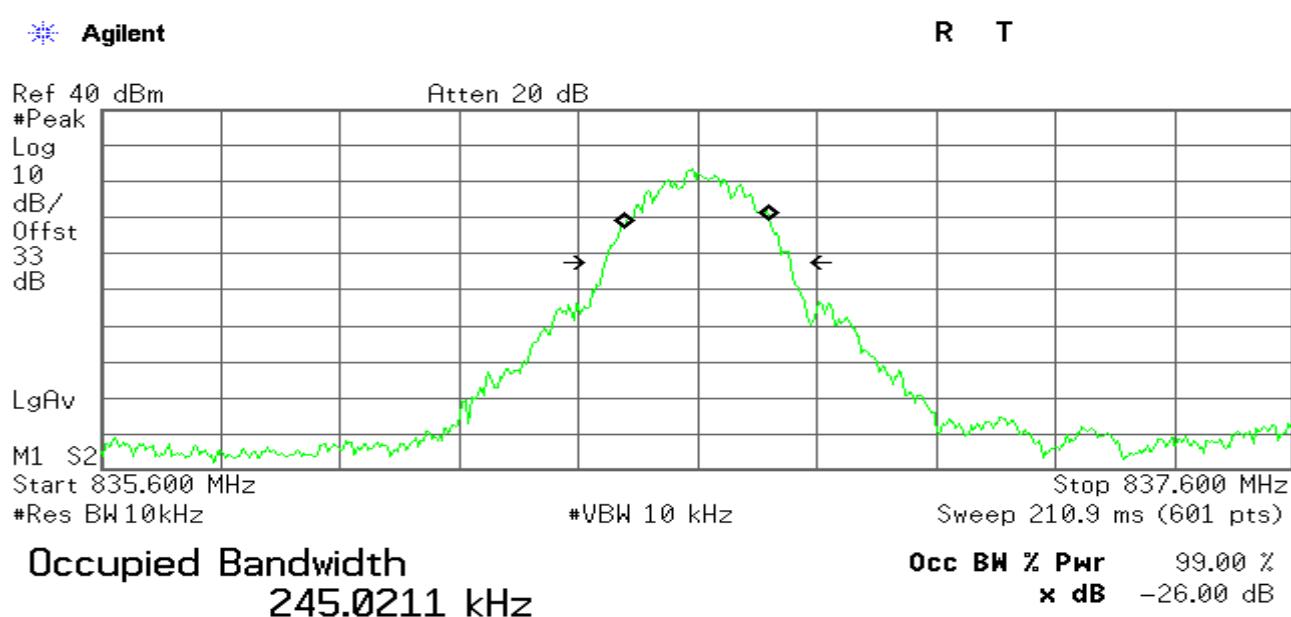
Date of Issue :November 6, 2012

Test Plot

GSM 850 (CH Low)



GSM 850 (CH Mid)





Compliance Certification Services Inc.

Report No: KS121018A05-RP1

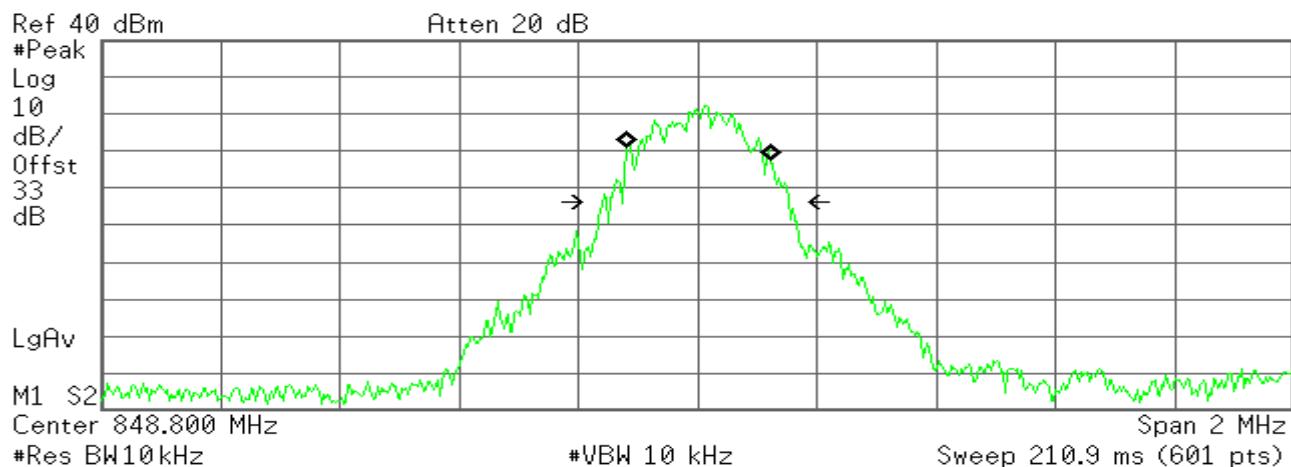
FCC ID: COYA35

Date of Issue :November 6, 2012

GSM 850(CH High)

Agilent

R T

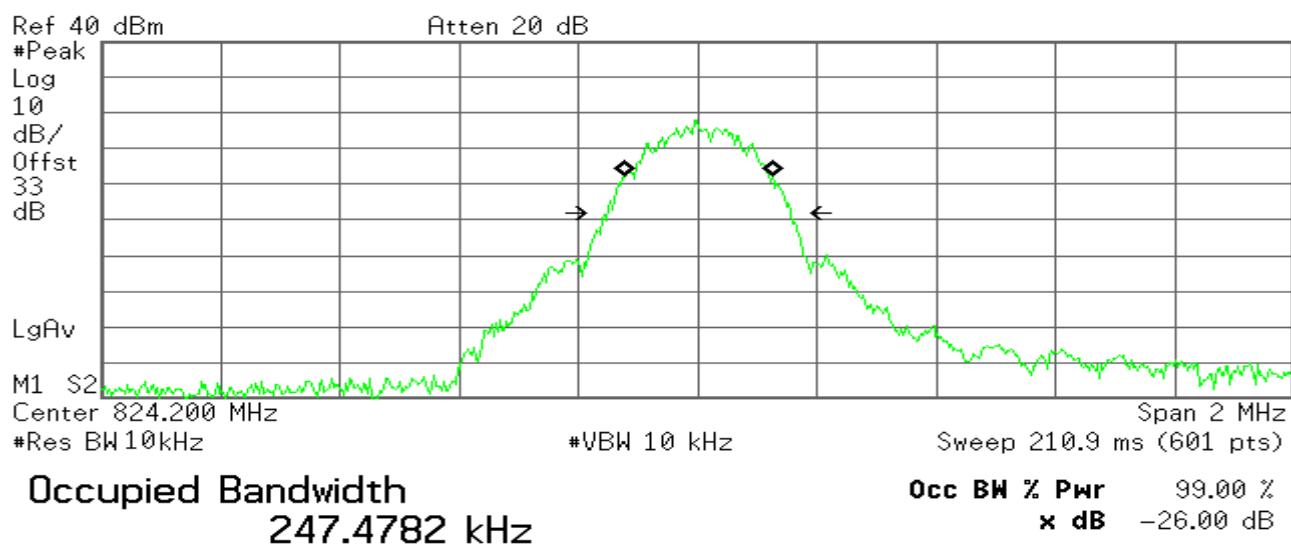


Transmit Freq Error 1.517 kHz
x dB Bandwidth 313.169 kHz

GPRS 850 (CH Low)

Agilent

R T



Transmit Freq Error 1.648 kHz
x dB Bandwidth 308.334 kHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

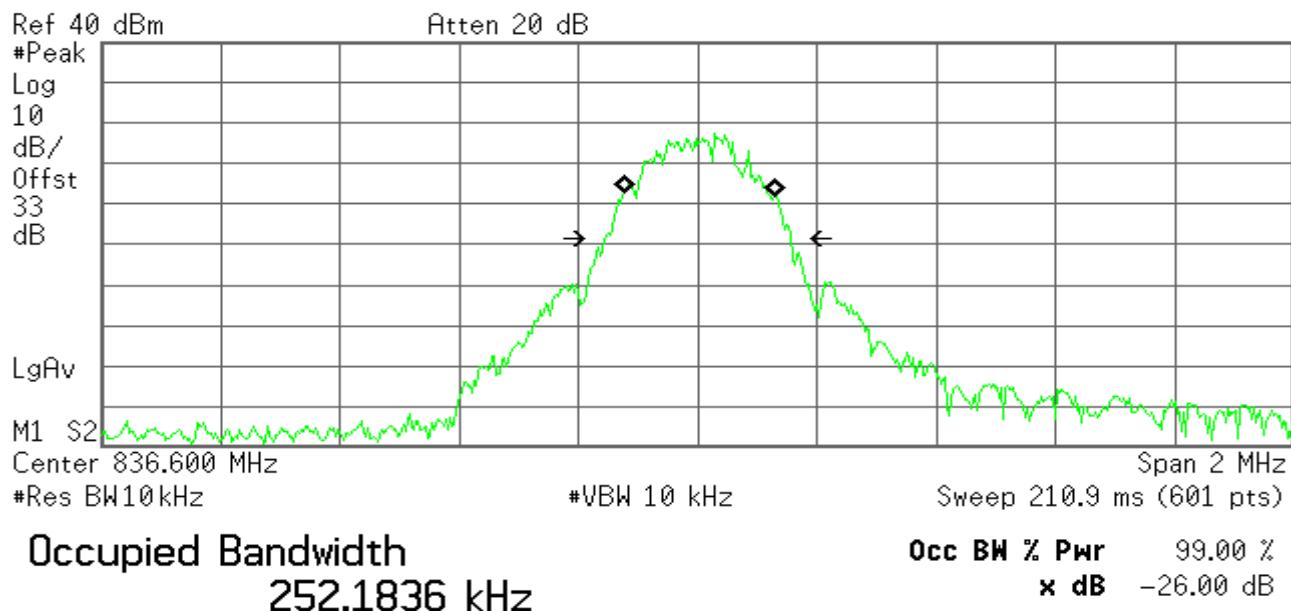
FCC ID: COYA35

Date of Issue :November 6, 2012

GPRS 850 (CH Mid)

* Agilent

R T

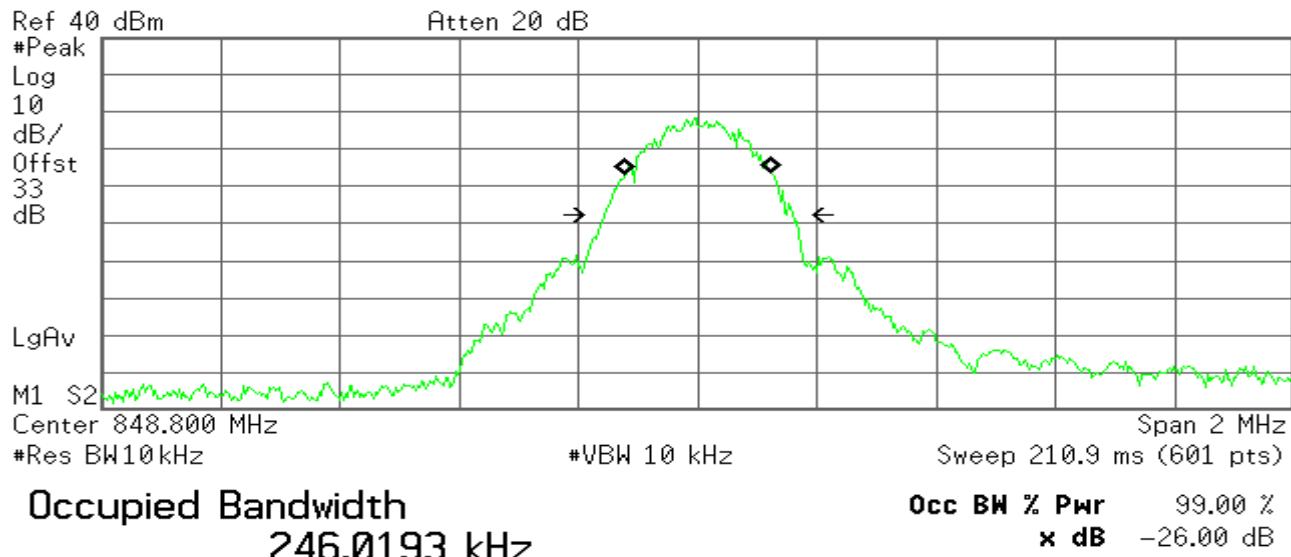


Transmit Freq Error 2.254 kHz
x dB Bandwidth 314.103 kHz

GPRS 850(CH High)

* Agilent

R T



Transmit Freq Error 604.204 Hz
x dB Bandwidth 316.971 kHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

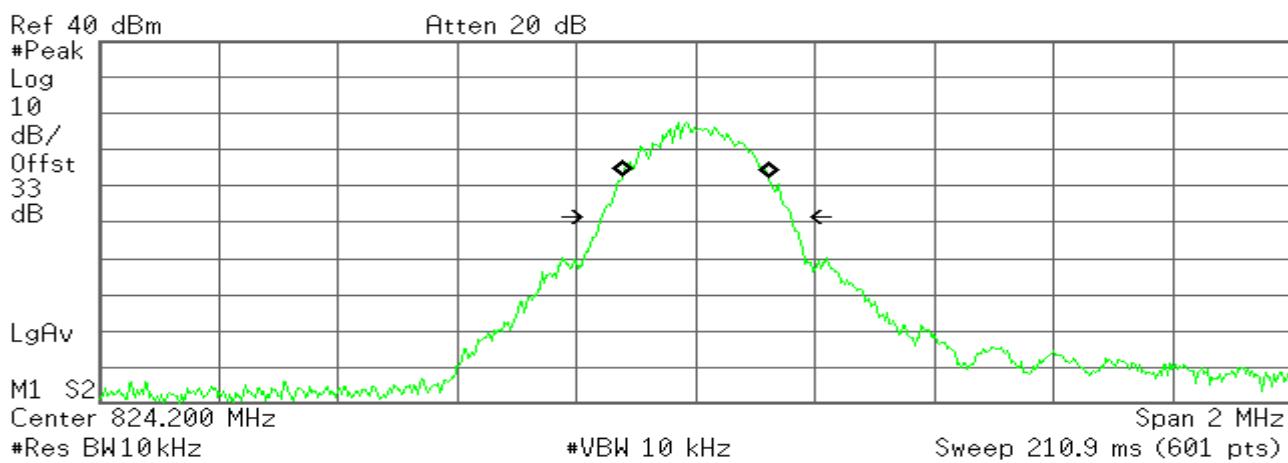
FCC ID: COYA35

Date of Issue :November 6, 2012

EGPRS 850(CH Low)

Agilent

R T

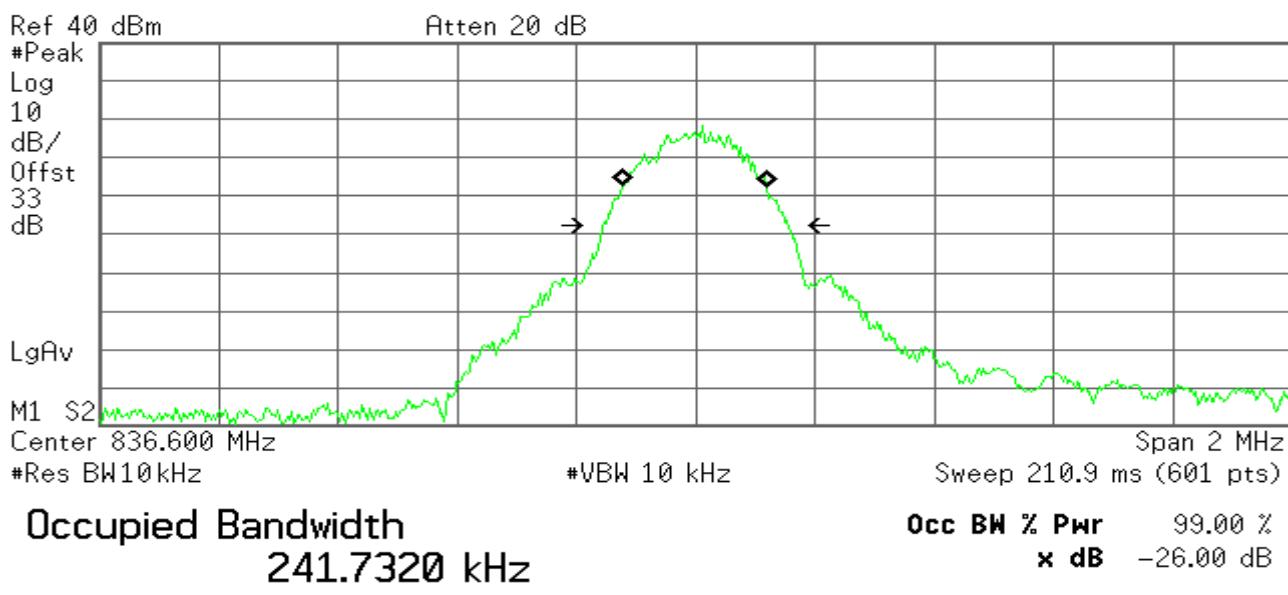


Transmit Freq Error 225.861 Hz
x dB Bandwidth 317.403 kHz

EGPRS 850(CH Mid)

Agilent

R T



Transmit Freq Error -1.191 kHz
x dB Bandwidth 311.321 kHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

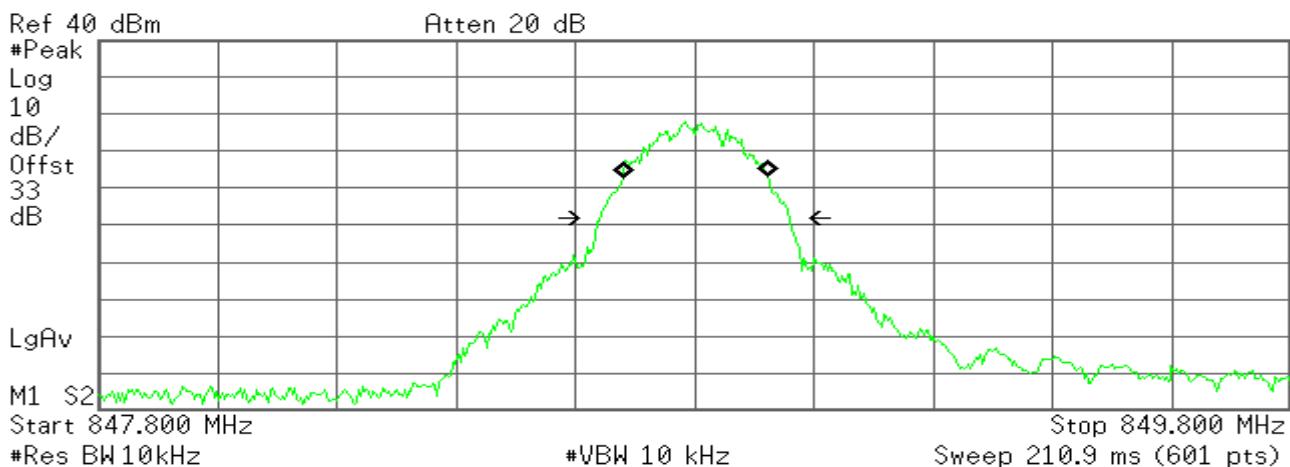
FCC ID: COYA35

Date of Issue :November 6, 2012

EGPRS 850(CH High)

Agilent

R T

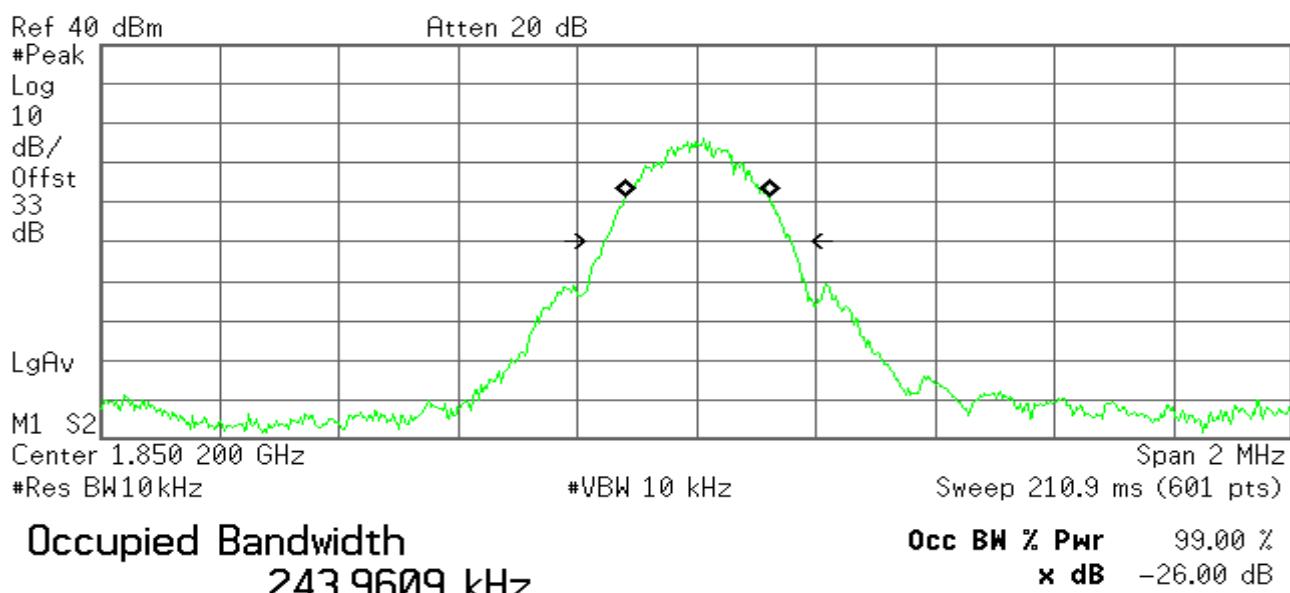


Transmit Freq Error 493.708 Hz
x dB Bandwidth 318.500 kHz

GPRS 1900 (CH Low)

Agilent

R T



Transmit Freq Error 820.931 Hz
x dB Bandwidth 313.211 kHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

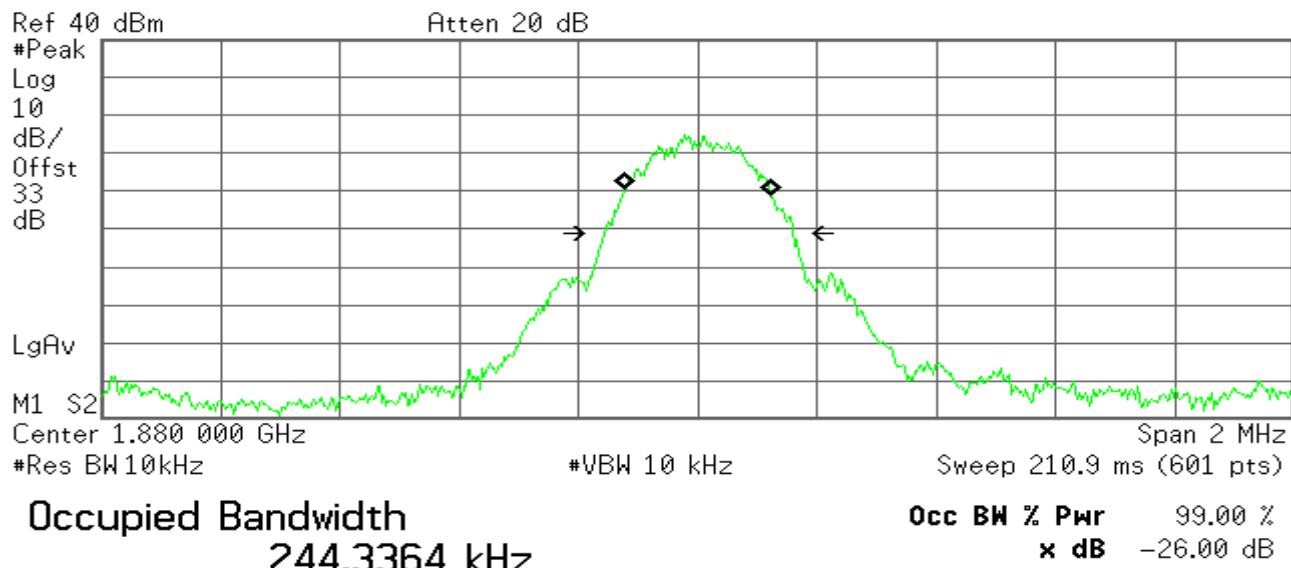
FCC ID: COYA35

Date of Issue :November 6, 2012

GPRS 1900 (CH Mid)

* Agilent

R T

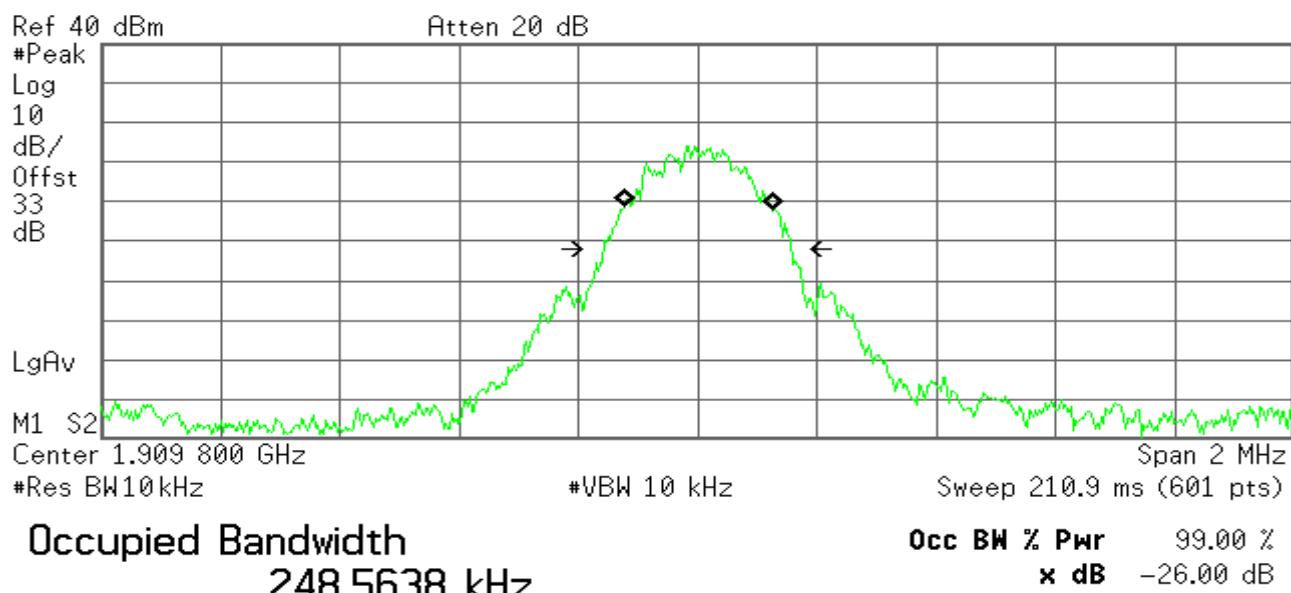


Transmit Freq Error 328.284 Hz
x dB Bandwidth 317.308 kHz

GPRS 1900 (CH High)

* Agilent

R T



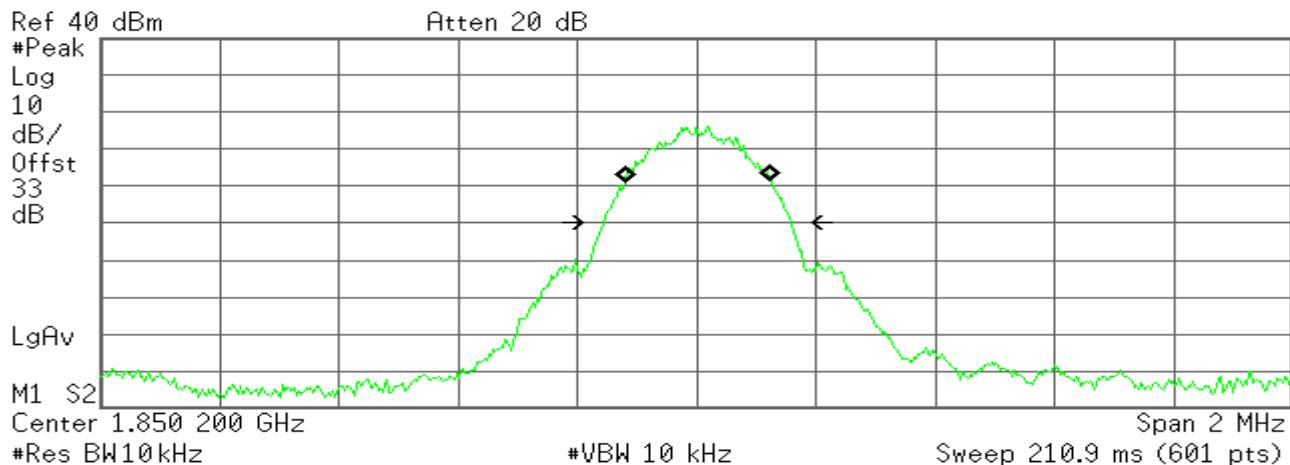
Transmit Freq Error 1.365 kHz
x dB Bandwidth 316.638 kHz



EDGE 1900 (CH Low)

Agilent

R T

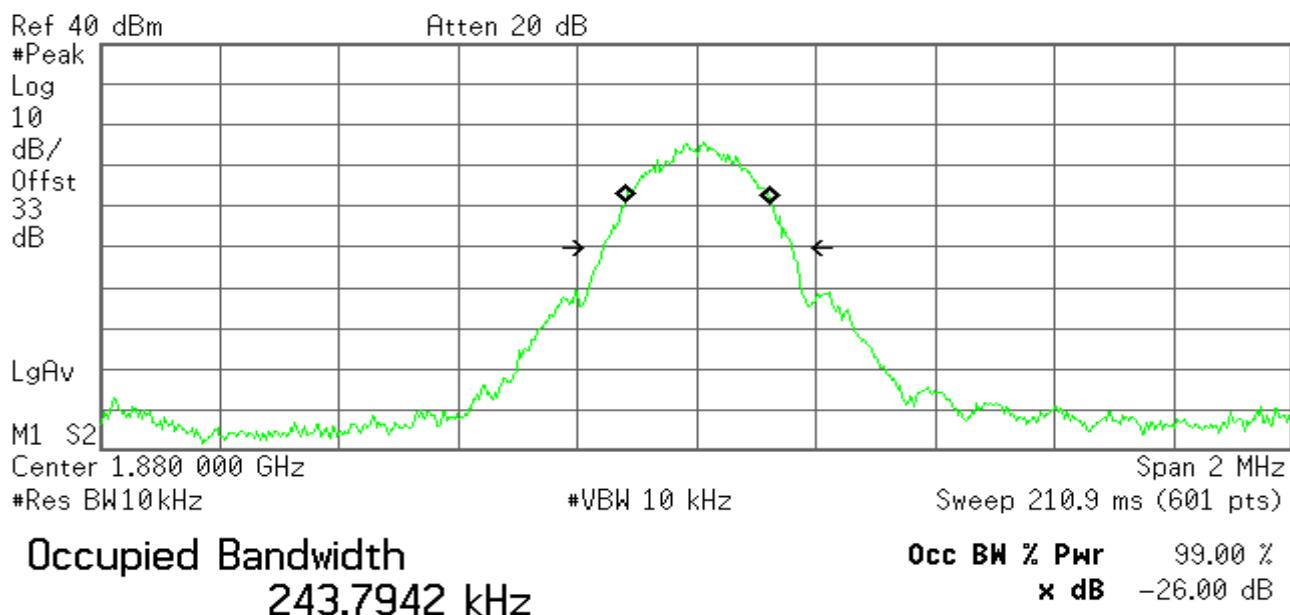


Transmit Freq Error 1.999 kHz
x dB Bandwidth 315.067 kHz

EDGE 1900 (CH Mid)

Agilent

R T



Transmit Freq Error 1.905 kHz
x dB Bandwidth 318.625 kHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

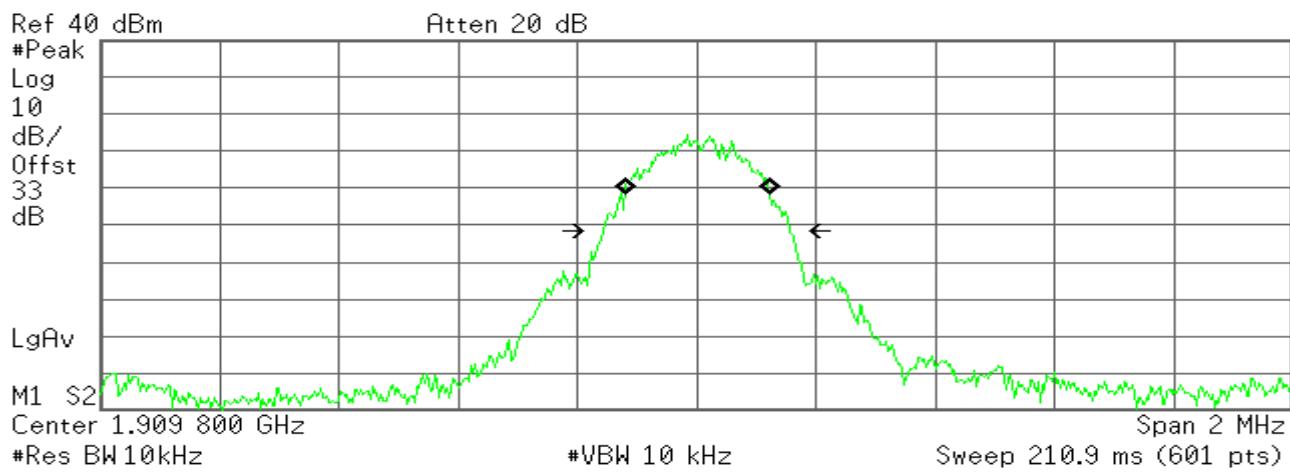
FCC ID: COYA35

Date of Issue :November 6, 2012

EDGE 1900 (CH High)

* Agilent

R T

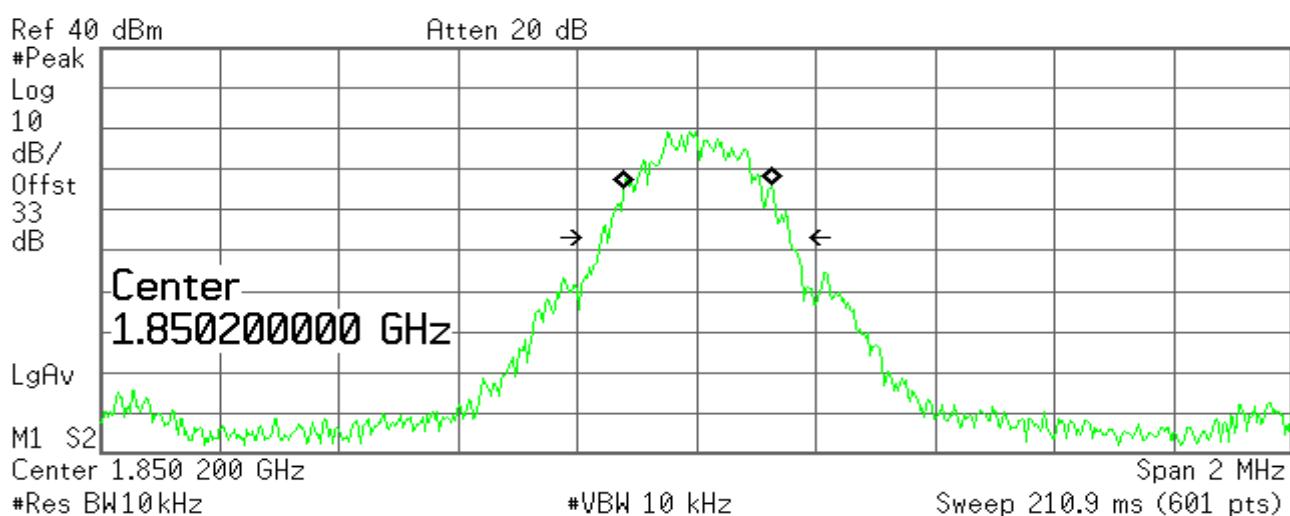


Transmit Freq Error 215.171 Hz
x dB Bandwidth 314.401 kHz

GSM 1900 (CH Low)

* Agilent

R T



Transmit Freq Error 2.046 kHz
x dB Bandwidth 315.666 kHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

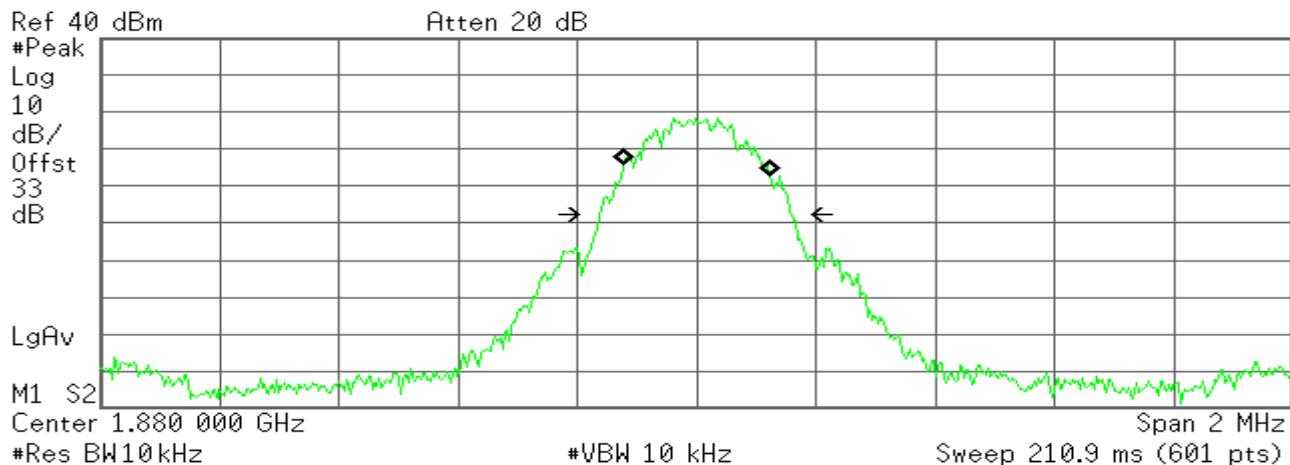
FCC ID: COYA35

Date of Issue :November 6, 2012

GSM 1900 (CH Mid)

