FCC PART 15, SUBPART B and C
TEST REPORT

for

HAND HELD TRANSMITTER

Model: MP4JSB-TX

Prepared for

APPLIED ELECTRONICS COMPANY
3132 BROWN STREET
BOISE, IDAHO 83714

Prepared by:_____

KYLE FUJIMOTO

Approved by:_____

JAMES ROSS

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

DATE: MARCH 12, 2008

	REPORT BODY	APPENDICES					TOTAL
		A	***B***	***C***	***D***	***E***	
PAGES	16	2	2	2	12	11	**45**

TABLE OF CONTENTS

LIST OF APPENDICES

APPENDIX	TITLE
A	Laboratory Recognitions
B	Modifications to the EUT
C	Additional Models Covered Under This Report
D	Diagrams, Charts, and Photos • Test Setup Diagrams • Radiated Emissions Photos • Antenna and Effective Gain Factors
E	Data Sheets

LIST OF FIGURES

FIGURE	TITLE
1	Plot Map And Layout of 3 Meter Radiated Test Site

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:	Hand Held Transmitter Model: MP4JSB-TX S/N: B06s4-161
Product Description:	See Expository Statement
Modifications:	The EUT was not modified during the testing.
Manufacturer:	Applied Electronics Company 3132 Brown Street Boise, Idaho 83714
Test Date:	February 12, 2008
Test Specifications:	EMI requirements CFR Title 47, Part 15 Subpart B; and Subpart C, Sections 15.205, 15.209 and 15.231
Test Procedure:	ANSI C63.4
Test Deviations:	The test procedure was not deviated from during the testing.

SUMMARY OF TEST RESULTS

TEST	DESCRIPTION	RESULTS
1	Conducted RF Emissions, 150 kHz - 30 MHz	This test was not performed because the EUT operates on battery power only and cannot be plugged into the AC public mains.
2	Radiated RF Emissions, 10 kHz – 3.15 GHz	Complies with the **Class B** limits of CFR Title 47, Part 15, Subpart B; and Subpart C, sections 15.205, 15.209, and 15.231.

1. PURPOSE

This document is a qualification test report based on the Electromagnetic Interference (EMI) tests performed on the Hand Held Transmitter, Model: MP4JSB-TX. The EMI measurements were performed according to the measurement procedure described in ANSI C63.4. 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 15.231.

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

Applied Electronics Company

William Sellers General Manager

Compatible Electronics, Inc.

Kyle Fujimoto Test Engineer
James Ross Test Engineer

2.4 Date Test Sample was Received

The test sample was received prior to the initial test date of February 12, 2008.

2.5 Disposition of the Test Sample

The sample has not been returned to Applied Electronics Company as of February 14, 2008.

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	Model
S/N	Serial Number
HP	Hewlett Packard
ITE	Information Technology Equipment
CML	Corrected Meter Limit
LISN	Line Impedance Stabilization Network
TX	Transmit
RX	Receive
PCB	Printed Circuit Board

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.

The Hand Held Transmitter Model: MP4JSB-TX (EUT) was tested as a stand alone unit and tested in three orthogonal axis. The EUT was continuously transmitting. The EUT uses FSK modulation.

During normal operation, the transmission of the EUT will turn off immediately after the button is released.

The final radiated data was taken in the mode above. Please see Appendix E for the data sheets.

4.1.1 Cable Construction and Termination

The EUT has no external cables.

5. LISTS OF EUT, ACCESSORIES AND TEST EQUIPMENT

5.1 EUT and Accessory List

EQUIPMENT	MANUFACTURER	MODEL	SERIAL NUMBER	FCC ID
HAND HELD TRANSMITTER (EUT)	APPLIED ELECTRONICS COMPANY	MP4JSB-TX	B06s4-161	**MJYMPJ**

