FCC PART 15, SUBPART B and C
TEST REPORT

for

PEDESTRIAN TRANSMITTER

MODEL: PT-1

Prepared for

COPAR CORPORATION
5744 WEST 77TH STREET
BURBANK, ILLINOIS 60459-1305

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

MICHAEL CHRISTENSEN

COMPATIBLE ELECTRONICS INC.
114 OLINDA DRIVE
BREA, CALIFORNIA 92823
(714) 579-0500

DATE: OCTOBER 18, 2004

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
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GENERAL REPORT SUMMARY

This electromagnetic emission test report is generated by Compatible Electronics Inc., which is an independent testing and consulting firm. The test report is based on testing performed by Compatible Electronics personnel according to the measurement procedures described in the test specifications given below and in the "Test Procedures" section of this report.

The measurement data and conclusions appearing herein relate only to the sample tested and this report may not be reproduced without the written permission of Compatible Electronics, unless done so in full.

This report must not be used to claim product endorsement by NVLAP, NIST or any other agency of the U.S. Government.

Device Tested:	Pedestrian Transmitter Model: PT-1 S/N: N/A
Product Description:	See Expository Statement
Modifications:	The EUT was not modified in order to meet the specifications.
Manufacturer:	Copar Corporation 5744 West 77th Street Burbank, Illinois 60459-1305
Test Dates:	October 11, 12, and 29, 2004
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.209 and 15.249
Test Procedure:	ANSI C63.4: 2003
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Radiated RF Emissions, 10 kHz - 9300 MHz	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Pedestrian Transmitter Model: PT-1. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4: 2003. The tests were performed in order to determine whether the electromagnetic emissions from the equipment under test, referred to as EUT hereafter, are within the **Class B** specification limits defined by CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

2. ADMINISTRATIVE DATA

2.1 Location of Testing

The EMI tests described herein were performed at the test facility of Compatible Electronics, 114 Olinda Drive, Brea, California 92823.

2.2 Traceability Statement

The calibration certificates of all test equipment used during the test are on file at the location of the test. The calibration is traceable to the National Institute of Standards and Technology (NIST).

2.3 Cognizant Personnel

Copar Corporation

Al Ingle	President

Compatible Electronics, Inc.

Kyle Fujimoto	Test Engineer
Michael Christensen	Lab Manager

2.4 Date Test Sample was Received

The test sample was received on October 11, 2004

2.5 Disposition of the Test Sample

The sample has not yet been returned to Copar Corporation as of October 29, 2004.

2.6 Abbreviations and Acronyms

The following abbreviations and acronyms may be used in this document.

RF	Radio Frequency
EMI	Electromagnetic Interference
EUT	Equipment Under Test
P/N	Part Number
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network

3. APPLICABLE DOCUMENTS

The following documents are referenced or used in the preparation of this EMI Test Report.

SPEC	TITLE
CFR Title 47, Part 15	FCC Rules – Radio frequency devices (including digital devices)
ANSI C63.4 2003	Methods of measurement of radio-noise emissions from low-voltage electrical and electronic equipment in the range of 9 kHz to 40 GHz

4. DESCRIPTION OF TEST CONFIGURATION

4.1 Description Of Test Configuration - EMI

Setup and operation of the equipment under test.

Specifics of the EUT and Peripherals Tested

The Pedestrian Transmitter Model: PT-1 (EUT) was tested as a stand alone unit and tested in three orthogonal axis. The EUT was continuously transmitting. The antenna is soldered onto the EUT's PCB.

Since the EUT is user adjustable by having the end user take the front cover off the EUT and adjust the output with a potentiometer, the radiated emissions were taken with the EUT at the minimum and maximum power outputs.

The final radiated as well as the conducted data were taken in the modes above. Please see Appendix E for the data sheets.

4.1.1 Cable Construction and Termination

There were no external cables connected to the EUT.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL NUMBER	SERIAL NUMBER	FCC ID
PEDESTRIAN TRANSMITTER (EUT)	COPAR CORPORATION	PT-1	N/A	**SMOPT1**

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08768	June 24, 2004	1 Year
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22262	June 24, 2004	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2811A01363	June 24, 2004	1 Year
EMI Receiver	Rhode & Schwarz	ESIB40	100194	November 24, 2003	1 Year
Preamplifier	Com-Power	PA-102	1017	January 6, 2004	1 Year
Biconical Antenna	Com Power	AB-900	15227	April 21, 2004	1 Year
Log Periodic Antenna	Com Power	AL-100	16203	February 18, 2004	1 Year
Antenna Mast	Com-Power	AM-100	N/A	N/A	N/A
Turntable	Com-Power	TT-100	N/A	N/A	N/A
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
Loop Antenna	Com-Power	AL-130	17089	September 3, 2004	1 Year
Horn Antenna	Antenna Research	DRG-118/A	1053	January 16, 2004	1 Year
Microwave Preamplifier	Com-Power	PA-122	25195	August 19, 2004	1 Year

5.3 EMI Test Equipment (Continued)

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CAL. DATE	CAL. CYCLE
Radiate Emissions Data Capture Program	Compatible Electronics	2.0	N/A	N/A	N/A
Spectrum Analyzer – Main Section	Hewlett Packard	8566B	3638A08784	June 16, 2004	1 Year
Spectrum Analyzer – Display Section	Hewlett Packard	85662A	3701A22279	June 16, 2004	1 Year
Quasi-Peak Adapter	Hewlett Packard	85650A	2430A00424	June 16, 2004	1 Year
Preamplifier	Com Power	PA-103	1582	March 11, 2004	1 Year
Biconical Antenna	Com Power	AB-900	15226	April 21, 2004	1 Year
Log Periodic Antenna	Com Power	AL-100	16202	February 18, 2004	1 Year
Antenna Mast	Com-Power	AM-100	N/A	N/A	N/A
Turntable	Com-Power	TT-100	N/A	N/A	N/A
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A

6. TEST SITE DESCRIPTION

6.1 Test Facility Description

Please refer to section 2.1 and 7.1 of this report for EMI test location.

