



FCC CFR47 PART 15 SUBPART C

CERTIFICATION TEST REPORT

FOR

GSM1900 Phone with WiFi/BT

MODEL NUMBER: GT-I9128I

FCC ID: A3LGTI9128I

REPORT NUMBER: 13I5225-1, Revision B

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Prepared for

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

Prepared by

**UL VERIFICATION SERVICES
47173 BENICIA STREET
FREMONT, CA 94538, U.S.A.
TEL: (510) 771-1000
FAX: (510) 661-0888**



NVLAP LAB CODE 200065-0

Revision History

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--	06/25/13	Initial Issue	P. Kim
A	7/29/13	Update administrative information	P. Kim
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1. ATTESTATION OF TEST RESULTS

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

EUT DESCRIPTION: GSM1900 Phone with WiFi/BT

MODEL: GT-I9128I

SERIAL NUMBER: 0677A774 (RADIATED)
20A084AD (CONDUCTED)

DATE TESTED: JUNE 6-21, 2013

APPLICABLE STANDARDS	
STANDARD	TEST RESULTS
CFR 47 Part 15 Subpart C	Pass
INDUSTRY CANADA RSS-210 Issue 8 Annex 8	Pass
INDUSTRY CANADA RSS-GEN Issue 3	Pass

UL Verification Services Inc. 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 Verification Services Inc. 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.

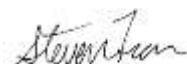
Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. 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 Verification Services By:



PHILIP KIM
WISE PROGRAM MANAGER
UL VERIFICATION SERVICES INC.

Tested By:



STEVEN TRAN
WISE LAB TECHNICIAN
UL VERIFICATION SERVICES INC.

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 Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at <http://www.ccsenc.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:

$$\begin{aligned} \text{Field Strength (dBuV/m)} &= \text{Measured Voltage (dBuV)} + \text{Antenna Factor (dB/m)} + \\ &\text{Cable Loss (dB)} - \text{Preamplifier Gain (dB)} \\ 36.5 \text{ dBuV} + 18.7 \text{ dB/m} + 0.6 \text{ dB} - 26.9 \text{ dB} &= 28.9 \text{ dBuV/m} \end{aligned}$$

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 an 802.11 B/G/N 1X1 HT20, + BT4.0 (LE) + GSM1900 bar phone.

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted output power as follows:

(MHz)		(dBm)	(mW)
2412 - 2462	802.11b	19.25	84.14
2412 - 2462	802.11g	21.84	152.76
2412 - 2462	802.11n HT20	19.97	99.31

5.3. DESCRIPTION OF AVAILABLE ANTENNAS

The radio utilizes an FPCB antenna, with a maximum gain of 0.55 dBi.

5.4. SOFTWARE AND FIRMWARE

The firmware installed in the EUT during testing was REV1.0 and the software was I9128I.001

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,Z, it was determined that Z orientation was worst-case orientation; therefore, all final radiated testing was performed with the EUT in Z orientation.

Worst-case data rates as provided by the client were:
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

Description	Manufacturer	Model	Serial Number	FCC ID
AC Adapter	Samsung Electronics	ETA0U82CBC	DK1C220TS/A-E	DoC
Headset	Samsung Electronics	N/A	N/A	DoC

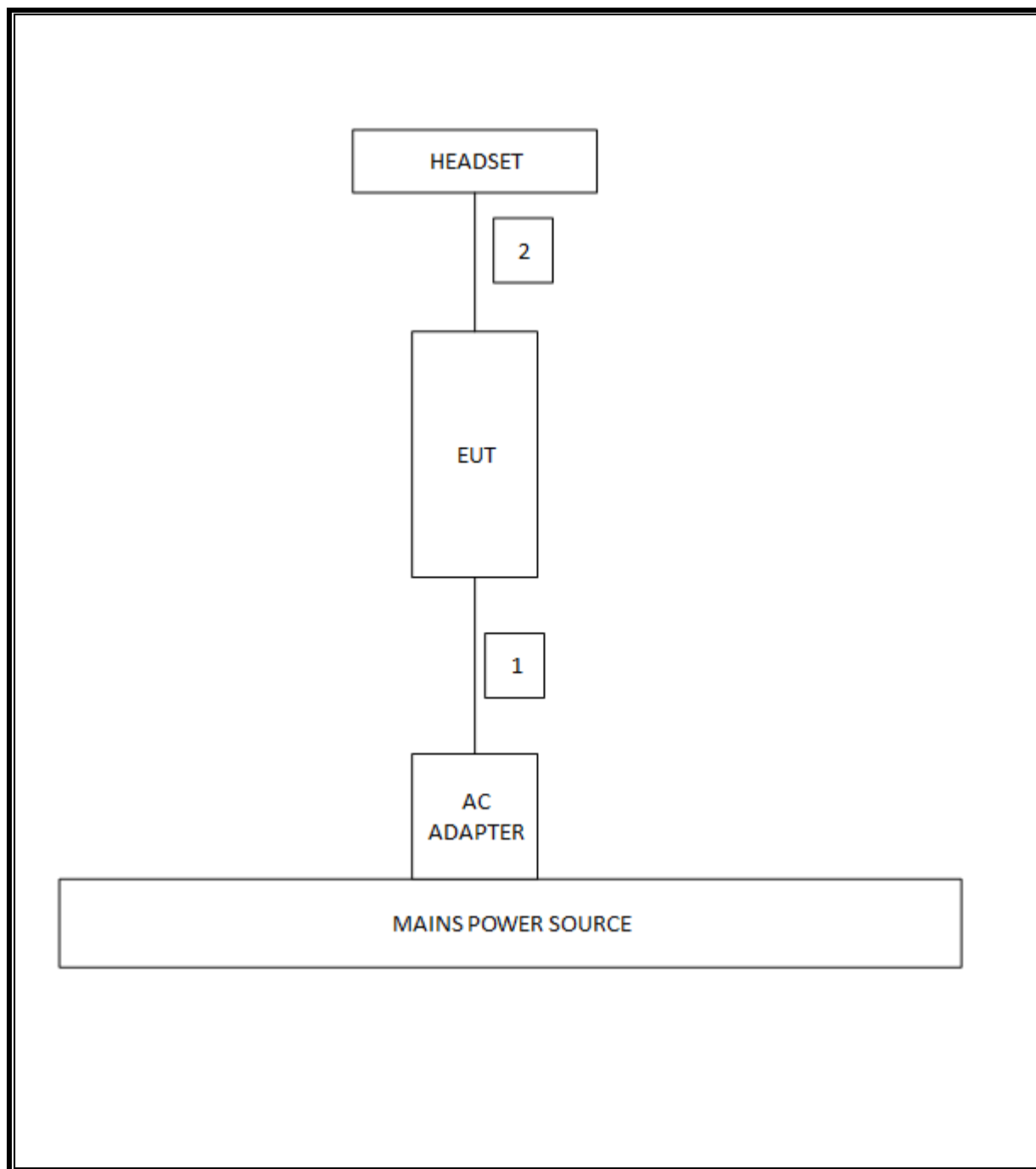
I/O CABLES

I/O Cable List						
Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	USB	1	USB	Shielded	1.6m	N/A
2	Headset	1	Audio	Shielded	1.5m	N/A

TEST SETUP

The EUT is a stand-alone unit that was tested in the worst case orientation and configuration, where applicable, during the tests. Test software exercised the radio.

SETUP DIAGRAM FOR TESTS



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, 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	C00885	12/11/13
Spectrum Analyzer, 44 GHz	Agilent / HP	E4446A	C01179	02/26/14
Preamplifier, 26.5 GHz	Agilent / HP	8449B	C01063	10/22/13
Reject Filter, 2.4-2.5 GHz	Micro-Tronics	BRC13192	N02683	CNR
Antenna, Biconolog, 30MHz-1 GHz	Sunol Sciences	JB1	C01016	03/28/14
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	LISN-50/250-25-2	N02625	CNR
LISN, 10 kHz ~ 30 MHz	Solar	8012-50-R-24-BNC	N02481	05/09/14

7. ON TIME, DUTY CYCLE AND MEASUREMENT METHODS

LIMITS

None; for reporting purposes only.

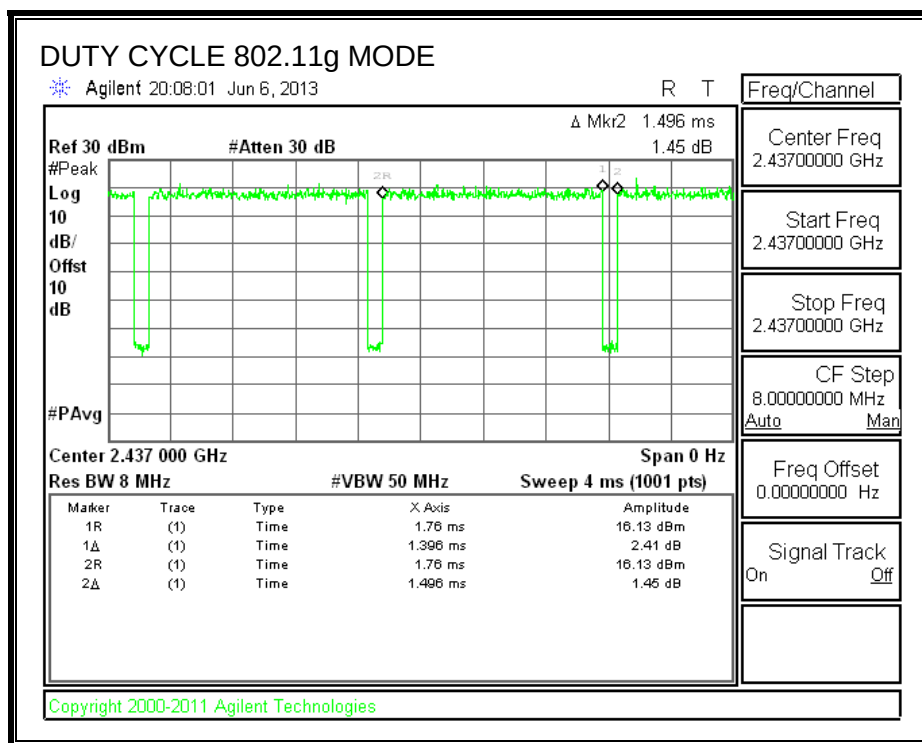
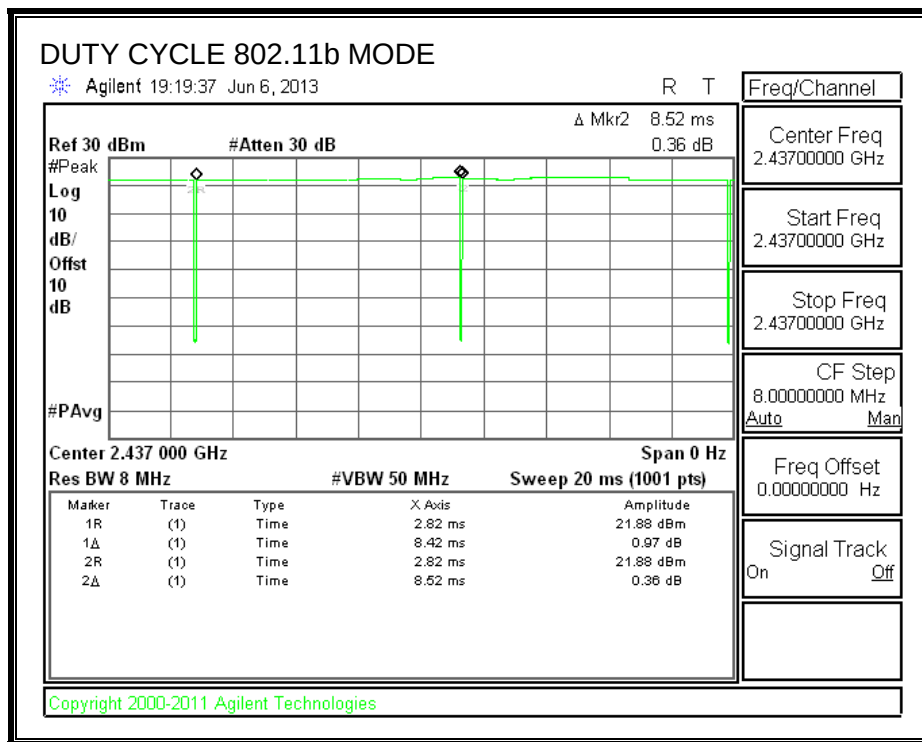
PROCEDURE

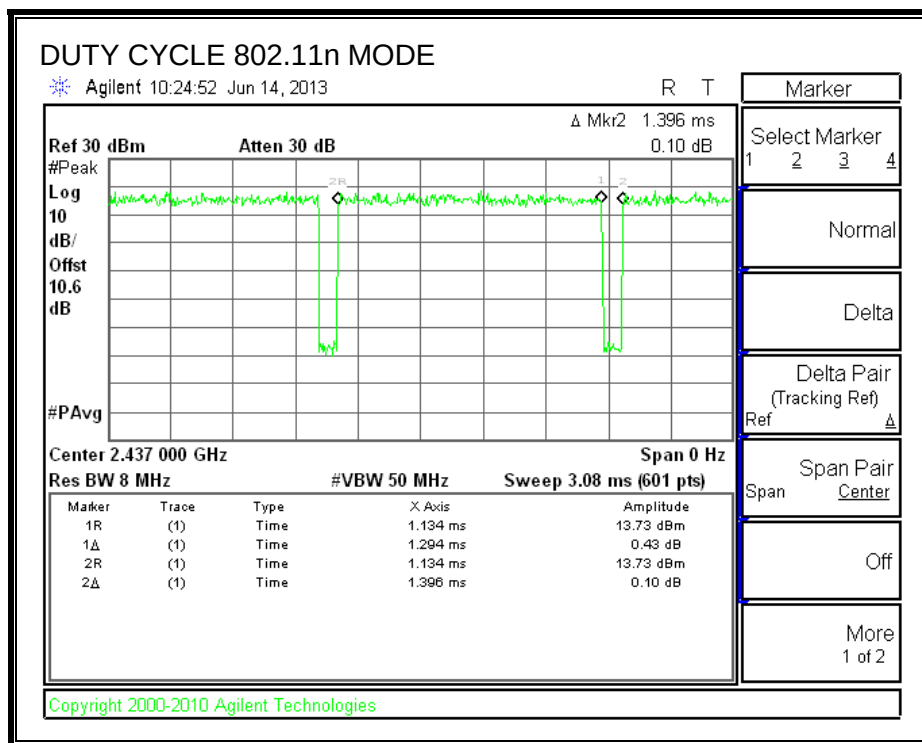
KDB 789033 Zero-Span Spectrum Analyzer Method.

7.1.1. ON TIME AND DUTY CYCLE RESULTS

Mode	ON Time B (msec)	Period (msec)	Duty Cycle x (linear)	Duty Cycle (%)	Duty Cycle Correction Factor (dB)	1/T Minimum VBW (kHz)
802.11b	8.42	8.52	0.988	98.8%	0.00	0.010
802.11g	1.40	1.50	0.934	93.4%	0.30	0.716
802.11n	1.29	1.40	0.927	92.7%	0.33	0.773

7.1.2. DUTY CYCLE PLOTS





8. MEASUREMENT METHODS

KDB 558074 Measurement Procedure PK2 is used for power and PKPSD is used for power spectral density.

Unwanted emissions within Restricted Bands are measured using traditional radiated procedures.

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.

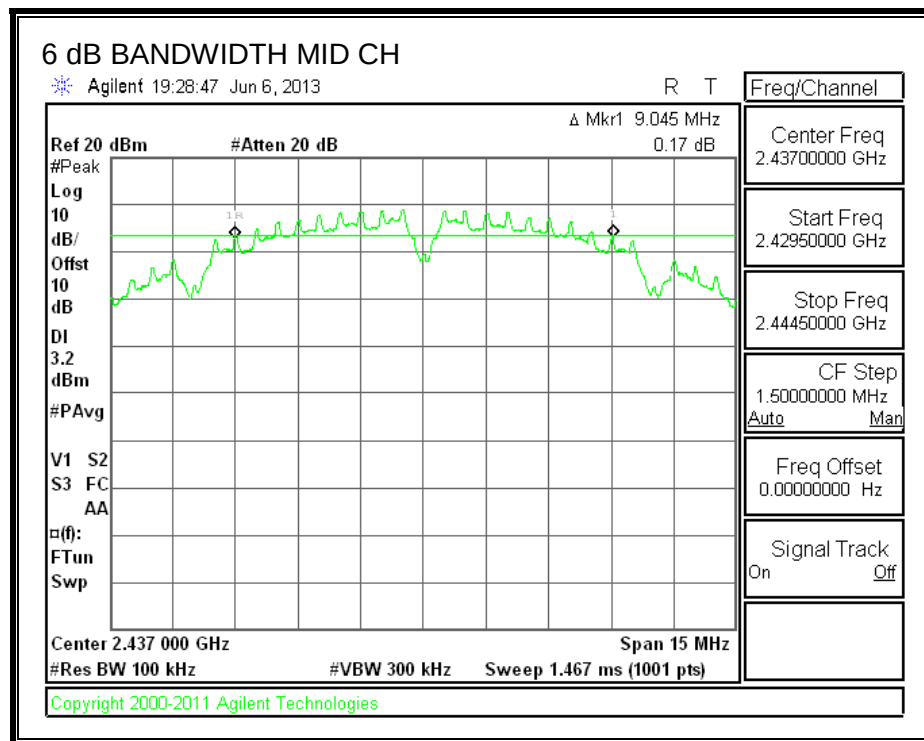
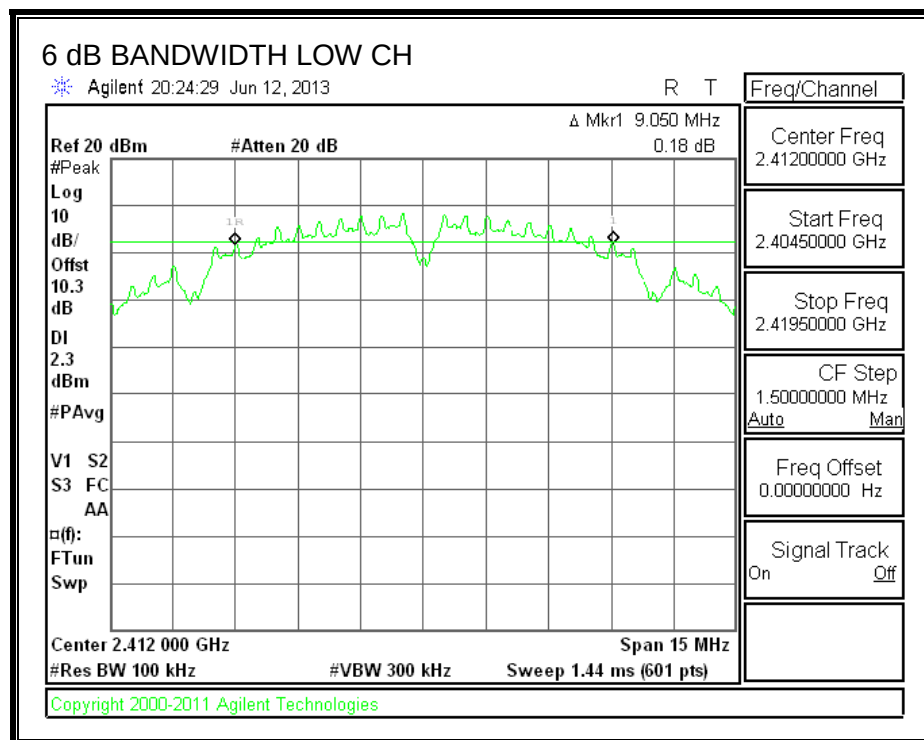
TEST PROCEDURE

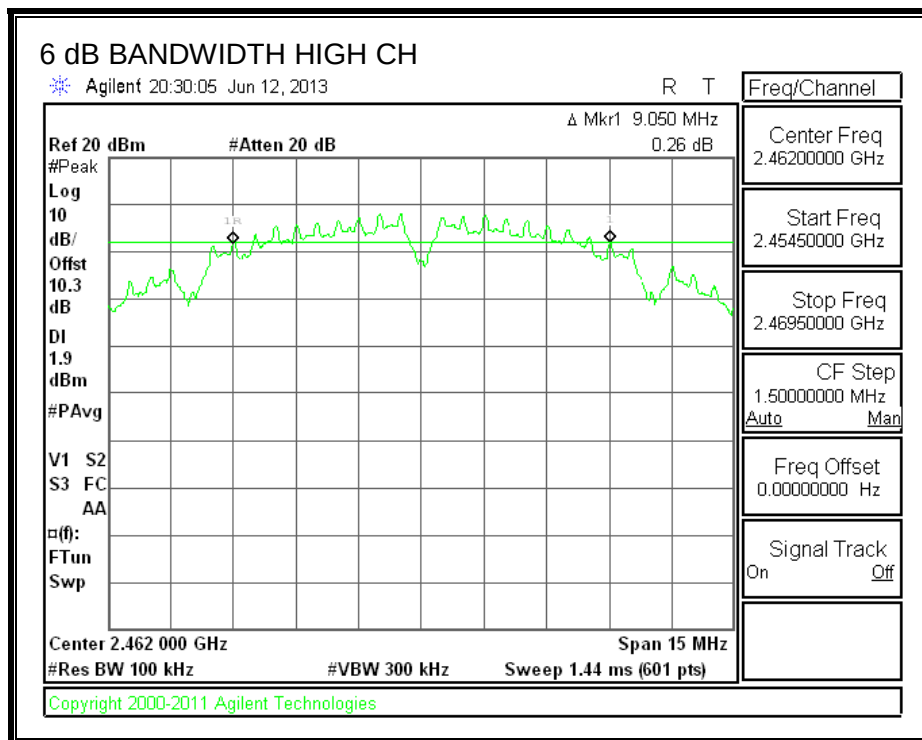
The transmitter output is connected to a spectrum analyzer with the RBW set between 1% and 5% of the EBW, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	9.050	0.5
Mid	2437	9.045	0.5
High	2462	9.050	0.5

6 dB BANDWIDTH





9.1.2. 99% BANDWIDTH

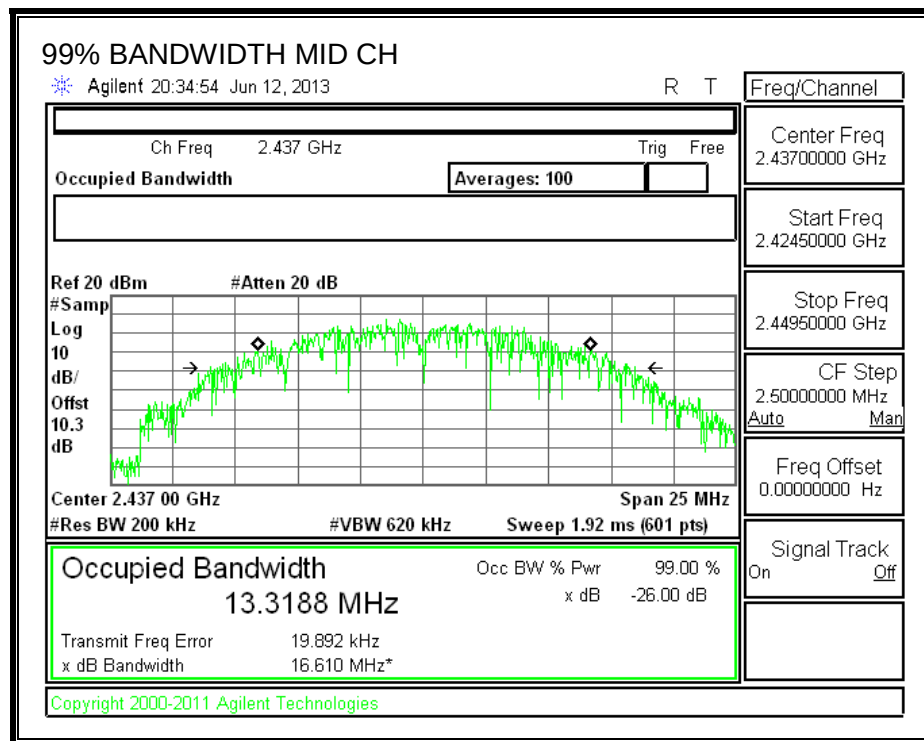
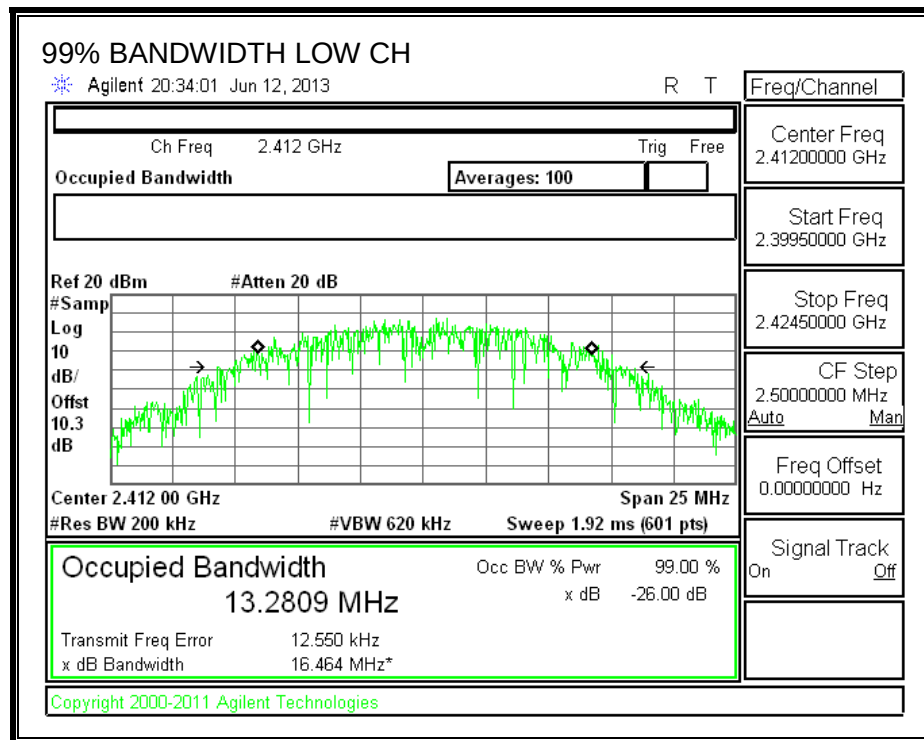
LIMITS

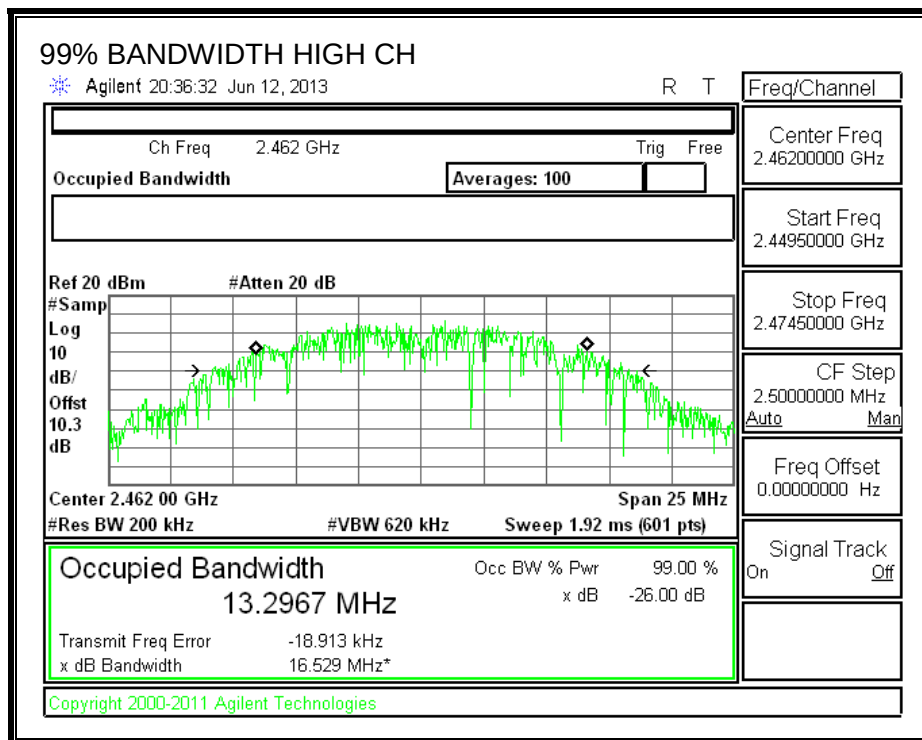
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	13.2809
Mid	2437	13.3188
High	2462	13.2967

99% BANDWIDTH





9.1.3. 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 10.6 dB (including 10 dB pad and 0.6 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	2412	15.57
Mid	2437	15.37
High	2462	15.41

9.1.4. 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

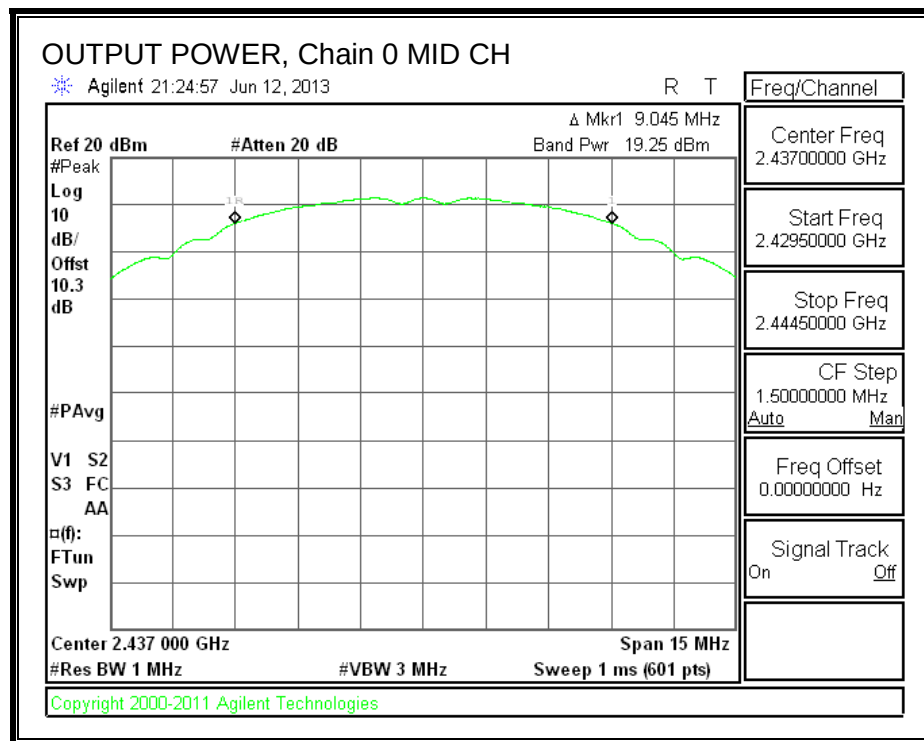
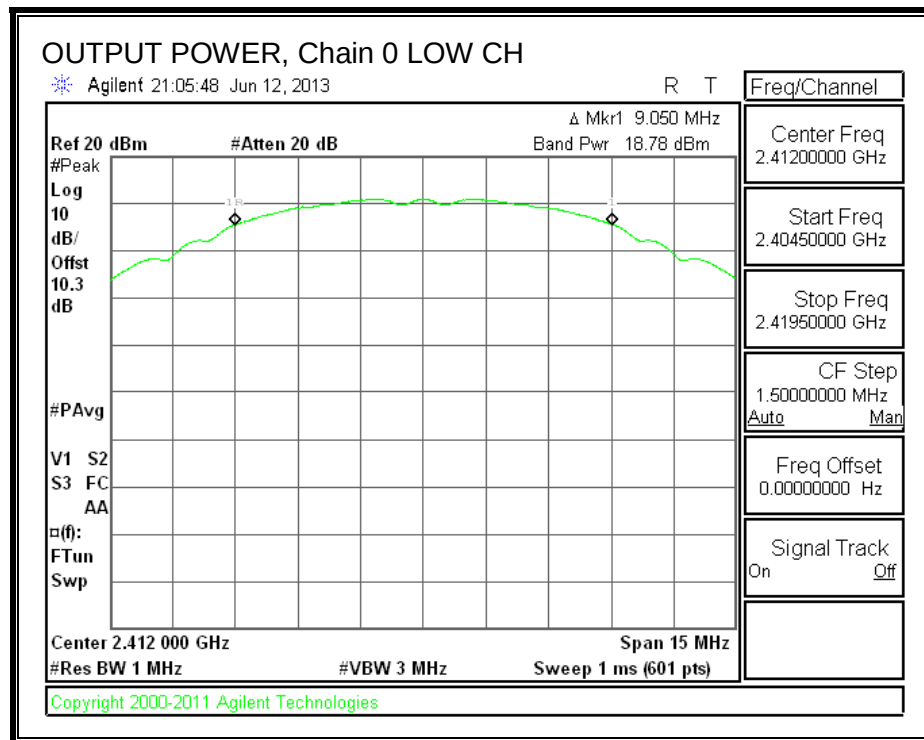
Limits

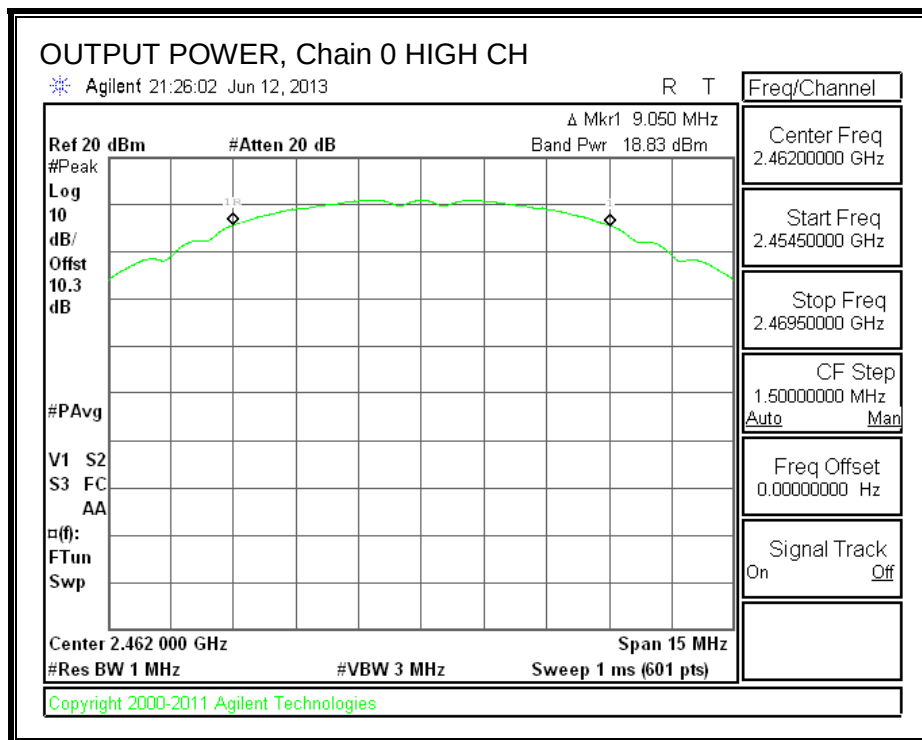
Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	0.55	30.00	30	36	30.00
Mid	2437	0.55	30.00	30	36	30.00
High	2462	0.55	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	18.78	18.78	30.00	-11.22
Mid	2437	19.25	19.25	30.00	-10.75
High	2462	18.83	18.83	30.00	-11.17

