



Underwriters
Laboratories UL Japan, Inc.

Test report No. : 27JE0058-HO-A
Page : 1 of 84
Issued date : June 13, 2007
FCC ID : AZDFM33489

RADIO TEST REPORT

Test Report No. :27JE0058-HO-A

Applicant : Canon Inc.
Type of Equipment : Wireless Module for Printer
Model No. : FM33489
FCC ID : AZDFM33489
Test standard : FCC Part 15 Subpart C : 2007
Section 15.207, Section 15.247
Test Result : Complied

1. This test report shall not be reproduced in full or partial, without the written approval of UL Japan, Inc.
2. The results in this report apply only to the sample tested.
3. This equipment is in compliance with the above regulation.
4. The test results in this report are traceable to the national or international standards.

Date of test:
May 16 to 20, 2007

Tested by:

Shinya Watanabe
EMC Services

Makoto Kosaka
EMC Services

Hidekazu Tanaka
EMC Services

Approved
by :

Tetsuo Maeno
Site Manager of EMC Services



This laboratory is accredited by the NVLAP LAB CODE 200572-0, U.S.A. The tests reported herein have been performed in accordance with its terms of accreditation.
*As for the range of Accreditation in NVLAP, you may refer to the WEB address, <http://uljapan.co.jp/emc/nvlap.htm>

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MF060b(26.04.07)

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SECTION 1: Client information

Company Name : Canon Inc.
Address : 7-5-1 Hakusan, Toride-shi, Ibaraki 302-8501, Japan
Telephone Number : +81-297-74-2111
Facsimile Number : +81-297-73-7499
Contact Person : Masayuki Hiraide

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

2.1 Identification of E.U.T.

Type of Equipment : Wireless Module for Printer
Model No. : FM33489
Serial No. : 503
Country of Manufacture : Japan
Receipt Date of Sample : May 16, 2007
Condition of EUT : Production prototype
(Not for Sale: This sample is equivalent to mass-produced items.)
Modification of EUT : No modification by the test lab.

2.2 Product Description

Model No: FM33489 (referred to as the EUT in this report) is the Wireless Module for Printer.
The EUT is installed in the Printer (Model No.: LBP3460-US) manufactured by Canon Inc for testing purpose.

Clock frequency(ies) in the system : 38.4MHz
Equipment Type : Transceiver
Frequency of Operation : 2412 – 2462MHz
Modulation : DSSS, OFDM
Operating Voltage : DC 3.3V (DC 3.13 – 3.46V)
Antenna Type : Dipole antenna
Antenna Gain :
1) SFP Antenna (Model No.: ANTB18-076A0): 2.14 dBi
* SFP Antenna cannot rotate at 180 – 360 degree.
2) MFP Antenna (Model No.: FU-06-09-003): 2.0dBi
* MFP Antenna has a cable. (Cable loss: 1.5dB)

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SECTION 3: Test specification, procedures & results

3.1 Test Specification

Test Specification : FCC Part15 Subpart C : 2007

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

FCC 15.31 (e)

This EUT is constantly provided the stable voltage(DC3.3V) from the host device*. Therefore, this EUT complies with the requirement.

FCC Part 15.203 Antenna requirement

[SFP Antenna]

The antenna is connected to the EUT with U.FL connector, and the installation is done by the professionals. Therefore, the equipment complies with the antenna requirement of Section 15.203.

[MFP Antenna]

The EUT has a unique coupling/antenna connector (model: MMCX-BJ-0. 4DV-CR, manufacturer: Amphenol). Therefore the equipment complies with the requirement of 15.203.

As the EUT does not have its own RF shielding, the test was performed with a specific host device as follows:

* Information of host device

Type of Equipment : Printer
Model No. : LBP3460-US
Serial No. : KA-2006-0857
Operating Voltage : AC 110 – 127V, 50/60Hz
(The test was performed with AC120V/60Hz)

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3.2 Procedures and results

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	Conducted emission	FCC: ANSI C63.4:2003 7. AC powerline conducted emission measurements IC: RSS-Gen 7.2.2	FCC: Section 15.207 IC: RSS-Gen 7.2.2	-	N/A	20.6dB 12.63436MHz AV, N	Complied
2	6dB Bandwidth	FCC: ANSI C63.4:2003 13. Measurement of intentional radiators IC: RSS-Gen 4.4.2	FCC: Section 15.247(a)(2) IC: RSS-210 A8.2(1)	Conducted	N/A		Complied
3	Maximum Peak Output Power	FCC: ANSI C63.4:2003 13. Measurement of intentional radiators IC: RSS-Gen 4.6	FCC: Section 15.247(b)(3) IC: RSS-210 A8.4(4)	Conducted	N/A		Complied
4	Restricted Band Edges	FCC: ANSI C63.4:2003 13. Measurement of intentional radiators IC: -	FCC: Section 15.247 (d) IC: RSS-210 A8.5	Conducted/ Radiated	N/A	See data.	Complied
5	Power Density	FCC: ANSI C63.4:2003 13. Measurement of intentional radiators IC: -	FCC: Section 15.247 (e) IC: RSS-210 A8.2(2)	Conducted	N/A		Complied
6	Spurious Emission	FCC: ANSI C63.4:2003 13. Measurement of intentional radiators IC: RSS-Gen 4.7 RSS-Gen 4.8	FCC: Section 15.247(d) IC: RSS-210 A8.5 RSS-Gen 7.2.1 and 7.2.3	Conducted/ Radiated	N/A	[Tx] 5.3dB 667.537MHz Hori., QP [Rx] 7.2dB 320.000MHz Hori., QP	Complied

Note: UL Japan, Inc.'s EMI Work Procedures No.QPM05 and QPM15.

*These tests were also referred to "Guidance on Measurement of Digital Transmission Systems Operating under Section 15.247".

*These tests were performed without any deviations from test procedure except for additions or exclusions.

3.3 Addition to standards

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	99% Occupied Band Width	RSS-Gen 4.4.1	-	Conducted	N/A	N/A	N/A

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3.4 Uncertainty

Conducted Emission

The measurement uncertainty (with a 95% confidence level) for this test is $\pm 2.66\text{dB}$.
The data listed in this test report has enough margin, more than the site margin.

Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is $\pm 4.59\text{dB}(3\text{m})$.
The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is $\pm 4.62\text{dB}(3\text{m})$.
The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is $\pm 5.27\text{dB}$.
The data listed in this test report has enough margin, more than the site margin.

Other test except Conducted Emission and Spurious Emission (Radiated)

The measurement uncertainty (with a 95% confidence level) for this test is $\pm 3.0\text{dB}$.

3.5 Test Location

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	FCC Registration Number	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms
No.1 semi-anechoic chamber	313583	IC4247A	19.2 x 11.2 x 7.7m	7.0 x 6.0m	Preparation room
No.2 semi-anechoic chamber	655103	IC4247A-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 semi-anechoic chamber	148738	IC4247A-3	12.0 x 8.5 x 5.9m	6.8 x 5.75m	
No.3 shielded room	-	-	4.0 x 6.0 x 2.7m	N/A	-
No.4 semi-anechoic chamber	134570	IC4247A-4	12.0 x 8.5 x 5.9m	6.8 x 5.75m	-
No.4 shielded room	-	-	4.0 x 6.0 x 2.7m	N/A	-
No.5 semi-anechoic chamber	-	-	6.0 x 6.0 x 3.9m	N/A	-
No.6 shielded room	-	-	4.0 x 4.5 x 2.7m	4.75 x 5.4 m	-
No.6 measurement room	-	-	4.75 x 5.4 x 3.0m	4.75 x 4.15 m	-
No.7 shielded room	-	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.8 measurement room	-	-	3.1 x 5.0 x 2.7m	N/A	-

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

3.6 Test set up, Test instruments and Data of EMI

Refer to APPENDIX 1 to 3.

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

4.1 Operating Modes

The mode used for test : Transmitting mode 11b (DQPSK 2Mbps (Worst), Packet type: Maximum, Payload: PN9)

- Low Channel : 2412MHz(Ch1)
- Mid Channel : 2437MHz(Ch6)
- High Channel : 2462MHz(Ch11)

Transmitting mode 11g (16QAM 24Mbps (Worst), Packet type: Maximum, Payload: PN9)

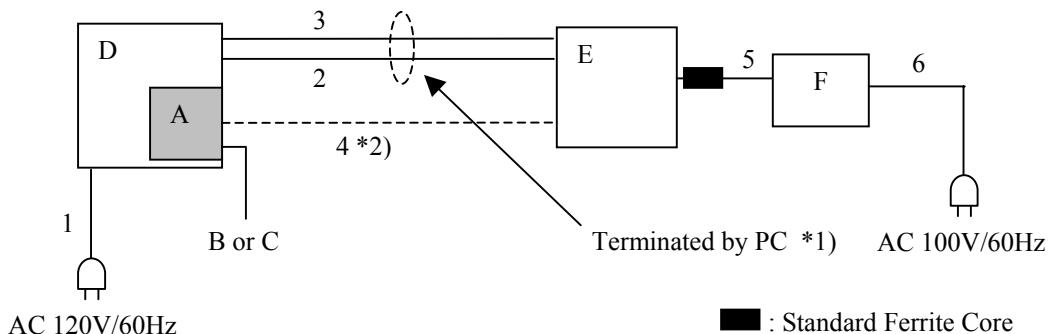
- Low Channel : 2412MHz(Ch1)
- Mid Channel : 2437MHz(Ch6)
- High Channel : 2462MHz(Ch11)

Receiving mode 11b/g

- Mid Channel : 2437MHz(Ch6)

* As a result of preliminary test, the formal test was performed with the above modes, which had the maximum rated power.

4.2 Configuration and peripherals



* Cabling and setup were taken into consideration and test data was taken under worse case conditions.

*1) After the test mode was set, the PC was turned off.

*2) After the test mode was set, the serial cable (No.4) was removed.

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	Remarks
A	Wireless Module for Printer	FM33489	503	Canon Inc.	EUT
B	SFP Antenna	ANTB18-076A0	-	Canon Inc.	EUT
C	MFP Antenna	FU-06-09-003	-	Canon Inc.	EUT
D	Printer	LBP3460-US	KA-2006-0857	Canon inc.	-
E	PC	2366	97-99D7K	IBM	-
F	AC Adapter	02K6750	11S02K6750Z1 Z2UP29P0F7	IBM	-

List of cables used

No.	Name	Length (m)	Shield	
			Cable	Connector
1	AC Cable	2.0	Unshielded	Unshielded
2	LAN Cable	1.0	Unshielded	Unshielded
3	USB Cable	1.5	Unshielded	Unshielded
4	Serial Cable	1.5	Unshielded	Unshielded
5	DC Cable	1.8	Unshielded	Unshielded
6	AC Cable	1.0	Unshielded	Unshielded

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SECTION 5: Conducted Emission

Test Procedure and conditions

EUT was placed on a urethane platform of nominal size, 1m by 1.5m, raised 80cm above the conducting ground plane. The rear of tabletop was located 40cm to the vertical conducting plane. The rear of EUT, including peripherals aligned and flushed with rear of tabletop. All other surfaces of tabletop were at least 80cm from any other grounded conducting surface. EUT was located 80cm from a Line Impedance Stabilization Network (LISN)/ Artificial mains Network (AMN) and excess AC cable was bundled in center.

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

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

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

The EUT was connected to a LISN (AMN).

An overview sweep with peak detection has been performed.

Detector	: CISPR quasi-peak and average detector (IF BW 9 kHz)
Measurement range	: 0.15-30MHz
Test data	: APPENDIX 2
Test result	: Pass

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SECTION 6: Spurious Emission

[Conducted]

Test Procedure

The Out of Band Emission was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 2

Test result : Pass

[Radiated]

Test Procedure

EUT was placed on a urethane platform of nominal size, 1m by 1.5m, raised 80cm above the conducting ground plane. The Radiated Electric Field Strength intensity has been measured in a Semi Anechoic Chamber with a ground plane and at a distance of 3m(Below 10GHz) and 1m(Upper 10GHz).

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

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

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

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

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

20dBC was applied to the frequency over the limit of FCC 15.209 / Table 2 of RSS-210 2.7 (IC) and outside the restricted band of FCC15.205 / Table 1 of RSS-210 2.7 (IC).

Frequency	Below 1GHz	Above 1GHz
Instrument used	Test Receiver / Spectrum Analyzer	Spectrum Analyzer
Detector	QP: BW 120kHz(T/R)	PK: RBW:1MHz/VBW: 1MHz
IF Bandwidth	20dBC : RBW: 100kHz VBW: 300kHz (S/A)	AV: RBW:1MHz/VBW:10Hz 20dBC : RBW:100kHz/VBW:300kHz

The test was made on EUT at the normal use position.

The test was performed with the antenna angle of maximum noise as follows:

	Measuring Antenna	Antenna of EUT		Measuring Antenna	Antenna of EUT
SFP	Horizontal	90 deg.	SFP	Vertical	0 deg.
MFP		X-axis	MFP		Y-axis

Test data : APPENDIX 2

Test result : Pass

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SECTION 7: Bandwidth

Test Procedure

The bandwidth was measured with a spectrum analyzer connected to the antenna port.

Test data : APPENDIX 2
Test result : Pass

SECTION 8: Maximum Peak Output Power

Test Procedure

The Maximum Peak Output Power was measured with a power meter (tested bandwidth: 50MHz) connected to the antenna port.

It was measured based on "Power Output Option 1" of "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247".

Test data : APPENDIX 2
Test result : Pass

SECTION 9: Peak Power Density

[Conducted]

Test Procedure

The Peak Power Density was measured with a spectrum analyzer connected to the antenna port.

It was measured based on "PSD Option 1" of "Guidance on Measurement of Digital Transmission Systems Operating under Section15.247".

Test data : APPENDIX 2
Test result : Pass

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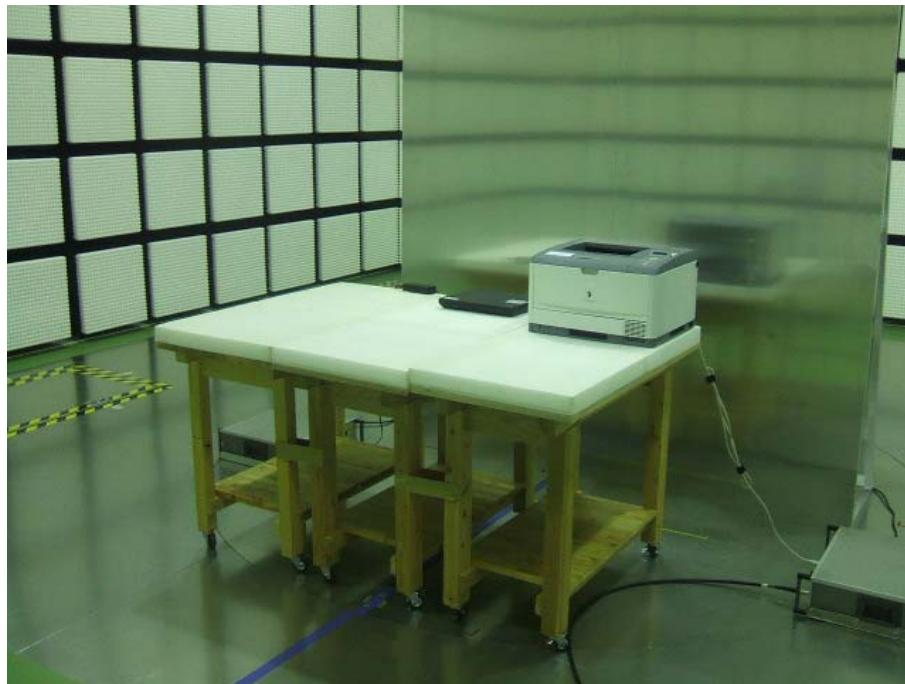
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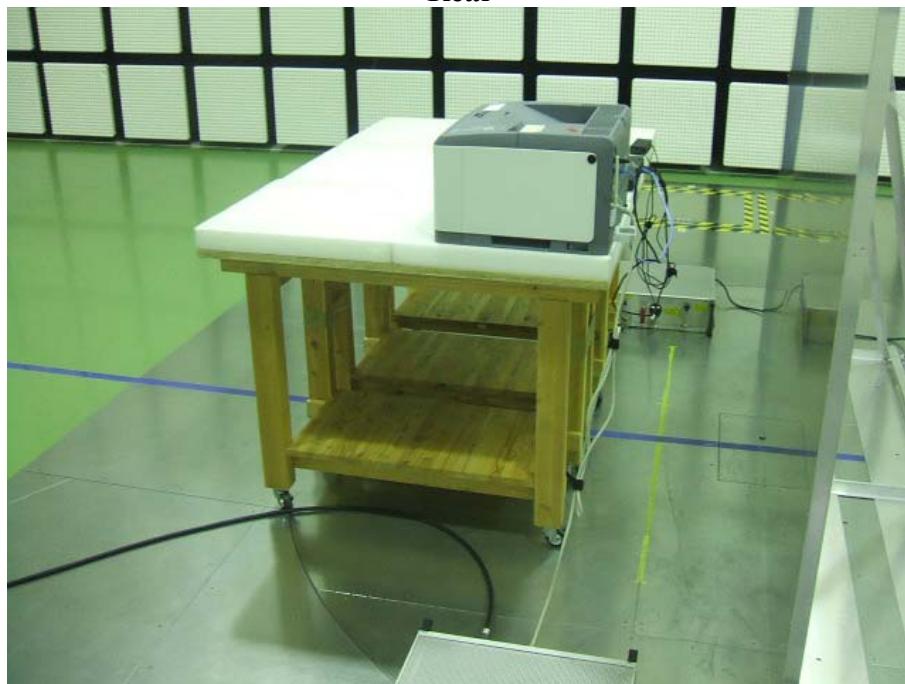
APPENDIX 1: Photographs of test setup

Conducted Emission

Front



Rear



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Spurious Emission (Radiated)

Front



Rear



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Worst Case of Antenna Angle (Horizontal: 90 deg. / Vertical:0 deg.)

ANT: SFP

0 deg.



90 deg.



180 deg.



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Worst Case Position (Horizontal: X-axis/ Vertical:Y-axis.)

ANT: MFP

X-axis



Y-axis



Y'-axis



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APPENDIX 2: Data of EMI test

Conducted Emission ANT: SFP 11b Tx, Ch:Low

DATA OF CONDUCTED EMISSION TEST

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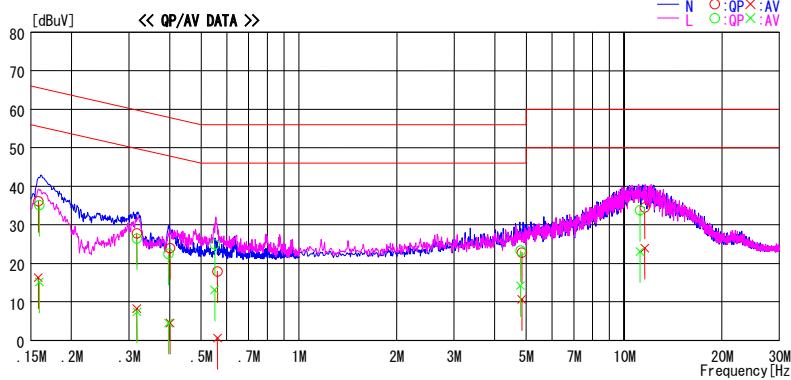
Date : 2007/05/19

Applicant : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : FM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp. / Humi. : 24deg. C / 46%
 Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11b Tx Lch /2Mbps (Worst-Rate)

LIMIT : FCC15.207.QP
FCC15.207.AV



Frequency [MHz]	Reading Level			Corr.		Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]	Factor	QP [dB]	AV [dB]	QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.15800	35.8	16.0	0.3	36.1	16.3	65.6	55.6	29.5	39.3	N	N		
0.31750	27.5	7.9	0.3	27.8	8.2	59.8	49.8	32.0	41.6	N	N		
0.40130	23.6	4.2	0.3	23.9	4.5	57.8	47.8	33.9	43.3	N	N		
0.56140	17.6	0.3	0.3	17.9	0.6	56.0	46.0	38.1	45.4	N	N		
4.84580	22.0	9.8	0.8	22.8	10.6	56.0	46.0	33.2	35.4	N	N		
11.56300	33.2	22.6	1.3	34.5	23.9	60.0	50.0	25.5	26.1	N	N		
0.15930	34.8	14.9	0.3	35.1	15.2	65.5	55.5	30.4	40.3	L	L		
0.31780	26.1	7.1	0.3	26.4	7.4	59.8	49.8	33.4	42.4	L	L		
0.39690	22.2	4.2	0.3	22.5	4.5	57.9	47.9	35.4	43.4	L	L		
0.55125	24.6	12.8	0.3	24.9	13.1	56.0	46.0	31.1	32.9	L	L		
4.80060	22.5	13.4	0.8	23.3	14.2	56.0	46.0	32.7	31.8	L	L		
11.18500	32.5	21.8	1.3	33.8	23.1	60.0	50.0	26.2	26.9	L	L		

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

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Conducted Emission
ANT: SFP 11b Tx, Ch:Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Anechoic Chamber
Date : 2007/05/19

Applicant :	Canon Inc.	Report No. :	27JE0058-HO
Kind of EUT :	Wireless Module for Printer	Power :	AC120V / 60Hz (DC 3.3V)
Model No. :	FM33489	Temp. /Humi. :	24deg. C /46%
Serial No. :	503	Operator :	Hidekazu Tanaka

Mode / Remarks : ANT (SFP) IEEE802.11b Tx Mch /2Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

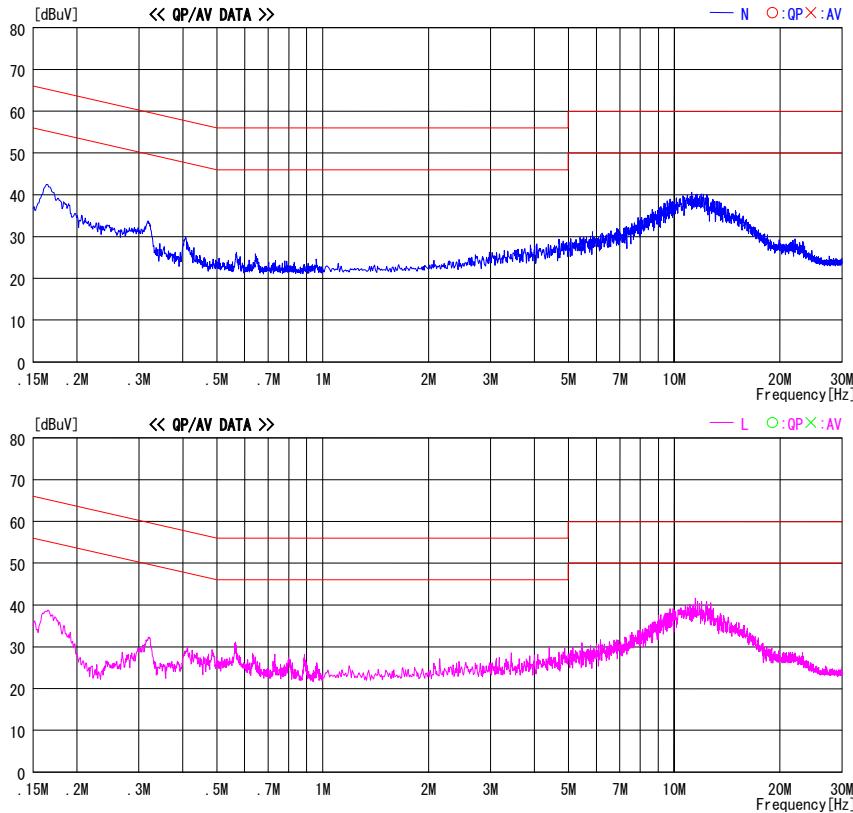


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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Conducted Emission
ANT: SFP 11b Tx, Ch:High

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Anechoic Chamber
Date : 2007/05/19

Applicant : Canon Inc.
Kind of EUT : Wireless Module for Printer
Model No. : FM33489
Serial No. : 503

Report No. : 27JE0058-HO
Power : AC120V, 60Hz (DC 3.3V)
Temp./Humi. : 24deg.C /46%
Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11b Tx Hch /2Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

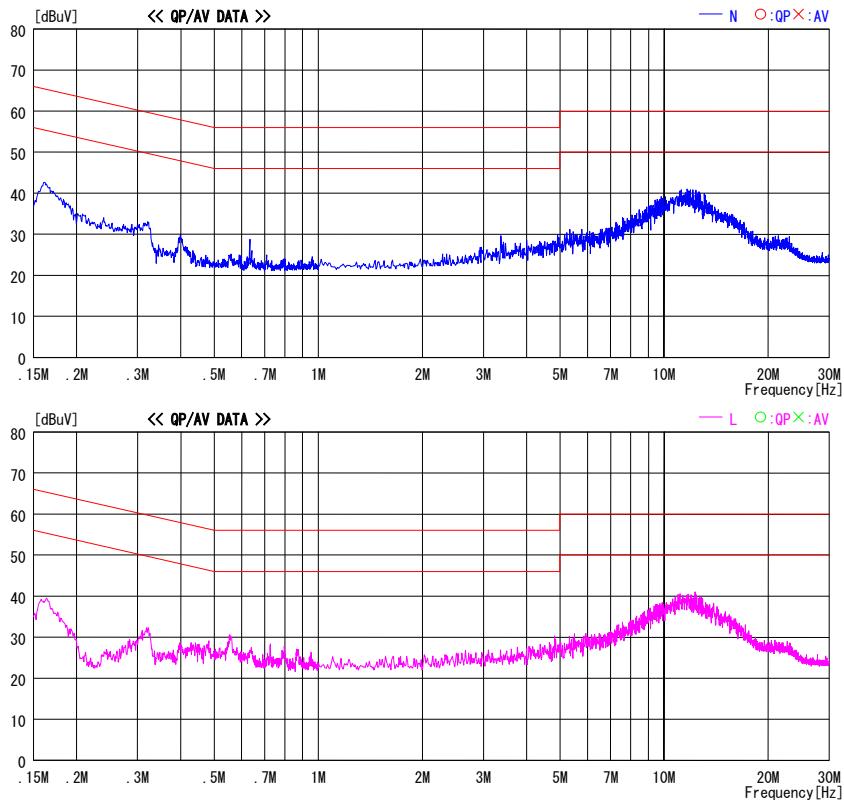


CHART:WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
ANT: SFP 11g Tx, Ch:Low

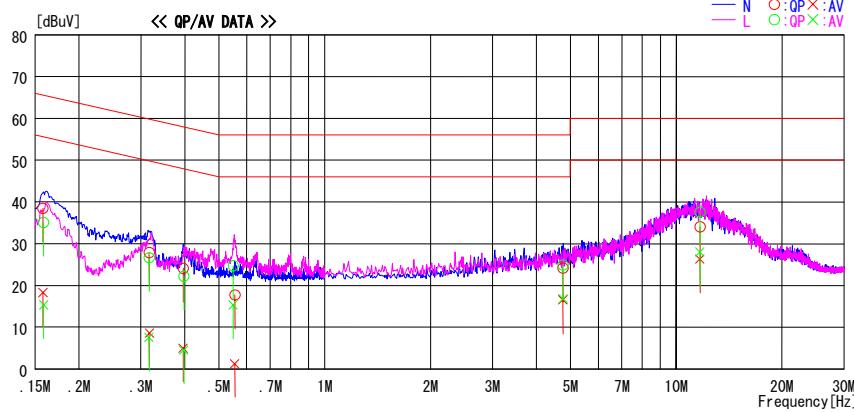
DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Anechoic Chamber
Date : 2007/05/19

Applicant :	Canon Inc.	Report No. :	27JE0058-HO
Kind of EUT :	Wireless Module for Printer	Power :	AC120V / 60Hz (DC 3.3V)
Model No. :	FM33489	Temp. /Humi. :	24deg.C /46%
Serial No. :	503	Operator :	Hidekazu Tanaka

Mode / Remarks : ANT (SFP) IEEE802.11g Tx Lch /24Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level			Corr.		Results		Limit		Margin		Phase	Comment
	OP [dBuV]	AV [dBuV]	Factor	OP [dB]	AV [dB]	OP [dBuV]	AV [dBuV]	OP [dBuV]	AV [dBuV]	OP [dB]	AV [dB]		
0.15780	38.2	18.0	0.3	38.5	18.3	65.6	55.6	27.1	37.3	N			
0.31700	27.6	8.3	0.3	27.9	8.6	59.8	49.8	31.9	41.2	N			
0.39590	23.8	4.7	0.3	24.1	5.0	57.9	47.9	33.8	42.9	N			
0.55450	17.4	1.0	0.3	17.7	1.3	56.0	46.0	38.3	44.7	N			
4.76090	23.4	15.7	0.8	24.2	16.5	56.0	46.0	31.8	29.5	N			
11.68500	32.7	25.0	1.3	34.0	26.3	60.0	50.0	26.0	23.7	N			
0.15850	34.8	15.0	0.3	35.1	15.3	65.5	55.5	30.4	40.2	L			
0.31680	26.4	7.3	0.3	26.7	7.6	59.8	49.8	33.1	42.2	L			
0.39760	21.9	4.2	0.3	22.2	4.5	57.9	47.9	35.7	43.4	L			
0.54875	24.4	15.0	0.3	24.7	15.3	56.0	46.0	31.3	30.7	L			
4.76170	24.1	16.0	0.8	24.9	16.8	56.0	46.0	31.1	29.2	L			
11.68000	36.3	26.7	1.3	37.6	28.0	60.0	50.0	22.4	22.0	L			

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

UL Japan, Inc.