6.2 EUT Mounting, Bonding and Grounding

The EUT was mounted on a 1.0 by 1.5 meter non-conductive table 0.8 meters above the ground plane.

The EUT was not grounded.

7. TEST PROCEDURES

The following sections describe the test methods and the specifications for the tests. Test results are also included in this section.

7.1 Radiated Emissions (Spurious and Harmonics) Test

The spectrum analyzer was used as a measuring meter along with the quasi-peak adapter. Amplifiers were used to increase the sensitivity of the instrument. The Com-Power Preamplifier Model: PA-102 was used for frequencies from 30 MHz to 1 GHz, and the Com-Power Microwave Preamplifier Model: PA-122 was used for frequencies from 1 GHz to 18 GHz. The spectrum analyzer was used in the peak detect mode with the "Max Hold" feature activated. In this mode, the spectrum analyzer records the highest measured reading over all the sweeps.

The measurement bandwidths and transducers used for the radiated emissions test were:

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
9 kHz to 150 kHz	200 Hz	Active Loop Antenna
150 kHz to 30 MHz	9 kHz	Active Loop Antenna
30 MHz to 300 MHz	120 kHz	Biconical Antenna
300 MHz to 1 GHz	120 kHz	Log Periodic Antenna
1 GHz to 9.3 GHz	1 MHz	Horn Antenna

The open field test site of Compatible Electronics, Inc. was used for radiated emission testing. This test site is set up according to ANSI C63.4: 2003. Please see section 6.2 of this report for mounting, bonding and grounding of the EUT. The turntable supporting the EUT is remote controlled using a motor. The turntable permits EUT rotation of 360 degrees in order to maximize emissions. Also, the antenna mast allows height variation of the antenna from 1 meter to 4 meters. Data was collected in the worst case (highest emission) configuration of the EUT. At each reading, the EUT was rotated 360 degrees and the antenna height was varied from 1 to 4 meters (for E field radiated field strength). The gunsight method was used when measuring with the horn antenna in order to ensure accurate results. The loop antenna was also rotated in the horizontal and vertical axis in order to ensure accurate results.

The presence of ambient signals was verified by turning the EUT off. In case an ambient signal was detected, the measurement bandwidth was reduced temporarily and verification was made that an additional adjacent peak did not exist. This ensures that the ambient signal does not hide any emissions from the EUT. The EUT was tested at a 3 meter test distance to obtain final test data. The final qualification data sheets are located in Appendix E.

Test Results:

The EUT complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

8. CONCLUSIONS

The Pedestrian Transmitter Model: PT-1 meets all of the **Class B** specification limits defined in CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.249.

APPENDIX A

LABORATORY RECOGNITIONS

LABORATORY RECOGNITIONS

Compatible Electronics has the following agency accreditations:

National Voluntary Laboratory Accreditation Program - Lab Code: 200528-0

Voluntary Control Council for Interference - Registration Numbers: R-983, C-1026, R-984 and C-1027

Bureau of Standards and Metrology Inspection - Reference Number: SL2-IN-E-1031

Conformity Assessment Body for the EMC Directive Under the US/EU MRA Appointed by NIST

Compatible Electronics is recognized or on file with the following agencies:

Federal Communications Commission

Industry Canada

Radio-Frequency Technologies (Competent Body)

APPENDIX B

MODIFICATIONS TO THE EUT

MODIFICATIONS TO THE EUT

The modifications listed below were made to the EUT to pass FCC 15.249 or FCC Class B specifications.

All the rework described below was implemented during the test in a method that could be reproduced in all the units by the manufacturer.

No modifications were made during testing.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

