



# EMI TEST REPORT

Test Report No. : 25BE0317-HO

Applicant : Matsushita Electric Industrial Co., Ltd.  
Type of Equipment : Network Camera  
Model No. : BB-HCM371A  
Test standard : FCC Part 15 Subpart C  
Section 15.207, Section 15.247 : 2004  
FCC ID : ACJ96NBB-HCM371A  
Test Result : Complied

1. This test report shall not be reproduced in full or partial, without the written approval of UL Apex Co., Ltd.
2. The results in this report apply only to the sample tested.
3. This equipment is in compliance with above regulation. We hereby certify that the data contain a true representation of the EMC profile.
4. The test results in this report are traceable to the national or international standards.

Date of test:

October 21 and 22 and November 6, 2004

Tested by:

Hiroka Umeyama  
EMC Service

Makoto Kosaka  
EMC Service

Approved by :

Hironobu Shimaji  
Group Leader of  
EMC Service

UL Apex Co., Ltd.

Head Office EMC Lab.

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

---

<b>CONTENTS</b>	<b>PAGE</b>
<b>SECTION 1: Manufacturer's information .....</b>	<b>3</b>
<b>SECTION 2: Equipment under test (E.U.T.).....</b>	<b>3</b>
<b>SECTION 3: Test specification, procedures &amp; results .....</b>	<b>4</b>
<b>SECTION 4: Operation of E.U.T. during testing.....</b>	<b>6</b>
<b>SECTION 5: Conducted Emission.....</b>	<b>7</b>
<b>SECTION 6: Spurious Emission .....</b>	<b>8</b>
<b>SECTION 7: Bandwidth.....</b>	<b>9</b>
<b>SECTION 8: Maximum Peak Output Power .....</b>	<b>9</b>
<b>SECTION 9: Peak Power Density.....</b>	<b>9</b>
<b>APPENDIX 1: Photographs of test setup .....</b>	<b>10</b>
<b>Conducted Emission.....</b>	<b>10</b>
<b>Spurious Emission (Radiated).....</b>	<b>11</b>
<b>Spurious Emission (Radiated).....</b>	<b>12</b>
<b>Worst Case Position (90 deg. :Horizontal / 180 deg. :Vertical).....</b>	<b>13</b>
<b>APPENDIX 2: Test instruments .....</b>	<b>14</b>
<b>APPENDIX 3: Data of EMI test.....</b>	<b>15</b>
<b>Conducted Emission.....</b>	<b>15</b>
<b>6dB Bandwidth(DSSS and other forms of modulation).....</b>	<b>22</b>
<b>Maximum Peak OutPut Power (DSSS and other forms of modulation) .....</b>	<b>25</b>
<b>Radiated Spurious Emission(DSSS and other forms of modulation ) .....</b>	<b>29</b>
<b>Reference data .....</b>	<b>47</b>
<b>Conducted Spurious Emission(DSSS and other forms of modulation) .....</b>	<b>51</b>
<b>Conducted emission Band Edge compliance (DSSS and other forms of modulation).....</b>	<b>57</b>
<b>Power Density (DSSS and other forms of modulation ).....</b>	<b>58</b>
<b>99%Occupied Bandwidth(DSSS and other forms of modulation).....</b>	<b>61</b>

---

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

**SECTION 1: Manufacturer's information**

Company Name : Panasonic Communications Co., Ltd.  
Brand name : Panasonic Communications Co., Ltd.  
Address : 1-62, 4-chome, Minoshima, Hakata-ku, Fukuoka, 812-8531 Japan  
Telephone Number : +81-92-477-1405  
Facsimile Number : +81-92-477-1487  
Contact Person : Michihito Miyazaki

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

**2.1 Identification of E.U.T.**

Type of Equipment : Network Camera  
Model No. : BB-HCM371A  
Serial No. : ES001  
Country of Manufacture : JAPAN  
Rating : AC 120V (Inner: DC3.3V)  
Receipt Date of Sample : October 21, 2004  
Condition of EUT : Production prototype  
(Not for Sale: This sample is equivalent to mass-produced items.)

**2.2 Product Description**

Clock frequency	16.384 MHz, 25.0MHz, 24.545MHz, 40.0MHz Local frequency:672MHz,1740 - 1790MHz
Feature of EUT	<Wireless Netwok Camera> Network Camera corresponds to the wireless system based on IEEE 802.11b or 802.11g.

**<Transmitter>**

Equipment Type	Transceiver	
Frequency band	Lower limit	2412MHz
	Upper limit	2462MHz
Frequency of Operation	2412-2462	
Intermediate frequency	672MHz	
Channel spacing	5MHz	
Type of Modulation	DSSS, OFDM	
Antenna Type	½ lambda Dipole Antenna	
Antenna Connector Type	Hirose U.FL-R-SMT(10)	
Antenna Gain	2.8dBi	
Mode of Operation	Simplex	
ITU code	G1D	
Method of Frequency Generation	Synthesizer	

**FCC 15.31 (e)**

This EUT provides stable voltage constantly to RF Module regardless of input voltage. Therefore, this EUT complies with the requirement.

**FCC Part 15.203 Antenna requirement**

The antenna is not removable from EUT. Therefore, the equipment complies with the antenna requirement of Section 15.203.

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

### **SECTION 3: Test specification, procedures & results**

#### **3.1 Test Specification**

Test Specification : FCC Part15 Subpart C : 2004  
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators  
Section 15.207 Conducted limits : 2004  
Section 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz, and 5725-5850MHz : 2004

#### **3.2 Procedures and results**

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin*0)	Results
1	Conducted emission	ANSI C63.4:2003 7. AC powerline conducted emission measurements	Section 15.207	-	N/A	17.7dB 4.0127MHz L, AV	Complied
2	6dB Bandwidth	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247(a)(2)	Conducted	N/A	*See data.	Complied
3	Maximum Peak Output Power	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247(b)(3)	Conducted	N/A		Complied
4	Spurious Emission	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (d)	Conducted/ Radiated	N/A	<11b 2462MHz> 1.5dB 17234.0MHz HOR/VER AV <11g 2412MHz> 1.2dB 2390.0MHz VER AV	Complied
5	Restricted Band Edges	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (d)	Conducted	N/A	*See data.	Complied
6	Power Density	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (e)	Conducted	N/A	*See data.	Complied

Note: UL Apex's EMI Work Procedures No.QPM05.

\*0) The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.

#### **Uncertainty:**

\*In case of the margin below the EMC Head Office's uncertainty.

#### **Conducted Emission**

The measurement uncertainty (with a 95% confidence level) for this test is  $\pm 1.3$ dB.

#### **Spurious Emission (Radiated)**

The measurement uncertainty (with a 95% confidence level) for this test using Biconical antenna is  $\pm 4.5$ dB(3m)/  $\pm 4.7$ dB(10m).

The measurement uncertainty (with a 95% confidence level) for this test using Logperiodic antenna is  $\pm 5.2$ dB(3m)/  $\pm 3.8$ dB(10m).

The measurement uncertainty (with a 95% confidence level) for this test using Horn antenna is  $\pm 6.6$ dB.

#### **Other test except Conducted Emission and Spurious Emission (Radiated)**

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

\*These tests were also referred to "Guidance on Measurement for Digital Transmission Systems Section15.247".

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

### 3.3 Addition to standards

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	99% Occupied Band Width	RSS-210(issue 5): 2001 + Amendment:2002 + Amendment2:2003 + Amendment3:2004 + Amendment4:2004	RSS-210(issue 5): 2001 + Amendment:2002 + Amendment2:2003 + Amendment3:2004 + Amendment4:2004	Conducted	N/A	N/A	N/A

### 3.4 Test Location

UL Apex Co., Ltd. Head Office EMC Lab. \*NVLAP Lab. code: 200572-0  
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116 Facsimile : +81 596 24 8124

	Listed date (for FCC)	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	February 01, 2002	313583	IC4247	19.2 x 11.2 x 7.7m	7.0 x 6.0m	Preparation room
No.2 semi-anechoic chamber	June 05, 2002	846015	IC4247-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 shielded room	-	-	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.4 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 and No.2 semi-anechoic and No.3 shielded room.

### 3.5 Test set up, Test instruments and Data of EMI

Refer to APPENDIX 1 to 3.

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

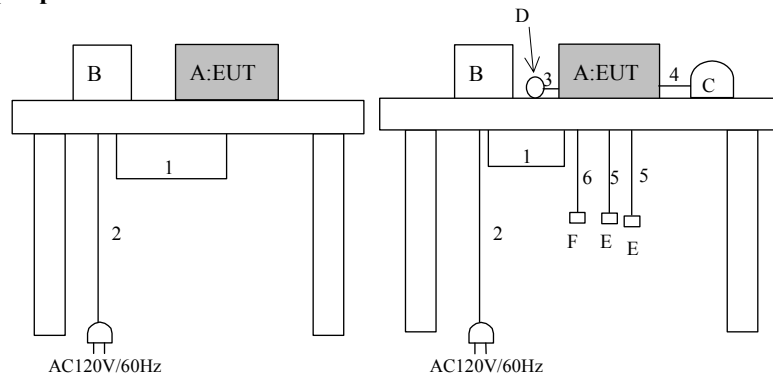
## SECTION 4: Operation of E.U.T. during testing

### 4.1 Operating Modes

The mode is used : Continuous transmit mode  
\*IEEE 802.11b : CCK (QPSK, 11Mbps)  
-Transmitting mode  
Low channel : 2412MHz  
Middle channel : 2437MHz  
High channel : 2462MHz  
\*IEEE 802.11g : OFDM(64QAM, 54Mbps)  
-Transmitting mode  
Low channel : 2412MHz  
Middle channel : 2437MHz  
High channel : 2462MHz

The EUT has an ability to provide some different modulation and data rates. Some of these modulation and data rates did not change in the spectrum envelopes of the EUT at conducted Measurement with the antenna terminal. Therefore, the results of the final measurements were the IEEE 802.11b DSSS(CCK, QPSK, 11Mbps) and IEEE 802.11g OFDM(64QAM, 54Mbps) modulation as the highest data rate.

### 4.2 Configuration and peripherals



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

#### Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	FCC ID
A	Network Camera	BB-HCM371A	ES001	Panasonic	ACJ96NBB-HCM371A
B	AC Adaptor	PQLV202	0430	Panasonic	-
C	Speaker	RP-SP28	-	Panasonic	-
D	Micro phone	RP-VC150	-	Panasonic	-
E	Door Sensor (x 2)	MS-102	-	DELCA TEC	-
F	Relay	HB1E	-	Panasonic	-

#### List of cables used

No.	Name	Length (m)	Shield	Backshell Material
1	DC cable	10.0	N	Polyvinyl chloride
2	AC cable	1.8	N	Polyvinyl chloride
3	Micro phone Audio cable	0.9	N	Polyvinyl chloride
4	Speaker Audio cable	1.0	N	Polyvinyl chloride
5	Door sensor cable 1 Door sensor cable 2	(1: input/GND) 2.1 (2: input/GND) 2.1	N	Polyvinyl chloride
6	Relay cable	(power supply/output)2.1	N	Polyvinyl chloride

UL Apex Co., Ltd.

Head Office EMC Lab.

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

## **SECTION 5: Conducted Emission**

### **Test Procedure and conditions**

EUT was placed on a platform of table size (0.5m by 1.0m), 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.

#### 1) For the tests on EUT itself (as a stand alone equipment)

Each EUT current-carrying power lead, except the ground (safety) lead, was individually connected through a LISN/(AMN) to the input power source. All unused 50ohm connectors of the LISN(AMN) were resistively 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 detector (IF BW 9 kHz)  
**Measurement range** : 0.15-30MHz  
**Test data** : APPENDIX 3  
**Test result** : Pass

---

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

**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 3  
**Test result** : Pass

**[Radiated]**

**Test Procedure**

EUT was placed on a platform of table size (0.5m by 1.0m), 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 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 and outside the restricted band of Section 15.205.**

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		AV: RBW:1MHz/VBW:10Hz

**Test data** : APPENDIX 3  
**Test result** : Pass

- The carrier level and noise levels were confirmed at each position of X, Y and Z axes of EUT to see the position of maximum noise, and the test was made at the position that has the maximum noise.

\*In addition, the test mode with ports filled in was confirmed. The data above the third frequency was floor noise. The data was confirmed and there were no change. (The test was made at the position that has the maximum noise.) Please refer to the Reference data page 47 to 50.

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

## **SECTION 7: Bandwidth**

### **Test Procedure**

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

**Test data** : APPENDIX 3  
**Test result** : Pass

## **SECTION 8: Maximum Peak Output Power**

### **Test Procedure**

The test was made with the spectrum analyzer that has a function of channel-power measurements, which is connected to the antenna port.

**Test data** : APPENDIX 3  
**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.

**Test data** : APPENDIX 3  
**Test result** : Pass

---

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

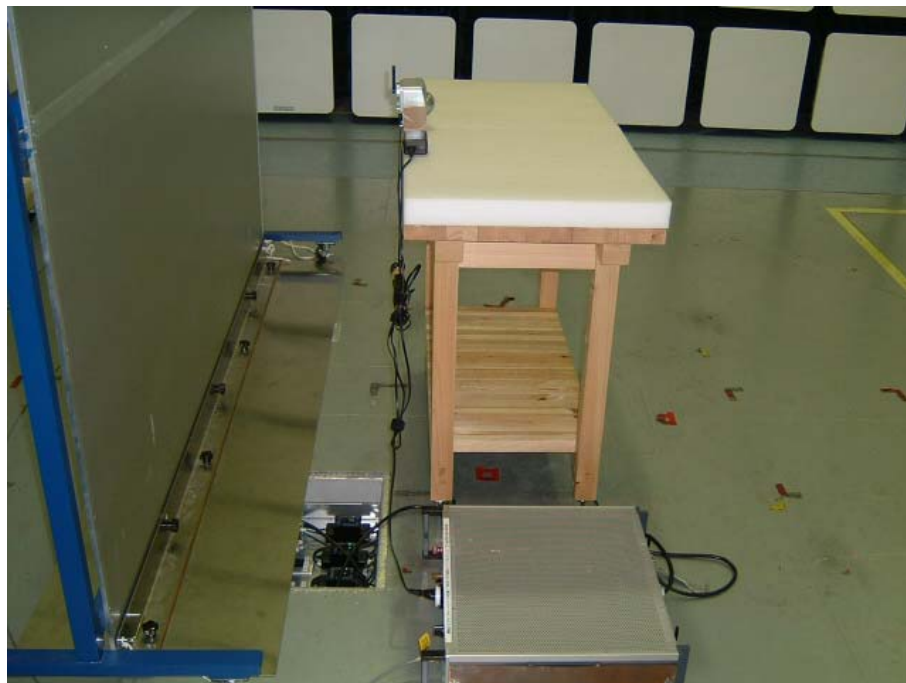
MF060b(10.04.03)

**APPENDIX 1: Photographs of test setup**

**Conducted Emission**  
**Front**



**Rear**

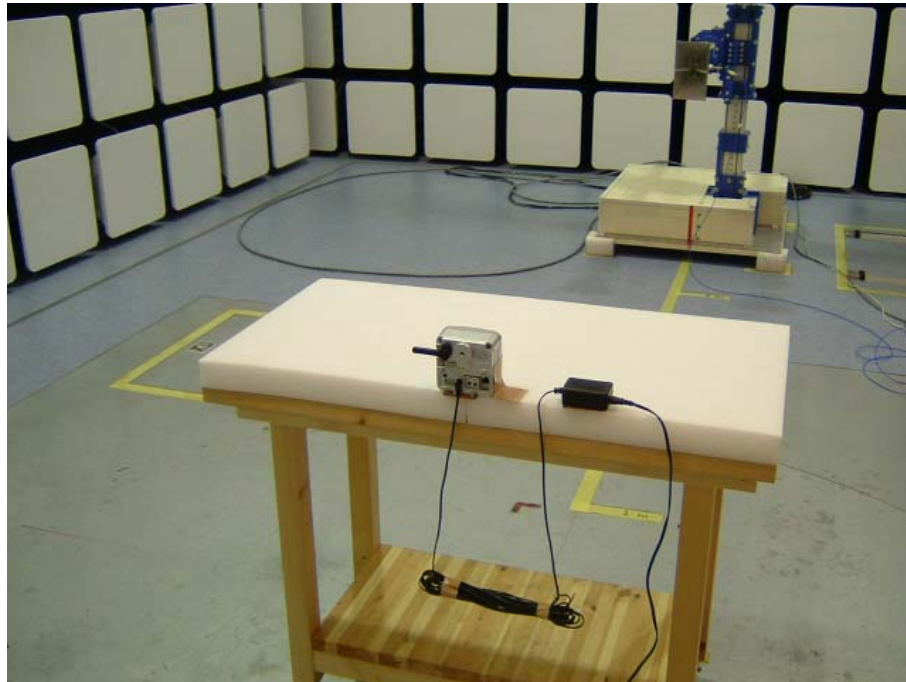


### Spurious Emission (Radiated)

Front



Rear



---

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

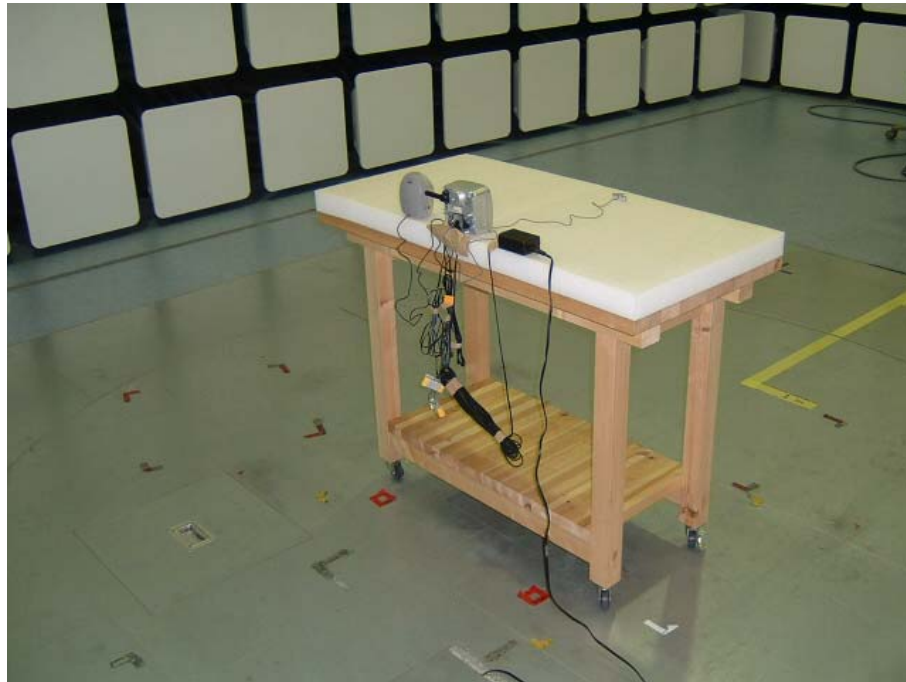
MF060b(10.04.03)

**Spurious Emission (Radiated)**

**Front**



**Rear**



**Worst Case Position (90 deg. :Horizontal / 180 deg. :Vertical)**

**0 deg.**



**90 deg.**



**180 deg.**



## APPENDIX 2: Test instruments

### EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE /CE/AT	2004/04/12 * 12
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	RE/CE	2004/02/03 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2004/02/24 * 12
MPA-06	Pre Amplifier	Hewlett Packard	8447D	RE	2004/08/29 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2004/10/14 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2004/10/14 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE	2003/12/16 * 12
MRENT-09	Spectrum Analyzer	Advantest	R3273	RE /CE/AT	2004/02/18 * 12
MCC-04	Microwave Cable	Storm	421-011	RE	2004/01/06 * 12
MCC-24	Microwave Cable	Storm	-	RE	2004/05/01 * 12
MHF-02	High Pass Filter	Tokimec	TF323DCA	RE	2004/09/18 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2004/02/06 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2004/01/10 * 12
MHA-01	Horn Antenna	EMCO	3160-09	RE	2004/01/10 * 12
MCC-13	Coaxial Cable	Fujikura/Agilent	-	CE	2004/02/24 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE(EUT)	2004/02/17 * 12
MCC-21	Microwave Cable	Storm	-	AT	2004/05/01 * 12
MAT-23	Attenuator(10dB)(above1GHz)	Orient Microwave	BX10-0476-00	AT	2004/03/30 * 12

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

Test Item:

CE: Conducted emission,  
RE: Spurious Radiated emission,  
AT: The other.

