



# EMI TEST REPORT

**Test Report No. : 25LE0018-YK-5**

**Applicant** : **BUFFALO, Inc.**

**Type of Equipment** : **Air Station (High Power Wireless Router)**

**Model No.** : **WHR-HP-G54**

**FCC ID** : **FDI-09101577-0**

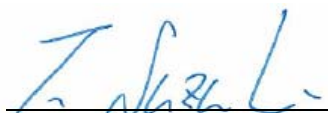
**Test Item and Standard** : **Conducted Emissions  
Out of Band Emissions (Radiated)  
FCC Part15 Subpart C,  
Section 15.207, Section 15.247: 2005**

**Test Result** : **Complied**

1. This test report shall not be reproduced except in full, 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 test report are traceable to the national or international standards.

**Date of test:** July 12, August 4, 10, 20 and September 5, 7, 8, 9, 18, 2005

**Tested by:**


  
Takahiro Suzuki

&


  
Toyokazu Imamura

  
Makoto Hosaka

&

  
Akira Sato

**Approved by:**

  
Osamu Watatani  
Site Manager of Yamakita EMC Lab.

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## 1 Applicant Information

Company Name : BUFFALO Inc.  
Brand Name : BUFFALO  
Address : 15 Shibata Hondori 4-chome Minami-ku, Nagoya-shi, Aichi-ken 457-8520 JAPAN  
Telephone Number : +81-52-619-1860  
Facsimile Number : +81-52-619-1204  
Contact Person : Koichi Kimura

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## 2 Product Description

Type of Equipment : Air Station (High Power Wireless Router)  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Rating : DC5V (AC adapter: AC100-240V, 50/60Hz)  
Country of Manufacture : Taiwan  
Receipt Date of Sample : July 4, 2005  
Condition of EUT : Engineering prototype  
(Not for Sale: This sample is equivalent to mass-produced items.)

Model: WHR-HP-G54 (referred to as the EUT in this report) is Air Station (a High Power Wireless Router).

The clock frequency used in EUT: 264MHz (CPU)

Equipment type : Transceiver  
Frequency of operation : 2412 - 2462 MHz  
Bandwidth : 22 MHz  
Channel spacing : 5 MHz  
Channel number : 11 channels  
Type of modulation : DSSS  
Antenna connector type : Reverse SMA  
Mode of operation : Simplex  
Emission Designation : G1D  
Operation temperature range: 0 ~ 40 deg. C.

### Antenna specification:

Model No.	Antenna type	Antenna gain (dBi)
WLE-DA	Patch	4.00
WLE-HG-NDR	Sleeve	4.10
WLE-MYG	Yagi	3.90
WLE-AT-DAC	Directional Panel	6.00

### \*FCC Part15.31 (e)

Host devise (WHR-HP-G54) provides the Wireless LAN Module with stable power supply, and the power is not changed when voltage of the High Power Wireless Router is varied. Therefore, the equipment complies power supply regulation.

### \*FCC Part15.203

The High Power Wireless Router complies FCC Part15.203 Antenna requirement since the antenna of WHR-HP-G54 doesn't use a standard antenna jack or electrical connector.

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### 3 Test Specification, Procedures and Results

#### 3.1 Test specification

Test specification : FCC Part15 Subpart C: 2005  
Title : FCC 47CFR Part15 Radio Frequency Device Subpart C Intentional Radiators  
Section 15.207 Conducted limits: 2005  
Section 15.247 Operation within the bands 902-928MHz, 2400-2483.5MHz,  
and 5725-5850MHz: 2005

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### 3.2 Procedures & Results

Item	Test Procedure	Specification	Remarks	Deviation	Worst Margin	Results
Conducted Emission	ANSI C63.4:2003 7. AC powerline conducted emission measurements	Section 15.207	-	N/A	Antenna: WLE-DA 11.7dB (0.1626MHz, N&L1, QP, IEEE802.11b)	Complied
					Antenna: WLE-HG-NDR 6.3dB (0.3301MHz, N&L1, AV, IEEE802.11b)	
					Antenna: WLE-MYG 11.6dB (0.1663MHz, N, QP, IEEE802.11b)	
					Antenna: WLE-AT-DAC 12.8dB (0.1504MHz, L1, QP, IEEE802.11b)	
6dB Bandwidth	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (a)(2)	Conducted	Excluded *1	-	N/A
Maximum Peak Output Power	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (b)(3)	Conducted	Excluded *1	-	N/A
Spurious Emission & Restricted Band Edges	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (d)	Radiated	N/A	Antenna: WLE-DA 0.1dB (2390.00MHz, AV, IEEE802.11b) (2483.50MHz, AV, IEEE802.11b)	Complied
					Antenna: WLE-HG-NDR 2.2dB (399.99MHz, QP, IEEE802.11g)	
					Antenna: WLE-MYG 0.6dB (2390.00MHz, AV, IEEE802.11b)	
					Antenna: WLE-AT-DAC 0.2dB (2390.00MHz, AV, IEEE802.11b)	
Power Density	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (e)	Conducted	Excluded *1	-	N/A

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

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

\*1 Results for these test items are described in the test report 25LE0018-YK-1. The Module has been certificated with other type of antenna.

\*2 These tests were performed without any deviations from test procedure except for additions or exclusions.

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### 3.3 Uncertainty

#### Conducted emission

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

The data listed in this test report has enough margin, more than site margin.

#### Radiated emission

The measurement uncertainty (with 95% confidence level) for this test using Biconical antenna is  $\pm 4.8$ dB.

The measurement uncertainty (with 95% confidence level) for this test using Logperiodic antenna is  $\pm 5.2$ dB.

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

The data listed in this report meets the limits unless the uncertainty is taken into consideration.

### 3.4 Test Location

UL Apex Co., Ltd. Yamakita EMC Lab.

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NVLAP Lab. code : 200441-0

No. 1 test site has been fully described in a report submitted to FCC office, and accepted on September 20, 2002 (Registration No.: 95486).

IC Registration No. : IC3489A

No. 2 test site has been fully described in a report submitted to FCC office, and accepted on April 4, 2005 (Registration No.: 466226).

IC Registration No. : IC3489A-2

No. 1 anechoic chamber has been fully described in a report submitted to FCC office, and accepted on November 8, 2002 (Registration No.: 95967).

IC Registration No. : IC3489A-B

Test room	Width x Depth x Height (m)	Test room	Width x Depth x Height (m)
No.1 shielded room	8.0 x 5.0 x 2.5	No.1 EMS lab. (Semi-anechoic chamber)	10.0 x 7.5 x 5.7
No.2 shielded room	5.0 x 4.0 x 2.5		
No.3 shielded room	4.0 x 5.0 x 2.7		

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## 4 System Test Configuration

### 4.1 Justification

The system was configured in typical fashion (as a customer would normally use it) for testing.

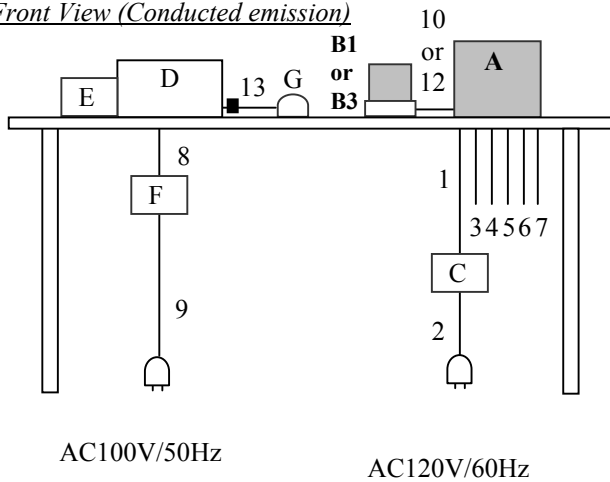
- Operation:
- 1) Transmitting (IEEE802.11b)
    - 2412MHz (Low)
    - 2437MHz (Middle)
    - 2462MHz (High)
  - 2) Transmitting (IEEE802.11g)
    - 2412MHz (Low)
    - 2437MHz (Middle)
    - 2462MHz (High)

### 4.2 Configuration of Tested System

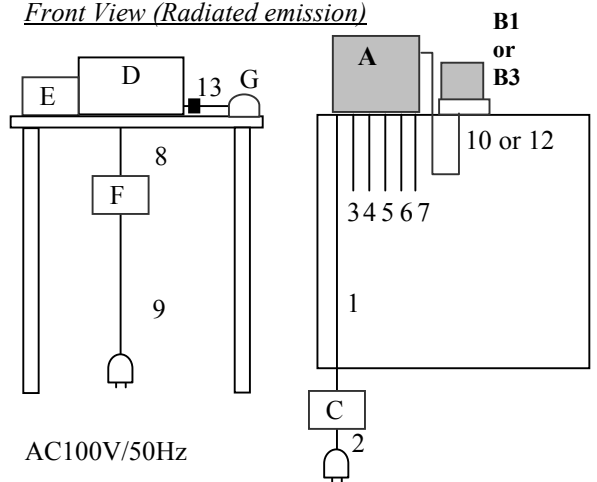
■: Ferrite core (Standard attachment of Mouse)

#### Setup 1 (for B1&B3)

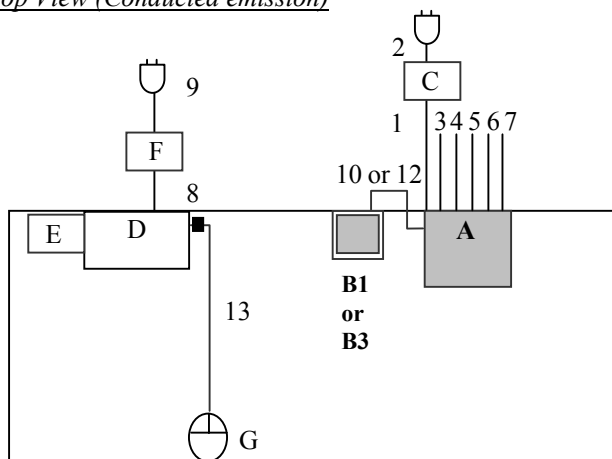
*Front View (Conducted emission)*



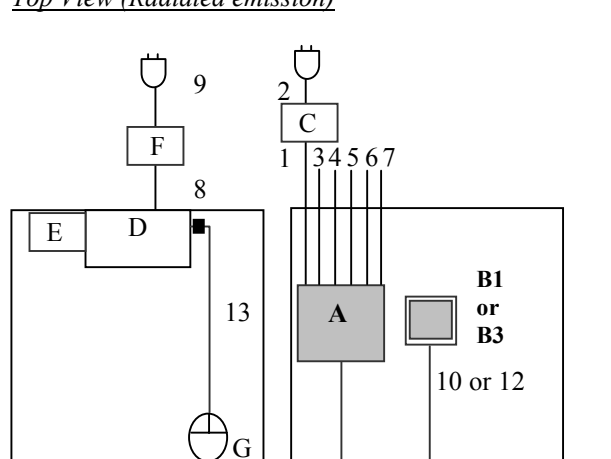
*Front View (Radiated emission)*



*Top View (Conducted emission)*



*Top View (Radiated emission)*



\* Test data was taken under worst case conditions.

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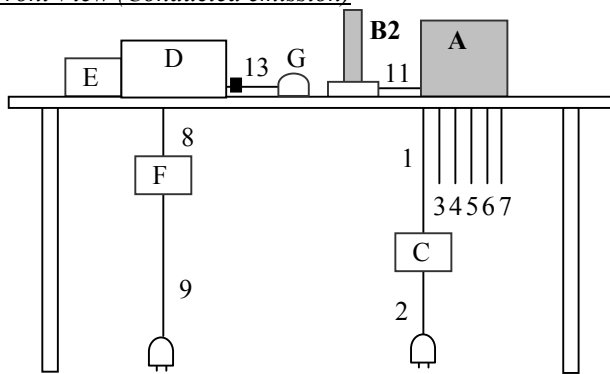
Facsimile: +81 465 77 2112

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**Setup 2 (for B2)**

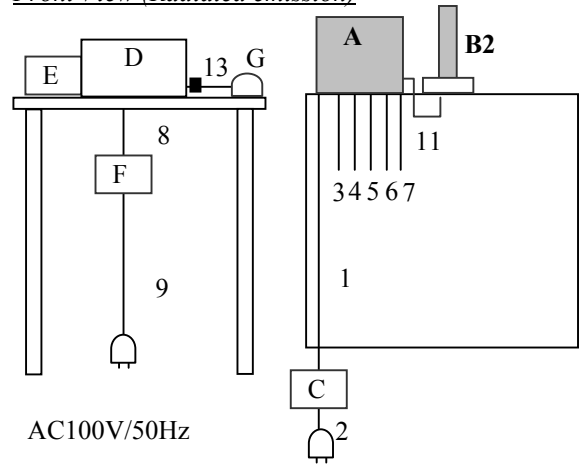
*Front View (Conducted emission)*



AC100V/50Hz

AC120V/60Hz

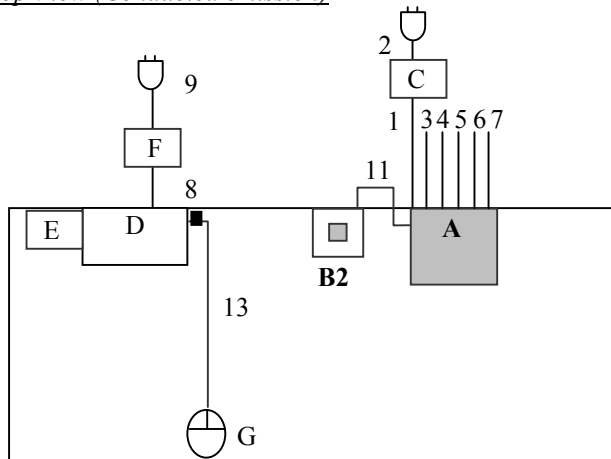
*Front View (Radiated emission)*



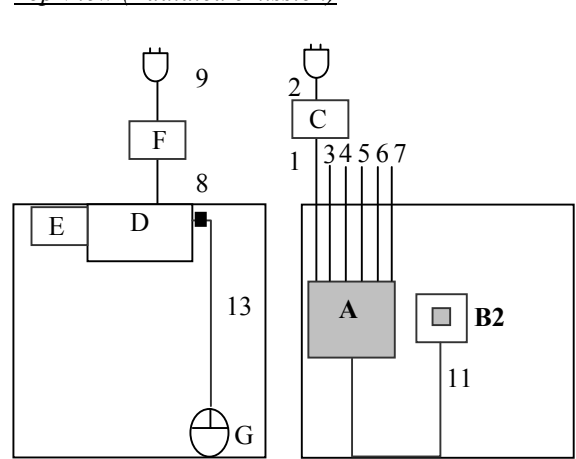
AC100V/50Hz

AC120V/60Hz

*Top View (Conducted emission)*



*Top View (Radiated emission)*



\* Test data was taken under worse case conditions.

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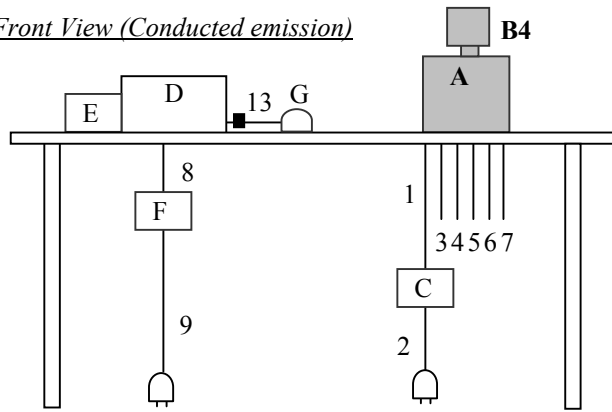
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**Setup 3 (for B4)**

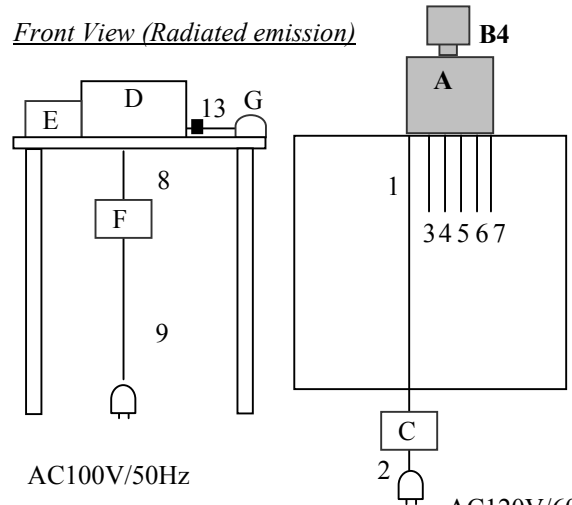
*Front View (Conducted emission)*



AC100V/50Hz

AC120V/60Hz

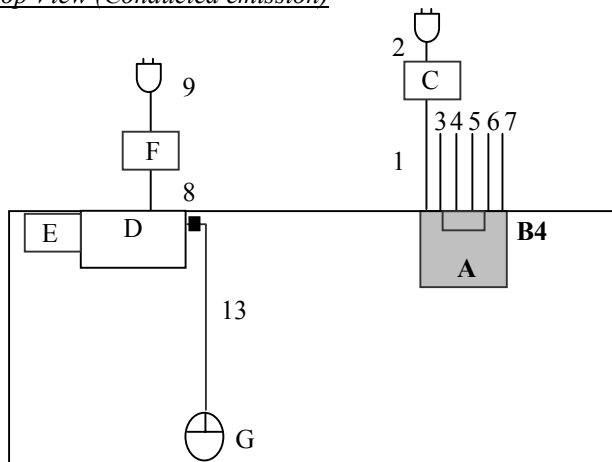
*Front View (Radiated emission)*



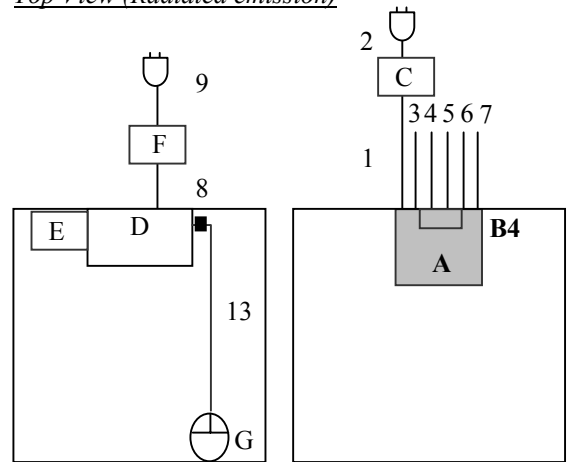
AC100V/50Hz

AC120V/60Hz

*Top View (Conducted emission)*



*Top View (Radiated emission)*



\* Test data was taken under worse case conditions.

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**Description of EUT and support equipment**

No.	Item	Model number	Serial number	Manufacturer	FCC ID (Remark)
A	Air Station (High Speed Wireless Router)	WZR-HP-G54	D-01	BUFFALO	FDI-09101577-0 (EUT)
B1	Patch Antenna	WLE-DA	-	BUFFALO	(EUT)
B2	Sleeve Antenna	WLE-HG-NDR	-	BUFFALO	(EUT)
B3	Yagi Antenna	WLE-MYG	-	BUFFALO	(EUT)
B4	Directional Panel Antenna	WLE-AT-DAC	-	BUFFALO	(EUT)
C	AC Adaptor	UI318-0526	505-0351625	BUFFALO	-
D	Personal Computer	2662-34J	97-0542K	IBM	-
E	High Power Wireless Adapter	WLI-CB-G54HP	000D0B3E8CC0	BUFFALO	-
F	AC Adaptor	02K6661	11S02K6661Z1Z2JY16D5AG	IBM	-
G	Mouse	PN X04-03517	81993-576-0704917-00000	Microsoft	-

**List of cables used**

No.	Name	Length (m)	Shield	Remark
1	DC cable	0.5	Unshielded	-
2	AC Power cable	1.85	Unshielded	-
3	LAN cable	0.6	Unshielded	-
4	LAN cable	0.6	Unshielded	-
5	LAN cable	0.6	Unshielded	-
6	LAN cable	0.6	Unshielded	-
7	LAN cable	0.6	Unshielded	-
8	DC cable	1.75	Unshielded	-
9	AC Power cable	0.9	Unshielded	-
10	Antenna cable	4.9	Shielded	for WLE-DA
11	Antenna cable	1.3	Shielded	for WLE-HG-NDR
12	Antenna cable	0.47	Shielded	for WLE-MYG
13	Mouse cable	1.8	Shielded	-

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## 5 Conducted Emissions

### 5.1 Operating environment

The test was carried out in No.1 / No.3 shielded room.

### 5.2 Test configuration

EUT was placed on a platform of nominal size, 1m by 1.8m, 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 was 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) and excess AC cable was bundled in center. I/O cables were folded back and forth forming a bundle 30cm to 40cm long and were hanged at a 40cm height to the ground plane.

### 5.3 Test conditions

Frequency range : 0.15 - 30MHz  
EUT operation mode : Transmitting

### 5.4 Test procedure

The EUT was connected to a LISN (AMN).  
An overview sweep with peak detection has been performed.  
The Conducted emission measurements were made with the following detector function of the test receiver.  
Detector: QP/AV  
IF Bandwidth: 9kHz (No.1 shielded room) / 10kHz (No.3 shielded room)

### 5.5 Results

Summary of the test results : Pass  
Test data : APPENDIX 2 Page 27 to 66

Date : July 12 and September 9, 2005  
Test engineer : Takahiro Suzuki and Toyokazu Imamura

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## 6 Out of Band Emissions (Radiated)

### 6.1 Operating environment

The test was carried out in No.1 / No.2 open site.

### 6.2 Test configuration

EUT was placed on a platform of nominal size, 0.5m by 0.5m, raised 80cm above the conducting ground plane. A drawing of the set up is shown in the photos of Appendix 1.

### 6.3 Test conditions

Frequency range : 30MHz - 26GHz  
 Test distance : 3m  
 EUT operation mode : Transmitting

### 6.4 Test procedure

The Radiated Electric Field Strength intensity has been measured with a ground plane and at a distance of 3m. The measuring antenna height was 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.

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.

Measurements were performed with QP, PK, and AV detector.

The radiated emission measurements were made with the following detector function of the test receiver.

Frequency	Below 1GHz	Above 1GHz
Instrument used	Test Receiver	Spectrum Analyzer
Detector	QP: BW 120kHz	PK: RBW: 1MHz/VBW: 1MHz
IF Bandwidth		AV: RBW: 1MHz/VBW: 10Hz

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

The antennas of the equipment were previously checked at each position of two axes X and Y. The position in which the maximum noise occurred was chosen to put into measurement. See the table below and photographs in page 23 to 26. With the position, the noise levels of all the frequencies were measured.

Antenna	WLE-DA	WLE-HG-NDR	WLE-MYG	WLE-AT-DAC
Below 1GHz				
Horizontal	Y	X	X	X
Vertical	Y	Y	X	Y
Above 1GHz				
Horizontal	X	Y	Y	Y
Vertical	X	X	X	X

\* Position of the equipment (WZR-HP-G54) was set in reference to the test report 25LE0018-YK-1.

### 6.5 Results

Summary of the test results : Pass  
 Test data : APPENDIX 2 Page 67 to 138

Date : August 4, 10, 20 and September 5, 7, 8, 18, 2005  
 Test engineer : Toyokazu Imamura, Makoto Hosaka, Takahiro Suzuki and Akira Sato

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### **APPENDIX 1: Photographs of test setup**

Page 15 - 18	:	Conducted emission
Page 19 - 22	:	Radiated emission
Page 23 - 26	:	Pre check of worse-case position

### **APPENDIX 2: Test Data**

Page 27 - 66	:	Conducted Emission
Page 67 - 138	:	Out of Band Emissions (Radiated)
67 - 72	:	WLE-DA 30-1000MHz
73 - 84	:	1-26GHz
85 - 90	:	WLE-HG-NDR 30-1000MHz
91 - 102	:	1-26GHz
103 - 108	:	WLE-MYG 30-1000MHz
109 - 120	:	1-26GHz
121 - 126	:	WLE-AT-DAC 30-1000MHz
127 - 138	:	1-26GHz

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

Page 139	:	Test instruments
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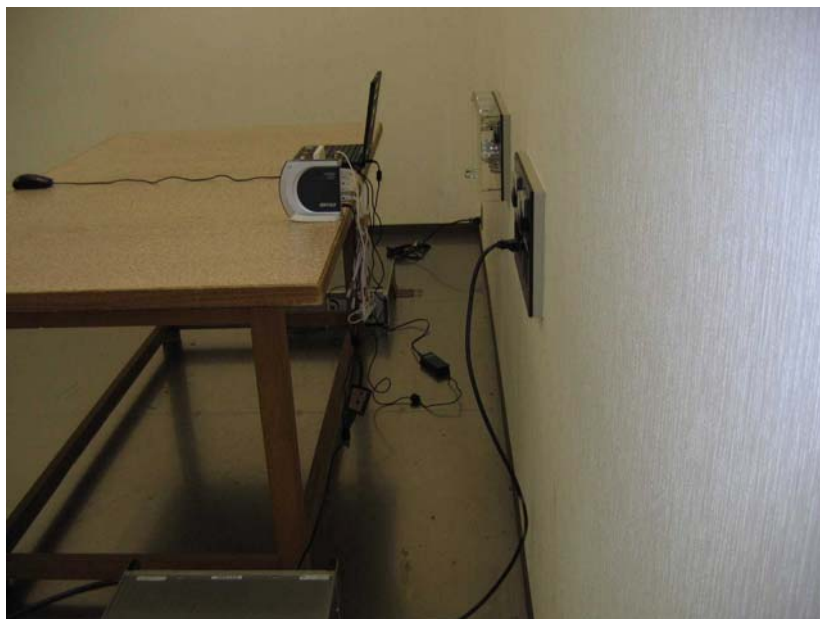
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**Conducted emission (WLE-DA)**



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**Conducted emission (WLE-HG-NDR)**



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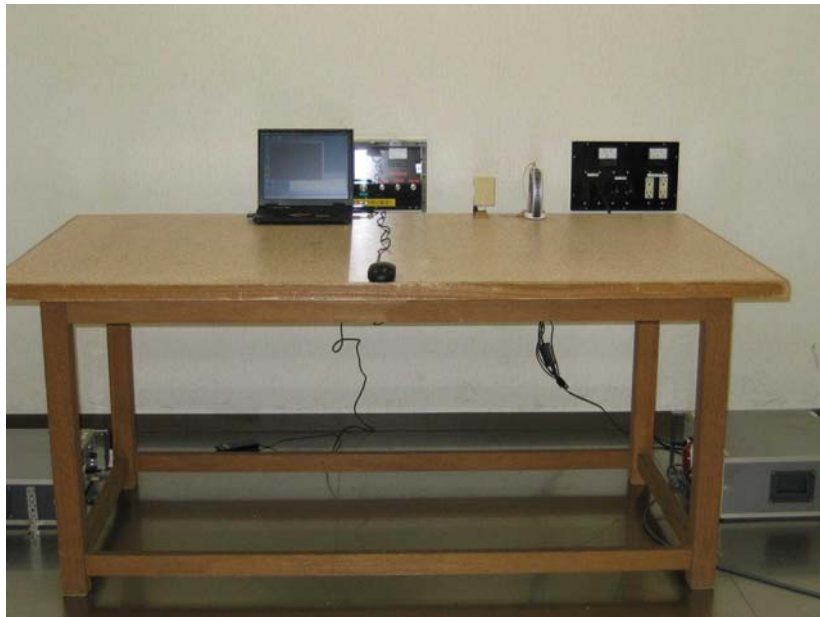
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**Conducted emission (WLE-MYG)**



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**Conducted emission (WLE-AT-DAC)**



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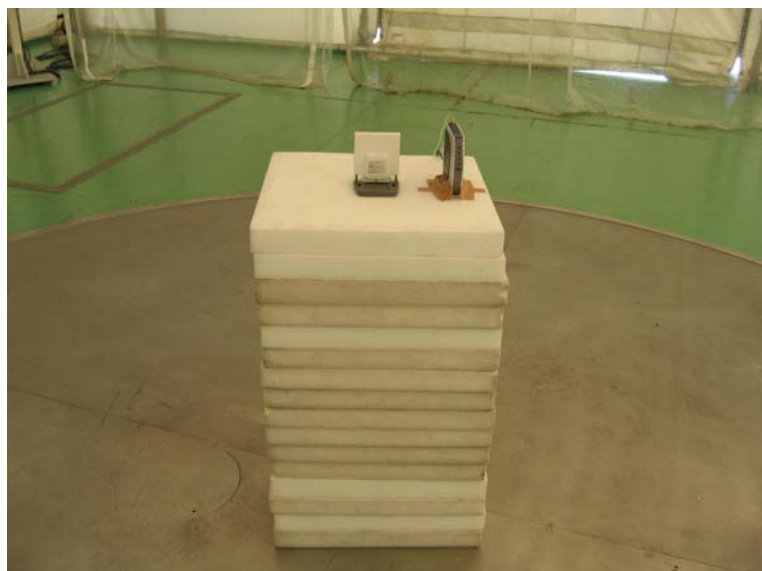
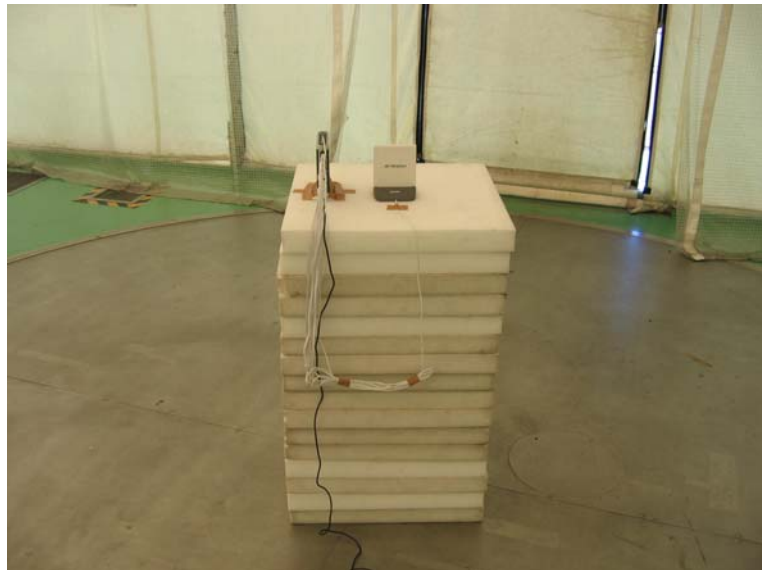
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**Radiated emission (WLE-DA)**



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**Radiated emission (WLE-HG-NDR)**



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**Radiated emission (WLE-MYG)**



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907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

MF060b (01.06.05)

**Radiated emission (WLE-AT-DAC)**



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***UL Apex Co., Ltd.***

***YAMAKITA EMC LAB.***

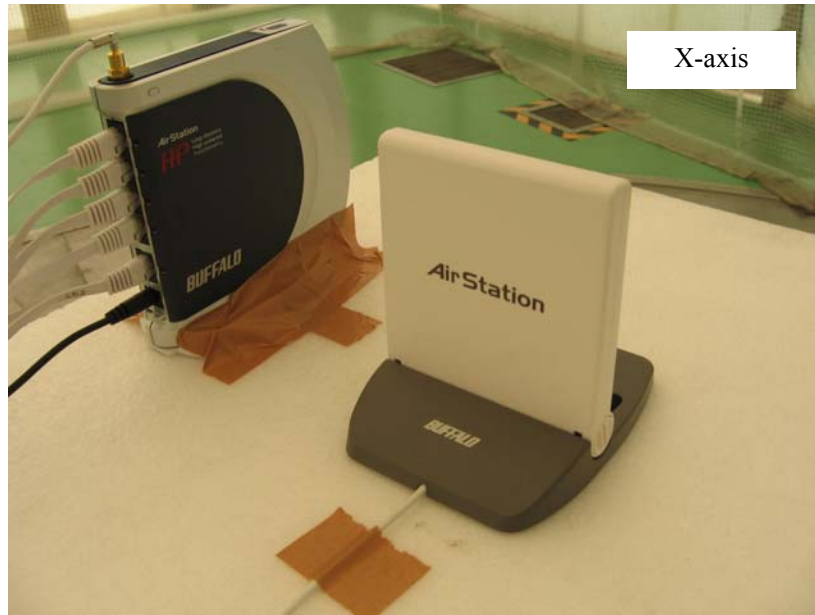
907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

MF060b (01.06.05)

**Pre check of worse-case position (WLE-DA)**



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***UL Apex Co., Ltd.***

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Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

MF060b (01.06.05)

**Pre check of worse-case position (WLE-HG-NDR)**



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***UL Apex Co., Ltd.***

***YAMAKITA EMC LAB.***

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

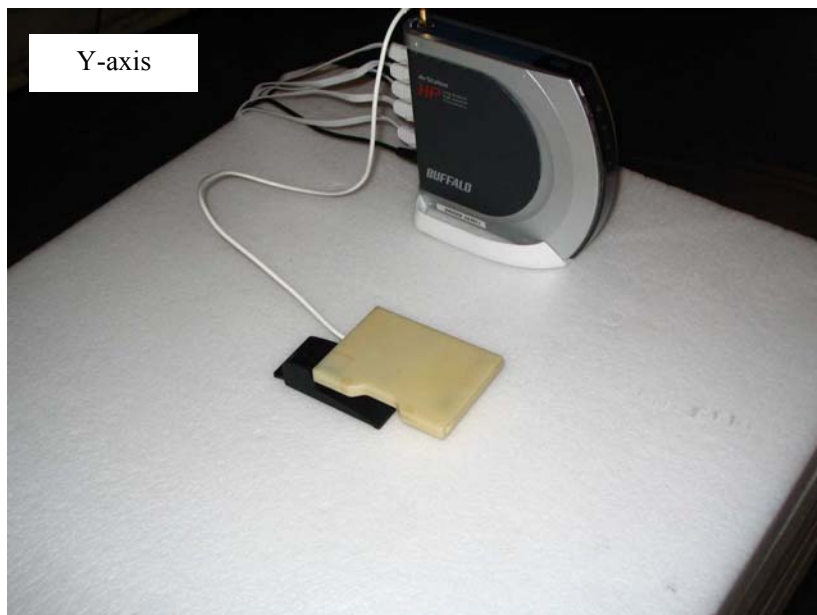
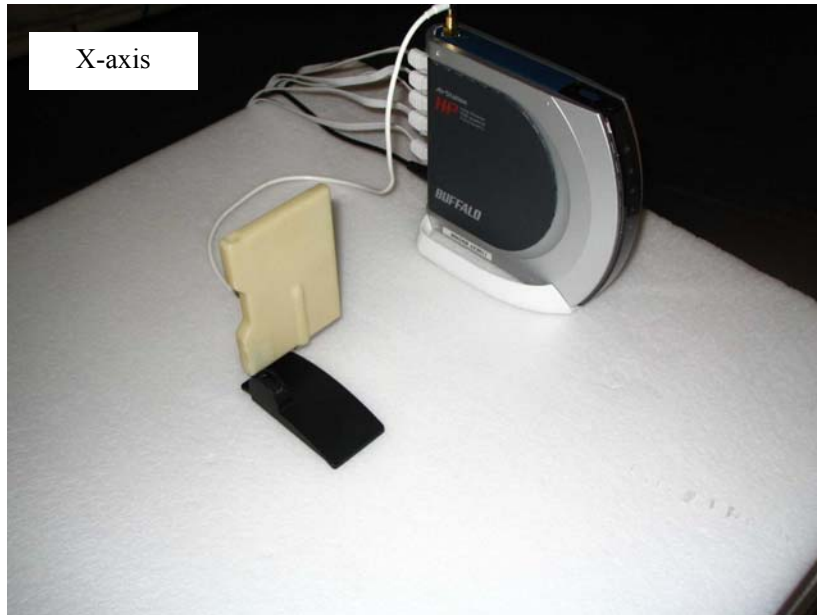
Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

MF060b (01.06.05)



**Pre check of worse-case position (WLE-MYG)**



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***UL Apex Co., Ltd.***

***YAMAKITA EMC LAB.***

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

MF060b (01.06.05)

Pre check of worse-case position (WLE-AT-DAC)



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**UL Apex Co., Ltd.**

**YAMAKITA EMC LAB.**

907 Kawanishi, Yamakita-machi, Ashigarakami-gun, Kanagawa-ken, 258-0124 JAPAN

Telephone: +81 465 77 1011

Facsimile: +81 465 77 2112

MF060b (01.06.05)

# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ANTENNA:WLE-DA  
 Date : 7/12/2005  
 Phase : Single Phase  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15. 207. (CISPR Pub. 22 )

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]
1.	0.1626	53.4	41.3	53.4	42.1	0.1	0.1	0.0	53.6	42.3	65.3	55.3	11.7	13.0
2.	0.3264	45.4	-	45.5	-	0.1	0.1	0.0	45.7	-	59.5	49.5	13.8	-
3.	0.8157	40.1	-	40.6	-	0.1	0.2	0.0	40.9	-	56.0	46.0	15.1	-
4.	0.9767	41.6	-	41.8	-	0.1	0.2	0.0	42.1	-	56.0	46.0	13.9	-
5.	1.1445	40.5	-	40.1	-	0.1	0.2	0.0	40.8	-	56.0	46.0	15.2	-
6.	1.6310	41.8	-	41.9	-	0.1	0.3	0.0	42.3	-	56.0	46.0	13.7	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

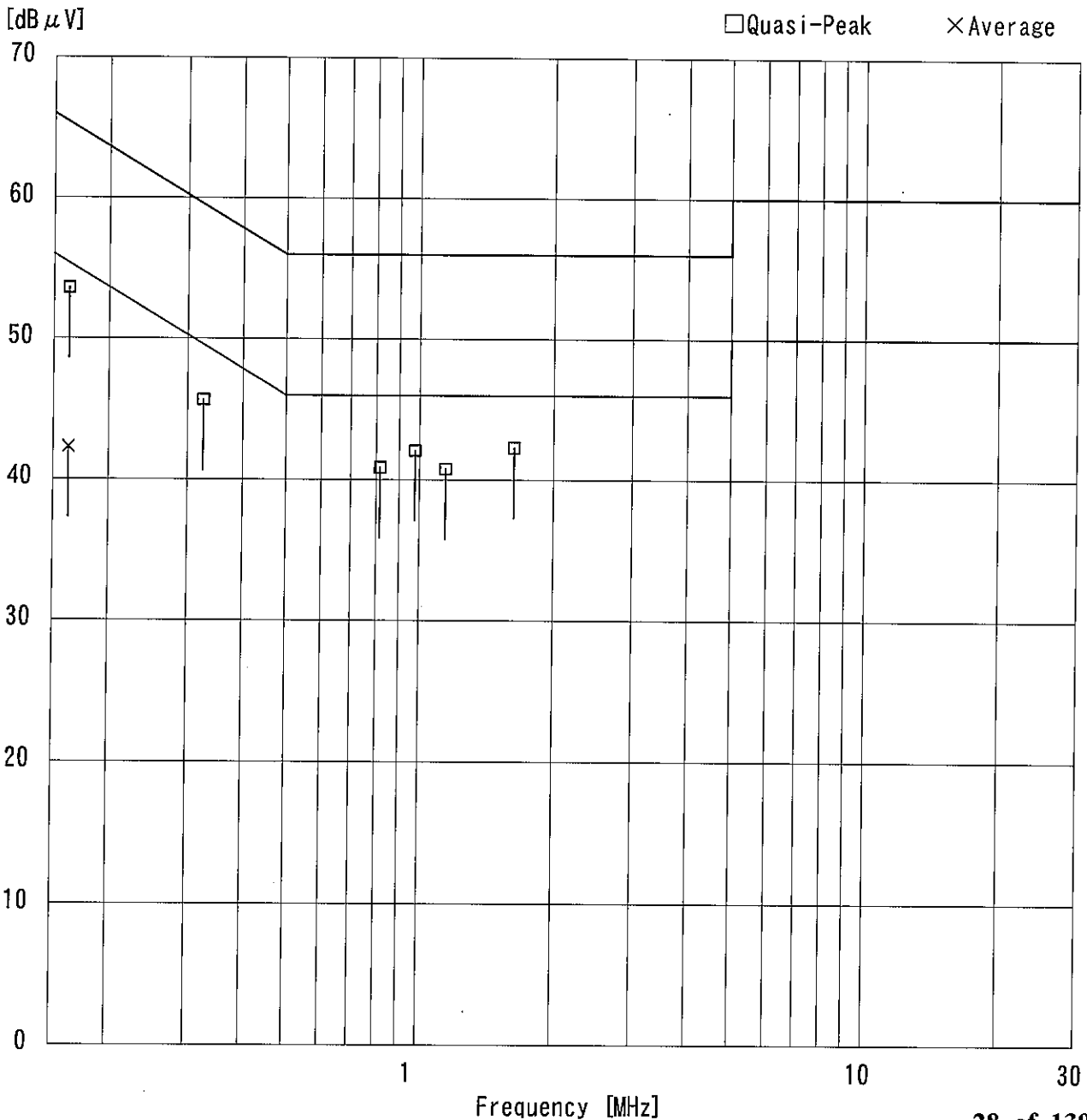
■ LISN :KLS-01 (NSLK8126) ■ COAXIAL CABLE:KCC-14/15/16/18  
 ■ PULSE LIMITTER:KPL-01 (PL01) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ANTENNA:WLE-DA  
 Date : 7/12/2005  
 Phase : Single Phase  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.207. (CISPR Pub. 22 )

