CTS (NINGBO) TESTING SERVICE TECHNOLOGY INTERNATIONAL

OPERATE ACCORDING TO ISO/IEC 17025

FCC ID/IC TEST REPORT

TEST REPORT NUMBER : CGZ3120630-00530-EFI

CTS (Ningbo) Testing Service Technology Co., Ltd.
2/F., South Tower, Huoju Building, No.181, Canghai Road,
Jiangdong Science and Technology Park, Ningbo, Zhejiang, China

TEST REPORT For FCC ID/IC

47 CFR PART 15 OCT, 2011
RSS-Gen Issue 3

Report Reference No.	**CGZ3120630-00530-EFI**
Date of issue.....	16 August 2012
Testing Laboratory Name	**CENTRE OF TESTING SERVICE CO., LTD.**
Address.....	Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China.
Testing location/ procedure	Full application of Harmonised standards ■
	Partial application of Harmonised standards □
	Other standard testing method □
Applicant's name.....	Thermor Ltd.
Address.....	16975 Leslie Street, Newmarket, ON L3Y 9A1
Test specification	
Standard	**47 CFR PART 15 OCT, 2011, ANSI C63.4-2009,**
	RSS-Gen Issue 3
Test Report Form No.	CTSEMC-1.0
TRF Originator.....	CENTRE OF TESTING SERVICE CO., LTD.
Master TRF.....	Dated 2009-01

Test item description	Wireless Meat & Poultry Thermometer
Trade Mark	National Geographic/Bios Weather
Manufacturer.....	FUZHOU EVERTOP ELECTRONIC CO.,LTD.
Model/Type reference.....	132RX
Ratings.....	Battery 1.5V*2
Operating Frequency.....	434 MHz (RX)
Result	**PASSED**

Compiled by:	**Supervised by:**	**Approved by:**
Kate zhang / Fileadministrators	Duke yang / Technique principal	Vincent yao / Manager

CTS (Ningbo) Testing Service Technology Co., Ltd.
2/F., South Tower, Huoju Building, No.181, Canghai Road, Jiangdong Science and Technology Park, Ningbo, Zhejiang, China
Tel：+86-20-85543113 (32 lines) Fax：+86-20-38780406
Complaint line：+86-20-85533471 E-mail：cts@cts-lab.com.cn

FCC ID -- T E S T R E P O R T

Test Report No. :	CGZ3120630-00530-EFI	16 August 2012 Date of issue

Type / Model.....	132RX
EUT.....	Wireless Meat & Poultry Thermometer
Applicant……	Thermor Ltd.
Address.....	16975 Leslie Street, Newmarket, ON L3Y 9A1
Telephone.....	+800-387-8520
Fax.....	+886-947-1034
Contact.....	Joanna
Manufacturer……	FUZHOU EVERTOP ELECTRONIC CO., LTD.
Address.....	No.46,Bai Hua Zhou Rd, Pushang Industrial Area, Fuzhou, Fujian, China
Telephone.....	+ 86-591-83742688
Fax.....	+ 86-591-83766488
Contact.....	Nancy
Factory ……	FUZHOU EVERTOP ELECTRONIC CO., LTD.
Address.....	No.46,Bai Hua Zhou Rd, Pushang Industrial Area, Fuzhou, Fujian, China
Telephone.....	+ 86-591-83742688
Fax.....	+ 86-591-83766488
Contact.....	Nancy

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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2/F., South Tower, Huoju Building, No.181, Canghai Road, Jiangdong Science and Technology Park, Ningbo, Zhejiang, China
Tel：+86-20-85543113 (32 lines) Fax：+86-20-38780406
Complaint line：+86-20-85533471 E-mail：cts@cts-lab.com.cn

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CTS (Ningbo) Testing Service Technology Co., Ltd.
2/F., South Tower, Huoju Building, No.181, Canghai Road, Jiangdong Science and Technology Park, Ningbo, Zhejiang, China
Tel：+86-20-85543113 (32 lines) Fax：+86-20-38780406
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1. TEST STANDARDS

The tests were performed according to following standards:

■**47 CFR PART 15 OCT, 2011**
■ **ANSI C63.4-2009**
■ **RSS-Gen Issue 3**

2. SUMMARY

2.1 GENERAL REMARKS

Date of receipt of test sample	30 June 2012
Testing commenced on	30 June 2012
Testing concluded on	16 August 2012

2.2 FINAL ASSESSMENT

The FCC requirements pertaining to the technical standards and tested operation modes are

■ - fulfilled.

