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Report No.: GLEMO080702085RFT
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FCC ID: ONFT70TX-0XXTB

TEST REPORT

Application No. : GLEMO080702085RF
Applicant: Tele Radio AB
FCC ID: ONFT70TX-0XXTB
Fundamental Frequency : 433.075-434.650MHz
Equipment Under Test (EUT):
EUT Name: Transmitter T70TX
Model No.: T70TX-02TTB, T70TX-03STB, T70TX-06TTB♣
Serial No.: No supply by client
♣ Please refer to section 2 of this report which indicates which item was actually tested and which were electrically identical.
Standards: FCC PART 15, SUBPART C : 2008
Section 15.231
Date of Receipt: 16 July 2008
Date of Test: 16 July 2008 to 24 July 2008
Date of Issue: 28 July 2008

Test Result :	PASS *
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* In the configuration tested, the EUT detailed in this report complied with the standards specified above. Please refer to section 2 of this report for further details..

Authorized Signature:

Stephen Guo
Lab Manager

The manufacturer should ensure that all products in series production are in conformity with the product sample detailed in this report. If the product in this report is used in any configuration other than that detailed in the report, the manufacturer must ensure the new system complies with all relevant standards.

The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. All test results in this report can be traceable to National or International Standards.

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2 Test Summary

The customer requested FCC tests for a 433.90MHz transmitter.

Test	Test Requirement	Standard Paragraph	Result
Radiated Emission (30MHz to 1000MHz)	FCC PART 15 :2008	Section 15.231	PASS
Occupied Bandwidth	FCC PART 15 :2008	Section 15.231	PASS
Dwell Time	FCC PART 15 :2008	Section 15.231	PASS

Remark:

♣Item No.: T70TX-02TTB, T70TX-03STB, T70TX-06TTB ♣

Only the Item T70TX-02TTB was tested, since the electrical circuit design, PCB layout, components used and internal wiring were identical for the above items, only the outer decoration, color and item numbers were different according to the conformation from the applicant (manufacturer).



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4 General Information

4.1 Client Information

Applicant Name: Tele Radio AB
Applicant Address: Datavagen 21, SE-43632 Askim, Sweden.

4.2 Details of E.U.T.

Name: Transmitter T70TX
Model No.: T70TX-02TTB, T70TX-03STB, T70TX-06TTB
Function: 64 different frequencies, 433.075-434.650MHz, channel space is 25kHz
Power Supply: DC 4.5V (3 x 1.5V=4.5V size: 'AAA' battery)
Power Cord: N/A-

4.3 Description of Support Units

The EUT was tested as an independent unit.

4.4 Standards Applicable for Testing

The customer requested FCC tests for the EUT.
The standard used was FCC PART 15, SUBPART C: 2008, Section 15.231

4.5 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory, 198 Kezhu Road, Scientech Park, Guangzhou Economic & Technology Development District, Guangzhou, Guangdong, China 510663

Tel: +86 20 82155555 Fax: +86 20 82075059

No tests were sub-contracted.

4.6 Other Information Requested by the Customer

None.

4.7 Test Facility

The test facility is recognized, certified, or accredited by the following organizations:

- **NVLAP – Lab Code: 200611-0**

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory is recognized under the National Voluntary Laboratory Accreditation Program (NVLAP/NIST). NVLAP Code: 200611-0.

- **FCC – Registration No.: 282399**

SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been registered and fully described in a report filed with the (FCC) Federal Communications Commission. The acceptance letter from the FCC is maintained in our files. Registration 282399, May 31, 2002. With the above and NVLAP's accreditation, SGS-CSTC is an authorized test laboratory for the DoC process.

5 Equipments Used during Test

RE in Chamber						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0525	Compact Semi-Anechoic Chamber	ChangZhou ZhongYu	N/A	N/A	N/A	N/A
EMC0522	EMI Test Receiver	Rohde & Schwarz	ESIB26	100249	28-01-2008	28-01-2009
N/A	EMI Test Software	Audix	E3	N/A	N/A	N/A
EMC0514	Coaxial cable	SGS	N/A	N/A	04-12-2007	04-12-2008
EMC0524	Bi-log Type Antenna	Schaffner -Chase	CBL6112B	2966	12-08-2007	12-08-2008
EMC0519	Bilog Type Antenna	Schaffner -Chase	CBL6143	5070	12-08-2007	12-08-2008
EMC0517	Horn Antenna	Rohde & Schwarz	HF906	100095	12-08-2007	12-08-2008
EMC0040	Spectrum Analyzer	Rohde & Schwarz	FSP30	100324	05-12-2007	05-12-2008
EMC0520	0.1-1300 MHz Pre-Amplifier	HP	8447D OPT 010	2944A06252	11-03-2008	11-03-2009
EMC0521	1-26.5 GHz Pre-Amplifier	Agilent	8449B	3008A01649	11-03-2008	11-03-2009
EMC0075	310N Amplifier	Sonama	310N	272683	10-09-2007	10-09-2008
EMC0523	Active Loop Antenna	EMCO	6502	00042963	09-08-2006	09-08-2008
EMC0530	10m Semi- Anechoic Chamber	ETS	N/A	N/A	10-08-2007	10-08-2008

General used equipment						
No:	Test Equipment	Manufacturer	Model No.	Serial No.	Cal. Date (dd-mm-yy)	Cal.Due date (dd-mm-yy)
EMC0006	DMM	Fluke	73	70681569	27-09-2007	27-09-2008
EMC0007	DMM	Fluke	73	70671122	27-09-2007	27-09-2008

6 Test Results

6.1 E.U.T. test conditions

Power supply: DC 4.5V (new battery)

Requirements: **15.31(e)** :For intentional radiators, measurements of the variation of the input power or the radiated signal level of the fundamental frequency component of the emission, as appropriate, shall be performed with the supply voltage varied between 85% and 115% of the nominal rated supply voltage. For battery operated equipment, the equipment tests shall be performed using a new battery.

