**FCC CFR47 PART 15 SUBPART C**

**CERTIFICATION TEST REPORT**

**FOR**

**BAR PHONE WITH 802.11b/g/n WLAN AND BLUETOOTH**

**MODEL NUMBER: SCH-I879**

**FCC ID: A3LSCHI879**

**REPORT NUMBER: 13I14844-1**

**ISSUE DATE: FEBRUARY 25, 2013**

*Prepared for*

**SAMSUNG ELECTRONICS CO., LTD.**
**416, MAETAN 3-DONG, YEONGTONG-GU**
**SUWON-CITY, GYEONGGI-DO 443-742, SOUTH KOREA**

*Prepared by*

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NVLAP LAB CODE 200065-0

## Revision History

| Rev. | Issue Date | Revisions | Revised By |
|---|---|---|---|
| -- | 02/25/13 | Initial Issue | T. LEE |

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# 1. ATTESTATION OF TEST RESULTS

| | |
|---|---|
| **COMPANY NAME:** | SAMSUNG ELECTRONICS CO., LTD.<br>416, MAETAN 3-DONG, YEONGTONG-GU<br>SUWON-CITY, GYEONGGI-DO, 443-742, SOUTH KOREA |
| **EUT DESCRIPTION:** | BAR PHONE WITH 802.11b/g/n WLAN AND BLUETOOHT |
| **MODEL:** | SCH-I879 |
| **SERIAL NUMBER:** | FK-019-D(CONDUCTED) AND FK-019-F (RADIATED) |
| **DATE TESTED:** | FEBRUARY 04 TO 25, 2013 |

| APPLICABLE STANDARDS | |
|---|---|
| **STANDARD** | **TEST RESULTS** |
| CFR 47 Part 15 Subpart C | Pass |

UL CCS tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL CCS based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

**Note:** The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL CCS and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL CCS will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For UL CCS By:

TIM LEE
WiSE PROGRAM MANAGER
UL CCS

Tested By:

DANNY VU
WiSE TECHNICIAN
UL CCS

# 2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with FCC CFR 47 Part 2, FCC CFR 47 Part 15, ANSI C63.10-2009, RSS-GEN Issue 3, and RSS-210 Issue 8.

# 3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 Benicia Street, Fremont, California, USA.

UL CCS is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://www.ccsemc.com.

# 4. CALIBRATION AND UNCERTAINTY

## 4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

## 4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

## 4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

| PARAMETER | UNCERTAINTY |
|---|---|
| Conducted Disturbance, 0.15 to 30 MHz | 3.52 dB |
| Radiated Disturbance, 30 to 1000 MHz | 4.94 dB |

Uncertainty figures are valid to a confidence level of 95%.

# 5. EQUIPMENT UNDER TEST

## 5.1. DESCRIPTION OF EUT

The EUT is a bar-style cell phone featuring 802.11b/g/n WLAN, Bluetooth, GPS and 2.4 GHz mobile hotspot capability.

## 5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

| Frequency Range (MHz) | Mode | Output Power (dBm) | Output Power (mW) |
|---|---|---|---|
| 2412 - 2462 | 802.11b | 20.44 | 110.66 |
| 2412 - 2462 | 802.11g | 22.08 | 161.44 |
| 2412 - 2462 | 802.11n HT20 | 20.16 | 103.75 |

## 5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna with a maximum gain of 1.44 dBi.

## 5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was I879.000

## 5.5. WORST-CASE CONFIGURATION AND MODE

Radiated emission and power line conducted emission were performed with the EUT set to transmit at the channel with highest output power as worst-case scenario.

The fundamental of the EUT was investigated in three orthogonal orientations X, Y and Z, it was determined that Y orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Y orientation with AC adapter and headset.

Based on the baseline scan, the worst-case data rates were:

802.11b mode: 1 Mbps
802.11g mode: 6 Mbps
802.11n HT20mode: MCS0

## 5.6. DESCRIPTION OF TEST SETUP

**SUPPORT EQUIPMENT**

| Support Equipment List | | | | |
|---|---|---|---|---|
| **Description** | **Manufacturer** | **Model** | **Serial Number** | **FCC ID** |
| AC Adapter | Samsung | ETA0U10EBE | RT1CB11CS/A-E | N/A |
| Headset | Samsung | GH59-11129H | EHS64AVFWE | N/A |

**I/O CABLES (CONDUCTED SETUP)**

| I/O Cable List | | | | | | |
|---|---|---|---|---|---|---|
| **Cable No** | **Port** | **# of identical ports** | **Connector Type** | **Cable Type** | **Cable Length (m)** | **Remarks** |
| 1 | DC | 1 | USB | Shielded | 1.0 | N/A |

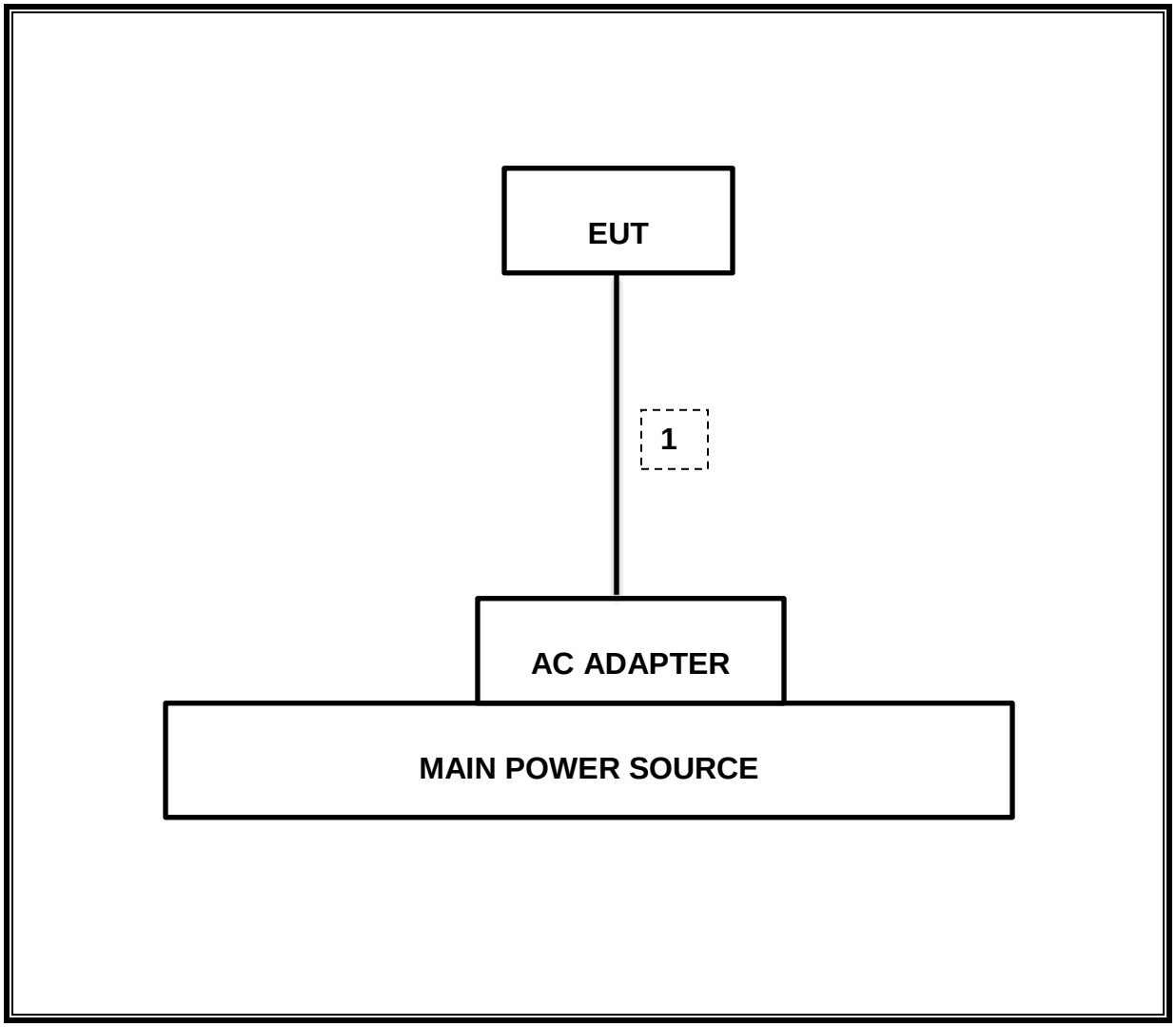
**I/O CABLES (RADIATED SETUP)**

| I/O Cable List | | | | | | |
|---|---|---|---|---|---|---|
| **Cable No** | **Port** | **# of identical ports** | **Connector Type** | **Cable Type** | **Cable Length (m)** | **Remarks** |
| 1 | DC | 1 | USB | Shielded | 1.0 | N/A |
| 2 | Audio | 1 | Headset | Un-Shielded | 1.5 | N/A |

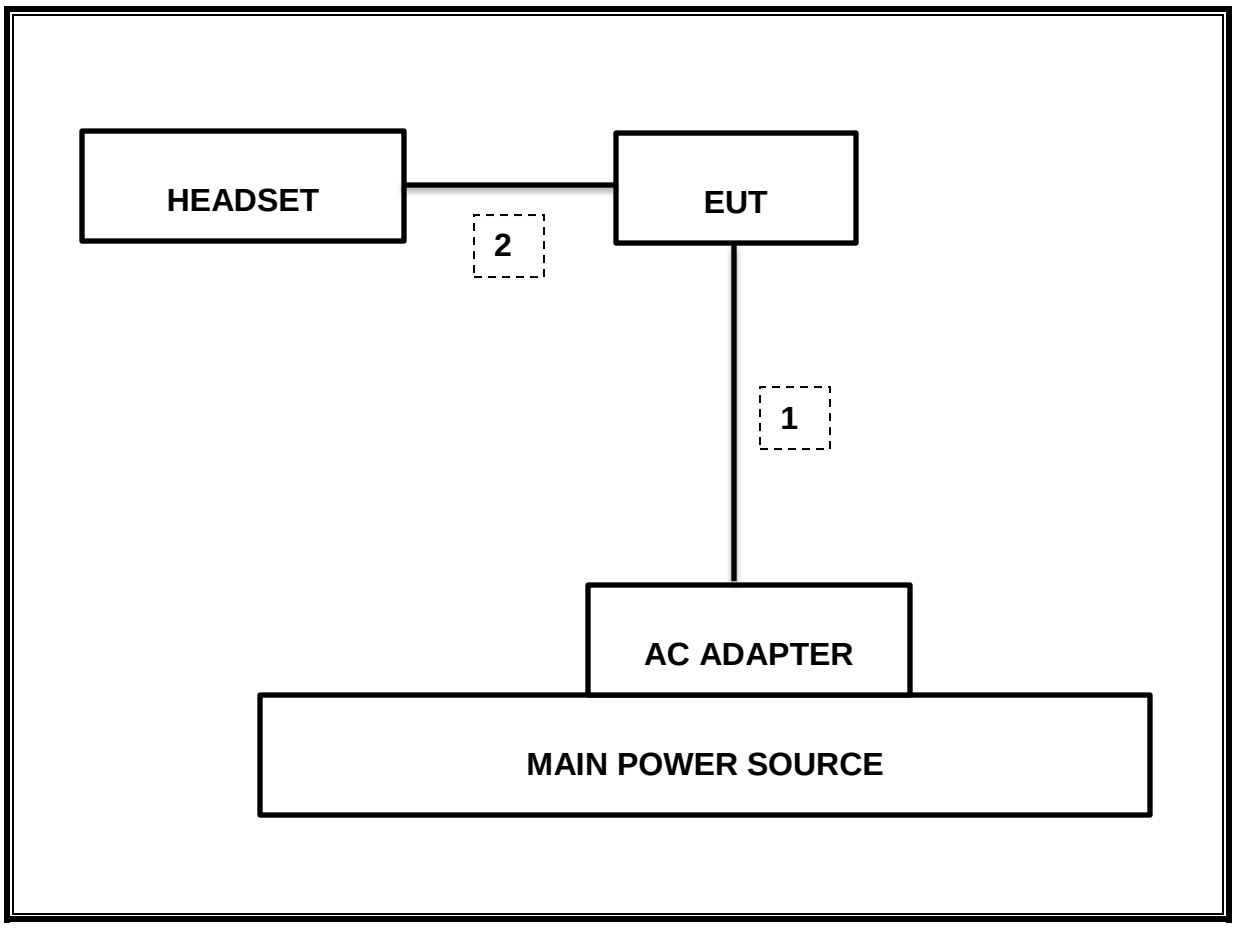
**TEST SETUP**

The EUT is with an AC adapter that was tested in the worst case orientation and configuration, where applicable, during the tests. Test software exercised the radio.

**SETUP DIAGRAM FOR TESTS (CONDUCTED SETUP)**



**SETUP DIAGRAM FOR TESTS (RADIATED SETUP)**



# 6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

| Test Equipment List | | | | |
|---|---|---|---|---|
| **Description** | **Manufacturer** | **Model** | **Asset** | **Cal Due** |
| Antenna, Biconolog, 30MHz-1 GHz | Sunol Sciences | JB1 | C01011 | 03/23/13 |
| Antenna, Horn, 18GHz | EMCO | 3115 | C00783 | 10/25/13 |
| Antenna, Horn, 18 GHz | EMCO | 3115 | C00945 | 11/12/13 |
| Antenna, Horn, 18 GHz | ETS | 3117 | C01006 | 12/11/13 |
| Antenna, Horn, 25.5 GHz | ARA | MWH-1826/B | C00980 | 11/14/13 |
| Preamplifier, 1300 MHz | Agilent / HP | 8447D | C00580 | 01/28/14 |
| Preamplifier, 26.5 GHz | Agilent / HP | 8449B | C01052 | 10/22/13 |
| Preamplifier, 26.5 GHz | Agilent / HP | 8449B | C01063 | 10/22/13 |
| Spectrum Analyzer, 44 GHz | Agilent / HP | E4446A | C01012 | 10/21/13 |
| Spectrum Analyzer, 44 GHz | Agilent / HP | E4446A | C01069 | 12/20/13 |
| Spectrum Analyzer, 44 GHz | Agilent / HP | E4446A | C01159 | 04/09/13 |
| EMI Test Receiver, 30 MHz | R & S | ESHS 20 | N02396 | 08/08/13 |
| Peak Power Meter | Agilent / HP | E4416A | C00963 | 12/13/13 |
| Peak / Average Power Sensor | Agilent / HP | E9327A | C00964 | 12/13/13 |
| LISN, 30 MHz | FCC | 50/250-25-2 | C00626 | 01/14/14 |
| Reject Filter, 2.4GHz | Micro-Tronics | BRM50702 | N02684 | CNR |

# 7. MEASUREMENT METHODS

On Time and Duty Cycle: KDB 558074 D01 v02; section 5.

6 dB Bandwidth: KDB 558074 D01 v02; section 7.1 Option 1.

Output Power: KDB 558074 D01 v02; section 8.1.2 Option 2.

Power Spectral Density: KDB 558074 D01 v02; section 9.1 Option 1.

Out-Of-Band Emission: KDB 558074 D01 v02; Section 10.

# 8. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

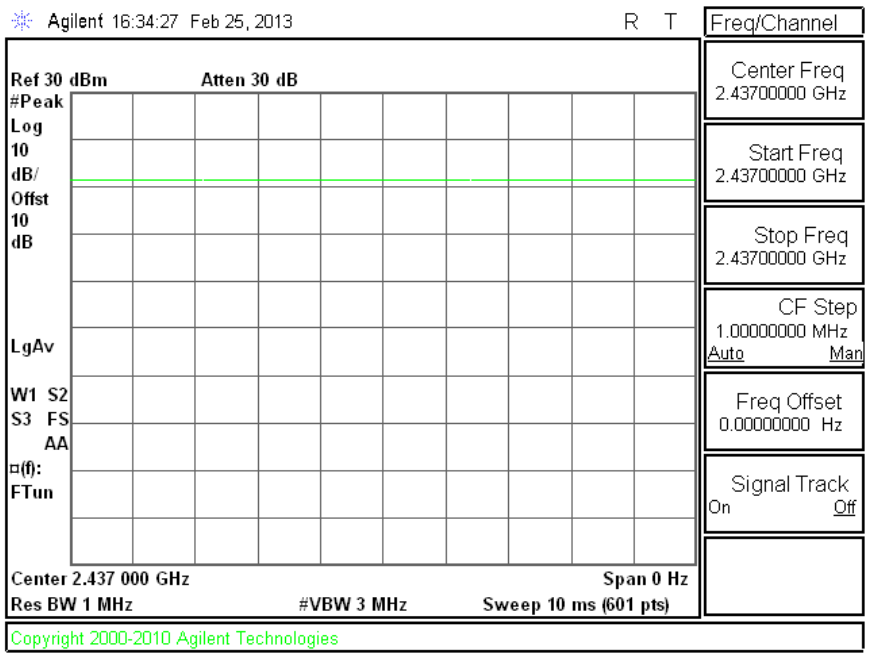
**LIMITS**

None; for reporting purposes only.

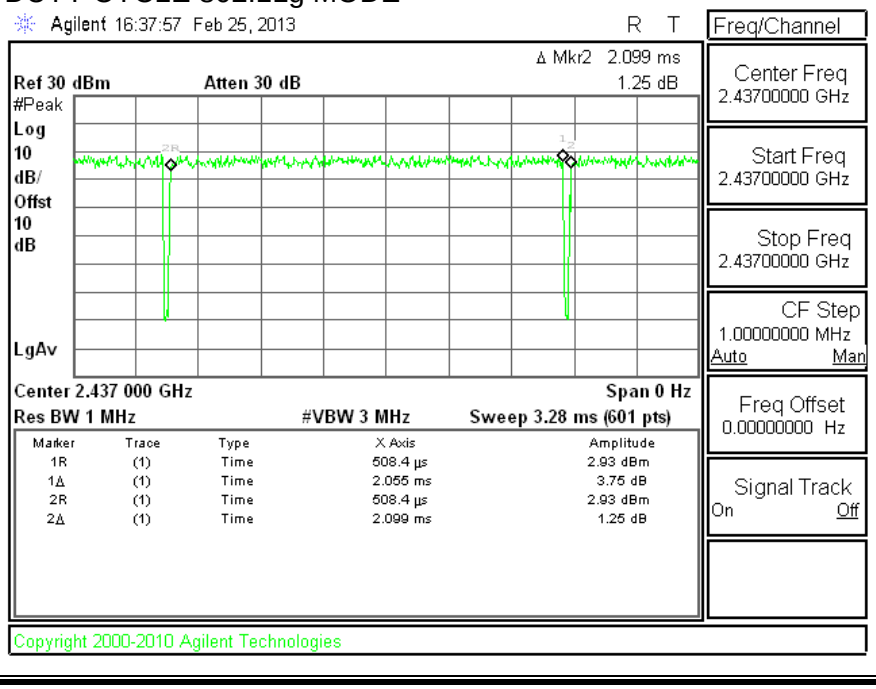
## 8.1. ON TIME AND DUTY CYCLE RESULTS

| Mode | ON Time B (msec) | Period (msec) | Duty Cycle x (linear) | Duty Cycle (%) | Duty Cycle Correction Factor (dB) |
|---|---|---|---|---|---|
| 802.11b | 100.00 | 100 | 1.000 | 100.0% | 0.00 |
| 802.11g | 1.547 | 1.591 | 0.972 | 97.2% | 0.12 |
| 802.11n HT20 | 0.989 | 1.028 | 0.962 | 96.2% | 0.17 |

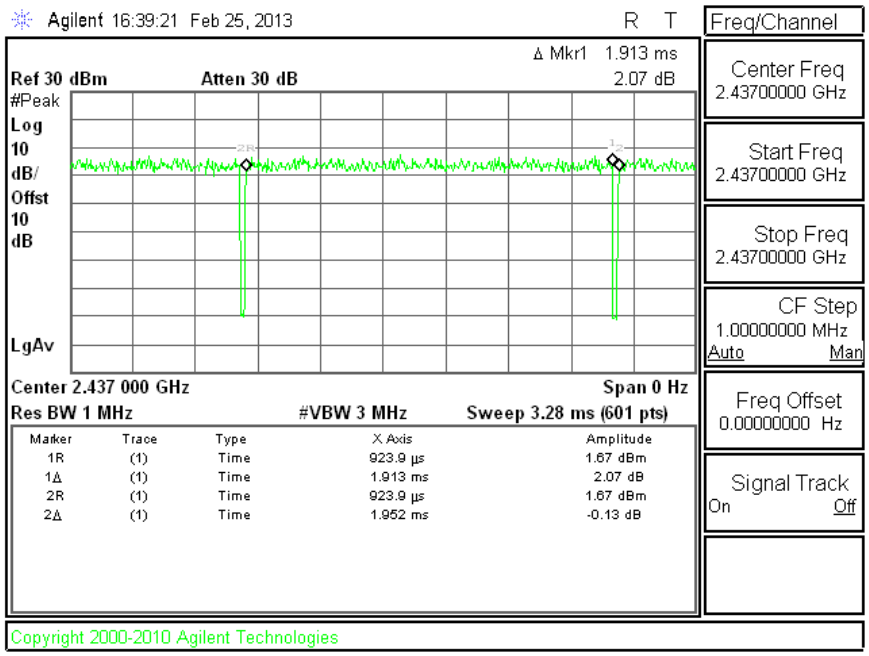
DUTY CYCLE 802.11b MODE




DUTY CYCLE 802.11g MODE



DUTY CYCLE 802.11 HT20 MODE



# 9. ANTENNA PORT TEST RESULTS

## 9.1. 802.11b MODE IN THE 2.4 GHz BAND

### 9.1.1. 6 dB BANDWIDTH

**LIMITS**

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

**TEST PROCEDURE**

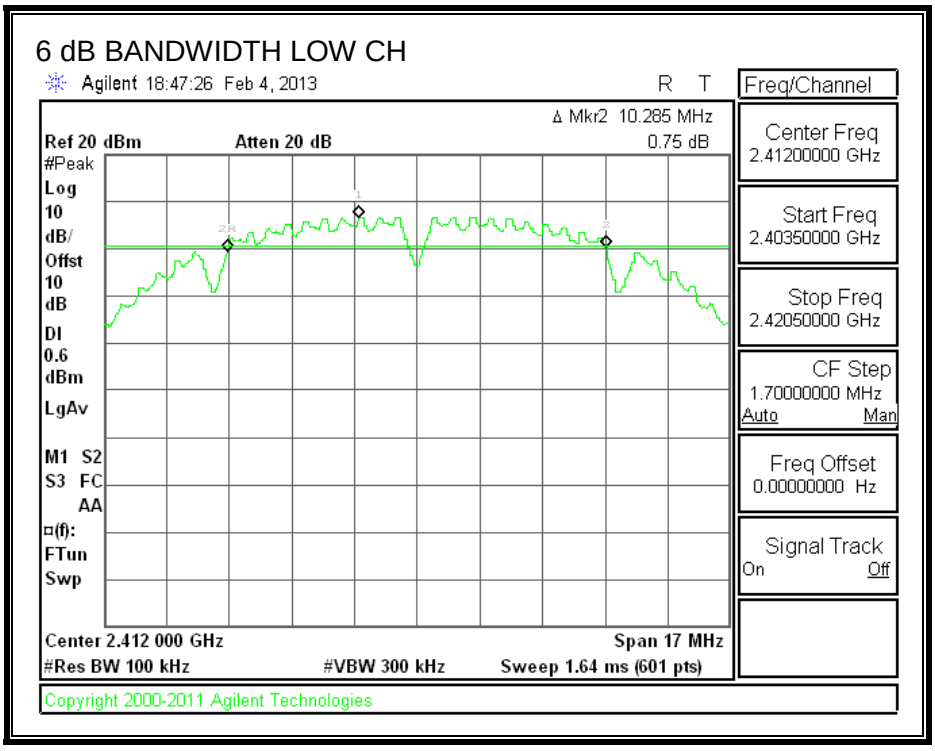
The transmitter output is connected to a spectrum analyzer with the RBW set between 1% and 5% of the EBW, the VBW >= 3 x RBW, peak detector and max hold.

**RESULTS**

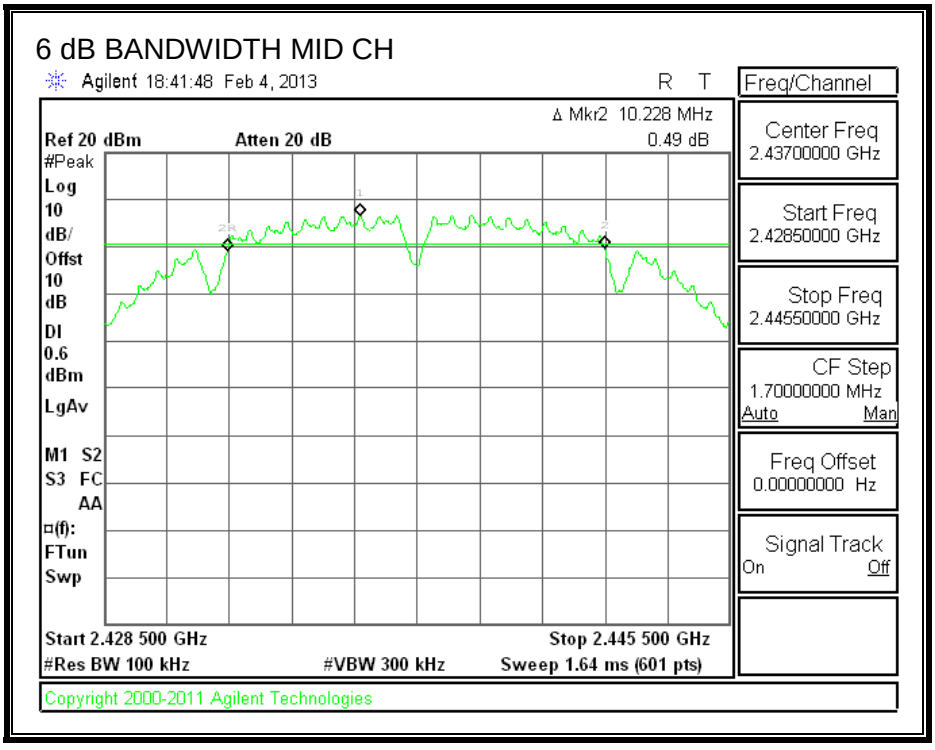
| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) |
|---|---|---|---|
| Low | 2412 | 10.285 | 0.5 |
| Mid | 2437 | 10.228 | 0.5 |
| High | 2462 | 10.228 | 0.5 |

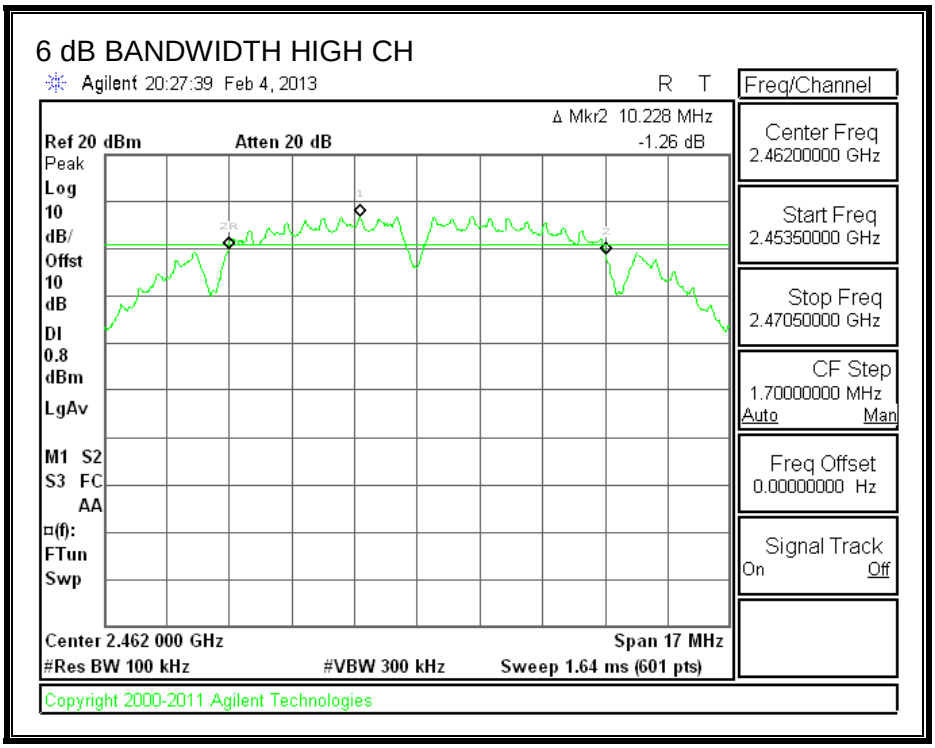
**6 dB BANDWIDTH**

6 dB BANDWIDTH LOW CH




6 dB BANDWIDTH MID CH





## 9.1.2. AVERAGE POWER

**LIMITS**

None; for reporting purposes only.

**TEST PROCEDURE**

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 10 dB pad was entered as an offset in the power meter to allow for direct reading of power.

**RESULTS**

| Channel | Frequency (MHz) | Power (dBm) |
|---|---|---|
| Low | 2412 | 16.71 |
| Mid | 2437 | 17.04 |
| High | 2462 | 16.96 |

## 9.1.3. OUTPUT POWER

**LIMITS**

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

**DIRECTIONAL ANTENNA GAIN**

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

**RESULTS**

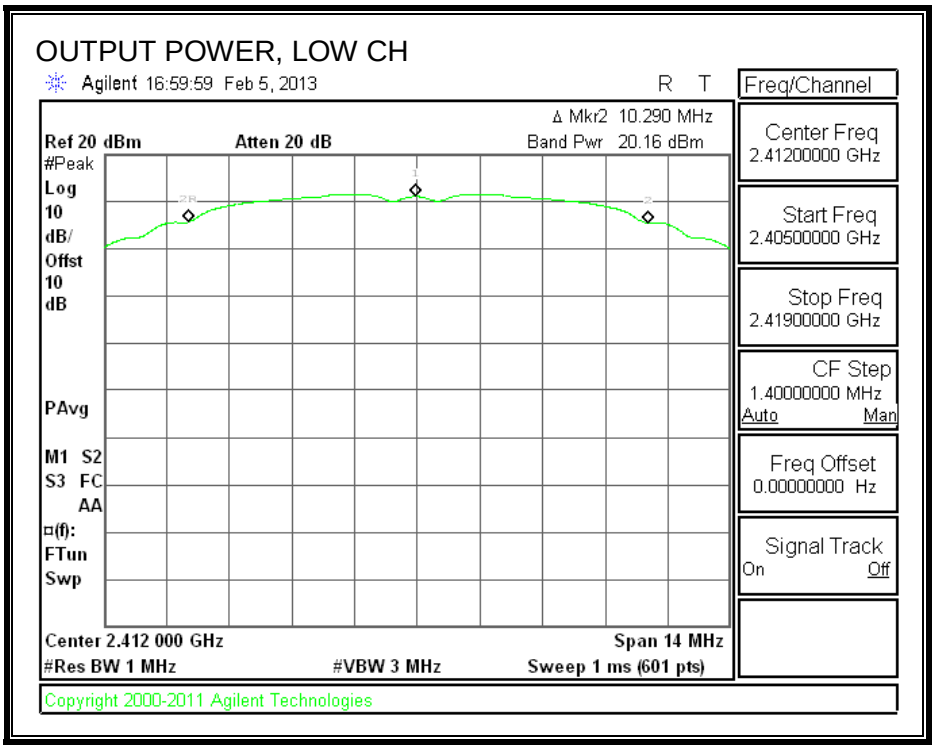
**Limits**

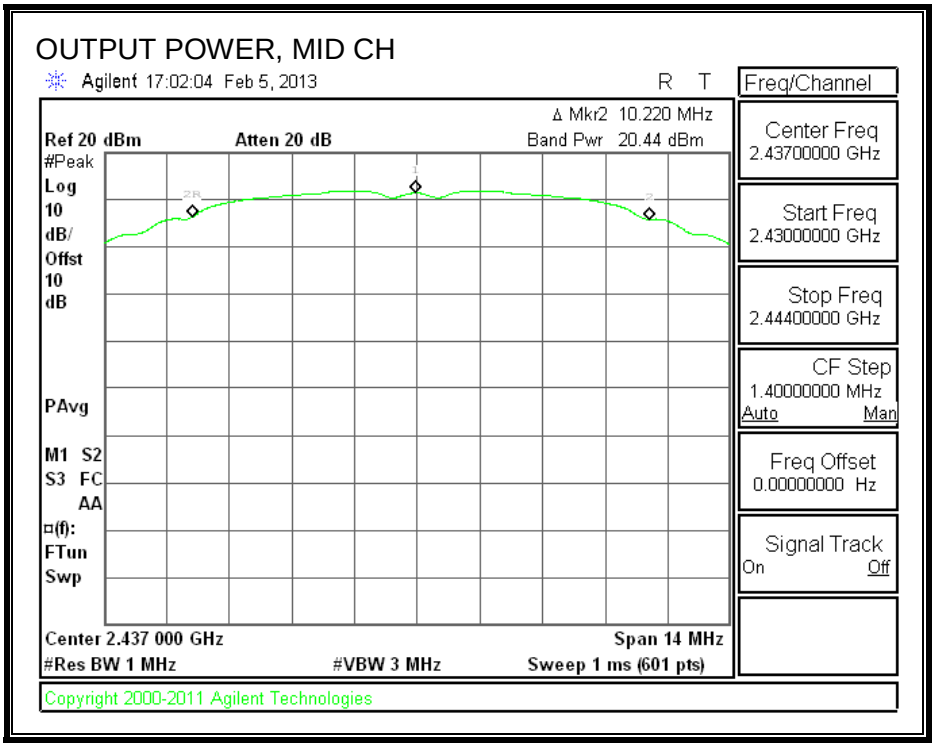
| Channel | Frequency (MHz) | Directional Gain (dBi) | FCC Power Limit (dBm) | IC Power Limit (dBm) | IC EIRP Limit (dBm) | Max Power (dBm) |
|---|---|---|---|---|---|---|
| Low | 2412 | 1.44 | 30.00 | 30 | 36 | 30.00 |
| Mid | 2437 | 1.44 | 30.00 | 30 | 36 | 30.00 |
| High | 2462 | 1.44 | 30.00 | 30 | 36 | 30.00 |

**Results**

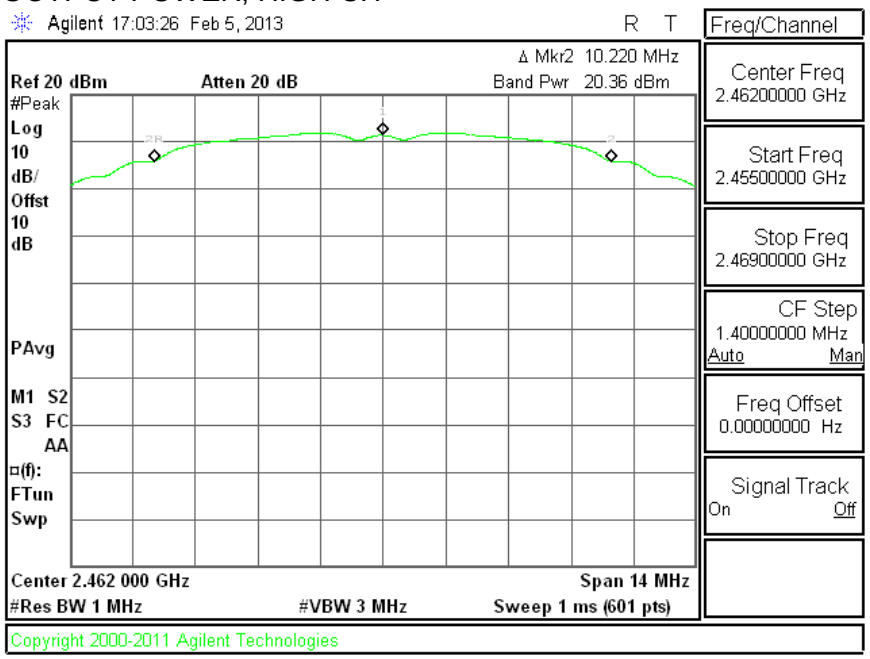
| Channel | Frequency (MHz) | Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Margin (dB) |
|---|---|---|---|---|---|
| Low | 2412 | 20.16 | 20.16 | 30.00 | -9.84 |
| Mid | 2437 | 20.44 | 20.44 | 30.00 | -9.56 |
| High | 2462 | 20.36 | 20.36 | 30.00 | -9.64 |

