

Application for FCC Certification
On behalf of
XIAMEN BAITAI TRADING CO., LTD

Radio Transmitter

Model No.: WYF-001

FCC ID: PQ8JSHTWYF-001

Prepared For : XIAMEN BAITAI TRADING CO., LTD
14/D, JINYUANG BUILDING,
NO.57 HUBINNAN ROAD, XIAMEN, CHINA

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Report No. : ACI-F01038
Date of Test : Sept 11 ~ 18, 2001
Date of Report : Sept 25, 2002

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TEST REPORT FOR FCC CERTIFICATION

Applicant : XIAMEN BAITAI TRADING CO., LTD
Manufacturer : JIANGSU HUITONG (GROUP) CO., LTD
EUT Description : Radio Transmitter
(A) Model No. : WYF-001
(B) Serial No. : TR0821
(C) Power Supply : DC 9V
(D) Work Frequency : 315MHz

Test Procedure Used:

*FCC RULES AND REGULATIONS PART 15 SUBPART C MAY 2001
AND FCC/ANSI C63.4-1992*

The device described above is tested by Audix Technology (Shanghai) Co., Ltd. to determine the maximum emission levels emanating from the device. The maximum emission levels are compared to the FCC Part 15 Subpart C limits.

The test results are contained in this test report and Audix Technology (Shanghai) Co., Ltd. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the FCC official limits.

This report applies to above tested sample only. This report shall not be reproduced in part without written approval of Audix Technology (Shanghai) Co., Ltd.

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

Date of Test : Sept 11 ~ 18, 2001

Prepared by : Sue Sun Test Engineer : Winston Hua
SUE SUN
(Assistant) WINSTON HUA
(Engineer)
For and on behalf of
AUDIX TECHNOLOGY (SHANGHAI) CO., LTD.
Reviewer : Byron Kwo Approved Signatory : Alex Chiu
BYRON KWO ALEX CHIU
(Supervisor)
.....(Assistant Manager).....
Authorized Signature(s)

1 GENERAL INFORMATION

1.1 Description of Equipment Under Test

Description : Radio Transmitter

Type of EUT : ☒ Production ☐ Pre-product ☐ Pro-type

Model No. : WYF-001

Serial No. : TR0821

FCC ID : PQ8JSHTSWYF-001

Applicant : XIAMEN BAITAI TRADING CO., LTD
14/D, JINYUAN BUILDING, NO.57 HUBINNAN ROAD,
XIAMEN, CHINA.

Manufacturer : JIANGSU HUITONG (GROUP) CO., LTD
NO.24, BLOCK 2, TAOHUAWU NEW DISTRICT,
ZHENJIANG, JIANGSU, CHINA

1.2 Description of Test Facility

Site Description : Audix Technology (Shanghai) Co., Ltd.

Semi-Anechoic Chamber
Federal Communications Commission
FCC Engineering Laboratory
7435 Oakland Mills Road
Columbia, MD 21046, USA

Name of Firm : Audix Technology (Shanghai) Co., Ltd.

Site Location : 3F 34Bldg 680 Guiping Rd,
Caohejing Hi-Tech Park,
Shanghai, China 200233

1.3 Measurement Uncertainty

Radiated Emission Uncertainty : $U=\pm 4.26\text{dB}$

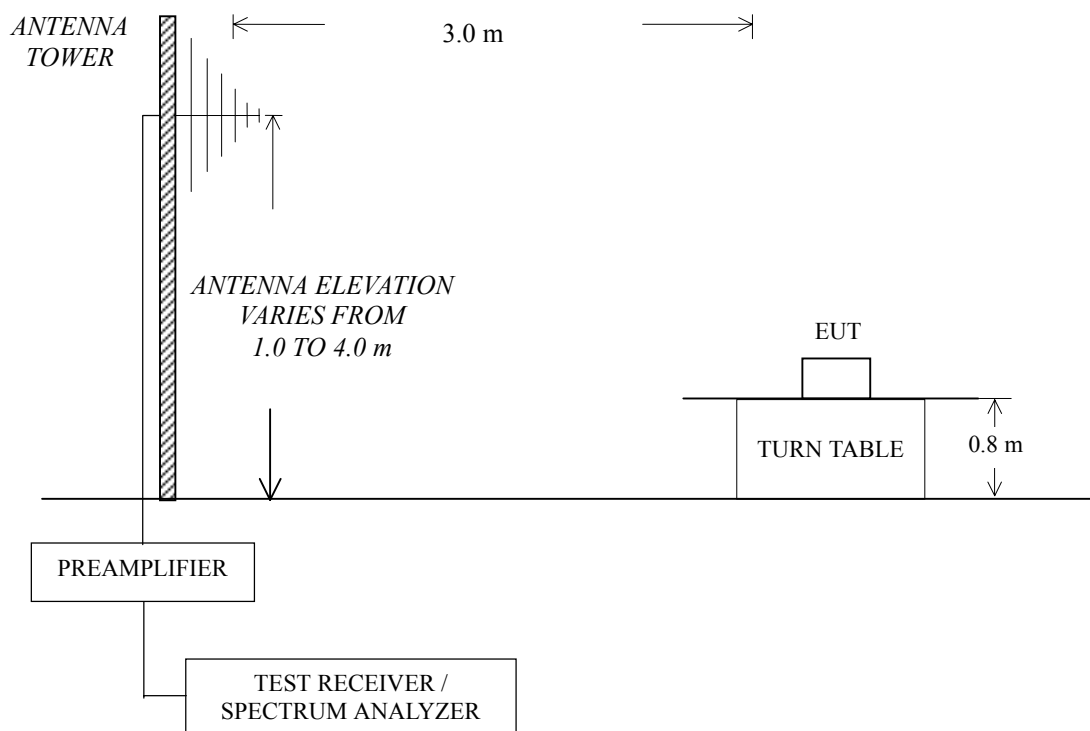
2 RADIATED EMISSION TEST

2.1 Test Equipment

The following test equipment are used during the radiated emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Preamplifier	HP	8447D	2944A06849	May 02, 2001	1/2 Year
2.	Bilog Antenna	Chase	CBL6111	1145	May 02, 2001	1/2 Year
3.	Test Receiver	HP	8593EM	3628H00167	May 10, 2001	1 Year
4.	Amplifier	HP	8449B	3008A00863	Jul 04, 2001	1 Year
5.	Horn Antenna	EMCO	3115	9510-4580	Jul 04, 2001	1/2 Year
6.	Test Receiver	Rohde & Schwarz	ESVS10	844594/001	Apr 24, 2001	1 Year
7.	Spectrum Analyzer	HP	85422E	3617A00167	Mar 28, 2001	1 Year

2.2 Block Diagram of Test Setup



2.3 Radiated Emission Limit

Frequency (MHz)	Distance (m)	Field strength limits (μV/m)	
		(μV/m)	dB(μV/m)
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960~1000	3	1000	54.0
1000~5000	3	500	54.0 (Average)
1000~5000	3	5000	74.0 (Peak)
NOTE 1 - Emission Level dB(μV/m) = 20 log Emission Level (μV/m) NOTE 2 - The tighter limit applies at the band edges. NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system. NOTE 4 - The limit is used based on CFR 47 Part 15.35 (b) and Part 15.109 (a).			

2.4 Test Configuration

The EUT was installed as show on Sec. 2.2 in radiated emission test to meet FCC requirement and operating in a manner which tend to maximize emission level in a normal application.

2.5 Operating Condition of EUT

2.5.1 Setup the EUT as shown in Sec. 2.2.

2.5.2 The EUT worked in three attitudes (Side, Lie & Stand) and measured it.

2.6 Test Procedures

The EUT was placed on a turntable, which is 0.8 meter above the ground. The turntable rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. The antenna moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (Calibrated Bilog Antenna) and Horn antenna were used as a receiving antenna. Both horizontal and vertical polarization of the antennas were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C 63.4-1992 requirements during radiated emission test.

The bandwidth setting on Test Receiver ESVS10 is 120 kHz from 30 MHz to 1000MHz.

The bandwidth setting on Test Receiver 85422E is 1 MHz above 1000 MHz .

The frequency range from 30 MHz to 3200 MHz was checked.

2.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

EUT	:	<u>Radio Transmitter</u>	Temperature :	<u>20.8°C</u>
Model No.	:	<u>WYF-001</u>	Humidity :	<u>53%</u>
Test Mode	:	<u>Transmitting mode (Side)</u>	Date of Test :	<u>Sept 14, 2001</u>

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	31.940	18.16	0.70	25.54	28.17	21.49	40.00	18.51
	35.820	16.71	0.75	25.50	27.29	19.25	40.00	20.75
	128.940	13.21	1.48	25.10	30.46	20.05	43.50	23.45
	142.520	13.09	1.60	25.10	27.79	17.38	43.50	26.12
	238.550	12.37	2.22	25.10	27.25	16.74	46.00	29.26
	415.090	17.92	3.13	26.12	27.79	22.72	46.00	23.28
Vertical	32.910	17.84	0.71	25.53	27.74	20.76	40.00	19.24
	108.570	10.95	1.28	25.10	27.59	14.72	43.50	28.78
	136.700	13.24	1.56	25.10	27.71	17.41	43.50	26.09
	152.220	12.49	1.68	25.10	27.43	16.50	43.50	27.00
	242.430	12.59	2.24	25.10	27.14	16.87	46.00	29.13
	415.090	17.92	3.13	26.12	29.52	24.45	46.00	21.55

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor

NOTE 2 – All reading are Quasi-Peak values.