OUTPUT POWER, Chain 0





9.1.5. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

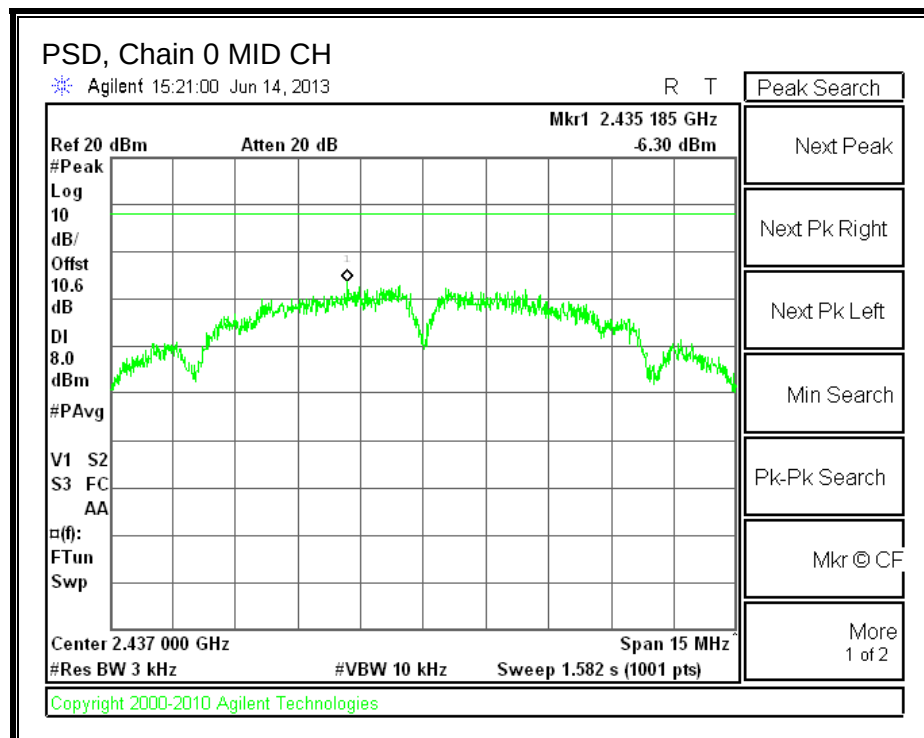
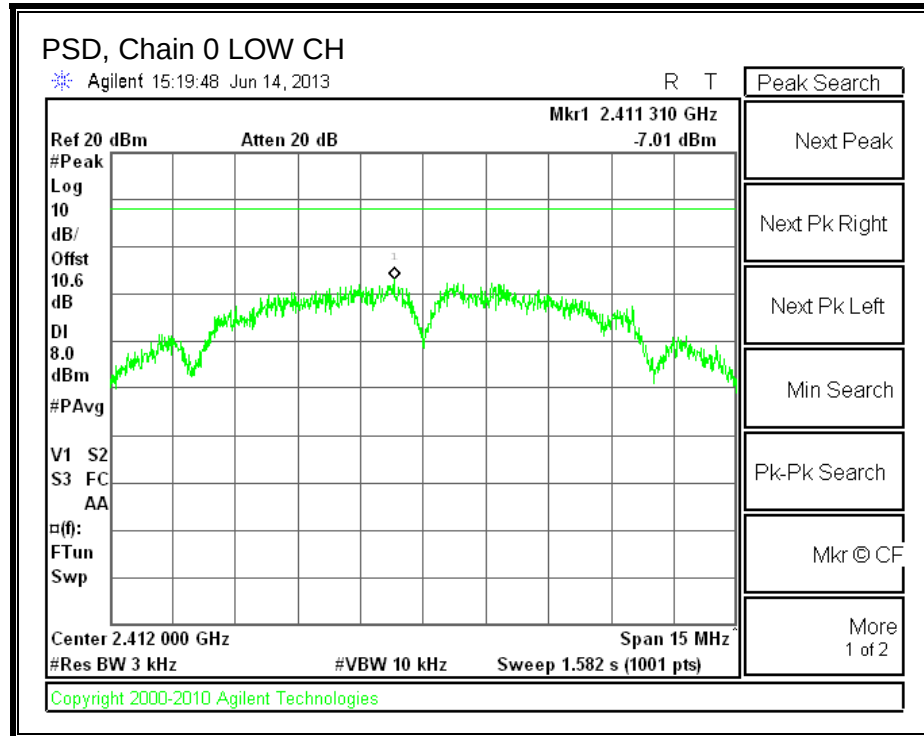
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

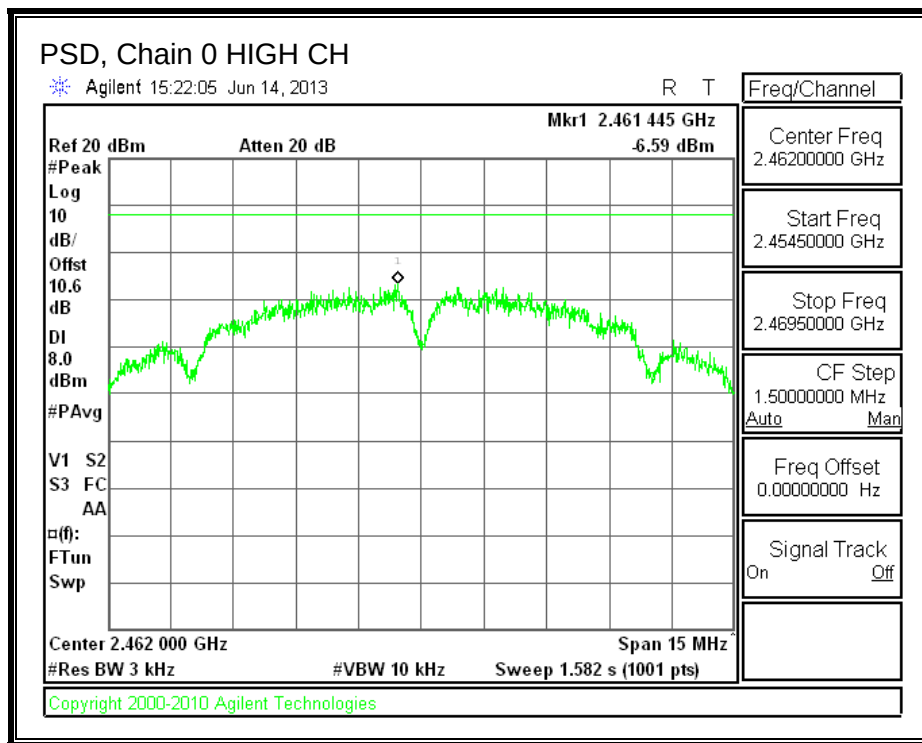
RESULTS

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-7.01	8.0	-15.0
Mid	2437	-6.30	8.0	-14.3
High	2462	-6.59	8.0	-14.6

PSD, Chain 0





9.1.6. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

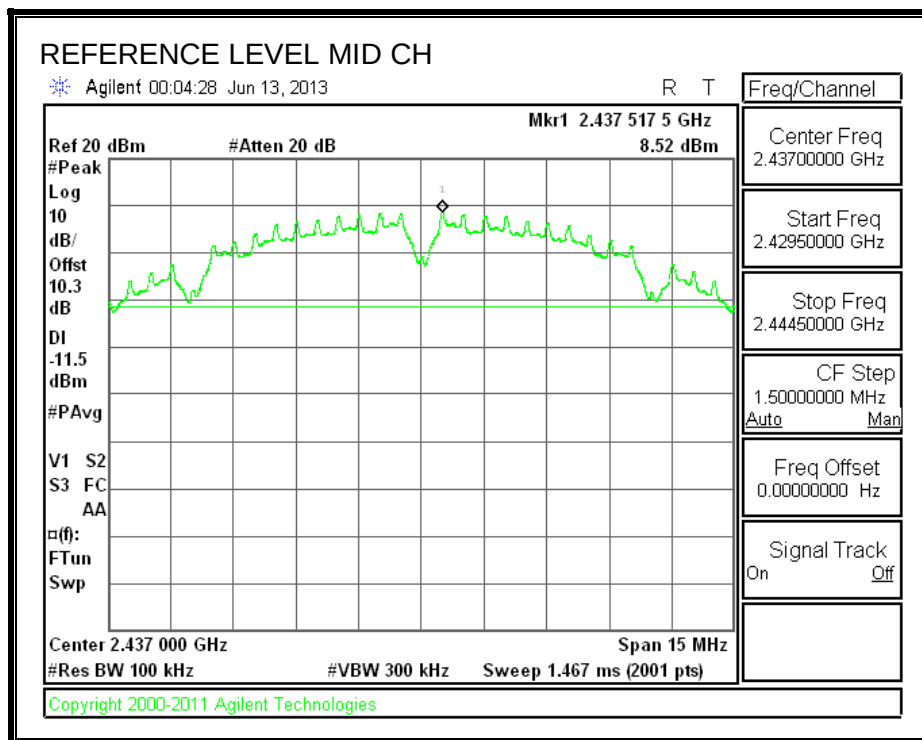
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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

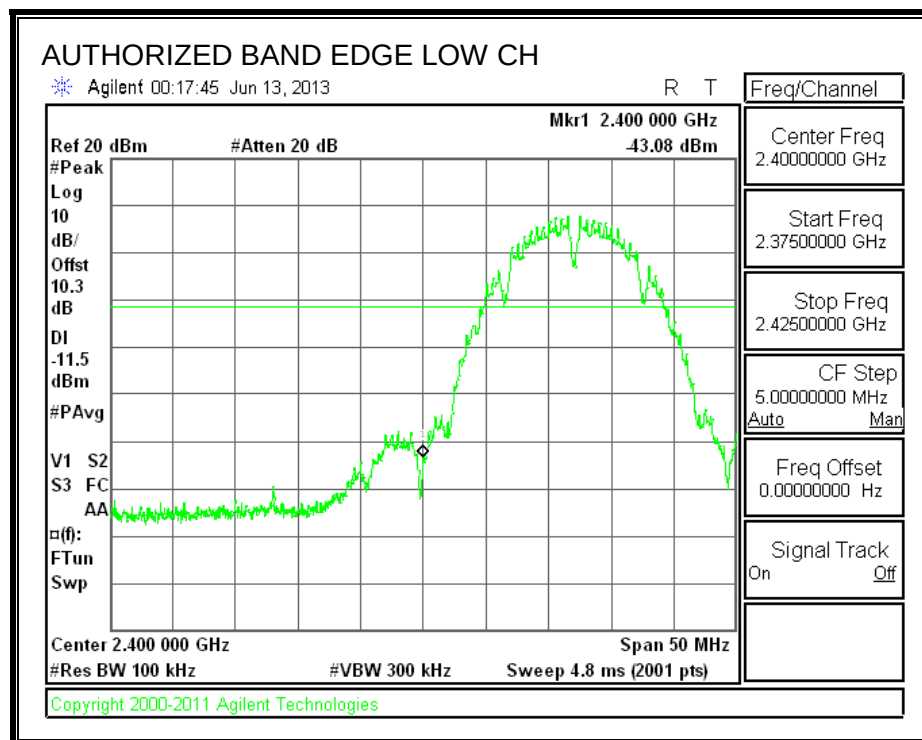
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

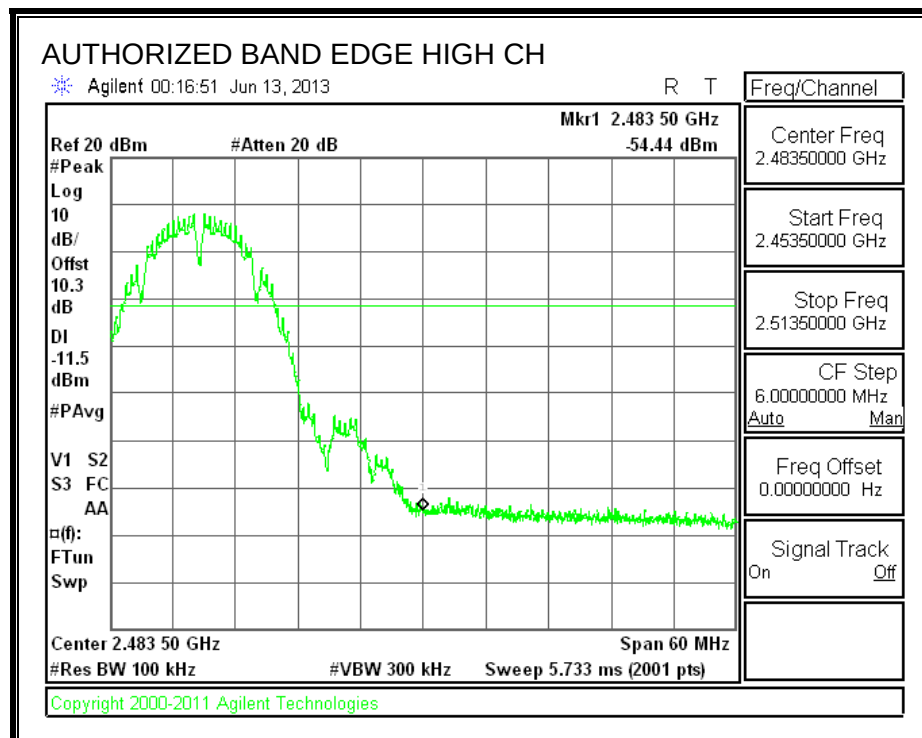
IN-BAND REFERENCE LEVEL



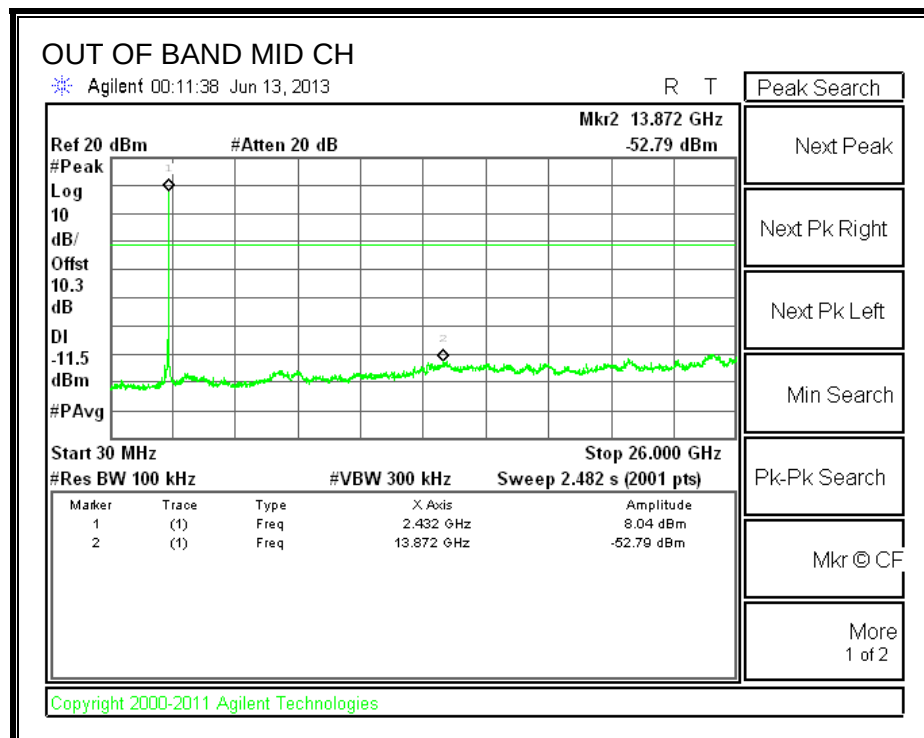
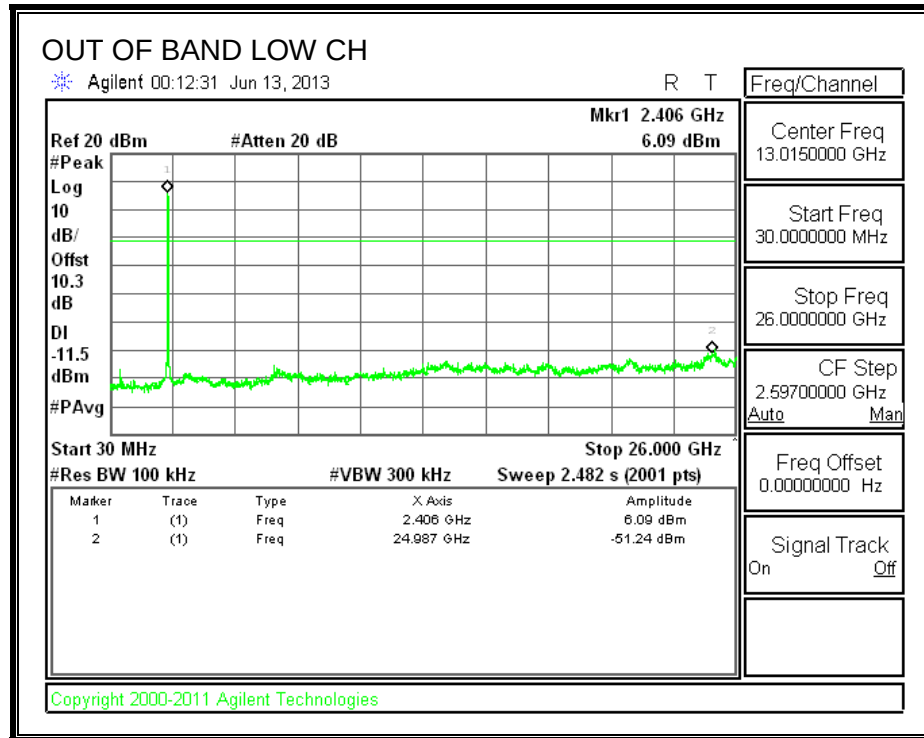
LOW CHANNEL BANDEDGE

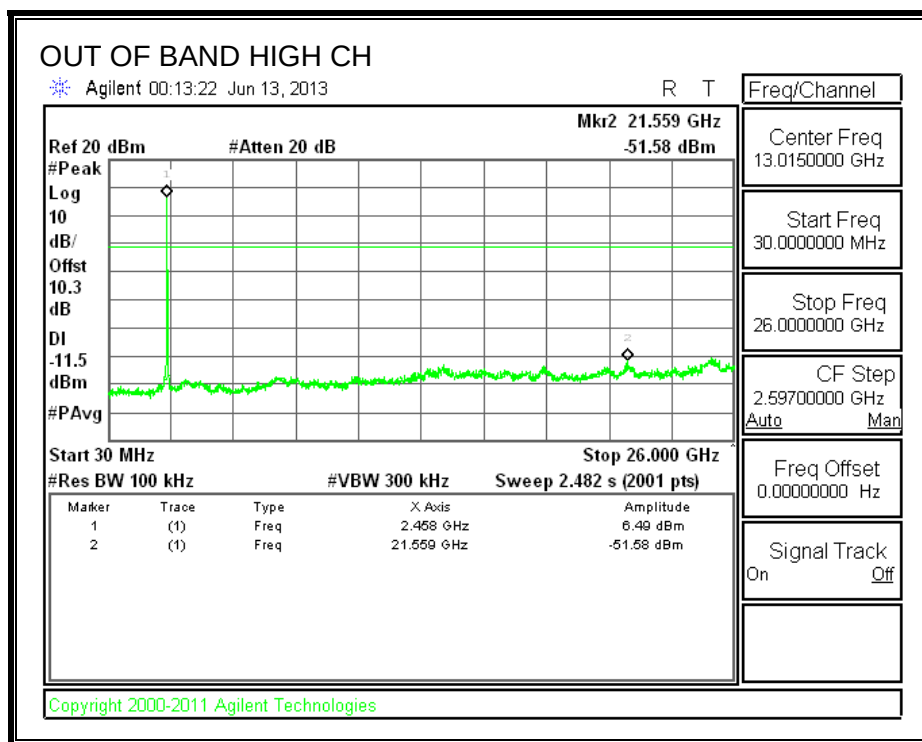


HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS





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.

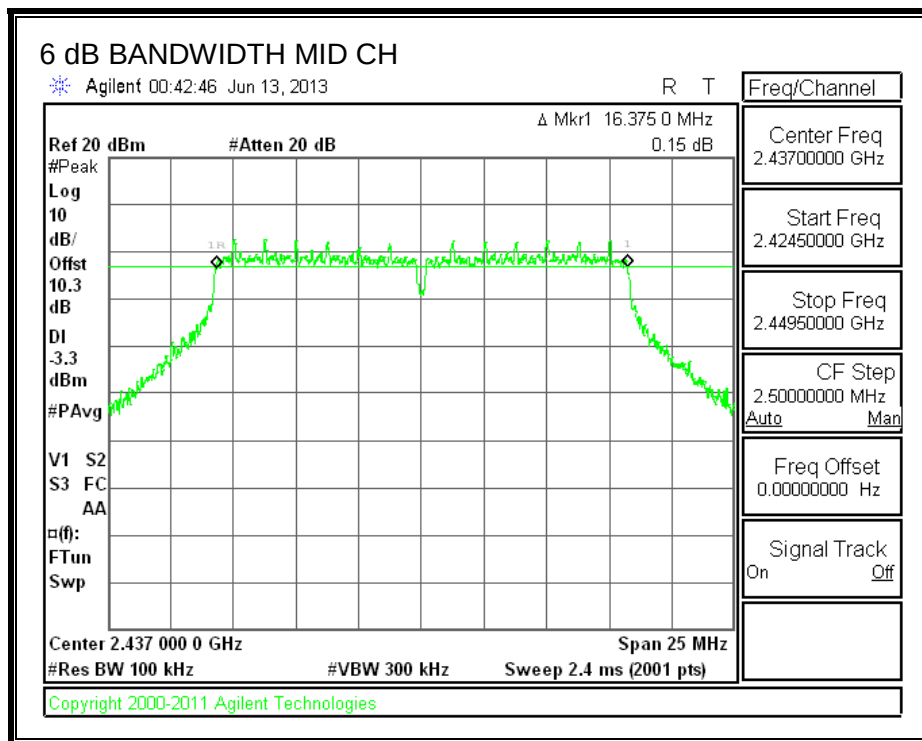
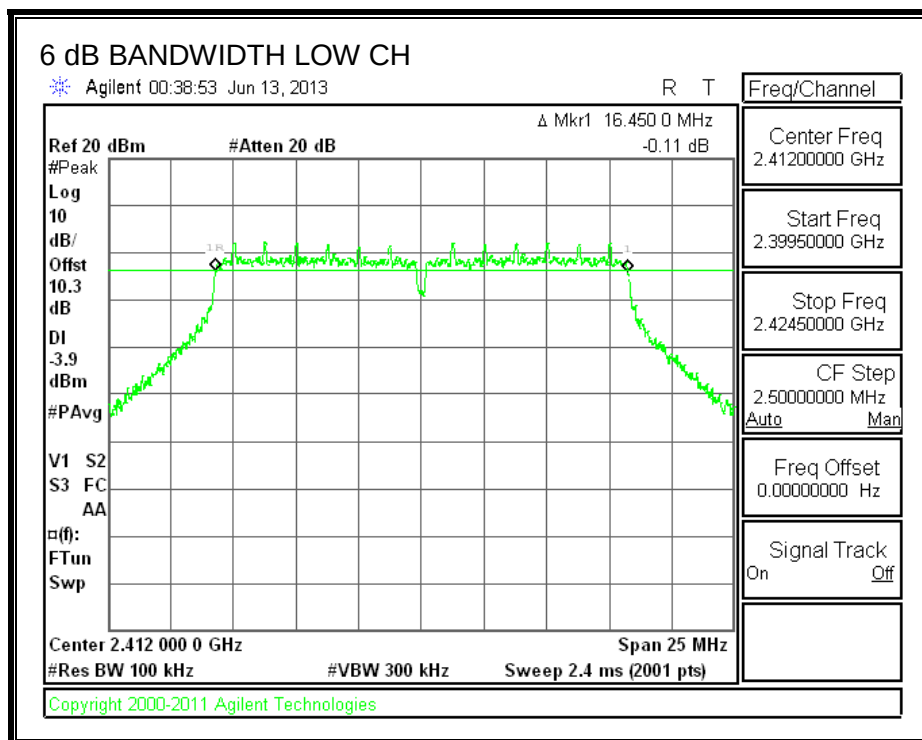
TEST PROCEDURE

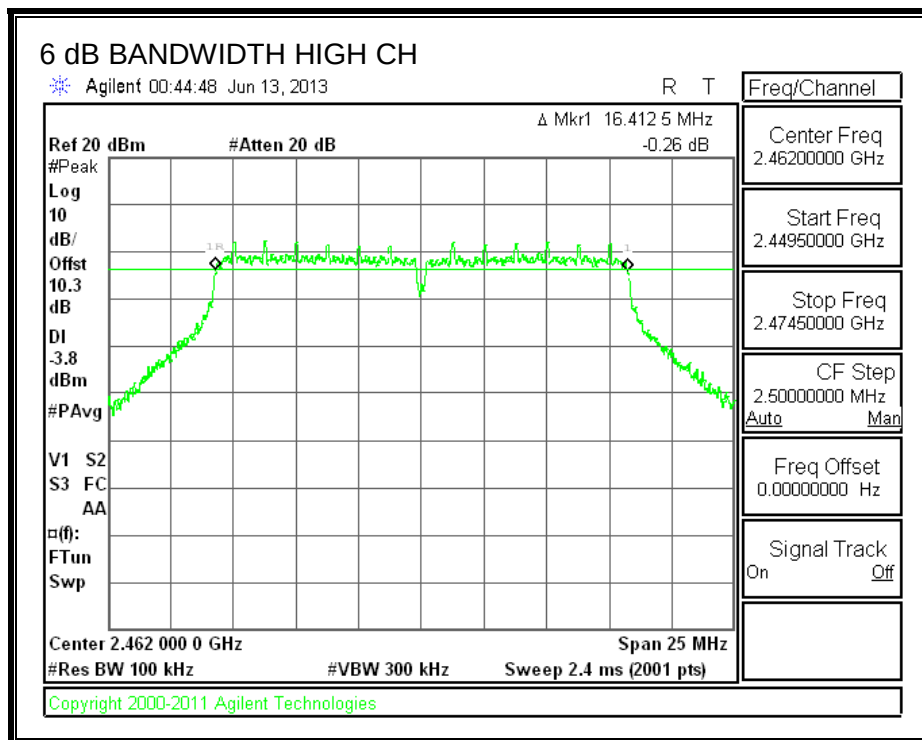
The transmitter output is connected to a spectrum analyzer with the RBW set between 1% and 5% of the EBW, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	16.450	0.5
Mid	2437	16.375	0.5
High	2462	16.412	0.5

6 dB BANDWIDTH





9.2.2. 99% BANDWIDTH

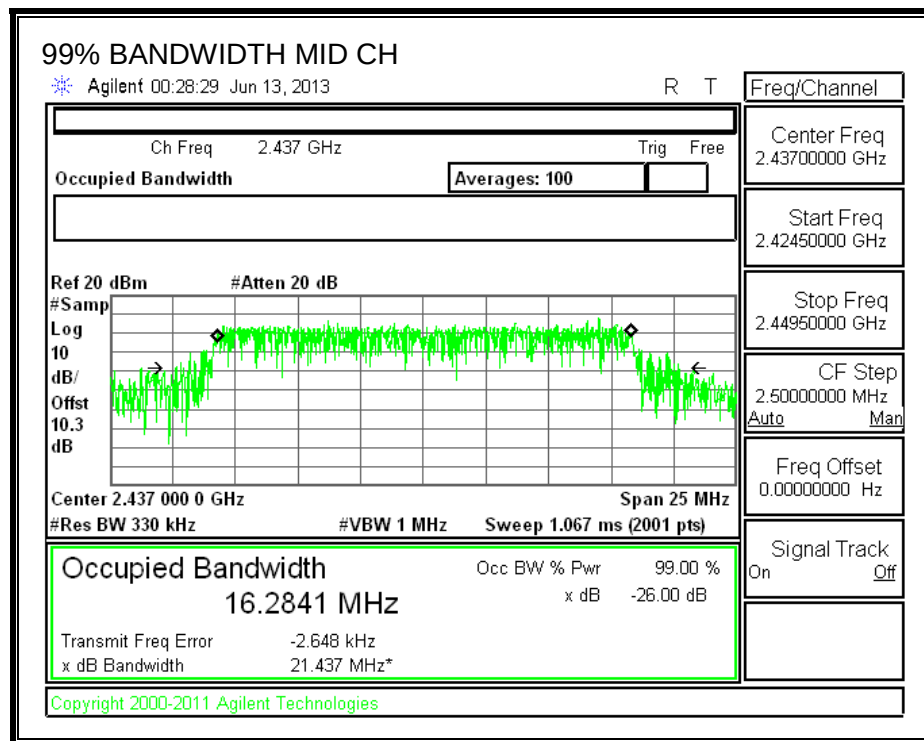
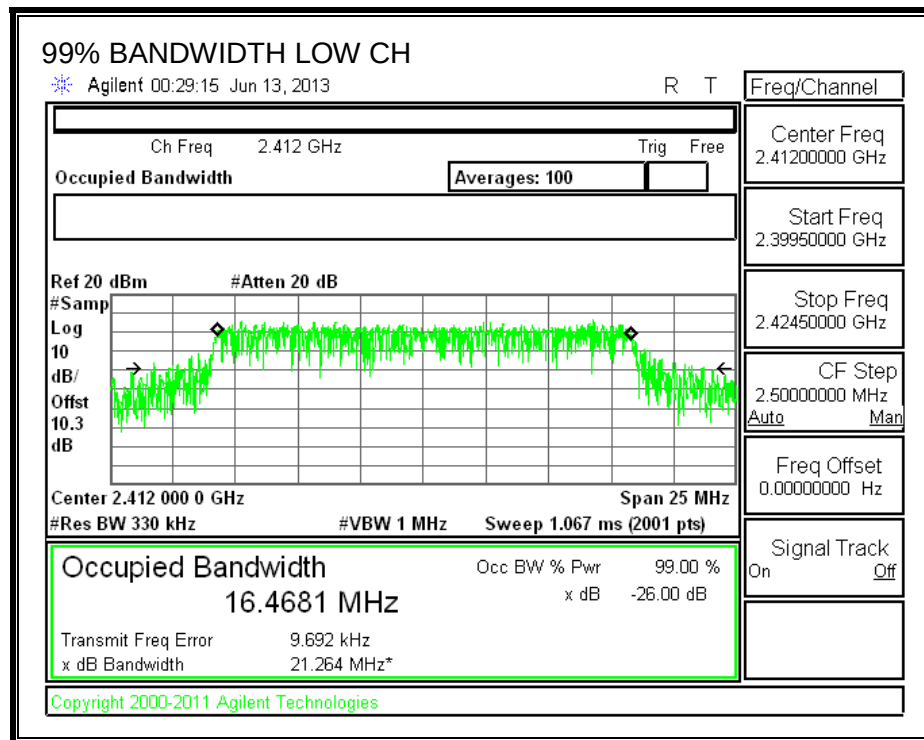
LIMITS

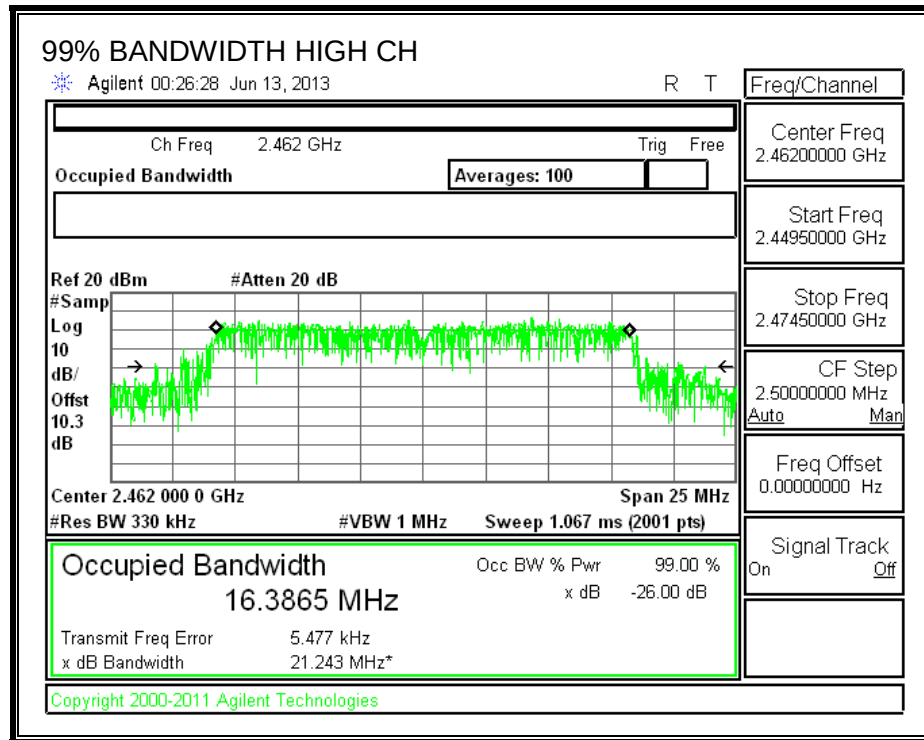
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	16.4681
Mid	2437	16.2841
High	2462	16.3865

99% BANDWIDTH





9.2.3. 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 10.6 dB (including 10 dB pad and 0.6 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	2412	13.09
Mid	2437	12.94
High	2462	13.06