5.2 EMI Test Equipment

EQUIPMENT TYPE	MANU-FACTURER	MODEL NUMBER	SERIAL NUMBER	CALIBRATION DATE	CALIBRATION DUE DATE
GENERAL TEST EQUIPMENT USED FOR ALL RF EMISSIONS TESTS					
Computer	Hewlett Packard	4530	US91912319	N/A	N/A
EMI Receiver	Rohde & Schwarz	ESIB40	100172	November 27, 2006	November 27, 2008
Monitor	Hewlett Packard	D5258A	TW74500641	N/A	N/A
RF RADIATED EMISSIONS TEST EQUIPMENT					
Preamplifier	Com Power	PA-102	1017	January 11, 2008	January 11, 2009
Biconical Antenna	Com Power	AB-900	15227	March 8, 2007	March 8, 2008
Log Periodic Antenna	Com Power	AL-100	16060	July 9, 2007	July 9, 2008
Loop Antenna	Com Power	AL-130	17089	September 24, 2007	September 24, 2008
Horn Antenna	Antenna Research	DRG-118/A	1053	March 6, 2006	March 6, 2008
Microwave Preamplifier	Com Power	PA-122	181921	February 27, 2007	February 27, 2008
Antenna Mast	Com Power	AM-100	N/A	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 is battery powered and 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 EMI Receiver 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 Active Loop Antenna Model: AL-130 was used for frequencies from 9 kHz to 30 MHz, 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 3.15 GHz. The spectrum analyzer and EMI Receiver were used in the peak detect mode with the "Max Hold" feature activated. In this mode, the EMI Receiver records the highest measured reading over all the sweeps.

The quasi-peak adapter was used only for those readings which are marked accordingly on the data sheets.

The frequencies above 1 GHz were averaged manually by narrowing the video filter down to 10 Hz and putting the sweep time on AUTO on the EMI Receiver to keep the amplitude reading calibrated.

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

FREQUENCY RANGE	EFFECTIVE MEASUREMENT BANDWIDTH	TRANSDUCER
10 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 3.15 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. 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.

7.2 Radiated Emissions (Spurious and Harmonics) Test (Continued)

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 CFR Title 47, Part 15, Subpart C, sections 15.205, 15.209, and 15.231.

7.3 Bandwidth of the Fundamental

The -20 dB bandwidth was checked to see that it was within 0.25% of the fundamental frequency for the EUT. The data sheet of the –20 dB bandwidth is located in Appendix E.

Test Results:

The EUT complies with the limits of CFR Title 47, Part 15, Subpart C, section 15.231 [c].

8. CONCLUSIONS

The Hand Held Transmitter, Model: MP4JSB-TX (EUT), as tested, 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 15.231.

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 15.231 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 to the EUT during the testing.