NOTE 3 – The worst emission at horizontal polarization was detected at 31.940 MHz with corrected signal level of 21.49 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.20m height and the turn table was at 263°.

NOTE 4 – The worst emission at vertical polarization was detected at 32.910 MHz with corrected signal level of 20.76 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.01m height and the turn table was at 162°.

NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER:

Winston Hua
(WINSTON HUA)

EUT : Radio Transmitter Temperature : 20.8°C

Model No. : WYF-001 Humidity : 53%

Test Mode : Transmitting mode Date of Test : Sept 14, 2001
(Side)

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	1129.7	24.57	5.29	31.2	20.1	32.02	74	41.98
	1687.5	26.51	6.91	30.7	18.2	29.3	74	44.7
Vertical	1132.4	24.6	5.3	31.3	22.5	34.5	74	39.5
	1704.9	26.55	6.92	30.8	17.1	28.27	74	45.73
NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor								
NOTE 2 – All reading are Peak values.								
NOTE 3 –All the emissions not append above are too low against the FCC limit.								

TEST ENGINEER: Winston Hua
(WINSTON HUA)

EUT : Radio Transmitter Temperature : 20.8°C

Model No. : WYF-001 Humidity : 53%

Test Mode : Transmitting mode Date of Test : Sept 14, 2001
(Lie)

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	31.940	18.16	0.70	25.54	27.64	20.96	40.00	19.04
	33.880	17.47	0.72	25.52	26.88	19.55	40.00	20.45
	99.840	9.40	1.18	25.10	29.33	14.81	43.50	28.69
	131.850	13.22	1.51	25.10	28.39	18.02	43.50	25.48
	253.640	12.24	2.20	25.10	27.07	16.41	46.00	29.59
	400.540	17.78	3.06	26.10	28.54	23.37	46.00	22.63
Vertical	41.640	14.08	0.81	25.44	31.55	21.00	40.00	19.00
	48.430	10.03	0.87	25.38	35.29	20.81	40.00	19.19
	128.940	13.21	1.48	25.10	35.82	25.41	43.50	18.09
	206.540	10.57	2.04	25.10	35.18	22.69	43.50	20.81
	218.180	11.27	2.11	25.10	30.83	19.11	46.00	26.89
	441.280	18.18	3.25	26.32	31.94	27.05	46.00	18.95

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor

NOTE 2 – All reading are Quasi-Peak values.

NOTE 3 – The worst emission at horizontal polarization was detected at 31.940 MHz with corrected signal level of 20.96 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.12m height and the turn table was at 107°.

NOTE 4 – The worst emission at vertical polarization was detected at 128.940 MHz with corrected signal level of 25.41 dB(μV/m) (limit is 43.50 dB(μV/m)), when the antenna was 1.00m height and the turn table was at 200°.

NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER:

Winston Hua
(WINSTON HUA)

EUT : Radio Transmitter Temperature : 20.8°C

Model No. : WYF-001 Humidity : 53%

Test Mode : Transmitting mode Date of Test : Sept 14, 2001
(Lie)

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	1128.7	24.57	5.29	31.2	19.8	31.72	74	42.28
	1687.3	26.51	6.91	30.7	18.1	29.2	74	44.8
Vertical	1132.1	24.6	5.3	31.3	21.8	33.8	74	40.2
	1702.9	26.55	6.92	30.8	17.4	28.57	74	45.43
NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor NOTE 2 – All reading are Peak values. NOTE 3 –All the emissions not append above are too low against the FCC limit.								

TEST ENGINEER: Winston Hua
 (WINSTON HUA)

EUT : Radio Transmitter Temperature : 20.8°C

Model No. : WYF-001 Humidity : 53%

Test Mode : Transmitting mode Date of Test : Sept 14, 2001
(Stand)

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	31.940	18.16	0.70	25.54	26.68	20.00	40.00	20.00
	36.790	16.33	0.76	25.49	28.20	19.80	40.00	20.20
	124.090	13.12	1.44	25.10	28.22	17.68	43.50	25.82
	135.730	13.24	1.55	25.10	28.68	18.37	43.50	25.13
	227.880	11.80	2.16	25.10	27.88	16.74	46.00	29.26
	395.690	17.64	3.03	25.98	27.74	22.43	46.00	23.57
Vertical	30.970	18.53	0.68	25.56	28.10	21.75	40.00	18.25
	48.430	10.03	0.87	25.38	32.98	18.50	40.00	21.50
	128.940	13.21	1.48	25.10	34.33	23.92	43.50	19.58
	216.240	11.14	2.10	25.10	32.15	20.29	46.00	25.71
	242.430	12.59	2.24	25.10	30.60	20.33	46.00	25.67
	439.340	18.15	3.23	26.29	32.44	27.53	46.00	18.47

NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor

NOTE 2 – All reading are Quasi-Peak values.

NOTE 3 – The worst emission at horizontal polarization was detected at 31.940 MHz with corrected signal level of 20.00 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.52m height and the turn table was at 159°.

NOTE 4 – The worst emission at vertical polarization was detected at 30.970 MHz with corrected signal level of 21.75 dB(μV/m) (limit is 40.00 dB(μV/m)), when the antenna was 1.03m height and the turn table was at 89°.

NOTE 5 – 0° was the table front facing the antenna. Degree is calculated from 0° clockwise facing the antenna.

TEST ENGINEER: Winston Hua
(WINSTON HUA)

EUT : Radio Transmitter Temperature : 20.8°C

Model No. : WYF-001 Humidity : 53%

Test Mode : Transmitting mode Date of Test : Sept 14, 2001
(Stand)

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	1129.1	24.57	5.29	31.2	21.4	33.32	74	40.68
	1688.2	26.51	6.91	30.7	18.9	30	74	44
Vertical	1133.7	24.6	5.3	31.3	23.4	35.4	74	38.6
	1703.2	26.55	6.92	30.8	17.2	28.37	74	45.63
NOTE 1 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor NOTE 2 – All reading are Peak values. NOTE 3 –All the emissions not append above are too low against the FCC limit.								

TEST ENGINEER: Winston Hua
 (WINSTON HUA)

3 FUNDAMENTAL AND SPURIOUS EMISSIONS TEST

3.1 Test Equipment

The following test equipment are used during the fundamental and spurious emission test in a semi-anechoic chamber:

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Preamplifier	HP	8447D	2944A06849	May 02, 2001	1/2 Year
2.	Bilog Antenna	Chase	CBL6111	1145	May 02, 2001	1/2 Year
3.	Test Receiver	HP	85422E	3617A00167	Mar 28, 2001	1 Year
4.	Amplifier	HP	8449B	3008A00863	Jul 04, 2001	1 Year
5.	Spectrum	HP	8593EM	3628H00167	May 10, 2001	1 Year
6.	Horn Antenna	EMCO	3115	9510-4580	Jul 04, 2001	1/2 Year
7	Test Receiver	Rohde & Schwarz	ESVS10	844594/001	Apr 24, 2001	1 Year

3.2 Block Diagram of Test Setup

Same as Sec. 2.2, except the frequency range is above 1GHz, and the antenna is fixed in 1 m high.

3.3 Fundamental and Spurious Emission Limit

Frequency (MHz)	Distance (m)	Field strength limits of fundamental		Field strength limits of spurious emissions	
		($\mu\text{V/m}$)	$\text{dB}(\mu\text{V/m})$	($\mu\text{V/m}$)	$\text{dB}(\mu\text{V/m})$
174 ~ 260	3	3750	71.48	375	51.48
260 ~ 470	3	3750-12500*	71.48-81.94	375-1250*	51.48-61.94
Above 470	3	12500	81.94	1250	61.94
NOTE 1 - Emission Level $\text{dB}(\mu\text{V/m}) = 20 \log \text{Emission Level } (\mu\text{V/m})$ NOTE 2 - The tighter limit applies at the band edges. NOTE 3 - Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the device or system. NOTE 4 - “*” means linear interpolation.					

3.4 Test Configuration

The EUT was installed as show on Sec. 3.2 in fundamental and spurious emission test to meet FCC requirement and operating in a manner which tend to maximize emission level in a normal application.

