

APPENDIX 2: Data of EMI test

Conducted Emission

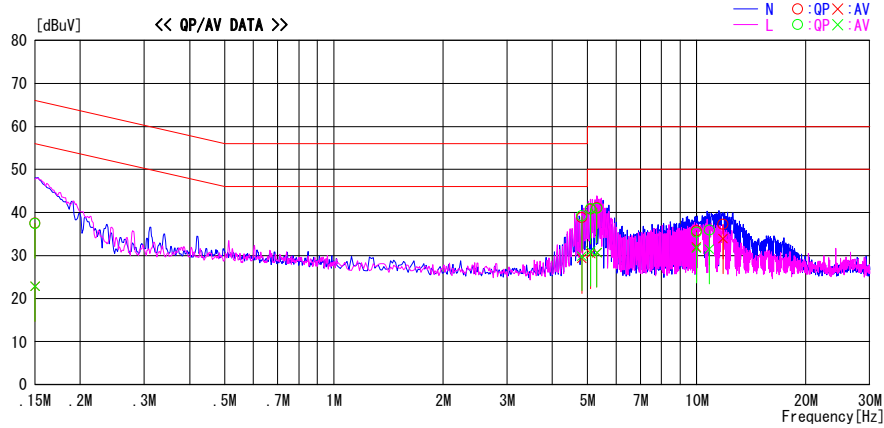
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2011/07/21

Report No. : 31KE0354-HO-01
Temp./Humi. : 24deg. C / 62% RH
Engineer : Takayuki Shimada

Mode / Remarks : Tx 11g, 9Mbps, 2437MHz, Power Supply:3.6V

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 | 24.3 | 9.6 | 13.2 | 37.5 | 22.8 | 66.0 | 56.0 | 28.5 | 33.2 | N | |
| 4.81989 | 25.0 | 15.5 | 13.8 | 38.8 | 29.3 | 56.0 | 46.0 | 17.2 | 16.7 | N | |
| 5.09954 | 26.8 | 16.5 | 13.9 | 40.7 | 30.4 | 60.0 | 50.0 | 19.3 | 19.6 | N | |
| 5.30857 | 27.2 | 16.8 | 13.9 | 41.1 | 30.7 | 60.0 | 50.0 | 18.9 | 19.3 | N | |
| 9.99007 | 21.5 | 17.8 | 14.2 | 35.7 | 32.0 | 60.0 | 50.0 | 24.3 | 18.0 | N | |
| 11.80706 | 22.8 | 19.4 | 14.5 | 37.3 | 33.9 | 60.0 | 50.0 | 22.7 | 16.1 | N | |
| 0.15000 | 24.2 | 9.6 | 13.2 | 37.4 | 22.8 | 66.0 | 56.0 | 28.6 | 33.2 | L | |
| 4.81988 | 25.4 | 16.1 | 13.8 | 39.2 | 29.9 | 56.0 | 46.0 | 16.8 | 16.1 | L | |
| 5.09894 | 27.0 | 17.1 | 13.9 | 40.9 | 31.0 | 60.0 | 50.0 | 19.1 | 19.0 | L | |
| 5.30877 | 27.1 | 16.8 | 13.9 | 41.0 | 30.7 | 60.0 | 50.0 | 19.0 | 19.3 | L | |
| 9.98935 | 21.2 | 17.5 | 14.2 | 35.4 | 31.7 | 60.0 | 50.0 | 24.6 | 18.3 | L | |
| 10.83280 | 21.6 | 17.2 | 14.3 | 35.9 | 31.5 | 60.0 | 50.0 | 24.1 | 18.5 | L | |

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

Conducted Emission

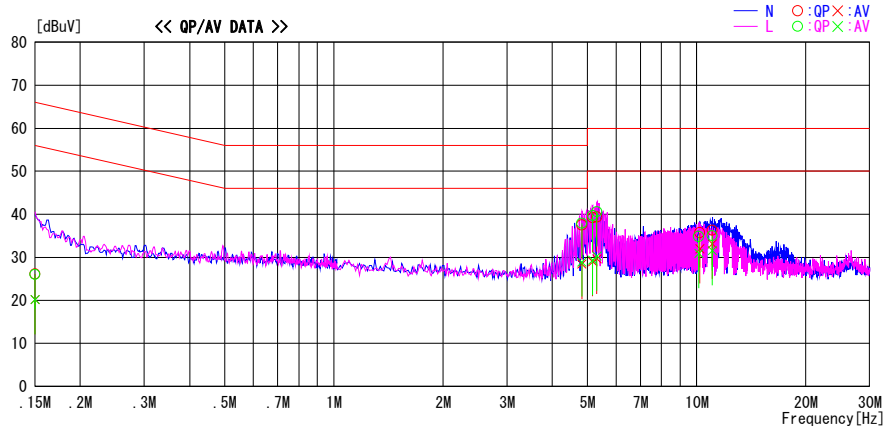
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2011/07/21

Report No. : 31KE0354-HO-01
Temp./Humi. : 24deg. C / 62% RH
Engineer : Takayuki Shimada

Mode / Remarks : Tx 11g, 9Mbps, 2437MHz, Power Supply:1.8V

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 | 12.9 | 7.0 | 13.2 | 26.1 | 20.2 | 66.0 | 56.0 | 39.9 | 35.8 | N | |
| 4.82188 | 23.7 | 14.6 | 13.8 | 37.5 | 28.4 | 56.0 | 46.0 | 18.5 | 17.6 | N | |
| 5.17136 | 25.3 | 15.1 | 13.9 | 39.2 | 29.0 | 60.0 | 50.0 | 20.8 | 21.0 | N | |
| 5.31081 | 25.5 | 15.7 | 13.9 | 39.4 | 29.6 | 60.0 | 50.0 | 20.6 | 20.4 | N | |
| 10.20252 | 21.4 | 17.7 | 14.3 | 35.7 | 32.0 | 60.0 | 50.0 | 24.3 | 18.0 | N | |
| 11.04145 | 21.9 | 18.7 | 14.4 | 36.3 | 33.1 | 60.0 | 50.0 | 23.7 | 16.9 | N | |
| 0.15000 | 12.8 | 7.0 | 13.2 | 26.0 | 20.2 | 66.0 | 56.0 | 40.0 | 35.8 | L | |
| 4.82200 | 24.1 | 15.1 | 13.8 | 37.9 | 28.9 | 56.0 | 46.0 | 18.1 | 17.1 | L | |
| 5.17094 | 25.8 | 15.4 | 13.9 | 39.7 | 29.3 | 60.0 | 50.0 | 20.3 | 20.7 | L | |
| 5.31069 | 26.7 | 16.4 | 13.9 | 40.6 | 30.3 | 60.0 | 50.0 | 19.4 | 19.7 | L | |
| 10.13240 | 20.6 | 16.7 | 14.2 | 34.8 | 30.9 | 60.0 | 50.0 | 25.2 | 19.1 | L | |
| 11.04145 | 20.6 | 17.2 | 14.4 | 35.0 | 31.6 | 60.0 | 50.0 | 25.0 | 18.4 | L | |

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

6dB Bandwidth

Test place Head Office EMC Lab. No.6 Measurement Room
Report No. 31KE0354-HO-01
Date 07/12/2011
Temperature/ Humidity 22 deg.C / 58% RH
Engineer Hiroshi Kukita
Mode Tx

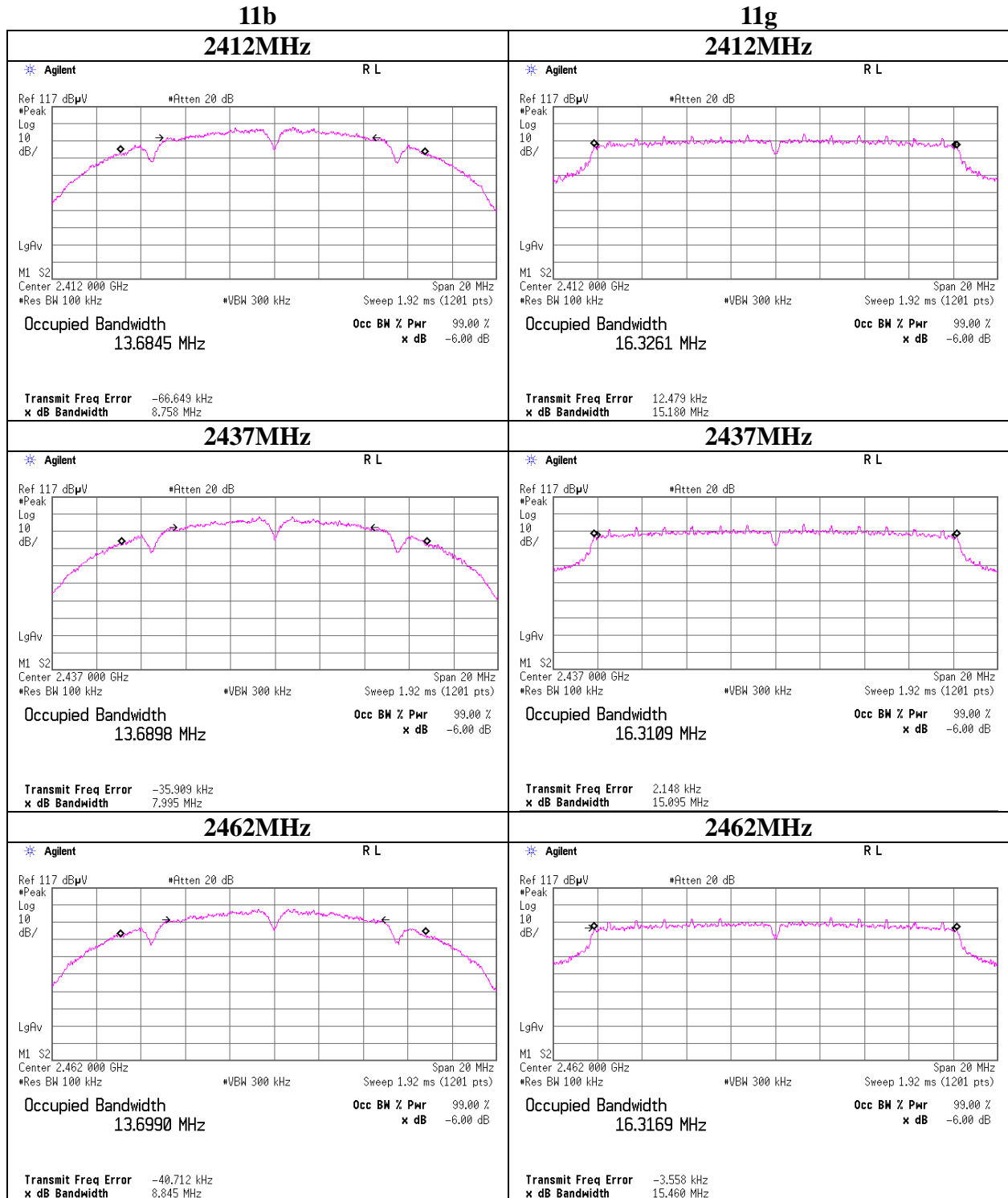
11b

| Frequency [MHz] | 6dB Bandwidth [MHz] | Limit [kHz] |
|--------------------|------------------------|----------------|
| 2412 | 8.758 | >500 |
| 2437 | 7.995 | >500 |
| 2462 | 8.845 | >500 |

11g

| Frequency [MHz] | 6dB Bandwidth [MHz] | Limit [kHz] |
|--------------------|------------------------|----------------|
| 2412 | 15.180 | >500 |
| 2437 | 15.095 | >500 |
| 2462 | 15.460 | >500 |

6dB Bandwidth



Maximum Peak Output Power

Test place Head Office EMC Lab. No.2 Measurement Room
Report No. 31KE0354-HO-01
Date 07/11/2011
Temperature/ Humidity 20 deg. C / 68% RH
Engineer Katsunori Okai
Mode 11b Tx

| Freq. [MHz] | Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result | | Limit | | Margin [dB] |
|----------------|------------------|-----------------------|----------------|--------|--------|-------|------|----------------|
| | | | | [dBm] | [mW] | [dBm] | [mW] | |
| 2412 | 9.94 | 0.50 | 10.07 | 20.51 | 112.46 | 30.00 | 1000 | 9.49 |
| 2437 | 10.09 | 0.50 | 10.07 | 20.66 | 116.41 | 30.00 | 1000 | 9.34 |
| 2462 | 10.08 | 0.50 | 10.07 | 20.65 | 116.14 | 30.00 | 1000 | 9.35 |

Sample Calculation:

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

2437MHz

| Rate [Mbps] | Reading [dBm] | Remark |
|----------------|------------------|--------|
| 1 | 9.48 | |
| 2 | 10.09 | * |
| 5.5 | 9.74 | |
| 11 | 9.62 | |

*: Worst Rate

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

UL Japan, Inc.

Head Office EMC Lab.

