

## APPENDIX 2: Data of EMI test

### Conducted Emission 11a, Tx, 5180MHz

#### DATA OF CONDUCTED EMISSION TEST

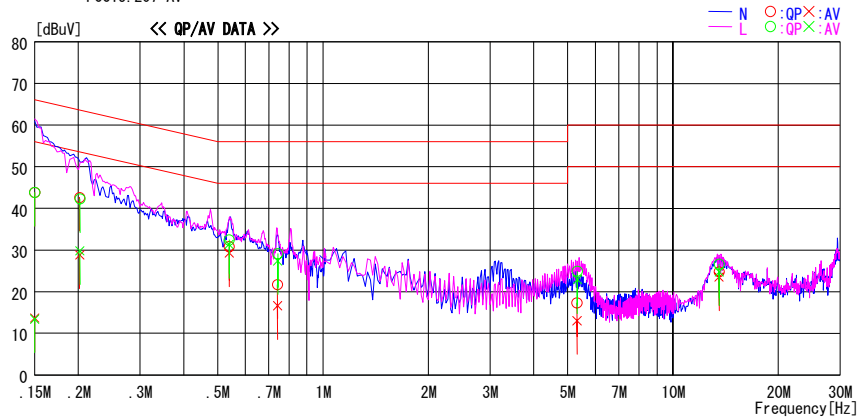
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5180MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV



| Frequency<br>[MHz] | Reading Level |              | Corr.<br>Factor<br>[dB] | Results      |              | Limit        |              | Margin     |            | Phase | Comment |
|--------------------|---------------|--------------|-------------------------|--------------|--------------|--------------|--------------|------------|------------|-------|---------|
|                    | QP<br>[dBuV]  | AV<br>[dBuV] |                         | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dB] | AV<br>[dB] |       |         |
| 0.15001            | 43.5          | 13.3         | 0.3                     | 43.8         | 13.6         | 66.0         | 56.0         | 22.2       | 42.4       | N     |         |
| 0.20162            | 42.3          | 28.5         | 0.3                     | 42.6         | 28.8         | 63.5         | 53.5         | 20.9       | 24.7       | N     |         |
| 0.53932            | 30.5          | 29.0         | 0.3                     | 30.8         | 29.3         | 56.0         | 46.0         | 25.2       | 16.7       | N     |         |
| 0.74142            | 21.3          | 16.2         | 0.4                     | 21.7         | 16.6         | 56.0         | 46.0         | 34.3       | 29.4       | N     |         |
| 5.32211            | 16.4          | 12.1         | 0.9                     | 17.3         | 13.0         | 60.0         | 50.0         | 42.7       | 37.0       | N     |         |
| 13.53831           | 23.2          | 22.0         | 1.5                     | 24.7         | 23.5         | 60.0         | 50.0         | 35.3       | 26.5       | N     |         |
| 0.15001            | 43.5          | 13.1         | 0.3                     | 43.8         | 13.4         | 66.0         | 56.0         | 22.2       | 42.6       | L     |         |
| 0.20178            | 42.0          | 29.5         | 0.3                     | 42.3         | 29.8         | 63.5         | 53.5         | 21.2       | 23.7       | L     |         |
| 0.53885            | 32.1          | 31.0         | 0.3                     | 32.4         | 31.3         | 56.0         | 46.0         | 23.6       | 14.7       | L     |         |
| 0.74195            | 28.7          | 27.0         | 0.4                     | 29.1         | 27.4         | 56.0         | 46.0         | 26.9       | 18.6       | L     |         |
| 5.32991            | 24.0          | 21.9         | 0.9                     | 24.9         | 22.8         | 60.0         | 50.0         | 35.1       | 27.2       | L     |         |
| 13.55940           | 25.1          | 23.2         | 1.5                     | 26.6         | 24.7         | 60.0         | 50.0         | 33.4       | 25.3       | L     |         |

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

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

## Conducted Emission 11a, Tx, 5220MHz

### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5220MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV

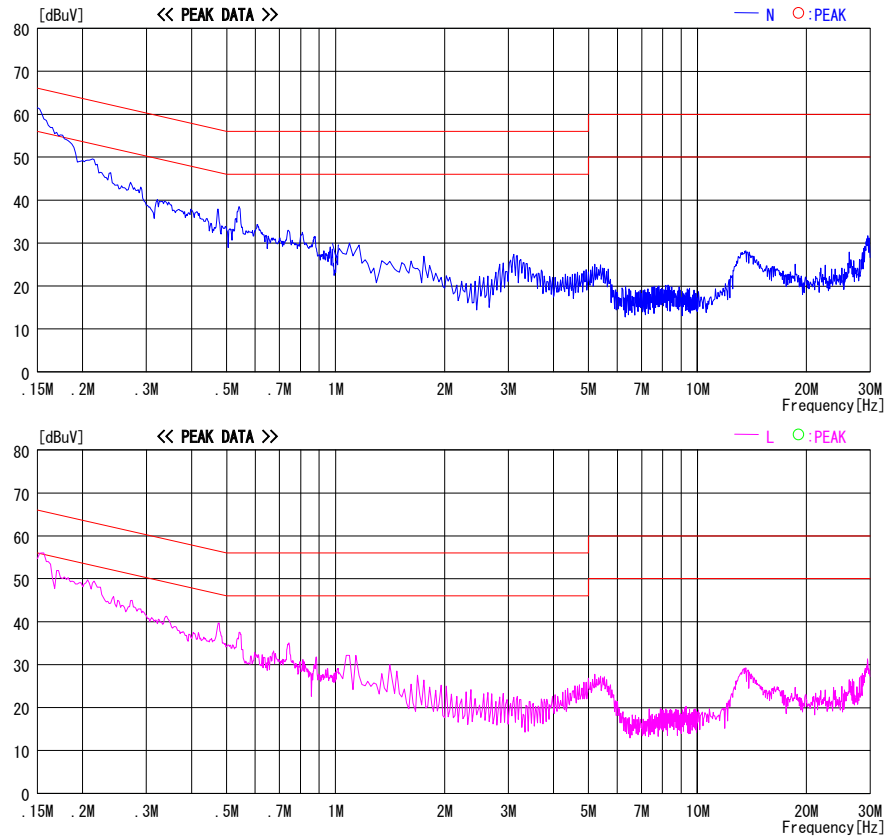


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

## Conducted Emission 11a, Tx, 5240MHz

### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5240MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV

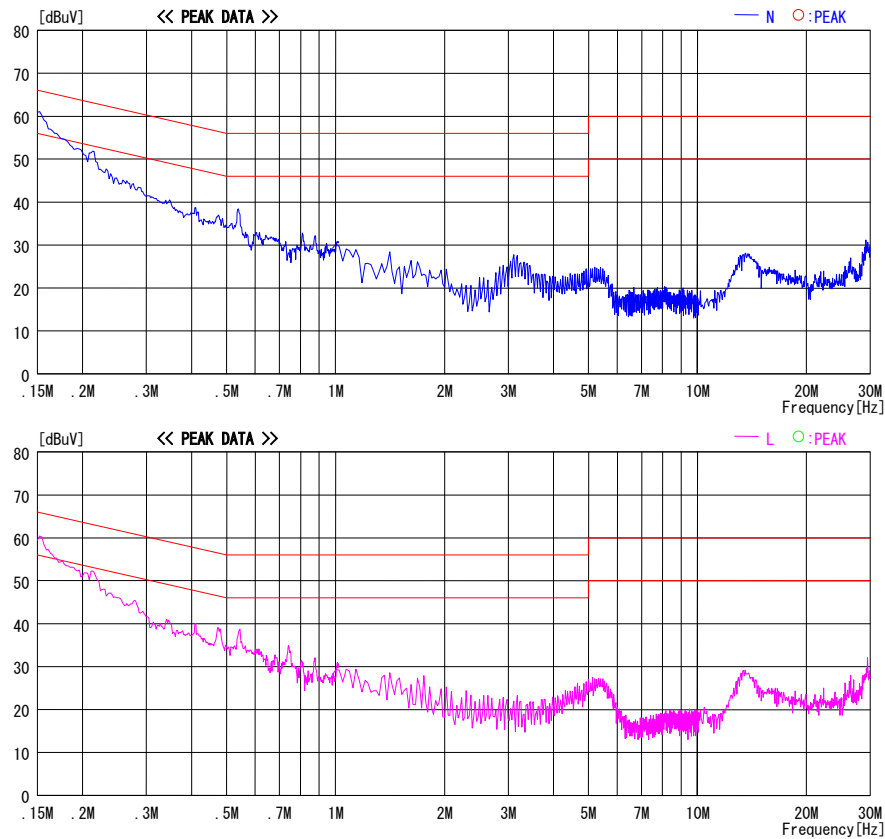


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

## Conducted Emission

### 11a, Tx, 5260MHz

## DATA OF CONDUCTED EMISSION TEST

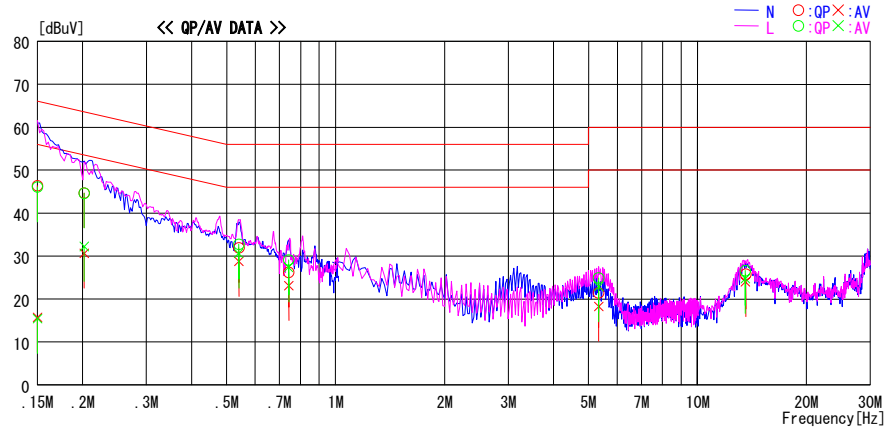
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5260MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV



| Frequency<br>[MHz] | Reading Level |              | Corr.<br>Factor | Results      |              | Limit        |              | Margin     |            | Phase | Comment |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|---------|
|                    | QP<br>[dBuV]  | AV<br>[dBuV] |                 | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dB] | AV<br>[dB] |       |         |
| 0.15001            | 46.1          | 15.4         | 0.3             | 46.4         | 15.7         | 66.0         | 56.0         | 19.6       | 40.3       | N     |         |
| 0.20220            | 44.4          | 30.3         | 0.3             | 44.7         | 30.6         | 63.5         | 53.5         | 18.8       | 22.9       | N     |         |
| 0.54087            | 31.6          | 28.4         | 0.3             | 31.9         | 28.7         | 56.0         | 46.0         | 24.1       | 17.3       | N     |         |
| 0.74312            | 25.8          | 22.7         | 0.4             | 26.2         | 23.1         | 56.0         | 46.0         | 29.8       | 22.9       | N     |         |
| 5.33280            | 20.5          | 17.3         | 0.9             | 21.4         | 18.2         | 60.0         | 50.0         | 38.6       | 31.8       | N     |         |
| 13.56941           | 24.3          | 22.5         | 1.5             | 25.8         | 24.0         | 60.0         | 50.0         | 34.2       | 26.0       | N     |         |
| 0.15001            | 45.8          | 15.1         | 0.3             | 46.1         | 15.4         | 66.0         | 56.0         | 19.9       | 40.6       | L     |         |
| 0.20220            | 44.3          | 31.9         | 0.3             | 44.6         | 32.2         | 63.5         | 53.5         | 18.9       | 21.3       | L     |         |
| 0.54013            | 32.4          | 30.3         | 0.3             | 32.7         | 30.6         | 56.0         | 46.0         | 23.3       | 15.4       | L     |         |
| 0.74257            | 28.7          | 27.0         | 0.4             | 29.1         | 27.4         | 56.0         | 46.0         | 26.9       | 18.6       | L     |         |
| 5.33221            | 24.0          | 21.9         | 0.9             | 24.9         | 22.8         | 60.0         | 50.0         | 35.1       | 27.2       | L     |         |
| 13.56481           | 25.1          | 23.2         | 1.5             | 26.6         | 24.7         | 60.0         | 50.0         | 33.4       | 25.3       | L     |         |

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

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

**Conducted Emission**  
**11a, Tx, 5300MHz**

**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5300MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV

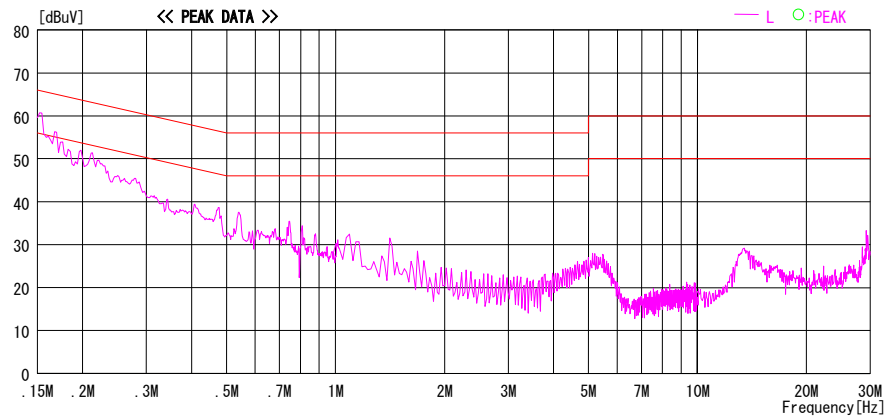
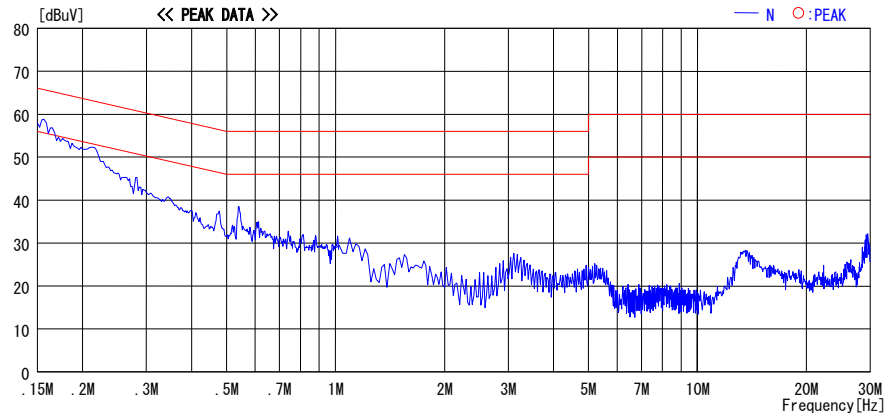


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

## Conducted Emission 11a, Tx, 5320MHz

### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5320MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV

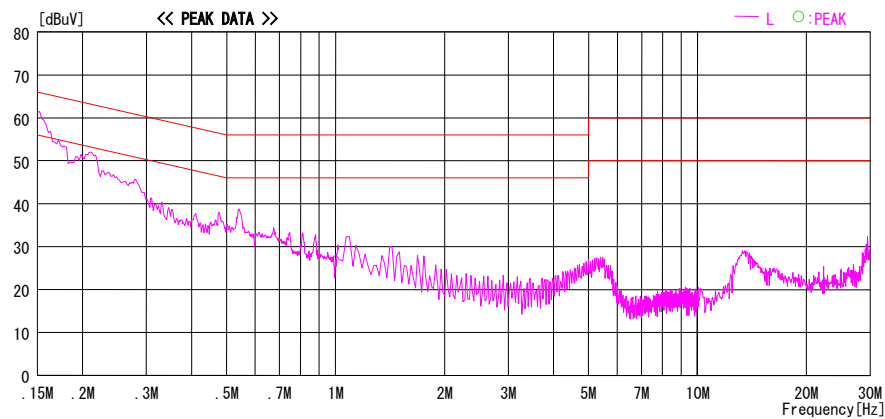
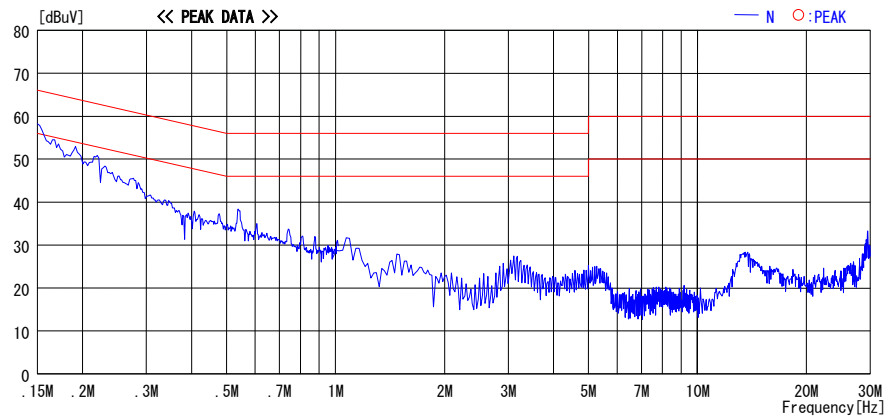


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

## Conducted Emission 11a, Tx, 5500MHz

### DATA OF CONDUCTED EMISSION TEST

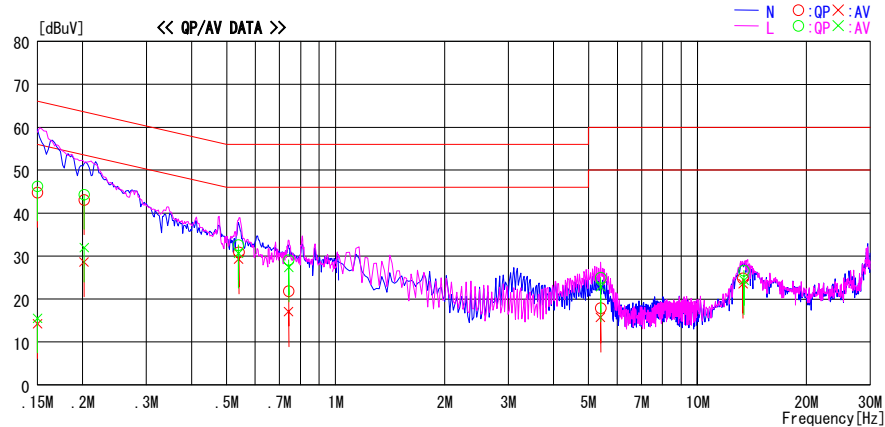
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5500MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV



| Frequency<br>[MHz] | Reading Level |              | Corr.<br>Factor | Results      |              | Limit        |              | Margin     |            | Phase | Comment |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|---------|
|                    | QP<br>[dBuV]  | AV<br>[dBuV] |                 | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dB] | AV<br>[dB] |       |         |
| 0.15001            | 44.5          | 13.9         | 0.3             | 44.8         | 14.2         | 66.0         | 56.0         | 21.2       | 41.8       | N     |         |
| 0.20198            | 42.8          | 28.3         | 0.3             | 43.1         | 28.6         | 63.5         | 53.5         | 20.4       | 24.9       | N     |         |
| 0.53994            | 30.6          | 29.0         | 0.3             | 30.9         | 29.3         | 56.0         | 46.0         | 25.1       | 16.7       | N     |         |
| 0.74196            | 21.4          | 16.6         | 0.4             | 21.8         | 17.0         | 56.0         | 46.0         | 34.2       | 29.0       | N     |         |
| 5.39567            | 17.0          | 14.8         | 0.9             | 17.9         | 15.7         | 60.0         | 50.0         | 42.1       | 34.3       | N     |         |
| 13.35121           | 23.3          | 22.1         | 1.5             | 24.8         | 23.6         | 60.0         | 50.0         | 35.2       | 26.4       | N     |         |
| 0.15001            | 45.9          | 15.2         | 0.3             | 46.2         | 15.5         | 66.0         | 56.0         | 19.8       | 40.5       | L     |         |
| 0.20219            | 44.0          | 31.7         | 0.3             | 44.3         | 32.0         | 63.5         | 53.5         | 19.2       | 21.5       | L     |         |
| 0.53984            | 32.3          | 30.3         | 0.3             | 32.6         | 30.6         | 56.0         | 46.0         | 23.4       | 15.4       | L     |         |
| 0.74327            | 28.7          | 27.0         | 0.4             | 29.1         | 27.4         | 56.0         | 46.0         | 26.9       | 18.6       | L     |         |
| 5.40163            | 24.1          | 21.9         | 0.9             | 25.0         | 22.8         | 60.0         | 50.0         | 35.0       | 27.2       | L     |         |
| 13.43836           | 25.1          | 22.9         | 1.5             | 26.6         | 24.4         | 60.0         | 50.0         | 33.4       | 25.6       | L     |         |

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

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

## Conducted Emission 11a, Tx, 5600MHz

### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5600MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV

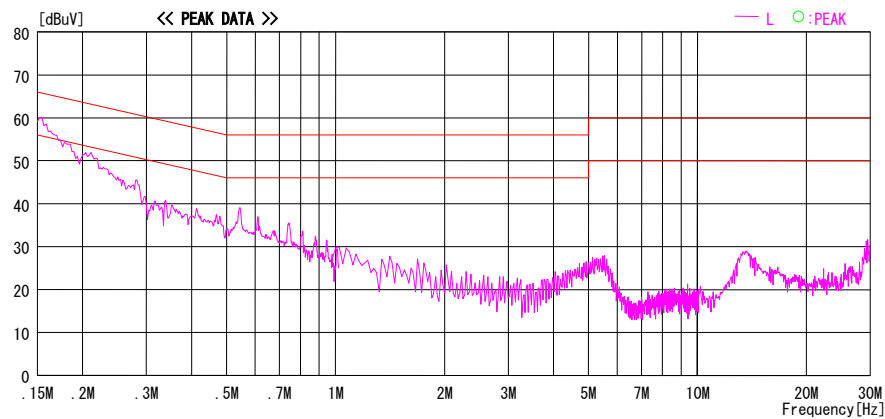
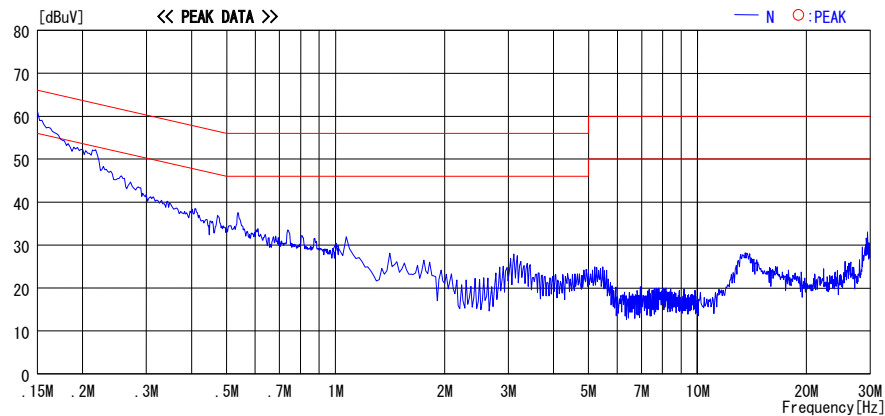


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.



## Conducted Emission 11a, Tx, 5700MHz

### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5700MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV

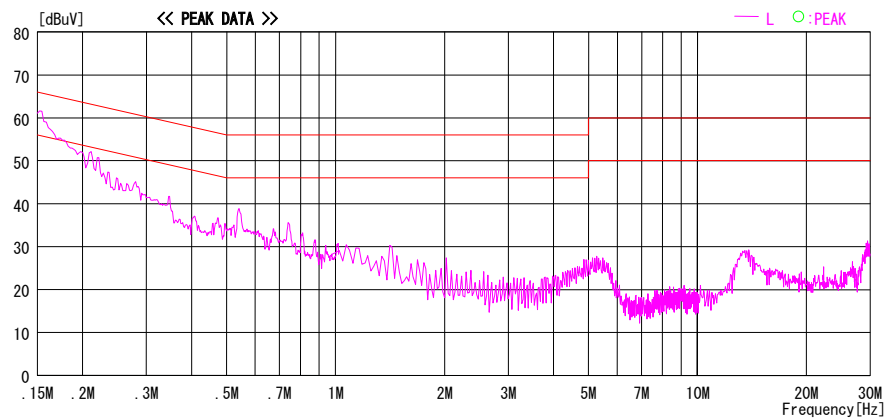
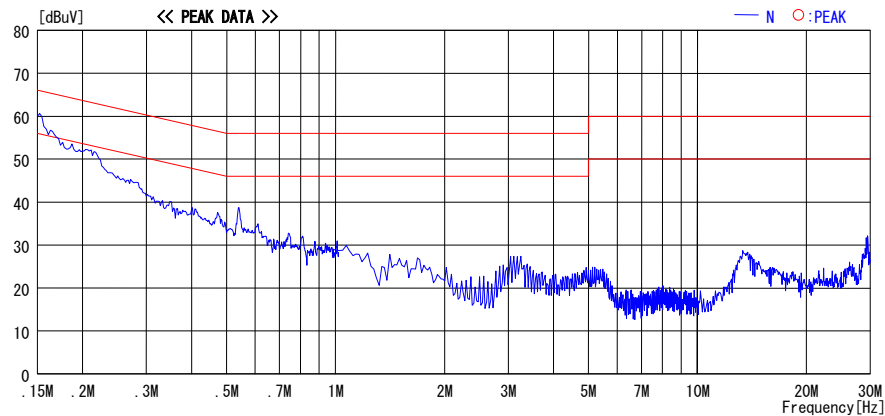


CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)  
Except for the above table : adequate margin data below the limits.

## Conducted Emission

### 11a, Rx, 5220MHz

## DATA OF CONDUCTED EMISSION TEST

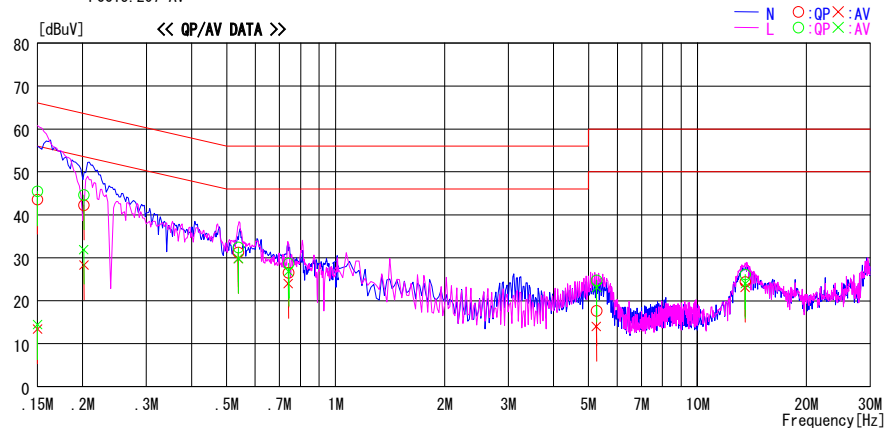
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg. C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Rx 5220MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV



| Frequency<br>[MHz] | Reading Level |              | Corr.<br>Factor | Results      |              | Limit        |              | Margin     |            | Phase | Comment |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|---------|
|                    | QP<br>[dBuV]  | AV<br>[dBuV] |                 | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dB] | AV<br>[dB] |       |         |
| 0.15001            | 43.3          | 13.1         | 0.3             | 43.6         | 13.4         | 66.0         | 56.0         | 22.4       | 42.6       | N     |         |
| 0.20158            | 42.0          | 28.0         | 0.3             | 42.3         | 28.3         | 63.5         | 53.5         | 21.2       | 25.2       | N     |         |
| 0.53861            | 31.0          | 29.5         | 0.3             | 31.3         | 29.8         | 56.0         | 46.0         | 24.7       | 16.2       | N     |         |
| 0.74043            | 26.1          | 23.6         | 0.4             | 26.5         | 24.0         | 56.0         | 46.0         | 29.5       | 22.0       | N     |         |
| 5.25358            | 16.7          | 13.1         | 0.9             | 17.6         | 14.0         | 60.0         | 50.0         | 42.4       | 36.0       | N     |         |
| 13.53671           | 22.9          | 21.6         | 1.5             | 24.4         | 23.1         | 60.0         | 50.0         | 35.6       | 26.9       | N     |         |
| 0.15001            | 45.2          | 14.1         | 0.3             | 45.5         | 14.4         | 66.0         | 56.0         | 20.5       | 41.6       | L     |         |
| 0.20145            | 44.3          | 31.6         | 0.3             | 44.6         | 31.9         | 63.6         | 53.6         | 19.0       | 21.7       | L     |         |
| 0.53955            | 32.1          | 29.5         | 0.3             | 32.4         | 29.8         | 56.0         | 46.0         | 23.6       | 16.2       | L     |         |
| 0.74231            | 28.3          | 26.4         | 0.4             | 28.7         | 26.8         | 56.0         | 46.0         | 27.3       | 19.2       | L     |         |
| 5.26128            | 23.8          | 22.2         | 0.9             | 24.7         | 23.1         | 60.0         | 50.0         | 35.3       | 26.9       | L     |         |
| 13.55561           | 24.6          | 22.5         | 1.5             | 26.1         | 24.0         | 60.0         | 50.0         | 33.9       | 26.0       | L     |         |

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

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

## Conducted Emission 11a, Rx, 5300MHz

### DATA OF CONDUCTED EMISSION TEST

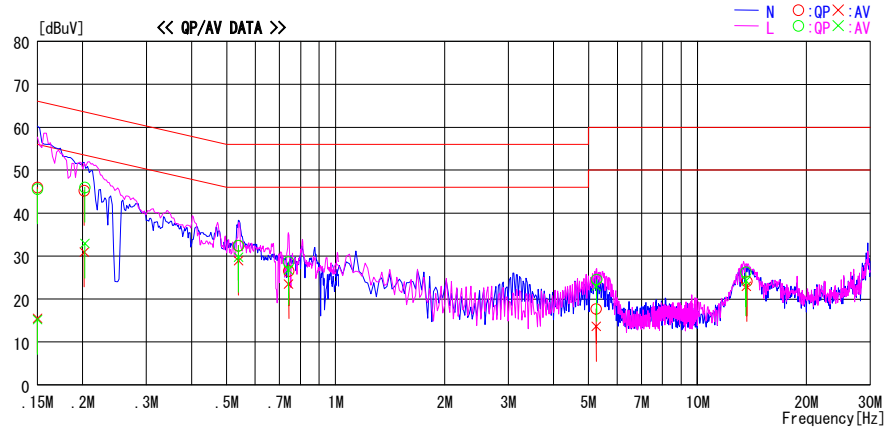
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Rx 5300MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV



| Frequency<br>[MHz] | Reading Level |              | Corr.<br>Factor | Results      |              | Limit        |              | Margin     |            | Phase | Comment |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|---------|
|                    | QP<br>[dBuV]  | AV<br>[dBuV] |                 | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dB] | AV<br>[dB] |       |         |
| 0.15001            | 45.7          | 15.2         | 0.3             | 46.0         | 15.5         | 66.0         | 56.0         | 20.0       | 40.5       | N     |         |
| 0.20220            | 45.0          | 30.6         | 0.3             | 45.3         | 30.9         | 63.5         | 53.5         | 18.2       | 22.6       | N     |         |
| 0.53936            | 32.1          | 28.6         | 0.3             | 32.4         | 28.9         | 56.0         | 46.0         | 23.6       | 17.1       | N     |         |
| 0.74213            | 26.1          | 23.1         | 0.4             | 26.5         | 23.5         | 56.0         | 46.0         | 29.5       | 22.5       | N     |         |
| 5.25258            | 16.8          | 12.7         | 0.9             | 17.7         | 13.6         | 60.0         | 50.0         | 42.3       | 36.4       | N     |         |
| 13.66886           | 22.5          | 21.3         | 1.6             | 24.1         | 22.9         | 60.0         | 50.0         | 35.9       | 27.1       | N     |         |
| 0.15001            | 45.3          | 14.9         | 0.3             | 45.6         | 15.2         | 66.0         | 56.0         | 20.4       | 40.8       | L     |         |
| 0.20291            | 45.7          | 32.6         | 0.3             | 46.0         | 32.9         | 63.5         | 53.5         | 17.5       | 20.6       | L     |         |
| 0.53948            | 32.1          | 29.4         | 0.3             | 32.4         | 29.7         | 56.0         | 46.0         | 23.6       | 16.3       | L     |         |
| 0.74168            | 28.2          | 26.3         | 0.4             | 28.6         | 26.7         | 56.0         | 46.0         | 27.4       | 19.3       | L     |         |
| 5.25718            | 23.7          | 22.0         | 0.9             | 24.6         | 22.9         | 60.0         | 50.0         | 35.4       | 27.1       | L     |         |
| 13.61303           | 24.8          | 22.7         | 1.5             | 26.3         | 24.2         | 60.0         | 50.0         | 33.7       | 25.8       | L     |         |

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

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

## Conducted Emission 11a, Rx, 5600MHz

### DATA OF CONDUCTED EMISSION TEST

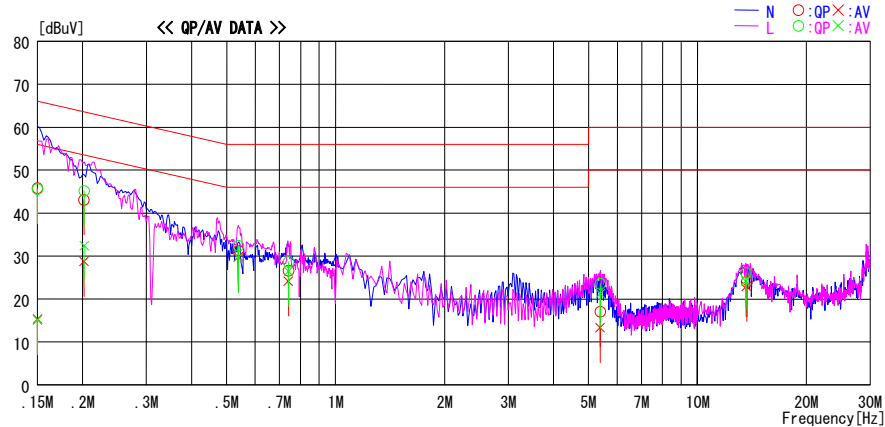
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : AC 120V / 60Hz  
Temp./Humi. : 23deg.C / 47%  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Rx 5600MHz

