ADDENUDM TO PRINTRONIX TEST REPORT FC05-033

FOR THE

PRINT AND APPLY MACHINE, SLPA7304R MP2

FCC PART 15 SUBPART C SECTIONS 15.207 & 15.247 AND RSS-210

COMPLIANCE

DATE OF ISSUE: SEPTEMBER 9, 2005

PREPARED FOR:

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Date of test: May 31 – July 19, 2005

Report No.: FC05-033A

TABLE OF CONTENTS

ADMINISTRATIVE INFORMATION

DATE OF TEST:	May 31 – July 19, 2005
DATE OF RECEIPT:	May 31, 2005
MANUFACTURER:	Printronix P.O. Box 19559 Irvine, CA 92623-9559
REPRESENTATIVE:	Zaven Mangassarian
TEST LOCATION:	CKC Laboratories, Inc. 110 Olinda Place Brea, CA 92621
TEST METHOD:	ANSI C63.4 (2003), DA 02-2138 August 30, 2002, DA 00-705 March 30, 2000, KDB Publication NO. 558074 and RSS-212
PURPOSE OF TEST:	To demonstrate the compliance of the Print and Apply Machine, SLPA7304r MP2, with the requirements for FCC Part 15 Subpart C Sections 15.207 & 15.247 and RSS-210 devices. **Addendum A** is to remove the FCC and Canadian ID numbers, since they were for a different model. Also the range of the voltage variations was revised.

FCC TO CANADA STANDARD CORRELATION MATRIX

Canadian Standard	Canadian Section	FCC Standard	FCC Section	Test Description
RSS 210	5.5	47CFR	15.203	Antenna Connector Requirements
RSS 210	6.2.1	47CFR	15.209	General Radiated Emissions Requirement
RSS 210	6.3	47CFR	15.205	Restricted Bands of Operation
RSS 210	6.4	47CFR	15.215(c)	Frequency Stability Recommendation
RSS 210	6.5	47CFR	15.35(c)	Pulsed Operation
RSS 210	6.6	47CFR	15.207	AC Mains Conducted Emissions Requirement
RSS 210	6.2.2(o)(a1)	47CFR	15.247(a)(1)	Minimum Channel Bandwidth
RSS 210	6.2.2(o)(a1)	47CFR	15.247(g)	Hopping Sequence
RSS 210	6.2.2(o)(a1)	47CFR	15.247(h)	Incorporation of Intelligence
RSS 210	6.2.2(o)(a2)	47CFR	15.247(a)(1)(i)	Average Time of Occupancy
RSS 210	6.2.2(o)(a2)	47CFR	15.247(b)(2)	RF Power Output
RSS 210	6.2.2(o)(a3)	47CFR	15.247(a)(1)(ii)	Average Time of Occupancy
RSS 210	6.2.2(o)(a3)	47CFR	15.247(a)(1)(iii)	Average Time of Occupancy
RSS 210	6.2.2(o)(a3)	47CFR	15.247(b)(1)	RF Power Output
RSS 210	6.2.2(o)(a3)	47CFR	15.247(b)(4)	Directional Gain Antennae
RSS 210	6.2.2(o)(b)	47CFR	15.247(d)	Peak Power Spectral Density
RSS 210	6.2.2(o)(b)	47CFR	15.247(b)(3)	RF Power Output
RSS 210	6.2.2(o)(b)	47CFR	15.247(a)(2)	Minimum 6dB Bandwidth
RSS 210	6.2.2(o)(b)	47CFR	15.247(b)(4)	Directional Gain Antennae
RSS 210	6.2.2(o)(b)	47CFR	15.247(f)	Hybrid Systems
RSS 210	6.2.2(o)(e1)	47CFR	15.247(c)	Spurious Emissions
	IC 3172-A		90473	Site File No.

Notes: Rule Sections for RSS 210 are IAW RSS 210 Issue 5 Amendment 1

CONDITIONS FOR COMPLIANCE

Installed Instrument Specialty S3 series copper tab on RJ 45. Removed powder rcoat under the EMI gaskets and mounting area. Modification: relocated RFID.

APPROVALS

Steve Behm, Director of Engineering Services

QUALITY ASSURANCE:

Joyce Walker, Quality Assurance Administrative Manager

TEST PERSONNEL:

Eddie Wong, EMC Engineer

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

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

FCC 15.31(e) Voltage Variations

With an AC Power variation of 85% and 115%, there was no observed variant in RF output power.

FCC 15.31(m) Number Of Channels

This device was tested on three channels.

FCC 15.33(a) Frequency Ranges Tested

15.207 Conducted Emissions: 150 kHz – 30 MHz
15.247 Radiated Emissions: 9 kHz – 9.28 GHz

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
RADIATED EMISSIONS	1000 MHz	9.28 GHz	1 MHz

FCC 15.203 Antenna Requirements

The antenna is only removable by trained professionals; therefore the EUT complies with Section 15.203 of the FCC rules.

Eut Operating Frequency

The EUT was operating at 902-928 MHz.

EQUIPMENT UNDER TEST (EUT) DESCRIPTION

The customer declares the EUT tested by CKC Laboratories was representative of a production unit. The EUT is a thermal printer that prints on labels, programs radio frequency identification tags embedded into labels and applies labels to containers with a pneumatic plunger.

The following model name was referenced by CKC Laboratories during testing: **SLPA7204r.** The model name referenced was incorrect. The proper model name should have been **SLPA7304r MP2.** The data sheets in Appendix B are screen captures taken at the time of testing and will reflect the wrong model number. Any differences between the names does not affect their EMC characteristics and therefore complies to the level of testing equivalent to the tested model name shown on the data sheets.

The manufacturer states that the following additional models are identical electrically to the one which was tested, or any differences between them do not affect their EMC characteristics, and therefore they comply to the level of testing equivalent to the tested models. **SLPA7204r MP2**

EQUIPMENT UNDER TEST

Print and Apply Machine

Manuf:	Printronix
Model:	SLPA7304r MP2
Serial:	NA

PERIPHERAL DEVICES

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

Laptop

Manuf:	Dell
Model:	Latitude CP
Serial:	00066902-12800-82P-3038
FCC ID:	DoC

REPORT OF MEASUREMENTS

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

Table 1: FCC 15.207 Six Highest Conducted Emission Levels

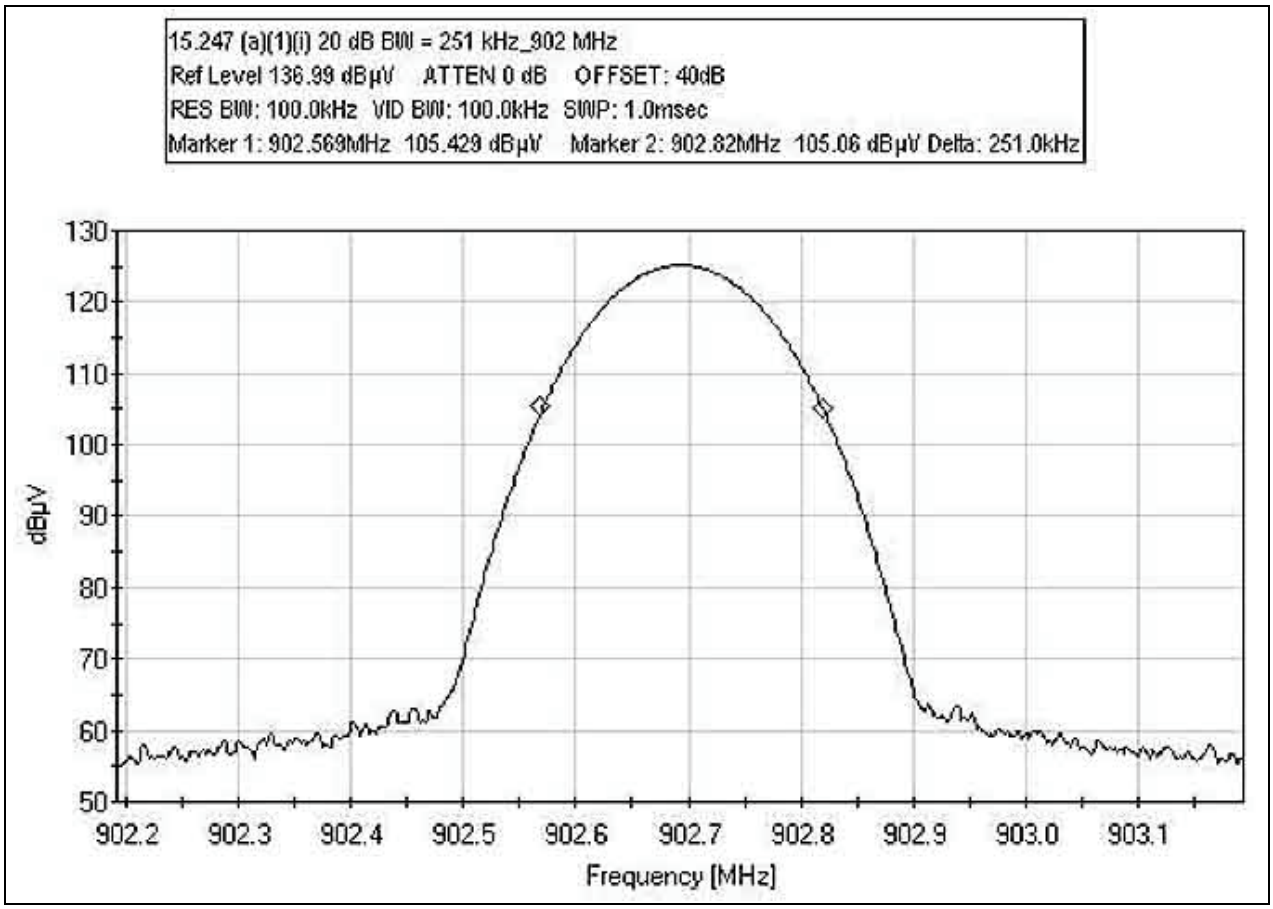
FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Lisn dB		Cable dB	dB	CORRECTED READING dBµV	SPEC LIMIT dBµV	MARGIN dB	NOTES
16.174960	40.1	0.6		0.3		41.0	50.0	-9.0	W
16.229010	39.7	0.6		0.3		40.6	50.0	-9.4	B
16.229010	39.6	0.6		0.3		40.5	50.0	-9.5	W
17.688470	39.4	0.7		0.4		40.5	50.0	-9.5	B
18.247030	39.4	0.7		0.4		40.5	50.0	-9.5	B
18.247030	39.5	0.6		0.4		40.5	50.0	-9.5	W

Test Method: ANSI C63.4 (2003)
Spec Limit: FCC Part 15 Subpart C Section 15.207

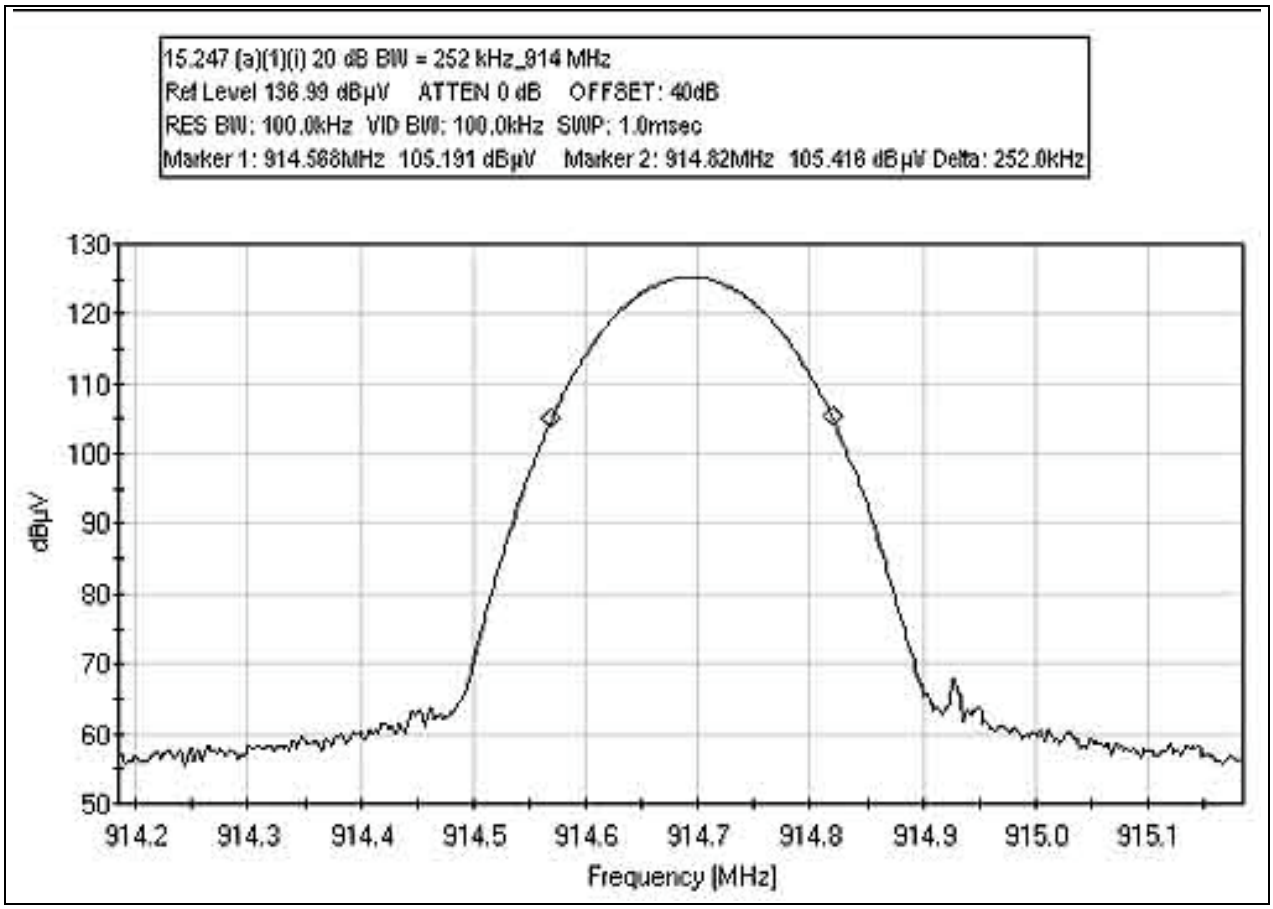
NOTES: B = Black Lead
W = White Lead

COMMENTS: Transmitter is installed in the printer and transmitting info to the tag. Laptop computer is sending all "H's Pattern" to the printer via UTP. EUT is in operating mode. AWID RF Card. Frequency: Hopping. 110VAC, 60 Hz, 20°C, 60% relative humidity. Modification: Installed Instrument Specialty S3 series copper tab on RJ 45.