**OUTPUT POWER**



OUTPUT POWER, HIGH CH



### 9.1.4. PSD

**LIMITS**

FCC §15.247

IC RSS-210 A8.2

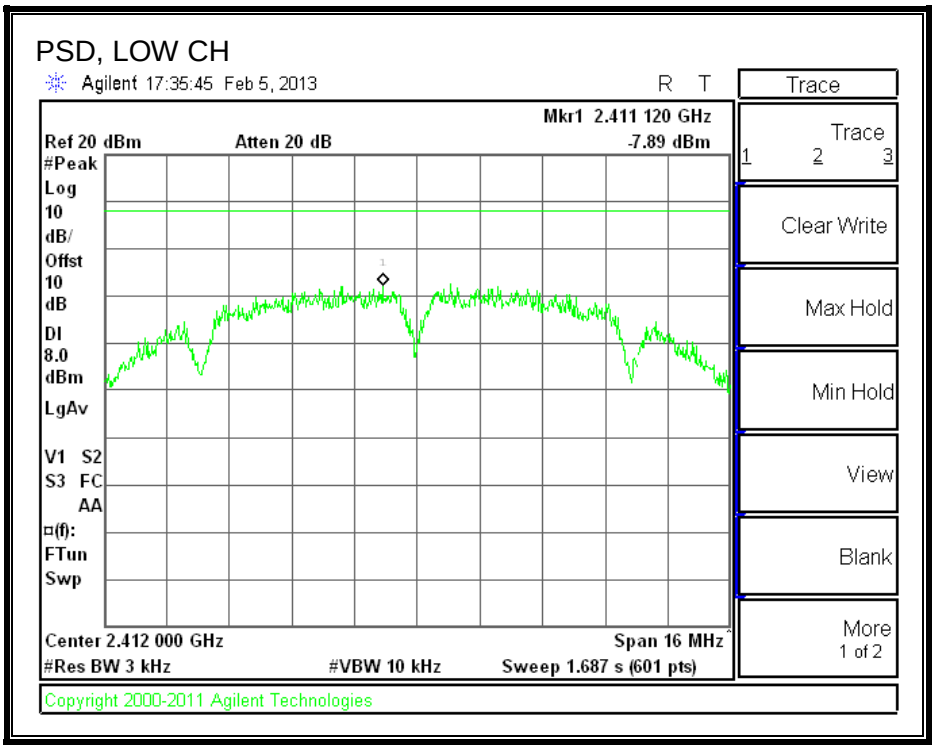
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

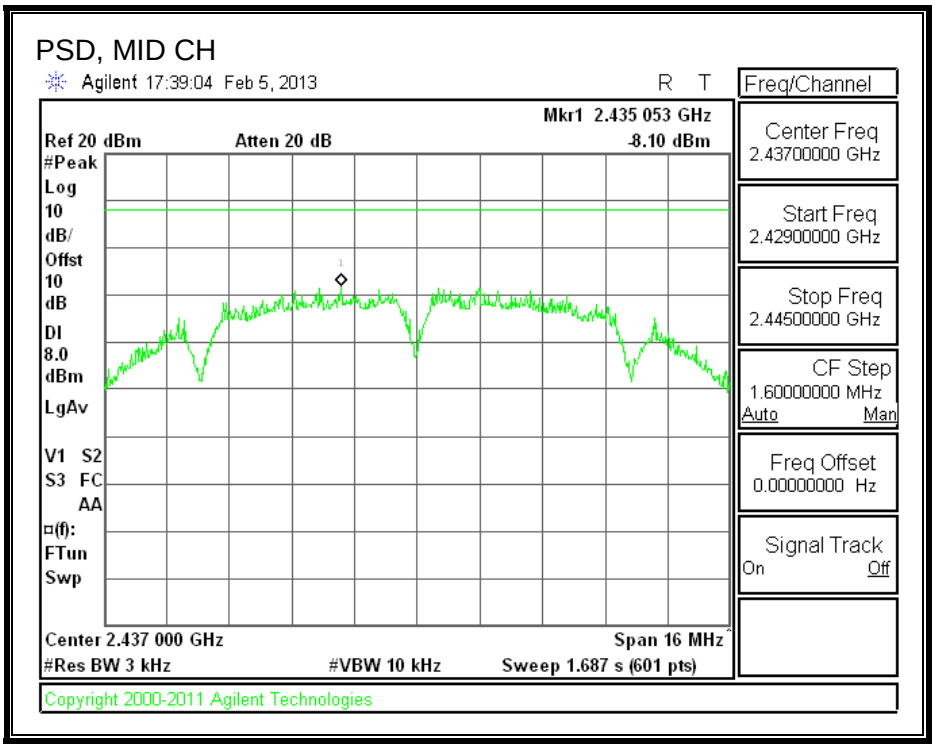
**RESULTS**

**PSD Results**

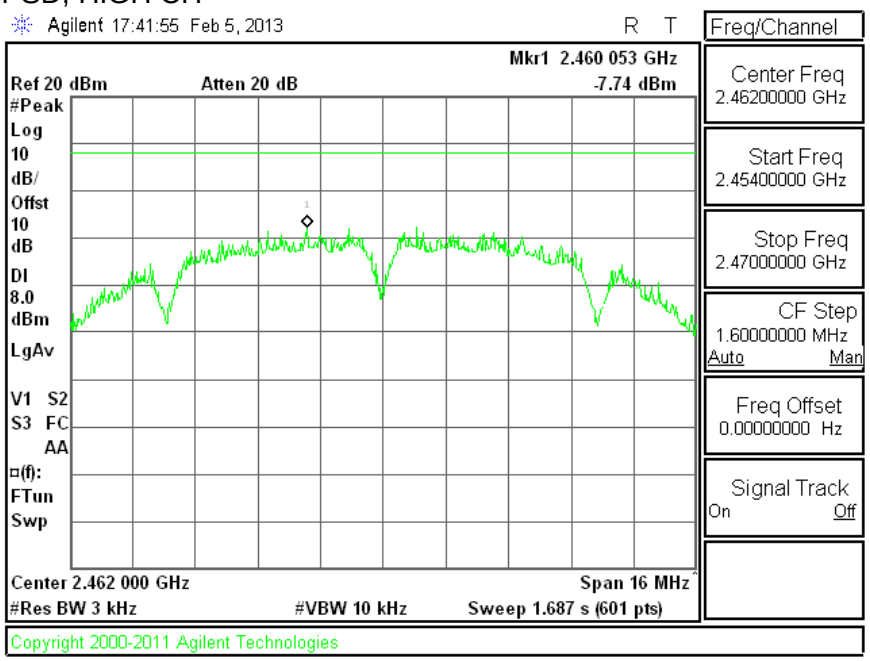
| Channel | Frequency (MHz) | Meas (dBm) | Limit (dBm) | Margin (dB) |
|---|---|---|---|---|
| Low | 2412 | -7.89 | 8.0 | -15.9 |
| Mid | 2437 | -8.10 | 8.0 | -16.1 |
| High | 2462 | -7.74 | 8.0 | -15.7 |

**PSD**



PSD, HIGH CH



## 9.1.5. OUT-OF-BAND EMISSIONS

**LIMITS**

FCC §15.247 (d)

IC RSS-210 A8.5

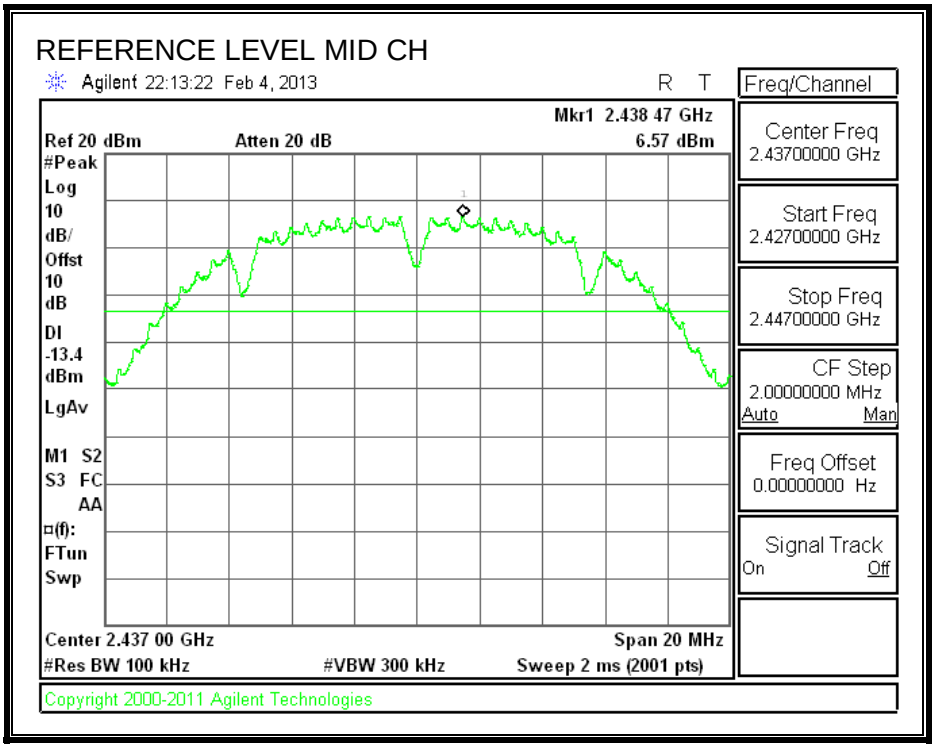
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

**TEST PROCEDURE**

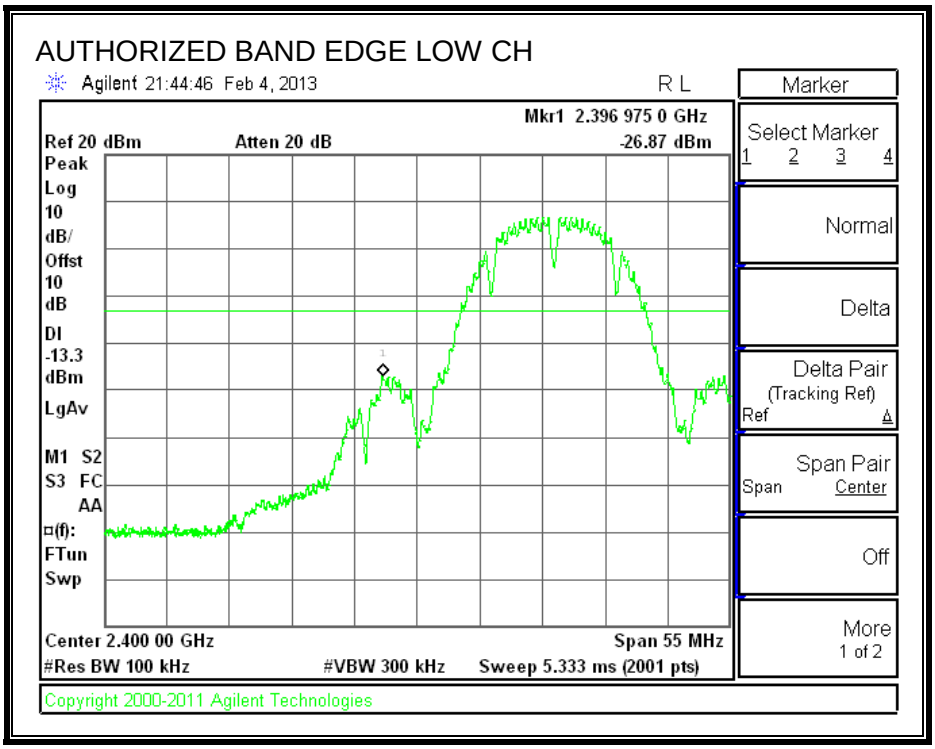
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

## RESULTS

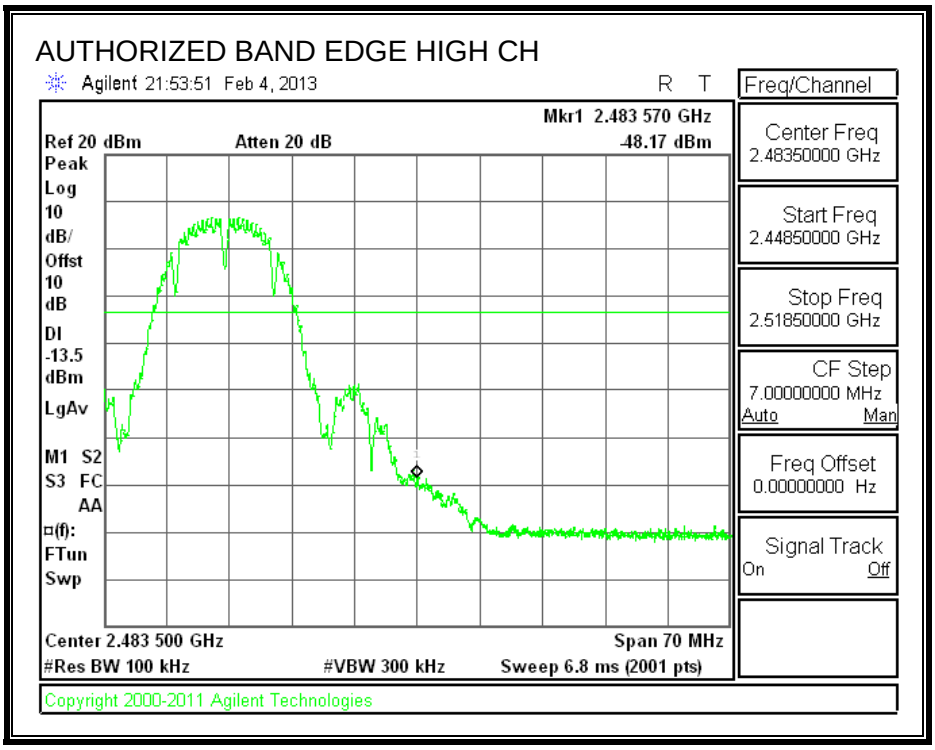
### IN-BAND REFERENCE LEVEL



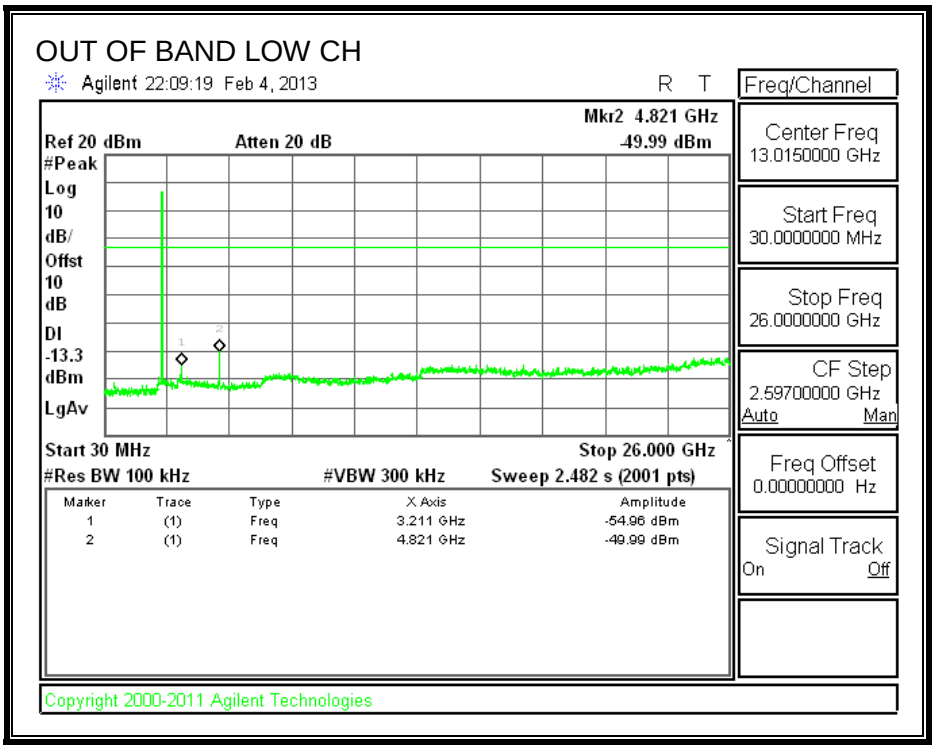

### LOW CHANNEL BANDEDGE



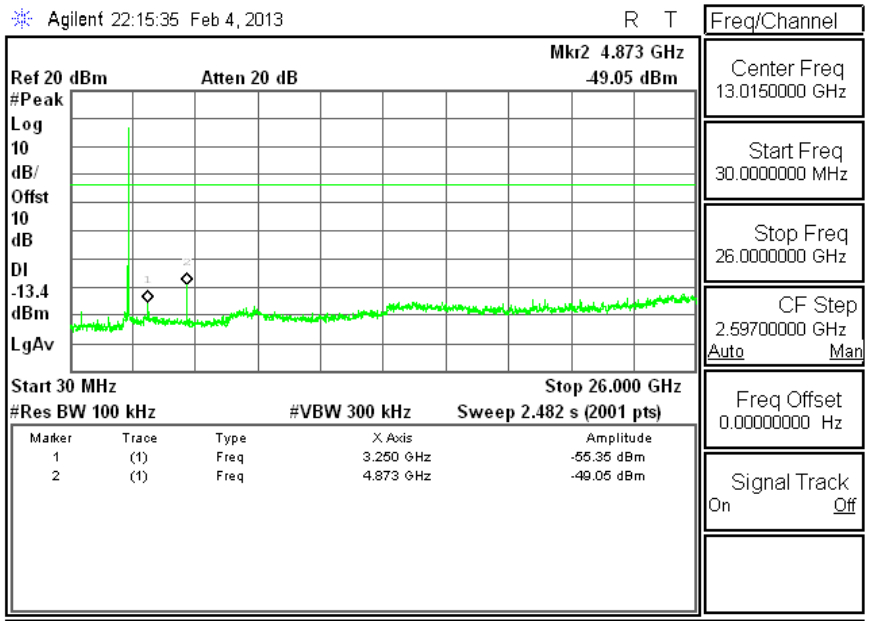
**HIGH CHANNEL BANDEDGE**



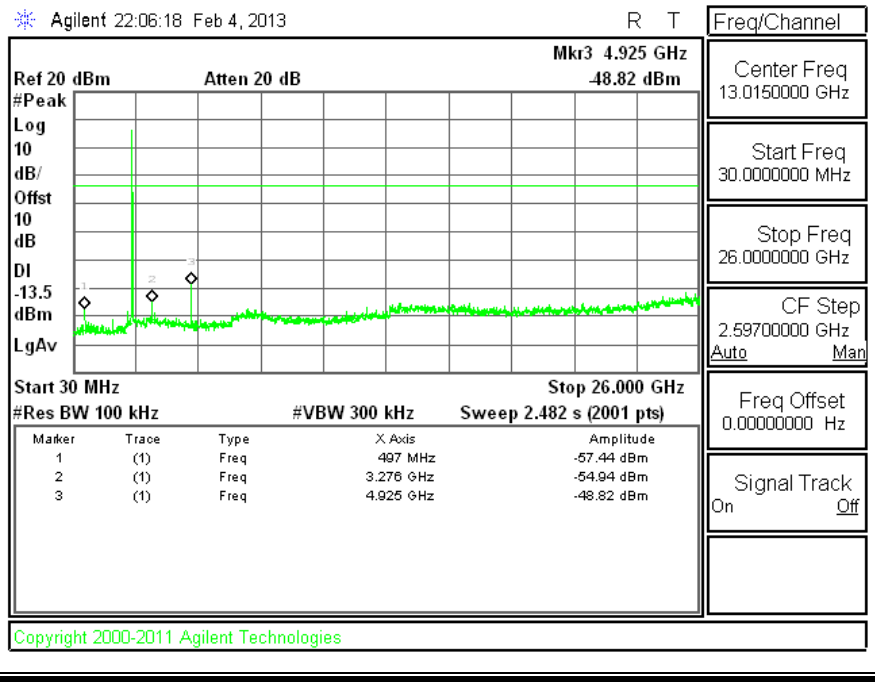

**OUT-OF-BAND EMISSIONS**



OUT OF BAND MID CH




OUT OF BAND HIGH CH



# 9.2. 802.11g MODE IN THE 2.4 GHz BAND

## 9.2.1. 6 dB BANDWIDTH

**LIMITS**

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

**TEST PROCEDURE**

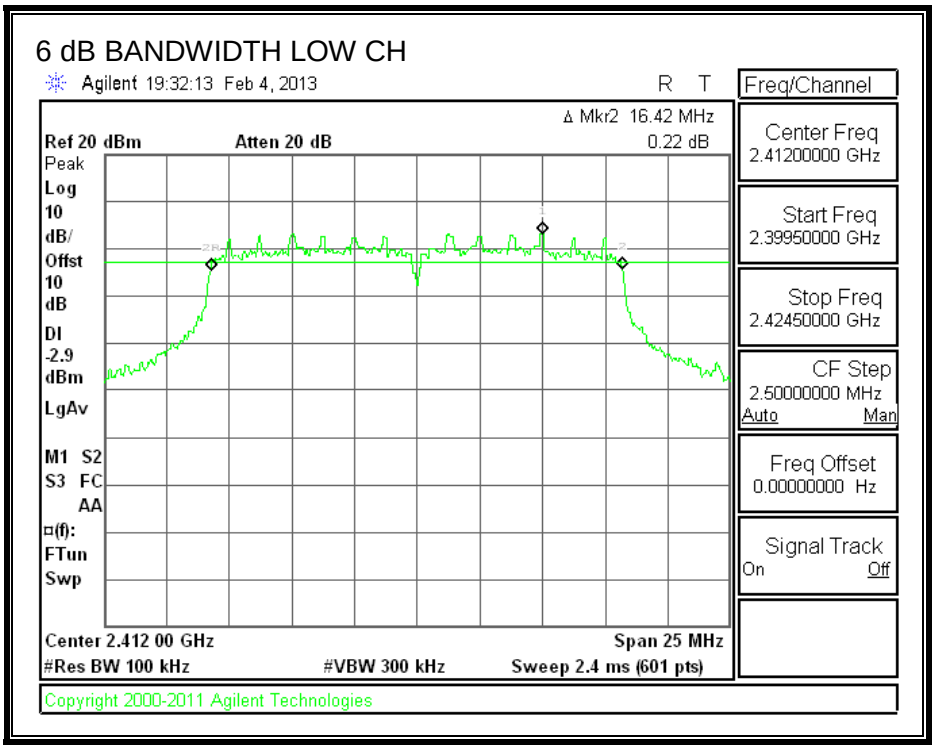
The transmitter output is connected to a spectrum analyzer with the RBW set between 1% and 5% of the EBW, the VBW >= 3 x RBW, peak detector and max hold.

**RESULTS**

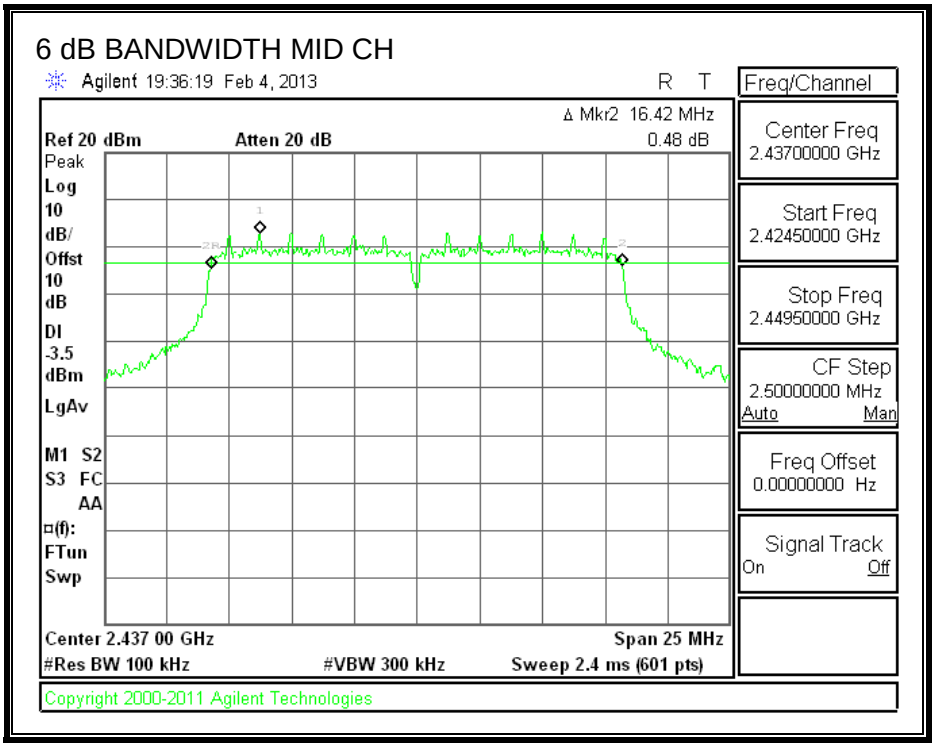
| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) |
|---|---|---|---|
| Low | 2412 | 16.420 | 0.5 |
| Mid | 2437 | 16.420 | 0.5 |
| High | 2462 | 16.420 | 0.5 |

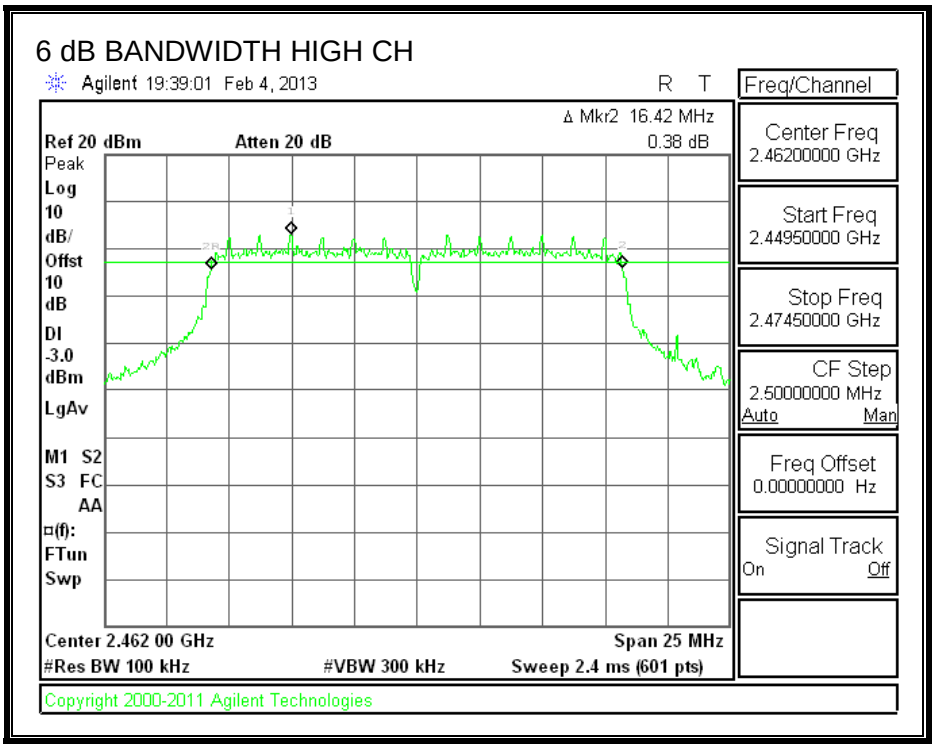
**6 dB BANDWIDTH**

6 dB BANDWIDTH LOW CH




6 dB BANDWIDTH MID CH





## 9.2.2. AVERAGE POWER

**LIMITS**

None; for reporting purposes only.

**TEST PROCEDURE**

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 10 dB pad was entered as an offset in the power meter to allow for direct reading of power.

**RESULTS**

| Channel | Frequency (MHz) | Power (dBm) |
|---|---|---|
| Low | 2412 | 14.25 |
| Mid | 2437 | 13.76 |
| High | 2462 | 14.10 |

## 9.2.3. OUTPUT POWER

**LIMITS**

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

**DIRECTIONAL ANTENNA GAIN**

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

## RESULTS

**Limits**

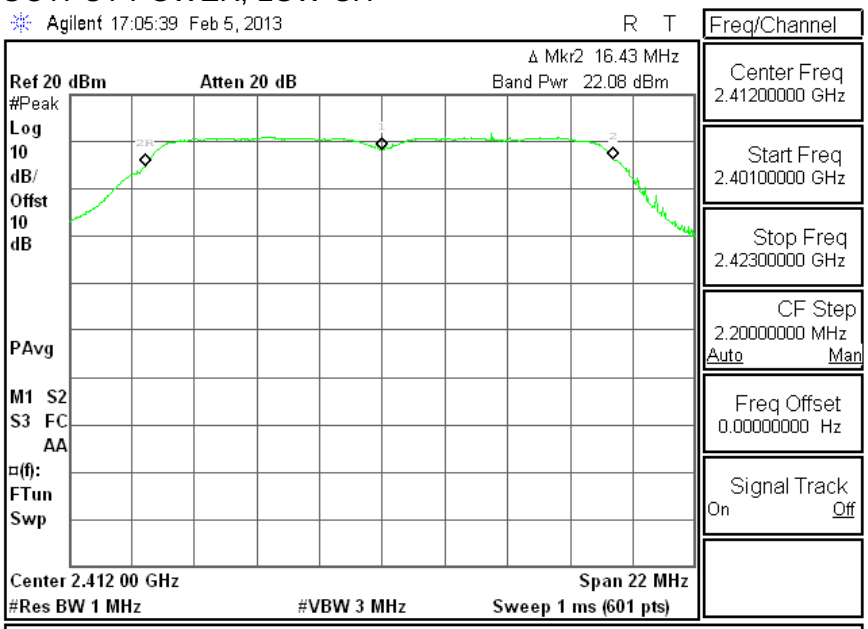
| Channel | Frequency (MHz) | Directional Gain (dBi) | FCC Power Limit (dBm) | IC Power Limit (dBm) | IC EIRP Limit (dBm) | Max Power (dBm) |
|---|---|---|---|---|---|---|
| Low | 2412 | 1.44 | 30.00 | 30 | 36 | 30.00 |
| Mid | 2437 | 1.44 | 30.00 | 30 | 36 | 30.00 |
| High | 2462 | 1.44 | 30.00 | 30 | 36 | 30.00 |

**Results**

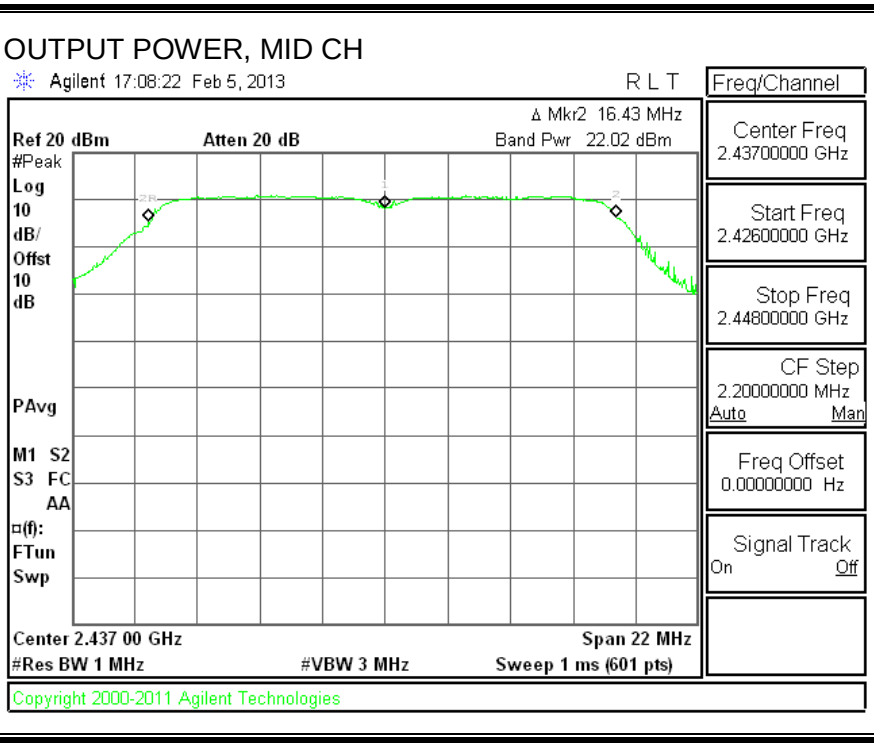
| Channel | Frequency (MHz) | Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Margin (dB) |
|---|---|---|---|---|---|
| Low | 2412 | 22.08 | 22.08 | 30.00 | -7.92 |
| Mid | 2437 | 22.02 | 22.02 | 30.00 | -7.98 |
| High | 2462 | 20.16 | 20.16 | 30.00 | -9.84 |

**OUTPUT POWER**

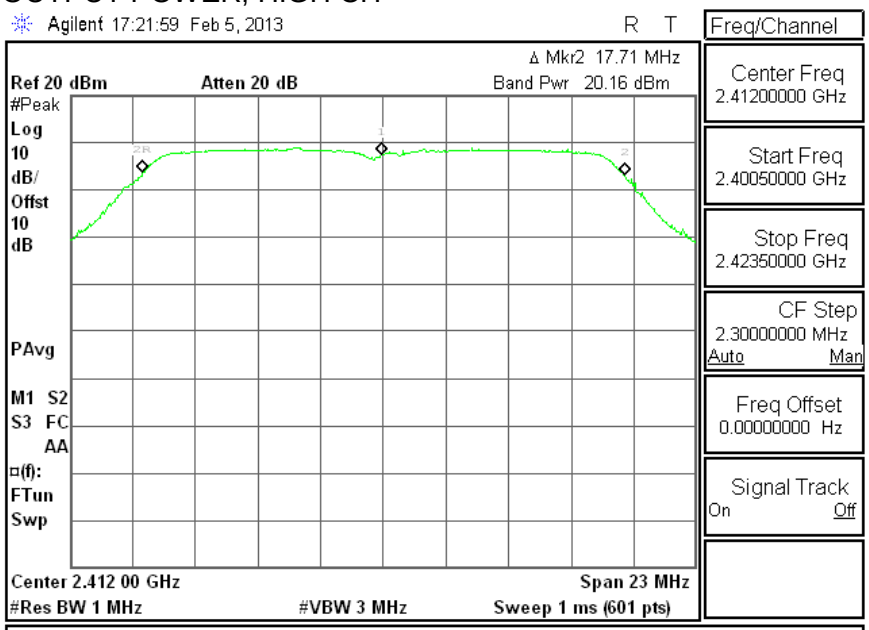
OUTPUT POWER, LOW CH




OUTPUT POWER, MID CH



OUTPUT POWER, HIGH CH



### 9.2.4. PSD

**LIMITS**

FCC §15.247

IC RSS-210 A8.2

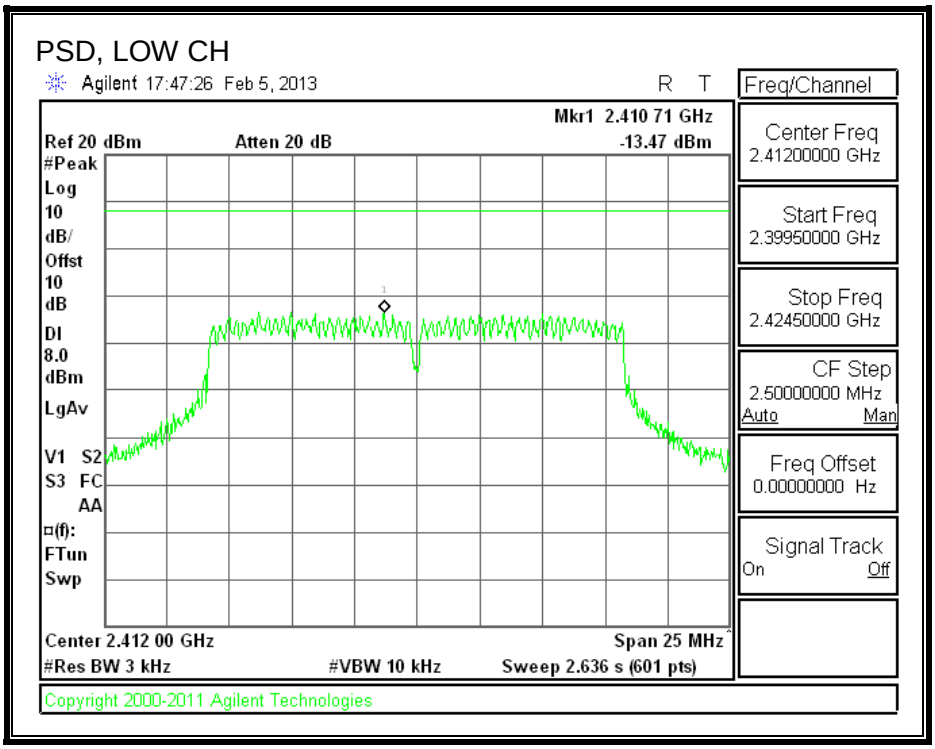
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