LIMIT : FCC15.207 QP  
FCC15.207 AV



| Frequency<br>[MHz] | Reading Level |              | Corr.<br>Factor | Results      |              | Limit        |              | Margin     |            | Phase | Comment |
|--------------------|---------------|--------------|-----------------|--------------|--------------|--------------|--------------|------------|------------|-------|---------|
|                    | QP<br>[dBuV]  | AV<br>[dBuV] |                 | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dBuV] | AV<br>[dBuV] | QP<br>[dB] | AV<br>[dB] |       |         |
| 0.15001            | 45.5          | 15.0         | 0.3             | 45.8         | 15.3         | 66.0         | 56.0         | 20.2       | 40.7       | N     |         |
| 0.20165            | 42.8          | 28.4         | 0.3             | 43.1         | 28.7         | 63.5         | 53.5         | 20.4       | 24.8       | N     |         |
| 0.53842            | 31.0          | 29.5         | 0.3             | 31.3         | 29.8         | 56.0         | 46.0         | 24.7       | 16.2       | N     |         |
| 0.74037            | 26.2          | 23.7         | 0.4             | 26.6         | 24.1         | 56.0         | 46.0         | 29.4       | 21.9       | N     |         |
| 5.38413            | 16.2          | 12.4         | 0.9             | 17.1         | 13.3         | 60.0         | 50.0         | 42.9       | 36.7       | N     |         |
| 13.66237           | 22.4          | 21.3         | 1.6             | 24.0         | 22.9         | 60.0         | 50.0         | 36.0       | 27.1       | N     |         |
| 0.15001            | 45.3          | 14.8         | 0.3             | 45.6         | 15.1         | 66.0         | 56.0         | 20.4       | 40.9       | L     |         |
| 0.20207            | 44.9          | 32.1         | 0.3             | 45.2         | 32.4         | 63.5         | 53.5         | 18.3       | 21.1       | L     |         |
| 0.53887            | 32.1          | 29.3         | 0.3             | 32.4         | 29.6         | 56.0         | 46.0         | 23.6       | 16.4       | L     |         |
| 0.74137            | 28.2          | 26.1         | 0.4             | 28.6         | 26.5         | 56.0         | 46.0         | 27.4       | 19.5       | L     |         |
| 5.38943            | 22.6          | 20.3         | 0.9             | 23.5         | 21.2         | 60.0         | 50.0         | 36.5       | 28.8       | L     |         |
| 13.60933           | 24.6          | 22.6         | 1.5             | 26.1         | 24.1         | 60.0         | 50.0         | 33.9       | 25.9       | L     |         |

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

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

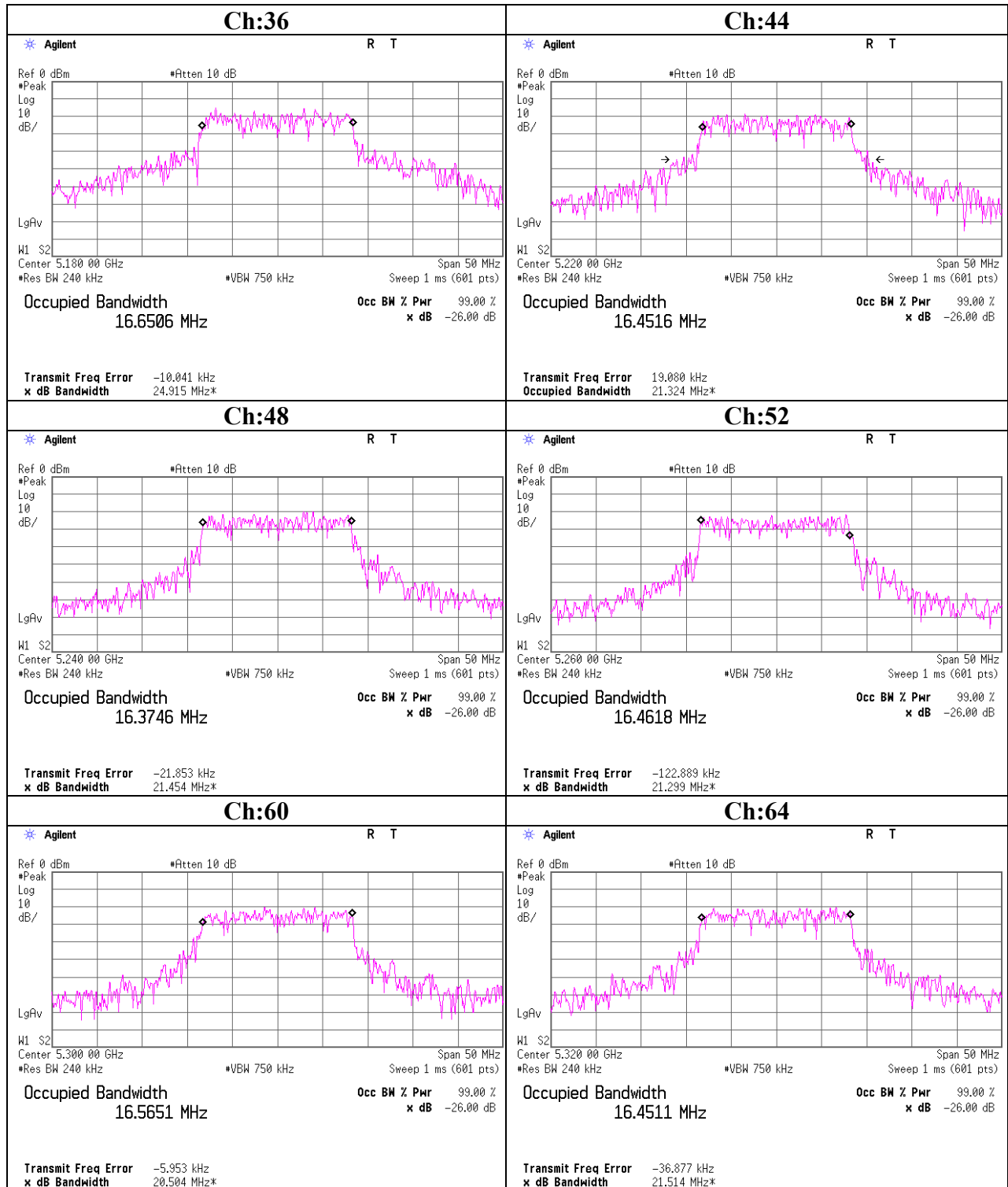
### **26dB Emission Bandwidth**

|           |                         |                                                                            |
|-----------|-------------------------|----------------------------------------------------------------------------|
| Company   | Canon Inc.              | UL Japan, Inc                                                              |
| Equipment | WLAN Module             | Head Office EMC Lab. No.6 shielded room                                    |
| Model     | CH9-1161                | Report No. 29KE0214-HO-01                                                  |
| S/N       | ES7005                  | Regulation FCC Part15 Subpart E 15.407(a)(1)(2)(3) / RSS-210 A9.2(1)(2)(3) |
| Power     | DC 3.3V                 | Test Distance -                                                            |
| Mode      | IEEE802.11a, Tx, 24Mbps | Date 04/09/2009 04/17/2009                                                 |
|           |                         | Temperature 25 deg.C. 24 deg.C.                                            |
|           |                         | Humidity 27% 51%                                                           |
|           |                         | Engineer Tomohisa Nakagawa Tomohisa Nakagawa                               |

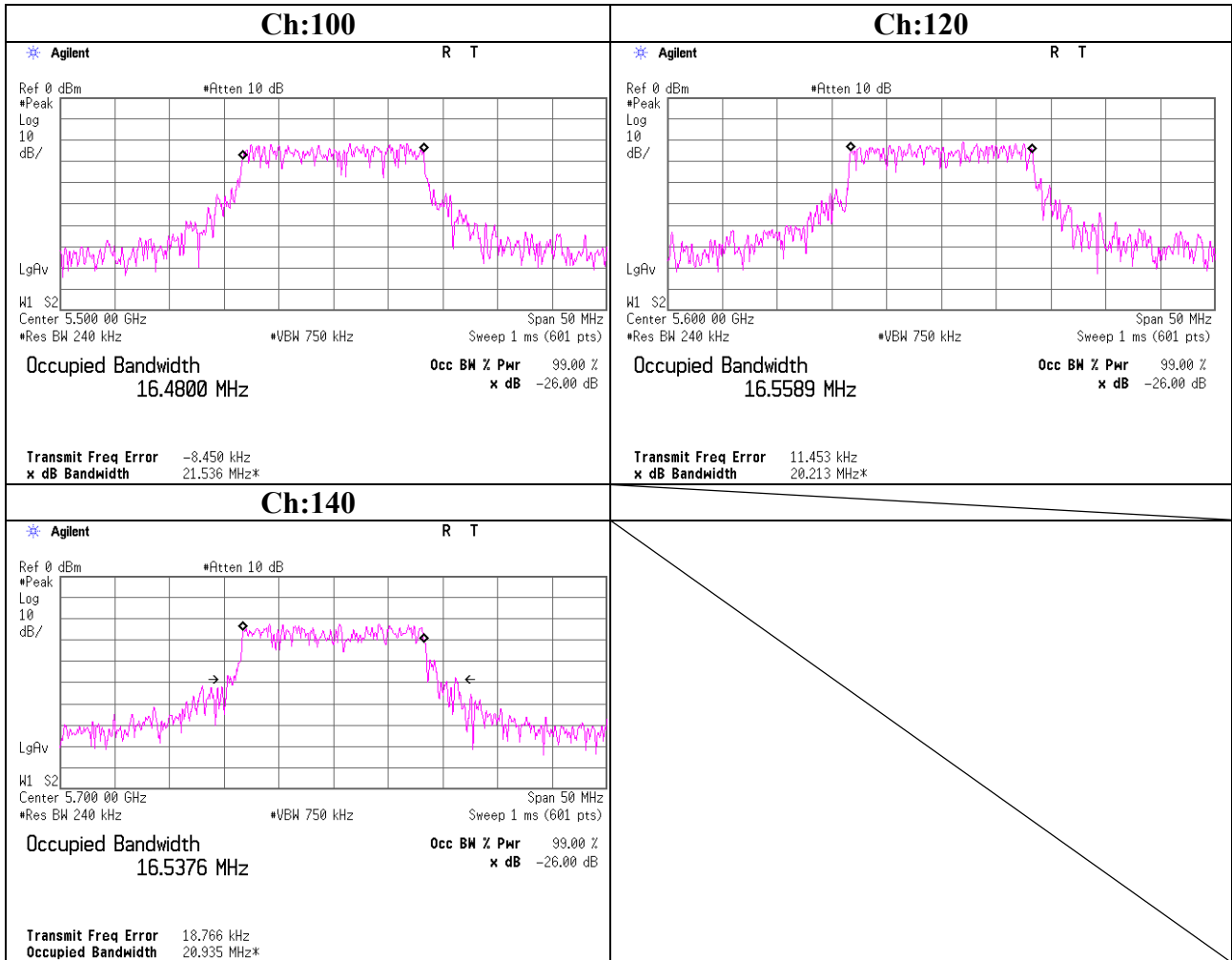
#### **[ IEEE 802.11a ]**

| Ch  | Freq.<br>[MHz] | 26dB Emission<br>Bandwidth<br>[MHz] |
|-----|----------------|-------------------------------------|
| 36  | 5180.0         | 24.915                              |
| 44  | 5220.0         | 21.324                              |
| 48  | 5240.0         | 21.454                              |
| 52  | 5260.0         | 21.299                              |
| 60  | 5300.0         | 20.504                              |
| 64  | 5320.0         | 21.514                              |
| 100 | 5500.0         | 21.536                              |
| 120 | 5600.0         | 20.213                              |
| 140 | 5700.0         | 20.935                              |

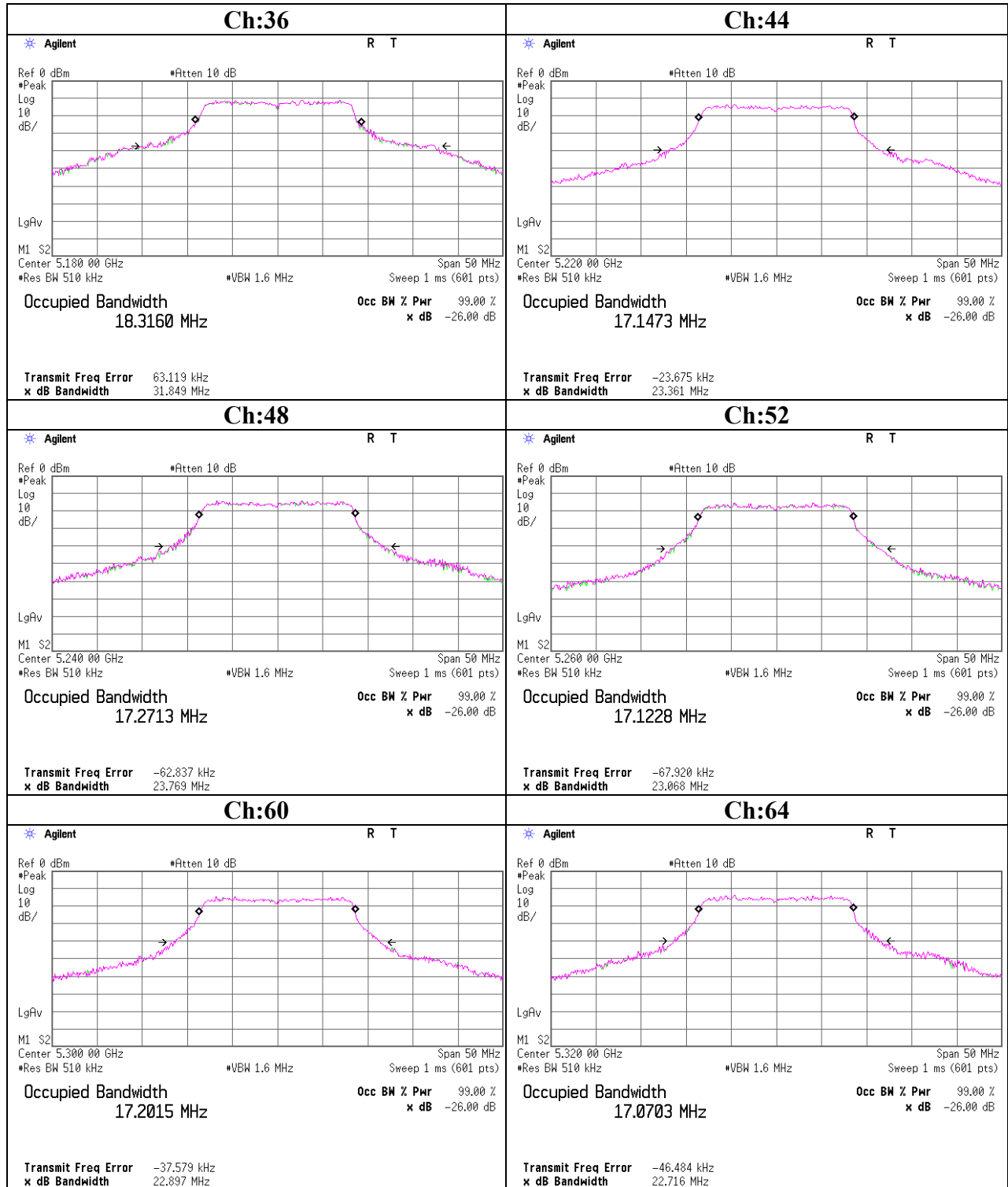
## 26dB Emission Bandwidth



## 26dB Emission Bandwidth

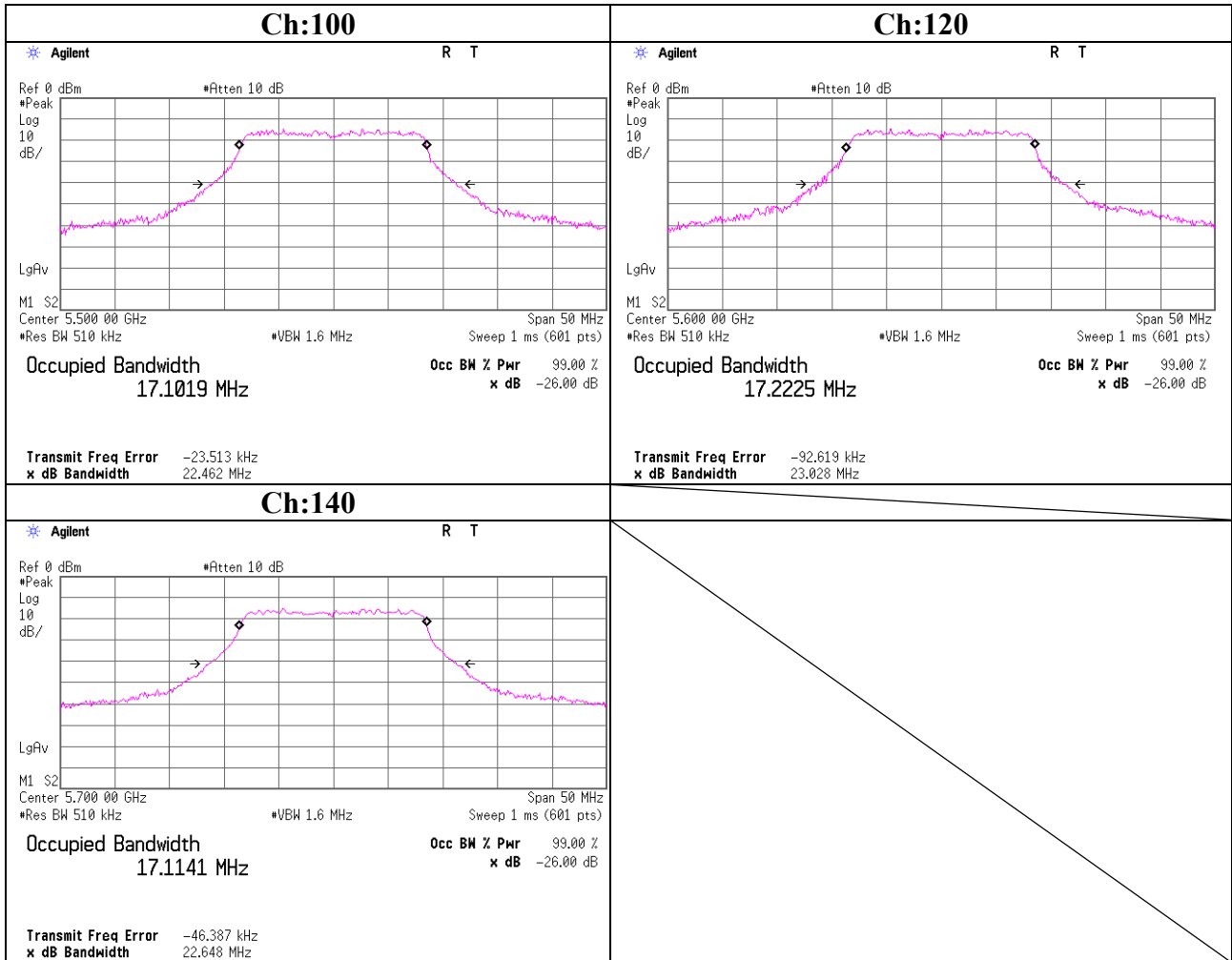


### 99%Occupied Bandwidth

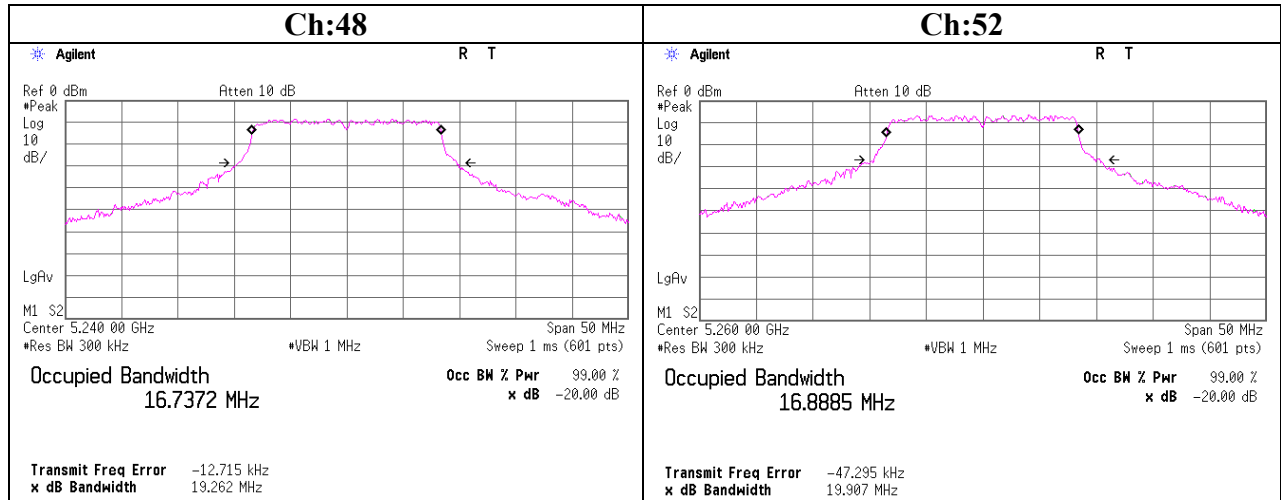




### 99%Occupied Bandwidth



## 20dB Emission Bandwidth



### Maximum Peak Output Power

|           |                         |                                                                      |
|-----------|-------------------------|----------------------------------------------------------------------|
| Company   | Canon Inc.              | UL Japan, Inc                                                        |
| Equipment | WLAN Module             | Head Office EMC Lab.                                                 |
| Model     | CH9-1161                | No.6 shielded room and No.11 Measurement Room                        |
| S/N       | ES7005                  | Report No. 29KE0214-HO-01                                            |
| Power     | DC 3.3V                 | Regulation FCC Part15 Subpart E 15.407(a)(1)(2) / RSS-210 A9.2(1)(2) |
| Mode      | IEEE802.11a, Tx, 24Mbps | Test Distance -                                                      |
|           |                         | Date 04/09/2009 04/17/2009                                           |
|           |                         | Temperature 25 deg.C. 24 deg.C.                                      |
|           |                         | Humidity 27% 51%                                                     |
|           |                         | Engineer Tomohisa Nakagawa Tomohisa Nakagawa                         |

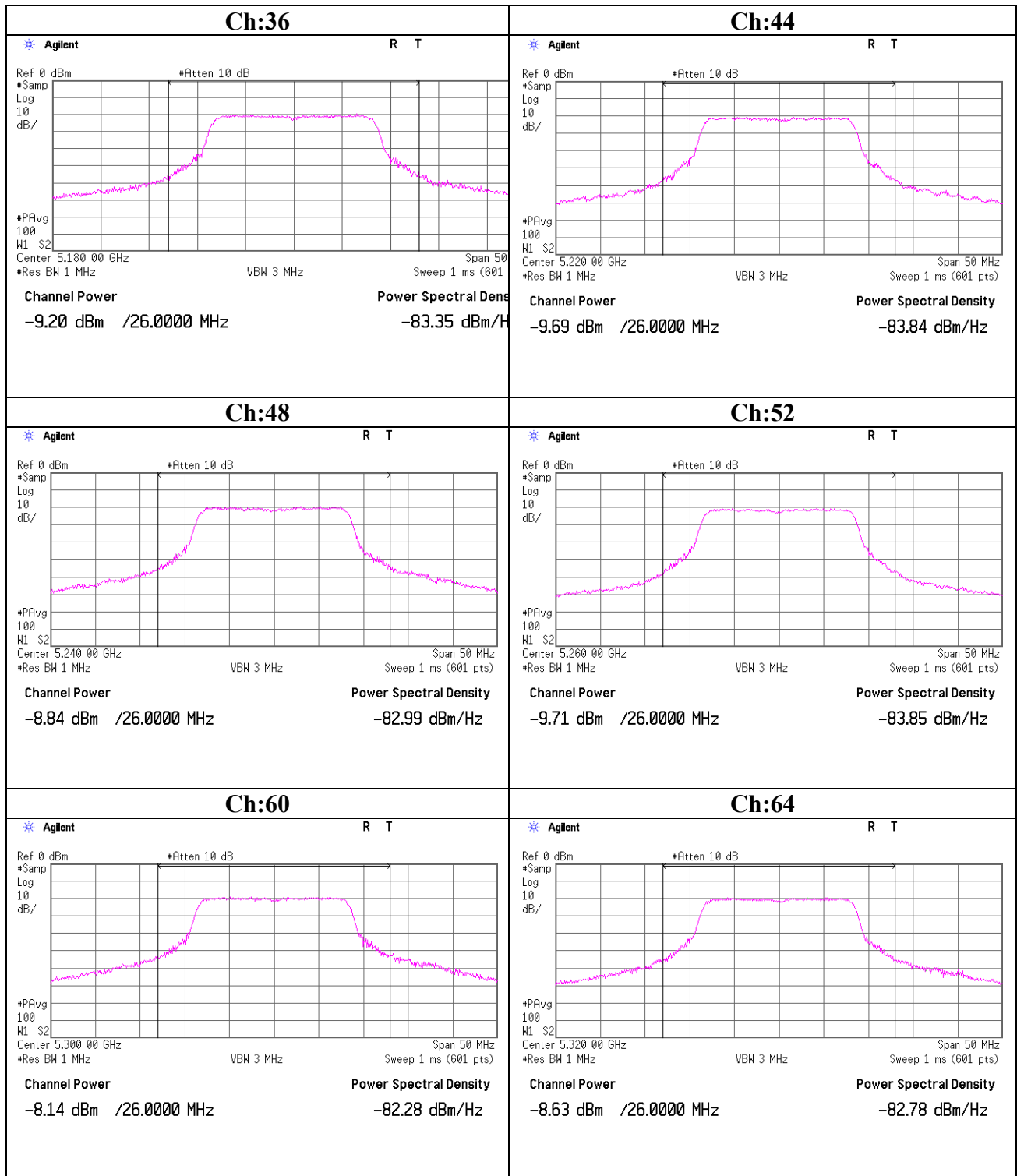
#### [IEEE 802.11a]

| Ch  | Freq.<br>[MHz] | S/A<br>Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Result<br>[dBm] | Limit<br>[dBm] | Margin<br>[dB] |
|-----|----------------|-------------------------|-----------------------|------------------------|-----------------|----------------|----------------|
| 36  | 5180.0         | -9.20                   | 2.16                  | 19.98                  | 12.94           | 17.0           | 4.06           |
| 44  | 5220.0         | -9.69                   | 2.17                  | 19.98                  | 12.46           | 17.0           | 4.54           |
| 48  | 5240.0         | -8.84                   | 2.17                  | 19.98                  | 13.31           | 17.0           | 3.69           |
| 52  | 5260.0         | -9.71                   | 2.18                  | 19.98                  | 12.45           | 24.0           | 11.55          |
| 60  | 5300.0         | -8.14                   | 2.18                  | 19.99                  | 14.03           | 24.0           | 9.97           |
| 64  | 5320.0         | -8.63                   | 2.19                  | 19.99                  | 13.55           | 24.0           | 10.45          |
| 100 | 5500.0         | -8.77                   | 2.22                  | 19.99                  | 13.44           | 24.0           | 10.56          |
| 120 | 5600.0         | -9.47                   | 2.20                  | 20.00                  | 12.73           | 24.0           | 11.27          |
| 140 | 5700.0         | -9.14                   | 2.18                  | 20.00                  | 13.04           | 24.0           | 10.96          |

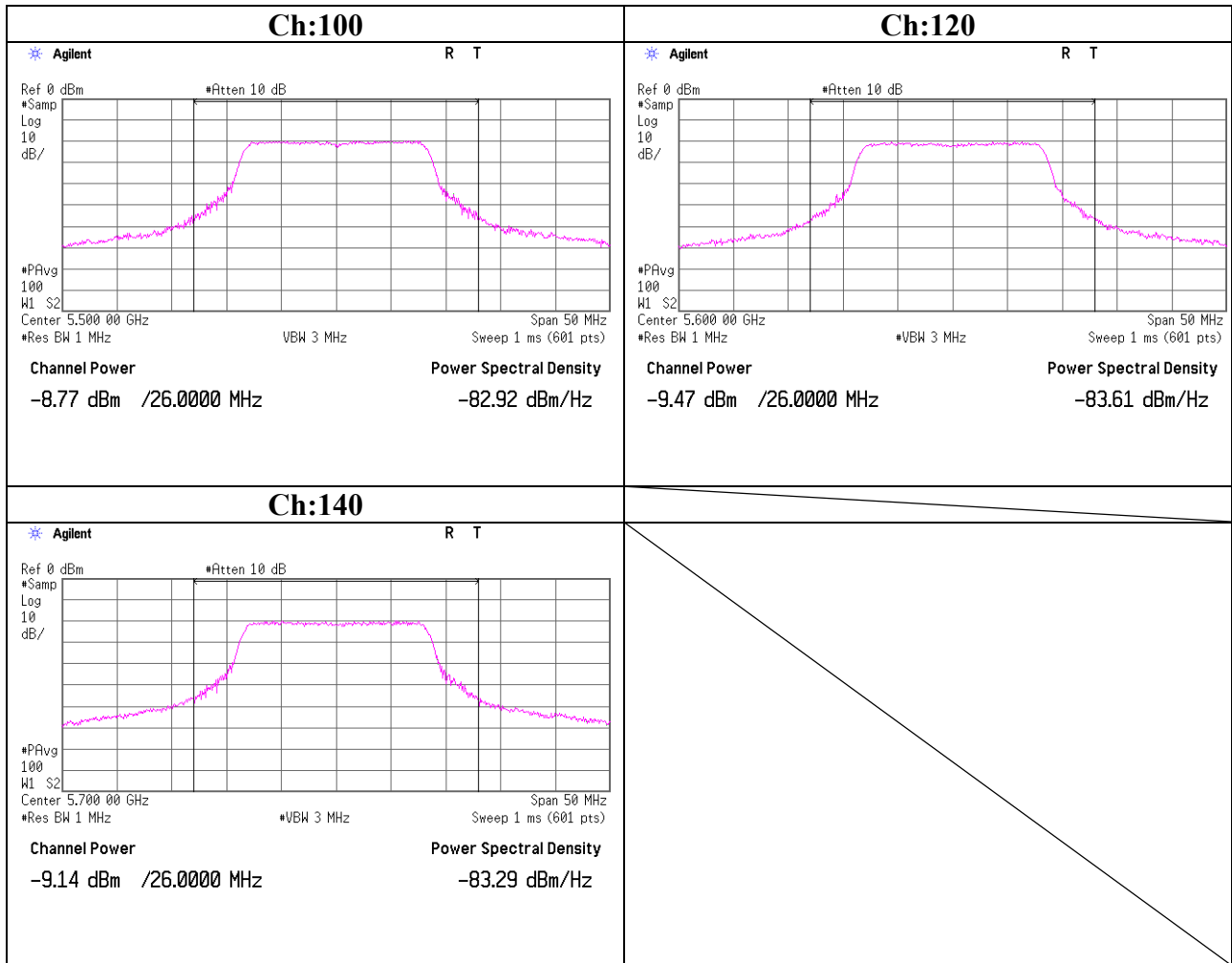
Sample Calculation:

Result = Reading + Cable Loss (Including customer's cable loss) + Atten.Loss

## Maximum Peak Output Power



### Maximum Peak Output Power



**Maximum Peak Output Power**  
**(Rerference data)**

|           |                  |                                                                      |
|-----------|------------------|----------------------------------------------------------------------|
| Company   | Canon Inc.       | UL Japan, Inc                                                        |
| Equipment | WLAN Module      | Head Office EMC Lab. No.11 Measurement room                          |
| Model     | CH9-1161         | Report No. 29KE0214-HO-01                                            |
| S/N       | ES7005           | Regulation FCC Part15 Subpart E 15.407(a)(1)(2) / RSS-210 A9.2(1)(2) |
| Power     | DC 3.3V          | Test Distance -                                                      |
| Mode      | IEEE802.11a, Tx, | Date 04/17/2006                                                      |
|           |                  | Temperature 24deg.C.                                                 |
|           |                  | Humidity 51%                                                         |
|           |                  | Engineer Tomohisa Nakagawa                                           |

**[IEEE 802.11a]**

| Rate   | Freq.  | S/A<br>Reading | Remarks |
|--------|--------|----------------|---------|
| [Mbps] | [MHz]  | [dBm]          | [dB]    |
| 6      | 5180.0 | 0.45           |         |
| 9      | 5180.0 | 0.67           |         |
| 12     | 5180.0 | 1.20           |         |
| 18     | 5180.0 | 1.43           |         |
| 24     | 5180.0 | 1.57           | Worst   |
| 36     | 5180.0 | 0.95           |         |
| 48     | 5180.0 | 0.63           |         |
| 54     | 5180.0 | 0.80           |         |

The test was performed with the same cable and attenuator.