* Agilent

R T

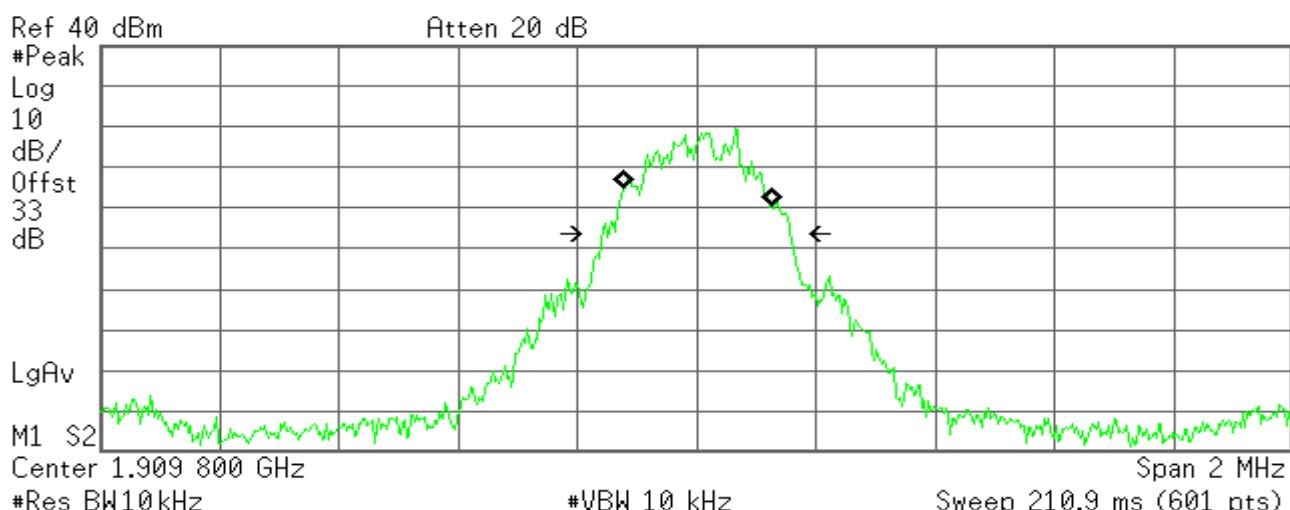


Transmit Freq Error 49.447 Hz
x dB Bandwidth 323.454 kHz

GSM 1900 (CH High)

* Agilent

R T



Transmit Freq Error 2.218 kHz
x dB Bandwidth 316.859 kHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

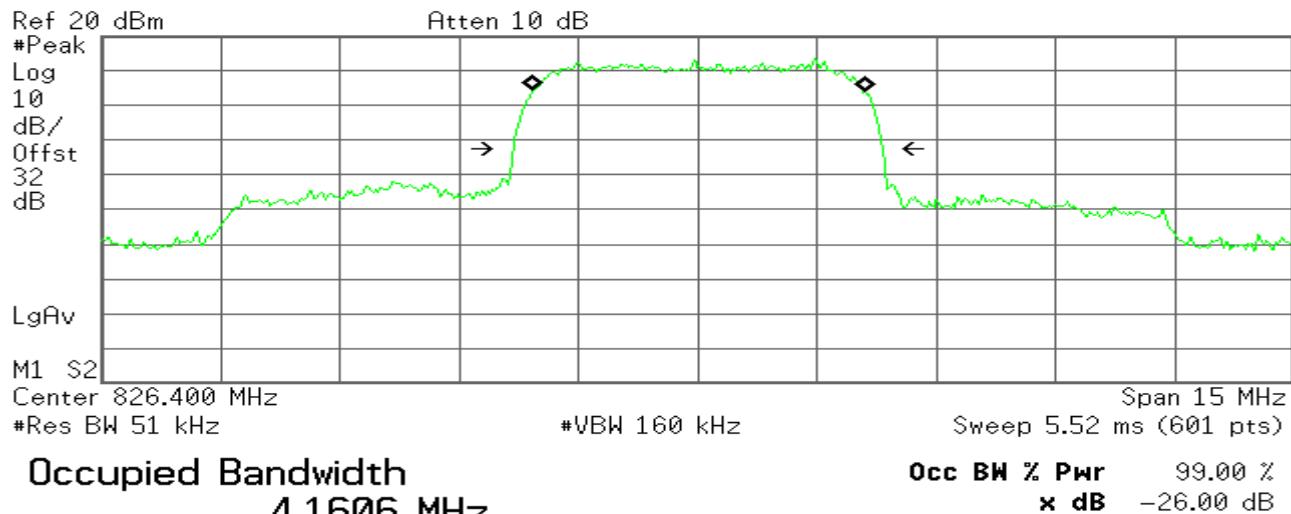
FCC ID: COYA35

Date of Issue :November 6, 2012

WCDMA Band V (CH Low)

Agilent

R T

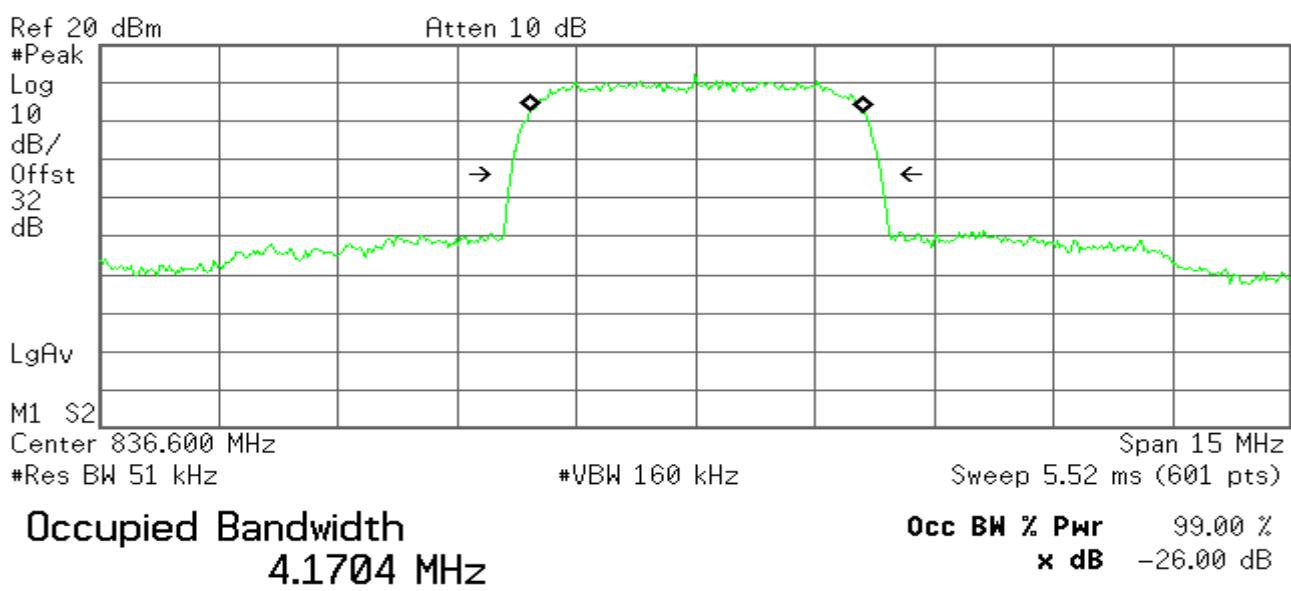


Transmit Freq Error 13.420 kHz
x dB Bandwidth 4.640 MHz

WCDMA Band V (CH Mid)

Agilent

R T



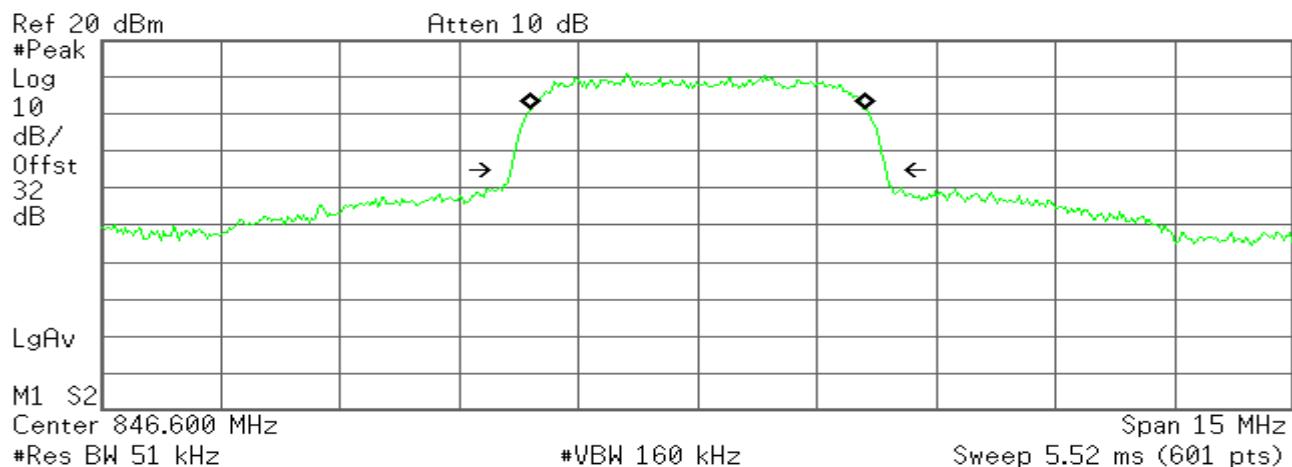
Transmit Freq Error 9.273 kHz
x dB Bandwidth 4.649 MHz



WCDMA Band V (CH High)

Agilent

R T

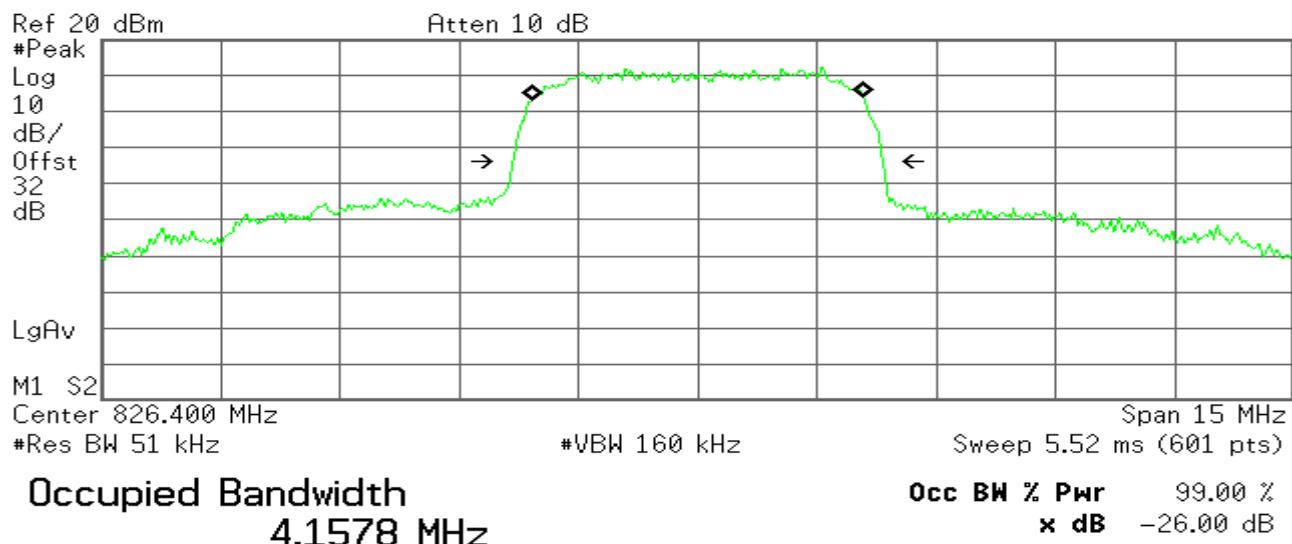


Transmit Freq Error 5.319 kHz
x dB Bandwidth 4.706 MHz

HSDPA Band V (CH Low)

Agilent

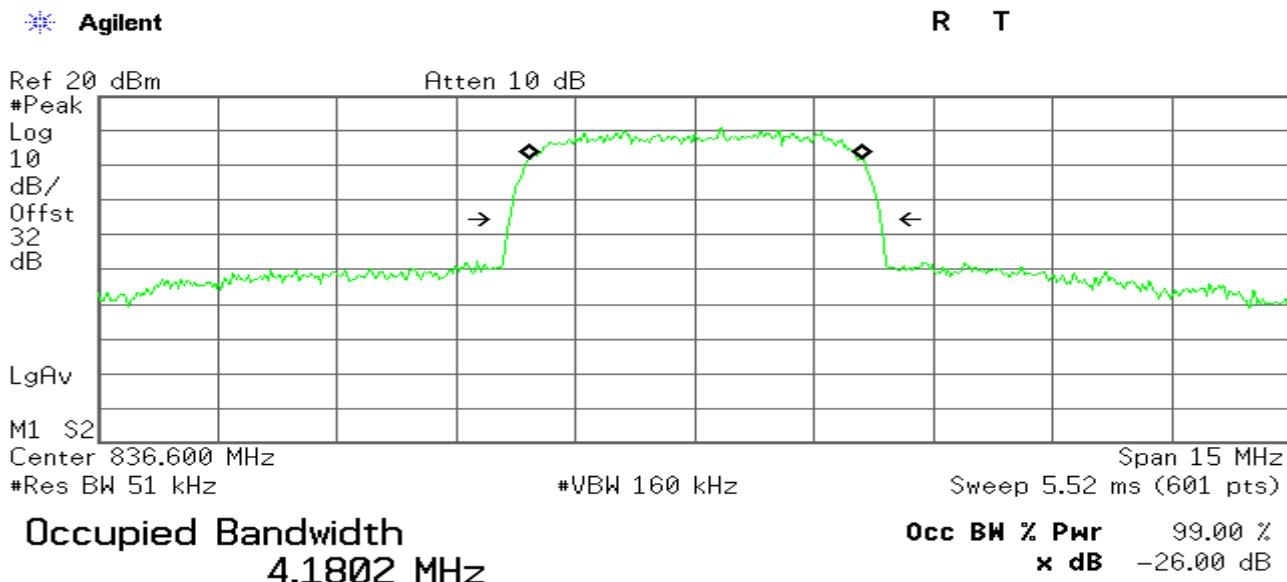
R T



Transmit Freq Error -2.246 kHz
x dB Bandwidth 4.655 MHz

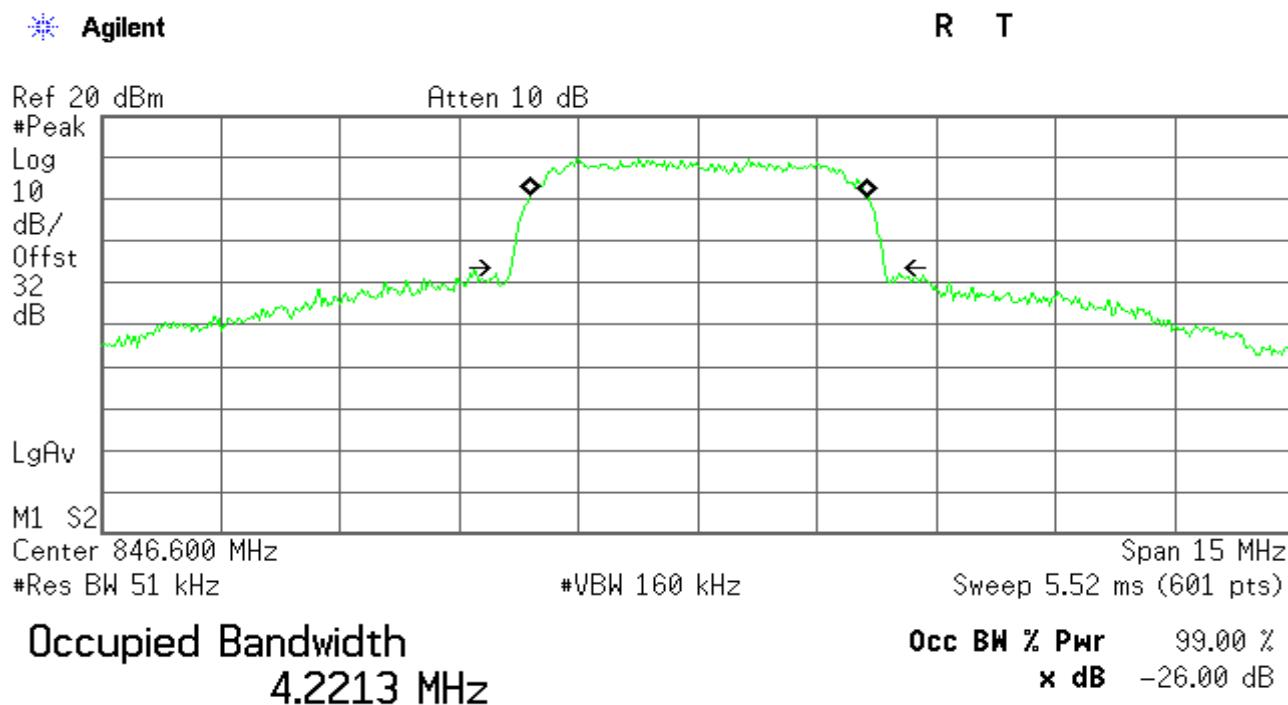


HSDPA Band V (CH Mid)



Transmit Freq Error 8.176 kHz
x dB Bandwidth 4.648 MHz

HSDPA Band V (CH High)



Transmit Freq Error 7.350 kHz
x dB Bandwidth 4.683 MHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

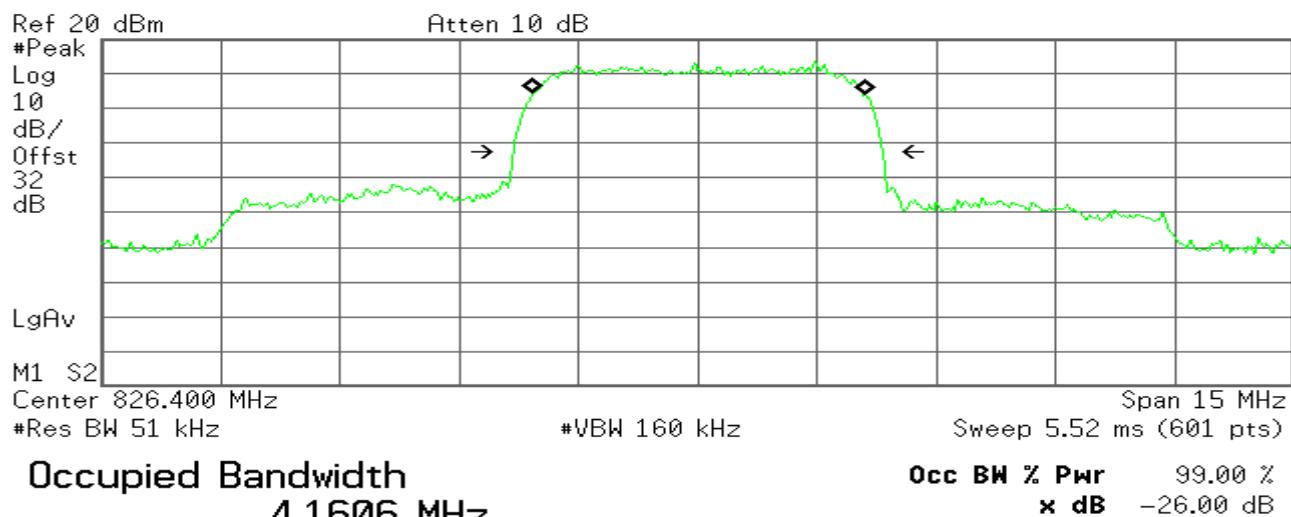
FCC ID: COYA35

Date of Issue :November 6, 2012

WCDMA Band II (CH Low)

Agilent

R T

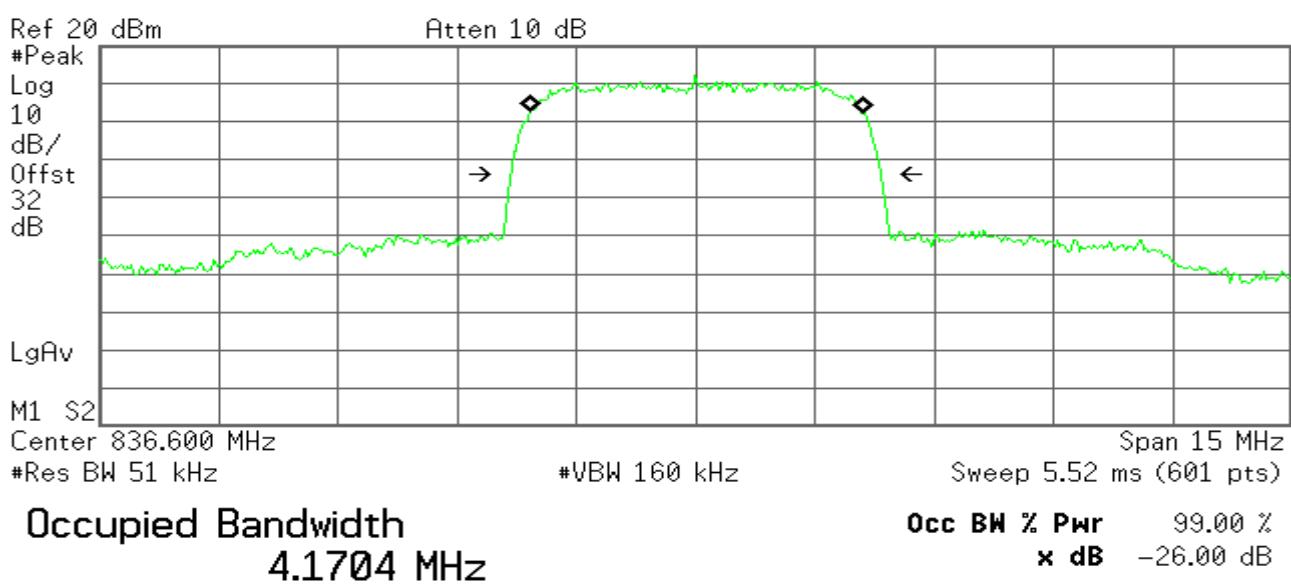


Transmit Freq Error 13.420 kHz
x dB Bandwidth 4.640 MHz

WCDMA Band II (CH Mid)

Agilent

R T



Transmit Freq Error 9.273 kHz
x dB Bandwidth 4.649 MHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

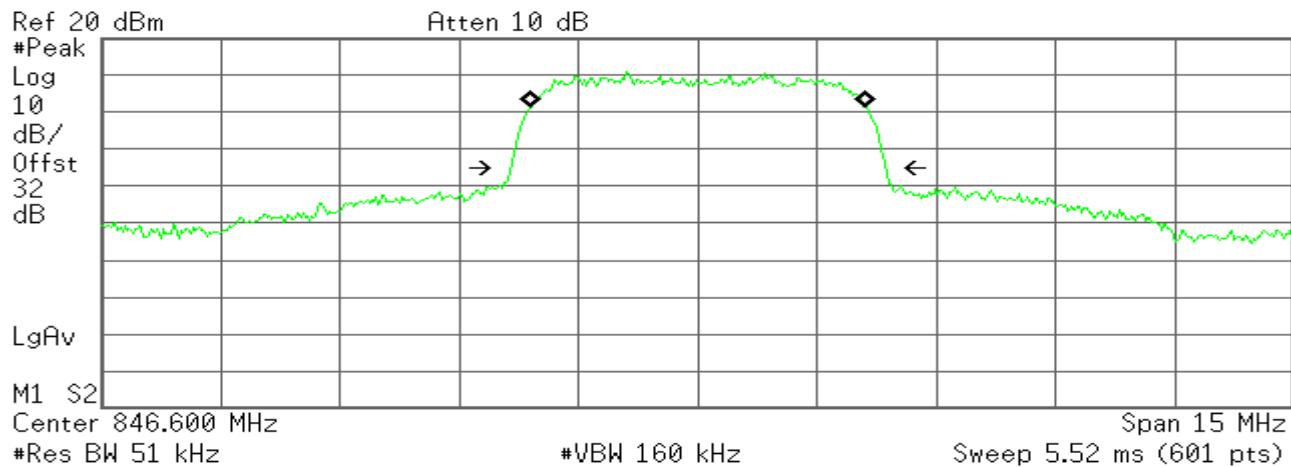
FCC ID: COYA35

Date of Issue :November 6, 2012

WCDMA Band II (CH High)

Agilent

R T

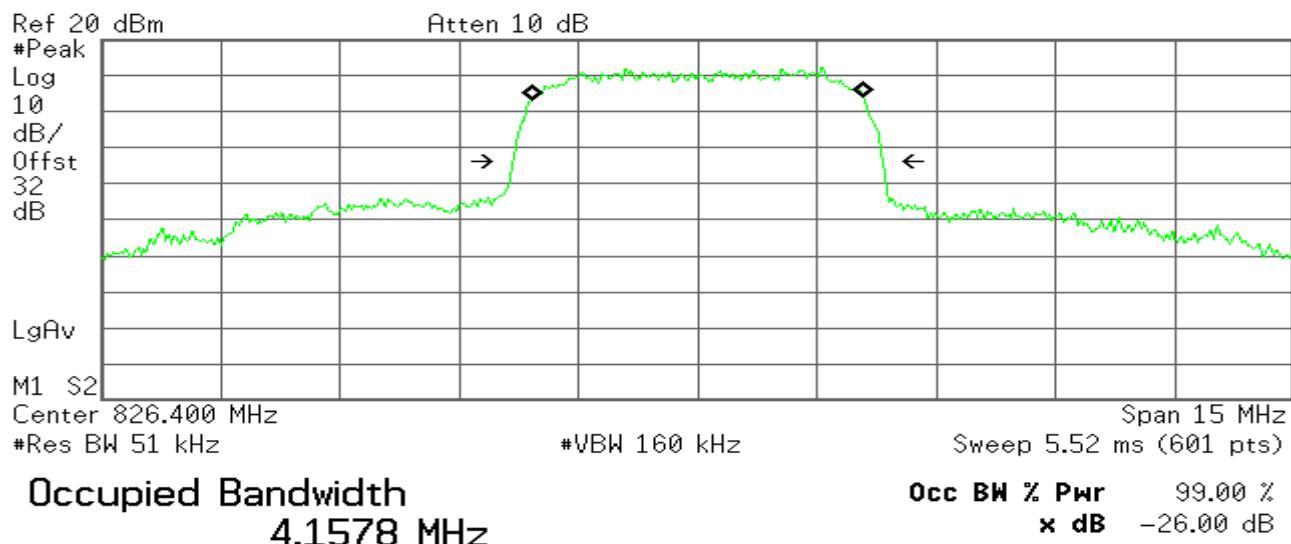


Transmit Freq Error 5.319 kHz
x dB Bandwidth 4.706 MHz

HSDPA Band II (CH Low)

Agilent

R T



Transmit Freq Error -2.246 kHz
x dB Bandwidth 4.655 MHz



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

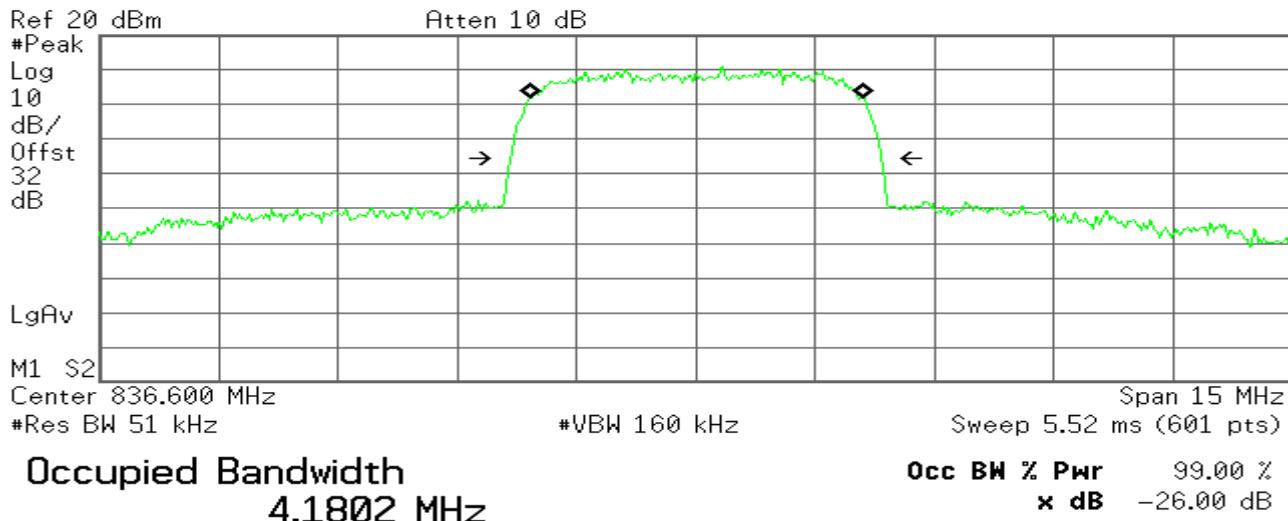
FCC ID: COYA35

Date of Issue :November 6, 2012

HSDPA Band II (CH Mid)

Agilent

R T

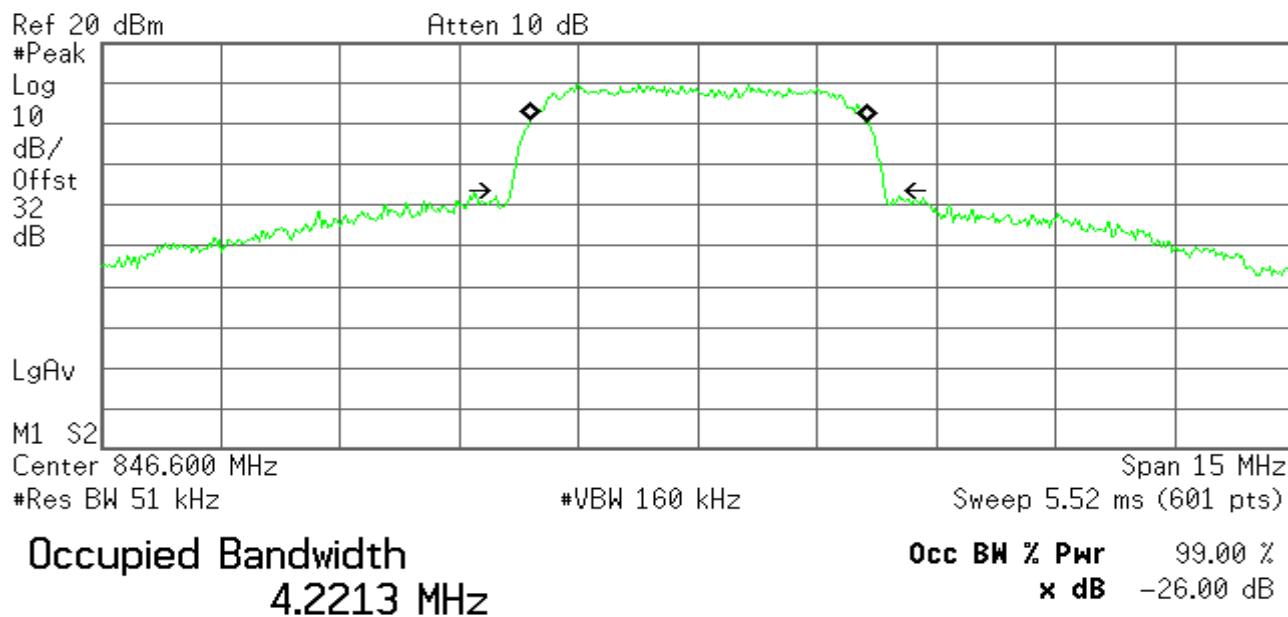


Transmit Freq Error 8.176 kHz
x dB Bandwidth 4.648 MHz

HSDPA Band II (CH High)

Agilent

R T



Transmit Freq Error 7.350 kHz
x dB Bandwidth 4.683 MHz



7.5. OUT OF BAND EMISSION AT ANTENNA TERMINALS

LIMIT

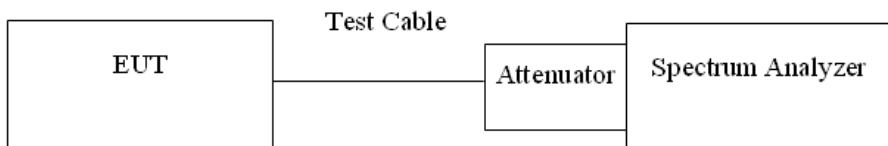
According to FCC §2.1051, FCC §22.917, FCC §24.238(a).

Out of Band Emissions: The mean power of emission must be attenuated below the mean power of the non-modulated carrier (P) on any frequency twice or more than twice the fundamental frequency by at least $43 + 10 \log P$ dB.

Mobile Emissions in Base Frequency Range: The mean power of any emissions appearing in the base station frequency range from cellular mobile transmitters operated must be attenuated to a level not exceed -80 dBm at the transmit antenna connector.

Band Edge Requirements: In the 1MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1% of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the Out of band Emission

TEST CONFIGURATION



TEST PROCEDURE

The RF output of the transceiver was connected to a spectrum analyzer through appropriate attenuation. The resolution bandwidth of the spectrum analyzer was set at 1MHz, sufficient scans were taken to show the out of band Emissions if any up to 10th harmonic.

For the out of band: Set the RBW, VBW = 1MHz, Start=30MHz, Stop= 10 th harmonic. Limit = -13dBm

Band Edge Requirements (824 MHz and 849 MHz /1850MHz and 1910MHz): In the 1 MHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to measure the out of band Emissions. Limit, -13dBm.

