

APPENDIX 2: Data of EMI test

Conducted Emission

11b Tx, Ch: Low

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/19

Company : Canon Inc.

Kind of EUT : WLAN Module

Model No. : CH9-1161

Serial No. : ES7004

Report No. : 29EE0246-HO-01

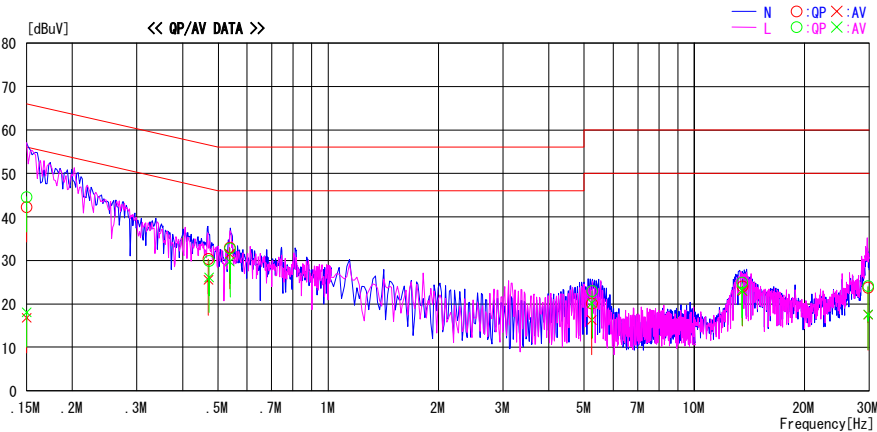
Power : AC 120V / 60Hz

Temp./Humi. : 22deg. C. / 48%

Engineer : Takahiro Hatakeda

Mode / Remarks : IEEE802.11b, Tx 2412MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP	AV		QP	AV	QP	AV	QP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]		
0.15001	42.0	16.5	0.3	42.3	16.8	66.0	56.0	23.7	39.2	N	
0.47050	30.0	25.2	0.3	30.3	25.5	56.5	46.5	26.2	21.0	N	
0.53858	32.6	31.2	0.3	32.9	31.5	56.0	46.0	23.1	14.5	N	
5.25000	19.2	15.4	0.9	20.1	16.3	60.0	50.0	39.9	33.7	N	
13.52730	22.5	21.5	1.5	24.0	23.0	60.0	50.0	36.0	27.0	N	
29.82220	21.3	15.0	2.5	23.8	17.5	60.0	50.0	36.2	32.5	N	
0.15001	44.3	17.8	0.3	44.6	18.1	66.0	56.0	21.4	37.9	L	
0.47270	29.6	25.8	0.3	29.9	26.1	56.5	46.5	26.6	20.4	L	
0.53915	32.5	29.4	0.3	32.8	29.7	56.0	46.0	23.2	16.3	L	
5.25800	22.1	19.3	0.9	23.0	20.2	60.0	50.0	37.0	29.8	L	
13.48200	23.4	21.6	1.5	24.9	23.1	60.0	50.0	35.1	26.9	L	
29.82610	21.6	15.1	2.5	24.1	17.6	60.0	50.0	35.9	32.4	L	

CHART: WITH FACTOR, Peak hold data. CALCULATION: RESULT[dBuV]=READING[dBuV]+C.[dB] (L: ISN 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

11b Tx, Ch: High

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Date : 2009/04/19

Company : Canon Inc.

Kind of EUT : WLAN Module

Model No. : CH9-1161

Serial No. : ES7004

Report No. : 29EE0246-HO-01

Power : AC 120V / 60Hz

Temp./Humi. : 22deg. C. / 48%

Engineer : Takahiro Hatakeda

Mode / Remarks : IEEE802.11b, Tx 2462MHz

LIMIT : FCC15.207 QP

FCC15.207 AV

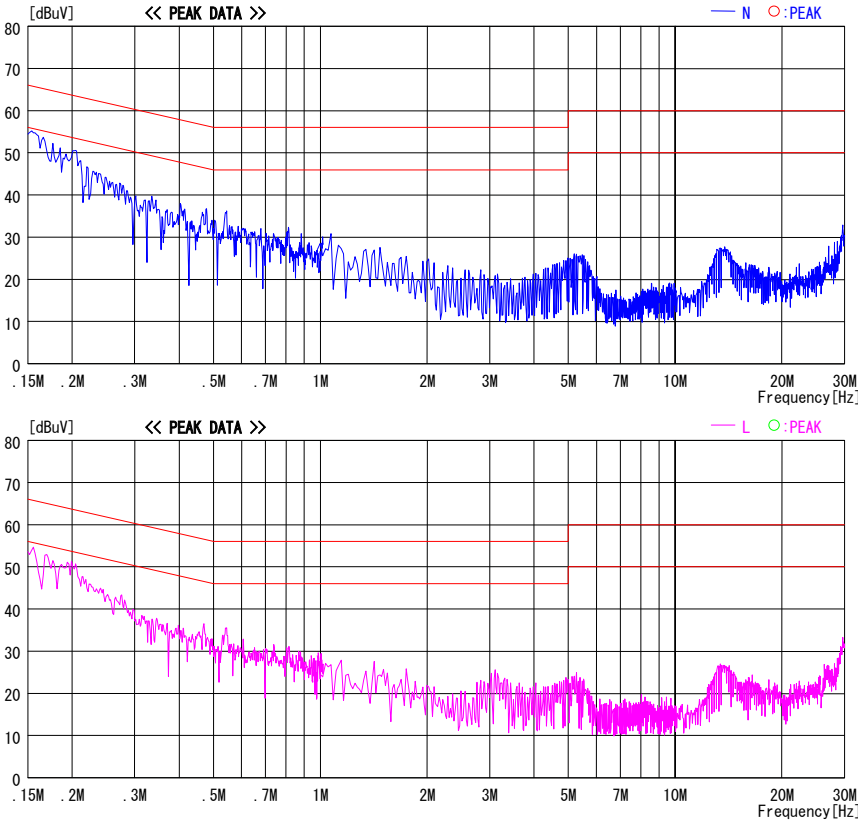


CHART:WITH FACTOR,Peak hold data. CALCURATION:RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

11g Tx, Ch: Low

DATA OF CONDUCTED EMISSION TEST

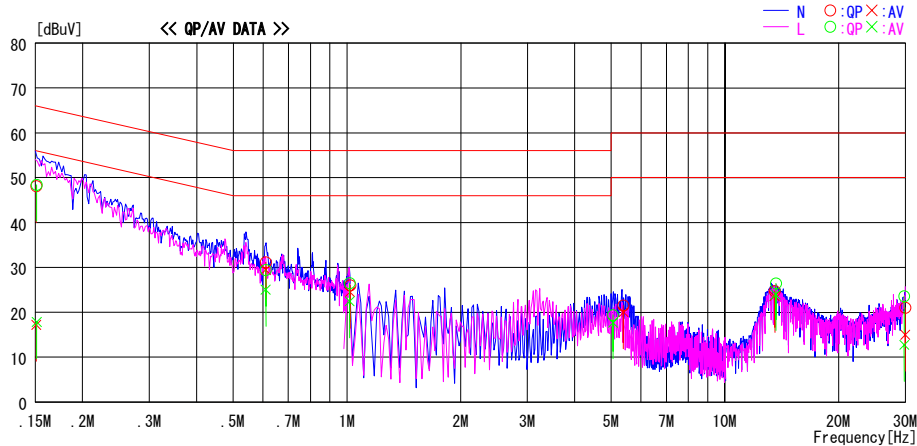
UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2009/05/03

Company : Canon Inc.
Kind of EUT : WLAN Module
Model No. : CH9-1161
Serial No. : ES7006

Report No. : 29EE0246-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 23deg. C. / 46%
Engineer : Tomohisa Nakagawa

Mode / Remarks : IEEE802.11g, Tx 2412MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.15069	47.9	17.0	0.2	48.1	17.2	66.0	56.0	17.9	38.8	N	
0.60968	30.8	29.2	0.3	31.1	29.5	56.0	46.0	24.9	16.5	N	
1.01947	25.6	24.1	0.4	26.0	24.5	56.0	46.0	30.0	21.5	N	
5.38888	20.8	19.3	0.7	21.5	20.0	60.0	50.0	38.5	30.0	N	
13.54004	23.4	22.3	1.3	24.7	23.6	60.0	50.0	35.3	26.4	N	
29.99800	18.9	12.9	2.1	21.0	15.0	60.0	50.0	39.0	35.0	N	
0.15100	48.2	17.6	0.2	48.4	17.8	65.9	55.9	17.5	38.1	L	
0.60968	29.1	24.7	0.3	29.4	25.0	56.0	46.0	26.6	21.0	L	
1.01684	26.1	22.0	0.4	26.5	22.4	56.0	46.0	29.5	23.6	L	
5.05430	18.7	17.0	0.7	19.4	17.7	60.0	50.0	40.6	32.3	L	
13.62774	25.1	22.7	1.3	26.4	24.0	60.0	50.0	33.6	26.0	L	
29.82458	21.5	10.6	2.1	23.6	12.7	60.0	50.0	36.4	37.3	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

11g Tx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2009/05/03

Company : Canon Inc.

Kind of EUT : WLAN Module

Model No. : CH9-1161

Serial No. : ES7006

Report No. : 29EE0246-H0-01

Power : AC 120V / 60Hz

Temp./Humi. : 23deg. C. / 46%

Engineer : Tomohisa Nakagawa

Mode / Remarks : IEEE802.11g, Tx 2437MHz

LIMIT : FCC15.207 QP
FCC15.207 AV

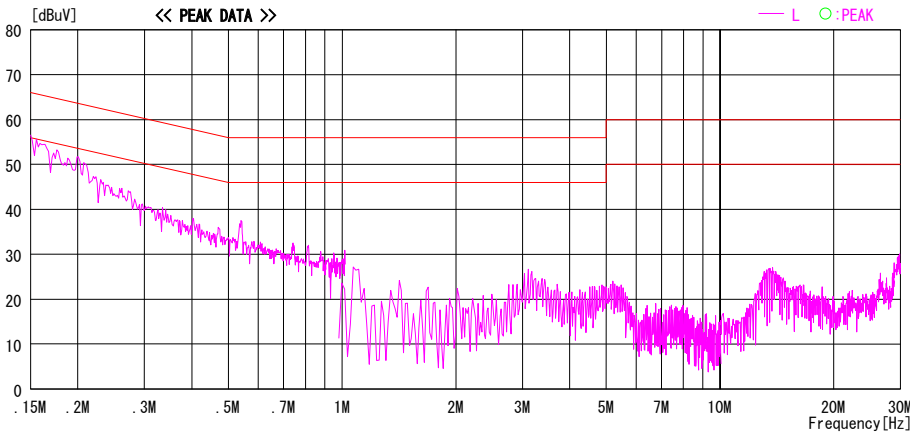
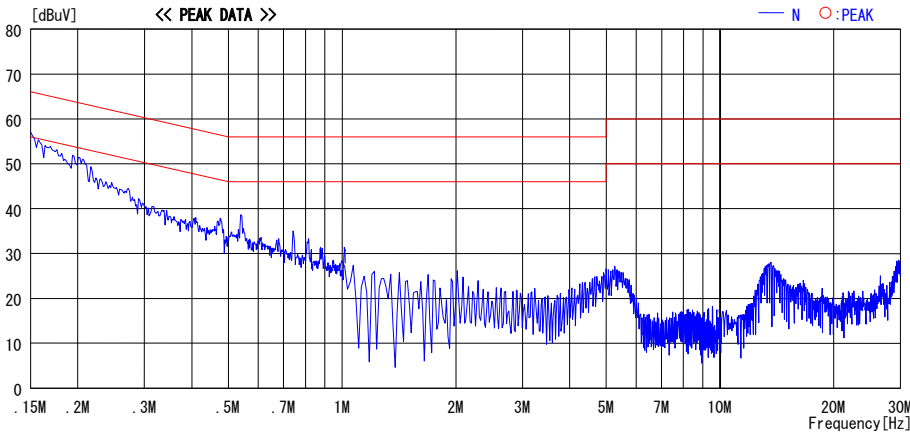


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

11g Tx, Ch: High

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber

Date : 2009/05/03

Company : Canon Inc.

Kind of EUT : WLAN Module

Model No. : CH9-1161

Serial No. : ES7006

Report No. : 29EE0246-HO-01

Power : AC 120V / 60Hz

Temp./Humi. : 23deg. C. / 46%

Engineer : Tomohisa Nakagawa

Mode / Remarks : IEEE802.11g, Tx 2462MHz

LIMIT : FCC15.207 QP

FCC15.207 AV

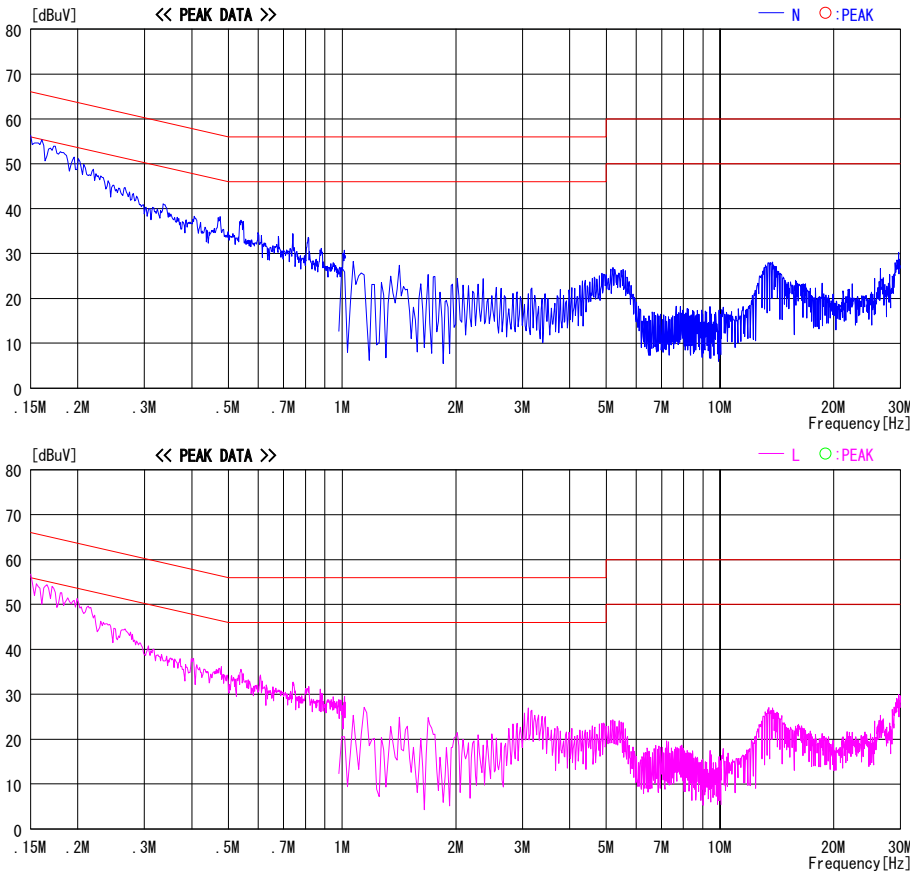


CHART:WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)

Except for the above table : adequate margin data below the limits.

Conducted Emission

11a Tx, Ch: Low

DATA OF CONDUCTED EMISSION TEST

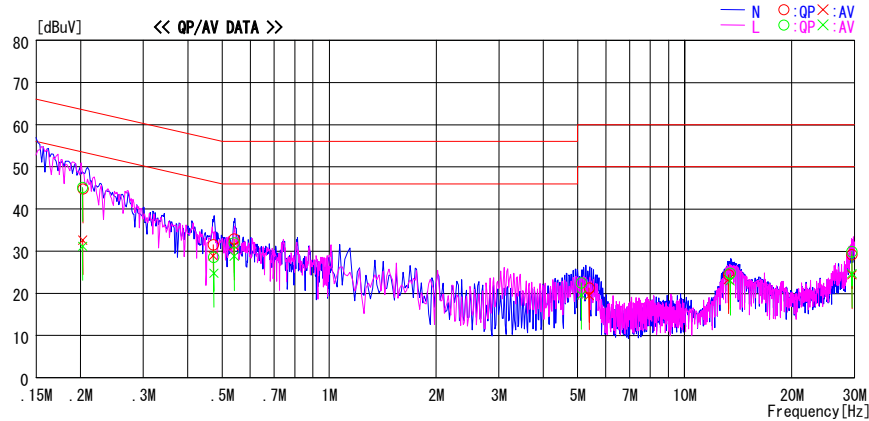
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/19

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

Report No. : 29EE0246-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 22deg. C. / 48%
Engineer : Takahiro Hatakeda

Mode / Remarks : IEEE802.11a, Tx 5745MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.20276	44.5	32.3	0.3	44.8	32.6	63.5	53.5	18.7	20.9	N	
0.47195	31.2	28.6	0.3	31.5	28.9	56.5	46.5	25.0	17.6	N	
0.54011	32.6	31.0	0.3	32.9	31.3	56.0	46.0	23.1	14.7	N	
5.39080	20.4	18.6	0.9	21.3	19.5	60.0	50.0	38.7	30.5	N	
13.27150	22.9	21.8	1.5	24.4	23.3	60.0	50.0	35.6	26.7	N	
29.54370	26.7	21.9	2.5	29.2	24.4	60.0	50.0	30.8	25.6	N	
0.20250	44.8	30.9	0.3	45.1	31.2	63.5	53.5	18.4	22.3	L	
0.47370	28.3	24.5	0.3	28.6	24.8	56.4	46.4	27.8	21.6	L	
0.54066	31.7	28.5	0.3	32.0	28.8	56.0	46.0	24.0	17.2	L	
5.12630	21.6	18.7	0.9	22.5	19.6	60.0	50.0	37.5	30.4	L	
13.42240	23.3	21.5	1.5	24.8	23.0	60.0	50.0	35.2	27.0	L	
29.54320	27.4	22.2	2.5	29.9	24.7	60.0	50.0	30.1	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, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Date : 2009/04/19

Company : Canon Inc.

Kind of EUT : WLAN Module

Model No. : CH9-1161

Serial No. : ES7004

Report No. : 29EE0246-HO-01

Power : AC 120V / 60Hz

Temp./Humi. : 22deg. C. / 48%

Engineer : Takahiro Hatakeda

Mode / Remarks : IEEE802.11a, Tx 5785MHz

LIMIT : FCC15.207 QP

FCC15.207 AV

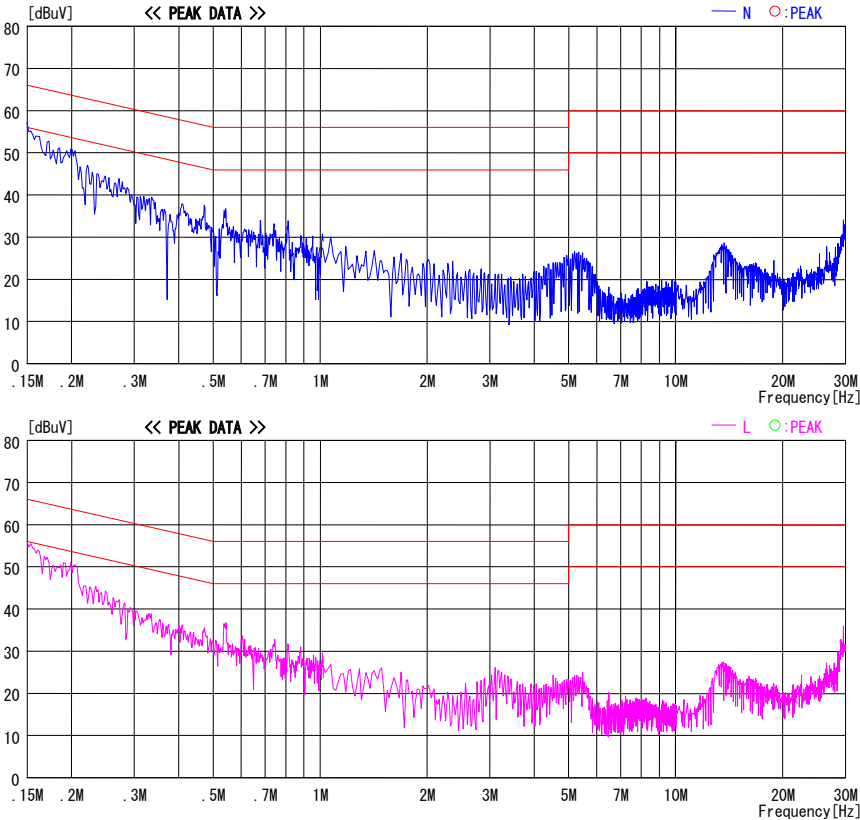


CHART:WITH FACTOR,Peak hold data. CALCURATION:RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

11a Tx, Ch: High

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Date : 2009/04/19

Company : Canon Inc.

Kind of EUT : WLAN Module

Model No. : CH9-1161

Serial No. : ES7004

Report No. : 29EE0246-HO-01

Power : AC 120V / 60Hz

Temp./Humi. : 22deg. C. / 48%

Engineer : Takahiro Hatakeda

Mode / Remarks : IEEE802.11a, Tx 5825MHz

LIMIT : FCC15.207 QP

FCC15.207 AV

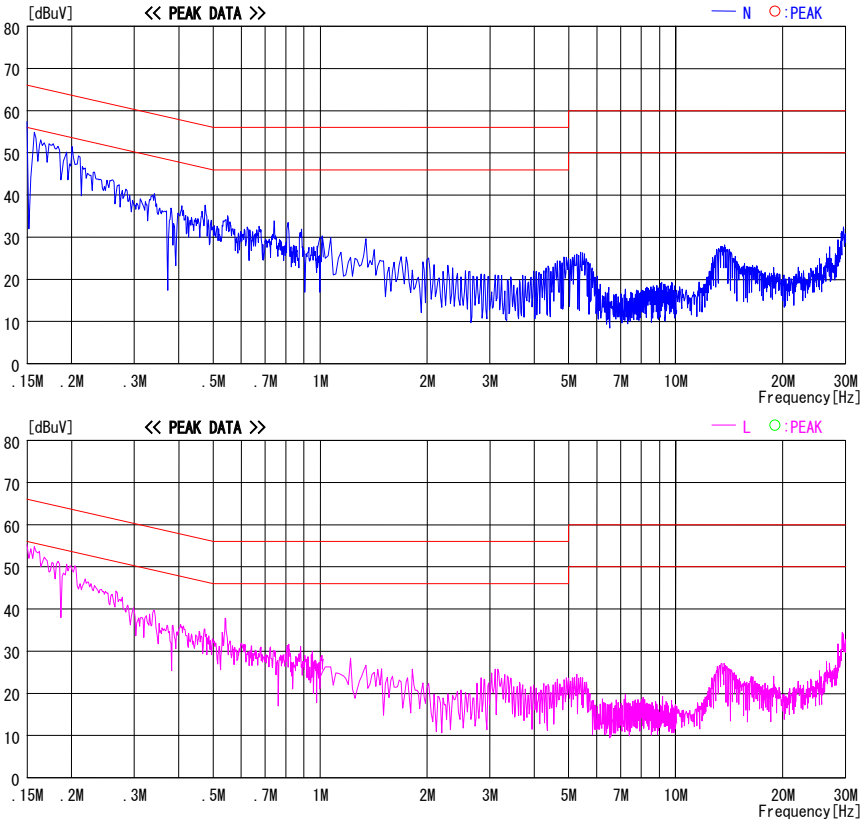


CHART:WITH FACTOR,Peak hold data. CALCURATION:RESULT[dBuV]=READING[dBuV]+C.F[dB] (LISN LOSS+CABLE LOSS)

Except for the above table : adequate margin data below the limits.