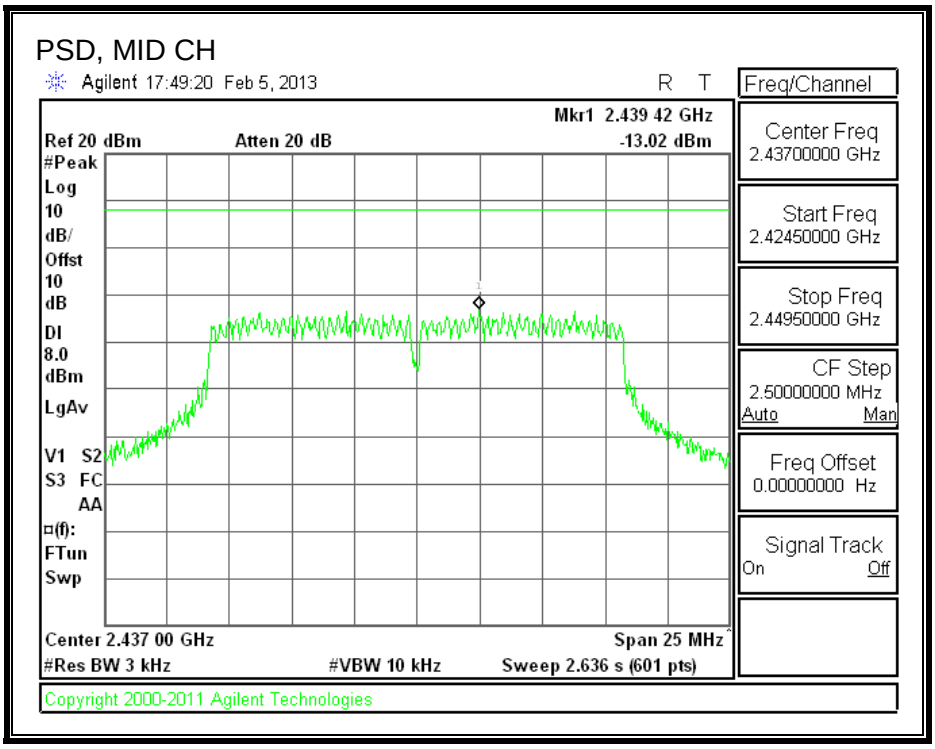
**RESULTS**

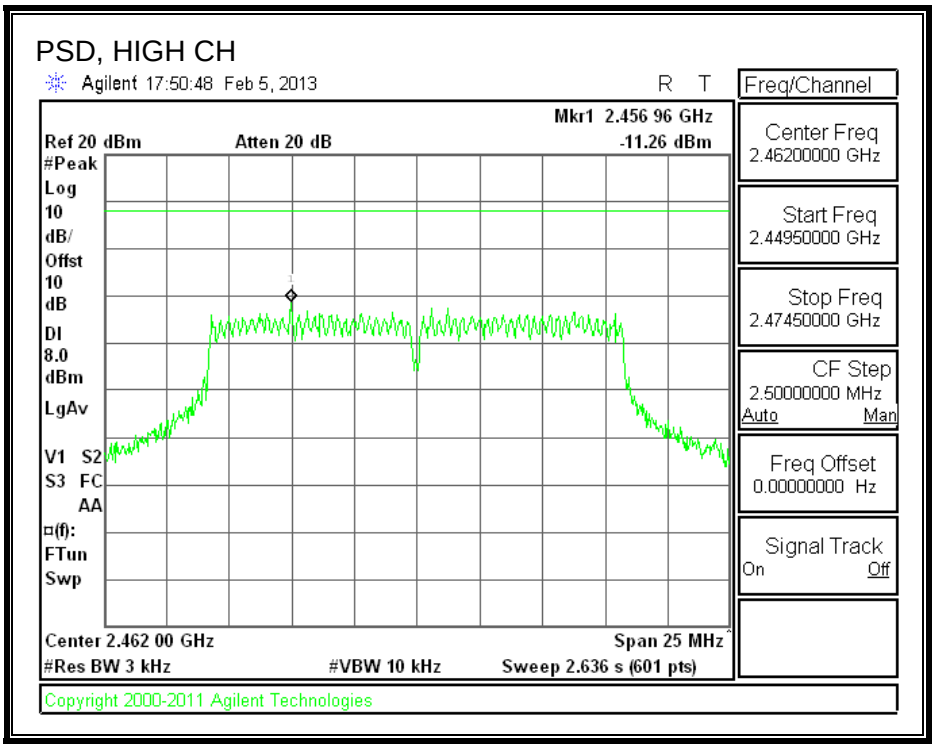
**PSD Results**

| Channel | Frequency (MHz) | Chain 0 Meas (dBm) | Limit (dBm) | Margin (dB) |
|---|---|---|---|---|
| Low | 2412 | -13.47 | 8.0 | -21.5 |
| Mid | 2437 | -13.02 | 8.0 | -21.0 |
| High | 2462 | -11.26 | 8.0 | -19.3 |

**PSD,**





## 9.2.5. OUT-OF-BAND EMISSIONS

**LIMITS**

FCC §15.247 (d)

IC RSS-210 A8.5

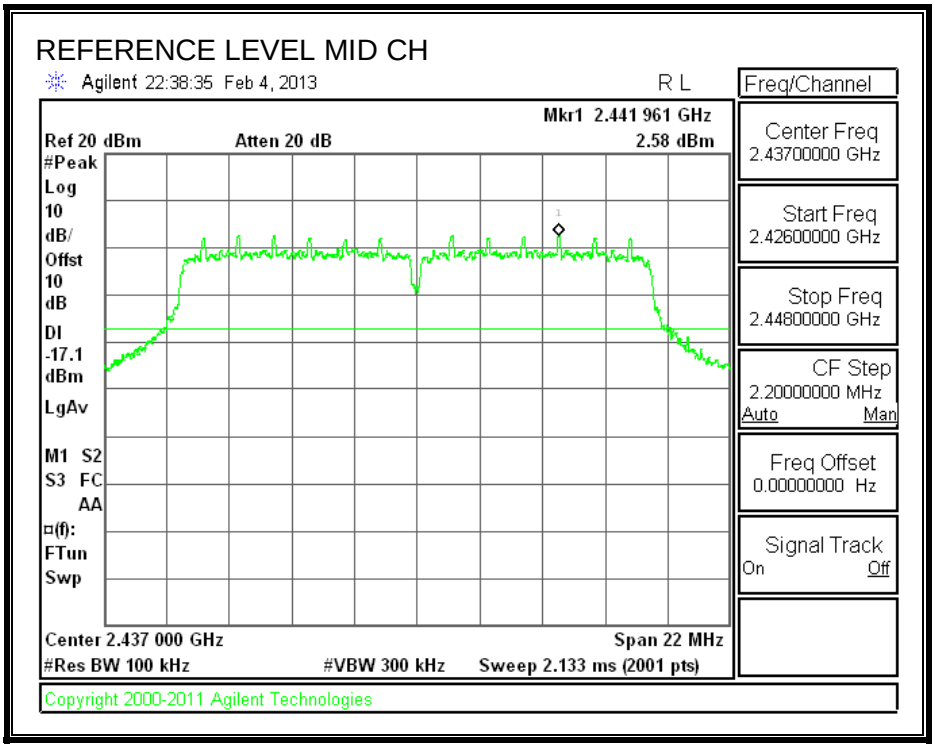
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

**TEST PROCEDURE**

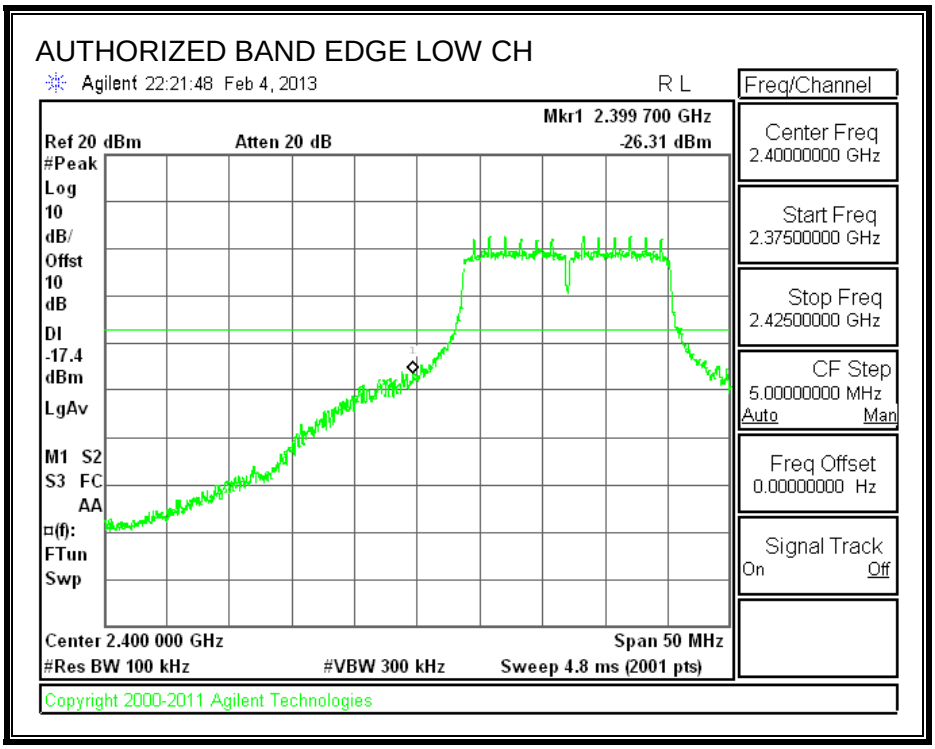
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

## RESULTS

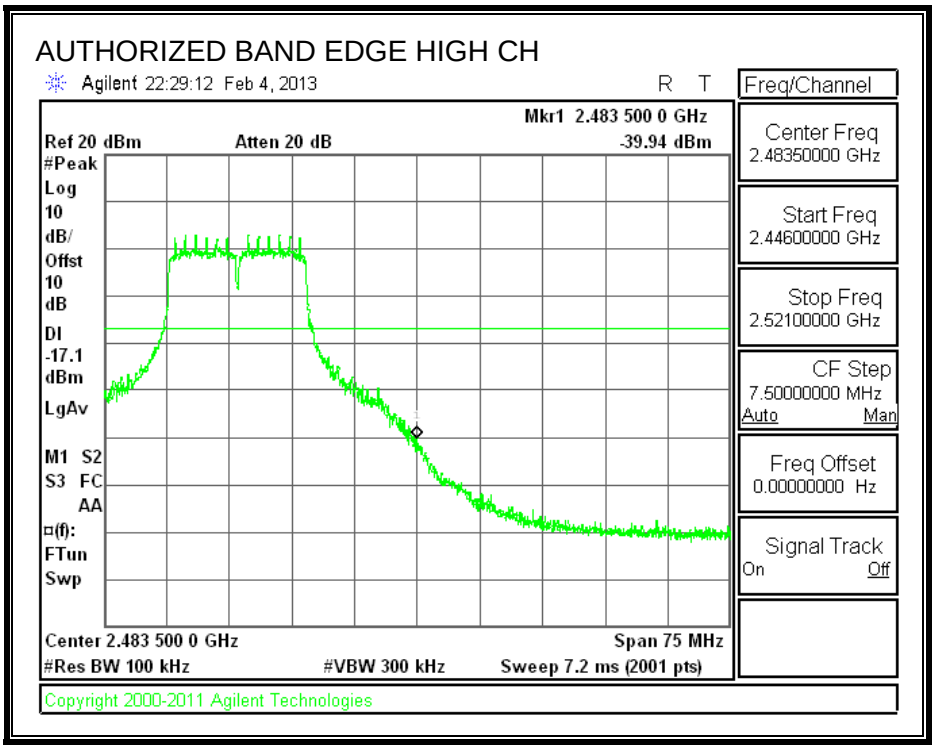
### IN-BAND REFERENCE LEVEL



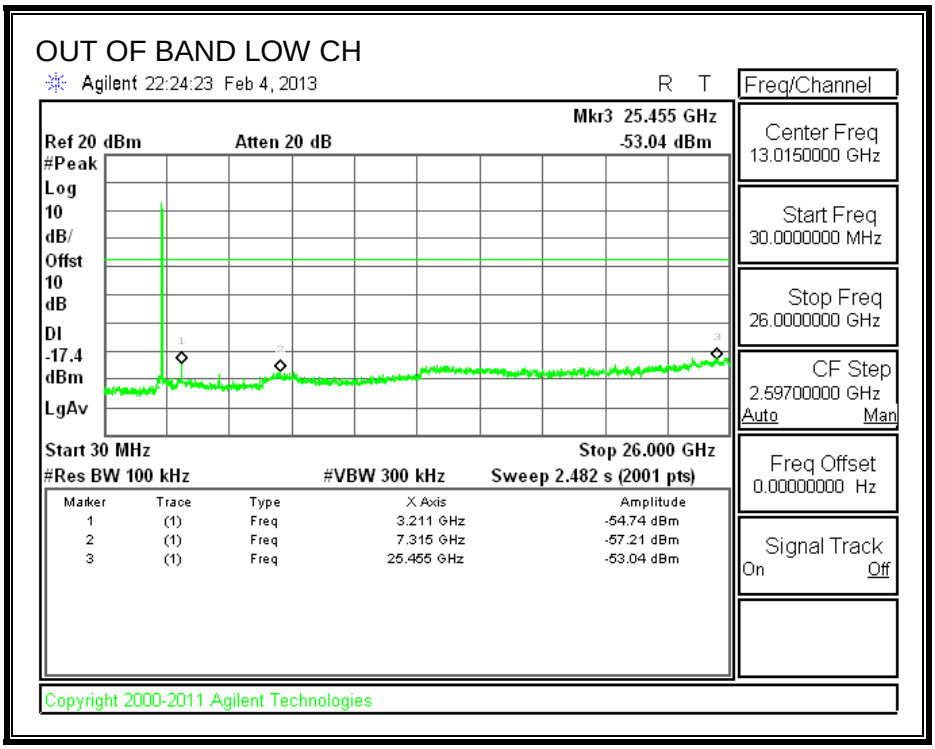

### LOW CHANNEL BANDEDGE



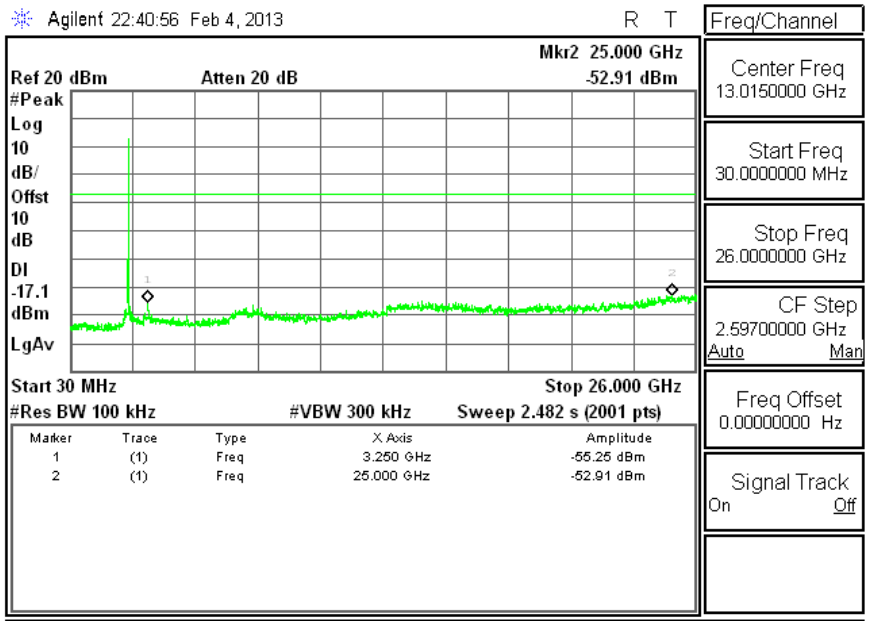
**HIGH CHANNEL BANDEDGE**



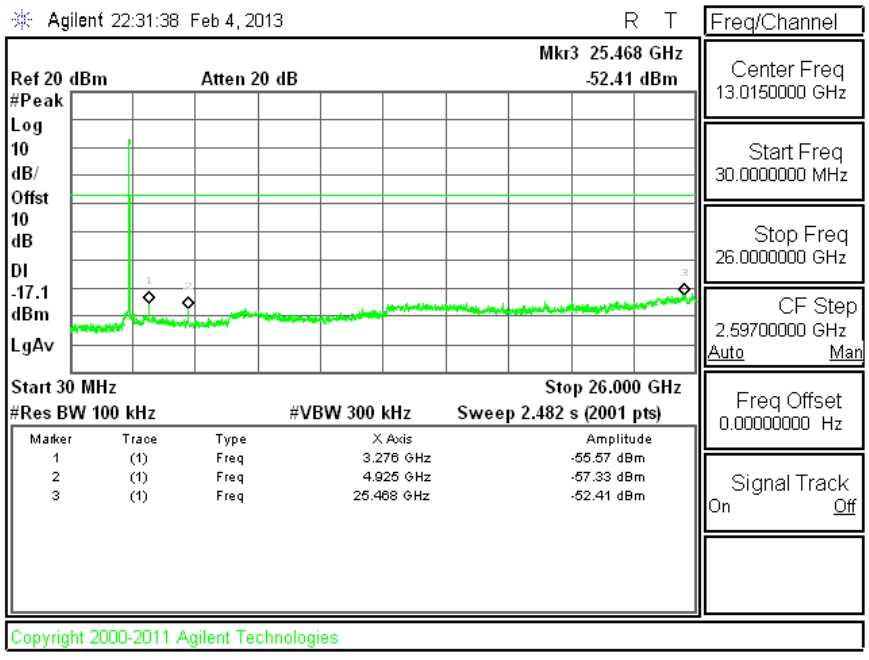

**OUT-OF-BAND EMISSIONS**



OUT OF BAND MID CH




OUT OF BAND HIGH CH



# 9.3. 802.11n HT20 MODE IN THE 2.4 GHz BAND

## 9.3.1. 6 dB BANDWIDTH

**LIMITS**

FCC §15.247 (a) (2)

IC RSS-210 A8.2 (a)

The minimum 6 dB bandwidth shall be at least 500 kHz.

**TEST PROCEDURE**

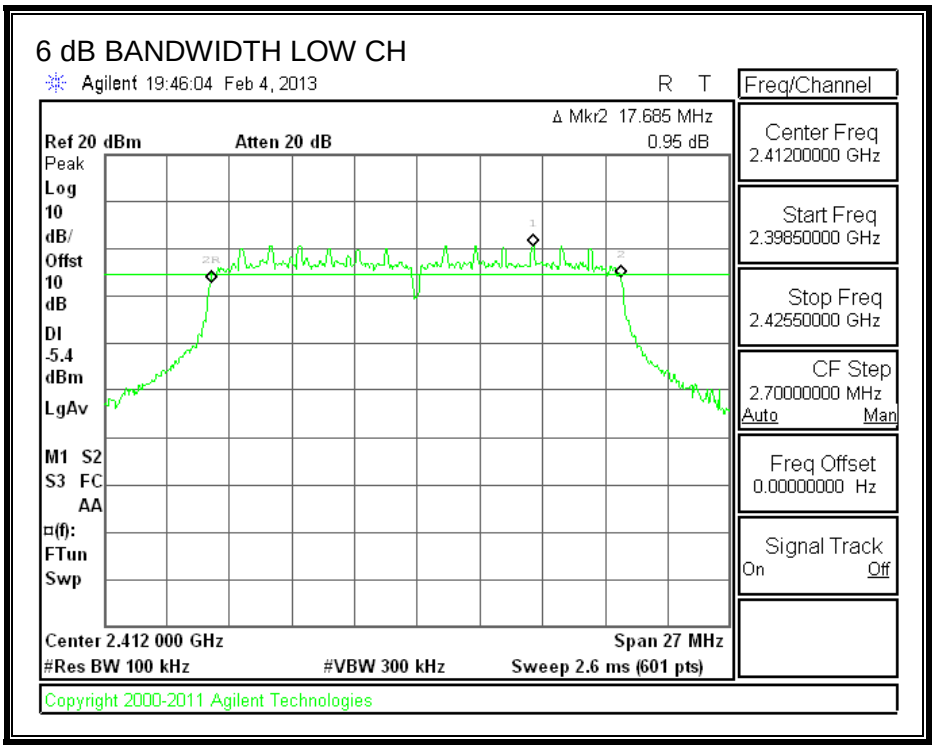
The transmitter output is connected to a spectrum analyzer with the RBW set between 1% and 5% of the EBW, the VBW >= 3 x RBW, peak detector and max hold.

**RESULTS**

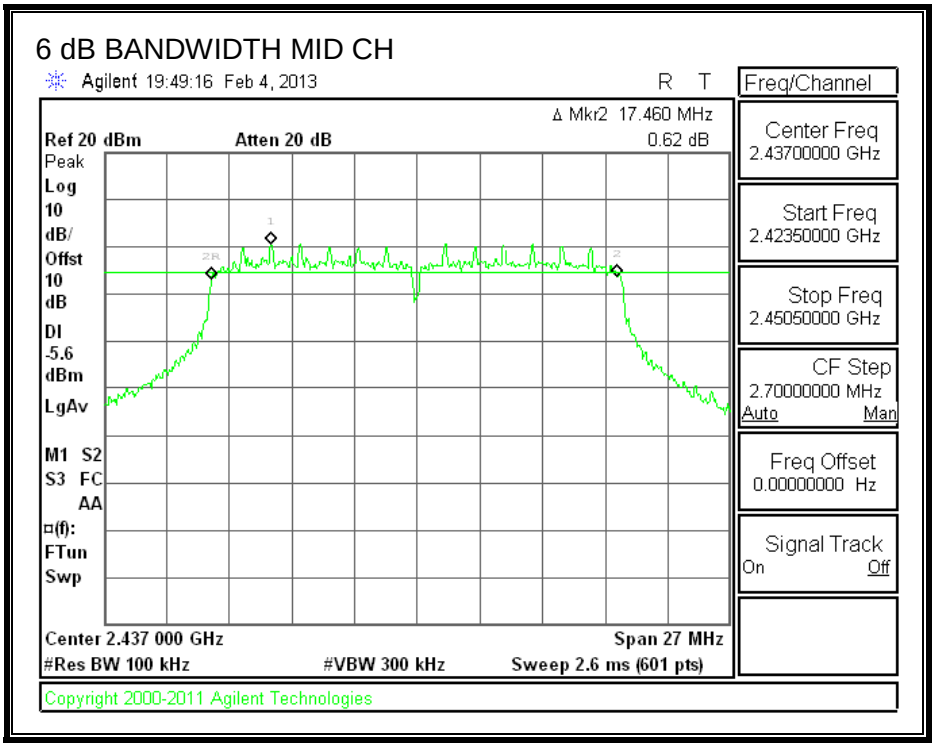
| Channel | Frequency (MHz) | 6 dB Bandwidth (MHz) | Minimum Limit (MHz) |
|---|---|---|---|
| Low | 2412 | 17.685 | 0.5 |
| Mid | 2437 | 17.460 | 0.5 |
| High | 2462 | 17.280 | 0.5 |

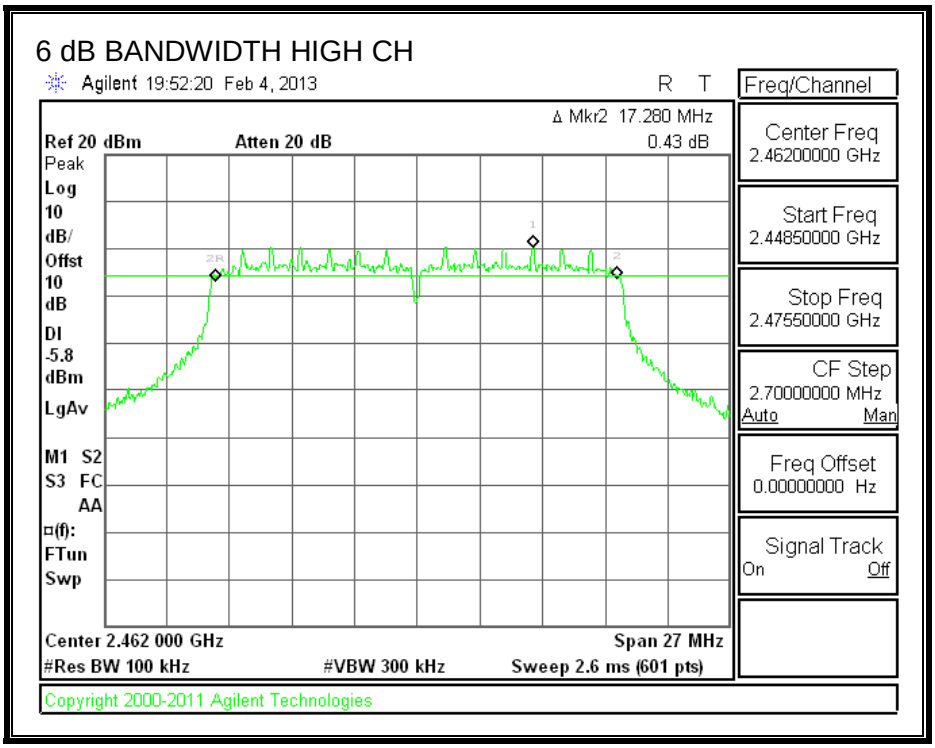
**6 dB BANDWIDTH**

6 dB BANDWIDTH LOW CH




6 dB BANDWIDTH MID CH





## 9.3.2. AVERAGE POWER

**LIMITS**

None; for reporting purposes only.

**TEST PROCEDURE**

The transmitter output is connected to a power meter.

The cable assembly insertion loss of 10 dB pad was entered as an offset in the power meter to allow for direct reading of power.

**RESULTS**

| Channel | Frequency (MHz) | Power (dBm) |
|---|---|---|
| Low | 2412 | 11.38 |
| Mid | 2437 | 11.30 |
| High | 2462 | 11.14 |

## 9.3.3. OUTPUT POWER

**LIMITS**

FCC §15.247

IC RSS-210 A8.4

For systems using digital modulation in the 902–928 MHz, 2400–2483.5 MHz, and 5725–5850 MHz bands: 1 Watt, based on the use of antennas with directional gains that do not exceed 6 dBi. If transmitting antennas of directional gain greater than 6 dBi are used, the conducted output power from the intentional radiator shall be reduced by the amount in dB that the directional gain of the antenna exceeds 6 dBi.

**DIRECTIONAL ANTENNA GAIN**

There is only one transmitter output therefore the directional gain is equal to the antenna gain.

**RESULTS**

**Limits**

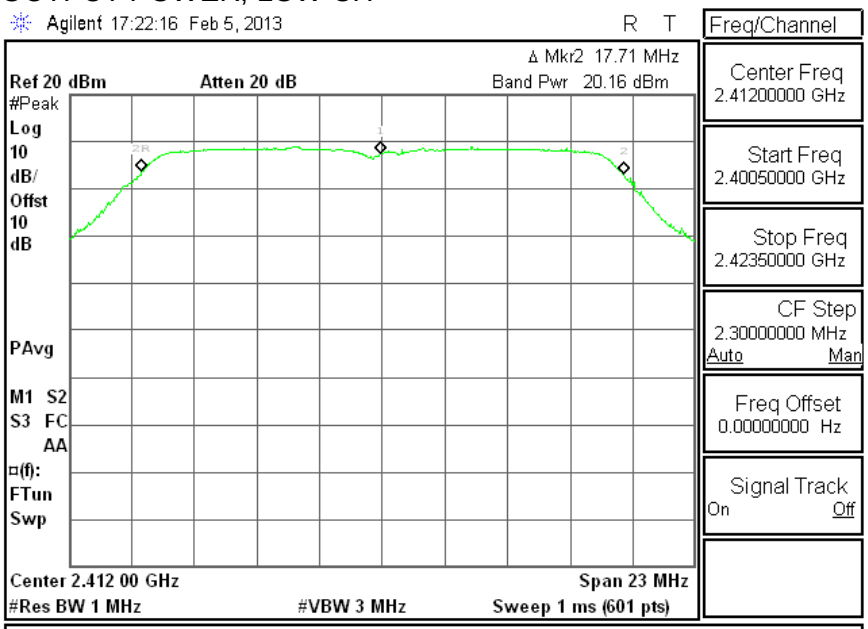
| Channel | Frequency (MHz) | Directional Gain (dBi) | FCC Power Limit (dBm) | IC Power Limit (dBm) | IC EIRP Limit (dBm) | Max Power (dBm) |
|---|---|---|---|---|---|---|
| Low | 2412 | 1.44 | 30.00 | 30 | 36 | 30.00 |
| Mid | 2437 | 1.44 | 30.00 | 30 | 36 | 30.00 |
| High | 2462 | 1.44 | 30.00 | 30 | 36 | 30.00 |

**Results**

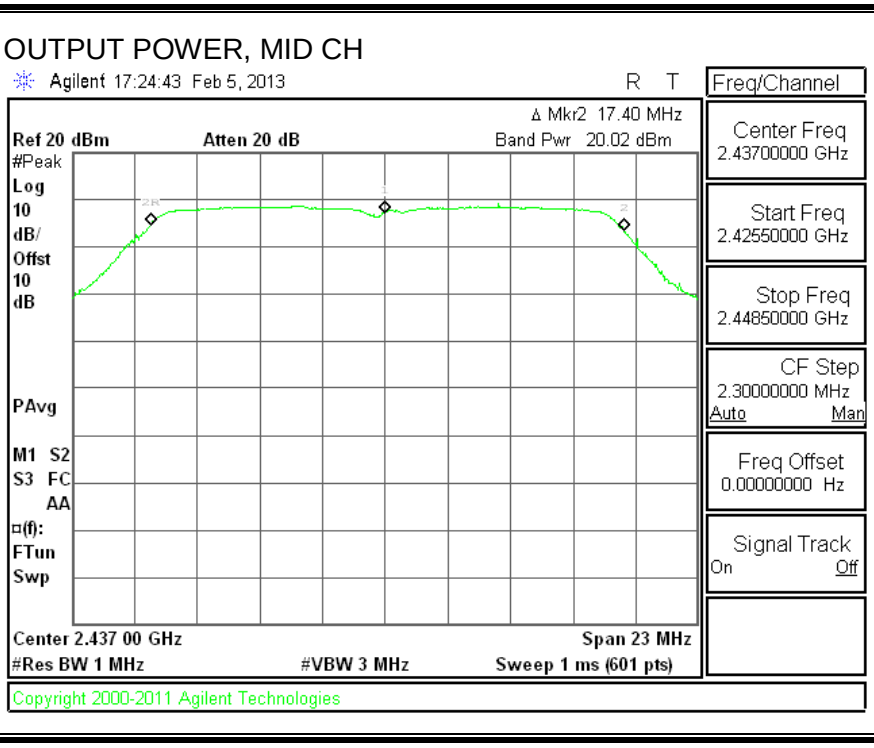
| Channel | Frequency (MHz) | Meas Power (dBm) | Total Corr'd Power (dBm) | Power Limit (dBm) | Margin (dB) |
|---|---|---|---|---|---|
| Low | 2412 | 20.16 | 20.16 | 30.00 | -9.84 |
| Mid | 2437 | 20.02 | 20.02 | 30.00 | -9.98 |
| High | 2462 | 19.15 | 19.15 | 30.00 | -10.85 |

**OUTPUT POWER**

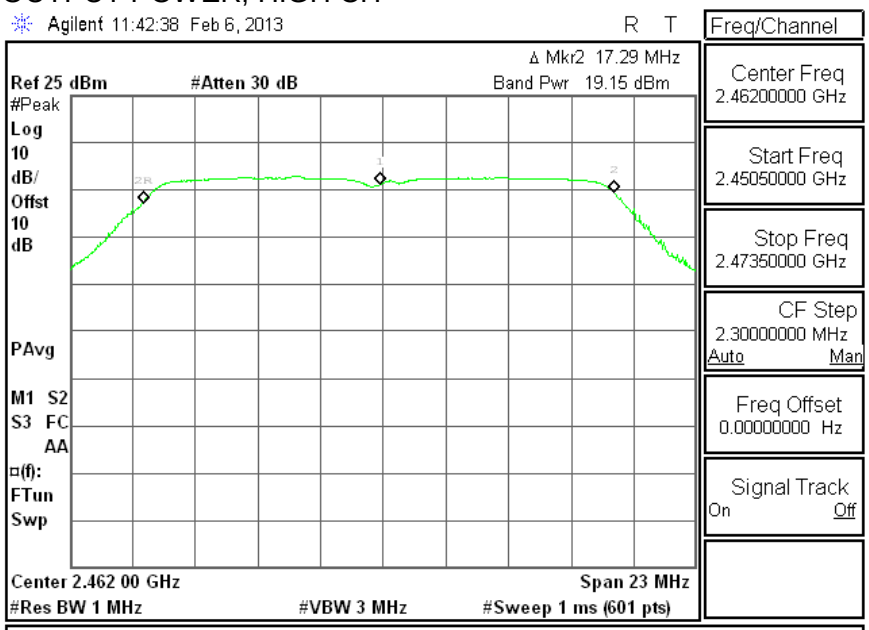
OUTPUT POWER, LOW CH




OUTPUT POWER, MID CH



OUTPUT POWER, HIGH CH



### 9.3.4. PSD

**LIMITS**

FCC §15.247

IC RSS-210 A8.2

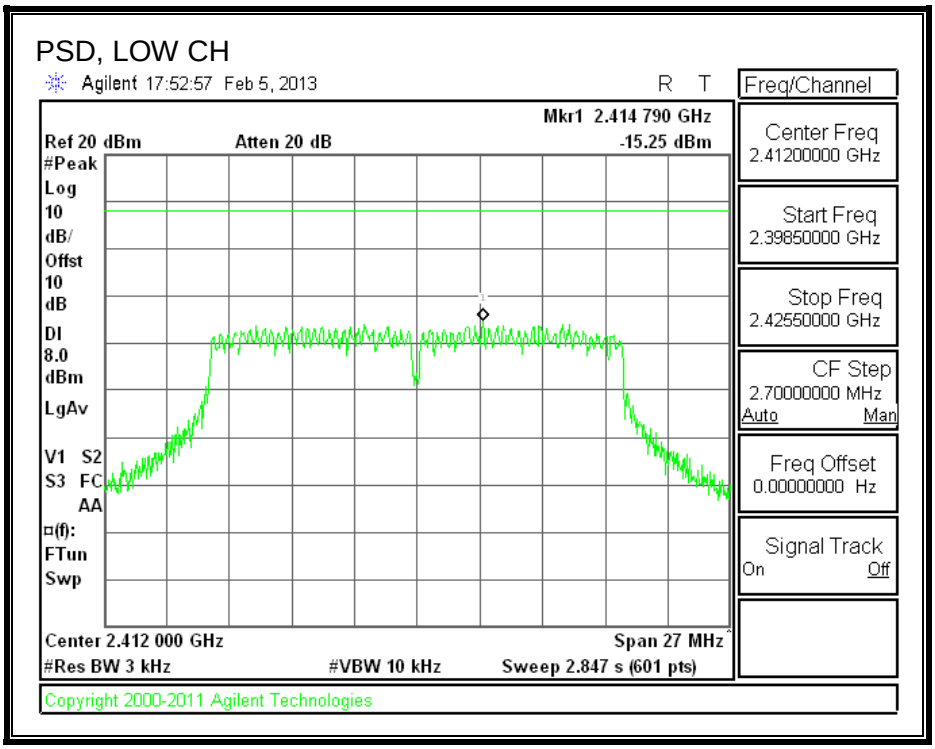
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