TEST RESULTS

No non-compliance noted.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Test Data

| Mode | CH | Location | Description |
|---------|-----|------------|---------------------|
| GSM 850 | 128 | Figure 3-1 | Band Edge emissions |
| | 251 | Figure 3-2 | Band Edge emissions |

| Mode | CH | Location | Description |
|----------|-----|------------|---------------------|
| GSM 1900 | 512 | Figure 4-1 | Band Edge emissions |
| | 810 | Figure 4-2 | Band Edge emissions |

| Mode | CH | Location | Description |
|---------|-----|------------|---|
| GSM 850 | 128 | Figure 5-1 | Conducted spurious emissions, 30MHz - 20GHz |
| | 190 | Figure 5-2 | Conducted spurious emissions, 30MHz - 20GHz |
| | 251 | Figure 5-3 | Conducted spurious emissions, 30MHz - 20GHz |

| Mode | CH | Location | Description |
|----------|-----|------------|---|
| GSM 1900 | 512 | Figure 6-1 | Conducted spurious emissions, 30MHz - 20GHz |
| | 661 | Figure 6-2 | Conducted spurious emissions, 30MHz - 20GHz |
| | 810 | Figure 6-3 | Conducted spurious emissions, 30MHz - 20GHz |

| Mode | CH | Location | Description |
|----------|-----|------------|---|
| GPRS 850 | 128 | Figure 7-1 | Conducted spurious emissions, 30MHz - 20GHz |
| | 190 | Figure 7-2 | Conducted spurious emissions, 30MHz - 20GHz |
| | 251 | Figure 7-3 | Conducted spurious emissions, 30MHz - 20GHz |

| Mode | CH | Location | Description |
|-----------|-----|------------|---|
| GPRS 1900 | 512 | Figure 8-1 | Conducted spurious emissions, 30MHz - 20GHz |
| | 661 | Figure 8-2 | Conducted spurious emissions, 30MHz - 20GHz |
| | 810 | Figure 8-3 | Conducted spurious emissions, 30MHz - 20GHz |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| Mode | CH | Location | Description |
|----------|-----|------------|---------------------|
| GPRS 850 | 128 | Figure 9-1 | Band Edge emissions |
| | 251 | Figure 9-2 | Band Edge emissions |

| Mode | CH | Location | Description |
|-----------|-----|-------------|---------------------|
| GPRS 1900 | 512 | Figure 10-1 | Band Edge emissions |
| | 810 | Figure 10-2 | Band Edge emissions |

| Mode | CH | Location | Description |
|-------------------|------|-------------|---|
| WCDMA (Band V) | 4132 | Figure 11-1 | Conducted spurious emissions, 30MHz - 20GHz |
| | 4182 | Figure 11-2 | Conducted spurious emissions, 30MHz - 20GHz |
| | 4233 | Figure 11-3 | Conducted spurious emissions, 30MHz - 20GHz |
| WCDMA (Band V) | 4132 | Figure 11-4 | Band Edge emissions |
| | 4233 | Figure 11-5 | Band Edge emissions |

| Mode | CH | Location | Description |
|-------------------|------|-------------|---|
| HSDPA (Band V) | 4132 | Figure 12-1 | Conducted spurious emissions, 30MHz - 20GHz |
| | 4182 | Figure 12-2 | Conducted spurious emissions, 30MHz - 20GHz |
| | 4233 | Figure 12-3 | Conducted spurious emissions, 30MHz - 20GHz |
| HSDPA (Band V) | 4132 | Figure 12-4 | Band Edge emissions |
| | 4233 | Figure 12-5 | Band Edge emissions |

| Mode | CH | Location | Description |
|-----------|-----|-------------|---|
| EDGE 850 | 128 | Figure 13-1 | Conducted spurious emissions, 30MHz - 20GHz |
| | 190 | Figure 13-2 | Conducted spurious emissions, 30MHz - 20GHz |
| | 251 | Figure 13-3 | Conducted spurious emissions, 30MHz - 20GHz |
| EDGE 1900 | 512 | Figure 13-4 | Conducted spurious emissions, 30MHz - 20GHz |
| | 661 | Figure 13-5 | Conducted spurious emissions, 30MHz - 20GHz |
| | 810 | Figure 13-6 | Conducted spurious emissions, 30MHz - 20GHz |

| Mode | CH | Location | Description |
|----------|-----|-------------|---------------------|
| EDGE 850 | 128 | Figure 14-1 | Band Edge emissions |
| | 251 | Figure 14-2 | Band Edge emissions |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|-----------|-----|-------------|---------------------|
| EDGE 1900 | 512 | Figure 14-3 | Band Edge emissions |
| | 810 | Figure 14-4 | Band Edge emissions |

| Mode | CH | Location | Description |
|--------------------|------|-------------|---|
| HSDPA (Band II) | 9262 | Figure 15-1 | Conducted spurious emissions, 30MHz - 20GHz |
| | 9400 | Figure 15-2 | Conducted spurious emissions, 30MHz - 20GHz |
| | 9538 | Figure 15-3 | Conducted spurious emissions, 30MHz - 20GHz |
| HSDPA (Band II) | 9262 | Figure 15-4 | Band Edge emissions |
| | 9538 | Figure 15-5 | Band Edge emissions |



Test Plot

GSM 850

Figure 5-1: Out of Band emission at antenna terminals – GSM CH Low

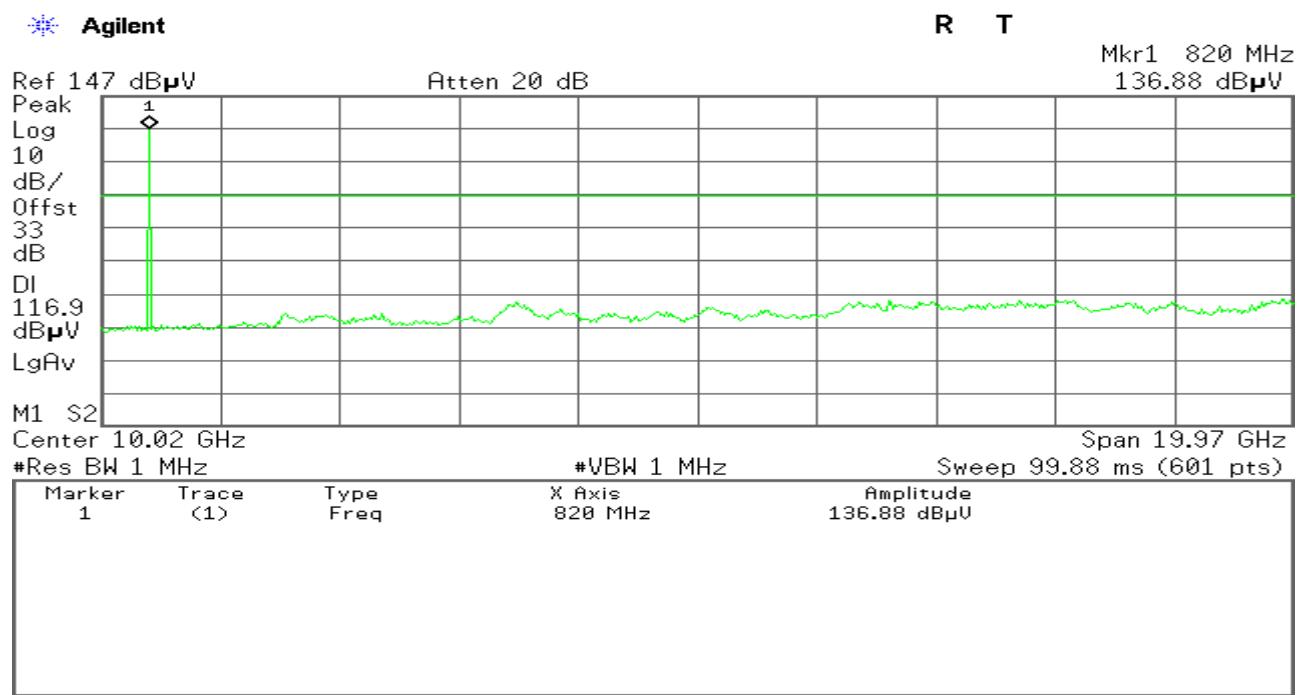
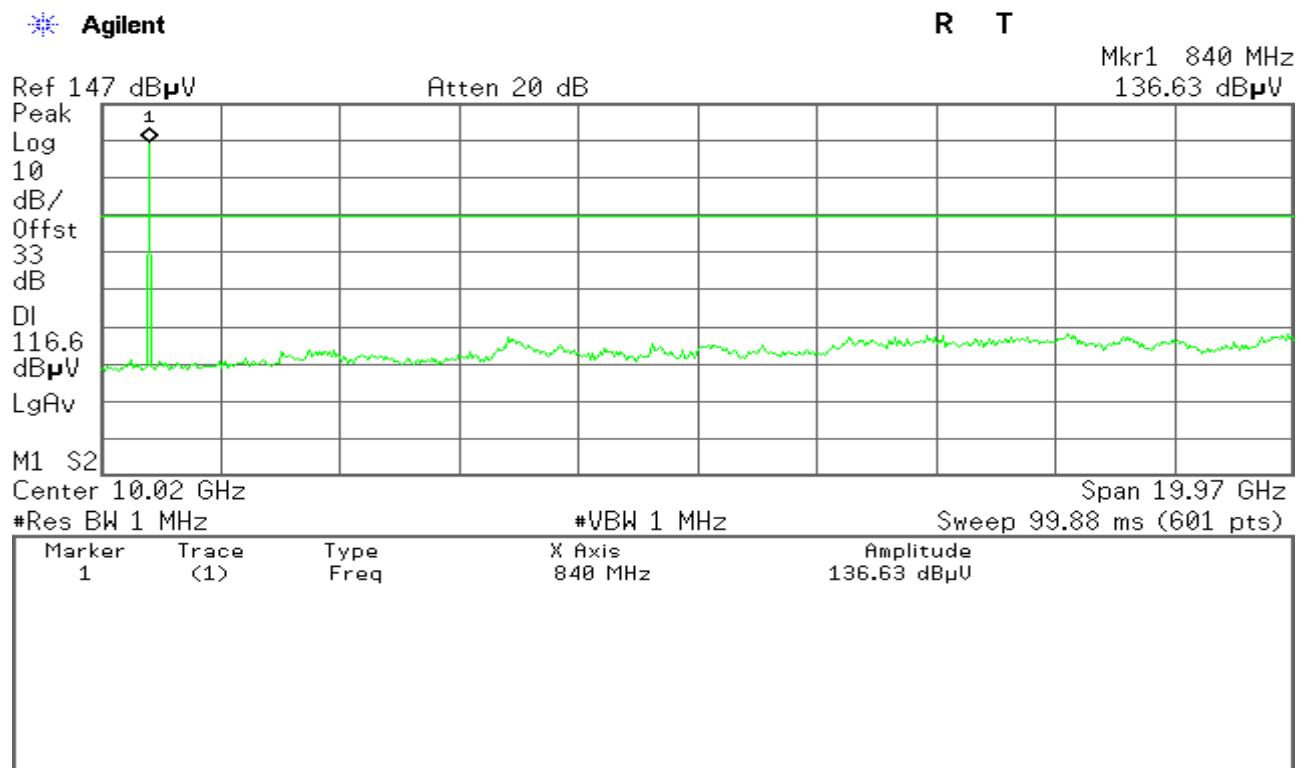


Figure 5-2: Out of Band emission at antenna terminals – GSM CH Mid





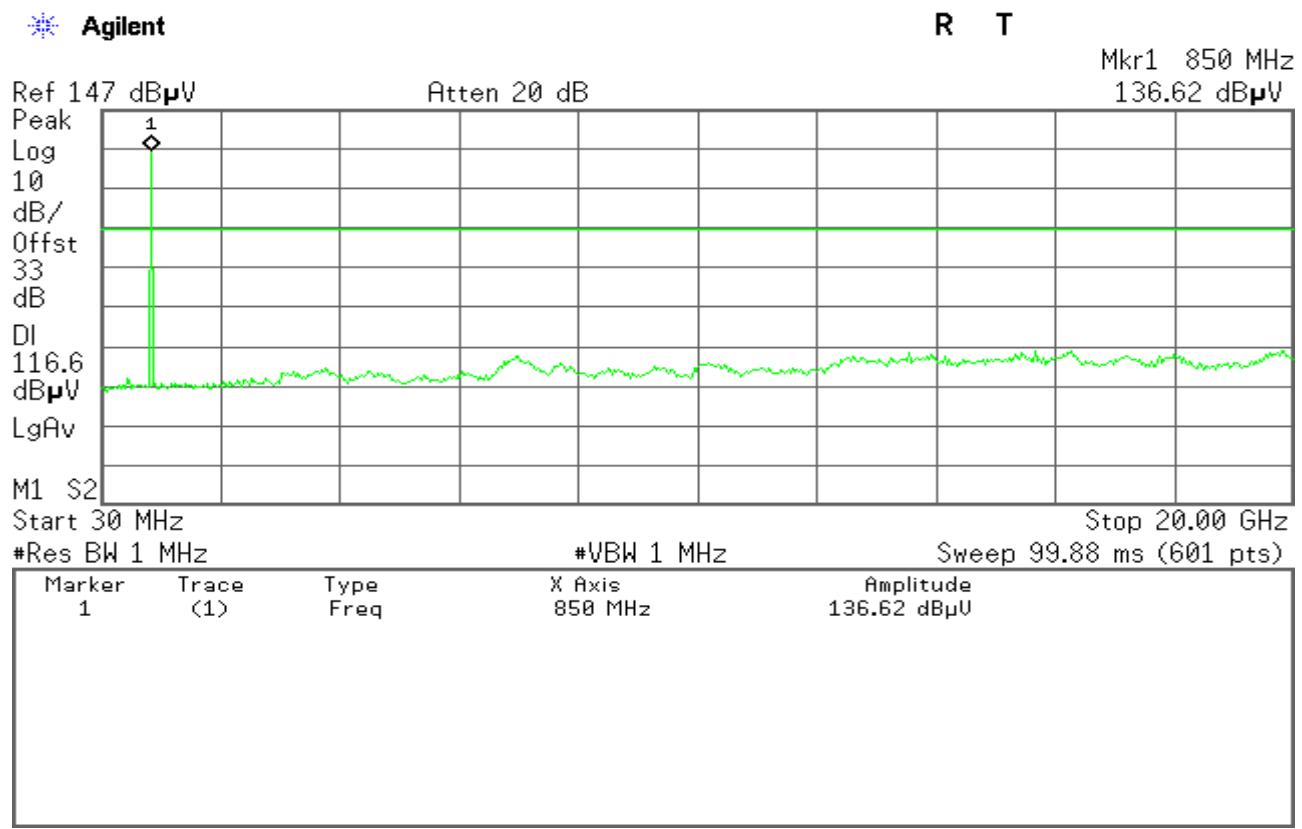
Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

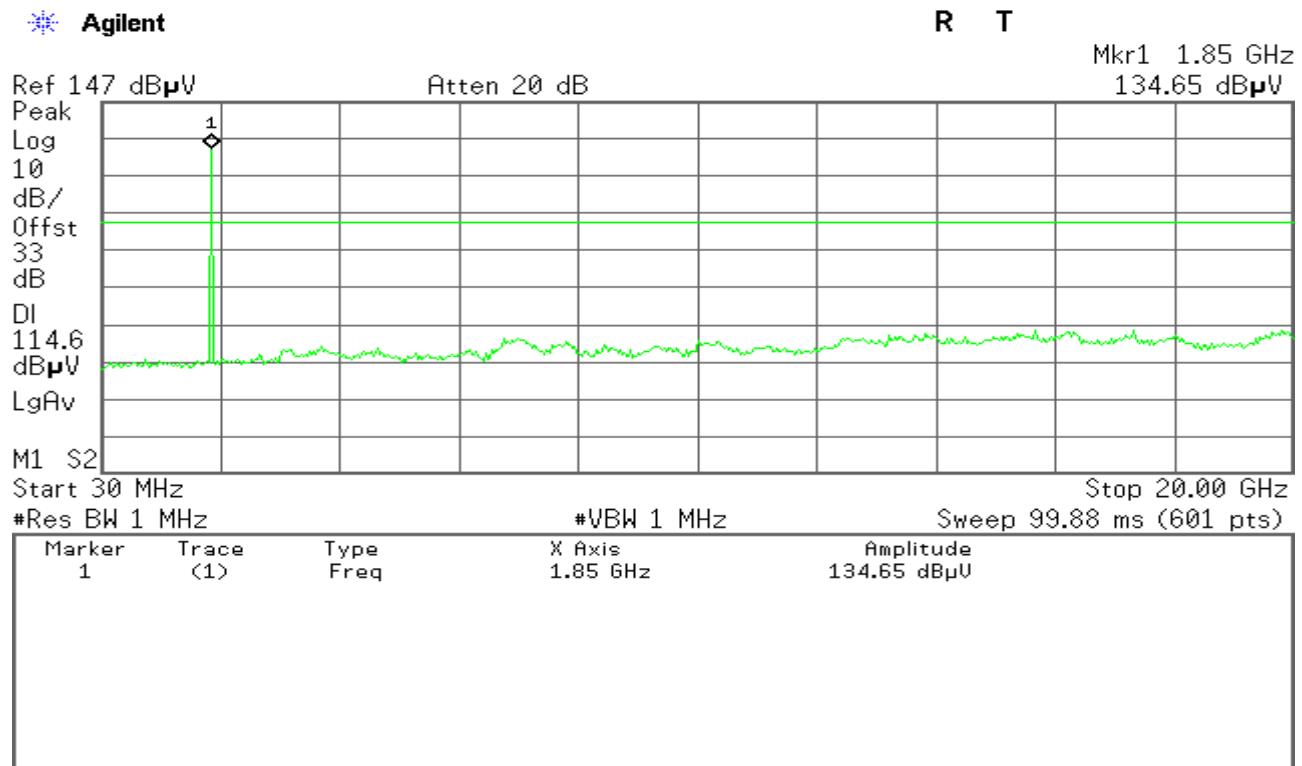
Date of Issue :November 6, 2012

Figure 5-3: Out of Band emission at antenna terminals – GSM CH High



GSM 1900

Figure 6-1: Out of Band emission at antenna terminals – GSM CH Low





Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Figure 6-2: Out of Band emission at antenna terminals – GSM CH Mid

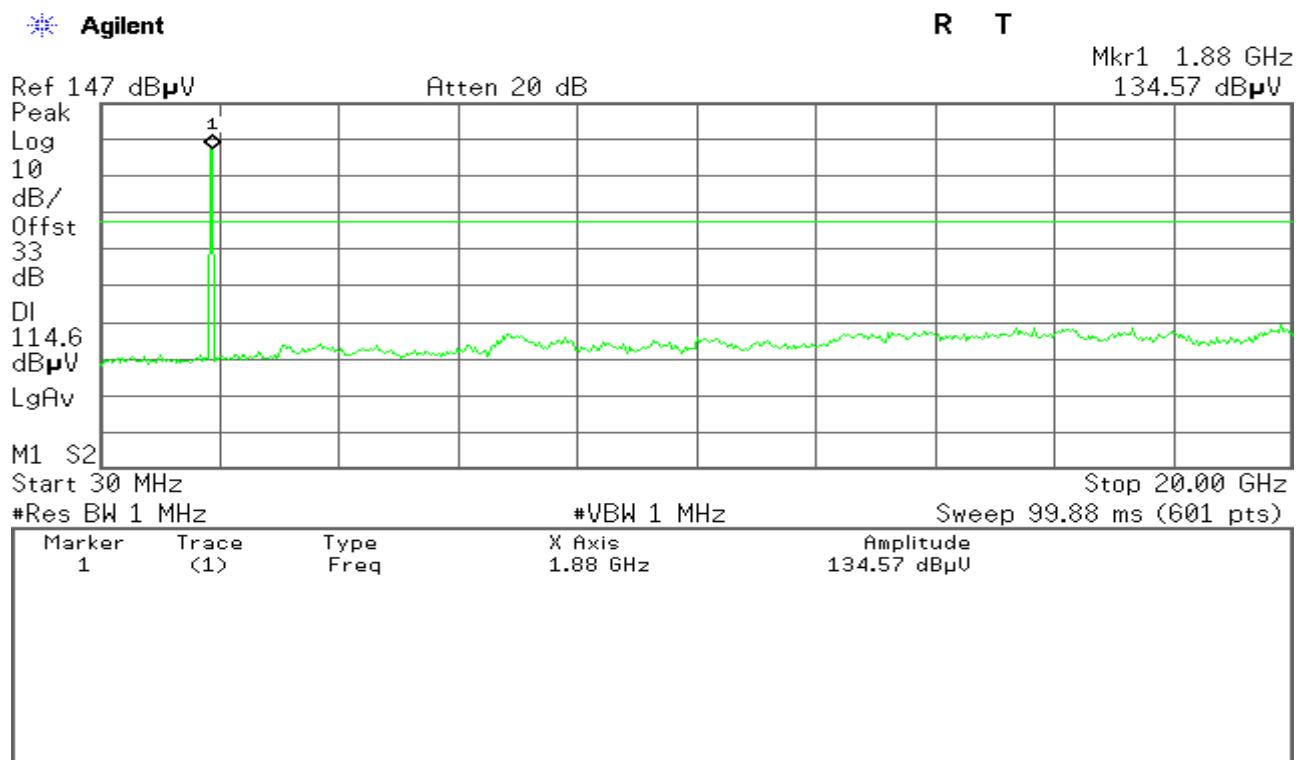
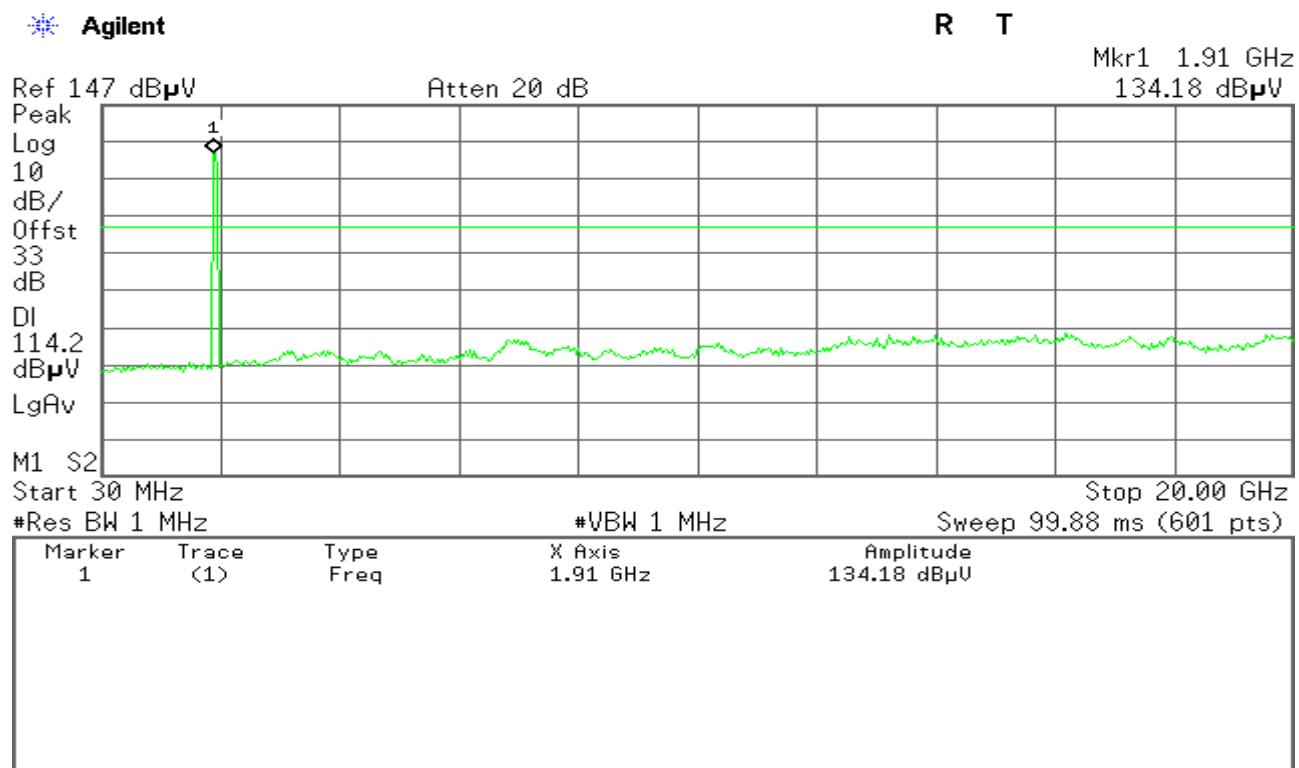


Figure 6-3: Out of Band emission at antenna terminals – GSM CH High





GSM 850

Figure 3-1: Band Edge emissions – GSM CH Low

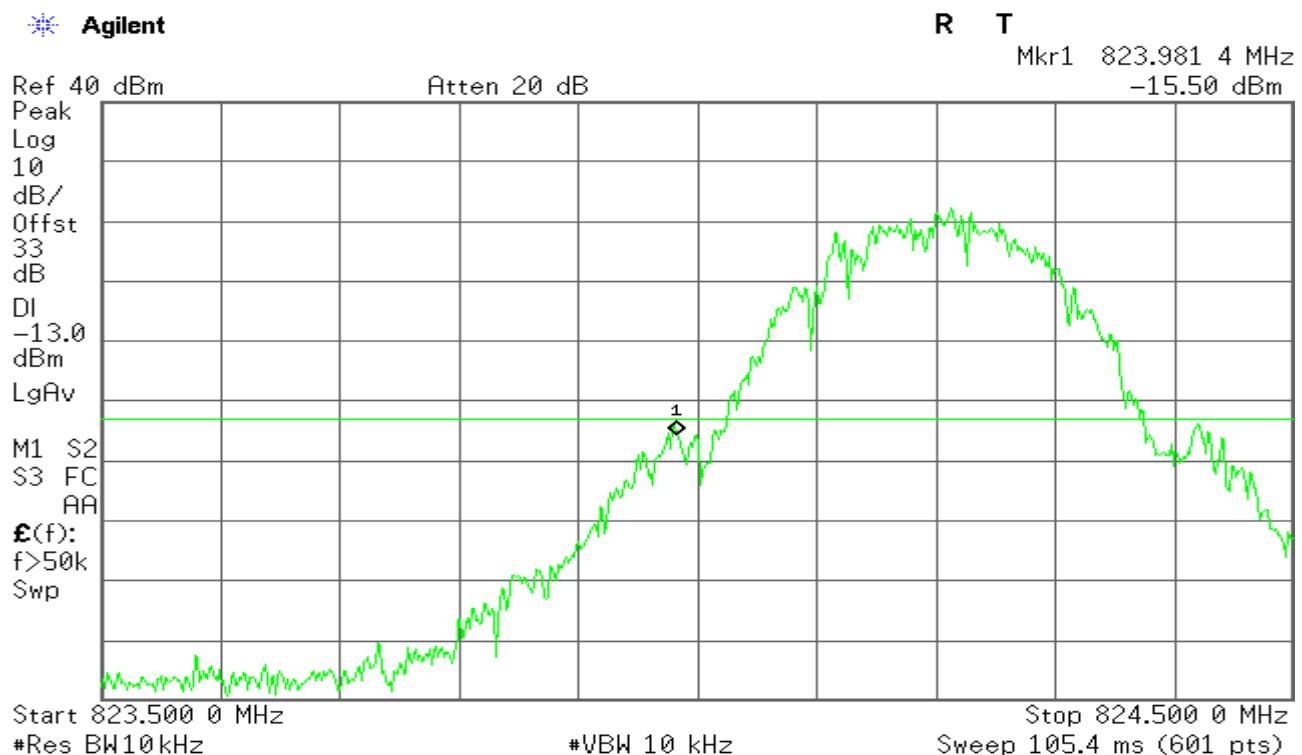
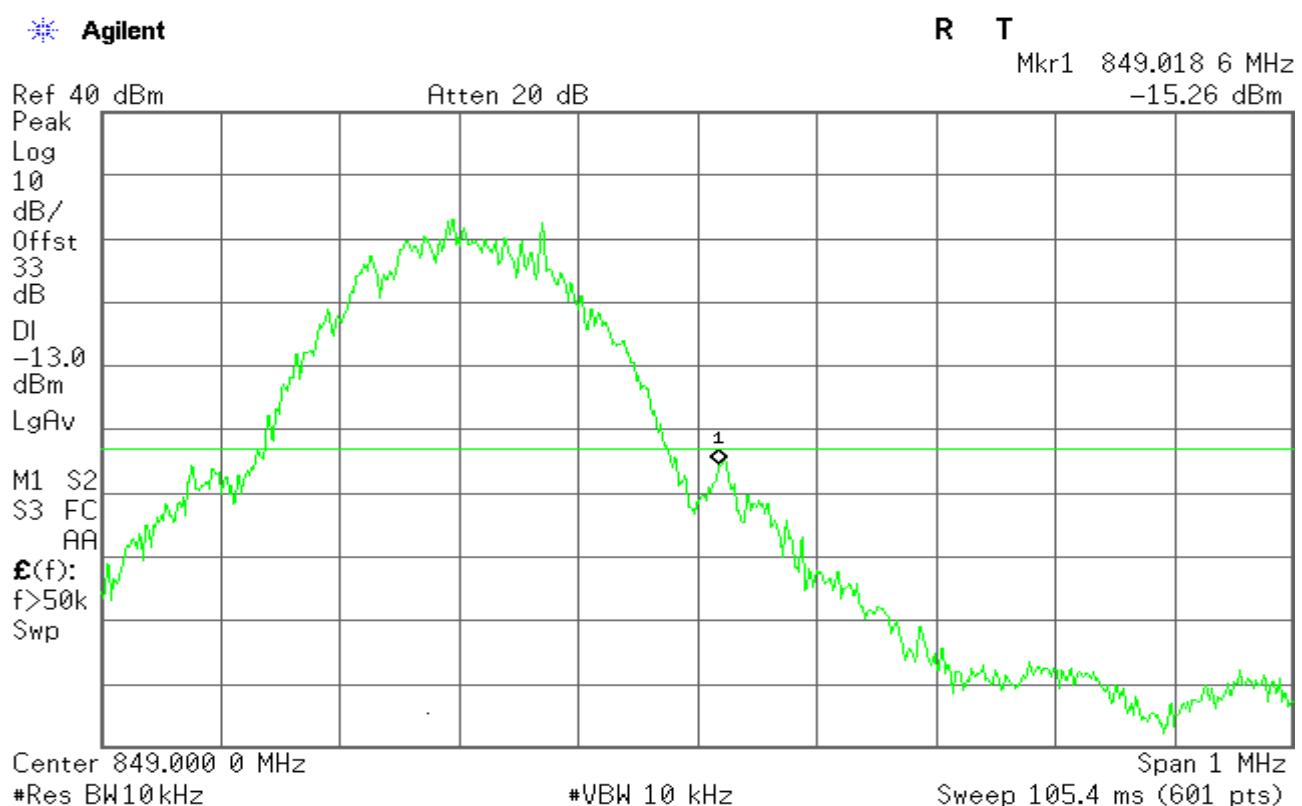


Figure 3-2: Band Edge emissions –GSM CH High





GSM 1900

Figure 4-1: Band Edge emissions – GSM CH Low

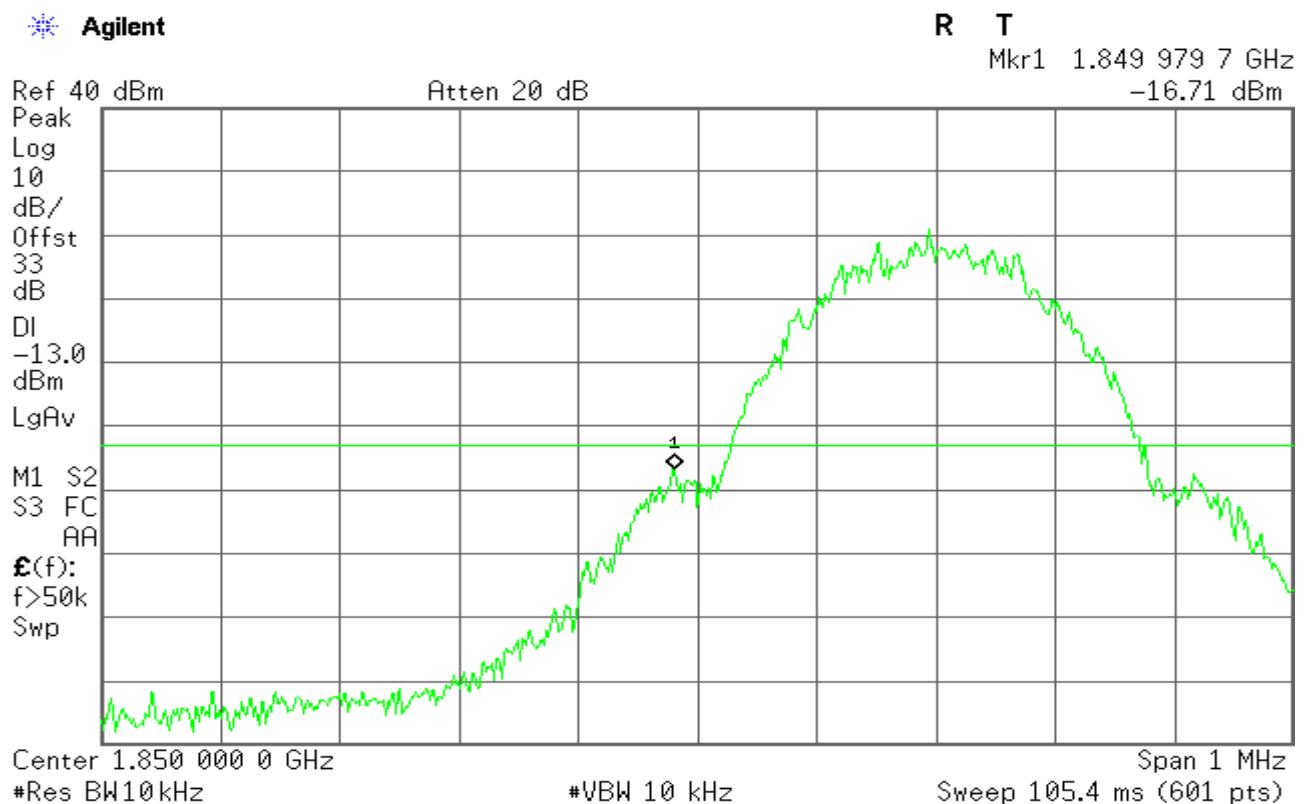
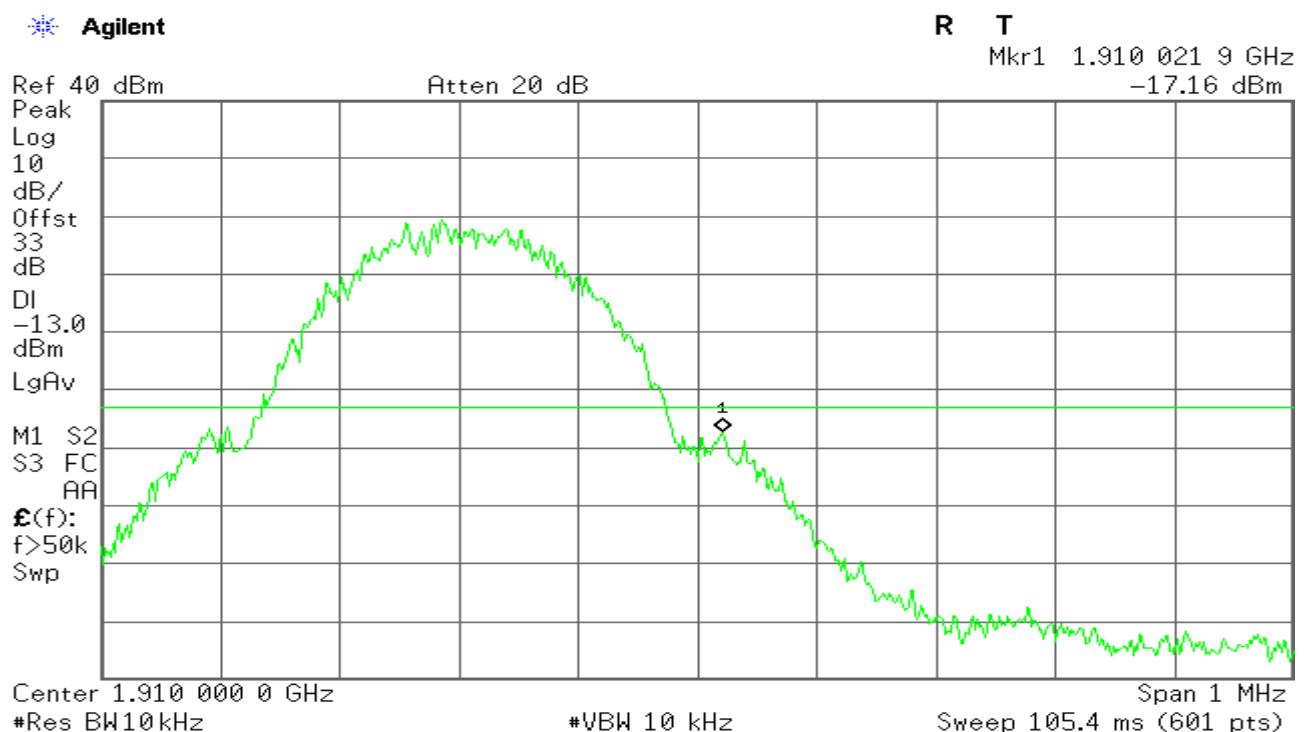


