



RADIO TEST REPORT

Test Report No. : 32GE0144-HO-01-A

Applicant : Sony Computer Entertainment Inc.
Type of Equipment : Computer Entertainment System
Model No. : CECH-4001x
FCC ID : AK8CBEH19Z1
Test regulation : FCC Part 15 Subpart C: 2012
Test Result : Complied

1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc.
2. The results in this report apply only to the sample tested.
3. This sample tested is in compliance with the above regulation.
4. The test results in this report are traceable to the national or international standards.
5. This test report must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government.

Date of test: March 12 to April 1, 2012

Representative test engineer:

T. Shimada

Takumi Shimada
Engineer of WiSE Japan,
UL Verification Service

Approved by:

M. Nishiyama

Masanori Nishiyama
Leader of WiSE Japan,
UL Verification Service



NVLAP LAB CODE: 200572-0

This laboratory is accredited by the NVLAP LAB CODE 200572-0, U.S.A. The tests reported herein have been performed in accordance with its terms of accreditation. *As for the range of Accreditation in NVLAP, you may refer to the WEB address, <http://www.ul.com/japan/jpn/pages/services/emc/about/mark1/index.jsp#nvlap>

| CONTENTS | PAGE |
|---|-------------|
| SECTION 1: Customer information..... | 3 |
| SECTION 2: Equipment under test (E.U.T.)..... | 3 |
| SECTION 3: Test specification, procedures & results..... | 5 |
| SECTION 4: Operation of E.U.T. during testing..... | 8 |
| SECTION 5: Conducted Emission..... | 11 |
| SECTION 6: Radiated Spurious Emission | 12 |
| SECTION 7: Antenna Terminal Conducted Tests..... | 13 |
| APPENDIX 1: Data of EMI test..... | 14 |
| Conducted Emission | 14 |
| 6dB Bandwidth | 30 |
| Maximum Peak Output Power | 33 |
| Radiated Spurious Emission | 35 |
| Conducted Spurious Emission | 54 |
| Conducted Emission Band Edge compliance | 78 |
| Power Density | 80 |
| 99%Occupied Bandwidth | 83 |
| APPENDIX 2: Test instruments | 85 |
| APPENDIX 3: Photographs of test setup | 87 |
| Conducted Emission | 87 |
| Radiated Spurious Emission | 88 |
| Worst Case Position | 89 |

SECTION 1: Customer information

| | |
|------------------|---|
| Company Name | Sony Computer Entertainment Inc. |
| Brand Name | SONY |
| Address | 1-7-1 Konan, Minato-ku, Tokyo 108-0075, Japan |
| Telephone Number | +81-3-6748-6333 |
| Facsimile Number | +81-3-6748-6383 |
| Contact Person | Akiko Tsukada |

SECTION 2: Equipment under test (E.U.T.)

2.1 Identification of E.U.T.

| | |
|------------------------|---|
| Type of Equipment | Computer Entertainment System |
| Model No | CECH-4001x |
| Serial No | 1530006 (Power Supply: DELTA) 1530007 (Power Supply: SONY) 1530013 (for Antenna terminal conducted tests) |
| Rating | AC120V / 60Hz |
| Country of Manufacture | JAPAN/CHINA |
| Receipt Date of Sample | March 9, 2012 |
| Condition of EUT | Engineering prototype (Not for Sale: This sample is equivalent to mass-produced items.) |
| Modification of EUT | No modification by the test lab. |

2.2 Product Description

Model: CECH-4001x, referred to as the EUT in this report, is a Computer Entertainment System. The EUT contains Bluetooth (Ver. 2.0+EDR) module and IEEE802.11b/g WLAN module. Those modules do not transmit simultaneously.

Details of model name CECH-4001x:

“x” will be replaced by an alphabet denoting the different hard disk specification.

The difference of the hard disk specification does not influence on radio specification.

The clock frequencies used in the EUT: Max clock frequency is 3.2GHz.

Bluetooth (Ver. 2.0+EDR)

| | |
|-----------------------------|------------------------------------|
| Equipment Type | Transceiver |
| Frequency of Operation | 2402-2480MHz |
| Type of Modulation | FHSS (GFSK, $\pi/4$ -DQPSK, 8DPSK) |
| Bandwidth & Channel spacing | 1MHz & 1MHz |
| Power Supply (inner) | DC3.3V/1.8V |
| Antenna Type | PIFA |
| Antenna Gain | 3.0 dBi (max) |
| Antenna Connector Type | U.FL |

IEEE802.11b/g WLAN

| | | |
|-----------------------------|--------------------------|--------------------------|
| Equipment Type | Transceiver | |
| Frequency of Operation | 2412-2462MHz | |
| Type of Modulation | DSSS/OFDM | |
| Bandwidth & Channel spacing | 20MHz & 5MHz | |
| Power Supply (inner) | DC3.3V/1.8V | |
| Antenna Type | Antenna 0: IFA | Antenna 1: PIFA |
| Antenna Gain | Antenna 0: 1.5 dBi (max) | Antenna 1: 3.0 dBi (max) |
| Antenna Connector Type | Antenna 0: N/A | Antenna 1: U.FL |

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification : FCC Part 15 Subpart C: 2012, final revised on February 1, 2012

Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators
Section 15.207 Conducted limits
Section 15.247 Operation within the bands 902-928MHz,
2400-2483.5MHz, and 5725-5850MHz

*The EUT complies with FCC Part 15 Subpart B: 2011, final revised on February 1, 2012.

3.2 Procedures and results

| Item | Test Procedure | Specification | Worst margin | Results | Remarks |
|---|--|---|---|----------|------------------------|
| Conducted Emission | FCC: ANSI C63.4:2003 7. AC powerline Conducted Emission measurements ----- IC: RSS-Gen 7.2.4 | FCC: Section 15.207 ----- IC: RSS-Gen 7.2.4 | QP 7.3dB, 0.15000MHz, N/L AV 14.1dB, 0.15000MHz, N/L | Complied | - |
| 6dB Bandwidth | FCC: "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247" ----- IC: RSS-Gen 4.6.2 | FCC: Section 15.247(a)(2) ----- IC: RSS-210 A8.2(a) | See data. | Complied | Conducted |
| Maximum Peak Output Power | FCC: "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247" ----- IC: RSS-Gen 4.8 | FCC: Section 15.247(b)(3) ----- IC: RSS-210 A8.4(4) | | Complied | Conducted |
| Power Density | FCC: "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247" ----- IC: - | FCC: Section 15.247 (e) ----- IC: RSS-210 A8.2(b) | | Complied | Conducted |
| Spurious Emission Restricted Band Edges | FCC: "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247" ----- IC: RSS-Gen 4.9 | FCC: Section15.247(d) ----- IC: RSS-210 A8.5 RSS-Gen 7.2.3 | 6.2dB 2398.073MHz, Vertical, AV | Complied | Conducted/ Radiated |

Note: UL Japan, Inc.'s EMI Work Procedures No. 13-EM-W0420 and 13-EM-W0422.

* In case any questions arise about test procedure, ANSI C63.4: 2003 is also referred.

FCC 15.31 (e)

This EUT provides stable voltage (DC3.3/1.8V) constantly to RF part regardless of input voltage. Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

It is impossible for end users to replace the antenna, because the antenna is mounted inside of the EUT. Therefore, the equipment complies with the antenna requirement of Section 15.203.

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

3.3 Addition to standard

| Item | Test Procedure | Specification | Worst margin | Results | Remarks |
|------------------------|-------------------|-------------------|--------------|---------|-----------|
| 99% Occupied Bandwidth | IC: RSS-Gen 4.6.1 | IC: RSS-Gen 4.6.1 | N/A | - | Conducted |

Other than above, no addition, exclusion nor deviation has been made from the standard.

3.4 Uncertainty

EMI

The following uncertainties have been calculated to provide a confidence level of 95% using a coverage factor k=2.

| Test room (semi-anechoic chamber) | Conducted emission (+dB) |
|--------------------------------------|-----------------------------|
| | 150kHz-30MHz |
| No.1 | 3.5dB |
| No.2 | 3.6dB |
| No.3 | 3.6dB |
| No.4 | 3.6dB |

| Test room (semi-anechoic chamber) | Radiated emission | | | | | | |
|--------------------------------------|-------------------|------------------|-----------------|----------------|-----------------|-------------------|-------------------|
| | (3m*)(+dB) | | | | (1m*)(+dB) | | (0.5m*)(+dB) |
| | 9kHz -30MHz | 30MHz -300MHz | 300MHz -1GHz | 1GHz -10GHz | 10GHz -18GHz | 18GHz -26.5GHz | 26.5GHz -40GHz |
| No.1 | 4.2dB | 5.0dB | 5.1dB | 4.7dB | 5.7dB | 4.4dB | 4.3dB |
| No.2 | 4.1dB | 5.2dB | 5.1dB | 4.8dB | 5.6dB | 4.3dB | 4.2dB |
| No.3 | 4.5dB | 5.0dB | 5.2dB | 4.8dB | 5.6dB | 4.5dB | 4.2dB |
| No.4 | 4.7dB | 5.2dB | 5.2dB | 4.8dB | 5.6dB | 5.1dB | 4.2dB |

*3m/1m/0.5m = Measurement distance

| Power meter (+dB) | |
|-------------------|------------|
| Below 1GHz | Above 1GHz |
| 1.0dB | 1.0dB |

| Antenna terminal conducted emission and Power density (+dB) | | | Antenna terminal conducted emission (+dB) | | Channel power (+dB) |
|--|-----------|------------|--|---------------|------------------------|
| Below 1GHz | 1GHz-3GHz | 3GHz-18GHz | 18GHz-26.5GHz | 26.5GHz-40GHz | |
| 1.0dB | 1.1dB | 2.7dB | 3.2dB | 3.3dB | 1.5dB |

Conducted Emission test

The data listed in this test report has enough margin, more than the site margin.

Radiated emission test (3m)

The data listed in this test report has enough margin, more than the site margin.

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

3.5 Test Location

UL Japan, Inc. Head Office EMC Lab. *NVLAP Lab. code: 200572-0
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN
Telephone : +81 596 24 8116 Facsimile : +81 596 24 8124

| | FCC Registration Number | IC Registration Number | Width x Depth x Height (m) | Size of reference ground plane (m) / horizontal conducting plane | Other rooms |
|----------------------------|-------------------------|------------------------|----------------------------|--|------------------------|
| No.1 semi-anechoic chamber | 313583 | 2973C-1 | 19.2 x 11.2 x 7.7m | 7.0 x 6.0m | No.1 Power source room |
| No.2 semi-anechoic chamber | 655103 | 2973C-2 | 7.5 x 5.8 x 5.2m | 4.0 x 4.0m | - |
| No.3 semi-anechoic chamber | 148738 | 2973C-3 | 12.0 x 8.5 x 5.9m | 6.8 x 5.75m | No.3 Preparation room |
| No.3 shielded room | - | - | 4.0 x 6.0 x 2.7m | N/A | - |
| No.4 semi-anechoic chamber | 134570 | 2973C-4 | 12.0 x 8.5 x 5.9m | 6.8 x 5.75m | No.4 Preparation room |
| No.4 shielded room | - | - | 4.0 x 6.0 x 2.7m | N/A | - |
| No.5 semi-anechoic chamber | - | - | 6.0 x 6.0 x 3.9m | 6.0 x 6.0m | - |
| No.6 shielded room | - | - | 4.0 x 4.5 x 2.7m | 4.75 x 5.4 m | - |
| No.6 measurement room | - | - | 4.75 x 5.4 x 3.0m | 4.75 x 4.15 m | - |
| No.7 shielded room | - | - | 4.7 x 7.5 x 2.7m | 4.7 x 7.5m | - |
| No.8 measurement room | - | - | 3.1 x 5.0 x 2.7m | N/A | - |
| No.9 measurement room | - | - | 8.0 x 4.5 x 2.8m | 2.0 x 2.0m | - |
| No.10 measurement room | - | - | 2.6 x 2.8 x 2.5m | 2.4 x 2.4m | - |
| No.11 measurement room | - | - | 3.1 x 3.4 x 3.0m | 2.4 x 3.4m | - |

* Size of vertical conducting plane (for Conducted Emission test) : 2.0 x 2.0m for No.1, No.2, No.3, and No.4 semi-anechoic chambers and No.3 and No.4 shielded rooms.

3.6 Data of EMI, Test instruments, and Test set up

Refer to APPENDIX.

SECTION 4: Operation of E.U.T. during testing

4.1 Operating Mode(s)

| Mode | Remarks* |
|---|-----------------|
| IEEE 802.11b (11b) | 2Mbps, PN9 |
| IEEE 802.11g (11g) | 24Mbps, PN9 |
| *Transmitting duty was 100% on all tests. *The worst condition was determined based on the test result of Maximum Peak Output Power (Mid Channel) | |
| *Power of the EUT was set by the software as follows; Power settings: 12 (dBm) Software/Version: LABTOOL_LV2DIAG_20111206 *This setting of software is the worst case. Any conditions under the normal use do not exceed the condition of setting. In addition, end users cannot change the settings of the output power of the product. | |

| Test Item | Operating Mode | Tested antenna | Tested frequency |
|--|-----------------------|------------------------|-----------------------------------|
| Conducted Emission *1) | 11b Tx 11g Tx | Antenna 0 Antenna 1 | 2412MHz 2437MHz 2462MHz |
| Spurious Emission(Radiated) | 11b Tx 11g Tx | Antenna 0 Antenna 1 | 2412MHz *2) 2437MHz 2462MHz |
| | 11b Tx | Antenna 0 | 2437MHz |
| 6dB Bandwidth Maximum Peak Output Power Power Density 99% Occupied Bandwidth Spurious Emission (Conducted) | 11b Tx 11g Tx | Antenna 0 Antenna 1 | 2412MHz 2437MHz 2462MHz |

*Antenna 1 has two kinds of manufacturer's antennas (TE Connectivity and LuxShare-ICT) and the test was performed only with TE Connectivity antenna according to the customer's request, because they have identical antenna characteristics.

*The transmitting data shall be scrambled with the following scramblers and it was transmitted continuously.

[11b]

11Mbps: IEEE Std 802.11b(1999) Section 18.2.4

[11g]

24Mbps: IEEE Std 802.11a(1999) Section 17.3.5.4

*1) The test was performed for both of Power Supply: SONY and DELTA. Other tests except Conducted Emission were performed with Power Supply: DELTA as a representative.

*2) The difference between Power Supply: SONY and DELTA was confirmed by the IEEE802.11g Transmitting (Tx), 24Mbps mode.

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

4.2 Configuration and peripherals

This page has been submitted for a separate exhibit.

This page has been submitted for a separate exhibit.

SECTION 5: Conducted Emission

Test Procedure and conditions

EUT was placed on a urethane platform of nominal size, 1.0m by 1.5m, raised 0.8m above the conducting ground plane.

The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. EUT was located 80cm from a Line Impedance Stabilization Network (LISN)/ Artificial mains Network (AMN) and excess AC cable was bundled in center.

For the tests on EUT with other peripherals (as a whole system)

I/O cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30cm to 40cm long and were hanged at a 40cm height to the ground plane. All unused 50ohm connectors of the LISN(AMN) were resistivity terminated in 50ohm when not connected to the measuring equipment.

The AC Mains Terminal Continuous disturbance Voltage has been measured with the EUT in a Semi Anechoic Chamber.

The EUT was connected to a LISN (AMN).

An overview sweep with peak detection has been performed.

The test results and limit are rounded off to one decimal place, so some differences might be observed.

| | |
|--------------------------|---------------------|
| Detector | : QP and AV |
| Measurement range | : 0.15-30MHz |
| Test data | : APPENDIX |
| Test result | : Pass |

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

SECTION 6: Radiated Spurious Emission

Test Procedure

It was measured based on "2. Radiated emission test" of "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247".

EUT was placed on a urethane platform of nominal size, 1.5m by 1.0m, raised 0.8m above the conducting ground plane.

The Radiated Electric Field Strength has been measured in a Semi Anechoic Chamber with a ground plane.

The height of the measuring antenna varied between 1 and 4m and EUT was rotated a full revolution in order to obtain the maximum value of the electric field strength.

The measurements were performed for both vertical and horizontal antenna polarization with the Test Receiver, or the Spectrum Analyzer.

The measurements were made with the following detector function of the test receiver and the Spectrum analyzer (in linear mode).

The test was made with the detector (RBW/VBW) in the following table.

When using Spectrum analyzer, the test was made with adjusting span to zero by using peak hold.

Test Antennas are used as below;

| | | | | |
|--------------|-------------|-----------------|----------------|------------|
| Frequency | Below 30MHz | 30MHz to 300MHz | 300MHz to 1GHz | Above 1GHz |
| Antenna Type | Loop | Biconical | Logperiodic | Horn |

In any 100kHz bandwidth outside the restricted band in which the spread spectrum intentional radiator is operating, the radio frequency power that is produced by the intentional radiator confirmed 20dB below that in the 100kHz bandwidth within the band that contains the highest level of the desired power, based on a radiated measurement.

20dBc was applied to the frequency over the limit of FCC 15.209 / Table 5 of RSS-Gen 7.2.5(IC) and outside the restricted band of FCC15.205 / Table 3 of RSS-Gen 7.2.2 (IC).

| | | | | |
|-----------------|----------------|--|----------------------------|--|
| Frequency | Below 1GHz | Above 1GHz | | 20dBc |
| Instrument used | Test Receiver | Spectrum Analyzer | | Spectrum Analyzer |
| Detector | QP | PK | AV | PK |
| IF Bandwidth | BW 120kHz(T/R) | RBW: 1MHz VBW: 3MHz | RBW: 1MHz VBW: 10Hz *1) | RBW: 100kHz VBW: 300kHz (S/A) |
| Test Distance | 3m | 3m (below 10GHz), 1m*2) (above 10GHz) | | 3m (below 10GHz), 1m*2) (above 10GHz) |

*1) The test was performed with VBW 10Hz since the EUT had no intervals during which the transmitter was off (see Appendix).

*2) Distance Factor: $20 \times \log(3.0\text{m}/1.0\text{m}) = 9.5\text{dB}$

- The carrier level and noise levels were confirmed at each position of X and Y axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

The test results and limit are rounded off to one decimal place, so some differences might be observed.

Measurement range : 30M-26.5GHz
Test data : APPENDIX
Test result : Pass

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

SECTION 7: Antenna Terminal Conducted Tests

Test Procedure

The tests were made with below setting connected to the antenna port.

| Test | Span | RBW | VBW | Sweep time | Detector | Trace | Instrument used |
|---------------------------------|--|-----------------|--------------------|-------------------|-----------------|--------------|--------------------------------|
| 6dB Bandwidth | 20MHz | 100kHz | 300kHz | Auto | Peak | Max Hold | Spectrum Analyzer |
| 99% Occupied Bandwidth | Enough width to display 20dB Bandwidth | 1 to 3% of Span | Three times of RBW | Auto | Peak | Max Hold | Spectrum Analyzer |
| Maximum Peak Output Power | - | - | - | Auto | Peak | - | Power Meter (Sensor: 50MHz BW) |
| Peak Power Density | 20MHz | 30kHz | 100kHz | 667sec | Peak | Max Hold | Spectrum Analyzer *1) *2) |
| Conducted Spurious Emission *3) | 9kHz to 150kHz | 200Hz | 620Hz | Auto | Peak | Max Hold | Spectrum Analyzer |
| | 150kHz to 30MHz | 9.1kHz | 27kHz | | | | |
| | 30MHz to 25GHz (Less or equal to 5GHz) | 100kHz | 300kHz | | | | |

*1) PSD Option 1 of "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247".
*2) The test was not performed at RBW:3kHz however the measurement is to be performed with RBW:3kHz in the regulation, because the measurement value with RBW:3kHz is less than the value of RBW:30kHz and the test data met the limit with RBW:30kHz.
*3) In the frequency range below 30MHz, RBW was narrowed to separate the noise contents.
Then, wide-band noise near the limit was checked separately, however the noise was low enough as shown in the chart.(9kHz-150kHz:RBW=200Hz, 150kHz-30MHz:RBW=9.1kHz). Since the margin is more than about 50dB, the EUT complies with the limit of FCC15.209 if the measurement is performed with RBW=100kHz.

The test results and limit are rounded off to two decimals place, so some differences might be observed.

Test data : APPENDIX
Test result : Pass

APPENDIX 1: Data of EMI test

Conducted Emission
(Power Supply: SONY)

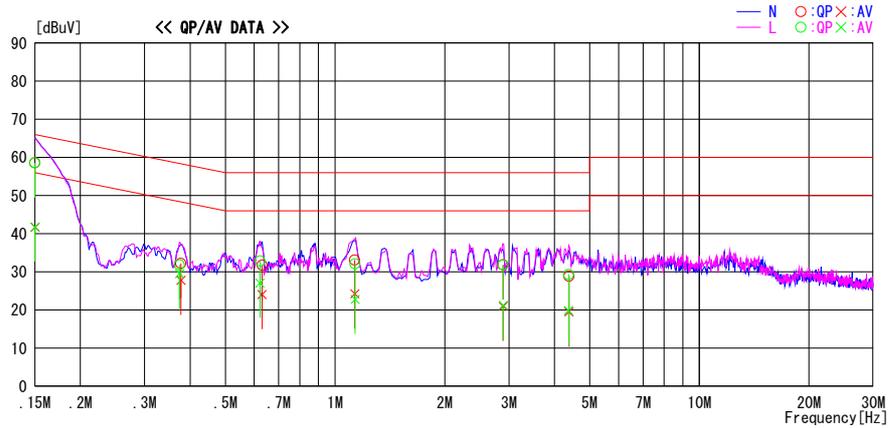
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2012/03/30

Report No. : 32GE0144-HO-01
Temp./Humi. : 22deg. C / 38% RH
Engineer : Shinya Watanabe

Mode / Remarks : WLAN 11b Tx, 2462MHz, 2Mbps, Antenna 0

LIMIT : FCC15.207 QP
FCC15.207 AV

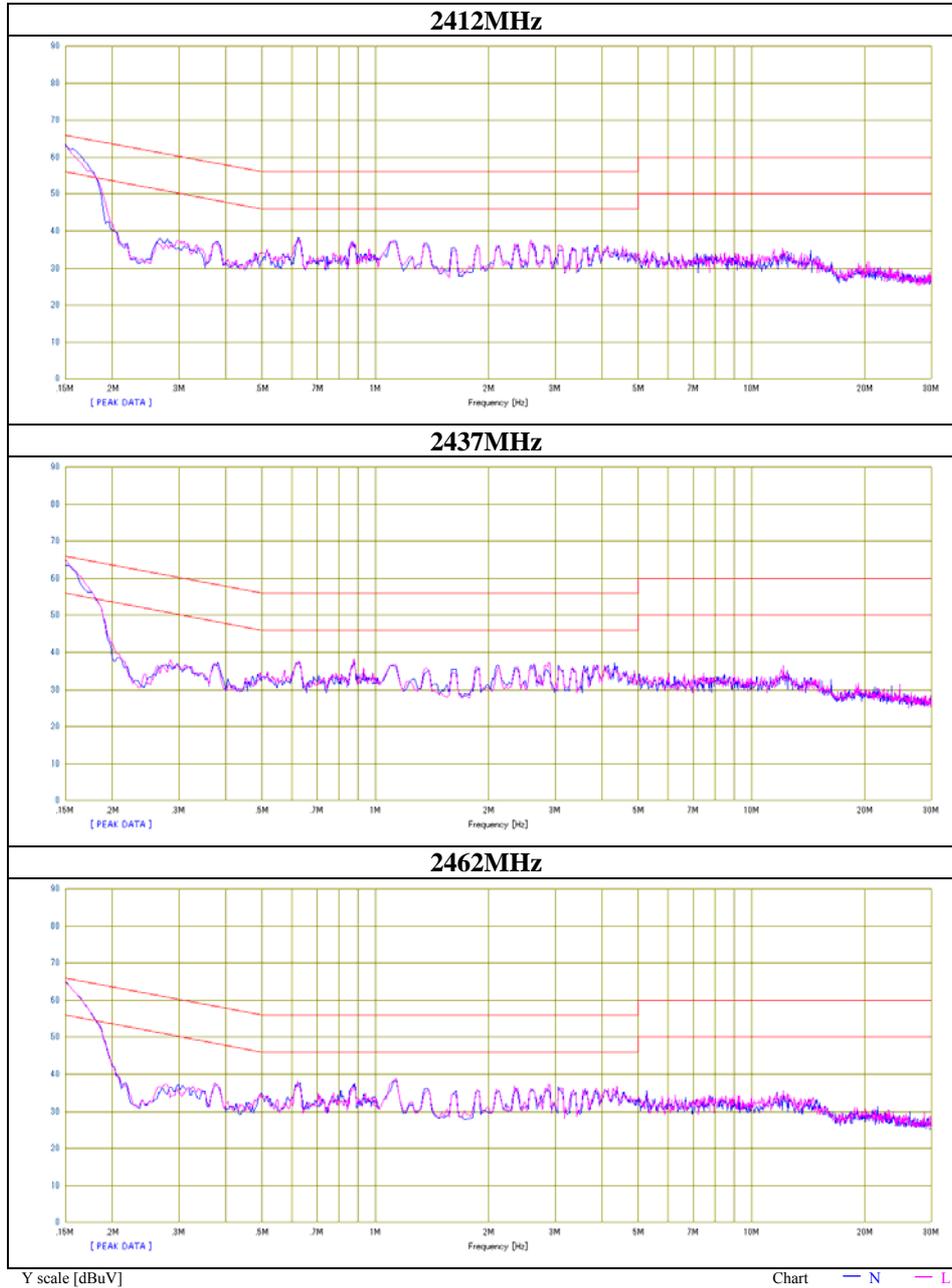


| Frequency [MHz] | Reading Level | | Corr. Factor [dB] | Results | | Limit | | Margin | | Phase | Comment |
|-----------------|---------------|-----------|-------------------|-----------|-----------|-----------|-----------|---------|---------|-------|---------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | | |
| 0.15000 | 45.3 | 28.4 | 13.3 | 58.6 | 41.7 | 66.0 | 56.0 | 7.4 | 14.3 | N | |
| 0.37732 | 18.9 | 14.5 | 13.3 | 32.2 | 27.8 | 58.3 | 48.3 | 26.1 | 20.5 | N | |
| 0.63014 | 18.4 | 10.8 | 13.3 | 31.7 | 24.1 | 56.0 | 46.0 | 24.3 | 21.9 | N | |
| 1.13225 | 19.8 | 10.9 | 13.3 | 33.1 | 24.2 | 56.0 | 46.0 | 22.9 | 21.8 | N | |
| 2.89346 | 18.3 | 7.5 | 13.5 | 31.8 | 21.0 | 56.0 | 46.0 | 24.2 | 25.0 | N | |
| 4.38454 | 15.1 | 5.8 | 13.7 | 28.8 | 19.5 | 56.0 | 46.0 | 27.2 | 26.5 | N | |
| 0.15000 | 45.3 | 28.5 | 13.3 | 58.6 | 41.8 | 66.0 | 56.0 | 7.4 | 14.2 | L | |
| 0.37403 | 18.5 | 16.2 | 13.3 | 31.8 | 29.5 | 58.4 | 48.4 | 26.6 | 18.9 | L | |
| 0.62197 | 19.5 | 13.8 | 13.3 | 32.8 | 27.1 | 56.0 | 46.0 | 23.2 | 18.9 | L | |
| 1.13457 | 18.8 | 9.5 | 13.3 | 32.1 | 22.8 | 56.0 | 46.0 | 23.9 | 23.2 | L | |
| 2.89414 | 18.3 | 7.7 | 13.5 | 31.8 | 21.2 | 56.0 | 46.0 | 24.2 | 24.8 | L | |
| 4.37362 | 15.6 | 6.2 | 13.7 | 29.3 | 19.9 | 56.0 | 46.0 | 26.7 | 26.1 | L | |

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(Power Supply: SONY)

| | |
|-----------------------|---|
| Test place | Head Office EMC Lab. No.3 Semi Anechoic Chamber |
| Report No. | 32GE0144-HO-01 |
| Date | 03/30/2012 |
| Temperature/ Humidity | 22 deg. C / 38% RH |
| Engineer | Shinya Watanabe |
| Mode | 11b Tx Antenna 0 |



Conducted Emission
(Power Supply: SONY)

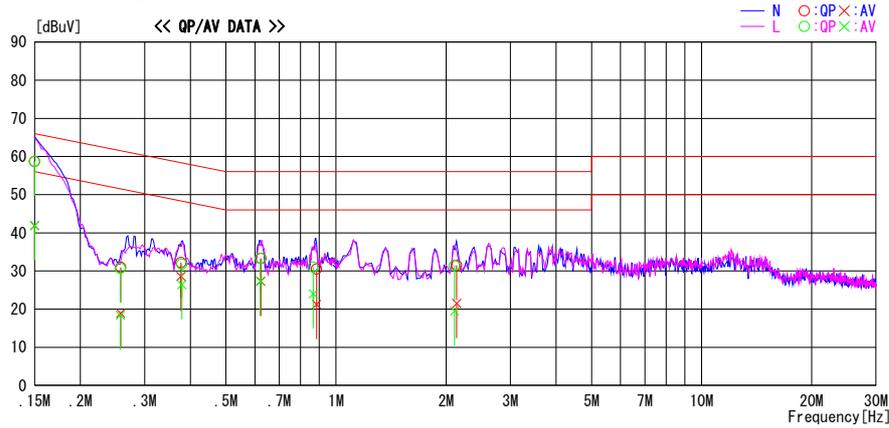
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2012/03/30

Report No. : 32GE0144-HO-01
Temp./Humi. : 22deg.C / 38% RH
Engineer : Shinya Watanabe

Mode / Remarks : WLAN 11b Tx, 2462MHz, 2Mbps, Antenna 1

LIMIT : FCC15.207 QP
FCC15.207 AV

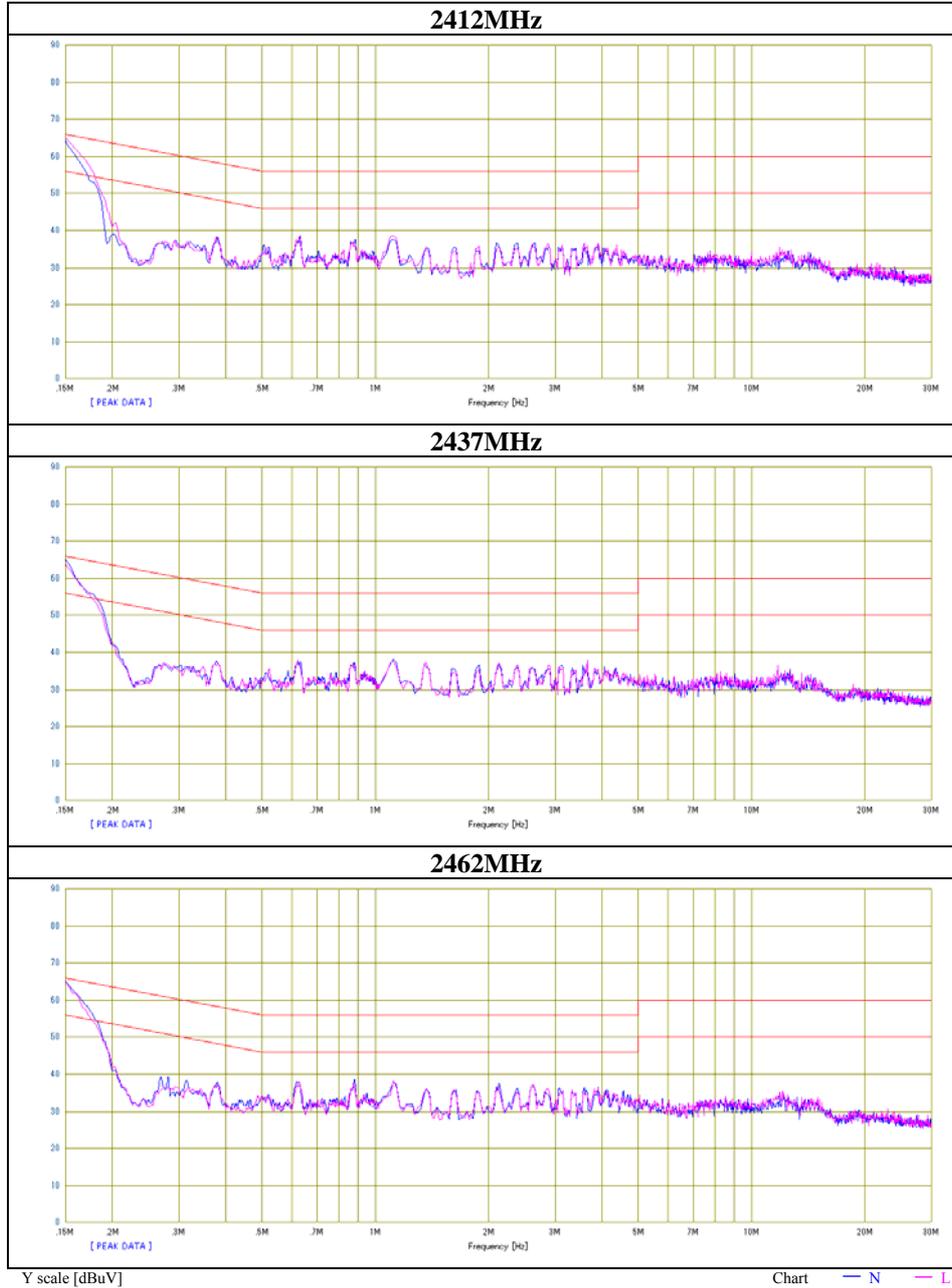


| Frequency [MHz] | Reading Level | | Corr. Factor [dB] | Results | | Limit | | Margin | | Phase |
|--------------------|---------------|--------------|-------------------------|--------------|--------------|--------------|--------------|------------|------------|-------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | |
| 0.15000 | 45.4 | 28.6 | 13.3 | 58.7 | 41.9 | 66.0 | 56.0 | 7.3 | 14.1 | N |
| 0.25783 | 17.6 | 5.6 | 13.3 | 30.9 | 18.9 | 61.5 | 51.5 | 30.6 | 32.6 | N |
| 0.37695 | 18.9 | 15.3 | 13.3 | 32.2 | 28.6 | 58.3 | 48.3 | 26.1 | 19.7 | N |
| 0.62322 | 20.0 | 14.0 | 13.3 | 33.3 | 27.3 | 56.0 | 46.0 | 22.7 | 18.7 | N |
| 0.88482 | 17.2 | 7.9 | 13.3 | 30.5 | 21.2 | 56.0 | 46.0 | 25.5 | 24.8 | N |
| 2.13763 | 18.1 | 8.1 | 13.4 | 31.5 | 21.5 | 56.0 | 46.0 | 24.5 | 24.5 | N |
| 0.15000 | 45.4 | 28.6 | 13.3 | 58.7 | 41.9 | 66.0 | 56.0 | 7.3 | 14.1 | L |
| 0.25718 | 17.4 | 5.1 | 13.3 | 30.7 | 18.4 | 61.5 | 51.5 | 30.8 | 33.1 | L |
| 0.37875 | 18.5 | 13.1 | 13.3 | 31.8 | 26.4 | 58.3 | 48.3 | 26.5 | 21.9 | L |
| 0.62172 | 20.0 | 14.0 | 13.3 | 33.3 | 27.3 | 56.0 | 46.0 | 22.7 | 18.7 | L |
| 0.86665 | 17.7 | 10.7 | 13.3 | 31.0 | 24.0 | 56.0 | 46.0 | 25.0 | 22.0 | L |
| 2.11095 | 18.0 | 6.1 | 13.4 | 31.4 | 19.5 | 56.0 | 46.0 | 24.6 | 26.5 | L |