9.2.4. 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

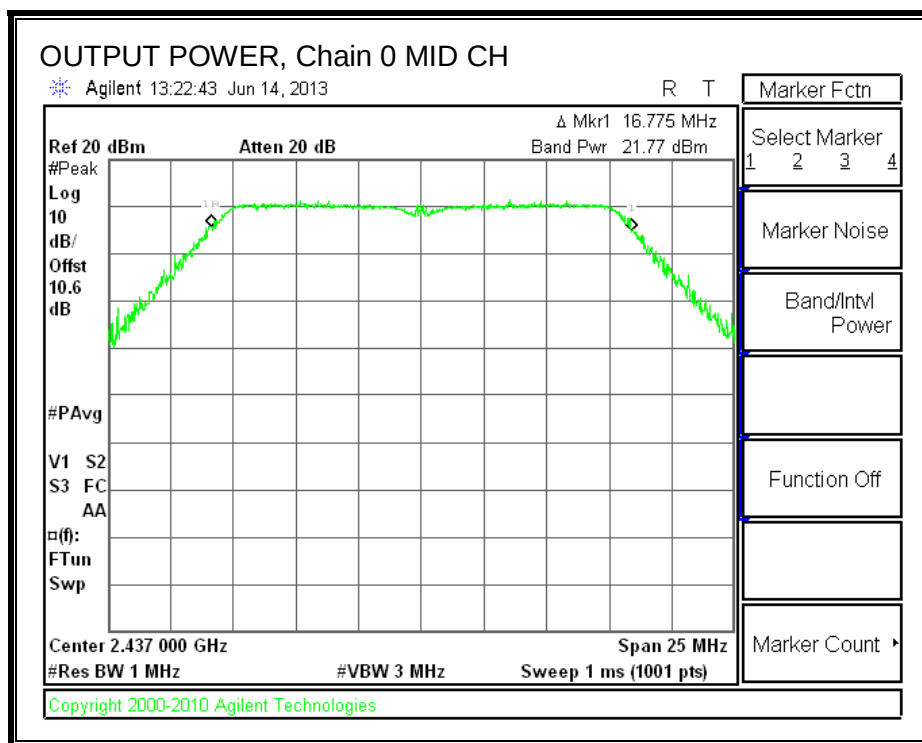
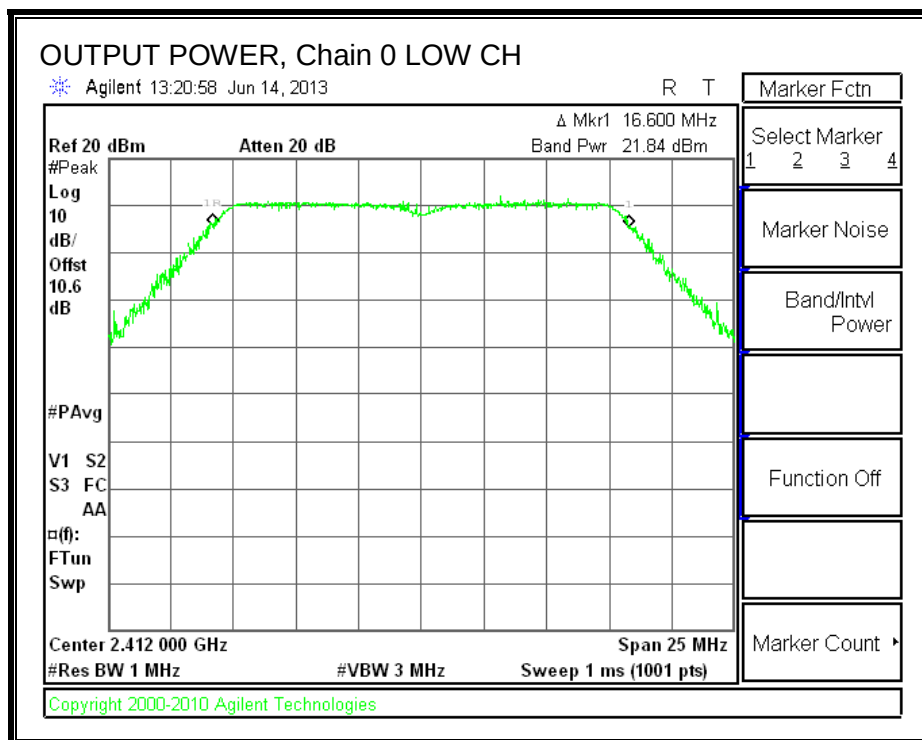
Limits

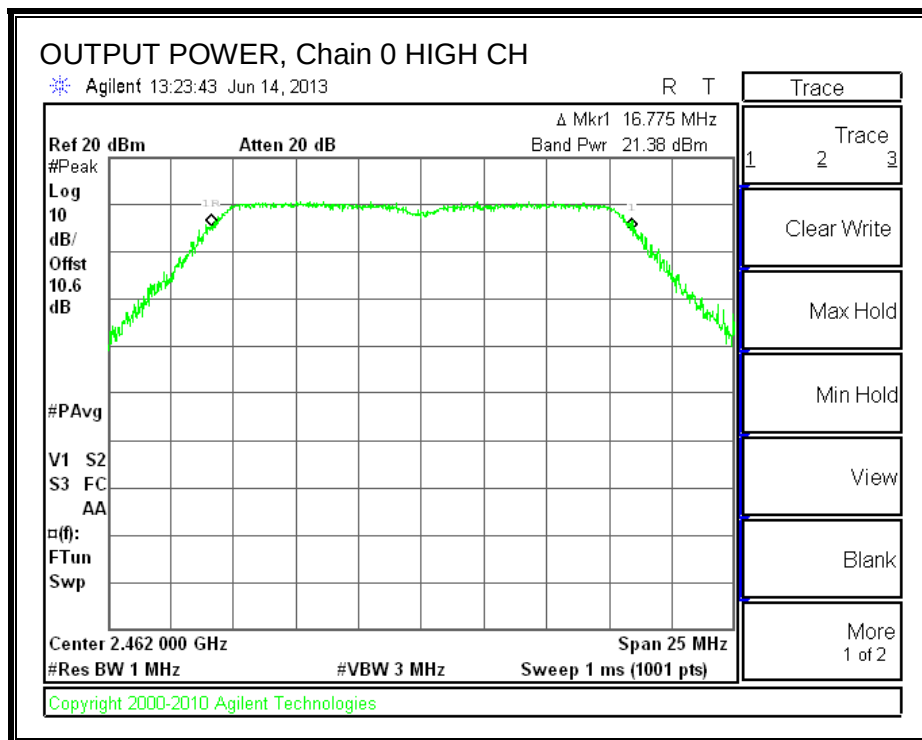
Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	0.55	30.00	30	36	30.00
Mid	2437	0.55	30.00	30	36	30.00
High	2462	0.55	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	21.84	21.84	30.00	-8.16
Mid	2437	21.77	21.77	30.00	-8.23
High	2462	21.38	21.38	30.00	-8.62

OUTPUT POWER, Chain 0





9.2.5. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

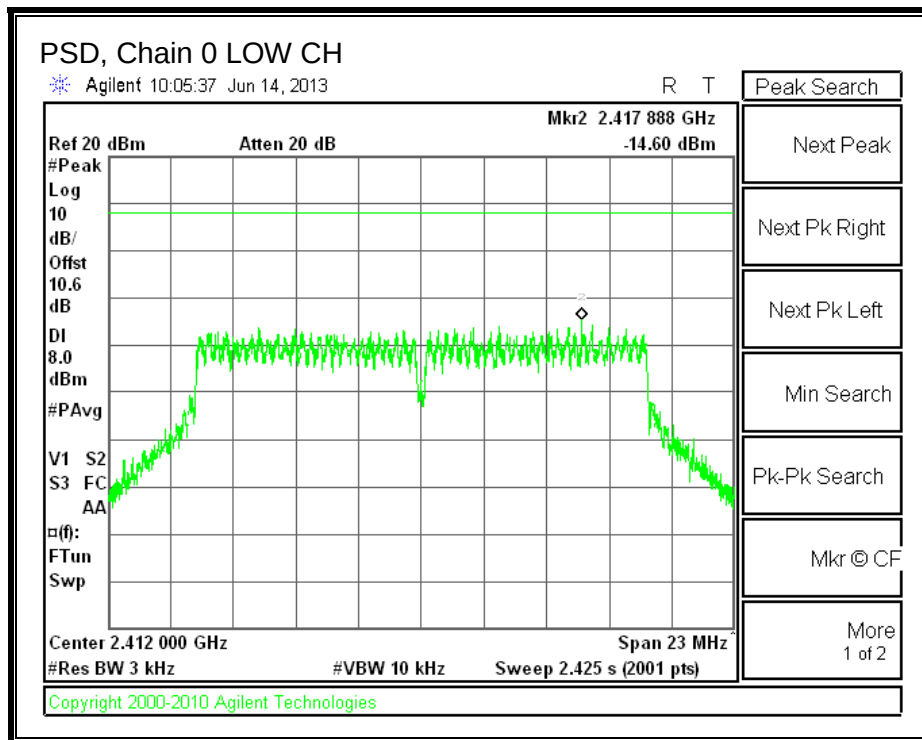
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

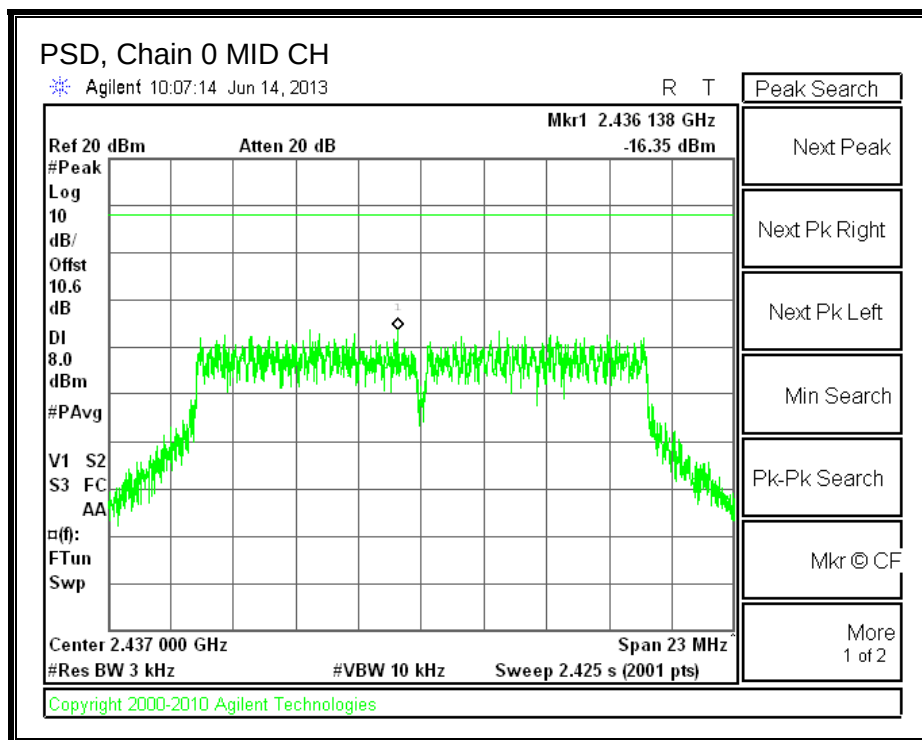
RESULTS

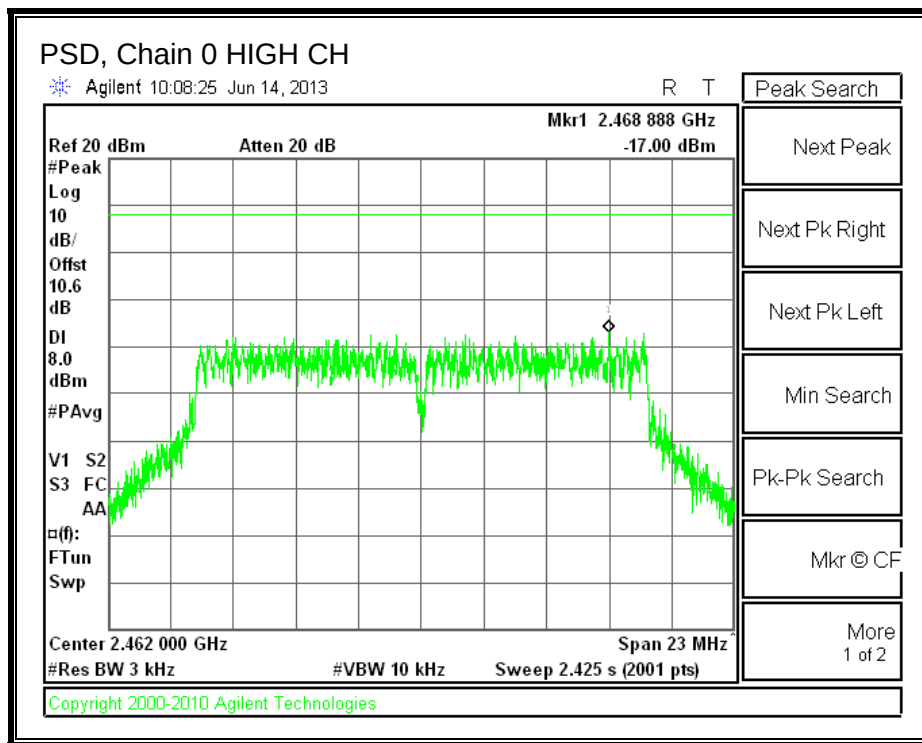
PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-14.60	8.0	-22.6
Mid	2437	-16.35	8.0	-24.4
High	2462	-17.00	8.0	-25.0

PSD, Chain 0







9.2.6. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

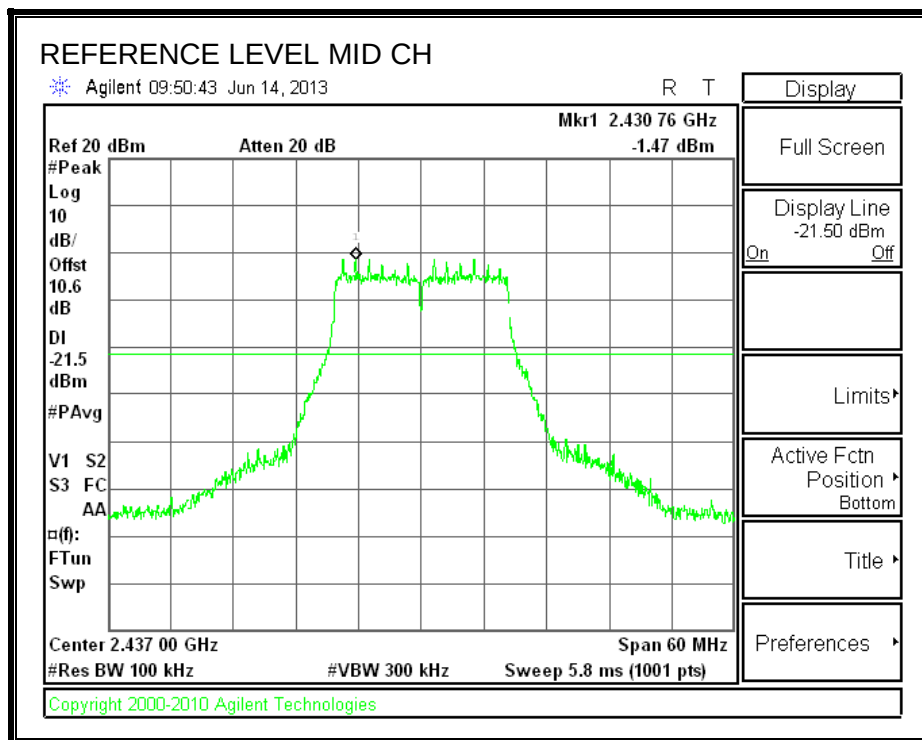
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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

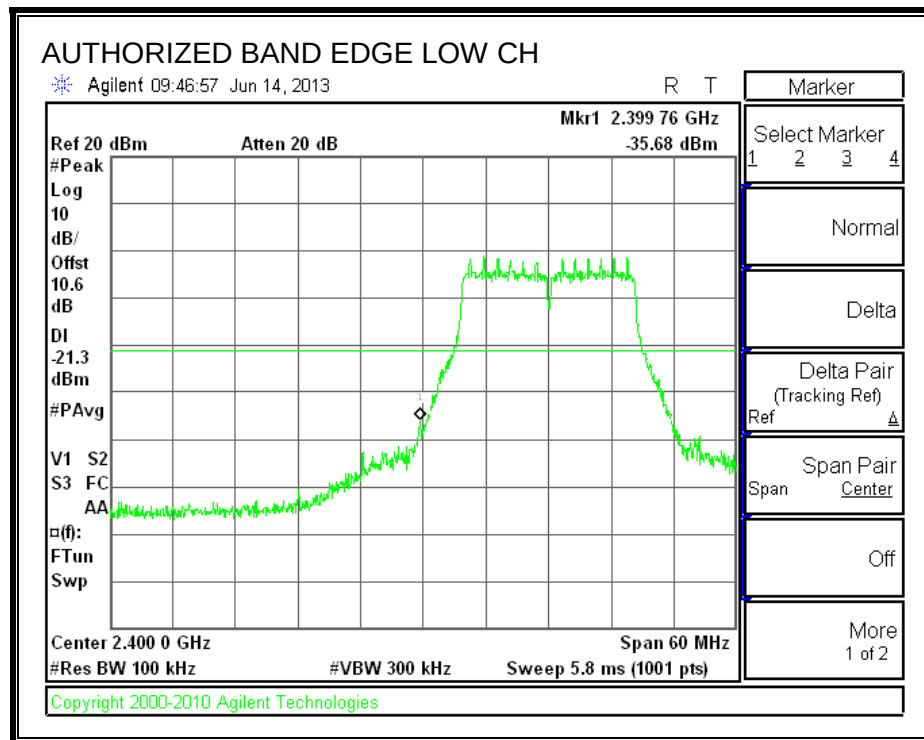
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

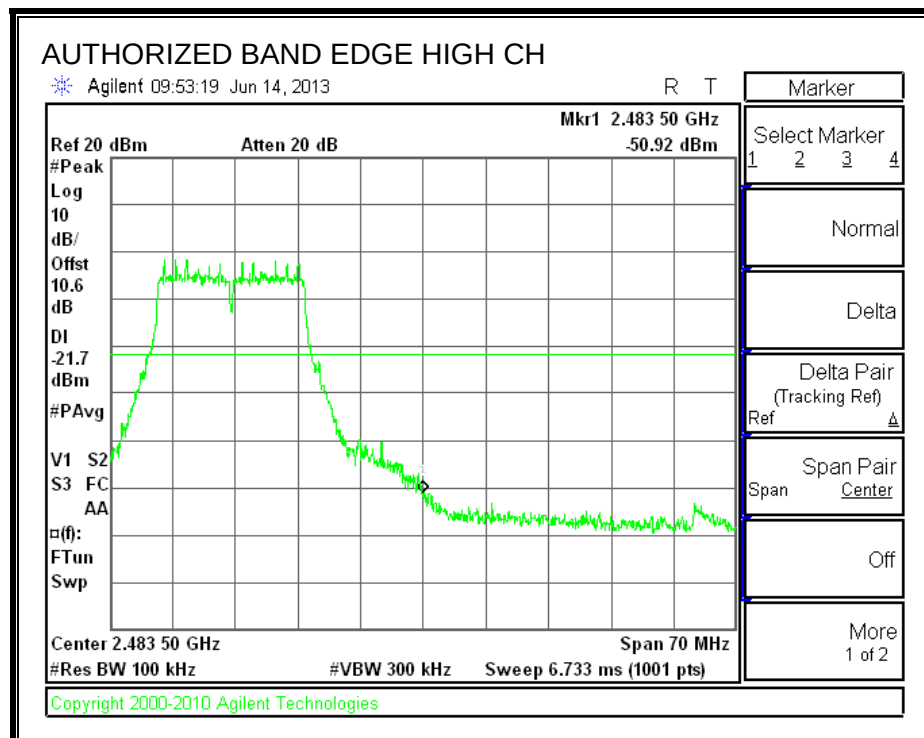
IN-BAND REFERENCE LEVEL



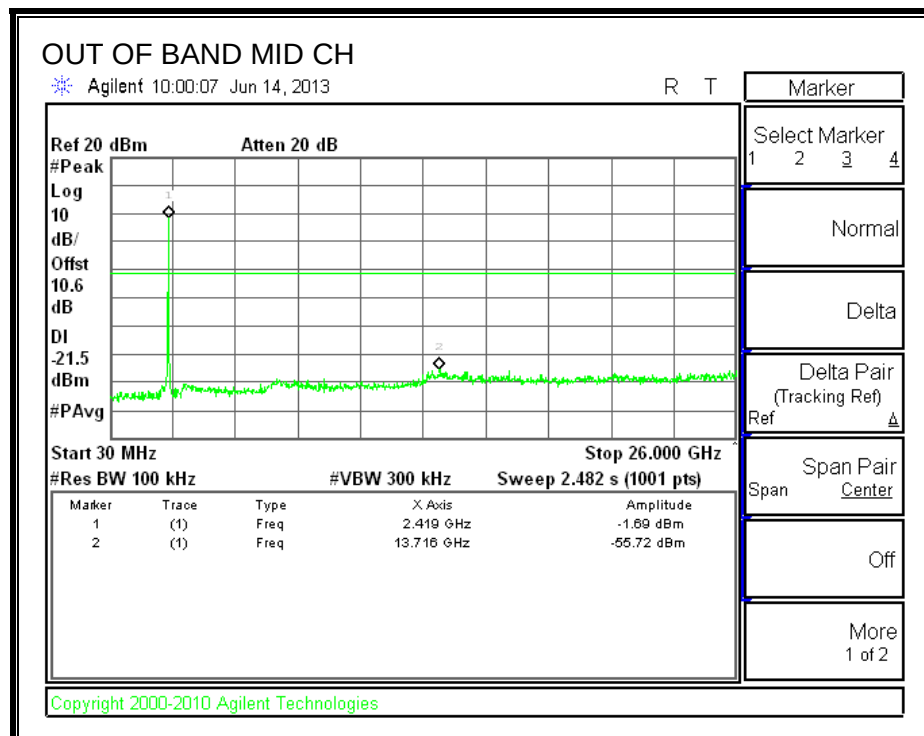
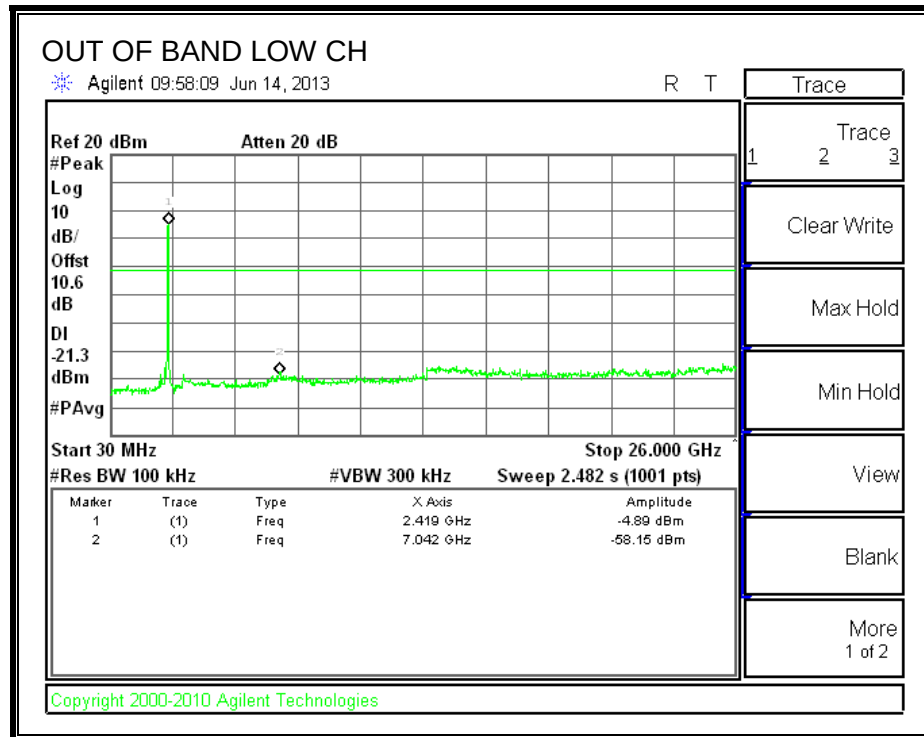
LOW CHANNEL BANDEDGE

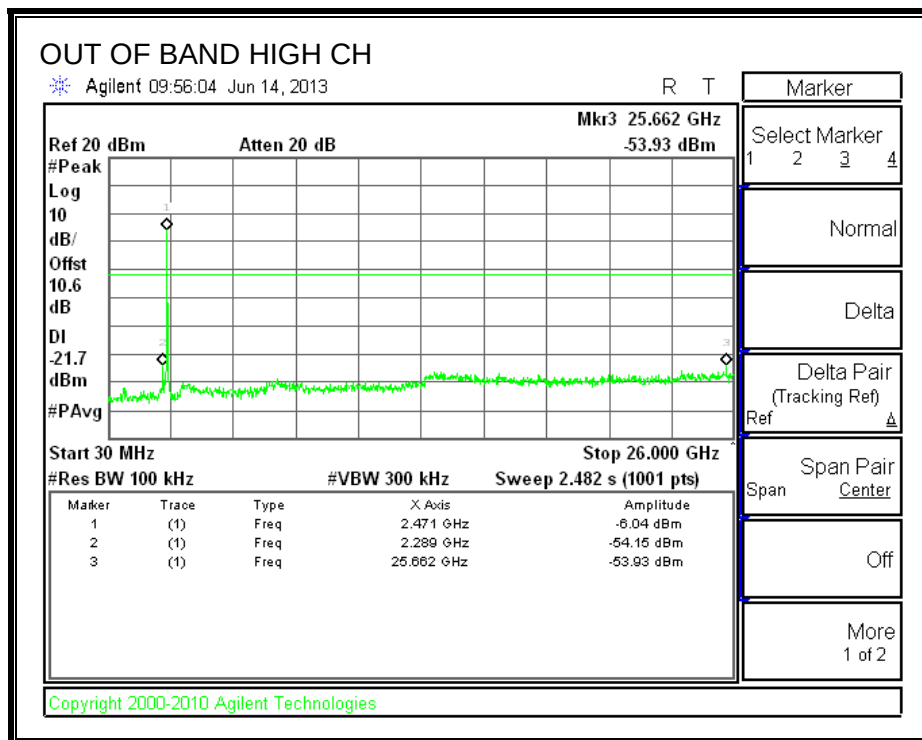


HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS





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.

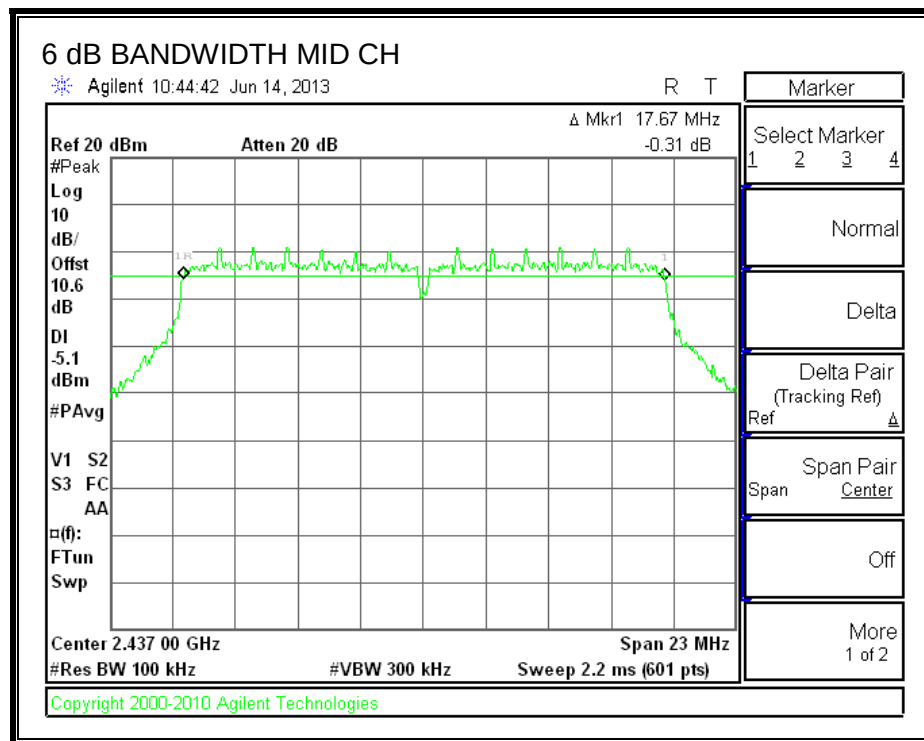
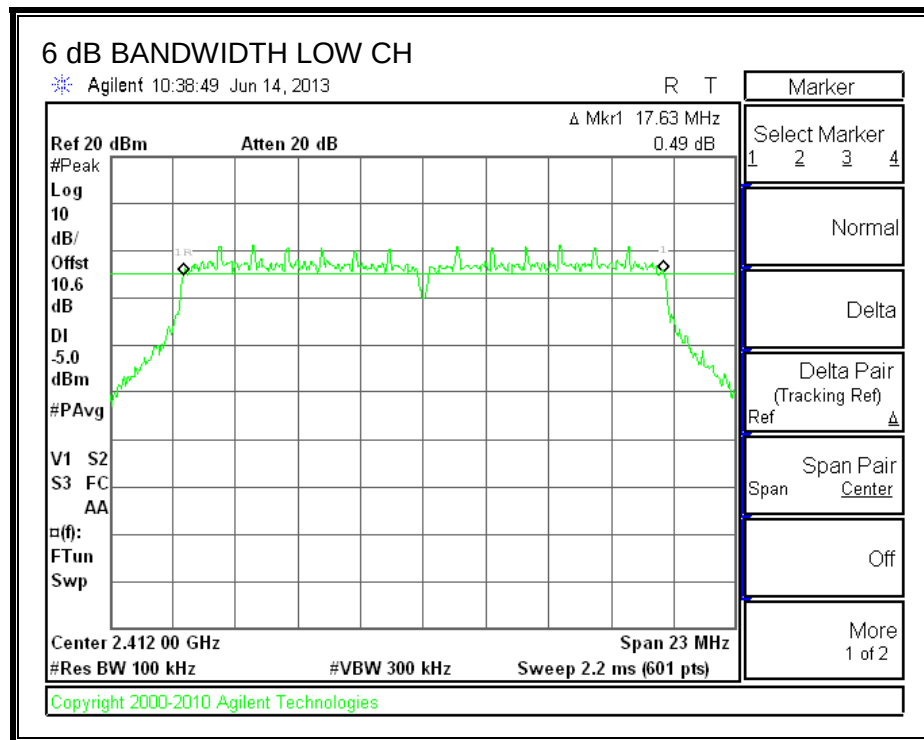
TEST PROCEDURE

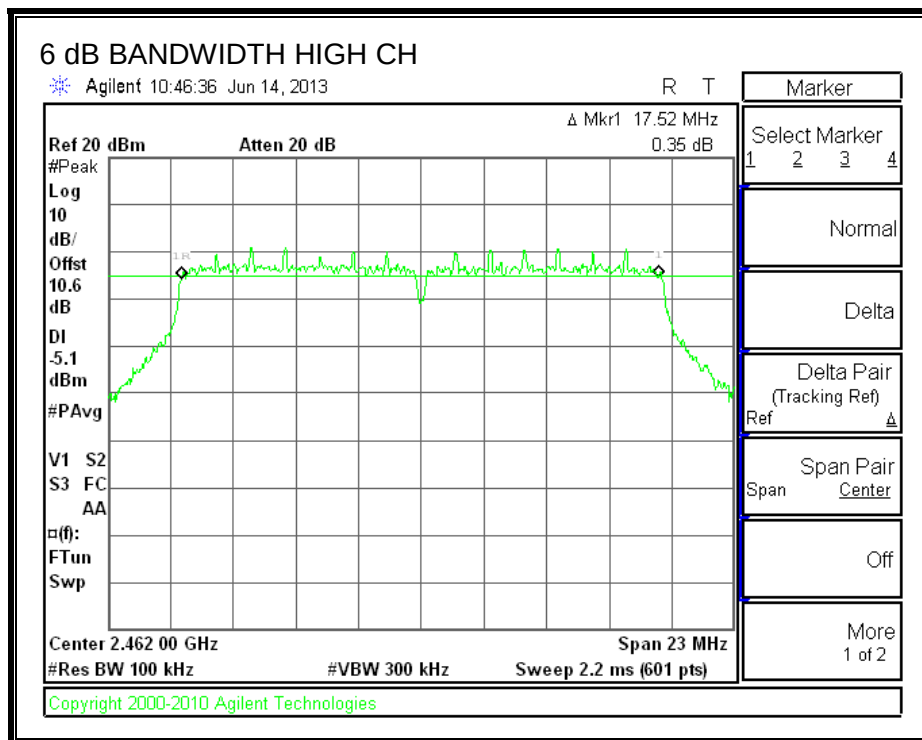
The transmitter output is connected to a spectrum analyzer with the RBW set between 1% and 5% of the EBW, the VBW $\geq 3 \times$ RBW, peak detector and max hold.

