

**APPENDIX 2: Data of EMI test**

**Maximum Peak Output Power**

UL Japan, Inc.  
Head Office EMC Lab. No.6 measurement room

Company	silex technology, Inc.	Regulation	FCC Section 15.247(b)(3) / RSS-210 A8.4(4)
Equipment	MiniPCI Wireless LAN board	Test Distance	-
Model	SX-10WAG	Date	February 21, 2008
S/N	32	Temperature	23 deg.C.
Power	DC 3.3V (PC input AC 120V / 60Hz)	Humidity	34 %
Mode	11a, Tx, Ant:A, 54Mbps,	Engineer	Kenichi Adachi

**ANT: A (Worst), 54Mbps (Worst)**

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
165	5825.0	1.43	1.50	10.15	13.08	30.00	16.92

**ANT: B (Reference), 54Mbps**

Ch	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
165	5825.0	1.41	1.50	10.15	13.06	30.00	16.94

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

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

**Reference data**

**ANT: A (Worst), 5765MHz**

Rate [Mbps]	Freq. [MHz]	S/A Reading [dBm]	Cable Loss [dB]	Atten. [dB]	Result [dBm]	Limit [dBm]	Margin [dB]
6	5765.0	1.78	1.41	10.14	13.33	30.00	16.67
9	5765.0	1.81	1.41	10.14	13.36	30.00	16.64
12	5765.0	1.85	1.41	10.14	13.40	30.00	16.60
18	5765.0	1.96	1.41	10.14	13.51	30.00	16.49
24	5765.0	1.82	1.41	10.14	13.37	30.00	16.63
36	5765.0	1.78	1.41	10.14	13.33	30.00	16.67
48	5765.0	1.83	1.41	10.14	13.38	30.00	16.62
54	5765.0	1.97	1.41	10.14	<b>13.52</b>	30.00	<b>16.48</b>

Sample Calculation:

Result = Reading + Cable Loss + Attenuator

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

\*Ant: B's data and Rate 6M,9M,18M,24M,36M,48Mbps's data are a preliminary test data (reference data).

**UL Japan, Inc.**

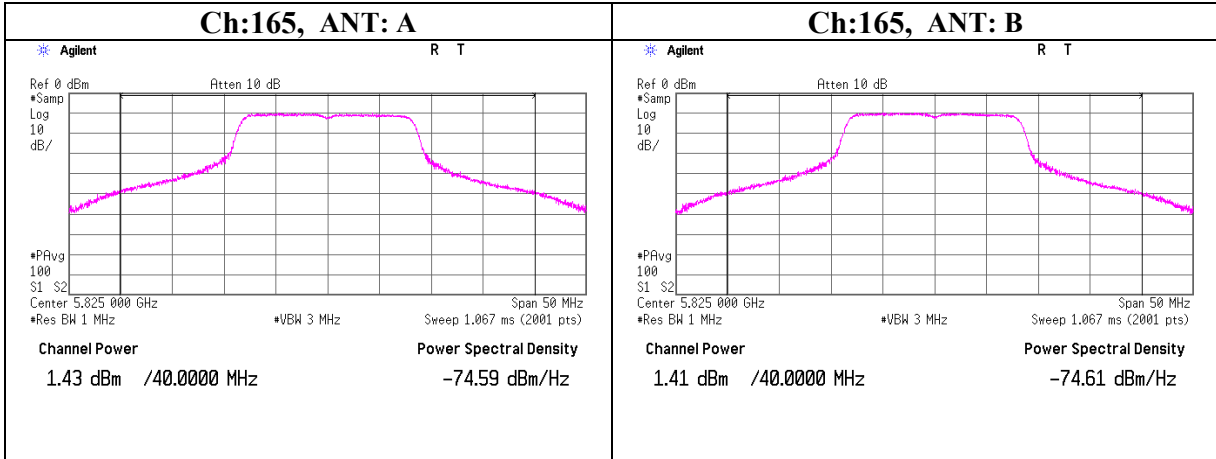
**Head Office EMC Lab.**

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

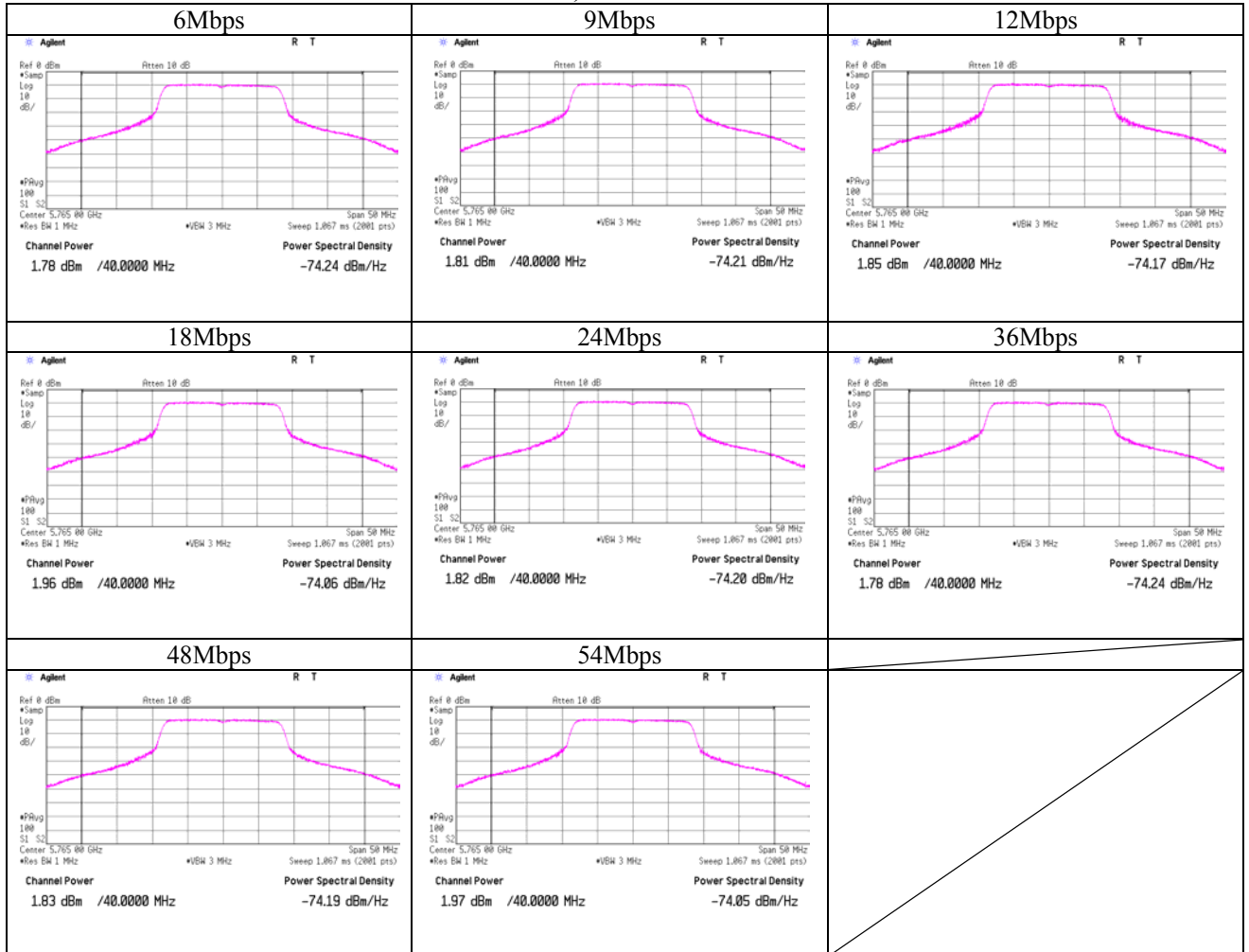
Telephone : +81 596 24 8116

Facsimile : +81 596 24 8124

**Maximum Peak Output Power**



**Maximum Peak Output Power**  
 (Reference data)  
**ANT: A, Tx 5765MHz**



### Conducted Emission

**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5808U)**

### DATA OF CONDUCTED EMISSION TEST

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/20

Company : silex technology Inc. Kind of EUT : MiniPCI Wireless LAN board Model No. : SX-10WAG + HG5808U + Cable5 + Cable7 Serial No. : 32 + 1	Report No. : 28CE0213-HO-01 Power : DC3.3V (PC input AC120V/60Hz) Temp./Humi. : 26deg.C / 31% Operator : Kenichi Adachi
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Mode / Remarks : Tx 5825MHz / 11a / 54Mbps / Ant:A

LIMIT : FCC15.207 QP  
 FCC15.207 AV

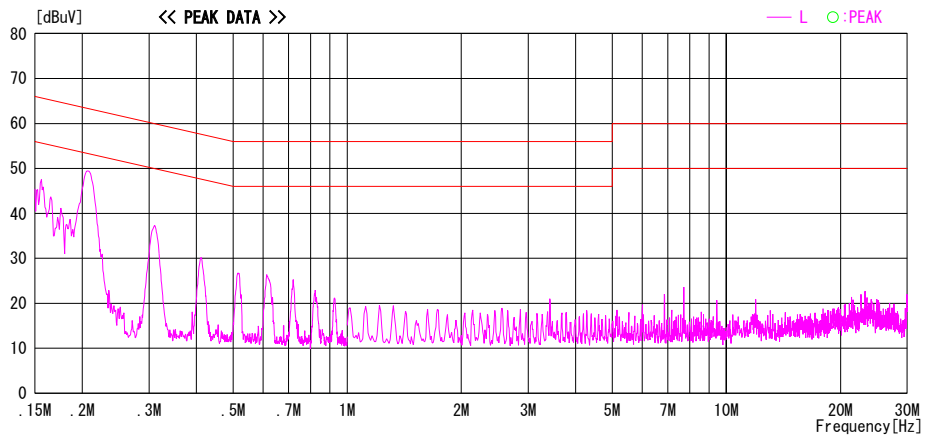
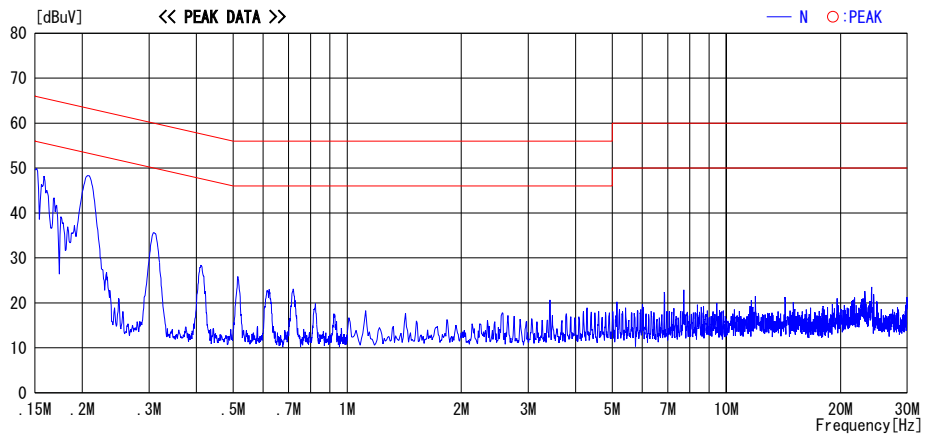