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(Power Supply: SONY)

| | |
|-----------------------|---|
| Test place | Head Office EMC Lab. No.3 Semi Anechoic Chamber |
| Report No. | 32GE0144-HO-01 |
| Date | 03/30/2012 |
| Temperature/ Humidity | 22 deg. C / 38% RH |
| Engineer | Shinya Watanabe |
| Mode | 11b Tx Antenna 1 |



Conducted Emission
(Power Supply: SONY)

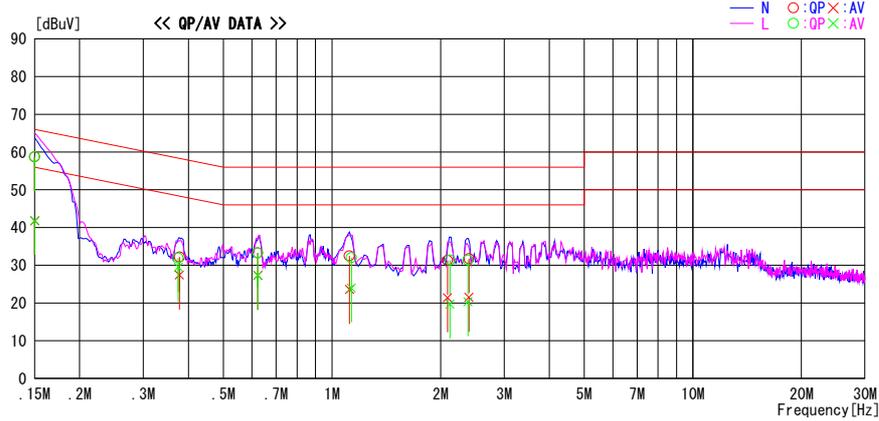
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2012/03/30

Report No. : 32GE0144-H0-01
Temp./Humi. : 22deg. C / 38% RH
Engineer : Shinya Watanabe

Mode / Remarks : WLAN 11g Tx, 2462MHz, 24Mbps, Antenna 0

LIMIT : FCC15.207 QP
FCC15.207 AV

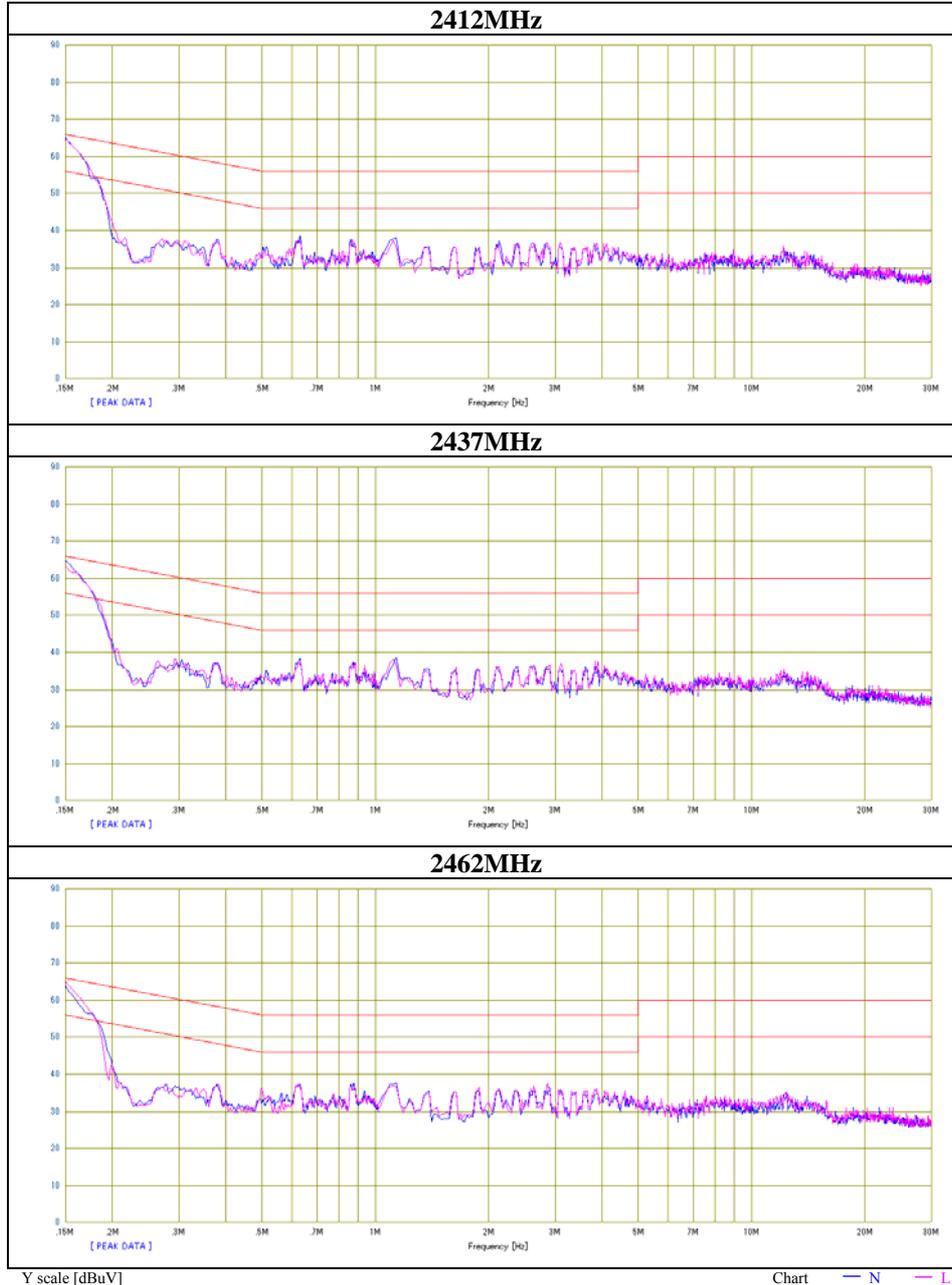


| Frequency [MHz] | Reading Level | | Corr. Factor | Results | | Limit | | Margin | | Phase | Comment |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|---------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | | |
| 0.15000 | 45.4 | 28.5 | 13.3 | 58.7 | 41.8 | 66.0 | 56.0 | 7.3 | 14.2 | N | |
| 0.37800 | 18.9 | 14.1 | 13.3 | 32.2 | 27.4 | 58.3 | 48.3 | 26.1 | 20.9 | N | |
| 0.62275 | 20.0 | 14.0 | 13.3 | 33.3 | 27.3 | 56.0 | 46.0 | 22.7 | 18.7 | N | |
| 1.11805 | 19.2 | 10.3 | 13.3 | 32.5 | 23.6 | 56.0 | 46.0 | 23.5 | 22.4 | N | |
| 2.08955 | 17.9 | 8.0 | 13.4 | 31.3 | 21.4 | 56.0 | 46.0 | 24.7 | 24.6 | N | |
| 2.39498 | 18.3 | 8.1 | 13.4 | 31.7 | 21.5 | 56.0 | 46.0 | 24.3 | 24.5 | N | |
| 0.15000 | 45.4 | 28.6 | 13.3 | 58.7 | 41.9 | 66.0 | 56.0 | 7.3 | 14.1 | L | |
| 0.37505 | 18.6 | 16.2 | 13.3 | 31.9 | 29.5 | 58.4 | 48.4 | 26.5 | 18.9 | L | |
| 0.62292 | 20.0 | 14.0 | 13.3 | 33.3 | 27.3 | 56.0 | 46.0 | 22.7 | 18.7 | L | |
| 1.13145 | 18.7 | 10.7 | 13.3 | 32.0 | 24.0 | 56.0 | 46.0 | 24.0 | 22.0 | L | |
| 2.12288 | 18.0 | 6.3 | 13.4 | 31.4 | 19.7 | 56.0 | 46.0 | 24.6 | 26.3 | L | |
| 2.38118 | 18.0 | 6.9 | 13.4 | 31.4 | 20.3 | 56.0 | 46.0 | 24.6 | 25.7 | L | |

CHART: WITH FACTOR. Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(Power Supply: SONY)

| | |
|-----------------------|---|
| Test place | Head Office EMC Lab. No.3 Semi Anechoic Chamber |
| Report No. | 32GE0144-HO-01 |
| Date | 03/30/2012 |
| Temperature/ Humidity | 22 deg. C / 38% RH |
| Engineer | Shinya Watanabe |
| Mode | 11g Tx Antenna 0 |



Conducted Emission
(Power Supply: SONY)

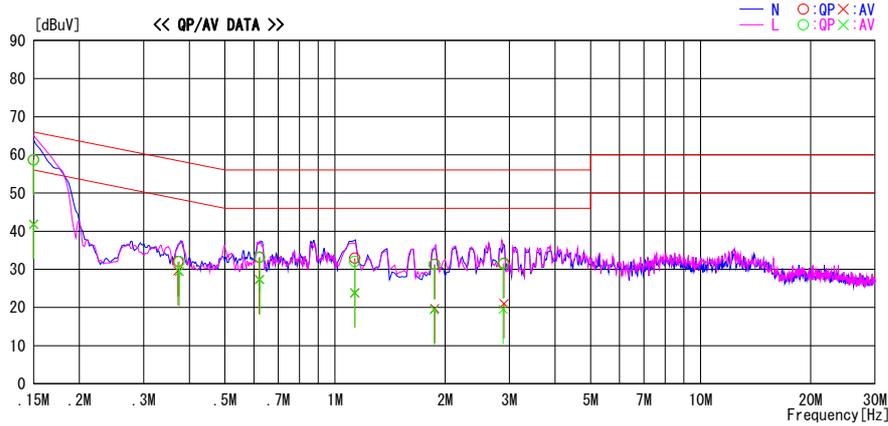
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2012/03/30

Report No. : 32GE0144-HO-01
Temp./Humi. : 22deg. C / 38% RH
Engineer : Shinya Watanabe

Mode / Remarks : WLAN 11g Tx, 2462MHz, 24Mbps, Antenna 1

LIMIT : FCC15.207 QP
FCC15.207 AV

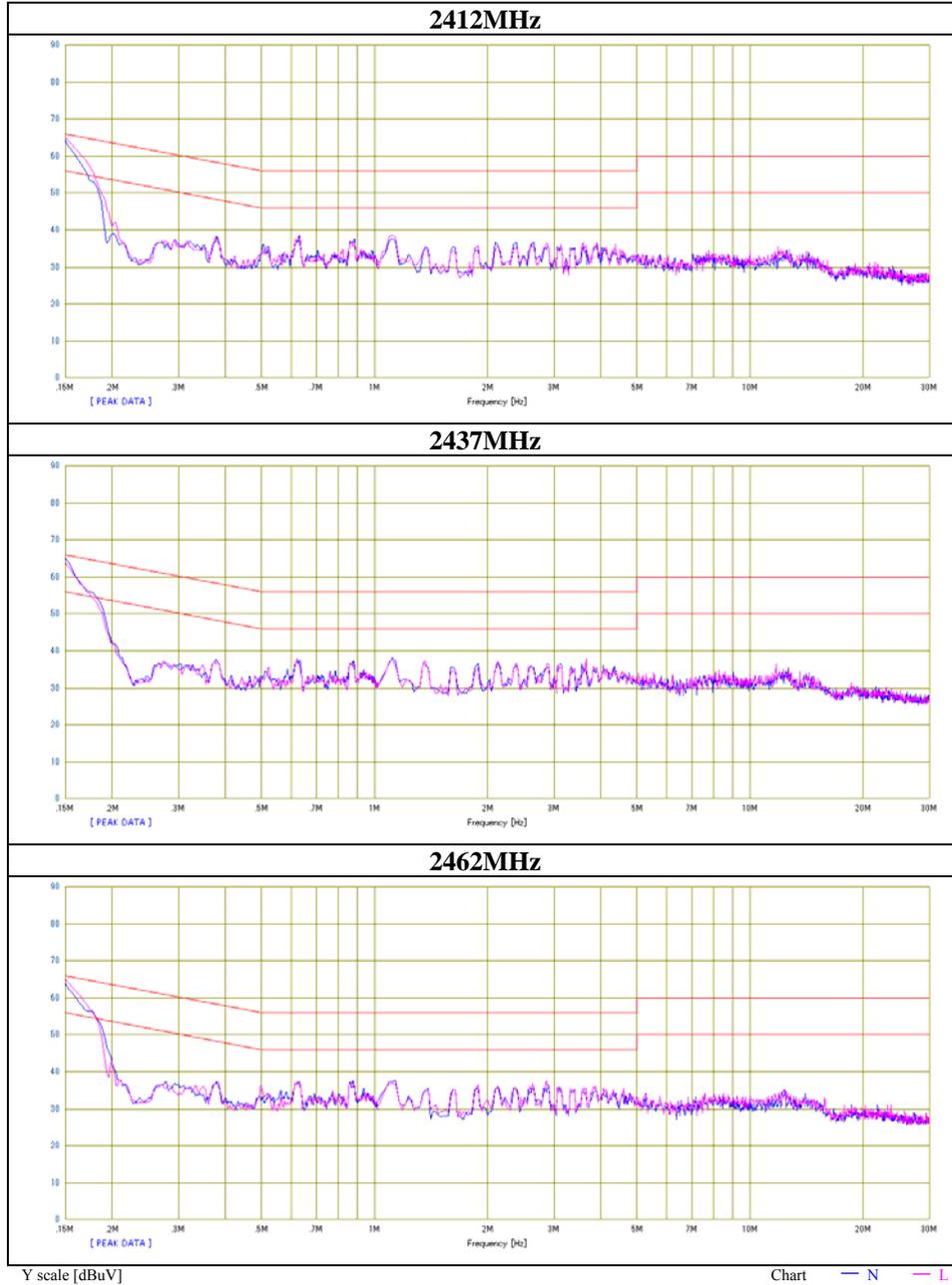


| Frequency [MHz] | Reading Level | | Corr. Factor | Results | | Limit | | Margin | | Phase |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | |
| 0.15000 | 45.4 | 28.5 | 13.3 | 58.7 | 41.8 | 66.0 | 56.0 | 7.3 | 14.2 | N |
| 0.37218 | 18.7 | 16.3 | 13.3 | 32.0 | 29.6 | 58.5 | 48.5 | 26.5 | 18.9 | N |
| 0.62112 | 19.8 | 14.0 | 13.3 | 33.1 | 27.3 | 56.0 | 46.0 | 22.9 | 18.7 | N |
| 1.13393 | 19.6 | 10.5 | 13.3 | 32.9 | 23.8 | 56.0 | 46.0 | 23.1 | 22.2 | N |
| 1.87463 | 17.9 | 6.3 | 13.4 | 31.3 | 19.7 | 56.0 | 46.0 | 24.7 | 26.3 | N |
| 2.89850 | 18.1 | 7.5 | 13.5 | 31.6 | 21.0 | 56.0 | 46.0 | 24.4 | 25.0 | N |
| 0.15000 | 45.4 | 28.5 | 13.3 | 58.7 | 41.8 | 66.0 | 56.0 | 7.3 | 14.2 | L |
| 0.37533 | 18.7 | 16.1 | 13.3 | 32.0 | 29.4 | 58.4 | 48.4 | 26.4 | 19.0 | L |
| 0.62257 | 19.9 | 14.0 | 13.3 | 33.2 | 27.3 | 56.0 | 46.0 | 22.8 | 18.7 | L |
| 1.13210 | 18.8 | 10.6 | 13.3 | 32.1 | 23.9 | 56.0 | 46.0 | 23.9 | 22.1 | L |
| 1.86680 | 17.8 | 6.0 | 13.4 | 31.2 | 19.4 | 56.0 | 46.0 | 24.8 | 26.6 | L |
| 2.88243 | 17.9 | 6.0 | 13.5 | 31.4 | 19.5 | 56.0 | 46.0 | 24.6 | 26.5 | L |

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(Power Supply: SONY)

| | |
|-----------------------|---|
| Test place | Head Office EMC Lab. No.3 Semi Anechoic Chamber |
| Report No. | 32GE0144-HO-01 |
| Date | 03/30/2012 |
| Temperature/ Humidity | 22 deg. C / 38% RH |
| Engineer | Shinya Watanabe |
| Mode | 11g Tx Antenna 1 |



Conducted Emission
(Power Supply: DELTA)

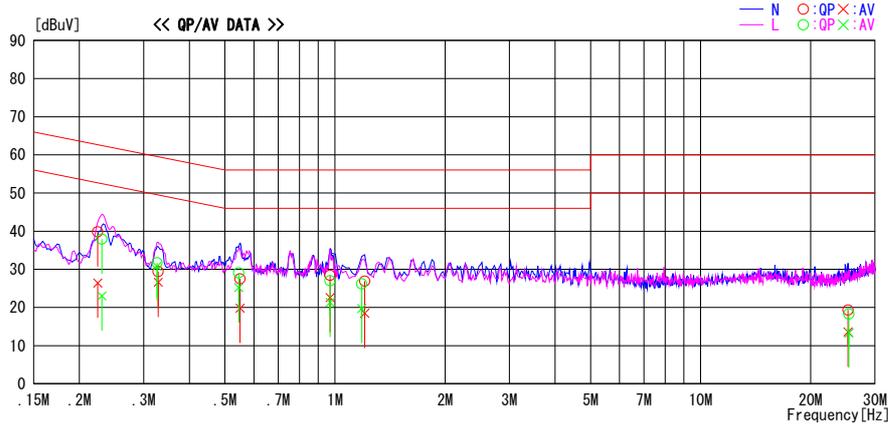
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2012/03/30

Report No. : 32GE0144-HO-01
Temp./Humi. : 22deg. C / 38% RH
Engineer : Shinya Watanabe

Mode / Remarks : WLAN 11b Tx, 2412MHz, 2Mbps, Antenna 0

LIMIT : FCC15.207 QP
FCC15.207 AV

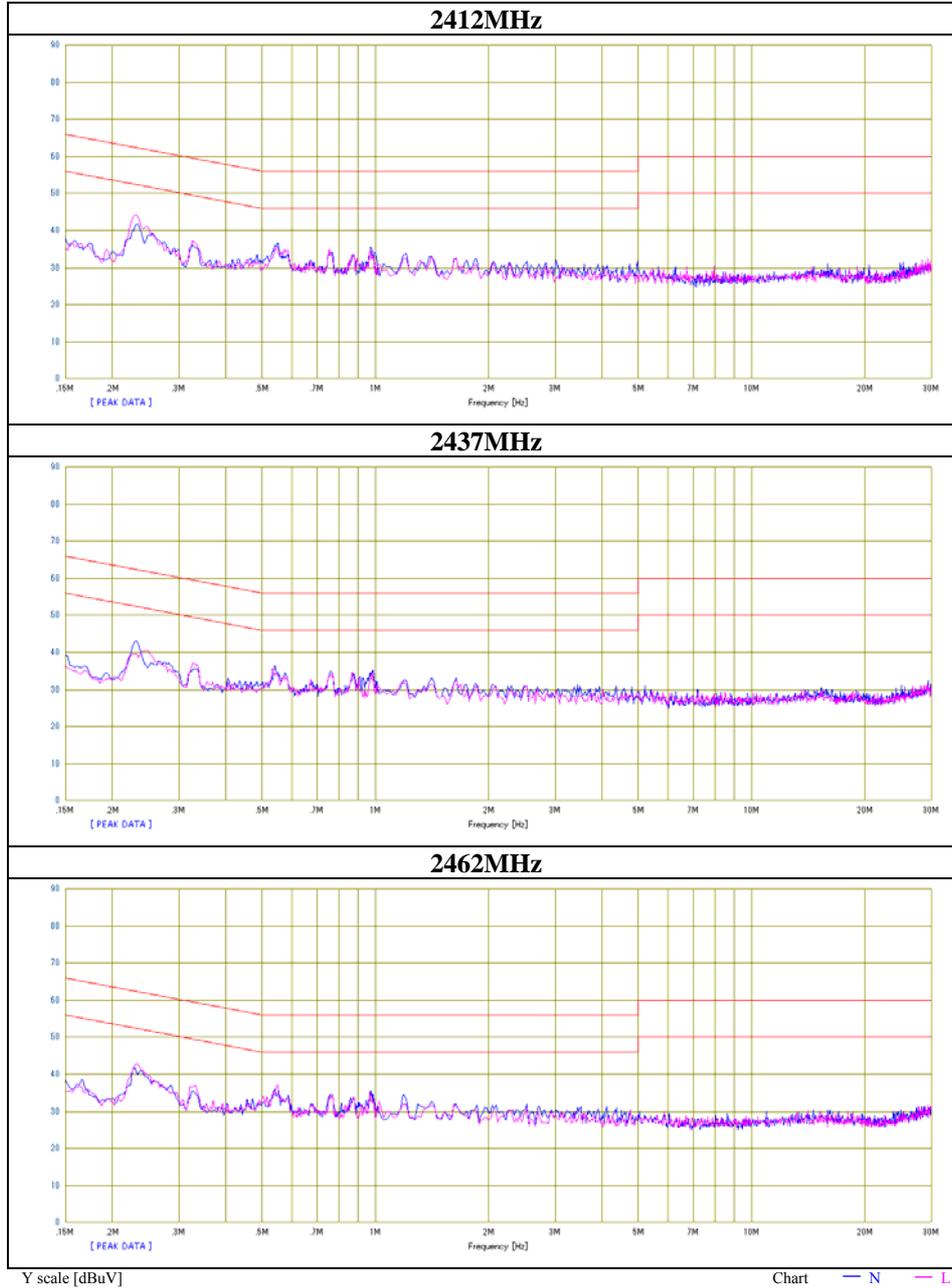


| Frequency [MHz] | Reading Level | | Corr. Factor [dB] | Results | | Limit | | Margin | | Phase |
|--------------------|---------------|--------------|-------------------------|--------------|--------------|--------------|--------------|------------|------------|-------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | |
| 0.22465 | 26.6 | 13.2 | 13.2 | 39.8 | 26.4 | 62.6 | 52.6 | 22.8 | 26.2 | N |
| 0.32868 | 16.1 | 13.3 | 13.3 | 29.4 | 26.6 | 59.5 | 49.5 | 30.1 | 22.9 | N |
| 0.55020 | 14.2 | 6.5 | 13.3 | 27.5 | 19.8 | 56.0 | 46.0 | 28.5 | 26.2 | N |
| 0.96997 | 15.1 | 9.3 | 13.3 | 28.4 | 22.6 | 56.0 | 46.0 | 27.6 | 23.4 | N |
| 1.20675 | 13.6 | 5.2 | 13.3 | 26.9 | 18.5 | 56.0 | 46.0 | 29.1 | 27.5 | N |
| 25.28829 | 4.4 | -1.3 | 14.9 | 19.3 | 13.6 | 60.0 | 50.0 | 40.7 | 36.4 | N |
| 0.23048 | 24.6 | 9.7 | 13.3 | 37.9 | 23.0 | 62.4 | 52.4 | 24.5 | 29.4 | L |
| 0.32618 | 18.4 | 17.5 | 13.3 | 31.7 | 30.8 | 59.5 | 49.5 | 27.8 | 18.7 | L |
| 0.54585 | 15.8 | 11.9 | 13.3 | 29.1 | 25.2 | 56.0 | 46.0 | 26.9 | 20.8 | L |
| 0.96997 | 13.7 | 8.0 | 13.3 | 27.0 | 21.3 | 56.0 | 46.0 | 29.0 | 24.7 | L |
| 1.18408 | 12.9 | 6.4 | 13.3 | 26.2 | 19.7 | 56.0 | 46.0 | 29.8 | 26.3 | L |
| 25.43866 | 3.4 | -1.6 | 14.9 | 18.3 | 13.3 | 60.0 | 50.0 | 41.7 | 36.7 | L |

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(Power Supply: DELTA)

| | |
|-----------------------|---|
| Test place | Head Office EMC Lab. No.3 Semi Anechoic Chamber |
| Report No. | 32GE0144-HO-01 |
| Date | 03/30/2012 |
| Temperature/ Humidity | 22 deg. C / 38% RH |
| Engineer | Shinya Watanabe |
| Mode | 11b Tx Antenna 0 |



Conducted Emission
(Power Supply: DELTA)

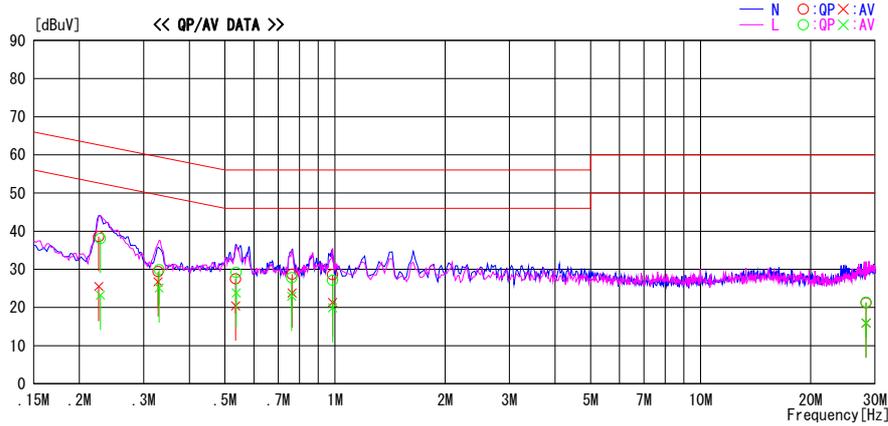
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2012/03/30

Report No. : 32GE0144-HO-01
Temp./Humi. : 22deg. C / 38% RH
Engineer : Shinya Watanabe

Mode / Remarks : WLAN 11b Tx, 2412MHz, 2Mbps, Antenna 1

LIMIT : FCC15.207 QP
FCC15.207 AV

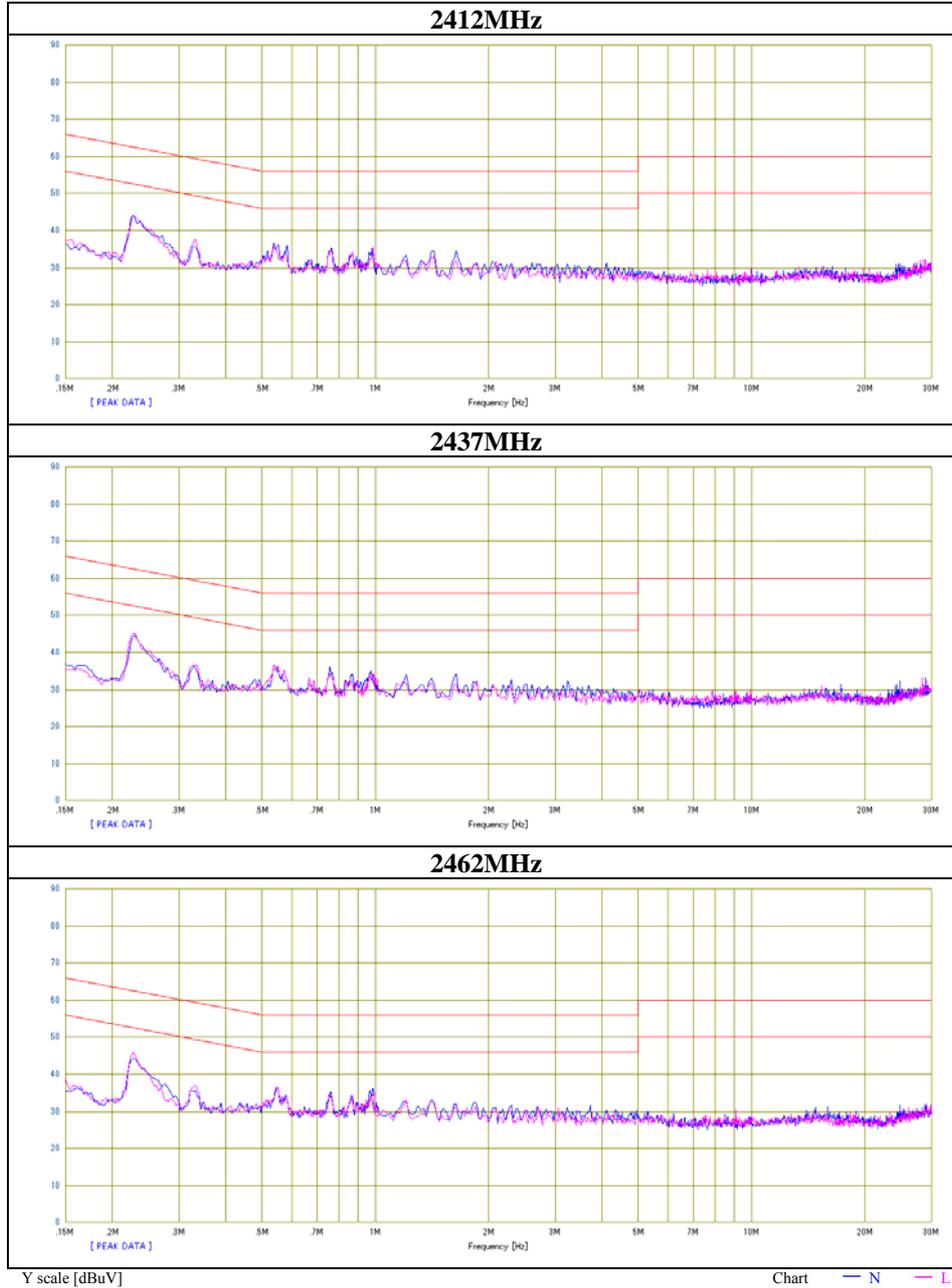


| Frequency [MHz] | Reading Level | | Corr. Factor | Results | | Limit | | Margin | | Phase |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | |
| 0.22613 | 25.4 | 12.3 | 13.2 | 38.6 | 25.5 | 62.6 | 52.6 | 24.0 | 27.1 | N |
| 0.32835 | 16.1 | 13.4 | 13.3 | 29.4 | 26.7 | 59.5 | 49.5 | 30.1 | 22.8 | N |
| 0.53498 | 14.2 | 7.1 | 13.3 | 27.5 | 20.4 | 56.0 | 46.0 | 28.5 | 25.6 | N |
| 0.76335 | 15.4 | 10.5 | 13.3 | 28.7 | 23.8 | 56.0 | 46.0 | 27.3 | 22.2 | N |
| 0.98520 | 15.3 | 8.0 | 13.3 | 28.6 | 21.3 | 56.0 | 46.0 | 27.4 | 24.7 | N |
| 28.34592 | 6.3 | 1.0 | 14.9 | 21.2 | 15.9 | 60.0 | 50.0 | 38.8 | 34.1 | N |
| 0.22830 | 24.9 | 10.0 | 13.2 | 38.1 | 23.2 | 62.5 | 52.5 | 24.4 | 29.3 | L |
| 0.33053 | 16.6 | 11.8 | 13.3 | 29.9 | 25.1 | 59.4 | 49.4 | 29.5 | 24.3 | L |
| 0.53715 | 15.9 | 10.5 | 13.3 | 29.2 | 23.8 | 56.0 | 46.0 | 26.8 | 22.2 | L |
| 0.76117 | 14.5 | 9.6 | 13.3 | 27.8 | 22.9 | 56.0 | 46.0 | 28.2 | 23.1 | L |
| 0.98520 | 13.8 | 6.6 | 13.3 | 27.1 | 19.9 | 56.0 | 46.0 | 28.9 | 26.1 | L |
| 28.34592 | 6.5 | 1.1 | 14.9 | 21.4 | 16.0 | 60.0 | 50.0 | 38.6 | 34.0 | L |

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(Power Supply: DELTA)

| | |
|-----------------------|---|
| Test place | Head Office EMC Lab. No.3 Semi Anechoic Chamber |
| Report No. | 32GE0144-HO-01 |
| Date | 03/30/2012 |
| Temperature/ Humidity | 22 deg. C / 38% RH |
| Engineer | Shinya Watanabe |
| Mode | 11b Tx Antenna 1 |



Conducted Emission
(Power Supply: DELTA)

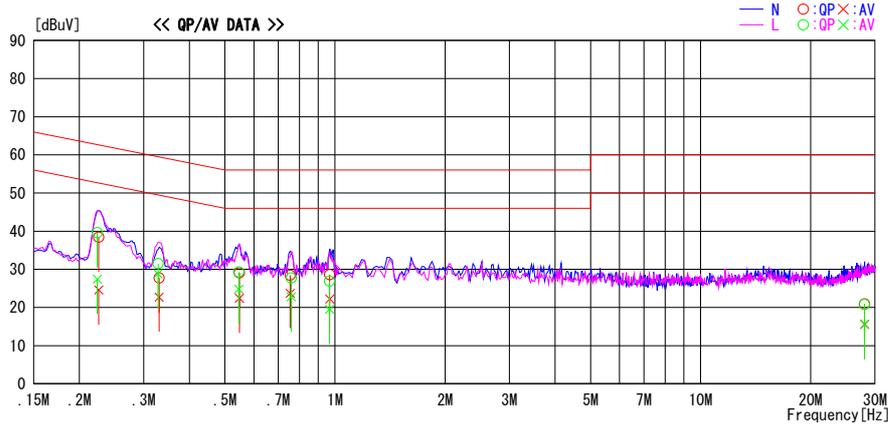
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2012/03/30

Report No. : 32GE0144-HO-01
Temp./Humi. : 22deg. C / 38% RH
Engineer : Shinya Watanabe