RESULTS

Channel	Frequency (MHz)	6 dB Bandwidth (MHz)	Minimum Limit (MHz)
Low	2412	17.630	0.5
Mid	2437	17.670	0.5
High	2462	17.520	0.5

6 dB BANDWIDTH





9.3.2. 99% BANDWIDTH

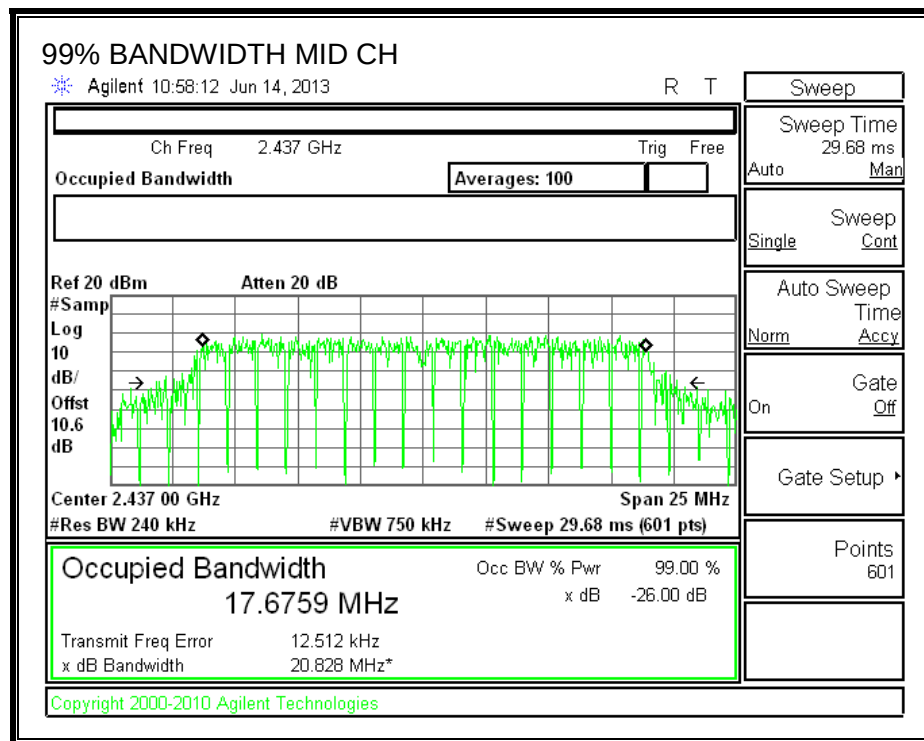
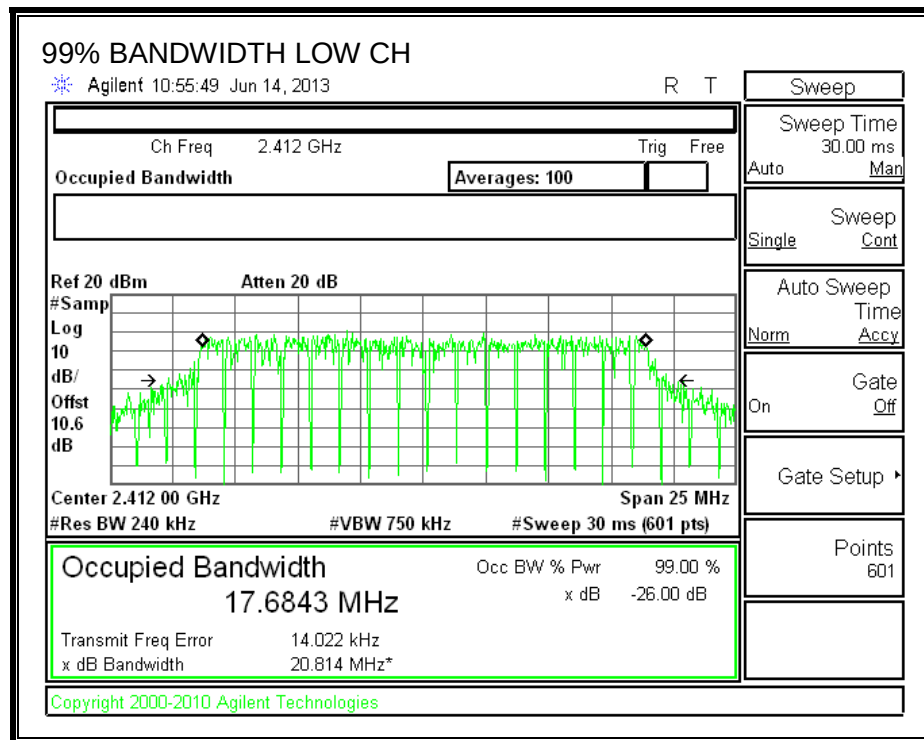
LIMITS

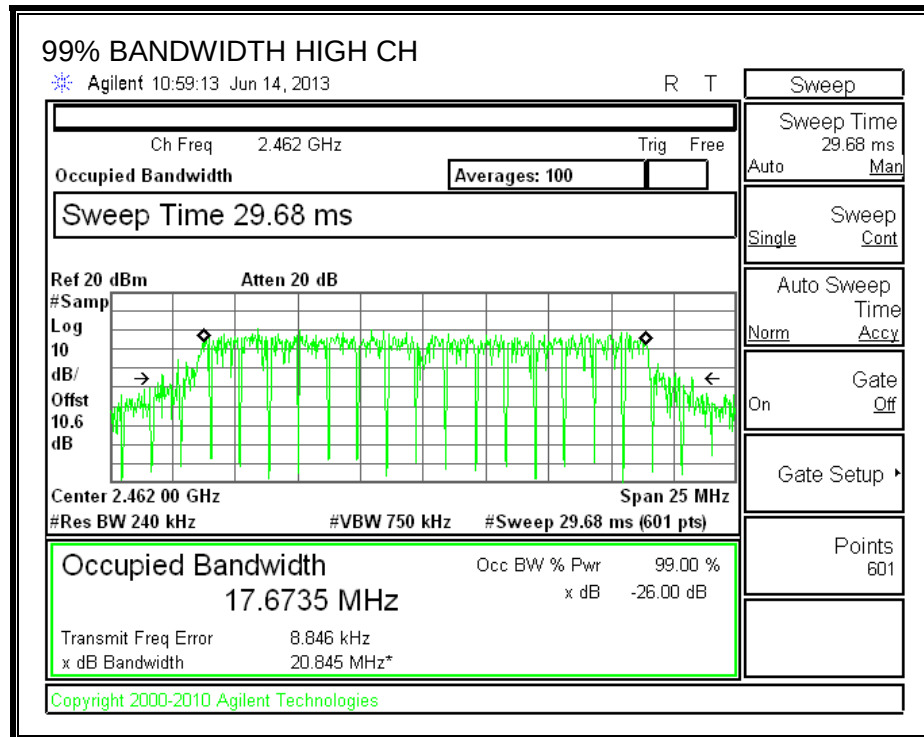
None; for reporting purposes only.

RESULTS

Channel	Frequency (MHz)	99% Bandwidth (MHz)
Low	2412	17.6843
Mid	2437	17.6759
High	2462	17.6735

99% BANDWIDTH





9.3.3. 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 10.6 dB (including 10 dB pad and 0.6 dB cable) was entered as an offset in the power meter to allow for direct reading of power.

RESULTS

Channel	Frequency (MHz)	Power (dBm)
Low	2412	12.06
Mid	2437	11.96
High	2462	12.03

9.3.4. 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

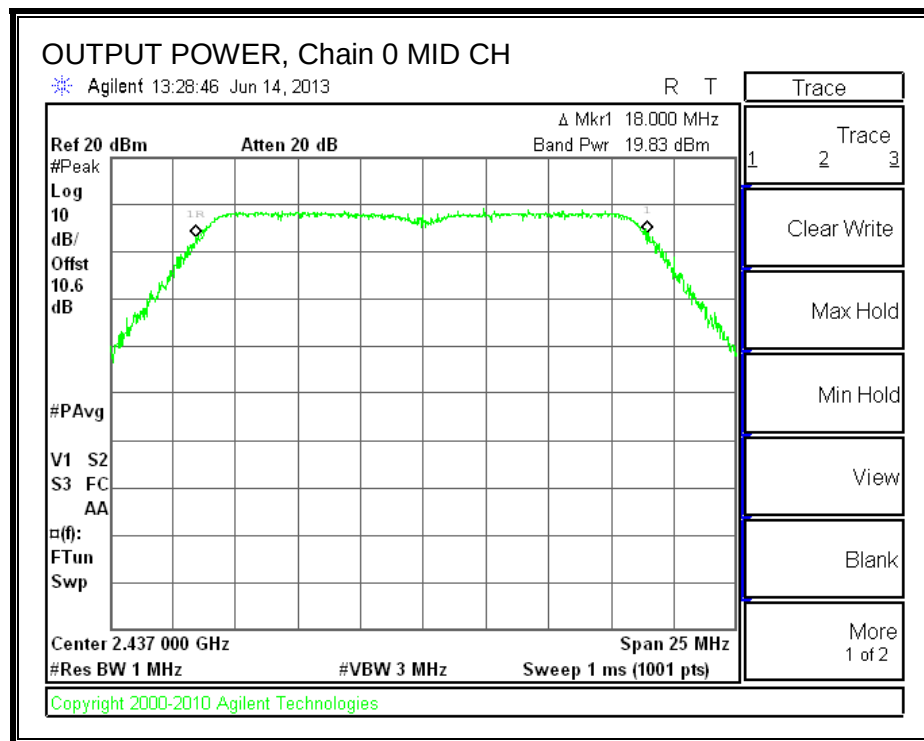
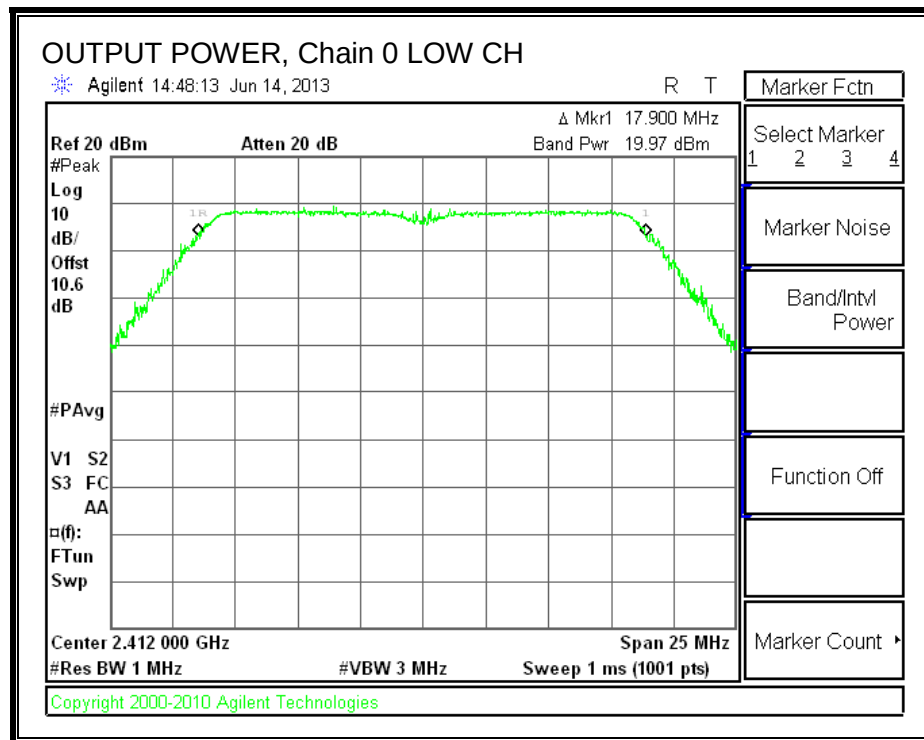
Limits

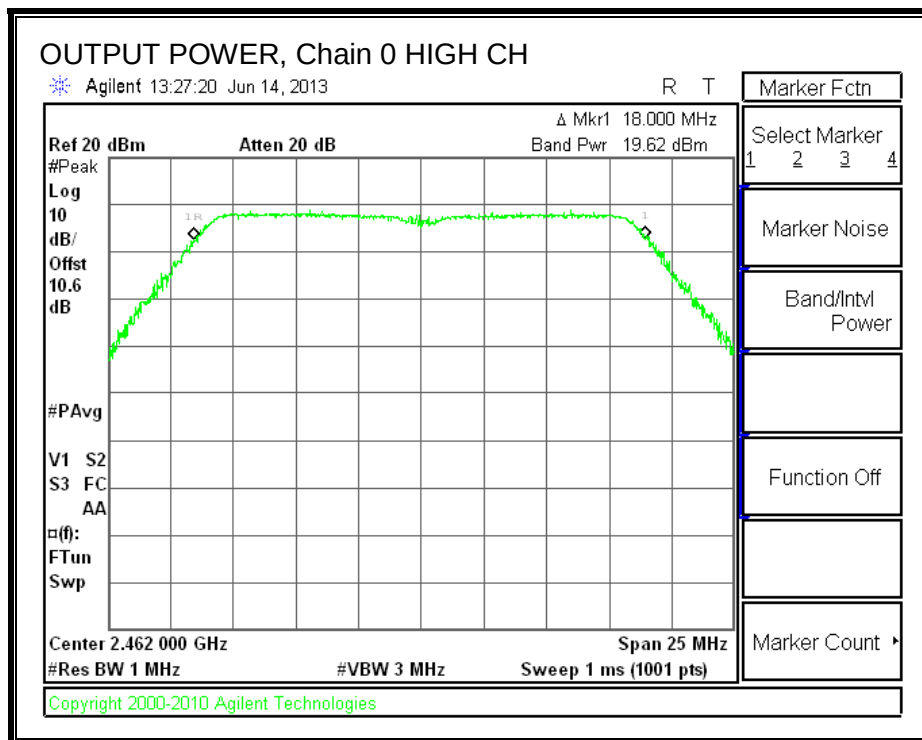
Channel	Frequency (MHz)	Directional Gain (dBi)	FCC Power Limit (dBm)	IC Power Limit (dBm)	IC EIRP Limit (dBm)	Max Power (dBm)
Low	2412	0.55	30.00	30	36	30.00
Mid	2437	0.55	30.00	30	36	30.00
High	2462	0.55	30.00	30	36	30.00

Results

Channel	Frequency (MHz)	Chain 0 Meas Power (dBm)	Total Corr'd Power (dBm)	Power Limit (dBm)	Margin (dB)
Low	2412	19.97	19.97	30.00	-10.03
Mid	2437	19.83	19.83	30.00	-10.17
High	2462	19.62	19.62	30.00	-10.38

OUTPUT POWER, Chain 0





9.3.5. PSD

LIMITS

FCC §15.247

IC RSS-210 A8.2

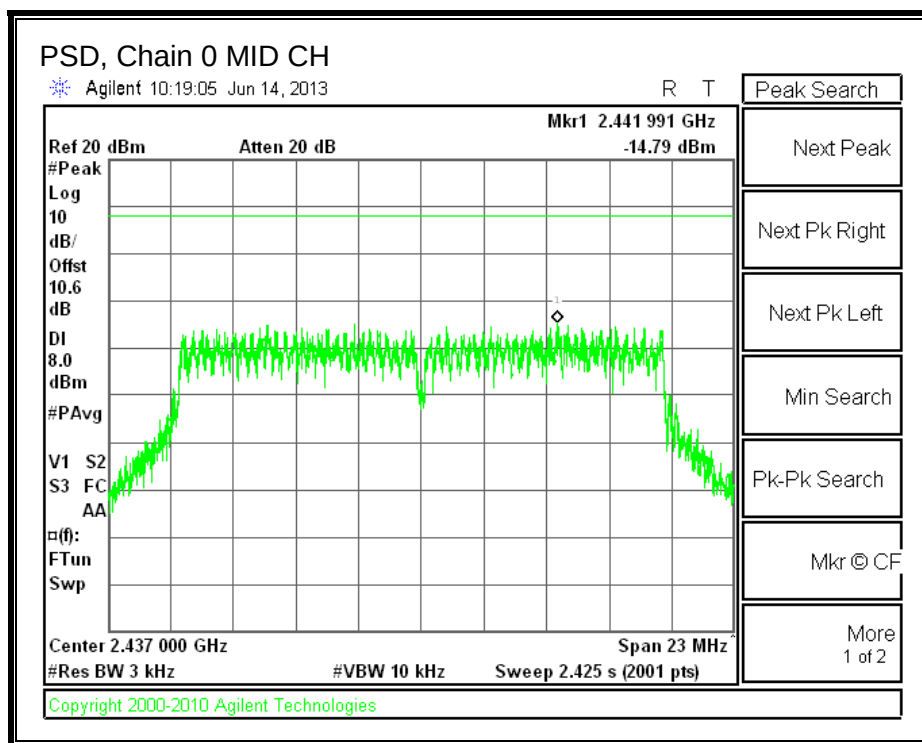
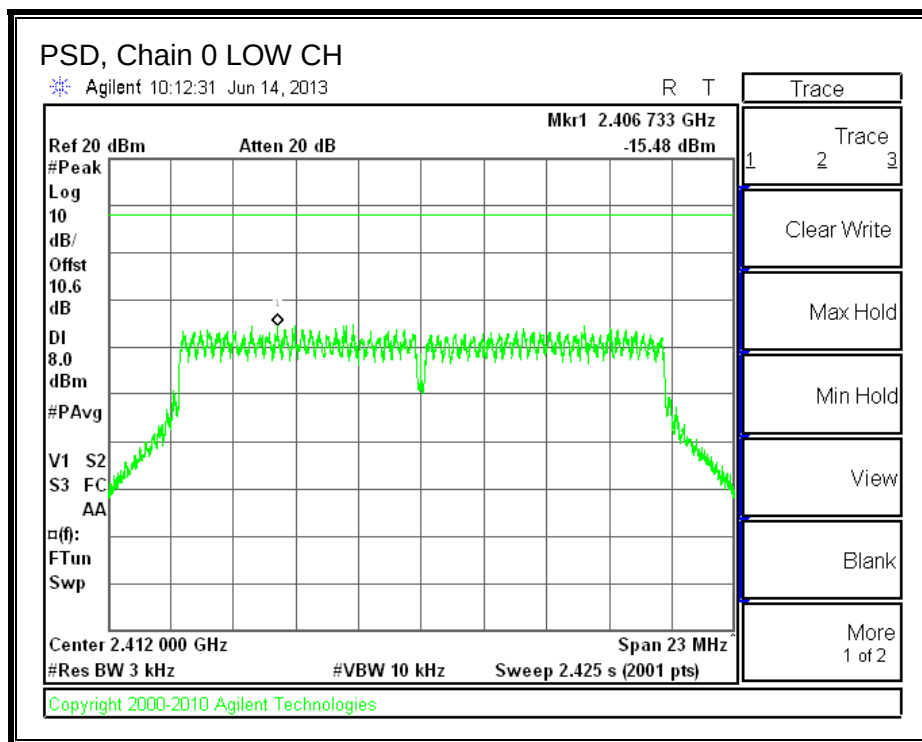
The power spectral density conducted from the transmitter to the antenna shall not be greater than 8 dBm in any 3 kHz band during any time interval of continuous transmission.

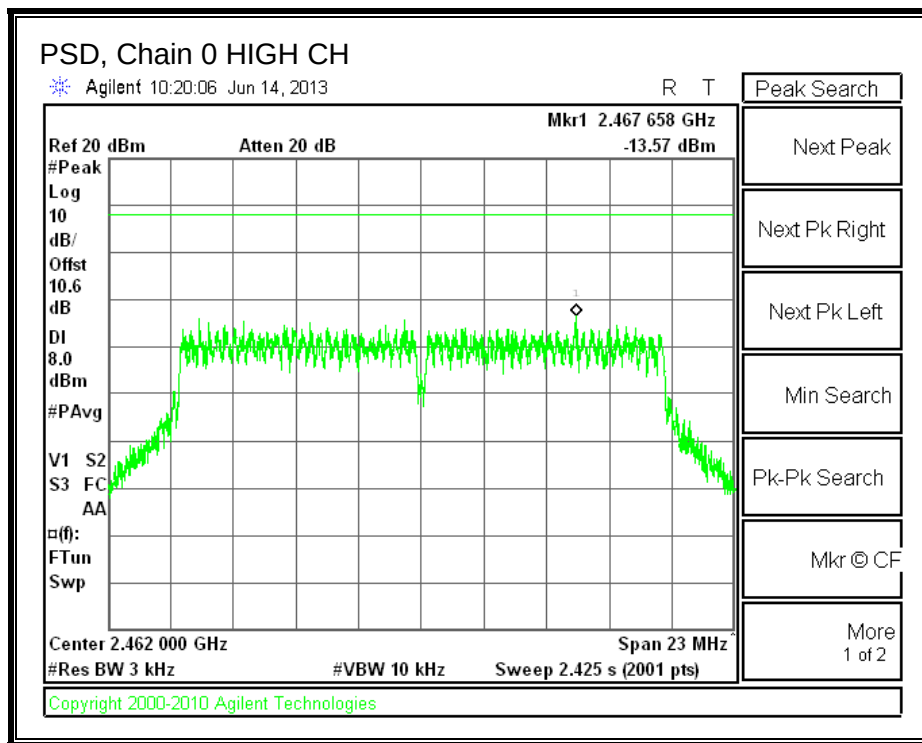
RESULTS

PSD Results

Channel	Frequency (MHz)	Chain 0 Meas (dBm)	Limit (dBm)	Margin (dB)
Low	2412	-15.48	8.0	-23.5
Mid	2437	-14.79	8.0	-22.8
High	2462	-13.57	8.0	-21.6

PSD, Chain 0





9.3.6. OUT-OF-BAND EMISSIONS

LIMITS

FCC §15.247 (d)

IC RSS-210 A8.5

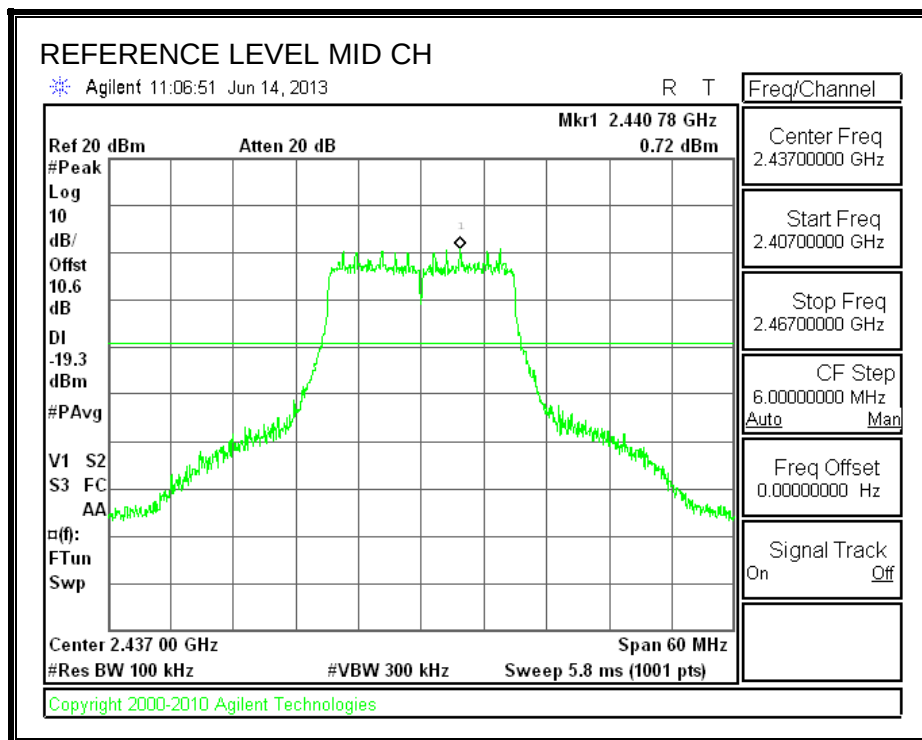
In any 100 kHz bandwidth outside the frequency band in which the spread spectrum or digitally modulated intentional radiator is operating, the radio frequency power that is produced by the intentional radiator shall be at least 20 dB below that in the 100 kHz bandwidth within the band that contains the 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

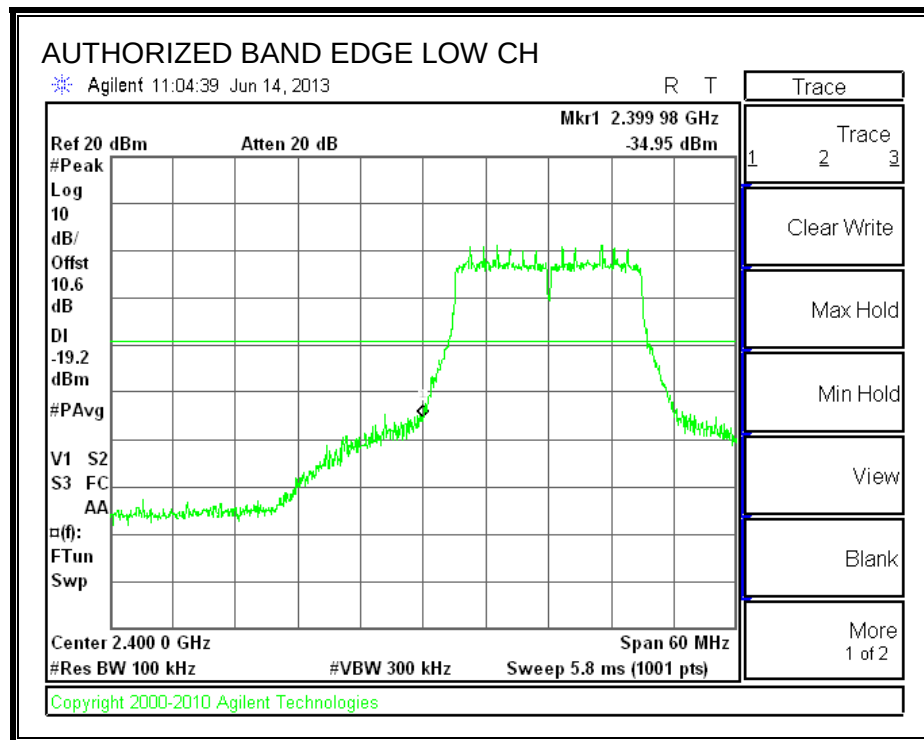
The transmitter output is connected to a spectrum analyzer with RBW = 100 kHz, VBW = 300 kHz, peak detector, and max hold. Measurements utilizing these settings are made of the in-band reference level, bandedge (where measurements to the general radiated limits will not be made) and out-of-band emissions.

RESULTS

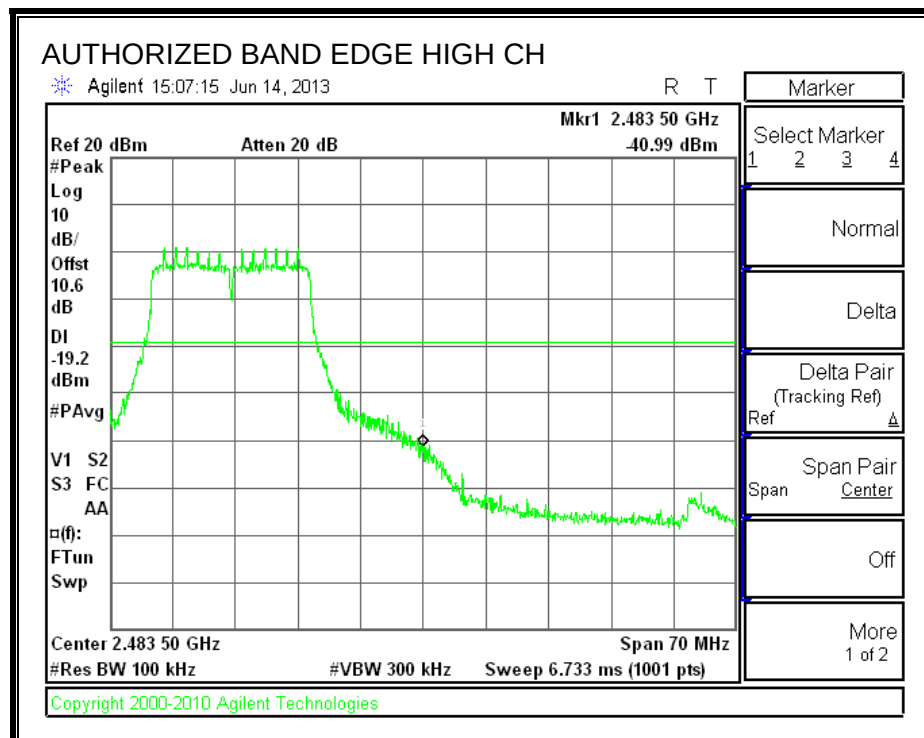
IN-BAND REFERENCE LEVEL



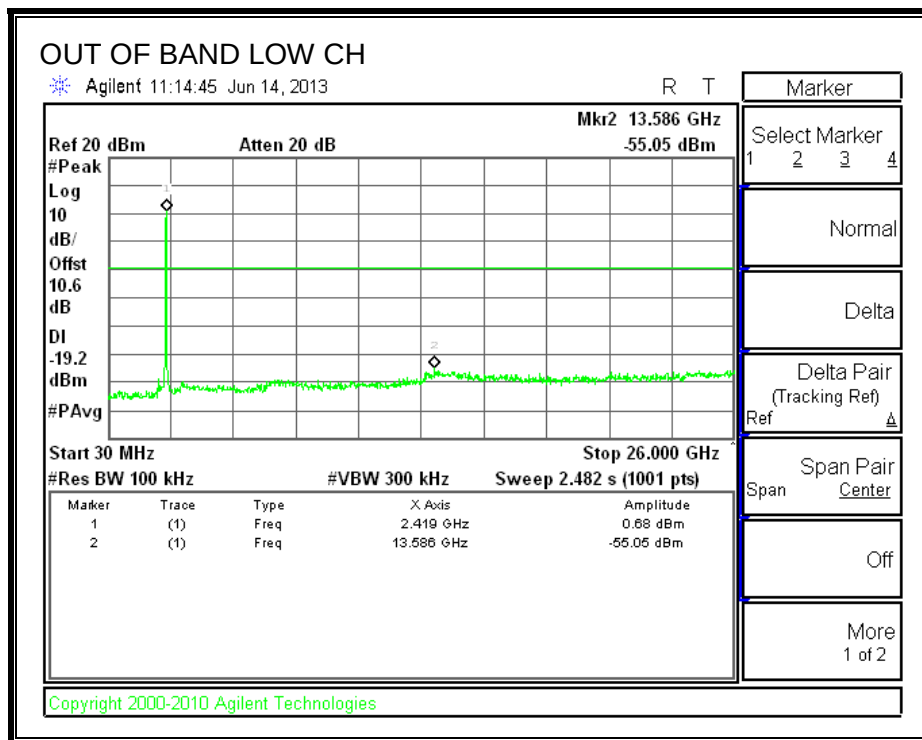
LOW CHANNEL BANDEDGE

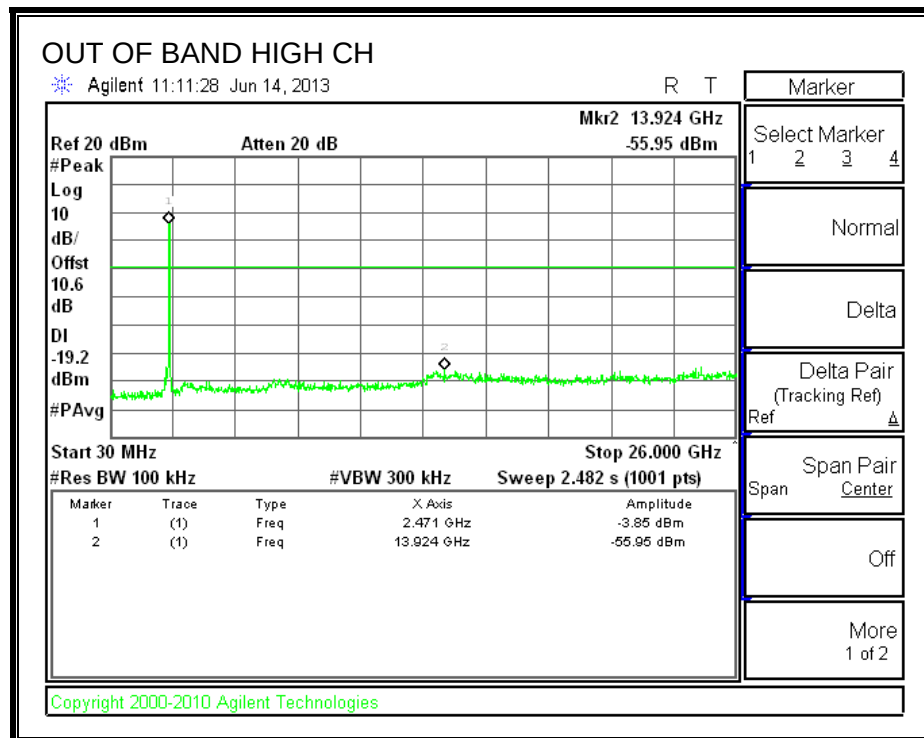
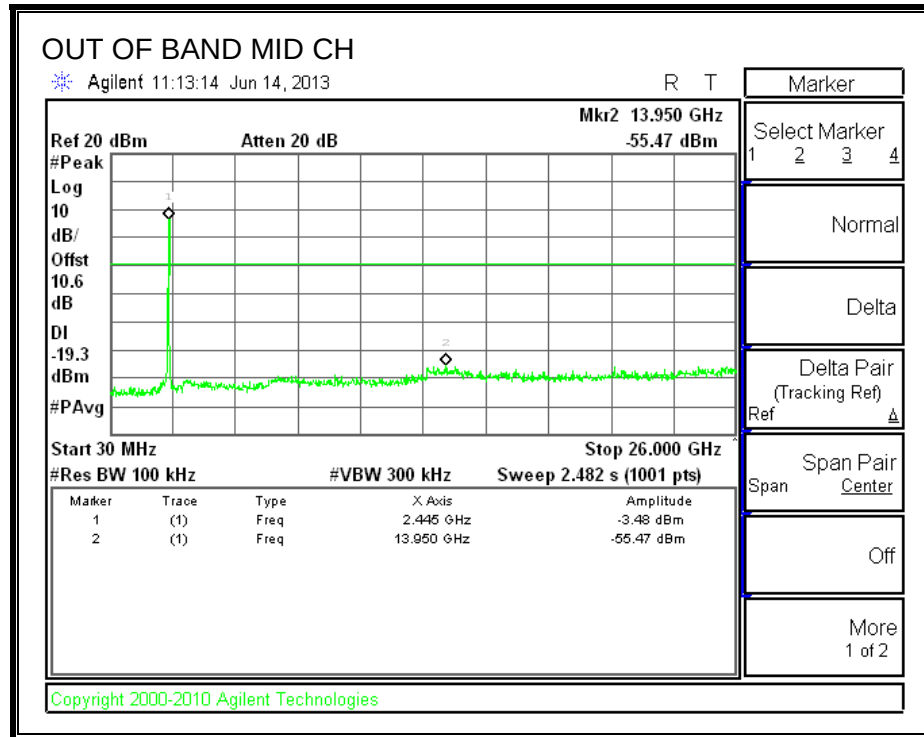


HIGH CHANNEL BANDEDGE



OUT-OF-BAND EMISSIONS





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 $\geq$ RBW for peak measurements and as applicable for average measurements. Duty cycle offset $10 \cdot \log(1/DC)$ was applied during the measurement as offset as shown in each plots:

$802.11b = 10 \cdot \log(1/0.988) = 0.1\text{dB}$ (Round up)