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MF060b(26.04.07)

Conducted Emission
ANT: SFP 11g Tx, Ch:Mid

DATA OF CONDUCTED EMISSION TEST

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

Date : 2007/05/19

Applicant : Canon Inc.
Kind of EUT : Wireless Module for Printer
Model No. : FM33489
Serial No. : 503

Report No. : 27JE0058-HO
Power : AC120V / 60Hz (DC 3.3V)
Temp. /Humi. : 24deg. C /46%
Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11g Tx Mch /24Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

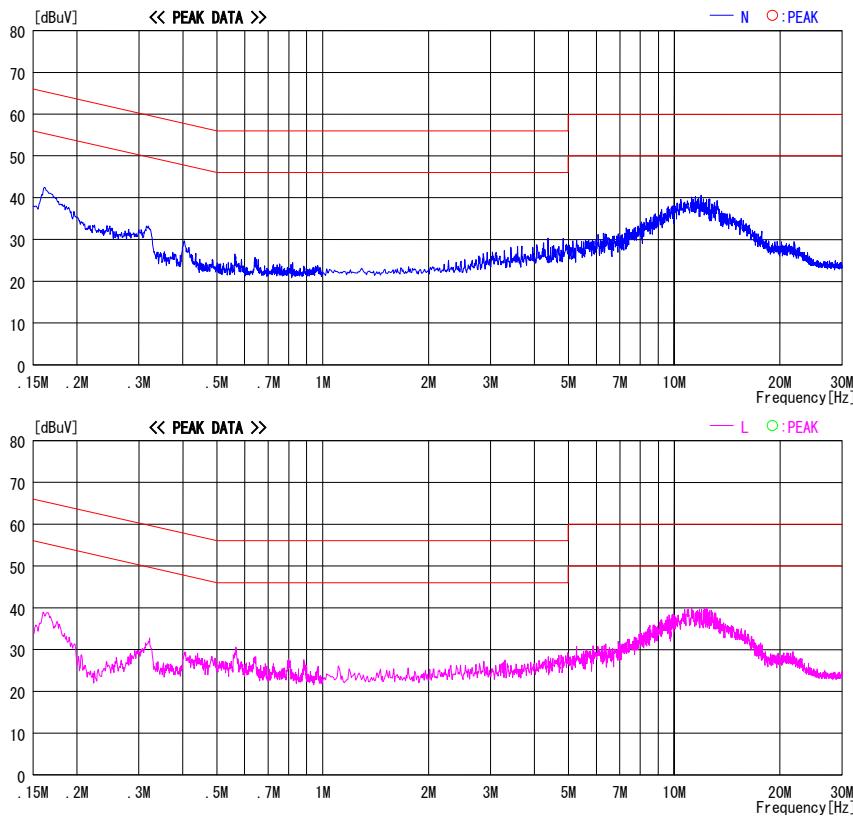


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
ANT: SFP 11g Tx, Ch:High

DATA OF CONDUCTED EMISSION TEST

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

Date : 2007/05/19

Applicant :	Canon Inc.	Report No. :	27JE0058-HO
Kind of EUT :	Wireless Module for Printer	Power :	AC120V / 60Hz (DC 3.3V)
Model No. :	FM33489	Temp. /Humi. :	24deg. C /46%
Serial No. :	503	Operator :	Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11g Tx Hch /24Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

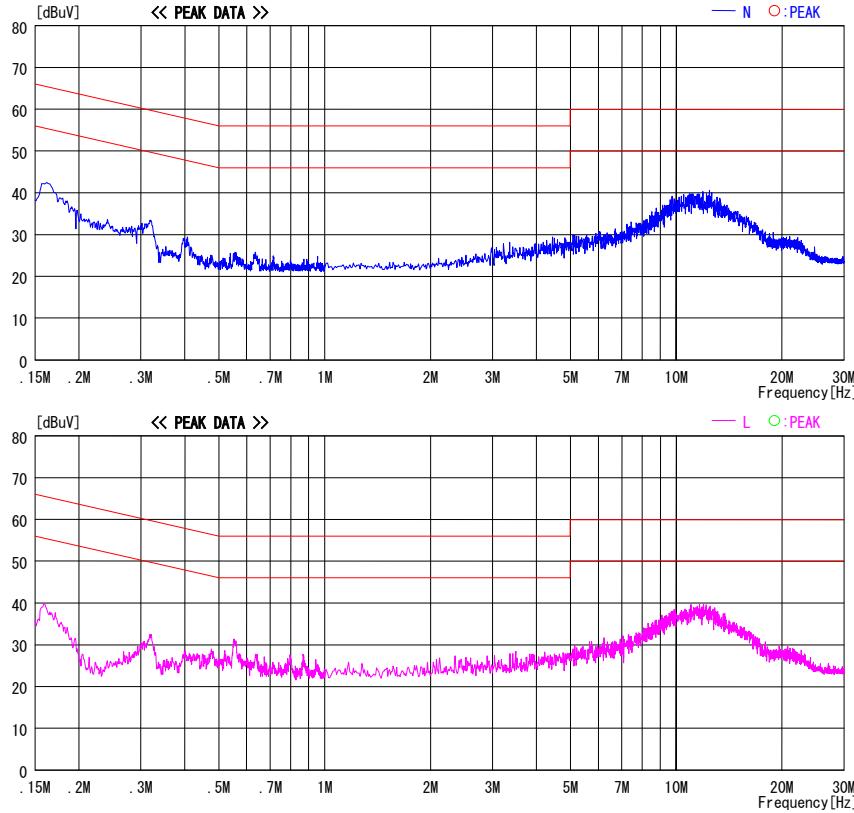


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

UL Japan, Inc.

Head Office EMC Lab.

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MF060b(26.04.07)

Conducted Emission
ANT: SFP 11b Rx, Ch:Mid

DATA OF CONDUCTED EMISSION TEST

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

Date : 2007/05/19

Applicant : Canon Inc.
Kind of EUT : Wireless Module for Printer
Model No. : FM33489
Serial No. : 503

Report No. : 27JE0058-HO
Power : AC120V / 60Hz(DC 3.3V)
Temp. /Humi. : 24deg.C /46%
Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11b Rx Mch /2Mbps(Worst-Rate)

LIMIT : FCC15.207 OP
FCC15.207 AV

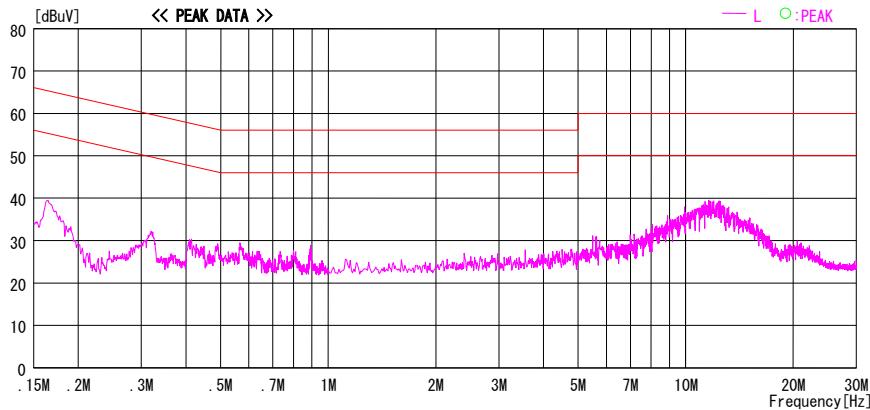
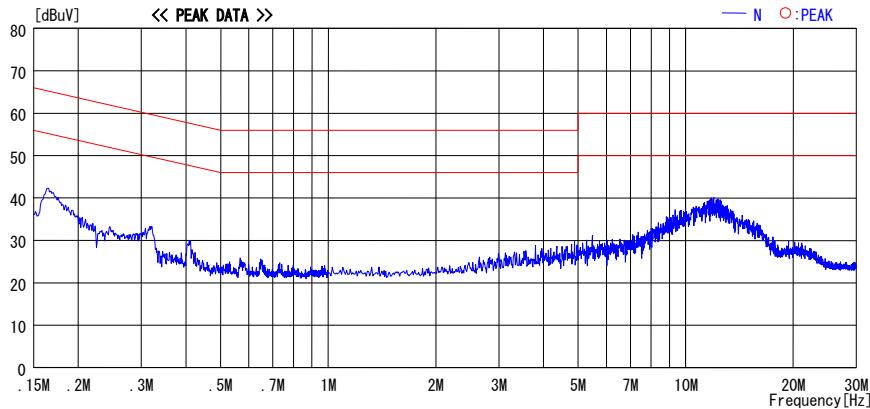


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

UL Japan, Inc.

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MF060b(26.04.07)

Conducted Emission
ANT: SFP 11g Rx, Ch:Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Anechoic Chamber
Date : 2007/05/19

Applicant :	Canon Inc.	Report No. :	27JE0058-HO
Kind of EUT :	Wireless Module for Printer	Power :	AC120V / 60Hz (DC 3.3V)
Model No. :	FM33489	Temp. /Humi. :	24deg. C / 46%
Serial No. :	503	Operator :	Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11g Rx Mch /24Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

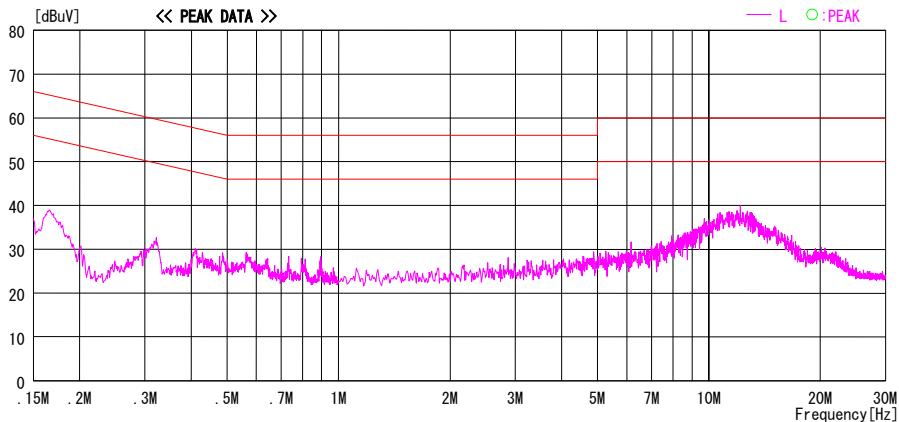
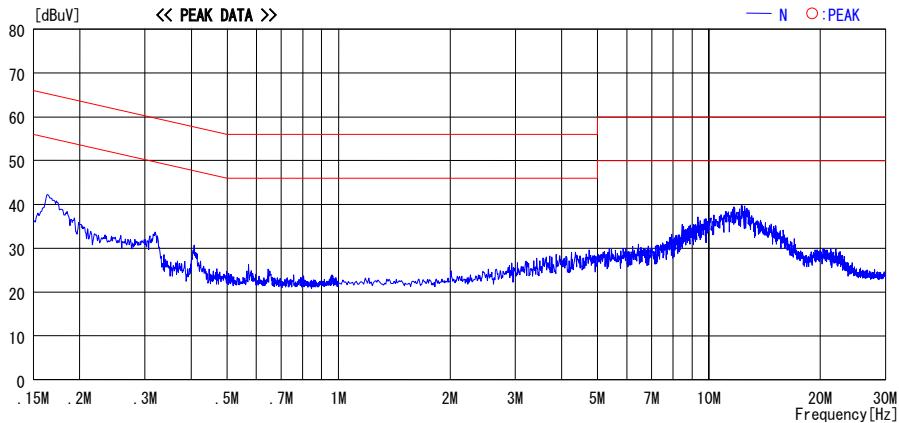


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
ANT: MFP 11b Tx, Ch:Low

DATA OF CONDUCTED EMISSION TEST

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

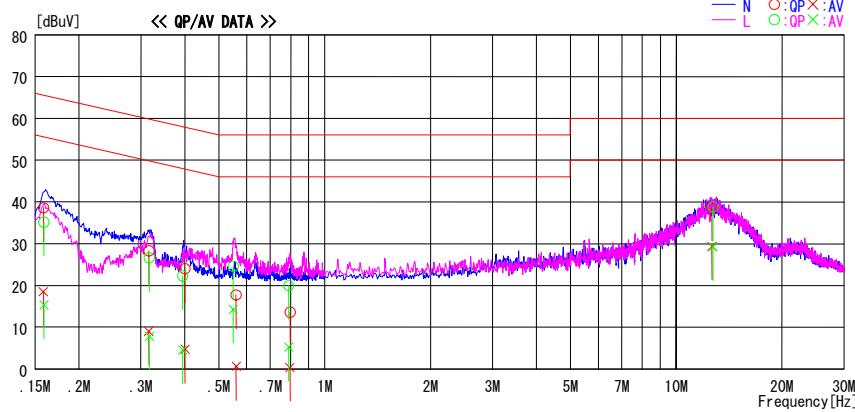
Date : 2007/05/19

Applicant : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : FM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp. / Humi. : 24deg.C / 46%
 Operator : Hidekazu Tanaka

Mode / Remarks : ANT(MFP) IEEE802.11b Tx Lch /2Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency [MHz]	Reading Level			Corr.		Results		Limit		Margin		Phase	Comment
	OP [dBuV]	AV [dBuV]	Factor	OP [dB]	AV [dB]	OP [dBuV]	AV [dBuV]	OP [dBuV]	AV [dBuV]	OP [dB]	AV [dB]		
0.15835	38.3	18.2	0.3	38.6	18.5	65.6	55.6	27.0	37.1	N			
0.31600	28.0	8.7	0.3	28.3	9.0	59.8	49.8	31.5	40.8	N			
0.40060	23.7	4.4	0.3	24.0	4.7	57.8	47.8	33.8	43.1	N			
0.56025	17.4	0.3	0.3	17.7	0.6	56.0	46.0	38.3	45.4	N			
0.79676	13.3	0.1	0.3	13.6	0.4	56.0	46.0	42.4	45.6	N			
12.63436	37.3	28.0	1.4	38.7	29.4	60.0	50.0	21.3	20.6	N			
0.15885	34.9	15.0	0.3	35.2	15.3	65.5	55.5	30.3	40.2	L			
0.31720	26.3	7.5	0.3	26.6	7.8	59.8	49.8	33.2	42.0	L			
0.39450	22.0	4.2	0.3	22.3	4.5	58.0	48.0	35.7	43.5	L			
0.54950	24.3	14.0	0.3	24.6	14.3	56.0	46.0	31.4	31.7	L			
0.79010	19.7	4.9	0.3	20.0	5.2	56.0	46.0	36.0	40.8	L			
12.69776	37.4	27.9	1.4	38.8	29.3	60.0	50.0	21.2	20.7	L			

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

UL Japan, Inc.

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MF060b(26.04.07)

**Conducted Emission
ANT: MFP 11b Tx, Ch:Mid**

DATA OF CONDUCTED EMISSION TEST

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

Date : 2007/05/19

Applicant : Canon Inc.
Kind of EUT : Wireless Module for Printer
Model No. : FM33489
Serial No. : 503

Report No. : 27JE0058-HO
Power : AC120V / 60Hz (DC 3.3V)
Temp. /Humi. : 24deg. C /46%
Operator : Hidekazu Tanaka

Mode / Remarks : ANT(MFP) IEEE802.11b Tx Mch /2Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

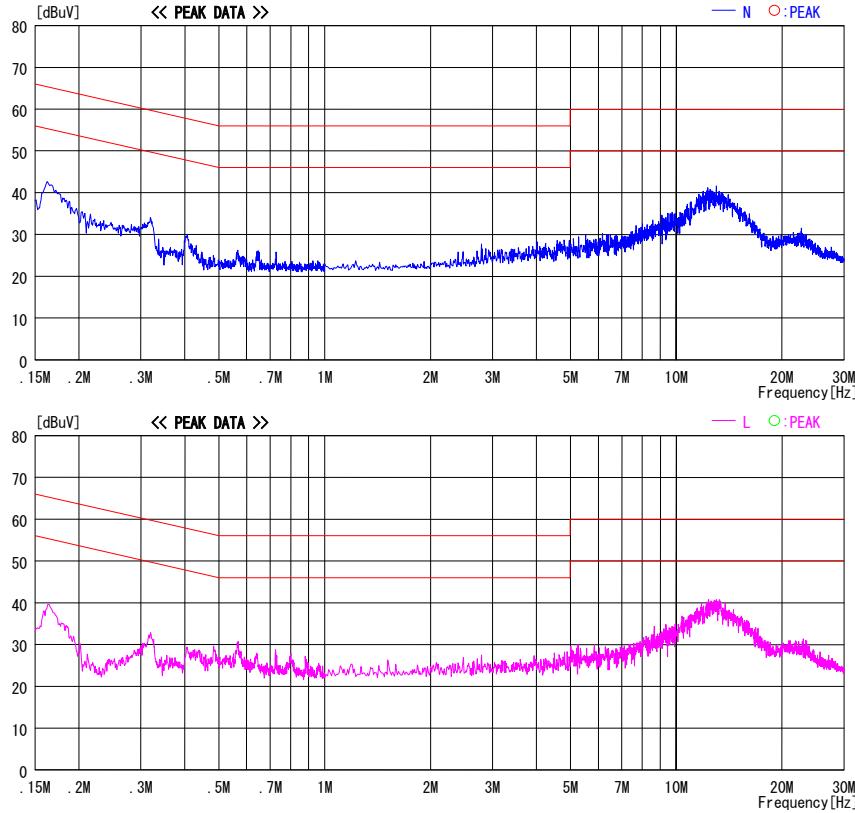


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

**Conducted Emission
ANT: MFP 11b Tx, Ch:High**

DATA OF CONDUCTED EMISSION TEST

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

Date : 2007/05/19

Applicant : Canon Inc.
Kind of EUT : Wireless Module for Printer
Model No. : FM33489
Serial No. : 503

Report No. : 27JE0058-HO
Power : AC120V / 60Hz (DC 3.3V)
Temp. /Humi. : 24deg. C /46%
Operator : Hidekazu Tanaka

Mode / Remarks : ANT(MFP) IEEE802.11b Tx Hch /2Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

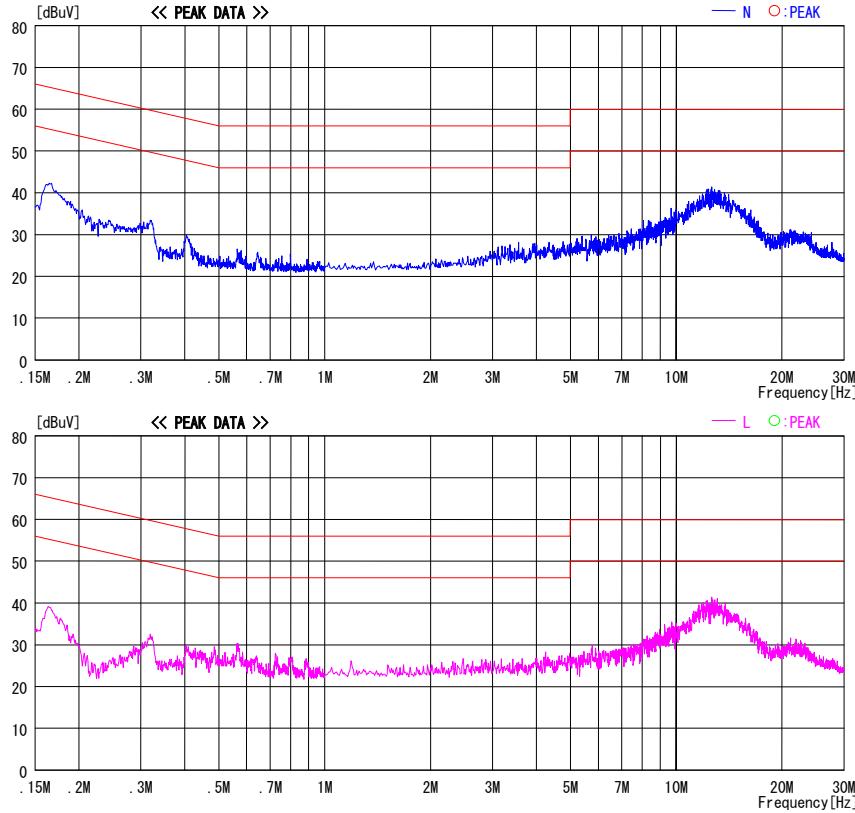


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

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MF060b(26.04.07)

Conducted Emission
ANT: MFP 11g Tx, Ch:Low

DATA OF CONDUCTED EMISSION TEST

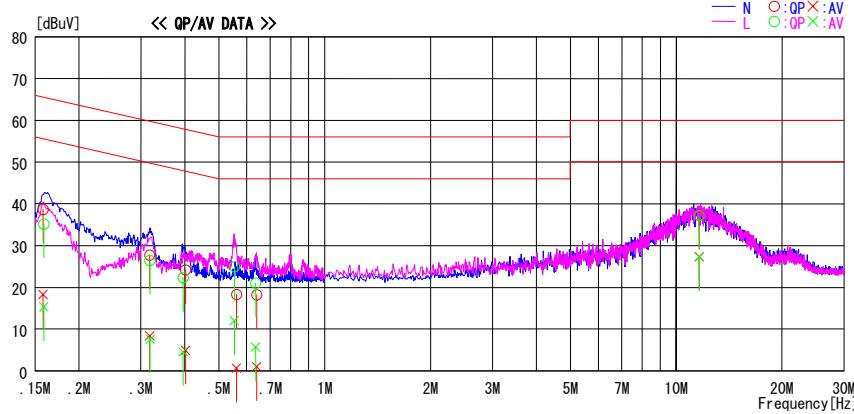
UL Japan, Inc. Head Office EMC Lab. No.4 Anechoic Chamber

Date : 2007/05/19

Applicant :	Canon Inc.	Report No. :	27JE0058-HO
Kind of EUT :	Wireless Module for Printer	Power :	AC120V / 60Hz (DC 3.3V)
Model No. :	FM33489	Temp. /Humi. :	24deg.C /46%
Serial No. :	503	Operator :	Hidekazu Tanaka

Mode / Remarks : ANT(MFP) IEEE802.11g Tx Lch /24Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV



Frequency	Reading Level			Corr.		Results		Limit		Margin		Phase	Comment
	OP	AV	Factor	OP	AV	OP	AV	OP	AV	OP	AV		
[MHz]	[dBuV]	[dBuV]	[dB]	[dBuV]	[dBuV]	[dBuV]	[dBuV]	[dB]	[dB]	[dB]	[dB]		
0.15800	38.3	18.0	0.3	38.6	18.3	65.6	55.6	27.0	37.3	N			
0.31790	27.4	8.1	0.3	27.7	8.4	59.8	49.8	32.1	41.4	N			
0.40210	23.9	4.6	0.3	24.2	4.9	57.8	47.8	33.6	42.9	N			
0.56110	18.0	0.3	0.3	18.3	0.6	56.0	46.0	37.7	45.4	N			
0.64015	17.9	0.7	0.3	18.2	1.0	56.0	46.0	37.8	45.0	N			
11.61970	36.0	26.1	1.3	37.3	27.4	60.0	50.0	22.7	22.6	N			
0.15865	34.9	15.0	0.3	35.2	15.3	65.5	55.5	30.3	40.2	L			
0.31830	26.1	7.3	0.3	26.4	7.6	59.8	49.8	33.4	42.2	L			
0.39510	22.0	4.3	0.3	22.3	4.6	58.0	48.0	35.7	43.4	L			
0.55350	24.7	11.7	0.3	25.0	12.0	56.0	46.0	31.0	34.0	L			
0.63585	20.7	5.4	0.3	21.0	5.7	56.0	46.0	35.0	40.3	L			
11.61634	35.9	26.0	1.3	37.2	27.3	60.0	50.0	22.8	22.7	L			

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

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MF060b(26.04.07)

Conducted Emission
ANT: MFP 11g Tx, Ch:Mid

DATA OF CONDUCTED EMISSION TEST

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

Date : 2007/05/19

Applicant :	Canon Inc.	Report No. :	27JE0058-HO
Kind of EUT :	Wireless Module for Printer	Power :	AC120V / 60Hz (DC 3.3V)
Model No. :	FM33489	Temp. /Humi. :	24deg. C /46%
Serial No. :	503	Operator :	Hidekazu Tanaka

Mode / Remarks : ANT(MFP) IEEE802.11g Tx Mch /24Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

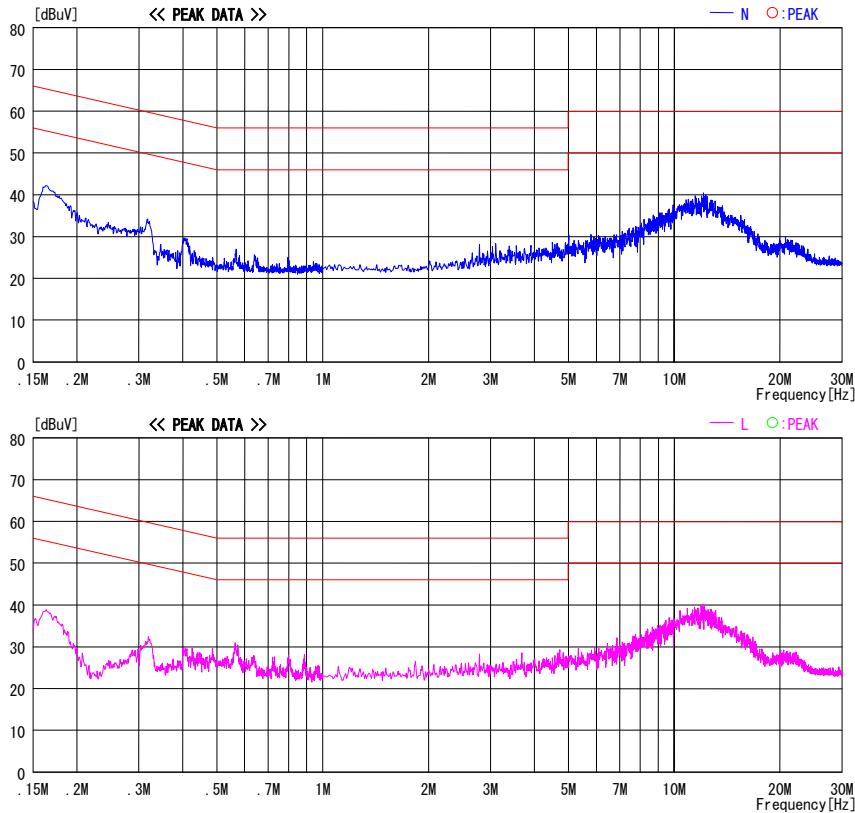


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

UL Japan, Inc.