Mode / Remarks : WLAN 11g Tx, 2412MHz, 24Mbps, Antenna 0

LIMIT : FCC15.207 QP
FCC15.207 AV

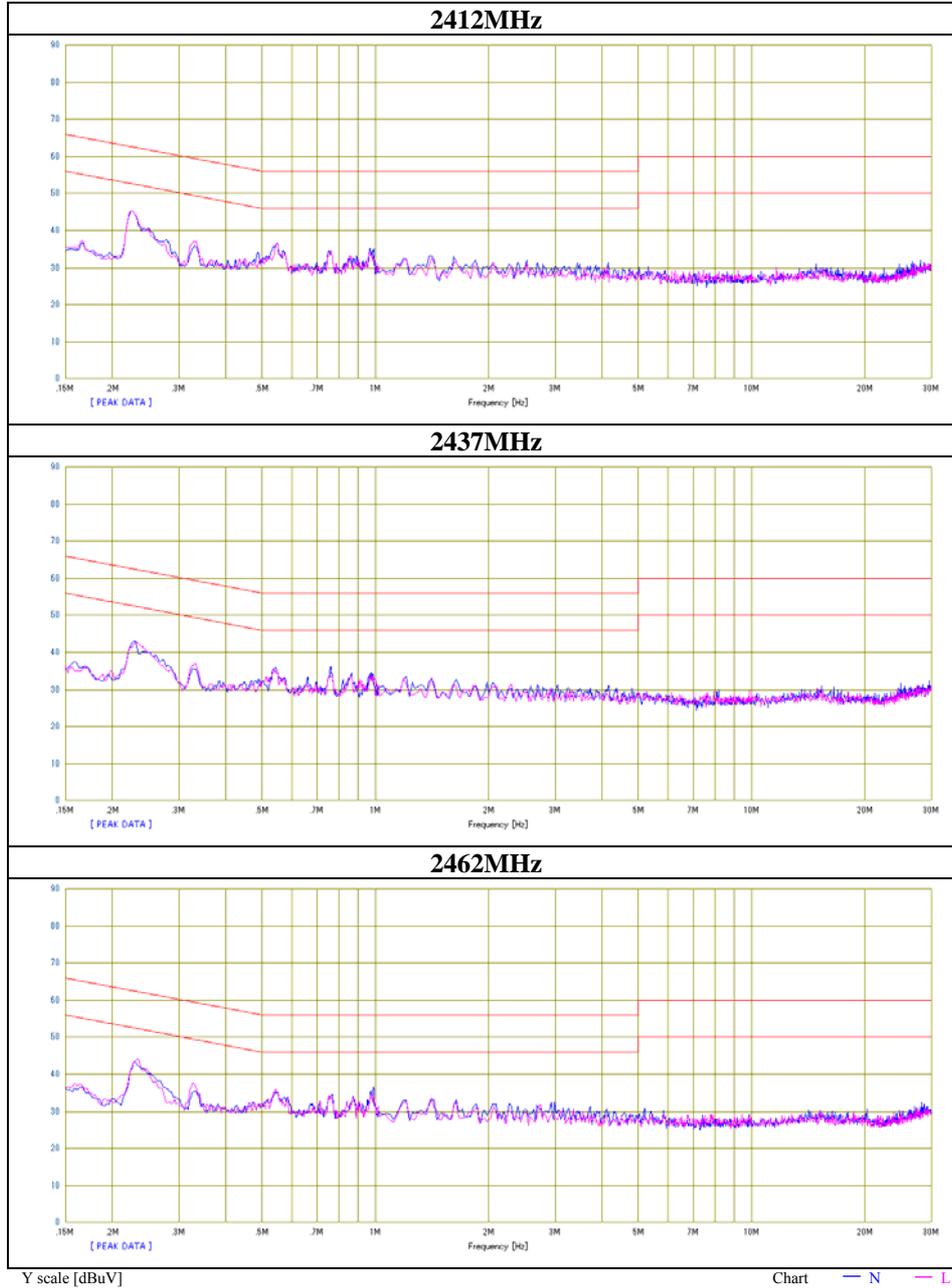


| Frequency [MHz] | Reading Level | | Corr. Factor | Results | | Limit | | Margin | | Phase |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | |
| 0.22613 | 25.2 | 11.4 | 13.2 | 38.4 | 24.6 | 62.6 | 52.6 | 24.2 | 28.0 | N |
| 0.33053 | 14.4 | 9.4 | 13.3 | 27.7 | 22.7 | 59.4 | 49.4 | 31.7 | 26.7 | N |
| 0.54803 | 15.8 | 9.1 | 13.3 | 29.1 | 22.4 | 56.0 | 46.0 | 26.9 | 23.6 | N |
| 0.75465 | 15.1 | 10.4 | 13.3 | 28.4 | 23.7 | 56.0 | 46.0 | 27.6 | 22.3 | N |
| 0.96780 | 15.3 | 8.9 | 13.3 | 28.6 | 22.2 | 56.0 | 46.0 | 27.4 | 23.8 | N |
| 28.09529 | 6.0 | 0.7 | 14.9 | 20.9 | 15.6 | 60.0 | 50.0 | 39.1 | 34.4 | N |
| 0.22395 | 26.4 | 14.2 | 13.2 | 39.6 | 27.4 | 62.7 | 52.7 | 23.1 | 25.3 | L |
| 0.32835 | 18.2 | 15.5 | 13.3 | 31.5 | 28.8 | 59.5 | 49.5 | 28.0 | 20.7 | L |
| 0.54585 | 16.0 | 11.5 | 13.3 | 29.3 | 24.8 | 56.0 | 46.0 | 26.7 | 21.2 | L |
| 0.75900 | 14.4 | 9.5 | 13.3 | 27.7 | 22.8 | 56.0 | 46.0 | 28.3 | 23.2 | L |
| 0.96562 | 13.6 | 6.2 | 13.3 | 26.9 | 19.5 | 56.0 | 46.0 | 29.1 | 26.5 | L |
| 28.04517 | 5.9 | 0.7 | 14.9 | 20.8 | 15.6 | 60.0 | 50.0 | 39.2 | 34.4 | L |

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(Power Supply: DELTA)

| | |
|-----------------------|---|
| Test place | Head Office EMC Lab. No.3 Semi Anechoic Chamber |
| Report No. | 32GE0144-HO-01 |
| Date | 03/30/2012 |
| Temperature/ Humidity | 22 deg. C / 38% RH |
| Engineer | Shinya Watanabe |
| Mode | 11g Tx Antenna 0 |



Conducted Emission
(Power Supply: DELTA)

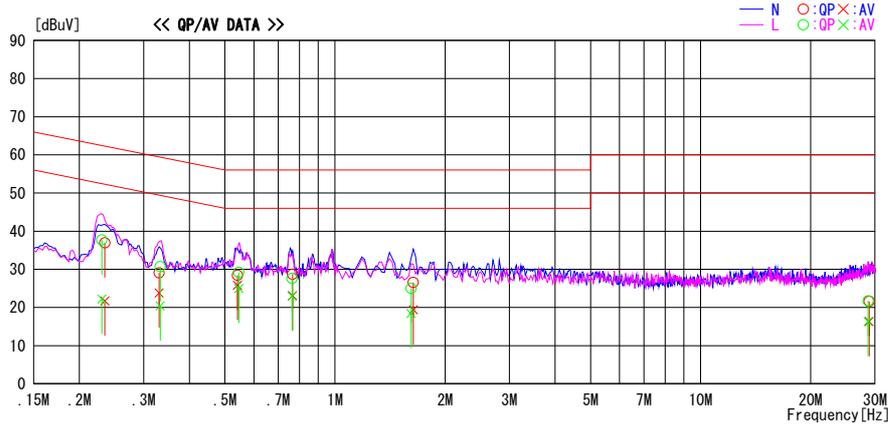
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber
Date : 2012/03/30

Report No. : 32GE0144-HO-01
Temp./Humi. : 22deg. C / 38% RH
Engineer : Shinya Watanabe

Mode / Remarks : WLAN 11g Tx, 2412MHz, 24Mbps, Antenna 1

LIMIT : FCC15.207 QP
FCC15.207 AV

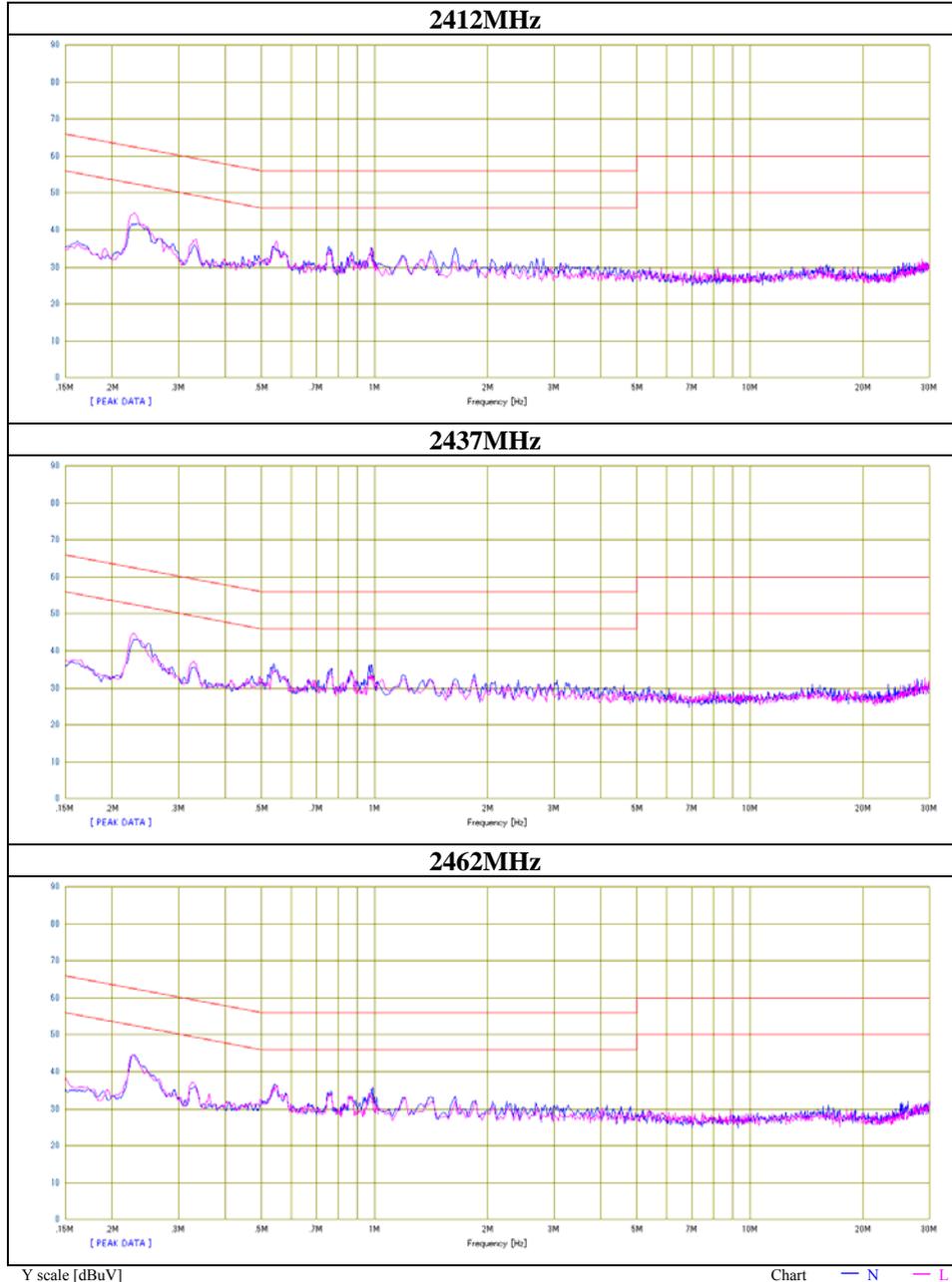


| Frequency [MHz] | Reading Level | | Corr. Factor | Results | | Limit | | Margin | | Phase |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|
| | QP [dBuV] | AV [dBuV] | | QP [dBuV] | AV [dBuV] | QP [dBuV] | AV [dBuV] | QP [dB] | AV [dB] | |
| 0.23483 | 23.6 | 8.4 | 13.3 | 36.9 | 21.7 | 62.3 | 52.3 | 25.4 | 30.6 | N |
| 0.33053 | 15.8 | 10.5 | 13.3 | 29.1 | 23.8 | 59.4 | 49.4 | 30.3 | 25.6 | N |
| 0.54150 | 15.1 | 12.5 | 13.3 | 28.4 | 25.8 | 56.0 | 46.0 | 27.6 | 20.2 | N |
| 0.76552 | 15.4 | 9.8 | 13.3 | 28.7 | 23.1 | 56.0 | 46.0 | 27.3 | 22.9 | N |
| 1.63758 | 13.2 | 6.0 | 13.4 | 26.6 | 19.4 | 56.0 | 46.0 | 29.4 | 26.6 | N |
| 28.89729 | 6.6 | 1.3 | 15.0 | 21.6 | 16.3 | 60.0 | 50.0 | 38.4 | 33.7 | N |
| 0.23048 | 24.4 | 8.9 | 13.3 | 37.7 | 22.2 | 62.4 | 52.4 | 24.7 | 30.2 | L |
| 0.33270 | 17.4 | 7.1 | 13.3 | 30.7 | 20.4 | 59.4 | 49.4 | 28.7 | 29.0 | L |
| 0.54585 | 15.9 | 11.7 | 13.3 | 29.2 | 25.0 | 56.0 | 46.0 | 26.8 | 21.0 | L |
| 0.76335 | 14.3 | 9.6 | 13.3 | 27.6 | 22.9 | 56.0 | 46.0 | 28.4 | 23.1 | L |
| 1.61490 | 11.6 | 5.0 | 13.4 | 25.0 | 18.4 | 56.0 | 46.0 | 31.0 | 27.6 | L |
| 28.69679 | 6.7 | 1.3 | 15.0 | 21.7 | 16.3 | 60.0 | 50.0 | 38.3 | 33.7 | L |

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
(Power Supply: DELTA)

| | |
|-----------------------|---|
| Test place | Head Office EMC Lab. No.3 Semi Anechoic Chamber |
| Report No. | 32GE0144-HO-01 |
| Date | 03/30/2012 |
| Temperature/ Humidity | 22 deg. C / 38% RH |
| Engineer | Shinya Watanabe |
| Mode | 11g Tx Antenna 1 |



6dB Bandwidth

Test place Head Office EMC Lab. No.6 Measurement Room
Report No. 32GE0144-HO-01
Date 03/12/2012 03/14/2012
Temperature/ Humidity 23 deg. C / 32% RH 28 deg. C / 30% RH
Engineer Takumi Shimada Yutaka Yoshida
Mode Tx

11b Antenna 0

| Frequency [MHz] | 6dB Bandwidth [MHz] | Limit [kHz] |
|-----------------|---------------------|-------------|
| 2412 | 9.930 | >500 |
| 2437 | 9.954 | >500 |
| 2462 | 9.962 | >500 |

11g Antenna 0

| Frequency [MHz] | 6dB Bandwidth [MHz] | Limit [kHz] |
|-----------------|---------------------|-------------|
| 2412 | 16.514 | >500 |
| 2437 | 16.529 | >500 |
| 2462 | 16.488 | >500 |

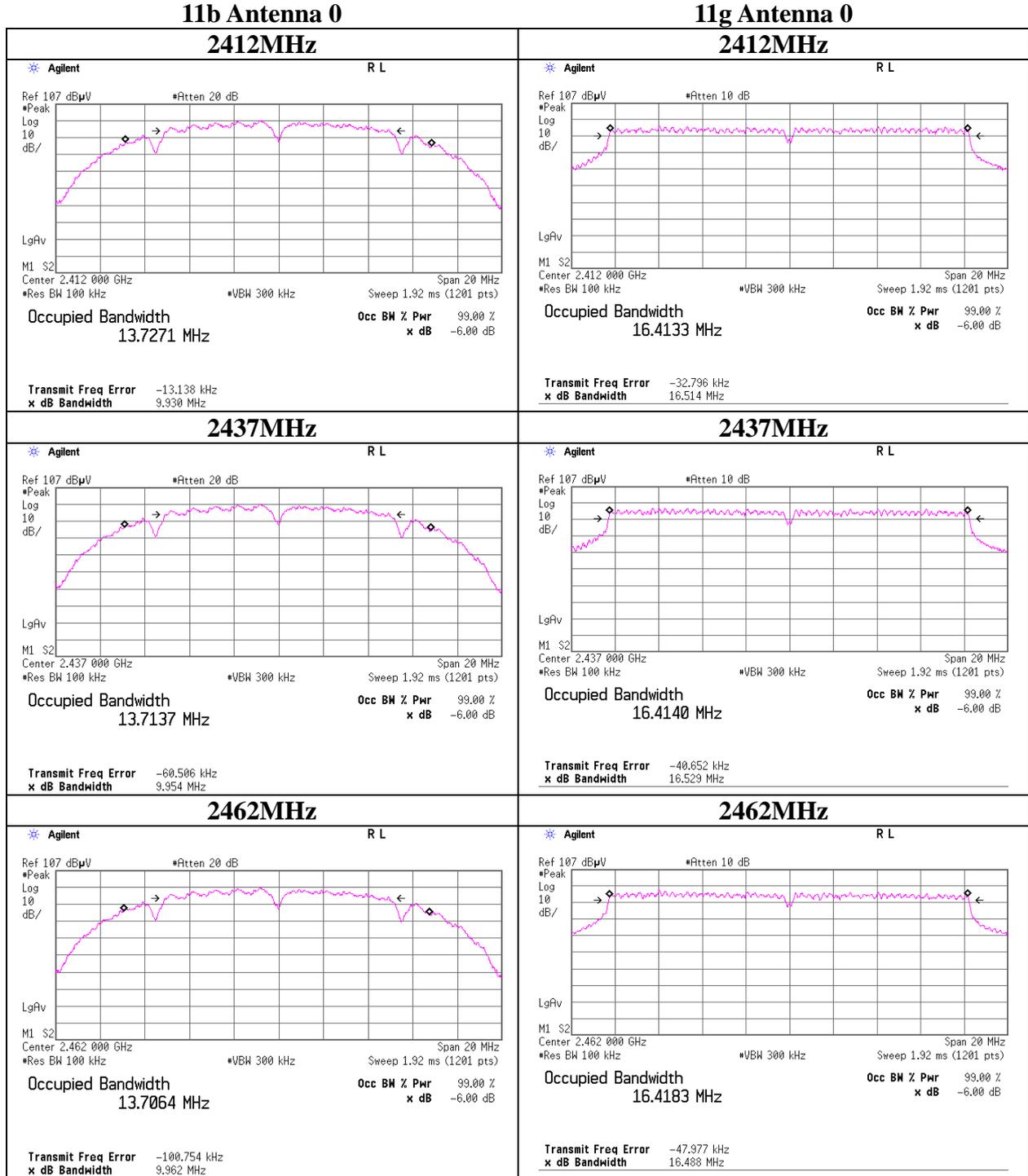
11b Antenna 1

| Frequency [MHz] | 6dB Bandwidth [MHz] | Limit [kHz] |
|-----------------|---------------------|-------------|
| 2412 | 9.921 | >500 |
| 2437 | 9.955 | >500 |
| 2462 | 9.964 | >500 |

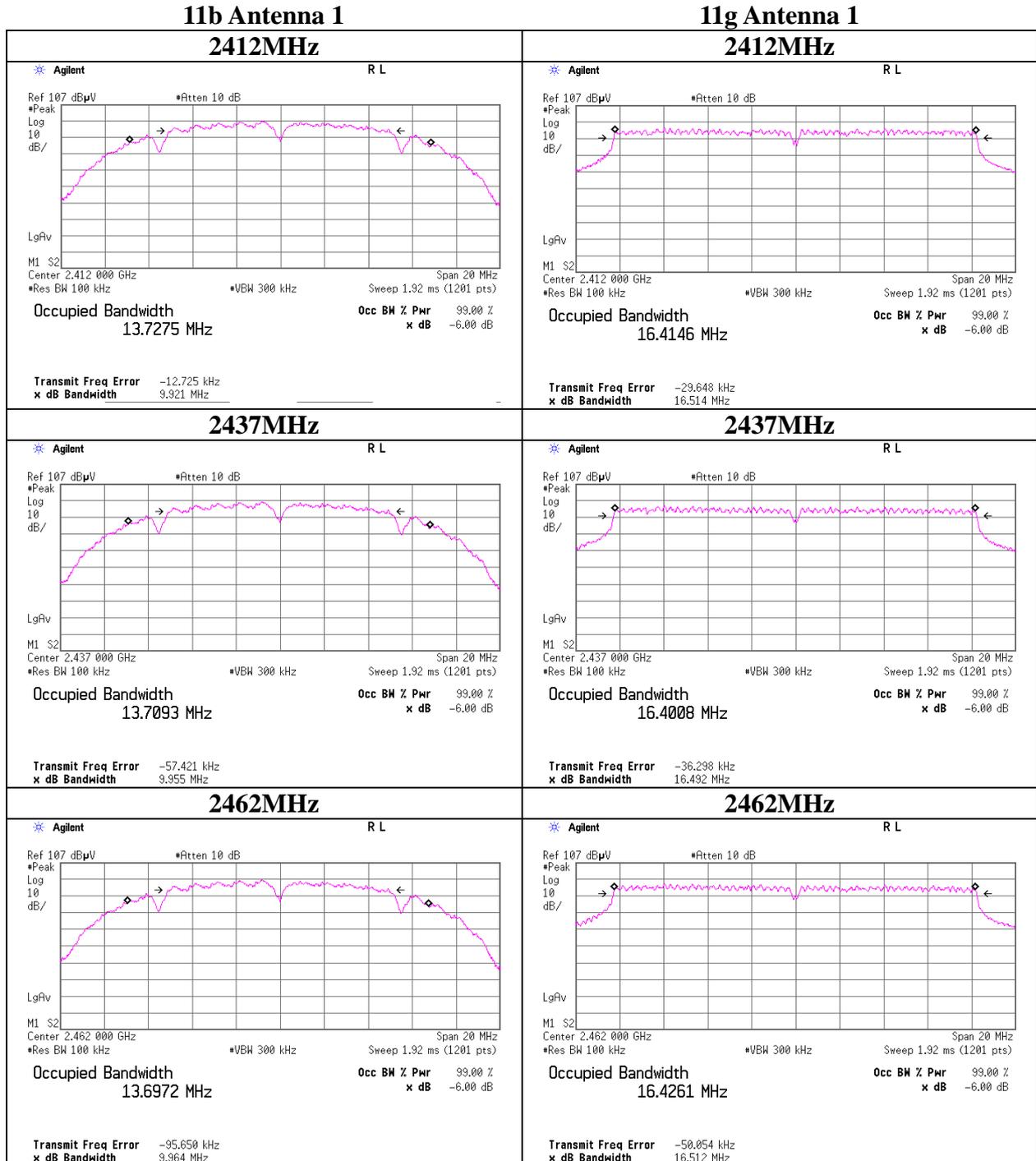
11g Antenna 1

| Frequency [MHz] | 6dB Bandwidth [MHz] | Limit [kHz] |
|-----------------|---------------------|-------------|
| 2412 | 16.514 | >500 |
| 2437 | 16.492 | >500 |
| 2462 | 16.512 | >500 |

6dB Bandwidth



6dB Bandwidth



Maximum Peak Output Power

| | |
|-----------------------|--|
| Test place | Head Office EMC Lab. No.6 Measurement Room |
| Report No. | 32GE0144-HO-01 |
| Date | 03/12/2012 |
| Temperature/ Humidity | 23 deg. C / 32% RH |
| Engineer | Takumi Shimada |
| Mode | 11b Tx |

Antenna 0

| Freq. [MHz] | Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result | | Limit | | Margin [dB] |
|----------------|------------------|-----------------------|----------------|--------|-------|-------|------|----------------|
| | | | | [dBm] | [mW] | [dBm] | [mW] | |
| 2412 | 4.16 | 0.80 | 9.96 | 14.92 | 31.05 | 30.00 | 1000 | 15.08 |
| 2437 | 3.74 | 0.80 | 9.96 | 14.50 | 28.18 | 30.00 | 1000 | 15.50 |
| 2462 | 3.73 | 0.80 | 9.96 | 14.49 | 28.12 | 30.00 | 1000 | 15.51 |

Antenna 1

| Freq. [MHz] | Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result | | Limit | | Margin [dB] |
|----------------|------------------|-----------------------|----------------|--------|-------|-------|------|----------------|
| | | | | [dBm] | [mW] | [dBm] | [mW] | |
| 2412 | 3.95 | 0.80 | 9.96 | 14.71 | 29.58 | 30.00 | 1000 | 15.29 |
| 2437 | 3.51 | 0.80 | 9.96 | 14.27 | 26.73 | 30.00 | 1000 | 15.73 |
| 2462 | 3.67 | 0.80 | 9.96 | 14.43 | 27.73 | 30.00 | 1000 | 15.57 |

Sample Calculation:

Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator

Antenna 0, 2437MHz

| Rate [Mbps] | Reading [dBm] | Remark |
|----------------|------------------|--------|
| 1 | 2.76 | |
| 2 | 3.74 | * |
| 5.5 | 2.16 | |
| 11 | 3.19 | |

Antenna 1, 2437MHz

| Rate [Mbps] | Reading [dBm] | Remark |
|----------------|------------------|--------|
| 1 | 2.55 | |
| 2 | 3.51 | * |
| 5.5 | 1.96 | |
| 11 | 3.00 | |

*: Worst Rate

All comparizon were carried out on same frequency and measurement factors.

Maximum Peak Output Power

| | |
|-----------------------|--|
| Test place | Head Office EMC Lab. No.6 Measurement Room |
| Report No. | 32GE0144-HO-01 |
| Date | 03/12/2012 |
| Temperature/ Humidity | 23 deg. C / 32% RH |
| Engineer | Takumi Shimada |
| Mode | 11g Tx |

Antenna 0

| Freq. [MHz] | Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result | | Limit | | Margin [dB] |
|----------------|------------------|-----------------------|----------------|--------|--------|-------|------|----------------|
| | | | | [dBm] | [mW] | [dBm] | [mW] | |
| 2412 | 10.52 | 0.80 | 9.96 | 21.28 | 134.28 | 30.00 | 1000 | 8.72 |
| 2437 | 10.10 | 0.80 | 9.96 | 20.86 | 121.90 | 30.00 | 1000 | 9.14 |
| 2462 | 10.18 | 0.80 | 9.96 | 20.94 | 124.17 | 30.00 | 1000 | 9.06 |

Antenna 1

| Freq. [MHz] | Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result | | Limit | | Margin [dB] |
|----------------|------------------|-----------------------|----------------|--------|--------|-------|------|----------------|
| | | | | [dBm] | [mW] | [dBm] | [mW] | |
| 2412 | 10.37 | 0.80 | 9.96 | 21.13 | 129.72 | 30.00 | 1000 | 8.87 |
| 2437 | 10.03 | 0.80 | 9.96 | 20.79 | 119.95 | 30.00 | 1000 | 9.21 |
| 2462 | 9.72 | 0.80 | 9.96 | 20.48 | 111.69 | 30.00 | 1000 | 9.52 |

Sample Calculation:

Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator

Antenna 0, 2437MHz

| Rate [Mbps] | Reading [dBm] | Remark |
|----------------|------------------|--------|
| 6 | 9.85 | |
| 9 | 9.96 | |
| 12 | 9.63 | |
| 18 | 9.44 | |
| 24 | 10.10 | * |
| 36 | 9.66 | |
| 48 | 9.00 | |
| 54 | 10.05 | |

Antenna 1, 2437MHz

| Rate [Mbps] | Reading [dBm] | Remark |
|----------------|------------------|--------|
| 6 | 9.83 | |
| 9 | 9.86 | |
| 12 | 9.44 | |
| 18 | 9.35 | |
| 24 | 10.03 | * |
| 36 | 9.54 | |
| 48 | 8.97 | |
| 54 | 9.83 | |

*: Worst Rate

All comparison were carried out on same frequency and measurement factors.

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/16/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Satofumi Matsuyama Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11b Tx 2412MHz Antenna 0

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|----------------------|
| Hori | 31.121 | QP | 24.8 | 18.3 | 7.1 | 32.0 | 18.2 | 40.0 | 21.8 | |
| Hori | 41.734 | QP | 27.8 | 14.1 | 7.3 | 32.0 | 17.2 | 40.0 | 22.8 | |
| Hori | 72.321 | QP | 43.1 | 6.6 | 7.7 | 32.1 | 25.3 | 40.0 | 14.7 | |
| Hori | 115.665 | QP | 38.1 | 12.4 | 8.3 | 32.0 | 26.8 | 43.5 | 16.7 | |
| Hori | 405.116 | QP | 35.7 | 17.7 | 10.3 | 32.0 | 31.7 | 46.0 | 14.3 | |
| Hori | 540.593 | QP | 34.2 | 19.7 | 11.1 | 32.0 | 33.0 | 46.0 | 13.0 | |
| Hori | 2390.000 | PK | 52.6 | 28.1 | 2.5 | 32.2 | 51.0 | 73.9 | 22.9 | |
| Hori | 2397.797 | PK | 59.7 | 28.1 | 2.5 | 32.2 | 58.1 | - | - | See 20dBc Data Sheet |
| Hori | 2400.000 | PK | 60.0 | 28.1 | 2.5 | 32.2 | 58.4 | 73.9 | 15.5 | |
| Hori | 4824.000 | PK | 40.4 | 31.2 | 5.3 | 31.4 | 45.5 | 73.9 | 28.4 | |
| Hori | 7236.000 | PK | 42.1 | 35.6 | 6.1 | 32.4 | 51.4 | 73.9 | 22.5 | |
| Hori | 9648.000 | PK | 42.1 | 38.3 | 7.2 | 33.2 | 54.4 | 73.9 | 19.5 | |
| Hori | 24120.000 | PK | 47.4 | 38.7 | -1.8 | 32.1 | 52.2 | 73.9 | 21.7 | |
| Hori | 2390.000 | AV | 39.3 | 28.1 | 2.5 | 32.2 | 37.7 | 53.9 | 16.2 | |
| Hori | 2397.797 | AV | 52.9 | 28.1 | 2.5 | 32.2 | 51.3 | - | - | See 20dBc Data Sheet |
| Hori | 2400.000 | AV | 47.5 | 28.1 | 2.5 | 32.2 | 45.9 | 53.9 | 8.0 | |
| Hori | 4824.000 | AV | 29.0 | 31.2 | 5.3 | 31.4 | 34.1 | 53.9 | 19.8 | |
| Hori | 7236.000 | AV | 30.7 | 35.6 | 6.1 | 32.4 | 40.0 | 53.9 | 13.9 | |
| Hori | 9648.000 | AV | 30.3 | 38.3 | 7.2 | 33.2 | 42.6 | 53.9 | 11.3 | |
| Hori | 24120.000 | AV | 35.3 | 38.7 | -1.8 | 32.1 | 40.1 | 53.9 | 13.8 | |
| Vert | 31.044 | QP | 37.0 | 18.4 | 7.1 | 32.0 | 30.4 | 40.0 | 9.6 | |
| Vert | 41.713 | QP | 37.9 | 14.1 | 7.3 | 32.0 | 27.3 | 40.0 | 12.7 | |
| Vert | 72.328 | QP | 50.1 | 6.6 | 7.7 | 32.1 | 32.2 | 40.0 | 7.8 | |
| Vert | 115.671 | QP | 43.6 | 12.4 | 8.3 | 32.0 | 32.1 | 43.5 | 11.4 | |
| Vert | 405.115 | QP | 40.8 | 17.7 | 10.3 | 32.0 | 36.8 | 46.0 | 9.2 | |
| Vert | 540.592 | QP | 35.5 | 19.7 | 11.1 | 32.0 | 34.3 | 46.0 | 11.7 | |
| Vert | 2390.000 | PK | 51.4 | 28.1 | 2.5 | 32.2 | 49.8 | 73.9 | 24.1 | |
| Vert | 2397.797 | PK | 60.3 | 28.1 | 2.5 | 32.2 | 58.7 | - | - | See 20dBc Data Sheet |
| Vert | 2400.000 | PK | 58.7 | 28.1 | 2.5 | 32.2 | 57.1 | 73.9 | 16.8 | |
| Vert | 4824.000 | PK | 40.6 | 31.2 | 5.3 | 31.4 | 45.7 | 73.9 | 28.2 | |
| Vert | 7236.000 | PK | 42.2 | 35.6 | 6.1 | 32.4 | 51.5 | 73.9 | 22.4 | |
| Vert | 9648.000 | PK | 41.8 | 38.3 | 7.2 | 33.2 | 54.1 | 73.9 | 19.8 | |
| Vert | 24120.000 | PK | 47.5 | 38.7 | -1.8 | 32.1 | 52.3 | 73.9 | 21.6 | |
| Vert | 2390.000 | AV | 38.6 | 28.1 | 2.5 | 32.2 | 37.0 | 53.9 | 16.9 | |
| Vert | 2397.797 | AV | 52.7 | 28.1 | 2.5 | 32.2 | 51.1 | - | - | See 20dBc Data Sheet |
| Vert | 2400.000 | AV | 47.2 | 28.1 | 2.5 | 32.2 | 45.6 | 53.9 | 8.3 | |
| Vert | 4824.000 | AV | 30.5 | 31.2 | 5.3 | 31.4 | 35.6 | 53.9 | 18.3 | |
| Vert | 7236.000 | AV | 30.7 | 35.6 | 6.1 | 32.4 | 40.0 | 53.9 | 13.9 | |
| Vert | 9648.000 | AV | 30.3 | 38.3 | 7.2 | 33.2 | 42.6 | 53.9 | 11.3 | |
| Vert | 24120.000 | AV | 35.3 | 38.7 | -1.8 | 32.1 | 40.1 | 53.9 | 13.8 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/16/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Satofumi Matsuyama Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11b Tx 2437MHz Antenna 0

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 31.162 | QP | 24.4 | 18.3 | 7.1 | 32.0 | 17.8 | 40.0 | 22.2 | |
| Hori | 41.176 | QP | 27.4 | 14.3 | 7.3 | 32.0 | 17.0 | 40.0 | 23.0 | |
| Hori | 72.333 | QP | 44.2 | 6.6 | 7.7 | 32.1 | 26.4 | 40.0 | 13.6 | |
| Hori | 115.365 | QP | 37.1 | 12.3 | 8.2 | 32.0 | 25.6 | 43.5 | 17.9 | |
| Hori | 405.115 | QP | 37.3 | 17.7 | 10.3 | 32.0 | 33.3 | 46.0 | 12.7 | |
| Hori | 540.594 | QP | 32.0 | 19.7 | 11.1 | 32.0 | 30.8 | 46.0 | 15.2 | |
| Hori | 4874.000 | PK | 40.1 | 31.4 | 5.3 | 31.4 | 45.4 | 73.9 | 28.5 | |
| Hori | 7311.000 | PK | 41.7 | 35.7 | 6.2 | 32.5 | 51.1 | 73.9 | 22.8 | |
| Hori | 9748.000 | PK | 41.8 | 38.4 | 7.5 | 33.2 | 54.5 | 73.9 | 19.4 | |
| Hori | 24370.000 | PK | 47.3 | 38.6 | -1.8 | 32.1 | 52.0 | 73.9 | 21.9 | |
| Hori | 4874.000 | AV | 28.9 | 31.4 | 5.3 | 31.4 | 34.2 | 53.9 | 19.7 | |
| Hori | 7311.000 | AV | 30.6 | 35.7 | 6.2 | 32.5 | 40.0 | 53.9 | 13.9 | |
| Hori | 9748.000 | AV | 30.4 | 38.4 | 7.5 | 33.2 | 43.1 | 53.9 | 10.8 | |
| Hori | 24370.000 | AV | 34.7 | 38.6 | -1.8 | 32.1 | 39.4 | 53.9 | 14.5 | |
| Vert | 31.141 | QP | 36.0 | 18.3 | 7.1 | 32.0 | 29.3 | 40.0 | 10.7 | |
| Vert | 41.197 | QP | 38.1 | 14.3 | 7.3 | 32.0 | 27.7 | 40.0 | 12.3 | |
| Vert | 72.328 | QP | 48.2 | 6.6 | 7.7 | 32.1 | 30.3 | 40.0 | 9.7 | |
| Vert | 115.312 | QP | 45.8 | 12.3 | 8.2 | 32.0 | 34.1 | 43.5 | 9.4 | |
| Vert | 405.117 | QP | 40.2 | 17.7 | 10.3 | 32.0 | 36.2 | 46.0 | 9.8 | |
| Vert | 540.595 | QP | 35.1 | 19.7 | 11.1 | 32.0 | 33.9 | 46.0 | 12.1 | |
| Vert | 4874.000 | PK | 42.2 | 31.4 | 5.3 | 31.4 | 47.5 | 73.9 | 26.4 | |
| Vert | 7311.000 | PK | 42.1 | 35.7 | 6.2 | 32.5 | 51.5 | 73.9 | 22.4 | |
| Vert | 9748.000 | PK | 41.5 | 38.4 | 7.5 | 33.2 | 54.2 | 73.9 | 19.7 | |
| Vert | 24370.000 | PK | 47.6 | 38.6 | -1.8 | 32.1 | 52.3 | 73.9 | 21.6 | |
| Vert | 4874.000 | AV | 31.7 | 31.4 | 5.3 | 31.4 | 37.0 | 53.9 | 16.9 | |
| Vert | 7311.000 | AV | 30.6 | 35.7 | 6.2 | 32.5 | 40.0 | 53.9 | 13.9 | |
| Vert | 9748.000 | AV | 30.4 | 38.4 | 7.5 | 33.2 | 43.1 | 53.9 | 10.8 | |
| Vert | 24370.000 | AV | 34.6 | 38.6 | -1.8 | 32.1 | 39.3 | 53.9 | 14.6 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/16/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Satofumi Matsuyama Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11b Tx 2462MHz Antenna 0