Conducted Emission 11b/g Rx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

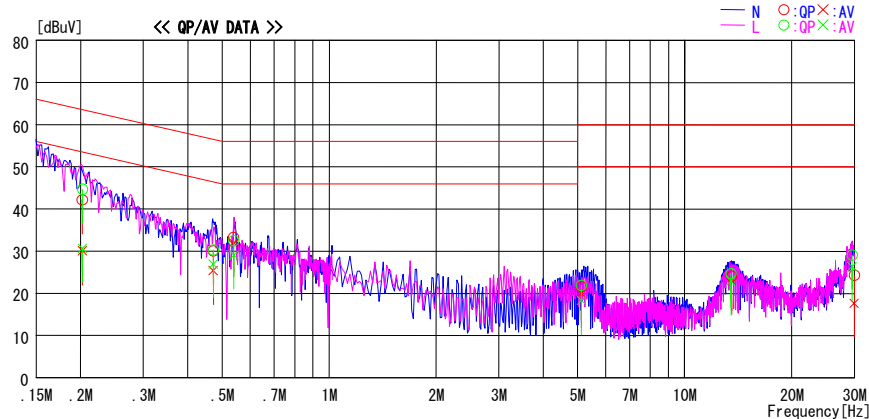
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/19

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

Report No. : 29EE0246-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 22deg. C. / 48%
Engineer : Takahiro Hatakeda

Mode / Remarks : IEEE802.11b/g, Rx 2437MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.20200	41.9	29.8	0.3	42.2	30.1	63.5	53.5	21.3	23.4	N	
0.47200	29.8	25.1	0.3	30.1	25.4	56.5	46.5	26.4	21.1	N	
0.53852	33.0	31.7	0.3	33.3	32.0	56.0	46.0	22.7	14.0	N	
5.11940	20.7	19.1	0.9	21.6	20.0	60.0	50.0	38.4	30.0	N	
13.53850	22.6	21.6	1.5	24.1	23.1	60.0	50.0	35.9	26.9	N	
29.97900	21.8	15.2	2.5	24.3	17.7	60.0	50.0	35.7	32.3	N	
0.20234	44.4	30.4	0.3	44.7	30.7	63.5	53.5	18.8	22.8	L	
0.47208	30.0	26.7	0.3	30.3	27.0	56.5	46.5	26.2	19.5	L	
0.53980	32.2	28.8	0.3	32.5	29.1	56.0	46.0	23.5	16.9	L	
5.12660	21.0	17.4	0.9	21.9	18.3	60.0	50.0	38.1	31.7	L	
13.49170	23.2	21.4	1.5	24.7	22.9	60.0	50.0	35.3	27.1	L	
29.57600	26.6	23.9	2.5	29.1	26.4	60.0	50.0	30.9	23.6	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 Rx, Ch: Mid

DATA OF CONDUCTED EMISSION TEST

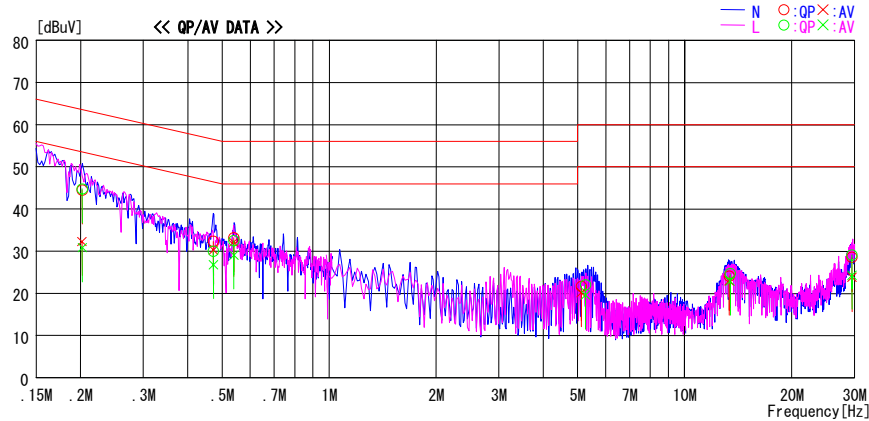
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/19

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

Report No. : 29EE0246-HO-01
Power : AC 120V / 60Hz
Temp./Humi. : 22deg. C. / 48%
Engineer : Takahiro Hatakeda

Mode / Remarks : IEEE802.11a, Rx 5785MHz

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.20188	44.2	32.0	0.3	44.5	32.3	63.5	53.5	19.0	21.2	N	
0.47242	32.0	30.0	0.3	32.3	30.3	56.5	46.5	24.2	16.2	N	
0.53902	32.9	31.8	0.3	33.2	32.1	56.0	46.0	22.8	13.9	N	
5.11930	20.8	19.3	0.9	21.7	20.2	60.0	50.0	38.3	29.8	N	
13.33680	22.6	21.5	1.5	24.1	23.0	60.0	50.0	35.9	27.0	N	
29.54260	26.0	21.3	2.5	28.5	23.8	60.0	50.0	31.5	26.2	N	
0.20200	44.5	30.5	0.3	44.8	30.8	63.5	53.5	18.7	22.7	L	
0.47267	29.7	26.5	0.3	30.0	26.8	56.5	46.5	26.5	19.7	L	
0.53943	32.2	28.8	0.3	32.5	29.1	56.0	46.0	23.5	16.9	L	
5.26060	21.2	18.7	0.9	22.1	19.6	60.0	50.0	37.9	30.4	L	
13.42040	23.2	21.4	1.5	24.7	22.9	60.0	50.0	35.3	27.1	L	
29.54460	26.6	21.8	2.5	29.1	24.3	60.0	50.0	30.9	25.7	L	

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

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

6dB Bandwidth

UL Japan, Inc.
Head Office EMC Lab.
No.6 Shielded Room and No.11 Measurement Room

Company : Canon Inc.
Equipment : WLAN Module
Model No. : CH9-1161
Serial No. : ES7005
Power : DC 3.3V
Mode : IEEE 802.11b Tx 2Mbps
: IEEE 802.11g Tx 48Mbps
: IEEE 802.11a Tx 24Mbps

Test Report No. : 29EE0246-HO-01
Regulation : FCC15.247(a)(2)/RSS-210A8.2(a)
Test distance : -
Date : 04/10/2009 : 05/02/2009
Temperature : 21℃ : 22℃
Humidity : 48% : 45%
Engineer : Keisuke Kawamura : Tomohisa Nakagawa

[IEEE 802.11b]

Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	10.003	>500
Mid	2437.0	10.007	>500
High	2462.0	10.011	>500

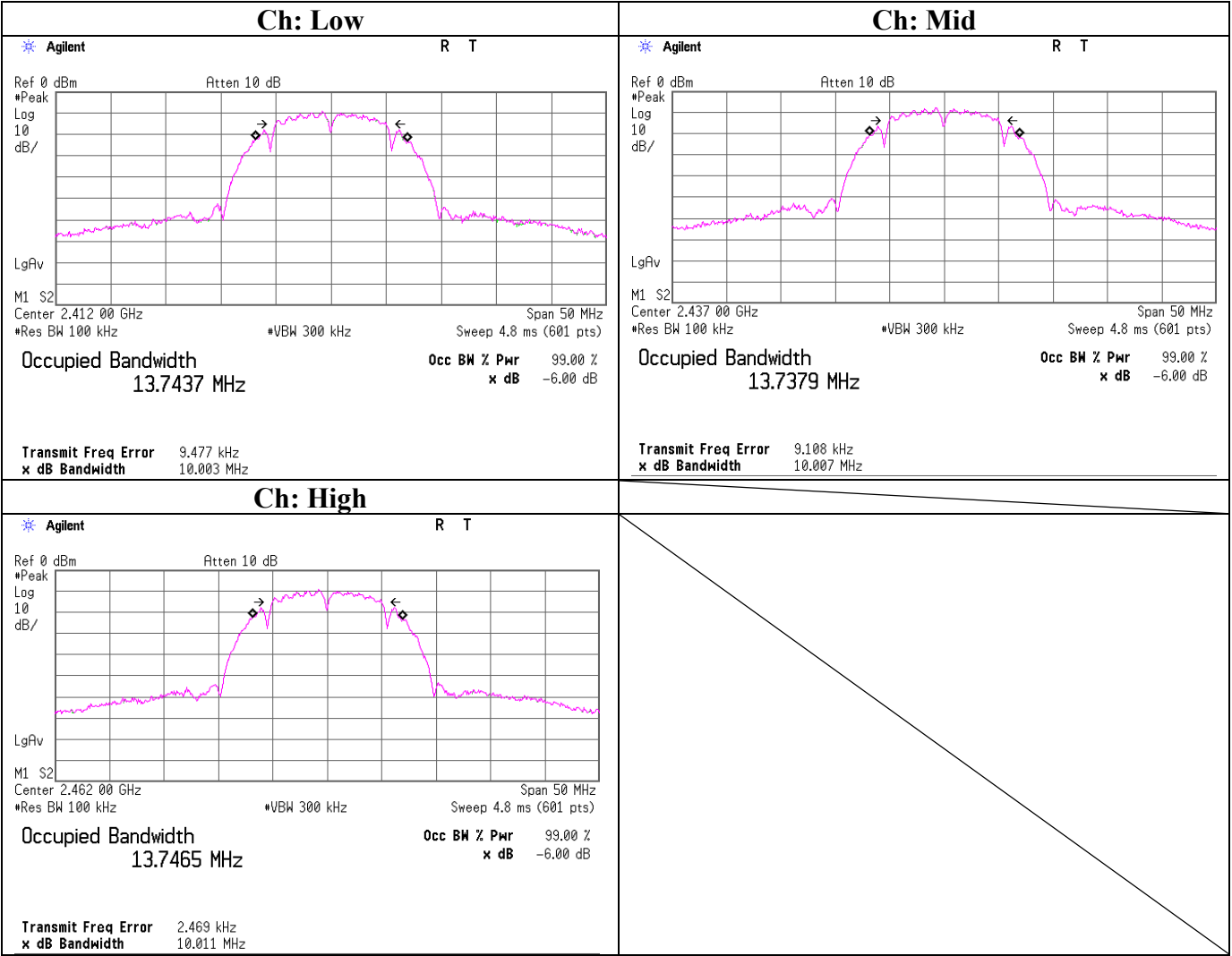
[IEEE 802.11g]

Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	16.565	>500
Mid	2437.0	16.550	>500
High	2462.0	16.559	>500

[IEEE 802.11a]

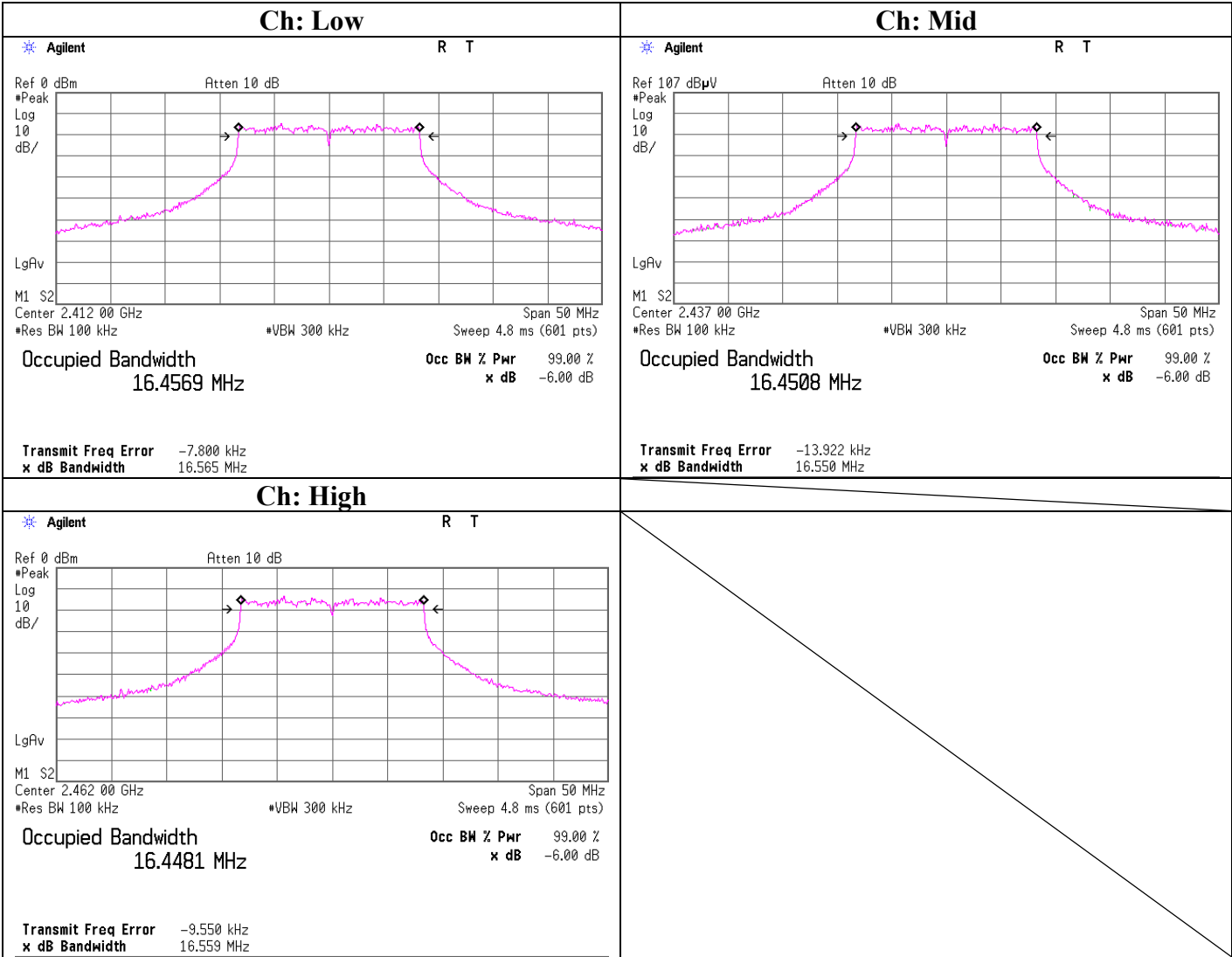
Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	5745.0	16.606	>500
Mid	5785.0	16.610	>500
High	5825.0	16.586	>500

6dB Bandwidth
IEEE802.11b

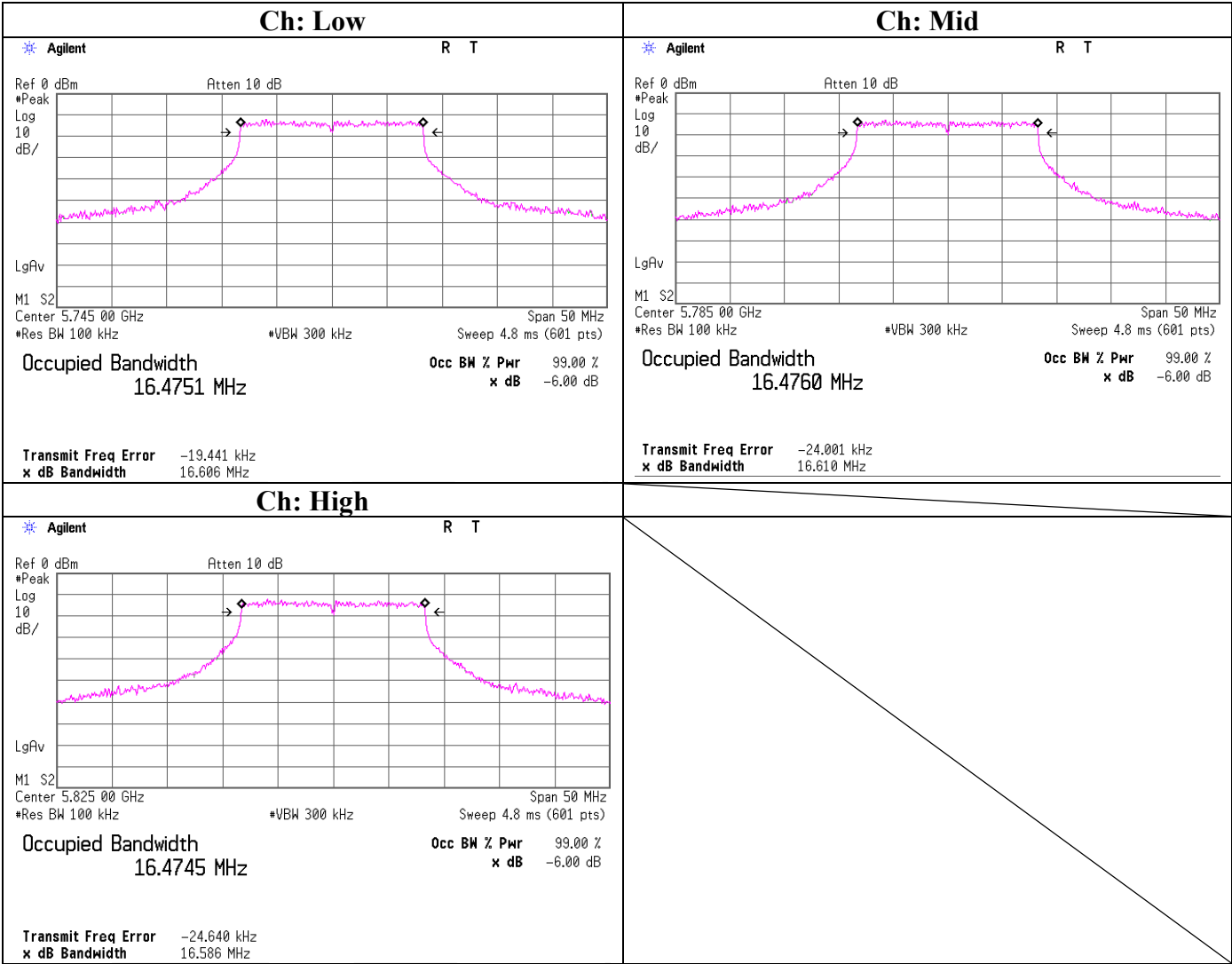


6dB Bandwidth

IEEE802.11g



6dB Bandwidth
IEEE802.11a



Maximum Peak Output Power

		UL Japan, Inc.
		Head Office EMC Lab. No.6 and No 11 Measurement Room
Company	Canon Inc.	Report No. 29EE0246-HO-01
Equipmen	WLAN Module	Regulation FCC15.247(b)(3)/RSS-210A8.4(4)
Model	CH9-1161	Test Distance -
S/N	11b 11a :ES7004	Date 03/18/2009 04/24/2009
	11g :ES7006	Temperature 23 deg.C. 34 deg.C.
Power	DC 3.3V	Humidity 34 % 21 %
Mode	IEEE 802.11b Tx 2Mbps	Engineer Tomohisa Nakagawa Tomohisa Nakagawa
	IEEE 802.11g Tx 48Mbps	
	IEEE 802.11a Tx 24Mbps	

[IEEE802.11b]

Ch	Freq.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	6.11	0.60	10.08	16.79	47.75	30.00	1000	13.21
Mid	2437.0	6.34	0.60	10.08	17.02	50.35	30.00	1000	12.98
High	2462.0	5.83	0.60	10.08	16.51	44.77	30.00	1000	13.49

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

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

[IEEE802.11g]

Ch	Freq.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	
Low	2412.0	8.19	0.60	10.08	18.87	77.09	30.00	1000	11.13
Mid	2437.0	8.32	0.60	10.08	19.00	79.43	30.00	1000	11.00
High	2462.0	8.86	0.60	10.08	19.54	89.95	30.00	1000	10.46

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

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

[IEEE802.11a]

Ch	Freq.	P/M Reading	Cable Loss	Atten.	Result		Limit		Margin
	[MHz]	[dBm]	[dB]	[dB]	[dBm]	[mW]	[dBm]	[mW]	
Low	5745.0	11.23	0.90	10.17	22.30	169.82	30.00	1000	7.70
Mid	5785.0	11.28	0.90	10.18	22.36	172.19	30.00	1000	7.64
High	5825.0	11.19	0.90	10.18	22.27	168.66	30.00	1000	7.73

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

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

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

Maximum Peak Output Power (Data rate check)

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N 11b 11a :ES7004
11g :ES7006
Power DC 3.3V
Mode IEEE 802.11b
IEEE 802.11g
IEEE 802.11a

UL Japan, Inc.
Head Office EMC Lab. No.6 and No 2 Measurement Room
Report No. 29EE0246-HO-01
Regulation FCC15.247(b)(3)/RSS-210A8.4(4)
Test Distance -
Date 03/18/2009 04/24/2009
Temperature 23 deg.C. 34 deg.C.
Humidity 34 % 21 %
Engineer Tomohisa Nakagawa Tomohisa Nakagawa

[IEEE 802.11b] PK

Rate [MBPS]	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result	
					[dBm]	[mW]
1	2437	5.93	0.6	10.08	16.61	45.81
2	2437	6.34	0.6	10.08	17.02	50.35
5.5	2437	5.42	0.6	10.08	16.10	40.74
11	2437	5.92	0.6	10.08	16.60	45.71

[IEEE 802.11g] PK

Rate [MBPS]	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. Loss [dB]	Result	
					[dBm]	[mW]
6	2437	7.80	0.6	10.08	18.48	70.47
9	2437	7.62	0.6	10.08	18.30	67.61
12	2437	7.33	0.6	10.08	18.01	63.24
18	2437	7.76	0.6	10.08	18.44	69.82
24	2437	8.15	0.6	10.08	18.83	76.38
36	2437	8.14	0.6	10.08	18.82	76.21
48	2437	8.32	0.6	10.08	19.00	79.43
54	2437	8.07	0.6	10.08	18.75	74.99

[IEEE 802.11a] PK

Rate [MBPS]	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result	
					[dBm]	[mW]
6	5785	10.89	0.9	10.18	21.97	157.40
9	5785	10.7	0.9	10.18	21.78	150.66
12	5785	10.99	0.9	10.18	22.07	161.06
18	5785	10.50	0.9	10.18	21.58	143.88
24	5785	11.28	0.9	10.18	22.36	172.19
36	5785	11.15	0.9	10.18	22.23	167.11
48	5785	10.17	0.9	10.18	21.25	133.35
54	5785	10.41	0.9	10.18	21.49	140.93

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

Worst data rate

Radiated Spurious Emission (below 1GHz)
11b Tx, Ch: Low

DATA OF RADIATED EMISSION TEST

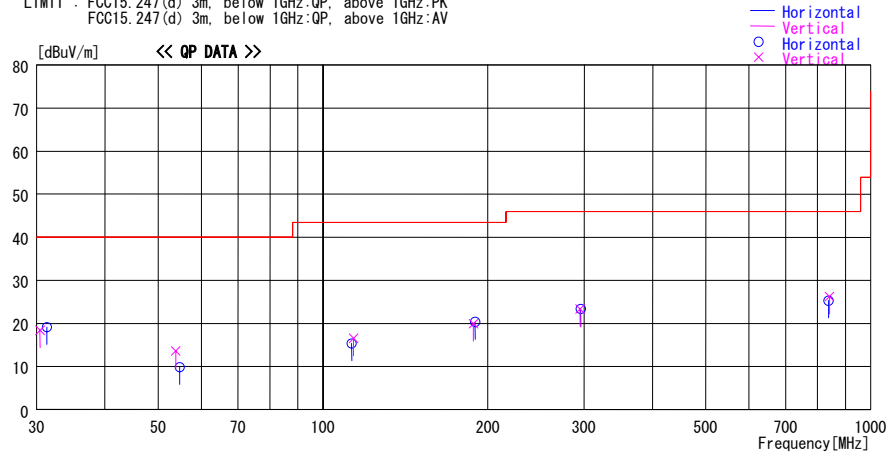
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/15

