RF IDEAS, INC. TEST REPORT

FOR THE

COMPUTER PROXIMITY DEVICE, BSE-PCPRXP-232 & BSE-PCPRXP-U

FCC PART 15 SUBPART C SECTION 15.207 & 15.209

COMPLIANCE

DATE OF ISSUE: JANUARY 27, 2005

PREPARED FOR:

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

P.O. No.: R-05011901
W.O. No.: 83108

PREPARED BY:

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

Date of test: January 20-21, 2005

Report No.: FC05-008

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ADMINISTRATIVE INFORMATION

DATE OF TEST:	January 20-21, 2005
DATE OF RECEIPT:	January 20, 2005
PURPOSE OF TEST:	To demonstrate the compliance of the Computer Proximity Device, BSE-PCPRXP-232 & BSE-PCPRXP-U 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. 4238 B Arlington Heights Rd. Arlington Heights, IL 60004
REPRESENTATIVE:	Rick Landuyt
TEST LOCATION:	CKC Laboratories, Inc. 5473A Clouds Rest Mariposa, CA 95338

SUMMARY OF RESULTS

It is the opinion of CKC Laboratories that the Computer Proximity Device, BSE-PCPRXP-232 & BSE-PCPRXP-U was found to be fully compliant with the following standards and specifications:

United States
- FCC Part 15 Subpart C Sections 15.207 & 15.209
- ANSI C63.4 (2001) method

FCC Site No. 784962

Canada

RSS-210 using:
- FCC Part 15 Subpart C Sections 15.207 & 15.209
- ANSI C63.4 (2001) method

Industry of Canada File No. IC 3082-D

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:

Mike Wilkinson, Lab Manager

Randy Clark, EMC Engineer

FCC 15.31(e) Voltage Variations
15.31(e) compliance was verified as follows: The AC line input to the host computer was varied from 85% to 115% and the EUT output observed. No change noted.

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

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

Laptop Power Supply
Manuf: Toshiba
Model: PA3083U-1ACA
Serial: 0201A0637130G
FCC ID: NA

Computer Proximity Device
Manuf: RF IDeas, Inc.
Model: BSE-PCPRXP-232
Serial: 122004-002
FCC ID: Pending

Computer Proximity Device
Manuf: RF IDeas, Inc.
Model: BSE-PCPRXP-U
Serial: 122004-001
FCC ID: Pending

Laptop Power Supply
Manuf: Toshiba
Model: PA3049U-1ACA
Serial: 0003A0221552G
FCC ID: NA

PERIPHERAL DEVICES

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

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

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

Printer Power Supply
Manuf: Astec Power Inc.
Model: C6409-60014
Serial: 9912 R00
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: FCC 15.207 Six Highest Conducted Emission Levels

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Lisn dB	HPF dB	Cable dB	dB	CORRECTED READING dBµV	SPEC LIMIT dBµV	MARGIN dB	NOTES
0.150727	48.8	0.3	2.6	0.1		51.8	56.0	-4.2	W-2
0.153636	49.9	0.4	2.4	0.1		52.8	55.8	-3.0	B-2
0.154363	49.9	0.4	2.3	0.1		52.7	55.8	-3.1	B-U
0.155090	51.1	0.3	2.2	0.1		53.7	55.7	-2.0	W-2
0.155818	48.6	0.3	2.2	0.1		51.2	55.7	-4.5	W-U
0.159454	50.2	0.4	1.8	0.1		52.5	55.5	-3.0	B-2

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

NOTES:
B = Black Lead
W = White Lead
2 = 232
U = USB

COMMENTS: EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. Frequency range investigated: 150 kHz-30 MHz. Temperature: 21ºC, Relative Humidity: 42%.

Table 2: FCC 15.209 Fundamental Emission Levels

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Ant dB		Cable dB	Corr dB	CORRECTED READING dBµV/m	SPEC LIMIT dBµV/m	MARGIN DB	NOTES
0.125	58.6	9.6		0.1	-80.0	-11.7	25.7	-37.4	V-U
0.125	58.3	9.6		0.1	-80.0	-12.0	25.7	-37.7	H-2
0.125	52.7	9.6		0.1	-80.0	-17.6	25.7	-43.3	V-2
0.125	52.5	9.6		0.1	-80.0	-17.8	25.7	-43.5	V-U

Test Method: ANSI C63.4 (2001)
Spec Limit: FCC Part 15 Subpart C Section 15.209
Test Distance: 3 Meters

NOTES: H = Horizontal Polarization
V = Vertical Polarization
2 = 232
U = USB

COMMENTS: EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. EUT is tested in three orthogonal orientations, the worst case emissions are reported. Test distance correction factor used in accordance with 15.31, 40dB per decade to correct test data for comparison to the applicable limit. Frequency range investigated: Carrier. Temperature: 18ºC, Relative Humidity: 45%. 15.31e compliance was verified as follows: The AC line input to the host computer was varied from 85% to 115% and the EUT output observed. No change noted.

Table 3: FCC 15.209 Six Highest Radiated Emission Levels: 9kHz - 30MHz									
	METER	CORRECTION FACTORS				CORRECTED	SPEC		
FREQUENCY MHz	READING dBµV	Ant dB	Amp dB	Cable dB	Corr dB	READING dBµV/m	LIMIT dBµV/m	MARGIN DB	NOTES
0.500	29.6	9.6		0.2	-40.0	-0.6	33.6	-34.2	V
0.625	30.5	9.6		0.2	-40.0	0.3	31.7	-31.4	V
0.750	27.6	9.7		0.2	-40.0	-2.5	30.1	-32.6	V
0.875	27.3	9.7		0.2	-40.0	-2.8	28.7	-31.5	V
1.000	24.1	9.8		0.3	-40.0	-5.8	27.6	-33.4	V
1.125	22.0	9.8		0.3	-40.0	-7.9	26.5	-34.4	V

Test Method: ANSI C63.4 (2001)
Spec Limit: FCC Part 15 Subpart C Section 15.209
Test Distance: 3 Meters

NOTES: V = Vertical Polarization

COMMENTS: EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. EUT is tested in three orthogonal orientations, the worst case emissions are reported. Test distance correction factor used in accordance with 15.31, 40dB per decade to correct test data for comparison to the applicable limit. Frequency range investigated: 9kHz - 30MHz. Temperature: 18ºC, Relative Humidity: 45%. **Readings represent ambient noise floor. No EUT Signals detected within 20dB of the limit.** All the readings in this table came from the 232 model.

