

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Shonan EMC Lab. No.2 Shielded Room
Date : 2011/06/25

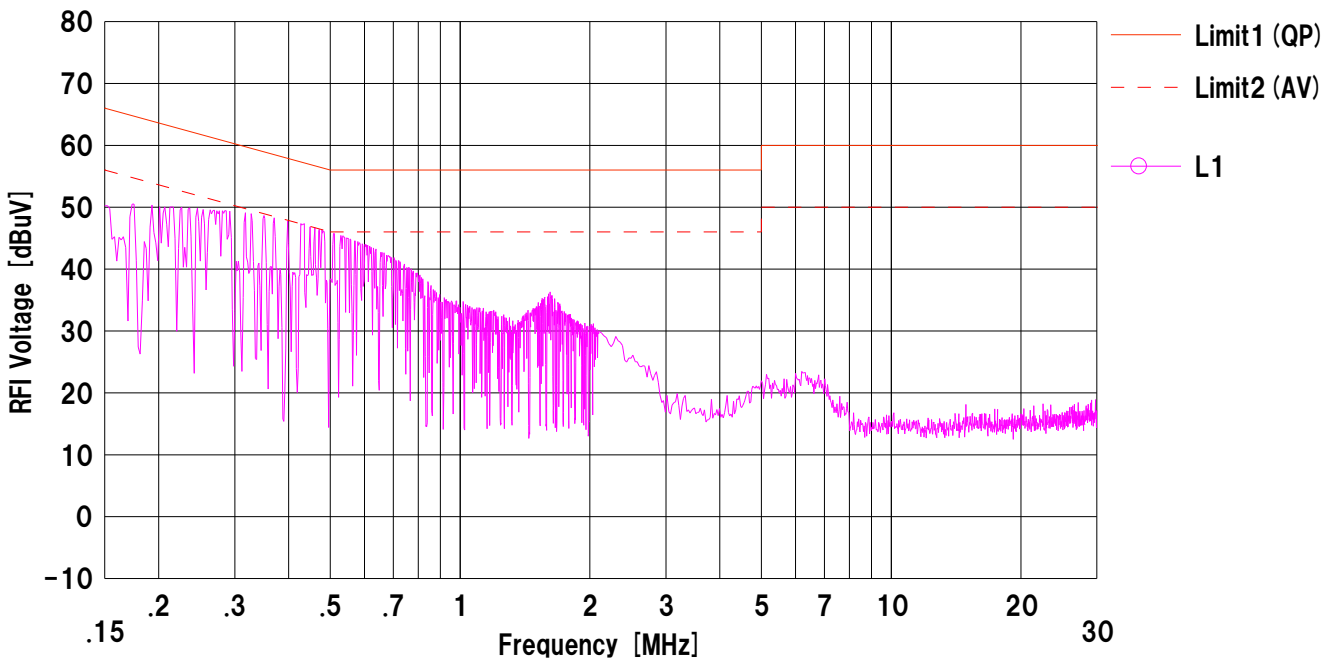
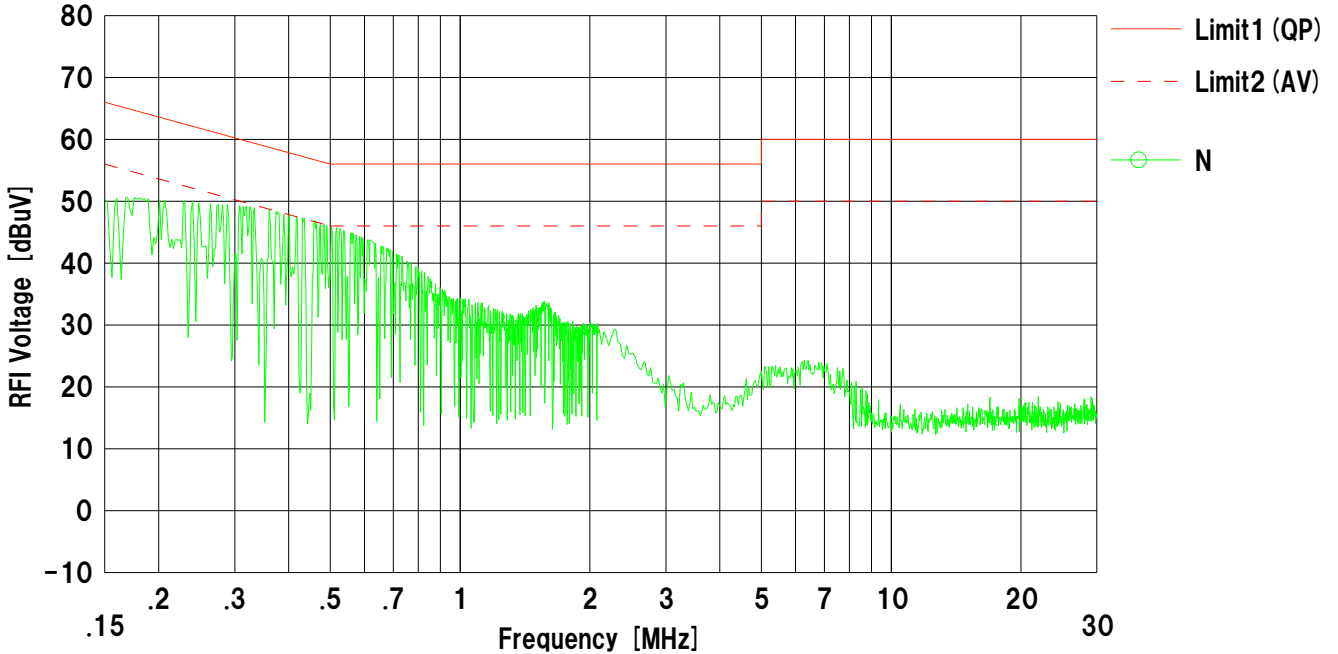
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1214
Serial No. : ES4101

Mode : Tx DH5 2402MHz
Report No. : 31CE0052-HO-01-A
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



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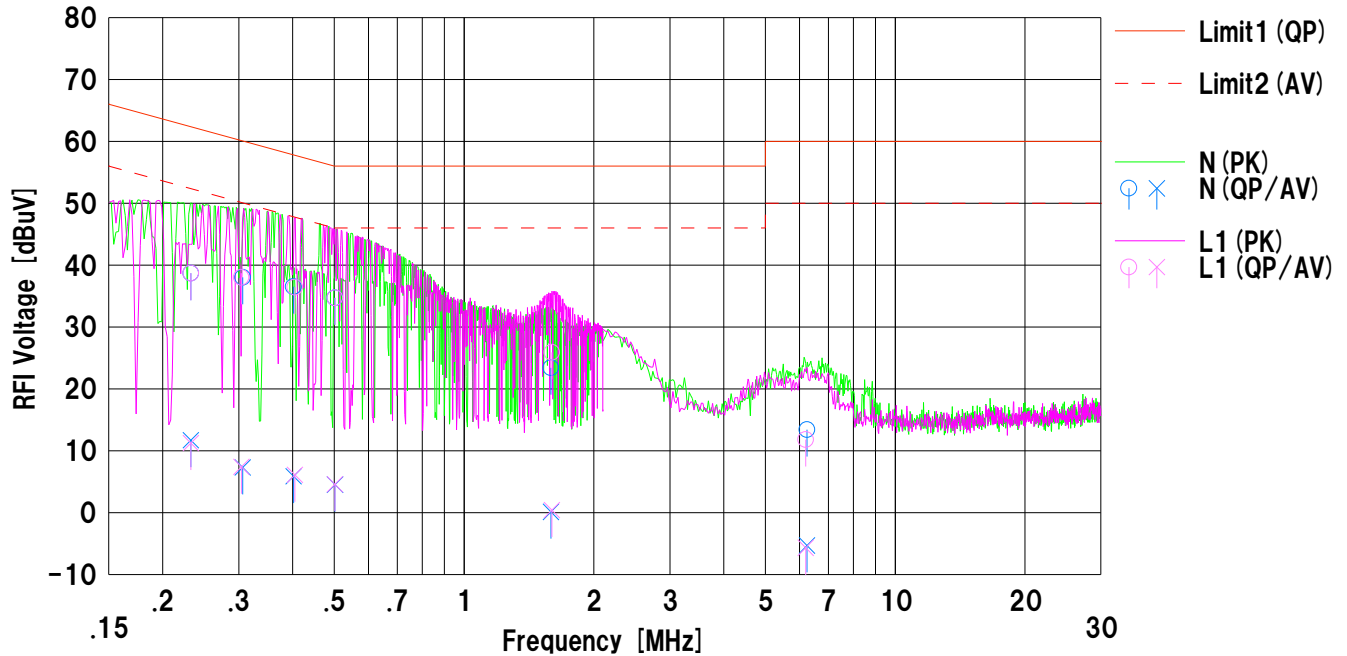
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1214
Serial No. : ES4101

Mode : Tx DH5 2441MHz
Report No. : 31CE0052-HO-01-A
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



| No. | Freq. [MHz] | Reading | | C.Fac [dB] | Results | | Limit | | Margin | | Phase | Comment |
|-----|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|--------------|--------------|-------|---------|
| | | <QP> [dBuV] | <AV> [dBuV] | | <QP> [dBuV] | <AV> [dBuV] | <QP> [dBuV] | <AV> [dBuV] | <QP> [dB] | <AV> [dB] | | |
| 1 | 0.23250 | 26.1 | -0.9 | 12.6 | 38.7 | 11.7 | 62.3 | 52.3 | 23.6 | 40.6 | N | |
| 2 | 0.30640 | 25.3 | -5.4 | 12.7 | 38.0 | 7.3 | 60.0 | 50.0 | 22.0 | 42.7 | N | |
| 3 | 0.40202 | 23.8 | -6.8 | 12.7 | 36.5 | 5.9 | 57.8 | 47.8 | 21.3 | 41.9 | N | |
| 4 | 0.50180 | 22.0 | -8.2 | 12.7 | 34.7 | 4.5 | 56.0 | 46.0 | 21.3 | 41.5 | N | |
| 5 | 1.59055 | 10.6 | -12.7 | 12.8 | 23.4 | 0.1 | 56.0 | 46.0 | 32.6 | 45.9 | N | |
| 6 | 6.24210 | 0.3 | -18.4 | 13.1 | 13.4 | -5.3 | 60.0 | 50.0 | 46.6 | 55.3 | N | |
| 7 | 0.23250 | 26.1 | -1.4 | 12.6 | 38.7 | 11.2 | 62.3 | 52.3 | 23.6 | 41.1 | L1 | |
| 8 | 0.30430 | 25.3 | -5.3 | 12.7 | 38.0 | 7.4 | 60.1 | 50.1 | 22.1 | 42.7 | L1 | |
| 9 | 0.40510 | 23.7 | -6.6 | 12.7 | 36.4 | 6.1 | 57.7 | 47.7 | 21.3 | 41.6 | L1 | |
| 10 | 0.50150 | 22.0 | -8.1 | 12.7 | 34.7 | 4.6 | 56.0 | 46.0 | 21.3 | 41.4 | L1 | |
| 11 | 1.59820 | 13.1 | -12.4 | 12.8 | 25.9 | 0.4 | 56.0 | 46.0 | 30.1 | 45.6 | L1 | |
| 12 | 6.20400 | -1.3 | -18.8 | 13.1 | 11.8 | -5.7 | 60.0 | 50.0 | 48.2 | 55.7 | L1 | |

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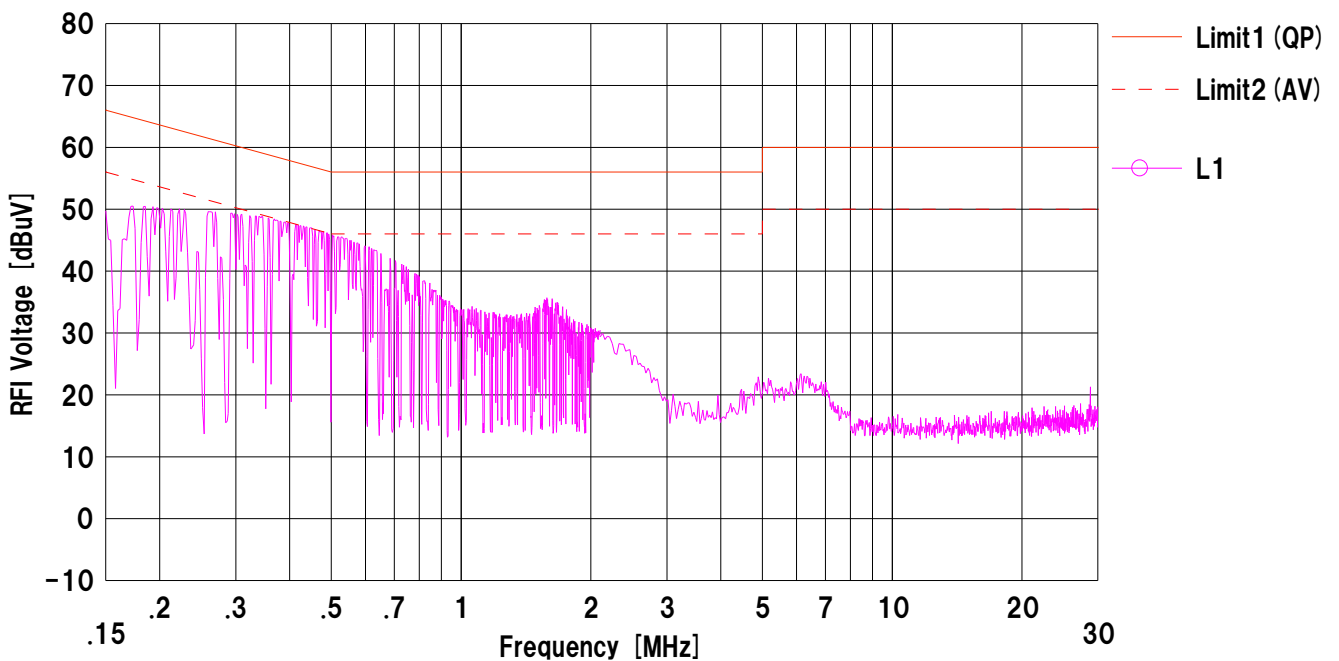
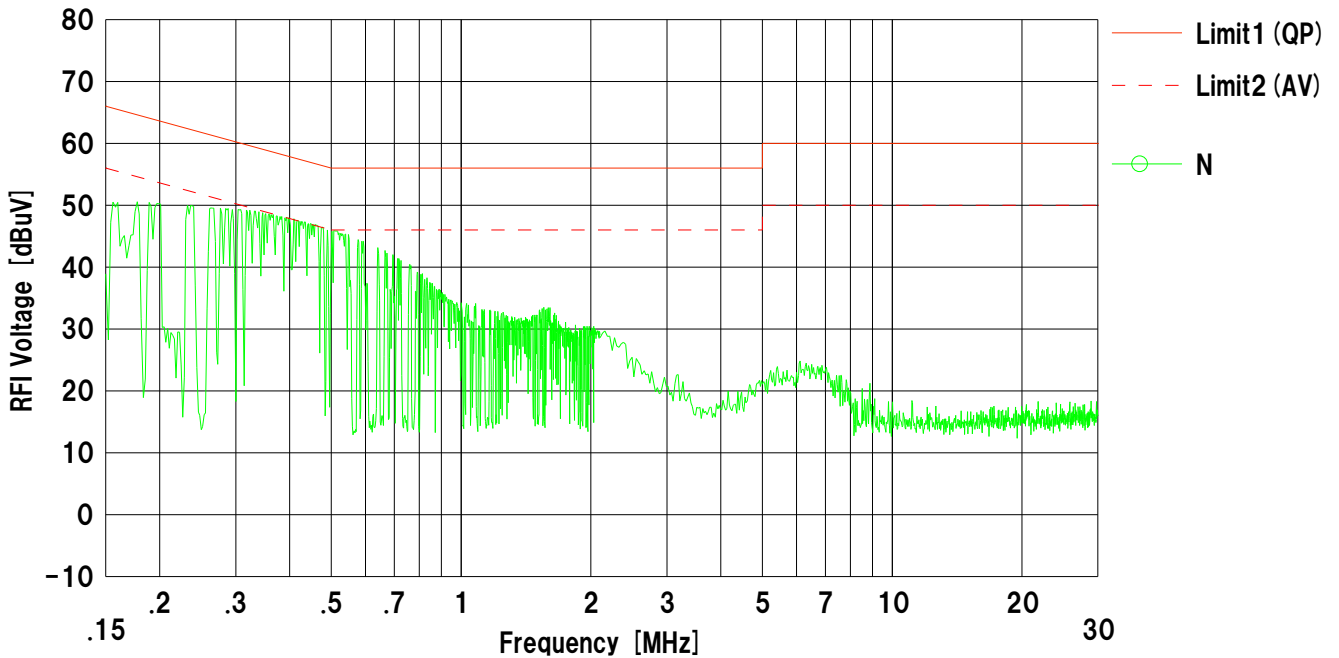
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1214
Serial No. : ES4101

Mode : Tx DH5 2480MHz
Report No. : 31CE0052-HO-01-A
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



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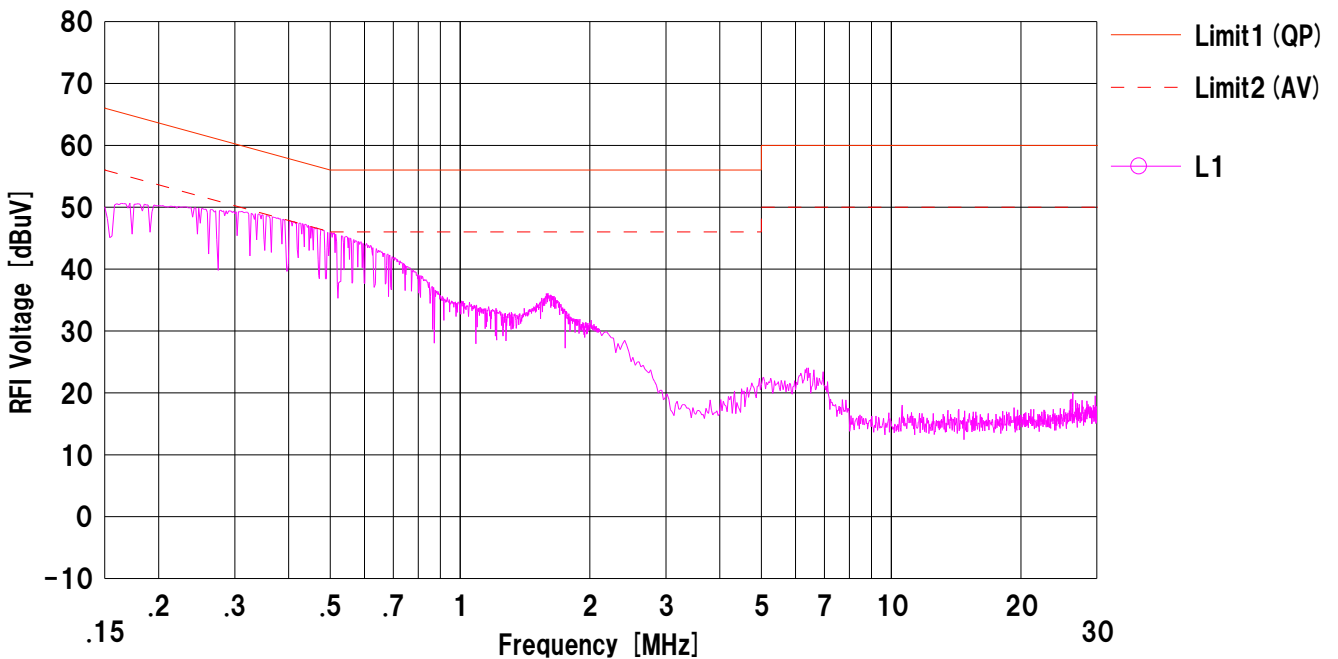
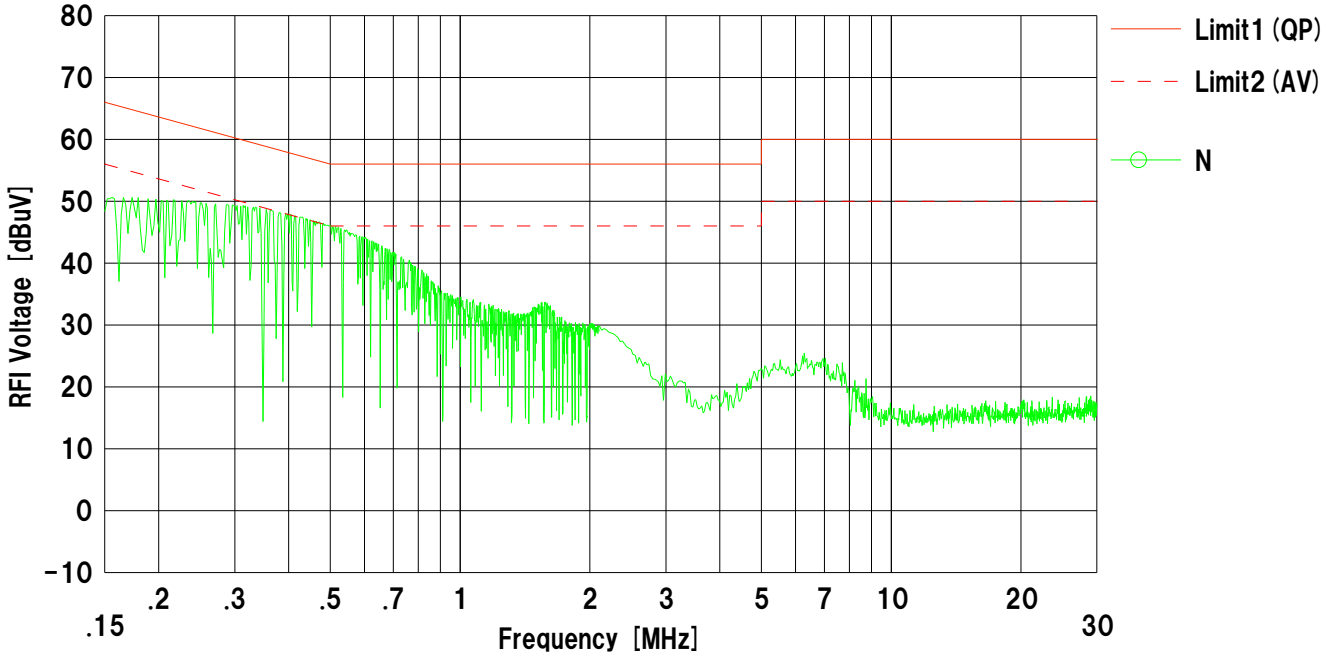
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1214
Serial No. : ES4101

Mode : Tx 3DH5 2402MHz
Report No. : 31CE0052-HO-01-A
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



DATA OF CONDUCTED EMISSION TEST

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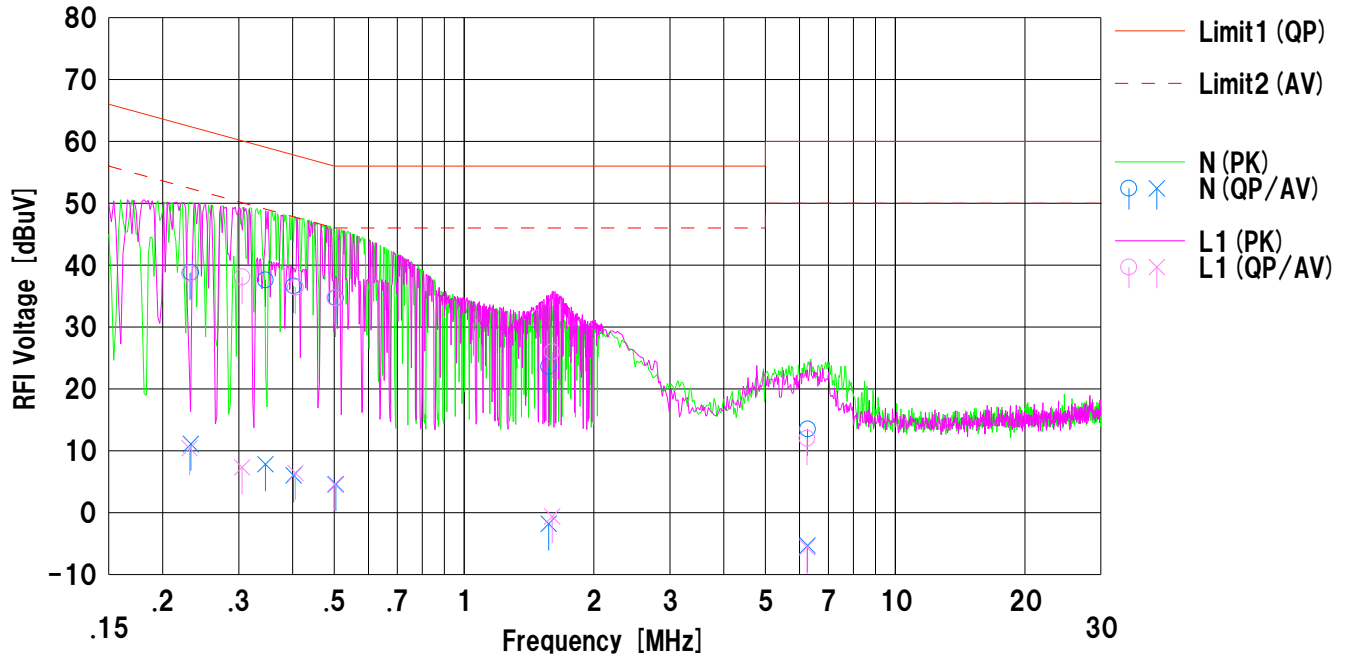
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1214
Serial No. : ES4101