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

Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 24 deg.C / 42 %
Engineer : Tomotaka Sasagawa

Mode / Remarks : IEEE802.11b, Tx 2412MHz, Worst-axis:Module(Hor:Y/Ver:Z), Ant(Hor:X/Ver:Y)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Polar.	Limit	Margin	Comment
			Factor [dB/m]	Gain [dB]			[dBuV/m]	[dB]	
30.450	21.2	QP	19.1	-21.9	18.4	Vert.	40.0	21.6	
31.350	22.4	QP	18.7	-21.9	19.2	Hori.	40.0	20.8	
53.850	25.8	QP	9.5	-21.7	13.6	Vert.	40.0	26.4	
54.750	22.3	QP	9.3	-21.7	9.9	Hori.	40.0	30.1	
112.800	24.2	QP	12.0	-20.8	15.4	Hori.	43.5	28.1	
113.653	25.1	QP	12.2	-20.8	16.5	Vert.	43.5	27.0	
188.399	23.4	QP	16.4	-19.9	19.9	Vert.	43.5	23.6	
189.749	23.9	QP	16.4	-19.9	20.4	Hori.	43.5	23.1	
295.050	22.4	QP	19.8	-18.9	23.3	Vert.	46.0	22.7	
295.950	22.5	QP	19.8	-18.9	23.4	Hori.	46.0	22.6	
837.837	21.0	QP	21.6	-17.3	25.3	Hori.	46.0	20.7	
841.337	21.8	QP	21.6	-17.2	26.2	Vert.	46.0	19.8	

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

Radiated Spurious Emission (below 1GHz)
11b Tx, Ch: Mid

DATA OF RADIATED EMISSION TEST

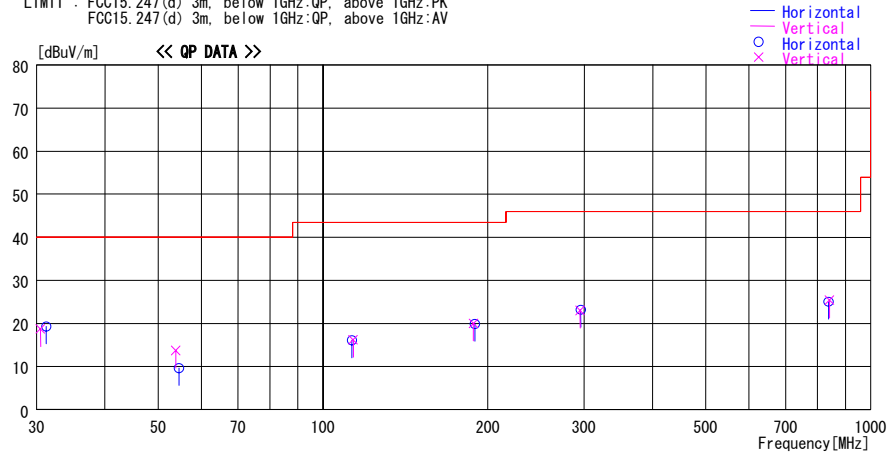
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/15

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

Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 24 deg.C / 42 %
Engineer : Tomotaka Sasagawa

Mode / Remarks : IEEE802.11b, Tx 2437MHz, Worst-axis:Module(Hor:Y/Ver:Z), Ant(Hor:X/Ver:Y)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]					
30.514	21.5	QP	19.1	-21.9	18.7	Vert.	40.0	21.3	
31.241	22.5	QP	18.7	-21.9	19.3	Hori.	40.0	20.7	
53.851	25.9	QP	9.5	-21.7	13.7	Vert.	40.0	26.3	
54.614	21.9	QP	9.4	-21.7	9.6	Hori.	40.0	30.4	
112.894	24.8	QP	12.1	-20.8	16.1	Hori.	43.5	27.4	
113.561	24.9	QP	12.1	-20.8	16.2	Vert.	43.5	27.3	
188.452	23.5	QP	16.4	-19.9	20.0	Vert.	43.5	23.5	
189.514	23.4	QP	16.4	-19.9	19.9	Hori.	43.5	23.6	
295.051	22.1	QP	19.8	-18.9	23.0	Vert.	46.0	23.0	
295.615	22.3	QP	19.8	-18.9	23.2	Hori.	46.0	22.8	
837.514	20.8	QP	21.6	-17.3	25.1	Hori.	46.0	20.9	
841.421	21.0	QP	21.6	-17.2	25.4	Vert.	46.0	20.6	

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

Radiated Spurious Emission (below 1GHz)
11b Tx, Ch: High

DATA OF RADIATED EMISSION TEST

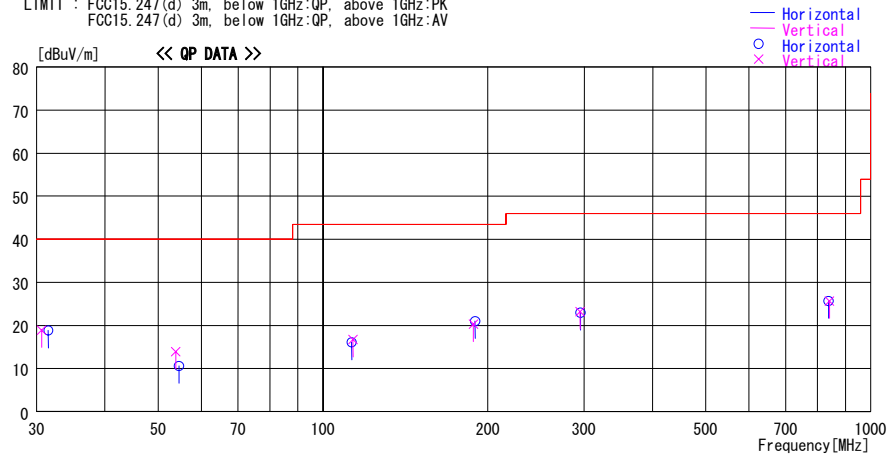
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/15

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

Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 24 deg.C / 42 %
Engineer : Tomotaka Sasagawa

Mode / Remarks : IEEE802.11b, Tx 2462MHz, Worst-axis:Module(Hor:Y/Ver:Z), Ant(Hor:X/Ver:Y)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]					
30.652	21.8	QP	19.0	-21.9	18.9	Vert.	40.0	21.1	
31.514	22.1	QP	18.6	-21.9	18.8	Hori.	40.0	21.2	
53.865	26.1	QP	9.5	-21.7	13.9	Vert.	40.0	26.1	
54.616	22.9	QP	9.4	-21.7	10.6	Hori.	40.0	29.4	
112.858	24.8	QP	12.1	-20.8	16.1	Hori.	43.5	27.4	
113.515	25.4	QP	12.1	-20.8	16.7	Vert.	43.5	26.8	
188.412	23.8	QP	16.4	-19.9	20.3	Vert.	43.5	23.2	
189.751	24.5	QP	16.4	-19.9	21.0	Hori.	43.5	22.5	
295.022	22.3	QP	19.8	-18.9	23.2	Vert.	46.0	22.8	
295.232	22.1	QP	19.8	-18.9	23.0	Hori.	46.0	23.0	
837.451	21.4	QP	21.6	-17.3	25.7	Hori.	46.0	20.3	
841.314	21.3	QP	21.6	-17.2	25.7	Vert.	46.0	20.3	

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

Radiated Spurious Emission (below 1GHz)
11g Tx, Ch: Low

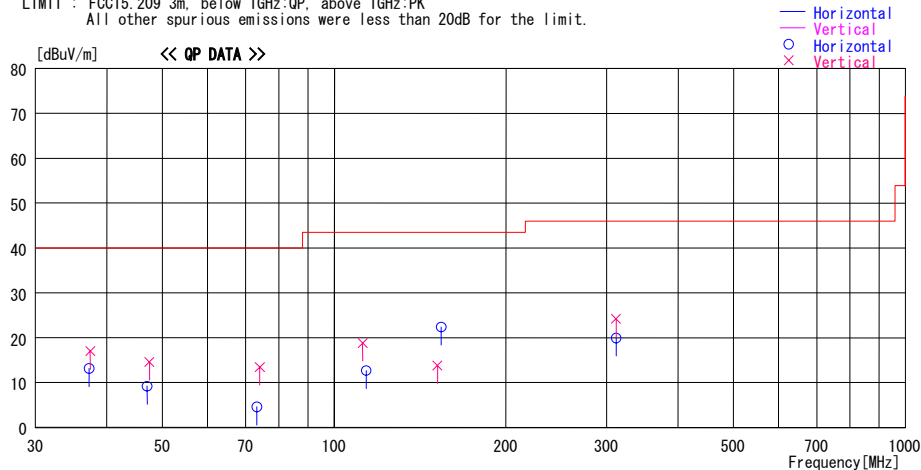
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2009/05/03

Company : Canon Inc.
Kind of EUT : WLAN Module
Model No. : CH9-1161
Serial No. : ES7006
Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 23 deg.C. / 46 %
Engineer : Tomohisa Nakagawa

Mode / Remarks : IEEE802.11g, Tx 2412MHz, Worst-axis:Module(Hor:Y/Ver:Z), Ant(Hor:X/Ver:Y)

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



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]					
37.213	22.5	QP	15.5	-24.8	13.2	Hori.	40.0	26.8	
37.408	26.4	QP	15.4	-24.8	17.0	Vert.	40.0	23.0	
47.010	22.2	QP	11.6	-24.6	9.2	Hori.	40.0	30.8	
47.490	27.7	QP	11.4	-24.5	14.6	Vert.	40.0	25.4	
73.200	22.5	QP	6.3	-24.2	4.6	Hori.	40.0	35.4	
74.113	31.3	QP	6.3	-24.1	13.5	Vert.	40.0	26.5	
112.217	30.9	QP	11.7	-23.8	18.8	Vert.	43.5	24.7	
113.856	24.6	QP	11.9	-23.8	12.7	Hori.	43.5	30.8	
151.640	22.5	QP	14.6	-23.3	13.8	Vert.	43.5	29.7	
154.066	31.0	QP	14.7	-23.3	22.4	Hori.	43.5	21.1	
311.715	25.4	QP	16.5	-21.9	20.0	Hori.	46.0	26.0	
311.711	29.6	QP	16.5	-21.9	24.2	Vert.	46.0	21.8	

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

Radiated Spurious Emission (below 1GHz)
11g Tx, Ch: High

DATA OF RADIATED EMISSION TEST

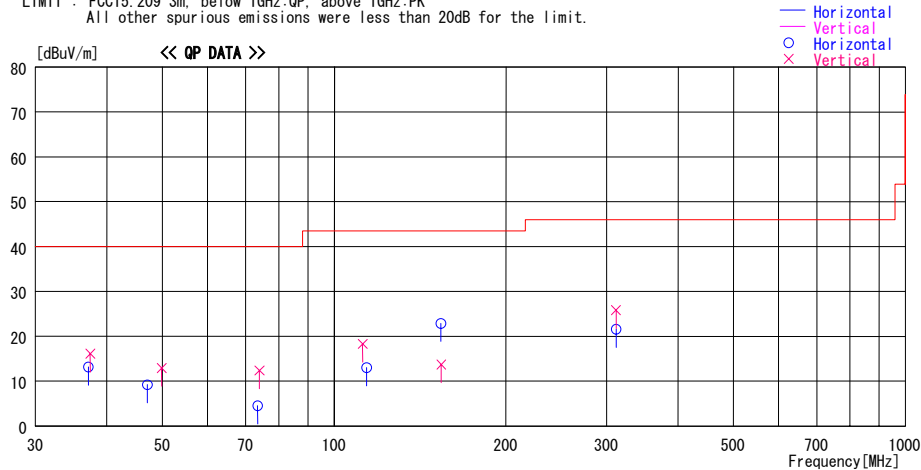
UL Japan, Inc. Head Office EMC Lab. No. 4 Semi Anechoic Chamber
Date : 2009/05/03

Company : Canon Inc.
Kind of EUT : WLAN Module
Model No. : CH9-1161
Serial No. : ES7006

Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 23 deg.C. / 46 %
Engineer : Tomohisa Nakagawa

Mode / Remarks : IEEE802.11g, Tx 2462MHz, Worst-axis:Module(Hor:Y/Ver:Z), Ant(Hor:X/Ver:Y)

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



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Polar.	Limit	Margin	Comment
			Factor [dB/m]	Gain [dB]			[dBuV/m]	[dB]	
37.131	22.5	QP	15.5	-24.8	13.2	Hori.	40.0	26.8	
37.406	25.5	QP	15.4	-24.8	16.1	Vert.	40.0	23.9	
47.123	22.2	QP	11.6	-24.6	9.2	Hori.	40.0	30.8	
49.872	26.8	QP	10.6	-24.5	12.9	Vert.	40.0	27.1	
73.423	22.4	QP	6.3	-24.2	4.5	Hori.	40.0	35.5	
73.986	30.2	QP	6.3	-24.1	12.4	Vert.	40.0	27.6	
112.212	30.4	QP	11.7	-23.8	18.3	Vert.	43.5	25.2	
113.880	24.9	QP	11.9	-23.8	13.0	Hori.	43.5	30.5	
154.074	22.3	QP	14.7	-23.3	13.7	Vert.	43.5	29.8	
153.840	31.5	QP	14.7	-23.3	22.9	Hori.	43.5	20.6	
311.700	27.0	QP	16.5	-21.9	21.6	Hori.	46.0	24.4	
311.705	31.2	QP	16.5	-21.9	25.8	Vert.	46.0	20.2	

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

Radiated Spurious Emission (below 1GHz)
11a Tx, Ch: Low

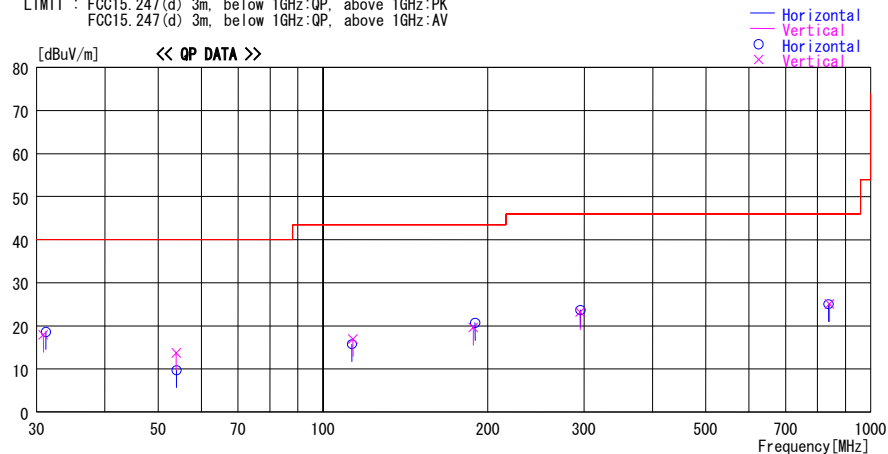
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/15

Company : Canon Inc.
Kind of EUT : WLAN Module
Model No. : CH9-1161
Serial No. : ES7004
Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 24 deg. C. / 42 %
Engineer : Tomotaka Sasagawa

Mode / Remarks : IEEE802.11a, Tx 5745MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		Factor	Gain	[dBuV/m]		[dBuV/m]	[dB]	
30.883	20.9	QP	18.9	-21.9	17.9	Vert.	40.0	22.1	
31.213	21.8	QP	18.7	-21.9	18.6	Hori.	40.0	21.4	
53.984	25.9	QP	9.5	-21.7	13.7	Vert.	40.0	26.3	
54.042	21.9	QP	9.5	-21.7	9.7	Hori.	40.0	30.3	
112.893	24.5	QP	12.1	-20.8	15.8	Hori.	43.5	27.7	
113.413	25.6	QP	12.1	-20.8	16.9	Vert.	43.5	26.6	
188.331	23.1	QP	16.4	-19.9	19.6	Vert.	43.5	23.9	
189.741	24.2	QP	16.4	-19.9	20.7	Hori.	43.5	22.8	
295.004	22.3	QP	19.8	-18.9	23.2	Vert.	46.0	22.8	
295.421	22.8	QP	19.8	-18.9	23.7	Hori.	46.0	22.3	
837.313	20.8	QP	21.6	-17.3	25.1	Hori.	46.0	20.9	
841.200	20.7	QP	21.6	-17.2	25.1	Vert.	46.0	20.9	

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

Radiated Spurious Emission (below 1GHz)
11a Tx, Ch: Mid

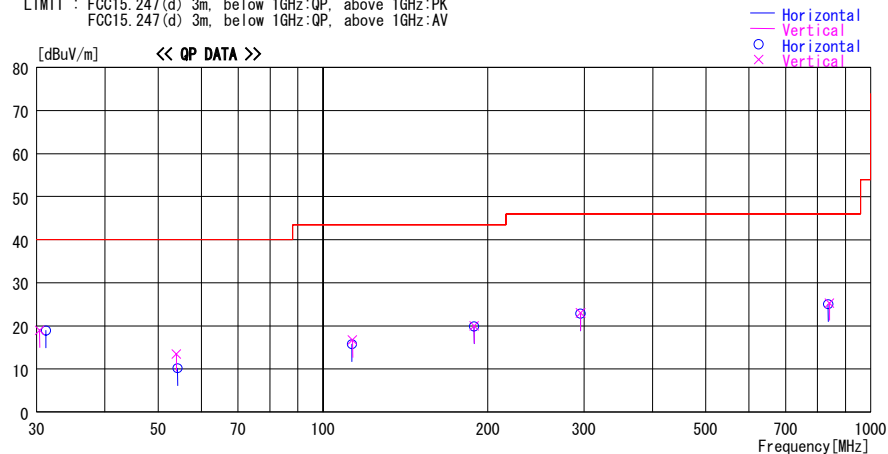
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/15

Company : Canon Inc.
Kind of EUT : WLAN Module
Model No. : CH9-1161
Serial No. : ES7004
Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 24 deg. C. / 42 %
Engineer : Tomotaka Sasagawa

Mode / Remarks : IEEE802.11a, Tx 5785MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		Factor	Gain	[dBuV/m]		[dBuV/m]	[dB]	
30.413	21.7	QP	19.2	-21.9	19.0	Vert.	40.0	21.0	
31.213	22.1	QP	18.7	-21.9	18.9	Hori.	40.0	21.1	
54.003	25.7	QP	9.5	-21.7	13.5	Vert.	40.0	26.5	
54.231	22.4	QP	9.5	-21.7	10.2	Hori.	40.0	29.8	
112.993	24.5	QP	12.1	-20.8	15.8	Hori.	43.5	27.7	
113.241	25.4	QP	12.1	-20.8	16.7	Vert.	43.5	26.8	
188.931	23.5	QP	16.4	-19.9	20.0	Vert.	43.5	23.5	
189.003	23.4	QP	16.4	-19.9	19.9	Hori.	43.5	23.6	
295.432	22.1	QP	19.8	-18.9	23.0	Vert.	46.0	23.0	
295.410	22.0	QP	19.8	-18.9	22.9	Hori.	46.0	23.1	
837.031	20.8	QP	21.6	-17.3	25.1	Hori.	46.0	20.9	
841.321	20.9	QP	21.6	-17.2	25.3	Vert.	46.0	20.7	

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

Radiated Spurious Emission (below 1GHz)
11a Tx, Ch: High

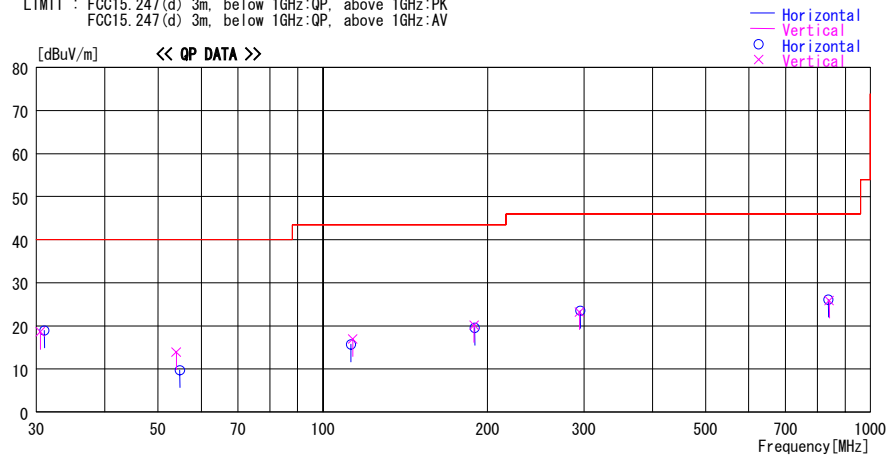
DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/15

Company : Canon Inc.
Kind of EUT : WLAN Module
Model No. : CH9-1161
Serial No. : ES7004
Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 24 deg. C. / 42 %
Engineer : Tomotaka Sasagawa

Mode / Remarks : IEEE802.11a, Tx 5825MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]					
30.513	21.4	QP	19.1	-21.9	18.6	Vert.	40.0	21.4	
31.023	22.0	QP	18.8	-21.9	18.9	Hori.	40.0	21.1	
54.003	26.1	QP	9.5	-21.7	13.9	Vert.	40.0	26.1	
54.842	22.1	QP	9.3	-21.7	9.7	Hori.	40.0	30.3	
112.492	24.5	QP	12.0	-20.8	15.7	Hori.	43.5	27.8	
113.400	25.6	QP	12.1	-20.8	16.9	Vert.	43.5	26.6	
188.932	23.7	QP	16.4	-19.9	20.2	Vert.	43.5	23.3	
189.313	23.1	QP	16.4	-19.9	19.6	Hori.	43.5	23.9	
294.413	22.3	QP	19.8	-18.9	23.2	Vert.	46.0	22.8	
295.231	22.6	QP	19.8	-18.9	23.5	Hori.	46.0	22.5	
838.313	21.8	QP	21.6	-17.3	26.1	Hori.	46.0	19.9	
841.031	21.5	QP	21.6	-17.2	25.9	Vert.	46.0	20.1	

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

Radiated Spurious Emission (below 1GHz)
11b/g Rx, Ch: Mid

DATA OF RADIATED EMISSION TEST

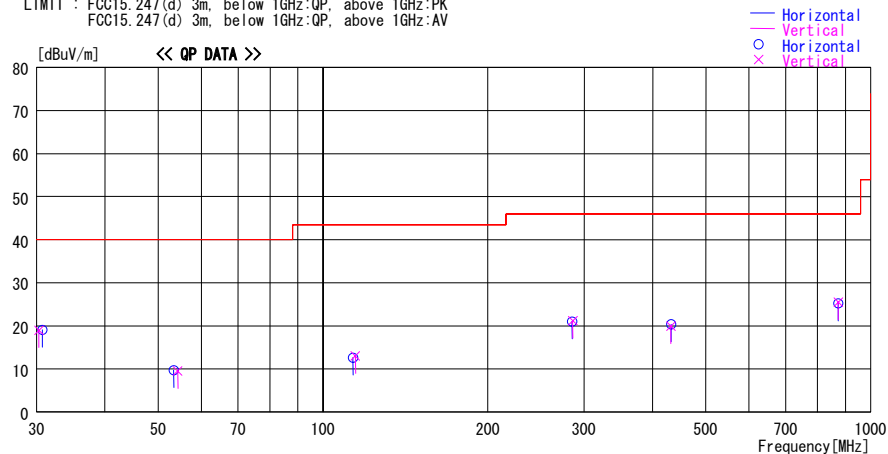
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/15