Engineer : Takahiro Suzuki

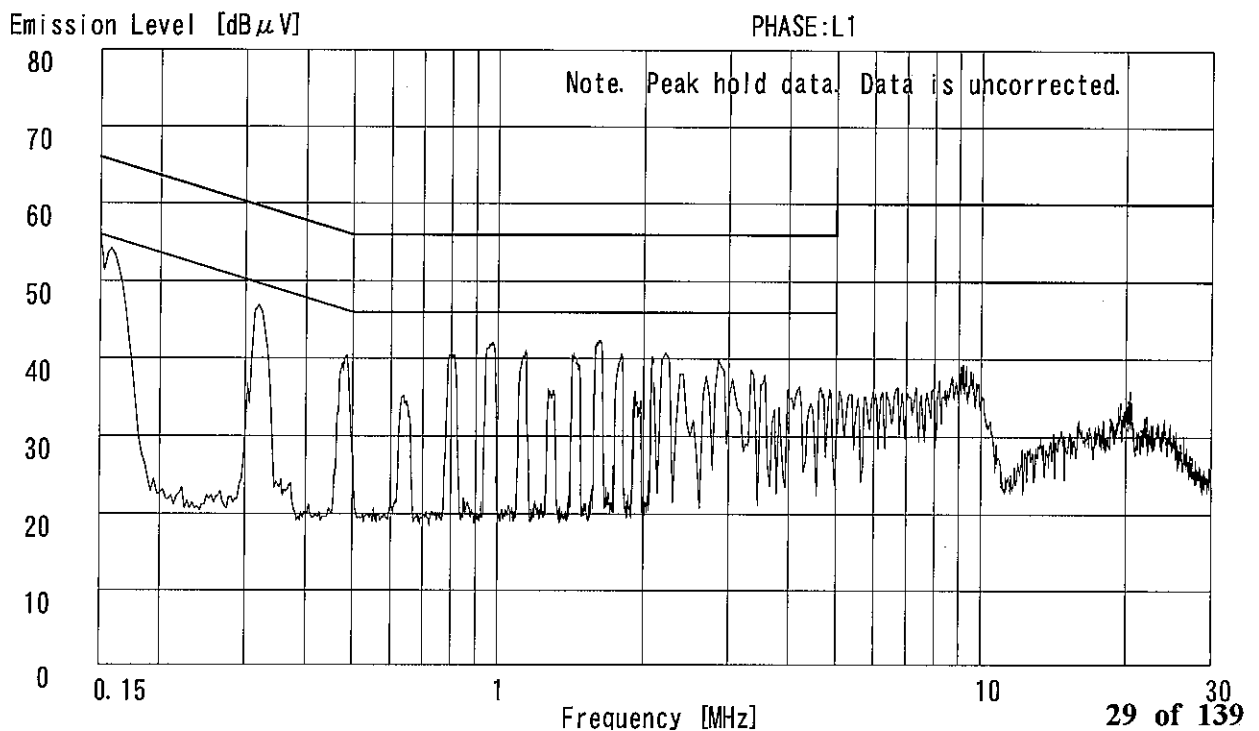
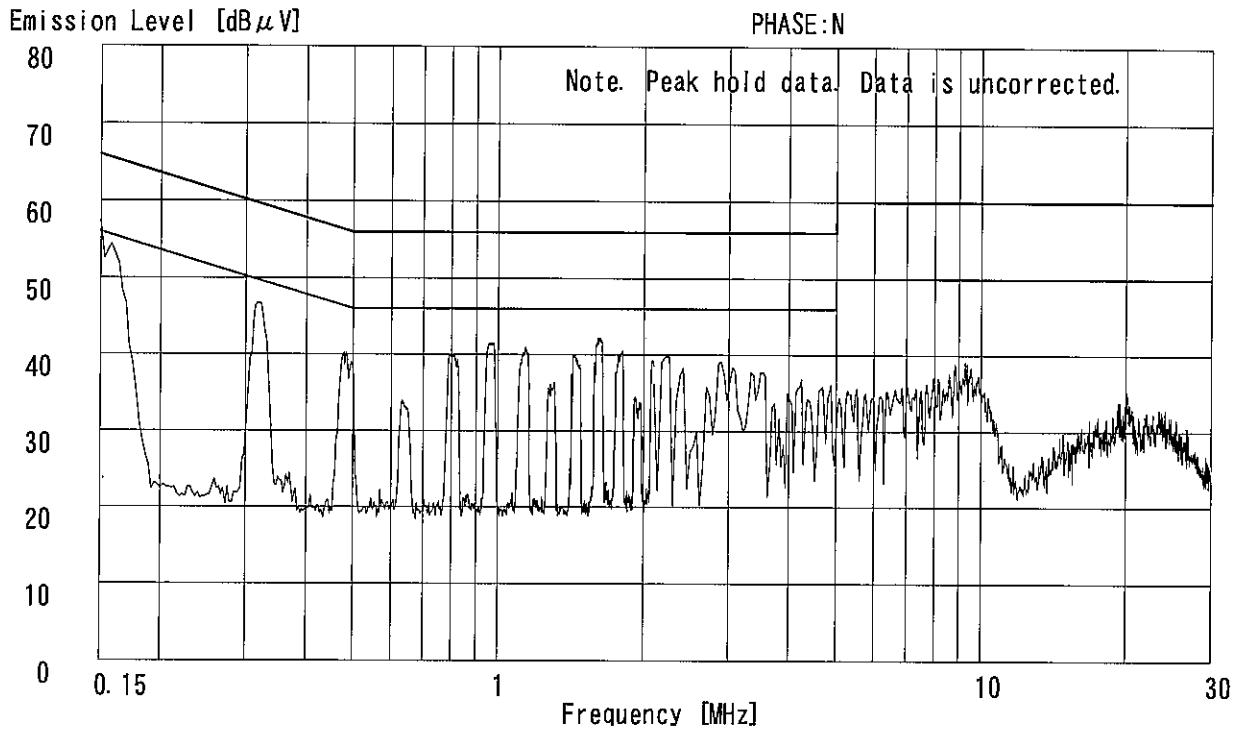


# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK = 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-DA  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki

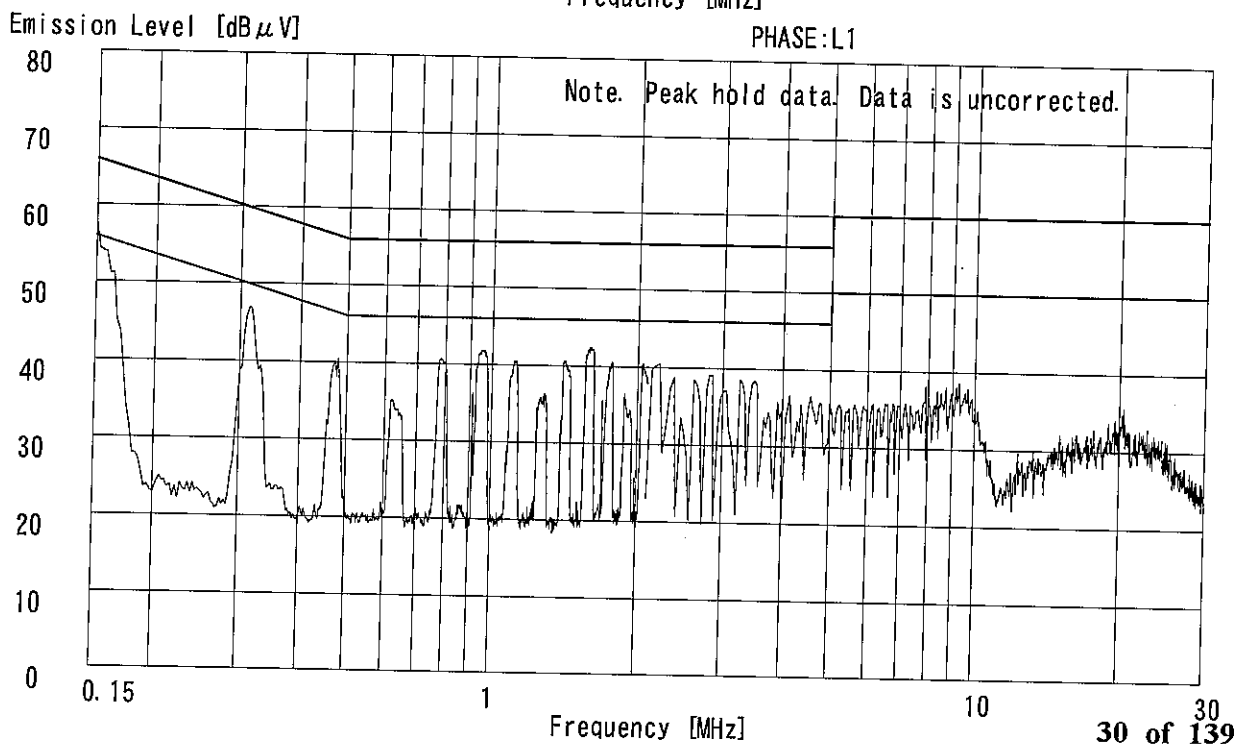
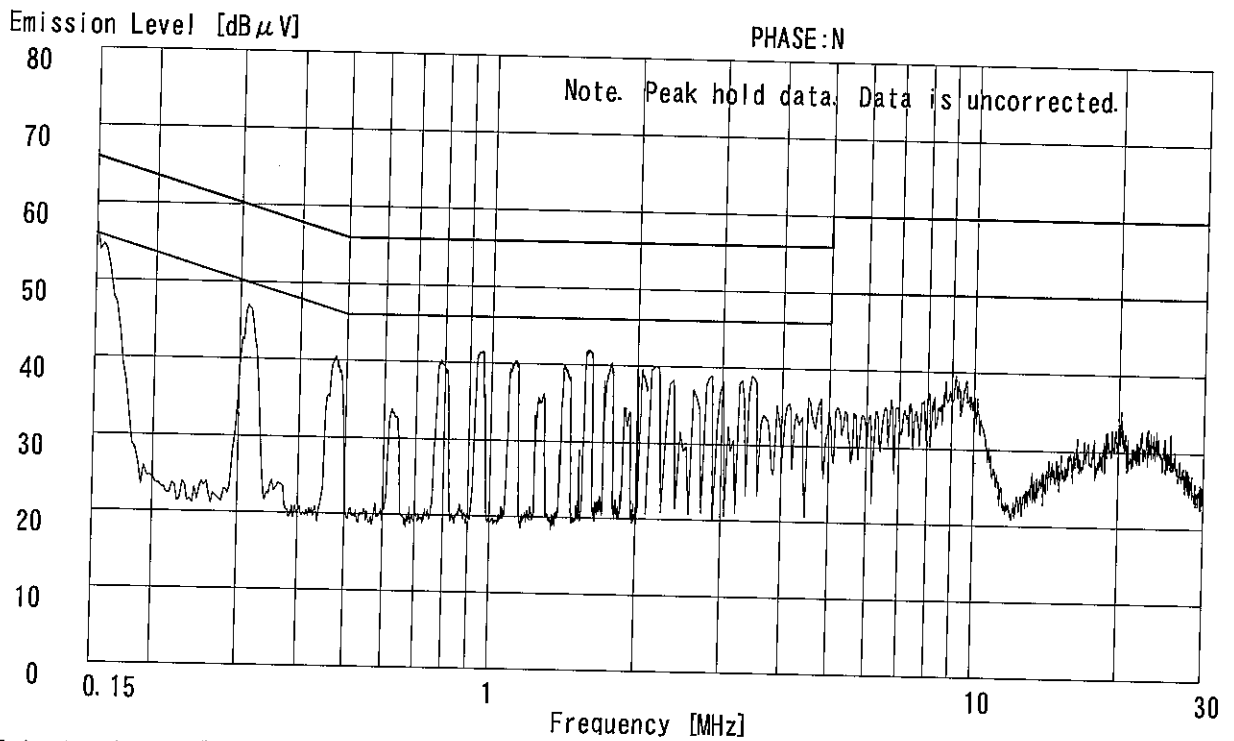


# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2437MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-DA  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST CHART

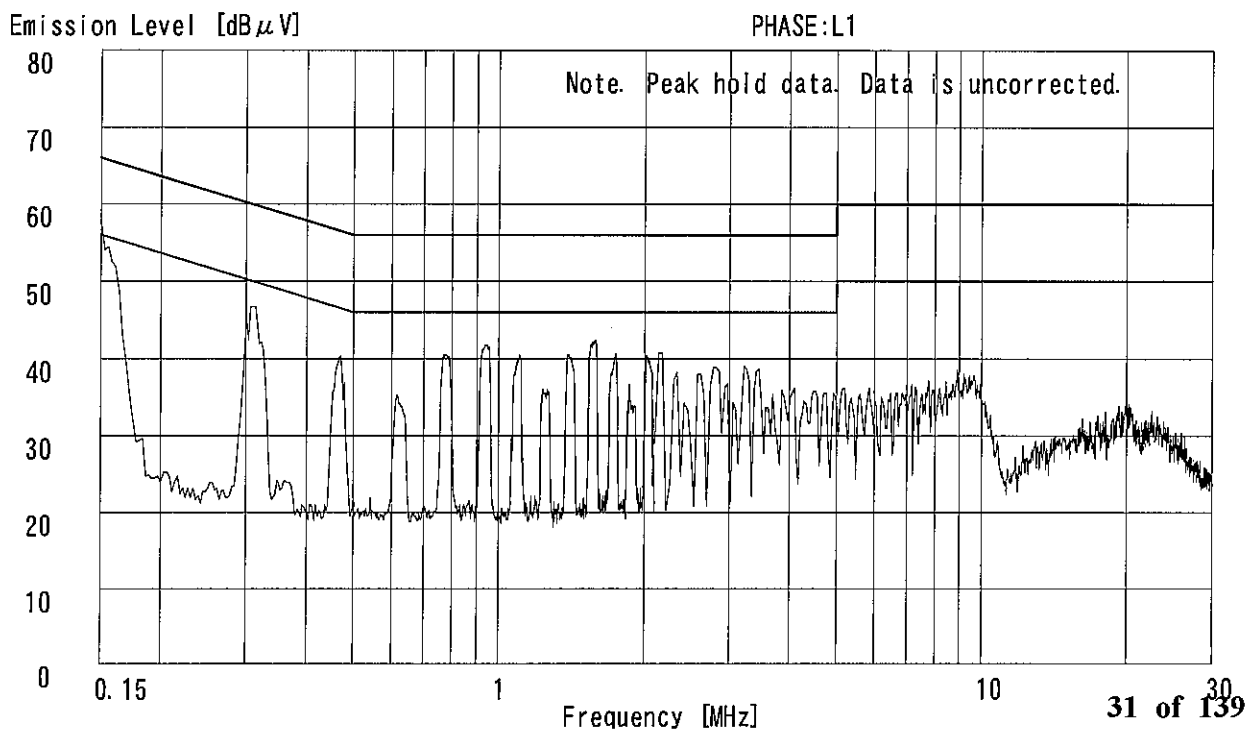
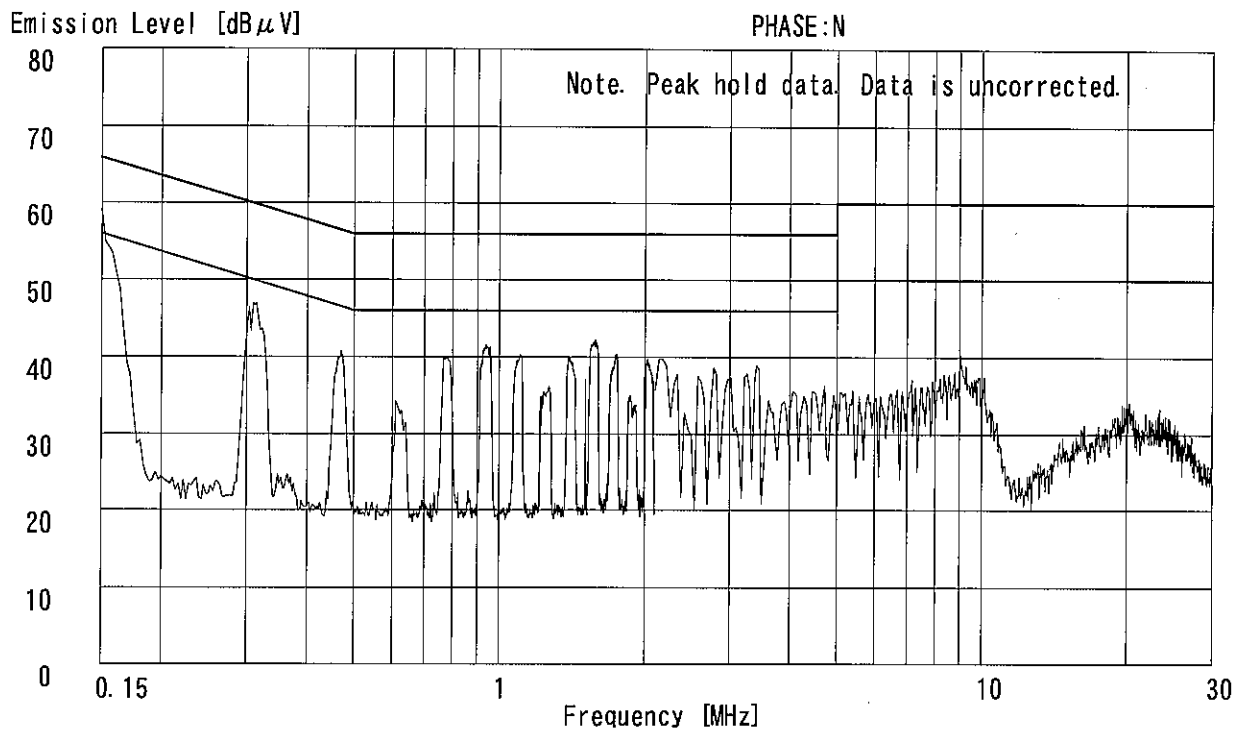
UL Apex Co.,Ltd.

YAMAKITA No.1 SHIELD TEST ROOM

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-DA  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15. 207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/ANTENNA:WLE-DA  
 Date : 7/12/2005  
 Phase : Single Phase  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.207. (CISPR Pub. 22 )

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]
1.	0.1774	50.4	37.0	50.6	39.9	0.1	0.1	0.0	50.8	40.1	64.6	54.6	13.8	14.5
2.	0.3587	41.7	-	43.3	-	0.1	0.1	0.0	43.5	-	58.8	48.8	15.3	-
3.	0.5283	35.9	-	38.0	-	0.0	0.2	0.0	38.2	-	56.0	46.0	17.8	-
4.	0.8711	38.8	-	39.0	-	0.1	0.2	0.0	39.3	-	56.0	46.0	16.7	-
5.	1.0530	40.4	-	40.4	-	0.1	0.2	0.0	40.7	-	56.0	46.0	15.3	-
6.	1.7415	38.9	-	39.6	-	0.1	0.3	0.0	40.0	-	56.0	46.0	16.0	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

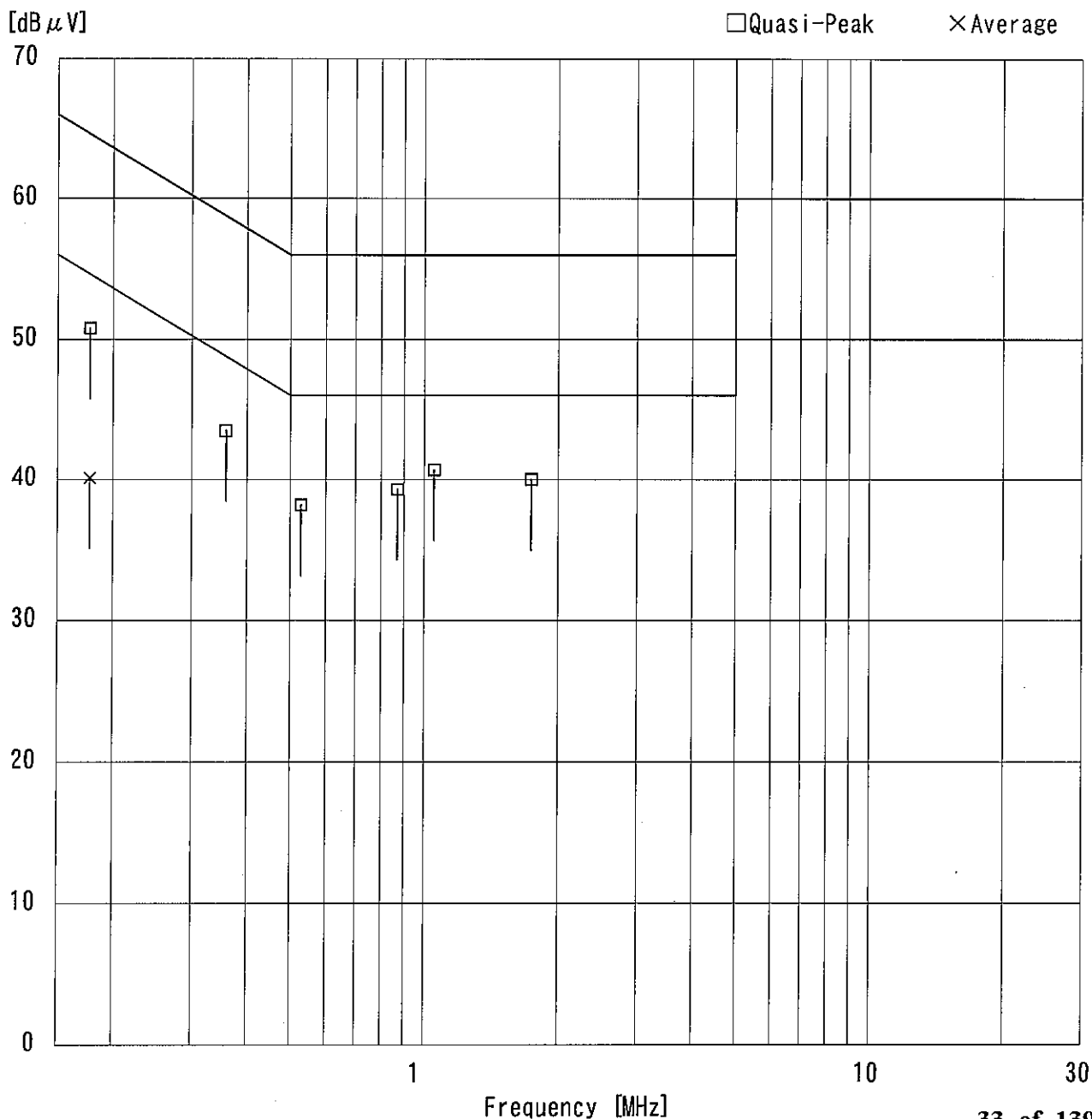
■ LISN : KLS-01 (NSLK8126) ■ COAXIAL CABLE : KCC-14/15/16/18  
 ■ PULSE LIMITTER : KPL-01 (PL01) ■ EMI RECEIVER : KTR-02 (ESCS30)



# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant	: BUFFALO Inc.	
Kind of Equipment	: High Speed Wireless Router	
Model No.	: WHR-HP-G54	
Serial No.	: D-01	
Power	: AC120V/60Hz	
Mode	: Transmitting:2412MHz	
Remarks	: IEEE802. 11g/ANTENNA:WLE-DA	
Date	: 7/12/2005	
Phase	: Single Phase	
Temperature	: 24 °C	Engineer : Takahiro Suzuki
Humidity	: 68 %	
Regulation	: FCC Part15C § 15. 207. (CISPR Pub. 22 )	



# DATA OF CONDUCTION TEST CHART

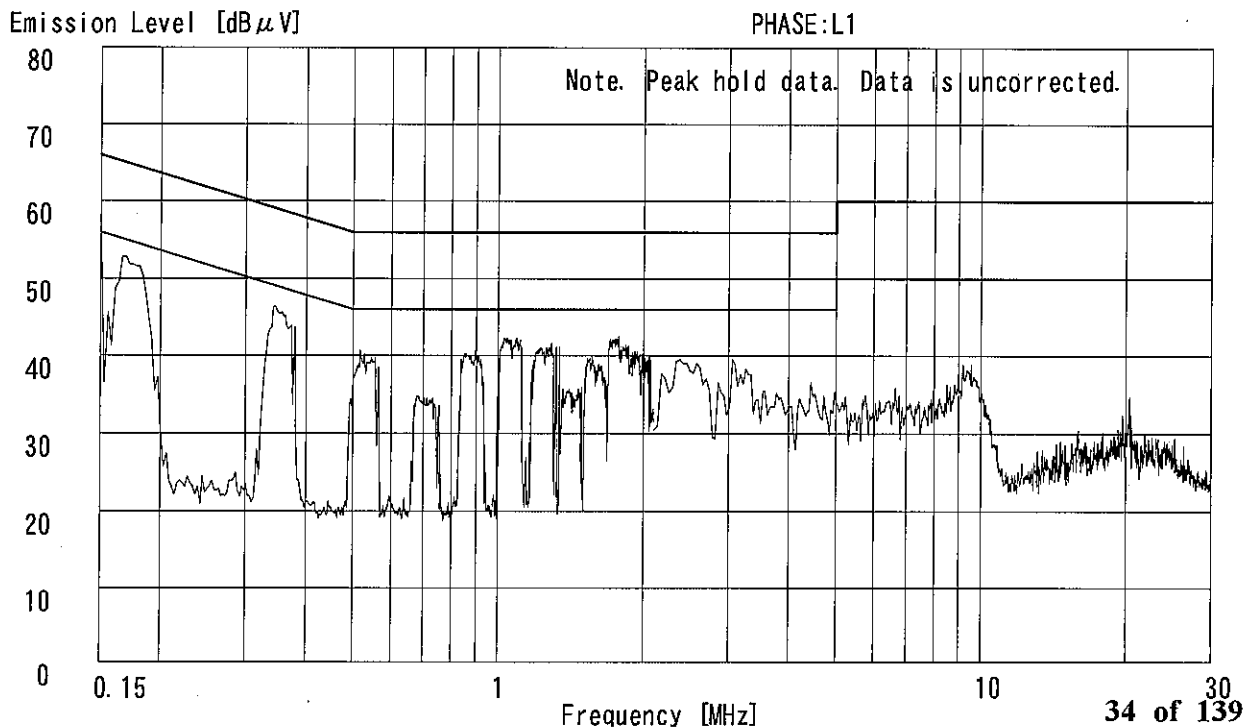
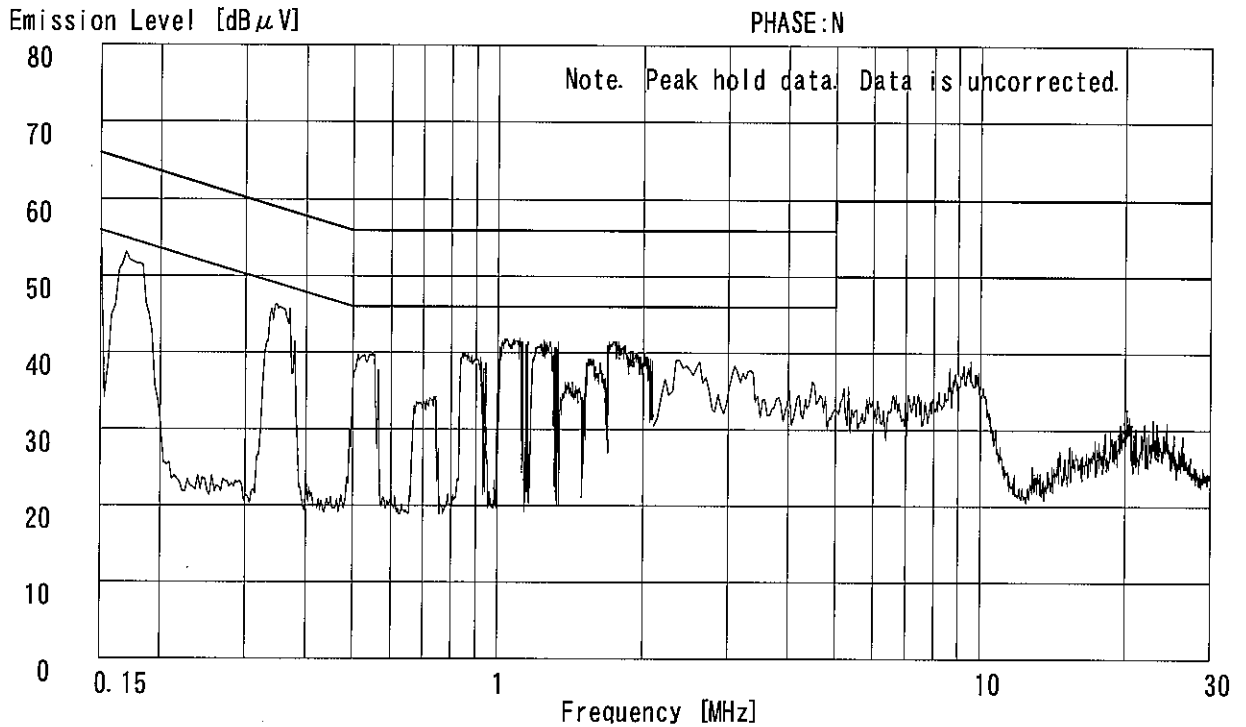
UL Apex Co.,Ltd.

YAMAKITA No.1 SHIELD TEST ROOM

Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-DA  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15. 207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki

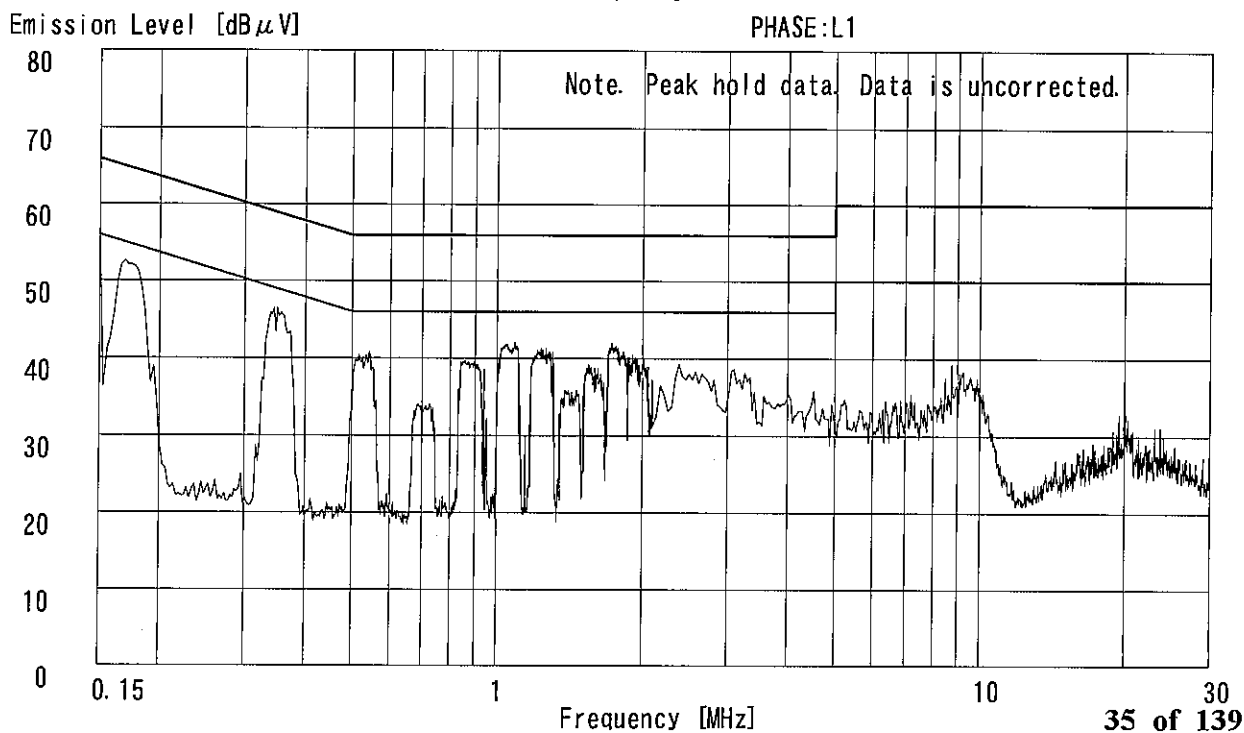
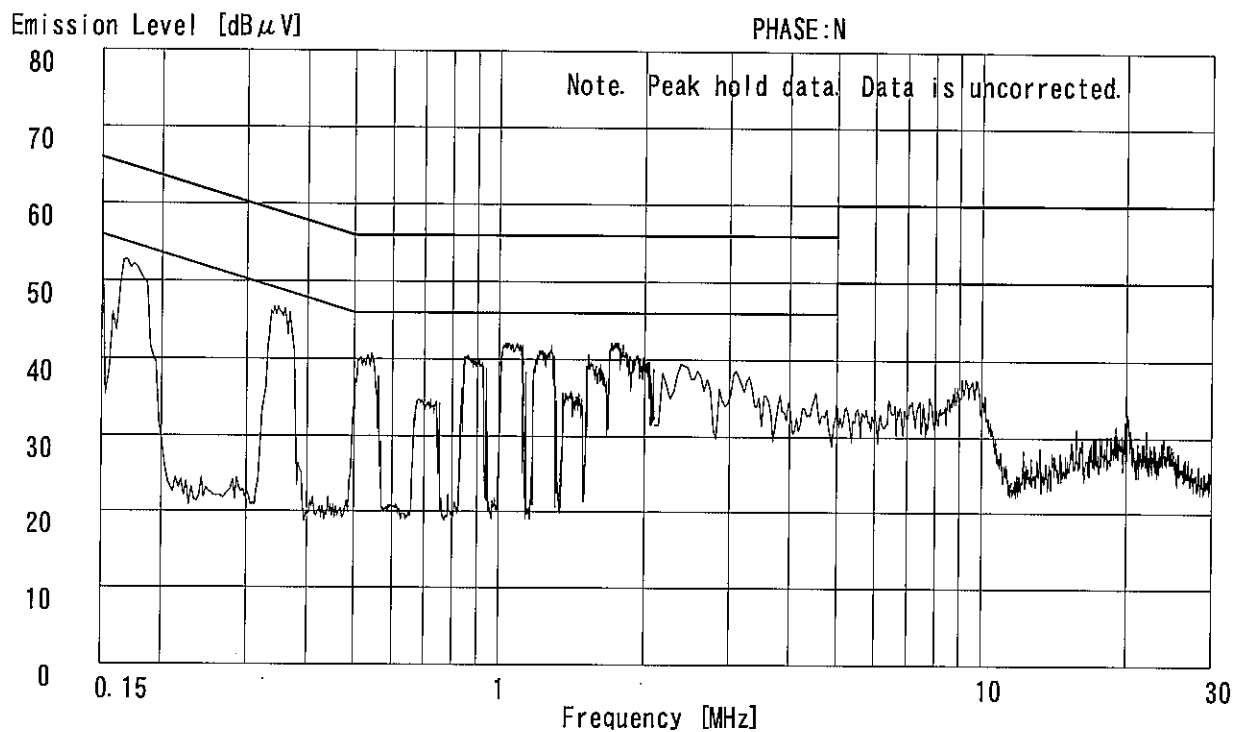


# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2437MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-DA  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki

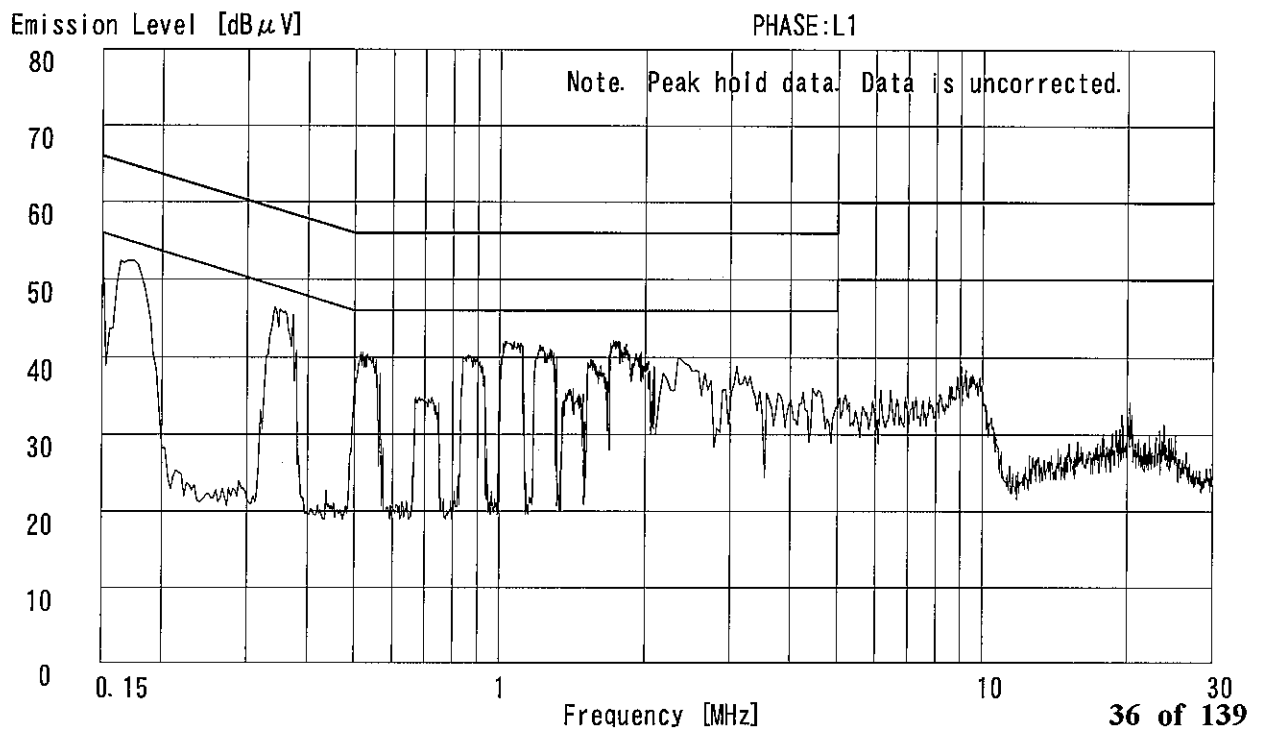
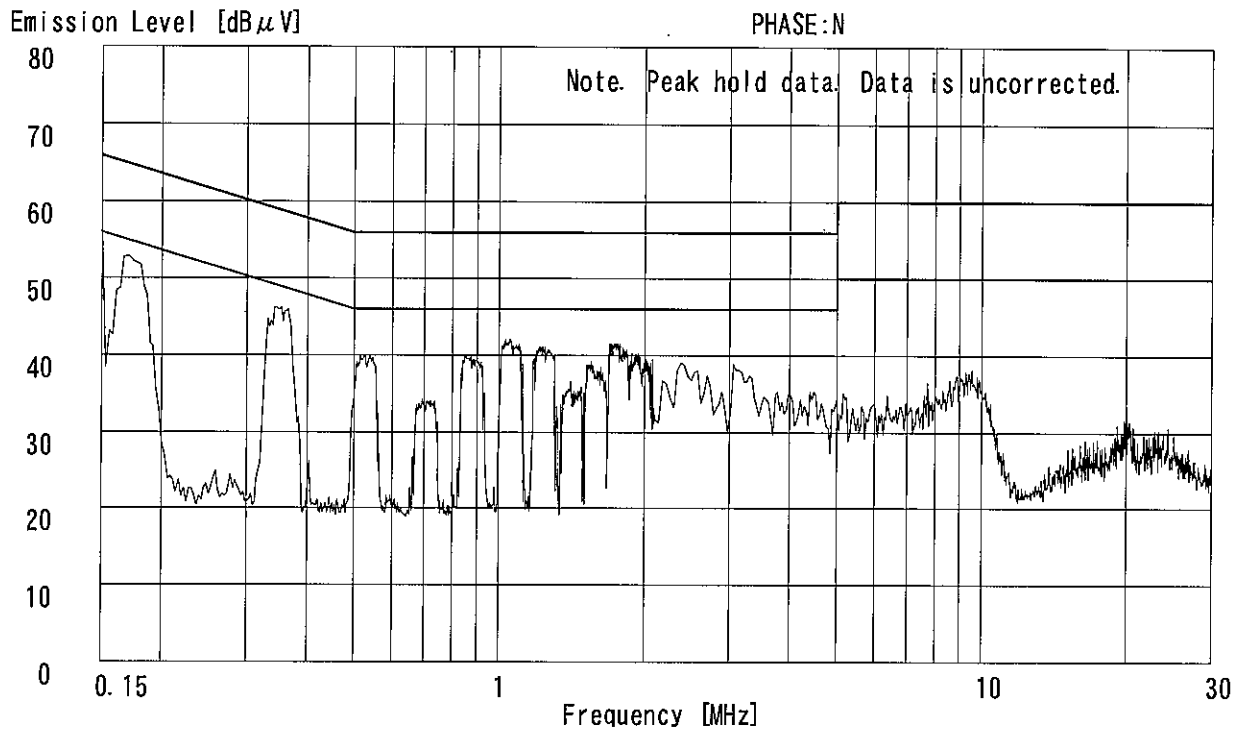


# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-DA  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ANTENNA:WLE-HG-NDR  
 Date : 7/12/2005  
 Phase : Single Phase  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15. 207. (CISPR Pub. 22 )

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]
1.	0.1665	53.5	42.0	53.4	42.4	0.1	0.1	0.0	53.7	42.6	65.1	55.1	11.4	12.5
2.	0.3301	46.0	42.9	45.8	42.9	0.1	0.1	0.0	46.2	43.1	59.4	49.4	13.2	6.3
3.	0.5010	40.0	36.6	39.9	35.3	0.0	0.2	0.0	40.2	36.8	56.0	46.0	15.8	9.2
4.	0.9933	42.6	34.8	42.8	35.0	0.1	0.2	0.0	43.1	35.3	56.0	46.0	12.9	10.7
5.	1.1590	40.9	32.3	40.6	31.9	0.1	0.2	0.0	41.2	32.6	56.0	46.0	14.8	13.4
6.	1.6599	42.0	30.6	42.5	31.6	0.1	0.3	0.0	42.9	32.0	56.0	46.0	13.1	14.0