$802.11g = 10 \cdot \log(1/0.934) = 0.3\text{dB}$

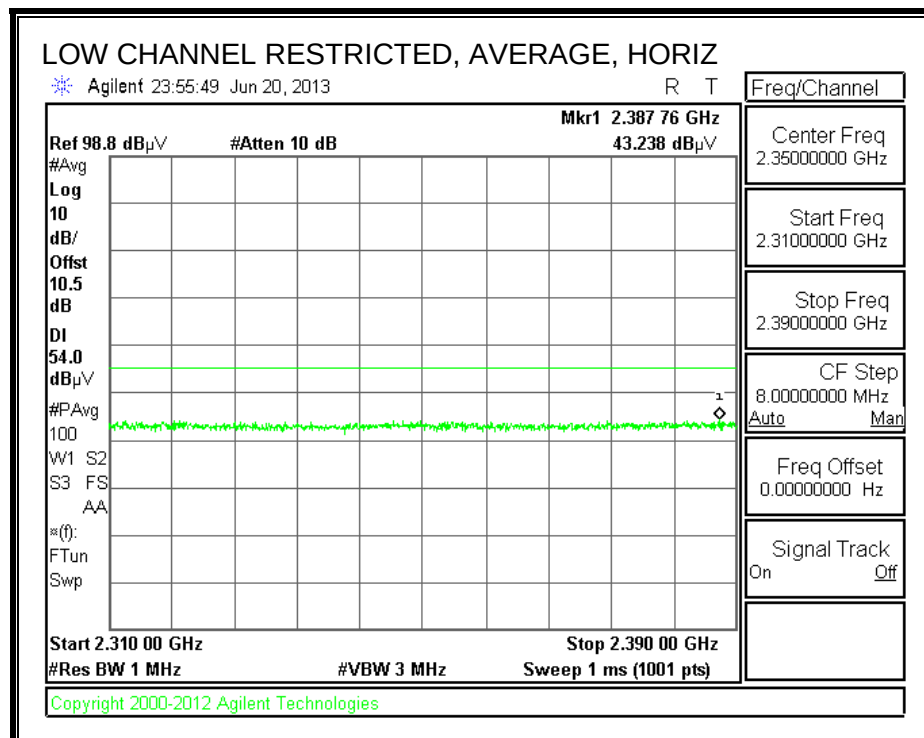
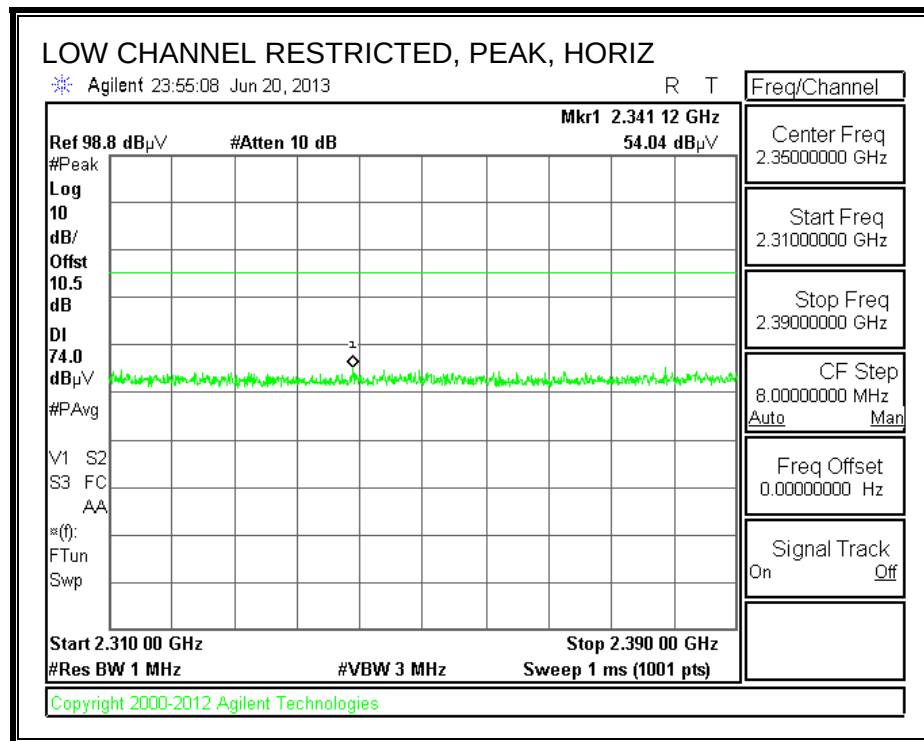
$802.11n = 10 \cdot \log(1/0.927) = 0.3\text{dB}$ (Round down)

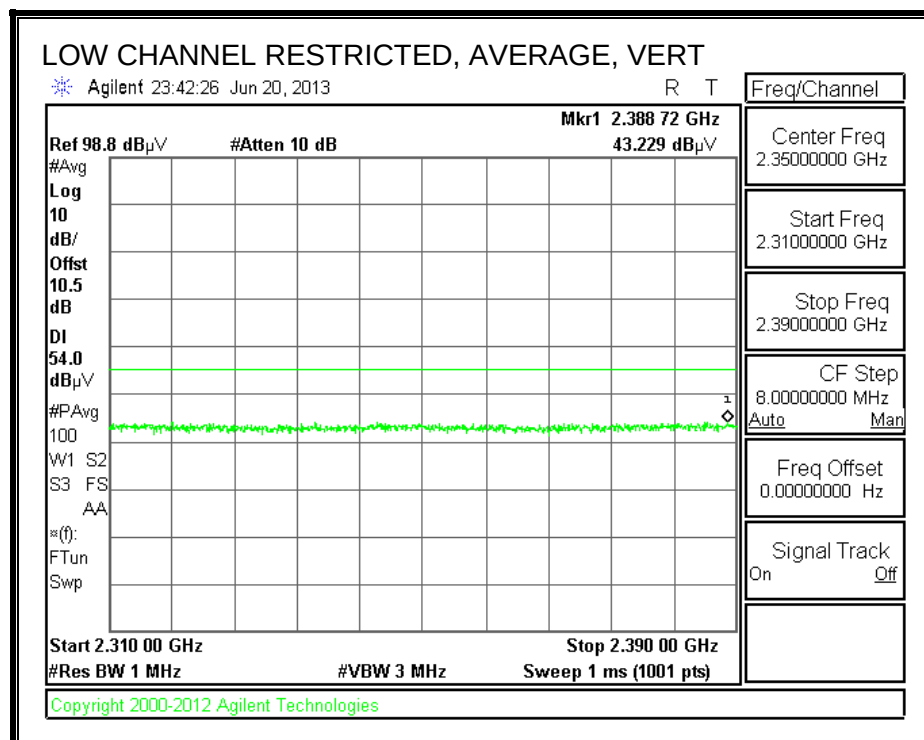
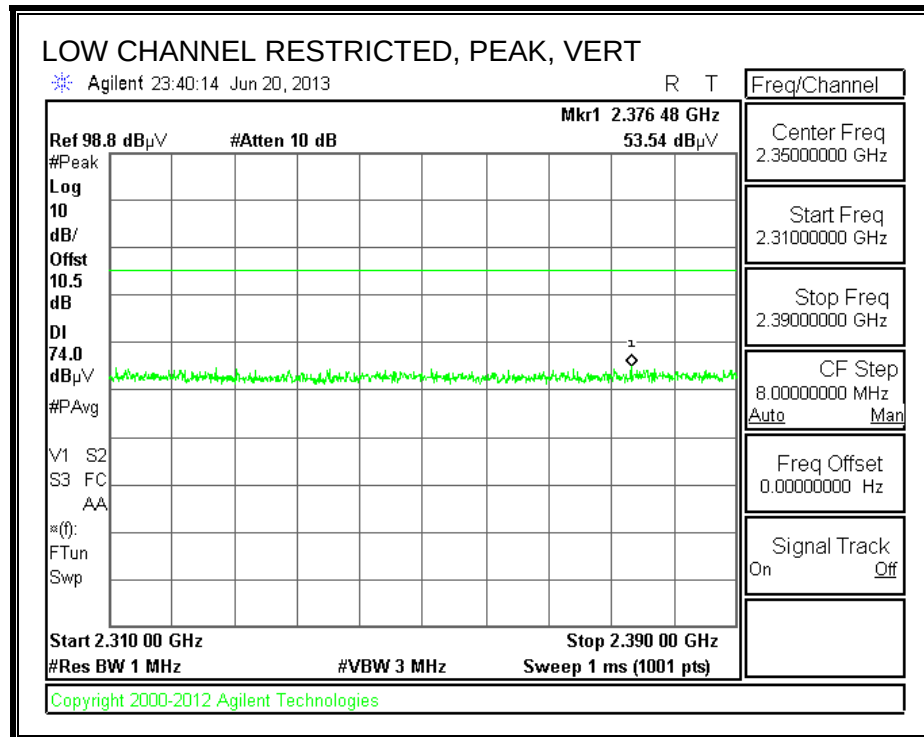
The spectrum from 30 MHz to 40 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

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.

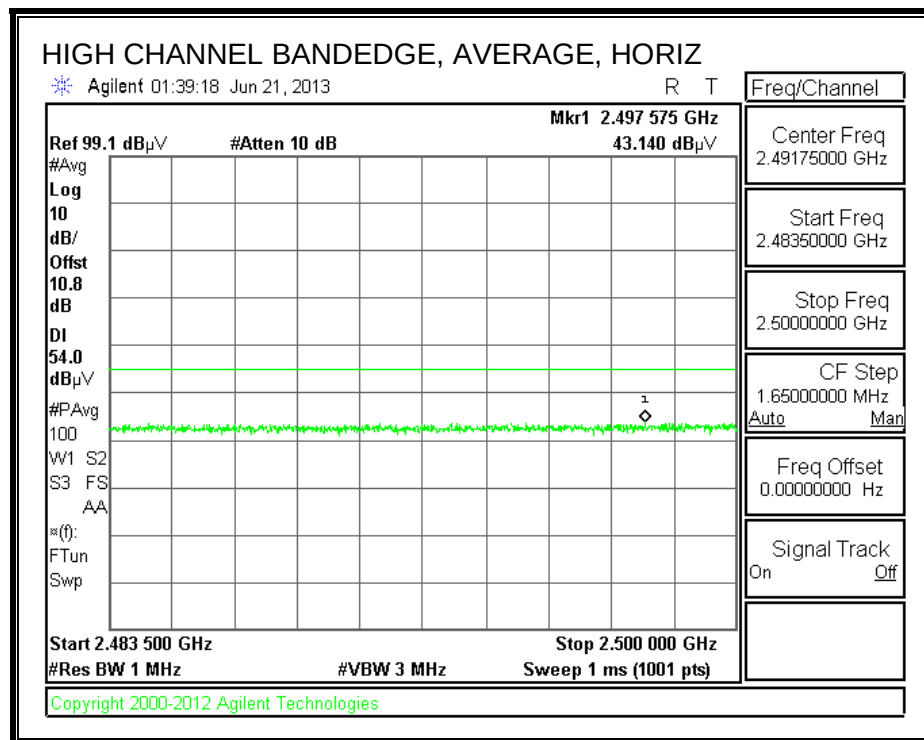
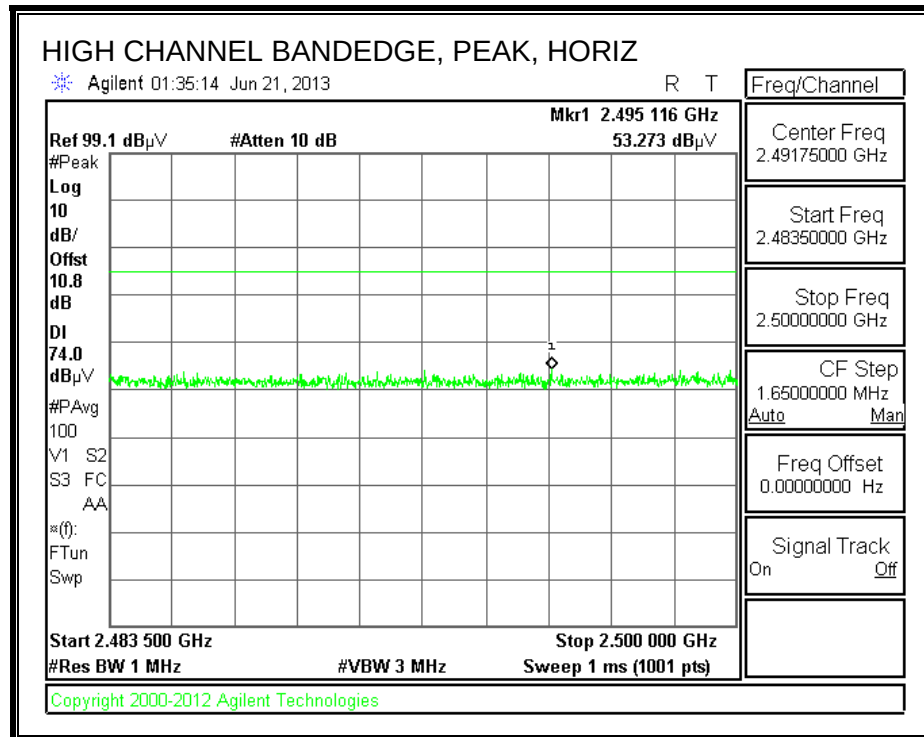
10.2. TX ABOVE 1 GHz 802.11b MODE IN THE 2.4 GHz BAND

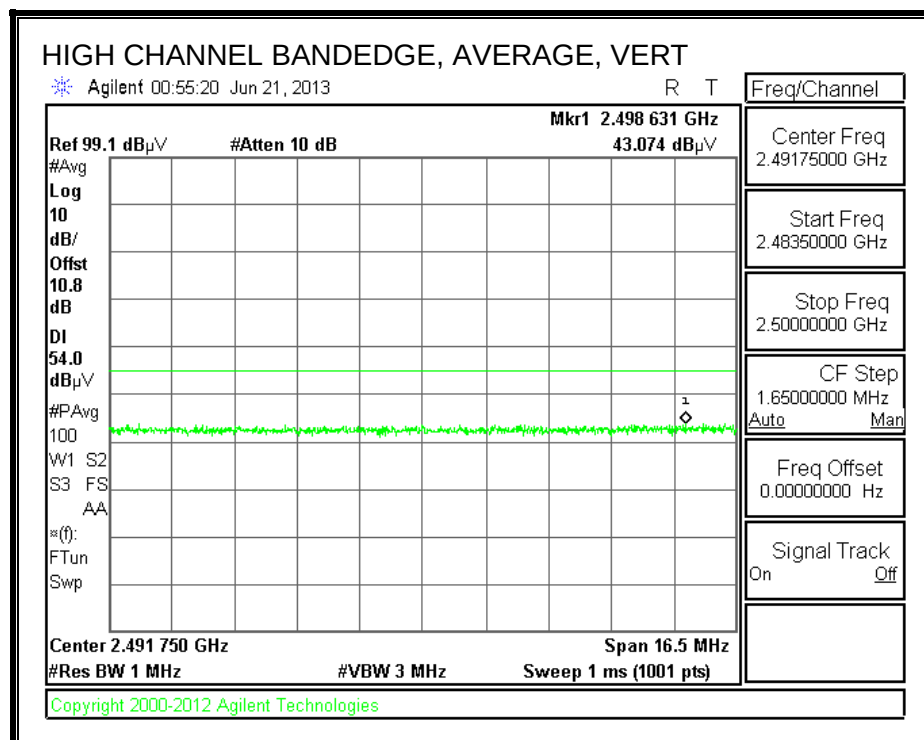
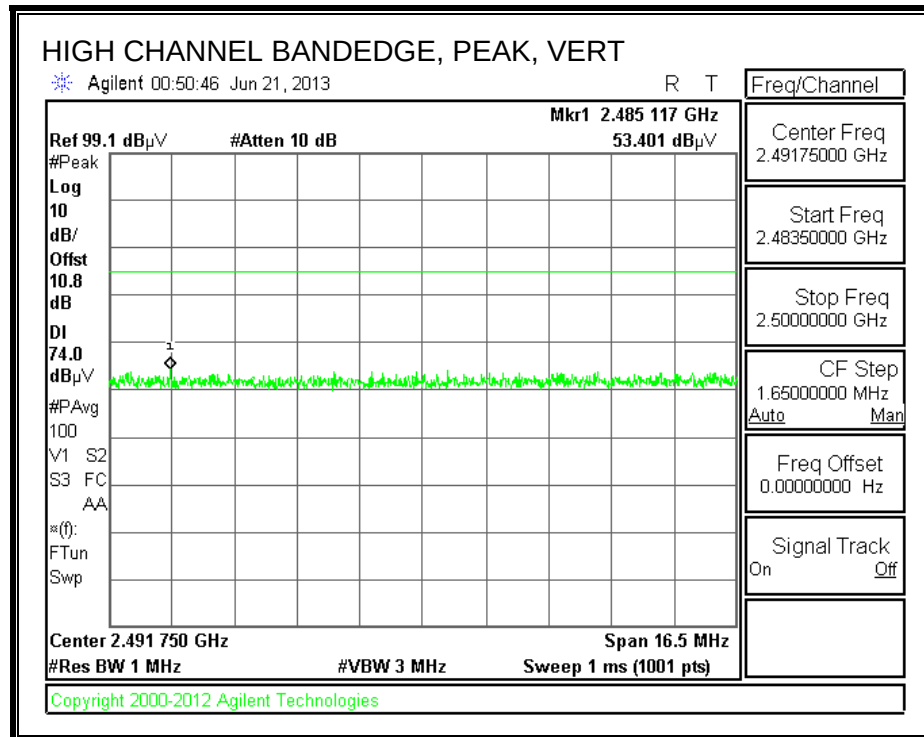
RESTRICTED BANEDGE (LOW CHANNEL)



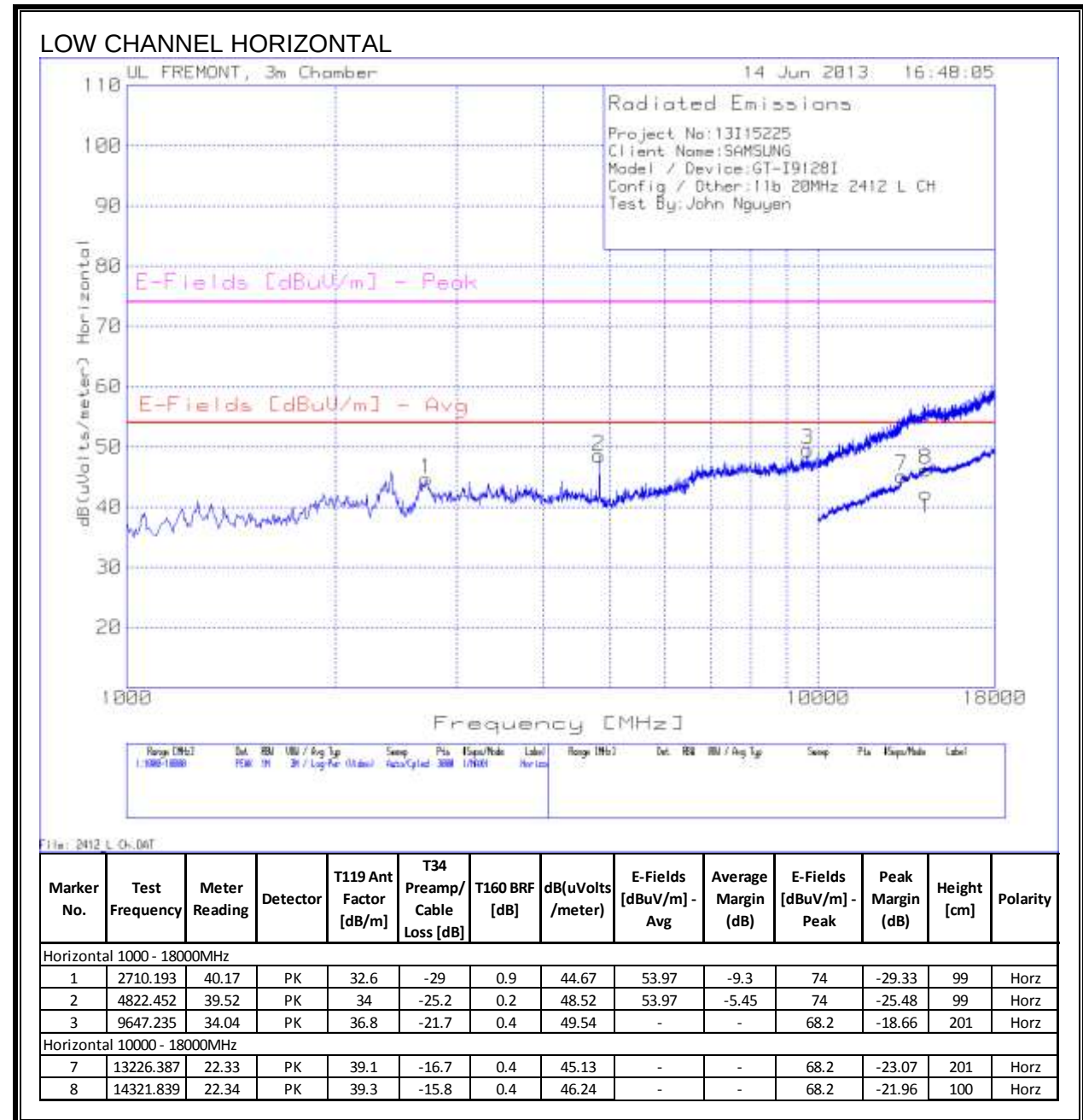


AUTHORIZED BANDEDGE (HIGH CHANNEL)

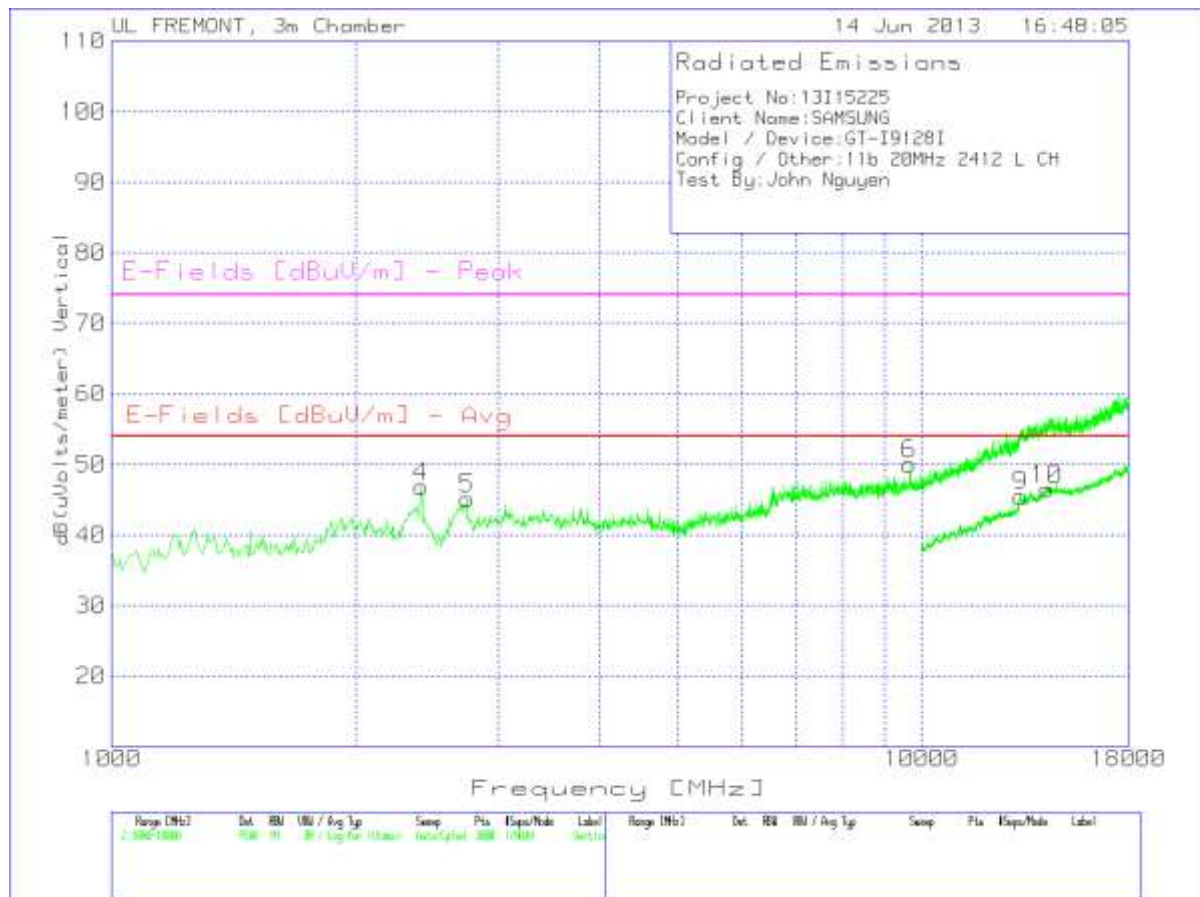




HARMONICS AND SPURIOUS EMISSIONS



LOW CHANNEL VERTICAL

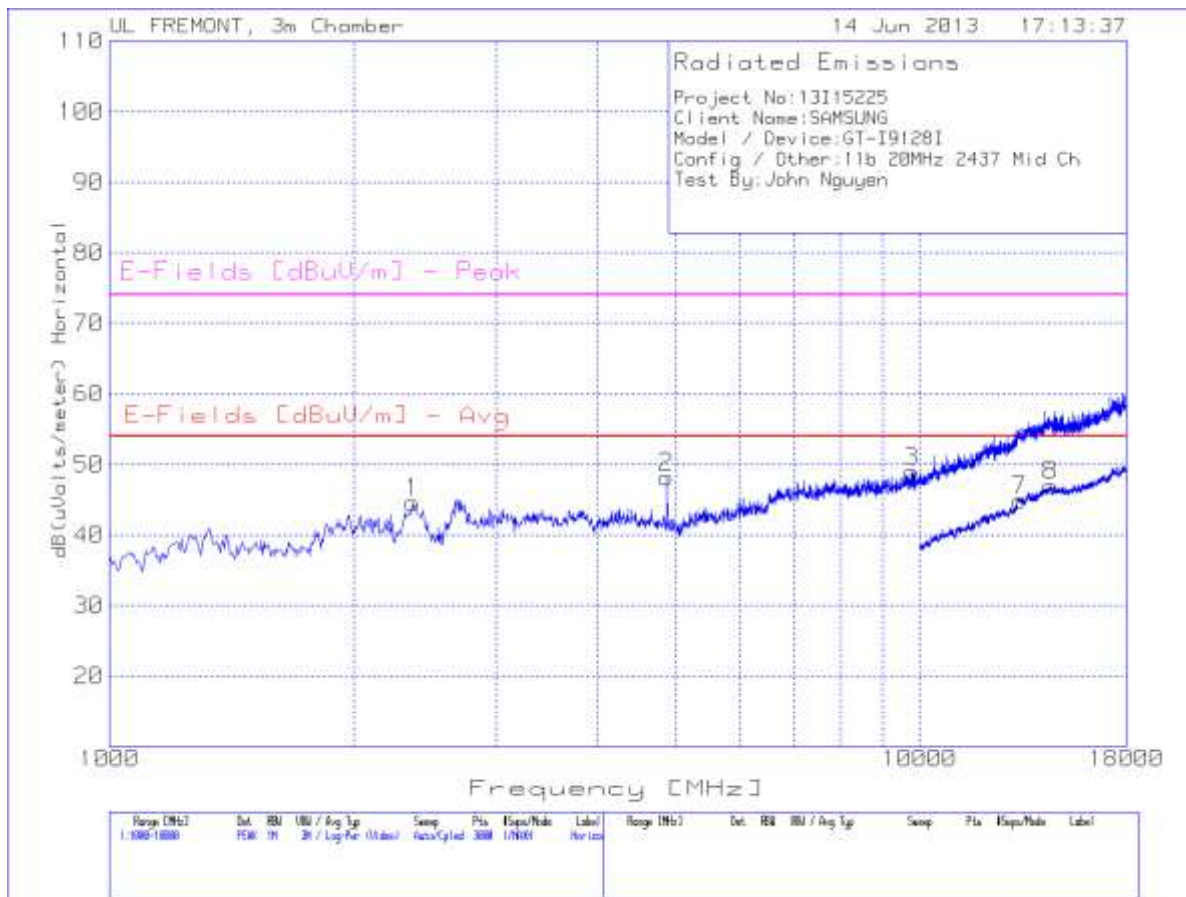


File: 2412 L CH.DAT

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRP [dB]	dB(uVolts /meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
Vertical 1000 - 18000MHz													
4	2410.06	43.54	PK	32.1	-29.7	0.9	46.84	-	-	68.2	-21.36	99	Vert
5	2744.171	40.42	PK	32.7	-28.9	0.9	45.12	53.97	-8.85	74	-28.88	99	Vert
6	9647.235	34.53	PK	36.8	-21.7	0.4	50.03	-	-	68.2	-18.17	99	Vert
Vertical 10000 - 18000MHz													
9	13262.369	22.72	PK	39.1	-16.7	0.4	45.52	53.97	-8.45	74	-28.48	100	Vert
10	14285.857	22.56	PK	39.3	-15.8	0.4	46.46	-	-	68.2	-21.74	201	Vert

PK - Peak detector

MID CHANNEL HORIZONTAL



File: 2437 Mid Ch.DAT

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRF [dB]	dB(uVolts /meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
Horizontal 1000 - 18000MHz													
1	2364.757	41.4	PK	32	-29.7	0.9	44.6	53.97	-9.37	74	-29.4	201	Horz
2	4873.418	39.22	PK	34	-25.2	0.2	48.22	53.97	-5.75	74	-25.78	201	Horz
3	9783.145	33.13	PK	36.9	-21.6	0.5	48.93	-	-	68.2	-19.27	201	Horz
Horizontal 10000 - 18000MHz													
7	13294.353	22.02	PK	39.2	-16.7	0.4	44.92	53.97	-9.05	74	-29.08	99	Horz
8	14505.747	23.02	PK	39.6	-16	0.4	47.02	-	-	68.2	-21.18	201	Horz

MID CHANNEL VERTICAL

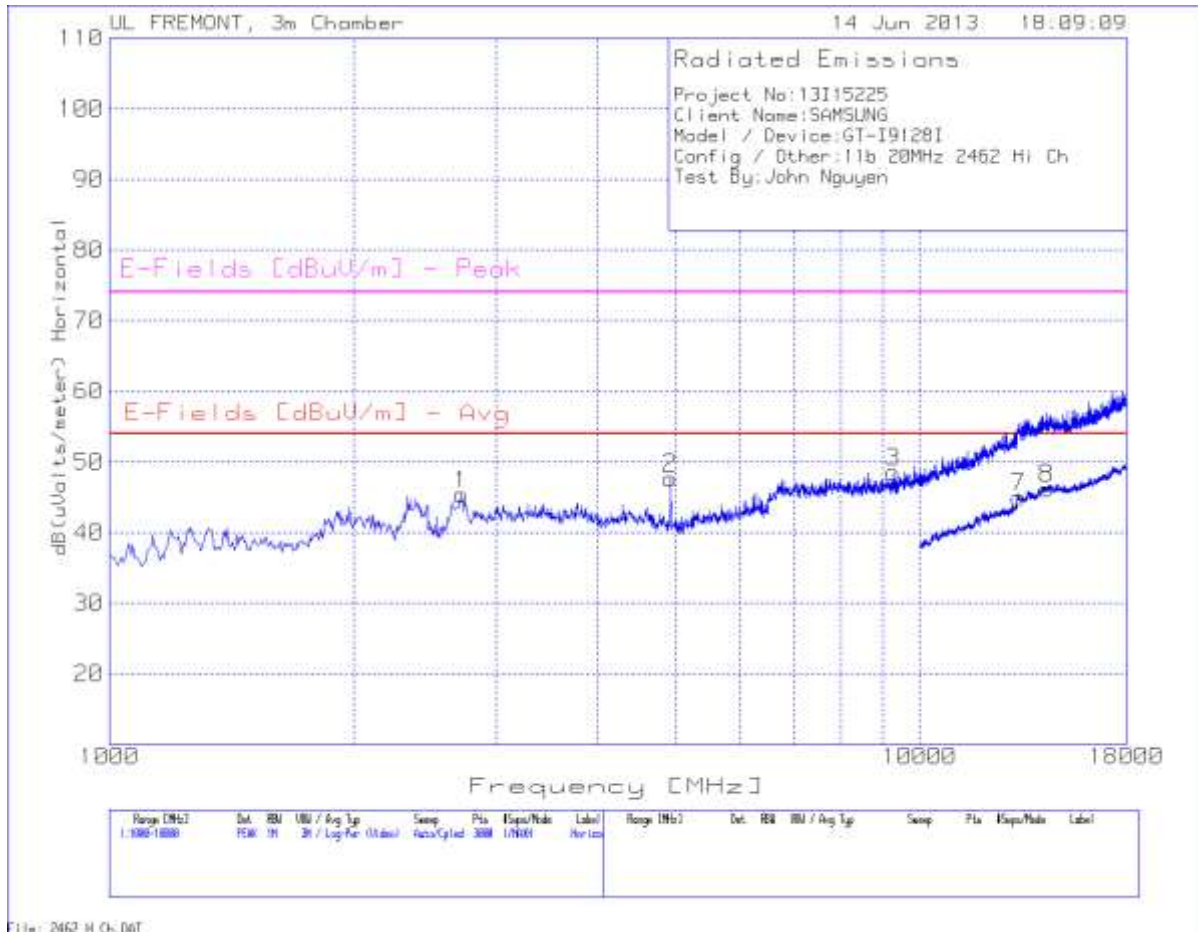


File: 2437 Mid Ch.DAT

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRF [dB]	dB(uVolts /meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
Vertical 1000 - 18000MHz													
4	2398.734	41.17	PK	32.1	-29.7	0.9	44.47	-	-	68.2	-23.73	200	Vert
5	6232.512	34.49	PK	35.3	-23.8	0.2	46.19	-	-	68.2	-22.01	200	Vert
6	9749.167	36.34	PK	36.9	-21.6	0.4	52.04	-	-	68.2	-16.16	100	Vert
Vertical 10000 - 18000MHz													
9	13282.359	22.4	PK	39.1	-16.7	0.4	45.2	53.97	-8.77	74	-28.8	99	Vert
10	14509.745	22.79	PK	39.6	-16	0.4	46.79	-	-	68.2	-21.41	99	Vert