Figure 4-2: Band Edge emissions – GSM CH High





GPRS 850

Figure 7-1: Out of Band emission at antenna terminals – GPRS CH Low

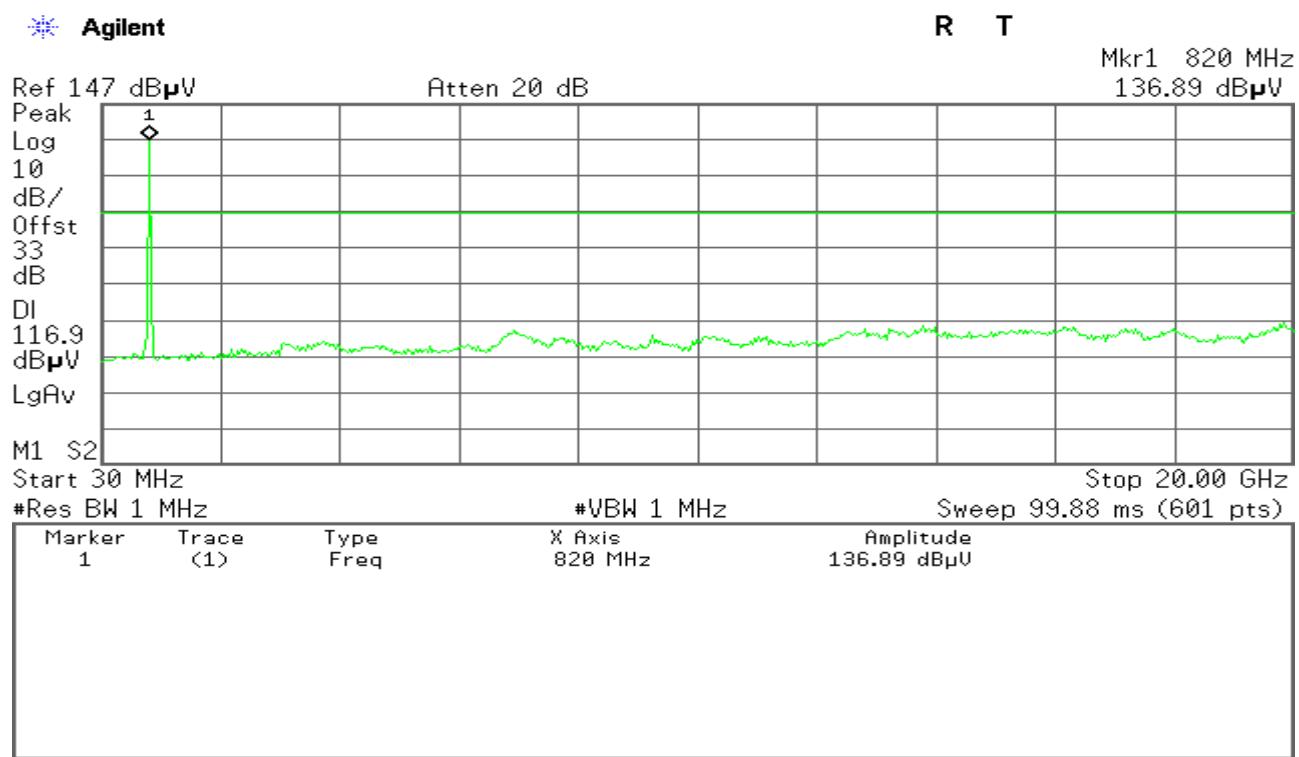


Figure 7-2: Out of Band emission at antenna terminals – GPRS CH Mid

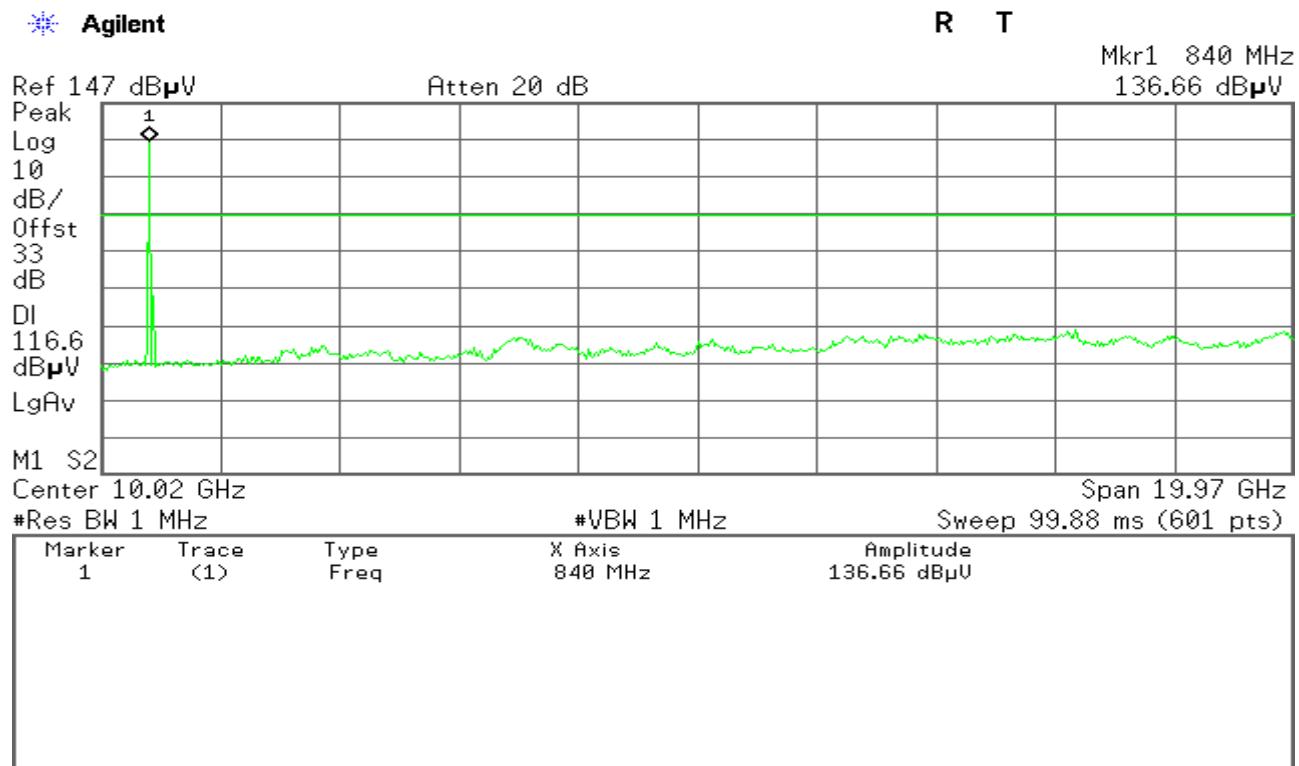
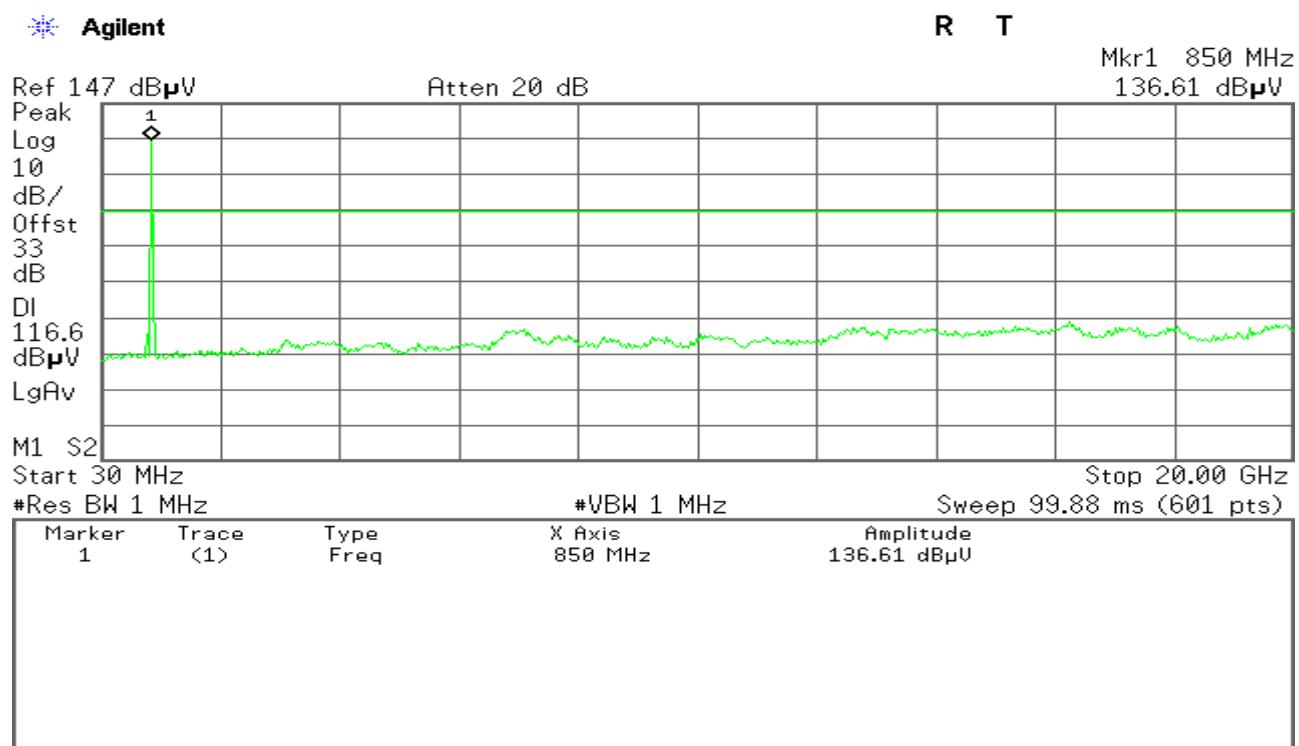


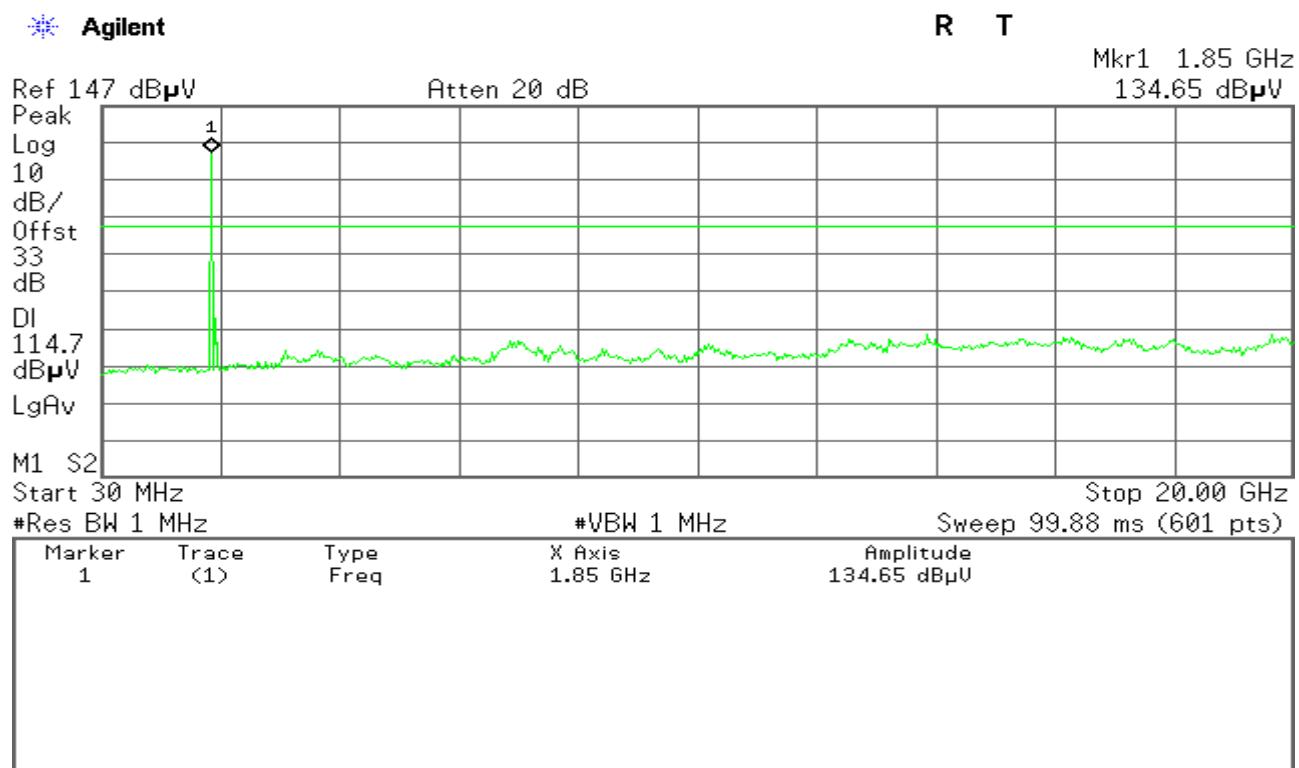


Figure 7-3: Out of Band emission at antenna terminals – GPRS CH High



GPRS 1900

Figure 8-1: Out of Band emission at antenna terminals – GPRS CH Low





Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Figure 8-2: Out of Band emission at antenna terminals – GPRS CH Mid

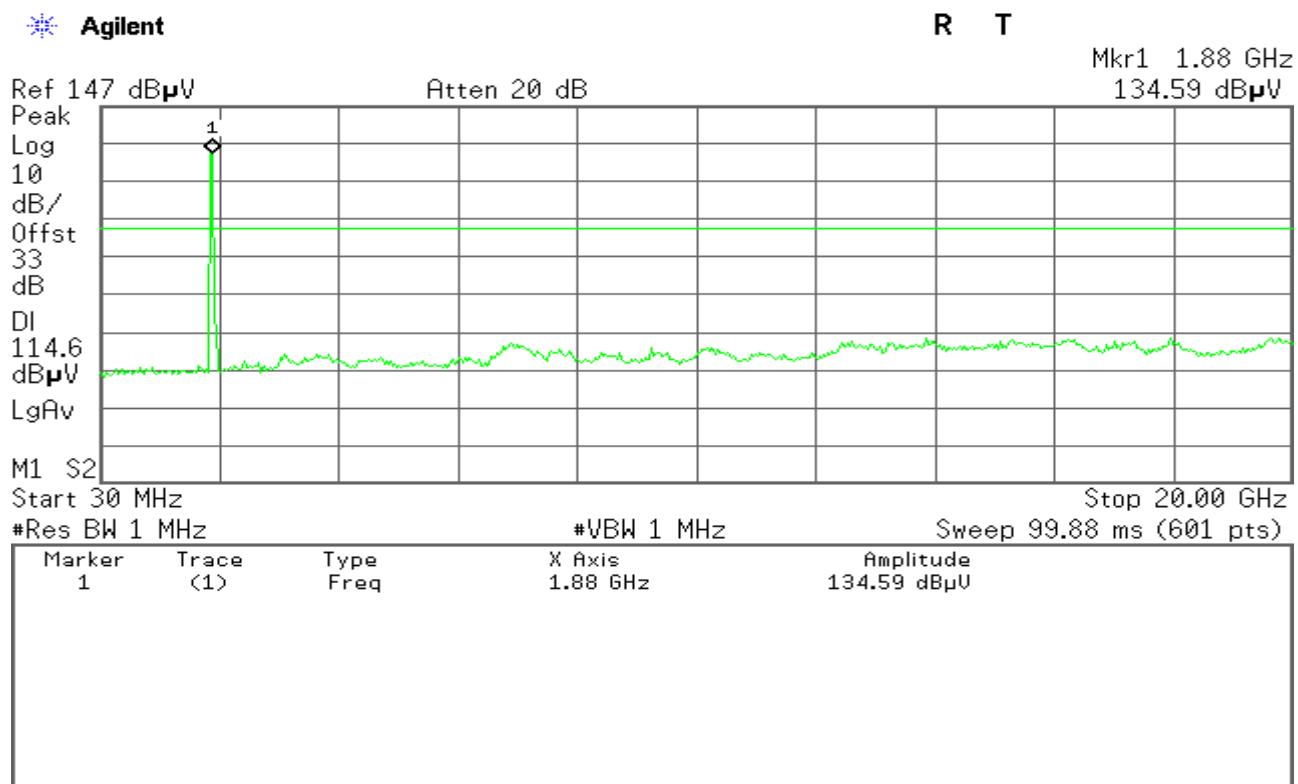
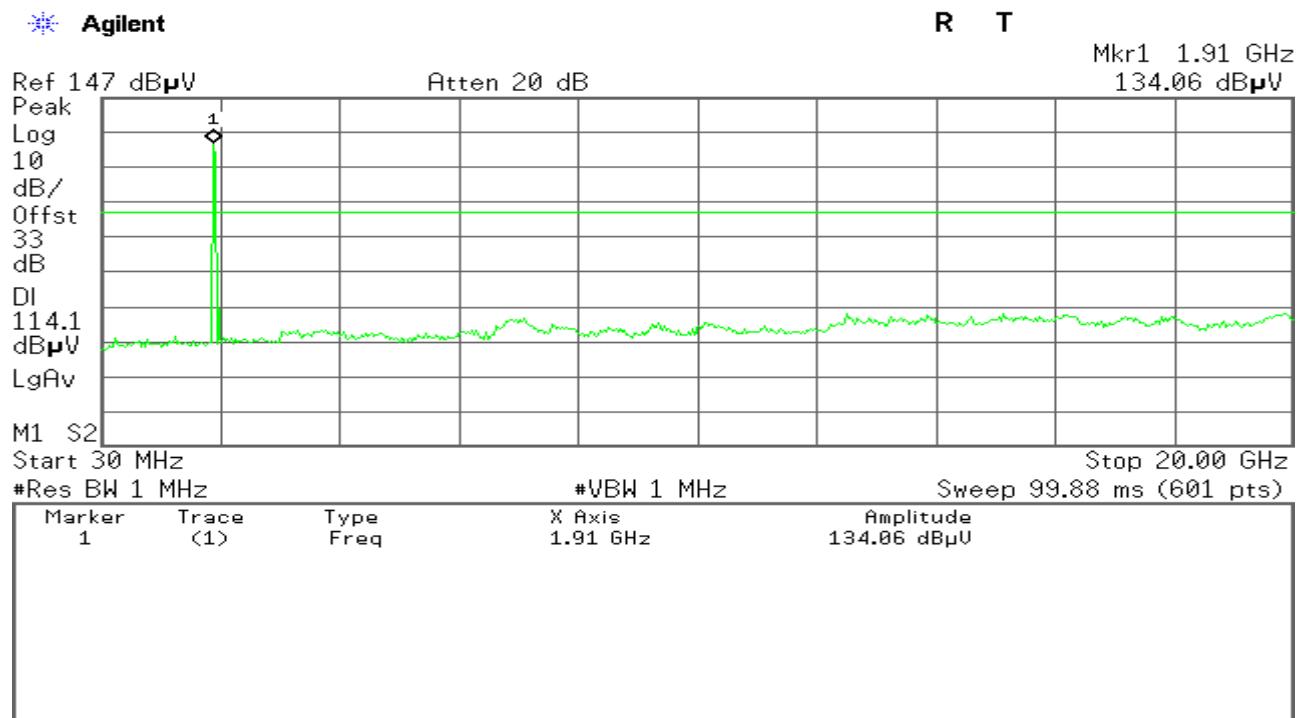


Figure 8-3: Out of Band emission at antenna terminals – GPRS CH High





GPRS 850

Figure 9-1: Band Edge emissions – GPRS CH Low

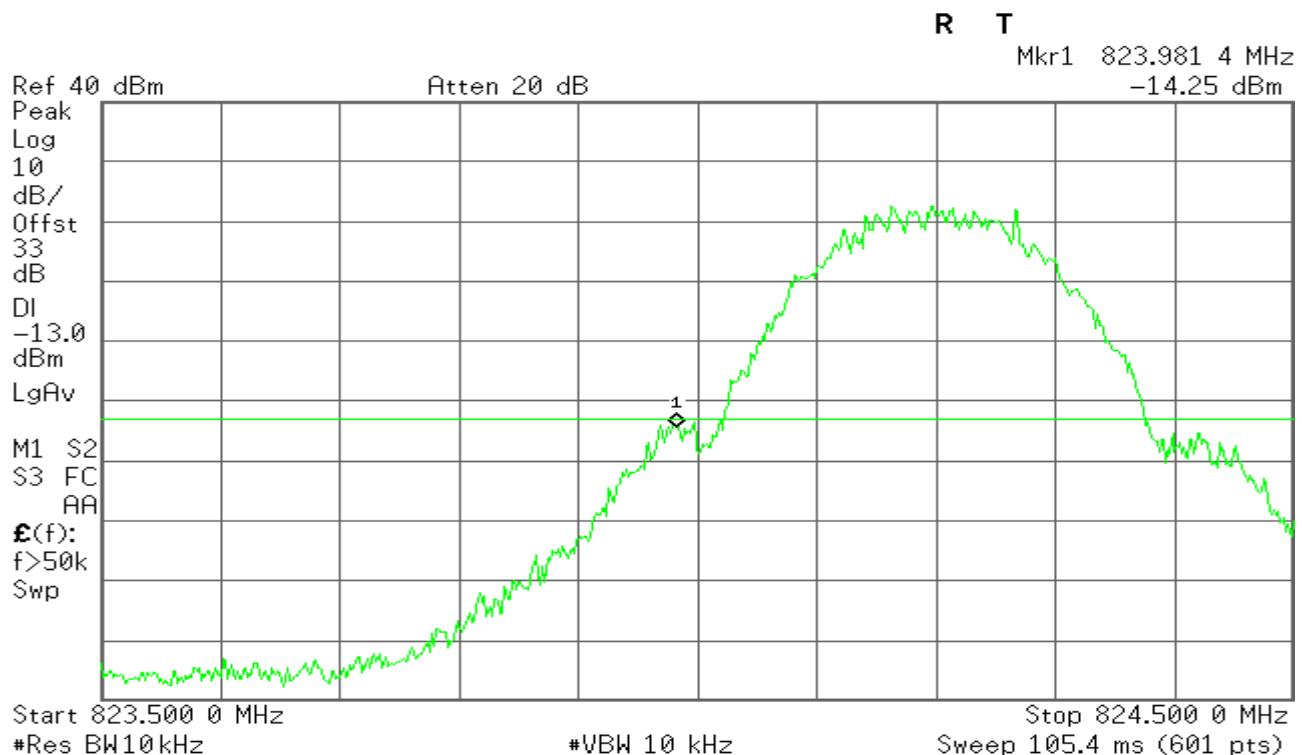
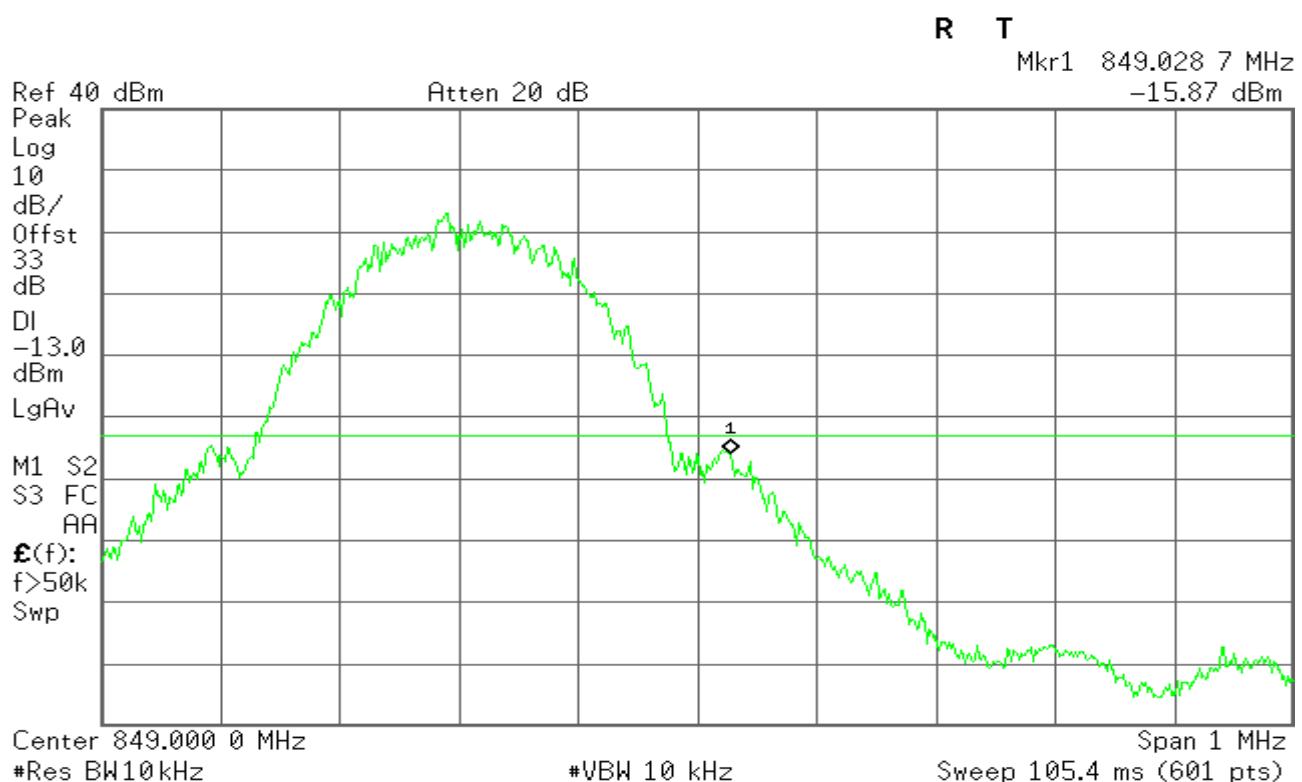


Figure 9-2: Band Edge emissions –GPRS CH High





GPRS 1900

Figure 10-1: Band Edge emissions – GPRS CH Low

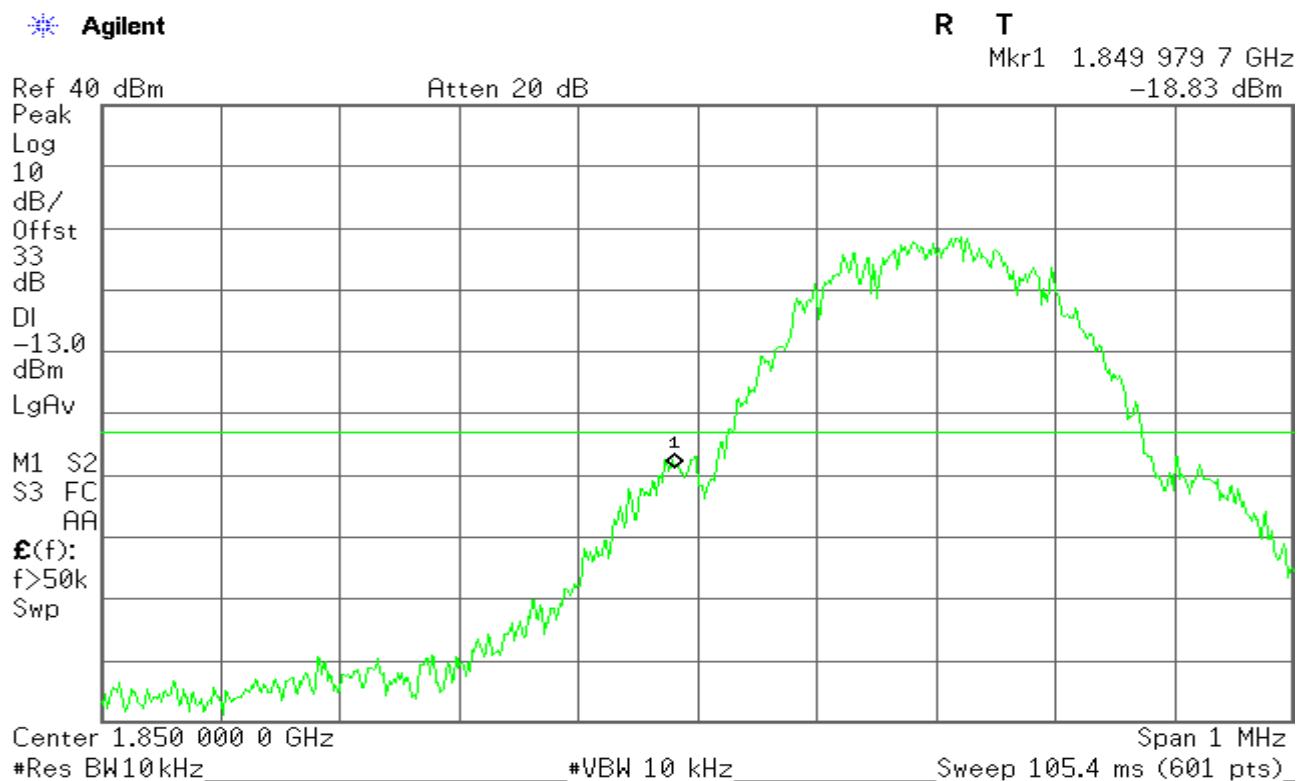
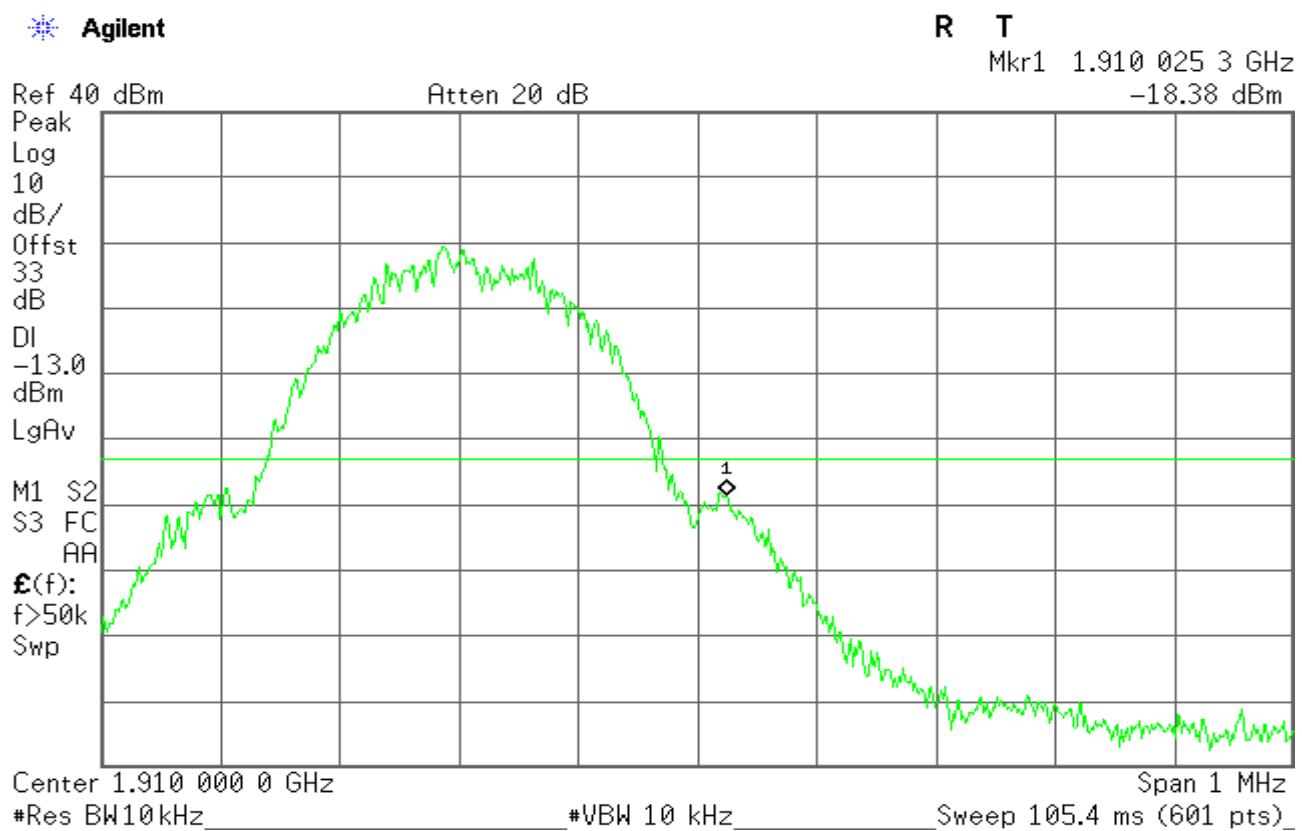


Figure 10-2: Band Edge emissions – GPRS CH High





WCDMA Band V

Figure 11-1: Out of Band emission at antenna terminals – WCDMA CH Low

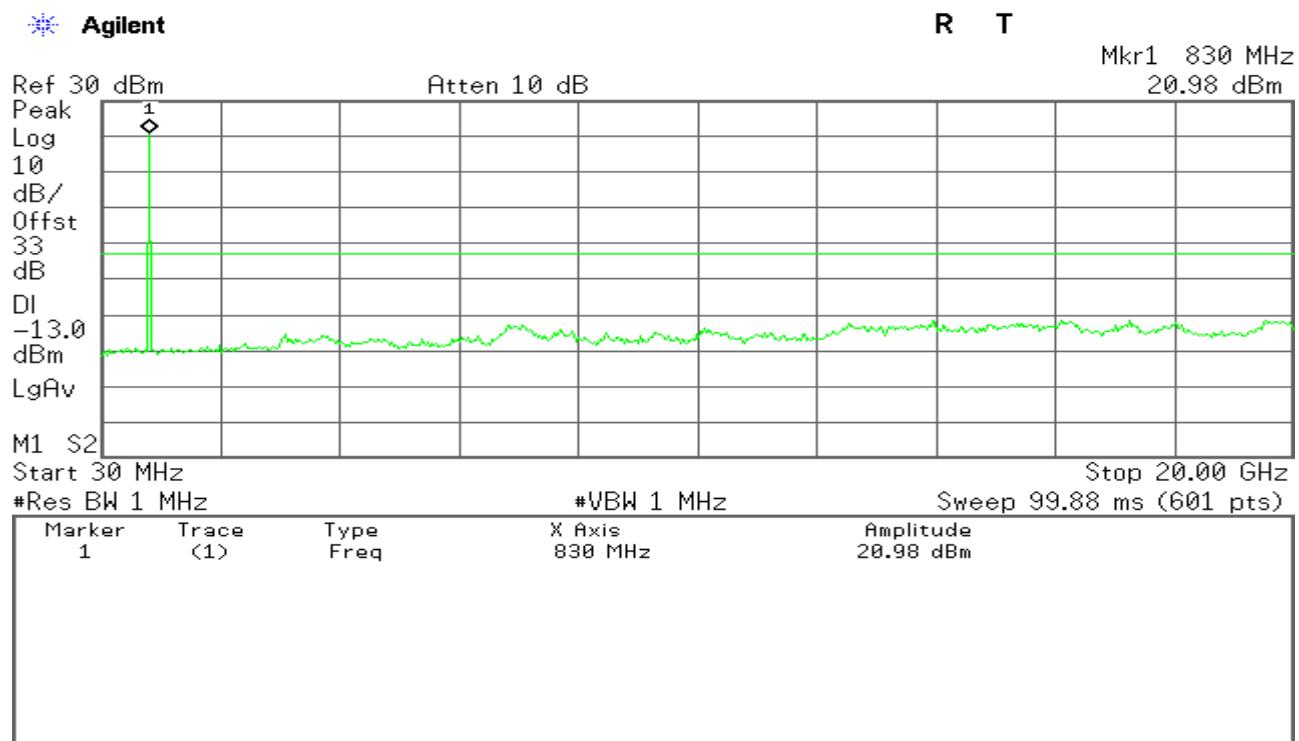


Figure 11-2: Out of Band emission at antenna terminals – WCDMA CH Mid

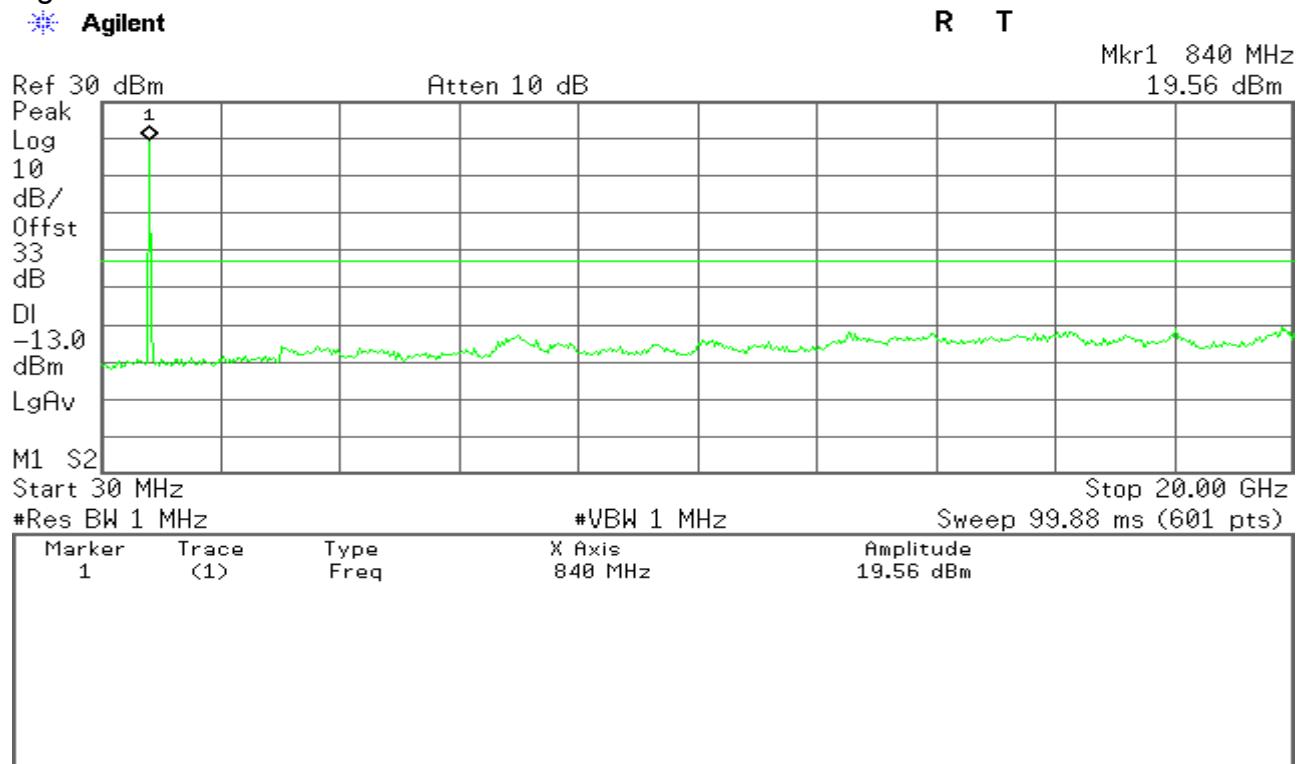
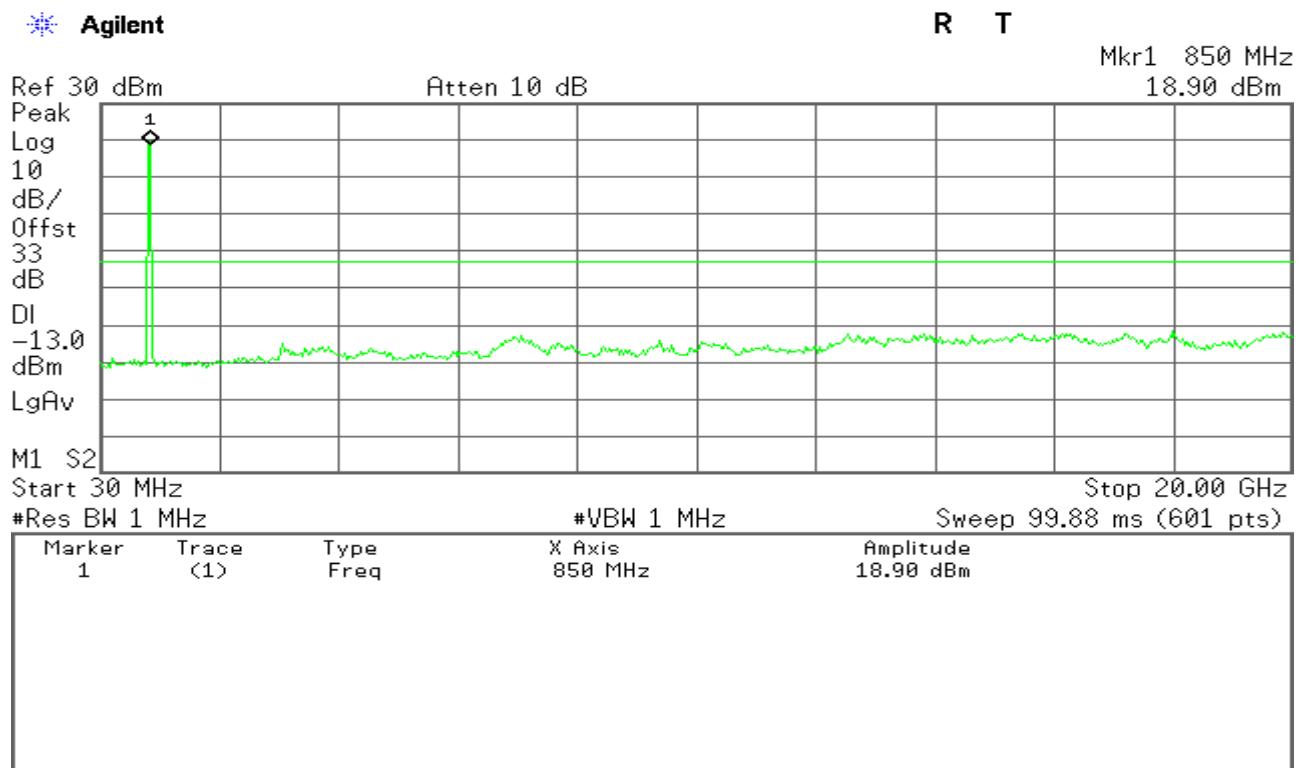