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

**APPENDIX 3: Data of EMI test**

**Conducted Emission**

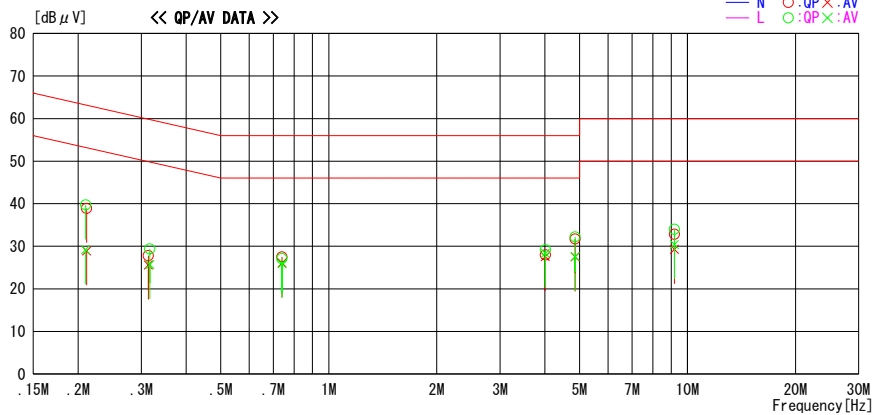
**DATA OF CONDUCTED EMISSION TEST**

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2004/10/22 09:10:33

Applicant : Panasonic Communications Co.,Ltd. Report No. : 25BE0317-HO  
 Kind of EUT : Network Camera Power : AC120V / 60Hz  
 Model No. : BB-HCM371A Temp°C/Humi% : 23deg. C / 50%  
 Serial No. : ES001 Operator : Hiroka Umeyama

Mode / Remarks : Tx 11b 11Mbps ch1:2412MHz

LIMIT : FCC15C § 15.207 (QP)  
 FCC15C § 15.207 (AV)



NO	FREQ [MHz]	READING		C. F [dB]	RESULT		LIMIT		MARGIN		PHASE
		QP [dB μV]	AV [dB μV]		QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]	
1	0.2113	38.8	28.8	0.1	38.9	28.9	63.2	53.2	24.3	24.3	N
2	0.3140	27.7	25.5	0.1	27.8	25.6	59.9	49.9	32.1	24.3	N
3	0.7403	27.4	26.0	0.1	27.5	26.1	56.0	46.0	28.5	19.9	N
4	4.0127	27.5	27.1	0.5	28.0	27.6	56.0	46.0	28.0	18.4	N
5	4.8570	31.1	26.9	0.6	31.7	27.5	56.0	46.0	24.3	18.5	N
6	9.1885	31.8	28.3	1.0	32.8	29.3	60.0	50.0	27.2	20.7	N
7	0.2100	39.6	29.1	0.1	39.7	29.2	63.2	53.2	23.5	24.0	L
8	0.3170	29.3	25.6	0.1	29.4	25.7	59.8	49.8	30.4	24.1	L
9	0.7403	27.0	25.8	0.1	27.1	25.9	56.0	46.0	28.9	20.1	L
10	4.0127	28.7	27.8	0.5	29.2	28.3	56.0	46.0	26.8	17.7	L
11	4.8573	31.6	27.0	0.6	32.2	27.6	56.0	46.0	23.8	18.4	L
12	9.1885	33.0	29.4	1.0	34.0	30.4	60.0	50.0	26.0	19.6	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.

### DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
 Date : 2004/10/22 09:10:33

Applicant	: Panasonic Communications Co.,Ltd.	Report No.	: 25BE0317-HO
Kind of EUT	: Network Camera	Power	: AC120V / 60Hz
Model No.	: BB-HCM371A	Temp°C/Humi%	: 23deg. C / 50%
Serial No.	: ES001	Operator	: Hiroka Umeyama

Mode / Remarks : Tx 11b 11Mbps ch1:2412MHz

LIMIT : FCC15C §15.207 (QP)  
 FCC15C §15.207 (AV)

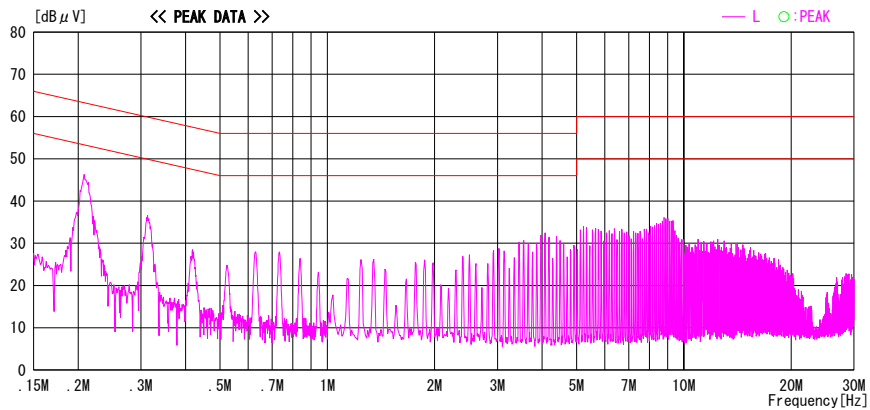
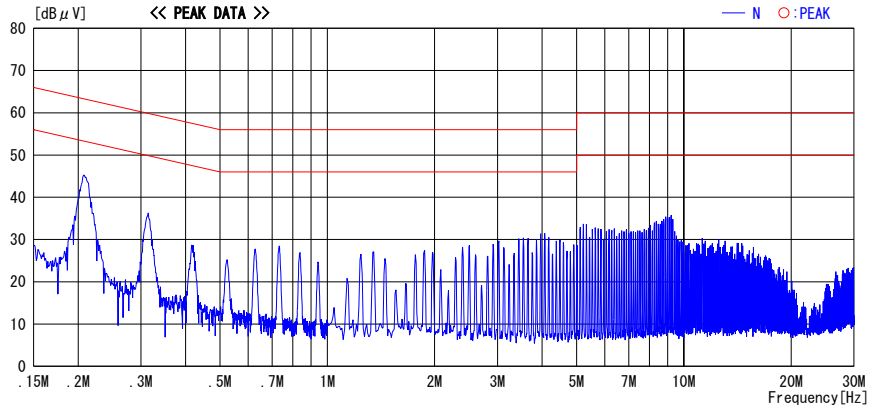


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
 Date : 2004/10/22 09:18:40

Applicant : Panasonic Communications Co., Ltd. Kind of EUT : Network Camera Model No. : BB-HCM371A Serial No. : ES001	Report No. : 25BE0317-HO Power : AC120V / 60Hz Temp°C/Humi% : 23deg. C / 50% Operator : Hiroka Umeyama
--	---

Mode / Remarks : Tx 11b 11Mbps ch6:2437MHz

LIMIT : FCC15C § 15.207 (QP)  
 FCC15C § 15.207 (AV)

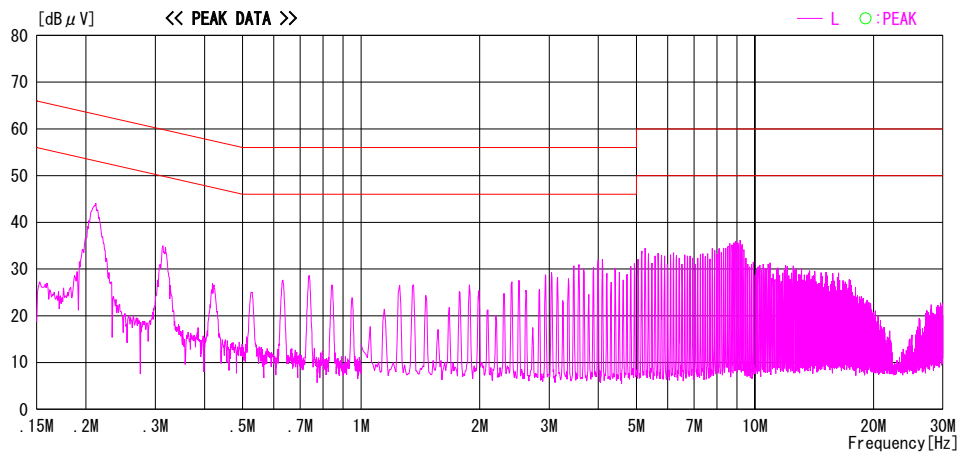
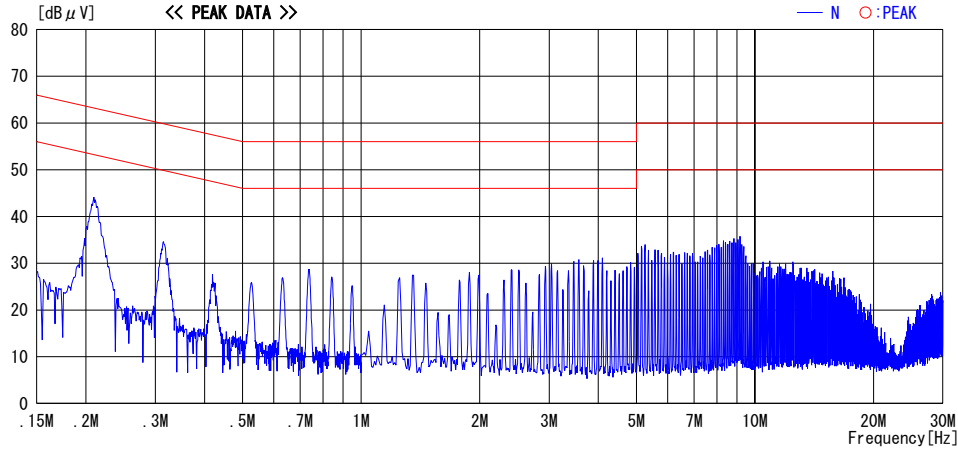


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C.F(LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2004/10/22 09:24:27

Applicant : Panasonic Communications Co., Ltd. Kind of EUT : Network Camera Model No. : BB-HCM371A Serial No. : ES001	Report No. : 25BE0317-HO Power : AC120V / 60Hz Temp°C/Humi% : 23deg. C / 50% Operator : Hiroka Umeyama
--	---

Mode / Remarks : Tx 11b 11Mbps ch11:2462MHz

LIMIT : FCC15C § 15.207 (QP)  
 FCC15C § 15.207 (AV)

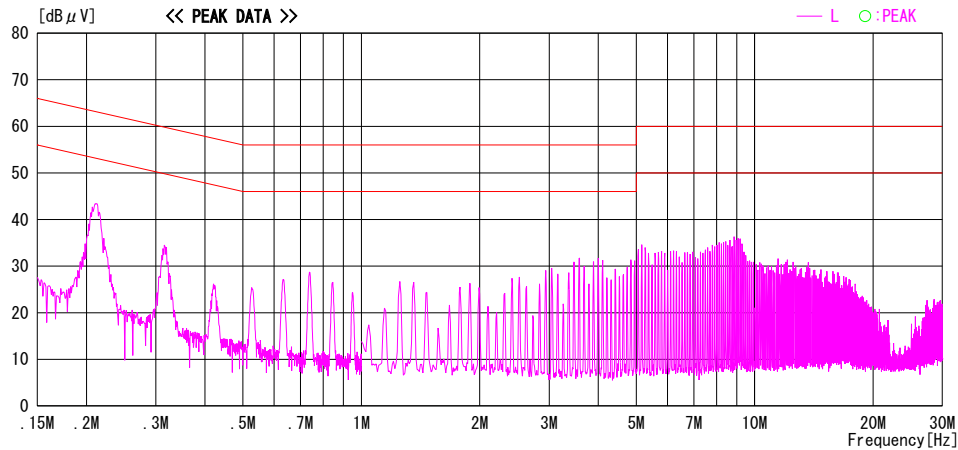
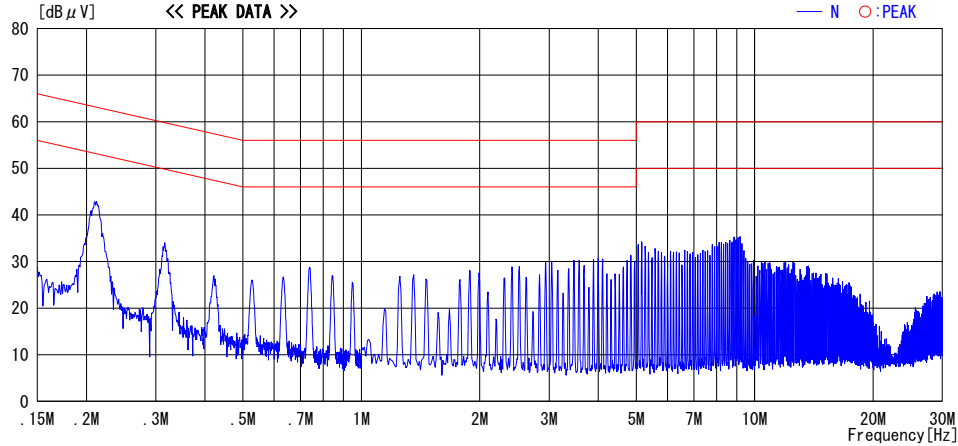


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C. F (L ISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

### DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2004/10/22 09:29:33

Applicant : Panasonic Communications Co.,Ltd. Kind of EUT : Network Camera Model No. : BB-HCM371A Serial No. : ES001	Report No. : 25BE0317-HO Power : AC120V / 60Hz Temp°C/Humi% : 23deg. C / 50% Operator : Hiroka Umeyama
---	---

Mode / Remarks : Tx 11g 54Mbps ch1:2412MHz

LIMIT : FCC15C §15.207 (QP)  
 FCC15C §15.207 (AV)

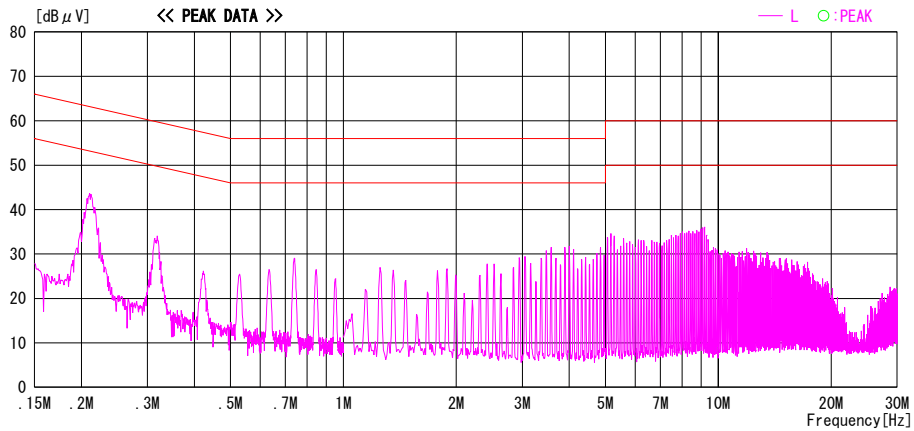
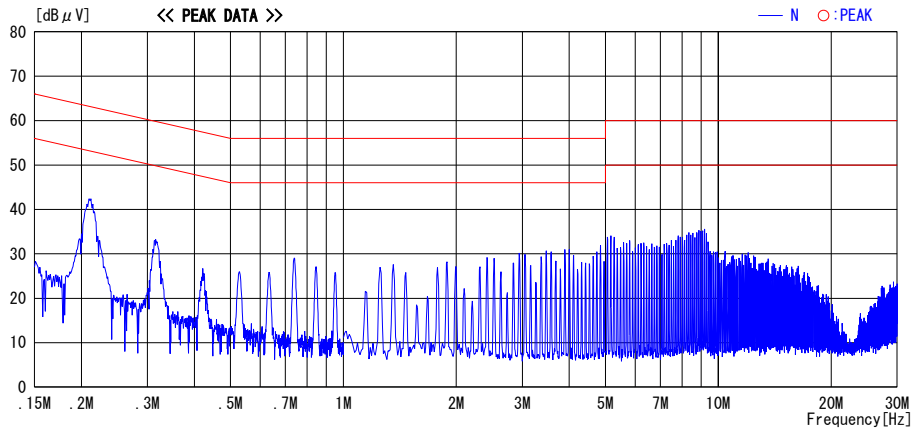


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
 Date : 2004/10/22 09:33:58

Applicant : Panasonic Communications Co.,Ltd.	Report No. : 25BE0317-HO
Kind of EUT : Network Camera	Power : AC120V / 60Hz
Model No. : BB-HCM371A	Temp°C/Humi% : 23deg. C / 50%
Serial No. : ES001	Operator : Hiroka Umeyama

Mode / Remarks : Tx 11g 54Mbps ch6:2437MHz

LIMIT : FCC15C § 15.207 (QP)  
 FCC15C § 15.207 (AV)

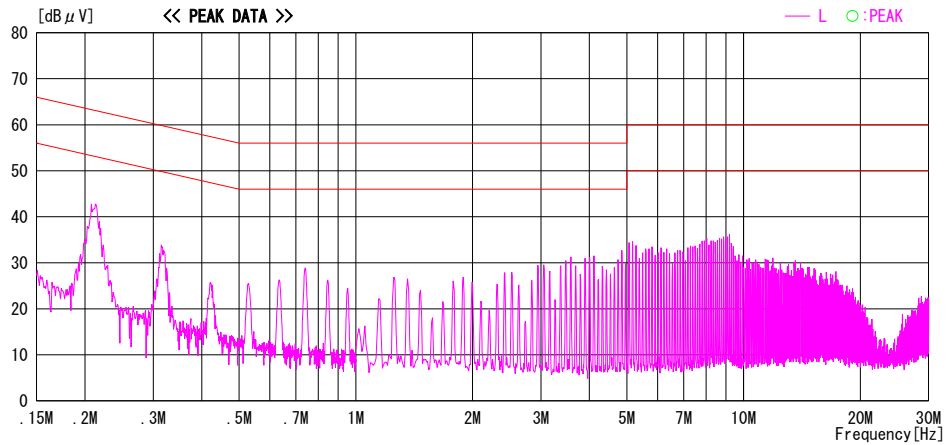
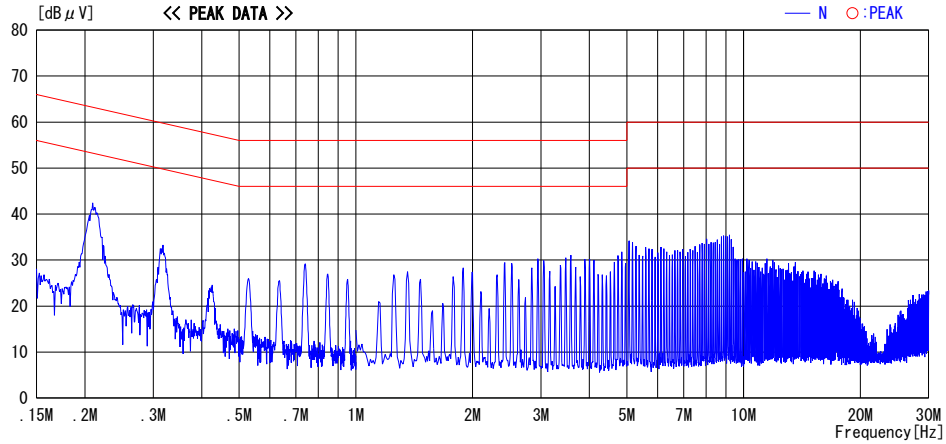


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

## DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
 Date : 2004/10/22 09:40:01

Applicant : Panasonic Communications Co.,Ltd.	Report No. : 25BE0317-HO
Kind of EUT : Network Camera	Power : AC120V / 60Hz
Model No. : BB-HCM371A	Temp°C/Humi% : 23deg. C / 50%
Serial No. : ES001	Operator : Hiroka Umeyama

Mode / Remarks : Tx 11g 54Mbps ch11:2462MHz

LIMIT : FCC15C § 15.207 (QP)  
 FCC15C § 15.207 (AV)

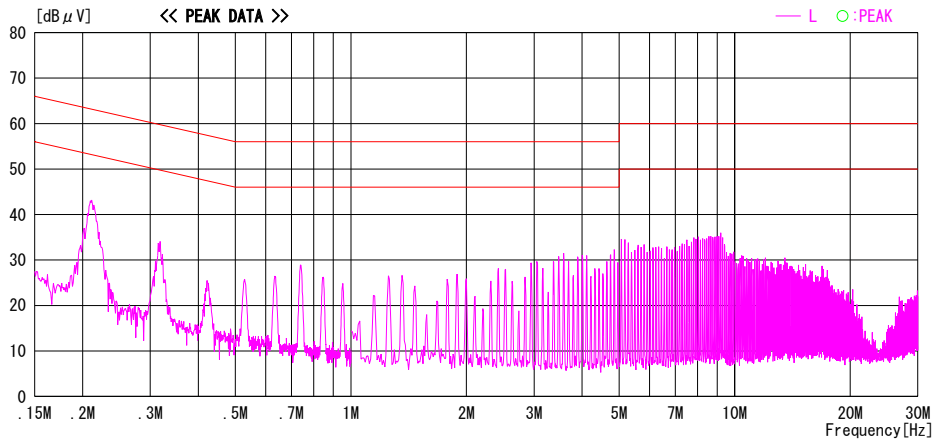
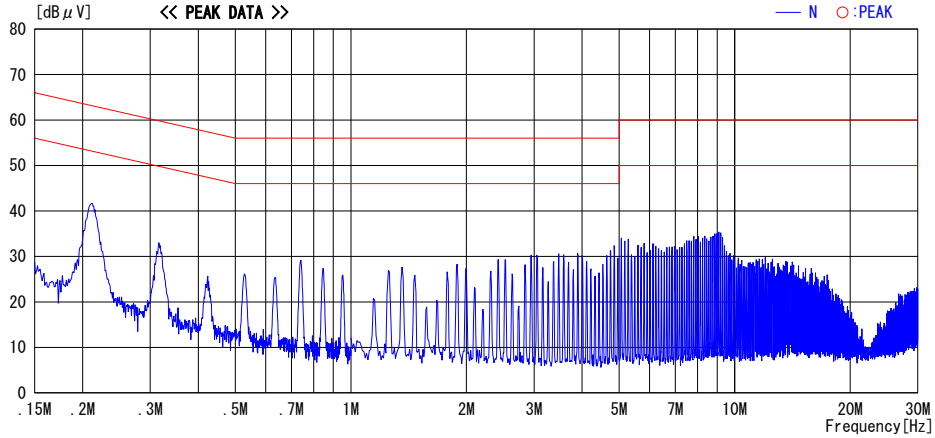