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 30.955 | QP | 25.5 | 18.4 | 7.1 | 32.0 | 19.0 | 40.0 | 21.0 | |
| Hori | 42.121 | QP | 28.1 | 13.9 | 7.3 | 32.0 | 17.3 | 40.0 | 22.7 | |
| Hori | 72.313 | QP | 42.6 | 6.6 | 7.7 | 32.1 | 24.8 | 40.0 | 15.2 | |
| Hori | 115.322 | QP | 37.7 | 12.3 | 8.2 | 32.0 | 26.2 | 43.5 | 17.3 | |
| Hori | 405.114 | QP | 36.1 | 17.7 | 10.3 | 32.0 | 32.1 | 46.0 | 13.9 | |
| Hori | 540.596 | QP | 32.2 | 19.7 | 11.1 | 32.0 | 31.0 | 46.0 | 15.0 | |
| Hori | 2483.500 | PK | 51.7 | 28.5 | 2.6 | 32.2 | 50.6 | 73.9 | 23.3 | |
| Hori | 4924.000 | PK | 40.4 | 31.5 | 5.3 | 31.4 | 45.8 | 73.9 | 28.1 | |
| Hori | 7386.000 | PK | 42.1 | 35.8 | 6.2 | 32.5 | 51.6 | 73.9 | 22.3 | |
| Hori | 9848.000 | PK | 41.6 | 38.5 | 7.6 | 33.3 | 54.4 | 73.9 | 19.5 | |
| Hori | 24620.000 | PK | 47.7 | 38.6 | -1.7 | 32.2 | 52.4 | 73.9 | 21.5 | |
| Hori | 2483.500 | AV | 39.4 | 28.5 | 2.6 | 32.2 | 38.3 | 53.9 | 15.6 | |
| Hori | 4924.000 | AV | 28.4 | 31.5 | 5.3 | 31.4 | 33.8 | 53.9 | 20.1 | |
| Hori | 7386.000 | AV | 30.5 | 35.8 | 6.2 | 32.5 | 40.0 | 53.9 | 13.9 | |
| Hori | 9848.000 | AV | 29.9 | 38.5 | 7.6 | 33.3 | 42.7 | 53.9 | 11.2 | |
| Hori | 24620.000 | AV | 35.3 | 38.6 | -1.7 | 32.2 | 40.0 | 53.9 | 13.9 | |
| Vert | 30.948 | QP | 35.3 | 18.4 | 7.1 | 32.0 | 28.7 | 40.0 | 11.3 | |
| Vert | 42.104 | QP | 38.2 | 13.9 | 7.3 | 32.0 | 27.4 | 40.0 | 12.6 | |
| Vert | 72.321 | QP | 47.4 | 6.6 | 7.7 | 32.1 | 29.5 | 40.0 | 10.5 | |
| Vert | 115.311 | QP | 44.2 | 12.3 | 8.2 | 32.0 | 32.5 | 43.5 | 11.0 | |
| Vert | 405.114 | QP | 40.1 | 17.7 | 10.3 | 32.0 | 36.1 | 46.0 | 9.9 | |
| Vert | 540.594 | QP | 34.4 | 19.7 | 11.1 | 32.0 | 33.2 | 46.0 | 12.8 | |
| Vert | 2483.500 | PK | 50.3 | 28.5 | 2.6 | 32.2 | 49.2 | 73.9 | 24.7 | |
| Vert | 4924.000 | PK | 42.1 | 31.5 | 5.3 | 31.4 | 47.5 | 73.9 | 26.4 | |
| Vert | 7386.000 | PK | 42.3 | 35.8 | 6.2 | 32.5 | 51.8 | 73.9 | 22.1 | |
| Vert | 9848.000 | PK | 41.7 | 38.5 | 7.6 | 33.3 | 54.5 | 73.9 | 19.4 | |
| Vert | 24620.000 | PK | 47.6 | 38.6 | -1.7 | 32.2 | 52.3 | 73.9 | 21.6 | |
| Vert | 2483.500 | AV | 37.9 | 28.5 | 2.6 | 32.2 | 36.8 | 53.9 | 17.1 | |
| Vert | 4924.000 | AV | 30.8 | 31.5 | 5.3 | 31.4 | 36.2 | 53.9 | 17.7 | |
| Vert | 7386.000 | AV | 30.5 | 35.8 | 6.2 | 32.5 | 40.0 | 53.9 | 13.9 | |
| Vert | 9848.000 | AV | 29.9 | 38.5 | 7.6 | 33.3 | 42.7 | 53.9 | 11.2 | |
| Vert | 24620.000 | AV | 35.3 | 38.6 | -1.7 | 32.2 | 40.0 | 53.9 | 13.9 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/16/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Satofumi Matsuyama Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11g Tx 2412MHz Antenna 0

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|----------------------|
| Hori | 30.911 | QP | 24.7 | 18.4 | 7.1 | 32.0 | 18.2 | 40.0 | 21.8 | |
| Hori | 41.221 | QP | 27.0 | 14.3 | 7.3 | 32.0 | 16.6 | 40.0 | 23.4 | |
| Hori | 72.031 | QP | 42.2 | 6.6 | 7.7 | 32.1 | 24.4 | 40.0 | 15.6 | |
| Hori | 114.710 | QP | 38.3 | 12.3 | 8.2 | 32.0 | 26.8 | 43.5 | 16.7 | |
| Hori | 405.113 | QP | 35.5 | 17.7 | 10.3 | 32.0 | 31.5 | 46.0 | 14.5 | |
| Hori | 540.591 | QP | 34.0 | 19.7 | 11.1 | 32.0 | 32.8 | 46.0 | 13.2 | |
| Hori | 2390.000 | PK | 58.8 | 28.1 | 2.5 | 32.2 | 57.2 | 73.9 | 16.7 | |
| Hori | 2400.000 | PK | 79.7 | 28.1 | 2.5 | 32.2 | 78.1 | - | - | See 20dBc Data Sheet |
| Hori | 4824.000 | PK | 40.1 | 31.2 | 5.3 | 31.4 | 45.2 | 73.9 | 28.7 | |
| Hori | 7236.000 | PK | 41.7 | 35.6 | 6.1 | 32.4 | 51.0 | 73.9 | 22.9 | |
| Hori | 9648.000 | PK | 41.9 | 38.3 | 7.2 | 33.2 | 54.2 | 73.9 | 19.7 | |
| Hori | 24120.000 | PK | 47.6 | 38.7 | -1.8 | 32.1 | 52.4 | 73.9 | 21.5 | |
| Hori | 2390.000 | AV | 45.1 | 28.1 | 2.5 | 32.2 | 43.5 | 53.9 | 10.4 | |
| Hori | 2400.000 | AV | 62.3 | 28.1 | 2.5 | 32.2 | 60.7 | - | - | See 20dBc Data Sheet |
| Hori | 4824.000 | AV | 29.0 | 31.2 | 5.3 | 31.4 | 34.1 | 53.9 | 19.8 | |
| Hori | 7236.000 | AV | 30.6 | 35.6 | 6.1 | 32.4 | 39.9 | 53.9 | 14.0 | |
| Hori | 9648.000 | AV | 30.3 | 38.3 | 7.2 | 33.2 | 42.6 | 53.9 | 11.3 | |
| Hori | 24120.000 | AV | 35.4 | 38.7 | -1.8 | 32.1 | 40.2 | 53.9 | 13.7 | |
| Vert | 30.948 | QP | 36.0 | 18.4 | 7.1 | 32.0 | 29.4 | 40.0 | 10.6 | |
| Vert | 41.197 | QP | 38.3 | 14.3 | 7.3 | 32.0 | 27.9 | 40.0 | 12.1 | |
| Vert | 72.010 | QP | 47.9 | 6.6 | 7.7 | 32.1 | 30.0 | 40.0 | 10.0 | |
| Vert | 114.721 | QP | 44.1 | 12.3 | 8.2 | 32.0 | 32.4 | 43.5 | 11.1 | |
| Vert | 405.112 | QP | 39.9 | 17.7 | 10.3 | 32.0 | 35.9 | 46.0 | 10.1 | |
| Vert | 540.593 | QP | 35.5 | 19.7 | 11.1 | 32.0 | 34.3 | 46.0 | 11.7 | |
| Vert | 2390.000 | PK | 56.5 | 28.1 | 2.5 | 32.2 | 54.9 | 73.9 | 19.0 | |
| Vert | 2400.000 | PK | 76.1 | 28.1 | 2.5 | 32.2 | 74.5 | - | - | See 20dBc Data Sheet |
| Vert | 4824.000 | PK | 40.3 | 31.2 | 5.3 | 31.4 | 45.4 | 73.9 | 28.5 | |
| Vert | 7236.000 | PK | 42.0 | 35.6 | 6.1 | 32.4 | 51.3 | 73.9 | 22.6 | |
| Vert | 9648.000 | PK | 41.6 | 38.3 | 7.2 | 33.2 | 53.9 | 73.9 | 20.0 | |
| Vert | 24120.000 | PK | 47.5 | 38.7 | -1.8 | 32.1 | 52.3 | 73.9 | 21.6 | |
| Vert | 2390.000 | AV | 42.9 | 28.1 | 2.5 | 32.2 | 41.3 | 53.9 | 12.6 | |
| Vert | 2400.000 | AV | 59.1 | 28.1 | 2.5 | 32.2 | 57.5 | - | - | See 20dBc Data Sheet |
| Vert | 4824.000 | AV | 29.0 | 31.2 | 5.3 | 31.4 | 34.1 | 53.9 | 19.8 | |
| Vert | 7236.000 | AV | 30.6 | 35.6 | 6.1 | 32.4 | 39.9 | 53.9 | 14.0 | |
| Vert | 9648.000 | AV | 30.3 | 38.3 | 7.2 | 33.2 | 42.6 | 53.9 | 11.3 | |
| Vert | 24120.000 | AV | 35.3 | 38.7 | -1.8 | 32.1 | 40.1 | 53.9 | 13.8 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/16/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Satofumi Matsuyama Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11g Tx 2437MHz Antenna 0

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 31.067 | QP | 25.5 | 18.4 | 7.1 | 32.0 | 19.0 | 40.0 | 21.0 | |
| Hori | 41.566 | QP | 26.9 | 14.2 | 7.3 | 32.0 | 16.4 | 40.0 | 23.6 | |
| Hori | 71.881 | QP | 42.8 | 6.6 | 7.7 | 32.1 | 25.0 | 40.0 | 15.0 | |
| Hori | 115.236 | QP | 38.0 | 12.3 | 8.2 | 32.0 | 26.5 | 43.5 | 17.0 | |
| Hori | 405.117 | QP | 36.2 | 17.7 | 10.3 | 32.0 | 32.2 | 46.0 | 13.8 | |
| Hori | 540.561 | QP | 33.6 | 19.7 | 11.1 | 32.0 | 32.4 | 46.0 | 13.6 | |
| Hori | 4874.000 | PK | 40.3 | 31.4 | 5.3 | 31.4 | 45.6 | 73.9 | 28.3 | |
| Hori | 7311.000 | PK | 42.1 | 35.7 | 6.2 | 32.5 | 51.5 | 73.9 | 22.4 | |
| Hori | 9748.000 | PK | 41.6 | 38.4 | 7.5 | 33.2 | 54.3 | 73.9 | 19.6 | |
| Hori | 24370.000 | PK | 47.5 | 38.6 | -1.8 | 32.1 | 52.2 | 73.9 | 21.7 | |
| Hori | 4874.000 | AV | 28.4 | 31.4 | 5.3 | 31.4 | 33.7 | 53.9 | 20.2 | |
| Hori | 7311.000 | AV | 30.0 | 35.7 | 6.2 | 32.5 | 39.4 | 53.9 | 14.5 | |
| Hori | 9748.000 | AV | 29.8 | 38.4 | 7.5 | 33.2 | 42.5 | 53.9 | 11.4 | |
| Hori | 24370.000 | AV | 34.7 | 38.6 | -1.8 | 32.1 | 39.4 | 53.9 | 14.5 | |
| Vert | 31.044 | QP | 36.0 | 18.4 | 7.1 | 32.0 | 29.4 | 40.0 | 10.6 | |
| Vert | 41.583 | QP | 38.0 | 14.1 | 7.3 | 32.0 | 27.4 | 40.0 | 12.6 | |
| Vert | 71.879 | QP | 48.0 | 6.6 | 7.7 | 32.1 | 30.1 | 40.0 | 9.9 | |
| Vert | 114.241 | QP | 44.2 | 12.2 | 8.2 | 32.0 | 32.4 | 43.5 | 11.1 | |
| Vert | 405.115 | QP | 40.5 | 17.7 | 10.3 | 32.0 | 36.5 | 46.0 | 9.5 | |
| Vert | 540.593 | QP | 36.0 | 19.7 | 11.1 | 32.0 | 34.8 | 46.0 | 11.2 | |
| Vert | 4874.000 | PK | 40.4 | 31.4 | 5.3 | 31.4 | 45.7 | 73.9 | 28.2 | |
| Vert | 7311.000 | PK | 41.6 | 35.7 | 6.2 | 32.5 | 51.0 | 73.9 | 22.9 | |
| Vert | 9748.000 | PK | 41.9 | 38.4 | 7.5 | 33.2 | 54.6 | 73.9 | 19.3 | |
| Vert | 24370.000 | PK | 47.6 | 38.6 | -1.8 | 32.1 | 52.3 | 73.9 | 21.6 | |
| Vert | 4874.000 | AV | 28.4 | 31.4 | 5.3 | 31.4 | 33.7 | 53.9 | 20.2 | |
| Vert | 7311.000 | AV | 30.0 | 35.7 | 6.2 | 32.5 | 39.4 | 53.9 | 14.5 | |
| Vert | 9748.000 | AV | 29.8 | 38.4 | 7.5 | 33.2 | 42.5 | 53.9 | 11.4 | |
| Vert | 24370.000 | AV | 34.7 | 38.6 | -1.8 | 32.1 | 39.4 | 53.9 | 14.5 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/16/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Satofumi Matsuyama Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11g Tx 2462MHz Antenna 0

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 31.233 | QP | 25.1 | 18.3 | 7.1 | 32.0 | 18.5 | 40.0 | 21.5 | |
| Hori | 41.835 | QP | 28.1 | 14.0 | 7.3 | 32.0 | 17.4 | 40.0 | 22.6 | |
| Hori | 71.867 | QP | 42.4 | 6.6 | 7.7 | 32.1 | 24.6 | 40.0 | 15.4 | |
| Hori | 115.656 | QP | 37.4 | 12.4 | 8.3 | 32.0 | 26.1 | 43.5 | 17.4 | |
| Hori | 405.115 | QP | 36.7 | 17.7 | 10.3 | 32.0 | 32.7 | 46.0 | 13.3 | |
| Hori | 540.593 | QP | 34.2 | 19.7 | 11.1 | 32.0 | 33.0 | 46.0 | 13.0 | |
| Hori | 2483.500 | PK | 57.9 | 28.5 | 2.6 | 32.2 | 56.8 | 73.9 | 17.1 | |
| Hori | 4924.000 | PK | 40.3 | 31.5 | 5.3 | 31.4 | 45.7 | 73.9 | 28.2 | |
| Hori | 7386.000 | PK | 42.0 | 35.8 | 6.2 | 32.5 | 51.5 | 73.9 | 22.4 | |
| Hori | 9848.000 | PK | 41.8 | 38.5 | 7.6 | 33.3 | 54.6 | 73.9 | 19.3 | |
| Hori | 24620.000 | PK | 47.4 | 38.6 | -1.7 | 32.2 | 52.1 | 73.9 | 21.8 | |
| Hori | 2483.500 | AV | 41.5 | 28.5 | 2.6 | 32.2 | 40.4 | 53.9 | 13.5 | |
| Hori | 4924.000 | AV | 28.4 | 31.5 | 5.3 | 31.4 | 33.8 | 53.9 | 20.1 | |
| Hori | 7386.000 | AV | 30.6 | 35.8 | 6.2 | 32.5 | 40.1 | 53.9 | 13.8 | |
| Hori | 9848.000 | AV | 29.9 | 38.5 | 7.6 | 33.3 | 42.7 | 53.9 | 11.2 | |
| Hori | 24620.000 | AV | 35.3 | 38.6 | -1.7 | 32.2 | 40.0 | 53.9 | 13.9 | |
| Vert | 31.237 | QP | 36.6 | 18.3 | 7.1 | 32.0 | 29.9 | 40.0 | 10.1 | |
| Vert | 41.843 | QP | 38.0 | 14.0 | 7.3 | 32.0 | 27.3 | 40.0 | 12.7 | |
| Vert | 71.879 | QP | 47.7 | 6.6 | 7.7 | 32.1 | 29.8 | 40.0 | 10.2 | |
| Vert | 115.671 | QP | 44.3 | 12.4 | 8.3 | 32.0 | 32.8 | 43.5 | 10.7 | |
| Vert | 405.114 | QP | 40.2 | 17.7 | 10.3 | 32.0 | 36.2 | 46.0 | 9.8 | |
| Vert | 540.595 | QP | 36.3 | 19.7 | 11.1 | 32.0 | 35.1 | 46.0 | 10.9 | |
| Vert | 2483.500 | PK | 56.9 | 28.5 | 2.6 | 32.2 | 55.8 | 73.9 | 18.1 | |
| Vert | 4924.000 | PK | 40.0 | 31.5 | 5.3 | 31.4 | 45.4 | 73.9 | 28.5 | |
| Vert | 7386.000 | PK | 42.9 | 35.8 | 6.2 | 32.5 | 52.4 | 73.9 | 21.5 | |
| Vert | 9848.000 | PK | 42.1 | 38.5 | 7.6 | 33.3 | 54.9 | 73.9 | 19.0 | |
| Vert | 24620.000 | PK | 47.7 | 38.6 | -1.7 | 32.2 | 52.4 | 73.9 | 21.5 | |
| Vert | 2483.500 | AV | 40.1 | 28.5 | 2.6 | 32.2 | 39.0 | 53.9 | 14.9 | |
| Vert | 4924.000 | AV | 28.4 | 31.5 | 5.3 | 31.4 | 33.8 | 53.9 | 20.1 | |
| Vert | 7386.000 | AV | 30.6 | 35.8 | 6.2 | 32.5 | 40.1 | 53.9 | 13.8 | |
| Vert | 9848.000 | AV | 29.9 | 38.5 | 7.6 | 33.3 | 42.7 | 53.9 | 11.2 | |
| Vert | 24620.000 | AV | 35.4 | 38.6 | -1.7 | 32.2 | 40.1 | 53.9 | 13.8 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/18/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Motoya Imura Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11b Tx 2412MHz Antenna 1

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 31.224 | QP | 24.0 | 18.3 | 7.1 | 32.0 | 17.4 | 40.0 | 22.6 | |
| Hori | 42.109 | QP | 27.7 | 13.9 | 7.3 | 32.0 | 16.9 | 40.0 | 23.1 | |
| Hori | 72.100 | QP | 42.1 | 6.6 | 7.7 | 32.1 | 24.3 | 40.0 | 15.7 | |
| Hori | 114.256 | QP | 36.3 | 12.2 | 8.2 | 32.0 | 24.7 | 43.5 | 18.8 | |
| Hori | 405.114 | QP | 36.6 | 17.7 | 10.3 | 32.0 | 32.6 | 46.0 | 13.4 | |
| Hori | 540.598 | QP | 34.0 | 19.7 | 11.1 | 32.0 | 32.8 | 46.0 | 13.2 | |
| Hori | 2390.000 | PK | 52.3 | 28.1 | 2.5 | 32.2 | 50.7 | 73.9 | 23.2 | |
| Hori | 2398.073 | PK | 58.4 | 28.1 | 2.5 | 32.2 | 56.8 | 73.9 | 17.1 | |
| Hori | 2400.000 | PK | 57.6 | 28.1 | 2.5 | 32.2 | 56.0 | 73.9 | 17.9 | |
| Hori | 4824.000 | PK | 40.7 | 31.2 | 5.3 | 31.4 | 45.8 | 73.9 | 28.1 | |
| Hori | 7236.000 | PK | 42.0 | 35.6 | 6.1 | 32.4 | 51.3 | 73.9 | 22.6 | |
| Hori | 9648.000 | PK | 42.0 | 38.3 | 7.2 | 33.2 | 54.3 | 73.9 | 19.6 | |
| Hori | 24120.000 | PK | 47.7 | 38.7 | -1.8 | 32.1 | 52.5 | 73.9 | 21.4 | |
| Hori | 2390.000 | AV | 39.4 | 28.1 | 2.5 | 32.2 | 37.8 | 53.9 | 16.1 | |
| Hori | 2398.073 | AV | 48.8 | 28.1 | 2.5 | 32.2 | 47.2 | 53.9 | 6.7 | |
| Hori | 2400.000 | AV | 45.6 | 28.1 | 2.5 | 32.2 | 44.0 | 53.9 | 9.9 | |
| Hori | 4824.000 | AV | 30.3 | 31.2 | 5.3 | 31.4 | 35.4 | 53.9 | 18.5 | |
| Hori | 7236.000 | AV | 30.7 | 35.6 | 6.1 | 32.4 | 40.0 | 53.9 | 13.9 | |
| Hori | 9648.000 | AV | 30.4 | 38.3 | 7.2 | 33.2 | 42.7 | 53.9 | 11.2 | |
| Hori | 24120.000 | AV | 35.3 | 38.7 | -1.8 | 32.1 | 40.1 | 53.9 | 13.8 | |
| Vert | 31.335 | QP | 36.4 | 18.2 | 7.1 | 32.0 | 29.6 | 40.0 | 10.4 | |
| Vert | 42.109 | QP | 38.2 | 13.9 | 7.3 | 32.0 | 27.4 | 40.0 | 12.6 | |
| Vert | 70.662 | QP | 47.9 | 6.6 | 7.7 | 32.1 | 29.9 | 40.0 | 10.1 | |
| Vert | 114.244 | QP | 44.5 | 12.2 | 8.2 | 32.0 | 32.7 | 43.5 | 10.8 | |
| Vert | 405.115 | QP | 40.2 | 17.7 | 10.3 | 32.0 | 36.2 | 46.0 | 9.8 | |
| Vert | 540.591 | QP | 36.2 | 19.7 | 11.1 | 32.0 | 35.0 | 46.0 | 11.0 | |
| Vert | 2390.000 | PK | 53.2 | 28.1 | 2.5 | 32.2 | 51.6 | 73.9 | 22.3 | |
| Vert | 2398.073 | PK | 59.1 | 28.1 | 2.5 | 32.2 | 57.5 | 73.9 | 16.4 | |
| Vert | 2400.000 | PK | 57.8 | 28.1 | 2.5 | 32.2 | 56.2 | 73.9 | 17.7 | |
| Vert | 4824.000 | PK | 40.3 | 31.2 | 5.3 | 31.4 | 45.4 | 73.9 | 28.5 | |
| Vert | 7236.000 | PK | 42.1 | 35.6 | 6.1 | 32.4 | 51.4 | 73.9 | 22.5 | |
| Vert | 9648.000 | PK | 42.0 | 38.3 | 7.2 | 33.2 | 54.3 | 73.9 | 19.6 | |
| Vert | 24120.000 | PK | 47.8 | 38.7 | -1.8 | 32.1 | 52.6 | 73.9 | 21.3 | |
| Vert | 2390.000 | AV | 39.4 | 28.1 | 2.5 | 32.2 | 37.8 | 53.9 | 16.1 | |
| Vert | 2398.073 | AV | 49.3 | 28.1 | 2.5 | 32.2 | 47.7 | 53.9 | 6.2 | |
| Vert | 2400.000 | AV | 45.7 | 28.1 | 2.5 | 32.2 | 44.1 | 53.9 | 9.8 | |
| Vert | 4824.000 | AV | 29.4 | 31.2 | 5.3 | 31.4 | 34.5 | 53.9 | 19.4 | |
| Vert | 7236.000 | AV | 30.8 | 35.6 | 6.1 | 32.4 | 40.1 | 53.9 | 13.8 | |
| Vert | 9648.000 | AV | 30.3 | 38.3 | 7.2 | 33.2 | 42.6 | 53.9 | 11.3 | |
| Vert | 24120.000 | AV | 35.3 | 38.7 | -1.8 | 32.1 | 40.1 | 53.9 | 13.8 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/18/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Motoya Imura Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11b Tx 2437MHz Antenna 1

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 31.943 | QP | 24.4 | 17.9 | 7.1 | 32.0 | 17.4 | 40.0 | 22.6 | |
| Hori | 41.956 | QP | 26.8 | 14.0 | 7.3 | 32.0 | 16.1 | 40.0 | 23.9 | |
| Hori | 72.103 | QP | 41.4 | 6.6 | 7.7 | 32.1 | 23.6 | 40.0 | 16.4 | |
| Hori | 114.234 | QP | 37.2 | 12.2 | 8.2 | 32.0 | 25.6 | 43.5 | 17.9 | |
| Hori | 405.113 | QP | 35.7 | 17.7 | 10.3 | 32.0 | 31.7 | 46.0 | 14.3 | |
| Hori | 540.598 | QP | 33.7 | 19.7 | 11.1 | 32.0 | 32.5 | 46.0 | 13.5 | |
| Hori | 4874.000 | PK | 41.0 | 31.4 | 5.3 | 31.4 | 46.3 | 73.9 | 27.6 | |
| Hori | 7311.000 | PK | 42.7 | 35.7 | 6.2 | 32.5 | 52.1 | 73.9 | 21.8 | |
| Hori | 9748.000 | PK | 41.7 | 38.4 | 7.5 | 33.2 | 54.4 | 73.9 | 19.5 | |
| Hori | 24370.000 | PK | 47.5 | 38.6 | -1.8 | 32.1 | 52.2 | 73.9 | 21.7 | |
| Hori | 4874.000 | AV | 31.0 | 31.4 | 5.3 | 31.4 | 36.3 | 53.9 | 17.6 | |
| Hori | 7311.000 | AV | 30.6 | 35.7 | 6.2 | 32.5 | 40.0 | 53.9 | 13.9 | |
| Hori | 9748.000 | AV | 30.4 | 38.4 | 7.5 | 33.2 | 43.1 | 53.9 | 10.8 | |
| Hori | 24370.000 | AV | 34.7 | 38.6 | -1.8 | 32.1 | 39.4 | 53.9 | 14.5 | |
| Vert | 31.922 | QP | 36.6 | 18.0 | 7.1 | 32.0 | 29.6 | 40.0 | 10.4 | |
| Vert | 41.972 | QP | 36.3 | 14.0 | 7.3 | 32.0 | 25.6 | 40.0 | 14.4 | |
| Vert | 72.103 | QP | 48.4 | 6.6 | 7.7 | 32.1 | 30.5 | 40.0 | 9.5 | |
| Vert | 114.234 | QP | 43.4 | 12.2 | 8.2 | 32.0 | 31.6 | 43.5 | 11.9 | |
| Vert | 405.113 | QP | 40.8 | 17.7 | 10.3 | 32.0 | 36.8 | 46.0 | 9.2 | |
| Vert | 540.593 | QP | 34.7 | 19.7 | 11.1 | 32.0 | 33.5 | 46.0 | 12.5 | |
| Vert | 4874.000 | PK | 41.0 | 31.4 | 5.3 | 31.4 | 46.3 | 73.9 | 27.6 | |
| Vert | 7311.000 | PK | 42.7 | 35.7 | 6.2 | 32.5 | 52.1 | 73.9 | 21.8 | |
| Vert | 9748.000 | PK | 41.7 | 38.4 | 7.5 | 33.2 | 54.4 | 73.9 | 19.5 | |
| Vert | 24370.000 | PK | 47.7 | 38.6 | -1.8 | 32.1 | 52.4 | 73.9 | 21.5 | |
| Vert | 4874.000 | AV | 30.1 | 31.4 | 5.3 | 31.4 | 35.4 | 53.9 | 18.5 | |
| Vert | 7311.000 | AV | 30.6 | 35.7 | 6.2 | 32.5 | 40.0 | 53.9 | 13.9 | |
| Vert | 9748.000 | AV | 30.4 | 38.4 | 7.5 | 33.2 | 43.1 | 53.9 | 10.8 | |
| Vert | 24370.000 | AV | 34.7 | 38.6 | -1.8 | 32.1 | 39.4 | 53.9 | 14.5 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/18/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Motoya Imura Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11b Tx 2462MHz Antenna 1

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 31.302 | QP | 24.6 | 18.2 | 7.1 | 32.0 | 17.9 | 40.0 | 22.1 | |
| Hori | 41.713 | QP | 27.2 | 14.1 | 7.3 | 32.0 | 16.6 | 40.0 | 23.4 | |
| Hori | 71.879 | QP | 42.4 | 6.6 | 7.7 | 32.1 | 24.6 | 40.0 | 15.4 | |
| Hori | 114.597 | QP | 37.9 | 12.2 | 8.2 | 32.0 | 26.3 | 43.5 | 17.2 | |
| Hori | 405.116 | QP | 36.8 | 17.7 | 10.3 | 32.0 | 32.8 | 46.0 | 13.2 | |
| Hori | 540.598 | QP | 32.3 | 19.7 | 11.1 | 32.0 | 31.1 | 46.0 | 14.9 | |
| Hori | 2483.500 | PK | 50.6 | 28.5 | 2.6 | 32.2 | 49.5 | 73.9 | 24.4 | |
| Hori | 4924.000 | PK | 41.5 | 31.5 | 5.3 | 31.4 | 46.9 | 73.9 | 27.0 | |
| Hori | 7386.000 | PK | 42.4 | 35.8 | 6.2 | 32.5 | 51.9 | 73.9 | 22.0 | |
| Hori | 9848.000 | PK | 41.7 | 38.5 | 7.6 | 33.3 | 54.5 | 73.9 | 19.4 | |
| Hori | 24620.000 | PK | 47.7 | 38.6 | -1.7 | 32.2 | 52.4 | 73.9 | 21.5 | |
| Hori | 2483.500 | AV | 37.5 | 28.5 | 2.6 | 32.2 | 36.4 | 53.9 | 17.5 | |
| Hori | 4924.000 | AV | 30.2 | 31.5 | 5.3 | 31.4 | 35.6 | 53.9 | 18.3 | |
| Hori | 7386.000 | AV | 31.1 | 35.8 | 6.2 | 32.5 | 40.6 | 53.9 | 13.3 | |
| Hori | 9848.000 | AV | 30.3 | 38.5 | 7.6 | 33.3 | 43.1 | 53.9 | 10.8 | |
| Hori | 24620.000 | AV | 35.4 | 38.6 | -1.7 | 32.2 | 40.1 | 53.9 | 13.8 | |
| Vert | 31.335 | QP | 36.0 | 18.2 | 7.1 | 32.0 | 29.2 | 40.0 | 10.8 | |
| Vert | 41.713 | QP | 38.0 | 14.1 | 7.3 | 32.0 | 27.4 | 40.0 | 12.6 | |
| Vert | 71.879 | QP | 48.5 | 6.6 | 7.7 | 32.1 | 30.6 | 40.0 | 9.4 | |
| Vert | 114.597 | QP | 43.6 | 12.2 | 8.2 | 32.0 | 31.8 | 43.5 | 11.7 | |
| Vert | 405.118 | QP | 40.1 | 17.7 | 10.3 | 32.0 | 36.1 | 46.0 | 9.9 | |
| Vert | 540.593 | QP | 34.6 | 19.7 | 11.1 | 32.0 | 33.4 | 46.0 | 12.6 | |
| Vert | 2483.500 | PK | 51.6 | 28.5 | 2.6 | 32.2 | 50.5 | 73.9 | 23.4 | |
| Vert | 4924.000 | PK | 41.1 | 31.5 | 5.3 | 31.4 | 46.5 | 73.9 | 27.4 | |
| Vert | 7386.000 | PK | 42.4 | 35.8 | 6.2 | 32.5 | 51.9 | 73.9 | 22.0 | |
| Vert | 9848.000 | PK | 41.7 | 38.5 | 7.6 | 33.3 | 54.5 | 73.9 | 19.4 | |
| Vert | 24620.000 | PK | 47.5 | 38.6 | -1.7 | 32.2 | 52.2 | 73.9 | 21.7 | |
| Vert | 2483.500 | AV | 38.9 | 28.5 | 2.6 | 32.2 | 37.8 | 53.9 | 16.1 | |
| Vert | 4924.000 | AV | 31.1 | 31.5 | 5.3 | 31.4 | 36.5 | 53.9 | 17.4 | |
| Vert | 7386.000 | AV | 31.1 | 35.8 | 6.2 | 32.5 | 40.6 | 53.9 | 13.3 | |
| Vert | 9848.000 | AV | 30.3 | 38.5 | 7.6 | 33.3 | 43.1 | 53.9 | 10.8 | |
| Vert | 24620.000 | AV | 35.4 | 38.6 | -1.7 | 32.2 | 40.1 | 53.9 | 13.8 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/18/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Motoya Imura Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11g Tx 2412MHz Antenna 1

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|----------------------|
| Hori | 31.244 | QP | 25.4 | 18.3 | 7.1 | 32.0 | 18.8 | 40.0 | 21.2 | |
| Hori | 41.331 | QP | 25.9 | 14.3 | 7.3 | 32.0 | 15.5 | 40.0 | 24.5 | |
| Hori | 71.557 | QP | 42.1 | 6.6 | 7.7 | 32.1 | 24.3 | 40.0 | 15.7 | |
| Hori | 113.122 | QP | 37.3 | 12.0 | 8.2 | 32.0 | 25.5 | 43.5 | 18.0 | |
| Hori | 405.113 | QP | 36.5 | 17.7 | 10.3 | 32.0 | 32.5 | 46.0 | 13.5 | |
| Hori | 540.591 | QP | 33.3 | 19.7 | 11.1 | 32.0 | 32.1 | 46.0 | 13.9 | |
| Hori | 2390.000 | PK | 58.5 | 28.1 | 2.5 | 32.2 | 56.9 | 73.9 | 17.0 | |
| Hori | 2400.000 | PK | 78.4 | 28.1 | 2.5 | 32.2 | 76.8 | - | - | See 20dBc Data Sheet |
| Hori | 4824.000 | PK | 40.3 | 31.2 | 5.3 | 31.4 | 45.4 | 73.9 | 28.5 | |
| Hori | 7236.000 | PK | 42.0 | 35.6 | 6.1 | 32.4 | 51.3 | 73.9 | 22.6 | |
| Hori | 9648.000 | PK | 42.0 | 38.3 | 7.2 | 33.2 | 54.3 | 73.9 | 19.6 | |
| Hori | 24120.000 | PK | 47.5 | 38.7 | -1.8 | 32.1 | 52.3 | 73.9 | 21.6 | |
| Hori | 2390.000 | AV | 44.0 | 28.1 | 2.5 | 32.2 | 42.4 | 53.9 | 11.5 | |
| Hori | 2400.000 | AV | 59.8 | 28.1 | 2.5 | 32.2 | 58.2 | - | - | See 20dBc Data Sheet |
| Hori | 4824.000 | AV | 29.1 | 31.2 | 5.3 | 31.4 | 34.2 | 53.9 | 19.7 | |
| Hori | 7236.000 | AV | 30.7 | 35.6 | 6.1 | 32.4 | 40.0 | 53.9 | 13.9 | |
| Hori | 9648.000 | AV | 30.4 | 38.3 | 7.2 | 33.2 | 42.7 | 53.9 | 11.2 | |
| Hori | 24120.000 | AV | 35.4 | 38.7 | -1.8 | 32.1 | 40.2 | 53.9 | 13.7 | |
| Vert | 31.238 | QP | 36.6 | 18.3 | 7.1 | 32.0 | 29.9 | 40.0 | 10.1 | |
| Vert | 41.326 | QP | 38.1 | 14.3 | 7.3 | 32.0 | 27.7 | 40.0 | 12.3 | |
| Vert | 72.553 | QP | 47.9 | 6.6 | 7.7 | 32.1 | 30.1 | 40.0 | 9.9 | |
| Vert | 113.180 | QP | 45.4 | 12.1 | 8.2 | 32.0 | 33.5 | 43.5 | 10.0 | |
| Vert | 405.115 | QP | 40.1 | 17.7 | 10.3 | 32.0 | 36.1 | 46.0 | 9.9 | |
| Vert | 540.594 | QP | 34.4 | 19.7 | 11.1 | 32.0 | 33.2 | 46.0 | 12.8 | |
| Vert | 2390.000 | PK | 59.3 | 28.1 | 2.5 | 32.2 | 57.7 | 73.9 | 16.2 | |
| Vert | 2400.000 | PK | 78.6 | 28.1 | 2.5 | 32.2 | 77.0 | - | - | See 20dBc Data Sheet |
| Vert | 4824.000 | PK | 40.3 | 31.2 | 5.3 | 31.4 | 45.4 | 73.9 | 28.5 | |
| Vert | 7236.000 | PK | 42.1 | 35.6 | 6.1 | 32.4 | 51.4 | 73.9 | 22.5 | |
| Vert | 9648.000 | PK | 42.0 | 38.3 | 7.2 | 33.2 | 54.3 | 73.9 | 19.6 | |
| Vert | 24120.000 | PK | 47.7 | 38.7 | -1.8 | 32.1 | 52.5 | 73.9 | 21.4 | |
| Vert | 2390.000 | AV | 44.2 | 28.1 | 2.5 | 32.2 | 42.6 | 53.9 | 11.3 | |
| Vert | 2400.000 | AV | 60.0 | 28.1 | 2.5 | 32.2 | 58.4 | - | - | See 20dBc Data Sheet |
| Vert | 4824.000 | AV | 29.1 | 31.2 | 5.3 | 31.4 | 34.2 | 53.9 | 19.7 | |
| Vert | 7236.000 | AV | 30.8 | 35.6 | 6.1 | 32.4 | 40.1 | 53.9 | 13.8 | |
| Vert | 9648.000 | AV | 30.3 | 38.3 | 7.2 | 33.2 | 42.6 | 53.9 | 11.3 | |
| Vert | 24120.000 | AV | 35.3 | 38.7 | -1.8 | 32.1 | 40.1 | 53.9 | 13.8 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/18/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Motoya Imura Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11g Tx 2437MHz Antenna 1