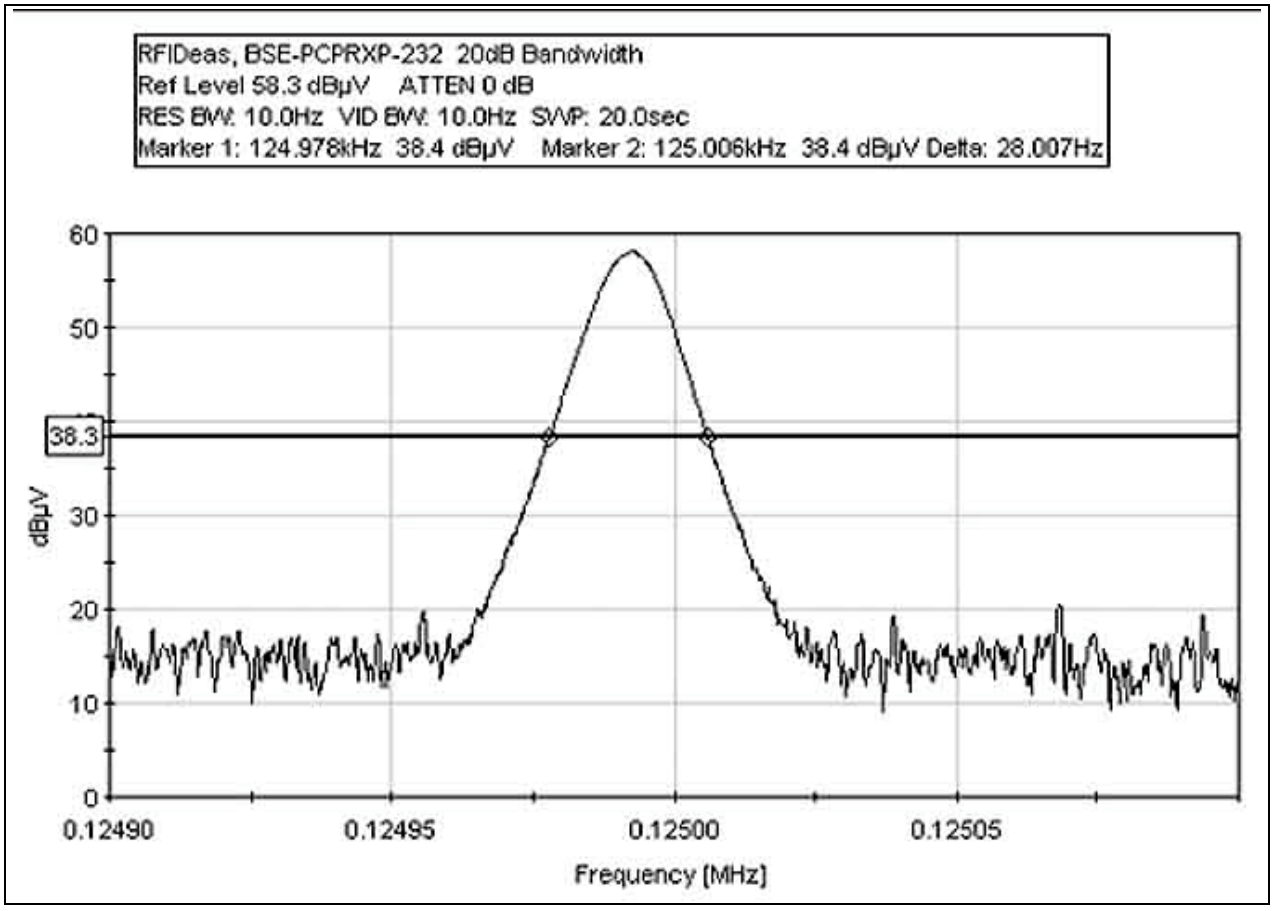
Table 4: FCC 15.209 Six Highest Radiated Emission Levels: 30-1000MHz									
	METER	CORRECTION FACTORS				CORRECTED	SPEC		
FREQUENCY MHz	READING dBµV	Ant dB	Amp dB	Cable dB	Dist dB	READING dBµV/m	LIMIT dBµV/m	MARGIN DB	NOTES
48.890	40.5	8.6	-27.3	1.6	10.0	33.4	40.0	-6.6	V-U
51.160	40.8	8.0	-27.3	1.6	10.0	33.1	40.0	-6.9	V-U
53.250	42.7	7.5	-27.3	1.6	10.0	34.5	40.0	-5.5	V-2
81.810	42.4	7.0	-27.2	2.0	10.0	34.2	40.0	-5.8	V-2
82.510	41.4	7.1	-27.1	2.1	10.0	33.5	40.0	-6.5	V-2
85.530	38.5	7.5	-27.1	2.1	10.0	31.0	40.0	-9.0	V-2

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

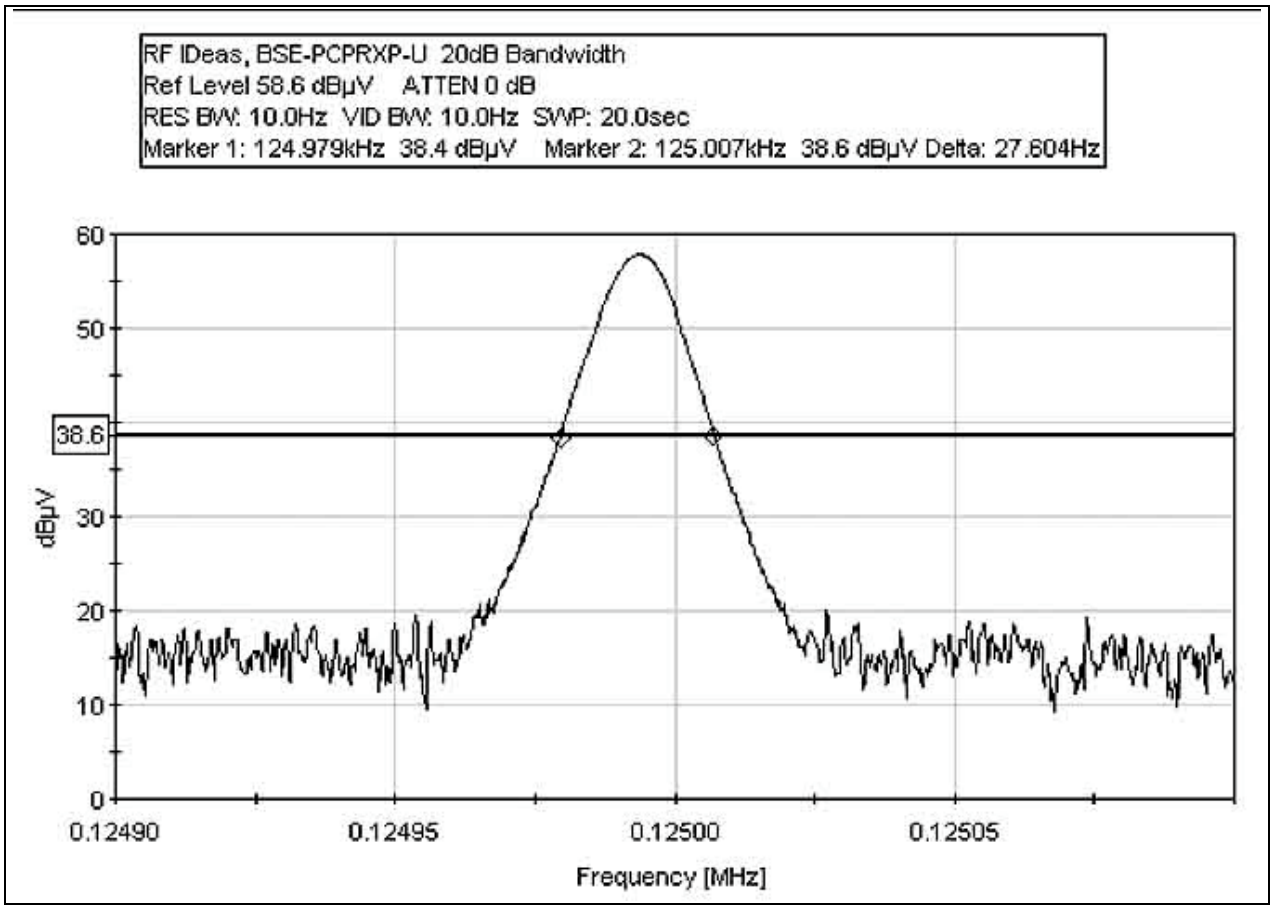
NOTES: V = Vertical Polarization
2 = 232
U = USB

COMMENTS: EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. EUT is tested in three orthogonal orientations, the worst case emissions are reported. Test distance correction factor used in accordance with 15.31, 20dB per decade to correct test data for comparison to the applicable limit. Frequency range investigated: 30-1000MHz. Temperature: 18ºC, Relative Humidity: 45%.