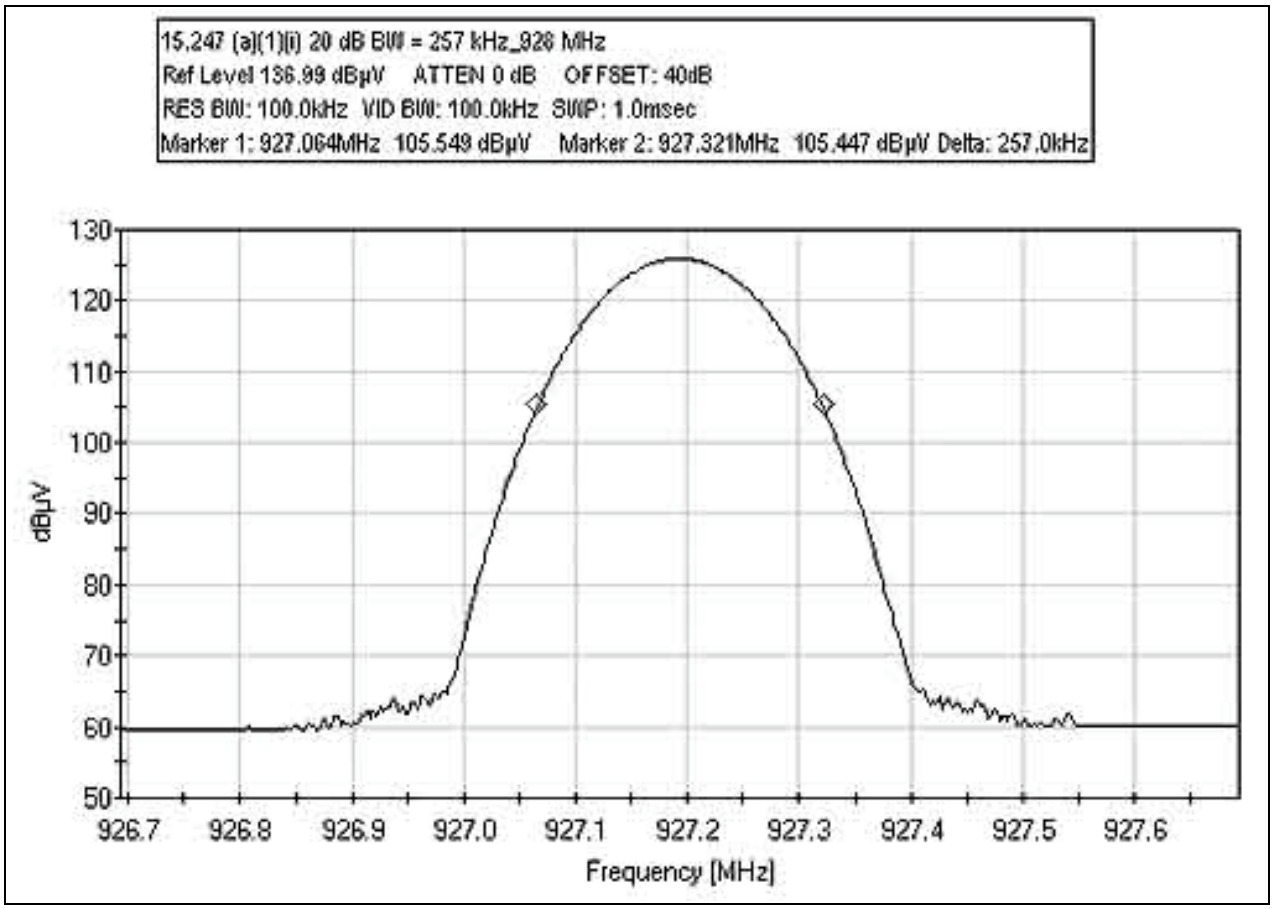
FCC 15.247 (a)(1)(i) 20dB 902 MHz



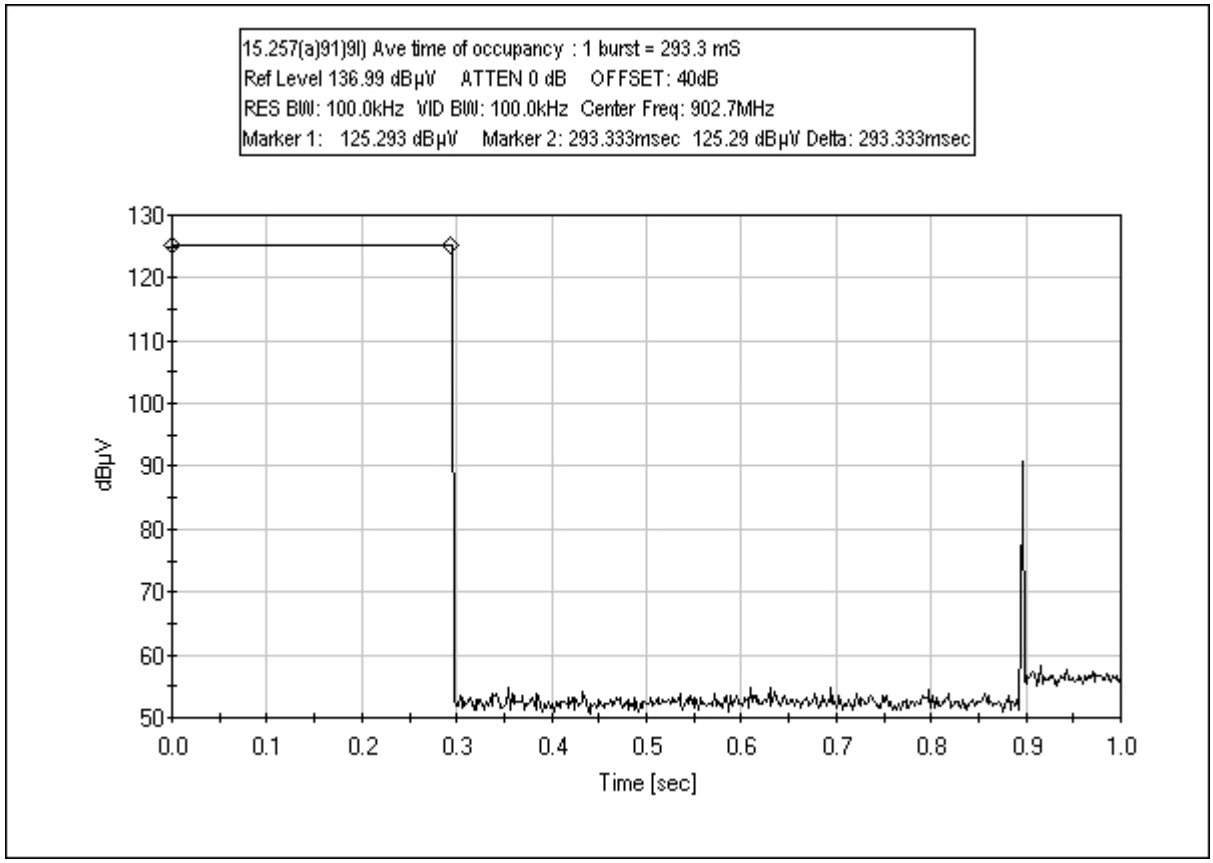
FCC 15.247 (a)(1)(i) 20dB BW 914 MHz



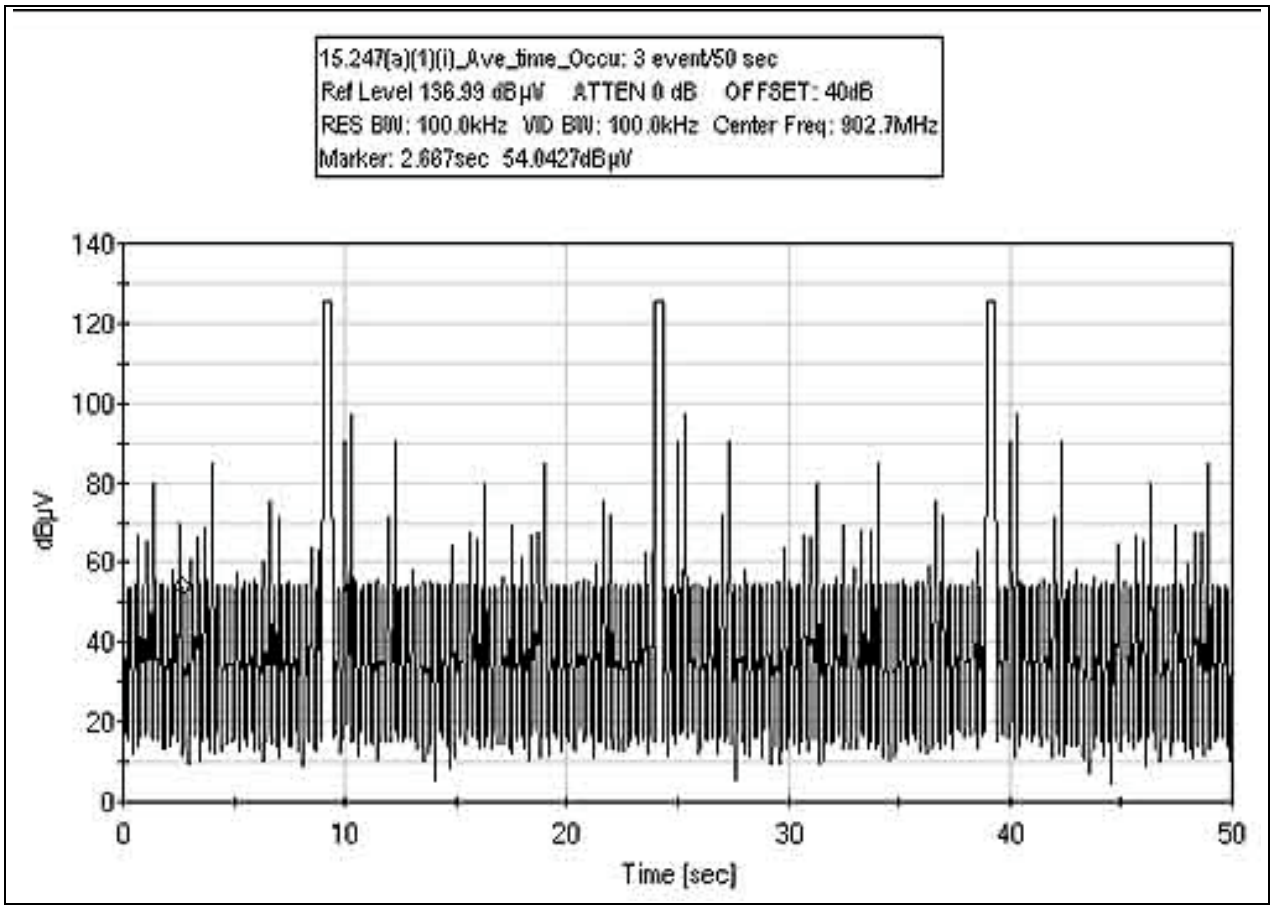
FCC 15.247 (a)(1)(i) 20dB BW 928 MHz



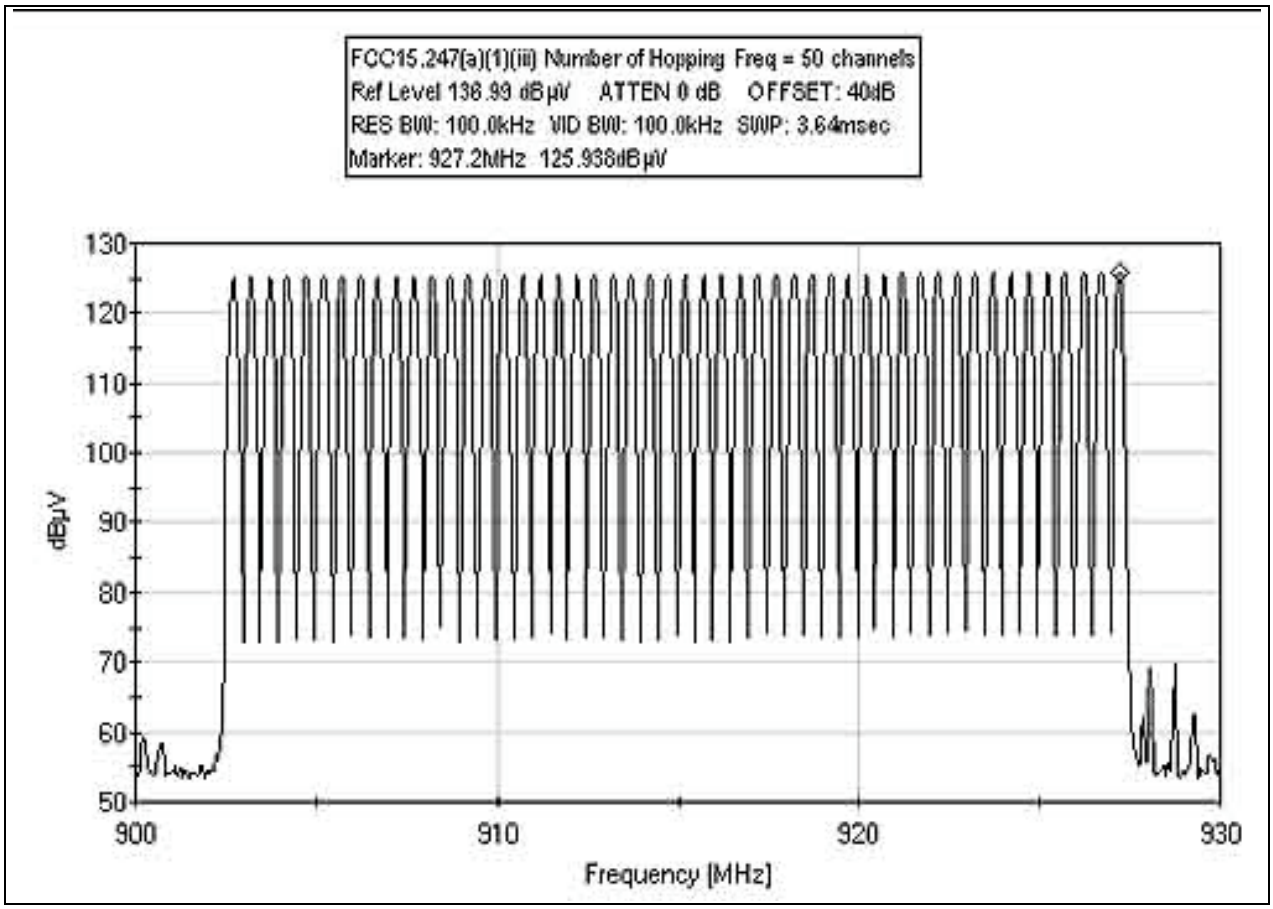
FCC 15.247 (a)(1)(i) Average Time of Occupancy Burst Time



FCC 15.247 (a)(1)(i) Average Time of Occupancy Event



FCC 15.247(a)(1)(iii) NUMBER OF HOPPING FREQUENCIES



FCC 15.247 (b)(3) RF Power Output

(b) The maximum peak output power of the intentional radiator shall not exceed the following:
(3) For systems using digital modulation in the 902-928 MHz, 2400-2483.5 MHz, and 5725-5850 MHz bands: 1 Watt. As an alternative to a peak power measurement, compliance with the one Watt limit can be based on a measurement of the maximum conducted output power.

Test Conditions: The EUT is placed on the test bench, the RF output port is connected to a power meter.

Result:

902 MHz = 19.1 dBm = 0.08128 W

914 MHz = 19.2 dBm = 0.08318 W

928 MHz = 19.4 dBm = 0.08710W

Conclusion : The EUT meets the requirement of less the 1 watt, RF power limit.

Radiated Power measurement

Field strength measured at 3 meter, back calculate using power density formula.

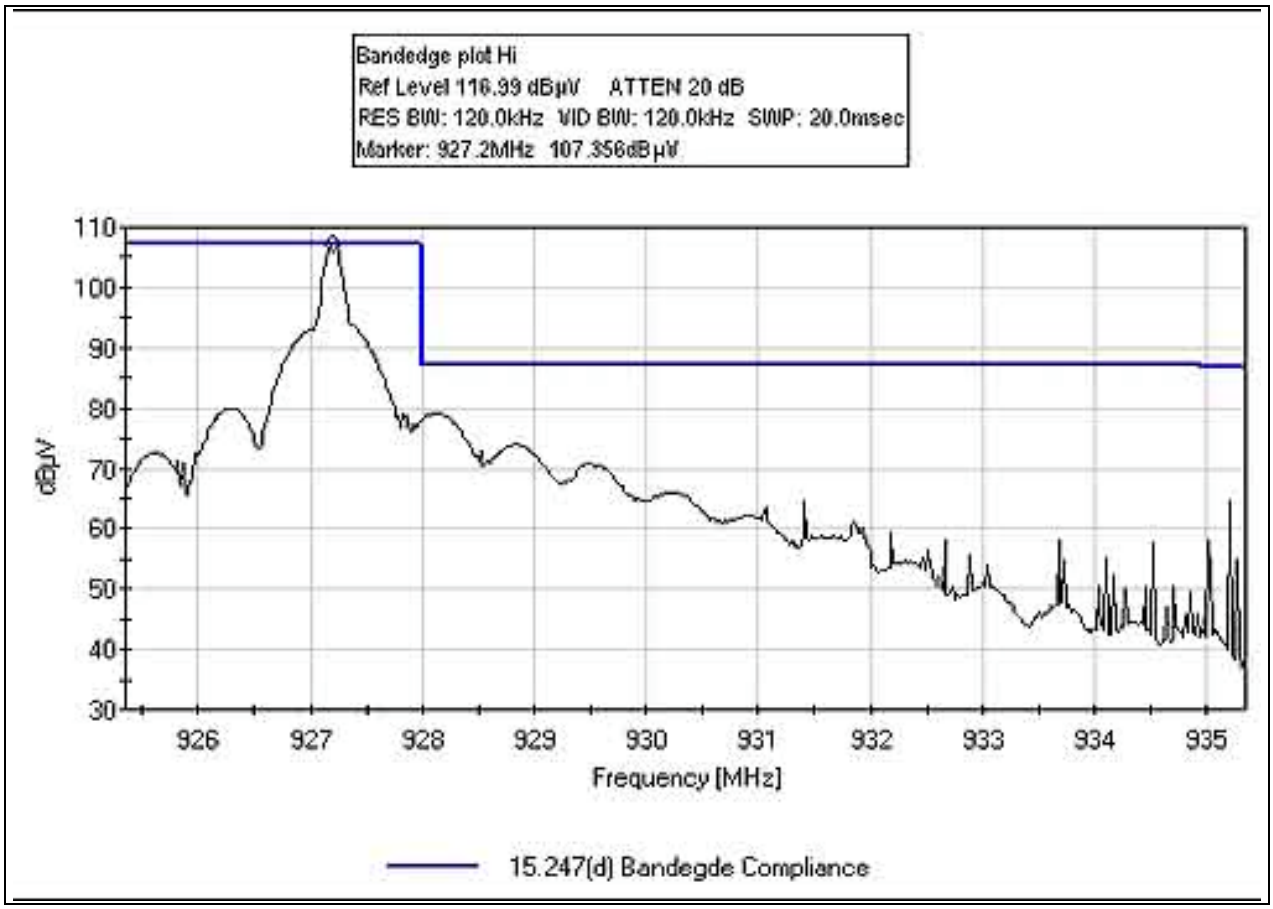
902 MHz = 108.1dBuV/m @ 3M =0.0039W (EIRP)

