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FEDERAL COMMUNICATIONS COMMISSION
Registration number: 282399

TEST REPORT

Application No. : SZEMO071002886RF

Applicant : E-DIGIT TECHNOLOGY LIMITED

FCC ID : VQ4TX001TX002

Fundamental Frequency : 433MHz

Equipment under Test (EUT):

Name : Weather station clock

Model : TX-001, TX-002

Standards : FCC PART 15, SUBPART C : 2006 (Section 15.231)

Date of Receipt : 19 October 2007

Date of Test : 23 October 2007

Date of Issue : 25 October 2007

Test Result :	**PASS ***

* In the configuration tested, the EUT complied with the standards specified above.

Authorized Signature:

Robinson Lo
Laboratory Manager

2 Test Summary

Test	Test Requirement	Stanadard Paragraph	Result
Radiated Emission (30MHz to 1000MHz)	FCC PART 15 : 2006	Section 15.231	PASS
Occupied Bandwidth	FCC PART 15 : 2006	Section 15.231	PASS
Dwell Time	FCC PART 15 : 2006	Section 15.231	PASS

3 Contents

4 General Information

4.1 Client Information

Applicant:	E-DIGIT TECHNOLOGY LIMITED
Address of Applicant:	Flat F, 11/F, Block 3, Camelpaint Building, 60 Hoi Yuen Road, Kwun Tong, Kowloon, Hong Kong.

4.2 Details of E.U.T.

Product Name:	Weather station clock
Model:	TX-001, TX-002
Power Supply:	3.0V DC (2 * 1.5V 'AAA' Size Batteries) for Tx
	3.0V DC (2 * 1.5V 'AA' Size Batteries) for Rx.

4.3 Description of Support Units

The EUT was tested as an independent unit: a 433MHz radio transmitter.

4.4 Test Location

All tests were performed at:

SGS-CSTC Standards Technical Services Co., Ltd., Guangzhou EMC Laboratory, No.198 Kezhu Road, Science Town Economic& Technology Development District Guangzhou, China 510663

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

No tests were sub-contracted.

4.5 Other Information Requested by the Customer

None.

4.6 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.
- **ACA**
  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory can also perform testing for the Australian C-Tick mark as a result of our NVLAP accreditation.
- **VCCI**
  The 3m Semi-anechoic chamber and Shielded Room (7.5m x 4.0m x 3.0m) of SGS-CSTC Standards Technical Services Co., Ltd. have been registered in accordance with the Regulations for Voluntary Control Measures with Registration No.: R-2197 and C-2383 respectively.
  Date of Registration: September 29, 2005. Valid until September 28, 2008.
- **SGS UK(Certificate No.: 32), SGS-TUV SAARLAND and SGS-FIMKO**
  Have approved SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory as a supplier of EMC TESTING SERVICES and SAFETY TESTING SERVICES.
- **CNAS L0167**
  SGS-CSTC Standards Technical Services Co., Ltd., EMC Laboratory has been assessed and in compliance with CNAS-CL01:2006 accreditation criteria for testing laboratories (identical to ISO/IEC 17025:2005 General Requirements) for the Competence of Testing Laboratories.
- **FCC – Registration No.: 556682**
  SGS-CSTC Standards Technical Services Co., Ltd., Shenzhen 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 556682, Aug. 04, 2005
- **Industry Canada (IC)**
  The 3m Semi-anechoic chamber of SGS-CSTC Standards Technical Services Co., Ltd. has been registered by Certification and Engineering Bureau of Industry Canada for radio equipment testing with Registration No.: 6002.

5 Test Results

5.1 Test Instruments

R&TTE RE in Chamber						
Item	**Test Equipment**	**Manufacturer**	**Model No.**	**Inventory No.**	**Cal.Date (dd-mm-yy)**	**Cal.Due date (dd-mm-yy)**
1	3m Semi-Anechoic Chamber	ETS-LINDGREN	N/A	SEL0017	16-06-2007	15-06-2009
2	EMI Test Receiver	Rohde & Schwarz	ESIB26	SEL0023	14-12-2006	13-12-2007
3	EMI Test software	AUDIX	E3	SEL0050	N/A	N/A
4	Coaxial cable	SGS	N/A	SEL0028	01-06-2007	31-05-2008
5	Coaxial cable	SGS	N/A	SEL0027	20-10-2007	19-10-2008
6	BiConiLog Antenna (26-3000MHz)	ETS-LINDGREN	3142C	SEL0015	03-04-2007	02-04-2008
7	EMI Test Receiver	Rohde & Schwarz	ESCI	SEL0022	27-06-2007	26-06-2008
8	Active Loop Antenna	Beijing Daze	ZN30900A	SEL0097	15-06-2007	14-06-2008

5.2 E.U.T. Operation

Operating Environment:

Temperature: 24.0 °C

Humidity: 50 % RH

Atmospheric Pressure: 1010 mbar

EUT Operation:

Pre-test in transmitting mode in Channel 1, Channel 2, Channel 3. Compliance test in Channel 3 since all the three channels are almost same and no worst case been found.