□ - **not** fulfilled.

The equipment under test

■ - fulfils the FCC requirements cited on page 1.

□ - **does not** fulfil the FCC requirements cited on page 1.

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3. EQUIPMENT UNDER TEST

3.1 Power supply system utilised

Power supply voltage : ■ Battery 1.5V*2
□ Other

3.2 Short description of the Equipment under Test (EUT)

Number of tested samples: **1**
Serial number: Prototype
EUT type: Receiver

3.3 EUT operation mode

The equipment under test was operated during the measurement under the following conditions:
For Radiation emission:
■ –RX

Operation mode 1: RX
Note: X position of EUT is the worst case, so only these test results be recorded in the test report.

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3.4 EUT configuration

3.4.1. Description of configuration (EUT)

Description	:	Wireless Meat & Poultry Thermometer
Model Number	:	132RX
Operation frequency	:	434MHz
Radio Technology	:	FSK
Modulation Technology	:	FSK modulation
Antenna	:	PCB Antenna

3.4.2. Tested Supporting System Details

Not Applicable.

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4. TEST ENVIRONMENT

4.1 Address of the test laboratory

Building F, Dachuang industrial park, No.379, Zhongshan Dadao, Guangzhou, China

Tel：+86-20-85543113 (32 lines) Fax：+86-20-38780406

4.2 Test facility

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

CNAS-Lab Code: L3394

CENTRE OF TESTING SERVICE CO., LTD has been assessed and proved to be in compliance with CNAS-CL01: 2006 Accreditation Criteria for Testing and Calibration Laboratories (identical to ISO/IEC 17025: 2005 General Requirements) for the Competence of Testing and Calibration Laboratories.

IC-Registration No.: 8374A

The 3m Alternate Test Site of CENTRE OF TESTING SERVICE CO., LTD has been registered by Certification and Engineering Bureau of Industry Canada for the performance of radiated measurements with Registration No. 8374A on June 6, 2011 .

FCC-Registration No.: 971995

CENTRE OF TESTING SERVICE 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 No.791995, July 13,2012.

4.3 Environmental conditions

During the measurement the environmental conditions were within the listed ranges:

Temperature:	15~35 ° C
Humidity:	25~75 %
Atmospheric pressure:	86~106 kPa

4.4 Definitions of symbols used in this test report

■ - The black square indicates that the listed condition, standard or equipment is applicable for this report.

□ - The empty square indicates that the listed condition, standard or equipment is **not** applicable for this report.

4.5 Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. to CISPR 16 - 4 “Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements” and is documented in the CTS quality system acc. to DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

4.6 Measurement Uncertainty

Test Item	Frequency Range	Uncertainty	Note
Conduction disturbance	150kHz~30MHz	±1.22dB	(1)
Power disturbance	30MHz~300MHz	±1.38dB	(1)
Radiation emission (3m)	30MHz~300MHz	±3.14dB	(1)
	300MHz~1000MHz	±3.18dB	(1)

(1).This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

5. Summary of standards and results

5.1.Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION		
Description of Test Item	**Standard**	**Results**
Conducted Emission Test	ANSI C63.4-2009 FCC Part 15 B: 15.107 RSS-Gen:7.2.4	N/A
Radiated Emission Test	ANSI C63.4-2009 FCC Part 15 B: 109 RSS-Gen:4.10	PASSED
N/A is an abbreviation for Not Applicable.		

