

XceedID

ADDENDUM TEST REPORT FOR 90569-10

RFID Card Programmer, PG1000 (125kHz & 13.56MHz)

Tested to the following standards:

FCC Part 15 Subpart C Sections 15.207, 15.209 & 15.225

Report No.: 90569-10A

Date of issue: August 10, 2010



TESTING
CERT #803.01, 803.02,
803.05, 803.06

This test report bears the accreditation symbol indicating that the testing performed herein meets the test and reporting requirements of ISO/IEC 17025 under the applicable scope of EMC testing for CKC Laboratories, Inc.

We strive to create long-term, trust based relationships by providing sound, adaptive, customer first testing services. We embrace each of our customers' unique EMC challenges, not as an interruption to set processes, but rather as the reason we are in business.

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ADMINISTRATIVE INFORMATION

Test Report Information

REPORT PREPARED FOR:

XceedID
500 Golden Ridge Road, Bldg. 1
Golden, CO 80401

REPORT PREPARED BY:

Joyce Walker
CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

REPRESENTATIVE: Bryan Hoff

Project Number: 90569*

*Note: Trouble shooting was performed on 90685 and once completed references back to 90569 on the data sheets was not done. Therefore, data sheets reference 90685 but the data really is for project 90569

Customer Reference Number: 304839

DATE OF EQUIPMENT RECEIPT:

May 5, 2010

DATE(S) OF TESTING:

May 5 – June 1, 2010

Revision History

Original: Testing was performed on the RFID Card Programmer, PG1000 (125kHz and 13.56MHz) to FCC Part 15 Subpart C Sections 15.207, 15.209 & 15.225.

Addendum A: The conducted data sheet on pages 12-14 contained wrong data and has been replaced with the proper data for this project. Also replaced was the 15.225 Carrier plot which now shows the limit lines.

Report Authorization

The test data contained in this report documents the observed testing parameters pertaining to and are relevant for only the sample equipment tested in the agreed upon operational mode(s) and configuration(s) as identified herein. Compliance assessment remains the client's responsibility. This report may not be used to claim product endorsement by A2LA or any government agencies. This test report has been authorized for release under quality control from CKC Laboratories, Inc.

A handwritten signature in black ink that reads "Steve Behm".

Steve Behm
Director of Quality Assurance & Engineering Services
CKC Laboratories, Inc.

Test Facility Information



Our laboratories are configured to effectively test a wide variety of product types. CKC utilizes first class test equipment, anechoic chambers, data acquisition and information services to create accurate, repeatable and affordable test results.

TEST LOCATION(S):
CKC Laboratories, Inc.
5046 Sierra Pines Drive
Mariposa, CA 95338

Site Registration & Accreditation Information

Location	JAPAN	CANADA	FCC
Mariposa A	R-563, C-578 & T-1492, G-87	3082A-2	90477

SUMMARY OF RESULTS

Standard / Specification: FCC Part 15 Subpart C

125kHz Mode

Description	Test Procedure/Method	Results
Conducted Emissions	FCC Part 15 Subpart C Section 15.207 / ANSI C63.4 (2003)	Pass
Carrier Measurement	FCC Part 15 Subpart C Section 15.209 / ANSI C63.4 (2003)	Pass
20dB Bandwidth	FCC Part 15 Subpart C Section 15.209 / ANSI C63.4 (2003)	Pass
Spurious Emissions	FCC Part 15 Subpart C Section 15.209 / ANSI C63.4 (2003)	Pass
99% Bandwidth	RSS-210	Pass

13.56MHz Mode

Description	Test Procedure/Method	Results
Conducted Emissions	FCC Part 15 Subpart C Section 15.207 / ANSI C63.4 (2003)	Pass
Carrier Measurement	FCC Part 15 Subpart C Section 15.225(a) / ANSI C63.4 (2003)	Pass
20dB Bandwidth	FCC Part 15 Subpart C Section 15.225(a) / ANSI C63.4 (2003)	Pass
Emission Mask Plot	FCC Part 15 Subpart C Section 15.225(b)(c)(d) / ANSI C63.4 (2003)	Pass
Spurious Emissions	FCC Part 15 Subpart C Section 15.225(b)(c)(d) / ANSI C63.4 (2003)	Pass
Frequency Stability	FCC Part 15 Subpart C Section 15.225(e) / ANSI C63.4 (2003)	Pass
99% Bandwidth	RSS-210	Pass

Conditions During Testing

This list is a summary of the conditions noted for or modifications made to the equipment during testing.

Summary of Conditions
None

EQUIPMENT UNDER TEST (EUT)

The following model was tested by CKC Laboratories: **RFID Card Programmer, PG 1000**

Since the time of testing the manufacturer states that the model name has a typo. Any differences between the names does not affect their EMC characteristics and therefore meets the level of testing equivalent to the tested model name shown on the data sheets: **RFID Card Programmer, PG1000**

RFID Card Programmer

Manuf: XceedID

Model: PG1000

Serial: NA

PERIPHERAL DEVICES

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

Laptop Computer

Manuf: Lenovo

Model: SL410

Serial: LR-ZZW25 10/02

FCC PART 15 SUBPART C – GENERAL INFORMATION

This report contains EMC emissions test results under United States Federal Communications Commission (FCC) 47 CFR 15C requirements for Unlicensed Radio Frequency Devices, Subpart C - Intentional Radiators.

Temperature and Humidity During Testing

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

The relative humidity was between 20% and 75%.

15.33(a) Frequency Ranges Tested

15.207 Conducted Emissions: 150 kHz – 30 MHz

15.209/15.225/15.247 Radiated Emissions: 9 kHz – 1000 MHz

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.

EUT Operating Frequency

The EUT was operating at 125 kHz and 13.56 MHz.

FCC PART 15 SUBPART C – 125 KHZ

FCC 15.207 AC Conducted Emissions

Test Data Sheets

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **90685**
 Test Type: **Conducted Emissions**
 Equipment: **RFID Card Programmer**
 Manufacturer: XceedID
 Model: PG 1000
 S/N: Unknown

Date: 6/1/2010
 Time: 09:00:40
 Sequence#: 44
 Tested By: Chuck Kendall
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	ANP02229	Attenuator	PE7010-10	5/20/2009	5/20/2011
	AN00374	50uH LISN-WHITE LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
T3	AN00374	50uH LISN-BLACK LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN02111	Spectrum Analyzer	8593EM	3/6/2009	3/6/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

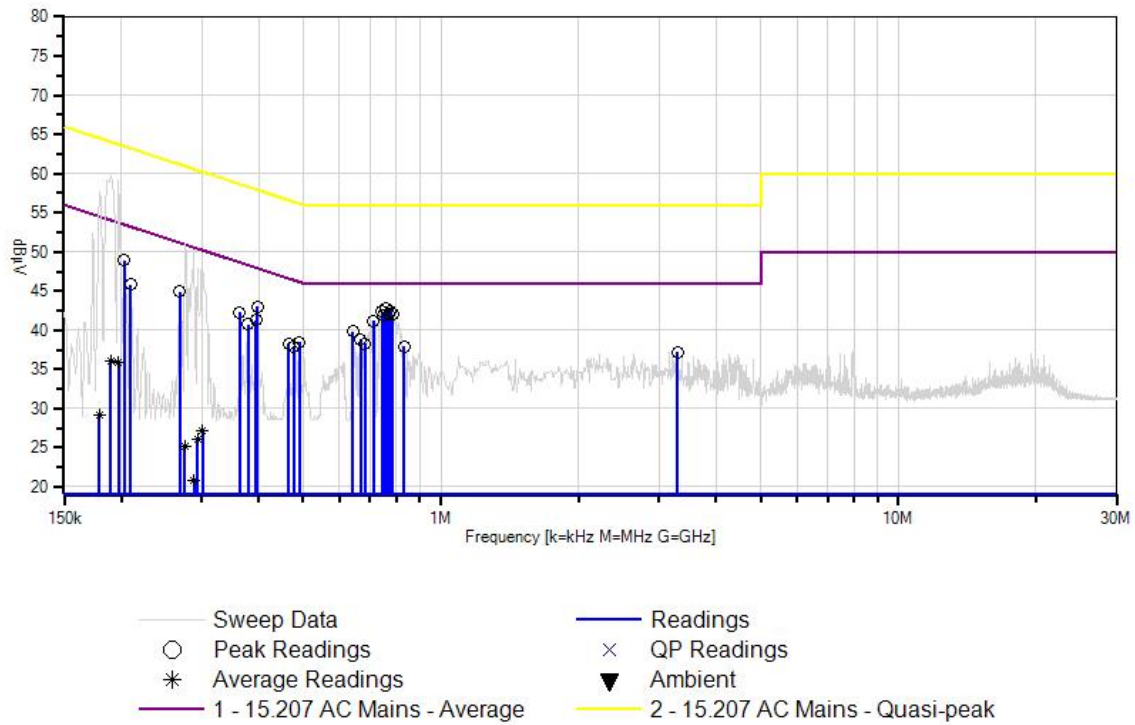
FCC 15.207 Class B Conducted Emissions
 Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).
 The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.
Card reader is activated by the 125 kHz card.
Transmitter and receiver are on during this run with the integral antenna.
 Frequencies of interest: 0.009 - 30 MHz
 From: 150 kHz to 30 MHz; RBW = 9 kHz, VBW = 30 kHz
 Temp = 72°F
 Humidity = 40 %
 Pressure = 97.7

Ext Attn: 0 dB

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	757.216k	32.6	+0.1	+9.9	+0.1		+0.0	42.7	46.0	-3.3	Black
2	775.396k	32.4	+0.1	+9.9	+0.1		+0.0	42.5	46.0	-3.5	Black
3	742.672k	32.4	+0.1	+9.9	+0.0		+0.0	42.4	46.0	-3.6	Black
4	768.124k	32.0	+0.1	+9.9	+0.1		+0.0	42.1	46.0	-3.9	Black
5	784.486k	31.9	+0.1	+9.9	+0.1		+0.0	42.0	46.0	-4.0	Black
6	746.308k	31.8	+0.1	+9.9	+0.0		+0.0	41.8	46.0	-4.2	Black
7	202.723k	39.1	+0.0	+9.7	+0.1		+0.0	48.9	53.5	-4.6	Black
8	711.766k	31.2	+0.1	+9.9	+0.0		+0.0	41.2	46.0	-4.8	Black
9	397.250k	33.0	+0.1	+9.8	+0.1		+0.0	43.0	47.9	-4.9	Black
10	642.682k	29.9	+0.1	+9.8	+0.0		+0.0	39.8	46.0	-6.2	Black
11	268.172k	35.0	+0.1	+9.8	+0.0		+0.0	44.9	51.2	-6.3	Black
12	362.708k	32.3	+0.1	+9.8	+0.1		+0.0	42.3	48.7	-6.4	Black
13	393.614k	31.3	+0.1	+9.8	+0.1		+0.0	41.3	48.0	-6.7	Black
14	668.134k	28.8	+0.1	+9.8	+0.0		+0.0	38.7	46.0	-7.3	Black
15	209.995k	36.0	+0.0	+9.7	+0.1		+0.0	45.8	53.2	-7.4	Black

16	379.070k	30.7	+0.1	+9.8	+0.1	+0.0	40.7	48.3	-7.6	Black
17	489.969k	28.5	+0.1	+9.8	+0.1	+0.0	38.5	46.2	-7.7	Black
18	682.678k	28.4	+0.1	+9.8	+0.0	+0.0	38.3	46.0	-7.7	Black
19	829.937k	27.8	+0.1	+9.9	+0.1	+0.0	37.9	46.0	-8.1	Black
20	464.517k	28.3	+0.1	+9.8	+0.1	+0.0	38.3	46.6	-8.3	Black
21	477.243k	27.8	+0.1	+9.8	+0.1	+0.0	37.8	46.4	-8.6	Black
22	3.286M	26.9	+0.3	+9.9	+0.1	+0.0	37.2	46.0	-8.8	Black
23	197.269k Ave	26.0	+0.0	+9.7	+0.1	+0.0	35.8	53.7	-17.9	Black
^	197.269k	49.4	+0.0	+9.7	+0.1	+0.0	59.2	53.7	+5.5	Black
25	189.997k Ave	26.3	+0.0	+9.7	+0.1	+0.0	36.1	54.0	-17.9	Black
^	189.997k	49.9	+0.0	+9.7	+0.1	+0.0	59.7	54.0	+5.7	Black
27	300.869k Ave	17.3	+0.1	+9.8	+0.0	+0.0	27.2	50.2	-23.0	Black
^	300.896k	38.6	+0.1	+9.8	+0.0	+0.0	48.5	50.2	-1.7	Black
29	293.624k Ave	16.1	+0.1	+9.8	+0.0	+0.0	26.0	50.4	-24.4	Black
^	293.624k	38.0	+0.1	+9.8	+0.0	+0.0	47.9	50.4	-2.5	Black
31	179.089k Ave	19.3	+0.0	+9.7	+0.1	+0.0	29.1	54.5	-25.4	Black
^	179.089k	47.9	+0.0	+9.7	+0.1	+0.0	57.7	54.5	+3.2	Black
33	275.444k Ave	15.3	+0.1	+9.8	+0.0	+0.0	25.2	51.0	-25.8	Black
^	275.444k	41.1	+0.1	+9.8	+0.0	+0.0	51.0	51.0	+0.0	Black
35	288.170k Ave	10.9	+0.1	+9.8	+0.0	+0.0	20.8	50.6	-29.8	Black
^	288.170k	40.4	+0.1	+9.8	+0.0	+0.0	50.3	50.6	-0.3	Black
37	173.635k Ave	1.7	+0.0	+9.7	+0.1	+0.0	11.5	54.8	-43.3	Black
^	173.635k	42.7	+0.0	+9.7	+0.1	+0.0	52.5	54.8	-2.3	Black

CKC Laboratories, Inc. Date: 6/1/2010 Time: 09:00:40 XceedID WO#: 90685
15.207 AC Mains - Average Test Lead: Black 120V 60Hz Sequence#: 44 Ext ATTN: 0 dB



Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **90685**
 Test Type: **Conducted Emissions**
 Equipment: **Transmitter**
 Manufacturer: **XceedID**
 Model: **125kHz & 13.56 MHz**
 S/N: **Unknown**

Date: 6/1/2010
 Time: 19:44:25
 Sequence#: 30
 Tested By: Chuck Kendall
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	ANP02229	Attenuator	PE7010-10	5/20/2009	5/20/2011
T3	AN00374	50uH LISN-WHITE LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN00374	50uH LISN-BLACK LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN02111	Spectrum Analyzer	8593EM	3/6/2009	3/6/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
Transmitter*	XceedID	125kHz & 13.56 MHz	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

FCC 15.207 Class B Conducted Emissions
 Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).
 The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.
Card reader is activated by the 125 kHz card.
Transmitter and receiver are on during this run with the integral antenna.
 Frequencies of interest: 0.009 - 30 MHz
 From: 150 kHz to 30 MHz; RBW = 9 kHz, VBW = 30 kHz
 Temp = 72°F
 Humidity = 40 %
 Pressure = 97.7

Ext Attn: 0 dB

Measurement Data:

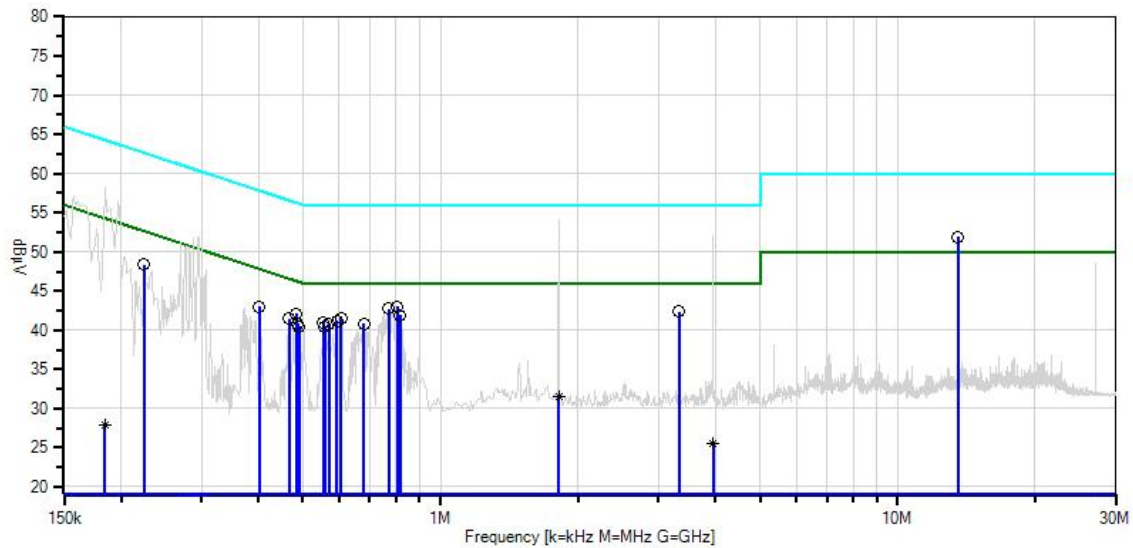
Reading listed by margin.