Type of antenna: Integral

Operating Environment:

Temperature: 22-25.0 °C

Humidity: 48-55% RH

Atmospheric Pressure: 1001-1010 mbar

Test frequencies: According to the 15.31(m) Measurements on intentional radiators or receivers, other than TV broadcast receivers, shall be performed and, if required, reported for each band in which the device can be operated with the device operating at the number of frequencies in each band specified in the following table:

Frequency range over which device operates	Number of frequencies	Location in the range of operation
1 MHz or less	1	Middle
1 to 10 MHz	2	1 near top and 1 near bottom
More than 10 MHz	3	1 near top, 1 near middle and 1 near bottom



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EUT channels and frequencies list:

The transmitter has two switches on the PCB. The switches indicate what frequency band that shall be used. The following table shows the frequency band of the transmitter.

Channel No.	Freq. Band 1 (MHz)	Freq. Band 2 (MHz)	Freq. Band 3 (MHz)	Freq. Band 4 (MHz)
1	433.075	433.100	433.125	433.150
2	433.175	433.200	433.225	433.250
3	433.275	433.300	433.325	433.350
4	433.375	433.400	433.425	433.450
5	433.475	433.500	433.525	433.550
6	433.575	433.600	433.625	433.650
7	433.675	433.700	433.725	433.750
8	433.775	433.800	433.825	433.850
9	433.875	433.900	433.925	433.950
10	433.975	434.000	434.025	434.050
11	434.075	434.100	434.125	434.150
12	434.175	434.200	434.225	434.250
13	434.275	434.300	434.325	434.350
14	434.375	434.400	434.425	434.450
15	434.475	434.500	434.525	434.550
16	434.575	434.600	434.625	434.650

Since the carriers of the EUT are 433.075~434.650MHz and the alignment range of the transmitter is 1 to 10 MHz. So full test is carried out on the lowest channel: 0 channel(433.075MHz), and highest channel: 63 channel (434.650MHz).

The EUT could not produce an unmodulated carrier. Its channel spacing is 25 kHz.

6.2 Radiated Emissions

Test Requirement: FCC Part15 C Section 15.231(b)
Test Method: ANSI C63.4 section 8 & 13
Test Date: July 23, 2008
Measurement Distance: 3m (Semi-Anechoic Chamber)
Test Status: Test in fixing operating frequency at lowest, highest channel.
Requirements: the field strength of emissions from intentional radiators operated under this Section shall not exceed the following:

Fundamental Frequency MHz	Field Strength of Fundamental (dBµV/m @ 3m)	Field Strength of Harmonics and Spurious Emissions (dBµV/m @ 3m)
40.66 to 40.70	67.04	47.04
70 to 130	61.94	41.94
130 to 174	61.94 to 71.48	41.94 to 51.48
174 to 260	71.48	51.48
260 to 470	71.48 to 81.94	51.48 to 61.94
Above 470	81.94	61.94

Detector: Peak for pre-scan
 Peak and Average:
 30-1000MHz:120kHz resolution bandwidth
 1GHz-5GHz: 1MHz resolution bandwidth

** linear interpolations

[Where F is the frequency in MHz, the formulas for calculating the maximum permitted fundamental field strengths are as follows: for the band 130-174 MHz, uV/m at 3 meters = 56.81818(F) - 6136.3636; for the band 260-470 MHz, uV/m at 3 meters = 41.6667(F) - 7083.3333. The maximum permitted unwanted emission level is 20 dB below the maximum permitted fundamental level.]

The fundamental frequency of the EUT is 433.075-434.650MHz

The limit for average field strength dBuV/m for the fundamental emission= 80.8 dBµV/m

No fundamental is allowed in the restricted bands.

The limit for average field strength dBuV/m for the spurious emission=60.8 dBuV/m.Spurious in the restricted bands must be less than 60.8 dBuV/m or 15.209



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And according 15.35(a)

15.35(a) On any frequency or frequencies below or equal to 1000 MHz, the limits shown are based on measuring equipment employing a CISPR quasi-peak detector function and related measurement bandwidths, unless otherwise specified. The specifications for the measuring instrument using the CISPR quasi-peak detector can be found in Publication 16 of the International Special Committee on Radio Interference (CISPR) of the International Electrotechnical Commission. As an alternative to CISPR quasi-peak measurements, the responsible party, at its option, may demonstrate compliance with the emission limits using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, as long as the same bandwidths as indicated for CISPR quasi-peak measurements are employed.

