

Certificate of Test

August 2006

PROCARE INTERNATIONAL CO.

Product Type : USB FM Transmitter
Model Number : EF-6226
Test Report Number : 0604092 Rev. 1
Date of Test : July 31, 2006- August 07, 2006

This Product was tested to the following standards at the laboratory of Global EMC Standard Tech. Corp., and found Compliance.

Standards:

FCC Part 15 Subpart C Paragraph 15.239
ANSI C63.4: 2003

[http : //www.gestek.com.tw](http://www.gestek.com.tw)



Sharon Chang, President

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Date: August 14, 2006



200085-0





**Test Report
Application for
Certification
On Behalf Of**

PROCARE INTERNATIONAL CO.

**EUT:
USB FM Transmitter**

**Model Number:
EF-6226**

**FCC ID:
POSEF-6226**

**Prepared for:
PROCARE INTERNATIONAL CO.
11F-6, No. 410 CHUNG HSLAO EAST ROAD SECTION 5, TAIPEI,
TAIWAN, 11061**

**Report By :Global EMC Standard Tech. Corp.
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3. The report must not be used by the client to claim product certification, approval, or endorsement by any agency of the federal government.
4. All data in this report are traceable to national standard or international standard.

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1. CERTIFICATION**Applicant****: PROCARE INTERNATIONAL CO.**

Applicant Address : 11F-6, No. 410 CHUNG HSLAO EAST ROAD SECTION 5,
TAIPEI, TAIWAN, 11061

EUT Description : USB FM Transmitter

Model Number : EF-6226

Serial Number : N/A

Brand Name : PROCARE INTERNATIONAL

FCC ID : POSEF-6226

Tested Power Supply : DC 12V

Manufacturer : PROCARE TECHNOLOGY (HULZHOU) CO, LTD

Manufacturer Address : BOGANG MANAGEMENT DISTRICT, XIAOJINKOU TOWN,
HUIZHOU CITY, GUANGDONG PROVINCE, PRC 516023

MEASUREMENT PROCEDURES USED:

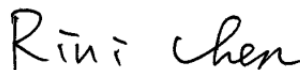
- ☒ **CFR 47, Part 15** Radio Frequency Device Subpart C Paragraph 15.247 Intentional Radiators :2005
- ☒ **ANSI C63.4** Methods of Measurements of Radio-Noise Emissions from Low- Voltage Electrical and Electronic Equipment in the range of 9kHz To 40GHz. 2003

THE MEASUREMENT SHOWN IN THE ATTACHMENT WAS MADE IN ACCORDANCE WITH THE PROCEDURES INDICATED, AND THE MAXIMUM ENERGY EMITTED BY THE EQUIPMENT WAS FOUND TO BE WITHIN THE ABOVE LIMITS APPLICABLE.

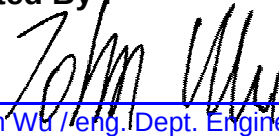
Sample Received Date : July 31, 2006

Final Test Date : August 07, 2006

In order to ensure the quality and accuracy of this document, the contents have been thoroughly reviewed by the following qualified personnel from GesTek Lab.

Documented By :


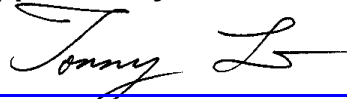
Rini Chen / adm. Dept. Supervisor

Tested By :


John Wu / eng. Dept. Engineer

Technical Reviewed By :


Shine Chang / eng. Dept. Supervisor

Approved By :


Tonny Lin / General Manager

This test data shown below is traceable to National or international standard such as NIST/USA, etc. The laboratory's NVLAP accreditation in no way constitutes or implies product certification, approval, or endorsement by NVLAP or the United States government.

2. GENERAL INFORMATION

2.1 PRODUCTION DESCRIPTION

Product Name	: USB FM Transmitter
Model Number	: EF-6226
Serial Number	: N/A
FCC ID	: POSEF-6226
Modulation Type	: FM
Antenna Type	: Printed on PCB
Type of Antenna Joint	: Soldered on PCB
Frequencg Range	: 88.1-107.9MHz
Channel Number	: 199 Channel
Each Chnnel Separation	: 0.1MHz
Channel Control	: Manual
Working Voltage	: DC 5V
Power Cord	: Non-Shielded, 1.4m with core*1 (10mm*20mm*5mm)

Frequency of Each Channel:

Ch	Frequency (MHz)	Ch	Frequency (MHz)	Ch	Frequency (MHz)	Ch	Frequency (MHz)	Ch	Frequency (MHz)
1	88.1	21	90.1	41	92.1	61	94.1	81	96.1
2	88.2	22	90.2	42	92.2	62	94.2	82	96.2
3	88.3	23	90.3	43	92.3	63	94.3	83	96.3
4	88.4	24	90.4	44	92.4	64	94.4	84	96.4
5	88.5	25	90.5	45	92.5	65	94.5	85	96.5
6	88.6	26	90.6	46	92.6	66	94.6	86	96.6
7	88.7	27	90.7	47	92.7	67	94.7	87	96.7
8	88.8	28	90.8	48	92.8	68	94.8	88	96.8
9	88.9	29	90.9	49	92.9	69	94.9	89	96.9
10	89	30	91	50	93	70	95	90	97
11	89.1	31	91.1	51	93.1	71	95.1	91	97.1
12	89.2	32	91.2	52	93.2	72	95.2	92	97.2
13	89.3	33	91.3	53	93.3	73	95.3	93	97.3
14	89.4	34	91.4	54	93.4	74	95.4	94	97.4
15	89.5	35	91.5	55	93.5	75	95.5	95	97.5
16	89.6	36	91.6	56	93.6	76	95.6	96	97.6
17	89.7	37	91.7	57	93.7	77	95.7	97	97.7
18	89.8	38	91.8	58	93.8	78	95.8	98	97.8
19	89.9	39	91.9	59	93.9	79	95.9	99	97.9
20	90	40	92	60	94	80	96	100	98

Ch	Frequency (MHz)	Ch	Frequency (MHz)	Ch	Frequency (MHz)	Ch	Frequency (MHz)	Ch	Frequency (MHz)
101	98.1	121	100.1	141	102.1	161	104.1	181	106.1
102	98.2	122	100.2	142	102.2	162	104.2	182	106.2
103	98.3	123	100.3	143	102.3	163	104.3	183	106.3
104	98.4	124	100.4	144	102.4	164	104.4	184	106.4
105	98.5	125	100.5	145	102.5	165	104.5	185	106.5
106	98.6	126	100.6	146	102.6	166	104.6	186	106.6
107	98.7	127	100.7	147	102.7	167	104.7	187	106.7
108	98.8	128	100.8	148	102.8	168	104.8	188	106.8
109	98.9	129	100.9	149	102.9	169	104.9	189	106.9
110	99	130	101	150	103	170	105	190	107
111	99.1	131	101.1	151	103.1	171	105.1	191	107.1
112	99.2	132	101.2	152	103.2	172	105.2	192	107.2
113	99.3	133	101.3	153	103.3	173	105.3	193	107.3
114	99.4	134	101.4	154	103.4	174	105.4	194	107.4
115	99.5	135	101.5	155	103.5	175	105.5	195	107.5
116	99.6	136	101.6	156	103.6	176	105.6	196	107.6
117	99.7	137	101.7	157	103.7	177	105.7	197	107.7
118	99.8	138	101.8	158	103.8	178	105.8	198	107.8
119	99.9	139	101.9	159	103.9	179	105.9	199	107.9
120	100	140	102	160	104	180	106		

Note:

1. This device is a USB FM Transmitter not include any receiver.
2. Test of channel was included the lowest, middle and highest frequency in highest data rate and to perform the test, then record on this report.
3. The antenna of EUT is printed on PCB and conform to FCC 15.203.
4. These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with Part 15 Subpart C Paragraph 15.239.

2.2 OPERATIONAL DESCRIPTION

The EUT is a USB FM Transmitter and powered by DC 12V battery via vehicle adapter. The device is normally used in vehicle and transmits audio signals by AUX port or USB port input then receives audio signals via FM radio.

This device has two signal input ports, one is AUX and the other is USB port. The AUX port can link CD player or walkman and USB port can link USB flash drive and play MP3 files. [The AUX mode can not operate when USB mode is operated.](#) The earphone has audio signals out when USB mode operates.

The other instructions and information please refer to the user manual.

2.3 TEST MODES & EUT COMPONENTS DESCRIPTION

EUT: USB FM Transmitter, M/N: EF-6226		
Test Mode	Mode 1	Mode 2
	AUX Mode- Channel 1: 88.1MHz Channel 100: 98MHz Channel 199: 107.9MHz	USB Mode- Channel 100: 98MHz
Power Cord	Non-Shielded, 1.4m with core*1 (10mm*20mm*5mm)	

2.4 SUMMARY OF TEST PROCEDURE AND TEST RESULTS

Test Item	Applied Standard Section	Test Result
Conduction Emission	15.207, ANSI C63.4 Section 7	Non Testing
Radiation Emission	15.209, ANSI C63.4 Section 8	Pass (refer to section 3.7.1)
Field Strength of Fundamental	15.239(b), ANSI C63.4 Section 13 & Annex I	Pass (refer to section 3.7.2)
Band Edge	15.239(c), ANSI C63.4 Section 13 & Annex I	Pass (refer to section 3.7.3)
Occupied Bandwidth	15.239(a), ANSI C63.4 Section 13 & Annex I	Pass (refer to section 4.4)

2.5 CONFIGURATION OF THE TESTED SYSTEM

The FCC IDs/Types for all equipment, plus descriptions of all cables used in the tested system (including inserted cards, which have grants) are:

Device	No.	Configuration
CD Player	-----	Manufacturer : Panasonic Model Number : SL-SW415 Test Power Supply : DC 3V
USB Flash Disk	-----	Manufacturer : PenDrive
Earphone	-----	Manufacturer : Sony Model Number : MDR-EX51SP
Vehicle Adapter	-----	Manufacturer : Procare International Co. Model Number : EF6216DC Test Power Supply : Input: 12VDC, Output: 5VDC, 500mA
DC 12V Battery	-----	Manufacturer : ACDelco Model Number : S55B24LS

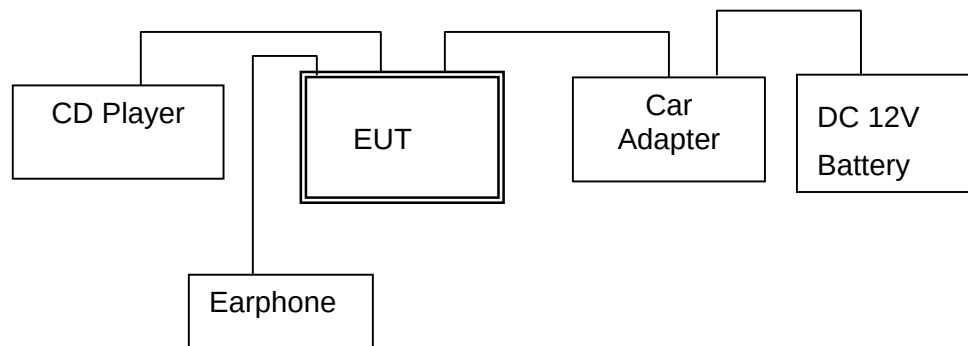
2.6 TEST FACILITY

Ambient conditions in the laboratory:

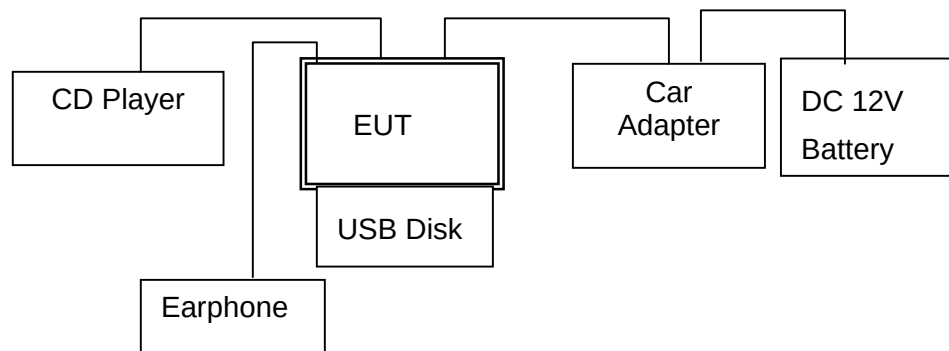
ITEMS	REQIORED
TEMPERATURE (°C)	15-35
HUMIDITY (%RH)	30-60
BAROMETRIC PRESSURE (mbar)	860-1060
FCC SITE DESCRIPTION	Aug. 10, 1995 /Aug. 25, 1998 File on FCC Engineering Laboratory Federal Communication Commission 7435 Oakland Mills Road Columbia, MD 21046 Reference 31040/SIT1300F2
NVLAP LAB. CODE	200085-0 United Stated Department of commerce National Institute of Standards and Technology National Voluntary Laboratory Accreditation Program Accreditation on NVLAP effective through Sep. 30,2006 For CISPR 22, FCC Method and AS/NZS CISPR 22 Measurement.
Chinese National Laboratory Accreditation Certificate R.O.C.	Recognized by the Council of Chinese National Laboratory Accreditation and confirmed to meet the requirements of ISO/IEC 17025 also has been registered for fifteen items, and meet the requirements of the Article 4 of Measures Governing the Recognition both Approval of Designated Laboratory for Commodities Inspection and has been registered for four items within the field of Electrical Testing. Registration No.: 1082 Registration on CNLA effective through April 30, 2006.

2.7 TEST SETUP

AUX Mode



USB Mode



2.8 EUT OPERATING CONDITIONS

The EUT exercise program used during conducted testing was designed to exercise the EUT in a manner similar to a typical use. The exercise sequence is listed as below:

1. Setup the EUT and simulators as shown on 2.7.
2. Turn on the power of all equipments.
3. CD player play 1kHz tone and turn volume to maximum
(for USB mode: save MP3 file of 1kHz tone in USB Disk).
4. Ensure EUT have transmits RF signal and start test.
5. Repeat the above steps.