Test Lead: White

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB		Dist Table	Corr dB μ V	Spec dB μ V	Margin dB	Polar Ant
1	13.561M	40.2	+0.8	+9.9	+1.0		+0.0	51.9	50.0	+1.9	White
									Exempt (In exclusion band) Sec 4.3.1 301 489-3		
2	804.485k	32.4	+0.1	+9.9	+0.6		+0.0	43.0	46.0	-3.0	White
3	769.942k	32.1	+0.1	+9.9	+0.6		+0.0	42.7	46.0	-3.3	White
4	3.331M	31.6	+0.3	+9.9	+0.6		+0.0	42.4	46.0	-3.6	White
5	815.393k	31.3	+0.1	+9.9	+0.6		+0.0	41.9	46.0	-4.1	White
6	482.697k	31.7	+0.1	+9.8	+0.5		+0.0	42.1	46.3	-4.2	White
7	224.539k	38.1	+0.1	+9.8	+0.4		+0.0	48.4	52.6	-4.2	White
8	606.322k	31.2	+0.1	+9.8	+0.5		+0.0	41.6	46.0	-4.4	White
9	400.886k	32.7	+0.1	+9.8	+0.4		+0.0	43.0	47.8	-4.8	White
10	593.595k	30.8	+0.1	+9.8	+0.5		+0.0	41.2	46.0	-4.8	White
11	553.599k	30.6	+0.1	+9.8	+0.5		+0.0	41.0	46.0	-5.0	White
12	466.335k	31.1	+0.1	+9.8	+0.5		+0.0	41.5	46.6	-5.1	White
13	679.042k	30.4	+0.1	+9.8	+0.5		+0.0	40.8	46.0	-5.2	White
14	569.961k	30.4	+0.1	+9.8	+0.5		+0.0	40.8	46.0	-5.2	White
15	486.333k	30.4	+0.1	+9.8	+0.5		+0.0	40.8	46.2	-5.4	White
16	559.053k	30.0	+0.1	+9.8	+0.5		+0.0	40.4	46.0	-5.6	White
17	489.969k	30.1	+0.1	+9.8	+0.5		+0.0	40.5	46.2	-5.7	White
18	1.816M	20.9	+0.2	+9.9	+0.6		+0.0	31.6	46.0	-14.4	White
Ave											
^	1.816M	43.4	+0.2	+9.9	+0.6		+0.0	54.1	46.0	+8.1	White
20	3.945M	14.7	+0.4	+9.9	+0.6		+0.0	25.6	46.0	-20.4	White
Ave											
^	3.945M	41.2	+0.4	+9.9	+0.6		+0.0	52.1	46.0	+6.1	White
22	184.543k	17.8	+0.0	+9.7	+0.4		+0.0	27.9	54.3	-26.4	White
Ave											

^	184.543k	48.1	+0.0	+9.7	+0.4	+0.0	58.2	54.3	+3.9	White
24	157.273k	1.5	+0.0	+9.7	+0.4	+0.0	11.6	55.6	-44.0	White
^	157.273k	47.1	+0.0	+9.7	+0.4	+0.0	57.2	55.6	+1.6	White
26	27.124M	-21.0	+1.2	+9.9	+1.9	+0.0	-8.0	50.0	-58.0	White
^	27.124M	35.6	+1.2	+9.9	+1.9	+0.0	48.6	50.0	-1.4	White
28	306.350k	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.1	-62.4	White
^	306.350k	37.4	+0.1	+9.8	+0.4	+0.0	47.7	50.1	-2.4	White
30	300.896k	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.2	-62.5	White
^	300.896k	40.6	+0.1	+9.8	+0.4	+0.0	50.9	50.2	+0.7	White
32	295.442k	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.4	-62.7	White
33	291.000k	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.5	-62.8	White
^	295.442k	41.7	+0.1	+9.8	+0.4	+0.0	52.0	50.4	+1.6	White
35	288.170k	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.6	-62.9	White
^	288.170k	41.4	+0.1	+9.8	+0.4	+0.0	51.7	50.6	+1.1	White
^	291.000k	36.5	+0.1	+9.8	+0.4	+0.0	46.8	50.5	-3.7	White
38	282.716k	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.7	-63.0	White
^	282.716k	40.4	+0.1	+9.8	+0.4	+0.0	50.7	50.7	+0.0	White
40	277.262k	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.9	-63.2	White
^	277.262k	40.5	+0.1	+9.8	+0.4	+0.0	50.8	50.9	-0.1	White
42	269.990k	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	51.1	-63.4	White
^	269.990k	40.9	+0.1	+9.8	+0.4	+0.0	51.2	51.1	+0.1	White
44	197.269k	-22.6	+0.0	+9.7	+0.4	+0.0	-12.5	53.7	-66.2	White
^	197.269k	46.3	+0.0	+9.7	+0.4	+0.0	56.4	53.7	+2.7	White
46	177.271k	-22.6	+0.0	+9.7	+0.4	+0.0	-12.5	54.6	-67.1	White
^	177.271k	42.9	+0.0	+9.7	+0.4	+0.0	53.0	54.6	-1.6	White

CKC Laboratories, Inc. Date: 6/1/2010 Time: 19:44:25 XceedID WO#: 90685
15.207 AC Mains - Average Test Lead: White 120V 60Hz Sequence#: 30 Ext ATTN: 0 dB



— Sweep Data	— Readings
○ Peak Readings	× QP Readings
* Average Readings	▼ Ambient
— 1 - 15.207 AC Mains - Average	— 2 - 15.207 AC Mains - Quasi-peak

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **90685**
 Test Type: **Conducted Emissions**
 Equipment: **RFID Card Programmer**
 Manufacturer: **XceedID**
 Model: **PG 1000**
 S/N: **Unknown**

Date: 5/20/2010
 Time: 10:50:27
 Sequence#: 47
 Tested By: Chuck Kendall
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	ANP02229	Attenuator	PE7010-10	5/20/2009	5/20/2011
	AN00374	50uH LISN-WHITE LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
T3	AN00374	50uH LISN-BLACK LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN02111	Spectrum Analyzer	8593EM	3/6/2009	3/6/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Card reader is activated by the 125 kHz card.

Transmitter and receiver are on during this run and the integral antenna has been replaced by a resistor.

Frequencies of interest: 0.009 - 30 MHz

From: 150 kHz to 30 MHz; RBW = 9 kHz, VBW = 30 kHz

Temp = 72°

Humidity = 40 %

Pressure = 97.7

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

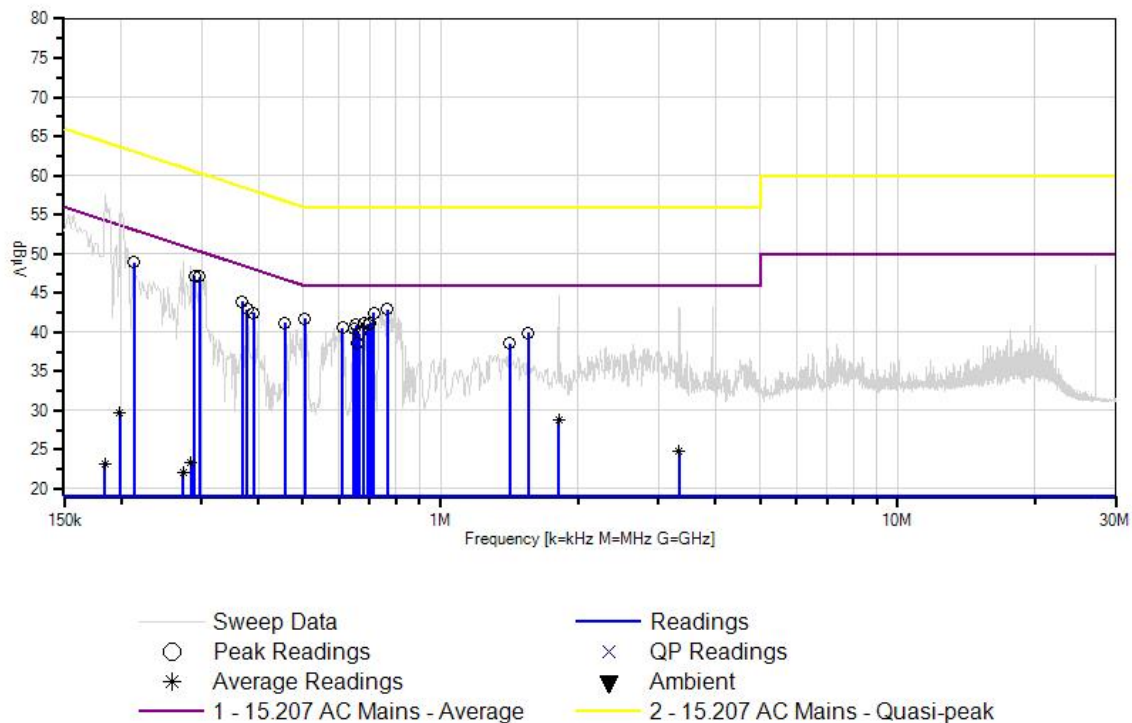
Test Lead: Black

#	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	764.488k	32.8	+0.1	+9.9	+0.1	+0.0		42.9	46.0	-3.1	Black
2	297.260k	37.2	+0.1	+9.8	+0.0	+0.0		47.1	50.3	-3.2	Black
3	289.988k	37.3	+0.1	+9.8	+0.0	+0.0		47.2	50.5	-3.3	Black

4	715.402k	32.5	+0.1	+9.9	+0.0	+0.0	42.5	46.0	-3.5	Black
5	213.631k	39.1	+0.0	+9.7	+0.1	+0.0	48.9	53.1	-4.2	Black
6	504.513k	31.7	+0.1	+9.8	+0.1	+0.0	41.7	46.0	-4.3	Black
7	368.162k	33.9	+0.1	+9.8	+0.1	+0.0	43.9	48.5	-4.6	Black
8	700.858k	31.3	+0.1	+9.8	+0.0	+0.0	41.2	46.0	-4.8	Black
9	679.042k	31.2	+0.1	+9.8	+0.0	+0.0	41.1	46.0	-4.9	Black
10	693.586k	31.1	+0.1	+9.8	+0.0	+0.0	41.0	46.0	-5.0	Black
11	653.590k	31.0	+0.1	+9.8	+0.0	+0.0	40.9	46.0	-5.1	Black
12	377.252k	32.9	+0.1	+9.8	+0.1	+0.0	42.9	48.3	-5.4	Black
13	609.958k	30.7	+0.1	+9.8	+0.0	+0.0	40.6	46.0	-5.4	Black
14	457.245k	31.2	+0.1	+9.8	+0.1	+0.0	41.2	46.7	-5.5	Black
15	646.318k	30.6	+0.1	+9.8	+0.0	+0.0	40.5	46.0	-5.5	Black
16	389.978k	32.5	+0.1	+9.8	+0.1	+0.0	42.5	48.1	-5.6	Black
17	1.554M	29.7	+0.2	+9.9	+0.1	+0.0	39.9	46.0	-6.1	Black
18	664.498k	29.9	+0.1	+9.8	+0.0	+0.0	39.8	46.0	-6.2	Black
19	659.044k	28.7	+0.1	+9.8	+0.0	+0.0	38.6	46.0	-7.4	Black
20	1.419M	28.4	+0.2	+9.9	+0.1	+0.0	38.6	46.0	-7.4	Black
21	1.816M	18.6	+0.2	+9.9	+0.1	+0.0	28.8	46.0	-17.2	Black
^	1.816M	34.5	+0.2	+9.9	+0.1	+0.0	44.7	46.0	-1.3	Black
23	3.331M	14.6	+0.3	+9.9	+0.1	+0.0	24.9	46.0	-21.1	Black
^	3.331M	33.0	+0.3	+9.9	+0.1	+0.0	43.3	46.0	-2.7	Black
25	199.087k	19.9	+0.0	+9.7	+0.1	+0.0	29.7	53.6	-23.9	Black
^	199.087k	45.5	+0.0	+9.7	+0.1	+0.0	55.3	53.6	+1.7	Black
^	195.451k	41.4	+0.0	+9.7	+0.1	+0.0	51.2	53.8	-2.6	Black
28	284.534k	13.4	+0.1	+9.8	+0.0	+0.0	23.3	50.7	-27.4	Black
^	284.534k	38.5	+0.1	+9.8	+0.0	+0.0	48.4	50.7	-2.3	Black

30	3.936M	7.6	+0.4	+9.9	+0.2	+0.0	18.1	46.0	-27.9	Black	
Ave	^	3.936M	32.7	+0.4	+9.9	+0.2	+0.0	43.2	46.0	-2.8	Black
32	273.626k	12.1	+0.1	+9.8	+0.0	+0.0	22.0	51.0	-29.0	Black	
Ave	^	273.626k	39.1	+0.1	+9.8	+0.0	+0.0	49.0	51.0	-2.0	Black
	^	269.990k	37.9	+0.1	+9.8	+0.0	+0.0	47.8	51.1	-3.3	Black
35	184.543k	13.4	+0.0	+9.7	+0.1	+0.0	23.2	54.3	-31.1	Black	
Ave	^	184.543k	47.8	+0.0	+9.7	+0.1	+0.0	57.6	54.3	+3.3	Black
37	27.115M	3.2	+1.2	+9.9	+1.3	+0.0	15.6	50.0	-34.4	Black	
Ave	^	27.115M	36.2	+1.2	+9.9	+1.3	+0.0	48.6	50.0	-1.4	Black

CKC Laboratories, Inc. Date: 5/20/2010 Time: 10:50:27 XceedID WO#: 90685
15.207 AC Mains - Average Test Lead: Black 120V 60Hz Sequence#: 47 Ext ATTN: 0 dB



Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **90685**
 Test Type: **Conducted Emissions**
 Equipment: **RFID Card Programmer**
 Manufacturer: **XceedID**
 Model: **PG 1000**
 S/N: **Unknown**

Date: 5/20/2010
 Time: 11:00:24
 Sequence#: 48
 Tested By: Chuck Kendall
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	ANP02229	Attenuator	PE7010-10	5/20/2009	5/20/2011
T3	AN00374	50uH LISN-WHITE LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN00374	50uH LISN-BLACK LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN02111	Spectrum Analyzer	8593EM	3/6/2009	3/6/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Card reader is activated by the 125 kHz card.

Transmitter and receiver are on during this run and the integral antenna has been replaced by a resistor.