Mode : Tx 3DH5 2441MHz
Report No. : 31CE0052-HO-01-A
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



| No. | Freq. [MHz] | Reading | | C.Fac [dB] | Results | | Limit | | Margin | | Phase | Comment |
|-----|----------------|----------------|----------------|---------------|----------------|----------------|----------------|----------------|--------------|--------------|-------|---------|
| | | <QP> [dBuV] | <AV> [dBuV] | | <QP> [dBuV] | <AV> [dBuV] | <QP> [dBuV] | <AV> [dBuV] | <QP> [dB] | <AV> [dB] | | |
| 1 | 0.23224 | 26.2 | -1.5 | 12.6 | 38.8 | 11.1 | 62.3 | 52.3 | 23.5 | 41.2 | N | |
| 2 | 0.34594 | 24.9 | -4.9 | 12.7 | 37.6 | 7.8 | 59.0 | 49.0 | 21.4 | 41.2 | N | |
| 3 | 0.40233 | 23.9 | -6.7 | 12.7 | 36.6 | 6.0 | 57.8 | 47.8 | 21.2 | 41.8 | N | |
| 4 | 0.50411 | 22.0 | -8.1 | 12.7 | 34.7 | 4.6 | 56.0 | 46.0 | 21.3 | 41.4 | N | |
| 5 | 1.57130 | 10.8 | -14.6 | 12.8 | 23.6 | -1.8 | 56.0 | 46.0 | 32.4 | 47.8 | N | |
| 6 | 6.27100 | 0.4 | -18.4 | 13.1 | 13.5 | -5.3 | 60.0 | 50.0 | 46.5 | 55.3 | N | |
| 7 | 0.23070 | 26.1 | -2.2 | 12.6 | 38.7 | 10.4 | 62.4 | 52.4 | 23.7 | 42.0 | L1 | |
| 8 | 0.30542 | 25.4 | -5.4 | 12.7 | 38.1 | 7.3 | 60.0 | 50.0 | 21.9 | 42.7 | L1 | |
| 9 | 0.40644 | 23.7 | -6.3 | 12.7 | 36.4 | 6.4 | 57.7 | 47.7 | 21.3 | 41.3 | L1 | |
| 10 | 0.50130 | 22.0 | -8.1 | 12.7 | 34.7 | 4.6 | 56.0 | 46.0 | 21.3 | 41.4 | L1 | |
| 11 | 1.60010 | 13.2 | -13.4 | 12.8 | 26.0 | -0.6 | 56.0 | 46.0 | 30.0 | 46.6 | L1 | |
| 12 | 6.24520 | -1.1 | -18.7 | 13.1 | 12.0 | -5.6 | 60.0 | 50.0 | 48.0 | 55.6 | L1 | |

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Date : 2011/06/25

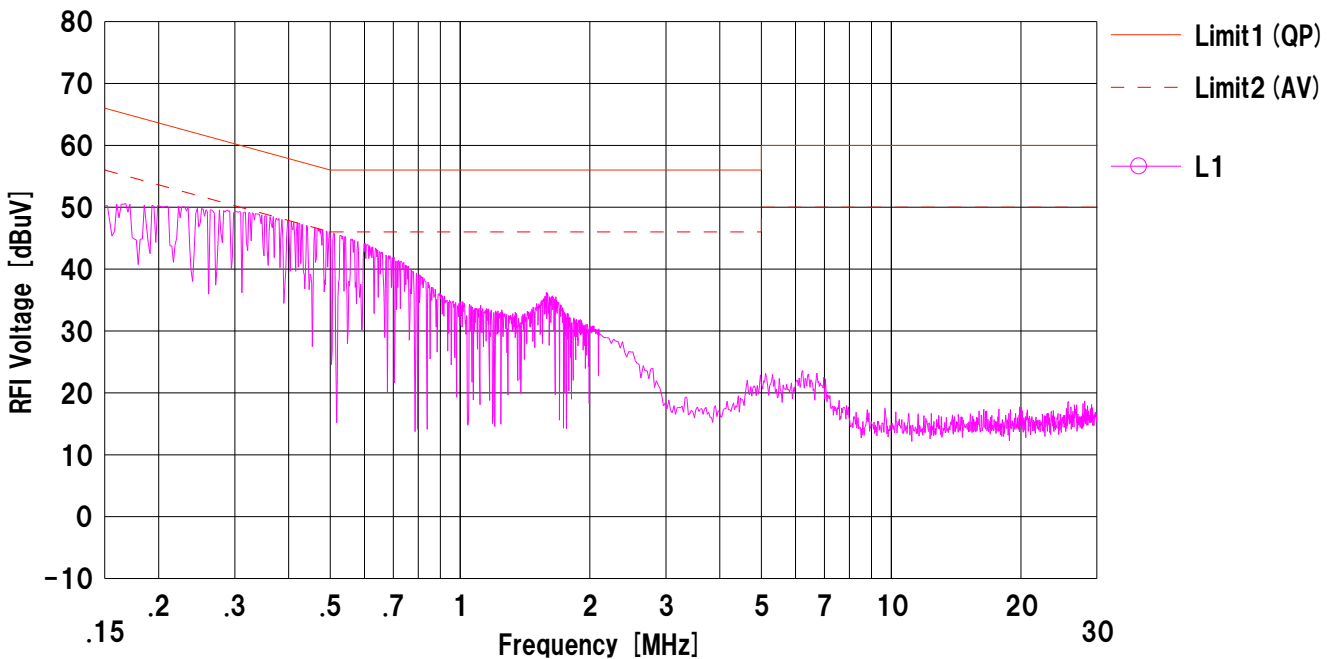
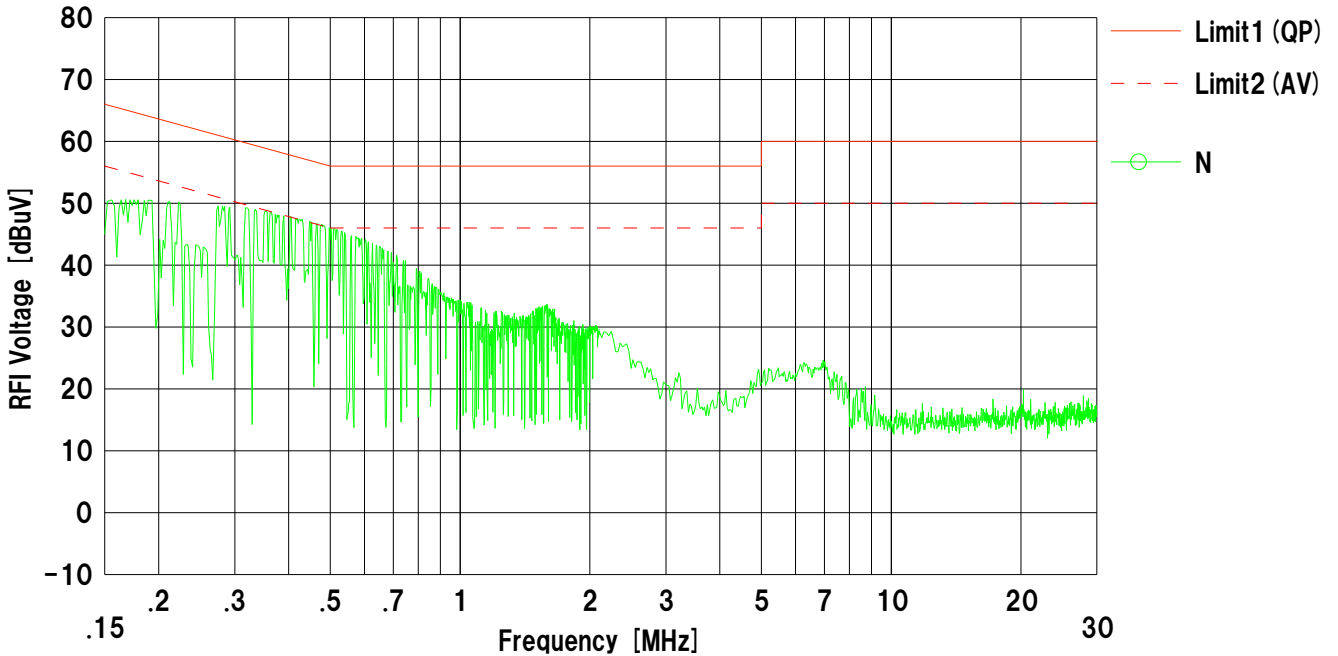
Company : CANON INC.
Kind of EUT : Wireless Module
Model No. : CH9-1214
Serial No. : ES4101

Mode : Tx 3DH5 2480MHz
Report No. : 31CE0052-HO-01-A
Power : DC3.3V (AC120V/60Hz)
Temp./Humi. : 27deg.C. / 56%RH

Remarks : -

Limit1 : FCC 15C (15.207) QP
Limit2 : FCC 15C (15.207) AV

Engineer : Akio Hayashi



Calculation: Result [dBuV] = Reading [dBuV] + C.Fac (LISN+Cable+ATT) [dB]
LISN: SLS-03

20dB Bandwidth and Carrier Frequency Separation

| | | |
|------------------------|--------------------------------|--------------------|
| Test place | UL Japan, Inc. Shonan EMC Lab. | No.6 Shielded Room |
| Date | 2011/6/10 | |
| Temperature / Humidity | 27deg.C 63% RH | |
| Engineer | Wataru Kojima | |
| Mode | Tx | |

| Mode | Freq. [MHz] | 20dB Bandwidth [MHz] | Carrier Frequency Separation [MHz] | Limit for Carrier Frequency Separation [MHz] |
|---------|----------------|----------------------------|---|--|
| DH5 | 2402.0 | 0.965 | 1.000 | ≥ 0.643 |
| DH5 | 2441.0 | 0.965 | 1.000 | ≥ 0.643 |
| DH5 | 2480.0 | 0.965 | 1.000 | ≥ 0.643 |
| 3DH5 | 2402.0 | 1.325 | 1.008 | ≥ 0.883 |
| 3DH5 | 2441.0 | 1.318 | 1.003 | ≥ 0.878 |
| 3DH5 | 2480.0 | 1.325 | 1.008 | ≥ 0.883 |
| Inquiry | 2441.0 | 0.800 | 2.000 | ≥ 0.533 |

Limit: Two-thirds of 20dB Bandwidth or 25kHz (whichever is greater).
No limit applies to 20dB Bandwidth.

UL Japan, Inc.

Shonan EMC Lab.

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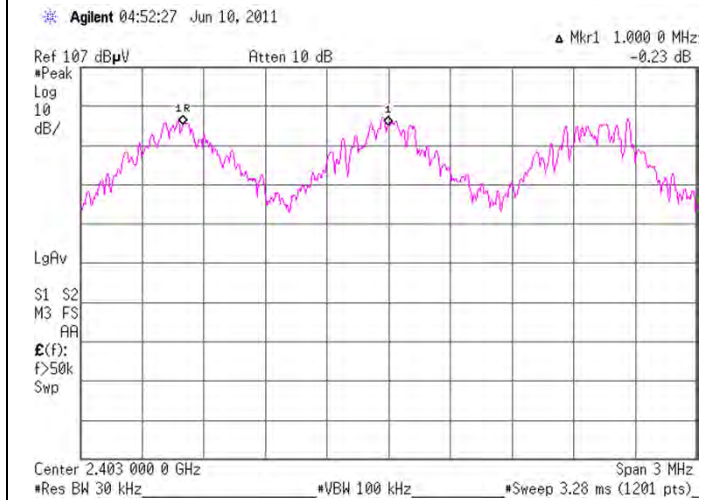
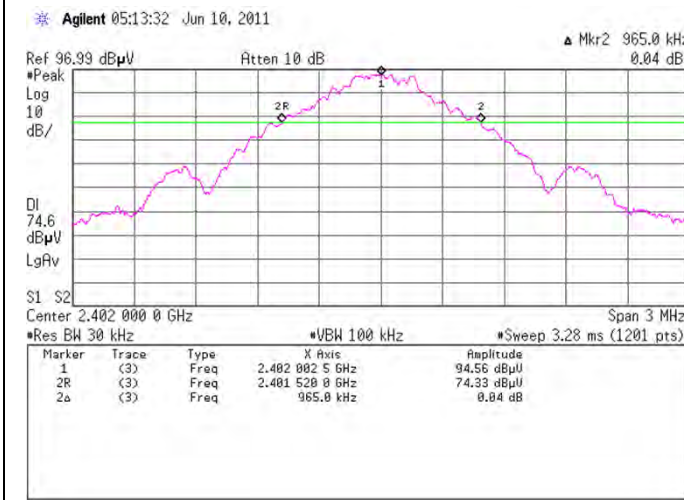
Facsimile : +81 463 50 6401

20dB Bandwidth and Carrier Frequency Separation

DH5

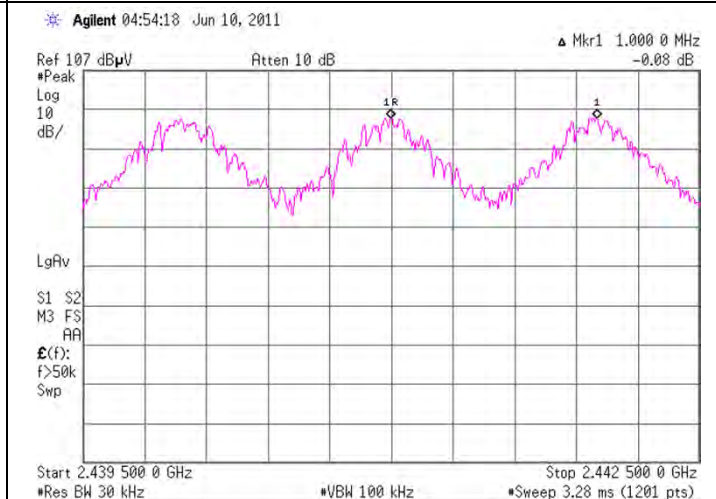
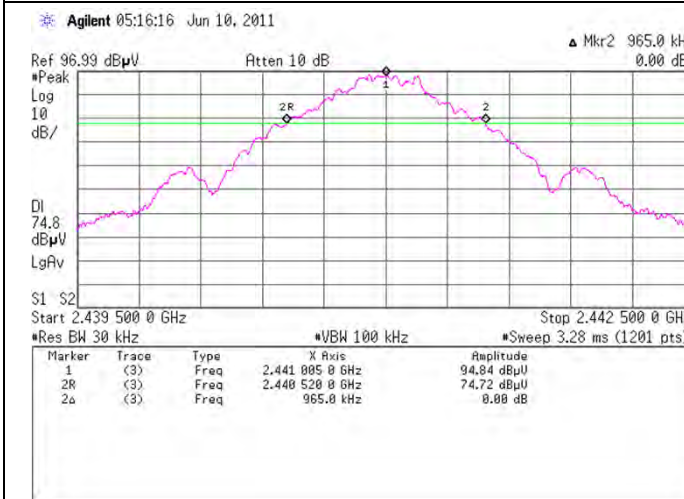
20dB Bandwidth Tx, 2402MHz

Carrier Frequency Separation Tx, 2402MHz



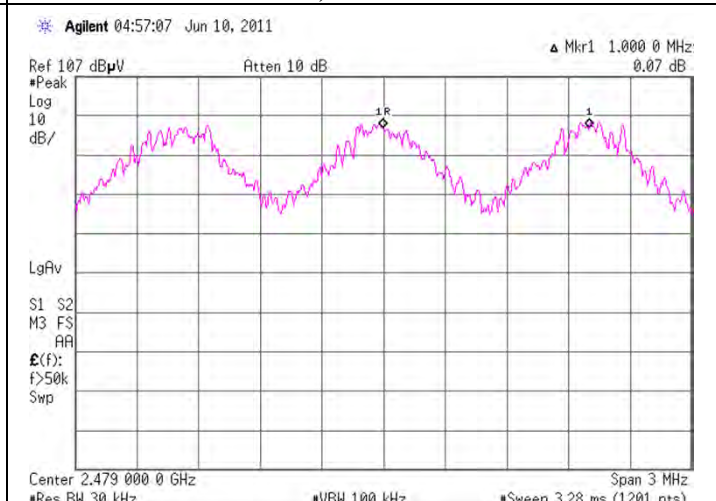
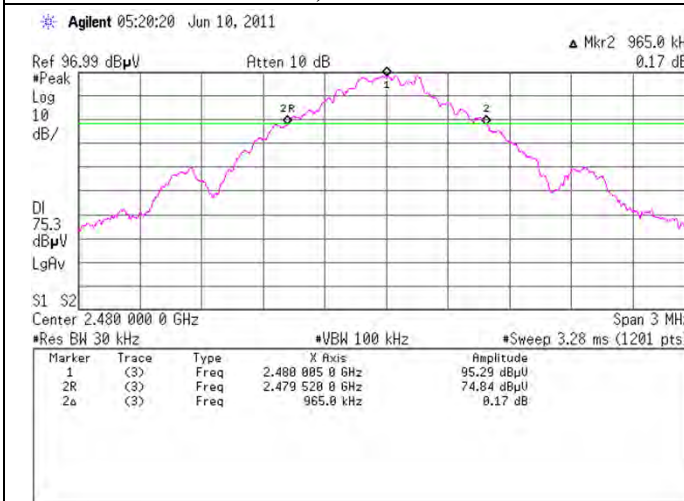
Tx, 2441MHz

Tx, 2441MHz



Tx, 2480MHz

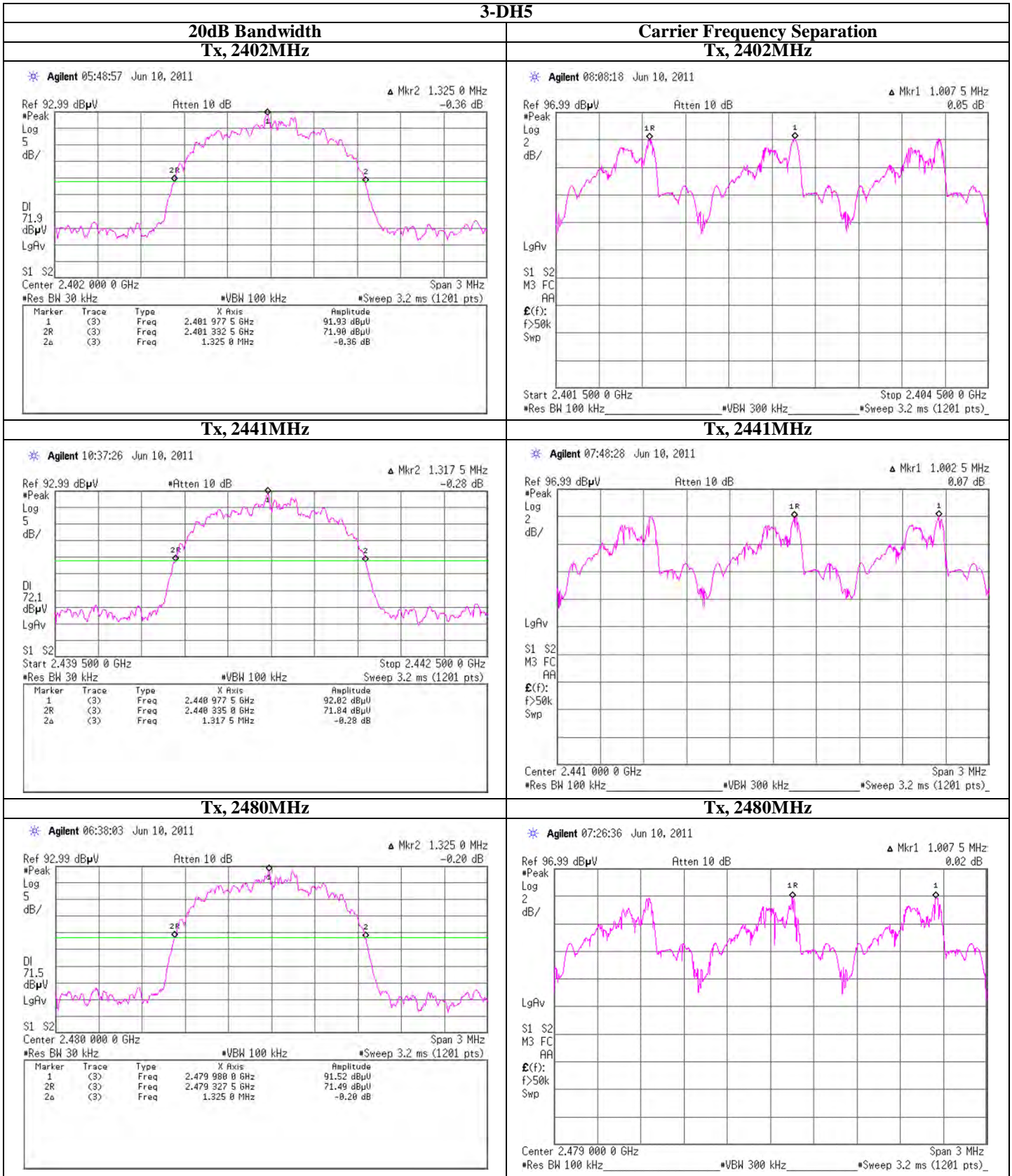
Tx, 2480MHz



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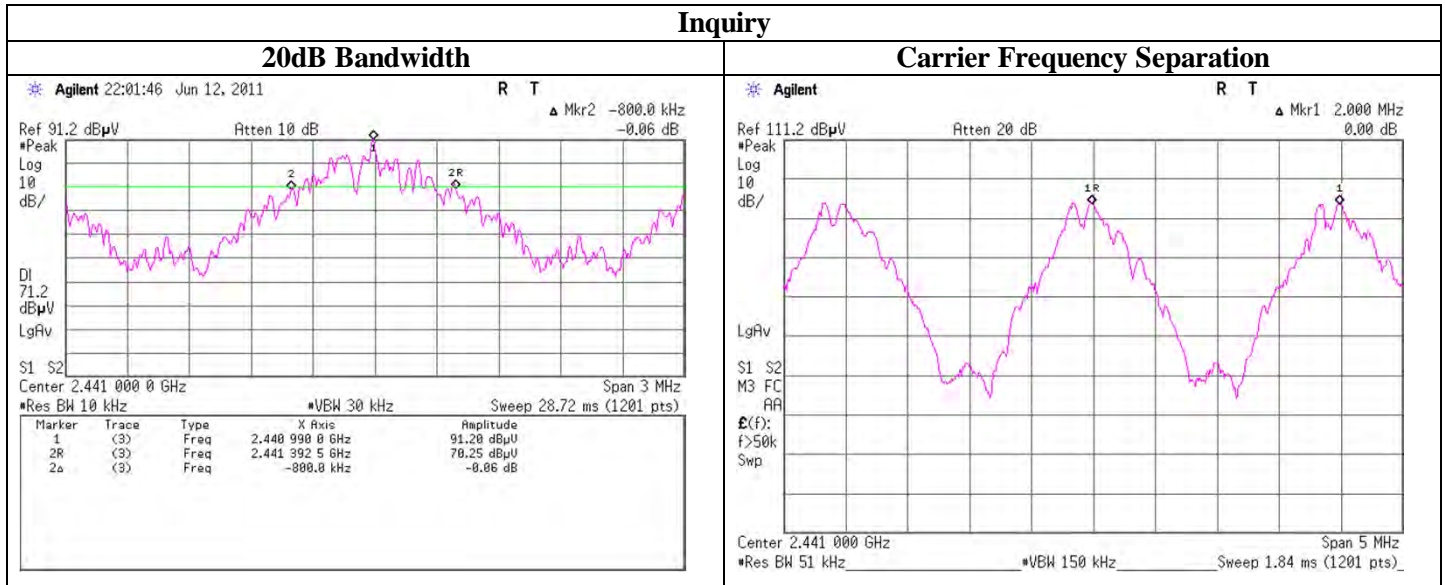
20dB Bandwidth and Carrier Frequency Separation



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20dB Bandwidth and Carrier Frequency Separation



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Number of Hopping Frequency (Conducted)