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Maximum Peak Output Power

| | |
|-----------------------|--|
| Test place | Head Office EMC Lab. No.2 Measurement Room |
| Report No. | 31KE0354-HO-01 |
| Date | 07/11/2011 |
| Temperature/ Humidity | 20 deg.C / 68% RH |
| Engineer | Katsunori Okai |
| Mode | 11g/n-20 Tx |

11g

| Freq. [MHz] | Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result | | Limit | | Margin [dB] |
|----------------|------------------|-----------------------|----------------|--------|--------|-------|------|----------------|
| | | | | [dBm] | [mW] | [dBm] | [mW] | |
| 2412 | 13.01 | 0.50 | 10.07 | 23.58 | 228.03 | 30.00 | 1000 | 6.42 |
| 2437 | 13.65 | 0.50 | 10.07 | 24.22 | 264.24 | 30.00 | 1000 | 5.78 |
| 2462 | 12.87 | 0.50 | 10.07 | 23.44 | 220.80 | 30.00 | 1000 | 6.56 |

11n-20

| Freq. [MHz] | Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result | | Limit | | Margin [dB] |
|----------------|------------------|-----------------------|----------------|--------|--------|-------|------|----------------|
| | | | | [dBm] | [mW] | [dBm] | [mW] | |
| 2412 | 12.98 | 0.50 | 10.07 | 23.55 | 226.46 | 30.00 | 1000 | 6.45 |
| 2437 | 13.61 | 0.50 | 10.07 | 24.18 | 261.82 | 30.00 | 1000 | 5.82 |
| 2462 | 12.78 | 0.50 | 10.07 | 23.35 | 216.27 | 30.00 | 1000 | 6.65 |

Sample Calculation:

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

11g 2437MHz

| Rate [Mbps] | Reading [dBm] | Remark |
|----------------|------------------|--------|
| 6 | 13.63 | |
| 9 | 13.65 | * |
| 12 | 13.61 | |
| 18 | 13.54 | |
| 24 | 13.45 | |
| 36 | 13.23 | |
| 48 | 12.68 | |
| 54 | 12.67 | |

11n-20 2437MHz

| MCS Number | Reading [dBm] | Remark |
|---------------|------------------|--------|
| 0 | 13.61 | (*) |
| 1 | 13.59 | |
| 2 | 13.56 | |
| 3 | 13.31 | |
| 4 | 13.26 | |
| 5 | 12.96 | |
| 6 | 12.65 | |
| 7 | 11.91 | |

*: Worst Rate

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

Radiated Spurious Emission

Test place Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber
Report No. 31KE0354-HO-01
Date 07/11/2011 07/12/2011
Temperature/ Humidity 20 deg.C / 68% 25 deg.C / 56% RH
Engineer Tomotaka Sasagawa Takeshi Choda
(Above 1GHz) (Below 1GHz)
Mode 11b Tx 2412MHz

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|------------------------|
| Hori | 30.237 | QP | 23.3 | 17.8 | 7.0 | 32.1 | 16.0 | 40.0 | 24.0 | |
| Hori | 67.335 | QP | 32.3 | 7.2 | 7.6 | 32.2 | 14.9 | 40.0 | 25.1 | |
| Hori | 73.828 | QP | 37.3 | 6.6 | 7.6 | 32.2 | 19.3 | 40.0 | 20.7 | |
| Hori | 172.845 | QP | 30.5 | 15.9 | 8.7 | 32.0 | 23.1 | 43.5 | 20.4 | |
| Hori | 336.930 | QP | 39.6 | 16.5 | 10.0 | 32.1 | 34.0 | 46.0 | 12.0 | |
| Hori | 381.743 | QP | 39.0 | 17.2 | 10.3 | 32.1 | 34.4 | 46.0 | 11.6 | |
| Hori | 2387.150 | PK | 56.3 | 27.4 | 2.6 | 32.4 | 53.9 | 73.9 | 20.0 | |
| Hori | 2390.000 | PK | 55.2 | 27.4 | 2.6 | 32.4 | 52.8 | 73.9 | 21.1 | |
| Hori | 2397.452 | PK | 67.3 | 27.4 | 2.6 | 32.4 | 64.9 | - | - | - See 20dBc Data Sheet |
| Hori | 2400.000 | PK | 63.8 | 27.4 | 2.6 | 32.4 | 61.4 | - | - | - See 20dBc Data Sheet |
| Hori | 2490.000 | PK | 55.0 | 27.6 | 2.7 | 32.4 | 52.9 | 73.9 | 21.0 | |
| Hori | 2547.322 | PK | 58.0 | 27.7 | 2.7 | 32.4 | 56.0 | 73.9 | 17.9 | |
| Hori | 4824.000 | PK | 42.1 | 31.4 | 4.4 | 31.3 | 46.6 | 73.9 | 27.3 | NS |
| Hori | 7236.000 | PK | 42.7 | 35.5 | 5.3 | 31.6 | 51.9 | 73.9 | 22.0 | NS |
| Hori | 9648.000 | PK | 44.0 | 38.4 | 6.2 | 31.9 | 56.7 | 73.9 | 17.2 | NS |
| Hori | 24120.000 | PK | 46.5 | 40.4 | -1.0 | 29.6 | 56.3 | 73.9 | 17.6 | NS |
| Hori | 2387.150 | AV | 48.2 | 27.4 | 2.6 | 32.4 | 45.8 | 53.9 | 8.1 | |
| Hori | 2390.000 | AV | 43.7 | 27.4 | 2.6 | 32.4 | 41.3 | 53.9 | 12.6 | |
| Hori | 2397.452 | AV | 62.2 | 27.4 | 2.6 | 32.4 | 59.8 | - | - | - See 20dBc Data Sheet |
| Hori | 2400.000 | AV | 55.9 | 27.4 | 2.6 | 32.4 | 53.5 | - | - | - See 20dBc Data Sheet |
| Hori | 2490.000 | AV | 32.9 | 27.6 | 2.7 | 32.4 | 30.8 | 53.9 | 23.2 | |
| Hori | 2547.322 | AV | 34.6 | 27.7 | 2.7 | 32.4 | 32.6 | 53.9 | 21.3 | |
| Hori | 4824.000 | AV | 29.9 | 31.4 | 4.4 | 31.3 | 34.4 | 53.9 | 19.5 | NS |
| Hori | 7236.000 | AV | 31.0 | 35.5 | 5.3 | 31.6 | 40.2 | 53.9 | 13.7 | NS |
| Hori | 9648.000 | AV | 32.4 | 38.4 | 6.2 | 31.9 | 45.1 | 53.9 | 8.8 | NS |
| Hori | 24120.000 | AV | 34.5 | 40.4 | -1.0 | 29.6 | 44.3 | 53.9 | 9.6 | NS |
| Vert | 30.237 | QP | 39.9 | 17.8 | 7.0 | 32.1 | 32.6 | 40.0 | 7.4 | |
| Vert | 67.335 | QP | 49.7 | 7.2 | 7.6 | 32.2 | 32.3 | 40.0 | 7.7 | |
| Vert | 73.828 | QP | 53.5 | 6.6 | 7.6 | 32.2 | 35.5 | 40.0 | 4.5 | |
| Vert | 172.845 | QP | 32.9 | 15.9 | 8.7 | 32.0 | 25.5 | 43.5 | 18.0 | |
| Vert | 336.930 | QP | 42.0 | 16.5 | 10.0 | 32.1 | 36.4 | 46.0 | 9.6 | |
| Vert | 381.743 | QP | 35.8 | 17.2 | 10.3 | 32.1 | 31.2 | 46.0 | 14.8 | |
| Vert | 2387.150 | PK | 53.7 | 27.4 | 2.6 | 32.4 | 51.3 | 73.9 | 22.6 | |
| Vert | 2390.000 | PK | 53.4 | 27.4 | 2.6 | 32.4 | 51.0 | 73.9 | 23.0 | |
| Vert | 2397.452 | PK | 65.6 | 27.4 | 2.6 | 32.4 | 63.2 | - | - | - See 20dBc Data Sheet |
| Vert | 2400.000 | PK | 62.0 | 27.4 | 2.6 | 32.4 | 59.6 | - | - | - See 20dBc Data Sheet |
| Vert | 2490.000 | PK | 52.1 | 27.6 | 2.7 | 32.4 | 50.0 | 73.9 | 23.9 | |
| Vert | 2551.667 | PK | 55.3 | 27.7 | 2.7 | 32.4 | 53.3 | 73.9 | 20.6 | |
| Vert | 4824.000 | PK | 42.3 | 31.4 | 4.4 | 31.3 | 46.8 | 73.9 | 27.1 | NS |
| Vert | 7236.000 | PK | 43.1 | 35.5 | 5.3 | 31.6 | 52.3 | 73.9 | 21.6 | NS |
| Vert | 9648.000 | PK | 43.9 | 38.4 | 6.2 | 31.9 | 56.6 | 73.9 | 17.3 | NS |
| Vert | 24120.000 | PK | 47.0 | 40.4 | -1.0 | 29.6 | 56.8 | 73.9 | 17.1 | NS |
| Vert | 2387.150 | AV | 45.9 | 27.4 | 2.6 | 32.4 | 43.5 | 53.9 | 10.4 | |
| Vert | 2390.000 | AV | 40.7 | 27.4 | 2.6 | 32.4 | 38.3 | 53.9 | 15.6 | |
| Vert | 2397.452 | AV | 60.3 | 27.4 | 2.6 | 32.4 | 57.9 | - | - | - See 20dBc Data Sheet |
| Vert | 2400.000 | AV | 54.4 | 27.4 | 2.6 | 32.4 | 52.0 | - | - | - See 20dBc Data Sheet |
| Vert | 2490.000 | AV | 32.3 | 27.6 | 2.7 | 32.4 | 30.2 | 53.9 | 23.7 | |
| Vert | 2551.667 | AV | 34.2 | 27.7 | 2.7 | 32.4 | 32.2 | 53.9 | 21.7 | |
| Vert | 4824.000 | AV | 31.1 | 31.4 | 4.4 | 31.3 | 35.6 | 53.9 | 18.3 | NS |
| Vert | 7236.000 | AV | 30.8 | 35.5 | 5.3 | 31.6 | 40.0 | 53.9 | 13.9 | NS |
| Vert | 9648.000 | AV | 33.4 | 38.4 | 6.2 | 31.9 | 46.1 | 53.9 | 7.8 | NS |
| Vert | 24120.000 | AV | 34.4 | 40.4 | -1.0 | 29.6 | 44.2 | 53.9 | 9.7 | NS |

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
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

NS: No Signal detected

Radiated Spurious Emission
20dBc Data Sheet

Test place : Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. : 31KE0354-HO-01
Date : 07/11/2011
Temperature/ Humidity : 20 deg.C / 68% RH
Engineer : Tomotaka Sasagawa
(1-10GHz)
Mode : 11b Tx 2412MHz

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 | 108.6 | 27.4 | 2.6 | 32.4 | 106.2 | - | - | Carrier |
| Hori | 2397.452 | PK | 61.9 | 27.4 | 2.6 | 32.4 | 59.5 | 86.2 | 26.7 | |
| Hori | 2400.000 | PK | 56.1 | 27.4 | 2.6 | 32.4 | 53.7 | 86.2 | 32.5 | |
| Vert | 2412.000 | PK | 103.7 | 27.4 | 2.6 | 32.4 | 101.3 | - | - | Carrier |
| Vert | 2397.452 | PK | 59.4 | 27.4 | 2.6 | 32.4 | 57.0 | 81.3 | 24.3 | |
| Vert | 2400.000 | PK | 54.0 | 27.4 | 2.6 | 32.4 | 51.6 | 81.3 | 29.7 | |

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

Radiated Spurious Emission

Test place Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber
Report No. 31KE0354-HO-01
Date 07/11/2011 07/12/2011
Temperature/ Humidity 20 deg.C / 68% RH 25 deg.C / 56% RH
Engineer Katsunori Okai Takeshi Choda
(1-10GHz) (Below 1GHz)
Mode 11b Tx 2462MHz

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 34.977 | QP | 23.4 | 16.5 | 7.1 | 32.2 | 14.8 | 40.0 | 25.2 | |
| Hori | 64.065 | QP | 36.2 | 7.7 | 7.5 | 32.2 | 19.2 | 40.0 | 20.8 | |
| Hori | 72.688 | QP | 36.1 | 6.7 | 7.6 | 32.2 | 18.2 | 40.0 | 21.8 | |
| Hori | 172.265 | QP | 33.5 | 15.9 | 8.7 | 32.1 | 26.0 | 43.5 | 17.5 | |
| Hori | 336.930 | QP | 37.2 | 16.5 | 10.0 | 32.1 | 31.6 | 46.0 | 14.4 | |
| Hori | 382.433 | QP | 36.7 | 17.2 | 10.3 | 32.1 | 32.1 | 46.0 | 13.9 | |
| Hori | 2483.500 | PK | 60.0 | 27.6 | 2.7 | 32.4 | 57.9 | 73.9 | 16.0 | |
| Hori | 2483.994 | PK | 56.8 | 27.6 | 2.7 | 32.4 | 54.7 | 73.9 | 19.2 | |
| Hori | 2488.750 | PK | 51.9 | 27.6 | 2.7 | 32.4 | 49.8 | 73.9 | 24.2 | |
| Hori | 2547.000 | PK | 49.2 | 27.7 | 2.7 | 32.4 | 47.2 | 73.9 | 26.7 | |
| Hori | 4924.000 | PK | 41.7 | 31.6 | 4.5 | 31.3 | 46.5 | 73.9 | 27.4 | NS |
| Hori | 7386.000 | PK | 41.7 | 35.7 | 5.3 | 31.6 | 51.1 | 73.9 | 22.8 | NS |
| Hori | 9848.000 | PK | 43.2 | 38.6 | 6.2 | 31.8 | 56.2 | 73.9 | 17.7 | NS |
| Hori | 24620.000 | PK | 47.5 | 40.3 | -1.0 | 29.4 | 57.4 | 73.9 | 16.5 | NS |
| Hori | 2483.500 | AV | 44.8 | 27.6 | 2.7 | 32.4 | 42.7 | 53.9 | 11.2 | |
| Hori | 2483.994 | AV | 45.6 | 27.6 | 2.7 | 32.4 | 43.5 | 53.9 | 10.4 | |
| Hori | 2488.750 | AV | 40.3 | 27.6 | 2.7 | 32.4 | 38.2 | 53.9 | 15.7 | |
| Hori | 2547.000 | AV | 32.8 | 27.7 | 2.7 | 32.4 | 30.8 | 53.9 | 23.1 | |
| Hori | 4924.000 | AV | 29.5 | 31.6 | 4.5 | 31.3 | 34.3 | 53.9 | 19.6 | NS |
| Hori | 7386.000 | AV | 29.5 | 35.7 | 5.3 | 31.6 | 38.9 | 53.9 | 15.0 | NS |
| Hori | 9848.000 | AV | 31.6 | 38.6 | 6.2 | 31.8 | 44.6 | 53.9 | 9.3 | NS |
| Hori | 24620.000 | AV | 35.7 | 40.3 | -1.0 | 29.4 | 45.6 | 53.9 | 8.3 | NS |
| Vert | 34.977 | QP | 32.5 | 16.5 | 7.1 | 32.2 | 23.9 | 40.0 | 16.1 | |
| Vert | 64.065 | QP | 52.1 | 7.7 | 7.5 | 32.2 | 35.1 | 40.0 | 4.9 | |
| Vert | 72.688 | QP | 53.1 | 6.7 | 7.6 | 32.2 | 35.2 | 40.0 | 4.8 | |
| Vert | 172.265 | QP | 35.9 | 15.9 | 8.7 | 32.1 | 28.4 | 43.5 | 15.1 | |
| Vert | 336.930 | QP | 41.8 | 16.5 | 10.0 | 32.1 | 36.2 | 46.0 | 9.8 | |
| Vert | 382.943 | QP | 32.6 | 17.2 | 10.3 | 32.1 | 28.0 | 46.0 | 18.0 | |
| Vert | 2483.500 | PK | 56.9 | 27.6 | 2.7 | 32.4 | 54.8 | 73.9 | 19.1 | |
| Vert | 2483.996 | PK | 56.3 | 27.6 | 2.7 | 32.4 | 54.2 | 73.9 | 19.7 | |
| Vert | 2488.750 | PK | 47.3 | 27.6 | 2.7 | 32.4 | 45.2 | 73.9 | 28.7 | |
| Vert | 2547.000 | PK | 43.3 | 27.7 | 2.7 | 32.4 | 41.3 | 73.9 | 32.6 | |
| Vert | 4924.000 | PK | 42.2 | 31.6 | 4.5 | 31.3 | 47.0 | 73.9 | 26.9 | NS |
| Vert | 7386.000 | PK | 42.6 | 35.7 | 5.3 | 31.6 | 52.0 | 73.9 | 21.9 | NS |
| Vert | 9848.000 | PK | 45.0 | 38.6 | 6.2 | 31.8 | 58.0 | 73.9 | 15.9 | NS |
| Vert | 24620.000 | PK | 47.2 | 40.3 | -1.0 | 29.4 | 57.1 | 73.9 | 16.8 | NS |
| Vert | 2483.500 | AV | 46.1 | 27.6 | 2.7 | 32.4 | 44.0 | 53.9 | 9.9 | |
| Vert | 2483.996 | AV | 45.7 | 27.6 | 2.7 | 32.4 | 43.6 | 53.9 | 10.3 | |
| Vert | 2488.750 | AV | 35.6 | 27.6 | 2.7 | 32.4 | 33.5 | 53.9 | 20.4 | |
| Vert | 2547.000 | AV | 30.5 | 27.7 | 2.7 | 32.4 | 28.5 | 53.9 | 25.4 | |
| Vert | 4924.000 | AV | 29.5 | 31.6 | 4.5 | 31.3 | 34.3 | 53.9 | 19.6 | NS |
| Vert | 7386.000 | AV | 29.5 | 35.7 | 5.3 | 31.6 | 38.9 | 53.9 | 15.0 | NS |
| Vert | 9848.000 | AV | 34.5 | 38.6 | 6.2 | 31.8 | 47.5 | 53.9 | 6.4 | NS |
| Vert | 24620.000 | AV | 34.8 | 40.3 | -1.0 | 29.4 | 44.7 | 53.9 | 9.2 | NS |