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (LISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

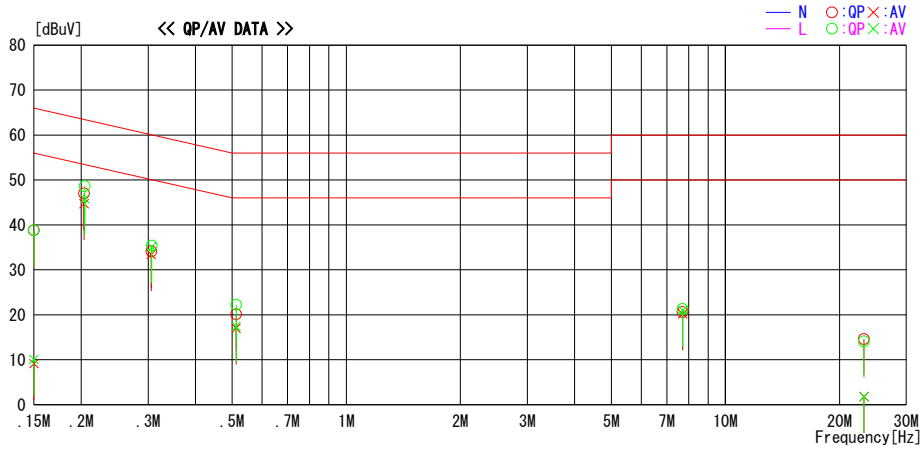
**Conducted Emission**  
**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5808U)**  
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
Date : 2008/02/20

Company : silex technology Inc. Report No. : 28CE0213-HO-01  
Kind of EUT : MiniPCI Wireless LAN board Power : DC3.3V (PC input AC120V/60Hz)  
Model No. : SX-10WAG + HG5808U + Cable5 + Cable7 Temp./Humi. : 26deg.C / 31%  
Serial No. : 32 + 1 Operator : Kenichi Adachi

Mode / Remarks : Tx 5825MHz / 11a / 54Mbps / Ant:A

LIMIT : FCC15.207 QP  
FCC15.207 AV



Frequency [MHz]	Reading Level		Corr. Factor [dB]	Results		Limit		Margin		Phase	Comment
	QP [dBuV]	AV [dBuV]		QP [dBuV]	AV [dBuV]	QP [dBuV]	AV [dBuV]	QP [dB]	AV [dB]		
0.15008	38.5	8.8	0.3	38.8	9.1	66.0	56.0	27.2	46.9	N	
0.20348	46.7	44.4	0.3	47.0	44.7	63.5	53.5	16.5	8.8	N	
0.30605	33.8	33.1	0.3	34.1	33.4	60.1	50.1	26.0	16.7	N	
0.51223	19.8	16.7	0.3	20.1	17.0	56.0	46.0	35.9	29.0	N	
7.71007	19.6	19.2	1.0	20.6	20.2	60.0	50.0	39.4	29.8	N	
23.19399	12.8	0.0	1.8	14.6	1.8	60.0	50.0	45.4	48.2	N	
0.15002	38.5	9.8	0.3	38.8	10.1	66.0	56.0	27.2	45.9	L	
0.20423	48.3	45.5	0.3	48.6	45.8	63.4	53.4	14.8	7.6	L	
0.30708	35.1	34.8	0.3	35.4	35.1	60.0	50.0	24.6	14.9	L	
0.51234	21.9	17.1	0.3	22.2	17.4	56.0	46.0	33.8	28.6	L	
7.71132	20.3	20.0	1.0	21.3	21.0	60.0	50.0	38.7	29.0	L	
23.19557	12.3	0.0	1.8	14.1	1.8	60.0	50.0	45.9	48.2	L	

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

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

**Conducted Emission**  
**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5817D)**  
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/19

Company	: silex technology Inc.	Report No.	: 28CE0213-HO-01
Kind of EUT	: MiniPCI Wireless LAN board	Power	: DC3.3V (PC input AC120V/60Hz)
Model No.	: SX-10WAG + HG5817D + Cable5 + Cable7	Temp./Humi.	: 26deg. C / 31%
Serial No.	: 32 + 1	Operator	: Kenichi Adachi

Mode / Remarks : Tx 5825MHz / 11a / 54Mbps / Ant:A

LIMIT : FCC15.207 QP  
 FCC15.207 AV

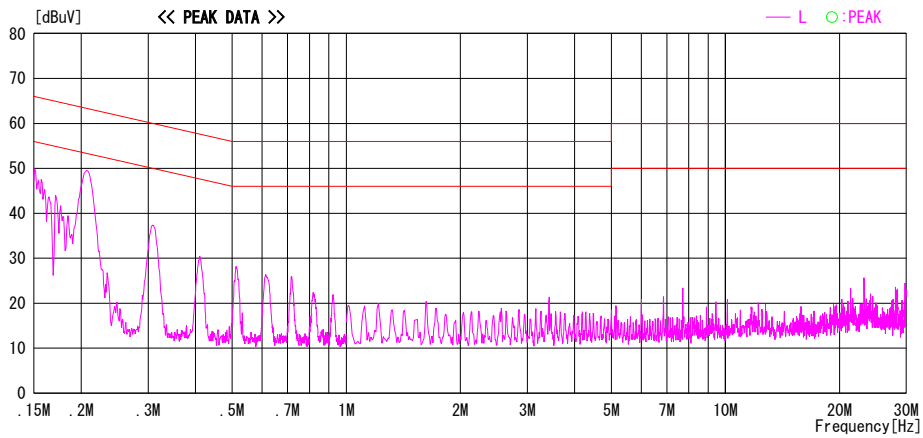
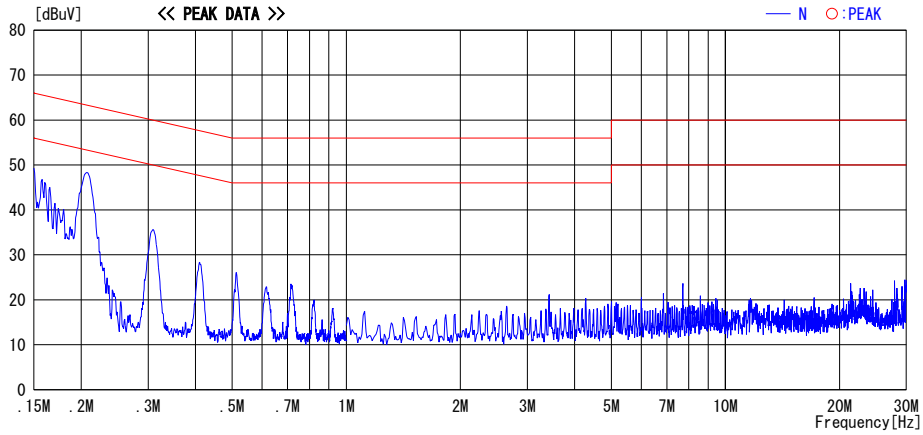


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (L ISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**  
**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA004 + SR49120WDA)**  
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/20

Company	: silex technology Inc.	Report No.	: 28CE0213-HO-01
Kind of EUT	: MiniPCI Wireless LAN board	Power	: DC3.3V (PC input AC120V/60Hz)
Model No.	: SX-10WAG + SR49120WDA + Cable4	Temp./Humi.	: 26deg.C / 31%
Serial No.	: 32 + 1	Operator	: Kenichi Adachi

Mode / Remarks : Tx 5825MHz / 11a / 54Mbps / Ant:A

LIMIT : FCC15.207 QP  
 FCC15.207 AV

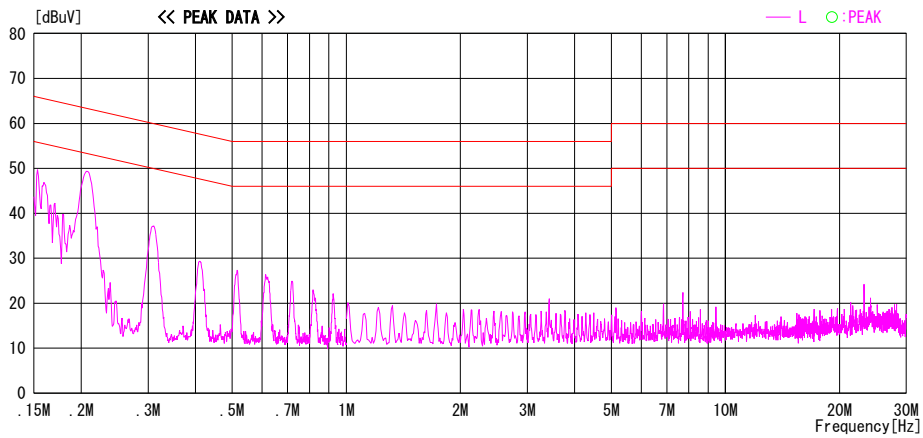
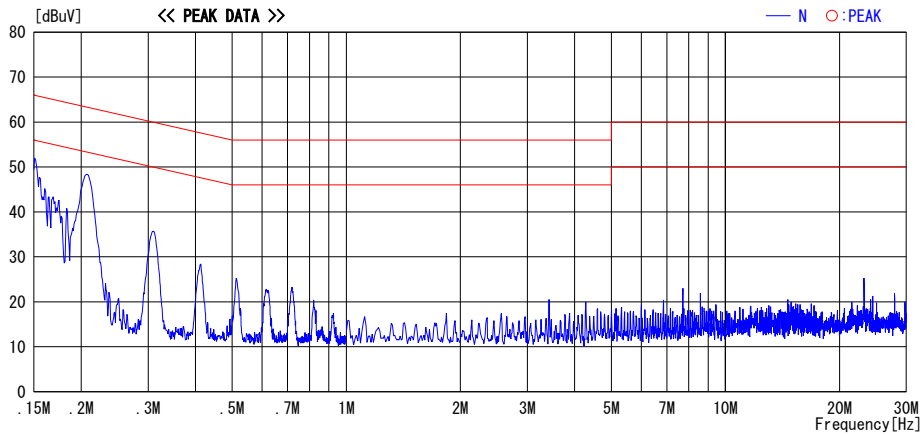


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (L ISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**  
**11a, Rx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5808U)**  
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/20

Company	: silex technology Inc.	Report No.	: 28CE0213-HO-01
Kind of EUT	: MiniPCI Wireless LAN board	Power	: DC3.3V (PC input AC120V/60Hz)
Model No.	: SX-10WAG + HG5808U + Cable5 + Cable7	Temp./Humi.	: 26deg.C / 31%
Serial No.	: 32 + 1	Operator	: Kenichi Adachi

