



RF IDEAS, INC. TEST REPORT
FOR THE
COMPUTER PROXIMITY DEVICE, BSE-PCPRXH-USBV2
FCC PART 15 SUBPART C SECTIONS 15.207 & 15.209
COMPLIANCE

DATE OF ISSUE: DECEMBER 8, 2004

PREPARED FOR:

RF IDEas, Inc.
4238B Arlington Heights Rd.
Arlington Heights, IL 60004

W.O. No.: 82971

PREPARED BY:

Mary Ellen Clayton
CKC Laboratories, Inc.
5473A Clouds Rest
Mariposa, CA 95338

Date of test: November 30 - December 1, 2004

Report No.: FC04-088

This report contains a total of 26 pages and may be reproduced in full only. Partial reproduction may only be done with the written consent of CKC Laboratories, Inc. The results in this report apply only to the items tested, as identified herein.

TABLE OF CONTENTS

Administrative Information	3
Summary of Results	4
Conditions for Compliance	4
Approvals	4
FCC 15.31(m) Number Of Channels	5
FCC 15.33(a) Frequency Ranges Tested	5
FCC 15.35 Analyzer Bandwidth Settings	5
FCC 15.203 Antenna Requirements	5
FCC 15.205 Restricted Bands	5
Eut Operating Frequency	5
Temperature And Humidity During Testing	5
Equipment Under Test (EUT) Description	6
Equipment Under Test	6
Peripheral Devices	6
Report of Measurements	7
Table 1: Six Highest Conducted Emission Levels	7
Table 2: Six Highest Radiated Emission Levels	8
EUT Setup	9
Correction Factors	9
Table A: Sample Calculations	9
Test Instrumentation and Analyzer Settings	10
Spectrum Analyzer Detector Functions	10
Peak	10
Quasi-Peak	10
Average	10
EUT Testing	11
Mains Conducted Emissions	11
Radiated Emissions	11
Appendix A: Test Setup Photographs	12
Photograph Showing Mains Conducted Emissions	13
Photograph Showing Radiated Emissions	14
Photograph Showing Radiated Emissions	15
Appendix B: Test Equipment List	16
Appendix C: Measurement Data Sheets	17

ADMINISTRATIVE INFORMATION

DATE OF TEST: November 30 - December 1, 2004

DATE OF RECEIPT: November 30, 2004

PURPOSE OF TEST: To demonstrate the compliance of the Computer Proximity Device, BSE-PCPRXH-USBv2 with the requirements for FCC Part 15 Subpart C Sections 15.207 & 15.209 devices.

TEST METHOD: ANSI C63.4 (2001)

MANUFACTURER: RF IDEas, Inc.
4238B Arlington Heights Rd.
Arlington Heights, IL 60004

REPRESENTATIVE: Greg Gliniecki

TEST LOCATION: CKC Laboratories, Inc.
5473A Clouds Rest
Mariposa, CA 95338

SUMMARY OF RESULTS

As received, the RF IDEas, Inc. Computer Proximity Device, BSE-PCPRXH-USBv2 was found to be fully compliant with the following standards and specifications:

United States

- FCC Part 15 Subpart C Section 15.207 & 15.209
- ANSI C63.4 (1992) method

CONDITIONS FOR COMPLIANCE

No modifications to the EUT were necessary to comply.

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:



Joyce Walker, Quality Assurance Administrative
Manager

TEST PERSONNEL:



Randy Clark, EMC Engineer

FCC 15.31(m) Number Of Channels

This device operates on a single channel.

FCC 15.33(a) Frequency Ranges Tested

15.207 Conducted Emissions: 150 kHz – 30 MHz

15.209 Radiated Emissions: 9 kHz – 1000 MHz

FCC SECTION 15.35: ANALYZER BANDWIDTH SETTINGS PER FREQUENCY RANGE			
TEST	BEGINNING FREQUENCY	ENDING FREQUENCY	BANDWIDTH SETTING
CONDUCTED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	9 kHz	150 kHz	200 Hz
RADIATED EMISSIONS	150 kHz	30 MHz	9 kHz
RADIATED EMISSIONS	30 MHz	1000 MHz	120 kHz

FCC 15.203 Antenna Requirements

The antenna is an integral part of the EUT and is non-removable; therefore the EUT complies with Section 15.203 of the FCC rules.

FCC 15.205 Restricted Bands

The fundamental operating frequency lies outside the restricted bands and therefore complies with the requirements of Section 15.205 of the FCC rules. Any spurious emission coming from the EUT was investigated to determine if any portion lies inside the restricted band. If any portion of a spurious emissions signal was found to be within a restricted band, investigation was performed to ensure compliance with Section 15.209.