3.5 Operating Condition of EUT

3.5.1 Setup the EUT as shown in Sec. 3.2.

3.5.2 The EUT worked in three attitudes (Side, Lie & Stand) and measured it.

3.6 Test Procedures

The EUT was placed on a table which is 0.8 meter above ground. The turn table rotated 360 degrees to determine the position of the maximum emission level. The EUT was set 3 meters away from the receiving antenna, which was mounted on an antenna tower. Broadband antenna (Calibrated antenna) were used as receiving antenna below 1000MHz. Both horizontal and vertical polarization of the antenna were set on measurement. In order to find the maximum emission, all of the interference cables were manipulated according to ANSI C 63.4-1992 requirements during fundamental and spurious emission test.

The bandwidth setting on Test Receiver ESVS10 is 120 kHz below 1000 MHz.

The bandwidth setting on Test Receiver 85422E is 1 MHz above 1GHz.

The frequency range from 30 MHz to 3200 MHz was checked. The EUT rotated through three orthogonal axes to determine which attitude and configuration produces the highest emission.

3.7 Test Results

<PASS>

The frequency and amplitude of the highest radiated emission relative the limit is reported. All the emissions not reported below are too low against the FCC limit.

EUT	:	<u>Radio Transmitter</u>	Temperature :	<u>20.8°C</u>
Model No.	:	<u>WYF-001</u>	Humidity :	<u>53%</u>
Test Mode	:	<u>Transmitting mode (Side)</u>	Date of Test :	<u>Sept 14, 2001</u>

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Correction factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	314.968	14.65	2.59	25.27	-11.59	55.87	36.25	75.62	39.37
	628.490	21.17	3.94	26.70	-11.59	30.95	17.77	55.62	37.85
	944.710	24.78	4.73	26.36	-11.59	28.13	19.69	55.62	35.93
	1258.750	26.36	3.56	35.47	-11.59	36.78	19.64	55.62	35.98
Vertical	314.963	14.65	2.59	25.27	-11.59	56.08	36.46	75.62	39.16
	628.490	21.17	3.94	26.70	-11.59	33.02	19.84	55.62	35.78
	944.710	24.78	4.73	26.36	-11.59	27.94	19.50	55.62	36.12
	1258.750	26.36	3.56	35.47	-11.59	36.86	19.72	55.62	35.90

NOTE 1 – All readings are Peak values.

NOTE 2 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor + Correction Factor

NOTE 3 – Correction factor is calculated by averaging the sum of the pulse train.

Correction Factor = $20\lg(4.8/18.23) = -11.59\text{dB}$
(See Appendix I)

TEST ENGINEER: Winston Hua
(WINSTON HUA)

EUT : Radio Transmitter Temperature : 20.8°C

Model No. : WYF-001 Humidity : 53%

Test Mode : Transmitting mode Date of Test : Sept 14, 2001
(Lie)

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Correction factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	315.000	14.65	2.59	25.27	-11.59	64.28	44.66	75.62	30.96
	652.740	21.55	4.01	26.70	-11.59	30.37	17.64	55.62	37.98
	944.710	24.78	4.73	26.36	-11.59	28.25	19.81	55.62	35.81
	1258.740	26.36	3.56	35.47	-11.59	37.18	20.04	55.62	35.58
Vertical	314.975	14.65	2.59	25.27	-11.59	44.26	24.64	75.62	50.98
	628.490	21.17	3.94	26.70	-11.59	33.84	20.66	55.62	34.96
	944.710	24.78	4.73	26.36	-11.59	28.35	19.91	55.62	35.71
	1258.740	26.36	3.56	35.47	-11.59	37.16	20.02	55.62	35.60

NOTE 1 – All readings are Peak values.

NOTE 2 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor + Correction Factor

NOTE 3 – Correction factor is calculated by averaging the sum of the pulse train.
 Correction Factor = $20\lg(4.8/18.23) = -11.59\text{dB}$
 (See Appendix I)

TEST ENGINEER: Winston Hua
 (WINSTON HUA)

EUT : Radio Transmitter Temperature : 20.8°C

Model No. : WYF-001 Humidity : 53%

Test Mode : Transmitting mode Date of Test : Sept, 2001
(Stand)

Polarization	Frequency (MHz)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Correction factor (dB)	Meter Reading dB(μV)	Emission Level dB(μV/m)	Limits dB(μV/m)	Margin (dB)
Horizontal	314.960	14.65	2.59	25.27	-11.59	55.02	35.40	75.62	40.22
	628.490	21.17	3.94	26.70	-11.59	33.66	20.48	55.62	35.14
	944.710	24.78	4.73	26.36	-11.59	28.78	20.34	55.62	35.28
	1260.780	26.37	3.58	35.47	-11.59	36.15	19.04	55.62	36.58
Vertical	314.970	14.65	2.59	25.27	-11.59	51.99	32.37	75.62	43.25
	628.490	21.17	3.94	26.70	-11.59	33.27	20.09	55.62	35.53
	944.710	24.78	4.73	26.36	-11.59	27.86	19.42	55.62	36.20
	1260.780	26.37	3.58	35.47	-11.59	36.23	19.12	55.62	36.50

NOTE 1 – All readings are Peak values.

NOTE 2 – Emission Level = Meter Reading + Antenna Factor + Cable Loss – Preamp Factor + Correction Factor

NOTE 3 – Correction factor is calculated by averaging the sum of the pulse train.
 Correction Factor = $20\lg(4.8/18.23) = -11.59\text{dB}$
 (See Appendix I)

TEST ENGINEER: Winston Hua
 (WINSTON HUA)

4 BANDWIDTH MEASUREMENT

4.1 Test Equipment

Item	Type	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
1.	Test Receiver	HP	85422E	3617A00167	Sept 28, 2001	1 Year
2.	Bilog Antenna	Chase	CBL6111	1145	May 02, 2001	1/2 Year
3.	Preamplifier	HP	8447D	2944A06849	May 02, 2001	1/2 Year

4.2 Bandwidth Limit

The bandwidth of the emission shall be no wider than 0.25% of the center frequency.

Bandwidth is determined at the points 20dB down from the modulated carrier.

Bandwidth Limit = $0.25\% \times 315(\text{MHz}) = 0.7875(\text{MHz})$

4.3 Test Results

<PASS>

The bandwidth of the Fundament emission is

B.W. = $315.201 - 314.889 = 0.312\text{MHz}$

(See Appendix II)

NOTE: The resolution bandwidth used for the bandwidth test is 9KHz.

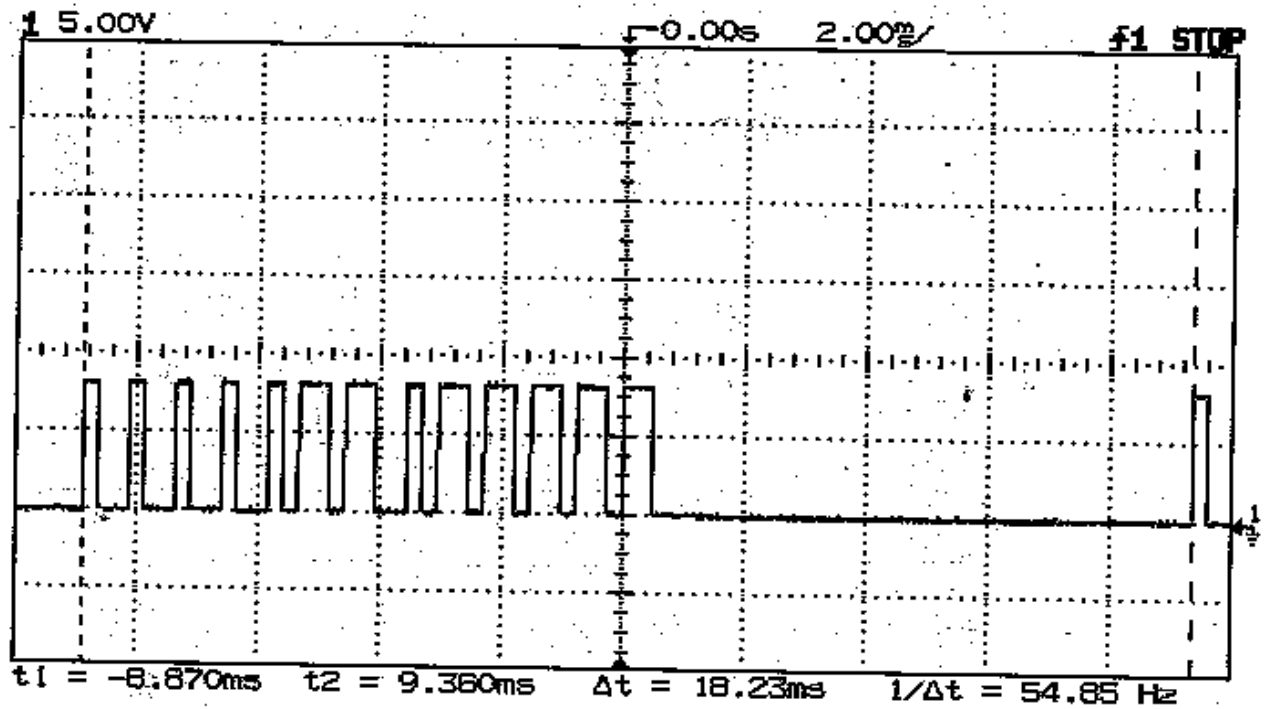
5 OPERATION DESCRIPTION

Radio Transmitter (M/N: WYF-001) employs a switch that will automatically deactivate the Controller within not more than 5 seconds of being released.