APPENDIX C

ADDITIONAL MODELS COVERED UNDER THIS REPORT

ADDITIONAL MODELS COVERED UNDER THIS REPORT

USED FOR THE PRIMARY TEST

Hand Held Transmitter
Model: MP4JSB-TX
S/N: B06s4-161

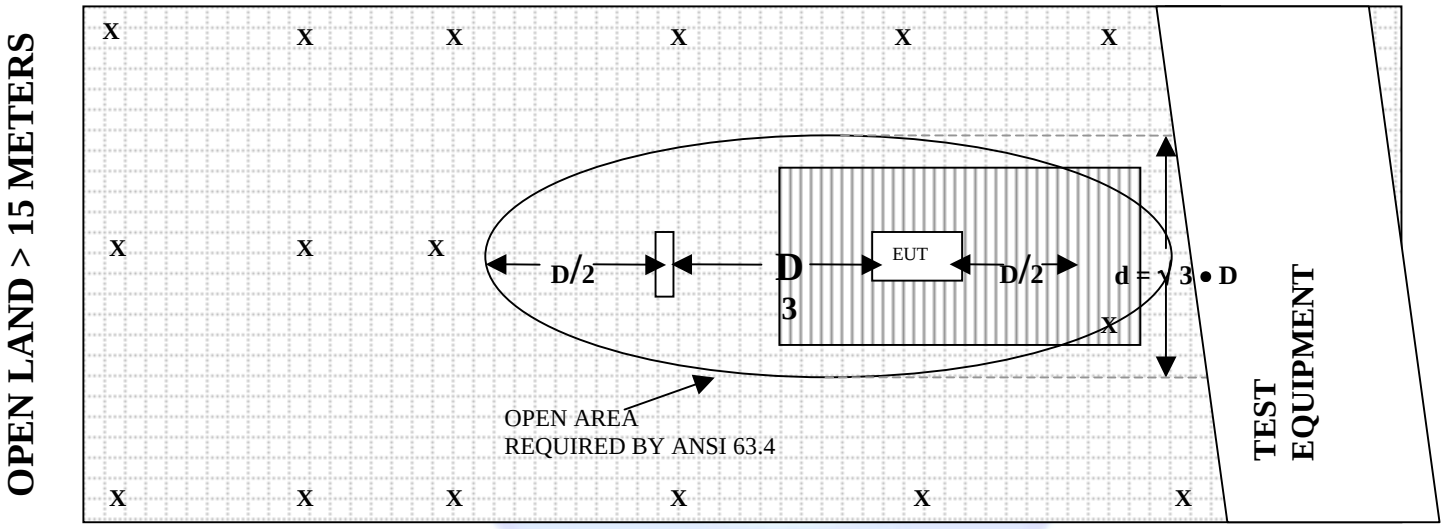
There are no additional models covered under this report.

APPENDIX D

DIAGRAMS, CHARTS, AND PHOTOS

FIGURE 1: PLOT MAP AND LAYOUT OF 3 METER RADIATED TEST SITE

OPEN LAND > 15 METERS



OPEN LAND > 15 METERS

X = GROUND RODS	= GROUND SCREEN
D = TEST DISTANCE (meters)	= WOOD COVER

COM-POWER AB-900

BICONICAL ANTENNA

S/N: 15227

CALIBRATION DATE: MARCH 8, 2007

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	12.6	100	12.3
35	10.0	120	14.7
40	9.5	140	13.0
45	9.2	160	13.7
50	9.4	180	16.4
60	7.4	200	17.2
70	6.5	250	14.6
80	7.0	275	19.0
90	8.0	300	22.3

COM-POWER AL-100

LOG PERIODIC ANTENNA

S/N: 16060

CALIBRATION DATE: JULY 9, 2007

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
300	13.5	700	20.5
400	15.8	800	21.6
500	17.0	900	21.3
600	19.2	1000	22.2

COM-POWER PA-102

PREAMPLIFIER

S/N: 1017

CALIBRATION DATE: JANUARY 11, 2008

FREQUENCY (MHz)	FACTOR (dB)	FREQUENCY (MHz)	FACTOR (dB)
30	38.2	300	38.0
40	38.0	350	38.3
50	38.3	400	38.0
60	38.6	450	37.5
70	38.4	500	37.9
80	38.4	550	37.9
90	38.3	600	37.8
100	38.1	650	37.5
125	38.5	700	38.0
150	38.2	750	37.7
175	38.1	800	37.1
200	38.4	850	37.1
225	38.2	900	37.1
250	38.2	950	37.0
275	38.2	1000	36.5

COM-POWER PA-122

PREAMPLIFIER

S/N: 181921

CALIBRATION DATE: FEBRUARY 27, 2007

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	36.2	10.0	35.1
1.5	35.4	10.5	34.8
2.0	34.7	11.0	33.5
2.5	34.8	11.5	33.9
3.0	34.8	12.0	34.0
3.5	34.6	12.5	34.4
4.0	34.2	13.0	34.4
4.5	34.1	13.5	34.7
5.0	34.1	14.0	36.0
5.5	34.7	14.5	35.7
6.0	35.6	15.0	36.1
6.5	36.8	15.5	35.6
7.0	36.7	16.0	35.4
7.5	34.9	16.5	35.3
8.0	33.3	17.0	34.9
8.5	33.6	17.5	33.7
9.0	34.6	18.0	33.3
9.5	35.9		