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

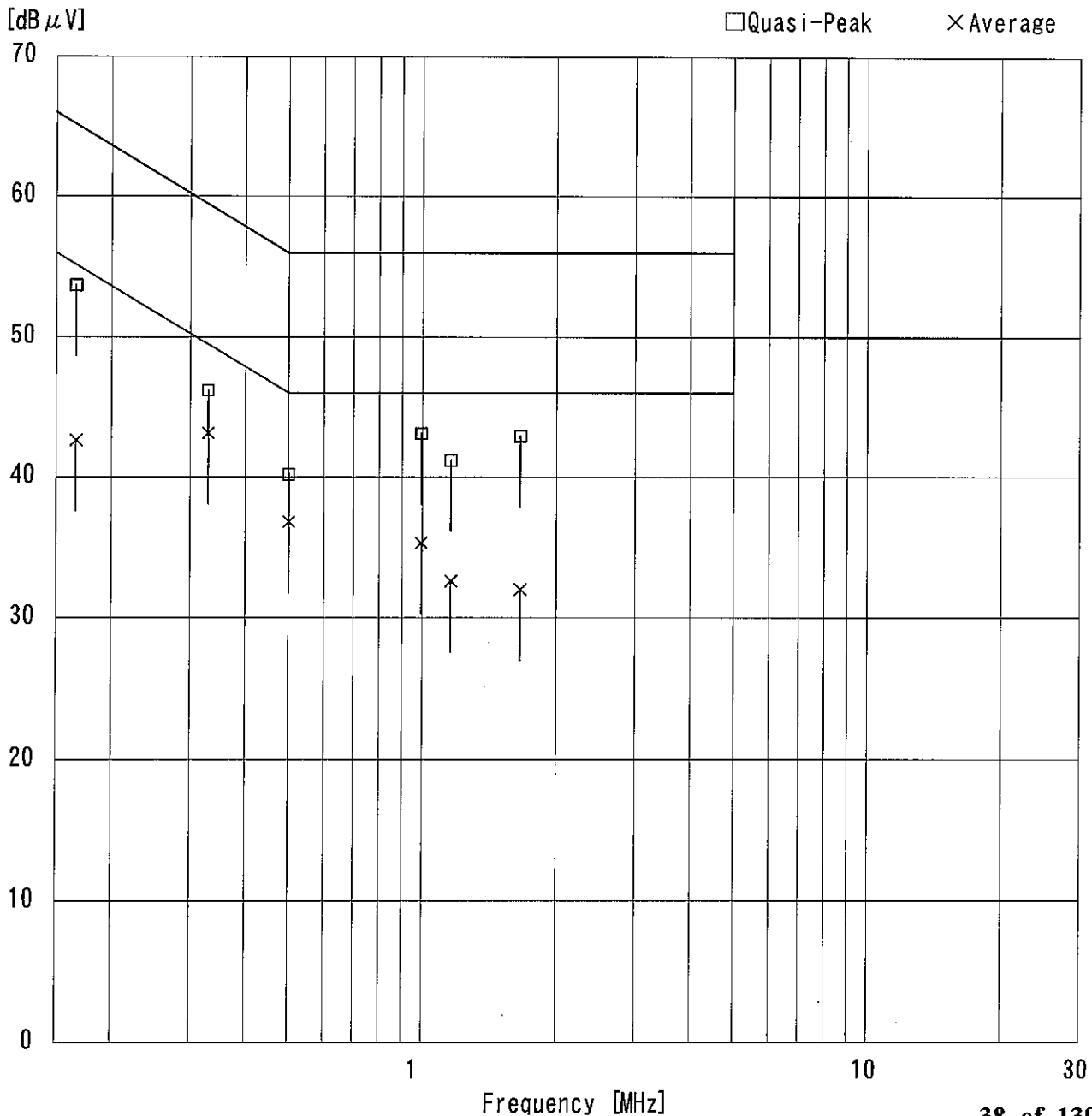
■ LISN :KLS-01 (NSLK8126) ■ COAXIAL CABLE:KCC-14/15/16/18  
 ■ PULSE LIMITTER:KPL-01 (PL01) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ANTENNA:WLE-HG-NDR  
 Date : 7/12/2005  
 Phase : Single Phase  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15. 207. (CISPR Pub. 22 )

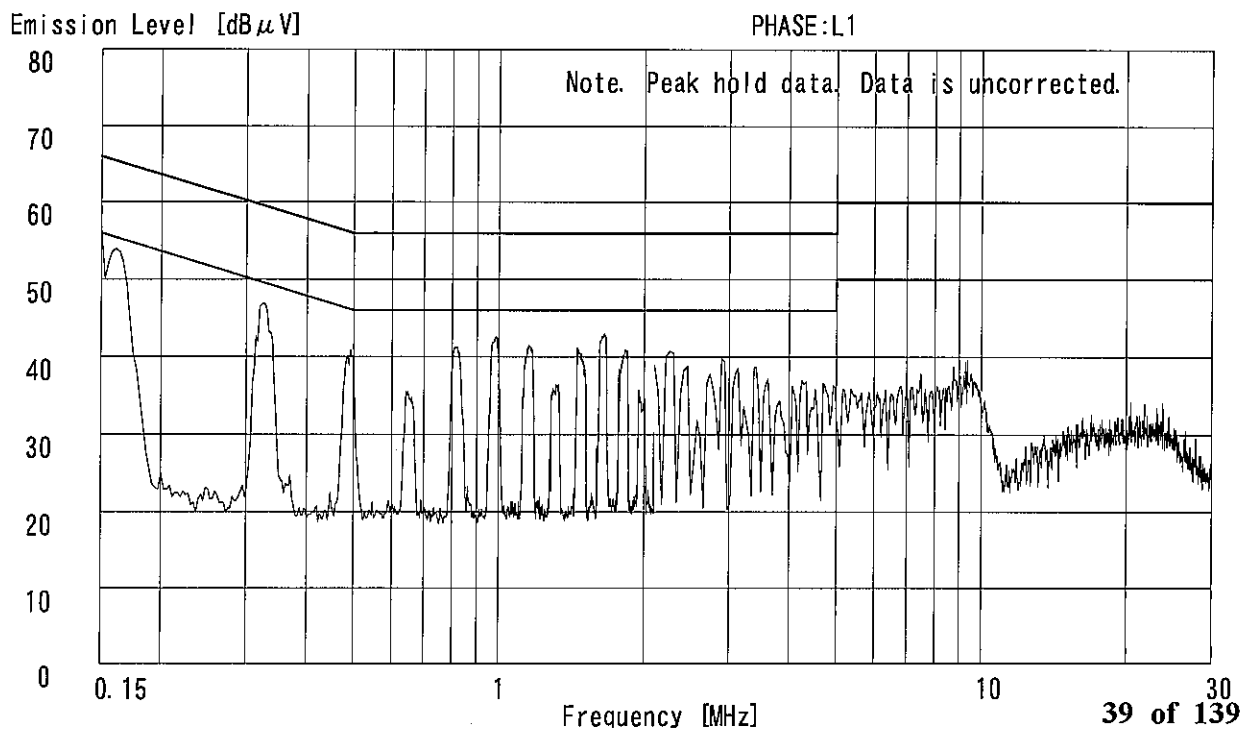
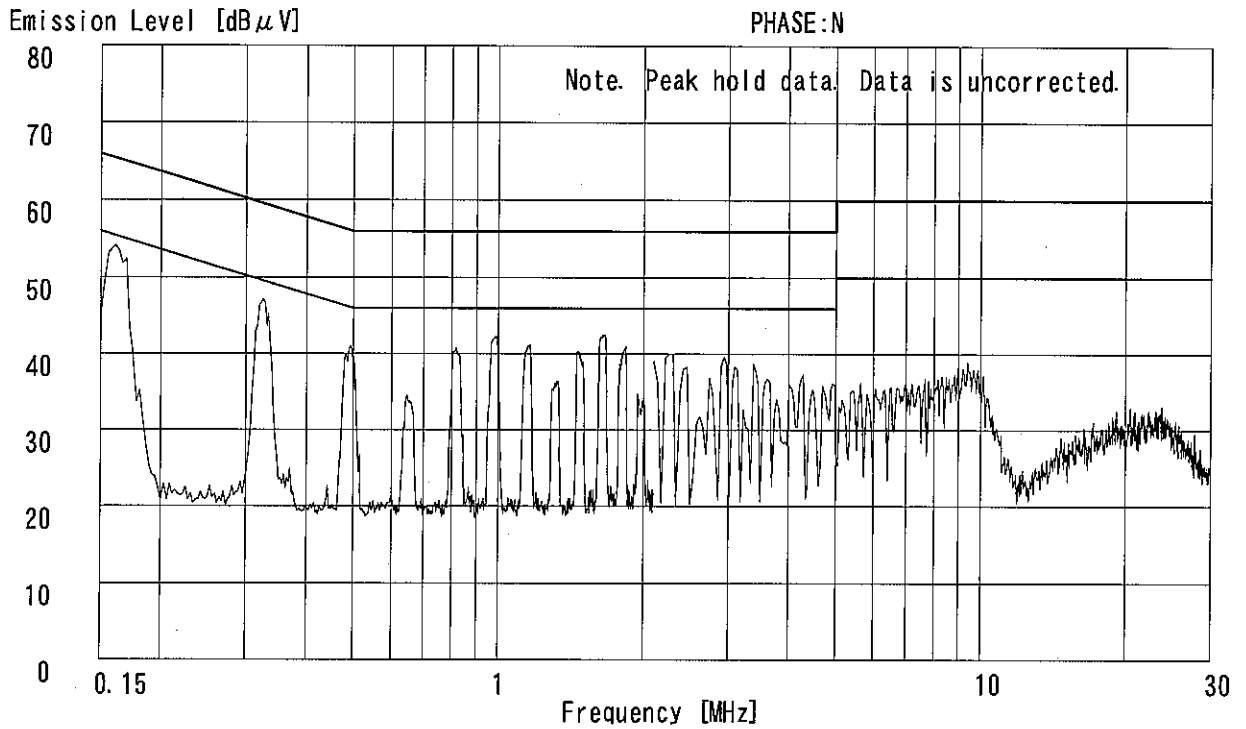
Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-HG-NDR  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15. 207. (CISPR Pub. 22 )  
Regulation 2 : None  
Engineer : Takahiro Suzuki

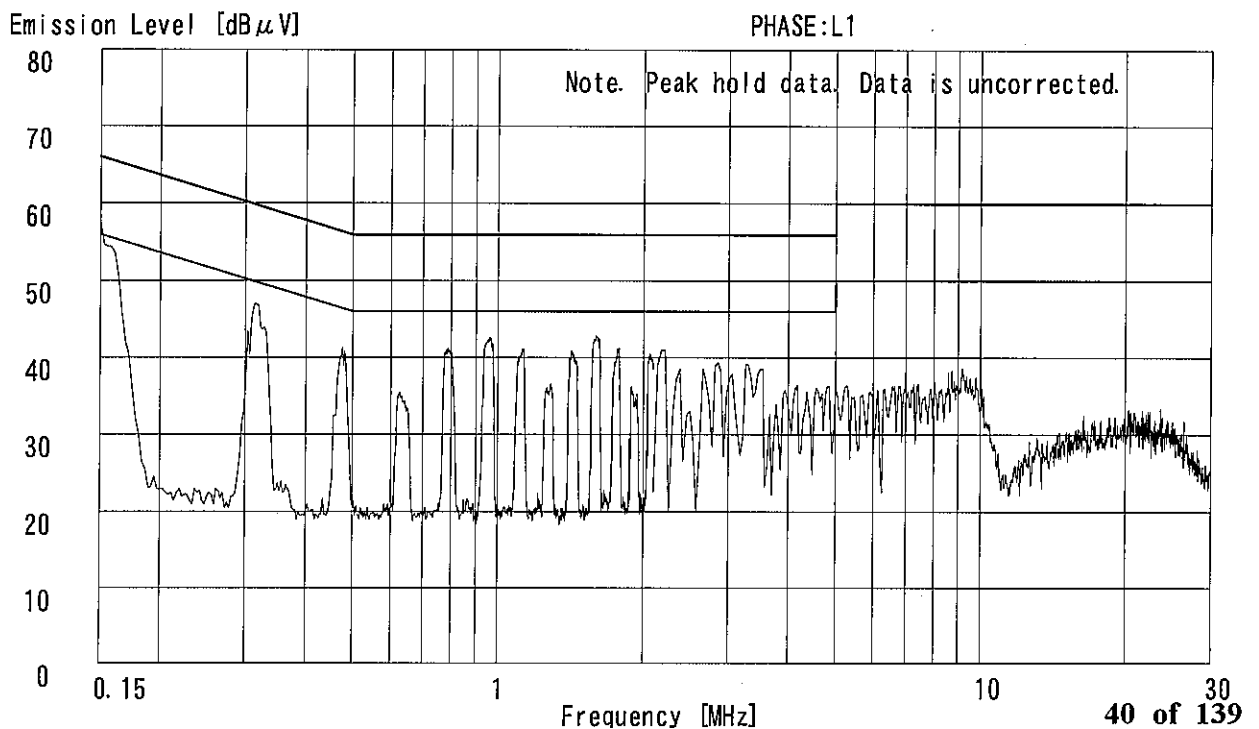
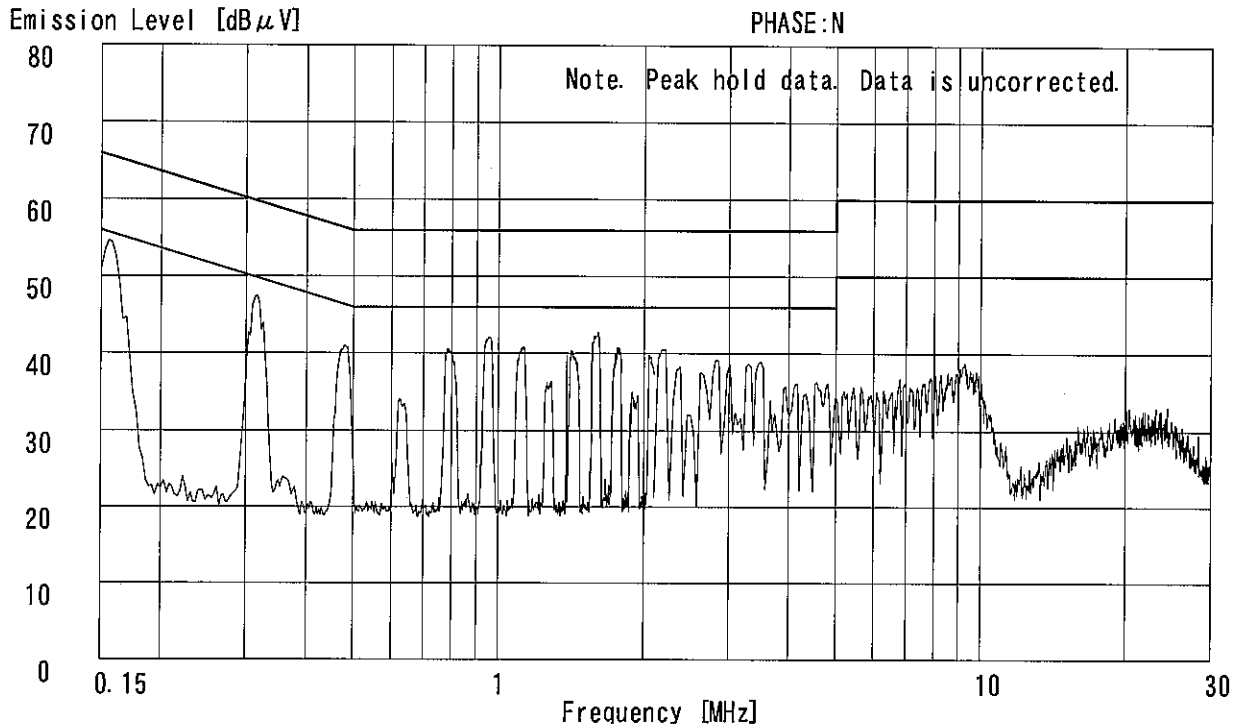


# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2437MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-HG-NDR  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C §15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki





# DATA OF CONDUCTION TEST CHART

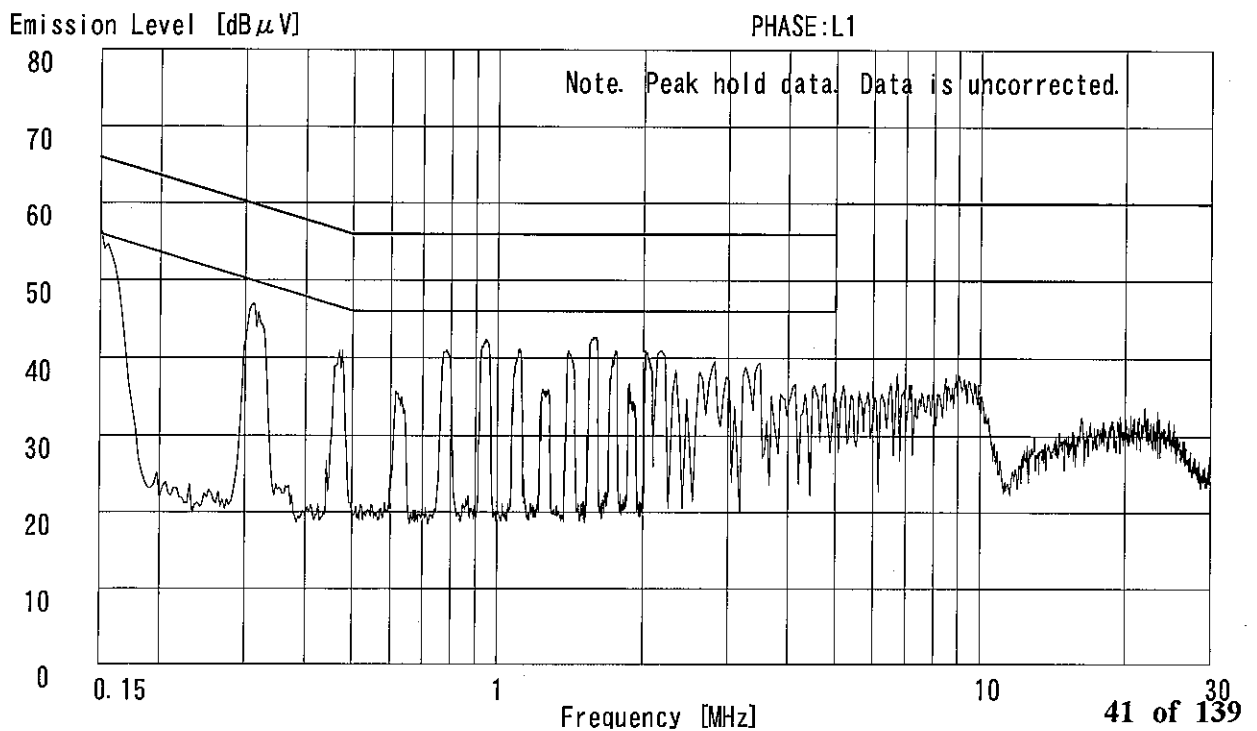
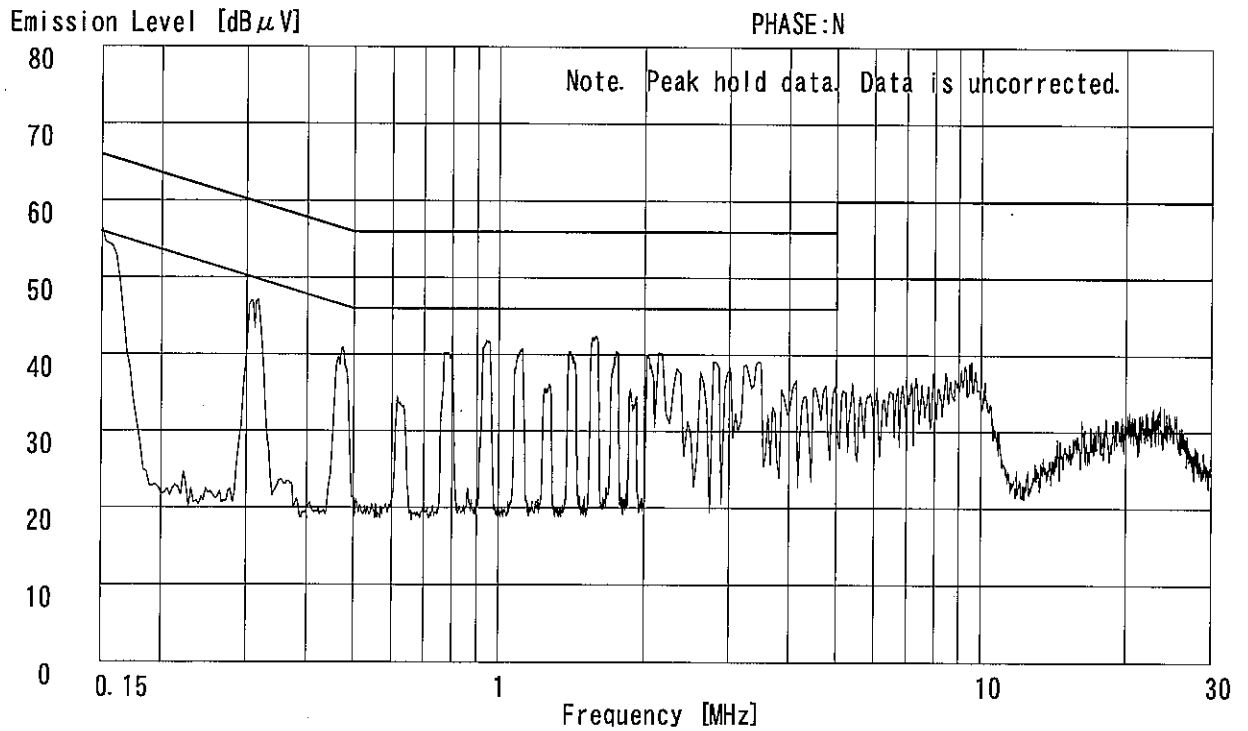
UL Apex Co.,Ltd.

YAMAKITA No.1 SHIELD TEST ROOM

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-HG-NDR  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C §15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/ANTENNA:WLE-HG-NDR  
 Date : 7/12/2005  
 Phase : Single Phase  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15. 207. (CISPR Pub. 22 )

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]
1.	0.1649	51.5	36.8	51.3	38.0	0.1	0.1	0.0	51.7	38.2	65.2	55.2	13.5	17.0
2.	0.3272	43.5	-	43.3	-	0.1	0.1	0.0	43.7	-	59.5	49.5	15.8	-
3.	0.5003	37.6	-	36.6	-	0.0	0.2	0.0	37.8	-	56.0	46.0	18.2	-
4.	0.9853	38.9	-	39.6	-	0.1	0.2	0.0	39.9	-	56.0	46.0	16.1	-
5.	1.0694	37.8	-	38.0	-	0.1	0.2	0.0	38.3	-	56.0	46.0	17.7	-
6.	1.6189	38.0	-	38.6	-	0.1	0.3	0.0	39.0	-	56.0	46.0	17.0	-

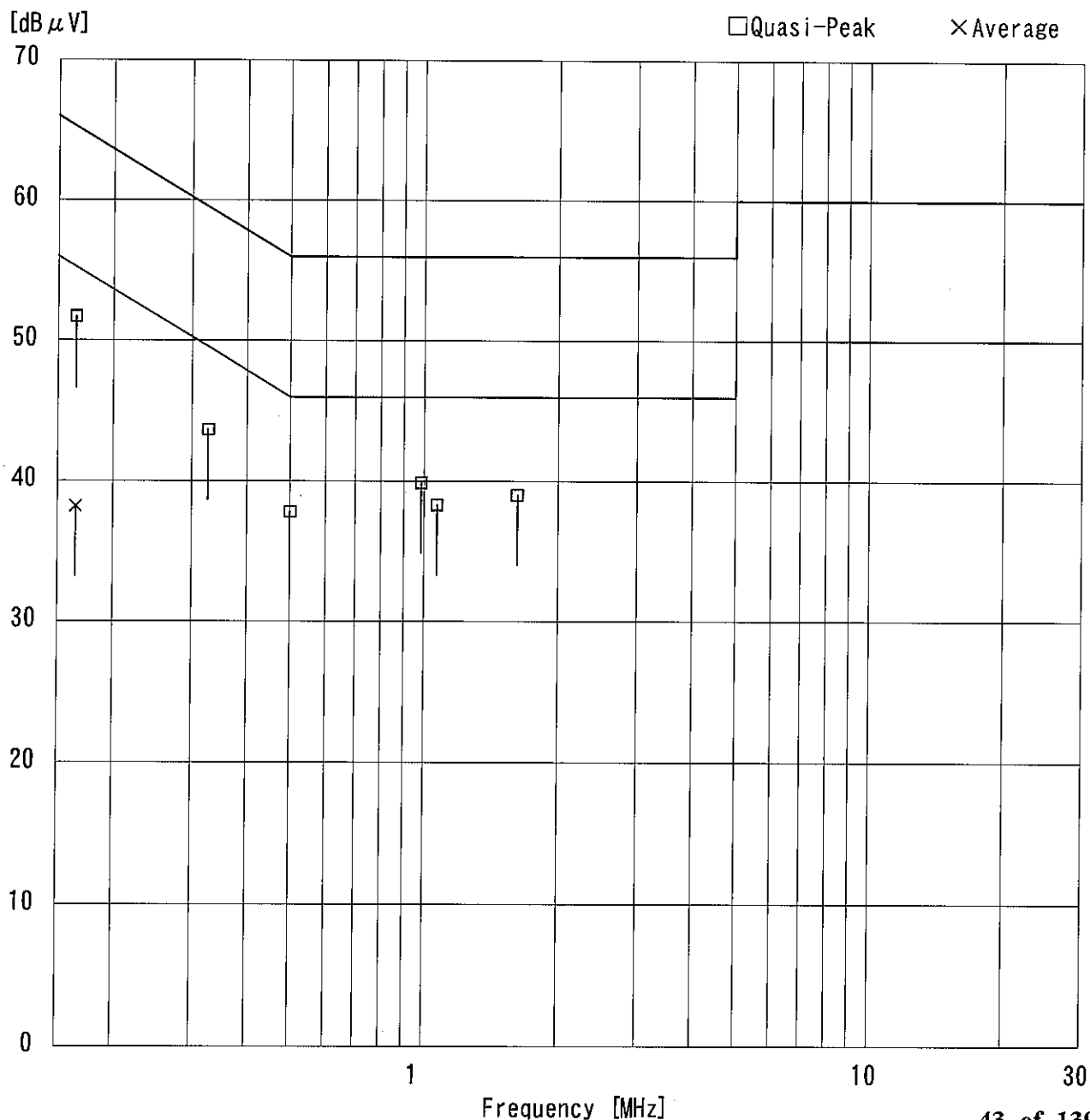
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

■ LISN :KLS-01 (NSLK8126) ■ COAXIAL CABLE:KCC-14/15/16/18  
 ■ PULSE LIMITTER:KPL-01 (PL01) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
 YAMAKITA No.1 SHIELD TEST ROOM  
 Report No. : 25LE0018-YK-5

Applicant	: BUFFALO Inc.	
Kind of Equipment	: High Speed Wireless Router	
Model No.	: WHR-HP-G54	
Serial No.	: D-01	
Power	: AC120V/60Hz	
Mode	: Transmitting:2412MHz	
Remarks	: IEEE802.11g/ANTENNA:WLE-HG-NDR	
Date	: 7/12/2005	
Phase	: Single Phase	
Temperature	: 24 °C	Engineer : Takahiro Suzuki
Humidity	: 68 %	
Regulation	: FCC Part15C § 15. 207. (CISPR Pub. 22 )	

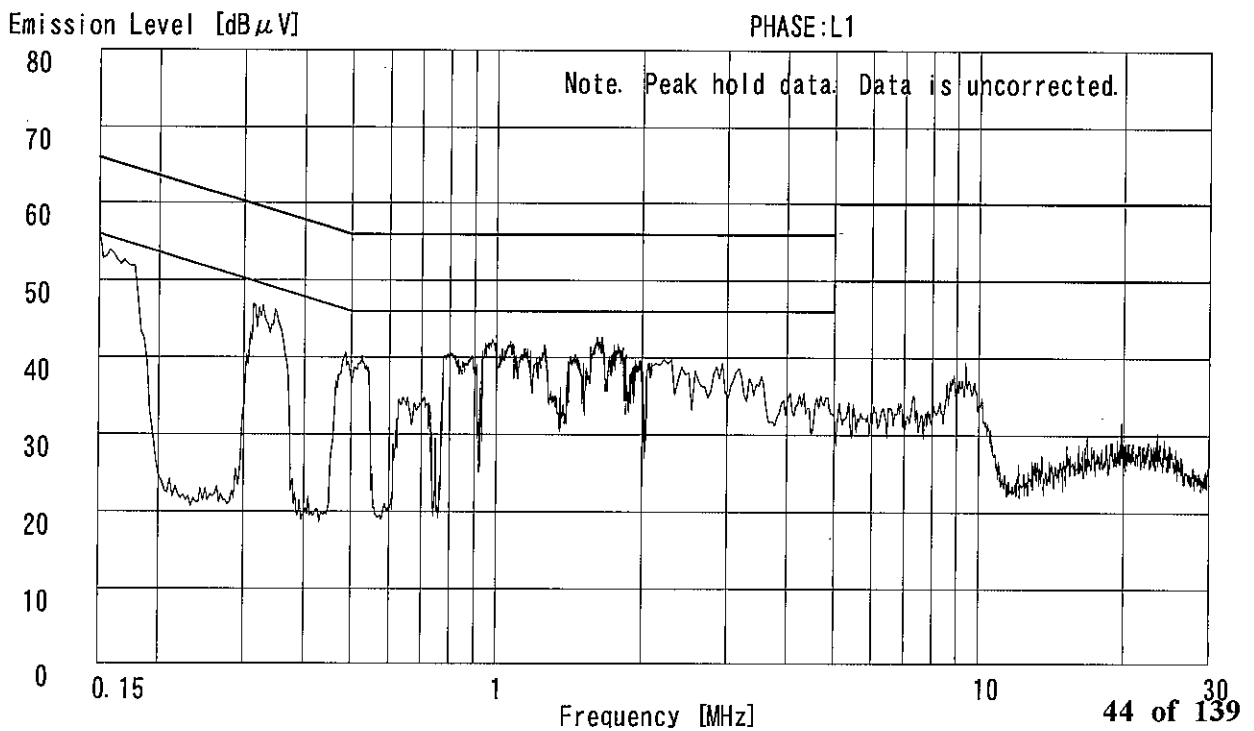
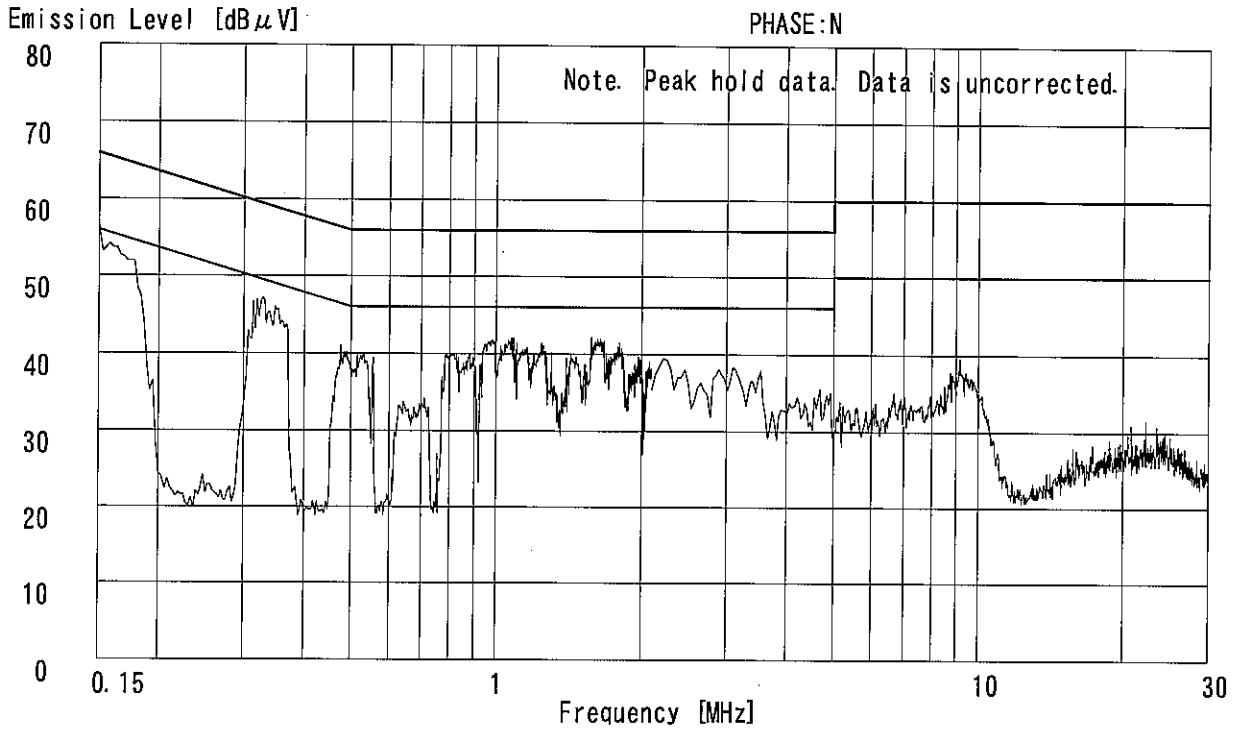


# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-HG-NDR  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C §15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki



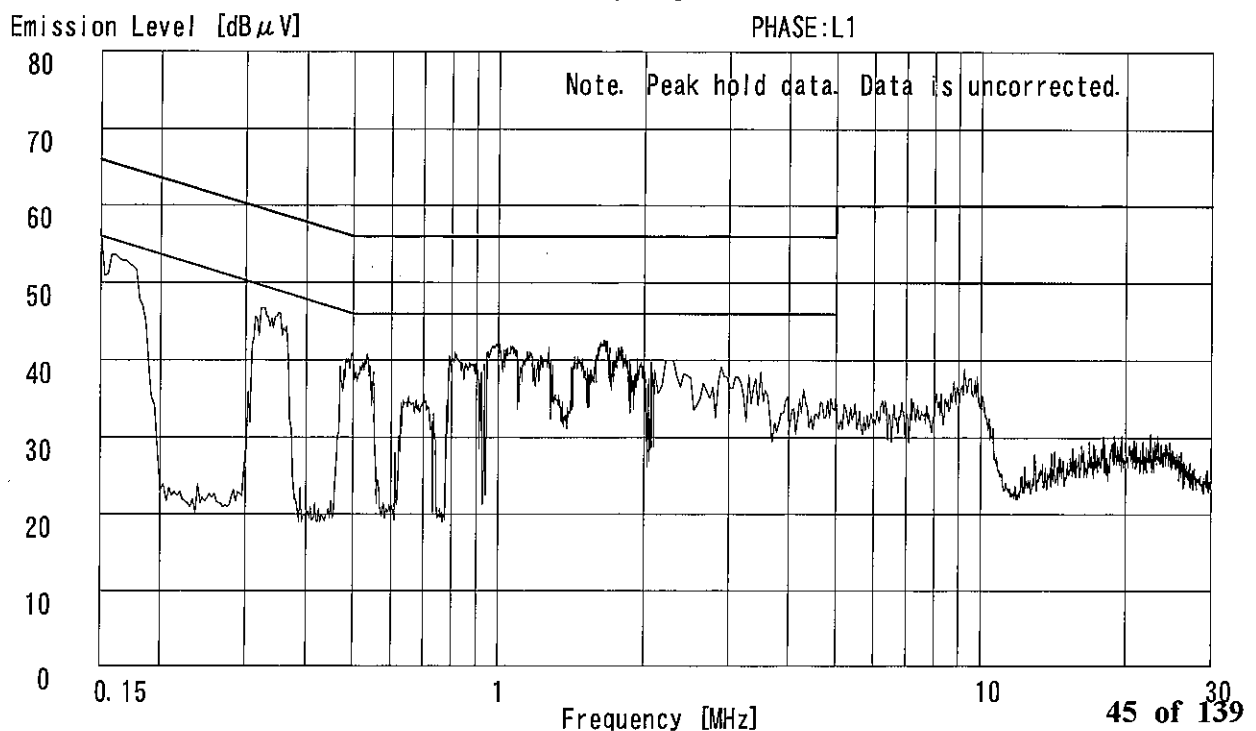
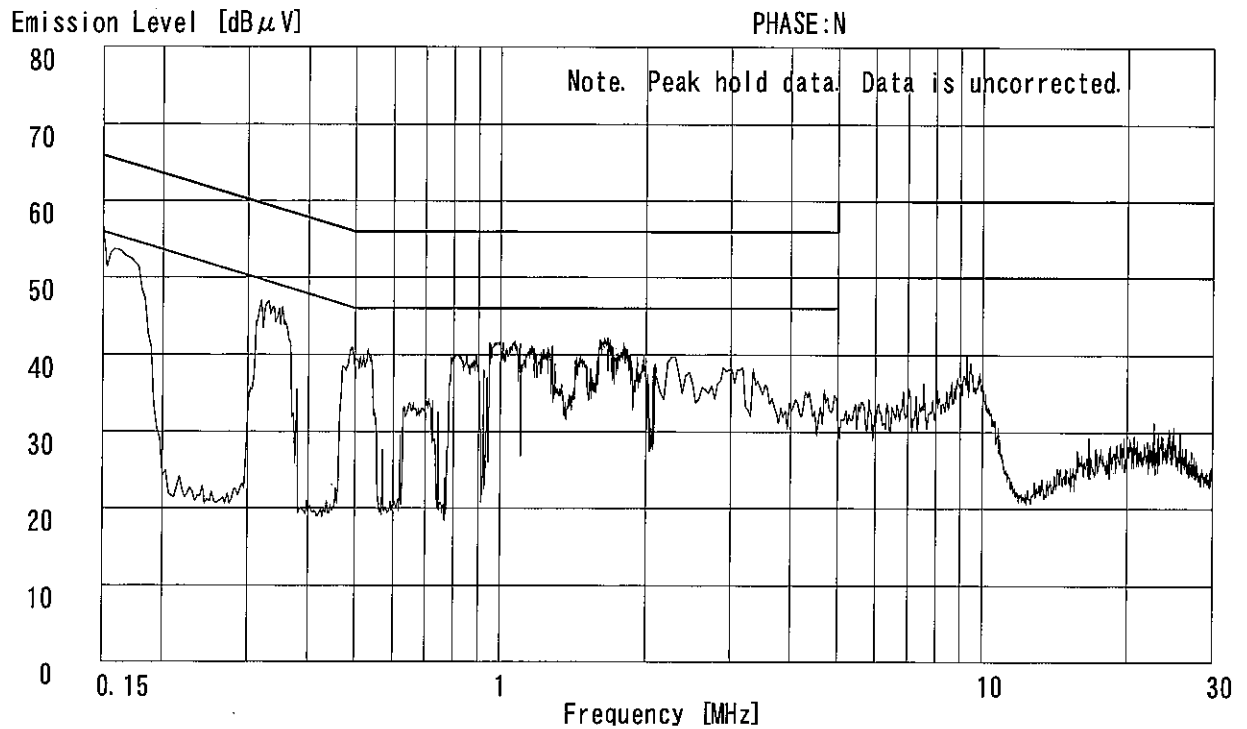
# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.