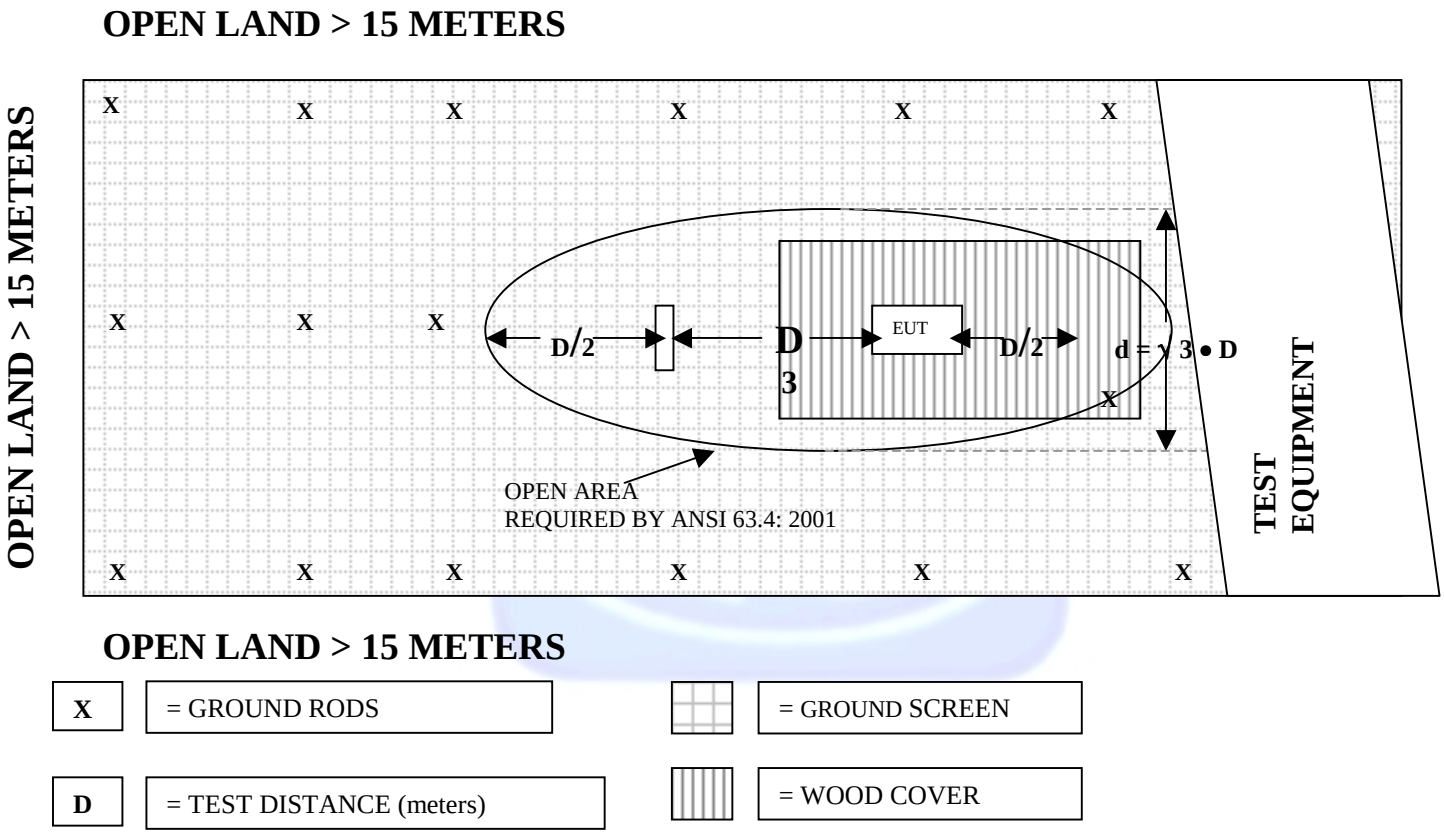
Pedestrian Transmitter
Model: PT-1
S/N: N/A

There were no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

FIGURE 1: PLOT MAP AND LAYOUT OF RADIATED SITE



COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15227

CALIBRATION DATE: APRIL 21, 2004

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	11.20	120	12.50
35	10.90	125	12.90
40	11.40	140	12.40
45	8.90	150	12.10
50	11.40	160	12.40
60	10.30	175	15.80
70	8.20	180	15.70
80	6.00	200	17.40
90	7.60	250	14.60
100	10.50	300	19.50

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16203

CALIBRATION DATE: FEBRUARY 18, 2004

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	13.00	700	19.40
400	15.10	800	21.30
500	16.70	900	20.70
600	18.70	1000	22.60

COM-POWER PA-102

PREAMPLIFIER

S/N: 1017

CALIBRATION DATE: JANUARY 6, 2004

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	37.8	300	37.6
40	37.5	350	37.5
50	37.7	400	37.5
60	37.5	450	37.0
70	37.5	500	37.1
80	37.5	550	37.3
90	37.5	600	37.1
100	37.5	650	37.4
125	37.8	700	37.1
150	37.5	750	37.1
175	37.5	800	36.8
200	37.6	850	36.2
225	37.6	900	36.7
250	37.5	950	36.2
275	37.6	1000	35.3

COM-POWER PA-122

MICROWAVE PREAMPLIFIER

S/N: 25195

CALIBRATION DATE: AUGUST 19, 2004

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	30.50	6.0	30.57
1.1	30.24	6.5	30.39
1.2	30.44	7.0	30.08
1.3	30.38	7.5	29.92
1.4	30.11	8.0	28.88
1.5	29.91	8.5	28.08
1.6	29.74	9.0	28.08
1.7	30.26	9.5	29.11
1.8	30.41	10.0	30.21
1.9	30.19	11.0	29.00
2.0	30.37	12.0	29.10
2.5	30.69	13.0	29.77
3.0	31.63	14.0	28.67
3.5	31.61	15.0	29.72
4.0	31.46	16.0	30.54
4.5	31.45	17.0	30.05
5.0	31.33	18.0	28.47
5.5	31.15		

ANTENNA RESEARCH DRG-118/A

HORN ANTENNA

S/N: 1053

CALIBRATION DATE: JANUARY 16, 2004

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	24.4	10.0	38.7
1.5	25.2	10.5	39.0
2.0	28.2	11.0	38.9
2.5	28.5	11.5	41.3
3.0	30.1	12.0	40.5
3.5	31.0	12.5	40.0
4.0	31.2	13.0	40.2
4.5	31.9	13.5	40.5
5.0	33.2	14.0	41.6
5.5	33.7	14.5	44.8
6.0	34.3	15.0	41.4
6.5	35.0	15.5	39.2
7.0	36.7	16.0	39.4
7.5	37.3	16.5	40.9
8.0	37.1	17.0	42.6
8.5	37.3	17.5	45.1
9.0	37.7	18.0	41.7
9.5	38.6		