Figure 11-3: Out of Band emission at antenna terminals – WCDMA CH High



WCDMA Band V

Figure 11-4: Band Edge emissions –WCDMA CH Low

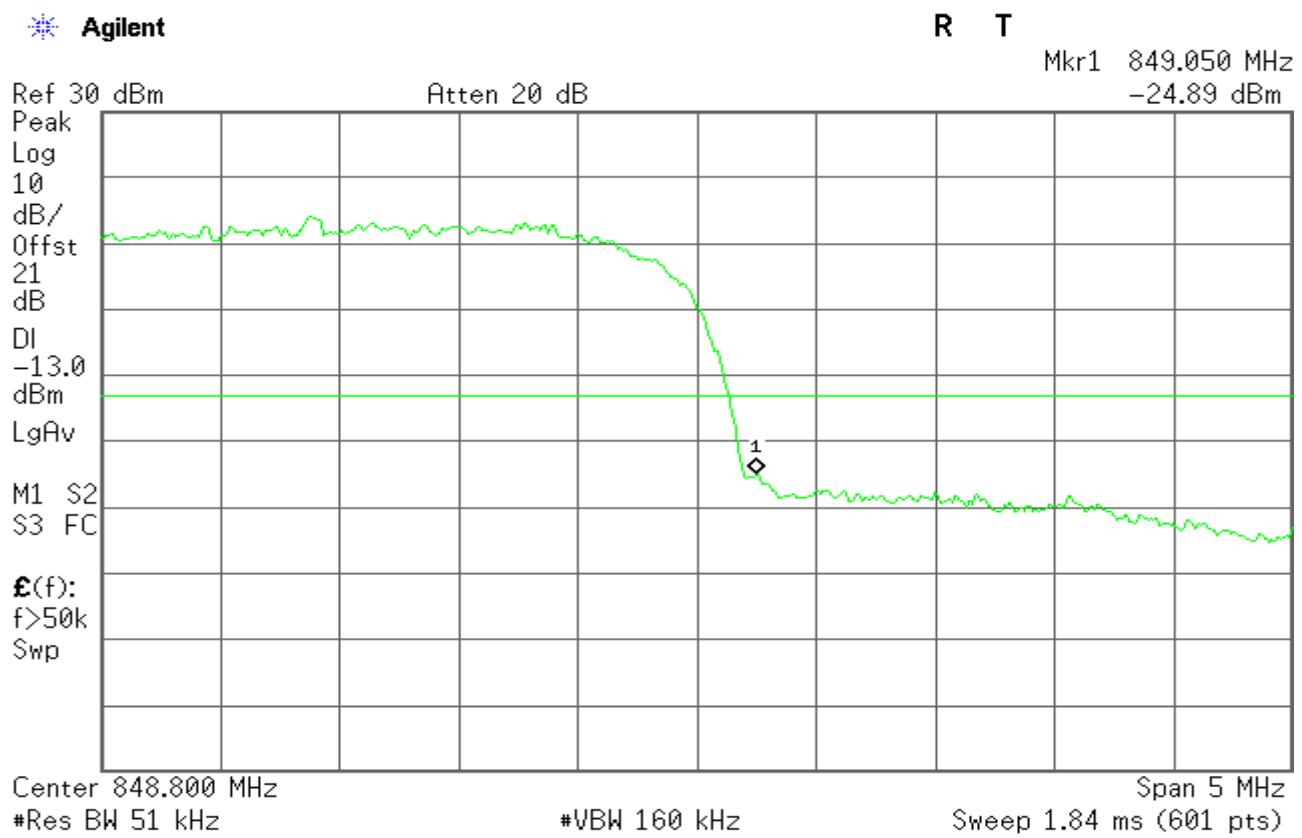
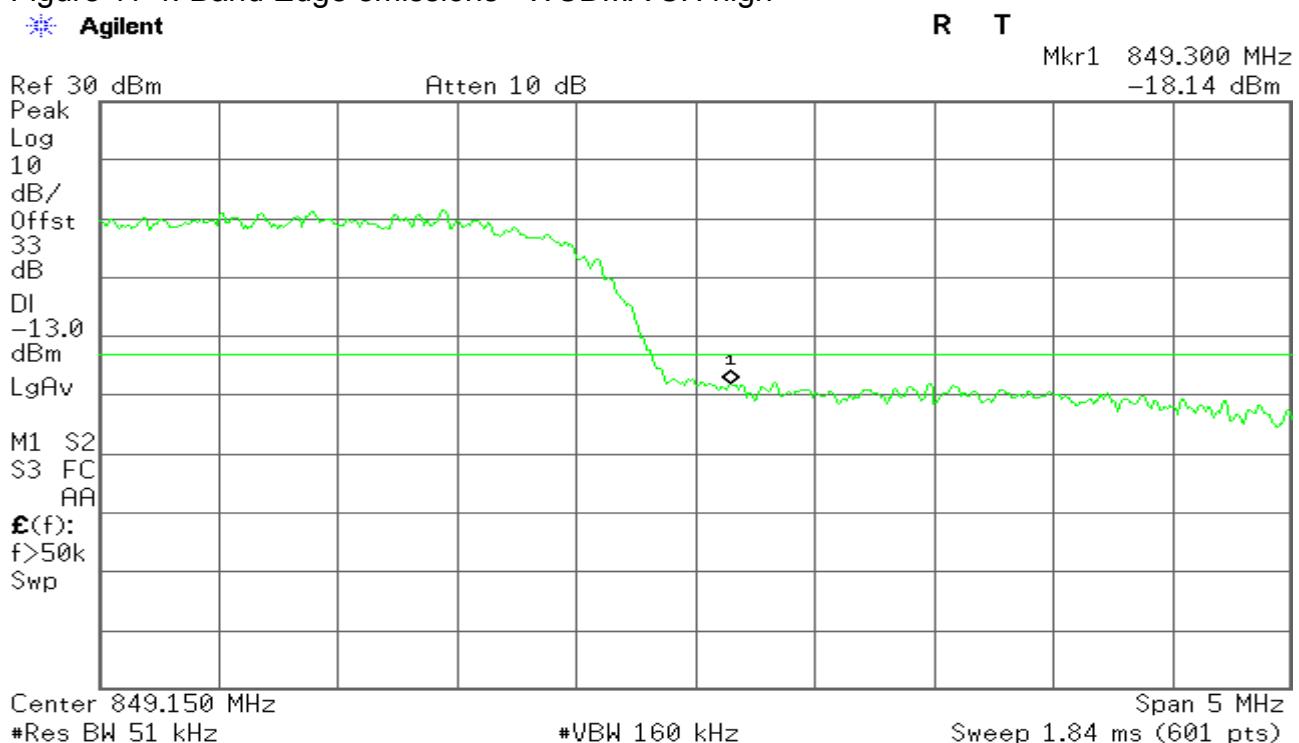


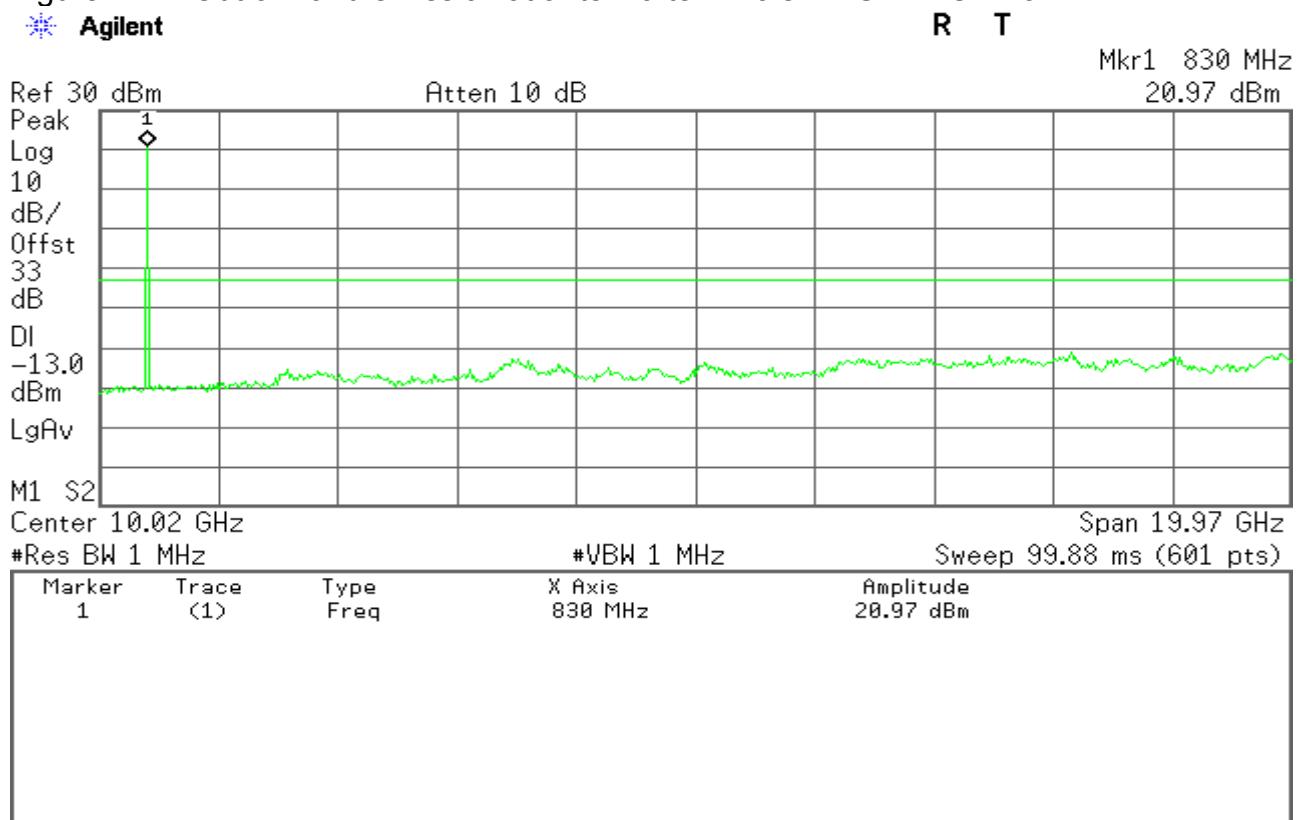


Figure 11-4: Band Edge emissions –WCDMA CH high



HSDPA Band V

Figure 12-1: Out of Band emission at antenna terminals – HSDPA CH Low





Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Figure 12-2: Out of Band emission at antenna terminals – HSDPA CH Mid

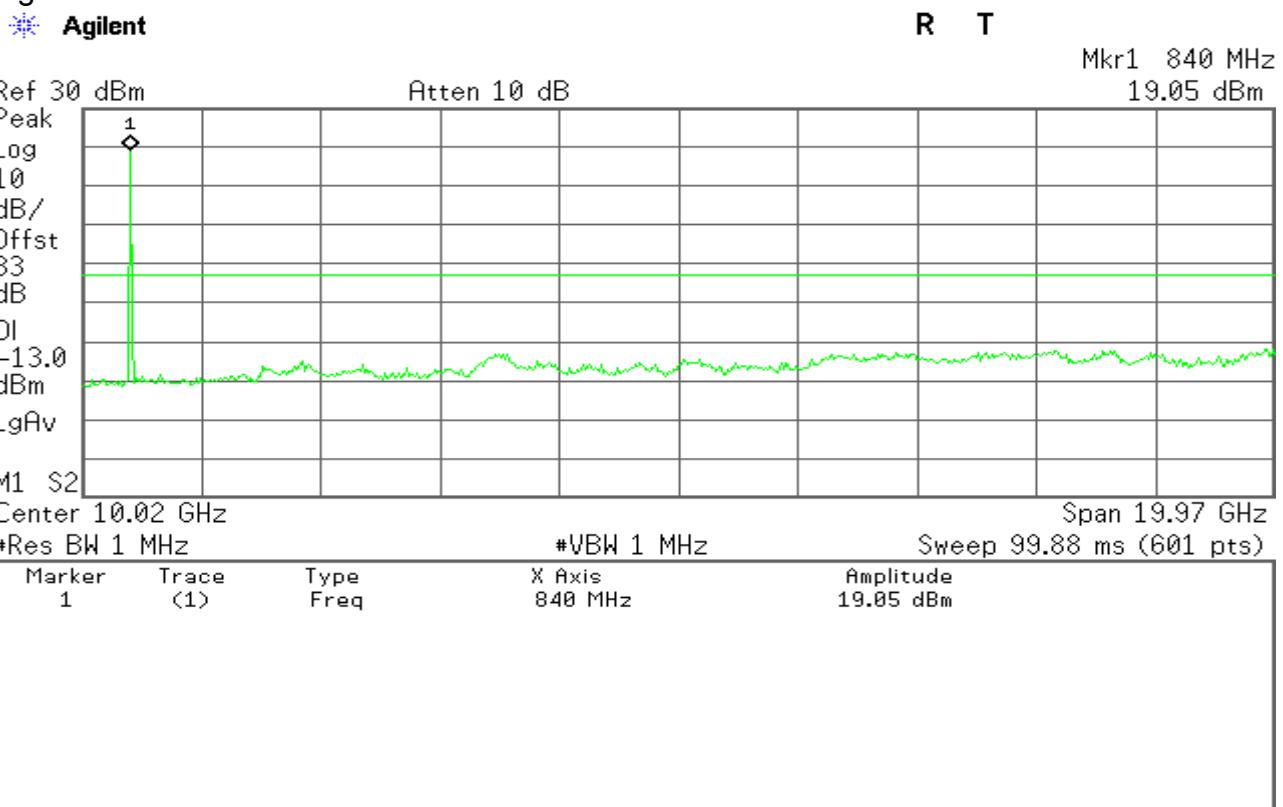
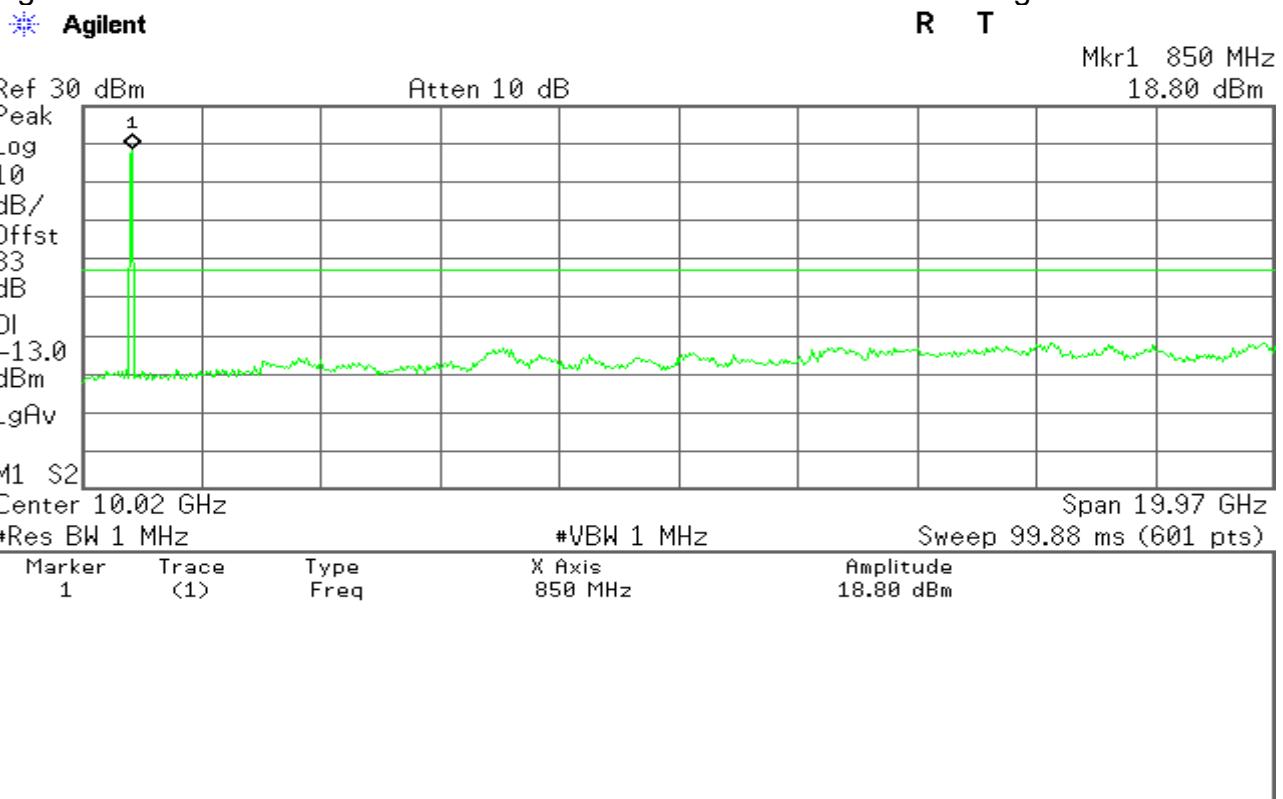


Figure 12-3: Out of Band emission at antenna terminals – HSDPA CH High





WCDMA / HSDPA Band V

Figure 12-4: Band Edge emissions – HSDPA CH Low

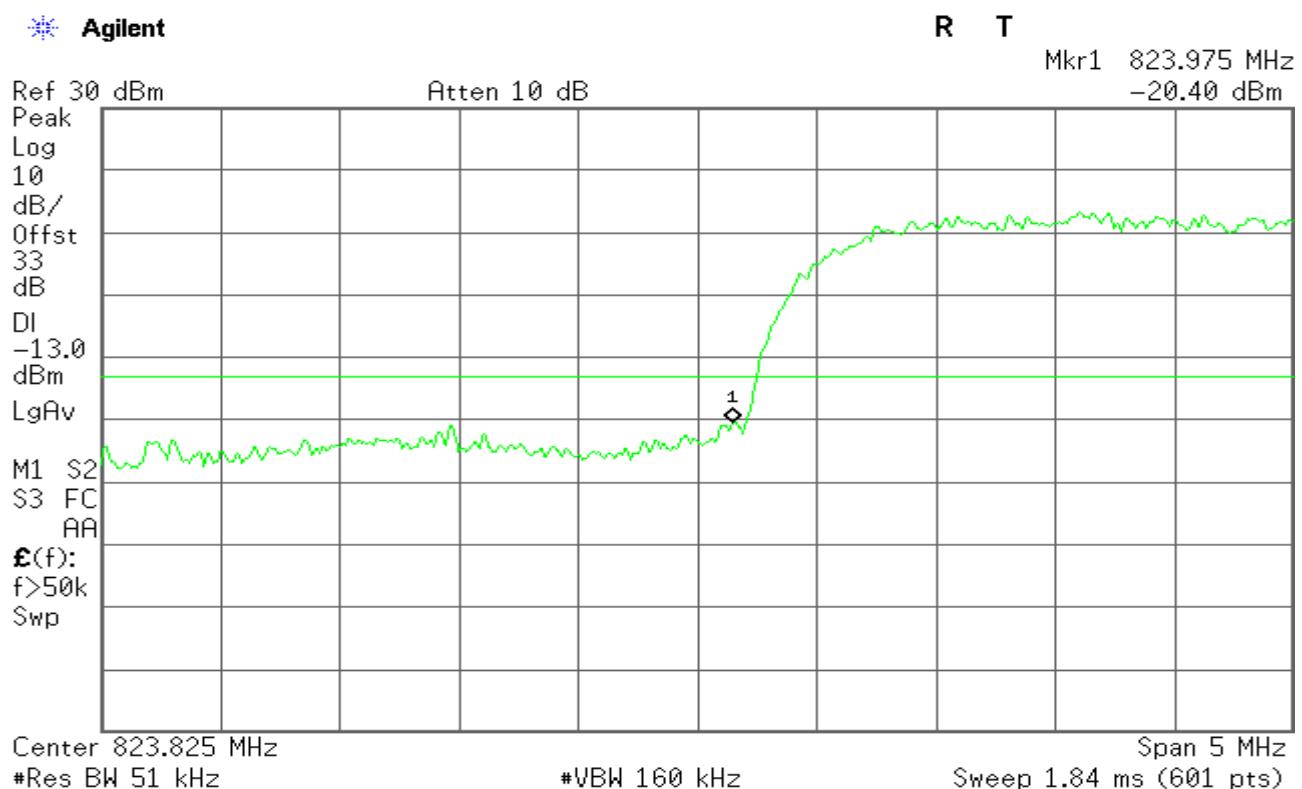
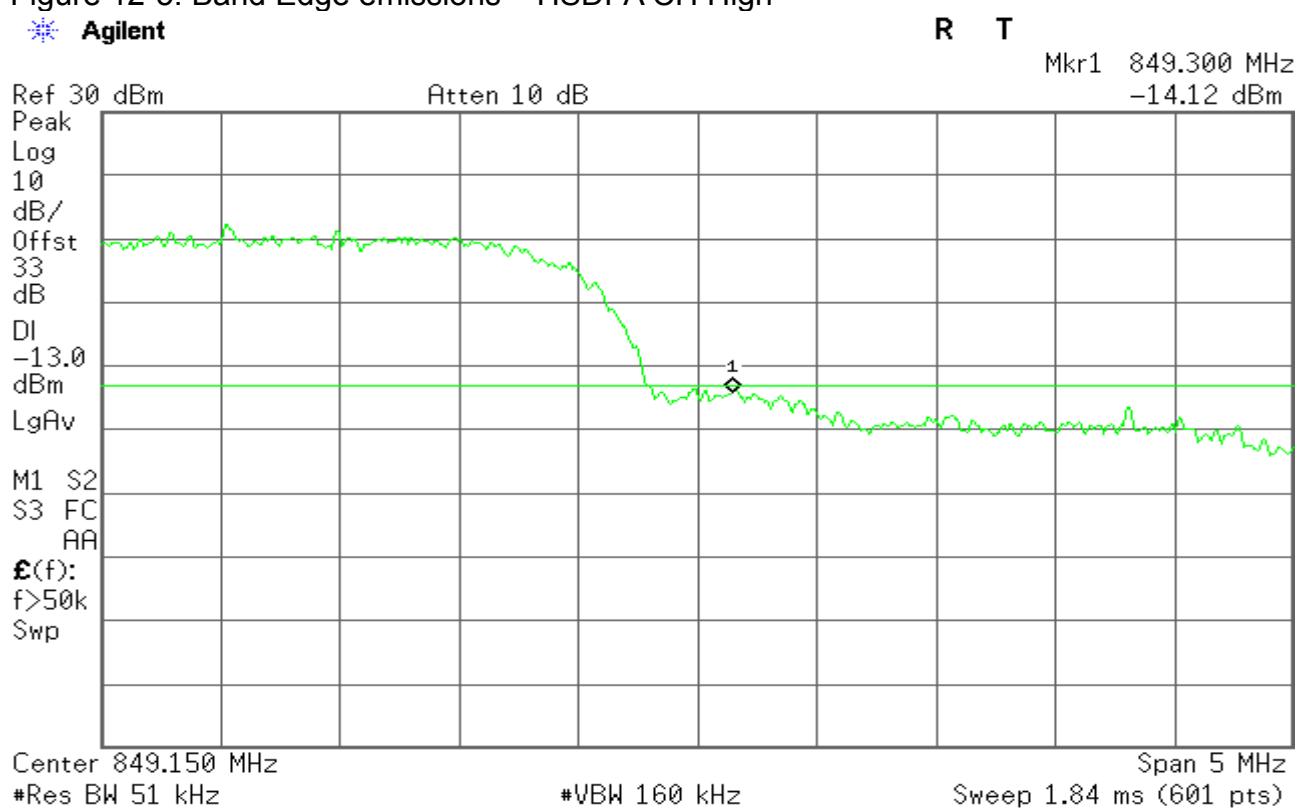


Figure 12-5: Band Edge emissions – HSDPA CH High





EDGE 850

Figure 13-1: Out of Band emission at antenna terminals –EDGE CH Low

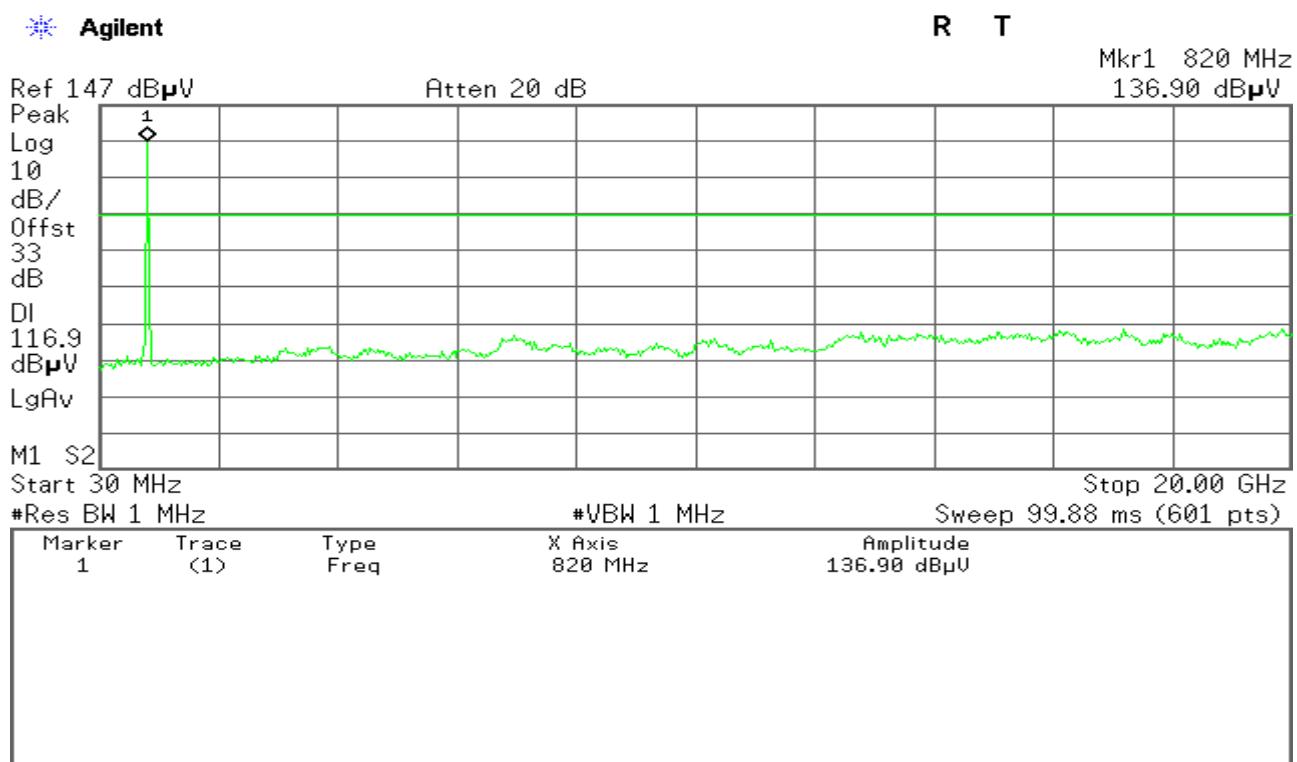


Figure 13-2: Out of Band emission at antenna terminals –EDGE CH Mid

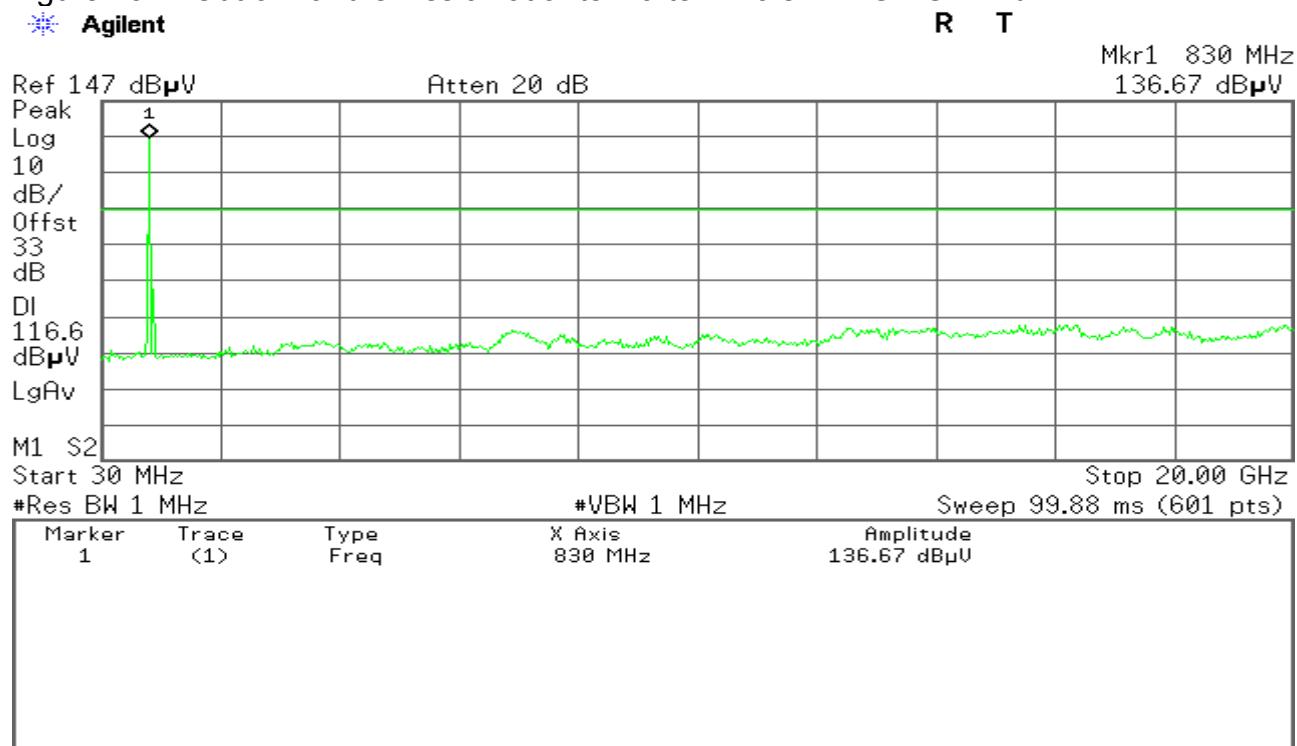
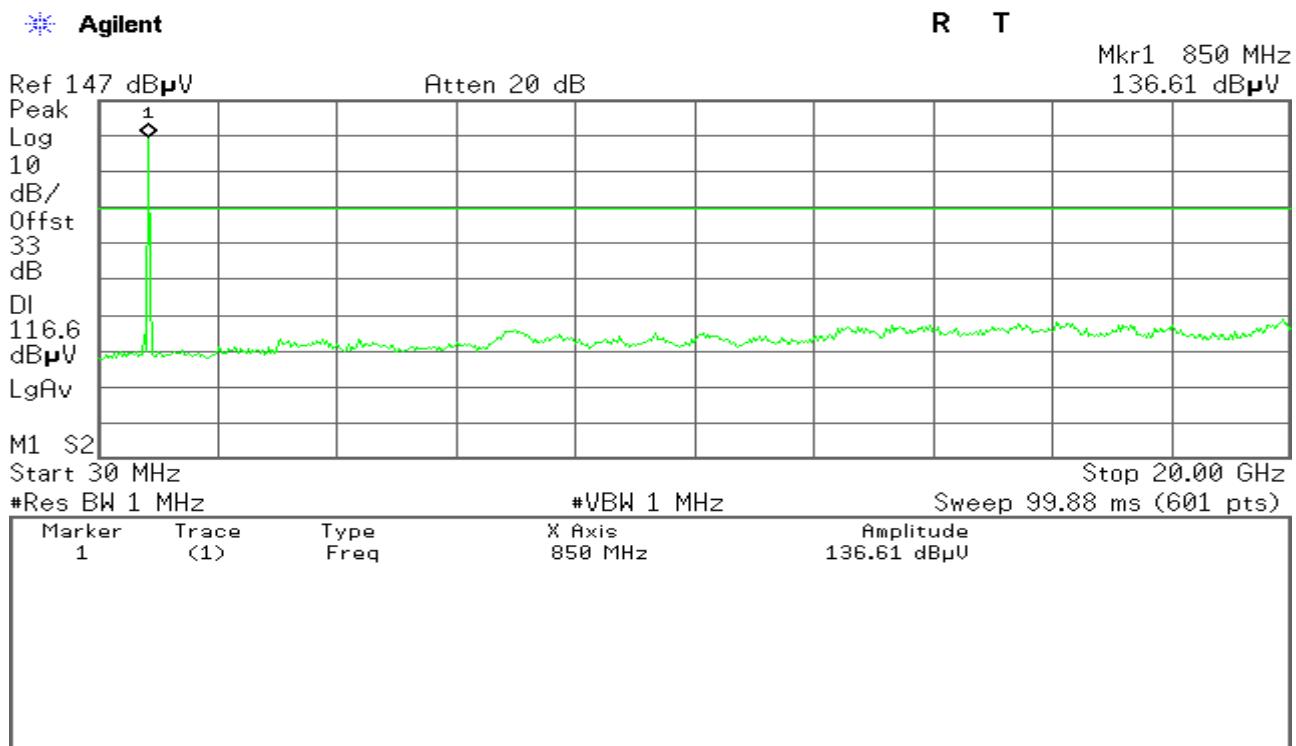


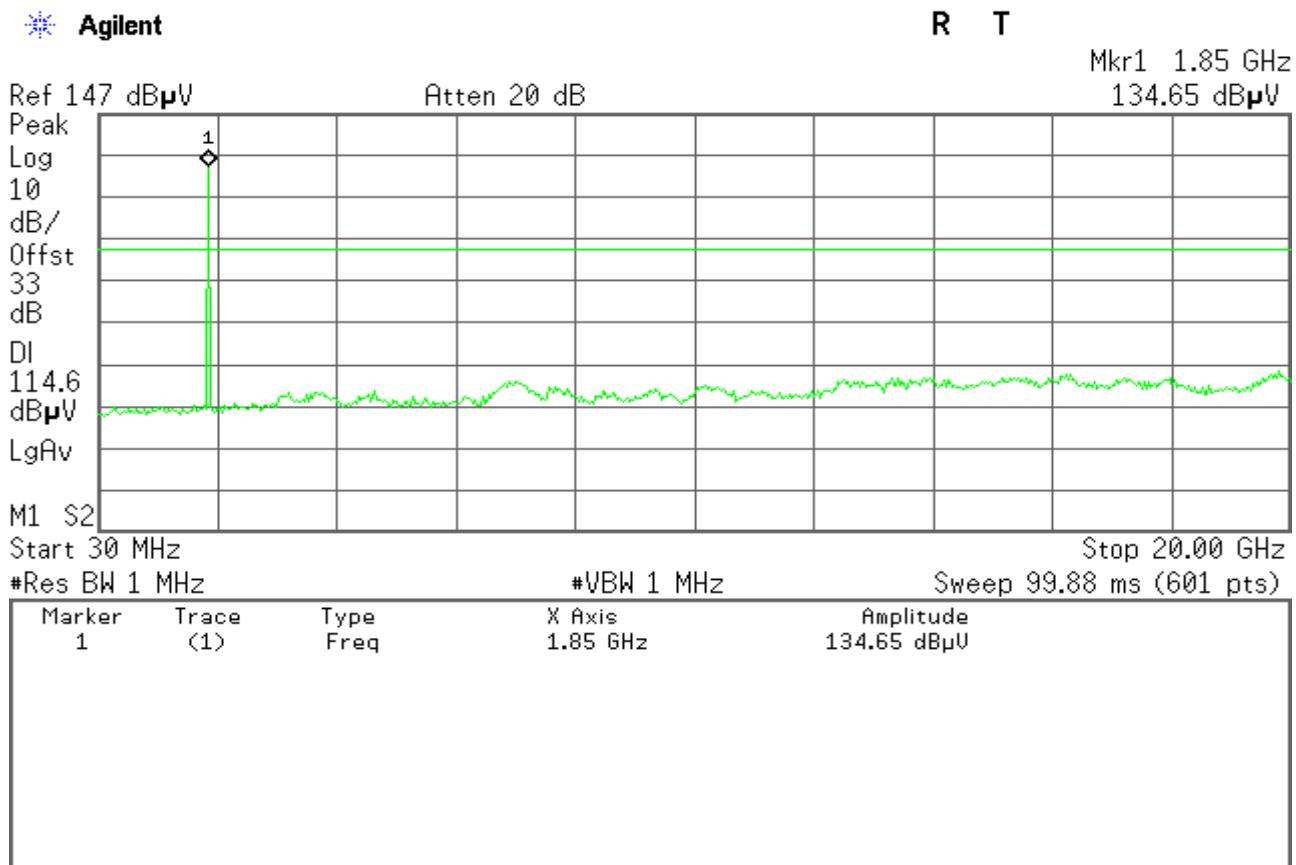


Figure 13-3: Out of Band emission at antenna terminals –EDGE CH High



EDGE 1900

Figure 13-4: Out of Band emission at antenna terminals –EDGE CH Low





Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Figure 13-5: Out of Band emission at antenna terminals –EDGE CH Mid