Note: For pulse modulated devices with a pulse-repetition frequency of 20 Hz or less and for which CISPR quasi-peak measurements are specified, compliance with the regulations shall be demonstrated using measuring equipment employing a peak detector function, properly adjusted for such factors as pulse desensitization, using the same measurement bandwidths that are indicated for CISPR quasi-peak measurements.

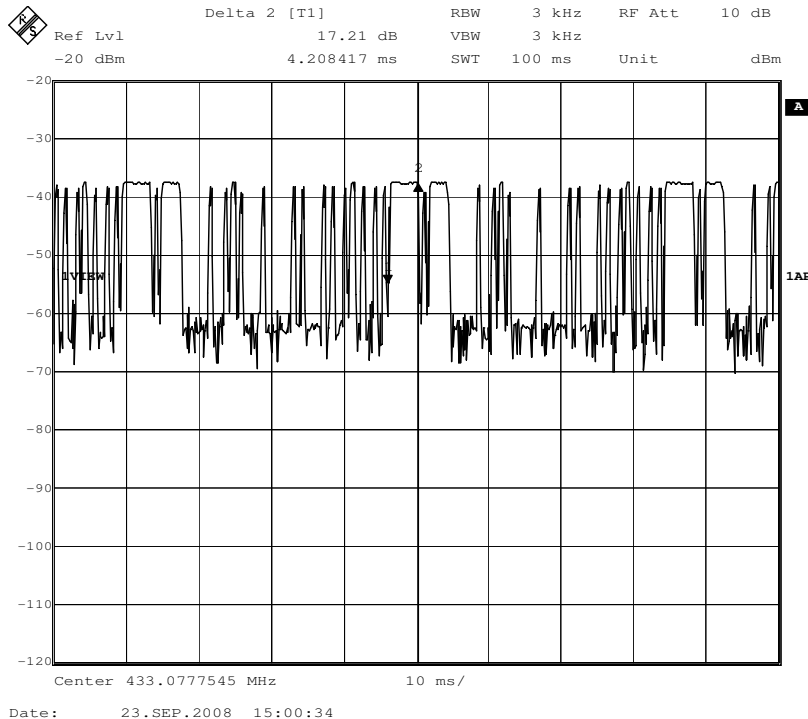
According to 15.35 (b) Unless otherwise specified, on any frequency or frequencies above 1000 MHz, the radiated emission limits are based on the use of measurement instrumentation employing an average detector function. Unless otherwise specified, measurements above 1000 MHz shall be performed using a minimum resolution bandwidth of 1 MHz. When average radiated emission measurements are specified in this part, including average emission measurements below 1000 MHz, there also is a limit on the peak level of the radio frequency emissions. Unless otherwise specified, *e.g.*, see §§ 15.250, 15.252, 15.255, and 15.509-15.519 of this part, the limit on peak radio frequency emissions is 20 dB above the maximum permitted average emission limit applicable to the equipment under test. This peak limit applies to the total peak emission level radiated by the device, *e.g.*, the total peak power level. Note that the use of a pulse desensitization correction factor may be needed to determine the total peak emission level. The instruction manual or application note for the measurement instrument should be consulted for determining pulse desensitization factors, as necessary.

The average correction factor is computed by analyzing the "worst case" on time in any 100 msec time period . Analysis of the remote transmitter worst case on time in any 100 msec time period is an on time of 100 msec, therefore the average value of fundamental frequency is: Average = Peak value + 20log (Duty cycle), where the duty factor is calculated from following formula:

$$20\log (\text{Duty cycle}) = 20\log (T_{pulse}/100\text{ms}) = 20\log (61.63/100) = -4.2\text{dB}$$

$$\text{Where } T_{pulse} = 4.21 \times 3 + 3.0 \times 3 + 1.0 \times 40 = 61.63$$

Please refer to below pictures for more details.



Test Procedure:

1)9K to 30MHz emissions:

For testing performed with the loop antenna, testing was performed in accordance to ANSI C63.4 section 8.2.1. The center of the loop was positioned 1 m above the ground and positioned with its plane vertical at the specied distance from the EUT.During testing the loop was rotated about its vertical axis for maximum response at each azimuth and also investigated with the loop positioned in the horizontal plane.

2)30MHz to 1GHz emissions:

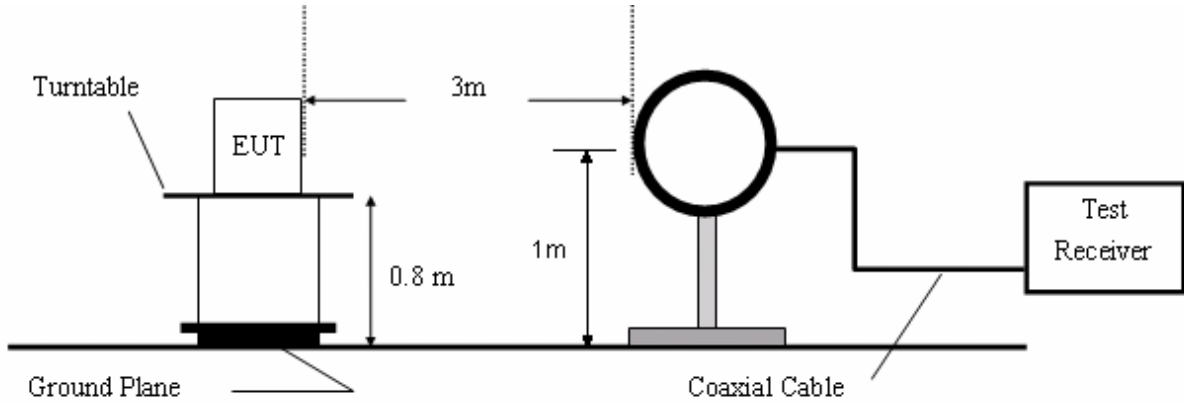
For testing perfoemed with the bi-log type antenna, testing was performed in accordance to ANSI 63.4. The measurement is performed with the EUT rotated 360°, the antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