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

Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 24 deg. C. / 42 %
Engineer : Tomotaka Sasagawa

Mode / Remarks : IEEE802.11b/g, Rx 2437MHz, Worst-axis:Module(Hor:Y/Ver:Z), Ant(Hor:X/Ver:Y)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Polar.	Limit	Margin	Comment
[MHz]	[dBuV]		Factor	Gain	[dBuV/m]		[dBuV/m]	[dB]	
30.321	21.7	QP	19.2	-21.9	19.0	Vert.	40.0	21.0	
30.741	22.0	QP	19.0	-21.9	19.1	Hori.	40.0	20.9	
53.414	21.8	QP	9.6	-21.7	9.7	Hori.	40.0	30.3	
54.321	21.8	QP	9.4	-21.7	9.5	Vert.	40.0	30.5	
113.510	21.3	QP	12.1	-20.8	12.6	Hori.	43.5	30.9	
114.613	21.5	QP	12.3	-20.8	13.0	Vert.	43.5	30.5	
285.994	20.9	QP	19.3	-19.0	21.2	Vert.	46.0	24.8	
285.111	20.8	QP	19.2	-19.0	21.0	Hori.	46.0	25.0	
431.928	21.2	QP	17.8	-19.1	19.9	Vert.	46.0	26.1	
432.133	21.7	QP	17.8	-19.1	20.4	Hori.	46.0	25.6	
872.313	20.6	QP	21.6	-17.0	25.2	Hori.	46.0	20.8	
873.002	20.9	QP	21.6	-17.0	25.5	Vert.	46.0	20.5	

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

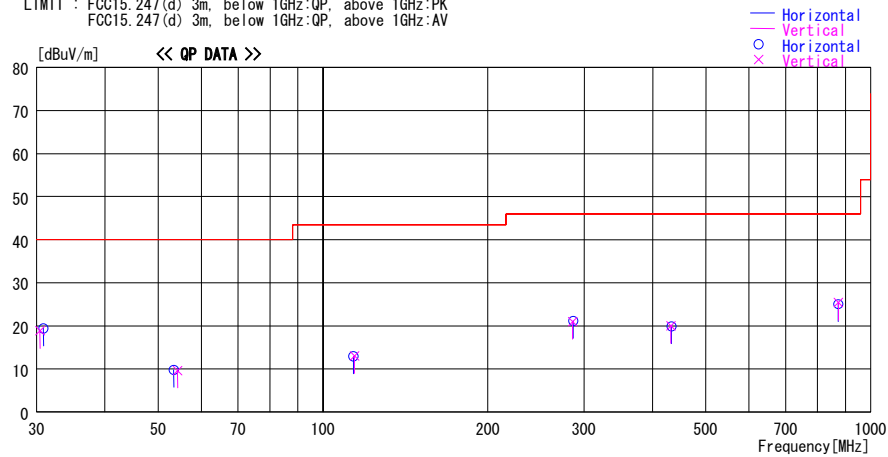
Radiated Spurious Emission (below 1GHz)
11a Rx, Ch: Mid

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2009/04/15

Company : Canon Inc.
Kind of EUT : WLAN Module
Model No. : CH9-1161
Serial No. : ES7004
Report No. : 29EE0246-HO-01
Power : DC 3.3V
Temp./Humi. : 24 deg. C. / 42 %
Engineer : Tomotaka Sasagawa
Mode / Remarks : IEEE802.11a, Rx, 5785MHz, Worst-axis:Module(Hor:Y/Ver:Y), Ant(Hor:Z/Ver:Y)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Gain [dB]					
30.450	21.6	QP	19.1	-21.9	18.8	Vert.	40.0	21.2	
30.900	22.4	QP	18.9	-21.9	19.4	Hori.	40.0	20.6	
53.400	21.9	QP	9.6	-21.7	9.8	Hori.	40.0	30.2	
54.300	21.9	QP	9.4	-21.7	9.6	Vert.	40.0	30.4	
113.700	21.5	QP	12.2	-20.8	12.9	Hori.	43.5	30.6	
114.150	21.6	QP	12.2	-20.8	13.0	Vert.	43.5	30.5	
285.600	20.7	QP	19.3	-19.0	21.0	Vert.	46.0	25.1	
286.500	20.9	QP	19.3	-19.0	21.2	Hori.	46.0	24.8	
431.832	21.3	QP	17.8	-19.1	20.0	Vert.	46.0	26.0	
432.999	21.2	QP	17.8	-19.1	19.9	Hori.	46.0	26.1	
872.838	20.5	QP	21.6	-17.0	25.1	Hori.	46.0	20.9	
874.005	20.8	QP	21.6	-17.0	25.4	Vert.	46.0	20.6	

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

Radiated Spurious Emission (above 1GHz)

Tx, 11b Ch: Low

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802. 11b, Tx, 2412MHz 2Mbps
Position H: Module Y-axis, Ant X-axis
V: Module Z-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m (1G-10GHz) / 1m (above10GHz)
Date 04/26/2009
Temperature 22 deg.C.
Humidity 44 %
Engineer Takumi Shimada

PK DETECT				(RBW: 1MHz, VBW: 1MHz)								
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
		HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
	[MHz]	[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.00	50.2	52.0	27.1	32.4	2.6	0.0	47.5	49.3	73.9	26.4	24.6
2	2400.00	52.3	54.5	27.1	32.4	2.6	0.0	49.6	51.8	73.9	24.3	22.1
3	4824.00	45.2	44.4	31.3	31.4	3.9	1.1	50.1	49.3	73.9	23.8	24.6
4	7236.00	43.4	42.3	35.6	31.2	4.4	1.1	53.3	52.2	73.9	20.6	21.7
5	9648.00	43.9	43.4	38.4	32.0	5.2	1.3	56.8	56.3	73.9	17.1	17.6
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12060.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	14472.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	16884.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19296.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	21708.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24120.00	45.1	45.0	40.4	29.0	7.9	0.0	54.9	54.8	73.9	19.0	19.1

AV DETECT				(RBW: 1MHz, VBW: 10Hz)								
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
	[MHz]	HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
		[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]		[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.00	36.9	39.2	27.1	32.4	2.6	0.0	34.2	36.5	53.9	19.7	17.4
2	2400.00	39.7	42.1	27.1	32.4	2.6	0.0	37.0	39.4	53.9	16.9	14.5
3	4824.00	34.7	32.4	31.3	31.4	3.9	1.1	39.6	37.3	53.9	14.3	16.6
4	7236.00	29.6	29.7	35.6	31.2	4.4	1.1	39.5	39.6	53.9	14.4	14.3
5	9648.00	29.8	29.6	38.4	32.0	5.2	1.3	42.7	42.5	53.9	11.2	11.4
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12060.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	14472.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	16884.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19296.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	21708.00	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24120.00	31.9	31.9	40.4	29.0	7.9	0.0	41.7	41.7	53.9	12.2	12.2

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 Fiter was not used for factor 0.0dB of the above table.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

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

*NS: No detect Signal.

Radiated Spurious Emission

Tx, 11b Ch: Mid

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802.11b, Tx, 2437MHz 2Mbps
Position H: Module Y-axis, Ant X-axis
V: Module Z-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m (1G-10GHz) / 1m (above10GHz)
Date 04/26/2009
Temperature 22 deg.C.
Humidity 44 %
Engineer Takumi Shimada

PK DETECT												(RBW: 1MHz, VBW: 1MHz)			
No.	FREQ [MHz]	S/A READING HOR VER [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR VER [dBuV/m]		Limit PK [dBuV/m]	MARGIN HOR VER [dB]				
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss															
1	4874.00	44.9	44.1	31.3	31.3	4.0	1.1	50.0	49.2	73.9	23.9	24.7			
2	7311.00	43.1	42.5	35.8	31.2	4.4	1.1	53.2	52.6	73.9	20.7	21.3			
3	9748.00	42.6	42.8	38.5	32.0	5.2	1.3	55.6	55.8	73.9	18.3	18.1			
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac															
4	12185.00	NS	NS	-	-	-	-	-	-	73.9	-	-			
5	14622.00	NS	NS	-	-	-	-	-	-	73.9	-	-			
6	17059.00	NS	NS	-	-	-	-	-	-	73.9	-	-			
7	19496.00	NS	NS	-	-	-	-	-	-	73.9	-	-			
8	21933.00	NS	NS	-	-	-	-	-	-	73.9	-	-			
9	24370.00	45.6	45.5	40.4	29.0	8.0	0.0	55.5	55.4	73.9	18.4	18.5			

AV DETECT		(RBW: 1MHz, VBW: 10Hz)										
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
	[MHz]	HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
		[dBuV]		[dB/m]	[dB]	[dB]	[dB]		[dBuV/m]	[dBuV/m]		[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4874.00	35.7	33.6	31.3	31.3	4.0	1.1	40.8	38.7	53.9	13.1	15.2
2	7311.00	29.6	29.9	35.8	31.2	4.4	1.1	39.7	40.0	53.9	14.2	13.9
3	9748.00	29.7	30.1	38.5	32.0	5.2	1.3	42.7	43.1	53.9	11.2	10.8
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12185.00	NS	NS	-	-	-	-	-	-	53.9	-	-
5	14622.00	NS	NS	-	-	-	-	-	-	53.9	-	-
6	17059.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	19496.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	21933.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	24370.00	32.2	32.2	40.4	29.0	8.0	0.0	42.1	42.1	53.9	11.8	11.8

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 Fiter was not used for factor 0.0dB of the above table.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The test result is rounded off to one or two decimal places, so some differences might be observed.
*NS: No detect Signal.

Radiated Spurious Emission

Tx, 11b Ch: High

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802.11b, Tx, 2462MHz 2Mbps
Position H: Module Y-axis, Ant X-axis
V: Module Z-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m (1G-10GHz) / 1m (above10GHz)
Date 04/26/2009
Temperature 22 deg.C.
Humidity 44 %
Engineer Takumi Shimada

PK DETECT (RBW: 1MHz, VBW: 1MHz)												
No.	FREQ	S/A READING		ANT Factor	AMP GAIN	CABLE LOSS	Hi-Pass Filter	RESULT		Limit PK	MARGIN	
	[MHz]	HOR	VER					[dBuV]	[dB/m]		[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.50	54.6	52.4	27.3	32.4	2.7	0.0	52.2	50.0	73.9	21.7	23.9
2	4924.00	43.3	44.4	31.4	31.3	4.0	1.1	48.5	49.6	73.9	25.4	24.3
3	7386.00	42.1	42.3	35.9	31.2	4.5	1.1	52.4	52.6	73.9	21.5	21.3
4	9848.00	42.9	42.9	38.7	32.0	5.2	1.3	56.1	56.1	73.9	17.8	17.8
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12310.00	NS	NS	-	-	-	-	-	-	73.9	-	-
6	14772.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	17234.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	19696.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	22158.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	24620.00	43.6	44.1	40.4	28.9	8.2	0.0	53.8	54.3	73.9	20.1	19.6

AV DETECT (RBW: 1MHz, VBW: 10Hz)												
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
	[MHz]	HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
		[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.50	41.6	39.4	27.3	32.4	2.7	0.0	39.2	37.0	53.9	14.7	16.9
2	4924.00	31.8	32.4	31.4	31.3	4.0	1.1	37.0	37.6	53.9	16.9	16.3
3	7386.00	29.5	29.7	35.9	31.2	4.5	1.1	39.8	40.0	53.9	14.1	13.9
4	**9848.00	30.1	30.2	38.7	32.0	5.2	1.3	43.3	43.4	53.9	10.6	10.5
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12310.00	NS	NS	-	-	-	-	-	-	53.9	-	-
6	14772.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	17234.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	19696.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	22158.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	24620.00	30.2	30.3	40.4	28.9	8.2	0.0	40.4	40.5	53.9	13.5	13.4

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 Fiter was not used for factor 0.0dB of the above table.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

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

*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)

Tx, 11g Ch: Low

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802.11g, Tx, 2412MHz 48Mbps
Position H: Module Y-axis, Ant X-axis
V: Module Z-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m (1G-10GHz) / 1m (above10GHz)
Date 04/26/2009
Temperature 22 deg.C.
Humidity 44 %
Engineer Takumi Shimada

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
	[MHz]	HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
[dBuV] [dB/m] [dB] [dB] [dBuV/m] [dB]												
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.00	55.6	53.3	27.1	32.4	2.6	0.0	52.9	50.6	73.9	21.0	23.3
2**	2400.00	73.2	71.3	27.1	32.4	2.6	0.0	70.5	68.6	73.9	-	-
3	4824.00	42.0	42.5	31.3	31.4	3.9	1.1	46.9	47.4	73.9	27.0	26.5
4	7236.00	42.8	42.6	35.6	31.2	4.4	1.1	52.7	52.5	73.9	21.2	21.4
5	9648.00	43.5	42.8	38.4	32.0	5.2	1.3	56.4	55.7	73.9	17.5	18.2
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12060.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	14472.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	16884.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	19296.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	21708.00	NS	NS	-	-	-	-	-	-	73.9	-	-
11	24120.00	45.0	44.9	40.4	29.0	7.9	0.0	54.8	54.7	73.9	19.1	19.2

**Reference data (Refer to next page(20dBc data sheet))

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
	[MHz]	HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
		[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2390.00	40.6	39.0	27.1	32.4	2.6	0.0	37.9	36.3	53.9	16.0	17.6
2**	2400.00	50.7	48.9	27.1	32.4	2.6	0.0	48.0	46.2	53.9	-	-
3	4824.00	28.5	29.0	31.3	31.4	3.9	1.1	33.4	33.9	53.9	20.5	20.0
4	7236.00	29.6	29.9	35.6	31.2	4.4	1.1	39.5	39.8	53.9	14.4	14.1
5	9648.00	30.4	30.3	38.4	32.0	5.2	1.3	43.3	43.2	53.9	10.6	10.7
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	12060.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	14472.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	16884.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	19296.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	21708.00	NS	NS	-	-	-	-	-	-	53.9	-	-
11	24120.00	31.2	31.4	40.4	29.0	7.9	0.0	41.0	41.2	53.9	12.9	12.7

**Reference data (Refer to next page(20dBc data sheet))

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 Fiter was not used for factor 0.0dB of the above table.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

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

*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)

Tx, 11g Ch: Low

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m (1G-10GHz)
Date 04/26/2009
Temperature 22 deg.C.
Humidity 44 %
Engineer Takumi Shimada

Company Canon Inc.
Equipmen WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802.11g, Tx, 2412MHz 48Mbps
Position H: Module Y-axis, Ant X-axis
V: Module Z-axis, Ant Y-axis

20dBc (Fundamental 2412.0 MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR [dBuV/m]	VER		HOR [dB]	VER
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
0	2412.00	91.0	90.2	27.2	32.4	2.6	0.0	88.4	87.6	-	-	-
2	2400.00	57.2	56.3	27.1	32.4	2.6	0.0	54.5	53.6	Funda-20dB	13.9	14.0

*Hi-Pass Fiter 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.

Radiated Spurious Emission (above 1GHz)

Tx, 11g Ch: Mid

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802.11g, Tx, 2437MHz 48Mbps
Position H: Module Y-axis, Ant X-axis
V: Module Z-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m (1G-10GHz) / 1m (above10GHz)
Date 04/26/2009
Temperature 22 deg.C.
Humidity 44 %
Engineer Takumi Shimada

PK DETECT												(RBW: 1MHz, VBW: 1MHz)					
No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN						
		HOR	VER					HOR	VER		HOR	VER					
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss																	
1	4874.00	43.4	44.0	31.3	31.3	4.0	1.1	48.5	49.1	73.9	25.4	24.8					
2	7311.00	42.3	42.3	35.8	31.2	4.4	1.1	52.4	52.4	73.9	21.5	21.5					
3	9748.00	43.4	43.2	38.5	32.0	5.2	1.3	56.4	56.2	73.9	17.5	17.7					
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac																	
4	12185.00	NS	NS	-	-	-	-	-	-	73.9	-	-					
5	14622.00	NS	NS	-	-	-	-	-	-	73.9	-	-					
6	17059.00	NS	NS	-	-	-	-	-	-	73.9	-	-					
7	19496.00	NS	NS	-	-	-	-	-	-	73.9	-	-					
8	21933.00	NS	NS	-	-	-	-	-	-	73.9	-	-					
9	24370.00	45.0	45.5	40.4	29.0	8.0	0.0	54.9	55.4	73.9	19.0	18.5					

AV DETECT (RBW: 1MHz, VBW: 10Hz)												
No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
	[MHz]	HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
		[dBuV]		[dB/m]	[dB]	[dB]	[dB]		[dBuV/m]	[dBuV/m]		[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	4874.00	28.8	28.8	31.3	31.3	4.0	1.1	33.9	33.9	53.9	20.0	20.0
2	7311.00	29.8	29.8	35.8	31.2	4.4	1.1	39.9	39.9	53.9	14.0	14.0
3	9748.00	30.1	30.2	38.5	32.0	5.2	1.3	43.1	43.2	53.9	10.8	10.7
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
4	12185.00	NS	NS	-	-	-	-	-	-	53.9	-	-
5	14622.00	NS	NS	-	-	-	-	-	-	53.9	-	-
6	17059.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	19496.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	21933.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	24370.00	31.9	32.0	40.4	29.0	8.0	0.0	41.8	41.9	53.9	12.1	12.0

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 Fiter was not used for factor 0.0dB of the above table.
*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.
*The test result is rounded off to one or two decimal places, so some differences might be observed.
*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)

Tx, 11g Ch: High

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802.11g, Tx, 2462MHz 48Mbps
Position H: Module Y-axis, Ant X-axis
V: Module Z-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m (1G-10GHz) / 1m (above10GHz)
Date 04/26/2009
Temperature 22 deg.C.
Humidity 44 %
Engineer Takumi Shimada

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
	[MHz]	HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	PK	HOR	VER
[dBuV] [dBuV/m] [dB] [dB] [dBuV/m] [dB]												
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.50	59.0	55.7	27.3	32.4	2.7	0.0	56.6	53.3	73.9	17.3	20.6
2	4924.00	42.4	42.7	31.4	31.3	4.0	1.1	47.6	47.9	73.9	26.3	26.0
3	7386.00	42.6	42.8	35.9	31.2	4.5	1.1	52.9	53.1	73.9	21.0	20.8
4	9848.00	43.7	43.8	38.7	32.0	5.2	1.3	56.9	57.0	73.9	17.0	16.9
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12310.00	NS	NS	-	-	-	-	-	-	73.9	-	-
6	14772.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	17234.00	NS	NS	-	-	-	-	-	-	73.9	-	-
8	19696.00	NS	NS	-	-	-	-	-	-	73.9	-	-
9	22158.00	NS	NS	-	-	-	-	-	-	73.9	-	-
10	24620.00	44.9	45.1	40.4	28.9	8.2	0.0	55.1	55.3	73.9	18.8	18.6

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
	[MHz]	HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
		[dBuV]		[dBm]	[dB]	[dBuV/m]	[dB]	[dBuV/m]	[dBuV/m]		[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2483.50	44.8	40.6	27.3	32.4	2.7	0.0	42.4	38.2	53.9	11.5	15.7
2	4924.00	28.6	28.6	31.4	31.3	4.0	1.1	33.8	33.8	53.9	20.1	20.1
3	7386.00	29.0	29.5	35.9	31.2	4.5	1.1	39.3	39.8	53.9	14.6	14.1
4	9848.00	31.2	30.6	38.7	32.0	5.2	1.3	44.4	43.8	53.9	9.5	10.1
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	12310.00	NS	NS	-	-	-	-	-	-	53.9	-	-
6	14772.00	NS	NS	-	-	-	-	-	-	53.9	-	-
7	17234.00	NS	NS	-	-	-	-	-	-	53.9	-	-
8	19696.00	NS	NS	-	-	-	-	-	-	53.9	-	-
9	22158.00	NS	NS	-	-	-	-	-	-	53.9	-	-
10	24620.00	31.3	31.3	40.4	28.9	8.2	0.0	41.5	41.5	53.9	12.4	12.4

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 Fiter was not used for factor 0.0dB of the above table.

*In the frequency over the fifth harmonic, the noise from the EUT was not seen.The data above is its base noise.

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

*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)

Tx, 11a Ch: low

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802.11a, Tx, 5745MHz 24Mbps
Position H: Module Y-axis, Ant Z-axis
V: Module Y-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m / 1m (above10GHz)/0.5m(above26.5GHz)
Date 04/27/2009
Temperature 23 deg.C.
Humidity 35 %
Engineer Tomohisa Nakagawa

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

No.	FREQ [MHz]	S/A READING HOR VER [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR VER [dBuV/m]		Limit PK [dBuV/m]	MARGIN HOR VER [dB]	
		Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss										
1	5496.12	48.8	46.3	32.3	31.9	4.1	0.0	53.3	50.8	73.9	20.6	23.1
2	5725.00	54.8	58.6	32.6	32.0	4.2	0.0	59.6	63.4	73.9	14.3	10.5
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
3	11490.00	47.4	47.6	39.9	33.5	6.2	1.1	51.6	51.8	73.9	22.3	22.1
4	17235.00	NS	NS	-	-	-	-	-	-	73.9	-	-
5	22980.00	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m)												
6	28725.00	NS	NS	-	-	-	-	-	-	73.9	-	-
7	34470.0	39.3	40.0	40.7	25.8	17.4	0.0	56.0	56.7	73.9	17.9	17.2

**Reference data (Refer to next page(20dBc data sheet))

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	5496.12	33.4	34.3	32.3	31.9	4.1	0.0	37.9	38.8	53.9	16.0	15.1
2	5725.00	38.9	42.1	32.6	32.0	4.2	0.0	43.7	46.9	53.9	10.2	7.0
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
3	11490.00	34.3	33.5	39.9	33.5	6.2	1.1	38.5	37.7	53.9	15.4	16.2
4	17235.00	NS	NS	-	-	-	-	-	-	53.9	-	-
5	22980.00	NS	NS	-	-	-	-	-	-	53.9	-	-
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m)												
6	28725.0	NS	NS	-	-	-	-	-	-	53.9	-	-
7	34470.0	26.0	26.0	40.7	25.8	17.4	0.0	42.7	42.7	53.9	11.2	11.2

**Reference data (Refer to next page(20dBc data sheet))

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.

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

*In the frequency over the third harmonic, the noise from the EUT was not seen. The data above is its base noise.