Eut Operating Frequency

The EUT was operating at 125 kHz.

Temperature And Humidity During Testing

The temperature during testing was within +15°C and + 35°C.

The relative humidity was between 20% and 75%.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares the EUT tested by CKC Laboratories was representative of a production unit.

EQUIPMENT UNDER TEST

Computer Proximity Device

Manuf: RF IDEas, Inc.
Model: BSE-PCPRXH-USBv2
Serial: 113004-001
FCC ID: M9MBUPCPROXH100

PERIPHERAL DEVICES

The EUT was tested with the following peripheral device(s):

Printer Power Supply

Manuf: Astec Power Inc.
Model: C6409-60014
Serial: 9912 R00
FCC ID: DoC

Printer

Manuf: HP
Model: 895Cxi
Serial: MY9761924Z
FCC ID: DoC

Host Computer

Manuf: Toshiba
Model: PS426U-0M151
Serial: 50683063U
FCC ID: DoC

Laptop Power Supply

Manuf: Toshiba
Model: PA3049U-1ACA
Serial: 0003A0221552G
FCC ID: DoC

Mouse

Manuf: Microsoft
Model: Intellimouse
Serial: 00426696
FCC ID: DoC

REPORT OF MEASUREMENTS

The following tables report the worst case emissions levels recorded during the tests performed on the EUT. All readings taken were peak readings unless otherwise stated. The data sheets from which the emissions tables were compiled are contained in Appendix C.

Table 1: Six Highest Conducted Emission Levels									
FREQUENCY MHz	METER READING dB μ V	CORRECTION FACTORS				CORRECTED READING dB μ V	SPEC LIMIT dB μ V	MARGIN dB	NOTES
		Lisn dB	HPF dB	Cable dB	dB				
0.328891	43.7	0.2	0.1	0.1		44.1	49.5	-5.4	B
0.332527	43.2	0.3	0.1	0.1		43.7	49.4	-5.7	W
0.542688	40.2	0.3	0.3	0.1		40.9	46.0	-5.1	W
0.544142	40.0	0.3	0.3	0.1		40.7	46.0	-5.3	B
24.586130	41.3	0.4	0.2	0.5		42.4	50.0	-7.6	W
25.346810	41.3	0.4	0.2	0.5		42.4	50.0	-7.6	W

Test Method: ANSI C63.4 (2001)
Spec Limit: FCC Part 15 Subpart C Section 15.207

NOTES: B = Black Lead
W = White Lead

COMMENTS: EUT is a computer proximity device, used to lock a computer when the user is away. The host computer provides power to and monitors communication from the EUT. All host computer ports are filled. A card is present in the field of the EUT providing continuous communication to the host computer. Frequency Range Investigated: 150kHz - 30MHz. Temperature: 16°C, Relative Humidity: 38%.

Table 2: Six Highest Radiated Emission Levels

FREQUENCY MHz	METER READING dB μ V	CORRECTION FACTORS				CORRECTED READING dB μ V/m	SPEC LIMIT dB μ V/m	MARGIN DB	NOTES
		Ant dB	Amp dB	Cable dB	Dist dB				
32.630	32.7	16.5	-27.3	1.3	10.0	33.2	40.0	-6.8	VQ
49.170	41.3	8.5	-27.3	1.6	10.0	34.1	40.0	-5.9	VQ
114.500	36.5	10.5	-27.2	2.4	10.0	32.2	43.5	-11.3	V
132.050	39.2	11.1	-27.1	2.6	10.0	35.8	43.5	-7.7	V
137.200	35.5	11.0	-27.1	2.7	10.0	32.1	43.5	-11.4	V
221.650	37.9	10.0	-26.5	3.4	10.0	34.8	46.0	-11.2	H

Test Method: ANSI C63.4 (2001)
 Spec Limit: FCC Part 15 Subpart C Section 15.209
 Test Distance: 10 Meters

NOTES: H = Horizontal Polarization
 V = Vertical Polarization
 Q = Quasi Peak Reading

EUT SETUP

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the photographs in Appendix A. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables. The corrected data was then compared to the applicable emission limits to determine compliance.

The cables were routed consistent with the typical application by varying the configuration of the test sample. Interface cables were connected to the available I/O ports of the test unit. The effect of varying the position of the cables was investigated to find the configuration that produced maximum emissions. I/O cables were of the type and length specified in the individual requirements. The length of cable that produced maximum emissions was selected.

