



EMI TEST REPORT

Test Report No. : 25JE0262-HO-1a

Applicant : silex technology, Inc.
Type of Equipment : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
FCC ID : N6C-SX10WG
Test standard : FCC Part 15 Subpart C
Section 15.207, Section 15.247: 2005
Test Result : Complied

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

Date of test: August 5 to September 16, 2005

Tested by:

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SECTION 1: Client information

Company Name : silex technology, Inc.
Address : 15-15 Takaida Higashi-Osaka-shi Osaka, 577-0802 Japan
Telephone Number : +81-6-6784-3758
Facsimile Number : +81-6-6784-3750
Contact Person : Toshirou Kometani

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

2.1 Identification of E.U.T.

Type of Equipment : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 10 (for Radiated emission (1G-10GHz))
20 (for Antenna Terminal, Conducted Emission and Radiated
Emission (30MHz-1GHz, 10-26.5GHz) tests)
Country of Manufacture : JAPAN
Rating : DC3.3V(+/-10%) / 0.5A
Receipt Date of Sample : July 5 2005
Condition of EUT : Production Prototype
(Not for Sale: This sample is equivalent to mass-produced items.)

2.2 Product Description

Model No: SX-10WG is the Wireless 11g MiniPCI Adapter for a station of Wireless LAN 11b/g.

Clock frequency	Wireless chip set: 2.4GHz
Feature of EUT	This is the IEEE802.11b/g Wireless LAN Adapter. This Adapter has MiniPCI I/F for connecting to Host Computer. The Host Computer can be Wireless LAN Station by connecting this adapter. (PC, or Embedded System or etc..)

Equipment Type	Transceiver
Frequency of Operation	2412-2462MHz
Bandwidth & channel spacing	22MHz / 5MHz
Type of Modulation	DSSS / OFDM
Antenna Type	Omni-Directional Antenna(IWX-241XRSX9-417) Omni-Directional Antenna(UU33006A0C0)
Antenna Connector Type	SMA Reverse
Antenna Gain	2 dBi
Mode of Operation	Simplex
ITU code	G1D, D1D
Method of Frequency Generation	Crystal
Power Supply	DC3.3V (+/-10%)

FCC 15.31 (e)

Power Source, DC3.3V (+/-10%) (not regulated) of EUT is supplied from the Wireless Access point in which EUT is installed. Testing of the radiation of the input power was performed and complied with this requirement. As for details, please refer to Appendix 4.

FCC Part 15.203 Antenna requirement

The EUT has a unique antenna connector (SMA Reverse). Therefore the equipment complies with the requirement of 15.203.

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SECTION 3: Test specification, procedures & 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

3.2 Procedures and results

No.	Item	Test Procedure	Specification	Remarks	Deviation	Worst margin	Results
1	Conducted emission	ANSI C63.4:2003 7. AC powerline conducted emission measurements	Section 15.207	-	N/A	8.6dB (0.41400MHz, AV, L)	Complied
2	6dB Bandwidth	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247(a)(2)	Conducted	N/A	*See data.	Complied
3	Maximum Peak Output Power	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247(b)(3)	Conducted	N/A	*See data.	Complied
4	Spurious Emission	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (d)	Conducted/ Radiated	N/A	0.2dB (189.749MHz, Hori, QP, Radiated)	Complied
5	Restricted Band Edges	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (d)	Conducted/ Radiated	N/A	*See data.	Complied
6	Power Density	ANSI C63.4:2003 13. Measurement of intentional radiators	Section 15.247 (e)	Conducted	N/A	*See data.	Complied

Note: UL Apex's EMI Work Procedures No.QPM05 and QPM15.

Uncertainty:

Conducted Emission

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

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

Spurious Emission (Radiated)

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

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

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

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

Other test except Conducted Emission and Spurious Emission (Radiated)

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

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

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

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

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3.3 Addition to standards

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

3.4 Test Location

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	FCC Registration Number	IC Registration Number	Width x Depth x Height (m)	Size of reference ground plane (m) / horizontal conducting plane	Other rooms
No.1 semi-anechoic chamber	313583	IC4247A	19.2 x 11.2 x 7.7m	7.0 x 6.0m	Preparation room
No.2 semi-anechoic chamber	846015	IC4247A-2	7.5 x 5.8 x 5.2m	4.0 x 4.0m	-
No.3 shielded room	-	-	4.7 x 7.5 x 2.7m	4.7 x 7.5m	-
No.4 measurement room	-	-	3.1 x 5.0 x 2.7m	N/A	-

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

3.5 Test set up, Test instruments and Data of EMI

Refer to APPENDIX 1 to 3.

Description of EUT and Support equipment

No.	Item	Model number	Serial number	Manufacturer	FCC ID
A	Wireless 11g MiniPCI Adapter	SX-10WG	10 for RE test (1-10GHz) 20 for AT, CE, and RE (30MHz 1GHz, 10-26.5GHz) tests	silex technology, Inc.	N6C-SX10WG
B	Cardbus card	BUS-PC(CB)A	5CRBG22000403	CONTEC	DoC
C	Note PC *1)	ThinkPad240 (2609)	BA-37408	IBM	DoC
C'	Note PC *2)	CF-R3EW1AXS	4KKSA36649	Panasonic	DoC
D	AC Adapter for PC *1)	02K6547	-	IBM	DoC
D'	AC Adapter for PC *2)	CF-AA1625A	04727084B	Panasonic	DoC
E	PCI Bridge System	ECH(PCI)BE- H2B	5CRBG15000463	CONTEC	DoC
F	AC Adapter for PBS	PW-060A-4YD	PW7189456	Power-WIN TECHNOLOGY CORP	DoC
G	PCI-MiniPCI Adapter	PA-MP1	04116026	CONTEC	-
H	Omni-Directional Antenna	-	UU33006A0C0	silex technology, Inc.	-
I	Omni-Directional Antenna	-	UU33006A0C0	silex technology, Inc.	-

*1): Used for AT, CE, and RE (1-26.5GHz) tests

*2): Used for RE (30MHz-1GHz) test

List of cables used

No.	Name	Length (m)	Shield	Remarks
1	MiniPCI Extension Cable	0.2	Y	
2	DC Cable	1.2	N	With standard ferrite core
3	AC Cable	1.7	N	With standard ferrite core
4	Extended PCI Cable	1.0	Y	With ferrite cores for noise rejection of PCI Bridge System (test jig)
5	DC Cable	2.0	N	With standard ferrite core
5'	DC Cable *1)	1.2	N	With standard ferrite core
6	AC Cable	2.0	N	With standard ferrite core
6'	AC Cable *2)	0.8	N	Without standard ferrite core
7	Antenna Cable	0.15	N	
8	Antenna Cable	0.15	N	

*1): Used for AT, CE, and RE (1-26.5GHz) tests

*2): Used for RE (30MHz-1GHz) test

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SECTION 5: Conducted Emission

Test Procedure and conditions

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

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

I/O cable and AC cables that were connected to the peripherals were bundled in center. They were folded back and forth forming a bundle 30cm to 40cm long and were hanged at a 40cm height to the ground plane.

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

The EUT was connected to a LISN (AMN).

An overview sweep with peak detection has been performed.

Detector	: CISPR quasi-peak and average detector (IF BW 9 kHz)
Measurement range	: 0.15-30MHz
Test data	: APPENDIX 3
Test result	: Pass

SECTION 6: Bandwidth

Test Procedure

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

Test data	: APPENDIX 3
Test result	: Pass

SECTION 7: Maximum Peak Output Power

Test Procedure

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

Test data	: APPENDIX 3
Test result	: Pass

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SECTION 8: Spurious Emission

[Conducted]

Test Procedure

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

Test data : APPENDIX 3

Test result : Pass

[Radiated]

Test Procedure

EUT was placed on a platform of nominal size, 0.5m by 1.0m, raised 80cm above the conducting ground plane.

The Radiated Electric Field Strength intensity has been measured in a Semi Anechoic Chamber with a ground plane and at a distance of 3m(Below 10GHz) and 1m(Upper 10GHz).

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

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

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

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

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

20dBc was applied to the frequency over the limit of FCC 15.209 and outside the restricted band of 15.205.

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

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

Test data : APPENDIX 3

Test result : Pass

SECTION 9: Peak Power Density

[Conducted]

Test Procedure

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

Test data : APPENDIX 3

Test result : Pass

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APPENDIX 1: Photographs of test setup

Conducted Emission

Front



Rear

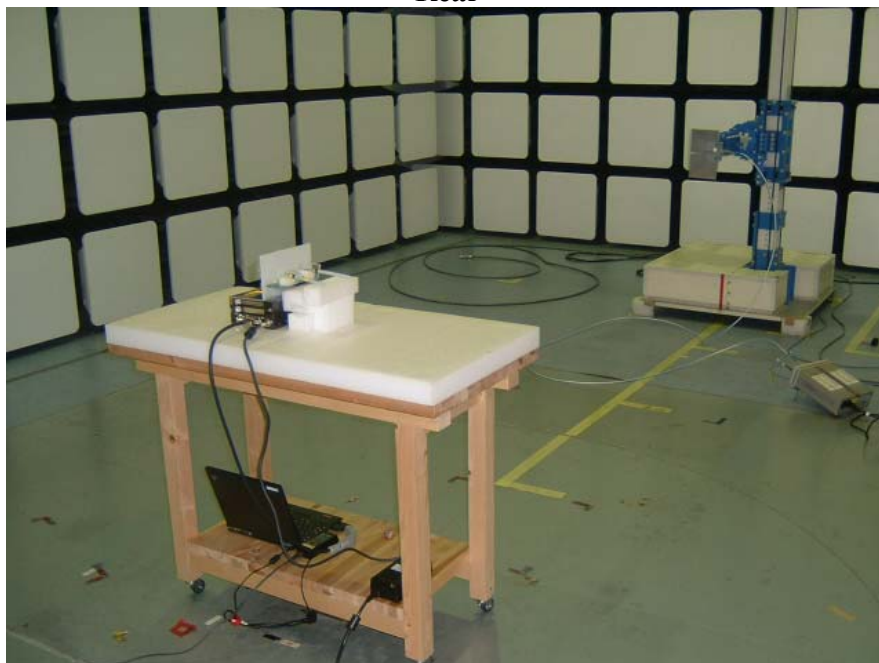


Spurious Emission (Radiated)

Front



Rear



Worst Case Position

30MHz-1GHz: Z-axis:Horizontal / Z-axis:Vertical

Above 1GHz: Z-axis:Horizontal / X-axis: Vertical

X-axis



Y-axis



Z-axis



APPENDIX 2:Test instruments

EMI test equipment

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE1-3	2005/04/11 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	RE1	2005/06/03 * 12
MCC-04	Microwave Cable 1G-50GHz	Storm	421-011 (90-1394-079)	RE1	2005/01/05 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE1	2005/02/05 * 12
MAT-25	Attenuator	Agilent	8493C	RE1	2005/06/03 * 12
MCC-25	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE1	2005/08/30 * 12
MBF-01	SHF Bandpass Filter	M-City	5GHz BPF	RE1	2005/05/20 * 12
MBF-02	SHF Bandpass Filter	M-City	8GHz BPF	RE1	2005/05/20 * 12
MCC-19	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE1	2005/02/03 * 12
MHA-06	Horn Antenna	Schwarzbeck	BBHA9120D	RE1	2005/01/10 * 12
MRENT-21	Spectrum Analyzer	Advantest	R3273	AT	2005/08/19 * 12
MCC-22	Microwave Cable 1G-50GHz	Storm	421-011 (90-011-080)	AT	2005/04/29 * 12
MAT-24	Attenuator	Agilent	8493C	AT	2005/06/03 * 12
MSA-04	Spectrum Analyzer	Agilent	E4448A	RE2, RE3	2005/05/19 * 12
MHA-02	Horn Antenna	EMCO	3160-09	RE3	2005/01/10 * 12
MPA-05	Pre Amplifier	TSJ	TSJ 1-26.5GHz PreAmp	RE3	2005/07/08 * 12
MHF-02	High Pass Filter	Tokimec	TF323DCA	RE3	2004/09/18 * 12
MCC-04	Microwave Cable 1G-50GHz	Storm	421-011 (90-1394-079)	RE3	2005/01/05 * 12
MCC-19	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX 104	RE3	2005/02/03 * 12
MCC-21	Microwave Cable 1G-50GHz	Storm	421-011 (90-011-080)	RE3	2005/04/29 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE(EUT)	2005/02/04 * 12
MLS-07	LISN(AMN)	Schwarzbeck	NSLK8127	CE(AE)	2005/02/04 * 12
MTA-01	Termination	TME	CT-01	CE	2005/02/03 * 12
MCC-03	Coaxial Cable	Fujikura/Suhner/Agilent/T SJ	-	CE	2004/12/24 * 12
MCC-36	Microwave Cable	Hirose Electric	U.FL-2LP-066-A-(200)	AT	2005/07/22 * 12
MTR-02	Test Receiver	Rohde & Schwarz	ESCS30	RE2	2005/02/02 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE2	2005/02/24 * 12
MAT-07	Attenuator(6dB)	Weinschel Corp	2	RE2	2004/12/16 * 12
MPA-06	Pre Amplifier	Hewlett Packard	8447D	RE2	2005/08/31 * 12
MBA-02	Biconical Antenna	Schwarzbeck	BBA9106	RE2	2004/10/14 * 12
MLA-02	Logperiodic Antenna	Schwarzbeck	USLP9143	RE2	2004/10/14 * 12

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Revised date	: October 5, 2005
FCC ID	: N6C-SX10WG

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

Test Item:

CE: Conducted emission,
RE1: Radiated emission(1G-10GHz)
RE2: Radiated emission(30M-1GHz)
RE3: Radiated emission(10G-26.5GHz)
AT: Antenna terminal disturbance voltage

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APPENDIX 3: Data of EMI test

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date: 2005/09/05

Applicant : silex technology, Inc

Kind of EUT : Wireless 11g MiniPCI Adapter

Model No. : SX-10WG

Serial No. : 20

Report No. : 25JE0262-HO

Power : DC3.3V (AC adapter in: AC120V/60Hz))

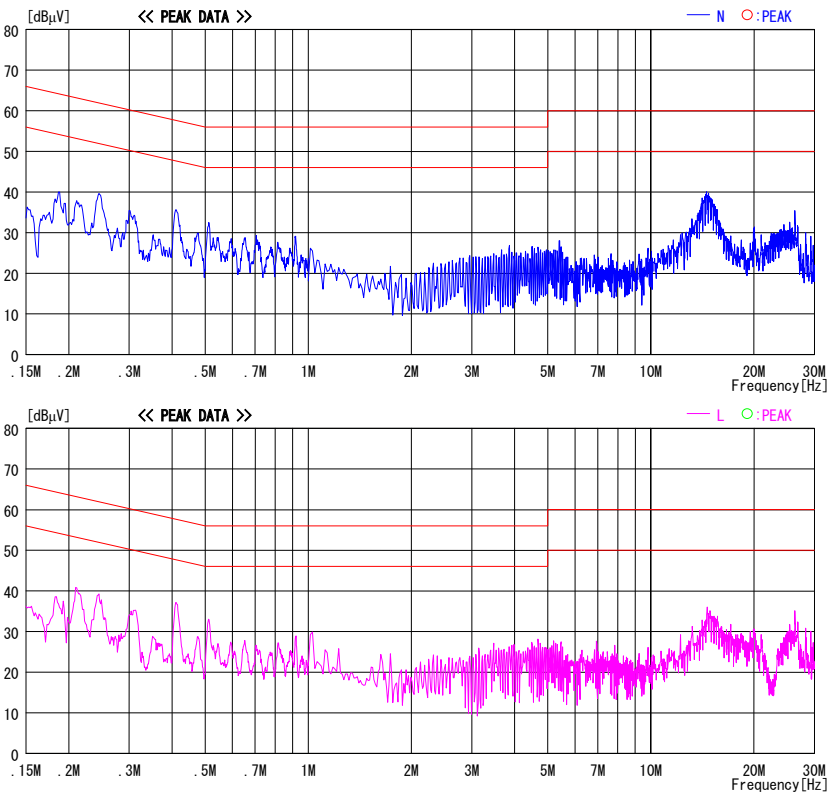
Temp/C/Humi% : 26deg.C / 67%

Operator : Takumi Shimada

Mode / Remarks : Transmitting IEEE802.11b 11Mbps Ch:2412MHz

LIMIT : FCC15C §15.207 (QP)

FCC15C §15.207 (AV)



Conducted Emission

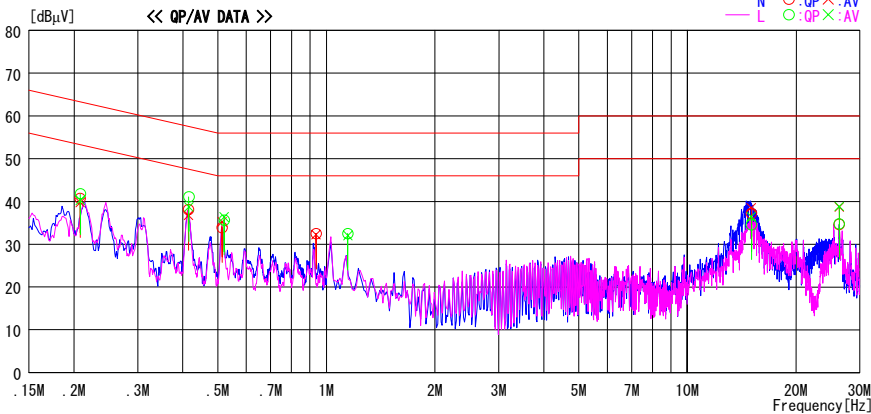
DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date: 2005/09/05

Applicant : silex technology, Inc. Report No. : 25JE0262-H0
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3V (AC adapter in: AC120V/60Hz))
Model No. : SX-10WG Temp°C/Humi% : 26deg. C / 67%
Serial No. : 20 Operator : Takumi Shimada

Mode / Remarks : Transmitting IEEE802.11b 11Mbps Ch:2437MHz

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



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase
	QP [dBμV]	AV [dBμV]		QP [dBμV]	AV [dBμV]	QP [dBμV]	AV [dBμV]	QP [dBμV]	AV [dBμV]	
0.20774	40.6	39.6	0.1	40.7	39.7	63.3	53.3	22.6	13.6	N
0.41510	38.0	36.6	0.1	38.1	36.7	57.5	47.5	19.4	10.8	N
0.51408	33.7	35.0	0.2	33.9	35.2	56.0	46.0	22.1	10.8	N
0.93658	22.2	31.9	0.3	32.5	32.2	56.0	46.0	23.5	13.8	N
15.03258	35.7	37.0	1.5	37.2	38.5	60.0	50.0	22.8	11.5	N
26.34219	32.5	36.6	2.1	34.6	38.7	60.0	50.0	25.4	11.3	N
0.20811	41.7	40.2	0.1	41.8	40.3	63.3	53.3	21.5	13.0	L
0.41610	41.0	38.6	0.1	41.1	38.7	57.5	47.5	16.4	8.8	L
0.52087	35.4	36.1	0.2	35.6	36.3	56.0	46.0	20.4	9.7	L
1.14599	32.2	31.7	0.3	32.5	32.0	56.0	46.0	23.5	14.0	L
15.03239	33.0	34.9	1.5	34.5	36.4	60.0	50.0	25.5	13.6	L
26.34354	32.6	36.7	2.1	34.7	38.8	60.0	50.0	25.3	11.2	L

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

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date: 2005/09/05

Applicant	: silix technology, Inc	Report No.	: 25JE0262-H0
Kind of EUT	: Wireless 11g MiniPCI Adapter	Power	: DC3.3V (AC adapter in: AC120V/60Hz))
Model No.	: SX-10WG	Temp°C/Humi%	: 26deg. C / 67%
Serial No.	: 20	Operator	: Takumi Shimada

Mode / Remarks : Transmitting IEEE802.11b 11Mbps Ch:2462MHz

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

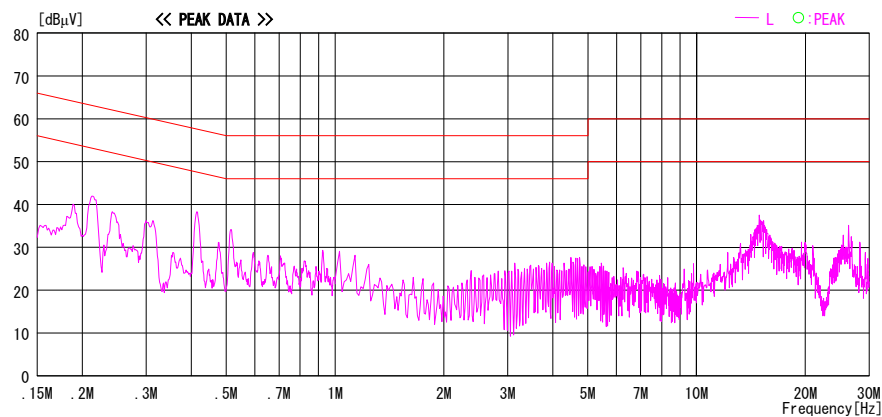
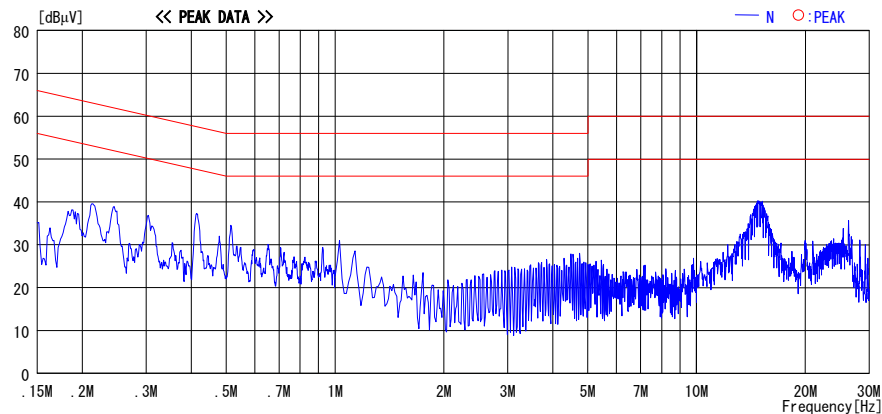