PK - Peak detector

HIGH CHANNEL HORIZONTAL

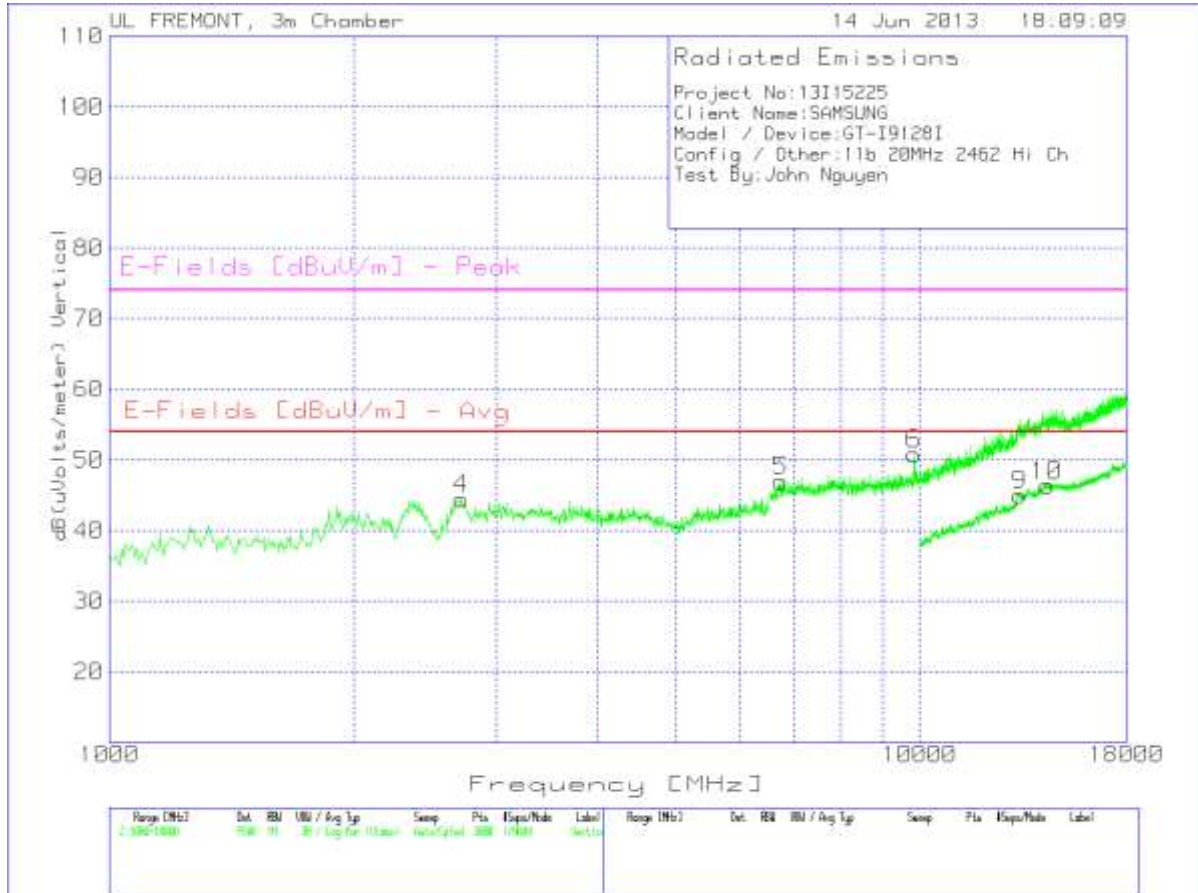


File: 2462 H Ch.DAT

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/Cable Loss [dB]	T160 BRP [dB]	dB(uVolts /meter)	E-Fields [dBuV/m] Avg	Margin (dB)	E-Fields [dBuV/m] Peak	Margin (dB)	Height [cm]	Polarity
Horizontal 1000 - 18000MHz													
1	2721.519	40.85	PK	32.6	-29	0.9	45.35	53.97	-8.62	74	-28.65	201	Horz
2	4924.384	38.61	PK	34	-25.1	0.2	47.71	53.97	-6.26	74	-26.29	100	Horz
3	9284.81	33.63	PK	36.3	-21.9	0.5	48.53	-	-	68.2	-19.67	201	Horz
Horizontal 10000 - 18000MHz													
7	13262.369	22.24	PK	39.1	-16.7	0.4	45.04	53.97	-8.93	74	-28.96	100	Horz
8	14369.815	22.17	PK	39.4	-15.8	0.4	46.17	-	-	68.2	-22.03	201	Horz

PK - Peak detector

HIGH CHANNEL VERTICAL



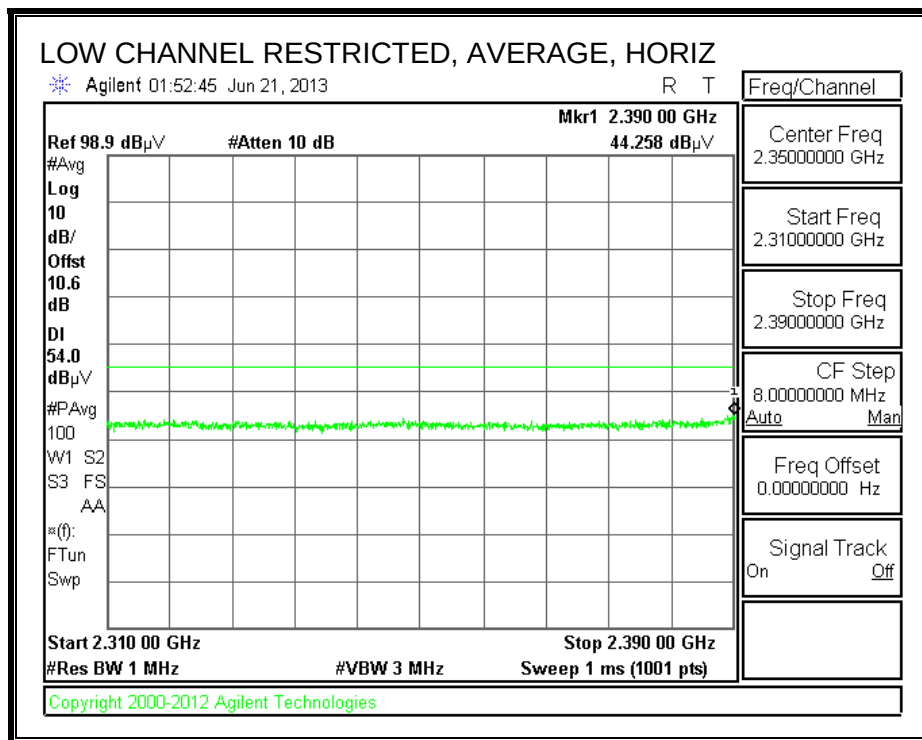
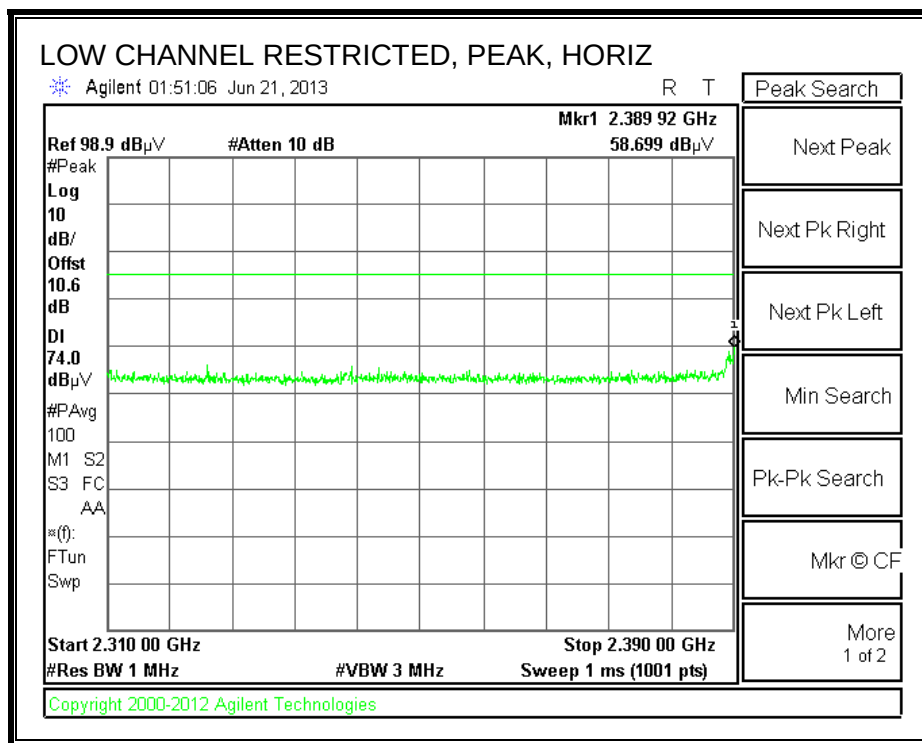
File: 2462 H Ch.Dat

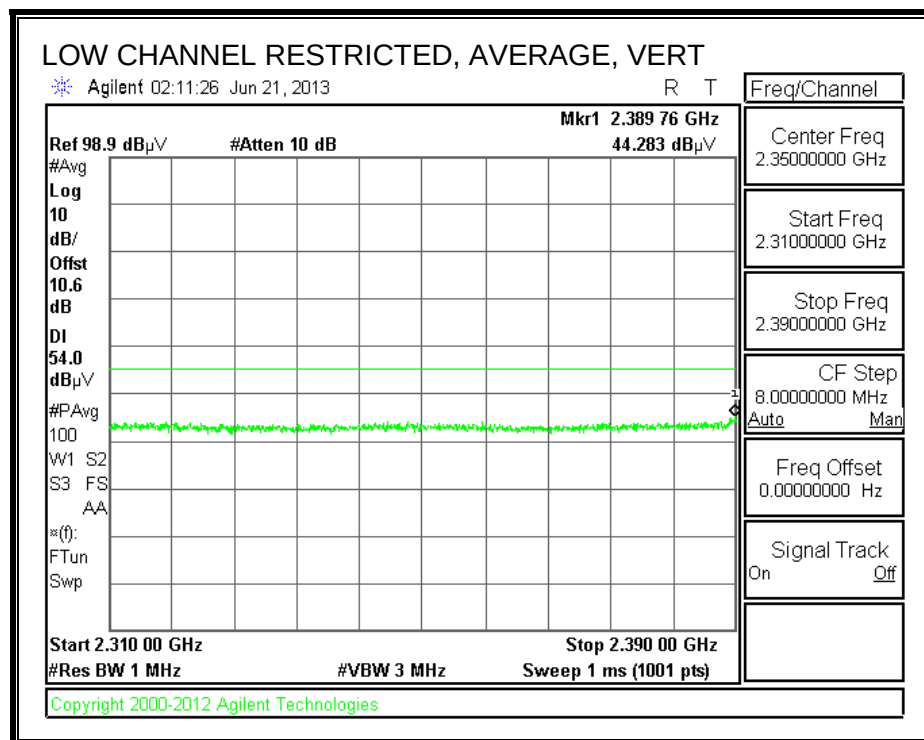
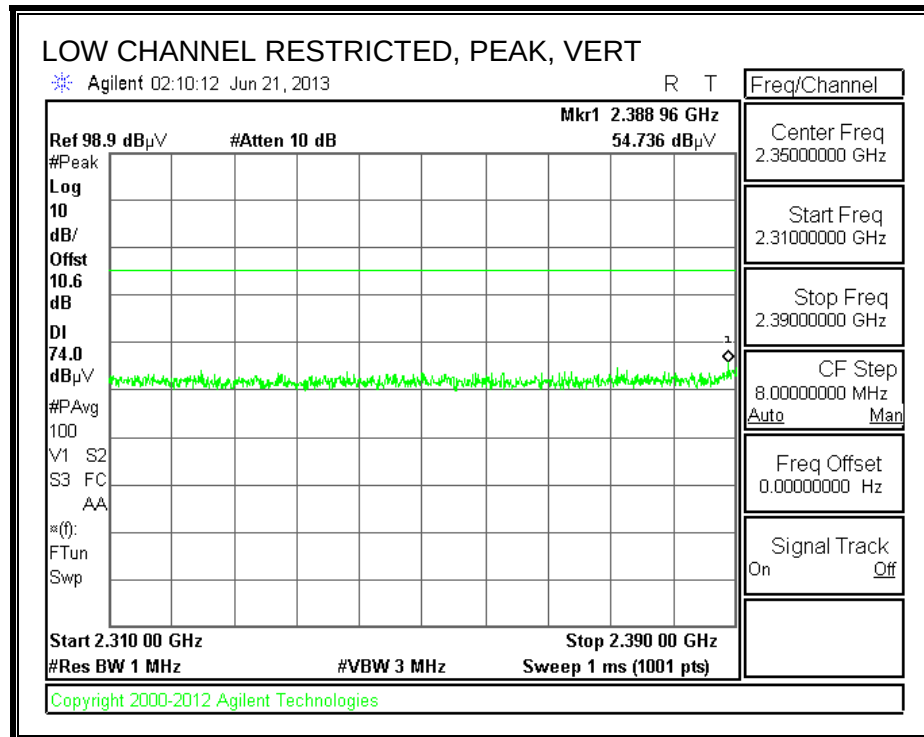
Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRF [dB]	dB(uVolts /meter)	E-Fields [dBuV/m] Avg	Margin (dB)	E-Fields [dBuV/m] Peak	Margin (dB)	Height [cm]	Polarity
Vertical 1000 - 18000MHz													
4	2715.856	39.97	PK	32.6	-29	0.9	44.47	53.97	-9.5	74	-29.53	201	Vert
5	6742.172	34.35	PK	35.6	-23.3	0.3	46.95	-	-	68.2	-21.25	201	Vert
6	9845.436	35.05	PK	36.9	-21.6	0.5	50.85	-	-	68.2	-17.35	201	Vert
Vertical 10000 - 18000MHz													
9	13302.349	22.12	PK	39.2	-16.7	0.4	45.02	53.97	-8.95	74	-28.98	201	Vert
10	14363.818	22.4	PK	39.4	-15.8	0.3	46.3	-	-	68.2	-21.9	100	Vert

PK - Peak detector

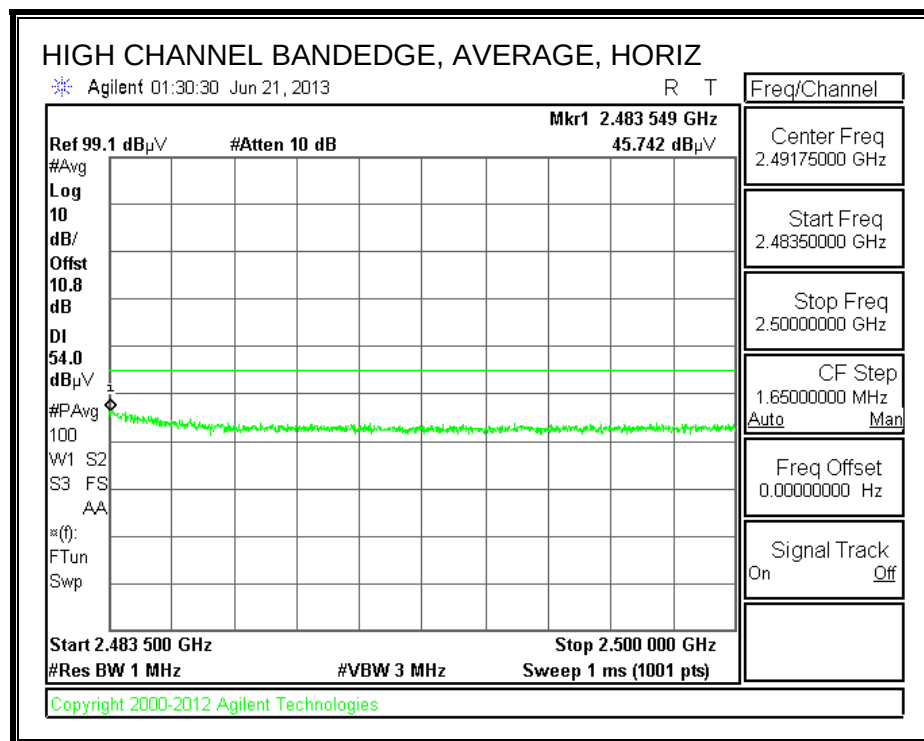
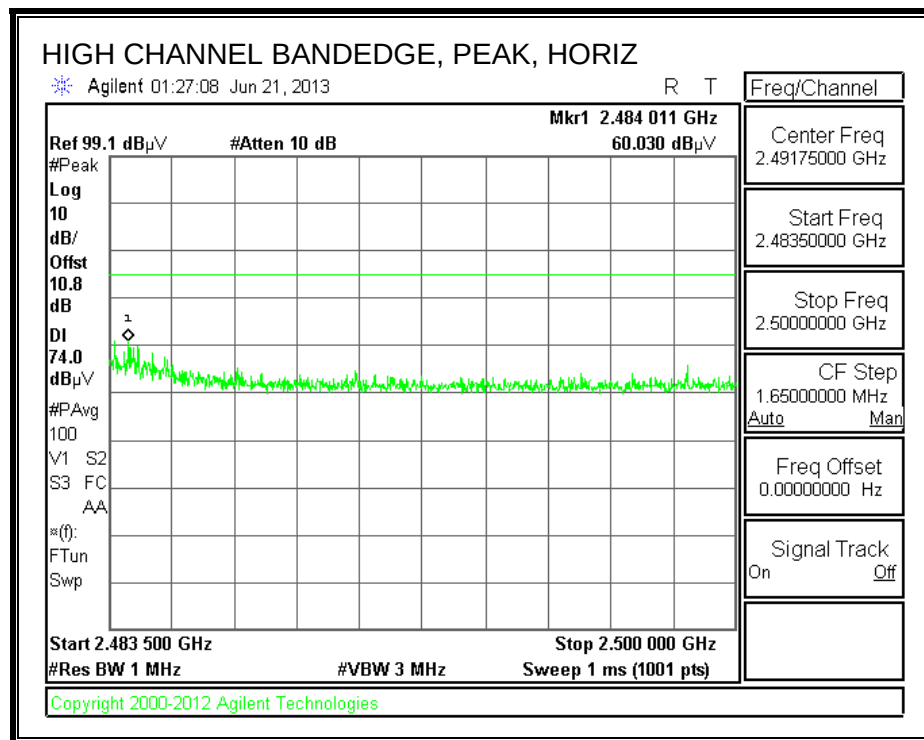
10.3. TX ABOVE 1 GHz 802.11g MODE IN THE 2.4 GHz BAND

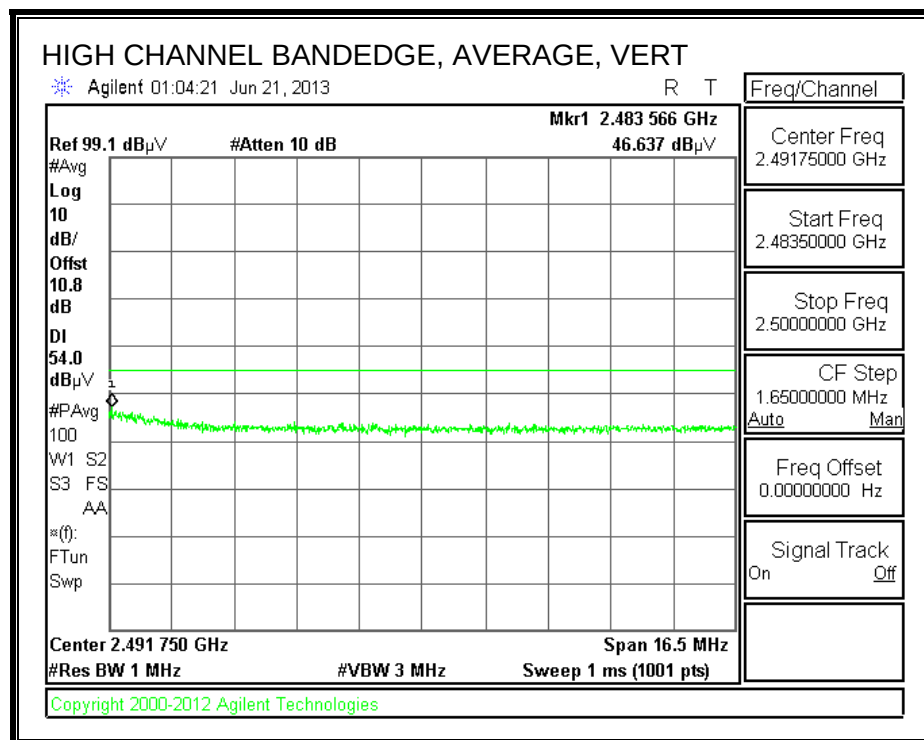
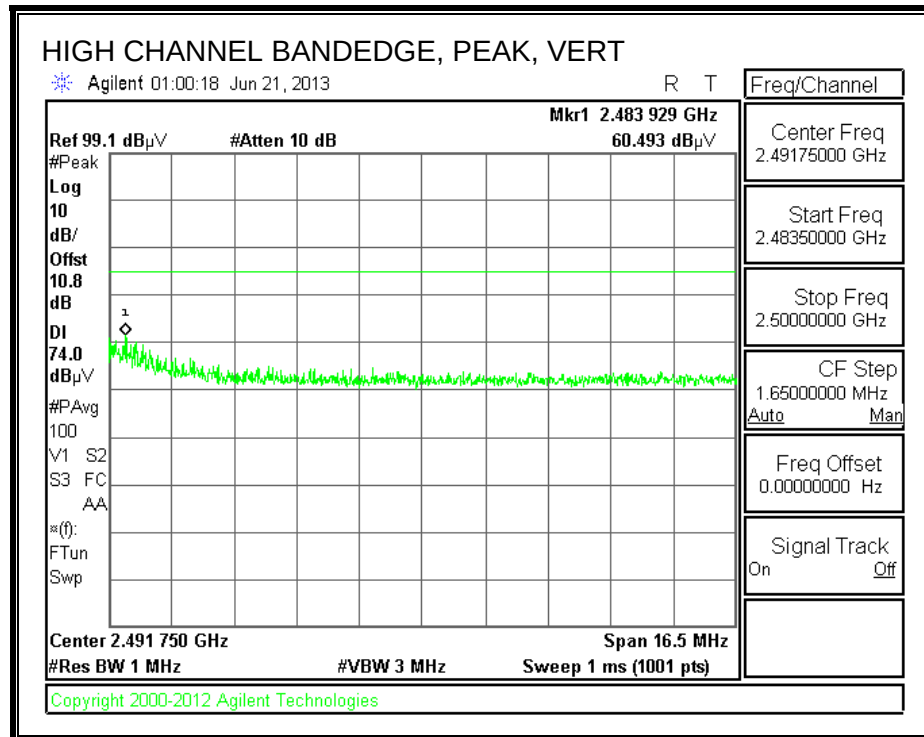
RESTRICTED BANEDGE (LOW CHANNEL)



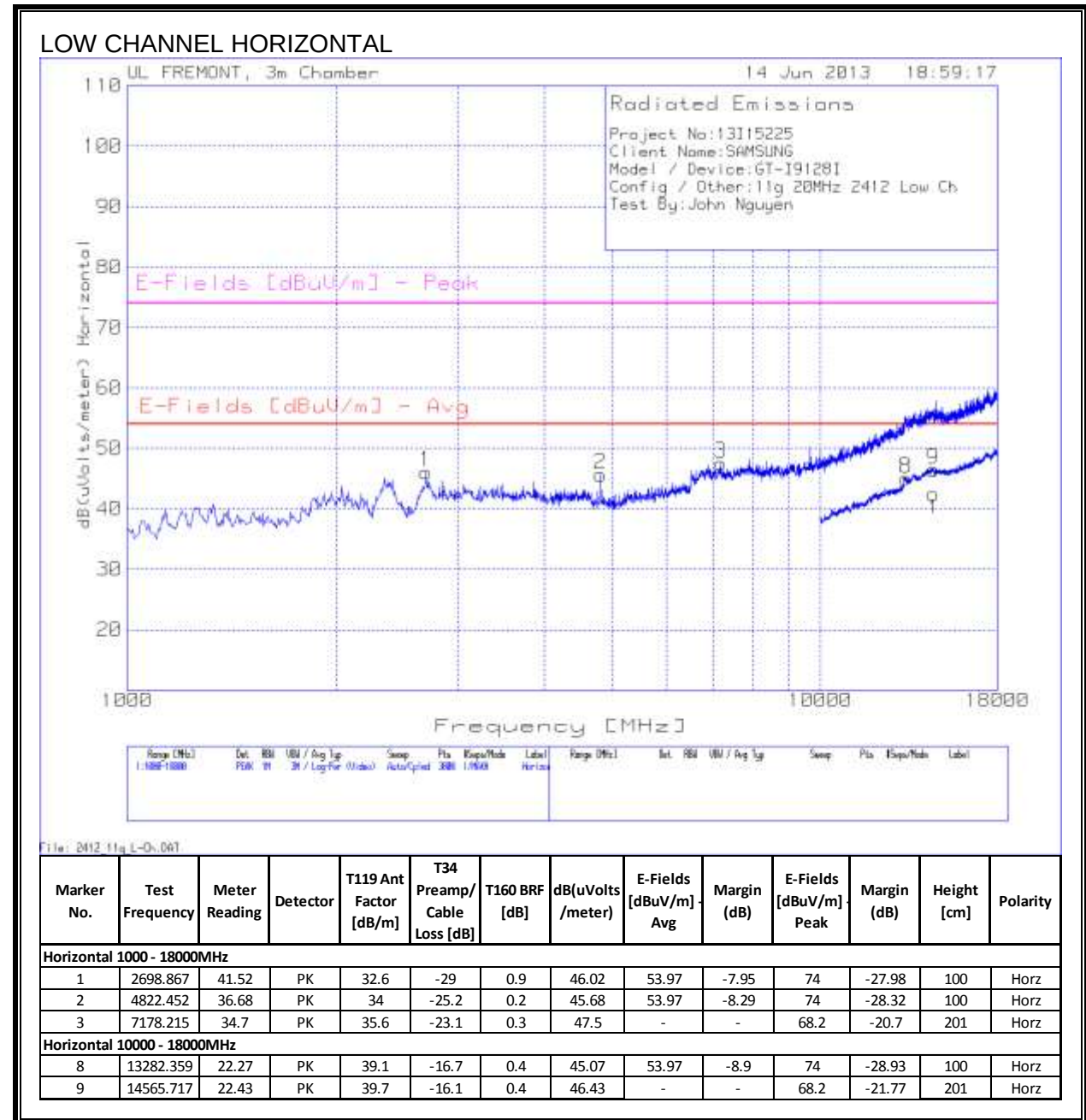


AUTHORIZED BANDEDGE (HIGH CHANNEL)

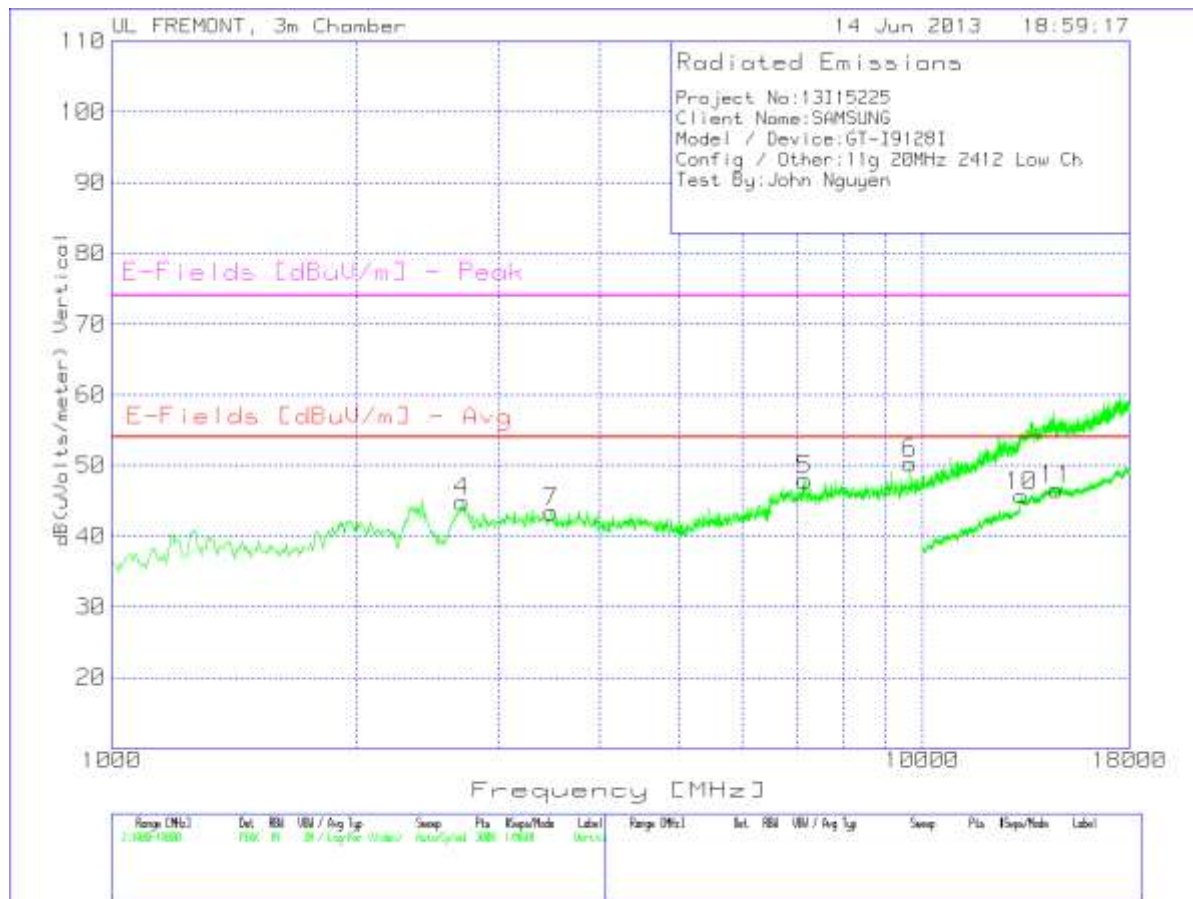




HARMONICS AND SPURIOUS EMISSIONS



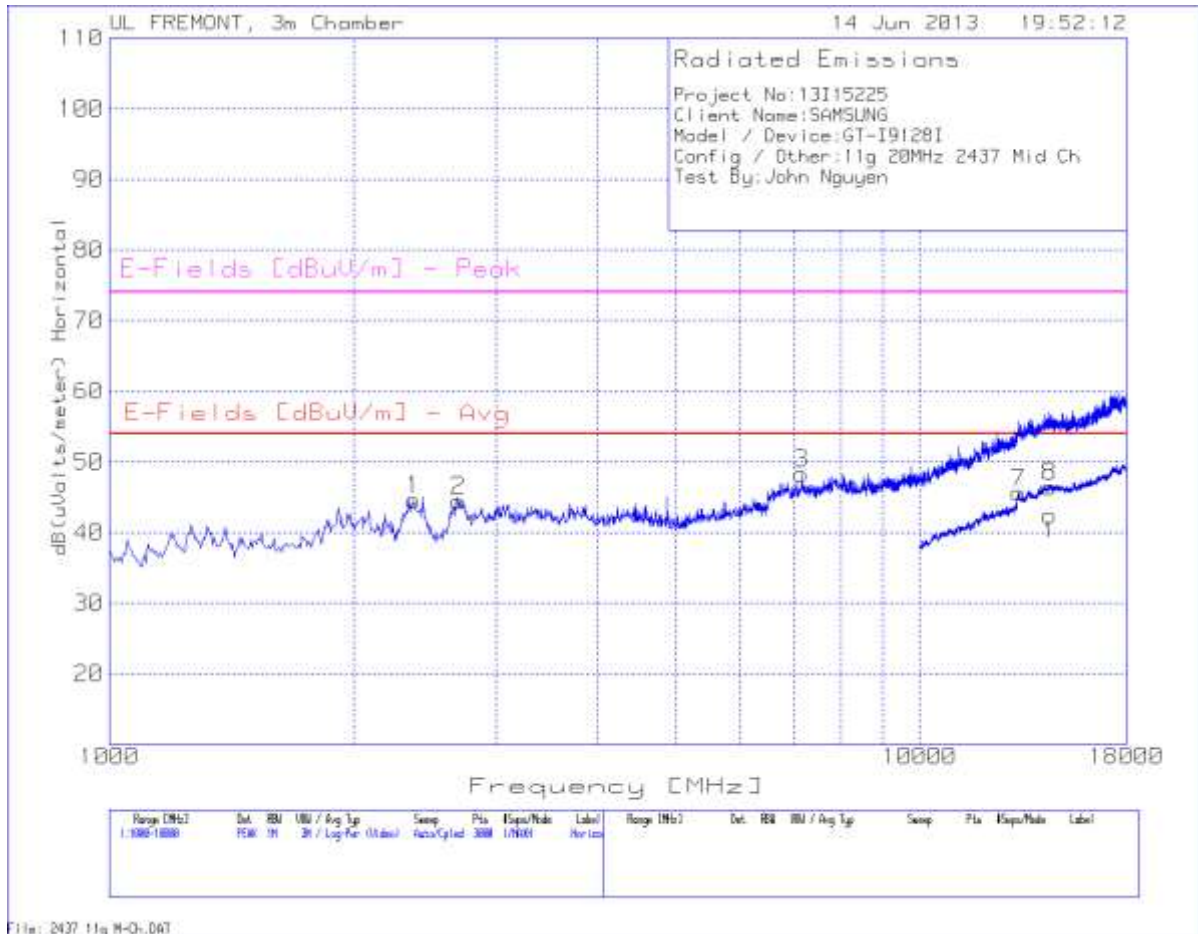
LOW CHANNEL VERTICAL



File: 2412_11g1-Ch061

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRF [dB]	dB(uVolts /meter)	E-Fields [dBuV/m] Avg	Margin (dB)	E-Fields [dBuV/m] Peak	Margin (dB)	Height [cm]	Polarity
Vertical 1000 - 18000MHz													
4	2704.53	40.34	PK	32.6	-29	0.9	44.84	53.97	-9.13	74	-29.16	201	Vert
5	7166.889	35.15	PK	35.6	-23.1	0.3	47.95	-	-	68.2	-20.25	99	Vert
6	9647.235	34.8	PK	36.8	-21.7	0.4	50.3	-	-	68.2	-17.9	99	Vert
7	3486.009	37.21	PK	33	-27.2	0.4	43.41	-	-	68.2	-24.79	201	Vert
Vertical 10000 - 18000MHz													
10	13238.381	22.83	PK	39.1	-16.7	0.5	45.73	-	-	68.2	-22.47	200	Vert
11	14641.679	22.65	PK	39.7	-16.1	0.4	46.65	-	-	68.2	-21.55	200	Vert