The radiated and conducted emissions data of the EUT was taken with the HP Spectrum Analyzer. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in Table A.

Preliminary and final measurements were taken in order to ensure that all emissions from the EUT were found and maximized.

CORRECTION FACTORS

The basic spectrum analyzer reading was converted using correction factors as shown in the highest emissions readings in the tables. For radiated emissions in dB μ V/m, the spectrum analyzer reading in dB μ V was corrected by using the following formula in Table A. This reading was then compared to the applicable specification limit to determine compliance.

TABLE A: SAMPLE CALCULATIONS		
	Meter reading	(dB μ V)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dB μ V/m)

TEST INSTRUMENTATION AND ANALYZER SETTINGS

The test instrumentation and equipment listed in Appendix B were used to collect both the radiated and conducted emissions data. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. For radiated measurements below 300 MHz, the biconical antenna was used. For frequencies from 300 to 1000 MHz, the log periodic antenna was used. For frequencies from 30 to 1000 MHz, the biconilog antenna was used. The horn antenna was used for frequencies above 1000 MHz. Conducted emissions tests required the use of the FCC type LISNs.

The HP spectrum analyzer was used for all measurements. Table B shows the analyzer bandwidth settings that were used in designated frequency bands. For conducted emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used. A 10 dB external attenuator was also used during conducted tests, with internal offset correction in the analyzer. During radiated testing, the measurements were made with 0 dB of attenuation, a reference level of 97 dB μ V, and a vertical scale of 10 dB per division.

SPECTRUM ANALYZER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the Tables indicate the type of detector function used to obtain the given readings. Unless otherwise noted, all readings were made in the "Peak" mode. Whenever a "Quasi-Peak" or "Average" reading is listed as one of the six highest readings, this is indicated as a "Q" or an "A" in the appropriate table. The following paragraphs describe in more detail the detector functions and when they were used to obtain the emissions data.

Peak

In this mode, the Spectrum Analyzer or test engineer recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the analyzer called "peak hold," the analyzer had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the analyzer made a slow scan across the frequency band selected and measured the peak emission value found at each frequency across the band.

Quasi-Peak

When the true peak values exceeded or were within 2 dB of the specification limit, quasi-peak measurements were taken using the HP Quasi-Peak Adapter for the HP Spectrum Analyzer. The detailed procedure for making quasi peak measurements contained in the HP Quasi-Peak Adapter manual were followed.

Average

For certain frequencies, average measurements may be made using the spectrum analyzer. To make these measurements, the test engineer reduces the video bandwidth on the analyzer until the modulation of the signal is filtered out. At this point the analyzer is set into the linear mode and the scan time is reduced.

EUT TESTING

Mains Conducted Emissions

During conducted emissions testing, the EUT was located on a wooden table measuring approximately 80 cm high, 1 meter deep, and 1.5 meters in length. One wall of the room where the EUT was located has a minimum 2 meter by 2 meter conductive plane. The EUT was mounted on the wooden table 40 cm away from the conductive plane, and 80 cm from any other conductive surface.

The vertical metal plane used for conducted emissions was grounded to the earth. Power to the EUT was provided through a LISN. The LISN was grounded to the ground plane. All other objects were kept a minimum of 80 cm away from the EUT during the conducted test.

The LISNs used were 50 μH -/+50 ohms. Above 150 kHz, a 0.15 μF series capacitor was added in-line prior to connecting the analyzer to restore the proper impedance for the range. A 30 to 50 second sweep time was used for automated measurements in the frequency bands of 150 kHz to 500 kHz, and 500 kHz to 30 MHz. All readings within 20 dB of the limit were recorded, and those within 6 dB of the limit were examined with additional measurements using a slower sweep time.

Radiated Emissions

The EUT was mounted on a nonconductive, rotating table 80 cm above the conductive grid. The nonconductive table dimensions were 1 meter by 1.5 meters.

During the preliminary radiated scan, the EUT was powered up and operating in its defined FCC test mode. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. The frequency range of 30 MHz to 1000 MHz was scanned with the biconilog antenna located about 1.5 meter above the ground plane in the vertical polarity. During this scan, the turntable was rotated and all peaks at or near the limit were recorded. A scan of the FM band from 88 to 110 MHz was then made using a reduced resolution bandwidth and frequency span. The biconilog antenna was changed to the horizontal polarity and the above steps were repeated. Care was taken to ensure that no frequencies were missed within the FM and TV bands. An analysis was performed to determine if the signals that were at or near the limit were caused by an ambient transmission. If unable to determine by analysis, the equipment was powered down to make the final determination if the EUT was the source of the emission.