20dB BANDWIDTH - 232



20dB BANDWIDTH - USB



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 dBµV/m, the spectrum analyzer reading in dBµV 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	(dBµV)
+	Antenna Factor	(dB)
+	Cable Loss	(dB)
-	Distance Correction	(dB)
-	Preamplifier Gain	(dB)
=	Corrected Reading	(dBµV/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 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 dBµV, 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 - 232

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

Mains Conducted Emissions - Side View - 232

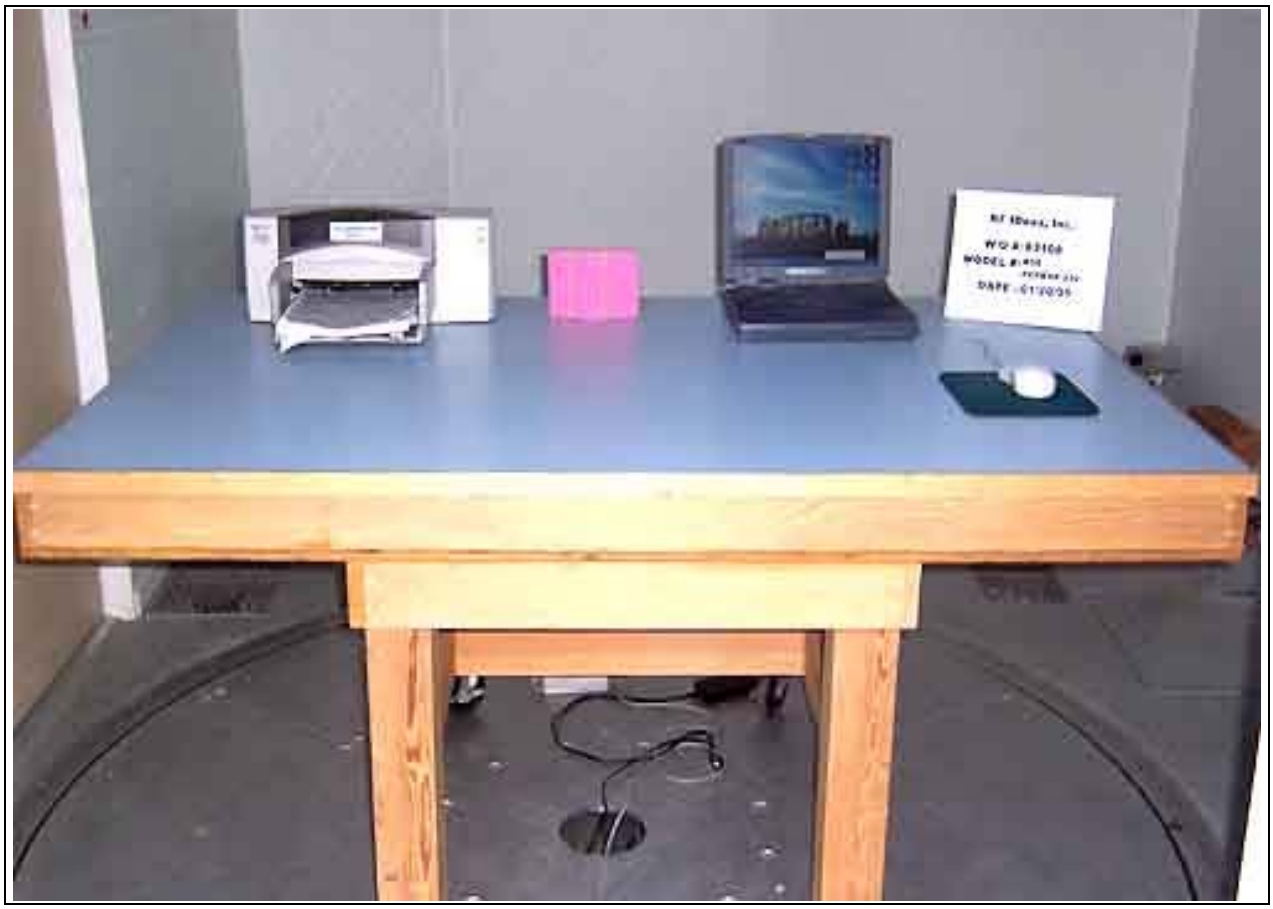
PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

Mains Conducted Emissions - Front View - USB

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

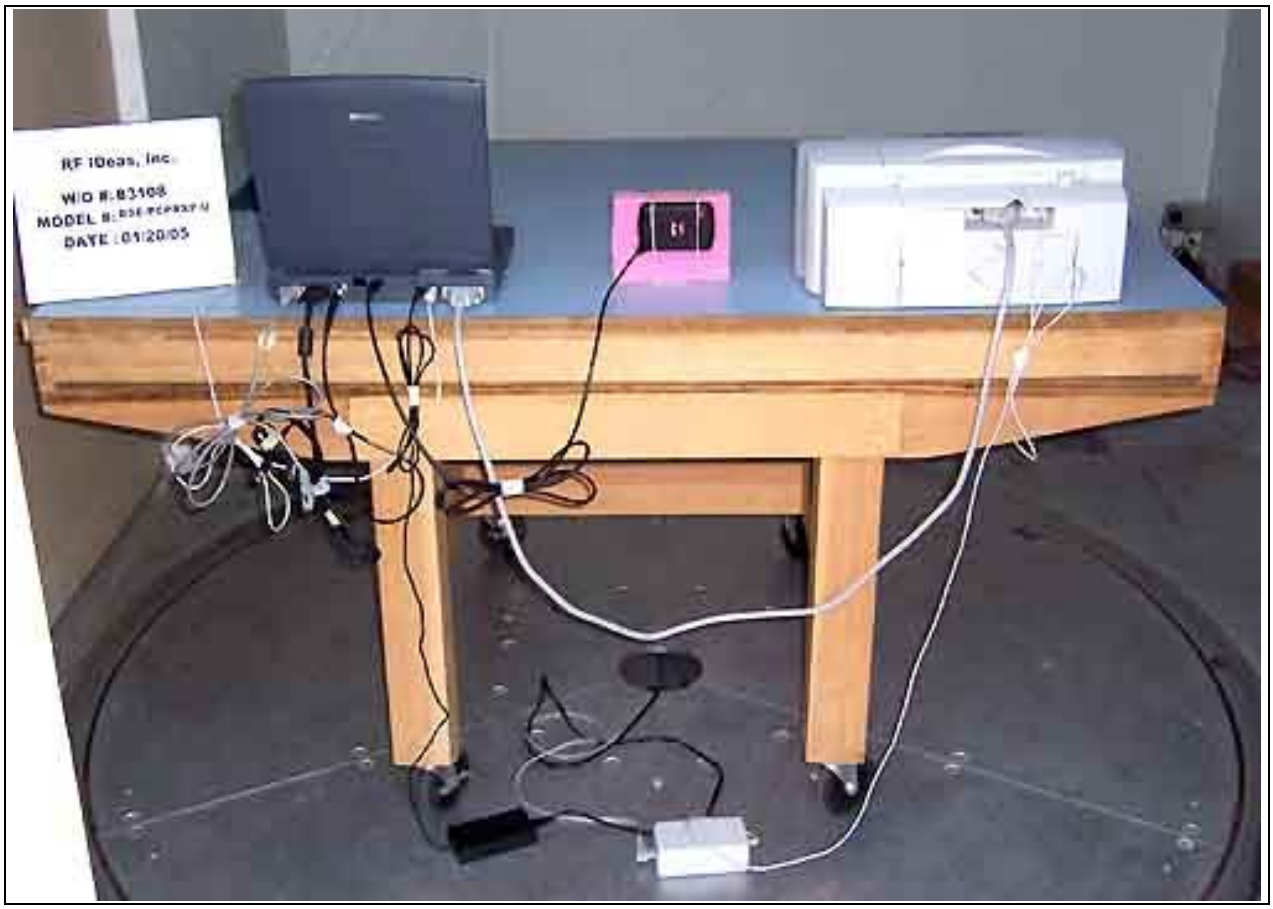
Mains Conducted Emissions - Side View - USB

