

**Date: 1999-10-13**

# **TEST REPORT**

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**No.: HM101621**

**APPLICANT:** (CODE : EWI001)

EWIG INDUSTRIES CO. LTD.

13/F., Houtex Ind'l Bldg.,

16 Hung To Road, Kwun Tong, Kowloon,

HONG KONG.

**DATE OF SAMPLES RECEIVED:**

1999-10-04

**TEST DURATION**

1999-10-11

**DESCRIPTION OF SAMPLE(S):**

A sample of product said to be:

Product: USA RF Thermo Calendar Clock

Manufacturer: EWIG MFG. CO., LTD

Model Number: 203F03

Brand Name: N/A

Rating: 3Vd.c. ("AA" size battery × 2)

Origin: China

Additional Product Name/Model Number : RF433MHz Wireless Weather Station/203R03,  
LCD Wall Clock with Weather Forecast & RF Thermometer/306R02

**INVESTIGATIONS REQUESTED:**

Measurement to the relevant clauses of F.C.C. Rules and Regulations Part 15 Subpart B -  
Unintentional Radiator.

**RESULT/ REMARK:**

Please see attached sheet(s).

**CONCLUSION:**

From the measurement data obtained, the tested sample was considered to have COMPLIED with the  
clause 15.109(a) for the Receiver Section of Federal Communication Rules and Regulation Part 15  
and ANSI C63.4-1992 Section 12.1.1.1-2.

**TEST EQUIPMENT AUDIT:**

Please see Appendix A

Law Man Kit

Testing Engineer

Kitty Choy

Verify by

Patrick Wong

Patrick Wong  
for Managing Director

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### **TEST SUMMARY**

- (A) Measurement of Radiated Emissions .....Satisfactory
- (B) Line Conducted Voltage Test. .....Not applicable

### **TEST DATA**

Please refer to the attached result sheets.

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\*\*\* RECEIVER SECTION \*\*\*

### (A) Measurement of Radiated Interference

TEST REFERENCE: FCC Rules Part 15 Subpart B section 15.109(a)

TEST CONDITION : Normal

TEST DATE : 1999.10.11

Emission Frequency	Meter Reading	Polarization	Antenna Factor	Field Strength (at 3m)		FCC Limit
MHz	dB(μV)	H-V	dB	dB(μV/m)	μV/m μV/m	
436.9	20.6	V	+	19.5	40.1 101.2	200
873.8	< 1.0		+	28.5	<29.5 <29.9	200
1310.7	< 1.0		+	25.8	<26.8 <21.8	500
1747.6	< 1.0		+	26.2	<27.2 <22.9	500
2184.5	< 1.0		+	28.0	<29.0 <28.2	500
2621.4	< 1.0		+	28.5	<29.5 <29.9	500
3058.3	< 1.0		+	30.6	<31.6 <38.0	500
3495.2	< 1.0		+	32.0	<33.0 <44.7	500
3932.1	< 1.0		+	33.2	<34.2 <51.2	500
4369.0	< 1.0		+	33.3	<34.3 <51.9	500

### =====SUMMARY=====

All data is within limits

Broad-band Antennas were used and both polarizations of emissions were measured  
Polarizations at highest reading indicated as:

H -- Horizontal V -- Vertical

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### **NOTES FOR THE RADIATION MEASUREMENT**

- (1) Test site facility:  
Open field test site located at Taipo (Hong Kong) with a metal ground plane on filed with the FCC pursuant to section 2.948 of the FCC Rules.
- (2) Distance between the ET and measuring antenna:  
3 meters.
- (3) Measuring instrumentations:  
CISPR Quasi-peak type field strength meter (25 MHz - 1000 MHz and 1GHz-18GHz ).6dB bandwidth set at 120KHz. Also, peak level of the fundamental emissions was measured in order to determine compliance with the 20dB peak to average limit specified in Section 15.231 of the FCC new Rules.
- (4) Measuring antenna:  
Broad band antenna for the frequency range 25-1000 MHz, connected with 10 meters coaxial cable.Horn antenna for the frequency range 1-18 GHz, connected with high frequency coaxial cable.Cable loss of the coaxial cable. Cable included in the Antenna Factor for measurement data. The antenna are capable of measuring both horizontal and vertical polarizations.
- (5) Frequency range scanned:  
The frequency range from 25 MHz to 1000 MHz had been searched. Readings of the highest emissions relating to the limit were reported as above.
- (6) Arrangement of EUT:  
During the test, the sample was operated at rated supply voltage and arranged for maximum emissions.
- (7) Measuring Procedure:  
In accordance with the relevant clauses of the FCC Rules Part 15 section 15.109(a) and ANSI C63.4:1992 section 12.1.1.1-2.
- (8) Measuring Uncertainty:  
The calculated uncertainty for measurement performed at 3M test distance are:-  
30MHz to 300MHz =  $\pm 3.7\text{dB}$ , 300MHz to 1000MHz =  $+ 3.0\text{dB}/-2.7\text{dB}$ .  
1GHz to 18GHz =  $+3.3\text{dB}/-3.4\text{dB}$ .

Remark: Purpose of this test is to provide the Applicant with the necessary test data of their device for the submission to FCC with application for Equipment Authorization under FCC's Equipment Authorization Program. This test itself is not an Approval Test.

\*\*\*\*\* End of Document \*\*\*\*\*