A thorough scan of all frequencies was made manually using a small frequency span, rotating the turntable and raising and lowering the antenna from one to four meters as needed. The test engineer maximized the readings with respect to the table rotation, antenna height, and configuration of EUT. Maximizing of the EUT was achieved by monitoring the spectrum analyzer on a closed circuit television monitor.

APPENDIX A

TEST SETUP PHOTOGRAPHS

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS



Mains Conducted Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Back View

APPENDIX B

TEST EQUIPMENT LIST

Conducted Emissions

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP 8566B SA	2209A01404	02/26/2003	02/26/2005	00490
HP 8566B SA Display	2403A08241	02/26/2003	02/26/2005	00489
HP 85650A QPA	2811A01267	02/26/2003	02/26/2005	00478
LISN, 8028-50-TS-24-BNC	8379276, 280	06/05/2003	06/05/2005	1248 & 1249

Radiated Emissions

Function	S/N	Calibration Date	Cal Due Date	Asset #
HP 8566B SA	2209A01404	02/26/2003	02/26/2005	00490
HP 8566B SA Display	2403A08241	02/26/2003	02/26/2005	00489
HP 85650A QPA	2811A01267	02/26/2003	02/26/2005	00478
HP 8447D Preamp	1937A02604	03/07/2003	03/07/2005	00099
Chase CBL6111C Bilog	2456	12/13/2002	12/13/2004	1991
EMCO Loop Antenna	1074	05/21/2003	05/21/2005	00226

APPENDIX C:
MEASUREMENT DATA SHEETS

Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **RF Ideas, Inc.**
 Specification: **FCC 15.207 - AVE**
 Work Order #: **82971** Date: 12/01/2004
 Test Type: **Conducted Emissions** Time: 13:04:18
 Equipment: **Computer Proximity Device** Sequence#: 3
 Manufacturer: RF Ideas, Inc. Tested By: Randal Clark
 Model: BSE-PCPRXH-USBv2 120V 60Hz
 S/N: 113004-001

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Computer Proximity Device*	RF Ideas, Inc.	BSE-PCPRXH-USBv2	113004-001

Support Devices:

Function	Manufacturer	Model #	S/N
Mouse	Microsoft	Intellimouse	00426696
Printer Power Supply	Astec Power Inc.	C6409-60014	9912 R00
Printer	HP	895Cxi	MY9761924Z
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3049U-1ACA	0003A0221552G

Test Conditions / Notes:

EUT is a computer proximity device, used to lock a computer when the user is away. The host computer provides power to and monitors communication from the EUT. All host computer ports are filled. A card is present in the field of the EUT providing continuous communication to the host computer. Frequency Range Investigated: 150kHz - 30MHz. Temperature: 16°C, Relative Humidity: 38%.

Transducer Legend:

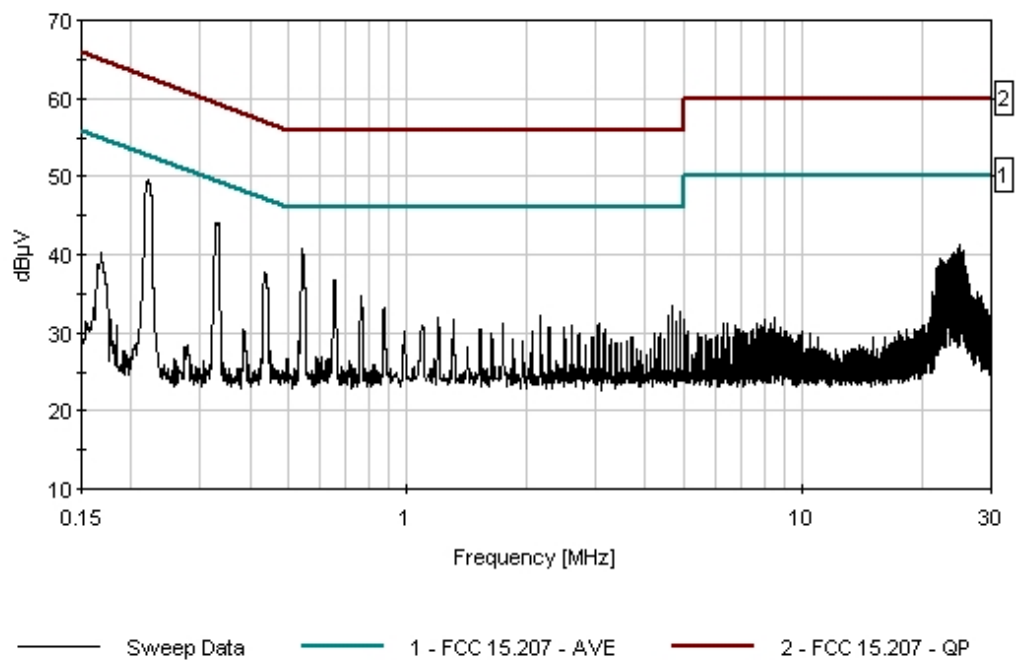
T1=Cable - Internal + cab	T2=LISN Insertion Loss s/n280
T3=HP Filter AN02608	