Mode / Remarks : Rx 5825MHz / 11a / Ant:A

LIMIT : FCC15.107(a) QP  
 FCC15.107(a) AV

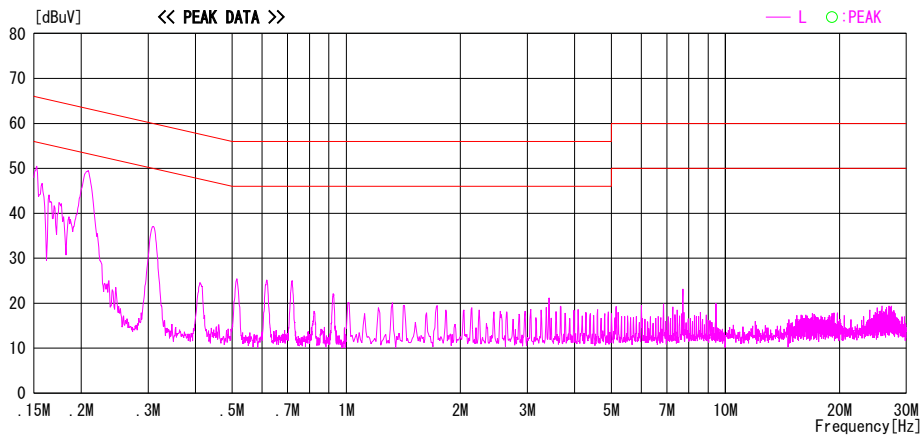
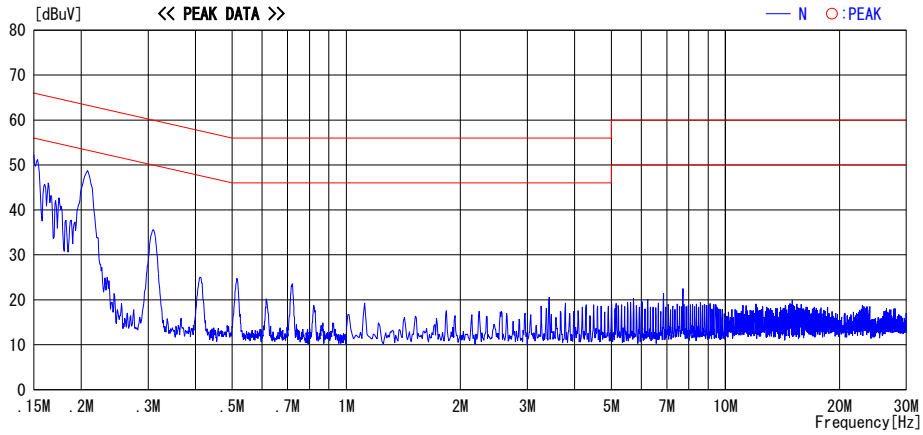


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (L ISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.



**Conducted Emission**  
**11a, Rx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5817D)**  
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/20

Company	: silex technology Inc.	Report No.	: 28CE0213-HO-01
Kind of EUT	: MiniPCI Wireless LAN board	Power	: DC3.3V (PC input AC120V/60Hz)
Model No.	: SX-10WAG + HG5817D + Cable5 + Cable7	Temp./Humi.	: 26deg.C / 31%
Serial No.	: 32 + 1	Operator	: Kenichi Adachi

Mode / Remarks : Rx 5825MHz / 11a / Ant:A

LIMIT : FCC15.107(a) QP  
 FCC15.107(a) AV

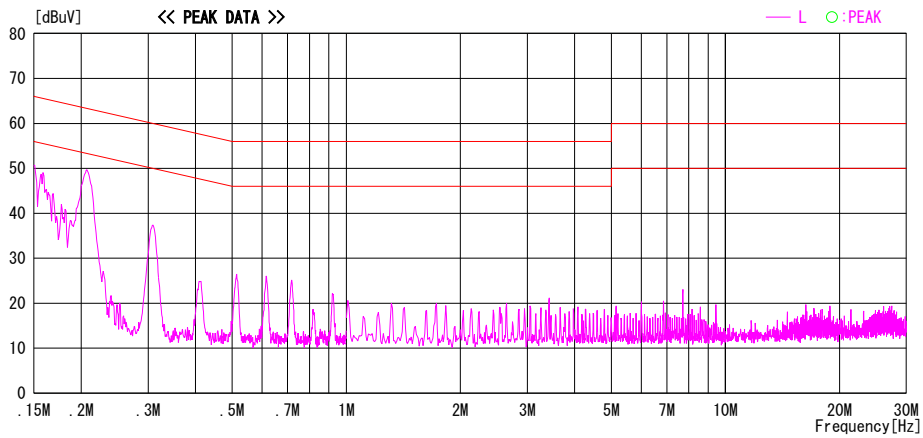
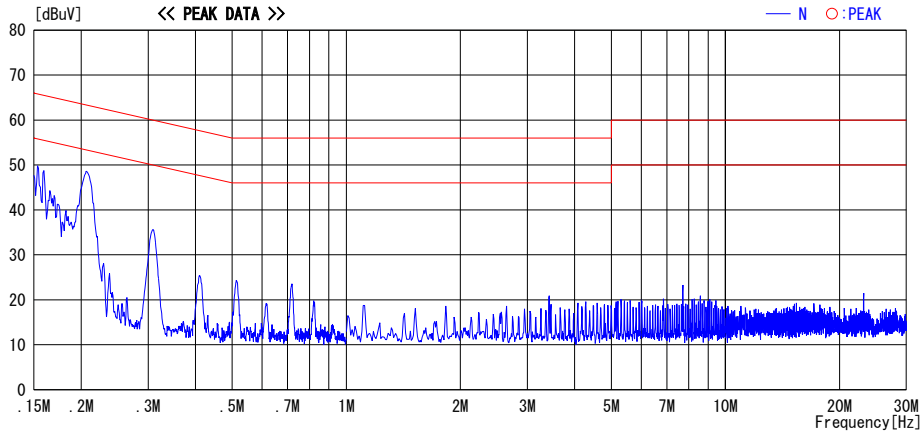


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (L ISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Conducted Emission**  
**11a, Rx, 5825MHz (SX-10WAG + CA-RSPNMA004 + SR49120WDA)**  
**DATA OF CONDUCTED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.4 Semi Anechoic Chamber  
 Date : 2008/02/20

Company	: silex technology Inc.	Report No.	: 28CE0213-HO-01
Kind of EUT	: MiniPCI Wireless LAN board	Power	: DC3.3V (PC input AC120V/60Hz)
Model No.	: SX-10WAG + SR49120WDA + Cable4	Temp./Humi.	: 26deg.C / 31%
Serial No.	: 32 + 1	Operator	: Kenichi Adachi

Mode / Remarks : Rx 5825MHz / 11a / Ant:A

LIMIT : FCC15.107(a) QP  
 FCC15.107(a) AV

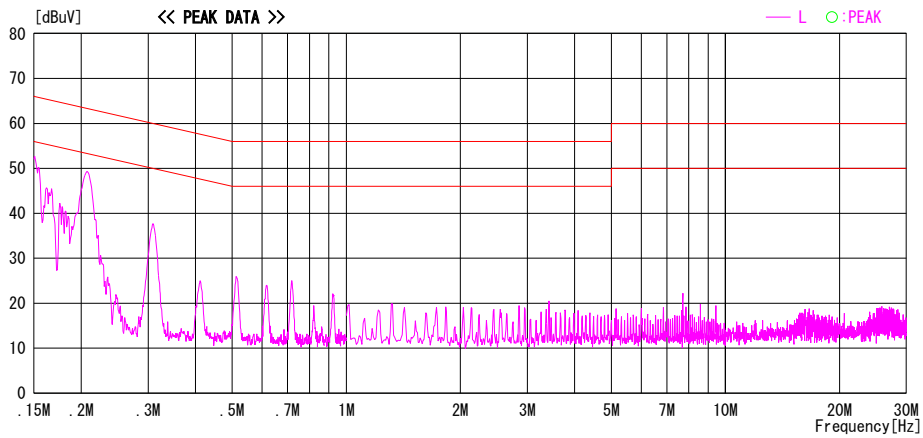
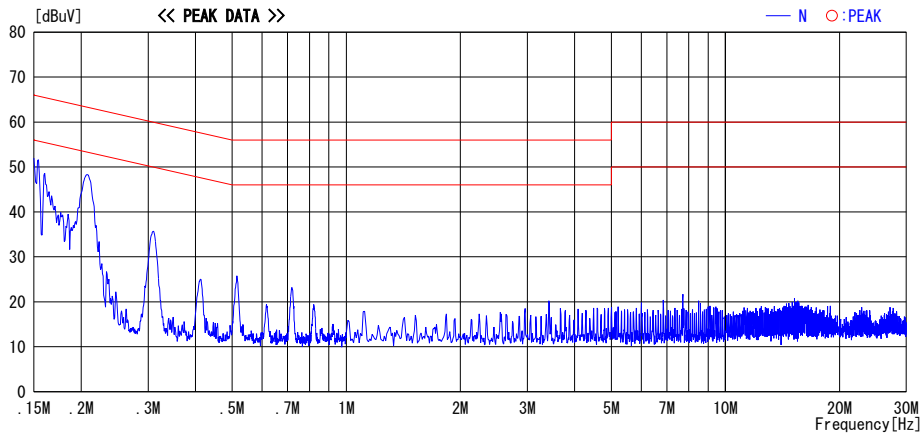


CHART: WITH FACTOR, Peak hold data. CALCURATION: RESULT[dBuV]=READING[dBuV]+C. F[dB] (L ISN LOSS+CABLE LOSS)  
 Except for the above table : adequate margin data below the limits.

**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5808U)**  
**DATA OF RADIATED EMISSION TEST**

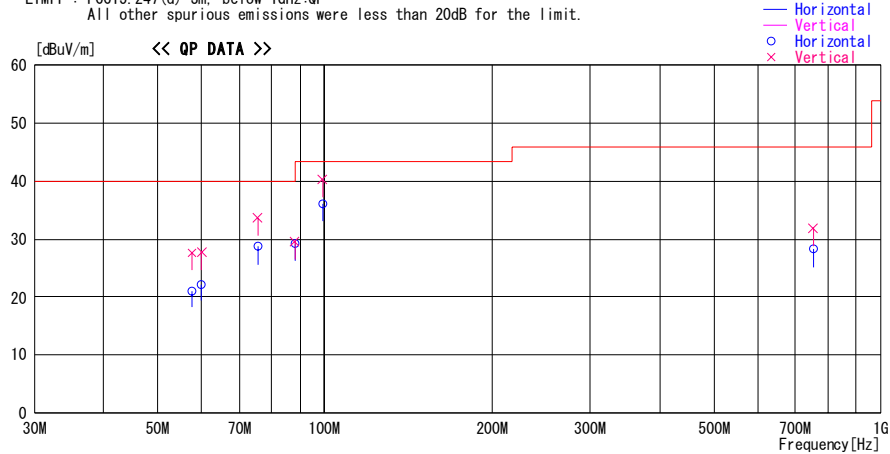
UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber  
Date : 2008/02/08

Company : silex technology, Inc. Report No. : 28CE0213-HO-01  
Kind of EUT : MiniPCI Wireless LAN board Power : DC3.3V (PC input AC120V/60Hz)  
Model No. : SX-10WAG + HG5808U + Cable5 + Cable7 Temp./Humi. : 24deg. C / 27%  
Serial No. : 32 + 1 Operator : Satofumi Matsuyama

Mode / Remarks : Tx 5825MHz / 11a / 54Mbps / Ant:A / module-axis: H:Z V:Z / Antenna-axis: normal-axis

LIMIT : FCC15.247(d) 3m. below 1GHz:QP

All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain					[dBuV/m]	[dB]	
			[dB/m]	[dB]							
57.631	43.9	QP	8.3	-24.5	27.7	152	100	Vert.	40.0	12.3	
57.654	37.3	QP	8.3	-24.5	21.1	156	300	Hori.	40.0	18.9	
60.027	38.9	QP	7.8	-24.4	22.3	121	300	Hori.	40.0	17.7	
60.037	44.5	QP	7.8	-24.4	27.9	154	100	Vert.	40.0	12.1	
75.563	46.5	QP	6.5	-24.2	28.8	329	300	Hori.	40.0	11.2	
75.548	51.4	QP	6.5	-24.2	33.7	285	100	Vert.	40.0	6.3	
88.053	46.0	QP	7.8	-24.1	29.7	191	100	Vert.	43.5	13.8	
88.079	45.7	QP	7.8	-24.1	29.4	327	220	Hori.	43.5	14.1	
99.227	50.4	QP	9.8	-24.0	36.2	152	194	Hori.	43.5	7.3	
99.225	54.5	QP	9.8	-24.0	40.3	98	100	Vert.	43.5	3.2	
751.687	30.5	QP	20.9	-19.4	32.0	132	137	Vert.	46.0	14.0	
751.690	26.8	QP	20.9	-19.4	28.3	9	100	Hori.	46.0	17.7	

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)

\*Cable 5: CA-RSPNMA010, Cable 7: CA-NMNFA004.