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C. F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

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UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date: 2005/09/05

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 20
Report No. : 25JE0262-HO
Power : DC3.3V (AC adapter in: AC120V/60Hz)
Temp°C/Humi% : 26deg. C / 67%
Operator : Takumi Shimada

Mode / Remarks : Transmitting IEEE802.11g 54Mbps Ch:2412MHz

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

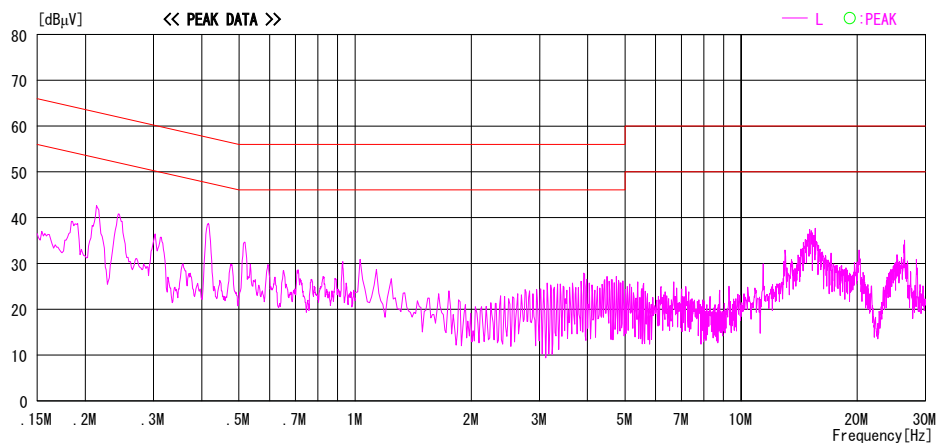
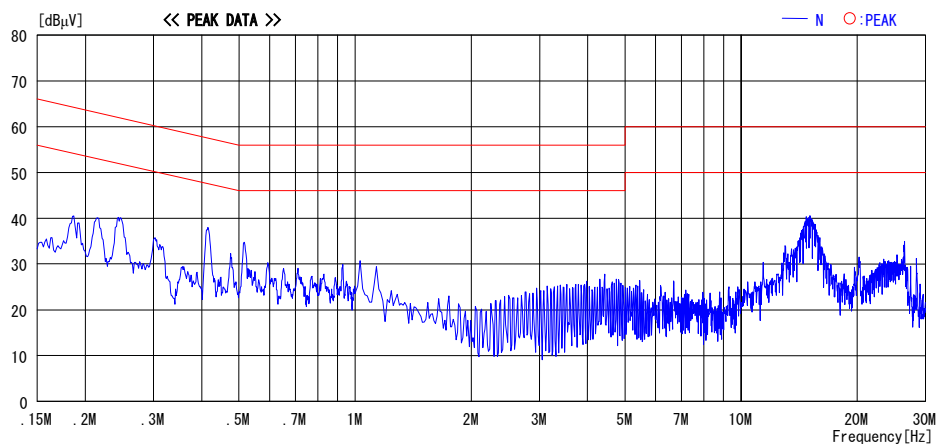


CHART: WITH FACTOR, Peak hold data. Data is uncorrected. CALCULATION: RESULT=READING+C.F (LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

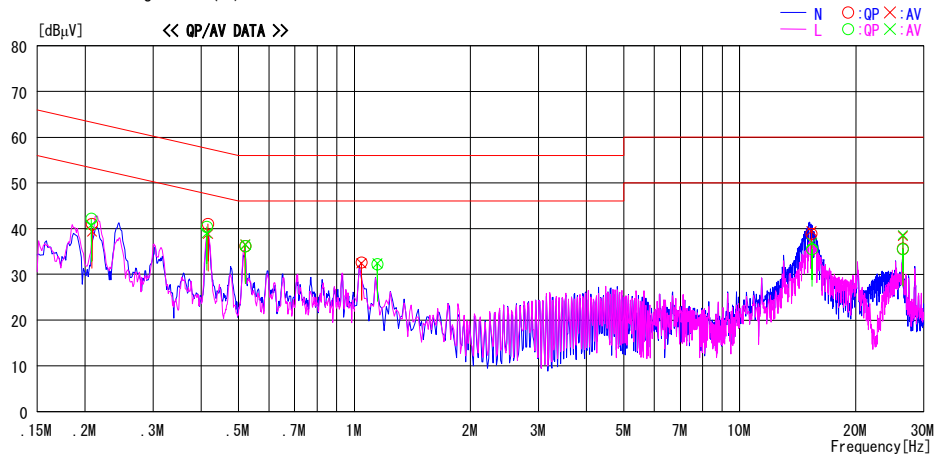
UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date: 2005/09/05

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 20

Report No. : 25JE0262-HO
Power : DC3.3V (AC adapter in: AC120V/60Hz)
Temp°C/Humi% : 26deg. C / 67%
Operator : Takumi Shimada

Mode / Remarks : Transmitting IEEE802.11g 54Mbps Ch:2437MHz

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



Frequency [MHz]	Reading Level		Corr. Factor	Results		Limit		Margin		Phase
	QP [dBμV]	AV [dBμV]		QP [dBμV]	AV [dBμV]	QP [dBμV]	AV [dBμV]	QP [dBμV]	AV [dBμV]	
0.20831	40.9	39.3	0.1	41.0	39.4	63.3	53.3	22.3	13.9	N
0.41715	40.9	38.7	0.1	41.0	38.8	57.5	47.5	16.5	8.7	N
0.52047	35.9	36.3	0.2	36.1	36.5	56.0	46.0	19.9	9.5	N
1.04302	32.3	32.1	0.3	32.6	32.4	56.0	46.0	23.4	13.6	N
15.33068	37.4	38.0	1.5	38.9	39.5	60.0	50.0	21.1	10.5	N
26.48755	33.5	36.3	2.1	35.6	38.4	60.0	50.0	24.4	11.6	N
0.20773	42.1	40.7	0.1	42.2	40.8	63.3	53.3	21.1	12.5	L
0.41400	40.3	38.9	0.1	40.4	39.0	57.6	47.6	17.2	8.6	L
0.52131	35.9	36.3	0.2	36.1	36.5	56.0	46.0	19.9	9.5	L
1.14768	31.9	32.1	0.3	32.2	32.4	56.0	46.0	23.8	13.6	L
15.38943	34.0	35.4	1.5	35.5	36.9	60.0	50.0	24.5	13.1	L
26.48966	33.4	36.5	2.1	35.5	38.6	60.0	50.0	24.5	11.4	L

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

Conducted Emission

DATA OF CONDUCTED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date: 2005/09/05

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 20
Report No. : 25JE0262-HO
Power : DC3.3V (AC adapter in: AC120V/60Hz)
Temp°C/Humi% : 26deg. C / 67%
Operator : Takumi Shimada

Mode / Remarks : Transmitting IEEE802.11g 54Mbps Ch:2462MHz

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

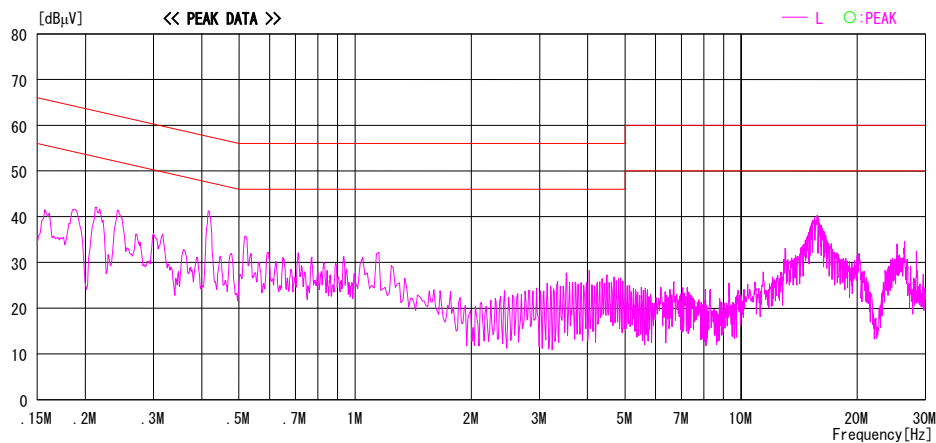
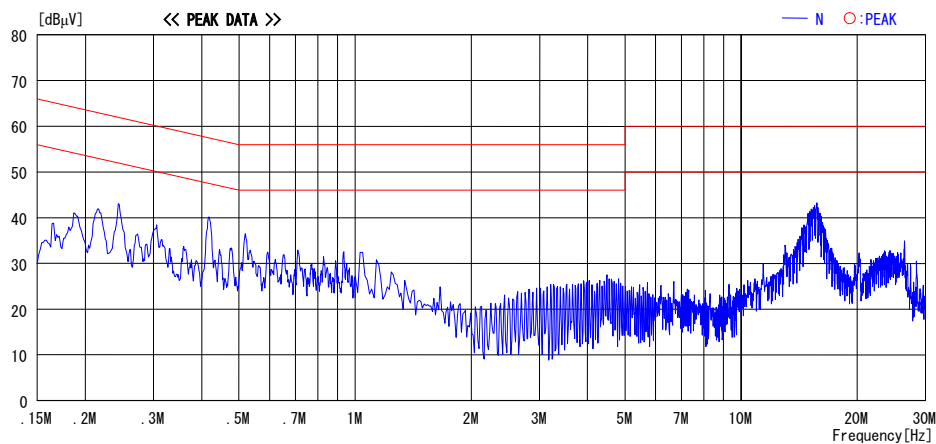


CHART:WITH FACTOR,Peak hold data.Data is uncorrected. CALCURATION:RESULT=READING+C.F(LISN LOSS+CABLE LOSS)
Except for the above table : adequate margin data below the limits.

6dB Bandwidth

UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Shielded Room

Company : silex technology, Inc
Equipment : Wireless 11g MiniPCI Adapter
Model : SX-10WG
Sample No. : 20
Power : DC3.3V (EUT input)
Mode : Tx (ch1,6,11)

REPORT NO : 25JE0262-HO
REGULATION : Fcc Part15 Subpart C 15.247(a)(2)
TEST DISTANCE : -
DATE : 08/26/2005
TEMPERATURE : 23deg.C
HUMIDITY : 55%
ENGINEER : Kenichi Adachi

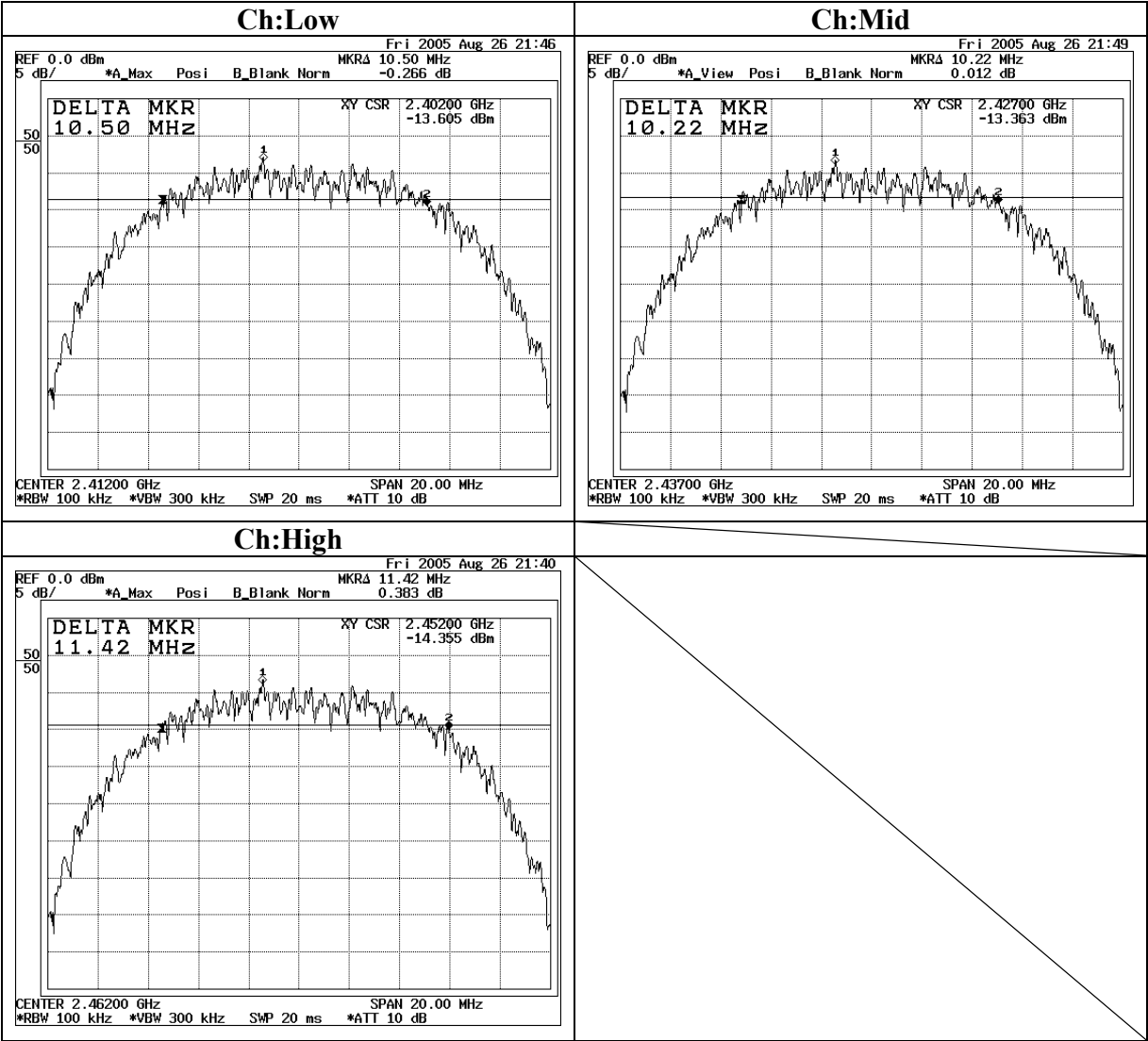
11b, 11Mbps

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	10.500	>500
Mid	2437.0	10.220	>500
High	2462.0	11.420	>500

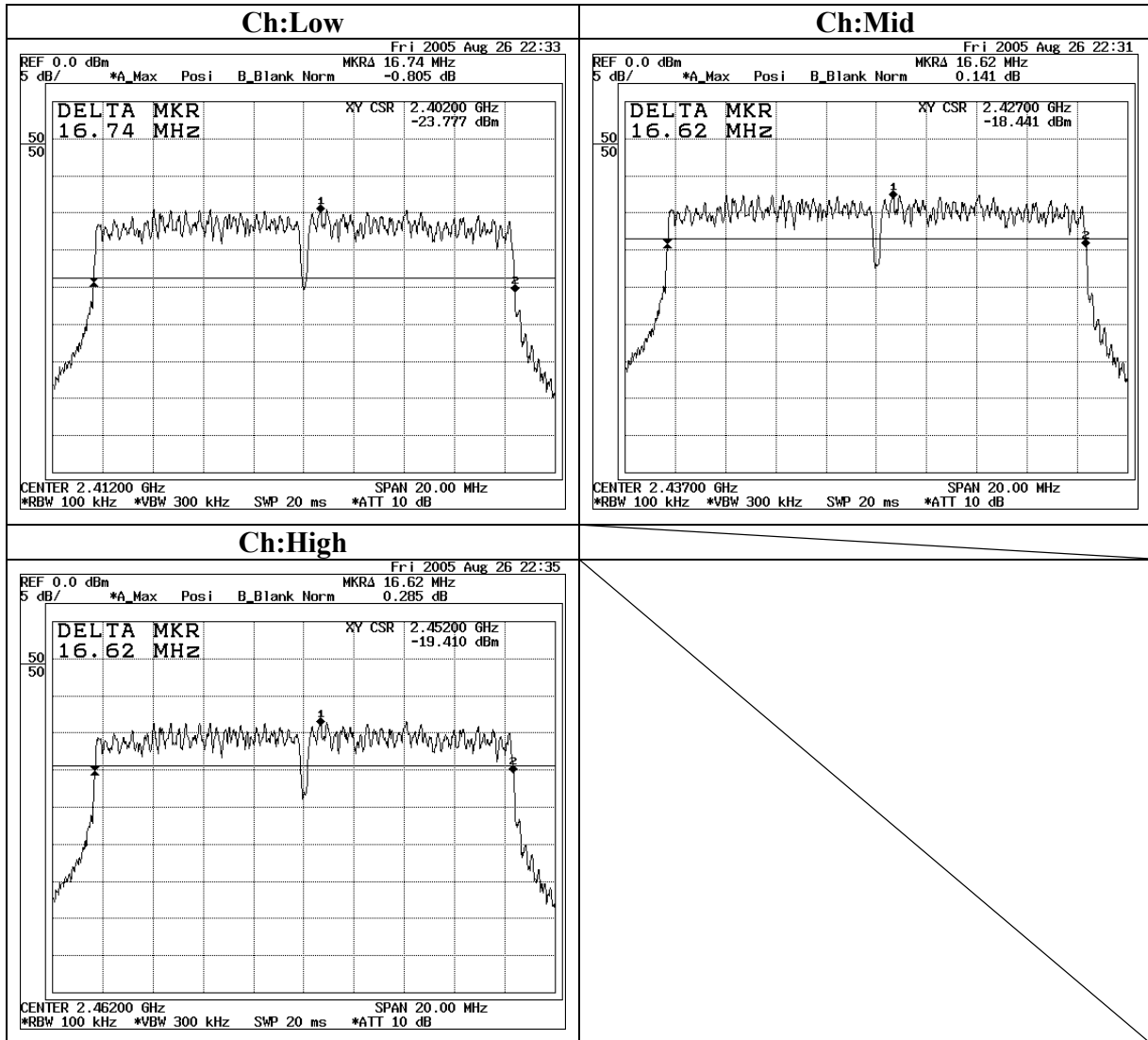
11g, 54Mbps

Ch	Freq. [MHz]	6dB Bandwidth [MHz]	Limit [kHz]
Low	2412.0	16.740	>500
Mid	2437.0	16.620	>500
High	2462.0	16.620	>500

6dB Bandwidth (11b)



6dB Bandwidth (11g)



Maximum Peak Output Power

UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Shielded Room

Company	: silex technology, Inc	REPORT NO	: 25JE0262-HO
Equipment	: Wireless 11g MiniPCI Adapter	REGULATION	: FCC 15.247(b)(3)
Model	: SX-10WG	TEST DISTANCE	: -
Sample No.	: 20	DATE	: 08/26/2005
Power	: DC3.3V (EUT input)	TEMPERATURE	: 23deg.C
Mode	: Tx IEEE 802.11b / 11g	HUMIDITY	: 55%
Antenna Port	: A, B	ENGINEER	: Kenichi Adachi

[IEEE802.11b : 11Mbps : Antenna A](Reference data)

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
Low	2412.0	8.07	1.87	9.54	19.48	30.00	10.52
Mid	2437.0	7.80	1.89	9.54	19.23	30.00	10.77
High	2462.0	7.66	1.90	9.54	19.10	30.00	10.90

[IEEE802.11b : 11Mbps : Antenna B]

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
Low	2412.0	8.21	1.87	9.54	19.62	30.00	10.38
Mid	2437.0	7.84	1.89	9.54	19.27	30.00	10.73
High	2462.0	7.79	1.90	9.54	19.23	30.00	10.77

[IEEE802.11g : 54Mbps : Antenna A](Reference data)

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
Low	2412.0	6.26	1.87	9.54	17.67	30.00	12.33
Mid	2437.0	8.89	1.89	9.54	20.32	30.00	9.68
High	2462.0	7.90	1.90	9.54	19.34	30.00	10.66

[IEEE802.11g : 54Mbps : Antenna B]

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
Low	2412.0	6.54	1.87	9.54	17.95	30.00	12.05
Mid	2437.0	8.93	1.89	9.54	20.36	30.00	9.64
High	2462.0	7.94	1.90	9.54	19.38	30.00	10.62