5.3 Test Procedure & Measurement Data

5.3.1 Radiated Emissions

Test Requirement: FCC Part15 C

Test Method: ANSI C63.4 section 8 & 13

Test Date: 23 October 2007

Measurement Distance: 3m (Semi-Anechoic Chamber and OATS)

Frequency range 30 MHz – 5.0GHz for transmitting mode.
Test instrumentation resolution bandwidth 120 kHz (30 MHz - 1000 MHz)

1 MHz (1000 MHz – 25GHz)

Receive antenna scan height 1 m - 4 m, polarization Vertical/Horizontal

Requirements:

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
470 and above	81.94	61.94

The fundamental frequency of the EUT is 433.9MHz

The limit for average field strength dBuv/m for the fundamental frequency= 80.8dBuv/m.

No fundamental is allowed in the restricted bands.

The limit for average field strength dBuv/m for the harmonics and spurious

frequencies = 60.8dBuv/m. Spurious in the restricted bands must be less than 54.0 dBuv/m or 15.209.

Test Procedure: The procedure uesd was ANSI Standard C63.4-2003. The receive was scanned from 30MHz to 5.0GHz.When an emission was found,the table was roated 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 field strength is calculated by adding the Antenna Factor, Cable Factor & Peramplifier . The basic equation with a sample calculation is as follows:

Final Test Level =Receiver Reading + Antenna Factor + Cable Factor – Peramlifer Factor

An initial pre-scan was performed in the 3m chamber using the spectrum analyser 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 following test results were performed on the EUT on 23 October 2007:
1. Fundamental emission

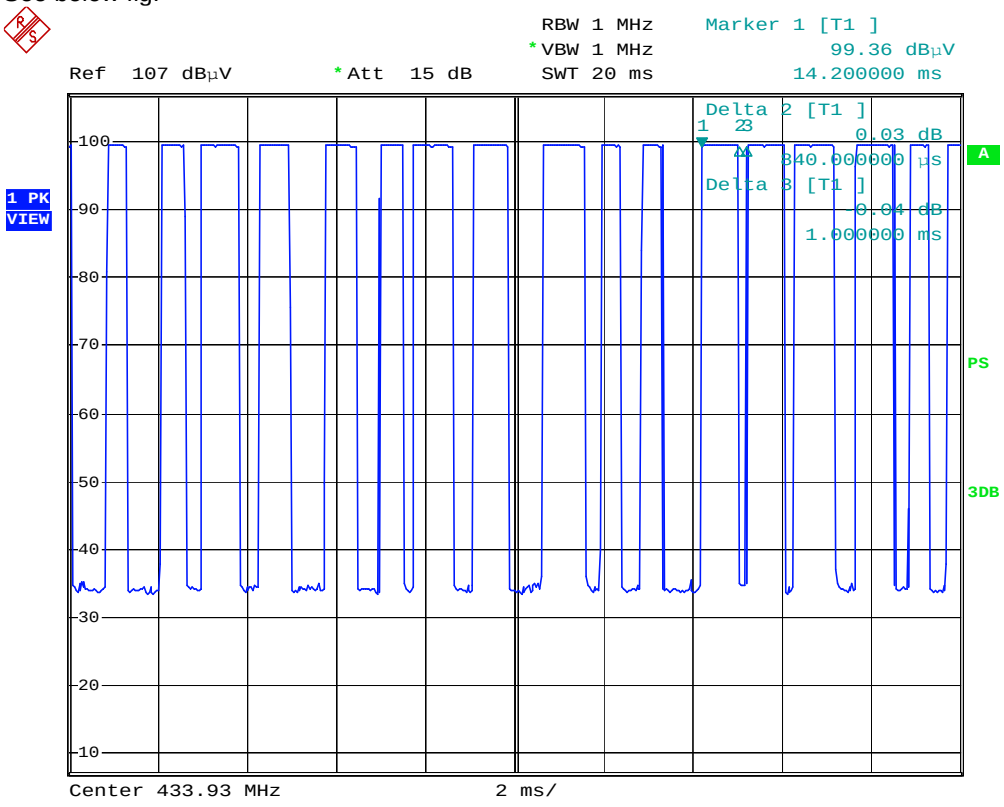
Test Frequency (MHz)	Peak (dBμV/m)		Limits (dBμV/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
433.9	69.59	63.46	100.8	31.21	37.34

Duty Cycle Calculation

Calculation according to RF burst Para 15.35(c)

20log*(0.84msec/1msec)=-1.51dB

See below fig.