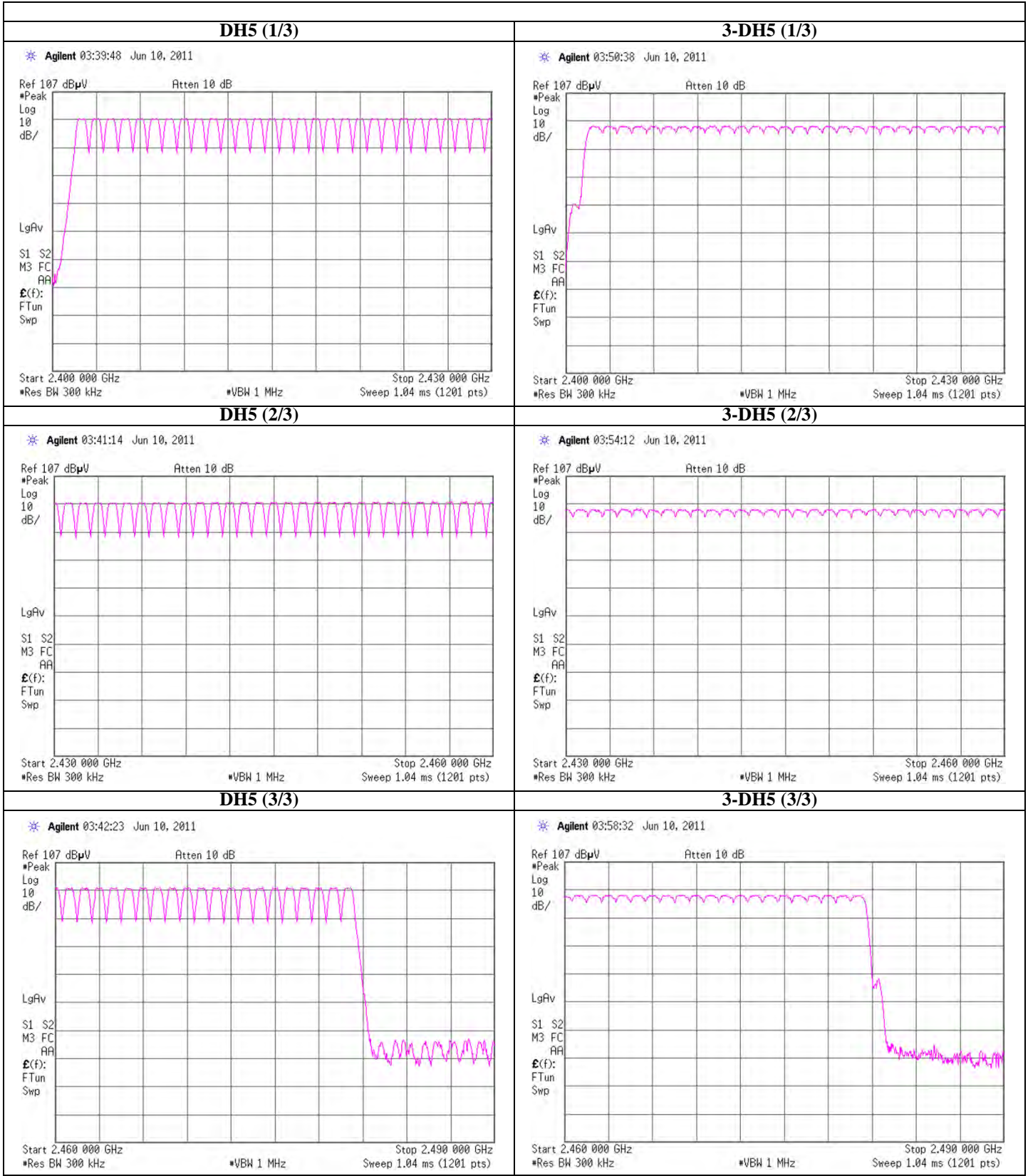
Test place UL Japan, Inc. Shonan EMC Lab. No.6 Shielded Room
Date 2011/6/10
Temperature / Humidity 27deg.C 63% RH
Engineer Wataru Kojima
Mode Tx,

| Mode | Number of Channel [times] | Limit [times] |
|---------|---------------------------|---------------|
| DH5 | 79 | >=15 |
| 3-DH5 | 79 | >=15 |
| Inquiry | 32 | >=15 |

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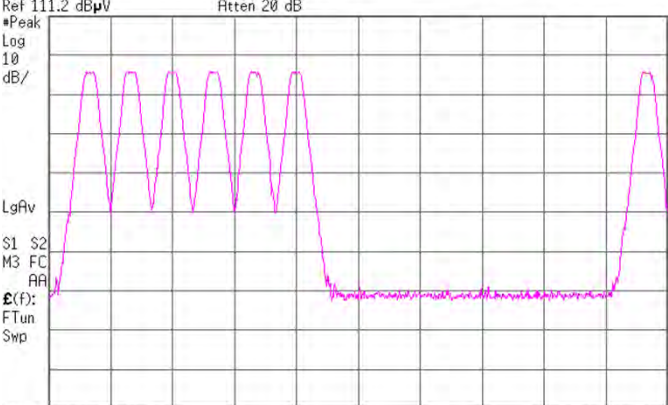
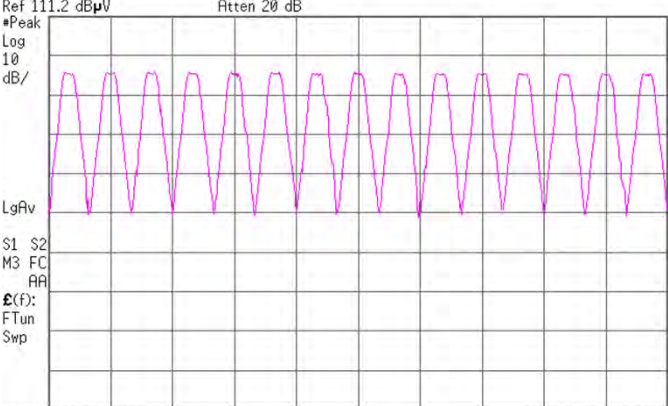
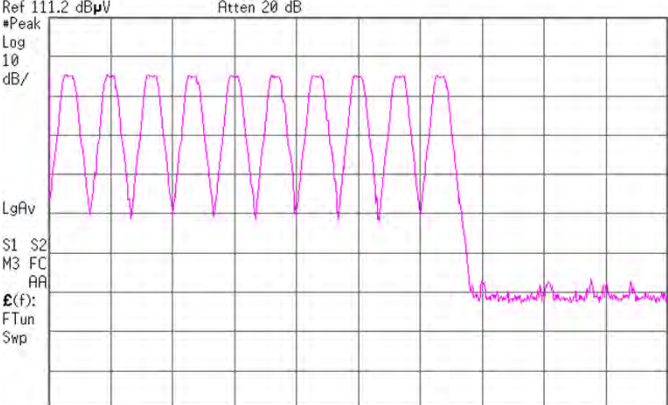
Number of Hopping Frequency



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Number of Hopping Frequency

| Inquiry (1/3) | |
|---|--|
| <p style="text-align: center;">* Agilent R T</p> <p>Ref 111.2 dBμV Atten 20 dB</p>  <p>Start 2.400 000 GHz Stop 2.430 000 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 1.04 ms (1201 pts)</p> | |
| Inquiry (2/3) | |
| <p style="text-align: center;">* Agilent R T</p> <p>Ref 111.2 dBμV Atten 20 dB</p>  <p>Start 2.430 000 GHz Stop 2.460 000 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 1.04 ms (1201 pts)</p> | |
| Inquiry (3/3) | |
| <p style="text-align: center;">* Agilent R T</p> <p>Ref 111.2 dBμV Atten 20 dB</p>  <p>Start 2.460 000 GHz Stop 2.490 000 GHz #Res BW 300 kHz #VBW 1 MHz Sweep 1.04 ms (1201 pts)</p> | |

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Dwell Time (Conducted)

Test place UL Japan, Inc. Shonan EMC Lab. No.6 Shielded Room
Date 2011/6/10 2011/6/17
Temperature / Humidity 27deg.C 63% RH 26deg.C 53% RH
Engineer Wataru Kojima Tatsuya Arai
Mode Tx,

| Mode | Number of transmission in a 31.6(79 Hopping x 0.4) / 12.8(32 Hopping x 0.4)second period | Length of | Result | Limit |
|---------|--|-----------------------------|--------|--------|
| | | transmission time [msec] | [msec] | [msec] |
| DH1 | 50.0 times / 5.0 sec. x 31.6 sec. = 316 times | 0.381 | 120 | 400 |
| DH3 | 26.2 times / 5.0 sec. x 31.6 sec. = 166 times | 1.637 | 272 | 400 |
| DH5 | 16.8 times / 5.0 sec. x 31.6 sec. = 107 times | 2.887 | 309 | 400 |
| 3DH1 | 49.4 times / 5.0 sec. x 31.6 sec. = 313 times | 0.383 | 120 | 400 |
| 3DH3 | 25.6 times / 5.0 sec. x 31.6 sec. = 162 times | 1.634 | 265 | 400 |
| 3DH5 | 16.4 times / 5.0 sec. x 31.6 sec. = 104 times | 2.887 | 300 | 400 |
| Inquiry | 100.0 times / 1.0 sec. x 12.8 sec. = 1280 times | 0.085 | 109 | 400 |

Sample Calculation

Result = Number of transmission x Length of transmission time

*Average data of 5 tests.(except Inquiry)

| Mode | Sampling [times] | | | | | Average [times] |
|------|------------------|----|----|----|----|--------------------|
| | 1 | 2 | 3 | 4 | 5 | |
| DH1 | 49 | 51 | 51 | 50 | 49 | 50.0 |
| DH3 | 23 | 28 | 24 | 28 | 28 | 26.2 |
| DH5 | 17 | 17 | 18 | 15 | 17 | 16.8 |
| 3DH1 | 50 | 48 | 50 | 50 | 49 | 49.4 |
| 3DH3 | 27 | 27 | 26 | 21 | 27 | 25.6 |
| 3DH5 | 15 | 17 | 17 | 18 | 15 | 16.4 |

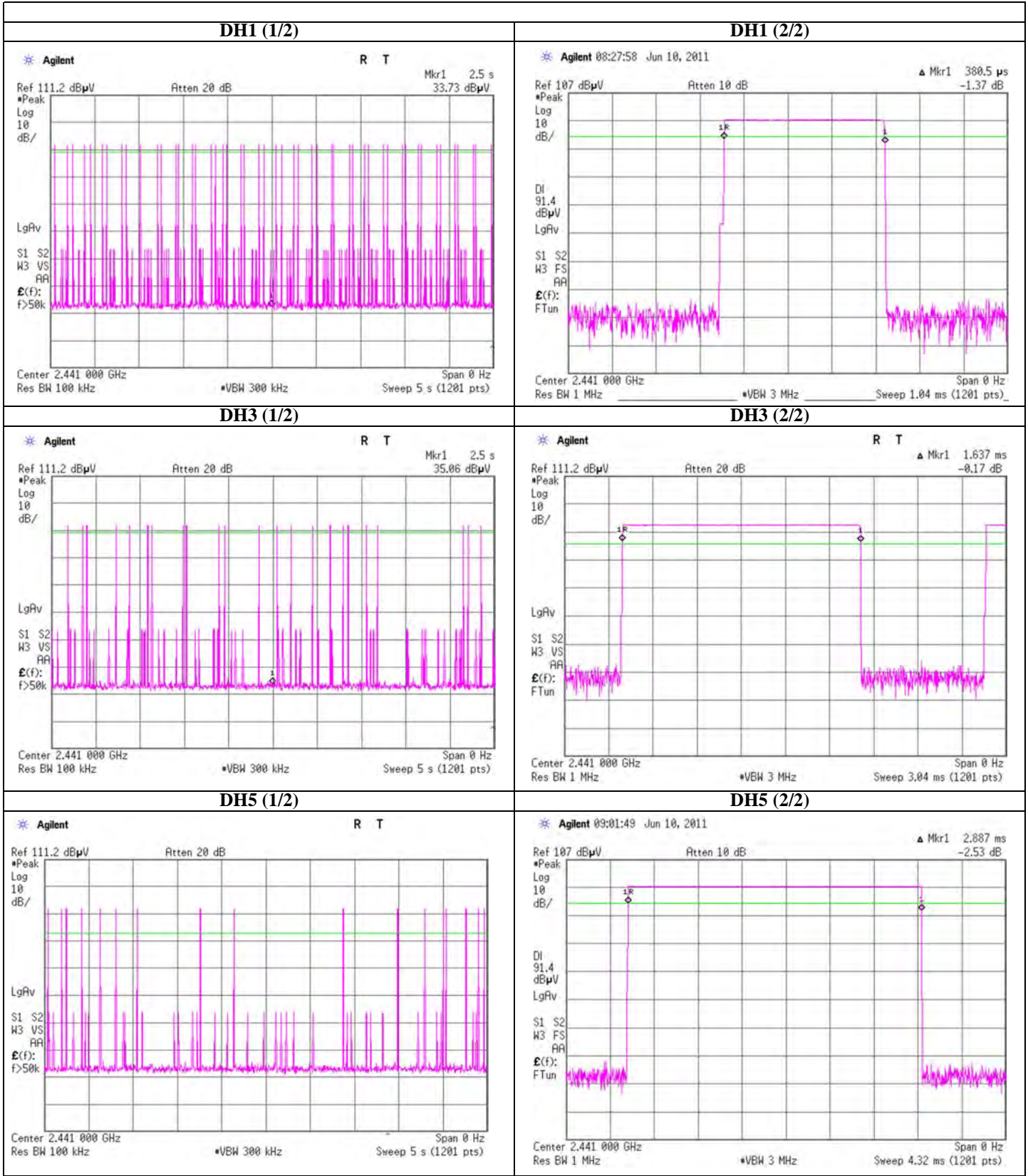
Sample Calculation

Average= Summation(Sampling 1 to 5) / 5

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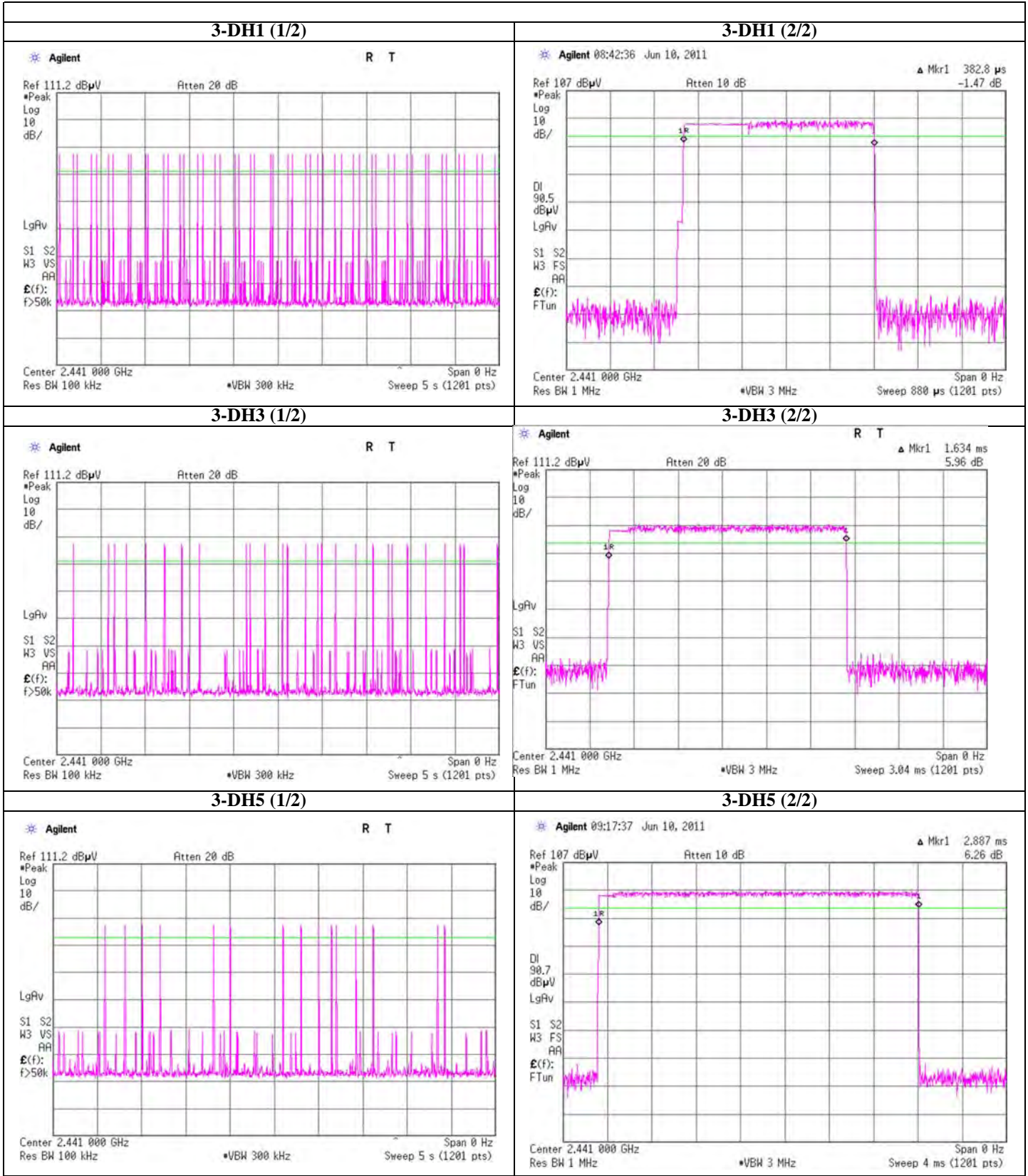
Dwell time



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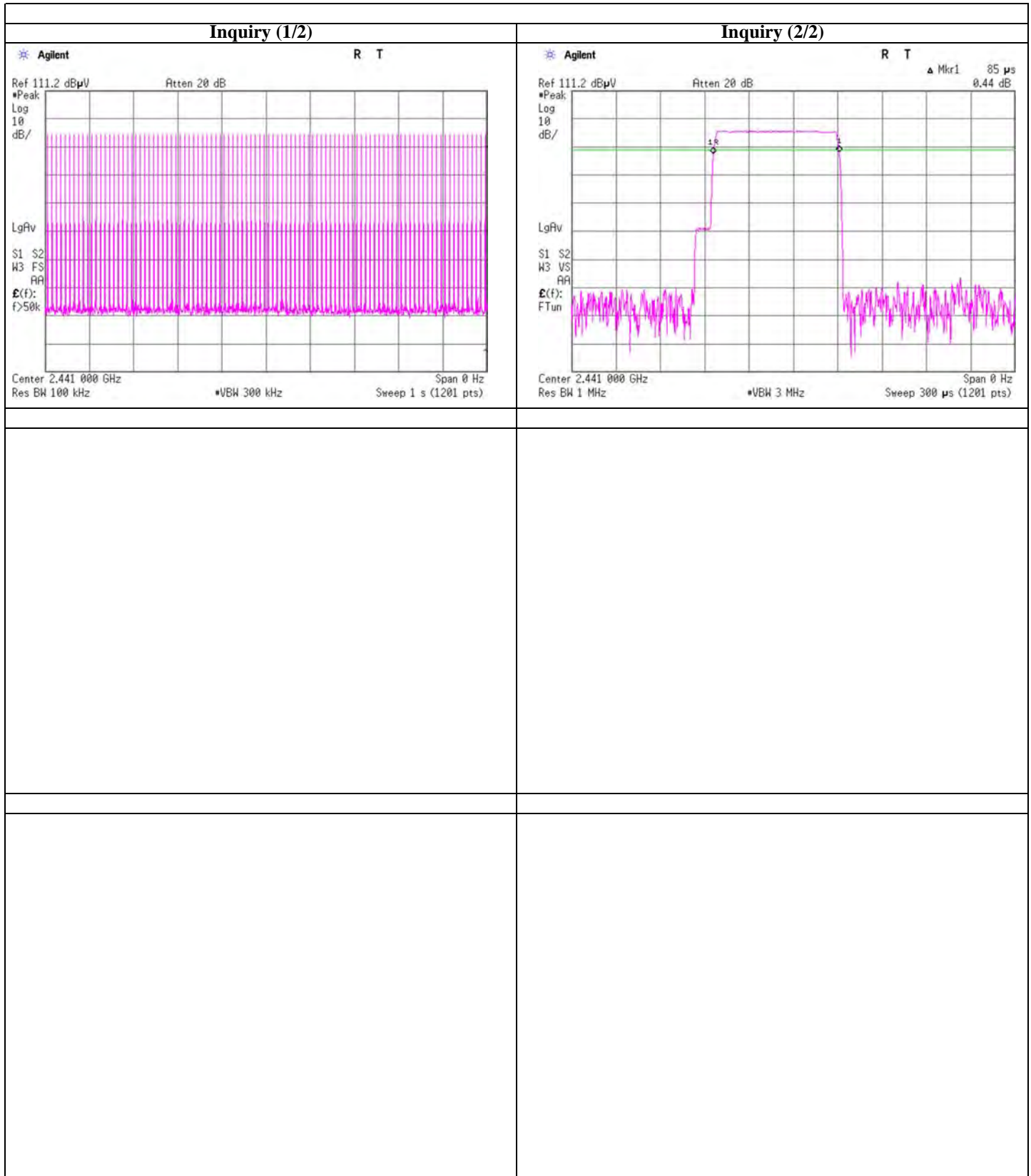
Dwell time



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Dwell time



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Peak Output Power (Conducted)

Test place UL Japan, Inc. Shonan EMC Lab. No.6 Shielded Room
Date 2011/6/17
Temperature / Humidity 28deg.C 61% RH
Engineer Wataru Kojima
Mode Tx,

BDR (DH5)

| Ch | Freq. [MHz] | P/M (PK) Reading [dBm] | Cable Loss [dB] | Atten. Loss [dB] | Result | | Limit | | Margin [dB] |
|------|----------------|------------------------------|-----------------------|------------------------|--------|------|-------|------|----------------|
| | | | | | [dBm] | [mW] | [dBm] | [mW] | |
| Low | 2402.0 | -9.56 | 1.28 | 9.97 | 1.69 | 1.48 | 20.97 | 125 | 19.28 |
| Mid | 2441.0 | -9.63 | 1.29 | 9.97 | 1.63 | 1.46 | 20.97 | 125 | 19.34 |
| High | 2480.0 | -9.35 | 1.30 | 9.97 | 1.92 | 1.56 | 20.97 | 125 | 19.05 |

EDR (2-DH5)

| Ch | Freq. [MHz] | P/M (PK) Reading [dBm] | Cable Loss [dB] | Atten. Loss [dB] | Result | | Limit | | Margin [dB] |
|------|----------------|------------------------------|-----------------------|------------------------|--------|------|-------|------|----------------|
| | | | | | [dBm] | [mW] | [dBm] | [mW] | |
| Low | 2402.0 | -10.68 | 1.28 | 9.97 | 0.57 | 1.14 | 20.97 | 125 | 20.40 |
| Mid | 2441.0 | -10.34 | 1.29 | 9.97 | 0.92 | 1.24 | 20.97 | 125 | 20.05 |
| High | 2480.0 | -10.39 | 1.30 | 9.97 | 0.88 | 1.22 | 20.97 | 125 | 20.09 |

EDR (3-DH5)

| Ch | Freq. [MHz] | P/M (PK) Reading [dBm] | Cable Loss [dB] | Atten. Loss [dB] | Result | | Limit | | Margin [dB] |
|------|----------------|------------------------------|-----------------------|------------------------|--------|------|-------|------|----------------|
| | | | | | [dBm] | [mW] | [dBm] | [mW] | |
| Low | 2402.0 | -10.46 | 1.28 | 9.97 | 0.79 | 1.20 | 20.97 | 125 | 20.18 |
| Mid | 2441.0 | -10.27 | 1.29 | 9.97 | 0.99 | 1.26 | 20.97 | 125 | 19.98 |
| High | 2480.0 | -10.14 | 1.30 | 9.97 | 1.13 | 1.30 | 20.97 | 125 | 19.84 |

P/M: Power meter with Power sensor

Sample Calculation:

Result = Reading + Cable Loss (supplied by customer) + Atten. Loss

* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.

*The test result is rounded off to one or two decimal places, so some differences might be observed.