YAMAKITA No.1 SHIELD TEST ROOM

Report No. : 25LE0018-YK = 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2437MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-HG-NDR  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None  
Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST CHART

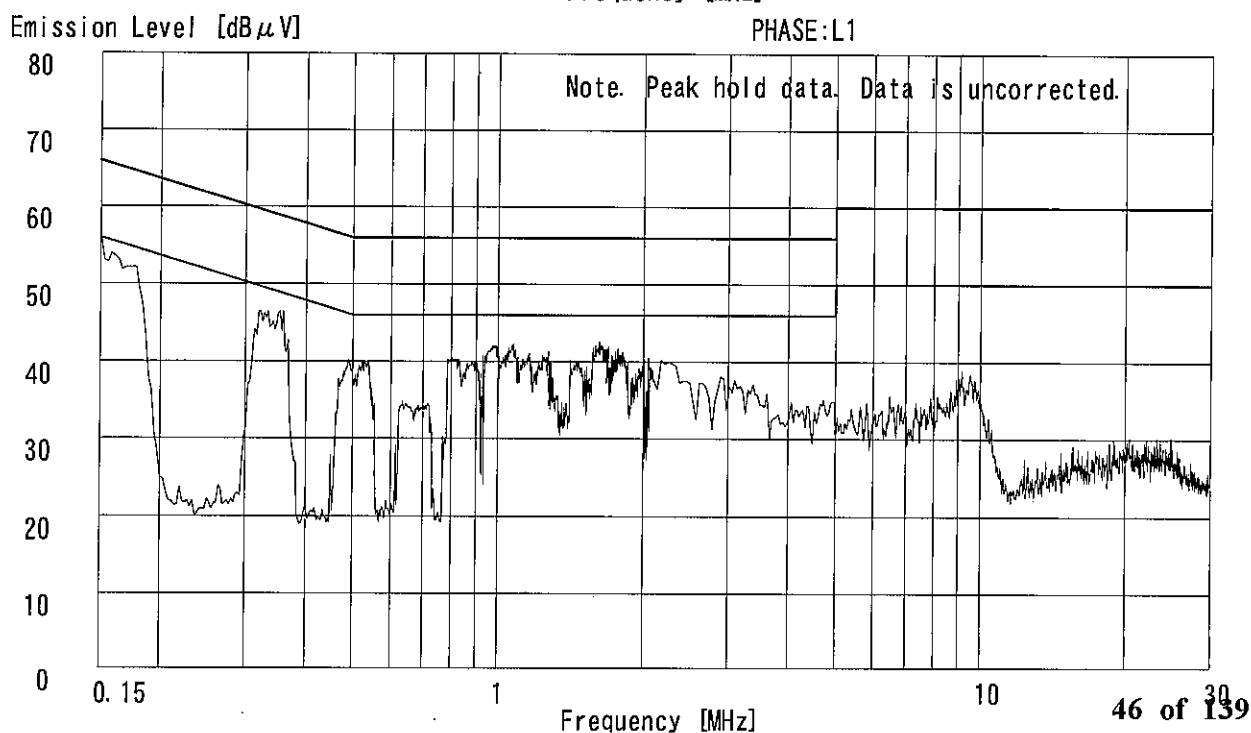
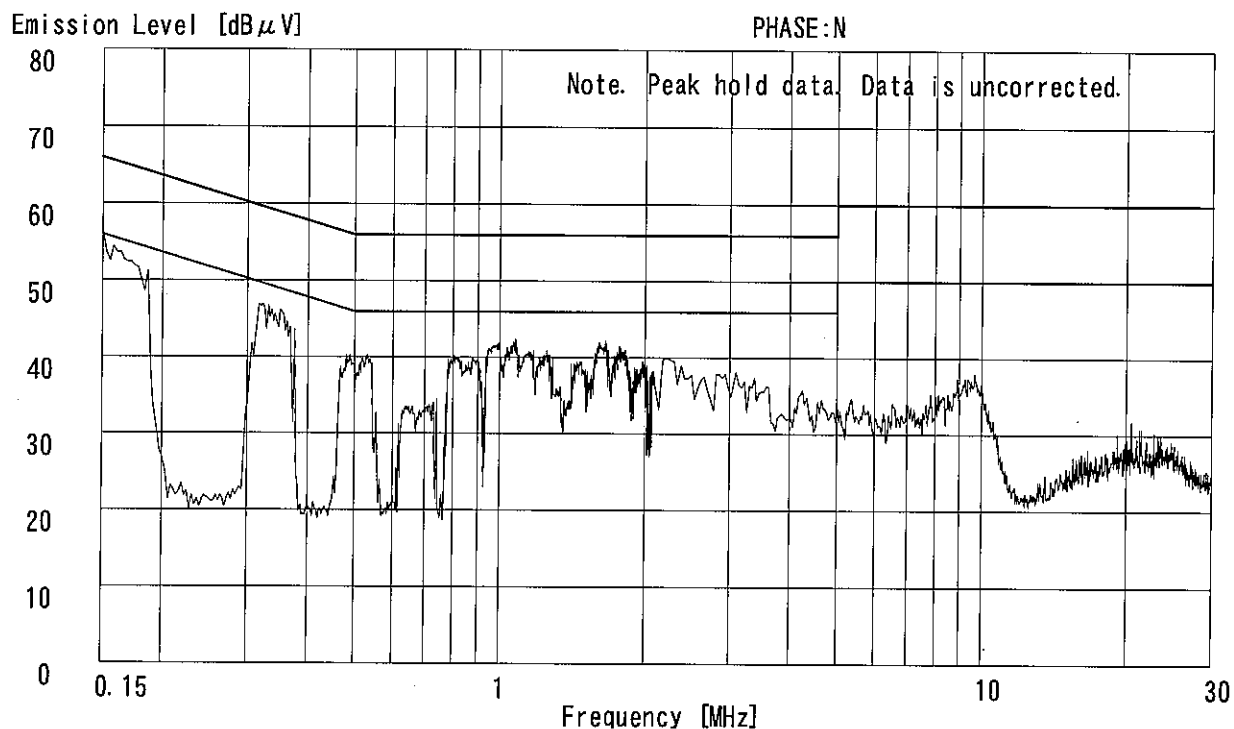
UL Apex Co.,Ltd.

YAMAKITA No.1 SHIELD TEST ROOM

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-HG-NDR  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ANTENNA:WLE-MYG  
 Date : 7/12/2005  
 Phase : Single Phase  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15. 207. (CISPR Pub. 22 )

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB μV]				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]
1.	0.1663	53.3	42.0	53.2	42.1	0.1	0.1	0.0	53.5	42.3	65.1	55.1	11.6	12.8
2.	0.3334	45.8	-	45.3	-	0.1	0.1	0.0	46.0	-	59.4	49.4	13.4	-
3.	0.5026	39.9	-	39.5	-	0.0	0.2	0.0	40.1	-	56.0	46.0	15.9	-
4.	0.9992	41.8	-	41.9	-	0.1	0.2	0.0	42.2	-	56.0	46.0	13.8	-
5.	1.1585	39.9	-	40.6	-	0.1	0.2	0.0	40.9	-	56.0	46.0	15.1	-
6.	1.6675	41.8	-	42.2	-	0.1	0.3	0.0	42.6	-	56.0	46.0	13.4	-

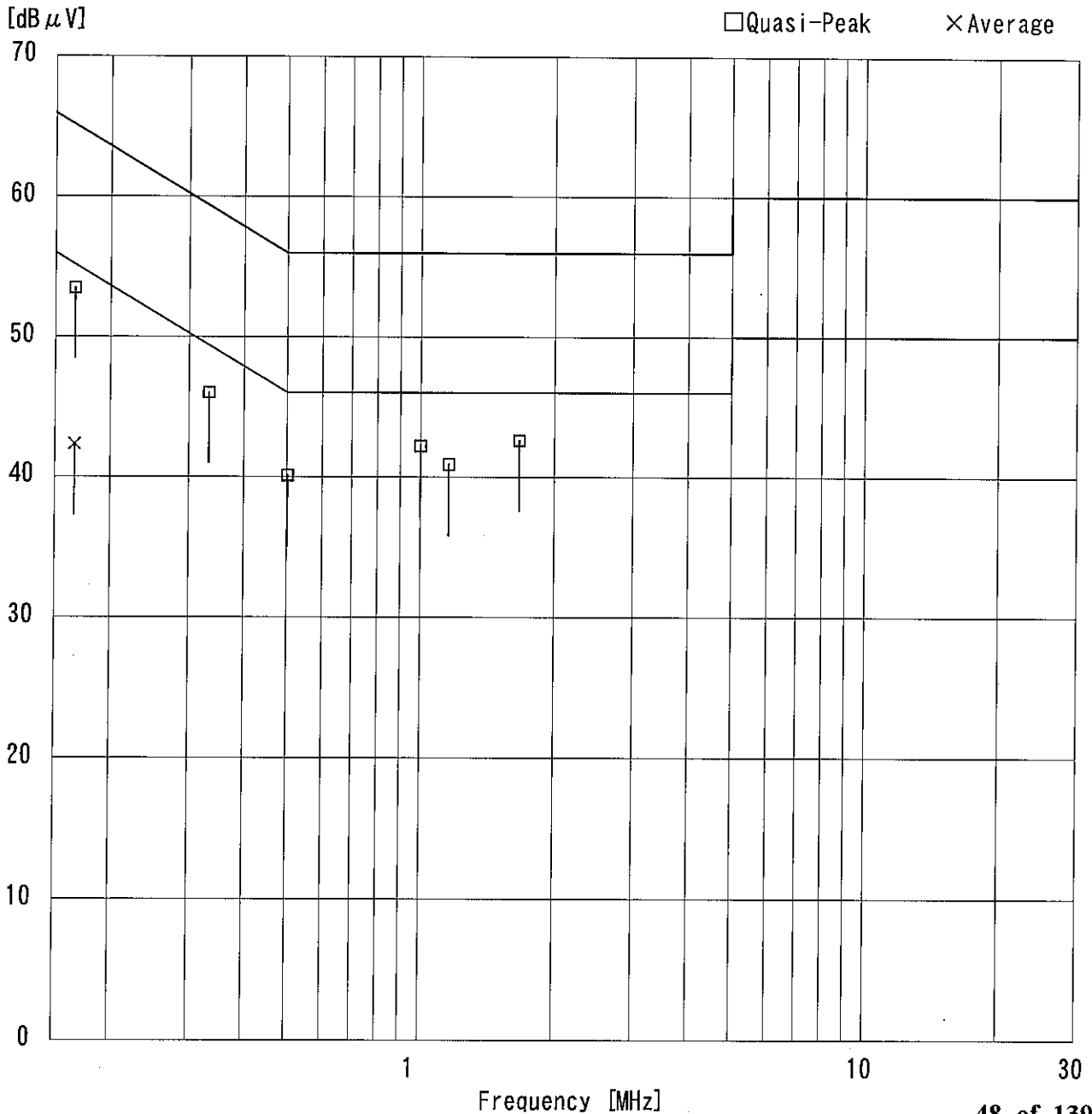
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

■ LISN :KLS-01 (NSLK8126) ■ COAXIAL CABLE:KCC-14/15/16/18  
 ■ PULSE LIMITTER:KPL-01 (PL01) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
 YAMAKITA No.1 SHIELD TEST ROOM  
 Report No. : 25LE0018-YK - 5

Applicant	: BUFFALO Inc.	
Kind of Equipment	: High Speed Wireless Router	
Model No.	: WHR-HP-G54	
Serial No.	: D-01	
Power	: AC120V/60Hz	
Mode	: Transmitting:2412MHz	
Remarks	: IEEE802.11b/ANTENNA:WLE-MYG	
Date	: 7/12/2005	
Phase	: Single Phase	
Temperature	: 24 °C	Engineer : Takahiro Suzuki
Humidity	: 68 %	
Regulation	: FCC Part15C § 15. 207. (CISPR Pub. 22 )	





# DATA OF CONDUCTION TEST CHART

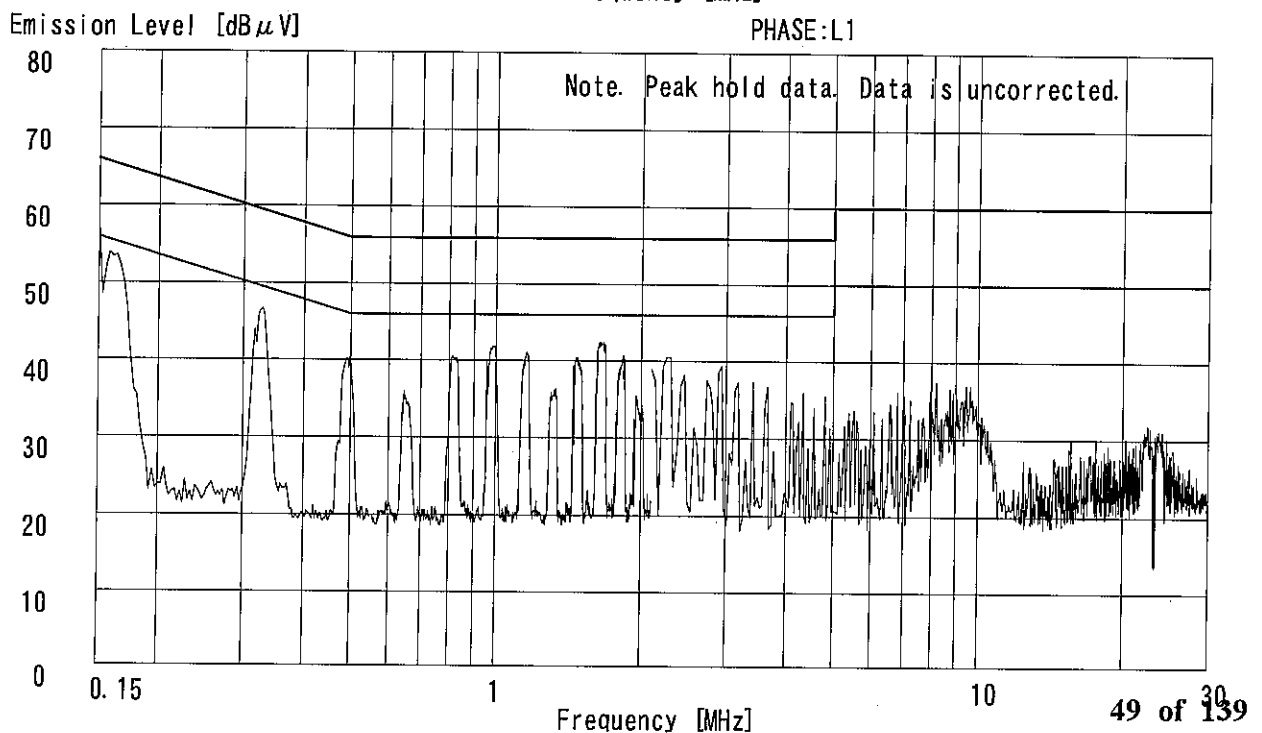
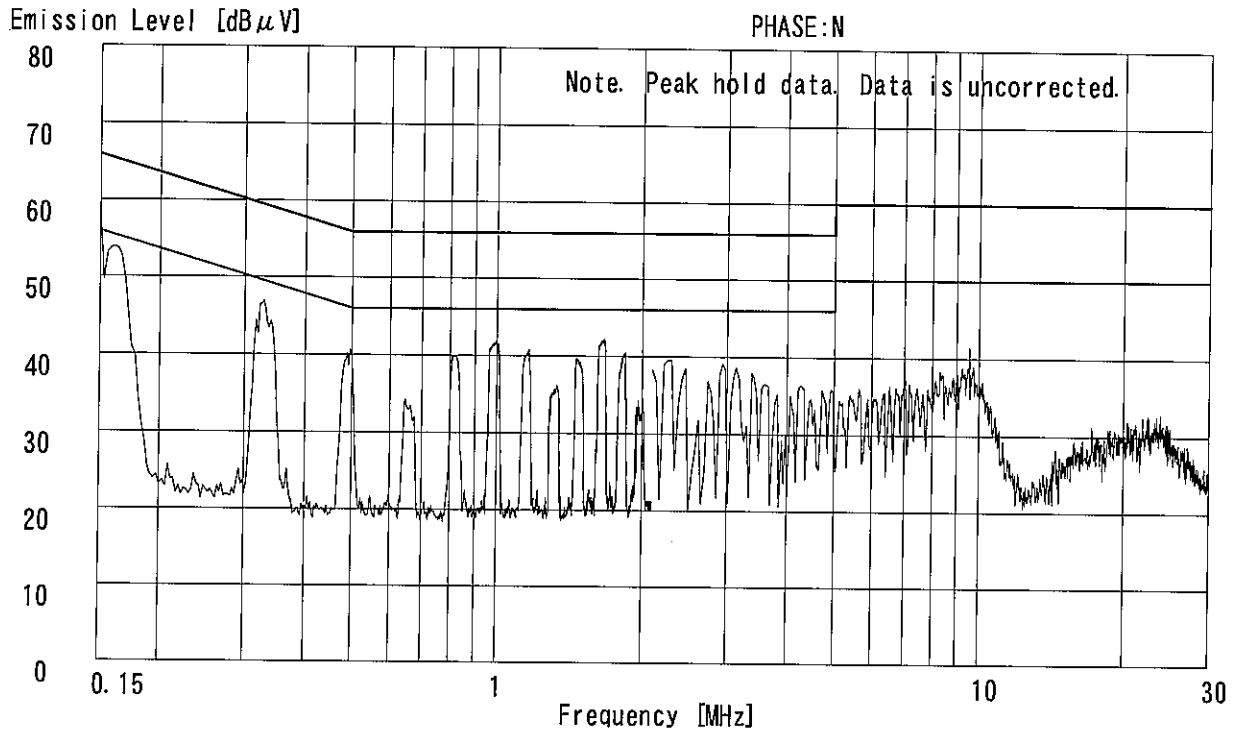
UL Apex Co.,Ltd.

YAMAKITA No.1 SHIELD TEST ROOM

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-MYG  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15. 207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.

YAMAKITA No.1 SHIELD TEST ROOM

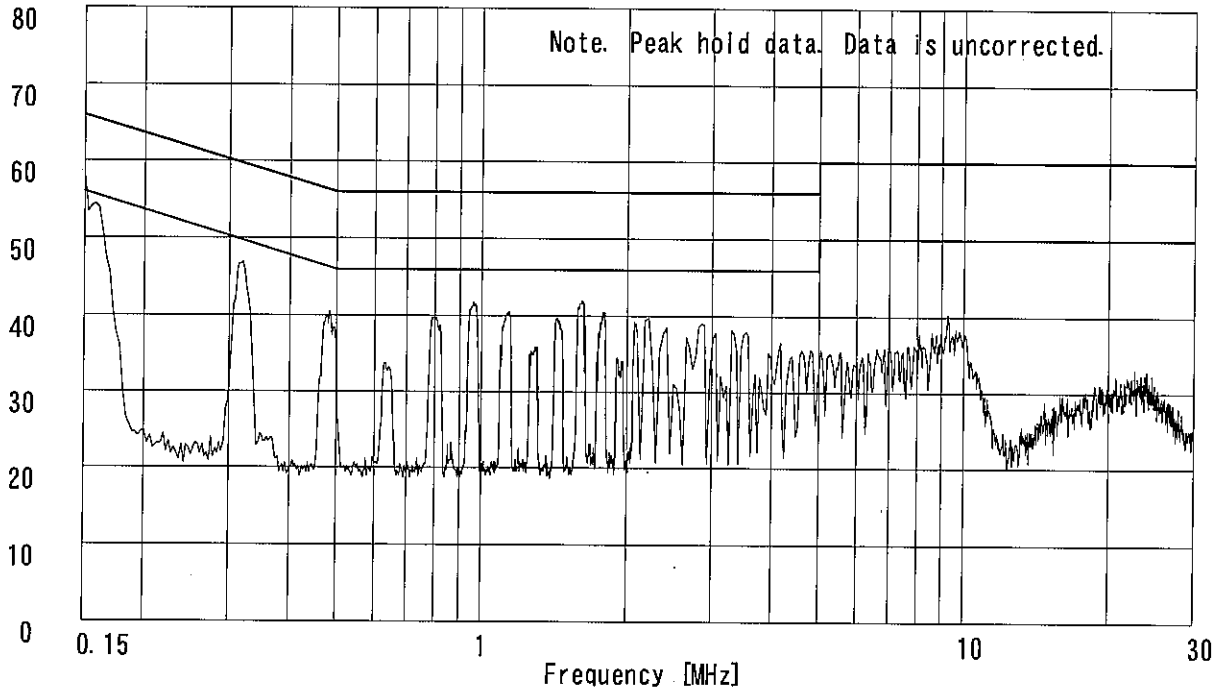
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2437MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-MYG  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki

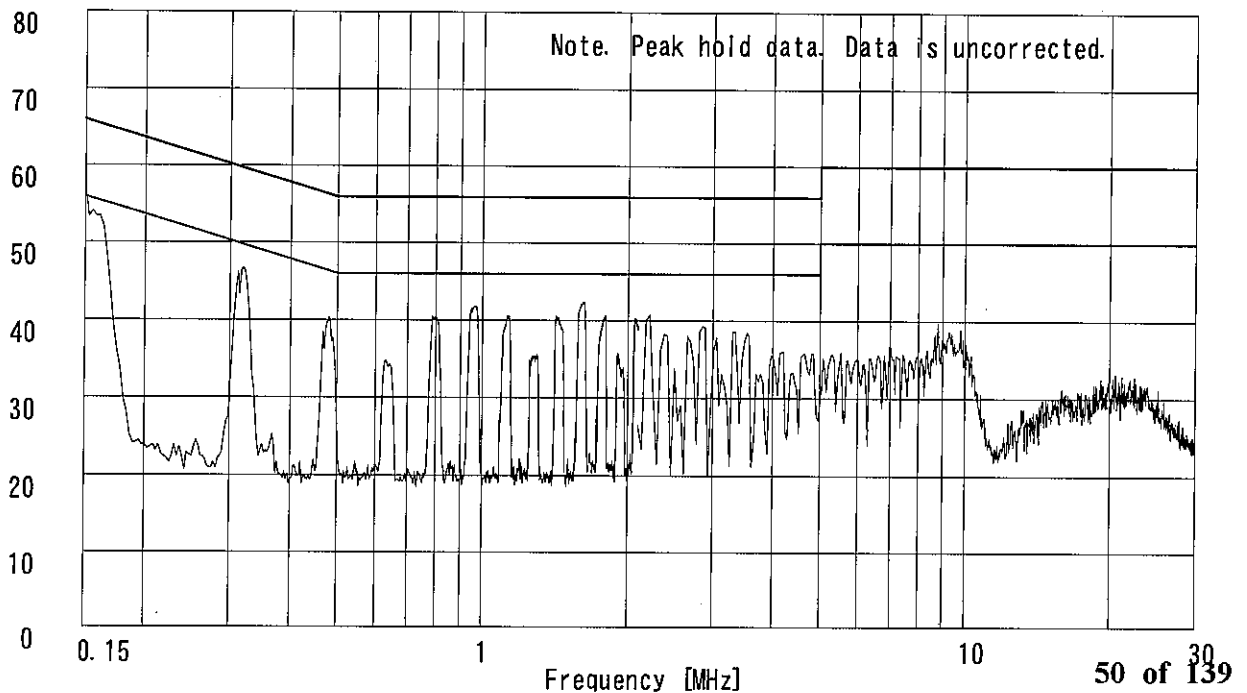
Emission Level [dB $\mu$ V]

PHASE:N



Emission Level [dB $\mu$ V]

PHASE:L1

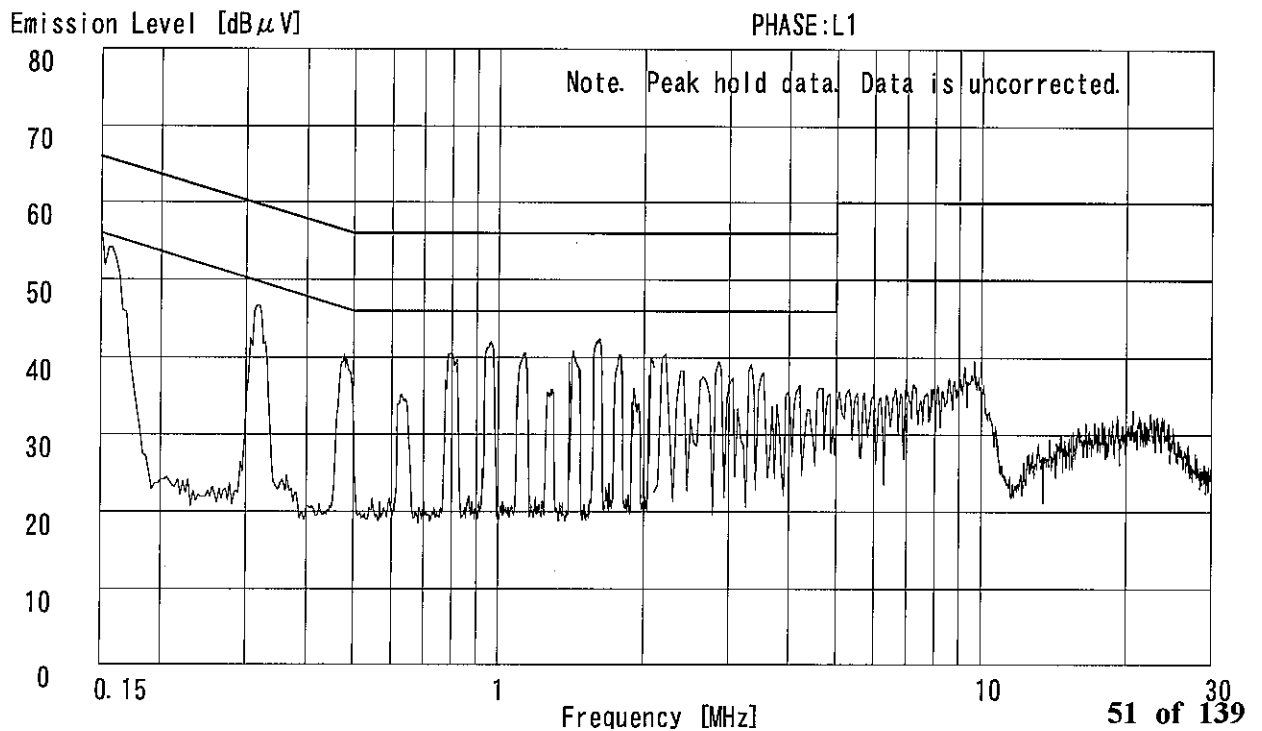
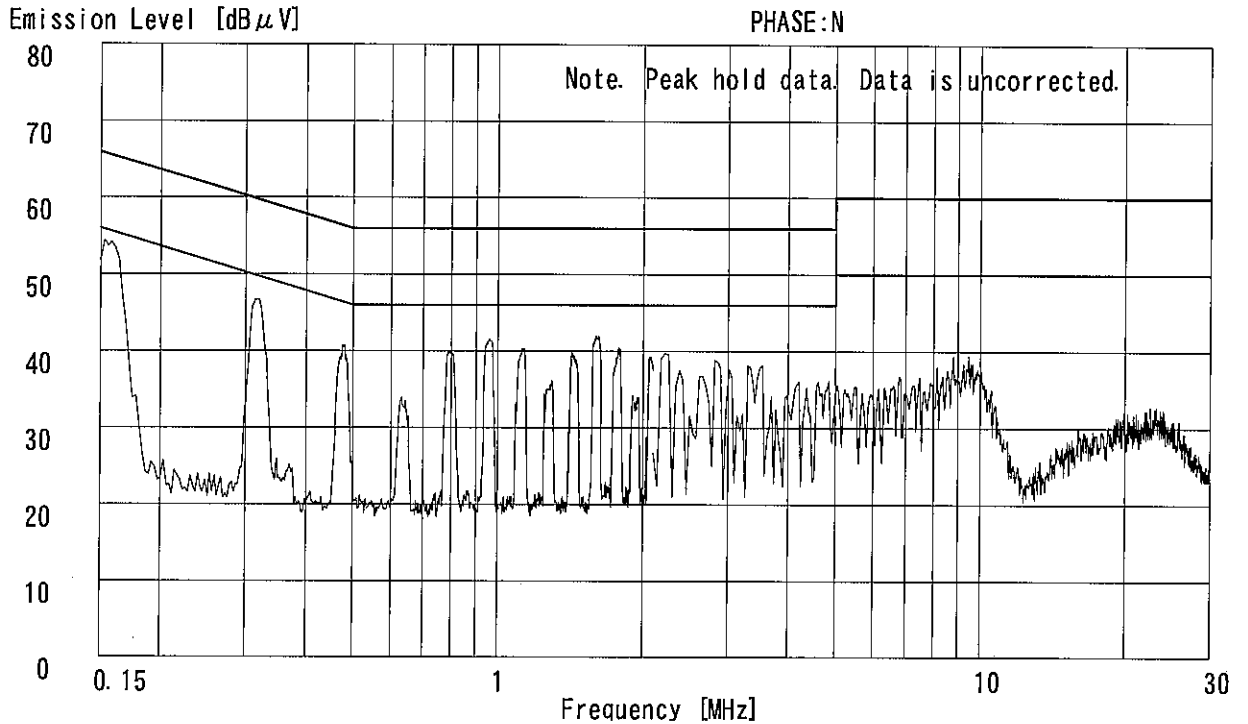


# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-MYG  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15. 207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/ANTENNA:WLE-MYG  
 Date : 7/12/2005  
 Phase : Single Phase  
 Temperature : 24 °C Engineer : Takahiro Suzuki  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.207. (CISPR Pub. 22 )

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]
1.	0.1616	51.0	-	51.1	-	0.1	0.1	0.0	51.3	-	65.4	55.4	14.1	-
2.	0.3202	42.8	-	43.0	-	0.1	0.1	0.0	43.2	-	59.7	49.7	16.5	-
3.	0.5325	36.5	-	36.0	-	0.0	0.2	0.0	36.7	-	56.0	46.0	19.3	-
4.	0.9632	38.9	-	39.4	-	0.1	0.2	0.0	39.7	-	56.0	46.0	16.3	-
5.	1.1075	36.6	-	36.4	-	0.1	0.2	0.0	36.9	-	56.0	46.0	19.1	-
6.	1.5930	37.9	-	37.8	-	0.1	0.3	0.0	38.3	-	56.0	46.0	17.7	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

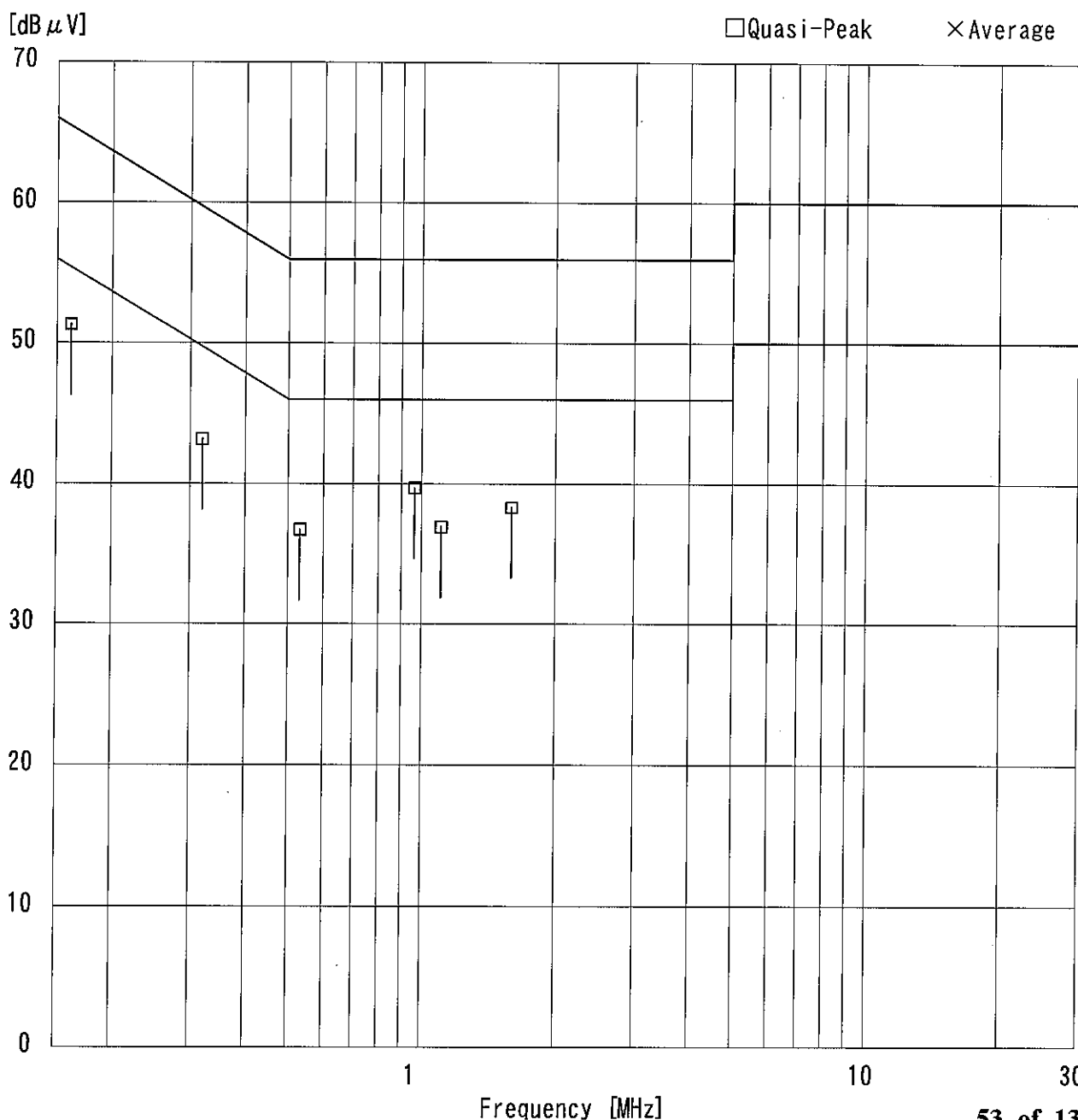
■ LISN :KLS-01 (NSLK8126) ■ COAXIAL CABLE:KCC-14/15/16/18  
 ■ PULSE LIMITTER:KPL-01 (PL01) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-MYG  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation : FCC Part15C § 15.207. (CISPR Pub. 22 )

Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST CHART

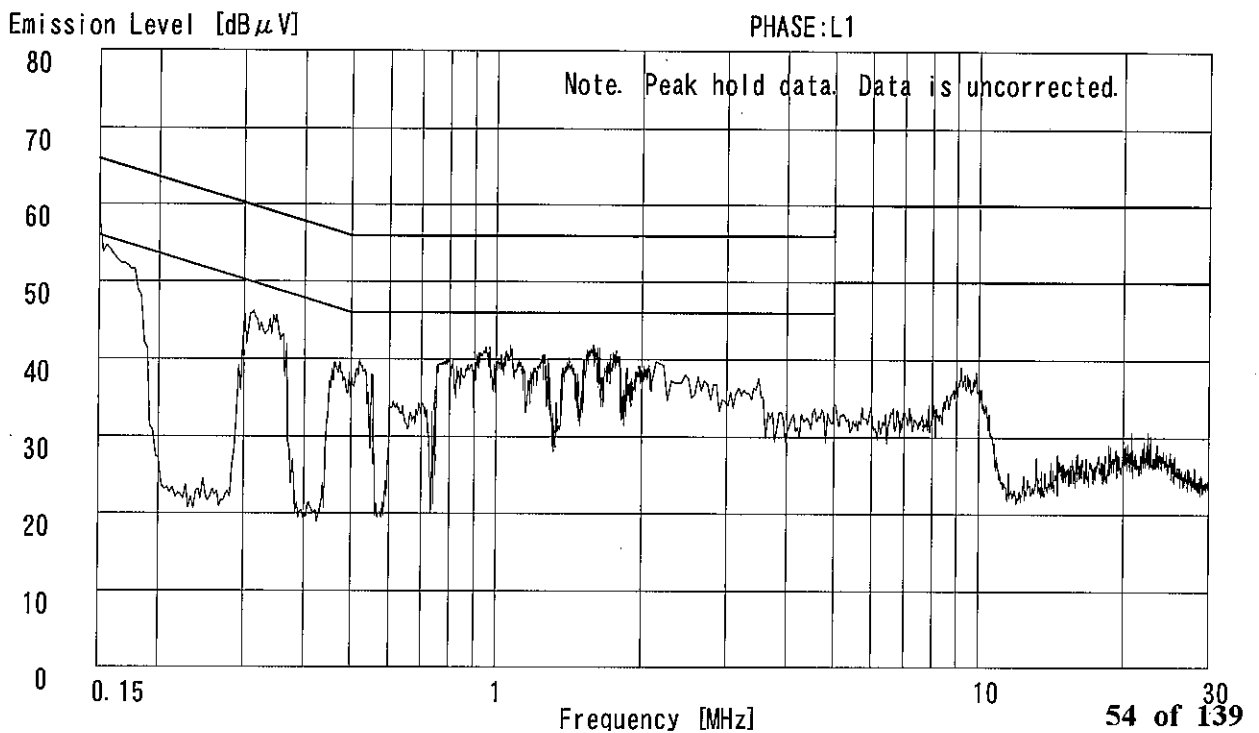
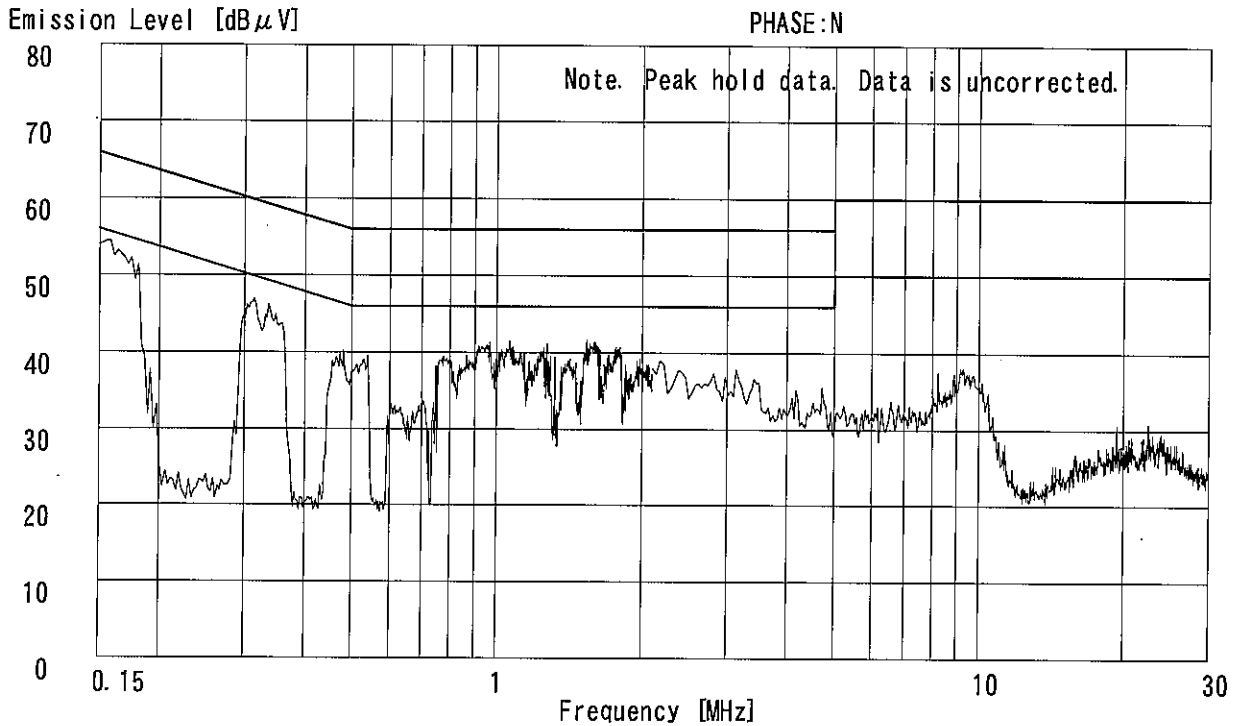
UL Apex Co.,Ltd.

YAMAKITA No.1 SHIELD TEST ROOM

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-MYG  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki



# DATA OF CONDUCTION TEST CHART

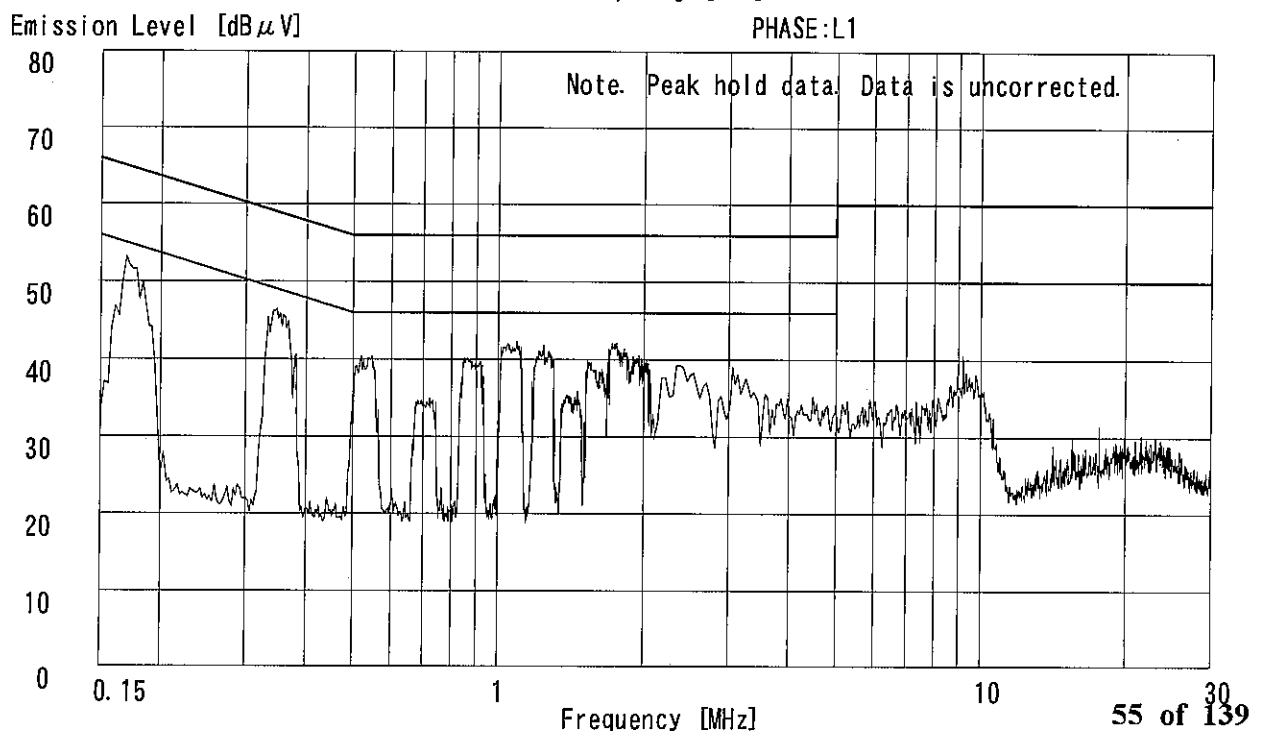
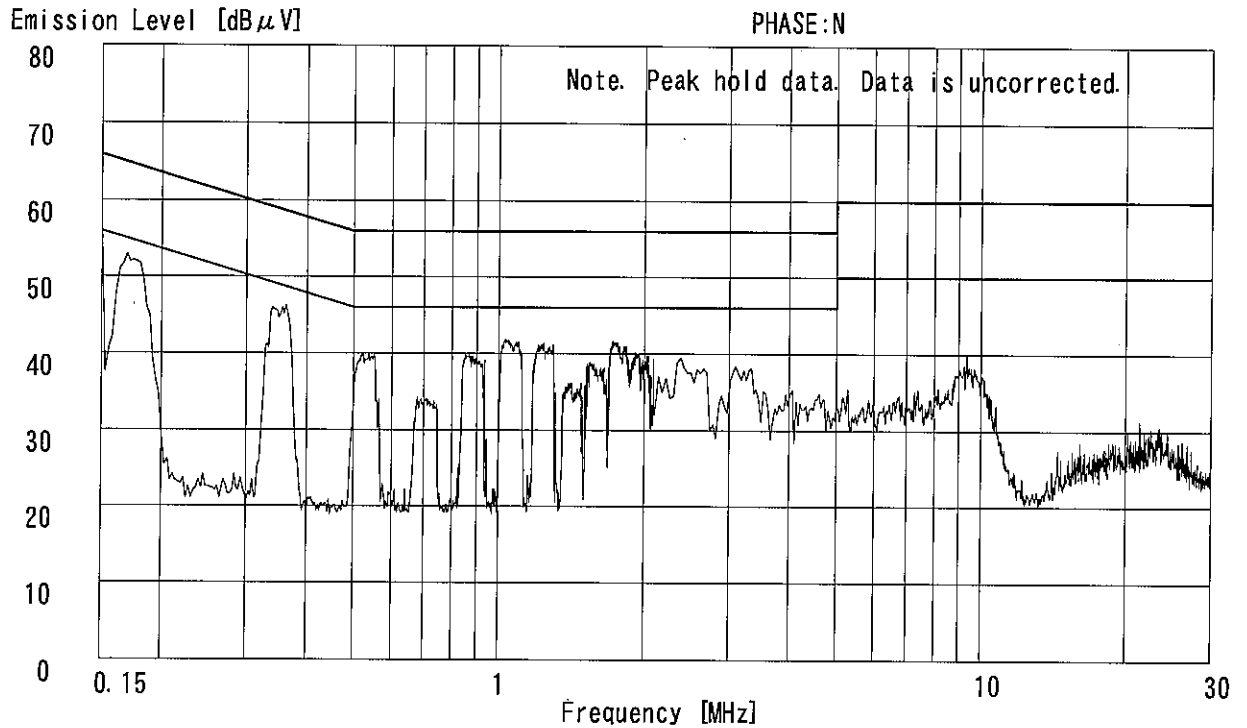
UL Apex Co.,Ltd.