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 31.122 | QP | 25.2 | 18.3 | 7.1 | 32.0 | 18.6 | 40.0 | 21.4 | |
| Hori | 41.731 | QP | 27.1 | 14.1 | 7.3 | 32.0 | 16.5 | 40.0 | 23.5 | |
| Hori | 72.115 | QP | 44.4 | 6.6 | 7.7 | 32.1 | 26.6 | 40.0 | 13.4 | |
| Hori | 114.587 | QP | 37.4 | 12.2 | 8.2 | 32.0 | 25.8 | 43.5 | 17.7 | |
| Hori | 405.115 | QP | 36.6 | 17.7 | 10.3 | 32.0 | 32.6 | 46.0 | 13.4 | |
| Hori | 540.598 | QP | 34.2 | 19.7 | 11.1 | 32.0 | 33.0 | 46.0 | 13.0 | |
| Hori | 4874.000 | PK | 40.7 | 31.4 | 5.3 | 31.4 | 46.0 | 73.9 | 27.9 | |
| Hori | 7311.000 | PK | 42.7 | 35.7 | 6.2 | 32.5 | 52.1 | 73.9 | 21.8 | |
| Hori | 9748.000 | PK | 41.7 | 38.4 | 7.5 | 33.2 | 54.4 | 73.9 | 19.5 | |
| Hori | 24370.000 | PK | 47.5 | 38.6 | -1.8 | 32.1 | 52.2 | 73.9 | 21.7 | |
| Hori | 4874.000 | AV | 29.1 | 31.4 | 5.3 | 31.4 | 34.4 | 53.9 | 19.5 | |
| Hori | 7311.000 | AV | 30.6 | 35.7 | 6.2 | 32.5 | 40.0 | 53.9 | 13.9 | |
| Hori | 9748.000 | AV | 30.4 | 38.4 | 7.5 | 33.2 | 43.1 | 53.9 | 10.8 | |
| Hori | 24370.000 | AV | 34.7 | 38.6 | -1.8 | 32.1 | 39.4 | 53.9 | 14.5 | |
| Vert | 31.144 | QP | 36.3 | 18.3 | 7.1 | 32.0 | 29.6 | 40.0 | 10.4 | |
| Vert | 41.713 | QP | 38.3 | 14.1 | 7.3 | 32.0 | 27.7 | 40.0 | 12.3 | |
| Vert | 72.103 | QP | 48.8 | 6.6 | 7.7 | 32.1 | 30.9 | 40.0 | 9.1 | |
| Vert | 114.593 | QP | 44.9 | 12.2 | 8.2 | 32.0 | 33.1 | 43.5 | 10.4 | |
| Vert | 405.115 | QP | 40.3 | 17.7 | 10.3 | 32.0 | 36.3 | 46.0 | 9.7 | |
| Vert | 540.592 | QP | 35.5 | 19.7 | 11.1 | 32.0 | 34.3 | 46.0 | 11.7 | |
| Vert | 4874.000 | PK | 41.0 | 31.4 | 5.3 | 31.4 | 46.3 | 73.9 | 27.6 | |
| Vert | 7311.000 | PK | 42.7 | 35.7 | 6.2 | 32.5 | 52.1 | 73.9 | 21.8 | |
| Vert | 9748.000 | PK | 41.7 | 38.4 | 7.5 | 33.2 | 54.4 | 73.9 | 19.5 | |
| Vert | 24370.000 | PK | 47.4 | 38.6 | -1.8 | 32.1 | 52.1 | 73.9 | 21.8 | |
| Vert | 4874.000 | AV | 29.2 | 31.4 | 5.3 | 31.4 | 34.5 | 53.9 | 19.4 | |
| Vert | 7311.000 | AV | 30.6 | 35.7 | 6.2 | 32.5 | 40.0 | 53.9 | 13.9 | |
| Vert | 9748.000 | AV | 30.4 | 38.4 | 7.5 | 33.2 | 43.1 | 53.9 | 10.8 | |
| Vert | 24370.000 | AV | 34.7 | 38.6 | -1.8 | 32.1 | 39.4 | 53.9 | 14.5 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: DELTA)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/18/2012 03/21/2012 03/31/2012
Temperature/ Humidity 24 deg. C / 32% RH 24 deg. C / 32% RH 22 deg. C / 39% RH
Engineer Motoya Imura Hiroshi Kukita Takumi Shimada
(1-10GHz) (30-1000MHz) (10-26.5GHz)
Mode 11g Tx 2462MHz Antenna 1

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 31.311 | QP | 24.9 | 18.2 | 7.1 | 32.0 | 18.2 | 40.0 | 21.8 | |
| Hori | 42.104 | QP | 28.3 | 13.9 | 7.3 | 32.0 | 17.5 | 40.0 | 22.5 | |
| Hori | 71.656 | QP | 44.0 | 6.6 | 7.7 | 32.1 | 26.2 | 40.0 | 13.8 | |
| Hori | 113.887 | QP | 36.6 | 12.2 | 8.2 | 32.0 | 25.0 | 43.5 | 18.5 | |
| Hori | 405.116 | QP | 37.2 | 17.7 | 10.3 | 32.0 | 33.2 | 46.0 | 12.8 | |
| Hori | 540.598 | QP | 33.6 | 19.7 | 11.1 | 32.0 | 32.4 | 46.0 | 13.6 | |
| Hori | 2483.500 | PK | 59.2 | 28.5 | 2.6 | 32.2 | 58.1 | 73.9 | 15.8 | |
| Hori | 4924.000 | PK | 41.4 | 31.5 | 5.3 | 31.4 | 46.8 | 73.9 | 27.1 | |
| Hori | 7386.000 | PK | 42.4 | 35.8 | 6.2 | 32.5 | 51.9 | 73.9 | 22.0 | |
| Hori | 9848.000 | PK | 41.7 | 38.5 | 7.6 | 33.3 | 54.5 | 73.9 | 19.4 | |
| Hori | 24620.000 | PK | 47.7 | 38.6 | -1.7 | 32.2 | 52.4 | 73.9 | 21.5 | |
| Hori | 2483.500 | AV | 42.7 | 28.5 | 2.6 | 32.2 | 41.6 | 53.9 | 12.3 | |
| Hori | 4924.000 | AV | 28.0 | 31.5 | 5.3 | 31.4 | 33.4 | 53.9 | 20.5 | |
| Hori | 7386.000 | AV | 31.1 | 35.8 | 6.2 | 32.5 | 40.6 | 53.9 | 13.3 | |
| Hori | 9848.000 | AV | 30.3 | 38.5 | 7.6 | 33.3 | 43.1 | 53.9 | 10.8 | |
| Hori | 24620.000 | AV | 35.3 | 38.6 | -1.7 | 32.2 | 40.0 | 53.9 | 13.9 | |
| Vert | 31.335 | QP | 36.2 | 18.2 | 7.1 | 32.0 | 29.4 | 40.0 | 10.6 | |
| Vert | 42.104 | QP | 38.2 | 13.9 | 7.3 | 32.0 | 27.4 | 40.0 | 12.6 | |
| Vert | 71.656 | QP | 48.7 | 6.6 | 7.7 | 32.1 | 30.8 | 40.0 | 9.2 | |
| Vert | 113.887 | QP | 44.7 | 12.2 | 8.2 | 32.0 | 32.9 | 43.5 | 10.6 | |
| Vert | 405.116 | QP | 41.2 | 17.7 | 10.3 | 32.0 | 37.2 | 46.0 | 8.8 | |
| Vert | 540.594 | QP | 35.5 | 19.7 | 11.1 | 32.0 | 34.3 | 46.0 | 11.7 | |
| Vert | 2483.500 | PK | 61.0 | 28.5 | 2.6 | 32.2 | 59.9 | 73.9 | 14.0 | |
| Vert | 4924.000 | PK | 41.1 | 31.5 | 5.3 | 31.4 | 46.5 | 73.9 | 27.4 | |
| Vert | 7386.000 | PK | 42.4 | 35.8 | 6.2 | 32.5 | 51.9 | 73.9 | 22.0 | |
| Vert | 9848.000 | PK | 41.7 | 38.5 | 7.6 | 33.3 | 54.5 | 73.9 | 19.4 | |
| Vert | 24620.000 | PK | 47.5 | 38.6 | -1.7 | 32.2 | 52.2 | 73.9 | 21.7 | |
| Vert | 2483.500 | AV | 44.8 | 28.5 | 2.6 | 32.2 | 43.7 | 53.9 | 10.2 | |
| Vert | 4924.000 | AV | 28.0 | 31.5 | 5.3 | 31.4 | 33.4 | 53.9 | 20.5 | |
| Vert | 7386.000 | AV | 31.1 | 35.8 | 6.2 | 32.5 | 40.6 | 53.9 | 13.3 | |
| Vert | 9848.000 | AV | 30.3 | 38.5 | 7.6 | 33.3 | 43.1 | 53.9 | 10.8 | |
| Vert | 24620.000 | AV | 35.3 | 38.6 | -1.7 | 32.2 | 40.0 | 53.9 | 13.9 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
(Power Supply: SONY)

Test place Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 32GE0144-HO-01
Date 03/31/2012 04/1/2012
Temperature/ Humidity 22 deg. C / 39% RH 24 deg. C / 41% RH
Engineer Takumi Shimada Tomotaka Sasagawa
(1-26.5GHz) (30-1000MHz)
Mode 11g Tx 2412MHz Antenna 0

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|----------------------|
| Hori | 34.310 | QP | 23.8 | 16.8 | 7.1 | 32.0 | 15.7 | 40.0 | 24.3 | |
| Hori | 69.231 | QP | 42.5 | 6.5 | 7.7 | 32.1 | 24.6 | 40.0 | 15.4 | |
| Hori | 200.543 | QP | 31.4 | 16.6 | 8.8 | 31.9 | 24.9 | 43.5 | 18.6 | |
| Hori | 404.231 | QP | 34.5 | 17.7 | 10.3 | 32.0 | 30.5 | 46.0 | 15.5 | |
| Hori | 576.231 | QP | 40.1 | 20.2 | 11.3 | 32.0 | 39.6 | 46.0 | 6.4 | |
| Hori | 809.323 | QP | 27.8 | 23.7 | 12.5 | 31.7 | 32.3 | 46.0 | 13.7 | |
| Hori | 2390.000 | PK | 54.8 | 28.1 | 2.2 | 32.3 | 52.8 | 73.9 | 21.1 | |
| Hori | 2400.000 | PK | 76.7 | 28.1 | 2.2 | 32.3 | 74.7 | - | - | See 20dBc Data Sheet |
| Hori | 4824.000 | PK | 41.0 | 31.2 | 4.8 | 31.5 | 45.5 | 73.9 | 28.4 | |
| Hori | 7236.000 | PK | 42.4 | 35.6 | 5.5 | 32.5 | 51.0 | 73.9 | 22.9 | |
| Hori | 9648.000 | PK | 41.4 | 38.3 | 6.6 | 32.9 | 53.4 | 73.9 | 20.5 | |
| Hori | 24120.000 | PK | 47.5 | 38.7 | -1.8 | 32.1 | 52.3 | 73.9 | 21.6 | |
| Hori | 2390.000 | AV | 41.8 | 28.1 | 2.2 | 32.3 | 39.8 | 53.9 | 14.1 | |
| Hori | 2400.000 | AV | 59.2 | 28.1 | 2.2 | 32.3 | 57.2 | - | - | See 20dBc Data Sheet |
| Hori | 4824.000 | AV | 29.0 | 31.2 | 4.8 | 31.5 | 33.5 | 53.9 | 20.4 | |
| Hori | 7236.000 | AV | 30.0 | 35.6 | 5.5 | 32.5 | 38.6 | 53.9 | 15.3 | |
| Hori | 9648.000 | AV | 29.9 | 38.3 | 6.6 | 32.9 | 41.9 | 53.9 | 12.0 | |
| Hori | 24120.000 | AV | 35.3 | 38.7 | -1.8 | 32.1 | 40.1 | 53.9 | 13.8 | |
| Vert | 33.423 | QP | 30.9 | 17.2 | 7.1 | 32.0 | 23.1 | 40.0 | 16.9 | |
| Vert | 70.452 | QP | 45.7 | 6.4 | 7.7 | 32.1 | 27.5 | 40.0 | 12.5 | |
| Vert | 200.523 | QP | 36.5 | 16.6 | 8.8 | 31.9 | 30.0 | 43.5 | 13.5 | |
| Vert | 404.231 | QP | 41.6 | 17.7 | 10.3 | 32.0 | 37.6 | 46.0 | 8.4 | |
| Vert | 576.345 | QP | 35.6 | 20.2 | 11.3 | 32.0 | 35.1 | 46.0 | 10.9 | |
| Vert | 811.232 | QP | 32.4 | 23.7 | 12.5 | 31.6 | 37.0 | 46.0 | 9.0 | |
| Vert | 2390.000 | PK | 54.8 | 28.1 | 2.2 | 32.3 | 52.8 | 73.9 | 21.1 | |
| Vert | 2400.000 | PK | 74.2 | 28.1 | 2.2 | 32.3 | 72.2 | - | - | See 20dBc Data Sheet |
| Vert | 4824.000 | PK | 40.2 | 31.2 | 4.8 | 31.5 | 44.7 | 73.9 | 29.2 | |
| Vert | 7236.000 | PK | 41.8 | 35.6 | 5.5 | 32.5 | 50.4 | 73.9 | 23.5 | |
| Vert | 9648.000 | PK | 42.4 | 38.3 | 6.6 | 32.9 | 54.4 | 73.9 | 19.5 | |
| Vert | 24120.000 | PK | 47.4 | 38.7 | -1.8 | 32.1 | 52.2 | 73.9 | 21.7 | |
| Vert | 2390.000 | AV | 41.1 | 28.1 | 2.2 | 32.3 | 39.1 | 53.9 | 14.8 | |
| Vert | 2400.000 | AV | 56.5 | 28.1 | 2.2 | 32.3 | 54.5 | - | - | See 20dBc Data Sheet |
| Vert | 4824.000 | AV | 29.0 | 31.2 | 4.8 | 31.5 | 33.5 | 53.9 | 20.4 | |
| Vert | 7236.000 | AV | 30.0 | 35.6 | 5.5 | 32.5 | 38.6 | 53.9 | 15.3 | |
| Vert | 9648.000 | AV | 30.1 | 38.3 | 6.6 | 32.9 | 42.1 | 53.9 | 11.8 | |
| Vert | 24120.000 | AV | 35.4 | 38.7 | -1.8 | 32.1 | 40.2 | 53.9 | 13.7 | |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

*Other frequency noises omitted in this report were not seen or had enough margin (more than 20dB).

*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Spurious Emission
20dBc Data Sheet
(Power Supply: SONY)

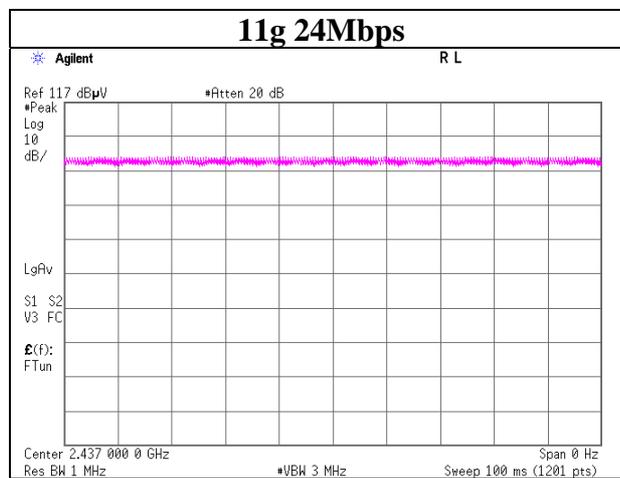
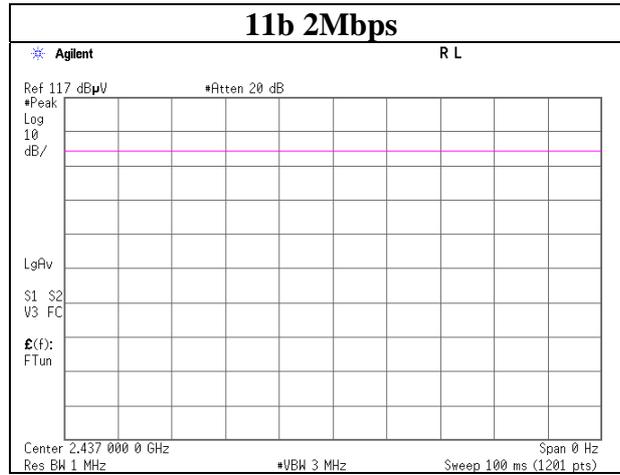
Test place : Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. : 32GE0144-HO-01
Date : 03/31/2012
Temperature/ Humidity : 22 deg. C / 39% RH
Engineer : Takumi Shimada
Mode : 11g Tx 2412MHz Antenna 0

20dBc Data Sheet

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant Factor [dB/m] | Loss [dB] | Gain [dB] | Result dBuV/m | Limit dBuV/m | Margin [dB] | Remark |
|----------|--------------------|----------|-------------------|-------------------------|--------------|--------------|------------------|-----------------|----------------|---------|
| Hori | 2412.000 | PK | 95.6 | 28.2 | 2.2 | 32.3 | 93.7 | - | - | Carrier |
| Hori | 2400.000 | PK | 62.2 | 28.1 | 2.2 | 32.3 | 60.2 | 73.7 | 13.5 | |
| Vert | 2412.000 | PK | 94.3 | 28.2 | 2.2 | 32.3 | 92.4 | - | - | Carrier |
| Vert | 2400.000 | PK | 60.2 | 28.1 | 2.2 | 32.3 | 58.2 | 72.4 | 14.2 | |

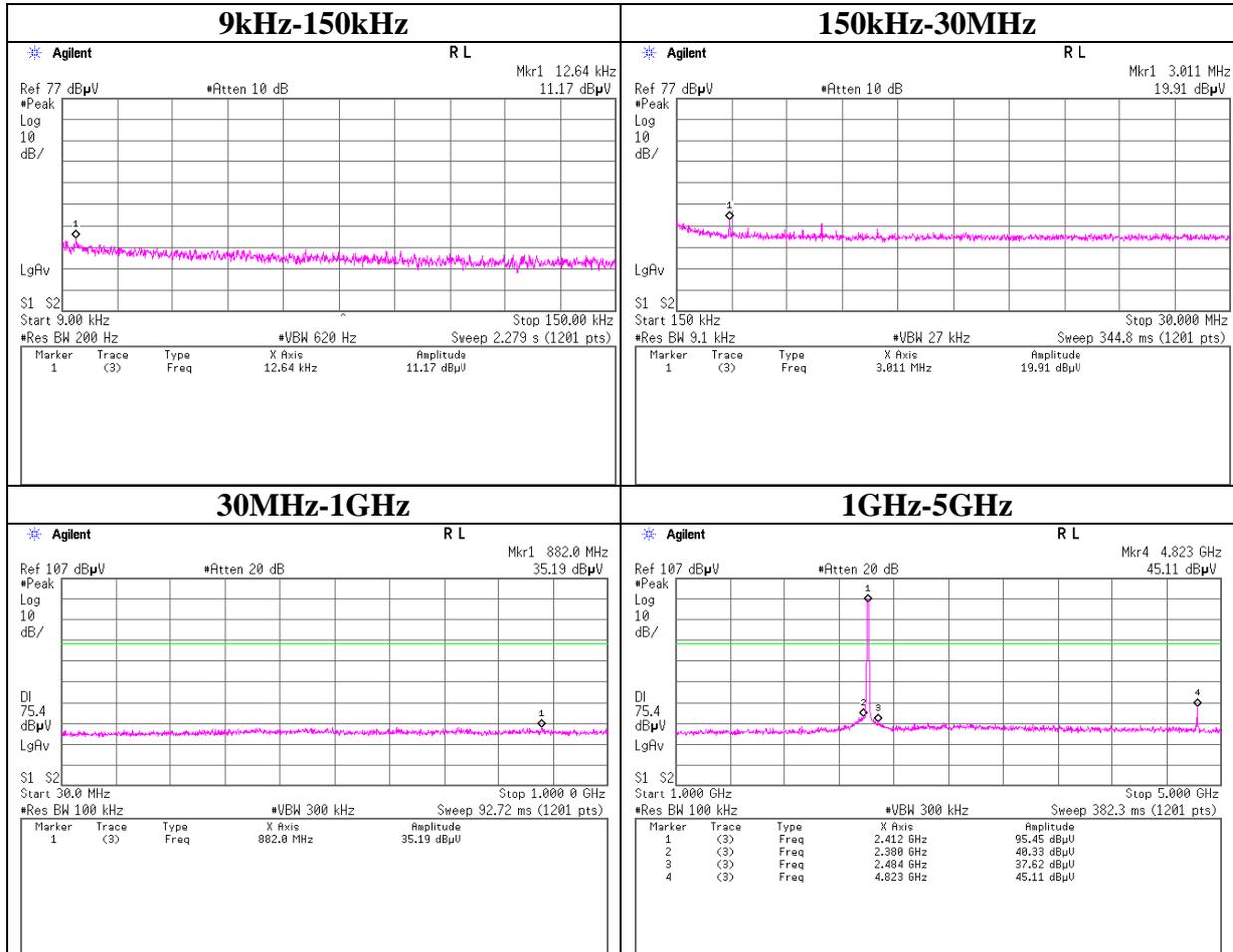
Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 10GHz)) - Gain(Amplifier)