3. RADIATION EMISSION DATA

3.1 TEST EQUIPMENT

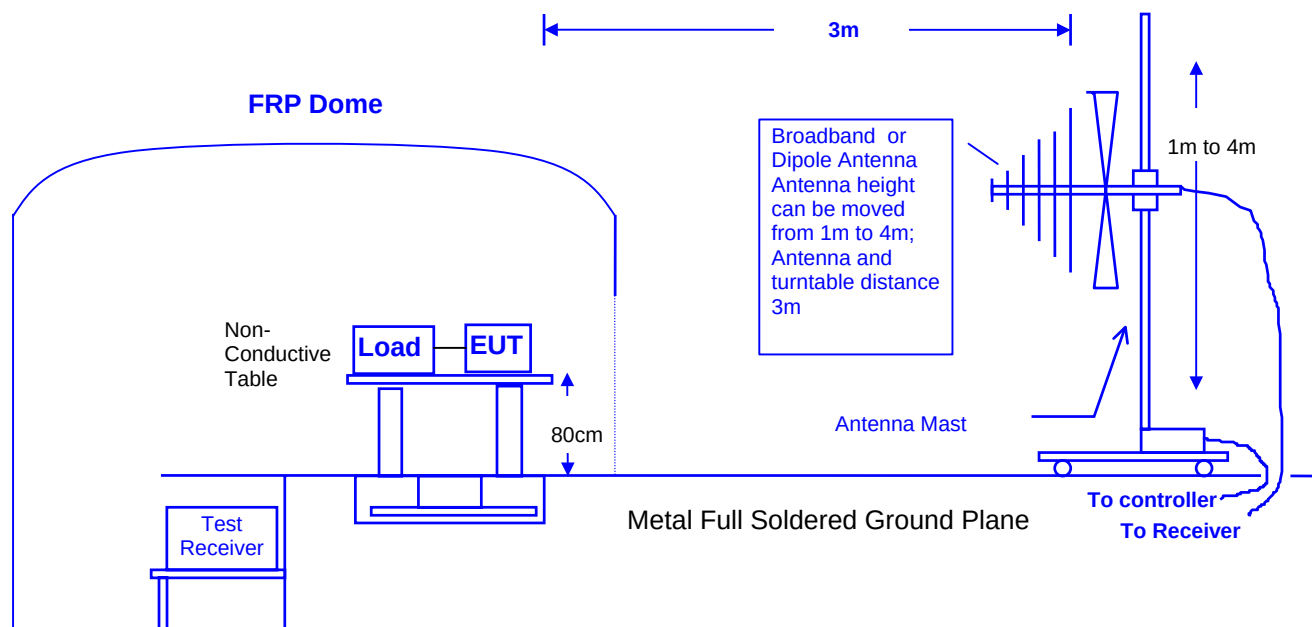
The following test equipments are used during the radiated emission tests:

Radiated test was performed on: ☐ Site #1 ☐ Site #2 ☒ Site #3 ☐ Site #4

Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Test Receiver	R & S	ESVS30	829007/014	01/19/06
2	Spectrum Analyzer	ADVANTEST	R3172	150101278	03/15/06
3	Power Meter	Rohde & Schwarz	NRVS	100666	04/07/06
4	Peak Power Sensor	Rohde & Schwarz	NRV-Z32	8360191058	04/07/06
5	Pre-Amplifier	HP	8449D	2944A08272	09/26/05
6	BILOG ANTENNA	SCHAFFNER	CBL6112B	2620	11/26/05
7	Horn Antenna	Schwarzbeck	BBHA 9120	D243	12/21/05
8	RF Cable	GesTek	N/A	GTK-E-A152-01	12/20/05
9	Open Site	GesTek	N/A	B1	11/22/05
10	Test Program Software	GesTek	N/A	GTK-E-S001-01	N/A

Note: All measurement critical items of test instrumentation were within their calibration period of 1 year.

3.2 OPEN TEST SITE SETUP DIAGRAM



3.3 RADIATED EMISSION LIMIT

☒ General Radiated Emission Limits

Emissions radiated outside of the specified frequency bands shall not exceed the general radiated emission limits in paragraph FCC15.209.

Frequency	Distance	Field Strength	
MHz	Meter	$\mu\text{V/M}$	$\text{dB}\mu\text{V/M}$
30 to 88	3	100	40.0
88 to 216	3	150	43.5
216 to 960	3	200	46.0
Above 960	3	500	54.0

Note:

1. RF Voltage (dBuV/m) = $20 \log \text{RF Voltage } (\mu\text{V/m})$
2. In the Above Table, the tighter limit applies at the band edges.
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.

☒ FCC 15.239 Field Strength of Fundamental Limit

Frequency	Distance	Field Strength		Detector
MHz	Meter	$\mu\text{V/M}$	$\text{dB}\mu\text{V/M}$	
88 to 108	3	2500	68	Peak
		250	48	Average

3.4 EUT CONFIGURATION

The equipment, which is listed on 3.1 was, installed on radiated emission test to meet the commission requirement and operating in a manner which tends to maximize its emission characteristics in a normal application.

The device under test, installed in a representative system as described in section 3.2, was placed on a non-conductive table whose total height equaled 80 cm. This table can be rotated 360 degree. The measurement antenna was mounted to a non-conductive mast capable of moving the antenna vertically. Antenna height was varied from 1 meter to 4 meters and the system under test was rotated from 0 degree through 360 degrees relative to the antenna position and polarization (Horizontal and Vertical). The EUT was rotated through three orthogonal axes to determine the attitude that maximizes the emission. Also the I/O cable position was investigated to find the maximum emission condition.

3.5 OPERATING CONDITION OF EUT

Same as section 2.8.

3.6 RADIATED EMISSION DATA

The measurement range of radiated emissions from 30 MHz to 1000MHz was investigated. All readings below 1GHz are quasi-peak values with a resolution bandwidth of 120 KHz. Above 1GHz are peak and avg. values with a resolution bandwidth of 1MHz. The initial step in collecting radiated emission data is a spectrum analyzer peak scans of the measurement range for all the test modes and then use test receiver for final measurement. Then the worst modes were reported the following data pages..

3.7 RADIATED EMISSIONS MEASUREMENT RESULTS

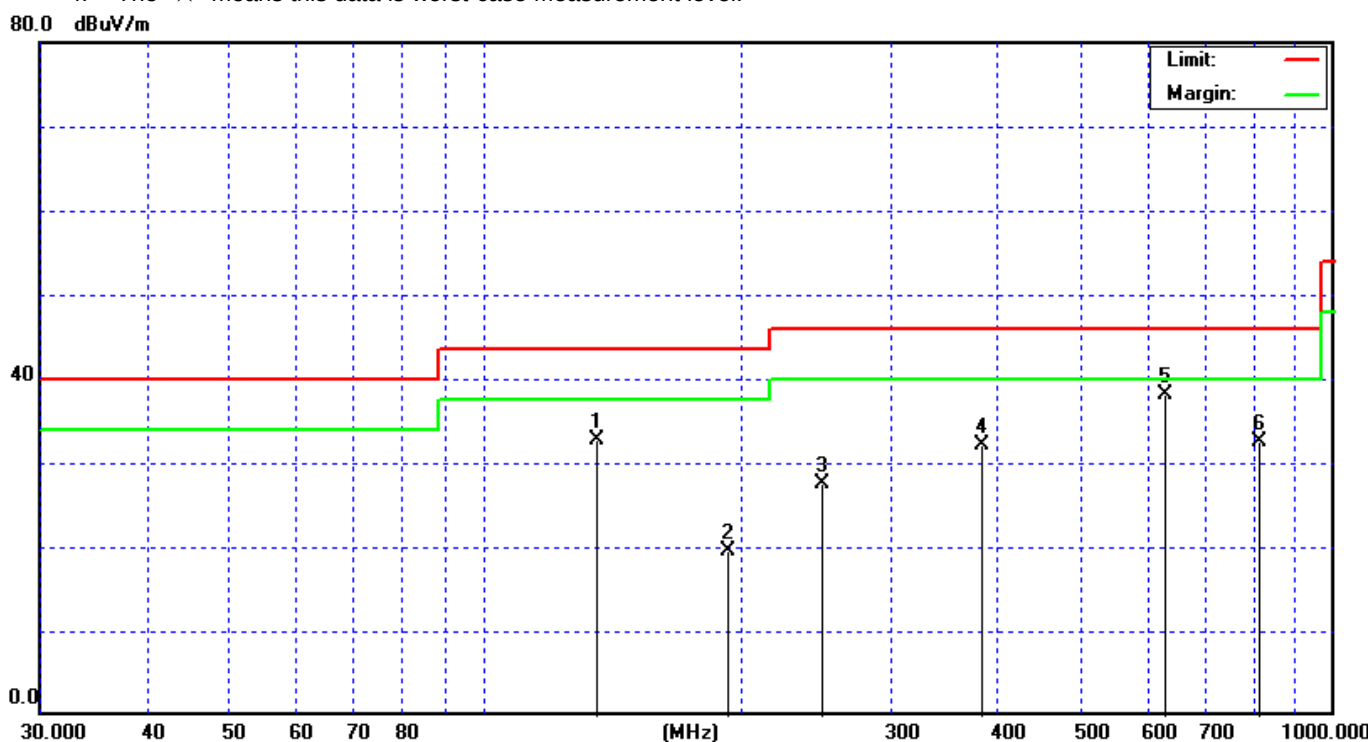
3.7.1 SPURIOUS RADIATED EMISSIONS

Date of Test	July 31, 2006	Temperature	25 deg/C
EUT	USB FM Transmitter	Humidity	59 %RH
Working Cond.	AUX Mode-88.1MHz		
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	135.0000	44.22	-11.57	32.65	43.50	-10.85	QP
2	193.2350	32.78	-13.19	19.59	43.50	-23.91	QP
3	248.3800	38.88	-11.46	27.42	46.00	-18.58	QP
4	383.8600	37.41	-5.34	32.07	46.00	-13.93	QP
5	★632.2400	39.58	-1.40	38.18	46.00	-7.82	QP
6	812.8820	31.03	1.57	32.60	46.00	-13.40	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The "★" means this data is worst-case Measurement level.



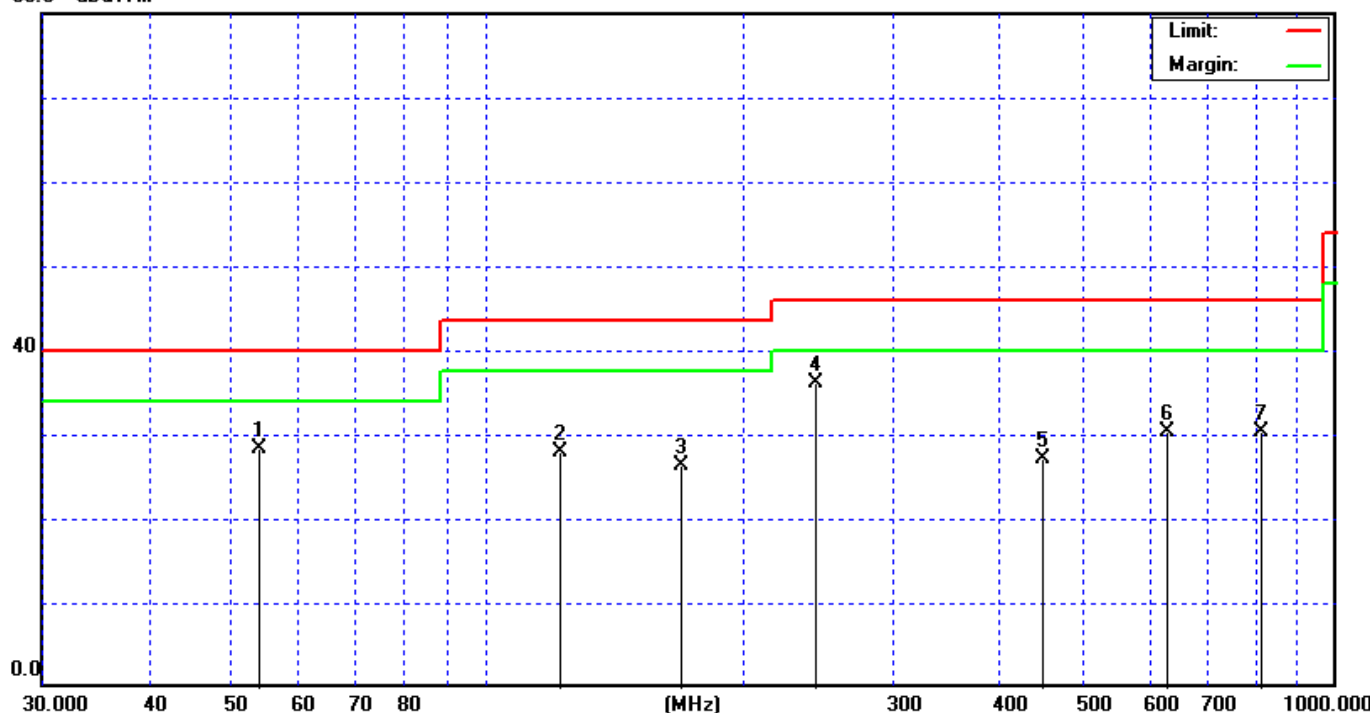
Date of Test	July 31, 2006	Temperature	25 deg/C
EUT	USB FM Transmitter	Humidity	59 %RH
Working Cond.	AUX Mode-88.1MHz		
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	54.0240	44.63	-16.23	28.40	40.00	-11.60	QP
2	121.4800	39.24	-11.33	27.91	43.50	-15.59	QP
3	169.3450	39.36	-13.01	26.35	43.50	-17.15	QP
4	★243.0000	47.66	-11.64	36.02	46.00	-9.98	QP
5	451.5900	31.45	-4.32	27.13	46.00	-18.87	QP
6	632.2400	31.80	-1.40	30.40	46.00	-15.60	QP
7	812.8800	28.82	1.57	30.39	46.00	-15.61	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The "★" means this data is worst-case Measurement level.

80.0 dBuV/m



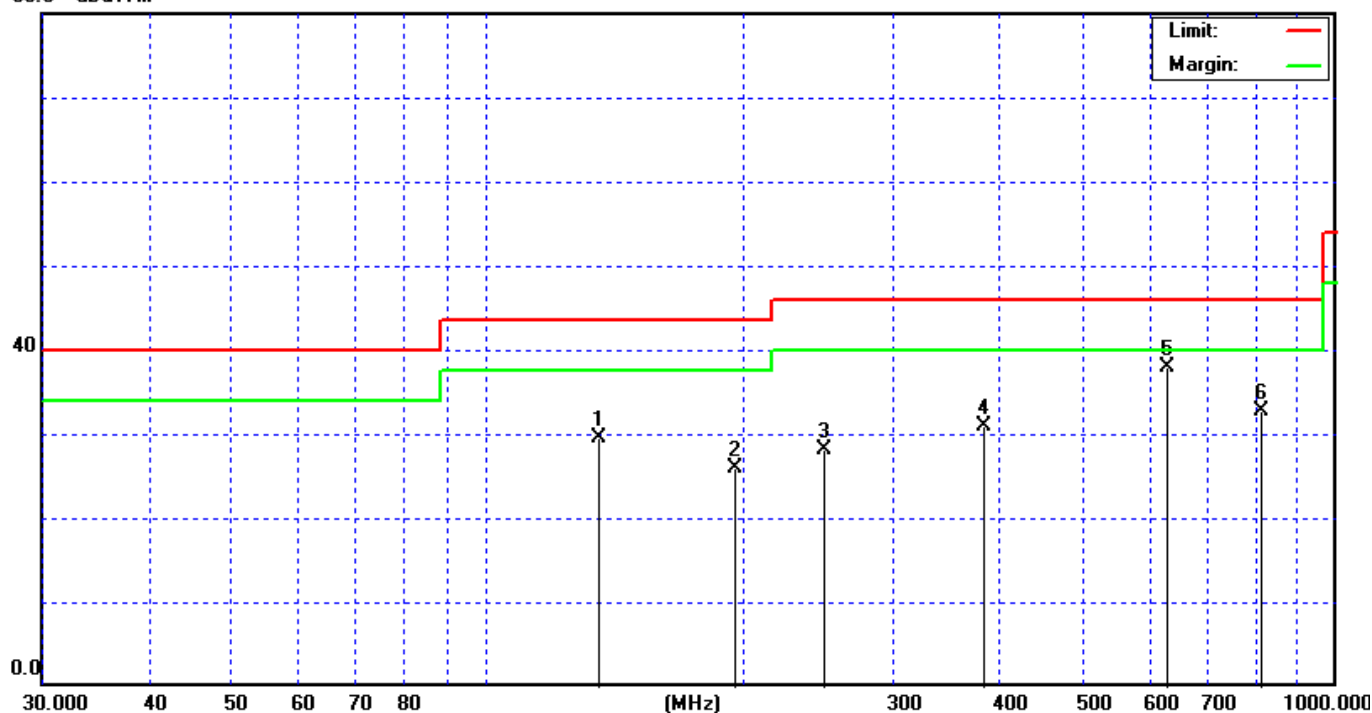
Date of Test	July 31, 2006	Temperature	25 deg/C
EUT	USB FM Transmitter	Humidity	59 %RH
Working Cond.	AUX Mode-98MHz		
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	134.9800	41.06	-11.57	29.49	43.50	-14.01	QP
2	196.0050	39.09	-13.16	25.93	43.50	-17.57	QP
3	248.3780	39.55	-11.46	28.09	46.00	-17.91	QP
4	383.8640	36.21	-5.34	30.87	46.00	-15.13	QP
5	★632.2400	39.22	-1.40	37.82	46.00	-8.18	QP
6	812.8780	31.09	1.57	32.66	46.00	-13.34	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The "★" means this data is worst-case Measurement level.