Frequencies of interest: 0.009 - 30 MHz

From: 150 kHz to 30 MHz; RBW = 9 kHz, VBW = 30 kHz

Temp = 72°F

Humidity = 40 %

Pressure = 97.7

Ext Attn: 0 dB

Measurement Data:

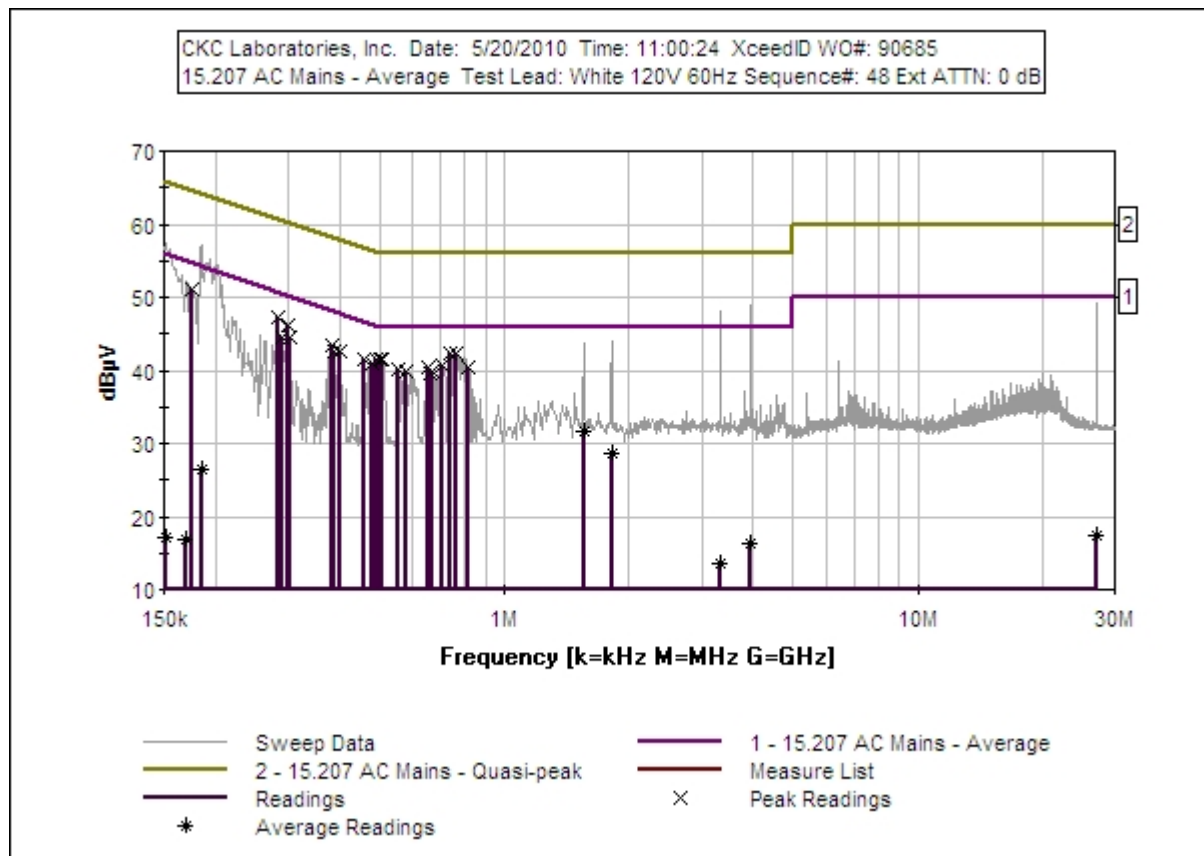
Reading listed by margin.

Test Lead: White

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	Dist dB	Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	284.534k	37.0	+0.1	+9.8	+0.4	+0.0		47.3	50.7	-3.4	White
2	175.453k	41.1	+0.0	+9.7	+0.4	+0.0		51.2	54.7	-3.5	White
3	762.670k	31.7	+0.1	+9.9	+0.6	+0.0		42.3	46.0	-3.7	White

4	740.854k	31.8	+0.1	+9.9	+0.5	+0.0	42.3	46.0	-3.7	White
5	300.896k	35.8	+0.1	+9.8	+0.4	+0.0	46.1	50.2	-4.1	White
6	506.331k	31.1	+0.1	+9.8	+0.5	+0.0	41.5	46.0	-4.5	White
7	491.787k	31.1	+0.1	+9.8	+0.5	+0.0	41.5	46.1	-4.6	White
8	499.059k	31.0	+0.1	+9.8	+0.5	+0.0	41.4	46.0	-4.6	White
9	382.706k	33.0	+0.1	+9.8	+0.4	+0.0	43.3	48.2	-4.9	White
10	459.063k	31.1	+0.1	+9.8	+0.5	+0.0	41.5	46.7	-5.2	White
11	709.948k	30.3	+0.1	+9.9	+0.5	+0.0	40.8	46.0	-5.2	White
12	400.886k	32.2	+0.1	+9.8	+0.4	+0.0	42.5	47.8	-5.3	White
13	479.061k	30.5	+0.1	+9.8	+0.5	+0.0	40.9	46.4	-5.5	White
14	655.408k	30.1	+0.1	+9.8	+0.5	+0.0	40.5	46.0	-5.5	White
15	815.393k	29.9	+0.1	+9.9	+0.6	+0.0	40.5	46.0	-5.5	White
16	388.160k	32.2	+0.1	+9.8	+0.4	+0.0	42.5	48.1	-5.6	White
17	304.532k	34.1	+0.1	+9.8	+0.4	+0.0	44.4	50.1	-5.7	White
18	555.417k	29.8	+0.1	+9.8	+0.5	+0.0	40.2	46.0	-5.8	White
19	668.134k	29.6	+0.1	+9.8	+0.5	+0.0	40.0	46.0	-6.0	White
20	289.988k	34.1	+0.1	+9.8	+0.4	+0.0	44.4	50.5	-6.1	White
21	580.869k	29.4	+0.1	+9.8	+0.5	+0.0	39.8	46.0	-6.2	White
22	659.044k	29.3	+0.1	+9.8	+0.5	+0.0	39.7	46.0	-6.3	White
23	1.554M	21.0	+0.2	+9.9	+0.6	+0.0	31.7	46.0	-14.3	White
^	1.554M	33.0	+0.2	+9.9	+0.6	+0.0	43.7	46.0	-2.3	White
25	1.816M	17.9	+0.2	+9.9	+0.6	+0.0	28.6	46.0	-17.4	White
^	1.816M	33.3	+0.2	+9.9	+0.6	+0.0	44.0	46.0	-2.0	White
27	184.543k	16.3	+0.0	+9.7	+0.4	+0.0	26.4	54.3	-27.9	White
^	184.543k	47.1	+0.0	+9.7	+0.4	+0.0	57.2	54.3	+2.9	White
29	3.936M	5.3	+0.4	+9.9	+0.6	+0.0	16.2	46.0	-29.8	White
Ave										

^	3.936M	37.9	+0.4	+9.9	+0.6	+0.0	48.8	46.0	+2.8	White	
31	3.331M	2.8	+0.3	+9.9	+0.6	+0.0	13.6	46.0	-32.4	White	
Ave	^	3.331M	37.3	+0.3	+9.9	+0.6	+0.0	48.1	46.0	+2.1	White
33	27.115M	4.5	+1.2	+9.9	+1.9	+0.0	17.5	50.0	-32.5	White	
Ave	^	27.115M	36.3	+1.2	+9.9	+1.9	+0.0	49.3	50.0	-0.7	White
35	169.999k	6.7	+0.0	+9.7	+0.4	+0.0	16.8	55.0	-38.2	White	
Ave	^	169.999k	42.2	+0.0	+9.7	+0.4	+0.0	52.3	55.0	-2.7	White
37	151.819k	6.9	+0.0	+9.7	+0.4	+0.0	17.0	55.9	-38.9	White	
Ave	^	151.819k	47.4	+0.0	+9.7	+0.4	+0.0	57.5	55.9	+1.6	White



Test Setup Photos



FCC 15.209 Carrier Measurement

Engineer Name: Chuck Kendall

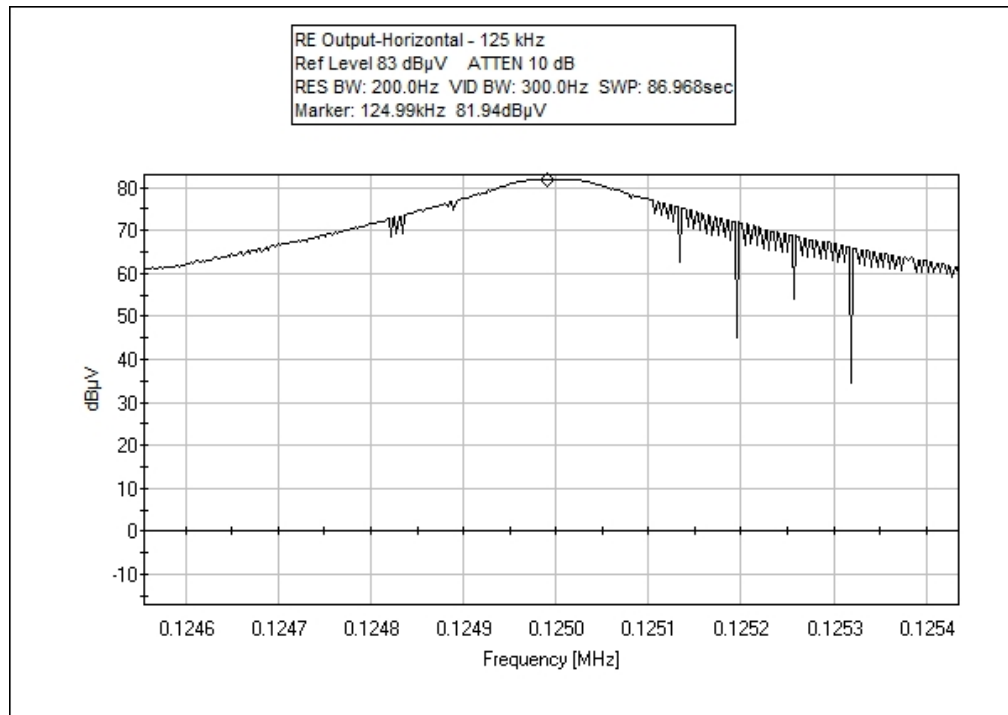
Test Equipment				
Name	Serial	Cal Date	Cal Due	Asset
Loop Antenna	1074	4/10/2009	4/10/2011	AN00226
Cable	NA	5/10/2009	5/10/2011	ANMA10M
Spectrum Analyzer	3624A00159	3/6/2009	3/6/2011	02111

Test Conditions

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Test Data Sheets



Test Setup Photos



FCC 15.209 Bandwidth (20 dB) & RSS-210 Bandwidth (99%)

Engineer Name: Chuck Kendall

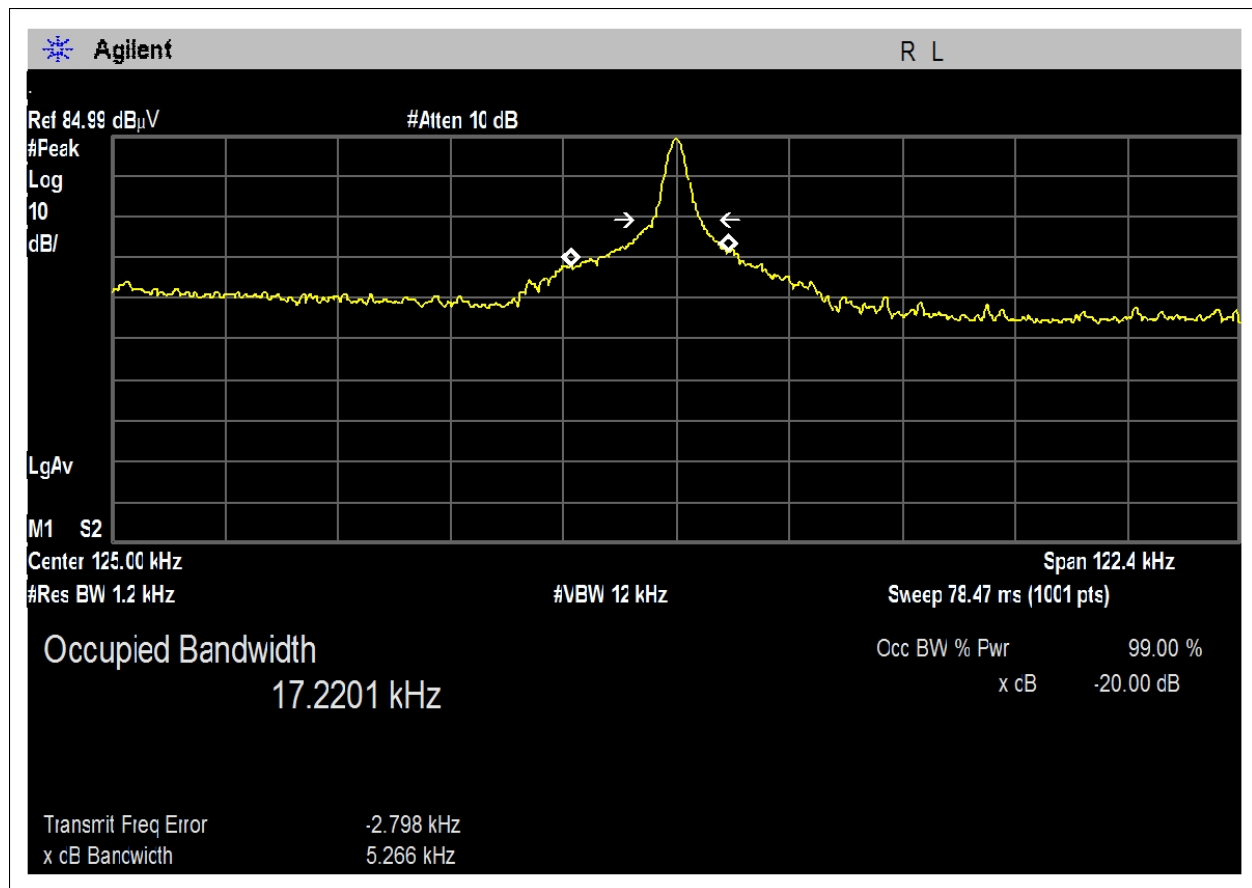
Test Equipment				
Name	Serial	Cal Date	Cal Due	Asset
Loop Antenna	1074	4/10/2009	4/10/2011	AN00226
Cable	NA	5/10/2009	5/10/2011	ANMA10M
Spectrum Analyzer	3624A00159	3/6/2009	3/6/2011	02111

Test Conditions

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Test Data Sheets



Test Setup Photos



FCC 15.209 Spurious Emissions

Test Data Sheets

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer:	XceedID	
Specification:	15.209 Radiated Emissions	
Work Order #:	90685	Date: 5/5/2010
Test Type:	Maximized Emissions	Time: 11:58:20
Equipment:	RFID Card Programmer	Sequence#: 3
Manufacturer:	XceedID	Tested By: Chuck Kendall
Model:	PG 1000	
S/N:	Unknown	

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN00062	Preamplifier	8447D	6/20/2008	6/20/2010
	AN01992	Biconilog Antenna	CBL6111C	10/9/2009	10/9/2011
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	AN01183	Spectrum Analyzer Display	85662A	3/10/2009	3/10/2011
T3	AN01184	Spectrum Analyzer	8568B	3/10/2009	3/10/2011
T4	AN00069	Quasi Peak Adapter	85650A	3/10/2009	3/10/2011
T5	AN00226	Loop Antenna	6502	4/10/2009	4/10/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position as it is intended to be operated atop a Styrofoam cushion.

USB cable is bundled-tied in the center of the cable and hanging down off the table by some 40cm in length.

I/O Cable (3m) in length.

Since the transmitter cannot be turned off to observe the receive mode, this satisfies 15.109 as well.

125kHz card activated readings.