COM-POWER AL-130

LOOP ANTENNA

S/N: 17089

CALIBRATION DATE: SEPTEMBER 3, 2004

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-40.8	10.7
0.01	-40.9	10.6
0.02	-41.8	9.7
0.05	-42.0	9.5
0.07	-41.5	10.0
0.1	-41.7	9.8
0.2	-44.1	7.4
0.3	-41.6	9.9
0.5	-41.5	10.0
0.7	-41.4	10.1
1	-41.0	10.5
2	-40.6	10.9
3	-40.8	10.7
4	-41.0	10.5
5	-40.4	11.1
10	-40.7	10.8
15	-41.6	9.9
20	-41.3	10.2
25	-43.0	8.5
30	-42.6	8.9

COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15226

CALIBRATION DATE: APRIL 21, 2004

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	11.00	120	13.20
35	10.80	125	13.30
40	11.20	140	12.50
45	9.00	150	12.10
50	11.40	160	12.80
60	10.30	175	15.60
70	8.10	180	15.70
80	5.80	200	16.40
90	7.80	250	14.90
100	11.10	300	24.60

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16202

CALIBRATION DATE: FEBRUARY 18, 2004

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	12.90	700	19.60
400	14.40	800	21.80
500	17.40	900	20.50
600	18.90	1000	22.70