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Complaint line：+86-20-85533471 E-mail：cts@cts-lab.com.cn See Reverse For Terms And Conditions of Service

6. Power Line Conducted Emission Test

6.1.1 Description of the test location

Test location : Shielding Room

6.1.2Test Equipment

Conducted Disturbance					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESHS10	842884/012	2011/12
2	Artificial Mains	ROHDE & SCHWARZ	ESH3-Z5	832479/025	2011/12
3	Artificial Mains	ROHDE & SCHWARZ	ESH3-Z5	832479/026	2011/12
4	Pulse Limiter	ROHDE & SCHWARZ	ESHSZ2	100301	2011/12
5	EMI Test Software	ROHDE & SCHWARZ	ESK1	N/A	2011/12

6.2.1 Block Diagram of Test Setup

EUT(RX)

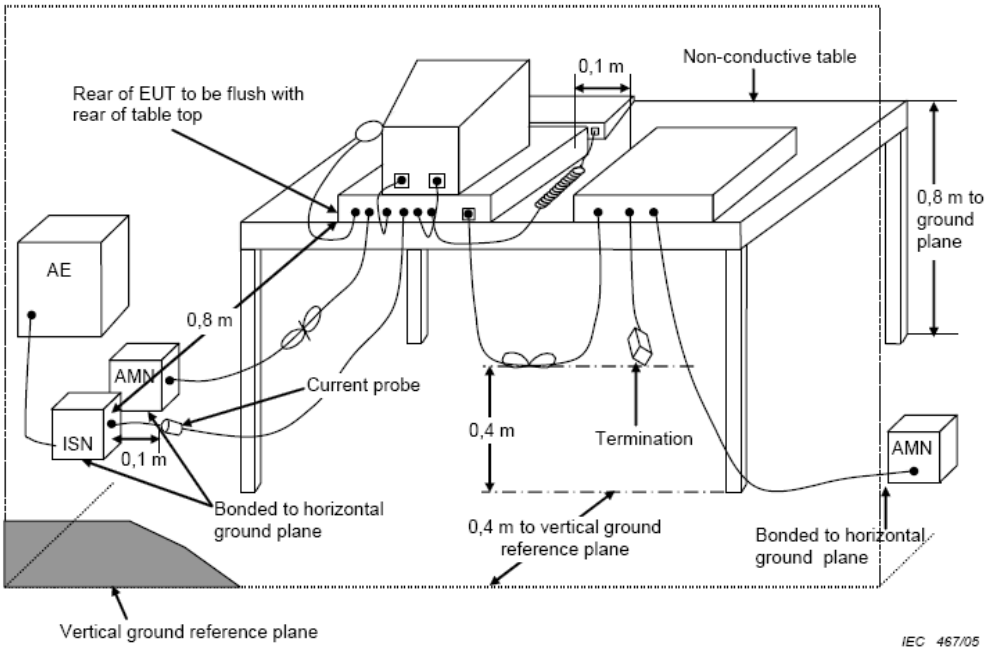
(EUT: Wireless Meat & Poultry Thermometer)

6.2.2 Description of the test set-up

6.1.2.1 Operating Condition

The EUT is engraving during the test, and the results of the maximum emanation are recorded

6.1.2.2 Block Diagram of Test Setup



6.2.3 Limits of disturbance (Class B)

Frequency	Maximum RF Line Voltage	
	Quasi-Peak Level dB(μV)	Average Level dB(μV)
150kHz ~ 500kHz	66 ~ 56*	56 ~ 46*
500kHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

Note: (1) The tighter limit shall apply at the edge between two frequency bands.

6.2.4 Power Line Conducted Emission Test Results

Test Result: N/A (Note: The EUT is power supply by battery.)

CTS (Ningbo) Testing Service Technology Co., Ltd.
2/F., South Tower, Huoju Building, No.181, Canghai Road, Jiangdong Science and Technology Park, Ningbo, Zhejiang, China
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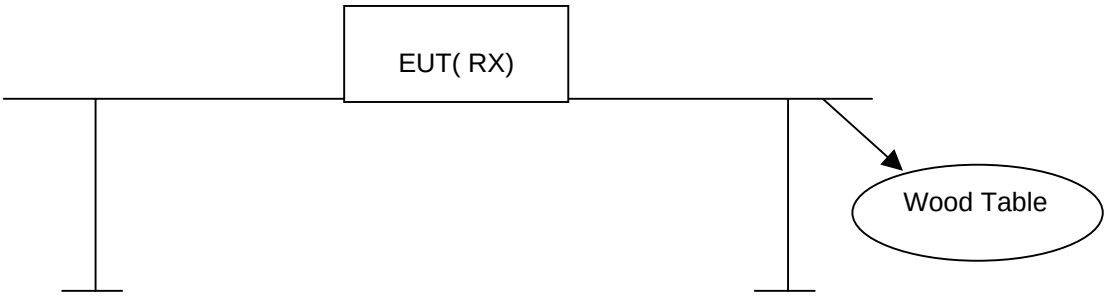
7. Radiated disturbance (electric field)