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCURATION: RESULT=READING+C.F (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**6dB Bandwidth(DSSS and other forms of modulation)**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company : Panasonic Communications Co., Ltd.  
Equipment : Network Camera  
Model : BB-HCM371A  
Sample No. : ES001  
Power : AC 120V / 60Hz  
Mode : Tx, IEEE802.11b, 11Mbps  
: Tx, IEEE802.11g, 54Mbps

REPORT NO : 25BE0317-HO  
REGULATION : Fcc Part15 Subpart C 15.247(a)(2)  
TEST DISTANCE : -  
DATE : 10/22/2004  
TEMPERATURE : 23deg.C  
HUMIDITY : 50%  
ENGINEER : Hiroka Umeyama

**[IEEE802.11b]**

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	11.0	500.0
Mid	2437.0	11.4	500.0
High	2462.0	11.4	500.0

**[IEEE802.11g]**

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	16.6	500.0
Mid	2437.0	16.6	500.0
High	2462.0	16.5	500.0

---

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

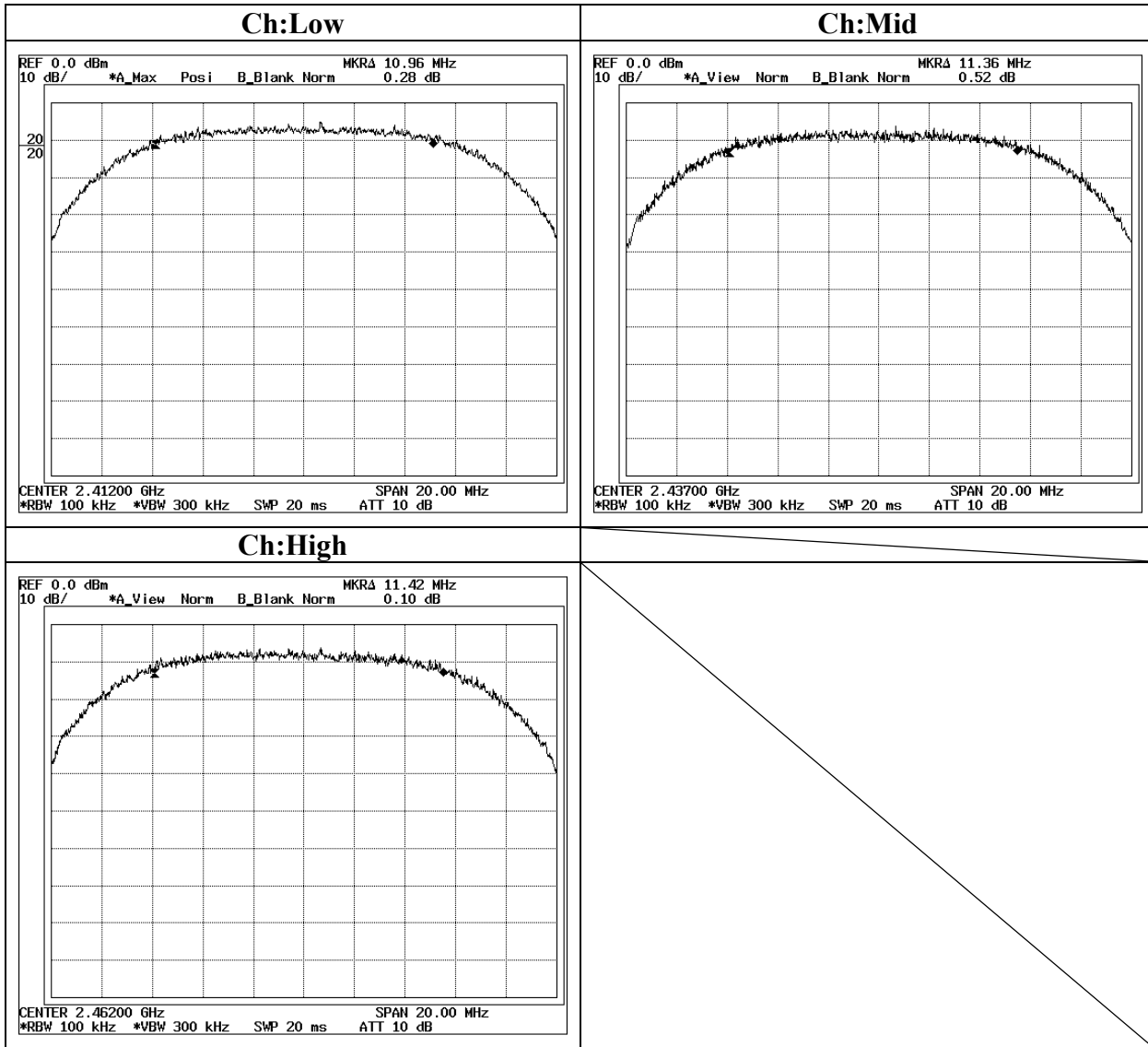
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

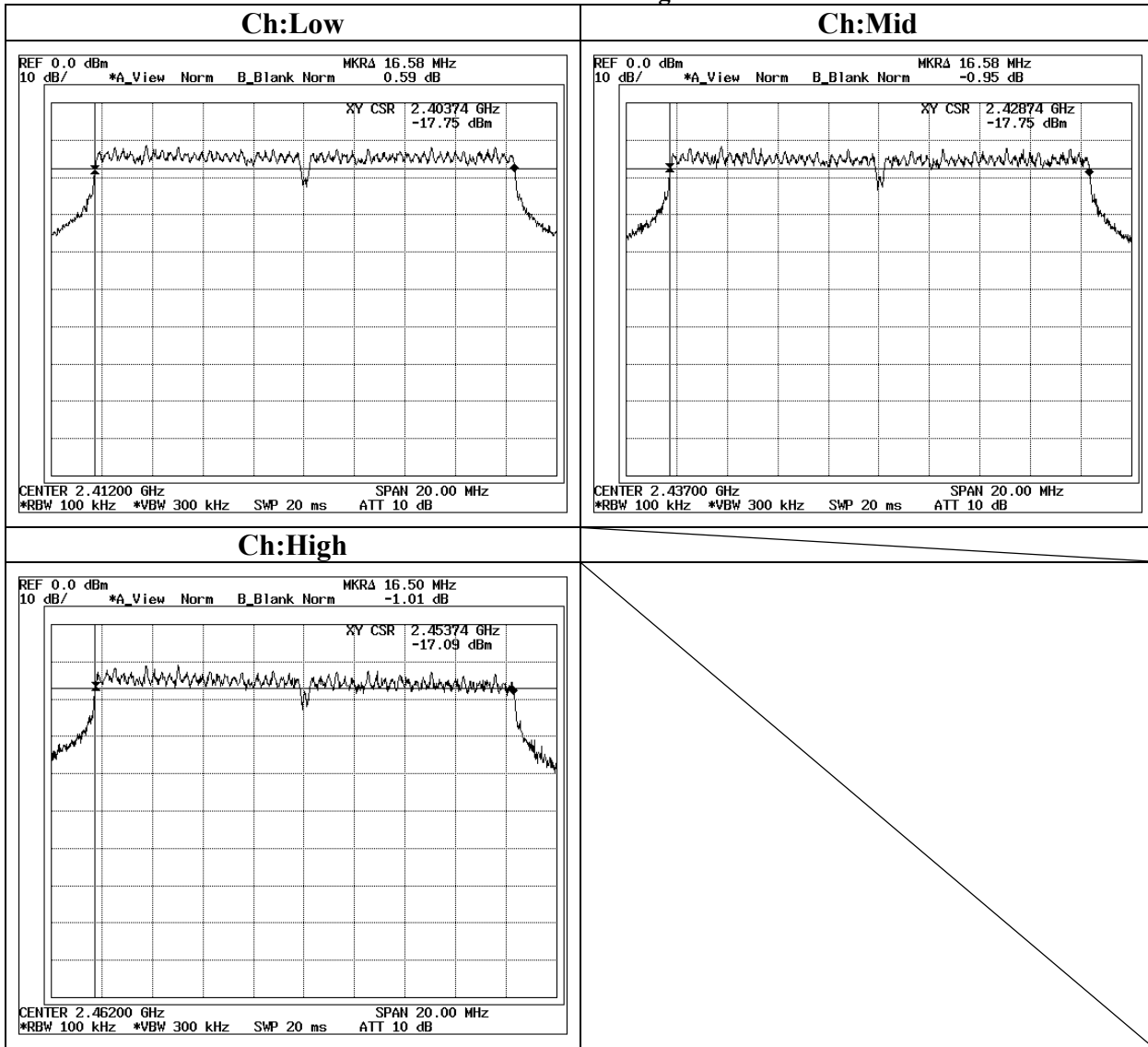
Facsimile : +81 596 24 8124

MF060b(10.04.03)

**6dB Bandwidth(DSSS and other forms of modulation)**  
**IEEE802.11b**



**6dB Bandwidth(DSSS and other forms of modulation)**  
**IEEE802.11g**



**Maximum Peak OutPut Power (DSSS and other forms of modulation)**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company : Panasonic Communications Co., Ltd.  
Equipment : Network Camera  
Model : BB-HCM371A  
Sample No. : ES001  
Power : AC 120V / 60Hz  
Mode : Tx, IEEE802.11b,11Mbps  
: Tx, IEEE802.11g

REPORT NO : 25BE0317-HO  
REGULATION : Fcc Part15 Subpart C 15.247(b)(3)  
TEST DISTANCE : -  
DATE : 10/22/2004  
TEMPERATURE : 23deg.C  
HUMIDITY : 50%  
ENGINEER : Hiroka Umeyama

**[IEEE802.11b]**

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
Low	2412.0	9.6	1.9	10.0	21.5	30.0	8.5
Mid	2437.0	9.0	1.9	10.0	20.9	30.0	9.1
High	2462.0	9.2	1.9	10.0	21.1	30.0	8.9

**[IEEE802.11g] 54Mbps**

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
Low	2412.0	6.3	1.9	10.0	18.2	30.0	11.8
Mid	2437.0	6.0	1.9	10.0	17.9	30.0	12.1
High	2462.0	6.2	1.9	10.0	18.1	30.0	11.9

**[IEEE802.11g] 18Mbps**

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
Low	2412.0	6.1	1.9	10.0	18.0	30.0	12.0
Mid	2437.0	5.9	1.9	10.0	17.8	30.0	12.2
High	2462.0	6.3	1.9	10.0	18.2	30.0	11.8

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 Apex Co., Ltd.**

**Head Office EMC Lab.**

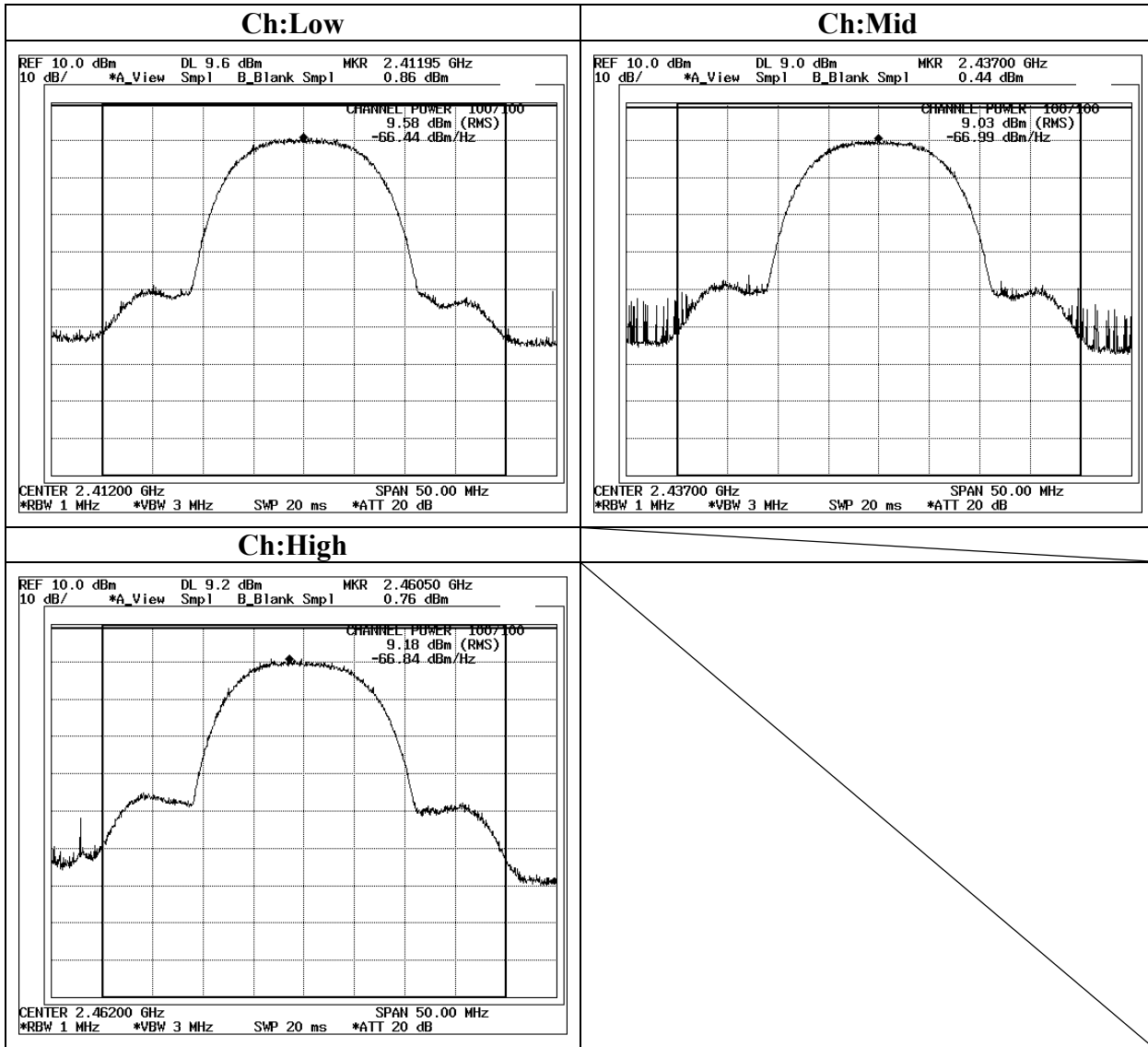
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

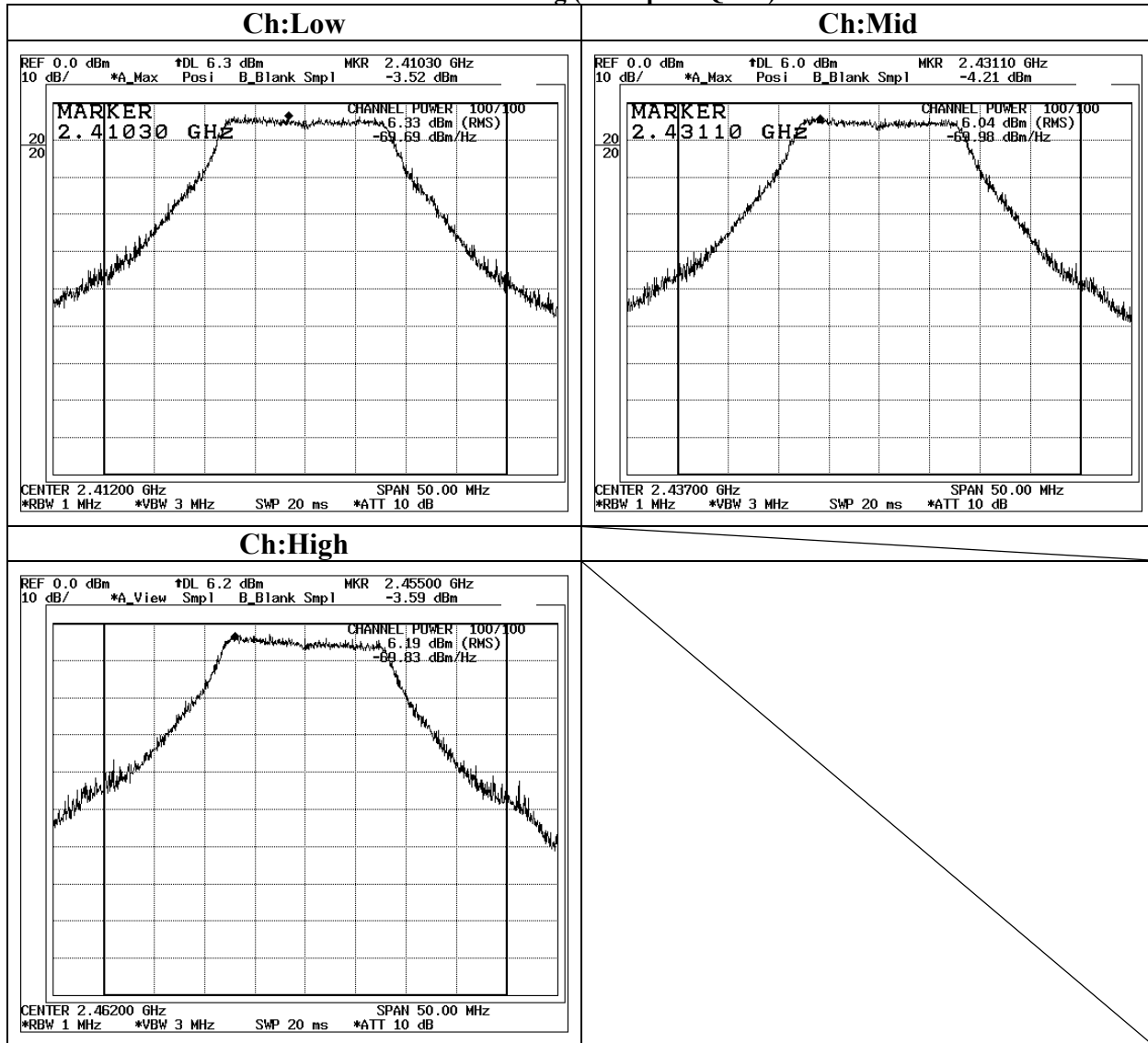
Facsimile : +81 596 24 8124

MF060b(10.04.03)

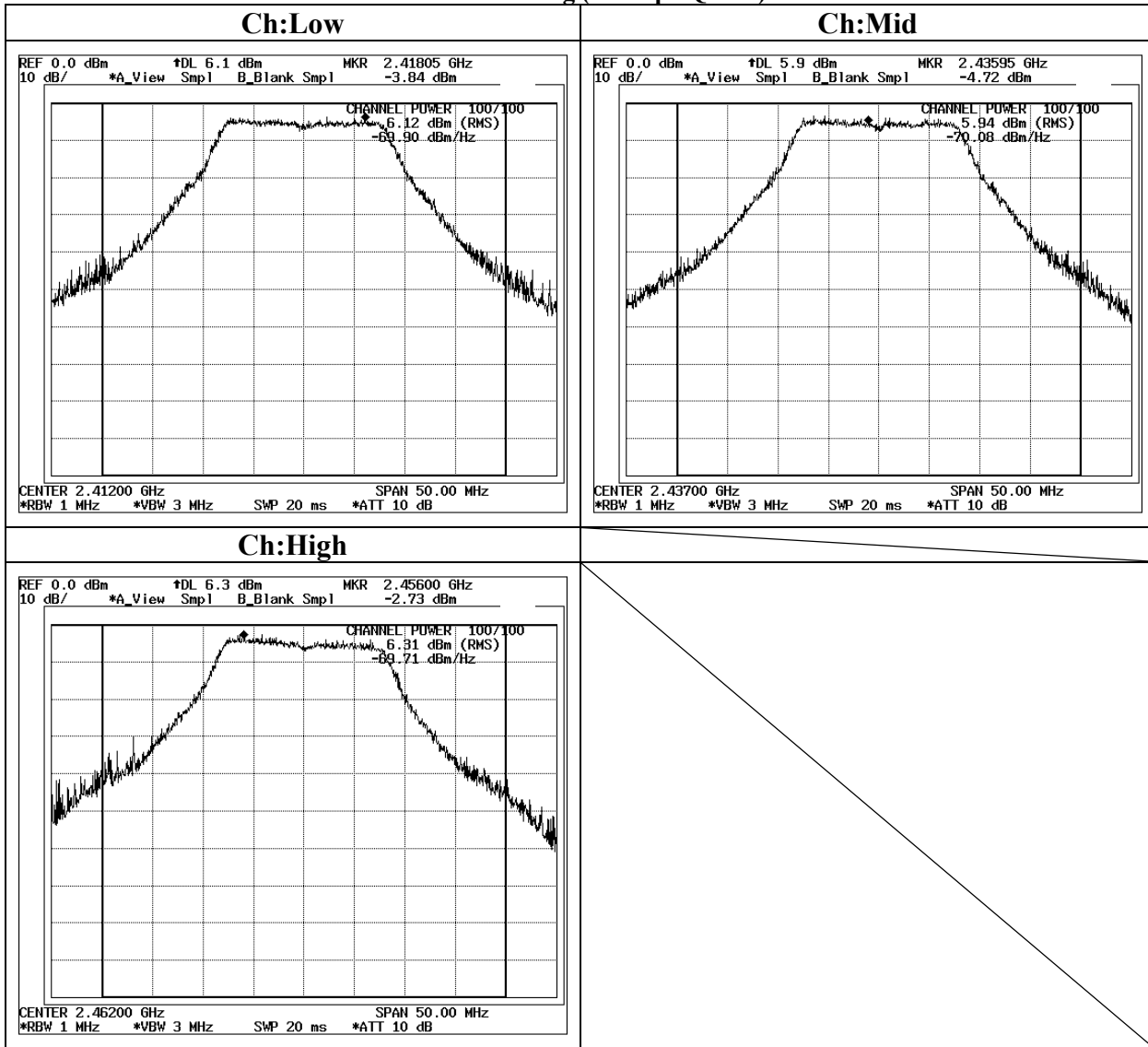
**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11b**



**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11g (54Mbps:64QAM)**



**Maximum Peak OutPut Power (DSSS and other forms of modulation)**  
**IEEE802.11g (18Mbps:QPSK)**



## Radiated Spurious Emission(DSSS and other forms of modulation )

### DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communicatons Co.,Ltd.	Report No. : 25BE0317-HO
Kind of EUT : Network Camera	Power : AC 120V / 60Hz
Model No. : BB-HCM371A	Temp. / Humi. : 24deg. C / 51%
Serial No. : ES001	Operator : Makoto Kosaka

Mode / Remarks : Tx 11b 11Mbps ch1: 2412MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
 Except for the data below : adequate margin data below the limits.