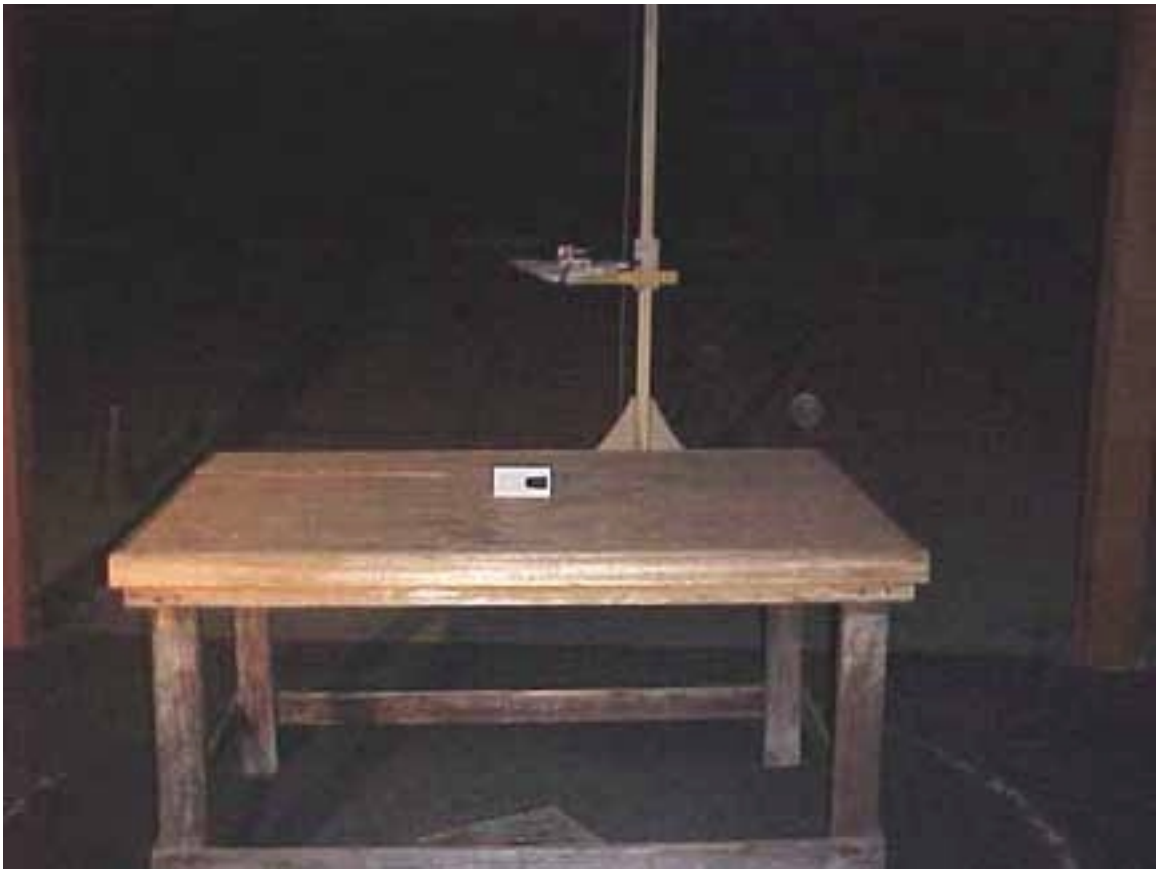
COM-POWER PA-103

PREAMPLIFIER

S/N: 1582

CALIBRATION DATE: MARCH 11, 2004

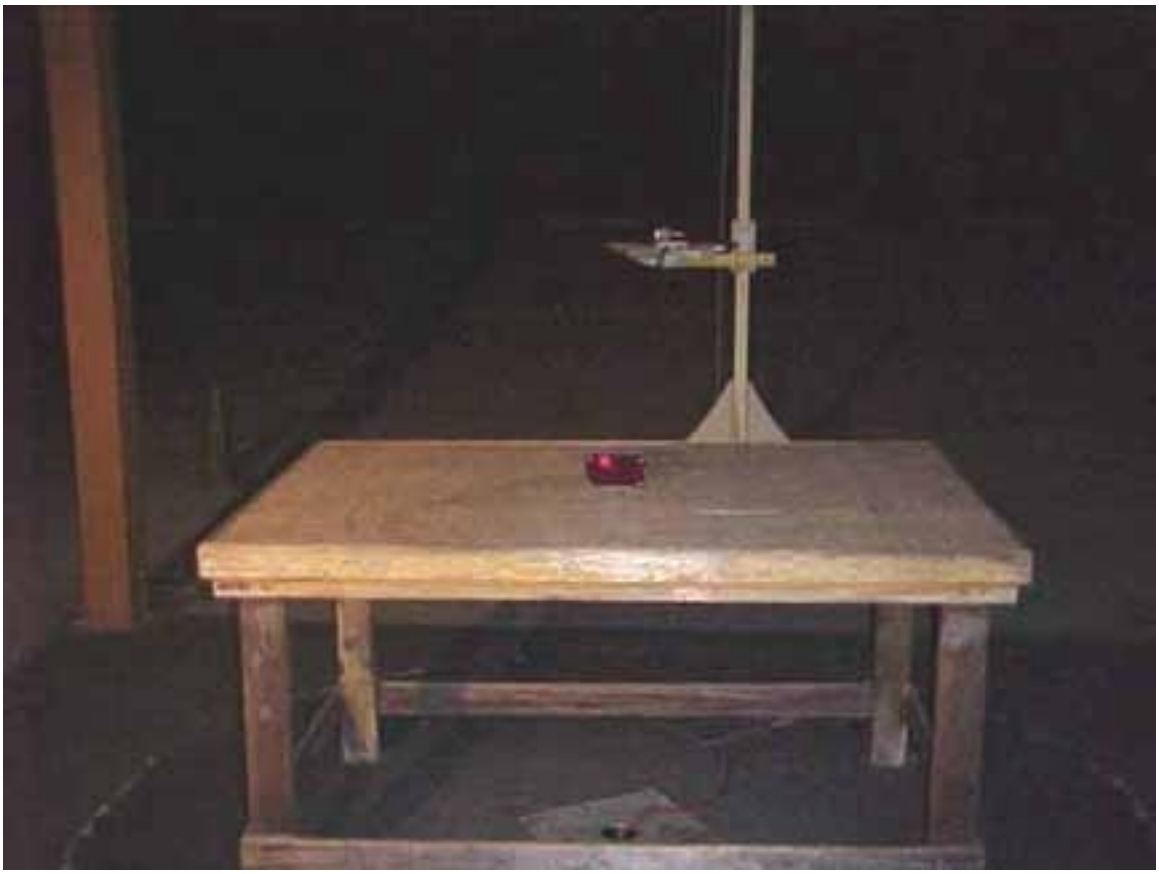
FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	32.4	300	32.3
40	32.4	350	32.2
50	32.4	400	32.2
60	32.5	450	32.0
70	32.4	500	32.0
80	32.3	550	31.8
90	32.3	600	31.7
100	32.3	650	31.7
125	32.4	700	31.7
150	32.2	750	31.9
175	32.4	800	31.4
200	32.4	850	31.4
225	32.5	900	31.0
250	32.3	950	31.4
275	32.1	1000	31.4



FRONT VIEW

COPAR CORPORATION
PEDESTRIAN TRANSMITTER
MODEL: PT-1
MAXIMUM POWER – BELOW 1 GHz
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – 10-11-04

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS



REAR VIEW

COPAR CORPORATION
PEDESTRIAN TRANSMITTER
MODEL: PT-1
MAXIMUM POWER – BELOW 1 GHz
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – 10-11-04

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

COPAR CORPORATION
PEDESTRIAN TRANSMITTER
MODEL: PT-1
MAXIMUM POWER – ABOVE 1 GHz
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – 10-11-04

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

COPAR CORPORATION
PEDESTRIAN TRANSMITTER
MODEL: PT-1
MAXIMUM POWER – ABOVE 1 GHz
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – 10-11-04

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

COPAR CORPORATION
PEDESTRIAN TRANSMITTER
MODEL: PT-1
MINIMUM POWER – ABOVE 1 GHz
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – 10-29-04

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

COPAR CORPORATION
PEDESTRIAN TRANSMITTER
MODEL: PT-1
MINIMUM POWER – BELOW 1 GHz
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – 10-29-04

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

COPAR CORPORATION
PEDESTRIAN TRANSMITTER
MODEL: PT-1
MINIMUM POWER – ABOVE 1 GHz
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – 10-29-04

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

COPAR CORPORATION
PEDESTRIAN TRANSMITTER
MODEL: PT-1
MINIMUM POWER – ABOVE 1 GHz
FCC SUBPART B AND FCC SUBPART C – RADIATED EMISSIONS – 10-29-04

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS

DATA SHEETS

FCC 15.249

COPAR Corp. Date: 10/11/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Benigno Chavez

S/N: N/A

Configuration -- Continuous Transmit Mode - Maximum Output

Y - Axis

Fundamental

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.5	85.84	V	114	-28.16	Peak	1	180	
916.5	85.84	V	94	-8.16	Peak	1	180	
916.5	80.14	H	114	-33.86	Peak	1	180	
916.5	80.14	H	94	-13.86	Peak	1	180	

FCC 15.249

COPAR Corp. Date: 10/11/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Benigno Chavez

S/N: N/A

Configuration -- Continuous Transmit Mode - Maximum Output

X - Axis

Fundamental

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.5	86.64	V	114	-27.36	Peak	1.5	180	
916.5	86.64	V	94	-7.36	Peak	1.5	180	
916.5	92.34	H	114	-21.66	Peak	1	90	
916.5	91.31	H	94	-2.69	QP	1	90	

FCC 15.249

COPAR Corp. Date: 10/11/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Benigno Chavez

S/N: N/A

Configuration -- Continuous Transmit Mode - Maximum Output

Z - Axis

Fundamental

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.5	87.54	V	114	-26.46	Peak	1.5	180	
916.5	87.54	V	94	-6.46	Peak	1.5	180	
916.5	93.24	H	114	-20.76	Peak	1	90	
916.5	92.45	H	94	-1.55	QP	1	90	