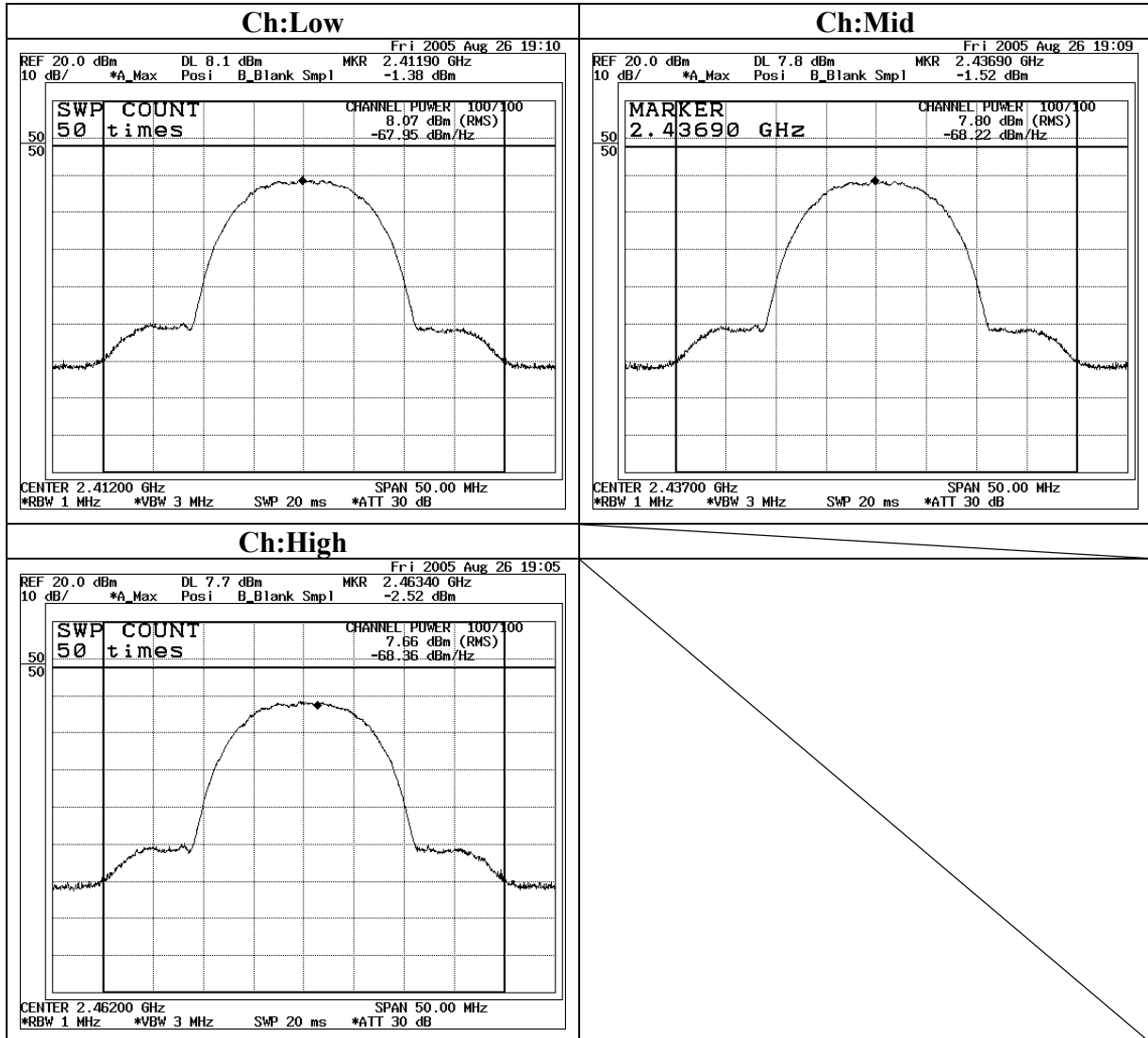
Sample Calculation:

Result = Reading + Cable Loss + Attenuator

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

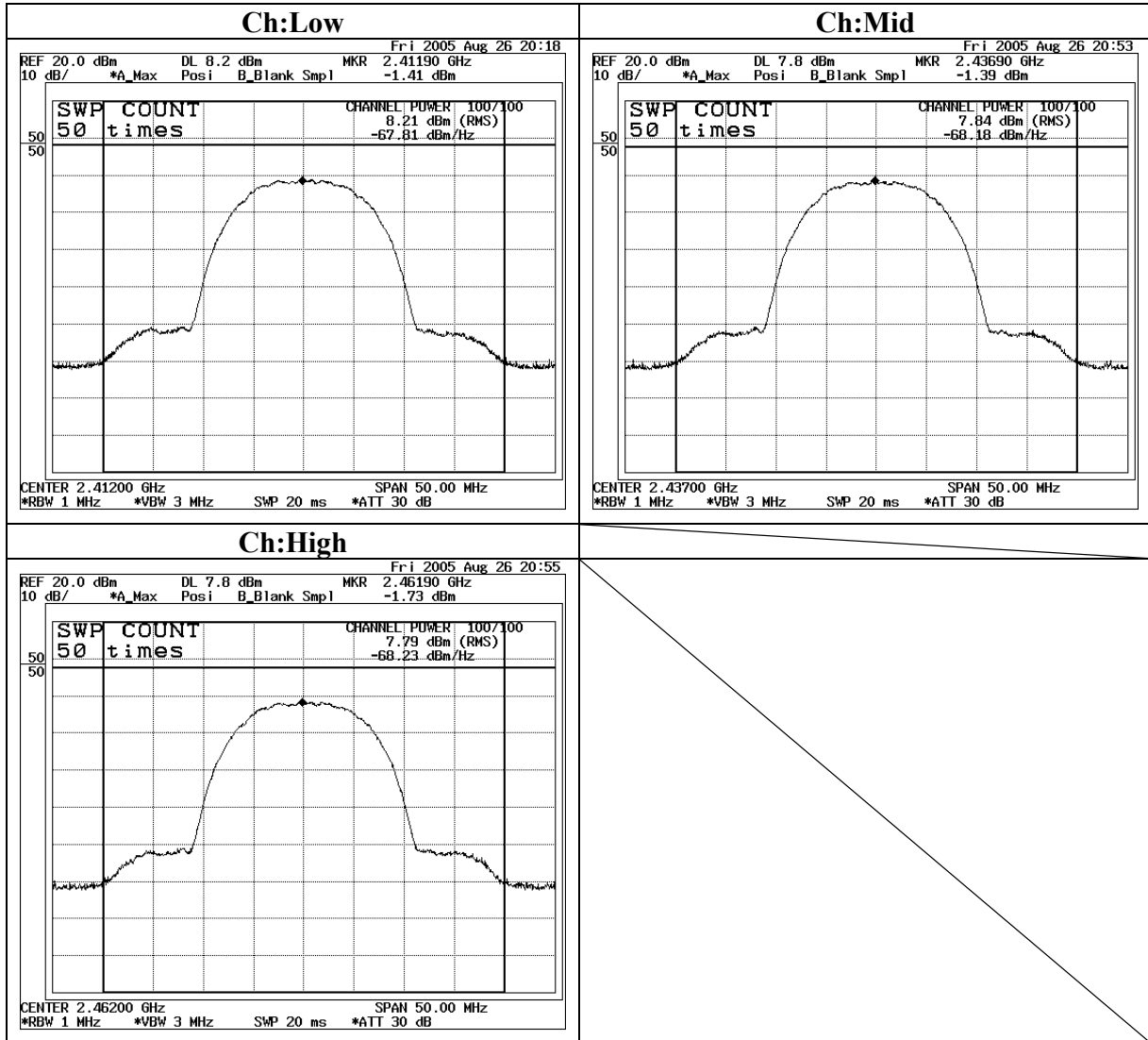
Maximum Peak OutPut Power

IEEE802.11b 11Mbps Antenna Port:A (Reference data)



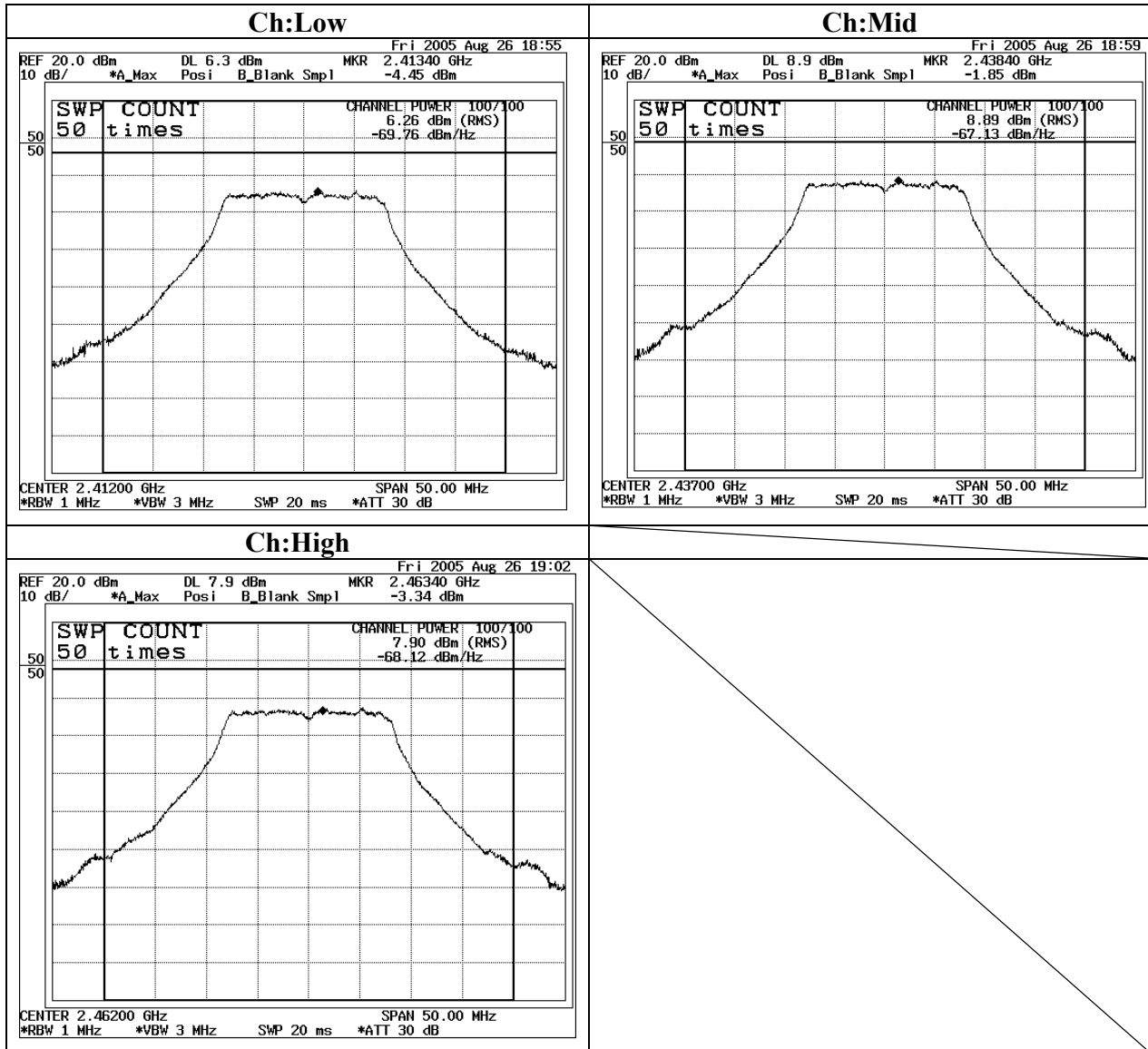
Maximum Peak Output Power

IEEE802.11b 11Mbps Antenna Port: B



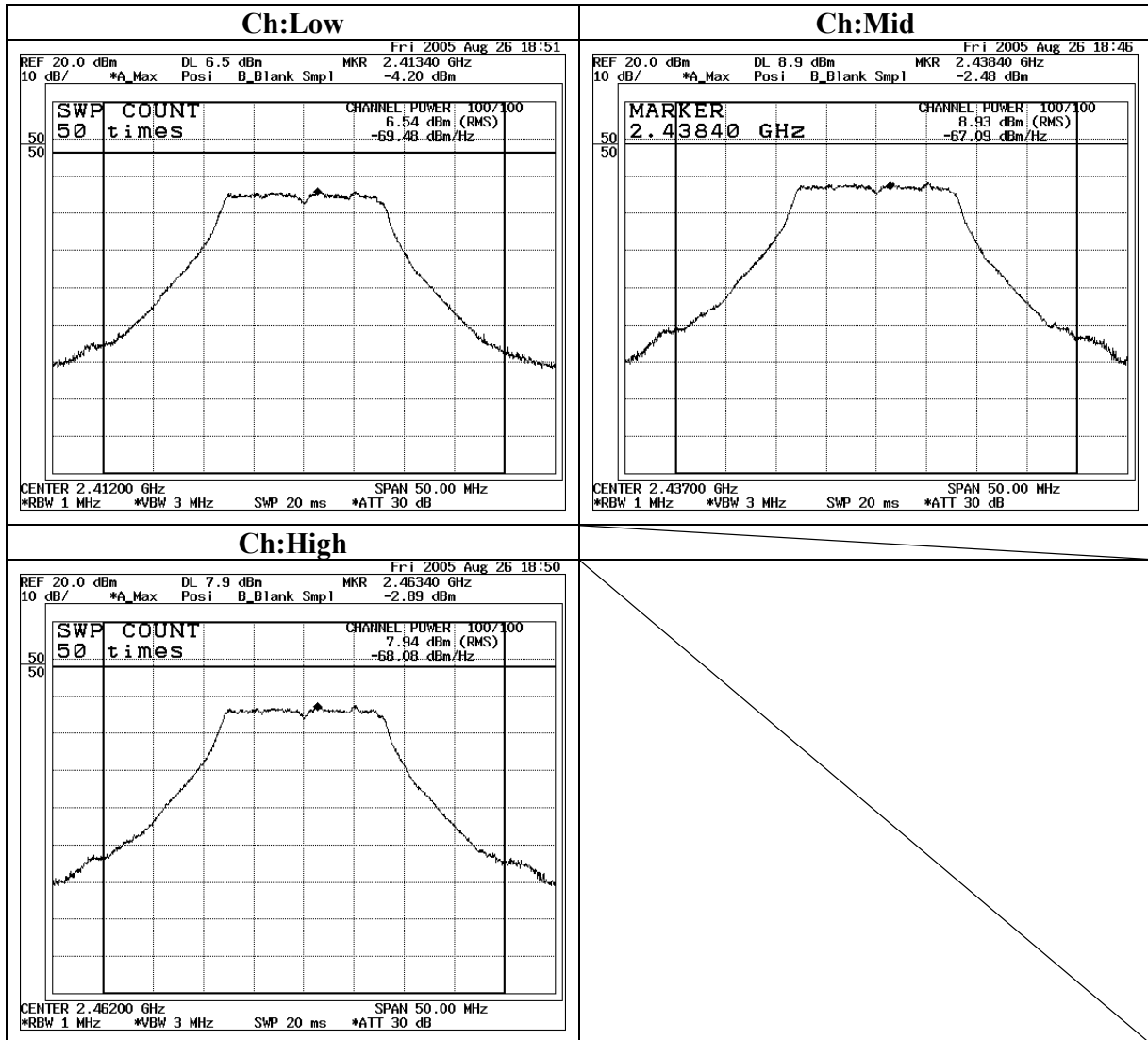
Maximum Peak Output Power

IEEE802.11g 54Mbps Antenna Port: A (Reference data)



Maximum Peak Output Power

IEEE802.11g 54Mbps Antenna Port: B



Radiated Spurious Emission

11b, Ch: Low

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

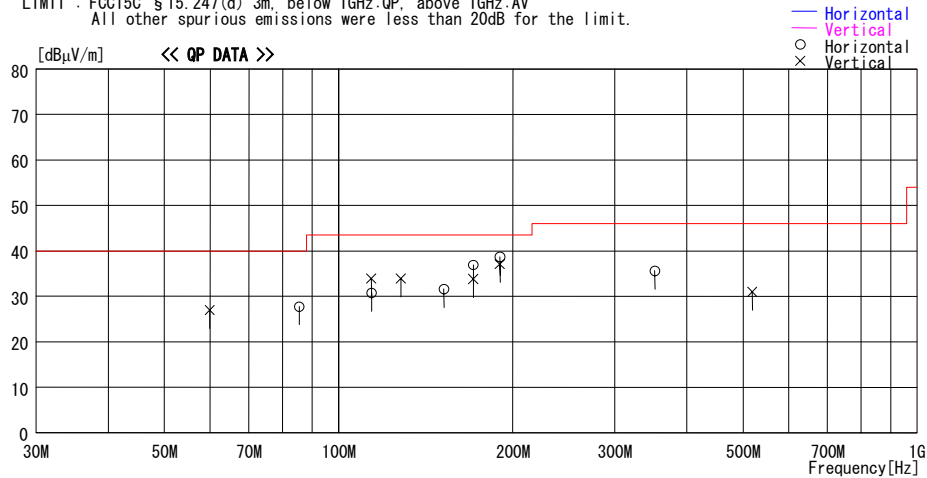
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/16 13:53:31

Applicant : silex technology, Inc. Report No. : 25JE0262-H0
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 26deg. C / 59%
Serial No. : 20 Operator : Mitsuru Fujimura

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch1:2412MHz / Max Axis Hor:Z Ver:Z Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
All other spurious emissions were less than 20dB for the limit.



Frequency	Reading	DET	Antenna Factor	Loss & Gain	Level	Angle	Height	Polar.	Limit	Margin
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
59.906	40.5	QP	8.2	-21.7	27.0	266	100	Vert.	40.0	13.0
85.499	41.5	QP	7.7	-21.4	27.8	193	235	Hori.	40.0	12.2
113.977	42.7	QP	12.3	-21.1	33.9	1	100	Vert.	43.5	9.6
114.009	39.6	QP	12.3	-21.1	30.8	0	290	Hori.	43.5	12.7
128.232	41.1	QP	13.7	-20.9	33.9	360	100	Vert.	43.5	9.6
152.001	36.2	QP	16.0	-20.6	31.6	-1	100	Hori.	43.5	11.9
171.022	40.4	QP	16.8	-20.3	36.9	-1	176	Hori.	43.5	6.6
170.978	37.3	QP	16.8	-20.3	33.8	-1	100	Vert.	43.5	9.7
189.967	41.7	QP	17.0	-20.0	38.7	360	114	Hori.	43.5	4.8
190.022	40.1	QP	17.0	-20.0	37.1	360	100	Vert.	43.5	6.4
352.088	38.1	QP	16.9	-19.4	35.6	360	100	Hori.	46.0	10.4
518.826	31.5	QP	19.1	-19.6	31.0	117	100	Vert.	46.0	15.0

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
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Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11b, Ch: Low

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/08/06 02:46:41

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 10
Report No. : 25JE0262-HO
Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Temp./Humi. : 25deg. C / 57%
Operator : Kenichi Adachi

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch1:2412MHz / Max Axis Hor:Z Ver:X Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit	
			Factor [dB/m]	Loss& Gain [dB]					[dBuV/m]	Margin [dB]
1608.030	49.0	PK	25.8	-23.5	51.3	333	117	Hori.	74.0	22.7
1608.030	38.8	AV	25.8	-23.5	41.1	333	117	Hori.	54.0	12.9
1608.060	48.0	PK	25.8	-23.5	50.3	270	125	Vert.	74.0	23.7
1608.060	38.6	AV	25.8	-23.5	40.9	270	125	Vert.	54.0	13.1
2386.573	55.0	PK	30.5	-22.6	62.9	215	100	Hori.	74.0	11.1
2386.573	44.6	AV	30.5	-22.6	52.5	215	100	Hori.	54.0	1.5
2387.070	54.3	PK	30.5	-22.6	62.2	136	100	Vert.	74.0	11.8
2387.070	44.0	AV	30.5	-22.6	51.9	136	100	Vert.	54.0	2.2
3215.867	51.1	PK	31.5	-21.9	60.7	246	110	Hori.	74.0	13.3
3215.867	42.0	AV	31.5	-21.9	51.6	246	110	Hori.	54.0	2.4
3215.980	47.6	PK	31.5	-21.9	57.2	280	100	Vert.	74.0	16.8
3215.980	38.3	AV	31.5	-21.9	47.9	280	100	Vert.	54.0	6.1
4824.105	50.1	PK	35.3	-30.3	55.1	312	100	Hori.	74.0	18.9
4824.105	35.9	AV	35.3	-30.3	40.9	312	100	Hori.	54.0	13.1
4824.692	49.7	PK	35.3	-30.3	54.7	270	147	Vert.	74.0	19.3
4824.692	35.1	AV	35.3	-30.3	40.1	270	147	Vert.	54.0	13.9
7236.000	33.2	AV	37.7	-28.9	42.0	296	122	Hori.	54.0	12.0
7236.001	45.0	PK	37.7	-28.9	53.8	287	130	Vert.	74.0	20.2
7236.001	32.6	AV	37.7	-28.9	41.4	287	130	Vert.	54.0	12.6
7236.187	45.6	PK	37.7	-28.9	54.4	296	122	Hori.	74.0	19.6
9648.073	45.5	PK	36.9	-27.7	54.7	247	110	Vert.	74.0	19.3
9648.073	35.6	AV	36.9	-27.7	44.8	247	110	Vert.	54.0	9.2
9648.247	46.6	PK	36.9	-27.7	55.8	285	121	Hori.	74.0	18.2
9648.247	37.8	AV	36.9	-27.7	47.0	285	121	Hori.	54.0	7.0

CHART: WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
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 Issued date : September 27, 2005
 Revised date : October 5, 2005
 FCC ID : N6C-SX10WG

Radiated Spurious Emission **11b, Ch: Low**

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

Company : silex technology. Inc.	REPORT NO : 25JE00262-HO
Equipment : Wireless 11g MiniPCI Adapter	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : SX-10WG	TEST DISTANCE : 3m
Sample No. : 10	DATE : 08/05/2005
Power : DC 3.3V (AC adapter input: AC120V/60Hz)	TEMPERATURE : 26deg.C
Mode : IEEE802.11b, 11Mbps, Tx: ch.01	HUMIDITY : 58%
Ant-B	ENGINEER : Kenichi Adachi
Remarks : EUT-max-axis (Hor.: Z, Ver.: X)	

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATT or Filter Loss [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2413.0	100.0	99.2	30.5	36.4	3.7	10.1	107.9	107.1	-	-	-
2	2400.0	57.4	58.8	30.5	36.4	3.7	10.1	65.3	66.7	Funda-20dB	22.6	20.4

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

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

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

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
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Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11b, Ch: Low