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

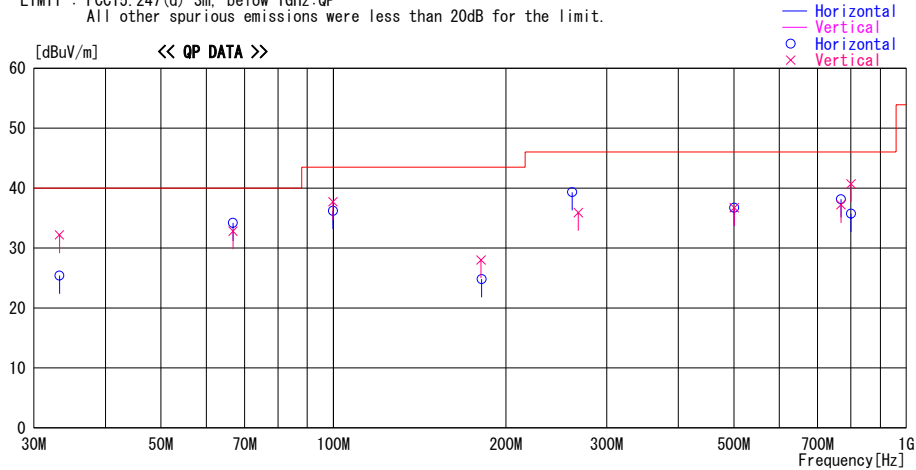
**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5817D)**  
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2008/02/11

Company : silex technology, Inc. Report No. : 28CE0213-HO-01  
Kind of EUT : MiniPCI Wireless LAN board Power : DC3.3V (PC input AC120V/60Hz)  
Model No. : SX-10WAG + HG5817D + Cable5 + Cable7 Temp./Humi. : 24deg.C / 33%  
Serial No. : 32 + 1 Operator : Tomotaka Sasagawa

Mode / Remarks : Tx 5825MHz / 11a / 54Mbps / Ant:A / module-axis: H:Z, V:Z / Antenna-axis: normal

LIMIT : FCC15.247(d) 3m, below 1GHz:QP  
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
33.246	30.1	QP	17.3	-22.0	25.4	3	300	Hori.	40.0	14.6	
33.246	36.9	QP	17.3	-22.0	32.2	236	100	Vert.	40.0	7.8	
66.794	48.6	QP	7.1	-21.5	34.2	0	300	Hori.	40.0	5.8	
66.794	47.2	QP	7.1	-21.5	32.8	79	100	Vert.	40.0	7.2	
99.800	47.5	QP	9.9	-21.2	36.2	114	300	Hori.	43.5	7.3	
99.800	49.0	QP	9.9	-21.2	37.7	3	100	Vert.	43.5	5.8	
180.962	31.9	QP	16.3	-20.2	28.0	353	100	Vert.	43.5	15.5	
181.503	28.7	QP	16.3	-20.2	24.8	271	300	Hori.	43.5	18.7	
261.041	40.8	QP	17.8	-19.3	39.3	26	300	Hori.	46.0	6.7	
267.534	36.9	QP	18.2	-19.2	35.9	130	100	Vert.	46.0	10.1	
500.601	38.7	QP	17.5	-19.5	36.7	227	100	Hori.	46.0	9.3	
500.601	38.7	QP	17.5	-19.5	36.7	153	100	Vert.	46.0	9.3	
768.541	34.8	QP	21.4	-18.1	38.1	95	100	Hori.	46.0	7.9	
768.541	33.9	QP	21.4	-18.1	37.2	119	100	Vert.	46.0	8.8	
800.806	31.8	QP	21.7	-17.8	35.7	53	100	Hori.	46.0	10.3	
800.806	36.8	QP	21.7	-17.8	40.7	173	100	Vert.	46.0	5.3	

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

\*Cable 5: CA-RSPNMA010, Cable 7: CA-NMNFA004.

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

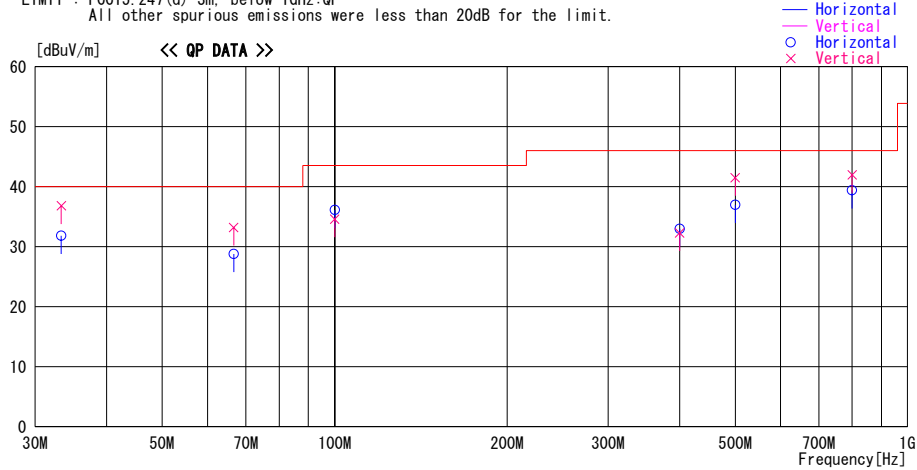
**Radiated Spurious Emission (below 1GHz)**  
**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA004 + SR49120WDA)**  
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.2 Semi Anechoic Chamber  
Date : 2008/02/10

Company : silex technology, Inc. Report No. : 28CE0213-HO-01  
Kind of EUT : MiniPCI Wireless LAN board Power : DC3.3V (PC input AC120V/60Hz)  
Model No. : SX-10WAG + SR49120WDA + Cable4 Temp./Humi. : 25deg. C / 30%  
Serial No. : 32 + 1 Operator : Kenichi Adachi

Mode / Remarks : Tx 5825MHz / 11a / 54Mbps / Ant:A / module-axis: H:Z, V:Z / Antenna-axis: normal

LIMIT : FCC15.247(d) 3m. below 1GHz:QP  
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
33.333	36.6	QP	17.2	-22.0	31.8	169	181	Hori.	40.0	8.2	
33.333	41.6	QP	17.2	-22.0	36.8	180	100	Vert.	40.0	3.2	
66.667	43.2	QP	7.1	-21.5	28.8	11	400	Hori.	40.0	11.2	
66.667	47.6	QP	7.1	-21.5	33.2	62	139	Vert.	40.0	6.8	
100.000	47.3	QP	10.0	-21.2	36.1	132	258	Hori.	43.5	7.4	
100.000	45.8	QP	10.0	-21.2	34.6	346	104	Vert.	43.5	8.9	
400.000	34.9	QP	17.4	-19.3	33.0	345	100	Hori.	46.0	13.0	
400.000	34.2	QP	17.4	-19.3	32.3	151	116	Vert.	46.0	13.7	
500.000	39.1	QP	17.4	-19.5	37.0	99	148	Hori.	46.0	9.0	
500.000	43.6	QP	17.4	-19.5	41.5	170	110	Vert.	46.0	4.5	
800.000	35.6	QP	21.7	-17.9	39.4	92	100	Hori.	46.0	6.6	
800.000	38.2	QP	21.7	-17.9	42.0	168	119	Vert.	46.0	4.0	

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)

\*Cable 4: CA-RSPNMA004.

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

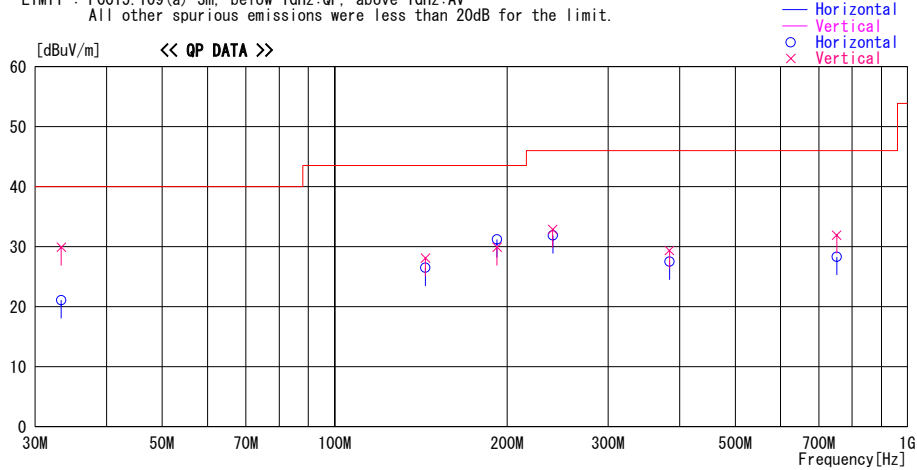
**Radiated Spurious Emission (below 1GHz)**  
**11a, Rx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5808U)**  
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No.3 Semi Anechoic Chamber  
Date : 2008/02/08

Company : silex technology, Inc. Report No. : 28CE0213-HO-01  
Kind of EUT : MiniPCI Wireless LAN board Power : DC3.3V (PC input AC120V/60Hz)  
Model No. : SX-10WAG + HG5808U + Cable5 + Cable7 Temp./Humi. : 24deg.C / 27%  
Serial No. : 32 + 1 Operator : Satofumi Matsuyama

Mode / Remarks : Rx 5825MHz / 11a / Ant:A / module-axis: H:Z, V:Z / Antenna-axis: normal-axis

LIMIT : FCC15.109(a) 3m. below 1GHz:QP, above 1GHz:AV  
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
33.334	28.9	QP	17.2	-25.0	21.1	318	300	Hori.	40.0	18.9	
33.341	37.7	QP	17.2	-25.0	29.9	320	100	Vert.	40.0	10.1	
144.027	35.3	QP	14.6	-23.4	26.5	90	222	Hori.	43.5	17.0	
144.018	36.9	QP	14.6	-23.4	28.1	118	100	Vert.	43.5	15.4	
192.004	37.8	QP	16.3	-22.9	31.2	267	180	Hori.	43.5	12.3	
192.003	36.5	QP	16.3	-22.9	29.9	157	100	Vert.	43.5	13.6	
240.331	38.0	QP	16.4	-22.5	31.9	249	149	Hori.	46.0	14.1	
240.033	39.0	QP	16.4	-22.5	32.9	170	100	Vert.	46.0	13.1	
383.994	32.1	QP	16.9	-21.5	27.5	275	100	Hori.	46.0	18.5	
384.001	34.0	QP	16.9	-21.5	29.4	50	130	Vert.	46.0	16.6	
751.686	26.8	QP	20.9	-19.4	28.3	5	100	Hori.	46.0	17.7	
751.688	30.4	QP	20.9	-19.4	31.9	135	133	Vert.	46.0	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)

\*Cable 5: CA-RSPNMA010, Cable 7: CA-NMNFA004.