Frequencies of interest: 0.009-30 MHz

From 9 kHz to 150 kHz; RBW = 200 Hz, VBW = 300 Hz; from 150 kHz to 30 MHz: RBW = 9 kHz, VBW = 30 kHz

Temp = 72°F

Humidity = 40 %

Pressure = 97.7

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

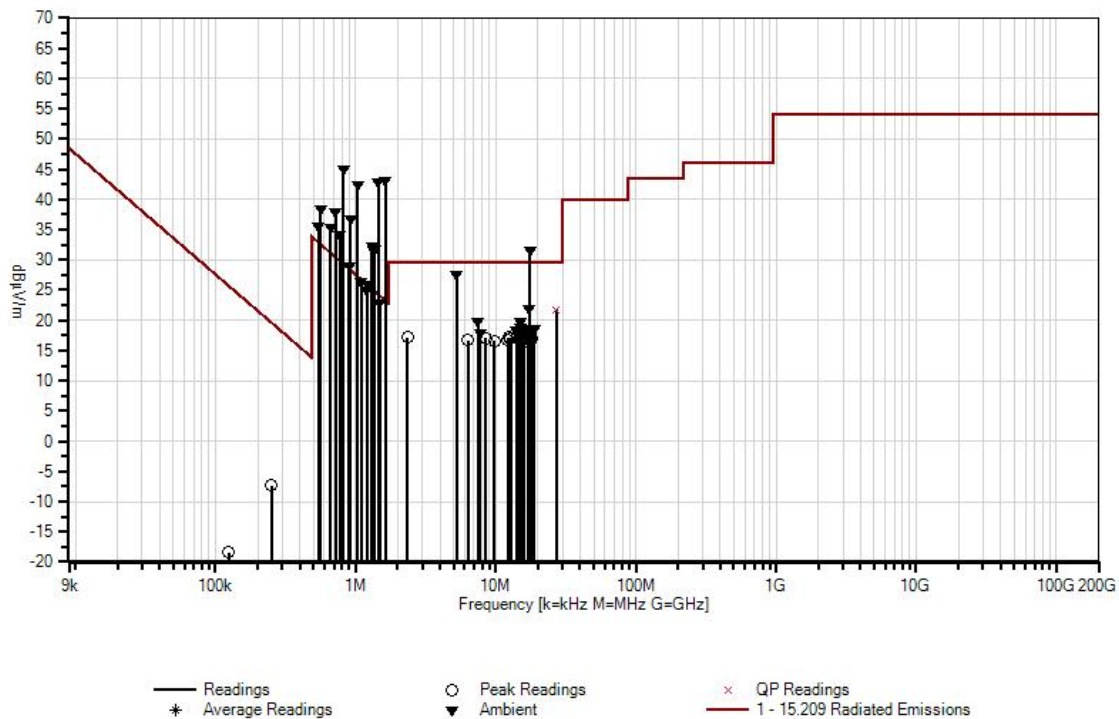
Test Distance: 10 Meters

#	Freq MHz	Rdng dB μ V	T1 T5 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	1.626M Ambient	51.8	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	43.1	23.3 Ambient radio station	+19.8	Vert
2	1.451M Ambient	51.6	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	42.9	24.3 Ambient radio station	+18.6	Vert
3	817.029k Ambient	53.7	+0.1 +10.3	+0.0	+0.0	+0.0	-19.0	45.1	29.3 Ambient radio station	+15.8	Vert
4	1.032M Ambient	51.1	+0.1 +10.2	+0.0	+0.0	+0.0	-19.0	42.4	27.3 Ambient radio station	+15.1	Vert
5	915.306k Ambient	45.2	+0.1 +10.4	+0.0	+0.0	+0.0	-19.0	36.7	28.3 Ambient radio station	+8.4	Vert
6	720.843k Ambient	46.6	+0.1 +10.3	+0.0	+0.0	+0.0	-19.0	38.0	30.4 Ambient radio station	+7.6	Vert
7	1.304M Ambient	41.2	+0.1 +10.1	+0.0	+0.0	+0.0	-19.0	32.4	25.2 Ambient radio station	+7.2	Vert
8	1.361M Ambient	40.6	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	31.9	24.9 Ambient radio station	+7.0	Vert
9	1.334M Ambient	40.4	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	31.7	25.0 Ambient radio station	+6.7	Vert
10	559.836k Ambient	47.2	+0.1 +10.2	+0.0	+0.0	+0.0	-19.0	38.5	32.6 Ambient radio station	+5.9	Vert
11	771.027k Ambient	42.9	+0.1 +10.3	+0.0	+0.0	+0.0	-19.0	34.3	29.8 Ambient radio station	+4.5	Vert
12	660.204k Ambient	43.9	+0.1 +10.3	+0.0	+0.0	+0.0	-19.0	35.3	31.2 Ambient radio station	+4.1	Vert
13	541.017k Ambient	44.5	+0.1 +10.1	+0.0	+0.0	+0.0	-19.0	35.7	32.9 Ambient radio station	+2.8	Vert
14	17.637M Ambient	39.8	+1.0 +9.8	+0.0	+0.0	+0.0	-19.0	31.6	29.5 Ambient radio station	+2.1	Vert
15	900.669k Ambient	37.4	+0.1 +10.4	+0.0	+0.0	+0.0	-19.0	28.9	28.5 Ambient radio station	+0.4	Vert

16	1.223M Ambient	34.7	+0.1 +10.1	+0.0	+0.0	+0.0	-19.0	25.9	25.8 Ambient radio station	+0.1	Vert
17	1.093M Ambient	35.1	+0.1 +10.2	+0.0	+0.0	+0.0	-19.0	26.4	26.8 Ambient radio station	-0.4	Vert
18	1.200M Ambient	33.6	+0.1 +10.2	+0.0	+0.0	+0.0	-19.0	24.9	26.0 Ambient radio station	-1.1	Vert
19	1.488M Ambient	31.5	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	22.8	24.1 Ambient radio station	-1.3	Vert
20	5.259M Ambient	36.8	+0.4 +9.5	+0.0	+0.0	+0.0	-19.0	27.7	29.5 Ambient radio station	-1.8	Vert
21	17.403M Ambient	30.1	+1.0 +9.8	+0.0	+0.0	+0.0	-19.0	21.9	29.5 Ambient radio station	-7.6	Vert
22	27.131M QP	33.4	+1.2 +6.2	+0.0	+0.0	+0.0	-19.0	21.8	29.5	-7.7	Vert
^	27.126M	40.3	+1.2 +6.2	+0.0	+0.0	+0.0	-19.0	28.7	29.5	-0.8	Vert
24	7.466M Ambient	29.0	+0.6 +9.3	+0.0	+0.0	+0.0	-19.0	19.9	29.5 Ambient radio station	-9.6	Vert
25	15.025M Ambient	27.3	+0.9 +10.6	+0.0	+0.0	+0.0	-19.0	19.8	29.5 Ambient radio station	-9.7	Vert
26	14.908M Ambient	26.4	+0.9 +10.6	+0.0	+0.0	+0.0	-19.0	18.9	29.5 Ambient radio station	-10.6	Vert
27	15.277M Ambient	26.3	+0.9 +10.5	+0.0	+0.0	+0.0	-19.0	18.7	29.5 Ambient radio station	-10.8	Vert
28	15.493M Ambient	26.4	+0.9 +10.4	+0.0	+0.0	+0.0	-19.0	18.7	29.5 Ambient radio station	-10.8	Vert
29	18.754M Ambient	27.2	+1.0 +9.4	+0.0	+0.0	+0.0	-19.0	18.6	29.5 Ambient radio station	-10.9	Vert
30	14.088M Ambient	26.2	+0.9 +10.4	+0.0	+0.0	+0.0	-19.0	18.5	29.5 Ambient radio station	-11.0	Vert
31	17.574M Ambient	26.7	+1.0 +9.8	+0.0	+0.0	+0.0	-19.0	18.5	29.5 Ambient radio station	-11.0	Vert
32	14.863M Ambient	25.8	+0.9 +10.6	+0.0	+0.0	+0.0	-19.0	18.3	29.5 Ambient radio station	-11.2	Vert
33	7.764M Ambient	27.0	+0.6 +9.3	+0.0	+0.0	+0.0	-19.0	17.9	29.5 Ambient radio station	-11.6	Vert

34	15.070M Ambient	25.2	+0.9 +10.6	+0.0	+0.0	+0.0	-19.0	17.7	29.5 Ambient radio station	-11.8	Vert
35	15.980M	25.3	+0.9 +10.3	+0.0	+0.0	+0.0	-19.0	17.5	29.5	-12.0	Vert
36	14.358M	25.1	+0.9 +10.4	+0.0	+0.0	+0.0	-19.0	17.4	29.5	-12.1	Vert
37	17.691M	25.7	+1.0 +9.7	+0.0	+0.0	+0.0	-19.0	17.4	29.5	-12.1	Vert
38	2.349M	25.9	+0.3 +10.0	+0.0	+0.0	+0.0	-19.0	17.2	29.5	-12.3	Vert
39	12.322M	25.5	+0.8 +9.9	+0.0	+0.0	+0.0	-19.0	17.2	29.5	-12.3	Vert
40	12.727M	25.3	+0.8 +10.0	+0.0	+0.0	+0.0	-19.0	17.1	29.5	-12.4	Vert
41	17.863M	25.4	+1.0 +9.7	+0.0	+0.0	+0.0	-19.0	17.1	29.5	-12.4	Vert
42	14.673M	24.7	+0.9 +10.5	+0.0	+0.0	+0.0	-19.0	17.1	29.5	-12.4	Vert
43	14.646M	24.7	+0.9 +10.5	+0.0	+0.0	+0.0	-19.0	17.1	29.5	-12.4	Vert
44	8.538M	26.2	+0.6 +9.2	+0.0	+0.0	+0.0	-19.0	17.0	29.5	-12.5	Vert
45	15.367M	24.6	+0.9 +10.5	+0.0	+0.0	+0.0	-19.0	17.0	29.5	-12.5	Vert
46	14.773M	24.5	+0.9 +10.5	+0.0	+0.0	+0.0	-19.0	16.9	29.5	-12.6	Vert
47	17.592M	25.1	+1.0 +9.8	+0.0	+0.0	+0.0	-19.0	16.9	29.5	-12.6	Vert
48	17.007M	25.1	+0.9 +9.9	+0.0	+0.0	+0.0	-19.0	16.9	29.5	-12.6	Vert
49	12.169M	25.2	+0.8 +9.8	+0.0	+0.0	+0.0	-19.0	16.8	29.5	-12.7	Vert
50	6.322M	25.8	+0.5 +9.4	+0.0	+0.0	+0.0	-19.0	16.7	29.5	-12.8	Vert
51	15.917M	24.4	+0.9 +10.3	+0.0	+0.0	+0.0	-19.0	16.6	29.5	-12.9	Vert
52	9.818M	25.8	+0.7 +9.1	+0.0	+0.0	+0.0	-19.0	16.6	29.5	-12.9	Vert
53	250.100k	41.7	+0.1 +9.9	+0.0	+0.0	+0.0	-59.0	-7.3	19.6	-26.9	Vert
54	124.900k	30.9	+0.0 +9.7	+0.0	+0.0	+0.0	-59.0	-18.4	25.7	-44.1	Vert

CKC Laboratories, Inc. Date: 5/5/2010 Time: 11:58:20 XceedID WO#: 90685
15.209 Radiated Emissions Test Distance: 10 Meters Sequence#: 3 Ext ATTN: 0 dB



Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.209 Radiated Emissions**
 Work Order #: **90685**
 Test Type: **Maximized Emissions**
 Equipment: **RFID Card Programmer**
 Manufacturer: **XceedID**
 Model: **PG 1000**
 S/N: **Unknown**

Date: 5/5/2010
 Time: 09:40:40
 Sequence#: 1
 Tested By: Chuck Kendall

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN00062	Preamplifier	8447D	6/20/2008	6/20/2010
T2	AN01992	Biconilog Antenna	CBL6111C	10/9/2009	10/9/2011
T3	ANMA10M	Cable		5/10/2009	5/10/2011
	AN01183	Spectrum Analyzer Display	85662A	3/10/2009	3/10/2011
	AN01184	Spectrum Analyzer	8568B	3/10/2009	3/10/2011
	AN00069	Quasi Peak Adapter	85650A	3/10/2009	3/10/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Programmer is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Programmer that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom resting on the table atop a Styrofoam cushion).

The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Cable (3m)

Since the transmitter cannot be turned off this satisfies 15.109 as well.

The 125 kHz card is activating the reader which alternatively transmits and receives on both 125kHz & 13.56 MHz frequencies.

Frequencies of interest: 30 MHz - 1000 MHz
 30 MHz- 1000 MHz: RBW = 120kHz, VBW = 120kHz
 Temp = 72°
 Humidity = 40 %
 Pressure = 97.7

Ext Attn: 0 dB

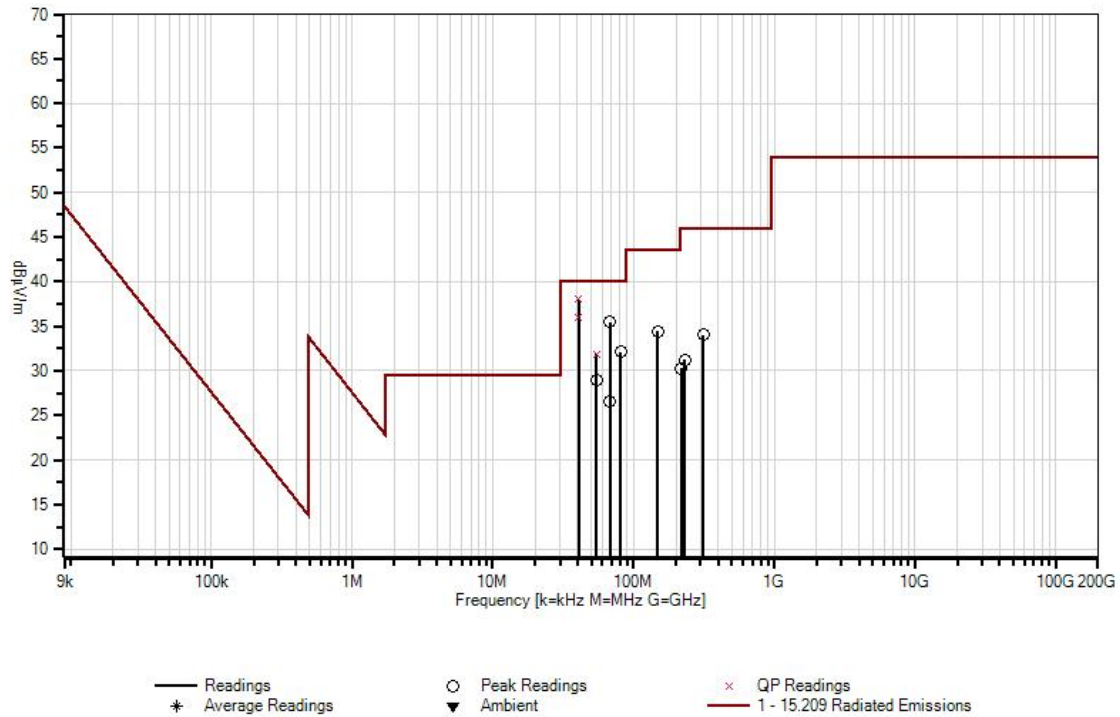
Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB		Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	40.790M	38.4	-30.8	+18.9	+1.5		+10.0	38.0	40.0	-2.0	Vert
	QP										
^	40.748M	43.3	-30.8	+19.0	+1.5		+10.0	43.0	40.0	+3.0	Vert
^	40.758M	42.2	-30.8	+19.0	+1.5		+10.0	41.9	40.0	+1.9	Vert
^	40.734M	41.2	-30.8	+19.0	+1.5		+10.0	40.9	40.0	+0.9	Vert
5	40.770M	36.3	-30.8	+18.9	+1.5		+10.0	36.0	40.0	-4.1	Horiz
	QP										
^	40.726M	41.0	-30.8	+19.0	+1.5		+10.0	40.7	40.0	+0.7	Horiz
7	67.853M	48.4	-30.8	+6.0	+1.9		+10.0	35.5	40.0	-4.5	Vert
8	81.464M	42.5	-30.7	+8.2	+2.1		+10.0	32.1	40.0	-7.9	Vert
9	54.317M	43.2	-30.7	+7.7	+1.7		+10.0	31.9	40.0	-8.1	Vert
	QP										
^	54.337M	44.9	-30.7	+7.7	+1.7		+10.0	33.6	40.0	-6.4	Vert
^	54.316M	42.2	-30.7	+7.7	+1.7		+10.0	30.9	40.0	-9.1	Vert
12	149.215M	40.0	-30.4	+11.9	+2.9		+10.0	34.4	43.5	-9.1	Vert
13	54.325M	40.3	-30.7	+7.7	+1.7		+10.0	29.0	40.0	-11.0	Horiz
14	311.964M	35.2	-29.7	+14.1	+4.4		+10.0	34.0	46.0	-12.0	Horiz
15	67.884M	39.5	-30.8	+6.0	+1.9		+10.0	26.6	40.0	-13.4	Horiz
16	230.643M	36.0	-29.8	+11.3	+3.7		+10.0	31.2	46.0	-14.8	Vert
17	217.021M	36.3	-29.9	+10.4	+3.5		+10.0	30.3	46.0	-15.7	Vert

CKC Laboratories, Inc. Date: 5/5/2010 Time: 09:40:40 XceedID WO#: 90685
15.209 Radiated Emissions Test Distance: 10 Meters Sequence#: 1 Ext ATTN: 0 dB



Test Setup Photos



FCC PART 15 SUBPART C – 13.56 MHZ

FCC 15.207 AC Conducted Emissions

Test Data Sheets

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **90685**
 Test Type: **Conducted Emissions**
 Equipment: **RFID Card Programmer**
 Manufacturer: XceedID
 Model: PG 1000
 S/N: Unknown

Date: 6/1/2010
 Time: 08:46:31
 Sequence#: 32
 Tested By: Chuck Kendall
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	ANP02229	Attenuator	PE7010-10	5/20/2009	5/20/2011
	AN00374	50uH LISN-WHITE LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
T3	AN00374	50uH LISN-BLACK LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN02111	Spectrum Analyzer	8593EM	3/6/2009	3/6/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Card reader is activated by the 13.561MHz card.