**Maximum Peak Output Power**  
**(Reference data for SAR testing)**

|           |                         |                                               |
|-----------|-------------------------|-----------------------------------------------|
| Company   | Canon Inc.              | UL Japan, Inc                                 |
| Equipment | WLAN Module             | Head Office EMC Lab.                          |
| Model     | CH9-1161                | No.6 shielded room and No.11 Measruement Room |
| S/N       | ES7005                  | Report No. 29KE0214-HO-01                     |
| Power     | DC 3.3V                 | Regulation (Reference data for SAR testing)   |
| Mode      | IEEE802.11a, Tx, 24Mbps | Test Distance -                               |
|           |                         | Date 04/09/2009                               |
|           |                         | Temperature 25 deg.C.                         |
|           |                         | Humidity 27%                                  |
|           |                         | Engineer Tomohisa Nakagawa                    |

**[IEEE 802.11a]**

| Ch  | Freq.<br>[MHz] | P/M<br>AVG Reading<br>[dBm] | Cable<br>Loss<br>[dB] | Atten.<br>Loss<br>[dB] | Result |      |
|-----|----------------|-----------------------------|-----------------------|------------------------|--------|------|
|     |                |                             |                       |                        | [dBm]  | [mW] |
| 36  | 5180.0         | 2.15                        | 0.90                  | 10.06                  | 13.11  | 20.5 |
| 44  | 5220.0         | 2.12                        | 0.90                  | 10.06                  | 13.08  | 20.3 |
| 48  | 5240.0         | 2.65                        | 0.90                  | 10.06                  | 13.61  | 23.0 |
| 52  | 5260.0         | 2.19                        | 0.90                  | 10.06                  | 13.15  | 20.7 |
| 60  | 5300.0         | 2.70                        | 0.90                  | 10.06                  | 13.66  | 23.2 |
| 64  | 5320.0         | 2.56                        | 0.90                  | 10.06                  | 13.52  | 22.5 |
| 100 | 5500.0         | 2.39                        | 0.90                  | 10.06                  | 13.35  | 21.6 |
| 116 | 5580.0         | 2.52                        | 0.90                  | 10.06                  | 13.48  | 22.3 |
| 120 | 5600.0         | 2.18                        | 0.90                  | 10.06                  | 13.14  | 20.6 |
| 140 | 5700.0         | 2.00                        | 0.90                  | 10.06                  | 12.96  | 19.8 |

Sample Calculation:

Result = Reading + Cable Loss (Including customer's cable loss)+ Atten.Loss

**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5180MHz**

**DATA OF RADIATED EMISSION TEST**

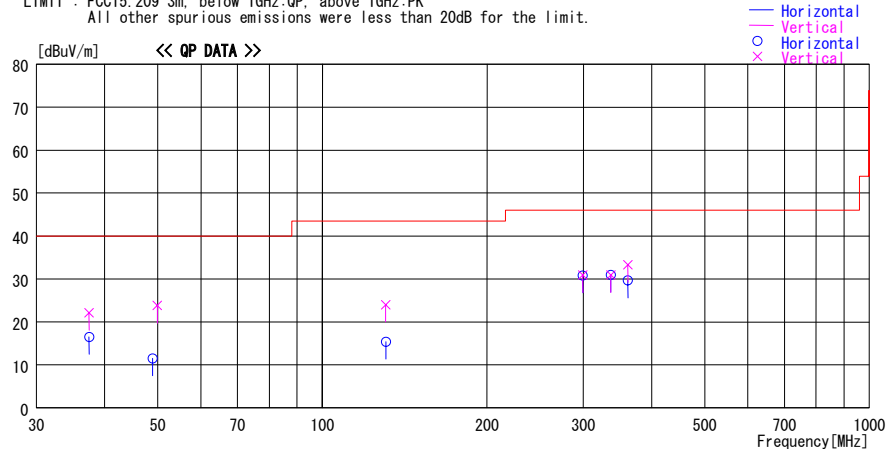
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/17

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 52 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5180MHz, Worst-axis:Module(Hor:Y/Ver:Y),Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |              | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|--------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 37.433             | 23.0              | QP  | 15.3             | -21.8        | 16.5              | 92             | 300            | Hori.  | 40.0              | 23.5           |         |
| 37.433             | 28.6              | QP  | 15.3             | -21.8        | 22.1              | 114            | 100            | Vert.  | 40.0              | 17.9           |         |
| 48.900             | 22.5              | QP  | 10.7             | -21.7        | 11.5              | 317            | 300            | Hori.  | 40.0              | 28.5           |         |
| 49.909             | 35.1              | QP  | 10.4             | -21.7        | 23.8              | 148            | 100            | Vert.  | 40.0              | 16.2           |         |
| 130.581            | 30.8              | QP  | 13.8             | -20.6        | 24.0              | 259            | 100            | Vert.  | 43.5              | 19.5           |         |
| 130.800            | 22.2              | QP  | 13.8             | -20.6        | 15.4              | 270            | 300            | Hori.  | 43.5              | 28.1           |         |
| 299.446            | 29.8              | QP  | 20.0             | -18.9        | 30.9              | 236            | 100            | Vert.  | 46.0              | 15.1           |         |
| 299.444            | 29.7              | QP  | 20.0             | -18.9        | 30.8              | 203            | 300            | Hori.  | 46.0              | 15.2           |         |
| 336.872            | 35.3              | QP  | 14.7             | -19.0        | 31.0              | 284            | 112            | Hori.  | 46.0              | 15.0           |         |
| 336.872            | 35.2              | QP  | 14.7             | -19.0        | 30.9              | 153            | 100            | Vert.  | 46.0              | 15.1           |         |
| 361.833            | 33.0              | QP  | 15.8             | -19.1        | 29.7              | 303            | 100            | Hori.  | 46.0              | 16.3           |         |
| 361.833            | 36.6              | QP  | 15.8             | -19.1        | 33.3              | 196            | 100            | Vert.  | 46.0              | 12.7           |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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



**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5220MHz**

**DATA OF RADIATED EMISSION TEST**

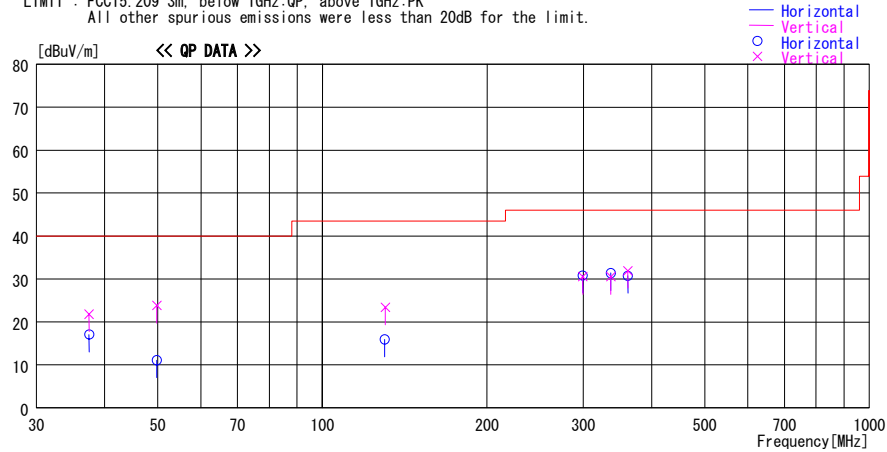
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/17

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 52 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5220MHz, Worst-axis:Module(Hor:Y/Ver:Y),Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |              | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|--------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 37.426             | 28.3              | QP  | 15.3             | -21.8        | 21.8              | 115            | 100            | Vert.  | 40.0              | 18.2           |         |
| 37.426             | 23.6              | QP  | 15.3             | -21.8        | 17.1              | 358            | 300            | Hori.  | 40.0              | 22.9           |         |
| 49.800             | 22.4              | QP  | 10.4             | -21.7        | 11.1              | 0              | 300            | Hori.  | 40.0              | 28.9           |         |
| 49.800             | 35.1              | QP  | 10.4             | -21.7        | 23.8              | 297            | 100            | Vert.  | 40.0              | 16.2           |         |
| 129.900            | 22.8              | QP  | 13.7             | -20.6        | 15.9              | 82             | 300            | Hori.  | 43.5              | 27.6           |         |
| 130.380            | 30.3              | QP  | 13.7             | -20.6        | 23.4              | 282            | 100            | Vert.  | 43.5              | 20.1           |         |
| 299.412            | 29.7              | QP  | 20.0             | -18.9        | 30.8              | 201            | 296            | Hori.  | 46.0              | 15.2           |         |
| 299.419            | 29.4              | QP  | 20.0             | -18.9        | 30.5              | 234            | 100            | Vert.  | 46.0              | 15.5           |         |
| 336.856            | 35.7              | QP  | 14.7             | -19.0        | 31.4              | 283            | 116            | Hori.  | 46.0              | 14.6           |         |
| 336.854            | 34.8              | QP  | 14.7             | -19.0        | 30.5              | 143            | 142            | Vert.  | 46.0              | 15.5           |         |
| 361.833            | 34.0              | QP  | 15.8             | -19.1        | 30.7              | 224            | 177            | Hori.  | 46.0              | 15.3           |         |
| 361.812            | 35.2              | QP  | 15.8             | -19.1        | 31.9              | 189            | 100            | Vert.  | 46.0              | 14.1           |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5240MHz**

**DATA OF RADIATED EMISSION TEST**

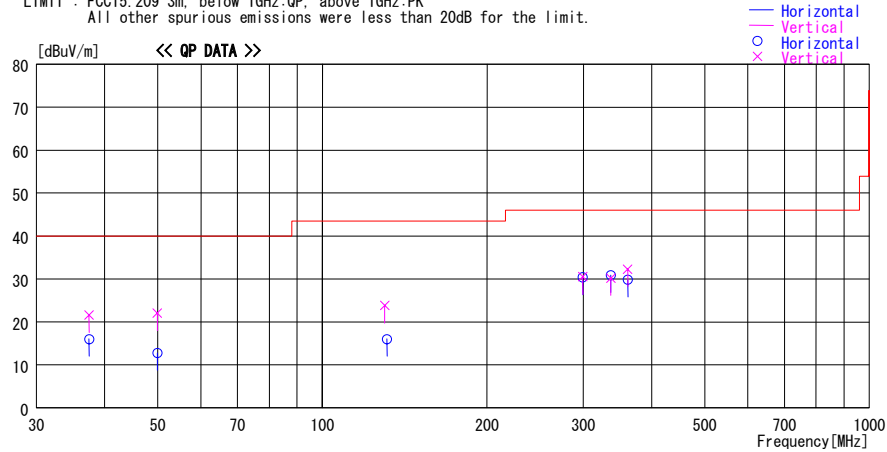
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/17

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 52 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5240MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |                       | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|-----------------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Loss&<br>Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 37.426             | 22.5              | QP  | 15.3             | -21.8                 | 16.0              | 348            | 300            | Hori.  | 40.0              | 24.0           |         |
| 37.426             | 28.1              | QP  | 15.3             | -21.8                 | 21.6              | 313            | 100            | Vert.  | 40.0              | 18.4           |         |
| 49.902             | 33.3              | QP  | 10.4             | -21.7                 | 22.0              | 337            | 100            | Vert.  | 40.0              | 18.0           |         |
| 49.902             | 24.1              | QP  | 10.4             | -21.7                 | 12.8              | 347            | 300            | Hori.  | 40.0              | 27.2           |         |
| 130.030            | 30.7              | QP  | 13.7             | -20.6                 | 23.8              | 236            | 100            | Vert.  | 43.5              | 19.7           |         |
| 131.250            | 22.8              | QP  | 13.8             | -20.6                 | 16.0              | 111            | 300            | Hori.  | 43.5              | 27.5           |         |
| 299.401            | 29.3              | QP  | 20.0             | -18.9                 | 30.4              | 189            | 300            | Hori.  | 46.0              | 15.6           |         |
| 299.446            | 29.4              | QP  | 20.0             | -18.9                 | 30.5              | 252            | 100            | Vert.  | 46.0              | 15.5           |         |
| 336.830            | 35.2              | QP  | 14.7             | -19.0                 | 30.9              | 273            | 100            | Hori.  | 46.0              | 15.1           |         |
| 336.830            | 34.5              | QP  | 14.7             | -19.0                 | 30.2              | 45             | 100            | Vert.  | 46.0              | 15.8           |         |
| 361.782            | 33.1              | QP  | 15.8             | -19.1                 | 29.8              | 224            | 100            | Hori.  | 46.0              | 16.2           |         |
| 361.782            | 35.6              | QP  | 15.8             | -19.1                 | 32.3              | 183            | 100            | Vert.  | 46.0              | 13.7           |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5260MHz**

**DATA OF RADIATED EMISSION TEST**

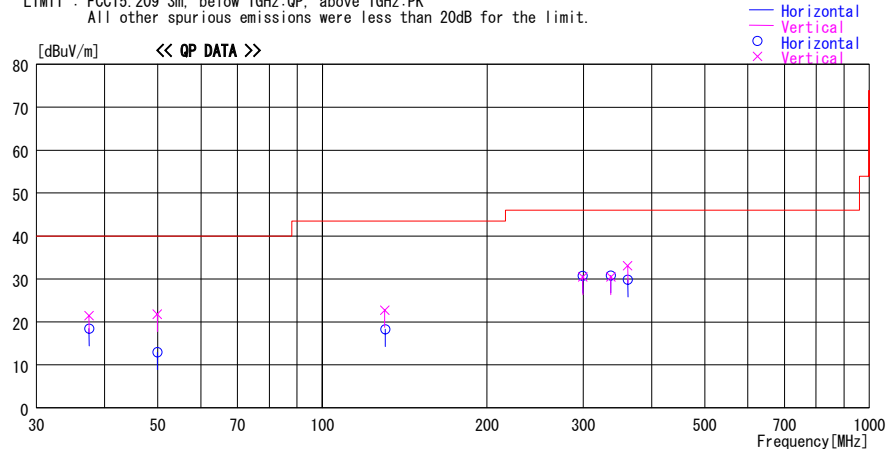
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/17

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 52 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5260MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |                       | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|-----------------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Loss&<br>Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 37.426             | 24.9              | QP  | 15.3             | -21.8                 | 18.4              | 3              | 300            | Hori.  | 40.0              | 21.6           |         |
| 37.426             | 28.0              | QP  | 15.3             | -21.8                 | 21.5              | 69             | 100            | Vert.  | 40.0              | 18.5           |         |
| 49.899             | 24.2              | QP  | 10.4             | -21.7                 | 12.9              | 88             | 300            | Hori.  | 40.0              | 27.1           |         |
| 49.899             | 33.1              | QP  | 10.4             | -21.7                 | 21.8              | 254            | 100            | Vert.  | 40.0              | 18.2           |         |
| 130.060            | 29.6              | QP  | 13.7             | -20.6                 | 22.7              | 268            | 100            | Vert.  | 43.5              | 20.8           |         |
| 130.367            | 25.2              | QP  | 13.7             | -20.6                 | 18.3              | 63             | 300            | Hori.  | 43.5              | 25.2           |         |
| 299.388            | 29.6              | QP  | 20.0             | -18.9                 | 30.7              | 189            | 300            | Hori.  | 46.0              | 15.3           |         |
| 299.390            | 29.3              | QP  | 20.0             | -18.9                 | 30.4              | 254            | 100            | Vert.  | 46.0              | 15.6           |         |
| 336.817            | 34.7              | QP  | 14.7             | -19.0                 | 30.4              | 37             | 100            | Vert.  | 46.0              | 15.6           |         |
| 336.816            | 35.1              | QP  | 14.7             | -19.0                 | 30.8              | 257            | 100            | Hori.  | 46.0              | 15.2           |         |
| 361.765            | 33.1              | QP  | 15.8             | -19.1                 | 29.8              | 218            | 100            | Hori.  | 46.0              | 16.2           |         |
| 361.765            | 36.4              | QP  | 15.8             | -19.1                 | 33.1              | 200            | 100            | Vert.  | 46.0              | 12.9           |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5300MHz**

**DATA OF RADIATED EMISSION TEST**

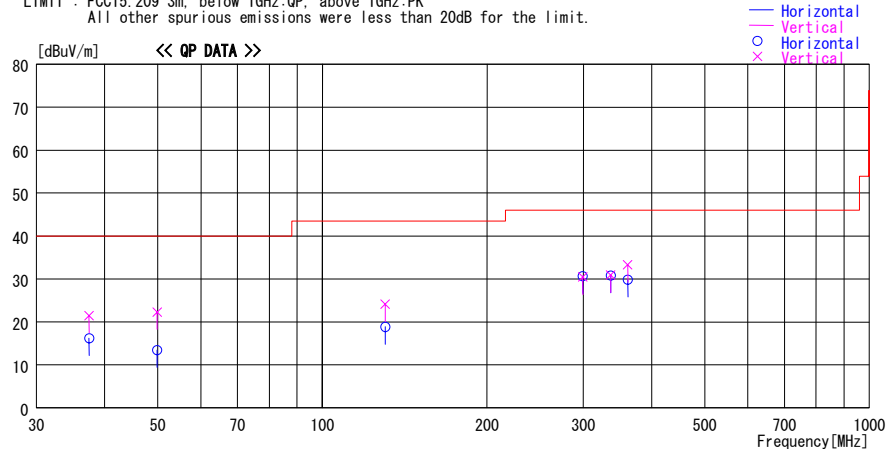
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/17

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 52 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5300MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |                       | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|-----------------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Loss&<br>Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 37.426             | 28.0              | QP  | 15.3             | -21.8                 | 21.5              | 116            | 100            | Vert.  | 40.0              | 18.5           |         |
| 37.426             | 22.7              | QP  | 15.3             | -21.8                 | 16.2              | 3              | 300            | Hori.  | 40.0              | 23.8           |         |
| 49.898             | 24.7              | QP  | 10.4             | -21.7                 | 13.4              | 301            | 300            | Hori.  | 40.0              | 26.6           |         |
| 49.898             | 33.6              | QP  | 10.4             | -21.7                 | 22.3              | 53             | 100            | Vert.  | 40.0              | 17.7           |         |
| 130.350            | 25.7              | QP  | 13.7             | -20.6                 | 18.8              | 73             | 300            | Hori.  | 43.5              | 24.7           |         |
| 130.350            | 31.0              | QP  | 13.7             | -20.6                 | 24.1              | 124            | 100            | Vert.  | 43.5              | 19.4           |         |
| 299.379            | 29.3              | QP  | 20.0             | -18.9                 | 30.4              | 231            | 100            | Vert.  | 46.0              | 15.6           |         |
| 299.384            | 29.5              | QP  | 20.0             | -18.9                 | 30.6              | 200            | 300            | Hori.  | 46.0              | 15.4           |         |
| 336.804            | 35.1              | QP  | 14.7             | -19.0                 | 30.8              | 257            | 100            | Hori.  | 46.0              | 15.2           |         |
| 336.802            | 35.2              | QP  | 14.7             | -19.0                 | 30.9              | 160            | 100            | Vert.  | 46.0              | 15.1           |         |
| 361.755            | 36.6              | QP  | 15.8             | -19.1                 | 33.3              | 199            | 100            | Vert.  | 46.0              | 12.7           |         |
| 361.755            | 33.1              | QP  | 15.8             | -19.1                 | 29.8              | 209            | 100            | Hori.  | 46.0              | 16.2           |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5320MHz**

**DATA OF RADIATED EMISSION TEST**

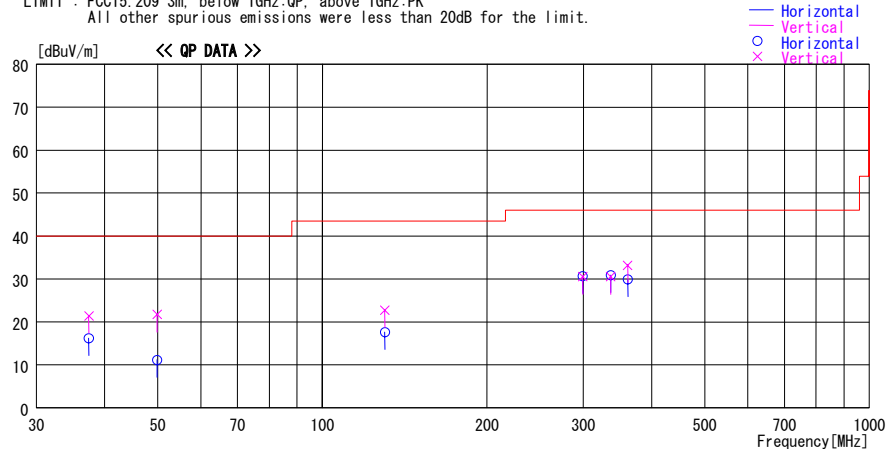
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/17

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 52 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5320MHz, Worst-axis:Module(Hor:Y/Ver:Y),Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |              | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|--------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 37.419             | 22.7              | QP  | 15.3             | -21.8        | 16.2              | 246            | 300            | Hori.  | 40.0              | 23.8           |         |
| 37.419             | 27.9              | QP  | 15.3             | -21.8        | 21.4              | 295            | 100            | Vert.  | 40.0              | 18.6           |         |
| 49.898             | 22.5              | QP  | 10.4             | -21.7        | 11.2              | 334            | 300            | Hori.  | 40.0              | 28.8           |         |
| 49.898             | 33.0              | QP  | 10.4             | -21.7        | 21.7              | 67             | 100            | Vert.  | 40.0              | 18.3           |         |
| 130.110            | 24.5              | QP  | 13.7             | -20.6        | 17.6              | 279            | 300            | Hori.  | 43.5              | 25.9           |         |
| 130.110            | 29.6              | QP  | 13.7             | -20.6        | 22.7              | 260            | 100            | Vert.  | 43.5              | 20.8           |         |
| 299.374            | 29.5              | QP  | 20.0             | -18.9        | 30.6              | 224            | 300            | Hori.  | 46.0              | 15.4           |         |
| 299.377            | 29.4              | QP  | 20.0             | -18.9        | 30.5              | 242            | 100            | Vert.  | 46.0              | 15.5           |         |
| 336.797            | 35.2              | QP  | 14.7             | -19.0        | 30.9              | 274            | 100            | Hori.  | 46.0              | 15.1           |         |
| 336.796            | 34.8              | QP  | 14.7             | -19.0        | 30.5              | 148            | 100            | Vert.  | 46.0              | 15.5           |         |
| 361.741            | 36.5              | QP  | 15.8             | -19.1        | 33.2              | 198            | 100            | Vert.  | 46.0              | 12.8           |         |
| 361.741            | 33.2              | QP  | 15.8             | -19.1        | 29.9              | 282            | 100            | Hori.  | 46.0              | 16.1           |         |

CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz:-HORN  
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5500MHz**

**DATA OF RADIATED EMISSION TEST**

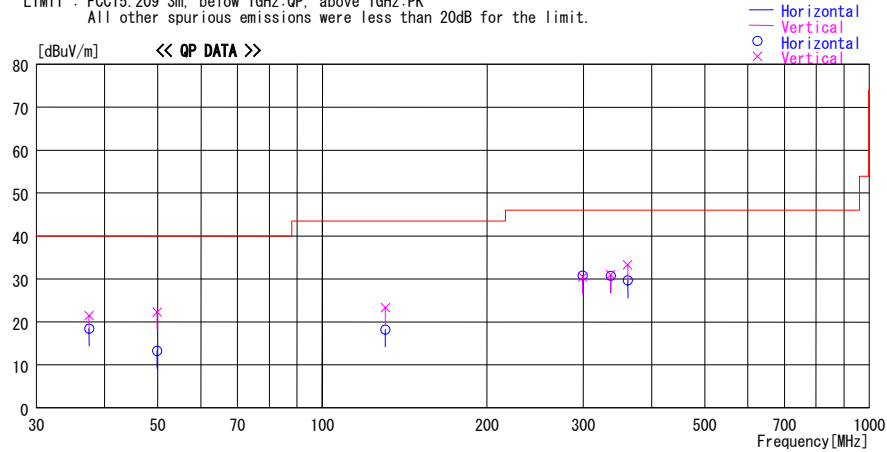
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/17

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 52 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5500MHz, Worst-axis:Module(Hor:Y/Ver:Y),Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency | Reading | DET | Antenna |       | Level    | Angle | Height | Polar. | Limit    | Margin | Comment |
|-----------|---------|-----|---------|-------|----------|-------|--------|--------|----------|--------|---------|
|           |         |     | Factor  | Gain  |          |       |        |        |          |        |         |
| [MHz]     | [dBuV]  |     | [dB/m]  | [dB]  | [dBuV/m] | [Deg] | [cm]   |        | [dBuV/m] | [dB]   |         |
| 37.425    | 28.0    | QP  | 15.3    | -21.8 | 21.5     | 3     | 100    | Vert.  | 40.0     | 18.5   |         |
| 37.425    | 24.9    | QP  | 15.3    | -21.8 | 18.4     | 216   | 300    | Hori.  | 40.0     | 21.6   |         |
| 49.896    | 24.6    | QP  | 10.4    | -21.7 | 13.3     | 346   | 300    | Hori.  | 40.0     | 26.7   |         |
| 49.896    | 33.6    | QP  | 10.4    | -21.7 | 22.3     | 1     | 100    | Vert.  | 40.0     | 17.7   |         |
| 130.360   | 25.1    | QP  | 13.7    | -20.6 | 18.2     | 103   | 300    | Hori.  | 43.5     | 25.3   |         |
| 130.360   | 30.2    | QP  | 13.7    | -20.6 | 23.3     | 131   | 100    | Vert.  | 43.5     | 20.2   |         |
| 299.373   | 29.7    | QP  | 20.0    | -18.9 | 30.8     | 197   | 300    | Hori.  | 46.0     | 15.2   |         |
| 299.371   | 29.3    | QP  | 20.0    | -18.9 | 30.4     | 111   | 100    | Vert.  | 46.0     | 15.6   |         |
| 336.793   | 35.3    | QP  | 14.7    | -19.0 | 31.0     | 157   | 100    | Vert.  | 46.0     | 15.0   |         |
| 336.791   | 35.0    | QP  | 14.7    | -19.0 | 30.7     | 279   | 100    | Hori.  | 46.0     | 15.3   |         |
| 361.737   | 33.0    | QP  | 15.8    | -19.1 | 29.7     | 216   | 100    | Hori.  | 46.0     | 16.3   |         |
| 361.737   | 36.6    | QP  | 15.8    | -19.1 | 33.3     | 208   | 100    | Vert.  | 46.0     | 12.7   |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5600MHz**

**DATA OF RADIATED EMISSION TEST**

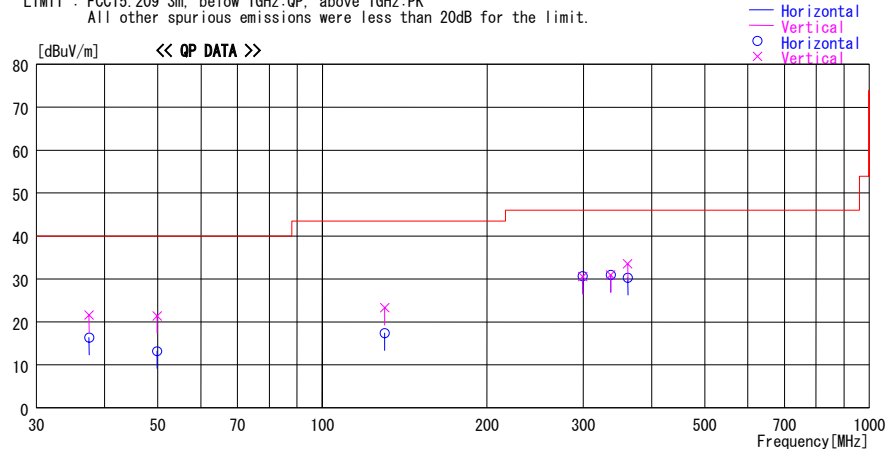
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/17

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 52 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5600MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |                       | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|-----------------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Loss&<br>Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 37.423             | 22.8              | QP  | 15.3             | -21.8                 | 16.3              | 304            | 300            | Hori.  | 40.0              | 23.7           |         |
| 37.423             | 28.1              | QP  | 15.3             | -21.8                 | 21.6              | 91             | 100            | Vert.  | 40.0              | 18.4           |         |
| 49.896             | 32.7              | QP  | 10.4             | -21.7                 | 21.4              | 142            | 100            | Vert.  | 40.0              | 18.6           |         |
| 49.896             | 24.5              | QP  | 10.4             | -21.7                 | 13.2              | 79             | 300            | Hori.  | 40.0              | 26.8           |         |
| 130.043            | 30.2              | QP  | 13.7             | -20.6                 | 23.3              | 264            | 100            | Vert.  | 43.5              | 20.2           |         |
| 130.043            | 24.3              | QP  | 13.7             | -20.6                 | 17.4              | 38             | 300            | Hori.  | 43.5              | 26.1           |         |
| 299.358            | 29.5              | QP  | 20.0             | -18.9                 | 30.6              | 210            | 300            | Hori.  | 46.0              | 15.4           |         |
| 299.357            | 29.4              | QP  | 20.0             | -18.9                 | 30.5              | 237            | 100            | Vert.  | 46.0              | 15.5           |         |
| 336.782            | 35.3              | QP  | 14.7             | -19.0                 | 31.0              | 269            | 100            | Hori.  | 46.0              | 15.0           |         |
| 336.782            | 35.2              | QP  | 14.7             | -19.0                 | 30.9              | 153            | 100            | Vert.  | 46.0              | 15.1           |         |
| 361.731            | 33.6              | QP  | 15.8             | -19.1                 | 30.3              | 216            | 100            | Hori.  | 46.0              | 15.7           |         |
| 361.731            | 36.8              | QP  | 15.8             | -19.1                 | 33.5              | 212            | 100            | Vert.  | 46.0              | 12.5           |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5700MHz**

**DATA OF RADIATED EMISSION TEST**

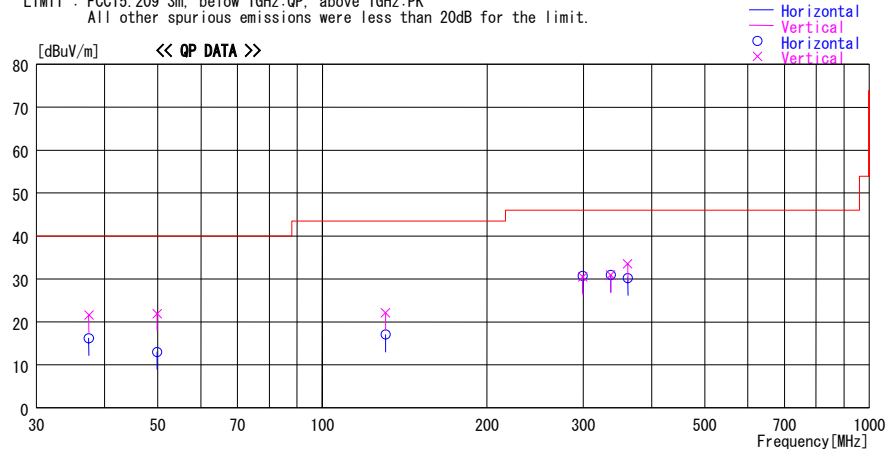
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/17

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 52 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Tx 5700MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |                       | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|-----------------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Loss&<br>Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 37.419             | 22.7              | QP  | 15.3             | -21.8                 | 16.2              | 11             | 300            | Hori.  | 40.0              | 23.8           |         |
| 37.419             | 28.1              | QP  | 15.3             | -21.8                 | 21.6              | 220            | 100            | Vert.  | 40.0              | 18.4           |         |
| 49.892             | 24.3              | QP  | 10.4             | -21.7                 | 13.0              | 110            | 300            | Hori.  | 40.0              | 27.0           |         |
| 49.892             | 33.2              | QP  | 10.4             | -21.7                 | 21.9              | 346            | 100            | Vert.  | 40.0              | 18.1           |         |
| 130.482            | 28.9              | QP  | 13.8             | -20.6                 | 22.1              | 285            | 100            | Vert.  | 43.5              | 21.4           |         |
| 130.482            | 23.9              | QP  | 13.8             | -20.6                 | 17.1              | 276            | 300            | Hori.  | 43.5              | 26.4           |         |
| 299.356            | 29.3              | QP  | 20.0             | -18.9                 | 30.4              | 244            | 100            | Vert.  | 46.0              | 15.6           |         |
| 299.358            | 29.6              | QP  | 20.0             | -18.9                 | 30.7              | 192            | 300            | Hori.  | 46.0              | 15.3           |         |
| 336.779            | 35.3              | QP  | 14.7             | -19.0                 | 31.0              | 282            | 100            | Hori.  | 46.0              | 15.0           |         |
| 336.779            | 35.2              | QP  | 14.7             | -19.0                 | 30.9              | 73             | 100            | Vert.  | 46.0              | 15.1           |         |
| 361.723            | 36.8              | QP  | 15.8             | -19.1                 | 33.5              | 209            | 100            | Vert.  | 46.0              | 12.5           |         |
| 361.723            | 33.5              | QP  | 15.8             | -19.1                 | 30.2              | 220            | 100            | Hori.  | 46.0              | 15.8           |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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



**Radiated Spurious Emission (below 1GHz)**  
**11a, Rx, 5220MHz**

**DATA OF RADIATED EMISSION TEST**

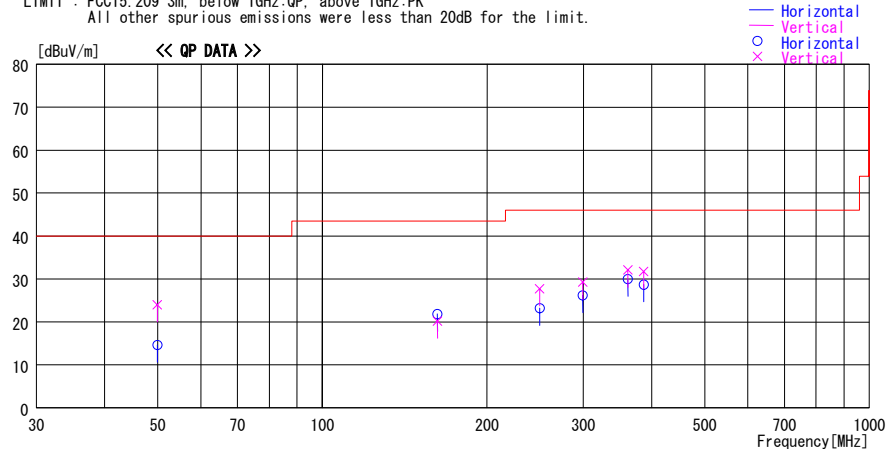
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 47 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Rx 5220MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |                       | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|-----------------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Loss&<br>Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 49.902             | 25.9              | QP  | 10.4             | -21.7                 | 14.6              | 136            | 300            | Hori.  | 40.0              | 25.4           |         |
| 49.902             | 35.3              | QP  | 10.4             | -21.7                 | 24.0              | 344            | 100            | Vert.  | 40.0              | 16.0           |         |
| 162.299            | 26.5              | QP  | 15.6             | -20.3                 | 21.8              | 232            | 300            | Hori.  | 43.5              | 21.7           |         |
| 162.299            | 24.9              | QP  | 15.6             | -20.3                 | 20.2              | 216            | 100            | Vert.  | 43.5              | 23.3           |         |
| 249.523            | 25.4              | QP  | 17.2             | -19.4                 | 23.2              | 189            | 300            | Hori.  | 46.0              | 22.8           |         |
| 249.523            | 29.9              | QP  | 17.2             | -19.4                 | 27.7              | 231            | 100            | Vert.  | 46.0              | 18.3           |         |
| 299.412            | 25.1              | QP  | 20.0             | -18.9                 | 26.2              | 261            | 300            | Hori.  | 46.0              | 19.8           |         |
| 299.412            | 28.2              | QP  | 20.0             | -18.9                 | 29.3              | 261            | 100            | Vert.  | 46.0              | 16.7           |         |
| 361.803            | 33.3              | QP  | 15.8             | -19.1                 | 30.0              | 223            | 100            | Hori.  | 46.0              | 16.0           |         |
| 361.803            | 35.4              | QP  | 15.8             | -19.1                 | 32.1              | 244            | 100            | Vert.  | 46.0              | 13.9           |         |
| 386.737            | 30.9              | QP  | 16.9             | -19.1                 | 28.7              | 223            | 100            | Hori.  | 46.0              | 17.3           |         |
| 386.737            | 33.9              | QP  | 16.9             | -19.1                 | 31.7              | 256            | 100            | Vert.  | 46.0              | 14.3           |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (below 1GHz)**  
**11a, Rx, 5300MHz**

**DATA OF RADIATED EMISSION TEST**

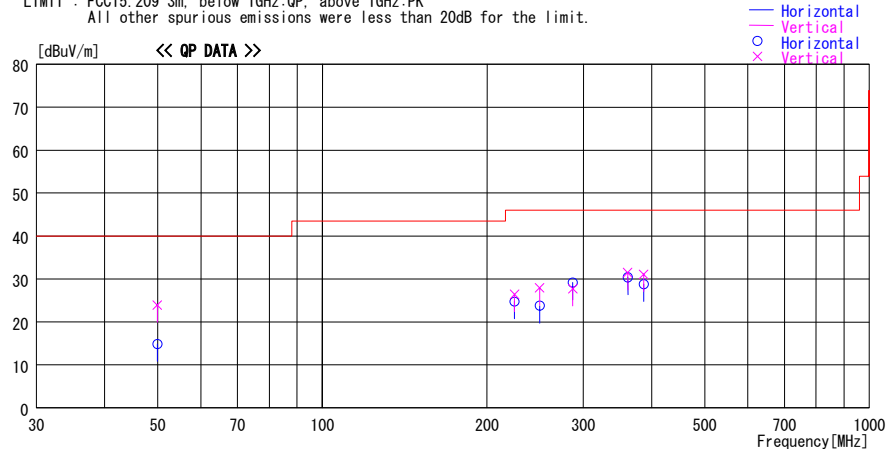
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg.C. / 47 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Rx 5300MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency<br>[MHz] | Reading<br>[dBuV] | DET | Antenna          |                       | Level<br>[dBuV/m] | Angle<br>[Deg] | Height<br>[cm] | Polar. | Limit<br>[dBuV/m] | Margin<br>[dB] | Comment |
|--------------------|-------------------|-----|------------------|-----------------------|-------------------|----------------|----------------|--------|-------------------|----------------|---------|
|                    |                   |     | Factor<br>[dB/m] | Loss&<br>Gain<br>[dB] |                   |                |                |        |                   |                |         |
| 49.900             | 26.2              | QP  | 10.4             | -21.7                 | 14.9              | 281            | 300            | Hori.  | 40.0              | 25.1           |         |
| 49.900             | 35.2              | QP  | 10.4             | -21.7                 | 23.9              | 274            | 100            | Vert.  | 40.0              | 16.1           |         |
| 224.563            | 27.4              | QP  | 16.9             | -19.6                 | 24.7              | 193            | 300            | Hori.  | 46.0              | 21.3           |         |
| 224.563            | 29.1              | QP  | 16.9             | -19.6                 | 26.4              | 141            | 100            | Vert.  | 46.0              | 19.6           |         |
| 249.523            | 26.0              | QP  | 17.2             | -19.4                 | 23.8              | 178            | 300            | Hori.  | 46.0              | 22.2           |         |
| 249.523            | 30.1              | QP  | 17.2             | -19.4                 | 27.9              | 221            | 100            | Vert.  | 46.0              | 18.1           |         |
| 286.938            | 28.9              | QP  | 19.3             | -19.0                 | 29.2              | 201            | 300            | Hori.  | 46.0              | 16.8           |         |
| 286.938            | 27.4              | QP  | 19.3             | -19.0                 | 27.7              | 155            | 100            | Vert.  | 46.0              | 18.3           |         |
| 361.793            | 33.7              | QP  | 15.8             | -19.1                 | 30.4              | 216            | 100            | Hori.  | 46.0              | 15.6           |         |
| 361.793            | 34.8              | QP  | 15.8             | -19.1                 | 31.5              | 257            | 100            | Vert.  | 46.0              | 14.5           |         |
| 386.733            | 31.0              | QP  | 16.9             | -19.1                 | 28.8              | 228            | 100            | Hori.  | 46.0              | 17.2           |         |
| 386.733            | 33.3              | QP  | 16.9             | -19.1                 | 31.1              | 259            | 100            | Vert.  | 46.0              | 14.9           |         |

CHART: WITH FACTOR ANT TYPE: -30MHz: LOOP, 30-300MHz: BICONICAL, 300MHz-1000MHz: LOGPERIODIC, 1000MHz-: HORN  
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

\*The limit is rounded down to one decimal place.