APPENDIX I

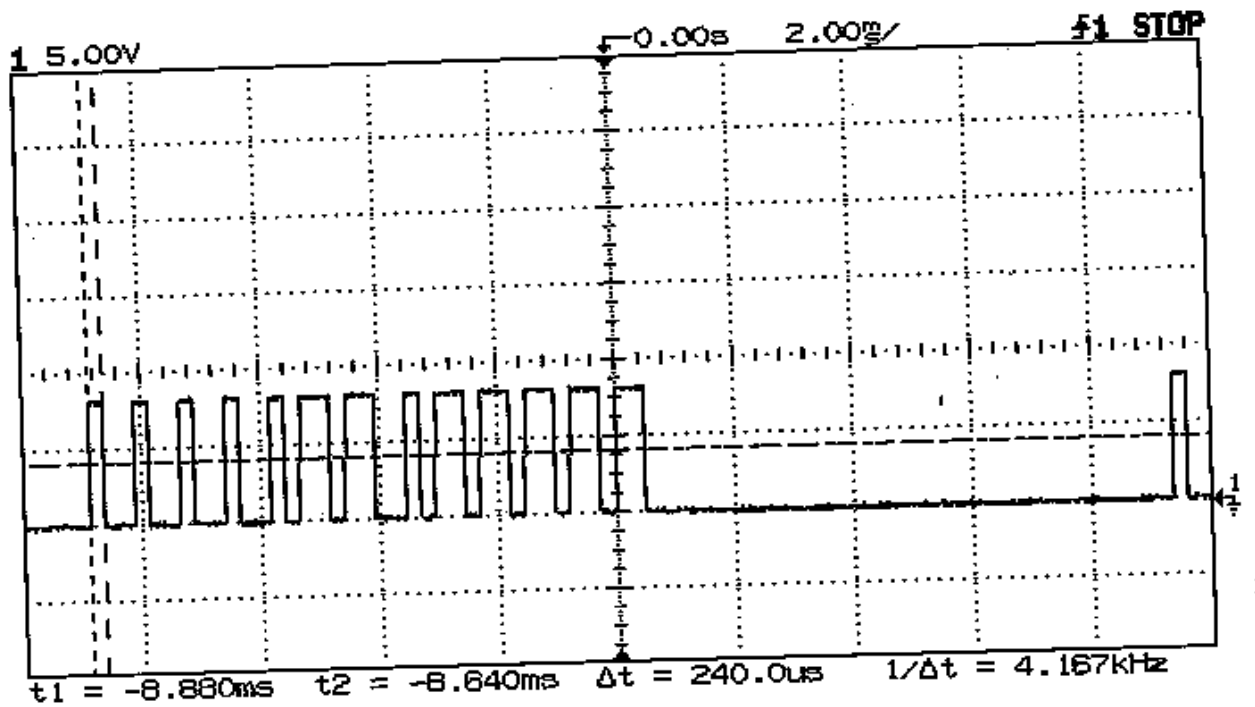
PLOT OF THE PULSE TRAIN

09:59:17 Tue Sep 11, 2001



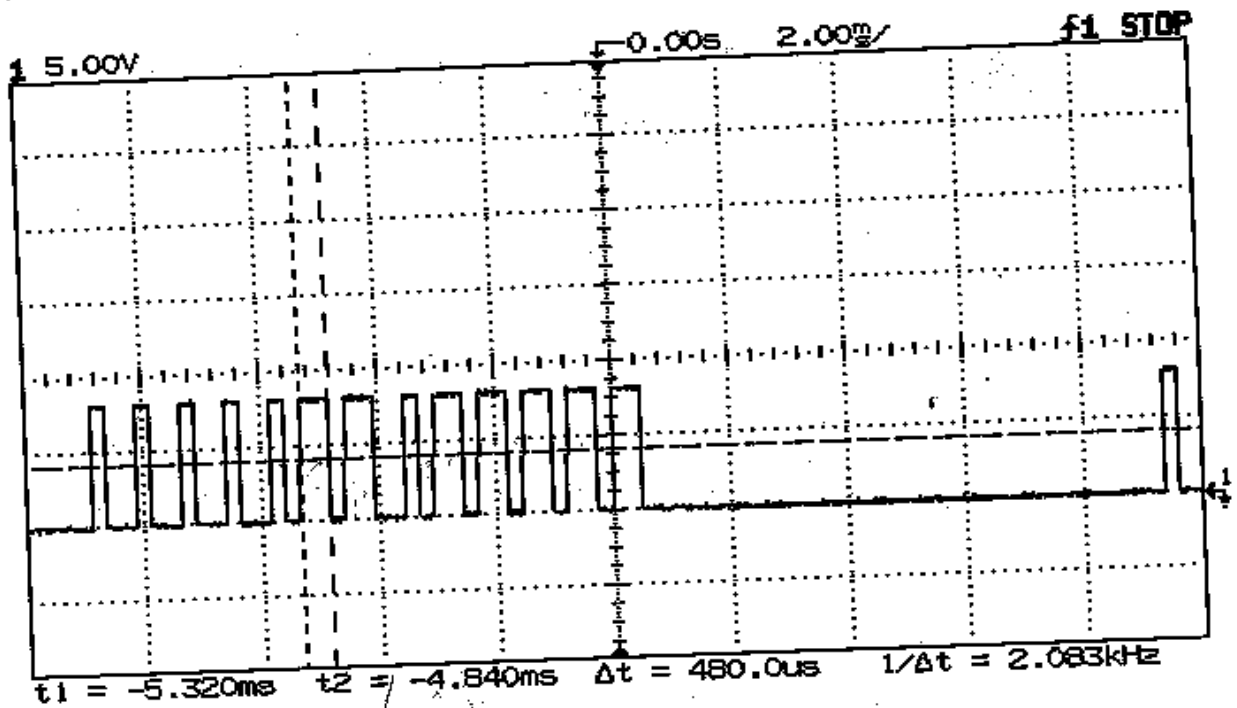
Winston

10:22:14 Tue Sep 11, 2001



Winston

10:23:31 Tue Sep 11, 2001



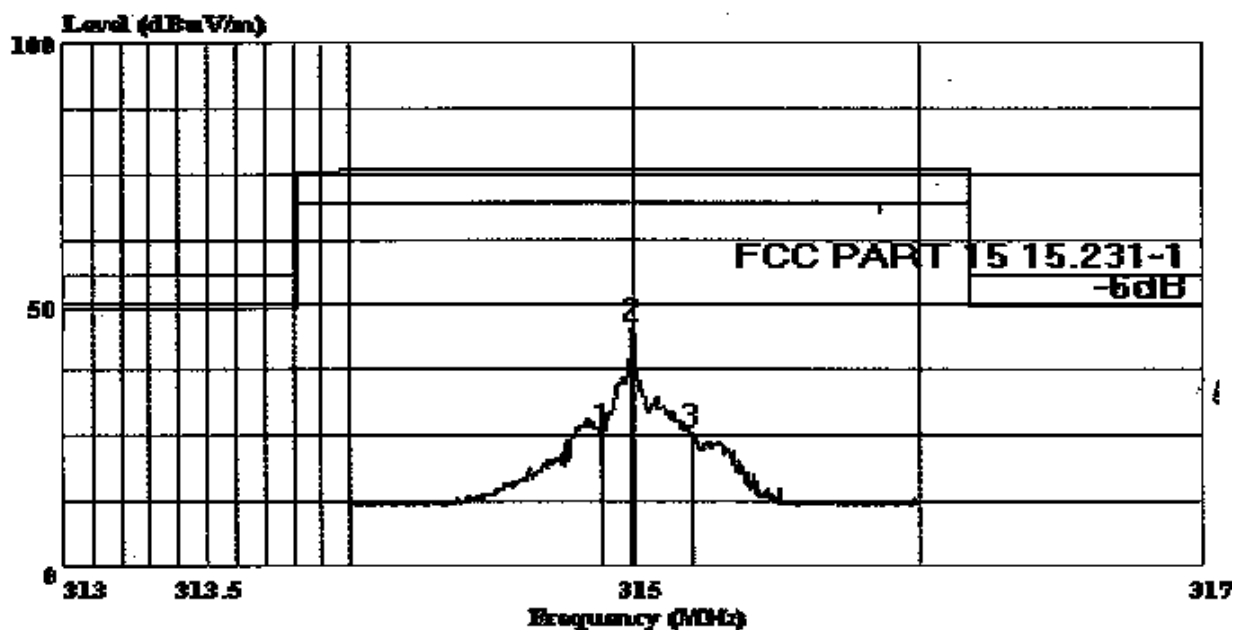
Winston

APPENDIX II

PLOT OF THE OCCUPIED BANDWIDTH

Data#: 53 File#: E:\EMI_TEST\TESTreport\H\HUIDONGNORMAL.EMI

Date: 2001-09-18 Time: 09:22:24



Site : audix-aci
 Condition : FCC PART 15 15.231-1 3m H-1145-2000.12 H
 Project No. : AQE-000051
 Applicant : Xiamen Baitai Trading Co., Ltd
 EUT : Radio Transmitter
 M/N : WYF-001
 Power Supply : DC 9V
 Ambient : 20.8°C 53%
 Test Mode : transmitting mode
 Test Engineer: winsdon