914 MHz = 110.5dBuV/m @ 3M=0.0337W (EIRP)

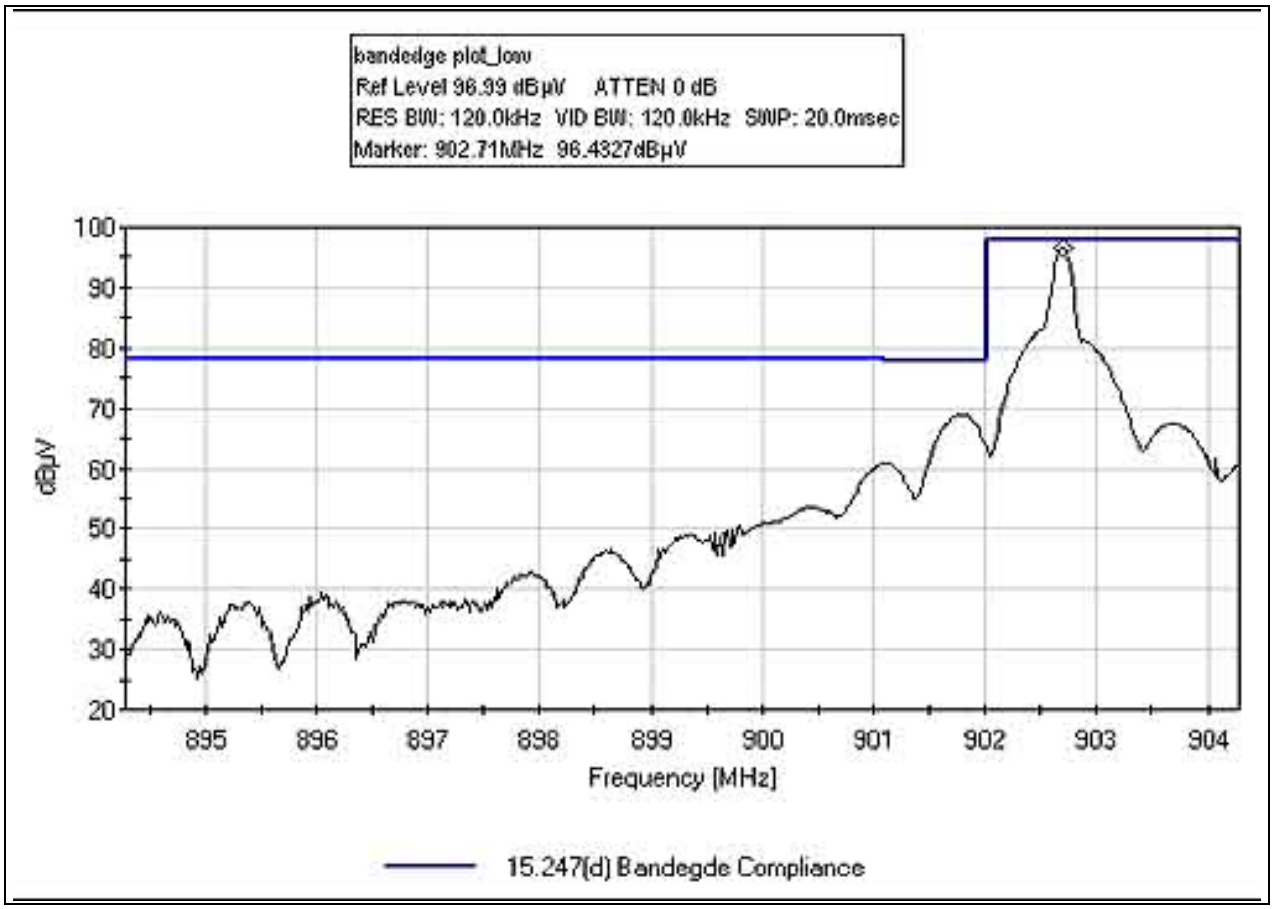
928 MHz = 111.8 dBuV/m @ 3M=0.0454 W (EIRP)

Conclusion : The EUT meets the requirement of less the 1 watt, RF power limit.

BANDEDGE PLOT HIGH CHANNEL



BANDEDGE PLOT LOW CHANNEL



FCC 15.247 CARRIER FREQUENCY SEPARATION

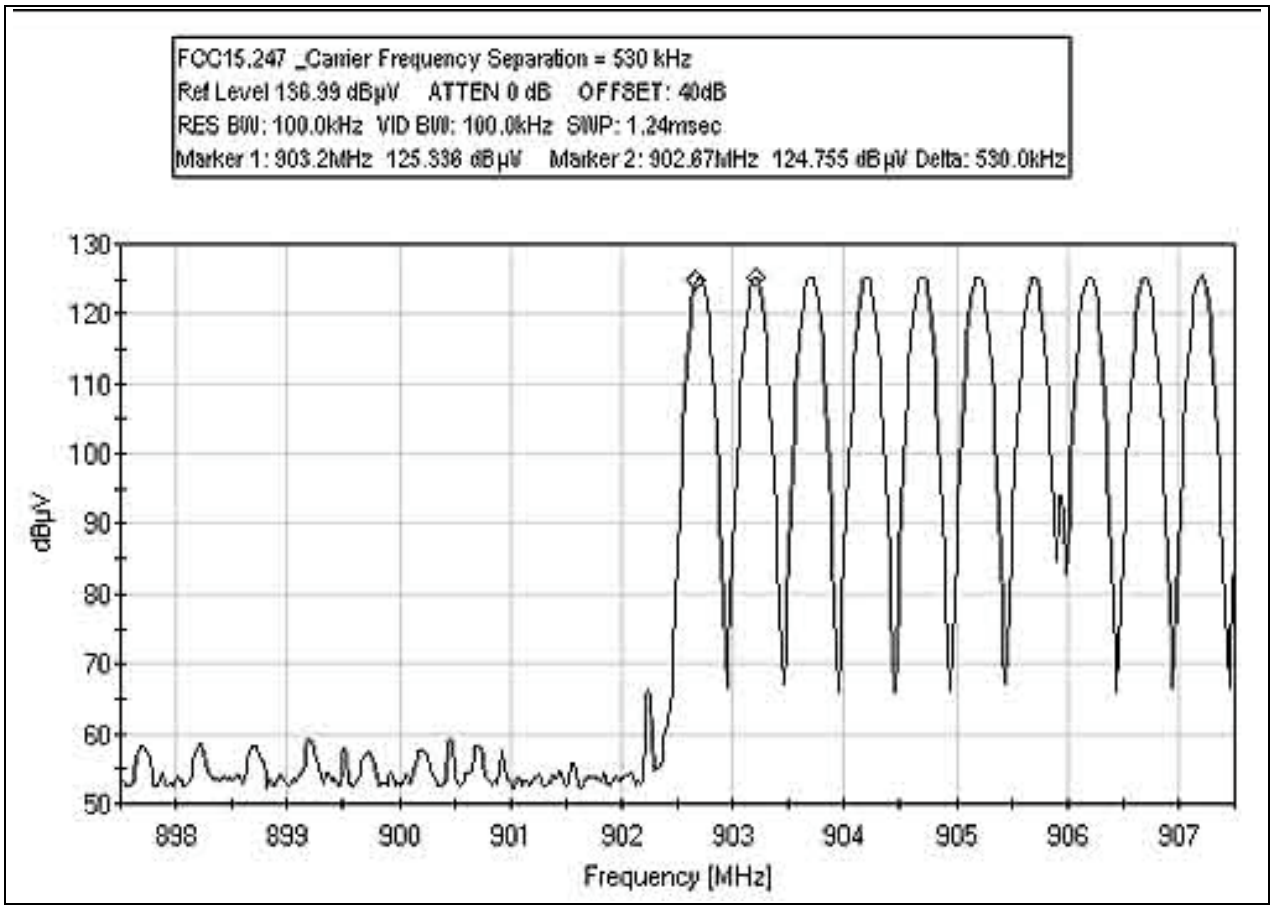


Table 2: FCC 15.247(d) Six Highest Radiated Emission Levels

FREQUENCY MHz	METER READING dBµV	CORRECTION FACTORS Ant dB	Amp dB	Cable dB	HPF dB	CORRECTED READING dBµV/m	SPEC LIMIT dBµV/m	MARGIN dB	NOTES
131.779	53.7	12.1	-27.6	2.2	0.0	40.4	43.5	-3.1	H-1
329.800	52.1	14.9	-27.6	3.7	0.0	43.1	46.0	-2.9	VQ-1
495.783	47.8	18.9	-27.6	4.7	0.0	43.8	46.0	-2.2	V-1
2744.250	58.0	27.9	-38.9	4.0	0.6	51.6	54.0	-2.4	V-1
4513.700	54.2	31.3	-38.1	6.0	0.0	53.4	54.0	-0.6	VA-1
4573.650	52.5	31.4	-38.1	5.2	0.9	51.9	54.0	-2.1	VA-2

Test Method: ANSI C63.4 (2003)
Spec Limit: FCC Part 15 Subpart C Section 15.247
Test Distance: 3 Meters

NOTES:
H = Horizontal Polarization
V = Vertical Polarization
Q = Quasi Peak Reading
A = Average Reading
1 = 902 MHz
2 = 914 MHz
3 = 928 MHz

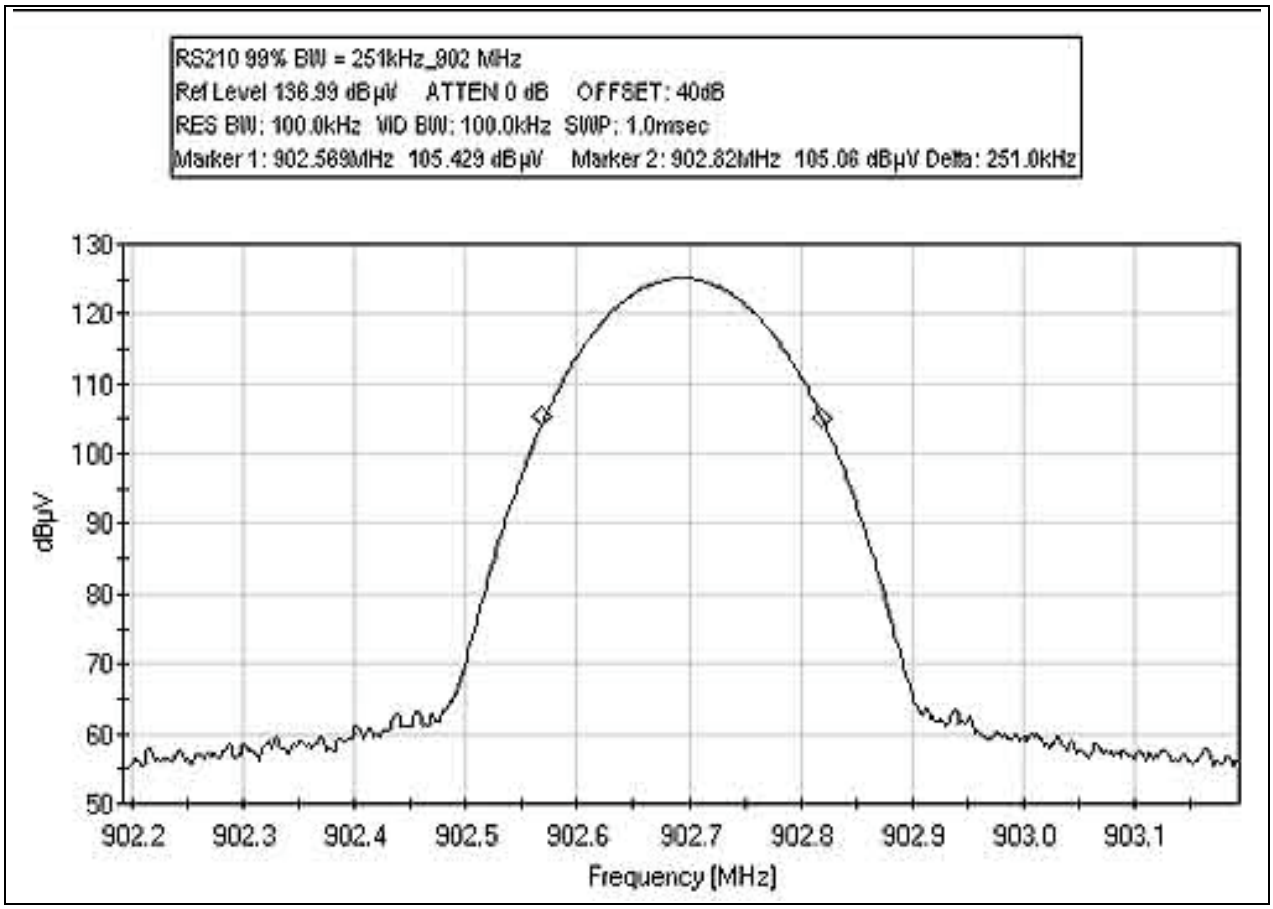
COMMENTS: Transmitter is installed in the printer and transmitting info to the tag. Laptop computer is sending all "H's Pattern" to the printer via UTP. EUT is in operating mode. AWID RF Card. Frequency: 902 MHz, 914 MHz and 928 MHz. Frequency range of measurement = 9 kHz - 928 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 9280 MHz RBW=1 MHz, VBW=1 MHz. 110VAC, 60 Hz, 20°C, 60% relative humidity. Modification: Installed Instrument Specialty S3 series copper tab on RJ 45. Removed powder rcoat under the EMI gaskets and mounting area. Modification: relocated RFID.

FCC 15.247(d) Antenna Conducted Emission Levels

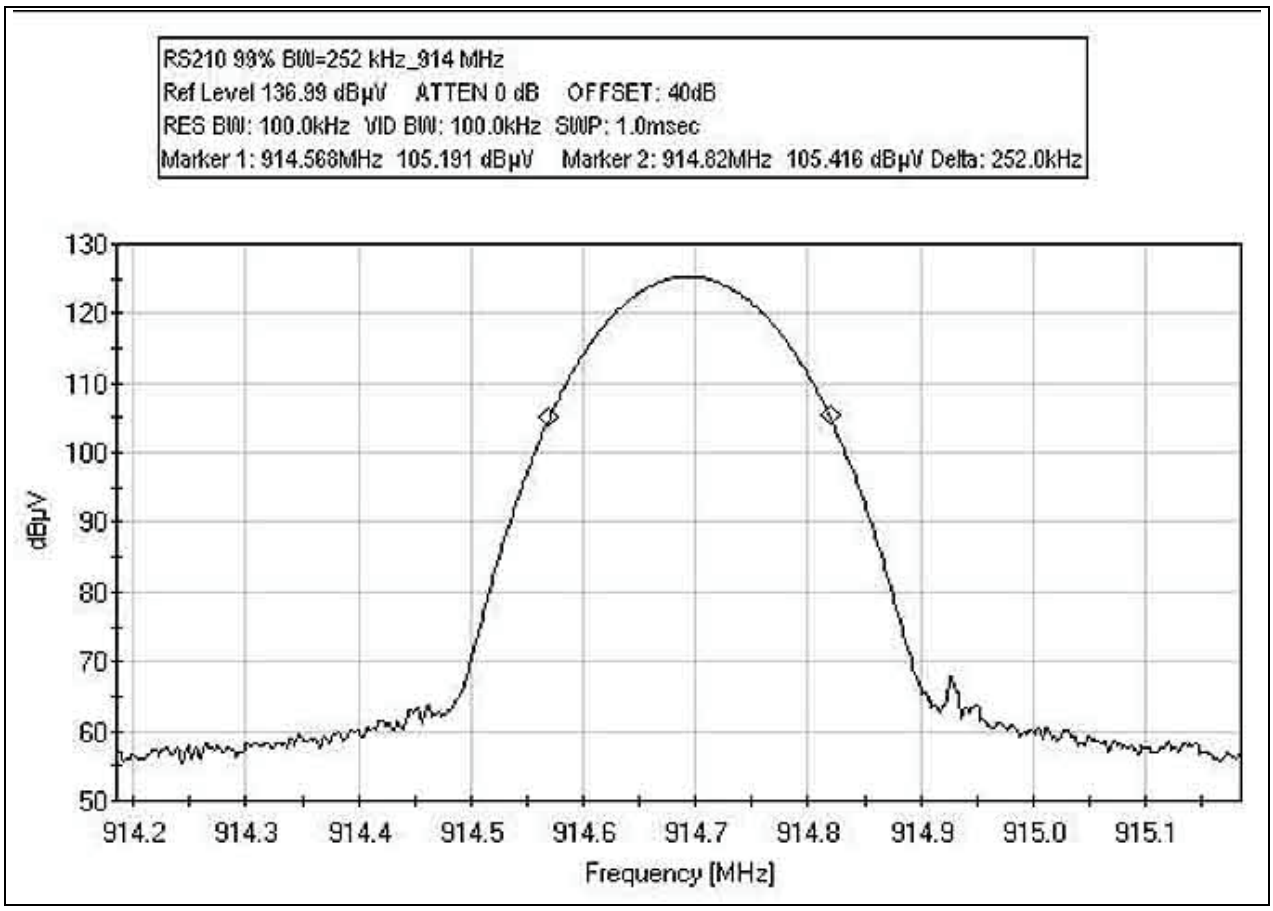
Test Conditions: Transmitter is tested via the antenna port. EUT is in operating mode. AWID RF Card. Frequency: 902 MHz, 914 MHz, and 928 MHz. Frequency range of measurement = 9 kHz- 9.28 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 9280 MHz RBW=1 MHz, VBW=1 MHz. 110VAC, 60 Hz, 20°C, 60% relative humidity. Modification : Installed Instrument Specialty S3 series copper tab on RJ 45.