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

**Radiated Spurious Emission (below 1GHz)**  
**11a, Rx, 5600MHz**

**DATA OF RADIATED EMISSION TEST**

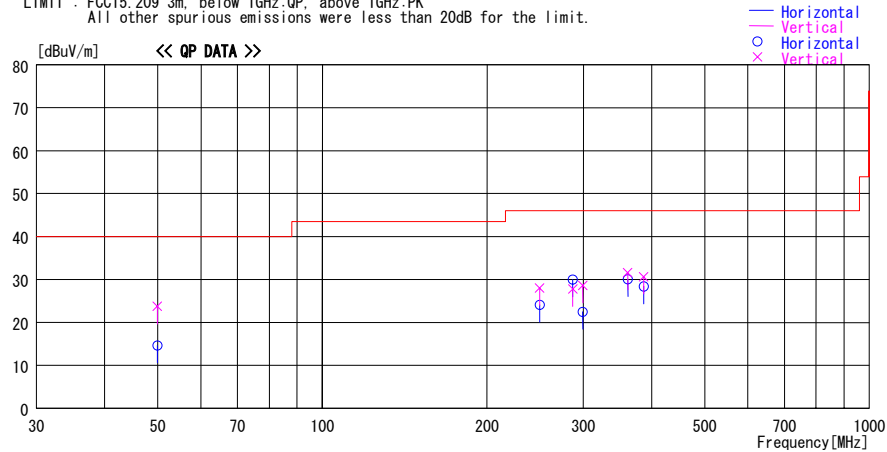
UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
Date : 2009/04/18

Company : Canon Inc.  
Kind of EUT : WLAN Module  
Model No. : CH9-1161  
Serial No. : ES7004

Report No. : 29KE0214-HO-01  
Power : DC 3.3V  
Temp./Humi. : 23 deg. C. / 47 %  
Engineer : Keisuke Kawamura

Mode / Remarks : IEEE802.11a, Rx 5600MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.209 3m, below 1GHz:QP, above 1GHz:PK  
All other spurious emissions were less than 20dB for the limit.



| Frequency | Reading | DET | Antenna | Loss& | Level    | Angle | Height | Polar. | Limit    | Margin | Comment |
|-----------|---------|-----|---------|-------|----------|-------|--------|--------|----------|--------|---------|
| [MHz]     | [dBuV]  |     | Factor  | Gain  | [dBuV/m] | [Deg] | [cm]   |        | [dBuV/m] | [dB]   |         |
| 49.904    | 25.9    | QP  | 10.4    | -21.7 | 14.6     | 305   | 300    | Hori.  | 40.0     | 25.4   |         |
| 49.904    | 35.0    | QP  | 10.4    | -21.7 | 23.7     | 337   | 100    | Vert.  | 40.0     | 16.3   |         |
| 249.491   | 26.3    | QP  | 17.2    | -19.4 | 24.1     | 178   | 300    | Hori.  | 46.0     | 21.9   |         |
| 249.491   | 30.2    | QP  | 17.2    | -19.4 | 28.0     | 221   | 100    | Vert.  | 46.0     | 18.0   |         |
| 286.932   | 29.7    | QP  | 19.3    | -19.0 | 30.0     | 197   | 300    | Hori.  | 46.0     | 16.0   |         |
| 286.932   | 27.5    | QP  | 19.3    | -19.0 | 27.8     | 137   | 100    | Vert.  | 46.0     | 18.2   |         |
| 299.398   | 21.4    | QP  | 20.0    | -18.9 | 22.5     | 153   | 300    | Hori.  | 46.0     | 23.5   |         |
| 299.398   | 27.5    | QP  | 20.0    | -18.9 | 28.6     | 213   | 100    | Vert.  | 46.0     | 17.4   |         |
| 361.781   | 33.4    | QP  | 15.8    | -19.1 | 30.1     | 209   | 100    | Hori.  | 46.0     | 15.9   |         |
| 361.781   | 34.9    | QP  | 15.8    | -19.1 | 31.6     | 246   | 100    | Vert.  | 46.0     | 14.4   |         |
| 386.729   | 30.6    | QP  | 16.9    | -19.1 | 28.4     | 244   | 100    | Hori.  | 46.0     | 17.6   |         |
| 386.729   | 32.8    | QP  | 16.9    | -19.1 | 30.6     | 248   | 100    | Vert.  | 46.0     | 15.4   |         |

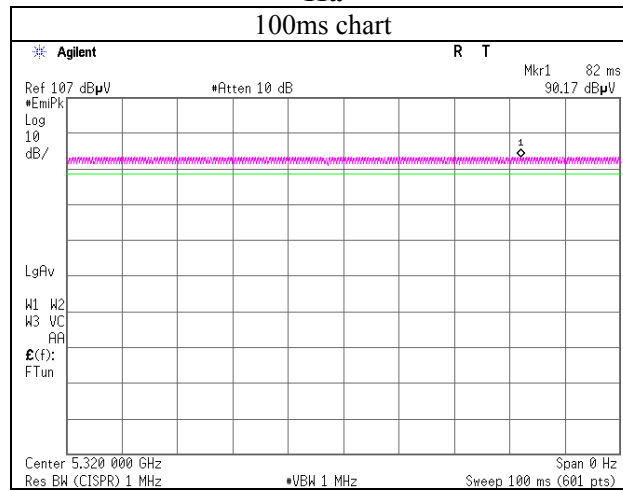
CHART:WITH FACTOR ANT TYPE: -30MHz:LOOP, 30-300MHz:BICONICAL, 300MHz-1000MHz:LOGPERIODIC, 1000MHz-:HORN  
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)

\*The limit is rounded down to one decimal place.

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

**VBW setting to use of the radiated emission**  
**(Average detector function)**

**11a**



--- VBW Setting ---

$$VBW = 1 / (1 \text{ cycle time}) = 1 / 100 \text{ ms} = 10 \text{ Hz}$$

## Radiated Spurious Emission (above 1GHz: Inside of the restricted band)

### 11a, Tx 5180MHz

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart C 15.209 / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada Takumi Shimada

Company Canon Inc.

Equipment WLAN Module

Model CH9-1161

S/N ES7006

Power DC 3.3V

Mode IEEE802.11a, Tx, 5180MHz, 24Mbps

EUT-Axis H: Y-axis, V: Y-axis

Ant-Axis H: Z-axis, V: Y-axis

**PK DETECT** (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                                          | Freq.<br><br>[MHz] | Reading           |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result              |      | Limit<br>PK<br>[dBuV/m] | Margin          |                 |
|--------------------------------------------------------------------------------------------------------------|--------------------|-------------------|------|--------------------------|----------------------|-----------------------|-----------------------------|---------------------|------|-------------------------|-----------------|-----------------|
|                                                                                                              |                    | HOR<br><br>[dBuV] | VER  |                          |                      |                       |                             | HOR<br><br>[dBuV/m] | VER  |                         | HOR<br><br>[dB] | VER<br><br>[dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)           |                    |                   |      |                          |                      |                       |                             |                     |      |                         |                 |                 |
| 1                                                                                                            | 5150.0             | 48.8              | 48.8 | 32.0                     | 31.9                 | 4.0                   | 0.0                         | 52.9                | 52.9 | 73.9                    | 21.0            | 21.0            |
| 2                                                                                                            | 5460.0             | 49.0              | 46.9 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 53.5                | 51.4 | 73.9                    | 20.4            | 22.5            |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m) |                    |                   |      |                          |                      |                       |                             |                     |      |                         |                 |                 |
| 3                                                                                                            | 15540.0            | 44.7              | 45.3 | 39.0                     | 33.2                 | 7.1                   | 1.1                         | 49.2                | 49.8 | 73.9                    | 24.7            | 24.1            |
| 4                                                                                                            | 20720.0            | NS                | NS   | -                        | -                    | -                     | -                           | -                   | -    | 73.9                    | -               | -               |

**AV DETECT** (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                          | Freq.<br><br>[MHz] | Reading           |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result              |      | Limit<br>AV<br>[dBuV/m] | Margin          |                 |
|--------------------------------------------------------------------------------------------------------------|--------------------|-------------------|------|--------------------------|----------------------|-----------------------|-----------------------------|---------------------|------|-------------------------|-----------------|-----------------|
|                                                                                                              |                    | HOR<br><br>[dBuV] | VER  |                          |                      |                       |                             | HOR<br><br>[dBuV/m] | VER  |                         | HOR<br><br>[dB] | VER<br><br>[dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)           |                    |                   |      |                          |                      |                       |                             |                     |      |                         |                 |                 |
| 1                                                                                                            | 5150.0             | 32.8              | 33.2 | 32.0                     | 31.9                 | 4.0                   | 0.0                         | 36.9                | 37.3 | 53.9                    | 17.0            | 16.6            |
| 2                                                                                                            | 5460.0             | 36.3              | 34.7 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 40.8                | 39.2 | 53.9                    | 13.1            | 14.7            |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m) |                    |                   |      |                          |                      |                       |                             |                     |      |                         |                 |                 |
| 3                                                                                                            | 15540.0            | 31.1              | 30.8 | 39.0                     | 33.2                 | 7.1                   | 1.1                         | 35.6                | 35.3 | 53.9                    | 18.3            | 18.6            |
| 4                                                                                                            | 20720.0            | NS                | NS   | -                        | -                    | -                     | -                           | -                   | -    | 53.9                    | -               | -               |

Test Distance 1.0m : Distance Factor(Dfac(1m)) =  $20\log(3.0/1.0) =$

9.5 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

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

\*The limit is rounded down to one decimal place.

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

**UL Japan, Inc.**

**Head Office EMC Lab.**

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

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Facsimile : +81 596 24 8124

## Radiated Spurious Emission (above 1GHz: Inside of the restricted band)

### 11a, Tx 5220MHz

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart C 15.209 / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz) , 0.5m (above 26.5GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada

Takumi Shimada

Company Canon Inc.

Equipment WLAN Module

Model CH9-1161

S/N ES7006

Power DC 3.3V

Mode IEEE802.11a, Tx, 5220MHz, 24Mbps

EUT-Axis H: Y-axis, V: Y-axis

Ant-Axis H: Z-axis, V: Y-axis

#### PK DETECT (RBW 1MHz, VBW 1MHz)

| No.                                                                                                               | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result |      | Limit<br>PK<br>[dBuV/m] | Margin |      |
|-------------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|--------|------|-------------------------|--------|------|
|                                                                                                                   |                | HOR     | VER  |                          |                      |                       |                             | HOR    | VER  |                         | HOR    | VER  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 1                                                                                                                 | 5460.0         | 49.0    | 50.0 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 53.5   | 54.5 | 73.9                    | 20.4   | 19.4 |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 2                                                                                                                 | 15660.0        | 46.3    | 45.5 | 38.7                     | 33.2                 | 7.1                   | 1.1                         | 50.5   | 49.7 | 73.9                    | 23.4   | 24.2 |
| 3                                                                                                                 | 20880.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 73.9                    | -      | -    |
| Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 4                                                                                                                 | 31320.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 73.9                    | -      | -    |

#### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                               | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result |      | Limit<br>AV<br>[dBuV/m] | Margin |      |
|-------------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|--------|------|-------------------------|--------|------|
|                                                                                                                   |                | HOR     | VER  |                          |                      |                       |                             | HOR    | VER  |                         | HOR    | VER  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 1                                                                                                                 | 5460.0         | 35.8    | 35.9 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 40.3   | 40.4 | 53.9                    | 13.6   | 13.5 |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 2                                                                                                                 | 15660.0        | 31.7    | 31.3 | 38.7                     | 33.2                 | 7.1                   | 1.1                         | 35.9   | 35.5 | 53.9                    | 18.0   | 18.4 |
| 3                                                                                                                 | 20880.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 53.9                    | -      | -    |
| Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 4                                                                                                                 | 31320.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 53.9                    | -      | -    |

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) =

9.5 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) =

15.6 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

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

\*The limit is rounded down to one decimal place.

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

**UL Japan, Inc.**

**Head Office EMC Lab.**

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

**Telephone : +81 596 24 8116**

**Facsimile : +81 596 24 8124**

## Radiated Spurious Emission (above 1GHz: Inside of the restricted band)

### 11a, Tx 5240MHz

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart C 15.209 / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada Takumi Shimada

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7006  
Power DC 3.3V  
Mode IEEE802.11a, Tx, 5240MHz, 24Mbps  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

#### PK DETECT (RBW 1MHz, VBW 1MHz)

| No.                                                                                                               | Freq.<br>[MHz] | Reading       |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result          |      | Limit<br>PK<br>[dBuV/m] | Margin      |             |
|-------------------------------------------------------------------------------------------------------------------|----------------|---------------|------|--------------------------|----------------------|-----------------------|-----------------------------|-----------------|------|-------------------------|-------------|-------------|
|                                                                                                                   |                | HOR<br>[dBuV] | VER  |                          |                      |                       |                             | HOR<br>[dBuV/m] | VER  |                         | HOR<br>[dB] | VER<br>[dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 1                                                                                                                 | 5460.0         | 49.7          | 49.5 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 54.2            | 54.0 | 73.9                    | 19.7        | 19.9        |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 2                                                                                                                 | 15720.0        | 44.1          | 44.3 | 38.6                     | 33.2                 | 7.1                   | 1.1                         | 48.2            | 48.4 | 73.9                    | 25.7        | 25.5        |
| 3                                                                                                                 | 20960.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -    | 73.9                    | -           | -           |
| Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 4                                                                                                                 | 31440.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -    | 73.9                    | -           | -           |

#### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                               | Freq.<br>[MHz] | Reading       |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result          |             | Limit<br>AV<br>[dBuV/m] | Margin      |             |
|-------------------------------------------------------------------------------------------------------------------|----------------|---------------|------|--------------------------|----------------------|-----------------------|-----------------------------|-----------------|-------------|-------------------------|-------------|-------------|
|                                                                                                                   |                | HOR<br>[dBuV] | VER  |                          |                      |                       |                             | HOR<br>[dBuV/m] | VER<br>[dB] |                         | HOR<br>[dB] | VER<br>[dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                |                |               |      |                          |                      |                       |                             |                 |             |                         |             |             |
| 1                                                                                                                 | 5460.0         | 35.5          | 35.9 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 40.0            | 40.4        | 53.9                    | 13.9        | 13.5        |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |               |      |                          |                      |                       |                             |                 |             |                         |             |             |
| 2                                                                                                                 | 15720.0        | 31.3          | 31.0 | 38.6                     | 33.2                 | 7.1                   | 1.1                         | 35.4            | 35.1        | 53.9                    | 18.5        | 18.8        |
| 3                                                                                                                 | 20960.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -           | 53.9                    | -           | -           |
| Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |               |      |                          |                      |                       |                             |                 |             |                         |             |             |
| 4                                                                                                                 | 31440.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -           | 53.9                    | -           | -           |

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) =

9.5 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) =

15.6 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

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

\*The limit is rounded down to one decimal place.

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

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## Radiated Spurious Emission (above 1GHz: Inside of the restricted band)

### 11a, Tx 5260MHz

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart C 15.209 / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada Takumi Shimada

Company Canon Inc.

Equipment WLAN Module

Model CH9-1161

S/N ES7006

Power DC 3.3V

Mode IEEE802.11a, Tx, 5260MHz, 24Mbps

EUT-Axis H: Y-axis, V: Y-axis

Ant-Axis H: Z-axis, V: Y-axis

#### PK DETECT (RBW 1MHz, VBW 1MHz)

| No.                                                                                                               | Freq.<br>[MHz] | Reading       |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result          |      | Limit<br>PK<br>[dBuV/m] | Margin      |             |
|-------------------------------------------------------------------------------------------------------------------|----------------|---------------|------|--------------------------|----------------------|-----------------------|-----------------------------|-----------------|------|-------------------------|-------------|-------------|
|                                                                                                                   |                | HOR<br>[dBuV] | VER  |                          |                      |                       |                             | HOR<br>[dBuV/m] | VER  |                         | HOR<br>[dB] | VER<br>[dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 1                                                                                                                 | 5460.0         | 48.3          | 49.8 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 52.8            | 54.3 | 73.9                    | 21.1        | 19.6        |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 2                                                                                                                 | 15780.0        | 44.9          | 41.0 | 38.5                     | 33.2                 | 7.1                   | 1.1                         | 48.9            | 45.0 | 73.9                    | 25.0        | 28.9        |
| 3                                                                                                                 | 21040.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -    | 73.9                    | -           | -           |
| Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 4                                                                                                                 | 31560.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -    | 73.9                    | -           | -           |

#### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                               | Freq.<br>[MHz] | Reading       |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result          |      | Limit<br>AV<br>[dBuV/m] | Margin      |             |
|-------------------------------------------------------------------------------------------------------------------|----------------|---------------|------|--------------------------|----------------------|-----------------------|-----------------------------|-----------------|------|-------------------------|-------------|-------------|
|                                                                                                                   |                | HOR<br>[dBuV] | VER  |                          |                      |                       |                             | HOR<br>[dBuV/m] | VER  |                         | HOR<br>[dB] | VER<br>[dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 1                                                                                                                 | 5460.0         | 35.3          | 37.0 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 39.8            | 41.5 | 53.9                    | 14.1        | 12.4        |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 2                                                                                                                 | 15780.0        | 32.1          | 31.0 | 38.5                     | 33.2                 | 7.1                   | 1.1                         | 36.1            | 35.0 | 53.9                    | 17.8        | 18.9        |
| 3                                                                                                                 | 21040.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -    | 53.9                    | -           | -           |
| Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 4                                                                                                                 | 31560.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -    | 53.9                    | -           | -           |

Test Distance 1.0m : Distance Factor(Dfac(1m)) =  $20\log(3/1.0) = 9.5$  dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) =  $20\log(3/0.5) = 15.6$  dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

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

\*The limit is rounded down to one decimal place.

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

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## Radiated Spurious Emission (above 1GHz: Inside of the restricted band)

### 11a, Tx 5300MHz

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart C 15.209 / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada Takumi Shimada

Company Canon Inc.

Equipment WLAN Module

Model CH9-1161

S/N ES7006

Power DC 3.3V

Mode IEEE802.11a, Tx, 5300MHz, 24Mbps

EUT-Axis H: Y-axis, V: Y-axis

Ant-Axis H: Z-axis, V: Y-axis

#### PK DETECT (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                                               | Freq.<br>[MHz] | Reading       |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result          |      | Limit<br>PK<br>[dBuV/m] | Margin      |             |
|-------------------------------------------------------------------------------------------------------------------|----------------|---------------|------|--------------------------|----------------------|-----------------------|-----------------------------|-----------------|------|-------------------------|-------------|-------------|
|                                                                                                                   |                | HOR<br>[dBuV] | VER  |                          |                      |                       |                             | HOR<br>[dBuV/m] | VER  |                         | HOR<br>[dB] | VER<br>[dB] |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 1                                                                                                                 | 5460.0         | 49.7          | 49.1 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 54.2            | 53.6 | 73.9                    | 19.7        | 20.3        |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 2                                                                                                                 | 10600.0        | 52.3          | 47.1 | 39.4                     | 33.5                 | 5.7                   | 1.2                         | 55.6            | 50.4 | 73.9                    | 18.3        | 23.5        |
| 3                                                                                                                 | 15900.0        | 42.0          | 44.2 | 38.2                     | 33.2                 | 7.1                   | 1.0                         | 45.6            | 47.8 | 73.9                    | 28.3        | 26.1        |
| 4                                                                                                                 | 21200.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -    | 73.9                    | -           | -           |
| Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |               |      |                          |                      |                       |                             |                 |      |                         |             |             |
| 5                                                                                                                 | 31800.0        | NS            | NS   | -                        | -                    | -                     | -                           | -               | -    | 73.9                    | -           | -           |

#### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                               | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result |      | Limit<br>AV<br>[dBuV/m] | Margin |      |  |
|-------------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|--------|------|-------------------------|--------|------|--|
|                                                                                                                   |                | HOR     | VER  |                          |                      |                       |                             | HOR    | VER  |                         | HOR    | VER  |  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |  |
| 1                                                                                                                 | 5460.0         | 35.1    | 37.7 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 39.6   | 42.2 | 53.9                    | 14.3   | 11.7 |  |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |  |
| 2                                                                                                                 | 10600.0        | 39.4    | 36.5 | 39.4                     | 33.5                 | 5.7                   | 1.2                         | 42.7   | 39.8 | 53.9                    | 11.2   | 14.1 |  |
| 3                                                                                                                 | 15900.0        | 31.1    | 30.7 | 38.2                     | 33.2                 | 7.1                   | 1.0                         | 34.7   | 34.3 | 53.9                    | 19.2   | 19.6 |  |
| 4                                                                                                                 | 21200.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 53.9                    | -      | -    |  |
| Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |  |
| 5                                                                                                                 | 31800.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 53.9                    | -      | -    |  |

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) =

9.5 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) =

15.6 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

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

\*The limit is rounded down to one decimal place.

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

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## Radiated Spurious Emission (above 1GHz: Inside of the restricted band)

### 11a, Tx 5320MHz

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

|           |                                  |               |                                            |
|-----------|----------------------------------|---------------|--------------------------------------------|
| Company   | Canon Inc.                       | Report No.    | 29KE0214-HO-01                             |
| Equipment | WLAN Module                      | Regulation    | FCC Part15 Subpart C 15.209 / RSS-210 A9.3 |
| Model     | CH9-1161                         | Test Distance | 3m (below 10GHz), 1m (above 10GHz)         |
| S/N       | ES7006                           | Date          | 04/27/2009 04/28/2009                      |
| Power     | DC 3.3V                          | Temperature   | 20 deg.C. 21 deg.C.                        |
| Mode      | IEEE802.11a, Tx, 5320MHz, 24Mbps | Humidity      | 41 % 38 %                                  |
| EUT-Axis  | H: Y-axis, V: Y-axis             | Engineer      | Takumi Shimada Takumi Shimada              |
| Ant-Axis  | H: Z-axis, V: Y-axis             |               |                                            |

**PK DETECT** (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                                          | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result |      | Limit<br>PK<br>[dBuV/m] | Margin |      |
|--------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|--------|------|-------------------------|--------|------|
|                                                                                                              |                | HOR     | VER  |                          |                      |                       |                             | HOR    | VER  |                         | HOR    | VER  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)           |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 1                                                                                                            | 5350.0         | 52.4    | 54.4 | 32.2                     | 31.9                 | 4.0                   | 0.0                         | 56.7   | 58.7 | 73.9                    | 17.2   | 15.2 |
| 2                                                                                                            | 5460.0         | 48.4    | 48.3 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 52.9   | 52.8 | 73.9                    | 21.0   | 21.1 |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m) |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 3                                                                                                            | 10640.0        | 50.6    | 46.5 | 39.4                     | 33.5                 | 5.7                   | 1.2                         | 53.9   | 49.8 | 73.9                    | 20.0   | 24.1 |
| 4                                                                                                            | 15960.0        | 43.9    | 43.6 | 38.1                     | 33.2                 | 7.1                   | 1.0                         | 47.4   | 47.1 | 73.9                    | 26.5   | 26.8 |
| 5                                                                                                            | 21280.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 73.9                    | -      | -    |

**AV DETECT** (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                          | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result |      | Limit<br>AV<br>[dBuV/m] | Margin |      |  |
|--------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|--------|------|-------------------------|--------|------|--|
|                                                                                                              |                | HOR     | VER  |                          |                      |                       |                             | HOR    | VER  |                         | HOR    | VER  |  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)           |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |  |
| 1                                                                                                            | 5350.0         | 34.2    | 36.3 | 32.2                     | 31.9                 | 4.0                   | 0.0                         | 38.5   | 40.6 | 53.9                    | 15.4   | 13.3 |  |
| 2                                                                                                            | 5460.0         | 34.9    | 35.3 | 32.3                     | 31.9                 | 4.1                   | 0.0                         | 39.4   | 39.8 | 53.9                    | 14.5   | 14.1 |  |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m) |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |  |
| 3                                                                                                            | 10640.0        | 37.7    | 36.0 | 39.4                     | 33.5                 | 5.7                   | 1.2                         | 41.0   | 39.3 | 53.9                    | 12.9   | 14.6 |  |
| 4                                                                                                            | 15960.0        | 31.0    | 30.6 | 38.1                     | 33.2                 | 7.1                   | 1.0                         | 34.5   | 34.1 | 53.9                    | 19.4   | 19.8 |  |
| 5                                                                                                            | 21280.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 53.9                    | -      | -    |  |

Test Distance 1.0m : Distance Factor(Dfac(1m)) =  $20\log(3/1.0) = 9.5 \text{ dB}$

- \* Except for the above table : All other spurious emissions were less than 20dB for the limit.
- \* In the above table, factor 0.0dB represents no use of Atten. and/or Filter.
- \*The limit is rounded down to one decimal place.
- \*The test result is rounded off to one or two decimal places, so some differences might be observed.

## Radiated Spurious Emission (above 1GHz: Inside of the restricted band)

### 11a, Tx 5500MHz

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7006  
Power DC 3.3V  
Mode IEEE802.11a, Tx, 5500MHz, 24Mbps  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

Report No. 29KE0214-HO-01  
Regulation FCC Part15 Subpart C 15.209 / RSS-210 A9.3  
Test Distance 1m (above 10GHz)  
Date 04/28/2009  
Temperature 21 deg.C.  
Humidity 38 %  
Engineer Takumi Shimada

#### PK DETECT (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                                             | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result |      | Limit<br>PK<br>[dBuV/m] | Margin |      |
|-----------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|--------|------|-------------------------|--------|------|
|                                                                                                                 |                | HOR     | VER  |                          |                      |                       |                             | HOR    | VER  |                         | HOR    | VER  |
| Test distance 1meter    RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m) |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 1                                                                                                               | 11000.0        | 51.6    | 48.2 | 39.8                     | 33.5                 | 5.8                   | 1.3                         | 55.5   | 52.1 | 73.9                    | 18.4   | 21.8 |

#### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                          | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result |      | Limit<br>AV<br>[dBuV/m] | Margin |      |
|--------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|--------|------|-------------------------|--------|------|
|                                                                                                              |                | HOR     | VER  |                          |                      |                       |                             | HOR    | VER  |                         | HOR    | VER  |
| [dBuV]                                                                                                       |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| [dBuV/m]                                                                                                     |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| [dB]                                                                                                         |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m) |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 1                                                                                                            | 11000.0        | 38.8    | 35.6 | 39.8                     | 33.5                 | 5.8                   | 1.3                         | 42.7   | 39.5 | 53.9                    | 11.2   | 14.4 |

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) =

9.5 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

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

\*The limit is rounded down to one decimal place.

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

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## 11a, Tx 5600MHz

Head Office EMC Lab. No.4 Anechoic Chamber

Regulation FCC Part15 Subpart C 15.209 / RSS-210 A9.3

Date 04/28/2009

Humidity 38 %

|           |                 |
|-----------|-----------------|
| Company   | Canon Inc.      |
| Equipment | WLAN Module     |
| Model     | CH9-1161        |
| S/N       | ES7006          |
| Power     | DC 3.3V         |
| Mode      | IEEE802.11a, T  |
| EUT-Axis  | H: Y-axis, V: Y |
| Ant-Axis  | H: Z-axis, V: Y |

Model CH9-1161

|       |         |
|-------|---------|
| Power | DC 3.3V |
|-------|---------|

EUT-Axis      H: Y-axis, V: Y-axis

Ant-Axis      H: Z-axis, V: Y-axis

| No.                                                                                                                         | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result   |      | Limit<br>PK<br>[dBuV/m] | Margin |      |
|-----------------------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                                             |                | HOR     | VER  |                          |                      |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                                             |                | [dBuV]  |      |                          |                      |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| <b>Test distance 1meter    RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)</b>      |                |         |      |                          |                      |                       |                             |          |      |                         |        |      |
| 1                                                                                                                           | 11200.0        | 50.1    | 46.6 | 39.8                     | 33.5                 | 5.9                   | 1.2                         | 54.0     | 50.5 | 73.9                    | 19.9   | 23.4 |
| 2                                                                                                                           | 22400.0        | NS      | NS   | -                        | -                    | -                     | -                           | -        | -    | 73.9                    | -      | -    |
| <b>Test distance 0.5meters    RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m)</b> |                |         |      |                          |                      |                       |                             |          |      |                         |        |      |
| 3                                                                                                                           | 39200.0        | NS      | NS   | -                        | -                    | -                     | -                           | -        | -    | 73.9                    | -      | -    |

| No.                                                                                                                      | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result   |      | Limit<br>AV<br>[dBuV/m] | Margin |      |
|--------------------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|----------|------|-------------------------|--------|------|
|                                                                                                                          |                | HOR     | VER  |                          |                      |                       |                             | HOR      | VER  |                         | HOR    | VER  |
|                                                                                                                          |                | [dBuV]  |      |                          |                      |                       |                             | [dBuV/m] |      |                         | [dB]   |      |
| <b>Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)</b>      |                |         |      |                          |                      |                       |                             |          |      |                         |        |      |
| 1                                                                                                                        | 11200.0        | 37.8    | 34.3 | 39.8                     | 33.5                 | 5.9                   | 1.2                         | 41.7     | 38.2 | 53.9                    | 12.2   | 15.7 |
| 2                                                                                                                        | 22400.0        | NS      | NS   | -                        | -                    | -                     | -                           | -        | -    | 53.9                    | -      | -    |
| <b>Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m)</b> |                |         |      |                          |                      |                       |                             |          |      |                         |        |      |
| 3                                                                                                                        | 39200.0        | NS      | NS   | -                        | -                    | -                     | -                           | -        | -    | 53.9                    | -      | -    |

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

## Radiated Spurious Emission (above 1GHz: Inside of the restricted band)

### 11a, Tx 5700MHz

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart C 15.209 / RSS-210 A9.3

Test Distance 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/28/2009

Temperature 21 deg.C.

Humidity 38 %

Engineer Takumi Shimada

Company Canon Inc.