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

*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)

Tx, 11a Ch: Mid

UL Japan, Inc.
Head Office EMC Lab. No.4 Semi Anechoic Chamber

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802.11a, Tx, 5785MHz 24Mbps
Position H: Module Y-axis, Ant Z-axis
V: Module Y-axis, Ant Y-axis

Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m / 1m (above10GHz)/0.5m(above26.5GHz)
Date 04/27/2009
Temperature 23 deg.C.
Humidity 35 %
Engineer Tomohisa Nakagawa

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

No.	FREQ [MHz]	S/A READING HOR VER [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR VER [dBuV/m]		Limit PK [dBuV/m]	MARGIN HOR VER [dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	5569.20	47.2	46.9	32.4	32.0	4.1	0.0	51.7	51.4	73.9	22.2	22.5
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2	11570.00	46.7	46.9	39.8	33.6	6.2	1.0	50.6	50.8	73.9	23.3	23.1
3	17355.00	NS	NS	-	-	-	-	-	-	73.9	-	-
4	23140.00	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m)												
5	28925.0	NS	NS	-	-	-	-	-	-	73.9	-	-
6	34710.0	40.5	41.0	40.8	25.7	17.5	0.0	57.5	58.0	73.9	16.4	15.9

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

No.	FREQ	S/A READING		ANT	AMP	CABLE	Hi-Pass	RESULT		Limit	MARGIN	
	[MHz]	HOR	VER	Factor	GAIN	LOSS	Filter	HOR	VER	AV	HOR	VER
		[dBuV]		[dB/m]	[dB]	[dB]	[dB]	[dBuV/m]		[dBuV/m]		[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	5569.20	34.1	34.4	32.4	32.0	4.1	0.0	38.6	38.9	53.9	15.3	15.0
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2	11570.00	34.5	31.7	39.8	33.6	6.2	1.0	38.4	35.6	53.9	15.5	18.3
3	17355.00	NS	NS	-	-	-	-	-	-	53.9	-	-
4	23140.00	NS	NS	-	-	-	-	-	-	53.9	-	-
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m)												
5	28925.0	-	-	-	-	-	-	-	-	53.9	-	-
6	34710.0	26.7	26.7	40.8	25.7	17.5	0.0	43.7	43.7	53.9	10.2	10.2

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.

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

*In the frequency over the third harmonic, the noise from the EUT was not seen.The data above is its base noise.

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

*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)

Tx, 11a Ch: High

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7006
Power DC 3.3V
Mode IEEE802.11a, Tx, 5825MHz 24Mbps
Position H: Module Y-axis, Ant Z-axis
V: Module Y-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m / 1m (above10GHz)/0.5m(above26.5GHz)
Date 04/27/2009
Temperature 23 deg.C.
Humidity 35 %
Engineer Tomohisa Nakagawa

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

No.	FREQ [MHz]	S/A READING HOR VER [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR VER [dBuV/m]		Limit PK [dBuV/m]	MARGIN HOR VER [dB]	
		Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss										
1	5781.57	48.3	50.3	32.7	32.0	4.2	0.0	53.2	55.2	73.9	20.7	18.7
2	5850.00	51.5	51.5	32.8	32.0	4.2	0.0	56.5	56.5	73.9	17.4	17.4
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
3	11650.00	49.0	49.1	39.7	33.6	6.3	1.0	52.9	53.0	73.9	21.0	20.9
4	17475.00	NS	NS	-	-	-	-	-	-	73.9	-	-
5	23300.00	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m)												
6	29125.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	34950.0	40.2	40.4	40.8	25.6	17.5	0.0	57.3	57.5	73.9	16.6	16.4

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

No.	FREQ [MHz]	S/A READING HOR VER [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR VER [dBuV/m]		Limit AV [dBuV/m]	MARGIN HOR VER [dB]	
		Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss										
1	5781.57	34.8	37.2	32.7	32.0	4.2	0.0	39.7	42.1	53.9	14.2	11.8
2	5850.00	37.4	37.8	32.8	32.0	4.2	0.0	42.4	42.8	53.9	11.5	11.1
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
3	11650.00	37.2	36.1	39.7	33.6	6.3	1.0	41.1	40.0	53.9	12.8	13.9
4	17475.00	NS	NS	-	-	-	-	-	-	53.9	-	-
5	23300.00	NS	NS	-	-	-	-	-	-	53.9	-	-
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Attenuator (or Filter) - Dfac(0.5m)												
6	29125.0	-	-	-	-	-	-	-	-	53.9	-	-
7	34950.0	27.3	27.3	40.8	25.6	17.5	0.0	44.4	44.4	53.9	9.5	9.5

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.

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

*In the frequency over the third harmonic, the noise from the EUT was not seen. The data above is its base noise.

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

*NS: No detect Signal.

Radiated Spurious Emission (above 1GHz)

Rx, 11b/g Ch: Mid

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7004
Power DC 3.3V
Mode IEEE802.11b/g, Rx, 2437MHz
Position H: Module Y-axis, Ant X-axis
V: Module Z-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m
Date 04/14/2009
Temperature 22 deg.C.
Humidity 58 %
Engineer Keisuke Kawamura

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR [dBuV/m]	VER		HOR [dB]	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1139.99	47.8	46.0	24.8	33.9	2.0	0.0	40.7	38.9	73.9	33.2	35.0
2	2437.00	42.1	42.6	27.2	32.4	2.6	0.0	39.5	40.0	73.9	34.4	33.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR [dBuV/m]	VER		HOR [dB]	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1139.99	40.5	36.8	24.8	33.9	2.0	0.0	33.4	29.7	53.9	20.5	24.2
2	2437.00	28.4	28.4	27.2	32.4	2.6	0.0	25.8	25.8	53.9	28.1	28.1

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

*Hi-Pass Fiter 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.

Radiated Spurious Emission (above 1GHz)

Rx, 11a Ch: Mid

Company Canon Inc.
Equipment WLAN Module
Model CH9-1161
S/N ES7004
Power DC 3.3V
Mode IEEE802.11a, Rx, 5785MHz
Position H: Module Y-axis, Ant Z-axis
V: Module Y-axis, Ant Y-axis

UL Japan, Inc.
Head Office EMC Lab. No.2 Semi Anechoic Chamber
Report No. 29EE0246-HO-01
Regulation FCC15.247(d) / RSS-210 A8.5
Test Distance 3m (1G-10GHz) / 1m (above10GHz)
Date 03/26/2009
Temperature 23 deg.C.
Humidity 41 %
Engineer Keisuke Kawamura

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

No.	FREQ [MHz]	S/A READING HOR VER [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR VER [dBuV/m]		Limit PK [dBuV/m]	MARGIN HOR VER [dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	5785.00	39.3	39.4	32.2	31.2	4.0	0.0	44.3	44.4	73.9	29.6	29.5
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2	11570.00	45.6	44.2	39.7	30.8	5.2	0.0	50.2	48.8	73.9	23.7	25.1
3	17355.00	40.2	40.6	43.5	30.0	6.5	0.0	50.7	51.1	73.9	23.2	22.8

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

No.	FREQ [MHz]	S/A READING HOR VER [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR VER [dBuV/m]		Limit AV [dBuV/m]	MARGIN HOR VER [dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	5785.00	26.3	26.2	32.2	31.2	4.0	0.0	31.3	31.2	53.9	22.6	22.7
Test distance 1meter RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
2	11570.00	37.8	34.4	39.7	30.8	5.2	0.0	42.4	39.0	53.9	11.5	14.9
3	17355.00	27.5	27.5	43.5	30.0	6.5	0.0	38.0	38.0	53.9	15.9	15.9

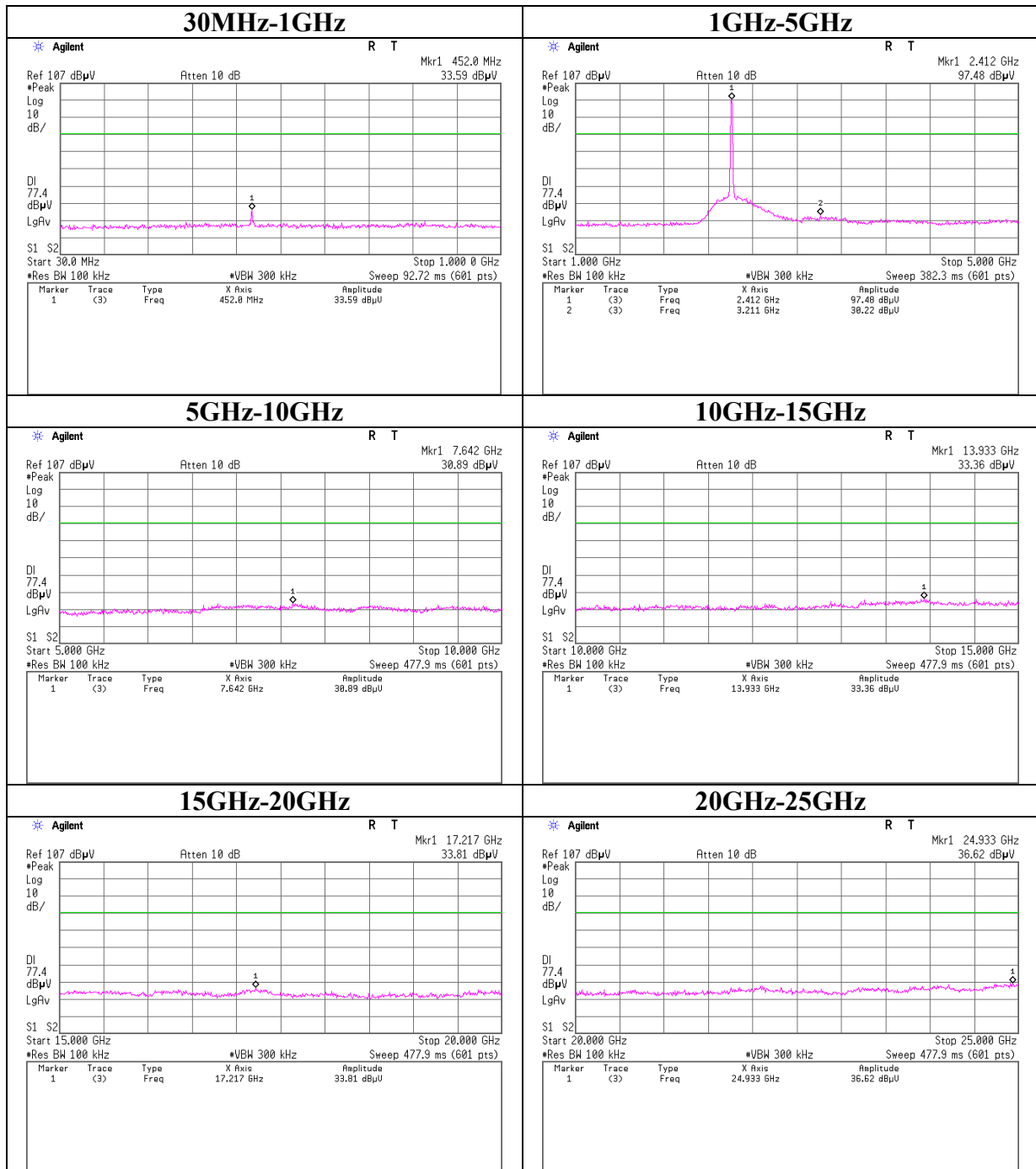
Test Distance 1.0m : Distance Factor(Dfac) = $20\log(3.0/1.0) = 9.5$ dB

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

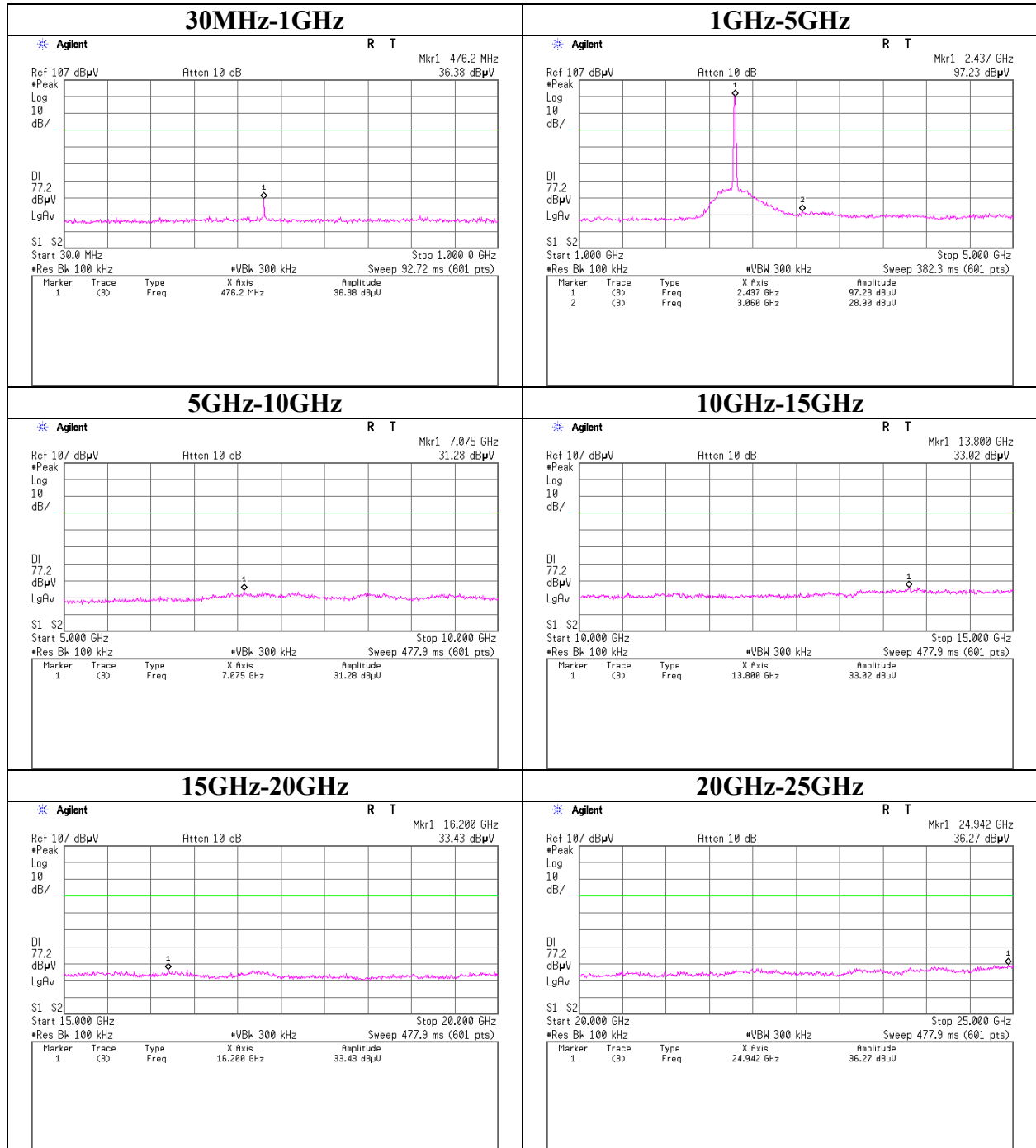
*Hi-Pass Fiter was not used for factor 0.0dB of the above table.

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

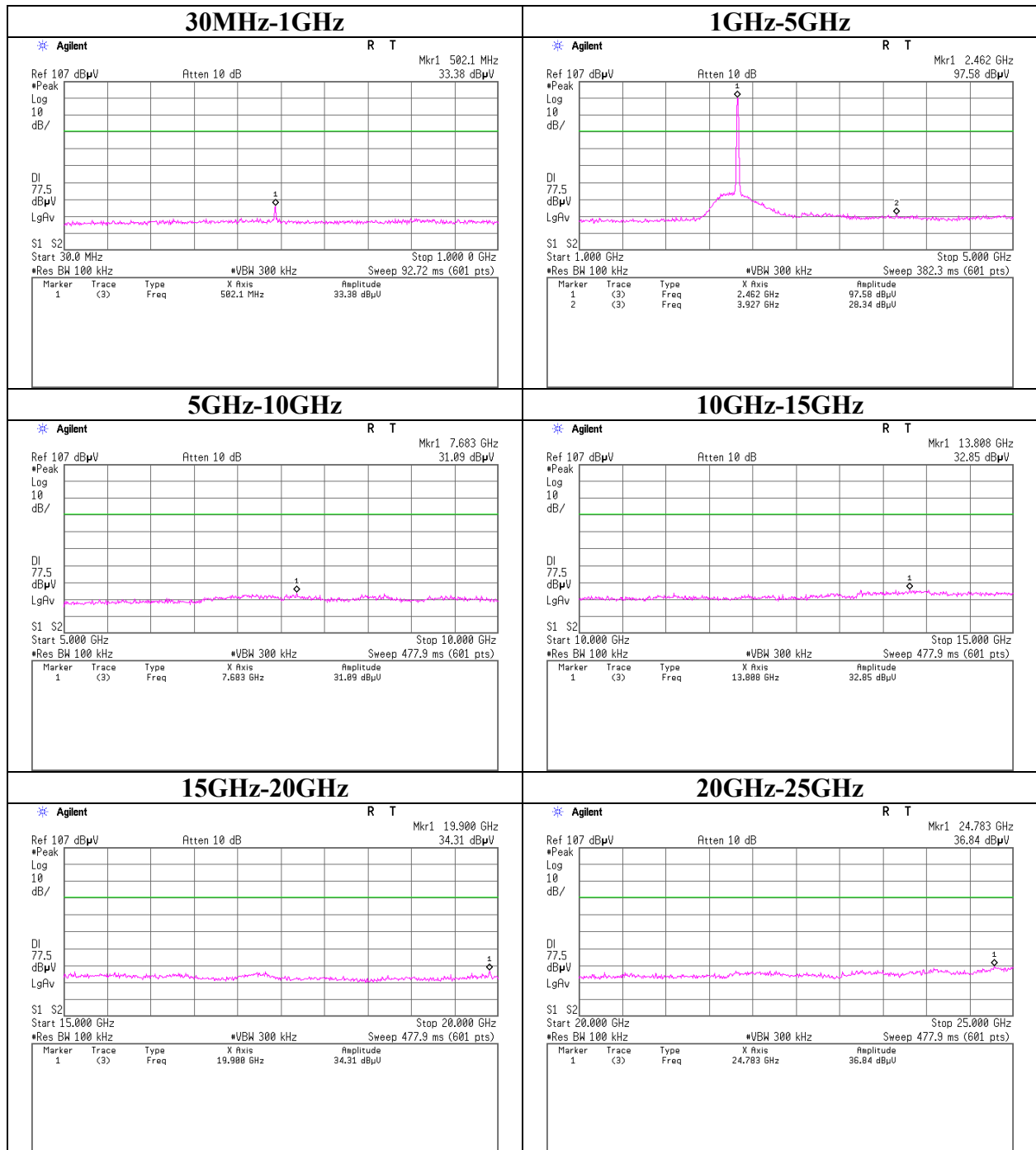
Conducted Spurious Emission
IEEE802.11b Tx, Ch: Low



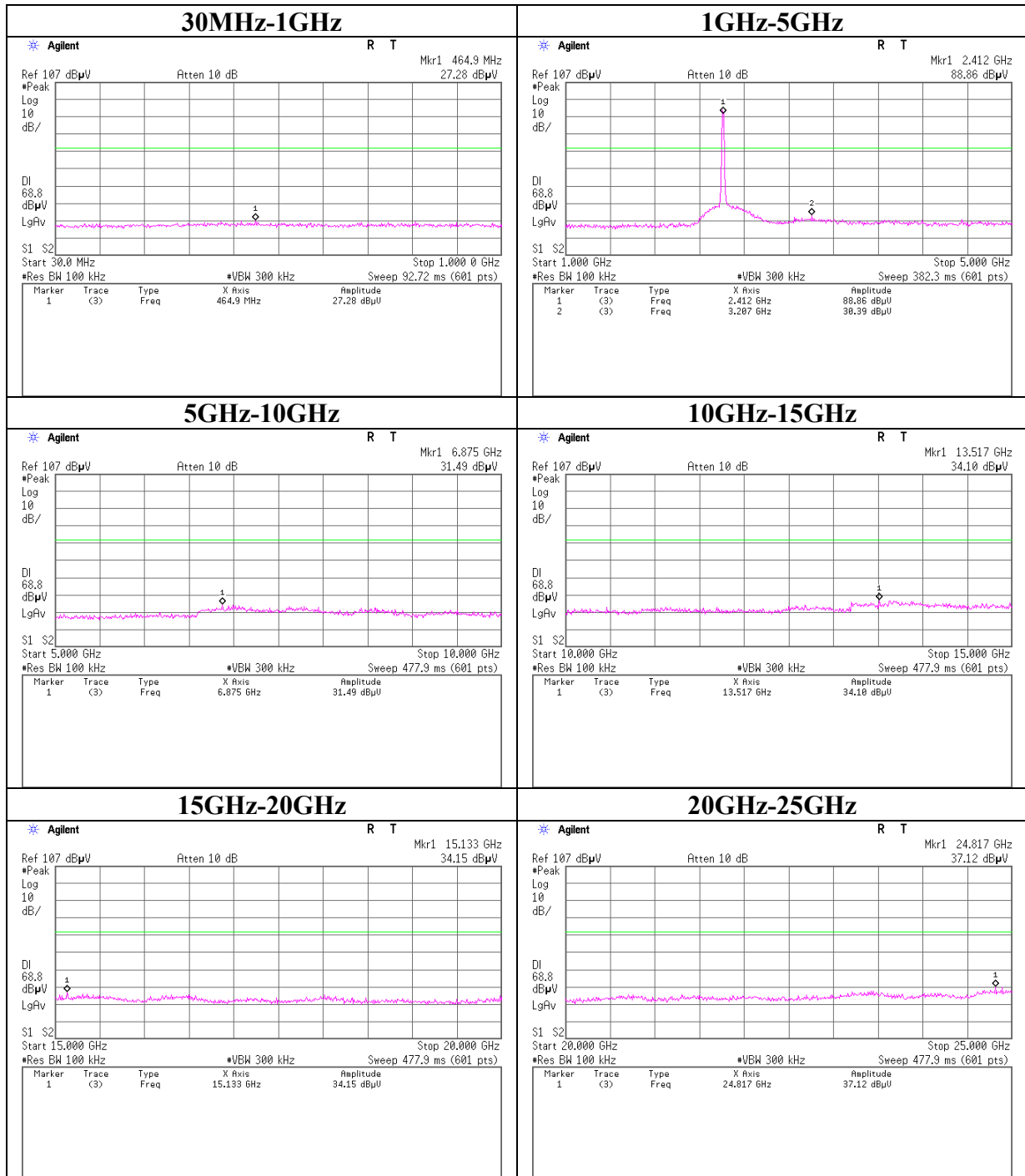
Conducted Spurious Emission
IEEE802.11b Tx, Ch: Mid