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Front View - 232

PHOTOGRAPH SHOWING RADIATED EMISSIONS

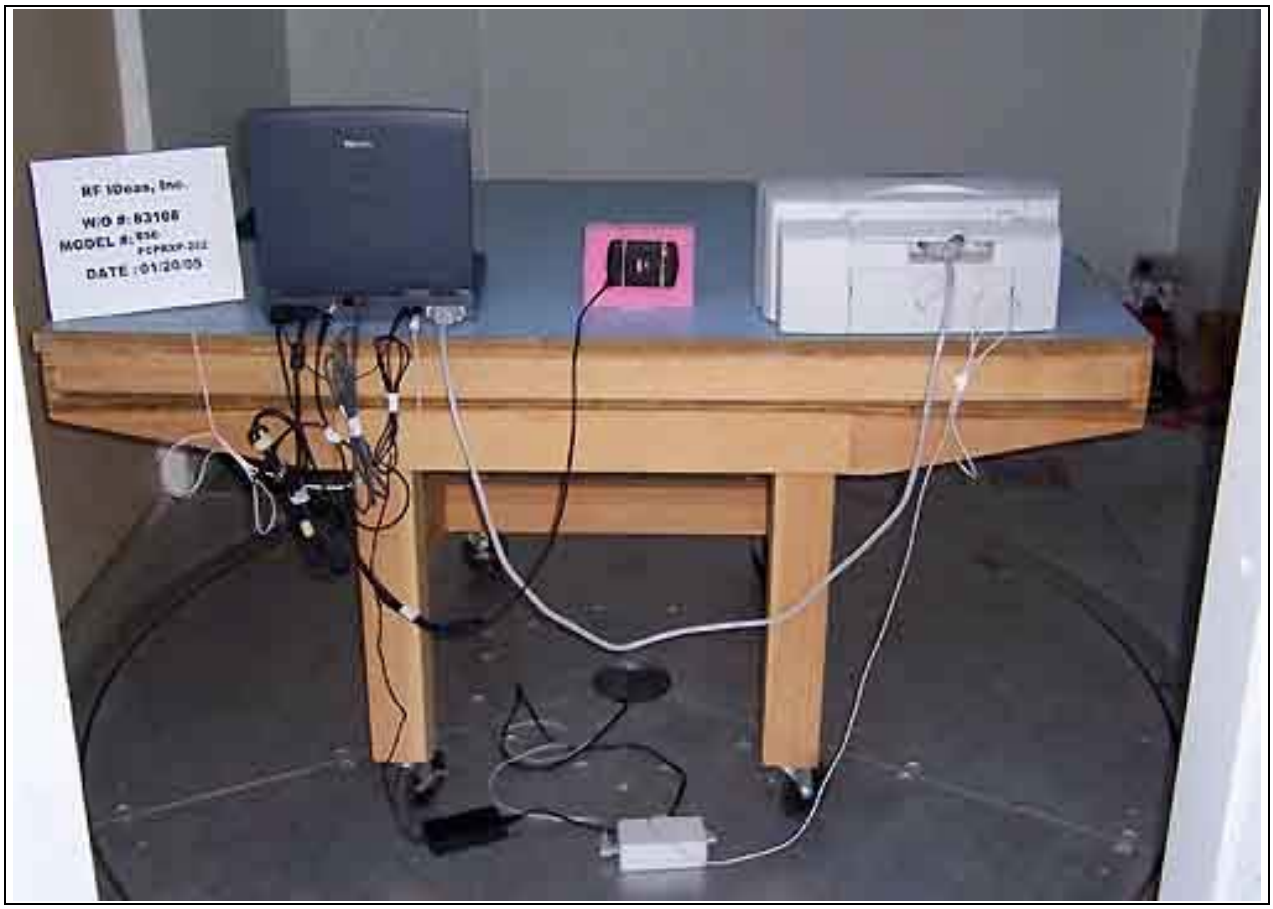


Radiated Emissions - Back View - 232

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View - USB

PHOTOGRAPH SHOWING RADIATED EMISSIONS



Radiated Emissions - Back View – USB

APPENDIX B

TEST EQUIPMENT LIST

FCC 15.207

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

15.209 Fundamental and 15.209 9kHz – 30MHz

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
EMCO Loop Antenna	1074	05/21/2003	05/21/2005	00226

15.209 30-1000MHz

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	06/26/2003	06/26/2005	01991

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 #: **83108** Date: 01/21/2005
Test Type: **Conducted Emissions** Time: 10:55:09 AM
Equipment: **Computer Proximity Device** Sequence#: 32
Manufacturer: RF IDeas, Inc. Tested By: Mike Wilkinson
Model: BSE-PCPRXP-232 120V 60Hz
S/N: 122004-002

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3083U-1ACA	0201A0637130G
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-232	122004-002

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. Frequency range investigated: 150 kHz-30 MHz. Temperature: 21ºC, Relative Humidity: 42%.

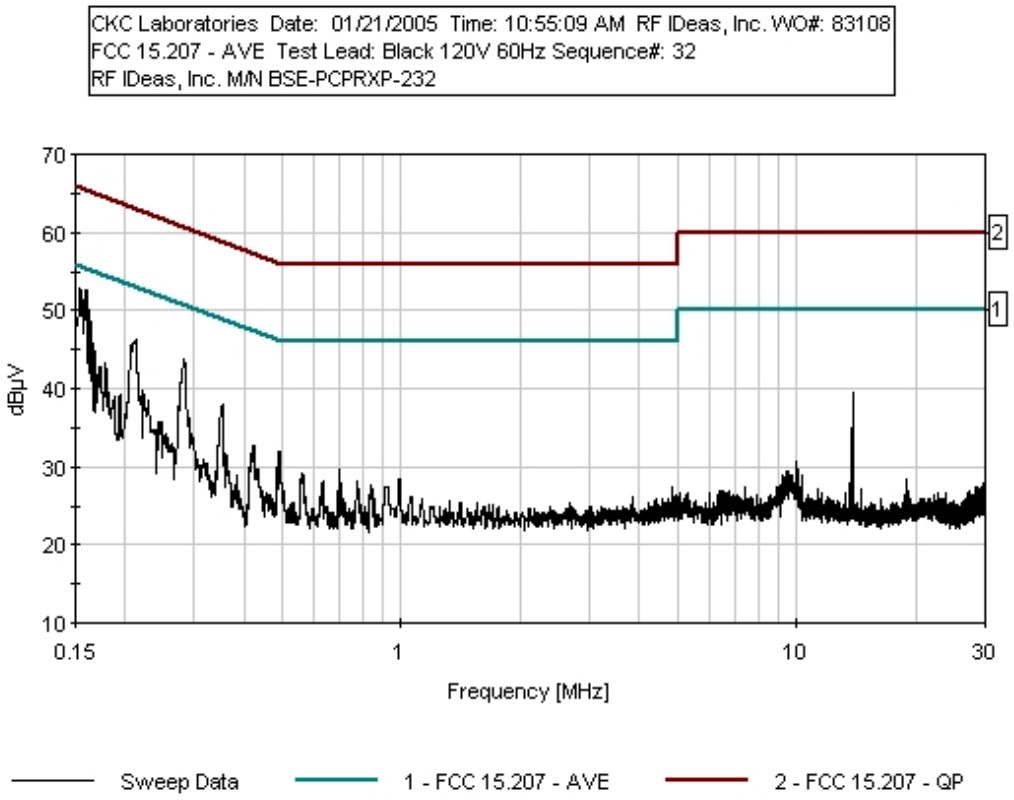
Transducer Legend:

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

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	153.636k	49.9	+0.1	+0.4	+2.4		+0.0	52.8	55.8	-3.0	Black
2	159.454k	50.2	+0.1	+0.4	+1.8		+0.0	52.5	55.5	-3.0	Black
3	161.635k	48.0	+0.1	+0.4	+1.6		+0.0	50.1	55.4	-5.3	Black
4	164.544k	46.6	+0.1	+0.4	+1.4		+0.0	48.5	55.2	-6.7	Black
5	213.266k	45.7	+0.1	+0.4	+0.1		+0.0	46.3	53.1	-6.8	Black
6	281.623k	43.2	+0.1	+0.3	+0.2		+0.0	43.8	50.8	-7.0	Black
7	167.453k	43.3	+0.1	+0.4	+1.1		+0.0	44.9	55.1	-10.2	Black
8	274.351k	40.2	+0.1	+0.3	+0.2		+0.0	40.8	51.0	-10.2	Black

9	13.834M	38.4	+0.4	+0.5	+0.1	+0.0	39.4	50.0	-10.6	Black
10	353.616k	37.5	+0.1	+0.4	+0.1	+0.0	38.1	48.9	-10.8	Black
11	178.361k	42.4	+0.1	+0.4	+0.4	+0.0	43.3	54.6	-11.3	Black
12	172.543k	41.6	+0.1	+0.4	+0.7	+0.0	42.8	54.8	-12.0	Black
13	180.542k	41.5	+0.1	+0.4	+0.4	+0.0	42.4	54.5	-12.1	Black
14	223.447k	38.5	+0.1	+0.4	+0.2	+0.0	39.2	52.7	-13.5	Black
15	487.421k	31.4	+0.1	+0.3	+0.2	+0.0	32.0	46.2	-14.2	Black
16	194.359k	38.6	+0.1	+0.4	+0.1	+0.0	39.2	53.8	-14.6	Black
17	421.246k	32.0	+0.1	+0.4	+0.2	+0.0	32.7	47.4	-14.7	Black
18	242.354k	34.8	+0.1	+0.4	+0.3	+0.0	35.6	52.0	-16.4	Black
19	483.785k	29.3	+0.1	+0.3	+0.2	+0.0	29.9	46.3	-16.4	Black
20	696.854k	28.9	+0.1	+0.3	+0.3	+0.0	29.6	46.0	-16.4	Black


CKC Laboratories Date: 01/21/2005 Time: 10:55:09 AM RF IDeas, Inc. WO#: 83108
FCC 15.207 - AVE Test Lead: Black 120V 60Hz Sequence#: 32
RF IDeas, Inc. M/N BSE-PCPRXP-232
70
60
50
40
30
20
10
dBµV
0.15
1
10
30
Frequency [MHz]
2
1
Sweep Data
1 - FCC 15.207 - AVE
2 - FCC 15.207 - QP

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 #: **83108** Date: 01/21/2005
Test Type: **Conducted Emissions** Time: 11:02:16 AM
Equipment: **Computer Proximity Device** Sequence#: 33
Manufacturer: RF IDeas, Inc. Tested By: Mike Wilkinson
Model: BSE-PCPRXP-232 120V 60Hz
S/N: 122004-002

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3083U-1ACA	0201A0637130G
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-232	122004-002

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. Frequency range investigated: 150 kHz-30 MHz. Temperature: 21ºC, Relative Humidity: 42%.

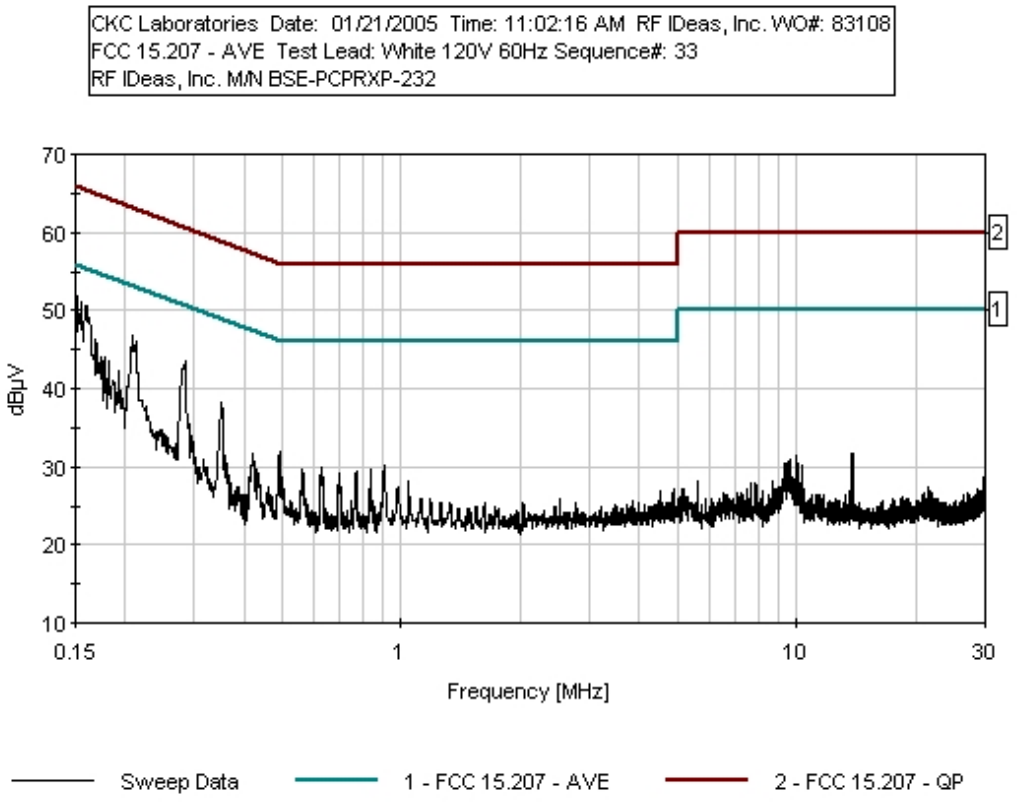
Transducer Legend:

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

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	150.727k	48.8	+0.1	+0.3	+2.6		+0.0	51.8	56.0	-4.2	White
2	155.818k	48.6	+0.1	+0.3	+2.2		+0.0	51.2	55.7	-4.5	White
3	159.454k	48.4	+0.1	+0.3	+1.8		+0.0	50.6	55.5	-4.9	White
4	208.176k	46.4	+0.1	+0.3	+0.1		+0.0	46.9	53.3	-6.4	White
5	283.805k	43.0	+0.1	+0.2	+0.2		+0.0	43.5	50.7	-7.2	White
6	177.634k	43.3	+0.1	+0.3	+0.4		+0.0	44.1	54.6	-10.5	White
7	351.434k	37.7	+0.1	+0.3	+0.1		+0.0	38.2	48.9	-10.7	White
8	181.270k	42.7	+0.1	+0.3	+0.4		+0.0	43.5	54.4	-10.9	White

9	494.693k	31.4	+0.1	+0.3	+0.2	+0.0	32.0	46.1	-14.1	White
10	422.700k	31.2	+0.1	+0.3	+0.2	+0.0	31.8	47.4	-15.6	White
11	906.771k	29.5	+0.2	+0.2	+0.2	+0.0	30.1	46.0	-15.9	White
12	629.225k	29.3	+0.1	+0.2	+0.3	+0.0	29.9	46.0	-16.1	White
13	837.204k	29.1	+0.1	+0.2	+0.3	+0.0	29.7	46.0	-16.3	White
14	561.595k	29.0	+0.1	+0.2	+0.3	+0.0	29.6	46.0	-16.4	White
15	768.847k	28.9	+0.1	+0.2	+0.3	+0.0	29.5	46.0	-16.5	White
16	696.127k	28.6	+0.1	+0.2	+0.3	+0.0	29.2	46.0	-16.8	White
17	1.047M	27.5	+0.2	+0.3	+0.2	+0.0	28.2	46.0	-17.8	White
18	13.825M	30.8	+0.4	+0.4	+0.1	+0.0	31.7	50.0	-18.3	White
19	10.005M	30.7	+0.3	+0.4	+0.1	+0.0	31.5	50.0	-18.5	White
20	979.072k	26.7	+0.2	+0.3	+0.2	+0.0	27.4	46.0	-18.6	White