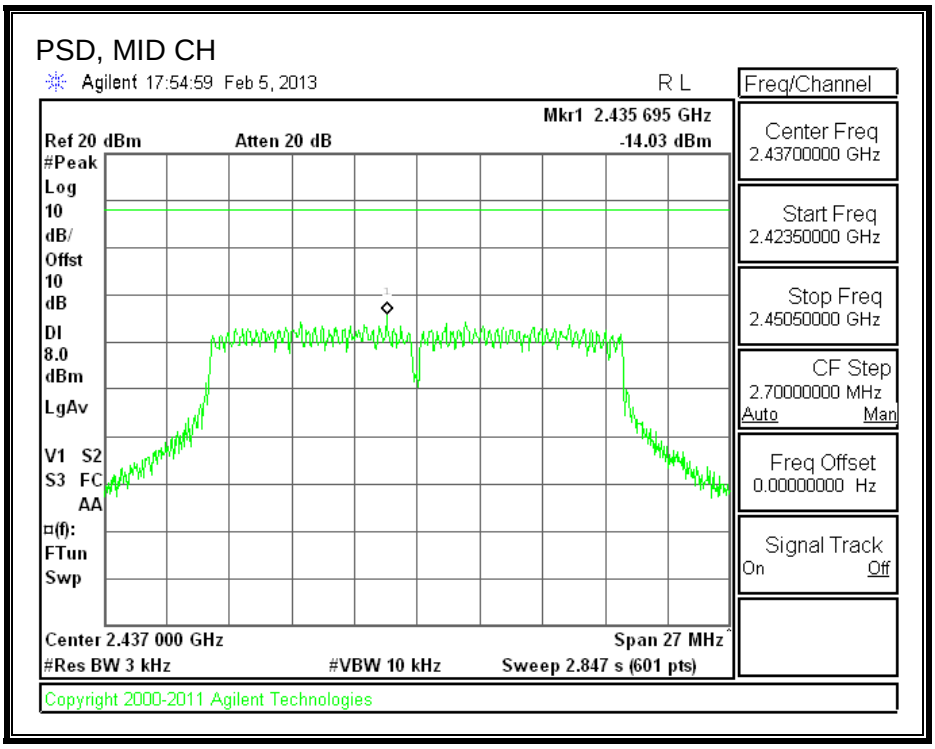
**RESULTS**

**PSD Results**

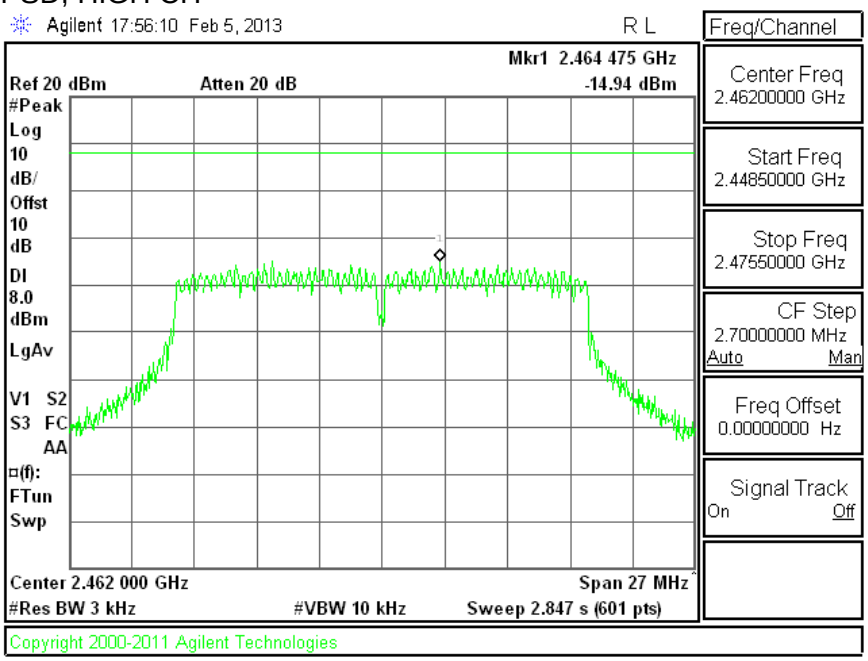
| Channel | Frequency (MHz) | Meas (dBm) | Limit (dBm) | Margin (dB) |
|---|---|---|---|---|
| Low | 2412 | -15.25 | 8.0 | -23.3 |
| Mid | 2437 | -14.03 | 8.0 | -22.0 |
| High | 2462 | -14.94 | 8.0 | -22.9 |

**PSD**



PSD, HIGH CH



## 9.3.5. OUT-OF-BAND EMISSIONS

**LIMITS**

FCC §15.247 (d)

IC RSS-210 A8.5

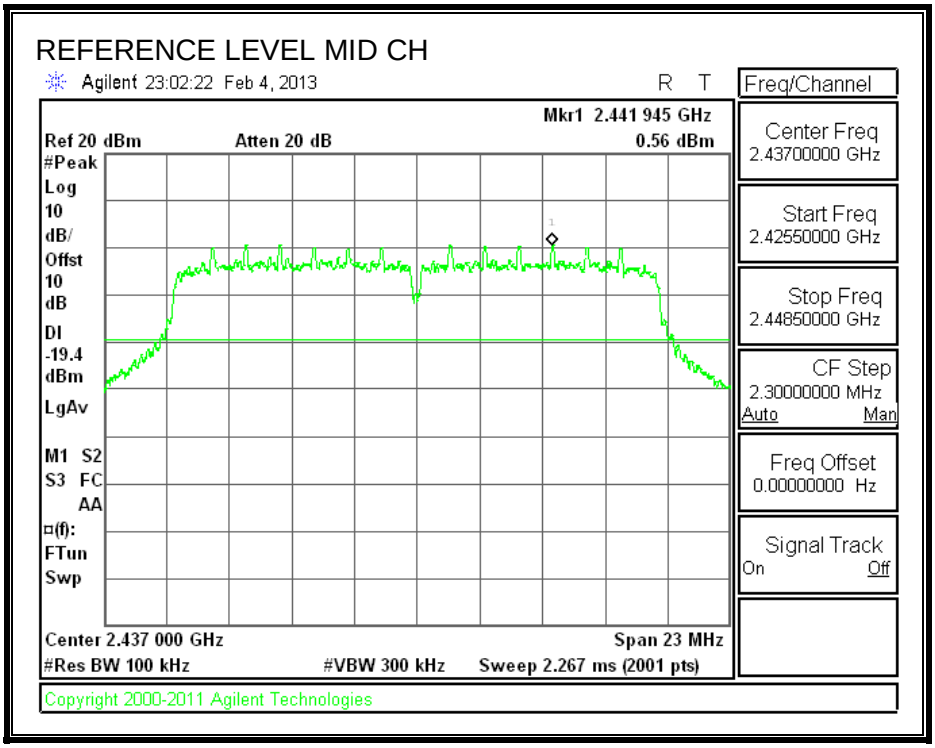
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the highest level of the desired power, based on either an RF conducted or a radiated measurement, provided the transmitter demonstrates compliance with the peak conducted power limits. If the transmitter complies with the conducted power limits based on the use of RMS averaging over a time interval, as permitted under paragraph (b)(3) of this section, the attenuation required under this paragraph shall be 30 dB instead of 20 dB. Attenuation below the general limits specified in §15.209(a) is not required.

**TEST PROCEDURE**

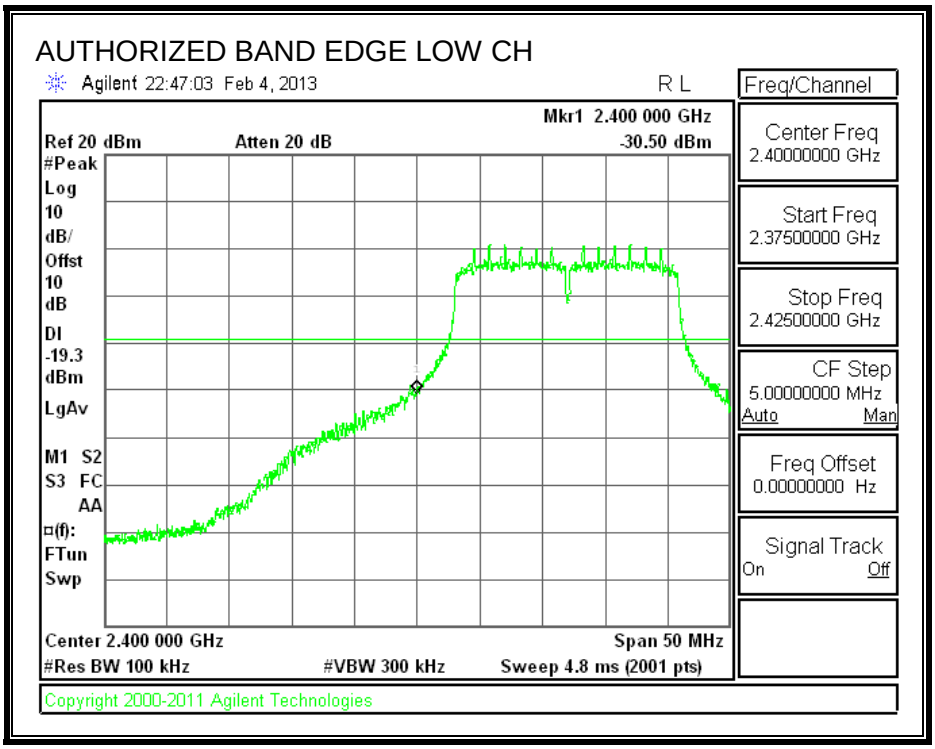
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

## RESULTS

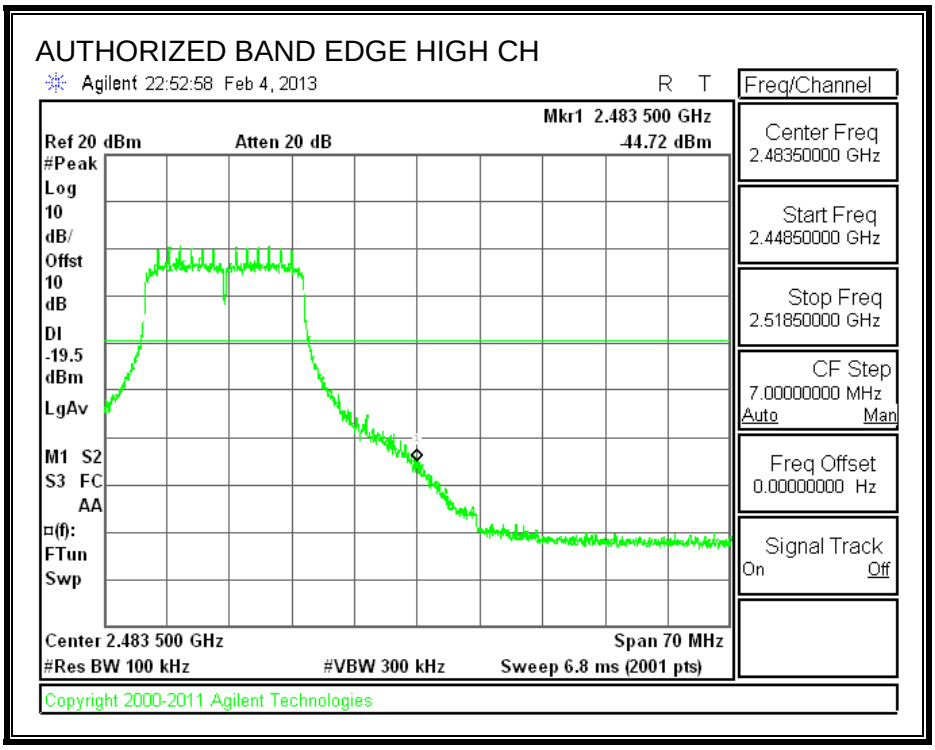
### IN-BAND REFERENCE LEVEL



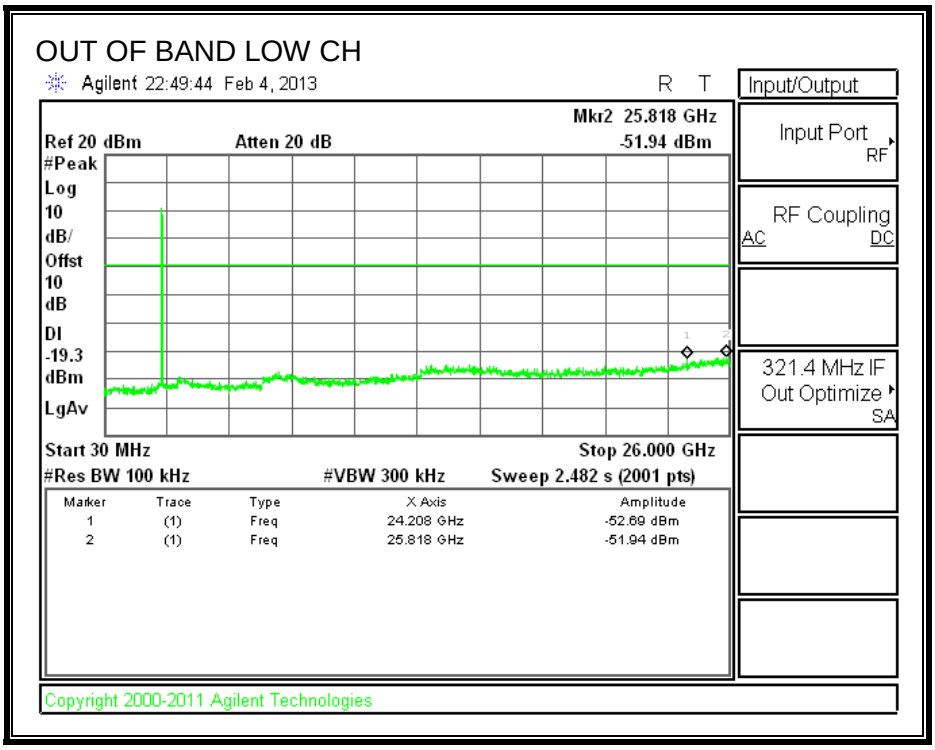

### LOW CHANNEL BANDEDGE



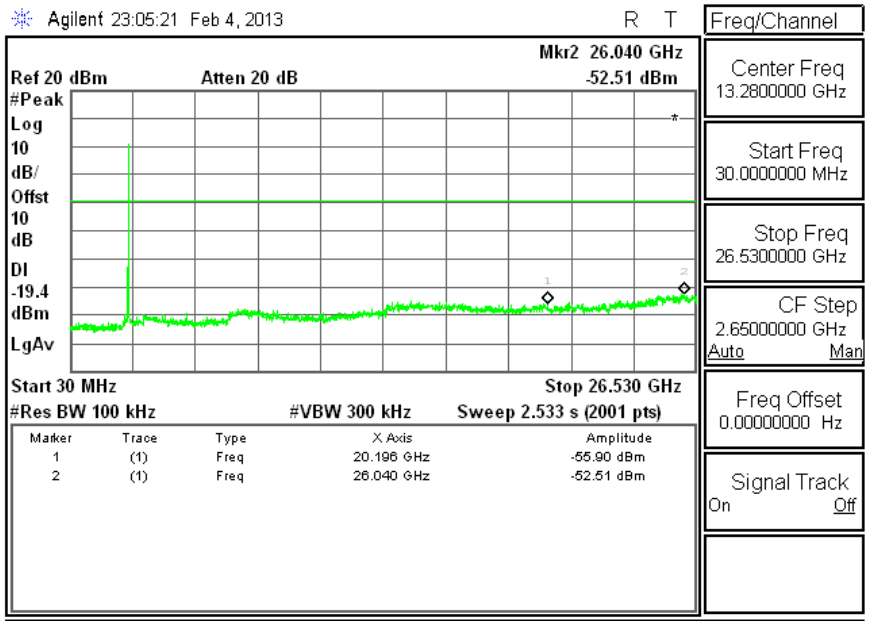
**HIGH CHANNEL BANDEDGE**



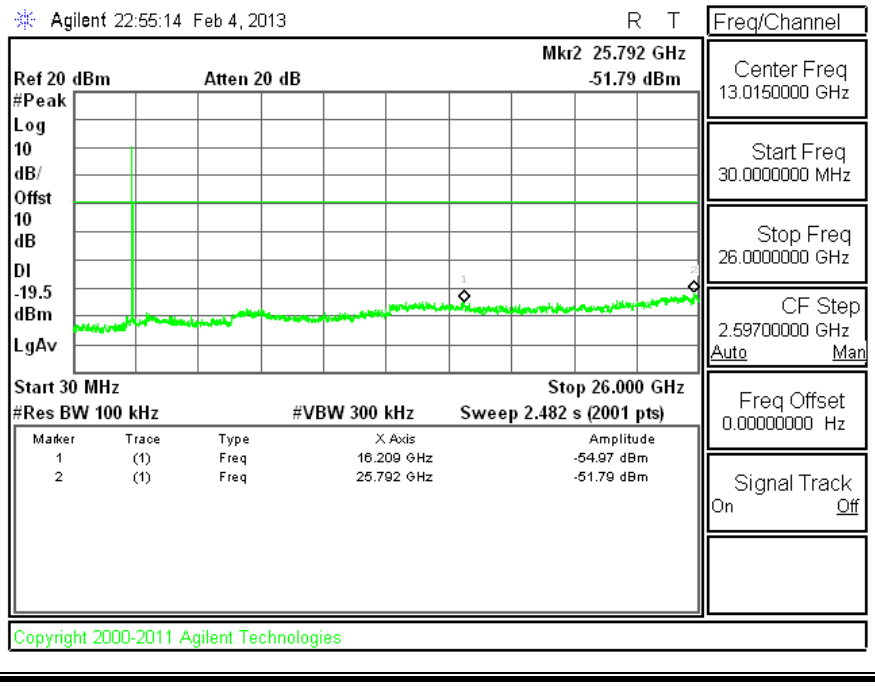

**OUT-OF-BAND EMISSIONS**



OUT OF BAND MID CH




OUT OF BAND HIGH CH



# 10. RADIATED TEST RESULTS

## 10.1. LIMITS AND PROCEDURE

**LIMITS**

FCC §15.205 and §15.209

IC RSS-210 Clause 2.6 (Transmitter)

IC RSS-GEN Clause 6 (Receiver)

| Frequency Range (MHz) | Field Strength Limit (uV/m) at 3 m | Field Strength Limit (dBuV/m) at 3 m |
|---|---|---|
| 30 - 88 | 100 | 40 |
| 88 - 216 | 150 | 43.5 |
| 216 - 960 | 200 | 46 |
| Above 960 | 500 | 54 |

**TEST PROCEDURE**

The EUT is placed on a non-conducting table 80 cm above the ground plane. The antenna to EUT distance is 3 meters.

For measurements below 1 GHz the resolution bandwidth is set to 100 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For measurements above 1 GHz the resolution bandwidth is set to 1 MHz; the video bandwidth is set to 1 MHz for peak measurements and as applicable for average measurements.

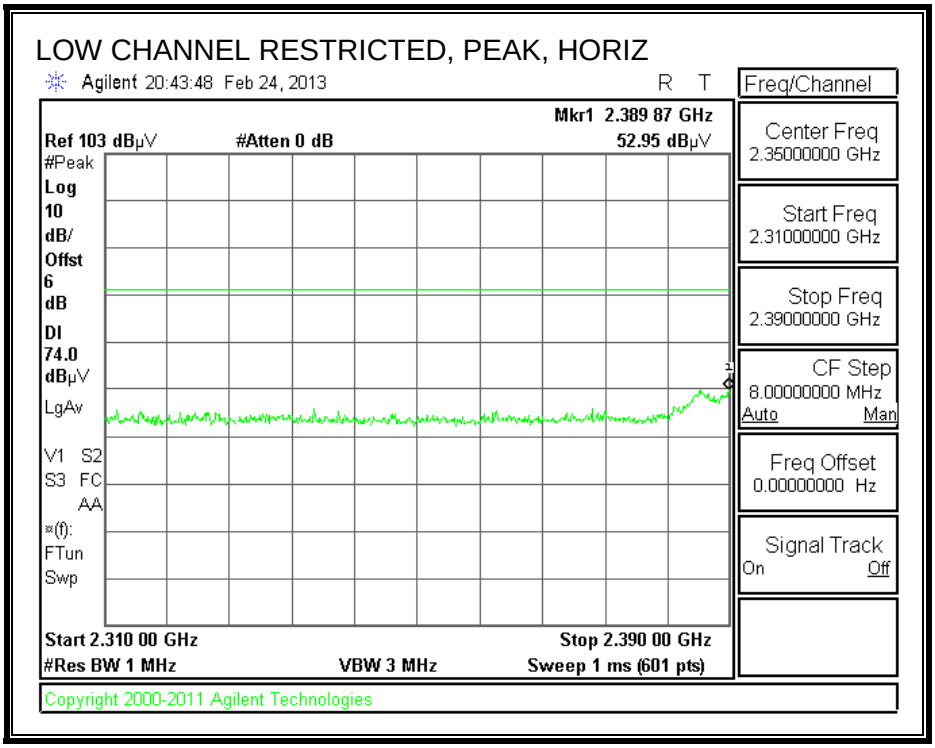
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

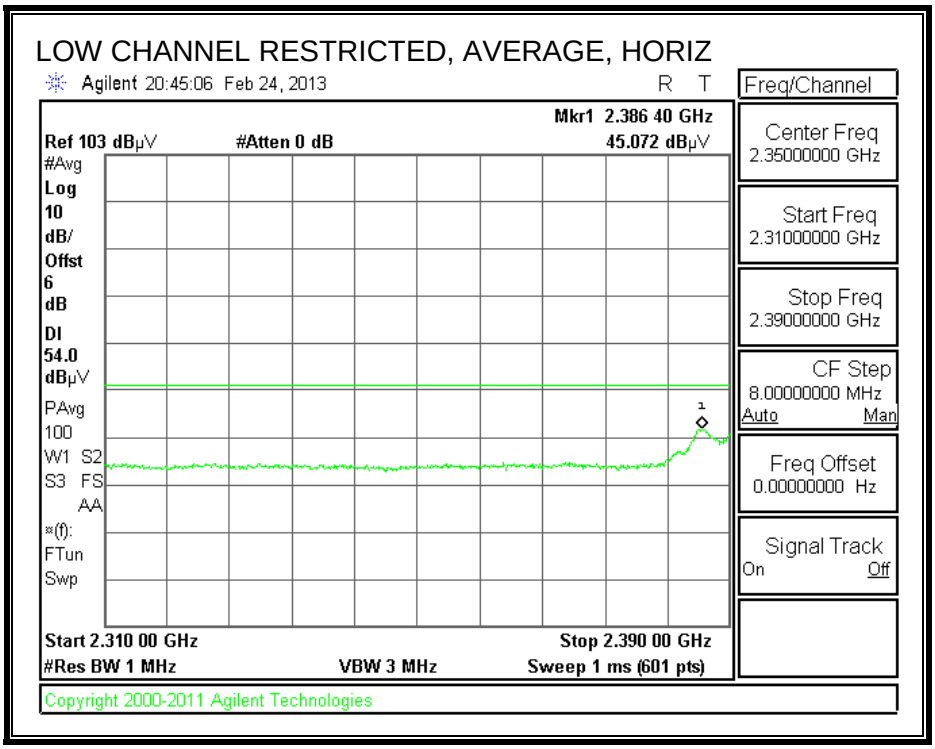
The frequency range of interest is monitored at a fixed antenna height and EUT azimuth. The EUT is rotated through 360 degrees to maximize emissions received. The antenna is scanned from 1 to 4 meters above the ground plane to further maximize the emission. Measurements are made with the antenna polarized in both the vertical and the horizontal positions.

# 10.2. TRANSMITTER ABOVE 1 GHz

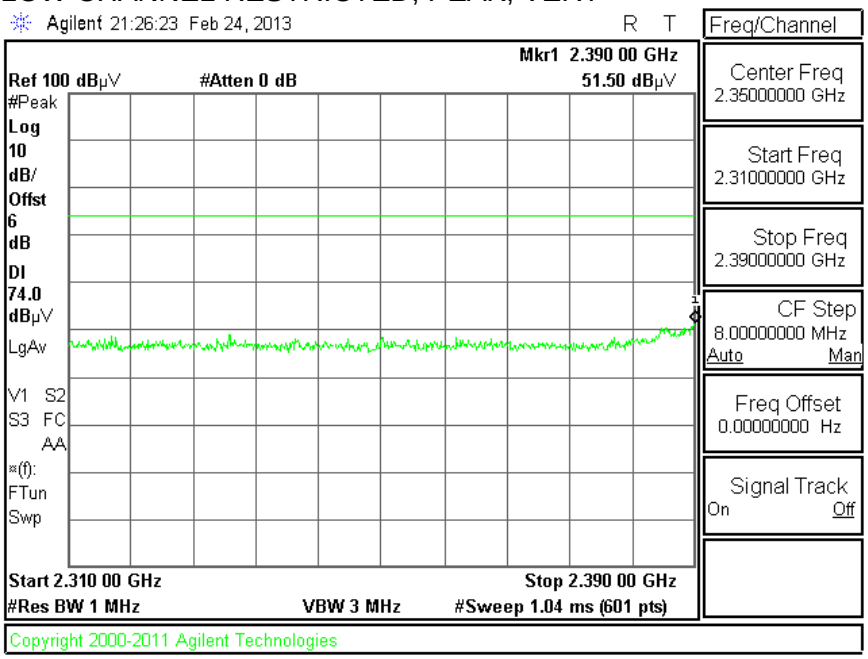
## 10.2.1. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