80.0 dBuV/m



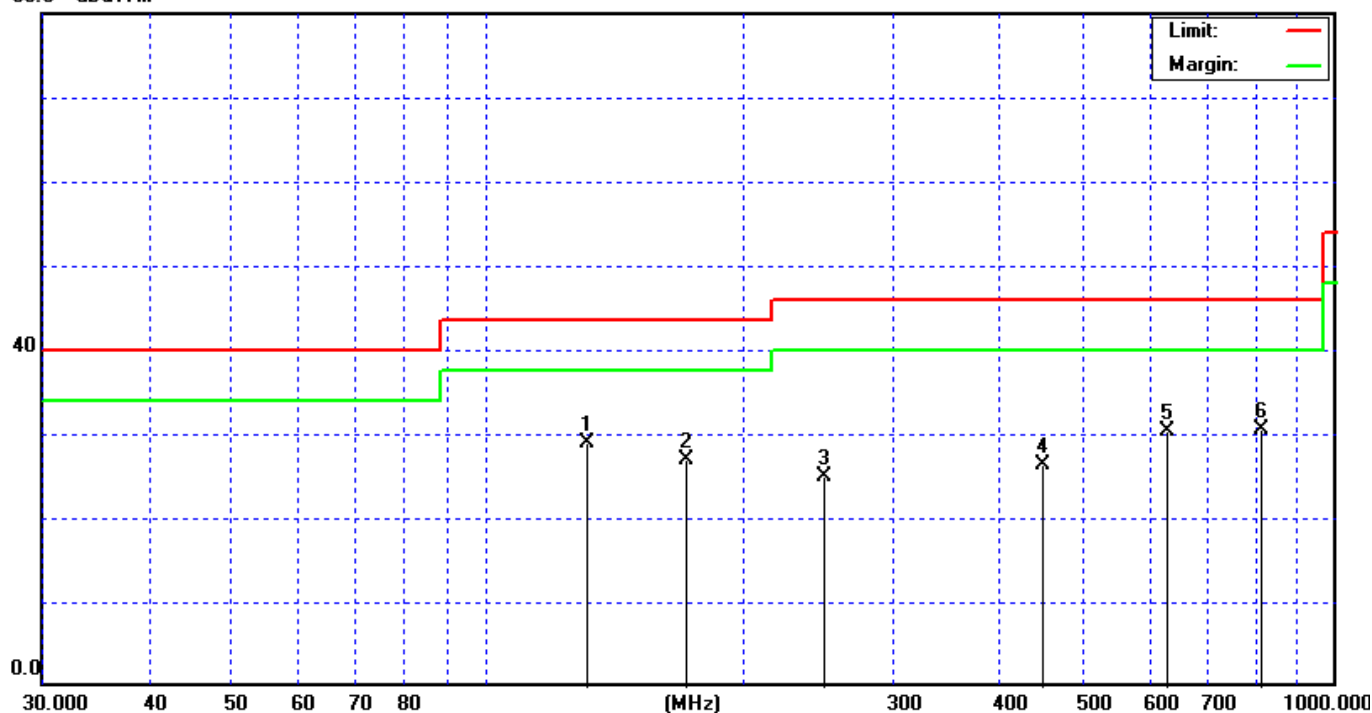
Date of Test	July 31, 2006	Temperature	25 deg/C
EUT	USB FM Transmitter	Humidity	59 %RH
Working Cond.	AUX Mode-98MHz		
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	★131.0780	40.47	-11.50	28.97	43.50	-14.53	QP
2	171.6280	39.97	-13.08	26.89	43.50	-16.61	QP
3	248.3740	36.45	-11.46	24.99	46.00	-21.01	QP
4	451.6020	30.71	-4.32	26.39	46.00	-19.61	QP
5	632.2400	31.74	-1.40	30.34	46.00	-15.66	QP
6	812.8860	28.86	1.57	30.43	46.00	-15.57	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The "★" means this data is worst-case Measurement level.

80.0 dBuV/m



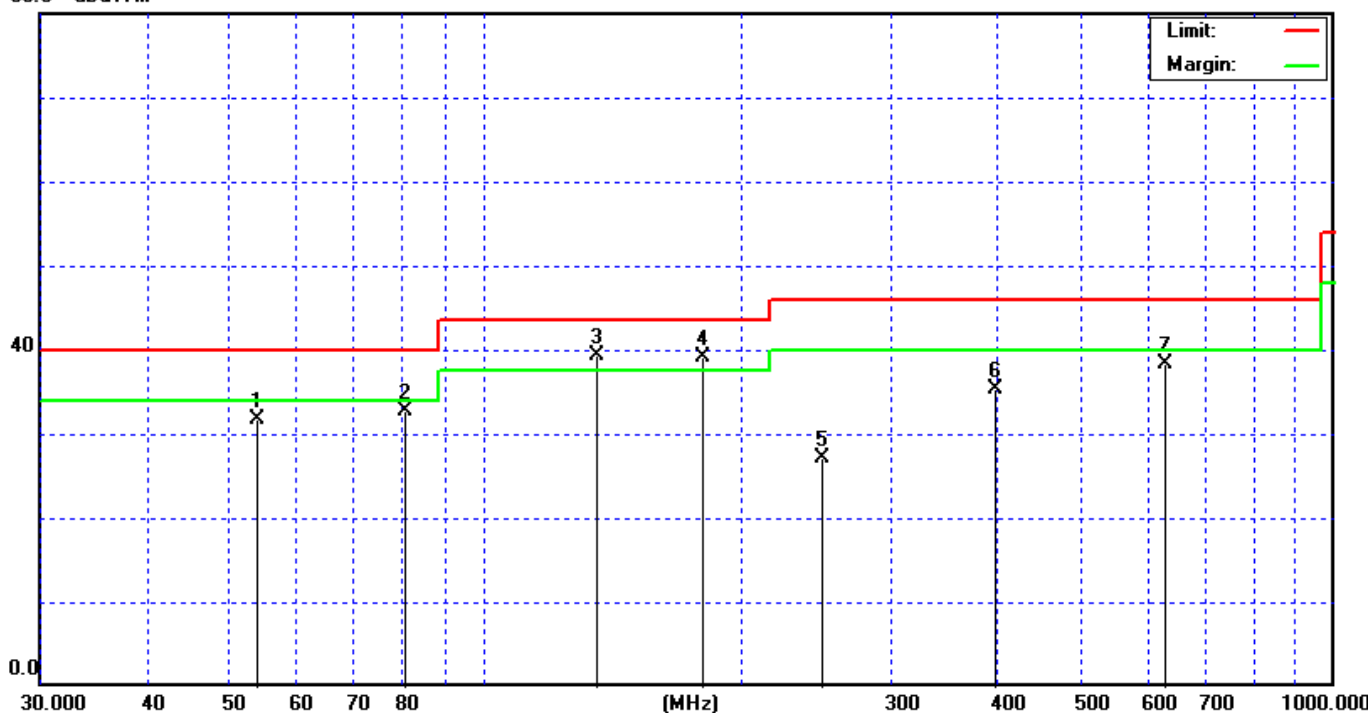
Date of Test	July 31, 2006	Temperature	25 deg/C
EUT	USB FM Transmitter	Humidity	59 %RH
Working Cond.	AUX Mode-107.9MHz		
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	54.0060	47.87	-16.23	31.64	40.00	-8.36	QP
2	80.5830	49.89	-17.21	32.68	40.00	-7.32	QP
3	★134.9920	50.97	-11.57	39.40	43.50	-4.10	QP
4	180.6400	52.40	-13.31	39.09	43.50	-4.41	QP
5	248.3840	38.48	-11.46	27.02	46.00	-18.98	QP
6	397.0240	40.18	-4.95	35.23	46.00	-10.77	QP
7	632.2400	39.72	-1.40	38.32	46.00	-7.68	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The "★" means this data is worst-case Measurement level.

80.0 dBuV/m



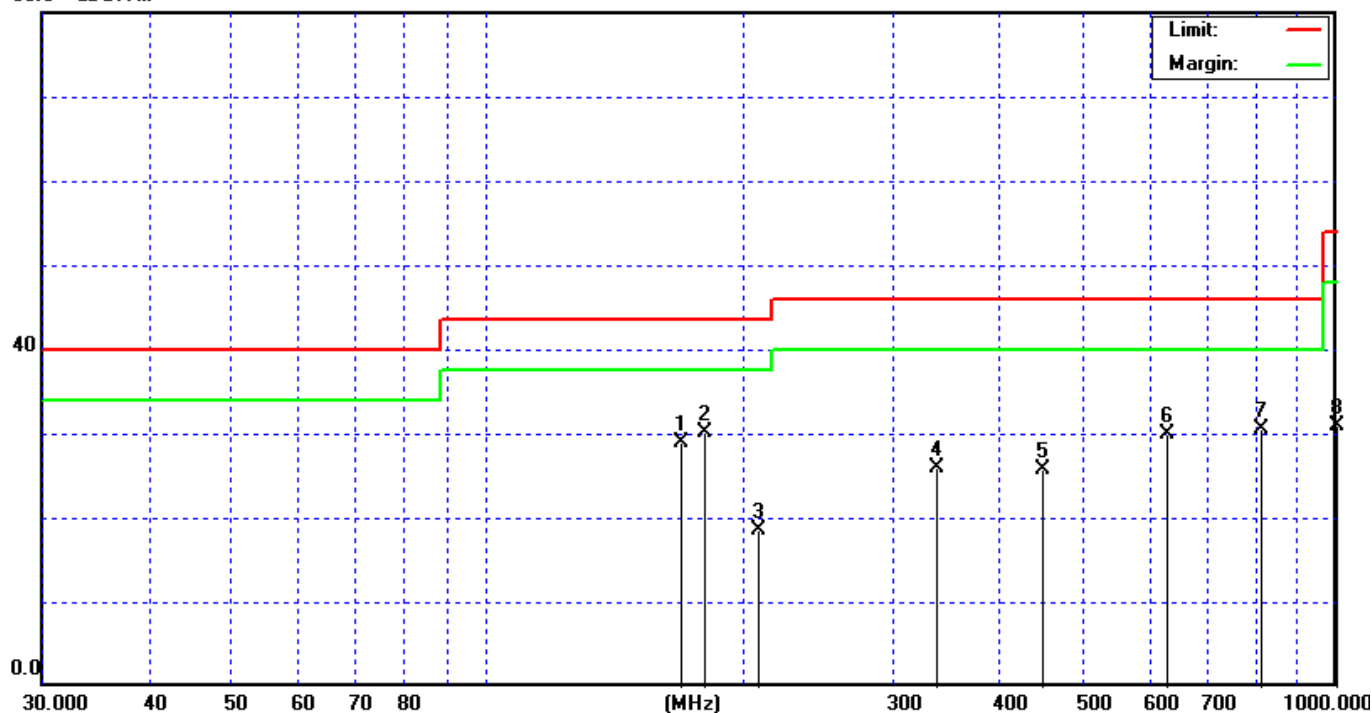
Date of Test	July 31, 2006	Temperature	25 deg/C
EUT	USB FM Transmitter	Humidity	59 %RH
Working Cond.	AUX Mode-107.9MHz		
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	169.3500	41.91	-13.01	28.90	43.50	-14.60	QP
2	★180.6400	43.45	-13.31	30.14	43.50	-13.36	QP
3	208.8990	31.25	-12.82	18.43	43.50	-25.07	QP
4	338.7200	32.64	-6.69	25.95	46.00	-20.05	QP
5	451.6000	29.97	-4.32	25.65	46.00	-20.35	QP
6	632.2420	31.37	-1.40	29.97	46.00	-16.03	QP
7	812.8800	29.02	1.57	30.59	46.00	-15.41	QP
8	993.5200	25.19	5.62	30.81	54.00	-23.19	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The "★" means this data is worst-case Measurement level.

80.0 dBuV/m



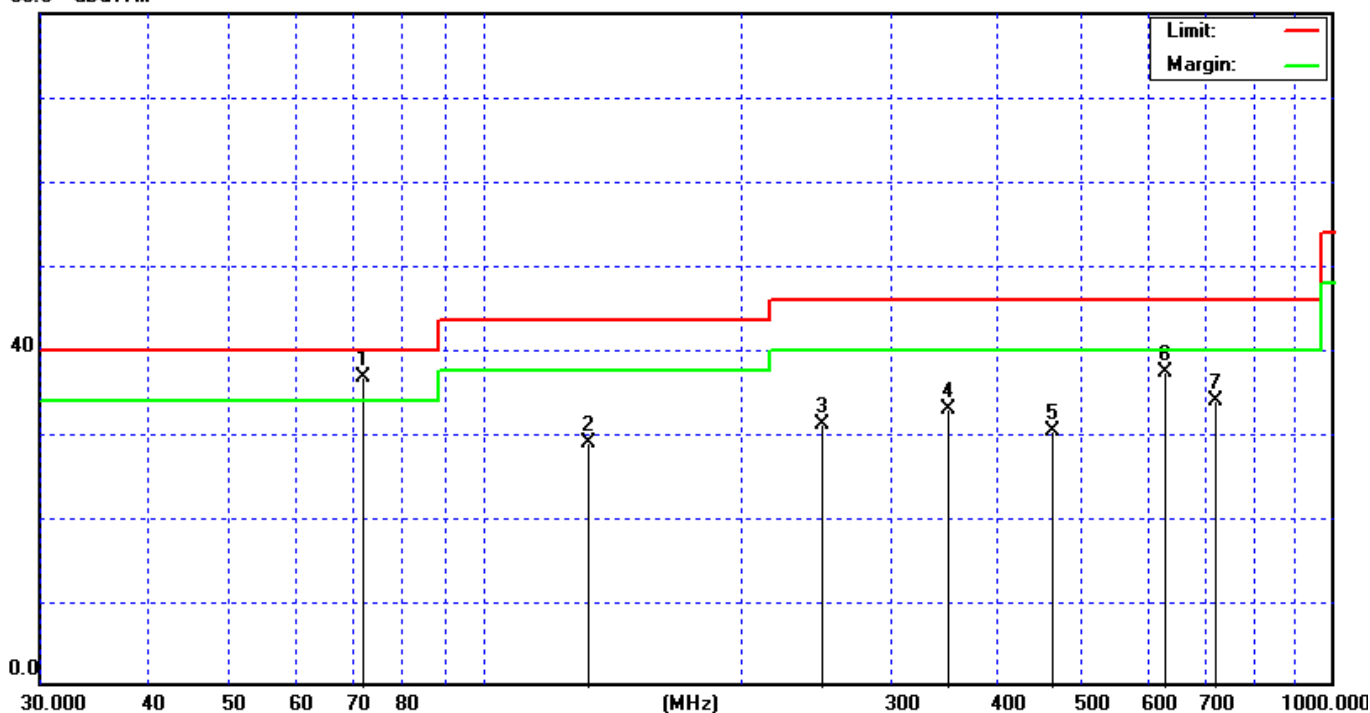
Date of Test	July 31, 2006	Temperature	25 deg/C
EUT	USB FM Transmitter	Humidity	59 %RH
Working Cond.	USB Mode-98MHz		
Antenna distance	3m at Horizontal	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	★72.0000	54.83	-18.10	36.73	40.00	-3.27	QP
2	132.0060	40.51	-11.52	28.99	43.50	-14.51	QP
3	248.3760	42.48	-11.46	31.02	46.00	-14.98	QP
4	350.0000	39.28	-6.35	32.93	46.00	-13.07	QP
5	463.1802	34.47	-4.20	30.27	46.00	-15.73	QP
6	632.2400	38.63	-1.40	37.23	46.00	-8.77	QP
7	720.0400	33.82	0.06	33.88	46.00	-12.12	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The "★" means this data is worst-case Measurement level.