Measurement Data: Reading listed by margin. Test Lead: Black

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	Dist dB	Table	Corr dB μ V	Spec dB μ V	Margin dB	Polar Ant
1	544.142k	40.0	+0.1	+0.3	+0.3	+0.0		40.7	46.0	-5.3	Black
2	328.891k	43.7	+0.1	+0.2	+0.1	+0.0		44.1	49.5	-5.4	Black
3	222.720k	44.0	+0.1	+0.3	+0.2	+0.0		44.6	52.7	-8.1	Black
^	222.720k	48.9	+0.1	+0.3	+0.2	+0.0		49.5	52.7	-3.2	Black
5	25.032M	40.0	+0.5	+0.5	+0.2	+0.0		41.2	50.0	-8.8	Black
6	653.222k	36.2	+0.1	+0.2	+0.3	+0.0		36.8	46.0	-9.2	Black
7	435.790k	37.2	+0.1	+0.3	+0.2	+0.0		37.8	47.1	-9.3	Black
8	24.819M	39.5	+0.5	+0.5	+0.2	+0.0		40.7	50.0	-9.3	Black

9	25.580M	39.4	+0.5	+0.5	+0.2	+0.0	40.6	50.0	-9.4	Black
10	25.470M	39.2	+0.5	+0.5	+0.2	+0.0	40.4	50.0	-9.6	Black
11	24.168M	39.1	+0.5	+0.4	+0.2	+0.0	40.2	50.0	-9.8	Black
12	24.716M	39.0	+0.5	+0.5	+0.2	+0.0	40.2	50.0	-9.8	Black
13	25.251M	39.0	+0.5	+0.5	+0.2	+0.0	40.2	50.0	-9.8	Black
14	23.736M	39.0	+0.5	+0.4	+0.2	+0.0	40.1	50.0	-9.9	Black
15	24.387M	39.0	+0.5	+0.4	+0.2	+0.0	40.1	50.0	-9.9	Black
16	23.949M	38.9	+0.5	+0.4	+0.2	+0.0	40.0	50.0	-10.0	Black
17	24.278M	38.8	+0.5	+0.4	+0.2	+0.0	39.9	50.0	-10.1	Black
18	24.600M	38.7	+0.5	+0.5	+0.2	+0.0	39.9	50.0	-10.1	Black
19	22.309M	38.4	+0.5	+0.4	+0.2	+0.0	39.5	50.0	-10.5	Black
20	23.620M	38.3	+0.5	+0.4	+0.2	+0.0	39.4	50.0	-10.6	Black
21	23.298M	38.2	+0.5	+0.4	+0.2	+0.0	39.3	50.0	-10.7	Black

CKC Laboratories Date: 12/01/2004 Time: 13:04:18 RF Ideas, Inc. WO#: 82971
 FCC 15.207 - AVE Test Lead: Black 120V 60Hz Sequence#: 3
 RF Ideas, Inc. MN BSE-PCPRXH-USBv2



Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **RF Ideas, Inc.**
 Specification: **FCC 15.207 - AVE**
 Work Order #: **82971** Date: 12/01/2004
 Test Type: **Conducted Emissions** Time: 13:08:43
 Equipment: **Computer Proximity Device** Sequence#: 4
 Manufacturer: RF Ideas, Inc. Tested By: Randal Clark
 Model: BSE-PCPRXH-USBv2 120V 60Hz
 S/N: 113004-001

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Computer Proximity Device*	RF Ideas, Inc.	BSE-PCPRXH-USBv2	113004-001

Support Devices:

Function	Manufacturer	Model #	S/N
Mouse	Microsoft	Intellimouse	00426696
Printer Power Supply	Astec Power Inc.	C6409-60014	9912 R00
Printer	HP	895Cxi	MY9761924Z
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3049U-1ACA	0003A0221552G

Test Conditions / Notes:

EUT is a computer proximity device, used to lock a computer when the user is away. The host computer provides power to and monitors communication from the EUT. All host computer ports are filled. A card is present in the field of the EUT providing continuous communication to the host computer. Frequency Range Investigated: 150kHz - 30MHz. Temperature: 16°C, Relative Humidity: 38%.