Transmitter and receiver are on during this run.

Frequencies of interest: 0.15 - 30 MHz

From: 150 kHz to 30 MHz; RBW = 9 kHz, VBW = 30 kHz

Temp = 72°F

Humidity = 40 %

Pressure = 97.7

Ext Attn: 0 dB

Measurement Data:

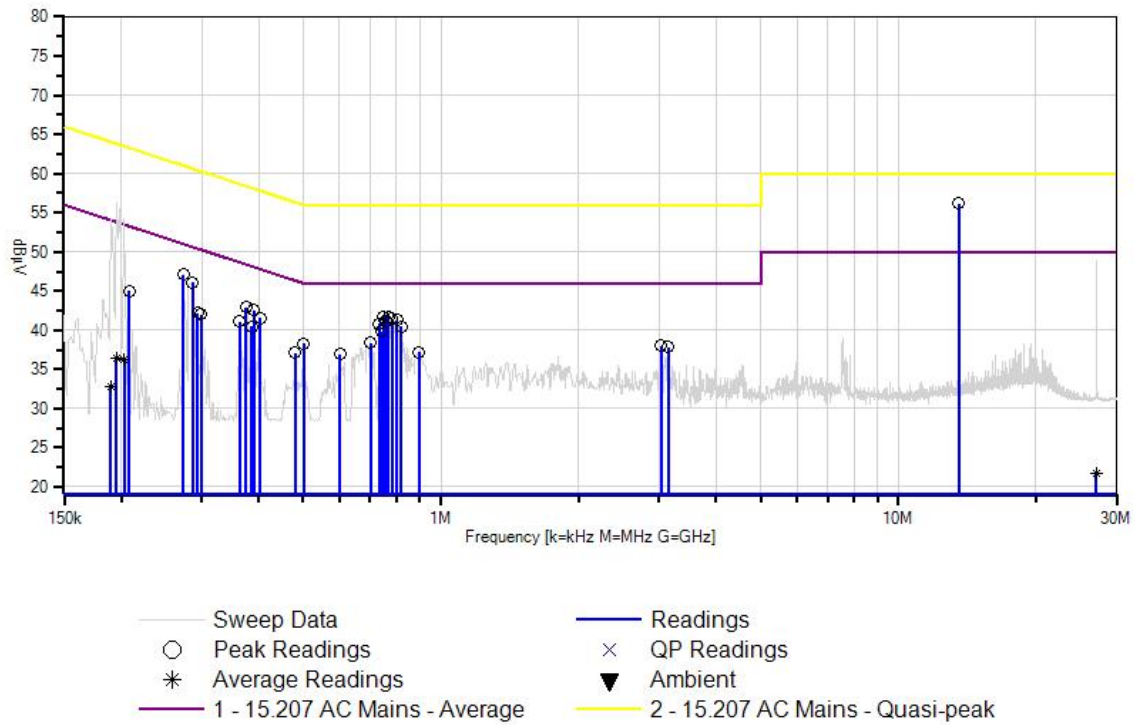
Reading listed by margin.

Test Lead: Black

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB		Dist Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	13.562M	44.9	+0.8	+9.9	+0.6		+0.0	56.2	50.0	+6.2	Black
									Fundamental		
2	273.626k	37.2	+0.1	+9.8	+0.0		+0.0	47.1	51.0	-3.9	Black
3	749.944k	31.6	+0.1	+9.9	+0.1		+0.0	41.7	46.0	-4.3	Black
4	768.124k	31.6	+0.1	+9.9	+0.1		+0.0	41.7	46.0	-4.3	Black
5	286.352k	36.2	+0.1	+9.8	+0.0		+0.0	46.1	50.6	-4.5	Black
6	782.668k	31.4	+0.1	+9.9	+0.1		+0.0	41.5	46.0	-4.5	Black
7	802.667k	31.2	+0.1	+9.9	+0.1		+0.0	41.3	46.0	-4.7	Black
8	759.034k	31.1	+0.1	+9.9	+0.1		+0.0	41.2	46.0	-4.8	Black
9	733.582k	30.8	+0.1	+9.9	+0.0		+0.0	40.8	46.0	-5.2	Black
10	375.434k	32.9	+0.1	+9.8	+0.1		+0.0	42.9	48.4	-5.5	Black
11	389.978k	32.6	+0.1	+9.8	+0.1		+0.0	42.6	48.1	-5.5	Black
12	819.029k	30.4	+0.1	+9.9	+0.1		+0.0	40.5	46.0	-5.5	Black
13	742.672k	29.8	+0.1	+9.9	+0.0		+0.0	39.8	46.0	-6.2	Black
14	402.704k	31.6	+0.1	+9.8	+0.1		+0.0	41.6	47.8	-6.2	Black
15	362.708k	31.1	+0.1	+9.8	+0.1		+0.0	41.1	48.7	-7.6	Black
16	386.342k	30.5	+0.1	+9.8	+0.1		+0.0	40.5	48.1	-7.6	Black

17	702.676k	28.5	+0.1	+9.8	+0.0	+0.0	38.4	46.0	-7.6	Black
18	500.877k	28.3	+0.1	+9.8	+0.1	+0.0	38.3	46.0	-7.7	Black
19	3.034M	27.7	+0.3	+9.9	+0.1	+0.0	38.0	46.0	-8.0	Black
20	293.624k	32.3	+0.1	+9.8	+0.0	+0.0	42.2	50.4	-8.2	Black
21	3.142M	27.5	+0.3	+9.9	+0.1	+0.0	37.8	46.0	-8.2	Black
22	208.177k	35.2	+0.0	+9.7	+0.1	+0.0	45.0	53.3	-8.3	Black
23	299.078k	32.1	+0.1	+9.8	+0.0	+0.0	42.0	50.3	-8.3	Black
24	895.250k	27.1	+0.1	+9.9	+0.1	+0.0	37.2	46.0	-8.8	Black
25	602.685k	27.0	+0.1	+9.8	+0.0	+0.0	36.9	46.0	-9.1	Black
26	480.879k	27.1	+0.1	+9.8	+0.1	+0.0	37.1	46.3	-9.2	Black
27	202.723k Ave	26.4	+0.0	+9.7	+0.1	+0.0	36.2	53.5	-17.3	Black
^	202.723k	44.4	+0.0	+9.7	+0.1	+0.0	54.2	53.5	+0.7	Black
29	195.451k Ave	26.7	+0.0	+9.7	+0.1	+0.0	36.5	53.8	-17.3	Black
^	195.451k	46.5	+0.0	+9.7	+0.1	+0.0	56.3	53.8	+2.5	Black
^	199.087k	45.8	+0.0	+9.7	+0.1	+0.0	55.6	53.6	+2.0	Black
32	189.997k Ave	23.0	+0.0	+9.7	+0.1	+0.0	32.8	54.0	-21.2	Black
^	189.997k	44.5	+0.0	+9.7	+0.1	+0.0	54.3	54.0	+0.3	Black
34	27.124M Ave	9.3	+1.2	+9.9	+1.3	+0.0	21.7	50.0	-28.3	Black
^	27.124M	36.3	+1.2	+9.9	+1.3	+0.0	48.7	50.0	-1.3	Black

CKC Laboratories, Inc. Date: 6/1/2010 Time: 08:46:31 XceedID WO#: 90685
15.207 AC Mains - Average Test Lead: Black 120V 60Hz Sequence#: 32 Ext ATTN: 0 dB



Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **90685**
 Test Type: **Conducted Emissions**
 Equipment: **RFID Card Programmer**
 Manufacturer: **XceedID**
 Model: **PG 1000**
 S/N: **Unknown**

Date: 6/1/2010
 Time: 08:42:49
 Sequence#: 33
 Tested By: Chuck Kendall
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	ANP02229	Attenuator	PE7010-10	5/20/2009	5/20/2011
T3	AN00374	50uH LISN-WHITE LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN00374	50uH LISN-BLACK LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN02111	Spectrum Analyzer	8593EM	3/6/2009	3/6/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Card reader is activated by the 13.561MHz card.

Transmitter and receiver are on during this run.

Frequencies of interest: 0.15 - 30 MHz

From: 150 kHz to 30 MHz; RBW = 9 kHz, VBW = 30 kHz

Temp = 72°F

Humidity = 40 %

Pressure = 97.7

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

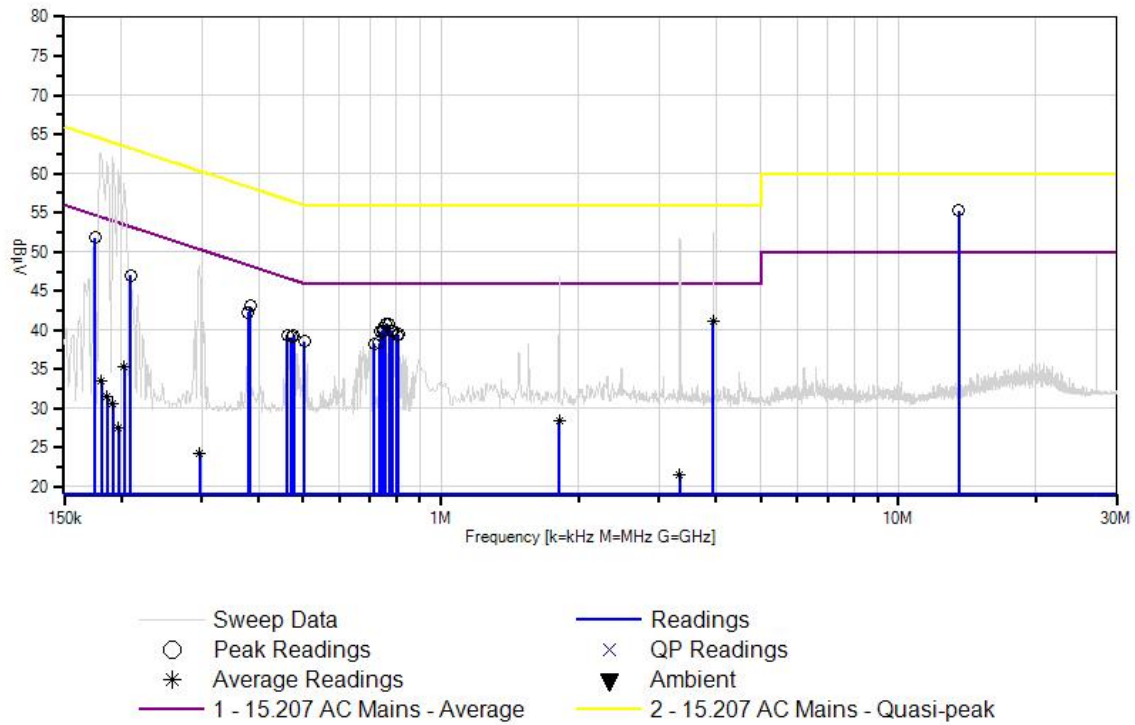
Test Lead: White

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	Dist dB	Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	13.562M	43.6	+0.8	+9.9	+1.0	+0.0		55.3	50.0	+5.3	White
2	175.453k	41.7	+0.0	+9.7	+0.4	+0.0		51.8	54.7	-2.9	White
3	3.936M	30.3	+0.4	+9.9	+0.6	+0.0		41.2	46.0	-4.8	White
Ave											

^	3.936M	41.5	+0.4	+9.9	+0.6	+0.0	52.4	46.0	+6.4	White
5	382.706k	32.8	+0.1	+9.8	+0.4	+0.0	43.1	48.2	-5.1	White
6	757.216k	30.1	+0.1	+9.9	+0.6	+0.0	40.7	46.0	-5.3	White
7	769.942k	30.1	+0.1	+9.9	+0.6	+0.0	40.7	46.0	-5.3	White
8	749.944k	29.6	+0.1	+9.9	+0.6	+0.0	40.2	46.0	-5.8	White
9	379.070k	32.0	+0.1	+9.8	+0.4	+0.0	42.3	48.3	-6.0	White
10	746.308k	29.4	+0.1	+9.9	+0.5	+0.0	39.9	46.0	-6.1	White
11	780.850k	29.3	+0.1	+9.9	+0.6	+0.0	39.9	46.0	-6.1	White
12	784.486k	29.3	+0.1	+9.9	+0.6	+0.0	39.9	46.0	-6.1	White
13	209.995k	36.9	+0.0	+9.7	+0.4	+0.0	47.0	53.2	-6.2	White
14	739.036k	29.3	+0.1	+9.9	+0.5	+0.0	39.8	46.0	-6.2	White
15	806.303k	28.9	+0.1	+9.9	+0.6	+0.0	39.5	46.0	-6.5	White
16	800.849k	28.7	+0.1	+9.9	+0.6	+0.0	39.3	46.0	-6.7	White
17	477.243k	29.0	+0.1	+9.8	+0.5	+0.0	39.4	46.4	-7.0	White
18	460.881k	29.0	+0.1	+9.8	+0.5	+0.0	39.4	46.7	-7.3	White
19	471.789k	28.7	+0.1	+9.8	+0.5	+0.0	39.1	46.5	-7.4	White
20	502.695k	28.2	+0.1	+9.8	+0.5	+0.0	38.6	46.0	-7.4	White
21	731.764k	27.9	+0.1	+9.9	+0.5	+0.0	38.4	46.0	-7.6	White
22	713.584k	27.8	+0.1	+9.9	+0.5	+0.0	38.3	46.0	-7.7	White
23	1.816M	17.7	+0.2	+9.9	+0.6	+0.0	28.4	46.0	-17.6	White
Ave										
^	1.816M	35.9	+0.2	+9.9	+0.6	+0.0	46.6	46.0	+0.6	White
25	202.723k	25.2	+0.0	+9.7	+0.4	+0.0	35.3	53.5	-18.2	White
Ave										
^	202.723k	48.6	+0.0	+9.7	+0.4	+0.0	58.7	53.5	+5.2	White
27	180.907k	23.5	+0.0	+9.7	+0.4	+0.0	33.6	54.4	-20.8	White
Ave										
^	180.907k	52.4	+0.0	+9.7	+0.4	+0.0	62.5	54.4	+8.1	White
29	186.361k	21.4	+0.0	+9.7	+0.4	+0.0	31.5	54.2	-22.7	White
Ave										

^	186.361k	51.5	+0.0	+9.7	+0.4	+0.0	61.6	54.2	+7.4	White
31	191.815k	20.6	+0.0	+9.7	+0.4	+0.0	30.7	54.0	-23.3	White
^	191.815k	52.0	+0.0	+9.7	+0.4	+0.0	62.1	54.0	+8.1	White
33	3.331M	10.7	+0.3	+9.9	+0.6	+0.0	21.5	46.0	-24.5	White
^	3.331M	40.9	+0.3	+9.9	+0.6	+0.0	51.7	46.0	+5.7	White
35	297.260k	14.0	+0.1	+9.8	+0.4	+0.0	24.3	50.3	-26.0	White
^	297.260k	38.0	+0.1	+9.8	+0.4	+0.0	48.3	50.3	-2.0	White
^	300.896k	33.7	+0.1	+9.8	+0.4	+0.0	44.0	50.2	-6.2	White
38	197.269k	17.5	+0.0	+9.7	+0.4	+0.0	27.6	53.7	-26.1	White
^	197.269k	50.4	+0.0	+9.7	+0.4	+0.0	60.5	53.7	+6.8	White
40	27.115M	-60.0	+1.2	+9.9	+1.9	+0.0	-47.0	50.0	-97.0	White
^	27.115M	36.5	+1.2	+9.9	+1.9	+0.0	49.5	50.0	-0.5	White

CKC Laboratories, Inc. Date: 6/1/2010 Time: 08:42:49 XceedID WO#: 90685
15.207 AC Mains - Average Test Lead: White 120V 60Hz Sequence#: 33 Ext ATTN: 0 dB



Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **90685**
 Test Type: **Conducted Emissions**
 Equipment: **RFID Card Programmer**
 Manufacturer: XceedID
 Model: PG 1000
 S/N: Unknown

Date: 5/20/2010
 Time: 09:47:41
 Sequence#: 45
 Tested By: Chuck Kendall
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	ANP02229	Attenuator	PE7010-10	5/20/2009	5/20/2011
	AN00374	50uH LISN-WHITE LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
T3	AN00374	50uH LISN-BLACK LEAD	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN02111	Spectrum Analyzer	8593EM	3/6/2009	3/6/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Card reader is activated by the 13.561 Hz card.

Transmitter and receiver are on during this run and the integral antenna has been replaced by a resistor.