Head Office EMC Lab.

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MF060b(26.04.07)

Conducted Emission
ANT: MFP 11g Tx, Ch:High

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Anechoic Chamber
Date : 2007/05/19

Applicant :	Canon Inc.	Report No. :	27JE0058-HO
Kind of EUT :	Wireless Module for Printer	Power :	AC120V / 60Hz (DC 3.3V)
Model No. :	FM33489	Temp. /Humi. :	24deg. C /46%
Serial No. :	503	Operator :	Hidekazu Tanaka

Mode / Remarks : ANT (MFP) IEEE802.11g Tx Hch /24Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

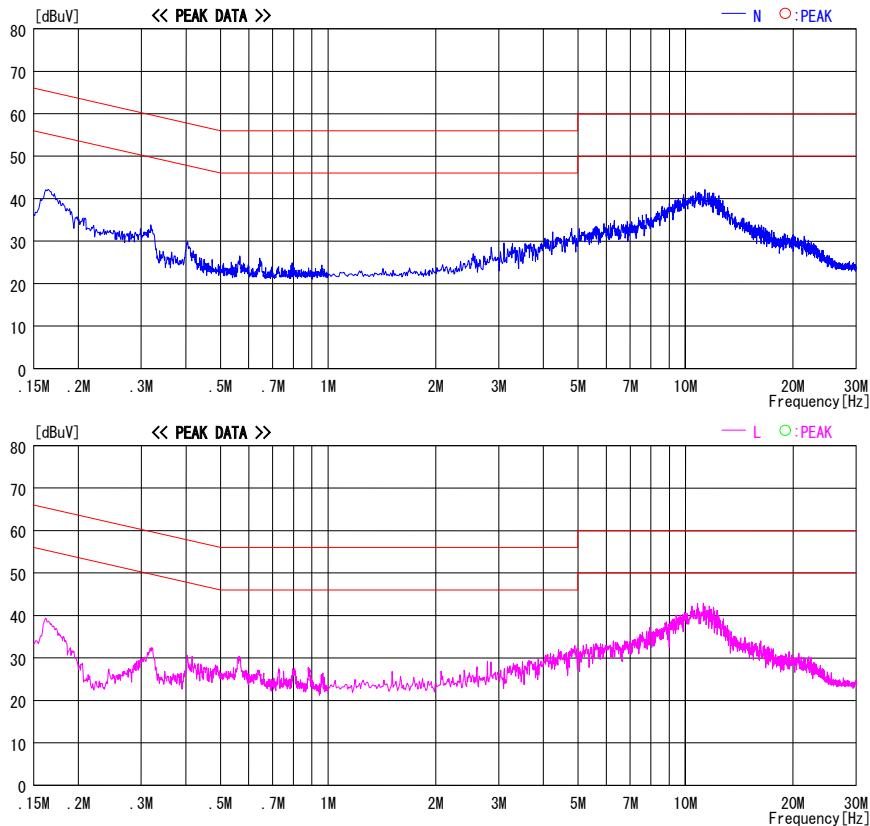


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
ANT: MFP 11b Rx, Ch:Mid

DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 4 Anechoic Chamber
Date : 2007/05/19

Applicant : Canon Inc.
Kind of EUT : Wireless Module for Printer
Model No. : FM33489
Serial No. : 503

Report No. : 27JE0058-HO
Power : AC120V / 60Hz (DC 3.3V)
Temp. /Humi. : 24deg. C /46%
Operator : Hidekazu Tanaka

Mode / Remarks : ANT (MFP) IEEE802.11b Rx Mch /2Mbps (Worst-Rate)

LIMIT : FCC15.207 QP
FCC15.207 AV

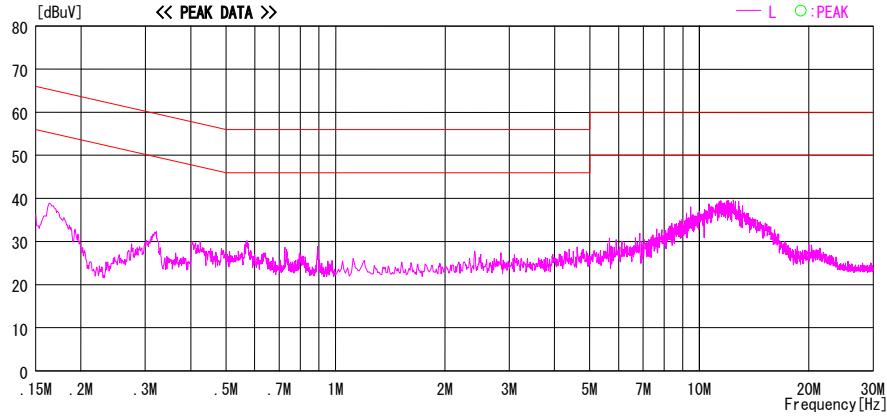
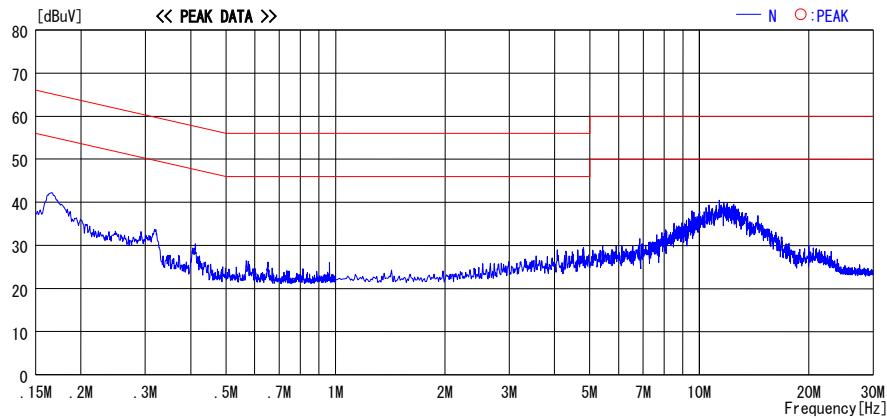


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCULATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission
ANT: MFP 11g Rx, Ch:Mid

DATA OF CONDUCTED EMISSION TEST

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

Date : 2007/05/19

Applicant : Canon Inc.
Kind of EUT : Wireless Module for Printer
Model No. : FM33489
Serial No. : 503

Report No. : 27JE0058-HO
Power : AC120V / 60Hz (DC 3.3V)
Temp./Humi. : 24deg.C / 46%
Operator : Hidekazu Tanaka

Mode / Remarks : ANT(MFP) IEEE802.11g Rx Mch /24Mbps(Worst-Rate)

LIMIT : FCC15.207 OP
FCC15.207 AV

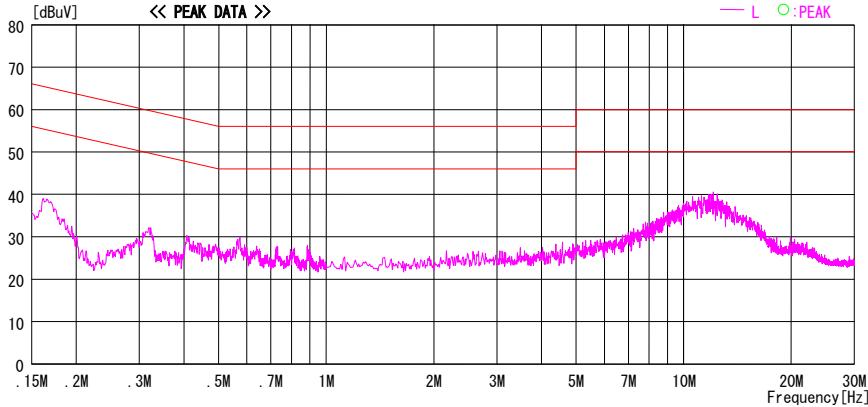
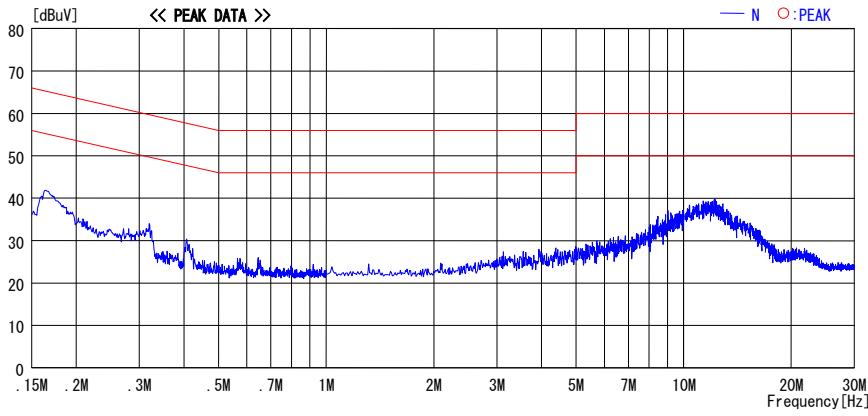


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

6dB Bandwidth

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

Company : Canon Inc.
Equipment : Wireless Module for Printer
Model : FM33489
Sample No. : 503
Power : AC120V/60Hz (DC3.3V)
Mode : Tx (Ch L, M, H)

REPORT NO : 27JE0058-HO
REGULATION : FCC15.247(a)(2)/RSS-210A8.2(1)
TEST DISTANCE : -
DATE : 05/17/07
TEMPERATURE : 24deg.C.
HUMIDITY : 66%
ENGINEER : Makoto Kosaka

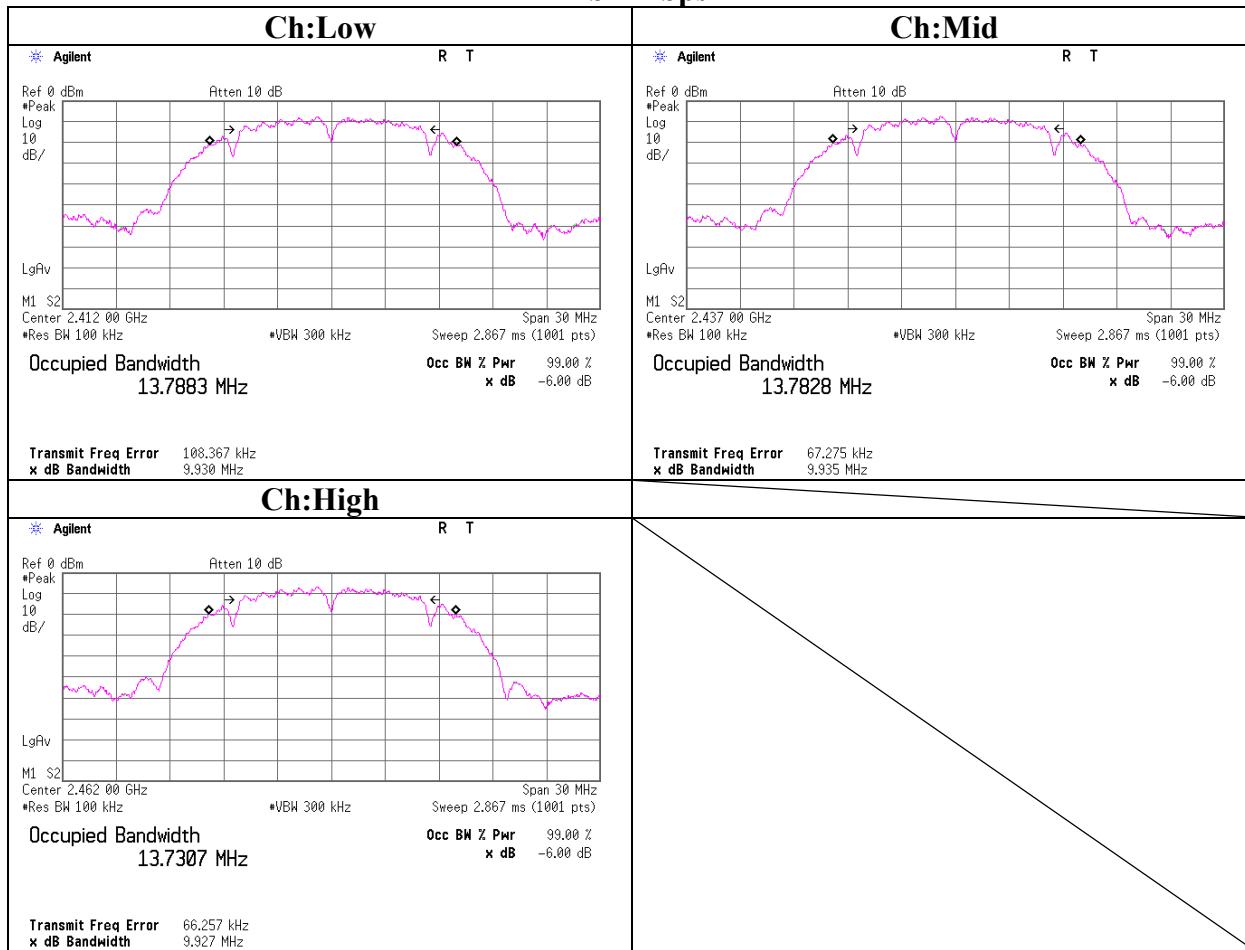
[IEEE802.11b : 2Mbps]

Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	9.930	>500
Mid	2437.0	9.935	>500
High	2462.0	9.927	>500

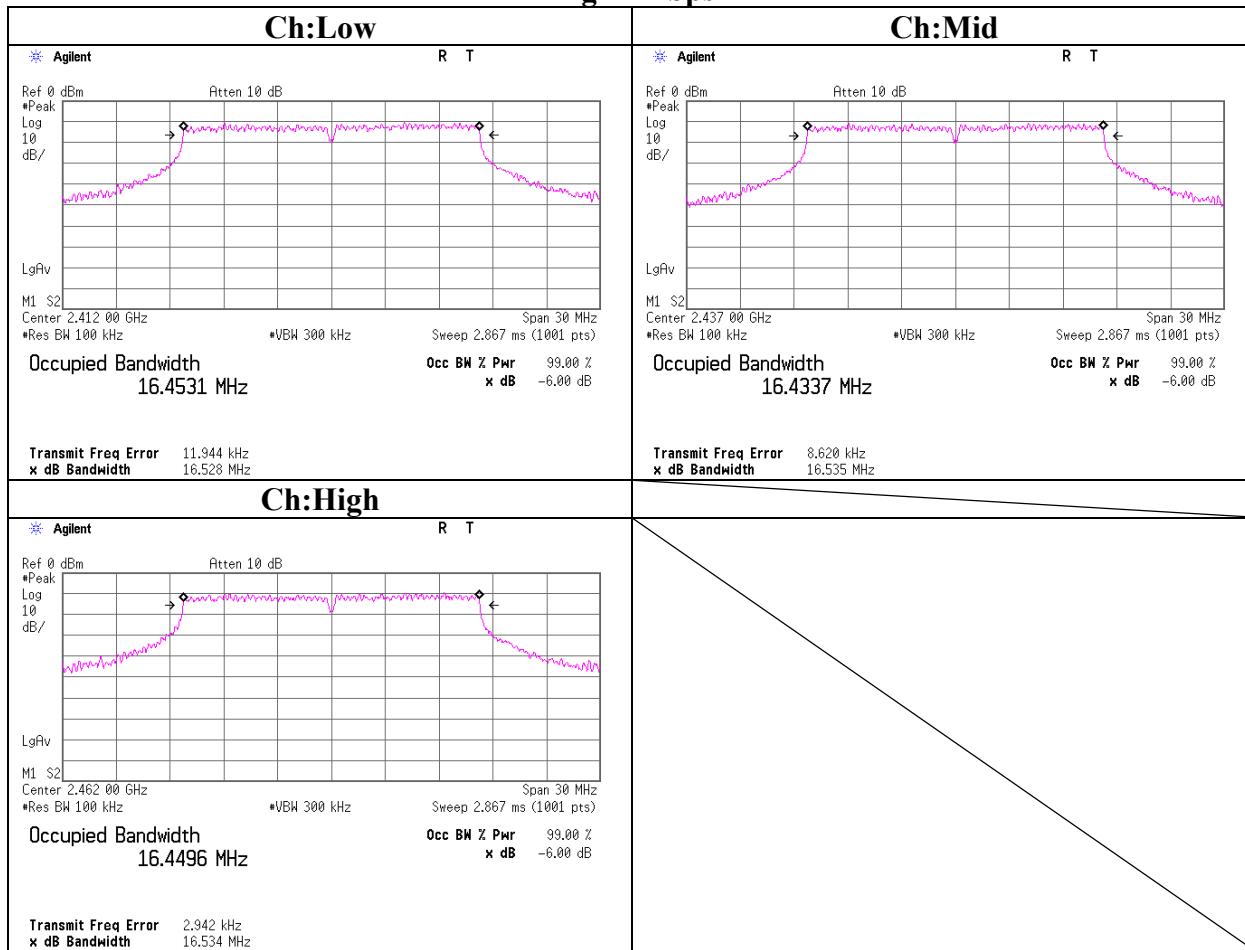
[IEEE802.11g : 24Mbps]

Ch	Freq.	6dB Bandwidth	Limit
	[MHz]	[MHz]	[kHz]
Low	2412.0	16.528	>500
Mid	2437.0	16.535	>500
High	2462.0	16.534	>500

6dB Bandwidth
11b 2Mbps



6dB Bandwidth
11g 24Mbps



Maximum Peak Output Power

UL Japan, Inc.
Head Office EMC Lab. No.3 Shielded Room

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(b)(3)/RSS-210A8.4(4)
Model	: FM33489	TEST DISTANCE	: -
Sample No.	: 503	DATE	: 05/16/07
Power	: AC120V/60Hz (DC3.3V)	TEMPERATURE	: 23deg.C.
Mode	: Tx (Ch L, M, H)	HUMIDITY	: 54%
		ENGINEER	: Makoto Kosaka

[IEEE802.11b / 2Mbps]

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	[mW]	Limit [dBm]	[mW]	Margin [dB]
Low	2412.0	6.41	1.00	10.07	17.48	55.98	30.00	1000	12.52
Mid	2437.0	6.52	1.00	10.07	17.59	57.41	30.00	1000	12.41
High	2462.0	6.88	1.00	10.07	17.95	62.37	30.00	1000	12.05

Sample Calculation:

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

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

[IEEE802.11g / 24Mbps]

Ch	Freq. [MHz]	P/M Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	[mW]	Limit [dBm]	[mW]	Margin [dB]
Low	2412.0	11.29	1.00	10.07	22.36	172.19	30.00	1000	7.64
Mid	2437.0	11.90	1.00	10.07	22.97	198.15	30.00	1000	7.03
High	2462.0	12.20	1.00	10.07	23.27	212.32	30.00	1000	6.73

Sample Calculation:

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

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

UL Japan, Inc.

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MF060b(26.04.07)

Maximum Peak Output Power

UL Japan, Inc.
Head Office EMC Lab. No.3 Shielded Room

Company : Canon Inc.
 Equipment : Wireless Module for Printer
 Model : FM33489
 Sample No. : 503
 Power : AC120V/60Hz (DC3.3V)
 Mode : Tx (Ch Mid)

REPORT NO : 27JE0058-HO
 REGULATION : FCC15.247(b)(3)/RSS-210A8.4(4)
 TEST DISTANCE : -
 DATE : 05/16/07
 TEMPERATURE : 23deg.C.
 HUMIDITY : 54%
 ENGINEER : Makoto Kosaka

[IEEE802.11b] Rate Check

Rate [Mbps]	Freq. [MHz]	P/M PK Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	[mW]
1.0	2437.0	6.25	1.00	10.07	17.32	53.95
2.0	2437.0	6.52	1.00	10.07	17.59	57.41
5.5	2437.0	5.80	1.00	10.07	16.87	48.64
11.0	2437.0	6.24	1.00	10.07	17.31	53.83

[IEEE802.11b] Rate Check

Rate [Mbps]	Freq. [MHz]	PM AVG Read [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	[mW]
1.0	2437.0	3.86	1.00	10.07	14.93	31.12
2.0	2437.0	3.92	1.00	10.07	14.99	31.55
5.5	2437.0	3.59	1.00	10.07	14.66	29.24
11.0	2437.0	3.73	1.00	10.07	14.80	30.20

[IEEE802.11g] Rate Check

Rate [Mbps]	Freq. [MHz]	P/M PK Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	[mW]
6.0	2437.0	11.72	1.00	10.07	22.79	190.11
9.0	2437.0	11.36	1.00	10.07	22.43	174.98
12.0	2437.0	11.59	1.00	10.07	22.66	184.50
18.0	2437.0	11.36	1.00	10.07	22.43	174.98
24.0	2437.0	11.90	1.00	10.07	22.97	198.15
36.0	2437.0	11.60	1.00	10.07	22.67	184.93
48.0	2437.0	11.47	1.00	10.07	22.54	179.47
54.0	2437.0	11.40	1.00	10.07	22.47	176.60

[IEEE802.11g] Rate Check

Rate [Mbps]	Freq. [MHz]	PM AVG Read [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	[mW]
6.0	2437.0	3.74	1.00	10.07	14.81	30.27
9.0	2437.0	3.46	1.00	10.07	14.53	28.38
12.0	2437.0	3.46	1.00	10.07	14.53	28.38
18.0	2437.0	3.66	1.00	10.07	14.73	29.72
24.0	2437.0	3.85	1.00	10.07	14.92	31.05
36.0	2437.0	3.34	1.00	10.07	14.41	27.61
48.0	2437.0	3.34	1.00	10.07	14.41	27.61
54.0	2437.0	3.20	1.00	10.07	14.27	26.73

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MF060b(26.04.07)

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

DATA OF RADIATED EMISSION TEST

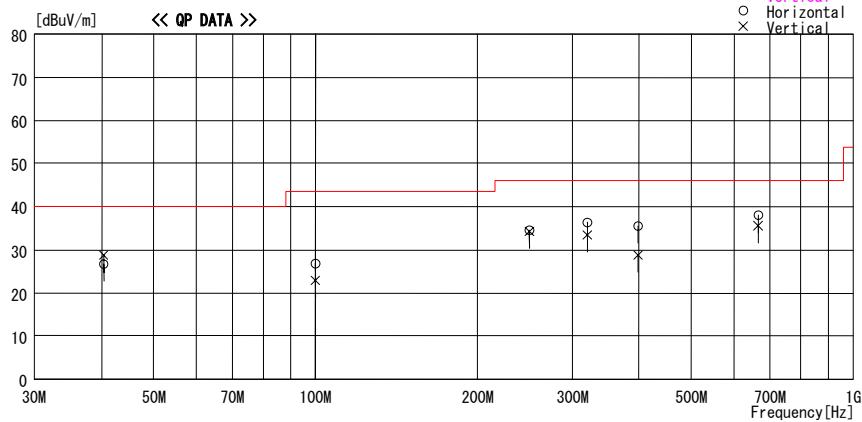
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic
Date : 2007/05/18

Company : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : FM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp./Humi. : 26deg.C / 45%
 Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11b Tx Lch / 2Mbps(Worst-Rate) Hor:ANT Angle 90deg., Ver:ANT Angle 0deg. (MAX)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]		Loss& Gain [dB]	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
			Antenna Factor [dB/m]	Loss& Gain [dB]					
40.361	35.0	QP	13.6	-21.9	26.7	Hori.	40.0	13.3	
40.361	37.1	QP	13.6	-21.9	28.8	Vert.	40.0	11.2	
99.997	38.1	QP	10.1	-21.3	26.9	Hori.	43.5	16.6	
99.997	34.1	QP	10.1	-21.3	22.9	Vert.	43.5	20.6	
250.007	37.4	QP	16.7	-19.5	34.6	Hori.	46.0	11.4	
250.007	37.1	QP	16.7	-19.5	34.3	Vert.	46.0	11.7	
319.999	40.2	QP	15.3	-19.1	36.4	Hori.	46.0	9.6	
319.999	37.3	QP	15.3	-19.1	33.5	Vert.	46.0	12.6	
398.360	37.0	QP	17.9	-19.3	35.6	Hori.	46.0	10.4	
398.360	30.2	QP	17.9	-19.3	28.8	Vert.	46.0	17.2	
666.585	36.6	QP	20.0	-18.6	38.0	Hori.	46.0	8.0	
666.585	34.2	QP	20.0	-18.6	35.6	Vert.	46.0	10.4	

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

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MF060b(26.04.07)

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

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/05/18

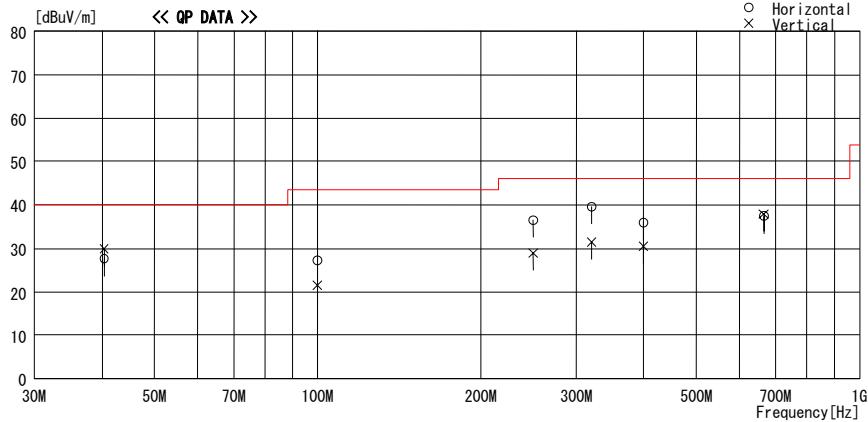
Company : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : FM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp./Humi. : 26deg.C / 45%
 Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11b Tx Mch / 2Mbps(Worst-Rate) Hor:ANT Angle 90deg., Ver:ANT Angle 0deg. (MAX)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.