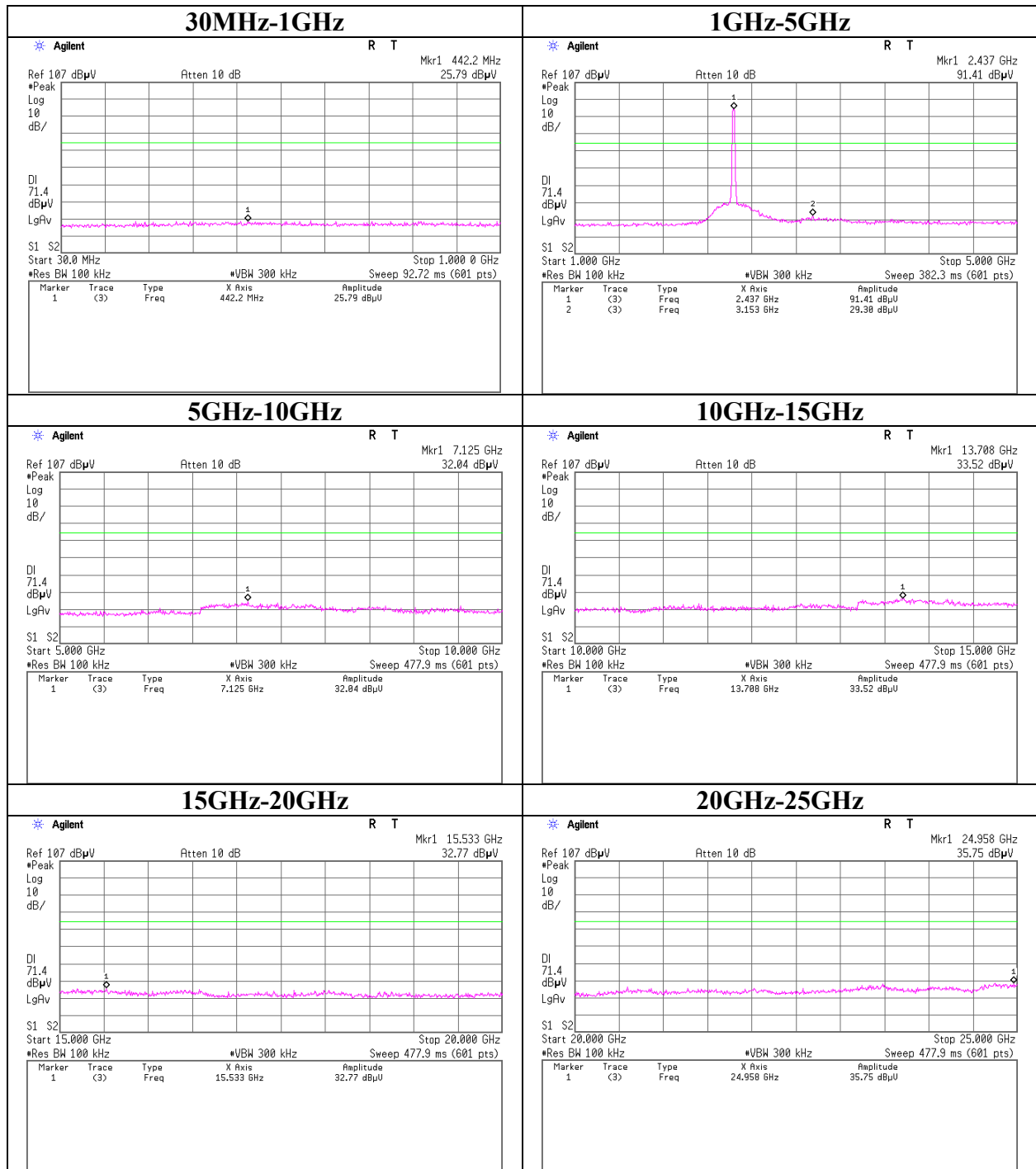
Conducted Spurious Emission
IEEE802.11b Tx, Ch: High



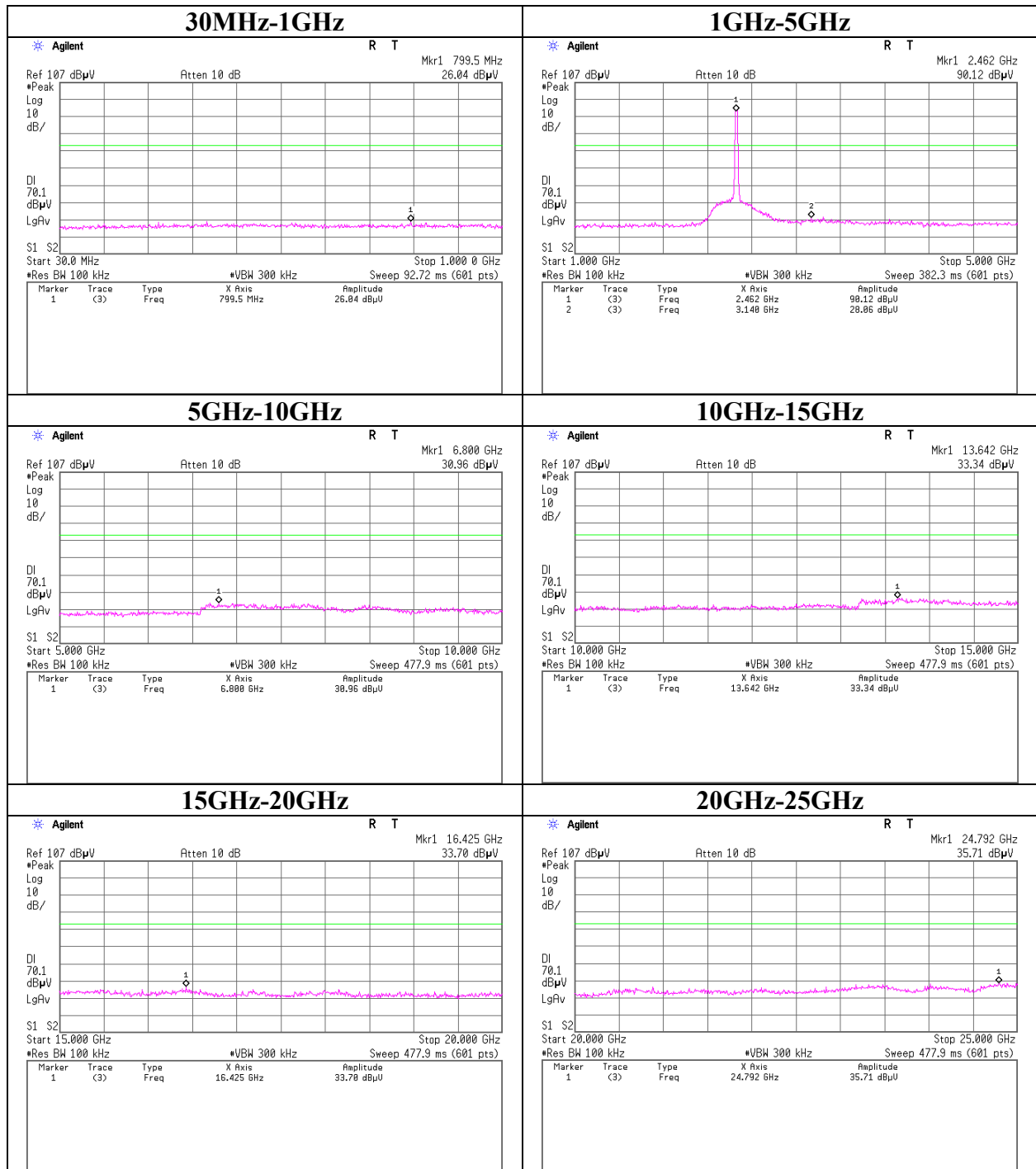
Conducted Spurious Emission
IEEE802.11g Tx, Ch: Low



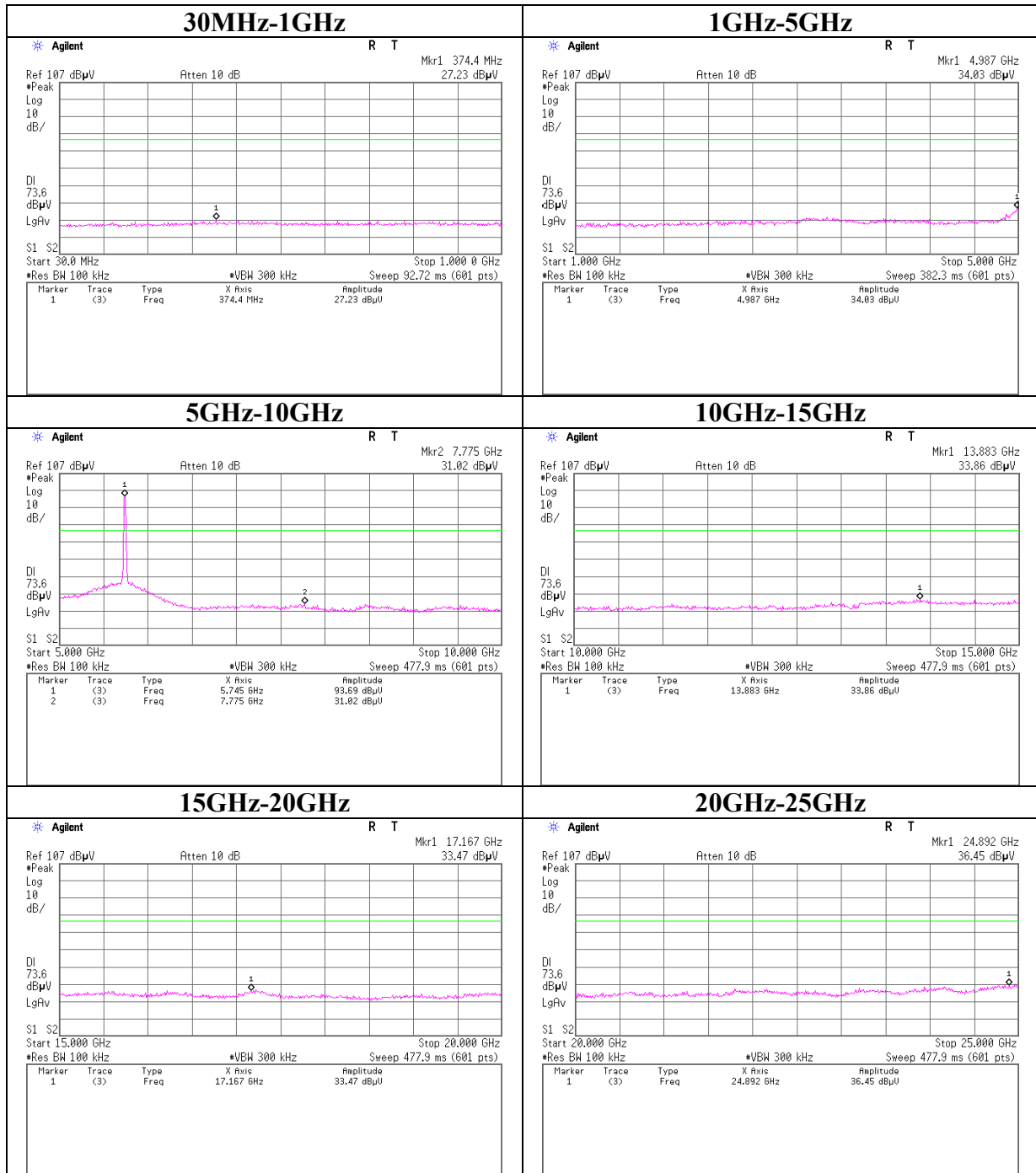
Conducted Spurious Emission
IEEE802.11g Tx, Ch: Mid



Conducted Spurious Emission
IEEE802.11g Tx, Ch: High

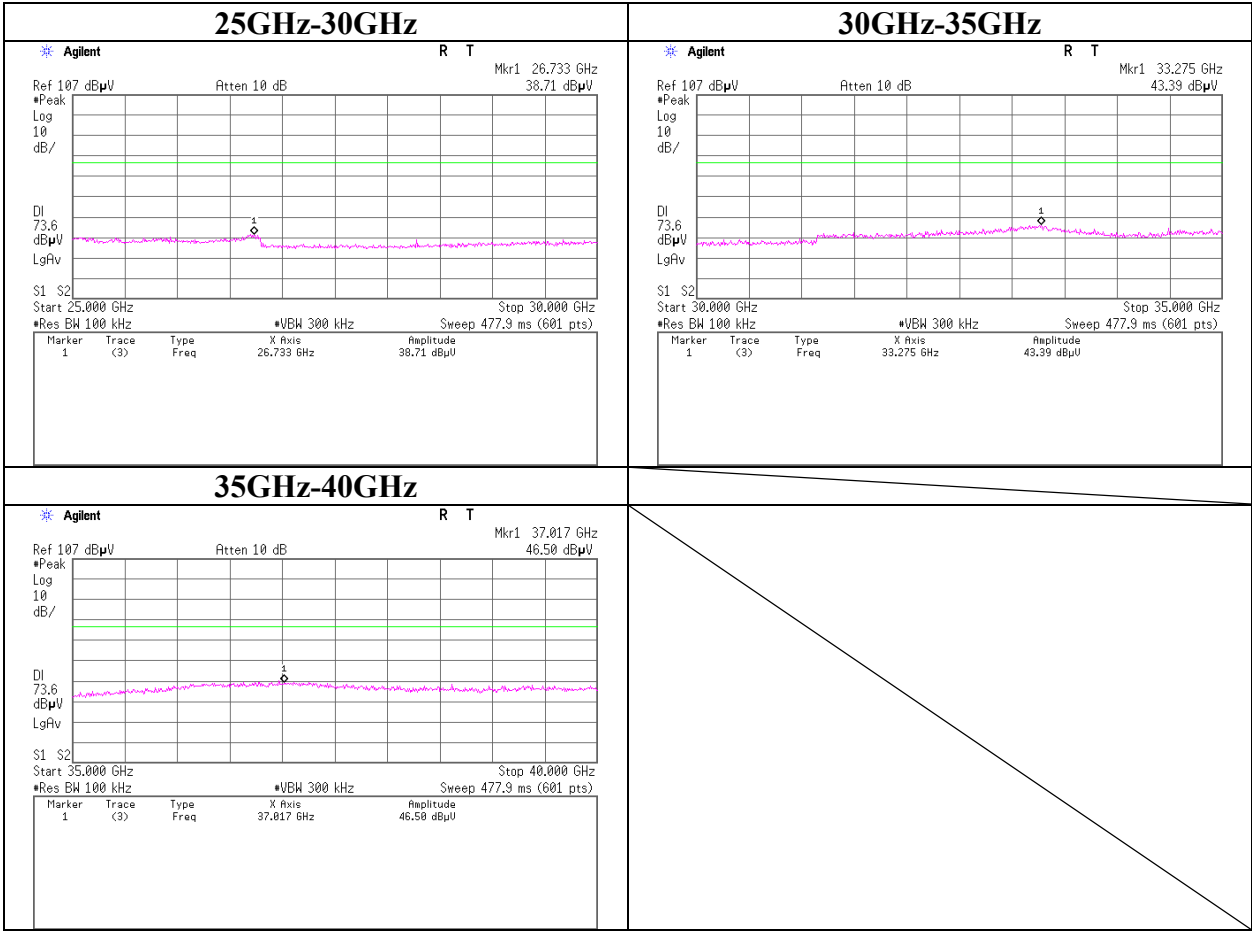


Conducted Spurious Emission
IEEE802.11a Tx, Ch: Low

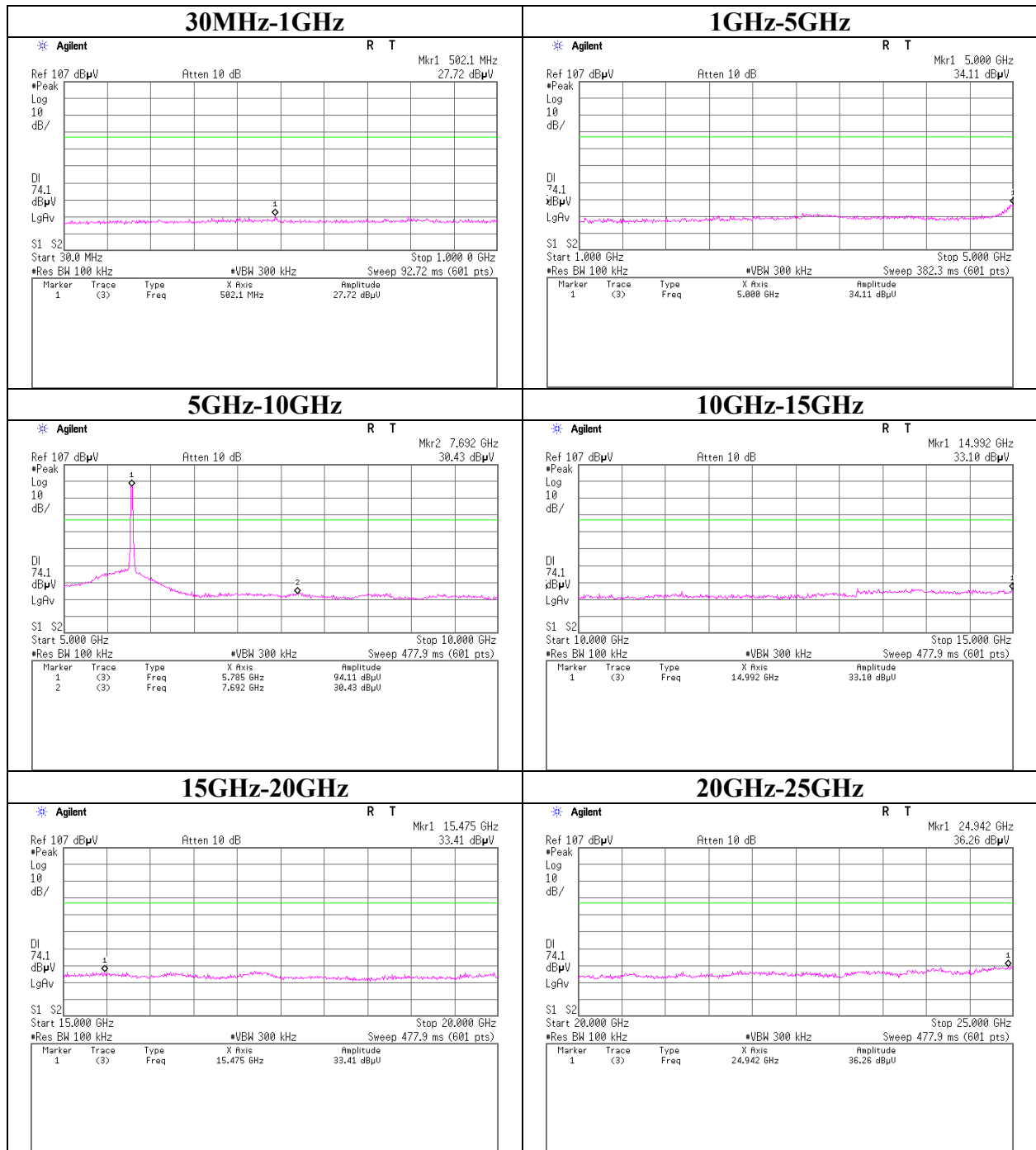


Conducted Spurious Emission

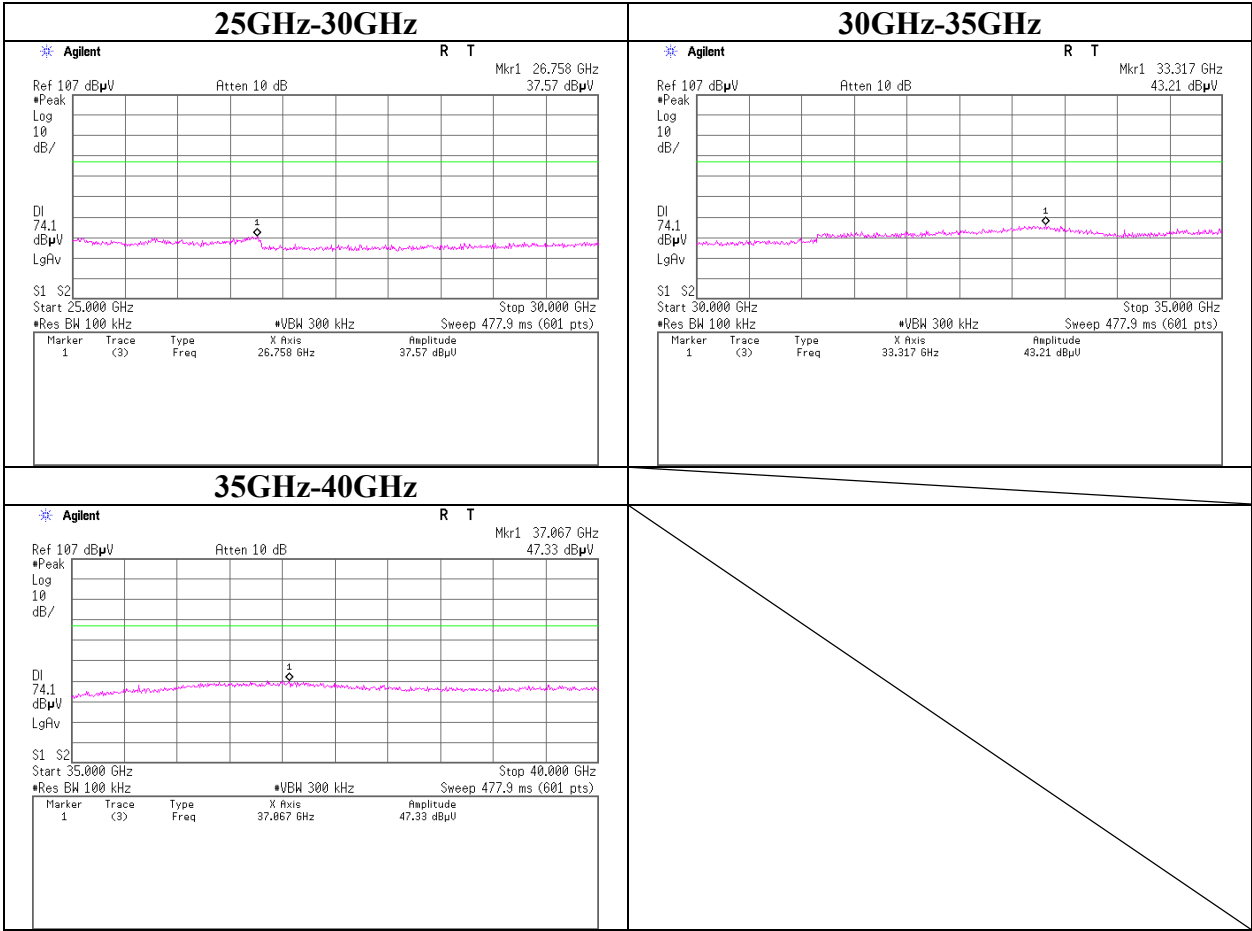
IEEE802.11a Tx, Ch: Low



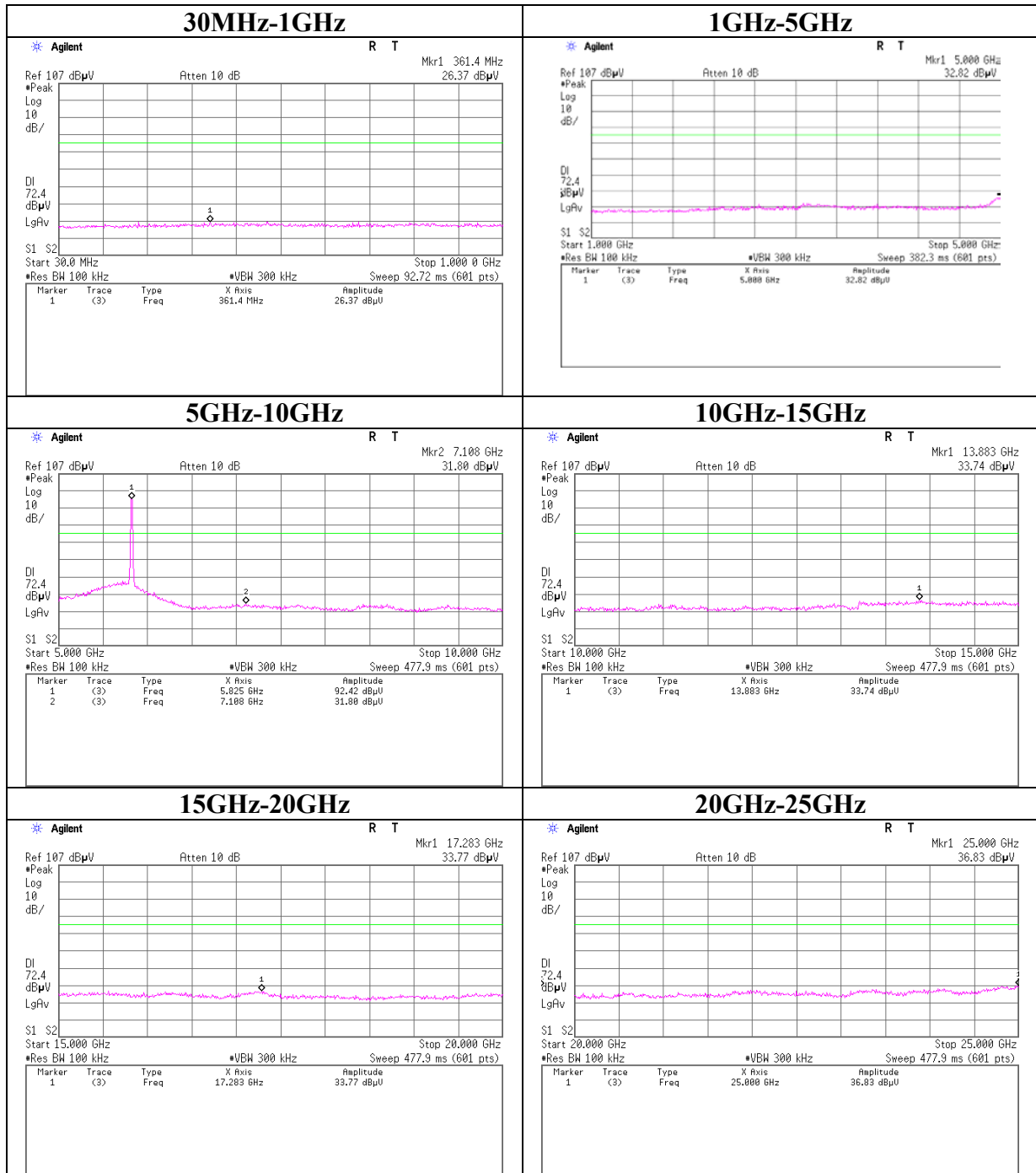
Conducted Spurious Emission
IEEE802.11a Tx, Ch: Mid