ANTENNA RESEARCH DRG-118/A

HORN ANTENNA

S/N: 1053

CALIBRATION DATE: MARCH 6, 2006

FREQUENCY (GHz)	FACTOR (dB)	FREQUENCY (GHz)	FACTOR (dB)
1.0	24.46	10.0	39.55
1.5	25.05	10.5	39.86
2.0	28.42	11.0	38.49
2.5	29.91	11.5	40.71
3.0	31.46	12.0	40.59
3.5	31.91	12.5	40.17
4.0	31.55	13.0	39.70
4.5	31.94	13.5	40.84
5.0	32.90	14.0	41.58
5.5	34.07	14.5	45.14
6.0	35.69	15.0	42.20
6.5	33.11	15.5	39.42
7.0	36.51	16.0	38.80
7.5	37.27	16.5	41.08
8.0	37.21	17.0	44.11
8.5	37.16	17.5	46.29
9.0	38.27	18.0	41.61
9.5	39.73		

COM-POWER AL-130

LOOP ANTENNA

S/N: 17089

CALIBRATION DATE: SEPTEMBER 24, 2007

FREQUENCY (MHz)	MAGNETIC (dB/m)	ELECTRIC (dB/m)
0.009	-41.27	10.23
0.01	-41.96	9.54
0.02	-41.73	9.77
0.03	-40.46	11.04
0.04	-40.56	10.94
0.05	-42.00	9.50
0.06	-41.30	10.20
0.1	-41.43	10.07
0.2	-43.90	7.60
0.3	-41.43	10.07
0.4	-41.40	10.10
0.5	-41.40	10.10
0.6	-40.93	10.57
1	-40.83	10.67
2	-40.3	11.20
5	-40.2	11.30
8	-40.6	10.90
9	-40.1	11.40
10	-40.4	11.10
15	-41.67	9.83
20	-41.10	10.40
25	-42.8	8.70
30	-42.8	8.70

FRONT VIEW

APPLIED ELECTRONICS COMPANY
HAND HELD TRANSMITTER
MODEL: MP4JSB-TX
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB D – 10 kHz to 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

APPLIED ELECTRONICS COMPANY
HAND HELD TRANSMITTER
MODEL: MP4JSB-TX
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB D – 10 kHz to 1 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

FRONT VIEW

APPLIED ELECTRONICS COMPANY
HAND HELD TRANSMITTER
MODEL: MP4JSB-TX
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB B – 1 GHz to 3.15 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

REAR VIEW

APPLIED ELECTRONICS COMPANY
HAND HELD TRANSMITTER
MODEL: MP4JSB-TX
FCC SUBPART B AND C – RADIATED EMISSIONS – LAB B – 1 GHz to 3.15 GHz

PHOTOGRAPH SHOWING THE EUT CONFIGURATION FOR MAXIMUM EMISSIONS

APPENDIX E

DATA SHEETS

RADIATED EMISSIONS

DATA SHEETS

FCC 15.231

Applied Electronics Company
Hand Held Transmitter
Model: MP4JSB-TX

Date: 02/12/08
Labs: B and D
Tested By: Kyle Fujimoto

X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
315	69.39	V	95.6	-26.21	Peak	1	180	
315	68.35	V	75.6	-7.25	Avg	1	180	
630	33.41	V	75.6	-42.19	Peak	1	90	
630	28.65	V	55.6	-26.95	Avg	1	90	
945	27.88	V	75.6	-47.72	Peak	1.13	125	
945	21.5589	V	55.6	-34.041	Avg	1.13	125	
1260	33.71	V	74	-40.29	Peak	1.25	180	
1260	24.37	V	54	-29.63	Avg	1.25	180	
1575	33.91	V	74	-40.09	Peak	1.25	150	
1575	24.11	V	54	-29.89	Avg	1.25	150	
1890	34.63	V	74	-39.37	Peak	1.25	135	
1890	22.69	V	54	-31.31	Avg	1.25	135	
2205	36.68	V	74	-37.32	Peak	1.25	150	
2205	24.09	V	54	-29.91	Avg	1.25	150	
2520		V	74	-74	Peak			No Emission
2520		V	54	-54	Avg			Detected
2835		V	74	-74	Peak			No Emission
2835		V	54	-54	Avg			Detected
3150		V	74	-74	Peak			No Emission
3150		V	54	-54	Avg			Detected