7.1.Test Equipment

Radiated disturbance (electric field)					
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	100868	2011/12
2	Biconical Antenna	ROHDE & SCHWARZ	HK116	100221	2011/12
3	Log per Antenna	ROHDE & SCHWARZ	HL223	100226	2011/12
4	Log per Antenna	ROHDE & SCHWARZ	HL050	100186	2011/12
5	Signal analyzer	ROHDE & SCHWARZ	FSIQ26	100311	2011/12
6	Loop Antenna	A.R.A	PLA-1030/B	1030	2011/12

7.2.Block Diagram of Test Setup

7.2.1 Block Diagram of connection between EUT and simulators



*(EUT:*Wireless Meat & Poultry Thermometer*)*

7.2.2 Anechoic Chamber Setup Diagram

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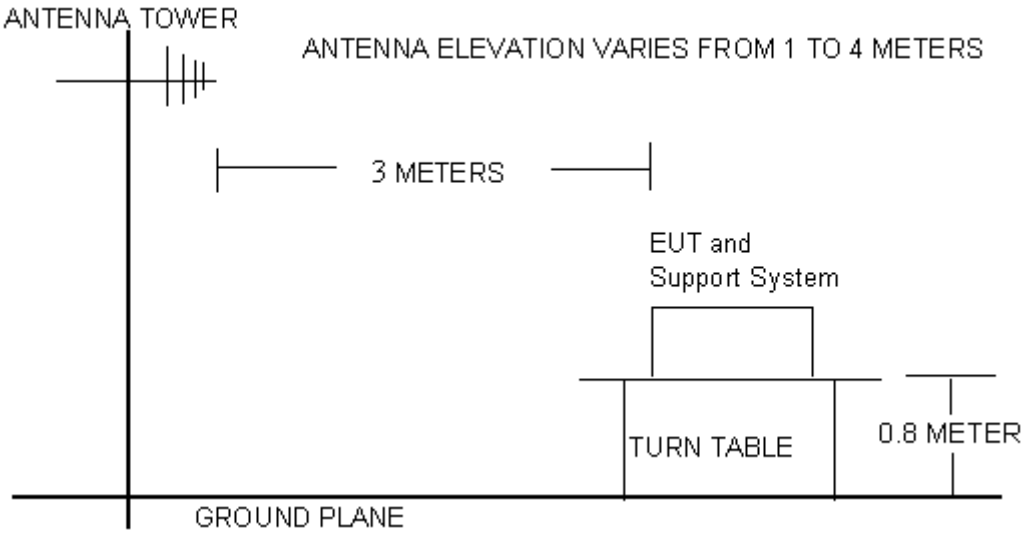

7.3.Radiated Emission Limit Standard: FCC 109 and 209

FREQUENCY MHz	DISTANCE Meters	FIELD STRENGTHS LIMIT	
		μV/m	dB(μV)/m
0.009 ~ 0.490	300	2400/F(KHz)	-----
0.490 ~ 1.705	30	24000/F(KHz)	-----
1.705 ~ 30	3	----	49.5
30 ~ 88	3	100	40.0
88 ~ 216	3	150	43.5
216 ~ 960	3	200	46.0
960 ~ 1000	3	500	54.0
Above 1000	3	Other:74.0 dB(μV)/m (Peak) 54.0 dB(μV)/m (Average)	

Remark： (1) Emission level dBμV = 20 log Emission level μV/m

(2) The smaller limit shall apply at the cross point between two frequency bands.

(3) Distance is the distance in meters between the measuring instrument, antenna and the closest point of any part of the device or system.

7.4.Test Procedure

The EUT and its simulators are placed on a turn table, which is 0.8 meter high above ground. The turn table can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 3 meters away from the receiving antenna, which is mounted on a antenna tower. The antenna can be moved up and down between 1 meter and 4 meters to find out the maximum emission level. Broadband antenna (calibrated bilog antenna) is used as receiving antenna. Both horizontal and vertical polarization of the antenna is set on Test. In order to find the maximum emission levels, all of the interface cables must be manipulated according to ANSI C63.4-2009on radiated emission Test.