Equipment WLAN Module

Model CH9-1161

S/N ES7006

Power DC 3.3V

Mode IEEE802.11a, Tx, 5700MHz, 24Mbps

EUT-Axis H: Y-axis, V: Y-axis

Ant-Axis H: Z-axis, V: Y-axis

#### PK DETECT (RBW 1MHz, VBW 1MHz)

| No.                                                                                                                  | Freq.<br>[MHz] | Reading |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result |      | Limit<br>PK<br>[dBuV/m] | Margin |      |
|----------------------------------------------------------------------------------------------------------------------|----------------|---------|------|--------------------------|----------------------|-----------------------|-----------------------------|--------|------|-------------------------|--------|------|
|                                                                                                                      |                | HOR     | VER  |                          |                      |                       |                             | HOR    | VER  |                         | HOR    | VER  |
| Test distance 1meter    RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 1                                                                                                                    | 11400.0        | 47.8    | 45.2 | 39.9                     | 33.5                 | 6.1                   | 1.1                         | 51.9   | 49.3 | 73.9                    | 22.0   | 24.6 |
| 2                                                                                                                    | 22800.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 73.9                    | -      | -    |
| Test distance 0.5meters    RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |         |      |                          |                      |                       |                             |        |      |                         |        |      |
| 3                                                                                                                    | 39900.0        | NS      | NS   | -                        | -                    | -                     | -                           | -      | -    | 73.9                    | -      | -    |

#### AV DETECT (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                                                  | Freq.<br>[MHz] | Reading<br>HOR   VER<br>[dBuV] |      | Ant.<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | Atten. or<br>Filter<br>[dB] | Result<br>HOR   VER<br>[dBuV/m] |      | Limit<br>AV<br>[dBuV/m] | Margin<br>HOR   VER<br>[dB] |      |
|----------------------------------------------------------------------------------------------------------------------|----------------|--------------------------------|------|--------------------------|----------------------|-----------------------|-----------------------------|---------------------------------|------|-------------------------|-----------------------------|------|
|                                                                                                                      |                |                                |      |                          |                      |                       |                             |                                 |      |                         |                             |      |
| Test distance 1meter    RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |                                |      |                          |                      |                       |                             |                                 |      |                         |                             |      |
| 1                                                                                                                    | 11400.0        | 34.1                           | 32.6 | 39.9                     | 33.5                 | 6.1                   | 1.1                         | 38.2                            | 36.7 | 53.9                    | 15.7                        | 17.2 |
| 2                                                                                                                    | 22800.0        | NS                             | NS   | -                        | -                    | -                     | -                           | -                               | -    | 53.9                    | -                           | -    |
| Test distance 0.5meters    RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                                |      |                          |                      |                       |                             |                                 |      |                         |                             |      |
| 3                                                                                                                    | 39900.0        | NS                             | NS   | -                        | -                    | -                     | -                           | -                               | -    | 53.9                    | -                           | -    |

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) = 9.5 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) = 15.6 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

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

\*The limit is rounded down to one decimal place.

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

**UL Japan, Inc.**

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## Radiated Spurious Emission (above 1GHz: Outside of the restricted band)

\*used conversion formula

**11a, Tx 5180MHz**

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart E 15.407(b) / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada Takumi Shimada

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7006  
Power DC 3.3V  
Mode IEEE802.11a, Tx, 5180MHz, 24Mbps  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

**PK detect** (RBW 1MHz, VBW 1MHz)

| No.                                                                                                                                  | Freq.<br>[MHz] | S/A Reading<br>[dBuV] |      | Antenna<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | ATT or<br>Filter Loss<br>[dB] | Electric Field Strength<br>[dBuV/m] |      | Result (EIRP)<br>[dBm] |       | Lmit<br>[dBm] | Margin<br>[dB] |      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|------|-----------------------------|----------------------|-----------------------|-------------------------------|-------------------------------------|------|------------------------|-------|---------------|----------------|------|
|                                                                                                                                      |                | HOR                   | VER  |                             |                      |                       |                               | HOR                                 | VER  | HOR                    | VER   |               | HOR            | VER  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                                   |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 1                                                                                                                                    | 5150.00        | 48.8                  | 48.8 | 32.0                        | 31.9                 | 4.0                   | 0.0                           | 52.9                                | 52.9 | -42.3                  | -42.3 | -27.0         | 15.3           | 15.3 |
| Test distance 1meter, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 2                                                                                                                                    | 10360.00       | 53.2                  | 50.9 | 39.1                        | 33.5                 | 5.7                   | 1.2                           | 56.2                                | 53.9 | -39.0                  | -41.3 | -27.0         | 12.0           | 14.3 |
| 3                                                                                                                                    | 25900.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| Test distance 0.5meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 4                                                                                                                                    | 31080.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| 5                                                                                                                                    | 36260.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |

Result(EIRP[dBm])=10\*LOG((10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) = 9.5 dB  
Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) = 15.56 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

\* 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 Spurious Emission (above 1GHz: Outside of the restricted band)**

**\*used conversion formula**

### **11a, Tx 5220MHz**

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart E 15.407(b) / RSS-210 A9.3

Test Distance 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/28/2009

Temperature 21 deg.C.

Humidity 38 %

Engineer Takumi Shimada

Company Canon Inc.

Equipment WLAN Module

Model CH9-1161

S/N ES7006

Power DC 3.3V

Mode IEEE802.11a, Tx, 5220MHz, 24Mbps

EUT-Axis H: Y-axis, V: Y-axis

Ant-Axis H: Z-axis, V: Y-axis

#### **PK detect**

(RBW 1MHz, VBW 1MHz)

| No.                                                                                                                                  | Freq.<br>[MHz] | S/A Reading<br>[dBuV] |      | Antenna<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | ATT or<br>Filter Loss<br>[dB] | Electric Field Strength<br>[dBuV/m] |      | Result (EIRP)<br>[dBm] |       | Lmit<br>[dBm] | Margin<br>[dB] |      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|------|-----------------------------|----------------------|-----------------------|-------------------------------|-------------------------------------|------|------------------------|-------|---------------|----------------|------|
|                                                                                                                                      |                | HOR                   | VER  |                             |                      |                       |                               | HOR                                 | VER  | HOR                    | VER   |               | HOR            | VER  |
| Test distance 1meter, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 1                                                                                                                                    | 10440.00       | 53.7                  | 53.0 | 39.2                        | 33.5                 | 5.7                   | 1.2                           | 56.8                                | 56.1 | -38.5                  | -39.2 | -27.0         | 11.5           | 12.2 |
| 2                                                                                                                                    | 26100.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| Test distance 0.5meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 3                                                                                                                                    | 36540.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |

Result(EIRP[dBm])=10\*LOG(( { 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) = 9.54 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) = 15.56 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

\* 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 Spurious Emission (above 1GHz: Outside of the restricted band)**

**\*used conversion formula**

### **11a, Tx 5240MHz**

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart E 15.407(b) / RSS-210 A9.3

Test Distance 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/28/2009

Temperature 21 deg.C.

Humidity 38 %

Engineer Takumi Shimada

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7006  
Power DC 3.3V  
Mode IEEE802.11a, Tx, 5240MHz, 24Mbps  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

**PK detect** (RBW 1MHz, VBW 1MHz)

| No.                                                                                                                                  | Freq.<br>[MHz] | S/A Reading<br>[dBuV] |      | Antenna<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | ATT or<br>Filter Loss<br>[dB] | Electric Field Strength<br>[dBuV/m] |      | Result (EIRP)<br>[dBm] |       | Lmit<br>[dBm] | Margin<br>[dB] |      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|------|-----------------------------|----------------------|-----------------------|-------------------------------|-------------------------------------|------|------------------------|-------|---------------|----------------|------|
|                                                                                                                                      |                | HOR                   | VER  |                             |                      |                       |                               | HOR                                 | VER  | HOR                    | VER   |               | HOR            | VER  |
| Test distance 1meter, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 1                                                                                                                                    | 10480.00       | 53.9                  | 51.3 | 39.3                        | 33.5                 | 5.7                   | 1.2                           | 57.1                                | 54.5 | -38.2                  | -40.8 | -27.0         | 11.2           | 13.8 |
| 2                                                                                                                                    | 26200.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| Test distance 0.5meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 3                                                                                                                                    | 36680.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |

Result(EIRP[dBm])=10\*LOG(((10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) = 9.54 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) = 15.56 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

\* 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 Spurious Emission (above 1GHz: Outside of the restricted band)**

**\*used conversion formula**

### **11a, Tx 5260MHz**

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart E 15.407(b) / RSS-210 A9.3

Test Distance 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/28/2009

Temperature 21 deg.C.

Humidity 38 %

Engineer Takumi Shimada

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7006  
Power DC 3.3V  
Mode IEEE802.11a, Tx, 5260MHz, 24Mbps  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

**PK detect** (RBW 1MHz, VBW 1MHz)

| No.                                                                                                                                  | Freq.<br>[MHz] | S/A Reading<br>[dBuV] |      | Antenna<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | ATT or<br>Filter Loss<br>[dB] | Electric Field Strength<br>[dBuV/m] |      | Result (EIRP)<br>[dBm] |       | Lmit<br>[dBm] | Margin<br>[dB] |      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|------|-----------------------------|----------------------|-----------------------|-------------------------------|-------------------------------------|------|------------------------|-------|---------------|----------------|------|
|                                                                                                                                      |                | HOR                   | VER  |                             |                      |                       |                               | HOR                                 | VER  | HOR                    | VER   |               | HOR            | VER  |
| Test distance 1meter, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 1                                                                                                                                    | 10520.00       | 53.7                  | 50.5 | 39.3                        | 33.5                 | 5.7                   | 1.2                           | 56.9                                | 53.7 | -38.3                  | -41.6 | -27.0         | 11.3           | 14.6 |
| 2                                                                                                                                    | 26300.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| Test distance 0.5meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 3                                                                                                                                    | 36820.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |

Result(EIRP[dBm])=10\*LOG((( 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 ) / 30) \*10^3)

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) = 9.54 dB  
Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) = 15.56 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

\* 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 Spurious Emission (above 1GHz: Outside of the restricted band)

**\*used conversion formula**

### **11a, Tx 5300MHz**

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart E 15.407(b) / RSS-210 A9.3

Test Distance 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/28/2009

Temperature 21 deg.C.

Humidity 38 %

Engineer Takumi Shimada

Company Canon Inc.

Equipment WLAN Module

Model CH9-1161

S/N ES7006

Power DC 3.3V

Mode IEEE802.11a, Tx, 5300MHz, 24Mbps

EUT-Axis H: Y-axis, V: Y-axis

Ant-Axis H: Z-axis, V: Y-axis

**PK detect** (RBW 1MHz, VBW 1MHz)

| No.                                                                                                                                  | Freq.<br>[MHz] | S/A Reading<br>[dBuV] |      | Antenna<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | ATT or<br>Filter Loss<br>[dB] | Electric Field Strength<br>[dBuV/m] |      | Result (EIRP)<br>[dBm] |       | Lmit<br>[dBm] | Margin<br>[dB] |      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|------|-----------------------------|----------------------|-----------------------|-------------------------------|-------------------------------------|------|------------------------|-------|---------------|----------------|------|
|                                                                                                                                      |                | HOR                   | VER  |                             |                      |                       |                               | HOR                                 | VER  | HOR                    | VER   |               | HOR            | VER  |
| Test distance 1meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)     |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 1                                                                                                                                    | 10600.00       | 52.3                  | 47.1 | 39.4                        | 33.5                 | 5.7                   | 1.2                           | 55.6                                | 50.4 | -39.7                  | -44.9 | -27.0         | 12.7           | 17.9 |
| Test distance 0.5meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 2                                                                                                                                    | 26500.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| 3                                                                                                                                    | 37100.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |

Result(EIRP[dBm])=10\*LOG((10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 / 30) \*10^3)

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) = 9.54 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) = 15.56 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

\* 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.

**UL Japan, Inc.**

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## **Radiated Spurious Emission (above 1GHz: Outside of the restricted band)**

**\*used conversion formula**

**11a, Tx 5320MHz**

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart E 15.407(b) / RSS-210 A9.3

Test Distance 3m (below 10GHz), 0.5m (above 26.5GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada Takumi Shimada

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7006  
Power DC 3.3V  
Mode IEEE802.11a, Tx, 5320MHz, 24Mbps  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

**PK detect** (RBW 1MHz, VBW 1MHz)

| No.                                                                                                                                  | Freq.<br>[MHz] | S/A Reading<br>[dBuV] |      | Antenna<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | ATT or<br>Filter Loss<br>[dB] | Electric Field Strength<br>[dBuV/m] |      | Result (EIRP)<br>[dBm] |       | Lmit<br>[dBm] | Margin<br>[dB] |      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|------|-----------------------------|----------------------|-----------------------|-------------------------------|-------------------------------------|------|------------------------|-------|---------------|----------------|------|
|                                                                                                                                      |                | HOR                   | VER  |                             |                      |                       |                               | HOR                                 | VER  | HOR                    | VER   |               | HOR            | VER  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                                   |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 1                                                                                                                                    | 5350.00        | 49.0                  | 50.0 | 32.3                        | 31.9                 | 4.0                   | 0.0                           | 53.4                                | 54.4 | -41.8                  | -40.8 | -27.0         | 14.8           | 13.8 |
| Test distance 0.5meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 2                                                                                                                                    | 26600.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| 3                                                                                                                                    | 31920.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| 4                                                                                                                                    | 37240.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |

Result(EIRP[dBm])=10\*LOG(( { 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) = 15.56 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

\* 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 Spurious Emission (above 1GHz: Outside of the restricted band)

\*used conversion formula

### 11a, Tx 5500MHz

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart E 15.407(b) / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada Takumi Shimada

Company Canon Inc.

Equipment WLAN Module

Model CH9-1161

S/N ES7006

Power DC 3.3V

Mode IEEE802.11a, Tx, 5500MHz, 24Mbps

EUT-Axis H: Y-axis, V: Y-axis

Ant-Axis H: Z-axis, V: Y-axis

#### PK detect

(RBW 1MHz, VBW 1MHz)

| No.                                                                                                                                  | Freq.<br>[MHz] | S/A Reading<br>[dBuV] |      | Antenna<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | ATT or<br>Filter Loss<br>[dB] | Electric Field Strength<br>[dBuV/m] |      | Result (EIRP)<br>[dBm] |       | Lmit<br>[dBm] | Margin<br>[dB] |      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|------|-----------------------------|----------------------|-----------------------|-------------------------------|-------------------------------------|------|------------------------|-------|---------------|----------------|------|
|                                                                                                                                      |                | HOR                   | VER  |                             |                      |                       |                               | HOR                                 | VER  | HOR                    | VER   |               | HOR            | VER  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                                   |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 1                                                                                                                                    | 5470.00        | 47.6                  | 46.9 | 32.3                        | 31.9                 | 4.1                   | 0.0                           | 52.1                                | 51.4 | -43.1                  | -43.8 | -27.0         | 16.1           | 16.8 |
| Test distance 1meter, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 2                                                                                                                                    | 16500.00       | 44.0                  | 43.3 | 39.0                        | 33.3                 | 7.2                   | 1.0                           | 48.4                                | 47.7 | -46.9                  | -47.6 | -27.0         | 19.9           | 20.6 |
| 3                                                                                                                                    | 22000.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| Test distance 0.5meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 4                                                                                                                                    | 27500.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| 5                                                                                                                                    | 33000.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| 6                                                                                                                                    | 38500.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |

Result(EIRP[dBm])=10\*LOG((10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^(-6) \* Distance:3[m] ) ^ 2 / 30) \*10^3)

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) =

9.5 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) =

15.6 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

\* 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 Spurious Emission (above 1GHz: Outside of the restricted band)

\*used conversion formula

**11a, Tx 5600MHz**

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart E 15.407(b) / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada Takumi Shimada

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7006  
Power DC 3.3V  
Mode IEEE802.11a, Tx, 5600MHz, 24Mbps  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

**PK detect** (RBW 1MHz, VBW 1MHz)

| No.                                                                                                                                  | Freq.<br>[MHz] | S/A Reading<br>[dBuV] |      | Antenna<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | ATT or<br>Filter Loss<br>[dB] | Electric Field Strength<br>[dBuV/m] |      | Result (EIRP)<br>[dBm] |       | Lmit<br>[dBm] | Margin<br>[dB] |      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|------|-----------------------------|----------------------|-----------------------|-------------------------------|-------------------------------------|------|------------------------|-------|---------------|----------------|------|
|                                                                                                                                      |                | HOR                   | VER  |                             |                      |                       |                               | HOR                                 | VER  | HOR                    | VER   |               | HOR            | VER  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                                   |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 1                                                                                                                                    | 5470.00        | 45.2                  | 47.4 | 32.3                        | 31.9                 | 4.1                   | 0.0                           | 49.7                                | 51.9 | -45.5                  | -43.3 | -27.0         | 18.5           | 16.3 |
| Test distance 1meter, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 2                                                                                                                                    | 16800.00       | 43.6                  | 43.4 | 39.6                        | 33.3                 | 7.3                   | 0.9                           | 48.6                                | 48.4 | -46.7                  | -46.9 | -27.0         | 19.7           | 19.9 |
| Test distance 0.5meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 3                                                                                                                                    | 28000.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| 4                                                                                                                                    | 33600.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |

Result(EIRP[dBm])=10\*LOG (( { 10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 } / 30) \*10^3)

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) = 9.5 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) = 15.6 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

\* 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 Spurious Emission (above 1GHz: Outside of the restricted band)**

**\*used conversion formula**

### **11a, Tx 5700MHz**

UL Japan, Inc.

Head Office EMC Lab. No.4 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart E 15.407(b) / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 04/27/2009 04/28/2009

Temperature 20 deg.C. 21 deg.C.

Humidity 41 % 38 %

Engineer Takumi Shimada Takumi Shimada

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7006  
Power DC 3.3V  
Mode IEEE802.11a, Tx, 5700MHz, 24Mbps  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

**PK detect** (RBW 1MHz, VBW 1MHz)

| No.                                                                                                                                  | Freq.<br>[MHz] | S/A Reading<br>[dBuV] |      | Antenna<br>Factor<br>[dB/m] | Amp.<br>Gain<br>[dB] | Cable<br>Loss<br>[dB] | ATT or<br>Filter Loss<br>[dB] | Electric Field Strength<br>[dBuV/m] |      | Result (EIRP)<br>[dBm] |       | Lmit<br>[dBm] | Margin<br>[dB] |      |
|--------------------------------------------------------------------------------------------------------------------------------------|----------------|-----------------------|------|-----------------------------|----------------------|-----------------------|-------------------------------|-------------------------------------|------|------------------------|-------|---------------|----------------|------|
|                                                                                                                                      |                | HOR                   | VER  |                             |                      |                       |                               | HOR                                 | VER  | HOR                    | VER   |               | HOR            | VER  |
| Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter)                                   |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 1                                                                                                                                    | 5725.00        | 54.4                  | 51.3 | 32.6                        | 32.0                 | 4.2                   | 0.0                           | 59.2                                | 56.1 | -36.0                  | -39.1 | -27.0         | 9.0            | 12.1 |
| Test distance 1meter, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(1m)      |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 2                                                                                                                                    | 17100.00       | 43.6                  | 43.8 | 40.5                        | 33.3                 | 7.3                   | 0.9                           | 49.5                                | 49.7 | -45.8                  | -45.6 | -27.0         | 18.8           | 18.6 |
| Test distance 0.5meters, Electric Field Strength =Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m) |                |                       |      |                             |                      |                       |                               |                                     |      |                        |       |               |                |      |
| 3                                                                                                                                    | 28500.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |
| 4                                                                                                                                    | 34200.00       | NS                    | NS   | -                           | -                    | -                     | -                             | -                                   | -    | -                      | -     | -27.0         | -              | -    |

Result(EIRP[dBm])=10\*LOG((10 ^ ( Electric Field Strength [dBuV/m] / 20 ) \* 10 ^ (-6) \* Distance:3[m] ) ^ 2 / 30) \*10^3)

Test Distance 1.0m : Distance Factor(Dfac(1m)) = 20log(3/1.0) = 9.5 dB

Test Distance 0.5m : Distance Factor(Dfac(0.5m)) = 20log(3/0.5) = 15.6 dB

\* Except for the above table : All other spurious emissions were less than 20dB for the limit.

\* 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 Spurious Emission (above 1GHz, Receiver)

### 11a, Rx, 5220MHz

UL Japan, Inc.

Head Office EMC Lab. No.2 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart B 15.109 / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 03/26/2009

Temperature 23 deg.C.

Humidity 41 %

Engineer Keisuke Kawamura

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7004  
Power DC 3.3V  
Mode IEEE802.11a, Rx, 5220MHz  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

**PK DETECT** (RBW: 1MHz, VBW: 1MHz)

| No.                                                                              | FREQ<br>[MHz] | S/A READING<br>HOR   VER<br>[dBuV]                                        |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | RESULT<br>HOR   VER<br>[dBuV/m] |      | Limit<br>PK<br>[dBuV/m] | MARGIN<br>HOR   VER<br>[dB] |      |
|----------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------|------|-------------------------|---------------------|-----------------------|---------------------------------|------|-------------------------|-----------------------------|------|
|                                                                                  |               | Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss |      |                         |                     |                       |                                 |      |                         |                             |      |
| 1                                                                                | 5220.00       | 37.1                                                                      | 36.7 | 31.6                    | 31.2                | 3.8                   | 41.3                            | 40.9 | 73.9                    | 32.6                        | 33.0 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss - Dfac |               |                                                                           |      |                         |                     |                       |                                 |      |                         |                             |      |
| 2                                                                                | 10440.00      | 44.7                                                                      | 44.7 | 39.3                    | 31.7                | 4.9                   | 47.7                            | 47.7 | 73.9                    | 26.2                        | 26.2 |
| 3                                                                                | 15660.00      | 40.7                                                                      | 41.0 | 37.8                    | 29.7                | 6.1                   | 45.4                            | 45.7 | 73.9                    | 28.5                        | 28.2 |

**AV DETECT** (RBW: 1MHz, VBW: 10Hz)

| No.                                                                              | FREQ<br>[MHz] | S/A READING<br>HOR   VER<br>[dBuV]                                        |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | RESULT<br>HOR   VER<br>[dBuV/m] |      | Limit<br>AV<br>[dBuV/m] | MARGIN<br>HOR   VER<br>[dB] |      |
|----------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------|------|-------------------------|---------------------|-----------------------|---------------------------------|------|-------------------------|-----------------------------|------|
|                                                                                  |               | Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss |      |                         |                     |                       |                                 |      |                         |                             |      |
| 1                                                                                | 5220.00       | 25.8                                                                      | 25.8 | 31.6                    | 31.2                | 3.8                   | 30.0                            | 30.0 | 53.9                    | 23.9                        | 23.9 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss - Dfac |               |                                                                           |      |                         |                     |                       |                                 |      |                         |                             |      |
| 2                                                                                | 10440.00      | 36.0                                                                      | 35.7 | 39.3                    | 31.7                | 4.9                   | 39.0                            | 38.7 | 53.9                    | 14.9                        | 15.2 |
| 3                                                                                | 15660.00      | 28.0                                                                      | 27.9 | 37.8                    | 29.7                | 6.1                   | 32.7                            | 32.6 | 53.9                    | 21.2                        | 21.3 |

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3.0/1.0) = 9.5 dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*Hi-Pass Filter was not used for factor 0.0dB of the above table.

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

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## Radiated Spurious Emission (above 1GHz, Receiver)

### 11a, Rx, 5300MHz

UL Japan, Inc.

Head Office EMC Lab. No.2 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart B 15.109 / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 03/26/2009

Temperature 23 deg.C.

Humidity 41 %

Engineer Keisuke Kawamura

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7004  
Power DC 3.3V  
Mode IEEE802.11a, Rx, 5300MHz  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

**PK DETECT** (RBW: 1MHz, VBW: 1MHz)

| No.                                                                              | FREQ<br>[MHz] | S/A READING<br>HOR   VER<br>[dBuV]                                        |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | RESULT<br>HOR   VER<br>[dBuV/m] |      | Limit<br>PK<br>[dBuV/m] | MARGIN<br>HOR   VER<br>[dB] |      |
|----------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------|------|-------------------------|---------------------|-----------------------|---------------------------------|------|-------------------------|-----------------------------|------|
|                                                                                  |               | Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss |      |                         |                     |                       |                                 |      |                         |                             |      |
| 1                                                                                | 5300.00       | 38.0                                                                      | 37.9 | 31.6                    | 31.2                | 3.8                   | 42.2                            | 42.1 | 73.9                    | 31.7                        | 31.8 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss - Dfac |               |                                                                           |      |                         |                     |                       |                                 |      |                         |                             |      |
| 2                                                                                | 10600.00      | 44.1                                                                      | 44.6 | 39.4                    | 31.6                | 4.9                   | 47.3                            | 47.8 | 73.9                    | 26.6                        | 26.1 |
| 3                                                                                | 15900.00      | 40.3                                                                      | 41.0 | 37.2                    | 29.8                | 6.1                   | 44.3                            | 45.0 | 73.9                    | 29.6                        | 28.9 |

**AV DETECT** (RBW: 1MHz, VBW: 10Hz)

| No.                                                                              | FREQ<br>[MHz] | S/A READING<br>HOR   VER<br>[dBuV]                                        |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | RESULT<br>HOR   VER<br>[dBuV/m] |      | Limit<br>AV<br>[dBuV/m] | MARGIN<br>HOR   VER<br>[dB] |      |
|----------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------|------|-------------------------|---------------------|-----------------------|---------------------------------|------|-------------------------|-----------------------------|------|
|                                                                                  |               | Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss |      |                         |                     |                       |                                 |      |                         |                             |      |
| 1                                                                                | 5300.00       | 26.3                                                                      | 26.2 | 31.6                    | 31.2                | 3.8                   | 30.5                            | 30.4 | 53.9                    | 23.4                        | 23.5 |
| Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss - Dfac |               |                                                                           |      |                         |                     |                       |                                 |      |                         |                             |      |
| 2                                                                                | 10600.00      | 36.2                                                                      | 36.9 | 39.4                    | 31.6                | 4.9                   | 39.4                            | 40.1 | 53.9                    | 14.5                        | 13.8 |
| 3                                                                                | 15900.00      | 28.1                                                                      | 28.2 | 37.2                    | 29.8                | 6.1                   | 32.1                            | 32.2 | 53.9                    | 21.8                        | 21.7 |

Test Distance 1.0m : Distance Factor(Dfac) =  $20\log(3.0/1.0) = 9.5$  dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*Hi-Pass Filter was not used for factor 0.0dB of the above table.

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

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## Radiated Spurious Emission (above 1GHz, Receiver)

### 11a, Rx, 5600MHz

UL Japan, Inc.

Head Office EMC Lab. No.2 Anechoic Chamber

Report No. 29KE0214-HO-01

Regulation FCC Part15 Subpart B 15.109 / RSS-210 A9.3

Test Distance 3m (below 10GHz), 1m (above 10GHz), 0.5m (above 26.5GHz)

Date 03/26/2009

Temperature 23 deg.C.

Humidity 41 %

Engineer Keisuke Kawamura

Company Canon Inc.  
Equipment WLAN Module  
Model CH9-1161  
S/N ES7004  
Power DC 3.3V(AC Adapter:AC120V/60Hz)  
Mode IEEE802.11a, Rx, 5600MHz  
EUT-Axis H: Y-axis, V: Y-axis  
Ant-Axis H: Z-axis, V: Y-axis

**PK DETECT** (RBW: 1MHz, VBW: 1MHz)

| No.                                                                                     | FREQ<br>[MHz] | S/A READING<br>HOR   VER<br>[dBuV]                                               |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | RESULT<br>HOR   VER<br>[dBuV/m] |      | Limit<br>PK<br>[dBuV/m] | MARGIN<br>HOR   VER<br>[dB] |      |
|-----------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------|------|-------------------------|---------------------|-----------------------|---------------------------------|------|-------------------------|-----------------------------|------|
|                                                                                         |               | <b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss</b> |      |                         |                     |                       |                                 |      |                         |                             |      |
| 1                                                                                       | 5600.00       | 38.2                                                                             | 39.3 | 31.9                    | 31.2                | 3.9                   | 42.8                            | 43.9 | 73.9                    | 31.1                        | 30.0 |
| <b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss - Dfac</b> |               |                                                                                  |      |                         |                     |                       |                                 |      |                         |                             |      |
| 2                                                                                       | 11200.00      | 46.4                                                                             | 45.0 | 39.7                    | 31.1                | 5.1                   | 50.6                            | 49.2 | 73.9                    | 23.3                        | 24.7 |
| 3                                                                                       | 16800.00      | 40.8                                                                             | 41.0 | 39.5                    | 29.9                | 6.4                   | 47.3                            | 47.5 | 73.9                    | 26.6                        | 26.4 |

**AV DETECT** (RBW: 1MHz, VBW: 10Hz)

| No.                                                                                     | FREQ<br>[MHz] | S/A READING<br>HOR   VER<br>[dBuV]                                               |      | ANT<br>Factor<br>[dB/m] | AMP<br>GAIN<br>[dB] | CABLE<br>LOSS<br>[dB] | RESULT<br>HOR   VER<br>[dBuV/m] |      | Limit<br>AV<br>[dBuV/m] | MARGIN<br>HOR   VER<br>[dB] |      |
|-----------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------|------|-------------------------|---------------------|-----------------------|---------------------------------|------|-------------------------|-----------------------------|------|
|                                                                                         |               | <b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss</b> |      |                         |                     |                       |                                 |      |                         |                             |      |
| 1                                                                                       | 5600.00       | 26.5                                                                             | 26.4 | 31.9                    | 31.2                | 3.9                   | 31.1                            | 31.0 | 53.9                    | 22.8                        | 22.9 |
| <b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss - Dfac</b> |               |                                                                                  |      |                         |                     |                       |                                 |      |                         |                             |      |
| 2                                                                                       | 11200.00      | 40.7                                                                             | 37.7 | 39.7                    | 31.1                | 5.1                   | 44.9                            | 41.9 | 53.9                    | 9.0                         | 12.0 |
| 3                                                                                       | 16800.00      | 27.5                                                                             | 27.6 | 39.5                    | 29.9                | 6.4                   | 34.0                            | 34.1 | 53.9                    | 19.9                        | 19.8 |

Test Distance 1.0m : Distance Factor(Dfac) =  $20\log(3.0/1.0) = 9.5$  dB

\*Except for the above table : All other spurious emissions were less than 20dB for the limit.

\*Hi-Pass Filter was not used for factor 0.0dB of the above table.