**RESTRICTED BANDEDGE (LOW CHANNEL)**

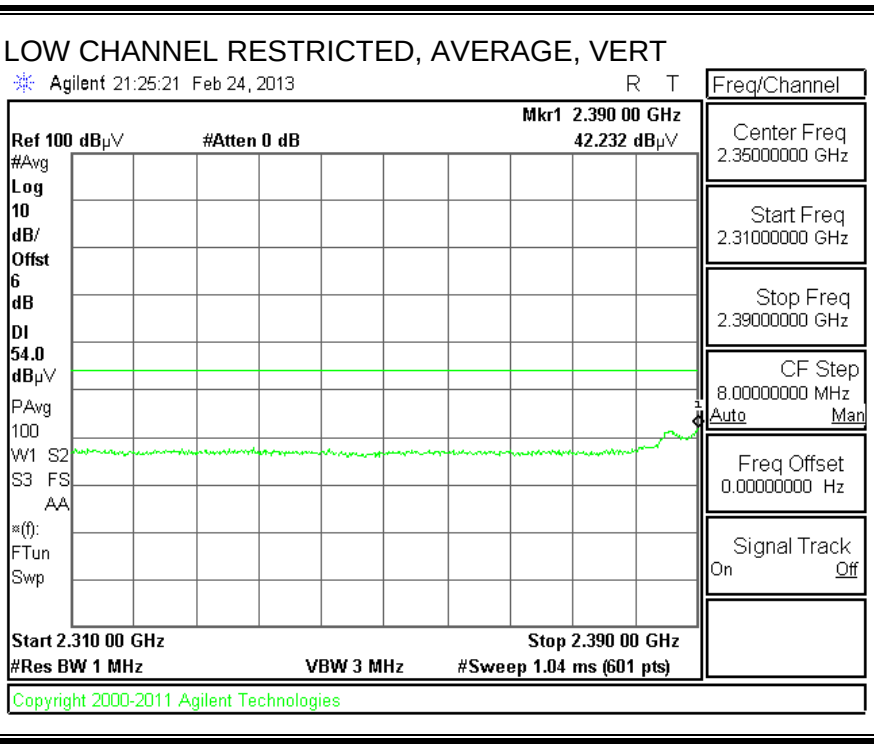


LOW CHANNEL RESTRICTED, PEAK, VERT

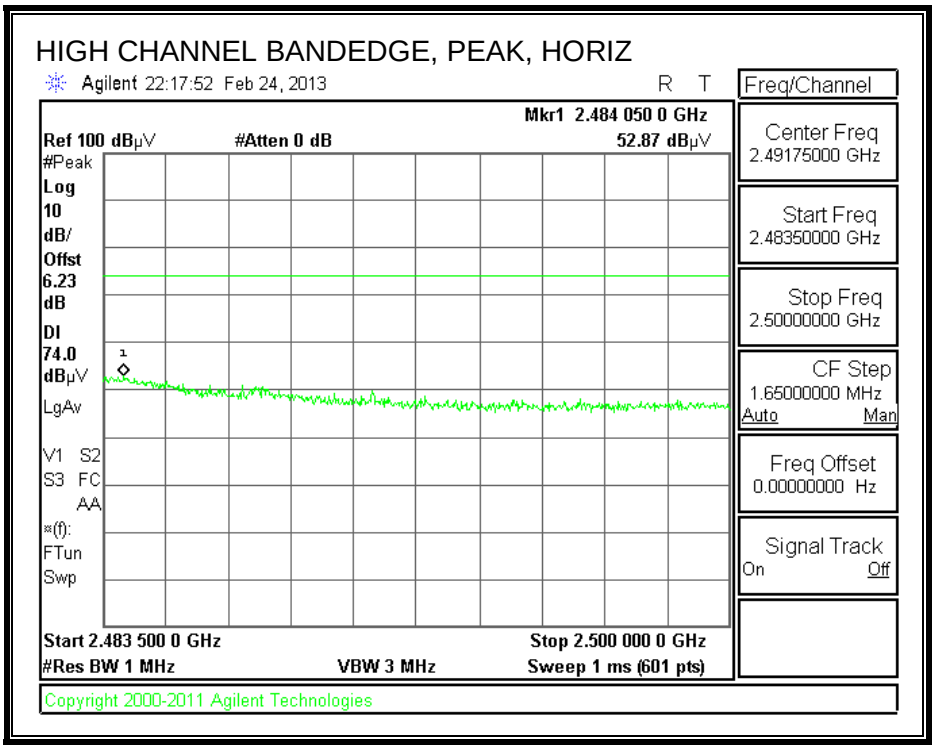



LOW CHANNEL RESTRICTED, AVERAGE, VERT

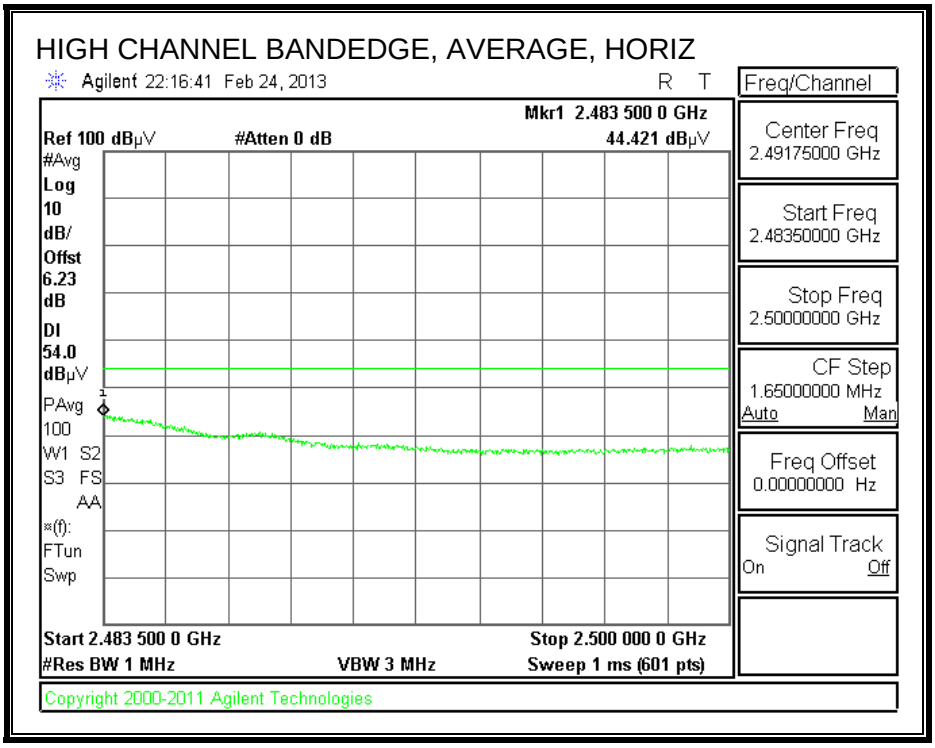


**AUTHORIZED BANDEDGE (HIGH CHANNEL)**

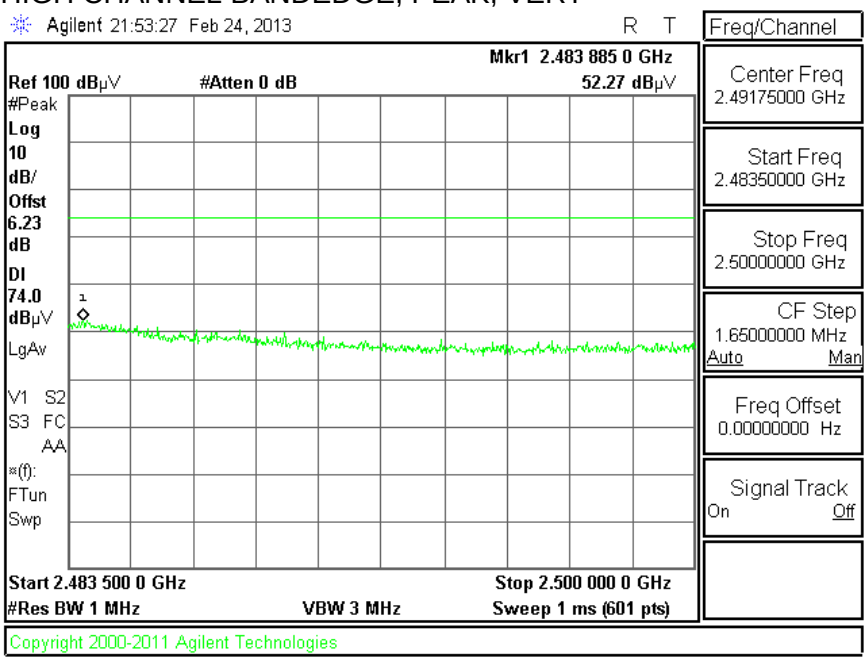
HIGH CHANNEL BANDEDGE, PEAK, HORIZ



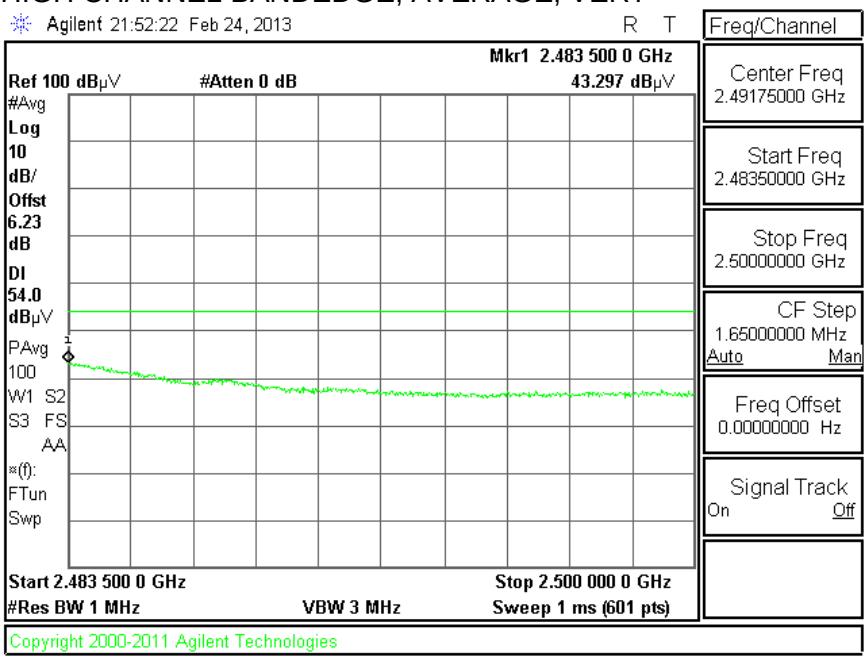

HIGH CHANNEL BANDEDGE, AVERAGE, HORIZ



HIGH CHANNEL BANDEDGE, PEAK, VERT

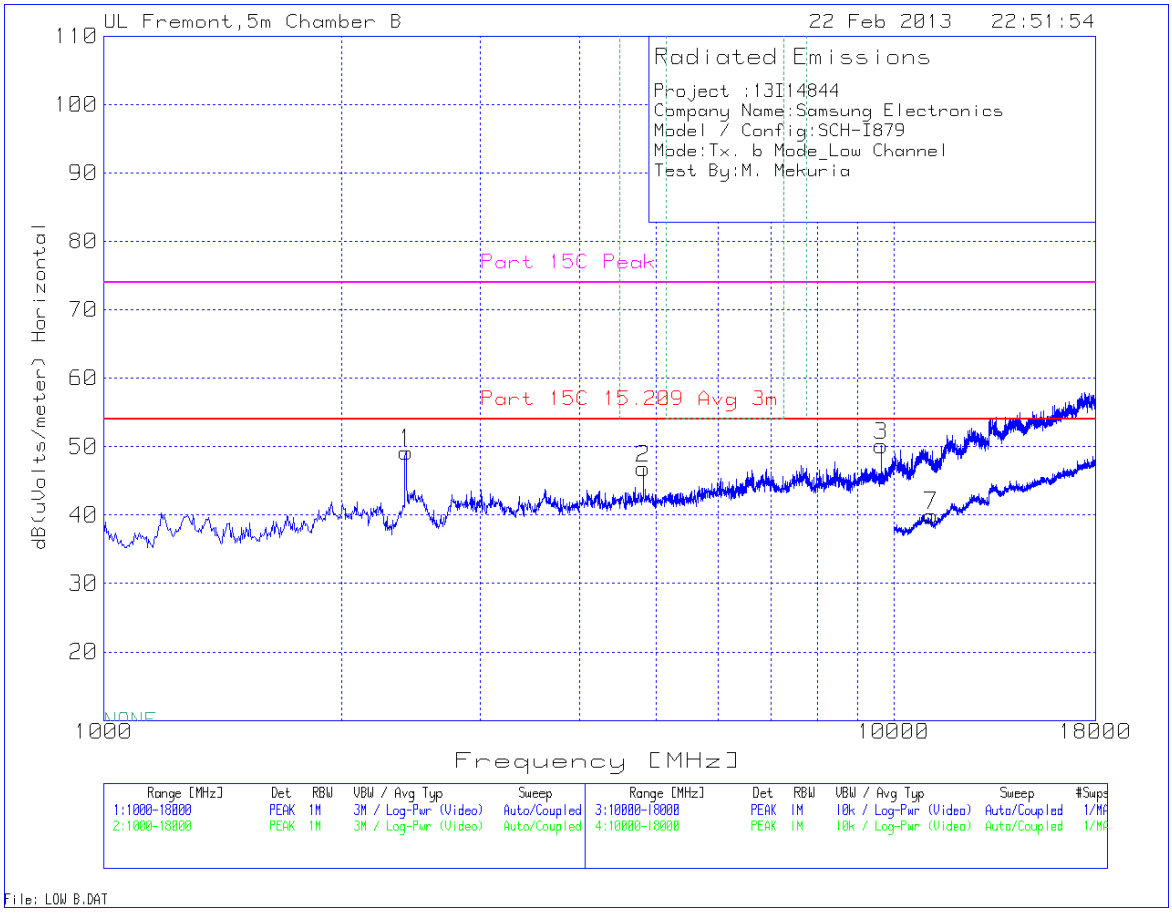



HIGH CHANNEL BANDEDGE, AVERAGE, VERT

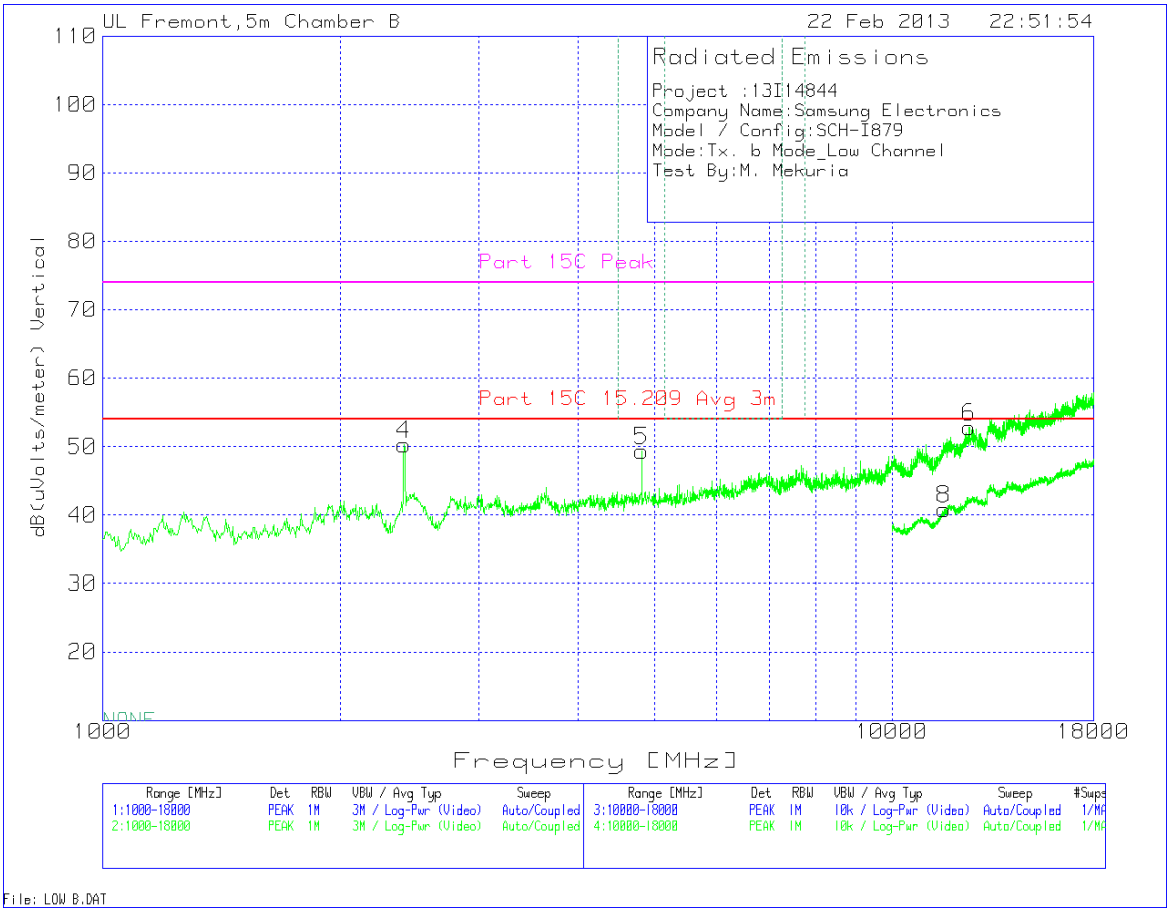


**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL HORIZONTAL PLOT



## LOW CHANNEL VERTICAL PLOT



# LOW CHANNEL HORIZONTAL AND VERTICAL DATA

Project :13I14844
Company Name:Samsung Electronics
Model / Config:SCH-I879
Mode:Tx. b Mode_Low Channel
Test By:M. Mekuria

Horizontal 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2414.189 | 46.97 | PK | 32.1 | -35 | 4.6 | 0.5 | 49.17 | 54 | -4.83 | 74 | -24.83 | 200 | Horz |
| 2 | 4822.133 | 40.19 | PK | 34 | -34.9 | 7 | 0.5 | 46.79 | 54 | -7.21 | 74 | -27.21 | 100 | Horz |
| 3 | 9650.762 | 37.53 | PK | 36.8 | -35 | 10.3 | 0.5 | 50.13 | 54 | -3.87 | 74 | -23.87 | 100 | Horz |

Vertical 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 2409.943 | 48.1 | PK | 32.1 | -35 | 4.6 | 0.5 | 50.3 | 54 | -3.7 | 74 | -23.7 | 100 | Vert |
| 5 | 4822.133 | 42.76 | PK | 34 | -34.9 | 7 | 0.5 | 49.36 | 54 | -4.64 | 74 | -24.64 | 100 | Vert |
| 6 | 12530.102 | 33.81 | PK | 39.2 | -32.5 | 11.8 | 0.5 | 52.81 | 54 | -1.19 | 74 | -21.19 | 100 | Vert |

Vertical 10000 - 18000MHz

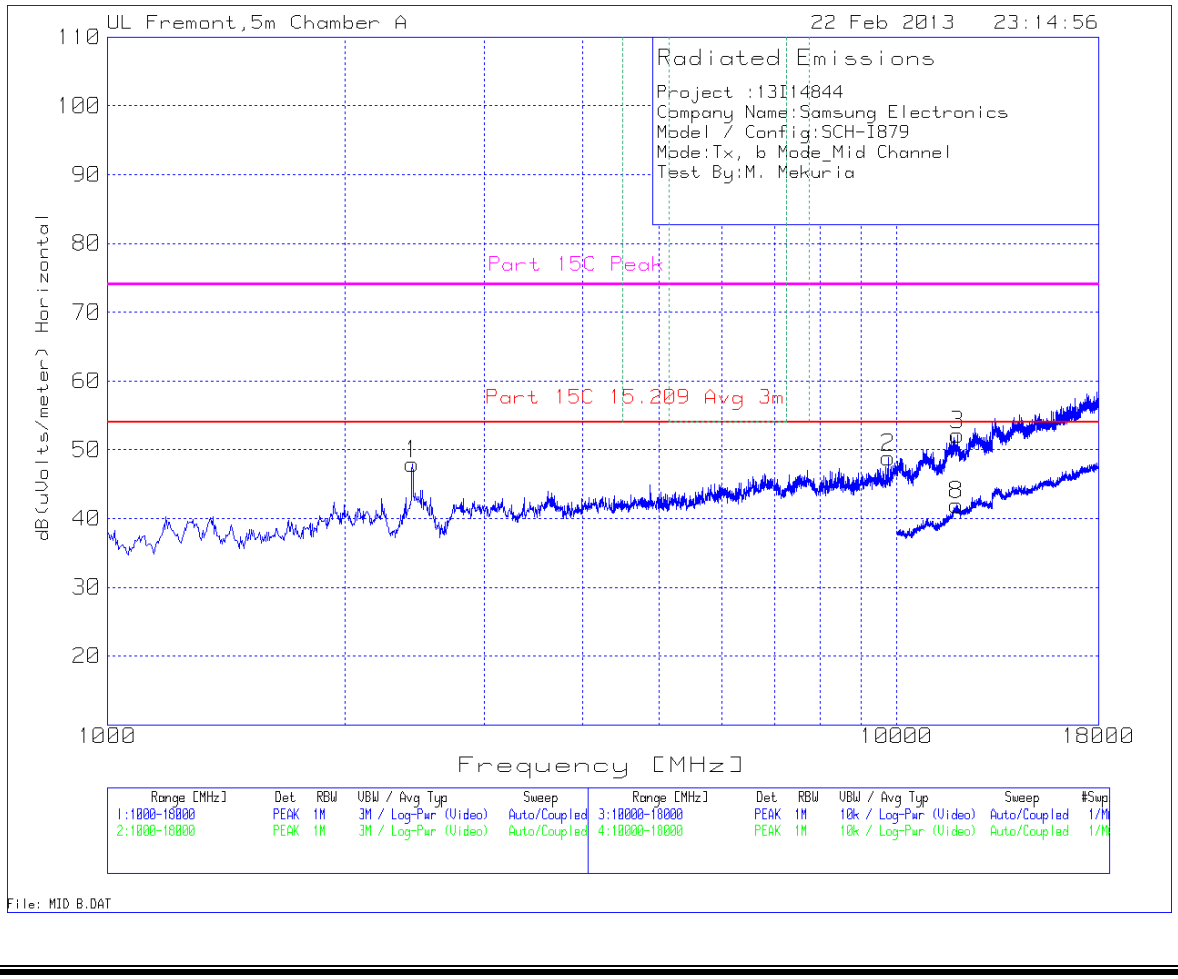
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 11155.422 | 24.25 | PK | 37.9 | -33.8 | 11.1 | 0.5 | 39.95 | 54 | -14.05 | 74 | -34.05 | 100 | Horz |

Vertical 10000 - 18000MHz

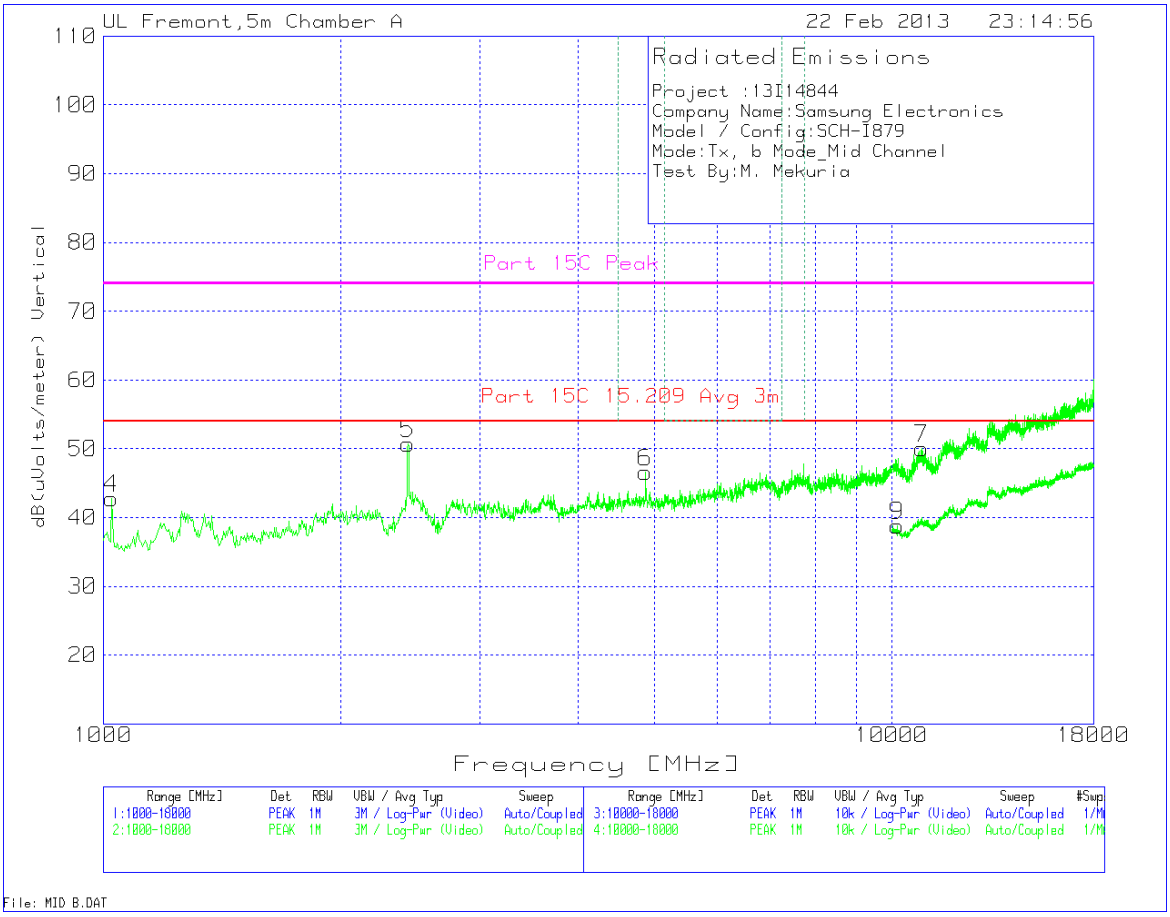
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 11651.174 | 23.83 | PK | 38.6 | -33.5 | 11.4 | 0.5 | 40.83 | 54 | -13.17 | 74 | -33.17 | 200 | Vert |
| 2 | 4823.94 | 47.23 | PK2 | 34 | -34.9 | 7 | 0.5 | 53.83 | 54 | -0.17 | 74 | -20.17 | 193 | Horz |
| 2 | 4823.99 | 44.28 | MAv1 | 34 | -34.9 | 7 | 0.5 | 50.88 | 54 | -3.12 | - | - | 193 | Horz |
| 3 | 9647.29 | 39.12 | PK2 | 36.8 | -35 | 10.3 | 0.5 | 51.72 | 54 | -2.28 | 74 | -22.28 | 195 | Horz |
| 3 | 9647.91 | 32.61 | MAv1 | 36.8 | -35 | 10.3 | 0.5 | 45.21 | 54 | -8.79 | - | - | 195 | Horz |
| 5 | 4824.008 | 48.9 | PK2 | 34 | -34.9 | 7 | 0.5 | 55.5 | 54 | 1.5 | 74 | -18.5 | 114 | Vert |
| 5 | 4823.93 | 46.83 | MAv1 | 34 | -34.9 | 7 | 0.5 | 53.43 | 54 | -0.57 | - | - | 114 | Vert |
| 9 | 9647.89 | 39 | PK2 | 36.8 | -35 | 10.3 | 0.5 | 51.6 | 54 | -2.4 | 74 | -22.4 | 140 | Vert |
| 9 | 9647.93 | 32.77 | MAv1 | 36.8 | -35 | 10.3 | 0.5 | 45.37 | 54 | -8.63 | - | - | 140 | Vert |

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector

## MID CHANNEL HORIZONTAL PLOT



## MID CHANNEL VERTICAL PLOT



# MID CHANNEL HORIZONTAL AND VERTICAL DATA

Project :13I14844
Company Name:Samsung Electronics
Model / Config:SCH-I879
Mode:Tx, b Mode_Mid Channel
Test By:M. Mekuria

Horizontal 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2435.423 | 45.56 | PK | 32.2 | -35 | 4.7 | 0.5 | 47.96 | 54 | -6.04 | 74 | -26.04 | 200 | Horz |
| 2 | 9748.439 | 36.11 | PK | 36.9 | -35 | 10.3 | 0.5 | 48.81 | 54 | -5.19 | 74 | -25.19 | 100 | Horz |
| 3 | 11948.289 | 34.6 | PK | 39 | -33.4 | 11.5 | 0.5 | 52.2 | 54 | -1.8 | 74 | -21.8 | 200 | Horz |

Vertical 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 1025.481 | 47.89 | PK | 27.2 | -36 | 3.2 | 0.5 | 42.79 | 54 | -11.21 | 74 | -31.21 | 200 | Vert |
| 5 | 2435.423 | 48.29 | PK | 32.2 | -35 | 4.7 | 0.5 | 50.69 | 54 | -3.31 | 74 | -23.31 | 200 | Vert |
| 6 | 4868.848 | 39.85 | PK | 34 | -34.9 | 7.1 | 0.5 | 46.55 | 54 | -7.45 | 74 | -27.45 | 200 | Vert |
| 7 | 10912.066 | 34.69 | PK | 37.9 | -34 | 11 | 0.5 | 50.09 | 54 | -3.91 | 74 | -23.91 | 100 | Vert |

Horizontal 10000 - 18000MHz

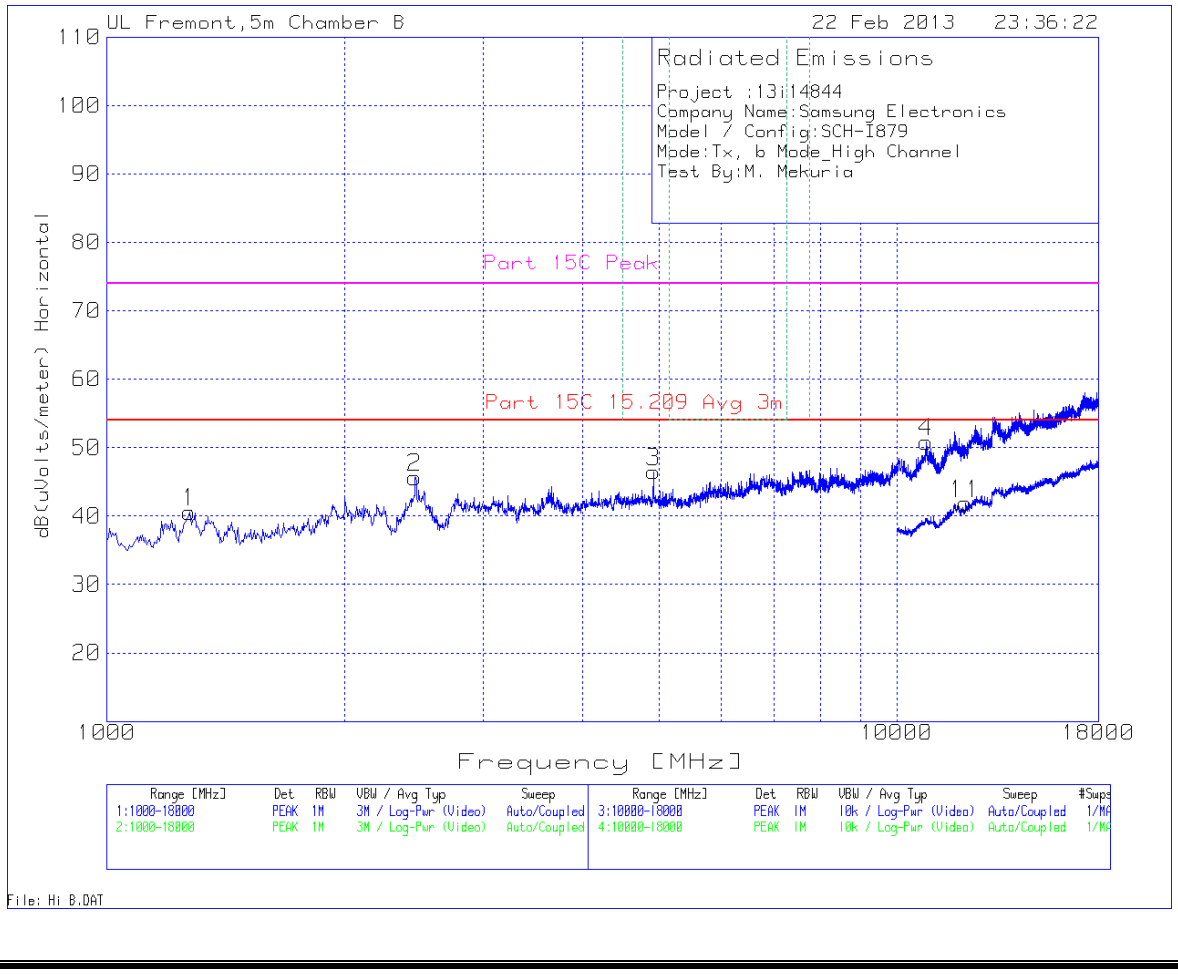
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 11911.044 | 24.41 | PK | 39 | -33.4 | 11.5 | 0.5 | 42.01 | 54 | -11.99 | 74 | -31.99 | 200 | Horz |

Vertical 10000 - 18000MHz

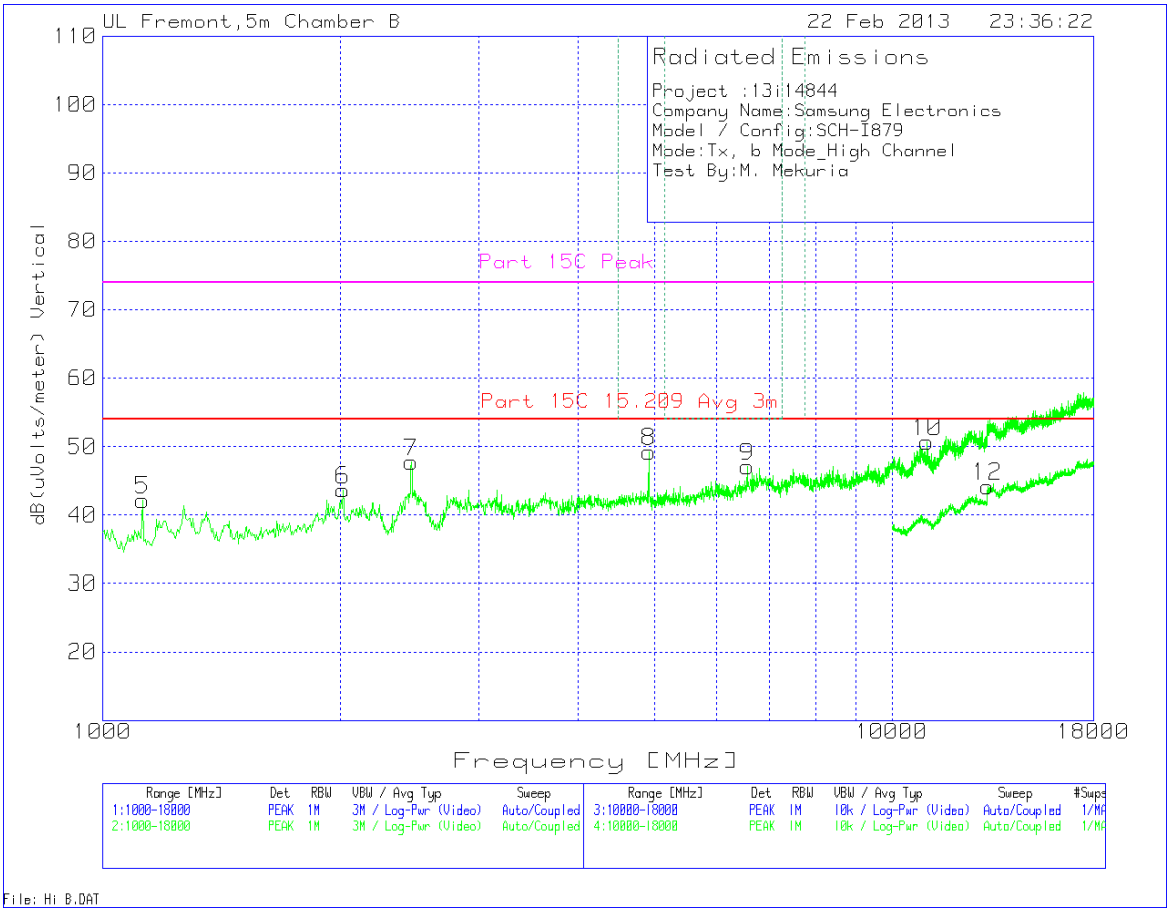
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 10143.928 | 25.5 | PK | 37 | -34.7 | 10.5 | 0.5 | 38.8 | 54 | -15.2 | 74 | -35.2 | 100 | Vert |
| 10 | 4873.875 | 43.16 | PK2 | 34 | -34.9 | 7.1 | 0.5 | 49.86 | 54 | -4.14 | 74 | -24.14 | 179 | Horz |
| 10 | 4873.87 | 38.66 | MAv1 | 34 | -34.9 | 7.1 | 0.5 | 45.36 | 54 | -8.64 | - | - | 179 | Horz |
| 2 | 9748.16 | 38.62 | PK2 | 36.9 | -35 | 10.3 | 0.5 | 51.32 | 54 | -2.68 | 74 | -22.68 | 162 | Horz |
| 2 | 9747.866 | 32.65 | MAv1 | 36.9 | -35 | 10.3 | 0.5 | 45.35 | 54 | -8.65 | - | - | 162 | Horz |
| 6 | 4874.00 | 42.83 | PK2 | 34 | -34.9 | 7.1 | 0.5 | 49.53 | 54 | -4.47 | 74 | -24.47 | 128 | Vert |
| 6 | 4873.91 | 37.71 | MAv1 | 34 | -34.9 | 7.1 | 0.5 | 44.41 | 54 | -9.59 | - | - | 128 | Vert |
| 11 | 9747.87 | 39.12 | PK2 | 36.9 | -35 | 10.3 | 0.5 | 51.82 | 54 | -2.18 | 74 | -22.18 | 137 | Vert |
| 11 | 9747.81 | 31.16 | MAv1 | 36.9 | -35 | 10.3 | 0.5 | 43.86 | 54 | -10.14 | - | - | 137 | Vert |

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector

## HIGH CHANNEL HORIZONTAL PLOT



## HIGH CHANNEL VERTICAL PLOT



# HIGH CHANNEL HORIZONTAL AND VERTICAL DATA

Project :13i14844
Company Name:Samsung Electronics
Model / Config:SCH-I879
Mode:Tx, b Mode_High Channel
Test By:M. Mekuria

Horizontal 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 1271.796 | 42.32 | PK | 30 | -35.6 | 3.4 | 0.5 | 40.62 | 54 | -13.38 | 74 | -33.38 | 100 | Horz |
| 2 | 2456.658 | 43.23 | PK | 32.2 | -35 | 4.7 | 0.5 | 45.63 | 54 | -8.37 | 74 | -28.37 | 100 | Horz |
| 3 | 4919.81 | 39.8 | PK | 34 | -34.9 | 7.1 | 0.5 | 46.5 | 54 | -7.5 | 74 | -27.5 | 100 | Horz |
| 4 | 10895.079 | 35.58 | PK | 37.9 | -34 | 10.9 | 0.5 | 50.88 | 54 | -3.12 | 74 | -23.12 | 200 | Horz |

Vertical 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 1123.158 | 46.53 | PK | 27.7 | -35.8 | 3.3 | 0.5 | 42.23 | 54 | -11.77 | 74 | -31.77 | 100 | Vert |
| 6 | 2014.989 | 42.4 | PK | 31.6 | -35 | 4.2 | 0.5 | 43.7 | 54 | -10.3 | 74 | -30.3 | 200 | Vert |
| 7 | 2460.904 | 45.32 | PK | 32.2 | -35 | 4.7 | 0.5 | 47.72 | 54 | -6.28 | 74 | -26.28 | 200 | Vert |
| 8 | 4919.81 | 42.57 | PK | 34 | -34.9 | 7.1 | 0.5 | 49.27 | 54 | -4.73 | 74 | -24.73 | 100 | Vert |
| 9 | 6554.834 | 37.56 | PK | 35.6 | -35 | 8.4 | 0.5 | 47.06 | 54 | -6.94 | 74 | -26.94 | 100 | Vert |
| 10 | 11086.185 | 35.11 | PK | 37.9 | -33.9 | 11.1 | 0.5 | 50.71 | 54 | -3.29 | 74 | -23.29 | 200 | Vert |

Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 12222.889 | 23.55 | PK | 39.1 | -33 | 11.7 | 0.5 | 41.85 | 54 | -12.15 | 74 | -32.15 | 200 | Horz |

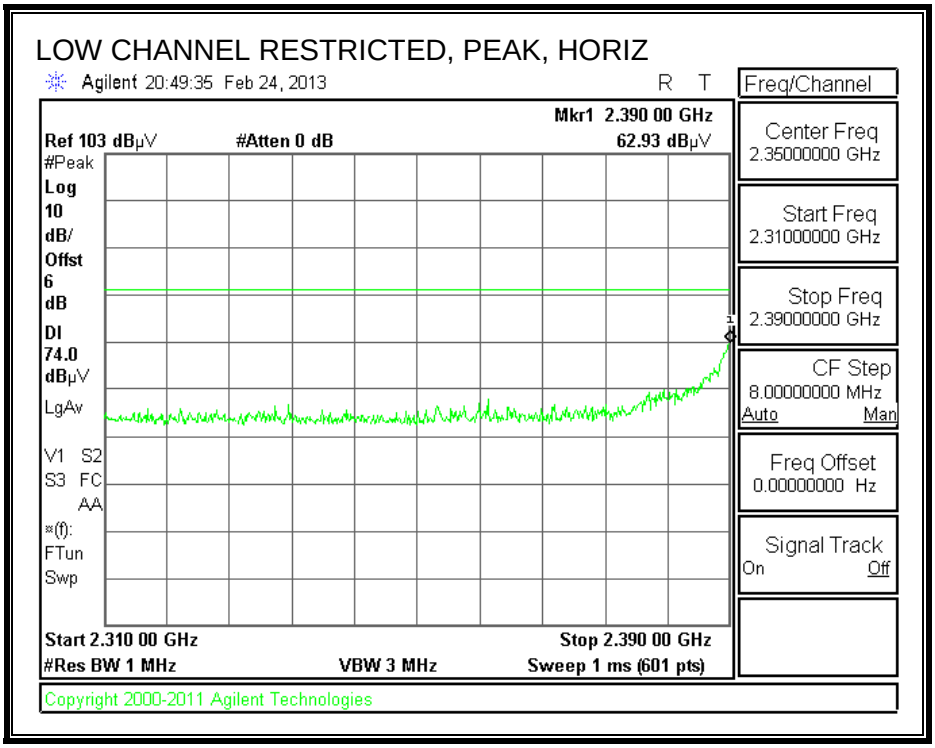
Vertical 10000 - 18000MHz

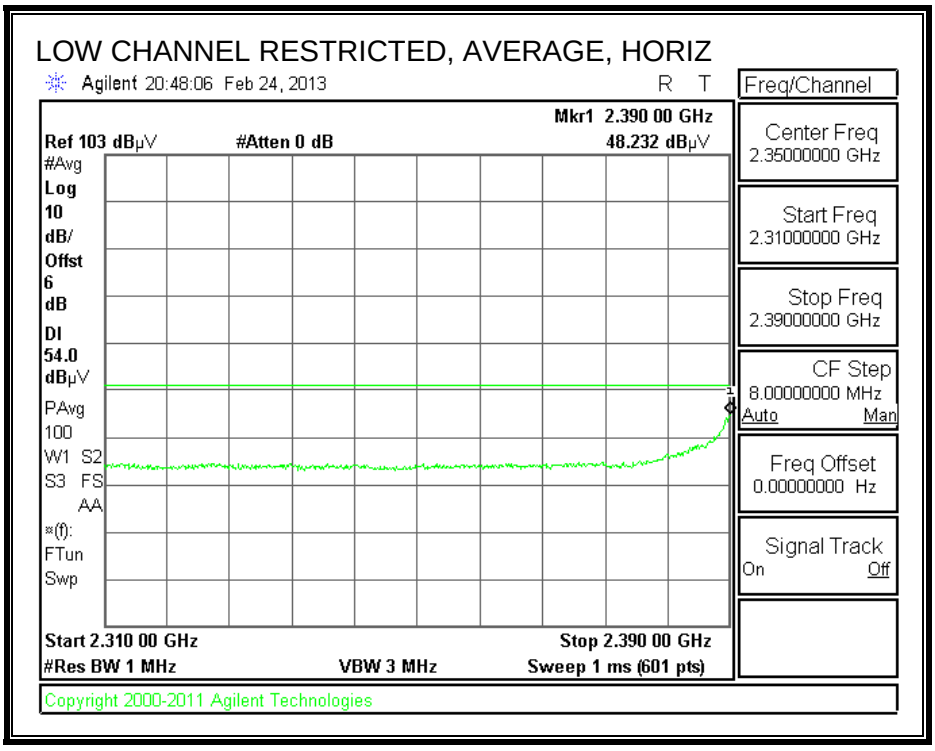
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 13214.393 | 24.23 | PK | 39.1 | -31.8 | 12.2 | 0.5 | 44.23 | 54 | -9.77 | 74 | -29.77 | 200 | Vert |
| 3 | 4923.955 | 43.58 | PK2 | 34 | -34.9 | 7.1 | 0.5 | 50.28 | 54 | -3.72 | 74 | -23.72 | 168 | Horz |
| 3 | 4923.884 | 38.4 | MAv1 | 34 | -34.9 | 7.1 | 0.5 | 45.1 | 54 | -8.9 | - | - | 168 | Horz |
| 13 | 9847.917 | 39.25 | PK2 | 36.9 | -34.9 | 10.4 | 0.5 | 52.15 | 54 | -1.85 | 74 | -21.85 | 158 | Horz |
| 13 | 9847.853 | 30.52 | MAv1 | 36.9 | -34.9 | 10.4 | 0.5 | 43.42 | 54 | -10.58 | - | - | 158 | Horz |
| 8 | 4923.956 | 42.84 | PK2 | 34 | -34.9 | 7.1 | 0.5 | 49.54 | 54 | -4.46 | 74 | -24.46 | 155 | Vert |
| 8 | 4923.882 | 36.53 | MAv1 | 34 | -34.9 | 7.1 | 0.5 | 43.23 | 54 | -10.77 | - | - | 155 | Vert |
| 14 | 9847.482 | 39.16 | PK2 | 36.9 | -34.9 | 10.4 | 0.5 | 52.06 | 54 | -1.94 | 74 | -21.94 | 170 | Vert |
| 14 | 9847.93 | 31.16 | MAv1 | 36.9 | -34.9 | 10.4 | 0.5 | 44.06 | 54 | -9.94 | - | - | 170 | Vert |