80.0 dBuV/m



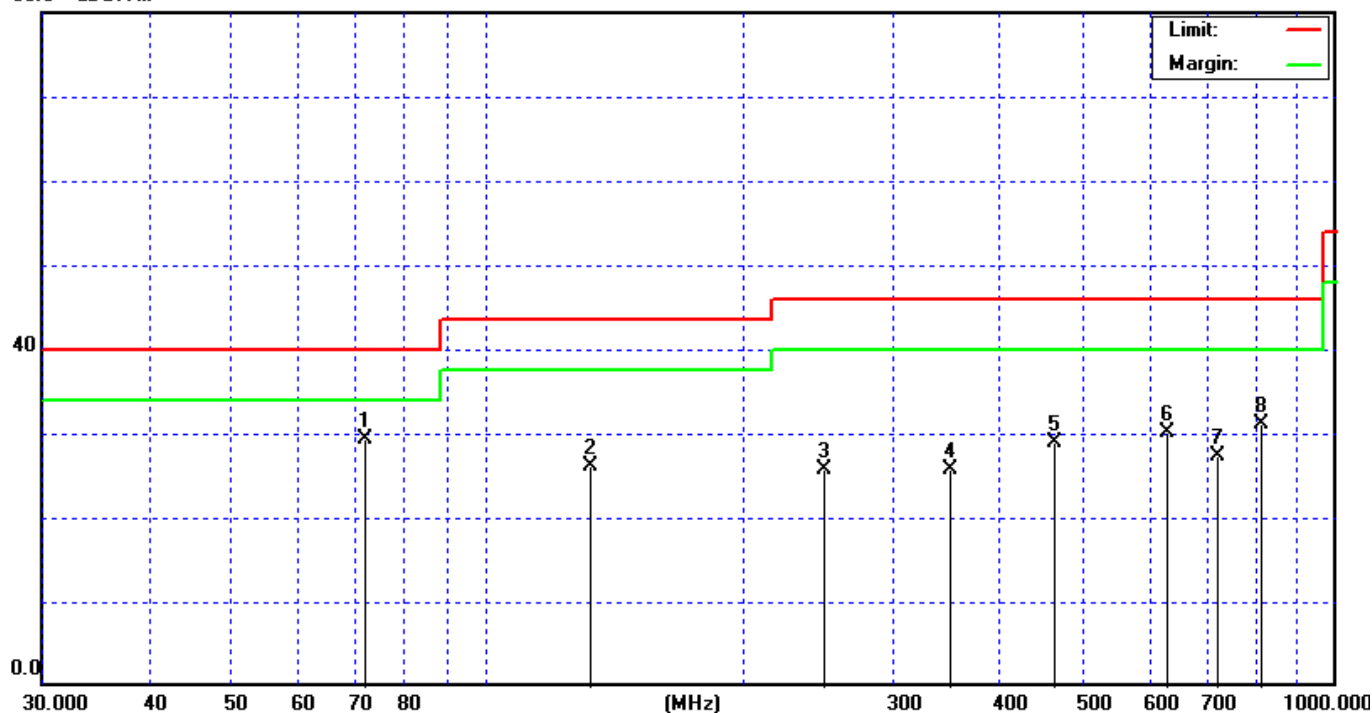
Date of Test	July 31, 2006	Temperature	25 deg/C
EUT	USB FM Transmitter	Humidity	59 %RH
Working Cond.	USB Mode-98MHz		
Antenna distance	3m at Vertical	Frequency Range	30-1000MHz

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	★72.0040	47.42	-18.10	29.32	40.00	-10.68	QP
2	132.0060	37.68	-11.52	26.16	43.50	-17.34	QP
3	248.3800	37.12	-11.46	25.66	46.00	-20.34	QP
4	349.9940	32.13	-6.35	25.78	46.00	-20.22	QP
5	463.1820	33.02	-4.20	28.82	46.00	-17.18	QP
6	632.2400	31.50	-1.40	30.10	46.00	-15.90	QP
7	720.0460	27.21	0.06	27.27	46.00	-18.73	QP
8	812.8800	29.58	1.57	31.15	46.00	-14.85	QP

Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.
4. The "★" means this data is worst-case Measurement level.

80.0 dBuV/m



3.7.2 FUNDAMENTAL RADIATION EMISSION

Date of Test	August 07, 2006	Temperature	25 deg/C
EUT	USB FM Transmitter	Humidity	59 %RH
Working Cond.	AUX Mode		
Antenna distance	3m		

Horizontal

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	88.1000	60.28	-15.42	44.86	68.00	-23.14	peak
2	88.1000	58.48	-15.42	43.06	48.00	-4.94	AVG
3	98.0000	61.24	-13.65	47.59	68.00	-20.41	peak
4	98.0000	57.94	-13.65	44.29	48.00	-3.71	AVG
5	107.9000	61.20	-12.52	48.68	68.00	-19.32	peak
6	107.9000	59.40	-12.52	46.88	48.00	-1.12	AVG

Vertical

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	88.1000	54.88	-15.42	39.46	68.00	-28.54	peak
2	88.1000	49.98	-15.42	34.56	48.00	-13.44	AVG
3	98.0000	64.54	-13.65	50.89	68.00	-17.11	peak
4	98.0000	57.74	-13.65	44.09	48.00	-3.91	AVG
5	107.9000	61.10	-12.52	48.58	68.00	-19.42	peak
6	107.9000	59.50	-12.52	46.98	48.00	-1.02	AVG

Remark

1. The Fundamental test detector are peak or average.
2. Spectrum Analyzer Setting(Peak Detector): RBW=100KHz, VBW=1MHZ, Span=10MHz.
3. Spectrum Analyzer Setting(AVG Detector): RBW=100KHz, VBW=30HZ, Span=10MHz.
4. Measurement = Reading + Correction Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
5. Correction Factor= Antenna Factor + Cable Loss – Amplifier Factor
6. Over Limit (Margin Value)=Emission level-Limit value.
7. The average measurement was not performed when the peak measured data under the limit of average detection. If the average value is measured, peak measurement should also be supplied.

3.7.3 BAND EGDE TEST

Date of Test	August 07, 2006	Temperature	26.6 deg/C
EUT	USB FM Transmitter	Humidity	48 %RH
Working Cond.	AUX Mode: 88.1MHz		
Antenna distance	3m		

Horizontal

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	88.0000	44.70	-19.71	24.99	40.00	-15.01	QP
2	108.0000	42.30	-17.33	24.97	43.50	-18.53	QP

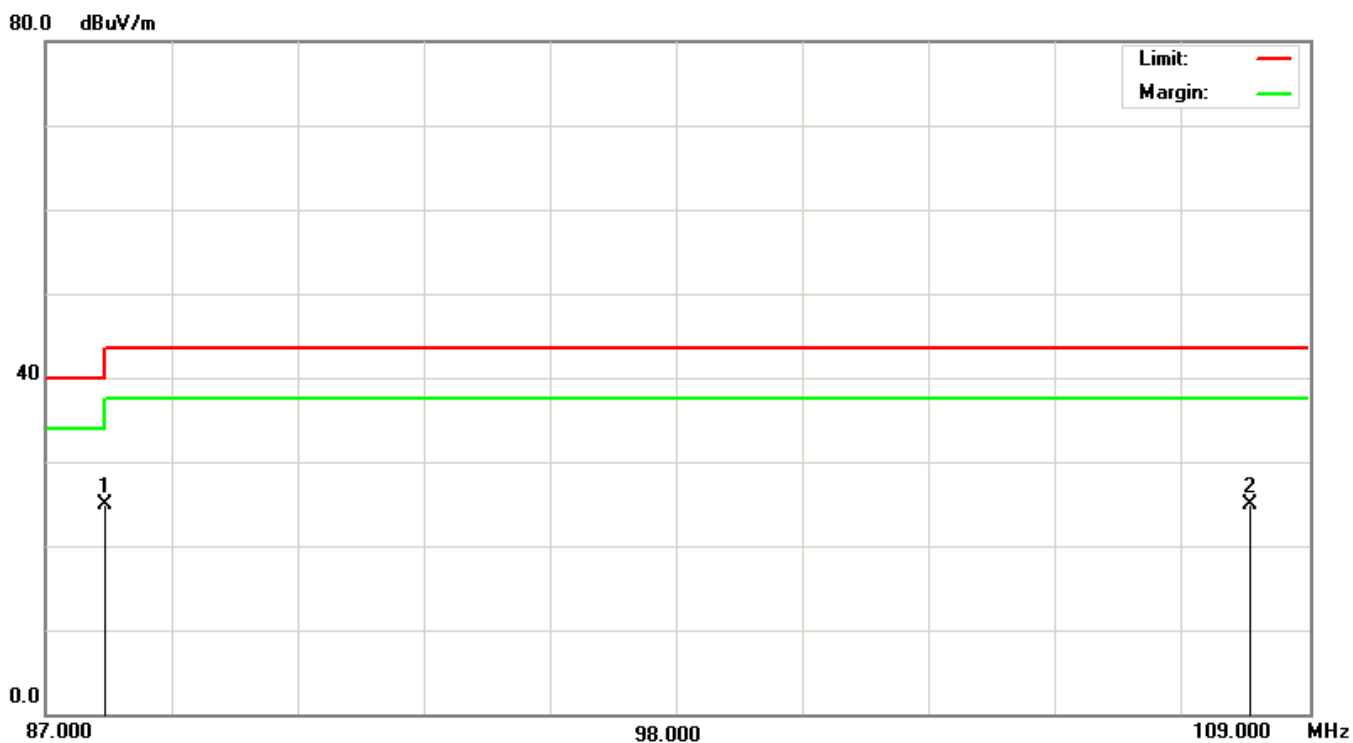
Vertical

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	88.0000	39.40	-19.71	19.69	40.00	-20.31	QP
2	108.0000	40.20	-17.33	22.87	43.50	-20.63	QP

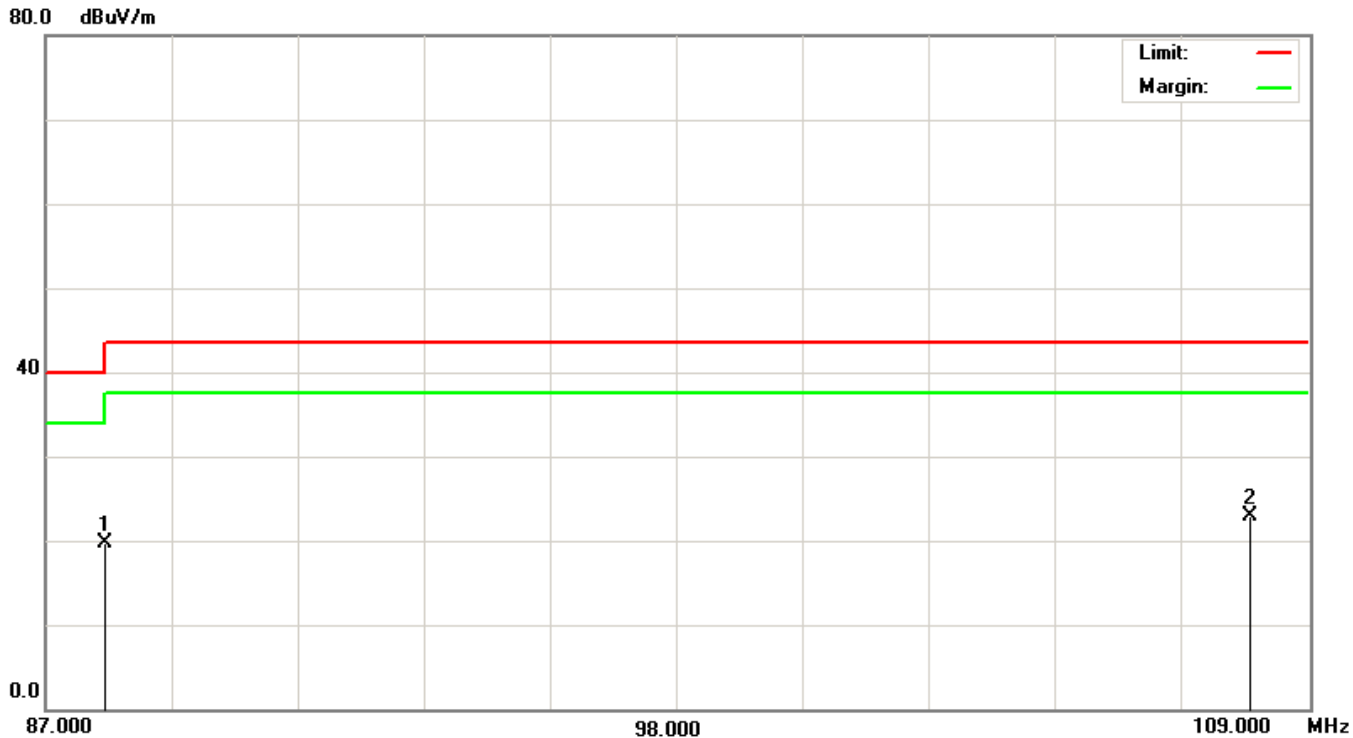
Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.