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

**UL Japan, Inc.**

**Head Office EMC Lab.**

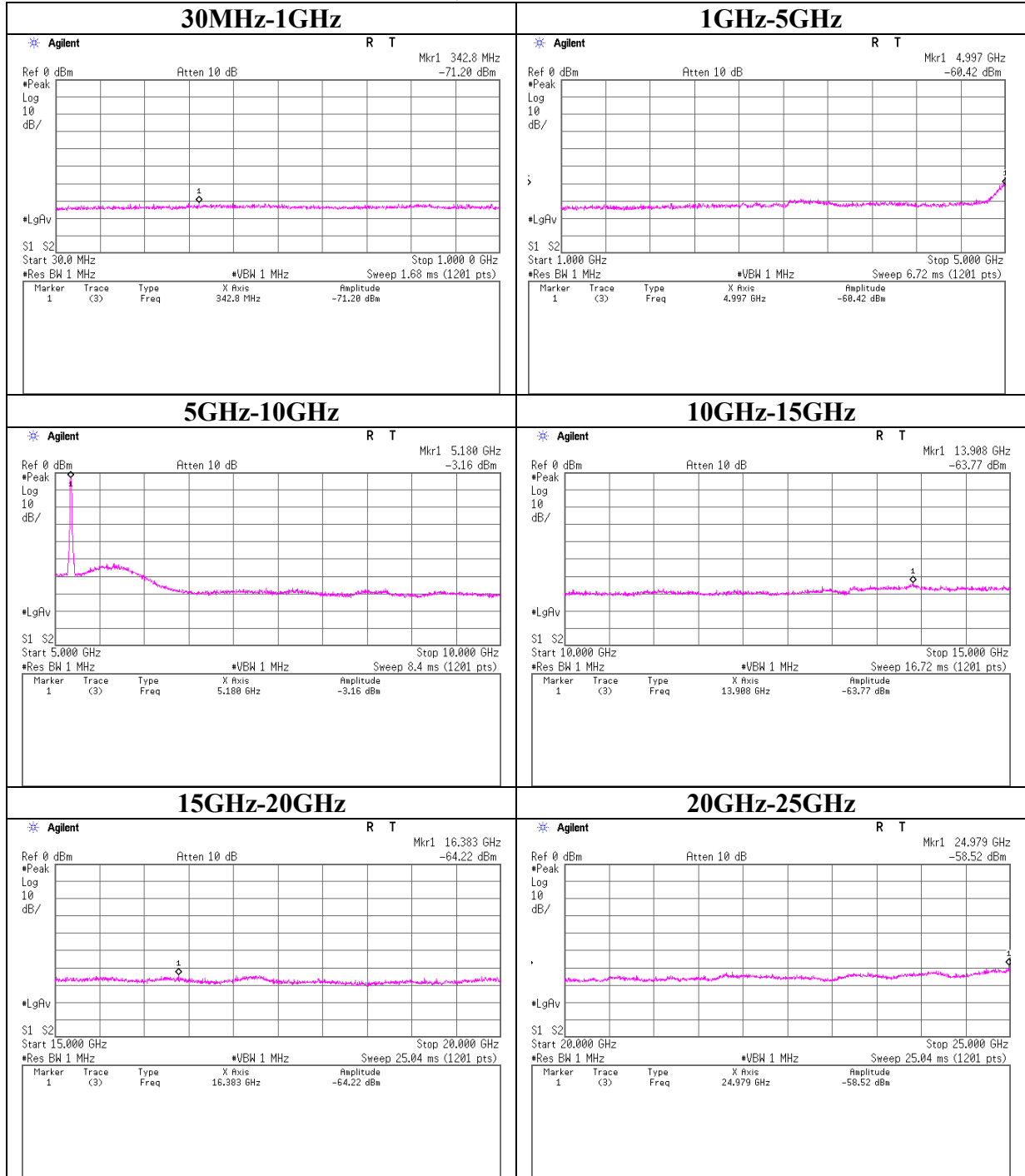
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

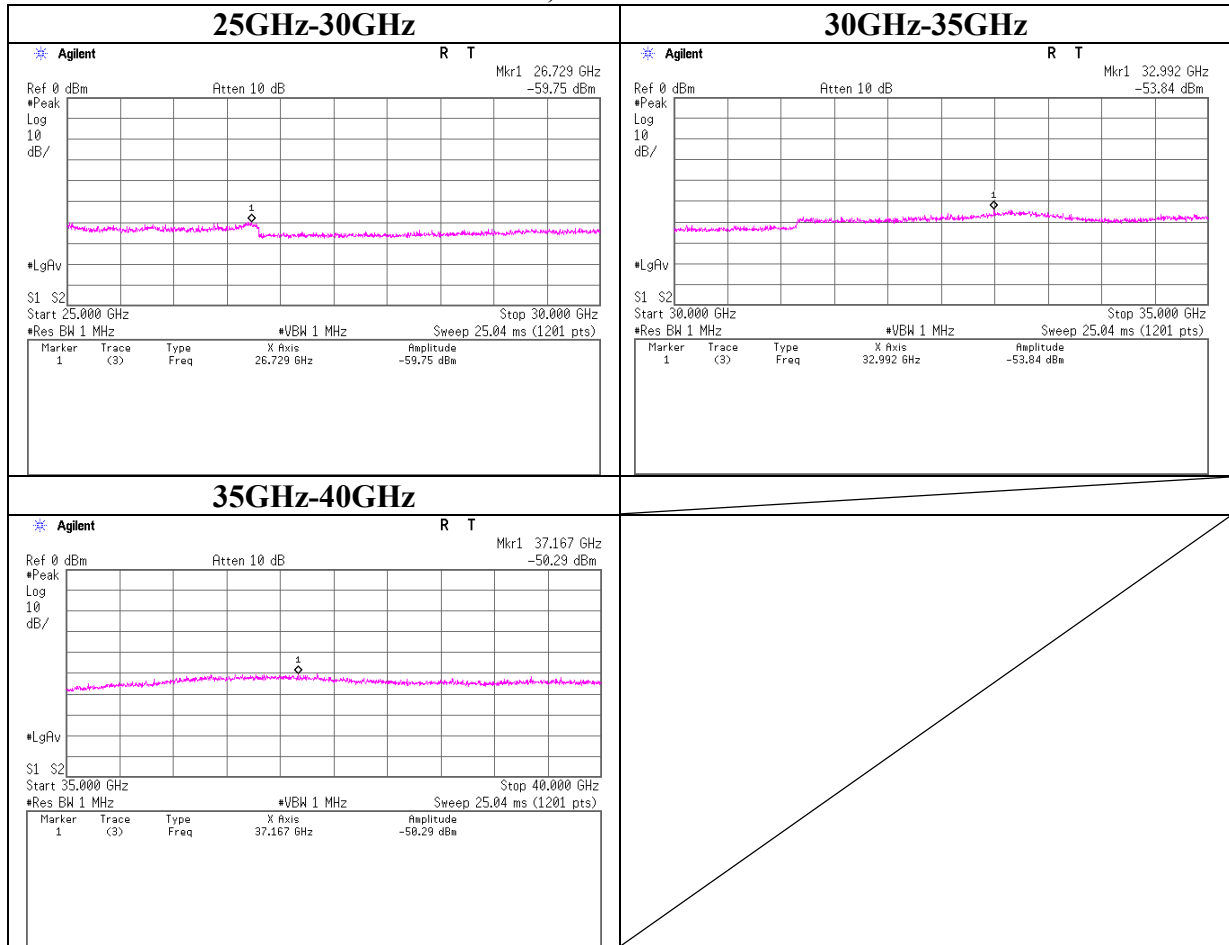
Facsimile : +81 596 24 8124

## Conducted Spurious Emission

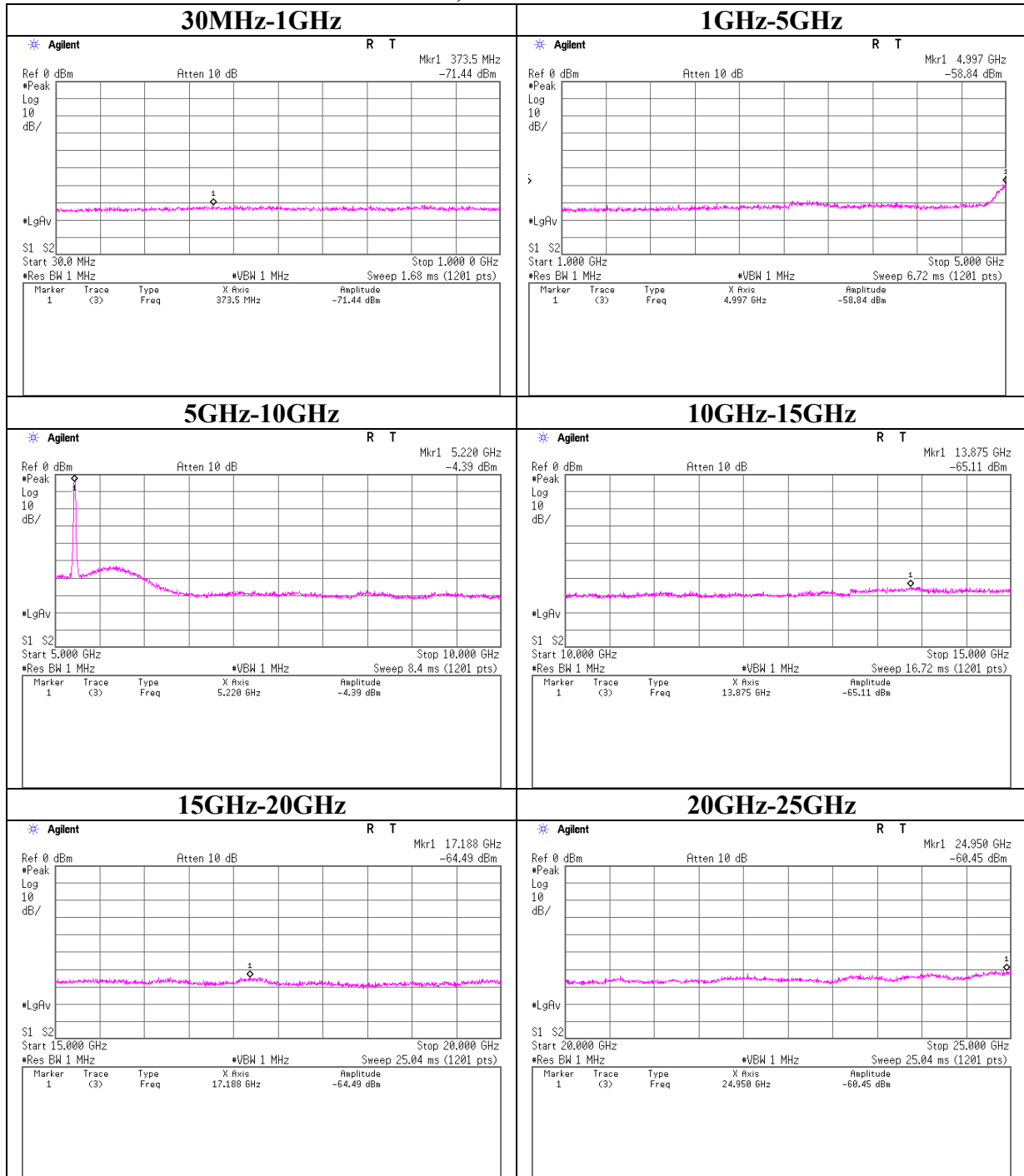
### 11a, Tx 5180MHz



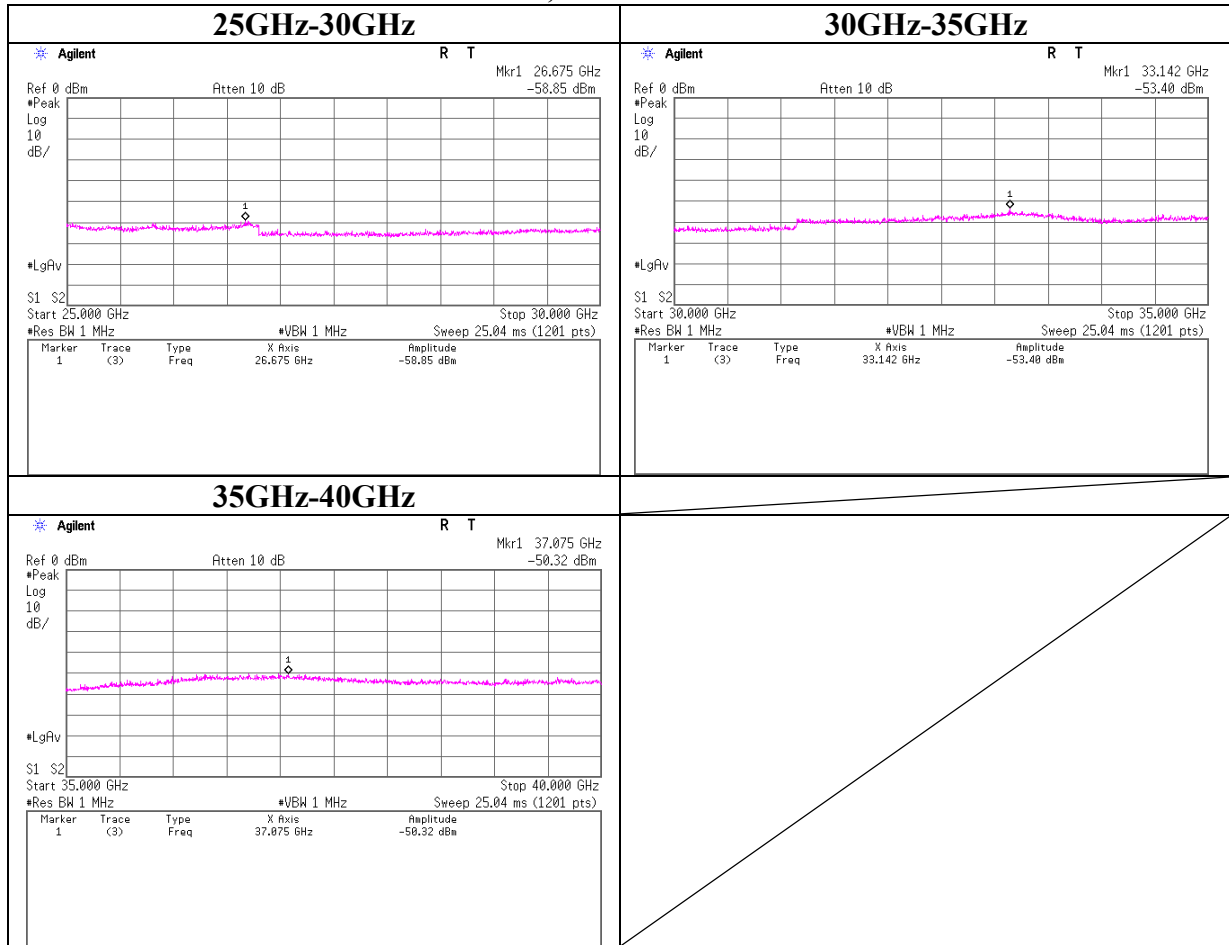
**Conducted Spurious Emission**  
**11a, Tx 5180MHz**