Frequencies of interest: 0.009 - 30 MHz

From: 150 kHz to 30 MHz; RBW = 9 kHz, VBW = 30 kHz

Temp = 72°F

Humidity = 40 %

Pressure = 97.7

Ext Attn: 0 dB

Measurement Data:

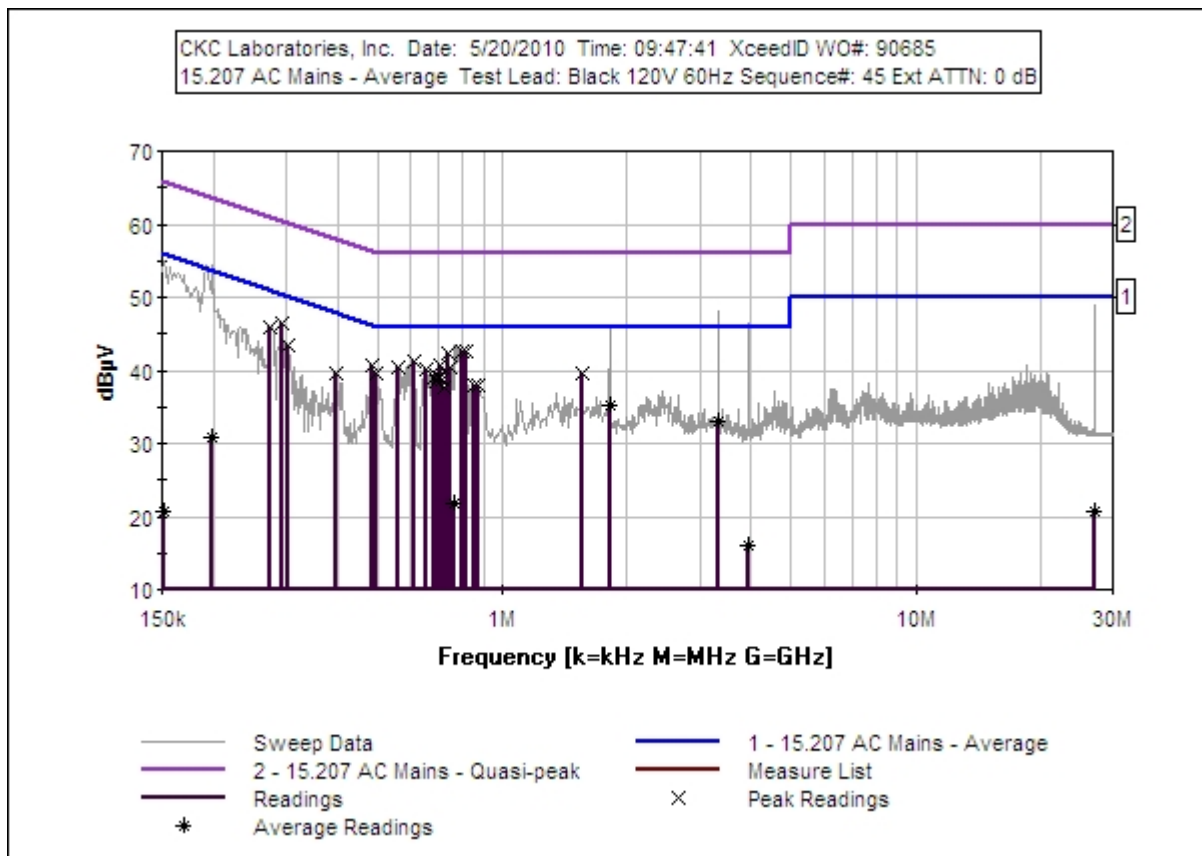
Reading listed by margin.

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	797.213k	32.6	+0.1	+9.9	+0.1		+0.0	42.7	46.0	-3.3	Black
2	815.393k	32.5	+0.1	+9.9	+0.1		+0.0	42.6	46.0	-3.4	Black

3	735.400k	32.4	+0.1	+9.9	+0.0	+0.0	42.4	46.0	-3.6	Black
4	293.624k	36.5	+0.1	+9.8	+0.0	+0.0	46.4	50.4	-4.0	Black
5	613.594k	31.3	+0.1	+9.8	+0.0	+0.0	41.2	46.0	-4.8	Black
6	275.444k	36.1	+0.1	+9.8	+0.0	+0.0	46.0	51.0	-5.0	Black
7	708.130k	30.7	+0.1	+9.9	+0.0	+0.0	40.7	46.0	-5.3	Black
8	482.697k	30.8	+0.1	+9.8	+0.1	+0.0	40.8	46.3	-5.5	Black
9	560.871k	30.5	+0.1	+9.8	+0.0	+0.0	40.4	46.0	-5.6	Black
10	748.126k	30.3	+0.1	+9.9	+0.0	+0.0	40.3	46.0	-5.7	Black
11	653.590k	30.2	+0.1	+9.8	+0.0	+0.0	40.1	46.0	-5.9	Black
12	1.554M	29.3	+0.2	+9.9	+0.1	+0.0	39.5	46.0	-6.5	Black
13	493.605k	29.6	+0.1	+9.8	+0.1	+0.0	39.6	46.1	-6.5	Black
14	304.532k	33.5	+0.1	+9.8	+0.0	+0.0	43.4	50.1	-6.7	Black
15	691.768k	29.4	+0.1	+9.8	+0.0	+0.0	39.3	46.0	-6.7	Black
16	684.496k	29.1	+0.1	+9.8	+0.0	+0.0	39.0	46.0	-7.0	Black
17	702.676k	29.1	+0.1	+9.8	+0.0	+0.0	39.0	46.0	-7.0	Black
18	713.584k	28.7	+0.1	+9.9	+0.0	+0.0	38.7	46.0	-7.3	Black
19	688.132k	28.6	+0.1	+9.8	+0.0	+0.0	38.5	46.0	-7.5	Black
20	857.207k	27.8	+0.1	+9.9	+0.1	+0.0	37.9	46.0	-8.1	Black
21	877.205k	27.8	+0.1	+9.9	+0.1	+0.0	37.9	46.0	-8.1	Black
22	397.250k	29.6	+0.1	+9.8	+0.1	+0.0	39.6	47.9	-8.3	Black
23	726.310k	27.6	+0.1	+9.9	+0.0	+0.0	37.6	46.0	-8.4	Black
24	1.816M	25.0	+0.2	+9.9	+0.1	+0.0	35.2	46.0	-10.8	Black
^	Ave 1.816M	35.5	+0.2	+9.9	+0.1	+0.0	45.7	46.0	-0.3	Black
26	3.331M	22.6	+0.3	+9.9	+0.1	+0.0	32.9	46.0	-13.1	Black
^	Ave 3.331M	37.9	+0.3	+9.9	+0.1	+0.0	48.2	46.0	+2.2	Black
28	199.087k	21.0	+0.0	+9.7	+0.1	+0.0	30.8	53.6	-22.8	Black
^	Ave									

^	199.087k	44.6	+0.0	+9.7	+0.1	+0.0	54.4	53.6	+0.8	Black	
30	766.306k	11.8	+0.1	+9.9	+0.1	+0.0	21.9	46.0	-24.1	Black	
Ave	^	766.306k	33.2	+0.1	+9.9	+0.1	+0.0	43.3	46.0	-2.7	Black
32	27.124M	8.4	+1.2	+9.9	+1.3	+0.0	20.8	50.0	-29.2	Black	
Ave	^	27.124M	36.4	+1.2	+9.9	+1.3	+0.0	48.8	50.0	-1.2	Black
34	3.945M	5.6	+0.4	+9.9	+0.2	+0.0	16.1	46.0	-29.9	Black	
Ave	^	3.945M	35.9	+0.4	+9.9	+0.2	+0.0	46.4	46.0	+0.4	Black
36	151.819k	10.8	+0.0	+9.7	+0.1	+0.0	20.6	55.9	-35.3	Black	
Ave	^	151.819k	45.0	+0.0	+9.7	+0.1	+0.0	54.8	55.9	-1.1	Black



Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.207 AC Mains - Average**
 Work Order #: **90685**
 Test Type: **Conducted Emissions**
 Equipment: **RFID Card Programmer**
 Manufacturer: **XceedID**
 Model: **PG 1000**
 S/N: **Unknown**

Date: 5/20/2010
 Time: 09:32:03
 Sequence#: 46
 Tested By: Chuck Kendall
 120V 60Hz

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	ANP02229	Attenuator	PE7010-10	5/20/2009	5/20/2011
T3	AN00374	50uH LISN-WHITE	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN00374	50uH LISN-BLACK	8028-TS-50-BNC	4/22/2009	4/22/2011
	AN02111	Spectrum Analyzer	8593EM	3/6/2009	3/6/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Card reader is activated by the 13.561 Hz card.

Transmitter and receiver are on during this run and the integral antenna has been replaced by a resistor.

Frequencies of interest: 0.15 - 30 MHz

From: 150 kHz to 30 MHz; RBW = 9 kHz, VBW = 30 kHz

Temp = 72°F

Humidity = 40 %

Pressure = 97.7

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

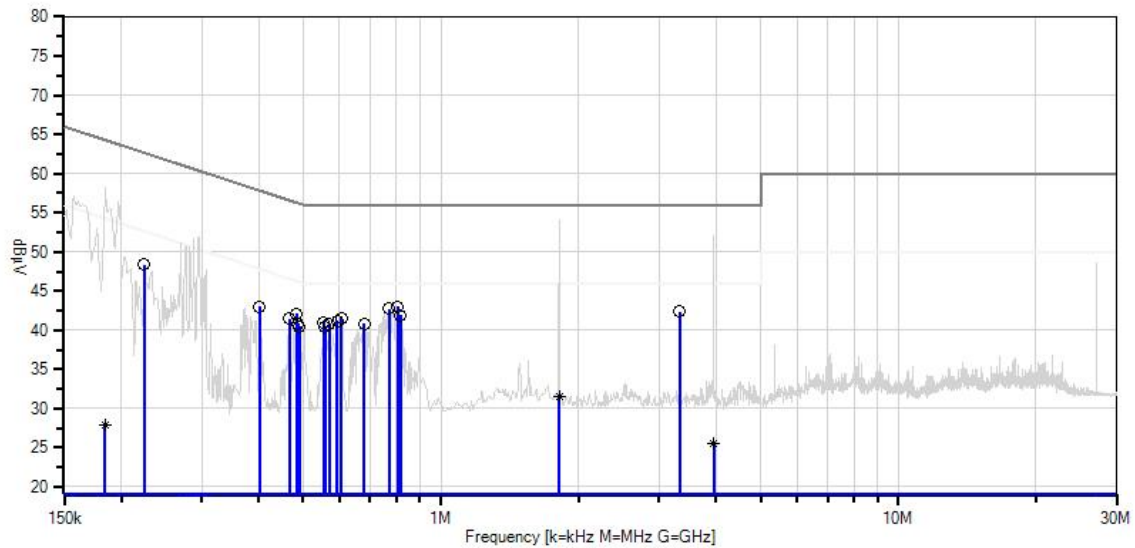
Test Lead: White

#	Freq MHz	Rdng dBμV	T1 dB	T2 dB	T3 dB	Dist dB	Table	Corr dBμV	Spec dBμV	Margin dB	Polar Ant
1	804.485k	32.4	+0.1	+9.9	+0.6	+0.0		43.0	46.0	-3.0	White
2	769.942k	32.1	+0.1	+9.9	+0.6	+0.0		42.7	46.0	-3.3	White
3	3.331M	31.6	+0.3	+9.9	+0.6	+0.0		42.4	46.0	-3.6	White

4	815.393k	31.3	+0.1	+9.9	+0.6	+0.0	41.9	46.0	-4.1	White
5	224.539k	38.1	+0.1	+9.8	+0.4	+0.0	48.4	52.6	-4.2	White
6	482.697k	31.7	+0.1	+9.8	+0.5	+0.0	42.1	46.3	-4.2	White
7	606.322k	31.2	+0.1	+9.8	+0.5	+0.0	41.6	46.0	-4.4	White
8	400.886k	32.7	+0.1	+9.8	+0.4	+0.0	43.0	47.8	-4.8	White
9	593.595k	30.8	+0.1	+9.8	+0.5	+0.0	41.2	46.0	-4.8	White
10	553.599k	30.6	+0.1	+9.8	+0.5	+0.0	41.0	46.0	-5.0	White
11	466.335k	31.1	+0.1	+9.8	+0.5	+0.0	41.5	46.6	-5.1	White
12	569.961k	30.4	+0.1	+9.8	+0.5	+0.0	40.8	46.0	-5.2	White
13	679.042k	30.4	+0.1	+9.8	+0.5	+0.0	40.8	46.0	-5.2	White
14	486.333k	30.4	+0.1	+9.8	+0.5	+0.0	40.8	46.2	-5.4	White
15	559.053k	30.0	+0.1	+9.8	+0.5	+0.0	40.4	46.0	-5.6	White
16	489.969k	30.1	+0.1	+9.8	+0.5	+0.0	40.5	46.2	-5.7	White
17	1.816M Ave	20.9	+0.2	+9.9	+0.6	+0.0	31.6	46.0	-14.4	White
^	1.816M	43.4	+0.2	+9.9	+0.6	+0.0	54.1	46.0	+8.1	White
19	3.945M Ave	14.7	+0.4	+9.9	+0.6	+0.0	25.6	46.0	-20.4	White
^	3.945M	41.2	+0.4	+9.9	+0.6	+0.0	52.1	46.0	+6.1	White
21	184.543k Ave	17.8	+0.0	+9.7	+0.4	+0.0	27.9	54.3	-26.4	White
^	184.543k	48.1	+0.0	+9.7	+0.4	+0.0	58.2	54.3	+3.9	White
23	157.273k Ave	1.5	+0.0	+9.7	+0.4	+0.0	11.6	55.6	-44.0	White
^	157.273k	47.1	+0.0	+9.7	+0.4	+0.0	57.2	55.6	+1.6	White
25	27.124M Ave	-21.0	+1.2	+9.9	+1.9	+0.0	-8.0	50.0	-58.0	White
^	27.124M	35.6	+1.2	+9.9	+1.9	+0.0	48.6	50.0	-1.4	White
27	306.350k Ave	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.1	-62.4	White
^	306.350k	37.4	+0.1	+9.8	+0.4	+0.0	47.7	50.1	-2.4	White
29	300.896k Ave	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.2	-62.5	White

^	300.896k	40.6	+0.1	+9.8	+0.4	+0.0	50.9	50.2	+0.7	White
31	295.442k Ave	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.4	-62.7	White
32	291.000k Ave	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.5	-62.8	White
^	295.442k	41.7	+0.1	+9.8	+0.4	+0.0	52.0	50.4	+1.6	White
34	288.170k Ave	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.6	-62.9	White
^	288.170k	41.4	+0.1	+9.8	+0.4	+0.0	51.7	50.6	+1.1	White
^	291.000k	36.5	+0.1	+9.8	+0.4	+0.0	46.8	50.5	-3.7	White
37	282.716k Ave	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.7	-63.0	White
^	282.716k	40.4	+0.1	+9.8	+0.4	+0.0	50.7	50.7	+0.0	White
39	277.262k Ave	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	50.9	-63.2	White
^	277.262k	40.5	+0.1	+9.8	+0.4	+0.0	50.8	50.9	-0.1	White
41	269.990k Ave	-22.6	+0.1	+9.8	+0.4	+0.0	-12.3	51.1	-63.4	White
^	269.990k	40.9	+0.1	+9.8	+0.4	+0.0	51.2	51.1	+0.1	White
43	197.269k Ave	-22.6	+0.0	+9.7	+0.4	+0.0	-12.5	53.7	-66.2	White
^	197.269k	46.3	+0.0	+9.7	+0.4	+0.0	56.4	53.7	+2.7	White
45	177.271k Ave	-22.6	+0.0	+9.7	+0.4	+0.0	-12.5	54.6	-67.1	White
^	177.271k	42.9	+0.0	+9.7	+0.4	+0.0	53.0	54.6	-1.6	White

CKC Laboratories, Inc. Date: 5/20/2010 Time: 09:32:03 XceedID WO#: 90685
15.207 AC Mains - Average Test Lead: White 120V 60Hz Sequence#: 46 Ext ATTN: 0 dB