Result: **NO SPURIOUS EMISSIONS FOUND.** Detection was performed with reduced resolution bandwidth or with at the aid of High Pass Filter at the required resolution bandwidth

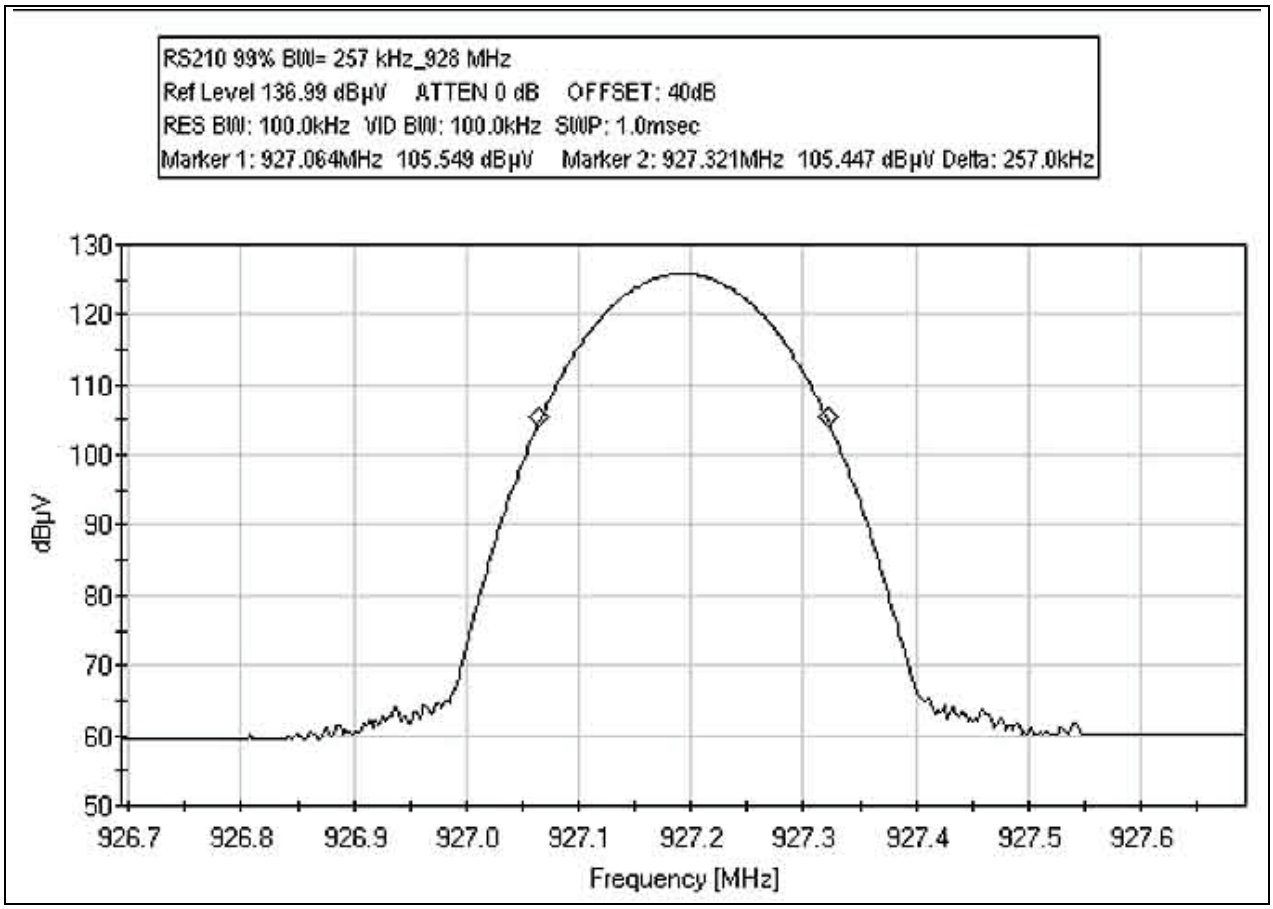
RSS-210 99% BANDWIDTH 902 MHz



RSS-210 99% BANDWIDTH 914 MHz



RSS-210 99% BANDWIDTH 928 MHz



TEMPERATURE AND HUMIDITY DURING TESTING

The temperature during testing was within +15°C and + 35°C.
The relative humidity was between 20% and 75%.

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 Table A were used to collect both the radiated and conducted emissions data for the EUT. For radiated measurements from 9 kHz to 30 MHz, the magnetic loop antenna was used. For radiated measurements 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.

Antenna Conducted Emissions

For measuring the signal strength on the RF output port of the EUT, the spectrum analyzer was connected directly to the EUT. The sweep time of the analyzer was adjusted so that the spectrum analyzer readings were always in a calibrated range. All readings within 20 dB of the limit were recorded.

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. For frequencies exceeding 1000 MHz, the horn antenna was used. Care was taken to ensure that no frequencies were missed within the FM and TV bands. An analysis was performed to determine if the signals that were at or near the limit were caused by an ambient transmission. If unable to determine by analysis, the equipment was powered down to make the final determination if the EUT was the source of the emission.

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

APPENDIX A

TEST SETUP PHOTOGRAPHS

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

Mains Conducted Emissions - Front View

PHOTOGRAPH SHOWING MAINS CONDUCTED EMISSIONS

Mains Conducted Emissions - Side View

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Front View

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Side View

PHOTOGRAPH SHOWING RADIATED EMISSIONS

Radiated Emissions - Loop Antenna

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP

PHOTOGRAPH SHOWING DIRECT CONNECT TEST SETUP

APPENDIX B

TEST EQUIPMENT LIST

Radiated Spurious Emission, Bandedge, Radiated power.

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407
30 MHz – 1000MHz						
Biconilog Antenna	01995	Chase	CBL6111C	2451	040804	040806
Pre-amp	00309	HP	8447D	1937A02548	071404	071406
Antenna cable	NA	NA	RG214	Cable#15	010305	010306
Pre-amp to SA cable	NA	Pasternack	RG223/U	Cable#10	051605	051606
1 GHz- 9.28 GHz						
Horn Antenna	0849	EMCO	3115	6246	072204	072206
Microwave Pre-amp	00786	HP	83017A	3123A00281	081204	081206
Heliax Antenna cable	NA	Andrew	LDF1-50	Cable#20	091604	091605
24” SMA Cable	2604	Argosy	UFA147A	0-0360-200200	012304	012306
9 kHz- 30 MHz						
Loop Antenna	00314	EMCO	6502	2014	062804	062806
1.5 GHz HPF	02116	HP	84300-80037	3643A00027	062705	062707

Conducted Spurious Emissions, Average time of occupancy, Channel separation, Number of hopping frequencies, 20 dB BW, RS210 99% BW

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407

Conducted Output power

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
RF Power meter	02082	HP	435B	2445A11881	061704	061706
Power Sensor	02036	HP	8482A	1551A01004	061806	061806

Conducted Emissions

Equipment	Asset #	Manufacturer	Model #	Serial #	Cal Date	Cal Due
Spectrum Analyzer	02672	Agilent	E4446A	US44300438	011405	011407
Conducted Cable	NA	Harbour Ind	RG142	Cable # 21	070204	070205
150kHZ HPF	02610	TTE	HB9615-150k-50-720	G7755	041606	041606
LISN	00847	EMCO	3816/2NM	1104	120804	120806

APPENDIX C
MEASUREMENT DATA SHEETS

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Printronix**
Specification: **FCC 15.207 COND [AVE]**
Work Order #: **83794** Date: 6/23/2005
Test Type: **Conducted Emissions** Time: 3:03:57 PM
Equipment: **Print and Apply Machine** Sequence#: 10
Manufacturer: Printronix Tested By: Eddie Wong
Model: SLPA7204r 110V 60Hz
S/N: NA

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

Function	Manufacturer	Model #	S/N
Print and Apply Machine*	Printronix	SLPA7204r	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Latitude CP	00066902-12800-82P-3038

Test Conditions / Notes:

Transmitter is installed in the printer and transmitting info to the tag. Laptop computer is sending all "H's Pattern" to the printer via UTP EUT is in operating mode. AWID RF Card. Frequency: Hopping. 110VAC, 60 Hz, 20°C, 60% relative humidity. Modification: installed Instrument Specialty S3 series copper tab on RJ 45.

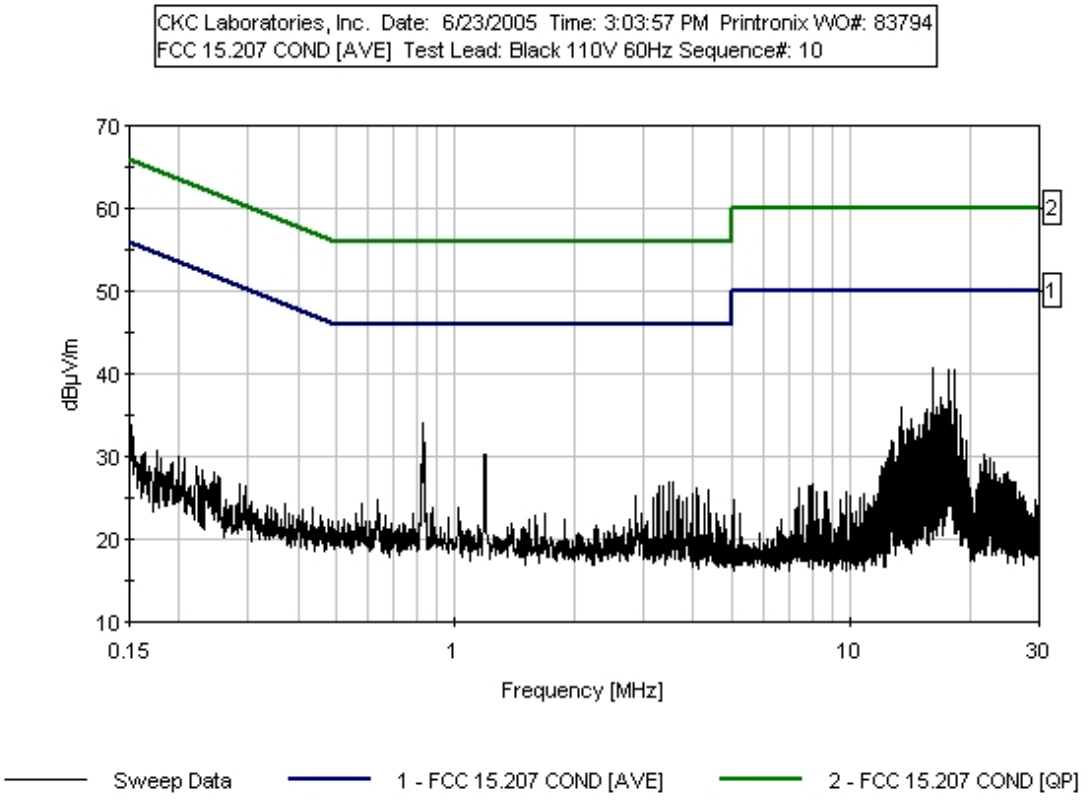
Transducer Legend:

T1=(L1) Insertion Loss 00847 EMCO 3816/2NM	T2=Cable #21 Conducted Site A 070205

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	16.229M	39.7	+0.6	+0.3			+0.0	40.6	50.0	-9.4	Black
2	17.688M	39.4	+0.7	+0.4			+0.0	40.5	50.0	-9.5	Black
3	18.247M	39.4	+0.7	+0.4			+0.0	40.5	50.0	-9.5	Black
4	16.166M	39.5	+0.6	+0.3			+0.0	40.4	50.0	-9.6	Black
5	18.301M	37.3	+0.7	+0.4			+0.0	38.4	50.0	-11.6	Black
6	828.483k	33.9	+0.1	+0.1			+0.0	34.1	46.0	-11.9	Black
7	18.364M	36.2	+0.7	+0.4			+0.0	37.3	50.0	-12.7	Black
8	16.842M	36.2	+0.6	+0.3			+0.0	37.1	50.0	-12.9	Black
9	16.905M	35.9	+0.6	+0.3			+0.0	36.8	50.0	-13.2	Black
10	17.941M	35.6	+0.7	+0.4			+0.0	36.7	50.0	-13.3	Black
11	16.959M	35.3	+0.6	+0.3			+0.0	36.2	50.0	-13.8	Black

12	17.085M	35.3	+0.6	+0.3	+0.0	36.2	50.0	-13.8	Black
13	16.472M	35.1	+0.6	+0.3	+0.0	36.0	50.0	-14.0	Black
14	13.418M	35.2	+0.4	+0.3	+0.0	35.9	50.0	-14.1	Black
15	17.571M	34.7	+0.7	+0.4	+0.0	35.8	50.0	-14.2	Black



Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Printronix**
Specification: **FCC 15.207 COND [QP]**
Work Order #: **83794** Date: 6/23/2005
Test Type: **Conducted Emissions** Time: 3:06:47 PM
Equipment: **Print and Apply Machine** Sequence#: 11
Manufacturer: Printronix Tested By: Eddie Wong
Model: SLPA7204r 110V 60Hz
S/N: NA

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

Function	Manufacturer	Model #	S/N
Print and Apply Machine*	Printronix	SLPA7204r	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Latitude CP	00066902-12800-82P-3038

Test Conditions / Notes:

Transmitter is installed in the printer and transmitting info to the tag. Laptop computer is sending all "H's Pattern" to the printer via UTP EUT is in operating mode. AWID RF Card. Frequency: Hopping. 110VAC, 60 Hz, 20°C, 60% relative humidity. Modification: installed Instrument Specialty S3 series copper tab on RJ 45.