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Radiated Emission

Test place UL Japan, Inc. Shonan EMC Lab.
 Semi Anechoic Chamber No.2 No.2 No.2 No.2 No.2
 Date March 20, 2011 June 7, 2011 June 13, 2011 June 16, 2011 June 21, 2011
 Temperature / Humidity 27deg.C. , 47%RH 24deg.C. , 60%RH 23deg.C. , 64%RH 25deg.C. , 65%RH 25deg.C. , 57%RH
 Engineer Shinichi Takano Shinichi Takano Shinichi Takano Shinichi Takano Akio Hayashi
 Mode Tx, 2402 MHz
 Bluetooth, DH5,

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Height [cm] | Angle [deg.] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|-------------|--------------|-----------|
| Hori. | 575.843 | QP | 23.1 | 18.8 | 8.5 | 31.6 | 18.8 | 46.0 | 27.2 | 100 | 0 | |
| Hori. | 2320.096 | PK | 46.0 | 27.3 | 13.5 | 40.6 | 46.2 | 73.9 | 27.7 | 114 | 74 | |
| Hori. | 2390.000 | PK | 45.5 | 27.4 | 13.6 | 40.6 | 45.9 | 73.9 | 28.0 | 114 | 74 | |
| Hori. | 2394.452 | PK | 45.9 | 27.4 | 13.6 | 40.6 | 46.3 | 73.9 | 27.6 | 114 | 74 | |
| Hori. | 2483.188 | PK | 46.7 | 27.4 | 13.6 | 40.5 | 47.2 | 73.9 | 26.7 | 114 | 74 | |
| Hori. | 4804.000 | PK | 43.2 | 30.5 | 5.9 | 36.6 | 43.0 | 73.9 | 30.9 | 100 | 0 | |
| Hori. | 7206.000 | PK | 46.5 | 36.2 | 7.3 | 38.4 | 51.6 | 73.9 | 22.3 | 100 | 0 | |
| Hori. | 9608.000 | PK | 44.2 | 38.3 | 8.6 | 37.1 | 54.0 | 73.9 | 19.9 | 100 | 0 | |
| Hori. | 12010.000 | PK | 46.7 | 39.4 | 9.9 | 37.9 | 58.1 | 73.9 | 15.8 | 100 | 0 | |
| Hori. | 14412.000 | PK | 46.4 | 41.1 | 1.1 | 37.3 | 51.3 | 73.9 | 22.6 | 100 | 346 | |
| Hori. | 2320.096 | AV | 35.5 | 27.3 | 13.5 | 40.6 | 35.7 | 53.9 | 18.2 | 114 | 74 | VBW:270Hz |
| Hori. | 2390.000 | AV | 35.4 | 27.4 | 13.6 | 40.6 | 35.8 | 53.9 | 18.1 | 114 | 74 | VBW:270Hz |
| Hori. | 2394.452 | AV | 35.9 | 27.4 | 13.6 | 40.6 | 36.3 | 53.9 | 17.6 | 114 | 74 | VBW:270Hz |
| Hori. | 2483.188 | AV | 36.8 | 27.4 | 13.6 | 40.5 | 37.3 | 53.9 | 16.6 | 114 | 74 | VBW:270Hz |
| Hori. | 4804.000 | AV | 34.0 | 30.5 | 5.9 | 36.6 | 33.8 | 53.9 | 20.1 | 100 | 0 | VBW:270Hz |
| Hori. | 7206.000 | AV | 35.2 | 36.2 | 7.3 | 38.4 | 40.3 | 53.9 | 13.6 | 100 | 0 | VBW:270Hz |
| Hori. | 9608.000 | AV | 33.1 | 38.3 | 8.6 | 37.1 | 42.9 | 53.9 | 11.0 | 100 | 0 | VBW:270Hz |
| Hori. | 12010.000 | AV | 35.0 | 39.4 | 9.9 | 37.9 | 46.4 | 53.9 | 7.5 | 100 | 0 | VBW:270Hz |
| Hori. | 14412.000 | AV | 36.3 | 41.1 | 1.1 | 37.3 | 41.2 | 53.9 | 12.7 | 100 | 346 | VBW:10Hz |
| Vert. | 575.843 | QP | 22.8 | 18.8 | 8.5 | 31.6 | 18.5 | 46.0 | 27.5 | 100 | 0 | |
| Vert. | 2320.600 | PK | 46.9 | 27.3 | 13.5 | 40.6 | 47.1 | 73.9 | 26.8 | 105 | 137 | |
| Vert. | 2390.000 | PK | 46.2 | 27.4 | 13.6 | 40.6 | 46.6 | 73.9 | 27.3 | 105 | 137 | |
| Vert. | 2394.557 | PK | 46.5 | 27.4 | 13.6 | 40.6 | 46.9 | 73.9 | 27.0 | 105 | 137 | |
| Vert. | 2483.733 | PK | 47.0 | 27.4 | 13.6 | 40.5 | 47.5 | 73.9 | 26.4 | 105 | 137 | |
| Vert. | 4804.000 | PK | 44.1 | 30.5 | 5.9 | 36.6 | 43.9 | 73.9 | 30.0 | 100 | 0 | |
| Vert. | 7206.000 | PK | 46.4 | 36.2 | 7.3 | 38.4 | 51.5 | 73.9 | 22.4 | 100 | 0 | |
| Vert. | 9608.000 | PK | 44.6 | 38.3 | 8.6 | 37.1 | 54.4 | 73.9 | 19.5 | 100 | 0 | |
| Vert. | 12010.000 | PK | 47.1 | 39.4 | 9.9 | 37.9 | 58.5 | 73.9 | 15.4 | 100 | 0 | |
| Vert. | 14412.000 | PK | 43.7 | 41.1 | 1.1 | 37.3 | 48.6 | 73.9 | 25.3 | 101 | 347 | |
| Vert. | 2320.600 | AV | 36.4 | 27.3 | 13.5 | 40.6 | 36.6 | 53.9 | 17.3 | 105 | 137 | VBW:270Hz |
| Vert. | 2390.000 | AV | 36.0 | 27.4 | 13.6 | 40.6 | 36.4 | 53.9 | 17.5 | 105 | 137 | VBW:270Hz |
| Vert. | 2394.557 | AV | 36.2 | 27.4 | 13.6 | 40.6 | 36.6 | 53.9 | 17.3 | 105 | 137 | VBW:270Hz |
| Vert. | 2483.733 | AV | 36.3 | 27.4 | 13.6 | 40.5 | 36.8 | 53.9 | 17.1 | 105 | 137 | VBW:270Hz |
| Vert. | 4804.000 | AV | 32.6 | 30.5 | 5.9 | 36.6 | 32.4 | 53.9 | 21.5 | 100 | 0 | VBW:270Hz |
| Vert. | 7206.000 | AV | 36.7 | 36.2 | 7.3 | 38.4 | 41.8 | 53.9 | 12.1 | 100 | 0 | VBW:270Hz |
| Vert. | 9608.000 | AV | 33.4 | 38.3 | 8.6 | 37.1 | 43.2 | 53.9 | 10.7 | 100 | 0 | VBW:270Hz |
| Vert. | 12010.000 | AV | 35.6 | 39.4 | 9.9 | 37.9 | 47.0 | 53.9 | 6.9 | 100 | 0 | VBW:270Hz |
| Vert. | 14412.000 | AV | 34.7 | 41.1 | 1.1 | 37.3 | 39.6 | 53.9 | 14.3 | 101 | 347 | VBW:10Hz |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier)

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

Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

20dBc Data Sheet (RBW 100kHz, VBW 300kHz)

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant Factor [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-------------------|-----------|-----------|-----------------|----------------|-------------|---------|
| Hori. | 2402.000 | PK | 93.5 | 27.4 | 13.7 | 40.6 | 94.0 | - | - | Carrier |
| Hori. | 2400.000 | PK | 47.8 | 27.4 | 13.7 | 40.6 | 48.3 | 74.0 | 25.7 | |
| Vert. | 2402.000 | PK | 91.0 | 27.4 | 13.7 | 40.6 | 91.5 | - | - | Carrier |
| Vert. | 2400.000 | PK | 38.2 | 27.4 | 13.7 | 40.6 | 38.7 | 71.5 | 32.8 | |

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Shonan EMC Lab.
 1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
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 Facsimile : +81 463 50 6401

Radiated Emission

| | | | | |
|------------------------|---------------------------------|------------------|------------------|------------------|
| Test place | UL Japan, Inc. Shonan EMC Lab. | | | |
| Semi Anechoic Chamber | No.2 | No.2 | No.2 | No.2 |
| Date | June 7, 2011 | June 13, 2011 | June 16, 2011 | June 21, 2011 |
| Temperature / Humidity | 24deg.C. , 60%RH | 23deg.C. , 64%RH | 25deg.C. , 65%RH | 25deg.C. , 57%RH |
| Engineer | Shinichi Takano | Shinichi Takano | Shinichi Takano | Akio Hayashi |
| Mode | Tx, 2441 MHz Bluetooth, DH5, | | | |

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Height [cm] | Angle [deg.] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|-------------|--------------|-----------|
| Hori. | 910.220 | QP | 22.5 | 22.1 | 10.0 | 30.8 | 23.8 | 46.0 | 22.2 | 100 | 0 | |
| Hori. | 2357.027 | PK | 45.8 | 27.3 | 13.5 | 40.6 | 46.0 | 73.9 | 27.9 | 118 | 73 | |
| Hori. | 2523.321 | PK | 45.9 | 27.5 | 13.7 | 40.5 | 46.6 | 73.9 | 27.3 | 118 | 73 | |
| Hori. | 4882.000 | PK | 43.5 | 30.8 | 5.9 | 36.6 | 43.6 | 73.9 | 30.3 | 100 | 0 | |
| Hori. | 7323.000 | PK | 45.1 | 36.4 | 7.4 | 38.4 | 50.5 | 73.9 | 23.4 | 100 | 0 | |
| Hori. | 9764.000 | PK | 43.2 | 38.5 | 8.6 | 37.1 | 53.2 | 73.9 | 20.7 | 100 | 0 | |
| Hori. | 12205.000 | PK | 45.5 | 39.4 | 9.9 | 38.0 | 56.8 | 73.9 | 17.1 | 100 | 0 | |
| Hori. | 14646.000 | PK | 45.5 | 41.2 | 1.1 | 37.6 | 50.2 | 73.9 | 23.7 | 100 | 359 | |
| Hori. | 2357.027 | AV | 35.9 | 27.3 | 13.5 | 40.6 | 36.1 | 53.9 | 17.8 | 118 | 73 | VBW:270Hz |
| Hori. | 2523.321 | AV | 36.1 | 27.5 | 13.7 | 40.5 | 36.8 | 53.9 | 17.1 | 118 | 73 | VBW:270Hz |
| Hori. | 4882.000 | AV | 32.5 | 30.8 | 5.9 | 36.6 | 32.6 | 53.9 | 21.3 | 100 | 0 | VBW:270Hz |
| Hori. | 7323.000 | AV | 34.9 | 36.4 | 7.4 | 38.4 | 40.3 | 53.9 | 13.6 | 100 | 0 | VBW:270Hz |
| Hori. | 9764.000 | AV | 33.0 | 38.5 | 8.6 | 37.1 | 43.0 | 53.9 | 10.9 | 100 | 0 | VBW:270Hz |
| Hori. | 12205.000 | AV | 34.3 | 39.4 | 9.9 | 38.0 | 45.6 | 53.9 | 8.3 | 100 | 0 | VBW:270Hz |
| Hori. | 14646.000 | AV | 36.4 | 41.2 | 1.1 | 37.6 | 41.1 | 53.9 | 12.8 | 100 | 359 | VBW:10Hz |
| Vert. | 910.220 | QP | 22.3 | 22.1 | 10.0 | 30.8 | 23.6 | 46.0 | 22.4 | 100 | 0 | |
| Vert. | 2358.092 | PK | 47.5 | 27.3 | 13.5 | 40.6 | 47.7 | 73.9 | 26.2 | 103 | 140 | |
| Vert. | 2526.658 | PK | 46.0 | 27.5 | 13.7 | 40.5 | 46.7 | 73.9 | 27.2 | 103 | 140 | |
| Vert. | 4882.000 | PK | 43.6 | 30.8 | 5.9 | 36.6 | 43.7 | 73.9 | 30.2 | 100 | 0 | |
| Vert. | 7323.000 | PK | 45.8 | 36.4 | 7.4 | 38.4 | 51.2 | 73.9 | 22.7 | 100 | 0 | |
| Vert. | 9764.000 | PK | 43.1 | 38.5 | 8.6 | 37.1 | 53.1 | 73.9 | 20.8 | 100 | 0 | |
| Vert. | 12205.000 | PK | 47.7 | 39.4 | 9.9 | 38.0 | 59.0 | 73.9 | 14.9 | 100 | 0 | |
| Vert. | 14646.000 | PK | 44.3 | 41.2 | 1.1 | 37.6 | 49.0 | 73.9 | 24.9 | 100 | 56 | |
| Vert. | 2358.092 | AV | 37.2 | 27.3 | 13.5 | 40.6 | 37.4 | 53.9 | 16.5 | 103 | 140 | VBW:270Hz |
| Vert. | 2526.658 | AV | 36.1 | 27.5 | 13.7 | 40.5 | 36.8 | 53.9 | 17.1 | 103 | 140 | VBW:270Hz |
| Vert. | 4882.000 | AV | 32.5 | 30.8 | 5.9 | 36.6 | 32.6 | 53.9 | 21.3 | 100 | 0 | VBW:270Hz |
| Vert. | 7323.000 | AV | 34.9 | 36.4 | 7.4 | 38.4 | 40.3 | 53.9 | 13.6 | 100 | 0 | VBW:270Hz |
| Vert. | 9764.000 | AV | 33.2 | 38.5 | 8.6 | 37.1 | 43.2 | 53.9 | 10.7 | 100 | 0 | VBW:270Hz |
| Vert. | 12205.000 | AV | 35.3 | 39.4 | 9.9 | 38.0 | 46.6 | 53.9 | 7.3 | 100 | 0 | VBW:270Hz |
| Vert. | 14646.000 | AV | 34.8 | 41.2 | 1.1 | 37.6 | 39.5 | 53.9 | 14.4 | 100 | 56 | VBW:10Hz |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier)

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

Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

UL Japan, Inc.

Shonan EMC Lab.

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Telephone : +81 463 50 6400

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Radiated Emission

| | | | | | |
|------------------------|---------------------------------|------------------|------------------|------------------|------------------|
| Test place | UL Japan, Inc. Shonan EMC Lab. | | | | |
| Semi Anechoic Chamber | No.2 | No.2 | No.2 | No.2 | No.2 |
| Date | March 20, 2011 | June 7, 2011 | June 13, 2011 | June 16, 2011 | June 21, 2011 |
| Temperature / Humidity | 27deg.C. , 47%RH | 24deg.C. , 60%RH | 23deg.C. , 64%RH | 25deg.C. , 65%RH | 25deg.C. , 57%RH |
| Engineer | Shinichi Takano | Shinichi Takano | Shinichi Takano | Shinichi Takano | Akio Hayashi |
| Mode | Tx, 2480 MHz Bluetooth, DH5, | | | | |

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Height [cm] | Angle [deg.] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|-------------|--------------|-----------|
| Hori. | 930.672 | QP | 21.9 | 22.3 | 10.1 | 30.7 | 23.6 | 46.0 | 22.4 | 100 | 0 | |
| Hori. | 2393.542 | PK | 47.3 | 27.4 | 13.6 | 40.6 | 47.7 | 73.9 | 26.2 | 115 | 79 | |
| Hori. | 2483.500 | PK | 46.5 | 27.4 | 13.6 | 40.5 | 47.0 | 73.9 | 26.9 | 115 | 79 | |
| Hori. | 2487.683 | PK | 46.2 | 27.4 | 13.6 | 40.5 | 46.7 | 73.9 | 27.2 | 115 | 79 | |
| Hori. | 2566.258 | PK | 46.1 | 27.5 | 13.7 | 40.6 | 46.7 | 73.9 | 27.2 | 115 | 79 | |
| Hori. | 4960.000 | PK | 43.5 | 31.0 | 5.9 | 36.5 | 43.9 | 73.9 | 30.0 | 100 | 0 | |
| Hori. | 7440.000 | PK | 44.9 | 36.7 | 7.3 | 38.4 | 50.5 | 73.9 | 23.4 | 100 | 0 | |
| Hori. | 9920.000 | PK | 43.0 | 38.7 | 8.6 | 37.2 | 53.1 | 73.9 | 20.8 | 100 | 0 | |
| Hori. | 12400.000 | PK | 46.5 | 39.4 | 9.9 | 38.0 | 57.8 | 73.9 | 16.1 | 100 | 347 | |
| Hori. | 14880.000 | PK | 47.4 | 41.2 | 1.2 | 37.9 | 51.9 | 73.9 | 22.0 | 100 | 354 | |
| Hori. | 2393.542 | AV | 37.5 | 27.4 | 13.6 | 40.6 | 37.9 | 53.9 | 16.0 | 115 | 79 | VBW:270Hz |
| Hori. | 2483.500 | AV | 36.0 | 27.4 | 13.6 | 40.5 | 36.5 | 53.9 | 17.4 | 115 | 79 | VBW:270Hz |
| Hori. | 2487.683 | AV | 36.2 | 27.4 | 13.6 | 40.5 | 36.7 | 53.9 | 17.2 | 115 | 79 | VBW:270Hz |
| Hori. | 2566.258 | AV | 36.4 | 27.5 | 13.7 | 40.6 | 37.0 | 53.9 | 16.9 | 115 | 79 | VBW:270Hz |
| Hori. | 4960.000 | AV | 32.4 | 31.0 | 5.9 | 36.5 | 32.8 | 53.9 | 21.1 | 100 | 0 | VBW:270Hz |
| Hori. | 7440.000 | AV | 34.6 | 36.7 | 7.3 | 38.4 | 40.2 | 53.9 | 13.7 | 100 | 0 | VBW:270Hz |
| Hori. | 9920.000 | AV | 32.4 | 38.7 | 8.6 | 37.2 | 42.5 | 53.9 | 11.4 | 100 | 0 | VBW:270Hz |
| Hori. | 12400.000 | AV | 35.6 | 39.4 | 9.9 | 38.0 | 46.9 | 53.9 | 7.0 | 100 | 347 | VBW:270Hz |
| Hori. | 14880.000 | AV | 38.4 | 41.2 | 1.2 | 37.9 | 42.9 | 53.9 | 11.0 | 100 | 354 | VBW:10Hz |
| Vert. | 930.672 | QP | 21.7 | 22.3 | 10.1 | 30.7 | 23.4 | 46.0 | 22.6 | 100 | 0 | |
| Vert. | 2393.300 | PK | 47.3 | 27.4 | 13.6 | 40.6 | 47.7 | 73.9 | 26.2 | 105 | 136 | |
| Vert. | 2483.500 | PK | 45.9 | 27.4 | 13.6 | 40.5 | 46.4 | 73.9 | 27.5 | 105 | 136 | |
| Vert. | 2487.613 | PK | 46.5 | 27.4 | 13.6 | 40.5 | 47.0 | 73.9 | 26.9 | 105 | 136 | |
| Vert. | 2566.357 | PK | 46.6 | 27.5 | 13.7 | 40.6 | 47.2 | 73.9 | 26.7 | 105 | 136 | |
| Vert. | 4960.000 | PK | 44.8 | 31.0 | 5.9 | 36.5 | 45.2 | 73.9 | 28.7 | 100 | 0 | |
| Vert. | 7440.000 | PK | 45.4 | 36.7 | 7.3 | 38.4 | 51.0 | 73.9 | 22.9 | 100 | 0 | |
| Vert. | 9920.000 | PK | 43.2 | 38.7 | 8.6 | 37.2 | 53.3 | 73.9 | 20.6 | 100 | 0 | |
| Vert. | 12400.000 | PK | 47.7 | 39.4 | 9.9 | 38.0 | 59.0 | 73.9 | 14.9 | 100 | 358 | |
| Vert. | 14880.000 | PK | 45.2 | 41.2 | 1.2 | 37.9 | 49.7 | 73.9 | 24.2 | 100 | 55 | |
| Vert. | 2393.300 | AV | 36.9 | 27.4 | 13.6 | 40.6 | 37.3 | 53.9 | 16.6 | 105 | 136 | VBW:270Hz |
| Vert. | 2483.500 | AV | 35.9 | 27.4 | 13.6 | 40.5 | 36.4 | 53.9 | 17.5 | 105 | 136 | VBW:270Hz |
| Vert. | 2487.613 | AV | 36.0 | 27.4 | 13.6 | 40.5 | 36.5 | 53.9 | 17.4 | 105 | 136 | VBW:270Hz |
| Vert. | 2566.357 | AV | 35.9 | 27.5 | 13.7 | 40.6 | 36.5 | 53.9 | 17.4 | 105 | 136 | VBW:270Hz |
| Vert. | 4960.000 | AV | 32.5 | 31.0 | 5.9 | 36.5 | 32.9 | 53.9 | 21.0 | 100 | 0 | VBW:270Hz |
| Vert. | 7440.000 | AV | 34.9 | 36.7 | 7.3 | 38.4 | 40.5 | 53.9 | 13.4 | 100 | 0 | VBW:270Hz |
| Vert. | 9920.000 | AV | 32.5 | 38.7 | 8.6 | 37.2 | 42.6 | 53.9 | 11.3 | 100 | 0 | VBW:270Hz |
| Vert. | 12400.000 | AV | 36.8 | 39.4 | 9.9 | 38.0 | 48.1 | 53.9 | 5.8 | 100 | 358 | VBW:270Hz |
| Vert. | 14880.000 | AV | 35.7 | 41.2 | 1.2 | 37.9 | 40.2 | 53.9 | 13.7 | 100 | 55 | VBW:10Hz |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amprifier)

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

Distance factor: 13GHz-40GHz $20\log(3.0m/1.0m) = 9.5dB$

UL Japan, Inc.

Shonan EMC Lab.

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Facsimile : +81 463 50 6401

Radiated Emission

| | | | | | |
|------------------------|-----------------------------------|------------------|------------------|------------------|------------------|
| Test place | UL Japan, Inc. Shonan EMC Lab. | | | | |
| Semi Anechoic Chamber | No.2 | No.2 | No.2 | No.2 | No.2 |
| Date | March 20, 2011 | June 7, 2011 | June 13, 2011 | June 16, 2011 | June 21, 2011 |
| Temperature / Humidity | 27deg.C. , 47%RH | 24deg.C. , 60%RH | 23deg.C. , 64%RH | 25deg.C. , 65%RH | 25deg.C. , 57%RH |
| Engineer | Shinichi Takano | Tatsuya Arai | Shinichi Takano | Shinichi Takano | Akio Hayashi |
| Mode | Tx, 2402 MHz Bluetooth, 3-DH5, | | | | |

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Height [cm] | Angle [deg.] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|-------------|--------------|-----------|
| Hori. | 942.434 | QP | 22.0 | 22.4 | 10.2 | 30.6 | 24.0 | 46.0 | 22.0 | 100 | 0 | |
| Hori. | 2320.117 | PK | 47.5 | 27.3 | 13.5 | 40.6 | 47.7 | 73.9 | 26.2 | 119 | 70 | |
| Hori. | 2390.000 | PK | 46.1 | 27.4 | 13.6 | 40.6 | 46.5 | 73.9 | 27.4 | 119 | 70 | |
| Hori. | 2399.567 | PK | 52.9 | 27.4 | 13.6 | 40.6 | 53.3 | 73.9 | 20.6 | 119 | 70 | |
| Hori. | 2483.157 | PK | 46.9 | 27.4 | 13.6 | 40.5 | 47.4 | 73.9 | 26.5 | 119 | 70 | |
| Hori. | 4804.000 | PK | 42.7 | 30.5 | 5.9 | 36.6 | 42.5 | 73.9 | 31.4 | 100 | 0 | |
| Hori. | 7206.000 | PK | 46.0 | 36.2 | 7.3 | 38.4 | 51.1 | 73.9 | 22.8 | 100 | 0 | |
| Hori. | 9608.000 | PK | 43.4 | 38.3 | 8.6 | 37.1 | 53.2 | 73.9 | 20.7 | 100 | 0 | |
| Hori. | 12010.000 | PK | 45.8 | 39.4 | 9.9 | 37.9 | 57.2 | 73.9 | 16.7 | 100 | 0 | |
| Hori. | 14412.000 | PK | 46.2 | 41.1 | 1.1 | 37.3 | 51.1 | 73.9 | 22.8 | 100 | 359 | |
| Hori. | 2320.117 | AV | 35.8 | 27.3 | 13.5 | 40.6 | 36.0 | 53.9 | 17.9 | 119 | 70 | VBW:270Hz |
| Hori. | 2390.000 | AV | 35.5 | 27.4 | 13.6 | 40.6 | 35.9 | 53.9 | 18.0 | 119 | 70 | VBW:270Hz |
| Hori. | 2399.567 | AV | 39.1 | 27.4 | 13.6 | 40.6 | 39.5 | 53.9 | 14.4 | 119 | 70 | VBW:270Hz |
| Hori. | 2483.157 | AV | 36.0 | 27.4 | 13.6 | 40.5 | 36.5 | 53.9 | 17.4 | 119 | 70 | VBW:270Hz |
| Hori. | 4804.000 | AV | 32.2 | 30.5 | 5.9 | 36.6 | 32.0 | 53.9 | 21.9 | 100 | 0 | VBW:270Hz |
| Hori. | 7206.000 | AV | 35.0 | 36.2 | 7.3 | 38.4 | 40.1 | 53.9 | 13.8 | 100 | 0 | VBW:270Hz |
| Hori. | 9608.000 | AV | 33.0 | 38.3 | 8.6 | 37.1 | 42.8 | 53.9 | 11.1 | 100 | 0 | VBW:270Hz |
| Hori. | 12010.000 | AV | 35.0 | 39.4 | 9.9 | 37.9 | 46.4 | 53.9 | 7.5 | 100 | 0 | VBW:270Hz |
| Hori. | 14412.000 | AV | 35.7 | 41.1 | 1.1 | 37.3 | 40.6 | 53.9 | 13.3 | 100 | 359 | VBW:10Hz |
| Vert. | 942.434 | QP | 21.9 | 22.4 | 10.2 | 30.6 | 23.9 | 46.0 | 22.1 | 100 | 0 | |
| Vert. | 2320.480 | PK | 46.0 | 27.3 | 13.5 | 40.6 | 46.2 | 73.9 | 27.7 | 106 | 139 | |
| Vert. | 2390.000 | PK | 45.8 | 27.4 | 13.6 | 40.6 | 46.2 | 73.9 | 27.7 | 106 | 139 | |
| Vert. | 2399.567 | PK | 51.9 | 27.4 | 13.6 | 40.6 | 52.3 | 73.9 | 21.6 | 106 | 139 | |
| Vert. | 2483.083 | PK | 45.7 | 27.4 | 13.6 | 40.5 | 46.2 | 73.9 | 27.7 | 106 | 139 | |
| Vert. | 4804.000 | PK | 42.8 | 30.5 | 5.9 | 36.6 | 42.6 | 73.9 | 31.3 | 100 | 0 | |
| Vert. | 7206.000 | PK | 46.0 | 36.2 | 7.3 | 38.4 | 51.1 | 73.9 | 22.8 | 100 | 0 | |
| Vert. | 9608.000 | PK | 43.8 | 38.3 | 8.6 | 37.1 | 53.6 | 73.9 | 20.3 | 100 | 0 | |
| Vert. | 12010.000 | PK | 45.6 | 39.4 | 9.9 | 37.9 | 57.0 | 73.9 | 16.9 | 100 | 0 | |
| Vert. | 14412.000 | PK | 43.6 | 41.1 | 1.1 | 37.3 | 48.5 | 73.9 | 25.4 | 100 | 344 | |
| Vert. | 2320.480 | AV | 35.8 | 27.3 | 13.5 | 40.6 | 36.0 | 53.9 | 17.9 | 106 | 139 | VBW:270Hz |
| Vert. | 2390.000 | AV | 35.7 | 27.4 | 13.6 | 40.6 | 36.1 | 53.9 | 17.8 | 106 | 139 | VBW:270Hz |
| Vert. | 2399.567 | AV | 38.6 | 27.4 | 13.6 | 40.6 | 39.0 | 53.9 | 14.9 | 106 | 139 | VBW:270Hz |
| Vert. | 2483.083 | AV | 35.9 | 27.4 | 13.6 | 40.5 | 36.4 | 53.9 | 17.5 | 106 | 139 | VBW:270Hz |
| Vert. | 4804.000 | AV | 32.5 | 30.5 | 5.9 | 36.6 | 32.3 | 53.9 | 21.6 | 100 | 0 | VBW:270Hz |
| Vert. | 7206.000 | AV | 35.3 | 36.2 | 7.3 | 38.4 | 40.4 | 53.9 | 13.5 | 100 | 0 | VBW:270Hz |
| Vert. | 9608.000 | AV | 33.2 | 38.3 | 8.6 | 37.1 | 43.0 | 53.9 | 10.9 | 100 | 0 | VBW:270Hz |
| Vert. | 12010.000 | AV | 35.8 | 39.4 | 9.9 | 37.9 | 47.2 | 53.9 | 6.7 | 100 | 0 | VBW:270Hz |
| Vert. | 14412.000 | AV | 34.5 | 41.1 | 1.1 | 37.3 | 39.4 | 53.9 | 14.5 | 100 | 344 | VBW:10Hz |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier)