MID CHANNEL HORIZONTAL



Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/Cable Loss [dB]	T160 BRF [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] Avg	Average Margin (dB)	E-Fields [dBuV/m] Peak	Peak Margin (dB)	Height [cm]	Polarity
Horizontal 1000 - 18000MHz													
1	2370.42	41.45	PK	32	-29.7	0.9	44.65	53.97	-9.32	74	-29.35	99	Horz
2	2698.867	39.97	PK	32.6	-29	0.9	44.47	53.97	-9.5	74	-29.53	201	Horz
3	7144.237	35.67	PK	35.6	-23.1	0.2	48.37	-	-	68.2	-19.83	99	Horz
Horizontal 10000 - 18000MHz													
7	13246.377	22.81	PK	39.1	-16.7	0.4	45.61	-	-	68.2	-22.59	100	Horz
8	14465.767	22.32	PK	39.6	-15.9	0.4	46.42	-	-	68.2	-21.78	201	Horz

UL FREMONT, 3m Chamber

14 Jun 2013 19:52:12

Radiated Emissions

Project No: 13115225
 Client Name: SAMSUNG
 Model / Device: GT-I9128I
 Config / Other: 11g 20MHz 2437 Mid Ch
 Test By: John Nguyen

E-Fields [dBuU/m] - Peak

E-Fields [dBuU/m] - Avg

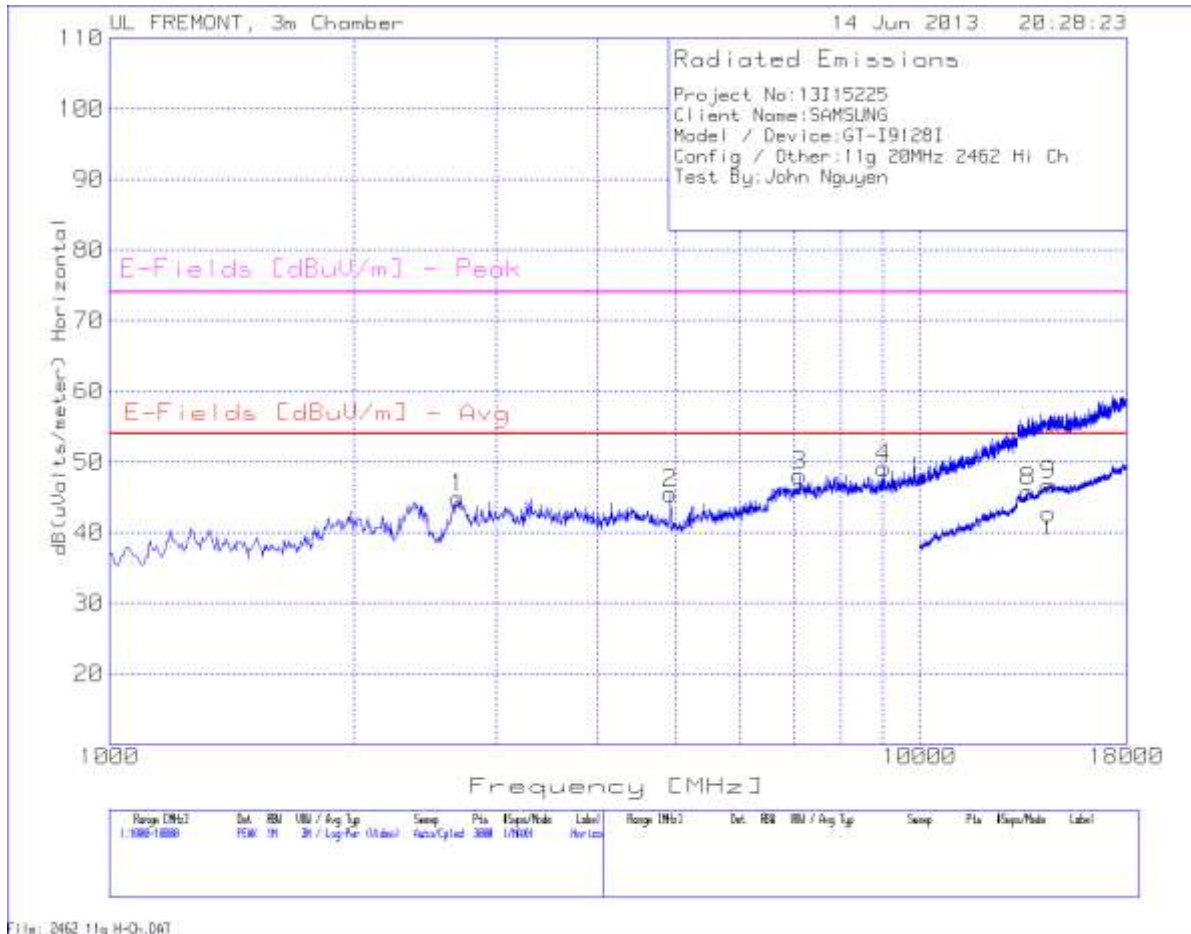
dB (uVbts/meter) Vertical

Frequency [MHz]

Range [MHz]	Det.	RBW	VBW / Avg Typ	Sweep	Pts	Kepts/Mode	Label	Range [MHz]	Det.	RBW	VBW / Avg Typ	Sweep	Pts	Kepts/Mode	Label
2.500-18.000	Peak	900	30 / LogN (1000)	RealTime	200	10000	Vertical								

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRF [dB]	dB(uVolts/ meter)	E-Fields [dBuV/m] Avg	Average Margin (dB)	E-Fields [dBuV/m] Peak	Peak Margin (dB)	Height [cm]	Polarity
Vertical 1000 - 18000MHz													
4	2359.094	42.74	PK	32	-29.7	0.9	45.94	53.97	-8.03	74	-28.06	99	Vert
5	6713.857	35.46	PK	35.6	-23.4	0.3	47.96	-	-	68.2	-20.24	201	Vert
6	9749.167	35.54	PK	36.9	-21.6	0.4	51.24	-	-	68.2	-16.96	99	Vert
Vertical 10000 - 18000MHz													
9	13294.353	22.32	PK	39.2	-16.7	0.4	45.22	53.97	-8.75	74	-28.78	100	Vert
10	14473.763	22.42	PK	39.6	-15.9	0.4	46.52	53.97	-7.45	74	-27.48	100	Vert

HIGH CHANNEL HORIZONTAL

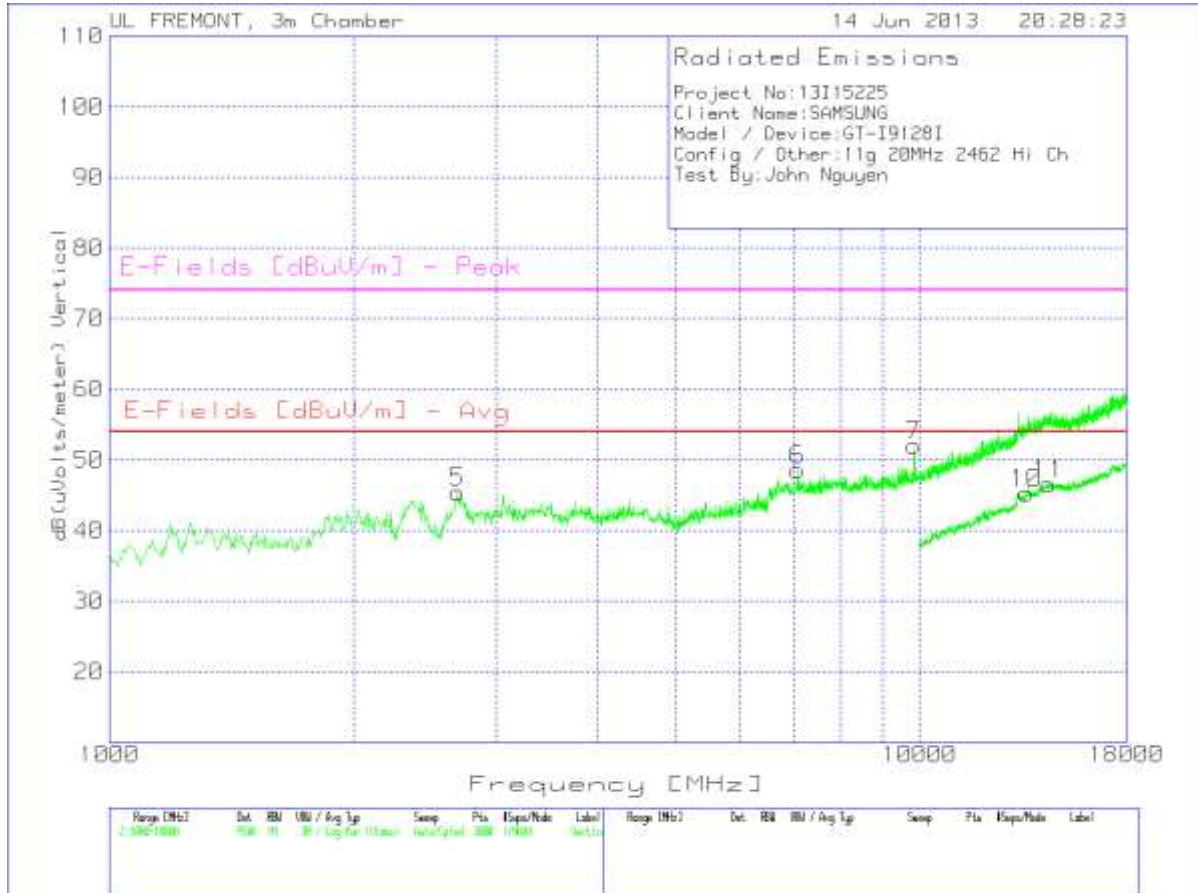


Project No: 13I15225
Client Name: SAMSUNG
Model / Device: GT-I9128I
Config / Other: 11g 20MHz 2462 Hi Ch
Test By: John Nguyen

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRF [dB]	dB(uVols /meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
Horizontal 1000 - 18000MHz													
1	2687.542	40.43	PK	32.6	-29	0.9	44.93	53.97	-9.04	74	-29.07	201	Horz
2	4924.384	36.41	PK	34	-25.1	0.2	45.51	53.97	-8.46	74	-28.49	99	Horz
3	7110.26	35.28	PK	35.6	-23.1	0.3	48.08	-	-	68.2	-20.12	201	Horz
4	9035.643	34.61	PK	36.1	-22	0.4	49.11	53.97	-4.86	74	-24.89	99	Horz
Horizontal 10000 - 18000MHz													
8	13606.197	22.6	PK	38.9	-16.1	0.4	45.8	-	-	68.2	-22.4	100	Horz
9	14425.787	22.75	PK	39.5	-15.9	0.4	46.75	-	-	68.2	-21.45	100	Horz

Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRF [dB]	dB(uVols /meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Azimuth [Degs]	Height [cm]	Polarity
Horizontal 1000 - 18000MHz													
9035.643	22.64	PK	36.1	-22	0.4	37.14	53.97	-16.83	-	-	360	313	Horz

HIGH CHANNEL VERTICAL



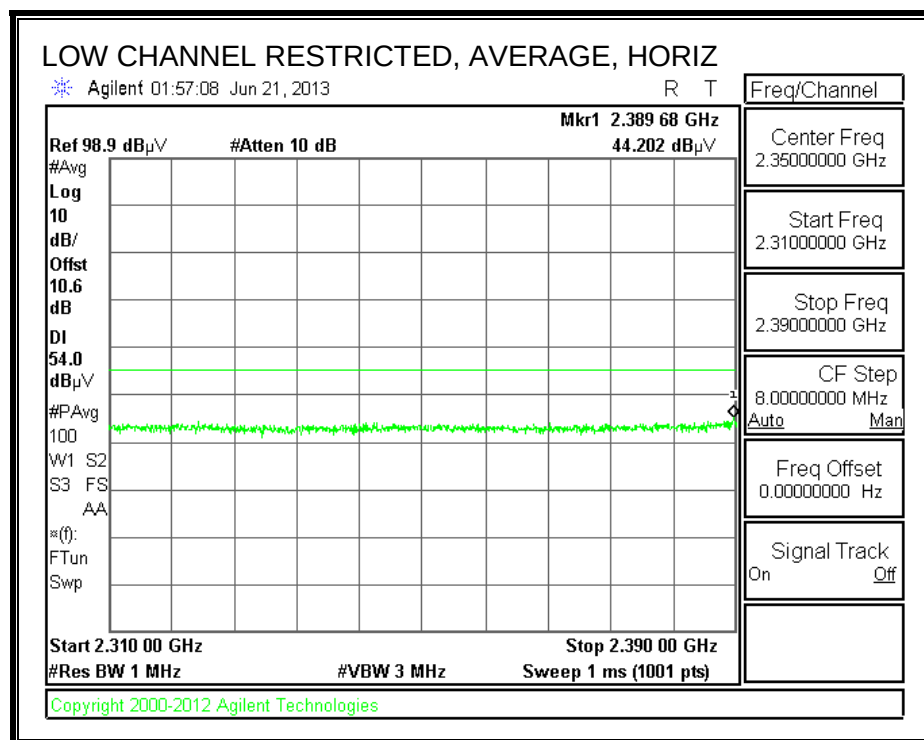
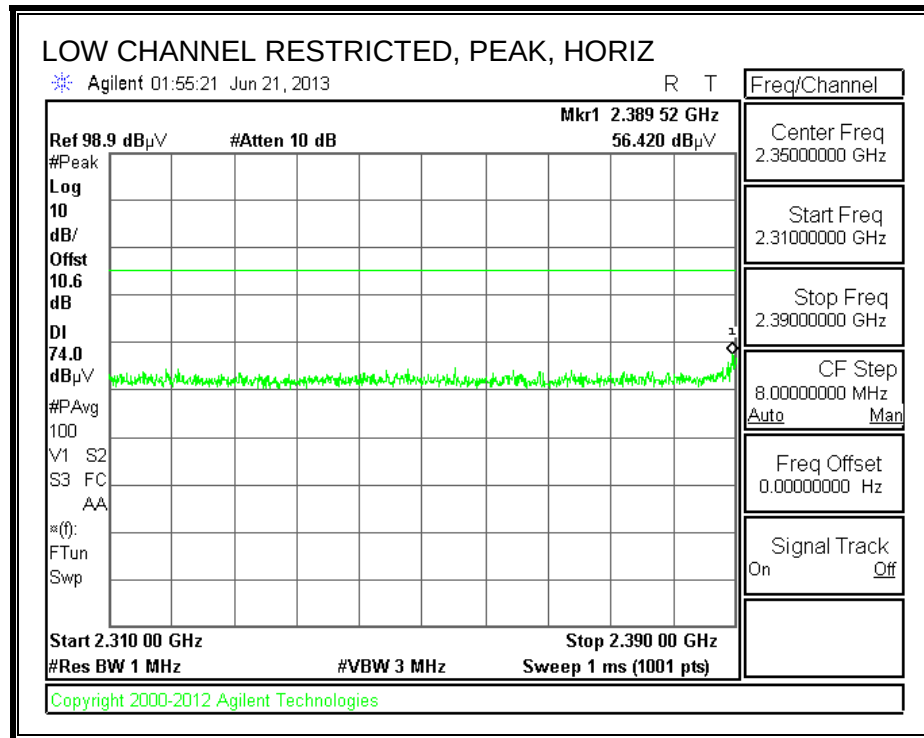
File: 2462 11g H-Ch.DAT

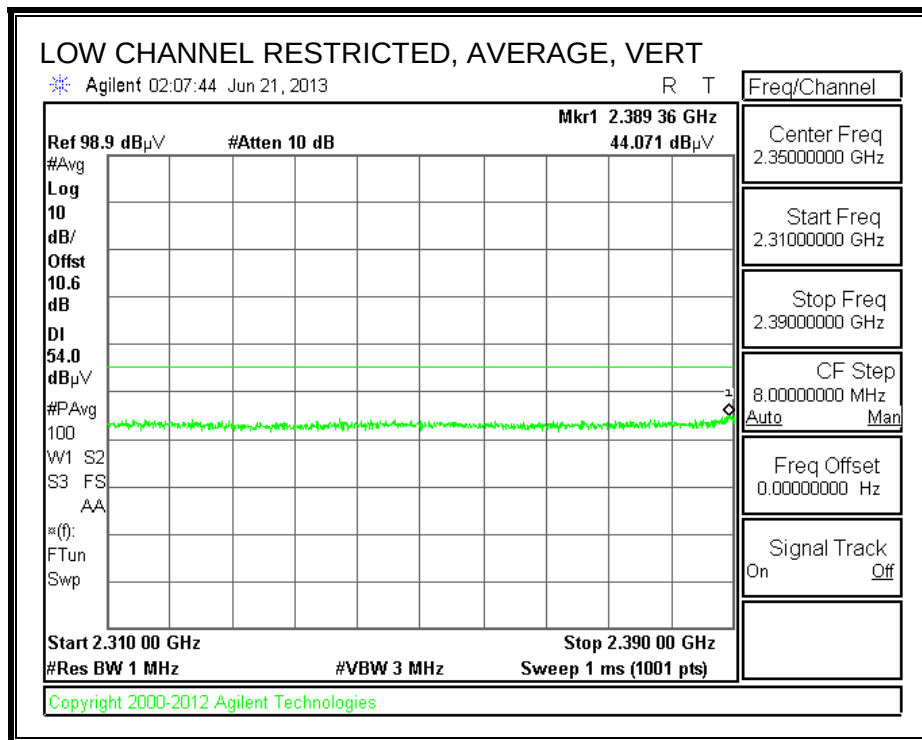
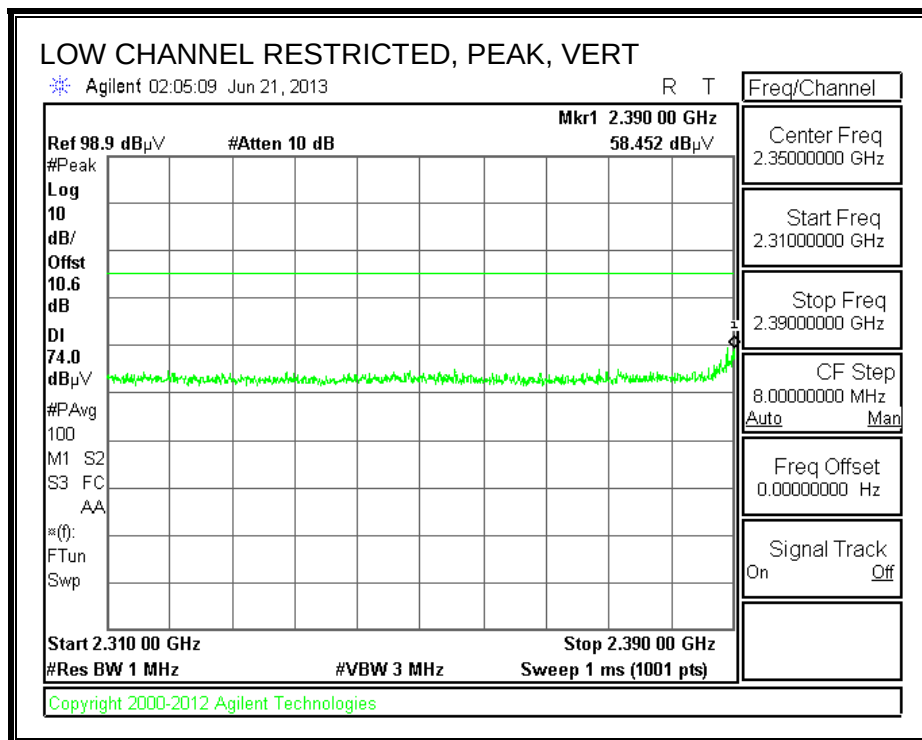
Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRF [dB]	dB(uVolts /meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
Vertical 1000 - 18000MHz													
5	2687.542	40.87	PK	32.6	-29	0.9	45.37	53.97	-8.6	74	-28.63	201	Vert
6	7064.957	35.78	PK	35.6	-23.1	0.3	48.58	-	-	68.2	-19.62	100	Vert
7	9845.436	36.23	PK	36.9	-21.6	0.5	52.03	-	-	68.2	-16.17	100	Vert
Vertical 10000 - 18000MHz													
10	13550.225	22.33	PK	38.9	-16.3	0.4	45.33	-	-	68.2	-22.87	100	Vert
11	14429.785	22.64	PK	39.5	-15.9	0.4	46.64	-	-	68.2	-21.56	200	Vert

PK - Peak detector

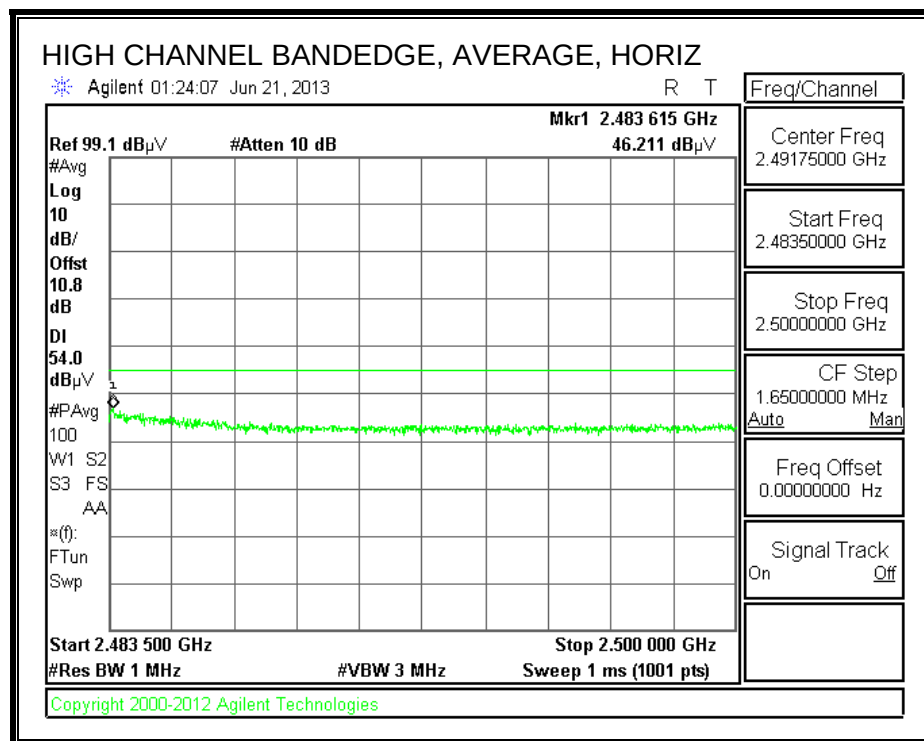
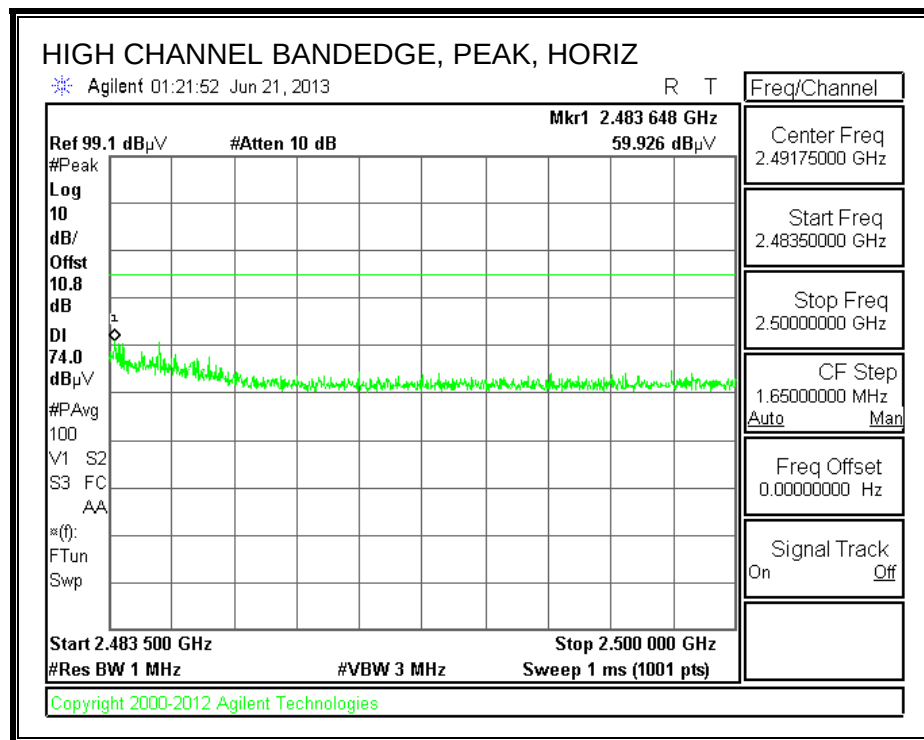
10.4. TX ABOVE 1 GHz 802.11n HT20 MODE IN THE 2.4 GHz BAND

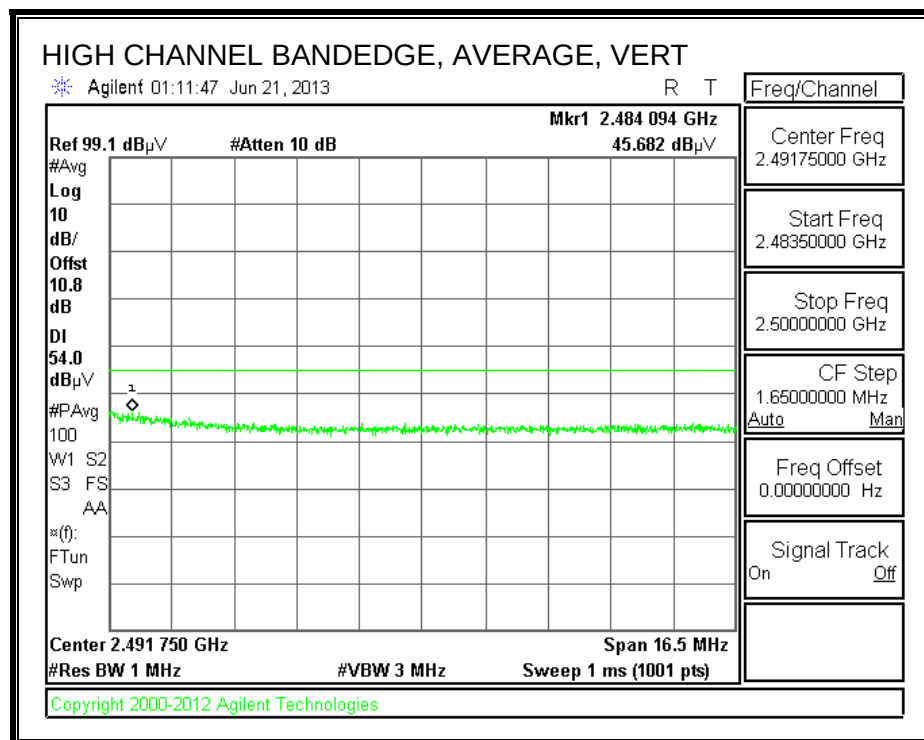
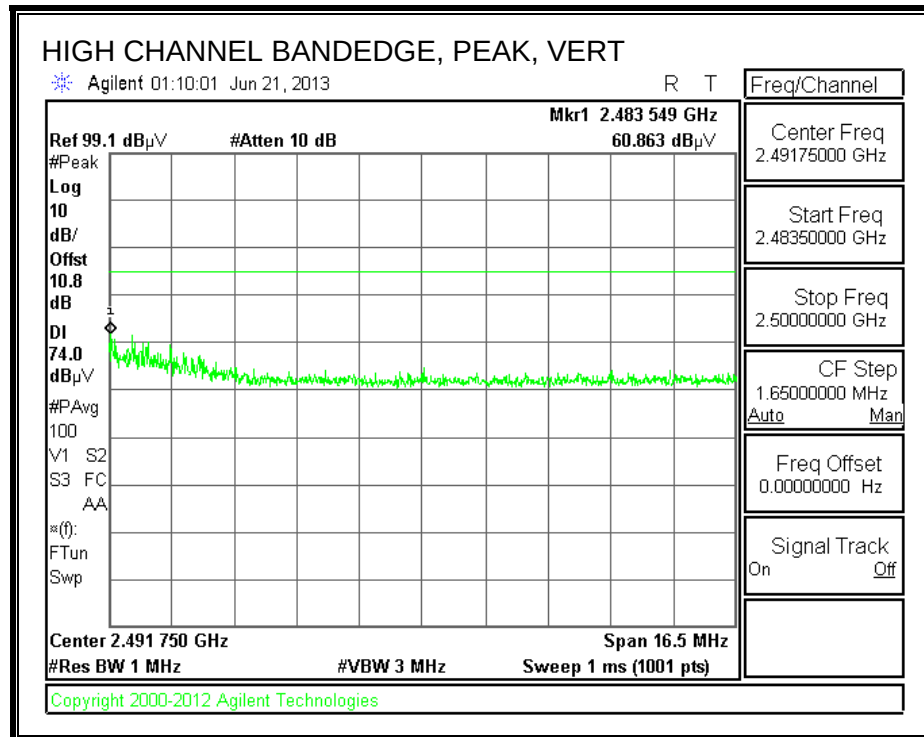
RESTRICTED BANEDGE (LOW CHANNEL)



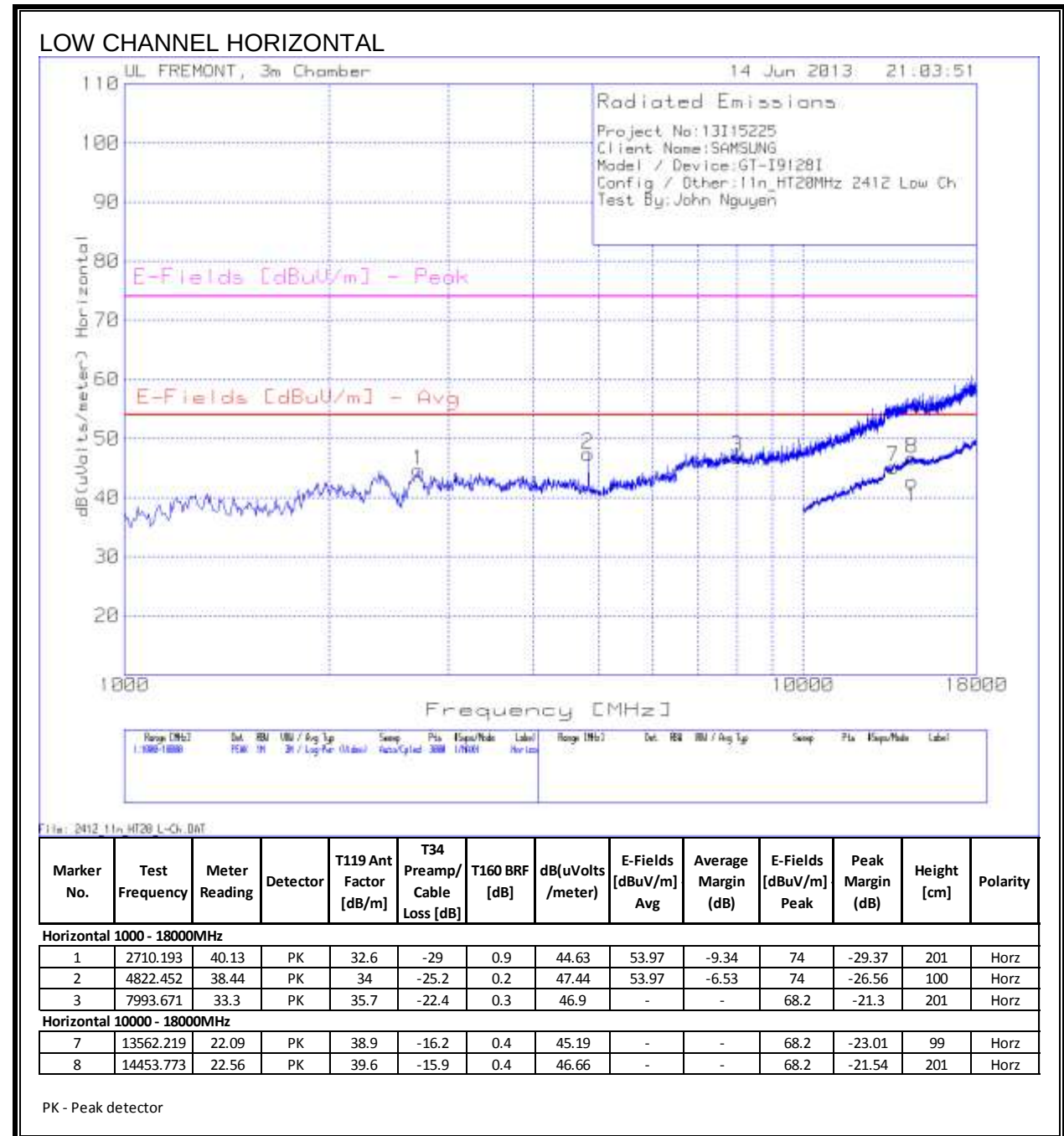


AUTHORIZED BANDEDGE (HIGH CHANNEL)