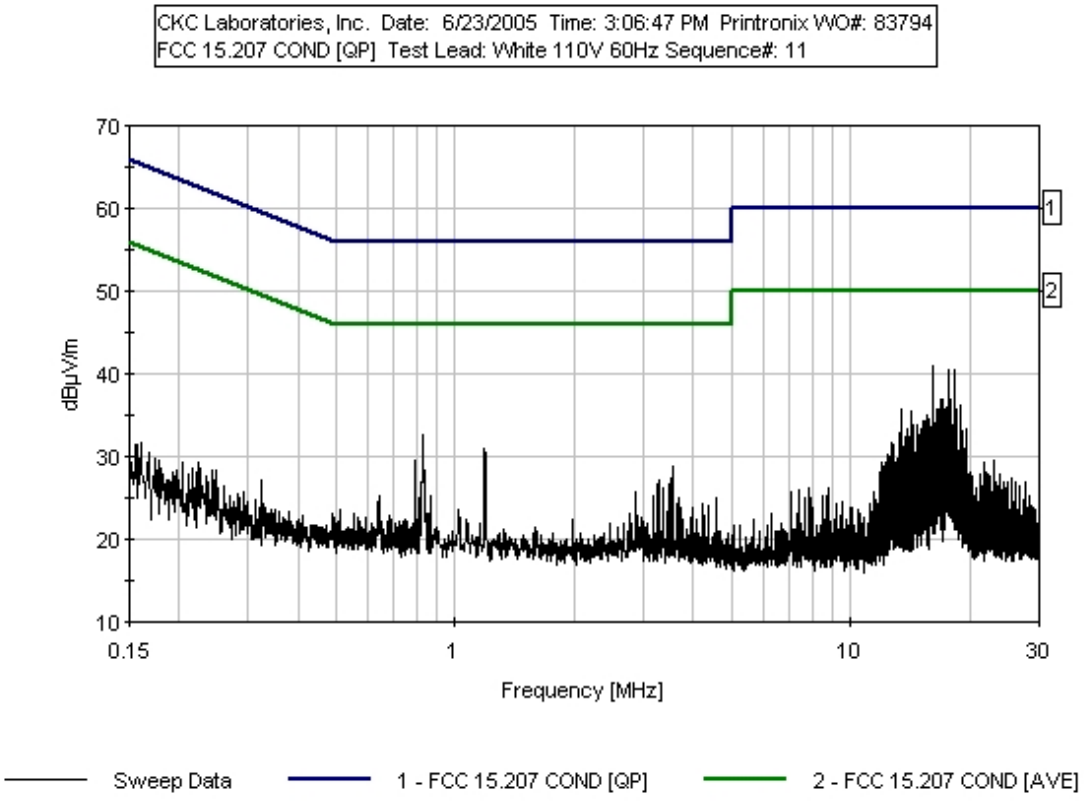
Transducer Legend:

T1=(L2) Insertion Loss 00847 EMCO 3816/2NM	T2=Cable #21 Conducted Site A 070205

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

#	Freq MHz	Rdng dBµV	T1 dB	T2 dB	dB	dB	Dist Table	Corr dBµV/m	Spec dBµV/m	Margin dB	Polar Ant
1	16.175M	40.1	+0.6	+0.3			+0.0	41.0	50.0	-9.0	White
2	16.229M	39.6	+0.6	+0.3			+0.0	40.5	50.0	-9.5	White
3	17.697M	39.5	+0.6	+0.4			+0.0	40.5	50.0	-9.5	White
4	18.247M	39.5	+0.6	+0.4			+0.0	40.5	50.0	-9.5	White
5	18.310M	37.5	+0.6	+0.4			+0.0	38.5	50.0	-11.5	White
6	18.364M	36.4	+0.6	+0.4			+0.0	37.4	50.0	-12.6	White
7	16.905M	35.9	+0.6	+0.3			+0.0	36.8	50.0	-13.2	White
8	17.085M	35.9	+0.6	+0.3			+0.0	36.8	50.0	-13.2	White
9	17.941M	35.8	+0.6	+0.4			+0.0	36.8	50.0	-13.2	White
10	826.302k	32.5	+0.1	+0.1			+0.0	32.7	46.0	-13.3	White
11	16.842M	35.5	+0.6	+0.3			+0.0	36.4	50.0	-13.6	White

12	18.914M	35.1	+0.7	+0.4	+0.0	36.2	50.0	-13.8	White
13	17.571M	34.9	+0.6	+0.4	+0.0	35.9	50.0	-14.1	White
14	16.959M	34.9	+0.6	+0.3	+0.0	35.8	50.0	-14.2	White
15	16.652M	34.8	+0.6	+0.3	+0.0	35.7	50.0	-14.3	White



Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Printronix**
Specification: **FCC 15.247 (c) (FCC 15.205) 25- 40000 MHz**
Work Order #: **83794** Date: 7/19/2005
Test Type: **Maximized emission** Time: 15:47:05
Equipment: **Print and Apply Machine** Sequence#: 2
Manufacturer: Printronix Tested By: Eddie Wong
Model: SLPA7204r
S/N: NA

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

Function	Manufacturer	Model #	S/N
Print and Apply Machine*	Printronix	SLPA7204r	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Latitude CP	00066902-12800-82P-3038

Test Conditions / Notes:

Transmitter is installed in the printer and transmitting info to the tag. Laptop computer is sending all "H's Pattern" to the printer via UTP EUT is in operating mode. AWID RF Card. Frequency: 914 MHz. Frequency range of measurement = 9 kHz - 928 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 9280 MHz RBW=1 MHz, VBW=1 MHz. 110VAC, 60 Hz, 20°C, 60% relative humidity. Modification: Installed Instrument Specialty S3 series copper tab on RJ 45. Modification: Removed powder rcoat under the EMI gaskets and mounting area. Modification: relocated RFID.

Transducer Legend:

T1=Biconalog, SN 2451 040806	T2=Cable #10 051606
T3=Cable #15, Site A, 010306	T4=Preamp 8447D 071406
T5=Horn 6246_072206	T6=SMA Cable 1-40GHz AN2604_012306
T7=HP 83017A 071606	T8=Cable #20 48ft Heliax 091605
T9=HPF_AN02116_1.5GHz_062707	

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

#	Freq	Rdng	T1 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	4573.650M Ave	52.5	+0.0 +31.4 +0.9	+0.0 +0.7	+0.0 -38.1	+0.0 +4.5	+0.0	51.9	54.0	-2.1	Vert
^	4573.650M	56.0	+0.0 +31.4 +0.9	+0.0 +0.7	+0.0 -38.1	+0.0 +4.5	+0.0	55.4	54.0	+1.4	Vert
3	2744.250M	58.0	+0.0 +27.9 +0.6	+0.0 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	51.6	54.0	-2.4	Vert

4	135.825M QP	53.2	+12.2 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	40.0	43.5	-3.5	Horiz
^	135.825M	58.5	+12.2 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	45.3	43.5	+1.8	Horiz
6	4573.700M Ave	51.0	+0.0 +31.4 +0.9	+0.0 +0.7	+0.0 -38.1	+0.0 +4.5	+0.0	50.4	54.0	-3.6	Horiz
^	4573.700M	55.5	+0.0 +31.4 +0.9	+0.0 +0.7	+0.0 -38.1	+0.0 +4.5	+0.0	54.9	54.0	+0.9	Horiz
8	2744.100M	56.0	+0.0 +27.9 +0.6	+0.0 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	49.6	54.0	-4.4	Horiz
9	149.953M	51.8	+12.2 +0.0	+0.2 +0.0	+2.2 +0.0	-27.6 +0.0	+0.0	38.8	43.5	-4.7	Horiz
10	2744.250M	54.8	+0.0 +27.9 +0.6	+0.0 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	48.4	54.0	-5.6	Vert
11	165.400M	50.9	+11.1 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	37.0	43.5	-6.5	Horiz
12	166.534M	48.8	+11.0 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	34.8	43.5	-8.7	Vert
13	164.800M	48.1	+11.1 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	34.2	43.5	-9.3	Vert
14	3659.300M	47.6	+0.0 +29.9 +0.5	+0.0 +0.6	+0.0 -38.4	+0.0 +4.1	+0.0	44.3	54.0	-9.7	Horiz
15	136.404M	46.6	+12.2 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	33.4	43.5	-10.1	Vert
16	115.367M	45.4	+11.8 +0.0	+0.1 +0.0	+1.9 +0.0	-27.6 +0.0	+0.0	31.6	43.5	-11.9	Horiz
17	120.950M	45.0	+12.0 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	31.5	43.5	-12.0	Horiz
18	124.992M	44.6	+12.1 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	31.2	43.5	-12.3	Vert
19	3658.950M Ave	44.8	+0.0 +29.9 +0.5	+0.0 +0.6	+0.0 -38.4	+0.0 +4.1	+0.0	41.5	54.0	-12.5	Vert
^	3658.950M	54.1	+0.0 +29.9 +0.5	+0.0 +0.6	+0.0 -38.4	+0.0 +4.1	+0.0	50.8	54.0	-3.2	Vert

21	402.922M	39.6	+16.5 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	32.7	46.0	-13.3	Vert
22	274.998M	42.5	+13.8 +0.0	+0.3 +0.0	+3.1 +0.0	-27.7 +0.0	+0.0	32.0	46.0	-14.0	Horiz
23	170.228M	43.7	+10.7 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	29.4	43.5	-14.1	Vert
24	270.825M	40.5	+13.7 +0.0	+0.3 +0.0	+3.1 +0.0	-27.7 +0.0	+0.0	29.9	46.0	-16.1	Horiz
25	135.831M	40.6	+12.2 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	27.4	43.5	-16.1	Vert
26	279.225M	39.0	+13.8 +0.0	+0.3 +0.0	+3.1 +0.0	-27.7 +0.0	+0.0	28.5	46.0	-17.5	Horiz
27	409.767M	34.7	+16.8 +0.0	+0.3 +0.0	+3.8 +0.0	-27.5 +0.0	+0.0	28.1	46.0	-17.9	Horiz
28	610.107M	29.0	+19.9 +0.0	+0.5 +0.0	+4.8 +0.0	-27.1 +0.0	+0.0	27.1	46.0	-18.9	Vert
29	332.824M	35.2	+14.9 +0.0	+0.3 +0.0	+3.5 +0.0	-27.6 +0.0	+0.0	26.3	46.0	-19.7	Vert
30	1002.683M	26.5	+0.0 +0.0	+0.0 +0.0	+0.0 +0.0	+0.0 +0.0	+0.0	26.5	54.0	-27.5	Horiz
31	1829.476M	59.2	+0.0 +25.3 +0.5	+0.0 +0.5	+0.0 -39.3	+0.0 +2.9	+0.0	49.1	80.0	-30.9	Vert
32	6403.400M	44.1	+0.0 +32.9 +1.0	+0.0 +0.9	+0.0 -37.6	+0.0 +5.5	+0.0	46.8	80.0	-33.2	Vert
33	6403.400M	42.7	+0.0 +32.9 +1.0	+0.0 +0.9	+0.0 -37.6	+0.0 +5.5	+0.0	45.4	80.0	-34.6	Horiz
34	1829.500M	53.5	+0.0 +25.3 +0.5	+0.0 +0.5	+0.0 -39.3	+0.0 +2.9	+0.0	43.4	80.0	-36.6	Horiz
35	430.290M	45.9	+17.6 +0.0	+0.3 +0.0	+3.9 +0.0	-27.6 +0.0	+0.0	40.1	80.0	-39.9	Vert
36	434.674M	42.8	+17.7 +0.0	+0.3 +0.0	+3.9 +0.0	-27.7 +0.0	+0.0	37.0	80.0	-43.0	Vert
37	526.883M	39.9	+19.7 +0.0	+0.5 +0.0	+4.4 +0.0	-27.7 +0.0	+0.0	36.8	80.0	-43.2	Vert

38	500.013M	40.5	+19.0 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	36.6	80.0	-43.4	Horiz
39	99.953M	51.2	+10.9 +0.0	+0.1 +0.0	+1.8 +0.0	-27.6 +0.0	+0.0	36.4	80.0	-43.6	Horiz
40	98.063M	51.2	+10.7 +0.0	+0.1 +0.0	+1.8 +0.0	-27.6 +0.0	+0.0	36.2	80.0	-43.8	Vert
41	50.233M	52.8	+9.8 +0.0	+0.1 +0.0	+1.2 +0.0	-27.7 +0.0	+0.0	36.2	80.0	-43.8	Vert
42	874.747M	33.1	+23.3 +0.0	+0.6 +0.0	+5.9 +0.0	-27.1 +0.0	+0.0	35.8	80.0	-44.2	Vert
43	589.733M	37.6	+19.7 +0.0	+0.5 +0.0	+4.7 +0.0	-27.2 +0.0	+0.0	35.3	80.0	-44.7	Horiz
44	946.722M	29.5	+26.0 +0.0	+0.6 +0.0	+6.2 +0.0	-27.0 +0.0	+0.0	35.3	80.0	-44.7	Vert
45	55.879M	52.9	+8.5 +0.0	+0.1 +0.0	+1.3 +0.0	-27.7 +0.0	+0.0	35.1	80.0	-44.9	Vert
46	91.792M	51.0	+9.9 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	34.9	80.0	-45.1	Horiz
47	628.549M	36.3	+20.3 +0.0	+0.5 +0.0	+4.9 +0.0	-27.1 +0.0	+0.0	34.9	80.0	-45.1	Vert
48	230.675M	46.7	+12.2 +0.0	+0.2 +0.0	+2.8 +0.0	-27.6 +0.0	+0.0	34.3	80.0	-45.7	Horiz
49	463.991M	39.1	+18.5 +0.0	+0.3 +0.0	+4.1 +0.0	-27.7 +0.0	+0.0	34.3	80.0	-45.7	Vert
50	200.003M	49.2	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	34.2	80.0	-45.8	Horiz
51	428.117M	39.9	+17.5 +0.0	+0.3 +0.0	+3.9 +0.0	-27.6 +0.0	+0.0	34.0	80.0	-46.0	Horiz
52	453.088M	39.0	+18.3 +0.0	+0.3 +0.0	+4.0 +0.0	-27.8 +0.0	+0.0	33.8	80.0	-46.2	Vert
53	634.707M	34.9	+20.4 +0.0	+0.5 +0.0	+4.9 +0.0	-27.1 +0.0	+0.0	33.6	80.0	-46.4	Vert
54	550.014M	36.1	+20.3 +0.0	+0.5 +0.0	+4.5 +0.0	-27.8 +0.0	+0.0	33.6	80.0	-46.4	Horiz

55	154.867M	46.7	+11.9 +0.0	+0.2 +0.0	+2.3 +0.0	-27.6 +0.0	+0.0	33.5	80.0	-46.5	Horiz
56	396.092M	40.5	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	33.4	80.0	-46.6	Horiz
57	234.975M	45.5	+12.5 +0.0	+0.2 +0.0	+2.8 +0.0	-27.6 +0.0	+0.0	33.4	80.0	-46.6	Horiz
58	461.312M	38.2	+18.5 +0.0	+0.3 +0.0	+4.1 +0.0	-27.8 +0.0	+0.0	33.3	80.0	-46.7	Vert
59	468.050M	37.9	+18.6 +0.0	+0.3 +0.0	+4.1 +0.0	-27.7 +0.0	+0.0	33.2	80.0	-46.8	Vert
60	158.850M	46.5	+11.7 +0.0	+0.2 +0.0	+2.3 +0.0	-27.6 +0.0	+0.0	33.1	80.0	-46.9	Horiz
61	392.798M	40.1	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	33.0	80.0	-47.0	Vert
62	954.855M	26.8	+26.1 +0.0	+0.6 +0.0	+6.2 +0.0	-27.0 +0.0	+0.0	32.7	80.0	-47.3	Vert
63	200.003M	47.6	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	32.6	80.0	-47.4	Horiz
64	80.026M	50.8	+7.8 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	32.6	80.0	-47.4	Vert
65	199.502M	47.6	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	32.6	80.0	-47.4	Vert
66	212.075M	46.5	+10.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	32.5	80.0	-47.5	Horiz
67	450.014M	37.7	+18.3 +0.0	+0.3 +0.0	+4.0 +0.0	-27.8 +0.0	+0.0	32.5	80.0	-47.5	Horiz
68	636.261M	33.3	+20.5 +0.0	+0.5 +0.0	+4.9 +0.0	-27.1 +0.0	+0.0	32.1	80.0	-47.9	Vert
69	176.152M	46.5	+10.1 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	31.7	80.0	-48.3	Vert
70	375.007M	39.1	+15.9 +0.0	+0.3 +0.0	+3.7 +0.0	-27.5 +0.0	+0.0	31.5	80.0	-48.5	Horiz
71	175.650M	46.2	+10.2 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	31.5	80.0	-48.5	Horiz

72	761.322M	30.4	+21.9 +0.0	+0.5 +0.0	+5.4 +0.0	-26.8 +0.0	+0.0	31.4	80.0	-48.6	Vert
73	493.554M	35.4	+18.9 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	31.4	80.0	-48.6	Vert
74	818.992M	29.6	+22.3 +0.0	+0.6 +0.0	+5.7 +0.0	-26.9 +0.0	+0.0	31.3	80.0	-48.7	Horiz
75	450.736M	36.5	+18.3 +0.0	+0.3 +0.0	+4.0 +0.0	-27.8 +0.0	+0.0	31.3	80.0	-48.7	Vert
76	489.170M	35.4	+18.9 +0.0	+0.4 +0.0	+4.2 +0.0	-27.6 +0.0	+0.0	31.3	80.0	-48.7	Vert
77	396.380M	38.2	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	31.1	80.0	-48.9	Vert
78	760.583M	30.1	+21.9 +0.0	+0.5 +0.0	+5.4 +0.0	-26.8 +0.0	+0.0	31.1	80.0	-48.9	Horiz
79	464.976M	35.9	+18.5 +0.0	+0.3 +0.0	+4.1 +0.0	-27.7 +0.0	+0.0	31.1	80.0	-48.9	Vert
80	661.408M	31.2	+20.8 +0.0	+0.5 +0.0	+5.0 +0.0	-27.1 +0.0	+0.0	30.4	80.0	-49.6	Horiz
81	83.492M	47.6	+8.5 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	30.1	80.0	-49.9	Horiz
82	203.125M	44.6	+10.1 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	29.9	80.0	-50.1	Horiz
83	552.900M	32.3	+20.3 +0.0	+0.5 +0.0	+4.5 +0.0	-27.8 +0.0	+0.0	29.8	80.0	-50.2	Horiz
84	654.004M	30.5	+20.8 +0.0	+0.5 +0.0	+5.0 +0.0	-27.1 +0.0	+0.0	29.7	80.0	-50.3	Vert
85	468.125M	34.3	+18.6 +0.0	+0.3 +0.0	+4.1 +0.0	-27.7 +0.0	+0.0	29.6	80.0	-50.4	Horiz
86	391.444M	36.5	+16.2 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	29.3	80.0	-50.7	Vert
87	419.475M	35.0	+17.2 +0.0	+0.3 +0.0	+3.8 +0.0	-27.6 +0.0	+0.0	28.7	80.0	-51.3	Vert
88	70.544M	47.8	+6.9 +0.0	+0.1 +0.0	+1.5 +0.0	-27.7 +0.0	+0.0	28.6	80.0	-51.4	Vert