3)1GHz to 40GHz emissions:

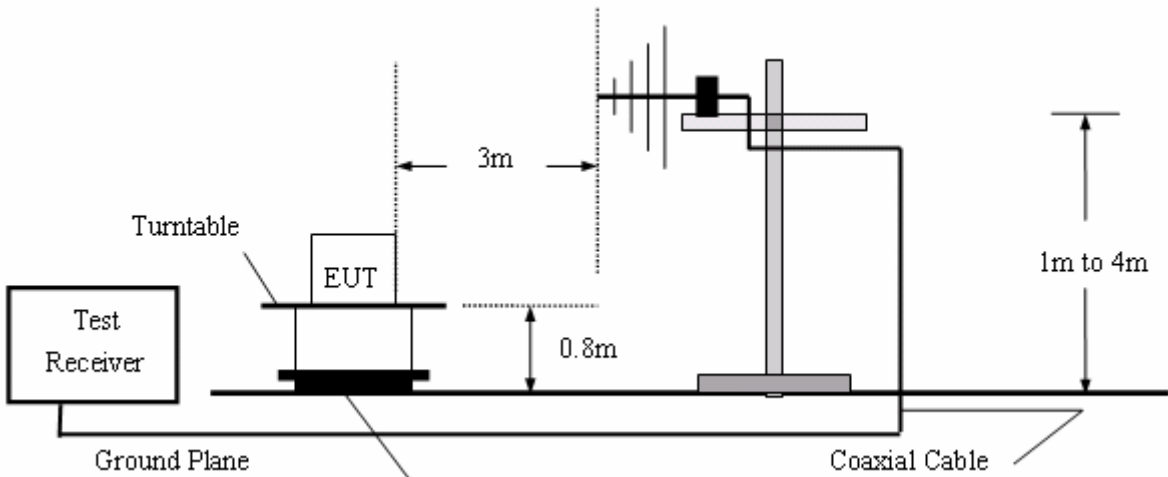
For testing perfoemed with the horn antenna, testing was performed in accordance to ANSI 63.4. The measurement is performed with the EUT rotated 360°, the antenna height scanned between 1m and 4m, and the antenna rotated to repeat the measurement for both the horizontal and vertical antenna polarizations.

Test Configuration:

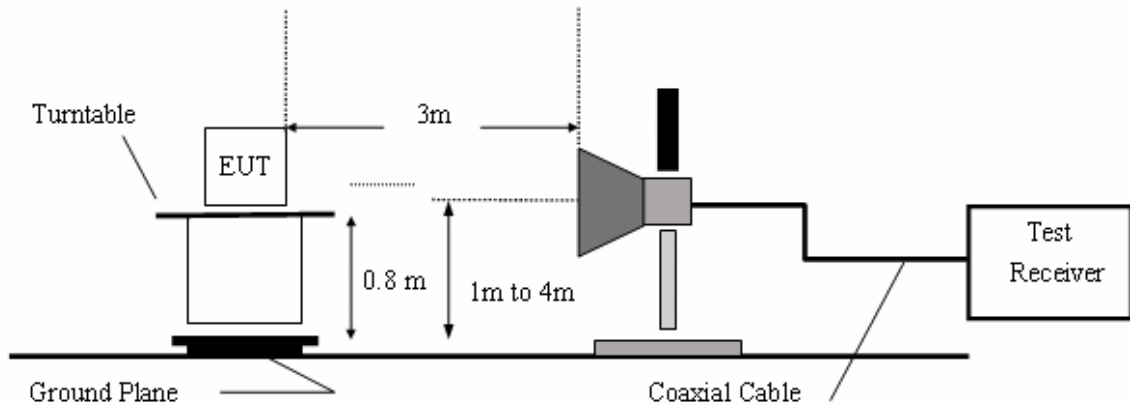
1) 9K to 30MHz emissions:



2) 30MHz to 1GHz emissions:



3) 1GHz to 40GHz emissions:



1) Fundamental emission:

Antenna polarization: Horizontal:

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark
433.075	84.96	16.45	2.54	25.33	78.62	100.8	-22.18	PEAK
433.075	80.76	16.45	2.54	25.33	74.42	80.8	-6.38	AVERAG
434.650	89.89	16.45	2.55	25.33	83.56	100.8	-17.24	PEAK
434.650	84.69	16.45	2.55	25.33	78.36	80.8	-2.44	AVERAG

.Antenna polarization: Vertical

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamplifier Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark
433.075	79.04	16.42	2.54	25.33	72.67	100.8	-28.13	PEAK
433.075	74.84	16.42	2.54	25.33	68.47	80.8	-12.33	AVERAG
434.650	77.70	16.42	2.55	25.33	71.34	100.8	-29.46	PEAK
434.650	72.30	16.42	2.55	25.33	65.94	80.8	-14.86	AVERAG

Y: rotate EUT by 90° vertically.