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Avergae data=Peak data + Duty cycle

Test Frequency (MHz)	Avergae (dBμV/m)		Limits (dBμV/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
433.9	68.09	61.96	80.08	11.99	18.12

2. Harmonics & Spurious Emissions

Measure with Peak Detector

Test Frequency (MHz)	Peak (dBμV/m)		Limits (dBμV/m)	Margin (dB)	
	Vertical	Horizontal		Vertical	Horizontal
867.800	27.7	32.51	46	18.3	13.49
1301.700	34.11	31.04	74	39.89	42.96
1735.600	46.73	37.02	74	27.27	36.98
2169.500	49.14	39.11	74	24.86	34.89
2603.400	44.24	33.29	74	29.76	40.71
3037.300	48.19	41.68	74	25.81	32.32
3471.200	39.21	43.46	74	34.79	30.54
3905.100	40.98	45.25	74	33.02	28.75
4339.000	47.16	43.62	74	26.84	30.38

Harmonics & Spurious Emissions Average

Measure with Peak Detector

Test Frequency (MHz)	Peak (dBμV/m)		Limits (dBμV/m)	Duty cycle	Margin (dB)	
	Vertical	Horizontal			Vertical	Horizontal
867.800	26.20	31.01	46	-1.5	19.8	14.99
1301.700	32.61	29.54	54	-1.5	21.39	24.46
1735.600	45.23	35.52	54	-1.5	8.77	18.48
2169.500	47.64	37.61	54	-1.5	6.36	16.39
2603.400	42.74	31.79	54	-1.5	11.26	22.21
3037.300	46.69	40.18	54	-1.5	7.31	13.82
3471.200	37.71	41.96	54	-1.5	16.29	12.04
3905.100	39.48	43.75	54	-1.5	14.52	10.25
4339.000	45.66	42.12	54	-1.5	8.34	11.88

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.

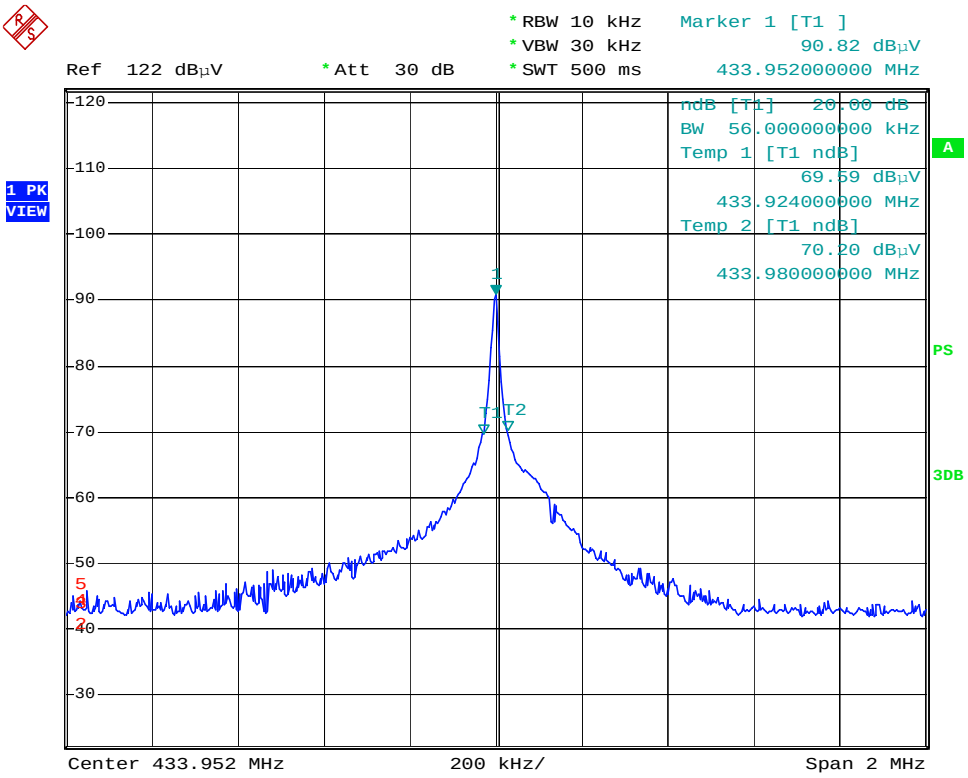
TEST RESULTS: The unit does meet the FCC Part 15 C Section 15.231 requirements.