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector

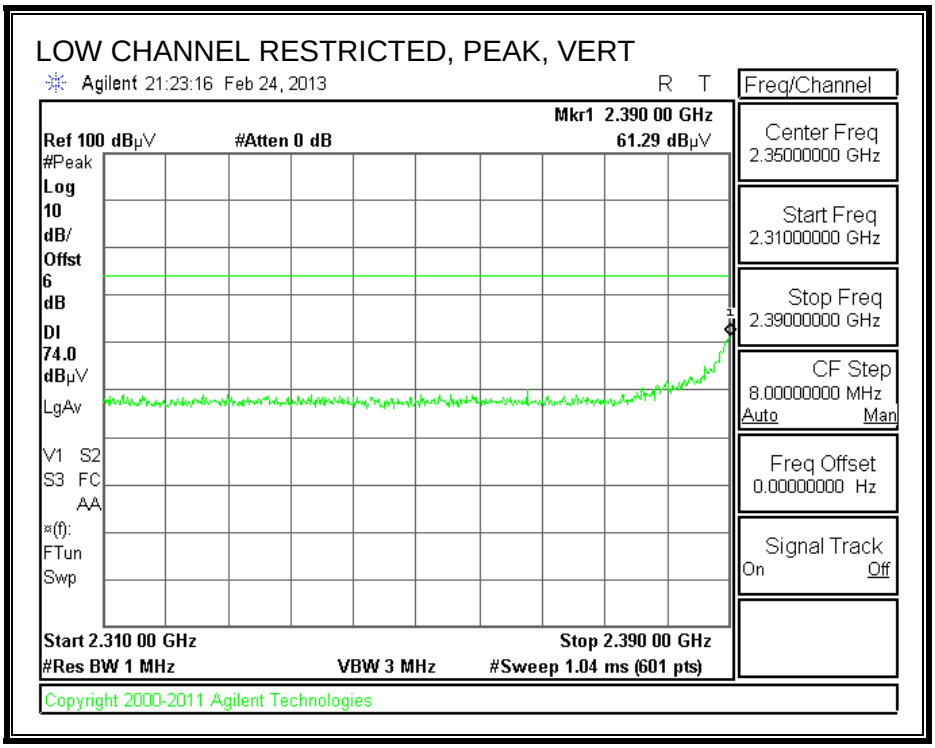
## 10.2.2. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

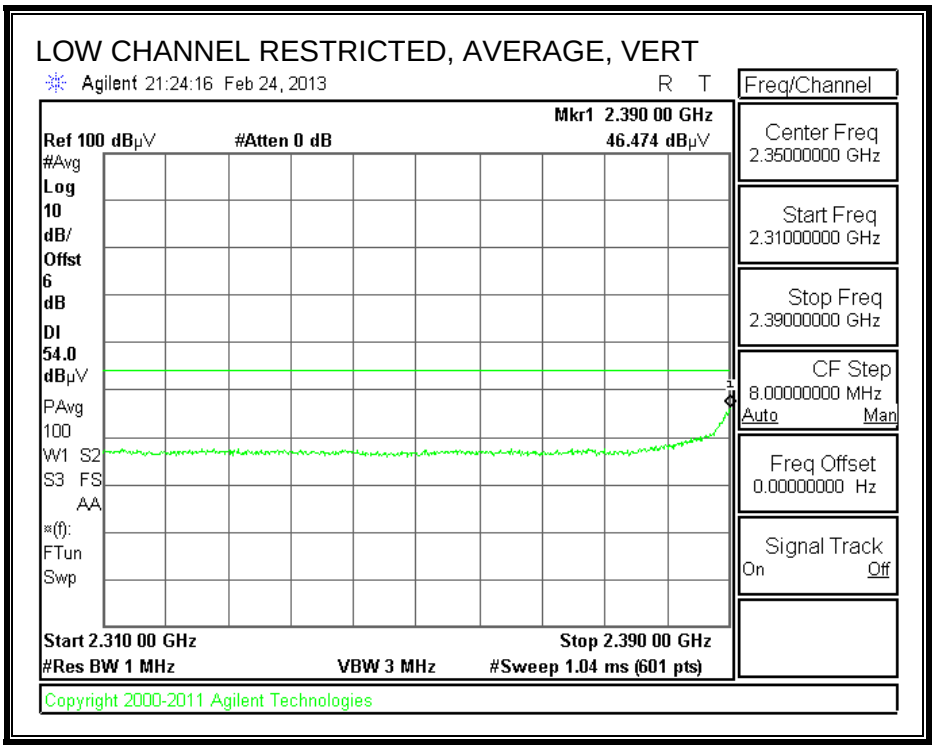
**RESTRICTED BANDEDGE (LOW CHANNEL)**





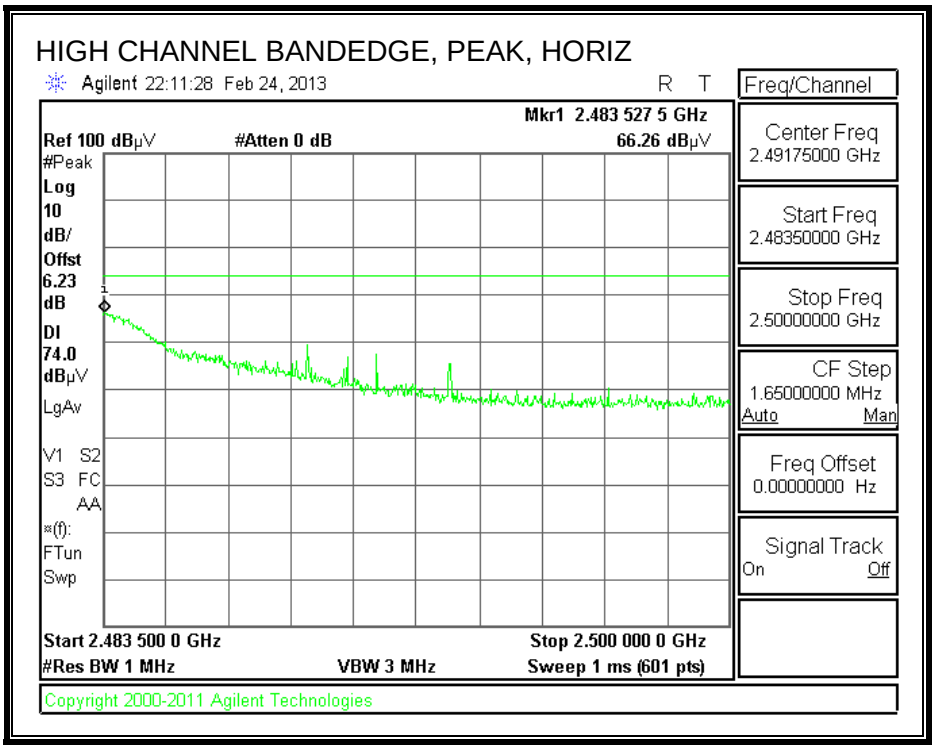

**Actual Average** = Measured Average + Correction Factor
= 48.232 dBuV + 0.12
= 48.352 dBuV

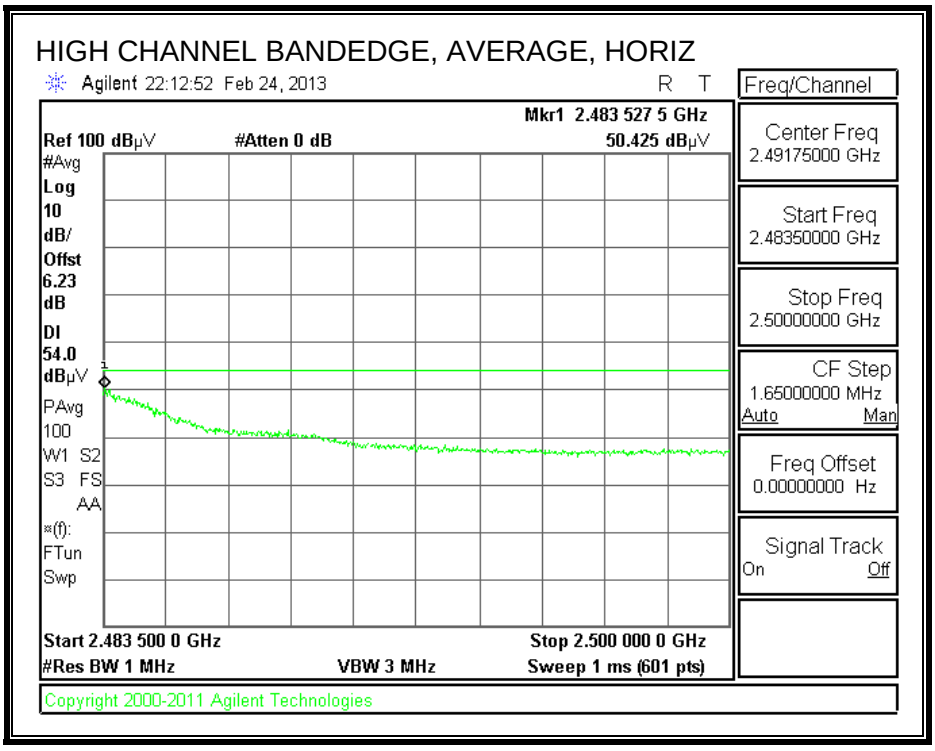




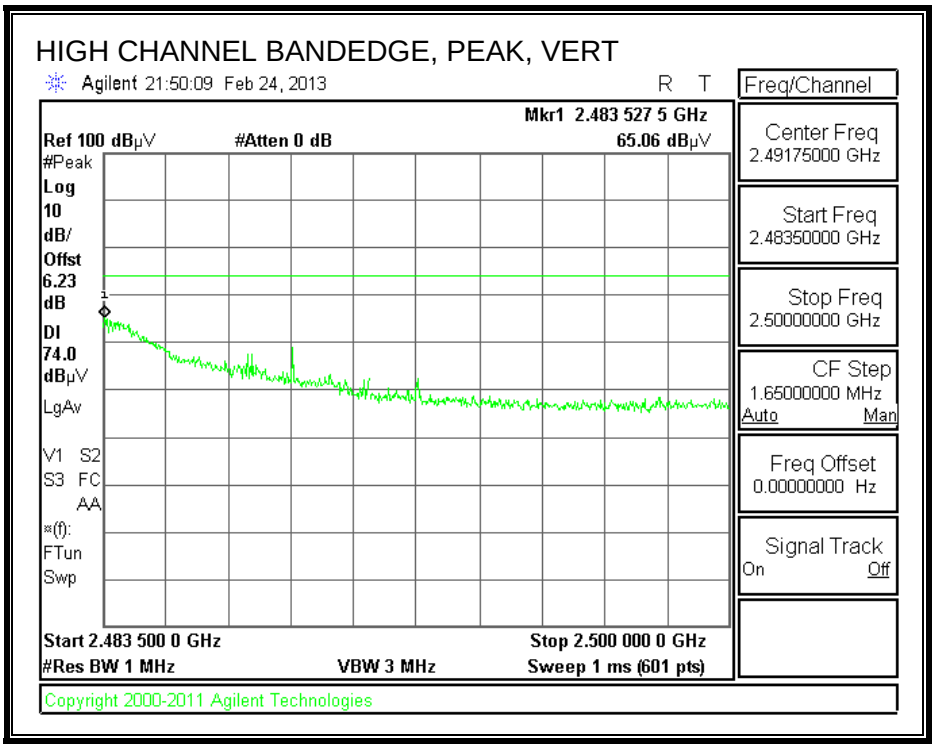

**Actual Average** = Measured Average + Correction Factor
= 46.747 dBuV + 0.12
= 46.867 dBuV

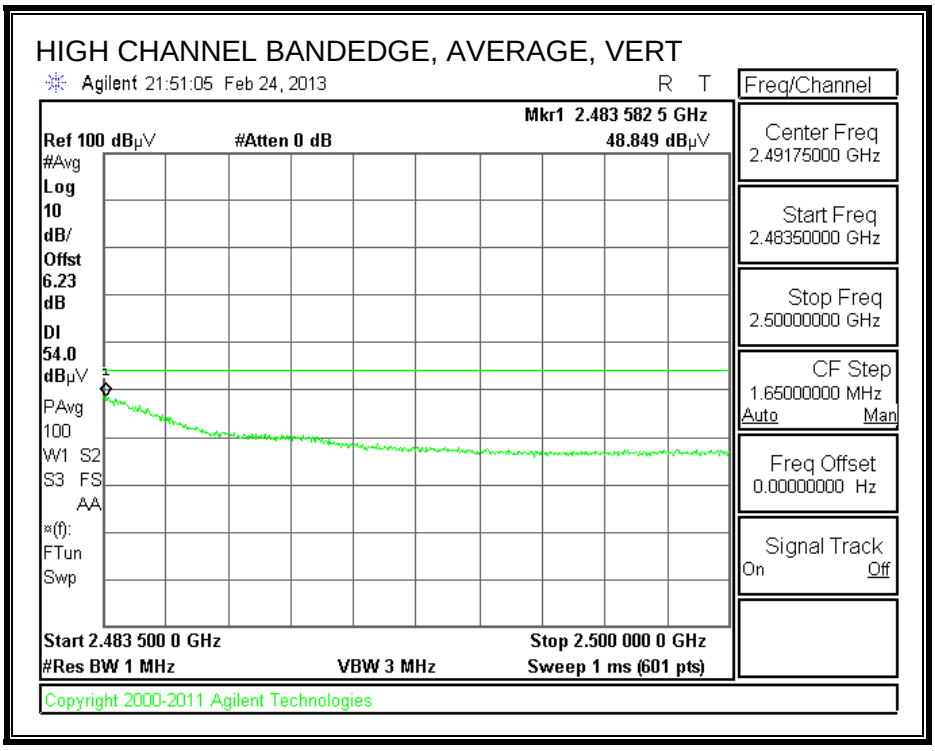
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**






**Actual Average** = Measured Average + Correction Factor
= 50.425 dBuV + 0.12
= 50.545 dBuV

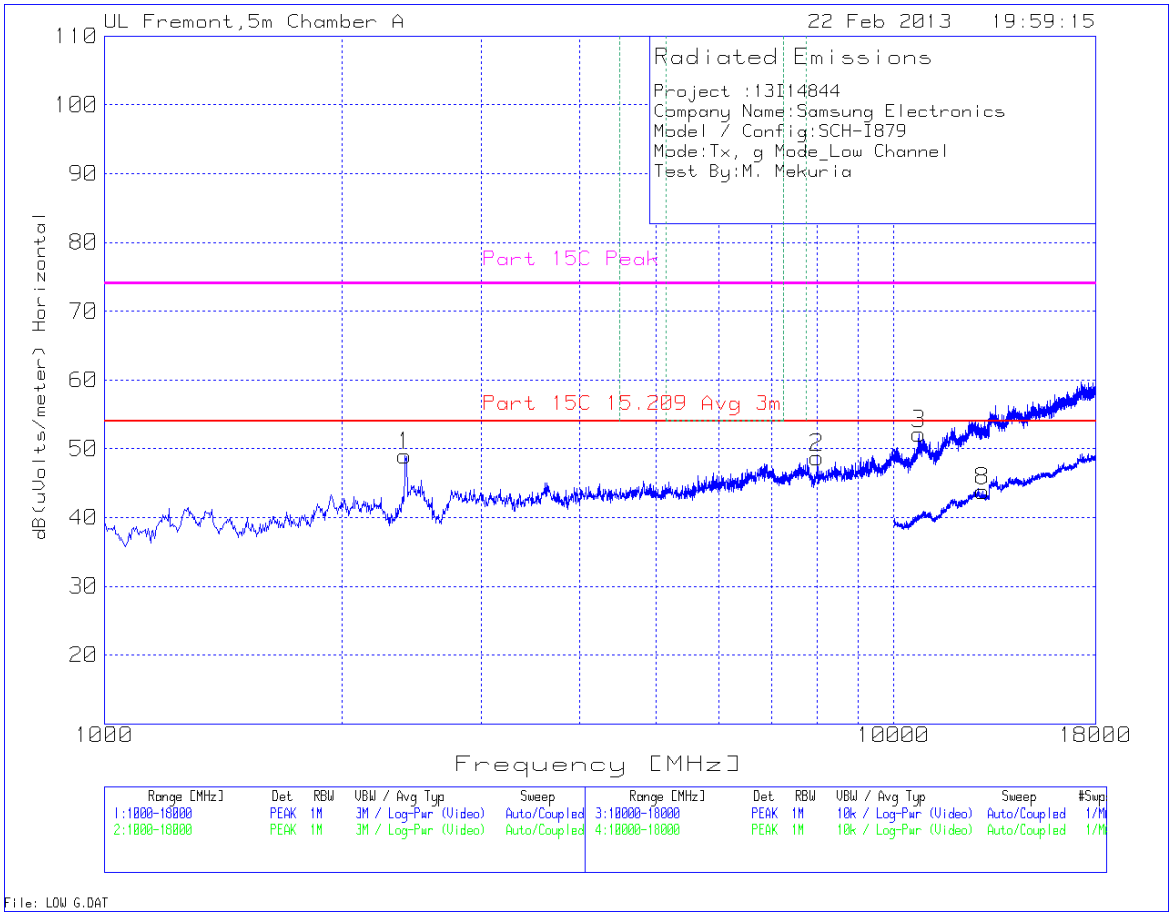




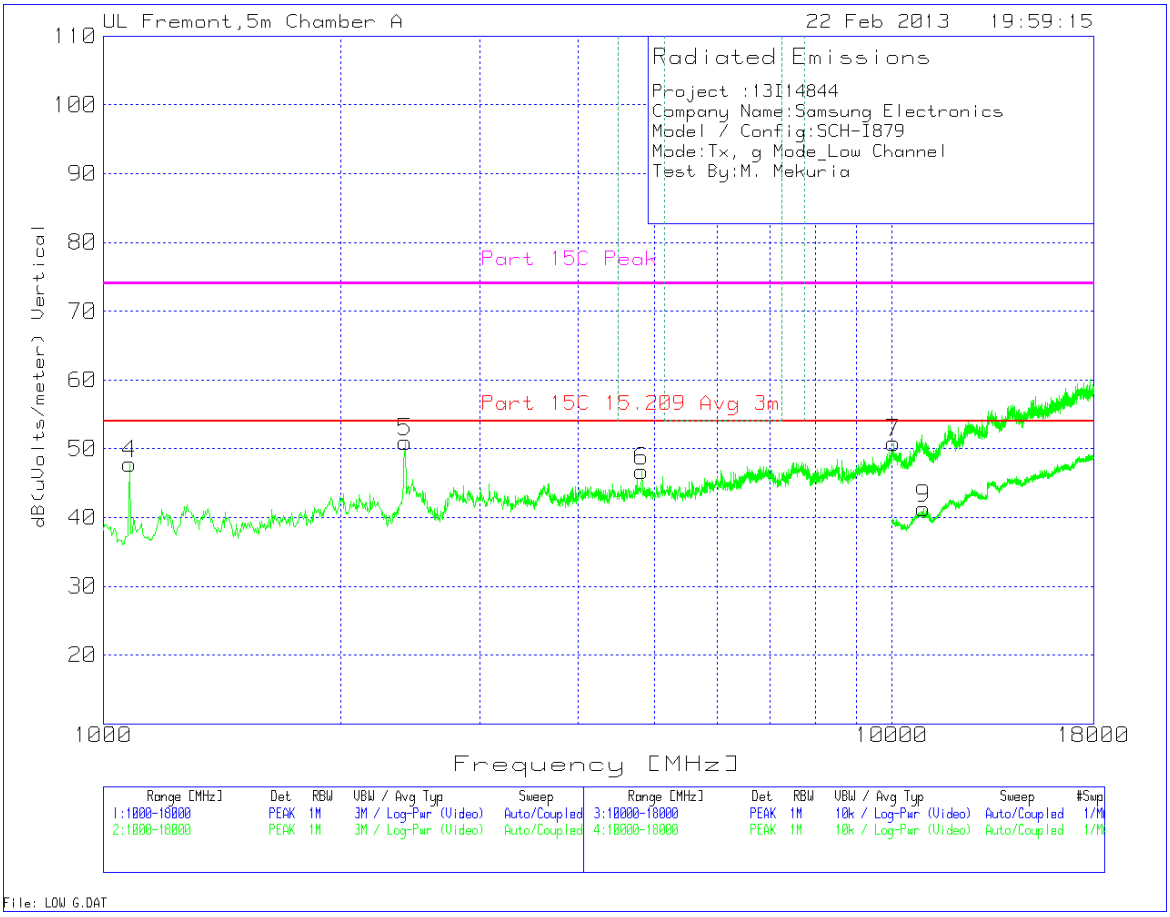

**Actual Average** = Measured Average + Correction Factor
= 48.849 dBuV + 0.12
= 48.969 dBuV

**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL HORIZONTAL PLOT



## LOW CHANNEL VERTICAL PLOT



# LOW CHANNEL HORIZONTAL AND VERTICAL DATA

Project :13I14844
Company Name:Samsung Electronics
Model / Config:SCH-I879
Mode:Tx, g Mode_Low Channel
Test By:M. Mekuria

Horizontal 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2405.696 | 46.74 | PK | 32.1 | -35 | 4.6 | 0.5 | 48.94 | 54 | -5.06 | 74 | -25.06 | 100 | Horz |
| 2 | 7998.751 | 38.48 | PK | 35.7 | -35.2 | 9.3 | 0.5 | 48.78 | 54 | -5.22 | 74 | -25.22 | 100 | Horz |
| 3 | 10776.168 | 36.92 | PK | 37.9 | -34.1 | 10.9 | 0.5 | 52.12 | 54 | -1.88 | 74 | -21.88 | 200 | Horz |

Vertical 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 4 | 1080.689 | 52.76 | PK | 27.2 | -35.9 | 3.2 | 0.5 | 47.76 | 54 | -6.24 | 74 | -26.24 | 200 | Vert |
| 5 | 2418.436 | 48.78 | PK | 32.1 | -35 | 4.6 | 0.5 | 50.98 | 54 | -3.02 | 74 | -23.02 | 200 | Vert |
| 6 | 4822.133 | 40.13 | PK | 34 | -34.9 | 7 | 0.5 | 46.73 | 54 | -7.27 | 74 | -27.27 | 100 | Vert |
| 7 | 10049.963 | 37.68 | PK | 37 | -34.8 | 10.5 | 0.5 | 50.88 | 54 | -3.12 | 74 | -23.12 | 200 | Vert |

Horizontal 10000 - 18000MHz

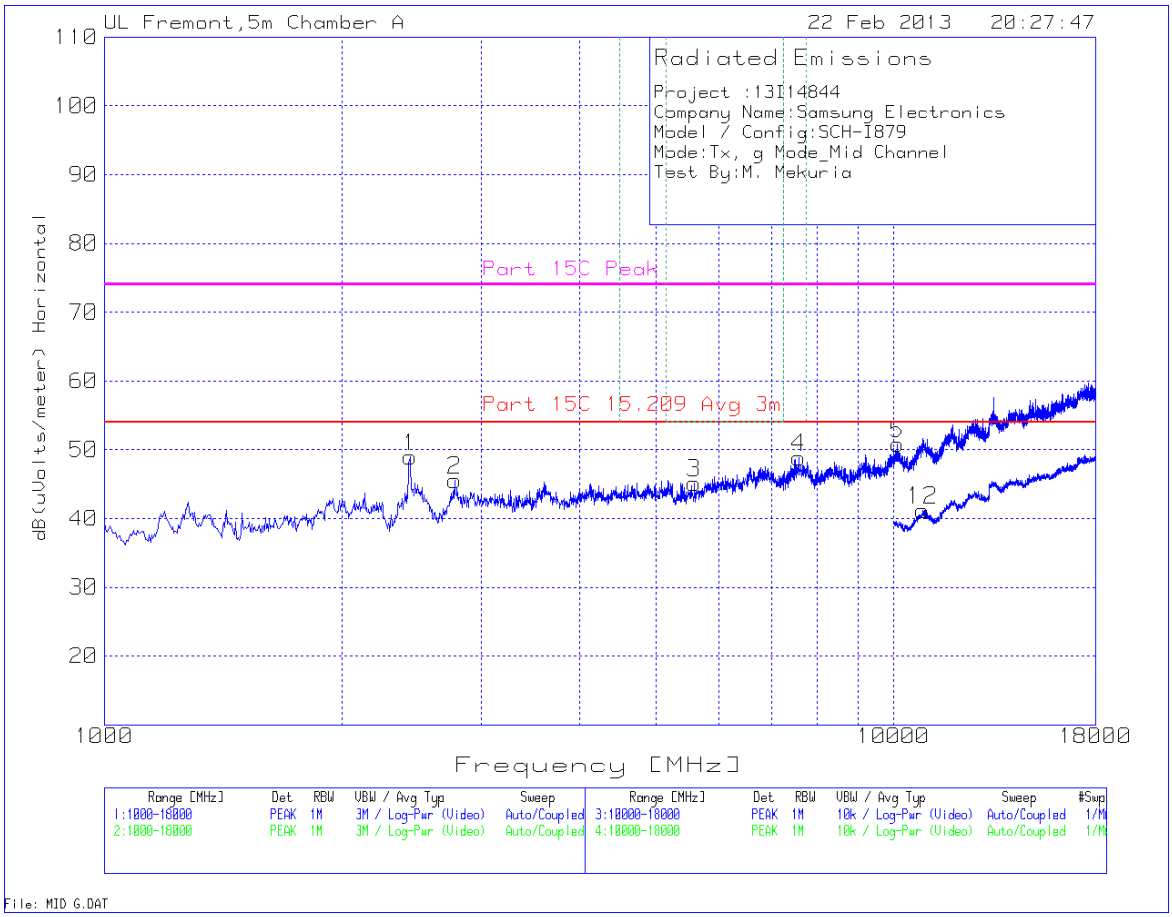
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 8 | 12954.523 | 23.94 | PK | 39.1 | -31.8 | 12.1 | 0.5 | 43.84 | 54 | -10.16 | 74 | -30.16 | 100 | Horz |

Vertical 10000 - 18000MHz

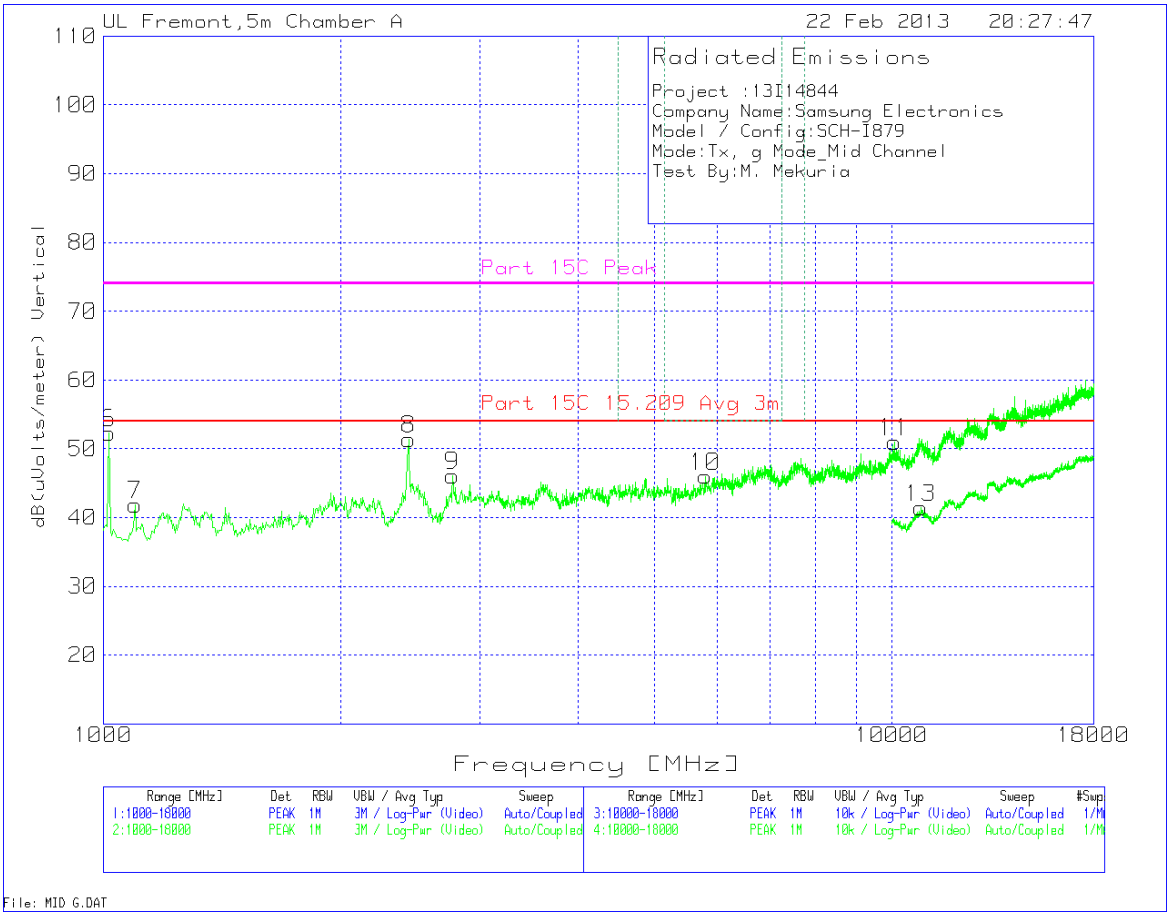
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 10959.52 | 25.77 | PK | 37.9 | -33.9 | 11 | 0.5 | 41.27 | 54 | -12.73 | 74 | -32.73 | 200 | Vert |

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector

## MID CHANNEL HORIZONTAL PLOT



## MID CHANNEL VERTICAL PLOT



# MID CHANNEL HORIZONTAL AND VERTICAL DATA

Project :13I14844
Company Name:Samsung Electronics
Model / Config:SCH-I879
Mode:Tx, g Mode_Mid Channel
Test By:M. Mekuria

Horizontal 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2439.67 | 46.53 | PK | 32.2 | -35 | 4.7 | 0.5 | 48.93 | 54 | -5.07 | 74 | -25.07 | 200 | Horz |
| 2 | 2779.415 | 42.49 | PK | 32.7 | -35.1 | 5 | 0.5 | 45.59 | 54 | -8.41 | 74 | -28.41 | 200 | Horz |
| 3 | 5590.807 | 37.21 | PK | 34.7 | -34.9 | 7.6 | 0.5 | 45.11 | 54 | -8.89 | 74 | -28.89 | 100 | Horz |
| 4 | 7586.81 | 38.64 | PK | 35.7 | -35 | 9 | 0.5 | 48.84 | 54 | -5.16 | 74 | -25.16 | 200 | Horz |
| 5 | 10113.665 | 37.58 | PK | 37 | -34.8 | 10.5 | 0.5 | 50.78 | 54 | -3.22 | 74 | -23.22 | 100 | Horz |

Vertical 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 1016.987 | 57.42 | PK | 27.2 | -36 | 3.2 | 0.5 | 52.32 | 54 | -1.68 | 74 | -21.68 | 200 | Vert |
| 7 | 1097.677 | 46.61 | PK | 27.2 | -35.8 | 3.3 | 0.5 | 41.81 | 54 | -12.19 | 74 | -32.19 | 200 | Vert |
| 8 | 2439.67 | 48.96 | PK | 32.2 | -35 | 4.7 | 0.5 | 51.36 | 54 | -2.64 | 74 | -22.64 | 200 | Vert |
| 9 | 2775.169 | 42.96 | PK | 32.7 | -35.1 | 5 | 0.5 | 46.06 | 54 | -7.94 | 74 | -27.94 | 100 | Vert |
| 10 | 5794.654 | 37.71 | PK | 34.9 | -34.9 | 7.8 | 0.5 | 46.01 | 54 | -7.99 | 74 | -27.99 | 100 | Vert |
| 11 | 10079.69 | 37.82 | PK | 37 | -34.8 | 10.5 | 0.5 | 51.02 | 54 | -2.98 | 74 | -22.98 | 200 | Vert |