X: rotate EUT by 90° clockwise.

Z: EUT as Radiated Emission test setup photograph in section 6 of this report.

Remark: Radiated Emission test setup photograph in section 6 of this report is the worst case and reported.

2) other emissions

Test Procedure: The procedure used was ANSI Standard C63.4-2003. The receive was scanned from 30MHz to 5000MHz. When an emission was found, the table was rotated to produce the maximum signal strength. An initial pre-scan was performed for in peak detection mode using the receiver. The EUT was measured for both the Horizontal and Vertical polarities and performed a pre-test three orthogonal planes. The worst case emissions were reported.

An initial pre-scan was performed in the 3m chamber using the spectrum analyzer in peak detection mode. Quasi-peak measurements were conducted based on the peak sweep graph. The EUT was measured by Bilog antenna with 2 orthogonal polarities

The field strength is calculated by adding the Antenna Factor, Cable Factor & Preamplifier. The basic equation with a sample calculation is as follows:

Final Test Level = Receiver Reading + Antenna Factor + Cable Factor – Preamplifier Factor.

The following test results were performed on the EUT.



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Test the EUT in transmitting mode.

Lowest channel:

Horizontal.

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark
30.000	28.28	24.20	0.60	25.50	24.08	40.00	-15.92	QP
126.030	20.13	14.23	1.30	25.10	13.66	43.50	-29.84	QP
232.730	26.59	14.26	1.80	24.47	13.64	46.00	-32.36	QP
326.820	30.48	17.38	2.20	24.58	17.05	46.00	-28.95	QP
664.380	29.06	19.79	3.20	25.73	21.06	46.00	-24.94	QP
867.740	41.62	20.45	3.80	25.18	40.69	60.8	-20.11	Peak
867.740	37.42	20.45	3.80	25.18	36.49	40.8	-4.31	Average
1299	55.93	24.79	3.31	35.56	48.47	74	-25.53	Peak
1299	33.26	24.79	3.31	35.56	25.8	74	-48.2	Average
2165	50.39	27.96	4.32	34.9	47.77	74	-26.23	Peak
2165	29.26	27.96	4.32	34.9	26.64	74	-47.36	Average
3031	49.65	30.24	5.18	34.38	50.69	74	-23.31	Peak
3031	30.56	30.24	5.18	34.38	31.6	74	-42.4	Average
4460	46.54	32.82	6.13	33.22	52.27	74	-21.73	Peak
4460	31.58	32.82	6.13	33.22	37.31	74	-36.69	Average

Vertical.

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark
30.000	28.75	24.40	0.60	25.50	25.25	40.00	-14.75	QP
132.820	27.00	13.37	1.30	25.10	10.57	43.50	-32.93	QP
285.110	27.46	13.94	2.05	24.40	12.05	46.00	-33.95	QP
403.450	33.32	16.86	2.50	25.03	15.65	46.00	-30.35	QP
650.800	27.86	19.53	3.20	25.75	18.84	46.00	-27.16	QP
867.810	35.68	20.95	3.80	25.18	35.26	60.80	-25.54	Peak
867.810	31.49	20.95	3.80	25.18	31.06	40.80	-9.74	Average
1299	55.01	24.79	3.31	35.56	47.55	74	-26.45	Peak
1299	34.16	24.79	3.31	35.56	26.7	74	-47.3	Average
1732	33.16	26.44	3.83	35.22	28.21	74	-45.79	Average
1732	51.11	26.44	3.83	35.22	46.16	74	-27.84	Peak
3031	52.88	30.24	5.18	34.38	53.92	74	-20.08	Peak
3031	32.24	30.24	5.18	34.38	33.28	74	-40.72	Average
4392	45.84	32.75	6.1	33.26	51.43	74	-22.57	Peak
4392	31.16	32.75	6.1	33.26	36.75	74	-37.25	Average



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Highest channel:

Horizontal.

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark
30.000	28.35	24.20	0.60	25.50	25.65	40.00	-14.35	QP
125.893	27.81	14.25	1.30	25.10	17.26	43.50	-26.24	QP
232.730	27.07	14.26	1.80	24.47	16.66	46.00	-29.34	QP
326.820	30.48	17.38	2.20	24.58	23.48	46.00	-22.52	QP
665.160	29.17	19.79	3.20	25.73	25.43	46.00	-20.57	QP
869.300	42.06	20.45	3.80	25.18	41.13	60.8	-19.67	Peak
869.300	36.66	20.45	3.80	25.18	36.96	40.8	-3.87	Average
1296	54.93	24.72	3.29	35.57	47.37	74	-26.63	Peak
1296	31.26	24.72	3.29	35.57	23.7	74	-50.3	Average
2160	50.39	27.91	4.3	34.91	47.69	74	-26.31	Peak
2160	30.46	27.91	4.3	34.91	27.76	74	-46.24	Average
3024	49.65	30.24	5.18	34.38	50.69	74	-23.31	Peak
3024	33.15	30.24	5.18	34.38	34.19	74	-39.81	Average
3940	46.05	32.19	5.78	33.55	50.47	74	-23.53	Peak
3940	29.22	32.19	5.78	33.55	33.64	74	-40.36	Average

Vertical.