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

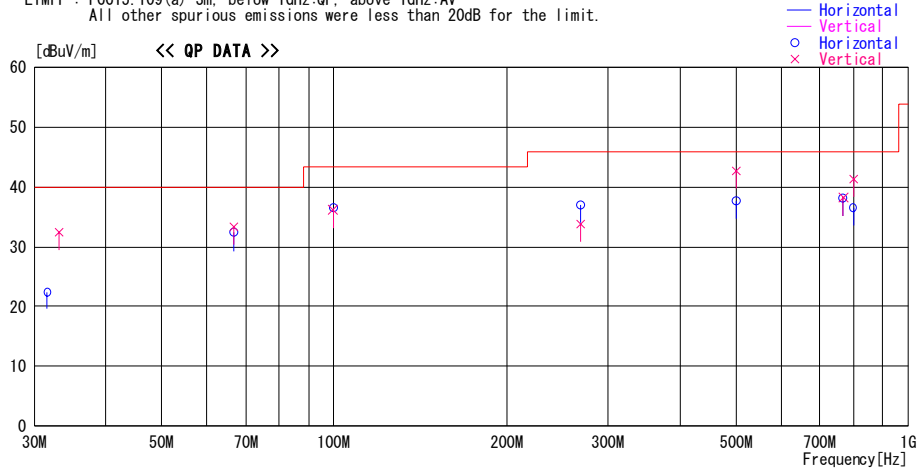
**Radiated Spurious Emission (below 1GHz)**  
**11a, Rx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5817D)**  
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
Date : 2008/02/11

Company : silex technology, Inc. Report No. : 28CE0213-HO-01  
Kind of EUT : MiniPCI Wireless LAN board Power : DC3.3V (PC input AC120V/60Hz)  
Model No. : SX-10WAG + HG5817D + Cable5 + Cable7 Temp./Humi. : 24deg. C / 33%  
Serial No. : 32 + 1 Operator : Tomotaka Sasagawa

Mode / Remarks : Rx 5825MHz / 11a / Ant:A / module-axis: H:Z, V:Z / Antenna-axis: normal

LIMIT : FCC15.109(a) 3m, below 1GHz:QP, above 1GHz:AV  
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna	Loss&	Level	Angle	Height	Polar.	Limit	Margin	Comment
			Factor	Gain							
			[dB/m]	[dB]	[dBuV/m]	[Deg]	[cm]		[dBuV/m]	[dB]	
31.623	26.5	QP	18.1	-22.0	22.6	60	300	Hori.	40.0	17.4	
33.246	37.2	QP	17.3	-22.0	32.5	202	100	Vert.	40.0	7.5	
66.794	47.8	QP	7.1	-21.5	33.4	80	100	Vert.	40.0	6.6	
66.794	46.8	QP	7.1	-21.5	32.4	50	300	Hori.	40.0	7.6	
99.800	47.6	QP	9.9	-21.2	36.3	348	100	Vert.	43.5	7.2	
99.800	47.9	QP	9.9	-21.2	36.6	92	300	Hori.	43.5	6.9	
267.534	34.9	QP	18.2	-19.2	33.9	161	100	Vert.	46.0	12.1	
267.534	38.1	QP	18.2	-19.2	37.1	208	300	Hori.	46.0	8.9	
500.601	44.7	QP	17.5	-19.5	42.7	153	100	Vert.	46.0	3.3	
500.601	39.8	QP	17.5	-19.5	37.8	226	100	Hori.	46.0	8.2	
767.138	35.0	QP	21.4	-18.1	38.3	120	100	Vert.	46.0	7.7	
767.138	34.9	QP	21.4	-18.1	38.2	108	100	Hori.	46.0	7.8	
800.806	37.5	QP	21.7	-17.8	41.4	176	100	Vert.	46.0	4.6	
800.806	32.8	QP	21.7	-17.8	36.7	66	100	Hori.	46.0	9.3	

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

\*Cable 5: CA-RSPNMA010, Cable 7: CA-NMNFA004.

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

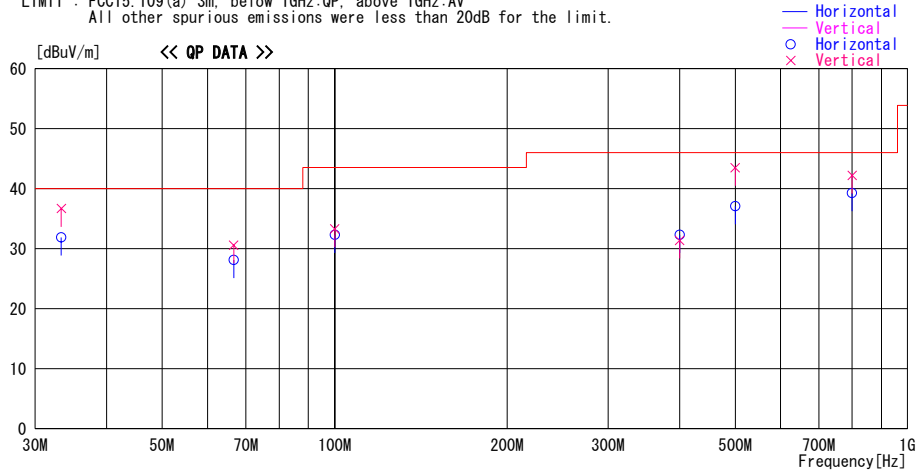
**Radiated Spurious Emission (below 1GHz)**  
**11a, Rx, 5825MHz (SX-10WAG + CA-RSPNMA004 + SR49120WDA)**  
**DATA OF RADIATED EMISSION TEST**

UL Japan, Inc. Head Office EMC Lab. No. 2 Semi Anechoic Chamber  
Date : 2008/02/10

Company : silex technology, Inc. Report No. : 28CE0213-HO-01  
Kind of EUT : MiniPCI Wireless LAN board Power : DC3.3V (PC input AC120V/60Hz)  
Model No. : SX-10WAG + SR49120WDA + Cable4 Temp./Humi. : 25deg. C / 30%  
Serial No. : 32 + 1 Operator : Kenichi Adachi

Mode / Remarks : Rx 5825MHz / 11a / Ant:A / module-axis: H:Z, V:Z / Antenna-axis: normal

LIMIT : FCC15.109(a) 3m. below 1GHz:QP, above 1GHz:AV  
All other spurious emissions were less than 20dB for the limit.



Frequency [MHz]	Reading [dBuV]	DET	Antenna		Level [dBuV/m]	Angle [Deg]	Height [cm]	Polar.	Limit [dBuV/m]	Margin [dB]	Comment
			Factor [dB/m]	Loss& Gain [dB]							
33.333	36.7	QP	17.2	-22.0	31.9	166	178	Hori.	40.0	8.1	
33.333	41.5	QP	17.2	-22.0	36.7	357	100	Vert.	40.0	3.3	
66.667	42.5	QP	7.1	-21.5	28.1	12	400	Hori.	40.0	11.9	
66.667	45.0	QP	7.1	-21.5	30.6	68	100	Vert.	40.0	9.4	
100.000	43.5	QP	10.0	-21.2	32.3	134	255	Hori.	43.5	11.2	
100.000	44.5	QP	10.0	-21.2	33.3	116	100	Vert.	43.5	10.2	
400.000	34.2	QP	17.4	-19.3	32.3	335	100	Hori.	46.0	13.7	
400.000	33.3	QP	17.4	-19.3	31.4	174	105	Vert.	46.0	14.6	
500.000	39.2	QP	17.4	-19.5	37.1	94	152	Hori.	46.0	8.9	
500.000	45.6	QP	17.4	-19.5	43.5	168	100	Vert.	46.0	2.5	
800.000	35.5	QP	21.7	-17.9	39.3	90	100	Hori.	46.0	6.7	
800.000	38.4	QP	21.7	-17.9	42.2	179	117	Vert.	46.0	3.8	

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)

\*Cable 4: CA-RSPNMA004.

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



**Radiated Spurious Emission (above 1GHz)**  
**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA0004 + HG5808U)**

UL Japan, Inc.

Head Office EMC Lab. No. 3 and No.1 Semi Anechoic Chamber

Company : silex technology, Inc.  
Equipment : MiniPCI Wireless LAN board  
Model : SX-10WAG, CA-RSPNMA010, CA-NMNFA004, HG5808U  
S/N : 32  
Power : DC 3.3V (PC input AC120V / 60Hz)  
Mode : 11a, Tx 5825MHz, Ant:A, 54Mbps,  
EUT-Position : H: Z-axis, V:Z-axis  
Ant.-Position : Normal-axis

Regulation : FCC Part15 Subpart E 15.247 / RSS-210 A8.5  
Test Distance : 3m (below 10GHz) / 1m (above 10GHz)  
Date : January 16, 2008 January 18, 2008 February 1, 2008  
Temperature : 24 deg.C. 25 deg.C. 26 deg.C.  
Humidity : 36 % 33 % 33 %  
Engineer : Takumi Shimada Takumi Shimada Akio Hayashi  
(1G-10GHz, No3AC) (10G-18GHz, No1AC) (18G-40GHz, No1AC)

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2861.5	50.4	51.8	28.1	31.4	3.3	0.0	50.4	51.8	73.9	23.5	22.1
2	3883.3	46.8	48.8	29.6	30.9	3.6	0.0	49.1	51.1	73.9	24.8	22.8
3	5850.0	47.7	55.3	32.5	30.6	4.2	0.0	53.8	61.4	73.9	20.1	12.5
4	7766.6	44.1	44.4	36.5	31.3	5.5	1.1	55.9	56.2	73.9	18.0	17.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	11650.0	61.8	61.1	39.9	36.4	6.6	1.2	63.6	62.9	73.9	10.3	11.0
6**	17475.0	54.4	57.3	44.7	35.2	8.5	2.0	64.9	67.8	73.9	-	-
7	23300.0	33.4	33.4	40.4	26.5	16.4	0.0	54.2	54.2	73.9	19.7	19.7
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	29125.0	41.7	40.6	43.7	25.0	15.1	0.0	59.9	58.8	73.9	14.0	15.1
9	34950.0	43.1	45.8	43.1	25.3	16.8	0.0	62.1	64.8	73.9	11.8	9.1

\*\* Reference data

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2861.5	42.3	43.4	28.1	31.4	3.3	0.0	42.3	43.4	53.9	11.6	10.5
2	3883.3	41.4	44.7	29.6	30.9	3.6	0.0	43.7	47.0	53.9	10.2	6.9
3	5850.0	30.1	32.4	32.5	30.6	4.2	0.0	36.2	38.5	53.9	17.7	15.4
4	7766.6	36.1	36.2	36.5	31.3	5.5	1.1	47.9	48.0	53.9	6.0	5.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	11650.0	48.3	47.1	39.9	36.4	6.6	1.2	50.1	48.9	53.9	3.8	5.0
6**	17475.0	40.6	43.1	44.7	35.2	8.5	2.0	51.1	53.6	53.9	-	-
7	23300.0	23.4	23.2	40.4	26.5	16.4	0.0	44.2	44.0	53.9	9.7	9.9
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	29125.0	30.1	30.1	43.7	25.0	15.1	0.0	48.3	48.3	53.9	5.6	5.6
9	34950.0	33.0	33.0	43.1	25.3	16.8	0.0	52.0	52.0	53.9	1.9	1.9

\*\* Reference data

**20dBc(Fundamental 5825MHz) (RBW: 100kHz, VBW: 300kHz)**

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	5825.0	77.9	89.7	32.5	30.6	4.2	0.0	84.0	95.8	-	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	17475.0	44.1	46.9	44.7	35.2	8.5	2.0	54.6	57.4	Funda-20dB	9.4	18.4

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB  
Test Distance 0.5m : Distance Factor(Dfac) = 20log(3/0.5) = 15.56 dB

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

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

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

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

**Radiated Spurious Emission**

(Reference data)

**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA004 + HG5808U)**

UL Japan, Inc.