Winston

Page

	Freq	Level	Read	Over	Limit	Probe	Cable	Preamp	
	MHz	dBuV/m	Level	Limit	Line	Factor	Loss	Factor	Factor
			dBuV	dB	dBuV/m	dB	dB	dB	dB
1	314.889	25.17	33.20	-50.45	75.62	14.65	2.59	25.27	-8.03
2	314.993	45.20	53.23	-30.42	75.62	14.65	2.59	25.27	-8.03
3	315.201	25.04	33.07	-50.60	75.64	14.65	2.59	25.27	-8.03

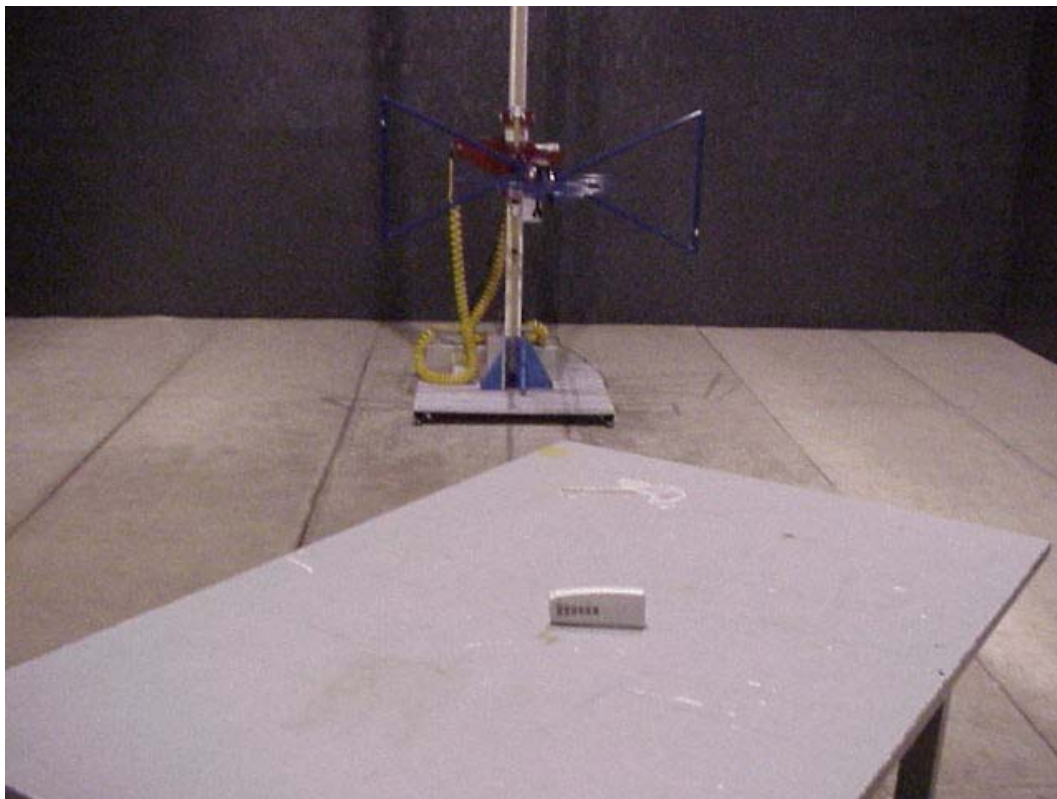
EXHIBIT I

PHOTOGRAPHS OF TEST

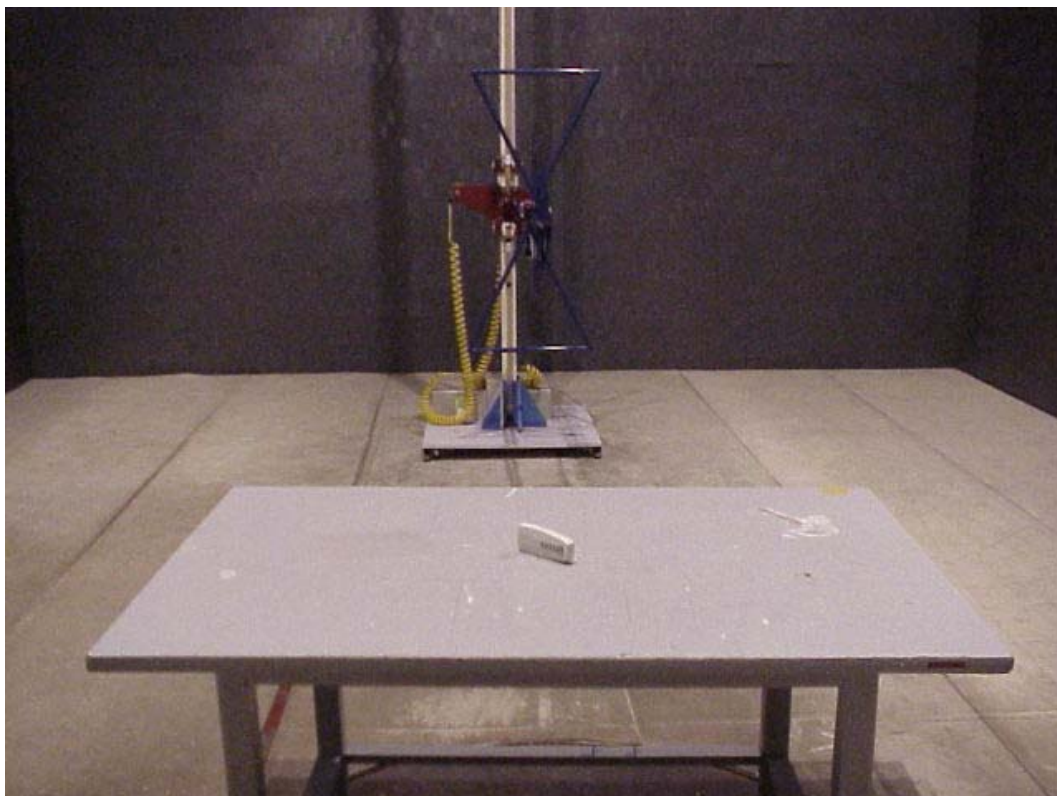
Test Set-Up Photos

1. Radiated Emission Test

(a) Attitude (Side)

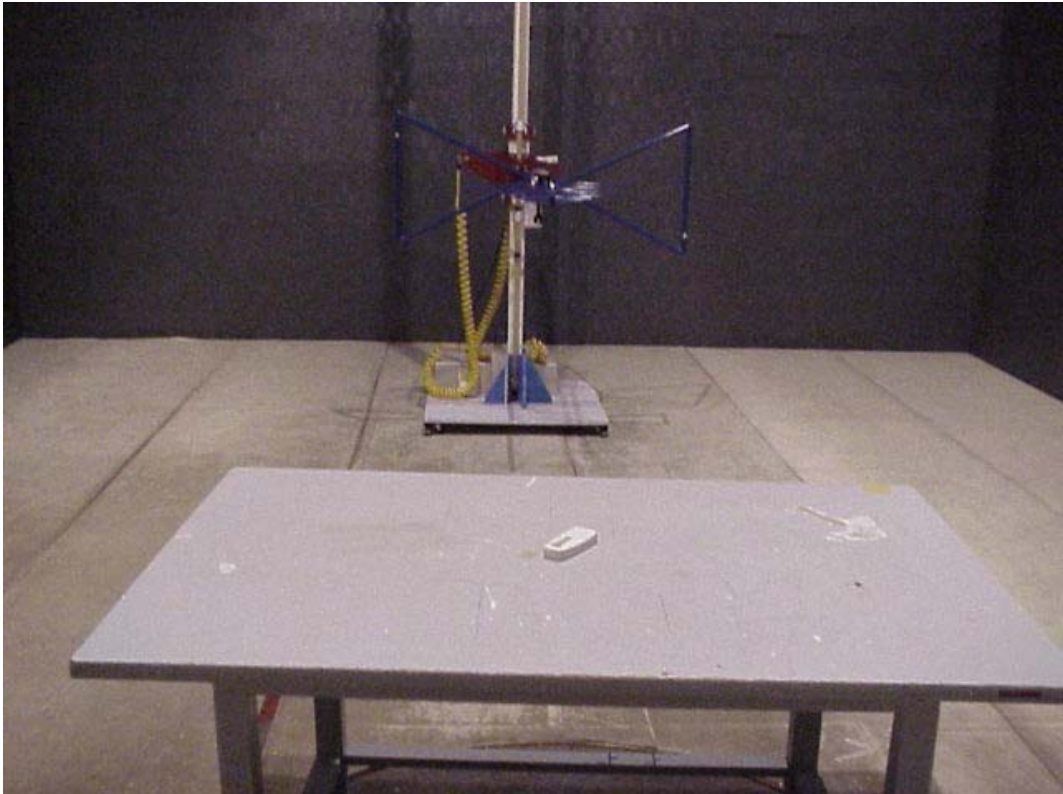


HORIZONTAL (M/N: WYF-001)