CKC Laboratories Date: 01/21/2005 Time: 11:02:16 AM RF IDeas, Inc. WO#: 83108
FCC 15.207 - AVE Test Lead: White 120V 60Hz Sequence#: 33
RF IDeas, Inc. M/N BSE-PCPRXP-232
70
60
50
40
30
20
10
dBµV
0.15
1
10
30
Frequency [MHz]
2
1
Sweep Data
1 - FCC 15.207 - AVE
2 - FCC 15.207 - QP

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 #: **83108** Date: 01/21/2005
Test Type: **Conducted Emissions** Time: 10:11:17 AM
Equipment: **Computer Proximity Device** Sequence#: 31
Manufacturer: RF IDeas, Inc. Tested By: Mike Wilkinson
Model: BSE-PCPRXP-U 120V 60Hz
S/N: 122004-001

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3083U-1ACA	0201A0637130G
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-U	122004-001

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. Frequency range investigated: 150 kHz-30 MHz. Temperature: 21ºC, Relative Humidity: 42%.

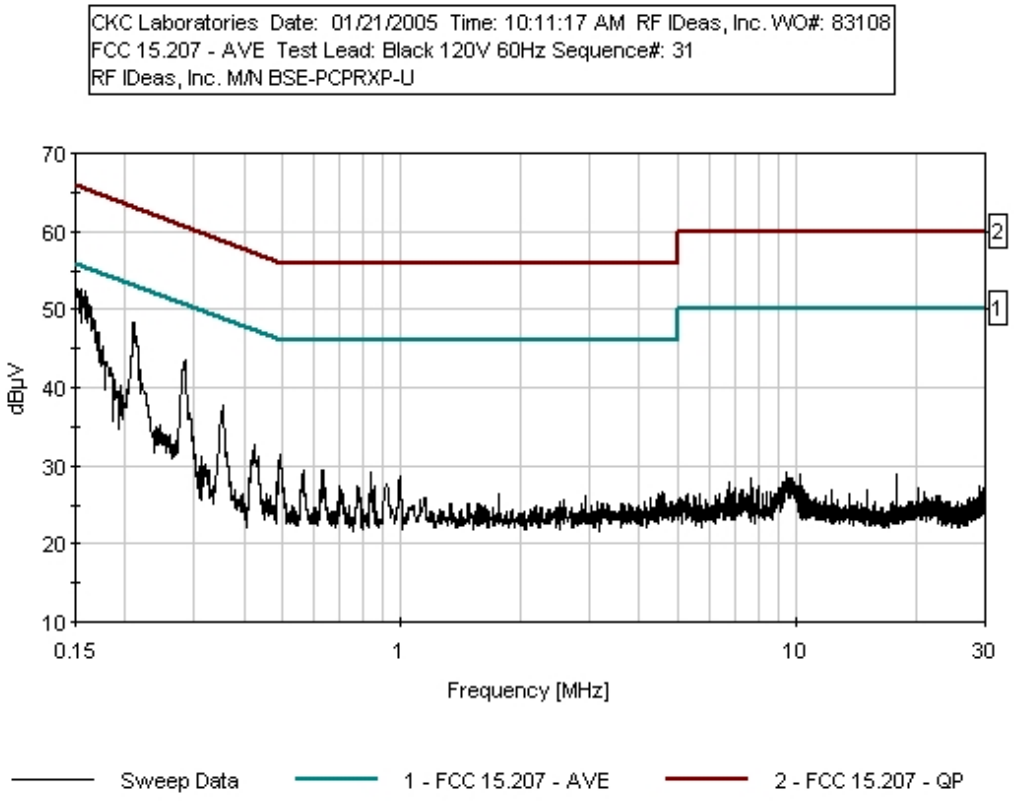
Transducer Legend:

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

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	154.363k	49.9	+0.1	+0.4	+2.3		+0.0	52.7	55.8	-3.1	Black
2	210.358k	47.6	+0.1	+0.4	+0.1		+0.0	48.2	53.2	-5.0	Black
3	283.805k	42.9	+0.1	+0.3	+0.2		+0.0	43.5	50.7	-7.2	Black
4	179.088k	42.5	+0.1	+0.4	+0.4		+0.0	43.4	54.5	-11.1	Black
5	353.616k	37.2	+0.1	+0.4	+0.1		+0.0	37.8	48.9	-11.1	Black
6	187.814k	40.4	+0.1	+0.4	+0.2		+0.0	41.1	54.1	-13.0	Black
7	194.359k	39.7	+0.1	+0.4	+0.1		+0.0	40.3	53.8	-13.5	Black
8	426.336k	32.1	+0.1	+0.4	+0.2		+0.0	32.8	47.3	-14.5	Black

9	492.511k	30.9	+0.1	+0.3	+0.2	+0.0	31.5	46.1	-14.6	Black
10	632.134k	28.8	+0.1	+0.3	+0.3	+0.0	29.5	46.0	-16.5	Black
11	566.686k	28.8	+0.1	+0.3	+0.2	+0.0	29.4	46.0	-16.6	Black
12	836.477k	28.5	+0.1	+0.2	+0.3	+0.0	29.1	46.0	-16.9	Black
13	991.831k	27.9	+0.2	+0.3	+0.2	+0.0	28.6	46.0	-17.4	Black
14	482.330k	27.4	+0.1	+0.3	+0.2	+0.0	28.0	46.3	-18.3	Black
15	915.277k	26.9	+0.2	+0.3	+0.2	+0.0	27.6	46.0	-18.4	Black
16	772.483k	26.9	+0.1	+0.2	+0.3	+0.0	27.5	46.0	-18.5	Black
17	852.475k	26.7	+0.1	+0.3	+0.3	+0.0	27.4	46.0	-18.6	Black
18	311.438k	30.5	+0.1	+0.3	+0.2	+0.0	31.1	49.9	-18.8	Black
19	4.577M	25.9	+0.3	+0.4	+0.1	+0.0	26.7	46.0	-19.3	Black
20	4.607M	25.7	+0.3	+0.4	+0.1	+0.0	26.5	46.0	-19.5	Black


CKC Laboratories Date: 01/21/2005 Time: 10:11:17 AM RF IDeas, Inc. WO#: 83108
FCC 15.207 - AVE Test Lead: Black 120V 60Hz Sequence#: 31
RF IDeas, Inc. M/N BSE-PCPRXP-U
70
60
50
40
30
20
10
dBµV
0.15
1
10
30
Frequency [MHz]
2
1
Sweep Data
1 - FCC 15.207 - AVE
2 - FCC 15.207 - QP

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 #: **83108** Date: 01/21/2005
Test Type: **Conducted Emissions** Time: 10:01:32 AM
Equipment: **Computer Proximity Device** Sequence#: 30
Manufacturer: RF IDeas, Inc. Tested By: Mike Wilkinson
Model: BSE-PCPRXP-U 120V 60Hz
S/N: 122004-001

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3083U-1ACA	0201A0637130G
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-U	122004-001

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. Frequency range investigated: 150 kHz-30 MHz. Temperature: 21ºC, Relative Humidity: 42%.