Frequency (MHz)	Read Level (dBuV)	Antenna Factor (dB/m)	Cable Loss (dB)	Preamp Factor (dB)	Level (dBuV/m)	Limit Line (dBuV/m)	Over Limit (dB)	Remark
30.000	28.75	24.40	0.60	25.50	26.24	40.00	-13.76	QP
133.431	27.26	13.35	1.30	25.10	17.80	43.50	-25.70	QP
286.792	27.91	13.98	2.07	24.40	17.76	46.00	-28.24	QP
403.870	28.53	16.86	2.50	25.03	21.86	46.00	-24.14	QP
350.130	27.86	19.54	3.20	25.75	23.26	46.00	-22.74	QP
869.300	36.67	20.95	3.80	25.18	36.24	60.8	-24.56	Peak
869.300	31.27	20.95	3.80	25.18	32.04	40.8	-8.76	Average
1296	55.01	24.72	3.29	35.57	47.45	74	-26.55	Peak
1296	32.66	24.72	3.29	35.57	25.1	74	-48.9	Average
2160	50.65	27.91	4.3	34.91	47.95	74	-26.05	Peak
2160	33.45	27.91	4.3	34.91	30.75	74	-43.25	Average
3024	51.48	30.24	5.18	34.38	52.52	74	-21.48	Peak
3024	31.46	30.24	5.18	34.38	32.5	74	-41.5	Average
3912	46.88	32.12	5.69	33.58	51.11	74	-22.89	Peak
3912	30.22	32.12	5.69	33.58	34.45	74	-39.55	Average



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Remark:

According to 15.35 (b) When average radiated emission measurements are specified in the regulations, including emission measurements below 1000 MHz, there is also a limit on the radio frequency emissions, as measured using instrumentation with a peak detector function, corresponding to 20 dB above the maximum permitted average limit for the frequency being investigated unless a different peak emission limit is otherwise specified in the rules, e.g., see Section 15.255.

Test Results: The unit does meet the FCC Part 15 C Section 15.231 requirements.

6.3 Occupied Bandwidth

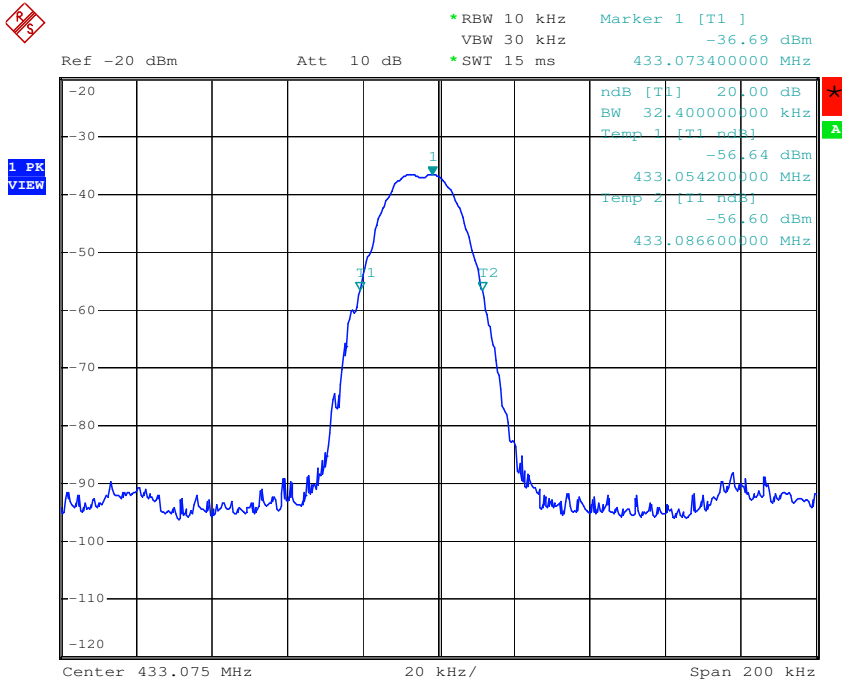
Test Requirement: FCC Part 15 C Section 15.231 (C)
 Test Method: ANSI C63.4 section 13 & FCC Part 2.1049
 Test Date: July 22, 2008
 Test Status: Test in fixing operating frequency at lowest, highest channel.
 Requirements: 15.231 (c) The bandwidth of the emission shall be no wider than 0.25% of the center frequency for devices operating above 70 MHz and below 900 MHz. For devices operating above 900 MHz, the emission shall be no wider than 0.5% of the center frequency. Bandwidth is determined at the points 20 dB down from the modulated carrier.
 Method of measurement: The useful radiated emission from the EUT was detected by the spectrum analyser with peak detector. The vertical Scale is set to 10dB per division. The horizontal scale is set to 50KHz per division. Record the 20 dB bandwidth of the carrier.