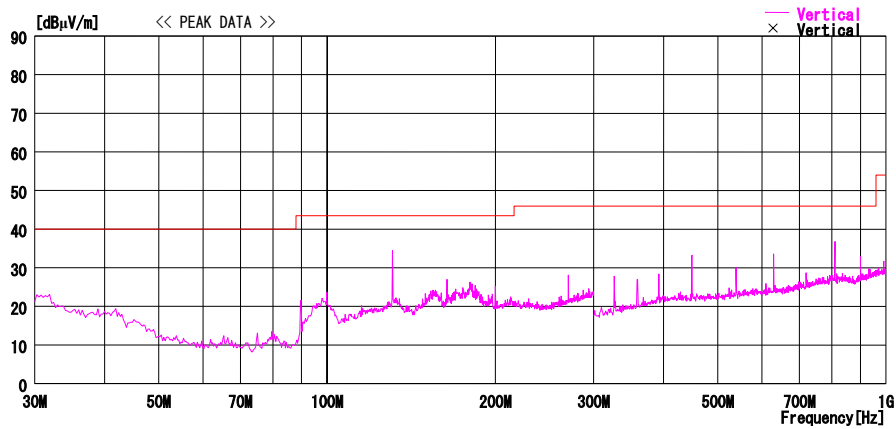
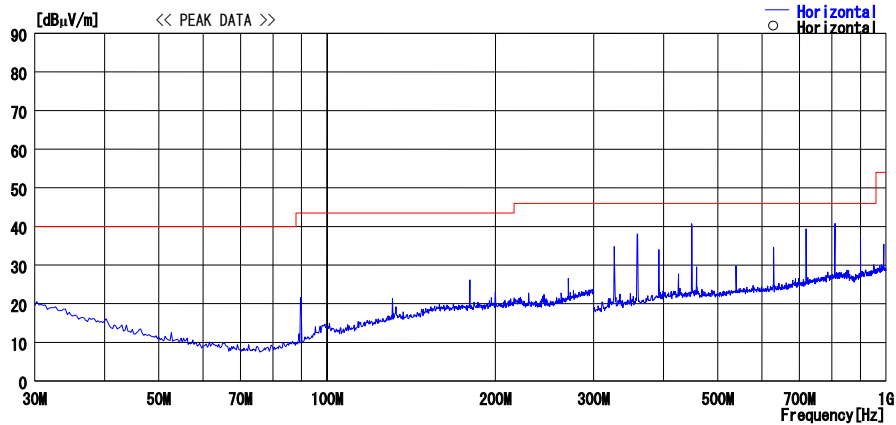


CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
 CALCULATION:RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

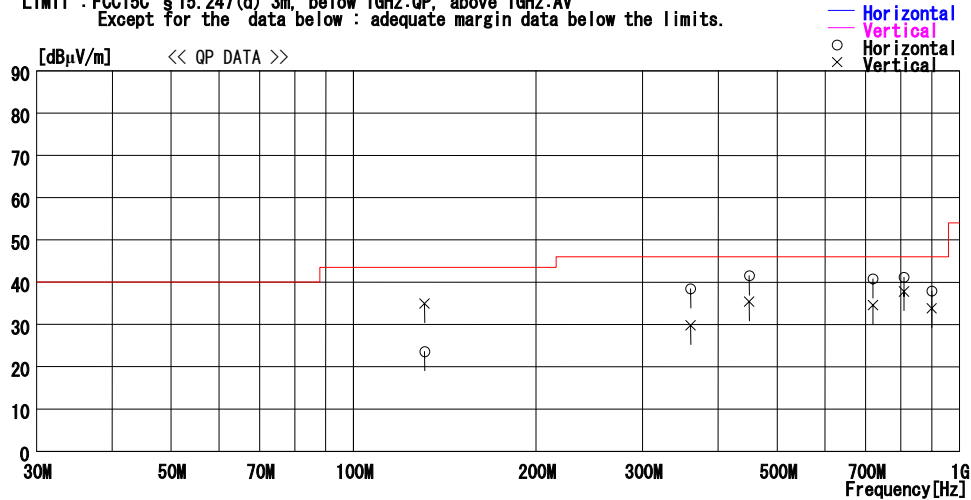
## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communicatons Co.,Ltd.      Report No. : 25BE0317-HO  
Kind of EUT : Network Camera                      Power : AC 120V / 60Hz  
Model No. : BB-HCM371A                              Temp./ Humi. : 24deg. C / 51%  
Serial No. : ES001                                      Operator : Makoto Kosaka

Mode / Remarks: Tx 11b 11Mbps chl: 2412MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dBμV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBμV/m]	LIMIT [dBμV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
— Horizontal —										
1	131.084	29.7	13.9	7.4	27.4	23.6	43.5	19.9	329	165
2	360.012	39.9	17.1	8.6	27.2	38.4	46.0	7.6	100	206
3	450.015	41.4	18.8	9.2	27.9	41.5	46.0	4.5	100	207
4	720.019	37.9	20.8	10.3	28.2	40.8	46.0	5.2	117	207
5	810.021	36.6	22.0	10.5	27.9	41.2	46.0	4.8	100	245
6	900.022	32.8	21.9	10.9	27.7	37.9	46.0	8.1	161	175
— Vertical —										
7	131.083	41.0	13.9	7.4	27.4	34.9	43.5	8.6	100	57
8	360.012	31.3	17.1	8.6	27.2	29.8	46.0	16.2	140	136
9	450.012	35.3	18.8	9.2	27.9	35.4	46.0	10.6	121	37
10	720.019	31.7	20.8	10.3	28.2	34.6	46.0	11.4	140	257
11	810.021	33.2	22.0	10.5	27.9	37.8	46.0	8.2	139	271
12	900.023	28.7	21.9	10.9	27.7	33.8	46.0	12.2	128	233

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 Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communicatons Co.,Ltd.	Report No. : 25BE0317-HO
Kind of EUT : Network Camera	Power : AC 120V / 60Hz
Model No. : BB-HCM371A	Temp. / Humi. : 24deg. C / 51%
Serial No. : ES001	Operator : Makoto Kosaka

Mode / Remarks: Tx 11b 11Mbps ch6: 2437MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
 Except for the data below : adequate margin data below the limits.

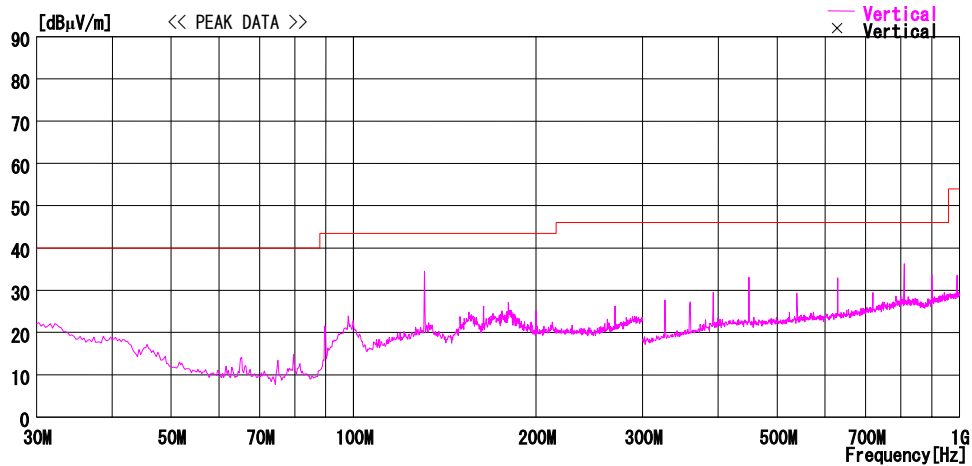
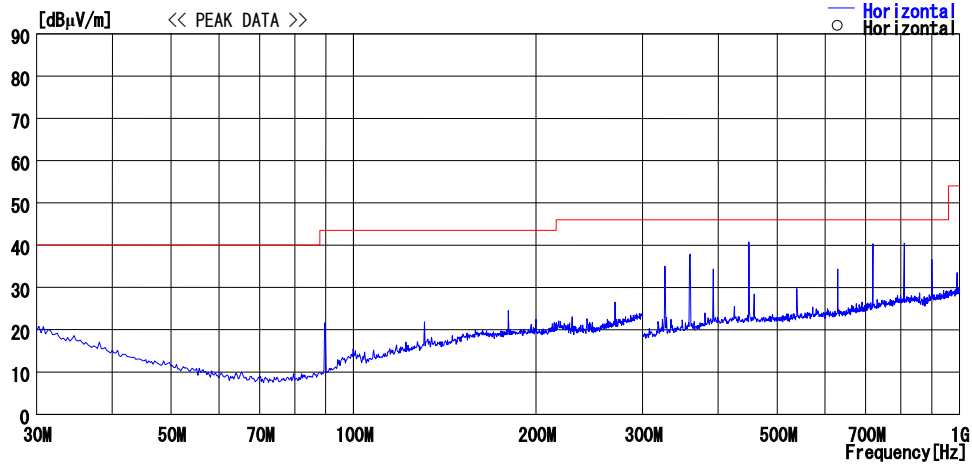


CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
 CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

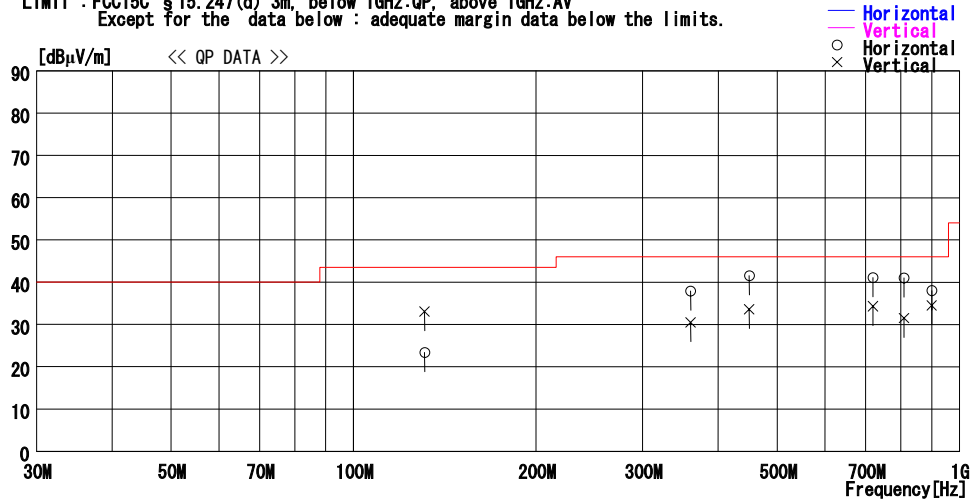
## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communicatons Co.,Ltd. Report No. : 25BE0317-HO  
Kind of EUT : Network Camera Power : AC 120V / 60Hz  
Model No. : BB-HCM371A Temp./ Humi. : 24deg. C / 51%  
Serial No. : ES001 Operator : Makoto Kosaka

Mode / Remarks: Tx 11b 11Mbps ch6: 2437MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dBµV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBµV/m]	LIMIT [dBµV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	131.083	29.5	13.9	7.4	27.4	23.4	43.5	20.1	337	162
2	360.013	39.4	17.1	8.6	27.2	37.9	46.0	8.1	100	213
3	450.015	41.5	18.8	9.2	27.9	41.6	46.0	4.4	100	206
4	720.018	38.2	20.8	10.3	28.2	41.1	46.0	4.9	112	204
5	810.020	36.4	22.0	10.5	27.9	41.0	46.0	5.0	100	246
6	900.021	32.9	21.9	10.9	27.7	38.0	46.0	8.0	100	181
----- Vertical -----										
7	131.083	39.2	13.9	7.4	27.4	33.1	43.5	10.4	100	-1
8	360.012	32.0	17.1	8.6	27.2	30.5	46.0	15.5	142	141
9	450.012	33.5	18.8	9.2	27.9	33.6	46.0	12.4	131	49
10	720.018	31.4	20.8	10.3	28.2	34.3	46.0	11.7	142	255
11	810.018	26.9	22.0	10.5	27.9	31.5	46.0	14.5	100	242
12	900.023	29.4	21.9	10.9	27.7	34.5	46.0	11.5	119	78

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communications Co.,Ltd.	Report No. : 25BE0317-HO
Kind of EUT : Network Camera	Power : AC 120V / 60Hz
Model No. : BB-HCM371A	Temp. / Humi. : 24deg. C / 51%
Serial No. : ES001	Operator : Makoto Kosaka

Mode / Remarks : Tx 11b 11Mbps ch11: 2462MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
 Except for the data below : adequate margin data below the limits.

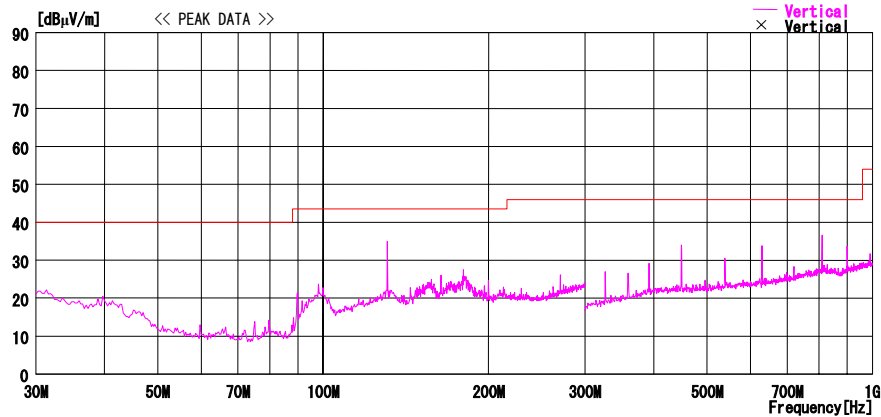
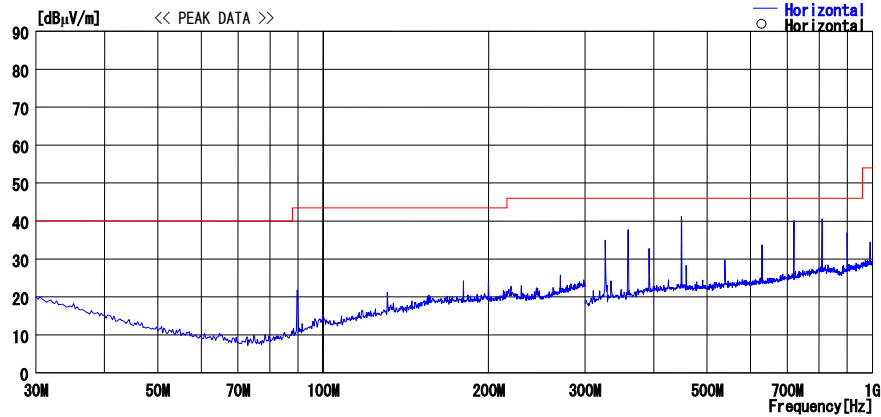


CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
 CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

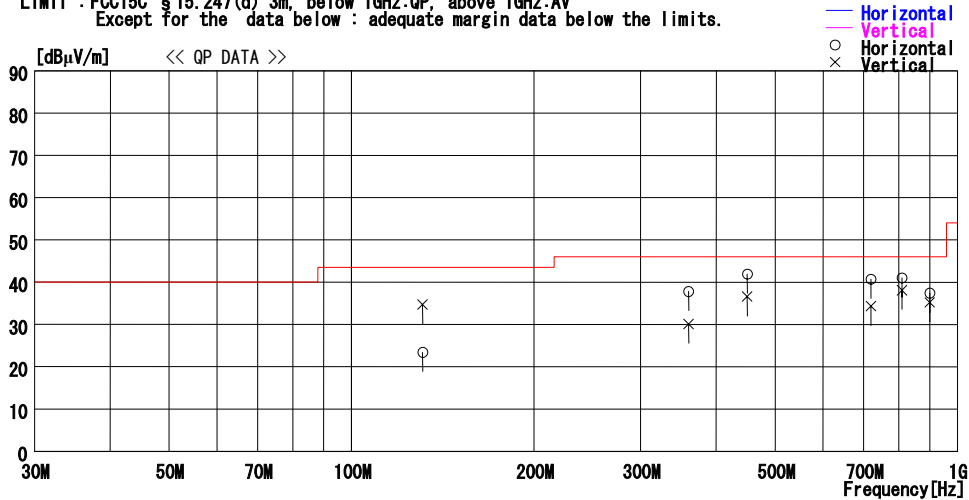
## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communicatons Co.,Ltd.      Report No. : 25BE0317-HO  
Kind of EUT : Network Camera                      Power : AC 120V / 60Hz  
Model No. : BB-HCM371A                              Temp./ Humi. : 24deg. C / 51%  
Serial No. : ES001                                      Operator : Makoto Kosaka

Mode / Remarks: Tx 11b 11Mbps ch11: 2462MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dBµV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBµV/m]	LIMIT [dBµV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
—— Horizontal ——										
1	131.083	29.5	13.9	7.4	27.4	23.4	43.5	20.1	325	170
2	360.012	39.3	17.1	8.6	27.2	37.8	46.0	8.2	100	203
3	450.012	41.8	18.8	9.2	27.9	41.9	46.0	4.1	100	199
4	720.020	37.8	20.8	10.3	28.2	40.7	46.0	5.3	119	203
5	810.020	36.4	22.0	10.5	27.9	41.0	46.0	5.0	100	247
6	900.021	32.3	21.9	10.9	27.7	37.4	46.0	8.6	158	177
—— Vertical ——										
7	131.083	40.8	13.9	7.4	27.4	34.7	43.5	8.8	100	62
8	360.012	31.6	17.1	8.6	27.2	30.1	46.0	15.9	135	146
9	450.015	36.5	18.8	9.2	27.9	36.6	46.0	9.4	128	39
10	720.019	31.4	20.8	10.3	28.2	34.3	46.0	11.7	134	281
11	810.021	33.5	22.0	10.5	27.9	38.1	46.0	7.9	135	273
12	900.022	30.1	21.9	10.9	27.7	35.2	46.0	10.8	125	130

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)

## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communications Co.,Ltd.	Report No. : 25BE0317-HO
Kind of EUT : Network Camera	Power : AC 120V / 60Hz
Model No. : BB-HCM371A	Temp. / Humi. : 24deg. C / 51%
Serial No. : ES001	Operator : Makoto Kosaka

Mode / Remarks : Tx 11g 54Mbps ch1: 2412MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
 Except for the data below : adequate margin data below the limits.