Transducer Legend:

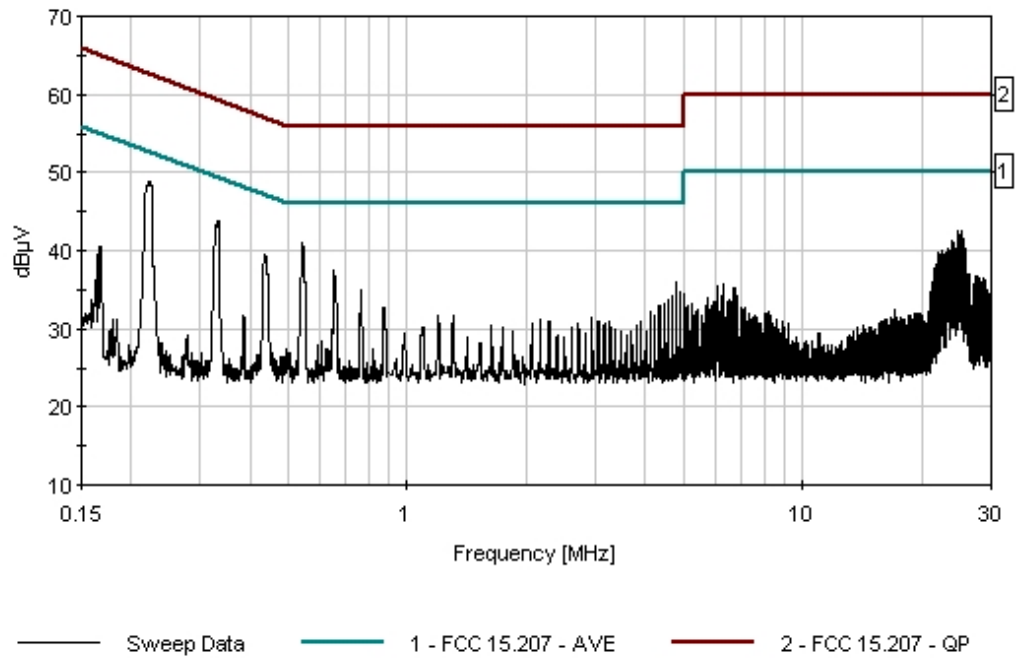
T1=Cable - Internal + cab	T2=LISN Insertion Loss s/n276
T3=HP Filter AN02608	

Measurement Data: Reading listed by margin. Test Lead: White

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	Dist Table dB	Corr dB μ V	Spec dB μ V	Margin dB	Polar Ant
1	542.688k	40.2	+0.1	+0.3	+0.3	+0.0	40.9	46.0	-5.1	White
2	332.527k	43.2	+0.1	+0.3	+0.1	+0.0	43.7	49.4	-5.7	White
3	24.586M	41.3	+0.5	+0.4	+0.2	+0.0	42.4	50.0	-7.6	White
4	25.347M	41.3	+0.5	+0.4	+0.2	+0.0	42.4	50.0	-7.6	White
5	437.244k	38.7	+0.1	+0.4	+0.2	+0.0	39.4	47.1	-7.7	White
6	25.128M	41.2	+0.5	+0.4	+0.2	+0.0	42.3	50.0	-7.7	White
7	24.915M	41.0	+0.5	+0.4	+0.2	+0.0	42.1	50.0	-7.9	White
8	24.696M	40.9	+0.5	+0.4	+0.2	+0.0	42.0	50.0	-8.0	White