— Horizontal
— Vertical
○ Horizontal
× Vertical



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss& Gain	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor [dB/m]	[dB]				
40.350	35.8	QP	13.7	-21.9	27.6	Hori.	40.0	12.4
40.350	38.1	QP	13.7	-21.9	29.9	Vert.	40.0	10.1
100.004	38.4	QP	10.1	-21.3	27.2	Hori.	43.5	16.3
100.004	32.8	QP	10.1	-21.3	21.6	Vert.	43.5	21.9
249.992	39.4	QP	16.7	-19.5	36.6	Hori.	46.0	9.4
249.992	31.7	QP	16.7	-19.5	28.9	Vert.	46.0	17.1
320.007	43.4	QP	15.3	-19.1	39.6	Hori.	46.0	6.4
320.007	35.3	QP	15.3	-19.1	31.5	Vert.	46.0	14.5
399.427	37.3	QP	17.9	-19.3	35.9	Hori.	46.0	10.1
399.427	31.9	QP	17.9	-19.3	30.5	Vert.	46.0	15.5
666.597	36.1	QP	20.0	-18.6	37.5	Hori.	46.0	8.6
666.597	36.6	QP	20.0	-18.6	38.0	Vert.	46.0	8.0

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

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MF060b(26.04.07)

Radiated Spurious Emission (below 1GHz)

ANT: SFP 11b Tx, Ch:High

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic
Date : 2007/05/18

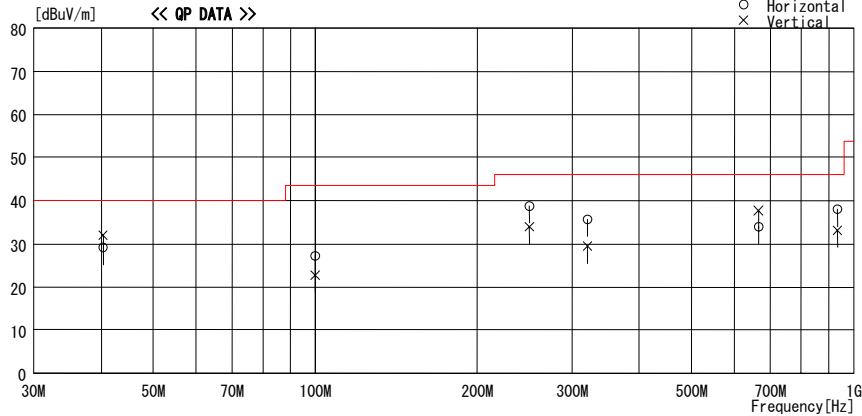
Company : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : FM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp./Humi. : 26deg.C / 45%
 Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11b Tx Hch / 2Mbps(Worst-Rate) Hor:ANT Angle 90deg., Ver:ANT Angle 0deg. (MAX)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.

Horizontal
 Vertical
 Horizontal
 Vertical



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
40.340	40.2	QP	13.7	-21.9	32.0	Vert.	40.0	8.0
40.340	37.4	QP	13.7	-21.9	29.2	Hori.	40.0	10.8
100.002	38.4	QP	10.1	-21.3	27.2	Hori.	43.5	16.3
100.002	33.9	QP	10.1	-21.3	22.7	Vert.	43.5	20.8
250.001	41.6	QP	16.7	-19.5	38.8	Hori.	46.0	7.2
250.001	36.7	QP	16.7	-19.5	33.9	Vert.	46.0	12.1
319.987	39.5	QP	15.3	-19.1	35.7	Hori.	46.0	10.3
319.987	33.3	QP	15.3	-19.1	29.5	Vert.	46.0	16.6
666.617	32.7	QP	20.0	-18.6	34.1	Hori.	46.0	12.0
666.617	36.3	QP	20.0	-18.6	37.7	Vert.	46.0	8.3
932.387	32.2	QP	22.5	-16.7	38.0	Hori.	46.0	8.0
932.387	27.4	QP	22.5	-16.7	33.2	Vert.	46.0	12.8

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

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MF060b(26.04.07)

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

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/05/18

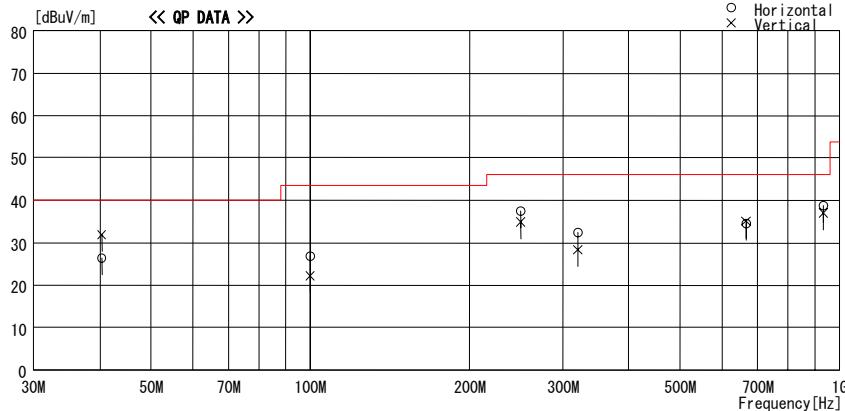
Company : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : FM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp./Humi. : 26deg.C / .45%
 Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11g Tx Lch / 24Mbps(Worst-Rate) Hor:ANT Angle 90deg., Ver:ANT Angle 0deg. (MAX)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.

— Horizontal
— Vertical
○ Horizontal
× Vertical



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor	Loss& Gain	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
			[dB]	[dB]				
40.340	40.1	QP	13.7	-21.9	31.9	Vert.	40.0	8.1
40.340	34.6	QP	13.7	-21.9	26.4	Hori.	40.0	13.6
100.003	38.0	QP	10.1	-21.3	26.8	Hori.	43.5	16.7
100.003	33.5	QP	10.1	-21.3	22.3	Vert.	43.5	21.2
249.996	40.3	QP	16.7	-19.5	37.5	Hori.	46.0	8.5
249.996	37.7	QP	16.7	-19.5	34.9	Vert.	46.0	11.1
320.002	36.3	QP	15.3	-19.1	32.5	Hori.	46.0	13.5
320.002	32.2	QP	15.3	-19.1	28.4	Vert.	46.0	17.6
666.593	33.2	QP	20.0	-18.6	34.6	Hori.	46.0	11.4
666.593	33.7	QP	20.0	-18.6	35.1	Vert.	46.0	10.9
932.673	32.9	QP	22.5	-16.7	38.7	Hori.	46.0	7.3
932.673	31.2	QP	22.5	-16.7	37.0	Vert.	46.0	9.0

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)

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MF060b(26.04.07)

Radiated Spurious Emission (below 1GHz)
ANT: SFP 11g Tx, Ch:Mid

DATA OF RADIATED EMISSION TEST

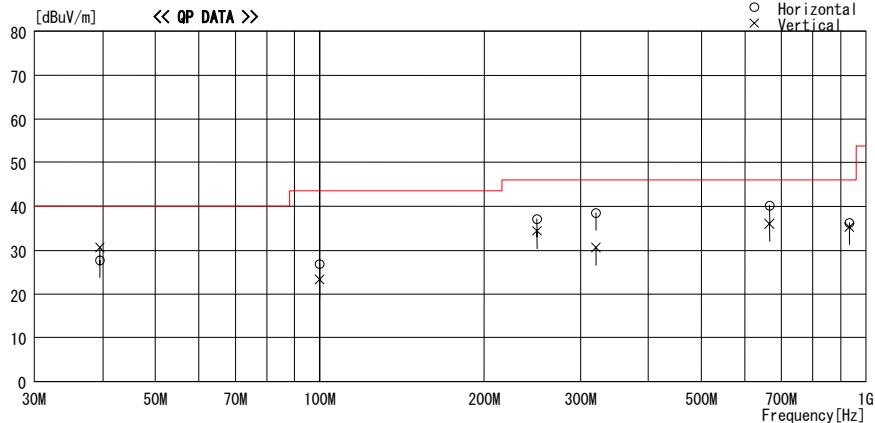
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/05/18

Company : Canon Inc.	Report No. : 27JE0058-HO
Kind of EUT : Wireless Module for Printer	Power : AC120V / 60Hz (DC 3.3V)
Model No. : FM33489	Temp. / Humi. : 26deg.C / 45%
Serial No. : 503	Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11g Tx Mch / 24Mbps(Worst-Rate) Hor:ANT Angle 90deg., Ver:ANT Angle 0deg. (MAX)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.

— Horizontal
— Vertical
○ Horizontal
× Vertical



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss& Gain [dB/m]	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor	[dB]				
39.510	38.5	QP	14.0	-21.9	30.6	Vert.	40.0	9.4
39.510	35.6	QP	14.0	-21.9	27.7	Hori.	40.0	12.3
100.003	38.0	QP	10.1	-21.3	26.8	Hori.	43.5	16.7
100.003	34.6	QP	10.1	-21.3	23.4	Vert.	43.5	20.1
250.008	39.8	QP	16.7	-19.5	37.0	Hori.	46.0	9.0
250.008	37.2	QP	16.7	-19.5	34.4	Vert.	46.0	11.7
319.996	42.3	QP	15.3	-19.1	38.5	Hori.	46.0	7.5
319.996	34.4	QP	15.3	-19.1	30.6	Vert.	46.0	15.4
667.537	38.6	QP	20.1	-18.6	40.1	Hori.	46.0	5.9
666.585	34.6	QP	20.0	-18.6	36.0	Vert.	46.0	10.0
932.153	30.4	QP	22.5	-16.7	36.2	Hori.	46.0	9.8
932.153	29.5	QP	22.5	-16.7	35.3	Vert.	46.0	10.8

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)

UL Japan, Inc.

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MF060b(26.04.07)

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

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/05/18

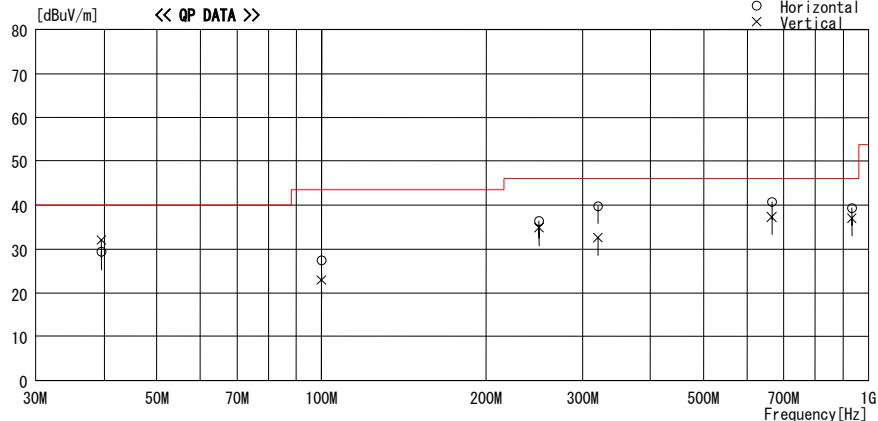
Company : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : WM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp./Humi. : 26deg.C / 45%
 Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11g Tx Hch / 24Mbps(Worst-Rate) Hor:ANT Angle 90deg., Ver:ANT Angle Odeg. (MAX)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.

Horizontal
 Vertical
 Horizontal
 Vertical



Frequency [MHz]	Reading [dBuV/m]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
39.492	39.8	QP	14.1	-21.9	32.0	Vert.	40.0	8.0
39.492	37.1	QP	14.1	-21.9	29.3	Hori.	40.0	10.7
100.001	38.6	QP	10.1	-21.3	27.4	Hori.	43.5	16.1
100.001	34.1	QP	10.1	-21.3	22.9	Vert.	43.5	20.6
250.003	39.2	QP	16.7	-19.5	36.4	Hori.	46.0	9.6
250.003	37.6	QP	16.7	-19.5	34.8	Vert.	46.0	11.2
319.999	43.5	QP	15.3	-19.1	39.7	Hori.	46.0	6.3
319.999	36.3	QP	15.3	-19.1	32.5	Vert.	46.0	13.5
667.537	39.2	QP	20.1	-18.6	40.7	Hori.	46.0	5.3
666.609	35.9	QP	20.0	-18.6	37.3	Vert.	46.0	8.7
932.327	33.5	QP	22.5	-16.7	39.3	Hori.	46.0	6.7
932.327	31.2	QP	22.5	-16.7	37.0	Vert.	46.0	9.0

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)

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MF060b(26.04.07)

Radiated Spurious Emission (below 1GHz)
ANT: SFP 11b Rx, Ch:Mid

DATA OF RADIATED EMISSION TEST

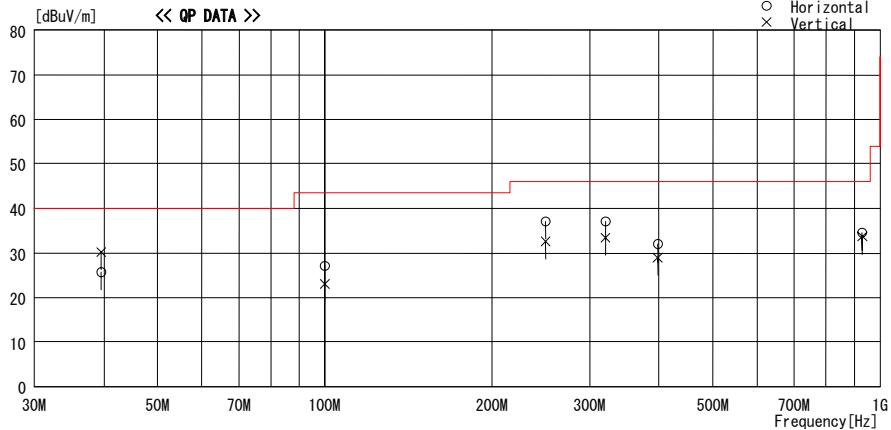
UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2007/05/18

Company : Canon Inc.	Report No. : 27JE0058-HO
Kind of EUT : Wireless Module for Printer	Power : AC120V / 60Hz (DC 3.3V)
Model No. : FM33489	Temp. /Humid. : 26deg. C / 45%
Serial No. : 503	Operator : Hidekazu Tanaka

Mode / Remarks : ANT (SFP) IEEE802.11b Rx Mch / 2Mbps (Worst-Rate) Hor:ANT Angle 90deg., Ver:ANT Angle 0deg. (MAX)

LIMIT : RSS-Gen 7.2.3 Receiver Spurious Emission QP
Except for the data below : adequate margin data below the limits.

— Horizontal
— Vertical
○ Horizontal
× Vertical



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
39.483	33.6	QP	14.1	-21.9	25.8	Hori.	40.0	14.2
39.483	38.0	QP	14.1	-21.9	30.2	Vert.	40.0	9.8
99.998	38.3	QP	10.1	-21.3	27.1	Hori.	43.5	16.4
99.998	34.3	QP	10.1	-21.3	23.1	Vert.	43.5	20.4
250.002	39.9	QP	16.7	-19.5	37.1	Hori.	46.0	8.9
250.002	35.4	QP	16.7	-19.5	32.6	Vert.	46.0	13.4
319.999	40.8	QP	15.3	-19.1	37.0	Hori.	46.0	9.0
319.999	37.2	QP	15.3	-19.1	33.4	Vert.	46.0	12.6
398.116	33.5	QP	17.8	-19.3	32.0	Hori.	46.0	14.0
398.116	30.4	QP	17.8	-19.3	28.9	Vert.	46.0	17.1
928.933	28.9	QP	22.5	-16.8	34.6	Hori.	46.0	11.4
928.933	28.0	QP	22.5	-16.8	33.7	Vert.	46.0	12.3

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)

UL Japan, Inc.

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MF060b(26.04.07)

Radiated Spurious Emission (below 1GHz)
ANT: SFP 11g Rx, Ch:Mid

DATA OF RADIATED EMISSION TEST

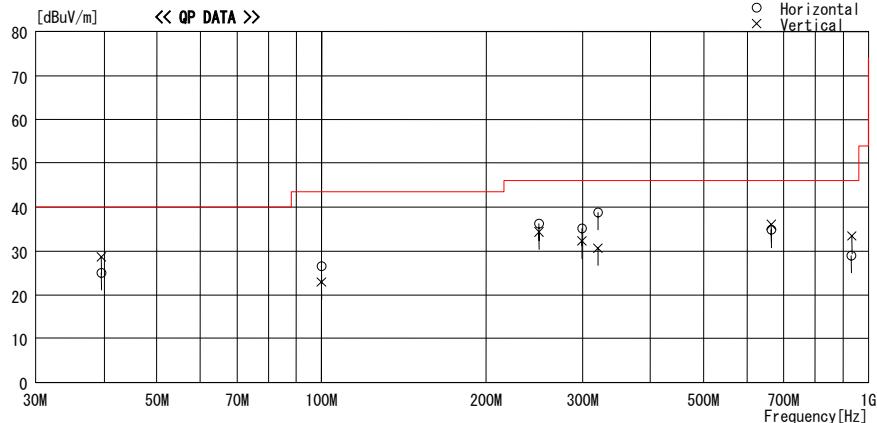
UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2007/05/18

Company : Canon Inc.	Report No. : 27JE0058-HO
Kind of EUT : Wireless Module for Printer	Power : AC120V / 60Hz (DC 3.3V)
Model No. : FM33489	Temp./Humi. : 26deg.C / 45%
Serial No. : 503	Operator : Hidekazu Tanaka

Mode / Remarks : ANT(SFP) IEEE802.11g Rx Mch / 24Mbps(Worst-Rate) Hor:ANT Angle 90deg., Ver:ANT Angle 0deg. (MAX)

LIMIT : RSS-Gen 7.2.3 Receiver Spurious Emission QP
Except for the data below : adequate margin data below the limits.

— Horizontal
— Vertical
○ Horizontal
× Vertical



Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Polar.	Limit	Margin
[MHz]	[dBuV]		[dB]	[dB]	[dBuV/m]		[dBuV/m]	[dB]
39.514	32.9	QP	14.0	-21.9	25.0	Hori.	40.0	15.0
39.514	36.6	QP	14.0	-21.9	28.7	Vert.	40.0	11.3
100.001	37.7	QP	10.1	-21.3	26.5	Hori.	43.5	17.0
100.001	34.1	QP	10.1	-21.3	22.9	Vert.	43.5	20.6
250.006	39.0	QP	16.7	-19.5	36.2	Hori.	46.0	9.8
250.006	37.1	QP	16.7	-19.5	34.3	Vert.	46.0	11.7
299.546	34.1	QP	20.1	-19.0	35.2	Hori.	46.0	10.8
299.546	31.2	QP	20.1	-19.0	32.3	Vert.	46.0	13.8
320.000	42.6	QP	15.3	-19.1	38.8	Hori.	46.0	7.2
320.000	34.5	QP	15.3	-19.1	30.7	Vert.	46.0	15.3
665.837	33.4	QP	20.0	-18.6	34.8	Hori.	46.0	11.2
665.837	34.6	QP	20.0	-18.6	36.0	Vert.	46.0	10.0
932.673	27.6	QP	22.5	-16.7	33.4	Vert.	46.0	12.6
929.975	23.2	QP	22.5	-16.7	29.0	Hori.	46.0	17.0

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)

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MF060b(26.04.07)

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

DATA OF RADIATED EMISSION TEST

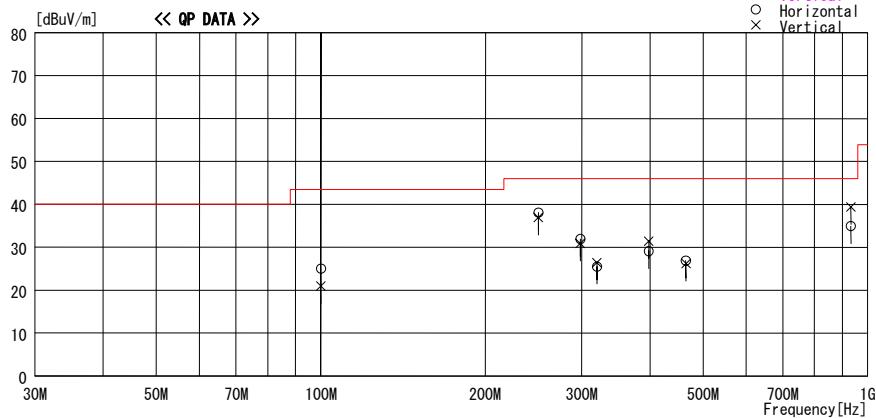
UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2007/05/20

Company : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : FM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp./Humi. : 23deg.C / 41%
 Operator : Shinya Watanabe

Mode / Remarks : ANT(MFP) IEEE802.11b Tx Lch / 2Mbps(Worst-Rate) Hor:ANT X-axis, Ver:ANT Y-axis (Max-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
100.000	36.3	QP	10.1	-21.3	25.1	Hori.	43.5	18.4
100.000	32.2	QP	10.1	-21.3	21.0	Vert.	43.5	22.5
250.001	39.7	QP	16.7	-19.5	36.9	Vert.	46.0	9.1
250.001	40.9	QP	16.7	-19.5	38.1	Hori.	46.0	7.9
298.300	30.9	QP	20.0	-19.0	31.9	Hori.	46.0	14.1
298.300	29.9	QP	20.0	-19.0	30.9	Vert.	46.0	15.1
320.000	29.3	QP	15.3	-19.1	25.5	Hori.	46.0	20.6
320.000	30.2	QP	15.3	-19.1	26.4	Vert.	46.0	19.6
397.832	32.9	QP	17.8	-19.3	31.4	Vert.	46.0	14.6
397.832	30.6	QP	17.8	-19.3	29.1	Hori.	46.0	16.9
465.450	28.1	QP	18.3	-19.5	26.9	Hori.	46.0	19.1
465.450	27.4	QP	18.3	-19.5	26.2	Vert.	46.0	19.8
932.300	29.2	QP	22.5	-16.7	35.0	Hori.	46.0	11.1
932.300	33.6	QP	22.5	-16.7	39.4	Vert.	46.0	6.6

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)

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MF060b(26.04.07)

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

DATA OF RADIATED EMISSION TEST

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

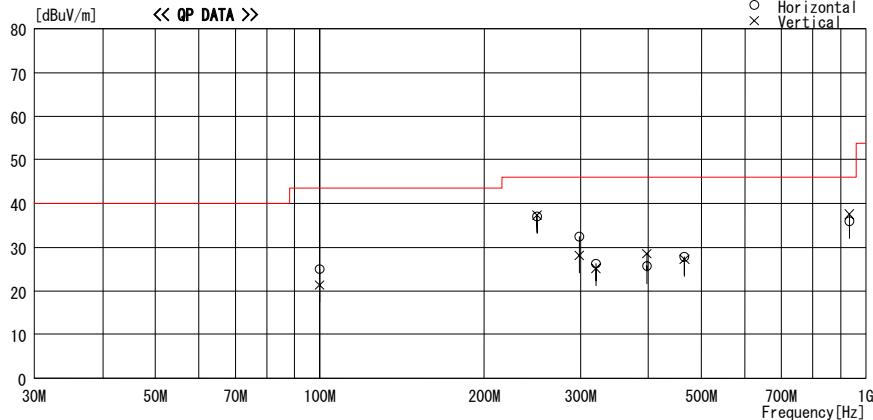
Date : 2007/05/20

Company : Canon Inc.	Report No. : 27JE0058-HO
Kind of EUT : Wireless Module for Printer	Power : AC120V / 60Hz (DC 3.3V)
Model No. : FM33489	Temp. / Humi. : 23deg.C / 41%
Serial No. : 503	Operator : Shinya Watanabe

Mode / Remarks : ANT(MFP) IEEE802.11b Tx Mch / 2Mbps(Worst-Rate) Hor:ANT X-axis, Ver:ANT Y-axis (Max-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.

— Horizontal
— Vertical
○ Horizontal
× Vertical



Frequency	Reading	DET	Antenna	Loss&Factor	Level	Polar.	Limit	Margin
[MHz]	[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]	[dB]
100.000	36.2	QP	10.1	-21.3	25.0	Hori.	43.5	18.5
100.000	32.6	QP	10.1	-21.3	21.4	Vert.	43.5	22.1
250.009	39.9	QP	16.7	-19.5	37.1	Hori.	46.0	8.9
250.009	40.2	QP	16.7	-19.5	37.4	Vert.	46.0	8.6
298.350	31.4	QP	20.0	-19.0	32.4	Hori.	46.0	13.6
298.350	27.2	QP	20.0	-19.0	28.2	Vert.	46.0	17.8
320.000	30.1	QP	15.3	-19.1	26.3	Hori.	46.0	19.7
320.000	29.0	QP	15.3	-19.1	25.2	Vert.	46.0	20.8
397.858	27.2	QP	17.8	-19.3	25.7	Hori.	46.0	20.3
397.858	30.0	QP	17.8	-19.3	28.5	Vert.	46.0	17.5
465.750	29.1	QP	18.3	-19.6	27.8	Hori.	46.0	18.2
465.750	28.6	QP	18.3	-19.6	27.3	Vert.	46.0	18.7
932.239	30.1	QP	22.5	-16.7	35.9	Hori.	46.0	10.1
932.239	31.8	QP	22.5	-16.7	37.6	Vert.	46.0	8.4

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)

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MF060b(26.04.07)

Radiated Spurious Emission (below 1GHz)

ANT: MFP 11b Tx, Ch:High

DATA OF RADIATED EMISSION TEST

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

Date : 2007/05/20

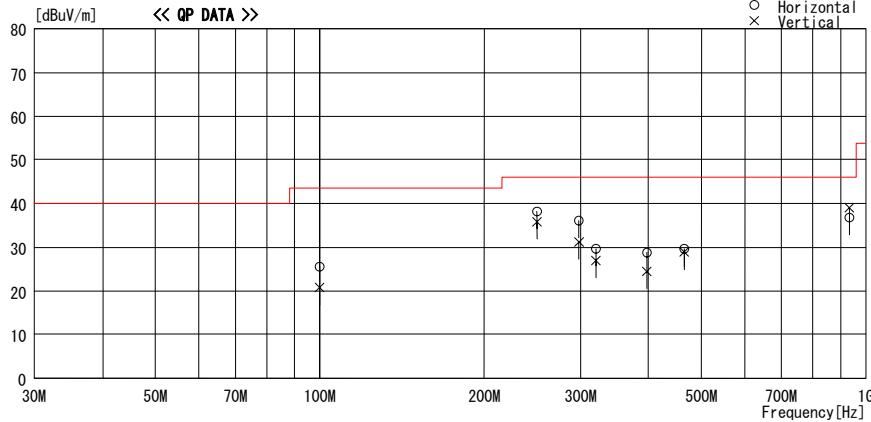
Company : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : FM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp. / Humi. : 23deg.C / 41%
 Operator : Shinya Watanabe

Mode / Remarks : ANT(MFP) IEEE802.11b Tx Hch / 2Mbps(Worst-Rate) Hor:ANT X-axis, Ver:ANT Y-axis (Max-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
 Except for the data below : adequate margin data below the limits.