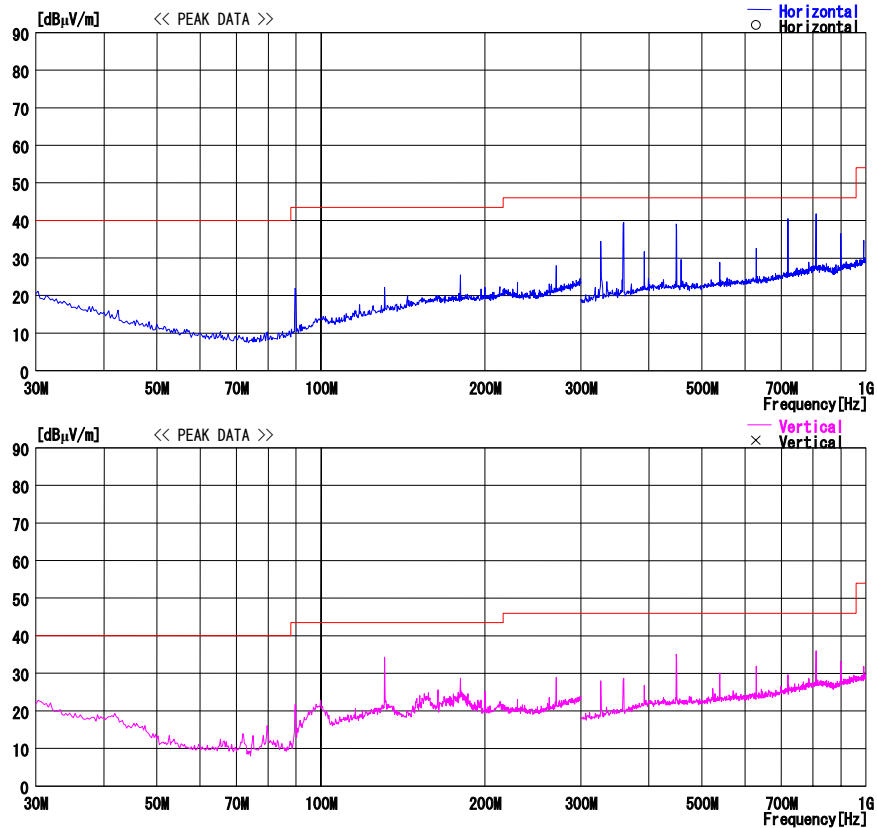


CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
 CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

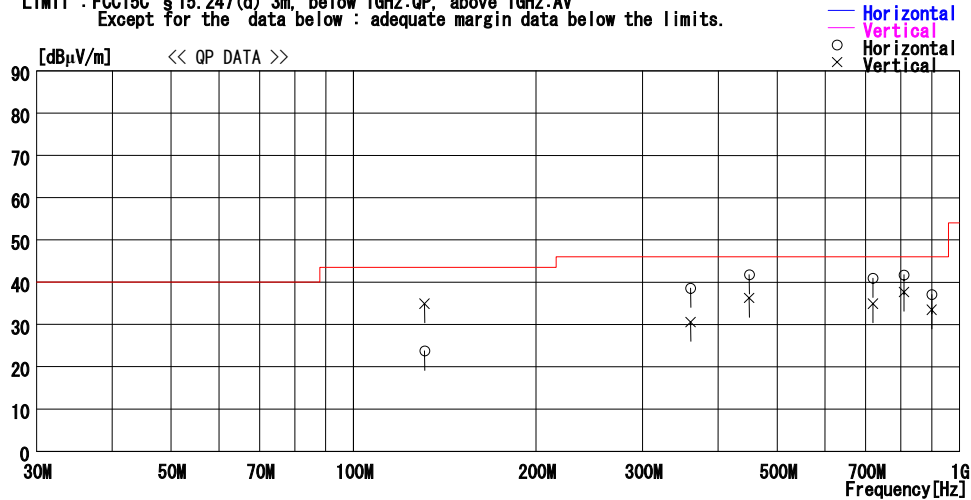
## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communicatons Co.,Ltd. Report No. : 25BE0317-HO  
Kind of EUT : Network Camera Power : AC 120V / 60Hz  
Model No. : BB-HCM371A Temp./ Humi. : 24deg. C / 51%  
Serial No. : ES001 Operator : Makoto Kosaka

Mode / Remarks: Tx 11g 54Mbps chl: 2412MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dBµV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBµV/m]	LIMIT [dBµV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
— Horizontal —										
1	131.082	29.8	13.9	7.4	27.4	23.7	43.5	19.8	321	165
2	360.015	40.1	17.1	8.6	27.2	38.6	46.0	7.4	100	213
3	450.016	41.7	18.8	9.2	27.9	41.8	46.0	4.2	100	195
4	720.020	38.0	20.8	10.3	28.2	40.9	46.0	5.1	120	200
5	810.022	37.1	22.0	10.5	27.9	41.7	46.0	4.3	100	249
6	900.024	32.0	21.9	10.9	27.7	37.1	46.0	8.9	157	176
— Vertical —										
7	131.083	41.0	13.9	7.4	27.4	34.9	43.5	8.6	100	57
8	360.011	32.1	17.1	8.6	27.2	30.6	46.0	15.4	147	131
9	450.014	36.2	18.8	9.2	27.9	36.3	46.0	9.7	135	42
10	720.021	32.0	20.8	10.3	28.2	34.9	46.0	11.1	138	254
11	810.021	33.1	22.0	10.5	27.9	37.7	46.0	8.3	137	293
12	900.022	28.4	21.9	10.9	27.7	33.5	46.0	12.5	130	241

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber

Applicant : Panasonic Communicatons Co., Ltd.	Report No. : 25BE0317-HO
Kind of EUT : Network Camera	Power : AC 120V / 60Hz
Model No. : BB-HCM371A	Temp. / Humi. : 24deg. C / 51%
Serial No. : ES001	Operator : Makoto Kosaka

Mode / Remarks : Tx 11g 54Mbps ch6: 2437MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
 Except for the data below : adequate margin data below the limits.

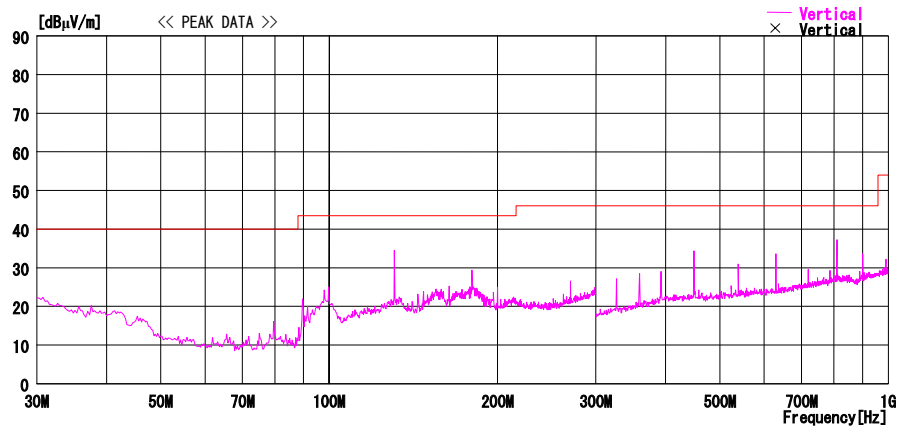
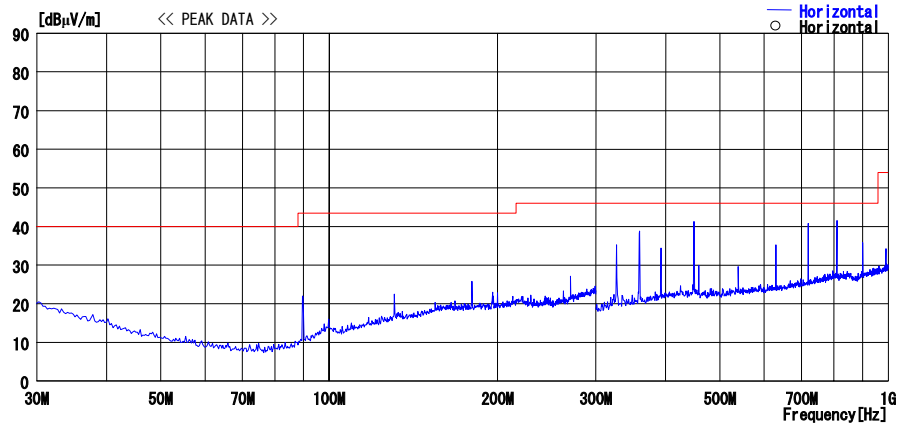


CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
 CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

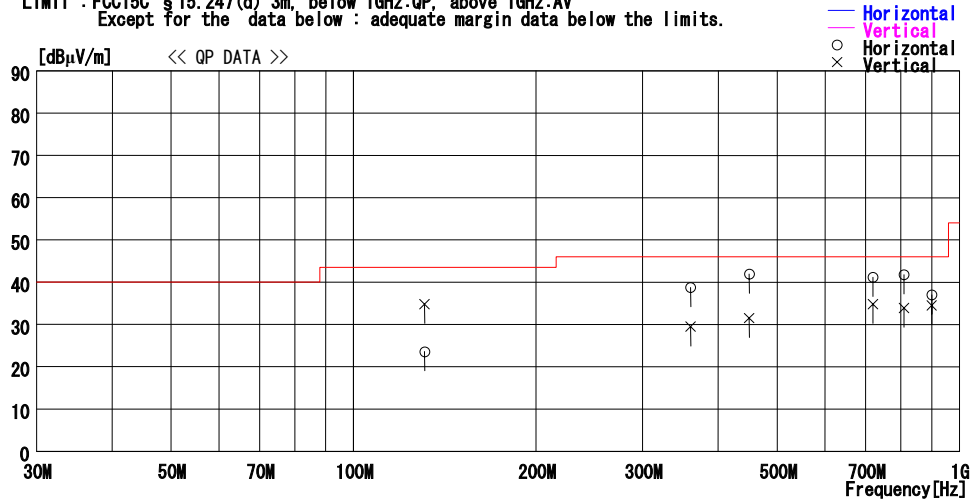
## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communicatons Co.,Ltd. Report No. : 25BE0317-HO  
Kind of EUT : Network Camera Power : AC 120V / 60Hz  
Model No. : BB-HCM371A Temp./ Humi. : 24deg. C / 51%  
Serial No. : ES001 Operator : Makoto Kosaka

Mode / Remarks: Tx 11g 54Mbps ch6: 2437MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dBµV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBµV/m]	LIMIT [dBµV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	131.082	29.7	13.9	7.4	27.4	23.6	43.5	19.9	344	198
2	360.013	40.2	17.1	8.6	27.2	38.7	46.0	7.3	100	197
3	450.015	41.8	18.8	9.2	27.9	41.9	46.0	4.1	100	204
4	720.020	38.3	20.8	10.3	28.2	41.2	46.0	4.8	116	202
5	810.021	37.2	22.0	10.5	27.9	41.8	46.0	4.2	100	247
6	900.022	31.9	21.9	10.9	27.7	37.0	46.0	9.0	164	147
----- Vertical -----										
7	131.084	40.9	13.9	7.4	27.4	34.8	43.5	8.7	100	64
8	360.012	31.0	17.1	8.6	27.2	29.5	46.0	16.5	154	134
9	450.015	31.4	18.8	9.2	27.9	31.5	46.0	14.5	163	40
10	720.017	31.9	20.8	10.3	28.2	34.8	46.0	11.2	141	253
11	810.020	29.3	22.0	10.5	27.9	33.9	46.0	12.1	133	291
12	900.021	29.4	21.9	10.9	27.7	34.5	46.0	11.5	112	83

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communications Co.,Ltd.	Report No. : 25BE0317-HO
Kind of EUT : Network Camera	Power : AC 120V / 60Hz
Model No. : BB-HCM371A	Temp./ Humi. : 24deg. C / 51%
Serial No. : ES001	Operator : Makoto Kosaka

Mode / Remarks : Tx 11g 54Mbps ch11: 2462MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
 Except for the data below : adequate margin data below the limits.

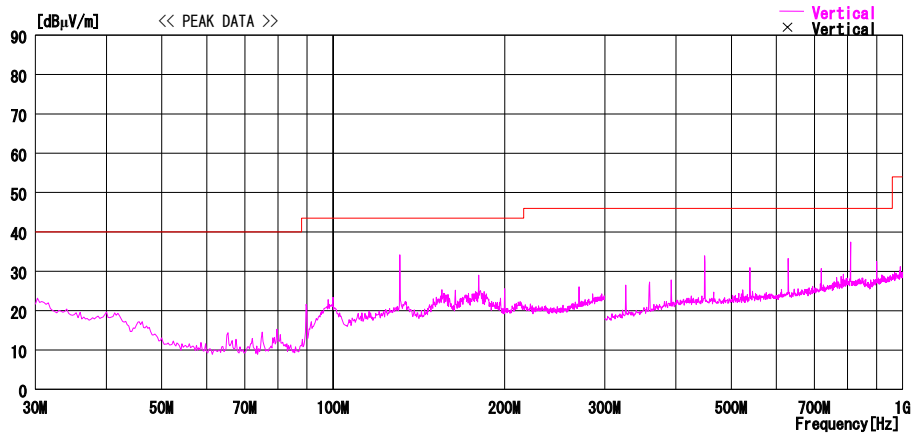
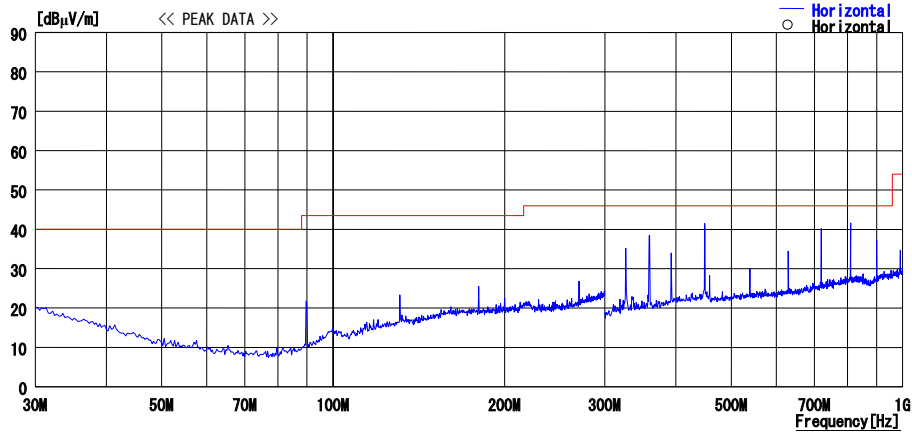


CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN  
 CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)

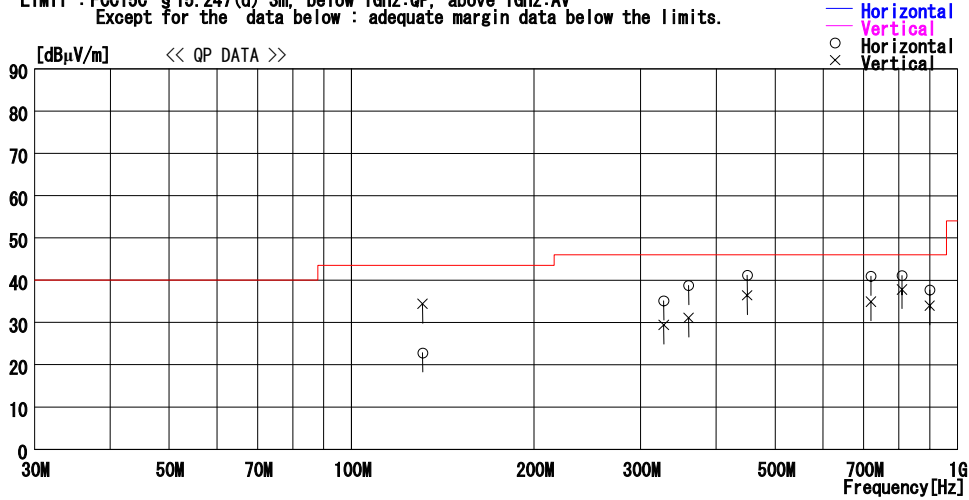
## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber

Applicant : Panasonic Communicatons Co.,Ltd. Report No. : 25BE0317-HO  
Kind of EUT : Network Camera Power : AC 120V / 60Hz  
Model No. : BB-HCM371A Temp./ Humi. : 24deg. C / 51%  
Serial No. : ES001 Operator : Makoto Kosaka

Mode / Remarks: Tx 11g 54Mbps ch11: 2462MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.



No.	FREQ [MHz]	READING QP [dBµV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBµV/m]	LIMIT [dBµV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
----- Horizontal -----										
1	131.082	28.9	13.9	7.4	27.4	22.8	43.5	20.7	356	178
2	327.701	37.7	15.9	8.4	26.9	35.1	46.0	10.9	100	282
3	360.013	40.2	17.1	8.6	27.2	38.7	46.0	7.3	100	59
4	450.015	41.1	18.8	9.2	27.9	41.2	46.0	4.8	100	179
5	720.022	38.0	20.8	10.3	28.2	40.9	46.0	5.1	117	208
6	810.022	36.5	22.0	10.5	27.9	41.1	46.0	4.9	100	252
7	900.023	32.6	21.9	10.9	27.7	37.7	46.0	8.3	155	164
----- Vertical -----										
8	131.084	40.5	13.9	7.4	27.4	34.4	43.5	9.1	100	64
9	327.702	32.0	15.9	8.4	26.9	29.4	46.0	16.6	147	36
10	360.012	32.6	17.1	8.6	27.2	31.1	46.0	14.9	145	91
11	450.014	36.3	18.8	9.2	27.9	36.4	46.0	9.6	126	44
12	720.020	32.0	20.8	10.3	28.2	34.9	46.0	11.1	133	255
13	810.021	33.2	22.0	10.5	27.9	37.8	46.0	8.2	126	238
14	900.024	28.9	21.9	10.9	27.7	34.0	46.0	12.0	113	78

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 Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

## DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company : Panasonic Communications Co.,Ltd.  
Equipment : Network Camera  
Model : BB-HCM371A  
Sample No. : ES001  
Power : AC120V / 60Hz  
Mode : 11b, 11Mbps, Tx2412MHz  
Remarks : Tx antenna 90deg(Hor)/180deg(Ver)

REPORT NO : 25BE0317-HO  
REGULATION : Fcc Part15 Subpart C 15.247(d)  
TEST DISTANCE : 3/1m  
DATE : 10/21/2004  
TEMPERATURE : 24deg.C  
HUMIDITY : 51%  
ENGINEER : Makoto Kosaka

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2390.0	48.3	51.0	30.8	36.3	6.4	9.8	59.0	61.7	74.0	15.0	12.3
2	4824.0	41.9	41.1	35.4	36.1	9.3	1.0	51.5	50.7	74.0	22.5	23.3
3	7236.0	39.4	38.6	38.0	35.6	11.8	0.4	54.0	53.2	74.0	20.0	20.8
4	9648.0	39.6	41.0	37.5	36.3	13.9	0.2	54.9	56.3	74.0	19.1	17.7
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
5	12060.0	40.5	39.5	41.1	35.7	15.5	0.2	52.1	51.1	74.0	21.9	22.9
6	14472.0	38.8	38.0	41.0	34.6	16.6	0.1	52.4	51.6	74.0	21.6	22.4
7	16884.0	40.4	39.5	46.0	35.5	18.6	1.1	61.1	60.2	74.0	12.9	13.8
8	19296.0	42.0	41.1	41.8	34.9	20.4	2.1	61.9	61.0	74.0	12.1	13.0
9	21708.0	42.8	41.8	40.9	35.3	22.1	2.0	63.0	62.0	74.0	11.0	12.0
10	24120.0	41.3	40.9	41.1	36.0	22.6	0.2	59.7	59.3	74.0	14.3	14.7

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2390.0	36.9	39.5	30.8	36.3	6.4	9.8	47.6	50.2	54.0	6.4	3.8
2	4824.0	30.5	30.7	35.4	36.1	9.3	1.0	40.1	40.3	54.0	13.9	13.7
3	7236.0	29.0	29.1	38.0	35.6	11.8	0.4	43.6	43.7	54.0	10.4	10.3
4	9648.0	29.8	29.7	37.5	36.3	13.9	0.2	45.1	45.0	54.0	8.9	9.0
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
5	12060.0	29.2	29.2	41.1	35.7	15.5	0.2	40.8	40.8	54.0	13.2	13.2
6	14472.0	27.7	27.7	41.0	34.6	16.6	0.1	41.3	41.3	54.0	12.7	12.7
7	16884.0	30.4	30.5	46.0	35.5	18.6	1.1	51.1	51.2	54.0	2.9	2.8
8	19296.0	29.9	30.0	41.8	34.9	20.4	2.1	49.8	49.9	54.0	4.2	4.1
9	21708.0	30.6	30.6	40.9	35.3	22.1	2.0	50.8	50.8	54.0	3.2	3.2
10	24120.0	30.4	30.4	41.1	36.0	22.6	0.2	48.8	48.8	54.0	5.2	5.2