YAMAKITA No.1 SHIELD TEST ROOM

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2437MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-MYG  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki

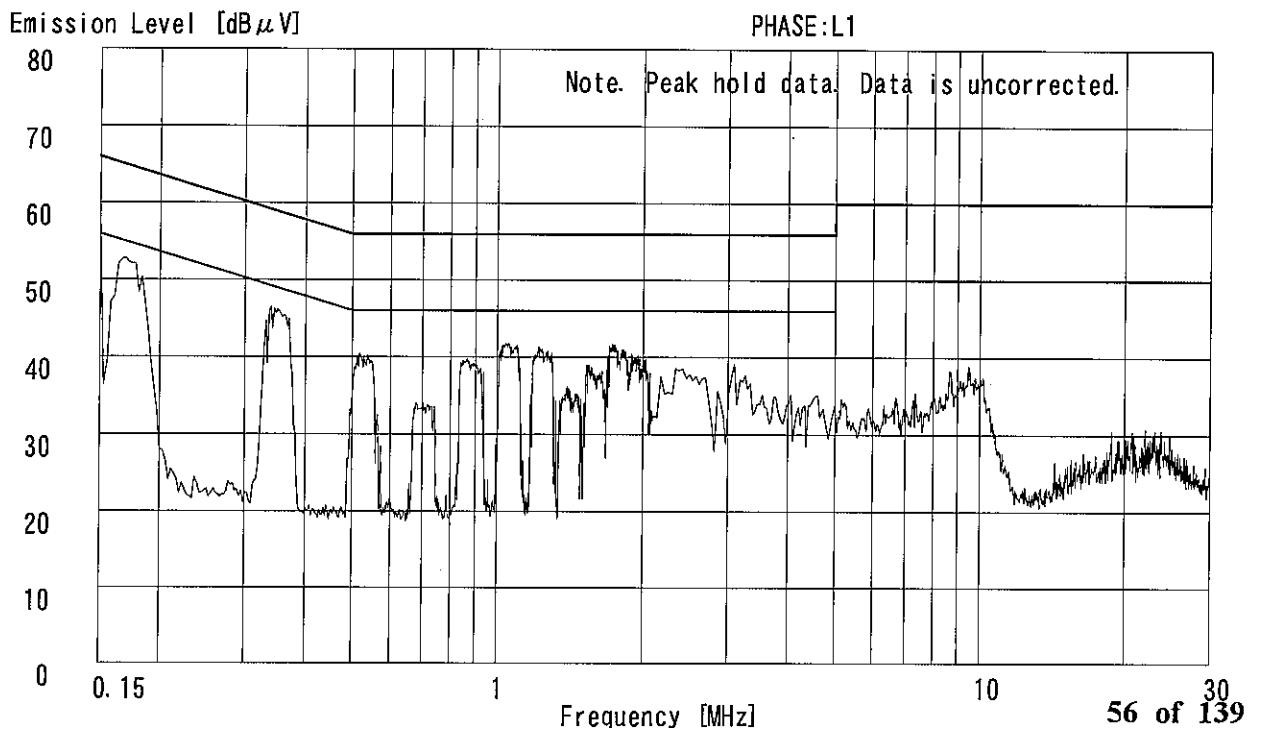
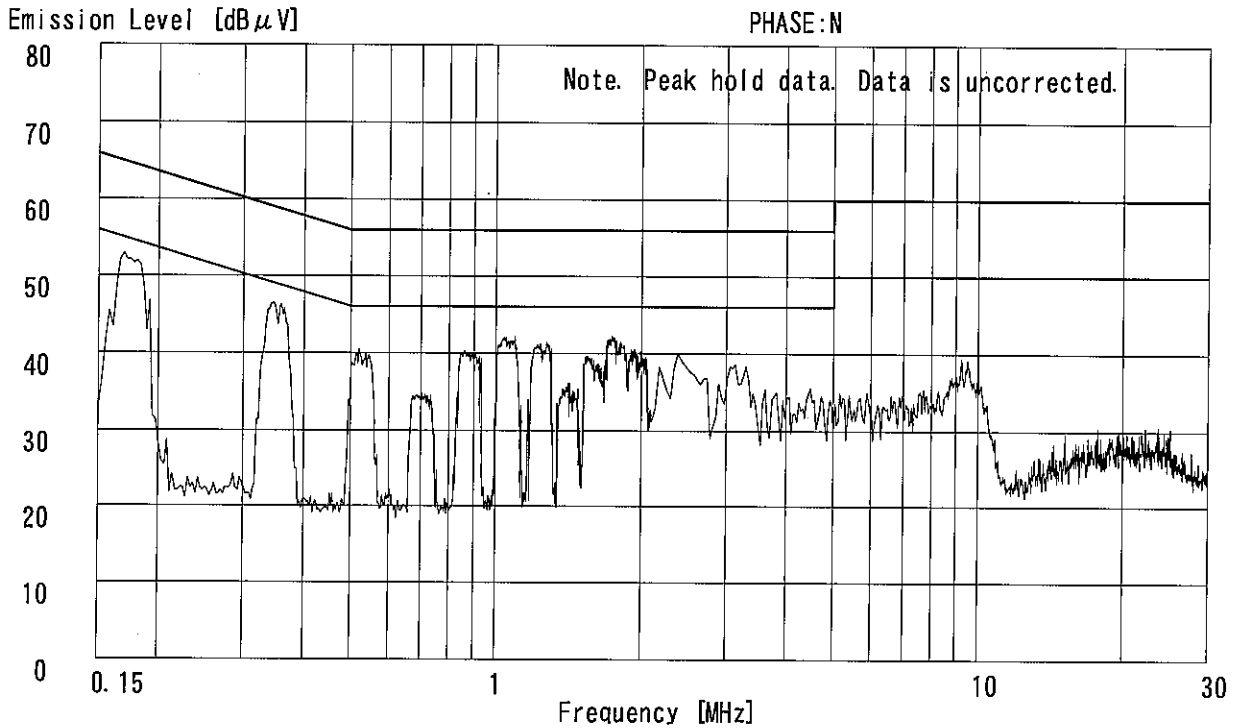


# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.1 SHIELD TEST ROOM  
Report No. : 25LE0018-YK ~ 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-MYG  
Date : 7/12/2005  
Phase : Single Phase  
Temperature : 24 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15. 207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Takahiro Suzuki





# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.3 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ANTENNA:WLE-AT-DAC  
 Date : 9/9/2005  
 Phase : Single Phase  
 Temperature : 22 °C Engineer : Toyokazu Imamura  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.207. (CISPR Pub. 22 )

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV [dB μV]	QP [dB μV]	AV [dB μV]				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]
1.	0.1504	52.8	33.9	53.0	35.1	0.1	0.1	0.0	53.2	35.3	66.0	56.0	12.8	20.7
2.	0.2888	43.0	26.3	43.3	29.0	0.1	0.1	0.0	43.5	29.2	60.6	50.6	17.1	21.4
3.	0.4340	31.0	-	32.7	-	0.1	0.2	0.0	33.0	-	57.2	47.2	24.2	-
4.	0.5736	24.6	-	25.4	-	0.1	0.2	0.0	25.7	-	56.0	46.0	30.3	-
5.	0.7223	26.6	-	25.6	-	0.1	0.2	0.0	26.9	-	56.0	46.0	29.1	-
6.	0.8693	26.0	-	25.8	-	0.1	0.2	0.0	26.3	-	56.0	46.0	29.7	-

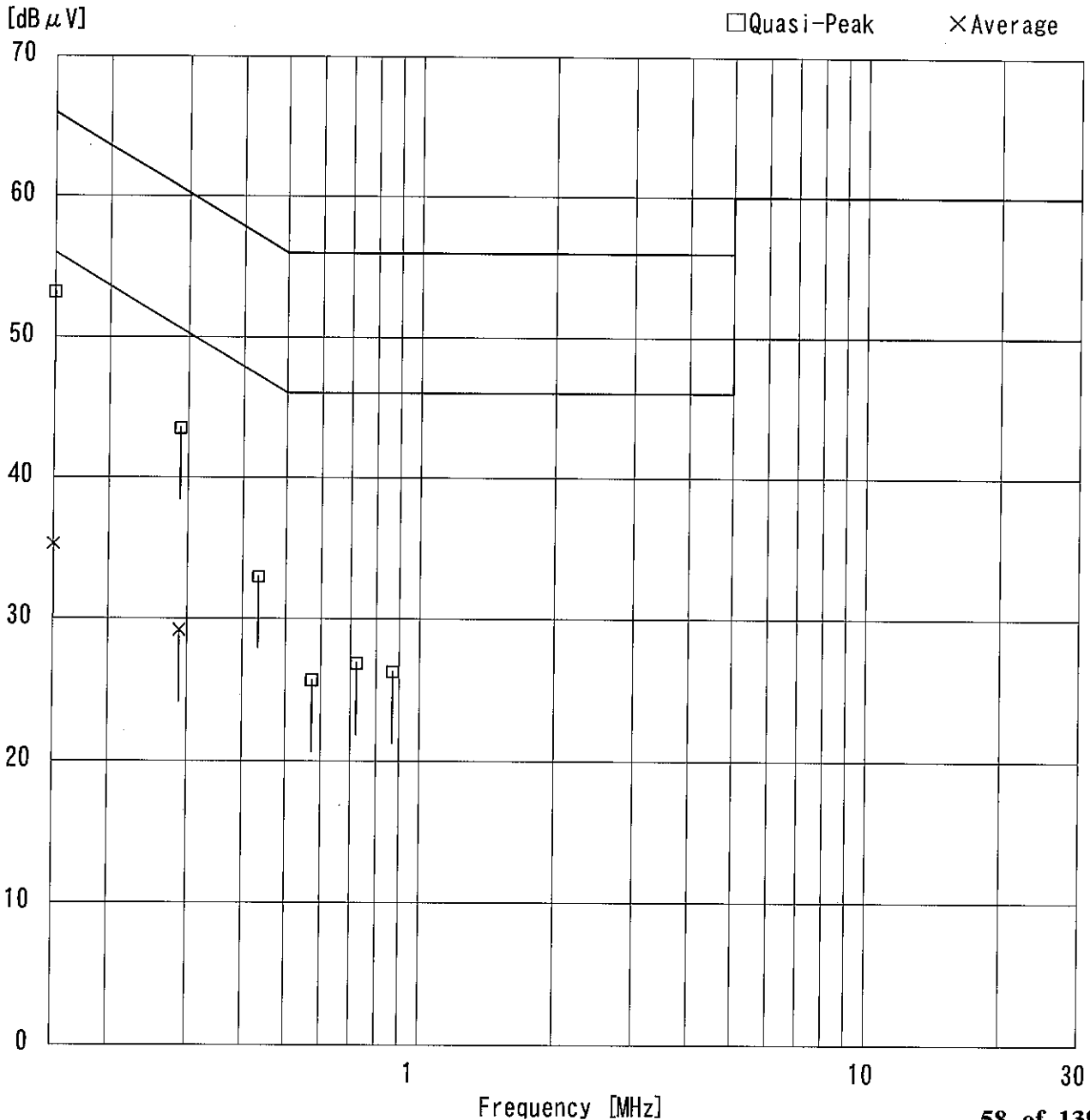
CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

■ LISN:KLS-05 (NSLK8126) ■ COAXIAL CABLE:KCC-24/25/26/28  
 ■ PULSE LIMITTER:KPL-02 ■ EMI RECEIVER:KTR-03 (ESHS10)

# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.3 SHIELD TEST ROOM  
Report No. : 25LE0018-YK-5

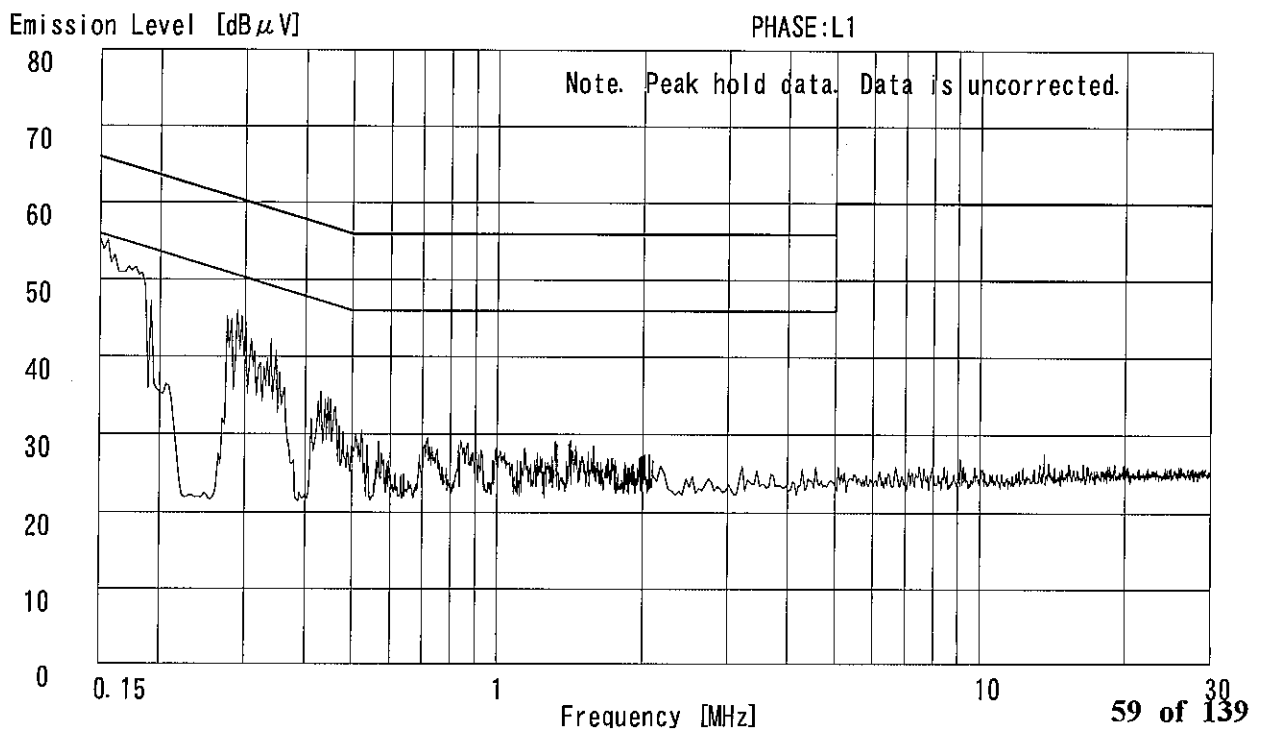
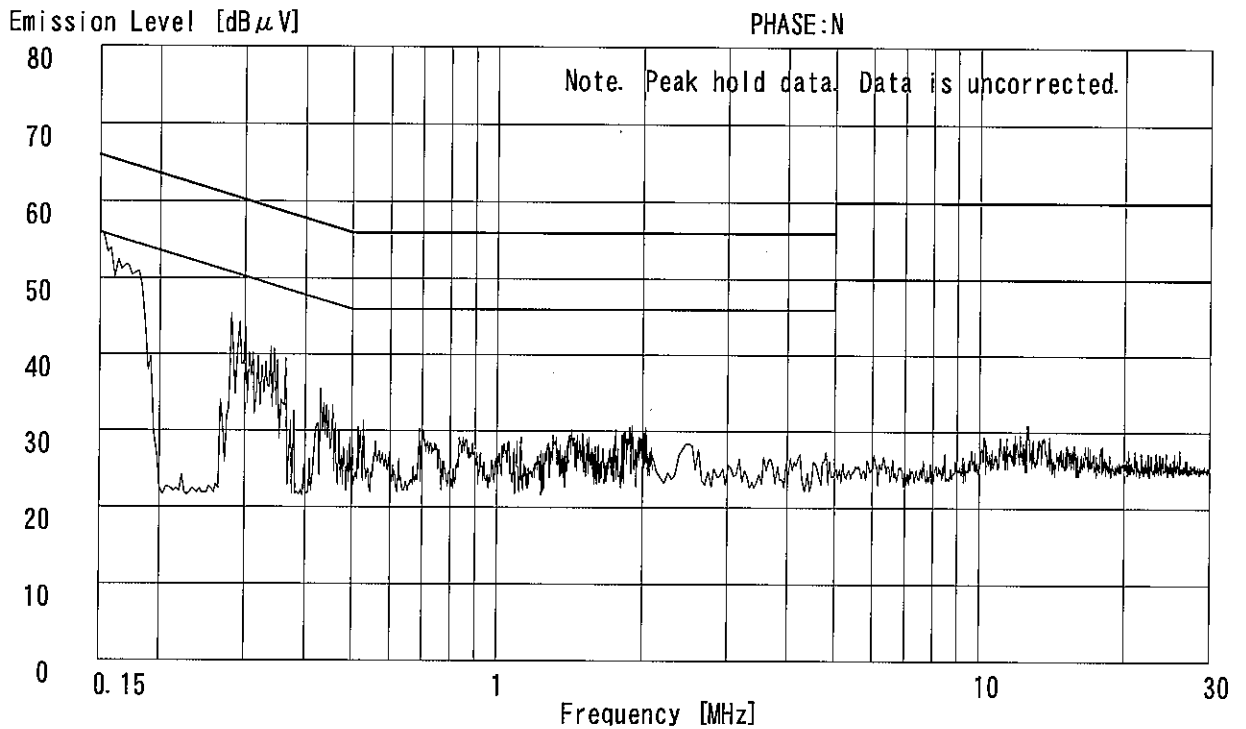
Applicant	: BUFFALO Inc.	
Kind of Equipment	: High Speed Wireless Router	
Model No.	: WHR-HP-G54	
Serial No.	: D-01	
Power	: AC120V/60Hz	
Mode	: Transmitting:2412MHz	
Remarks	: IEEE802.11b/ANTENNA:WLE-AT-DAC	
Date	: 9/9/2005	
Phase	: Single Phase	
Temperature	: 22 °C	Engineer : Toyokazu Imamura
Humidity	: 68 %	
Regulation	: FCC Part15C § 15.207. (CISPR Pub. 22 )	



# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.3 SHIELD TEST ROOM  
Report No. : 25LE0018-YK = 5

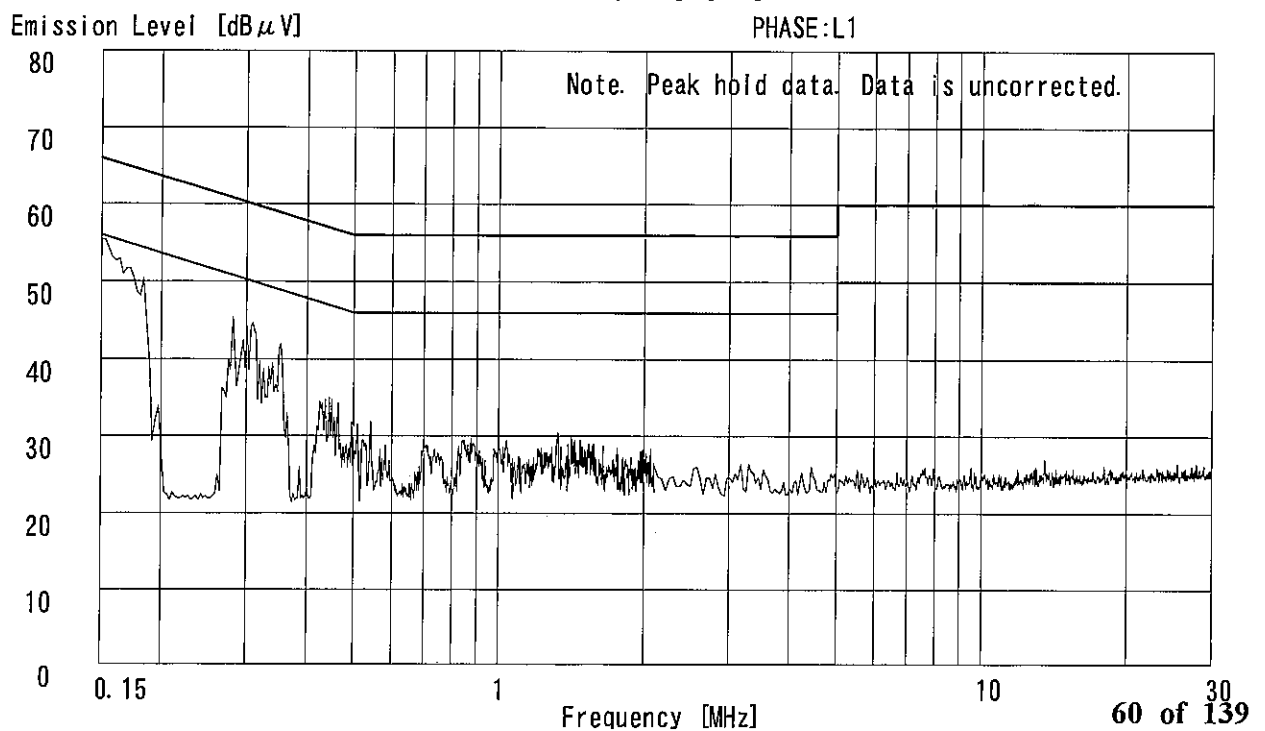
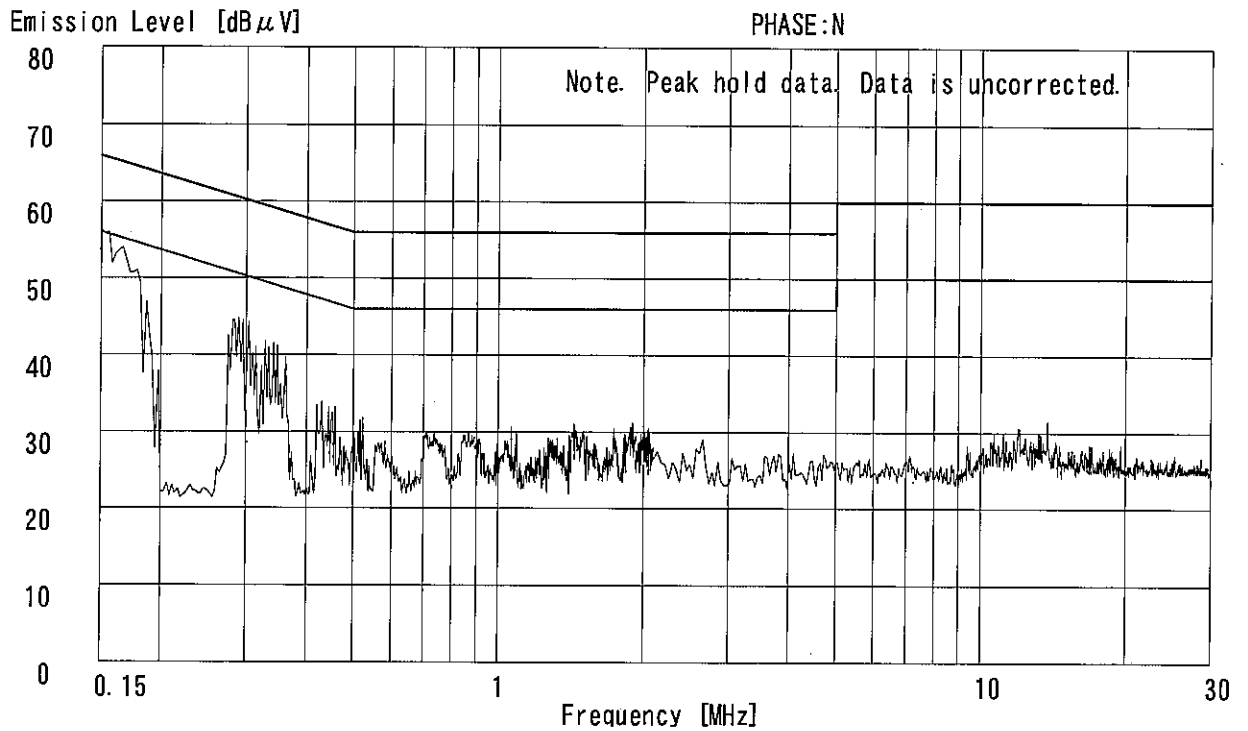
Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-AT-DAC  
Date : 9/9/2005  
Phase : Single Phase  
Temperature : 22 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15. 207. (CISPR Pub. 22 )  
Regulation 2 : None  
Engineer : Toyokazu Imamura



# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.3 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2437MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-AT-DAC  
Date : 9/9/2005  
Phase : Single Phase  
Temperature : 22 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C § 15.207. (CISPR Pub. 22 )  
Regulation 2 : None  
Engineer : Toyokazu Imamura



# DATA OF CONDUCTION TEST CHART

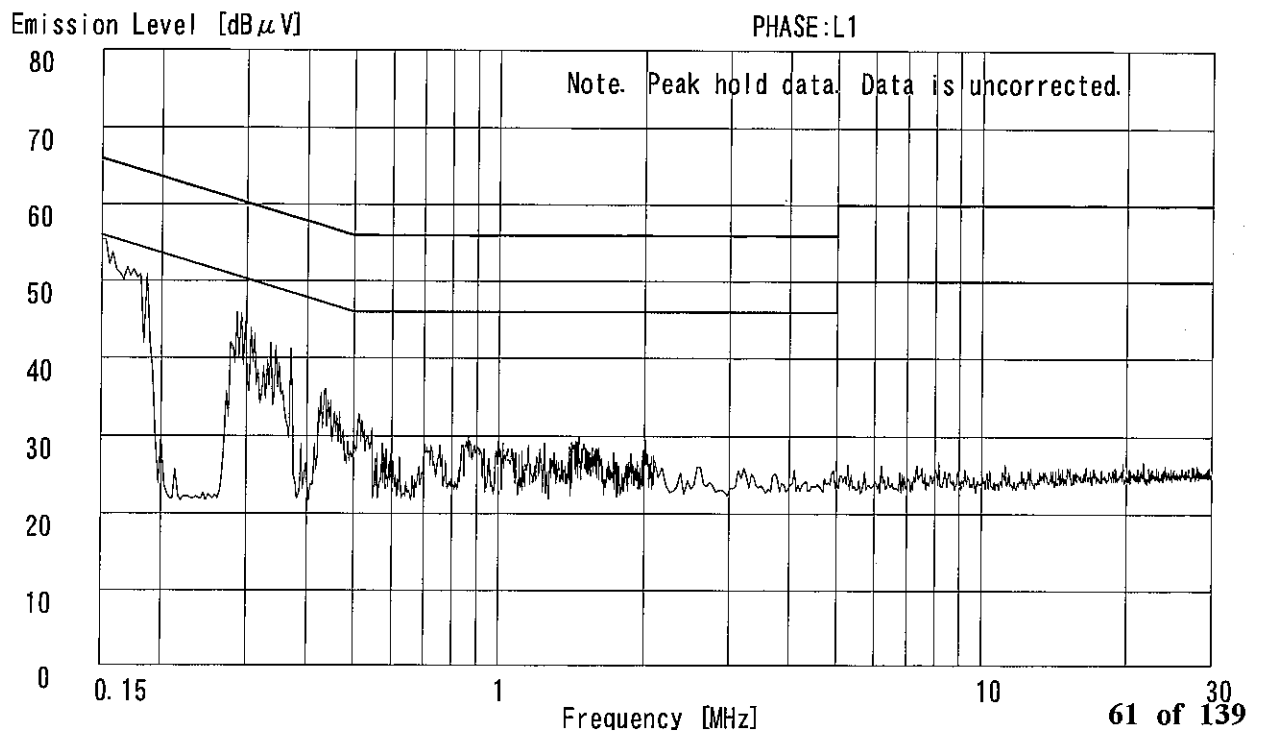
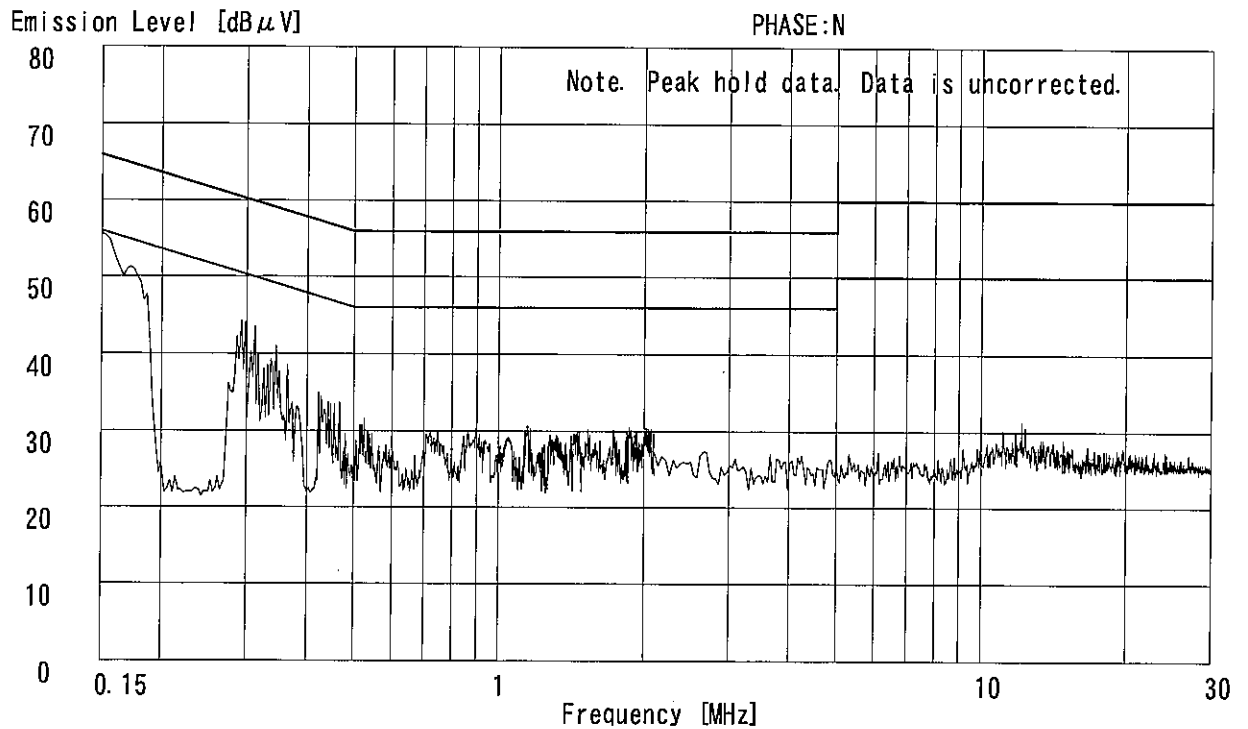
UL Apex Co.,Ltd.

YAMAKITA No.3 SHIELD TEST ROOM

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE802.11b/ANTENNA:WLE-AT-DAC  
Date : 9/9/2005  
Phase : Single Phase  
Temperature : 22 °C  
Humidity : 68 %  
Regulation 1 : FCC Part15C §15.207. (CISPR Pub. 22 )  
Regulation 2 : None

Engineer : Toyokazu Imamura



# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.3 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/ANTENNA:WLE-AT-DAC  
 Date : 9/9/2005  
 Phase : Single Phase  
 Temperature : 22 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.207. (CISPR Pub. 22 )

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	READING (N)		READING (L1)		LISN FACTOR [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
		QP [dB μV]	AV	QP [dB μV]	AV				QP [dB]	AV [dB μV]	QP [dB μV]	AV [dB μV]	QP [dB]	AV [dB]
1.	0.1890	49.2	33.0	49.8	35.9	0.1	0.1	0.0	50.0	36.1	64.1	54.1	14.1	18.0
2.	0.3845	37.9	-	38.8	-	0.1	0.2	0.0	39.1	-	58.2	48.2	19.1	-
3.	0.5717	28.0	-	29.6	-	0.1	0.2	0.0	29.9	-	56.0	46.0	26.1	-
4.	0.9580	26.7	-	25.7	-	0.1	0.2	0.0	27.0	-	56.0	46.0	29.0	-
5.	1.3418	27.7	-	27.8	-	0.1	0.3	0.0	28.2	-	56.0	46.0	27.8	-
6.	1.5214	21.1	-	23.5	-	0.1	0.3	0.0	23.9	-	56.0	46.0	32.1	-

CALCULATION: READING + LISN FACTOR + CABLE LOSS + ATTEN.

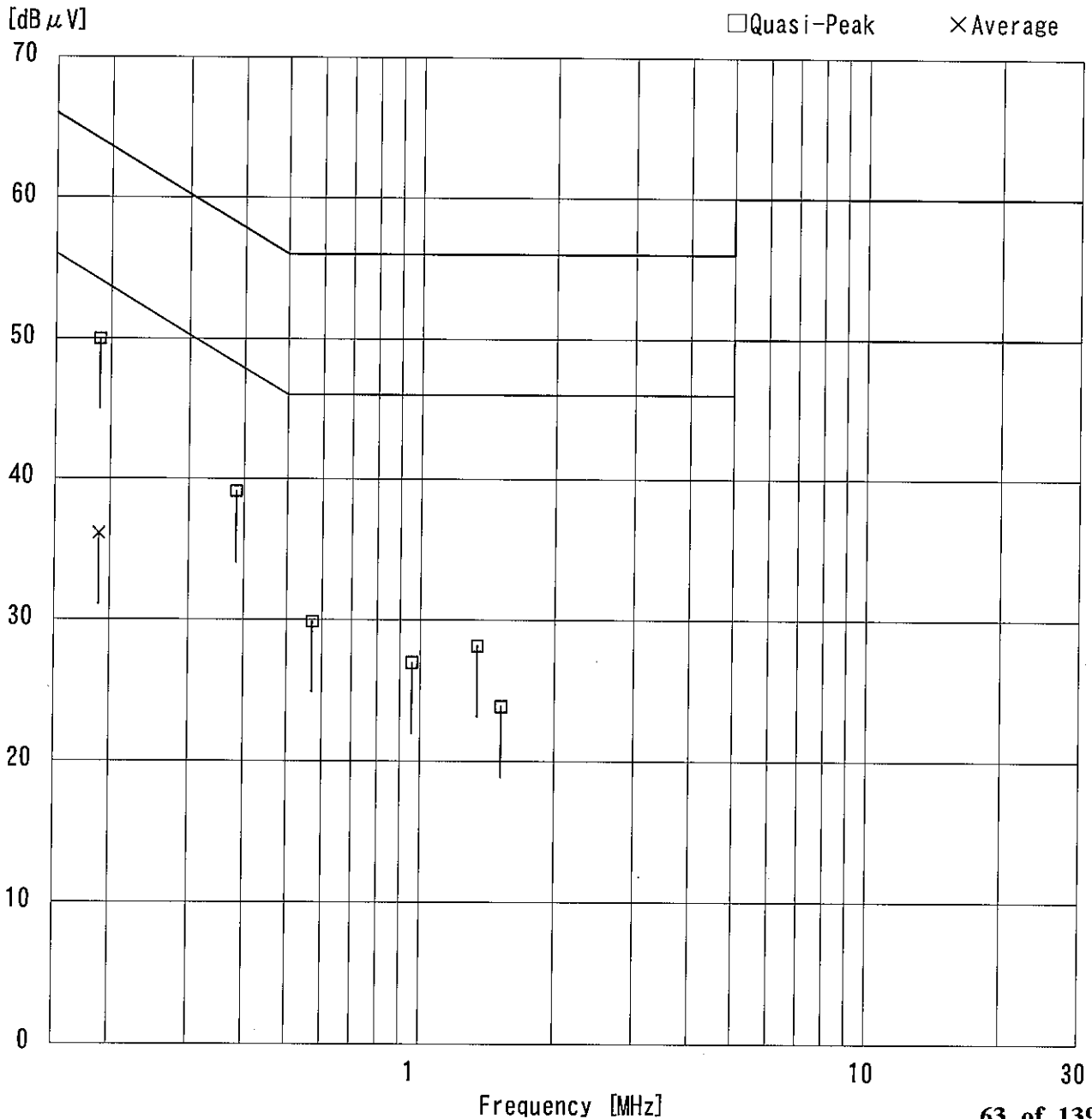
LISN:KLS-05 (NSLK8126)   
  COAXIAL CABLE:KCC-24/25/26/28  
 PULSE LIMITTER:KPL-02   
  EMI RECEIVER:KTR-03 (ESHS10)

# DATA OF CONDUCTION TEST

UL Apex Co.,Ltd.  
YAMAKITA No.3 SHIELD TEST ROOM  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/ANTENNA:WLE-AT-DAC  
 Date : 9/9/2005  
 Phase : Single Phase  
 Temperature : 22 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15. 207. (CISPR Pub. 22 )

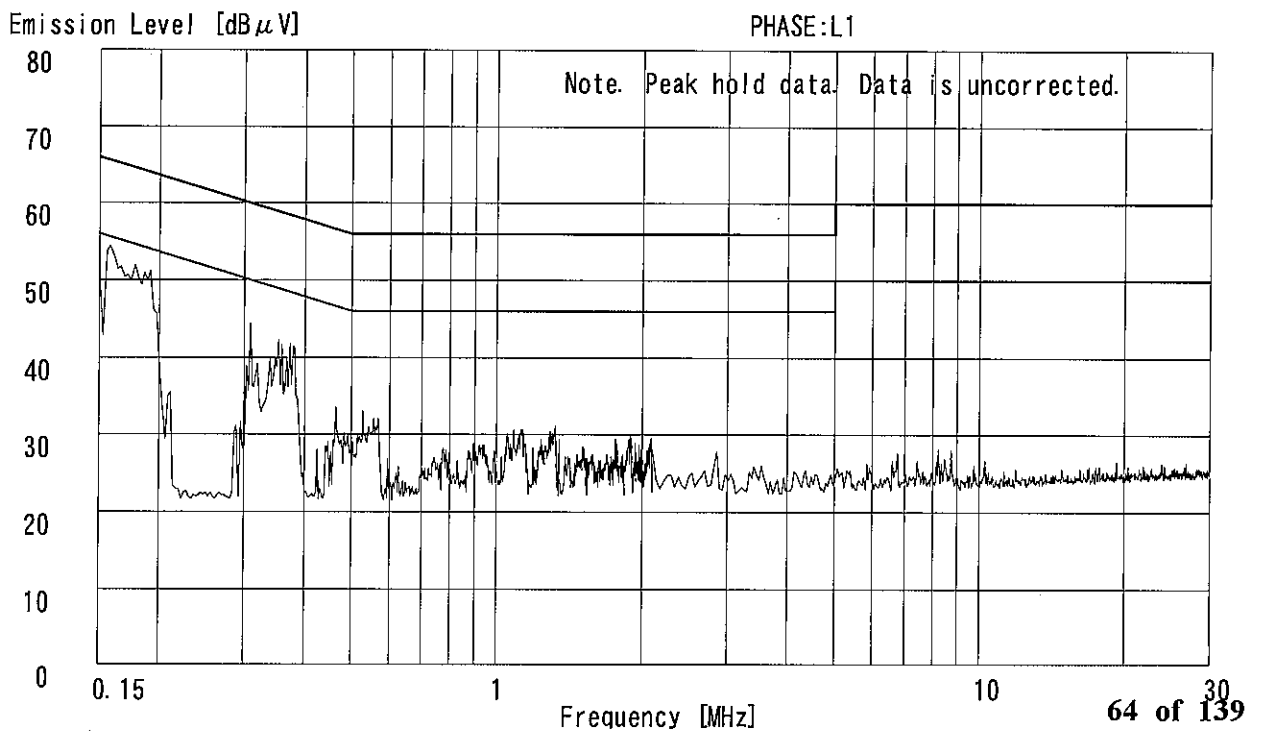
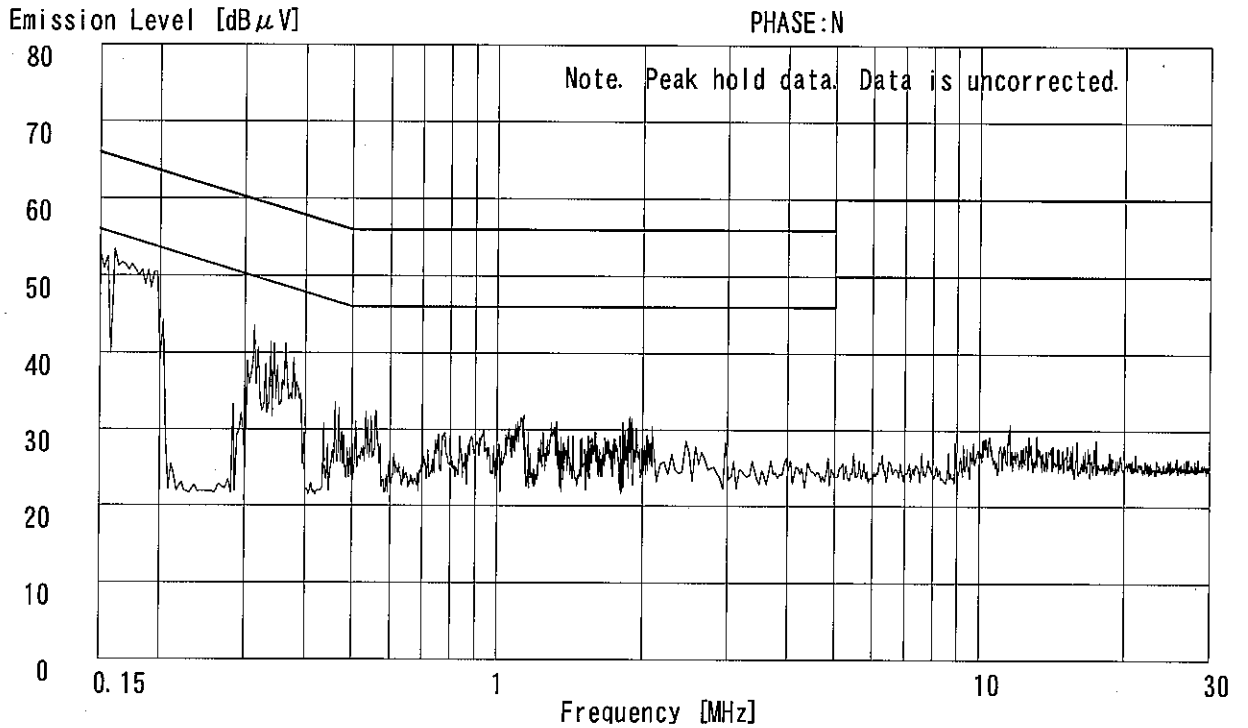
Engineer : Toyokazu Imamura



# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.  
YAMAKITA No.3 SHIELD TEST ROOM  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-AT-DAC  
Date : 9/9/2005  
Phase : Single Phase  
Temperature : 22 °C Engineer : Toyokazu Imamura  
Humidity : 68 %  
Regulation 1 : FCC Part15C §15.207. (CISPR Pub. 22 )  
Regulation 2 : None





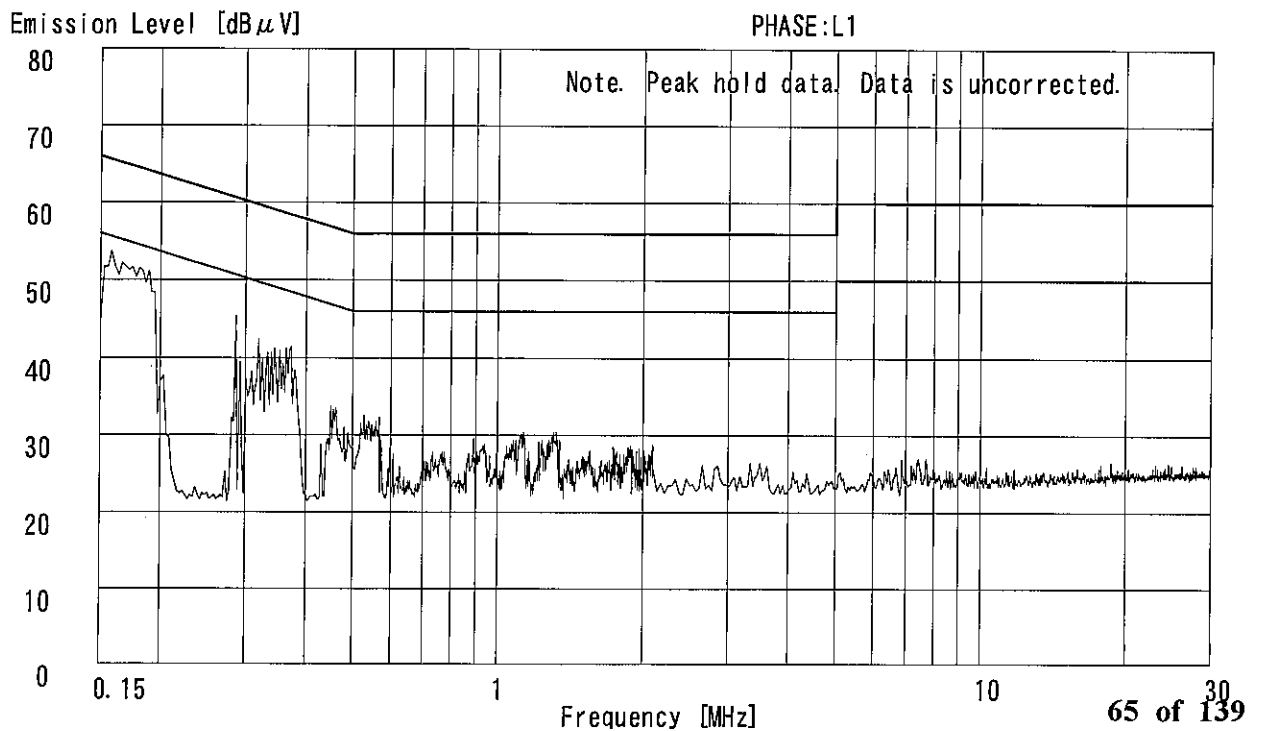
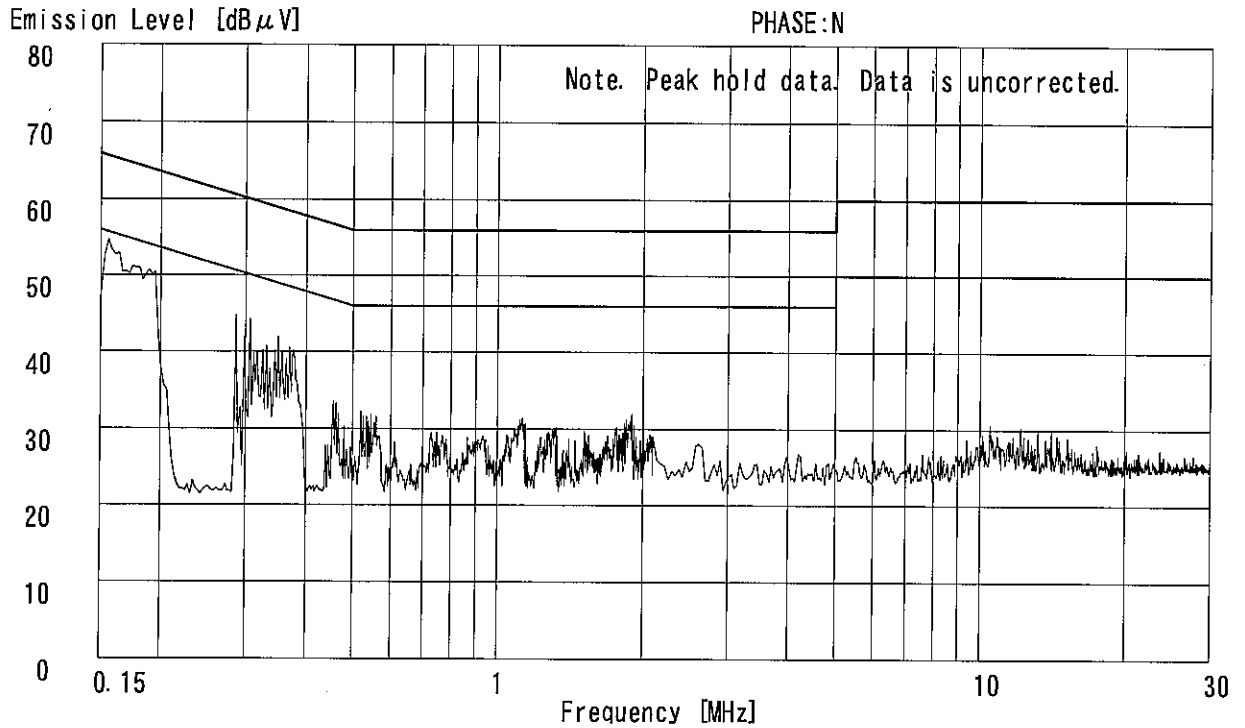
# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.

YAMAKITA No.3 SHIELD TEST ROOM

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2437MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-AT-DAC  
Date : 9/9/2005  
Phase : Single Phase  
Temperature : 22 °C Engineer : Toyokazu Imamura  
Humidity : 68 %  
Regulation 1 : FCC Part15C §15.207. (CISPR Pub. 22 )  
Regulation 2 : None



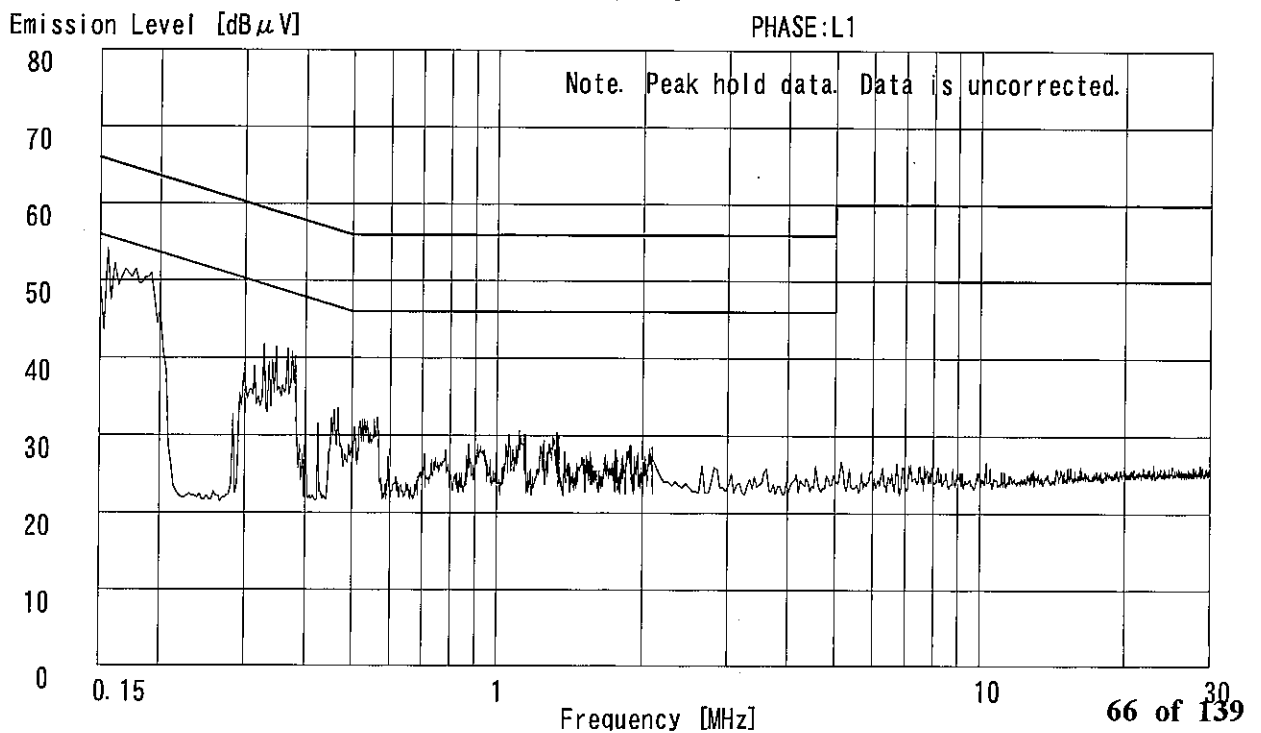
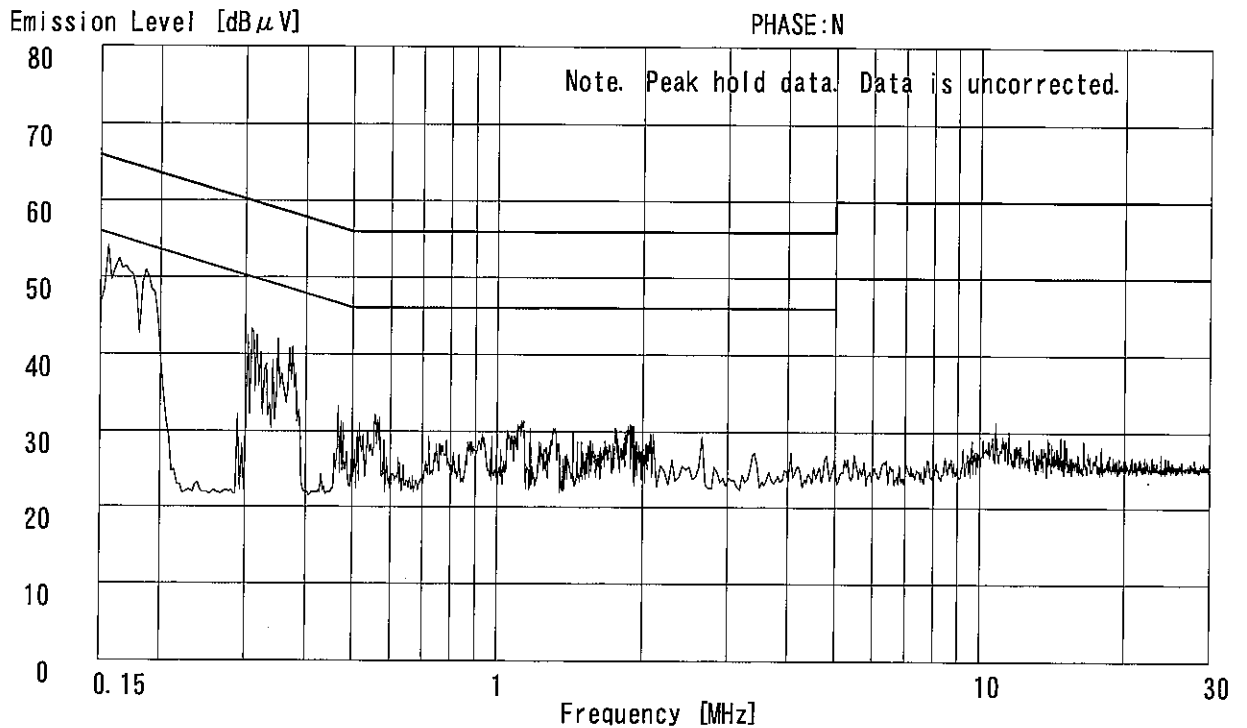
# DATA OF CONDUCTION TEST CHART

UL Apex Co.,Ltd.

YAMAKITA No.3 SHIELD TEST ROOM

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE802.11g/ANTENNA:WLE-AT-DAC  
Date : 9/9/2005  
Phase : Single Phase  
Temperature : 22 °C Engineer : Toyokazu Imamura  
Humidity : 68 %  
Regulation 1 : FCC Part15C §15.207. (CISPR Pub. 22 )  
Regulation 2 : None



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11b/ ANTENNA: WLE-DA  
 Date : 8/20/2005  
 Test Distance : 3 m  
 Temperature : 29 °C  
 Humidity : 51 %  
 Regulation : FCC Part15C § 15.209

Engineer : Makoto Hosaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	125.00	BB	37.4	39.0	13.4	28.2	2.9	6.0	31.5	33.1	43.5	12.0	10.4
2.	250.00	BB	38.5	37.7	17.7	27.8	4.3	6.0	38.7	37.9	46.0	7.3	8.1
3.	399.99	BB	39.0	43.1	17.4	28.5	5.7	6.0	39.6	43.7	46.0	6.4	2.3
4.	499.99	BB	39.8	39.5	18.5	29.0	6.4	6.0	41.7	41.4	46.0	4.3	4.6
5.	699.99	BB	31.5	32.5	21.0	29.1	7.8	6.0	37.2	38.2	46.0	8.8	7.8
6.	799.98	BB	32.2	29.8	21.6	28.9	8.4	6.0	39.3	36.9	46.0	6.7	9.1
7.	899.98	BB	31.8	34.1	23.2	28.7	9.1	6.0	41.4	43.7	46.0	4.6	2.3

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE: KCC-10/11/12/13/18 ■ PREAMP: KAF-01 (8447D) ■ EMI RECEIVER: KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11b/ ANTENNA: WLE-DA  
 Date : 8/20/2005  
 Test Distance : 3 m  
 Temperature : 29 °C  
 Humidity : 51 %  
 Regulation : FCC Part15C § 15.209

Engineer : Makoto Hosaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	125.00	BB	37.5	39.4	13.4	28.2	2.9	6.0	31.6	33.5	43.5	11.9	10.0
2.	250.00	BB	38.4	37.9	17.7	27.8	4.3	6.0	38.6	38.1	46.0	7.4	7.9
3.	399.99	BB	38.5	43.7	17.4	28.5	5.7	6.0	39.1	44.3	46.0	6.9	1.7
4.	499.99	BB	39.8	39.6	18.5	29.0	6.4	6.0	41.7	41.5	46.0	4.3	4.5
5.	699.99	BB	31.1	32.7	21.0	29.1	7.8	6.0	36.8	38.4	46.0	9.2	7.6
6.	799.98	BB	32.0	29.3	21.6	28.9	8.4	6.0	39.1	36.4	46.0	6.9	9.6
7.	899.98	BB	31.2	34.3	23.2	28.7	9.1	6.0	40.8	43.9	46.0	5.2	2.1

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ ANTENNA: KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE: KCC-10/11/12/13/18 ■ PREAMP: KAF-01 (8447D) ■ EMI RECEIVER: KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE 802.11b/ ANTENNA: WLE-DA  
 Date : 8/20/2005  
 Test Distance : 3 m  
 Temperature : 29 °C Engineer : Makoto Hosaka  
 Humidity : 51 %  
 Regulation : FCC Part15C § 15.209

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	125.00	BB	37.6	39.2	13.4	28.2	2.9	6.0	31.7	33.3	43.5	11.8	10.2
2.	250.01	BB	38.7	37.2	17.7	27.7	4.3	6.0	39.0	37.5	46.0	7.0	8.5
3.	399.99	BB	38.1	43.6	17.4	28.5	5.7	6.0	38.7	44.2	46.0	7.3	1.8
4.	499.99	BB	39.6	39.3	18.5	29.0	6.4	6.0	41.5	41.2	46.0	4.5	4.8
5.	699.99	BB	31.0	32.4	21.0	29.1	7.8	6.0	36.7	38.1	46.0	9.3	7.9
6.	799.98	BB	31.6	28.8	21.6	28.9	8.4	6.0	38.7	35.9	46.0	7.3	10.1
7.	899.97	BB	31.2	34.1	23.2	28.7	9.1	6.0	40.8	43.7	46.0	5.2	2.3

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE: KCC-10/11/12/13/18 ■ PREAMP: KAF-01 (8447D) ■ EMI RECEIVER: KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11g/ ANTENNA: WLE-DA  
 Date : 8/20/2005  
 Test Distance : 3 m  
 Temperature : 29 °C Engineer : Makoto Hosaka  
 Humidity : 51 %  
 Regulation : FCC Part15C § 15.209

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	125.00	BB	36.7	38.4	13.4	28.2	2.9	6.0	30.8	32.5	43.5	12.7	11.0
2.	250.00	BB	38.2	37.4	17.7	27.8	4.3	6.0	38.4	37.6	46.0	7.6	8.4
3.	399.99	BB	37.2	40.7	17.4	28.5	5.7	6.0	37.8	41.3	46.0	8.2	4.7
4.	499.99	BB	34.6	38.7	18.5	29.0	6.4	6.0	36.5	40.6	46.0	9.5	5.4
5.	699.98	BB	31.1	30.3	21.0	29.1	7.8	6.0	36.8	36.0	46.0	9.2	10.0
6.	799.98	BB	31.3	27.9	21.6	28.9	8.4	6.0	38.4	35.0	46.0	7.6	11.0
7.	899.98	BB	30.8	33.6	23.2	28.7	9.1	6.0	40.4	43.2	46.0	5.6	2.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE: KCC-10/11/12/13/18 ■ PREAMP: KAF-01 (8447D) ■ EMI RECEIVER: KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK = 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11g/ ANTENNA: WLE-DA  
 Date : 8/20/2005  
 Test Distance : 3 m  
 Temperature : 29 °C Engineer : Makoto Hosaka  
 Humidity : 51 %  
 Regulation : FCC Part15C § 15.209

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	125.00	BB	37.1	38.1	13.4	28.2	2.9	6.0	31.2	32.2	43.5	12.3	11.3
2.	250.00	BB	38.1	36.8	17.7	27.8	4.3	6.0	38.3	37.0	46.0	7.7	9.0
3.	399.99	BB	37.7	42.4	17.4	28.5	5.7	6.0	38.3	43.0	46.0	7.7	3.0
4.	499.99	BB	38.2	38.3	18.5	29.0	6.4	6.0	40.1	40.2	46.0	5.9	5.8
5.	699.98	BB	30.8	29.9	21.0	29.1	7.8	6.0	36.5	35.6	46.0	9.5	10.4
6.	799.98	BB	30.2	29.5	21.6	28.9	8.4	6.0	37.3	36.6	46.0	8.7	9.4
7.	899.98	BB	30.6	33.5	23.2	28.7	9.1	6.0	40.2	43.1	46.0	5.8	2.9

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ ANTENNA: KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE: KGC-10/11/12/13/18 ■ PREAMP: KAF-01 (8447D) ■ EMI RECEIVER: KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK = 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE 802.11g/ ANTENNA: WLE-DA  
 Date : 8/20/2005  
 Test Distance : 3 m  
 Temperature : 29 °C Engineer : Makoto Hosaka  
 Humidity : 51 %  
 Regulation : FCC Part15C § 15.209

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	125.00	BB	37.2	38.0	13.4	28.2	2.9	6.0	31.3	32.1	43.5	12.2	11.4
2.	250.00	BB	38.8	37.7	17.7	27.8	4.3	6.0	39.0	37.9	46.0	7.0	8.1
3.	399.99	BB	38.8	42.5	17.4	28.5	5.7	6.0	39.4	43.1	46.0	6.6	2.9
4.	499.99	BB	38.7	39.7	18.5	29.0	6.4	6.0	40.6	41.6	46.0	5.4	4.4
5.	699.98	BB	30.8	30.9	21.0	29.1	7.8	6.0	36.5	36.6	46.0	9.5	9.4
6.	799.98	BB	28.8	29.7	21.6	28.9	8.4	6.0	35.9	36.8	46.0	10.1	9.2
7.	899.97	BB	30.7	33.8	23.2	28.7	9.1	6.0	40.3	43.4	46.0	5.7	2.6

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE: KCC-10/11/12/13/18 ■ PREAMP: KAF-01 (8447D) ■ EMI RECEIVER: KTR-02 (ESCS30)



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.1 Open Test Site

Report No. : 25LE0018-YK → 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC230V/50Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	59.9	52.6	27.7	34.6	4.0	10.0	67.0	59.7	74.0	7.0	14.3
2.	4824.00	BB	57.9	55.1	32.1	34.0	5.5	0.5	62.0	59.2	74.0	12.0	14.8
3.	7236.00	BB	44.8	42.0	36.6	34.3	6.6	0.2	53.9	51.1	74.0	20.1	22.9
4.	9648.00	BB	44.7	42.9	38.9	34.9	7.4	0.4	56.5	54.7	74.0	17.5	19.3
5.	12060.00	BB	44.3	43.7	39.8	34.3	8.2	0.0	58.0	57.4	74.0	16.0	16.6
6.	14472.00	BB	40.6	39.8	42.4	33.9	8.9	0.3	58.3	57.5	74.0	15.7	16.5
7.	16884.00	BB	39.7	40.3	40.7	34.6	9.6	0.6	56.0	56.6	74.0	18.0	17.4
8.	19296.00	BB	41.8	41.2	38.6	33.8	10.3	0.0	56.9	56.3	74.0	17.1	17.7
9.	21708.00	BB	41.0	41.2	39.0	34.1	10.7	0.0	56.6	56.8	74.0	17.4	17.2
10.	24120.00	BB	42.7	42.7	39.3	31.9	11.1	0.0	61.2	61.2	74.0	12.8	12.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)

■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.1 Open Test Site

Report No. : 25LE0018-YK-- 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C Engineer : Toyokazu Imamura  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	46.8	42.0	27.7	34.6	4.0	10.0	53.9	49.1	54.0	0.1	4.9
2.	4824.00	BB	33.4	36.9	32.1	34.0	5.5	0.5	37.5	41.0	54.0	16.5	13.0
3.	7236.00	BB	34.7	30.6	36.6	34.3	6.6	0.2	43.8	39.7	54.0	10.2	14.3
4.	9648.00	BB	33.1	32.2	38.9	34.9	7.4	0.4	44.9	44.0	54.0	9.1	10.0
5.	12060.00	BB	33.5	32.1	39.8	34.3	8.2	0.0	47.2	45.8	54.0	6.8	8.2
6.	14472.00	BB	28.9	28.9	42.4	33.9	8.9	0.3	46.6	46.6	54.0	7.4	7.4
7.	16884.00	BB	30.6	30.4	40.7	34.6	9.6	0.6	46.9	46.7	54.0	7.1	7.3
8.	19296.00	BB	30.8	30.9	38.6	33.8	10.3	0.0	45.9	46.0	54.0	8.1	8.0
9.	21708.00	BB	31.0	31.1	39.0	34.1	10.7	0.0	46.6	46.7	54.0	7.4	7.3
10.	24120.00	BB	32.6	32.7	39.3	31.9	11.1	0.0	51.1	51.2	54.0	2.9	2.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)

■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	4874.00	BB	54.2	55.8	32.2	34.0	5.5	0.5	58.4	60.0	74.0	15.6	14.0
2.	7311.00	BB	47.5	44.2	36.7	34.3	6.7	0.2	56.8	53.5	74.0	17.2	20.5
3.	9748.00	BB	45.4	43.4	39.0	34.9	7.4	0.3	57.2	55.2	74.0	16.8	18.8
4.	12185.00	BB	44.0	41.8	39.6	34.2	8.2	0.0	57.6	55.4	74.0	16.4	18.6
5.	14622.00	BB	40.3	40.0	42.1	34.0	8.9	0.4	57.7	57.4	74.0	16.3	16.6
6.	17059.00	BB	39.9	40.9	41.1	34.6	9.7	0.6	56.7	57.7	74.0	17.3	16.3
7.	19496.00	BB	42.2	41.3	38.4	34.3	10.5	0.0	56.8	55.9	74.0	17.2	18.1
8.	21933.00	BB	41.3	42.3	39.1	33.9	10.8	0.0	57.3	58.3	74.0	16.7	15.7
9.	24370.00	BB	42.7	42.7	39.4	32.9	11.1	0.0	60.3	60.3	74.0	13.7	13.7

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)  
 ■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.1 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C §15.209 (AV Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	4874.00	BB	32.9	35.9	32.2	34.0	5.5	0.5	37.1	40.1	54.0	16.9	13.9
2.	7311.00	BB	35.8	32.2	36.7	34.3	6.7	0.2	45.1	41.5	54.0	8.9	12.5
3.	9748.00	BB	35.7	32.9	39.0	34.9	7.4	0.3	47.5	44.7	54.0	6.5	9.3
4.	12185.00	BB	32.0	29.5	39.6	34.2	8.2	0.0	45.6	43.1	54.0	8.4	10.9
5.	14622.00	BB	28.8	28.8	42.1	34.0	8.9	0.4	46.2	46.2	54.0	7.8	7.8
6.	17059.00	BB	29.4	29.3	41.1	34.6	9.7	0.6	46.2	46.1	54.0	7.8	7.9
7.	19496.00	BB	30.7	30.9	38.4	34.3	10.5	0.0	45.3	45.5	54.0	8.7	8.5
8.	21933.00	BB	31.7	31.6	39.1	33.9	10.8	0.0	47.7	47.6	54.0	6.3	6.4
9.	24370.00	BB	32.2	32.2	39.4	32.9	11.1	0.0	49.8	49.8	54.0	4.2	4.2

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)

■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE 802.11b/ANTENNA:WLE-DA  
Date : 9/5/2005  
Test Distance : 3 m  
Temperature : 24 °C  
Humidity : 68 %  
Regulation : FCC Part15C §15.209 (PK Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2483.50	BB	58.4	52.6	28.0	34.6	4.0	10.0	65.8	60.0	74.0	8.2	14.0
2.	4924.00	BB	53.9	58.3	32.3	34.0	5.6	0.5	58.3	62.7	74.0	15.7	11.3
3.	7386.00	BB	49.2	42.5	36.8	34.3	6.7	0.2	58.6	51.9	74.0	15.4	22.1
4.	9848.00	BB	44.1	44.6	39.2	34.8	7.4	0.2	56.1	56.6	74.0	17.9	17.4
5.	12310.00	BB	42.6	41.4	39.3	34.1	8.1	0.0	55.9	54.7	74.0	18.1	19.3
6.	14772.00	BB	42.3	40.8	41.6	34.2	9.0	0.6	59.3	57.8	74.0	14.7	16.2
7.	17234.00	BB	41.4	40.6	41.6	34.7	9.6	0.3	58.2	57.4	74.0	15.8	16.6
8.	19696.00	BB	41.9	41.1	38.4	34.2	10.5	0.0	56.6	55.8	74.0	17.4	18.2
9.	22158.00	BB	41.7	41.1	39.2	33.4	11.0	0.0	58.5	57.9	74.0	15.5	16.1
10.	24620.00	BB	44.2	45.1	39.4	33.5	11.3	0.0	61.4	62.3	74.0	12.6	11.7

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz)/KHA-04 (18-26GHz)  
■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C §15.209 (AV Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2483.50	BB	46.5	42.0	28.0	34.6	4.0	10.0	53.9	49.4	54.0	0.1	4.6
2.	4924.00	BB	34.8	39.1	32.3	34.0	5.6	0.5	39.2	43.5	54.0	14.8	10.5
3.	7386.00	BB	37.1	31.8	36.8	34.3	6.7	0.2	46.5	41.2	54.0	7.5	12.8
4.	9848.00	BB	35.5	35.7	39.2	34.8	7.4	0.2	47.5	47.7	54.0	6.5	6.3
5.	12310.00	BB	31.1	29.7	39.3	34.1	8.1	0.0	44.4	43.0	54.0	9.6	11.0
6.	14772.00	BB	30.0	29.1	41.6	34.2	9.0	0.6	47.0	46.1	54.0	7.0	7.9
7.	17234.00	BB	30.1	30.0	41.6	34.7	9.6	0.3	46.9	46.8	54.0	7.1	7.2
8.	19696.00	BB	31.0	31.8	38.4	34.2	10.5	0.0	45.7	46.5	54.0	8.3	7.5
9.	22158.00	BB	32.7	32.5	39.2	33.4	11.0	0.0	49.5	49.3	54.0	4.5	4.7
10.	24620.00	BB	34.4	34.3	39.4	33.5	11.3	0.0	51.6	51.5	54.0	2.4	2.5

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz)/KHA-04 (18-26GHz)

■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C §15.209 (PK Detection)  
 Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	61.9	52.9	27.7	34.6	4.0	10.0	69.0	60.0	74.0	5.0	14.0
2.	4824.00	BB	53.4	50.8	32.1	34.0	5.5	0.5	57.5	54.9	74.0	16.5	19.1
3.	7236.00	BB	48.0	42.7	36.6	34.3	6.6	0.2	57.1	51.8	74.0	16.9	22.2
4.	9648.00	BB	44.1	52.3	38.9	34.9	7.4	0.4	55.9	64.1	74.0	18.1	9.9
5.	12060.00	BB	43.8	41.0	39.8	34.3	8.2	0.0	57.5	54.7	74.0	16.5	19.3
6.	14472.00	BB	40.9	41.3	42.4	33.9	8.9	0.3	58.6	59.0	74.0	15.4	15.0
7.	16884.00	BB	41.1	39.4	40.7	34.6	9.6	0.6	57.4	55.7	74.0	16.6	18.3
8.	19296.00	BB	41.8	41.0	38.6	33.8	10.3	0.0	56.9	56.1	74.0	17.1	17.9
9.	21708.00	BB	41.0	41.2	39.0	34.1	10.7	0.0	56.6	56.8	74.0	17.4	17.2
10.	24120.00	BB	42.7	41.7	39.3	31.9	11.1	0.0	61.2	60.2	74.0	12.8	13.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)  
 ■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)  
 Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	42.2	41.4	27.7	34.6	4.0	10.0	49.3	48.5	54.0	4.7	5.5
2.	4824.00	BB	27.6	28.9	32.1	34.0	5.5	0.5	31.7	33.0	54.0	22.3	21.0
3.	7236.00	BB	30.3	28.9	36.6	34.3	6.6	0.2	39.4	38.0	54.0	14.6	16.0
4.	9648.00	BB	30.1	29.7	38.9	34.9	7.4	0.4	41.9	41.5	54.0	12.1	12.5
5.	12060.00	BB	30.1	28.9	39.8	34.3	8.2	0.0	43.8	42.6	54.0	10.2	11.4
6.	14472.00	BB	29.3	29.1	42.4	33.9	8.9	0.3	47.0	46.8	54.0	7.0	7.2
7.	16884.00	BB	30.4	30.6	40.7	34.6	9.6	0.6	46.7	46.9	54.0	7.3	7.1
8.	19296.00	BB	30.8	30.7	38.6	33.8	10.3	0.0	45.9	45.8	54.0	8.1	8.2
9.	21708.00	BB	31.0	31.0	39.0	34.1	10.7	0.0	46.6	46.6	54.0	7.4	7.4
10.	24120.00	BB	32.6	32.7	39.3	31.9	11.1	0.0	51.1	51.2	54.0	2.9	2.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)  
 ■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.1 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C §15.209 (PK Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	4874.00	BB	53.7	56.6	32.2	34.0	5.5	0.5	57.9	60.8	74.0	16.1	13.2
2.	7311.00	BB	48.1	41.3	36.7	34.3	6.7	0.2	57.4	50.6	74.0	16.6	23.4
3.	9748.00	BB	42.9	41.1	39.0	34.9	7.4	0.3	54.7	52.9	74.0	19.3	21.1
4.	12185.00	BB	43.8	39.1	39.6	34.2	8.2	0.0	57.4	52.7	74.0	16.6	21.3
5.	14622.00	BB	41.8	41.1	42.1	34.0	8.9	0.4	59.2	58.5	74.0	14.8	15.5
6.	17059.00	BB	41.7	41.9	41.1	34.6	9.7	0.6	58.5	58.7	74.0	15.5	15.3
7.	19496.00	BB	42.2	41.2	38.4	34.3	10.5	0.0	56.8	55.8	74.0	17.2	18.2
8.	21933.00	BB	41.3	42.3	39.1	33.9	10.8	0.0	57.3	58.3	74.0	16.7	15.7
9.	24370.00	BB	42.7	42.7	39.4	32.9	11.1	0.0	60.3	60.3	74.0	13.7	13.7

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)

■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.1 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C §15.209 (AV Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER	HOR [dB]	VER		
1.	4874.00	BB	27.2	30.2	32.2	34.0	5.5	0.5	31.4	34.4	54.0	22.6	19.6	
2.	7311.00	BB	29.9	28.1	36.7	34.3	6.7	0.2	39.2	37.4	54.0	14.8	16.6	
3.	9748.00	BB	29.2	29.3	39.0	34.9	7.4	0.3	41.0	41.1	54.0	13.0	12.9	
4.	12185.00	BB	29.2	28.1	39.6	34.2	8.2	0.0	42.8	41.7	54.0	11.2	12.3	
5.	14622.00	BB	32.2	28.8	42.1	34.0	8.9	0.4	49.6	46.2	54.0	4.4	7.8	
6.	17059.00	BB	29.6	29.4	41.1	34.6	9.7	0.6	46.4	46.2	54.0	7.6	7.8	
7.	19496.00	BB	30.7	30.8	38.4	34.3	10.5	0.0	45.3	45.4	54.0	8.7	8.6	
8.	21933.00	BB	31.7	31.8	39.1	33.9	10.8	0.0	47.7	47.8	54.0	6.3	6.2	
9.	24370.00	BB	32.0	32.1	39.4	32.9	11.1	0.0	49.6	49.7	54.0	4.4	4.3	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)

■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.1 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2483.50	BB	59.1	53.9	28.0	34.6	4.0	10.0	66.5	61.3	74.0	7.5	12.7
2.	4924.00	BB	53.6	59.7	32.3	34.0	5.6	0.5	58.0	64.1	74.0	16.0	9.9
3.	7386.00	BB	48.8	43.7	36.8	34.3	6.7	0.2	58.2	53.1	74.0	15.8	20.9
4.	9848.00	BB	44.6	43.8	39.2	34.8	7.4	0.2	56.6	55.8	74.0	17.4	18.2
5.	12310.00	BB	42.6	40.3	39.3	34.1	8.1	0.0	55.9	53.6	74.0	18.1	20.4
6.	14772.00	BB	40.5	40.2	41.6	34.2	9.0	0.6	57.5	57.2	74.0	16.5	16.8
7.	17234.00	BB	41.4	39.8	41.6	34.7	9.6	0.3	58.2	56.6	74.0	15.8	17.4
8.	19696.00	BB	41.2	40.4	38.4	34.2	10.5	0.0	55.9	55.1	74.0	18.1	18.9
9.	22158.00	BB	41.3	42.3	39.2	33.4	11.0	0.0	58.1	59.1	74.0	15.9	14.9
10.	24620.00	BB	43.6	42.8	39.4	33.5	11.3	0.0	60.8	60.0	74.0	13.2	14.0

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz)/KHA-04 (18-26GHz)

■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.1 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-DA  
 Date : 9/5/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 68 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2483.50	BB	42.3	41.2	28.0	34.6	4.0	10.0	49.7	48.6	54.0	4.3	5.4
2.	4924.00	BB	29.3	31.7	32.3	34.0	5.6	0.5	33.7	36.1	54.0	20.3	17.9
3.	7386.00	BB	29.9	28.6	36.8	34.3	6.7	0.2	39.3	38.0	54.0	14.7	16.0
4.	9848.00	BB	29.9	30.1	39.2	34.8	7.4	0.2	41.9	42.1	54.0	12.1	11.9
5.	12310.00	BB	29.1	28.3	39.3	34.1	8.1	0.0	42.4	41.6	54.0	11.6	12.4
6.	14772.00	BB	29.2	29.1	41.6	34.2	9.0	0.6	46.2	46.1	54.0	7.8	7.9
7.	17234.00	BB	30.0	29.9	41.6	34.7	9.6	0.3	46.8	46.7	54.0	7.2	7.3
8.	19696.00	BB	30.9	30.9	38.4	34.2	10.5	0.0	45.6	45.6	54.0	8.4	8.4
9.	22158.00	BB	32.6	32.7	39.2	33.4	11.0	0.0	49.4	49.5	54.0	4.6	4.5
10.	24620.00	BB	34.5	34.4	39.4	33.5	11.3	0.0	51.7	51.6	54.0	2.3	2.4

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)

■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b / ANTENNA:WLE-HG-NDR  
 Date : 8/4/2005  
 Test Distance : 3 m  
 Temperature : 30 °C  
 Humidity : 63 %  
 Regulation : FCC Part15C § 15.209

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	200.00	BB	40.7	34.5	17.3	27.9	3.8	6.0	39.9	33.7	43.5	3.6	9.8
2.	250.00	BB	39.0	40.0	17.6	27.8	4.3	6.0	39.1	40.1	46.0	6.9	5.9
3.	399.99	BB	42.1	42.6	17.4	28.5	5.7	6.0	42.7	43.2	46.0	3.3	2.8
4.	499.99	BB	39.3	40.3	18.5	29.0	6.4	6.0	41.2	42.2	46.0	4.8	3.8
5.	749.99	BB	34.2	32.7	21.3	29.1	8.1	6.0	40.5	39.0	46.0	5.5	7.0
6.	899.98	BB	28.6	32.6	23.2	28.7	9.1	6.0	38.2	42.2	46.0	7.8	3.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ANTENNA:KBA-03(BBA9106)30-299.99MHz/KLA-01(USLP9143)300-1000MHz  
 ■CABLE:KCC-10/11/12/13/18■PREAMP:KAF-01(8447D)■EMI RECEIVER:KTR-02(ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11b / ANTENNA:WLE-HG-NDR  
 Date : 8/4/2005  
 Test Distance : 3 m  
 Temperature : 30 °C Engineer : Toyokazu Imamura  
 Humidity : 63 %  
 Regulation : FCC Part15C § 15.209

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	200.00	BB	40.5	34.6	17.3	27.9	3.8	6.0	39.7	33.8	43.5	3.8	9.7
2.	250.00	BB	39.5	41.0	17.6	27.8	4.3	6.0	39.6	41.1	46.0	6.4	4.9
3.	399.99	BB	42.4	42.9	17.4	28.5	5.7	6.0	43.0	43.5	46.0	3.0	2.5
4.	499.99	BB	39.9	40.4	18.5	29.0	6.4	6.0	41.8	42.3	46.0	4.2	3.7
5.	749.99	BB	34.4	31.9	21.3	29.1	8.1	6.0	40.7	38.2	46.0	5.3	7.8
6.	899.98	BB	28.7	33.8	23.2	28.7	9.1	6.0	38.3	43.4	46.0	7.7	2.6

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-03 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE: KCC-10/11/12/13/18 ■ PREAMP: KAF-01 (8447D) ■ EMI RECEIVER: KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11b / ANTENNA:WLE-HG-NDR  
 Date : 8/4/2005  
 Test Distance : 3 m  
 Temperature : 30 °C  
 Humidity : 63 %  
 Regulation : FCC Part15C § 15.209  
 Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	200.00	BB	40.5	34.3	17.3	27.9	3.8	6.0	39.7	33.5	43.5	3.8	10.0
2.	250.00	BB	38.8	41.3	17.6	27.8	4.3	6.0	38.9	41.4	46.0	7.1	4.6
3.	399.98	BB	42.6	43.0	17.4	28.5	5.7	6.0	43.2	43.6	46.0	2.8	2.4
4.	499.99	BB	39.6	40.0	18.5	29.0	6.4	6.0	41.5	41.9	46.0	4.5	4.1
5.	749.99	BB	34.4	31.7	21.3	29.1	8.1	6.0	40.7	38.0	46.0	5.3	8.0
6.	899.98	BB	28.8	32.5	23.2	28.7	9.1	6.0	38.4	42.1	46.0	7.6	3.9