— Horizontal
 — Vertical
 ○ Horizontal
 × Vertical



Frequency	Reading	DET	Antenna	Loss&Factor	Level	Polar.	Limit	Margin
[MHz]	[dBuV]			[dB/m]	[dBuV/m]		[dBuV/m]	[dB]
100.008	36.8	QP	10.1	-21.3	25.6	Hori.	43.5	17.9
100.008	32.0	QP	10.1	-21.3	20.8	Vert.	43.5	22.7
250.005	41.0	QP	16.7	-19.5	38.2	Hori.	46.0	7.8
250.005	38.6	QP	16.7	-19.5	35.8	Vert.	46.0	10.2
298.300	35.1	QP	20.0	-19.0	36.1	Hori.	46.0	9.9
298.300	30.2	QP	20.0	-19.0	31.2	Vert.	46.0	14.8
320.000	33.5	QP	15.3	-19.1	29.7	Hori.	46.0	16.3
320.000	30.8	QP	15.3	-19.1	27.0	Vert.	46.0	19.0
397.832	30.3	QP	17.8	-19.3	28.8	Hori.	46.0	17.2
397.832	26.0	QP	17.8	-19.3	24.5	Vert.	46.0	21.5
465.450	30.8	QP	18.3	-19.5	29.6	Hori.	46.0	16.4
465.450	30.1	QP	18.3	-19.5	28.9	Vert.	46.0	17.1
932.280	31.0	QP	22.5	-16.7	36.8	Hori.	46.0	9.2
932.280	33.2	QP	22.5	-16.7	39.0	Vert.	46.0	7.0

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)

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MF060b(26.04.07)

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

DATA OF RADIATED EMISSION TEST

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

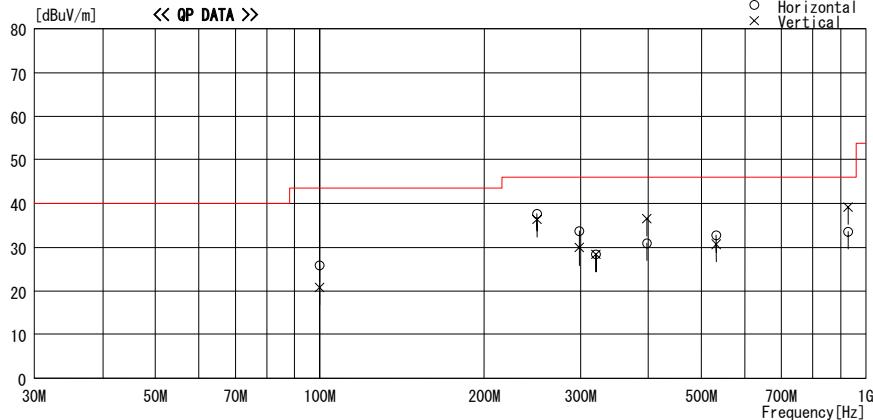
Date : 2007/05/20

Company : Canon Inc.	Report No. : 27JE0058-HO
Kind of EUT : Wireless Module for Printer	Power : AC120V / 60Hz (DC 3.3V)
Model No. : FM33489	Temp. / Humi. : 23deg.C / 41%
Serial No. : 503	Operator : Shinya Watanabe

Mode / Remarks : ANT(MFP) IEEE802.11g Tx Lch / 24Mbps(Worst-Rate) Hor:ANT X-axis, Ver:ANT Y-axis (Max-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.

— Horizontal
— Vertical
○ Horizontal
× Vertical



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss & Gain		Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
				Factor [dB/m]	Gain [dB]				
99.997	37.1	QP	10.1	-21.3	25.9	Hori.	43.5	17.6	
99.997	32.1	QP	10.1	-21.3	20.9	Vert.	43.5	22.6	
250.012	40.5	QP	16.7	-19.5	37.7	Hori.	46.0	8.3	
250.012	39.1	QP	16.7	-19.5	36.3	Vert.	46.0	9.7	
298.512	32.7	QP	20.0	-19.0	33.7	Hori.	46.0	12.3	
298.512	28.9	QP	20.0	-19.0	29.9	Vert.	46.0	16.1	
320.000	32.2	QP	15.3	-19.1	28.4	Hori.	46.0	17.6	
320.000	32.2	QP	15.3	-19.1	28.4	Vert.	46.0	17.6	
397.970	32.4	QP	17.8	-19.3	30.9	Hori.	46.0	15.1	
397.970	38.0	QP	17.8	-19.3	36.5	Vert.	46.0	9.5	
531.570	33.4	QP	18.8	-19.4	32.8	Hori.	46.0	13.2	
531.570	31.3	QP	18.8	-19.4	30.7	Vert.	46.0	15.3	
928.300	33.6	QP	22.4	-16.8	39.2	Vert.	46.0	6.8	
928.300	28.0	QP	22.4	-16.8	33.6	Hori.	46.0	12.4	

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)

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MF060b(26.04.07)

Radiated Spurious Emission (below 1GHz)
ANT: MFP 11g Tx, Ch:Mid

DATA OF RADIATED EMISSION TEST

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

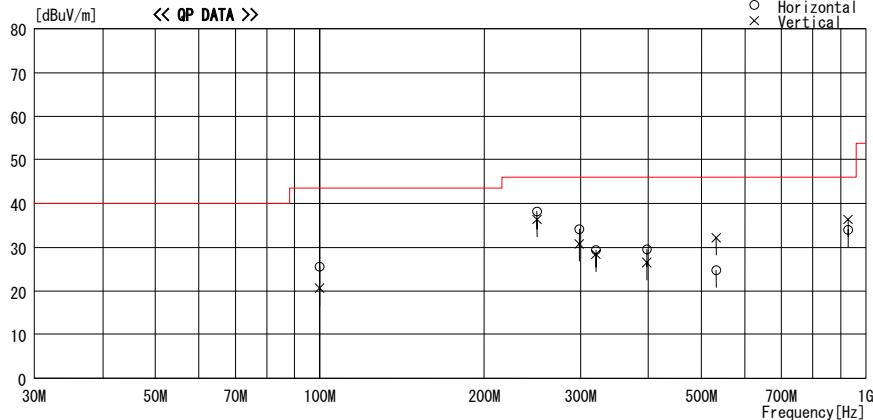
Date : 2007/05/20

Company : Canon Inc.	Report No. : 27JE0058-HO
Kind of EUT : Wireless Module for Printer	Power : AC120V / 60Hz (DC 3.3V)
Model No. : FM33489	Temp. / Humi. : 23deg.C / 41%
Serial No. : 503	Operator : Shinya Watanabe

Mode / Remarks : ANT(MFP) IEEE802.11g Tx Mch / 24Mbps(Worst-Rate) Hor:ANT X-axis, Ver:ANT Y-axis (Max-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.

— Horizontal
— Vertical
○ Horizontal
× Vertical



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss & Gain [dB/m]		Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
				Factor	Gain				
100.007	36.8	QP	10.1	-21.3	25.6	Hori.	43.5	17.9	
100.007	31.9	QP	10.1	-21.3	20.7	Vert.	43.5	22.8	
250.005	41.0	QP	16.7	-19.5	38.2	Hori.	46.0	7.8	
250.005	39.2	QP	16.7	-19.5	36.4	Vert.	46.0	9.6	
298.600	33.1	QP	20.0	-19.0	34.1	Hori.	46.0	11.9	
298.600	29.8	QP	20.0	-19.0	30.8	Vert.	46.0	15.2	
320.001	32.2	QP	15.3	-19.1	29.4	Hori.	46.0	16.6	
320.001	32.2	QP	15.3	-19.1	28.4	Vert.	46.0	17.6	
397.980	28.0	QP	17.8	-19.3	26.5	Vert.	46.0	19.5	
397.980	31.1	QP	17.8	-19.3	29.6	Hori.	46.0	16.4	
531.820	25.4	QP	18.8	-19.4	24.8	Hori.	46.0	21.2	
531.820	32.8	QP	18.8	-19.4	32.2	Vert.	46.0	13.8	
928.330	28.4	QP	22.4	-16.8	34.0	Hori.	46.0	12.0	
928.330	30.8	QP	22.4	-16.8	36.4	Vert.	46.0	9.6	

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)

UL Japan, Inc.

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Facsimile : +81 596 24 8124

MF060b(26.04.07)

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

DATA OF RADIATED EMISSION TEST

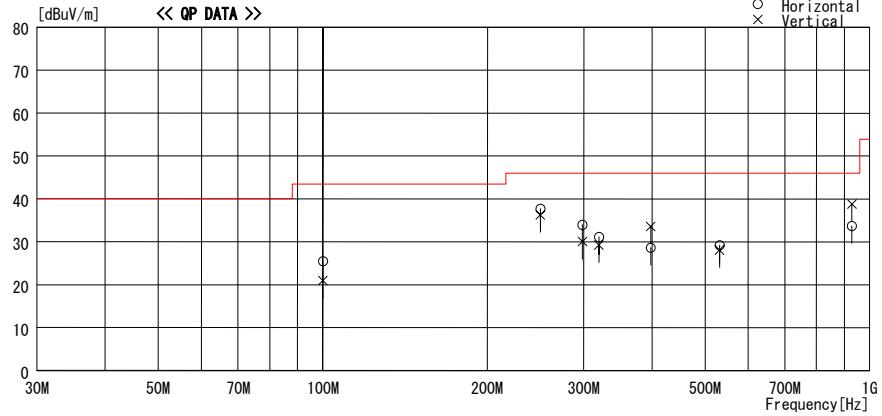
UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber

Date : 2007/05/20

Company : Canon Inc.	Report No. : 27JE0058-HO
Kind of EUT : Wireless Module for Printer	Power : AC120V / 60Hz (DC 3.3V)
Model No. : FM33489	Temp./Humi. : 23deg.C / 41%
Serial No. : 503	Operator : Shinya Watanabe

Mode / Remarks : ANT(MFP) IEEE802.11g Tx Hch / 24Mbps(Worst-Rate) Hor:ANT X-axis, Ver:ANT Y-axis (Max-axis)

LIMIT : FCC15.247(d) 3m, below 1GHz:QP
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss& Gain [dB]	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
			Factor	Gain [dB]				
100.000	36.7	QP	10.1	-21.3	25.5	Hori.	43.5	18.0
100.000	32.1	QP	10.1	-21.3	20.9	Vert.	43.5	22.6
250.003	40.4	QP	16.7	-19.5	37.6	Hori.	46.0	8.4
250.003	39.1	QP	16.7	-19.5	36.3	Vert.	46.0	9.7
298.422	32.9	QP	20.0	-19.0	33.9	Hori.	46.0	12.1
298.422	29.0	QP	20.0	-19.0	30.0	Vert.	46.0	16.0
320.000	34.9	QP	15.3	-19.1	31.1	Hori.	46.0	14.9
320.000	33.0	QP	15.3	-19.1	29.2	Vert.	46.0	16.8
398.020	35.1	QP	17.8	-19.3	33.6	Vert.	46.0	12.4
398.020	30.1	QP	17.8	-19.3	28.6	Hori.	46.0	17.4
531.920	28.7	QP	18.8	-19.4	28.1	Vert.	46.0	17.9
531.920	29.8	QP	18.8	-19.4	29.2	Hori.	46.0	16.9
928.340	28.1	QP	22.4	-16.8	33.7	Hori.	46.0	12.3
928.340	33.2	QP	22.4	-16.8	38.8	Vert.	46.0	7.3

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)

UL Japan, Inc.

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Facsimile : +81 596 24 8124

MF060b(26.04.07)

Radiated Spurious Emission (below 1GHz)
ANT: MFP 11b Rx, Ch:Mid

DATA OF RADIATED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
 Date : 2007/05/20

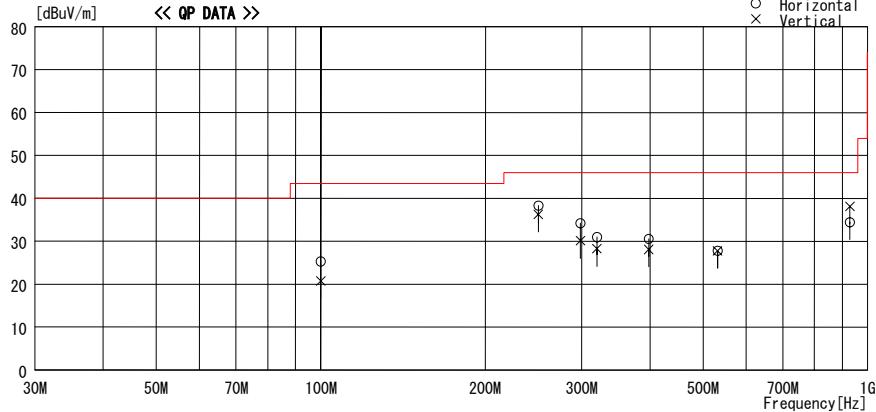
Company : Canon Inc.
 Kind of EUT : Wireless Module for Printer
 Model No. : FM33489
 Serial No. : 503

Report No. : 27JE0058-HO
 Power : AC120V / 60Hz (DC 3.3V)
 Temp./Humi. : 23deg.C / 41%
 Operator : Shinya Watanabe

Mode / Remarks : ANT(MFP) IEEE802.11b Rx Mch / 2Mbps(Worst-Rate) Hor:ANT X-axis, Ver:ANT Y-axis (Max-axis)

LIMIT : RSS-Gen 7.2.3 Receiver Spurious Emission QP
 Except for the data below : adequate margin data below the limits.

— Horizontal
 - Vertical
 ○ Horizontal
 ✕ Vertical



Frequency [MHz]	Reading [dBuV]	DET	Antenna Factor [dB/m]	Loss& Gain [dB]	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
99.993	36.5	QP	10.1	-21.3	25.3	Hori.	43.5	18.2
99.993	32.0	QP	10.1	-21.3	20.8	Vert.	43.5	22.7
250.000	41.1	QP	16.7	-19.5	38.3	Hori.	46.0	7.7
250.000	39.1	QP	16.7	-19.5	36.3	Vert.	46.0	9.8
298.425	29.1	QP	20.0	-19.0	30.1	Vert.	46.0	15.9
298.425	33.2	QP	20.0	-19.0	34.2	Hori.	46.0	11.8
320.017	34.8	QP	15.3	-19.1	31.0	Hori.	46.0	15.0
320.017	32.0	QP	15.3	-19.1	28.2	Vert.	46.0	17.8
397.920	32.1	QP	17.8	-19.3	30.6	Hori.	46.0	15.4
397.920	29.6	QP	17.8	-19.3	28.1	Vert.	46.0	17.9
531.970	28.4	QP	18.8	-19.4	27.8	Hori.	46.0	18.2
531.970	28.4	QP	18.8	-19.4	27.8	Vert.	46.0	18.2
928.250	28.8	QP	22.4	-16.8	34.4	Hori.	46.0	11.6
928.250	32.5	QP	22.4	-16.8	38.1	Vert.	46.0	7.9

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)

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MF060b(26.04.07)

Radiated Spurious Emission (below 1GHz)
ANT: MFP 11g Rx, Ch:Mid

DATA OF RADIATED EMISSION TEST

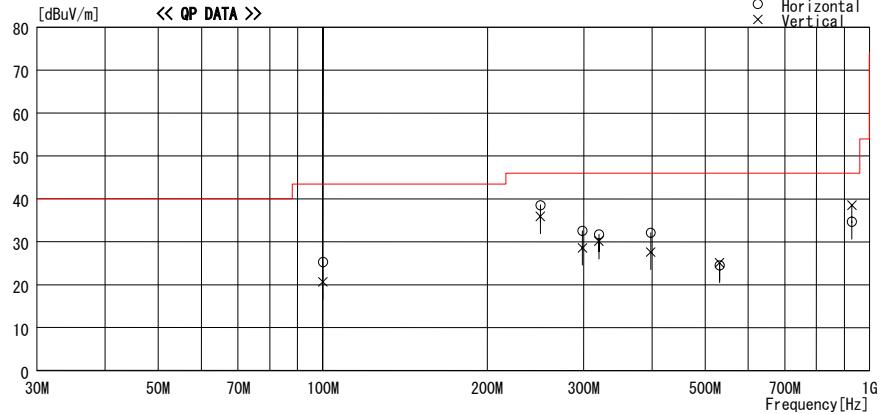
UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber

Date : 2007/05/20

Company : Canon Inc.	Report No. : 27JE0058-HO
Kind of EUT : Wireless Module for Printer	Power : AC120V / 60Hz (DC 3.3V)
Model No. : FM33489	Temp./Humi. : 23deg.C / 41%
Serial No. : 503	Operator : Shinya Watanabe

Mode / Remarks : ANT(MFP) IEEE802.11g Rx Mch / 24Mbps(Worst-Rate) Hor:ANT X-axis, Ver:ANT Y-axis (Max-axis)

LIMIT : RSS-Gen 7.2.3 Receiver Spurious Emission QP
Except for the data below : adequate margin data below the limits.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss& Factor	Level [dBuV/m]	Polar.	Limit [dBuV/m]	Margin [dB]
			[dBi]	[dB]				
100.003	36.5	QP	10.1	-21.3	25.3	Hori.	43.5	18.2
100.003	31.8	QP	10.1	-21.3	20.6	Vert.	43.5	22.9
250.002	41.4	QP	16.7	-19.5	38.6	Hori.	46.0	7.4
250.002	38.8	QP	16.7	-19.5	36.0	Vert.	46.0	10.0
298.450	27.6	QP	20.0	-19.0	28.6	Vert.	46.0	17.4
298.450	31.6	QP	20.0	-19.0	32.6	Hori.	46.0	13.4
320.000	35.6	QP	15.3	-19.1	31.8	Hori.	46.0	14.2
320.000	33.9	QP	15.3	-19.1	30.1	Vert.	46.0	15.9
397.925	33.6	QP	17.8	-19.3	32.1	Hori.	46.0	13.9
397.925	29.1	QP	17.8	-19.3	27.6	Vert.	46.0	18.4
531.850	25.1	QP	18.8	-19.4	24.5	Hori.	46.0	21.5
531.850	25.7	QP	18.8	-19.4	25.1	Vert.	46.0	20.9
928.370	32.9	QP	22.4	-16.8	38.5	Vert.	46.0	7.5
928.370	29.1	QP	22.4	-16.8	34.7	Hori.	46.0	11.3

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)

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: SFP 11b Tx, Ch:Low

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/16/2007 , 05/19/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 26deg.C , 26deg.C
Mode	: IEEE802.11b Tx 2Mbps , 2412MHz	HUMIDITY	: 41% , 44%
Remarks	: AntennaType:SFP , Hor:90deg , Ver:0deg	ENGINEER	: Hidekazu Tanaka

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 [dB]		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1065.4	64.3	64.3	24.3	33.8	1.8	0.0	56.6	56.6	73.9	17.3	17.3
2	1198.4	60.5	57.3	24.8	33.6	2.1	0.0	53.8	50.6	73.9	20.1	23.3
3	1326.0	58.2	54.1	25.3	33.4	2.2	0.0	52.3	48.2	73.9	21.6	25.7
4	1458.2	57.0	54.5	25.7	33.2	2.3	0.0	51.8	49.3	73.9	22.1	24.6
5	2390.0	52.4	55.1	27.1	32.3	3.2	0.0	50.4	53.1	73.9	23.5	20.8
6	4824.0	44.0	45.5	31.3	31.6	4.5	0.1	48.3	49.8	73.9	25.6	24.1
7	7236.0	NS	NS	-	-	-	-	-	-	-	-	-
8	9648.0	NS	NS	-	-	-	-	-	-	-	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	24120.0	46.0	46.1	38.7	30.5	9.3	0.0	54.0	54.1	73.9	19.9	19.8

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 [dB]		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1065.4	44.8	45.2	24.3	33.8	1.8	0.0	37.1	37.5	53.9	16.8	16.4
2	1198.4	42.1	37.1	24.8	33.6	2.1	0.0	35.4	30.4	53.9	18.5	23.5
3	1326.0	40.6	38.3	25.3	33.4	2.2	0.0	34.7	32.4	53.9	19.2	21.5
4	1458.2	37.4	38.2	25.7	33.2	2.3	0.0	32.2	33.0	53.9	21.7	20.9
5	2390.0	38.8	44.2	27.1	32.3	3.2	0.0	36.8	42.2	53.9	17.1	11.7
6	4824.0	35.7	36.6	31.3	31.6	4.5	0.1	40.0	40.9	53.9	13.9	13.0
7	7236.0	NS	NS	-	-	-	-	-	-	-	-	-
8	9648.0	NS	NS	-	-	-	-	-	-	-	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	24120.0	33.8	33.9	38.7	30.5	9.3	0.0	41.8	41.9	53.9	12.1	12.0

20dBc(Fundamental 2412MHz) (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 [dB]		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	102.4	105.6	27.1	32.3	3.3	0.0	100.5	103.7	-	-	-
2	2400.0	49.7	53.5	27.1	32.3	3.3	0.0	47.8	51.6	Funda-20dB	32.7	32.1

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: SFP 11b Tx, Ch:Mid

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/17/2007, 05/19/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 26deg.C, 26deg.C
Mode	: IEEE802.11b Tx 2Mbps, 2437MHz	HUMIDITY	: 45%, 44%
Remarks	: AntennaType:SFP, Hor:90deg, Ver:0deg	ENGINEER	: Hidekazu Tanaka

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		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	1067.0	64.1	59.7	24.3	33.8	1.6	0.0	56.2	51.8	73.9	17.7	22.1
2	1198.1	57.8	57.5	24.8	33.6	1.9	0.0	50.9	50.6	73.9	23.0	23.3
3	1328.8	58.6	55.9	25.3	33.4	2.0	0.0	52.5	49.8	73.9	21.4	24.1
4	1462.2	53.4	55.2	25.7	33.2	2.1	0.0	48.0	49.8	73.9	25.9	24.1
5	4874.0	44.2	44.0	31.4	31.6	4.2	0.0	48.2	48.0	73.9	25.7	25.9
6	7311.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	9748.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	24370.0	46.0	46.0	38.8	30.3	9.4	0.0	54.4	54.4	73.9	19.5	19.5

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		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	1067.0	46.9	42.2	24.3	33.8	1.6	0.0	39.0	34.3	53.9	14.9	19.6
2	1198.1	40.1	40.2	24.8	33.6	1.9	0.0	33.2	33.3	53.9	20.7	20.6
3	1328.8	39.8	39.7	25.3	33.4	2.0	0.0	33.7	33.6	53.9	20.2	20.3
4	1462.2	37.1	37.7	25.7	33.2	2.1	0.0	31.7	32.3	53.9	22.2	21.6
5	4874.0	38.4	34.3	31.4	31.6	4.2	0.0	42.4	38.3	53.9	11.5	15.6
6	7311.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	9748.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	24370.0	33.8	33.9	38.8	30.3	9.4	0.0	42.2	42.3	53.9	11.7	11.6

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: SFP 11b Tx, Ch:High

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM3349	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/17/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 26deg.C
Mode	: IEEE802.11b Tx 2Mbps , 2462MHz	HUMIDITY	: 45%
Remarks	: AntennaType:SFP , Hor:90deg , Ver:0deg	ENGINEER	: Hidekazu Tanaka

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
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1064.8	64.4	66.5	24.3	33.8	1.6	0.0	56.5	58.6	73.9	17.4	15.3
2	1197.9	57.2	56.1	24.8	33.6	1.9	0.0	50.3	49.2	73.9	23.6	24.7
3	1327.8	58.0	56.2	25.3	33.4	2.0	0.0	51.9	50.1	73.9	22.0	23.8
4	1457.1	55.0	55.4	25.7	33.2	2.1	0.0	49.6	50.0	73.9	24.3	23.9
5	2483.5	55.0	59.9	27.2	32.3	2.8	0.0	52.7	57.6	73.9	21.2	16.3
6	4924.0	44.5	44.5	31.5	31.6	4.3	0.0	48.7	48.7	73.9	25.2	25.2
7	7386.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	9848.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	24620.0	46.6	46.7	38.8	30.2	9.4	0.0	55.1	55.2	73.9	18.8	18.7

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
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1064.8	46.2	47.5	24.3	33.8	1.6	0.0	38.3	39.6	53.9	15.6	14.3
2	1197.9	40.7	39.9	24.8	33.6	1.9	0.0	33.8	33.0	53.9	20.1	20.9
3	1327.8	41.6	40.5	25.3	33.4	2.0	0.0	35.5	34.4	53.9	18.4	19.5
4	1457.1	38.0	38.5	25.7	33.2	2.1	0.0	32.6	33.1	53.9	21.3	20.8
5	2483.5	45.0	49.0	27.2	32.3	2.8	0.0	42.7	46.7	53.9	11.2	7.2
6	4924.0	34.9	34.9	31.5	31.6	4.3	0.0	39.1	39.1	53.9	14.8	14.8
7	7386.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	9848.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	24620.0	34.7	34.7	38.8	30.2	9.4	0.0	43.2	43.2	53.9	10.7	10.7

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: SFP 11g Tx, Ch:Low

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/16/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 26deg.C
Mode	: IEEE802.11g Tx 24Mbps, 2412MHz	HUMIDITY	: 41%
Remarks	: AntennaType:SFP, Hor:90deg, Ver:0deg	ENGINEER	: Hidekazu Tanaka

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

No.	FREQ [MHz]	S/A READING HOR [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR [dBuV/m]		Limit PK [dBuV/m]	MARGIN HOR [dB]	
		VER	[dBuV]					VER	[dBuV/m]		VER	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1066.4	65.0	60.6	24.3	33.8	1.8	0.0	57.3	52.9	73.9	16.6	21.0
2	1197.5	58.1	55.0	24.8	33.6	2.1	0.0	51.4	48.3	73.9	22.5	25.6
3	1327.1	56.5	56.5	25.3	33.4	2.2	0.0	50.6	50.6	73.9	23.3	23.3
4	1458.5	57.1	56.1	25.7	33.2	2.3	0.0	51.9	50.9	73.9	22.0	23.0
5	2390.0	65.2	63.2	27.1	32.3	3.2	0.0	63.2	61.2	73.9	10.7	12.7
6	4824.0	46.4	44.8	31.3	31.6	4.5	0.1	50.7	49.1	73.9	23.2	24.8
7	7236.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	9648.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	24120.0	46.0	46.0	41.5	38.7	9.3	0.0	48.6	48.6	73.9	25.3	25.3