89	562.536M	31.0	+20.1 +0.0	+0.5 +0.0	+4.6 +0.0	-27.6 +0.0	+0.0	28.6	80.0	-51.4	Vert
90	730.622M	27.9	+21.5 +0.0	+0.5 +0.0	+5.3 +0.0	-26.8 +0.0	+0.0	28.4	80.0	-51.6	Vert
91	490.018M	32.4	+18.9 +0.0	+0.4 +0.0	+4.2 +0.0	-27.6 +0.0	+0.0	28.3	80.0	-51.7	Vert
92	393.747M	35.1	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	28.0	80.0	-52.0	Vert
93	552.752M	30.1	+20.3 +0.0	+0.5 +0.0	+4.5 +0.0	-27.8 +0.0	+0.0	27.6	80.0	-52.4	Vert
94	221.325M	40.7	+11.5 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	27.5	80.0	-52.5	Horiz
95	534.660M	29.9	+19.9 +0.0	+0.5 +0.0	+4.4 +0.0	-27.7 +0.0	+0.0	27.0	80.0	-53.0	Vert
96	468.831M	31.5	+18.6 +0.0	+0.3 +0.0	+4.1 +0.0	-27.7 +0.0	+0.0	26.8	80.0	-53.2	Vert
97	476.321M	30.6	+18.7 +0.0	+0.4 +0.0	+4.2 +0.0	-27.7 +0.0	+0.0	26.2	80.0	-53.8	Vert
98	378.275M	33.7	+16.0 +0.0	+0.3 +0.0	+3.7 +0.0	-27.5 +0.0	+0.0	26.2	80.0	-53.8	Horiz
99	190.050M	40.7	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	25.7	80.0	-54.3	Horiz
100	417.981M	32.0	+17.1 +0.0	+0.3 +0.0	+3.8 +0.0	-27.5 +0.0	+0.0	25.7	80.0	-54.3	Vert
101	447.023M	30.9	+18.2 +0.0	+0.3 +0.0	+4.0 +0.0	-27.8 +0.0	+0.0	25.6	80.0	-54.4	Vert
102	342.775M	34.1	+15.2 +0.0	+0.3 +0.0	+3.5 +0.0	-27.6 +0.0	+0.0	25.5	80.0	-54.5	Horiz
103	372.664M	32.6	+15.9 +0.0	+0.3 +0.0	+3.6 +0.0	-27.5 +0.0	+0.0	24.9	80.0	-55.1	Vert
104	514.522M	28.3	+19.4 +0.0	+0.4 +0.0	+4.4 +0.0	-27.7 +0.0	+0.0	24.8	80.0	-55.2	Vert
105	320.733M	33.8	+14.6 +0.0	+0.3 +0.0	+3.4 +0.0	-27.5 +0.0	+0.0	24.6	80.0	-55.4	Horiz

106	505.496M	28.3	+19.1 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	24.5	80.0	-55.5	Vert
107	414.346M	30.9	+17.0 +0.0	+0.3 +0.0	+3.8 +0.0	-27.5 +0.0	+0.0	24.5	80.0	-55.5	Vert
108	386.975M	31.2	+16.2 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	24.0	80.0	-56.0	Vert
109	297.854M	33.5	+14.0 +0.0	+0.3 +0.0	+3.2 +0.0	-27.5 +0.0	+0.0	23.5	80.0	-56.5	Vert
110	225.824M	35.9	+11.8 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	23.0	80.0	-57.0	Vert
111	356.317M	29.7	+15.5 +0.0	+0.3 +0.0	+3.6 +0.0	-27.6 +0.0	+0.0	21.5	80.0	-58.5	Vert
112	223.476M	34.5	+11.6 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	21.4	80.0	-58.6	Vert
113	61.733M	39.8	+7.5 +0.0	+0.1 +0.0	+1.3 +0.0	-27.7 +0.0	+0.0	21.0	80.0	-59.0	Horiz
114	222.088M	33.5	+11.5 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	20.3	80.0	-59.7	Vert

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Printronix**
Specification: **FCC 15.247 (c) (FCC 15.205) 25- 40000 MHz**
Work Order #: **83794** Date: 7/19/2005
Test Type: **Maximized emission** Time: 16:22:09
Equipment: **Print and Apply Machine** Sequence#: 3
Manufacturer: Printronix Tested By: Eddie Wong
Model: SLPA7204r
S/N: NA

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

Function	Manufacturer	Model #	S/N
Print and Apply Machine*	Printronix	SLPA7204r	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Latitude CP	00066902-12800-82P-3038

Test Conditions / Notes:

Transmitter is installed in the printer and transmitting info to the tag. Laptop computer is sending all "H's Pattern" to the printer via UTP. EUT is in operating mode. AWID RF Card. Freq: 928 MHz. Frequency range of measurement = 9 kHz - 928 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz- 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 9280 MHz RBW=1 MHz, VBW=1 MHz. 110VAC, 60 Hz, 20°C, 60% relative humidity. Modification: Installed Instrument Specialty S3 series copper tab on RJ 45. Modification: Removed powder rcoat under the EMI gaskets and mounting area. Modification: relocated RFID.

Transducer Legend:

T1=Biconalog, SN 2451 040806	T2=Cable #10 051606
T3=Cable #15, Site A, 010306	T4=Preamp 8447D 071406
T5=Horn 6246_072206	T6=SMA Cable 1-40GHz AN2604_012306
T7=HP 83017A 071606	T8=Cable #20 48ft Heliax 091605
T9=HPF_AN02116_1.5GHz_062707	

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

#	Freq	Rdng	T1 T5 T9	T2 T6	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	2781.600M Ave	57.0	+0.0 +28.1 +0.6	+0.0 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	50.8	54.0	-3.2	Vert
^	2781.630M	57.9	+0.0 +28.1 +0.6	+0.0 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	51.7	54.0	-2.3	Vert
3	4636.100M	50.1	+0.0 +31.5 +0.9	+0.0 +0.7	+0.0 -38.0	+0.0 +4.6	+0.0	49.8	54.0	-4.2	Horiz

4	135.100M QP	52.4	+12.2 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	39.2	43.5	-4.3	Horiz
^	135.100M	56.8	+12.2 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	43.6	43.5	+0.1	Horiz
6	2781.600M Ave	55.1	+0.0 +28.1 +0.6	+0.0 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	48.9	54.0	-5.1	Horiz
^	2781.600M	59.2	+0.0 +28.1 +0.6	+0.0 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	53.0	54.0	-1.0	Horiz
8	4636.330M Ave	48.9	+0.0 +31.5 +0.9	+0.0 +0.7	+0.0 -38.0	+0.0 +4.6	+0.0	48.6	54.0	-5.4	Vert
^	4636.330M	54.7	+0.0 +31.5 +0.9	+0.0 +0.7	+0.0 -38.0	+0.0 +4.6	+0.0	54.4	54.0	+0.4	Vert
10	429.275M	45.8	+17.5 +0.0	+0.3 +0.0	+3.9 +0.0	-27.6 +0.0	+0.0	39.9	46.0	-6.1	Vert
11	104.708M	50.1	+11.2 +0.0	+0.1 +0.0	+1.8 +0.0	-27.6 +0.0	+0.0	35.6	43.5	-7.9	Horiz
12	79.667M	49.1	+7.8 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	30.9	40.0	-9.1	Vert
13	699.892M	36.9	+20.9 +0.0	+0.5 +0.0	+5.2 +0.0	-26.9 +0.0	+0.0	36.6	46.0	-9.4	Vert
14	164.858M	47.6	+11.1 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	33.7	43.5	-9.8	Vert
15	47.567M	45.6	+10.5 +0.0	+0.1 +0.0	+1.2 +0.0	-27.7 +0.0	+0.0	29.7	40.0	-10.3	Horiz
16	165.283M	46.6	+11.1 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	32.7	43.5	-10.8	Horiz
17	458.808M	40.2	+18.4 +0.0	+0.3 +0.0	+4.1 +0.0	-27.8 +0.0	+0.0	35.2	46.0	-10.8	Vert
18	874.583M	32.1	+23.3 +0.0	+0.6 +0.0	+5.9 +0.0	-27.0 +0.0	+0.0	34.9	46.0	-11.1	Vert
19	512.038M	38.4	+19.3 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	34.8	46.0	-11.2	Vert
20	526.192M	37.6	+19.7 +0.0	+0.5 +0.0	+4.4 +0.0	-27.7 +0.0	+0.0	34.5	46.0	-11.5	Horiz

21	53.258M	45.6	+9.1 +0.0	+0.1 +0.0	+1.2 +0.0	-27.7 +0.0	+0.0	28.3	40.0	-11.7	Horiz
22	110.067M	45.0	+11.5 +0.0	+0.1 +0.0	+1.9 +0.0	-27.6 +0.0	+0.0	30.9	43.5	-12.6	Horiz
23	99.333M	45.8	+10.8 +0.0	+0.1 +0.0	+1.8 +0.0	-27.6 +0.0	+0.0	30.9	43.5	-12.6	Horiz
24	208.024M	45.0	+10.5 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	30.7	43.5	-12.8	Horiz
25	69.775M	46.5	+6.8 +0.0	+0.1 +0.0	+1.5 +0.0	-27.7 +0.0	+0.0	27.2	40.0	-12.8	Horiz
26	920.658M	28.8	+24.8 +0.0	+0.6 +0.0	+6.1 +0.0	-27.1 +0.0	+0.0	33.2	46.0	-12.8	Vert
27	199.625M	45.6	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	30.6	43.5	-12.9	Vert
28	180.067M	45.6	+9.8 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	30.5	43.5	-13.0	Horiz
29	42.942M	40.5	+12.4 +0.0	+0.1 +0.0	+1.1 +0.0	-27.7 +0.0	+0.0	26.4	40.0	-13.6	Horiz
30	3709.100M	43.2	+0.0 +30.1 +0.5	+0.0 +0.6	+0.0 -38.4	+0.0 +4.2	+0.0	40.2	54.0	-13.8	Horiz
31	86.833M	42.9	+9.1 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	26.0	40.0	-14.0	Horiz
32	726.358M	30.8	+21.4 +0.0	+0.5 +0.0	+5.3 +0.0	-26.8 +0.0	+0.0	31.2	46.0	-14.8	Vert
33	172.192M	43.0	+10.5 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	28.6	43.5	-14.9	Horiz
34	275.000M	41.4	+13.8 +0.0	+0.3 +0.0	+3.1 +0.0	-27.7 +0.0	+0.0	30.9	46.0	-15.1	Horiz
35	176.450M	43.2	+10.1 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	28.4	43.5	-15.1	Horiz
36	395.233M	38.0	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	30.9	46.0	-15.1	Vert
37	83.858M	42.2	+8.6 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	24.8	40.0	-15.2	Horiz

38	791.525M	29.4	+22.0 +0.0	+0.6 +0.0	+5.6 +0.0	-26.9 +0.0	+0.0	30.7	46.0	-15.3	Horiz
39	151.308M	41.2	+12.1 +0.0	+0.2 +0.0	+2.2 +0.0	-27.6 +0.0	+0.0	28.1	43.5	-15.4	Vert
40	141.092M	41.1	+12.2 +0.0	+0.2 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	28.0	43.5	-15.5	Vert
41	634.183M	31.7	+20.4 +0.0	+0.5 +0.0	+4.9 +0.0	-27.1 +0.0	+0.0	30.4	46.0	-15.6	Horiz
42	233.367M	42.2	+12.4 +0.0	+0.2 +0.0	+2.8 +0.0	-27.6 +0.0	+0.0	30.0	46.0	-16.0	Horiz
43	497.217M	33.8	+19.0 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	29.9	46.0	-16.1	Horiz
44	467.433M	34.6	+18.6 +0.0	+0.3 +0.0	+4.1 +0.0	-27.7 +0.0	+0.0	29.9	46.0	-16.1	Horiz
45	893.742M	26.3	+23.8 +0.0	+0.6 +0.0	+6.0 +0.0	-27.2 +0.0	+0.0	29.5	46.0	-16.5	Horiz
46	124.267M	40.2	+12.0 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	26.7	43.5	-16.8	Vert
47	829.333M	27.2	+22.4 +0.0	+0.6 +0.0	+5.7 +0.0	-26.9 +0.0	+0.0	29.0	46.0	-17.0	Vert
48	721.733M	28.8	+21.3 +0.0	+0.5 +0.0	+5.3 +0.0	-26.9 +0.0	+0.0	29.0	46.0	-17.0	Vert
49	490.325M	32.9	+18.9 +0.0	+0.4 +0.0	+4.2 +0.0	-27.6 +0.0	+0.0	28.8	46.0	-17.2	Vert
50	173.333M	40.8	+10.4 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	26.3	43.5	-17.2	Vert
51	430.025M	34.3	+17.6 +0.0	+0.3 +0.0	+3.9 +0.0	-27.6 +0.0	+0.0	28.5	46.0	-17.5	Horiz
52	279.067M	39.0	+13.8 +0.0	+0.3 +0.0	+3.1 +0.0	-27.7 +0.0	+0.0	28.5	46.0	-17.5	Horiz
53	255.992M	39.1	+13.6 +0.0	+0.2 +0.0	+3.0 +0.0	-27.5 +0.0	+0.0	28.4	46.0	-17.6	Horiz
54	62.000M	41.0	+7.4 +0.0	+0.1 +0.0	+1.3 +0.0	-27.7 +0.0	+0.0	22.1	40.0	-17.9	Horiz

55	458.300M	32.8	+18.4 +0.0	+0.3 +0.0	+4.1 +0.0	-27.8 +0.0	+0.0	27.8	46.0	-18.2	Horiz
56	260.058M	38.6	+13.6 +0.0	+0.2 +0.0	+3.0 +0.0	-27.6 +0.0	+0.0	27.8	46.0	-18.2	Vert
57	265.242M	38.2	+13.7 +0.0	+0.3 +0.0	+3.1 +0.0	-27.6 +0.0	+0.0	27.7	46.0	-18.3	Horiz
58	556.183M	30.1	+20.2 +0.0	+0.5 +0.0	+4.5 +0.0	-27.7 +0.0	+0.0	27.6	46.0	-18.4	Horiz
59	471.625M	32.2	+18.6 +0.0	+0.3 +0.0	+4.1 +0.0	-27.7 +0.0	+0.0	27.5	46.0	-18.5	Horiz
60	367.358M	34.7	+15.8 +0.0	+0.3 +0.0	+3.6 +0.0	-27.5 +0.0	+0.0	26.9	46.0	-19.1	Vert
61	219.550M	40.0	+11.3 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	26.6	46.0	-19.4	Horiz
62	268.742M	36.9	+13.7 +0.0	+0.3 +0.0	+3.1 +0.0	-27.7 +0.0	+0.0	26.3	46.0	-19.7	Horiz
63	697.525M	26.4	+20.9 +0.0	+0.5 +0.0	+5.2 +0.0	-26.9 +0.0	+0.0	26.1	46.0	-19.9	Horiz
64	246.383M	37.0	+13.3 +0.0	+0.2 +0.0	+3.0 +0.0	-27.5 +0.0	+0.0	26.0	46.0	-20.0	Vert
65	589.025M	27.8	+19.7 +0.0	+0.5 +0.0	+4.7 +0.0	-27.2 +0.0	+0.0	25.5	46.0	-20.5	Horiz
66	418.017M	31.6	+17.1 +0.0	+0.3 +0.0	+3.8 +0.0	-27.5 +0.0	+0.0	25.3	46.0	-20.7	Horiz
67	251.000M	35.8	+13.5 +0.0	+0.2 +0.0	+3.0 +0.0	-27.5 +0.0	+0.0	25.0	46.0	-21.0	Horiz
68	990.517M	26.9	+25.9 +0.0	+0.6 +0.0	+6.4 +0.0	-27.0 +0.0	+0.0	32.8	54.0	-21.2	Vert
69	277.583M	35.1	+13.8 +0.0	+0.3 +0.0	+3.1 +0.0	-27.7 +0.0	+0.0	24.6	46.0	-21.4	Vert
70	182.442M	37.2	+9.8 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	22.1	43.5	-21.4	Vert
71	444.483M	29.9	+18.1 +0.0	+0.3 +0.0	+4.0 +0.0	-27.8 +0.0	+0.0	24.5	46.0	-21.5	Horiz