FCC 15.249

COPAR Corp. Date: 10/11/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Benigno Chavez

S/N: N/A

Configuration -- Continuous Transmit Mode - Maximum Output

X - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833	48.95	V	74	-25.05	Peak	3.75	180	
1833	46.45	V	54	-7.55	Avg	3.75	180	
2749.5	51.81	V	74	-22.19	Peak	2.5	225	
2749.5	49.31	V	54	-4.69	Avg	2.5	225	
3666	52.89	V	74	-21.11	Peak	3.25	180	
3666	50.39	V	54	-3.61	Avg	3.25	180	
4582.5	51.08	V	74	-22.92	Peak	2.5	135	
4582.5	48.58	V	54	-5.42	Avg	2.5	135	
5499	44.84	V	74	-29.16	Peak	2.75	270	
5499	42.34	V	54	-11.66	Avg	2.75	270	
6415.5		V	74	-74	Peak			NO EMISSION
6415.5		V	54	-54	Avg			DETECTED
7332		V	74	-74	Peak			NO EMISSION
7332		V	54	-54	Avg			DETECTED
8248.5		V	74	-74	Peak			NO EMISSION
8248.5		V	54	-54	Avg			DETECTED
9165		V	74	-74	Peak			NO EMISSION
9165		V	54	-54	Avg			DETECTED

FCC 15.249

COPAR Corp. Date: 10/11/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Benigno Chavez

S/N: N/A

Configuration -- Continuous Transmit Mode - Maximum Output

X - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833	49.85	H	74	-24.15	Peak	1.25	270	
1833	47.35	H	54	-6.65	Avg	1.25	270	
2749.5	54.37	H	74	-19.63	Peak	3	315	
2749.5	51.87	H	54	-2.13	Avg	3	315	
3666	53.69	H	74	-20.31	Peak	2.5	45	
3666	51.19	H	54	-2.81	Avg	2.5	45	
4582.5	55.4	H	74	-18.6	Peak	2.75	90	
4582.5	52.9	H	54	-1.1	Avg	2.75	90	
5499	45.61	H	74	-28.39	Peak	1.75	225	
5499	43.11	H	54	-10.89	Avg	1.75	225	
6415.5		H	74	-74	Peak			NO EMISSION
6415.5		H	54	-54	Avg			DETECTED
7332		H	74	-74	Peak			NO EMISSION
7332		H	54	-54	Avg			DETECTED
8248.5		H	74	-74	Peak			NO EMISSION
8248.5		H	54	-54	Avg			DETECTED
9165		H	74	-74	Peak			NO EMISSION
9165		H	54	-54	Avg			DETECTED

FCC 15.249

COPAR Corp. Date: 10/11/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Benigno Chavez

S/N: N/A

Configuration -- Continuous Transmit Mode - Maximum Output

Y - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833	52.34	V	74	-21.66	Peak	1.25	225	
1833	49.84	V	54	-4.16	Avg	1.25	225	
2749.5	50.17	V	74	-23.83	Peak	3.25	315	
2749.5	47.67	V	54	-6.33	Avg	3.25	315	
3666	52.26	V	74	-21.74	Peak	3.25	135	
3666	49.76	V	54	-4.24	Avg	3.25	135	
4582.5	52.81	V	74	-21.19	Peak	2	45	
4582.5	50.31	V	54	-3.69	Avg	2	45	
5499	45.31	V	74	-28.69	Peak	2.5	180	
5499	42.81	V	54	-11.19	Avg	2.5	180	
6415.5		V	74	-74	Peak			NO EMISSION
6415.5		V	54	-54	Avg			DETECTED
7332		V	74	-74	Peak			NO EMISSION
7332		V	54	-54	Avg			DETECTED
8248.5		V	74	-74	Peak			NO EMISSION
8248.5		V	54	-54	Avg			DETECTED
9165		V	74	-74	Peak			NO EMISSION
9165		V	54	-54	Avg			DETECTED

FCC 15.249

COPAR Corp. Date: 10/11/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Benigno Chavez

S/N: N/A

Configuration -- Continuous Transmit Mode - Maximum Output

Z - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833	51.26	V	74	-22.74	Peak	2.25	90	
1833	48.76	V	54	-5.24	Avg	2.25	90	
2749.5	54.43	V	74	-19.57	Peak	1.25	180	
2749.5	51.93	V	54	-2.07	Avg	1.25	180	
3666	50.83	V	74	-23.17	Peak	1.25	45	
3666	48.33	V	54	-5.67	Avg	1.25	45	
4582.5	51.8	V	74	-22.2	Peak	1.75	225	
4582.5	49.3	V	54	-4.7	Avg	1.75	225	
5499	44.68	V	74	-29.32	Peak	2	180	
5499	42.18	V	54	-11.82	Avg	2	180	
6415.5		V	74	-74	Peak			NO EMISSION
6415.5		V	54	-54	Avg			DETECTED
7332		V	74	-74	Peak			NO EMISSION
7332		V	54	-54	Avg			DETECTED
8248.5		V	74	-74	Peak			NO EMISSION
8248.5		V	54	-54	Avg			DETECTED
9165		V	74	-74	Peak			NO EMISSION
9165		V	54	-54	Avg			DETECTED

FCC 15.249

COPAR Corp. Date: 10/11/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Benigno Chavez