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

No.	FREQ [MHz]	S/A READING HOR [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR [dBuV/m]		Limit AV [dBuV/m]	MARGIN HOR [dB]	
		VER	[dBuV]					VER	[dBuV/m]		VER	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1066.4	44.6	43.3	24.3	33.8	1.8	0.0	36.9	35.6	53.9	17.0	18.3
2	1197.5	38.5	37.5	24.8	33.6	2.1	0.0	31.8	30.8	53.9	22.1	23.1
3	1327.1	39.0	39.6	25.3	33.4	2.2	0.0	33.1	33.7	53.9	20.8	20.2
4	1458.5	38.9	39.3	25.7	33.2	2.3	0.0	33.7	34.1	53.9	20.2	19.8
5	2390.0	47.0	46.1	27.1	32.3	3.2	0.0	45.0	44.1	53.9	8.9	9.8
6	4824.0	34.8	34.7	31.3	31.6	4.5	0.1	39.1	39.0	53.9	14.8	14.9
7	7236.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	9648.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	24120.0	33.8	34.0	41.5	38.7	9.3	0.0	36.4	36.6	53.9	17.5	17.3

20dBc(Fundamental 2412MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING HOR [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT HOR [dBuV/m]		Limit 20dBc [dBuV/m]	MARGIN HOR [dB]	
		VER	[dBuV]					VER	[dBuV/m]		VER	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	95.9	99.0	27.1	32.3	3.3	0.0	94.0	97.1	-	-	-
2	2400.0	64.3	64.4	27.1	32.3	3.3	0.0	62.4	62.5	Funda-20dB	11.6	14.6

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)
ANT: SFP 11g Tx, Ch:Mid

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/17/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 26deg.C
Mode	: IEEE802.11g Tx 24Mbps, 2437MHz	HUMIDITY	: 45%
Remarks	: AntennaType:SFP, Hor:90deg, Ver:0deg	ENGINEER	: Hidekazu Tanaka

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		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	1065.8	66.5	62.4	24.3	33.8	1.6	0.0	58.6	54.5	73.9	15.3	19.4
2	1182.9	58.0	56.4	24.8	33.6	1.9	0.0	51.1	49.5	73.9	22.8	24.4
3	1327.5	58.1	56.8	25.3	33.4	2.0	0.0	52.0	50.7	73.9	21.9	23.2
4	1455.8	55.9	53.4	25.7	33.2	2.1	0.0	50.5	48.0	73.9	23.4	25.9
5	4874.0	43.5	45.3	31.4	31.6	4.2	0.0	47.5	49.3	73.9	26.4	24.6
6	7311.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	9748.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	24370.0	46.1	46.2	38.8	30.3	9.4	0.0	54.5	54.6	73.9	19.4	19.3

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		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	1065.8	47.9	44.5	24.3	33.8	1.6	0.0	40.0	36.6	53.9	13.9	17.3
2	1182.9	41.1	39.0	24.8	33.6	1.9	0.0	34.2	32.1	53.9	19.7	21.8
3	1327.5	41.1	40.7	25.3	33.4	2.0	0.0	35.0	34.6	53.9	18.9	19.3
4	1455.8	38.7	37.7	25.7	33.2	2.1	0.0	33.3	32.3	53.9	20.6	21.6
5	4874.0	34.8	35.8	31.4	31.6	4.2	0.0	38.8	39.8	53.9	15.1	14.1
6	7311.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	9748.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	24370.0	33.8	33.8	38.8	30.3	9.4	0.0	42.2	42.2	53.9	11.7	11.7

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)
ANT: SFP 11g Tx, Ch:High

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/17/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 26deg.C
Mode	: IEEE802.11g Tx 24Mbps, 2462MHz	HUMIDITY	: 45%
Remarks	: AntennaType:SFP, Hor:90deg, Ver:0deg	ENGINEER	: Hidekazu Tanaka

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1066.9	65.6	63.6	24.3	33.8	1.6	0.0	57.7	55.7	73.9	16.2	18.2
2	1197.8	59.7	57.0	24.8	33.6	1.9	0.0	52.8	50.1	73.9	21.1	23.8
3	1330.5	56.6	57.0	25.3	33.4	2.0	0.0	50.5	50.9	73.9	23.4	23.0
4	1459.3	55.8	54.9	25.7	33.2	2.1	0.0	50.4	49.5	73.9	23.5	24.4
5	2483.5	64.3	64.5	27.2	32.3	2.8	0.0	62.0	62.2	73.9	11.9	11.7
6	4924.0	43.5	43.8	31.5	31.6	4.3	0.0	47.7	48.0	73.9	26.2	25.9
7	7386.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	9848.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	24620.0	46.4	46.5	38.8	30.2	9.4	0.0	54.9	55.0	73.9	19.0	18.9

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1066.9	54.2	45.6	24.3	33.8	1.6	0.0	46.3	37.7	53.9	7.6	16.2
2	1197.8	40.7	39.7	24.8	33.6	1.9	0.0	33.8	32.8	53.9	20.1	21.1
3	1330.5	39.6	38.8	25.3	33.4	2.0	0.0	33.5	32.7	53.9	20.4	21.2
4	1459.3	38.6	38.5	25.7	33.2	2.1	0.0	33.2	33.1	53.9	20.7	20.8
5	2483.5	48.5	48.6	27.2	32.3	2.8	0.0	46.2	46.3	53.9	7.7	7.6
6	4924.0	34.9	34.9	31.5	31.6	4.3	0.0	39.1	39.1	53.9	14.8	14.8
7	7386.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	9848.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	24620.0	34.8	34.9	38.8	30.2	9.4	0.0	43.3	43.4	53.9	10.6	10.5

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: SFP 11b Rx, Ch:Mid

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: RSS-Gen 7.2.3
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/16/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 26deg C
Mode	: IEEE802.11b Rx 2Mbps, 2437MHz	HUMIDITY	: 41%
Remarks	: AntennaType:SFP, Hor:90deg, Ver:0deg	ENGINEER	: Hidekazu Tanaka

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
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1060.0	62.4	64.8	24.3	33.9	1.8	0.0	54.6	57.0	73.9	19.3	16.9
2	1198.1	59.2	54.0	24.8	33.6	2.1	0.0	52.5	47.3	73.9	21.4	26.6
3	1331.4	57.8	57.0	25.3	33.4	2.2	0.0	51.9	51.1	73.9	22.0	22.8
4	1458.7	54.8	55.7	25.7	33.2	2.3	0.0	49.6	50.5	73.9	24.3	23.4

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
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1060.0	43.0	44.2	24.3	33.9	1.8	0.0	35.2	36.4	53.9	18.7	17.5
2	1198.1	40.8	37.5	24.8	33.6	2.1	0.0	34.1	30.8	53.9	19.8	23.1
3	1331.4	39.8	39.6	25.3	33.4	2.2	0.0	33.9	33.7	53.9	20.0	20.2
4	1458.7	37.1	38.3	25.7	33.2	2.3	0.0	31.9	33.1	53.9	22.0	20.8

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

*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.

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)
ANT: SFP 11g Rx, Ch:Mid

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: RSS-Gen 7.2.3
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/16/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 26deg C
Mode	: IEEE802.11g Rx 24Mbps, 2437MHz	HUMIDITY	: 41%
Remarks	: AntennaType:SFP, Hor:90deg, Ver:0deg		
		ENGINEER	: Hidekazu Tanaka

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
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dBuV/m]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1066.7	61.6	63.2	24.3	33.8	1.8	0.0	53.9	55.5	73.9	20.0	18.4
2	1198.2	57.2	56.0	24.8	33.6	2.1	0.0	50.5	49.3	73.9	23.4	24.6
3	1329.5	58.6	54.3	25.3	33.4	2.2	0.0	52.7	48.4	73.9	21.2	25.5
4	1458.3	54.4	51.2	5.7	33.2	2.3	0.0	29.2	26.0	73.9	44.7	47.9

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	VER					HOR	VER		HOR	VER
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dBuV/m]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1066.7	43.7	41.8	24.3	33.8	1.8	0.0	36.0	34.1	53.9	17.9	19.8
2	1198.2	40.4	39.6	24.8	33.6	2.1	0.0	33.7	32.9	53.9	20.2	21.0
3	1329.5	40.0	38.3	25.3	33.4	2.2	0.0	34.1	32.4	53.9	19.8	21.5
4	1458.3	37.3	36.8	5.7	33.2	2.3	0.0	12.1	11.6	53.9	41.8	42.3

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: MFP 11b Tx, Ch:Low

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/18/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 27deg.C
Mode	: IEEE802.11b Tx 2Mbps, 2412MHz	HUMIDITY	: 42%
Remarks	: AntennaType:MFP , Hor:X-axis , Ver:Y-axis	ENGINEER	: Hidekazu Tanaka

PK DETECT		(RBW: 1MHz, VBW: 1MHz)										
No.	FREQ	S/A READING		ANT Factor	AMP GAIN	CABLE LOSS	Hi-Pass Filter	RESULT		Limit PK	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[MHz]	[dBuV]					[dBuV/m]	[dBuV/m]		[dBuV/m]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1063.2	59.6	55.8	24.3	33.9	1.6	0.0	51.6	47.8	73.9	22.3	26.1
2	1099.1	55.8	56.0	24.8	33.6	1.9	0.0	48.9	49.1	73.9	25.0	24.8
3	1331.8	57.7	57.8	25.3	33.4	2.0	0.0	51.6	51.7	73.9	22.3	22.2
4	2390.0	51.0	50.8	27.1	32.3	3.0	0.0	48.8	48.6	73.9	25.1	25.3
5	4824.0	44.8	44.8	31.3	31.6	4.2	0.1	48.8	48.8	73.9	25.1	25.1
6	7236.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	9648.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	24120.0	45.8	46.0	38.7	30.5	9.3	0.0	53.8	54.0	73.9	20.1	19.9

AV DETECT		(RBW: 1MHz, VBW: 10Hz)										
No.	FREQ	S/A READING		ANT Factor	AMP GAIN	CABLE LOSS	Hi-Pass Filter	RESULT		Limit AV	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[MHz]	[dBuV]					[dBuV/m]	[dBuV/m]		[dBuV/m]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1063.2	42.8	39.5	24.3	33.9	1.6	0.0	34.8	31.5	53.9	19.1	22.4
2	1099.1	38.8	38.7	24.8	33.6	1.9	0.0	31.9	31.8	53.9	22.0	22.1
3	1331.8	39.7	39.2	25.3	33.4	2.0	0.0	33.6	33.1	53.9	20.3	20.8
4	2390.0	39.9	40.3	27.1	32.3	3.0	0.0	37.7	38.1	53.9	16.2	15.8
5	4824.0	34.8	36.2	31.3	31.6	4.2	0.1	38.8	40.2	53.9	15.1	13.7
6	7236.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	9648.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	24120.0	34.1	34.3	38.7	30.5	9.3	0.0	42.1	42.3	53.9	11.8	11.6

20dBc(Fundamental 2412MHz)		(RBW: 100kHz, VBW: 300kHz)										
No.	FREQ	S/A READING		ANT Factor	AMP GAIN	CABLE LOSS	Hi-Pass Filter	RESULT		Limit 20dBc	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[MHz]	[dBuV]					[dBuV/m]	[dBuV/m]		[dBuV/m]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	87.1	96.9	27.1	32.3	3.1	0.0	85.0	94.8	-	-	-
2	2400.0	47.0	46.8	27.1	32.3	3.1	0.0	44.9	44.7	Funda-20dB	20.1	30.1

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: MFP 11b Tx, Ch:Mid

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/18/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 27deg.C
Mode	: IEEE802.11b Tx 2Mbps, 2437MHz	HUMIDITY	: 42%
Remarks	: AntennaType:MFP , Hor:X-axis , Ver:Y-axis	ENGINEER	: Hidekazu Tanaka

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1060.0	60.9	56.5	24.3	33.9	1.6	0.0	52.9	48.5	73.9	21.0	25.4
2	1198.1	61.5	58.6	24.8	33.6	1.9	0.0	54.6	51.7	73.9	19.3	22.2
3	1332.8	54.1	54.7	25.3	33.4	2.0	0.0	48.0	48.6	73.9	25.9	25.3
4	4874.0	44.3	44.1	31.4	31.6	4.2	0.0	48.3	48.1	73.9	25.6	25.8
5	7311.0	NS	NS	-	-	-	-	-	-	73.9	-	-
6	9748.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	24370.0	45.7	45.8	38.8	30.3	9.4	0.0	54.1	54.2	73.9	19.8	19.7

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1060.0	41.6	40.0	24.3	33.9	1.6	0.0	33.6	32.0	53.9	20.3	21.9
2	1198.1	41.3	40.8	24.8	33.6	1.9	0.0	34.4	33.9	53.9	19.5	20.0
3	1332.8	38.0	38.7	25.3	33.4	2.0	0.0	31.9	32.6	53.9	22.0	21.3
4	4874.0	36.8	34.8	31.4	31.6	4.2	0.0	40.8	38.8	53.9	13.1	15.1
5	7311.0	NS	NS	-	-	-	-	-	-	73.9	-	-
6	9748.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	24370.0	34.1	34.1	38.8	30.3	9.4	0.0	42.5	42.5	53.9	11.4	11.4

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: MFP 11b Tx, Ch:High

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/18/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 27deg.C
Mode	: IEEE802.11b Tx 2Mbps, 2462MHz	HUMIDITY	: 42%
Remarks	: AntennaType:MFP , Hor:X-axis , Ver:Y-axis	ENGINEER	: Hidekazu Tanaka

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN HOR VER [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1061.6	60.0	58.8	24.3	33.9	1.6	0.0	52.0	50.8	73.9	21.9	23.1
2	1198.1	58.3	58.7	24.8	33.6	1.9	0.0	51.4	51.8	73.9	22.5	22.1
3	1329.7	57.2	55.6	25.3	33.4	2.0	0.0	51.1	49.5	73.9	22.8	24.4
4	1459.3	54.2	53.2	25.7	33.2	2.1	0.0	48.8	47.8	73.9	25.1	26.1
5	2483.5	54.8	49.0	27.2	32.3	2.8	0.0	52.5	46.7	73.9	21.4	27.2
6	4924.0	44.1	44.1	31.5	31.6	4.3	0.0	48.3	48.3	73.9	25.6	25.6
7	7386.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	9848.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	14772.0	41.6	41.4	40.6	31.0	7.0	0.0	48.7	48.5	73.9	25.2	25.4
10	24620.0	46.7	46.2	38.8	30.2	9.4	0.0	55.2	54.7	73.9	18.7	19.2

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN HOR VER [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1061.6	43.0	41.7	24.3	33.9	1.6	0.0	35.0	33.7	53.9	18.9	20.2
2	1198.1	39.7	40.5	24.8	33.6	1.9	0.0	32.8	33.6	53.9	21.1	20.3
3	1329.7	40.1	39.4	25.3	33.4	2.0	0.0	34.0	33.3	53.9	19.9	20.6
4	1459.3	38.2	36.5	25.7	33.2	2.1	0.0	32.8	31.1	53.9	21.1	22.8
5	2483.5	44.7	39.0	27.2	32.3	2.8	0.0	42.4	36.7	53.9	11.5	17.2
6	4924.0	34.8	34.8	31.5	31.6	4.3	0.0	39.0	39.0	53.9	14.9	14.9
7	7386.0	NS	NS	-	-	-	-	-	-	73.9	-	-
8	9848.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	14772.0	29.8	30.0	40.6	31.0	7.0	0.0	36.9	37.1	53.9	17.0	16.8
10	24620.0	34.7	34.6	38.8	30.2	9.4	0.0	43.2	43.1	53.9	10.7	10.8

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: MFP 11g Tx, Ch:Low

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/17/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 27deg.C
Mode	: IEEE802.11g Tx 24Mbps, 2412MHz	HUMIDITY	: 42%
Remarks	: AntennaType:MFP , Hor:X-axis , Ver:Y-axis	ENGINEER	: Hidekazu Tanaka

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		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss											
1	1066.7	57.3	55.5	24.3	33.8	1.6	0.0	49.4	47.6	73.9	24.5
2	1198.3	60.5	55.2	24.8	33.6	1.9	0.0	53.6	48.3	73.9	20.3
3	1333.3	60.3	58.4	25.3	33.4	2.0	0.0	54.2	52.3	73.9	19.7
4	2390.0	62.6	60.0	27.1	32.3	3.0	0.0	60.4	57.8	73.9	13.5
5	4824.0	47.3	45.0	31.3	31.6	4.2	0.1	51.3	49.0	73.9	22.6
6	7236.0	45.2	46.5	35.8	31.4	4.6	0.4	54.6	55.9	73.9	19.3
7	9648.0	NS	NS	-	-	-	-	-	-	73.9	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac											
8	12060.0	41.4	41.1	39.0	32.3	6.7	0.0	45.3	45.0	73.9	28.6
9	24120.0	46.0	46.1	38.7	30.5	9.3	0.0	54.0	54.1	73.9	19.9

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	VER					HOR	VER		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss											
1	1066.7	40.6	39.1	24.3	33.8	1.6	0.0	32.7	31.2	53.9	21.2
2	1198.3	41.3	37.8	24.8	33.6	1.9	0.0	34.4	30.9	53.9	19.5
3	1333.3	41.3	40.6	25.3	33.4	2.0	0.0	35.2	34.5	53.9	18.7
4	2390.0	46.8	43.3	27.1	32.3	3.0	0.0	44.6	41.1	53.9	9.3
5	4824.0	34.7	34.7	31.3	31.6	4.2	0.1	38.7	38.7	53.9	15.2
6	7236.0	36.8	36.8	35.8	31.4	4.6	0.4	46.2	46.2	73.9	7.7
7	9648.0	NS	NS	-	-	-	-	-	-	73.9	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac											
8	12060.0	30.1	30.0	39.0	32.3	6.7	0.0	34.0	33.9	53.9	19.9
9	24120.0	33.8	33.9	38.7	30.5	9.3	0.0	41.8	41.9	53.9	12.1

20dBc(Fundamental 2412MHz) (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	VER					HOR	VER		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss											
1	2412.0	96.9	93.9	27.1	32.3	3.1	0.0	94.8	91.8	-	-
2	2400.0	65.0	61.7	27.1	32.3	3.1	0.0	62.9	59.6	Funda-20dB	11.9

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: MFP 11g Tx, Ch:Mid

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/18/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 27deg.C
Mode	: IEEE802.11g Tx 24Mbps, 2437MHz	HUMIDITY	: 42%
Remarks	: AntennaType:MFP , Hor:X-axis , Ver:Y-axis	ENGINEER	: Hidekazu Tanaka

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN HOR [dB]
		HOR	VER					HOR	VER		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss											
1	1198.8	61.4	58.2	24.8	33.6	1.9	0.0	54.5	51.3	73.9	19.4
2	1332.2	57.6	59.9	25.3	33.4	2.0	0.0	51.5	53.8	73.9	22.4
3	4880.9	43.3	43.7	31.4	31.6	4.2	0.0	47.3	47.7	73.9	26.6
4	7321.4	NS	NS	-	-	-	-	-	-	73.9	-
5	9761.8	NS	NS	-	-	-	-	-	-	73.9	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac											
6	12185.0	40.9	41.3	39.0	32.2	6.7	0.0	44.9	45.3	73.9	29.0
7	14622.0	42.2	42.0	40.7	31.1	7.0	0.0	49.3	49.1	73.9	24.6
8	24370.0	46.0	46.0	38.8	30.3	9.4	0.0	54.4	54.4	73.9	19.5

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN HOR [dB]
		HOR	VER					HOR	VER		
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss											
1	1198.8	42.2	40.7	24.8	33.6	1.9	0.0	35.3	33.8	53.9	18.6
2	1332.2	40.0	41.0	25.3	33.4	2.0	0.0	33.9	34.9	53.9	20.0
3	4880.9	34.8	34.8	31.4	31.6	4.2	0.0	38.8	38.8	53.9	15.1
4	7321.4	NS	NS	-	-	-	-	-	-	73.9	-
5	9761.8	NS	NS	-	-	-	-	-	-	73.9	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac											
6	12185.0	30.4	30.2	39.0	32.2	6.7	0.0	34.4	34.2	53.9	19.5
7	14622.0	30.2	30.3	40.7	31.1	7.0	0.0	37.3	37.4	53.9	16.6
8	24370.0	34.1	34.1	38.8	30.3	9.4	0.0	42.5	42.5	53.9	11.4

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: MFP 11g Tx, Ch:High

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: FCC15.247(d)/RSS-210A8.5
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/18/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 27deg.C
Mode	: IEEE802.11g Tx 24Mbps, 2462MHz	HUMIDITY	: 42%
Remarks	: AntennaType:MFP , Hor:X-axis , Ver:Y-axis	ENGINEER	: Hidekazu Tanaka

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit PK [dBuV/m]	MARGIN HOR VER [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1061.7	59.8	56.2	24.3	33.9	1.6	0.0	51.8	48.2	73.9	22.1	25.7
2	1197.9	61.0	58.0	24.8	33.6	1.9	0.0	54.1	51.1	73.9	19.8	22.8
3	1326.8	56.9	57.5	25.3	33.4	2.0	0.0	50.8	51.4	73.9	23.1	22.5
4	2483.5	58.0	65.8	27.2	32.3	2.8	0.0	55.7	63.5	73.9	18.2	10.4
5	4924.0	43.1	52.6	31.5	31.6	4.3	0.0	47.3	56.8	73.9	26.6	17.1
6	7386.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	9848.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12310.0	40.9	41.3	39.0	32.1	6.7	0.0	45.0	45.4	73.9	28.9	28.5
9	14772.0	40.8	41.3	40.6	31.0	7.0	0.0	47.9	48.4	73.9	26.0	25.5
10	24620.0	45.8	46.3	38.8	30.2	9.4	0.0	54.3	54.8	73.9	19.6	19.1

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

No.	FREQ [MHz]	S/A READING [dBuV]		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT [dBuV/m]		Limit AV [dBuV/m]	MARGIN HOR VER [dB]	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1061.7	42.8	40.9	24.3	33.9	1.6	0.0	34.8	32.9	53.9	19.1	21.0
2	1197.9	42.0	39.7	24.8	33.6	1.9	0.0	35.1	32.8	53.9	18.8	21.1
3	1326.8	40.8	42.3	25.3	33.4	2.0	0.0	34.7	36.2	53.9	19.2	17.7
4	2483.5	40.8	45.8	27.2	32.3	2.8	0.0	38.5	43.5	53.9	15.4	10.4
5	4924.0	34.7	34.4	31.5	31.6	4.3	0.0	38.9	38.6	53.9	15.0	15.3
6	7386.0	NS	NS	-	-	-	-	-	-	73.9	-	-
7	9848.0	NS	NS	-	-	-	-	-	-	73.9	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	12310.0	30.3	30.1	39.0	32.1	6.7	0.0	34.4	34.2	53.9	19.5	19.7
9	14772.0	29.8	29.8	40.6	31.0	7.0	0.0	36.9	36.9	53.9	17.0	17.0
10	24620.0	34.6	34.5	38.8	30.2	9.4	0.0	43.1	43.0	53.9	10.8	10.9

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

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

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

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

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)
ANT: MFP 11b Rx, Ch:Mid

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: RSS-Gen 7.2.3
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: 503	DATE	: 05/18/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 27deg.C
Mode	: IEEE802.11b Rx 2Mbps , 2437MHz	HUMIDITY	: 42%
Remarks	: AntennaType:MFP , Hor:X-axis , Ver:Y-axis	ENGINEER	: Hidekazu Tanaka

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
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dBuV/m]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1062.0	58.0	58.2	24.3	33.9	1.6	0.0	50.0	50.2	73.9	23.9	23.7
2	1198.3	61.0	58.7	24.8	33.6	1.9	0.0	54.1	51.8	73.9	19.8	22.1
3	1333.1	59.4	55.4	25.3	33.4	2.0	0.0	53.3	49.3	73.9	20.6	24.6

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
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dBuV/m]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1062.0	41.0	40.9	24.3	33.9	1.6	0.0	33.0	32.9	53.9	20.9	21.0
2	1198.3	41.1	40.7	24.8	33.6	1.9	0.0	34.2	33.8	53.9	19.7	20.1
3	1333.1	41.1	39.0	25.3	33.4	2.0	0.0	35.0	32.9	53.9	18.9	21.0

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

*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.

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MF060b(26.04.07)

Radiated Spurious Emission (above 1GHz)

ANT: MFP 11g Rx, Ch:Mid

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

Company	: Canon Inc.	REPORT NO	: 27JE0058-HO
Equipment	: Wireless Module for Printer	REGULATION	: RSS-Gen 7.2.3
Model	: FM33489	TEST DISTANCE	: 3m
Sample No.	: S03	DATE	: 05/18/2007
Power	: AC 120 V / 60 Hz (DC3.3V)	TEMPERATURE	: 27deg C
Mode	: IEEE802.11g Rx 24Mbps, 2437MHz	HUMIDITY	: 42%
Remarks	: AntennaType:MFP, Hor:X-axis, Ver:Y-axis	ENGINEER	: Hidekazu Tanaka

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
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dBuV/m]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1065.4	55.6	55.5	24.3	33.8	1.6	0.0	47.7	47.6	73.9	26.2	26.3
2	1198.1	61.7	56.8	24.8	33.6	1.9	0.0	54.8	49.9	73.9	19.1	24.0
3	1332.1	56.3	57.8	25.3	33.4	2.0	0.0	50.2	51.7	73.9	23.7	22.2

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
		[dBuV]	[dBuV]					[dBuV/m]	[dBuV/m]		[dBuV/m]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	1065.4	39.5	38.9	24.3	33.8	1.6	0.0	31.6	31.0	53.9	22.3	22.9
2	1198.1	41.7	38.5	24.8	33.6	1.9	0.0	34.8	31.6	53.9	19.1	22.3
3	1332.1	39.0	40.0	25.3	33.4	2.0	0.0	32.9	33.9	53.9	21.0	20.0

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

*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.