72	843.825M	22.4	+22.6 +0.0	+0.6 +0.0	+5.8 +0.0	-26.9 +0.0	+0.0	24.5	46.0	-21.5	Vert
73	353.867M	32.6	+15.5 +0.0	+0.3 +0.0	+3.6 +0.0	-27.6 +0.0	+0.0	24.4	46.0	-21.6	Vert
74	481.100M	28.6	+18.7 +0.0	+0.4 +0.0	+4.2 +0.0	-27.7 +0.0	+0.0	24.2	46.0	-21.8	Horiz
75	250.375M	34.2	+13.5 +0.0	+0.2 +0.0	+3.0 +0.0	-27.5 +0.0	+0.0	23.4	46.0	-22.6	Vert
76	981.283M	25.5	+25.9 +0.0	+0.6 +0.0	+6.3 +0.0	-27.0 +0.0	+0.0	31.3	54.0	-22.7	Vert
77	346.325M	31.2	+15.3 +0.0	+0.3 +0.0	+3.6 +0.0	-27.6 +0.0	+0.0	22.8	46.0	-23.2	Horiz

Test Location: CKC Laboratories, Inc. •110 N. Olinda Place • Brea, CA 92823 • (714) 993-6112

Customer: **Printronix**
Specification: **FCC 15.247 (c) (FCC 15.205) 25- 40000 MHz**
Work Order #: **83794** Date: 7/19/2005
Test Type: **Maximized emission** Time: 14:57:53
Equipment: **Print and Apply Machine** Sequence#: 1
Manufacturer: Printronix Tested By: Eddie Wong
Model: SLPA7204r
S/N: NA

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

Function	Manufacturer	Model #	S/N
Print and Apply Machine*	Printronix	SLPA7204r	NA

Support Devices:

Function	Manufacturer	Model #	S/N
Laptop	Dell	Latitude CP	00066902-12800-82P-3038

Test Conditions / Notes:

Transmitter is installed in the printer and transmitting info to the tag. Laptop computer is sending all "H's Pattern" to the printer via UTP EUT is in operating mode. AWID RF Card. Frequency: 902 MHz. Frequency range of measurement = 9 kHz - 928 GHz. Frequency 9 kHz - 150 kHz RBW=200 Hz, VBW=200 Hz; 150 kHz - 30 MHz RBW=9 kHz, VBW=9 kHz; 30 MHz - 1000 MHz RBW=120 kHz, VBW=120 kHz; 1000 MHz - 9280 MHz RBW=1 MHz, VBW=1 MHz. 110VAC, 60 Hz, 20°C, 60% relative humidity. Modification: Installed Instrument Specialty S3 series copper tab on RJ 45. Modification: Removed powder rcoat under the EMI gaskets and mounting area. Modification: relocated RFID.

Transducer Legend:

T1=Biconalog, SN 2451 040806	T2=Cable #10 051606
T3=Cable #15, Site A, 010306	T4=Preamp 8447D 071406
T5=Horn 6246_072206	T6=SMA Cable 1-40GHz AN2604_012306
T7=HP 83017A 071606	T8=Cable #20 48ft Heliax 091605
T9=HPF_AN02116_1.5GHz_060605	T10=HPF_AN02116_1.5GHz_062707

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

#	Freq	Rdng	T1 T5 T9	T2 T6 T10	T3 T7	T4 T8	Dist	Corr	Spec	Margin	Polar
	MHz	dBµV	dB	dB	dB	dB	Table	dBµV/m	dBµV/m	dB	Ant
1	4513.700M	54.2	+0.0	+0.0	+0.0	+0.0	+0.0	53.4	54.0	-0.6	Vert
	Ave		+31.3	+0.7	-38.1	+4.5					
			+0.0	+0.8							
^	4513.700M	57.6	+0.0	+0.0	+0.0	+0.0	+0.0	56.8	54.0	+2.8	Vert
			+31.3	+0.7	-38.1	+4.5					
			+0.0	+0.8							
3	495.783M	47.8	+18.9	+0.4	+4.3	-27.6	+0.0	43.8	46.0	-2.2	Vert
			+0.0	+0.0	+0.0	+0.0					

4	329.800M QP	52.1	+14.9 +0.0	+0.3 +0.0	+3.4 +0.0	-27.6 +0.0	+0.0	43.1	46.0	-2.9	Vert
^	329.800M	57.1	+14.9 +0.0	+0.3 +0.0	+3.4 +0.0	-27.6 +0.0	+0.0	48.1	46.0	+2.1	Vert
6	131.779M	53.7	+12.1 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	40.4	43.5	-3.1	Horiz
7	456.714M	47.9	+18.4 +0.0	+0.3 +0.0	+4.0 +0.0	-27.8 +0.0	+0.0	42.8	46.0	-3.2	Vert
8	2708.200M Ave	57.3	+0.0 +27.8 +0.0	+0.0 +0.5 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	50.7	54.0	-3.3	Horiz
^	2708.200M	60.0	+0.0 +27.8 +0.0	+0.0 +0.5 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	53.4	54.0	-0.6	Horiz
10	2708.050M Ave	57.3	+0.0 +27.8 +0.0	+0.0 +0.5 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	50.7	54.0	-3.3	Vert
^	2708.050M	59.3	+0.0 +27.8 +0.0	+0.0 +0.5 +0.6	+0.0 -38.9	+0.0 +3.4	+0.0	52.7	54.0	-1.3	Vert
12	146.099M	52.8	+12.3 +0.0	+0.2 +0.0	+2.2 +0.0	-27.6 +0.0	+0.0	39.9	43.5	-3.6	Horiz
13	51.772M	53.3	+9.5 +0.0	+0.1 +0.0	+1.2 +0.0	-27.7 +0.0	+0.0	36.4	40.0	-3.6	Vert
14	3610.900M	53.8	+0.0 +29.8 +0.0	+0.0 +0.6 +0.5	+0.0 -38.4	+0.0 +4.0	+0.0	50.3	54.0	-3.7	Horiz
15	4513.700M Ave	51.0	+0.0 +31.3 +0.0	+0.0 +0.7 +0.8	+0.0 -38.1	+0.0 +4.5	+0.0	50.2	54.0	-3.8	Horiz
^	4513.700M	55.6	+0.0 +31.3 +0.0	+0.0 +0.7 +0.8	+0.0 -38.1	+0.0 +4.5	+0.0	54.8	54.0	+0.8	Horiz
17	76.680M QP	54.7	+7.5 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	36.2	40.0	-3.8	Vert
^	76.680M	59.3	+7.5 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	40.8	40.0	+0.8	Vert
19	76.680M QP	54.7	+7.5 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	36.2	40.0	-3.8	Vert
20	264.030M	52.7	+13.6 +0.0	+0.3 +0.0	+3.1 +0.0	-27.6 +0.0	+0.0	42.1	46.0	-3.9	Vert

21	135.480M	52.5	+12.2 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	39.3	43.5	-4.2	Horiz
22	103.972M	53.9	+11.1 +0.0	+0.1 +0.0	+1.8 +0.0	-27.6 +0.0	+0.0	39.3	43.5	-4.2	Horiz
23	233.266M	53.8	+12.4 +0.0	+0.2 +0.0	+2.8 +0.0	-27.6 +0.0	+0.0	41.6	46.0	-4.4	Vert
24	243.827M	52.8	+13.1 +0.0	+0.2 +0.0	+2.9 +0.0	-27.5 +0.0	+0.0	41.5	46.0	-4.5	Vert
25	125.025M QP	52.4	+12.1 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	39.0	43.5	-4.5	Vert
^	125.025M	55.9	+12.1 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	42.5	43.5	-1.0	Vert
27	138.976M	52.0	+12.2 +0.0	+0.2 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	38.9	43.5	-4.6	Horiz
28	52.519M	52.5	+9.3 +0.0	+0.1 +0.0	+1.2 +0.0	-27.7 +0.0	+0.0	35.4	40.0	-4.6	Vert
29	151.033M	51.9	+12.1 +0.0	+0.2 +0.0	+2.2 +0.0	-27.6 +0.0	+0.0	38.8	43.5	-4.7	Horiz
30	233.752M	53.5	+12.4 +0.0	+0.2 +0.0	+2.8 +0.0	-27.6 +0.0	+0.0	41.3	46.0	-4.7	Vert
31	3610.950M Ave	52.5	+0.0 +29.8 +0.0	+0.0 +0.6 +0.5	+0.0 -38.4	+0.0 +4.0	+0.0	49.0	54.0	-5.0	Vert
^	3610.950M	63.0	+0.0 +29.8 +0.0	+0.0 +0.6 +0.5	+0.0 -38.4	+0.0 +4.0	+0.0	59.5	54.0	+5.5	Vert
33	166.981M	52.6	+10.9 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	38.5	43.5	-5.0	Vert
34	50.450M QP	51.4	+9.8 +0.0	+0.1 +0.0	+1.2 +0.0	-27.7 +0.0	+0.0	34.8	40.0	-5.2	Vert
^	50.450M	53.5	+9.8 +0.0	+0.1 +0.0	+1.2 +0.0	-27.7 +0.0	+0.0	36.9	40.0	-3.1	Vert
36	164.833M	52.0	+11.1 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	38.1	43.5	-5.4	Vert
37	102.079M	52.5	+11.0 +0.0	+0.1 +0.0	+1.8 +0.0	-27.6 +0.0	+0.0	37.8	43.5	-5.7	Horiz

38	137.667M	50.9	+12.2 +0.0	+0.2 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	37.8	43.5	-5.7	Horiz
39	128.716M	51.2	+12.1 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	37.8	43.5	-5.7	Vert
40	163.226M	51.3	+11.3 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	37.6	43.5	-5.9	Horiz
41 QP	165.510M	50.9	+11.1 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	37.0	43.5	-6.5	Horiz
^	165.510M	56.0	+11.1 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	42.1	43.5	-1.4	Horiz
43	8124.700M	41.4	+0.0 +34.9 +0.0	+0.0 +1.0 +0.7	+0.0 -37.3	+0.0 +6.7	+0.0	47.4	54.0	-6.6	Vert
44 QP	58.715M	51.8	+7.9 +0.0	+0.1 +0.0	+1.3 +0.0	-27.7 +0.0	+0.0	33.4	40.0	-6.6	Vert
^	58.715M	56.3	+7.9 +0.0	+0.1 +0.0	+1.3 +0.0	-27.7 +0.0	+0.0	37.9	40.0	-2.1	Vert
46	364.068M	47.1	+15.7 +0.0	+0.3 +0.0	+3.6 +0.0	-27.5 +0.0	+0.0	39.2	46.0	-6.8	Vert
47	127.981M	50.1	+12.1 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	36.7	43.5	-6.8	Horiz
48	73.765M	52.0	+7.2 +0.0	+0.1 +0.0	+1.5 +0.0	-27.7 +0.0	+0.0	33.1	40.0	-6.9	Vert
49	165.240M	50.5	+11.1 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	36.6	43.5	-6.9	Horiz
50	230.917M	51.4	+12.2 +0.0	+0.2 +0.0	+2.8 +0.0	-27.6 +0.0	+0.0	39.0	46.0	-7.0	Vert
51	79.738M	50.8	+7.8 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	32.6	40.0	-7.4	Vert
52	80.585M	50.6	+7.9 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	32.5	40.0	-7.5	Vert
53	45.870M	47.9	+10.9 +0.0	+0.1 +0.0	+1.2 +0.0	-27.7 +0.0	+0.0	32.4	40.0	-7.6	Vert
54	391.443M	45.2	+16.2 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	38.0	46.0	-8.0	Vert

55	197.763M	50.3	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	35.3	43.5	-8.2	Vert
56	228.464M	50.4	+12.0 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	37.7	46.0	-8.3	Vert
57	396.992M	44.7	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	37.6	46.0	-8.4	Vert
58	99.481M	49.9	+10.8 +0.0	+0.1 +0.0	+1.8 +0.0	-27.6 +0.0	+0.0	35.0	43.5	-8.5	Horiz
59	199.970M	49.8	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	34.8	43.5	-8.7	Vert
60	209.030M	49.1	+10.5 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	34.8	43.5	-8.7	Horiz
61	111.689M	48.7	+11.6 +0.0	+0.1 +0.0	+1.9 +0.0	-27.6 +0.0	+0.0	34.7	43.5	-8.8	Vert
62	500.012M	41.0	+19.0 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	37.1	46.0	-8.9	Vert
63	429.230M	43.0	+17.5 +0.0	+0.3 +0.0	+3.9 +0.0	-27.6 +0.0	+0.0	37.1	46.0	-8.9	Horiz
64	400.898M	44.0	+16.4 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	37.0	46.0	-9.0	Vert
65	5416.700M	42.5	+0.0 +32.2 +0.0	+0.0 +0.8 +1.8	+0.0 -37.4	+0.0 +5.1	+0.0	45.0	54.0	-9.0	Vert
66	826.046M	35.0	+22.4 +0.0	+0.6 +0.0	+5.7 +0.0	-26.9 +0.0	+0.0	36.8	46.0	-9.2	Horiz
67	641.828M	37.8	+20.6 +0.0	+0.5 +0.0	+5.0 +0.0	-27.1 +0.0	+0.0	36.8	46.0	-9.2	Horiz
68	500.023M	40.5	+19.0 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	36.6	46.0	-9.4	Horiz
69	296.620M	46.5	+14.0 +0.0	+0.3 +0.0	+3.2 +0.0	-27.5 +0.0	+0.0	36.5	46.0	-9.5	Vert
70	109.417M	48.1	+11.4 +0.0	+0.1 +0.0	+1.9 +0.0	-27.6 +0.0	+0.0	33.9	43.5	-9.6	Horiz
71	104.586M	48.3	+11.2 +0.0	+0.1 +0.0	+1.8 +0.0	-27.6 +0.0	+0.0	33.8	43.5	-9.7	Vert

72	160.739M	46.8	+11.5 +0.0	+0.2 +0.0	+2.3 +0.0	-27.6 +0.0	+0.0	33.2	43.5	-10.3	Horiz
73	170.027M	47.5	+10.7 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	33.2	43.5	-10.3	Horiz
74	175.980M	47.8	+10.1 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	33.0	43.5	-10.5	Horiz
75	666.639M	36.1	+20.8 +0.0	+0.5 +0.0	+5.1 +0.0	-27.0 +0.0	+0.0	35.5	46.0	-10.5	Horiz
76	158.452M	46.4	+11.7 +0.0	+0.2 +0.0	+2.3 +0.0	-27.6 +0.0	+0.0	33.0	43.5	-10.5	Horiz
77	643.069M	36.4	+20.6 +0.0	+0.5 +0.0	+5.0 +0.0	-27.1 +0.0	+0.0	35.4	46.0	-10.6	Horiz
78	85.393M	46.5	+8.9 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	29.4	40.0	-10.6	Vert
79	125.995M	46.2	+12.1 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	32.8	43.5	-10.7	Horiz
80	592.758M	37.2	+19.7 +0.0	+0.5 +0.0	+4.8 +0.0	-27.2 +0.0	+0.0	35.0	46.0	-11.0	Horiz
81	212.953M	46.4	+10.8 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	32.5	43.5	-11.0	Horiz
82	183.520M	47.5	+9.8 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	32.4	43.5	-11.1	Horiz
83	197.126M	47.4	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	32.4	43.5	-11.1	Vert
84	126.769M	45.8	+12.1 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	32.4	43.5	-11.1	Horiz
85	66.009M	48.0	+7.1 +0.0	+0.1 +0.0	+1.4 +0.0	-27.7 +0.0	+0.0	28.9	40.0	-11.1	Vert
86	209.404M	46.5	+10.6 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	32.3	43.5	-11.2	Vert
87	82.814M	46.4	+8.4 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	28.8	40.0	-11.2	Vert
88	430.266M	40.6	+17.6 +0.0	+0.3 +0.0	+3.9 +0.0	-27.6 +0.0	+0.0	34.8	46.0	-11.2	Vert