FCC 15.231
Applied Electronics Company
Hand Held Transmitter
Model: MP4JSB-TX

Date: 02/12/08
Labs: B and D
Tested By: Kyle Fujimoto

X-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
315	75.43	H	95.6	-20.17	Peak	1	45	
315	74.4	H	75.6	-1.2	Avg	1	45	
630	38.38	H	75.6	-37.22	Peak	2	315	
630	33.65	H	55.6	-21.95	Avg	2	315	
945	30.83	H	75.6	-44.77	Peak	1.73	125	
945	22.39	H	55.6	-33.21	Avg	1.73	125	
1260	34.96	H	74	-39.04	Peak	1.28	135	
1260	24.38	H	54	-29.62	Avg	1.28	135	
1575	37.54	H	74	-36.46	Peak	1.25	45	
1575	29.81	H	54	-24.19	Avg	1.25	45	
1890	34.77	H	74	-39.23	Peak	1.25	315	
1890	22.34	H	54	-31.66	Avg	1.25	315	
2205	35.72	H	74	-38.28	Peak	1.15	350	
2205	23.79	H	54	-30.21	Avg	1.15	350	
2520		H	74	-74	Peak			No Emission
2520		H	54	-54	Avg			Detected
2835		H	74	-74	Peak			No Emission
2835		H	54	-54	Avg			Detected
3150		H	74	-74	Peak			No Emission
3150		H	54	-54	Avg			Detected

FCC 15.231

Applied Electronics Company
Hand Held Transmitter
Model: MP4JSB-TX

Date: 02/12/08
Labs: B and D
Tested By: Kyle Fujimoto

Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
315	71.86	V	95.6	-23.74	Peak	1	90	
315	70.96	V	75.6	-4.64	Avg	1	90	
630	42.67	V	75.6	-32.93	Peak	1	90	
630	37.76	V	55.6	-17.84	Avg	1	90	
945	32.25	V	75.6	-43.35	Peak	1	225	
945	24.97	V	55.6	-30.63	Avg	1	225	
1260	34.82	V	74	-39.18	Peak	1.25	150	
1260	24.68	V	54	-29.32	Avg	1.25	150	
1575	37.53	V	74	-36.47	Peak	1.25	150	
1575	28.01	V	54	-25.99	Avg	1.25	150	
1890	36.41	V	74	-37.59	Peak	1.25	135	
1890	25.01	V	54	-28.99	Avg	1.25	135	
2205	36.06	V	74	-37.94	Peak	1.25	150	
2205	24.11	V	54	-29.89	Avg	1.25	150	
2520		V	74	-74	Peak			No Emission
2520		V	54	-54	Avg			Detected
2835		V	74	-74	Peak			No Emission
2835		V	54	-54	Avg			Detected
3150		V	74	-74	Peak			No Emission
3150		V	54	-54	Avg			Detected

FCC 15.231

Applied Electronics Company
Hand Held Transmitter
Model: MPJ

Date: 02/12/08
Labs: B and D
Tested By: Kyle Fujimoto

Y-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
315	73.89	H	95.6	-21.71	Peak	1	315	
315	73.22	H	75.6	-2.38	Avg	1	315	
630	28.13	H	75.6	-47.47	Peak	1	45	
630	22.41	H	55.6	-33.19	Avg	1	45	
945	26.92	H	75.6	-48.68	Peak	1	90	
945	17.44	H	55.6	-38.16	Avg	1	90	
1260	32.67	H	74	-41.33	Peak	1.25	315	
1260	19.56	H	54	-34.44	Avg	1.25	315	
1575	38.32	H	74	-35.68	Peak	1.25	315	
1575	31.73	H	54	-22.27	Avg	1.25	315	
1890	36.68	H	74	-37.32	Peak	1.25	150	
1890	22.84	H	54	-31.16	Avg	1.25	150	
2205	38.31	H	74	-35.69	Peak	1.29	135	
2205	25.24	H	54	-28.76	Avg	1.29	135	
2520	36.86	H	74	-37.14	Peak	1.35	125	
2520	24.77	H	54	-29.23	Avg	1.35	125	
2835		H	74	-74	Peak			No Emission
2835		H	54	-54	Avg			Detected
3150		H	74	-74	Peak			No Emission
3150		H	54	-54	Avg			Detected