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
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

NS: No Signal detected

Radiated Spurious Emission

Test place Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber
Report No. 31KE0354-HO-01
Date 07/11/2011 07/12/2011
Temperature/ Humidity 20 deg.C / 68% RH 25 deg.C / 56% RH
Engineer Katsunori Okai Takeshi Choda
(1-10GHz) (Below 1GHz)
Mode 11g Tx 2412MHz

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|----------------------|
| Hori | 34.977 | QP | 23.0 | 16.5 | 7.1 | 32.2 | 14.4 | 40.0 | 25.6 | |
| Hori | 64.065 | QP | 29.0 | 7.7 | 7.5 | 32.2 | 12.0 | 40.0 | 28.0 | |
| Hori | 72.688 | QP | 29.3 | 6.7 | 7.6 | 32.2 | 11.4 | 40.0 | 28.6 | |
| Hori | 167.285 | QP | 36.0 | 15.7 | 8.7 | 32.1 | 28.3 | 43.5 | 15.2 | |
| Hori | 336.930 | QP | 37.2 | 16.5 | 10.0 | 32.1 | 31.6 | 46.0 | 14.4 | |
| Hori | 380.943 | QP | 30.6 | 17.2 | 10.3 | 32.1 | 26.0 | 46.0 | 20.0 | |
| Hori | 438.980 | QP | 38.8 | 18.2 | 10.6 | 32.1 | 35.5 | 46.0 | 10.5 | |
| Hori | 2390.000 | PK | 72.2 | 27.4 | 2.6 | 32.4 | 69.8 | 73.9 | 4.1 | |
| Hori | 2400.000 | PK | 86.6 | 27.4 | 2.6 | 32.4 | 84.2 | - | - | See 20dBc Data Sheet |
| Hori | 2570.000 | PK | 43.3 | 27.7 | 2.7 | 32.4 | 41.3 | 73.9 | 32.6 | |
| Hori | 4824.000 | PK | 42.1 | 31.4 | 3.8 | 31.3 | 46.0 | 73.9 | 27.9 | NS |
| Hori | 7236.000 | PK | 42.3 | 35.5 | 4.8 | 31.6 | 51.0 | 73.9 | 22.9 | NS |
| Hori | 9648.000 | PK | 43.9 | 38.4 | 5.5 | 31.9 | 55.9 | 73.9 | 18.0 | NS |
| Hori | 24120.000 | PK | 46.8 | 40.4 | -1.0 | 29.6 | 56.6 | 73.9 | 17.3 | NS |
| Hori | 2390.000 | AV | 51.5 | 27.4 | 2.6 | 32.4 | 49.1 | 53.9 | 4.8 | |
| Hori | 2400.000 | AV | 68.1 | 27.4 | 2.6 | 32.4 | 65.7 | - | - | See 20dBc Data Sheet |
| Hori | 2570.000 | AV | 31.6 | 27.7 | 2.7 | 32.4 | 29.6 | 53.9 | 24.3 | |
| Hori | 4824.000 | AV | 30.9 | 31.4 | 3.8 | 31.3 | 34.8 | 53.9 | 19.1 | NS |
| Hori | 7236.000 | AV | 31.0 | 35.5 | 4.8 | 31.6 | 39.7 | 53.9 | 14.2 | NS |
| Hori | 9648.000 | AV | 33.2 | 38.4 | 5.5 | 31.9 | 45.2 | 53.9 | 8.7 | NS |
| Hori | 24120.000 | AV | 35.1 | 40.4 | -1.0 | 29.6 | 44.9 | 53.9 | 9.0 | NS |
| Vert | 34.297 | QP | 37.7 | 16.7 | 7.0 | 32.2 | 29.2 | 40.0 | 10.8 | |
| Vert | 64.065 | QP | 44.4 | 7.7 | 7.5 | 32.2 | 27.4 | 40.0 | 12.6 | |
| Vert | 72.688 | QP | 47.0 | 6.7 | 7.6 | 32.2 | 29.1 | 40.0 | 10.9 | |
| Vert | 167.285 | QP | 41.1 | 15.7 | 8.7 | 32.1 | 33.4 | 43.5 | 10.1 | |
| Vert | 336.930 | QP | 42.1 | 16.5 | 10.0 | 32.1 | 36.5 | 46.0 | 9.5 | |
| Vert | 380.943 | QP | 30.8 | 17.2 | 10.3 | 32.1 | 26.2 | 46.0 | 19.8 | |
| Vert | 438.980 | QP | 39.8 | 18.2 | 10.6 | 32.1 | 36.5 | 46.0 | 9.5 | |
| Vert | 2390.000 | PK | 73.3 | 27.4 | 2.6 | 32.4 | 70.9 | 73.9 | 3.0 | |
| Vert | 2400.000 | PK | 88.5 | 27.4 | 2.6 | 32.4 | 86.1 | - | - | See 20dBc Data Sheet |
| Vert | 2570.000 | PK | 42.2 | 27.7 | 2.7 | 32.4 | 40.2 | 73.9 | 33.7 | |
| Vert | 4824.000 | PK | 42.3 | 31.4 | 4.4 | 31.3 | 46.8 | 73.9 | 27.1 | NS |
| Vert | 7236.000 | PK | 41.8 | 35.5 | 5.3 | 31.6 | 51.0 | 73.9 | 22.9 | NS |
| Vert | 9648.000 | PK | 43.1 | 38.4 | 6.2 | 31.9 | 55.8 | 73.9 | 18.1 | NS |
| Vert | 24120.000 | PK | 46.9 | 40.4 | -1.0 | 29.6 | 56.7 | 73.9 | 17.2 | NS |
| Vert | 2390.000 | AV | 54.0 | 27.4 | 2.6 | 32.4 | 51.6 | 53.9 | 2.3 | |
| Vert | 2400.000 | AV | 69.7 | 27.4 | 2.6 | 32.4 | 67.3 | - | - | See 20dBc Data Sheet |
| Vert | 2570.000 | AV | 30.2 | 27.7 | 2.7 | 32.4 | 28.2 | 53.9 | 25.7 | |
| Vert | 4824.000 | AV | 31.2 | 31.4 | 4.4 | 31.3 | 35.7 | 53.9 | 18.2 | NS |
| Vert | 7236.000 | AV | 31.1 | 35.5 | 5.3 | 31.6 | 40.3 | 53.9 | 13.6 | NS |
| Vert | 9648.000 | AV | 32.1 | 38.4 | 6.2 | 31.9 | 44.8 | 53.9 | 9.1 | NS |
| Vert | 24120.000 | AV | 34.6 | 40.4 | -1.0 | 29.6 | 44.4 | 53.9 | 9.5 | NS |

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

26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

NS: No Signal detected

Radiated Spurious Emission

| | | | |
|-----------------------|---|-------------------|--|
| Test place | Head Office EMC Lab. No.2 and 4 Semi Anechoic Chamber | | |
| Report No. | 31KE0354-HO-01 | | |
| Date | 07/11/2011 | 07/12/2011 | |
| Temperature/ Humidity | 20 deg.C / 68% RH | 25 deg.C / 56% RH | |
| Engineer | Tomotaka Sasagawa | Takeshi Choda | |
| | (Above 1GHz) | (Below 1GHz) | |
| Mode | 11g Tx 2437MHz | | |

| Polarity | Frequency [MHz] | Detector | Reading [dBuV] | Ant.Fac. [dB/m] | Loss [dB] | Gain [dB] | Result [dBuV/m] | Limit [dBuV/m] | Margin [dB] | Remark |
|----------|-----------------|----------|----------------|-----------------|-----------|-----------|-----------------|----------------|-------------|--------|
| Hori | 31.569 | QP | 23.1 | 17.5 | 7.0 | 32.2 | 15.4 | 40.0 | 24.6 | |
| Hori | 64.065 | QP | 28.8 | 7.7 | 7.5 | 32.2 | 11.8 | 40.0 | 28.2 | |
| Hori | 72.688 | QP | 29.3 | 6.7 | 7.6 | 32.2 | 11.4 | 40.0 | 28.6 | |
| Hori | 167.285 | QP | 35.6 | 15.7 | 8.7 | 32.1 | 27.9 | 43.5 | 15.6 | |
| Hori | 336.930 | QP | 38.5 | 16.5 | 10.0 | 32.1 | 32.9 | 46.0 | 13.1 | |
| Hori | 380.943 | QP | 30.8 | 17.2 | 10.3 | 32.1 | 26.2 | 46.0 | 19.8 | |
| Hori | 438.980 | QP | 39.2 | 18.2 | 10.6 | 32.1 | 35.9 | 46.0 | 10.1 | |
| Hori | 2353.000 | PK | 47.9 | 27.4 | 2.6 | 32.4 | 45.5 | 73.9 | 28.4 | |
| Hori | 2560.000 | PK | 50.7 | 27.7 | 2.7 | 32.4 | 48.7 | 73.9 | 25.2 | |
| Hori | 4874.000 | PK | 42.5 | 31.5 | 4.4 | 31.3 | 47.1 | 73.9 | 26.8 | NS |
| Hori | 7311.000 | PK | 42.8 | 35.6 | 5.3 | 31.6 | 52.1 | 73.9 | 21.8 | NS |
| Hori | 9748.000 | PK | 43.5 | 38.5 | 6.2 | 31.8 | 56.4 | 73.9 | 17.5 | NS |
| Hori | 24370.000 | PK | 47.4 | 40.4 | -1.0 | 29.5 | 57.3 | 73.9 | 16.6 | NS |
| Hori | 2353.000 | AV | 33.5 | 27.4 | 2.6 | 32.4 | 31.1 | 53.9 | 22.8 | |
| Hori | 2560.000 | AV | 32.0 | 27.7 | 2.7 | 32.4 | 30.0 | 53.9 | 23.9 | |
| Hori | 4874.000 | AV | 30.5 | 31.5 | 4.4 | 31.3 | 35.1 | 53.9 | 18.8 | NS |
| Hori | 7311.000 | AV | 31.5 | 35.6 | 5.3 | 31.6 | 40.8 | 53.9 | 13.1 | NS |
| Hori | 9748.000 | AV | 32.9 | 38.5 | 6.2 | 31.8 | 45.8 | 53.9 | 8.1 | NS |
| Hori | 24370.000 | AV | 35.1 | 40.4 | -1.0 | 29.5 | 45.0 | 53.9 | 8.9 | NS |
| Vert | 31.569 | QP | 37.7 | 17.5 | 7.0 | 32.2 | 30.0 | 40.0 | 10.0 | |
| Vert | 64.065 | QP | 45.0 | 7.7 | 7.5 | 32.2 | 28.0 | 40.0 | 12.0 | |
| Vert | 72.688 | QP | 47.6 | 6.7 | 7.6 | 32.2 | 29.7 | 40.0 | 10.3 | |
| Vert | 167.285 | QP | 41.3 | 15.7 | 8.7 | 32.1 | 33.6 | 43.5 | 9.9 | |
| Vert | 336.930 | QP | 41.9 | 16.5 | 10.0 | 32.1 | 36.3 | 46.0 | 9.7 | |
| Vert | 380.943 | QP | 32.1 | 17.2 | 10.3 | 32.1 | 27.5 | 46.0 | 18.5 | |
| Vert | 438.980 | QP | 40.1 | 18.2 | 10.6 | 32.1 | 36.8 | 46.0 | 9.2 | |
| Vert | 2353.000 | PK | 47.6 | 27.4 | 2.6 | 32.4 | 45.2 | 73.9 | 28.7 | |
| Vert | 2560.000 | PK | 41.8 | 27.7 | 2.7 | 32.4 | 39.8 | 73.9 | 34.1 | |
| Vert | 4874.000 | PK | 42.7 | 31.5 | 4.4 | 31.3 | 47.3 | 73.9 | 26.6 | NS |
| Vert | 7311.000 | PK | 42.9 | 35.6 | 5.3 | 31.6 | 52.2 | 73.9 | 21.7 | NS |
| Vert | 9748.000 | PK | 43.5 | 38.5 | 6.2 | 31.8 | 56.4 | 73.9 | 17.5 | NS |
| Vert | 24370.000 | PK | 47.1 | 40.4 | -1.0 | 29.5 | 57.0 | 73.9 | 16.9 | NS |
| Vert | 2353.000 | AV | 32.6 | 27.4 | 2.6 | 32.4 | 30.2 | 53.9 | 23.8 | |
| Vert | 2560.000 | AV | 30.0 | 27.7 | 2.7 | 32.4 | 28.0 | 53.9 | 25.9 | |
| Vert | 4874.000 | AV | 30.5 | 31.5 | 4.4 | 31.3 | 35.1 | 53.9 | 18.8 | NS |
| Vert | 7311.000 | AV | 31.0 | 35.6 | 5.3 | 31.6 | 40.3 | 53.9 | 13.6 | NS |
| Vert | 9748.000 | AV | 32.9 | 38.5 | 6.2 | 31.8 | 45.8 | 53.9 | 8.1 | NS |
| Vert | 24370.000 | AV | 35.4 | 40.4 | -1.0 | 29.5 | 45.3 | 53.9 | 8.6 | NS |