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

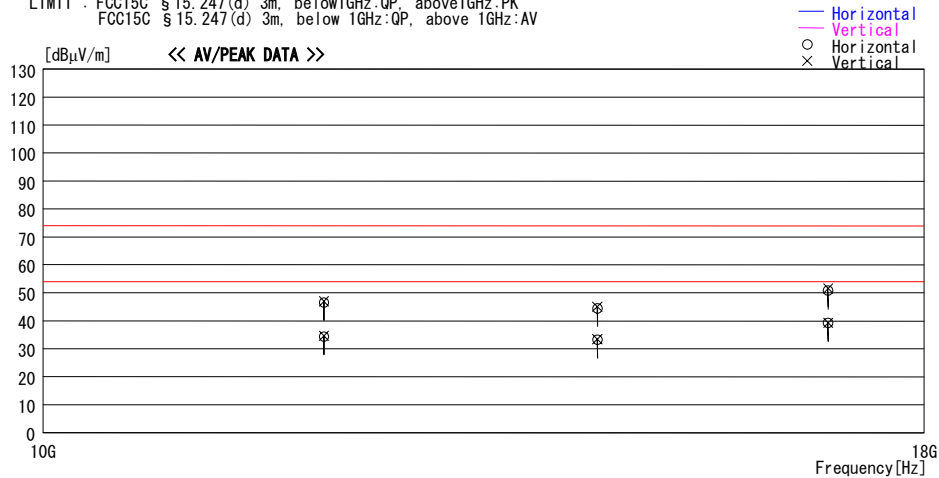
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/08/31 23:26:38

Applicant : silex technology, Inc. Report No. : 25JE0262-H0
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch1:2412MHz / Max Axis Hor:Z Ver:X Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
12060.000	45.1	PK	41.6	-40.2	46.5	0	100	Hori.	74.0	27.5
12060.000	45.6	PK	41.6	-40.2	47.0	0	100	Vert.	74.0	27.0
12060.000	32.9	AV	41.6	-40.2	34.3	0	100	Hori.	54.0	19.7
12060.000	33.2	AV	41.6	-40.2	34.6	0	100	Vert.	54.0	19.4
14472.000	44.4	PK	41.9	-41.7	44.6	0	100	Hori.	74.0	29.4
14472.000	44.9	PK	41.9	-41.7	45.1	0	100	Vert.	74.0	28.9
14472.000	33.1	AV	41.9	-41.7	33.3	0	100	Hori.	54.0	20.7
14472.000	33.2	AV	41.9	-41.7	33.4	0	100	Vert.	54.0	20.6
16884.000	45.0	PK	45.2	-39.4	50.8	0	100	Hori.	74.0	23.2
16884.000	45.8	PK	45.2	-39.4	51.6	0	100	Vert.	74.0	22.4
16884.000	33.4	AV	45.2	-39.4	39.2	0	100	Hori.	54.0	14.8
16884.000	33.4	AV	45.2	-39.4	39.2	0	100	Vert.	54.0	14.8

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 35 of 75
Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11b, Ch: Low

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

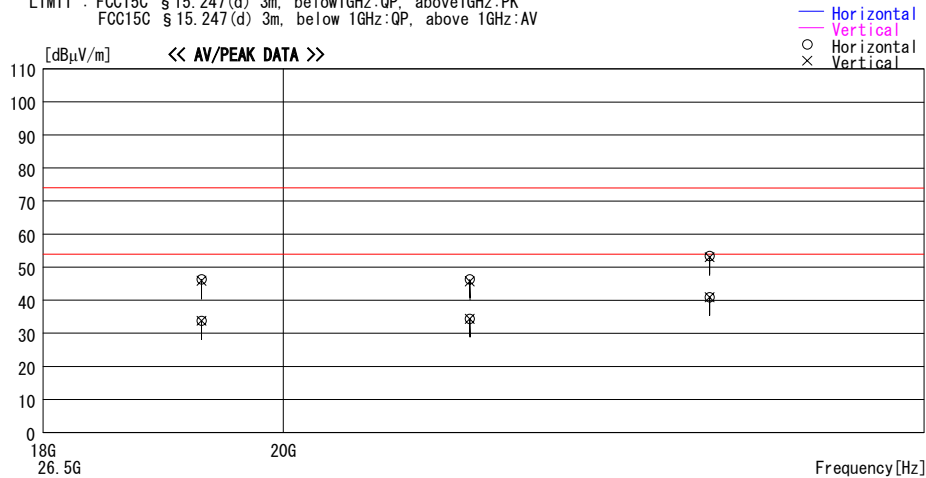
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 01:44:52

Applicant : silex technology, Inc. Report No. : 25JE0262-H0
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch1:2412MHz / Max Axis Hor:Z Ver:X Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
19296.000	43.0	PK	40.2	-36.9	46.3	0	100	Hori.	74.0	27.8
19296.000	42.6	PK	40.2	-36.9	45.9	0	100	Vert.	74.0	28.2
19296.000	30.5	AV	40.2	-36.9	33.8	0	100	Hori.	54.0	20.2
19296.000	30.5	AV	40.2	-36.9	33.8	0	100	Vert.	54.0	20.2
21708.000	43.2	PK	39.8	-36.7	46.3	0	100	Hori.	74.0	27.7
21708.000	42.6	PK	39.8	-36.7	45.7	0	100	Vert.	74.0	28.3
21708.000	31.3	AV	39.8	-36.7	34.4	0	100	Hori.	54.0	19.6
21708.000	31.3	AV	39.8	-36.7	34.4	0	100	Vert.	54.0	19.6
24120.000	46.8	PK	40.4	-33.8	53.4	0	100	Hori.	74.0	20.6
24120.000	46.4	PK	40.4	-33.8	53.0	0	100	Vert.	74.0	21.0
24120.000	34.4	AV	40.4	-33.8	41.0	0	100	Hori.	54.0	13.1
24120.000	34.3	AV	40.4	-33.8	40.9	0	100	Vert.	54.0	13.1

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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MF060b(01.06.05)

Radiated Spurious Emission

11b, Ch: Mid

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

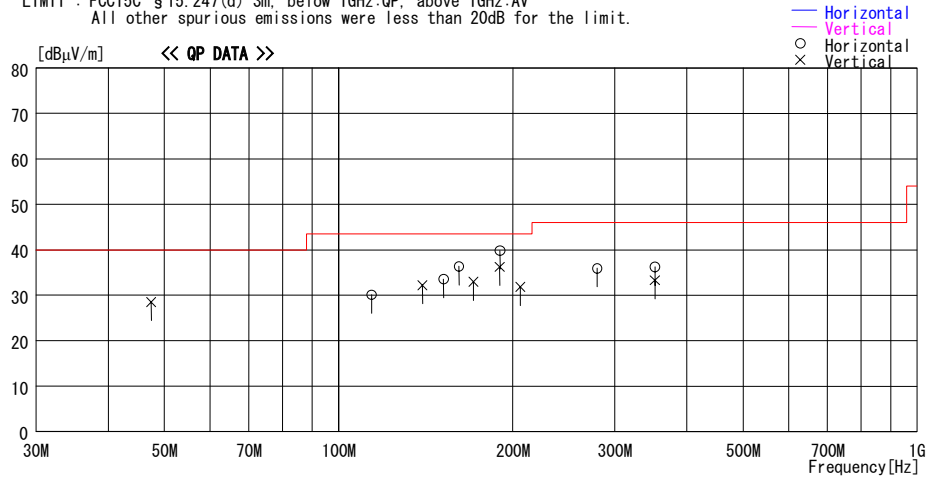
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/16 15:22:17

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 26deg. C / 59%
Serial No. : 20 Operator : Mitsuru Fujimura

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch6:2437MHz / Max Axis Hor:Z Ver:Z Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
All other spurious emissions were less than 20dB for the limit.



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
47.447	39.4	QP	10.9	-21.8	28.5	261	100	Vert.	40.0	11.5
113.993	38.9	QP	12.3	-21.1	30.1	360	400	Hori.	43.5	13.4
139.653	38.3	QP	14.6	-20.7	32.2	267	100	Vert.	43.5	11.3
151.984	38.1	QP	16.0	-20.6	33.5	360	222	Hori.	43.5	10.0
161.521	39.9	QP	16.8	-20.4	36.3	0	193	Hori.	43.5	7.2
171.007	36.4	QP	16.8	-20.3	32.9	-1	100	Vert.	43.5	10.6
189.839	39.2	QP	17.0	-20.0	36.2	360	100	Vert.	43.5	7.3
190.040	42.8	QP	17.0	-20.0	39.8	360	176	Hori.	43.5	3.7
206.071	34.7	QP	17.1	-20.0	31.8	360	100	Vert.	43.5	11.7
279.831	36.2	QP	19.1	-19.4	35.9	0	100	Hori.	46.0	10.1
352.182	38.7	QP	16.9	-19.4	36.2	360	100	Hori.	46.0	9.8
352.332	35.8	QP	16.9	-19.4	33.3	99	148	Vert.	46.0	12.7

CHART:WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

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MF060b(01.06.05)

11b, Ch: Mid

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

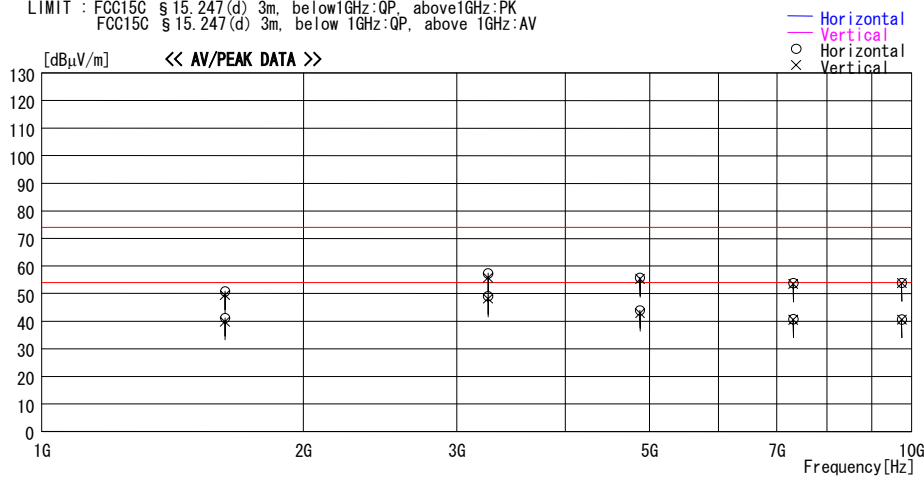
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/08/06 04:43:06

Applicant	: silex technology, Inc	Report No.	: 25JE0262-H0
Kind of EUT	: Wireless 11g MiniPCI Adapter	Power	: DC3.3 V (AC adapter in: AC120V/60Hz)
Model No.	: SX-10WG	Temp./Humi.	: 25deg. C / 57%
Serial No.	: 10	Operator	: Kenichi Adachi

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch6:2437MHz / Max Axis Hor:Z Ver:X Ant port B, (16dBm)

LIMIT : FCC15C § 15.247(d) 3m, below1GHz:QP, above1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
1625.013	48.2	PK	26.0	-23.4	50.8	150	120	Hori.	74.0	23.2
1625.013	38.6	AV	26.0	-23.4	41.2	150	120	Hori.	54.0	12.8
1624.570	46.9	PK	26.0	-23.4	49.5	298	130	Vert.	74.0	24.5
1624.570	37.2	AV	26.0	-23.4	39.8	298	130	Vert.	54.0	14.2
3260.000	47.9	PK	31.4	-21.9	57.4	240	110	Hori.	74.0	16.6
3260.000	39.6	AV	31.4	-21.9	49.1	240	110	Hori.	54.0	4.9
3260.009	46.3	PK	31.4	-21.9	55.8	120	100	Vert.	74.0	18.2
3260.009	38.7	AV	31.4	-21.9	48.2	120	100	Vert.	54.0	5.8
4873.863	50.5	PK	35.6	-30.3	55.8	300	100	Hori.	74.0	18.2
4873.863	38.7	AV	35.6	-30.3	44.0	300	100	Hori.	54.0	10.1
4874.012	50.0	PK	35.6	-30.3	55.3	270	130	Vert.	74.0	18.7
4874.012	37.6	AV	35.6	-30.3	42.9	270	130	Vert.	54.0	11.1
7311.712	44.9	PK	37.9	-29.0	53.8	290	110	Hori.	74.0	20.2
7311.712	31.9	AV	37.9	-29.0	40.8	290	110	Hori.	54.0	13.2
7310.854	44.6	PK	37.9	-29.0	53.5	265	130	Vert.	74.0	20.5
7310.854	31.6	AV	37.9	-29.0	40.5	265	130	Vert.	54.0	13.5
9747.865	44.8	PK	36.8	-27.7	53.9	300	135	Hori.	74.0	20.1
9747.865	31.6	AV	36.8	-27.7	40.7	300	135	Hori.	54.0	13.4
9748.023	44.7	PK	36.8	-27.7	53.8	240	100	Vert.	74.0	20.2
9748.023	31.5	AV	36.8	-27.7	40.6	240	100	Vert.	54.0	13.4

CHART: WITH FACTOR ANT TYPE: -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below: adequate margin data below the limits.

UL Apex Co., Ltd.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 38 of 75
Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11b, Ch: Mid

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

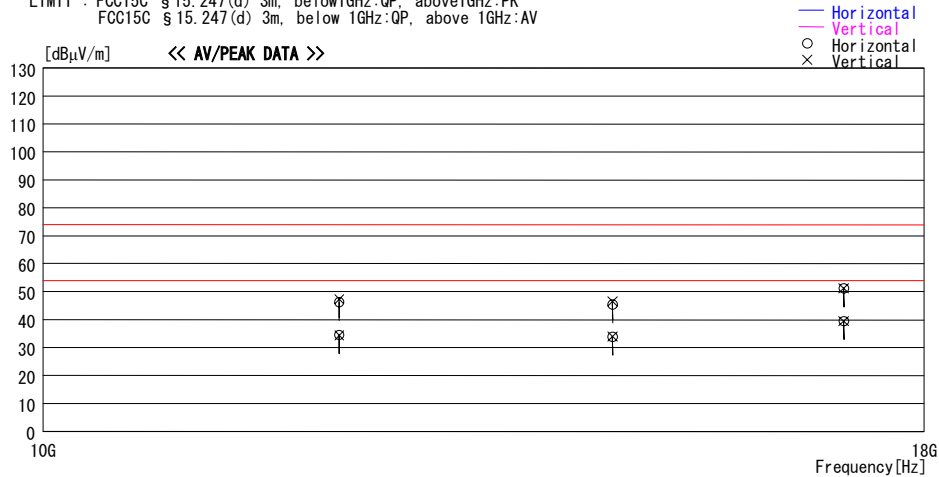
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 00:03:08

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch6:2437MHz / Max Axis Hor:Z Ver:X Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Loss&Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
12185.000	46.0	PK	41.6	-40.3	47.3	0	100	Vert.	74.0	26.7
12185.000	45.0	PK	41.6	-40.3	46.3	0	100	Hori.	74.0	27.7
12185.000	33.0	AV	41.6	-40.3	34.3	0	100	Vert.	54.0	19.7
12185.000	33.2	AV	41.6	-40.3	34.5	0	100	Hori.	54.0	19.5
14622.000	45.7	PK	42.1	-41.3	46.5	0	100	Vert.	74.0	27.5
14622.000	44.7	PK	42.1	-41.3	45.5	0	100	Hori.	74.0	28.5
14622.000	33.2	AV	42.1	-41.3	34.0	0	100	Vert.	54.0	20.0
14622.000	33.1	AV	42.1	-41.3	33.9	0	100	Hori.	54.0	20.1
17059.000	45.3	PK	45.3	-39.4	51.2	0	100	Vert.	74.0	22.8
17059.000	45.2	PK	45.3	-39.4	51.1	0	100	Hori.	74.0	22.9
17059.000	33.6	AV	45.3	-39.4	39.5	0	100	Vert.	54.0	14.5
17059.000	33.6	AV	45.3	-39.4	39.5	0	100	Hori.	54.0	14.5

CHART: WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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MF060b(01.06.05)

Radiated Spurious Emission

11b, Ch: Mid

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

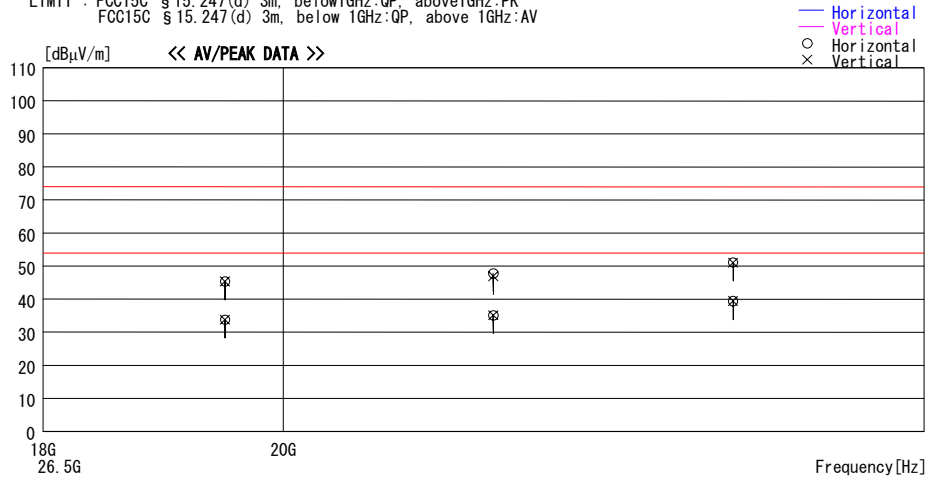
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 01:52:41

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch6:2437MHz / Max Axis Hor:Z Ver:X Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Radiated Spurious Emission

11b, Ch: High

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

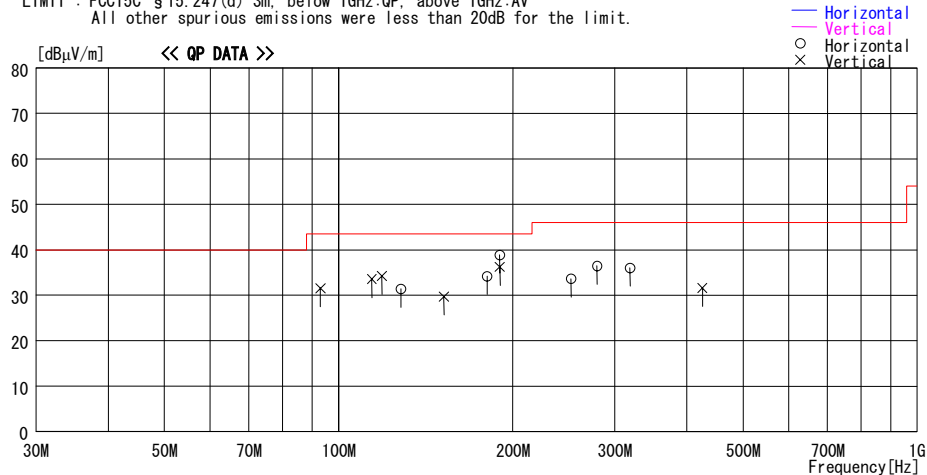
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/16 16:48:26

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 26deg. C / 59%
Serial No. : 20 Operator : Mitsuru Fujimura

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch11:2462MHz / Max Axis Hor:Z Ver:Z Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV
All other spurious emissions were less than 20dB for the limit.