Horizontal 10000 - 18000MHz

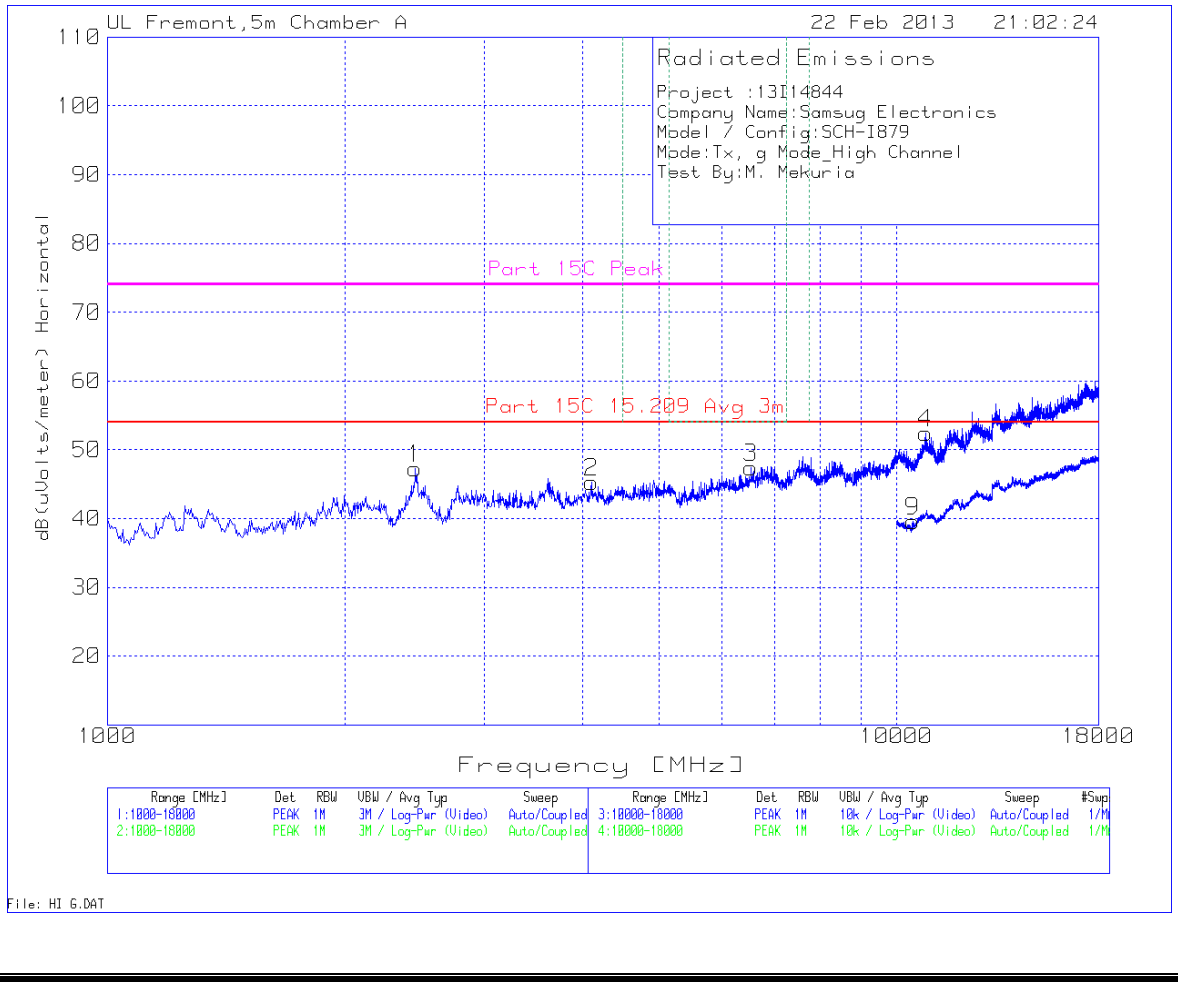
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | 10887.556 | 25.93 | PK | 37.9 | -34 | 10.9 | 0.5 | 41.23 | 54 | -12.77 | 74 | -32.77 | 200 | Horz |

Vertical 10000 - 18000MHz

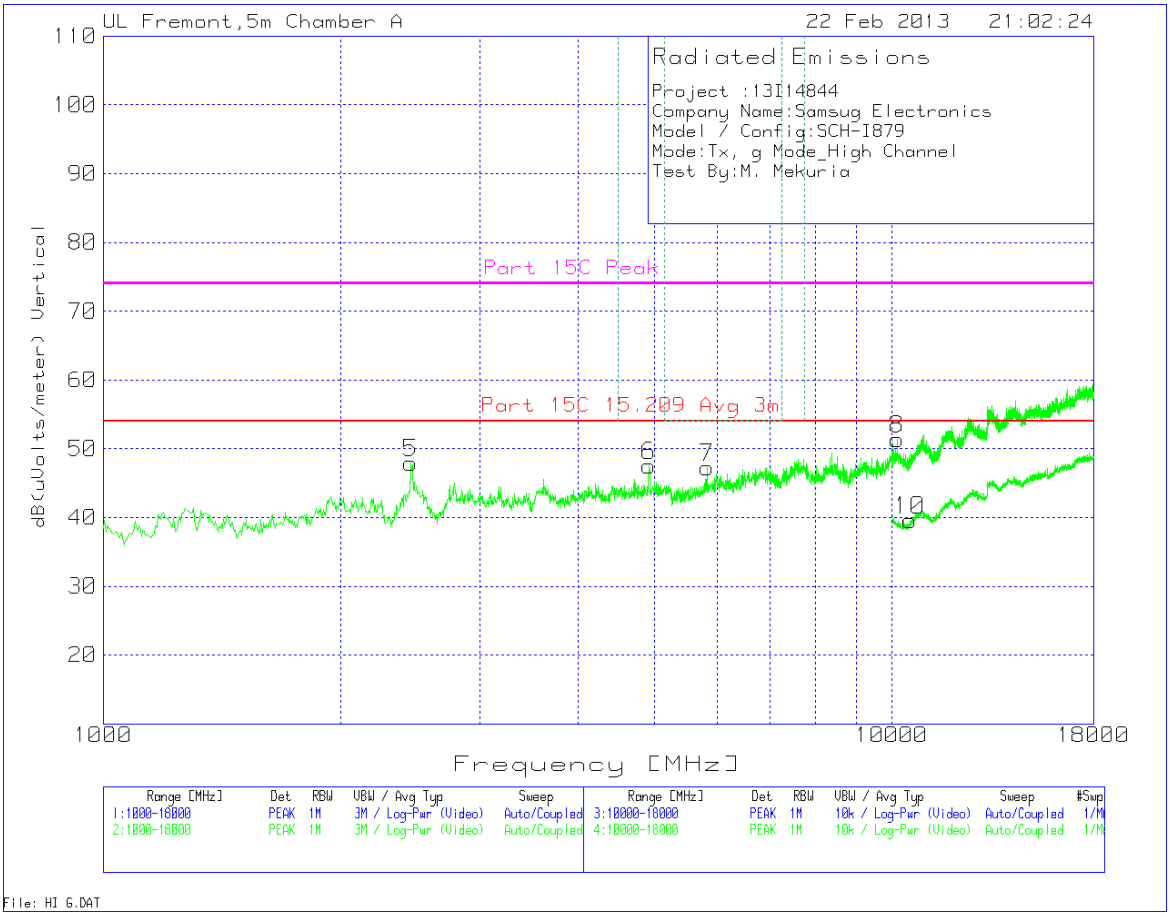
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 13 | 10879.56 | 26.09 | PK | 37.9 | -34 | 10.9 | 0.5 | 41.39 | 54 | -12.61 | 74 | -32.61 | 200 | Vert |

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector

## HIGH CHANNEL HORIZONTAL PLOT



## HIGH CHANNEL VERTICAL PLOT



# HIGH CHANNEL HORIZONTAL AND VERTICAL DATA

Project :13I14844
Company Name:Samsug Electronics
Model / Config:SCH-I879
Mode:Tx, g Mode_High Channel
Test By:M. Mekuria

Horizontal 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2456.658 | 44.83 | PK | 32.2 | -35 | 4.7 | 0.5 | 47.23 | 54 | -6.77 | 74 | -26.77 | 100 | Horz |
| 2 | 4104.422 | 39.81 | PK | 33.5 | -34.8 | 6.3 | 0.5 | 45.31 | 54 | -8.69 | 74 | -28.69 | 200 | Horz |
| 3 | 6533.6 | 38.04 | PK | 35.6 | -35 | 8.3 | 0.5 | 47.44 | 54 | -6.56 | 74 | -26.56 | 100 | Horz |
| 4 | 10873.845 | 37.16 | PK | 37.9 | -34 | 10.9 | 0.5 | 52.46 | 54 | -1.54 | 74 | -21.54 | 200 | Horz |

Vertical 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 2456.658 | 45.52 | PK | 32.2 | -35 | 4.7 | 0.5 | 47.92 | 54 | -6.08 | 74 | -26.08 | 200 | Vert |
| 6 | 4924.057 | 40.87 | PK | 34 | -34.9 | 7.1 | 0.5 | 47.57 | 54 | -6.43 | 74 | -26.43 | 200 | Vert |
| 7 | 5832.875 | 38.88 | PK | 35 | -34.9 | 7.8 | 0.5 | 47.28 | 54 | -6.72 | 74 | -26.72 | 200 | Vert |
| 8 | 10160.38 | 38.07 | PK | 37 | -34.7 | 10.5 | 0.5 | 51.37 | 54 | -2.63 | 74 | -22.63 | 200 | Vert |

Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 10475.762 | 25.27 | PK | 37.5 | -34.4 | 10.7 | 0.5 | 39.57 | 54 | -14.43 | 74 | -34.43 | 100 | Horz |

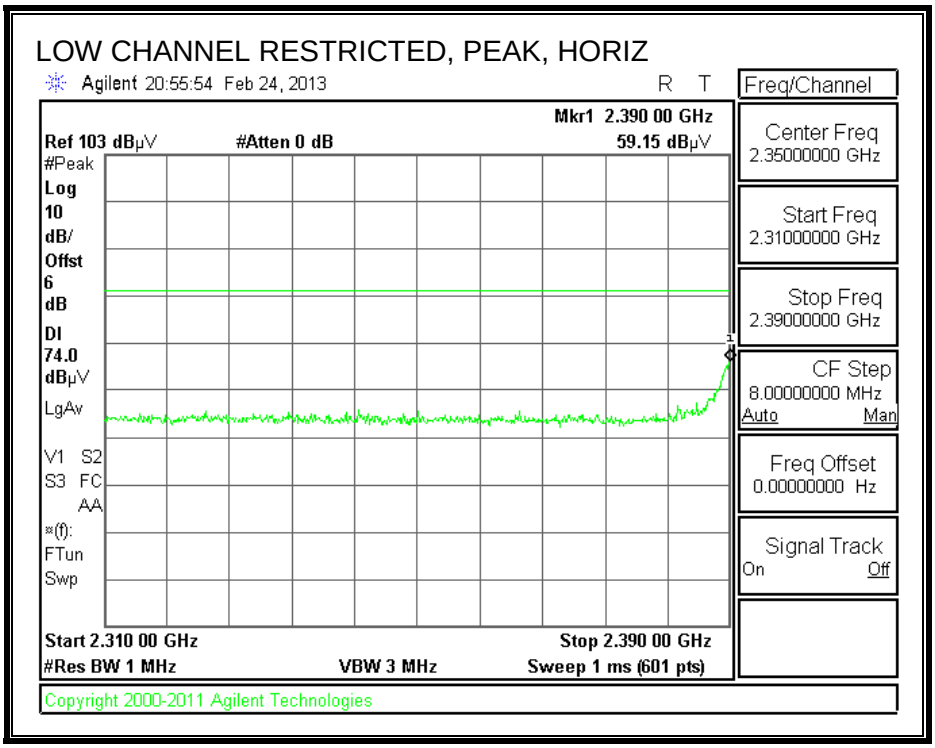
Vertical 10000 - 18000MHz

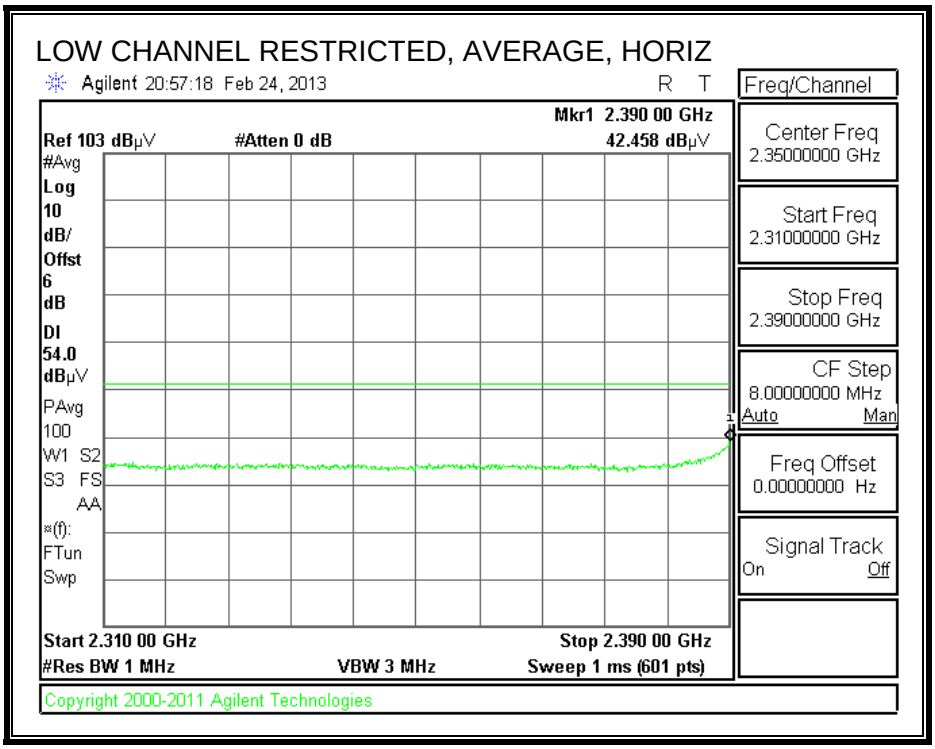
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 10531.734 | 25.15 | PK | 37.6 | -34.4 | 10.7 | 0.5 | 39.55 | 54 | -14.45 | 74 | -34.45 | 200 | Vert |

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector

## 10.2.3. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND

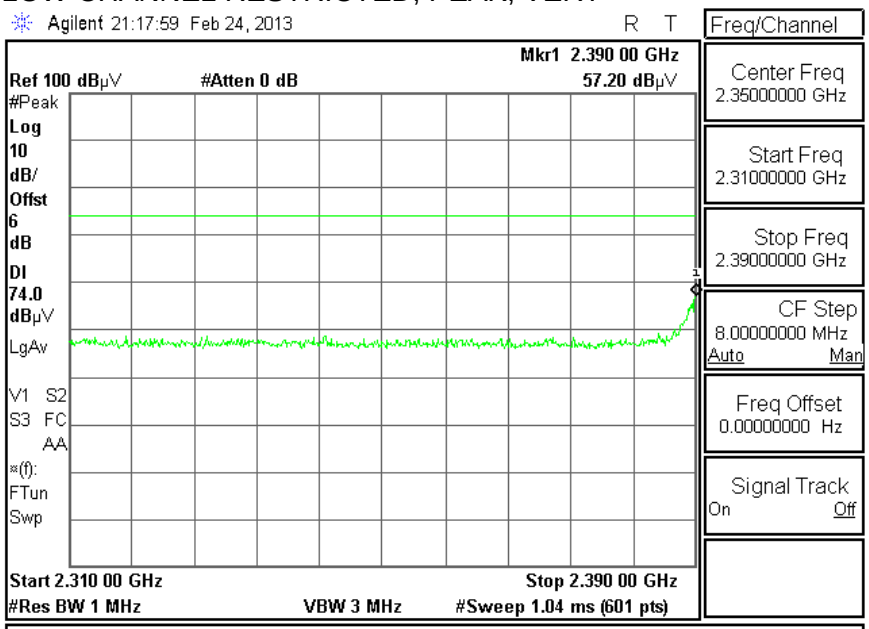
**RESTRICTED BANDEDGE (LOW CHANNEL)**

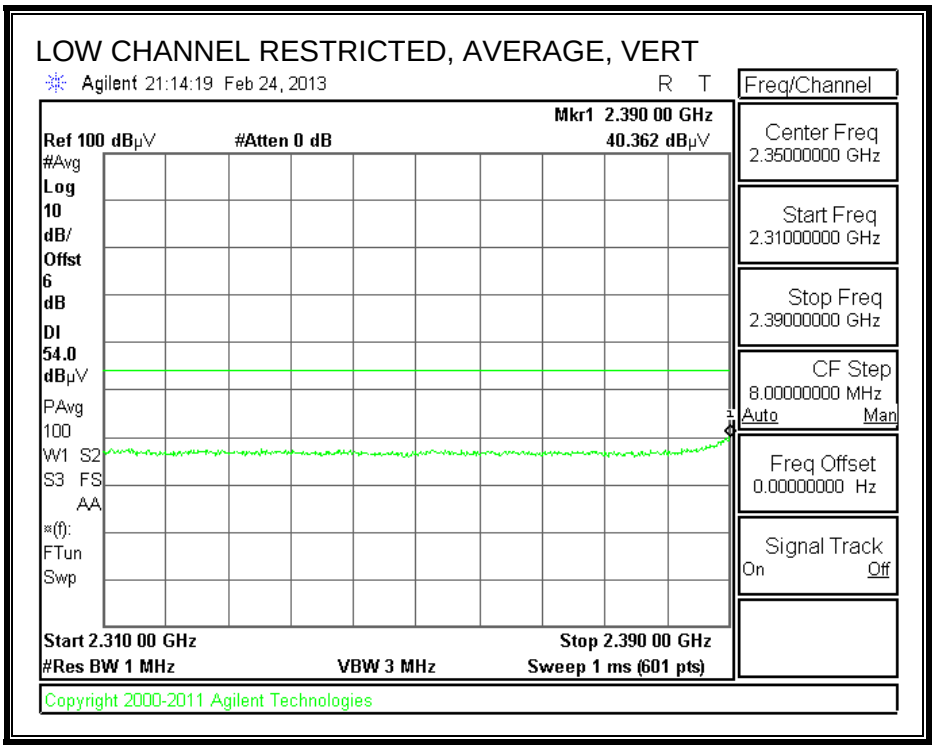





**Actual Average** = Measured Average + Correction Factor
= 42.458 dBuV + 0.17
= 42.628 dBuV

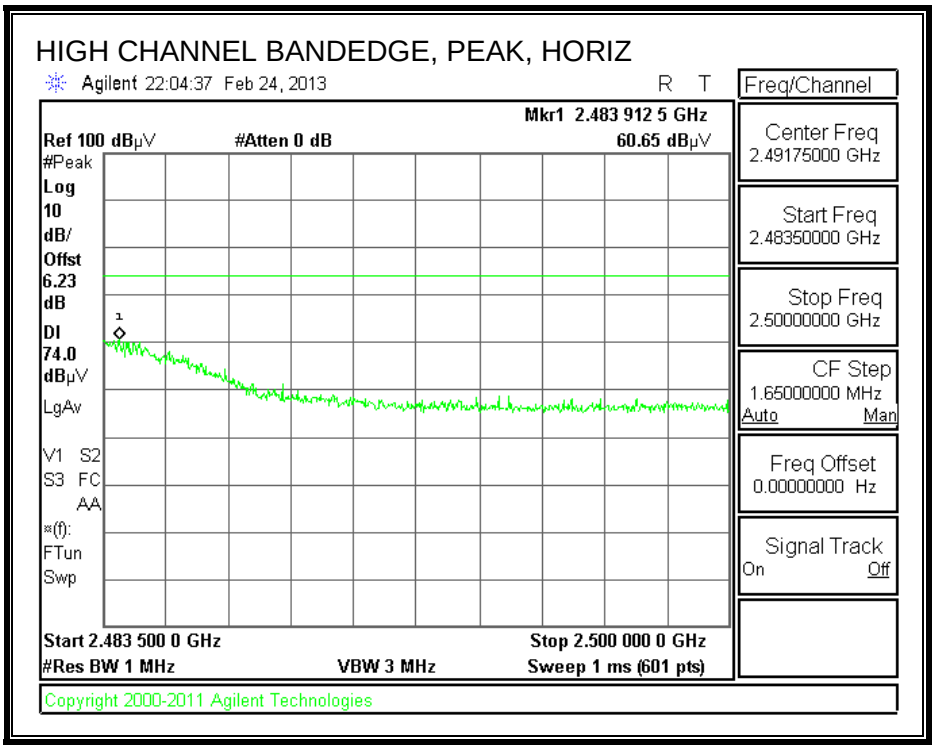
LOW CHANNEL RESTRICTED, PEAK, VERT

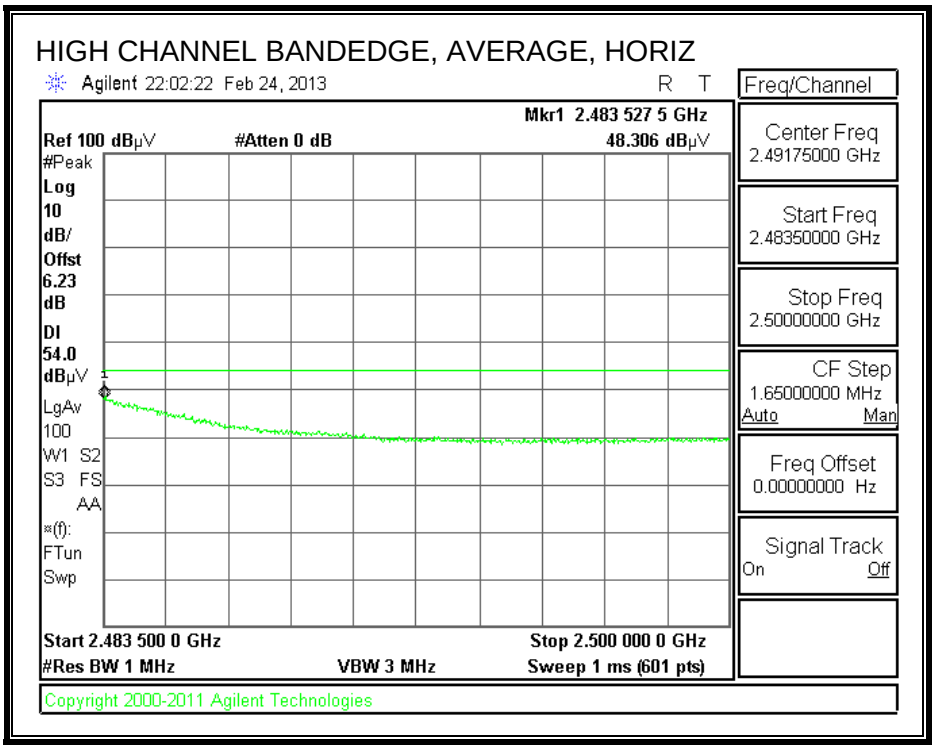




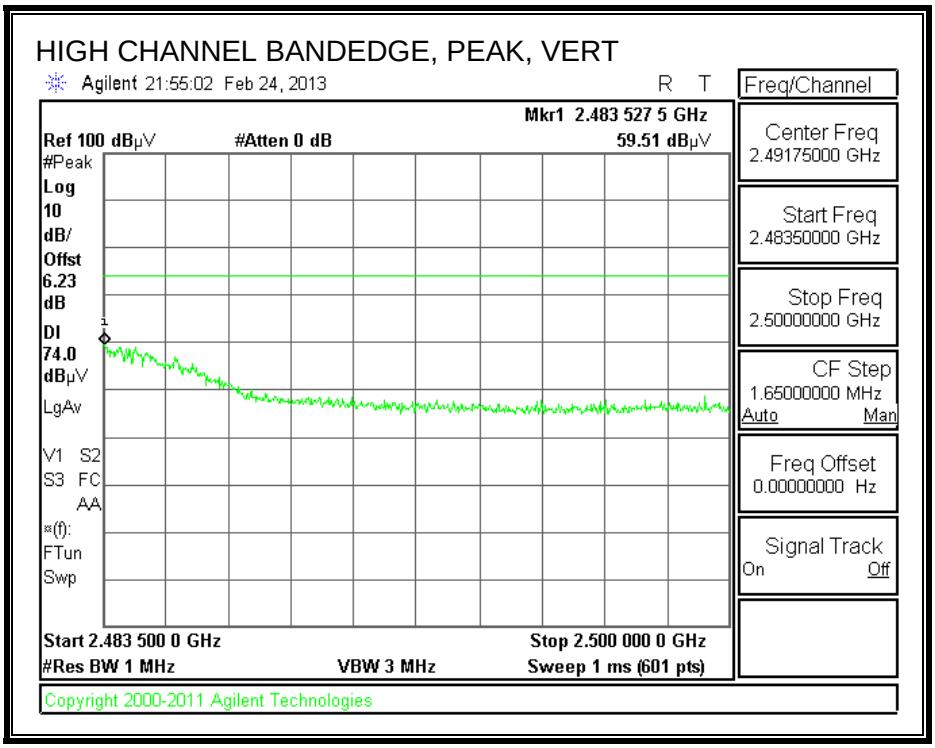

**Actual Average** = Measured Average + Correction Factor
= 40.362 dBuV + 0.17
= 40.532 dBuV

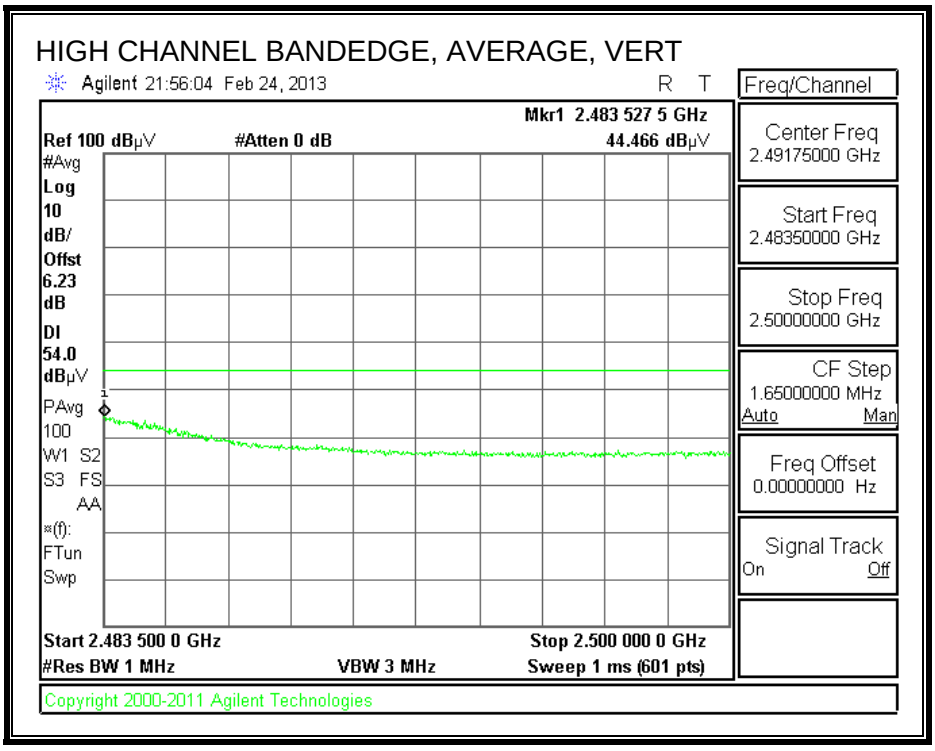
**AUTHORIZED BANDEDGE (HIGH CHANNEL)**






**Actual Average** = Measured Average + Correction Factor
= 48.306 dBuV + 0.17
= 48.476 dBuV

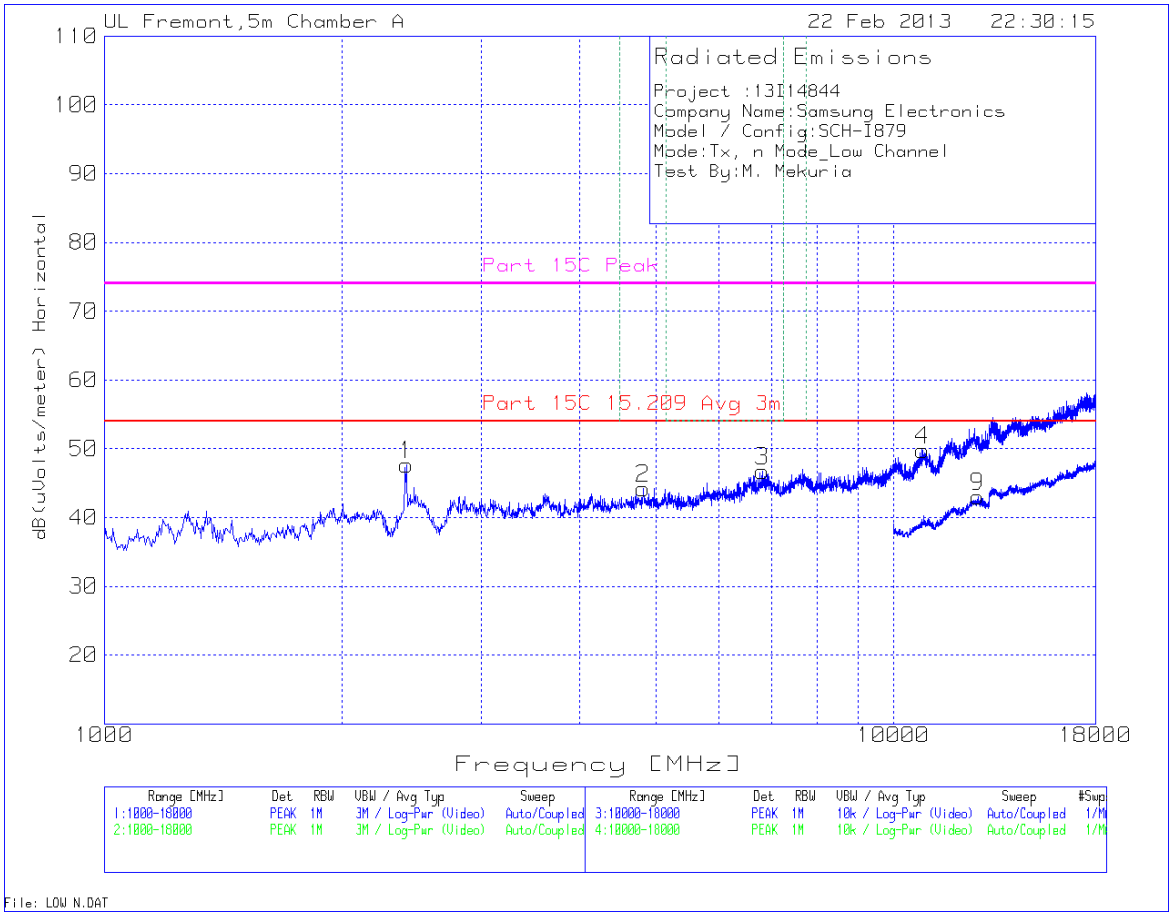




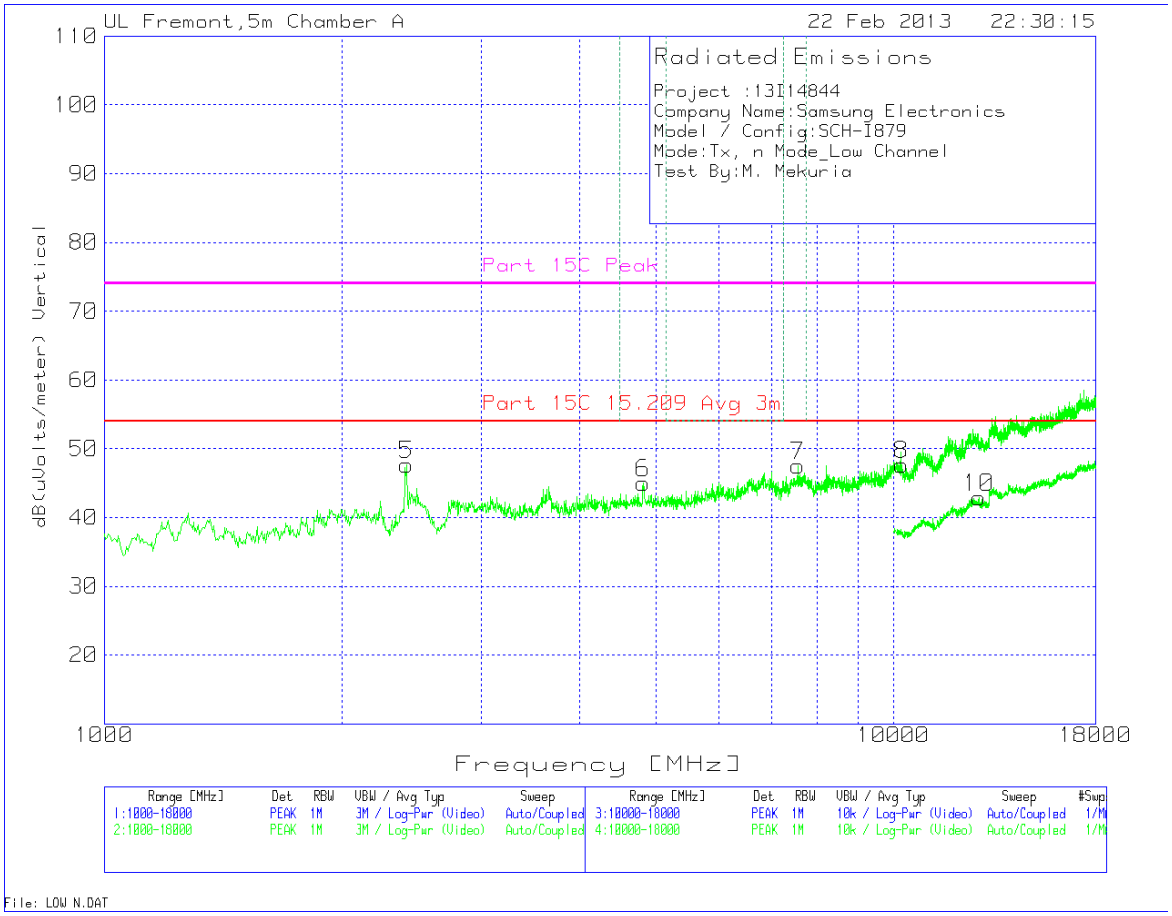

**Actual Average** = Measured Average + Correction Factor
= 44.466 dBuV + 0.17
= 44.636 dBuV

**HARMONICS AND SPURIOUS EMISSIONS**

LOW CHANNEL HORIZONTAL PLOT



## LOW CHANNEL VERTICAL PLOT



## LOW CHANNEL HORIZONTAL AND VERTICAL DATA

Project :13I14844
Company Name:Samsung Electronics
Model / Config:SCH-I879
Mode:Tx, n Mode_Low Channel
Test By:M. Mekuria

Horizontal 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2414.189 | 45.49 | PK | 32.1 | -35 | 4.6 | 0.5 | 47.69 | 54 | -6.31 | 74 | -26.31 | 200 | Horz |
| 2 | 4822.133 | 37.6 | PK | 34 | -34.9 | 7 | 0.5 | 44.2 | 54 | -9.8 | 74 | -29.8 | 100 | Horz |
| 3 | 6813.89 | 37.18 | PK | 35.6 | -35 | 8.5 | 0.5 | 46.78 | 54 | -7.22 | 74 | -27.22 | 200 | Horz |
| 4 | 10869.598 | 34.44 | PK | 37.9 | -34 | 10.9 | 0.5 | 49.74 | 54 | -4.26 | 74 | -24.26 | 100 | Horz |

Vertical 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 2418.436 | 45.48 | PK | 32.1 | -35 | 4.6 | 0.5 | 47.68 | 54 | -6.32 | 74 | -26.32 | 200 | Vert |
| 6 | 4822.133 | 38.46 | PK | 34 | -34.9 | 7 | 0.5 | 45.06 | 54 | -8.94 | 74 | -28.94 | 100 | Vert |
| 7 | 7561.329 | 37.36 | PK | 35.7 | -35 | 9 | 0.5 | 47.56 | 54 | -6.44 | 74 | -26.44 | 100 | Vert |
| 8 | 10245.316 | 34.02 | PK | 37.1 | -34.6 | 10.6 | 0.5 | 47.62 | 54 | -6.38 | 74 | -26.38 | 100 | Vert |