Head Office EMC Lab. No. 4 Semi Anechoic Chamber

Company	silex technology, Inc.	Regulation	FCC Part15 Subpart E 15.247 / RSS-210 A8.5
Equipment	MiniPCI Wireless LAN board	Test Distance	1m
Model	SX-10WAG, CA-RSPNMA004	Date	February 4, 2008
S/N	32	Temperature	20deg.C.
Power	DC 3.3V (PC input AC120V / 60Hz)	Humidity	38 %
Mode	11a, Tx 5825MHz, Ant:A, 54Mbps,	Engineer	Takayuki Shimada
EUT-Position	H: Z-axis, V:Z-axis		
Ant.-Position	Normal-axis		

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]		Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac								
1	11650.0	62.4	59.3	39.6	33.1	6.1	0.6	66.1	63.0	73.9	7.8	10.9
2	17475.0	49.7	50.0	43.3	32.4	7.3	0.7	59.1	59.4	73.9	14.8	14.5

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]		Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac								
1	11650.0	49.2	46.7	39.6	33.1	6.1	0.6	52.9	50.4	53.9	1.0	3.5
2	17475.0	36.5	37.6	43.3	32.4	7.3	0.7	45.9	47.0	53.9	8.0	6.9

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

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

**UL Japan, Inc.**

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### Radiated Spurious Emission

(Reference data)

**11a, Tx, 5825MHz (SX-10WAG + CA4NMRSF020 + HG5808U)**

UL Japan, Inc.

Head Office EMC Lab. No. 4 Semi Anechoic Chamber

Company : silex technology, Inc.  
Equipment : MiniPCI Wireless LAN board  
Model : SX-10WAG, CA4NMRSF020  
S/N : 32  
Power : DC 3.3V (PC input AC120V / 60Hz)  
Mode : 11a, Tx 5825MHz, Ant:A, 54Mbps,  
EUT-Position : H: Z-axis, V:Z-axis  
Ant.-Position : Normal-axis

HG5808U  
1

Regulation : FCC Part15 Subpart E 15.247 / RSS-210 A8.5  
Test Distance : 1m  
Date : February 4, 2008  
Temperature : 20deg.C.  
Humidity : 38 %  
Engineer : Takayuki Shimada

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN		
		HOR	VER					HOR	VER		HOR	VER	
		[dBuV]		<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>									
1	11650.0	58.5	59.8	39.6	33.1	6.1	0.6	62.2	63.5	73.9	11.7	10.4	
2	17475.0	49.3	51.8	43.3	32.4	7.3	0.7	58.7	61.2	73.9	15.2	12.7	

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN		
		HOR	VER					HOR	VER		HOR	VER	
		[dBuV]		<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>									
1	11650.0	46.7	46.6	39.6	33.1	6.1	0.6	50.4	50.3	53.9	3.5	3.6	
2	17475.0	35.5	38.1	43.3	32.4	7.3	0.7	44.9	47.5	53.9	9.0	6.4	

Test Distance 1.0m : Distance Factor(Dfac) =  $20\log(3/1.0) = 9.54$  dB

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

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

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

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

**UL Japan, Inc.**

**Head Office EMC Lab.**

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**Radiated Spurious Emission**

11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA0004 + HG5817D)

UL Japan, Inc.

Head Office EMC Lab. No. 3 and No.1 Semi Anechoic Chamber

Company	silex technology, Inc.	Regulation	FCC Part15 Subpart E 15.247 / RSS-210 A8.5
Equipment	MiniPCI Wireless LAN board	Test Distance	3m (below 10GHz) / 1m (above 10GHz)
Model	SX-10WAG, CA-RSPNMA010, CA-NMNFA0004, HG5817D	Date	January 17, 2008      January 18, 2008      February 1, 2008
S/N	32	Temperature	24 deg.C.      25 deg.C.      26 deg.C.
Power	DC 3.3V (PC input AC120V / 60Hz)	Humidity	36 %      33 %      33 %
Mode	11a, Tx 5825MHz, Ant:A, 54Mbps,	Engineer	Tomotaka Sasagawa      Takumi Shimada      Akio Hayashi
EUT-Position	H: Z-axis, V:Z-axis		(1G-10GHz, No3AC)      (10G-18GHz, No1AC)      (18G-40GHz, No1AC)
Ant.-Position	Normal-axis		

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2861.5	51.4	52.7	28.1	31.4	3.3	0.0	51.4	52.7	73.9	22.5	21.2
2	3883.3	45.7	45.8	29.6	30.9	3.6	0.0	48.0	48.1	73.9	25.9	25.8
3	5547.3	41.2	50.4	32.5	30.6	4.2	0.0	47.3	56.5	73.9	26.6	17.4
4	5850.0	46.4	66.3	32.5	30.6	4.2	0.0	52.5	72.4	73.9	21.4	1.5
5	7766.6	41.4	40.8	36.5	31.3	5.5	1.1	53.2	52.6	73.9	20.7	21.3
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	11650.0	61.8	61.1	39.9	36.4	5.9	1.9	63.6	62.9	73.9	10.3	11.0
7**	17475.0	54.4	57.3	44.7	35.2	7.9	2.6	64.9	67.8	73.9	-	-
8	23300.0	35.1	33.4	40.4	26.5	16.4	0.0	55.9	54.2	73.9	18.0	19.7
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	29125.0	41.3	42.7	43.7	25.0	15.1	0.0	59.6	61.0	73.9	14.3	12.9
10	34950.0	45.1	43.4	43.1	25.3	16.8	0.0	64.2	62.5	73.9	9.7	11.4

\*\* Reference data

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2861.5	43.9	46.6	28.1	31.4	3.3	0.0	43.9	46.6	53.9	10.0	7.3
2	3883.3	40.9	42.8	29.6	30.9	3.6	0.0	43.2	45.1	53.9	10.7	8.8
3	5547.3	30.9	37.4	32.5	30.6	4.2	0.0	37.0	43.5	53.9	16.9	10.4
4	5850.0	30.9	40.9	32.5	30.6	4.2	0.0	37.0	47.0	53.9	16.9	6.9
5	7766.6	31.2	30.4	36.5	31.3	5.5	1.1	43.0	42.2	53.9	10.9	11.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
6	11650.0	48.3	47.1	39.9	36.4	5.9	1.9	50.1	48.9	53.9	3.8	5.0
7**	17475.0	40.6	43.1	44.7	35.2	7.9	2.6	51.1	53.6	53.9	-	-
8	23300.0	23.0	23.4	40.4	26.5	16.4	0.0	43.8	44.2	53.9	10.1	9.7
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
9	29125.0	30.1	30.1	43.7	25.0	15.1	0.0	48.4	48.4	53.9	5.5	5.5
10	34950.0	33.0	33.0	43.1	25.3	16.8	0.0	52.1	52.1	53.9	1.8	1.8

\*\* Reference data

**20dBc(Fundamental 5825MHz)** (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	5825.0	77.8	96.8	32.5	30.6	4.2	0.0	83.9	102.9	-	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	17475.0	44.1	46.9	44.7	35.2	7.9	2.6	54.6	57.4	Funda-20dB	9.3	25.5

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

Test Distance 0.5m : Distance Factor(Dfac) = 20log(3/0.5) = 15.5 dB

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

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

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

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

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### Radiated Spurious Emission

(Reference data)

**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA004 + HG5817D)**

UL Japan, Inc.

Head Office EMC Lab. No. 4 Semi Anechoic Chamber

Company	silex technology, Inc.	Regulation	FCC Part15 Subpart E 15.247 / RSS-210 A8.5
Equipment	MiniPCI Wireless LAN board	Test Distance	1m
Model	SX-10WAG, CA-RSPNMA004	Date	February 4, 2008
S/N	32	Temperature	20deg.C.
Power	DC 3.3V (PC input AC120V / 60Hz)	Humidity	38 %
Mode	11a, Tx 5825MHz, Ant:A, 54Mbps,	Engineer	Takayuki Shimada
EUT-Position	H: Z-axis, V:Z-axis		
Ant.-Position	Normal-axis		

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
1	11650.0	62.4	60.3	39.6	33.1	6.1	0.6	66.1	64.0	73.9	7.8	9.9
2	17475.0	50.7	51.6	43.3	32.4	7.3	0.7	60.1	61.0	73.9	13.8	12.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
1	11650.0	49.3	47.0	39.6	33.1	6.1	0.6	53.0	50.7	53.9	0.9	3.2
2	17475.0	36.8	37.6	43.3	32.4	7.3	0.7	46.2	47.0	53.9	7.7	6.9

Test Distance 1.0m : Distance Factor(Dfac) =  $20\log(3/1.0) = 9.54$  dB

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

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

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

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

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**Radiated Spurious Emission**

(Reference data)

**11a, Tx, 5825MHz (SX-10WAG + CA4NMRSF020 + HG5817D)**

UL Japan, Inc.

Head Office EMC Lab. No. 4 Semi Anechoic Chamber

Company	silex technology, Inc.	Regulation	FCC Part15 Subpart E 15.247 / RSS-210 A8.5
Equipment	MiniPCI Wireless LAN board	Test Distance	1m
Model	SX-10WAG, CA4NMRSF020	Date	February 4, 2008
S/N	32	Temperature	20deg.C.
Power	DC 3.3V (PC input AC120V / 60Hz)	Humidity	38 %
Mode	11a, Tx 5825MHz, Ant:A, 54Mbps,	Engineer	Takayuki Shimada
EUT-Position	H: Z-axis, V:Z-axis		
Ant.-Position	Nornal-axis		

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]		<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>								
1	11650.0	61.0	59.3	39.6	33.1	6.1	0.6	64.7	63.0	73.9	9.2	10.9
2	17475.0	50.4	48.5	43.3	32.4	7.3	0.7	59.8	57.9	73.9	14.1	16.0

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]		<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>								
1	11650.0	47.6	45.9	39.6	33.1	6.1	0.6	51.3	49.6	53.9	2.6	4.3
2	17475.0	36.6	35.2	43.3	32.4	7.3	0.7	46.0	44.6	53.9	7.9	9.3

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

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

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**Radiated Spurious Emission**  
**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA004 + SR49120WDA)**

UL Japan, Inc.