S/N: N/A

Configuration -- Continuous Transmit Mode - Maximum Output

Y - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833	47.64	H	74	-26.36	Peak	1.75	45	
1833	45.14	H	54	-8.86	Avg	1.75	45	
2749.5	55.83	H	74	-18.17	Peak	3	180	
2749.5	53.33	H	54	-0.67	Avg	3	180	
3666	51.6	H	74	-22.4	Peak	3	135	
3666	49.1	H	54	-4.9	Avg	3	135	
4582.5	54.37	H	74	-19.63	Peak	2	90	
4582.5	51.87	H	54	-2.13	Avg	2	90	
5499	46.06	H	74	-27.94	Peak	2.25	180	
5499	43.56	H	54	-10.44	Avg	2.25	180	
6415.5		H	74	-74	Peak			NO EMISSION
6415.5		H	54	-54	Avg			DETECTED
7332		H	74	-74	Peak			NO EMISSION
7332		H	54	-54	Avg			DETECTED
8248.5		H	74	-74	Peak			NO EMISSION
8248.5		H	54	-54	Avg			DETECTED
9165		H	74	-74	Peak			NO EMISSION
9165		H	54	-54	Avg			DETECTED

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COPAR Corp. Date: 10/11/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Benigno Chavez

S/N: N/A

Configuration -- Continuous Transmit Mode - Maximum Output

Z - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833	49.12	H	74	-24.88	Peak	2.5	180	
1833	46.62	H	54	-7.38	Avg	2.5	180	
2749.5	49.77	H	74	-24.23	Peak	3	135	
2749.5	47.27	H	54	-6.73	Avg	3	135	
3666	52.41	H	74	-21.59	Peak	2.5	225	
3666	49.91	H	54	-4.09	Avg	2.5	225	
4582.5	56.35	H	74	-17.65	Peak	2.5	45	
4582.5	53.85	H	54	-0.15	Avg	2.5	45	
5499	45.58	H	74	-28.42	Peak	2	225	
5499	43.08	H	54	-10.92	Avg	2	225	
6415.5		H	74	-74	Peak			NO EMISSION
6415.5		H	54	-54	Avg			DETECTED
7332		H	74	-74	Peak			NO EMISSION
7332		H	54	-54	Avg			DETECTED
8248.5		H	74	-74	Peak			NO EMISSION
8248.5		H	54	-54	Avg			DETECTED
9165		H	74	-74	Peak			NO EMISSION
9165		H	54	-54	Avg			DETECTED

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COPAR Corp. Date: 10/11/04
Pedestrian Transmitter Lab: B
Model: PT-1 Tested By: Benigno Chavez
S/N: N/A
Configuration -- Continuous Transmit Mode - Maximum Output

DIgital Portion Above 1 GHz

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
		V	74	-74	Peak			NO EMISSION
		V	54	-54	Avg			DETECTED
		H	74	-74	Peak			NO EMISSION
		H	54	-54	Avg			DETECTED

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COPAR Corp. Date: 10/29/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Kyle Fujimoto

S/N: N/A

Configuration -- Continuous Transmit Mode - Minimum Output

X - Axis

Fundamental

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.5	35.59	V	114	-78.41	Peak	1.5	180	
916.5	40.56	H	114	-73.44	Peak	1	90	

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COPAR Corp. Date: 10/29/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Kyle Fujimoto

S/N: N/A

Configuration -- Continuous Transmit Mode - Minimum Output

Y - Axis

Fundamental

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.5	41.26	V	114	-72.74	Peak	1	180	
916.5	33.25	H	114	-80.75	Peak	1	180	

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COPAR Corp. Date: 10/29/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Kyle Fujimoto

S/N: N/A

Configuration -- Continuous Transmit Mode - Minimum Output

Z - Axis

Fundamental

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
916.5	33.29	V	114	-80.71	Peak	1.5	180	
916.5	40.25	H	114	-73.75	Peak	1	90	

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COPAR Corp. Date: 10/29/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Kyle Fujimoto

S/N: N/A

Configuration -- Continuous Transmit Mode - Minimum Output

X - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833		V	74	-74	Peak			NO EMISSION
1833		V	54	-54	Avg			DETECTED
2749.5		V	74	-74	Peak			NO EMISSION
2749.5		V	54	-54	Avg			DETECTED
3666		V	74	-74	Peak			NO EMISSION
3666		V	54	-54	Avg			DETECTED
4582.5		V	74	-74	Peak			NO EMISSION
4582.5		V	54	-54	Avg			DETECTED
5499		V	74	-74	Peak			NO EMISSION
5499		V	54	-54	Avg			DETECTED
6415.5		V	74	-74	Peak			NO EMISSION
6415.5		V	54	-54	Avg			DETECTED
7332		V	74	-74	Peak			NO EMISSION
7332		V	54	-54	Avg			DETECTED
8248.5		V	74	-74	Peak			NO EMISSION
8248.5		V	54	-54	Avg			DETECTED
9165		V	74	-74	Peak			NO EMISSION
9165		V	54	-54	Avg			DETECTED

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COPAR Corp. Date: 10/29/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Kyle Fujimoto

S/N: N/A

Configuration -- Continuous Transmit Mode - Minimum Output

Y - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833		V	74	-74	Peak			NO EMISSION
1833		V	54	-54	Avg			DETECTED
2749.5		V	74	-74	Peak			NO EMISSION
2749.5		V	54	-54	Avg			DETECTED
3666		V	74	-74	Peak			NO EMISSION
3666		V	54	-54	Avg			DETECTED
4582.5		V	74	-74	Peak			NO EMISSION
4582.5		V	54	-54	Avg			DETECTED
5499		V	74	-74	Peak			NO EMISSION
5499		V	54	-54	Avg			DETECTED
6415.5		V	74	-74	Peak			NO EMISSION
6415.5		V	54	-54	Avg			DETECTED
7332		V	74	-74	Peak			NO EMISSION
7332		V	54	-54	Avg			DETECTED
8248.5		V	74	-74	Peak			NO EMISSION
8248.5		V	54	-54	Avg			DETECTED
9165		V	74	-74	Peak			NO EMISSION
9165		V	54	-54	Avg			DETECTED