**Conducted Spurious Emission**  
**11a, Tx 5220MHz**

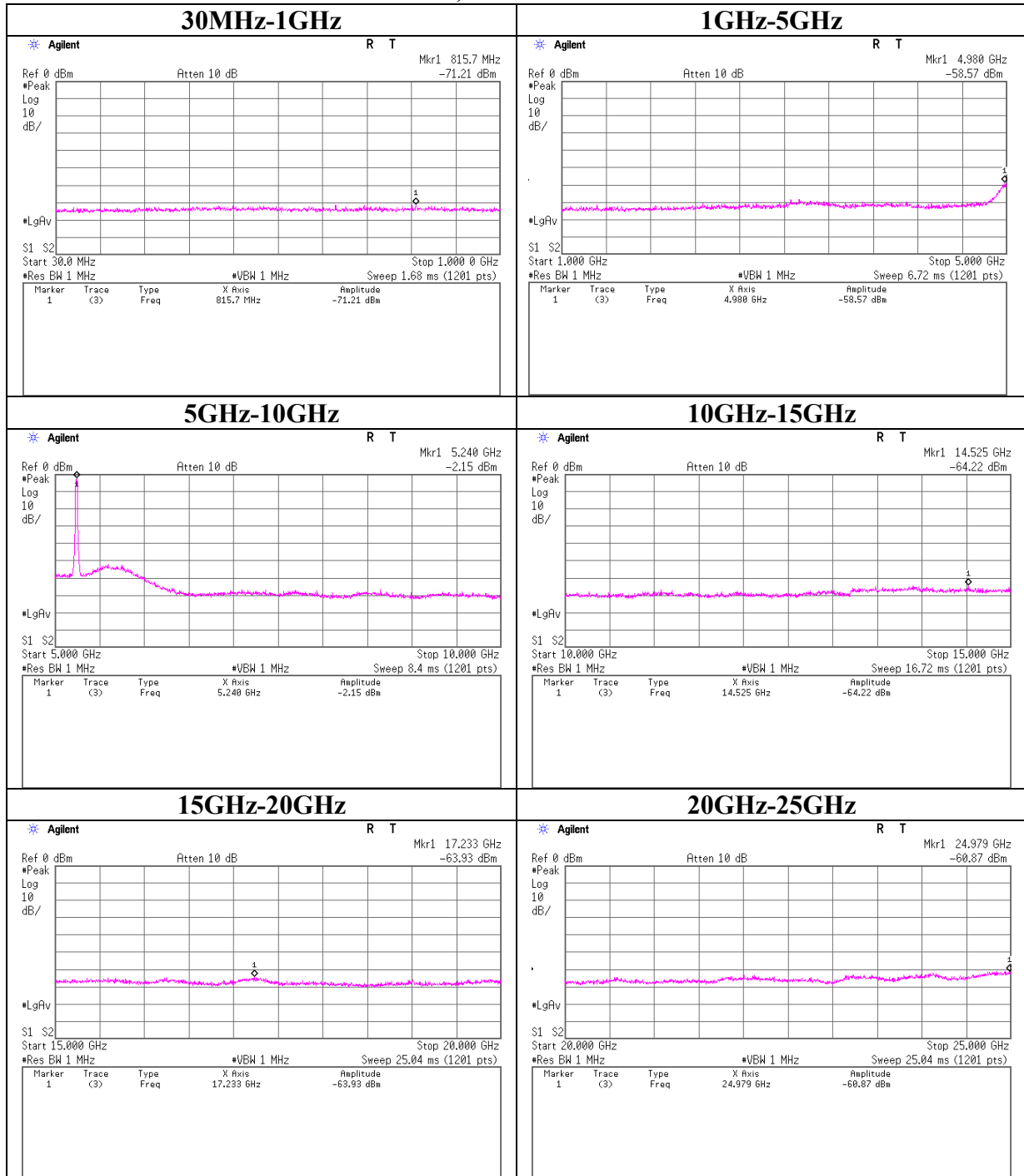


**Conducted Spurious Emission**  
**11a, Tx 5220MHz**

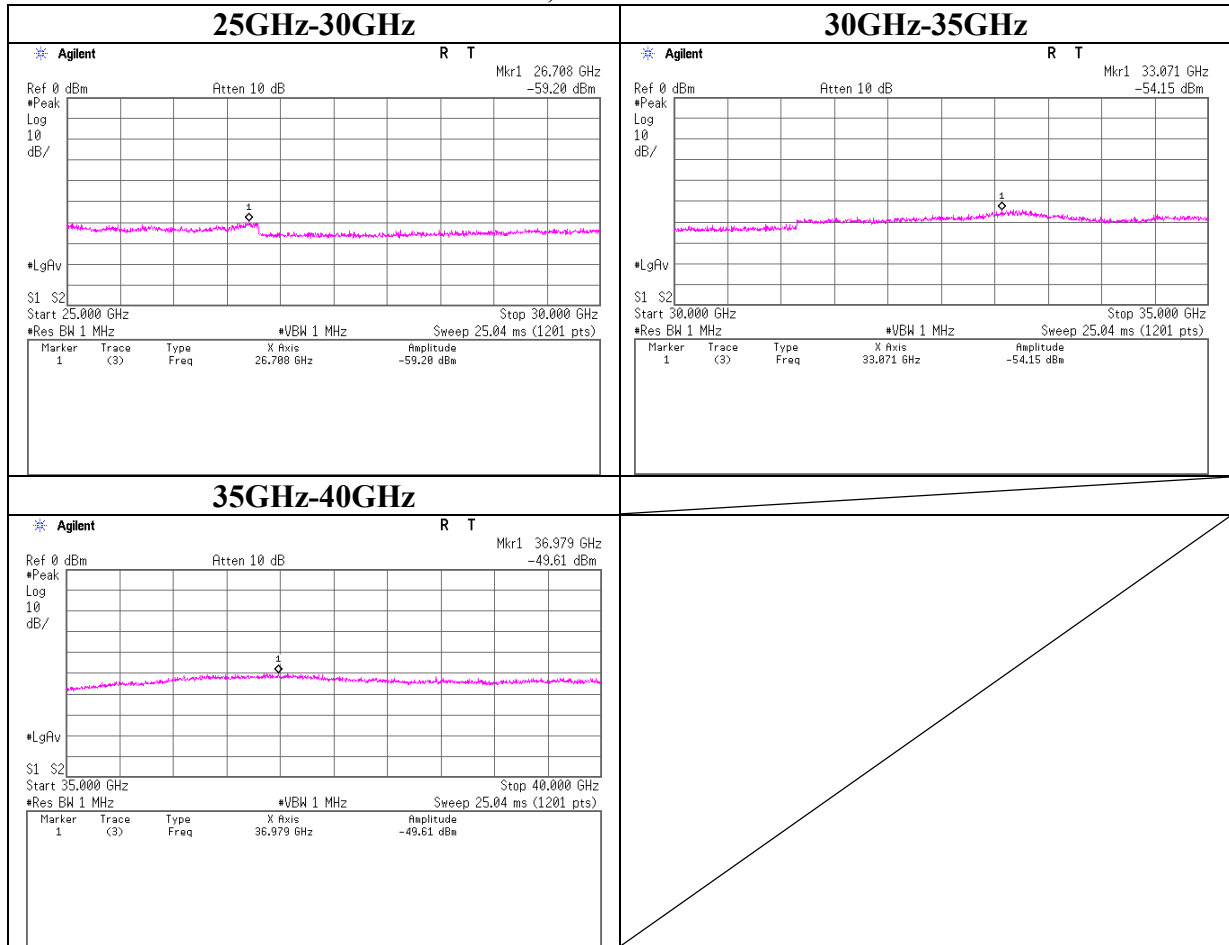


## Conducted Spurious Emission

### 11a, Tx 5240MHz

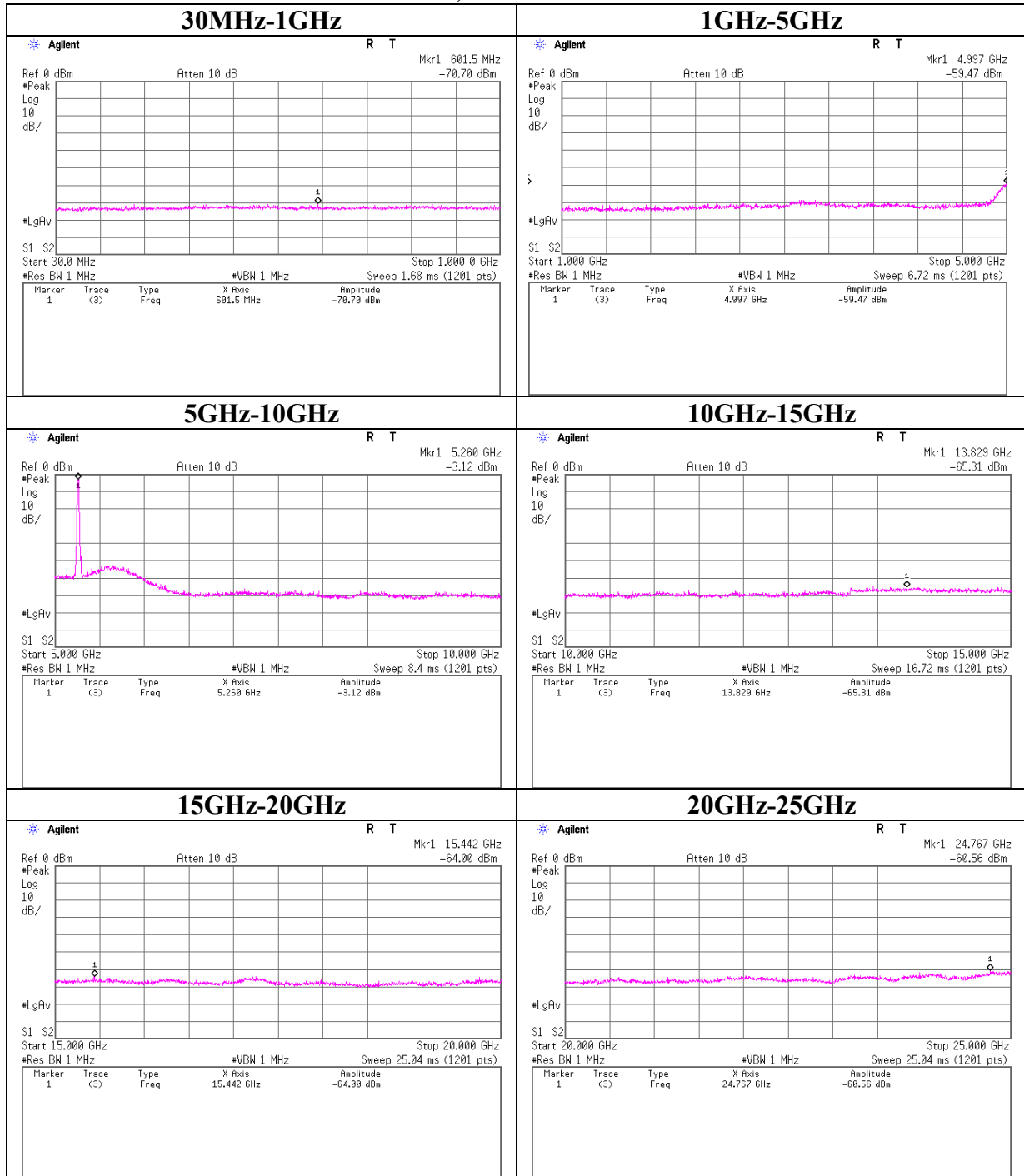


**Conducted Spurious Emission**  
**11a, Tx 5240MHz**



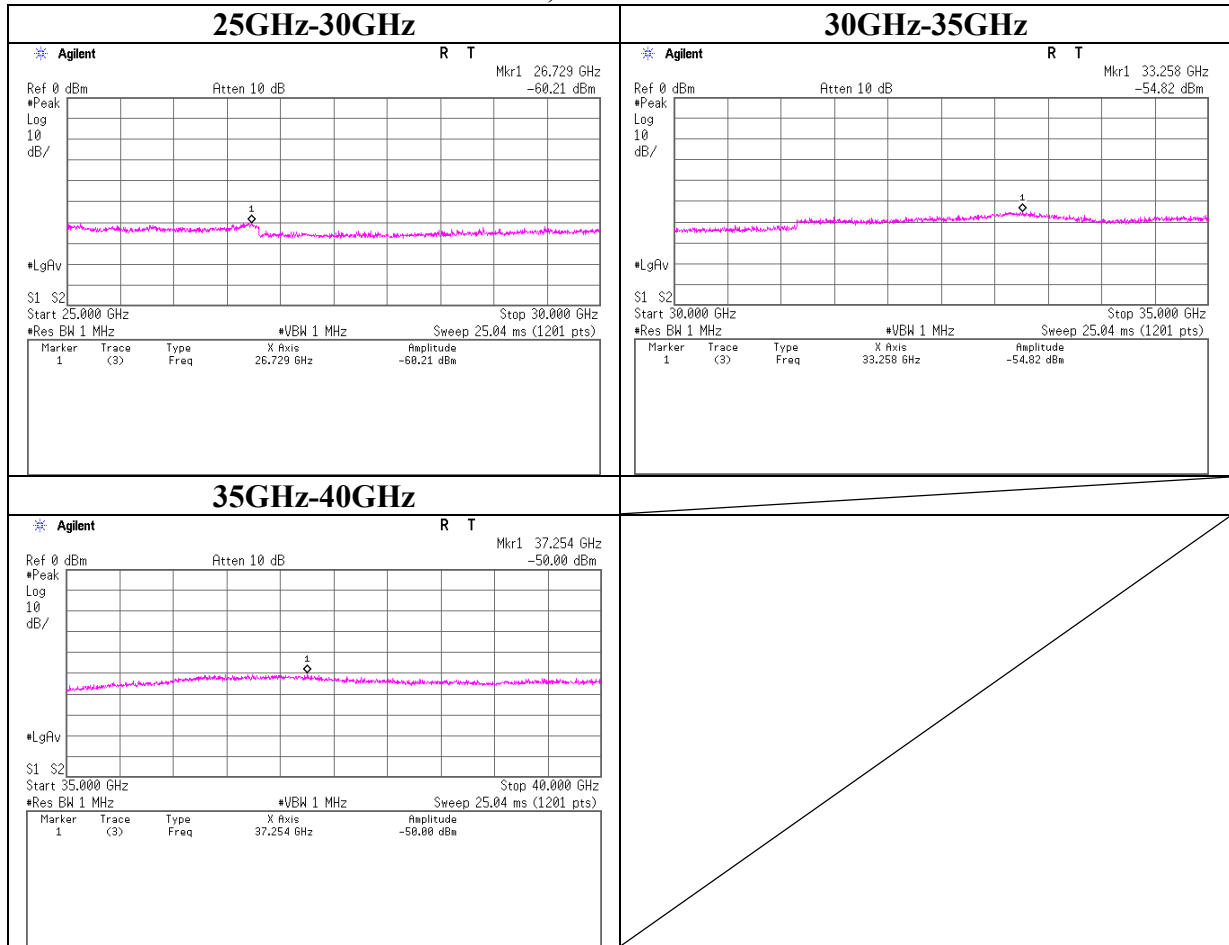
## Conducted Spurious Emission

### 11a, Tx 5260MHz



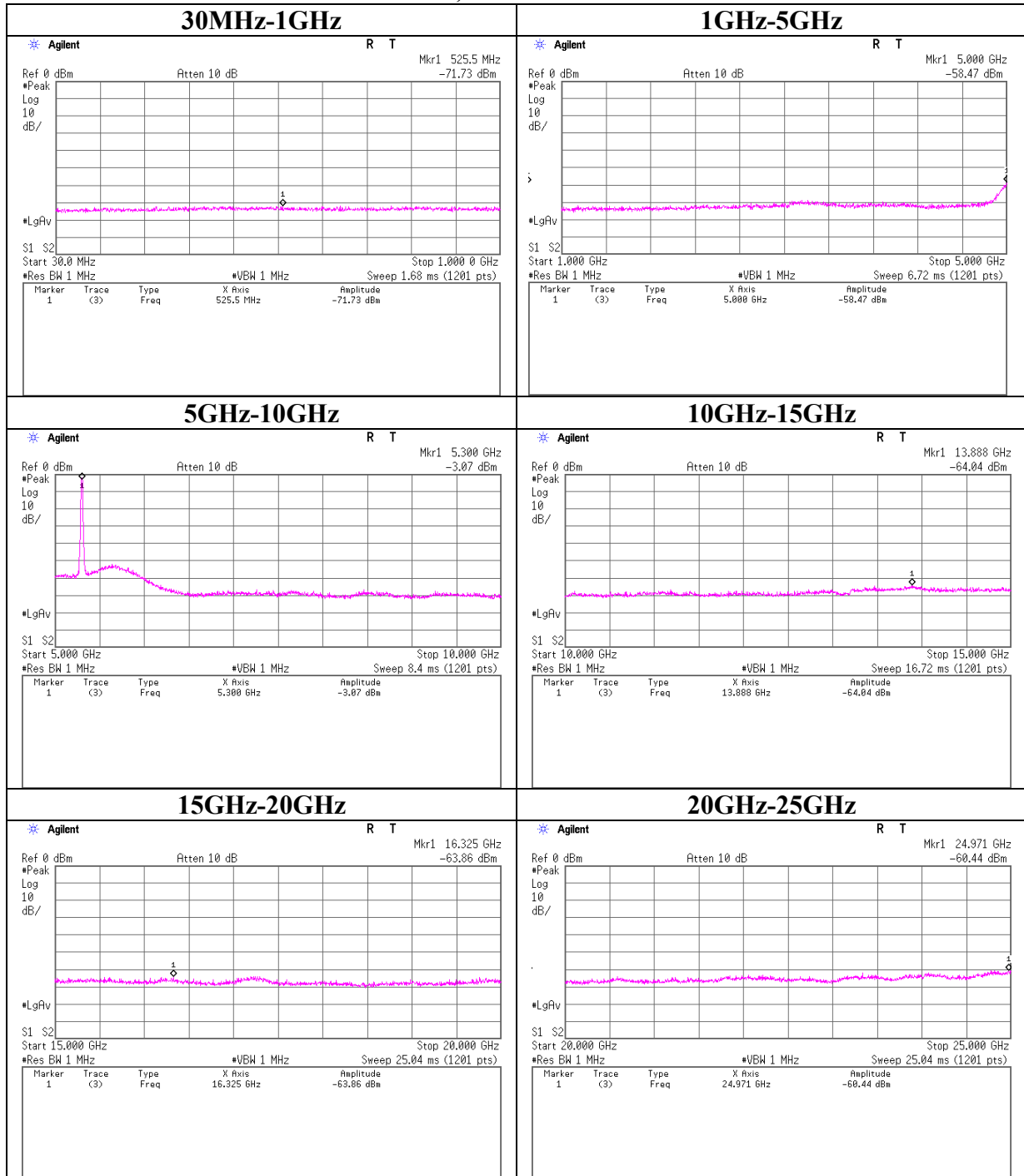


**Conducted Spurious Emission**  
**11a, Tx 5260MHz**

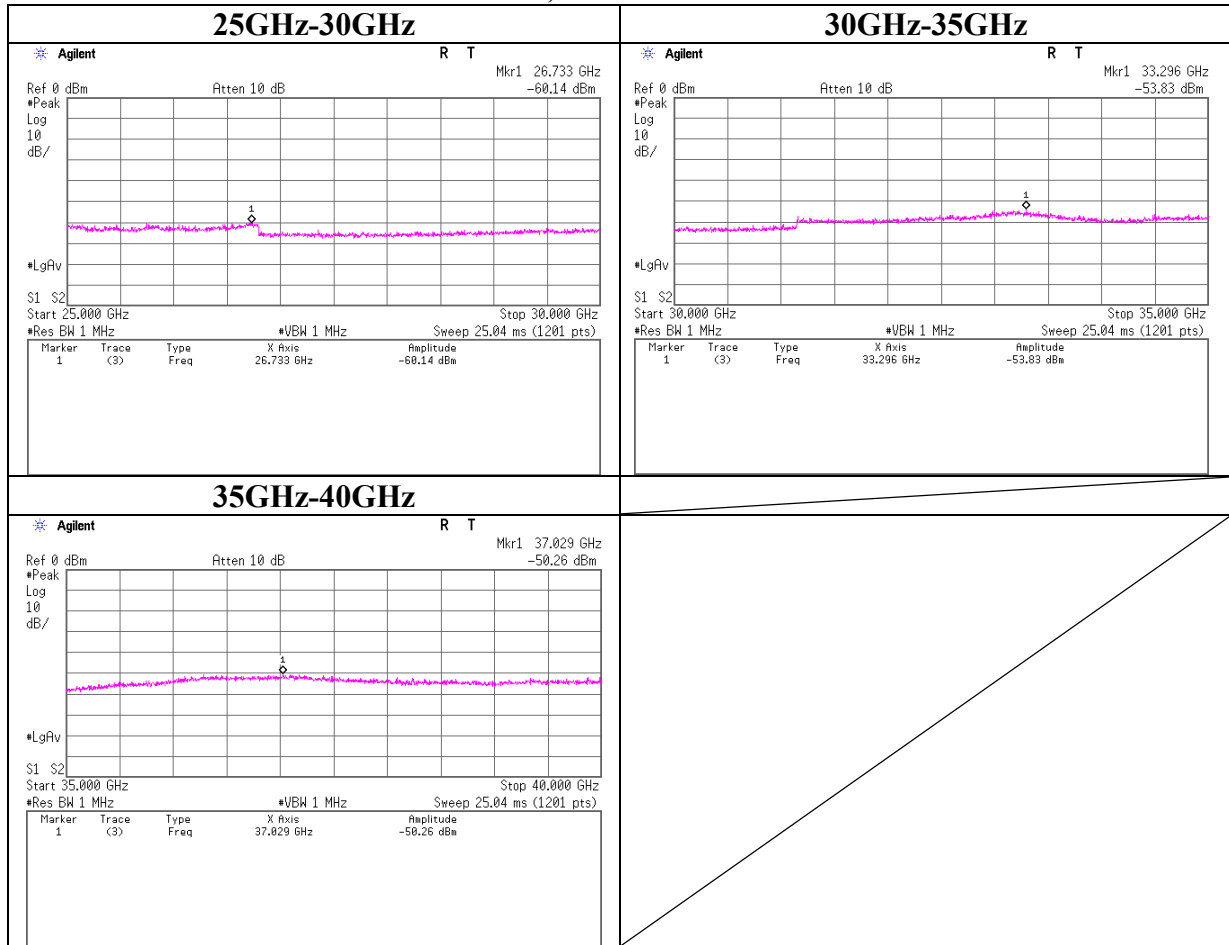


## Conducted Spurious Emission

### 11a, Tx 5300MHz

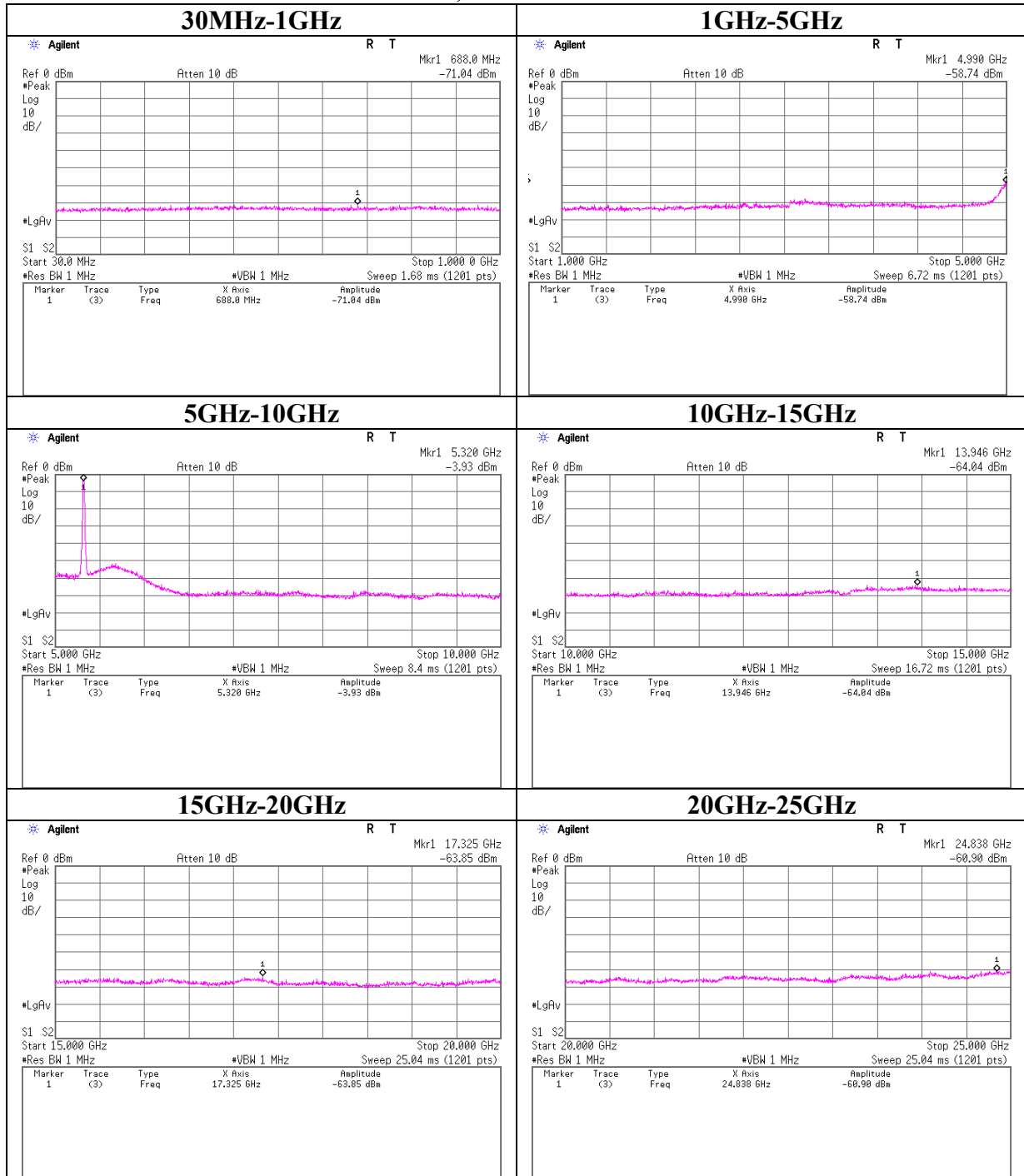


**Conducted Spurious Emission**  
**11a, Tx 5300MHz**

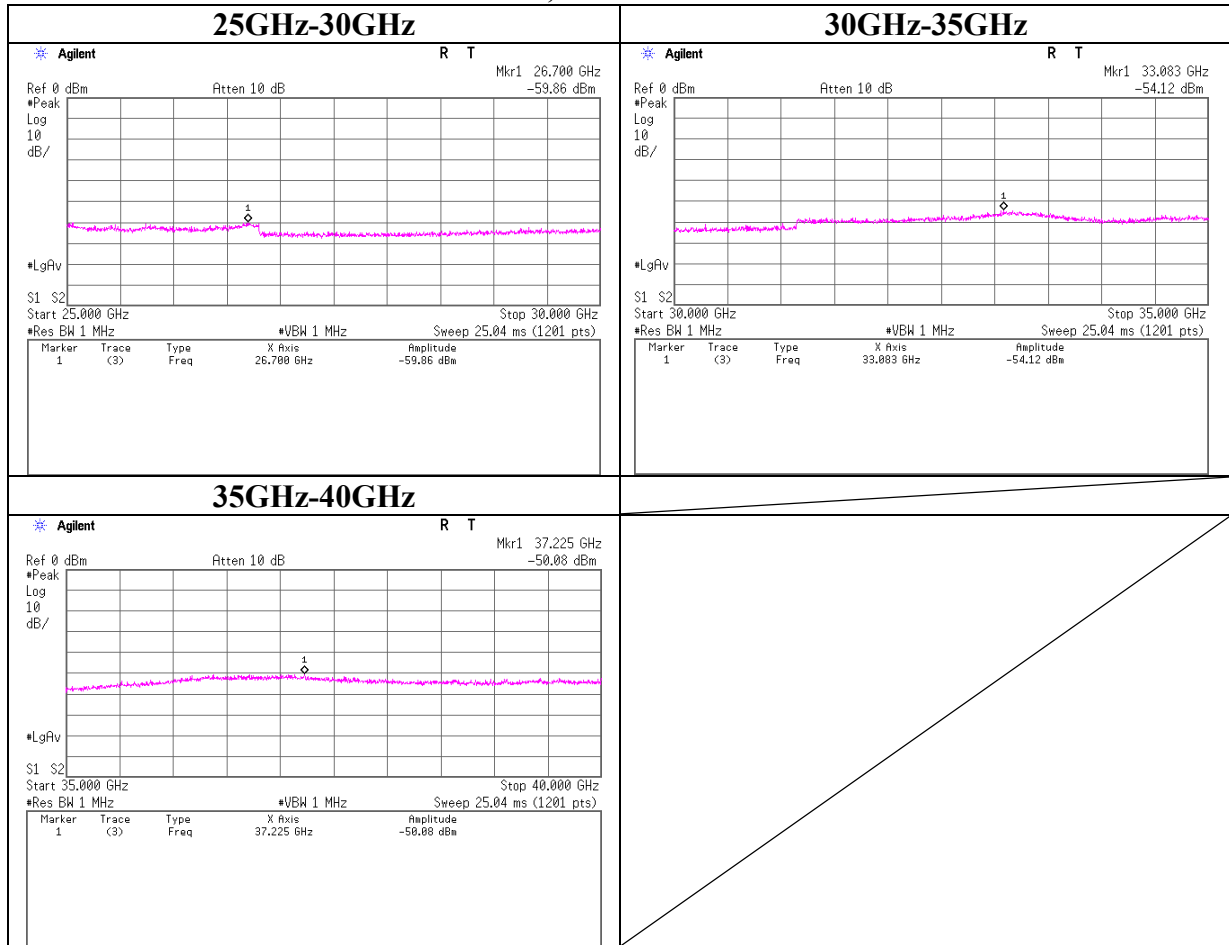


## Conducted Spurious Emission

### 11a, Tx 5320MHz

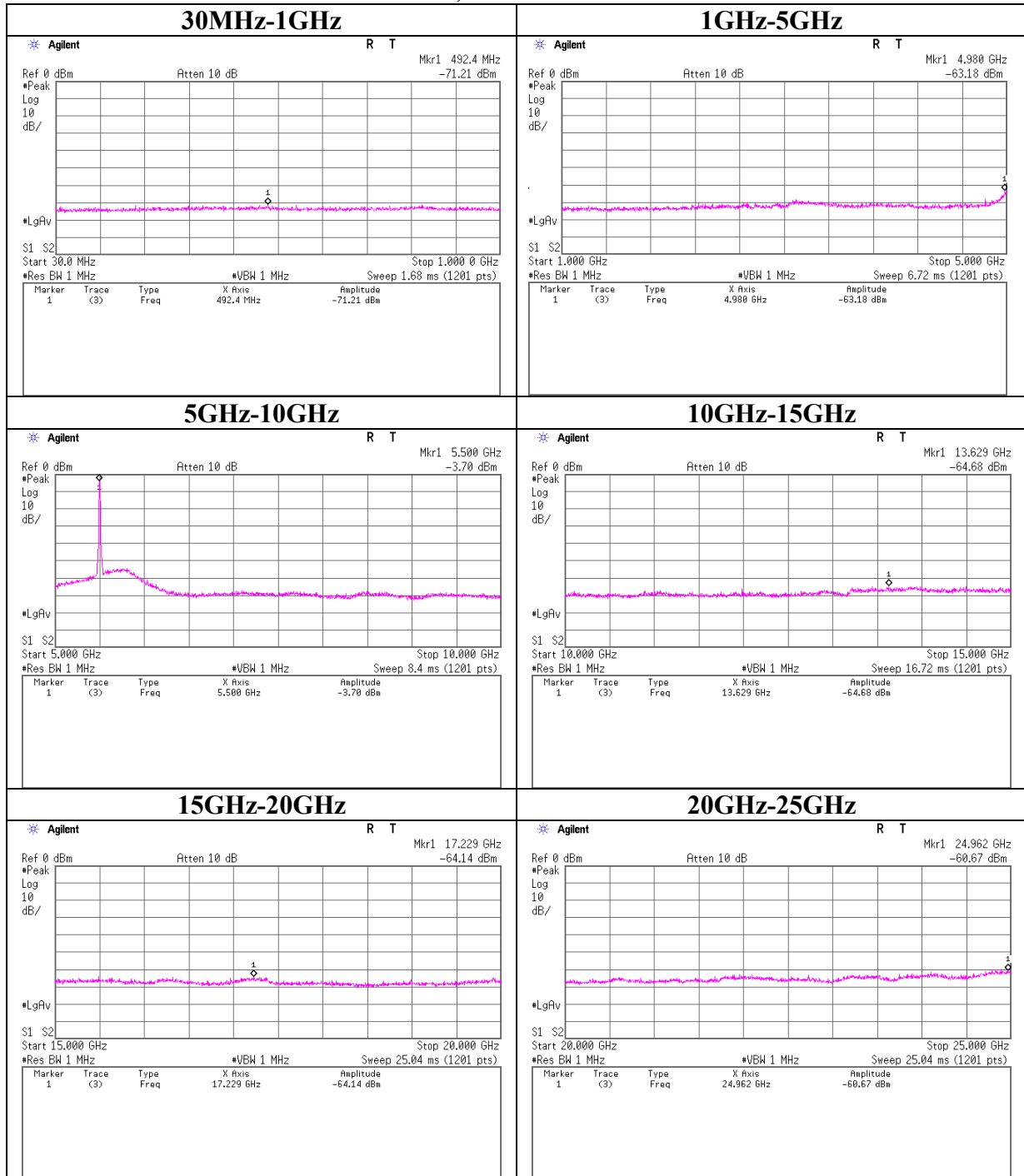


**Conducted Spurious Emission**  
**11a, Tx 5320MHz**

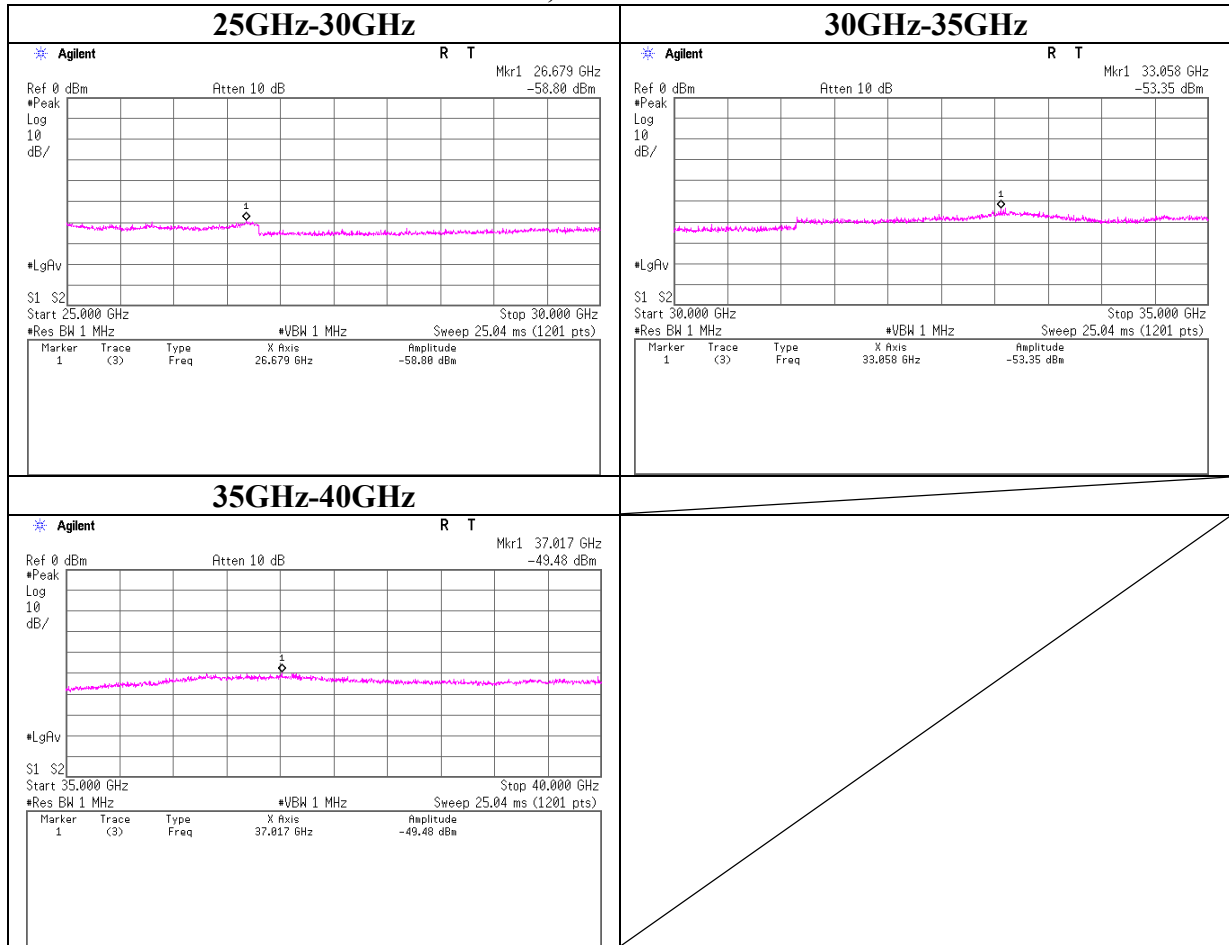


## Conducted Spurious Emission

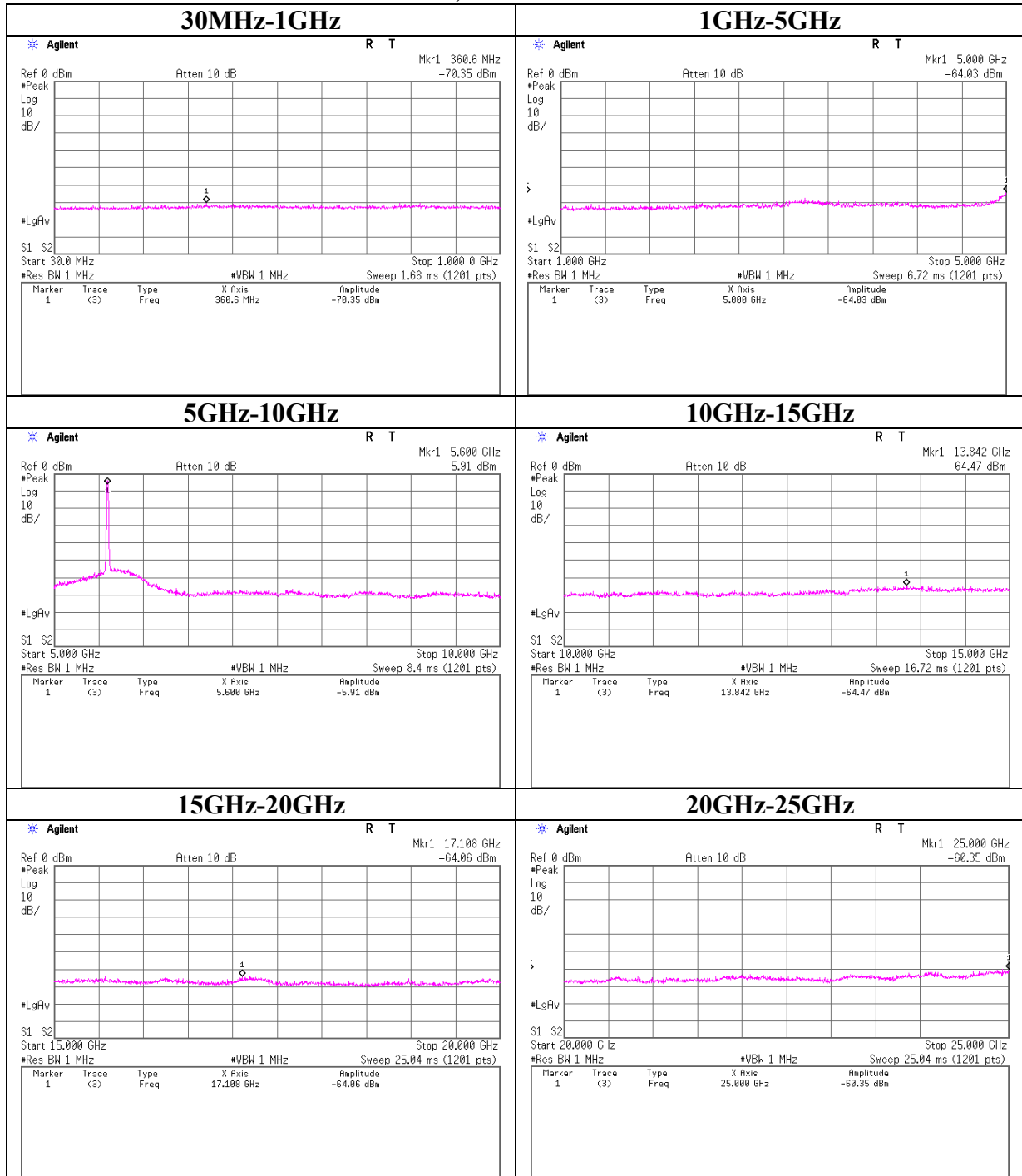
### 11a, Tx 5500MHz



**Conducted Spurious Emission**  
**11a, Tx 5500MHz**

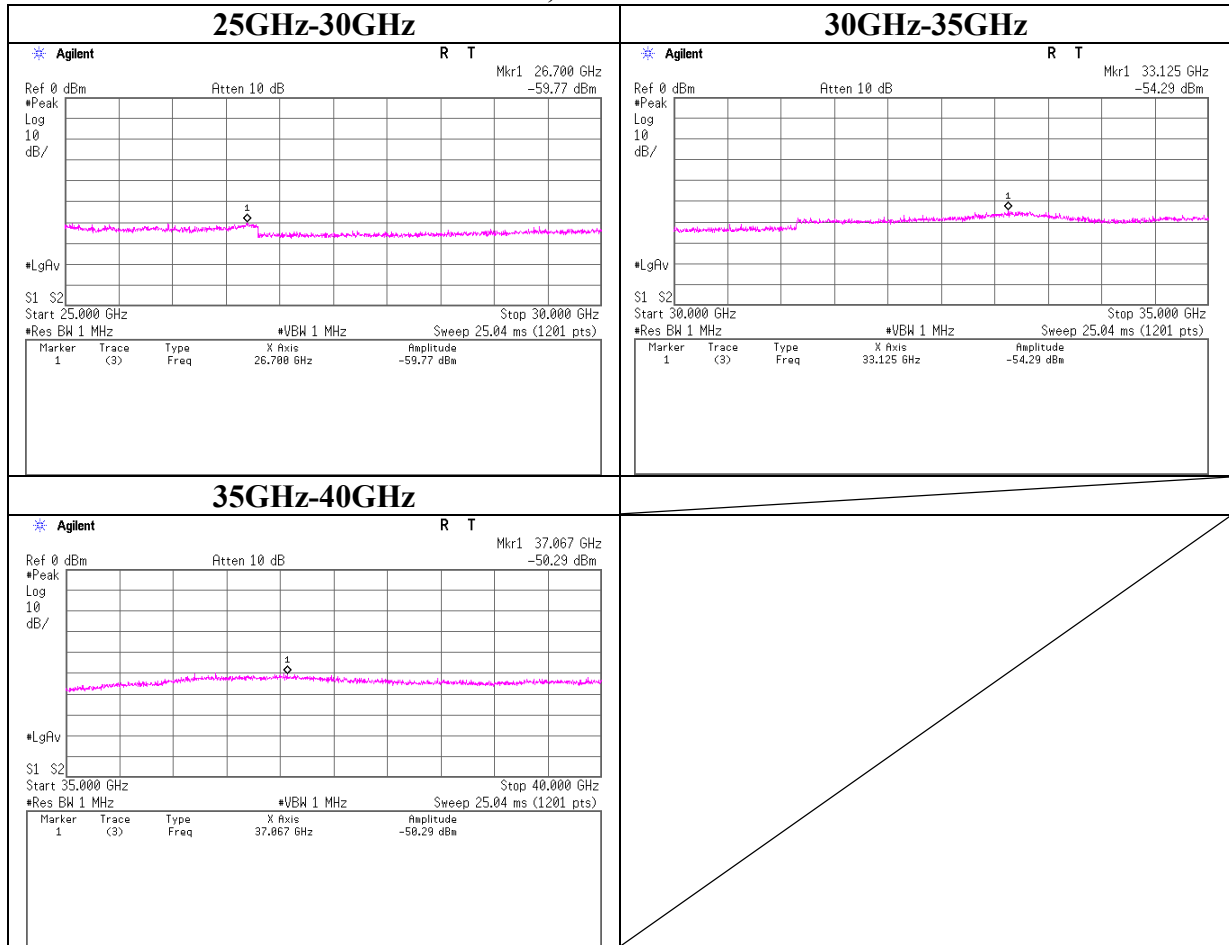


**Conducted Spurious Emission**  
**11a, Tx 5600MHz**



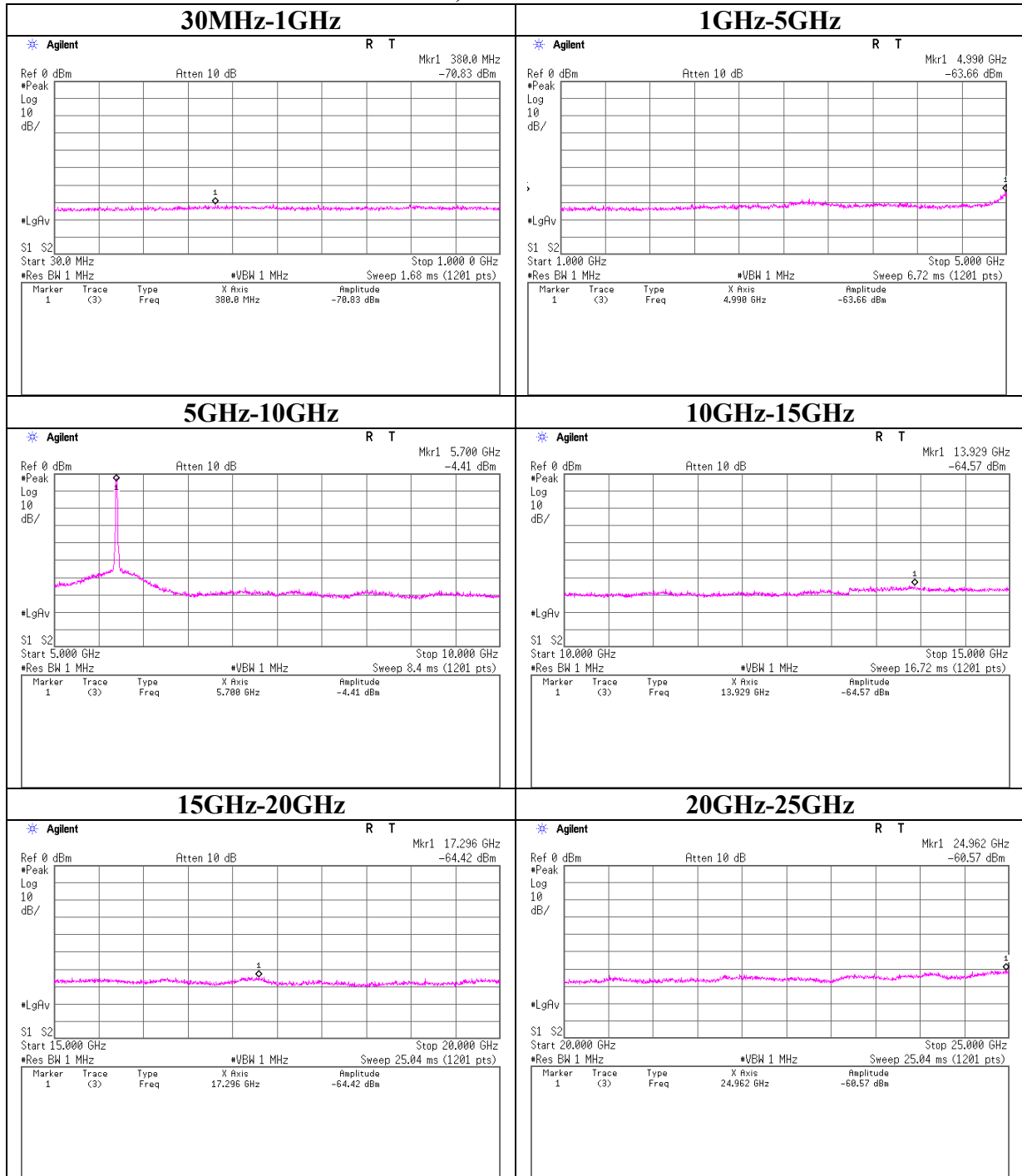


**Conducted Spurious Emission**  
**11a, Tx 5600MHz**

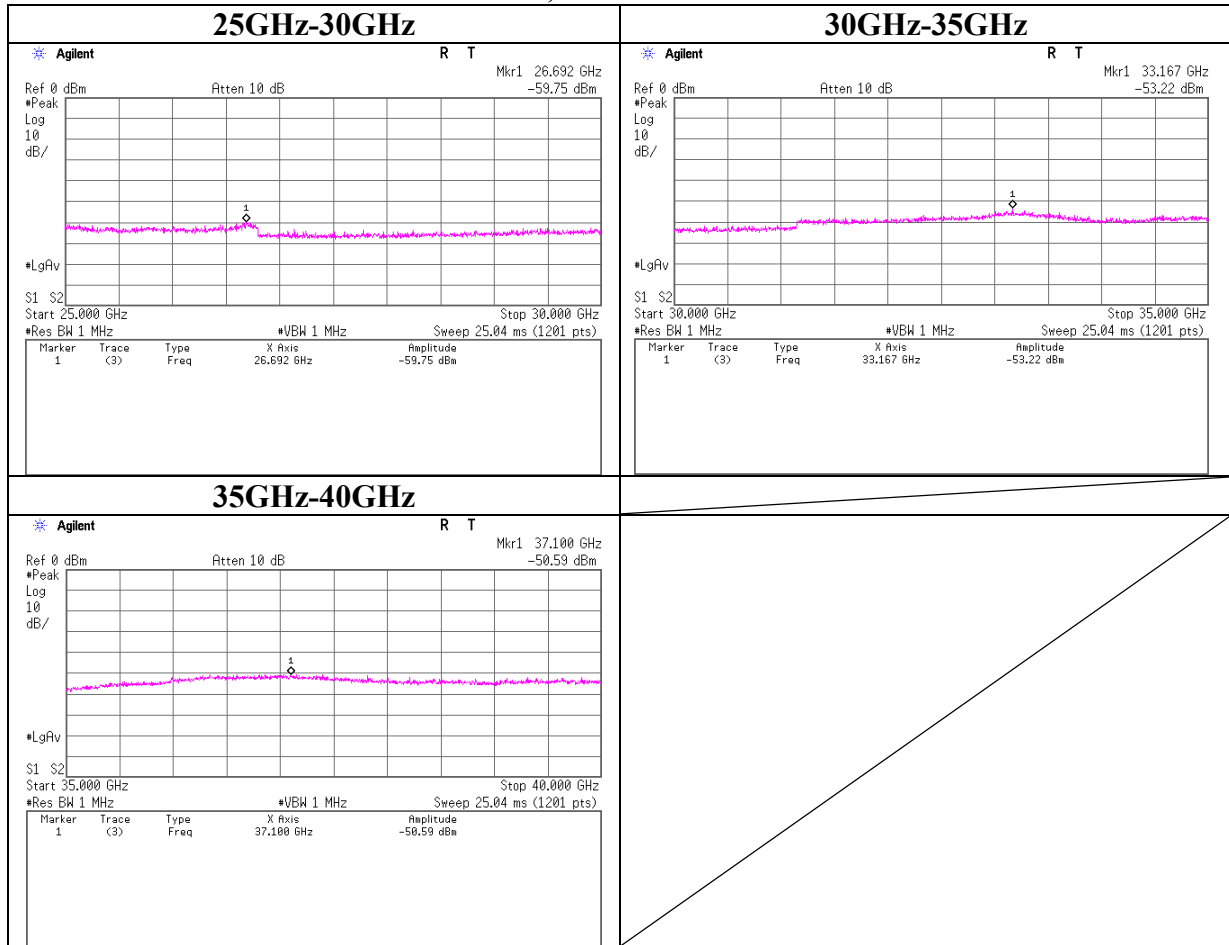


## Conducted Spurious Emission

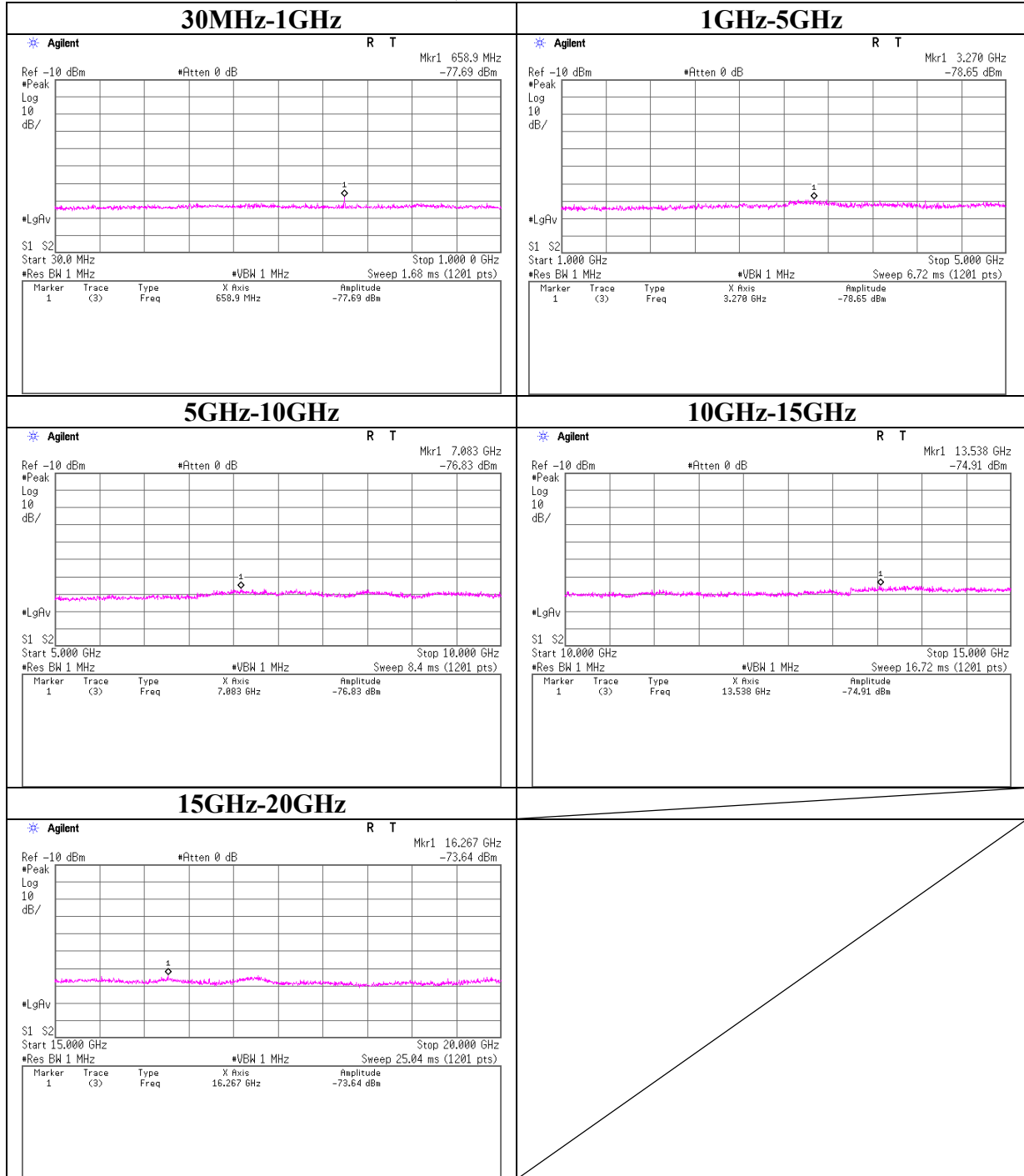
### 11a, Tx 5700MHz



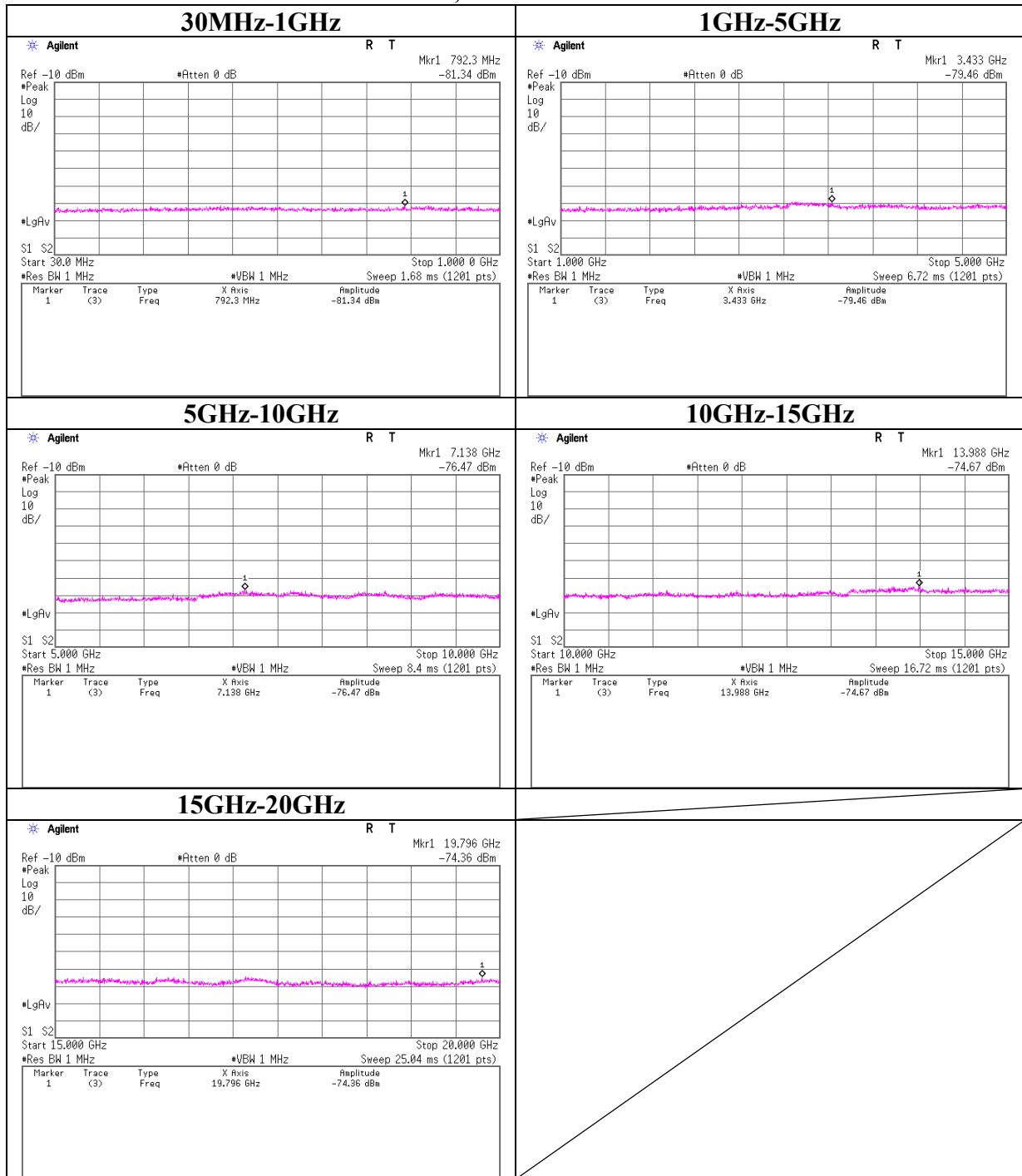
**Conducted Spurious Emission**  
**11a, Tx 5700MHz**