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).

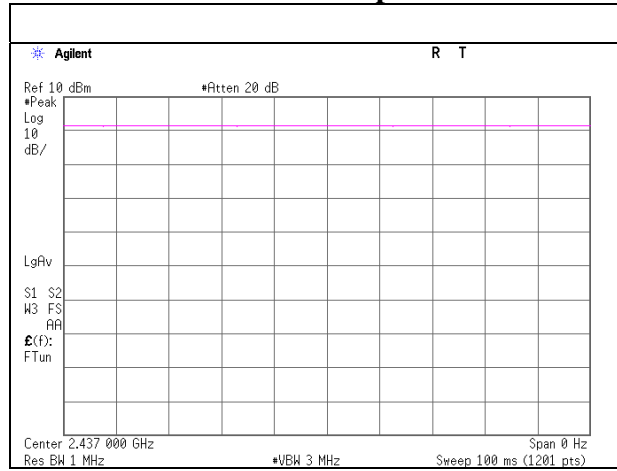
*The 10th harmonic was not seen so the result was its base noise level.

Distance factor: 10GHz-26.5GHz 20log(3.0m/1.0m)= 9.5dB
26.5GHz-40GHz 20log(3.0m/0.5m)=15.6dB

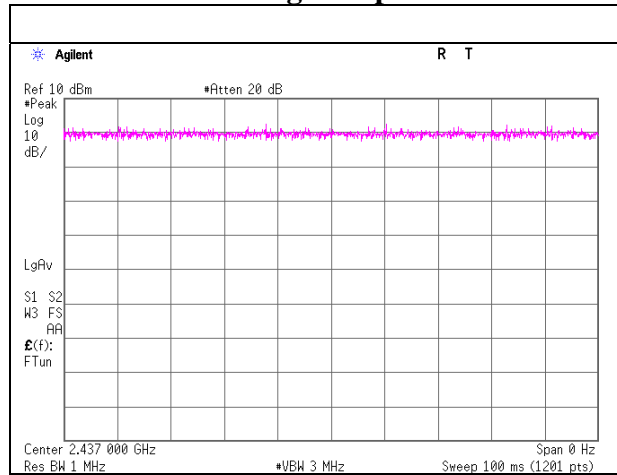
NS: No Signal detected

VBW (AV) Calculation

Tx 11b 2Mbps

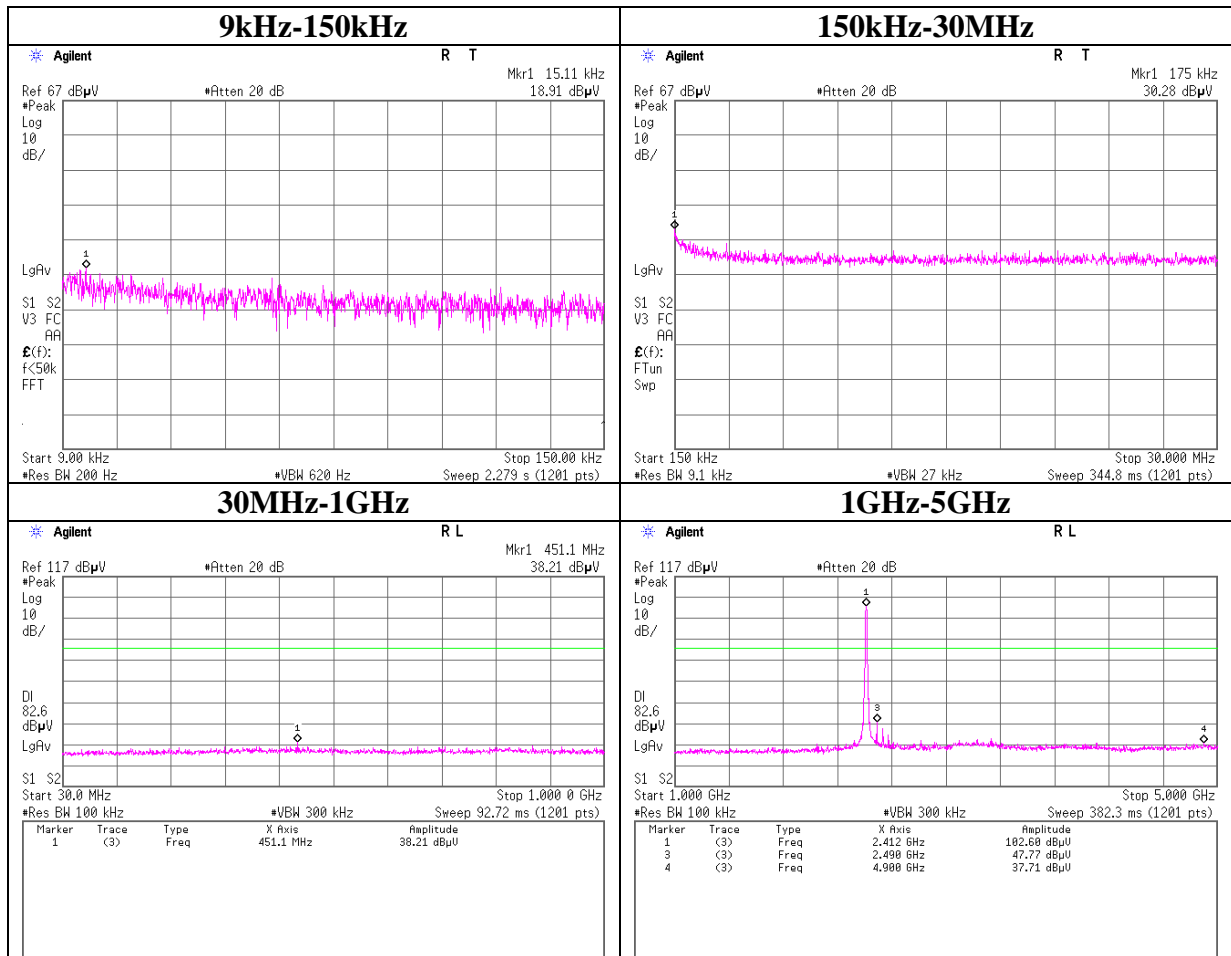