Burst rate confirmation



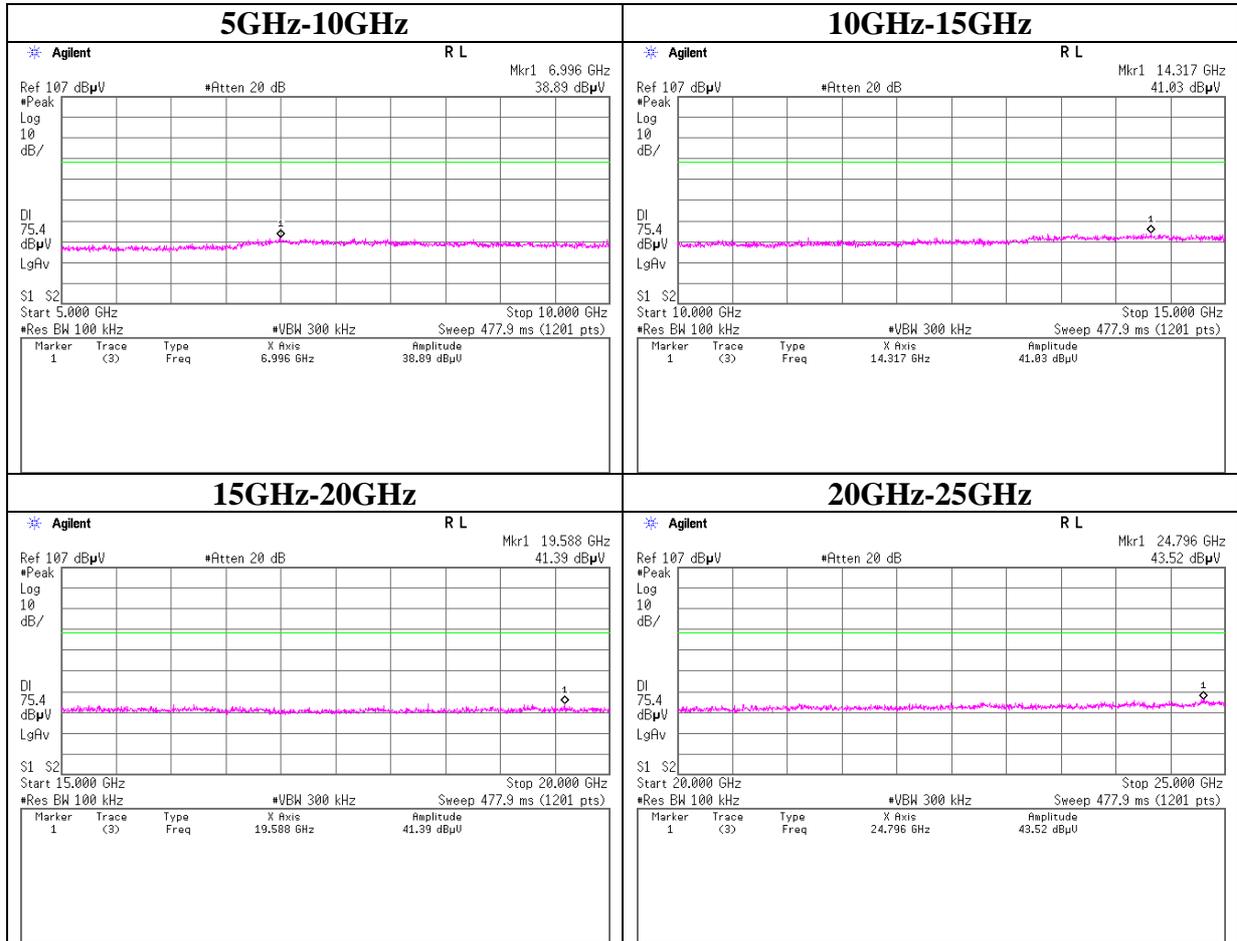
Conducted Spurious Emission

11b Antenna 0 Tx 2412MHz



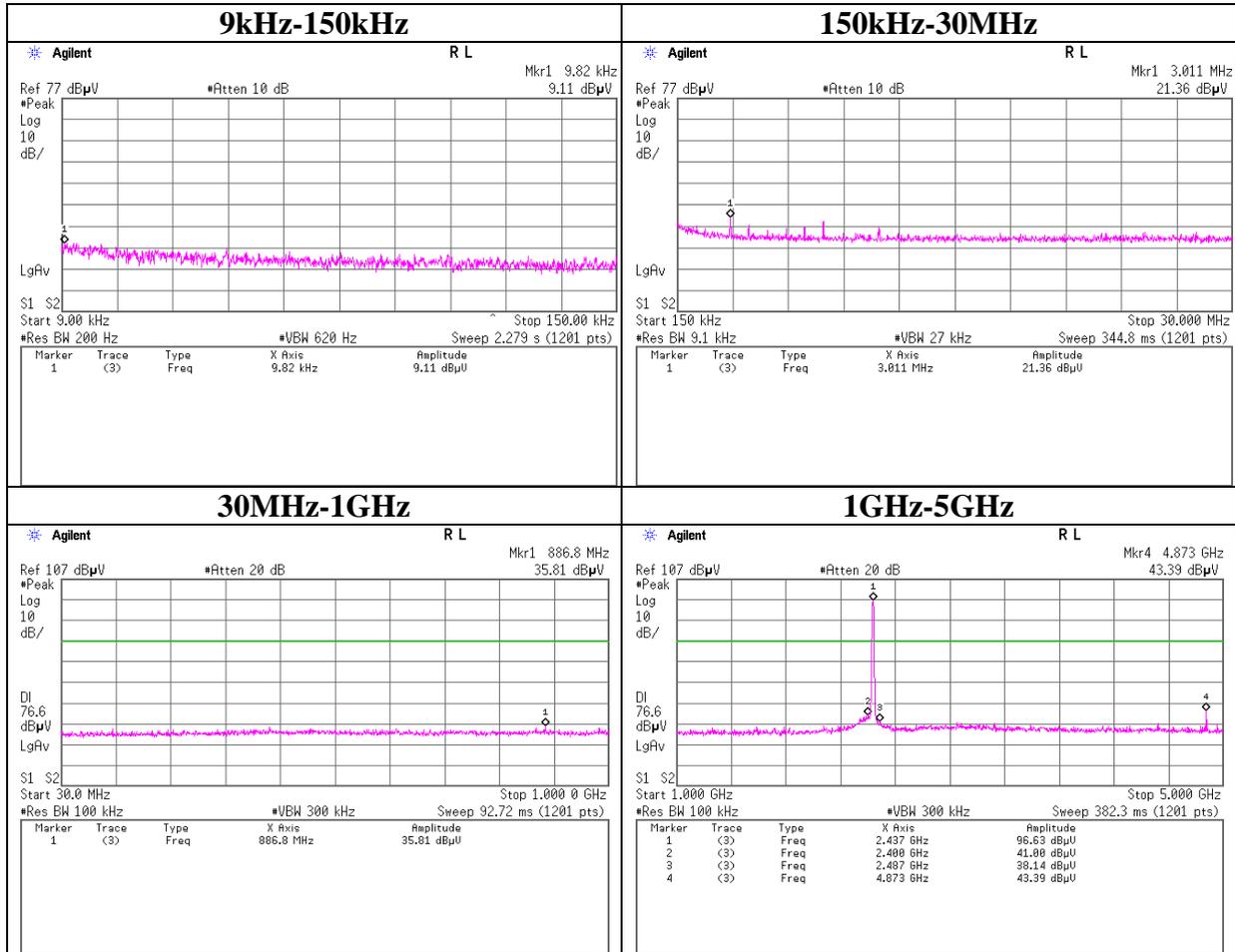
Conducted Spurious Emission

11b Antenna 0 Tx 2412MHz



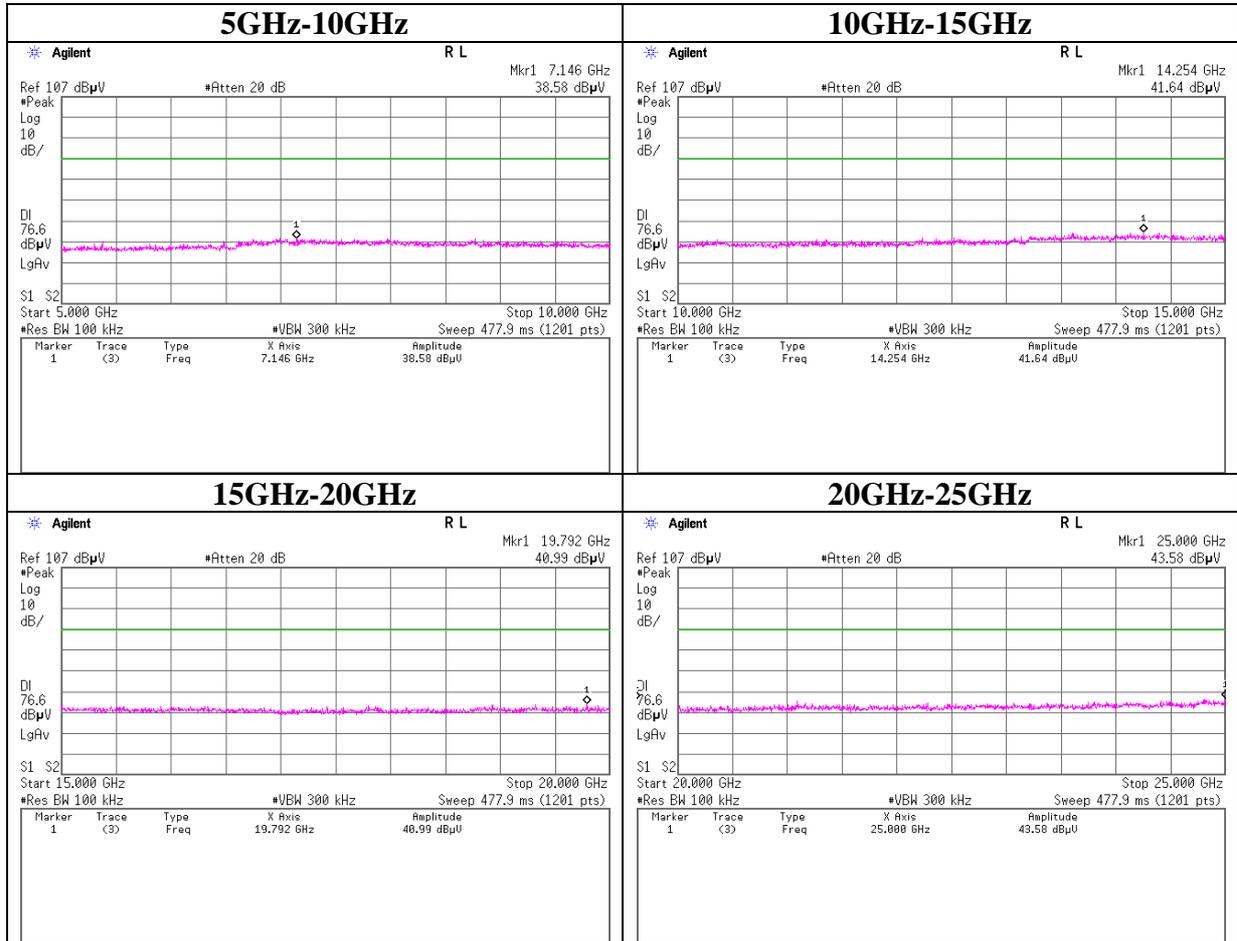
Conducted Spurious Emission

11b Antenna 0 Tx 2437MHz



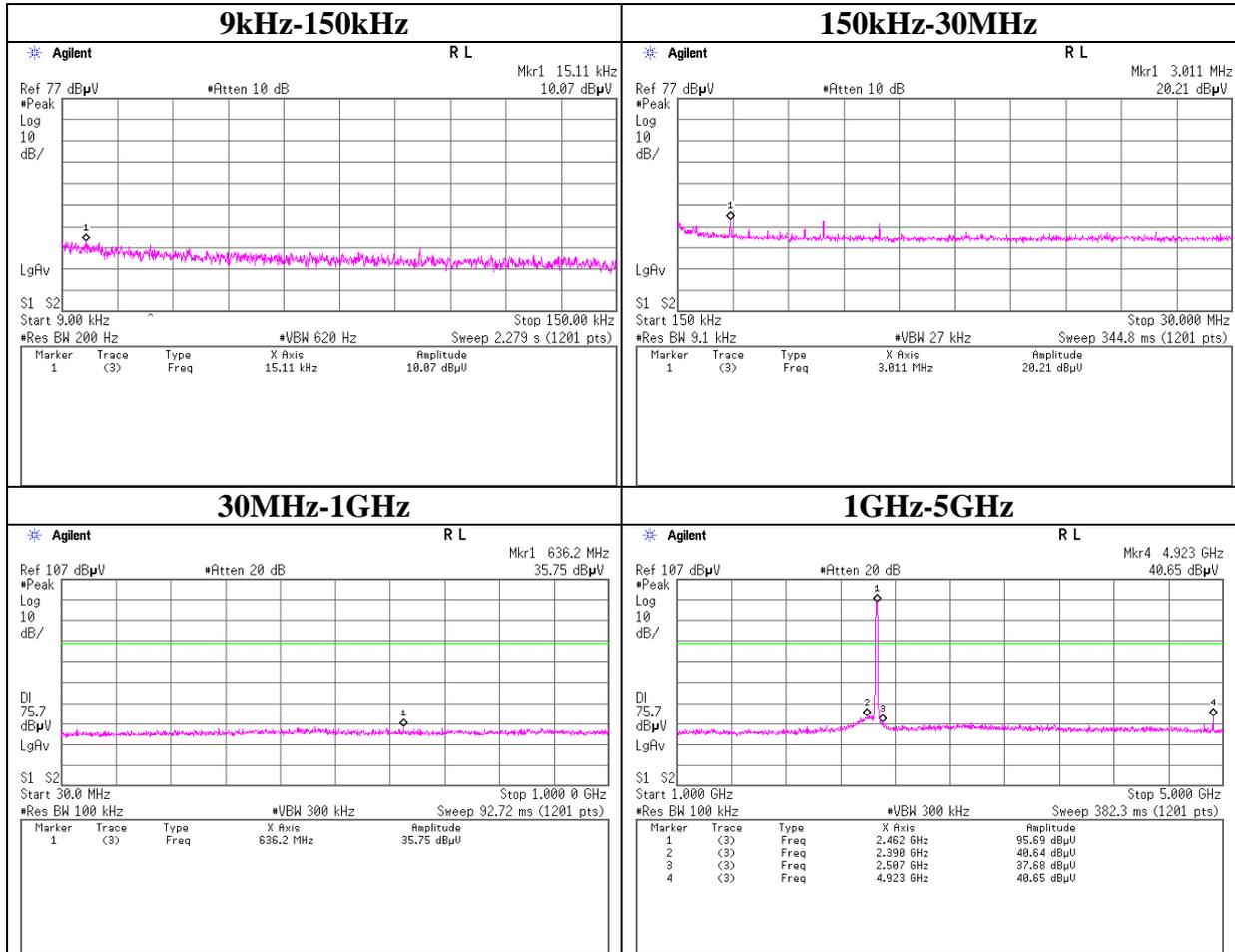
Conducted Spurious Emission

11b Antenna 0 Tx 2437MHz



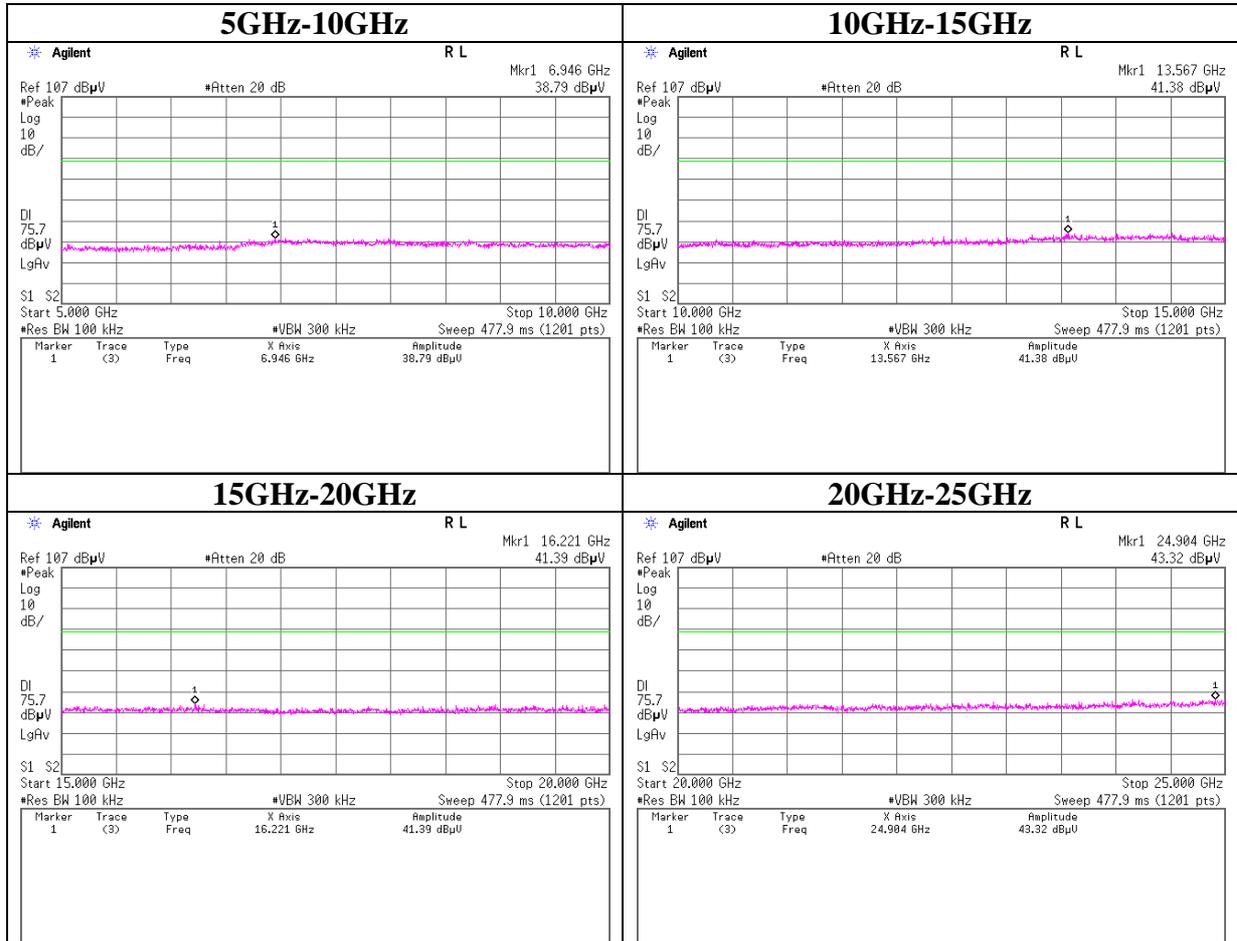
Conducted Spurious Emission

11b Antenna 0 Tx 2462MHz



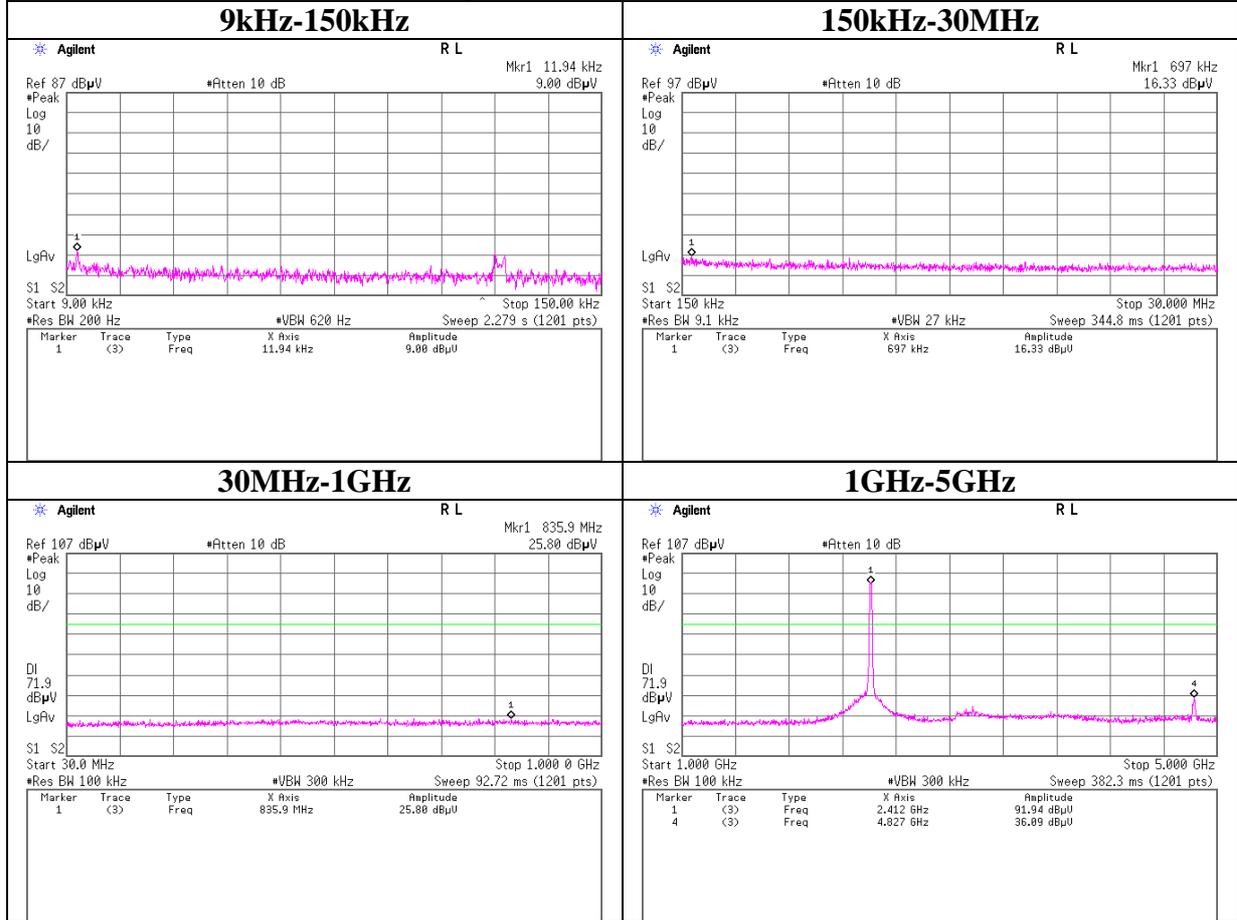
Conducted Spurious Emission

11b Antenna 0 Tx 2462MHz



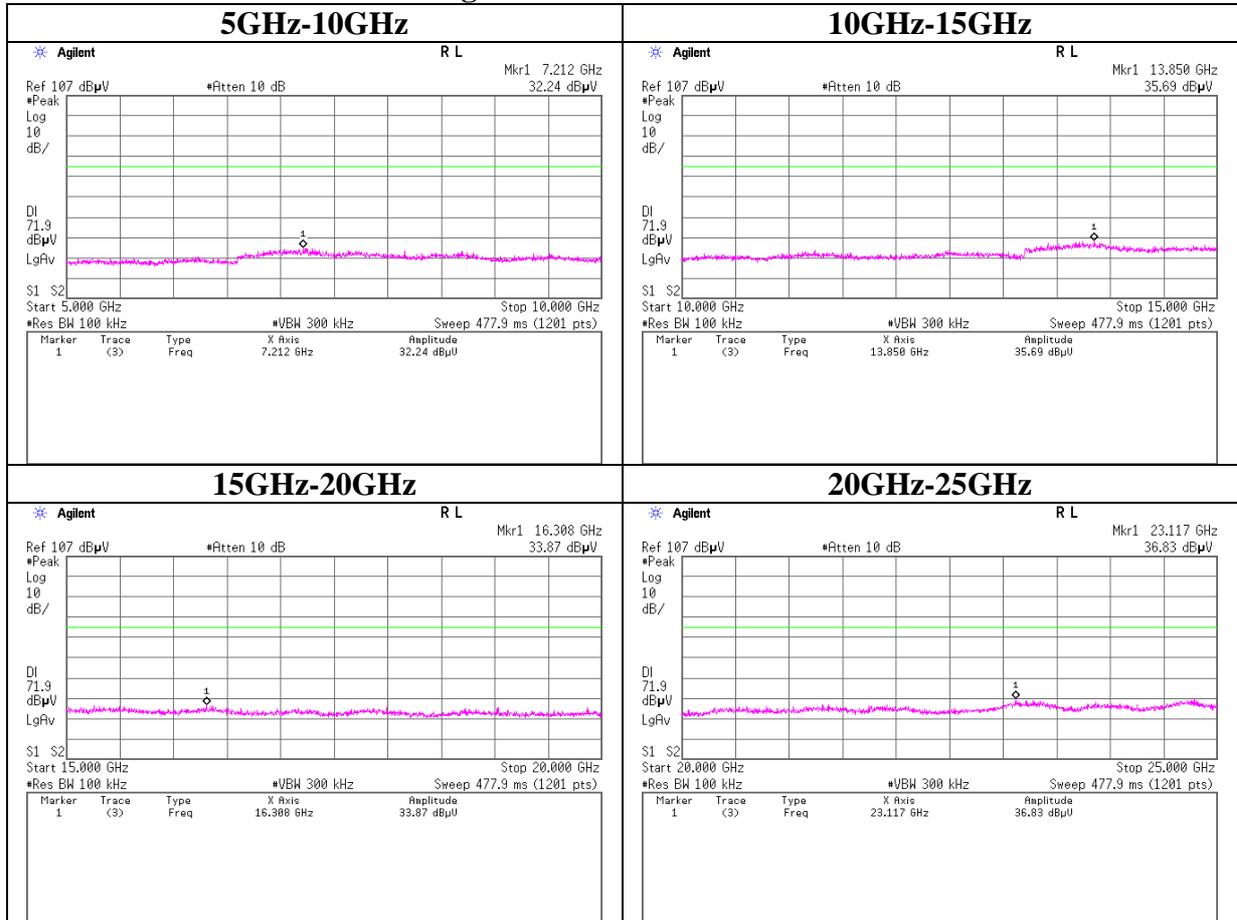
Conducted Spurious Emission

11g Antenna 0 Tx 2412MHz



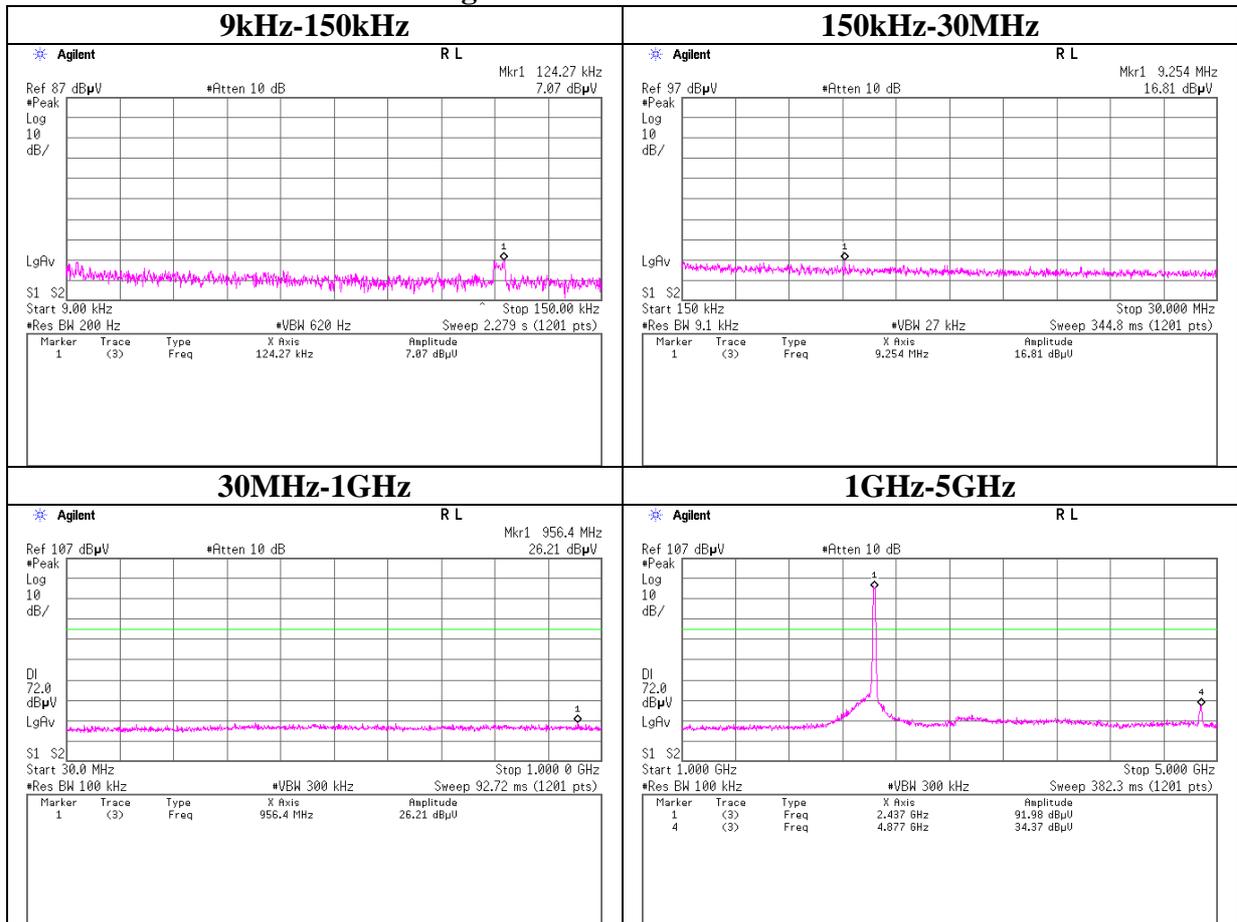
Conducted Spurious Emission

11g Antenna 0 Tx 2412MHz



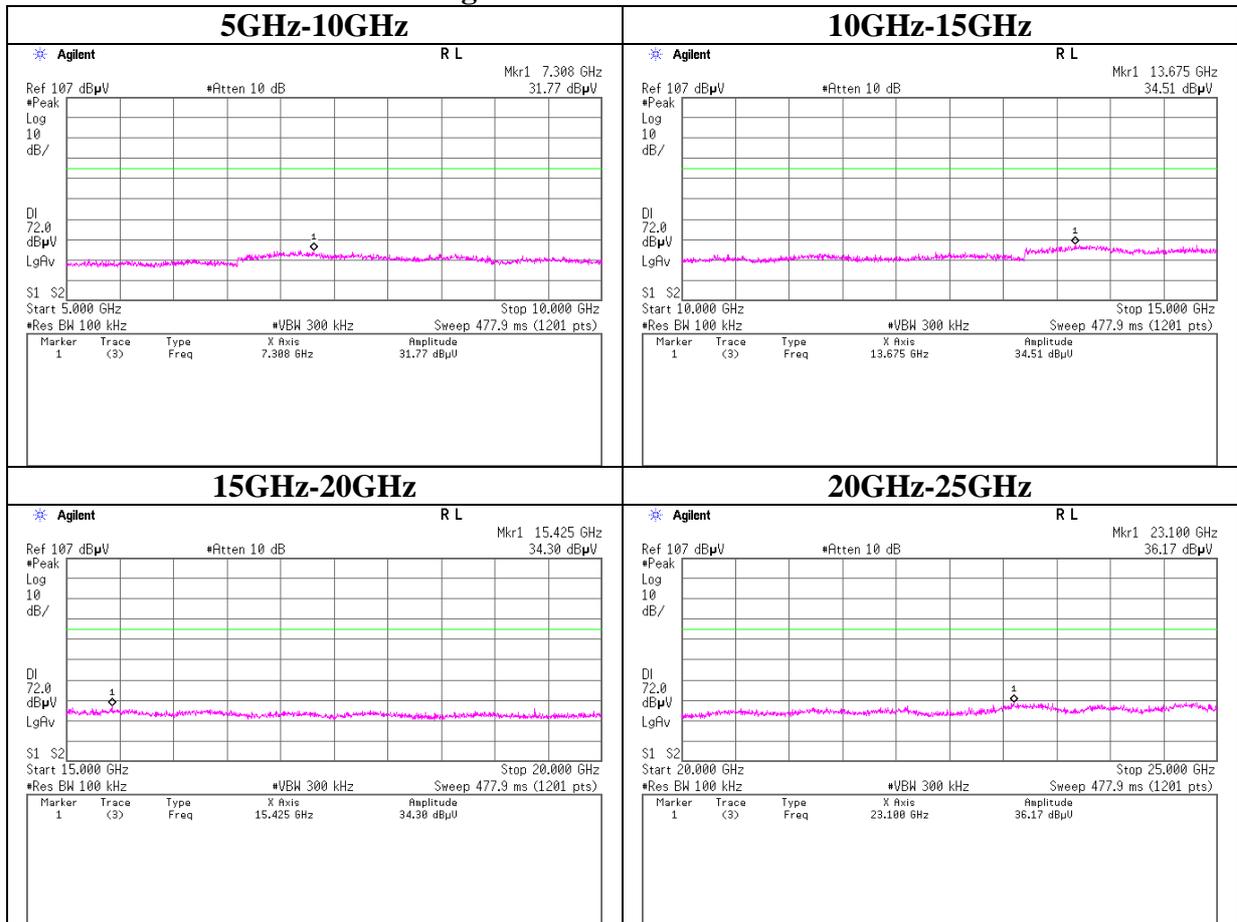
Conducted Spurious Emission

11g Antenna 0 Tx 2437MHz



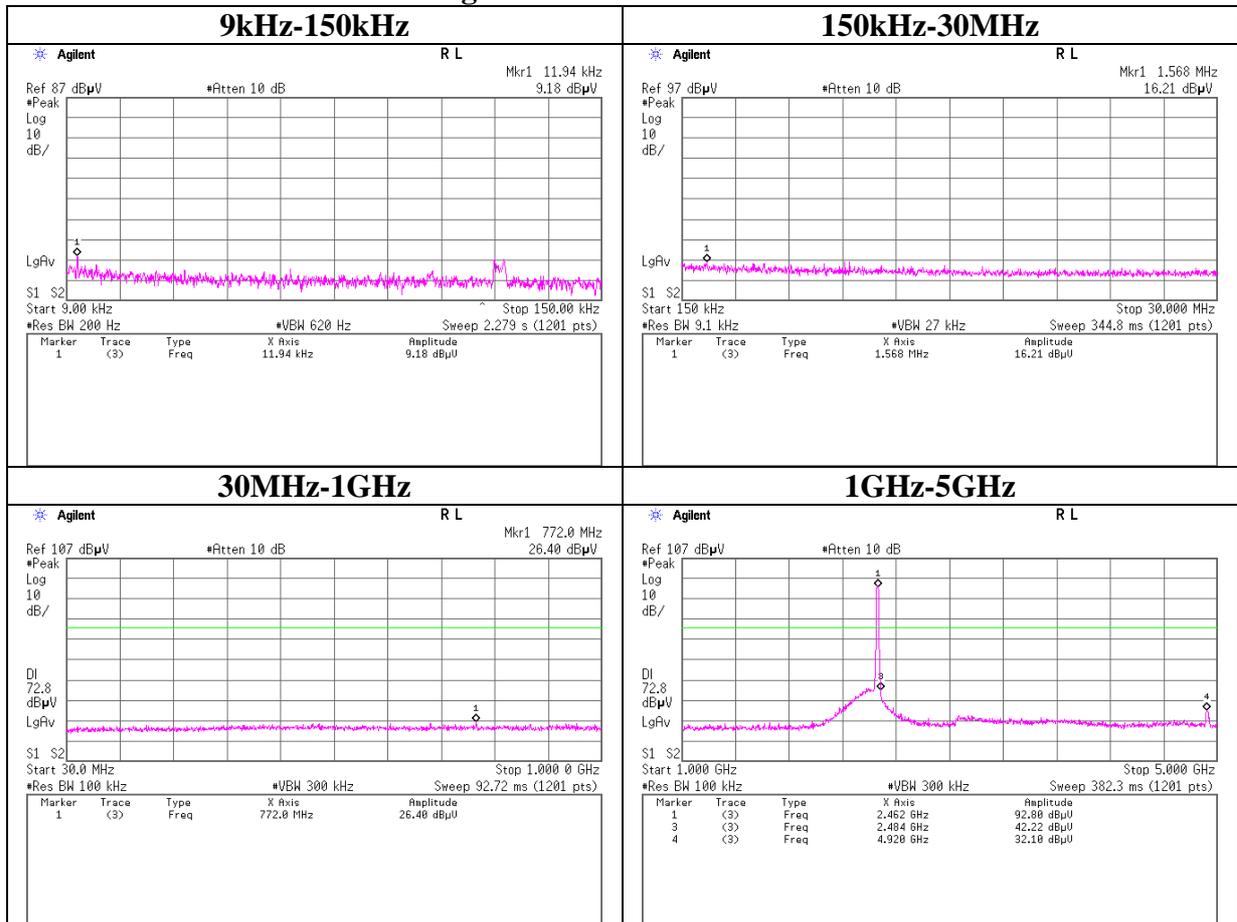
Conducted Spurious Emission

11g Antenna 0 Tx 2437MHz



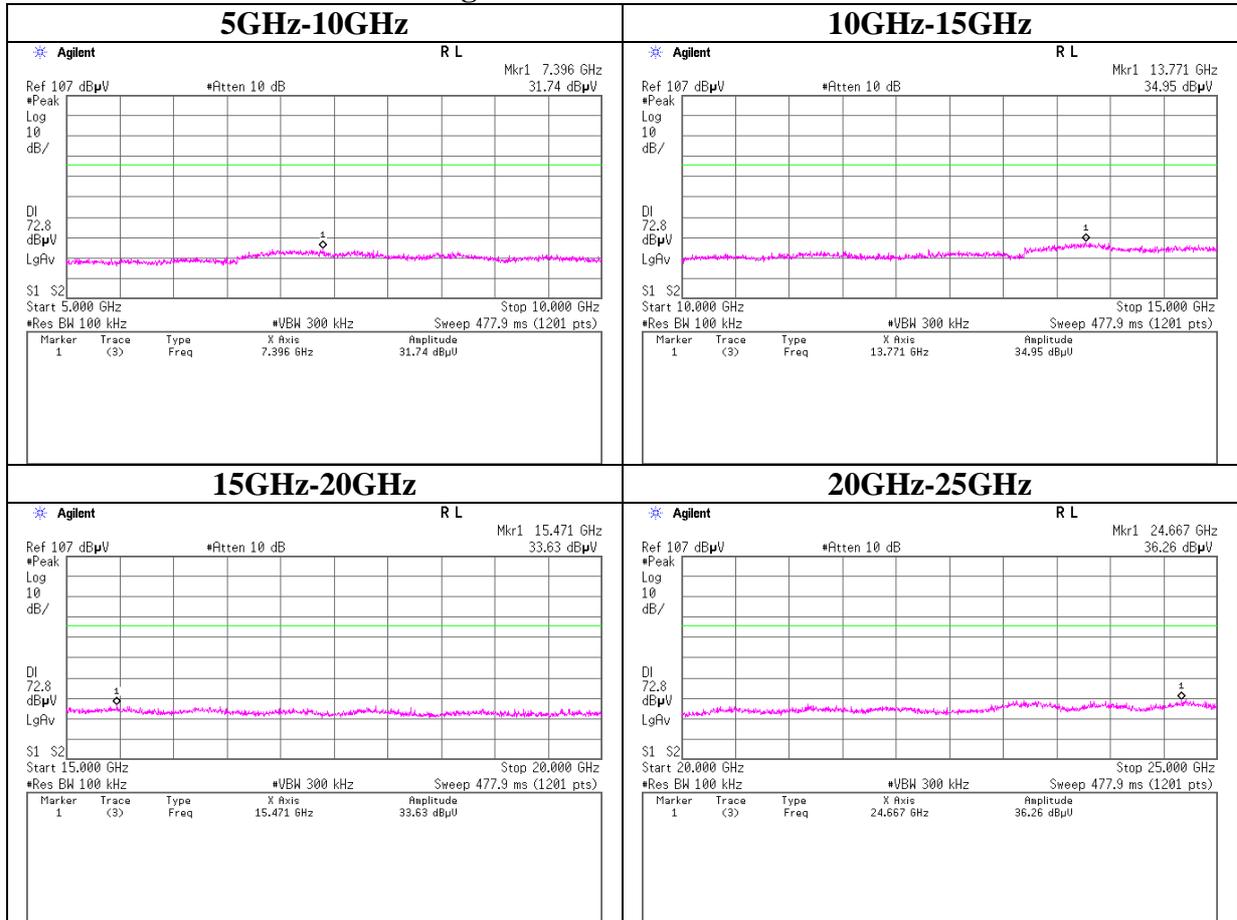
Conducted Spurious Emission

11g Antenna 0 Tx 2462MHz



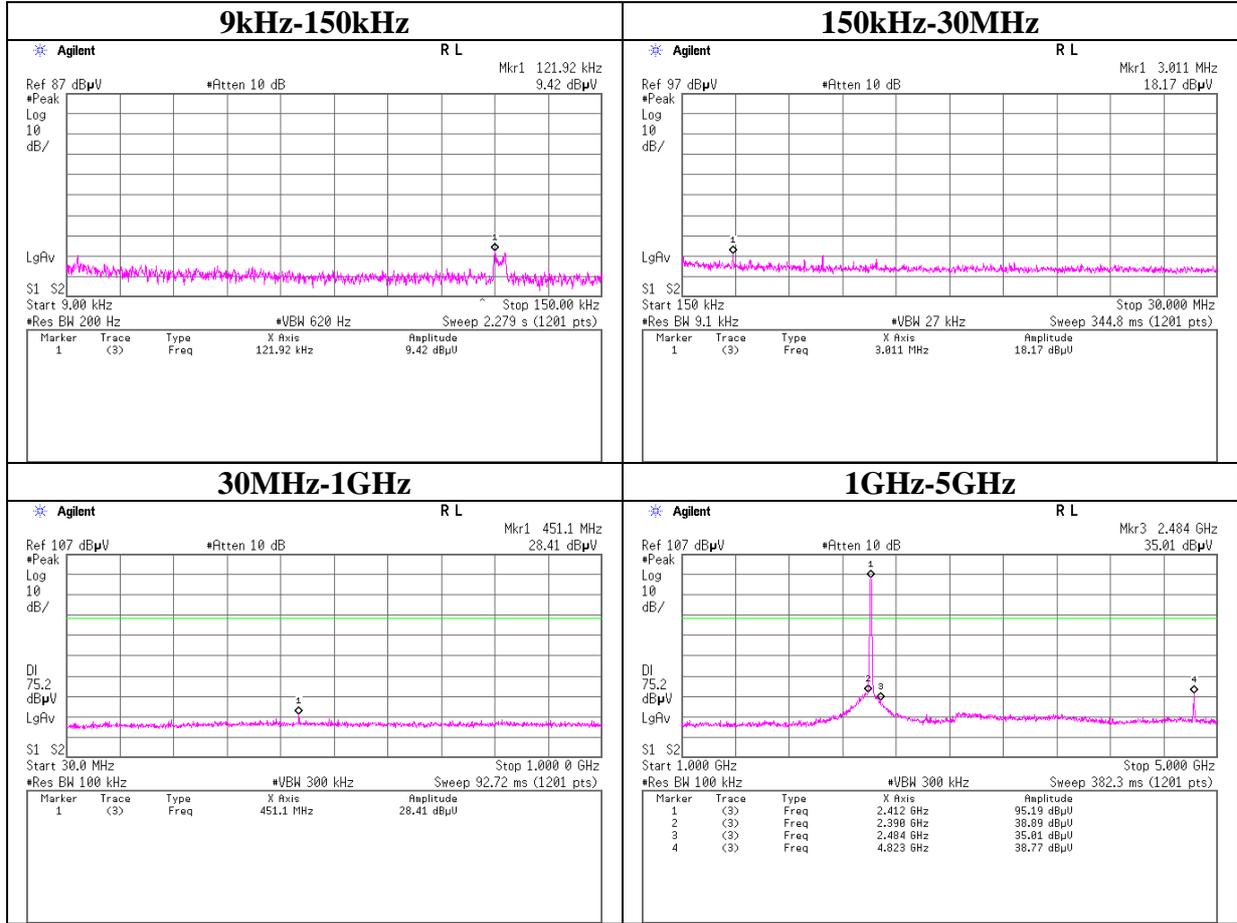
Conducted Spurious Emission

11g Tx Antenna 0 2462MHz



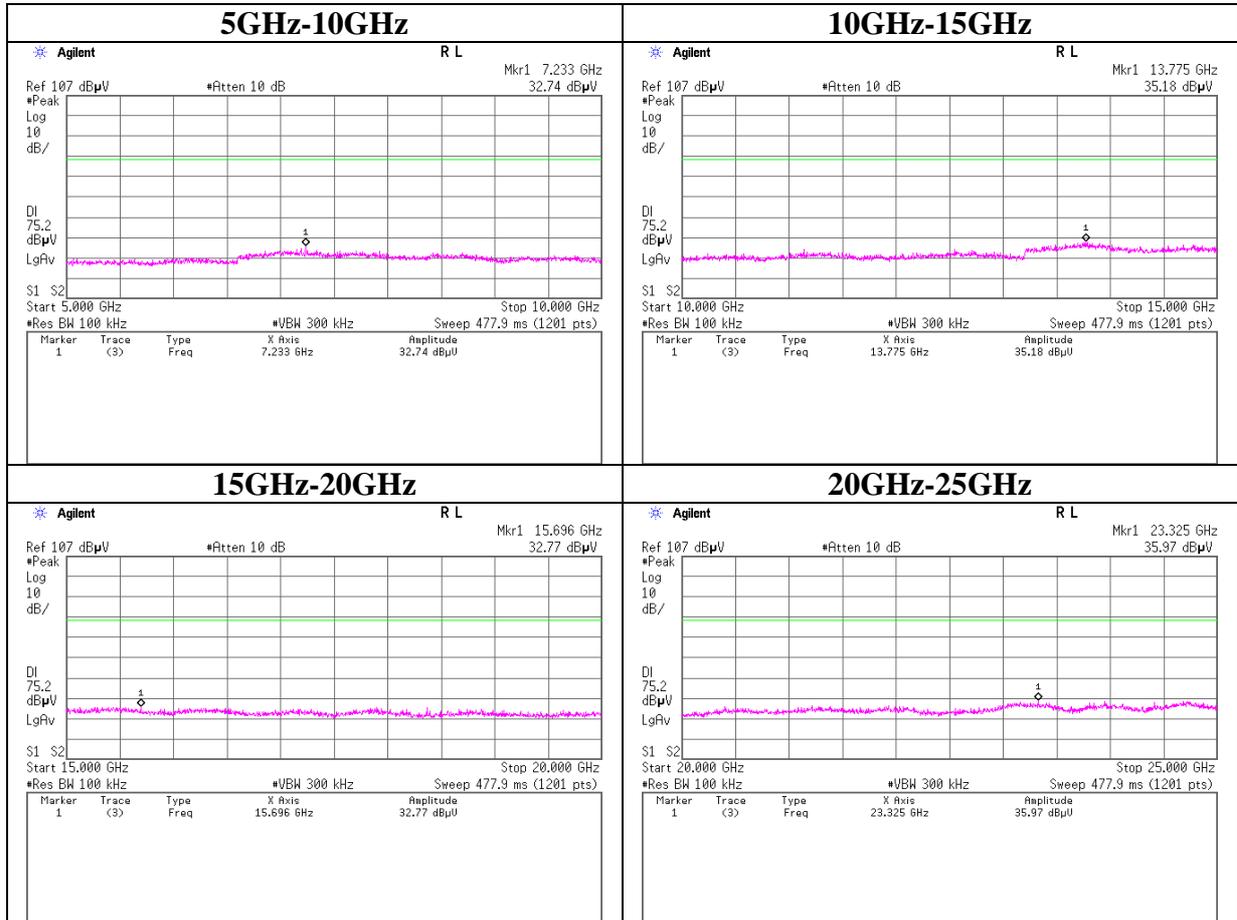
Conducted Spurious Emission

11b Antenna 1 Tx 2412MHz



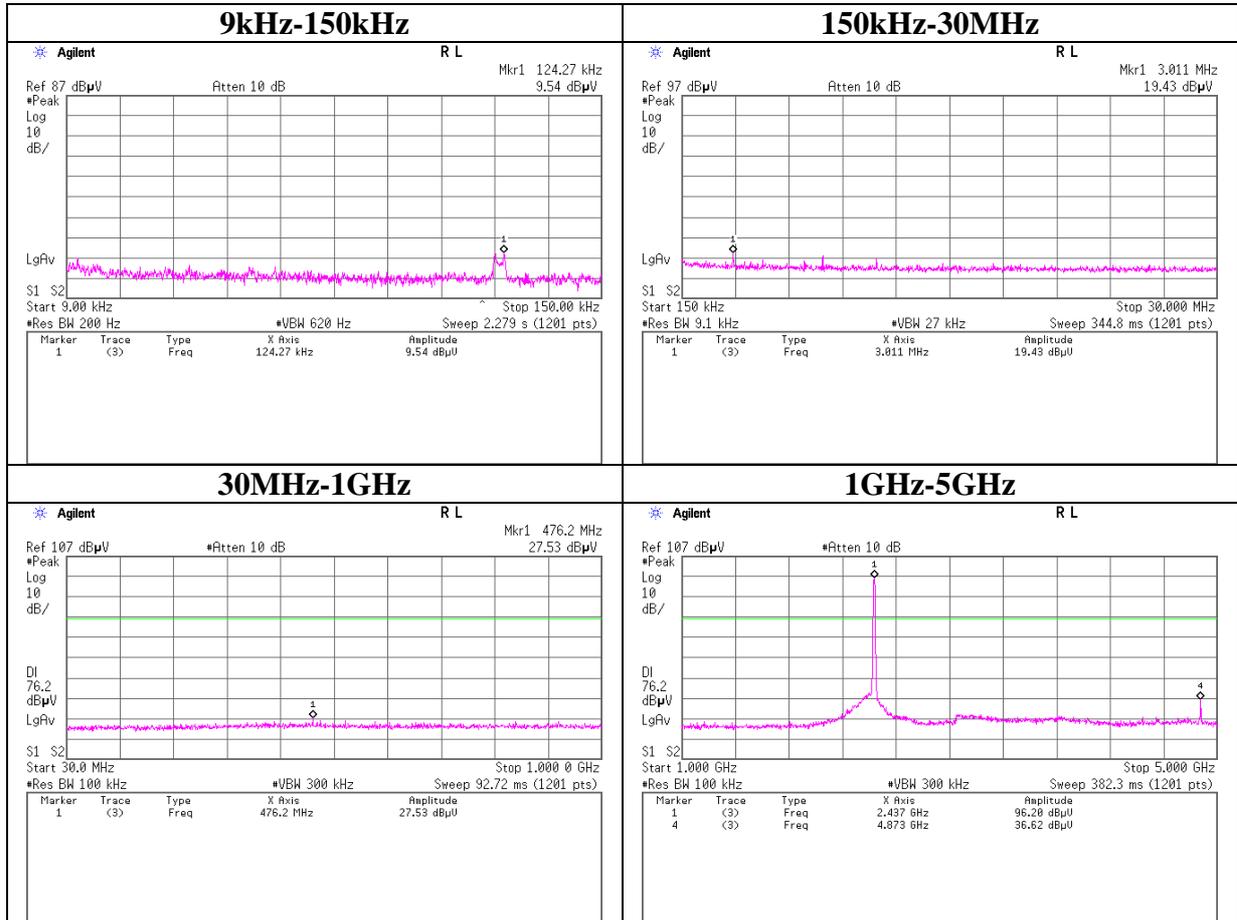
Conducted Spurious Emission

11b Antenna 1 Tx 2412MHz



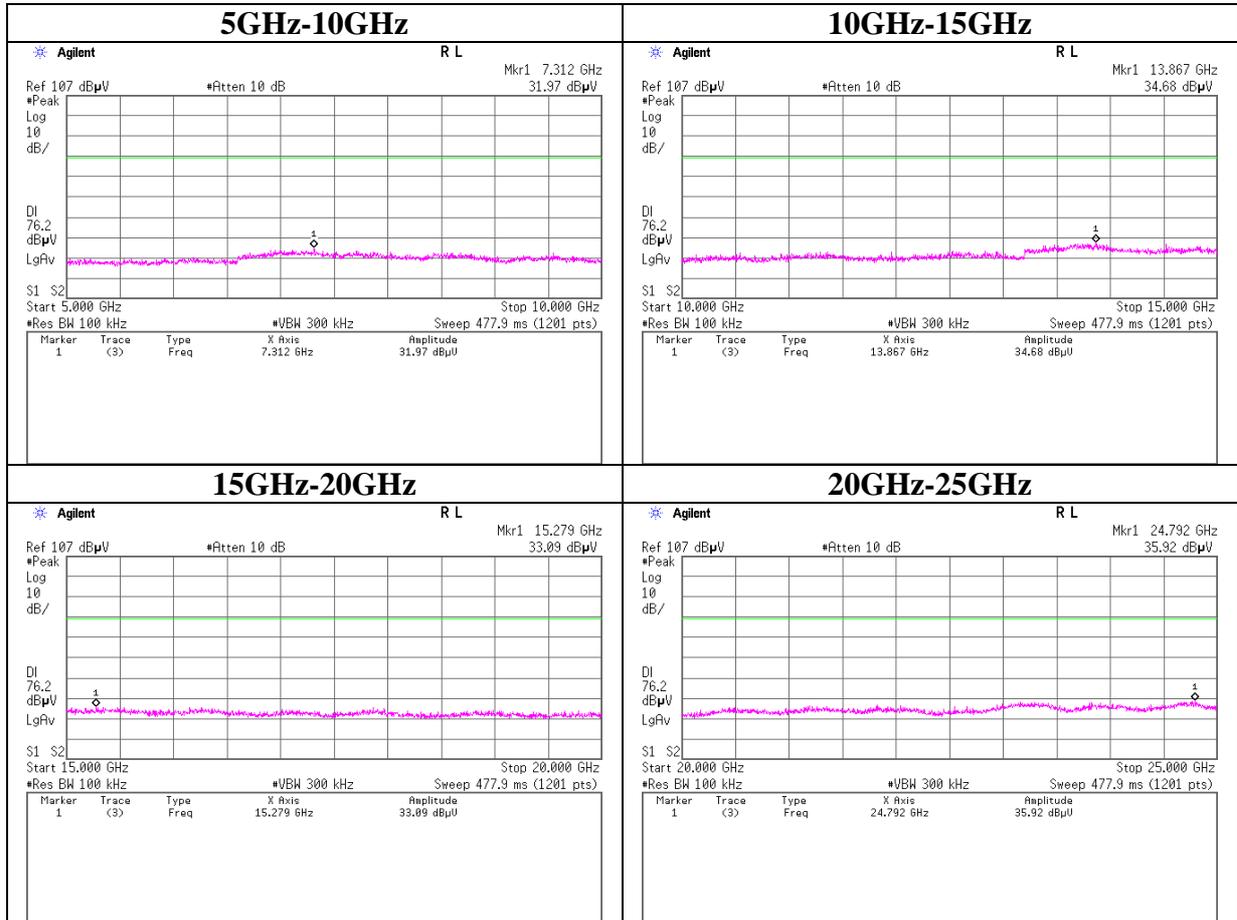
Conducted Spurious Emission

11b Antenna 1 Tx 2437MHz



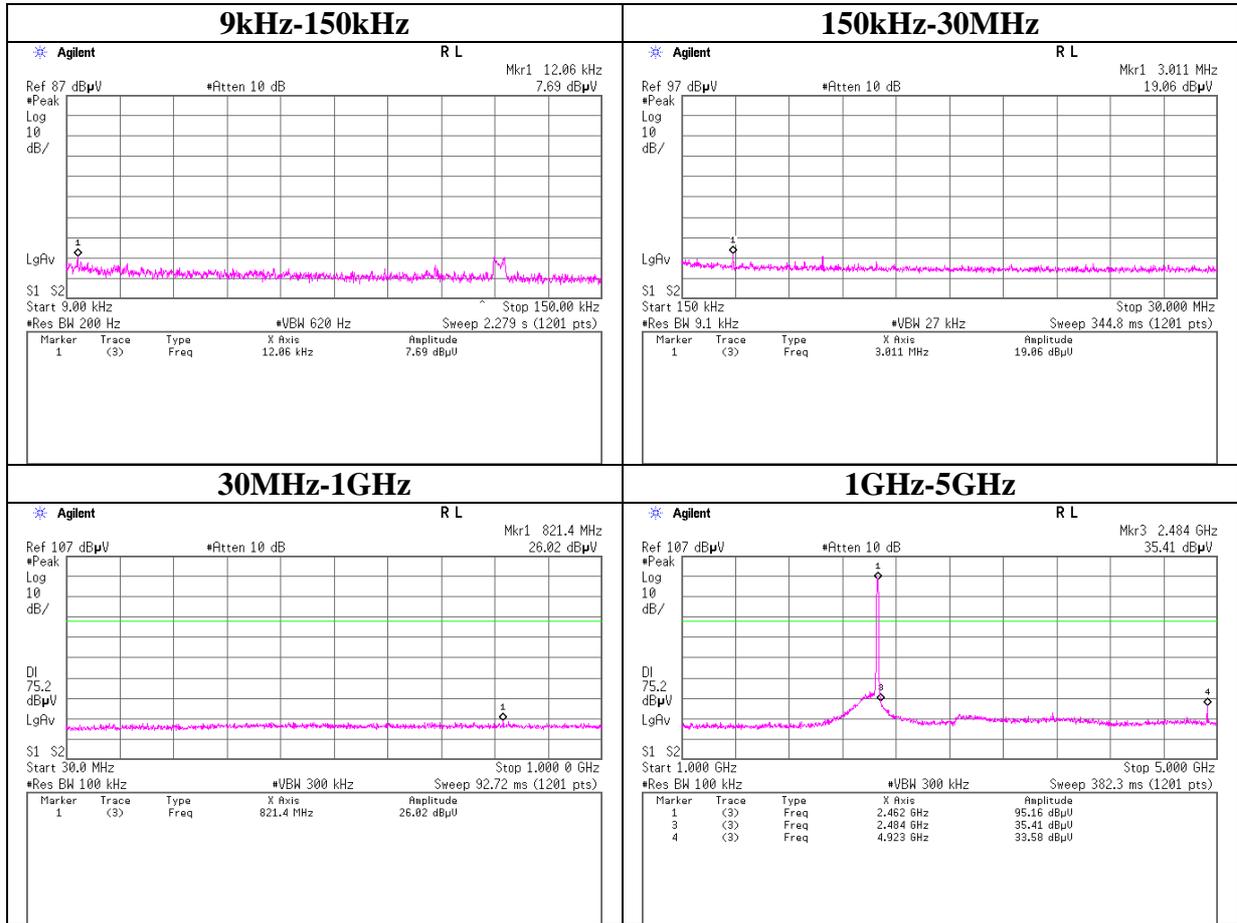
Conducted Spurious Emission

11b Antenna 1 Tx 2437MHz



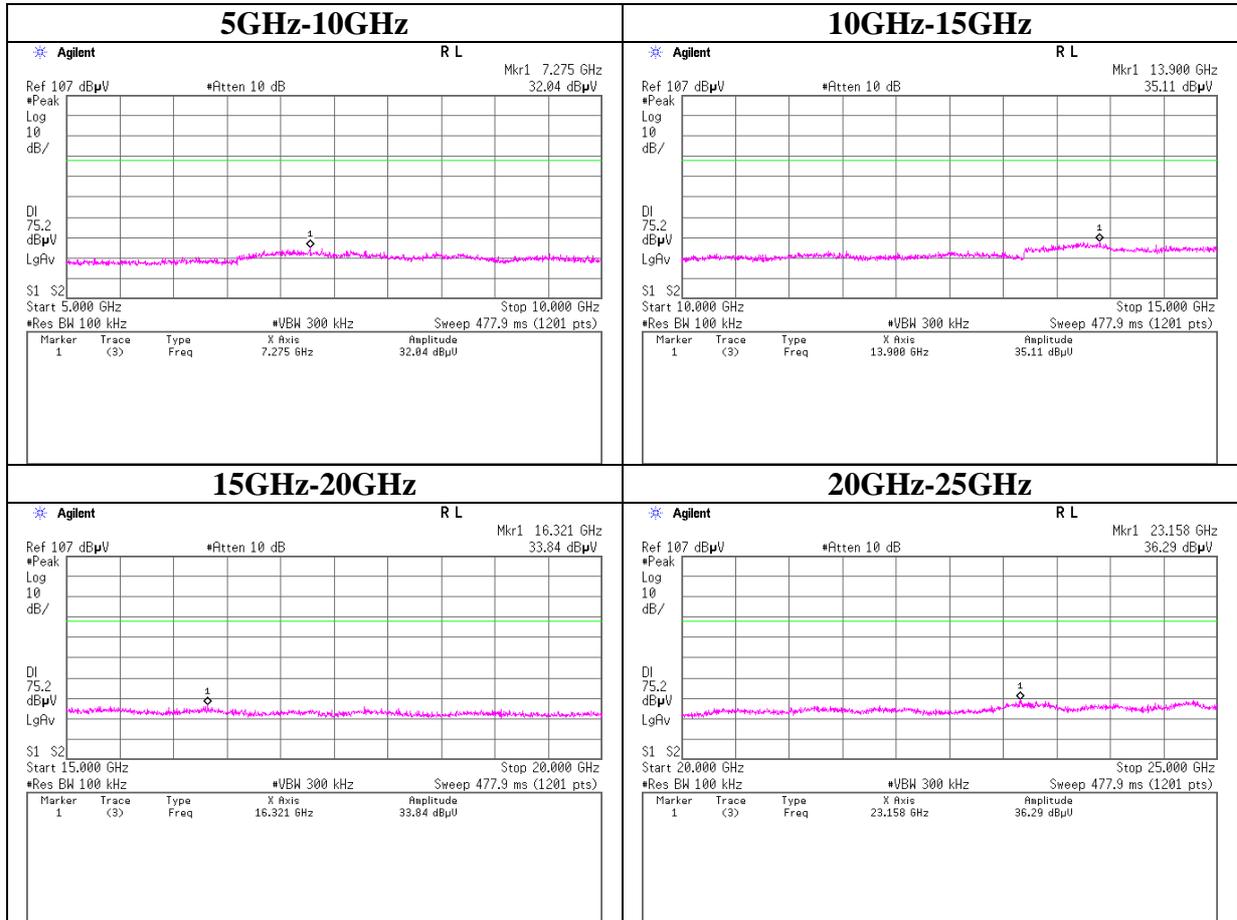
Conducted Spurious Emission

11b Antenna 1 Tx 2462MHz



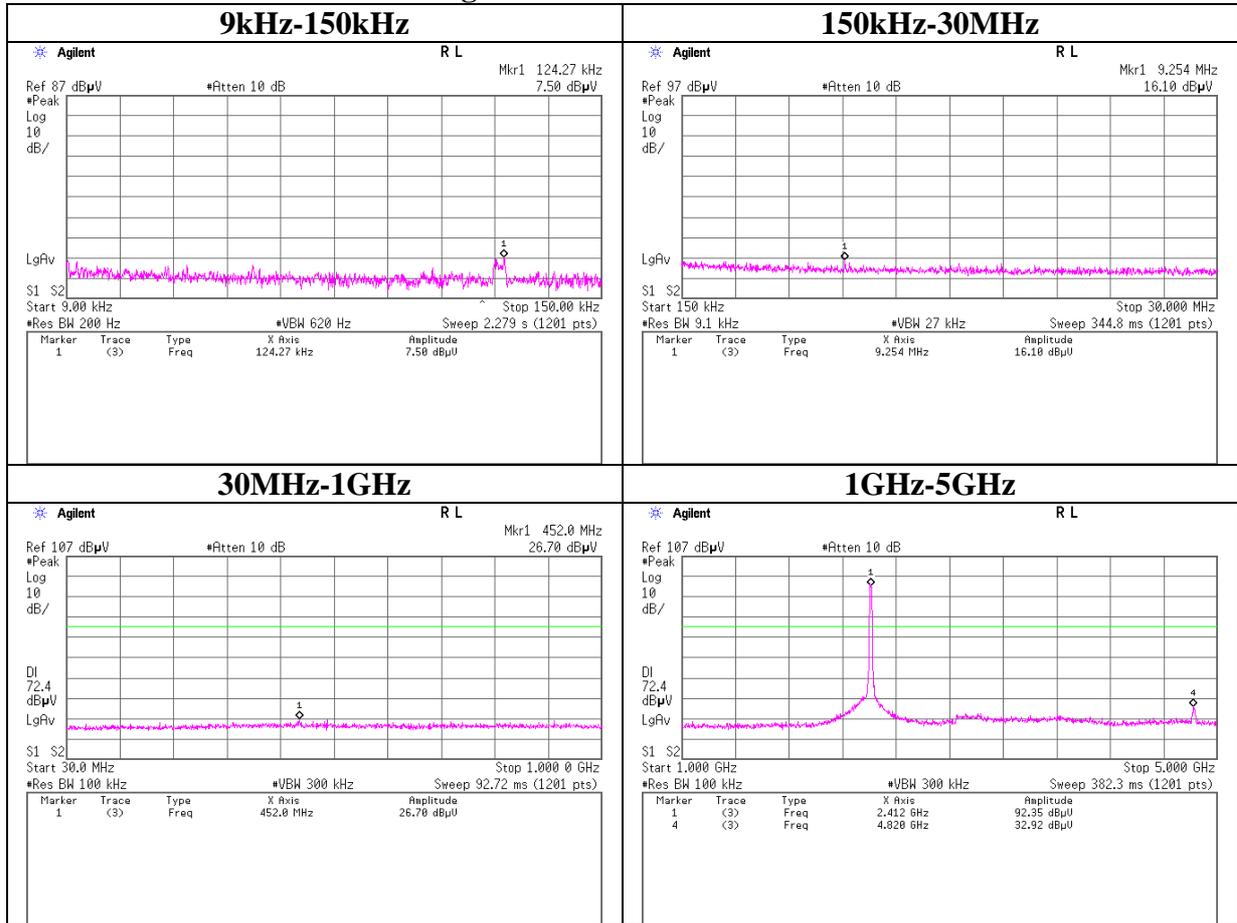
Conducted Spurious Emission

11b Antenna 1 Tx 2462MHz



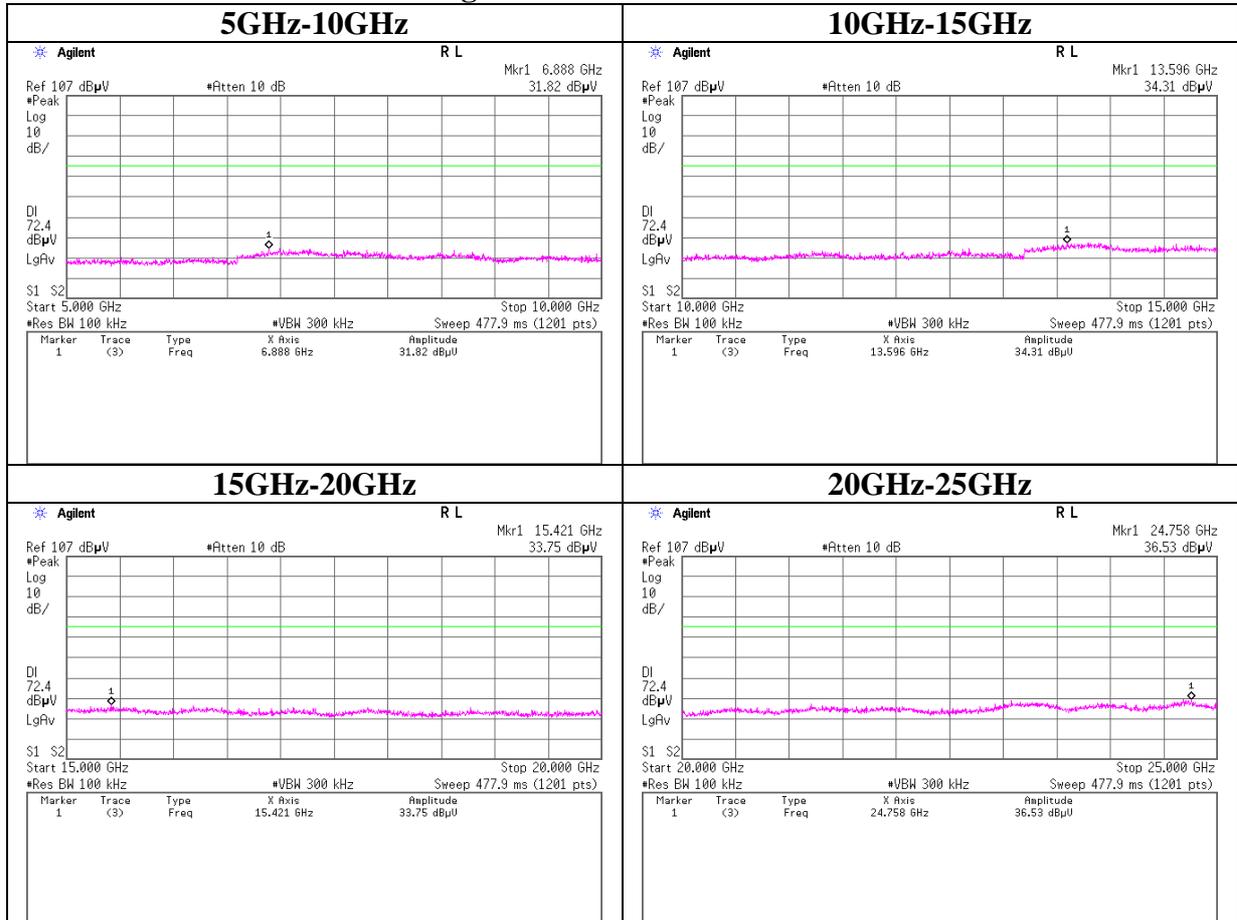
Conducted Spurious Emission

11g Antenna 1 Tx 2412MHz



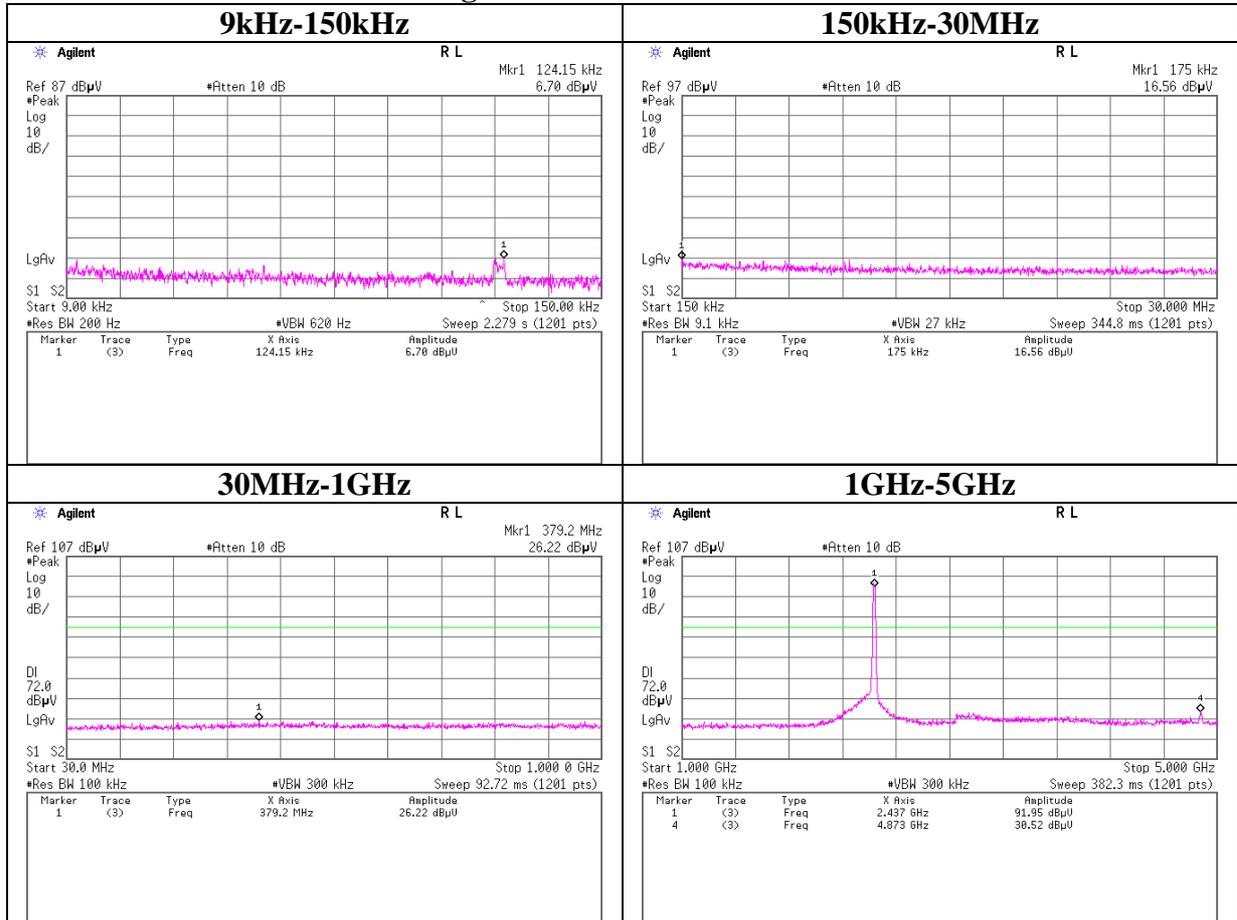
Conducted Spurious Emission

11g Antenna 1 Tx 2412MHz



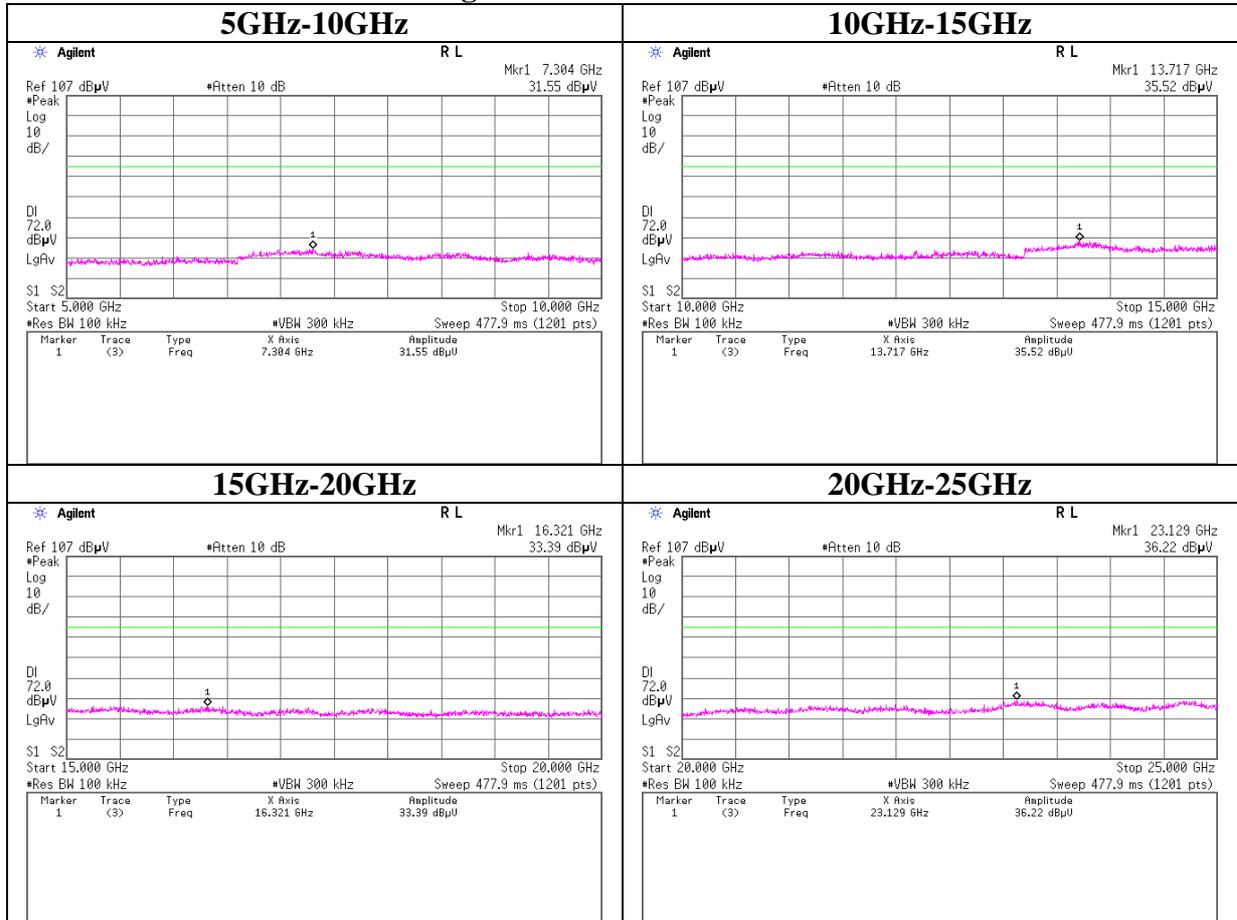
Conducted Spurious Emission

11g Antenna 1 Tx 2437MHz



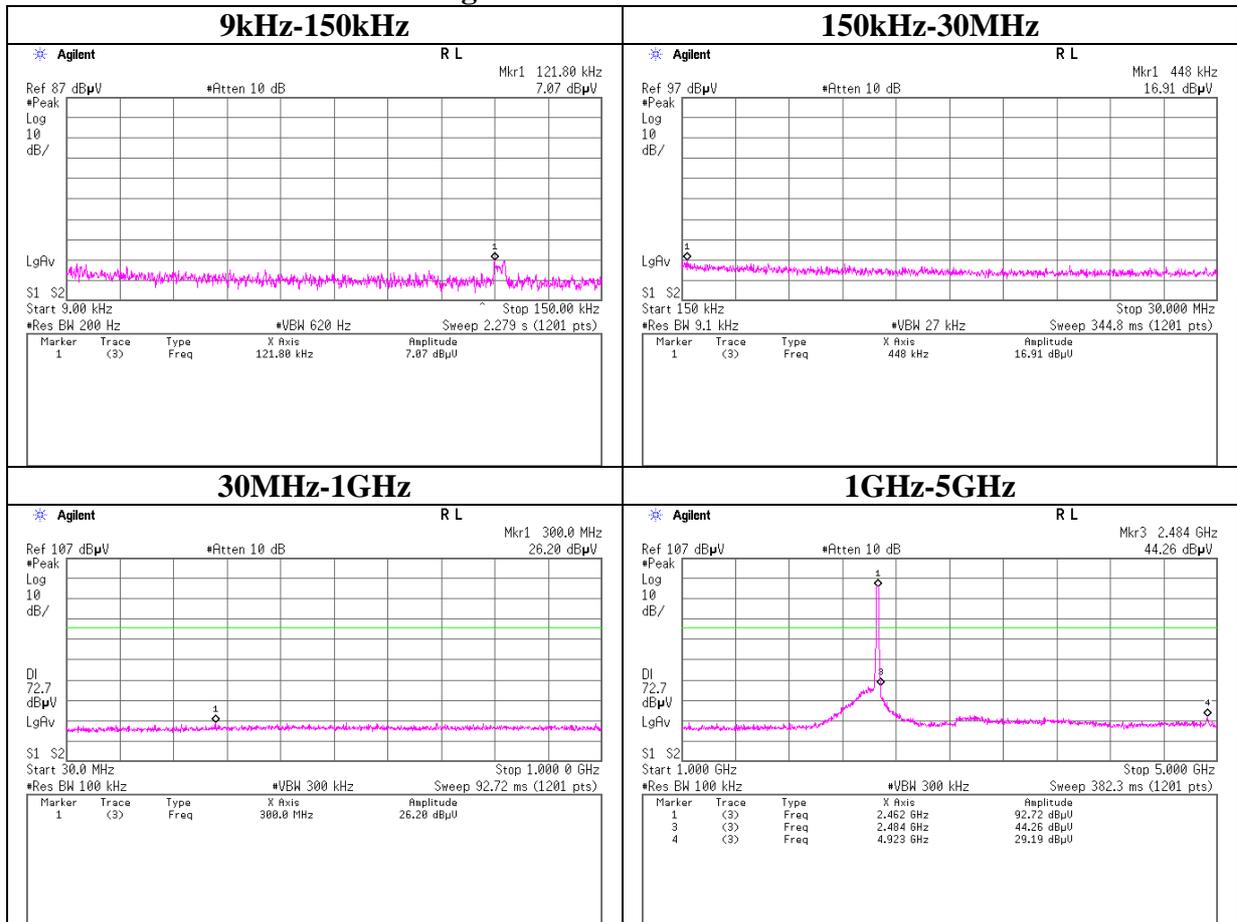
Conducted Spurious Emission

11g Antenna 1 Tx 2437MHz



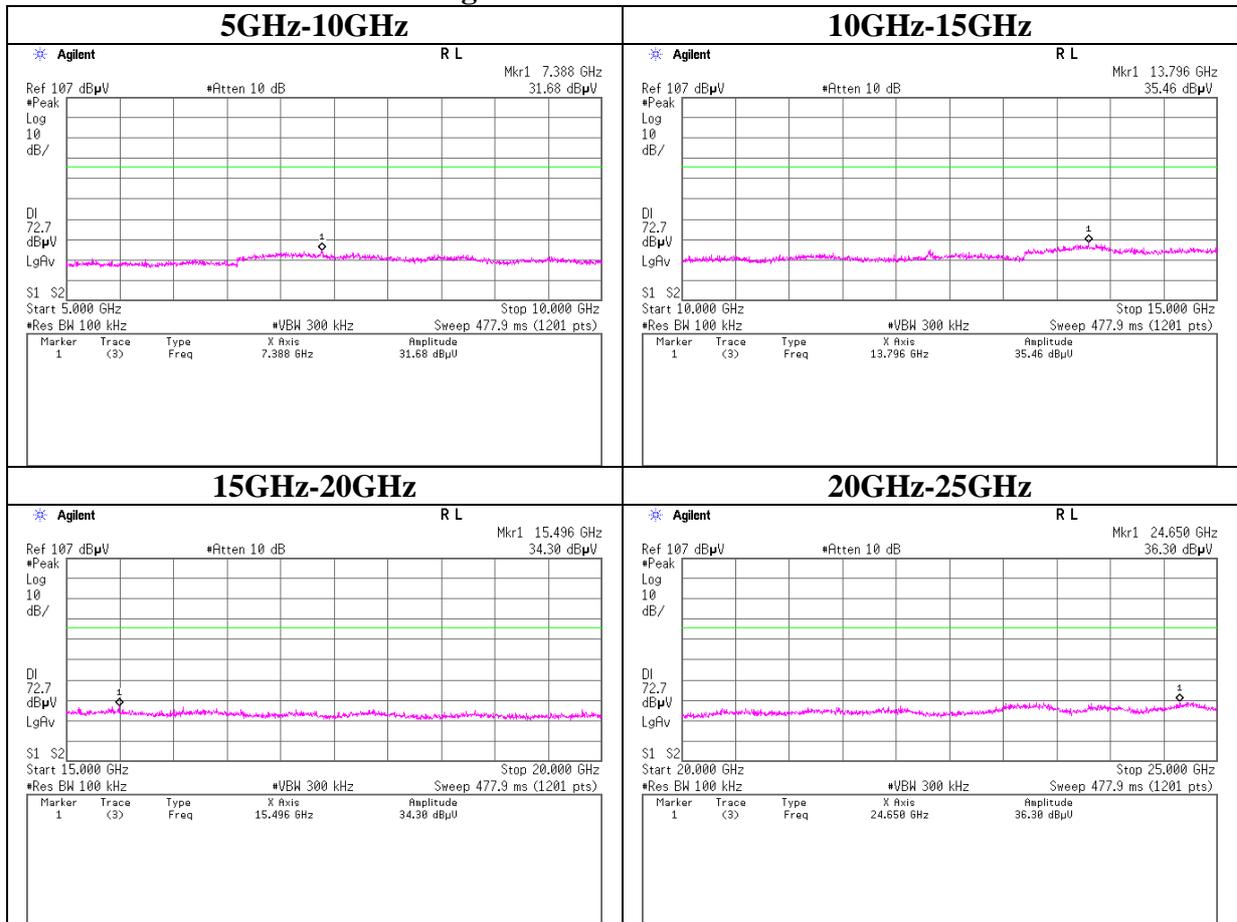
Conducted Spurious Emission

11g Antenna 1 Tx 2462MHz



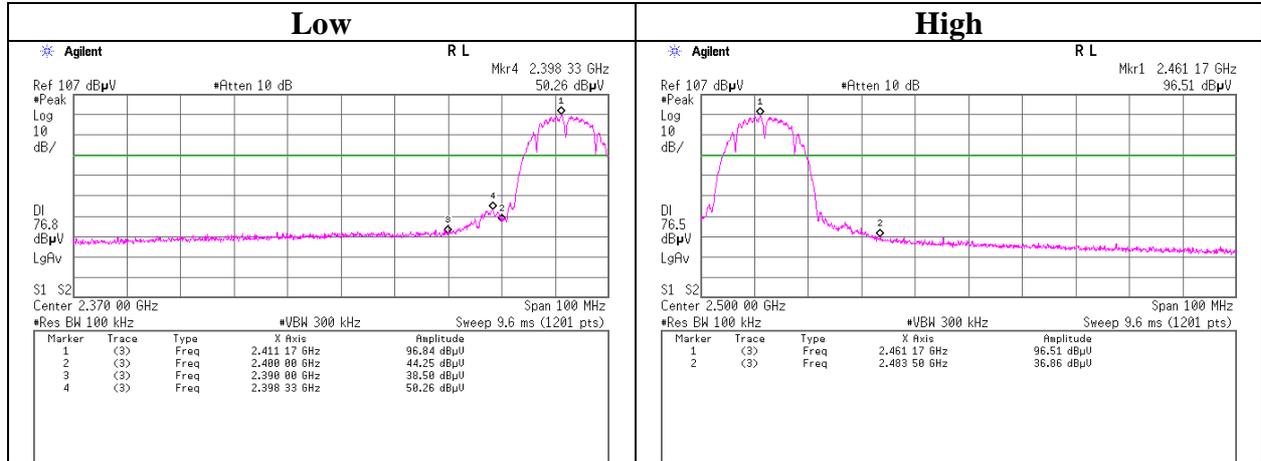
Conducted Spurious Emission

11g Tx Antenna 1 2462MHz

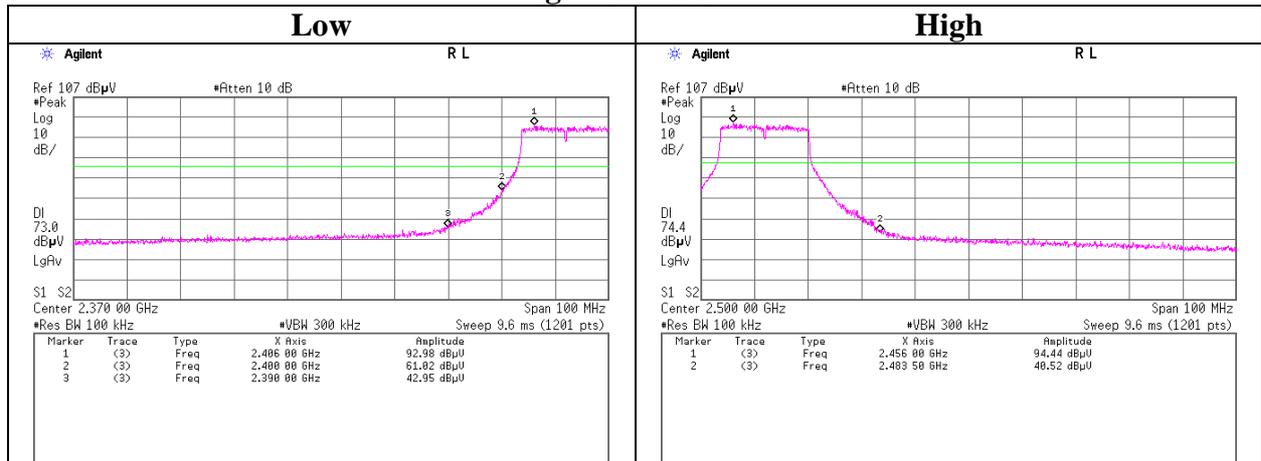


Conducted Emission Band Edge compliance

11b Antenna 0 Tx

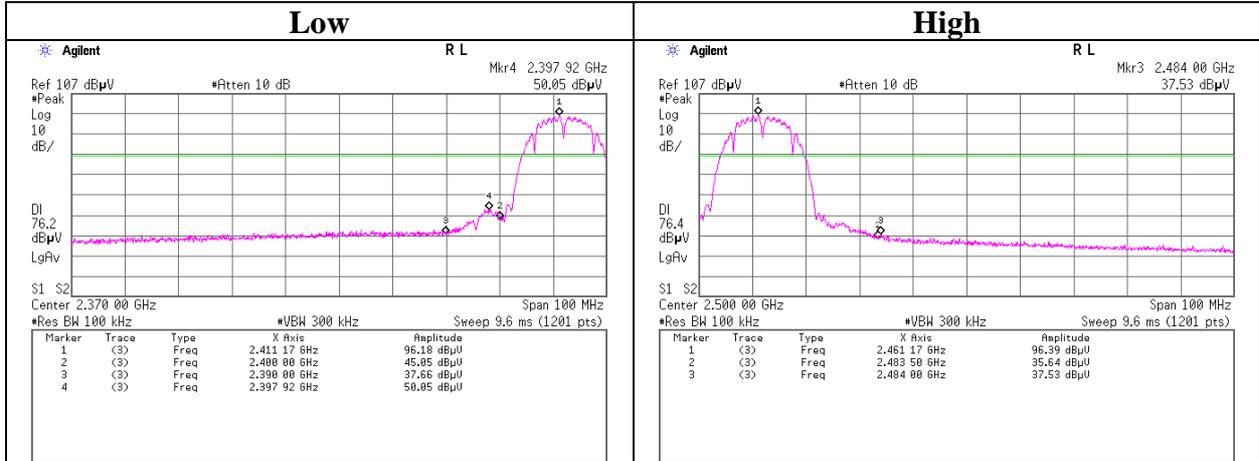


11g Antenna 0 Tx

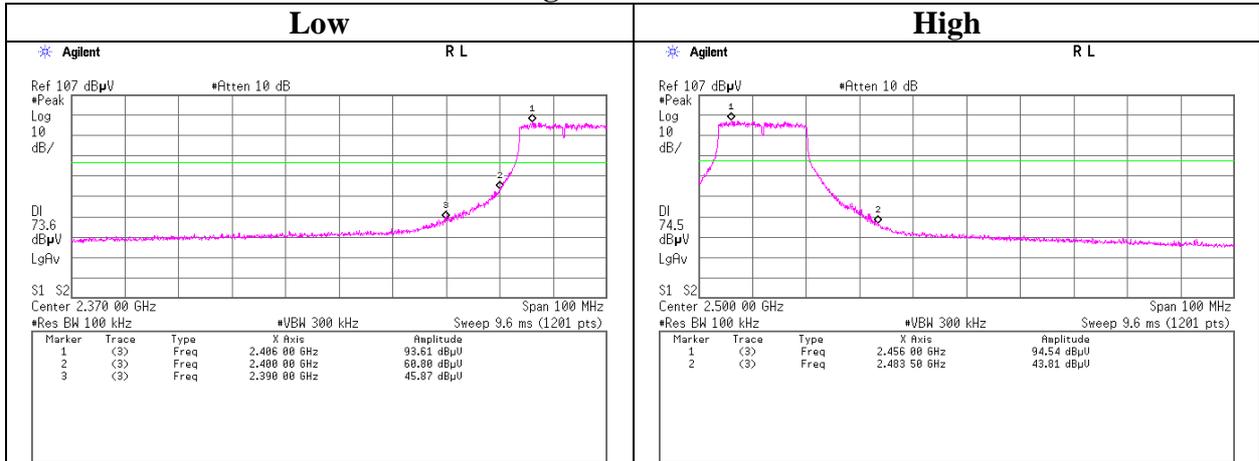


Conducted Emission Band Edge compliance

11b Antenna 1 Tx



11g Antenna 1 Tx



Power Density

Test place Head Office EMC Lab. No.6 Measurement Room
Report No. 32GE0144-HO-01
Date 03/12/2012 03/14/2012
Temperature/ Humidity 23 deg. C / 32% RH 28 deg. C / 30% RH
Engineer Takumi Shimada Yutaka Yoshida
Mode 11b Tx, 11g Tx

11b Antenna 0

| Freq. | Reading | Cable Loss | Atten. | Result | Limit | Margin |
|---------|---------|------------|--------|--------|-------|--------|
| [MHz] | [dBm] | [dB] | [dB] | [dBm] | [dBm] | [dB] |
| 2412.00 | -15.27 | 2.13 | 9.96 | -3.18 | 8.00 | 11.18 |
| 2437.00 | -15.29 | 2.13 | 9.96 | -3.20 | 8.00 | 11.20 |
| 2462.00 | -15.71 | 2.14 | 9.96 | -3.61 | 8.00 | 11.61 |

11g Antenna 0