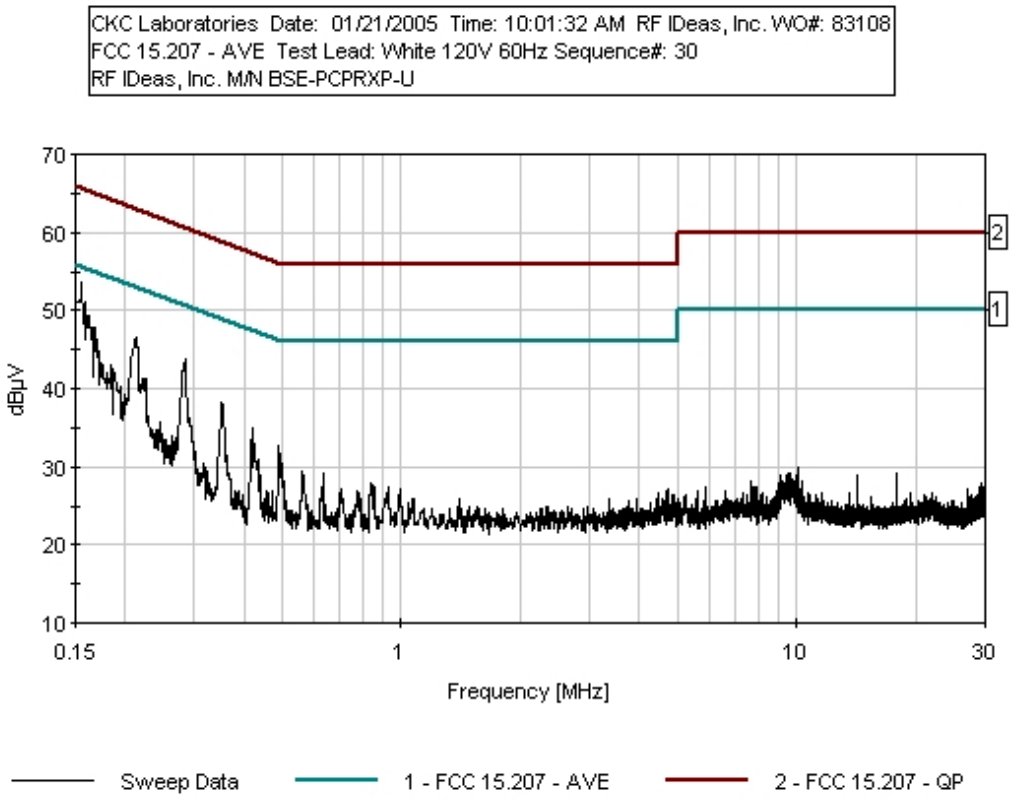
Transducer Legend:

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

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV	Spec dBµV	Margin dB	Polar Ant
1	155.090k	51.1	+0.1	+0.3	+2.2		+0.0	53.7	55.7	-2.0	White
2	213.266k	46.1	+0.1	+0.3	+0.1		+0.0	46.6	53.1	-6.5	White
3	284.532k	43.4	+0.1	+0.2	+0.2		+0.0	43.9	50.7	-6.8	White
4	167.453k	46.2	+0.1	+0.3	+1.1		+0.0	47.7	55.1	-7.4	White
5	351.434k	37.8	+0.1	+0.3	+0.1		+0.0	38.3	48.9	-10.6	White
6	186.360k	41.7	+0.1	+0.3	+0.3		+0.0	42.4	54.2	-11.8	White
7	419.064k	34.3	+0.1	+0.3	+0.2		+0.0	34.9	47.5	-12.6	White
8	423.427k	33.3	+0.1	+0.3	+0.2		+0.0	33.9	47.4	-13.5	White

9	490.330k	32.1	+0.1	+0.3	+0.2	+0.0	32.7	46.2	-13.5	White
10	415.428k	32.8	+0.1	+0.3	+0.2	+0.0	33.4	47.5	-14.1	White
11	486.694k	31.3	+0.1	+0.3	+0.2	+0.0	31.9	46.2	-14.3	White
12	245.990k	35.2	+0.1	+0.2	+0.3	+0.0	35.8	51.9	-16.1	White
13	563.050k	28.8	+0.1	+0.2	+0.2	+0.0	29.3	46.0	-16.7	White
14	634.315k	28.6	+0.1	+0.2	+0.3	+0.0	29.2	46.0	-16.8	White
15	838.658k	27.4	+0.1	+0.2	+0.3	+0.0	28.0	46.0	-18.0	White
16	923.783k	26.9	+0.2	+0.2	+0.2	+0.0	27.5	46.0	-18.5	White
17	707.762k	26.6	+0.1	+0.2	+0.3	+0.0	27.2	46.0	-18.8	White
18	996.084k	26.4	+0.2	+0.3	+0.2	+0.0	27.1	46.0	-18.9	White
19	4.709M	26.4	+0.3	+0.3	+0.1	+0.0	27.1	46.0	-18.9	White
20	4.662M	26.2	+0.3	+0.3	+0.1	+0.0	26.9	46.0	-19.1	White


CKC Laboratories Date: 01/21/2005 Time: 10:01:32 AM RF IDeas, Inc. WO#: 83108
FCC 15.207 - AVE Test Lead: White 120V 60Hz Sequence#: 30
RF IDeas, Inc. M/N BSE-PCPRXP-U
70
60
50
40
30
20
10
dBµV
0.15
1
10
30
Frequency [MHz]
2
1
Sweep Data
1 - FCC 15.207 - AVE
2 - FCC 15.207 - QP

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 #: **83108** Date: 01/20/2005
Test Type: **Maximized Emissions** Time: 11:20:02
Equipment: **Computer Proximity Device** Sequence#: 21
Manufacturer: RF IDeas, Inc. Tested By: Randal Clark
Model: BSE-PCPRXP-232
S/N: 122004-002

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3049U-1ACA	0003A0221552G
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-232	122004-002

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. EUT is tested in three orthogonal orientations, the worst case emissions are reported. Test distance correction factor used in accordance with 15.31, 40dB per decade to correct test data for comparison to the applicable limit. Frequency range investigated: Carrier. Temperature: 18ºC, Relative Humidity: 45%. 15.31e compliance was verified as follows: The AC line input to the host computer was varied from 85% to 115% and the EUT output observed. No change noted.

Transducer Legend:

T1=Cable - 10 Meter	T2=Mag Loop - Site B - AN 00226 - 9kHz-30M
T3=15.31 3m 40dB/Dec Correction	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	124.988k	58.3	+0.1	+9.6	-80.0		+0.0 180	-12.0	25.7	-37.7	Horiz 100
2	124.962k	52.7	+0.1	+9.6	-80.0		+0.0	-17.6	25.7	-43.3	Verti 100

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 #: **83108** Date: 01/20/2005
Test Type: **Maximized Emissions** Time: 11:40:24
Equipment: **Computer Proximity Device** Sequence#: 2
Manufacturer: RF IDeas, Inc. Tested By: Randal Clark
Model: BSE-PCPRXP-U
S/N: 122004-001

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-U	122004-001
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3049U-1ACA	0003A0221552G

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. EUT is tested in three orthogonal orientations, the worst case emissions are reported. Test distance correction factor used in accordance with 15.31, 40dB per decade to correct test data for comparison to the applicable limit. Frequency range investigated: 125kHz. Temperature: 18ºC, Relative Humidity: 45%. 15.31e compliance was verified as follows: The AC line input to the host computer was varied from 85% to 115% and the EUT output observed. No change noted.