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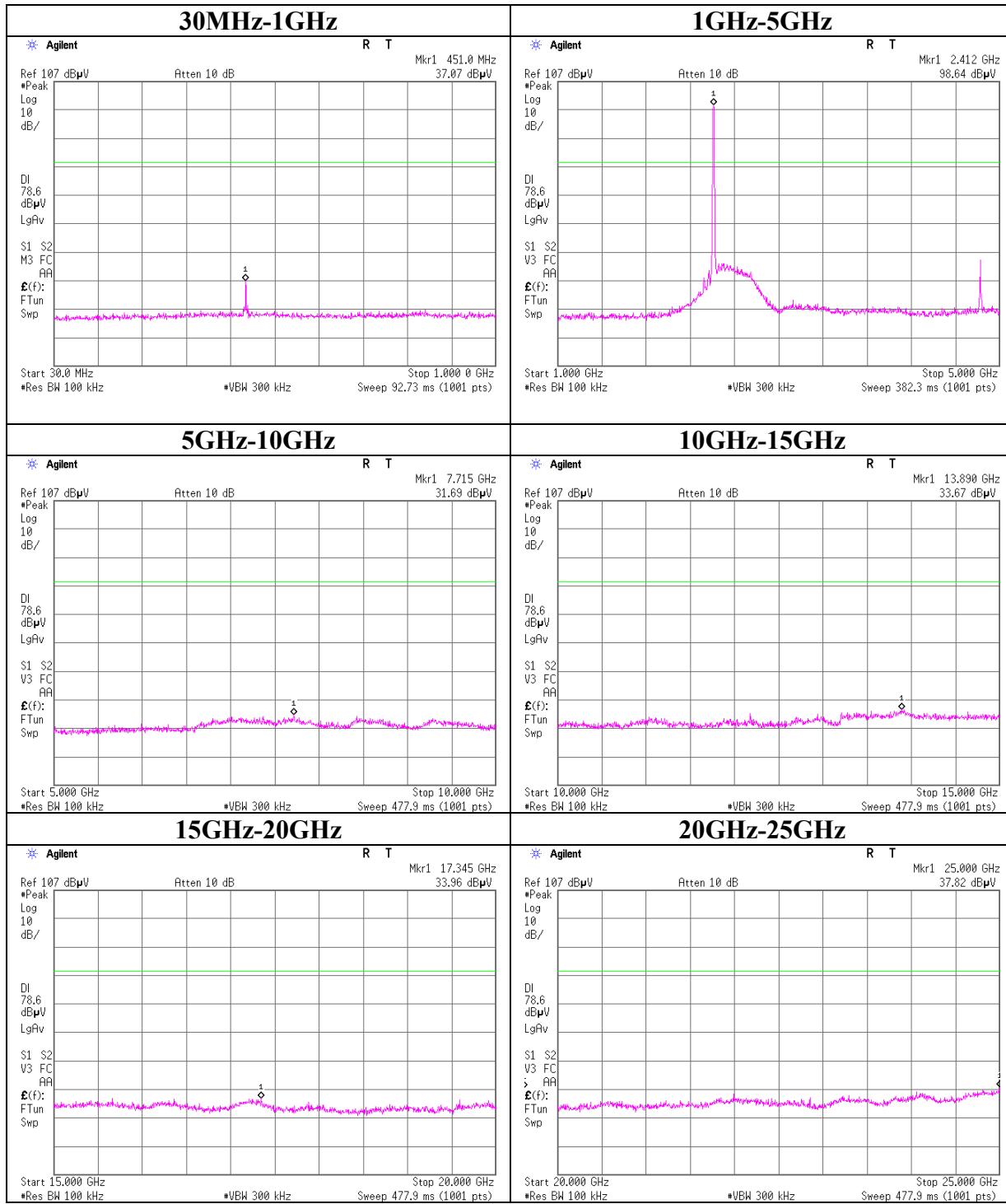
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MF060b(26.04.07)

Conducted Spurious Emission
11b Tx, Ch: Low 2Mbps



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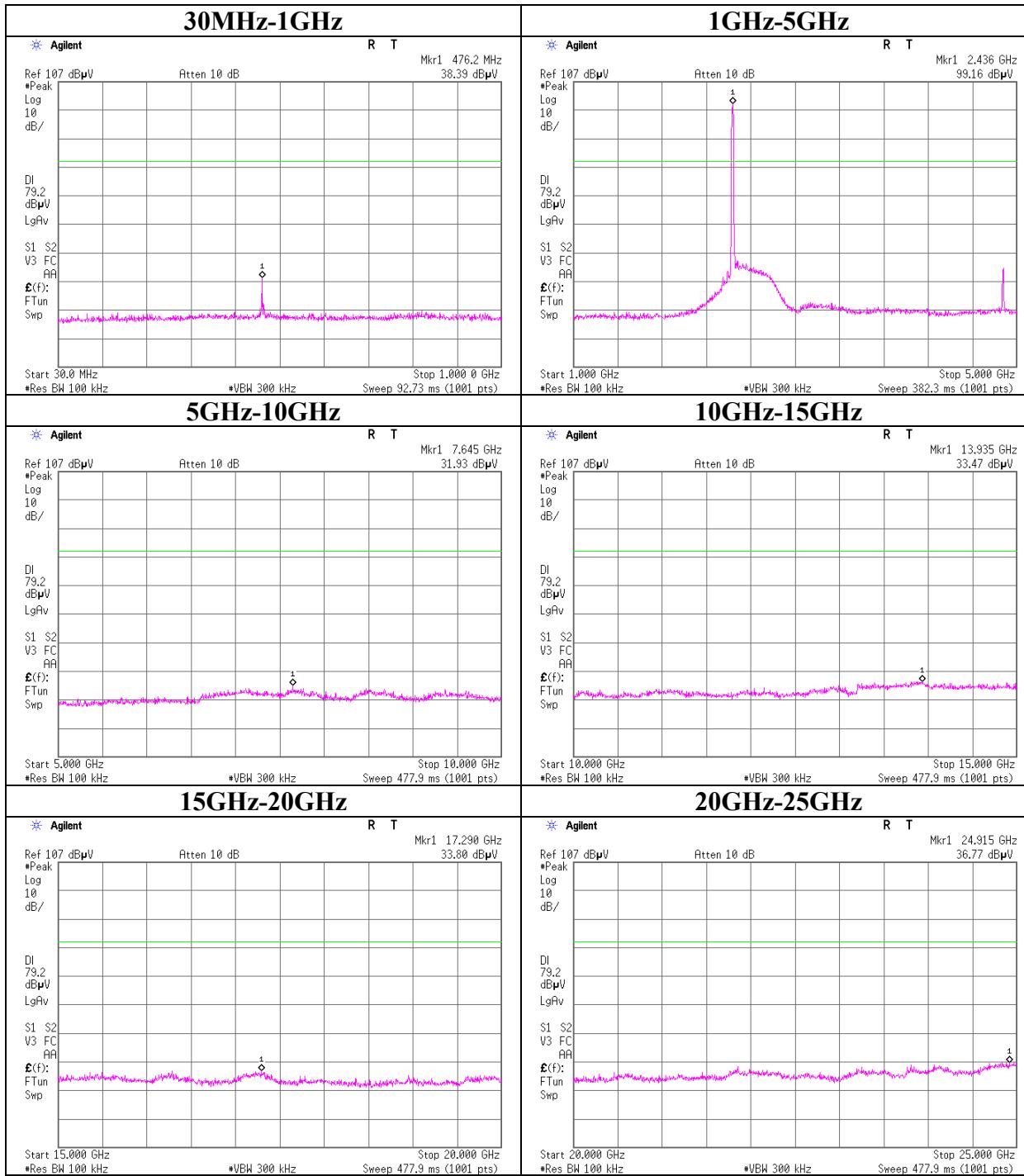
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MF060b(26.04.07)

Conducted Spurious Emission
11b Tx, Ch: Mid 2Mbps



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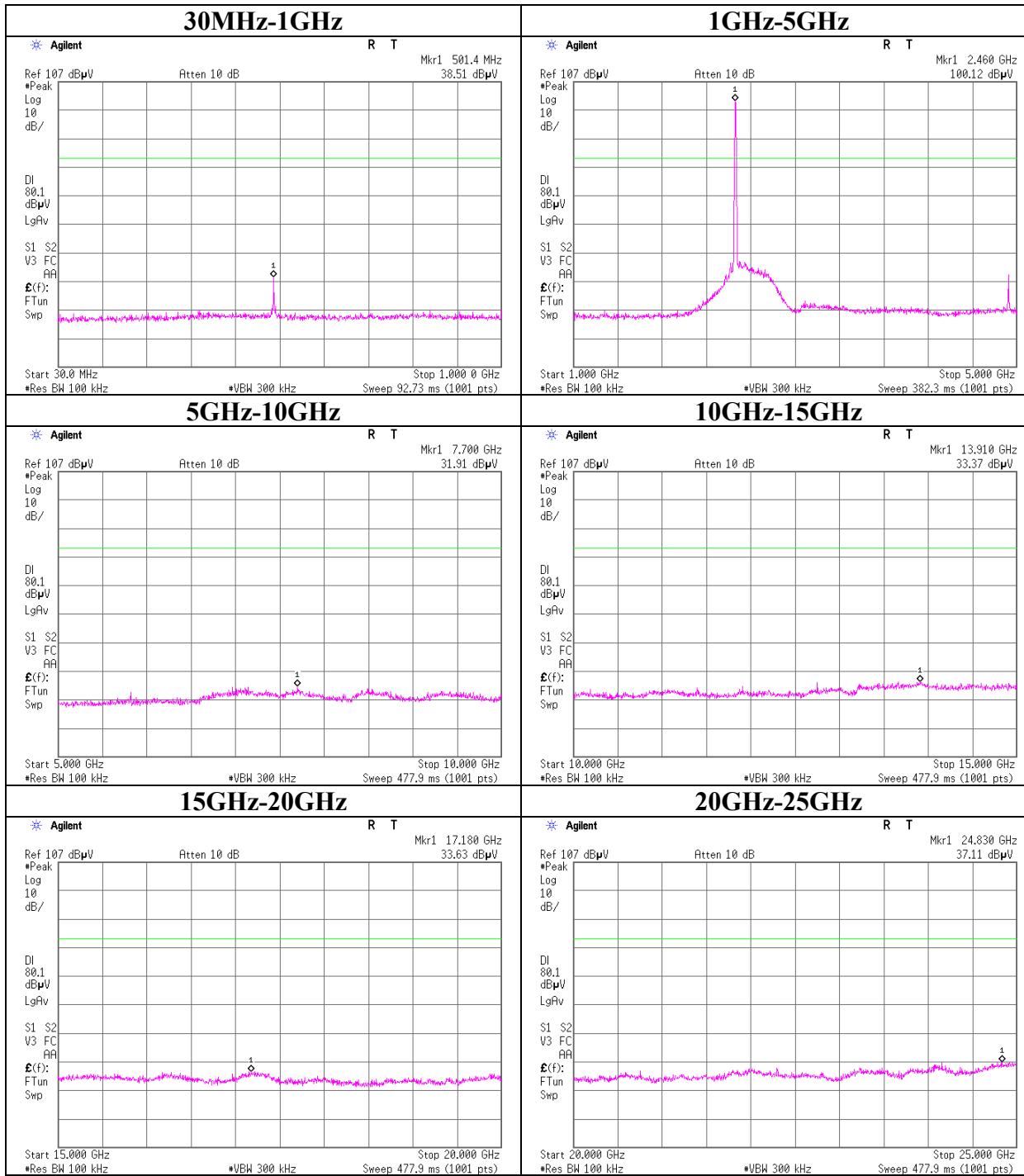
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MF060b(26.04.07)

Conducted Spurious Emission

11b Tx, Ch: High 2Mbps



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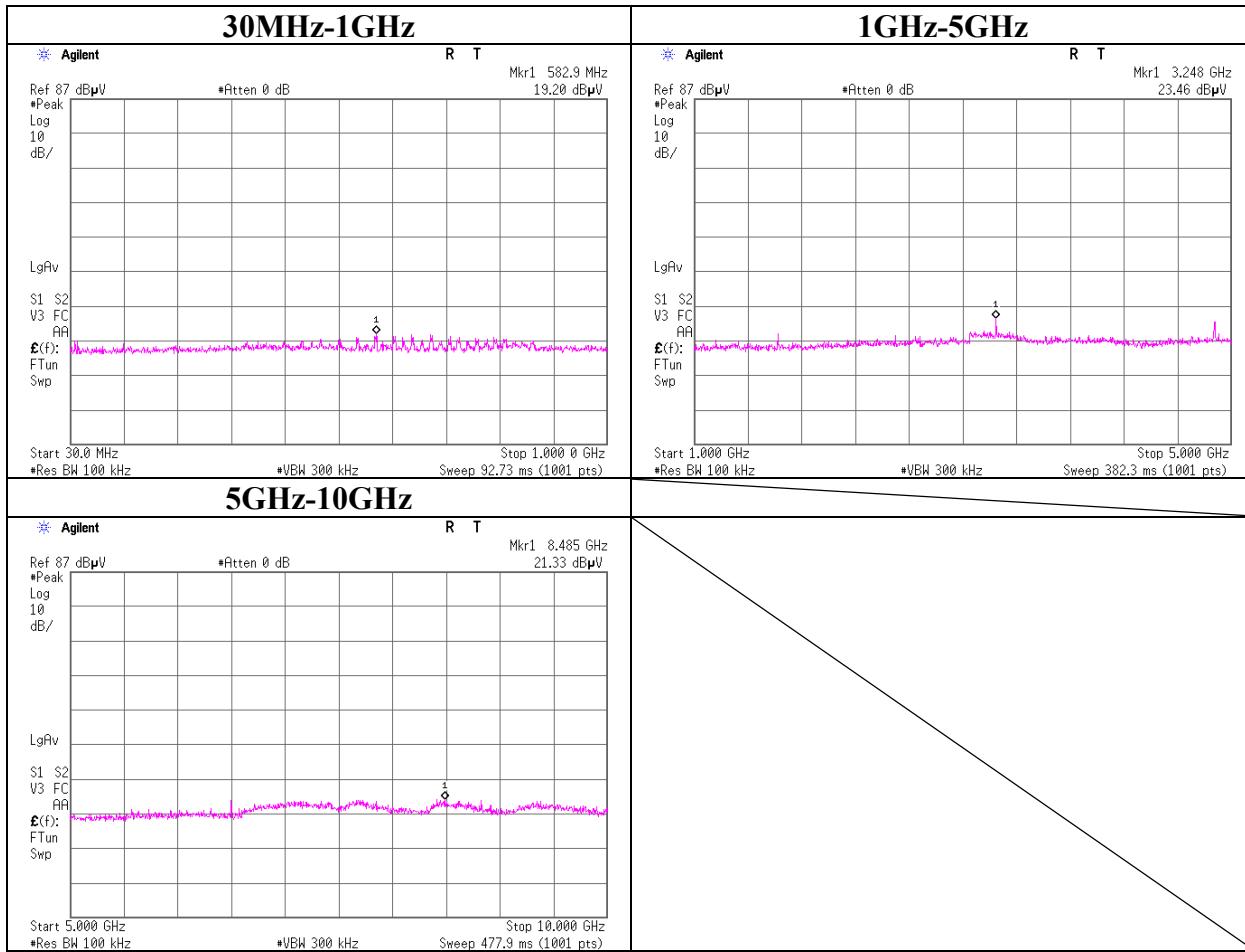
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Conducted Spurious Emission
11b Rx, Ch: Mid 2Mbps



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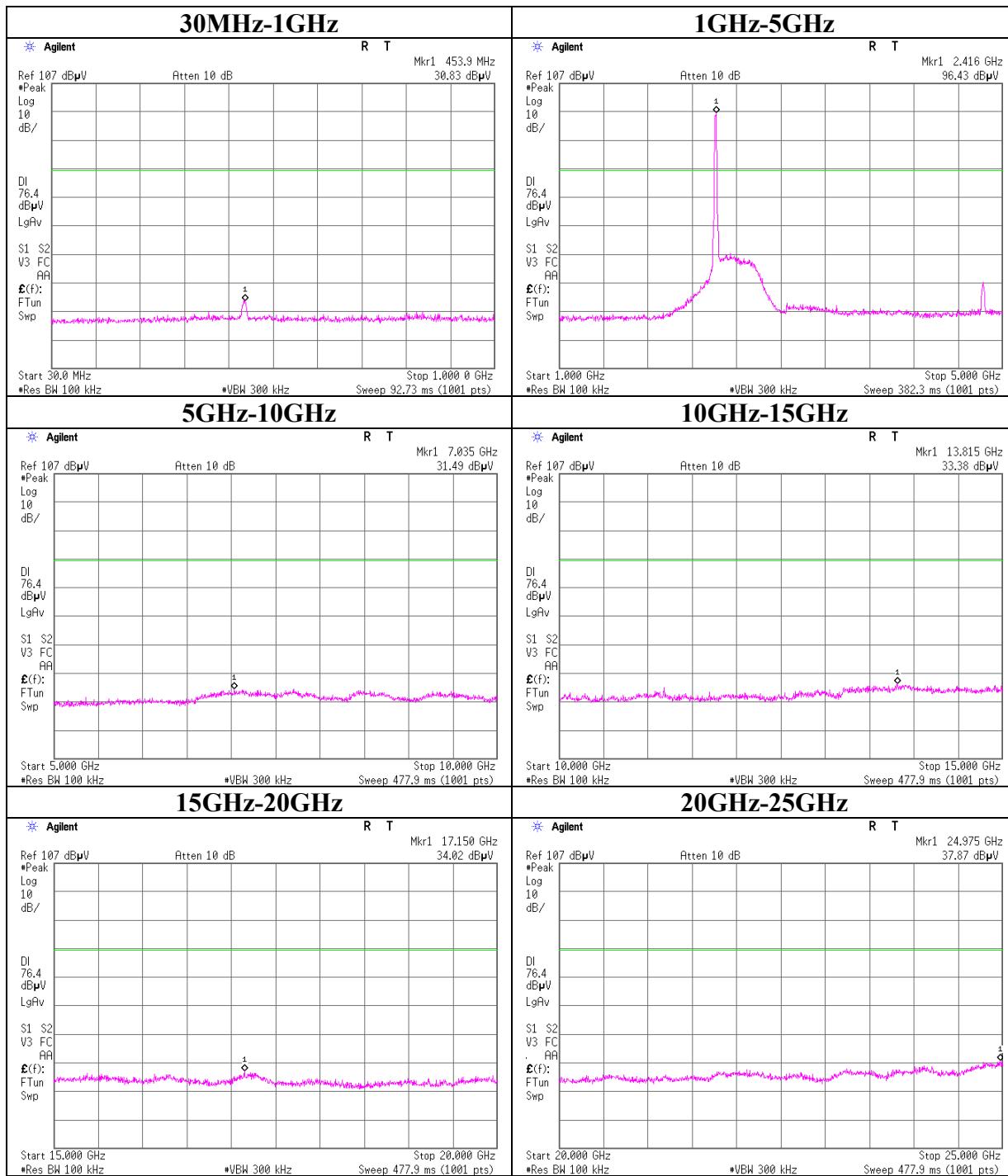
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MF060b(26.04.07)

Conducted Spurious Emission
11g Tx, Ch: Low 24Mbps



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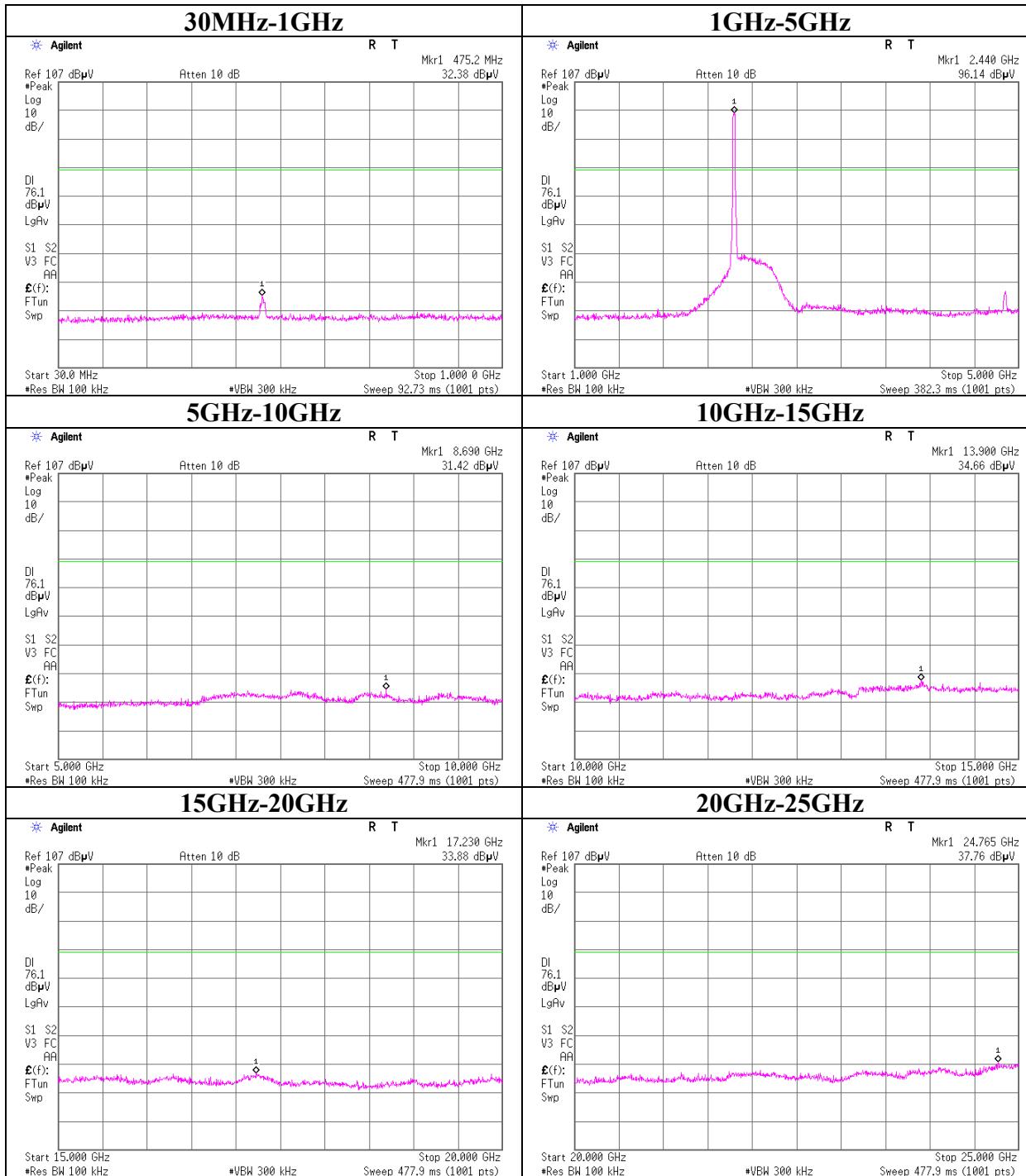
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MF060b(26.04.07)

Conducted Spurious Emission
11g Tx, Ch: Mid 24Mbps



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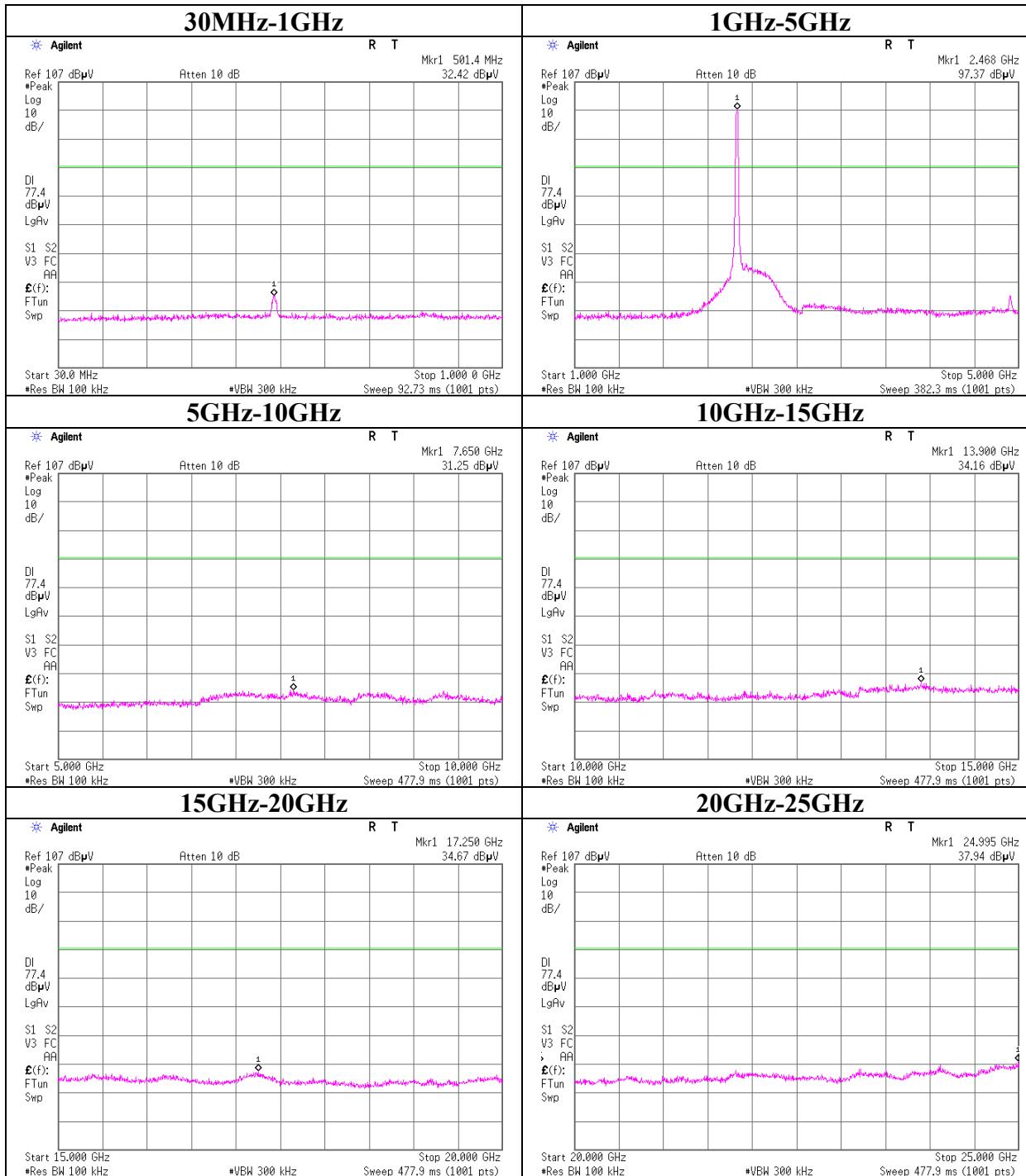
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MF060b(26.04.07)