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

**Radiated Spurious Emission(DSSS and other forms of modulation)**  
**DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company	: Panasonic Communications Co.,Ltd.	REPORT NO	: 25BE0317-HO
Equipment	: Network Camera	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: BB-HCM371A	TEST DISTANCE	: 3/1m
Sample No.	: ES001	DATE	: 10/21/2004
Power	: AC120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: 11b, 11Mbps, Tx2437MHz	HUMIDITY	: 51%
Remarks	: Tx antenna 90deg(Hor)/180deg(Ver)	ENGINEER	: Makoto Kosaka

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	4874.0	46.7	46.1	35.6	36.1	9.5	1.0	56.7	56.1	74.0	17.3	17.9
2	7311.0	41.2	41.1	38.1	35.7	12.0	0.5	56.1	56.0	74.0	17.9	18.0
3	9748.0	41.0	41.1	37.3	36.3	14.0	0.2	56.2	56.3	74.0	17.8	17.7
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
4	12185.0	46.7	46.1	41.4	35.6	15.6	0.3	58.9	58.3	74.0	15.1	15.7
5	14622.0	41.2	41.1	41.5	34.8	16.8	0.2	55.4	55.3	74.0	18.6	18.7
6	17059.0	41.0	41.1	46.4	35.4	18.8	1.1	62.4	62.5	74.0	11.6	11.5
7	19496.0	39.7	40.1	41.2	34.9	20.6	2.3	59.4	59.8	74.0	14.6	14.2
8	21933.0	40.3	41.3	41.0	35.0	22.3	1.1	60.2	61.2	74.0	13.8	12.8
9	24370.0	41.0	41.5	41.2	36.6	22.7	0.6	59.4	59.9	74.0	14.6	14.1

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	4874.0	32.8	32.9	35.6	36.1	9.5	1.0	42.8	42.9	54.0	11.2	11.1
2	7311.0	29.1	29.0	38.1	35.7	12.0	0.5	44.0	43.9	54.0	10.0	10.1
3	9748.0	29.8	29.8	37.3	36.3	14.0	0.2	45.0	45.0	54.0	9.0	9.0
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
4	12185.0	32.8	32.9	41.4	35.6	15.6	0.3	45.0	45.1	54.0	9.0	8.9
5	14622.0	29.1	29.0	41.5	34.8	16.8	0.2	43.3	43.2	54.0	10.7	10.8
6	17059.0	29.8	29.8	46.4	35.4	18.8	1.1	51.2	51.2	54.0	2.8	2.8
7	19496.0	29.6	29.6	41.2	34.9	20.6	2.3	49.3	49.3	54.0	4.7	4.7
8	21933.0	30.5	30.5	41.0	35.0	22.3	1.1	50.4	50.4	54.0	3.6	3.6
9	24370.0	31.2	31.1	41.2	36.6	22.7	0.6	49.6	49.5	54.0	4.4	4.5

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

**Radiated Spurious Emission(DSSS and other forms of modulation )**

**DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company : Panasonic Communications Co.,Ltd.  
Equipment : Network Camera  
Model : BB-HCM371A  
Sample No. : ES001  
Power : AC120V / 60Hz  
Mode : 11b, 11Mbps, Tx2462MHz  
Remarks : Tx antenna 90deg(Hor)/180deg(Ver)

REPORT NO : 25BE0317-HO  
REGULATION : Fcc Part15 Subpart C 15.247(d)  
TEST DISTANCE : 3/1m  
DATE : 10/21/2004  
TEMPERATURE : 24deg.C  
HUMIDITY : 51%  
ENGINEER : Makoto Kosaka

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2483.5	44.8	45.5	31.0	36.2	6.5	9.8	55.9	56.6	74.0	18.1	17.4
2	4924.0	46.9	46.3	35.9	36.1	9.5	1.0	57.2	56.6	74.0	16.8	17.4
3	7386.0	41.2	41.6	38.3	35.7	12.0	0.6	56.4	56.8	74.0	17.6	17.2
4	9848.0	41.4	41.3	37.1	36.3	14.1	0.3	56.6	56.5	74.0	17.4	17.5
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
5	12310.0	40.7	40.1	41.7	35.6	15.6	0.4	53.3	52.7	74.0	20.7	21.3
6	14772.0	38.8	39.4	42.1	34.9	16.9	0.4	53.8	54.4	74.0	20.2	19.6
7	17234.0	41.1	41.0	46.7	35.3	18.9	1.0	62.9	62.8	74.0	11.1	11.2
8	19696.0	39.8	40.4	41.2	35.2	20.7	1.8	58.8	59.4	74.0	15.2	14.6
9	22158.0	41.1	41.2	41.2	35.0	22.3	0.9	61.0	61.1	74.0	13.0	12.9
10	24620.0	43.1	43.1	41.3	36.8	22.9	0.9	61.9	61.9	74.0	12.1	12.1

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2483.5	34.6	35.2	31.0	36.2	6.5	9.8	45.7	46.3	54.0	8.3	7.7
2	4924.0	32.5	32.2	35.9	36.1	9.5	1.0	42.8	42.5	54.0	11.2	11.5
3	7386.0	29.3	29.3	38.3	35.7	12.0	0.6	44.5	44.5	54.0	9.5	9.5
4	9848.0	30.1	30.0	37.1	36.3	14.1	0.3	45.3	45.2	54.0	8.7	8.8
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
5	12310.0	29.1	29.2	41.7	35.6	15.6	0.4	41.7	41.8	54.0	12.3	12.2
6	14772.0	28.4	28.4	42.1	34.9	16.9	0.4	43.4	43.4	54.0	10.6	10.6
7	17234.0	30.7	30.7	46.7	35.3	18.9	1.0	52.5	52.5	54.0	1.5	1.5
8	19696.0	29.8	29.8	41.2	35.2	20.7	1.8	48.8	48.8	54.0	5.2	5.2
9	22158.0	30.9	30.9	41.2	35.0	22.3	0.9	50.8	50.8	54.0	3.2	3.2
10	24620.0	31.6	31.6	41.3	36.8	22.9	0.9	50.4	50.4	54.0	3.6	3.6

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

**Radiated Spurious Emission(DSSS and other forms of modulation)**

**DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company	: Panasonic Communications Co.,Ltd.	REPORT NO	: 25BE0317-HO
Equipment	: Network Camera	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: BB-HCM371A	TEST DISTANCE	: 3/1m
Sample No.	: ES001	DATE	: 10/21/2004
Power	: AC120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: 11g, 54Mbps, Tx2412MHz	HUMIDITY	: 51%
Remarks	: Tx antenna 90deg(Hor)/180deg(Ver)	ENGINEER	: Makoto Kosaka

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2390.0	58.5	60.9	30.8	36.3	6.4	9.8	69.2	71.6	74.0	4.8	2.4
2	4824.0	46.3	45.2	35.4	36.1	9.3	1.0	55.9	54.8	74.0	18.1	19.2
3	7236.0	42.6	42.5	38.0	35.6	11.8	0.5	57.3	57.2	74.0	16.7	16.8
4	9648.0	43.2	43.1	37.5	36.3	13.9	0.5	58.8	58.7	74.0	15.2	15.3
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
5	12060.0	40.3	40.6	41.1	35.7	15.5	0.5	52.2	52.5	74.0	21.8	21.5
6	14472.0	38.5	37.5	41.0	34.6	16.6	0.6	52.6	51.6	74.0	21.4	22.4
7	16884.0	41.7	40.1	46.0	35.5	18.6	0.4	61.7	60.1	74.0	12.3	13.9
8	19296.0	43.0	43.6	41.8	34.9	20.4	0.9	61.7	62.3	74.0	12.3	11.7
9	21708.0	44.0	42.3	40.9	35.3	22.1	0.6	62.8	61.1	74.0	11.2	12.9
10	24120.0	43.9	43.3	41.1	36.0	22.6	1.6	63.7	63.1	74.0	10.3	10.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2390.0	39.4	42.1	30.8	36.3	6.4	9.8	50.1	52.8	54.0	3.9	1.2
2	4824.0	32.6	31.8	35.4	36.1	9.3	1.0	42.2	41.4	54.0	11.8	12.6
3	7236.0	29.4	29.4	38.0	35.6	11.8	0.5	44.1	44.1	54.0	9.9	9.9
4	9648.0	29.9	29.9	37.5	36.3	13.9	0.5	45.5	45.5	54.0	8.5	8.5
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
5	12060.0	29.2	29.2	41.1	35.7	15.5	0.5	41.1	41.1	54.0	12.9	12.9
6	14472.0	27.6	27.7	41.0	34.6	16.6	0.6	41.7	41.8	54.0	12.3	12.2
7	16884.0	30.5	30.5	46.0	35.5	18.6	0.4	50.5	50.5	54.0	3.5	3.5
8	19296.0	30.4	31.0	41.8	34.9	20.4	0.9	49.1	49.7	54.0	4.9	4.3
9	21708.0	30.9	30.3	40.9	35.3	22.1	0.6	49.7	49.1	54.0	4.3	4.9
10	24120.0	31.0	30.9	41.1	36.0	22.6	1.6	50.8	50.7	54.0	3.2	3.3

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

**Radiated Spurious Emission(DSSS and other forms of modulation)**

**DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company	: Panasonic Communications Co.,Ltd.	REPORT NO	: 25BE0317-HO
Equipment	: Network Camera	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: BB-HCM371A	TEST DISTANCE	: 3/1m
Sample No.	: ES001	DATE	: 10/21/2004
Power	: AC120V / 60Hz	TEMPERATURE	: 24deg.C
Mode	: 11g, 54Mbps, Tx2437MHz	HUMIDITY	: 51%
Remarks	: Tx antenna 90deg(Hor)/180deg(Ver)	ENGINEER	: Makoto Kosaka

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	4874.0	44.8	44.4	35.6	36.1	9.5	1.0	54.8	54.4	74.0	19.2	19.6
2	7311.0	42.3	42.4	38.1	35.7	12.0	0.5	57.2	57.3	74.0	16.8	16.7
3	9748.0	43.3	43.3	37.3	36.3	14.0	0.2	58.5	58.5	74.0	15.5	15.5
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
4	12185.0	40.1	41.0	41.4	35.6	15.6	0.3	52.3	53.2	74.0	21.7	20.8
5	14622.0	37.8	38.5	41.5	34.8	16.8	0.2	52.0	52.7	74.0	22.0	21.3
6	17059.0	41.6	41.4	46.4	35.4	18.8	1.1	63.0	62.8	74.0	11.0	11.2
7	19496.0	42.6	42.0	41.2	34.9	20.6	2.3	62.3	61.7	74.0	11.7	12.3
8	21933.0	43.6	44.2	41.0	35.0	22.3	1.1	63.5	64.1	74.0	10.5	9.9
9	24370.0	43.8	43.9	41.2	36.6	22.7	0.6	62.2	62.3	74.0	11.8	11.7

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	4874.0	31.0	31.2	35.6	36.1	9.5	1.0	41.0	41.2	54.0	13.0	12.8
2	7311.0	29.3	29.2	38.1	35.7	12.0	0.5	44.2	44.1	54.0	9.8	9.9
3	9748.0	29.8	29.8	37.3	36.3	14.0	0.2	45.0	45.0	54.0	9.0	9.0
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
4	12185.0	29.1	29.1	41.4	35.6	15.6	0.3	41.3	41.3	54.0	12.7	12.7
5	14622.0	27.6	27.6	41.5	34.8	16.8	0.2	41.8	41.8	54.0	12.2	12.2
6	17059.0	30.4	30.4	46.4	35.4	18.8	1.1	51.8	51.8	54.0	2.2	2.2
7	19496.0	29.9	30.0	41.2	34.9	20.6	2.3	49.6	49.7	54.0	4.4	4.3
8	21933.0	30.7	30.9	41.0	35.0	22.3	1.1	50.6	50.8	54.0	3.4	3.2
9	24370.0	31.4	31.4	41.2	36.6	22.7	0.6	49.8	49.8	54.0	4.2	4.2

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

## DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company : Panasonic Communications Co.,Ltd.	REPORT NO : 25BE0317-HO
Equipment : Network Camera	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : BB-HCM371A	TEST DISTANCE : 3/1m
Sample No. : ES001	DATE : 10/21/2004
Power : AC120V / 60Hz	TEMPERATURE : 24deg.C
Mode : 11g, 54Mbps, Tx2462MHz	HUMIDITY : 51%
Remarks : Tx antenna 90deg(Hor)/180deg(Ver)	ENGINEER : Makoto Kosaka

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV/m]	VER [dBuV/m]					HOR [dB]	VER [dB]			
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2483.5	59.4	60.3	31.0	36.2	6.5	9.8	70.5	71.4	74.0	3.5	2.6
2	4924.0	44.1	44.4	35.9	36.1	9.5	1.0	54.4	54.7	74.0	19.6	19.3
3	7386.0	42.3	43.7	38.3	35.7	12.0	0.6	57.5	58.9	74.0	16.5	15.1
4	9848.0	43.2	43.7	37.1	36.3	14.1	0.3	58.4	58.9	74.0	15.6	15.1
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
5	12310.0	39.9	40.5	41.7	35.6	15.6	0.4	52.5	53.1	74.0	21.5	20.9
6	14772.0	39.1	39.9	42.1	34.9	16.9	0.4	54.1	54.9	74.0	19.9	19.1
7	17234.0	41.7	41.3	46.7	35.3	18.9	1.0	63.5	63.1	74.0	10.5	10.9
8	19696.0	42.9	42.6	41.2	35.2	20.7	1.8	61.9	61.6	74.0	12.1	12.4
9	22158.0	43.9	43.5	41.2	35.0	22.3	0.9	63.8	63.4	74.0	10.2	10.6
10	24620.0	44.4	44.6	41.3	36.8	22.9	0.9	63.2	63.4	74.0	10.8	10.6

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV/m]	VER [dBuV/m]					HOR [dB]	VER [dB]			
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2483.5	39.2	40.1	31.0	36.2	6.5	9.8	50.3	51.2	54.0	3.7	2.8
2	4924.0	31.1	31.4	35.9	36.1	9.5	1.0	41.4	41.7	54.0	12.6	12.3
3	7386.0	29.7	29.6	38.3	35.7	12.0	0.6	44.9	44.8	54.0	9.1	9.2
4	9848.0	30.3	30.3	37.1	36.3	14.1	0.3	45.5	45.5	54.0	8.5	8.5
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass - Dfac</b>												
5	12310.0	29.1	29.3	41.7	35.6	15.6	0.4	41.7	41.9	54.0	12.3	12.1
6	14772.0	28.4	28.4	42.1	34.9	16.9	0.4	43.4	43.4	54.0	10.6	10.6
7	17234.0	30.7	30.7	46.7	35.3	18.9	1.0	52.5	52.5	54.0	1.5	1.5
8	19696.0	30.1	30.1	41.2	35.2	20.7	1.8	49.1	49.1	54.0	4.9	4.9
9	22158.0	31.1	31.1	41.2	35.0	22.3	0.9	51.0	51.0	54.0	3.0	3.0
10	24620.0	31.8	31.9	41.3	36.8	22.9	0.9	50.6	50.7	54.0	3.4	3.3

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

**Reference data**

**DATA OF RADIATED EMISSION TEST**

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
Date : 2004/10/22 03:00:42

Applicant : Panasonic Communications Co., Ltd. Report No. : 25BE0317-HO  
Kind of EUT : Network Camera Power : AC 120V / 60Hz  
Model No. : BB-HCM371A Temp. / Humi. : 24deg. C / 44%  
Serial No. : ES001 Operator : Makoto Kosaka

Mode / Remarks: Tx 11b 11Mbps ch11: 2462MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.

No.	FREQ [MHz]	READING QP [dB $\mu$ V]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dB $\mu$ V/m]	LIMIT [dB $\mu$ V/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
— Horizontal —										
1	131.076	33.1	13.9	7.4	27.4	27.0	43.5	16.5	327	222
2	360.004	40.5	17.1	8.6	27.2	39.0	46.0	7.0	100	210
3	450.004	39.7	18.8	9.2	27.9	39.8	46.0	6.2	154	212
4	720.008	39.5	20.8	10.3	28.2	42.4	46.0	3.6	118	161
5	810.009	36.3	22.0	10.5	27.9	40.9	46.0	5.1	188	216
6	900.011	33.8	21.9	10.9	27.7	38.9	46.0	7.1	100	195
— Vertical —										
7	131.076	39.3	13.9	7.4	27.4	33.2	43.5	10.3	100	56
8	360.004	35.7	17.1	8.6	27.2	34.2	46.0	11.8	177	124
9	450.004	40.3	18.8	9.2	27.9	40.4	46.0	5.6	135	110
10	720.008	31.9	20.8	10.3	28.2	34.8	46.0	11.2	119	67
11	810.009	32.1	22.0	10.5	27.9	36.7	46.0	9.3	126	201
12	900.011	34.2	21.9	10.9	27.7	39.3	46.0	6.7	115	96

\*In addition, the test mode with ports filled in was confirmed.  
The data above the third frequency was floor noise.  
The data was confirmed and there were no change.  
(The test was made at the position that has the maximum noise.)

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)

## DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2004/10/22 00:28:16

Applicant : Panasonic Communicatons Co.,Ltd. Report No. : 25BE0317-HO  
Kind of EUT : Network Camera Power : AC 120V / 60Hz  
Model No. : BB-HCM371A Temp. / Humi. : 24deg. C / 44%  
Serial No. : ES001 Operator : Makoto Kosaka

Mode / Remarks : Tx 11g 54Mbps ch6: 2437MHz Tx Antenna 90deg(Hor)/180deg(Ver)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV  
Except for the data below : adequate margin data below the limits.