9	652.495k	36.9	+0.1	+0.3	+0.3	+0.0	37.6	46.0	-8.4	White
10	25.456M	40.3	+0.5	+0.4	+0.2	+0.0	41.4	50.0	-8.6	White
11	23.825M	40.2	+0.5	+0.4	+0.2	+0.0	41.3	50.0	-8.7	White
12	223.447k	43.2	+0.1	+0.4	+0.2	+0.0	43.9	52.7	-8.8	White
	Ave									
^	223.447k	48.9	+0.1	+0.4	+0.2	+0.0	49.6	52.7	-3.1	White
14	24.154M	39.9	+0.5	+0.4	+0.2	+0.0	41.0	50.0	-9.0	White
15	23.716M	39.8	+0.5	+0.4	+0.2	+0.0	40.9	50.0	-9.1	White
16	25.779M	39.2	+0.5	+0.4	+0.2	+0.0	40.3	50.0	-9.7	White
17	23.257M	39.1	+0.5	+0.4	+0.2	+0.0	40.2	50.0	-9.8	White
18	24.264M	39.1	+0.5	+0.4	+0.2	+0.0	40.2	50.0	-9.8	White
19	25.011M	39.1	+0.5	+0.4	+0.2	+0.0	40.2	50.0	-9.8	White
20	23.387M	38.9	+0.5	+0.4	+0.2	+0.0	40.0	50.0	-10.0	White
21	23.935M	38.9	+0.5	+0.4	+0.2	+0.0	40.0	50.0	-10.0	White

CKC Laboratories Date: 12/01/2004 Time: 13:08:43 RF Ideas, Inc. WO#: 82971
FCC 15.207 - AVE Test Lead: White 120V 60Hz Sequence#: 4
RF Ideas, Inc. MN BSE-PCPRXH-USBv2



Test Location: CKC Laboratories •5473A Clouds Rest • Mariposa, CA 95338 • 1-800-500-4EMC (4362)

Customer: **RF IDEas, Inc.**

Specification: **FCC 15.209**

Work Order #: **82971**

Date: 12/01/2004

Test Type: **Maximized Emissions**

Time: 12:48:32

Equipment: **Computer Proximity Device**

Sequence#: 2

Manufacturer: RF IDEas, Inc.

Tested By: Randal Clark

Model: BSE-PCPRXH-USBv2

S/N: 113004-001

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Computer Proximity Device*	RF IDEas, Inc.	BSE-PCPRXH-USBv2	113004-001

Support Devices:

Function	Manufacturer	Model #	S/N
Mouse	Microsoft	Intellimouse	00426696
Printer Power Supply	Astec Power Inc.	C6409-60014	9912 R00
Printer	HP	895Cxi	MY9761924Z
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3049U-1ACA	0003A0221552G

Test Conditions / Notes:

EUT is a computer proximity device, used to lock a computer when the user is away. The host computer provides power to and monitors communication from the EUT. All host computer ports are filled. A card is present in the field of the EUT providing continuous communication to the host computer. EUT orientation maximized for radiated emissions. Test distance correction factor used in accordance with 15.31, 20dB per decade. Frequency Range Investigated: 9kHz-1000MHz. Temperature: 16°C, Relative Humidity: 35%. **No EUT emissions detected within 20dB of the limit below 30MHz.**

Transducer Legend:

T1=Amp - S/N 604	T2=Bilog Site B
T3=Cable - 10 Meter	

Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	49.170M	41.3	-27.3	+8.5	+1.6		+10.0	34.1	40.0	-5.9	Verti 100
QP											
^	49.130M	43.5	-27.3	+8.5	+1.6		+10.0	36.3	40.0	-3.7	Verti 100
3	32.630M	32.7	-27.3	+16.5	+1.3		+10.0	33.2	40.0	-6.8	Verti 103
QP							34				
^	32.628M	37.2	-27.3	+16.5	+1.3		+10.0	37.7	40.0	-2.3	Verti 103
							34				
5	132.050M	39.2	-27.1	+11.1	+2.6		+10.0	35.8	43.5	-7.7	Verti 102
							87				
6	221.650M	37.9	-26.5	+10.0	+3.4		+10.0	34.8	46.0	-11.2	Horiz 246
							238				
7	114.500M	36.5	-27.2	+10.5	+2.4		+10.0	32.2	43.5	-11.3	Verti 103
							34				