Test Setup Photos



FCC 15.255(a) Carrier Measurement

Engineer Name: Chuck Kendall

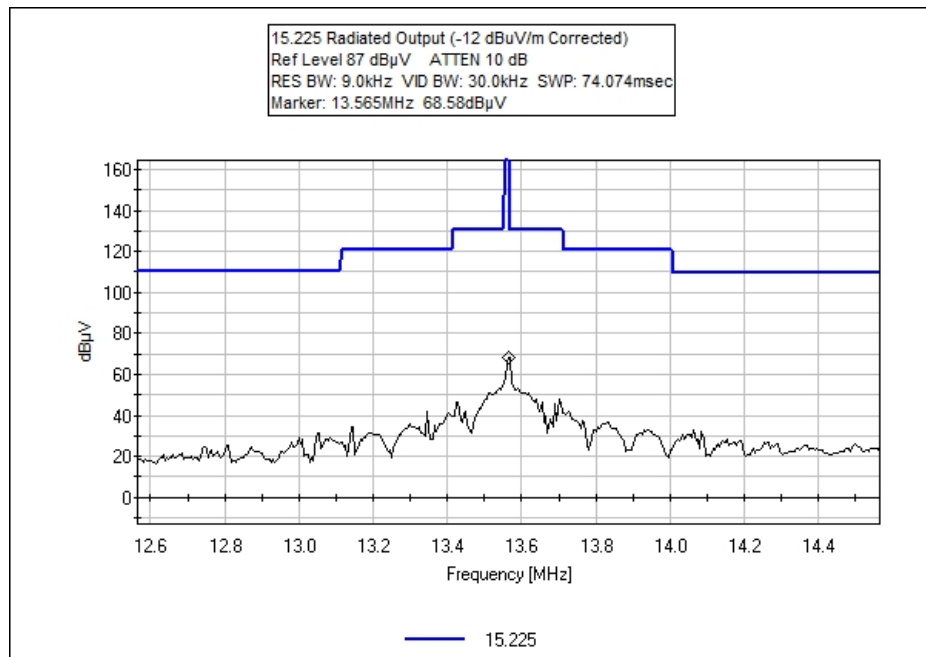
Test Equipment				
Name	Serial	Cal Date	Cal Due	Asset
Loop Antenna	1074	4/10/2009	4/10/2011	AN00226
Cable	NA	5/10/2009	5/10/2011	ANMA10M
Spectrum Analyzer	3624A00159	3/6/2009	3/6/2011	02111

Test Conditions

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Test Plot



Test Setup Photos



FCC 15.225(a) Bandwidth (20 dB) & RSS-210 Bandwidth (99%)

Engineer Name: Chuck Kendall

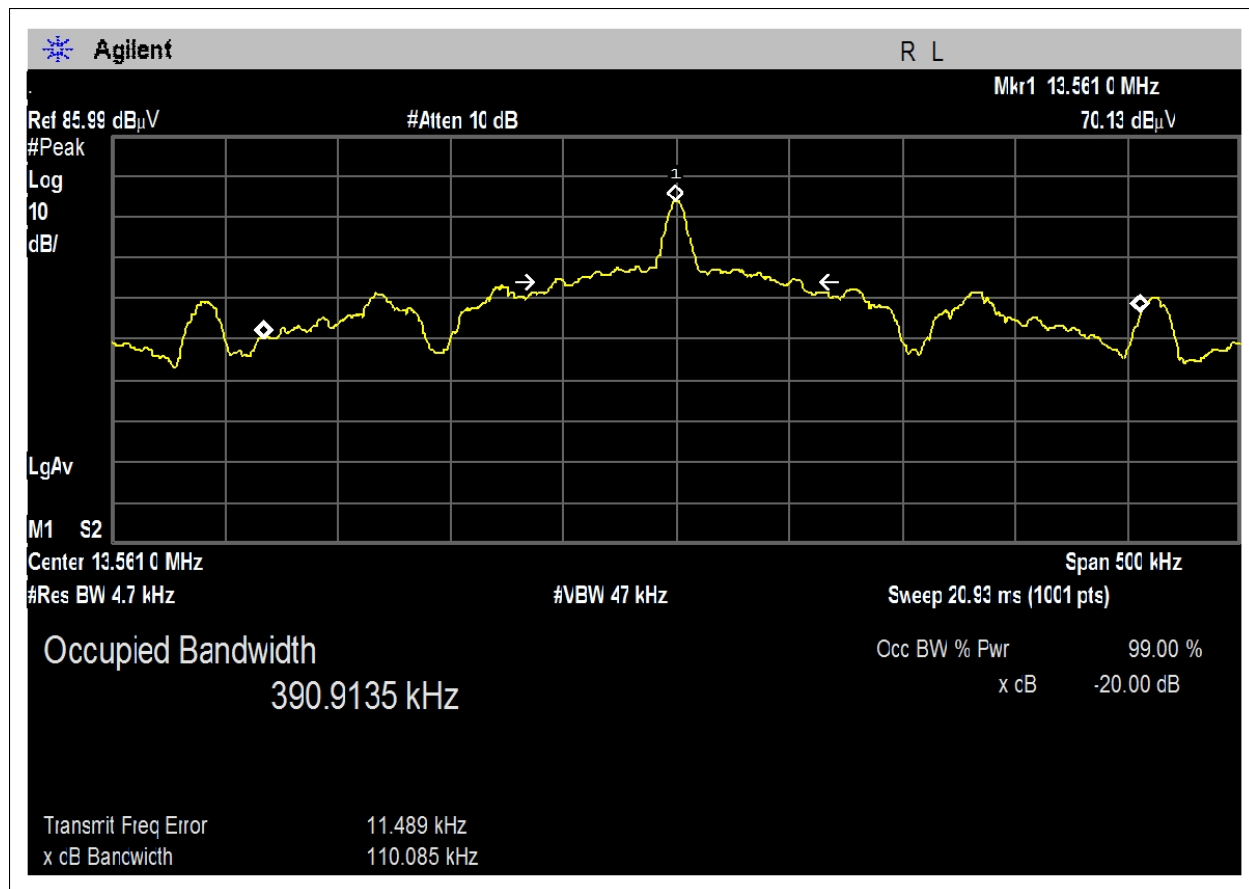
Test Equipment				
Name	Serial	Cal Date	Cal Due	Asset
Loop Antenna	1074	4/10/2009	4/10/2011	AN00226
Cable	NA	5/10/2009	5/10/2011	ANMA10M
Spectrum Analyzer	3624A00159	3/6/2009	3/6/2011	02111

Test Conditions

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table.

The USB cable being tested is about 3m in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Test Plot



Test Setup Photos



FCC 15.225(b)(c)(d) Emission Mask Plot

Engineer Name: Chuck Kendall

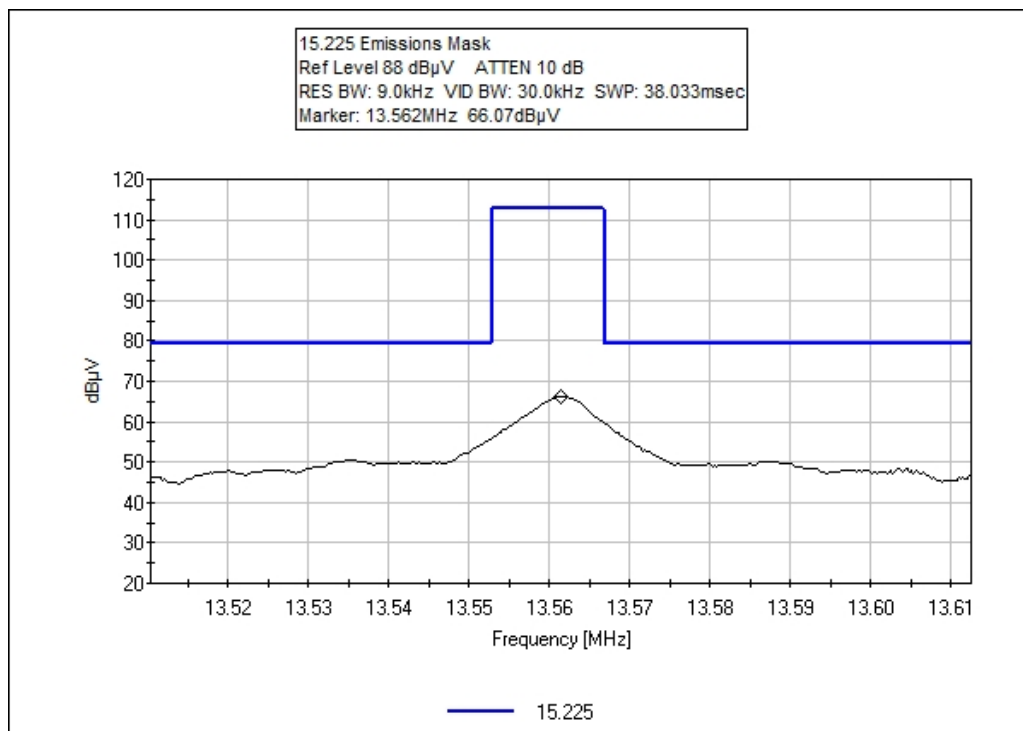
Test Equipment				
Name	Serial	Cal Date	Cal Due	Asset
Loop Antenna	1074	4/10/2009	4/10/2011	AN00226
Cable	NA	5/10/2009	5/10/2011	ANMA10M
Spectrum Analyzer	3624A00159	3/6/2009	3/6/2011	02111

Test Conditions

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom atop a Styrofoam cushion on the table).

The USB cable being tested is about 3m in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Test Data



Test Setup Photos



FCC 15.225(b)(c)(d) Spurious Emissions

Test Data Sheets

Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer:	XceedID	Date:	5/5/2010
Specification:	15.225	Time:	11:40:49
Work Order #:	90685	Sequence#:	2
Test Type:	Maximized Emissions	Tested By:	Chuck Kendall
Equipment:	RFID Card Programmer		
Manufacturer:	XceedID		
Model:	PG 1000		
S/N:	Unknown		

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
	AN00062	Preamp	8447D	6/20/2008	6/20/2010
	AN01992	Biconilog Antenna	CBL6111C	10/9/2009	10/9/2011
T1	ANMA10M	Cable		5/10/2009	5/10/2011
T2	AN01183	Spectrum Analyzer Display	85662A	3/10/2009	3/10/2011
T3	AN01184	Spectrum Analyzer	8568B	3/10/2009	3/10/2011
T4	AN00069	Quasi Peak Adapter	85650A	3/10/2009	3/10/2011
T5	AN00226	Loop Antenna	6502	4/10/2009	4/10/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Reader is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Reader that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom side on the table atop some Styrofoam).

The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Cable (3m)

Since the transmitter cannot be turned off this satisfies 15.109 as well.

Activated by the 13.56MHz card readings.

Frequencies of interest: 9 kHz to 30 MHz

9 kHz to 150 kHz: RBW = 200 Hz, VBW = 300 kHz; 150 kHz to 30 MHz: RBW = 9 kHz, VBW = 30 kHz

Temp = 72°F

Humidity = 40 %

Pressure = 97.7

Ext Attn: 0 dB

Measurement Data:

Reading listed by margin.

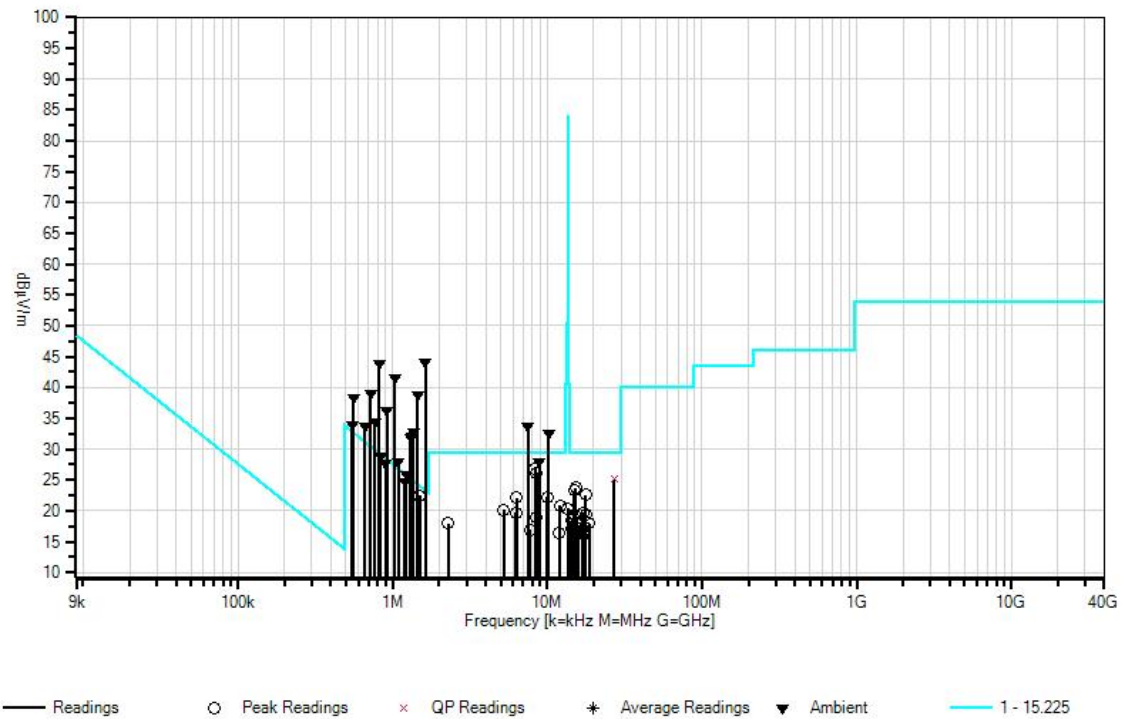
Test Distance: 10 Meters

#	Freq MHz	Rdng dB μ V	T1 T5 dB	T2 dB	T3 dB	T4 dB	Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	1.626M Ambient	52.8	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	44.1	23.3 Ambient radio station	+20.8	Vert
2	817.029k Ambient	52.5	+0.1 +10.3	+0.0	+0.0	+0.0	-19.0	43.9	29.3 Ambient radio station	+14.6	Vert
3	1.449M Ambient	47.4	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	38.7	24.3 Ambient radio station	+14.4	Vert
4	1.034M Ambient	50.2	+0.1 +10.2	+0.0	+0.0	+0.0	-19.0	41.5	27.3 Ambient radio station	+14.2	Vert
5	718.752k Ambient	47.7	+0.1 +10.3	+0.0	+0.0	+0.0	-19.0	39.1	30.5 Ambient radio station	+8.6	Vert
6	1.361M Ambient	41.6	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	32.9	24.9 Ambient radio station	+8.0	Vert
7	921.579k Ambient	44.7	+0.1 +10.4	+0.0	+0.0	+0.0	-19.0	36.2	28.3 Ambient radio station	+7.9	Vert
8	1.338M Ambient	40.8	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	32.1	25.0 Ambient radio station	+7.1	Vert
9	1.304M Ambient	40.6	+0.1 +10.1	+0.0	+0.0	+0.0	-19.0	31.8	25.2 Ambient radio station	+6.6	Vert
10	561.927k Ambient	47.1	+0.1 +10.2	+0.0	+0.0	+0.0	-19.0	38.4	32.6 Ambient radio station	+5.8	Vert
11	771.027k Ambient	42.9	+0.1 +10.3	+0.0	+0.0	+0.0	-19.0	34.3	29.8 Ambient radio station	+4.5	Vert
12	7.466M Ambient	42.8	+0.6 +9.3	+0.0	+0.0	+0.0	-19.0	33.7	29.5 Ambient radio station	+4.2	Vert
13	10.241M Ambient	41.7	+0.7 +9.2	+0.0	+0.0	+0.0	-19.0	32.6	29.5 Ambient radio station	+3.1	Vert
14	660.204k Ambient	42.4	+0.1 +10.3	+0.0	+0.0	+0.0	-19.0	33.8	31.2 Ambient radio station	+2.6	Vert
15	547.290k Ambient	42.7	+0.1 +10.1	+0.0	+0.0	+0.0	-19.0	33.9	32.8 Ambient radio station	+1.1	Vert