FCC 15.231

Applied Electronics Company
Hand Held Transmitter
Model: MP4JSB-TX

Date: 02/12/08
Labs: B and D
Tested By: Kyle Fujimoto

Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
315	68.87	V	95.6	-26.73	Peak	2	315	
315	67.78	V	75.6	-7.82	Avg	2	315	
630	33.22	V	75.6	-42.38	Peak	1	90	
630	27.82	V	55.6	-27.78	Avg	1	90	
945	29.07	V	75.6	-46.53	Peak	1	90	
945	18.94	V	55.6	-36.66	Avg	1	90	
1260	33.75	V	74	-40.25	Peak	1.25	135	
1260	23.57	V	54	-30.43	Avg	1.25	135	
1575	40.48	V	74	-33.52	Peak	1.25	135	
1575	36.03	V	54	-17.97	Avg	1.25	135	
1890	35.51	V	74	-38.49	Peak	1.25	150	
1890	22.91	V	54	-31.09	Avg	1.25	150	
2205	36.14	V	74	-37.86	Peak	1.25	150	
2205	23.97	V	54	-30.03	Avg	1.25	150	
2520		V	74	-74	Peak			No Emission
2520		V	54	-54	Avg			Detected
2835		V	74	-74	Peak			No Emission
2835		V	54	-54	Avg			Detected
3150		V	74	-74	Peak			No Emission
3150		V	54	-54	Avg			Detected

FCC 15.231

Applied Electronics Company
Hand Held Transmitter
Model: MP4JSB-TX

Date: 02/12/08
Labs: B and D
Tested By: Kyle Fujimoto

Z-Axis

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
315	72.48	H	95.6	-23.12	Peak	1	315	
315	71.83	H	75.6	-3.77	Avg	1	315	
630	41.33	H	75.6	-34.27	Peak	1	90	
630	38.73	H	55.6	-16.87	Avg	1	90	
945	29.65	H	75.6	-45.95	Peak	1	90	
945	19.85	H	55.6	-35.75	Avg	1	90	
1260	32.51	H	74	-41.49	Peak	1.25	135	
1260	18.92	H	54	-35.08	Avg	1.25	135	
1575	34.87	H	74	-39.13	Peak	1.35	125	
1575	23.94	H	54	-30.06	Avg	1.35	125	
1890	36.25	H	74	-37.75	Peak	1.25	150	
1890	22.69	H	54	-31.31	Avg	1.25	150	
2205	36.75	H	74	-37.25	Peak	1.12	125	
2205	24.24	H	54	-29.76	Avg	1.12	125	
2520		H	74	-74	Peak			No Emission
2520		H	54	-54	Avg			Detected
2835		H	74	-74	Peak			No Emission
2835		H	54	-54	Avg			Detected
3150		H	74	-74	Peak			No Emission
3150		H	54	-54	Avg			Detected