Tx 11g 9Mbps



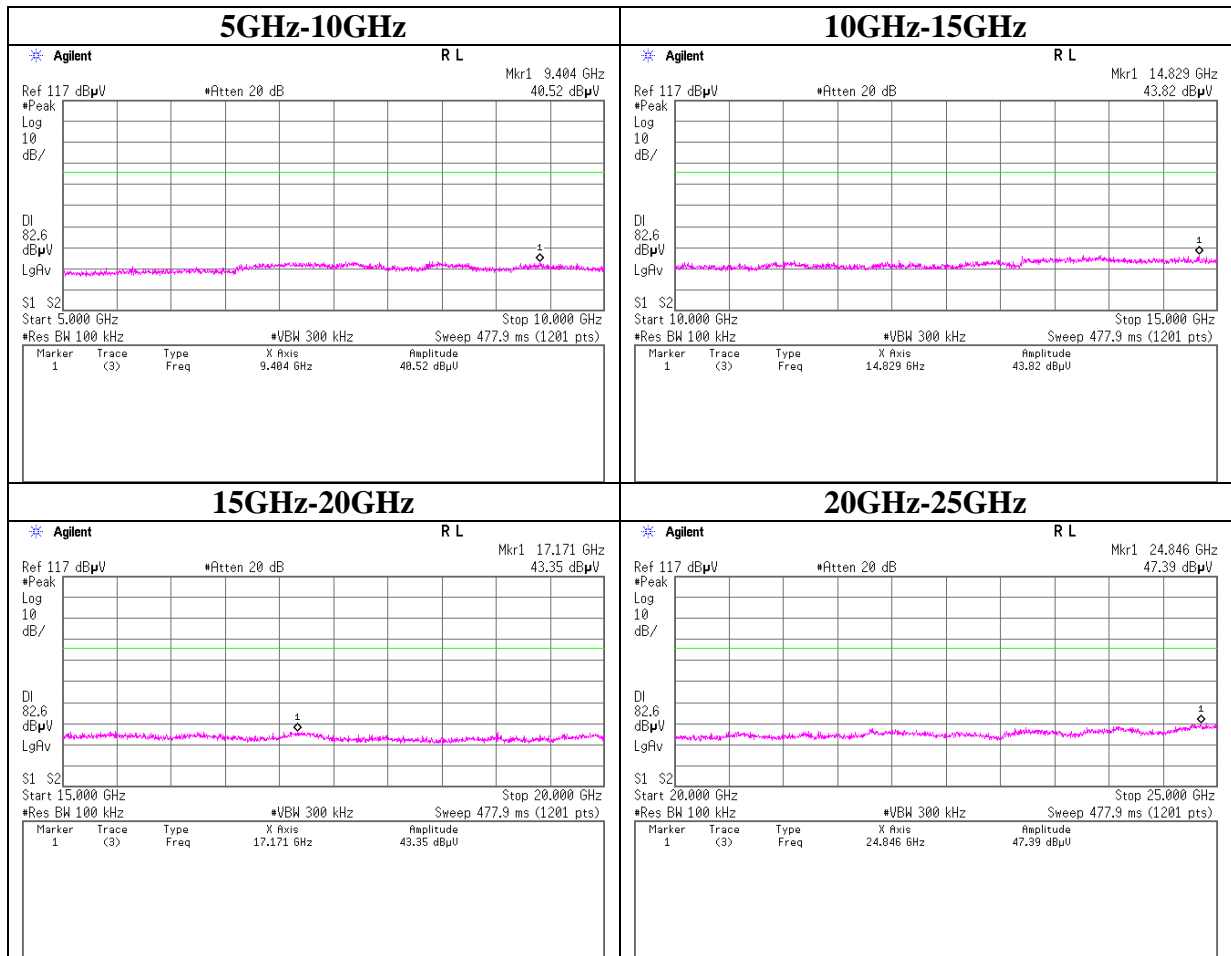
Conducted Spurious Emission

11b Tx 2412MHz



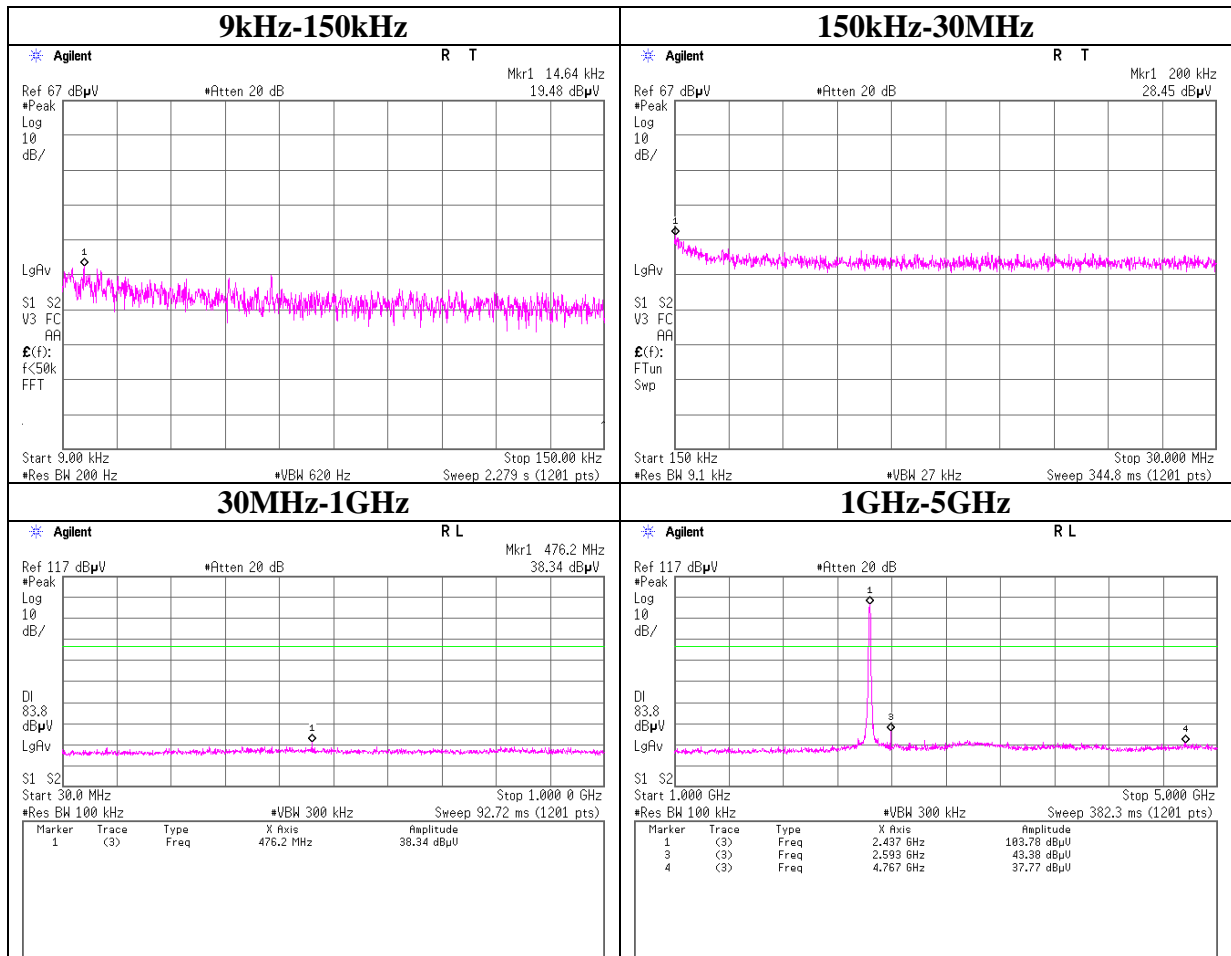
Conducted Spurious Emission

11b Tx 2412MHz



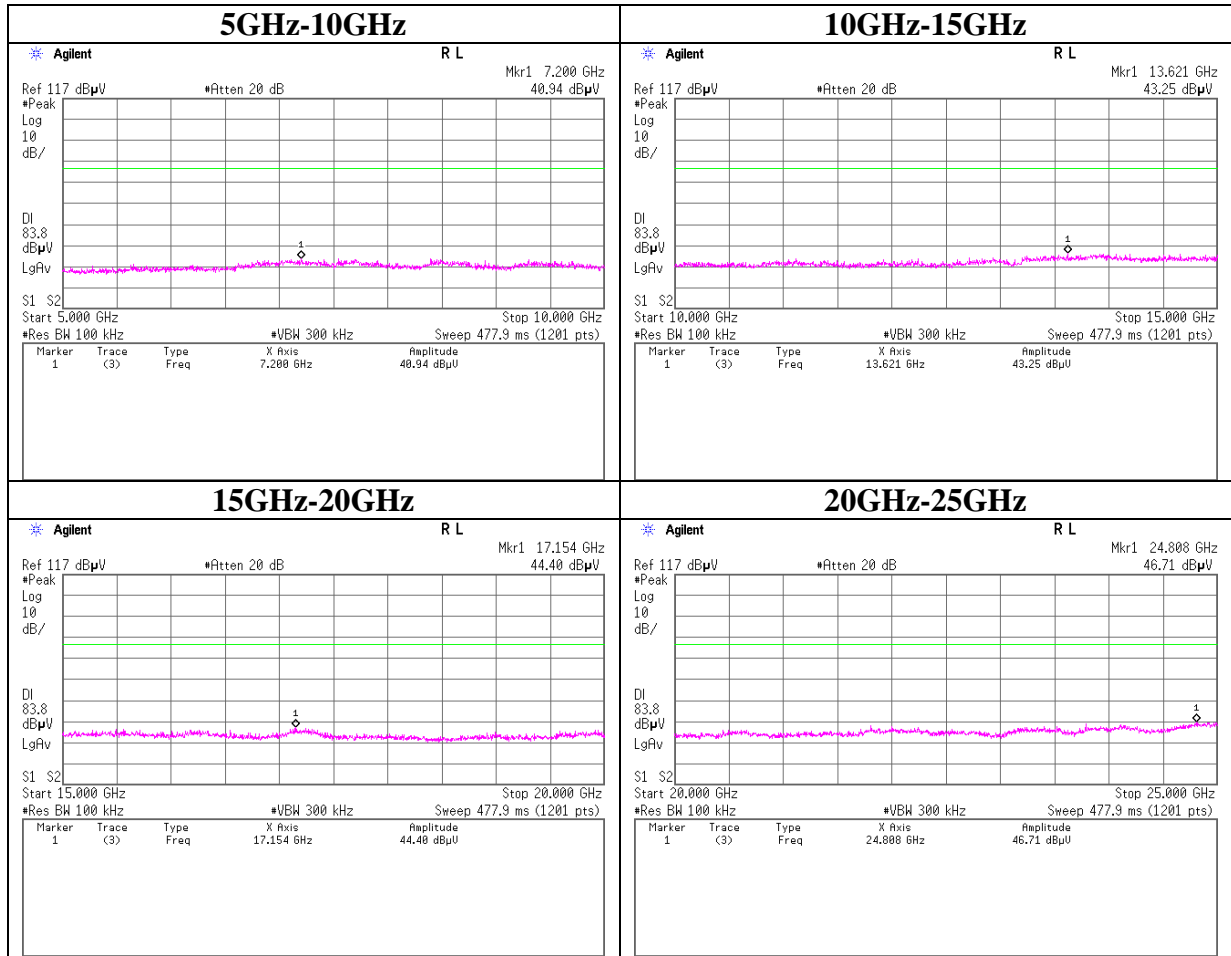
Conducted Spurious Emission

11b Tx 2437MHz



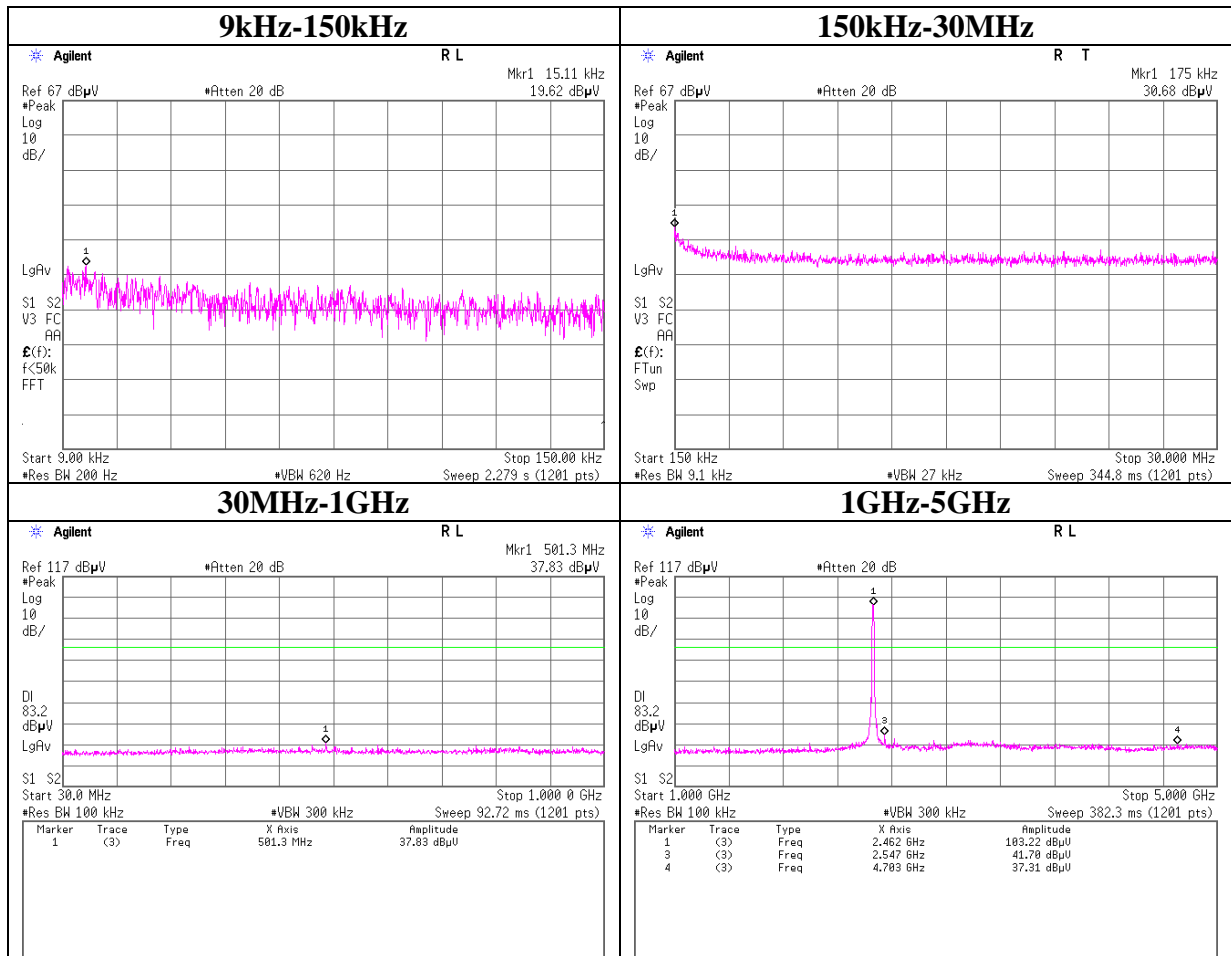
Conducted Spurious Emission

11b Tx 2437MHz



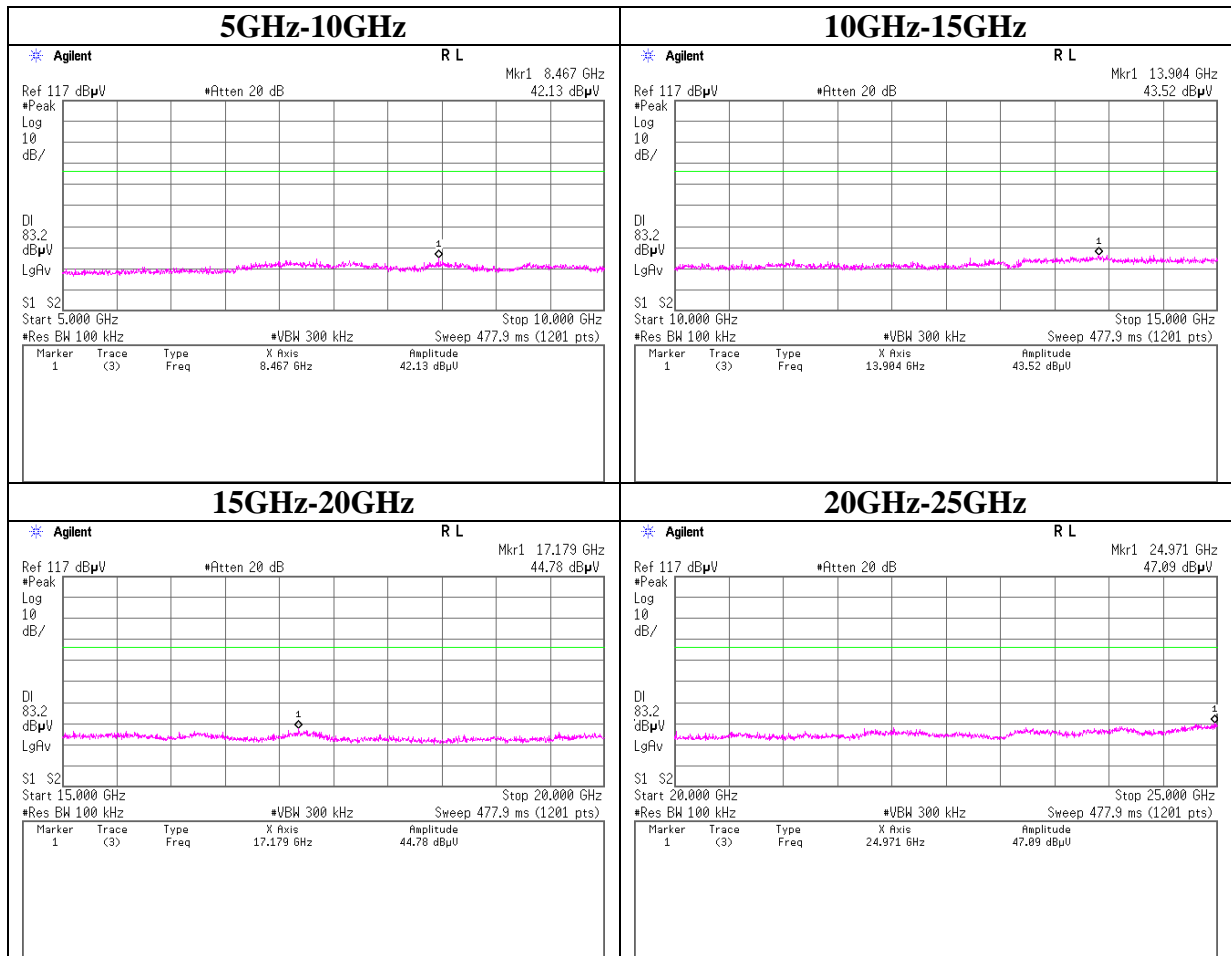