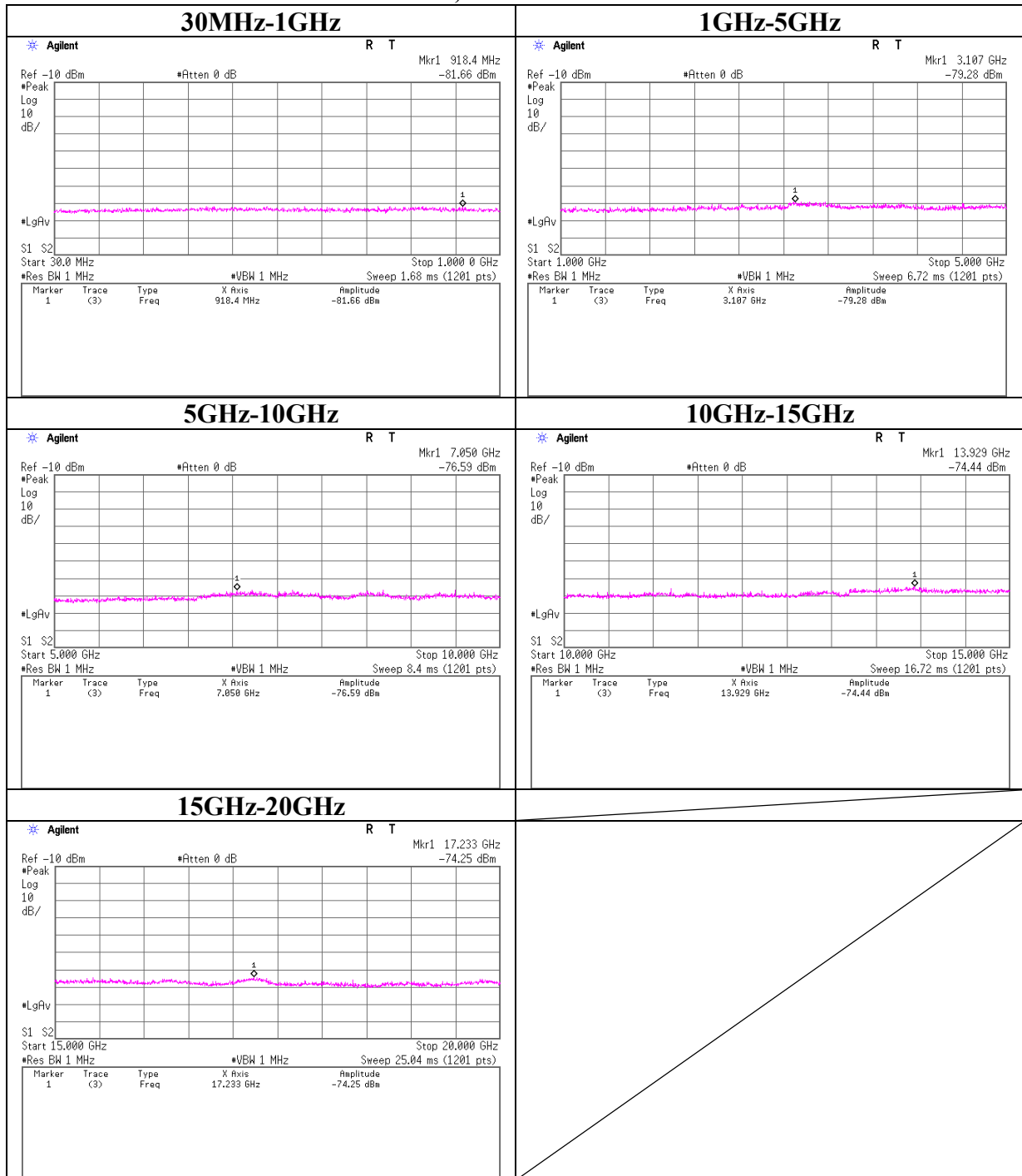
**Conducted Spurious Emission**  
**11a, Rx 5220MHz**



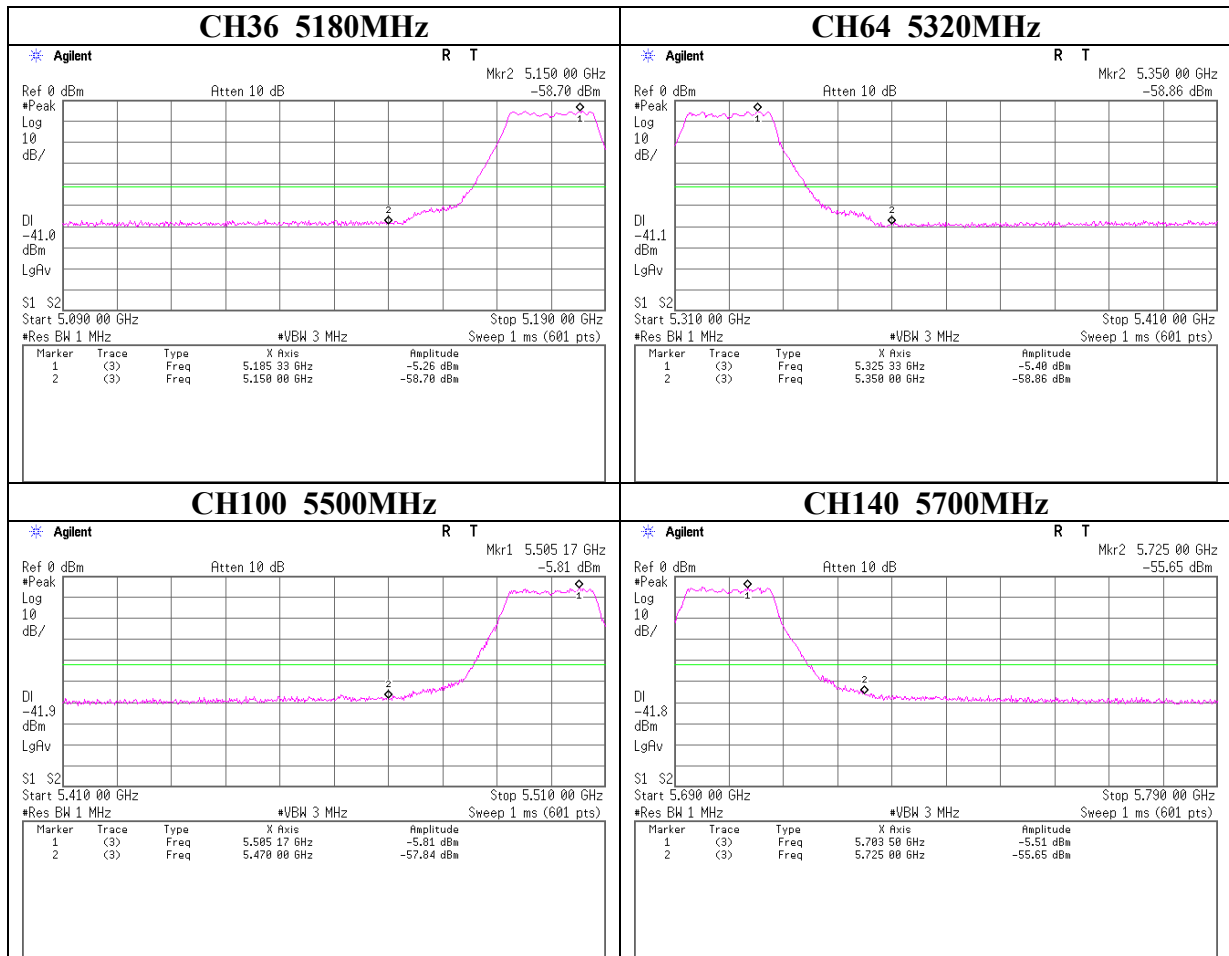
**Conducted Spurious Emission**  
**11a, Rx 5300MHz**



**Conducted Spurious Emission**  
**11a, Rx 5600MHz**



## Conducted emission Band Edge compliance



Display Line = -27dBm – Cable Loss – ATT.Loss – Ant.Gain

### Peak Power Spectral Density

|           |                         |                                                                    |                                            |
|-----------|-------------------------|--------------------------------------------------------------------|--------------------------------------------|
| Company   | Canon Inc.              | UL Japan, Inc.                                                     |                                            |
| Equipment | WLAN Module             | Head Office EMC Lab. No. 6 Shielded Room and No11 Measurement Room |                                            |
| Model     | CH9-1161                | Report No.                                                         | 29KE0214-HO-01                             |
| S/N       | ES7005                  | Regulation                                                         | FCC Section 15.407(a)(1)(2) / RSS-210 A9.2 |
| Power     | DC 3.3V                 | Test Distance                                                      | -                                          |
| Mode      | IEEE802.11a, Tx, 24Mbps | Date                                                               | 04/08/2009 04/17/2009                      |
|           |                         | Temperature                                                        | 23 deg.C. 24 deg.C.                        |
|           |                         | Humidity                                                           | 34 % 51 %                                  |
|           |                         | Engineer                                                           | Hironobu Ohnishi Tomohisa Nakagawa         |

| Freq.  | Reading | Cable Loss | Atten. | ENBW | Result | Limit | Margin |
|--------|---------|------------|--------|------|--------|-------|--------|
| [MHz]  | [dBm]   | [dB]       | [dB]   | [dB] | [dBm]  | [dBm] | [dB]   |
| 5180.0 | -10.68  | 2.16       | 10.06  | 0.20 | 1.34   | 4.00  | 2.66   |
| 5220.0 | -9.92   | 2.17       | 10.06  | 0.20 | 2.11   | 4.00  | 1.89   |
| 5240.0 | -9.06   | 2.17       | 10.06  | 0.20 | 2.97   | 4.00  | 1.03   |
| 5260.0 | -9.83   | 2.18       | 10.06  | 0.20 | 2.21   | 11.00 | 8.79   |
| 5300.0 | -9.25   | 2.18       | 10.06  | 0.20 | 2.80   | 11.00 | 8.20   |
| 5320.0 | -9.18   | 2.19       | 10.06  | 0.20 | 2.87   | 11.00 | 8.13   |
| 5500.0 | -9.44   | 2.22       | 10.06  | 0.20 | 2.64   | 11.00 | 8.36   |
| 5600.0 | -10.00  | 2.20       | 10.05  | 0.20 | 2.05   | 11.00 | 8.95   |
| 5700.0 | -9.55   | 2.18       | 10.05  | 0.20 | 2.48   | 11.00 | 8.53   |

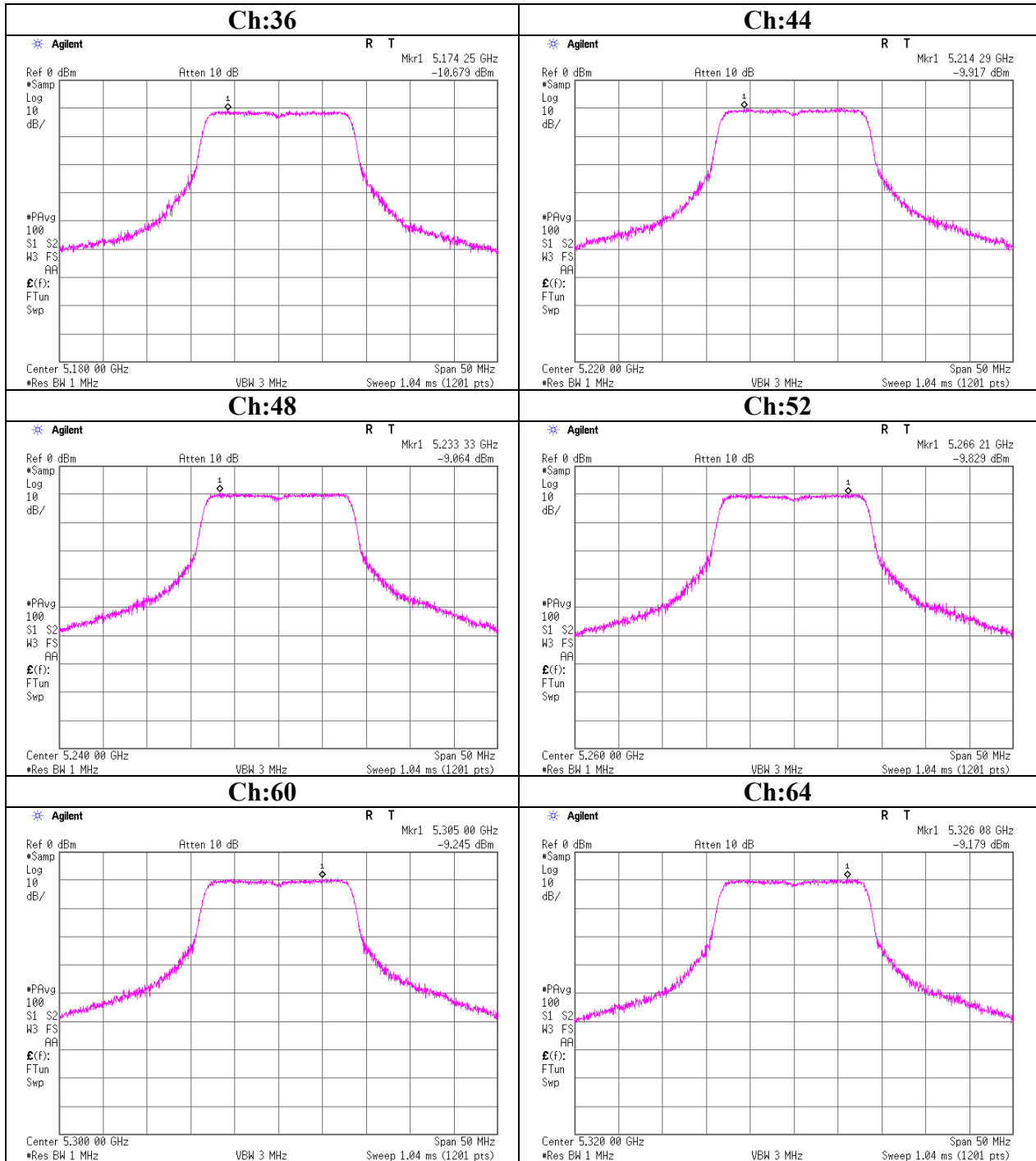
Sample Calculation:

Result = Reading + Cable Loss (Including customer's cable loss) + Attenuator - ENBW

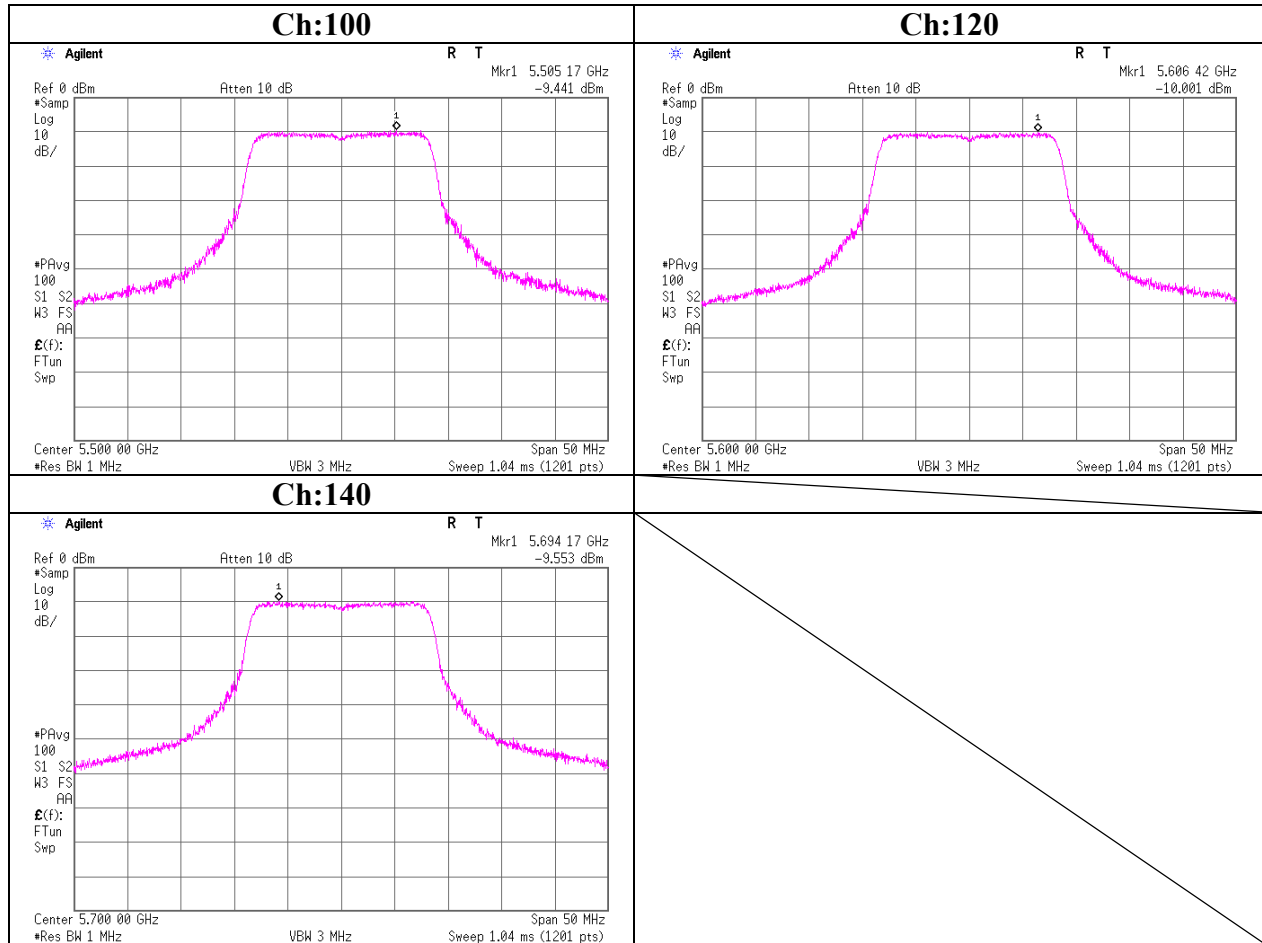
\* Atten. was not used for factor 0.0dB of the above table.



## Peak Power Spectral Density



## Peak Power Spectral Density

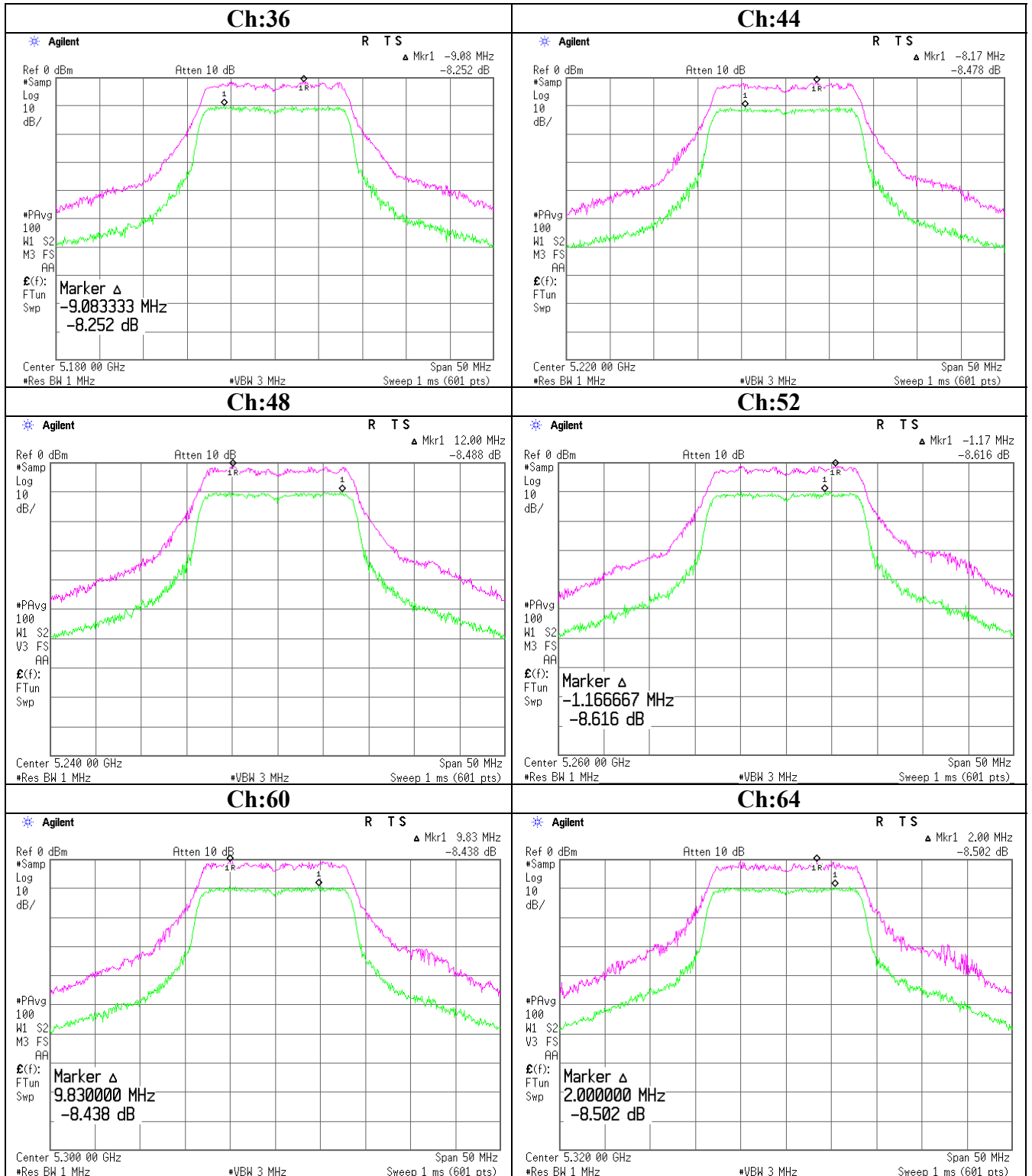


### **Peak Excursion Ratio**

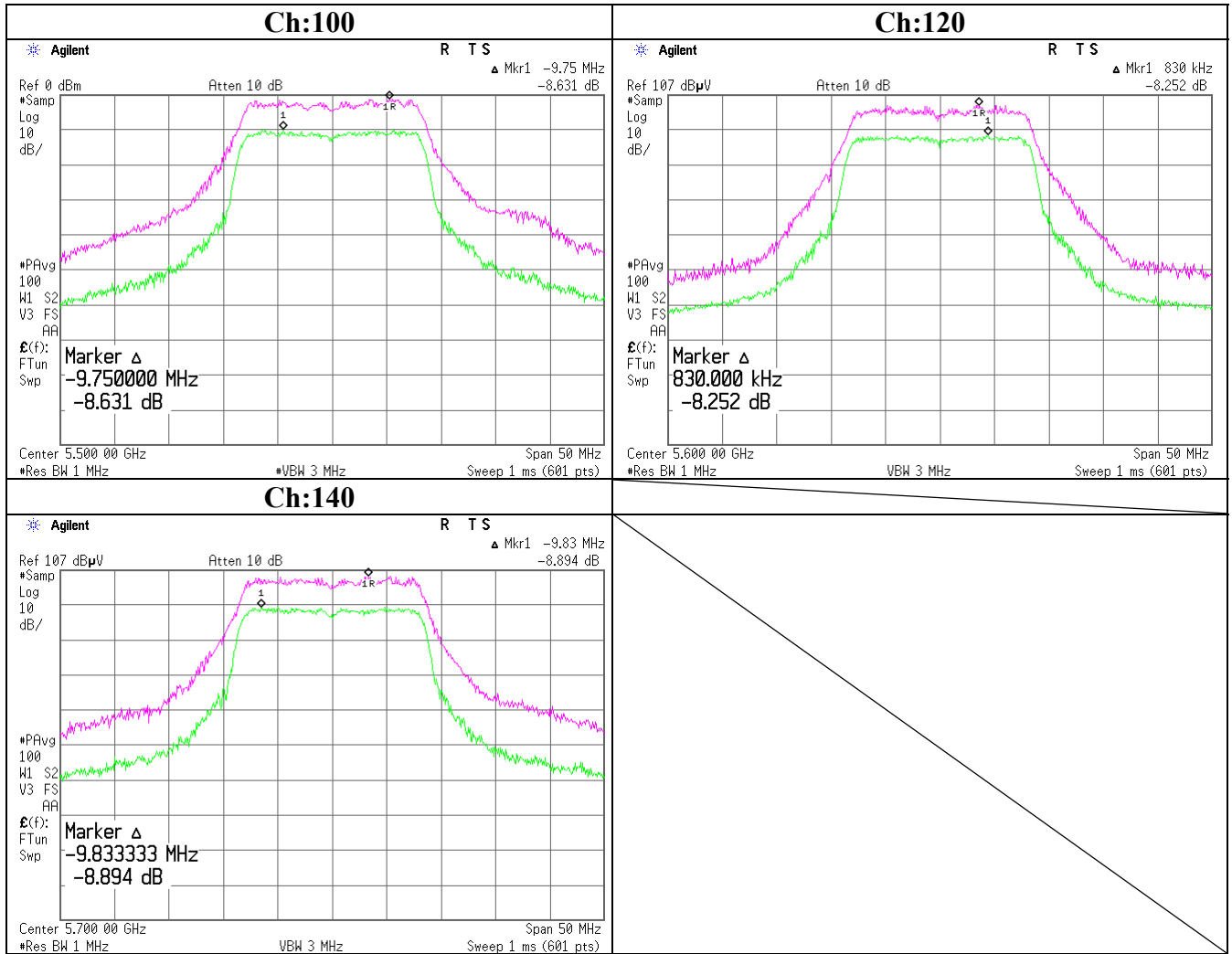
|           |                         |                                              |
|-----------|-------------------------|----------------------------------------------|
| Company   | Canon Inc.              | UL Japan, Inc.                               |
| Equipment | WLAN Module             | Head Office EMC Lab.                         |
| Model     | CH9-1161                | No.6 Shielded room and No11 Meausermet Room  |
| S/N       | ES7005                  | Report No. 29KE0214-HO-01                    |
| Power     | DC 3.3V                 | Regulation FCC Section 15.407(a)(6)          |
| Mode      | IEEE802.11a, Tx, 24Mbps | Test Distance -                              |
|           |                         | Date 04/09/2009 04/17/2009                   |
|           |                         | Temperature 25 deg.C. 24 deg.C.              |
|           |                         | Humidity 47% 51%                             |
|           |                         | Engineer Tomohisa Nakagawa Tomohisa Nakagawa |

| Freq.<br>[MHz] | Peak Power<br>Excursion<br>[dB] | Limit<br>[dB] |
|----------------|---------------------------------|---------------|
| 5180.0         | 8.525                           | 13.0          |
| 5220.0         | 8.478                           | 13.0          |
| 5240.0         | 8.488                           | 13.0          |
| 5260.0         | 8.616                           | 13.0          |
| 5300.0         | 8.438                           | 13.0          |
| 5320.0         | 8.502                           | 13.0          |
| 5500.0         | 8.631                           | 13.0          |
| 5600.0         | 8.252                           | 13.0          |
| 5700.0         | 8.894                           | 13.0          |

## Peak Excursion Ratio



## Peak Excursion Ratio



### **APPENDIX 3:Test instruments**

#### **EMI test equipment [1/2]**

| Control No.  | Instrument                       | Manufacturer        | Model No                 | Serial No               | Test Item | Calibration Date *<br>Interval(month) |
|--------------|----------------------------------|---------------------|--------------------------|-------------------------|-----------|---------------------------------------|
| MAEC-04      | Anechoic Chamber(NSA)            | TDK                 | Semi Anechoic Chamber 3m | DA-10005                | RE        | 2009/02/03 * 12                       |
| MOS-15       | Thermo-Hygrometer                | Custom              | CTH-180                  | -                       | RE        | 2009/02/06 * 12                       |
| MJM-07       | Measure                          | PROMART             | SEN1955                  | -                       | RE        | -                                     |
| CUST-MSTW-14 | EMI measurement program          | TSJ                 | TEPTO-DV                 | -                       | RE/CE     | -                                     |
| MSA-05       | Spectrum Analyzer                | Advantest           | R3273                    | 160400285               | RE        | 2008/06/25 * 12                       |
| MHA-21       | Horn Antenna 1-18GHz             | Schwarzbeck         | BBHA9120D                | 9120D-557               | RE        | 2008/08/11 * 12                       |
| MCC-57       | Microwave Cable 1G-26.5GHz 6m    | Suhner              | SUCOFLEX104              | 246769(1m) / 292411(5m) | RE        | 2008/11/05 * 12                       |
| MPA-12       | MicroWave System Amplifier       | Agilent             | 83017A                   | MY39500780              | RE        | 2009/03/19 * 12                       |
| MCC-79       | Microwave Cable 1G-26.5GHz       | Suhner              | SUCOFLEX104              | 278923/4                | RE        | 2008/12/17 * 12                       |
| MHF-23       | High Pass Filter 7-20GHz         | TOKIMEC             | TF37NCCC                 | 603                     | RE        | 2009/01/23 * 12                       |
| MHA-17       | Horn Antenna 15-40GHz            | Schwarzbeck         | BBHA9170                 | BBHA9170307             | RE        | 2009/04/30 * 12                       |
| MPA-03       | Microwave System Power Amplifier | Agilent             | 83050A                   | 3950M00205              | RE        | 2008/06/26 * 12                       |
| MCC-54       | Microwave Cable 1G-40GHz         | Suhner              | SUCOFLEX101              | 2873(1m) / 2876(5m)     | RE        | 2009/03/02 * 12                       |
| MSA-04       | Spectrum Analyzer                | Agilent             | E4448A                   | US44300523              | RE/AT     | 2008/08/18 * 12                       |
| MAEC-02      | Anechoic Chamber(NSA)            | TDK                 | Semi Anechoic Chamber 3m | DA-10005                | RE/CE     | 2009/02/02 * 12                       |
| MOS-22       | Thermo-Hygrometer                | Custom              | CTH-180                  | -                       | RE/CE     | 2009/02/06 * 12                       |
| MJM-05       | Measure                          | PROMART             | SEN1955                  | -                       | RE/CE     | -                                     |
| MRENT-62     | Spectrum Analyzer                | Advantest           | R3273                    | 95090115                | RE/CE     | 2008/12/24 * 12                       |
| MTR-03       | Test Receiver                    | Rohde & Schwarz     | ESCI                     | 100767                  | RE/CE     | 2008/06/12 * 12                       |
| MLS-07       | Terminator                       | MCL                 | BTRM-50                  | 1 9944                  | CE(EUT)   | 2009/02/17 * 12                       |
| MCC-112      | Coaxial cable                    | Fujikura/Suhner/TSJ | -                        | -                       | CE        | 2008/07/03 * 12                       |
| MCC-13       |                                  |                     |                          |                         | CE        |                                       |

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## EMI test equipment [2/2]

| Control No. | Instrument                   | Manufacturer             | Model No     | Serial No   | Test Item | Calibration Date *<br>Interval(month) |
|-------------|------------------------------|--------------------------|--------------|-------------|-----------|---------------------------------------|
| MBA-02      | Biconical Antenna            | Schwarzbeck              | BBA9106      | VHA91032008 | RE        | 2008/10/18 * 12                       |
| MLA-02      | Logperiodic Antenna          | Schwarzbeck              | USLP9143     | 201         | RE        | 2008/10/18 * 12                       |
| MCC-12      | Coaxial Cable                | Fujikura/Agilent         | -            | -           | RE        | 2009/02/16 * 12                       |
| MAT-07      | Attenuator(6dB)              | Weinschel Corp           | 2            | BK7970      | RE        | 2008/11/14 * 12                       |
| MPA-09      | Pre Amplifier                | Agilent                  | 8447D        | 2944A10845  | RE        | 2008/09/04 * 12                       |
| MAT-21      | Attenuator(20dB)(above 1GHz) | HIROSE ELECTRIC CO.,LTD. | AT-120       | 901247      | AT        | 2009/01/16 * 12                       |
| MCC-116     | Microwave Cable 1G-26.5GHz   | Suhner                   | SUCOFLEX104  | 290221/4    | AT        | 2008/08/04 * 12                       |
| MOS-19      | Thermo-Hygrometer            | Custom                   | CTH-201      | 0001        | AT        | 2008/12/08 * 12                       |
| MSA-03      | Spectrum Analyzer            | Agilent                  | E4448A       | MY44020357  | AT        | 2008/11/07 * 12                       |
| MAT-20      | Attenuator(10dB)(above 1GHz) | HIROSE ELECTRIC CO.,LTD. | AT-110       | -           | AT        | 2009/01/16 * 12                       |
| MOS-14      | Thermo-Hygrometer            | Custom                   | CTH-180      | -           | AT        | 2009/02/04 * 12                       |
| MSA-03      | Spectrum Analyzer            | Agilent                  | E4448A       | MY44020357  | AT        | 2008/11/07 * 12                       |
| MCC-114     | Microwave Cable 1G-26.5GHz   | Suhner                   | SUCOFLEX104  | 290212/4    | AT        | 2008/08/01 * 12                       |
| MAT-22      | Attenuator(10dB) DC-18GHz    | Orient Microwave         | BX10-0476-00 | -           | AT        | 2009/03/24 * 12                       |
| MPM-12      | Power Meter                  | Anritsu                  | ML2495A      | 0825002     | AT        | 2008/08/13 * 12                       |
| MPSE-17     | Power sensor                 | Anritsu                  | MA2411B      | 0738285     | AT        | 2008/08/13 * 12                       |

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

All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

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

Test Item: CE: Conducted Emission

RE: Radiated Emission

AT: Antenna Terminal Conducted test

UL Japan, Inc.

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