| Freq. | Reading | Cable Loss | Atten. | Result | Limit | Margin |
|---------|---------|------------|--------|--------|-------|--------|
| [MHz] | [dBm] | [dB] | [dB] | [dBm] | [dBm] | [dB] |
| 2412.00 | -18.70 | 2.14 | 9.99 | -6.57 | 8.00 | 14.57 |
| 2437.00 | -17.98 | 2.14 | 9.99 | -5.85 | 8.00 | 13.85 |
| 2462.00 | -17.89 | 2.15 | 9.99 | -5.75 | 8.00 | 13.75 |

11b Antenna 1

| Freq. | Reading | Cable Loss | Atten. | Result | Limit | Margin |
|---------|---------|------------|--------|--------|-------|--------|
| [MHz] | [dBm] | [dB] | [dB] | [dBm] | [dBm] | [dB] |
| 2412.00 | -15.62 | 2.14 | 9.99 | -3.49 | 8.00 | 11.49 |
| 2437.00 | -16.11 | 2.14 | 9.99 | -3.98 | 8.00 | 11.98 |
| 2462.00 | -15.98 | 2.15 | 9.99 | -3.84 | 8.00 | 11.84 |

11g Antenna 1

| Freq. | Reading | Cable Loss | Atten. | Result | Limit | Margin |
|---------|---------|------------|--------|--------|-------|--------|
| [MHz] | [dBm] | [dB] | [dB] | [dBm] | [dBm] | [dB] |
| 2412.00 | -18.51 | 2.14 | 9.99 | -6.38 | 8.00 | 14.38 |
| 2437.00 | -17.95 | 2.14 | 9.99 | -5.82 | 8.00 | 13.82 |
| 2462.00 | -17.59 | 2.15 | 9.99 | -5.45 | 8.00 | 13.45 |

Sample Calculation:

Result = Reading + Cable Loss (including the cable(s) customer supplied) + Attenuator

UL Japan, Inc.

Head Office EMC Lab.

4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

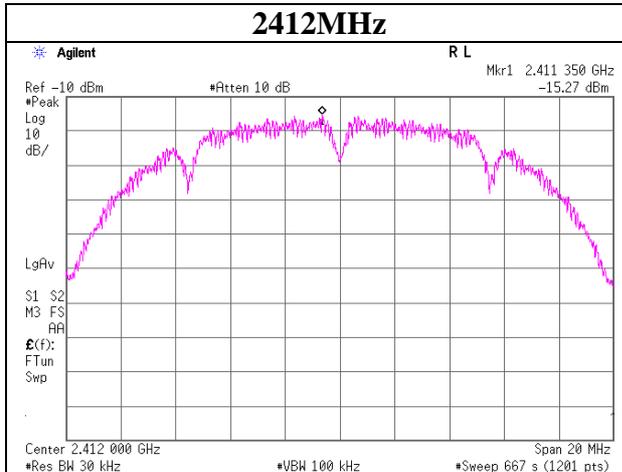
Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

Power Density

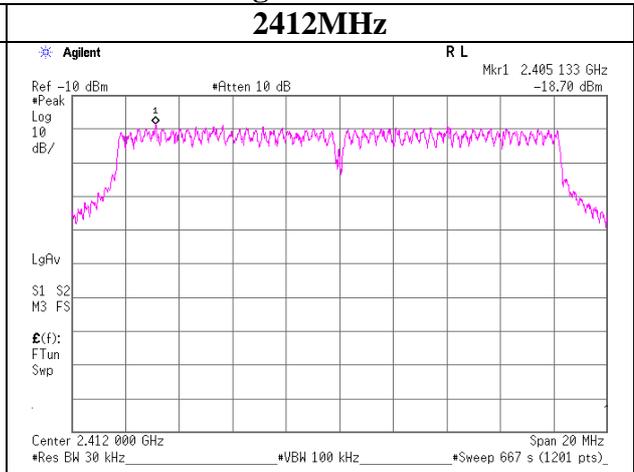
11b Antenna 0

2412MHz

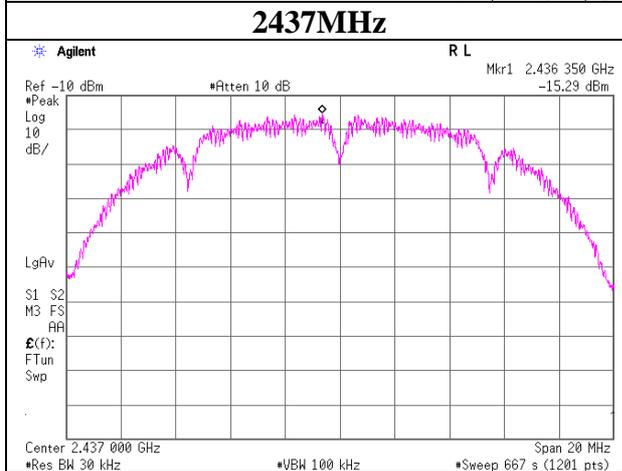


11g Antenna 0

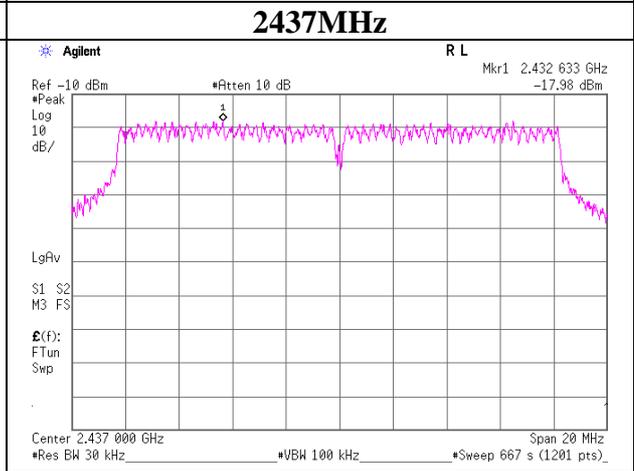
2412MHz



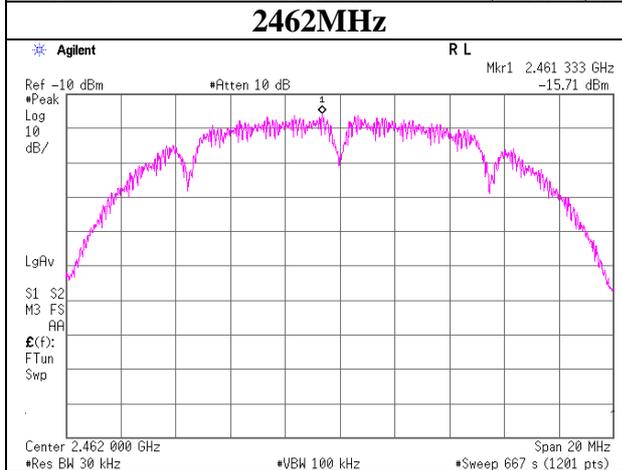
2437MHz



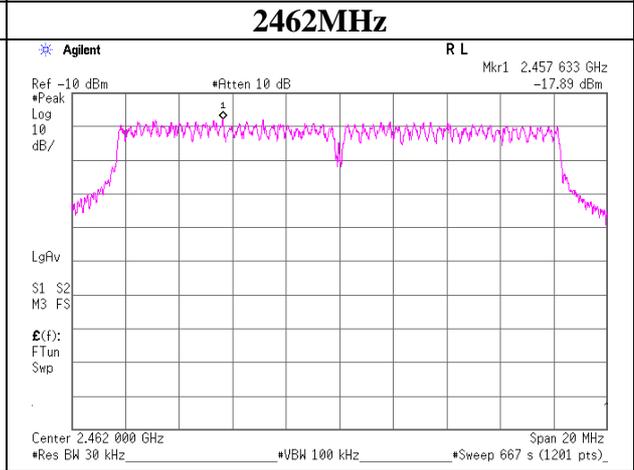
2437MHz



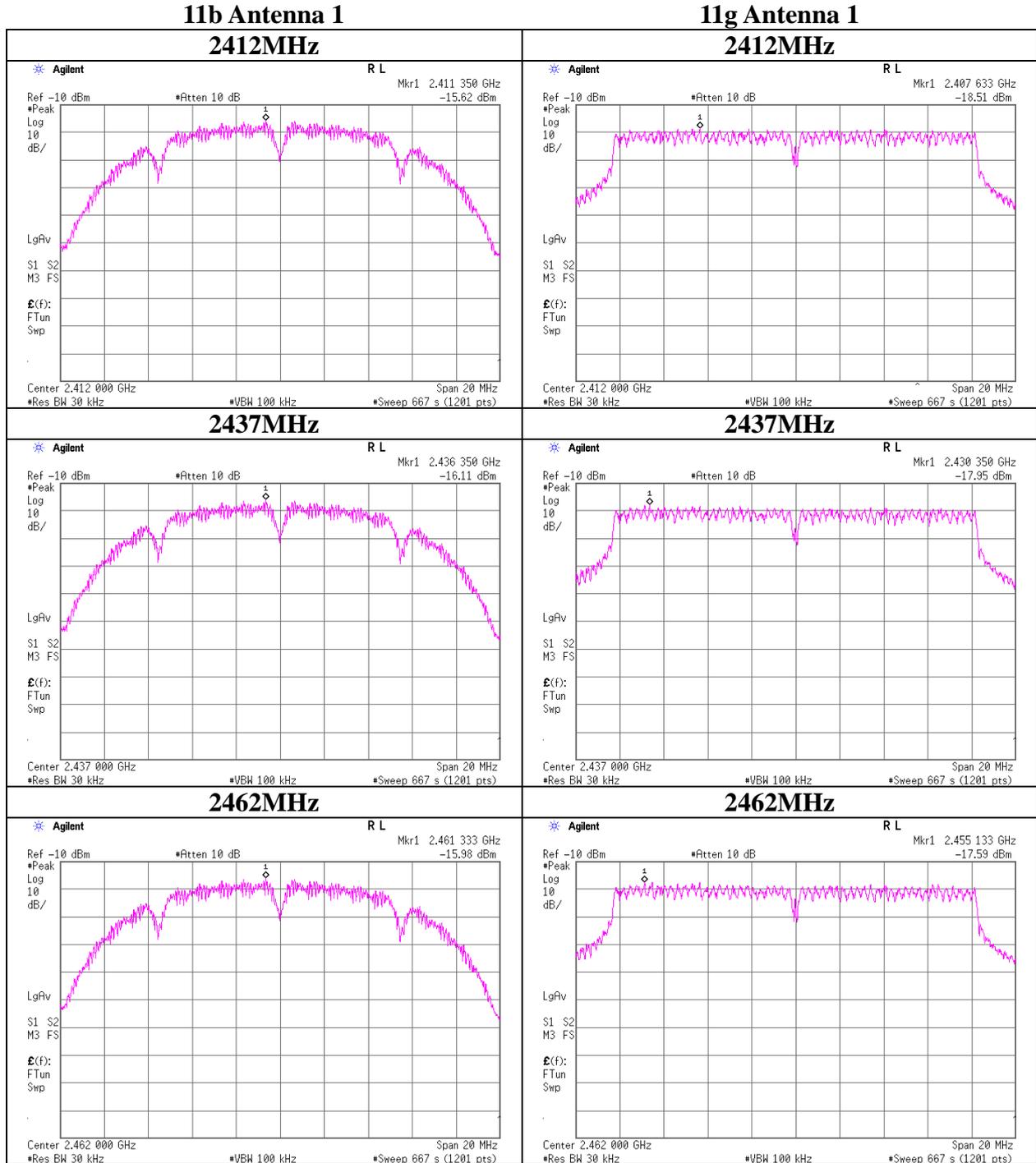
2462MHz



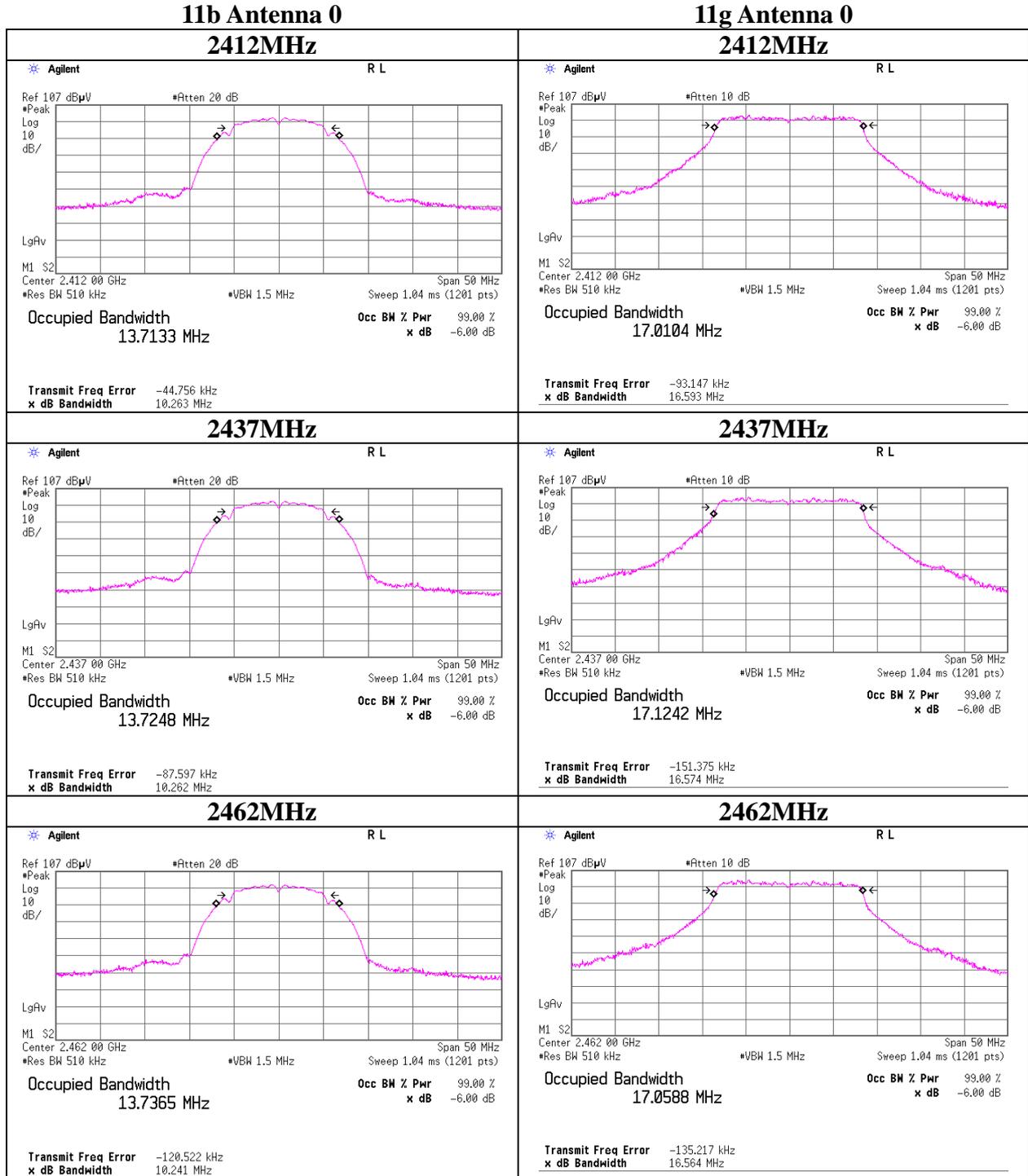
2462MHz



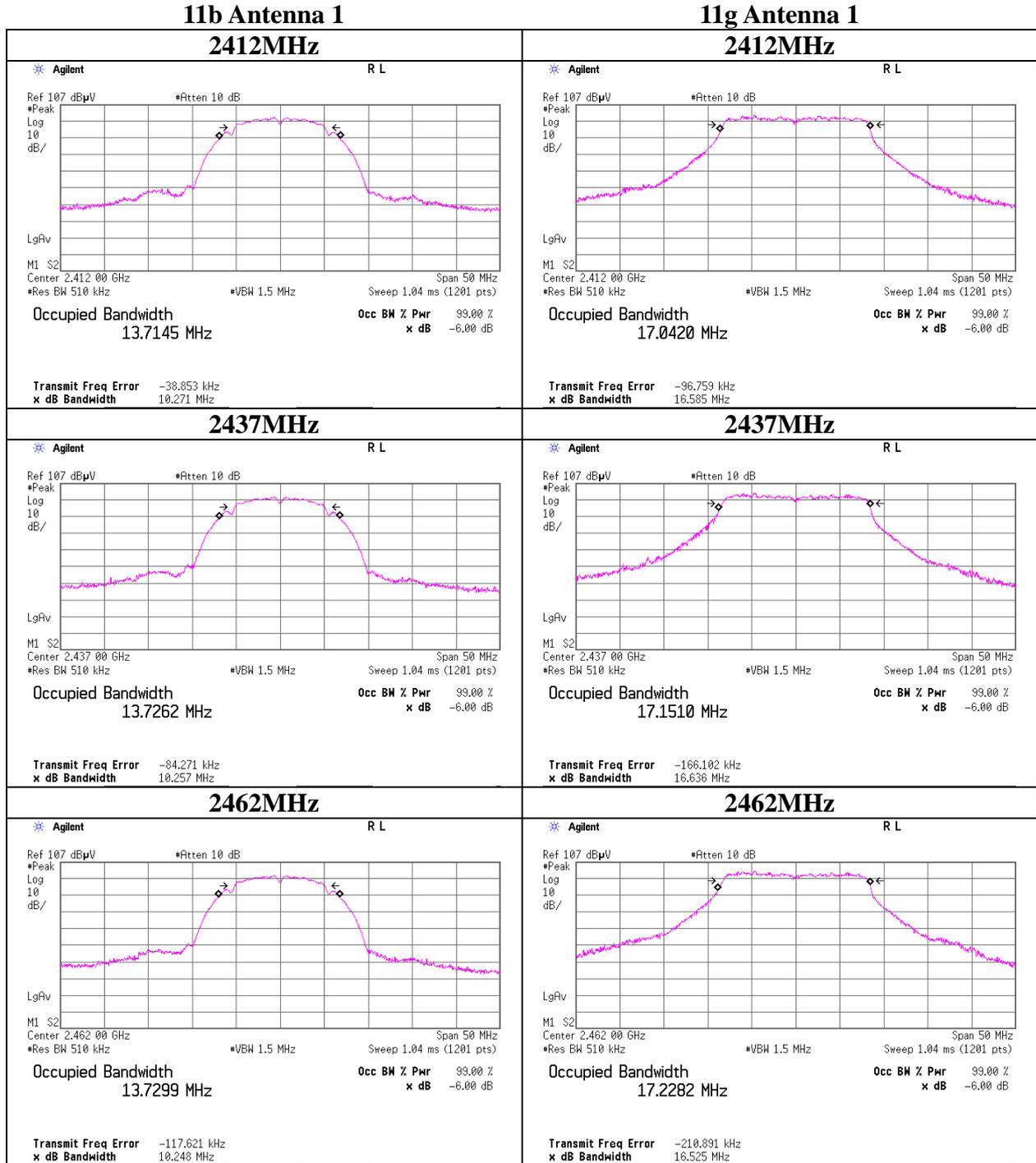
Power Density



99% Occupied Bandwidth



99% Occupied Bandwidth



APPENDIX 2: Test instruments

EMI test equipment

| Control No. | Instrument | Manufacturer | Model No | Serial No | Test Item | Calibration Date * Interval(month) |
|-------------|------------------------------|-------------------|--------------------------|------------------------------|-----------|---------------------------------------|
| MRENT-95 | Spectrum Analyzer | Agilent | E4440A | MY46185823 | AT | 2011/06/30 * 12 |
| MSA-10 | Spectrum Analyzer | Agilent | E4448A | MY46180655 | AT/RE | 2012/02/03 * 12 |
| MPM-08 | Power Meter | Anritsu | ML2495A | 6K00003338 | AT | 2011/09/13 * 12 |
| MPSE-11 | Power sensor | Anritsu | MA2411B | 011737 | AT | 2011/09/13 * 12 |
| MAT-24 | Attenuator(10dB)(above 1GHz) | Agilent | 8493C | 71389 | AT | 2011/06/23 * 12 |
| MCC-138 | Microwave cable | HUBER+SUHNER | SUCOFLEX 102 | 37953/2 | AT | 2011/10/28 * 12 |
| MOS-14 | Thermo-Hygrometer | Custom | CTH-201 | - | AT | 2012/02/06 * 12 |
| MCC-137 | Microwave cable | HUBER+SUHNER | SUCOFLEX 102 | 37954/2 | AT | 2011/10/28 * 12 |
| MAT-22 | Attenuator(10dB) 1-18GHz | Orient Microwave | BX10-0476-00 | - | AT | 2012/03/27 * 12 |
| MOS-19 | Thermo-Hygrometer | Custom | CTH-201 | 0001 | AT | 2011/12/09 * 12 |
| MAEC-04 | Semi Anechoic Chamber(NSA) | TDK | Semi Anechoic Chamber 3m | DA-10005 | RE | 2012/02/29 * 12 |
| MOS-15 | Thermo-Hygrometer | Custom | CTH-180 | - | RE | 2012/02/06 * 12 |