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
93.032	43.6	QP	9.2	-21.3	31.5	-1	100	Vert.	43.5	12.0
114.158	42.2	QP	12.4	-21.1	33.5	-1	100	Vert.	43.5	10.0
118.791	42.3	QP	13.0	-21.1	34.2	360	100	Vert.	43.5	9.3
128.240	38.6	QP	13.7	-20.9	31.4	338	194	Hori.	43.5	12.1
152.033	34.3	QP	16.0	-20.6	29.7	360	100	Vert.	43.5	13.8
180.529	37.7	QP	16.8	-20.3	34.2	360	203	Hori.	43.5	9.3
189.939	41.9	QP	17.0	-20.0	38.9	360	100	Hori.	43.5	4.6
190.006	39.2	QP	17.0	-20.0	36.2	360	100	Vert.	43.5	7.3
252.336	35.7	QP	17.3	-19.4	33.6	284	100	Hori.	46.0	12.4
279.602	36.7	QP	19.1	-19.4	36.4	358	100	Hori.	46.0	9.6
318.923	39.6	QP	15.6	-19.2	36.0	360	100	Hori.	46.0	10.0
425.379	32.5	QP	18.7	-19.6	31.6	111	100	Vert.	46.0	14.4

CHART:WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 41 of 75
Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11b, Ch: High

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/08/06 03:53:38

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 10
Report No. : 25JE0262-HO
Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Temp./Humi. : 25deg. C / 57%
Operator : Kenichi Adachi

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch11:2462MHz / Max Axis Hor:Z Ver:X Ant port B. (16dBm)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
1641.113	49.5	PK	26.2	-23.4	52.3	140	123	Hori.	74.0	21.7
1641.113	39.3	AV	26.2	-23.4	42.1	140	123	Hori.	54.0	11.9
1641.040	47.7	PK	26.2	-23.4	50.5	282	130	Vert.	74.0	23.5
1641.040	38.1	AV	26.2	-23.4	40.9	282	130	Vert.	54.0	13.1
2488.234	53.4	PK	30.5	-22.5	61.4	210	100	Hori.	74.0	12.6
2488.234	40.3	AV	30.5	-22.5	48.3	210	100	Hori.	54.0	5.7
2488.234	52.3	PK	30.5	-22.5	60.3	142	100	Vert.	74.0	13.7
2488.234	39.9	AV	30.5	-22.5	47.9	142	100	Vert.	54.0	6.1
3282.600	51.6	PK	31.4	-21.8	61.2	323	116	Hori.	74.0	12.8
3282.600	41.8	AV	31.4	-21.8	51.4	323	116	Hori.	54.0	2.6
3282.350	47.7	PK	31.4	-21.8	57.3	120	100	Vert.	74.0	16.7
3282.350	39.5	AV	31.4	-21.8	49.1	120	100	Vert.	54.0	4.9
4923.938	51.9	PK	35.9	-30.0	57.8	310	100	Hori.	74.0	16.2
4923.938	38.3	AV	35.9	-30.0	44.2	310	100	Hori.	54.0	9.8
4924.156	49.8	PK	35.9	-30.0	55.7	270	140	Vert.	74.0	18.3
4924.156	37.9	AV	35.9	-30.0	43.8	270	140	Vert.	54.0	10.2
7386.171	44.7	PK	38.0	-28.9	53.8	320	110	Hori.	74.0	20.2
7386.171	31.8	AV	38.0	-28.9	40.9	320	110	Hori.	54.0	13.1
7385.863	44.5	PK	38.0	-28.9	53.6	286	130	Vert.	74.0	20.4
7385.863	31.6	AV	38.0	-28.9	40.7	286	130	Vert.	54.0	13.3
9848.101	44.8	PK	36.7	-27.6	53.9	280	120	Hori.	74.0	20.1
9848.101	31.5	AV	36.7	-27.6	40.6	280	120	Hori.	54.0	13.4
9848.001	44.3	PK	36.7	-27.6	53.4	270	100	Vert.	74.0	20.6
9848.001	31.7	AV	36.7	-27.6	40.8	270	100	Vert.	54.0	13.2

CHART:WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION:RESULT = READING + ANT FACTOR + LOSS(CABLE+ATTEN.) - GAIN(AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 42 of 75
Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11b, Ch: High

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

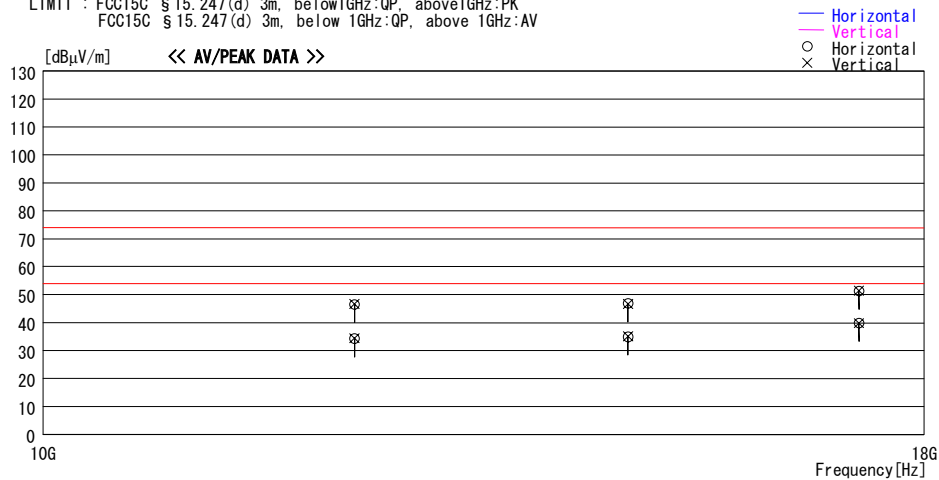
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 00:16:34

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch11:2462MHz / Max Axis Hor:Z Ver:X Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
12310.000	45.3	PK	41.7	-40.4	46.6	0	100	Vert.	74.0	27.4
12310.000	45.3	PK	41.7	-40.4	46.6	0	100	Hori.	74.0	27.4
12310.000	33.1	AV	41.7	-40.4	34.4	0	100	Vert.	54.0	19.6
12310.000	32.9	AV	41.7	-40.4	34.2	0	100	Hori.	54.0	19.8
14772.000	45.1	PK	42.4	-40.8	46.7	0	100	Vert.	74.0	27.3
14772.000	45.3	PK	42.4	-40.8	46.9	0	100	Hori.	74.0	27.1
14772.000	33.5	AV	42.4	-40.8	35.1	0	100	Vert.	54.0	18.9
14772.000	33.3	AV	42.4	-40.8	34.9	0	100	Hori.	54.0	19.1
17234.000	46.0	PK	44.9	-39.4	51.5	0	100	Vert.	74.0	22.5
17234.000	45.8	PK	44.9	-39.4	51.3	0	100	Hori.	74.0	22.7
17234.000	34.3	AV	44.9	-39.4	39.8	0	100	Vert.	54.0	14.2
17234.000	34.4	AV	44.9	-39.4	39.9	0	100	Hori.	54.0	14.1

CHART: WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 43 of 75
Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11b, Ch: High

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

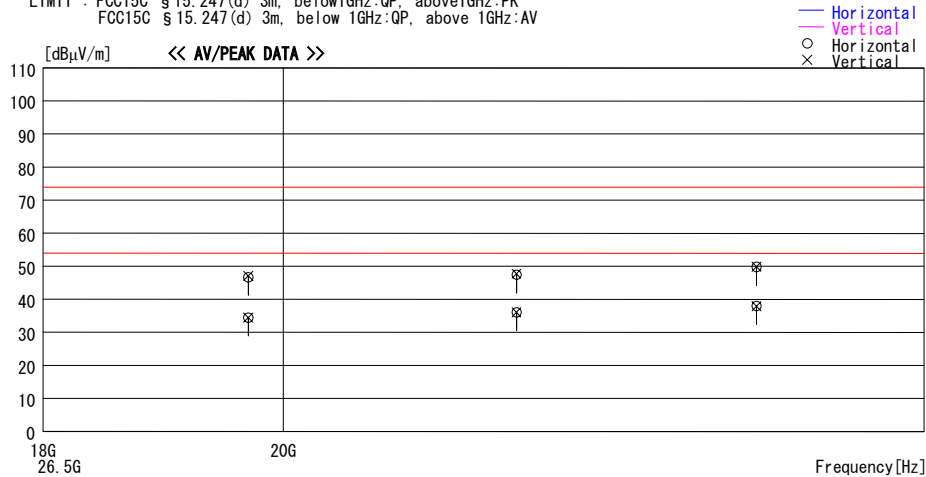
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 01:59:47

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11b 11Mbps, Ch11:2462MHz / Max Axis Hor:Z Ver:X Ant port B, (16dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
19696.000	42.8	PK	40.3	-36.4	46.7	0	100	Hori.	74.0	27.3
19696.000	43.2	PK	40.3	-36.4	47.1	0	100	Vert.	74.0	26.9
19696.000	30.7	AV	40.3	-36.4	34.6	0	100	Hori.	54.0	19.5
19696.000	30.6	AV	40.3	-36.4	34.5	0	100	Vert.	54.0	19.5
22158.000	44.0	PK	39.8	-36.4	47.4	0	100	Hori.	74.0	26.6
22158.000	44.3	PK	39.8	-36.4	47.7	0	100	Vert.	74.0	26.3
22158.000	32.7	AV	39.8	-36.4	36.1	0	100	Hori.	54.0	17.9
22158.000	32.7	AV	39.8	-36.4	36.1	0	100	Vert.	54.0	17.9
24620.000	43.8	PK	40.5	-34.5	49.8	0	100	Hori.	74.0	24.2
24620.000	43.9	PK	40.5	-34.5	49.9	0	100	Vert.	74.0	24.2
24620.000	32.0	AV	40.5	-34.5	38.0	0	100	Hori.	54.0	16.0
24620.000	31.9	AV	40.5	-34.5	37.9	0	100	Vert.	54.0	16.1

CHART: WITH FACTOR ANT TYPE : 30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

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MF060b(01.06.05)

Radiated Spurious Emission

11g, Ch: Low

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

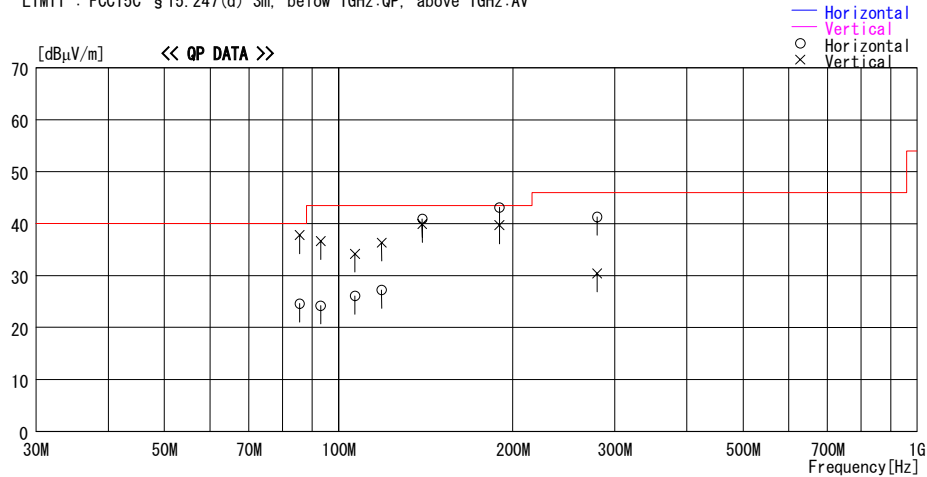
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/13 10:19:19

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 20
Report No. : 25JE0262-HO
Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Temp./Humi. : 26deg. C / 60%
Operator : Mitsuru Fujimura

Mode / Remarks : Transmitting IEEE802.11g 54Mbps, Ch1:2412MHz / Max-Axis ANT_B

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
85.650	38.2	QP	7.8	-21.4	24.6	96	195	Hori.	40.0	15.4
85.650	51.4	QP	7.8	-21.4	37.8	228	115	Vert.	40.0	2.2
93.140	36.3	QP	9.2	-21.3	24.2	303	204	Hori.	43.5	19.3
93.140	48.7	QP	9.2	-21.3	36.6	204	100	Vert.	43.5	6.9
106.740	35.8	QP	11.4	-21.1	26.1	136	132	Hori.	43.5	17.4
106.740	43.9	QP	11.4	-21.1	34.2	234	100	Vert.	43.5	9.3
118.767	35.4	QP	12.9	-21.1	27.2	322	100	Hori.	43.5	16.3
118.767	44.5	QP	12.9	-21.1	36.3	196	100	Vert.	43.5	7.2
139.500	47.0	QP	14.6	-20.7	40.9	61	206	Hori.	43.5	2.6
139.500	46.0	QP	14.6	-20.7	39.9	350	100	Vert.	43.5	3.6
189.749	46.1	QP	17.0	-20.0	43.1	348	141	Hori.	43.5	0.4
189.749	42.7	QP	17.0	-20.0	39.7	227	100	Vert.	43.5	3.8
279.867	41.6	QP	19.1	-19.4	41.3	135	135	Hori.	46.0	4.7
279.867	30.7	QP	19.1	-19.4	30.4	307	129	Vert.	46.0	15.6

CHART: WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
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Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11g, Ch: Low

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/08/05 23:37:51

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 10
Report No. : 25JE0262-HO
Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Temp./Humi. : 25deg. C / 57%
Operator : Kenichi Adachi

Mode / Remarks : Transmitting IEEE802.11g 54Mbps, Ch1:2412MHz / Max Axis Hor:Z Ver:X Ant port B (12dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
1607.908	48.7	PK	25.7	-23.5	50.9	302	130	Vert.	74.0	23.1
1607.908	42.3	AV	25.7	-23.5	44.5	302	130	Vert.	54.0	9.5
1607.985	48.4	PK	25.7	-23.5	50.6	146	124	Hori.	74.0	23.4
1607.985	43.0	AV	25.7	-23.5	45.2	146	124	Hori.	54.0	8.8
2389.980	61.4	PK	30.5	-22.6	69.3	215	100	Hori.	74.0	4.7
2389.980	44.9	AV	30.5	-22.6	52.8	215	100	Hori.	54.0	1.2
2389.980	60.8	PK	30.5	-22.6	68.7	140	100	Vert.	74.0	5.3
2389.980	44.5	AV	30.5	-22.6	52.4	140	100	Vert.	54.0	1.6
3215.975	41.9	AV	31.5	-21.9	51.5	114	100	Vert.	54.0	2.5
3215.975	48.7	PK	31.5	-21.9	58.3	114	100	Vert.	74.0	15.7
3216.027	48.7	PK	31.5	-21.9	58.3	235	116	Hori.	74.0	15.7
3216.027	42.6	AV	31.5	-21.9	52.2	235	116	Hori.	54.0	1.8
4824.080	45.5	PK	35.3	-30.3	50.5	270	153	Vert.	74.0	23.5
4824.080	34.6	AV	35.3	-30.3	39.6	270	153	Vert.	54.0	14.4
4825.650	44.6	PK	35.3	-30.3	49.6	315	100	Hori.	74.0	24.4
4825.650	32.5	AV	35.3	-30.3	37.5	315	100	Hori.	54.0	16.5
7235.762	44.3	PK	37.7	-28.9	53.1	301	108	Hori.	74.0	20.9
7235.762	31.6	AV	37.7	-28.9	40.4	301	108	Hori.	54.0	13.6
7236.270	44.2	PK	37.7	-28.9	53.0	286	130	Vert.	74.0	21.0
7236.270	31.7	AV	37.7	-28.9	40.5	286	130	Vert.	54.0	13.5
9647.640	44.7	PK	36.9	-27.7	53.9	237	100	Vert.	74.0	20.1
9647.640	31.8	AV	36.9	-27.7	41.0	237	100	Vert.	54.0	13.0
9647.873	44.8	PK	36.9	-27.7	54.0	51	157	Hori.	74.0	20.0
9647.873	32.6	AV	36.9	-27.7	41.8	51	157	Hori.	54.0	12.2

CHART: WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
 Page : 46 of 75
 Issued date : September 27, 2005
 Revised date : October 5, 2005
 FCC ID : N6C-SX10WG

Radiated Spurious Emission **11g, Ch: Low**

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

Company : silex Technology, Inc.	REPORT NO : 26JE0262-HO
Equipment : Wireless 11g MiniPCI Adapter	REGULATION : Fcc Part15 Subpart C 15.247(d)
Model : SX-10WG	TEST DISTANCE : 3m
Sample No. : 10	DATE : 08/05/2005
Power : DC 3.3V (AC adapter input: AC120V/60Hz)	TEMPERATURE : 26deg.C
Mode : IEEE802.11g, 54Mbps, Tx: ch.01	HUMIDITY : 58%
Ant-B	ENGINEER : Kenichi Adachi
Remarks : EUT-max-axis (Hor.: Z, Ver.: X)	

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATT or Filter Loss [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2411.1	94.9	93.8	30.5	36.4	3.7	10.1	102.8	101.7	-	-	-
3	2400.0	65.4	64.3	30.5	36.4	3.7	10.1	73.3	72.2	Funda-20dB	9.5	9.6

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
 *The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.
 *Hi-Pass Filter was not used for factor 0.0dB of the above table.

Model : SX-10WG	DATE : 09/13/2005
Sample No. : 20	TEMPERATURE : 26deg.C
Mode : IEEE802.11g, 54Mbps, Tx: ch.01	HUMIDITY : 60%
Ant-B	ENGINEER : Mitsuru Fujimura

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATT or Filter Loss [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2412.0	103.9	91.7	30.5	36.4	3.7	10.1	111.8	99.6	-	-	-
2	206.1	56.5	53.5	17.1	27.4	7.4	0.0	53.6	50.6	Funda-20dB	38.2	29.0

*Except for the above table : All other spurious emissions were less than 20dB for the limit.
 *The result is rounded off to the second decimal place. Therefore, there may be 0.1 difference for the result.
 *Hi-Pass Filter was not used for factor 0.0dB of the above table.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 47 of 75
Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11g, Ch: Low

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

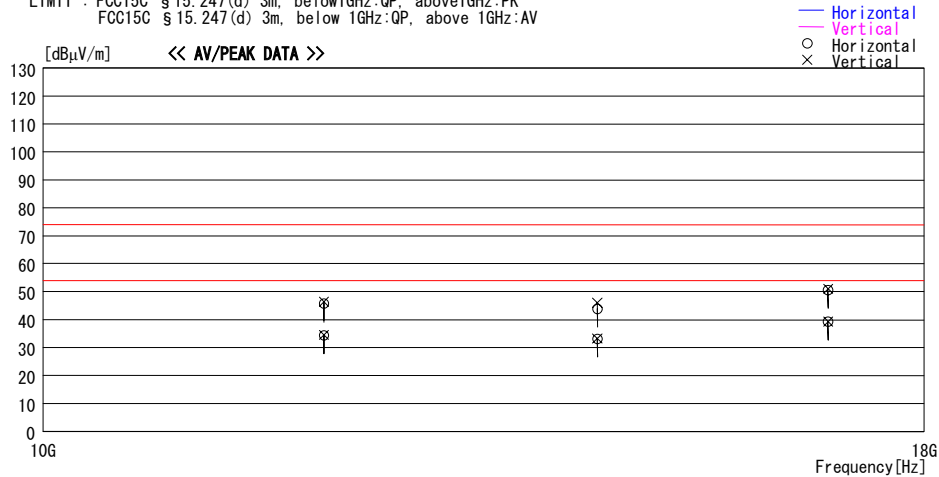
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 00:32:55

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11g 54Mbps, Ch1:2412MHz / Max Axis Hor:Z Ver:X Ant port B, (12dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Loss& Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
12060.000	44.4	PK	41.6	-40.2	45.8	0	100	Hori.	74.0	28.2
12060.000	45.0	PK	41.6	-40.2	46.4	0	100	Vert.	74.0	27.6
12060.000	33.0	AV	41.6	-40.2	34.4	0	100	Hori.	54.0	19.6
12060.000	33.1	AV	41.6	-40.2	34.5	0	100	Vert.	54.0	19.5
14472.000	43.7	PK	41.9	-41.7	43.9	0	100	Hori.	74.0	30.1
14472.000	45.8	PK	41.9	-41.7	46.0	0	100	Vert.	74.0	28.0
14472.000	33.0	AV	41.9	-41.7	33.2	0	100	Hori.	54.0	20.8
14472.000	33.1	AV	41.9	-41.7	33.3	0	100	Vert.	54.0	20.7
16884.000	44.8	PK	45.2	-39.4	50.6	0	100	Hori.	74.0	23.4
16884.000	45.2	PK	45.2	-39.4	51.0	0	100	Vert.	74.0	23.0
16884.000	33.4	AV	45.2	-39.4	39.2	0	100	Hori.	54.0	14.8
16884.000	33.5	AV	45.2	-39.4	39.3	0	100	Vert.	54.0	14.7

CHART: WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

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MF060b(01.06.05)

Radiated Spurious Emission

11g, Ch: Low

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

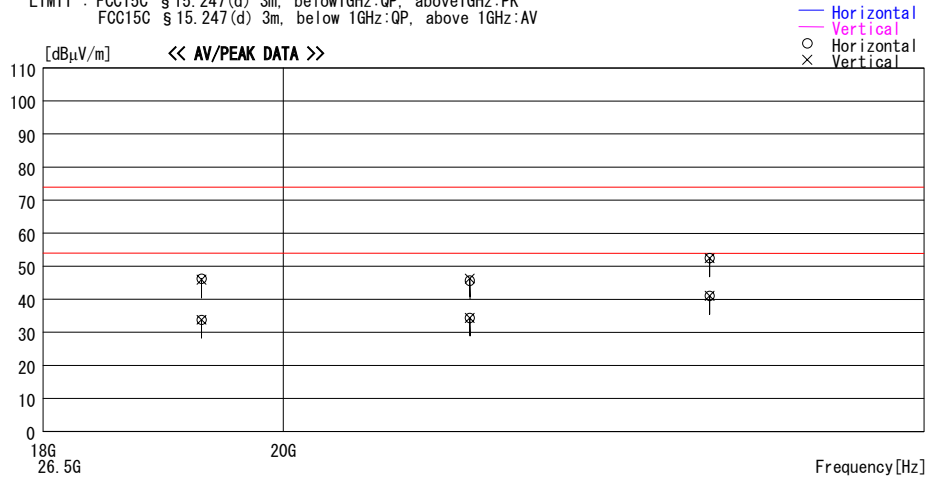
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 02:16:56

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11g 54Mbps, Ch1:2412MHz / Max Axis Hor:Z Ver:X Ant port B, (12dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
19296.000	43.0	PK	40.2	-36.9	46.3	0	100	Hori.	74.0	27.7
19296.000	42.6	PK	40.2	-36.9	45.9	0	100	Vert.	74.0	28.1
19296.000	30.5	AV	40.2	-36.9	33.8	0	100	Hori.	54.0	20.2
19296.000	30.5	AV	40.2	-36.9	33.8	0	100	Vert.	54.0	20.2
21708.000	42.6	PK	39.8	-36.7	45.7	0	100	Hori.	74.0	28.3
21708.000	43.2	PK	39.8	-36.7	46.3	0	100	Vert.	74.0	27.7
21708.000	31.3	AV	39.8	-36.7	34.4	0	100	Hori.	54.0	19.6
21708.000	31.3	AV	39.8	-36.7	34.4	0	100	Vert.	54.0	19.6
24120.000	45.9	PK	40.4	-33.8	52.5	0	100	Hori.	74.0	21.5
24120.000	45.8	PK	40.4	-33.8	52.4	0	100	Vert.	74.0	21.6
24120.000	34.5	AV	40.4	-33.8	41.1	0	100	Hori.	54.0	12.9
24120.000	34.5	AV	40.4	-33.8	41.1	0	100	Vert.	54.0	12.9

CHART: WITH FACTOR ANT TYPE : 30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

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MF060b(01.06.05)

Radiated Spurious Emission

11g, Ch: Mid

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

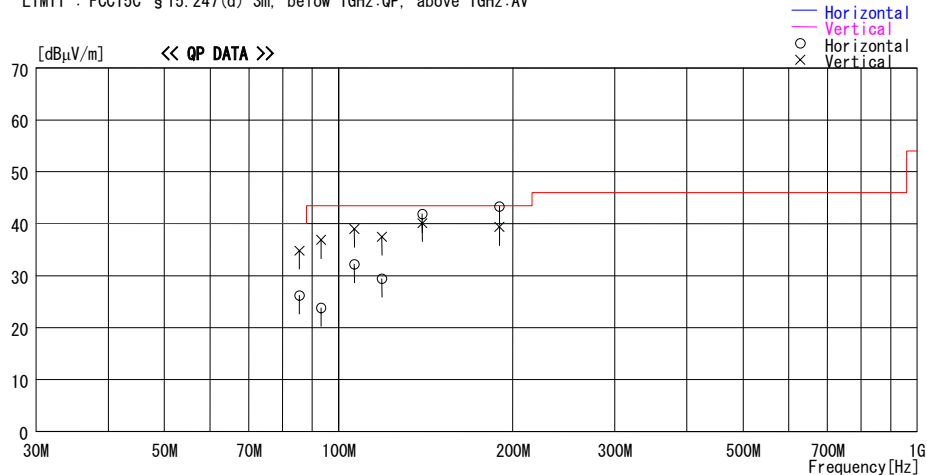
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/13 16:52:02