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

Distance factor: 13GHz-40GHz $20\log(3.0m/1.0m)= 9.5dB$ **20dBc Data Sheet (RBW 100kHz, VBW 300kHz)**

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant Factor [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-------------------|-----------|-----------|-----------------|----------------|-------------|---------|
| Hori. | 2402.000 | PK | 91.7 | 27.4 | 13.7 | 40.6 | 92.2 | - | - | Carrier |
| Hori. | 2400.000 | PK | 40.2 | 27.4 | 13.7 | 40.6 | 40.7 | 72.2 | 31.5 | |
| Vert. | 2402.000 | PK | 89.2 | 27.4 | 13.7 | 40.6 | 89.7 | - | - | Carrier |
| Vert. | 2400.000 | PK | 39.6 | 27.4 | 13.7 | 40.6 | 40.1 | 69.7 | 29.6 | |

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Facsimile : +81 463 50 6401

Radiated Emission

| | | | | |
|------------------------|-----------------------------------|------------------|------------------|------------------|
| Test place | UL Japan, Inc. Shonan EMC Lab. | | | |
| Semi Anechoic Chamber | No.2 | No.2 | No.2 | No.2 |
| Date | June 7, 2011 | June 13, 2011 | June 16, 2011 | June 21, 2011 |
| Temperature / Humidity | 24deg.C. , 60%RH | 23deg.C. , 64%RH | 25deg.C. , 65%RH | 25deg.C. , 57%RH |
| Engineer | Tatsuya Arai | Shinichi Takano | Shinichi Takano | Akio Hayashi |
| Mode | Tx, 2441 MHz Bluetooth, 3-DH5, | | | |

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Height [cm] | Angle [deg.] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|-------------|--------------|-----------|
| Hori. | 948.340 | QP | 21.9 | 22.5 | 10.2 | 30.6 | 24.0 | 46.0 | 22.0 | 100 | 0 | |
| Hori. | 2357.395 | PK | 46.2 | 27.3 | 13.5 | 40.6 | 46.4 | 73.9 | 27.5 | 115 | 77 | |
| Hori. | 2527.260 | PK | 46.1 | 27.5 | 13.7 | 40.5 | 46.8 | 73.9 | 27.1 | 115 | 77 | |
| Hori. | 4882.000 | PK | 43.0 | 30.8 | 5.9 | 36.6 | 43.1 | 73.9 | 30.8 | 100 | 0 | |
| Hori. | 7323.000 | PK | 44.9 | 36.4 | 7.4 | 38.4 | 50.3 | 73.9 | 23.6 | 100 | 0 | |
| Hori. | 9764.000 | PK | 43.7 | 38.5 | 8.6 | 37.1 | 53.7 | 73.9 | 20.2 | 100 | 0 | |
| Hori. | 12205.000 | PK | 43.9 | 39.4 | 9.9 | 38.0 | 55.2 | 73.9 | 18.7 | 100 | 0 | |
| Hori. | 14646.000 | PK | 46.0 | 41.2 | 1.1 | 37.6 | 50.7 | 73.9 | 23.2 | 100 | 359 | |
| Hori. | 2357.395 | AV | 35.9 | 27.3 | 13.5 | 40.6 | 36.1 | 53.9 | 17.8 | 115 | 77 | VBW:270Hz |
| Hori. | 2527.260 | AV | 35.8 | 27.5 | 13.7 | 40.5 | 36.5 | 53.9 | 17.4 | 115 | 77 | VBW:270Hz |
| Hori. | 4882.000 | AV | 32.3 | 30.8 | 5.9 | 36.6 | 32.4 | 53.9 | 21.5 | 100 | 0 | VBW:270Hz |
| Hori. | 7323.000 | AV | 34.7 | 36.4 | 7.4 | 38.4 | 40.1 | 53.9 | 13.8 | 100 | 0 | VBW:270Hz |
| Hori. | 9764.000 | AV | 32.8 | 38.5 | 8.6 | 37.1 | 42.8 | 53.9 | 11.1 | 100 | 0 | VBW:270Hz |
| Hori. | 12205.000 | AV | 34.4 | 39.4 | 9.9 | 38.0 | 45.7 | 53.9 | 8.2 | 100 | 0 | VBW:270Hz |
| Hori. | 14646.000 | AV | 35.8 | 41.2 | 1.1 | 37.6 | 40.5 | 53.9 | 13.4 | 100 | 359 | VBW:10Hz |
| Vert. | 948.340 | QP | 21.8 | 22.5 | 10.2 | 30.6 | 23.9 | 46.0 | 22.1 | 100 | 0 | |
| Vert. | 2357.053 | PK | 46.2 | 27.3 | 13.5 | 40.6 | 46.4 | 73.9 | 27.5 | 103 | 141 | |
| Vert. | 2527.040 | PK | 46.2 | 27.5 | 13.7 | 40.5 | 46.9 | 73.9 | 27.0 | 103 | 141 | |
| Vert. | 4882.000 | PK | 43.0 | 30.8 | 5.9 | 36.6 | 43.1 | 73.9 | 30.8 | 100 | 0 | |
| Vert. | 7323.000 | PK | 45.0 | 36.4 | 7.4 | 38.4 | 50.4 | 73.9 | 23.5 | 100 | 0 | |
| Vert. | 9764.000 | PK | 42.6 | 38.5 | 8.6 | 37.1 | 52.6 | 73.9 | 21.3 | 100 | 0 | |
| Vert. | 12205.000 | PK | 44.5 | 39.4 | 9.9 | 38.0 | 55.8 | 73.9 | 18.1 | 100 | 0 | |
| Vert. | 14646.000 | PK | 44.5 | 41.2 | 1.1 | 37.6 | 49.2 | 73.9 | 24.7 | 100 | 58 | |
| Vert. | 2357.053 | AV | 35.9 | 27.3 | 13.5 | 40.6 | 36.1 | 53.9 | 17.8 | 103 | 141 | VBW:270Hz |
| Vert. | 2527.040 | AV | 35.8 | 27.5 | 13.7 | 40.5 | 36.5 | 53.9 | 17.4 | 103 | 141 | VBW:270Hz |
| Vert. | 4882.000 | AV | 32.3 | 30.8 | 5.9 | 36.6 | 32.4 | 53.9 | 21.5 | 100 | 0 | VBW:270Hz |
| Vert. | 7323.000 | AV | 34.6 | 36.4 | 7.4 | 38.4 | 40.0 | 53.9 | 13.9 | 100 | 0 | VBW:270Hz |
| Vert. | 9764.000 | AV | 33.0 | 38.5 | 8.6 | 37.1 | 43.0 | 53.9 | 10.9 | 100 | 0 | VBW:270Hz |
| Vert. | 12205.000 | AV | 34.0 | 39.4 | 9.9 | 38.0 | 45.3 | 53.9 | 8.6 | 100 | 0 | VBW:270Hz |
| Vert. | 14646.000 | AV | 34.5 | 41.2 | 1.1 | 37.6 | 39.2 | 53.9 | 14.7 | 100 | 58 | VBW:10Hz |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier)

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

Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

Radiated Emission

| | | | | | |
|------------------------|-----------------------------------|------------------|------------------|------------------|------------------|
| Test place | UL Japan, Inc. Shonan EMC Lab. | | | | |
| Semi Anechoic Chamber | No.2 | No.2 | No.2 | No.2 | No.2 |
| Date | March 20, 2011 | June 7, 2011 | June 13, 2011 | June 16, 2011 | June 21, 2011 |
| Temperature / Humidity | 27deg.C. , 47%RH | 24deg.C. , 60%RH | 23deg.C. , 64%RH | 25deg.C. , 65%RH | 25deg.C. , 57%RH |
| Engineer | Shinichi Takano | Tatsuya Arai | Shinichi Takano | Shinichi Takano | Akio Hayashi |
| Mode | Tx, 2480 MHz Bluetooth, 3-DH5, | | | | |

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Height [cm] | Angle [deg.] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|-------------|--------------|-----------|
| Hori. | 897.855 | QP | 22.8 | 21.9 | 10.0 | 30.9 | 23.8 | 46.0 | 22.2 | 100 | 0 | |
| Hori. | 2392.810 | PK | 46.4 | 27.4 | 13.6 | 40.6 | 46.8 | 73.9 | 27.1 | 117 | 72 | |
| Hori. | 2483.500 | PK | 47.6 | 27.4 | 13.6 | 40.5 | 48.1 | 73.9 | 25.8 | 117 | 72 | |
| Hori. | 2484.979 | PK | 47.5 | 27.4 | 13.6 | 40.5 | 48.0 | 73.9 | 25.9 | 117 | 72 | |
| Hori. | 2566.763 | PK | 45.3 | 27.5 | 13.7 | 40.6 | 45.9 | 73.9 | 28.0 | 117 | 72 | |
| Hori. | 4960.000 | PK | 42.8 | 31.0 | 5.9 | 36.5 | 43.2 | 73.9 | 30.7 | 100 | 0 | |
| Hori. | 7440.000 | PK | 44.6 | 36.7 | 7.3 | 38.4 | 50.2 | 73.9 | 23.7 | 100 | 0 | |
| Hori. | 9920.000 | PK | 43.6 | 38.7 | 8.6 | 37.2 | 53.7 | 73.9 | 20.2 | 100 | 0 | |
| Hori. | 12400.000 | PK | 42.6 | 39.4 | 9.9 | 38.0 | 53.9 | 73.9 | 20.0 | 100 | 0 | |
| Hori. | 14880.000 | PK | 46.4 | 41.2 | 1.2 | 37.9 | 50.9 | 73.9 | 23.0 | 100 | 359 | |
| Hori. | 2392.810 | AV | 36.2 | 27.4 | 13.6 | 40.6 | 36.6 | 53.9 | 17.3 | 117 | 72 | VBW:270Hz |
| Hori. | 2483.500 | AV | 36.7 | 27.4 | 13.6 | 40.5 | 37.2 | 53.9 | 16.7 | 117 | 72 | VBW:270Hz |
| Hori. | 2484.979 | AV | 36.3 | 27.4 | 13.6 | 40.5 | 36.8 | 53.9 | 17.1 | 117 | 72 | VBW:270Hz |
| Hori. | 2566.763 | AV | 35.7 | 27.5 | 13.7 | 40.6 | 36.3 | 53.9 | 17.6 | 117 | 72 | VBW:270Hz |
| Hori. | 4960.000 | AV | 32.2 | 31.0 | 5.9 | 36.5 | 32.6 | 53.9 | 21.3 | 100 | 0 | VBW:270Hz |
| Hori. | 7440.000 | AV | 34.5 | 36.7 | 7.3 | 38.4 | 40.1 | 53.9 | 13.8 | 100 | 0 | VBW:270Hz |
| Hori. | 9920.000 | AV | 31.5 | 38.7 | 8.6 | 37.2 | 41.6 | 53.9 | 12.3 | 100 | 0 | VBW:270Hz |
| Hori. | 12400.000 | AV | 33.7 | 39.4 | 9.9 | 38.0 | 45.0 | 53.9 | 8.9 | 100 | 0 | VBW:270Hz |
| Hori. | 14880.000 | AV | 36.5 | 41.2 | 1.2 | 37.9 | 41.0 | 53.9 | 12.9 | 100 | 359 | VBW:10Hz |
| Vert. | 897.855 | QP | 22.7 | 21.9 | 10.0 | 30.9 | 23.7 | 46.0 | 22.3 | 100 | 0 | |
| Vert. | 2393.180 | PK | 46.7 | 27.4 | 13.6 | 40.6 | 47.1 | 73.9 | 26.8 | 103 | 141 | |
| Vert. | 2483.500 | PK | 46.6 | 27.4 | 13.6 | 40.5 | 47.1 | 73.9 | 26.8 | 103 | 141 | |
| Vert. | 2485.395 | PK | 46.0 | 27.4 | 13.6 | 40.5 | 46.5 | 73.9 | 27.4 | 103 | 141 | |
| Vert. | 2566.787 | PK | 45.7 | 27.5 | 13.7 | 40.6 | 46.3 | 73.9 | 27.6 | 103 | 141 | |
| Vert. | 4960.000 | PK | 43.5 | 31.0 | 5.9 | 36.5 | 43.9 | 73.9 | 30.0 | 100 | 0 | |
| Vert. | 7440.000 | PK | 46.1 | 36.7 | 7.3 | 38.4 | 51.7 | 73.9 | 22.2 | 100 | 0 | |
| Vert. | 9920.000 | PK | 42.4 | 38.7 | 8.6 | 37.2 | 52.5 | 73.9 | 21.4 | 100 | 0 | |
| Vert. | 12400.000 | PK | 47.2 | 39.4 | 9.9 | 38.0 | 58.5 | 73.9 | 15.4 | 100 | 110 | |
| Vert. | 14880.000 | PK | 45.5 | 41.2 | 1.2 | 37.9 | 50.0 | 73.9 | 23.9 | 100 | 63 | |
| Vert. | 2393.180 | AV | 36.0 | 27.4 | 13.6 | 40.6 | 36.4 | 53.9 | 17.5 | 103 | 141 | VBW:270Hz |
| Vert. | 2483.500 | AV | 36.2 | 27.4 | 13.6 | 40.5 | 36.7 | 53.9 | 17.2 | 103 | 141 | VBW:270Hz |
| Vert. | 2485.395 | AV | 35.9 | 27.4 | 13.6 | 40.5 | 36.4 | 53.9 | 17.5 | 103 | 141 | VBW:270Hz |
| Vert. | 2566.787 | AV | 35.7 | 27.5 | 13.7 | 40.6 | 36.3 | 53.9 | 17.6 | 103 | 141 | VBW:270Hz |
| Vert. | 4960.000 | AV | 32.3 | 31.0 | 5.9 | 36.5 | 32.7 | 53.9 | 21.2 | 100 | 0 | VBW:270Hz |
| Vert. | 7440.000 | AV | 34.6 | 36.7 | 7.3 | 38.4 | 40.2 | 53.9 | 13.7 | 100 | 0 | VBW:270Hz |
| Vert. | 9920.000 | AV | 32.4 | 38.7 | 8.6 | 37.2 | 42.5 | 53.9 | 11.4 | 100 | 0 | VBW:270Hz |
| Vert. | 12400.000 | AV | 38.5 | 39.4 | 9.9 | 38.0 | 49.8 | 53.9 | 4.1 | 100 | 110 | VBW:270Hz |
| Vert. | 14880.000 | AV | 35.3 | 41.2 | 1.2 | 37.9 | 39.8 | 53.9 | 14.1 | 100 | 63 | VBW:10Hz |

Result = Reading + Ant Factor + Loss (Cable+Attenuator+Filter-Distance factor(above 13GHz)) - Gain(Amplifier)

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

Distance factor: 13GHz-40GHz 20log(3.0m/1.0m)= 9.5dB

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Caluculation of VBW and Dwell Time Factor

DH5,

VBW (AV) Calculation

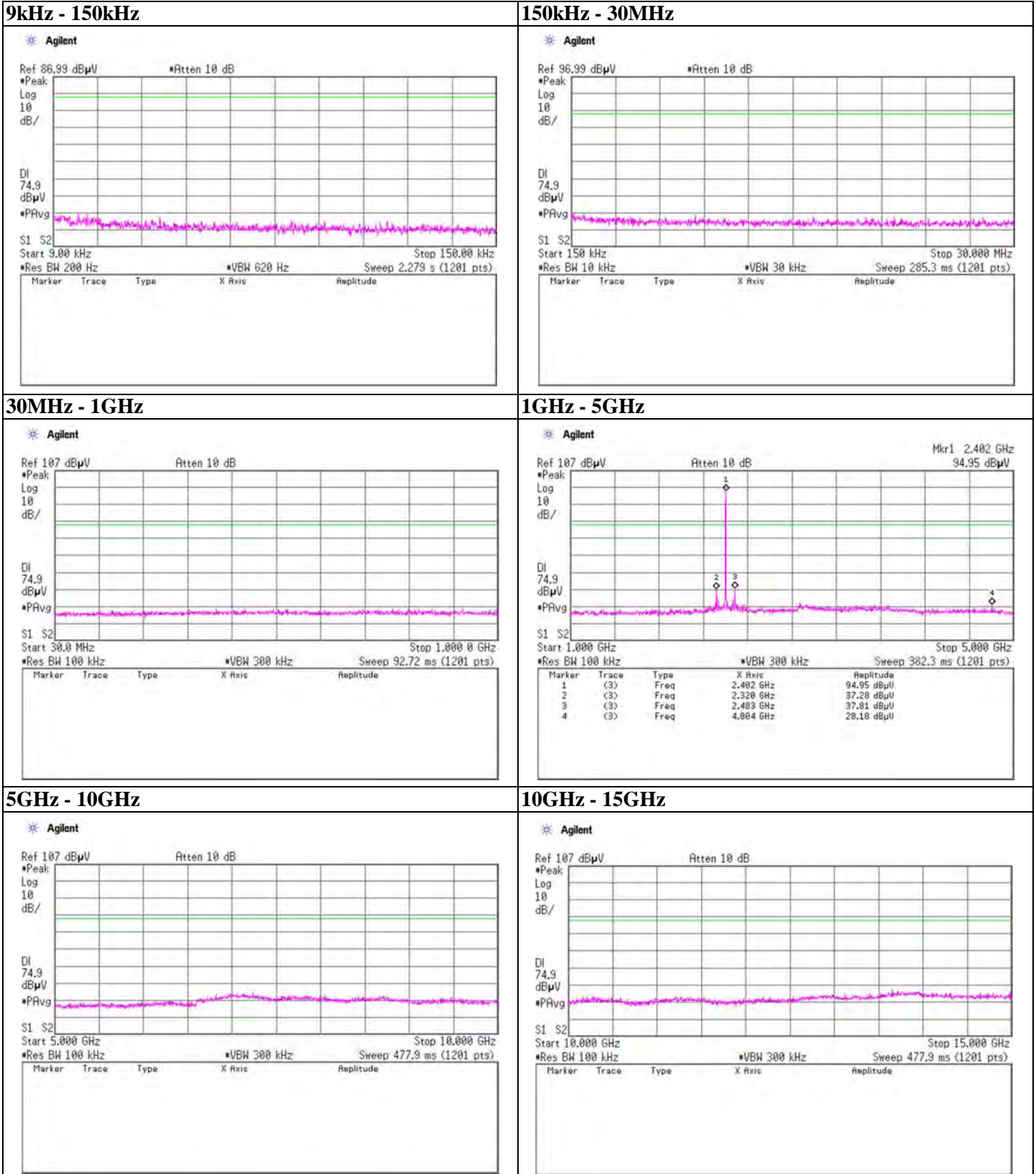
| DH5, | 3-DH5, |
|--|--|
| VBW: $1/x = 266\text{Hz} < 270\text{Hz}$ x: (Tx on+Tx off) = 3.75ms | VBW: $1/x = 266\text{Hz} < 270\text{Hz}$ x: (Tx on+Tx off) = 3.75ms |
| <p>Agilent L Mkr1 3.75 ms -0.13 dB</p> <p>Ref 107 dBμV *Atten 10 dB</p> <p>Log 10 dB/</p> <p>*PAvg</p> <p>S1 S2 W3 FS AA</p> <p>E(f): FTun</p> <p>Center 2.441 000 GHz Span 0 Hz</p> <p>Res BW (CISPR) 1 MHz *VBW 3 MHz Sweep 10 ms (1001 pts)</p> | <p>Agilent L Mkr1 3.75 ms -0.08 dB</p> <p>Ref 107 dBμV *Atten 10 dB</p> <p>Log 10 dB/</p> <p>*PAvg</p> <p>S1 S2 W3 FS AA</p> <p>E(f): FTun</p> <p>Center 2.441 000 GHz Span 0 Hz</p> <p>Res BW (CISPR) 1 MHz *VBW 3 MHz Sweep 10 ms (1001 pts)</p> |

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Spurious emission (Conducted)

DH5,
Tx, 2402MHz



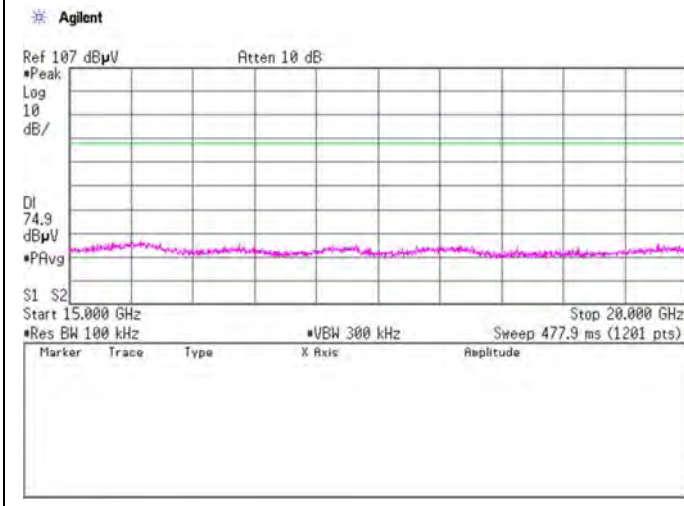
UL Japan, Inc.
Shonan EMC Lab.