Conducted Spurious Emission
11g Tx, Ch: High 24Mbps



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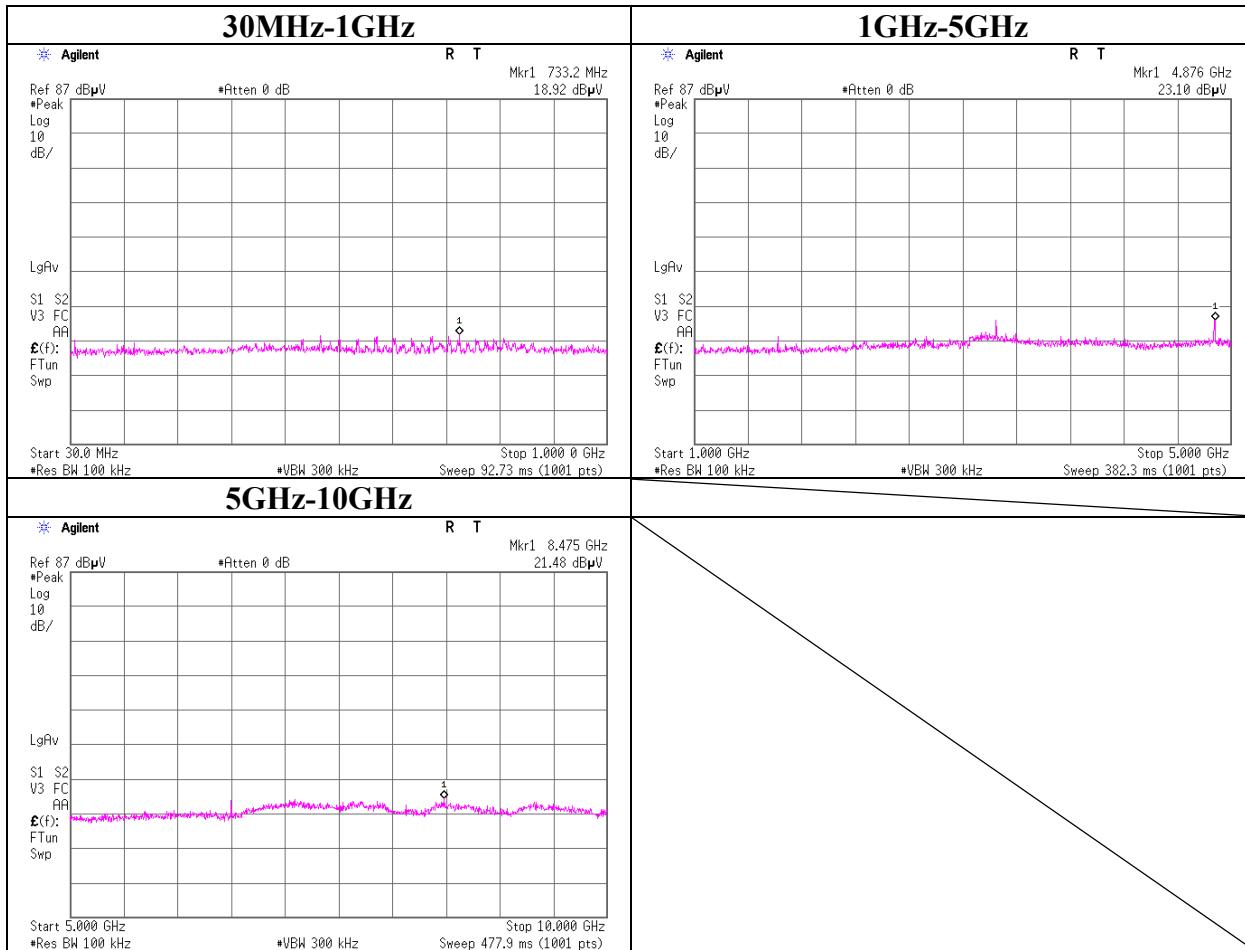
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MF060b(26.04.07)

Conducted Spurious Emission
11g Rx, Ch: Mid 24Mbps



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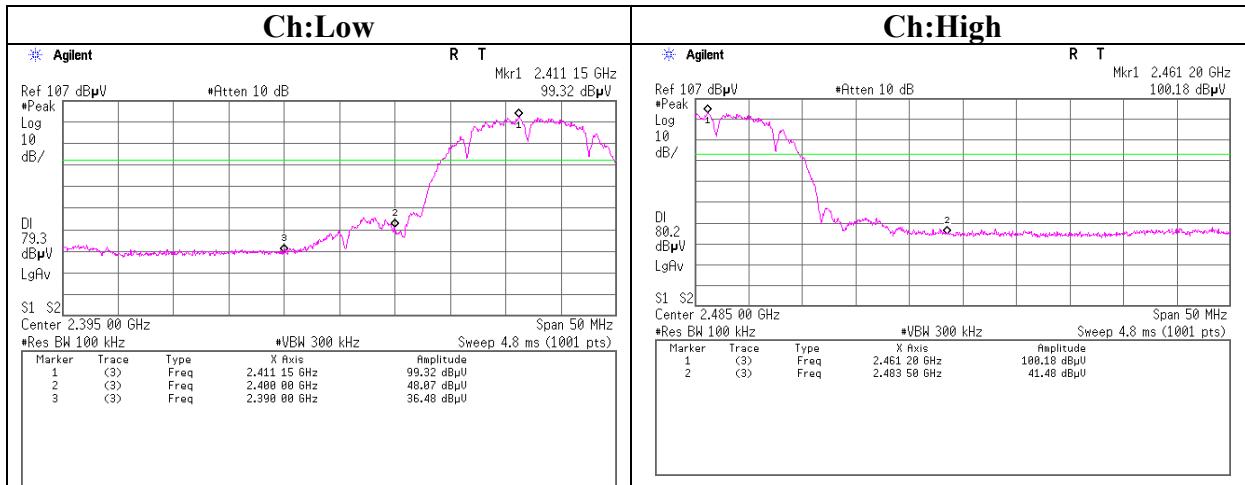
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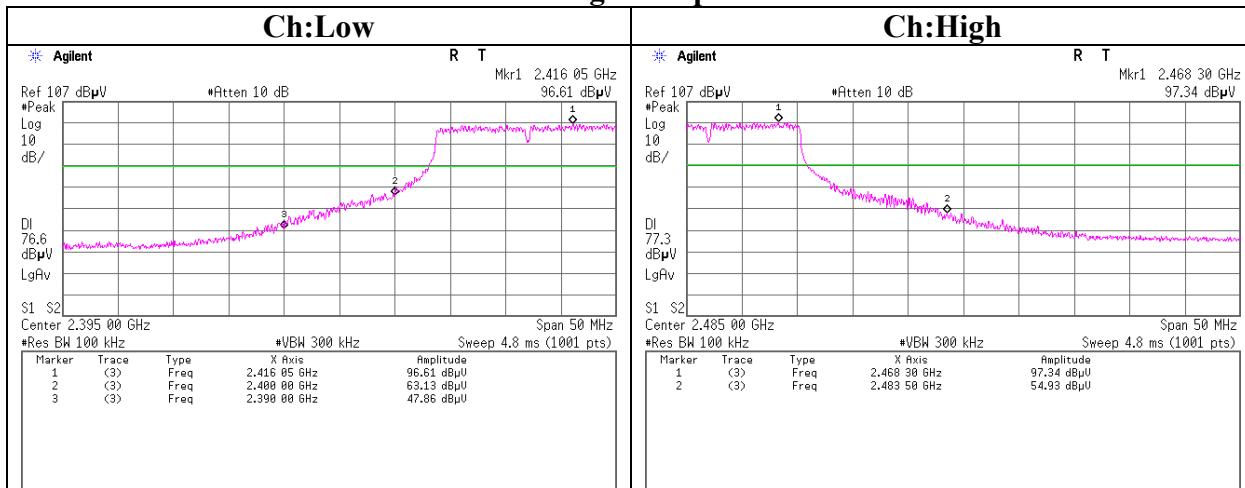
MF060b(26.04.07)

Conducted emission Band Edge compliance

11b 2Mbps



11g 24Mbps



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MF060b(26.04.07)

Power Density

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

COMPANY	: Canon Inc.	REPORT NO	: 27JE0058-HO
QUIPMENT	: Wireless Module for Printer	REGULATION	: FCC15.247(e)/RSS-210A8.2(2)
MODEL	: FM33489	TEST DISTANCE	: -
SAMPLE NO.	: 503	DATE	: 05/17/07
POWER	: AC120V/60Hz (DC3.3V)	TEMPERATURE	: 24deg.C.
MODE	: Tx (Ch L, M, H)	HUMIDITY	: 66%
		ENGINEER	: Makoto Kosaka

[IEEE802.11b:2Mbps]

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2411.2	-20.06	2.3	10.1	-7.7	8.0	15.7
Mid	2436.2	-20.43	2.3	10.1	-8.1	8.0	16.1
High	2461.2	-19.90	2.1	10.1	-7.7	8.0	15.7

Sample Calculation:

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

[IEEE802.11g:24Mbps]

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2419.2	-23.89	2.3	10.1	-11.6	8.0	19.6
Mid	2444.2	-24.58	2.3	10.1	-12.3	8.0	20.3
High	2469.2	-23.09	2.1	10.1	-10.9	8.0	18.9

Sample Calculation:

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

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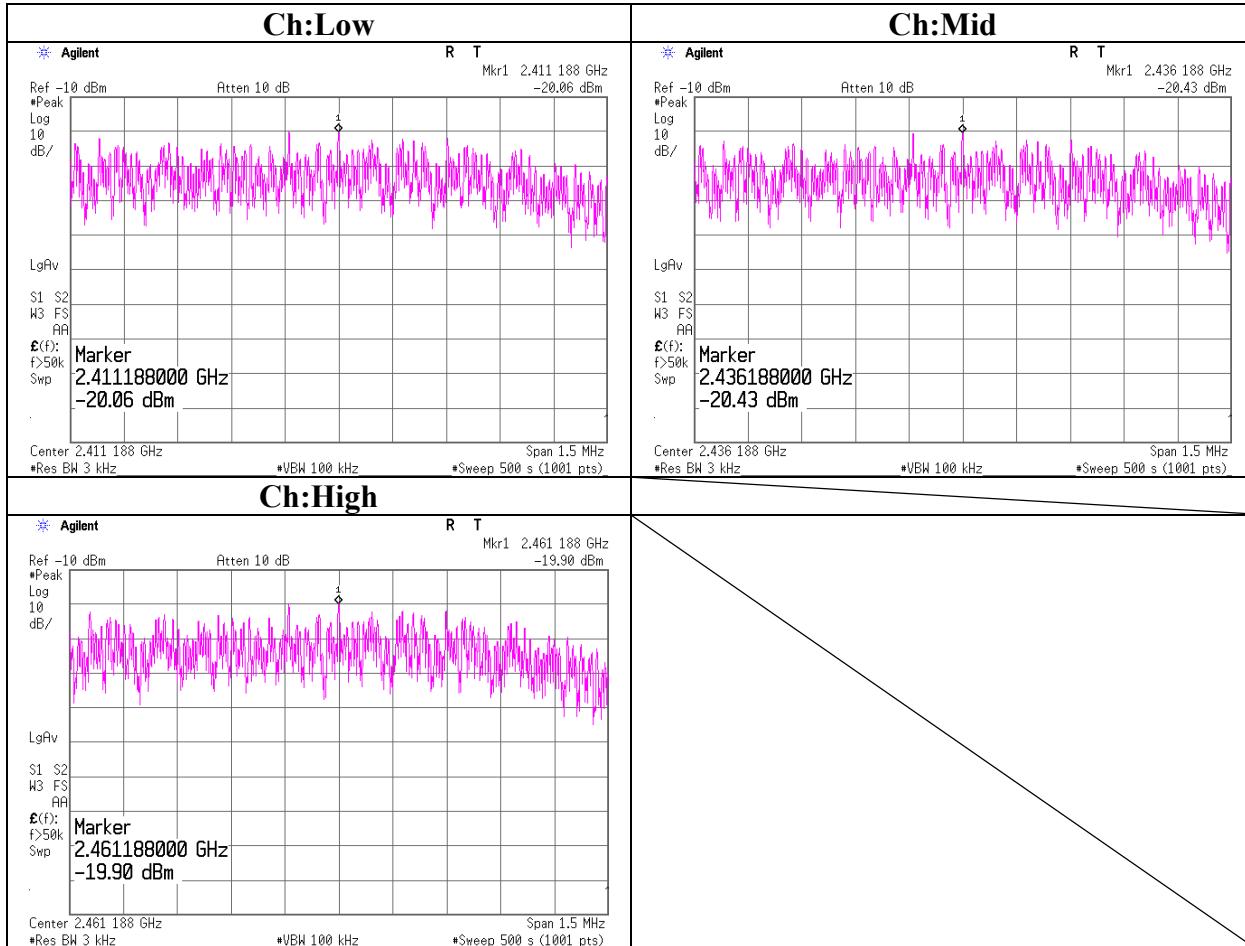
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Power Density

11b 2Mbps



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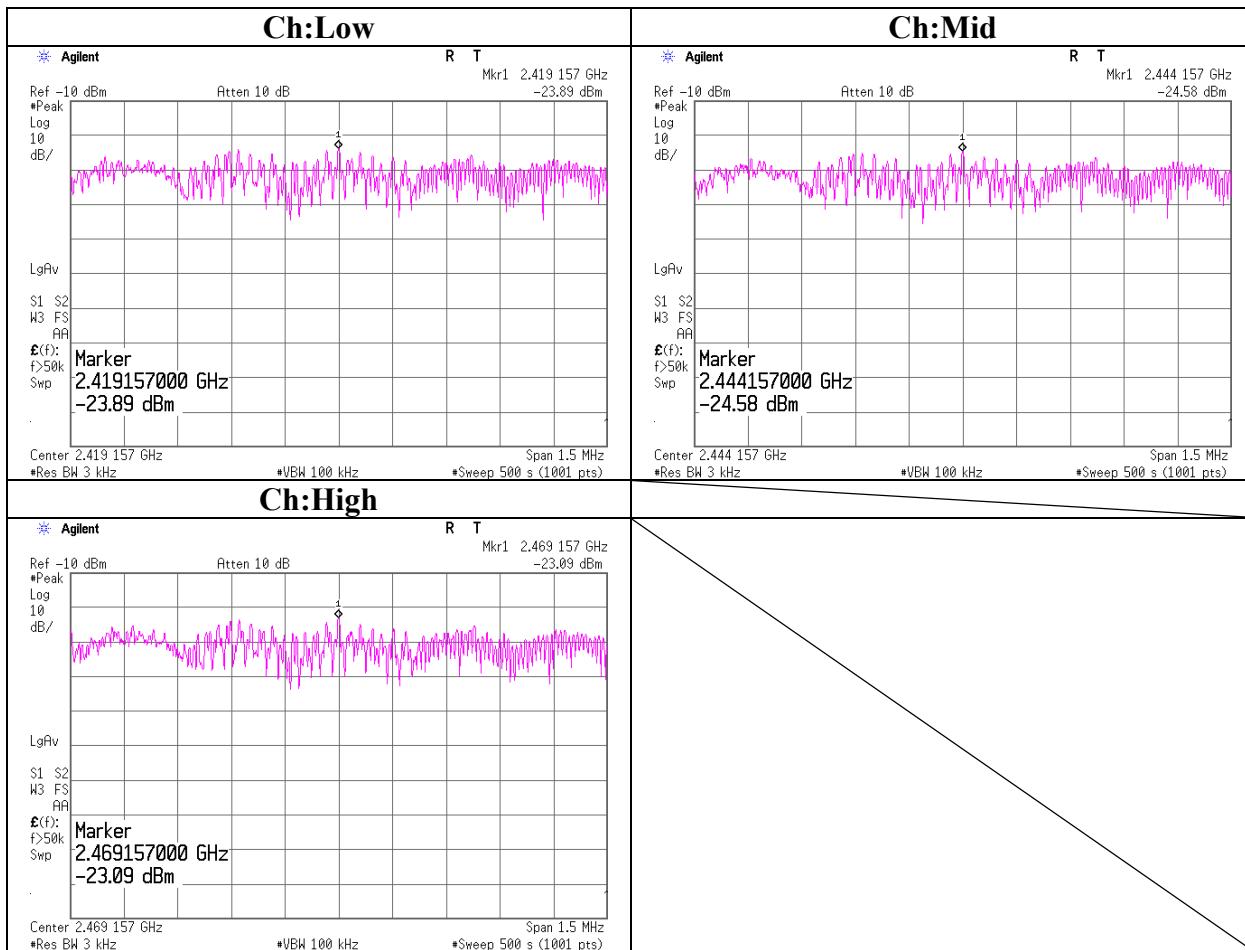
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Power Density

11g 24Mbps



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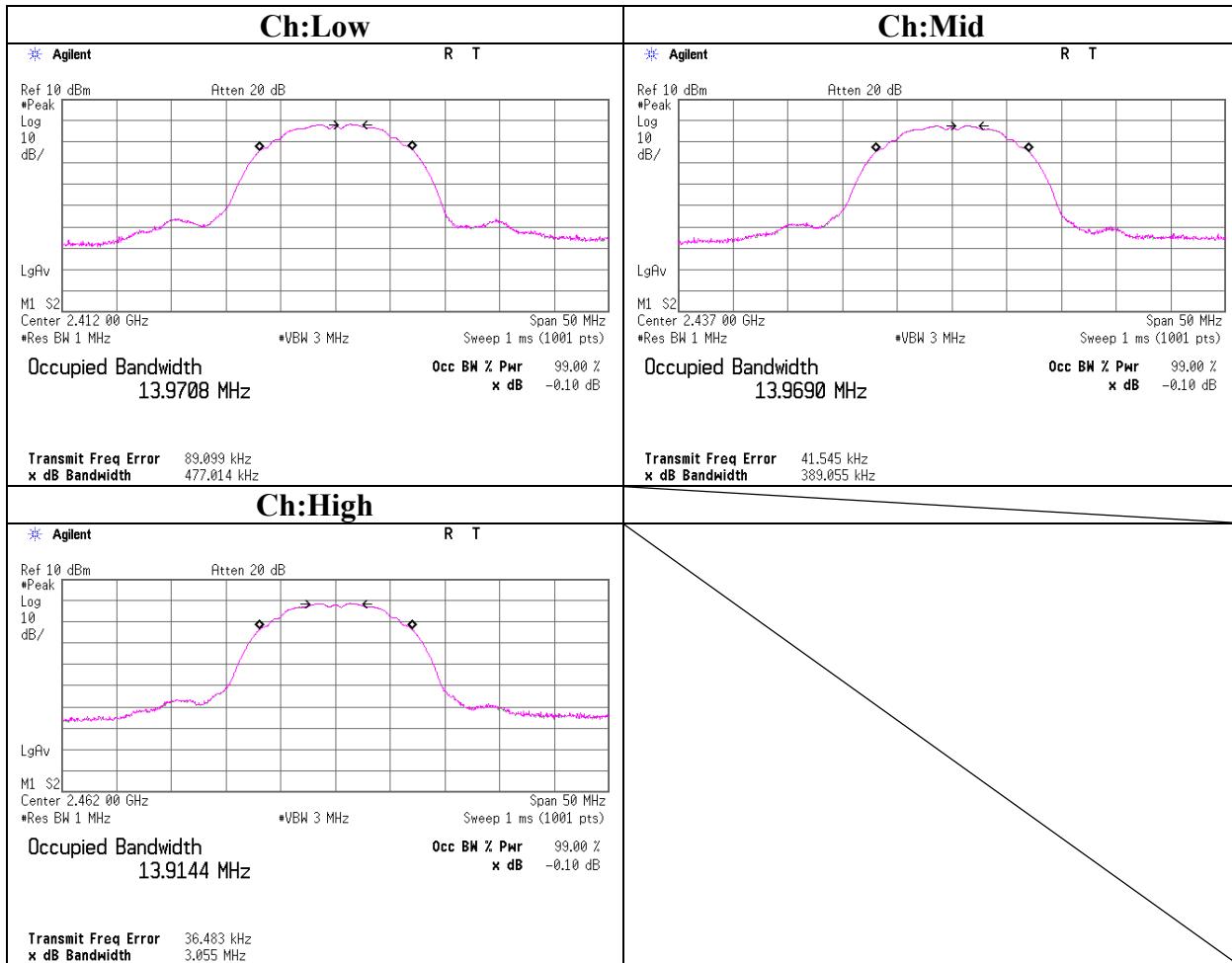
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99%Occupied Bandwidth

11b 2Mbps



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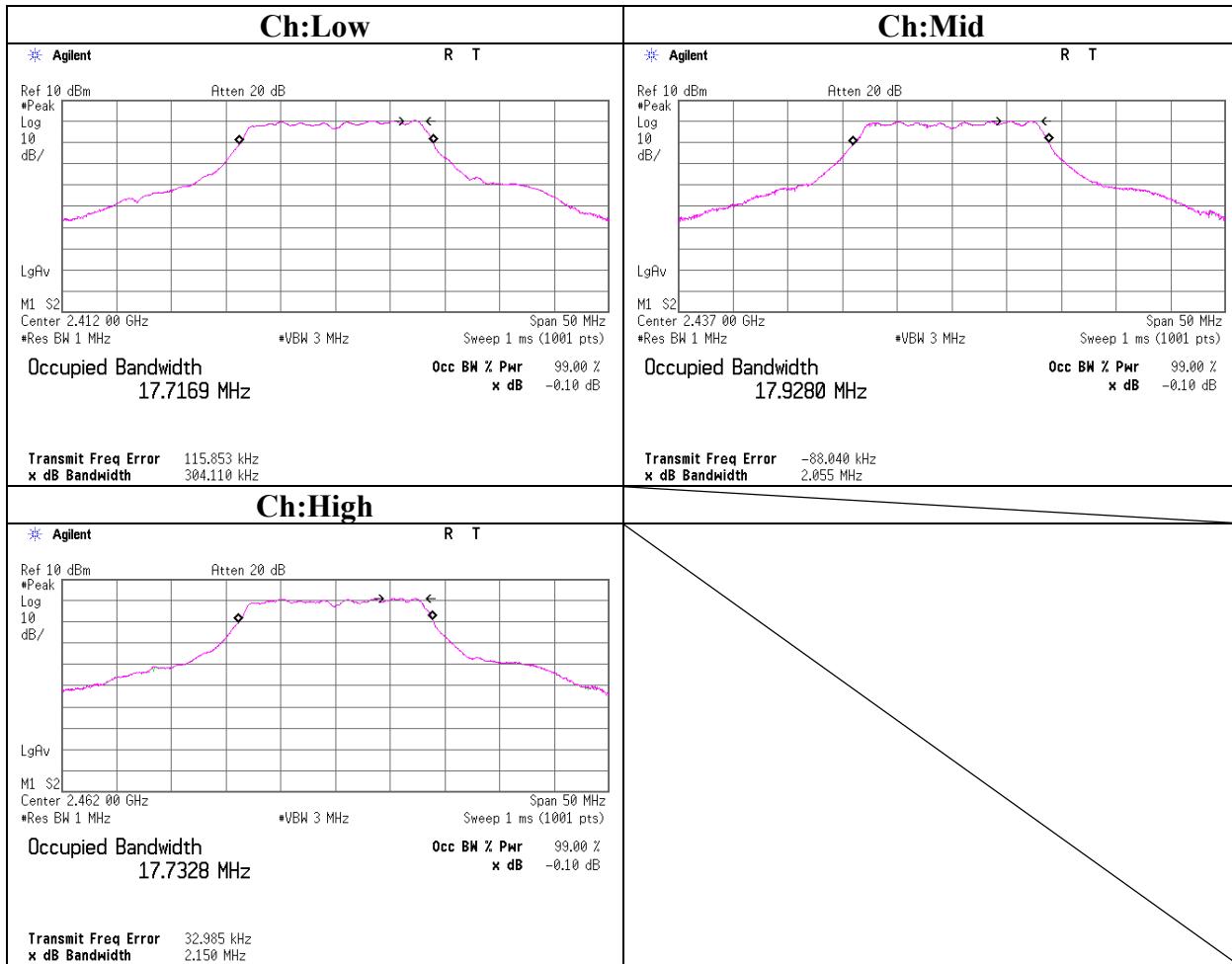
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MF060b(26.04.07)

99%Occupied Bandwidth
11g 24Mbps



APPENDIX 3:Test instruments

EMI test equipment(1/2)

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MPM-09	Power Meter	Anritsu	ML2495A	Power Measurement	2006/09/20 * 12
MPSE-12	Power sensor	Anritsu	MA2411B	Power Measurement	2006/09/20 * 12
MAT-20	Attenuator(10dB)(above 1GHz)	HIROSE ELECTRIC CO.,LTD.	AT-110	RE	2007/01/11 * 12
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2007/04/02 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE	2006/11/27 * 12
MBM-07	Barometer	SATO	Aneroid(7610-20)	RE	2006/06/02 * 36
MJM-05	Measure	PROMART	SEN1955	RE	-
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2007/01/30 * 12
MCC-47	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2006/08/29 * 12
MCC-16	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE	2007/02/22 * 12
MPA-10	Pre Amplifier	Agilent	8449B	RE	2006/09/11 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE	2006/06/02 * 12
MHF-06	High Pass Filter 3.5-24GHz	Tokimec	TF323DCA	RE	2006/05/20 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2006/09/13 * 12
MAT-20	Attenuator(10dB)(above 1GHz)	HIROSE ELECTRIC CO.,LTD.	AT-110	AT	2007/01/11 * 12
MCC-26	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	AT	2006/08/29 * 12
MPSU-11	Power Supply	NF	ES1000S	AT	Pre Check
MOS-14	Thermo-Hygrometer	Custom	CTH-180	AT	2006/01/19 * 24
MCC-25	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2006/08/29 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE	2007/03/01 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2006/10/07 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2006/10/07 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2006/12/27 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2007/02/27 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2006/09/07 * 12
MAEC-03	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2007/03/05 * 12
MOS-12	Thermo-Hygrometer	Custom	CTH-180	RE	2006/01/19 * 24
MJM-06	Measure	PROMART	SEN1955	RE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE/CE	-
MHA-20	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2007/04/14 * 12

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MF060b(26.04.07)

EMI test equipment(2/2)

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MCC-56	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/03/29 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	RE	2007/03/02 * 12
MHF-12	High Pass Filter 3.5-18GHz	TOKIMEC	TF323DCA	RE	2006/12/18 * 12
MSA-09	Spectrum Analyzer	Advantest	R3273	RE	2006/12/08 * 12
MHA-16	Horn Antenna 15-40GHz	Schwarzbeck	BBHA9170	RE	2007/04/06 * 12
MAEC-04	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	CE	2007/03/03 * 12
MLS-02	LISN(AMN)	Schwarzbeck	NSLK8127	CE(EUT)	2006/06/01 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	CE	2006/01/19 * 24
MJM-07	Measure	PROMART	SEN1955	CE	-
MCC-50	Coaxial cable	UL Apex	-	CE	2007/03/06 * 12
MSA-05	Spectrum Analyzer	Advantest	R3273	CE	2006/05/20 * 12
MTR-06	Test Receiver	Rohde & Schwarz	ESCS30	CE	2006/09/12 * 12
MLS-03	LISN(AMN)	Schwarzbeck	NSLK8127	CE(AE)	2006/06/01 * 12
MTA-07	Terminator	MCL	BTRM-50	CE	2007/02/01 * 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.

Test Item:

CE: Conducted Emission

RE: Radiated Emission

AT: Antenna Terminal Conducted

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