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 20
Report No. : 25JE0262-HO
Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Temp./Humi. : 26deg. C / 60%
Operator : Mitsuru Fujimura

Mode / Remarks : Transmitting IEEE802.11g 54Mbps, Ch6:2437MHz / Max-Axis ANT_B

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Loss&Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
85.600	39.8	QP	7.8	-21.4	26.2	85	213	Hori.	40.0	13.8
85.600	48.4	QP	7.8	-21.4	34.8	221	176	Vert.	40.0	5.2
93.250	35.9	QP	9.2	-21.3	23.8	112	100	Hori.	43.5	19.7
93.250	49.0	QP	9.2	-21.3	36.9	206	100	Vert.	43.5	6.6
106.470	42.0	QP	11.3	-21.1	32.2	64	164	Hori.	43.5	11.3
106.470	48.8	QP	11.3	-21.1	39.0	242	100	Vert.	43.5	4.5
118.800	37.5	QP	13.0	-21.1	29.4	343	100	Hori.	43.5	14.1
118.800	45.6	QP	13.0	-21.1	37.5	260	100	Vert.	43.5	6.0
139.580	48.0	QP	14.6	-20.7	41.9	76	231	Hori.	43.5	1.6
139.580	46.2	QP	14.6	-20.7	40.1	356	100	Vert.	43.5	3.4
189.749	46.3	QP	17.0	-20.0	43.3	0	156	Hori.	43.5	0.2
189.749	42.4	QP	17.0	-20.0	39.4	260	100	Vert.	43.5	4.1

CHART:WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 50 of 75
Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission 11g, Ch: Mid

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

Company	: silix Technology, Inc.	REPORT NO	: 25JE0262-HO
Equipment	: Wireless 11g MiniPCI Adapter	REGULATION	: Fcc Part15 Subpart C 15.247(d)
Model	: SX-10WG	TEST DISTANCE	: 3m
Sample No.	: 20	DATE	: 09/13/2005
Power	: DC 3.3V (AC adapter input: AC120V/60Hz)	TEMPERATURE	: 26deg.C
Mode	: IEEE802.11g, 54Mbps, Tx: ch.06	HUMIDITY	: 60%
	Ant-B	ENGINEER	: Mitsuru Fujimura
Remarks	: EUT-max-axis (Hor.: Z, Ver.: Z)		

20dBc(Fundamental 2437MHz) (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	ATT or Filter Loss [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	[dB]
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2437.0	104.8	94.2	30.5	36.4	3.6	10.1	112.6	102.0	-	-	-
2	206.2	56.2	53.2	17.1	27.4	7.4	0.0	53.3	50.3	Funda-20dB	39.3	31.7

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

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

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

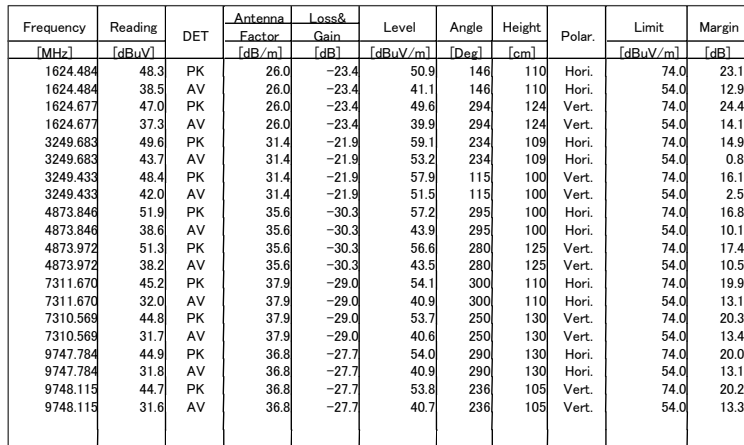
UL Apex Co., Ltd.
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MF060b(01.06.05)

11g, Ch: Mid

DATA OF RADIATED EMISSION TEST

- Horizontal
- Vertical
- Horizontal
- × Vertical



MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 52 of 75
Issued date : September 27, 2005
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FCC ID : N6C-SX10WG

Radiated Spurious Emission

11g, Ch: Mid

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

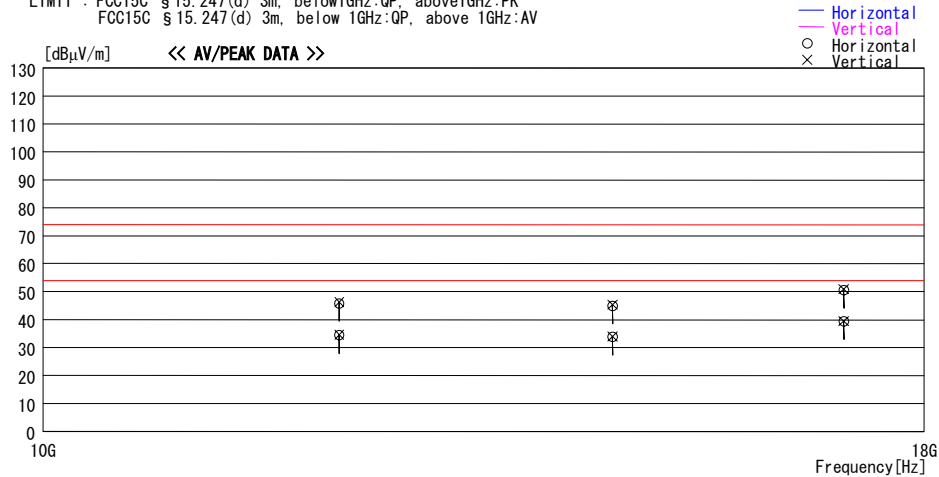
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 00:44:44

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11g 54Mbps, Ch6:2437MHz / Max Axis Hor:Z Ver:X Ant port B, (15dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna		Level	Angle	Height	Polar.	Limit	Margin
			Factor	Loss&Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
12185.000	44.6	PK	41.6	-40.3	45.9	0	100	Hori.	74.0	28.1
12185.000	44.9	PK	41.6	-40.3	46.2	0	100	Vert.	74.0	27.8
12185.000	33.1	AV	41.6	-40.3	34.4	0	100	Hori.	54.0	19.6
12185.000	33.3	AV	41.6	-40.3	34.6	0	100	Vert.	54.0	19.4
14622.000	44.1	PK	42.1	-41.3	44.9	0	100	Hori.	74.0	29.1
14622.000	44.5	PK	42.1	-41.3	45.3	0	100	Vert.	74.0	28.7
14622.000	33.0	AV	42.1	-41.3	33.8	0	100	Hori.	54.0	20.2
14622.000	33.2	AV	42.1	-41.3	34.0	0	100	Vert.	54.0	20.0
17059.000	44.7	PK	45.3	-39.4	50.6	0	100	Hori.	74.0	23.4
17059.000	44.9	PK	45.3	-39.4	50.8	0	100	Vert.	74.0	23.2
17059.000	33.5	AV	45.3	-39.4	39.4	0	100	Hori.	54.0	14.6
17059.000	33.6	AV	45.3	-39.4	39.5	0	100	Vert.	54.0	14.5

CHART: WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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MF060b(01.06.05)

Radiated Spurious Emission

11g, Ch: Mid

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

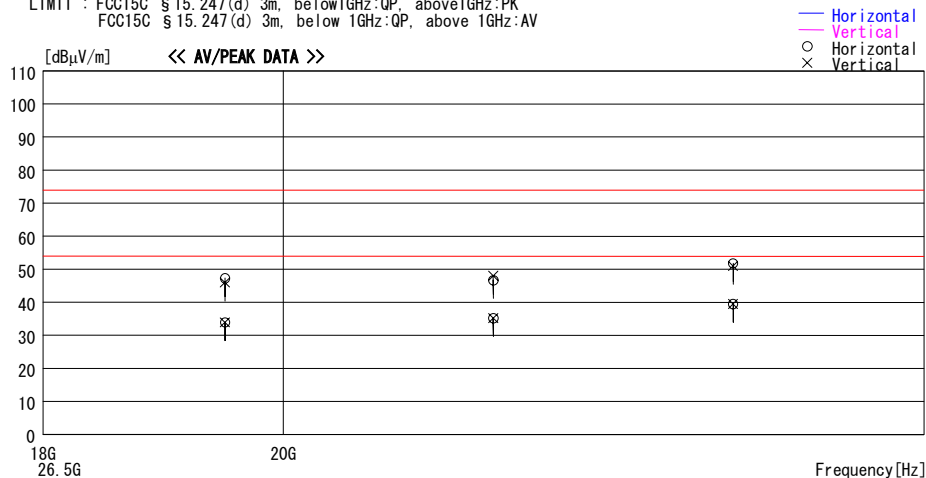
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 02:24:51

Applicant : silex technology, Inc. Report No. : 25JE0262-HO
Kind of EUT : Wireless 11g MiniPCI Adapter Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Model No. : SX-10WG Temp./Humi. : 28deg. C / 57%
Serial No. : 20 Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11g 54Mbps, Ch6:2437MHz / Max Axis Hor:Z Ver:X Ant port B, (15dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
19496.000	43.6	PK	40.3	-36.6	47.3	0	100	Hori.	74.0	26.7
19496.000	42.3	PK	40.3	-36.6	46.0	0	100	Vert.	74.0	28.0
19496.000	30.2	AV	40.3	-36.6	33.9	0	100	Hori.	54.0	20.1
19496.000	30.2	AV	40.3	-36.6	33.9	0	100	Vert.	54.0	20.1
21933.000	43.6	PK	39.8	-36.7	46.7	0	100	Hori.	74.0	27.3
21933.000	44.9	PK	39.8	-36.7	48.0	0	100	Vert.	74.0	26.0
21933.000	32.1	AV	39.8	-36.7	35.2	0	100	Hori.	54.0	18.8
21933.000	32.1	AV	39.8	-36.7	35.2	0	100	Vert.	54.0	18.8
24370.000	45.5	PK	40.4	-34.1	51.8	0	100	Hori.	74.0	22.2
24370.000	44.7	PK	40.4	-34.1	51.0	0	100	Vert.	74.0	23.0
24370.000	33.2	AV	40.4	-34.1	39.5	0	100	Hori.	54.0	14.5
24370.000	33.2	AV	40.4	-34.1	39.5	0	100	Vert.	54.0	14.5

CHART: WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 55 of 75
Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11g, Ch: High

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

DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No. 2 Semi Anechoic Chamber
Date : 2005/08/06 01:24:36

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 10
Report No. : 25JE0262-H0
Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Temp./Humi. : 25deg. C / 57%
Operator : Kenichi Adachi

Mode / Remarks : Transmitting IEEE802.11g 54Mbps, Ch11:2462MHz / Max Axis Hor:Z Ver:X Ant port B (14dBm)

LIMIT : FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C § 15.247(d) 3m, below 1GHz:QP, above 1GHz:AV

Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBuV]		[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]
1641.158	50.2	PK	26.2	-23.4	53.0	330	114	Hori.	74.0	21.0
1641.158	43.8	AV	26.2	-23.4	46.6	330	114	Hori.	54.0	7.4
1641.175	49.7	PK	26.2	-23.4	52.5	270	100	Vert.	74.0	21.5
1641.175	42.4	AV	26.2	-23.4	45.2	270	100	Vert.	54.0	8.8
2483.500	59.4	PK	30.5	-22.5	67.4	215	100	Hori.	74.0	6.6
2483.500	43.5	AV	30.5	-22.5	51.5	215	100	Hori.	54.0	2.5
2483.500	60.1	PK	30.5	-22.5	68.1	136	100	Vert.	74.0	5.9
2483.500	43.0	AV	30.5	-22.5	51.0	136	100	Vert.	54.0	3.0
3282.657	49.5	PK	31.4	-21.8	59.1	234	112	Hori.	74.0	14.9
3282.657	43.1	AV	31.4	-21.8	52.7	234	112	Hori.	54.0	1.3
3282.562	47.8	PK	31.4	-21.8	57.4	135	110	Vert.	74.0	16.6
3282.562	41.1	AV	31.4	-21.8	50.7	135	110	Vert.	54.0	3.3
4923.580	48.0	PK	35.9	-30.0	53.9	320	100	Hori.	74.0	20.1
4923.580	34.8	AV	35.9	-30.0	40.7	320	100	Hori.	54.0	13.3
4924.265	46.9	PK	35.9	-30.0	52.8	270	150	Vert.	74.0	21.2
4924.265	32.8	AV	35.9	-30.0	38.7	270	150	Vert.	54.0	15.3
7386.500	44.3	PK	38.0	-28.9	53.4	285	100	Hori.	74.0	20.6
7386.500	32.1	AV	38.0	-28.9	41.2	285	100	Hori.	54.0	12.8
7385.983	44.4	PK	38.0	-28.9	53.5	290	130	Vert.	74.0	20.5
7385.983	31.8	AV	38.0	-28.9	40.9	290	130	Vert.	54.0	13.1
9847.496	44.9	PK	36.7	-27.6	54.0	238	145	Hori.	74.0	20.0
9847.496	32.5	AV	36.7	-27.6	41.6	238	145	Hori.	54.0	12.4
9847.683	44.3	PK	36.7	-27.6	53.4	65	155	Vert.	74.0	20.6
9847.683	31.9	AV	36.7	-27.6	41.0	65	155	Vert.	54.0	13.0

CHART: WITH FACTOR ANT TYPE : -30MHz LOOP, 30-300MHz BICONICAL, 300MHz-1000MHz LOGPERIODIC, 1000MHz- HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

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MF060b(01.06.05)

Test report No. : 25JE0262-HO-1a
Page : 56 of 75
Issued date : September 27, 2005
Revised date : October 5, 2005
FCC ID : N6C-SX10WG

Radiated Spurious Emission

11g, Ch: High

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

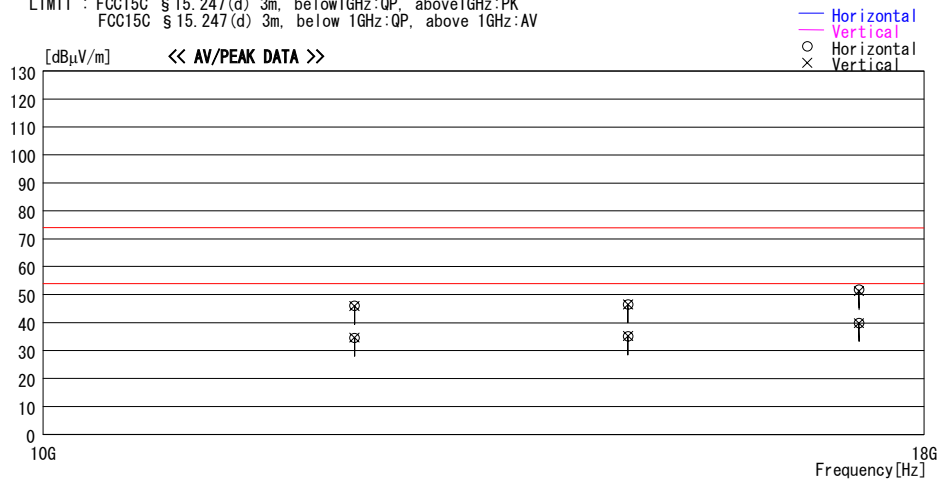
DATA OF RADIATED EMISSION TEST

UL Apex Co., Ltd. Head Office EMC Lab. No.2 Semi Anechoic Chamber
Date : 2005/09/01 00:55:19

Applicant : silex technology, Inc
Kind of EUT : Wireless 11g MiniPCI Adapter
Model No. : SX-10WG
Serial No. : 20
Report No. : 25JE0262-HO
Power : DC3.3 V (AC adapter in: AC120V/60Hz)
Temp./Humi. : 28deg. C / 57%
Operator : Yutaka Yoshida

Mode / Remarks : Transmitting IEEE802.11g 54Mbps, Ch11:2462MHz / Max Axis Hor:Z Ver:X Ant port B, (14dBm)

LIMIT : FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:PK
FCC15C §15.247(d) 3m, below 1GHz:QP, above 1GHz:AV



Frequency	Reading	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin
			Factor	Gain						
[MHz]	[dBμV]		[dB/m]	[dB]	[dBμV/m]	[Deg]	[cm]		[dBμV/m]	[dB]
12310.000	44.8	PK	41.7	-40.4	46.1	0	100	Hori.	74.0	27.9
12310.000	44.7	PK	41.7	-40.4	46.0	0	100	Vert.	74.0	28.0
12310.000	33.3	AV	41.7	-40.4	34.6	0	100	Hori.	54.0	19.5
12310.000	33.3	AV	41.7	-40.4	34.6	0	100	Vert.	54.0	19.4
14772.000	44.9	PK	42.4	-40.8	46.5	0	100	Hori.	74.0	27.5
14772.000	44.9	PK	42.4	-40.8	46.5	0	100	Vert.	74.0	27.5
14772.000	33.4	AV	42.4	-40.8	35.0	0	100	Hori.	54.0	19.0
14772.000	33.5	AV	42.4	-40.8	35.1	0	100	Vert.	54.0	18.9
17234.000	46.3	PK	44.9	-39.4	51.8	0	100	Hori.	74.0	22.2
17234.000	45.7	PK	44.9	-39.4	51.2	0	100	Vert.	74.0	22.8
17234.000	34.3	AV	44.9	-39.4	39.8	0	100	Hori.	54.0	14.2
17234.000	34.3	AV	44.9	-39.4	39.8	0	100	Vert.	54.0	14.2

CHART: WITH FACTOR ANT TYPE : ~30MHz LOOP, 30~300MHz BICONICAL, 300MHz~1000MHz LOGPERIODIC, 1000MHz~ HORN
CALCULATION: RESULT = READING + ANT FACTOR + LOSS (CABLE+ATTEN.) - GAIN (AMP)
Except for the data below : adequate margin data below the limits.

UL Apex Co., Ltd.

Head Office EMC Lab.

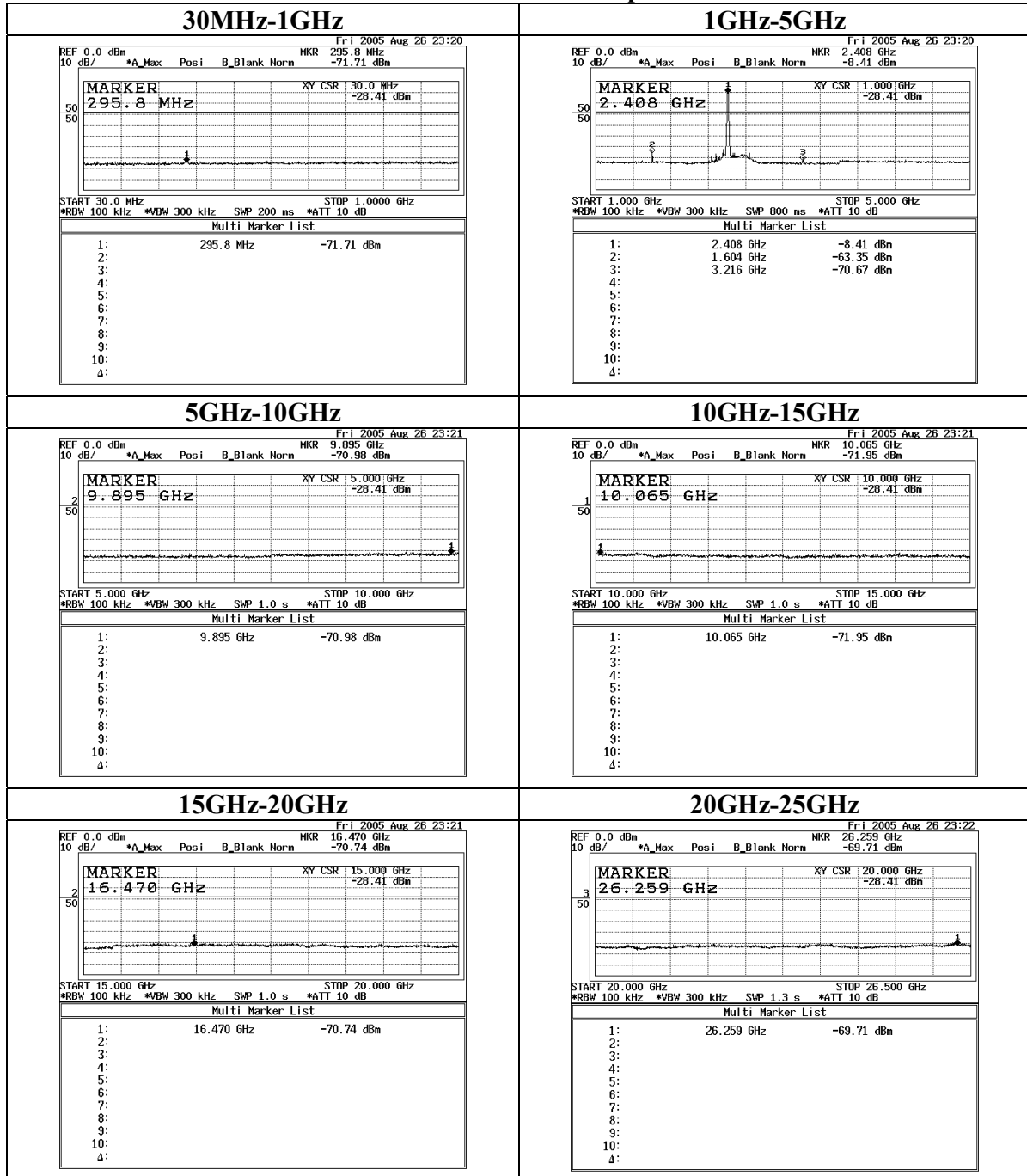
4383-326 Asama-cho, Ise-shi, Mie-ken 516-0021 JAPAN