16	1.095M Ambient	36.6	+0.1 +10.2	+0.0	+0.0	+0.0	-19.0	27.9	26.8 Ambient radio station	+1.1	Vert
17	1.225M Ambient	34.7	+0.1 +10.1	+0.0	+0.0	+0.0	-19.0	25.9	25.8 Ambient radio station	+0.1	Vert
18	837.939k Ambient	37.4	+0.1 +10.3	+0.0	+0.0	+0.0	-19.0	28.8	29.1 Ambient radio station	-0.3	Vert
19	896.487k Ambient	36.1	+0.1 +10.4	+0.0	+0.0	+0.0	-19.0	27.6	28.5 Ambient radio station	-0.9	Vert
20	1.204M Ambient	33.4	+0.1 +10.1	+0.0	+0.0	+0.0	-19.0	24.6	25.9 Ambient radio station	-1.3	Vert
21	8.926M Ambient	37.1	+0.7 +9.2	+0.0	+0.0	+0.0	-19.0	28.0	29.5 Ambient radio station	-1.5	Vert
22	1.492M	31.1	+0.2 +10.1	+0.0	+0.0	+0.0	-19.0	22.4	24.1	-1.7	Vert
23	8.376M	36.0	+0.6 +9.2	+0.0	+0.0	+0.0	-19.0	26.8	29.5	-2.7	Vert
24	8.538M	35.3	+0.6 +9.2	+0.0	+0.0	+0.0	-19.0	26.1	29.5	-3.4	Vert
25	27.120M QP	36.7	+1.2 +6.2	+0.0	+0.0	+0.0	-19.0	25.1	29.5	-4.4	Vert
^	27.120M	39.2	+1.2 +6.2	+0.0	+0.0	+0.0	-19.0	27.6	29.5	-1.9	Vert
27	15.277M	31.3	+0.9 +10.5	+0.0	+0.0	+0.0	-19.0	23.7	29.5	-5.8	Vert
28	14.899M	30.8	+0.9 +10.6	+0.0	+0.0	+0.0	-19.0	23.3	29.5	-6.2	Vert
29	17.637M	30.8	+1.0 +9.8	+0.0	+0.0	+0.0	-19.0	22.6	29.5	-6.9	Vert
30	10.016M	31.4	+0.7 +9.1	+0.0	+0.0	+0.0	-19.0	22.2	29.5	-7.3	Vert
31	6.322M	31.2	+0.5 +9.4	+0.0	+0.0	+0.0	-19.0	22.1	29.5	-7.4	Vert
32	12.115M	29.2	+0.8 +9.8	+0.0	+0.0	+0.0	-19.0	20.8	29.5	-8.7	Vert
33	5.259M	29.2	+0.4 +9.5	+0.0	+0.0	+0.0	-19.0	20.1	29.5	-9.4	Vert
34	6.250M	28.8	+0.5 +9.4	+0.0	+0.0	+0.0	-19.0	19.7	29.5	-9.8	Vert
35	17.007M	27.9	+0.9 +9.9	+0.0	+0.0	+0.0	-19.0	19.7	29.5	-9.8	Vert
36	17.691M	27.8	+1.0 +9.7	+0.0	+0.0	+0.0	-19.0	19.5	29.5	-10.0	Vert
37	15.025M	27.0	+0.9 +10.6	+0.0	+0.0	+0.0	-19.0	19.5	29.5	-10.0	Vert
38	8.466M	28.1	+0.6 +9.2	+0.0	+0.0	+0.0	-19.0	18.9	29.5	-10.6	Vert

39	14.349M	26.1	+0.9 +10.4	+0.0	+0.0	+0.0	-19.0	18.4	29.5	-11.1	Vert
40	15.493M	25.6	+0.9 +10.4	+0.0	+0.0	+0.0	-19.0	17.9	29.5	-11.6	Vert
41	2.286M	26.6	+0.3 +10.0	+0.0	+0.0	+0.0	-19.0	17.9	29.5	-11.6	Vert
42	18.745M	26.5	+1.0 +9.4	+0.0	+0.0	+0.0	-19.0	17.9	29.5	-11.6	Vert
43	17.601M	25.6	+1.0 +9.8	+0.0	+0.0	+0.0	-19.0	17.4	29.5	-12.1	Vert
44	15.989M	24.8	+0.9 +10.3	+0.0	+0.0	+0.0	-19.0	17.0	29.5	-12.5	Vert
45	14.268M	24.7	+0.9 +10.4	+0.0	+0.0	+0.0	-19.0	17.0	29.5	-12.5	Vert
46	7.773M	26.0	+0.6 +9.3	+0.0	+0.0	+0.0	-19.0	16.9	29.5	-12.6	Vert
47	17.574M	25.0	+1.0 +9.8	+0.0	+0.0	+0.0	-19.0	16.8	29.5	-12.7	Vert
48	17.529M	24.8	+1.0 +9.8	+0.0	+0.0	+0.0	-19.0	16.6	29.5	-12.9	Vert
49	12.016M	24.9	+0.8 +9.8	+0.0	+0.0	+0.0	-19.0	16.5	29.5	-13.0	Vert
50	17.313M	24.3	+1.0 +9.9	+0.0	+0.0	+0.0	-19.0	16.2	29.5	-13.3	Vert
51	17.097M	24.4	+0.9 +9.9	+0.0	+0.0	+0.0	-19.0	16.2	29.5	-13.3	Vert
52	13.567M	28.4	+0.8 +10.2	+0.0	+0.0	+0.0	-19.0	20.4	84.0	-63.6	Vert

CKC Laboratories, Inc. Date: 5/5/2010 Time: 11:40:49 XceedID WO#: 90685
 15.225 Test Distance: 10 Meters Sequence#: 2 Ext ATTN: 0 dB



Test Location: CKC Laboratories, Inc. • 5046 Sierra Pines Drive • Mariposa, CA 95338 • 209-966-5240

Customer: **XceedID**
 Specification: **15.225**
 Work Order #: **90685**
 Test Type: **Maximized Emissions**
 Equipment: **RFID Card Programmer**
 Manufacturer: **XceedID**
 Model: **PG 1000**
 S/N: **Unknown**

Date: 5/5/2010
 Time: 09:40:40
 Sequence#: 1
 Tested By: Chuck Kendall

Test Equipment:

ID	Asset #	Description	Model	Calibration Date	Cal Due Date
T1	AN00062	Preamplifier	8447D	6/20/2008	6/20/2010
T2	AN01992	Biconilog Antenna	CBL6111C	10/9/2009	10/9/2011
T3	ANMA10M	Cable		5/10/2009	5/10/2011
	AN01183	Spectrum Analyzer Display	85662A	3/10/2009	3/10/2011
	AN01184	Spectrum Analyzer	8568B	3/10/2009	3/10/2011
	AN00069	Quasi Peak Adapter	85650A	3/10/2009	3/10/2011

Equipment Under Test (* = EUT):

Function	Manufacturer	Model #	S/N
RFID Card Programmer*	XceedID	PG 1000	Unknown

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop Computer	Lenovo	SL410	LR-ZZW25 10/02

Test Conditions / Notes:

Card Programmer is setup on a wooden table 80cm above the flush-mounted turntable 10 cm away from a Laptop computer. It is connected via a USB cable to the laptop computer. Program is running in Notebook mode and receiving alphanumeric streams of data from the Card Programmer that is being activated by a card placed some 5 cm away from the reader. The Card Reader is in the Horizontal position (with its bottom resting on the table atop a Styrofoam cushion).

The USB cable being tested is about 3m (10') in length. The USB cable is bundled tied in the center of the cable and hanging down off the table by some 40cm in length.

Cable (3m)

Since the transmitter cannot be turned off this satisfies 15.109 as well.

The 13.56MHz card is activating the reader which alternatively transmits and receives on both 125kHz & 13.56 MHz frequencies.

Frequencies of interest: 30 MHz - 1000 MHz
 30 MHz- 1000 MHz: RBW = 120kHz, VBW = 120kHz
 Temp = 72°F
 Humidity = 40 %
 Pressure = 79.7

Ext Attn: 0 dB

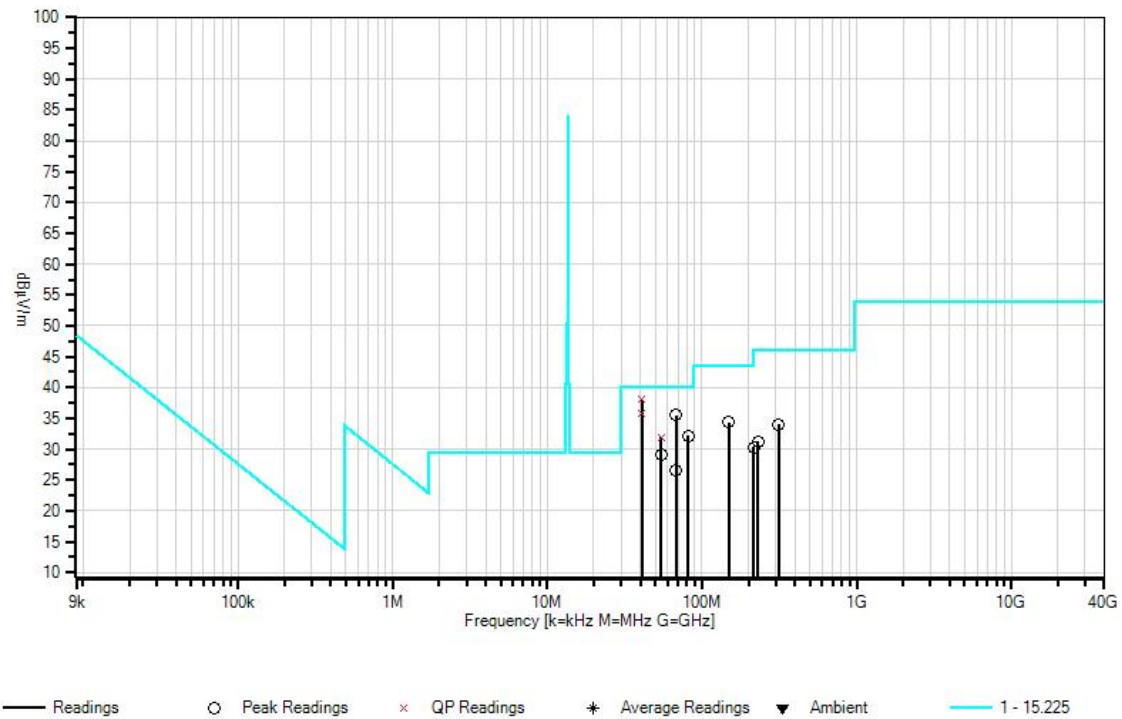
Measurement Data:

Reading listed by margin.

Test Distance: 10 Meters

#	Freq MHz	Rdng dB μ V	T1 dB	T2 dB	T3 dB		Dist Table	Corr dB μ V/m	Spec dB μ V/m	Margin dB	Polar Ant
1	40.790M	38.4	-30.8	+18.9	+1.5		+10.0	38.0	40.0	-2.0	Vert
	QP										
^	40.748M	43.3	-30.8	+19.0	+1.5		+10.0	43.0	40.0	+3.0	Vert
^	40.758M	42.2	-30.8	+19.0	+1.5		+10.0	41.9	40.0	+1.9	Vert
^	40.734M	41.2	-30.8	+19.0	+1.5		+10.0	40.9	40.0	+0.9	Vert
5	40.770M	36.3	-30.8	+18.9	+1.5		+10.0	35.9	40.0	-4.1	Horiz
	QP										
^	40.726M	41.0	-30.8	+19.0	+1.5		+10.0	40.7	40.0	+0.7	Horiz
7	67.853M	48.4	-30.8	+6.0	+1.9		+10.0	35.5	40.0	-4.5	Vert
8	81.464M	42.5	-30.7	+8.2	+2.1		+10.0	32.1	40.0	-7.9	Vert
9	54.317M	43.2	-30.7	+7.7	+1.7		+10.0	31.9	40.0	-8.1	Vert
	QP										
^	54.337M	44.9	-30.7	+7.7	+1.7		+10.0	33.6	40.0	-6.4	Vert
^	54.316M	42.2	-30.7	+7.7	+1.7		+10.0	30.9	40.0	-9.1	Vert
12	149.215M	40.0	-30.4	+11.9	+2.9		+10.0	34.4	43.5	-9.1	Vert
13	54.325M	40.3	-30.7	+7.7	+1.7		+10.0	29.0	40.0	-11.0	Horiz
14	311.964M	35.2	-29.7	+14.1	+4.4		+10.0	34.0	46.0	-12.0	Horiz
15	67.884M	39.5	-30.8	+6.0	+1.9		+10.0	26.6	40.0	-13.4	Horiz
16	230.643M	36.0	-29.8	+11.3	+3.7		+10.0	31.2	46.0	-14.8	Vert
17	217.021M	36.3	-29.9	+10.4	+3.5		+10.0	30.3	46.0	-15.7	Vert

CKC Laboratories, Inc. Date: 5/5/2010 Time: 09:40:40 XceedID WO#: 90685
 15.225 Test Distance: 10 Meters Sequence#: 1 Ext ATTN: 0 dB



Test Setup Photos



FCC 15.225(e) Frequency Stability

Engineer Name: Chuck Kendall

Test Equipment				
Name	Serial	Cal Date	Cal Due	Asset
Spectrum Analyzer	3624A00159	3/6/2009	3/6/2011	02111
Temp Chamber	11899	12/16/08	12/16/10	01879
Power Stat Variac	None	7/17/09	7/17/11	02038
Multimeter	2905006	3/5/2009	3/5/2011	02369

Test Conditions

RFID Card Programmer was placed into the temperature chamber with the USB Cable attached to the computer which was on the outside of the test chamber. A small antenna was placed into the environmental chamber also adjacent to the EUT. This antenna was connected with a coax cable, then passed through a hole in the chamber, and routed to a spectrum analyzer where the signal was being measured for variations in Output Power and Frequency Drifts due to extreme temperature changes and extreme voltage changes.

Test Data

Frequency Stability

Customer:	XceedID
WO#:	
Date:	12-May-10
Test Engineer:	C Kendall
Test Specification	
Device Model #:	RFID Card Programmer
Operating Voltage:	120 VDC/VAC
Frequency Limit:	0.01% PPM/%

Temperature Variations

Channel Frequency:		Channel 1 (MHz)	Dev. (MHz)
		13561000	
Temp (C)	Voltage		
-20	120.0	13561450	0.000450
-10	120.0	13561250	0.000250
0	120.0	13561350	0.000350
10	120.0	13561150	0.000150
20	120.0	13560950	-0.000050
30	120.0	13561350	0.000350
40	120.0	13561300	0.000150
50	120.0	13561250	0.000300
55	120.0	13561000	-0.000350

Voltage Variations ($\pm 15\%$)

120	138.0	13561200.00000	0.00020
120	120.0	13561200.00000	0.00020
120	102.0	13561050.00000	-0.00040

Max Deviation (MHz)	0.000450
Max Deviation (PPM)	

Max Deviation (MHz)	
Max Deviation (%)	0.00332%

Test Setup Photos



SUPPLEMENTAL INFORMATION

Measurement Uncertainty

Uncertainty Value	Parameter
4.73 dB	Radiated Emissions
3.34 dB	Mains Conducted Emissions
3.30 dB	Disturbance Power

The reported measurement uncertainties are calculated based on the worst case of all laboratory environments from CKC Laboratories, Inc. test sites. Only those parameters which require estimation of measurement uncertainty are reported. The reported worst case measurement uncertainty is less than the maximum values derived in CISPR 16-4-2. Reported uncertainties represent expanded uncertainties expressed at approximately the 95% confidence level using a coverage factor of $k=2$. Compliance is deemed to occur provided measurements are below the specified limits.

Emissions Test Details

TESTING PARAMETERS

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

The equipment under test (EUT) was set up in a manner that represented its normal use, as shown in the setup photographs. Any special conditions required for the EUT to operate normally are identified in the comments that accompany the emissions tables.

The emissions data was taken with a spectrum analyzer or receiver. Incorporating the applicable correction factors for distance, antenna, cable loss and amplifier gain, the data was reduced as shown in the table below. The corrected data was then compared to the applicable emission limits. 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. This reading was then compared to the applicable specification limit.

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 were used to collect the emissions data. A spectrum analyzer or receiver was used for all measurements. For testing emissions, an appropriate reference level and a vertical scale size of 10 dB per division were used. When conducted emissions testing was performed, a 10 dB external attenuator was used with internal offset correction in the analyzer.

SPECTRUM ANALYZER/RECEIVER DETECTOR FUNCTIONS

The notes that accompany the measurements contained in the emissions 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 highest readings, this is indicated as a "QP" or an "Ave" on the appropriate rows of the data sheets. 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/receiver readings recorded all emissions at their peak value as the frequency band selected was scanned. By combining this function with another feature of the measuring device called "peak hold," the measuring device had the ability to measure transients or low duty cycle transient emission peak levels. In this mode the measuring device 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 quasi-peak detector.

Average

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