FCC 15.231 and FCC Class B

Applied Electronics Company
Hand Held Transmitter
Model: MP4JSB-TX

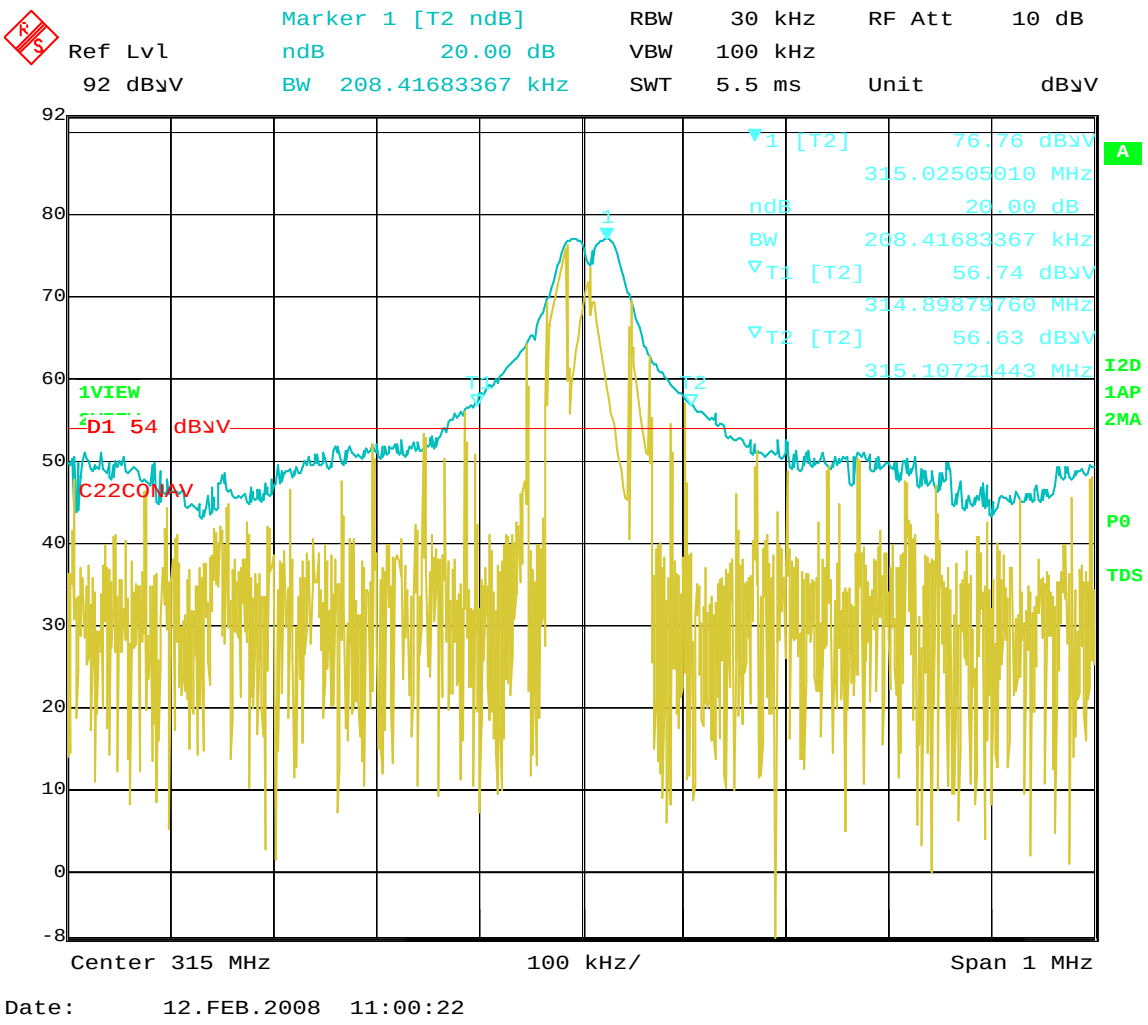
Date: 02/12/08
Labs: B and D
Tested By: Kyle Fujimoto

Non Harmonic Emissions from the Tx - 10 kHz to 3150 MHz - Vertical and Horizontal Polarization

Freq. (MHz)	Level (dBuV)	Pol (v/h)	Limit	Margin	Peak / QP / Avg	Ant. Height (m)	Table Angle (deg)	Comments
								No Emissons
								Found for the Digital Portion
								from 10 kHz to 3150 MHz
								for the EUT
								No Emissons
								Found for the Non-Harmonic
								Emissions from 10 kHz
								to 3150 MHz for the EUT

-20 dB BANDWIDTH

DATA SHEET



-20 dB Bandwidth of the Fundamental for FCC