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COPAR Corp. Date: 10/29/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Kyle Fujimoto

S/N: N/A

Configuration -- Continuous Transmit Mode - Minimum Output

Z - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833		V	74	-74	Peak			NO EMISSION
1833		V	54	-54	Avg			DETECTED
2749.5		V	74	-74	Peak			NO EMISSION
2749.5		V	54	-54	Avg			DETECTED
3666		V	74	-74	Peak			NO EMISSION
3666		V	54	-54	Avg			DETECTED
4582.5		V	74	-74	Peak			NO EMISSION
4582.5		V	54	-54	Avg			DETECTED
5499		V	74	-74	Peak			NO EMISSION
5499		V	54	-54	Avg			DETECTED
6415.5		V	74	-74	Peak			NO EMISSION
6415.5		V	54	-54	Avg			DETECTED
7332		V	74	-74	Peak			NO EMISSION
7332		V	54	-54	Avg			DETECTED
8248.5		V	74	-74	Peak			NO EMISSION
8248.5		V	54	-54	Avg			DETECTED
9165		V	74	-74	Peak			NO EMISSION
9165		V	54	-54	Avg			DETECTED

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COPAR Corp. Date: 10/29/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Kyle Fujimoto

S/N: N/A

Configuration -- Continuous Transmit Mode - Minimum Output

X - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833		H	74	-74	Peak			NO EMISSION
1833		H	54	-54	Avg			DETECTED
2749.5		H	74	-74	Peak			NO EMISSION
2749.5		H	54	-54	Avg			DETECTED
3666		H	74	-74	Peak			NO EMISSION
3666		H	54	-54	Avg			DETECTED
4582.5		H	74	-74	Peak			NO EMISSION
4582.5		H	54	-54	Avg			DETECTED
5499		H	74	-74	Peak			NO EMISSION
5499		H	54	-54	Avg			DETECTED
6415.5		H	74	-74	Peak			NO EMISSION
6415.5		H	54	-54	Avg			DETECTED
7332		H	74	-74	Peak			NO EMISSION
7332		H	54	-54	Avg			DETECTED
8248.5		H	74	-74	Peak			NO EMISSION
8248.5		H	54	-54	Avg			DETECTED
9165		H	74	-74	Peak			NO EMISSION
9165		H	54	-54	Avg			DETECTED

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COPAR Corp. Date: 10/29/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Kyle Fujimoto

S/N: N/A

Configuration -- Continuous Transmit Mode - Minimum Output

Y - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833		H	74	-74	Peak			NO EMISSION
1833		H	54	-54	Avg			DETECTED
2749.5		H	74	-74	Peak			NO EMISSION
2749.5		H	54	-54	Avg			DETECTED
3666		H	74	-74	Peak			NO EMISSION
3666		H	54	-54	Avg			DETECTED
4582.5		H	74	-74	Peak			NO EMISSION
4582.5		H	54	-54	Avg			DETECTED
5499		H	74	-74	Peak			NO EMISSION
5499		H	54	-54	Avg			DETECTED
6415.5		H	74	-74	Peak			NO EMISSION
6415.5		H	54	-54	Avg			DETECTED
7332		H	74	-74	Peak			NO EMISSION
7332		H	54	-54	Avg			DETECTED
8248.5		H	74	-74	Peak			NO EMISSION
8248.5		H	54	-54	Avg			DETECTED
9165		H	74	-74	Peak			NO EMISSION
9165		H	54	-54	Avg			DETECTED

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COPAR Corp. Date: 10/29/04

Pedestrian Transmitter Lab: B

Model: PT-1 Tested By: Kyle Fujimoto

S/N: N/A

Configuration -- Continuous Transmit Mode - Minimum Output

Z - Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
1833		H	74	-74	Peak			NO EMISSION
1833		H	54	-54	Avg			DETECTED
2749.5		H	74	-74	Peak			NO EMISSION
2749.5		H	54	-54	Avg			DETECTED
3666		H	74	-74	Peak			NO EMISSION
3666		H	54	-54	Avg			DETECTED
4582.5		H	74	-74	Peak			NO EMISSION
4582.5		H	54	-54	Avg			DETECTED
5499		H	74	-74	Peak			NO EMISSION
5499		H	54	-54	Avg			DETECTED
6415.5		H	74	-74	Peak			NO EMISSION
6415.5		H	54	-54	Avg			DETECTED
7332		H	74	-74	Peak			NO EMISSION
7332		H	54	-54	Avg			DETECTED
8248.5		H	74	-74	Peak			NO EMISSION
8248.5		H	54	-54	Avg			DETECTED
9165		H	74	-74	Peak			NO EMISSION
9165		H	54	-54	Avg			DETECTED

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COPAR Corp. Date: 10/29/04
Pedestrian Transmitter Lab: B
Model: PT-1 Tested By: Kyle Fujimoto
S/N: N/A
Configuration -- Continuous Transmit Mode - Minimum Output

Digital Portion 10 kHz to 9200 MHz

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
		V	74	-74	Peak			NO EMISSION
		V	54	-54	Avg			DETECTED - 10 kHz to 9200 MHz
		H	74	-74	Peak			NO EMISSION
		H	54	-54	Avg			DETECTED - 10 kHz to 9200 MHz