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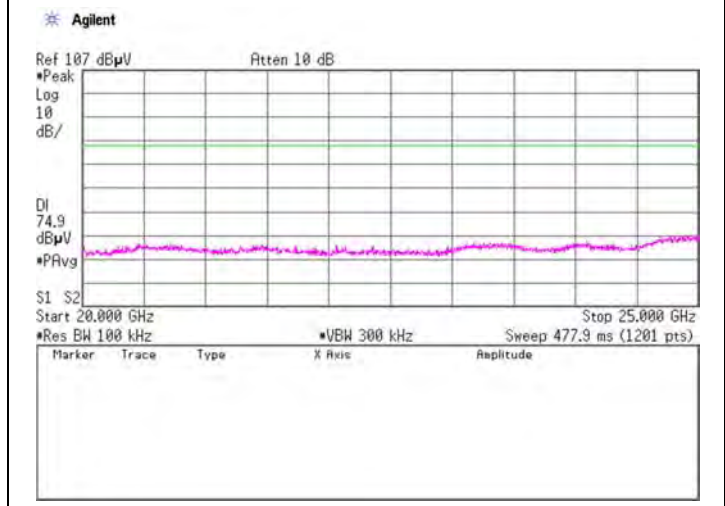
Spurious emission (Conducted)

DH5,
Tx, 2402MHz

15GHz - 20GHz



20GHz - 25GHz



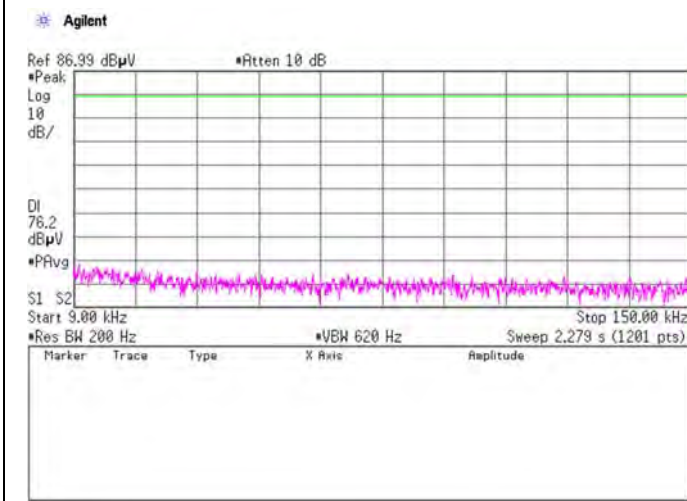
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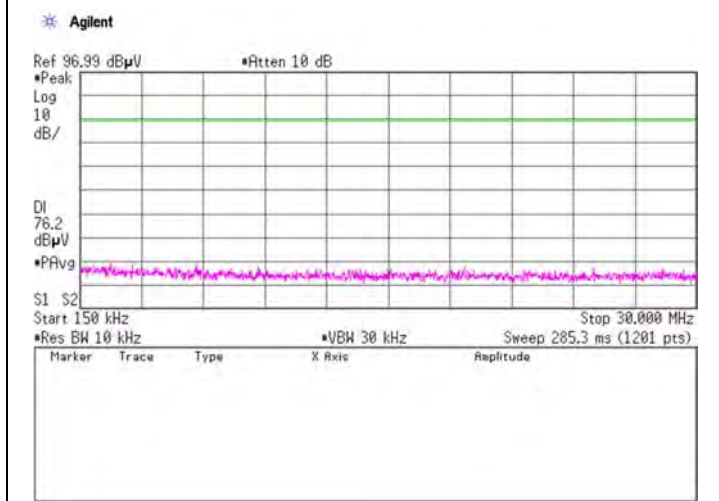
Spurious emission (Conducted)

DH5,
Tx, 2441MHz

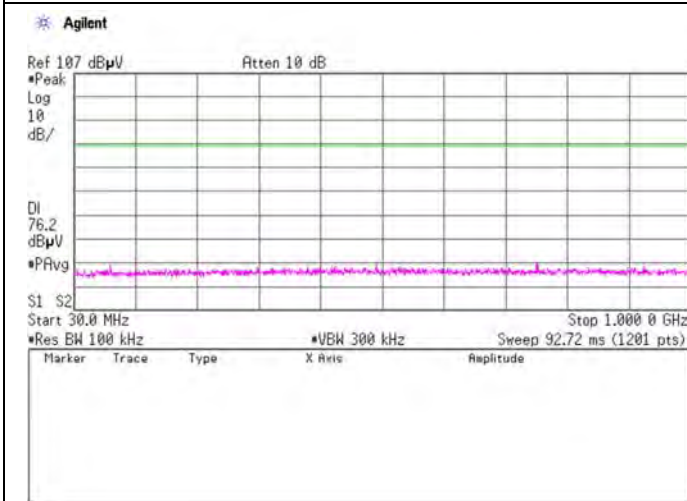
9kHz - 150kHz



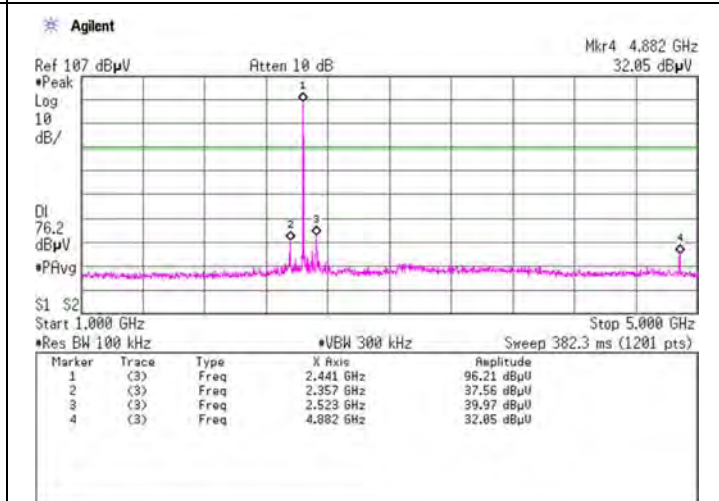
150kHz - 30MHz



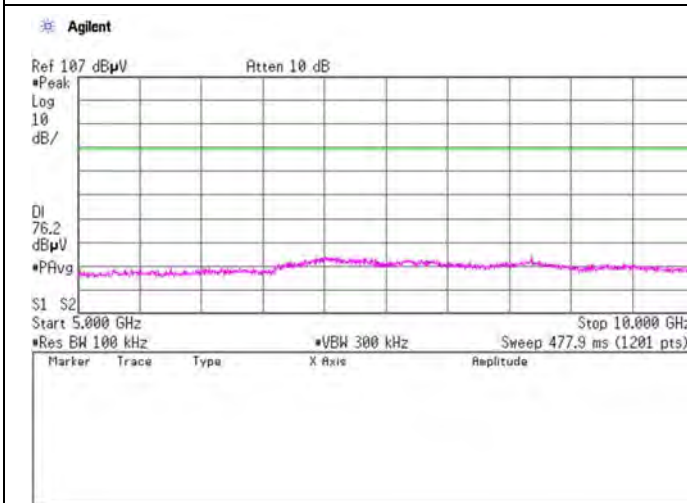
30MHz - 1GHz



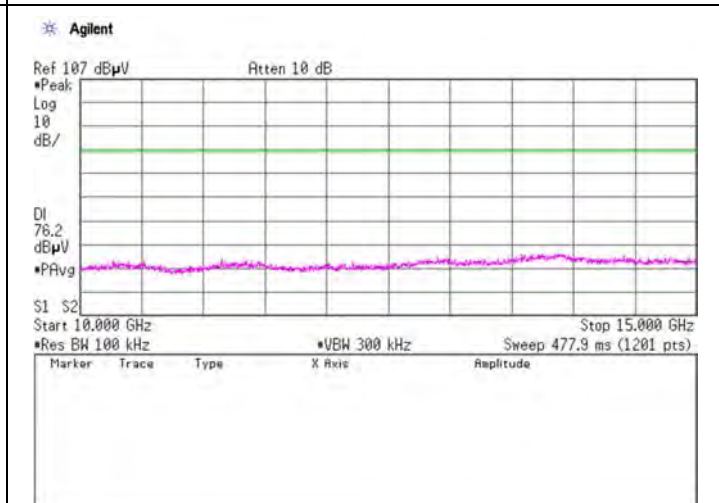
1GHz - 5GHz



5GHz - 10GHz



10GHz - 15GHz



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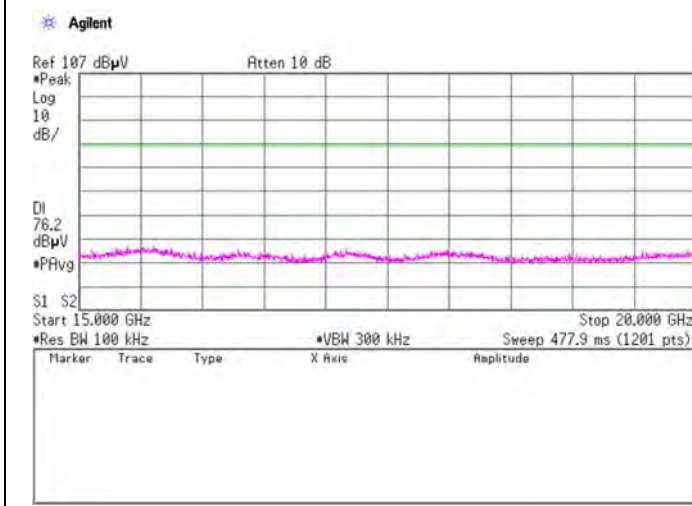
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Spurious emission (Conducted)

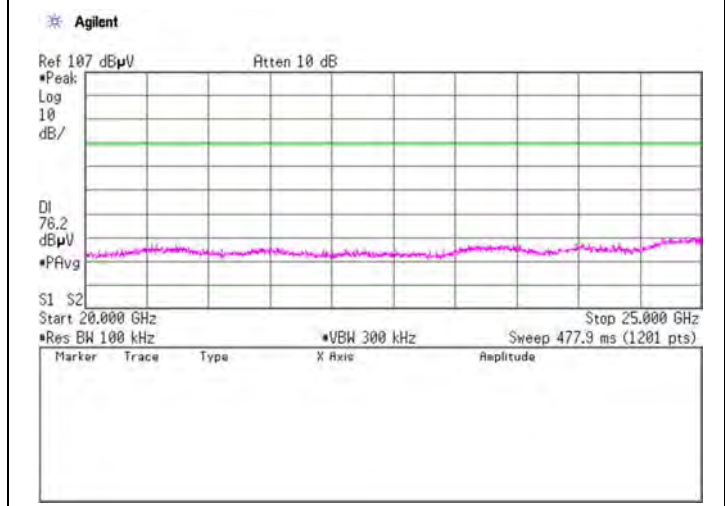
DH5,

Tx, 2441MHz

15GHz - 20GHz



20GHz - 25GHz



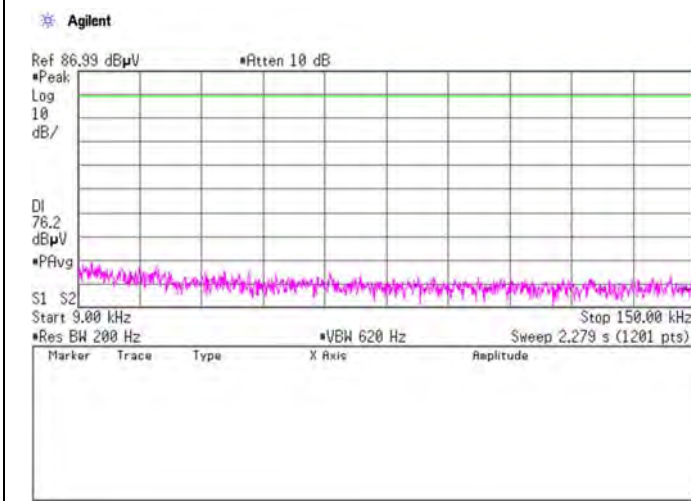
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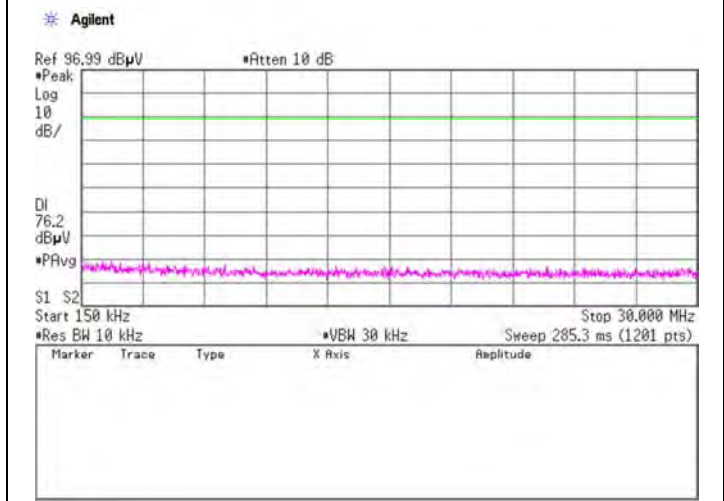
Spurious emission (Conducted)

DH5,
Tx, 2480MHz

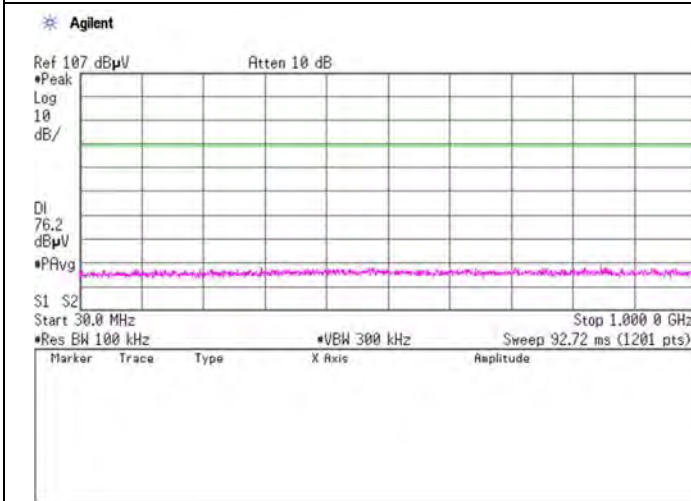
9kHz - 150kHz



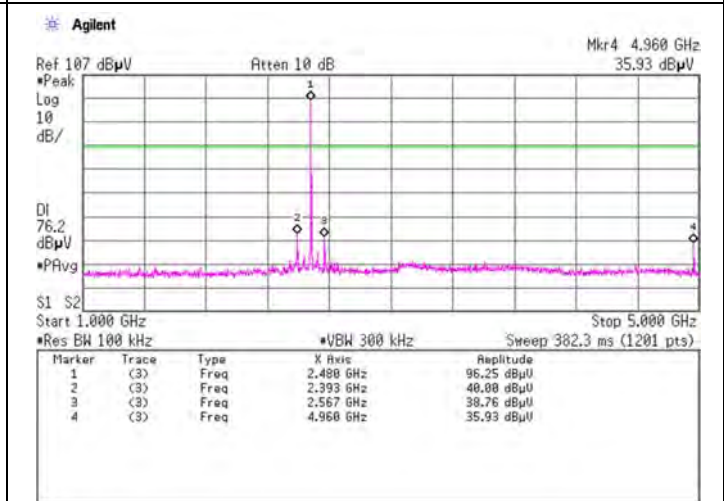
150kHz - 30MHz



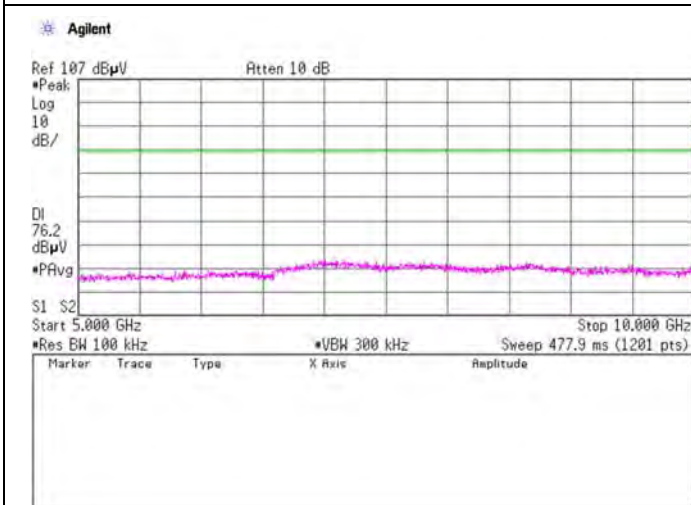
30MHz - 1GHz



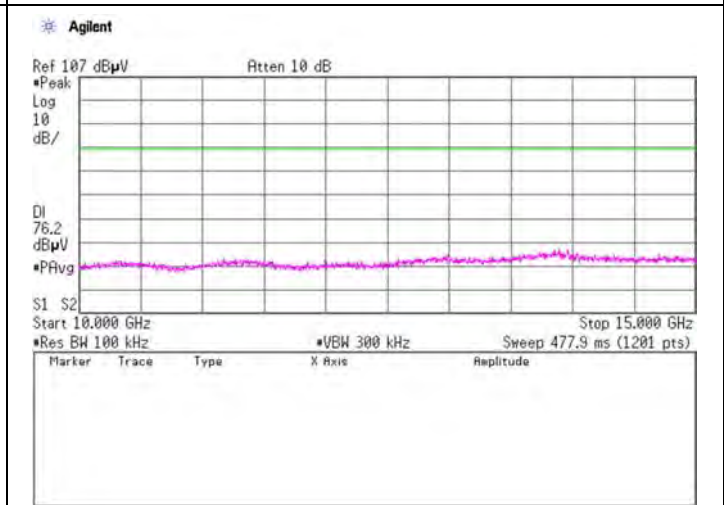
1GHz - 5GHz



5GHz - 10GHz



10GHz - 15GHz



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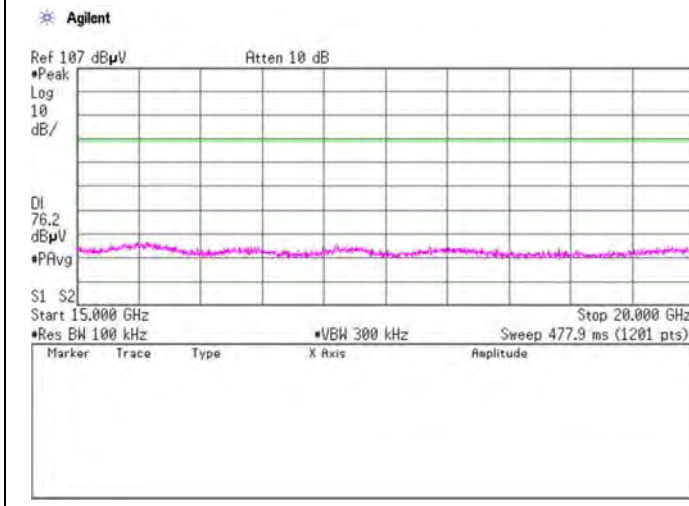
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Spurious emission (Conducted)

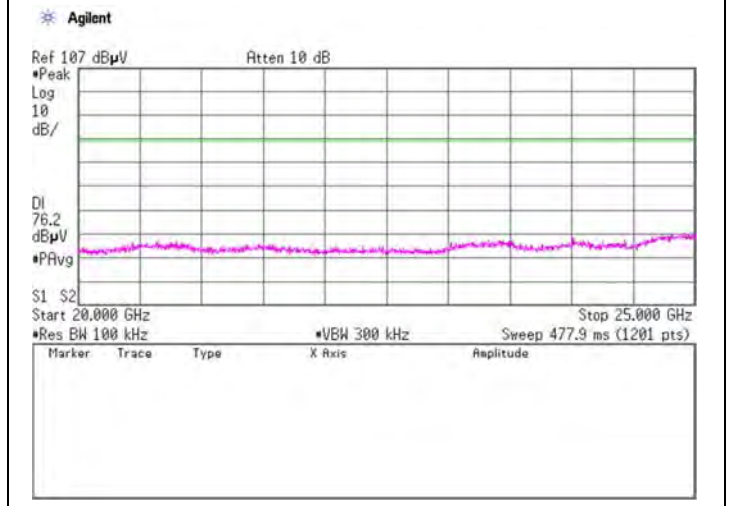
DH5,

Tx, 2480MHz

15GHz - 20GHz



20GHz - 25GHz



UL Japan, Inc.
Shonan EMC Lab.

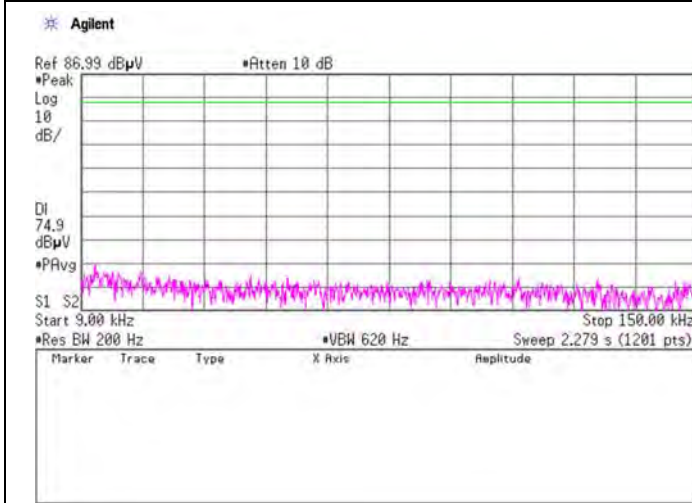
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
 Telephone : +81 463 50 6400
 Facsimile : +81 463 50 6401

Spurious emission (Conducted)

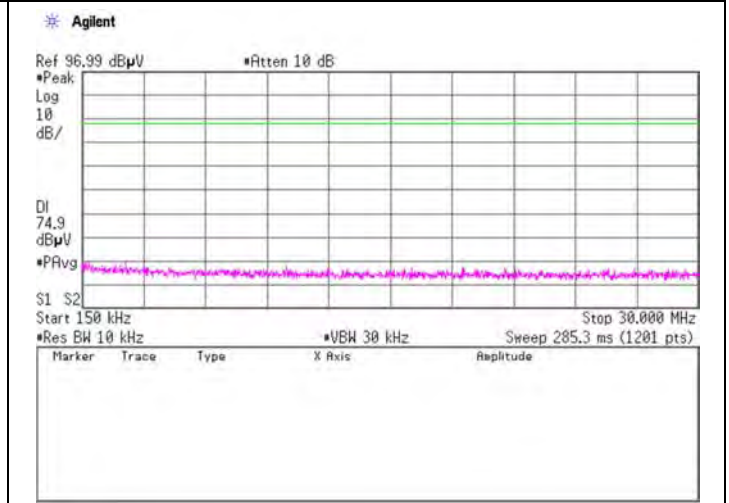
3-DH5,

Tx, 2402MHz

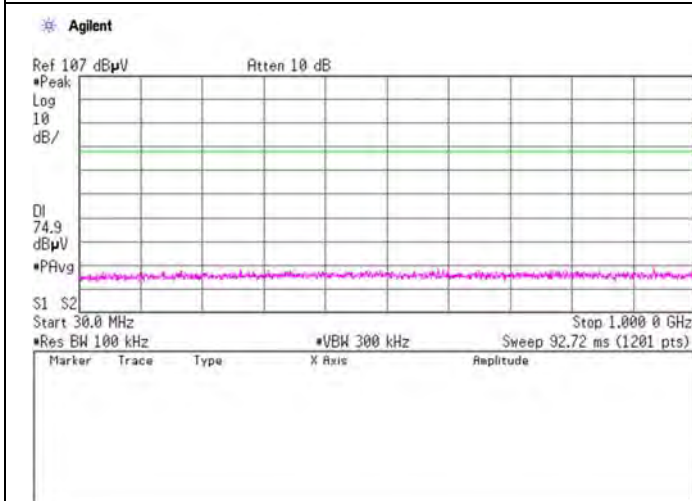
9kHz - 150kHz



150kHz - 30MHz



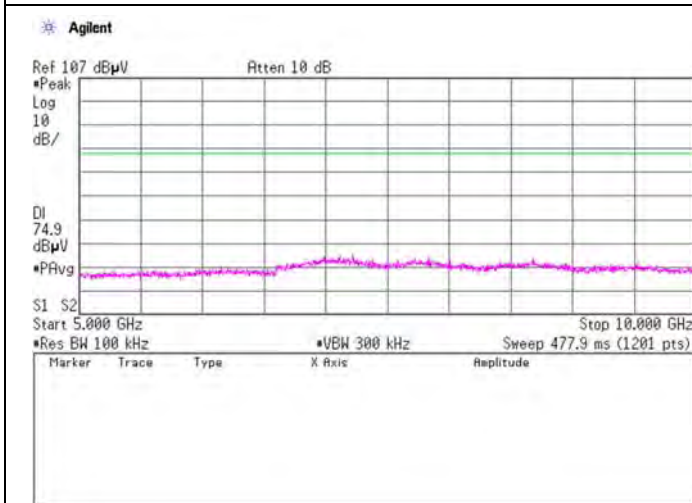
30MHz - 1GHz



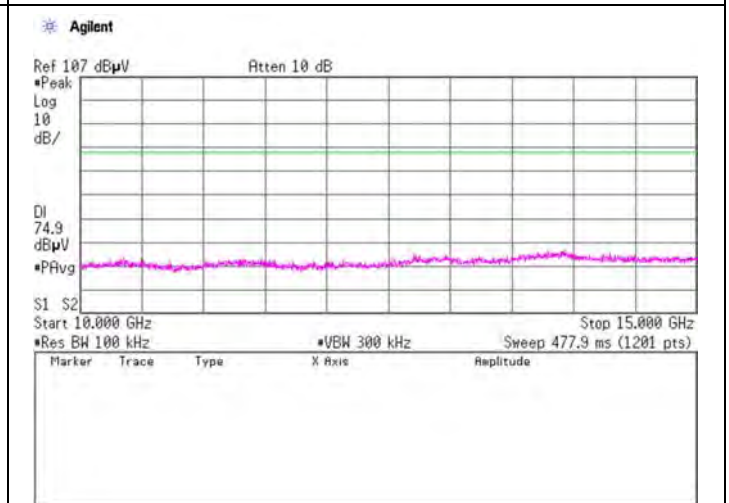
1GHz - 5GHz



5GHz - 10GHz



10GHz - 15GHz



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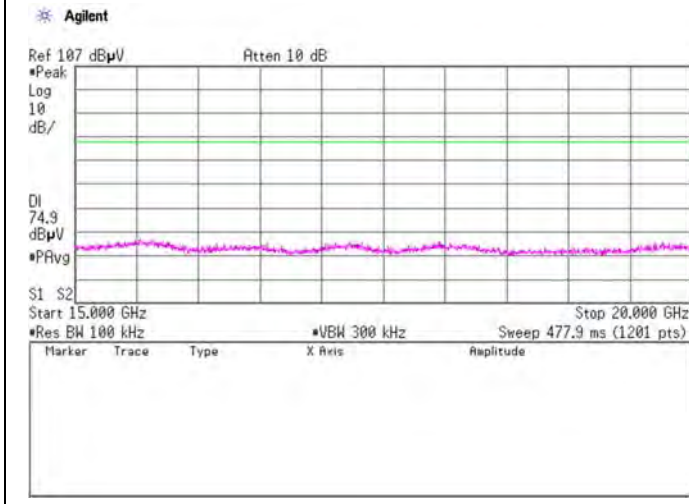
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
 Telephone : +81 463 50 6400
 Facsimile : +81 463 50 6401