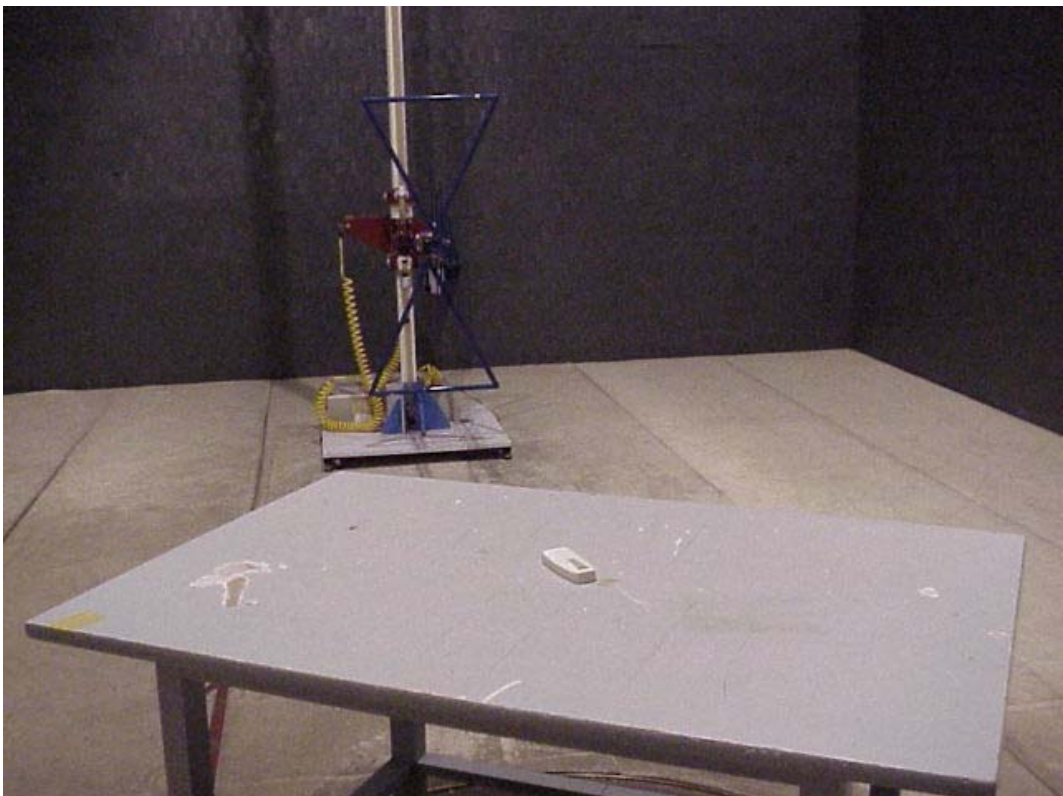


VERTICAL (M/N: WYF-001)

(b) Attitude (Lie)

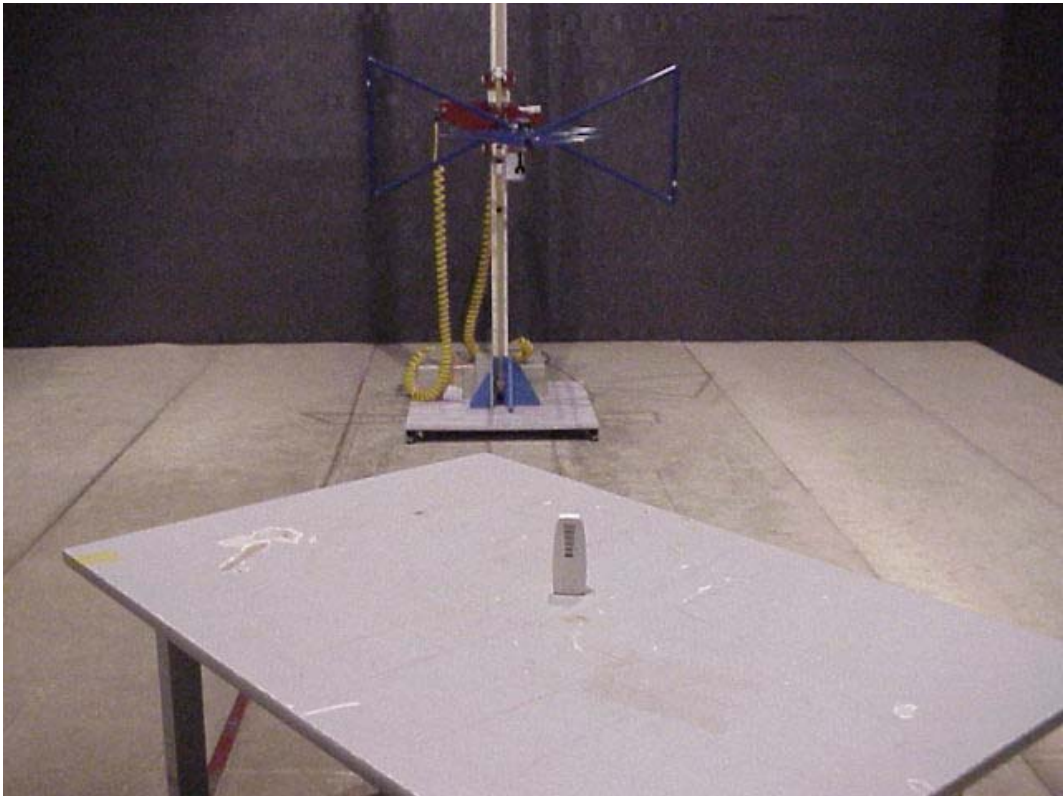


HORIZONTAL (M/N: WYF-001)

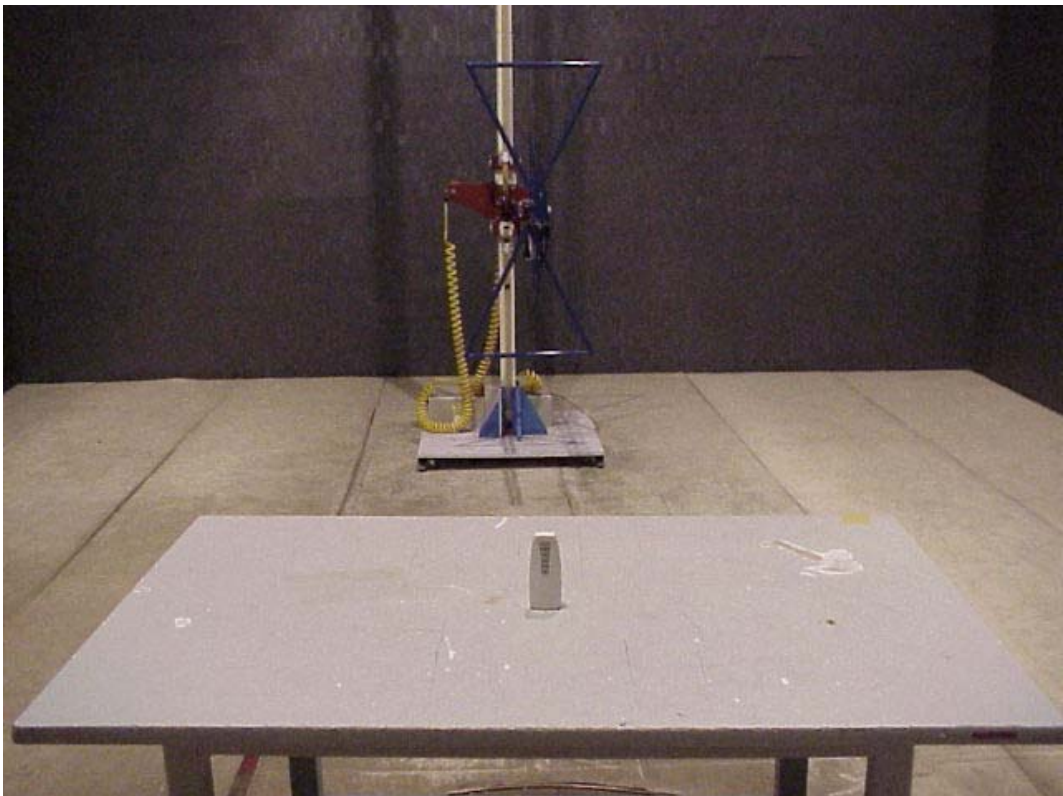


VERTICAL (M/N: WYF-001)