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ ANTENNA:KBA-03 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE:KCC-10/11/12/13/18 ■ PREAMP:KAF-01 (8447D) ■ EMI RECEIVER:KTR-02 (ECS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/ ANTENNA:WLE-HG-NDR  
 Date : 8/4/2005  
 Test Distance : 3 m  
 Temperature : 30 °C  
 Humidity : 63 %  
 Regulation : FCC Part15C § 15.209  
 Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	125.00	BB	37.4	34.8	13.8	28.2	2.9	6.0	31.9	29.3	43.5	11.6	14.2	
2.	160.00	BB	35.8	32.9	15.3	28.1	3.3	6.0	32.3	29.4	43.5	11.2	14.1	
3.	200.00	BB	40.9	34.0	17.3	27.9	3.8	6.0	40.1	33.2	43.5	3.4	10.3	
4.	250.00	BB	39.2	41.7	17.6	27.8	4.3	6.0	39.3	41.8	46.0	6.7	4.2	
5.	299.99	BB	32.9	33.1	20.6	27.7	4.8	6.0	36.6	36.8	46.0	9.4	9.2	
6.	399.99	BB	41.7	42.0	17.4	28.5	5.7	6.0	42.3	42.6	46.0	3.7	3.4	
7.	499.98	BB	39.4	41.0	18.5	29.0	6.4	6.0	41.3	42.9	46.0	4.7	3.1	
8.	749.97	BB	34.1	33.2	21.3	29.1	8.1	6.0	40.4	39.5	46.0	5.6	6.5	
9.	899.97	BB	28.9	33.8	23.2	28.7	9.1	6.0	38.5	43.4	46.0	7.5	2.6	

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ ANTENNA:KBA-03 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE:KCC-10/11/12/13/18 ■ PREAMP:KAF-01 (8447D) ■ EMI RECEIVER:KTR-02 (ESCS30)



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11g/ ANTENNA:WLE-HG-NDR  
 Date : 8/4/2005  
 Test Distance : 3 m  
 Temperature : 30 °C  
 Humidity : 63 %  
 Regulation : FCC Part15C § 15.209

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	200.00	BB	40.8	34.6	17.3	27.9	3.8	6.0	40.0	33.8	43.5	3.5	9.7
2.	250.00	BB	39.1	41.2	17.6	27.8	4.3	6.0	39.2	41.3	46.0	6.8	4.7
3.	399.98	BB	42.1	42.4	17.4	28.5	5.7	6.0	42.7	43.0	46.0	3.3	3.0
4.	499.99	BB	39.8	40.2	18.5	29.0	6.4	6.0	41.7	42.1	46.0	4.3	3.9
5.	749.99	BB	34.2	32.0	21.3	29.1	8.1	6.0	40.5	38.3	46.0	5.5	7.7
6.	899.98	BB	28.5	33.9	23.2	28.7	9.1	6.0	38.1	43.5	46.0	7.9	2.5

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KBA-03 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■CABLE:KCC-10/11/12/13/18 ■PREAMP:KAF-01 (8447D) ■EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11g/ ANTENNA:WLE-HG-NDR  
 Date : 8/4/2005  
 Test Distance : 3 m  
 Temperature : 30 °C Engineer : Toyokazu Imamura  
 Humidity : 63 %  
 Regulation : FCC Part15C § 15.209

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	200.00	BB	40.5	34.4	17.3	27.9	3.8	6.0	39.7	33.6	43.5	3.8	9.9
2.	250.00	BB	39.6	41.6	17.6	27.8	4.3	6.0	39.7	41.7	46.0	6.3	4.3
3.	399.99	BB	42.3	43.2	17.4	28.5	5.7	6.0	42.9	43.8	46.0	3.1	2.2
4.	499.99	BB	40.2	40.1	18.5	29.0	6.4	6.0	42.1	42.0	46.0	3.9	4.0
5.	749.99	BB	34.5	31.7	21.3	29.1	8.1	6.0	40.8	38.0	46.0	5.2	8.0
6.	899.97	BB	28.6	32.7	23.2	28.7	9.1	6.0	38.2	42.3	46.0	7.8	3.7

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KBA-03 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■CABLE:KCC-10/11/12/13/18 ■PREAMP:KAF-01 (8447D) ■EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ ANTENNA:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C Engineer : Takahiro Suzuki  
 Humidity : 62 %  
 Regulation : FCC Part15C §15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	1596.40	BB	56.1	52.9	25.7	37.4	3.3	10.0	57.7	54.5	74.0	16.3	19.5
2.	2390.00	BB	54.3	56.9	27.7	37.0	4.0	10.0	59.0	61.6	74.0	15.0	12.4
3.	3115.00	BB	55.9	51.9	28.9	37.2	4.5	10.1	62.2	58.2	74.0	11.8	15.8
4.	4824.00	BB	56.2	59.2	32.1	36.5	5.5	0.5	57.8	60.8	74.0	16.2	13.2
5.	7236.00	BB	46.7	46.3	36.6	36.8	6.6	0.2	53.3	52.9	74.0	20.7	21.1
6.	9648.00	BB	47.5	47.9	38.9	37.1	7.4	0.4	57.1	57.5	74.0	16.9	16.5
7.	12060.00	BB	46.6	47.0	39.8	36.1	8.2	0.0	58.5	58.9	74.0	15.5	15.1
8.	14472.00	BB	44.1	43.7	42.4	35.0	8.9	0.3	60.7	60.3	74.0	13.3	13.7
9.	16884.00	BB	45.0	45.6	40.7	35.6	9.6	0.6	60.3	60.9	74.0	13.7	13.1
10.	19296.00	BB	44.6	44.9	38.6	34.9	10.3	0.0	58.6	58.9	74.0	15.4	15.1
11.	21708.00	BB	41.8	40.6	39.0	35.6	10.7	0.0	55.9	54.7	74.0	18.1	19.3
12.	24120.00	BB	42.9	42.5	39.3	34.9	11.1	0.0	58.4	58.0	74.0	15.6	16.0

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KHA-02 (1-18GHz) /KHA-03 (18-26GHz)  
 ■CABLE:KCC-D3/D7 ■PREAMP:KAF-02 (8449B) ■SPECTRUMANALYZER:KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ ANTENNA:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C Engineer : Takahiro Suzuki  
 Humidity : 62 %  
 Regulation : FCC Part15C § 15.209(AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	1596.40	BB	44.2	42.6	25.7	37.4	3.3	10.0	45.8	44.2	54.0	8.2	9.8
2.	2390.00	BB	42.3	46.0	27.7	37.0	4.0	10.0	47.0	50.7	54.0	7.0	3.3
3.	3115.00	BB	44.4	41.8	28.9	37.2	4.5	10.1	50.7	48.1	54.0	3.3	5.9
4.	4824.00	BB	36.9	41.5	32.1	36.5	5.5	0.5	38.5	43.1	54.0	15.5	10.9
5.	7236.00	BB	35.7	35.9	36.6	36.8	6.6	0.2	42.3	42.5	54.0	11.7	11.5
6.	9648.00	BB	35.2	35.6	38.9	37.1	7.4	0.4	44.8	45.2	54.0	9.2	8.8
7.	12060.00	BB	35.6	36.1	39.8	36.1	8.2	0.0	47.5	48.0	54.0	6.5	6.0
8.	14472.00	BB	31.6	31.8	42.4	35.0	8.9	0.3	48.2	48.4	54.0	5.8	5.6
9.	16884.00	BB	31.5	32.0	40.7	35.6	9.6	0.6	46.8	47.3	54.0	7.2	6.7
10.	19296.00	BB	32.0	32.2	38.6	34.9	10.3	0.0	46.0	46.2	54.0	8.0	7.8
11.	21708.00	BB	31.5	31.1	39.0	35.6	10.7	0.0	45.6	45.2	54.0	8.4	8.8
12.	24120.00	BB	33.0	32.9	39.3	34.9	11.1	0.0	48.5	48.4	54.0	5.5	5.6

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)  
 ■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11b./ ANTENNA:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C Engineer : Takahiro Suzuki  
 Humidity : 62 %  
 Regulation : FCC Part15C § 15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	1596.20	BB	56.5	54.4	25.7	37.4	3.3	10.0	58.1	56.0	74.0	15.9	18.0
2.	3115.10	BB	54.6	52.0	28.9	37.2	4.5	10.1	60.9	58.3	74.0	13.1	15.7
3.	4874.00	BB	55.5	55.8	32.2	36.5	5.5	0.5	57.2	57.5	74.0	16.8	16.5
4.	7311.00	BB	44.9	46.4	36.7	36.8	6.7	0.2	51.7	53.2	74.0	22.3	20.8
5.	9748.00	BB	45.7	45.6	39.0	37.1	7.4	0.3	55.3	55.2	74.0	18.7	18.8
6.	12185.00	BB	43.8	44.6	39.6	36.0	8.2	0.0	55.6	56.4	74.0	18.4	17.6
7.	14622.00	BB	45.6	46.6	42.1	35.3	8.9	0.4	61.7	62.7	74.0	12.3	11.3
8.	17059.00	BB	44.2	44.5	41.1	35.6	9.7	0.6	60.0	60.3	74.0	14.0	13.7
9.	19496.00	BB	44.0	44.1	38.4	35.2	10.5	0.0	57.7	57.8	74.0	16.3	16.2
10.	21933.00	BB	41.5	40.3	39.1	35.2	10.8	0.0	56.2	55.0	74.0	17.8	19.0
11.	24370.00	BB	43.0	42.7	39.4	35.0	11.1	0.0	58.5	58.2	74.0	15.5	15.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)  
 ■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11b/ ANTENNA:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C Engineer : Takahiro Suzuki  
 Humidity : 62 %  
 Regulation : FCC Part15C §15.209(AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]		HOR [dB]	VER [dB]
1.	1596.20	BB	44.7	44.0	25.7	37.4	3.3	10.0	46.3	45.6	54.0	7.7	8.4
2.	3115.10	BB	44.3	41.6	28.9	37.2	4.5	10.1	50.6	47.9	54.0	3.4	6.1
3.	4874.00	BB	40.2	40.0	32.2	36.5	5.5	0.5	41.9	41.7	54.0	12.1	12.3
4.	7311.00	BB	35.6	35.3	36.7	36.8	6.7	0.2	42.4	42.1	54.0	11.6	11.9
5.	9748.00	BB	35.6	35.7	39.0	37.1	7.4	0.3	45.2	45.3	54.0	8.8	8.7
6.	12185.00	BB	35.6	35.2	39.6	36.0	8.2	0.0	47.4	47.0	54.0	6.6	7.0
7.	14622.00	BB	32.0	31.7	42.1	35.3	8.9	0.4	48.1	47.8	54.0	5.9	6.2
8.	17059.00	BB	31.8	31.9	41.1	35.6	9.7	0.6	47.6	47.7	54.0	6.4	6.3
9.	19496.00	BB	31.6	31.8	38.4	35.2	10.5	0.0	45.3	45.5	54.0	8.7	8.5
10.	21933.00	BB	31.3	31.0	39.1	35.2	10.8	0.0	46.0	45.7	54.0	8.0	8.3
11.	24370.00	BB	33.2	33.0	39.4	35.0	11.1	0.0	48.7	48.5	54.0	5.3	5.5

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ANTENNA:KHA-02(1-18GHz)/KHA-03(18-26GHz)  
 ■CABLE:KCC-D3/D7 ■PREAMP:KAF-02(8449B) ■SPECTRUMANALYZER:KSA-04(KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11b/Antenna:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 62 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	1596.20	BB	56.4	54.3	25.7	37.4	3.3	10.0	58.0	55.9	74.0	16.0	18.1
2.	2483.50	BB	53.7	55.3	28.0	37.1	4.0	10.0	58.6	60.2	74.0	15.4	13.8
3.	3115.30	BB	54.5	51.8	28.9	37.2	4.5	10.1	60.8	58.1	74.0	13.2	15.9
4.	4924.00	BB	55.0	60.8	32.3	36.4	5.6	0.5	57.0	62.8	74.0	17.0	11.2
5.	7386.00	BB	44.9	43.6	36.8	36.8	6.7	0.2	51.8	50.5	74.0	22.2	23.5
6.	9848.00	BB	46.7	46.8	39.2	37.1	7.4	0.2	56.4	56.5	74.0	17.6	17.5
7.	12310.00	BB	44.2	44.6	39.3	35.8	8.1	0.0	55.8	56.2	74.0	18.2	17.8
8.	14772.00	BB	43.8	44.2	41.6	35.5	9.0	0.6	59.5	59.9	74.0	14.5	14.1
9.	17234.00	BB	44.1	43.6	41.6	35.6	9.6	0.3	60.0	59.5	74.0	14.0	14.5
10.	19696.00	BB	44.0	44.0	38.4	35.1	10.5	0.0	57.8	57.8	74.0	16.2	16.2
11.	22158.00	BB	41.9	40.8	39.2	35.0	11.0	0.0	57.1	56.0	74.0	16.9	18.0
12.	24620.00	BB	42.8	42.4	39.4	34.9	11.3	0.0	58.6	58.2	74.0	15.4	15.8

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)

■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11b/Antenna:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 62 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	1596.20	BB	44.8	43.8	25.7	37.4	3.3	10.0	46.4	45.4	54.0	7.6	8.6
2.	2483.50	BB	42.7	42.9	28.0	37.1	4.0	10.0	47.6	47.8	54.0	6.4	6.2
3.	3115.30	BB	44.2	41.8	28.9	37.2	4.5	10.1	50.5	48.1	54.0	3.5	5.9
4.	4924.00	BB	40.6	43.0	32.3	36.4	5.6	0.5	42.6	45.0	54.0	11.4	9.0
5.	7386.00	BB	35.5	35.7	36.8	36.8	6.7	0.2	42.4	42.6	54.0	11.6	11.4
6.	9848.00	BB	35.8	35.7	39.2	37.1	7.4	0.2	45.5	45.4	54.0	8.5	8.6
7.	12310.00	BB	35.7	35.4	39.3	35.8	8.1	0.0	47.3	47.0	54.0	6.7	7.0
8.	14772.00	BB	32.0	31.8	41.6	35.5	9.0	0.6	47.7	47.5	54.0	6.3	6.5
9.	17234.00	BB	31.4	31.7	41.6	35.6	9.6	0.3	47.3	47.6	54.0	6.7	6.4
10.	19696.00	BB	31.6	31.8	38.4	35.1	10.5	0.0	45.4	45.6	54.0	8.6	8.4
11.	22158.00	BB	31.4	30.8	39.2	35.0	11.0	0.0	46.6	46.0	54.0	7.4	8.0
12.	24620.00	BB	32.6	32.6	39.4	34.9	11.3	0.0	48.4	48.4	54.0	5.6	5.6

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)  
 ■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/Antenna:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 62 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	1596.40	BB	56.3	54.1	25.7	37.4	3.3	10.0	57.9	55.7	74.0	16.1	18.3
2.	2390.00	BB	54.4	60.0	27.7	37.0	4.0	10.0	59.1	64.7	74.0	14.9	9.3
3.	3115.00	BB	55.7	56.4	28.9	37.2	4.5	10.1	62.0	62.7	74.0	12.0	11.3
4.	4824.00	BB	54.2	57.5	32.1	36.5	5.5	0.5	55.8	59.1	74.0	18.2	14.9
5.	7236.00	BB	42.4	41.9	36.6	36.8	6.6	0.2	49.0	48.5	74.0	25.0	25.5
6.	9648.00	BB	45.6	46.2	38.9	37.1	7.4	0.4	55.2	55.8	74.0	18.8	18.2
7.	12060.00	BB	44.9	44.2	39.8	36.1	8.2	0.0	56.8	56.1	74.0	17.2	17.9
8.	14472.00	BB	44.2	43.6	42.4	35.0	8.9	0.3	60.8	60.2	74.0	13.2	13.8
9.	16884.00	BB	45.1	45.7	40.7	35.6	9.6	0.6	60.4	61.0	74.0	13.6	13.0
10.	19296.00	BB	44.8	44.8	38.6	34.9	10.3	0.0	58.8	58.8	74.0	15.2	15.2
11.	21708.00	BB	41.6	40.4	39.0	35.6	10.7	0.0	55.7	54.5	74.0	18.3	19.5
12.	24120.00	BB	43.0	42.4	39.3	34.9	11.1	0.0	58.5	57.9	74.0	15.5	16.1

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)  
 ■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/Antenna:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C Engineer : Takahiro Suzuki  
 Humidity : 62 %  
 Regulation : FCC Part15C §15.209(AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	1596.40	BB	44.1	44.0	25.7	37.4	3.3	10.0	45.7	45.6	54.0	8.3	8.4
2.	2390.00	BB	45.8	44.3	27.7	37.0	4.0	10.0	50.5	49.0	54.0	3.5	5.0
3.	3115.00	BB	44.2	45.2	28.9	37.2	4.5	10.1	50.5	51.5	54.0	3.5	2.5
4.	4824.00	BB	34.2	38.1	32.1	36.5	5.5	0.5	35.8	39.7	54.0	18.2	14.3
5.	7236.00	BB	33.2	33.0	36.6	36.8	6.6	0.2	39.8	39.6	54.0	14.2	14.4
6.	9648.00	BB	35.8	35.8	38.9	37.1	7.4	0.4	45.4	45.4	54.0	8.6	8.6
7.	12060.00	BB	36.0	35.6	39.8	36.1	8.2	0.0	47.9	47.5	54.0	6.1	6.5
8.	14472.00	BB	31.8	31.7	42.4	35.0	8.9	0.3	48.4	48.3	54.0	5.6	5.7
9.	16884.00	BB	31.4	32.1	40.7	35.6	9.6	0.6	46.7	47.4	54.0	7.3	6.6
10.	19296.00	BB	32.1	31.9	38.6	34.9	10.3	0.0	46.1	45.9	54.0	7.9	8.1
11.	21708.00	BB	31.2	31.4	39.0	35.6	10.7	0.0	45.3	45.5	54.0	8.7	8.5
12.	24120.00	BB	33.1	32.7	39.3	34.9	11.1	0.0	48.6	48.2	54.0	5.4	5.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)  
 ■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11g/Antenna:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 62 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)  
 Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	1596.10	BB	56.1	53.8	25.7	37.4	3.3	10.0	57.7	55.4	74.0	16.3	18.6
2.	3115.10	BB	55.6	56.2	28.9	37.2	4.5	10.1	61.9	62.5	74.0	12.1	11.5
3.	4874.00	BB	55.4	55.6	32.2	36.5	5.5	0.5	57.1	57.3	74.0	16.9	16.7
4.	7311.00	BB	44.6	46.6	36.7	36.8	6.7	0.2	51.4	53.4	74.0	22.6	20.6
5.	9748.00	BB	45.7	45.5	39.0	37.1	7.4	0.3	55.3	55.1	74.0	18.7	18.9
6.	12185.00	BB	43.6	44.6	39.6	36.0	8.2	0.0	55.4	56.4	74.0	18.6	17.6
7.	14622.00	BB	45.2	45.7	42.1	35.3	8.9	0.4	61.3	61.8	74.0	12.7	12.2
8.	17059.00	BB	44.1	44.6	41.1	35.6	9.7	0.6	59.9	60.4	74.0	14.1	13.6
9.	19496.00	BB	43.9	44.0	38.4	35.2	10.5	0.0	57.6	57.7	74.0	16.4	16.3
10.	21933.00	BB	41.3	40.1	39.1	35.2	10.8	0.0	56.0	54.8	74.0	18.0	19.2
11.	24370.00	BB	43.2	42.8	39.4	35.0	11.1	0.0	58.7	58.3	74.0	15.3	15.7

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)  
 ■ CABLE: KGC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11g/Antenna:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 62 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	1596.10	BB	44.2	43.7	25.7	37.4	3.3	10.0	45.8	45.3	54.0	8.2	8.7
2.	3115.10	BB	44.0	44.9	28.9	37.2	4.5	10.1	50.3	51.2	54.0	3.7	2.8
3.	4874.00	BB	39.9	40.2	32.2	36.5	5.5	0.5	41.6	41.9	54.0	12.4	12.1
4.	7311.00	BB	35.9	35.5	36.7	36.8	6.7	0.2	42.7	42.3	54.0	11.3	11.7
5.	9748.00	BB	35.6	35.4	39.0	37.1	7.4	0.3	45.2	45.0	54.0	8.8	9.0
6.	12185.00	BB	35.6	35.4	39.6	36.0	8.2	0.0	47.4	47.2	54.0	6.6	6.8
7.	14622.00	BB	31.9	32.1	42.1	35.3	8.9	0.4	48.0	48.2	54.0	6.0	5.8
8.	17059.00	BB	32.0	31.9	41.1	35.6	9.7	0.6	47.8	47.7	54.0	6.2	6.3
9.	19496.00	BB	31.9	31.9	38.4	35.2	10.5	0.0	45.6	45.6	54.0	8.4	8.4
10.	21933.00	BB	31.2	30.8	39.1	35.2	10.8	0.0	45.9	45.5	54.0	8.1	8.5
11.	24370.00	BB	33.0	33.2	39.4	35.0	11.1	0.0	48.5	48.7	54.0	5.5	5.3

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)

■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11g/Antenna:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 62 %  
 Regulation : FCC Part15C § 15.209(PK Detection)

Engineer : Takahiro Suzuki

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	1596.20	BB	56.3	53.7	25.7	37.4	3.3	10.0	57.9	55.3	74.0	16.1	18.7	
2.	2483.50	BB	53.7	54.6	28.0	37.1	4.0	10.0	58.6	59.5	74.0	15.4	14.5	
3.	3115.30	BB	55.7	56.3	28.9	37.2	4.5	10.1	62.0	62.6	74.0	12.0	11.4	
4.	4924.00	BB	55.2	58.7	32.3	36.4	5.6	0.5	57.2	60.7	74.0	16.8	13.3	
5.	7386.00	BB	44.9	43.8	36.8	36.8	6.7	0.2	51.8	50.7	74.0	22.2	23.3	
6.	9848.00	BB	46.5	47.4	39.2	37.1	7.4	0.2	56.2	57.1	74.0	17.8	16.9	
7.	12310.00	BB	44.2	44.7	39.3	35.8	8.1	0.0	55.8	56.3	74.0	18.2	17.7	
8.	14772.00	BB	43.9	44.1	41.6	35.5	9.0	0.6	59.6	59.8	74.0	14.4	14.2	
9.	17234.00	BB	44.0	43.8	41.6	35.6	9.6	0.3	59.9	59.7	74.0	14.1	14.3	
10.	19696.00	BB	44.2	43.9	38.4	35.1	10.5	0.0	58.0	57.7	74.0	16.0	16.3	
11.	22158.00	BB	43.2	40.8	39.2	35.0	11.0	0.0	58.4	56.0	74.0	15.6	18.0	
12.	24620.00	BB	43.2	42.8	39.4	34.9	11.3	0.0	59.0	58.6	74.0	15.0	15.4	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)  
 ■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11g/Antenna:WLE-HG-NDR  
 Date : 8/10/2005  
 Test Distance : 3 m  
 Temperature : 25 °C Engineer : Takahiro Suzuki  
 Humidity : 62 %  
 Regulation : FCC Part15C § 15.209(AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	1596.20	BB	43.9	44.0	25.7	37.4	3.3	10.0	45.5	45.6	54.0	8.5	8.4
2.	2483.50	BB	43.4	43.4	28.0	37.1	4.0	10.0	48.3	48.3	54.0	5.7	5.7
3.	3115.30	BB	44.1	44.2	28.9	37.2	4.5	10.1	50.4	50.5	54.0	3.6	3.5
4.	4924.00	BB	40.3	42.6	32.3	36.4	5.6	0.5	42.3	44.6	54.0	11.7	9.4
5.	7386.00	BB	35.2	35.6	36.8	36.8	6.7	0.2	42.1	42.5	54.0	11.9	11.5
6.	9848.00	BB	36.2	35.9	39.2	37.1	7.4	0.2	45.9	45.6	54.0	8.1	8.4
7.	12310.00	BB	36.1	35.7	39.3	35.8	8.1	0.0	47.7	47.3	54.0	6.3	6.7
8.	14772.00	BB	32.3	32.1	41.6	35.5	9.0	0.6	48.0	47.8	54.0	6.0	6.2
9.	17234.00	BB	31.2	31.8	41.6	35.6	9.6	0.3	47.1	47.7	54.0	6.9	6.3
10.	19696.00	BB	31.2	31.9	38.4	35.1	10.5	0.0	45.0	45.7	54.0	9.0	8.3
11.	22158.00	BB	31.6	31.3	39.2	35.0	11.0	0.0	46.8	46.5	54.0	7.2	7.5
12.	24620.00	BB	33.2	33.0	39.4	34.9	11.3	0.0	49.0	48.8	54.0	5.0	5.2

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-03 (18-26GHz)  
 ■ CABLE: KCC-D3/D7 ■ PREAMP: KAF-02 (8449B) ■ SPECTRUMANALYZER: KSA-04 (KSA-04)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ ANTENNA:WLE-MYG  
 Date : 9/7/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 61 %  
 Regulation : FCC Part15C § 15.209

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μV]	VER [dB μV]					HOR [dB μV/m]	VER [dB μV/m]	HOR [dB]	VER [dB]		
1.	250.00	BB	33.4	36.7	17.4	27.4	3.2	5.8	32.4	35.7	46.0	13.6	10.3	
2.	374.99	BB	39.2	36.5	16.4	27.9	4.0	5.8	37.5	34.8	46.0	8.5	11.2	
3.	399.99	BB	45.1	44.9	17.1	28.1	4.2	5.8	44.1	43.9	46.0	1.9	2.1	
4.	500.00	BB	32.2	44.1	18.5	28.4	4.7	5.8	32.8	44.7	46.0	13.2	1.3	
5.	699.99	BB	32.5	33.5	20.5	29.1	5.6	5.8	35.3	36.3	46.0	10.7	9.7	
6.	749.97	BB	34.2	32.6	20.4	29.2	5.9	5.8	37.1	35.5	46.0	8.9	10.5	
7.	899.97	BB	31.7	37.2	22.1	28.9	6.5	5.8	37.2	42.7	46.0	8.8	3.3	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-02 (BBA9106) 30-299MHz/KLA-02 (USLP9143) 300-1000MHz  
 ■ AMP: KAF-03 (8447D) ■ RECEIVER: KTR-04 (ESVS10) ■ CABLE: KCC-20/21/22/23/29

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.2 Open Test Site

Report No. : 25LE0018-YK -- 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11b/ ANTENNA:WLE-MYG  
 Date : 9/7/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 61 %  
 Regulation : FCC Part15C § 15.209

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER	HOR [dB]	VER		
1.	250.00	BB	33.2	36.6	17.4	27.4	3.2	5.8	32.2	35.6	46.0	13.8	10.4	
2.	374.99	BB	39.1	35.8	16.4	27.9	4.0	5.8	37.4	34.1	46.0	8.6	11.9	
3.	400.00	BB	44.9	44.5	17.1	28.1	4.2	5.8	43.9	43.5	46.0	2.1	2.5	
4.	500.00	BB	33.9	44.7	18.5	28.4	4.7	5.8	34.5	45.3	46.0	11.5	0.7	
5.	699.99	BB	33.5	33.0	20.5	29.1	5.6	5.8	36.3	35.8	46.0	9.7	10.2	
6.	749.99	BB	34.2	32.7	20.4	29.2	5.9	5.8	37.1	35.6	46.0	8.9	10.4	
7.	899.98	BB	32.0	36.3	22.1	28.9	6.5	5.8	37.5	41.8	46.0	8.5	4.2	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-02 (BBA9106) 30-299MHz/KLA-02 (USLP9143) 300-1000MHz

■ AMP: KAF-03 (8447D) ■ RECEIVER: KTR-04 (ESVS10) ■ CABLE: KCC-20/21/22/23/29



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK -- 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11b/ ANTENNA:WLE-MYG  
 Date : 9/7/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 61 %  
 Regulation : FCC Part15C § 15.209

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	250.00	BB	33.5	36.2	17.4	27.4	3.2	5.8	32.5	35.2	46.0	13.5	10.8
2.	375.00	BB	39.1	35.8	16.4	27.9	4.0	5.8	37.4	34.1	46.0	8.6	11.9
3.	400.00	BB	44.9	44.2	17.1	28.1	4.2	5.8	43.9	43.2	46.0	2.1	2.8
4.	499.99	BB	33.9	44.5	18.5	28.4	4.7	5.8	34.5	45.1	46.0	11.5	0.9
5.	700.01	BB	33.3	33.0	20.5	29.1	5.6	5.8	36.1	35.8	46.0	9.9	10.2
6.	749.99	BB	34.2	32.6	20.4	29.2	5.9	5.8	37.1	35.5	46.0	8.9	10.5
7.	899.97	BB	31.5	37.1	22.1	28.9	6.5	5.8	37.0	42.6	46.0	9.0	3.4

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-02 (BBA9106) 30-299MHz/KLA-02 (USLP9143) 300-1000MHz  
 ■ AMP: KAF-03 (8447D) ■ RECEIVER: KTR-04 (ESVS10) ■ CABLE: KCC-20/21/22/23/29

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK = 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2412MHz  
Remarks : IEEE802.11g/ ANTENNA:WLE-MYG  
Date : 9/7/2005  
Test Distance : 3 m  
Temperature : 25 °C  
Humidity : 61 %  
Regulation : FCC Part15C § 15.209

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	250.00	BB	34.0	37.1	17.4	27.4	3.2	5.8	33.0	36.1	46.0	13.0	9.9
2.	374.98	BB	39.0	36.1	16.4	27.9	4.0	5.8	37.3	34.4	46.0	8.7	11.6
3.	400.00	BB	43.8	43.2	17.1	28.1	4.2	5.8	42.8	42.2	46.0	3.2	3.8
4.	500.00	BB	33.5	43.6	18.5	28.4	4.7	5.8	34.1	44.2	46.0	11.9	1.8
5.	699.99	BB	33.2	33.4	20.5	29.1	5.6	5.8	36.0	36.2	46.0	10.0	9.8
6.	749.97	BB	34.1	32.6	20.4	29.2	5.9	5.8	37.0	35.5	46.0	9.0	10.5
7.	899.98	BB	31.6	37.1	22.1	28.9	6.5	5.8	37.1	42.6	46.0	8.9	3.4

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-02 (BBA9106) 30-299MHz/KLA-02 (USLP9143) 300-1000MHz  
 ■ AMP: KAF-03 (8447D) ■ RECEIVER: KTR-04 (ESVS10) ■ CABLE: KCC-20/21/22/23/29

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
 Yamakita No.2 Open Test Site  
 Report No. : 25LE0018-YK 0 97

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11g/ ANTENNA:WLE-MYG  
 Date : 9/7/2005  
 Test Distance : 3 m  
 Temperature : 25 °C Engineer : Toyokazu Imamura  
 Humidity : 61 %  
 Regulation : FCC Part15C § 15.209

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	250.00	BB	33.5	37.2	17.4	27.4	3.2	5.8	32.5	36.2	46.0	13.5	9.8
2.	374.99	BB	39.2	36.9	16.4	27.9	4.0	5.8	37.5	35.2	46.0	8.5	10.8
3.	400.00	BB	42.9	43.7	17.1	28.1	4.2	5.8	41.9	42.7	46.0	4.1	3.3
4.	499.99	BB	33.7	44.0	18.5	28.4	4.7	5.8	34.3	44.6	46.0	11.7	1.4
5.	700.00	BB	33.8	33.5	20.5	29.1	5.6	5.8	36.6	36.3	46.0	9.4	9.7
6.	749.99	BB	34.1	32.5	20.4	29.2	5.9	5.8	37.0	35.4	46.0	9.0	10.6
7.	899.98	BB	31.9	37.5	22.1	28.9	6.5	5.8	37.4	43.0	46.0	8.6	3.0

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ ANTENNA: KBA-02 (BBA9106) 30-299MHz/KLA-02 (USLP9143) 300-1000MHz  
 ■ AMP: KAF-03 (8447D) ■ RECEIVER: KTR-04 (ESVS10) ■ CABLE: KCC-20/21/22/23/29

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11g/ ANTENNA:WLE-MYG  
 Date : 9/7/2005  
 Test Distance : 3 m  
 Temperature : 25 °C  
 Humidity : 61 %  
 Regulation : FCC Part15C § 15.209

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER	HOR [dB]	VER		
1.	250.00	BB	33.7	36.4	17.4	27.4	3.2	5.8	32.7	35.4	46.0	13.3	10.6	
2.	375.00	BB	39.3	36.9	16.4	27.9	4.0	5.8	37.6	35.2	46.0	8.4	10.8	
3.	399.99	BB	43.7	43.9	17.1	28.1	4.2	5.8	42.7	42.9	46.0	3.3	3.1	
4.	499.99	BB	34.6	43.6	18.5	28.4	4.7	5.8	35.2	44.2	46.0	10.8	1.8	
5.	699.99	BB	33.7	33.6	20.5	29.1	5.6	5.8	36.5	36.4	46.0	9.5	9.6	
6.	749.98	BB	34.2	32.8	20.4	29.2	5.9	5.8	37.1	35.7	46.0	8.9	10.3	
7.	899.98	BB	31.9	36.2	22.1	28.9	6.5	5.8	37.4	41.7	46.0	8.6	4.3	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-02 (BBA9106) 30-299MHz/KLA-02 (USLP9143) 300-1000MHz  
 ■ AMP: KAF-03 (8447D) ■ RECEIVER: KTR-04 (ESVS10) ■ CABLE: KCC-20/21/22/23/29

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C Engineer : Akira Sato  
 Humidity : 47 %  
 Regulation : FCC Part15C § 15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2390.00	BB	49.0	49.8	27.7	34.6	4.0	10.0	56.1	56.9	74.0	17.9	17.1
2.	3114.93	BB	49.0	49.8	28.9	34.2	4.5	10.1	58.3	59.1	74.0	15.7	14.9
3.	4824.00	BB	58.2	57.8	32.1	34.0	5.5	0.5	62.3	61.9	74.0	11.7	12.1
4.	7236.00	BB	46.5	39.0	36.6	34.3	6.6	0.2	55.6	48.1	74.0	18.4	25.9
5.	9648.00	BB	44.3	41.9	38.9	34.9	7.4	0.4	56.1	53.7	74.0	17.9	20.3
6.	12060.00	BB	43.7	41.9	39.8	34.3	8.2	0.0	57.4	55.6	74.0	16.6	18.4
7.	14472.00	BB	40.2	40.3	42.4	33.9	8.9	0.3	57.9	58.0	74.0	16.1	16.0
8.	16884.00	BB	40.8	39.9	40.7	34.6	9.6	0.6	57.1	56.2	74.0	16.9	17.8
9.	19296.00	BB	42.0	42.0	38.6	33.8	10.3	0.0	57.1	57.1	74.0	16.9	16.9
10.	21708.00	BB	42.0	42.3	39.0	34.1	10.7	0.0	57.6	57.9	74.0	16.4	16.1
11.	24120.00	BB	36.5	36.6	39.3	31.9	11.1	0.0	55.0	55.1	74.0	19.0	18.9

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)  
 ■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.2 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C Engineer : Akira Sato  
 Humidity : 47 %  
 Regulation : FCC Part15C § 15.209(AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2390.00	BB	46.3	43.2	27.7	34.6	4.0	10.0	53.4	50.3	54.0	0.6	3.7
2.	3114.93	BB	38.8	38.7	28.9	34.2	4.5	10.1	48.1	48.0	54.0	5.9	6.0
3.	4824.00	BB	29.1	35.4	32.1	34.0	5.5	0.5	33.2	39.5	54.0	20.8	14.5
4.	7236.00	BB	35.4	26.7	36.6	34.3	6.6	0.2	44.5	35.8	54.0	9.5	18.2
5.	9648.00	BB	35.3	30.4	38.9	34.9	7.4	0.4	47.1	42.2	54.0	6.9	11.8
6.	12060.00	BB	32.0	31.2	39.8	34.3	8.2	0.0	45.7	44.9	54.0	8.3	9.1
7.	14472.00	BB	28.7	29.1	42.4	33.9	8.9	0.3	46.4	46.8	54.0	7.6	7.2
8.	16884.00	BB	30.2	30.3	40.7	34.6	9.6	0.6	46.5	46.6	54.0	7.5	7.4
9.	19296.00	BB	32.0	31.3	38.6	33.8	10.3	0.0	47.1	46.4	54.0	6.9	7.6
10.	21708.00	BB	31.3	31.3	39.0	34.1	10.7	0.0	46.9	46.9	54.0	7.1	7.1
11.	24120.00	BB	25.9	25.7	39.3	31.9	11.1	0.0	44.4	44.2	54.0	9.6	9.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)

■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.2 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11b/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 47 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Akira Sato

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	3115.21	BB	49.8	49.0	28.9	34.2	4.5	10.1	59.1	58.3	74.0	14.9	15.7
2.	4874.00	BB	56.9	38.2	32.2	34.0	5.5	0.5	61.1	42.4	74.0	12.9	31.6
3.	7311.00	BB	48.5	30.3	36.7	34.3	6.7	0.2	57.8	39.6	74.0	16.2	34.4
4.	9748.00	BB	44.3	30.8	39.0	34.9	7.4	0.3	56.1	42.6	74.0	17.9	31.4
5.	12185.00	BB	42.8	29.7	39.6	34.2	8.2	0.0	56.4	43.3	74.0	17.6	30.7
6.	14622.00	BB	40.1	28.6	42.1	34.0	8.9	0.4	57.5	46.0	74.0	16.5	28.0
7.	17059.00	BB	40.4	29.2	41.1	34.6	9.7	0.6	57.2	46.0	74.0	16.8	28.0
8.	19496.00	BB	41.5	30.5	38.4	34.3	10.5	0.0	56.1	45.1	74.0	17.9	28.9
9.	21933.00	BB	42.1	31.5	39.1	33.9	10.8	0.0	58.1	47.5	74.0	15.9	26.5
10.	24370.00	BB	40.8	31.8	39.4	32.9	11.1	0.0	58.4	49.4	74.0	15.6	24.6

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)

■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK = 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11b/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C Engineer : Akira Sato  
 Humidity : 47 %  
 Regulation : FCC Part15C § 15.209(AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	3115.21	BB	38.1	38.1	28.9	34.2	4.5	10.1	47.4	47.4	54.0	6.6	6.6
2.	4874.00	BB	28.0	38.2	32.2	34.0	5.5	0.5	32.2	42.4	54.0	21.8	11.6
3.	7311.00	BB	35.2	30.3	36.7	34.3	6.7	0.2	44.5	39.6	54.0	9.5	14.4
4.	9748.00	BB	35.6	30.8	39.0	34.9	7.4	0.3	47.4	42.6	54.0	6.6	11.4
5.	12185.00	BB	31.8	29.7	39.6	34.2	8.2	0.0	45.4	43.3	54.0	8.6	10.7
6.	14622.00	BB	28.6	28.6	42.1	34.0	8.9	0.4	46.0	46.0	54.0	8.0	8.0
7.	17059.00	BB	29.4	29.2	41.1	34.6	9.7	0.6	46.2	46.0	54.0	7.8	8.0
8.	19496.00	BB	30.4	30.5	38.4	34.3	10.5	0.0	45.0	45.1	54.0	9.0	8.9
9.	21933.00	BB	31.9	31.5	39.1	33.9	10.8	0.0	47.9	47.5	54.0	6.1	6.5
10.	24370.00	BB	31.7	31.8	39.4	32.9	11.1	0.0	49.3	49.4	54.0	4.7	4.6

CALCULATION: READING + ANT.FACTOR + CABLE LOSS - AMP.GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz)/KHA-04 (18-26GHz)  
 ■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.2 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11b/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C Engineer : Akira Sato  
 Humidity : 47 %  
 Regulation : FCC Part15C § 15.209(PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2483.50	BB	54.0	47.5	28.0	34.6	4.0	10.0	61.4	54.9	74.0	12.6	19.1
2.	3115.80	BB	48.9	48.6	28.9	34.2	4.5	10.1	58.2	57.9	74.0	15.8	16.1
3.	4924.00	BB	53.7	59.7	32.3	34.0	5.6	0.5	58.1	64.1	74.0	15.9	9.9
4.	7386.00	BB	51.6	41.9	36.8	34.3	6.7	0.2	61.0	51.3	74.0	13.0	22.7
5.	9848.00	BB	45.3	40.7	39.2	34.8	7.4	0.2	57.3	52.7	74.0	16.7	21.3
6.	12310.00	BB	41.1	38.9	39.3	34.1	8.1	0.0	54.4	52.2	74.0	19.6	21.8
7.	14772.00	BB	40.5	39.5	41.6	34.2	9.0	0.6	57.5	56.5	74.0	16.5	17.5
8.	17234.00	BB	39.9	39.6	41.6	34.7	9.6	0.3	56.7	56.4	74.0	17.3	17.6
9.	19696.00	BB	43.0	42.0	38.4	34.2	10.5	0.0	57.7	56.7	74.0	16.3	17.3
10.	22158.00	BB	42.4	42.3	39.2	33.4	11.0	0.0	59.2	59.1	74.0	14.8	14.9
11.	24620.00	BB	37.8	36.9	39.4	33.5	11.3	0.0	55.0	54.1	74.0	19.0	19.9

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)