89	830.518M	32.9	+22.4 +0.0	+0.6 +0.0	+5.7 +0.0	-26.9 +0.0	+0.0	34.7	46.0	-11.3	Horiz
90	820.771M	33.0	+22.3 +0.0	+0.6 +0.0	+5.7 +0.0	-26.9 +0.0	+0.0	34.7	46.0	-11.3	Horiz
91	177.463M	47.1	+10.0 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	32.2	43.5	-11.3	Horiz
92	250.012M	45.4	+13.5 +0.0	+0.2 +0.0	+3.0 +0.0	-27.5 +0.0	+0.0	34.6	46.0	-11.4	Horiz
93	550.007M	37.0	+20.3 +0.0	+0.5 +0.0	+4.5 +0.0	-27.8 +0.0	+0.0	34.5	46.0	-11.5	Horiz
94	171.493M	46.4	+10.5 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	32.0	43.5	-11.5	Vert
95	236.738M	46.5	+12.6 +0.0	+0.2 +0.0	+2.8 +0.0	-27.6 +0.0	+0.0	34.5	46.0	-11.5	Horiz
96	111.998M	45.9	+11.6 +0.0	+0.1 +0.0	+1.9 +0.0	-27.6 +0.0	+0.0	31.9	43.5	-11.6	Vert
97	374.990M	41.9	+15.9 +0.0	+0.3 +0.0	+3.7 +0.0	-27.5 +0.0	+0.0	34.3	46.0	-11.7	Vert
98	875.626M	31.6	+23.3 +0.0	+0.6 +0.0	+5.9 +0.0	-27.1 +0.0	+0.0	34.3	46.0	-11.7	Horiz
99	192.453M	46.6	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	31.6	43.5	-11.9	Horiz
100	140.084M	44.7	+12.2 +0.0	+0.2 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	31.6	43.5	-11.9	Vert
101	824.860M	32.3	+22.4 +0.0	+0.6 +0.0	+5.7 +0.0	-26.9 +0.0	+0.0	34.1	46.0	-11.9	Horiz
102	132.920M	44.9	+12.1 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	31.6	43.5	-11.9	Vert
103	587.188M	36.4	+19.8 +0.0	+0.5 +0.0	+4.7 +0.0	-27.3 +0.0	+0.0	34.1	46.0	-11.9	Horiz
104	392.918M	41.1	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	34.0	46.0	-12.0	Vert
105	116.730M	45.3	+11.8 +0.0	+0.1 +0.0	+1.9 +0.0	-27.6 +0.0	+0.0	31.5	43.5	-12.0	Vert

106	119.981M	44.9	+12.0 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	31.4	43.5	-12.1	Horiz
107	454.542M	39.0	+18.4 +0.0	+0.3 +0.0	+4.0 +0.0	-27.8 +0.0	+0.0	33.9	46.0	-12.1	Horiz
108	525.973M	37.0	+19.7 +0.0	+0.5 +0.0	+4.4 +0.0	-27.7 +0.0	+0.0	33.9	46.0	-12.1	Horiz
109	169.243M	45.6	+10.7 +0.0	+0.2 +0.0	+2.4 +0.0	-27.6 +0.0	+0.0	31.3	43.5	-12.2	Horiz
110	590.335M	36.0	+19.7 +0.0	+0.5 +0.0	+4.7 +0.0	-27.2 +0.0	+0.0	33.7	46.0	-12.3	Horiz
111	206.784M	45.6	+10.4 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	31.2	43.5	-12.3	Horiz
112	427.706M	39.6	+17.5 +0.0	+0.3 +0.0	+3.9 +0.0	-27.6 +0.0	+0.0	33.7	46.0	-12.3	Horiz
113	182.672M	46.2	+9.8 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	31.1	43.5	-12.4	Vert
114	131.814M	44.4	+12.1 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	31.1	43.5	-12.4	Vert
115	394.757M	40.5	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	33.4	46.0	-12.6	Horiz
116	216.369M	47.0	+11.1 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	33.4	46.0	-12.6	Horiz
117	176.812M	45.5	+10.1 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	30.7	43.5	-12.8	Horiz
118	42.895M	41.3	+12.4 +0.0	+0.1 +0.0	+1.1 +0.0	-27.7 +0.0	+0.0	27.2	40.0	-12.8	Horiz
119	51.806M	44.1	+9.5 +0.0	+0.1 +0.0	+1.2 +0.0	-27.7 +0.0	+0.0	27.2	40.0	-12.8	Horiz
120	122.852M	44.1	+12.0 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	30.6	43.5	-12.9	Vert
121	424.789M	39.1	+17.4 +0.0	+0.3 +0.0	+3.9 +0.0	-27.6 +0.0	+0.0	33.1	46.0	-12.9	Horiz
122	205.976M	45.1	+10.3 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	30.6	43.5	-12.9	Horiz

123	207.983M	44.8	+10.4 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	30.4	43.5	-13.1	Vert
124	760.708M	31.9	+21.9 +0.0	+0.5 +0.0	+5.4 +0.0	-26.8 +0.0	+0.0	32.9	46.0	-13.1	Horiz
125	427.315M	38.7	+17.5 +0.0	+0.3 +0.0	+3.9 +0.0	-27.6 +0.0	+0.0	32.8	46.0	-13.2	Vert
126	136.201M	43.5	+12.2 +0.0	+0.1 +0.0	+2.1 +0.0	-27.6 +0.0	+0.0	30.3	43.5	-13.2	Vert
127	150.007M	43.3	+12.2 +0.0	+0.2 +0.0	+2.2 +0.0	-27.6 +0.0	+0.0	30.3	43.5	-13.2	Vert
128	835.862M	30.9	+22.5 +0.0	+0.6 +0.0	+5.7 +0.0	-26.9 +0.0	+0.0	32.8	46.0	-13.2	Horiz
129	823.068M	31.0	+22.3 +0.0	+0.6 +0.0	+5.7 +0.0	-26.9 +0.0	+0.0	32.7	46.0	-13.3	Horiz
130	726.996M	32.2	+21.4 +0.0	+0.5 +0.0	+5.3 +0.0	-26.8 +0.0	+0.0	32.6	46.0	-13.4	Horiz
131	235.243M	44.7	+12.5 +0.0	+0.2 +0.0	+2.8 +0.0	-27.6 +0.0	+0.0	32.6	46.0	-13.4	Horiz
132	672.042M	33.2	+20.8 +0.0	+0.5 +0.0	+5.1 +0.0	-27.0 +0.0	+0.0	32.6	46.0	-13.4	Horiz
133	211.596M	44.1	+10.7 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	30.0	43.5	-13.5	Vert
134	533.252M	35.4	+19.9 +0.0	+0.5 +0.0	+4.4 +0.0	-27.7 +0.0	+0.0	32.5	46.0	-13.5	Horiz
135	467.059M	37.1	+18.5 +0.0	+0.3 +0.0	+4.1 +0.0	-27.7 +0.0	+0.0	32.3	46.0	-13.7	Horiz
136	172.400M	44.1	+10.5 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	29.7	43.5	-13.8	Horiz
137	59.966M	44.8	+7.6 +0.0	+0.1 +0.0	+1.3 +0.0	-27.7 +0.0	+0.0	26.1	40.0	-13.9	Horiz
138	198.582M	44.6	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	29.6	43.5	-13.9	Horiz
139	180.223M	44.7	+9.8 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	29.6	43.5	-13.9	Horiz

140	493.908M	36.0	+18.9 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	32.0	46.0	-14.0	Horiz
141	75.711M	44.5	+7.4 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	25.9	40.0	-14.1	Horiz
142	403.113M	38.8	+16.5 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	31.9	46.0	-14.1	Horiz
143	159.984M	42.7	+11.6 +0.0	+0.2 +0.0	+2.3 +0.0	-27.6 +0.0	+0.0	29.2	43.5	-14.3	Vert
144	84.699M	43.0	+8.7 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	25.7	40.0	-14.3	Horiz
145	320.002M	40.9	+14.6 +0.0	+0.3 +0.0	+3.4 +0.0	-27.5 +0.0	+0.0	31.7	46.0	-14.3	Vert
146	397.326M	38.7	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	31.6	46.0	-14.4	Horiz
147	80.284M	43.7	+7.9 +0.0	+0.1 +0.0	+1.6 +0.0	-27.7 +0.0	+0.0	25.6	40.0	-14.4	Horiz
148	392.495M	38.6	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	31.5	46.0	-14.5	Horiz
149	540.010M	34.3	+20.0 +0.0	+0.5 +0.0	+4.5 +0.0	-27.8 +0.0	+0.0	31.5	46.0	-14.5	Horiz
150	467.804M	36.2	+18.6 +0.0	+0.3 +0.0	+4.1 +0.0	-27.7 +0.0	+0.0	31.5	46.0	-14.5	Horiz
151	122.304M	42.4	+12.0 +0.0	+0.1 +0.0	+2.0 +0.0	-27.6 +0.0	+0.0	28.9	43.5	-14.6	Horiz
152	205.717M	43.3	+10.3 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	28.8	43.5	-14.7	Vert
153	395.839M	38.3	+16.3 +0.0	+0.3 +0.0	+3.7 +0.0	-27.4 +0.0	+0.0	31.2	46.0	-14.8	Horiz
154	321.772M	40.3	+14.6 +0.0	+0.3 +0.0	+3.4 +0.0	-27.5 +0.0	+0.0	31.1	46.0	-14.9	Vert
155	521.908M	34.3	+19.6 +0.0	+0.4 +0.0	+4.4 +0.0	-27.7 +0.0	+0.0	31.0	46.0	-15.0	Horiz
156	227.738M	43.5	+12.0 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	30.8	46.0	-15.2	Horiz

157	872.392M	28.1	+23.2 +0.0	+0.6 +0.0	+5.9 +0.0	-27.0 +0.0	+0.0	30.8	46.0	-15.2	Horiz
158	511.102M	34.4	+19.3 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	30.8	46.0	-15.2	Horiz
159	188.628M	43.1	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	28.1	43.5	-15.4	Horiz
160	733.398M	30.0	+21.6 +0.0	+0.5 +0.0	+5.3 +0.0	-26.8 +0.0	+0.0	30.6	46.0	-15.4	Horiz
161	560.043M	32.9	+20.2 +0.0	+0.5 +0.0	+4.6 +0.0	-27.7 +0.0	+0.0	30.5	46.0	-15.5	Horiz
162	461.315M	35.1	+18.5 +0.0	+0.3 +0.0	+4.1 +0.0	-27.8 +0.0	+0.0	30.2	46.0	-15.8	Vert
163	766.803M	29.1	+21.9 +0.0	+0.5 +0.0	+5.5 +0.0	-26.8 +0.0	+0.0	30.2	46.0	-15.8	Horiz
164	492.586M	34.1	+18.9 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	30.1	46.0	-15.9	Horiz
165	501.121M	33.8	+19.0 +0.0	+0.4 +0.0	+4.3 +0.0	-27.6 +0.0	+0.0	29.9	46.0	-16.1	Vert
166	214.977M	41.1	+11.0 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	27.4	43.5	-16.1	Vert
167	490.396M	34.0	+18.9 +0.0	+0.4 +0.0	+4.2 +0.0	-27.6 +0.0	+0.0	29.9	46.0	-16.1	Horiz
168	406.847M	36.7	+16.7 +0.0	+0.3 +0.0	+3.7 +0.0	-27.5 +0.0	+0.0	29.9	46.0	-16.1	Horiz
169	314.658M	39.2	+14.4 +0.0	+0.3 +0.0	+3.3 +0.0	-27.5 +0.0	+0.0	29.7	46.0	-16.3	Vert
170	314.952M	38.7	+14.4 +0.0	+0.3 +0.0	+3.3 +0.0	-27.5 +0.0	+0.0	29.2	46.0	-16.8	Vert
171	664.523M	29.8	+20.8 +0.0	+0.5 +0.0	+5.1 +0.0	-27.0 +0.0	+0.0	29.2	46.0	-16.8	Horiz
172	540.029M	31.8	+20.1 +0.0	+0.5 +0.0	+4.5 +0.0	-27.8 +0.0	+0.0	29.1	46.0	-16.9	Vert
173	256.007M	39.7	+13.6 +0.0	+0.2 +0.0	+3.0 +0.0	-27.5 +0.0	+0.0	29.0	46.0	-17.0	Horiz

174	561.792M	31.4	+20.1 +0.0	+0.5 +0.0	+4.6 +0.0	-27.6 +0.0	+0.0	29.0	46.0	-17.0	Horiz
175	218.621M	42.2	+11.3 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	28.8	46.0	-17.2	Horiz
176	424.159M	34.9	+17.3 +0.0	+0.3 +0.0	+3.8 +0.0	-27.6 +0.0	+0.0	28.7	46.0	-17.3	Vert
177	193.890M	41.2	+9.8 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	26.2	43.5	-17.3	Vert
178	626.778M	30.1	+20.3 +0.0	+0.5 +0.0	+4.9 +0.0	-27.1 +0.0	+0.0	28.7	46.0	-17.3	Horiz
179	177.539M	41.0	+10.0 +0.0	+0.2 +0.0	+2.5 +0.0	-27.6 +0.0	+0.0	26.1	43.5	-17.4	Vert
180	350.028M	36.4	+15.4 +0.0	+0.3 +0.0	+3.6 +0.0	-27.6 +0.0	+0.0	28.1	46.0	-17.9	Vert
181	116.373M	39.1	+11.8 +0.0	+0.1 +0.0	+1.9 +0.0	-27.6 +0.0	+0.0	25.3	43.5	-18.2	Horiz
182	383.325M	34.8	+16.1 +0.0	+0.3 +0.0	+3.7 +0.0	-27.5 +0.0	+0.0	27.4	46.0	-18.6	Vert
183	64.249M	40.2	+7.2 +0.0	+0.1 +0.0	+1.4 +0.0	-27.7 +0.0	+0.0	21.2	40.0	-18.8	Horiz
184	330.680M	36.0	+14.9 +0.0	+0.3 +0.0	+3.5 +0.0	-27.6 +0.0	+0.0	27.1	46.0	-18.9	Horiz
185	311.780M	36.5	+14.3 +0.0	+0.3 +0.0	+3.3 +0.0	-27.5 +0.0	+0.0	26.9	46.0	-19.1	Vert
186	416.023M	33.3	+17.0 +0.0	+0.3 +0.0	+3.8 +0.0	-27.5 +0.0	+0.0	26.9	46.0	-19.1	Vert
187	62.778M	39.6	+7.4 +0.0	+0.1 +0.0	+1.4 +0.0	-27.7 +0.0	+0.0	20.8	40.0	-19.2	Horiz
188	513.247M	30.3	+19.4 +0.0	+0.4 +0.0	+4.4 +0.0	-27.7 +0.0	+0.0	26.8	46.0	-19.2	Horiz
189	612.134M	28.6	+19.9 +0.0	+0.5 +0.0	+4.9 +0.0	-27.1 +0.0	+0.0	26.8	46.0	-19.2	Horiz
190	348.209M	34.8	+15.4 +0.0	+0.3 +0.0	+3.6 +0.0	-27.6 +0.0	+0.0	26.5	46.0	-19.5	Horiz

191	272.614M	36.3	+13.7 +0.0	+0.3 +0.0	+3.1 +0.0	-27.7 +0.0	+0.0	25.7	46.0	-20.3	Horiz
192	205.522M	37.4	+10.3 +0.0	+0.2 +0.0	+2.6 +0.0	-27.6 +0.0	+0.0	22.9	43.5	-20.6	Vert
193	221.871M	36.3	+11.5 +0.0	+0.2 +0.0	+2.7 +0.0	-27.6 +0.0	+0.0	23.1	46.0	-22.9	Vert
194	1805.300M	65.3	+0.0 +25.3 +0.8	+0.0 +0.5	+0.0 -39.0	+0.0 +2.9	+0.0	55.8	80.0	-24.2	Vert
195	6319.000M	43.9	+0.0 +32.8 +0.0	+0.0 +0.9 +0.9	+0.0 -37.7	+0.0 +5.4	+0.0	46.2	80.0	-33.8	Horiz
196	1805.500M	56.0	+0.0 +25.3 +0.0	+0.0 +0.5 +0.5	+0.0 -39.1	+0.0 +2.9	+0.0	46.1	80.0	-33.9	Horiz
197	7222.300M	41.5	+0.0 +34.2 +0.0	+0.0 +0.9 +0.7	+0.0 -37.4	+0.0 +5.9	+0.0	45.8	80.0	-34.2	Vert
198	6318.900M	41.2	+0.0 +32.8 +0.0	+0.0 +0.9 +0.9	+0.0 -37.7	+0.0 +5.4	+0.0	43.5	80.0	-36.5	Vert