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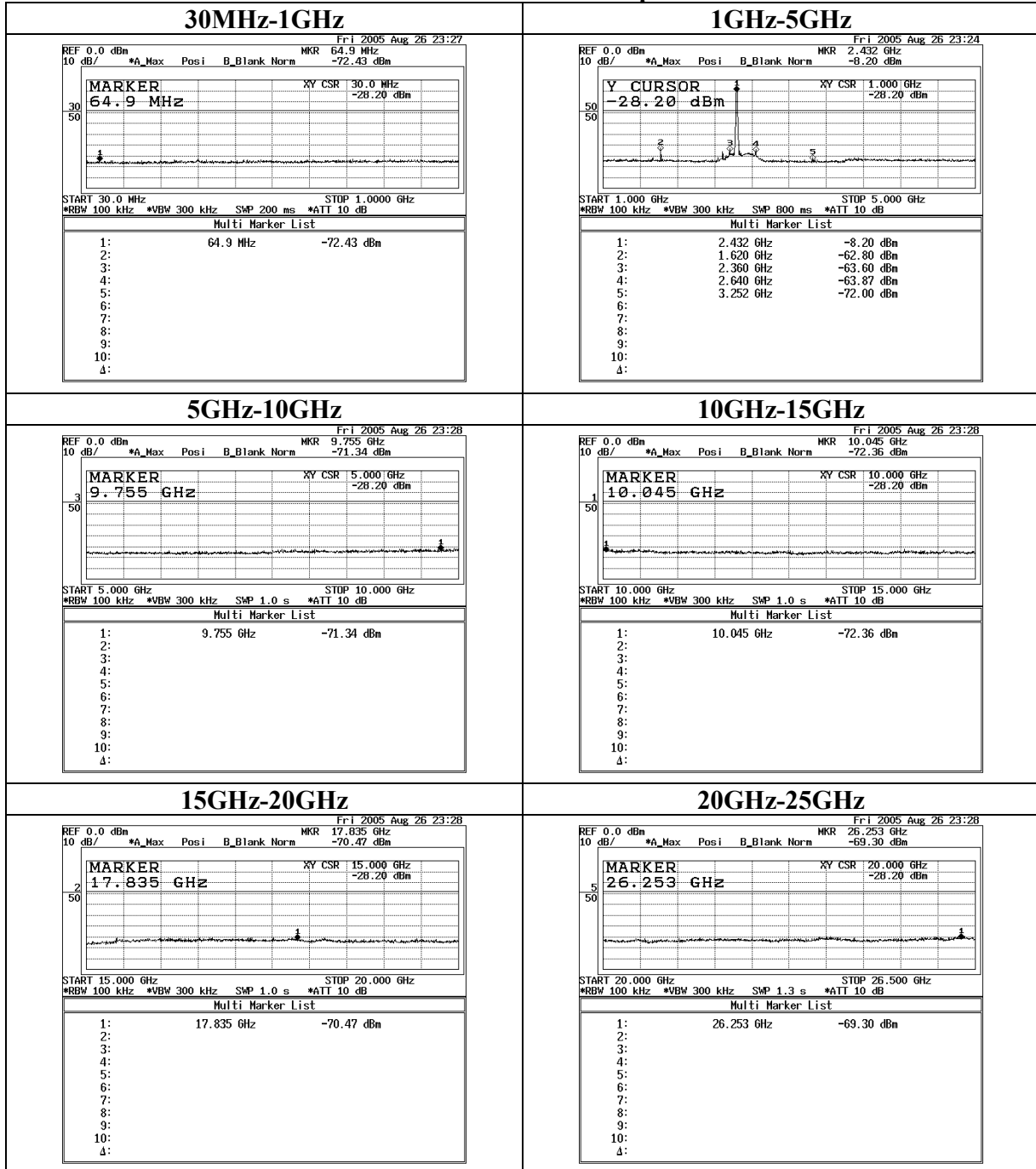
Facsimile : +81 596 24 8124

MF060b(01.06.05)

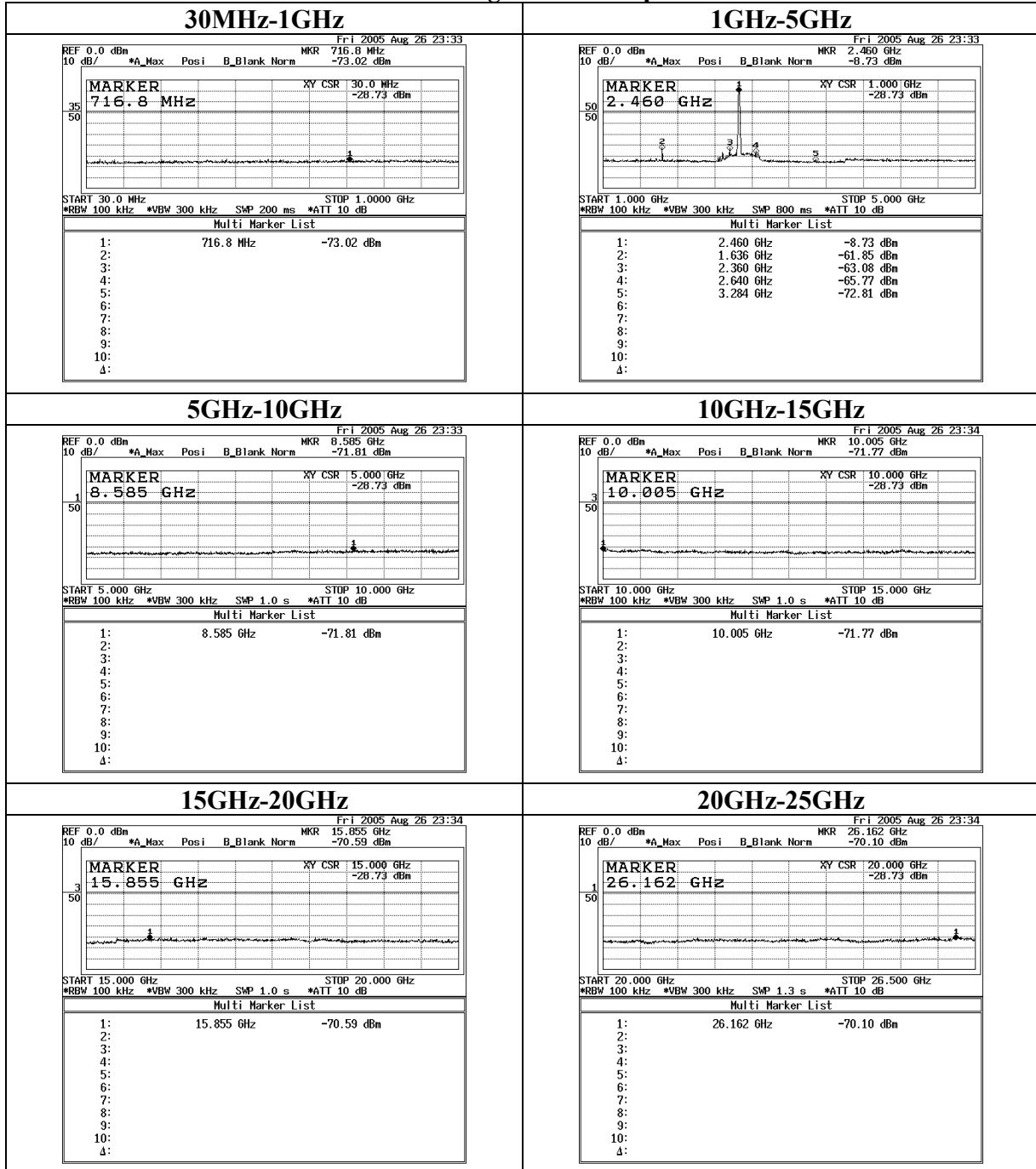
Conducted Spurious Emission
Ch: Low 11b 11Mbps



Conducted Spurious Emission
Ch: Mid 11b 11Mbps



Conducted Spurious Emission
Ch: High 11b 11Mbps



Conducted Spurious Emission
Ch: Low 11g 54Mbps



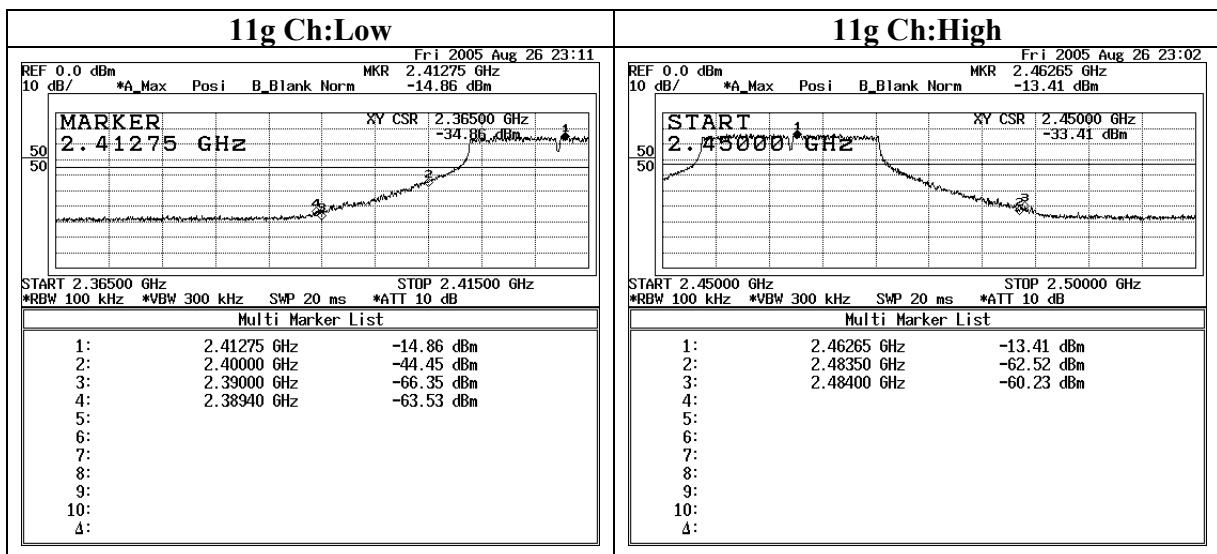
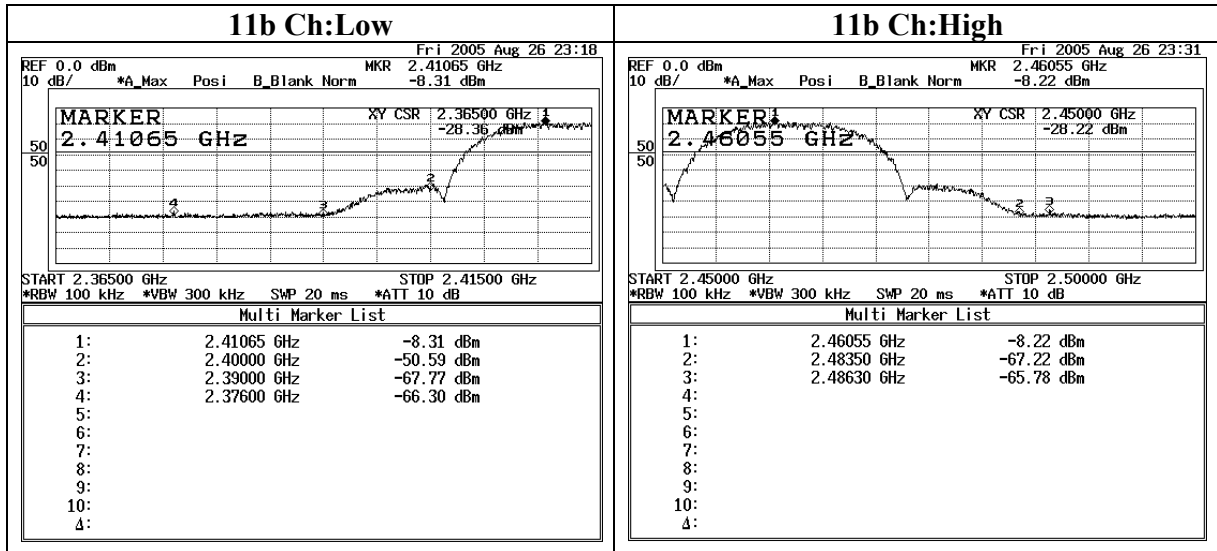
Conducted Spurious Emission
Ch: Mid 11g 54Mbps



Conducted Spurious Emission
Ch: High 11g 54Mbps



Conducted emission Band Edge compliance



Power Density

UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Shielded Room

Company	: silex technology, Inc	REPORT NO	: 25JE0262-HO
Equipment	: Wireless 11g MiniPCI Adapter	REGULATION	: Fcc Part15 Subpart C 15.247(e)
Model	: SX-10WG	TEST DISTANCE	: -
Sample No.	: 20	DATE	: 08/26/2005
Power	: DC3.3V (EUT input)	TEMPERATURE	: 23deg.C
Mode	: Tx (ch1,6,11)	HUMIDITY	: 55%
		ENGINEER	: Kenichi Adachi

[IEEE802.11b]

Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2410.5	-21.67	1.87	9.54	-10.3	8.0	18.3
Mid	2435.5	-21.55	1.89	9.54	-10.1	8.0	18.1
High	2460.5	-22.09	1.90	9.54	-10.7	8.0	18.7

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

[IEEE802.11g]

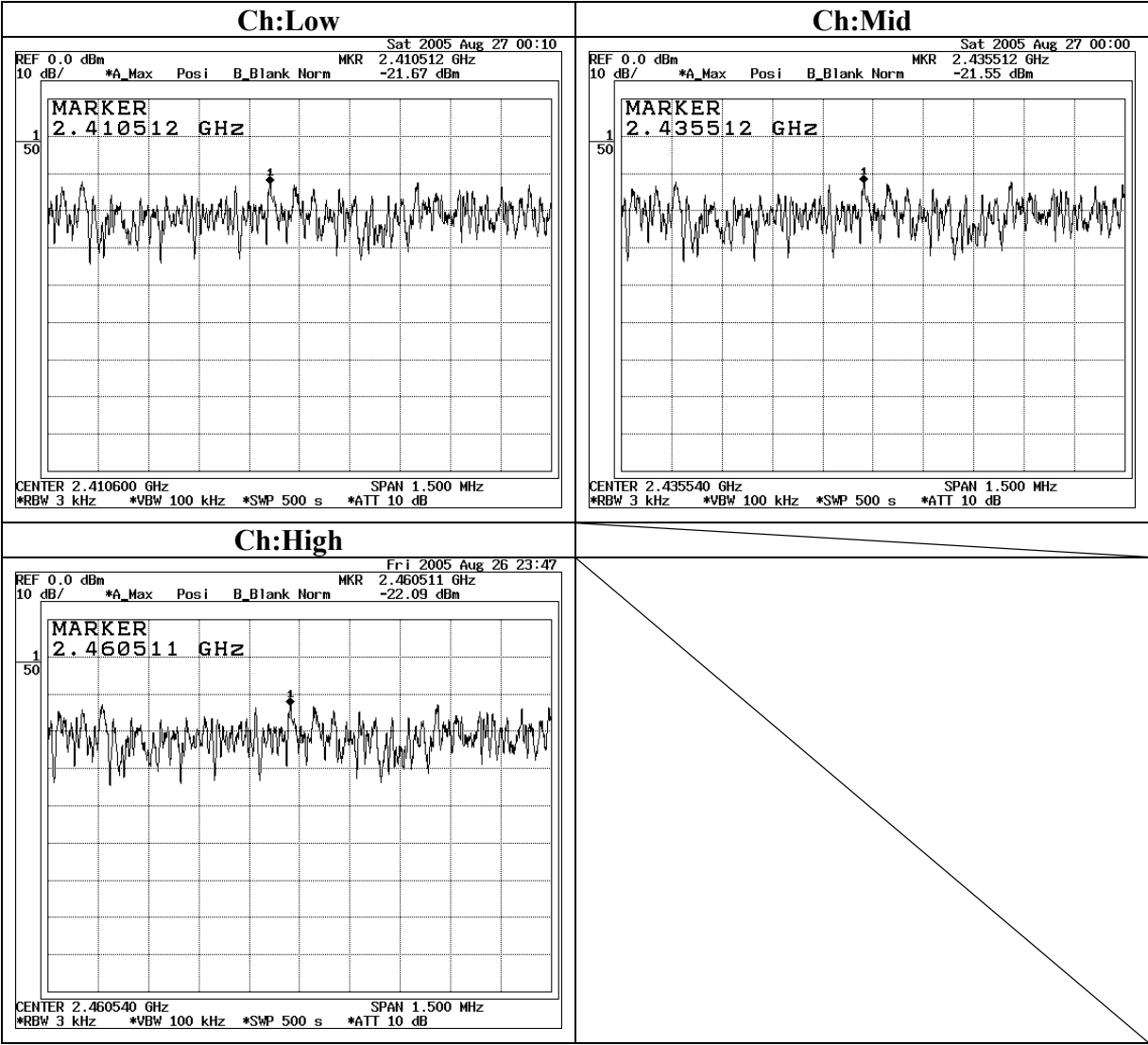
Ch	Freq. [MHz]	Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
Low	2412.9	-28.44	1.87	9.54	-17.0	8.0	25.0
Mid	2431.6	-25.93	1.89	9.54	-14.5	8.0	22.5
High	2463.5	-26.97	1.90	9.54	-15.5	8.0	23.5