5.3.2 Occupied Bandwidth

Test Requirement:	FCC Part15 C
Test Method:	ANSI C63.4 section 13 & FCC Part 2.1049
Test Date:	23 October 2007
Requirements:	15.231 (c3) 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: A small sample of the transmitter output was fed into the Spectrum Analyzer and the attached plot was taken. The vertical is set to 10dB per division. The horizontal scale is set to 200KHz per division.

The graph as below, represents the emissions take for this device.



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Date: 23.OCT.2007 09:34:13

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

4.3.5 Dwell Time:

Test Requirement:	FCC Part15 C
Test Method:	FCC Part15 C Section 15.231.
Test Date:	23 October 2007

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 similar as a remote switch.

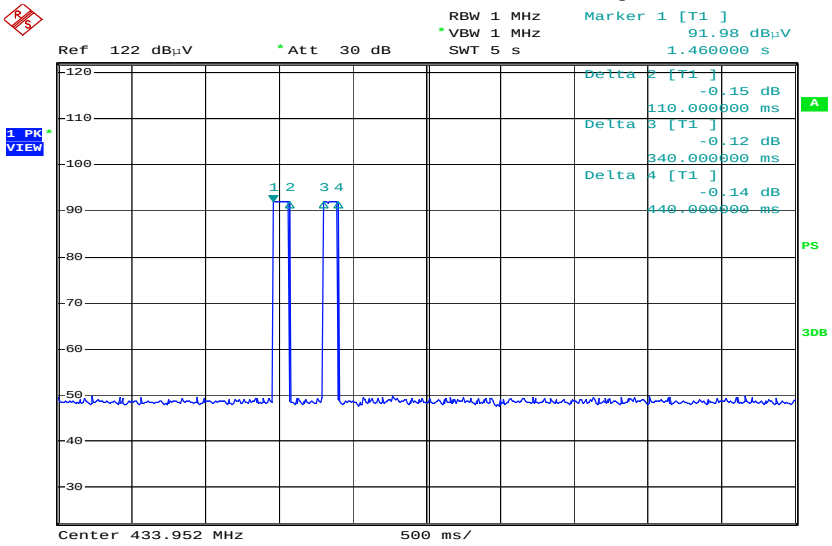
The EUT meets the requirements of this section.

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

Result:

Transmitter ceases immediately after being released.

Please refer to the duration of the each tranamission as below:



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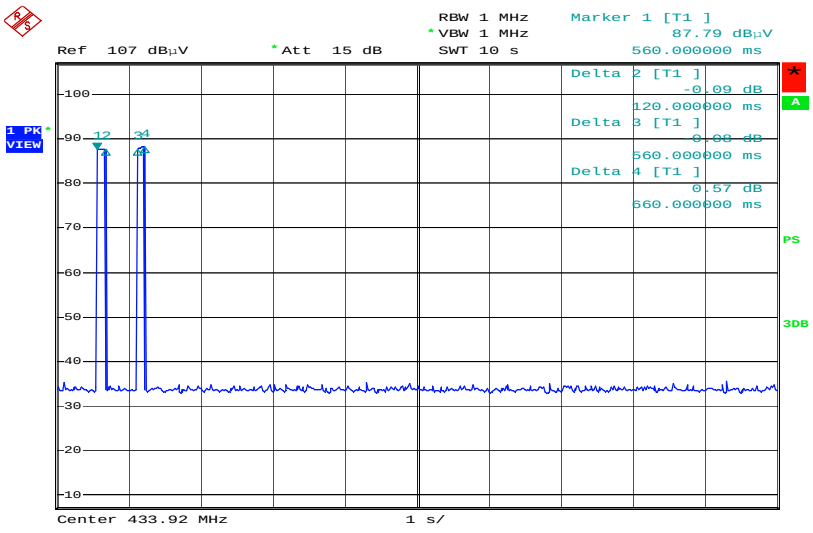

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The results: The unit does meet the FCC Part 15C Section 15.231 requirements.

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. Regulation15.231 (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.