Conducted Spurious Emission

11b Tx 2462MHz



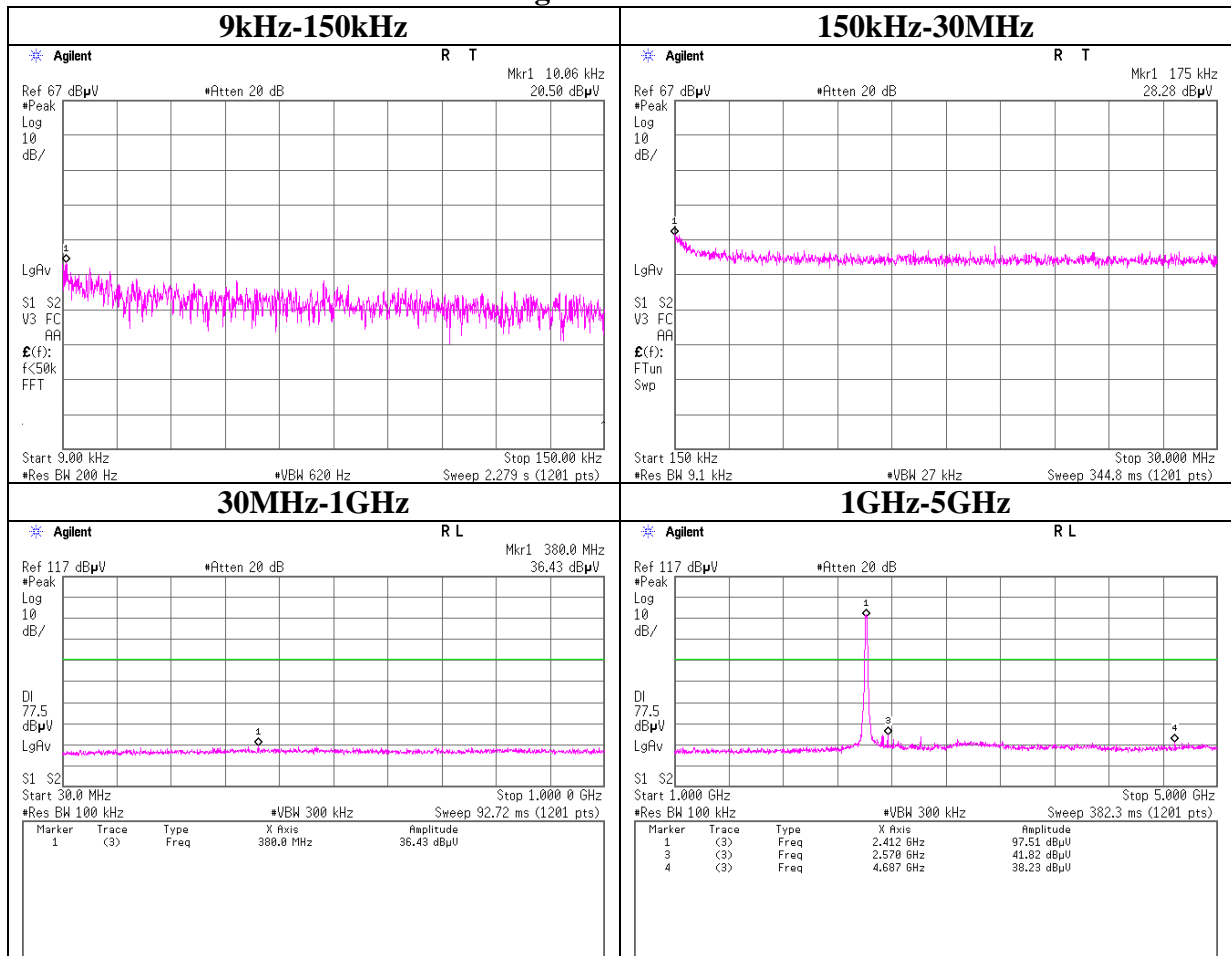
Conducted Spurious Emission

11b Tx 2462MHz



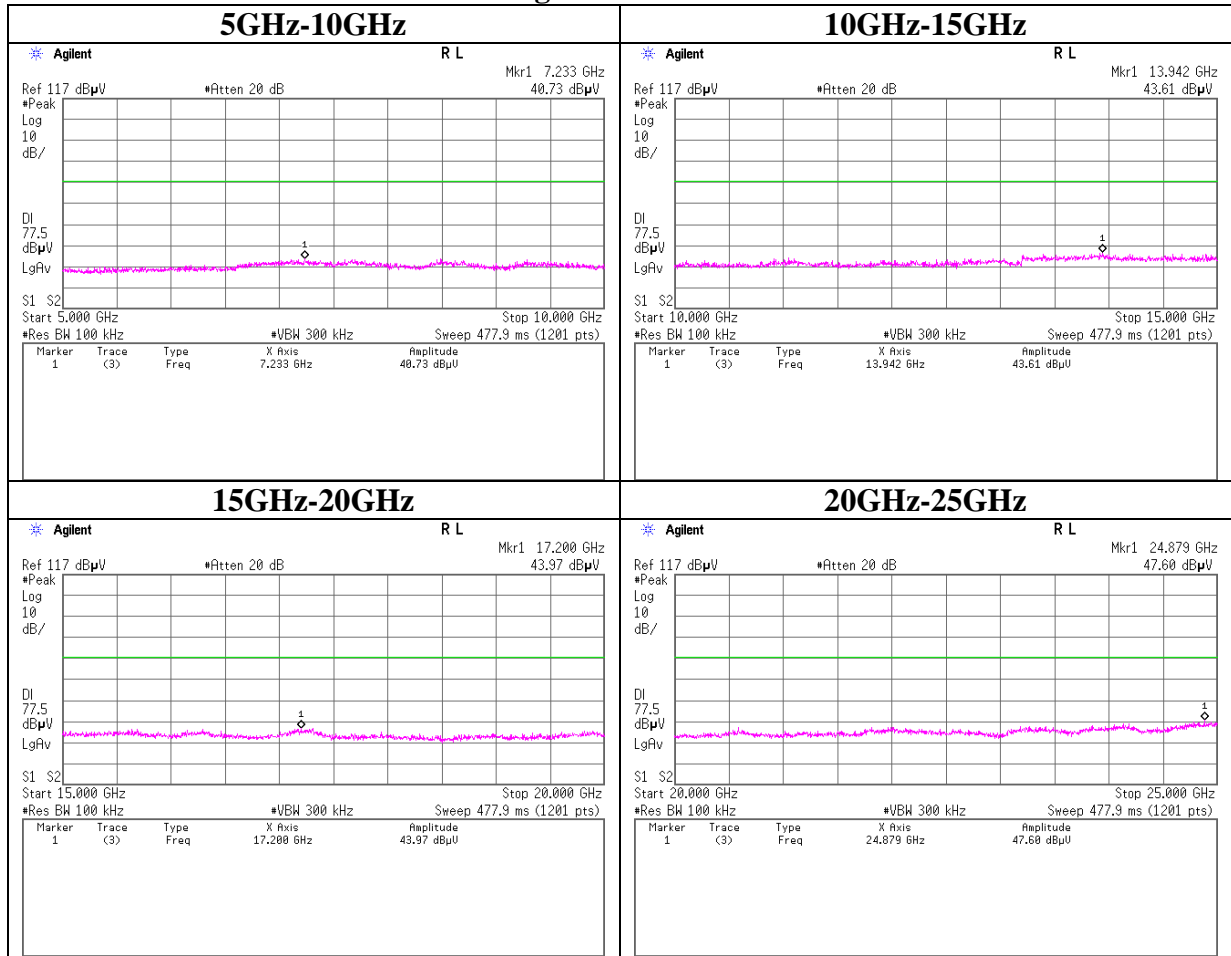
Conducted Spurious Emission

11g Tx 2412MHz



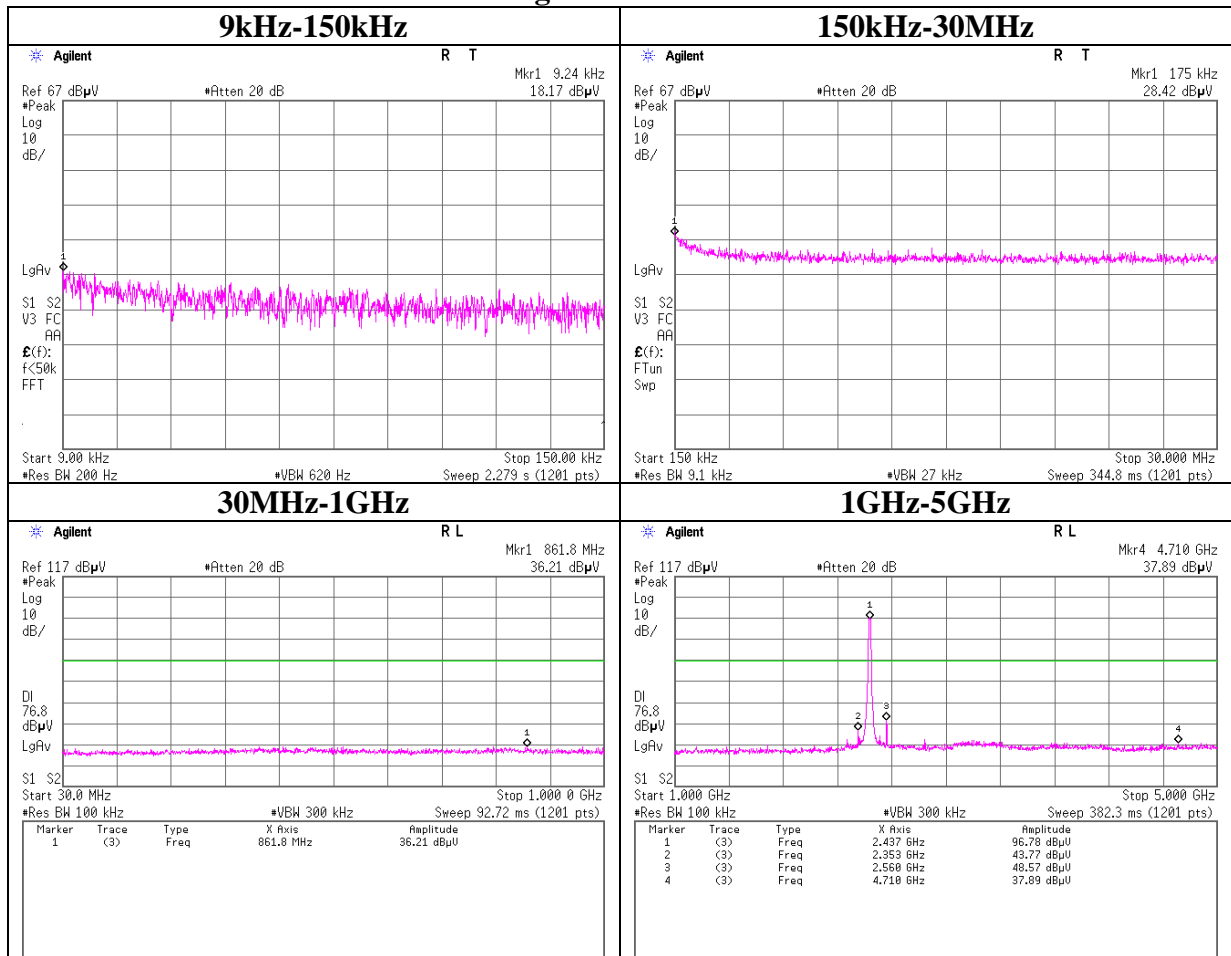
Conducted Spurious Emission

11g Tx 2412MHz



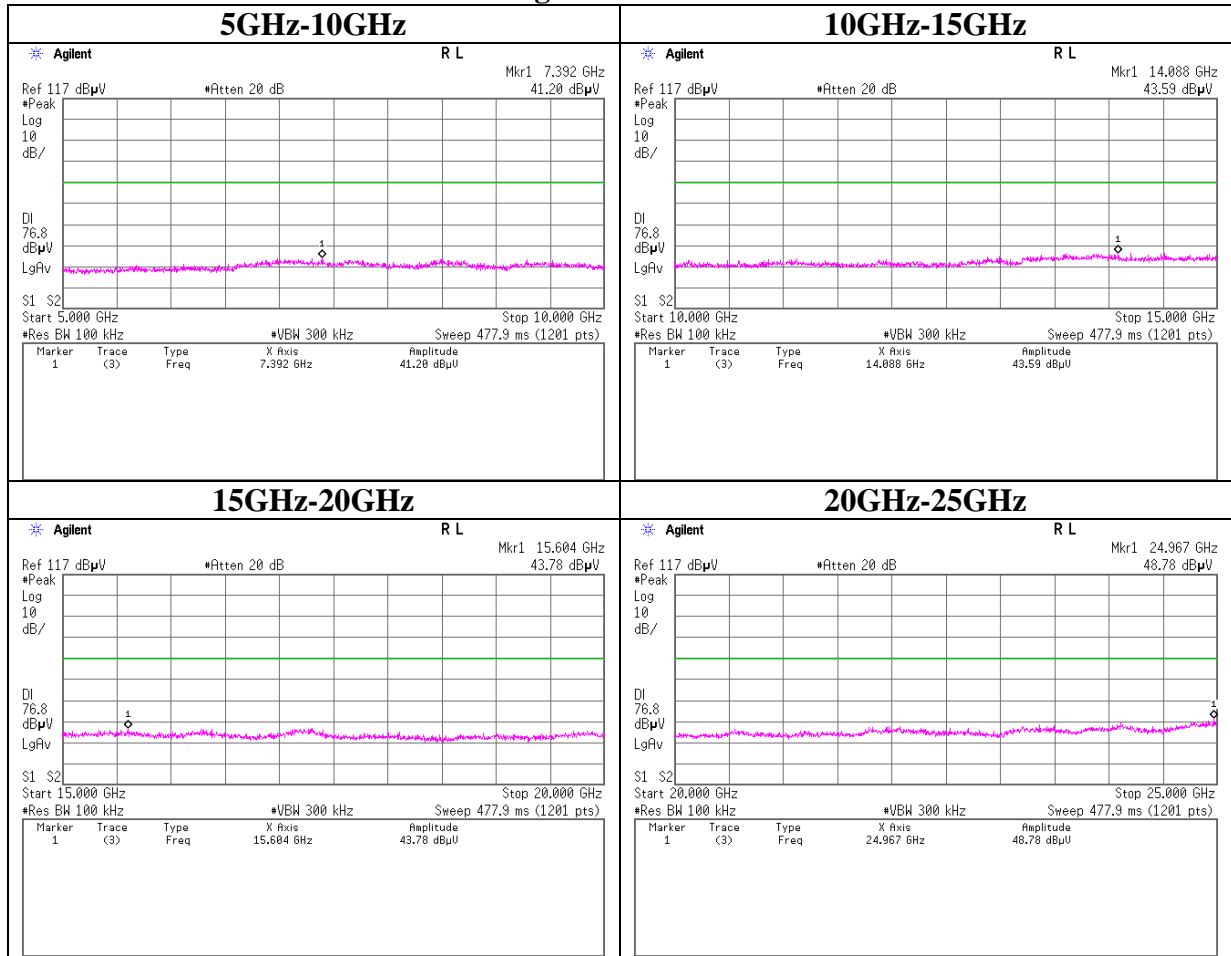
Conducted Spurious Emission

11g Tx 2437MHz