Test result:

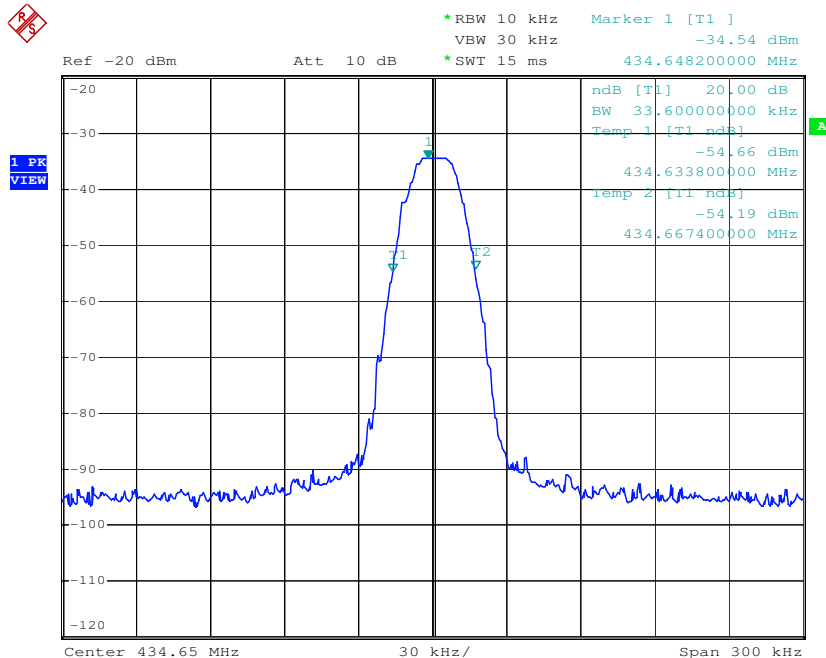
Test Channel	bandwidth	Limit
Lowest	32.4kHz	1.08MHz
Highest	33.6kHz	1.09MHz



Lowest Channel:



Highest Channel:



The results: The unit does meet the FCC Part 15 C Section 15.231 requirements.



6.4 Dwell Time:

Test Requirement: FCC Part 15 C Section 15.231(a)
Test Method: FCC Part15 C Section 15.231(a)
Test Date: 22 July 2008
Test Status: Test in fixing operating frequency at lowest, highest channel.

Requirements:

1. Regulation 15.231 (a) The provisions of this Section are restricted to periodic operation within the band 40.66 40.70 MHz and above 70 MHz. Except as shown in paragraph (e) of this Section, the intentional radiator is restricted to the transmission of a control signal such as those used with alarm systems, door openers, remote switches, etc. Radio control of toys is not permitted. Continuous transmissions, such as voice or video, and data transmissions are not permitted. The prohibition against data transmissions does not preclude the use of recognition codes. Those codes are used to identify the sensor that is activated or to identify the particular component as being part of the system.

Result:

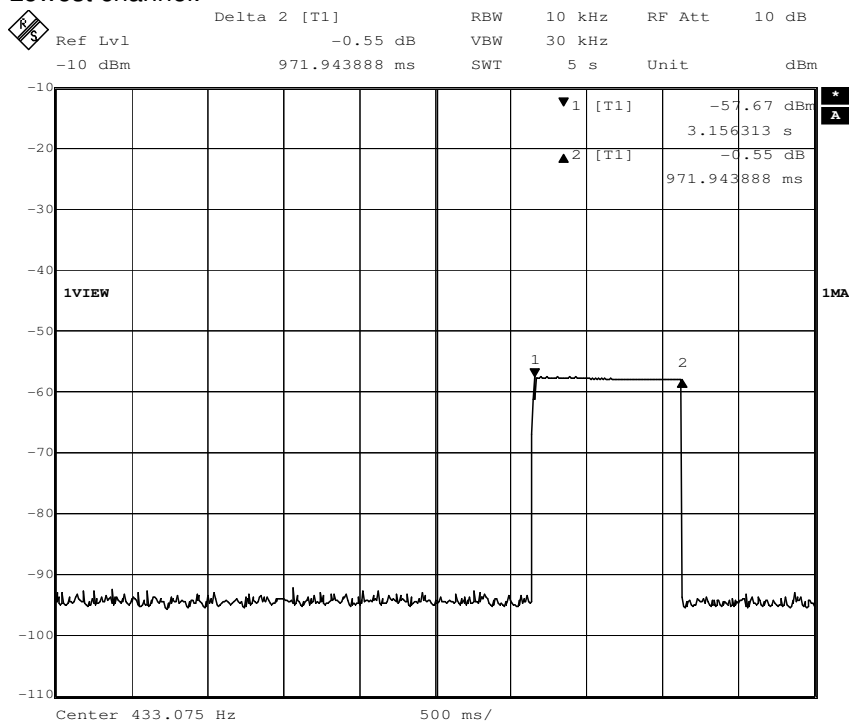
The EUT is a remote switch without audio or video transmitted.

The EUT meets the requirements of this section.