The frequency range from 30MHz to 1000MHz and above 1GHz. is investigated. Please see the following pages.

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 120kHz RBW below 1GHz and a Peak and Average detector with 1MHz RBW above 1GHz,

All measurements for radiated emissions within the restricted bands were performed using a Quasi-Peak detector with 300kHz VBW below 1GHz and a Peak detector with 1MHz VBW above 1GHz, Pretest of EUT, final, select the worst case test and record the test results in the report.

The test modes is tested in Anechoic Chamber and all the scanning waveforms are reported on section 7.5

7.5.Radiated Emission Test Results

PASSED.

Test Model: Test point: Frequency range:	RX Horizontal 30-1000MHz	Result:	■ - passed □ - not passed

EUT	Wireless Meat & Poultry Thermometer
Operating Condition	Battery 1.5V*2
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	30 June 2012
Operator	**Duke**
MODEL NO	132RX

Below 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBμV/m)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.
1	277.2745	-29.86	65.95	36.09	46.00	-9.91	QP
2	284.8497	-28.05	68.61	40.56	46.00	-5.44	QP
3	288.6373	-27.15	62.39	35.24	46.00	-10.76	QP
4	760.1202	-26.35	42.55	16.20	46.00	-29.80	QP
5	778.3567	-26.98	43.75	16.77	46.00	-29.23	QP
6	914.4289	-25.65	43.64	17.99	46.00	-28.01	QP

Above 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBμV/m)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.
1	6466.934	-13.47	53.20	39.73	74.00	-34.27	peak
2	6466.934	-13.47	42.22	28.75	54.00	-25.25	AVG
3	7282.565	-14.40	53.63	39.23	74.00	-34.77	peak
4	7282.565	-14.40	44.03	29.63	54.00	-24.37	AVG
5	8340.681	-15.60	54.66	39.06	74.00	-34.94	peak
6	8340.681	-15.60	44.91	29.31	54.00	-24.69	AVG

Note:Level=Reading+Facytor. Margin= Level- Limit.

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Test Model:	RX	Result:	■ - passed □ - not passed
Test point:	Vertical		
Frequency range:	30-1000MHz		

EUT	Wireless Meat & Poultry Thermometer
Operating Condition	Battery 1.5V*2
Test Condition	Ambient Temperature: 25°C Humidity: 56%
Test Date:	30 June 2012
Operator	**Duke**
MODEL NO	132RX

Below 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBμV/m)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.
1	274.0281	-30.63	52.99	22.36	46.00	-23.64	QP
2	276.7335	-29.99	55.77	25.78	46.00	-20.22	QP
3	287.5551	-27.40	52.16	24.76	46.00	-21.24	QP
4	781.1623	-27.21	44.01	16.80	46.00	-29.20	QP
5	901.8036	-25.16	44.64	19.48	46.00	-26.52	QP
6	914.4289	-25.65	44.35	18.70	46.00	-27.30	QP

Above 1GHz

No.	Frequency (MHz)	Factor (dB/m)	Reading (dBμV/m)	Level (dBμV/m)	Limit (dBμV/m)	Margin (dB)	Det.
1	3270.541	-31.18	43.51	12.33	54.00	-41.67	AVG
2	7811.623	-25.16	53.71	28.55	74.00	-45.45	peak
3	7811.623	-25.16	45.18	20.02	54.00	-33.98	AVG
4	8428.858	-22.25	55.44	33.19	74.00	-40.81	peak
5	8428.858	-22.25	44.83	22.58	54.00	-31.42	AVG
6	9090.180	-19.14	55.69	36.55	74.00	-37.45	peak

Note:Level=Reading+Facytor. Margin= Level- Limit.

Remark: Others frequency Radiated Emission level margin all >10dB of Limit.

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8.Manufacturer/ Approval holder Declaration

The following identical model(s):

132HC, 132TX

Belong to the tested device:

Product description: **Wireless Meat & Poultry Thermometer**
Model name: **132RX**

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