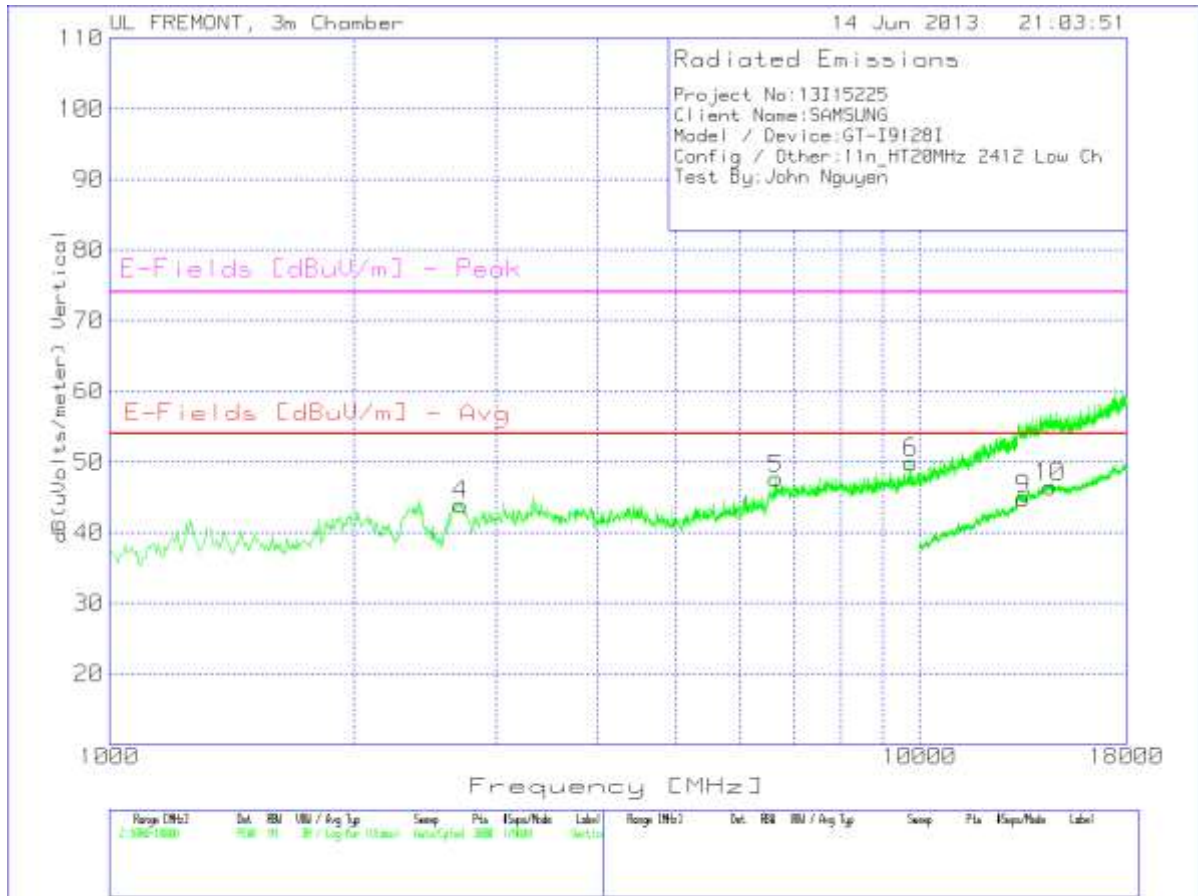




HARMONICS AND SPURIOUS EMISSIONS



LOW CHANNEL VERTICAL

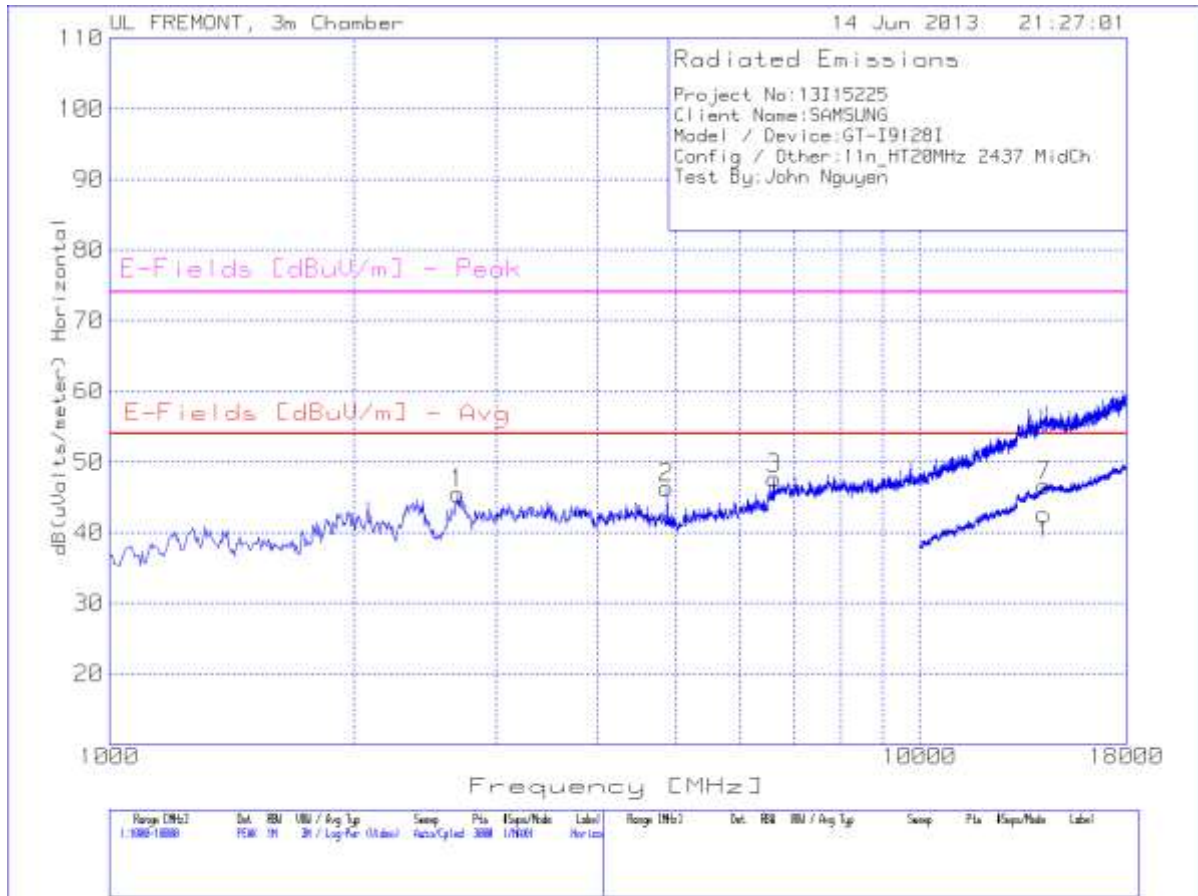


File: 2412 11n HT20 L-Ch.DAT

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/Cable Loss [dB]	T160 BRP [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] Avg	Average Margin (dB)	E-Fields [dBuV/m] Peak	Peak Margin (dB)	Height [cm]	Polarity
Vertical 1000 - 18000MHz													
4	2710.193	39.44	PK	32.6	-29	0.9	43.94	53.97	-10.03	74	-30.06	201	Vert
5	6645.903	35.1	PK	35.6	-23.4	0.3	47.6	-	-	68.2	-20.6	99	Vert
6	9749.167	34.17	PK	36.9	-21.6	0.4	49.87	-	-	68.2	-18.33	99	Vert
Vertical 10000 - 18000MHz													
9	13414.293	21.91	PK	39.1	-16.6	0.4	44.81	-	-	68.2	-23.39	100	Vert
10	14489.755	22.48	PK	39.6	-16	0.4	46.48	53.97	-7.49	74	-27.52	100	Vert

PK - Peak detector

MID CHANNEL HORIZONTAL

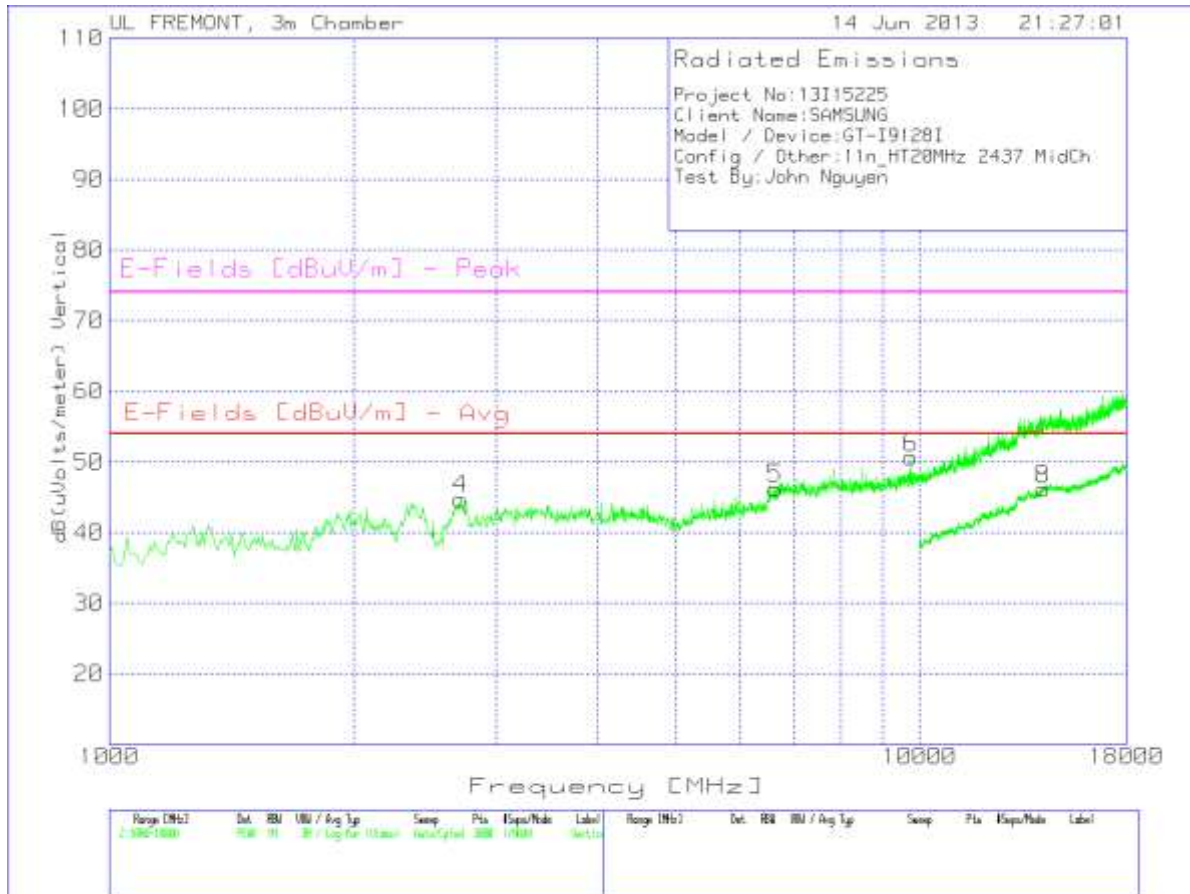


File: 2437 I1n_HT20 H-Ch.DAT

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/Cable Loss [dB]	T160 BRF [dB]	dB(uVolts /meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
Horizontal 1000 - 18000MHz													
1	2687.542	41.04	PK	32.6	-29	0.9	45.54	53.97	-8.43	74	-28.46	200	Horz
2	4873.418	37.37	PK	34	-25.2	0.2	46.37	53.97	-7.6	74	-27.63	99	Horz
3	6617.588	35.19	PK	35.6	-23.4	0.3	47.69	-	-	68.2	-20.51	200	Horz
Horizontal 10000 - 18000MHz													
7	14241.879	22.78	PK	39.2	-15.8	0.4	46.58	53.97	-7.39	74	-27.42	100	Horz

PK - Peak detector

MID CHANNEL VERTICAL

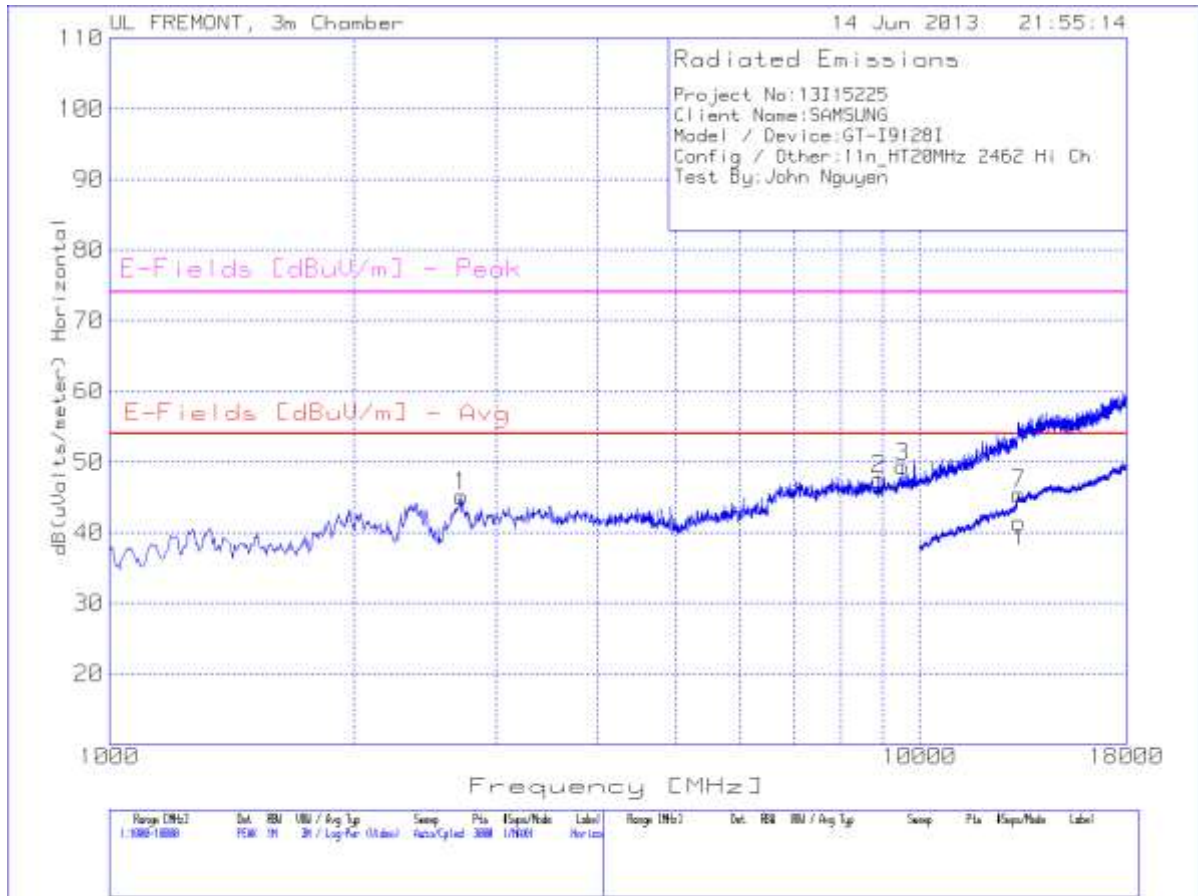


File: 2437 I1n_HT20 H-Ch.DAT

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/ Cable Loss [dB]	T160 BRF [dB]	dB(uVolts /meter)	E-Fields [dBuV/m] - Avg	Average Margin (dB)	E-Fields [dBuV/m] - Peak	Peak Margin (dB)	Height [cm]	Polarity
Vertical 1000 - 18000MHz													
4	2710.193	40.23	PK	32.6	-29	0.9	44.73	53.97	-9.24	74	-29.27	201	Vert
5	6634.577	33.66	PK	35.6	-23.4	0.3	46.16	-	-	68.2	-22.04	100	Vert
6	9749.167	34.94	PK	36.9	-21.6	0.4	50.64	-	-	68.2	-17.56	100	Vert
Vertical 10000 - 18000MHz													
8	14217.891	22.33	PK	39.2	-15.8	0.4	46.13	-	-	68.2	-22.07	201	Vert

PK - Peak detector

HIGH CHANNEL HORIZONTAL

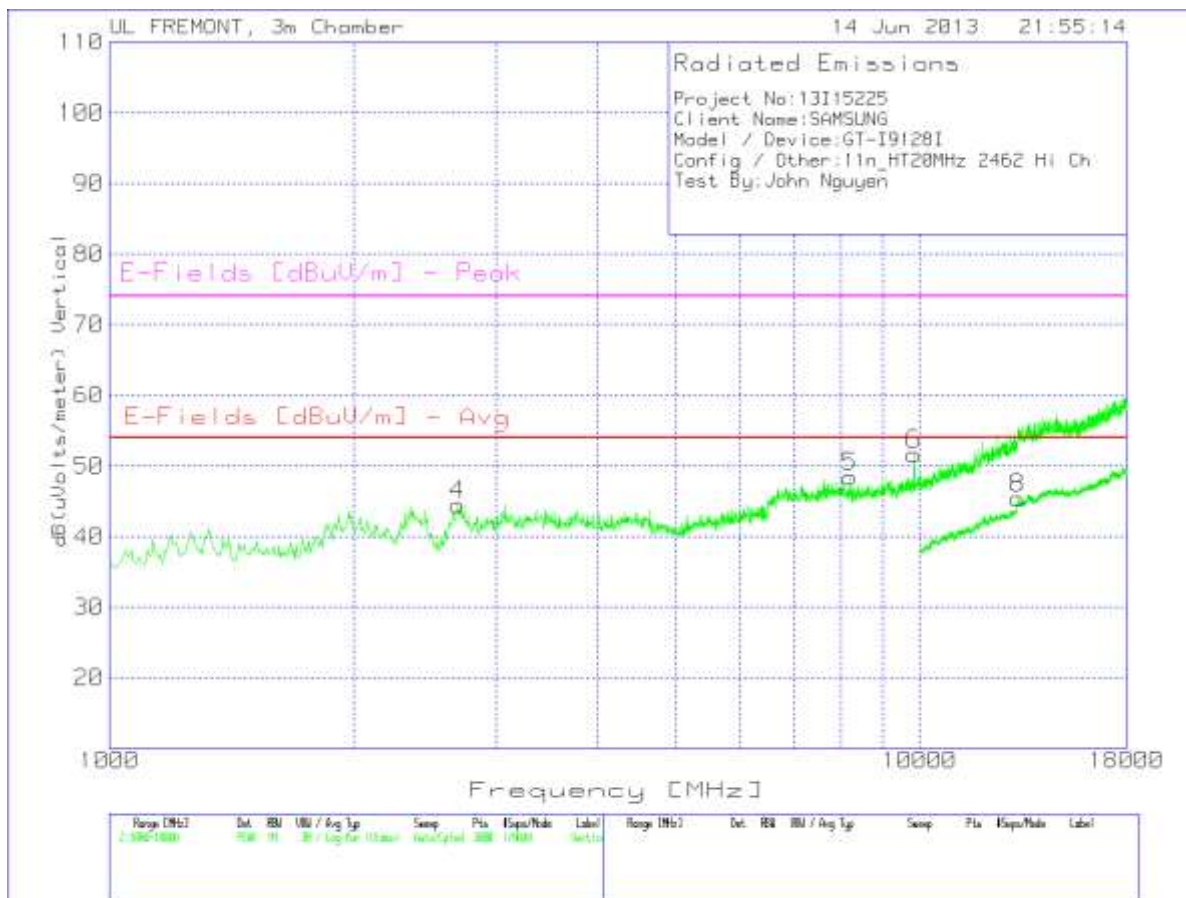


File: 2462_11n_HT20_H-Ch.DAT

Marker No.	Test Frequency	Meter Reading	Detector	T119 Ant Factor [dB/m]	T34 Preamp/Cable Loss [dB]	T160 BR [dB]	dB(uVolts/meter)	E-Fields [dBuV/m] Avg	Average Margin (dB)	E-Fields [dBuV/m] Peak	Peak Margin (dB)	Height [cm]	Polarity
Horizontal 1000 - 18000MHz													
1	2721.519	40.68	PK	32.6	-29	0.9	45.18	53.97	-8.79	74	-28.82	201	Horz
2	8905.396	33.11	PK	36	-22	0.4	47.51	-	-	68.2	-20.69	99	Horz
3	9533.977	34.02	PK	36.6	-21.8	0.5	49.32	-	-	68.2	-18.88	99	Horz
Horizontal 10000 - 18000MHz													
7	13270.365	22.57	PK	39.1	-16.7	0.4	45.37	53.97	-8.6	74	-28.63	201	Horz

PK - Peak detector

HIGH CHANNEL VERTICAL

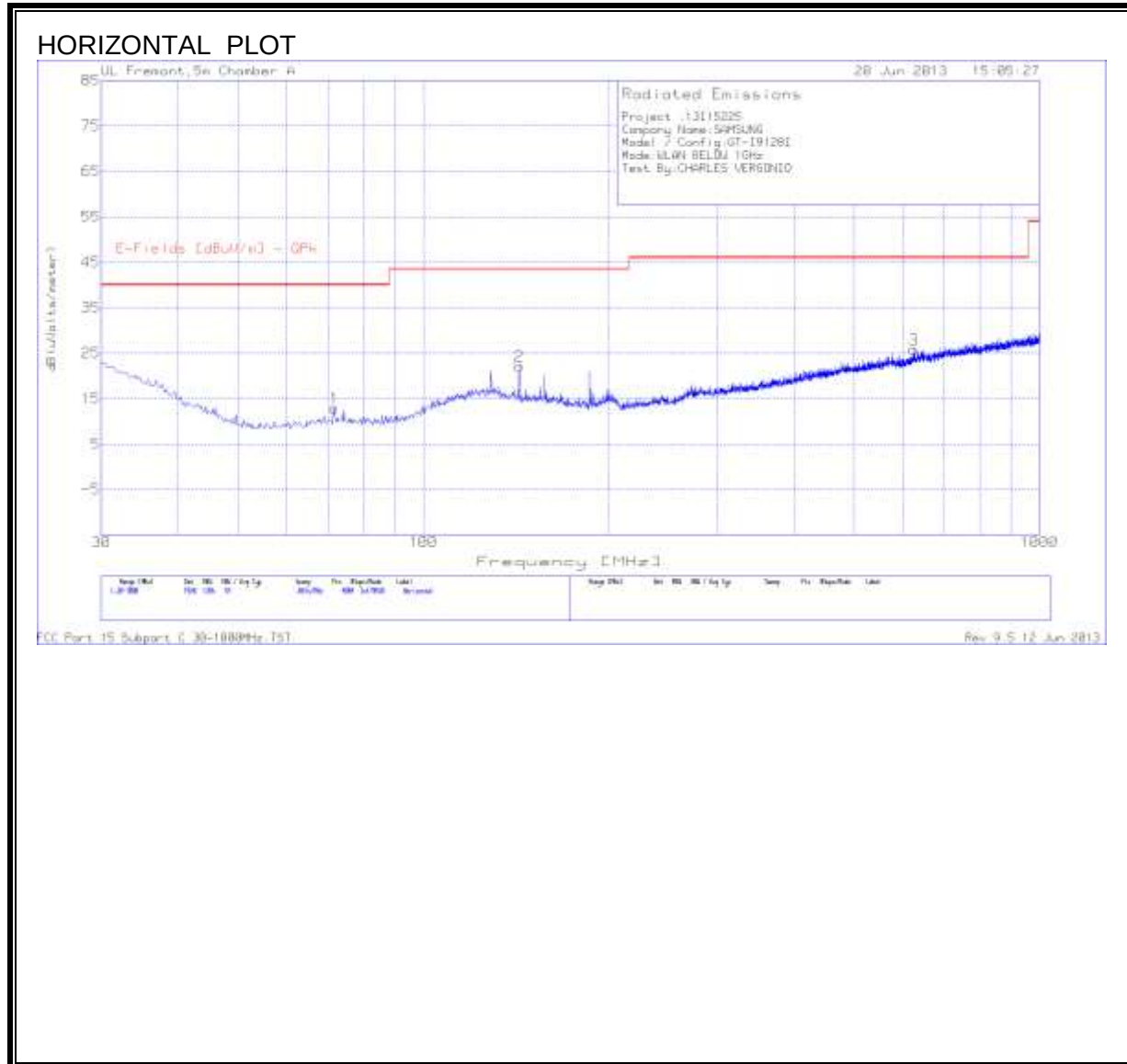


File: 2462 11n_HT20 HI-Ch.DAT

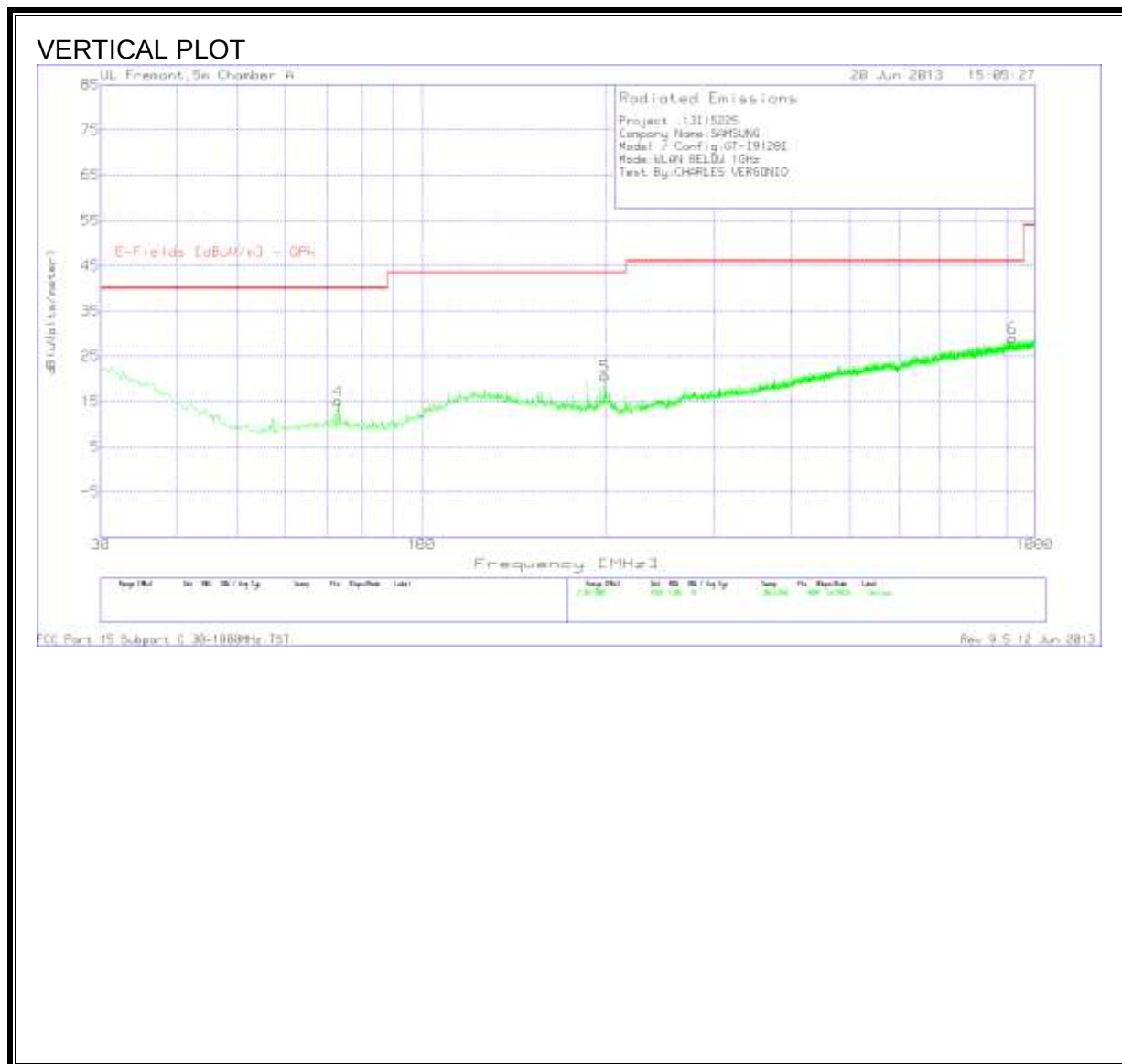
Vertical 1000 - 18000MHz													
4	2687.542	39.98	PK	32.6	-29	0.9	44.48	53.97	-9.49	74	-29.52	201	Vert
5	8214.524	34.54	PK	35.8	-22.2	0.3	48.44	53.97	-5.53	74	-25.56	100	Vert
6	9845.436	35.86	PK	36.9	-21.6	0.5	51.66	53.97		74	-22.34	201	Vert
Vertical 10000 - 18000MHz													
8	13214.393	22.65	PK	39.1	-16.7	0.4	45.45	53.97	-8.52	74	-28.55	100	Vert

10.5. WORST-CASE BELOW 1 GHz

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



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



HORIZONTAL VERTICAL DATA

Trace Markers										
Marker	Frequency	Meter	Det	T185 Antenna Factor dB/m	T64 preamp/c able loss [dB]	Corrected	E-Fields [dBuV/m] QPk	Margin (dB)	Height (cm)	Polarity
	(MHz)	Reading (dBuV)				Reading dB(uVolts/ meter)				
1	71.6787	31.98	PK	8.1	-27.2	12.88	40	-27.12	400	Horz
2	143.1626	36.07	PK	12.8	-26.7	22.17	43.52	-21.35	200	Horz
3	624.8913	29.7	PK	19.3	-23.2	25.8	46.02	-20.22	100	Horz
4	73.1327	34.12	PK	8.1	-27.2	15.02	40	-24.98	200	Vert
5	198.8958	34.77	PK	12.1	-26.2	20.67	43.52	-22.85	200	Vert
6	920.5196	29.27	PK	22.5	-22.8	28.97	46.02	-17.05	400	Vert
PK - Peak detector										
FCC Part 15 Subpart C 30-1000MHz.TST Rev 9.5 12 Jun 2013										

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.

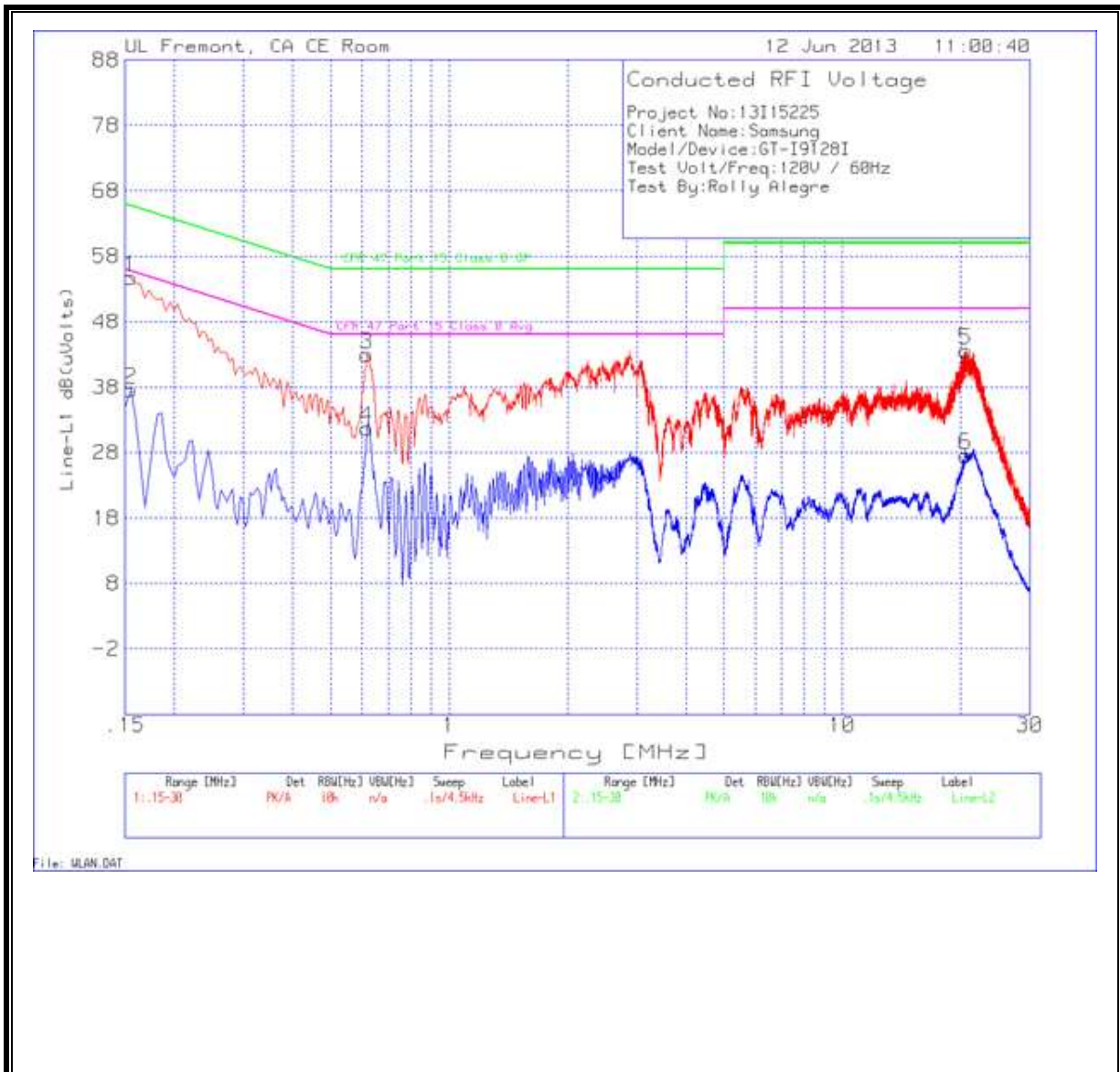
Line conducted data is recorded for both NEUTRAL and HOT lines.

RESULTS

6 WORST EMISSIONS

Project No:	13I15225								
Client Name:	Samsung								
Model/Device:	GT-I9128I								
Test Volt/Freq:	120V / 60Hz								
Test By:	R.Alegre								
Line-L1 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	T24 IL L1.TXT	LC Cables 1&3.TXT	dB(uVolts)	CFR 47 Part 15	Margin	CFR 47 Part 15	Margin
0.1545	54.59	PK	0.1	0	54.69	65.8	-11.11	-	-
0.1545	37.52	Av	0.1	0	37.62	-	-	55.8	-18.18
0.618	42.82	PK	0.1	0	42.92	56	-13.08	-	-
0.618	31.57	Av	0.1	0	31.67	-	-	46	-14.33
20.625	43.14	PK	0.3	0.2	43.64	60	-16.36	-	-
20.625	27.1	Av	0.3	0.2	27.6	-	-	50	-22.4
Line-L2 .15 - 30MHz									
Test Frequency	Meter Reading	Detector	L2.TXT (dB)	2&3.TXT (dB)	dB(uVolts)	Part 15 Class B	Margin	Part 15 Class B	Margin
0.1545	44.81	PK	0.1	0	44.91	65.8	-20.89	-	-
0.1545	23.9	Av	0.1	0	24	-	-	55.8	-31.8
0.6315	39.19	PK	0.1	0	39.29	56	-16.71	-	-
0.6315	28.09	Av	0.1	0	28.19	-	-	46	-17.81
21.552	50.5	PK	0.3	0.2	51	60	-9	-	-
21.552	30.37	Av	0.3	0.2	30.87	-	-	50	-19.13
PK - Peak detector									
QP - Quasi-Peak detector									
LnAv - Linear Average detector									
LgAv - Log Average detector									
Av - Average detector									

LINE 1 RESULTS



LINE 2 RESULTS