Horizontal



Vertical



Date of Test	August 07, 2006	Temperature	26.6 deg/C
EUT	USB FM Transmitter	Humidity	48 %RH
Working Cond.	AUX Mode: 107.9MHz		
Antenna distance	3m		

Horizontal

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	88.0000	32.00	-19.71	12.29	40.00	-27.71	QP
2	108.0000	55.60	-17.33	38.27	43.50	-5.23	QP

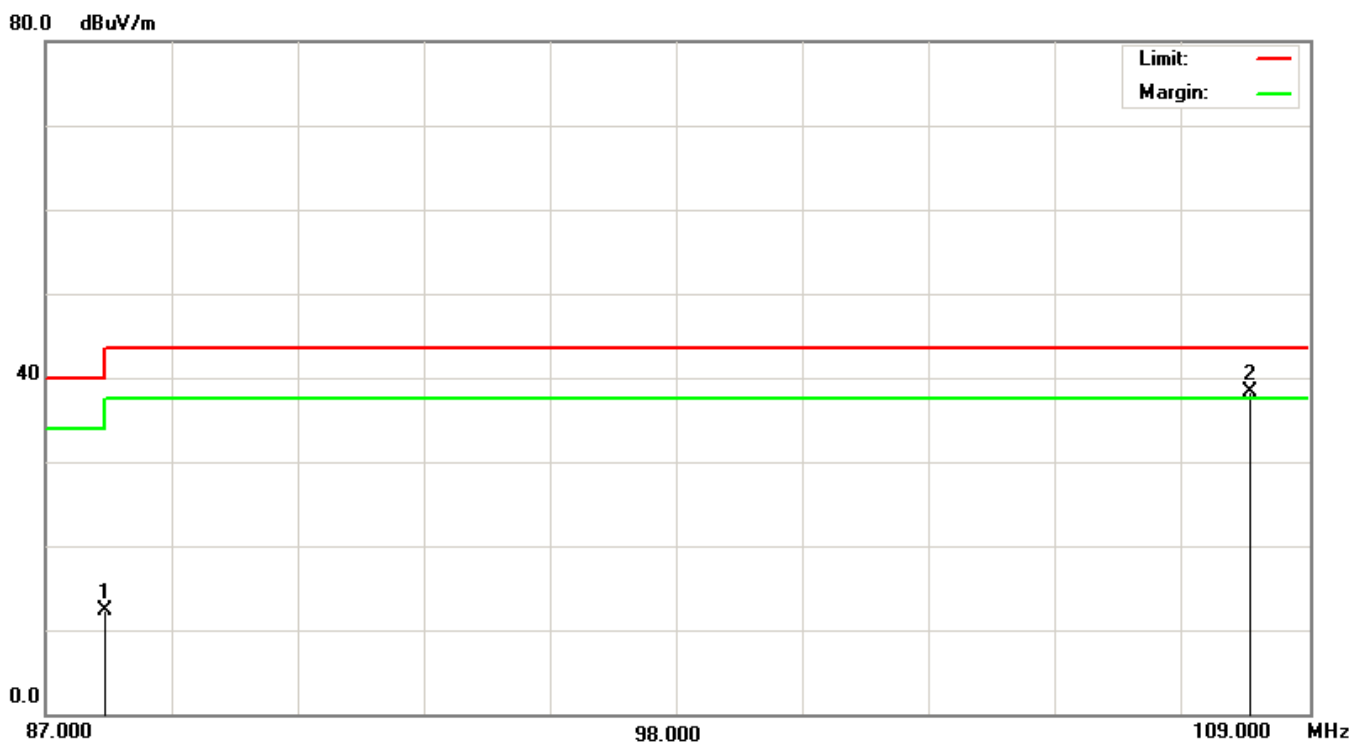
Vertical

No.	Frequency MHz	Reading Level dBuV/m	Factor dB	Measurement dBuV/m	Limit dBuV/m	Over Limit dB	Detector
1	88.0000	35.60	-19.71	15.89	40.00	-24.11	QP
2	108.0000	46.30	-17.33	28.97	43.50	-14.53	QP

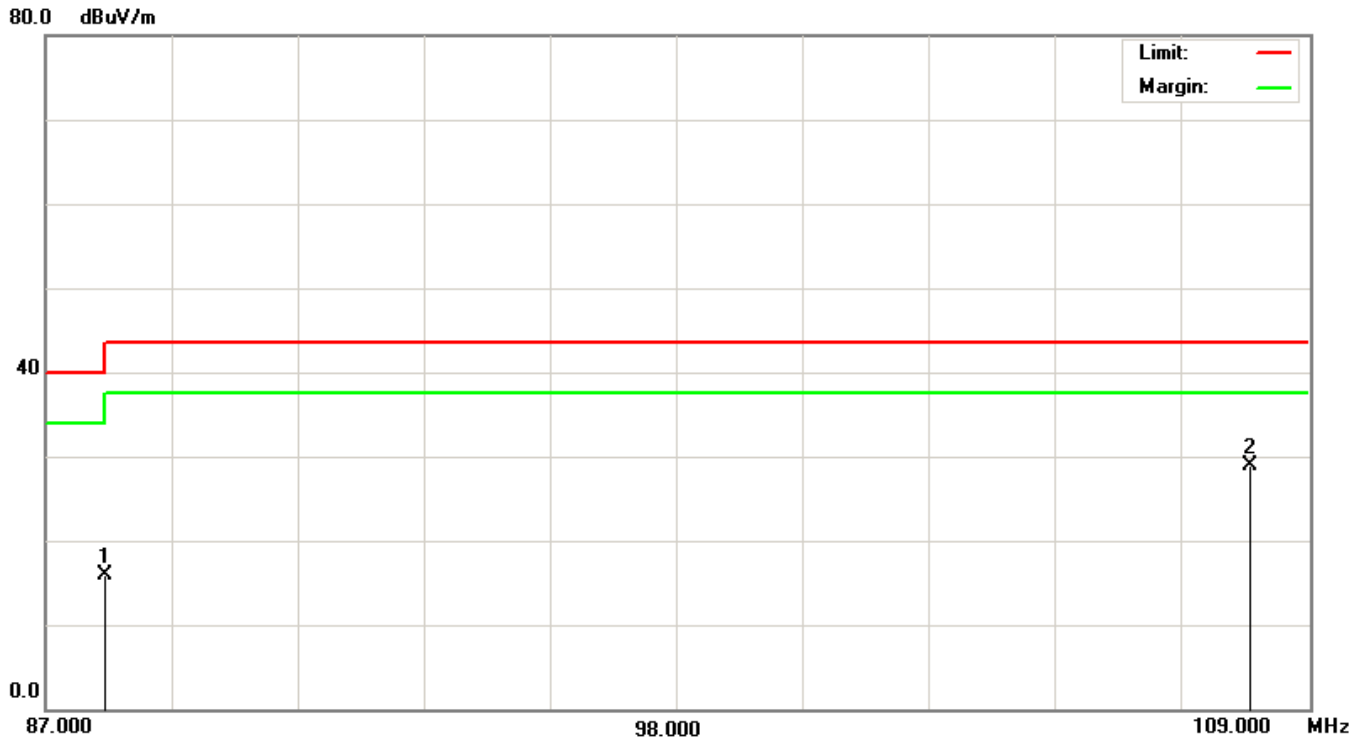
Remarks:

1. All Readings below 1GHz are Quasi-Peak.
2. Measurement = Reading + Factor (Could have ± 0.01 tolerance due to computer automatically round off calculation).
3. Over Limit (Margin Value)=Measurement level-Limit value.

Horizontal



Vertical



4. OCCUPIED BANDWIDTH

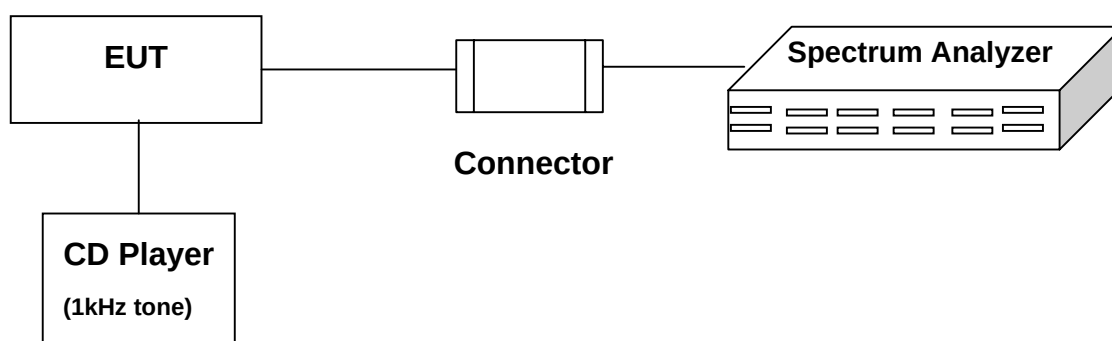
4.1 TEST EQUIPMENT

The following test equipments are used during the radiated emission tests:

Item	Instrument	Manufacturer	Model	Serial No.	Last Cal.
1	Spectrum Analyzer	Rohde & Schwarz	FSP40	100061	04/03/06
2	Spectrum Analyzer	HP	E4407B	39240339	07/26/06

Note: All measurement critical items of test instrumentation were within their calibration period of 1 year.

4.2 BLOCK DIAGRAM OF TEST SETUP



4.3 LIMIT

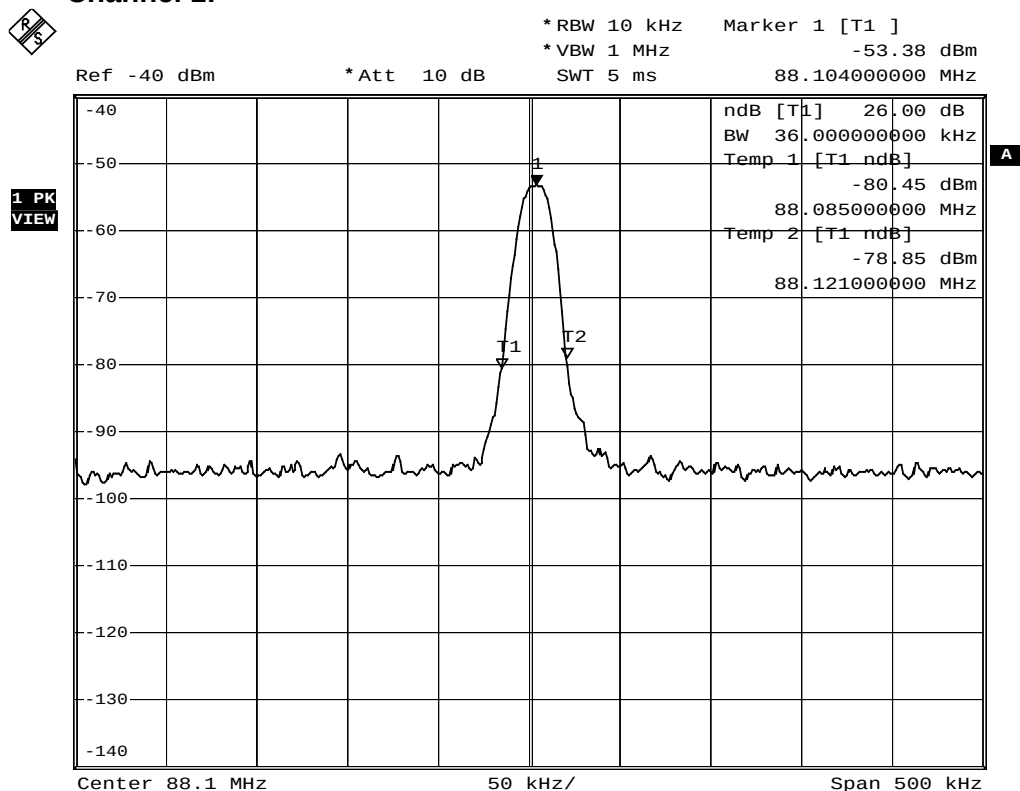
The occupied bandwidth shall not exceed 200kHz.

4.4 TEST RESULT

Date of Test	August 05, 2006	Temperature	26.9 deg/C
EUT	USB FM Transmitter	Humidity	49 %RH
Working Cond.	AUX Mode		

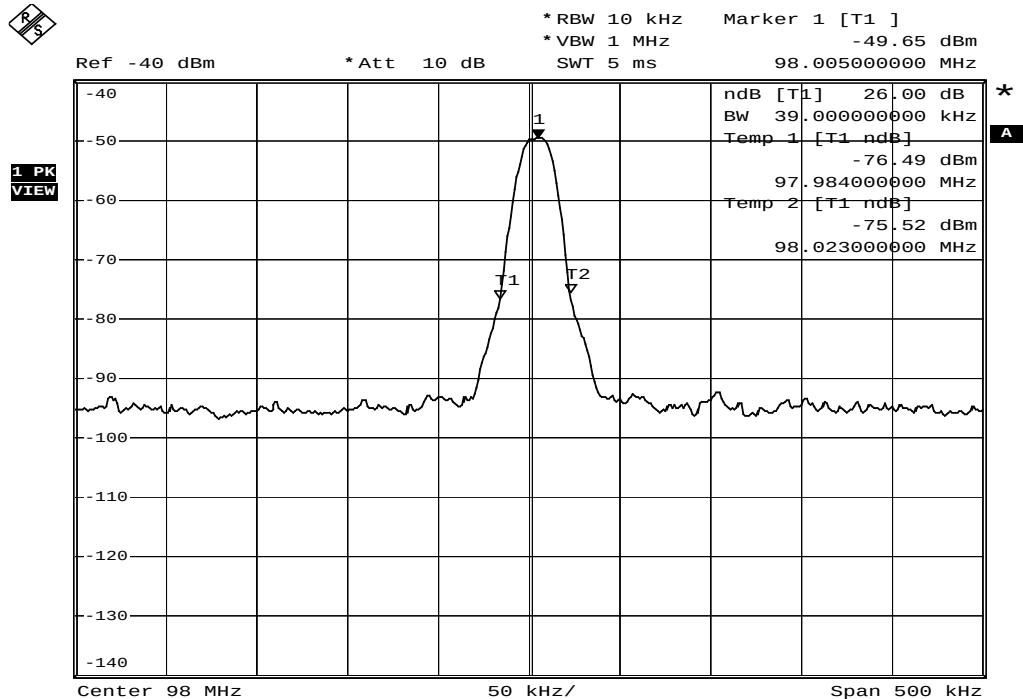
Channel No.	Frequency (MHz)	Bandwidth (kHz)	Required limit (KHz)	Result
1	88.1	36	<200	Pass
100	98.0	39	<200	Pass
199	107.9	39	<200	Pass

Channel 1:



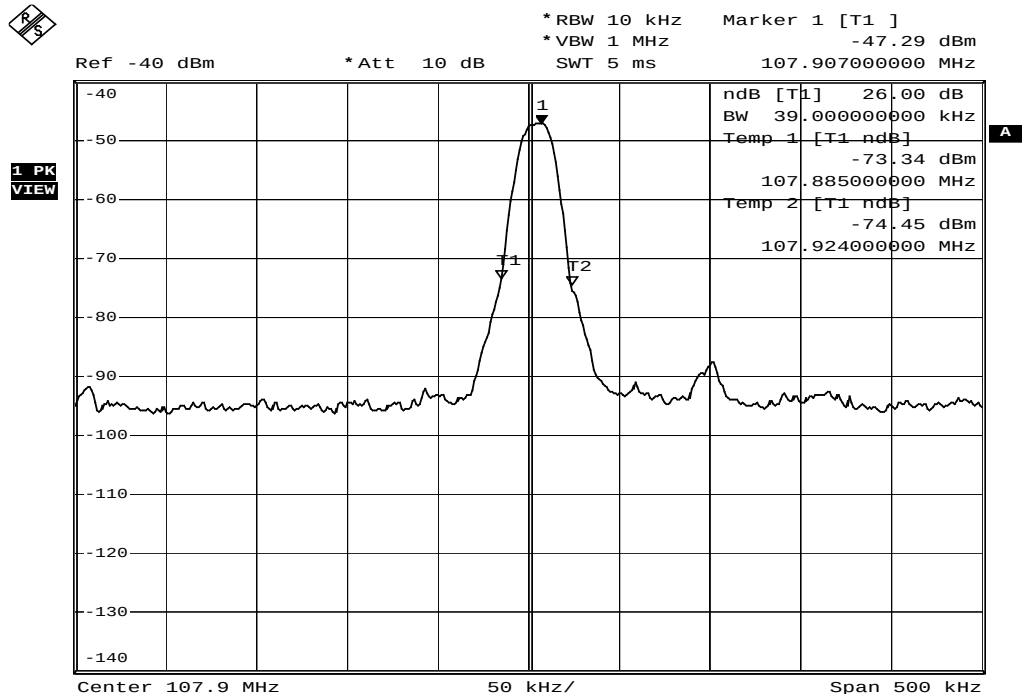
Date: 5.AUG.2006 12:16:49

Channel 100:



Date: 5.AUG.2006 12:09:40

Channel 199:



Date: 5.AUG.2006 12:14:18

5. PHOTOGRAPHS FOR TEST

5.1 TEST PHOTOGRAPHS FOR RADIATION

30-1000MHz (AUX Mode)



30-1000MHz (USB Mode)

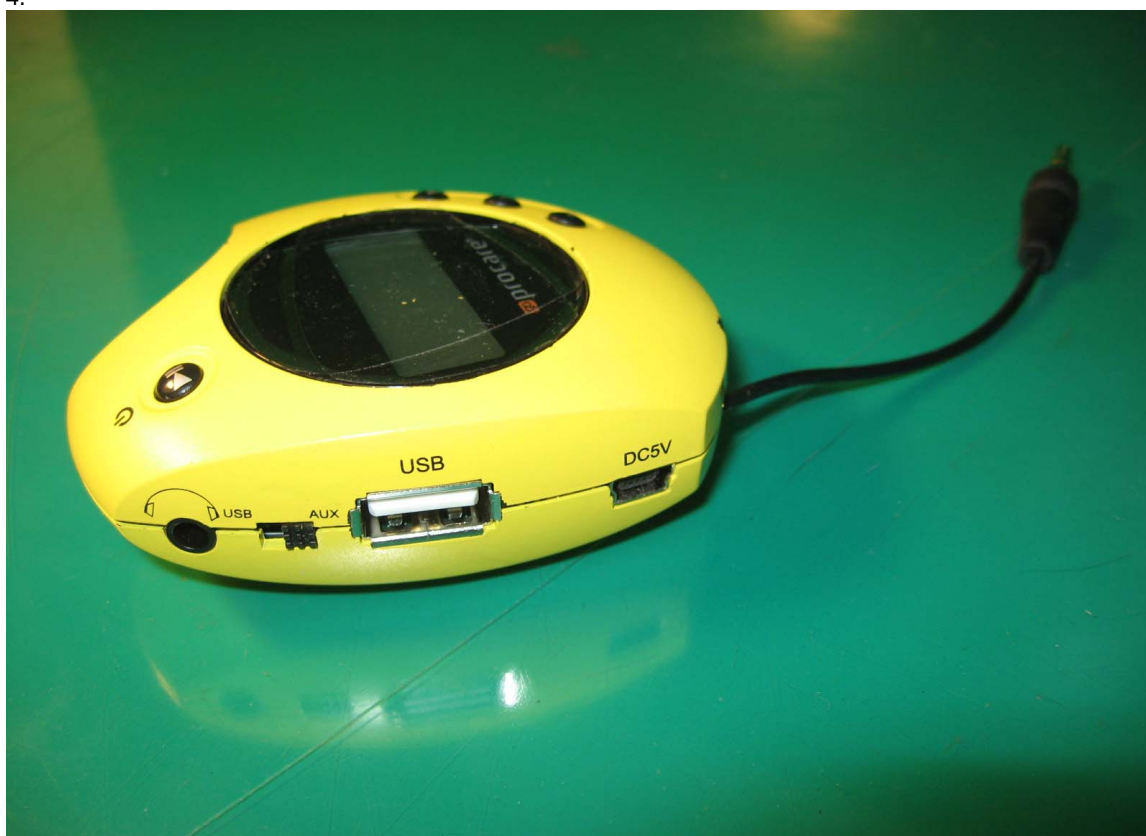
6. PHOTOGRAPHS FOR PRODUCT

1. Front View Of USB FM Transmitter and Adapter
- 2.

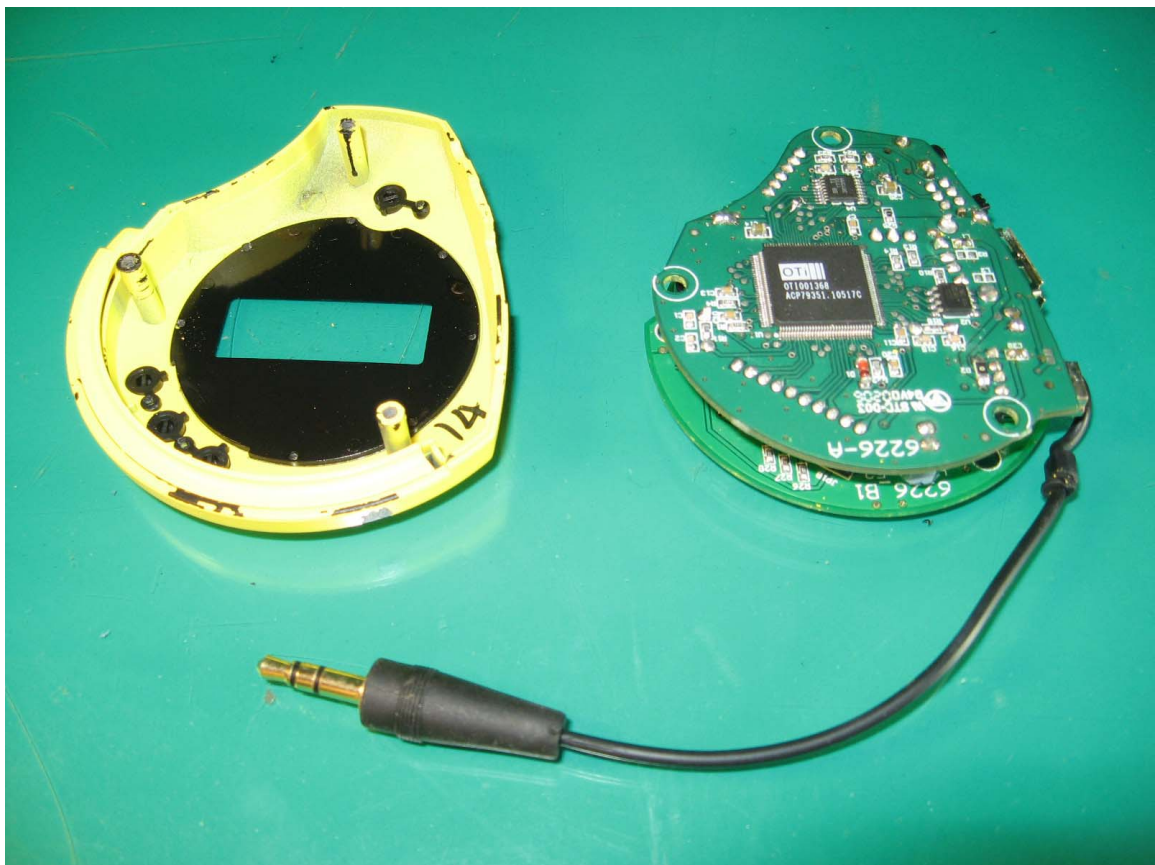
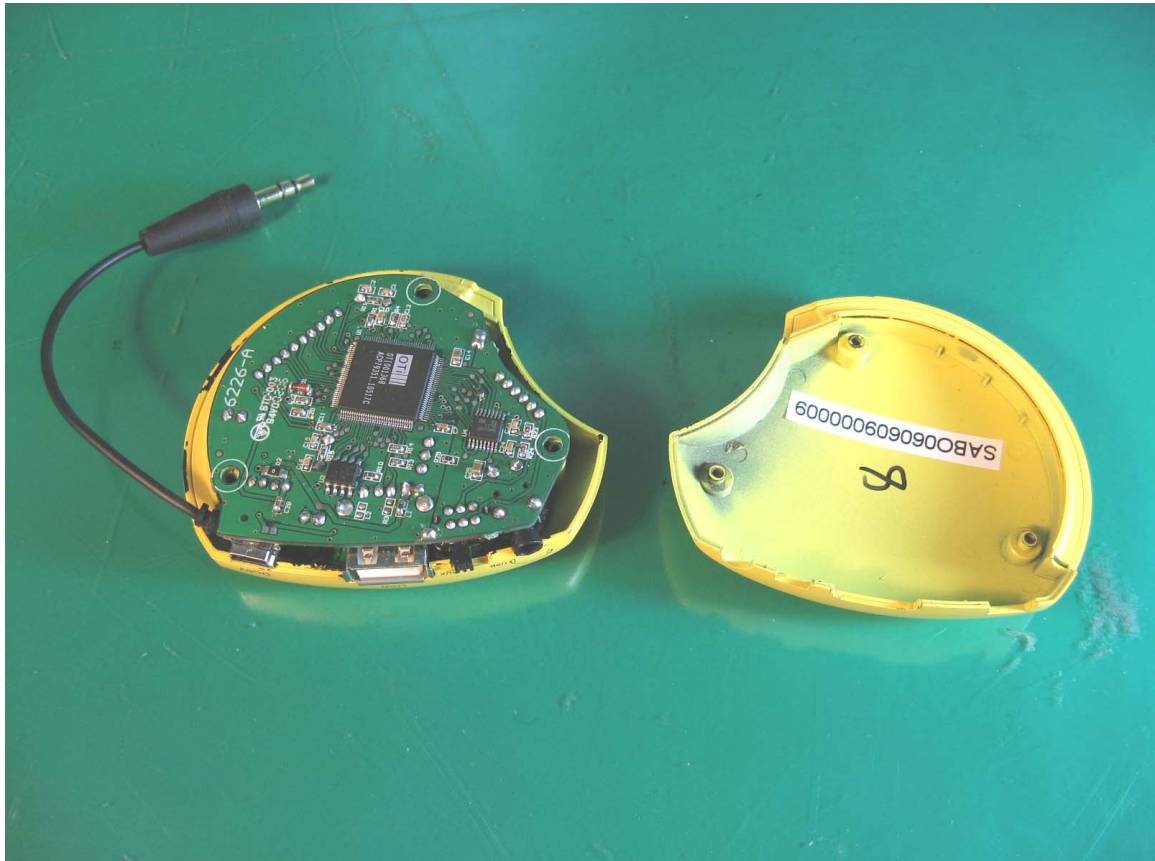


3.

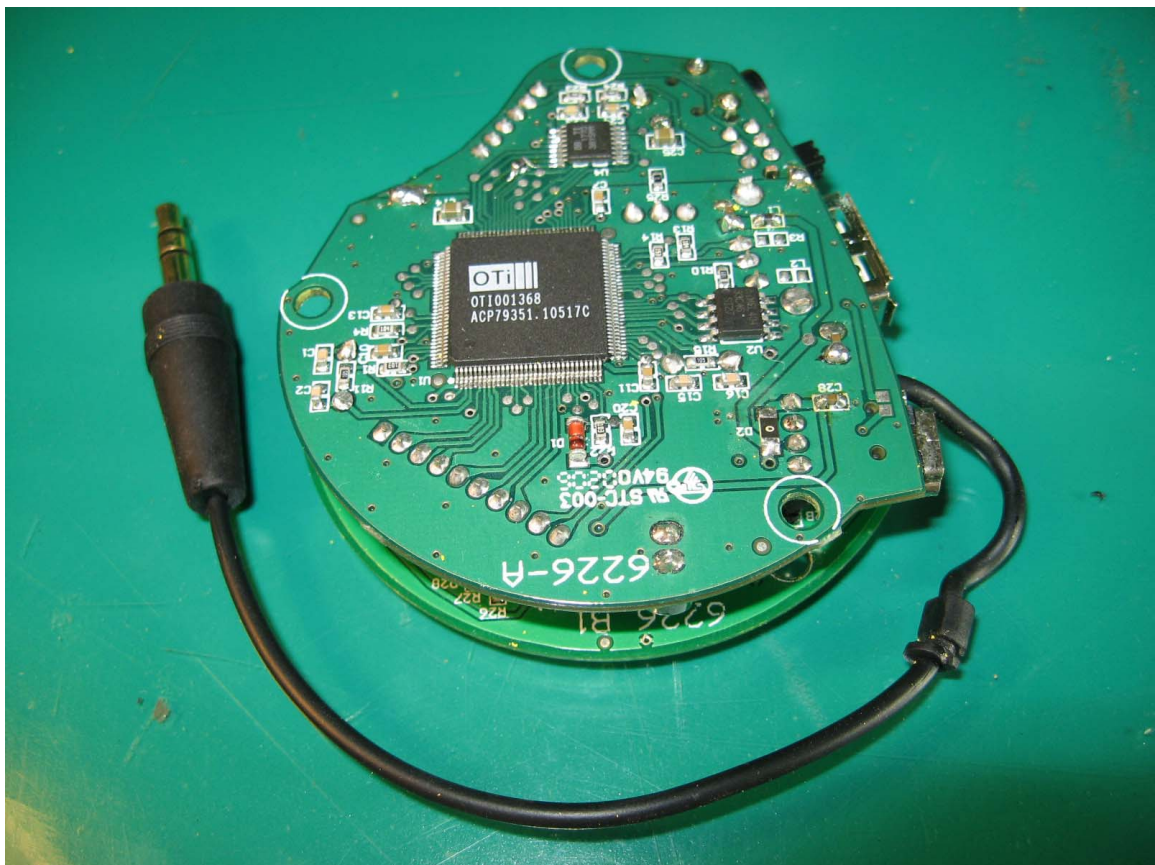
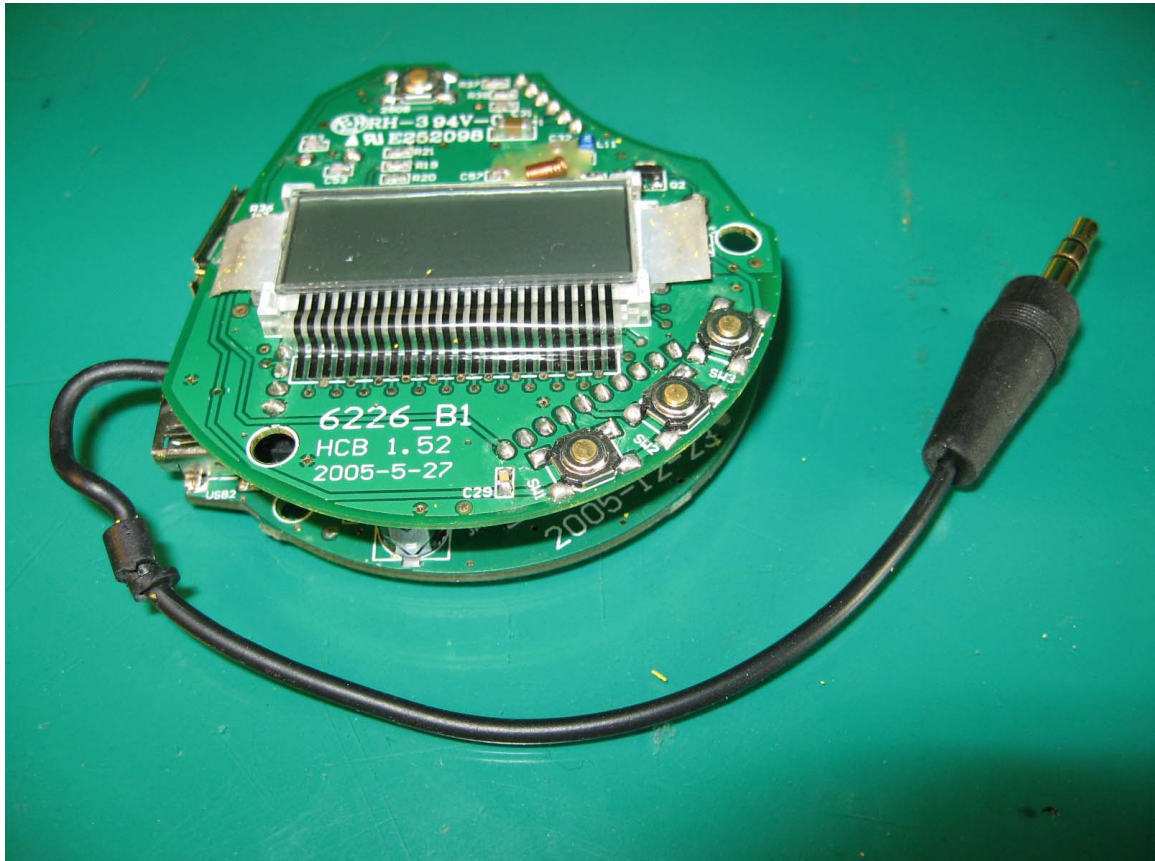
4.