Conducted Spurious Emission
IEEE802.11a Tx, Ch: Mid

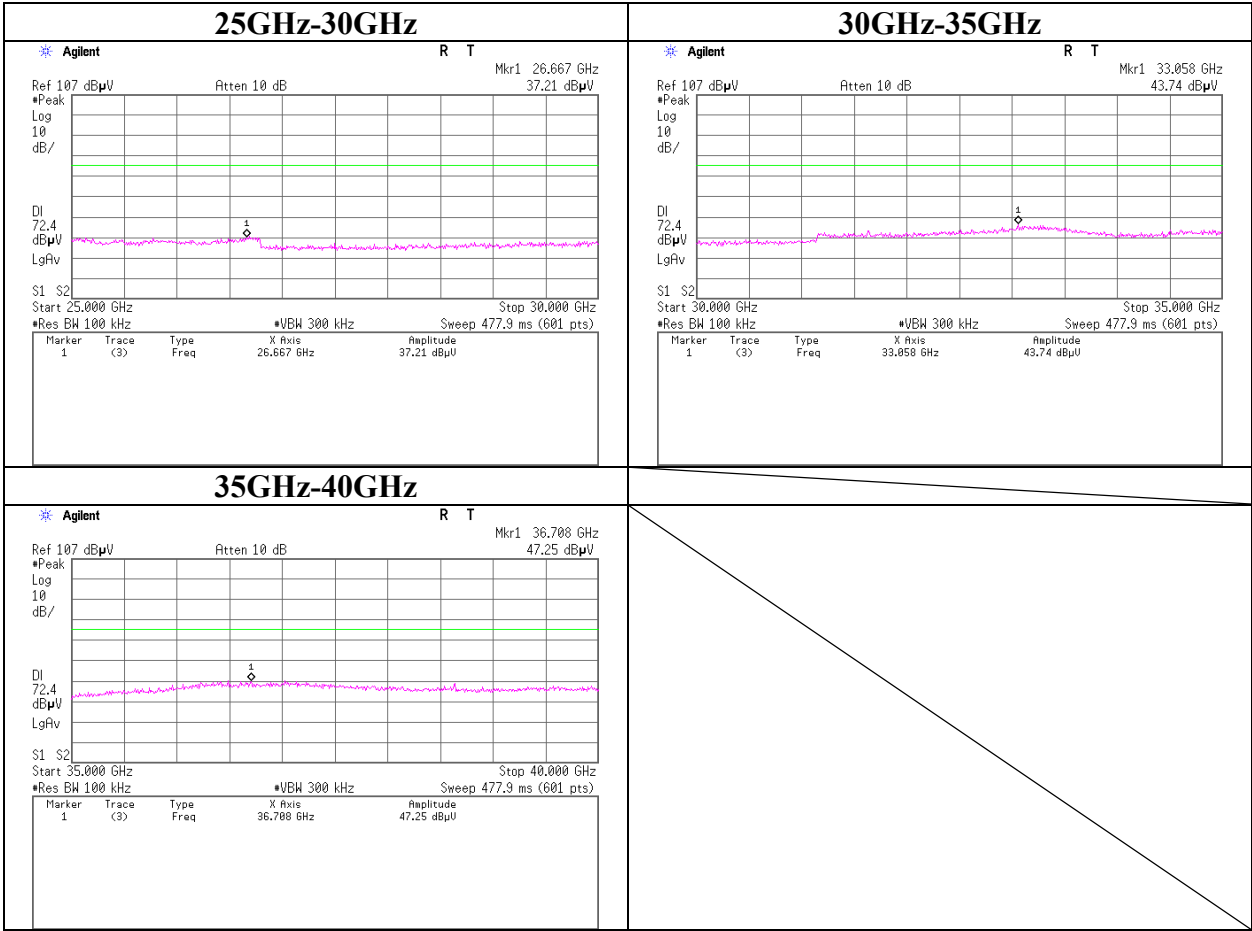


Conducted Spurious Emission
IEEE802.11a Tx, Ch: High

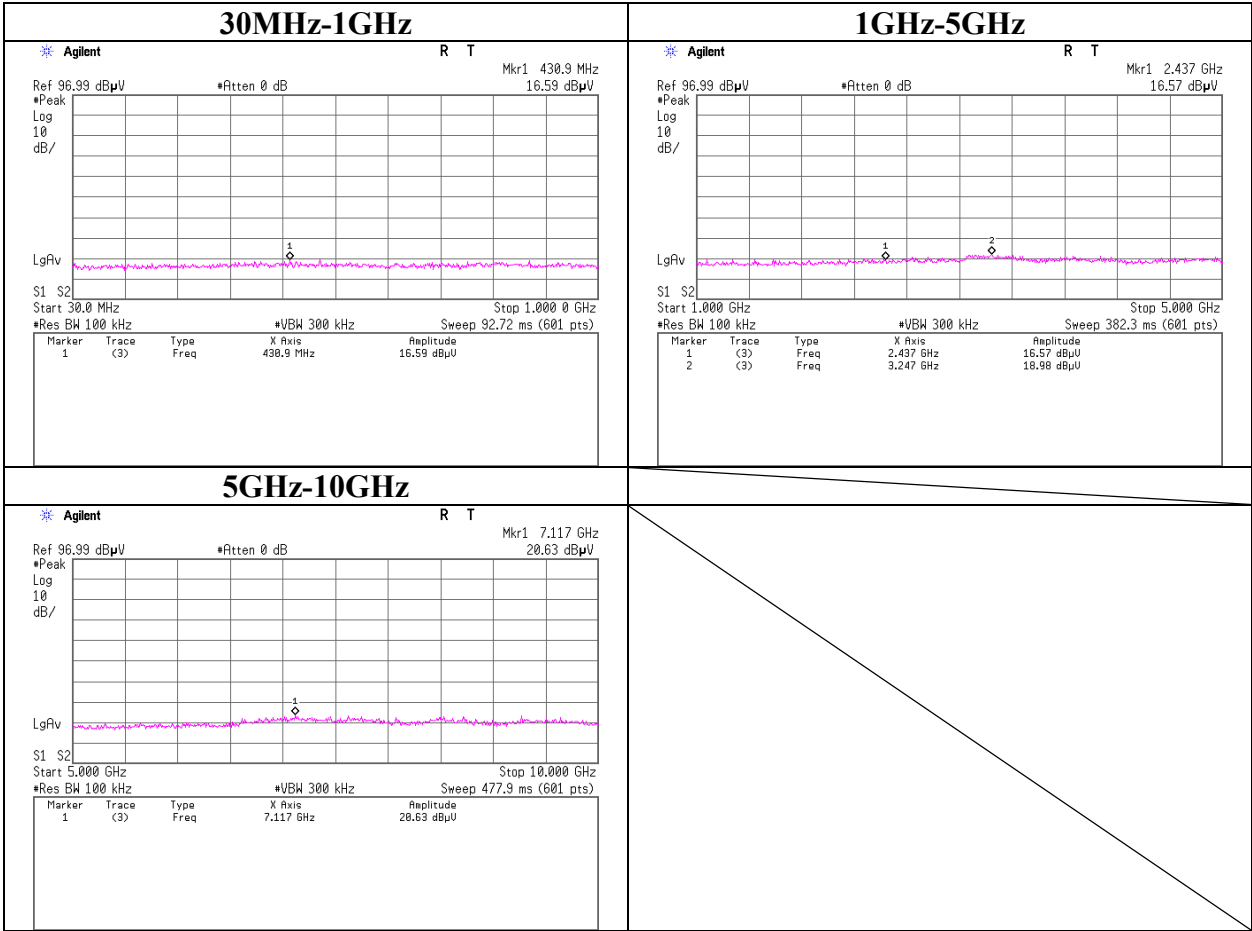


Conducted Spurious Emission

IEEE802.11a Tx, Ch: High

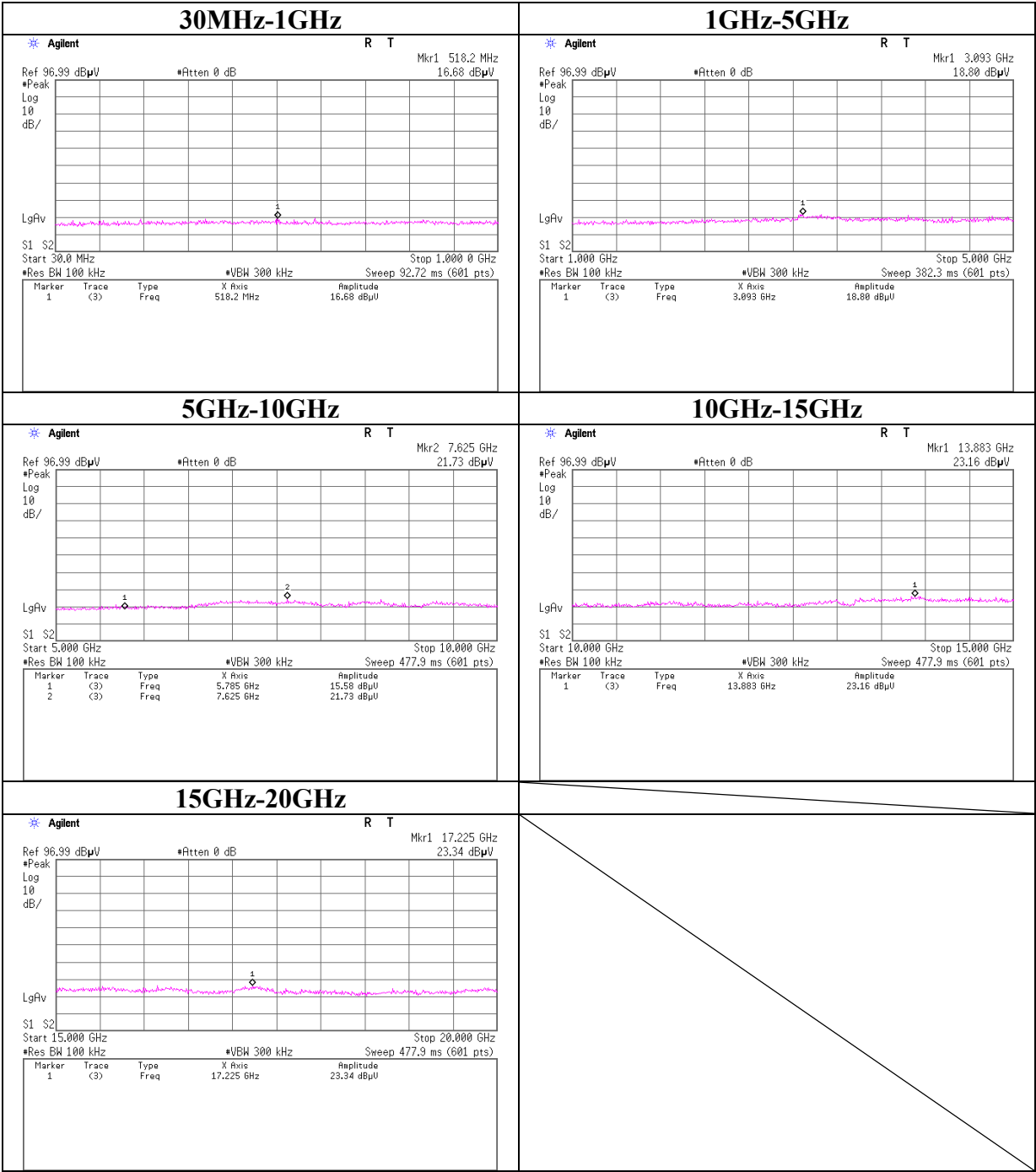


Conducted Spurious Emission
IEEE802.11b/g Rx, Ch: Mid



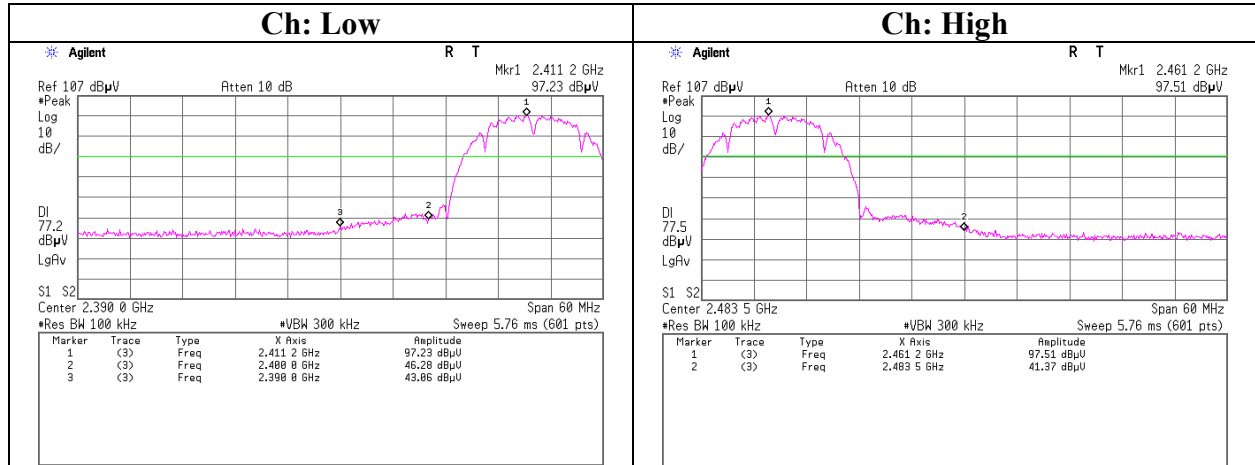
Conducted Spurious Emission

IEEE802.11a Rx, Ch: Mid

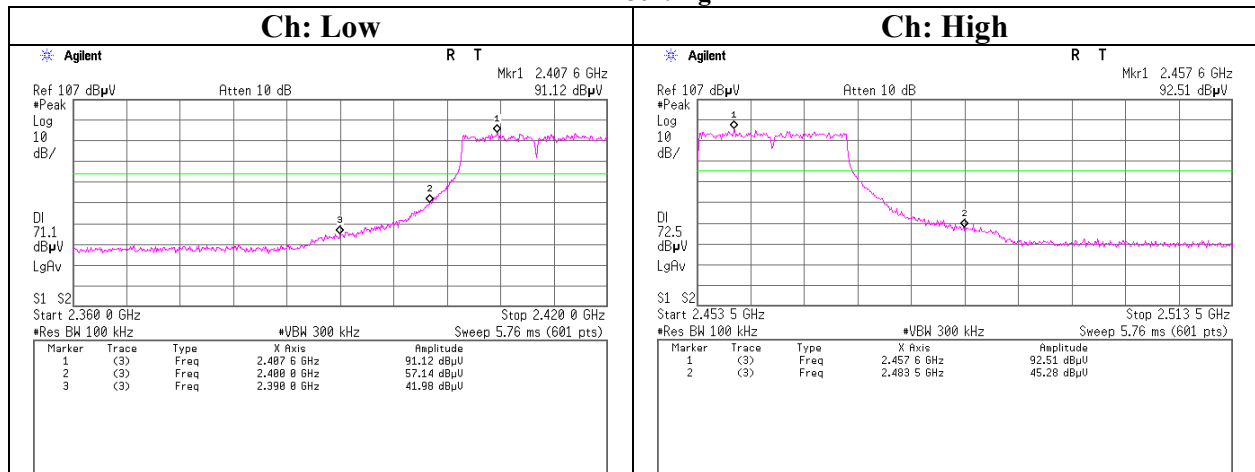


Conducted emission Band Edge compliance

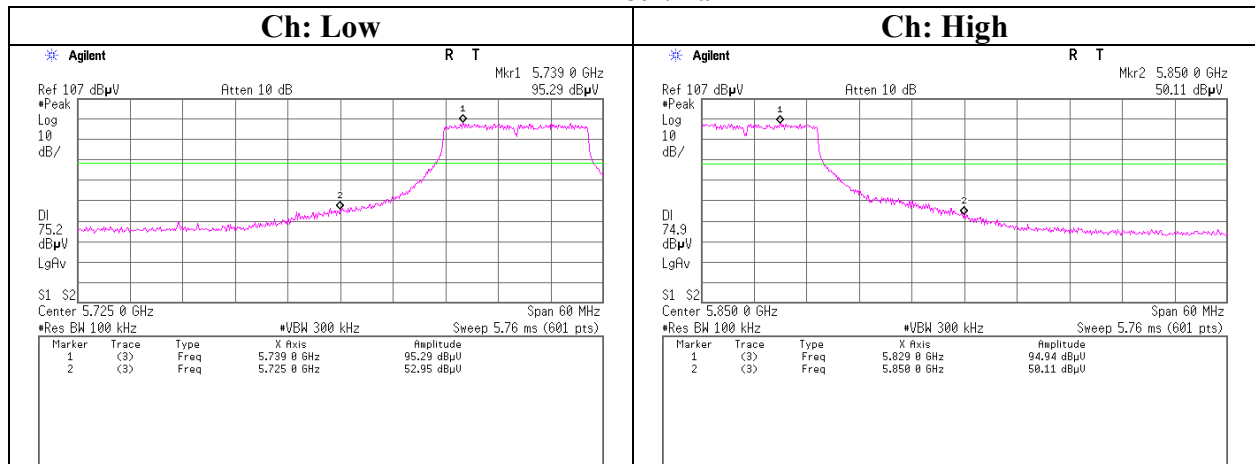
IEEE 802.11b



IEEE 802.11g



IEEE 802.11a



Power Density

Company : Canon Inc. Equipment : WLAN Module Model No. : CH9-1161 Serial No. : ES7005 Power : DC 3.3V Mode : IEEE 802.11b Tx 2Mbps : IEEE 802.11g Tx 48Mbps : IEEE 802.11a Tx 24Mbps	UL Japan, Inc. Head Office EMC Lab. No.6 Shielded Room and No.11 Mesurement Room Test Report No. : 29EE0246-HO-01 Regulation : FCC15.247(e)/RSS-210A8.2(b) Test distance : - Date : 04/10/2009 : 05/02/2009 Temperature : 21℃ : 22℃ Humidity : 48% : 45% Engineer : Keisuke Kawamura : Tomohisa Nakagawa
--	--

[IEEE802.11b]

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2411.4	-14.66	1.5	10.0	-3.2	8.0	11.2
Mid	2436.4	-13.72	1.5	10.0	-2.2	8.0	10.2
High	2461.4	-14.70	1.5	10.0	-3.2	8.0	11.2

Sample Calculation:

Result = Reading + Cable Loss (spplied by customer) + Attenuator

[IEEE802.11g]

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2406.7	-20.70	1.5	10.1	-9.1	8.0	17.1
Mid	2431.7	-19.86	1.5	10.1	-8.3	8.0	16.3
High	2456.7	-18.60	1.5	10.1	-7.0	8.0	15.0

Sample Calculation:

Result = Reading + Cable Loss (supplied by customer)+ Attenuator

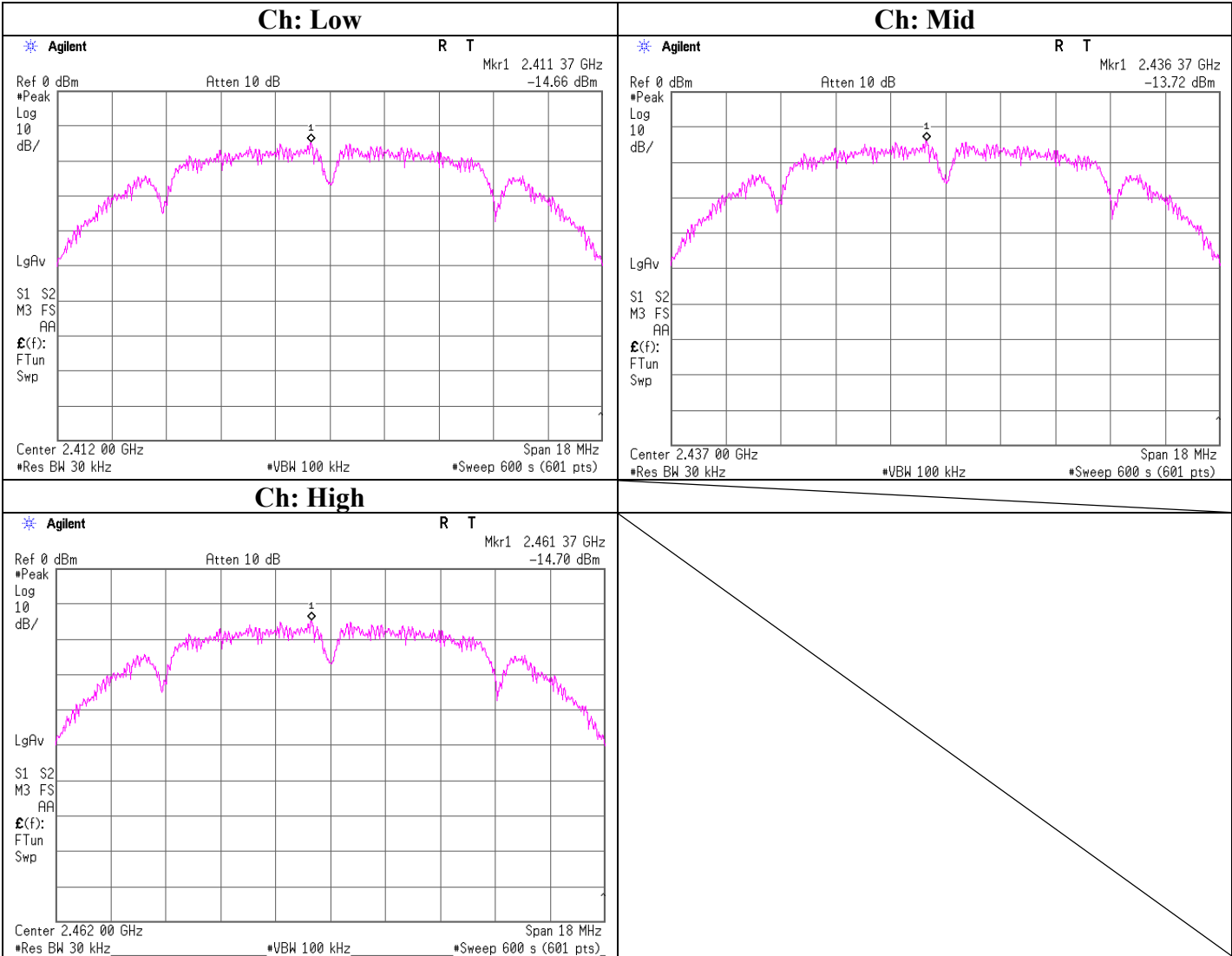
[IEEE802.11a]