(c) Attitude (Stand)



HORIZONTAL (M/N: WYF-001)



VERTICAL (M/N: WYF-001)

EXHIBIT II

PHOTOGRAPHS OF EUT

FIGURE 1
RADIO TRANSMITTER (M/N: WYF-001)
GENERAL APPEARANCE (FRONT SIDE)



FIGURE 2
RADIO TRANSMITTER (M/N: WYF-001)
GENERAL APPEARANCE (REAR SIDE)



Figure 3
RADIO TRANSMITTER (M/N: WYF-001)
COVER REMOVED

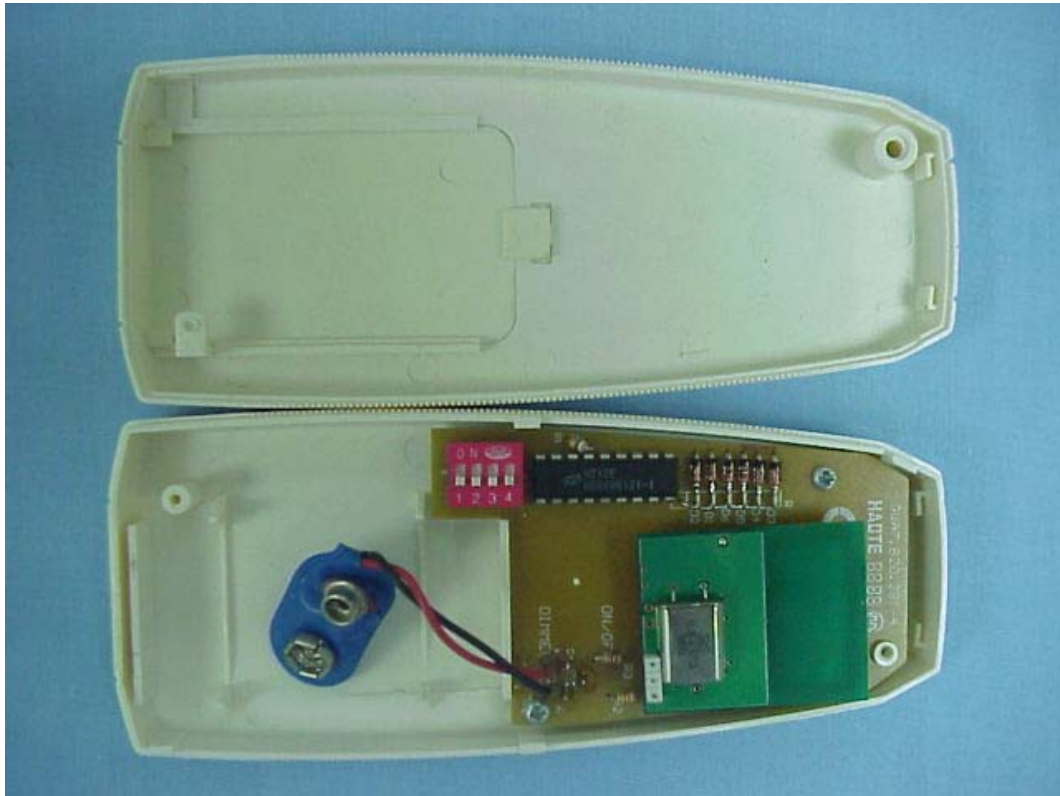


FIGURE 4
RADIO TRANSMITTER (M/N: WYF-001)
MAIN BOARD (COMPONENT SIDE)

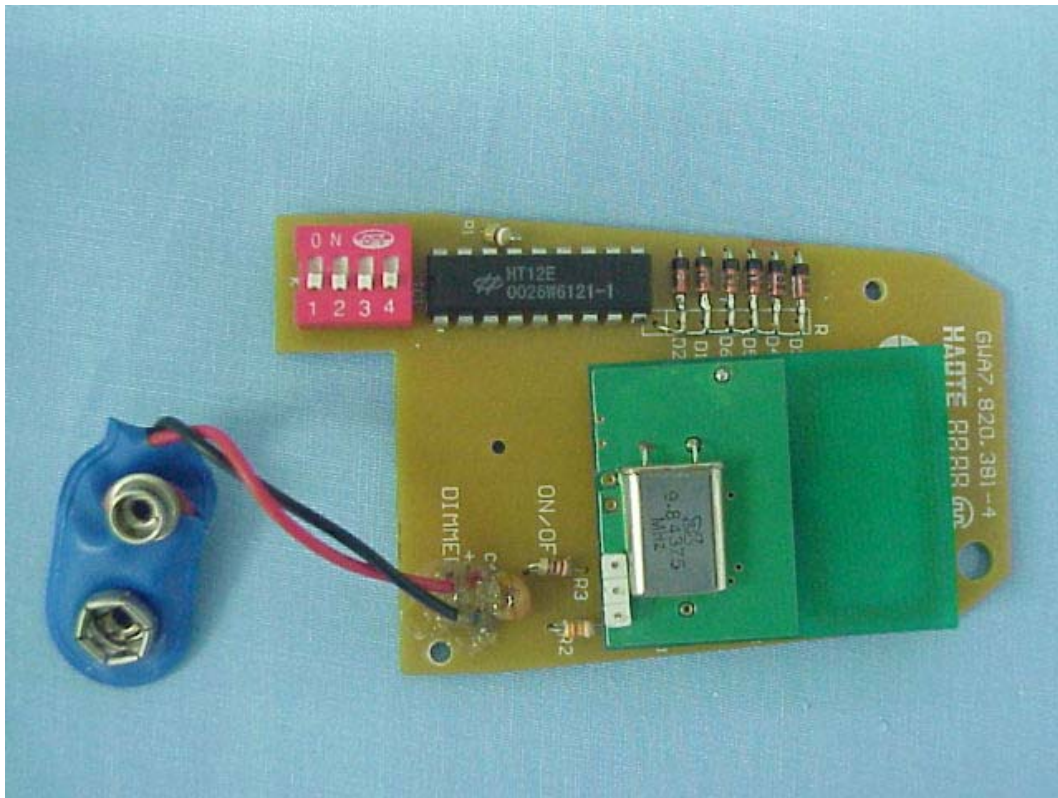


FIGURE 5
RADIO TRANSMITTER (M/N: WYF-001)
MAIN BOARD (SOLDERED SIDE)

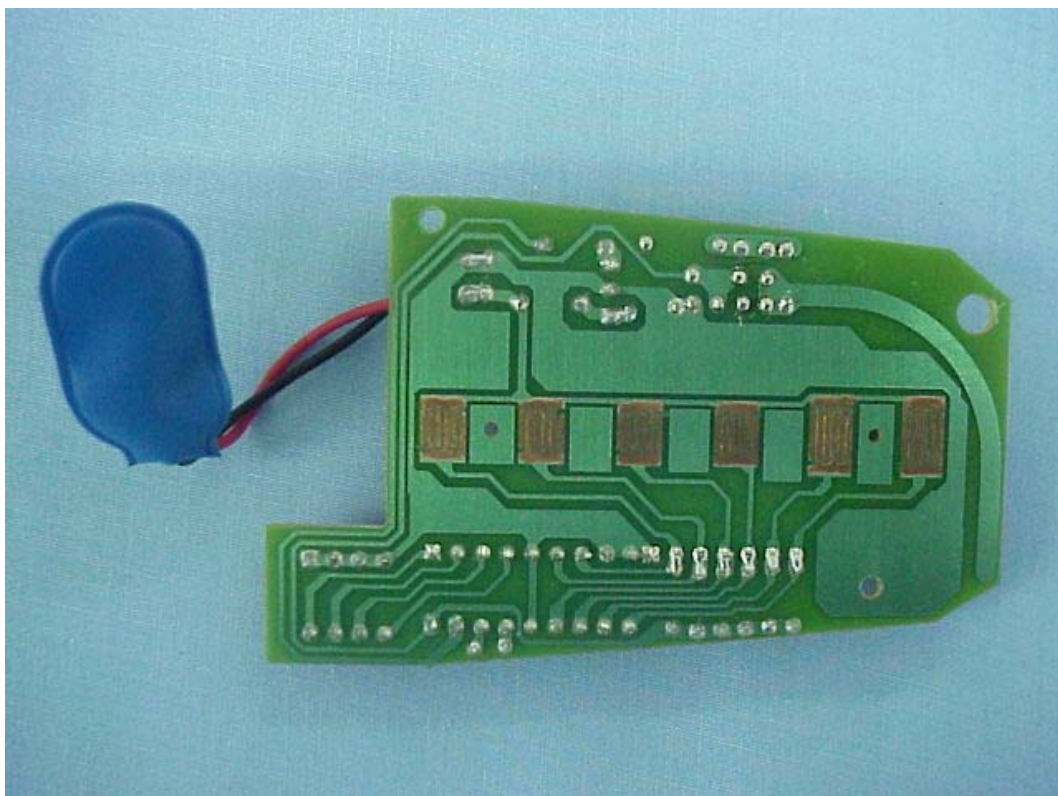


FIGURE 6
RADIO TRANSMITTER (M/N: WYF-001)
DATA ENCODE BOARD (COMPONENT SIDE)