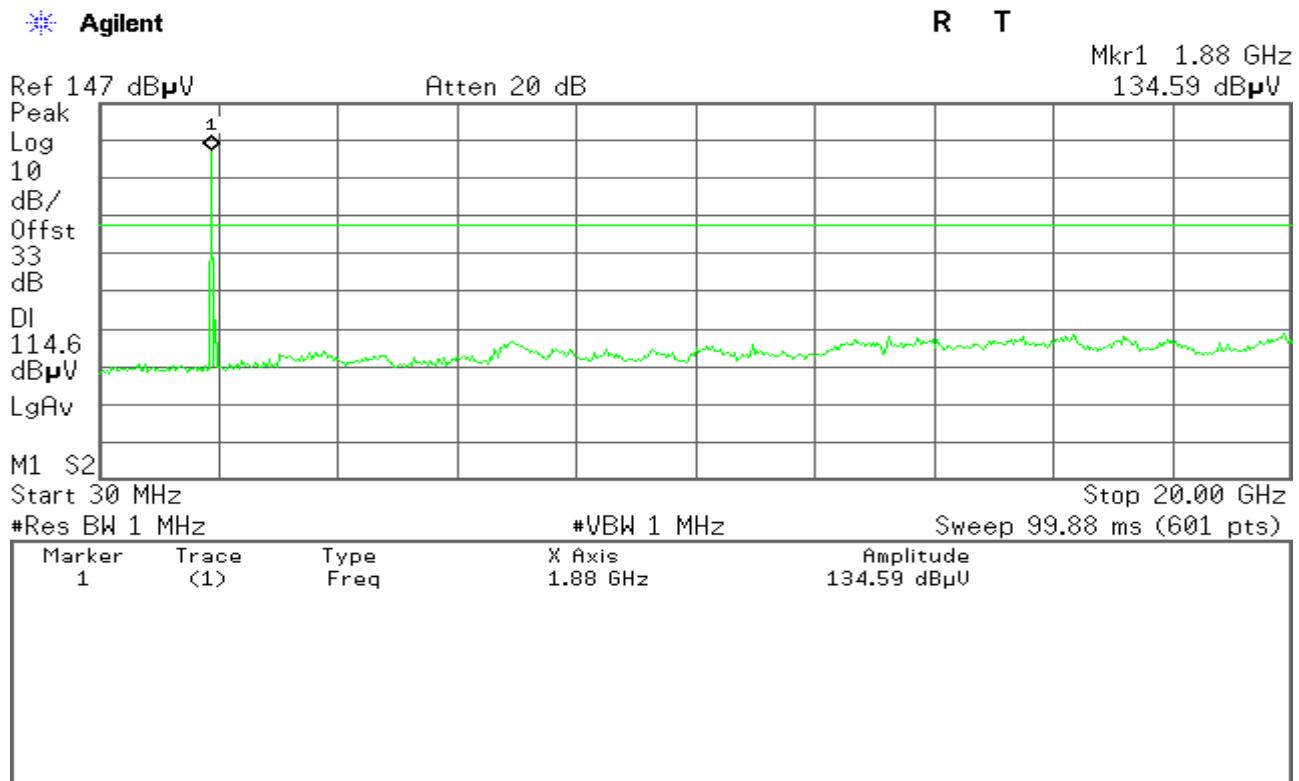
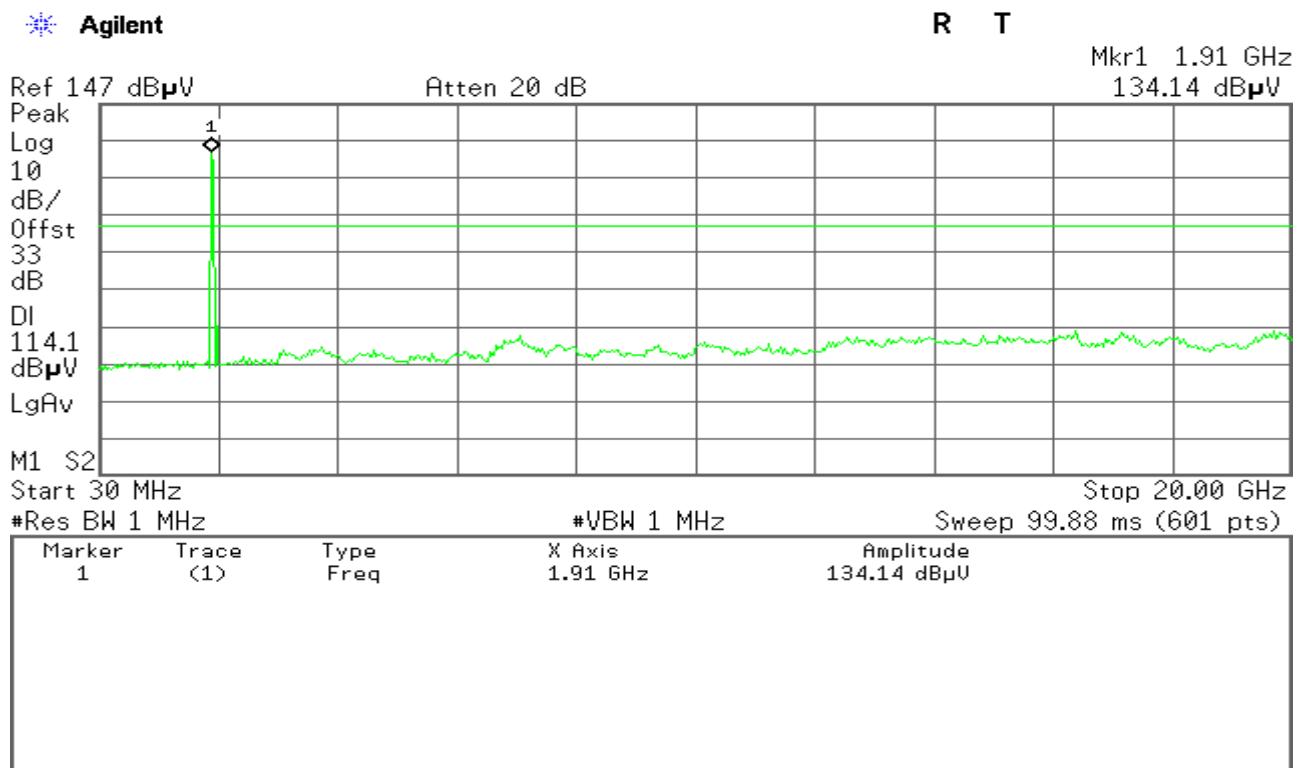


Figure 13-6: Out of Band emission at antenna terminals –EDGE CH High





EDGE 850

Figure 14-1: Band Edge emissions – EDGE CH Low

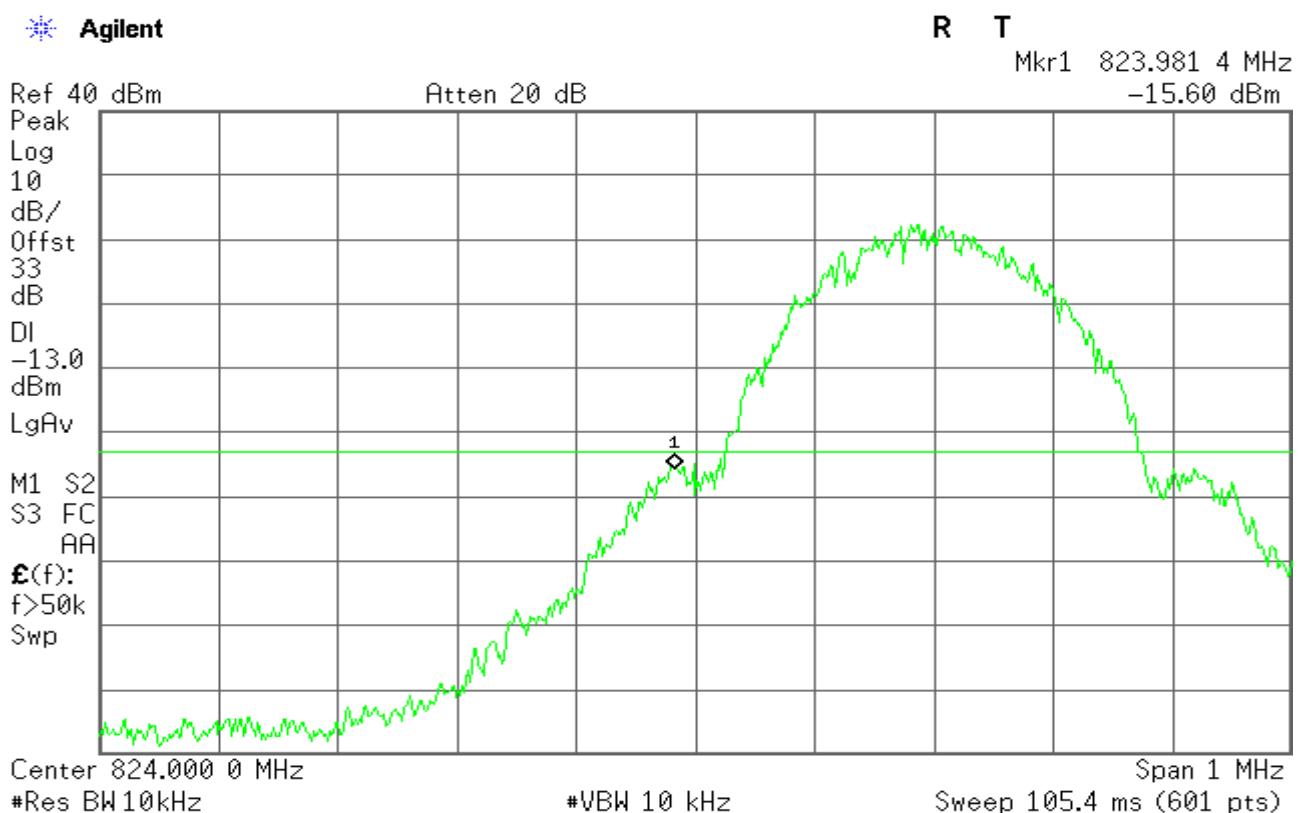
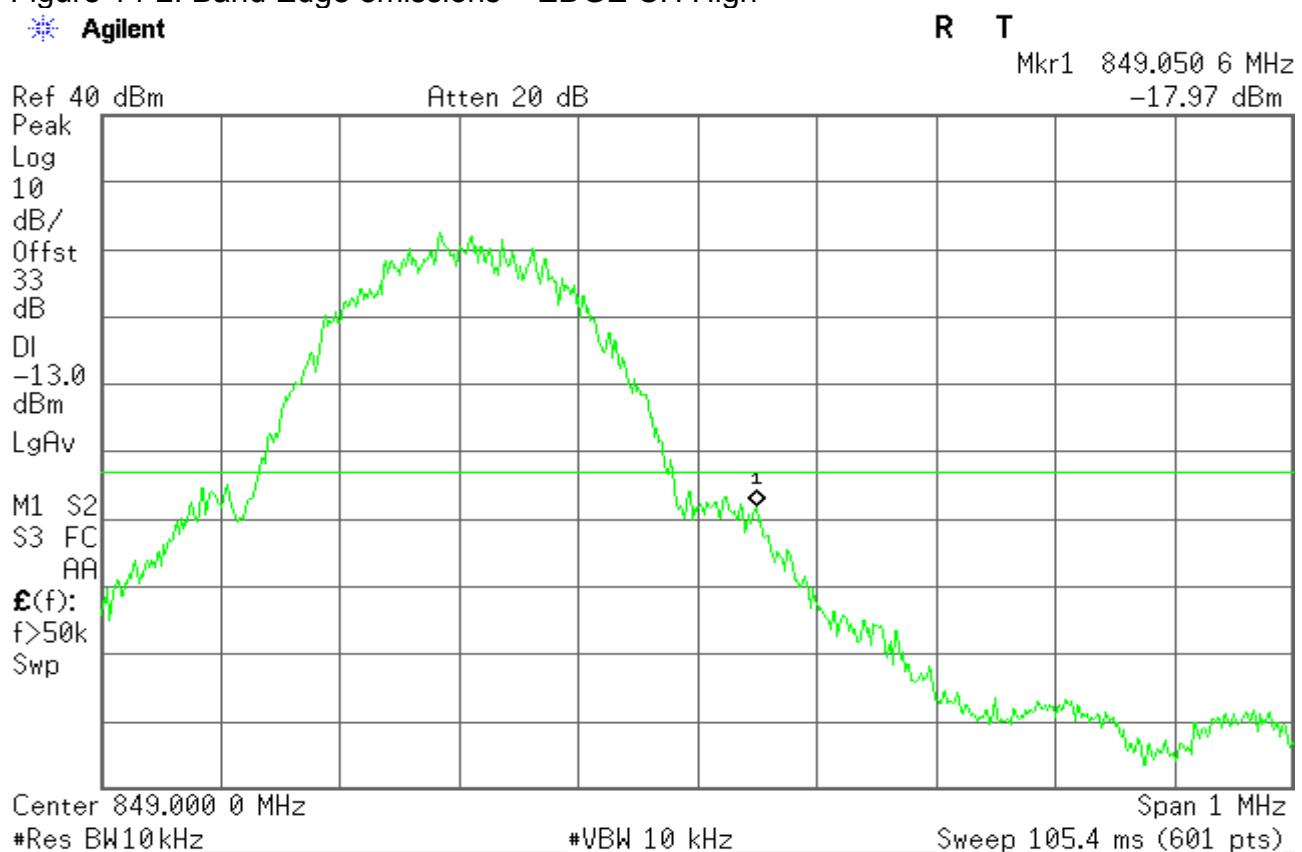


Figure 14-2: Band Edge emissions – EDGE CH High





EDGE 1900

Figure 14-3: Band Edge emissions – EDGE CH Low

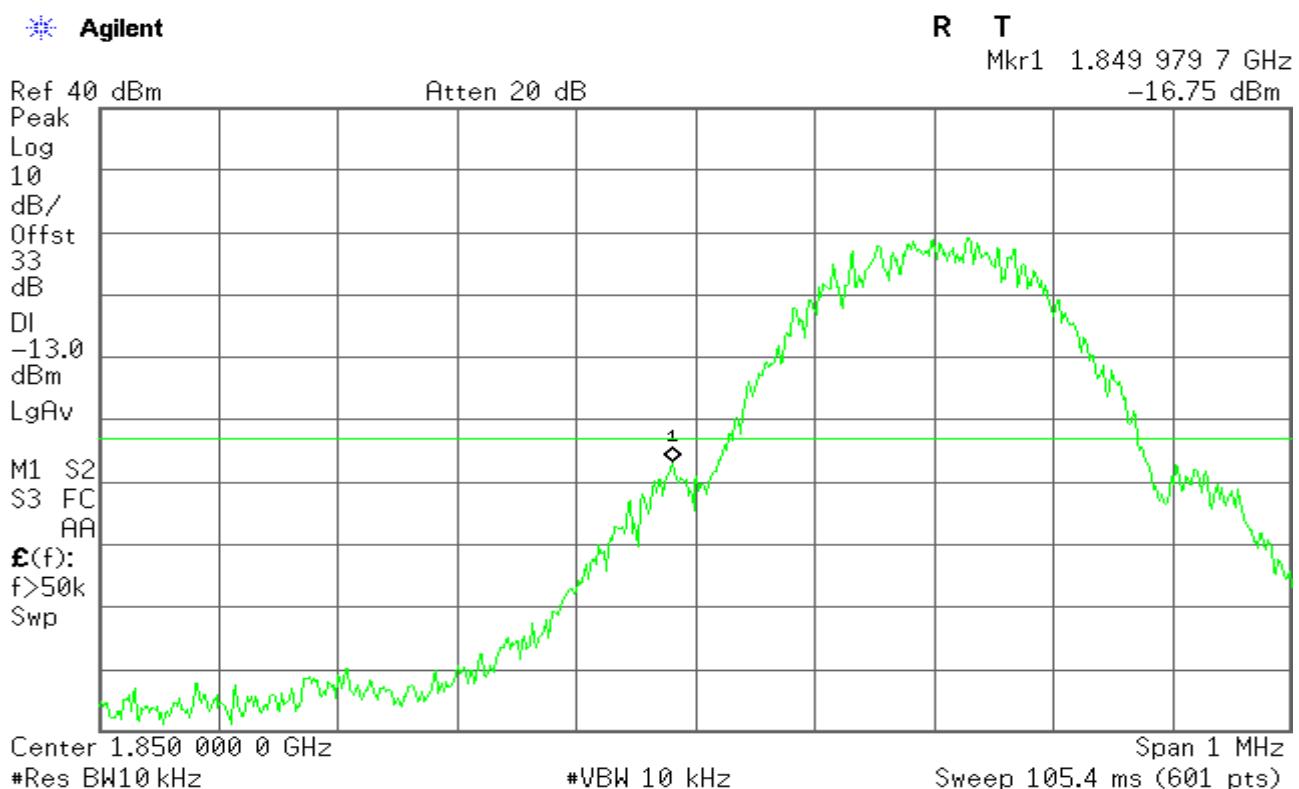
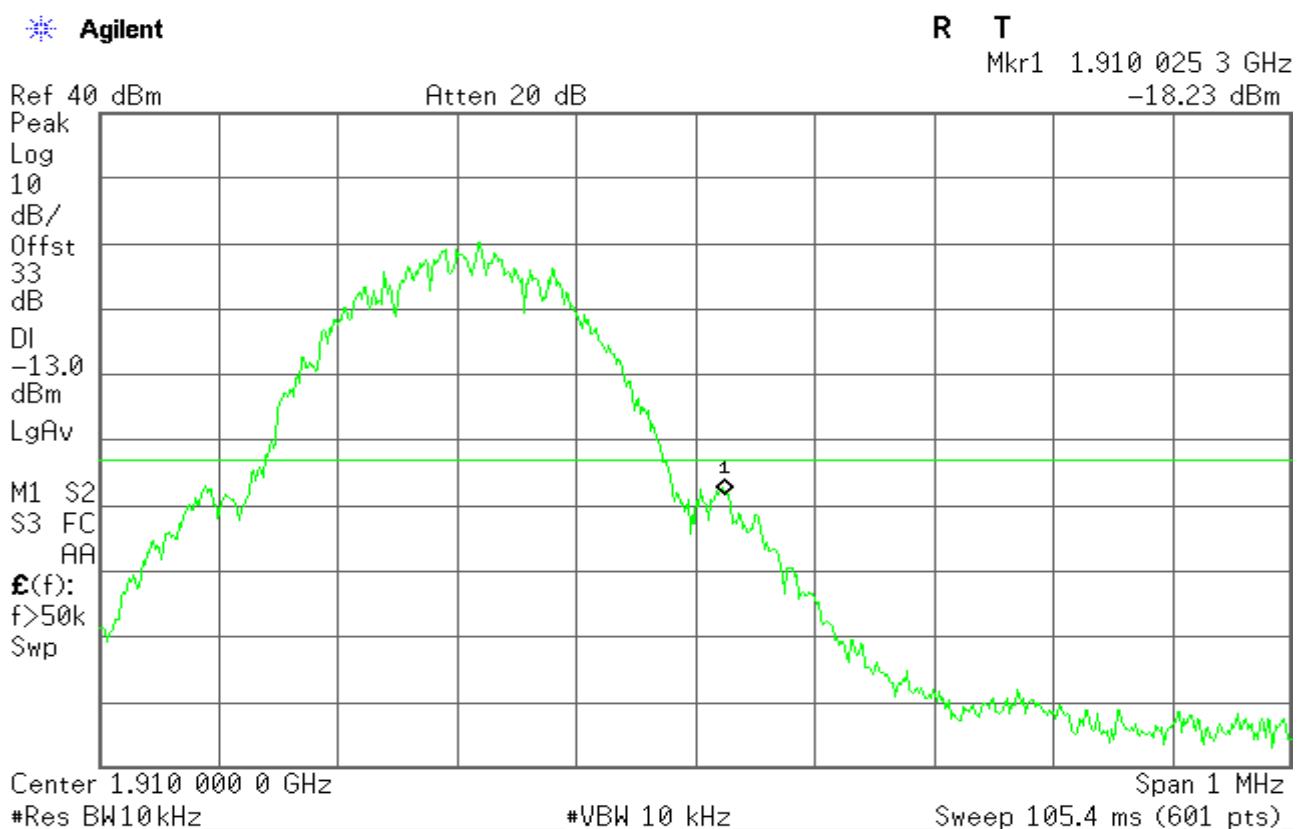


Figure 14-4: Band Edge emissions – EDGE CH High





WCDMA Band II

Figure 15-1: Out of Band emission at antenna terminals – WCDMA CH Low

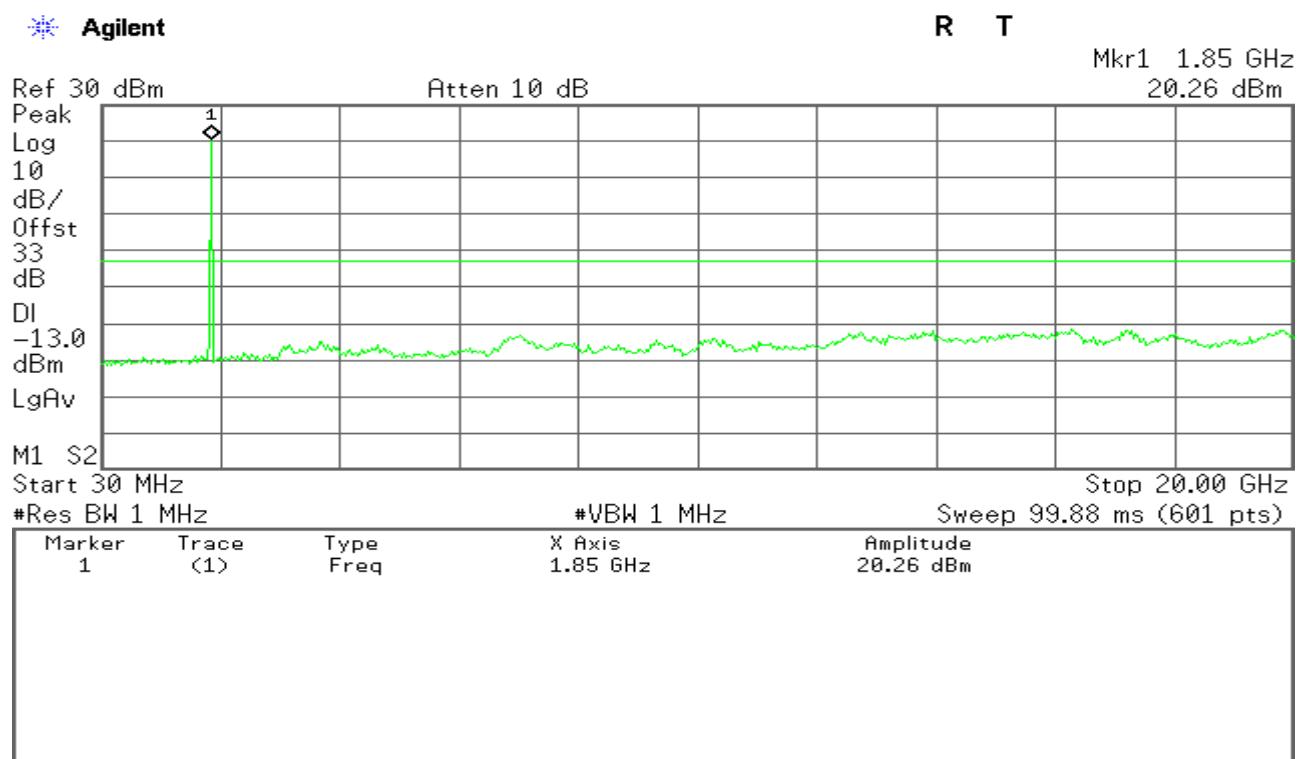


Figure 15-2: Out of Band emission at antenna terminals – WCDMA CH Mid

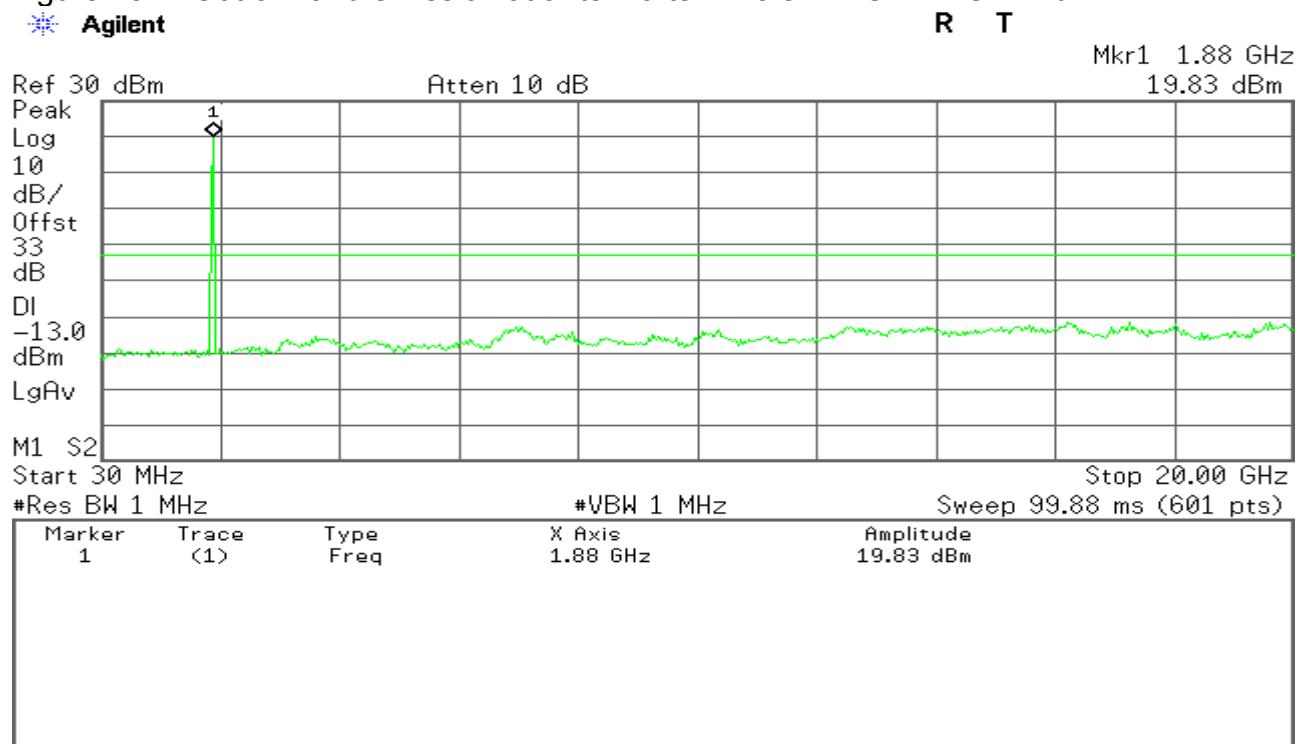
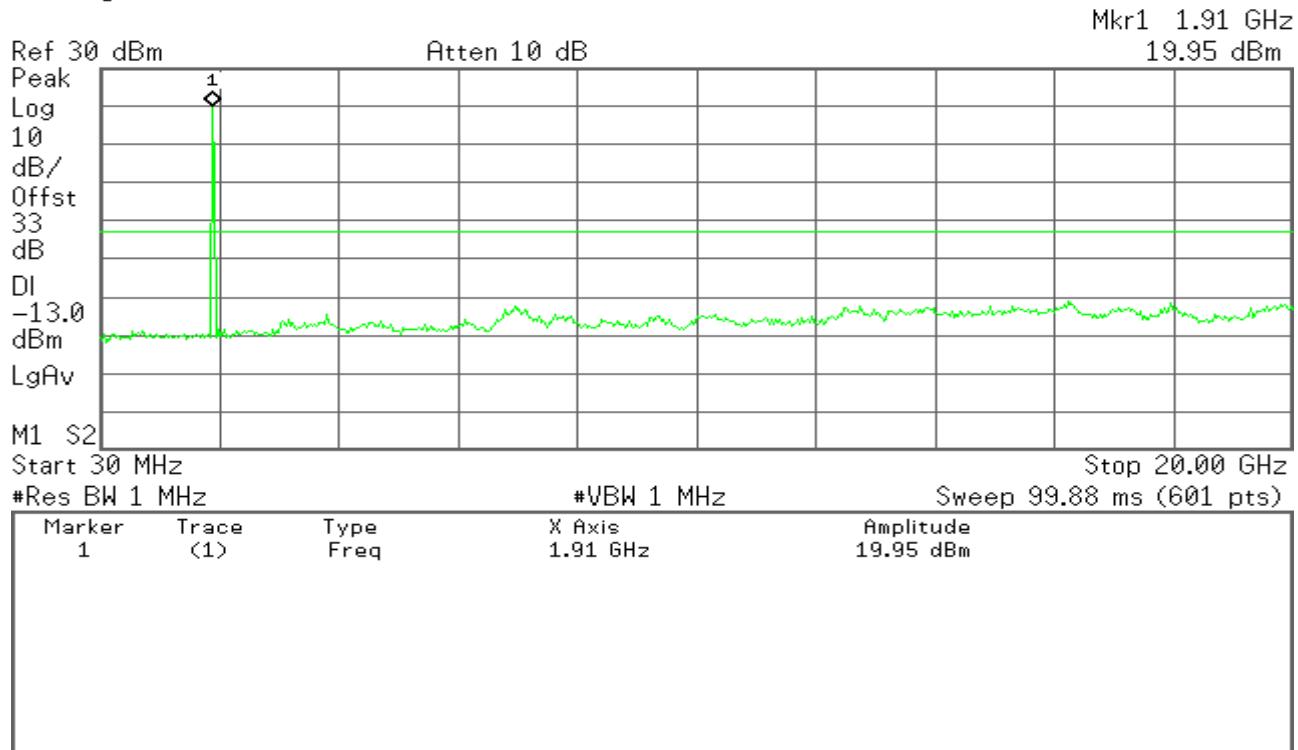




Figure 15-3: Out of Band emission at antenna terminals – WCDMA CH High

Agilent

R T



WCDMA Band II

Figure 15-4: Band Edge emissions –WCDMA CH Low

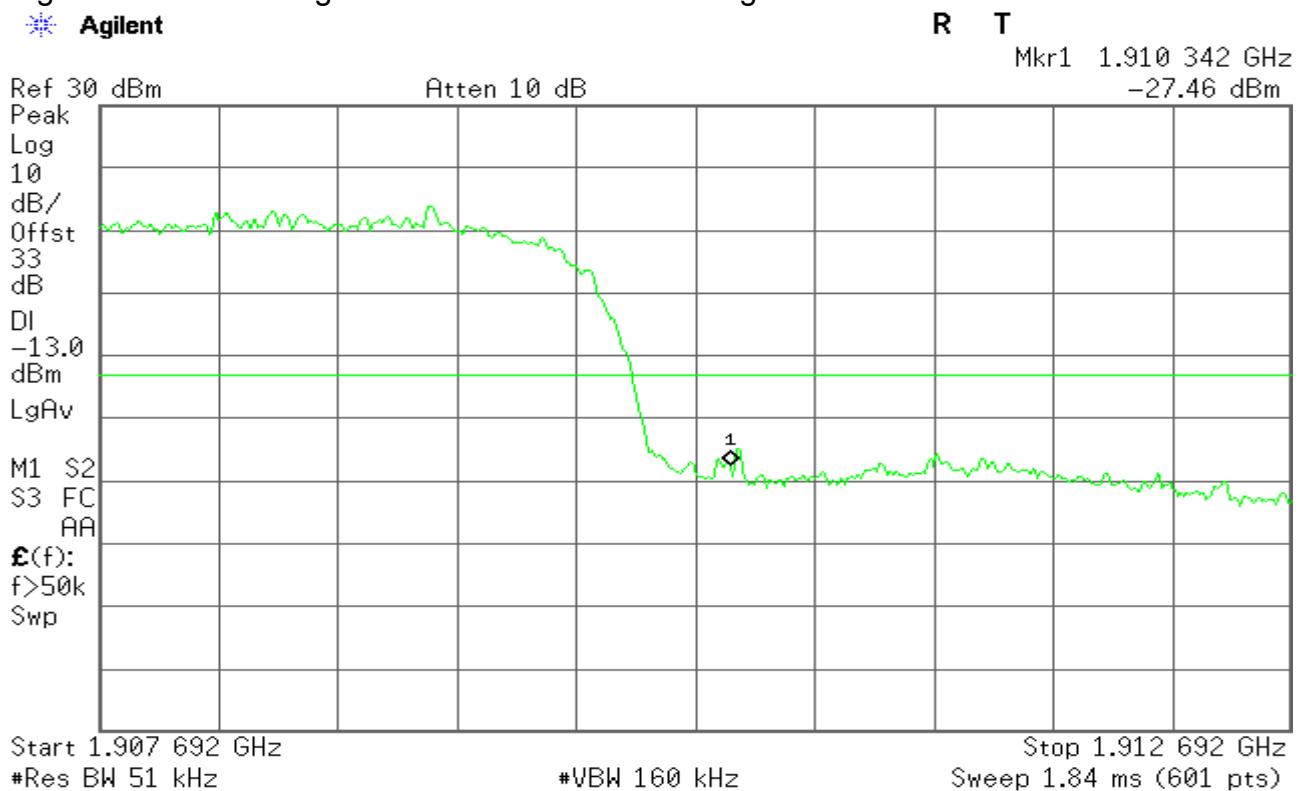
Agilent

R T



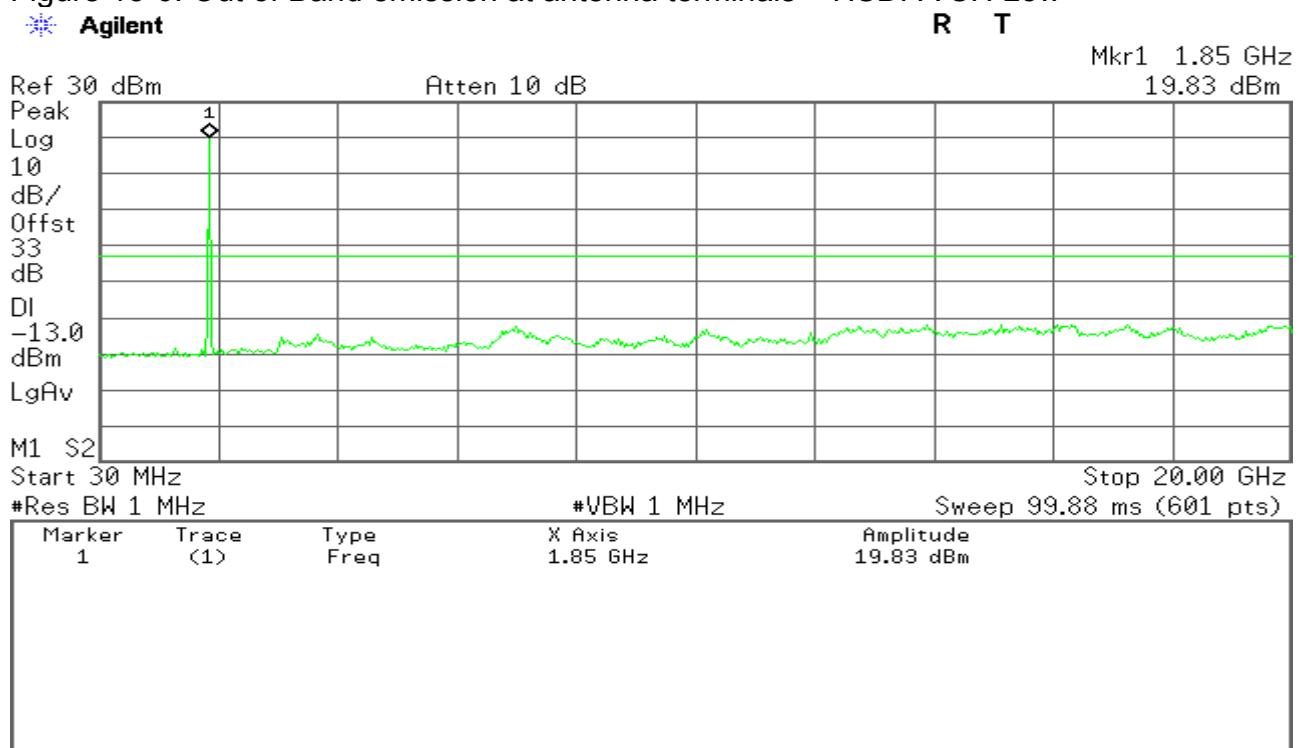


Figure 15-5: Band Edge emissions –WCDMA CH high



HSDPA Band II

Figure 15-6: Out of Band emission at antenna terminals – HSDPA CH Low





Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Figure 15-7: Out of Band emission at antenna terminals – HSDPA CH Mid