8	137.200M	35.5	-27.1	+11.0	+2.7	+10.0 34	32.1	43.5	-11.4	Verti 103
9	214.900M	35.6	-26.6	+9.5	+3.4	+10.0 238	31.9	43.5	-11.6	Horiz 246
10	223.190M	37.0	-26.5	+10.1	+3.4	+10.0 238	34.0	46.0	-12.0	Horiz 246
11	220.130M	37.2	-26.5	+9.9	+3.4	+10.0 238	34.0	46.0	-12.0	Horiz 246
12	207.400M	35.7	-26.6	+8.9	+3.3	+10.0 34	31.3	43.5	-12.2	Verti 103
13	224.200M	36.5	-26.5	+10.2	+3.4	+10.0 238	33.6	46.0	-12.4	Horiz 246
14	363.800M	31.2	-26.9	+14.5	+4.7	+10.0 201	33.5	46.0	-12.5	Horiz 229
15	211.840M	35.0	-26.6	+9.3	+3.3	+10.0 238	31.0	43.5	-12.5	Horiz 246
16	376.700M	30.6	-27.0	+14.9	+4.8	+10.0 203	33.3	46.0	-12.7	Horiz 263
17	47.430M QP	33.8	-27.3	+9.0	+1.6	+10.0 334	27.1	40.0	-12.9	Horiz 212
^	47.460M	43.1	-27.3	+9.0	+1.6	+10.0 334	36.4	40.0	-3.6	Horiz 212
19	345.750M	31.2	-26.8	+14.1	+4.5	+10.0 203	33.0	46.0	-13.0	Horiz 263
20	84.464M	34.6	-27.1	+7.3	+2.1	+10.0 312	26.9	40.0	-13.1	Horiz 200
21	363.250M	30.5	-26.9	+14.5	+4.7	+10.0 203	32.8	46.0	-13.2	Horiz 263
22	122.150M	33.9	-27.2	+11.0	+2.5	+10.0 258	30.2	43.5	-13.3	Horiz 286
23	213.890M	33.9	-26.6	+9.4	+3.4	+10.0 238	30.1	43.5	-13.4	Horiz 246
24	273.810M	32.6	-26.5	+12.4	+3.8	+10.0 201	32.3	46.0	-13.7	Horiz 229
25	123.930M	33.4	-27.2	+11.1	+2.5	+10.0 258	29.8	43.5	-13.7	Horiz 286
26	59.820M QP	35.6	-27.3	+6.1	+1.7	+10.0 88	26.1	40.0	-13.9	Horiz 212
^	59.820M	43.1	-27.3	+6.1	+1.7	+10.0 88	33.6	40.0	-6.4	Horiz 212
28	280.670M	32.1	-26.5	+12.5	+3.9	+10.0 201	32.0	46.0	-14.0	Horiz 229
29	225.700M	34.6	-26.5	+10.3	+3.4	+10.0 238	31.8	46.0	-14.2	Horiz 246
30	123.380M	32.9	-27.2	+11.1	+2.5	+10.0 258	29.3	43.5	-14.2	Horiz 286
31	277.370M	31.9	-26.5	+12.5	+3.8	+10.0 201	31.7	46.0	-14.3	Horiz 229
32	272.070M	32.0	-26.5	+12.4	+3.8	+10.0 201	31.7	46.0	-14.3	Horiz 229

33	118.370M	33.1	-27.2	+10.8	+2.5	+10.0 258	29.2	43.5	-14.3	Horiz 286
34	285.950M	31.4	-26.5	+12.6	+3.9	+10.0 201	31.4	46.0	-14.6	Horiz 229
35	120.880M	32.6	-27.2	+11.0	+2.5	+10.0 258	28.9	43.5	-14.6	Horiz 286
36	121.640M	32.6	-27.2	+11.0	+2.5	+10.0 258	28.9	43.5	-14.6	Horiz 286
37	81.670M QP	33.4	-27.2	+6.9	+2.0	+10.0	25.1	40.0	-14.9	Verti 100
^	81.668M	42.6	-27.2	+6.9	+2.0	+10.0	34.3	40.0	-5.7	Verti 100
39	260.670M	31.7	-26.5	+12.2	+3.7	+10.0 201	31.1	46.0	-14.9	Horiz 229
40	124.930M	32.1	-27.2	+11.2	+2.5	+10.0 258	28.6	43.5	-14.9	Horiz 286
41	119.350M	32.3	-27.2	+10.9	+2.5	+10.0 258	28.5	43.5	-15.0	Horiz 286
42	256.410M	31.4	-26.5	+12.1	+3.7	+10.0 201	30.7	46.0	-15.3	Horiz 229
43	70.050M	34.0	-27.2	+5.7	+1.9	+10.0 291	24.4	40.0	-15.6	Verti 102
44	249.390M	31.0	-26.5	+12.0	+3.6	+10.0 201	30.1	46.0	-15.9	Horiz 229
45	254.650M	30.7	-26.5	+12.1	+3.6	+10.0 201	29.9	46.0	-16.1	Horiz 229
46	70.050M	31.8	-27.2	+5.7	+1.9	+10.0 93	22.2	40.0	-17.8	Horiz 212