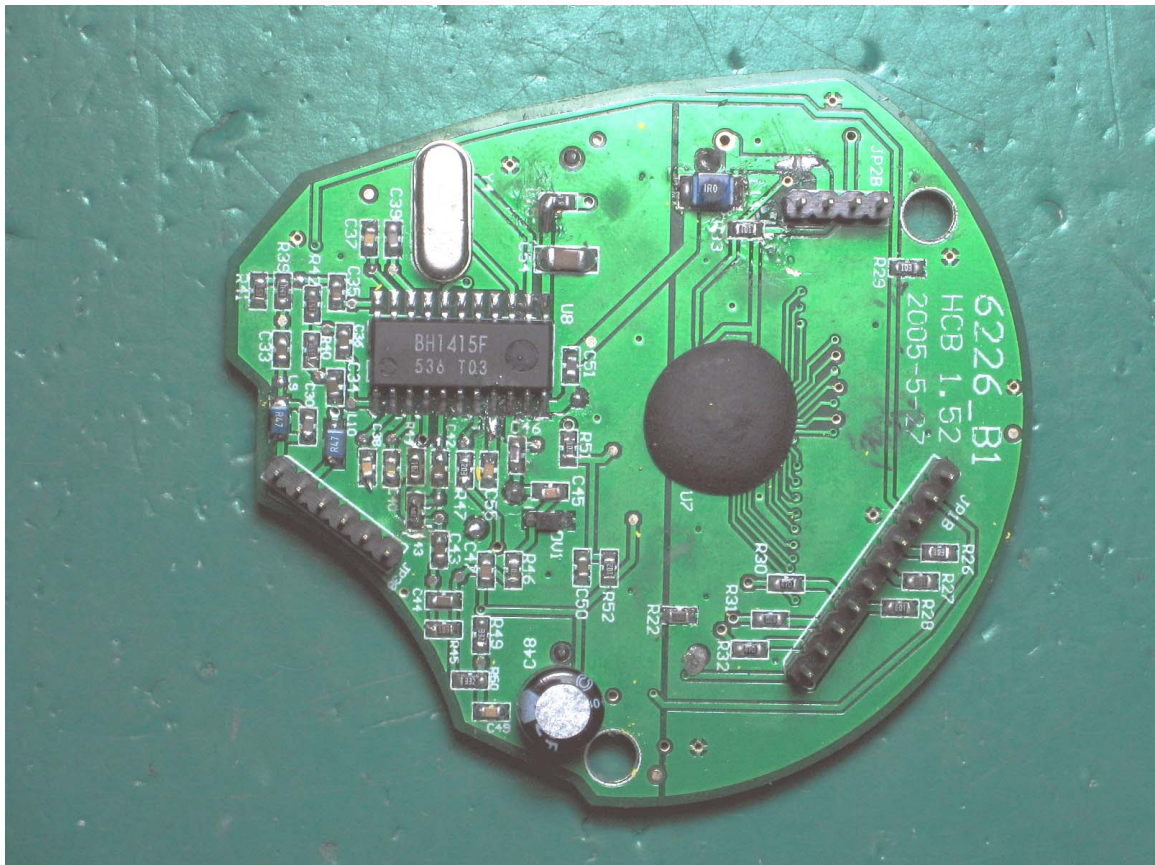
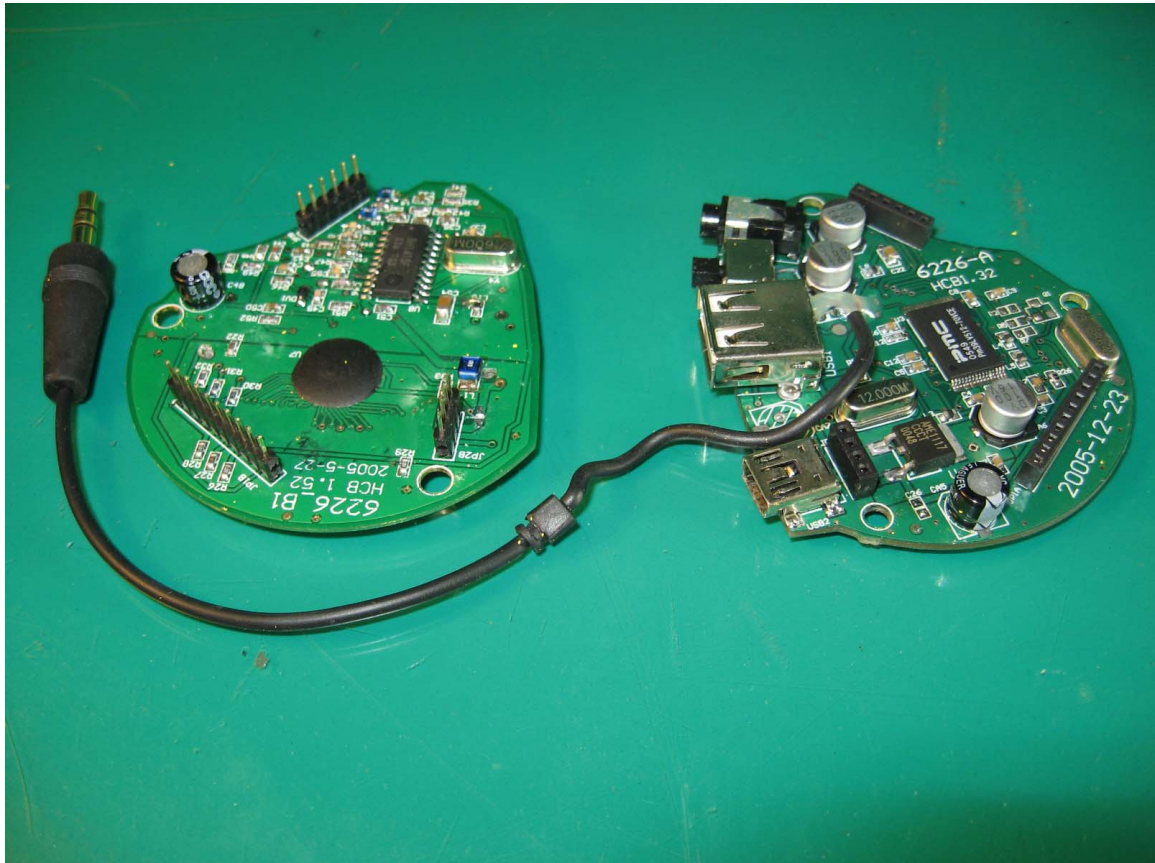
5.
6.



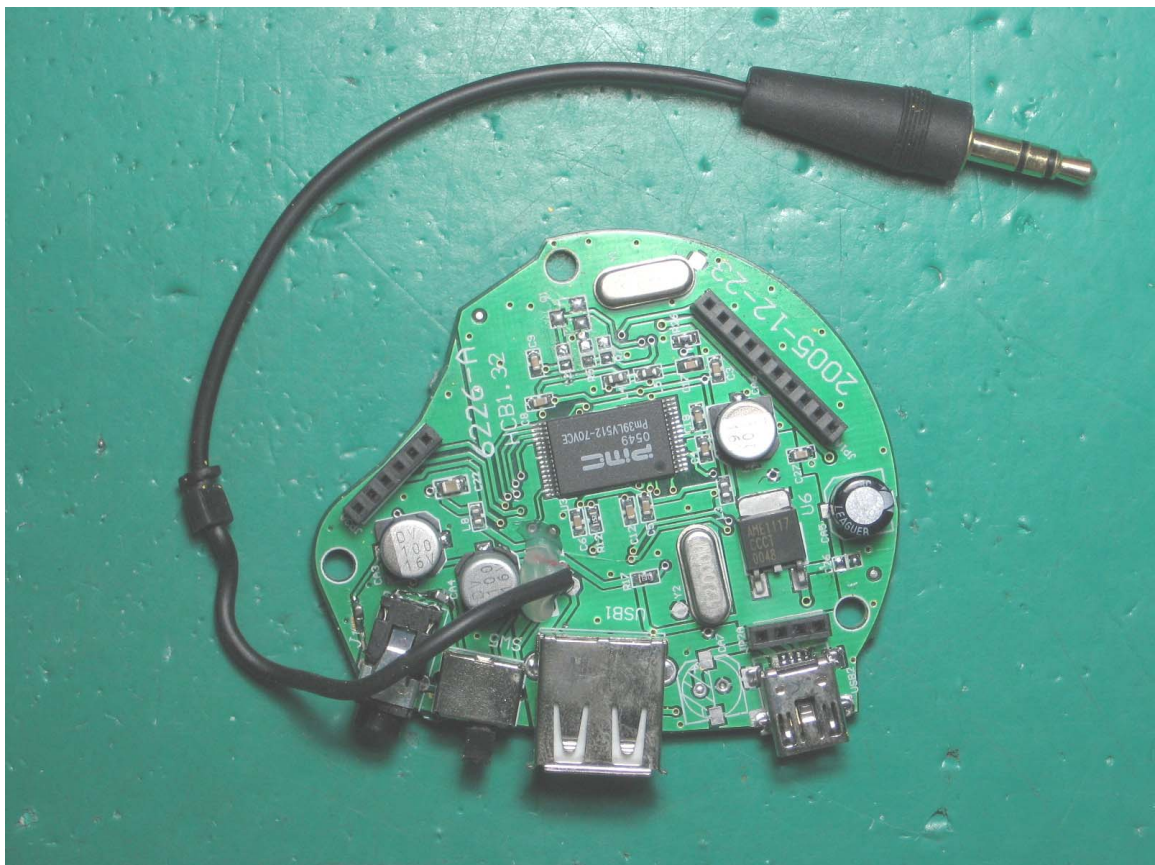
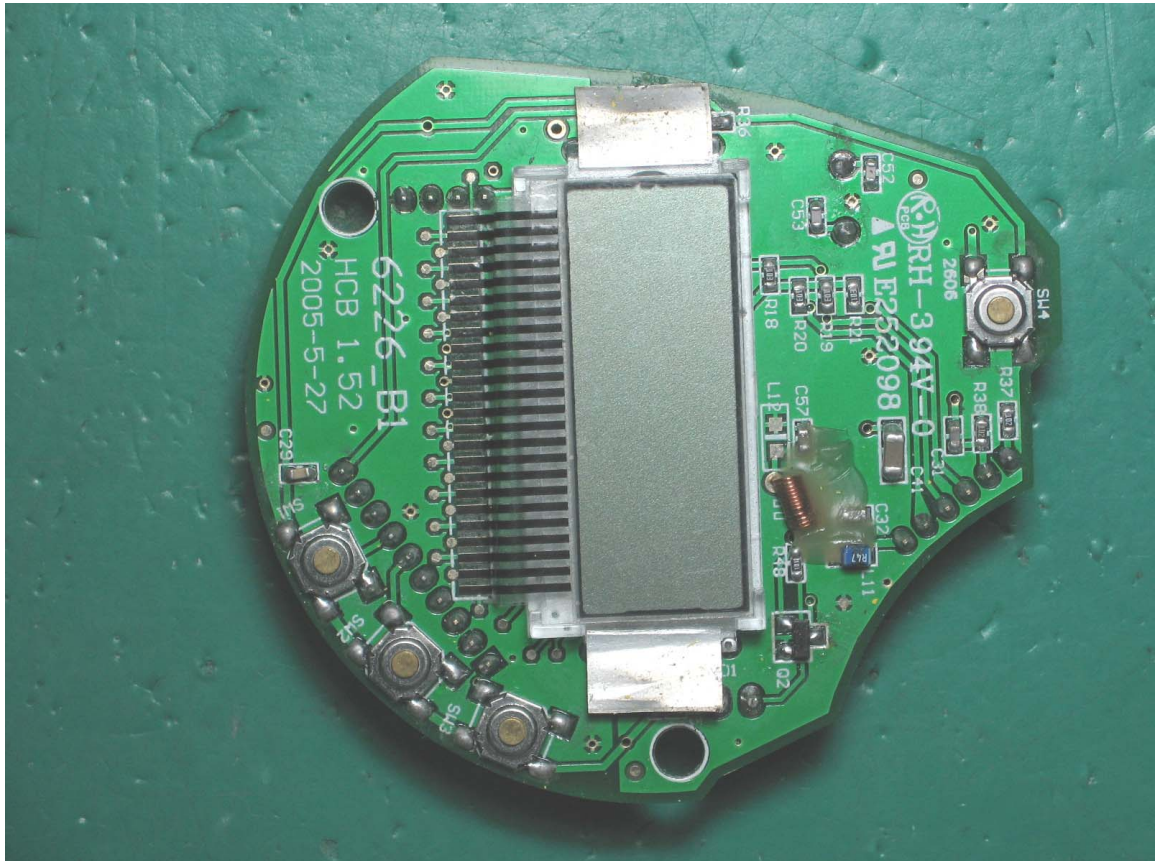
7.
8.



9.
10.