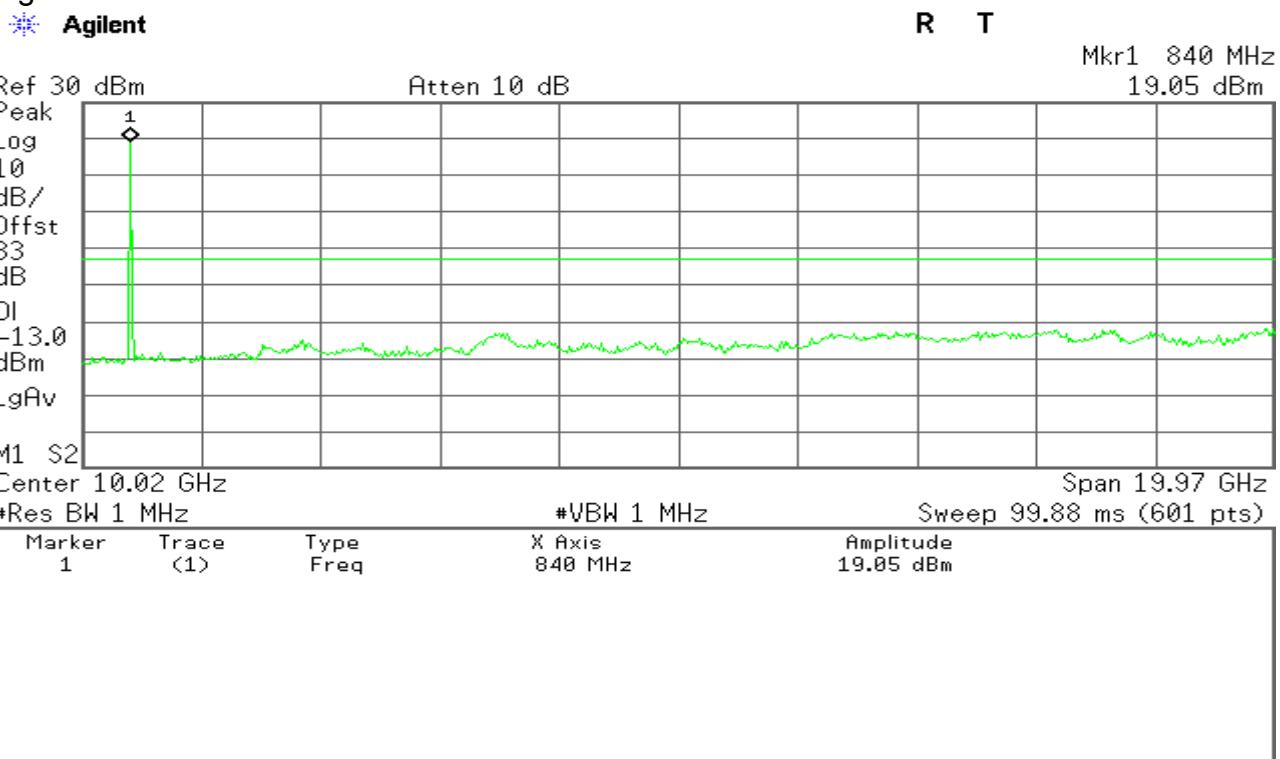
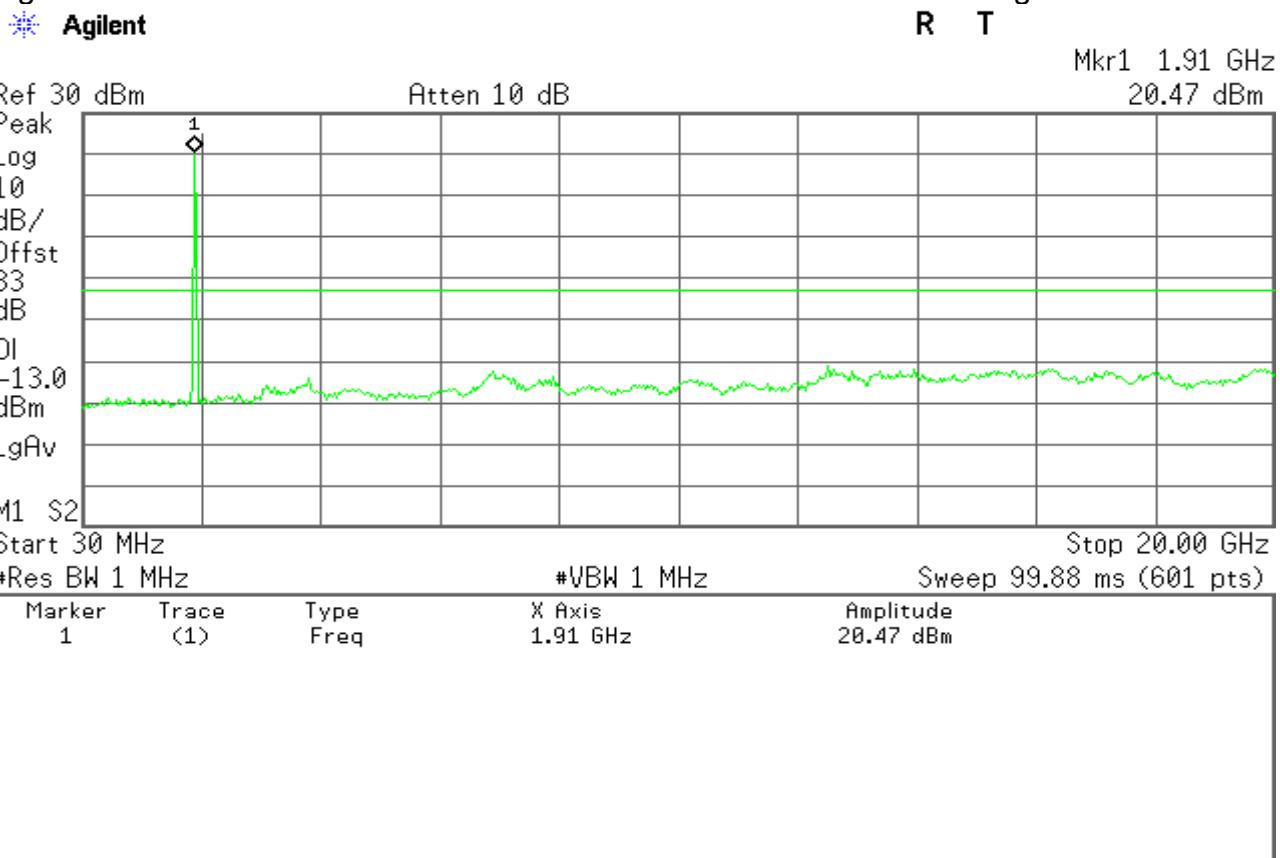


Figure 15-8: Out of Band emission at antenna terminals – HSDPA CH High





WCDMA / HSDPA Band II

Figure 15-9: Band Edge emissions – HSDPA CH Low

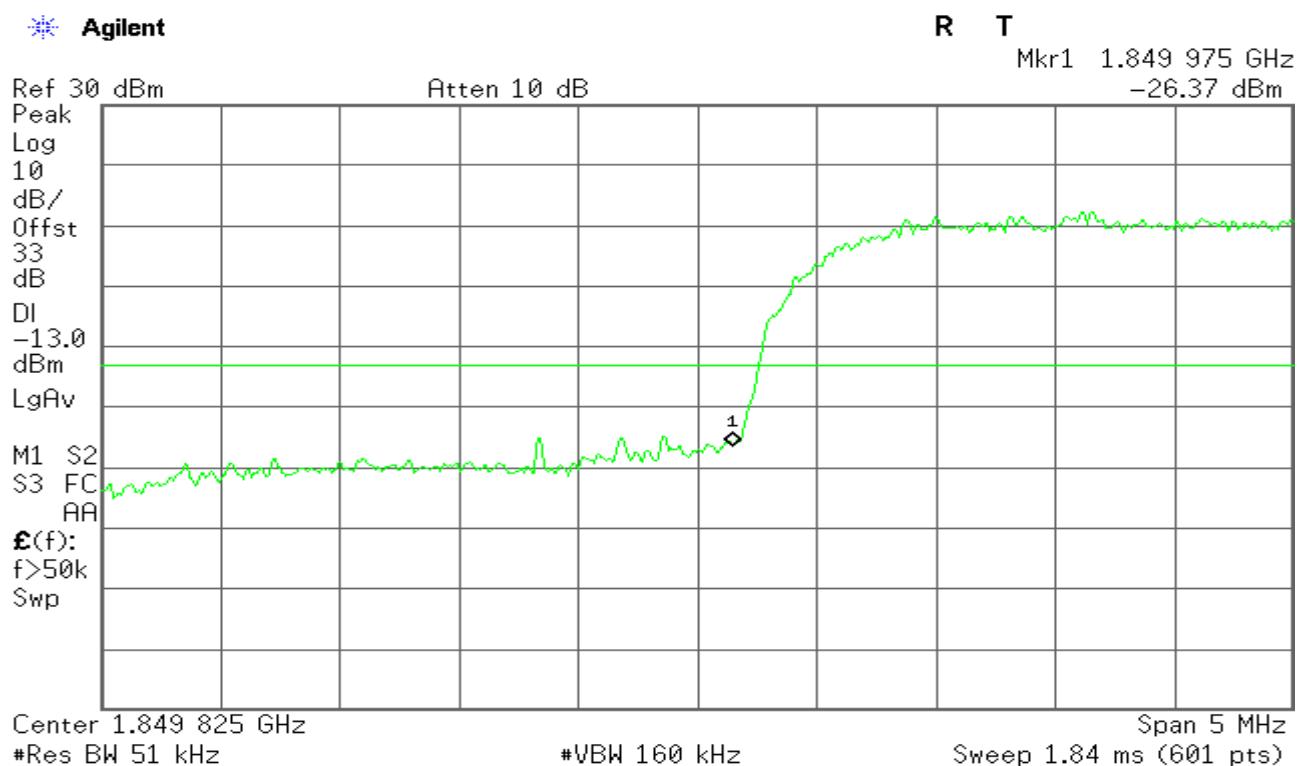
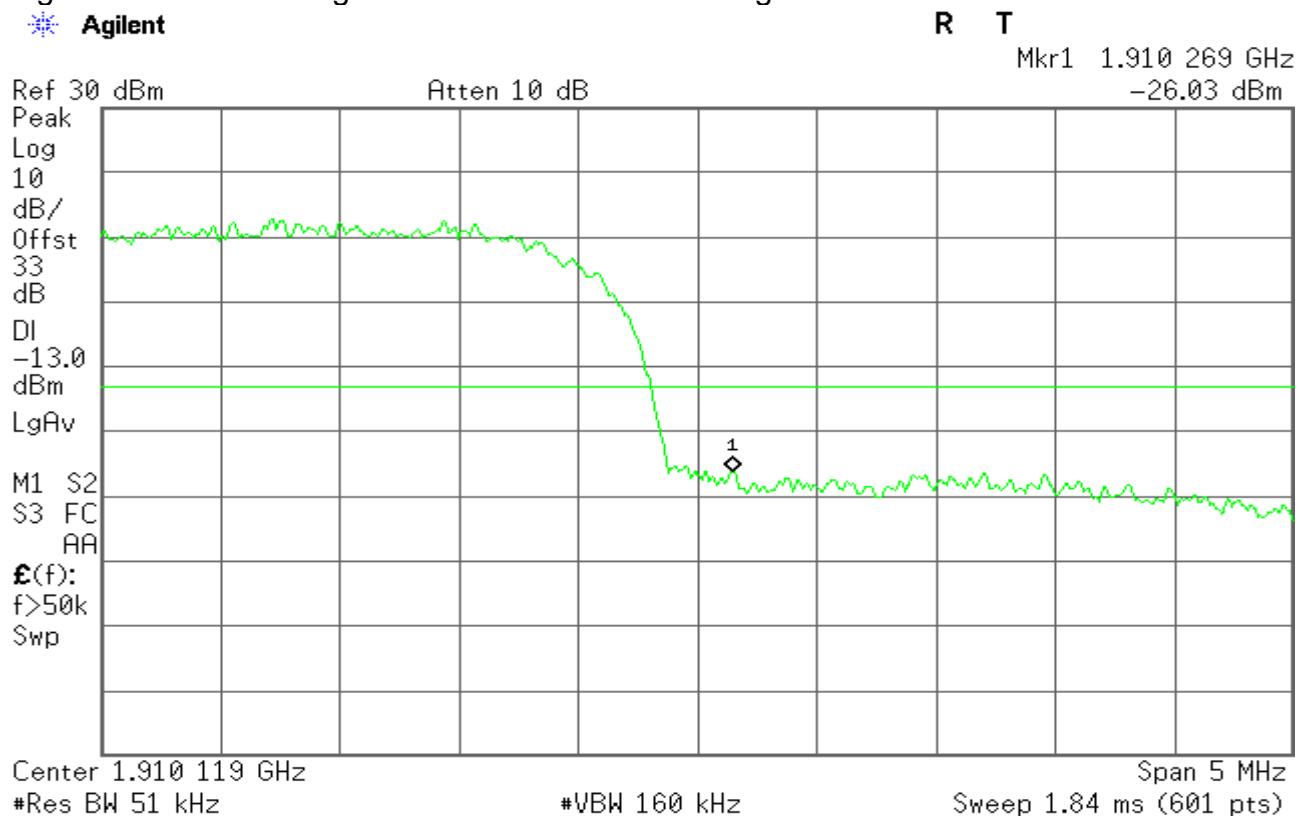


Figure 15-10: Band Edge emissions – HSDPA CH High





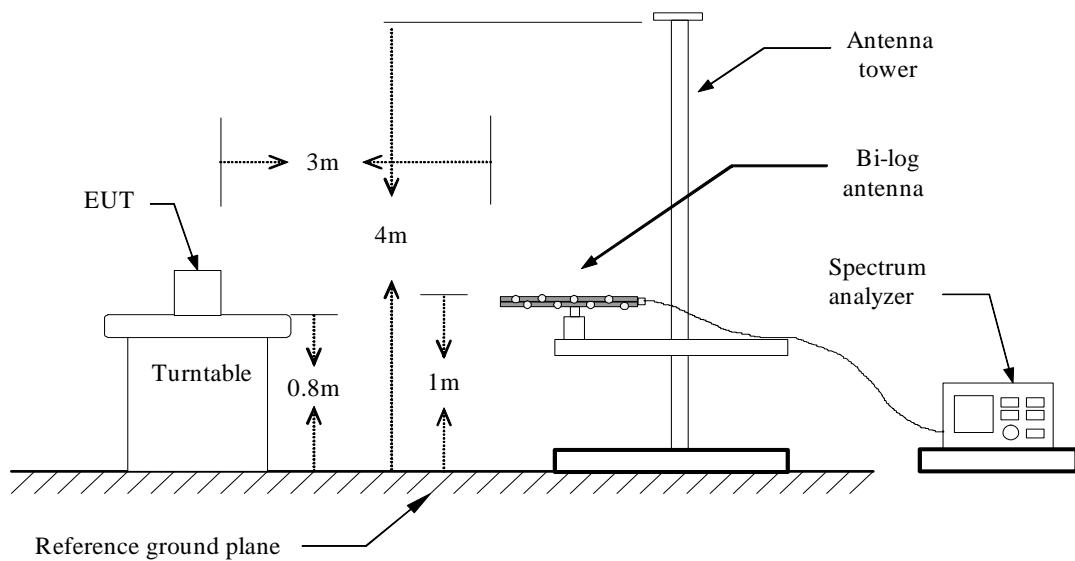
7.6. FIELD STRENGTH OF SPURIOUS RADIATION MEASUREMENT

LIMIT

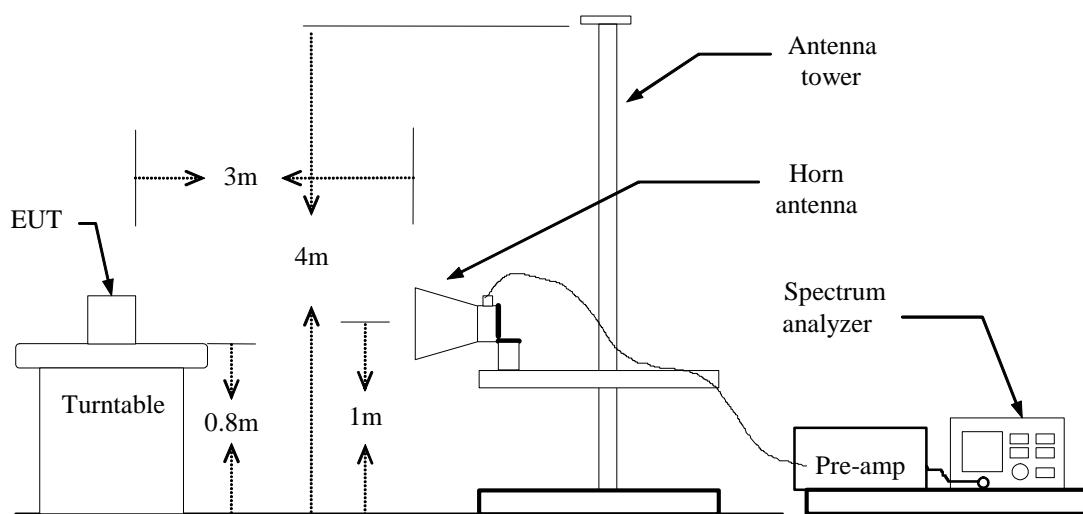
According to FCC §2.1053

TEST CONFIGURATION

Below 1 GHz

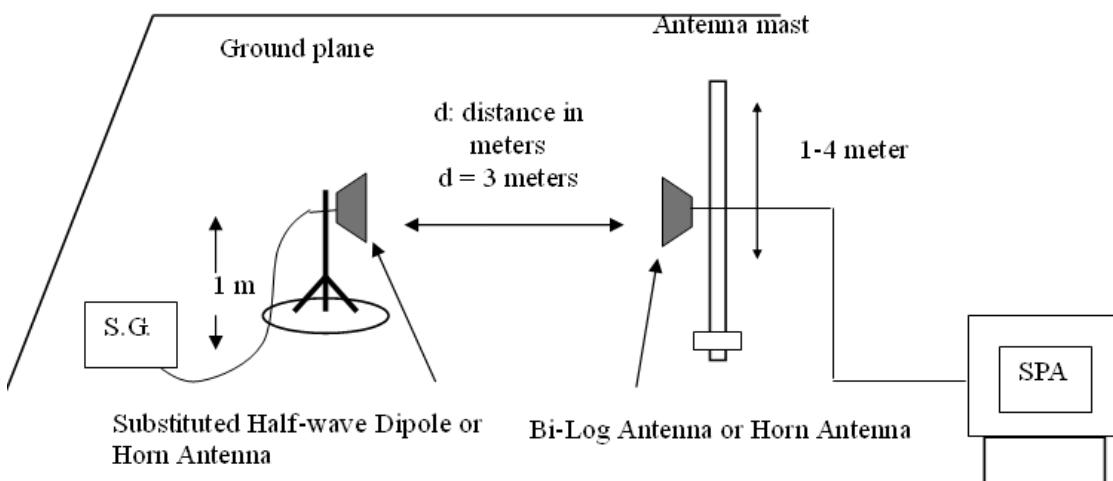


Above 1 GHz





Substituted Method Test Set-up



TEST PROCEDURE

The EUT was placed on a non-conductive, the measurement antenna was placed at a distance of 3 meters from the EUT. During the tests, the antenna height and the EUT azimuth were varied in order to identify the maximum level of emissions from the EUT. This maximization process was repeated with the EUT positioned in each of its three orthogonal orientations.

The frequency range up to tenth harmonic was investigated for each of three fundamental frequency (low, middle and high channels). Once spurious emission were identified, the power of the emission was determined using the substitution method.

The spurious emissions attenuation was calculated as the difference between radiated power at the fundamental frequency and the spurious emissions frequency.

$$\text{ERP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBd)} - \text{Cable (dB)}$$

$$\text{EIRP} = \text{S.G. output (dBm)} + \text{Antenna Gain (dBi)} - \text{Cable (dB)}$$



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

TEST RESULTS

Refer to the attached tabular data sheets.

Radiated Spurious Emission Measurement Result / Below 1GHz

| | | | |
|------------------------|------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 850 / TX / CH 128 | Test Date: | October 31,2012 |
| Temperature: | 23°C | Tested by: | Sean.Yu |
| Humidity: | 51 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|----------------------------|---------------------------------|--------------------------|-----------------------------------|---------------------------------|------------------------|------------------------|
| 65.55 | V | -36.58 | -10.70 | -47.28 | -13.00 | -34.28 |
| 112.46 | V | -41.14 | -5.90 | -47.04 | -13.00 | -34.04 |
| 184.29 | V | -38.47 | -8.85 | -47.32 | -13.00 | -34.32 |
| 270.29 | V | -37.21 | -9.18 | -46.39 | -13.00 | -33.39 |
| 294.16 | V | -34.74 | -9.44 | -44.18 | -13.00 | -31.18 |
| 363.26 | V | -37.14 | -6.68 | -43.82 | -13.00 | -30.82 |
| 30.59 | H | -30.74 | -16.87 | -47.61 | -13.00 | -34.61 |
| 39.46 | H | -37.12 | -8.79 | -45.91 | -13.00 | -32.91 |
| 129.59 | H | -36.24 | -8.95 | -45.19 | -13.00 | -32.19 |
| 164.26 | H | -37.25 | -10.97 | -48.22 | -13.00 | -35.22 |
| 294.29 | H | -36.41 | -9.01 | -45.42 | -13.00 | -32.42 |
| 418.59 | H | -44.42 | -4.31 | -48.73 | -13.00 | -35.73 |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 850 / TX / CH 190 | Test Date: | October 31,2012 |
| Temperature: | 23°C | Tested by: | Sean.Yu |
| Humidity: | 51 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 61.46 | V | -35.22 | -10.70 | -45.92 | -13.00 | -32.92 |
| 123.59 | V | -42.74 | -5.90 | -48.64 | -13.00 | -35.64 |
| 185.68 | V | -39.24 | -8.85 | -48.09 | -13.00 | -35.09 |
| 269.68 | V | -36.25 | -9.18 | -45.43 | -13.00 | -32.43 |
| 291.95 | V | -35.41 | -9.44 | -44.85 | -13.00 | -31.85 |
| 362.96 | V | -36.47 | -6.68 | -43.15 | -13.00 | -30.15 |
| 31.96 | H | -31.25 | -16.87 | -48.12 | -13.00 | -35.12 |
| 39.95 | H | -36.12 | -8.79 | -44.91 | -13.00 | -31.91 |
| 130.65 | H | -35.74 | -8.95 | -44.69 | -13.00 | -31.69 |
| 163.69 | H | -36.24 | -10.97 | -47.21 | -13.00 | -34.21 |
| 295.55 | H | -35.32 | -9.01 | -44.33 | -13.00 | -31.33 |
| 417.65 | H | -43.51 | -4.31 | -47.82 | -13.00 | -34.82 |

Remark:

1. The emission behaviour belongs to narrowband spurious emission.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 850 / TX / CH 251 | Test Date: | October 31,2012 |
| Temperature: | 23°C | Tested by: | Sean.Yu |
| Humidity: | 51 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 164.55 | V | -51.16 | -13.84 | -65.00 | -13.00 | -52.00 |
| 262.16 | V | -47.26 | -13.71 | -60.97 | -13.00 | -47.97 |
| 399.32 | V | -47.19 | -11.17 | -58.36 | -13.00 | -45.36 |
| 498.59 | V | -54.25 | -8.40 | -62.65 | -13.00 | -49.65 |
| 694.26 | V | -58.46 | -6.25 | -64.71 | -13.00 | -51.71 |
| 799.19 | V | -60.29 | -4.98 | -65.27 | -13.00 | -52.27 |
| 115.29 | H | -55.19 | -13.90 | -69.09 | -13.00 | -56.09 |
| 161.42 | H | -48.24 | -14.15 | -62.39 | -13.00 | -49.39 |
| 263.29 | H | -52.27 | -14.06 | -66.33 | -13.00 | -53.33 |
| 400.27 | H | -51.16 | -10.96 | -62.12 | -13.00 | -49.12 |
| 498.16 | H | -49.26 | -8.28 | -57.54 | -13.00 | -44.54 |
| 695.29 | H | -57.46 | -6.18 | -63.64 | -13.00 | -50.64 |

Remark:

1. The emission behaviour belongs to narrowband spurious emission.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Operation Mode: EDGE 850 / TX / CH 128

Test Date: October 31,2012

Temperature: 21°C

Tested by: Sean.Yu

Humidity: 53 % RH

Polarity: Ver. / Hor.

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 100.69 | V | -46.26 | -17.68 | -63.94 | -13.00 | -50.94 |
| 240.46 | V | -49.46 | -14.01 | -63.47 | -13.00 | -50.47 |
| 264.59 | V | -47.75 | -13.71 | -61.46 | -13.00 | -48.46 |
| 399.26 | V | -46.16 | -11.17 | -57.33 | -13.00 | -44.33 |
| 499.46 | V | -54.26 | -8.38 | -62.64 | -13.00 | -49.64 |
| 695.75 | V | -58.46 | -6.25 | -64.71 | -13.00 | -51.71 |
| 100.25 | H | -45.85 | -17.49 | -63.34 | -13.00 | -50.34 |
| 264.65 | H | -52.63 | -14.06 | -66.69 | -13.00 | -53.69 |
| 400.46 | H | -50.32 | -10.96 | -61.28 | -13.00 | -48.28 |
| 511.96 | H | -58.43 | -8.20 | -66.63 | -13.00 | -53.63 |
| 695.52 | H | -57.36 | -6.18 | -63.54 | -13.00 | -50.54 |
| 742.36 | H | -62.93 | -5.57 | -68.50 | -13.00 | -55.50 |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Operation Mode: EDGE 850 / TX / CH 190

Test Date: October 31,2012

Temperature: 21°C

Tested by: Sean.Yu

Humidity: 53 % RH

Polarity: Ver. / Hor.

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 131.16 | V | -45.46 | -12.34 | -57.80 | -13.00 | -44.80 |
| 262.29 | V | -48.26 | -13.71 | -61.97 | -13.00 | -48.97 |
| 400.46 | V | -46.26 | -11.22 | -57.48 | -13.00 | -44.48 |
| 498.75 | V | -54.36 | -8.40 | -62.76 | -13.00 | -49.76 |
| 698.29 | V | -58.49 | -6.25 | -64.74 | -13.00 | -51.74 |
| 966.29 | V | -60.52 | -3.05 | -63.57 | -13.00 | -50.57 |
| 131.16 | H | -45.29 | -13.66 | -58.95 | -13.00 | -45.95 |
| 264.46 | H | -52.63 | -14.06 | -66.69 | -13.00 | -53.69 |
| 400.29 | H | -51.62 | -10.96 | -62.58 | -13.00 | -49.58 |
| 451.46 | H | -55.42 | -9.64 | -65.06 | -13.00 | -52.06 |
| 555.36 | H | -57.35 | -6.18 | -63.53 | -13.00 | -50.53 |
| 966.49 | H | -61.62 | -3.10 | -64.72 | -13.00 | -51.72 |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.

Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Operation Mode: EDGE 850 / TX / CH 251

Test Date: October 31,2012

Temperature: 21°C

Tested by: Sean.Yu

Humidity: 53 % RH

Polarity: Ver. / Hor.

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 355.65 | V | -48.65 | -13.71 | -62.36 | -13.00 | -49.36 |
| 400.16 | V | -48.62 | -11.22 | -59.84 | -13.00 | -46.84 |
| 497.62 | V | -54.36 | -8.40 | -62.76 | -13.00 | -49.76 |
| 533.36 | V | -57.26 | -8.01 | -65.27 | -13.00 | -52.27 |
| 695.36 | V | -58.16 | -6.25 | -64.41 | -13.00 | -51.41 |
| 797.23 | V | -60.26 | -4.98 | -65.24 | -13.00 | -52.24 |
| 115.85 | H | -55.75 | -14.27 | -70.02 | -13.00 | -57.02 |
| 161.46 | H | -48.46 | -14.15 | -62.61 | -13.00 | -49.61 |
| 356.29 | H | -51.16 | -14.06 | -65.22 | -13.00 | -52.22 |
| 400.46 | H | -51.95 | -10.91 | -62.86 | -13.00 | -49.86 |
| 497.69 | H | -50.32 | -8.28 | -58.60 | -13.00 | -45.60 |
| 695.86 | H | -58.65 | -6.18 | -64.83 | -13.00 | -51.83 |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 1900 / TX / CH 512 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 134.13 | V | -43.49 | -12.75 | -56.24 | -13.00 | -43.24 |
| 226.89 | V | -40.29 | -14.56 | -54.85 | -13.00 | -41.85 |
| 400.00 | V | -41.16 | -11.22 | -52.38 | -13.00 | -39.38 |
| 500.74 | V | -49.49 | -8.38 | -57.87 | -13.00 | -44.87 |
| 697.54 | V | -54.26 | -6.25 | -60.51 | -13.00 | -47.51 |
| 801.65 | V | -52.75 | -4.97 | -57.72 | -13.00 | -44.72 |
| 102.36 | H | -35.29 | -16.71 | -52.00 | -13.00 | -39.00 |
| 194.35 | H | -42.24 | -13.34 | -55.58 | -13.00 | -42.58 |
| 400.58 | H | -46.75 | -10.96 | -57.71 | -13.00 | -44.71 |
| 460.15 | H | -51.65 | -9.30 | -60.95 | -13.00 | -47.95 |
| 724.75 | H | -49.68 | -6.03 | -55.71 | -13.00 | -42.71 |
| 801.29 | H | -55.43 | -4.87 | -60.30 | -13.00 | -47.30 |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 1900 / TX / CH 661 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 42.36 | V | -47.13 | -12.36 | -59.49 | -13.00 | -46.49 |
| 135.16 | V | -43.85 | -12.84 | -56.69 | -13.00 | -43.69 |
| 228.26 | V | -39.16 | -14.56 | -53.72 | -13.00 | -40.72 |
| 400.14 | V | -41.75 | -11.22 | -52.97 | -13.00 | -39.97 |
| 500.44 | V | -49.12 | -8.38 | -57.50 | -13.00 | -44.50 |
| 799.48 | V | -51.42 | -4.97 | -56.39 | -13.00 | -43.39 |
| 117.59 | H | -37.16 | -13.90 | -51.06 | -13.00 | -38.06 |
| 191.49 | H | -42.12 | -13.48 | -55.60 | -13.00 | -42.60 |
| 400.75 | H | -46.16 | -10.87 | -57.03 | -13.00 | -44.03 |
| 501.95 | H | -53.85 | -8.27 | -62.12 | -13.00 | -49.12 |
| 721.62 | H | -54.29 | -6.14 | -60.43 | -13.00 | -47.43 |
| 800.85 | H | -55.26 | -4.88 | -60.14 | -13.00 | -47.14 |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 1900 / TX / CH 810 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 135.69 | V | -41.25 | -12.84 | -54.09 | -13.00 | -41.09 |
| 205.16 | V | -41.24 | -14.98 | -56.22 | -13.00 | -43.22 |
| 401.29 | V | -41.46 | -11.17 | -52.63 | -13.00 | -39.63 |
| 500.46 | V | -49.26 | -8.38 | -57.64 | -13.00 | -44.64 |
| 695.29 | V | -55.63 | -6.25 | -61.88 | -13.00 | -48.88 |
| 801.46 | V | 52.55 | -4.92 | 47.63 | -13.00 | 60.63 |
| 116.29 | H | -38.36 | -14.09 | -52.45 | -13.00 | -39.45 |
| 194.29 | H | -42.25 | -13.34 | -55.59 | -13.00 | -42.59 |
| 400.46 | H | -46.42 | -10.96 | -57.38 | -13.00 | -44.38 |
| 500.26 | H | -53.16 | -8.27 | -61.43 | -13.00 | -48.43 |
| 698.59 | H | -52.52 | -6.18 | -58.70 | -13.00 | -45.70 |
| 799.59 | H | -54.16 | -4.89 | -59.05 | -13.00 | -46.05 |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Operation Mode: EDGE 1900 / TX / CH 512

Test Date: October 31,2012

Temperature: 21°C

Tested by: Sean.Yu

Humidity: 53 % RH

Polarity: Ver. / Hor.

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 86.63 | V | -36.64 | -19.16 | -55.80 | -13.00 | -42.80 |
| 129.36 | V | -43.28 | -12.26 | -55.54 | -13.00 | -42.54 |
| 215.24 | V | -39.75 | -15.16 | -54.91 | -13.00 | -41.91 |
| 400.46 | V | -42.51 | -11.26 | -53.77 | -13.00 | -40.77 |
| 500.29 | V | -49.70 | -8.16 | -57.86 | -13.00 | -44.86 |
| 800.16 | V | -50.52 | -4.97 | -55.49 | -13.00 | -42.49 |
| 32.26 | H | -37.16 | -15.23 | -52.39 | -13.00 | -39.39 |
| 115.16 | H | -38.24 | -14.27 | -52.51 | -13.00 | -39.51 |
| 400.42 | H | -47.25 | -10.96 | -58.21 | -13.00 | -45.21 |
| 500.26 | H | -53.16 | -8.27 | -61.43 | -13.00 | -48.43 |
| 697.49 | H | -54.24 | -6.18 | -60.42 | -13.00 | -47.42 |
| 800.29 | H | -53.64 | -4.90 | -58.54 | -13.00 | -45.54 |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Operation Mode: EDGE 1900 / TX / CH 661

Test Date: October 31,2012

Temperature: 21°C

Tested by: Sean.Yu

Humidity: 53 % RH

Polarity: Ver. / Hor.

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 140.75 | V | -41.62 | -13.09 | -54.71 | -13.00 | -41.71 |
| 160.25 | V | -41.32 | -14.02 | -55.34 | -13.00 | -42.34 |
| 400.25 | V | -42.62 | -11.22 | -53.84 | -13.00 | -40.84 |
| 499.16 | V | -49.42 | -8.38 | -57.80 | -13.00 | -44.80 |
| 695.95 | V | -55.52 | -6.25 | -61.77 | -13.00 | -48.77 |
| 797.16 | V | -51.16 | -4.98 | -56.14 | -13.00 | -43.14 |
| 117.35 | H | -36.25 | -13.90 | -50.15 | -13.00 | -37.15 |
| 191.28 | H | -42.29 | -13.48 | -55.77 | -13.00 | -42.77 |
| 400.18 | H | -46.16 | -10.87 | -57.03 | -13.00 | -44.03 |
| 499.85 | H | -53.62 | -8.27 | -61.89 | -13.00 | -48.89 |
| 695.16 | H | -54.95 | -6.18 | -61.13 | -13.00 | -48.13 |
| 799.46 | H | -54.22 | -4.90 | -59.12 | -13.00 | -46.12 |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Operation Mode: EDGE 1900 / TX / CH 810

Test Date: October 31,2012

Temperature: 21°C

Tested by: Sean.Yu

Humidity: 53 % RH

Polarity: Ver. / Hor.