No.	FREQ [MHz]	READING QP [dBµV]	ANT FACTOR [dB/m]	LOSS [dB]	GAIN [dB]	RESULT [dBµV/m]	LIMIT [dBµV/m]	MARGIN [dB]	ANTENNA [cm]	TABLE [DEG]
— Horizontal —										
1	131.076	35.0	13.9	7.4	27.4	28.9	43.5	14.6	188	241
2	360.005	41.6	17.1	8.6	27.2	40.1	46.0	5.9	100	192
3	450.015	39.9	18.8	9.2	27.9	40.0	46.0	6.0	100	165
4	720.011	39.6	20.8	10.3	28.2	42.5	46.0	3.5	119	173
5	810.012	37.2	22.0	10.5	27.9	41.8	46.0	4.2	100	180
6	900.014	33.1	21.9	10.9	27.7	38.2	46.0	7.8	100	190
— Vertical —										
7	131.076	39.2	13.9	7.4	27.4	33.1	43.5	10.4	100	25
8	360.005	36.3	17.1	8.6	27.2	34.8	46.0	11.2	136	137
9	450.007	40.6	18.8	9.2	27.9	40.7	46.0	5.3	125	122
10	720.011	31.9	20.8	10.3	28.2	34.8	46.0	11.2	206	318
11	810.012	33.6	22.0	10.5	27.9	36.2	46.0	7.8	140	156
12	900.014	31.9	21.9	10.9	27.7	37.0	46.0	9.0	100	130

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)

## DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

UL Apex Co., Ltd.  
 Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company : Panasonic Communications Co.,Ltd.  
 Equipment : Network Camera  
 Model : BB-HCM371A  
 Sample No. : ES001  
 Power : AC120V / 60Hz  
 Mode : 11b, 11Mbps, Tx2462MHz  
 Remarks : Tx antenna 90deg(Hor)/180deg(Ver)

REPORT NO : 25BE0317-HO  
 REGULATION : Fcc Part15 Subpart C 15.247(d)  
 TEST DISTANCE : 3/1m  
 DATE : 11/06/2004  
 TEMPERATURE : 24deg.C  
 HUMIDITY : 44%  
 ENGINEER : Makoto Kosaka

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2483.5	44.3	44.5	31.0	36.2	7.5	9.8	56.4	56.6	74.0	17.6	17.4
2	4924.0	43.6	44.2	35.9	36.1	10.2	1.0	54.6	55.2	74.0	19.4	18.8

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2483.5	35.1	34.6	31.0	36.2	7.5	9.8	47.2	46.7	54.0	6.8	7.3
2	4924.0	31.1	31.8	35.9	36.1	10.2	1.0	42.1	42.8	54.0	11.9	11.2

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

## DATA OF SPURIOUS EMISSIONS(1GHz to 26GHz)

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company : Panasonic Communications Co.,Ltd.	REPORT NO : 25BE0317-HO
Equipment : Network Camera	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : BB-HCM371A	TEST DISTANCE : 3/1m
Sample No. : ES001	DATE : 11/06/2004
Power : AC120V / 60Hz	TEMPERATURE : 24deg.C
Mode : 11g, 54Mbps, Tx2412MHz	HUMIDITY : 44%
Remarks : Tx antenna 90deg(Hor)/180deg(Ver)	ENGINEER : Makoto Kosaka

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Filter or ATT [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2390.0	47.1	50.5	30.8	36.3	7.6	9.8	59.0	62.4	74.0	15.0	11.6
2	4824.0	41.9	42.2	35.4	36.1	9.3	1.0	51.5	51.8	74.0	22.5	22.2

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Band-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + CABLE LOSS + Band Pass</b>												
1	2390.0	36.6	38.5	30.8	36.3	7.6	9.8	48.5	50.4	54.0	5.5	3.6
2	4824.0	30.4	30.6	35.4	36.1	9.3	1.0	40.0	40.2	54.0	14.0	13.8

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

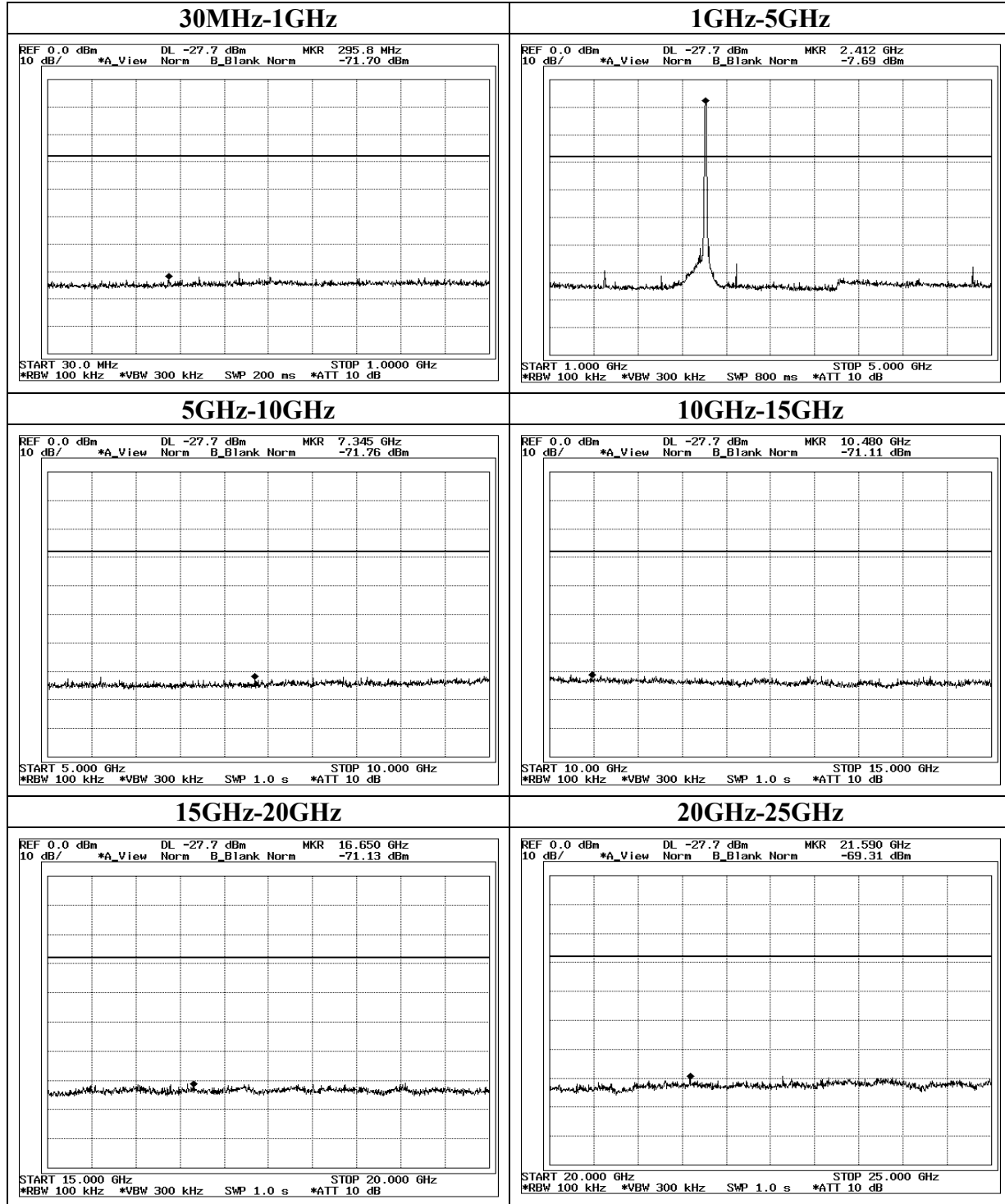
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

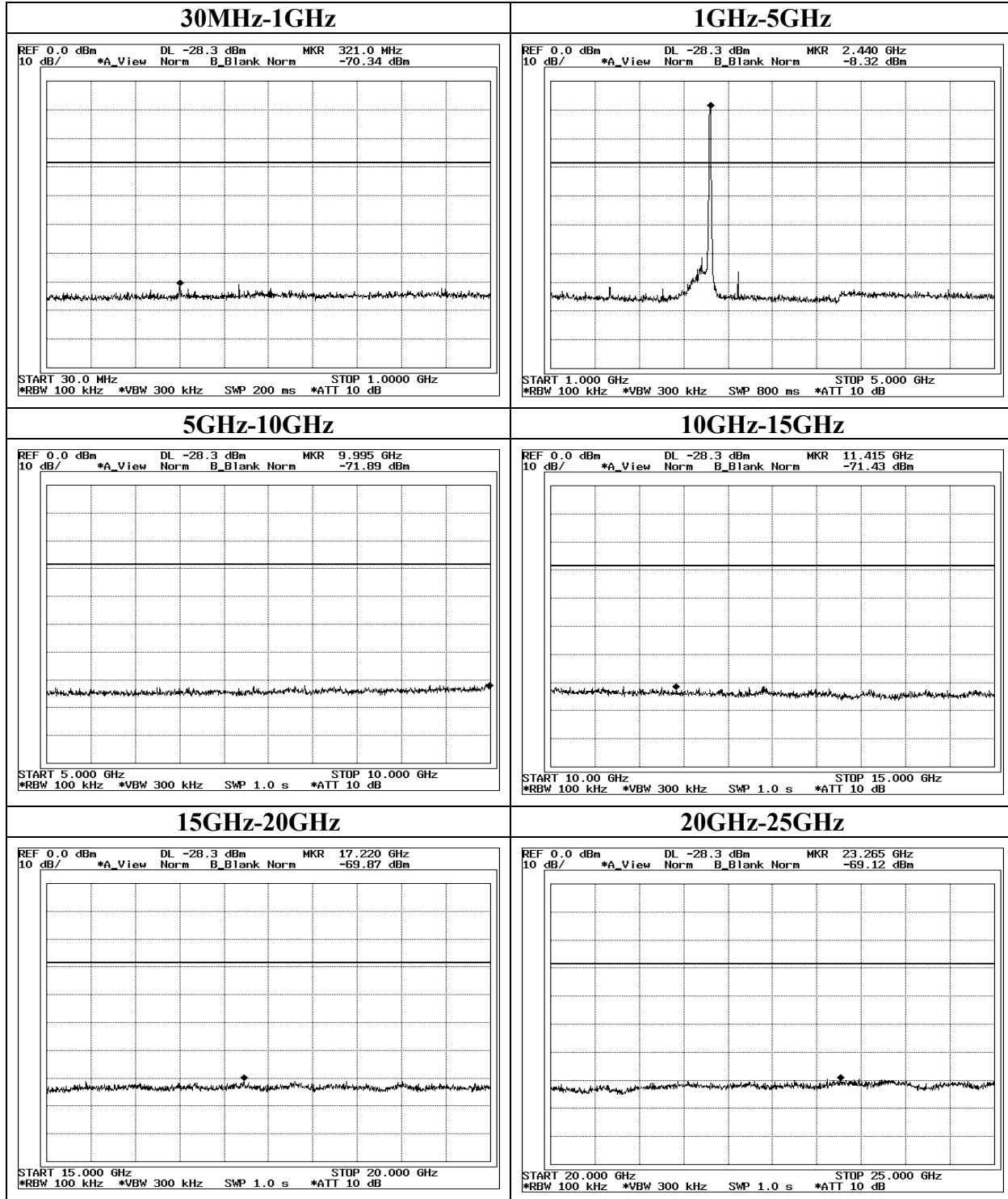
Facsimile : +81 596 24 8124

MF060b(10.04.03)

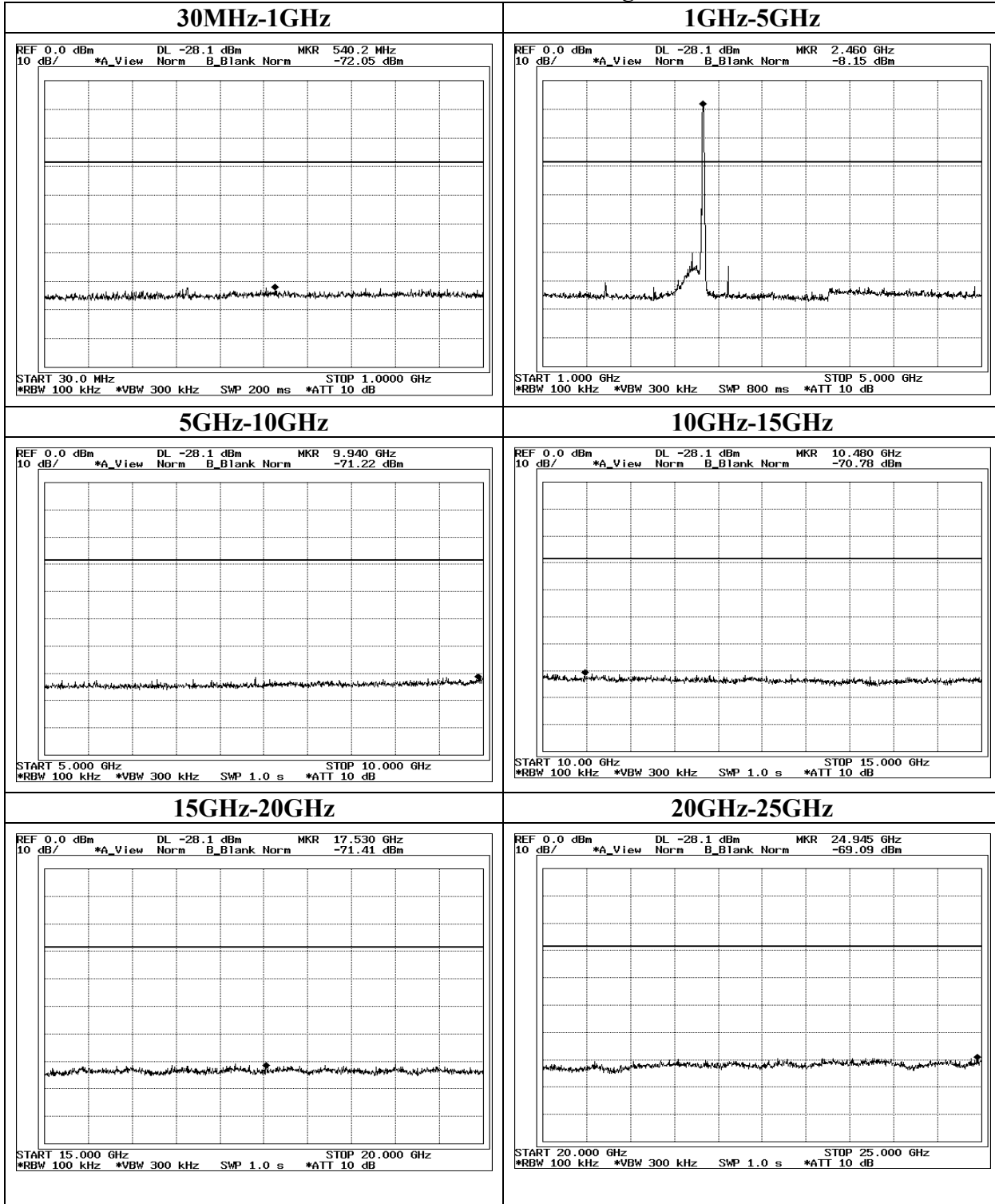
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11b Ch : Low**



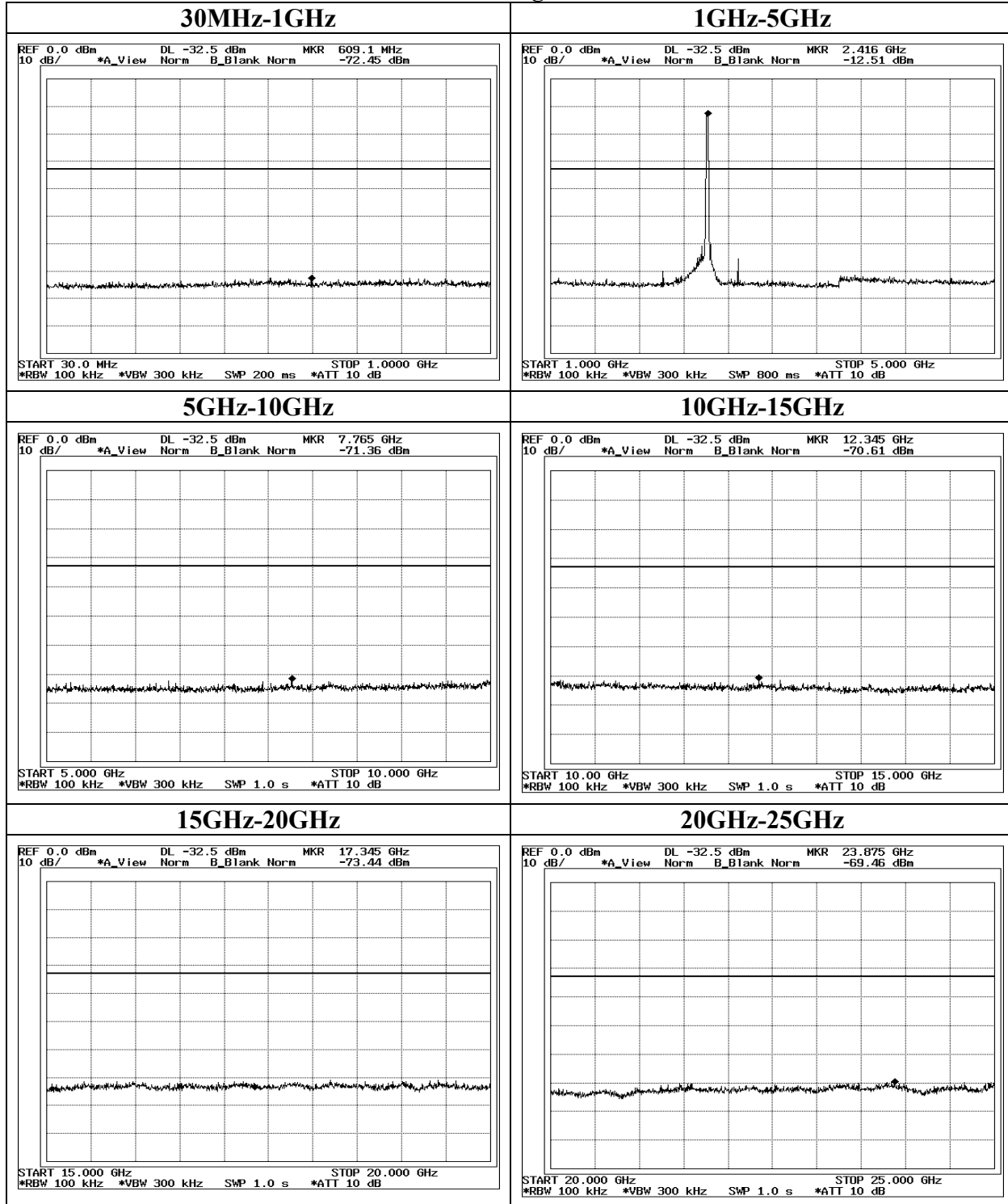
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11b Ch : Mid**



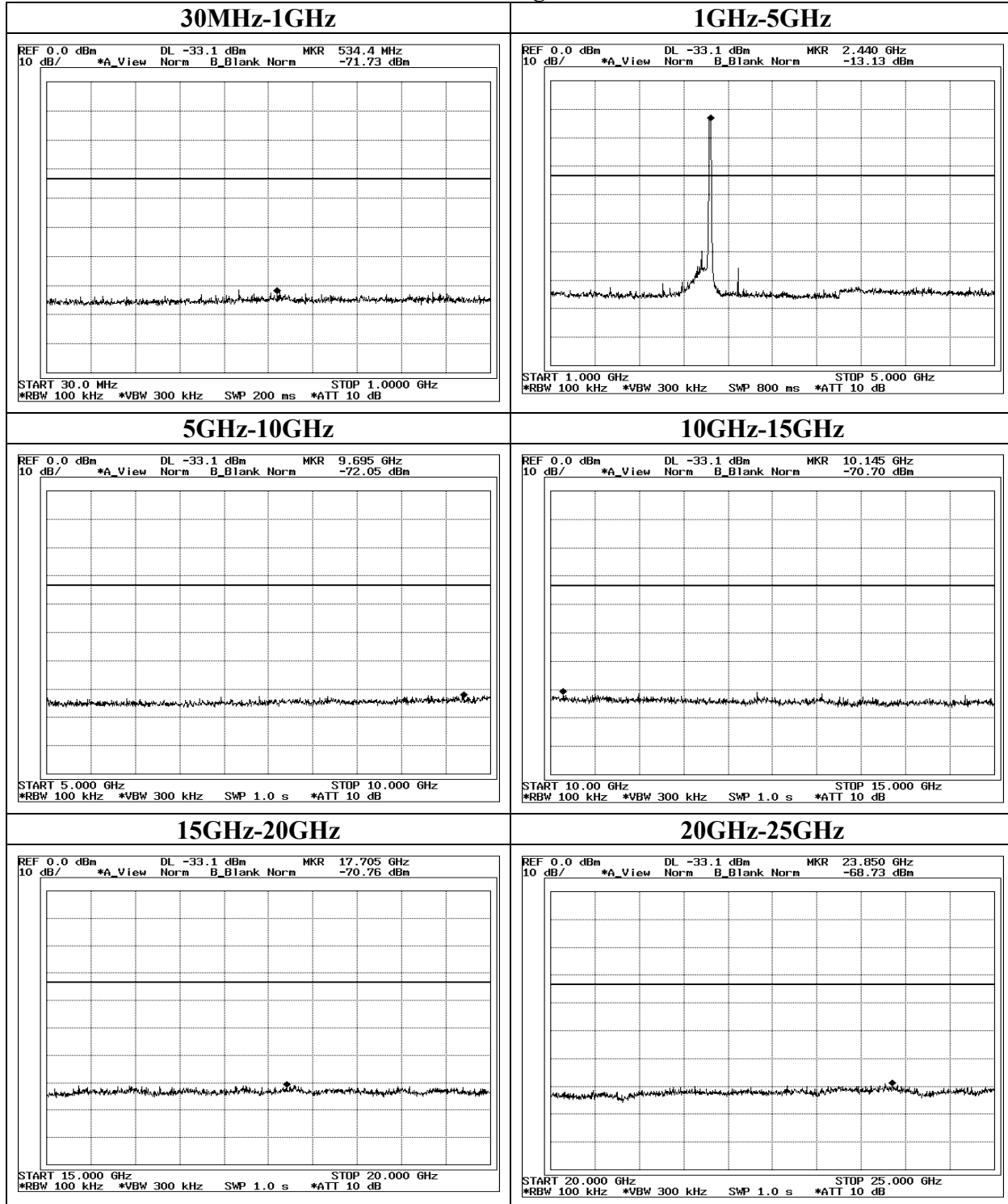
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11b Ch : High**