Spurious emission (Conducted)

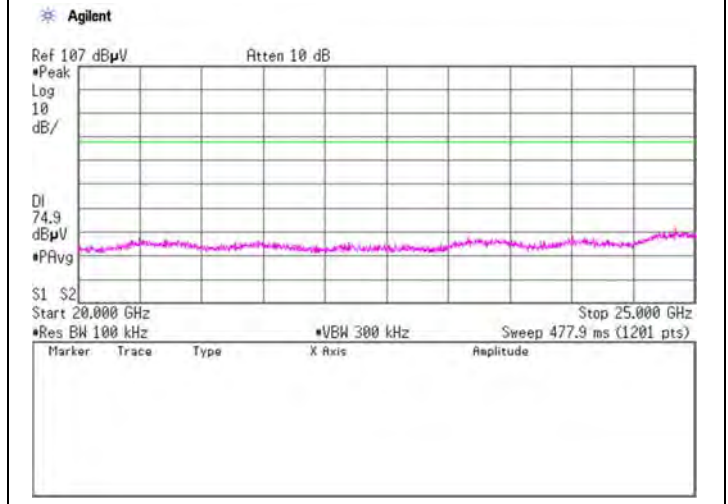
3-DH5,

Tx, 2402MHz

15GHz - 20GHz



20GHz - 25GHz



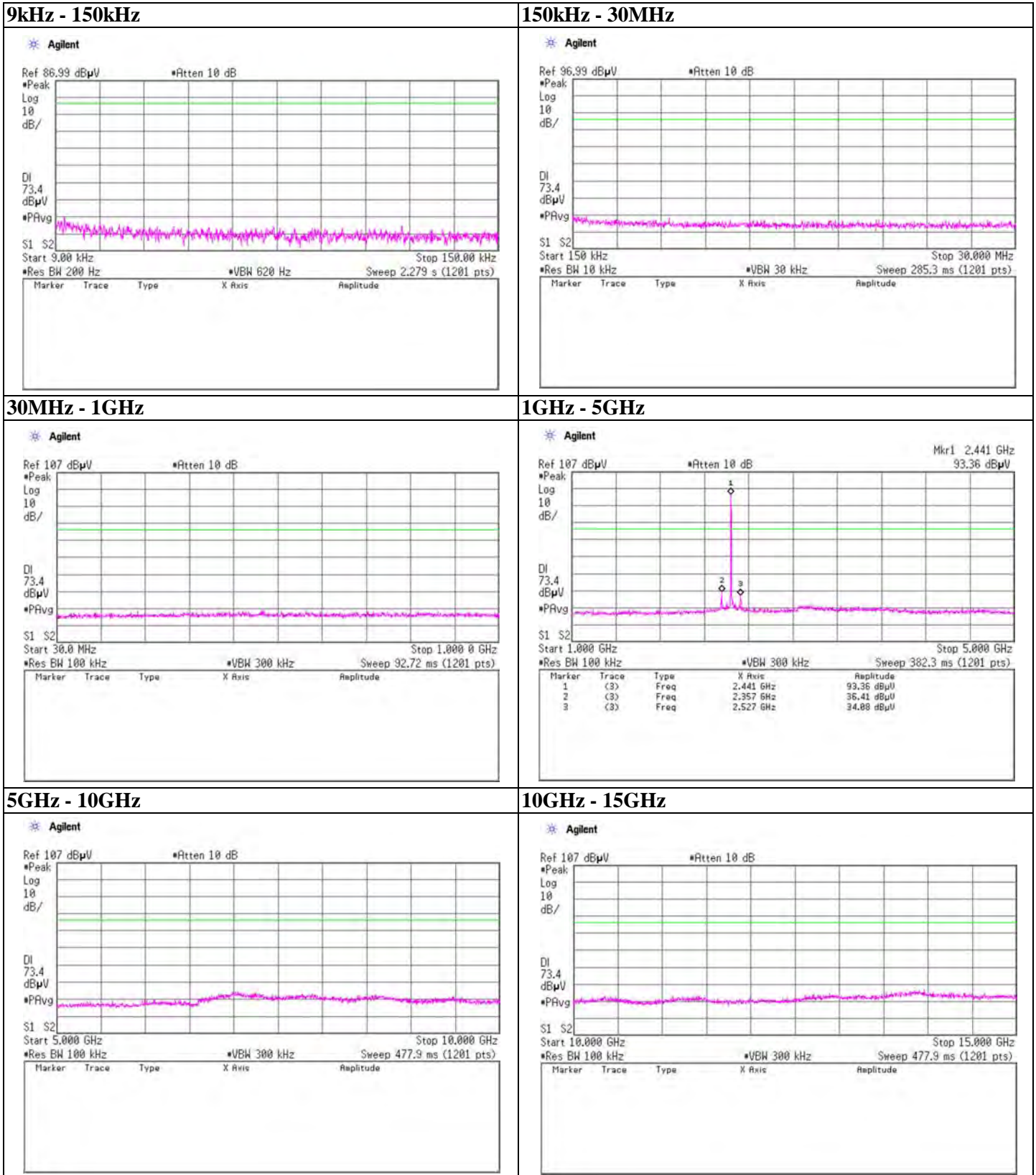
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 Facsimile : +81 463 50 6401

Spurious emission (Conducted)

3-DH5,

Tx, 2441MHz



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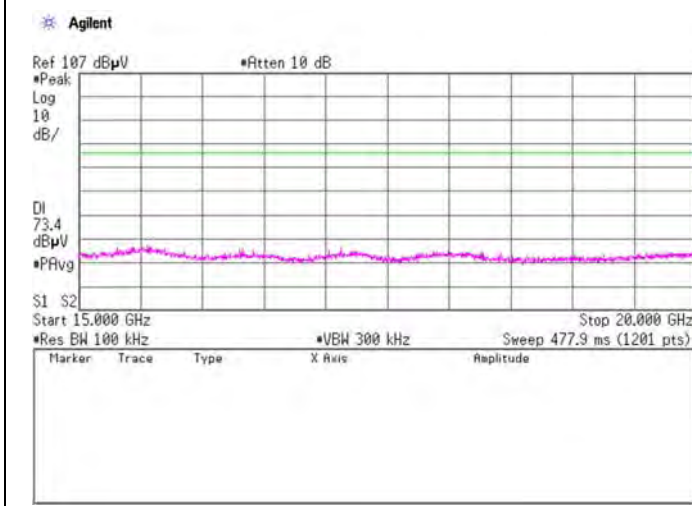
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
 Telephone : +81 463 50 6400
 Facsimile : +81 463 50 6401

Spurious emission (Conducted)

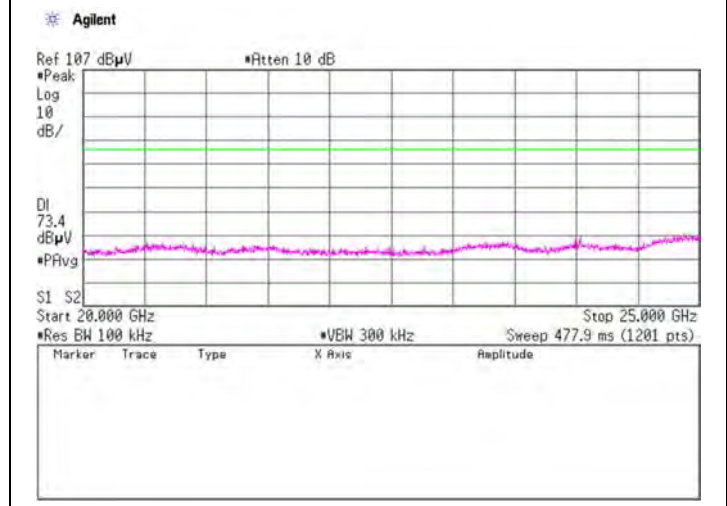
3-DH5,

Tx, 2441MHz

15GHz - 20GHz



20GHz - 25GHz



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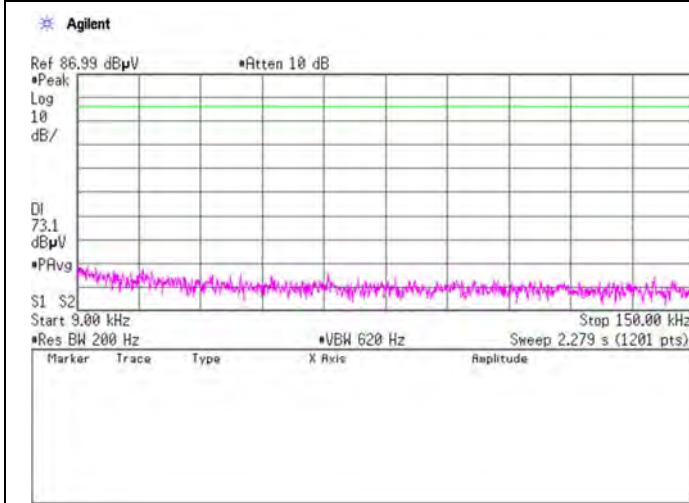
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
 Telephone : +81 463 50 6400
 Facsimile : +81 463 50 6401

Spurious emission (Conducted)

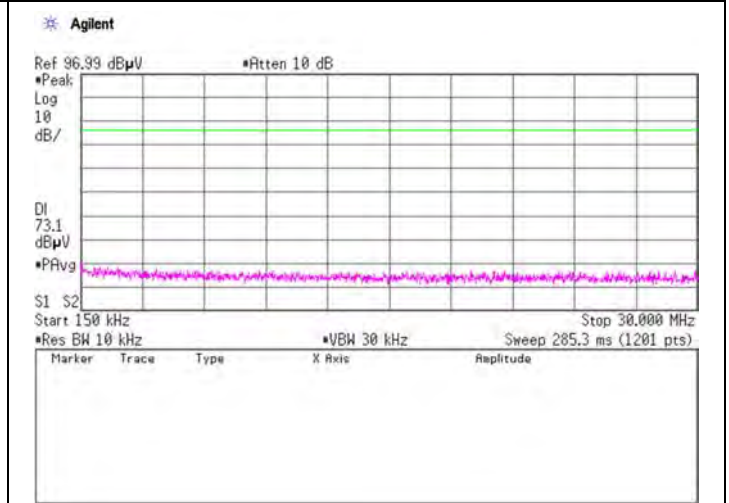
3-DH5,

Tx, 2480MHz

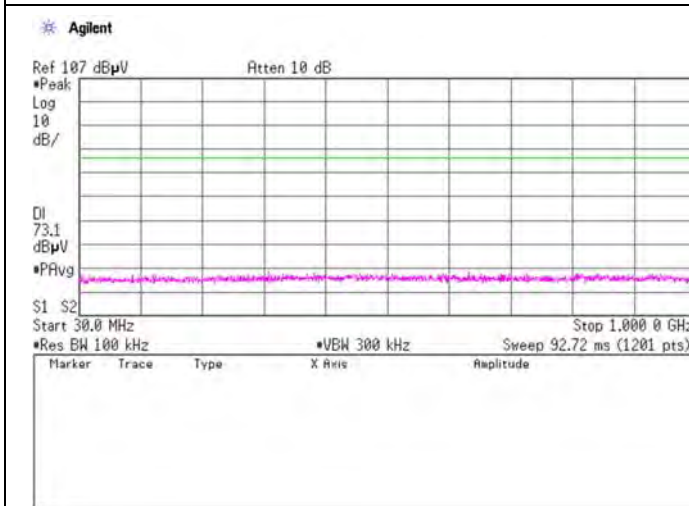
9kHz - 150kHz



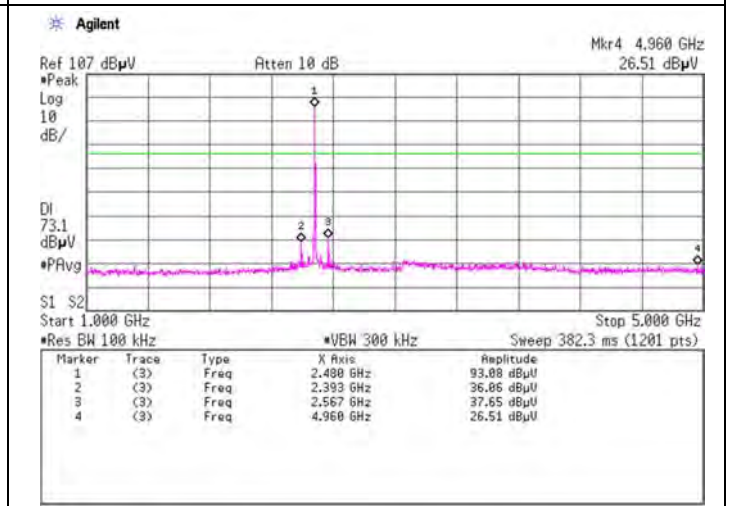
150kHz - 30MHz



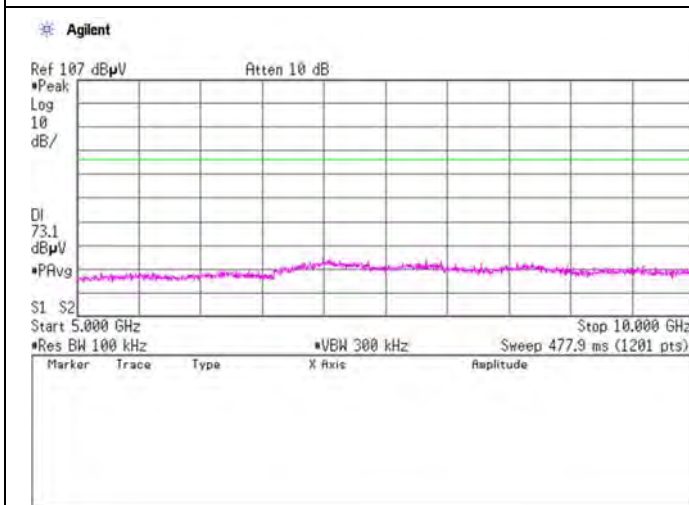
30MHz - 1GHz



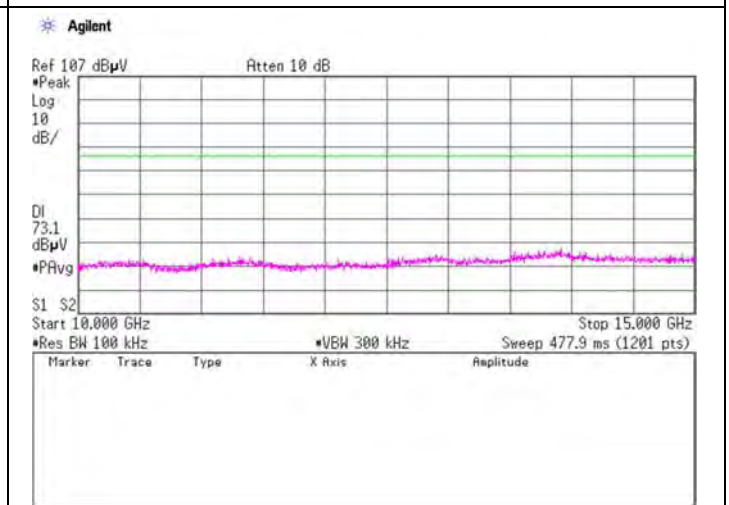
1GHz - 5GHz



5GHz - 10GHz



10GHz - 15GHz



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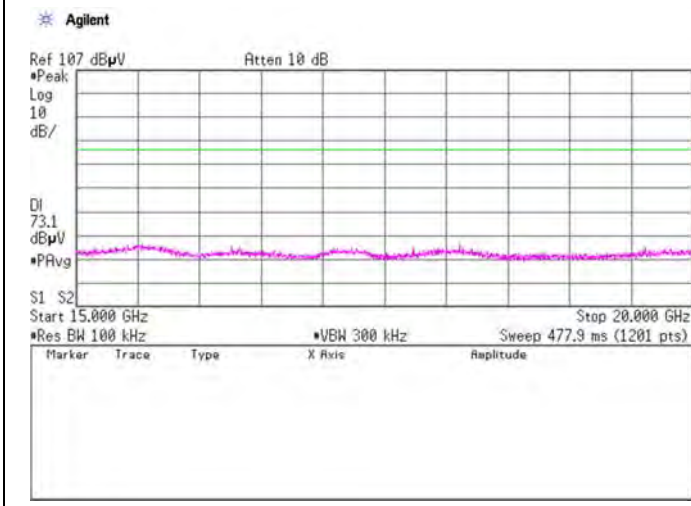
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
Telephone : +81 463 50 6400
Facsimile : +81 463 50 6401

Spurious emission (Conducted)

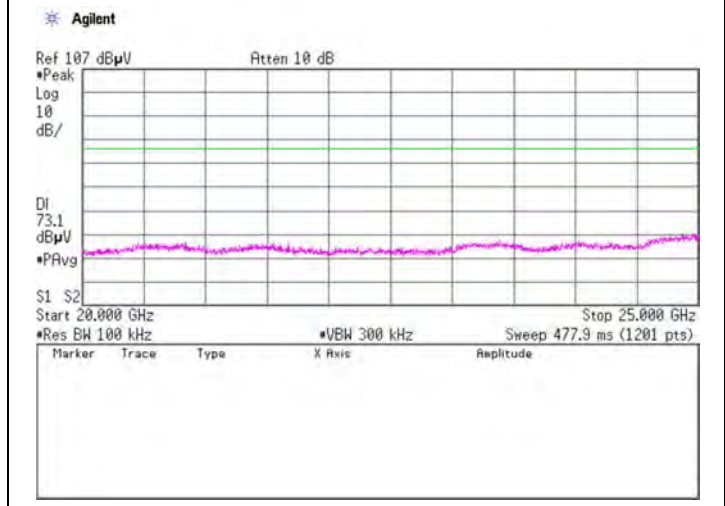
3-DH5,

Tx, 2480MHz

15GHz - 20GHz



20GHz - 25GHz



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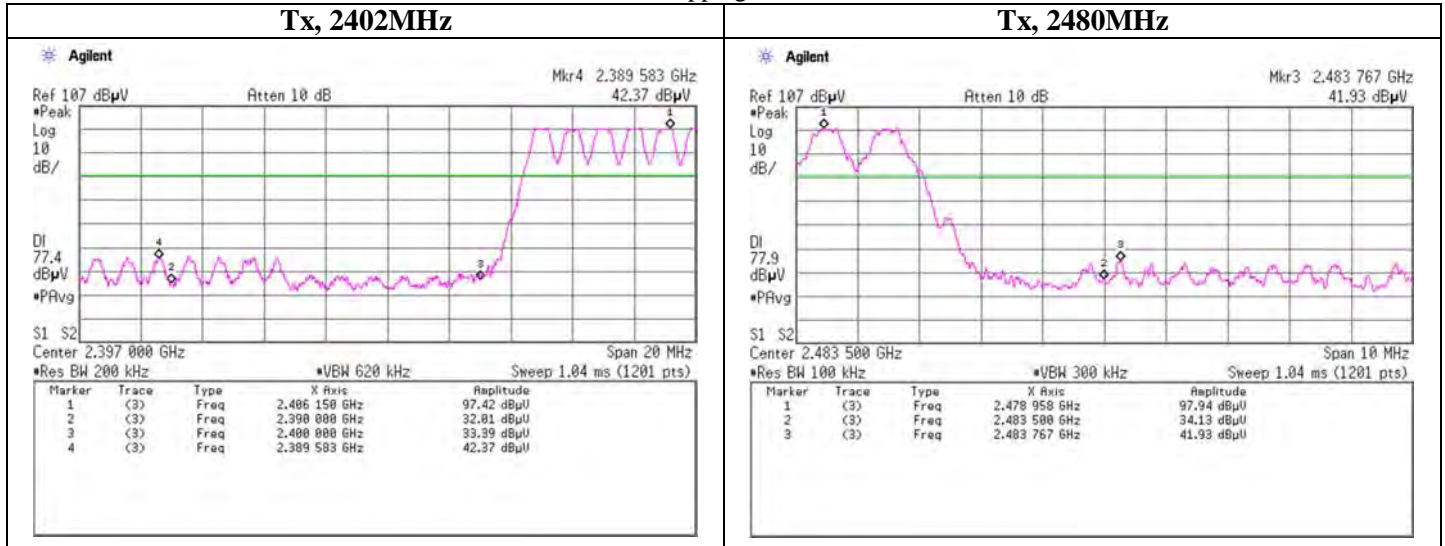
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
 Telephone : +81 463 50 6400
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Spurious emission (Conducted)

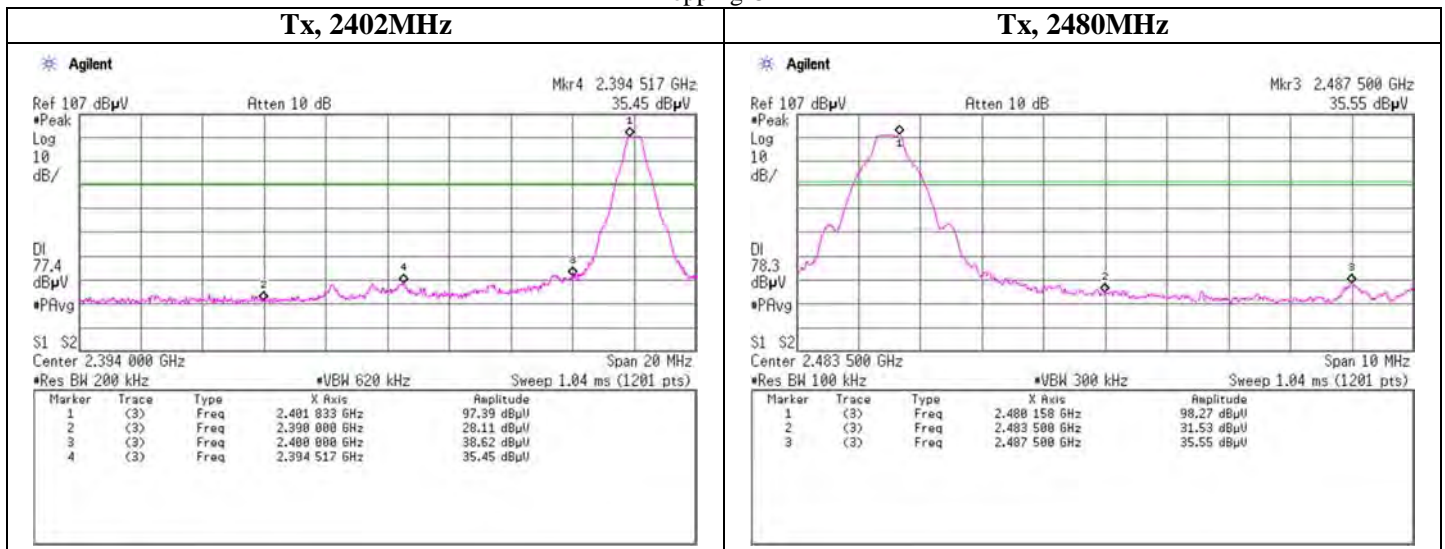
Band Edge compliance

DH5,

Hopping ON



Hopping OFF



UL Japan, Inc.
Shonan EMC Lab.