| MJM-07 | Measure | PROMART | SEN1955 | - | RE | - |
| COTS-MEMI | EMI measurement program | TSJ | TEPTO-DV | - | RE | - |
| MHA-21 | Horn Antenna 1-18GHz | Schwarzbeck | BBHA9120D | 9120D-557 | RE | 2011/08/11 * 12 |
| MCC-56 | Microwave Cable | Suhner | SUCOFLEX104 | 270875/4(1m) / 284655(5m) | RE | |
| MPA-12 | MicroWave System Amplifier | Agilent | 83017A | MY39500780 | RE | 2012/03/28 * 12 |
| MSA-04 | Spectrum Analyzer | Agilent | E4448A | US44300523 | RE | 2011/04/08 * 12 |
| MTR-08 | Test Receiver | Rohde & Schwarz | ESCI | 100767 | RE | 2011/08/11 * 12 |
| MBA-05 | Biconical Antenna | Schwarzbeck | BBA9106 | 1302 | RE | 2011/11/16 * 12 |
| MLA-08 | Logperiodic Antenna | Schwarzbeck | UKLP9140-A | N/A | RE | 2011/11/16 * 12 |
| MCC-50 | Coaxial Cable | UL Japan | - | - | RE | 2012/03/15 * 12 |
| AT-38 | Attenuator | Anritsu | MP721B | 6200961025 | RE | 2011/12/08 * 12 |
| MPA-14 | Pre Amplifier | SONOMA INSTRUMENT | 310 | 260833 | RE | 2012/03/05 * 12 |
| MCC-133 | Microwave Cable | HUBER+SUHNER | SUCOFLEX104 | 336164/4(1m) / 340640(5m) | RE | 2011/09/07 * 12 |
| MHF-06 | High Pass Filter 3.5-24GHz | TOKIMEC | TF323DCA | 601 | RE | 2011/05/16 * 12 |
| MHA-17 | Horn Antenna 15-40GHz | Schwarzbeck | BBHA9170 | BBHA9170307 | RE | 2011/06/17 * 12 |
| MCC-79 | Microwave Cable 1G-26.5GHz | Suhner | SUCOFLEX104 | 278923/4 | RE | 2011/12/08 * 12 |
| MHF-20 | High Pass Filter 3.5-18.0GHz | TOKIMEC | TF323DCC | 607 | RE | 2011/09/08 * 12 |
| MCC-134 | Microwave Cable | HUBER+SUHNER | SUCOFLEX104 | 336167/4(1m) / 340641(5m) | RE | 2011/09/07 * 12 |

| Control No. | Instrument | Manufacturer | Model No | Serial No | Test Item | Calibration Date * Interval(month) |
|-------------|----------------------------|---------------------|---|------------|-----------|---------------------------------------|
| MAEC-03 | Semi Anechoic Chamber(NSA) | TDK | Semi Anechoic Chamber 3m | DA-10005 | CE | 2012/02/24 * 12 |
| MJM-15 | Measure | KOMELON | KMC-36 | - | CE | - |
| MCC-112 | Coaxial cable | Fujikura/Suhner/TSJ | 5D-2W(10m)/SFM141(3m)/sucoform141-PE(1m)/421-010(1.5m)/RFM-E321(Switcher) | -/00640 | CE | 2011/07/15 * 12 |
| MLS-06 | LISN(AMN) | Schwarzbeck | NSLK8127 | 8127363 | CE (EUT) | 2012/02/06 * 12 |
| MLS-02 | LISN(AMN) | Schwarzbeck | NSLK8127 | 8127383 | CE(AE) | 2011/07/11 * 12 |
| MTA-30 | Terminator | TME | CT-01 | - | CE | 2012/01/11 * 12 |
| MSA-05 | Spectrum Analyzer | Advantest | R3273 | 160400285 | RE | 2011/11/23 * 12 |
| MTR-07 | Test Receiver | Rohde & Schwarz | ESCI | 100635 | RE | 2011/10/19 * 12 |
| MBA-05 | Biconical Antenna | Schwarzbeck | BBA9106 | 1302 | RE | 2011/11/16 * 12 |
| MLA-08 | Logperiodic Antenna | Schwarzbeck | UKLP9140-A | N/A | RE | 2011/11/16 * 12 |
| MCC-50 | Coaxial Cable | UL Japan | - | - | RE | 2012/03/15 * 12 |
| AT-38 | Attenuator | Anritsu | MP721B | 6200961025 | RE | 2011/12/08 * 12 |
| MPA-14 | Pre Amplifier | SONOMA INSTRUMENT | 310 | 260833 | RE | 2012/03/05 * 12 |

The expiration date of the calibration is the end of the expired month.

All equipment is calibrated with valid calibrations. Each measurement data is traceable to the national or international standards.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

Test Item: CE: Conducted Emission
RE: Radiated Emission
AT: Antenna Terminal Conducted test