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

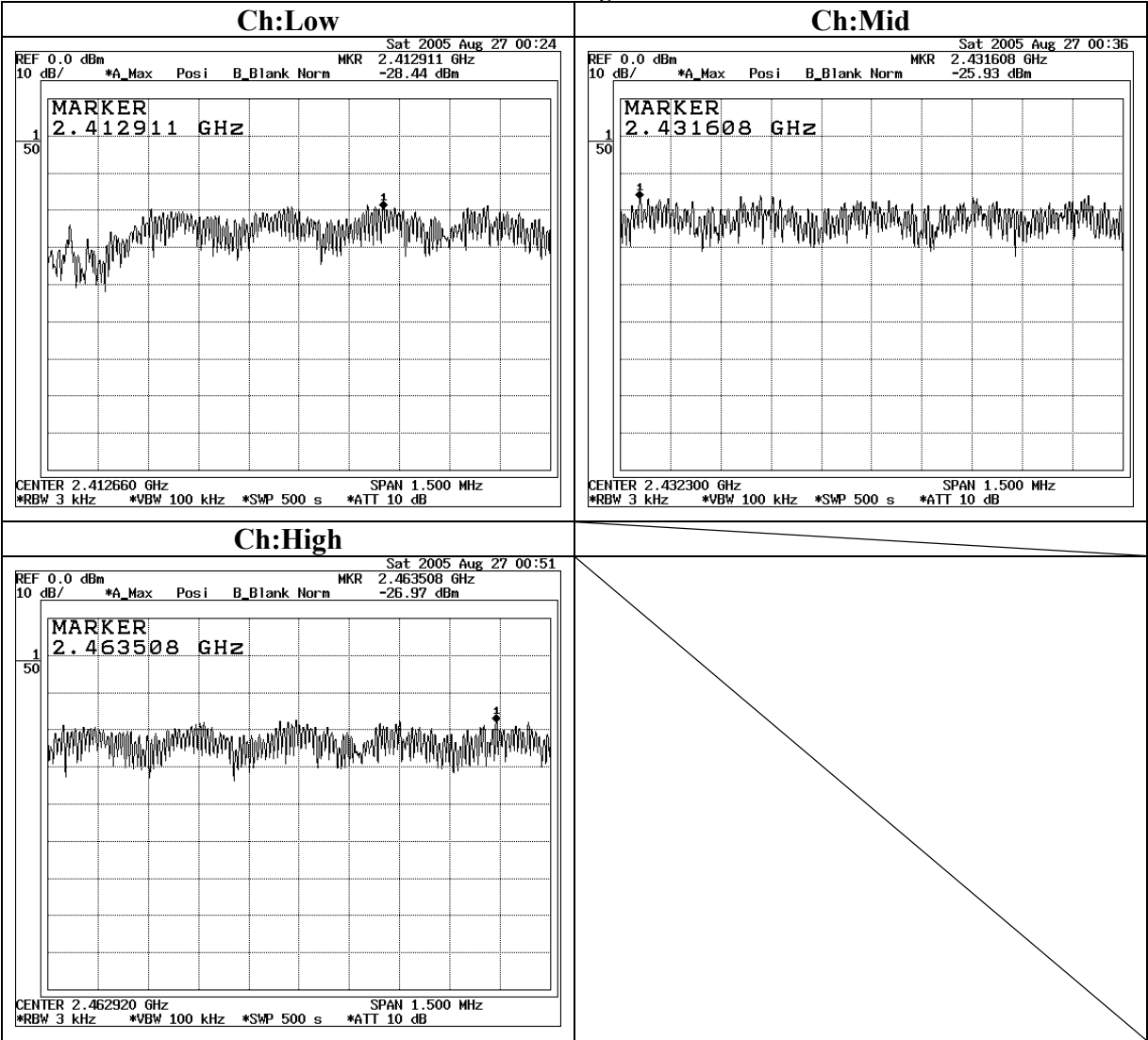
Power Density

11b



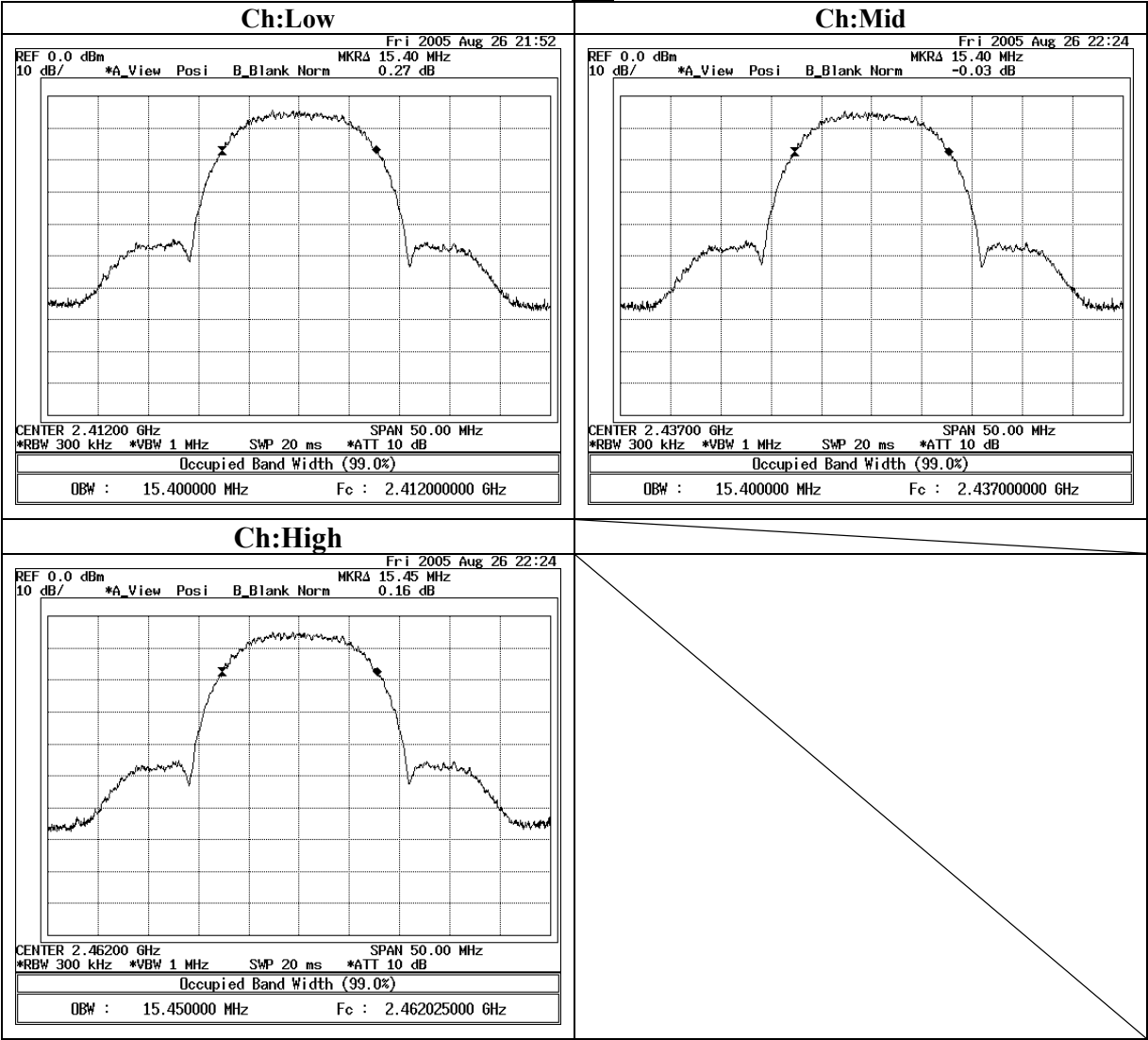
Power Density

11g



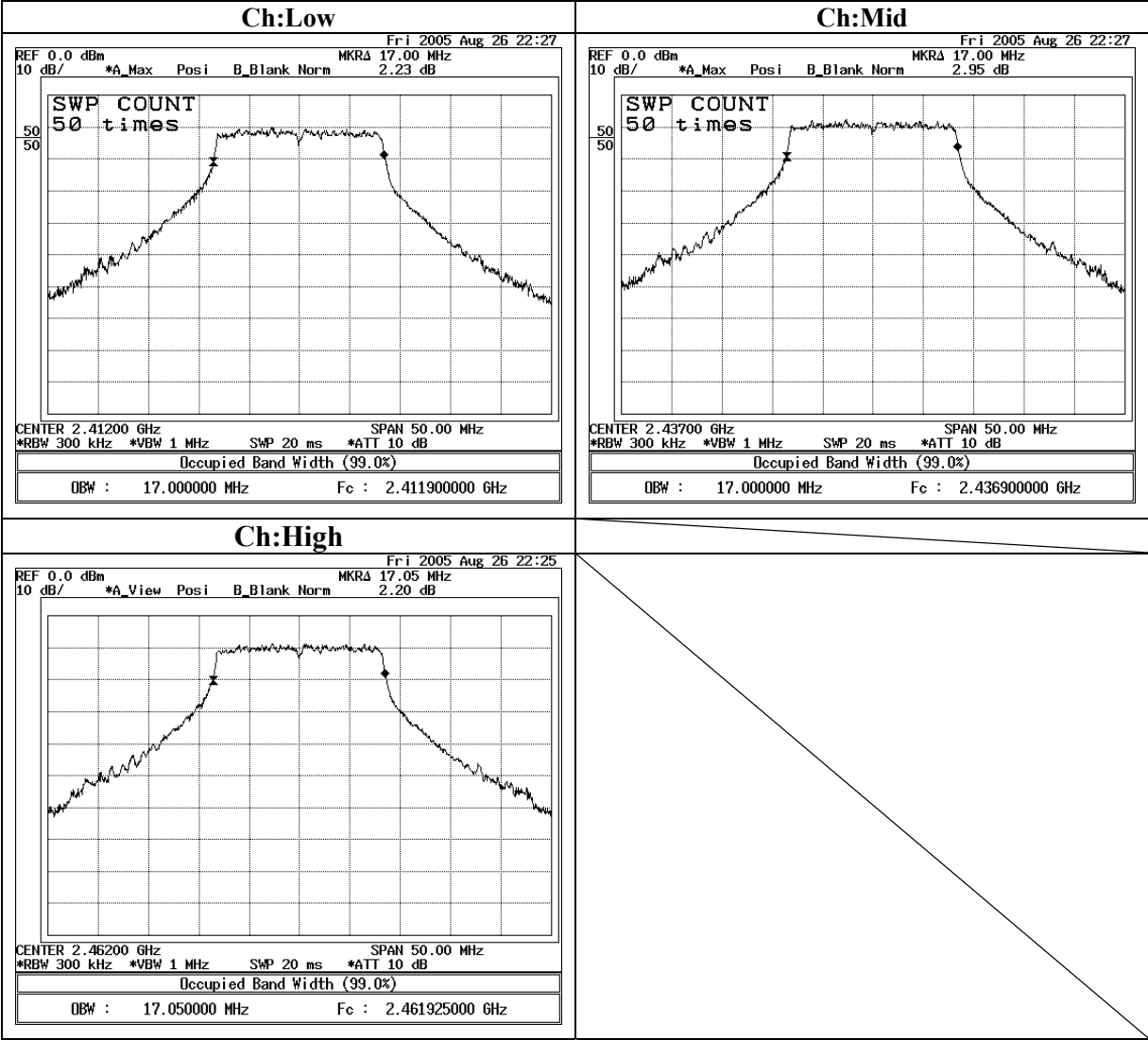
99%Occupied Bandwidth

11b



99%Occupied Bandwidth

11g



APPENDIX 4: Reference data (Maximum Peak Output Power)

The module has a voltage regulator circuit inside, and the regulated voltage is provided with IC chip and the circuit that determines RF characteristics.

However, only RF power amplifier is operated with the voltage (3.3V +/-10%) supplied from outside directly.

We performed Maximum Peak Output Power test with the following conditions;

- Low threshold voltage: 2.97V, until transmission stops.
- High threshold voltage: 3.63V, until transmission stops.

Then we confirmed that the supply voltages made no differences in the transmission bandwidth, the transmission power, and the spurious emission of frequencies adjacent to carrier frequency
In addition to that, we found no abnormal signal.

Please see the following data:

Maximum Peak Output Power

UL Apex Co., Ltd.
Head Office EMC Lab. No.3 Measurement Room

Company : silex technology, Inc	REPORT NO : 25JE0262-HO
Equipment : MiniPCI Wireless LAN Board	REGULATION : FCC 15.247(b)(3)
Model : SX-10WG	TEST DISTANCE : -
Sample No. : 20	DATE : 09/05/2005
Power : DC2.97V, 3.63V (EUT input)	TEMPERATURE : 25deg.C
Mode : Tx IEEE 802.11b / 11g	HUMIDITY : 58%
Antenna Port : B	ENGINEER : Takumi Shimada

[IEEE802.11b : 11Mbps : Antenna B]

Test Condition Volt.	Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
min (2.97V)	Low	2412.0	6.69	2.75	9.54	18.98	30.00	11.02
	Mid	2437.0	8.11	2.74	9.54	20.39	30.00	9.61
	High	2462.0	8.02	2.74	9.54	20.30	30.00	9.70
max (3.63V)	Low	2412.0	7.96	2.75	9.54	20.25	30.00	9.75
	Mid	2437.0	8.03	2.74	9.54	20.31	30.00	9.69
	High	2462.0	8.12	2.74	9.54	20.40	30.00	9.60

[IEEE802.11g : 54Mbps : Antenna B]

Test Condition Volt.	Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit (1W) [dBm]	Margin [dB]
min (2.97V)	Low	2412.0	6.03	2.75	9.54	18.32	30.00	11.68
	Mid	2437.0	8.57	2.74	9.54	20.85	30.00	9.15
	High	2462.0	7.88	2.74	9.54	20.16	30.00	9.84
max (3.63V)	Low	2412.0	6.58	2.75	9.54	18.87	30.00	11.13
	Mid	2437.0	8.92	2.74	9.54	21.20	30.00	8.80
	High	2462.0	8.30	2.74	9.54	20.58	30.00	9.42

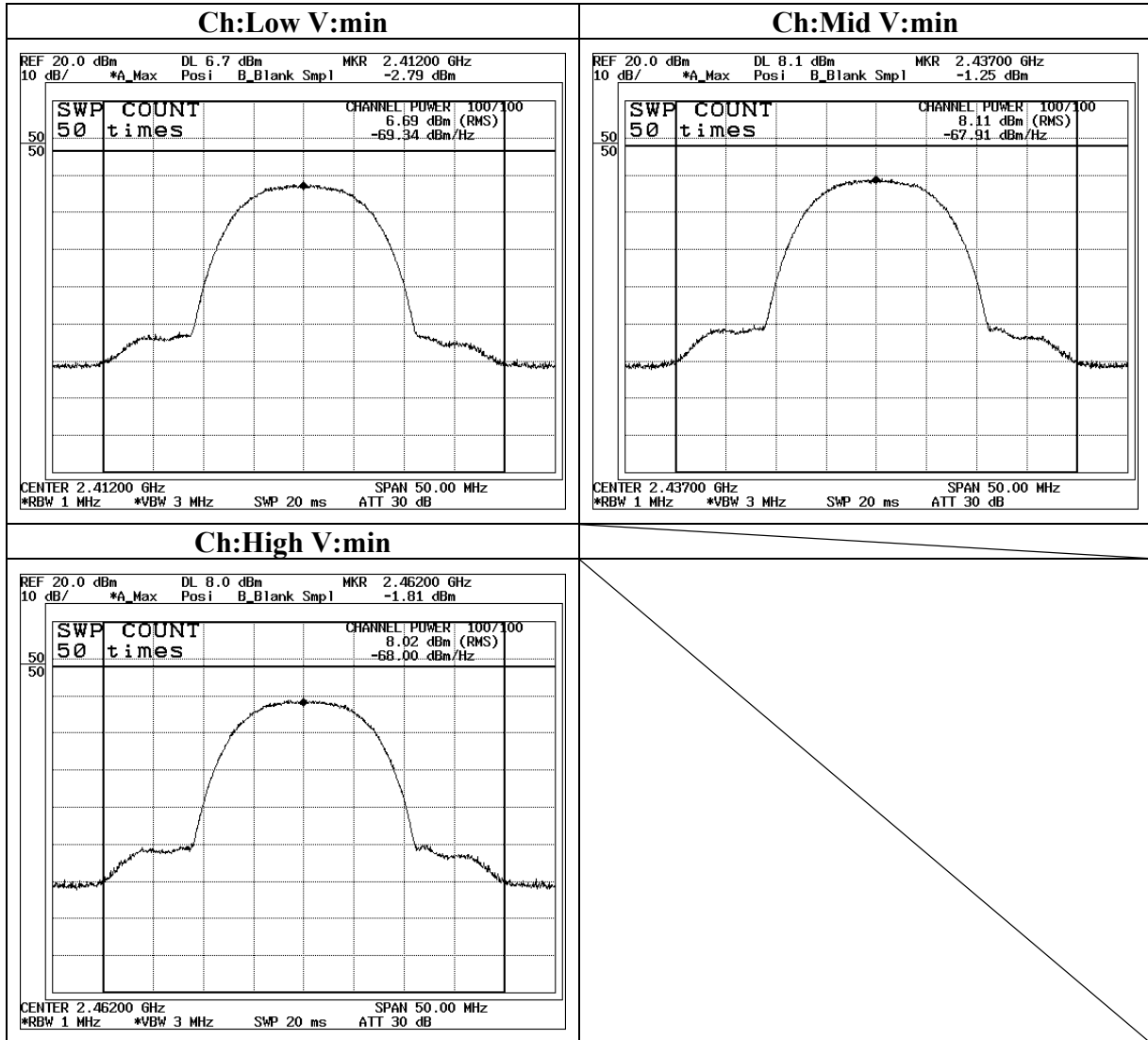
Sample Calculation:

Result = Reading + Cable Loss + Attenuator

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

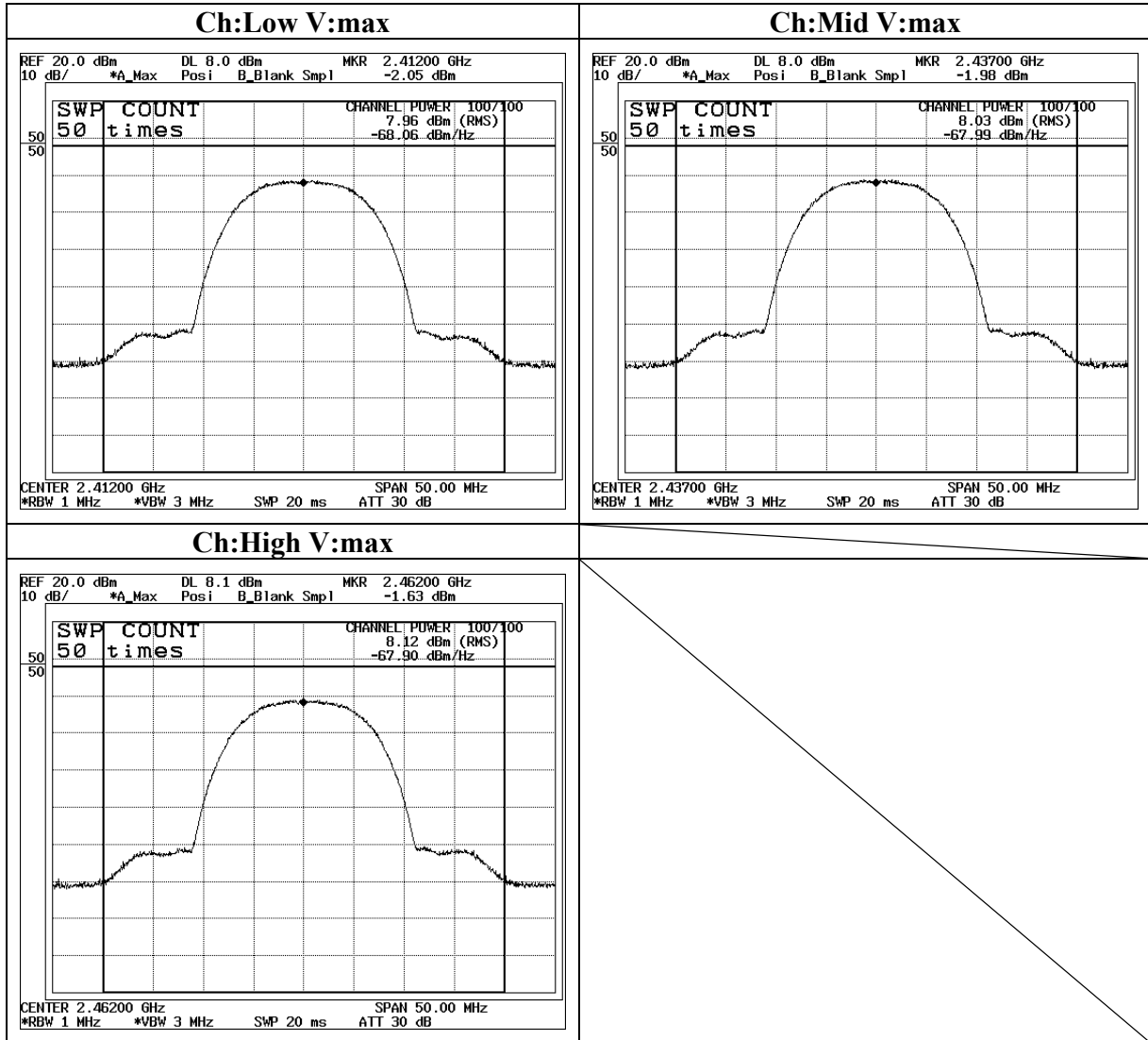
Maximum Peak Output Power

IEEE802.11b 11Mbps Antenna Port:B



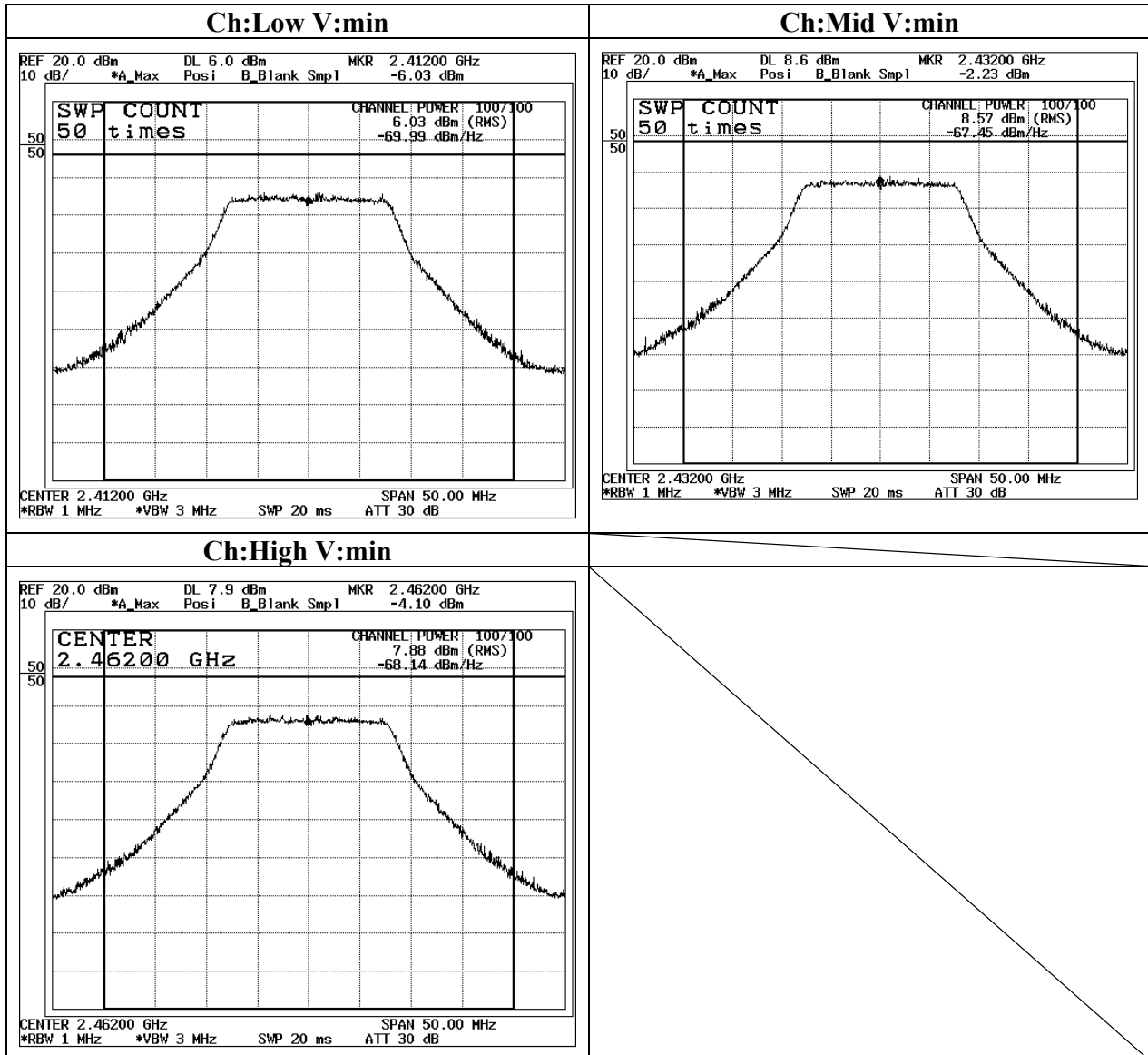
Maximum Peak Output Power

IEEE802.11b 11Mbps Antenna Port:B



Maximum Peak Output Power

IEEE802.11g 54Mbps Antenna Port:B



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MF060b(01.06.05)

Maximum Peak Output Power

IEEE802.11g 54Mbps Antenna Port:B