Horizontal 10000 - 18000MHz

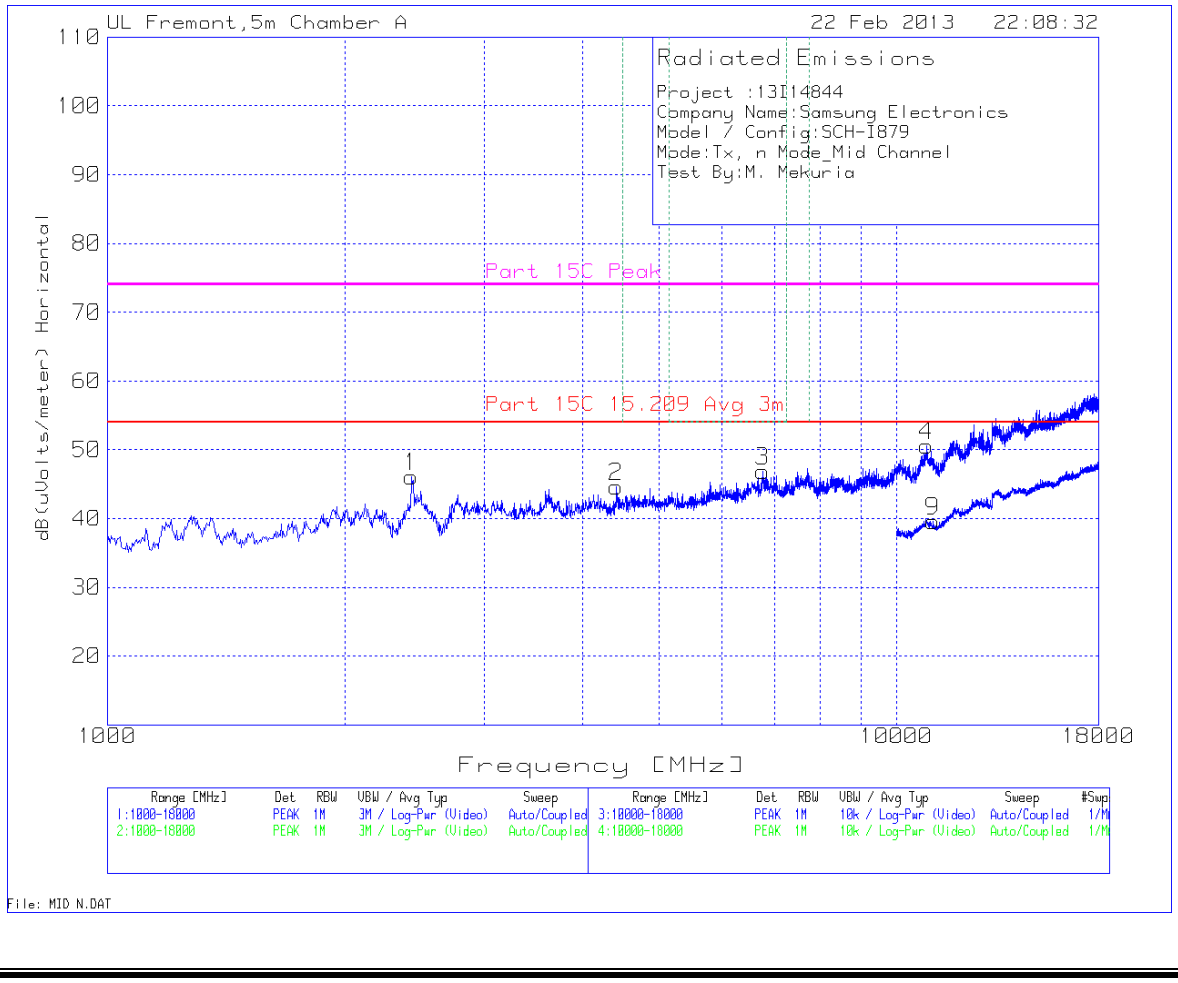
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 12774.613 | 23.43 | PK | 39.2 | -32.1 | 12 | 0.5 | 43.03 | 54 | -10.97 | 74 | -30.97 | 100 | Horz |

Vertical 10000 - 18000MHz

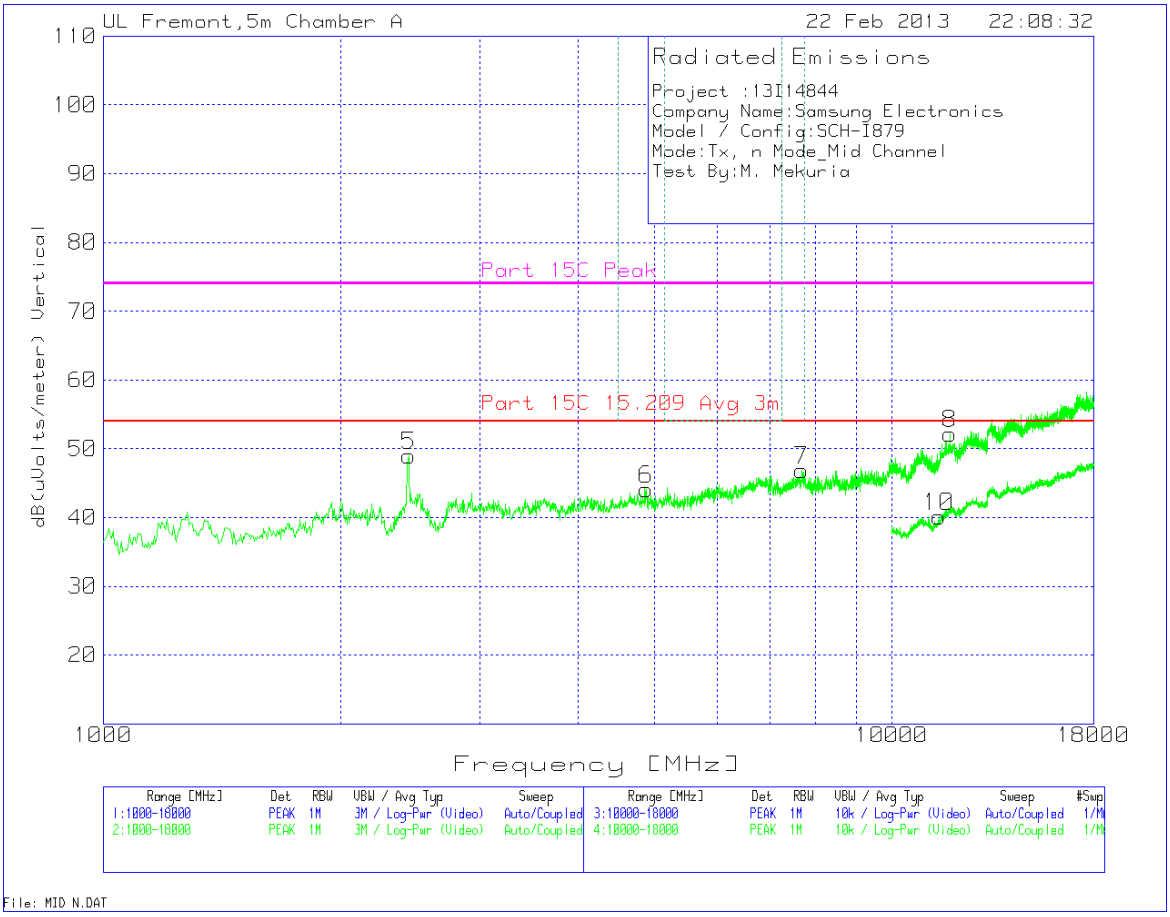
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 12810.595 | 23.28 | PK | 39.2 | -32.1 | 12 | 0.5 | 42.88 | 54 | -11.12 | 74 | -31.12 | 100 | Vert |

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector

## MID CHANNEL HORIZONTAL PLOT



## MID CHANNEL VERTICAL PLOT



# MID CHANNEL HORIZONTAL AND VERTICAL DATA

Project :13I14844
Company Name:Samsung Electronics
Model / Config:SCH-I879
Mode:Tx, n Mode_Mid Channel
Test By:M. Mekuria

Horizontal 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2431.177 | 43.73 | PK | 32.2 | -35 | 4.7 | 0.5 | 46.13 | 54 | -7.87 | 74 | -27.87 | 200 | Horz |
| 2 | 4414.439 | 38.75 | PK | 33.7 | -34.9 | 6.6 | 0.5 | 44.65 | 54 | -9.35 | 74 | -29.35 | 100 | Horz |
| 3 | 6762.928 | 37.32 | PK | 35.6 | -35 | 8.5 | 0.5 | 46.92 | 54 | -7.08 | 74 | -27.08 | 100 | Horz |
| 4 | 10903.572 | 35.2 | PK | 37.9 | -34 | 11 | 0.5 | 50.6 | 54 | -3.4 | 74 | -23.4 | 100 | Horz |

Vertical 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 2439.67 | 46.58 | PK | 32.2 | -35 | 4.7 | 0.5 | 48.98 | 54 | -5.02 | 74 | -25.02 | 200 | Vert |
| 6 | 4877.342 | 37.43 | PK | 34 | -34.9 | 7.1 | 0.5 | 44.13 | 54 | -9.87 | 74 | -29.87 | 100 | Vert |
| 7 | 7692.98 | 36.52 | PK | 35.8 | -35.1 | 9.1 | 0.5 | 46.82 | 54 | -7.18 | 74 | -27.18 | 200 | Vert |
| 8 | 11833.625 | 34.61 | PK | 38.9 | -33.4 | 11.5 | 0.5 | 52.11 | 54 | -1.89 | 74 | -21.89 | 200 | Vert |

Horizontal 10000 - 18000MHz

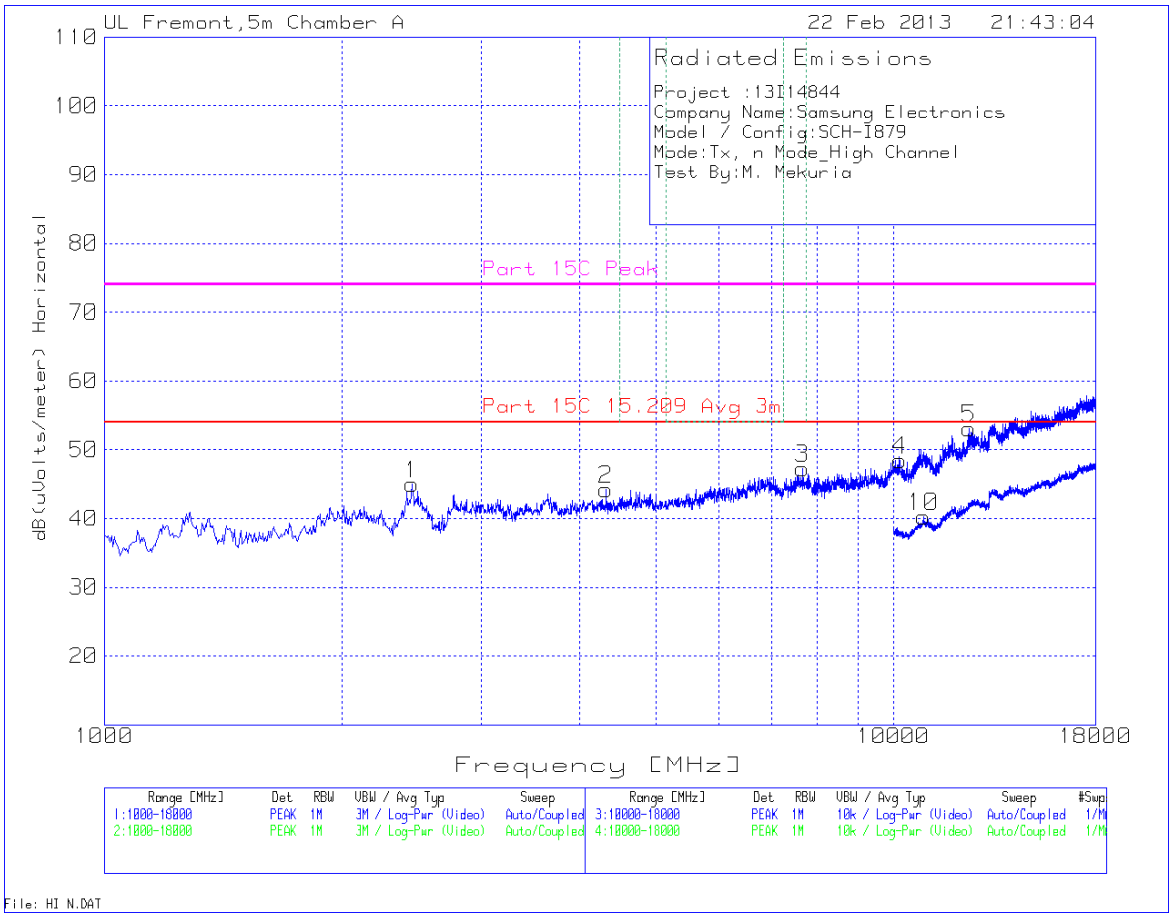
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 9 | 11111.444 | 23.94 | PK | 37.9 | -33.8 | 11.1 | 0.5 | 39.64 | 54 | -14.36 | 74 | -34.36 | 100 | Horz |

Vertical 10000 - 18000MHz

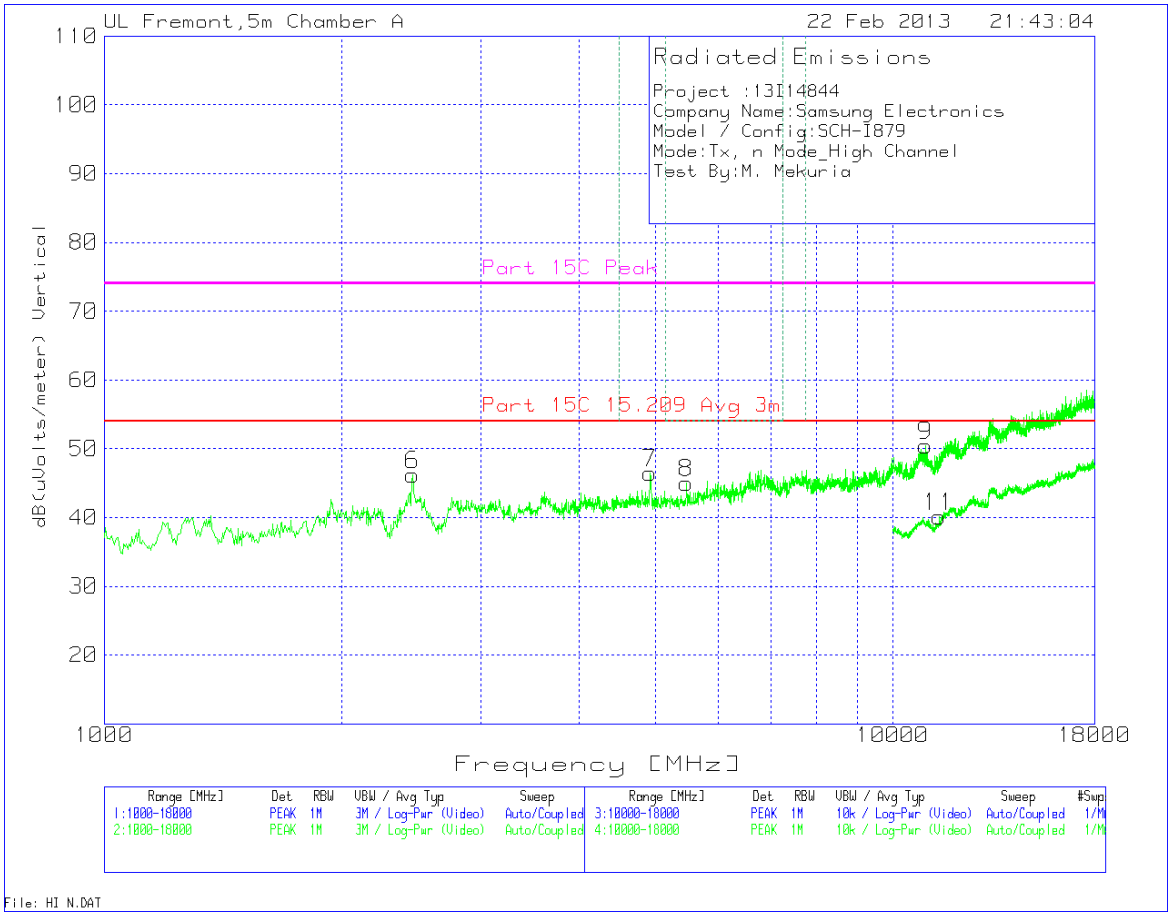
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 11471.264 | 23.75 | PK | 38.2 | -33.6 | 11.3 | 0.5 | 40.15 | 54 | -13.85 | 74 | -33.85 | 200 | Vert |

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector

## HIGH CHANNEL HORIZONTAL PLOT



## HIGH CHANNEL VERTICAL PLOT



## HIGH CHANNEL HORIZONTAL AND VERTICAL DATA

Project :13I14844
Company Name:Samsung Electronics
Model / Config:SCH-I879
Mode:Tx, n Mode_High Channel
Test By:M. Mekuria

Horizontal 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 2452.411 | 42.56 | PK | 32.2 | -35 | 4.7 | 0.5 | 44.96 | 54 | -9.04 | 74 | -29.04 | 100 | Horz |
| 2 | 4321.009 | 38.44 | PK | 33.6 | -34.9 | 6.6 | 0.5 | 44.24 | 54 | -9.76 | 74 | -29.76 | 200 | Horz |
| 3 | 7667.499 | 36.99 | PK | 35.8 | -35.1 | 9.1 | 0.5 | 47.29 | 54 | -6.71 | 74 | -26.71 | 100 | Horz |
| 4 | 10173.12 | 35.04 | PK | 37 | -34.7 | 10.6 | 0.5 | 48.44 | 54 | -5.56 | 74 | -25.56 | 200 | Horz |
| 5 | 12440.919 | 34.26 | PK | 39.1 | -32.6 | 11.8 | 0.5 | 53.06 | 54 | -0.94 | 74 | -20.94 | 200 | Horz |

Vertical 1000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 6 | 2460.904 | 43.79 | PK | 32.2 | -35 | 4.7 | 0.5 | 46.19 | 54 | -7.81 | 74 | -27.81 | 200 | Vert |
| 7 | 4919.81 | 39.76 | PK | 34 | -34.9 | 7.1 | 0.5 | 46.46 | 54 | -7.54 | 74 | -27.54 | 100 | Vert |
| 8 | 5476.143 | 37.01 | PK | 34.8 | -34.9 | 7.6 | 0.5 | 45.01 | 54 | -8.99 | 74 | -28.99 | 200 | Vert |
| 9 | 11005.496 | 34.96 | PK | 37.9 | -33.9 | 11 | 0.5 | 50.46 | 54 | -3.54 | 74 | -23.54 | 100 | Vert |

Horizontal 10000 - 18000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 10903.548 | 24.86 | PK | 37.9 | -34 | 11 | 0.5 | 40.26 | 54 | -13.74 | 74 | -33.74 | 100 | Horz |

Vertical 10000 - 18000MHz

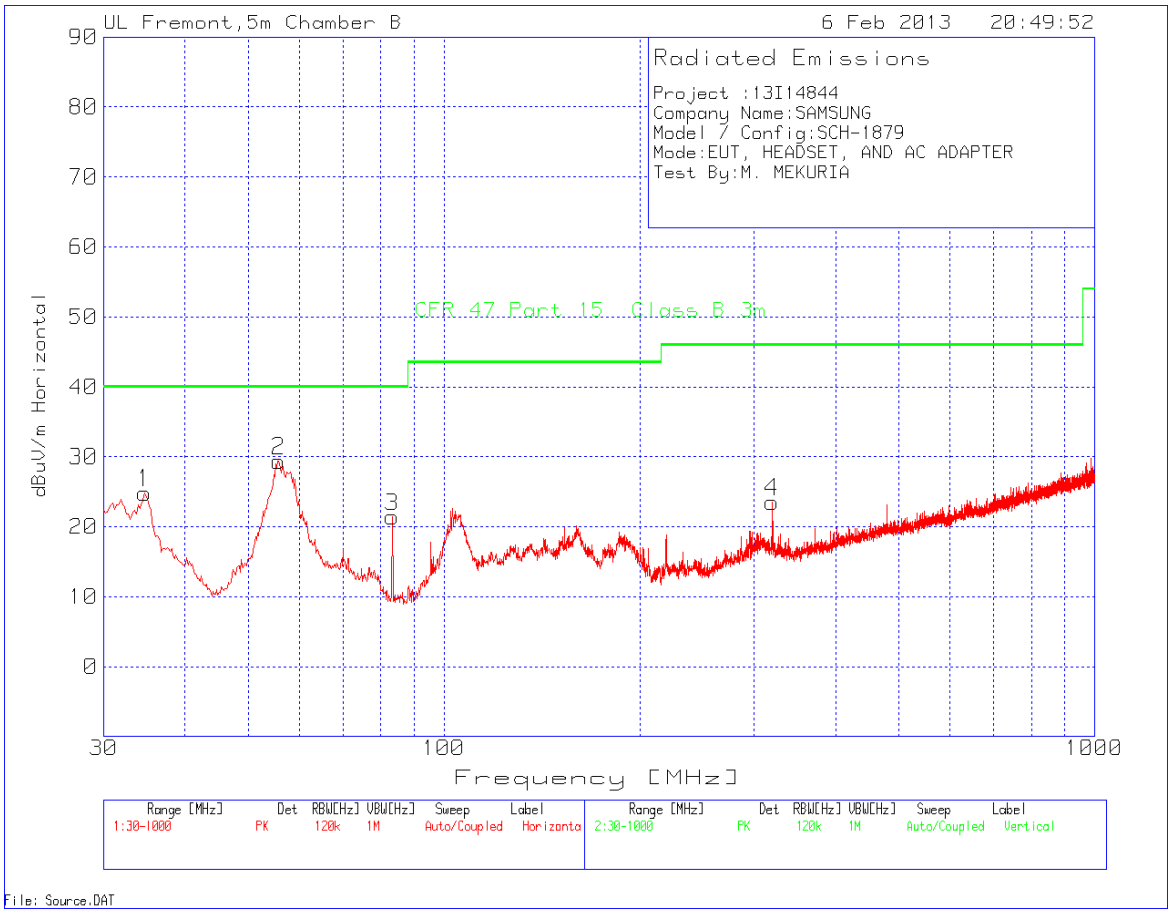
| Marker No. | Test Frequency | Meter Reading | Detector | T119 ETS Lindgren 3117 (dB) | T145 Preamp (dB) | Cable Factor (dB) | T186 BRF (dB) | dB(uVolts/ meter) | Part 15C 15.209 Avg 3m | Margin | Part 15C Peak | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 11431.284 | 23.88 | PK | 38.2 | -33.7 | 11.2 | 0.5 | 40.08 | 54 | -13.92 | 74 | -33.92 | 200 | Vert |

PK - Peak detector
QP - Quasi-Peak detector
Av - Average detector

## 10.3. WORST-CASE BELOW 1 GHz

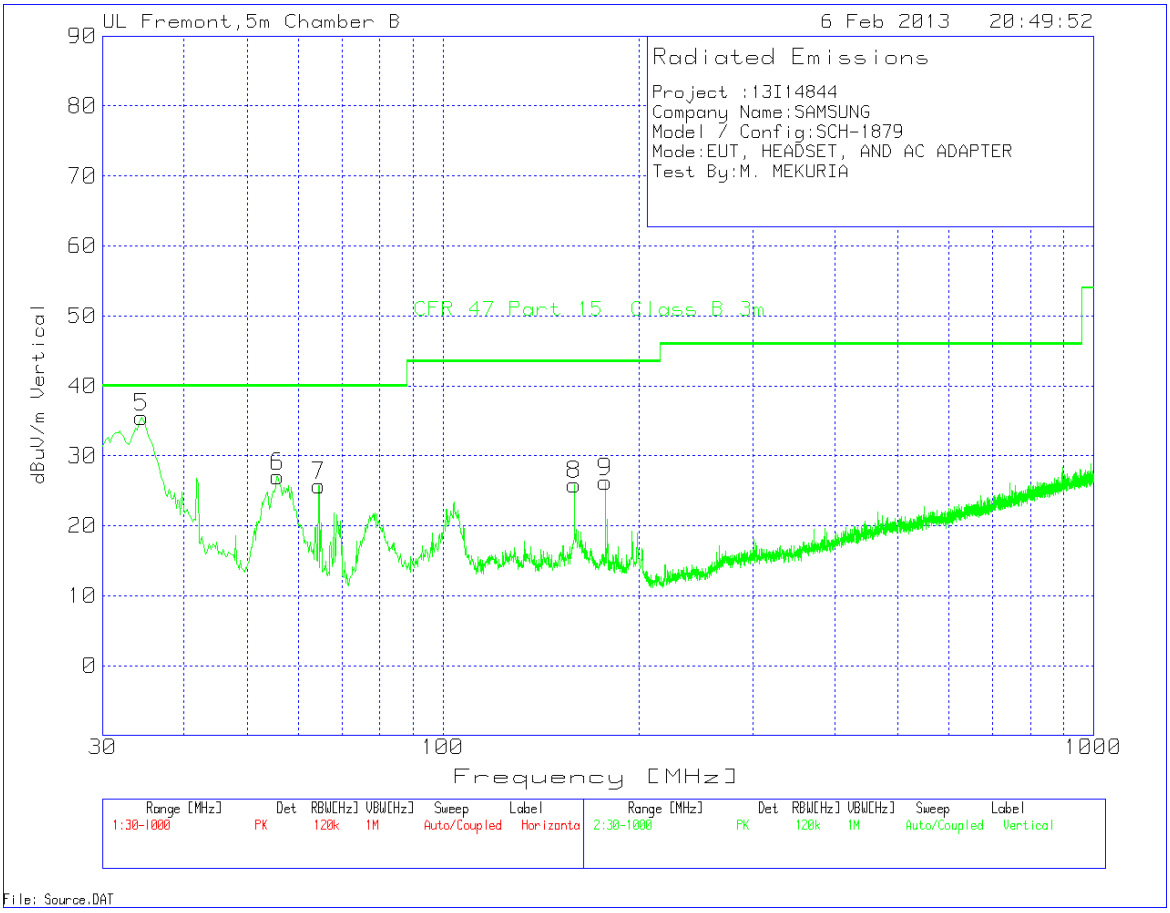
**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, HORIZONTAL)**

HORIZONTAL PLOT



**SPURIOUS EMISSIONS 30 TO 1000 MHz (WORST-CASE CONFIGURATION, VERTICAL)**

VERTICAL PLOT



## HORIZONTAL AND VERTICAL DATA

Project :13I14844
Company Name:SAMSUNG
Model / Config:SCH-1879
Mode:EUT, HEADSET, AND AC ADAPTER
Test By:M. MEKURIA

Horizontal 30 - 1000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T122 Sunol Bilog.TXT (dB) | 5mB Amp Path 30-1000MHz (dB) | dBuV/m | CFR 47 Part 15 Class B 3m | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 34.6523 | 36.12 | PK | 17.9 | -29.2 | 24.82 | 40 | -15.18 | 300 | Horz |
| 2 | 55.7814 | 51.18 | PK | 7.2 | -29 | 29.38 | 40 | -10.62 | 400 | Horz |
| 3 | 83.3074 | 42.4 | PK | 7.7 | -28.7 | 21.4 | 40 | -18.6 | 400 | Horz |
| 4 | 319.992 | 36.59 | PK | 13.8 | -26.8 | 23.59 | 46 | -22.41 | 100 | Horz |
| | | | | | | | | | | |

Vertical 30 - 1000MHz

| Marker No. | Test Frequency | Meter Reading | Detector | T122 Sunol Bilog.TXT (dB) | 5mB Amp Path 30-1000MHz (dB) | dBuV/m | CFR 47 Part 15 Class B 3m | Margin | Height [cm] | Polarity |
|---|---|---|---|---|---|---|---|---|---|---|
| 5 | 34.4584 | 46.74 | PK | 18 | -29.2 | 35.54 | 40 | -4.46 | 100 | Vert |
| 6 | 55.7814 | 48.82 | PK | 7.2 | -29 | 27.02 | 40 | -12.98 | 100 | Vert |
| 7 | 64.5044 | 46.88 | PK | 7.8 | -28.9 | 25.78 | 40 | -14.22 | 100 | Vert |
| 8 | 159.2946 | 41.28 | PK | 12.5 | -27.9 | 25.88 | 43.5 | -17.62 | 100 | Vert |
| 9 | 177.7098 | 42.87 | PK | 11.2 | -27.8 | 26.27 | 43.5 | -17.23 | 100 | Vert |
| | | | | | | | | | | |

QP - Quasi-Peak detector
Av - Average detector
PK2 - KDB558074 v02 10.2.3.2/8.1.1 Method: Maximum Peak

# 11. AC POWER LINE CONDUCTED EMISSIONS

**LIMITS**

FCC §15.207 (a)

RSS-Gen 7.2.2

| Frequency of Emission (MHz) | Conducted Limit (dBuV) | |
|---|---|---|
| | Quasi-peak | Average |
| 0.15-0.5 | 66 to 56 * | 56 to 46 * |
| 0.5-5 | 56 | 46 |
| 5-30 | 60 | 50 |

* Decreases with the logarithm of the frequency.

**TEST PROCEDURE**

The EUT is placed on a non-conducting table 40 cm from the vertical ground plane and 80 cm above the horizontal ground plane. The EUT is configured in accordance with ANSI C63.4.

The receiver is set to a resolution bandwidth of 9 kHz. Peak detection is used unless otherwise noted as quasi-peak or average.

Line conducted data is recorded for both NEUTRAL and HOT lines.

## RESULTS

## 6 WORST EMISSIONS

| | |
|---|---|
| Project No:13I14844 | |
| Client Name:Samsung | |
| Model/Device:SCH-I879 | |
| Test Volt/Freq:120VAC/60Hz | |
| Test By:Danny Vu | |

Line-L1 .15 - 30MHz

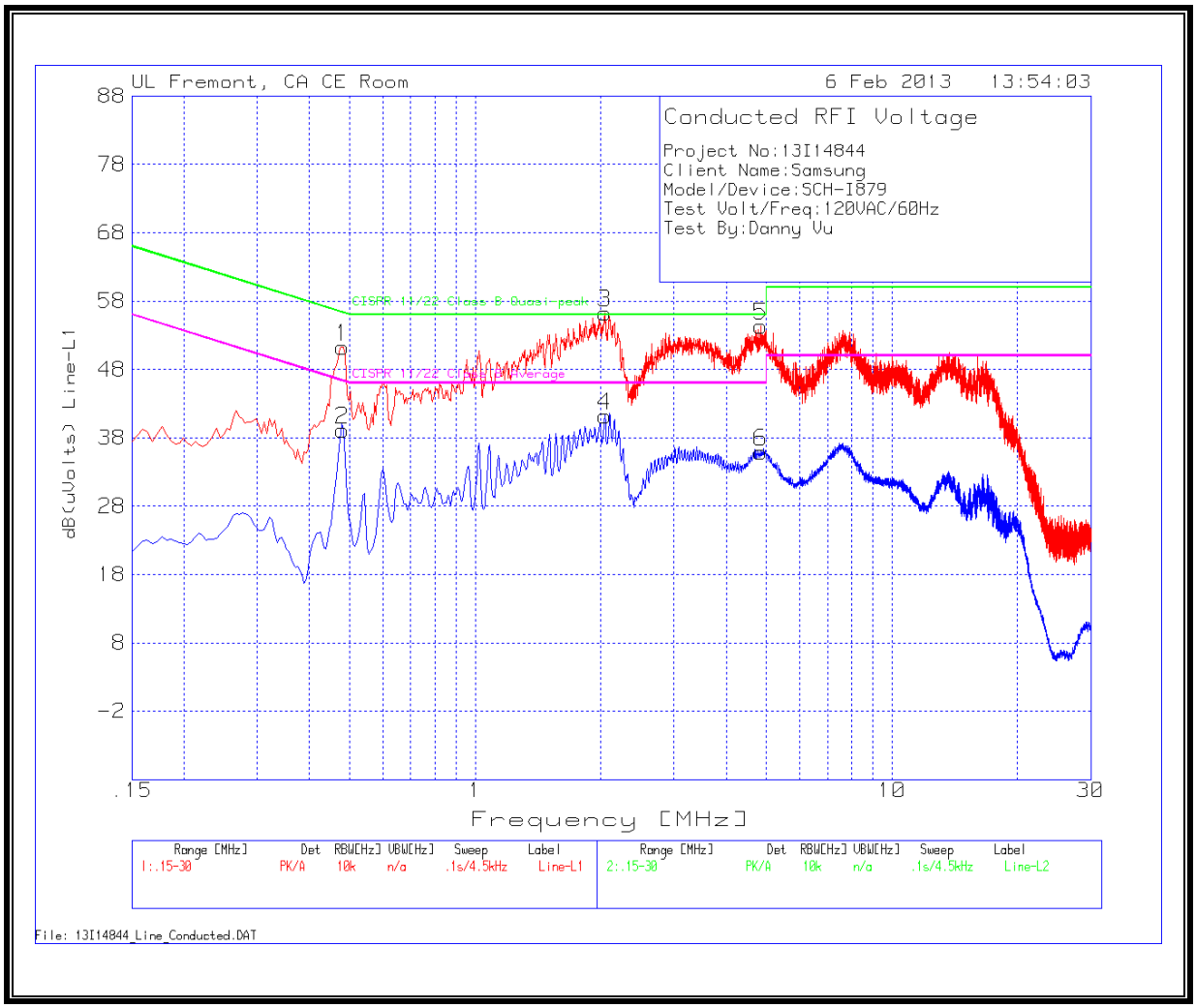
| Test Frequency | Meter Reading | Detector | T24 IL L1.TXT (dB) | LC Cables 1&3.TXT (dB) | dB(uVolts) | CISPR 11/22 Class B Quasi-peak | Margin | CISPR 11/22 Class B Average | Margin |
|---|---|---|---|---|---|---|---|---|---|
| 0.48075 | 51.2 | PK | 0.1 | 0 | 51.3 | 56.3 | -5 | - | - |
| 0.48075 | 39.01 | Av | 0.1 | 0 | 39.11 | - | - | 46.3 | -7.19 |
| 2.0445 | 56.05 | PK | 0.1 | 0.1 | 56.25 | 56 | 0.25 | - | - |
| 2.0445 | 50.22 | QP | 0.1 | 0.1 | 50.42 | 56 | -5.58 | - | - |
| 2.0445 | 41.01 | Av | 0.1 | 0.1 | 41.21 | - | - | 46 | -4.79 |
| 4.848 | 54.2 | PK | 0.1 | 0.1 | 54.4 | 56 | -1.6 | - | - |
| 4.848 | 46.84 | QP | 0.1 | 0.1 | 47.04 | 56 | -8.96 | - | - |
| 4.848 | 35.67 | Av | 0.1 | 0.1 | 35.87 | - | - | 46 | -10.13 |

Line-L2 .15 - 30MHz

| Test Frequency | Meter Reading | Detector | T24 IL L2.TXT (dB) | LC Cables 2&3.TXT (dB) | dB(uVolts) | CISPR 11/22 Class B Quasi-peak | Margin | CISPR 11/22 Class B Average | Margin |
|---|---|---|---|---|---|---|---|---|---|
| 0.483 | 46.79 | PK | 0.1 | 0 | 46.89 | 56.3 | -9.41 | - | - |
| 0.483 | 35.1 | Av | 0.1 | 0 | 35.2 | - | - | 46.3 | -11.1 |
| 2.0535 | 52.47 | PK | 0.1 | 0.1 | 52.67 | 56 | -3.33 | - | - |
| 2.0535 | 38.22 | Av | 0.1 | 0.1 | 38.42 | - | - | 46 | -7.58 |
| 3.3675 | 51.12 | PK | 0.1 | 0.1 | 51.32 | 56 | -4.68 | - | - |
| 3.3675 | 32.5 | Av | 0.1 | 0.1 | 32.7 | - | - | 46 | -13.3 |

| | |
|---|---|
| PK - Peak detector | |
| QP - Quasi-Peak detector | |
| Av - Average detector | |

**LINE 1 RESULTS**



**LINE 2 RESULTS**