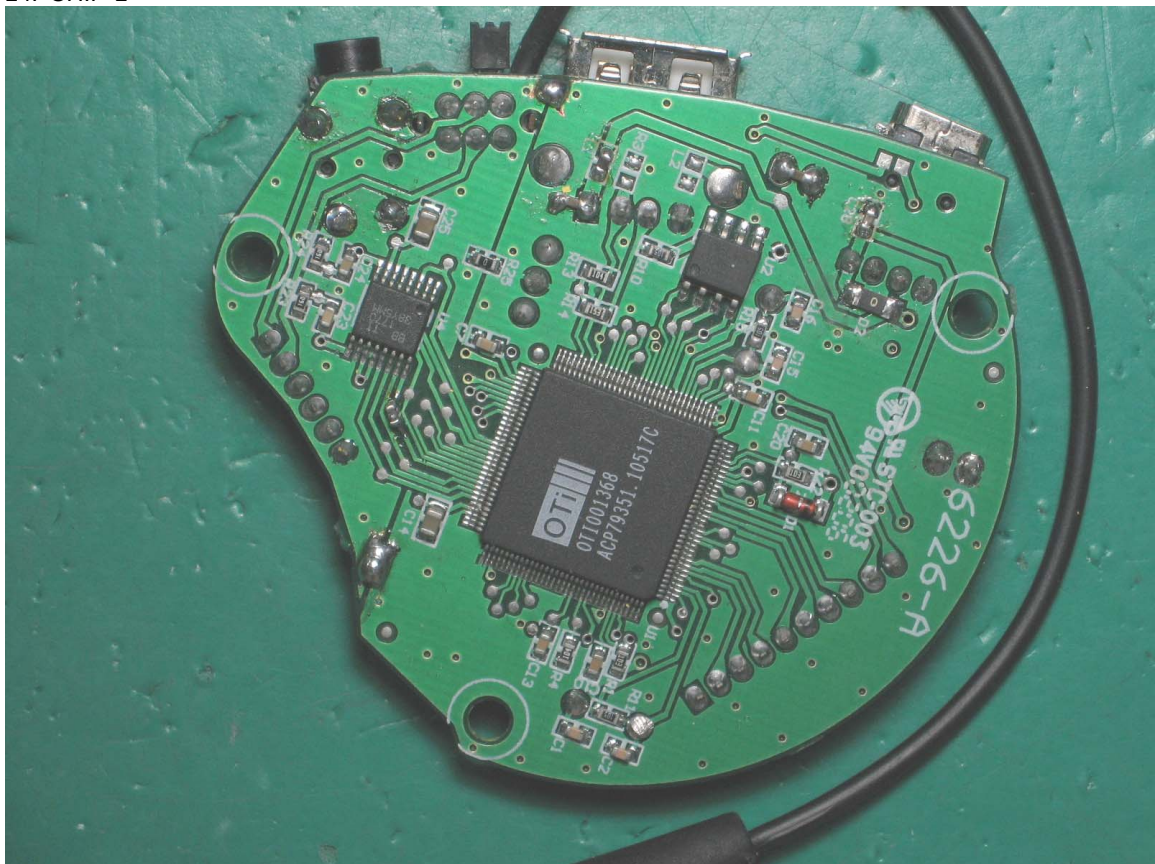


11.
12.



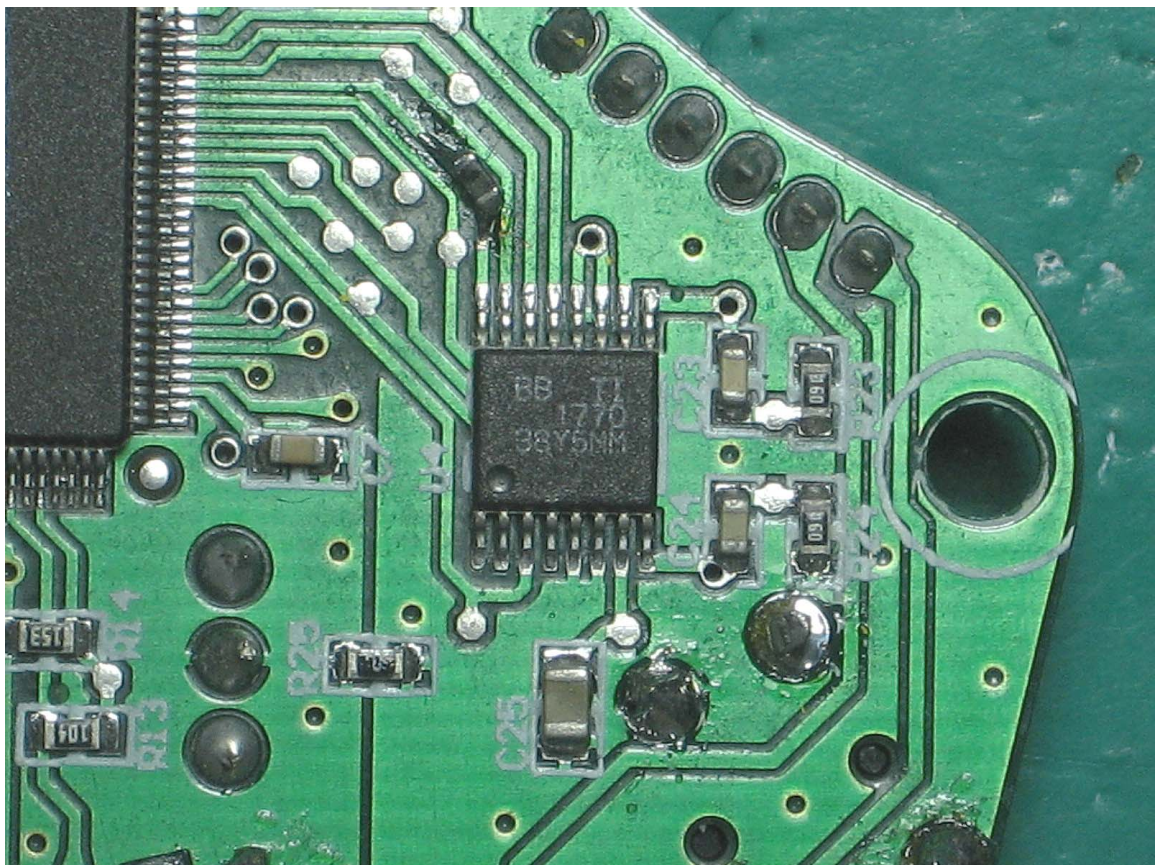
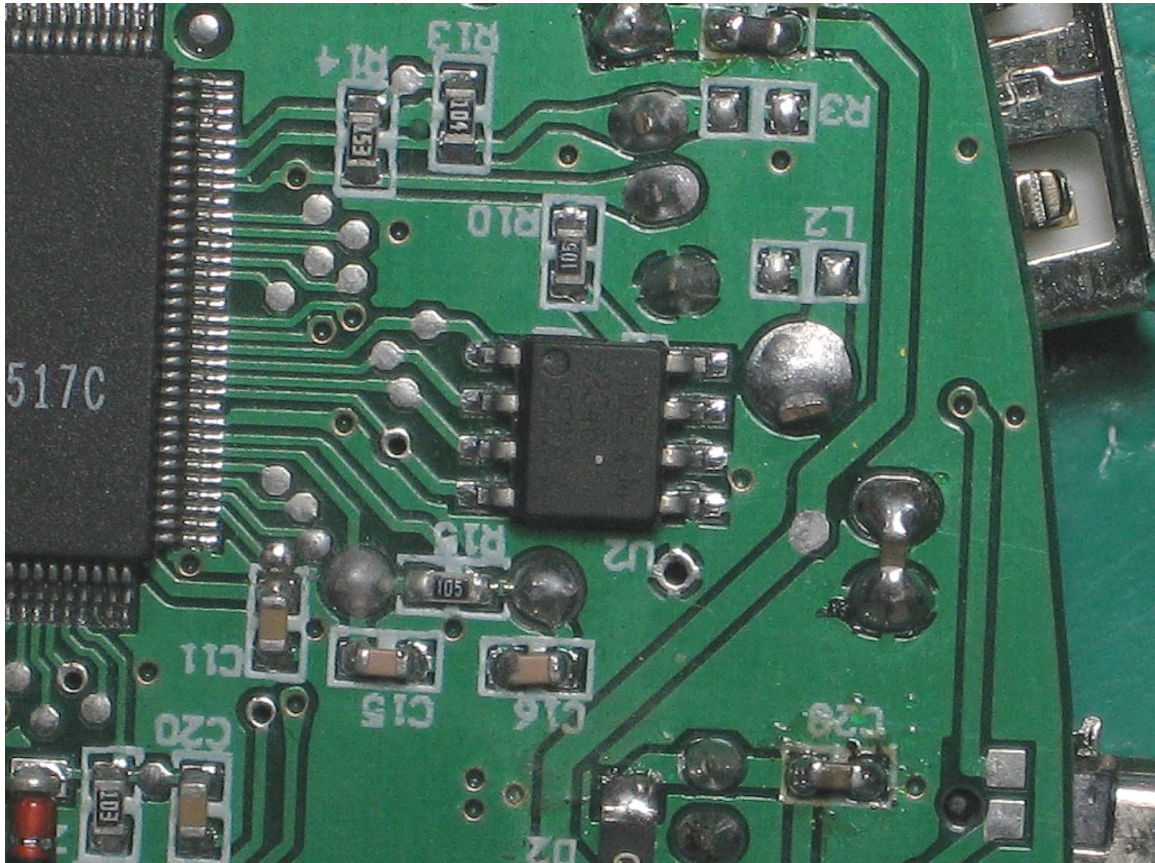
13.

14. CHIP-1



15. CHIP-2

16. CHIP-3



17. CHIP-4

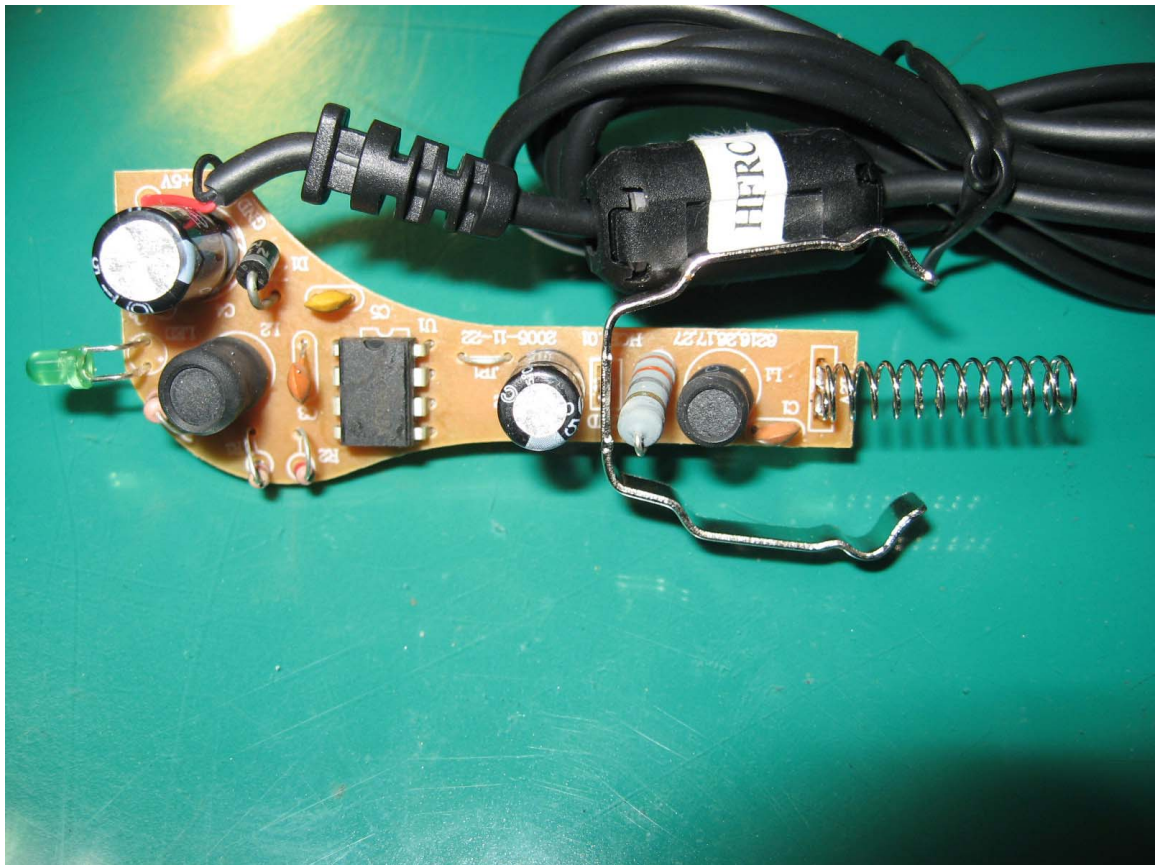
18. Adapter



19.
20.

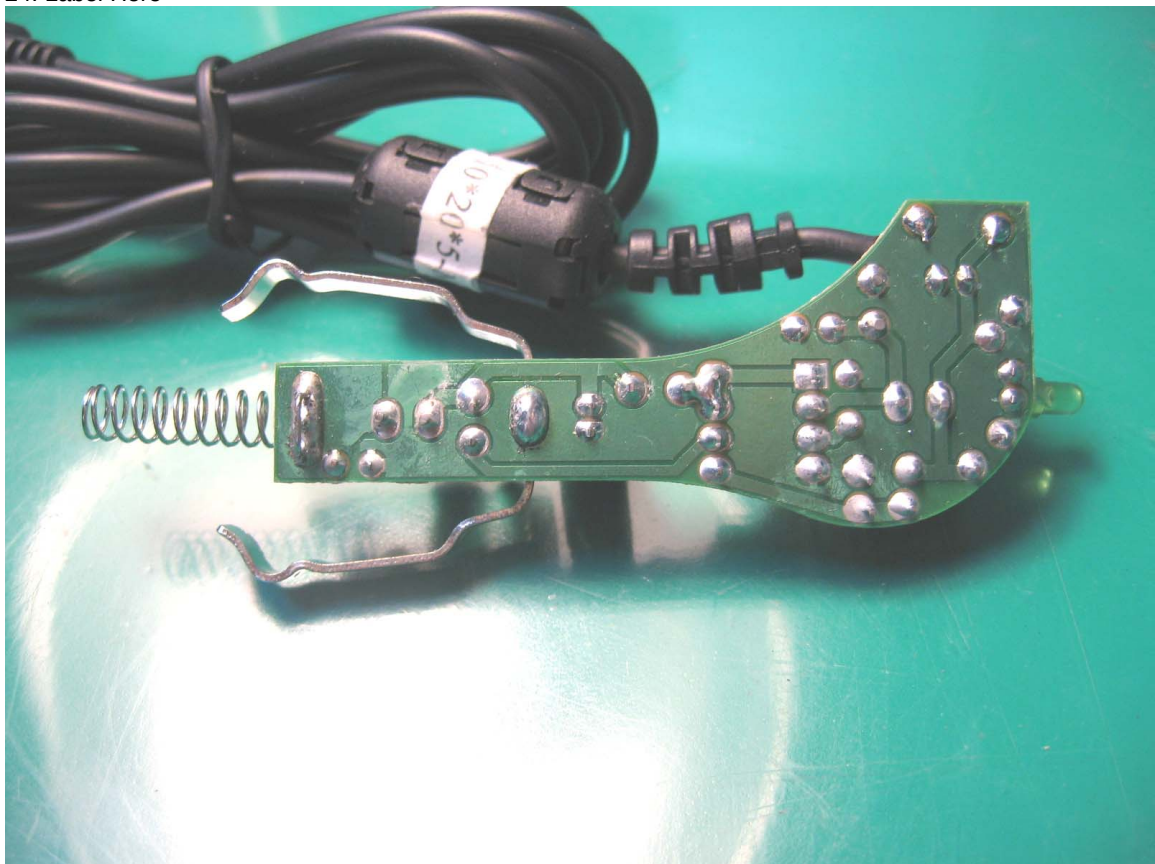


21.
22.



23.

24. Label Here



7. EMI REDUCTION METHOD DURING COMPLIANCE TESTING

No modification was made during testing.

Appendix A

Circuit (Block) Diagram

(Shall be added by Applicant)

Appendix B

User Manual

(Shall be added by Applicant)