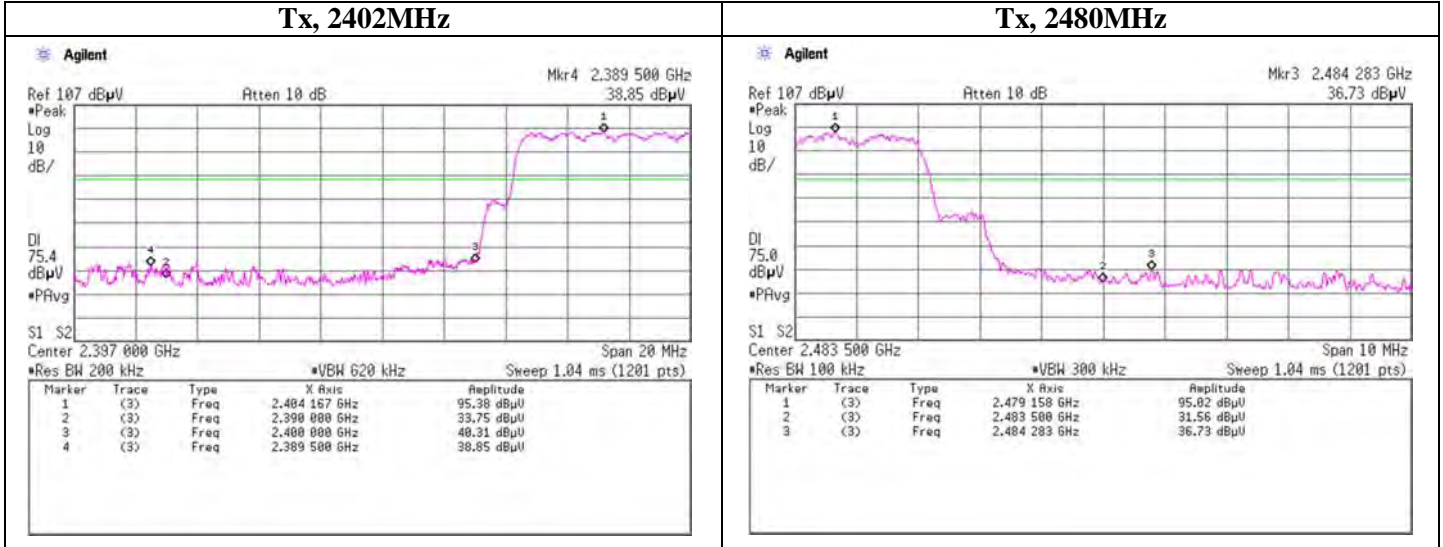
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
 Telephone : +81 463 50 6400
 Facsimile : +81 463 50 6401

Spurious emission (Conducted)

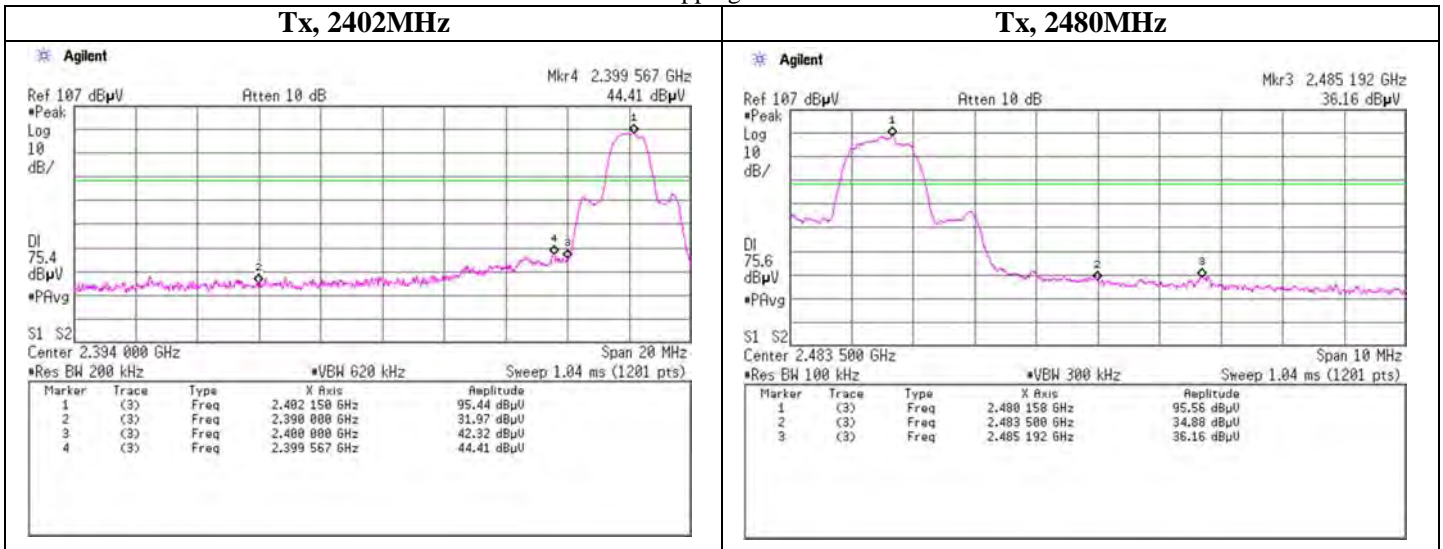
Band Edge compliance

3-DH5,

Hopping ON



Hopping OFF

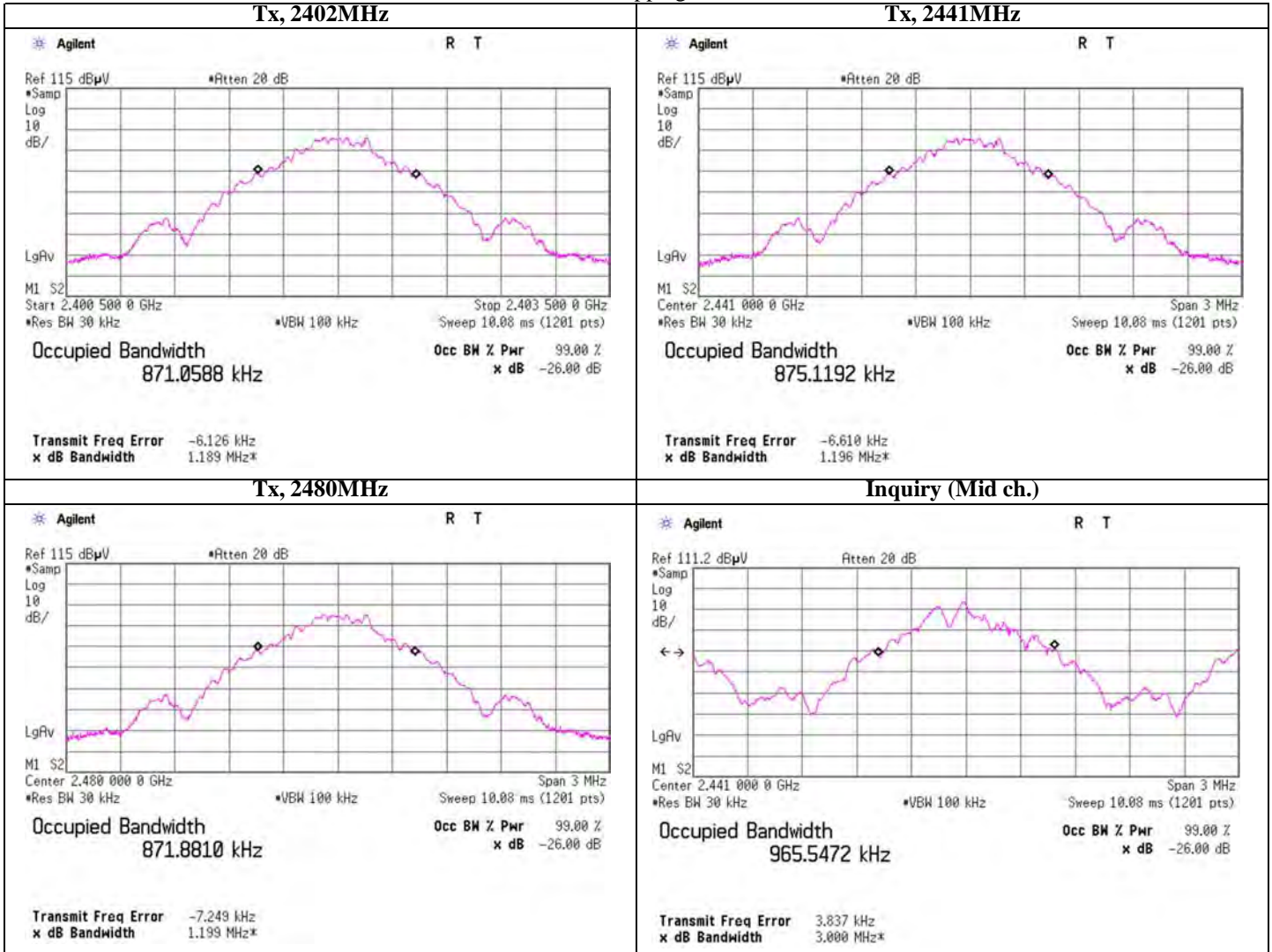


UL Japan, Inc.
Shonan EMC Lab.

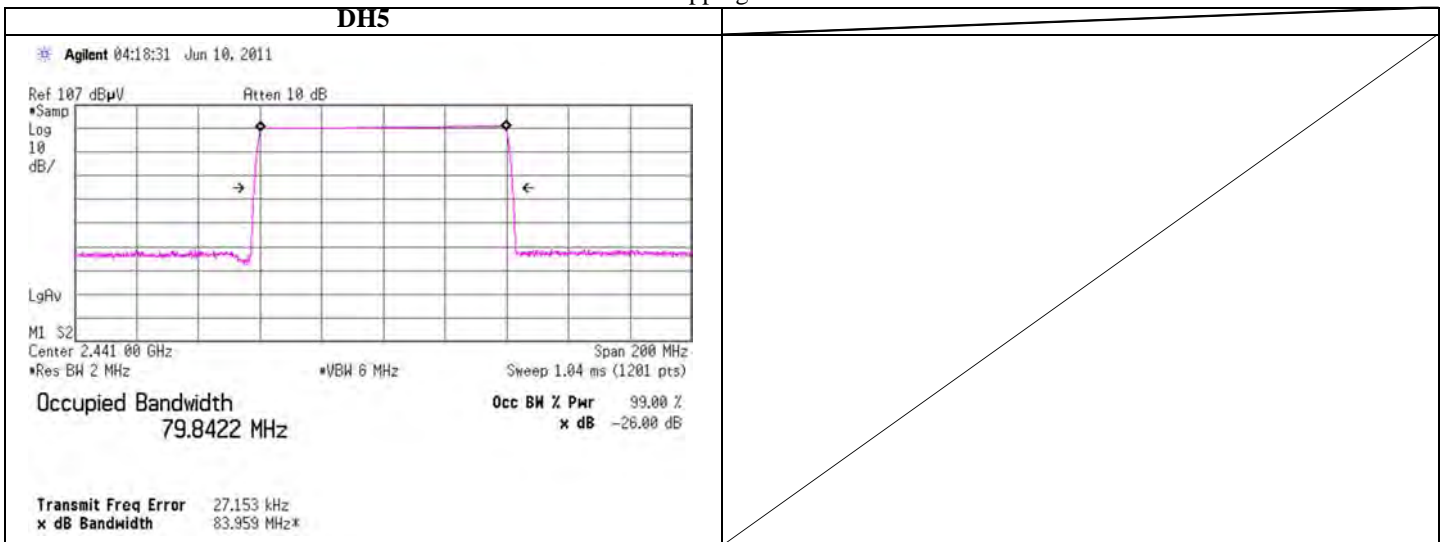
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
 Telephone : +81 463 50 6400
 Facsimile : +81 463 50 6401

99% Occupied Bandwidth

DH5, Hopping Off



Hopping On

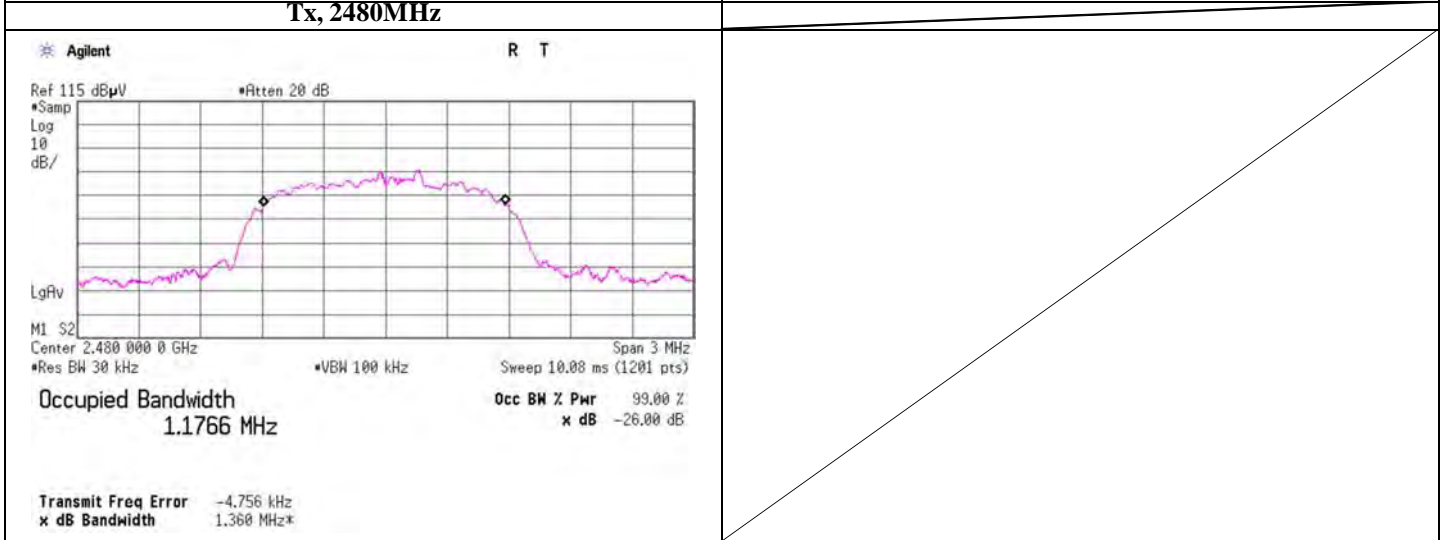
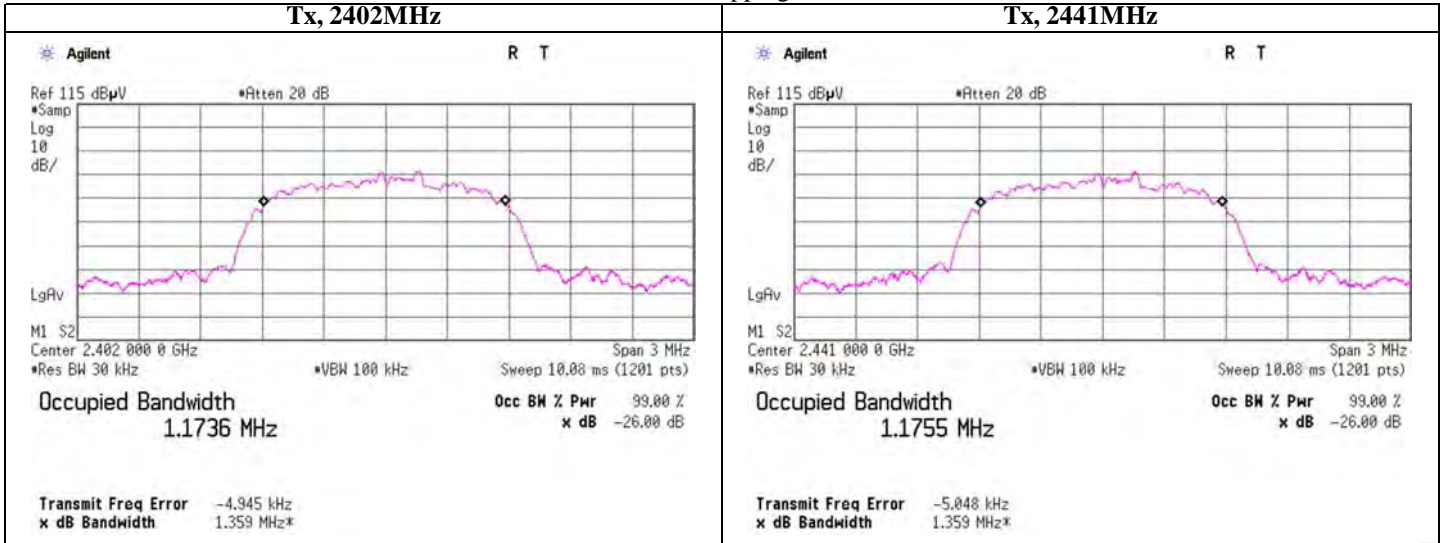


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 Shonan EMC Lab.

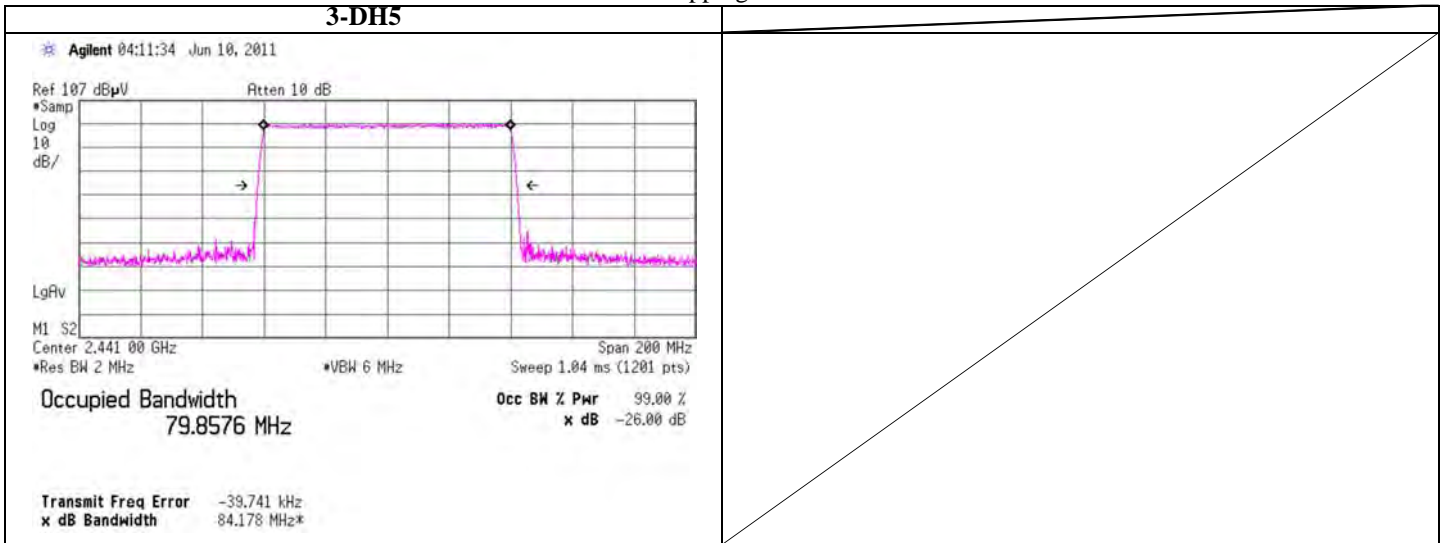
1-22-3 Megumigaoka, Hiratsuka-shi, Kanagawa 259-1220 JAPAN
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99% Occupied Bandwidth

3-DH5, Hopping Off



Hopping On



UL Japan, Inc.
Shonan EMC Lab.

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APPENDIX 3 Test Instruments

EMI test equipment

| Control No. | Instrument | Manufacturer | Model No | Serial No | Test Item | Calibration Date * Interval(month) |
|-------------|-----------------------|------------------|---------------------------|------------|-----------|---------------------------------------|
| SPM-06 | Power Meter | Anritsu | ML2495A | 0850009 | AT | 2011/04/12 * 12 |
| SPSS-03 | Power sensor | Anritsu | MA2411B | 0917063 | AT | 2011/04/12 * 12 |
| SAT10-09 | Attenuator | Weinschel Corp. | 54A-10 | W5692 | AT | 2010/11/24 * 12 |
| SOS-10 | Humidity Indicator | A&D | AD-5681 | 4064561 | AT | 2011/02/23 * 12 |
| KSA-08 | Spectrum Analyzer | Agilent | E4446A | MY46180525 | AT/RE | 2011/02/02 * 12 |
| SCC-G11 | Coaxial Cable | Suhner | SUCOFLEX 102 | 31595/2 | AT | 2011/03/23 * 12 |
| SCC-G12 | Coaxial Cable | Suhner | SUCOFLEX 102 | 30790/2 | AT | 2011/03/23 * 12 |
| SOS-09 | Humidity Indicator | A&D | AD-5681 | 4061484 | AT | 2011/03/02 * 12 |
| SAF-04 | Pre Amplifier | TOYO Corporation | TPA0118-36 | 1440489 | RE | 2011/03/23 * 12 |
| SCC-G02 | Coaxial Cable | Suhner | SUCOFLEX 104A | 46498/4A | RE | 2011/04/28 * 12 |
| SCC-G22 | Coaxial Cable | Suhner | SUCOFLEX 104 | 296199/4 | RE | 2011/05/27 * 12 |
| SHA-02 | Horn Antenna | Schwarzbeck | BBHA9120D | 9120D-726 | RE | 2010/08/08 * 12 |
| SOS-03 | Humidity Indicator | A&D | AD-5681 | 4063325 | RE | 2011/02/23 * 12 |
| SSA-03 | Spectrum Analyzer | Agilent | E4448A | MY48250152 | RE | 2010/11/16 * 12 |
| SJM-02 | Measure | KOMELON | KMC-36 | - | RE/CE | - |
| COTS-SEMI-1 | EMI Software | TSJ | TEPTO-DV(RE,CE, RFLMF) | - | RE/CE | - |
| SAT10-04 | Attenuator(above1GHz) | Agilent | 8493C-010 | 74863 | RE | 2010/12/15 * 12 |
| SAT10-05 | Attenuator(above1GHz) | Agilent | 8493C-010 | 74864 | RE | 2010/12/15 * 12 |
| SSA-02 | Spectrum Analyzer | Agilent | E4448A | MY48250106 | RE | 2011/03/07 * 12 |
| SFL-02 | Highpass Filter | MICRO-TRONICS | HPM50111 | 051 | RE | 2010/12/15 * 12 |
| SAF-05 | Pre Amplifier | TOYO Corporation | TPA0118-36 | 1440490 | RE | 2011/03/23 * 12 |
| SHA-04 | Horn Antenna | ETS LINDGREN | 3160-09 | LM3640 | RE | 2011/03/15 * 12 |
| SAF-08 | Pre Amplifier | TOYO Corporation | HAP18-26W | 00000019 | RE | 2011/03/16 * 12 |
| SCC-G17 | Coaxial Cable | Suhner | SUCOFLEX 104A | 46291/4A | RE | 2011/03/16 * 12 |
| | | | | | | |
| | | | | | | |

The expiration date of the calibration is the end of the expired month .
As for some calibrations performed after the tested dates , those test equipment have been controlled by means of an unbroken chains of calibrations .

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

Test Item :

CE: Conducted emission ,

RE: Radiated emission ,

AT: Antenna terminal conducted test

APPENDIX 3 Test Instruments

EMI test equipment

| Control No. | Instrument | Manufacturer | Model No | Serial No | Test Item | Calibration Date * Interval(month) |
|--------------------------------|---------------------------|--|--|-------------------------|-----------|---------------------------------------|
| SAF-02 | Pre Amplifier | SONOMA | 310N | 290212 | RE | 2011/02/17 * 12 |
| SAT6-02 | Attenuator | JFW | 50HF-006N | - | RE | 2011/02/17 * 12 |
| SAT3-02 | Attenuator | JFW | 50HF-003N | - | RE | 2011/02/17 * 12 |
| SBA-02 | Biconical Antenna | Schwarzbeck | BBA9106 | 91032665 | RE | 2010/10/11 * 12 |
| SCC-B1/B3/B5/B7/B8/B13/SRSE-02 | Coaxial Cable&RF Selector | Fujikura/Fujikura/Suhner/Suhner/Suhner/Suhner/TOYO | 8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906 | -/0901-270(RF Selector) | RE | 2011/04/28 * 12 |
| SCC-B2/B4/B6/B7/B8/B13/SRSE-02 | Coaxial Cable&RF Selector | Fujikura/Fujikura/Suhner/Suhner/Suhner/Suhner/TOYO | 8D2W/12DSFA/141PE/141PE/141PE/141PE/NS4906 | -/0901-270(RF Selector) | RE | 2011/04/28 * 12 |
| SLA-02 | Logperiodic Antenna | Schwarzbeck | UHALP9108A | UHALP9108-A 0893 | RE | 2010/10/11 * 12 |
| STR-02 | Test Receiver | Rohde & Schwarz | ESCI | 100575 | RE/CE | 2010/08/18 * 12 |
| SAEC-02(NSA) | Semi-Anechoic Chamber | TDK | SAEC-02(NSA) | 2 | RE | 2010/09/04 * 12 |
| SCC-B12/B13/SRSE-02 | Coaxial Cable&RF Selector | Suhner/Suhner/TOYO | RG223U/141PE/NS4906 | -/0901-270(RF Selector) | CE | 2011/04/28 * 12 |
| SLS-03 | LISN | Rohde & Schwarz | ENV216 | 100513 | CE | 2011/02/23 * 12 |
| SAT3-05 | Attenuator | JFW | 50HF-003N | - | CE | 2011/02/17 * 12 |
| SOS-04 | Humidity Indicator | A&D | AD-5681 | 4061512 | CE | 2011/03/02 * 12 |
| | | | | | | |
| | | | | | | |

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

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

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

Test Item :

CE: Conducted emission ,

RE: Radiated emission ,

AT: Antenna terminal conducted test