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	5740.7	-17.96	1.9	10.0	-6.1	8.0	14.1
Mid	5780.7	-19.11	1.9	10.0	-7.2	8.0	15.2
High	5820.7	-18.47	1.9	10.0	-6.6	8.0	14.6

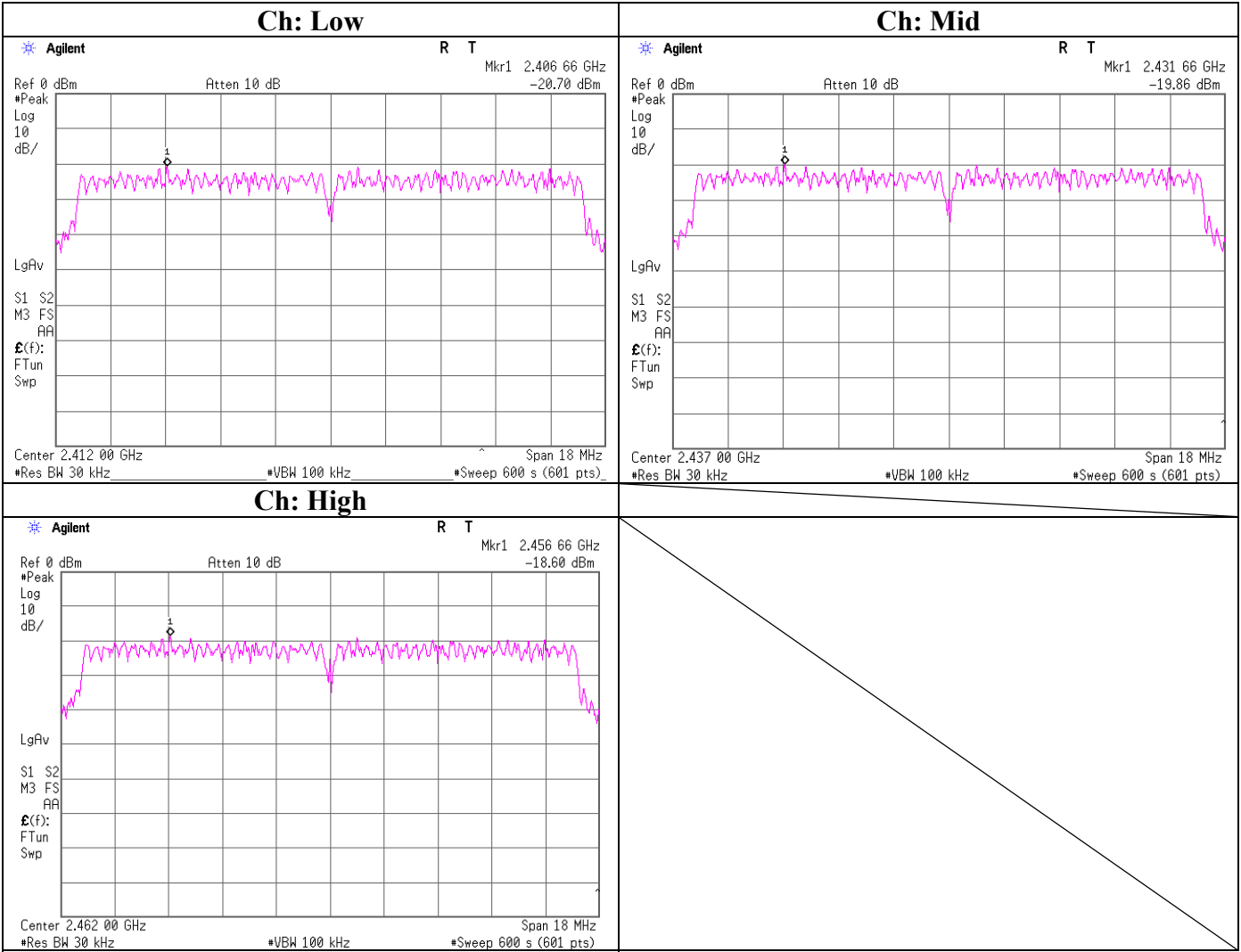
Sample Calculation:

Result = Reading + Cable Loss (supplied by customer)+ Attenuator

Power Density
IEEE802.11b

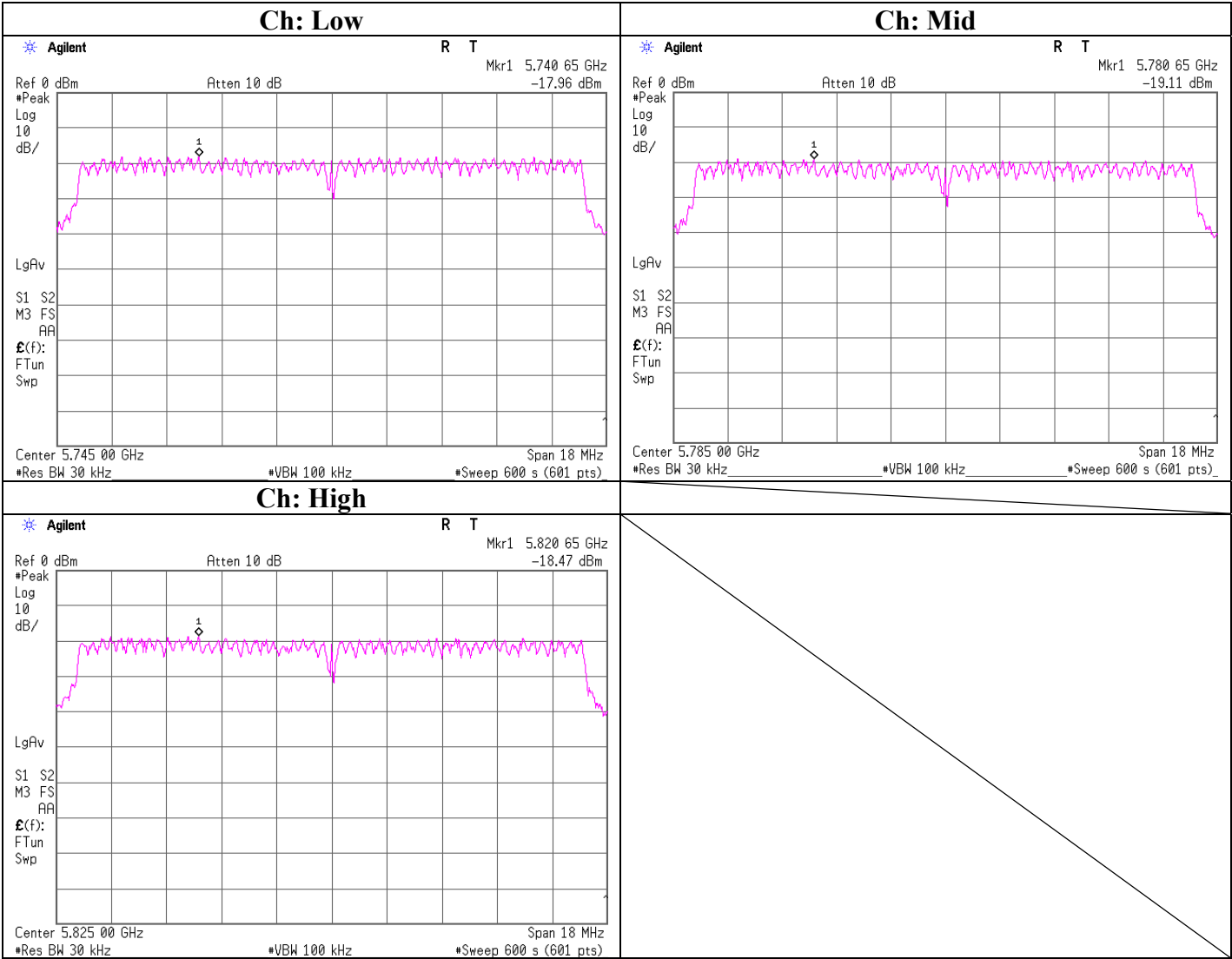


Power Density
IEEE802.11g

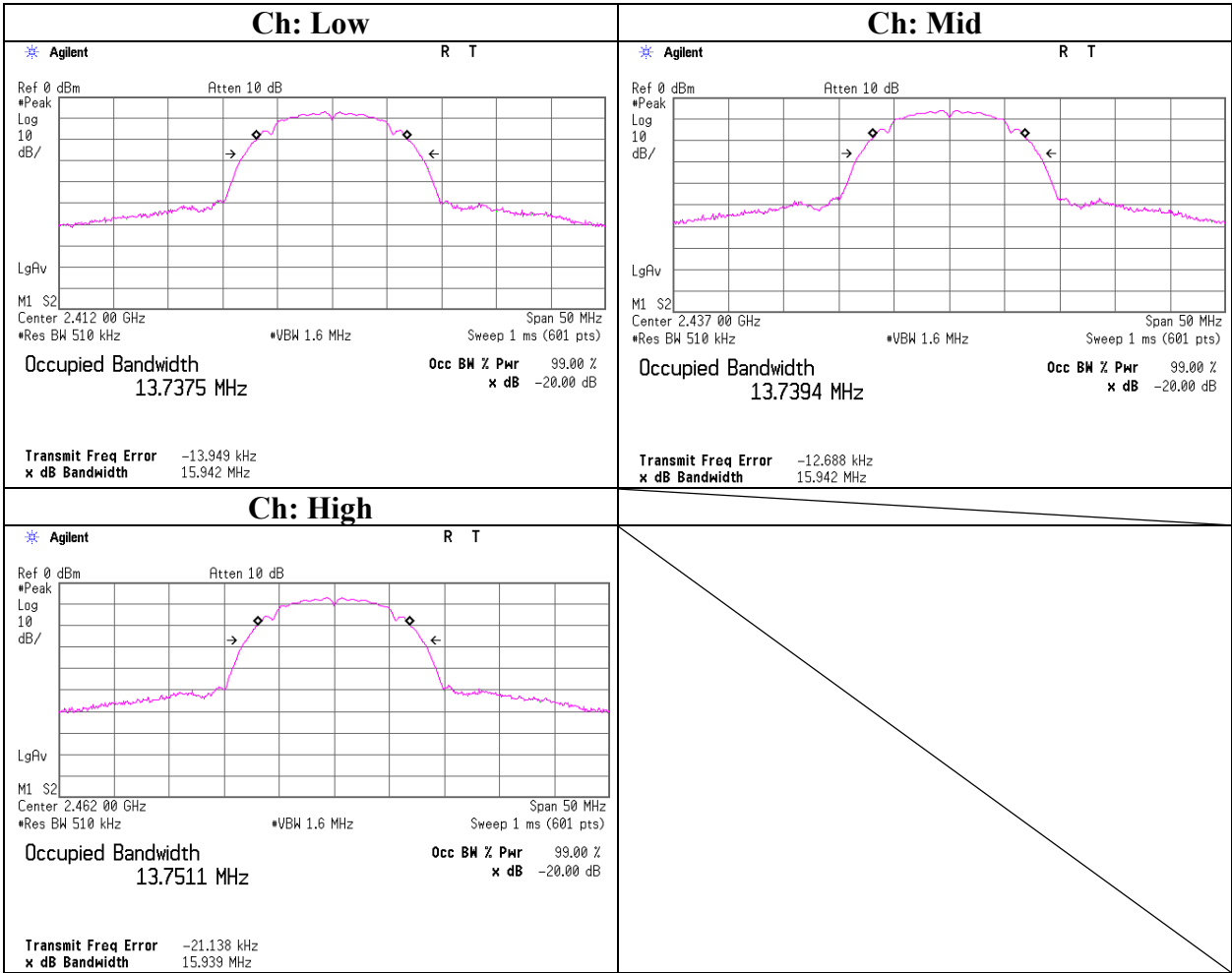


Power Density

IEEE802.11a

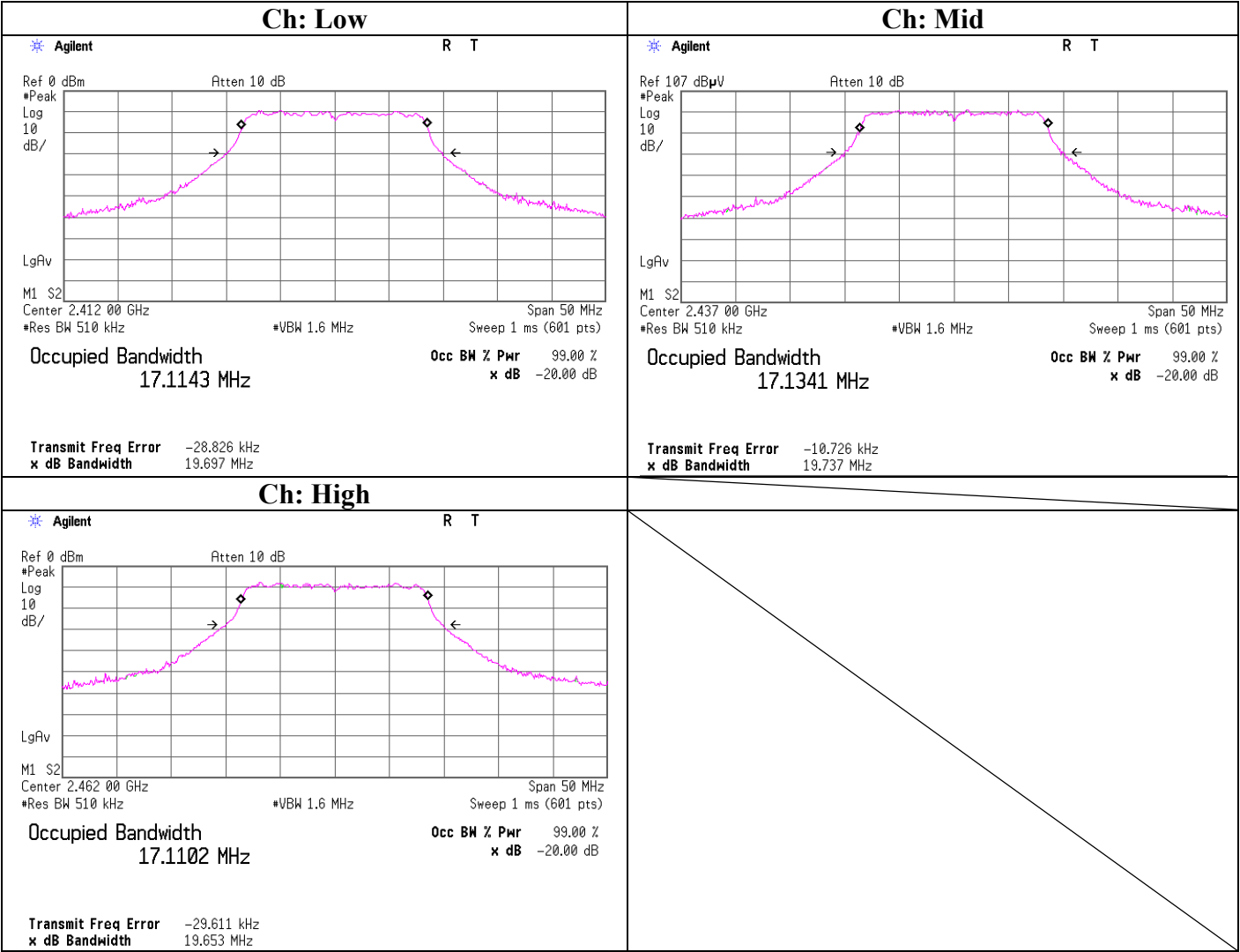


99%Occupied Bandwidth
IEEE802.11b

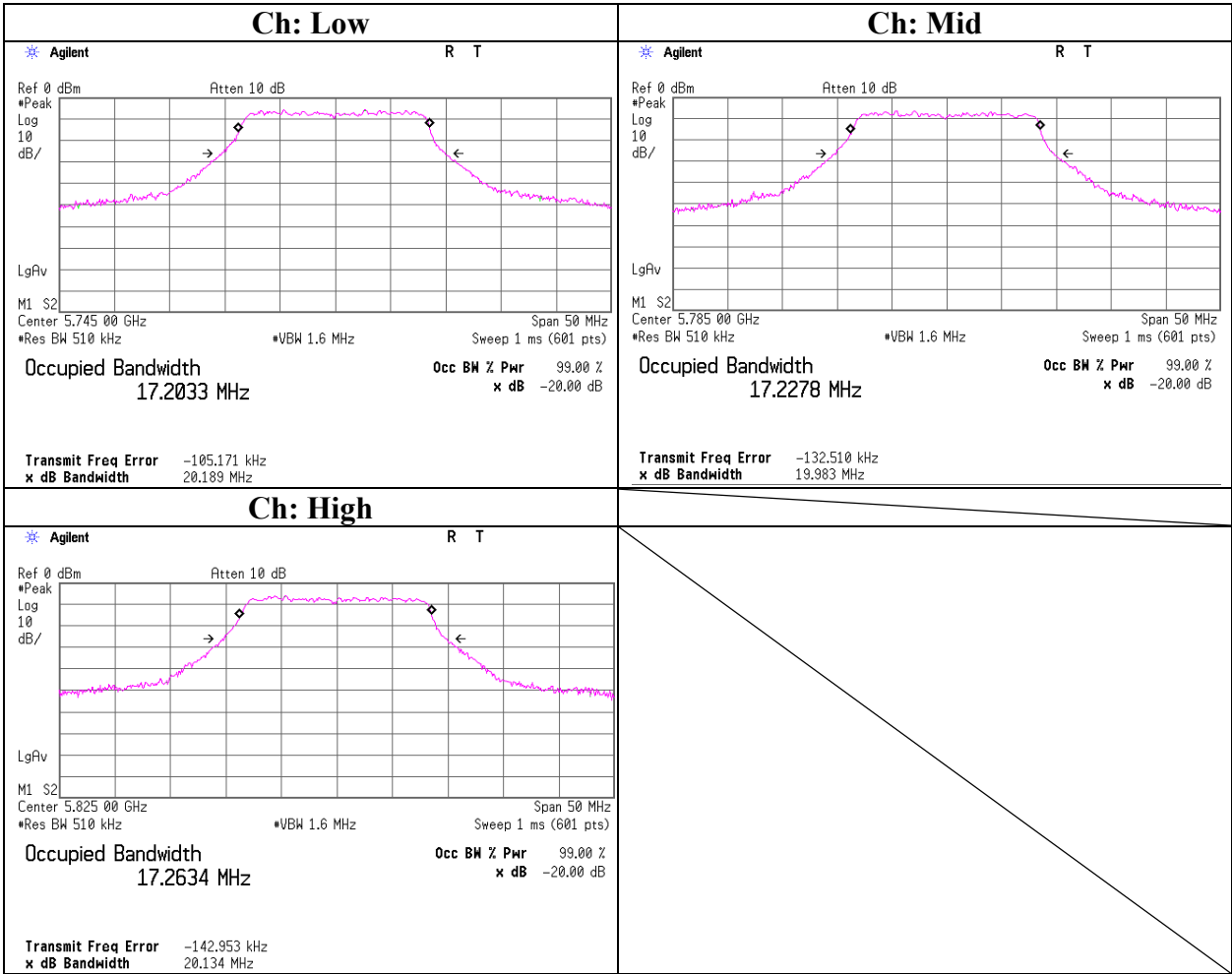


99%Occupied Bandwidth

IEEE802.11g



99%Occupied Bandwidth
IEEE802.11a



APPENDIX 3: Test instruments

EMI test equipment [1/2]

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-06902	RE	2008/05/17 * 12
MOS-22	Thermo-Hygrometer	Custom	CTH-201	0003	RE	2009/02/05 * 12
MJM-05	Measure	PROMART	SEN1955	-	RE	-
CUST-MSTW-14	EMI measurement program	TSJ	TEPTO-DV	-	RE/CE	-
MRENT-62	Spectrum Analyzer	Agilent	E4448A	MY46180856	RE	2008/11/25 * 12
MHA-06	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	254	RE	2009/01/31 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	295123(5m) / 287573(1m)	RE	2008/11/27 * 12
MPA-10	Pre Amplifier	Agilent	8449B	3008A02142	RE	2008/09/17 * 12
MHA-02	Horn Antenna 18-26.5GHz	EMCO	3160-09	1265	RE	2009/01/31 * 12
MCC-77	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278942/4	RE	2008/12/17 * 12
MHF-18	High Pass Filter 3.5-18.0GHz	TOKIMEC	TF323DCA	7002	RE	2008/12/16 * 12
MAEC-04	Anechoic Chamber(NSA)	TDK	Semi Anechoic Chamber 3m	DA-10005	RE/CE	2009/02/03 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	-	RE/CE	2009/02/06 * 12
MJM-07	Measure	PROMART	SEN1955	-	RE/CE	-
MSA-04	Spectrum Analyzer	Agilent	E4448A	US44300523	RE/AT	2008/08/18 * 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
MHA-17	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	BBHA9170307	RE	2009/04/30 * 12
MCC-54	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX101	2873(1m) / 2876(5m)	RE	2009/03/02 * 12
MPA-03	Microwave System Power Amplifier	Agilent	83050A	3950M00205	RE	2008/06/26 * 12
MHF-23	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCC	603	RE	2009/01/23 * 12
MCC-79	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	278923/4	RE	2008/12/17 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	160400285	RE	2008/06/25 * 12
MTR-07	Test Receiver	Rohde & Schwarz	ESCI	100635	RE/CE	2008/10/03 * 12
MBA-05	Biconical Antenna	Schwarzbeck	BBA9106	1302	RE	2009/01/10 * 12
MLA-08	Logperiodic Antenna	Schwarzbeck	UKLP9140-A	N/A	RE	2009/01/10 * 12
MCC-50	Coaxial cable	UL Japan	-	-	RE	2009/03/18 * 12
MAT-31	Attenuator(6dB)	TME	UFA-01	-	RE	2009/03/03 * 12
MPA-14	Pre Amplifier	SONOMA INSTRUMENT	310	260833	RE	2009/03/18 * 12

EMI test equipment [2/2]

Control No.	Instrument	Manufacturer	Model No	Serial No	Test Item	Calibration Date * Interval(month)
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	8127364	CE (EUT)	2009/02/18 * 12
MCC-113	Coaxial cable	Fujikura/Suhner/TSJ	-	-	CE	2008/07/03 * 12
MAT-20	Attenuator(10dB)(above 1GHz)	HIROSE ELECTRIC CO.,LTD.	AT-110	-	AT	2009/01/16 * 12
MOS-19	Thermo-Hygrometer	Custom	CTH-201	0001	AT	2008/12/08 * 12
MCC-114	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	290212/4	AT	2008/08/01 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-180	-	AT	2009/02/04 * 12
MAT-22	Attenuator(10dB) DC-18GHz	Orient Microwave	BX10-0476-00	-	AT	2009/03/24 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	MY44020357	AT	2008/11/07 * 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
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	100300	RE	2009/04/14 * 12
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
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	8127363	CE(EUT)	2009/02/18 * 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.

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