Head Office EMC Lab. No. 3 and No.1 Semi Anechoic Chamber

Company : silix technology, Inc.  
Equipment : MiniPCI Wireless LAN board  
Model : SX-10WAG, CA-RSPNMA004 SR49120WDA  
S/N : 32 1  
Power : DC 3.3V (PC input AC120V / 60Hz)  
Mode : 11a, Tx 5825MHz, Ant.A, 54Mbps,  
EUT-Position : H: Z-axis, V:Z-axis  
Ant.-Position : Normal-axis

Regulation : FCC Part15 Subpart E 15.247 / RSS-210 A8.5  
Test Distance : 3m (below 10GHz) / 1m (above 10GHz)  
Date : January 26, 2008 January 18, 2008 January 27, 2008  
Temperature : 25 deg.C. 25 deg.C. 24 deg.C.  
Humidity : 30 % 33 % 31 %  
Engineer : Kenichi Adachi Kenichi Adachi Norihisa Hashimoto  
(1G-10GHz, No3AC) (10G-18GHz, No1AC) (18G-40GHz, No1AC)

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2861.6	50.5	53.5	28.1	31.4	3.3	0.0	50.5	53.5	73.9	23.4	20.4
2	3883.3	47.1	51.5	29.6	30.9	3.6	0.0	49.4	53.8	73.9	24.5	20.1
3	5440.0	44.5	54.2	32.1	30.7	4.1	0.0	50.0	59.7	73.9	23.9	14.2
4	5725.0	41.6	48.5	32.4	30.6	4.2	0.0	47.6	54.5	73.9	26.3	19.4
5	5850.0	51.1	61.7	32.5	30.6	4.2	0.0	57.2	67.8	73.9	16.7	6.1
6	7766.7	46.2	44.9	36.5	31.3	4.9	0.0	56.3	55.0	73.9	17.6	18.9
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	11650.0	62.0	62.7	39.9	36.4	5.9	1.9	63.8	64.5	73.9	10.1	9.4
8 **	17475.0	56.0	56.6	44.7	35.2	7.9	2.6	66.5	67.1	73.9	-	-
9	23300.0	42.6	43.2	40.9	23.3	13.2	0.0	63.9	64.5	73.9	10.0	9.4
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
10	29125.0	42.4	42.8	43.2	25.0	15.0	0.0	60.1	60.5	73.9	13.8	13.4
11	34950.0	45.3	45.5	43.3	25.3	16.7	0.0	64.5	64.7	73.9	9.4	9.2

\*\* Reference data

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2861.6	47.6	49.2	28.1	31.4	3.3	0.0	47.6	49.2	53.9	6.3	4.7
2	3883.3	42.6	47.2	29.6	30.9	3.6	0.0	44.9	49.5	53.9	9.0	4.4
3	5440.0	35.7	46.0	32.1	30.7	4.1	0.0	41.2	51.5	53.9	12.7	2.4
4	5725.0	29.5	36.6	32.4	30.6	4.2	0.0	35.5	42.6	53.9	18.4	11.3
5	5850.0	31.8	39.4	32.5	30.6	4.2	0.0	37.9	45.5	53.9	16.0	8.4
6	7766.7	41.2	37.2	36.5	31.3	4.9	0.0	51.3	47.3	53.9	2.6	6.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
7	11650.0	48.3	49.3	39.9	36.4	5.9	1.9	50.1	51.1	53.9	3.8	2.8
8 **	17475.0	42.2	43.0	44.7	35.2	7.9	2.6	52.7	53.5	53.9	-	-
9	23300.0	29.4	29.4	40.9	23.3	13.2	0.0	50.7	50.7	53.9	3.2	3.2
Test distance 0.5meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
10	29125.0	29.5	29.5	43.2	25.0	15.0	0.0	47.2	47.2	53.9	6.7	6.7
11	34950.0	32.5	32.5	43.3	25.3	16.7	0.0	51.7	51.7	53.9	2.2	2.2

\*\* Reference data

**20dBc(Fundamental 5825MHz)** (RBW: 100kHz, VBW: 300kHz)

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit 20dBc [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
0	5825.0	84.8	98.8	32.5	30.6	4.2	0.0	90.9	104.9	-	-	-
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
8	17475.0	51.8	52.3	44.7	35.2	7.9	2.6	62.3	62.8	Funda-20dB	8.6	22.1

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

Test Distance 0.5m : Distance Factor(Dfac) = 20log(3/0.5) = 15.5 dB

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

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

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

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

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## Radiated Spurious Emission

(Reference data)

**11a, Tx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + SR49120WDA)**

UL Japan, Inc.

Head Office EMC Lab. No. 4 Semi Anechoic Chamber

Company	silix technology, Inc.	Regulation	FCC Part15 Subpart E 15.247 / RSS-210 A8.5
Equipment	MiniPCI Wireless LAN board	Test Distance	1m
Model	SX-10WAG, CA-RSPNMA010, SR49120WDA CA-NMNFA004,	Date	February 4, 2008
S/N	32	Temperature	20deg.C.
Power	DC 3.3V (PC input AC120V / 60Hz)	Humidity	38 %
Mode	11a, Tx 5825MHz, Ant:A, 54Mbps,	Engineer	Takayuki Shimada
EUT-Position	H: Z-axis, V:Z-axis		
Ant.-Position	Normal-axis		

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
1	11650.0	60.0	60.9	39.6	33.1	6.1	0.6	63.7	64.6	73.9	10.2	9.3
2	17475.0	49.9	50.4	43.3	32.4	7.3	0.7	59.3	59.8	73.9	14.6	14.1

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
1	11650.0	47.6	47.9	39.6	33.1	6.1	0.6	51.3	51.6	53.9	2.6	2.3
2	17475.0	36.2	36.9	43.3	32.4	7.3	0.7	45.6	46.3	53.9	8.3	7.6

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

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

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### Radiated Spurious Emission

(Reference data)

**11a, Tx, 5825MHz (SX-10WAG + CA4NMRSF020 + SR49120WDA)**

UL Japan, Inc.

Head Office EMC Lab. No. 4 Semi Anechoic Chamber

Company	silex technology, Inc.	Regulation	FCC Part15 Subpart E 15.247 / RSS-210 A8.5
Equipment	MiniPCI Wireless LAN board	Test Distance	1m
Model	SX-10WAG, CA4NMRSF020 SR49120WDA	Date	February 4, 2008
S/N	32 1	Temperature	20deg.C.
Power	DC 3.3V (PC input AC120V / 60Hz)	Humidity	38 %
Mode	11a, Tx 5825MHz, Ant:A, 54Mbps,	Engineer	Takayuki Shimada
EUT-Position	H: Z-axis, V:Z-axis		
Ant.-Position	Normal-axis		

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
1	11650.0	61.8	61.3	39.6	33.1	6.1	0.6	65.5	65.0	73.9	8.4	8.9
2	17475.0	51.6	48.9	43.3	32.4	7.3	0.7	61.0	58.3	73.9	12.9	15.6

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
		[dBuV]						[dBuV/m]			[dB]	
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
1	11650.0	48.5	48.1	39.6	33.1	6.1	0.6	52.2	51.8	53.9	1.7	2.1
2	17475.0	38.3	35.7	43.3	32.4	7.3	0.7	47.7	45.1	53.9	6.2	8.8

Test Distance 1.0m : Distance Factor(Dfac) =  $20\log(3/1.0) = 9.54$  dB

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

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

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

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

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### Radiated Spurious Emission

11a, Rx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5808U)

UL Japan, Inc.

Head Office EMC Lab. No. 1 Semi Anechoic Chamber

Company	silex technology, Inc.	Regulation	FCC Part15 Subpart E 15.247 / RSS-210 A8.5
Equipment	MiniPCI Wireless LAN board	Test Distance	3m (below 10GHz) / 1m (above 10GHz)
Model	SX-10WAG, CA-RSPNMA010, HG5808U CA-NMNFA004,	Date	January 19, 2008 January 31, 2008
S/N	32	Temperature	25 deg.C. 26 deg.C.
Power	DC 3.3V (PC input AC120V / 60Hz)	Humidity	33 % 33 %
Mode	11a, Rx 5825MHz, Ant:A,	Engineer	Takumi Shimada Akio Hayashi
EUT-Position	H: Z-axis, V:Z-axis		(1G-18GHz) (18G-40GHz)
Ant.-Position	Normal-axis		

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2861.6	57.4	53.4	28.1	36.7	3.1	0.0	51.9	47.9	73.9	22.0	26.0
2	3883.3	49.2	53.4	29.5	36.2	3.3	0.0	45.8	50.0	73.9	28.1	23.9
3	5825.0	44.3	44.4	32.2	36.2	4.2	0.0	44.5	44.6	73.9	29.4	29.3
4	7766.6	48.3	47.5	36.5	36.5	4.8	0.0	53.1	52.3	73.9	20.8	21.6
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	11650.0	45.8	45.7	39.9	36.4	5.9	0.0	45.7	45.6	73.9	28.2	28.3
6	17475.0	46.2	45.7	44.7	35.2	8.0	0.0	54.2	53.7	73.9	19.7	20.2
7	23300.0	33.4	34.2	40.4	23.7	13.6	0.0	54.2	55.0	73.9	19.7	18.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR	VER					HOR	VER		HOR	VER
Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss												
1	2861.6	54.6	48.5	28.1	36.7	3.1	0.0	49.1	43.0	53.9	4.8	10.9
2	3883.3	41.1	49.6	29.5	36.2	3.3	0.0	37.7	46.2	53.9	16.2	7.7
3	5825.0	31.5	31.5	32.2	36.2	4.2	0.0	31.7	31.7	53.9	22.2	22.2
4	7766.6	39.4	35.4	36.5	36.5	4.8	0.0	44.2	40.2	53.9	9.7	13.7
Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac												
5	11650.0	32.7	32.8	39.9	36.4	5.9	0.0	32.6	32.7	53.9	21.3	21.2
6	17475.0	32.8	32.8	44.7	35.2	8.0	0.0	40.8	40.8	53.9	13.1	13.1
7	23300.0	22.8	22.7	40.4	23.7	13.6	0.0	43.6	43.5	53.9	10.3	10.4

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

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**Radiated Spurious Emission**

**11a, Rx, 5825MHz (SX-10WAG + CA-RSPNMA010 + CA-NMNFA004 + HG5817D)**

UL Japan, Inc.