2. Regulation 15.231 (a1) A manually operated transmitter shall employ a switch that will automatically deactivate the transmitter within not more than 5 seconds of being released.

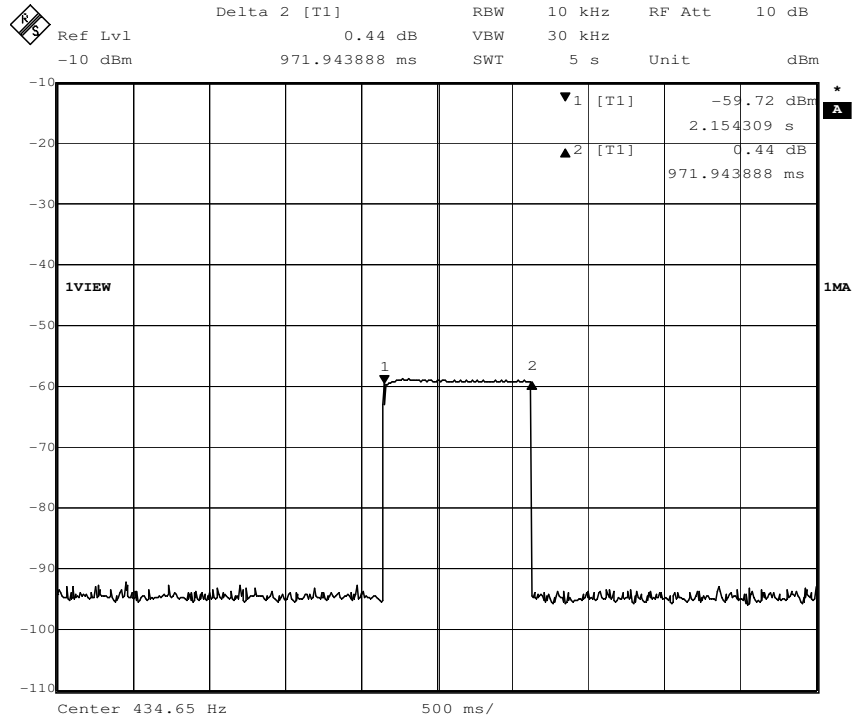
Result:

Lowest channel:





Highest channel:



The EUT meets the requirements of this section.

3. Regulation 15.231 (a2) A transmitter activated automatically shall cease transmission within 5 seconds after activation.

Result:

The EUT does not have automatic transmission.

4. Regulation 15.231 (a3) Periodic transmissions at regular predetermined intervals are not permitted. However, polling or supervision transmissions to determine system integrity of transmitters used in security or safety applications are allowed if the periodic rate of transmission does not exceed one transmission of not more than one second duration per hour for each transmitter.

Result:

The EUT does not employ periodic transmission.

5. Regulation 15.231 (a4) Intentional radiators which are employed for radio control purposes during emergencies involving fire, security, and safety of life, when activated to signal an alarm, may operate during the pendency of the alarm condition.

Result:

This section is not applicable to the EUT.

The results: The unit does meet the FCC Part 15 C Section 15.231 requirements.

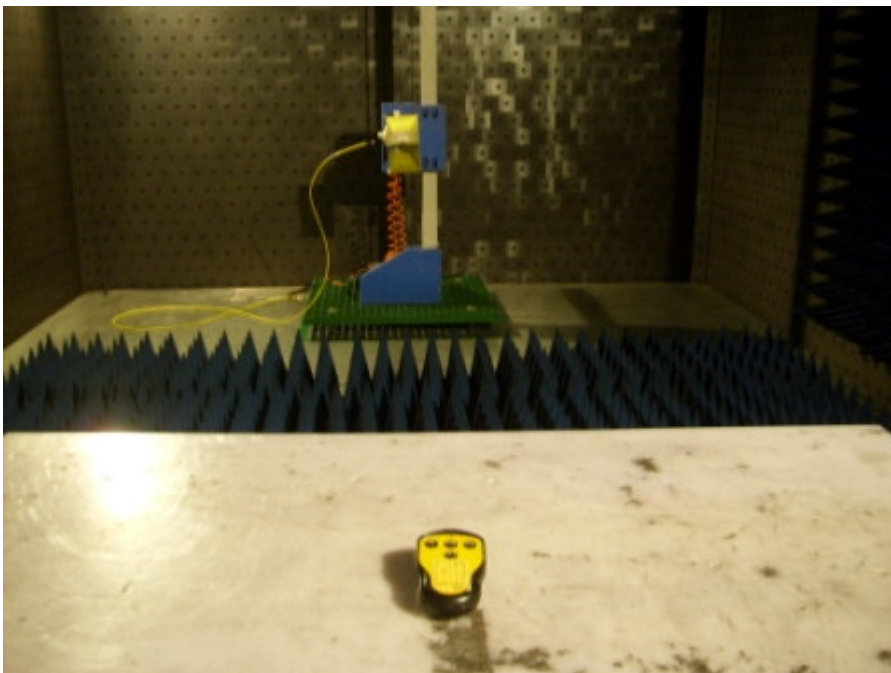
7 Photographs - Radiated Emission Test Setup

Radiated Emission & Fundamental emission:

Below 1GHz:



Above 1GHz:



-----End of the report-----



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