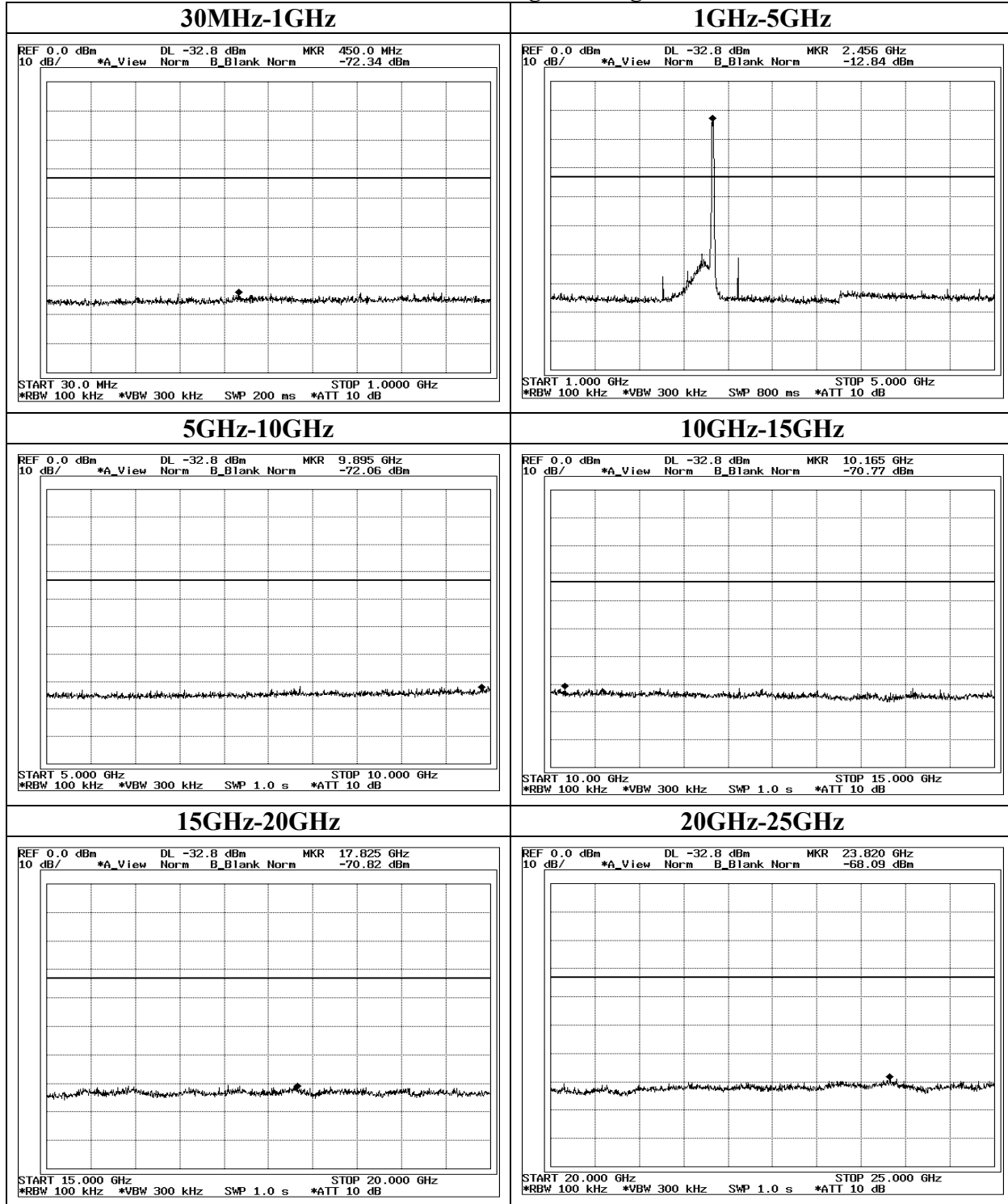
**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11g Ch : Low**



**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11g Ch : Mid**

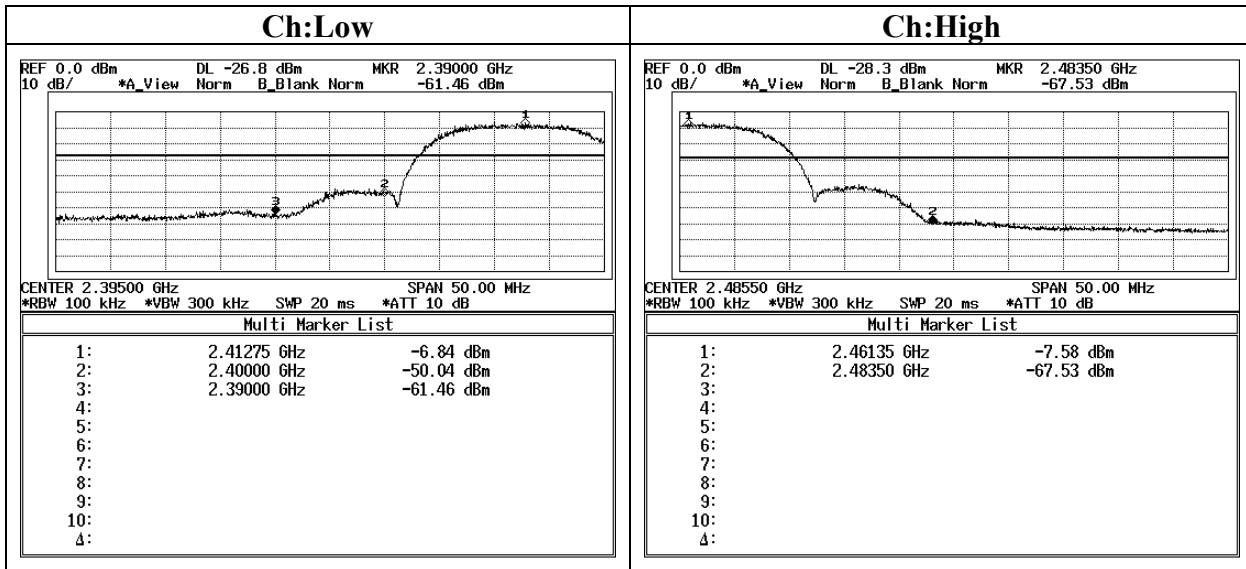


**Conducted Spurious Emission(DSSS and other forms of modulation)**  
**IEEE802.11g Ch : High**

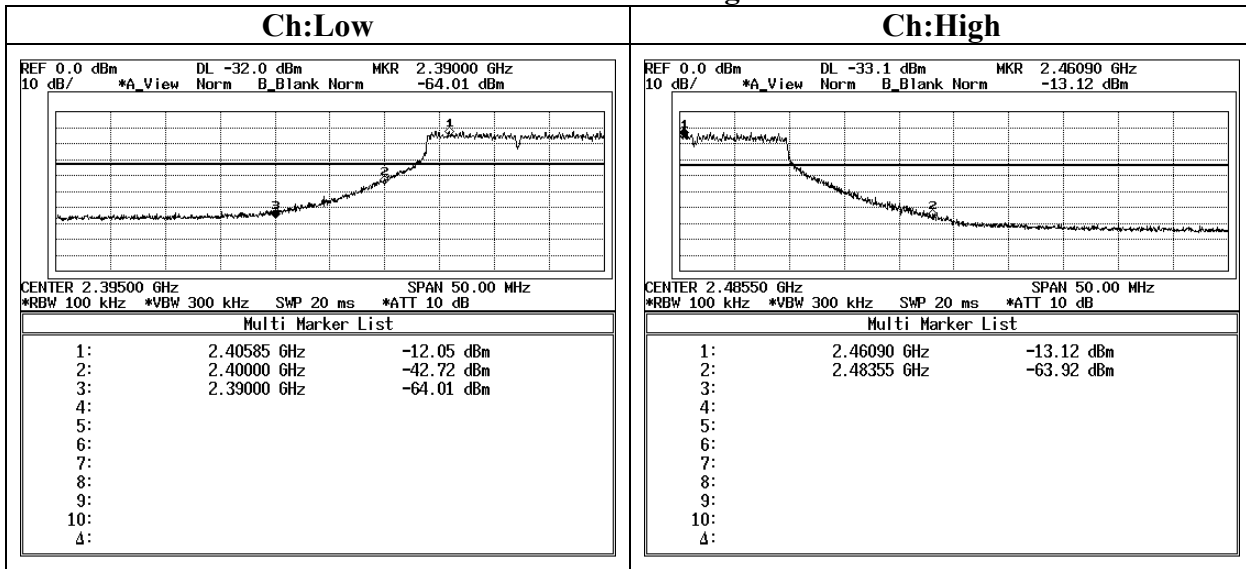


**Conducted emission Band Edge compliance (DSSS and other forms of modulation)**

**IEEE802.11b**



**IEEE802.11g**



**Power Density (DSSS and other forms of modulation )**

UL Apex Co., Ltd.  
Head Office EMC Lab. No.2 Semi Anechoic Chamber

Company	: Panasonic Communications Co., Ltd.	REPORT NO	: 25BE0317-HO
Equipment	: Network Camera	REGULATION	: Fcc Part15 Subpart C 15.247(e)
Model	: BB-HCM371A	TEST DISTANCE	: -
Sample No.	: ES001	DATE	: 10/22/2004
Power	: AC 120V / 60Hz	TEMPERATURE	: 23deg.C
Mode	: Tx, IEEE802.11b, 11Mbps	HUMIDITY	: 50%
	: Tx, IEEE802.11g, 54Mbps	ENGINEER	: Hiroka Umeyama

**[IEEE802.11b]**

Ch	Freq. [MHz]	Reading [dBm]	Cable [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.7	-17.0	1.9	10.0	-5.1	8.0	13.1
Mid	2437.7	-17.5	1.9	10.0	-5.6	8.0	13.6
High	2462.4	-17.6	1.9	10.0	-5.7	8.0	13.7

Sample Calculation:

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

**[IEEE802.11g]**

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.4	-25.1	1.9	10.0	-13.2	8.0	21.2
Mid	2437.6	-24.4	1.9	10.0	-12.5	8.0	20.5
High	2461.4	-21.8	1.9	10.0	-9.9	8.0	17.9

Sample Calculation:

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

**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

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

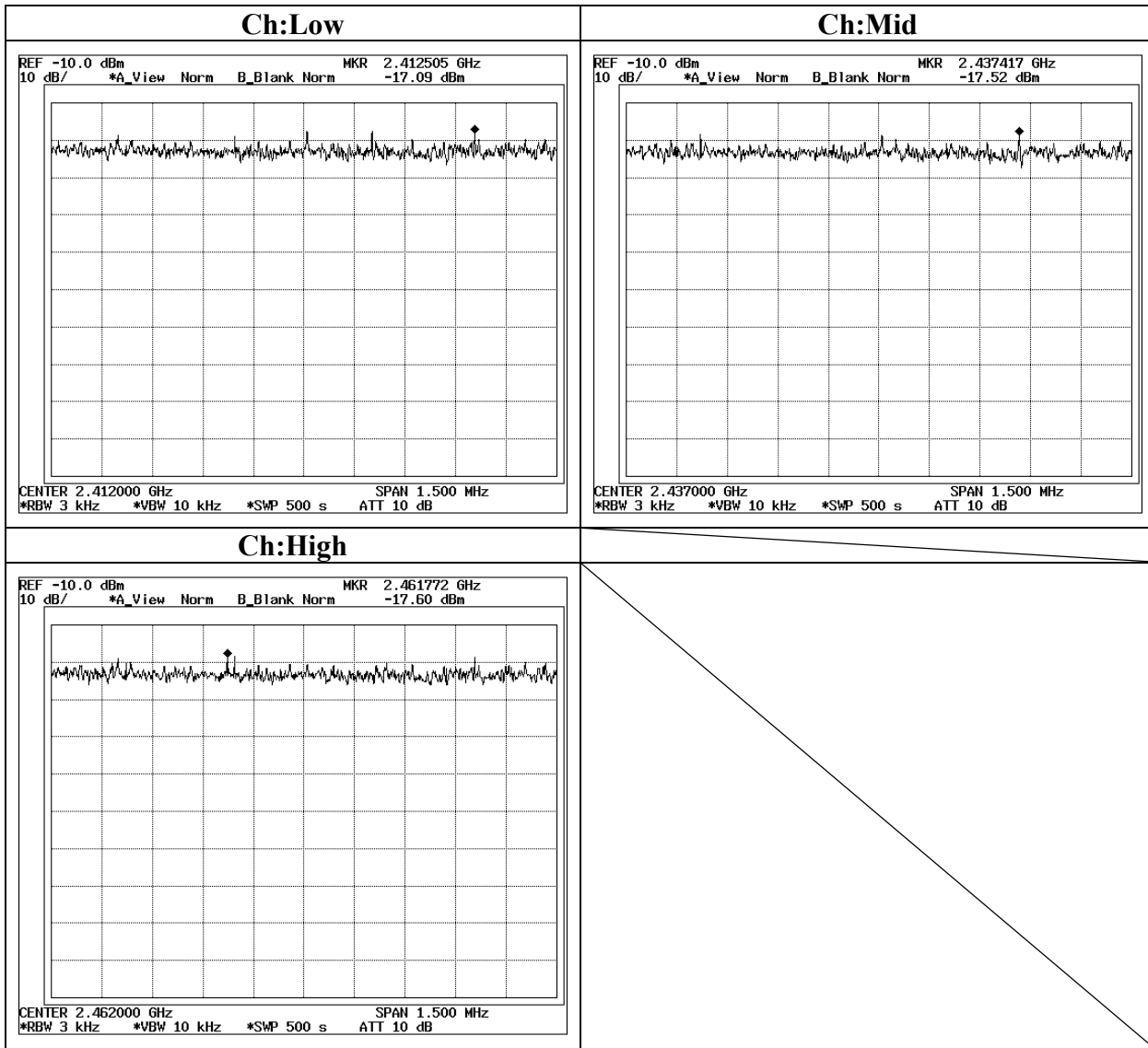
Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

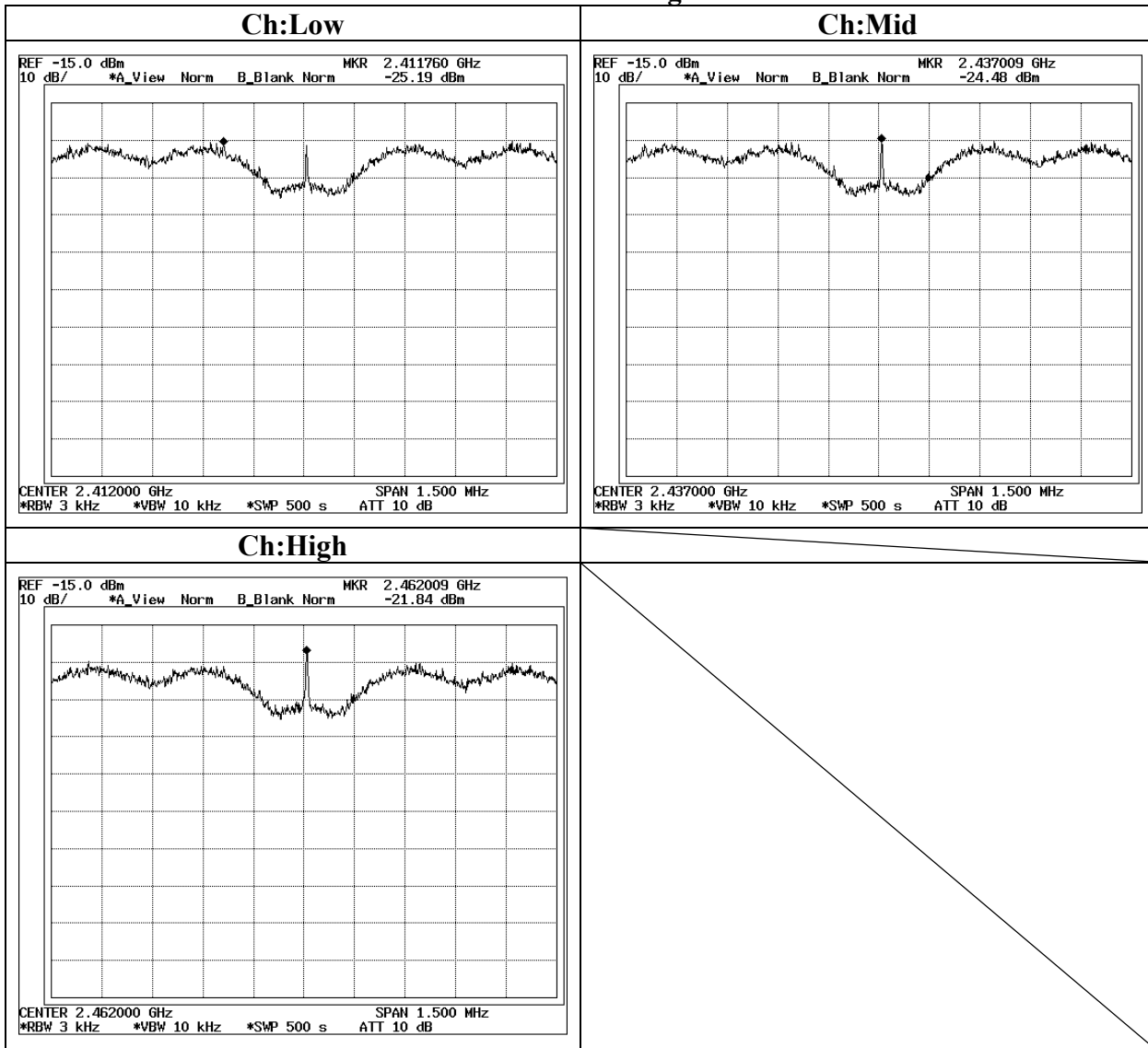
**Power Density(DSSS and other forms of modulation)**

**IEEE802.11b**



**Power Density(DSSS and other forms of modulation)**

**IEEE802.11g**



**UL Apex Co., Ltd.**

**Head Office EMC Lab.**

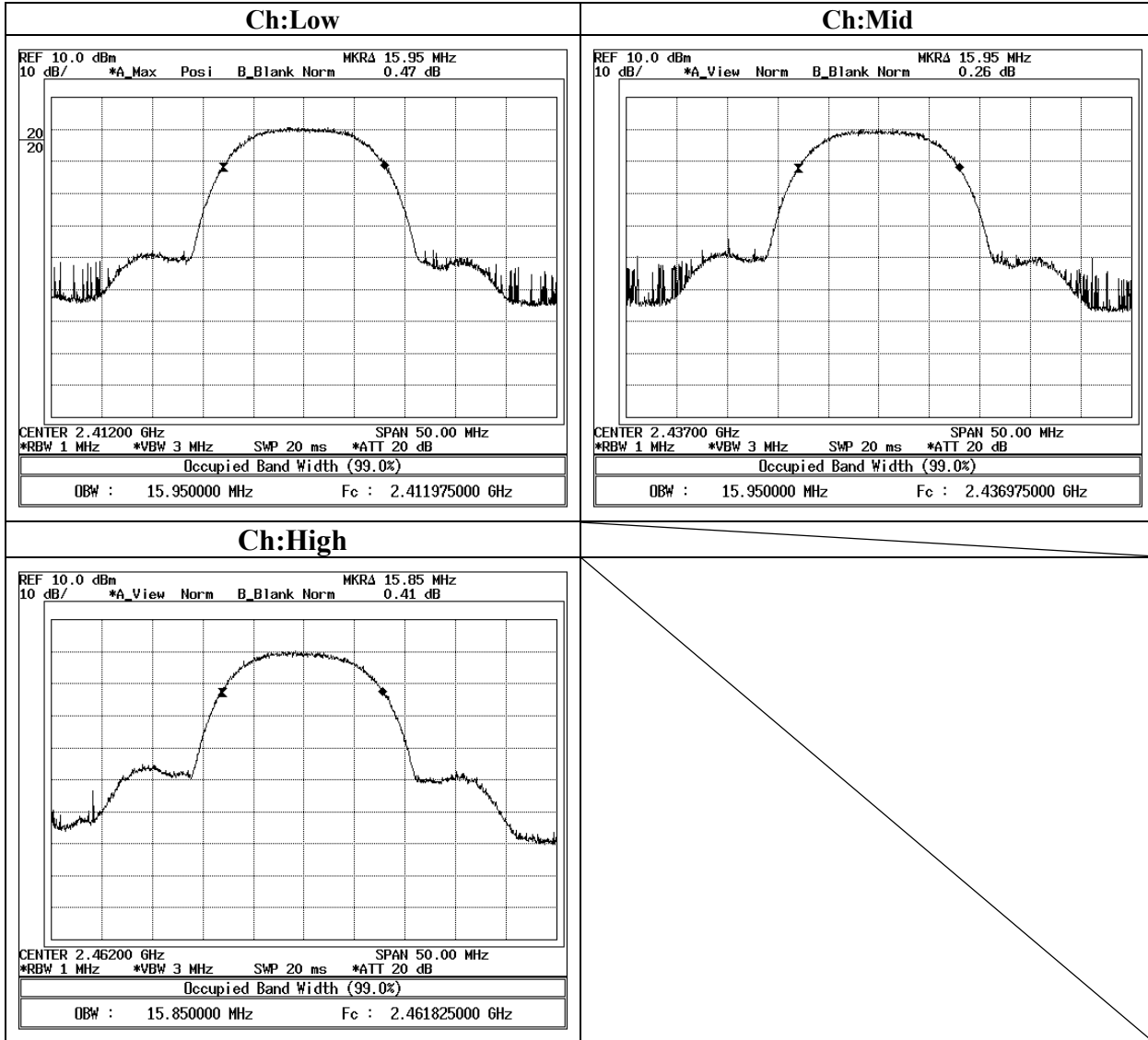
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

MF060b(10.04.03)

**99%Occupied Bandwidth(DSSS and other forms of modulation)  
 IEEE802.11b**



**99%Occupied Bandwidth(DSSS and other forms of modulation)**  
**IEEE802.11g**