Head Office EMC Lab. No. 3 and No. 1 Semi Anechoic Chamber

Company	silex technology, Inc.	Regulation	FCC Part15 Subpart E 15.247 / RSS-210 A8.5
Equipment	MiniPCI Wireless LAN board	Test Distance	3m (below 10GHz) / 1m (above 10GHz)
Model	SX-10WAG, CA-RSPNMA010, CA-NMNFA004, HG5817D	Date	January 26, 2008 January 18, 2008 January 31, 2008
S/N	32	Temperature	25 deg.C. 25 deg.C. 26 deg.C.
Power	DC 3.3V (PC input AC120V / 60Hz)	Humidity	30 % 33 % 33 %
Mode	11a, Rx 5825MHz, Ant:A,	Engineer	Kenichi Adachi Takumi Shimada Akio Hayashi
EUT-Position	H: Z-axis, V:Z-axis		(1G-10GHz, No3AC) (10G-18GHz, No1AC) (18G-40GHz)
Ant.-Position	Normal-axis		

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2674.9	48.6	49.6	27.8	31.4	3.2	0.0	48.2	49.2	73.9	25.7	24.7
2	3883.3	45.2	48.9	29.6	30.9	3.6	0.0	47.5	51.2	73.9	26.4	22.7
3	5825.0	39.4	39.3	32.5	30.6	4.2	0.0	45.5	45.4	73.9	28.4	28.5
4	7766.6	44.6	43.5	36.5	31.3	4.9	0.0	54.7	53.6	73.9	19.2	20.3
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
5	11650.0	45.7	45.6	39.9	36.4	5.9	0.0	45.6	45.5	73.9	28.3	28.4
6	17475.0	46.5	45.5	44.7	35.2	8.0	0.0	54.5	53.5	73.9	19.4	20.4
7	23300.0	34.1	34.2	40.4	23.7	13.6	0.0	54.9	55.0	73.9	19.0	18.9

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER					HOR	VER		HOR	VER
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2674.9	44.9	46.1	27.8	31.4	3.2	0.0	44.5	45.7	53.9	9.4	8.2
2	3883.3	38.1	42.6	29.6	30.9	3.6	0.0	40.4	44.9	53.9	13.5	9.0
3	5825.0	28.2	28.2	32.5	30.6	4.2	0.0	34.3	34.3	53.9	19.6	19.6
4	7766.6	37.4	34.2	36.5	31.3	4.9	0.0	47.5	44.3	53.9	6.4	9.6
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
5	11650.0	32.7	32.8	39.9	36.4	5.9	0.0	32.6	32.7	53.9	21.3	21.2
6	17475.0	32.8	32.8	44.7	35.2	8.0	0.0	40.8	40.8	53.9	13.1	13.1
7	23300.0	22.7	22.7	40.4	23.7	13.6	0.0	43.5	43.5	53.9	10.4	10.4

Test Distance 1.0m : Distance Factor(Dfac) = 20log(3/1.0) = 9.54 dB

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

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

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

**Radiated Spurious Emission**  
**11a, Rx, 5825MHz (SX-10WAG + CA-RSPNMA004 + SR49120WDA)**

UL Japan, Inc.

Head Office EMC Lab. No. 1 Semi Anechoic Chamber

Company : silex technology, Inc.  
Equipment : MiniPCI Wireless LAN board  
Model : SX-10WAG, CA-RSPNMA004 SR49120WDA  
S/N : 32 1  
Power : DC 3.3V (PC input AC120V / 60Hz)  
Mode : 11a, Rx 5825MHz, Ant:A,  
EUT-Position : H: Z-axis, V:Z-axis  
Ant.-Position : Normal-axis

Regulation : FCC Part15 Subpart E 15.247 / RSS-210 A8.5  
Test Distance : 3m (below 10GHz) / 1m (above 10GHz)  
Date : January 26, 2008 January 18, 2008 January 27, 2008  
Temperature : 25 deg.C. 25 deg.C. 24 deg.C.  
Humidity : 30 % 33 % 31 %  
Engineer : Kenichi Adachi Kenichi Adachi Norihisa Hashimoto  
(1G-10GHz) (10G-18GHz) (18G-26GHz, No1AC)

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit PK [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR [dB]	VER [dB]			
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2861.6	50.8	48.9	28.1	31.4	3.3	0.0	50.8	48.9	73.9	23.1	25.0
2	3883.3	46.4	47.7	29.6	30.9	3.6	0.0	48.7	50.0	73.9	25.2	23.9
3	5825.0	39.8	39.7	32.5	30.6	4.2	0.0	45.9	45.8	73.9	28.0	28.1
4	7766.7	44.7	43.4	36.5	31.3	4.9	0.0	54.8	53.5	73.9	19.1	20.4
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
5	11650.0	47.3	46.8	39.9	36.4	5.9	0.0	47.2	46.7	73.9	26.7	27.2
6	17475.0	46.4	47.3	44.7	35.2	8.0	0.0	54.4	55.3	73.9	19.5	18.6
7	23300.0	42.1	43.0	40.9	23.7	13.6	0.0	63.4	64.3	73.9	10.5	9.6

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

No.	FREQ [MHz]	S/A READING		ANT Factor [dB/m]	AMP GAIN [dB]	CABLE LOSS [dB]	Hi-Pass Filter [dB]	RESULT		Limit AV [dBuV/m]	MARGIN	
		HOR [dBuV]	VER [dBuV]					HOR [dB]	VER [dB]			
<b>Test distance 3meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss</b>												
1	2861.6	47.7	44.5	28.1	31.4	3.3	0.0	47.7	44.5	53.9	6.2	9.4
2	3883.3	40.6	44.0	29.6	30.9	3.6	0.0	42.9	46.3	53.9	11.0	7.6
3	5825.0	28.1	28.1	32.5	30.6	4.2	0.0	34.2	34.2	53.9	19.7	19.7
4	7766.7	37.1	33.6	36.5	31.3	4.9	0.0	47.2	43.7	53.9	6.7	10.2
<b>Test distance 1meters RESULT=Reading + ANT Factor - Amp Gain + Cable Loss + Filter Loss - Dfac</b>												
5	11650.0	32.7	32.8	39.9	36.4	5.9	0.0	32.6	32.7	53.9	21.3	21.2
6	17475.0	33.2	33.2	44.7	35.2	8.0	0.0	41.2	41.2	53.9	12.7	12.7
7	23300.0	29.0	29.0	40.9	23.7	13.6	0.0	50.3	50.3	53.9	3.6	3.6

Test Distance 1.0m : Distance Factor(Dfac) =  $20\log(3/1.0) = 9.54$  dB

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

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

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

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

#### **EMI test equipment (1/2)**

<b>Control No.</b>	<b>Instrument</b>	<b>Manufacturer</b>	<b>Model No</b>	<b>Test Item</b>	<b>Calibration Date * Interval(month)</b>
MAEC-01	Anechoic Chamber	TDK	Semi Anechoic Chamber 10m	RE	2007/11/23 * 12
MCC-15	Microwave Cable 1G-26.5GHz 1m	Suhner	SUCOFLEX 104	RE	2008/02/08 * 12
MCC-76	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/12/26 * 12
MCC-18	Microwave Cable 1G-26.5GHz 5m	Suhner	SUCOFLEX 104	RE	2008/02/08 * 12
MHF-21	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCA	RE	2008/01/07 * 12
MHA-05	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2008/01/19 * 12
MPA-01	Pre Amplifier	Agilent	8449B	RE	2007/02/15 * 12
MTR-01	Test Receiver	Rohde & Schwarz	ESI40	RE	2007/10/19 * 12
MOS-01	Digital Humidity Indicator	N.T	NT-1800	RE	2007/11/12 * 12
MJM-01	Measure	KDS	ES19-55	RE	-
MSTW-14	EMI measurement program	TSJ	TEPTO-DV	RE / CE	-
MAEC-03	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2007/03/05 * 12
MSA-09	Spectrum Analyzer	Advantest	R3273	RE	2007/12/21 * 12
MCC-56	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/03/29 * 12
MPA-11	MicroWave System Amplifier	Agilent	83017A	RE	2007/03/02 * 12
MHA-20	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2007/04/14 * 12
MOS-13	Thermo-Hygrometer	Custom	CTH-180	RE	2008/01/10 * 12
MJM-06	Measure	PROMART	SEN1955	RE	-
MTA-24	Terminator	Weinschel	M1459A	RE	2007/12/20 * 12
MPA-03	Microwave System Power Amplifier	Agilent	83050A	RE	2007/06/08 * 12
MHA-03	Horn Antenna 26.5-40GHz	EMCO	3160-10	RE	2008/01/19 * 12
MPSU-01	Power Supply	Rohde & Schwarz	HZ-9	RE	Pre Check
MHA-01	Horn Antenna 18-26.5G	EMCO	3160-09	RE	2008/01/19 * 12
MCC-53	Microwave Cable 1G-40GHz	Suhner	SUCOFLEX101	RE	2007/03/08 * 12
MAEC-04	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE / CE	2007/03/03 * 12
MOS-15	Thermo-Hygrometer	Custom	CTH-180	RE / CE	2008/01/10 * 12
MJM-07	Measure	PROMART	SEN1955	RE / CE	-
MSA-05	Spectrum Analyzer	Advantest	R3273	RE / CE	2007/06/01 * 12
MHA-21	Horn Antenna 1-18GHz	Schwarzbeck	BBHA9120D	RE	2007/08/16 * 12

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**EMI test equipment (2/2)**

Control No.	Instrument	Manufacturer	Model No	Test Item	Calibration Date * Interval(month)
MCC-57	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/03/30 * 12
MPA-12	MicroWave System Amplifier	Agilent	83017A	RE	2007/03/12 * 12
MHF-23	High Pass Filter 7-20GHz	TOKIMEC	TF37NCCC	RE	2008/01/07 * 12
MCC-79	Microwave Cable 1G-26.5GHz	Suhner	SUCOFLEX104	RE	2007/12/26 * 12
MAEC-02	Anechoic Chamber	TDK	Semi Anechoic Chamber 3m	RE	2007/04/02 * 12
MTR-03	Test Receiver	Rohde & Schwarz	ESCI	RE	2007/03/01 * 12
MCC-12	Coaxial Cable	Fujikura/Agilent	-	RE	2007/02/27 * 12
MPA-09	Pre Amplifier	Agilent	8447D	RE	2007/09/13 * 12
MOS-02	Digital Humidity Indicator	N.T	NT-1800	RE	2007/11/12 * 12
MJM-05	Measure	PROMART	SEN1955	RE	-
MCC-50	Coaxial cable	UL Japan	-	CE	2007/03/06 * 12
MTR-07	Test Receiver	Rohde & Schwarz	ESCI	CE	2007/09/14 * 12
MLS-06	LISN(AMN)	Schwarzbeck	NSLK8127	CE (EUT)	2007/02/22 * 12
MSA-03	Spectrum Analyzer	Agilent	E4448A	AT	2007/09/05 * 12
MAT-25	Attenuator(10dB)(above 1GHz)	Agilent	8493C	AT	2007/06/28 * 12
MCC-37	Microwave Cable	Hirose Electric	U.FL-2LP-066-A-(200)	AT	2007/11/07 * 12
MOS-14	Thermo-Hygrometer	Custom	CTH-180	AT	2008/01/10 * 12

The expiration date of the calibration is the end of the expired month.  
All equipment is calibrated with traceable calibrations. Each calibration is traceable to the national or international standards.

As for some calibrations performed after the tested dates, those test equipment have been controlled by means of an unbroken chains of calibrations.

Test Item: CE: Conducted Emission  
RE: Radiated Emission  
AT: Antenna Terminal Conducted test