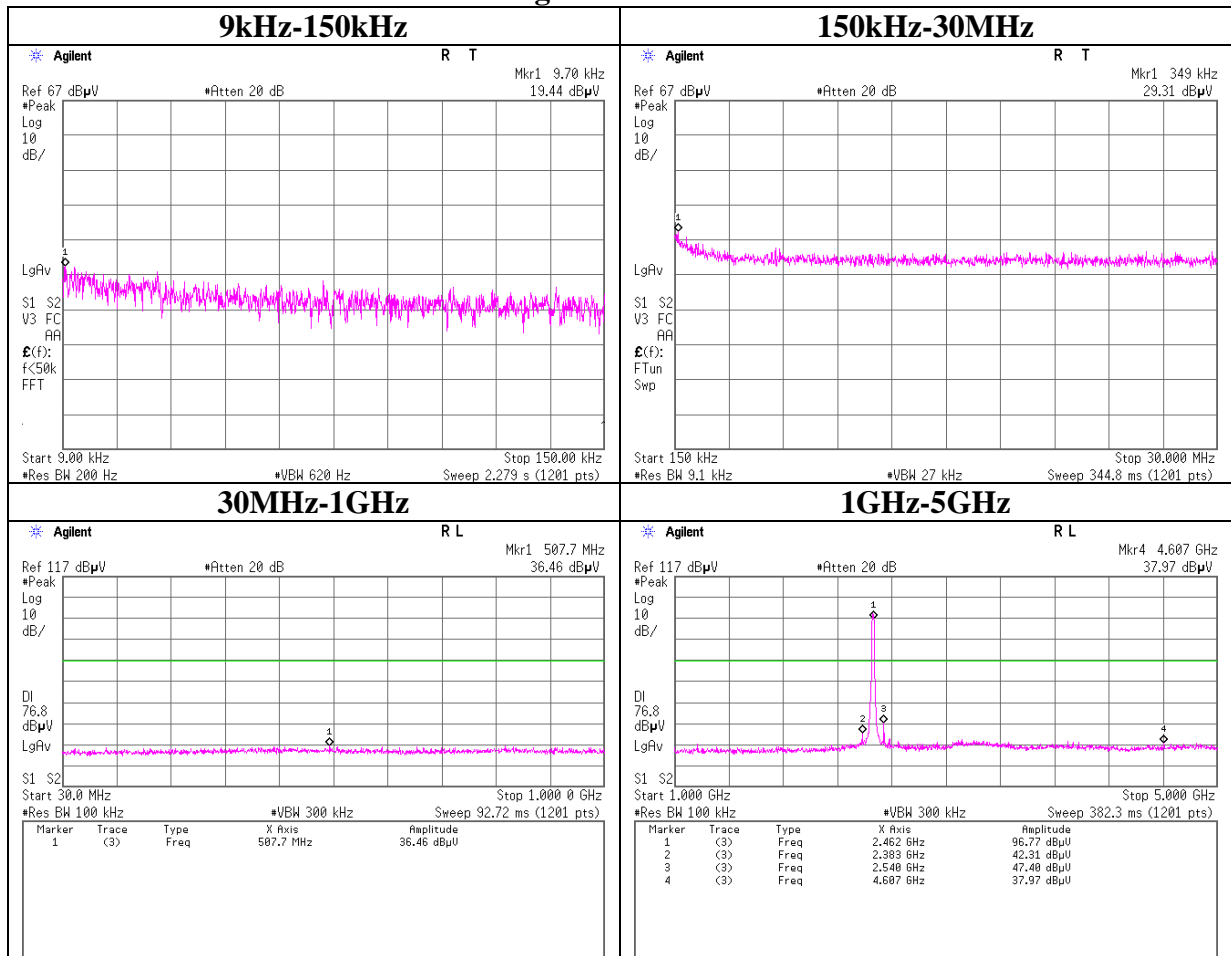
Conducted Spurious Emission

11g Tx 2437MHz



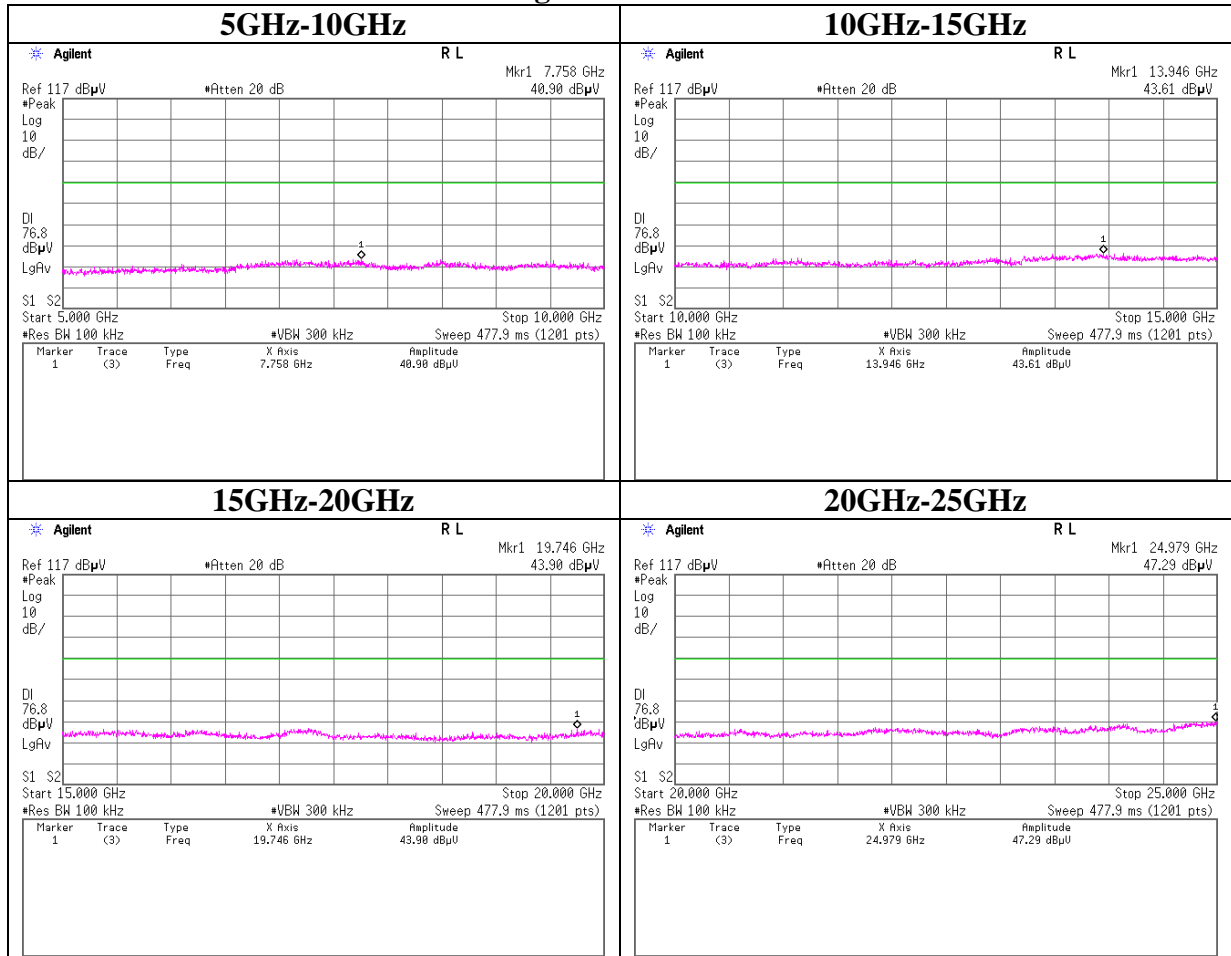
Conducted Spurious Emission

11g Tx 2462MHz

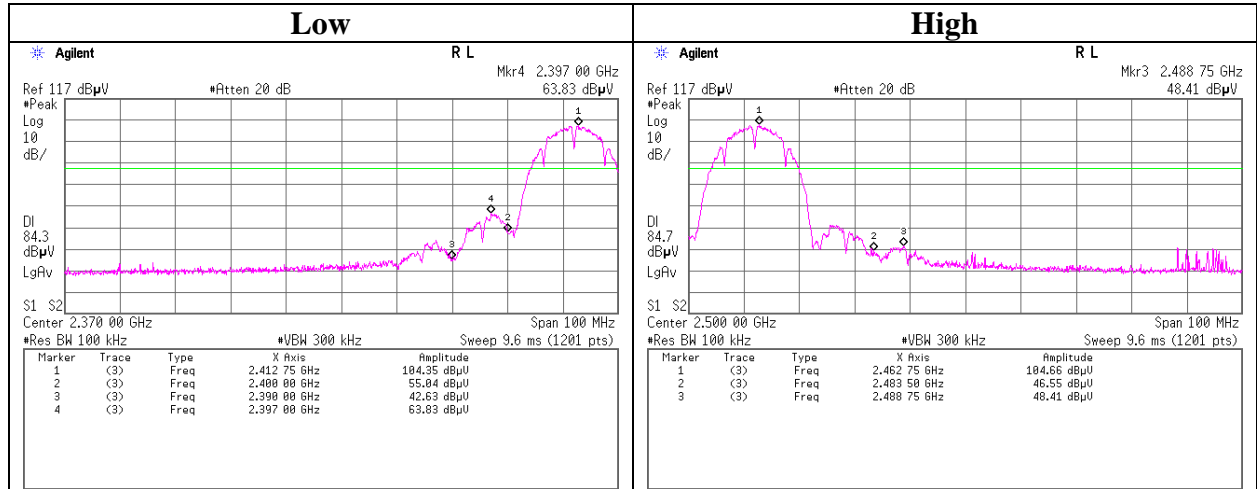


Conducted Spurious Emission

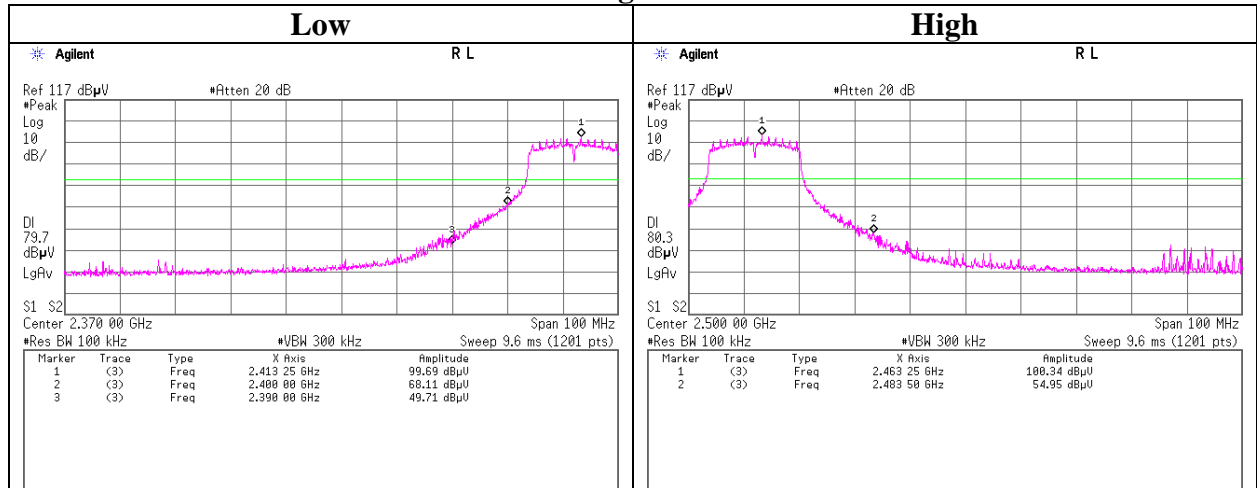
11g Tx 2462MHz



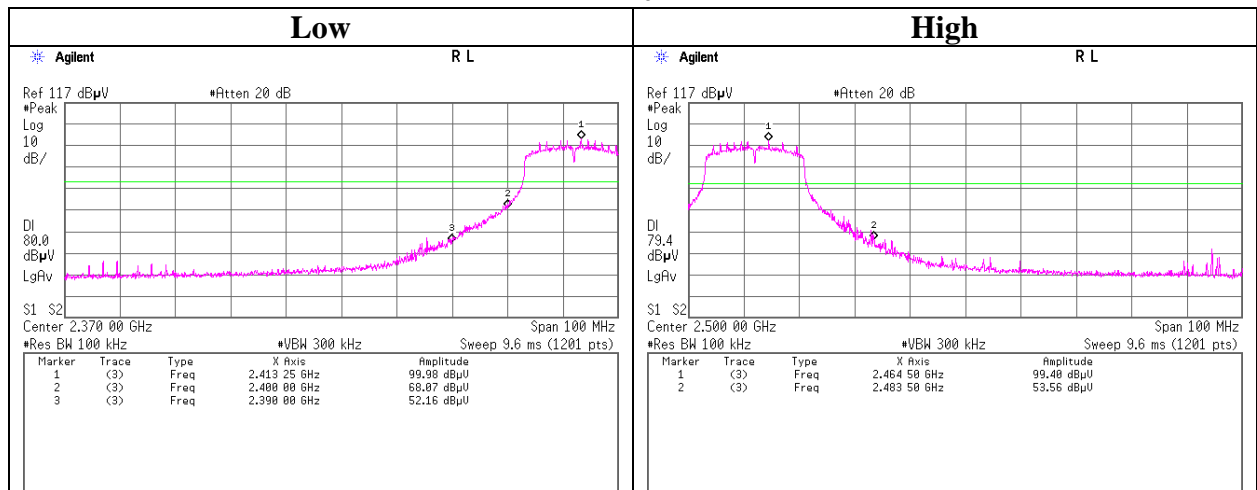
Conducted Emission Band Edge compliance
11b Tx