■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.2 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11b/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C Engineer : Akira Sato  
 Humidity : 47 %  
 Regulation : FCC Part15C §15.209(AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2483.50	BB	40.2	34.7	28.0	34.6	4.0	10.0	47.6	42.1	54.0	6.4	11.9
2.	3115.80	BB	38.3	38.3	28.9	34.2	4.5	10.1	47.6	47.6	54.0	6.4	6.4
3.	4924.00	BB	36.1	40.2	32.3	34.0	5.6	0.5	40.5	44.6	54.0	13.5	9.4
4.	7386.00	BB	38.9	31.7	36.8	34.3	6.7	0.2	48.3	41.1	54.0	5.7	12.9
5.	9848.00	BB	38.4	32.0	39.2	34.8	7.4	0.2	50.4	44.0	54.0	3.6	10.0
6.	12310.00	BB	30.1	29.6	39.3	34.1	8.1	0.0	43.4	42.9	54.0	10.6	11.1
7.	14772.00	BB	30.1	29.4	41.6	34.2	9.0	0.6	47.1	46.4	54.0	6.9	7.6
8.	17234.00	BB	29.8	30.1	41.6	34.7	9.6	0.3	46.6	46.9	54.0	7.4	7.1
9.	19696.00	BB	32.3	32.3	38.4	34.2	10.5	0.0	47.0	47.0	54.0	7.0	7.0
10.	22158.00	BB	32.4	32.3	39.2	33.4	11.0	0.0	49.2	49.1	54.0	4.8	4.9
11.	24620.00	BB	27.1	27.1	39.4	33.5	11.3	0.0	44.3	44.3	54.0	9.7	9.7

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz)/KHA-04 (18-26GHz)

■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 (R3271A) ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK = 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 47 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Akira Sato

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	2390.00	BB	64.6	61.6	27.7	34.6	4.0	10.0	71.7	68.7	74.0	2.3	5.3
2.	3114.93	BB	49.6	48.7	28.9	34.2	4.5	10.1	58.9	58.0	74.0	15.1	16.0
3.	4824.00	BB	60.0	58.4	32.1	34.0	5.5	0.5	64.1	62.5	74.0	9.9	11.5
4.	7236.00	BB	48.0	38.8	36.6	34.3	6.6	0.2	57.1	47.9	74.0	16.9	26.1
5.	9648.00	BB	44.0	41.3	38.9	34.9	7.4	0.4	55.8	53.1	74.0	18.2	20.9
6.	12060.00	BB	42.2	39.2	39.8	34.3	8.2	0.0	55.9	52.9	74.0	18.1	21.1
7.	14472.00	BB	39.6	39.8	42.4	33.9	8.9	0.3	57.3	57.5	74.0	16.7	16.5
8.	16884.00	BB	39.7	40.8	40.7	34.6	9.6	0.6	56.0	57.1	74.0	18.0	16.9
9.	19296.00	BB	41.4	43.5	38.6	33.8	10.3	0.0	56.5	58.6	74.0	17.5	15.4
10.	21708.00	BB	41.4	42.4	39.0	34.1	10.7	0.0	57.0	58.0	74.0	17.0	16.0
11.	24120.00	BB	42.3	42.3	39.3	31.9	11.1	0.0	60.8	60.8	74.0	13.2	13.2

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)  
 ■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK = 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 47 %  
 Regulation : FCC Part15C §15.209 (AV Detection)  
 Engineer : Akira Sato

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	46.0	44.1	27.7	34.6	4.0	10.0	53.1	51.2	54.0	0.9	2.8
2.	3114.93	BB	38.7	38.4	28.9	34.2	4.5	10.1	48.0	47.7	54.0	6.0	6.3
3.	4824.00	BB	27.4	33.7	32.1	34.0	5.5	0.5	31.5	37.8	54.0	22.5	16.2
4.	7236.00	BB	32.4	27.4	36.6	34.3	6.6	0.2	41.5	36.5	54.0	12.5	17.5
5.	9648.00	BB	30.8	29.9	38.9	34.9	7.4	0.4	42.6	41.7	54.0	11.4	12.3
6.	12060.00	BB	29.7	29.0	39.8	34.3	8.2	0.0	43.4	42.7	54.0	10.6	11.3
7.	14472.00	BB	29.2	29.5	42.4	33.9	8.9	0.3	46.9	47.2	54.0	7.1	6.8
8.	16884.00	BB	30.6	31.1	40.7	34.6	9.6	0.6	46.9	47.4	54.0	7.1	6.6
9.	19296.00	BB	31.0	31.1	38.6	33.8	10.3	0.0	46.1	46.2	54.0	7.9	7.8
10.	21708.00	BB	32.0	31.6	39.0	34.1	10.7	0.0	47.6	47.2	54.0	6.4	6.8
11.	24120.00	BB	33.1	32.7	39.3	31.9	11.1	0.0	51.6	51.2	54.0	2.4	2.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)  
 ■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11g/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 47 %  
 Regulation : FCC Part15C § 15.209(PK Detection)

Engineer : Akira Sato

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	3115.07	BB	48.3	49.3	28.9	34.2	4.5	10.1	57.6	58.6	74.0	16.4	15.4
2.	4874.00	BB	55.5	59.1	32.2	34.0	5.5	0.5	59.7	63.3	74.0	14.3	10.7
3.	7311.00	BB	47.8	38.0	36.7	34.3	6.7	0.2	57.1	47.3	74.0	16.9	26.7
4.	9748.00	BB	42.9	40.2	39.0	34.9	7.4	0.3	54.7	52.0	74.0	19.3	22.0
5.	12185.00	BB	40.4	41.0	39.6	34.2	8.2	0.0	54.0	54.6	74.0	20.0	19.4
6.	14622.00	BB	39.3	38.7	42.1	34.0	8.9	0.4	56.7	56.1	74.0	17.3	17.9
7.	17059.00	BB	39.2	40.0	41.1	34.6	9.7	0.6	56.0	56.8	74.0	18.0	17.2
8.	19496.00	BB	41.0	40.0	38.4	34.3	10.5	0.0	55.6	54.6	74.0	18.4	19.4
9.	21933.00	BB	41.9	41.0	39.1	33.9	10.8	0.0	57.9	57.0	74.0	16.1	17.0
10.	24370.00	BB	42.7	42.6	39.4	32.9	11.1	0.0	60.3	60.2	74.0	13.7	13.8

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz)/KHA-04 (18-26GHz)  
 ■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11g/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 47 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)  
 Engineer : Akira Sato

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER					HOR [dB μ V/m]	VER		HOR [dB]	VER
1.	3115.07	BB	38.6	38.6	28.9	34.2	4.5	10.1	47.9	47.9	54.0	6.1	6.1
2.	4874.00	BB	29.3	31.9	32.2	34.0	5.5	0.5	33.5	36.1	54.0	20.5	17.9
3.	7311.00	BB	32.4	25.3	36.7	34.3	6.7	0.2	41.7	34.6	54.0	12.3	19.4
4.	9748.00	BB	30.5	29.8	39.0	34.9	7.4	0.3	42.3	41.6	54.0	11.7	12.4
5.	12185.00	BB	29.1	28.4	39.6	34.2	8.2	0.0	42.7	42.0	54.0	11.3	12.0
6.	14622.00	BB	28.7	28.3	42.1	34.0	8.9	0.4	46.1	45.7	54.0	7.9	8.3
7.	17059.00	BB	29.5	29.5	41.1	34.6	9.7	0.6	46.3	46.3	54.0	7.7	7.7
8.	19496.00	BB	30.3	30.2	38.4	34.3	10.5	0.0	44.9	44.8	54.0	9.1	9.2
9.	21933.00	BB	31.8	31.4	39.1	33.9	10.8	0.0	47.8	47.4	54.0	6.2	6.6
10.	24370.00	BB	31.8	31.9	39.4	32.9	11.1	0.0	49.4	49.5	54.0	4.6	4.5

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)  
 ■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11g/Antenna:WLE-MYG  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 24 °C  
 Humidity : 47 %  
 Regulation : FCC Part15C § 15.209(PK Detection)

Engineer : Akira Sato

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μ V/m]	MARGIN	
			HOR [dB μ V]	VER [dB μ V]					HOR [dB μ V/m]	VER [dB μ V/m]		HOR [dB]	VER [dB]
1.	2483.50	BB	60.0	50.1	28.0	34.6	4.0	10.0	67.4	57.5	74.0	6.6	16.5
2.	3115.21	BB	52.0	51.1	28.9	34.2	4.5	10.1	61.3	60.4	74.0	12.7	13.6
3.	4924.00	BB	55.4	55.4	32.3	34.0	5.6	0.5	59.8	59.8	74.0	14.2	14.2
4.	7386.00	BB	51.6	43.5	36.8	34.3	6.7	0.2	61.0	52.9	74.0	13.0	21.1
5.	9848.00	BB	45.2	41.4	39.2	34.8	7.4	0.2	57.2	53.4	74.0	16.8	20.6
6.	12310.00	BB	42.1	40.5	39.3	34.1	8.1	0.0	55.4	53.8	74.0	18.6	20.2
7.	14772.00	BB	39.6	39.0	41.6	34.2	9.0	0.6	56.6	56.0	74.0	17.4	18.0
8.	17234.00	BB	39.8	40.8	41.6	34.7	9.6	0.3	56.6	57.6	74.0	17.4	16.4
9.	19696.00	BB	41.7	41.7	38.4	34.2	10.5	0.0	56.4	56.4	74.0	17.6	17.6
10.	22158.00	BB	42.2	43.3	39.2	33.4	11.0	0.0	59.0	60.1	74.0	15.0	13.9
11.	24620.00	BB	42.3	43.7	39.4	33.5	11.3	0.0	59.5	60.9	74.0	14.5	13.1

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)  
 ■ AMP: KAF-04(8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE802.11g/Antenna:WLE-MYG  
Date : 9/8/2005  
Test Distance : 3 m  
Temperature : 24 °C Engineer : Akira Sato  
Humidity : 47 %  
Regulation : FCC Part15C §15.209(AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2483.50	BB	40.0	35.5	28.0	34.6	4.0	10.0	47.4	42.9	54.0	6.6	11.1
2.	3115.21	BB	41.4	41.5	28.9	34.2	4.5	10.1	50.7	50.8	54.0	3.3	3.2
3.	4924.00	BB	29.6	35.7	32.3	34.0	5.6	0.5	34.0	40.1	54.0	20.0	13.9
4.	7386.00	BB	33.7	30.3	36.8	34.3	6.7	0.2	43.1	39.7	54.0	10.9	14.3
5.	9848.00	BB	31.5	29.2	39.2	34.8	7.4	0.2	43.5	41.2	54.0	10.5	12.8
6.	12310.00	BB	30.0	29.4	39.3	34.1	8.1	0.0	43.3	42.7	54.0	10.7	11.3
7.	14772.00	BB	28.9	28.5	41.6	34.2	9.0	0.6	45.9	45.5	54.0	8.1	8.5
8.	17234.00	BB	30.0	30.0	41.6	34.7	9.6	0.3	46.8	46.8	54.0	7.2	7.2
9.	19696.00	BB	30.6	31.0	38.4	34.2	10.5	0.0	45.3	45.7	54.0	8.7	8.3
10.	22158.00	BB	32.2	32.6	39.2	33.4	11.0	0.0	49.0	49.4	54.0	5.0	4.6
11.	24620.00	BB	33.3	34.3	39.4	33.5	11.3	0.0	50.5	51.5	54.0	3.5	2.5

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz)/KHA-04 (18-26GHz)  
■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 (R3271A) ■ CABLE: KCC-D3/D7



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11b/ ANTENNA: WLE-AT-DAC  
 Date : 9/18/2005  
 Test Distance : 3 m  
 Temperature : 27 °C  
 Humidity : 46 %  
 Regulation : FCC Part15C § 15.209

Engineer : Makoto Hosaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	41.60	BB	23.8	36.5	13.6	28.4	1.6	6.0	16.6	29.3	40.0	23.4	10.7
2.	250.00	BB	34.6	34.6	17.7	27.8	4.3	6.0	34.8	34.8	46.0	11.2	11.2
3.	400.00	BB	41.2	44.7	17.5	28.6	5.7	6.0	41.8	45.3	46.0	4.2	0.7
4.	499.99	BB	35.9	39.8	18.5	29.0	6.4	6.0	37.8	41.7	46.0	8.2	4.3
5.	699.99	BB	30.8	30.7	21.0	29.1	7.8	6.0	36.5	36.4	46.0	9.5	9.6
6.	749.99	BB	33.5	33.2	21.3	29.1	8.1	6.0	39.8	39.5	46.0	6.2	6.5
7.	899.98	BB	28.6	33.5	23.2	28.7	9.1	6.0	38.2	43.1	46.0	7.8	2.9
8.	999.98	BB	29.3	32.6	24.6	28.3	9.7	6.0	41.3	44.6	54.0	12.7	9.4

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE:KCC-10/11/12/13/18 ■ PREAMP:KAF-01 (8447D) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK = 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE802.11b/ ANTENNA: WLE-AT-DAC  
 Date : 9/18/2005  
 Test Distance : 3 m  
 Temperature : 27 °C  
 Humidity : 46 %  
 Regulation : FCC Part15C § 15.209

Engineer : Makoto Hosaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	41.57	BB	23.7	37.0	13.6	28.4	1.6	6.0	16.5	29.8	40.0	23.5	10.2
2.	250.00	BB	33.9	35.0	17.7	27.8	4.3	6.0	34.1	35.2	46.0	11.9	10.8
3.	400.00	BB	41.0	44.4	17.5	28.6	5.7	6.0	41.6	45.0	46.0	4.4	1.0
4.	500.00	BB	36.2	40.0	18.5	29.1	6.4	6.0	38.0	41.8	46.0	8.0	4.2
5.	699.99	BB	30.0	30.9	21.0	29.1	7.8	6.0	35.7	36.6	46.0	10.3	9.4
6.	749.99	BB	34.5	33.7	21.3	29.1	8.1	6.0	40.8	40.0	46.0	5.2	6.0
7.	899.98	BB	29.6	32.9	23.2	28.7	9.1	6.0	39.2	42.5	46.0	6.8	3.5
8.	999.98	BB	29.9	33.1	24.6	28.3	9.7	6.0	41.9	45.1	54.0	12.1	8.9

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE: KCC-10/11/12/13/18 ■ PREAMP: KAF-01 (8447D) ■ EMI RECEIVER: KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11b/ ANTENNA: WLE-AT-DAC  
 Date : 9/18/2005  
 Test Distance : 3 m  
 Temperature : 27 °C  
 Humidity : 46 %  
 Regulation : FCC Part15C § 15.209

Engineer : Makoto Hosaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	41.57	BB	23.4	36.4	13.6	28.4	1.6	6.0	16.2	29.2	40.0	23.8	10.8
2.	250.00	BB	34.9	35.9	17.7	27.8	4.3	6.0	35.1	36.1	46.0	10.9	9.9
3.	400.00	BB	41.2	44.1	17.5	28.6	5.7	6.0	41.8	44.7	46.0	4.2	1.3
4.	500.00	BB	36.3	38.4	18.5	29.1	6.4	6.0	38.1	40.2	46.0	7.9	5.8
5.	699.99	BB	31.0	31.7	21.0	29.1	7.8	6.0	36.7	37.4	46.0	9.3	8.6
6.	749.99	BB	33.2	31.8	21.3	29.1	8.1	6.0	39.5	38.1	46.0	6.5	7.9
7.	899.99	BB	29.6	34.0	23.2	28.7	9.1	6.0	39.2	43.6	46.0	6.8	2.4
8.	999.99	BB	29.5	32.7	24.6	28.3	9.7	6.0	41.5	44.7	54.0	12.5	9.3

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE:KCC-10/11/12/13/18 ■ PREAMP:KAF-01 (8447D) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE802.11g/ ANTENNA: WLE-AT-DAC  
 Date : 9/18/2005  
 Test Distance : 3 m  
 Temperature : 27 °C  
 Humidity : 46 %  
 Regulation : FCC Part15C § 15.209

Engineer : Makoto Hosaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	41.57	BB	23.4	33.4	13.6	28.4	1.6	6.0	16.2	26.2	40.0	23.8	13.8
2.	250.00	BB	35.0	34.9	17.7	27.8	4.3	6.0	35.2	35.1	46.0	10.8	10.9
3.	400.00	BB	40.4	43.8	17.5	28.6	5.7	6.0	41.0	44.4	46.0	5.0	1.6
4.	500.00	BB	35.0	38.9	18.5	29.1	6.4	6.0	36.8	40.7	46.0	9.2	5.3
5.	699.99	BB	30.1	31.0	21.0	29.1	7.8	6.0	35.8	36.7	46.0	10.2	9.3
6.	749.99	BB	33.3	33.5	21.3	29.1	8.1	6.0	39.6	39.8	46.0	6.4	6.2
7.	899.98	BB	28.5	33.5	23.2	28.7	9.1	6.0	38.1	43.1	46.0	7.9	2.9
8.	999.98	BB	29.4	32.7	24.6	28.3	9.7	6.0	41.4	44.7	54.0	12.6	9.3

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE:KCC-10/11/12/13/18 ■ PREAMP:KAF-01 (8447D) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2437MHz  
Remarks : IEEE802.11g/ ANTENNA: WLE-AT-DAC  
Date : 9/18/2005  
Test Distance : 3 m  
Temperature : 27 °C  
Humidity : 46 %  
Regulation : FCC Part15C § 15.209

Engineer : Makoto Hosaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	41.58	BB	24.0	34.5	13.6	28.4	1.6	6.0	16.8	27.3	40.0	23.2	12.7
2.	250.00	BB	34.5	35.3	17.7	27.8	4.3	6.0	34.7	35.5	46.0	11.3	10.5
3.	400.00	BB	41.0	44.1	17.5	28.6	5.7	6.0	41.6	44.7	46.0	4.4	1.3
4.	500.00	BB	36.2	39.3	18.5	29.1	6.4	6.0	38.0	41.1	46.0	8.0	4.9
5.	699.99	BB	29.8	30.7	21.0	29.1	7.8	6.0	35.5	36.4	46.0	10.5	9.6
6.	749.99	BB	34.0	33.4	21.3	29.1	8.1	6.0	40.3	39.7	46.0	5.7	6.3
7.	899.98	BB	28.8	34.3	23.2	28.7	9.1	6.0	38.4	43.9	46.0	7.6	2.1
8.	999.98	BB	29.1	33.1	24.6	28.3	9.7	6.0	41.1	45.1	54.0	12.9	8.9

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE:KCC-10/11/12/13/18 ■ PREAMP:KAF-01 (8447D) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.1 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE802.11g/ ANTENNA: WLE-AT-DAC  
 Date : 9/18/2005  
 Test Distance : 3 m  
 Temperature : 27 °C  
 Humidity : 46 %  
 Regulation : FCC Part15C § 15.209

Engineer : Makoto Hosaka

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	41.59	BB	23.8	35.7	13.6	28.4	1.6	6.0	16.6	28.5	40.0	23.4	11.5
2.	250.00	BB	35.0	34.6	17.7	27.8	4.3	6.0	35.2	34.8	46.0	10.8	11.2
3.	400.00	BB	39.6	44.4	17.5	28.6	5.7	6.0	40.2	45.0	46.0	5.8	1.0
4.	500.00	BB	34.6	38.7	18.5	29.1	6.4	6.0	36.4	40.5	46.0	9.6	5.5
5.	699.99	BB	30.1	31.3	21.0	29.1	7.8	6.0	35.8	37.0	46.0	10.2	9.0
6.	749.99	BB	32.2	33.9	21.3	29.1	8.1	6.0	38.5	40.2	46.0	7.5	5.8
7.	899.98	BB	29.3	34.3	23.2	28.7	9.1	6.0	38.9	43.9	46.0	7.1	2.1
8.	999.98	BB	28.5	32.9	24.6	28.3	9.7	6.0	40.5	44.9	54.0	13.5	9.1

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KBA-01 (BBA9106) 30-299.99MHz/KLA-01 (USLP9143) 300-1000MHz  
 ■ CABLE:KCC-10/11/12/13/18 ■ PREAMP:KAF-01 (8447D) ■ EMI RECEIVER:KTR-02 (ESCS30)

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C  
 Humidity : 66 %  
 Regulation : FCC Part15C §15.209 (PK Detection)  
 Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	56.2	57.2	27.7	34.6	4.0	10.0	63.3	64.3	74.0	10.7	9.7
2.	4824.00	BB	51.4	53.7	32.1	34.0	5.5	0.5	55.5	57.8	74.0	18.5	16.2
3.	7236.00	BB	45.9	43.2	36.6	34.3	6.6	0.2	55.0	52.3	74.0	19.0	21.7
4.	9648.00	BB	45.6	42.2	38.9	34.9	7.4	0.4	57.4	54.0	74.0	16.6	20.0
5.	12060.00	BB	42.2	41.7	39.8	34.3	8.2	0.0	55.9	55.4	74.0	18.1	18.6
6.	14472.00	BB	41.2	41.6	42.4	33.9	8.9	0.3	58.9	59.3	74.0	15.1	14.7
7.	16884.00	BB	41.2	40.5	40.7	34.6	9.6	0.6	57.5	56.8	74.0	16.5	17.2
8.	19296.00	BB	43.5	44.1	38.6	33.8	10.3	0.0	58.6	59.2	74.0	15.4	14.8
9.	21708.00	BB	42.4	41.8	39.0	34.1	10.7	0.0	58.0	57.4	74.0	16.0	16.6
10.	24120.00	BB	43.5	44.1	39.3	31.9	11.1	0.0	62.0	62.6	74.0	12.0	11.4

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)  
 ■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.2 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C  
 Humidity : 66 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	45.0	46.7	27.7	34.6	4.0	10.0	52.1	53.8	54.0	1.9	0.2
2.	4824.00	BB	33.1	34.3	32.1	34.0	5.5	0.5	37.2	38.4	54.0	16.8	15.6
3.	7236.00	BB	34.0	31.6	36.6	34.3	6.6	0.2	43.1	40.7	54.0	10.9	13.3
4.	9648.00	BB	34.8	32.0	38.9	34.9	7.4	0.4	46.6	43.8	54.0	7.4	10.2
5.	12060.00	BB	30.5	29.9	39.8	34.3	8.2	0.0	44.2	43.6	54.0	9.8	10.4
6.	14472.00	BB	29.1	29.0	42.4	33.9	8.9	0.3	46.8	46.7	54.0	7.2	7.3
7.	16884.00	BB	30.4	30.2	40.7	34.6	9.6	0.6	46.7	46.5	54.0	7.3	7.5
8.	19296.00	BB	32.0	32.8	38.6	33.8	10.3	0.0	47.1	47.9	54.0	6.9	6.1
9.	21708.00	BB	31.2	31.2	39.0	34.1	10.7	0.0	46.8	46.8	54.0	7.2	7.2
10.	24120.00	BB	33.0	33.0	39.3	31.9	11.1	0.0	51.5	51.5	54.0	2.5	2.5

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)

■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 ■ CABLE: KCC-D3/D7



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C Engineer : Toyokazu Imamura  
 Humidity : 66 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	4874.00	BB	50.3	52.5	32.2	34.0	5.5	0.5	54.5	56.7	74.0	19.5	17.3
2.	7311.00	BB	47.5	44.4	36.7	34.3	6.7	0.2	56.8	53.7	74.0	17.2	20.3
3.	9748.00	BB	44.6	45.0	39.0	34.9	7.4	0.3	56.4	56.8	74.0	17.6	17.2
4.	12185.00	BB	42.0	42.0	39.6	34.2	8.2	0.0	55.6	55.6	74.0	18.4	18.4
5.	14622.00	BB	39.8	41.7	42.1	34.0	8.9	0.4	57.2	59.1	74.0	16.8	14.9
6.	17059.00	BB	41.5	40.0	41.1	34.6	9.7	0.6	58.3	56.8	74.0	15.7	17.2
7.	19496.00	BB	43.2	43.5	38.4	34.3	10.5	0.0	57.8	58.1	74.0	16.2	15.9
8.	21933.00	BB	42.4	42.3	39.1	33.9	10.8	0.0	58.4	58.3	74.0	15.6	15.7
9.	24370.00	BB	42.3	43.9	39.4	32.9	11.1	0.0	59.9	61.5	74.0	14.1	12.5

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)  
 ■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.2 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C  
 Humidity : 66 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	4874.00	BB	33.0	34.9	32.2	34.0	5.5	0.5	37.2	39.1	54.0	16.8	14.9
2.	7311.00	BB	35.3	32.9	36.7	34.3	6.7	0.2	44.6	42.2	54.0	9.4	11.8
3.	9748.00	BB	34.5	33.1	39.0	34.9	7.4	0.3	46.3	44.9	54.0	7.7	9.1
4.	12185.00	BB	29.0	30.8	39.6	34.2	8.2	0.0	42.6	44.4	54.0	11.4	9.6
5.	14622.00	BB	29.1	29.3	42.1	34.0	8.9	0.4	46.5	46.7	54.0	7.5	7.3
6.	17059.00	BB	29.6	29.6	41.1	34.6	9.7	0.6	46.4	46.4	54.0	7.6	7.6
7.	19496.00	BB	31.9	32.4	38.4	34.3	10.5	0.0	46.5	47.0	54.0	7.5	7.0
8.	21933.00	BB	31.9	31.9	39.1	33.9	10.8	0.0	47.9	47.9	54.0	6.1	6.1
9.	24370.00	BB	32.0	32.4	39.4	32.9	11.1	0.0	49.6	50.0	54.0	4.4	4.0

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)

■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C  
 Humidity : 66 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)  
 Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS		MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER	HOR [dB]	VER		
1.	2483.50	BB	54.7	58.1	28.0	34.6	4.0	10.0	62.1	65.5	74.0	11.9	8.5	
2.	4924.00	BB	49.7	53.5	32.3	34.0	5.6	0.5	54.1	57.9	74.0	19.9	16.1	
3.	7386.00	BB	48.4	43.9	36.8	34.3	6.7	0.2	57.8	53.3	74.0	16.2	20.7	
4.	9848.00	BB	45.8	45.4	39.2	34.8	7.4	0.2	57.8	57.4	74.0	16.2	16.6	
5.	12310.00	BB	42.5	41.7	39.3	34.1	8.1	0.0	55.8	55.0	74.0	18.2	19.0	
6.	14772.00	BB	41.6	41.2	41.6	34.2	9.0	0.6	58.6	58.2	74.0	15.4	15.8	
7.	17234.00	BB	42.4	41.8	41.6	34.7	9.6	0.3	59.2	58.6	74.0	14.8	15.4	
8.	19696.00	BB	44.8	43.7	38.4	34.2	10.5	0.0	59.5	58.4	74.0	14.5	15.6	
9.	22158.00	BB	42.8	43.3	39.2	33.4	11.0	0.0	59.6	60.1	74.0	14.4	13.9	
10.	24620.00	BB	45.1	44.6	39.4	33.5	11.3	0.0	62.3	61.8	74.0	11.7	12.2	

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)  
 ■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2462MHz  
 Remarks : IEEE 802.11b/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C  
 Humidity : 66 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2483.50	BB	43.5	46.3	28.0	34.6	4.0	10.0	50.9	53.7	54.0	3.1	0.3
2.	4924.00	BB	34.9	35.5	32.3	34.0	5.6	0.5	39.3	39.9	54.0	14.7	14.1
3.	7386.00	BB	36.5	32.6	36.8	34.3	6.7	0.2	45.9	42.0	54.0	8.1	12.0
4.	9848.00	BB	35.3	36.2	39.2	34.8	7.4	0.2	47.3	48.2	54.0	6.7	5.8
5.	12310.00	BB	30.8	30.7	39.3	34.1	8.1	0.0	44.1	44.0	54.0	9.9	10.0
6.	14772.00	BB	29.8	29.6	41.6	34.2	9.0	0.6	46.8	46.6	54.0	7.2	7.4
7.	17234.00	BB	30.6	30.5	41.6	34.7	9.6	0.3	47.4	47.3	54.0	6.6	6.7
8.	19696.00	BB	32.2	32.2	38.4	34.2	10.5	0.0	46.9	46.9	54.0	7.1	7.1
9.	22158.00	BB	33.0	32.7	39.2	33.4	11.0	0.0	49.8	49.5	54.0	4.2	4.5
10.	24620.00	BB	34.6	34.4	39.4	33.5	11.3	0.0	51.8	51.6	54.0	2.2	2.4

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)  
 ■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.

Yamakita No.2 Open Test Site

Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C  
 Humidity : 66 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	60.7	62.1	27.7	34.6	4.0	10.0	67.8	69.2	74.0	6.2	4.8
2.	4824.00	BB	50.7	53.4	32.1	34.0	5.5	0.5	54.8	57.5	74.0	19.2	16.5
3.	7236.00	BB	45.4	43.0	36.6	34.3	6.6	0.2	54.5	52.1	74.0	19.5	21.9
4.	9648.00	BB	43.4	43.1	38.9	34.9	7.4	0.4	55.2	54.9	74.0	18.8	19.1
5.	12060.00	BB	43.2	39.5	39.8	34.3	8.2	0.0	56.9	53.2	74.0	17.1	20.8
6.	14472.00	BB	39.4	40.1	42.4	33.9	8.9	0.3	57.1	57.8	74.0	16.9	16.2
7.	16884.00	BB	39.6	39.2	40.7	34.6	9.6	0.6	55.9	55.5	74.0	18.1	18.5
8.	19296.00	BB	41.3	41.0	38.6	33.8	10.3	0.0	56.4	56.1	74.0	17.6	17.9
9.	21708.00	BB	40.8	40.2	39.0	34.1	10.7	0.0	56.4	55.8	74.0	17.6	18.2
10.	24120.00	BB	43.6	42.6	39.3	31.9	11.1	0.0	62.1	61.1	74.0	11.9	12.9

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) /KHA-04 (18-26GHz)

■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 ■ CABLE: KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2412MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C  
 Humidity : 66 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2390.00	BB	44.8	43.4	27.7	34.6	4.0	10.0	51.9	50.5	54.0	2.1	3.5
2.	4824.00	BB	26.2	28.6	32.1	34.0	5.5	0.5	30.3	32.7	54.0	23.7	21.3
3.	7236.00	BB	29.3	29.0	36.6	34.3	6.6	0.2	38.4	38.1	54.0	15.6	15.9
4.	9648.00	BB	30.4	30.4	38.9	34.9	7.4	0.4	42.2	42.2	54.0	11.8	11.8
5.	12060.00	BB	29.6	28.9	39.8	34.3	8.2	0.0	43.3	42.6	54.0	10.7	11.4
6.	14472.00	BB	29.2	29.0	42.4	33.9	8.9	0.3	46.9	46.7	54.0	7.1	7.3
7.	16884.00	BB	30.4	30.0	40.7	34.6	9.6	0.6	46.7	46.3	54.0	7.3	7.7
8.	19296.00	BB	31.2	31.1	38.6	33.8	10.3	0.0	46.3	46.2	54.0	7.7	7.8
9.	21708.00	BB	31.3	31.2	39.0	34.1	10.7	0.0	46.9	46.8	54.0	7.1	7.2
10.	24120.00	BB	33.0	33.1	39.3	31.9	11.1	0.0	51.5	51.6	54.0	2.5	2.4

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)  
 ■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C  
 Humidity : 66 %  
 Regulation : FCC Part15C § 15.209 (PK Detection)  
 Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	4874.00	BB	48.0	46.3	32.2	34.0	5.5	0.5	52.2	50.5	74.0	21.8	23.5
2.	7311.00	BB	46.3	42.8	36.7	34.3	6.7	0.2	55.6	52.1	74.0	18.4	21.9
3.	9748.00	BB	45.6	41.8	39.0	34.9	7.4	0.3	57.4	53.6	74.0	16.6	20.4
4.	12185.00	BB	42.6	39.2	39.6	34.2	8.2	0.0	56.2	52.8	74.0	17.8	21.2
5.	14622.00	BB	39.1	39.4	42.1	34.0	8.9	0.4	56.5	56.8	74.0	17.5	17.2
6.	17059.00	BB	40.2	40.3	41.1	34.6	9.7	0.6	57.0	57.1	74.0	17.0	16.9
7.	19496.00	BB	42.7	42.8	38.4	34.3	10.5	0.0	57.3	57.4	74.0	16.7	16.6
8.	21933.00	BB	42.2	41.1	39.1	33.9	10.8	0.0	58.2	57.1	74.0	15.8	16.9
9.	24370.00	BB	42.1	41.5	39.4	32.9	11.1	0.0	59.7	59.1	74.0	14.3	14.9

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)  
 ■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK-5

Applicant : BUFFALO Inc.  
 Kind of Equipment : High Speed Wireless Router  
 Model No. : WHR-HP-G54  
 Serial No. : D-01  
 Power : AC120V/60Hz  
 Mode : Transmitting:2437MHz  
 Remarks : IEEE 802.11g/ANTENNA:WLE-AT-DAC  
 Date : 9/8/2005  
 Test Distance : 3 m  
 Temperature : 23 °C  
 Humidity : 66 %  
 Regulation : FCC Part15C § 15.209 (AV Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	4874.00	BB	26.0	27.9	32.2	34.0	5.5	0.5	30.2	32.1	54.0	23.8	21.9
2.	7311.00	BB	29.7	28.5	36.7	34.3	6.7	0.2	39.0	37.8	54.0	15.0	16.2
3.	9748.00	BB	30.2	29.5	39.0	34.9	7.4	0.3	42.0	41.3	54.0	12.0	12.7
4.	12185.00	BB	29.1	28.3	39.6	34.2	8.2	0.0	42.7	41.9	54.0	11.3	12.1
5.	14622.00	BB	29.1	29.0	42.1	34.0	8.9	0.4	46.5	46.4	54.0	7.5	7.6
6.	17059.00	BB	29.6	29.5	41.1	34.6	9.7	0.6	46.4	46.3	54.0	7.6	7.7
7.	19496.00	BB	31.2	31.1	38.4	34.3	10.5	0.0	45.8	45.7	54.0	8.2	8.3
8.	21933.00	BB	31.9	31.9	39.1	33.9	10.8	0.0	47.9	47.9	54.0	6.1	6.1
9.	24370.00	BB	32.4	32.4	39.4	32.9	11.1	0.0	50.0	50.0	54.0	4.0	4.0

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) / KHA-04 (18-26GHz)  
 ■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 ■ CABLE: KCC-D3/D7



# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE 802.11g/ANTENNA:WLE-AT-DAC  
Date : 9/8/2005  
Test Distance : 3 m  
Temperature : 23 °C  
Humidity : 66 %  
Regulation : FCC Part15C § 15.209 (PK Detection)

Engineer : Toyokazu Imamura

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2483.50	BB	56.0	57.2	28.0	34.6	4.0	10.0	63.4	64.6	74.0	10.6	9.4
2.	4924.00	BB	47.9	52.9	32.3	34.0	5.6	0.5	52.3	57.3	74.0	21.7	16.7
3.	7386.00	BB	46.6	43.7	36.8	34.3	6.7	0.2	56.0	53.1	74.0	18.0	20.9
4.	9848.00	BB	45.5	44.9	39.2	34.8	7.4	0.2	57.5	56.9	74.0	16.5	17.1
5.	12310.00	BB	42.0	41.8	39.3	34.1	8.1	0.0	55.3	55.1	74.0	18.7	18.9
6.	14772.00	BB	38.9	40.8	41.6	34.2	9.0	0.6	55.9	57.8	74.0	18.1	16.2
7.	17234.00	BB	42.5	41.6	41.6	34.7	9.6	0.3	59.3	58.4	74.0	14.7	15.6
8.	19696.00	BB	42.6	41.9	38.4	34.2	10.5	0.0	57.3	56.6	74.0	16.7	17.4
9.	22158.00	BB	43.2	43.0	39.2	33.4	11.0	0.0	60.0	59.8	74.0	14.0	14.2
10.	24620.00	BB	45.0	44.2	39.4	33.5	11.3	0.0	62.2	61.4	74.0	11.8	12.6

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA:KHA-02 (1-18GHz) /KHA-04 (18-26GHz)  
■ AMP:KAF-04 (8449B) ■ SPECTRUM ANALYZER:KSA-04 ■ CABLE:KCC-D3/D7

# DATA OF RADIATION TEST

UL Apex Co.,Ltd.  
Yamakita No.2 Open Test Site  
Report No. : 25LE0018-YK - 5

Applicant : BUFFALO Inc.  
Kind of Equipment : High Speed Wireless Router  
Model No. : WHR-HP-G54  
Serial No. : D-01  
Power : AC120V/60Hz  
Mode : Transmitting:2462MHz  
Remarks : IEEE 802.11g/ANTENNA:WLE-AT-DAC  
Date : 9/8/2005  
Test Distance : 3 m  
Temperature : 23 °C Engineer : Toyokazu Imamura  
Humidity : 66 %  
Regulation : FCC Part15C § 15.209 (AV Detection)

No.	FREQ. [MHz]	ANT TYPE	READING		ANT FACTOR [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATTEN. [dB]	RESULT		LIMITS [dB μV/m]	MARGIN	
			HOR [dB μV]	VER					HOR [dB μV/m]	VER		HOR [dB]	VER
1.	2483.50	BB	42.0	42.3	28.0	34.6	4.0	10.0	49.4	49.7	54.0	4.6	4.3
2.	4924.00	BB	28.2	28.5	32.3	34.0	5.6	0.5	32.6	32.9	54.0	21.4	21.1
3.	7386.00	BB	29.6	28.5	36.8	34.3	6.7	0.2	39.0	37.9	54.0	15.0	16.1
4.	9848.00	BB	30.6	31.3	39.2	34.8	7.4	0.2	42.6	43.3	54.0	11.4	10.7
5.	12310.00	BB	29.0	28.7	39.3	34.1	8.1	0.0	42.3	42.0	54.0	11.7	12.0
6.	14772.00	BB	29.2	29.5	41.6	34.2	9.0	0.6	46.2	46.5	54.0	7.8	7.5
7.	17234.00	BB	30.2	30.5	41.6	34.7	9.6	0.3	47.0	47.3	54.0	7.0	6.7
8.	19696.00	BB	31.1	31.1	38.4	34.2	10.5	0.0	45.8	45.8	54.0	8.2	8.2
9.	22158.00	BB	32.9	32.7	39.2	33.4	11.0	0.0	49.7	49.5	54.0	4.3	4.5
10.	24620.00	BB	34.6	34.6	39.4	33.5	11.3	0.0	51.8	51.8	54.0	2.2	2.2

CALCULATION: READING + ANT. FACTOR + CABLE LOSS - AMP. GAIN + ATTEN.

■ ANTENNA: KHA-02 (1-18GHz) /KHA-04 (18-26GHz)  
■ AMP: KAF-04 (8449B) ■ SPECTRUM ANALYZER: KSA-04 ■ CABLE: KCC-D3/D7

Test Report No : 25LE0018-YK-5

### APPENDIX 3 Test Instruments

#### EMI test equipment

Control No	Instrument	Manufacturer	Model No	Test Item	Calibration Date Interval (month)
KCC-20/21/22 /23/29	Coaxial Cable	Fujikura/Suhner	8D-2W/12D-SFA/S0 4272B/S04272B	RE	2005/09/02 * 12
KCC-24/25/26 /28/KPL-02	Coaxial Cable/Pulse Limiter	Fujikura/Suhner/PMM	5D-2W/5D-2W/S042 72B/S04272B/PL01	CE	2005/09/02 * 12
KHA-02	Horn Antenna	Schwarzbeck	BBHA9120D	RE	2004/09/25 * 12
KHA-03	Horn Antenna	EMCO	3160-09	RE	2005/05/14 * 12
KHA-04	Horn Antenna	EMCO	3160-09	RE	2005/05/14 * 12
KAF-01	Pre Amplifier	Hewlett Packard	8447D	RE	2005/05/24 * 12
KAF-02	Pre Amplifier	Hewlett Packard	8449B	RE	2005/04/28 * 12
KAF-03	Pre Amplifier	Hewlett Packard	8447D	RE	2005/09/09 * 12
KAF-04	Pre Amplifier	Agilent	8449B	RE	2005/04/28 * 12
KAT10-S1	Attenuator	Agilent	8449D 010	RE	2005/04/12 * 12
KAT10-S2	Attenuator	Agilent	8490D 010	RE	2004/10/14 * 12
KAT6-02	Attenuator	INMET	18N-6dB	RE	2005/04/07 * 12
KAT6-03	Attenuator	INMET	18N-6dB	RE	2005/04/07 * 12
KBA-01	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/08/04 * 12
KBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/07/29 * 12
KBA-03	Biconical Antenna	Schwarzbeck	BBA9106	RE	2005/01/29 * 12
KCC-10/11/12 /13/18	Coaxial Cable	Fujikura/Suhner	8D-2W/12D-SFA/S0 4272B/S04272B/S04 272B	RE	2005/06/14 * 12
KCC-14/15/16 /18/KPL-01	Coaxial Cable/Pulse Limiter	Fujikura/Suhner/PMM	5D-2W/8D-2W/S042 72B/S04272B/PL01	CE	2005/06/14 * 12
KCC-D3/D7	Coaxial Cable	Rosenberger/Advantest	2201/JUN-08-01-06 1	RE	2005/04/12 * 12
KFL-01	Highpass Filter	Hewlett Packard	84300 80038	RE	2005/04/12 * 12
KLA-01	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2005/01/29 * 12
KLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE	2005/07/29 * 12
KLS-01	LISN(AMN)	Schwarzbeck	NSLK8126	CE (EUT)	2005/05/10 * 12
KLS-02	LISN(AMN)	Schwarzbeck	NSLK8127	CE (AE)	2004/11/01 * 12
KLS-05	LISN(AMN)	Schwarzbeck	NSLK8126	CE (EUT)	2005/09/06 * 12
KLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE (AE)	2005/09/06 * 12
KOTS-01	Open Test Site	JSE	30m	RE	2005/08/10 * 12
KOTS-02	Open Test Site	JSE	10m	RE	2005/08/07 * 12
KSA-01	Spectrum Analyzer	Advantest	R3365	CE/RE	2005/07/06 * 12
KSA-02	Spectrum Analyzer	Advantest	R3265A	CE/RE	2004/11/18 * 12
KSA-04	Spectrum Analyzer	Advantest	R3271A	RE	2005/09/13 * 12
KTM-01	Terminator	TME	CT-01BP	CE	2005/04/07 * 12
KTM-03	Terminator	TME	CT-01BP	CE	2005/04/07 * 12
KTR-02	Test Receiver	Rohde & Schwarz	ESCS30	CE/RE	2004/11/25 * 12
KTR-03	Test Receiver	Rohde & Schwarz	ESHS10	CE	2005/05/11 * 12
KTR-04	Test Receiver	Rohde & Schwarz	ESVS10	RE	2004/10/18 * 12

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