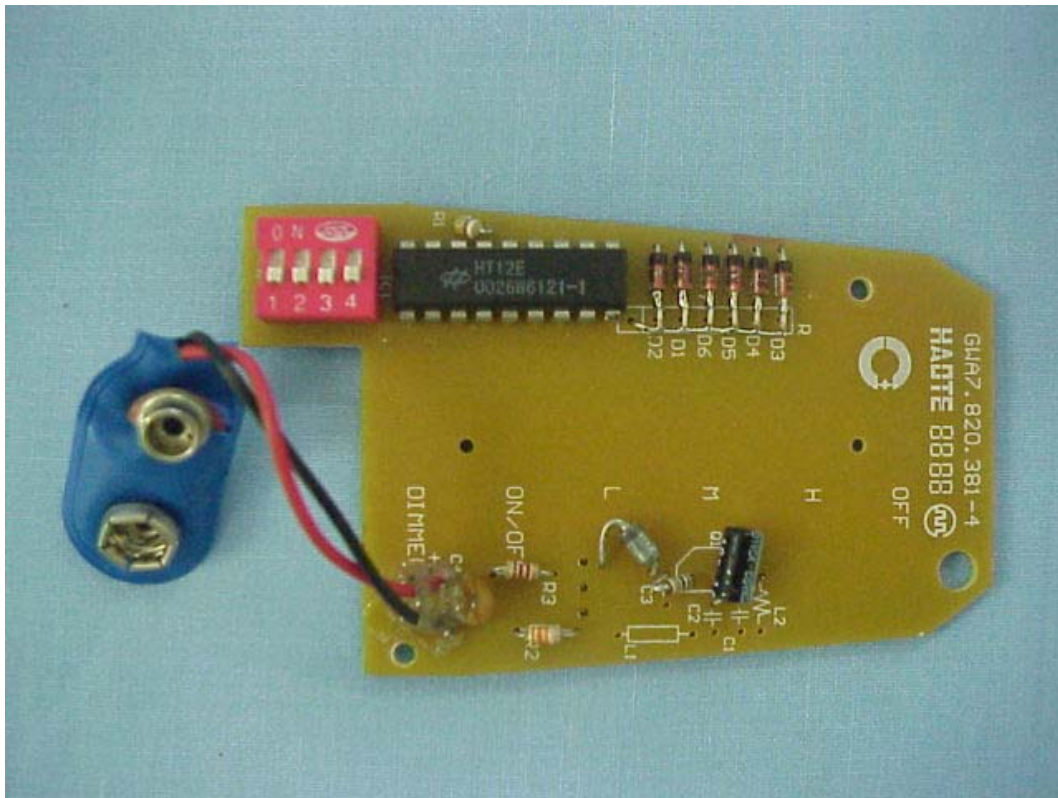


FIGURE 7
RADIO TRANSMITTER (M/N: WYF-001)
DATA ENCODE BOARD (SOLDERED SIDE)

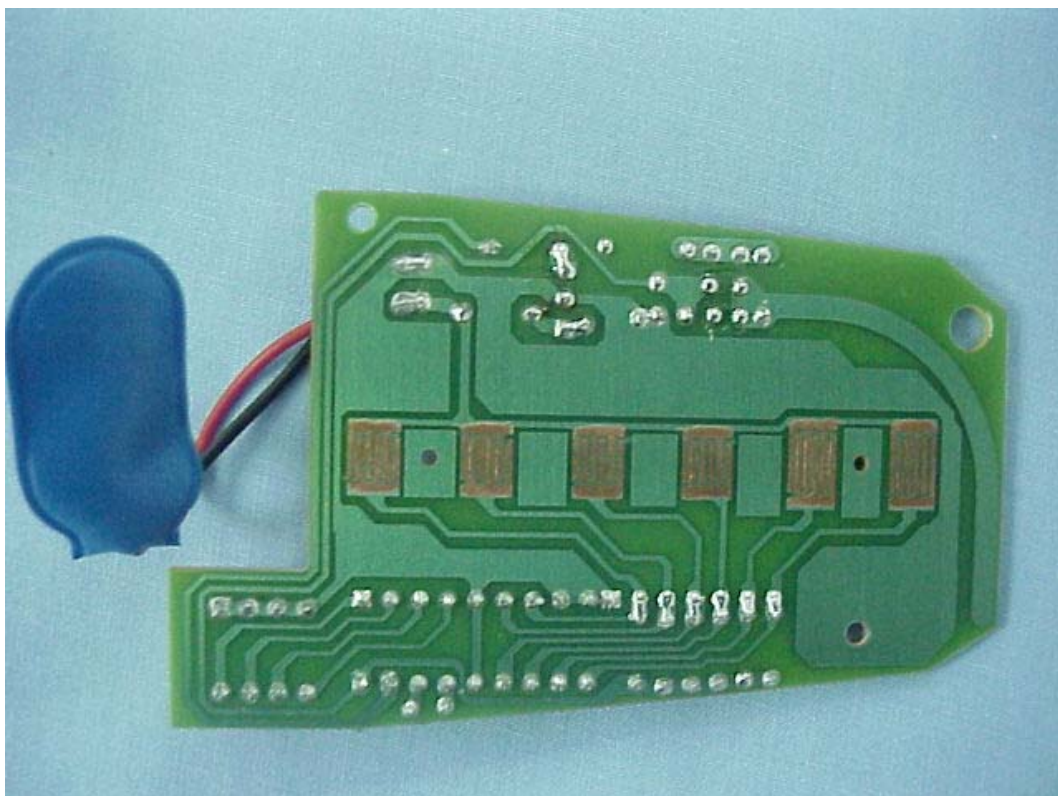


FIGURE 8
RADIO TRANSMITTER (M/N: WYF-001)
TRANSMIT CIRCUIT BOARD (COMPONENT SIDE)

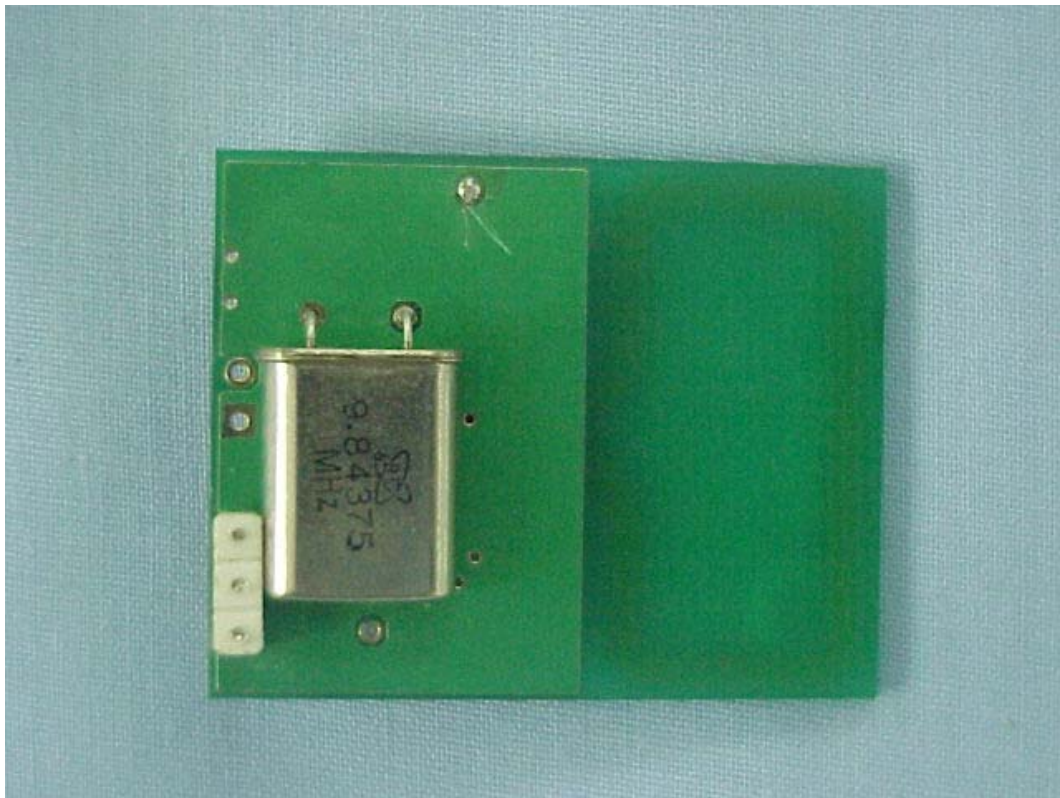


FIGURE 9
RADIO TRANSMITTER (M/N: WYF-001)
TRANSMIT CIRCUIT BOARD (SOLDERED SIDE)