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 137.49 | V | -43.45 | -13.00 | -56.45 | -13.00 | -43.45 |
| 231.59 | V | -41.52 | -14.43 | -55.95 | -13.00 | -42.95 |
| 400.35 | V | -42.41 | -11.17 | -53.58 | -13.00 | -40.58 |
| 452.62 | V | -48.26 | -9.76 | -58.02 | -13.00 | -45.02 |
| 500.95 | V | -50.15 | -8.38 | -58.53 | -13.00 | -45.53 |
| 797.19 | V | -45.68 | -4.98 | -50.66 | -13.00 | -37.66 |
| 117.46 | H | -39.57 | -13.90 | -53.47 | -13.00 | -40.47 |
| 193.26 | H | -43.46 | -13.20 | -56.66 | -13.00 | -43.66 |
| 287.18 | H | -42.24 | -12.87 | -55.11 | -13.00 | -42.11 |
| 400.29 | H | -47.35 | -10.96 | -58.31 | -13.00 | -45.31 |
| 697.52 | H | -52.56 | -6.18 | -58.74 | -13.00 | -45.74 |
| 800.36 | H | -55.65 | -4.88 | -60.53 | -13.00 | -47.53 |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with " N/A " remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-----------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA Band V / TX / CH 4132 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|--------------------|-------------------------|------------------|---------------------------|-------------------------|----------------|----------------|
| 100.25 | V | -46.22 | -17.68 | -63.90 | -13.00 | -50.90 |
| 245.45 | V | -49.45 | -14.01 | -63.46 | -13.00 | -50.46 |
| 265.23 | V | -47.35 | -13.71 | -61.06 | -13.00 | -48.06 |
| 398.45 | V | -46.12 | -11.17 | -57.29 | -13.00 | -44.29 |
| 499.26 | V | -54.62 | -8.38 | -63.00 | -13.00 | -50.00 |
| 696.41 | V | -58.41 | -6.25 | -64.66 | -13.00 | -51.66 |
| 100.24 | H | -45.25 | -17.49 | -62.74 | -13.00 | -49.74 |
| 264.26 | H | -52.15 | -14.06 | -66.21 | -13.00 | -53.21 |
| 400.74 | H | -52.25 | -10.96 | -63.21 | -13.00 | -50.21 |
| 511.26 | H | -58.41 | -8.20 | -66.61 | -13.00 | -53.61 |
| 695.23 | H | -55.25 | -6.18 | -61.43 | -13.00 | -48.43 |
| 742.52 | H | -61.45 | -5.57 | -67.02 | -13.00 | -54.02 |

Remark:

2. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-----------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA Band V / TX / CH 4182 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|--------------------|-------------------------|------------------|---------------------------|-------------------------|----------------|----------------|
| 131.53 | V | -45.46 | -12.34 | -57.80 | -13.00 | -44.80 |
| 261.53 | V | -48.47 | -13.71 | -62.18 | -13.00 | -49.18 |
| 401.24 | V | -46.41 | -11.22 | -57.63 | -13.00 | -44.63 |
| 498.78 | V | -54.24 | -8.40 | -62.64 | -13.00 | -49.64 |
| 698.25 | V | -58.53 | -6.25 | -64.78 | -13.00 | -51.78 |
| 966.41 | V | -60.24 | -3.05 | -63.29 | -13.00 | -50.29 |
| 131.25 | H | -45.74 | -13.66 | -59.40 | -13.00 | -46.40 |
| 264.43 | H | -52.15 | -14.06 | -66.21 | -13.00 | -53.21 |
| 400.47 | H | -51.42 | -10.96 | -62.38 | -13.00 | -49.38 |
| 451.52 | H | -55.74 | -9.64 | -65.38 | -13.00 | -52.38 |
| 695.85 | H | -57.15 | -6.18 | -63.33 | -13.00 | -50.33 |
| 966.16 | H | -61.43 | -3.10 | -64.53 | -13.00 | -51.53 |

Remark:

2. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
3. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-----------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA Band V / TX / CH 4233 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 261.25 | V | -44.20 | -13.71 | -57.91 | -13.00 | -44.91 |
| 400.14 | V | -48.35 | -11.22 | -59.57 | -13.00 | -46.57 |
| 497.25 | V | -53.45 | -8.40 | -61.85 | -13.00 | -48.85 |
| 523.65 | V | -56.68 | -8.01 | -64.69 | -13.00 | -51.69 |
| 695.12 | V | -51.25 | -6.25 | -57.50 | -13.00 | -44.50 |
| 797.26 | V | -60.22 | -4.98 | -65.20 | -13.00 | -52.20 |
| 114.14 | H | -50.15 | -14.27 | -64.42 | -13.00 | -51.42 |
| 161.45 | H | -49.24 | -14.15 | -63.39 | -13.00 | -50.39 |
| 265.26 | H | -50.36 | -14.06 | -64.42 | -13.00 | -51.42 |
| 401.36 | H | -51.47 | -10.91 | -62.38 | -13.00 | -49.38 |
| 497.46 | H | -49.58 | -8.28 | -57.86 | -13.00 | -44.86 |
| 695.36 | H | -58.46 | -6.18 | -64.64 | -13.00 | -51.64 |

Remark:

3. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
4. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|------------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA Band II / TX / CH 9262 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 101.52 | V | -46.16 | -17.68 | -63.84 | -13.00 | -50.84 |
| 245.41 | V | -49.23 | -14.01 | -63.24 | -13.00 | -50.24 |
| 265.26 | V | -47.21 | -13.71 | -60.92 | -13.00 | -47.92 |
| 397.74 | V | -46.24 | -11.17 | -57.41 | -13.00 | -44.41 |
| 498.58 | V | -54.62 | -8.38 | -63.00 | -13.00 | -50.00 |
| 697.35 | V | -58.13 | -6.25 | -64.38 | -13.00 | -51.38 |
| 100.42 | H | -45.22 | -17.49 | -62.71 | -13.00 | -49.71 |
| 264.25 | H | -52.13 | -14.06 | -66.19 | -13.00 | -53.19 |
| 400.41 | H | -52.26 | -10.96 | -63.22 | -13.00 | -50.22 |
| 511.25 | H | -58.46 | -8.20 | -66.66 | -13.00 | -53.66 |
| 695.53 | H | -55.16 | -6.18 | -61.34 | -13.00 | -48.34 |
| 701.25 | H | -61.24 | -5.57 | -66.81 | -13.00 | -53.81 |

Remark:

4. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|------------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA Band II / TX / CH 9400 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 102.36 | V | -46.16 | -17.68 | -63.84 | -13.00 | -50.84 |
| 245.35 | V | -49.25 | -14.01 | -63.26 | -13.00 | -50.26 |
| 265.33 | V | -47.16 | -13.71 | -60.87 | -13.00 | -47.87 |
| 397.77 | V | -46.24 | -11.17 | -57.41 | -13.00 | -44.41 |
| 498.46 | V | -54.25 | -8.38 | -62.63 | -13.00 | -49.63 |
| 697.59 | V | -58.19 | -6.25 | -64.44 | -13.00 | -51.44 |
| 100.26 | H | -45.32 | -17.49 | -62.81 | -13.00 | -49.81 |
| 264.36 | H | -52.16 | -14.06 | -66.22 | -13.00 | -53.22 |
| 400.48 | H | -52.26 | -10.96 | -63.22 | -13.00 | -50.22 |
| 511.42 | H | -58.46 | -8.20 | -66.66 | -13.00 | -53.66 |
| 695.26 | H | -55.33 | -6.18 | -61.51 | -13.00 | -48.51 |
| 742.25 | H | -61.34 | -5.57 | -66.91 | -13.00 | -53.91 |

Remark:

4. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
5. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|------------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA Band II / TX / CH 9538 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 261.16 | V | -48.85 | -13.71 | -62.56 | -13.00 | -49.56 |
| 400.18 | V | -48.32 | -11.22 | -59.54 | -13.00 | -46.54 |
| 494.82 | V | -53.74 | -8.40 | -62.14 | -13.00 | -49.14 |
| 533.43 | V | -56.22 | -8.01 | -64.23 | -13.00 | -51.23 |
| 695.58 | V | -51.41 | -6.25 | -57.66 | -13.00 | -44.66 |
| 797.45 | V | -60.75 | -4.98 | -65.73 | -13.00 | -52.73 |
| 114.35 | H | -50.26 | -14.27 | -64.53 | -13.00 | -51.53 |
| 161.55 | H | -49.45 | -14.15 | -63.60 | -13.00 | -50.60 |
| 262.24 | H | -50.35 | -14.06 | -64.41 | -13.00 | -51.41 |
| 400.35 | H | -51.25 | -10.91 | -62.16 | -13.00 | -49.16 |
| 497.25 | H | -49.54 | -8.28 | -57.82 | -13.00 | -44.82 |
| 695.55 | H | -58.25 | -6.18 | -64.43 | -13.00 | -51.43 |

Remark:

5. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
6. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Radiated Spurious Emission Measurement Result / Above 1GHz

| | | | |
|------------------------|------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 850 / TX / CH 128 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|--------------------|-------------------------|------------------|---------------------------|-------------------------|----------------|----------------|
| 1678.80 | V | -52.46 | 0.73 | -51.73 | -13.00 | -38.73 |
| 6955.65 | V | -53.35 | 13.76 | -39.59 | -13.00 | -26.59 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 1678.46 | H | -54.16 | 0.84 | -53.32 | -13.00 | -40.32 |
| 6673.59 | H | -59.26 | 12.80 | -46.46 | -13.00 | -33.46 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 850 / TX / CH 190 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 1678.56 | V | -50.16 | 0.73 | -49.43 | -13.00 | -36.43 |
| 6950.62 | V | -55.26 | 13.76 | -41.50 | -13.00 | -28.50 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 1675.13 | H | -55.16 | 0.84 | -54.32 | -13.00 | -41.32 |
| 6675.29 | H | -61.26 | 12.80 | -48.46 | -13.00 | -35.46 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 850 / TX / CH 251 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 1398.33 | V | -58.62 | 0.05 | -58.57 | -13.00 | -45.57 |
| 5688.36 | V | -60.16 | 9.95 | -50.21 | -13.00 | -37.21 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 1395.16 | H | -52.26 | 0.90 | -51.36 | -13.00 | -38.36 |
| 5241.25 | H | -60.46 | 10.22 | -50.24 | -13.00 | -37.24 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 1900 / TX / CH 512 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|----------------------------|---------------------------------|--------------------------|-----------------------------------|---------------------------------|------------------------|------------------------|
| 5395.46 | V | -55.16 | 9.86 | -45.30 | -13.00 | -32.30 |
| 7133.26 | V | -55.24 | 14.34 | -40.90 | -13.00 | -27.90 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 5437.49 | H | -51.42 | 10.24 | -41.18 | -13.00 | -28.18 |
| 7621.64 | H | -52.29 | 16.14 | -36.15 | -13.00 | -23.15 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 1900 / TX / CH 661 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 5640.49 | V | -58.46 | 9.94 | -48.52 | -13.00 | -35.52 |
| 7348.25 | V | -61.26 | 14.97 | -46.29 | -13.00 | -33.29 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 5640.46 | H | -52.16 | 10.28 | -41.88 | -13.00 | -28.88 |
| 8012.36 | H | -61.23 | 13.34 | -47.89 | -13.00 | -34.89 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-------------------------|-------------------|-----------------|
| Operation Mode: | GPRS 1900 / TX / CH 810 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 4761.46 | V | -61.49 | 8.99 | -52.50 | -13.00 | -39.50 |
| 7075.20 | V | -61.35 | 14.17 | -47.18 | -13.00 | -34.18 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 5192.19 | H | -55.49 | 10.22 | -45.27 | -13.00 | -32.27 |
| 7033.46 | H | -55.25 | 14.23 | -41.02 | -13.00 | -28.02 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-----------------------------|-------------------|-----------------|
| Operation Mode: | HSDPA Band V / TX / CH 4132 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|--------------------|-------------------------|------------------|---------------------------|-------------------------|----------------|----------------|
| 2499.46 | V | -59.48 | 3.61 | -55.87 | -13.00 | -42.87 |
| 7796.26 | V | -61.29 | 16.19 | -45.10 | -13.00 | -32.10 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 2498.26 | H | -61.46 | 3.91 | -57.55 | -13.00 | -44.55 |
| 7399.26 | H | -61.85 | 15.48 | -46.37 | -13.00 | -33.37 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-------------------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA / HSDPA Band V / TX / CH 4182 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|--------------------|-------------------------|------------------|---------------------------|-------------------------|----------------|----------------|
| 1671.49 | V | -55.49 | 0.73 | -54.76 | -13.00 | -41.76 |
| 7736.28 | V | -56.25 | 3.66 | -52.59 | -13.00 | -39.59 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 4954.19 | H | -60.48 | 10.14 | -50.34 | -13.00 | -37.34 |
| 7377.29 | H | -61.25 | 15.41 | -45.84 | -13.00 | -32.84 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|-------------------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA / HSDPA Band V / TX / CH 4233 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean.Yu |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|--------------------|-------------------------|------------------|---------------------------|-------------------------|----------------|----------------|
| 1699.49 | V | -54.49 | 0.79 | -53.70 | -13.00 | -40.70 |
| 2546.25 | V | -55.25 | 3.77 | -51.48 | -13.00 | -38.48 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 1700.75 | H | -56.48 | 0.90 | -55.58 | -13.00 | -42.58 |
| 2545.45 | H | -51.25 | 9.69 | -41.56 | -13.00 | -28.56 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|--------------------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA / HSUPA Band II / TX / CH 9262 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|----------------------------|---------------------------------|--------------------------|-----------------------------------|---------------------------------|------------------------|------------------------|
| 5395.49 | V | -55.48 | 9.86 | -45.62 | -13.00 | -32.62 |
| 7133.58 | V | -55.25 | 14.34 | -40.91 | -13.00 | -27.91 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 5437.49 | H | -51.46 | 10.24 | -41.22 | -13.00 | -28.22 |
| 7621.34 | H | -52.30 | 16.14 | -36.16 | -13.00 | -23.16 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|--------------------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA / HSUPA Band II / TX / CH 9400 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 5640.49 | V | -58.46 | 9.94 | -48.52 | -13.00 | -35.52 |
| 7348.26 | V | -61.26 | 14.97 | -46.29 | -13.00 | -33.29 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 5640.36 | H | -52.85 | 10.28 | -42.57 | -13.00 | -29.57 |
| 6807.19 | H | -61.36 | 13.34 | -48.02 | -13.00 | -35.02 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| | | | |
|------------------------|--------------------------------------|-------------------|-----------------|
| Operation Mode: | WCDMA / HSUPA Band II / TX / CH 9538 | Test Date: | October 31,2012 |
| Temperature: | 21°C | Tested by: | Sean |
| Humidity: | 53 % RH | Polarity: | Ver. / Hor. |

| Frequency (MHz) | Antenna Polarization | Reading (dBm) | Correction Factor (dB) | Emission level (dBm) | Limit (dBm) | Margin (dB) |
|-----------------|----------------------|---------------|------------------------|----------------------|-------------|-------------|
| 4761.55 | V | -61.36 | 8.99 | -52.37 | -13.00 | -39.37 |
| 7075.62 | V | -61.53 | 14.17 | -47.36 | -13.00 | -34.36 |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| 5192.69 | H | -55.26 | 10.22 | -45.04 | -13.00 | -32.04 |
| 7033.16 | H | -55.12 | 14.23 | -40.89 | -13.00 | -27.89 |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Remark:

1. Measuring frequencies from 1 GHz to the 10th harmonic of highest fundamental frequency.
2. Measurements above show only up to 6 maximum emissions noted, or would be lesser, with "N/A" remark, if no specific emissions from the EUT are recorded (ie: margin>20dB from the applicable limit) and considered that's already beyond the background noise floor.



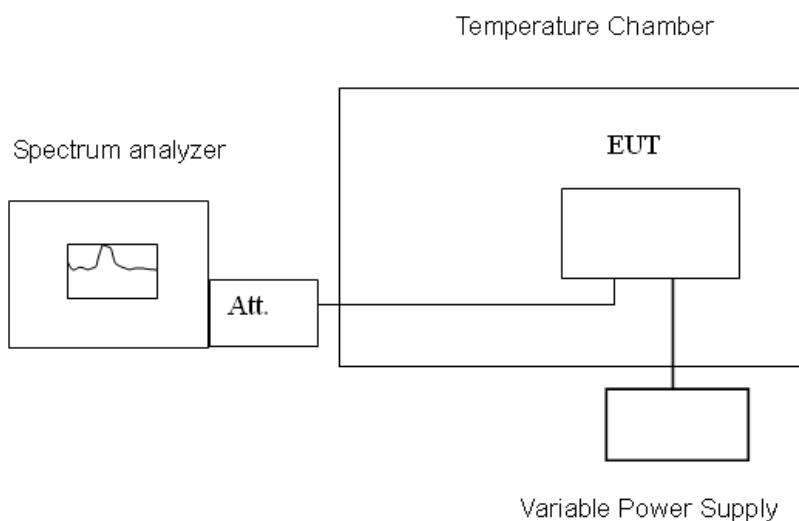
7.7. FREQUENCY STABILITY V.S. TEMPERATURE MEASUREMENT

LIMIT

According to FCC §2.1055, FCC §22.355, .FCC §24.235.

Frequency Tolerance: 2.5 ppm

TEST CONFIGURATION



Remark: Measurement setup for testing on Antenna connector

TEST PROCEDURE

The equipment under test was connected to an external AC or DC power supply and input rated voltage. RF output was connected to a frequency counter or spectrum analyzer via feed through attenuators. The EUT was placed inside the temperature chamber. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and measure EUT 20°C operating frequency as reference frequency. Turn EUT off and set the chamber temperature to -30°C. After the temperature stabilized for approximately 30 minutes recorded the frequency. Repeat step measure with 10°C increased per stage until the highest temperature of +50°C reached.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

TEST RESULTS

No non-compliance noted.

Reference Frequency: GSM Mid Channel 836.6 MHz @ 20°C

| Limit: ± 2.5 ppm = 2091.5 Hz | | | | |
|------------------------------|---------------------------------|-------------------|---------------|---------------|
| Power Supply Vdc | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
| 3.7 | 45 | 836600027 | 27 | 2091.5 |
| | 40 | 836600031 | 31 | |
| | 30 | 836600023 | 23 | |
| | 20 | 836599985 | 15 | |
| | 10 | 836600026 | 26 | |
| | 0 | 836600027 | 27 | |
| | -5 | 836600036 | 36 | |
| | -10 | 836600038 | 38 | |

Reference Frequency: GSM Mid Channel 1880 MHz @ 20°C

| Limit: ± 2.5 ppm = 4700 Hz | | | | |
|----------------------------|---------------------------------|-------------------|---------------|---------------|
| Power Supply Vdc | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
| 3.7 | 45 | 1879999983 | -17 | 4700 |
| | 40 | 1879999983 | -17 | |
| | 30 | 1879999979 | -21 | |
| | 20 | 1880000015 | 15 | |
| | 10 | 1879999991 | -9 | |
| | 0 | 1879999977 | -23 | |
| | -5 | 1879999982 | -18 | |
| | -10 | 1879999986 | -14 | |

Reference Frequency: GPRS Mid Channel 836.6 MHz @ 20°C

| Limit: +/- 2.5 ppm = 2090 Hz | | | | |
|------------------------------|---------------------------------|-------------------|---------------|---------------|
| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
| 3.7 | 45 | 83660018 | 18 | 2090 |
| | 40 | 83660020 | 20 | |
| | 30 | 83660024 | 20 | |
| | 20 | 83659985 | 15 | |
| | 10 | 83660014 | 14 | |
| | 0 | 83660017 | 17 | |
| | -5 | 83660010 | 10 | |
| | -10 | 83660023 | 23 | |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Reference Frequency: GPRS Mid Channel 1880 MHz @ 20°C

Limit: ± 2.5 ppm = 4700 Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 3.7 | 45 | 1880000050 | 50 | 4700 |
| | 40 | 1880000047 | 47 | |
| | 30 | 1880000051 | 51 | |
| | 20 | 1879999954 | 46 | |
| | 10 | 1880000045 | 45 | |
| | 0 | 1880000052 | 52 | |
| | -5 | 1880000047 | 47 | |
| | -10 | 1880000051 | 51 | |

Reference Frequency: EDGE Mid Channel 836.6 MHz @ 20°C

Limit: ± 2.5 ppm = 2090 Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 3.7 | 45 | 83660001 | 1 | 2090 |
| | 40 | 83660007 | 7 | |
| | 30 | 83659999 | -0.1 | |
| | 20 | 83659989 | 11 | |
| | 10 | 83660002 | 2 | |
| | 0 | 83660004 | 4 | |
| | -5 | 83660006 | 6 | |
| | -10 | 83660003 | 3 | |

Reference Frequency: EDGE Mid Channel 1880 MHz @ 20°C

Limit: ± 2.5 ppm = 4700 Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 3.7 | 45 | 1880000030 | 30 | 4700 |
| | 40 | 1880000029 | 29 | |
| | 30 | 1880000032 | 32 | |
| | 20 | 1879999966 | 34 | |
| | 10 | 1880000027 | 27 | |
| | 0 | 1880000031 | 31 | |
| | -5 | 1880000028 | 28 | |
| | -10 | 1880000024 | 24 | |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Reference Frequency: HSDPA Band V Mid Channel 836.6 MHz @ 20°C

Limit: +/- 2.5 ppm = 2090 Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 3.7 | 45 | 83660001 | 1 | 2090 |
| | 40 | 83660007 | 7 | |
| | 30 | 83659999 | -1 | |
| | 20 | 83659989 | 11 | |
| | 10 | 83660002 | 2 | |
| | 0 | 83660004 | 4 | |
| | -5 | 83660006 | 6 | |
| | -10 | 83660003 | 3 | |

Reference Frequency: WCDMA Band V Mid Channel 836.6 MHz @ 20°C

Limit: +/- 2.5 ppm = 2090 Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 3.7 | 45 | 83659998 | -2 | 2090 |
| | 40 | 83659901 | -99 | |
| | 30 | 83659999 | -1 | |
| | 20 | 83659984 | 16 | |
| | 10 | 83660001 | 1 | |
| | 0 | 83659996 | -4 | |
| | -5 | 83659918 | -82 | |
| | -10 | 83660014 | 14 | |

Reference Frequency: WCDMA Band II Mid Channel 1880 MHz @ 20°C

Limit: ± 2.5 ppm = 4700 Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 3.7 | 45 | 1880000050 | 50 | 4700 |
| | 40 | 1880000033 | 33 | |
| | 30 | 1880000031 | 31 | |
| | 20 | 1879999966 | 34 | |
| | 10 | 1880000027 | 27 | |
| | 0 | 1880000031 | 31 | |
| | -5 | 1880000028 | 28 | |
| | -10 | 1880000024 | 24 | |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

| Reference Frequency: HSDPA Band II Mid Channel 1880 MHz @ 20°C | | | | |
|---|---------------------------------|-------------------|---------------|---------------|
| Limit: ± 2.5 ppm = 4700 Hz | | | | |
| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
| 3.7 | 45 | 1880000030 | 30 | 4700 |
| | 40 | 1880000029 | 29 | |
| | 30 | 1880000032 | 32 | |
| | 20 | 1879999966 | 34 | |
| | 10 | 1880000027 | 27 | |
| | 0 | 1880000031 | 31 | |
| | -5 | 1880000028 | 28 | |
| | -10 | 1880000024 | 24 | |

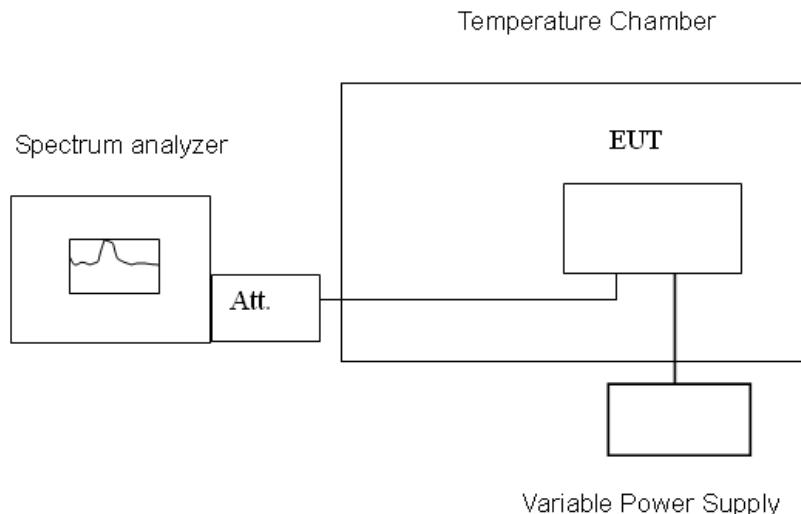


7.8. FREQUENCY STABILITY V.S. VOLTAGE MEASUREMENT

LIMIT

According to FCC §2.1055, FCC §22.355, FCC §24.235,

TEST CONFIGURATION



Remark: Measurement setup for testing on Antenna connector.

TEST PROCEDURE

Set chamber temperature to 20°C. Use a variable AC power supply / DC power source to power the EUT and set the voltage to rated voltage. Set the spectrum analyzer RBW low enough to obtain the desired frequency resolution and recorded the frequency.

Reduce the input voltage to specify extreme voltage variation ($\pm 10\%$) and endpoint, record the maximum frequency change.



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

TEST RESULTS

No non-compliance noted.

Reference Frequency: GPRS Mid Channel 836.6 MHz @ 20°C

Limit: ± 2.5 ppm = 2090Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 4.2 | 20 | 83599987 | 2 | 2090 |
| 3.7 | | 83599985 | 0 | |
| 3.6 end | | 83599982 | -3 | |

Reference Frequency: GPRS Mid Channel 1880 MHz @ 20°C

Limit: ± 2.5 ppm = 4700 Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 4.2 | 20 | 1879999950 | -50 | 4700 |
| 3.7 | | 1879999954 | 46 | |
| 3.6 end | | 1879999951 | -49 | |

Reference Frequency: EDGE Mid Channel 836.6 MHz @ 20°C

Limit: ± 2.5 ppm = 2090Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 4.2 | 20 | 83599999 | 1 | 2090 |
| 3.7 | | 83599989 | 11 | |
| 3.6 end | | 83599993 | 7 | |

Reference Frequency: EDGE Mid Channel 1880 MHz @ 20°C

Limit: ± 2.5 ppm = 4700 Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 4.2 | 20 | 1879999974 | 26 | 4700 |
| 3.7 | | 1879999966 | 34 | |
| 3.6 end | | 1879999973 | 7 | |



Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

Reference Frequency: HSDPA Band V Mid Channel 836.6 MHz @ 20°C

Limit: ± 2.5 ppm = 2090Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 4.2 | 20 | 83599986 | 14 | 2090 |
| 3.7 | | 83599985 | 15 | |
| 3.6 end | | 83599999 | 1 | |

Reference Frequency: HSDPA II Mid Channel 1880 MHz @ 20°C

Limit: ± 2.5 ppm = 4700 Hz

| Power Supply Vac | Environment Temperature (°C) | Frequency (Hz) | Delta (Hz) | Limit (Hz) |
|---------------------|---------------------------------|-------------------|---------------|---------------|
| 4.2 | 20 | 1879999975 | 25 | 4700 |
| 3.7 | | 1879999966 | 34 | |
| 3.6 end | | 1879999973 | 27 | |



7.9. POWERLINE CONDUCTED EMISSIONS

LIMIT

For an intentional radiator which is designed to be connected to the public utility (AC) power line, the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies within the band 150 kHz to 30 MHz shall not exceed 250 microvolts (The limit decreases linearly with the logarithm of the frequency in the range 0.15 MHz to 0.50 MHz). The limits at specific frequency range is listed as follows:

| Frequency Range (MHz) | Limits (dB μ V) | |
|-----------------------|---------------------|----------|
| | Quasi-peak | Average |
| 0.15 to 0.50 | 66 to 56 | 56 to 46 |
| 0.50 to 5 | 56 | 46 |
| 5 to 30 | 60 | 50 |

Compliance with this provision shall be based on the measurement of the radio frequency voltage between each power line (LINE and NEUTRAL) and ground at the power terminals.

TEST CONFIGURATION

See test photographs attached in Appendix I for the actual connections between EUT and support equipment.

TEST PROCEDURE

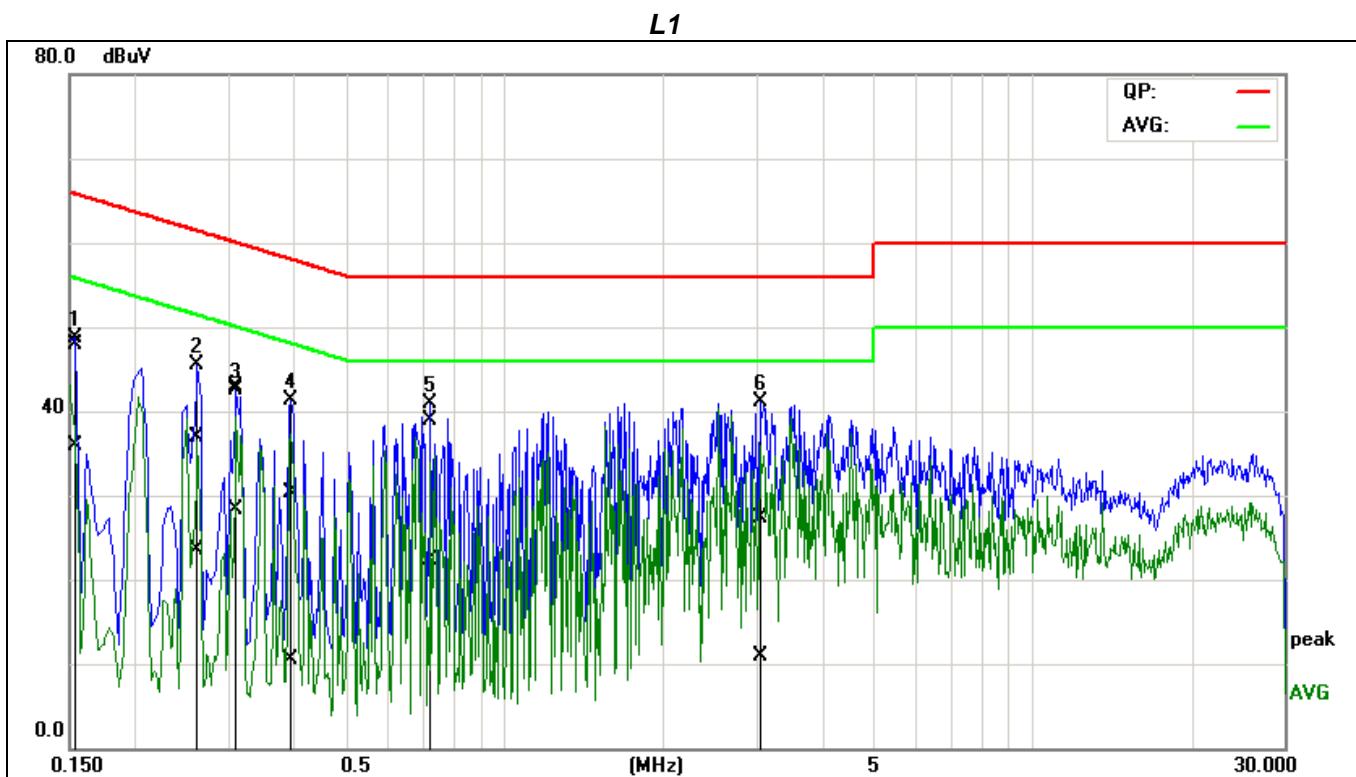
1. The EUT was placed on a table, which is 0.8m above ground plane.
2. Maximum procedure was performed on the six highest emissions to ensure EUT compliance.
3. Repeat above procedures until all frequency measured were complete.



TEST RESULTS

The initial step in collecting conducted data is a spectrum analyzer peak scan of the measurement range. Significant peaks are then marked as shown on the following data page, and these signals are then quasi-peaked.

| | | | |
|-----------------|-------------|------------|-----------------|
| Operation Mode: | Normal Link | Test Date: | October 31,2012 |
| Temperature: | 23°C | Tested by: | Sean.Yu |
| Humidity: | 50% RH | | |



| No. | Frequency | QuasiPeak reading | Average reading | Correction factor | QuasiPeak result | Average result | QuasiPeak limit | Average limit | QuasiPeak margin | Average margin | Remark |
|-----|-----------|-------------------|-----------------|-------------------|------------------|----------------|-----------------|---------------|------------------|----------------|--------|
| | (MHz) | (dBuV) | (dBuV) | (dB) | (dBuV) | (dBuV) | (dBuV) | (dBuV) | (dB) | (dB) | |
| 1 | 0.1511 | 37.75 | 25.58 | 10.25 | 48.00 | 35.83 | 65.94 | 55.94 | -17.94 | -20.11 | Pass |
| 2 | 0.2640 | 26.58 | 13.18 | 10.24 | 36.82 | 23.42 | 61.30 | 51.30 | -24.48 | -27.88 | Pass |
| 3* | 0.3122 | 32.56 | 18.03 | 10.29 | 42.85 | 28.32 | 59.91 | 49.91 | -17.06 | -21.59 | Pass |
| 4 | 0.3925 | 20.10 | 0.22 | 10.30 | 30.40 | 10.52 | 58.01 | 48.01 | -27.61 | -37.49 | Pass |
| 5 | 0.7247 | 28.61 | 12.01 | 10.29 | 38.90 | 22.30 | 56.00 | 46.00 | -17.10 | -23.70 | Pass |
| 6 | 3.0059 | 17.09 | 0.67 | 10.29 | 27.38 | 10.96 | 56.00 | 46.00 | -28.62 | -35.04 | Pass |

Remark:

1. Measuring frequencies from 0.15 MHz to 30MHz.
2. The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.
3. The IF bandwidth of SPA between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz;
4. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)

"-" means Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary



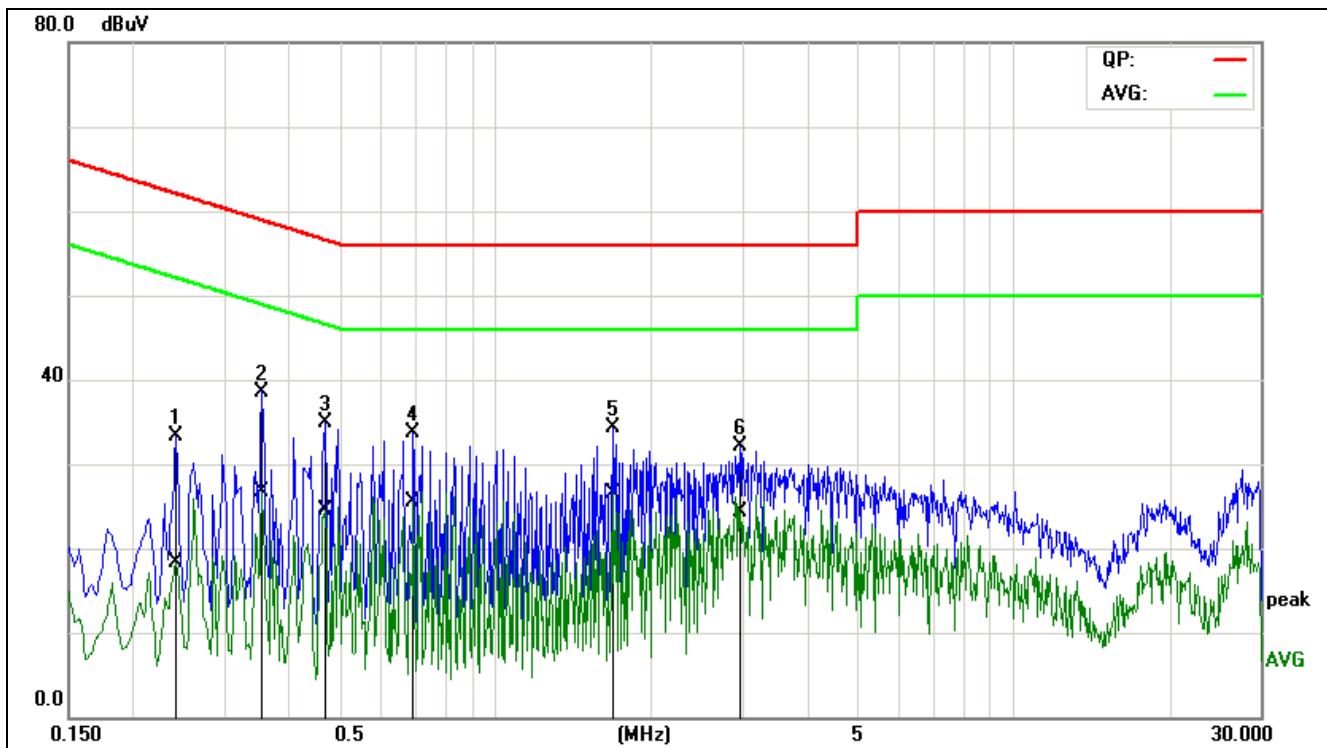
Compliance Certification Services Inc.

Report No: KS121018A05-RP1

FCC ID: COYA35

Date of Issue :November 6, 2012

L2



| No. | Frequency (MHz) | QuasiPeak reading (dBuV) | Average reading (dBuV) | Correction factor (dB) | QuasiPeak result (dBuV) | Average result (dBuV) | QuasiPeak limit (dBuV) | Average limit (dBuV) | QuasiPeak margin (dB) | Average margin (dB) | Remark |
|-----|--------------------|--------------------------------|------------------------------|------------------------------|-------------------------------|-----------------------------|------------------------------|----------------------------|-----------------------------|---------------------------|--------|
| 1 | 0.2420 | 22.91 | 7.97 | 10.38 | 33.29 | 18.35 | 62.03 | 52.03 | -28.74 | -33.68 | Pass |
| 2 | 0.3540 | 28.04 | 16.05 | 10.56 | 38.60 | 26.61 | 58.87 | 48.87 | -20.27 | -22.26 | Pass |
| 3 | 0.4700 | 24.09 | 13.77 | 10.73 | 34.82 | 24.50 | 56.51 | 46.51 | -21.69 | -22.01 | Pass |
| 4 | 0.6940 | 22.95 | 14.64 | 10.81 | 33.76 | 25.45 | 56.00 | 46.00 | -22.24 | -20.55 | Pass |
| 5* | 1.6860 | 23.43 | 15.50 | 10.91 | 34.34 | 26.41 | 56.00 | 46.00 | -21.66 | -19.59 | Pass |
| 6 | 2.9740 | 21.06 | 13.45 | 10.95 | 32.01 | 24.40 | 56.00 | 46.00 | -23.99 | -21.60 | Pass |

Remark:

5. Measuring frequencies from 0.15 MHz to 30MHz.
6. The emissions measured in frequency range from 0.15 MHz to 30MHz were made with an instrument using Quasi-peak detector and average detector.
7. The IF bandwidth of SPA between 0.15MHz to 30MHz was 10kHz; the IF bandwidth of Test Receiver between 0.15MHz to 30MHz was 9kHz;
8. L1 = Line One (Live Line) / L2 = Line Two (Neutral Line)

"-" means Quasi-peak reading value also meets average limit and measurement with the average detector is unnecessary

END OF REPORT