11g Tx



11n-20 Tx



Power Density

Test place Head Office EMC Lab. No.6 Measurement Room
Report No. 31KE0354-HO-01
Date 07/12/2011
Temperature/ Humidity 22 deg. C / 58% RH
Engineer Hiroshi Kukita
Mode Tx

11b

| Freq. [MHz] | Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result [dBm] | Limit [dBm] | Margin [dB] |
|----------------|------------------|-----------------------|----------------|-----------------|----------------|----------------|
| 2412.00 | -4.43 | 1.44 | 10.07 | 7.08 | 8.00 | 0.92 |
| 2437.00 | -4.54 | 1.45 | 10.07 | 6.98 | 8.00 | 1.02 |
| 2462.00 | -4.84 | 1.45 | 10.07 | 6.68 | 8.00 | 1.32 |

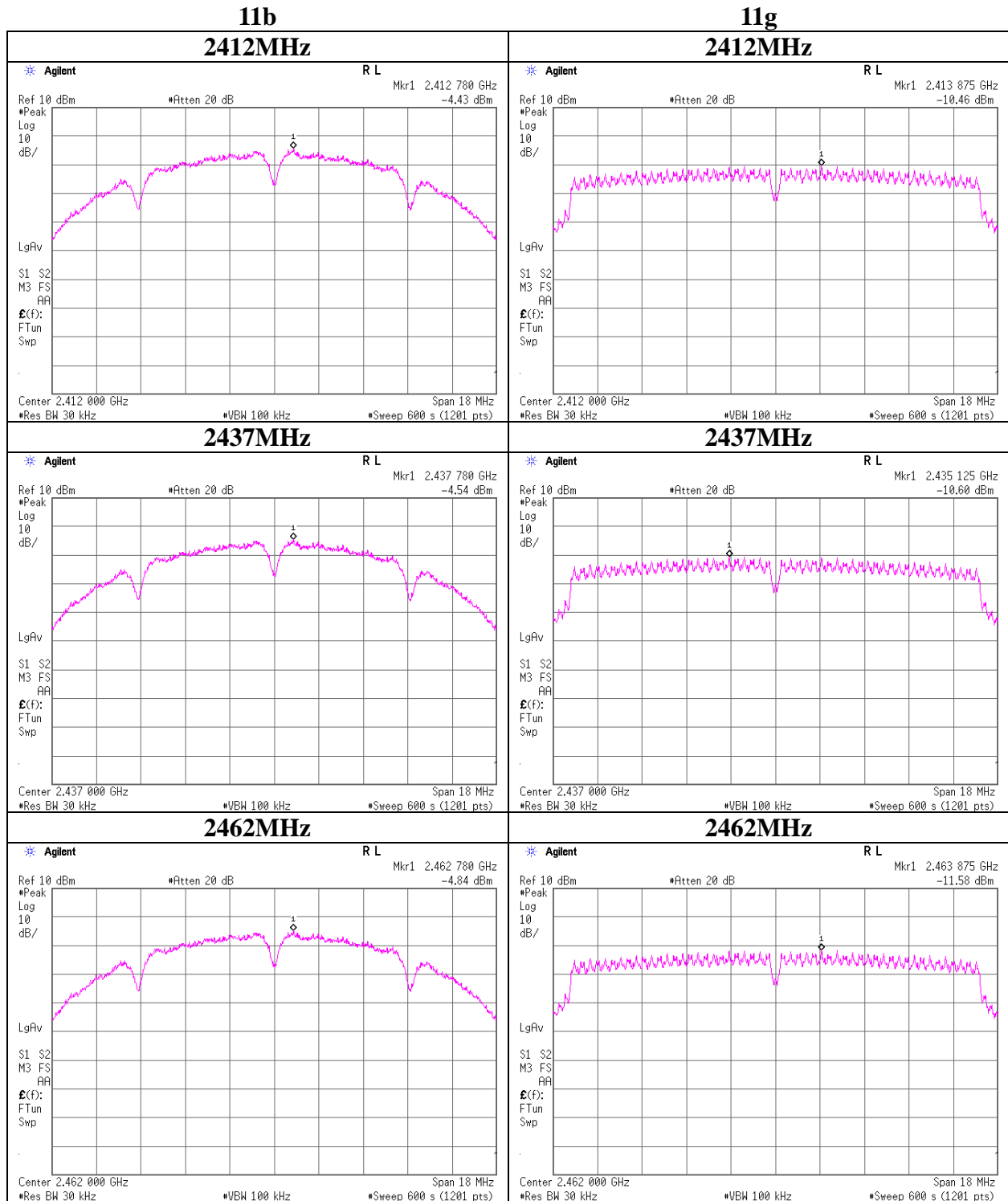
11g

| Freq. [MHz] | Reading [dBm] | Cable Loss [dB] | Atten. [dB] | Result [dBm] | Limit [dBm] | Margin [dB] |
|----------------|------------------|-----------------------|----------------|-----------------|----------------|----------------|
| 2412.00 | -10.46 | 1.44 | 10.07 | 1.05 | 8.00 | 6.95 |
| 2437.00 | -10.60 | 1.45 | 10.07 | 0.92 | 8.00 | 7.08 |
| 2462.00 | -11.58 | 1.45 | 10.07 | -0.06 | 8.00 | 8.06 |

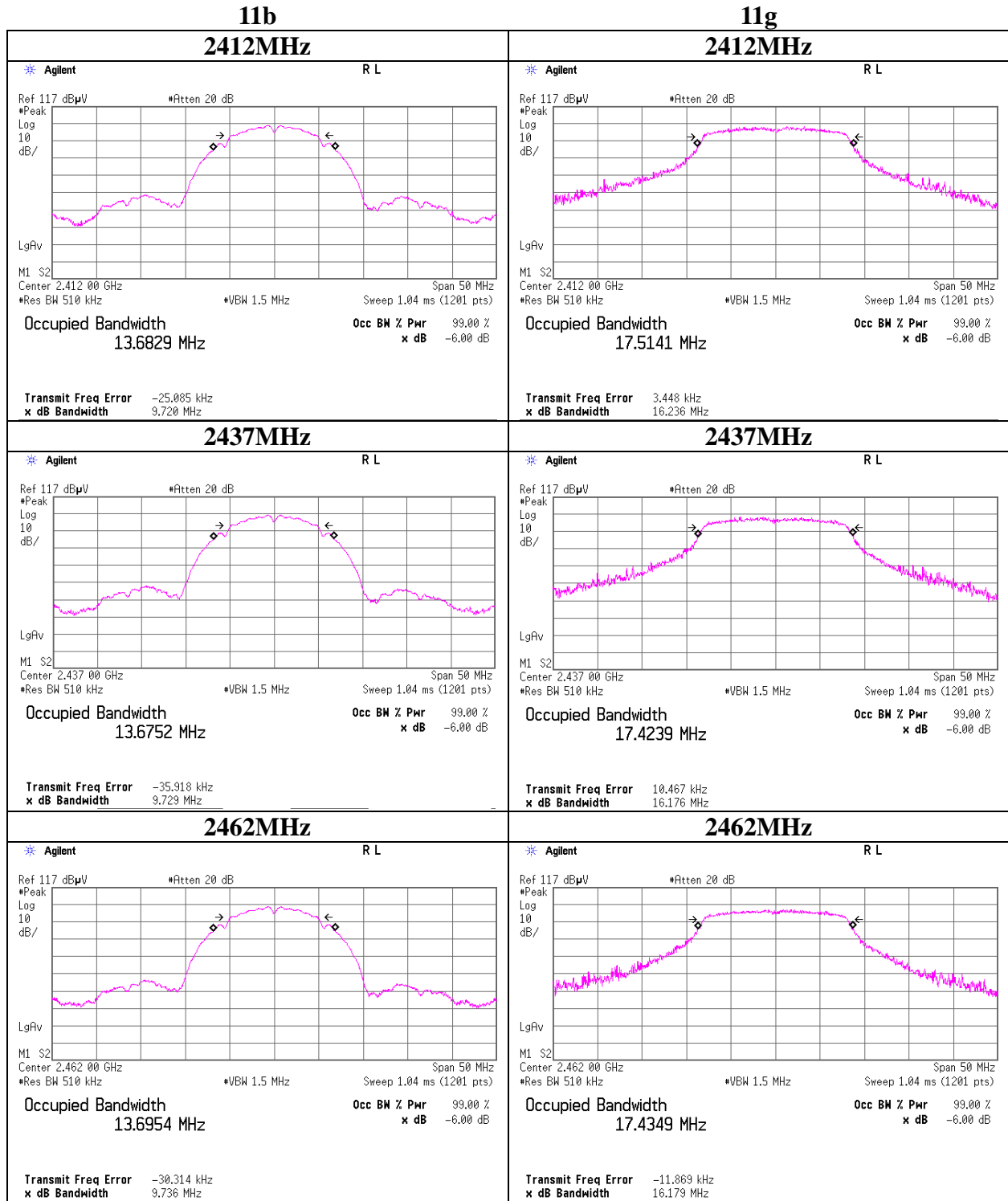
Sample Calculation:

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

Power Density



99% Occupied Bandwidth



APPENDIX 3: Test instruments

EMI test equipment

| Control No. | Instrument | Manufacturer | Model No | Serial No | Test Item | Calibration Date * Interval(month) |
|-------------|----------------------------|----------------------|--|-----------------------------|-----------|---------------------------------------|
| MTR-03 | Test Receiver | Rohde & Schwarz | ESCI | 100300 | CE | 2011/04/15 * 12 |
| MLS-06 | LISN(AMN) | Schwarzbeck | NSLK8127 | 8127363 | CE(EUT) | 2011/02/20 * 12 |
| MLS-07 | LISN(AMN) | Schwarzbeck | NSLK8127 | 8127364 | CE(AE) | 2011/02/22 * 12 |
| MTA-31 | Terminator | TME | CT-01 | - | CE | 2011/01/05 * 12 |
| MCC-13 | Coaxial Cable | Fujikura | 3D-2W(12m)/5D-2W(5m)/5D-2W(0.8m)/5D-2W(1m) | - | CE | 2011/02/18 * 12 |
| MAT-65 | Attenuator(13dB) | JFW Industries, Inc. | 50FP-013H2 N | - | CE | 2011/02/21 * 12 |
| MAEC-02 | Semi Anechoic Chamber(NSA) | TDK | Semi Anechoic Chamber 3m | DA-06902 | RE/CE | 2010/09/01 * 12 |
| MOS-22 | Thermo-Hygrometer | Custom | CTH-201 | 0003 | RE/AT/CE | 2011/02/23 * 12 |
| MJM-14 | Measure | KOMELON | KMC-36 | - | RE/CE | - |
| COTS-MEMI | EMI measurement program | TSJ | TEPTO-DV | - | RE/CE | - |
| MSA-04 | Spectrum Analyzer | Agilent | E4448A | US44300523 | RE/CE | 2011/04/08 * 12 |
| MHA-06 | Horn Antenna 1-18GHz | Schwarzbeck | BBHA9120D | 254 | RE | 2011/01/16 * 12 |
| MPA-10 | Pre Amplifier | Agilent | 8449B | 3008A02142 | RE | 2010/09/30 * 12 |
| MCC-18 | Microwave Cable 1G-26.5GHz | Suhner | SUCOFLEX 104 | 148048-143(1m) / 292410(5m) | RE | 2010/09/30 * 12 |
| MHF-06 | High Pass Filter 3.5-24GHz | TOKIMEC | TF323DCA | 601 | RE | 2011/05/16 * 12 |
| MAT-23 | Attenuator(10dB) 1-18GHz | Orient Microwave | BX10-0476-00 | - | AT | 2011/03/14 * 12 |
| MPM-08 | Power Meter | Anritsu | ML2495A | 6K00003338 | AT | 2010/09/10 * 12 |
| MPSE-11 | Power sensor | Anritsu | MA2411B | 011737 | AT | 2010/09/10 * 12 |
| MHA-02 | Horn Antenna 18-26.5GHz | EMCO | 3160-09 | 1265 | RE | 2011/01/16 * 12 |
| MAEC-04 | Semi Anechoic Chamber(NSA) | TDK | Semi Anechoic Chamber 3m | DA-10005 | RE | 2011/03/01 * 12 |
| MOS-15 | Thermo-Hygrometer | Custom | CTH-180 | - | RE | 2011/02/23 * 12 |
| MJM-07 | Measure | PROMART | SEN1955 | - | RE | - |
| MSA-05 | Spectrum Analyzer | Advantest | R3273 | 160400285 | RE | 2010/11/18 * 12 |
| MTR-07 | Test Receiver | Rohde & Schwarz | ESCI | 100635 | RE | 2010/10/27 * 12 |
| MBA-05 | Biconical Antenna | Schwarzbeck | BBA9106 | 1302 | RE | 2010/10/11 * 12 |
| MLA-08 | Logperiodic Antenna | Schwarzbeck | UKLP9140-A | N/A | RE | 2010/10/11 * 12 |
| MCC-50 | Coaxial Cable | UL Japan | - | - | RE | 2011/03/25 * 12 |
| MAT-51 | Attenuator(6dB) | Weinschel | 2 | AS3557 | RE | 2011/01/14 * 12 |
| MPA-14 | Pre Amplifier | SONOMA INSTRUMENT | 310 | 260833 | RE | 2011/03/04 * 12 |
| MRENT-95 | Spectrum Analyzer | Agilent | E4440A | MY45305081 | AT | 2011/06/30 * 12 |
| MOS-04 | Digital Humidity Indicator | N.T | NT-1800 | MOS04 | AT | 2011/02/23 * 12 |
| MCC-115 | Microwave Cable 1G-26.5GHz | Suhner | SUCOFLEX104 | 290211/4 | AT | 2010/08/05 * 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.

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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