Transducer Legend:

T1=Cable - 10 Meter	T2=Mag Loop - Site B - AN 00226 - 9kHz-30M
T3=15.31 3m 40dB/Dec Correction	

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	124.960k	58.6	+0.1	+9.6	-80.0		+0.0 180	-11.7	25.7	-37.4	Verti 100
2	124.960k	52.5	+0.1	+9.6	-80.0		+0.0 180	-17.8	25.7	-43.5	Verti 100

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 #:	**83108**	Date:	01/20/2005
Test Type:	**Maximized Emissions**	Time:	11:29:08
Equipment:	**Computer Proximity Device**	Sequence#:	22
Manufacturer:	RF IDeas, Inc.	Tested By:	Randal Clark
Model:	BSE-PCPRXP-232	S/N:	122004-002

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3049U-1ACA	0003A0221552G
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-232	122004-002

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. EUT is tested in three orthogonal orientations, the worst case emissions are reported. Test distance correction factor used in accordance with 15.31, 40dB per decade to correct test data for comparison to the applicable limit. Frequency range investigated: 9kHz - 30MHz. Temperature: 18ºC, Relative Humidity: 45%. Readings represent ambient noise floor. No EUT Signals detected within 20dB of the limit.

Transducer Legend:

T1=Cable - 10 Meter T2=Mag Loop - Site B - AN 00226 - 9kHz-30M
T3=15.31 3m 40dB/Dec Correction

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	624.960k	30.5	+0.2	+9.6	-40.0		+0.0 186	0.3	31.7	-31.4	Verti 100
2	874.944k	27.3	+0.2	+9.7	-40.0		+0.0 186	-2.8	28.7	-31.5	Verti 100
3	749.952k	27.6	+0.2	+9.7	-40.0		+0.0 186	-2.5	30.1	-32.6	Verti 100
4	999.936k	24.1	+0.3	+9.8	-40.0		+0.0 186	-5.8	27.6	-33.4	Verti 100
5	499.968k	29.6	+0.2	+9.6	-40.0		+0.0 186	-0.6	33.6	-34.2	Verti 100
6	1.125M	22.0	+0.3	+9.8	-40.0		+0.0 186	-7.9	26.5	-34.4	Verti 100
7	374.976k	39.0	+0.2	+9.6	-80.0		+0.0 186	-31.2	16.1	-47.3	Verti 100
8	249.984k	40.6	+0.1	+9.6	-80.0		+0.0 186	-29.7	19.6	-49.3	Verti 100

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 #:	**83108**	Date:	01/20/2005
Test Type:	**Maximized Emissions**	Time:	11:46:54
Equipment:	**Computer Proximity Device**	Sequence#:	3
Manufacturer:	RF IDeas, Inc.	Tested By:	Randal Clark
Model:	BSE-PCPRXP-U		
S/N:	122004-001		

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-U	122004-001
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3049U-1ACA	0003A0221552G

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. EUT is tested in three orthogonal orientations, the worst case emissions are reported. Test distance correction factor used in accordance with 15.31, 40dB per decade to correct test data for comparison to the applicable limit. Frequency range investigated: 9kHz - 30MHz. Temperature: 18ºC, Relative Humidity: 45%. Except where noted, readings represent ambient noise floor. No EUT Signals detected within 20dB of the limit.

Transducer Legend:

T1=Cable - 10 Meter T2=Mag Loop - Site B - AN 00226 - 9kHz-30M
T3=15.31 3m 40dB/Dec Correction

Measurement Data: Reading listed by margin. Test Distance: 3 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	749.958k	23.7	+0.2	+9.7	-40.0		+0.0	-6.4	30.1	-36.5	Verti 100
2	499.974k	26.4	+0.2	+9.6	-40.0		+0.0	-3.8	33.6	-37.4	Verti 100
3	624.966k	23.4	+0.2	+9.6	-40.0		+0.0	-6.8	31.7	-38.5	Verti 100
4	999.942k	18.1	+0.3	+9.8	-40.0		+0.0	-11.8	27.6	-39.4	Verti 100
5	874.950k	17.2	+0.2	+9.7	-40.0		+0.0	-12.9	28.7	-41.6	Verti 100
6	1.125M	14.3	+0.3	+9.8	-40.0		+0.0	-15.6	26.5	-42.1	Verti 100
7	374.850k	36.4	+0.2	+9.6	-80.0		+0.0	-33.8	16.1 3rd Harmonic	-49.9	Verti 100
8	249.990k	31.9	+0.1	+9.6	-80.0		+0.0	-38.4	19.6	-58.0	Verti 100

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 #: **83108** Date: 01/20/2005
Test Type: **Maximized Emissions** Time: 09:53:17
Equipment: **Computer Proximity Device** Sequence#: 20
Manufacturer: RF IDeas, Inc. Tested By: Randal Clark
Model: BSE-PCPRXP-232
S/N: 122004-002

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3049U-1ACA	0003A0221552G
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-232	122004-002

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. EUT is tested in three orthogonal orientations, the worst case emissions are reported. Test distance correction factor used in accordance with 15.31, 20dB per decade to correct test data for comparison to the applicable limit. Frequency range investigated: 30-1000MHz. Temperature: 18ºC, Relative Humidity: 45%.

Transducer Legend:

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

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	53.250M	42.7	+1.6	-27.3	+7.5		+10.0 130	34.5	40.0	-5.5	Verti 113
2	81.810M	42.4	+2.0	-27.2	+7.0		+10.0 111	34.2	40.0	-5.8	Verti 102
3	82.510M	41.4	+2.1	-27.1	+7.1		+10.0 111	33.5	40.0	-6.5	Verti 102
4	85.530M	38.5	+2.1	-27.1	+7.5		+10.0 111	31.0	40.0	-9.0	Verti 102
5	57.350M	39.7	+1.7	-27.3	+6.6		+10.0 130	30.7	40.0	-9.3	Verti 113
6	84.230M	38.2	+2.1	-27.1	+7.3		+10.0 111	30.5	40.0	-9.5	Verti 102
7	58.550M	38.8	+1.7	-27.3	+6.4		+10.0 130	29.6	40.0	-10.4	Verti 113
8	79.110M	38.2	+2.0	-27.2	+6.6		+10.0 111	29.6	40.0	-10.4	Verti 102

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 #: **83108** Date: 01/20/2005
Test Type: **Maximized Emissions** Time: 15:28:19
Equipment: **Computer Proximity Device** Sequence#: 1
Manufacturer: RF IDeas, Inc. Tested By: Randal Clark
Model: BSE-PCPRXP-U
S/N: 122004-001

***Equipment Under Test* (* = EUT):**

Function	Manufacturer	Model #	S/N
Computer Proximity Device*	RF IDeas, Inc.	BSE-PCPRXP-U	122004-001
Host Computer	Toshiba	PS426U-0M151	50683063U
Laptop Power Supply	Toshiba	PA3049U-1ACA	0003A0221552G

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

Test Conditions / Notes:

EUT is a computer proximity device operating on a frequency of 125kHz. RF Tag present in the field for continuous communication. EUT is powered via host computer. EUT is tested in three orthogonal orientations, the worst case emissions are reported. Test distance correction factor used in accordance with 15.31, 20dB per decade to correct test data for comparison to the applicable limit. Frequency range investigated: 30-1000MHz. Temperature: 18ºC, Relative Humidity: 45%.

Transducer Legend:

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

Measurement Data: Reading listed by margin. Test Distance: 10 Meters

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	T3 dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	48.890M	40.5	+1.6	-27.3	+8.6		+10.0	33.4	40.0	-6.6	Verti 100
2	51.160M	40.8	+1.6	-27.3	+8.0		+10.0	33.1	40.0	-6.9	Verti 100
3	142.950M	34.3	+2.7	-27.1	+10.7		+10.0 340	30.6	43.5	-12.9	Verti 109
4	138.300M	32.9	+2.7	-27.1	+10.9		+10.0 340	29.4	43.5	-14.1	Verti 109