



FCC PART 18

TEST REPORT

For

Continental Conair Limited

35/F, Standard Chartered Tower, Millennium City 1, 388 Kwun Tong Road,
Kwun Tong, Kowloon, Hong Kong

FCC ID: U43ICT60

Report Type: Original Report	Product Type: Induction cooktop
Test Engineer: <u>Joson Xiao</u>	
Report Number: <u>RSZ151231552-00</u>	
Report Date: <u>2016-01-29</u>	
Reviewed By: <u>Suny Sun</u> Reviewed By: <u>EMC Manager</u>	
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Note: This test report is prepared for the customer shown above and for the equipment described herein. It may not be duplicated or used in part without prior written consent from Bay Area Compliance Laboratories Corp.

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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

The *Continental Conair Limited*'s product, model number: *ICT-60 (FCC ID: U43ICT60)* or the "EUT" in this report is a *Induction cooktop*, which was measured approximately: 60.0 cm (L) x 35.8 cm (W) x 6.0 cm (H), the input power is AC 120V/60Hz. The highest operating frequency is 28 kHz.

Note: The series product, model ICT-60 and ICT-60C, ICT-60#####, ICT-60#####C (where "#####" represent any 1 - 5 letters or digits, just for distinguish model No.) are electrically identical, they are just different from model number due to marketing purposes. Model ICT-60 was selected for fully testing. Detailed information is stated and guaranteed by the applicant which was explained in the attached declaration letter.

**All measurement and test data in this report was gathered from production sample serial number: 1512085 (Assigned by BACL, Shenzhen). The EUT supplied by the applicant was received on 2015-12-31.*

Objective

This report is prepared on behalf of *Continental Conair Limited* in accordance with Part 2-Subpart J, and Part 18-Subparts A, B and C of the Federal Communication Commissions rules and regulations.

The objective of the manufacturer is to determine compliance with FCC Part 18 limits.

Related Submittal(s)/Grant(s)

No related submittal(s).

Test Methodology

All measurements contained in this report were conducted with MP-5, FCC Methods of Measurements of Radio Noise Emissions from ISM Equipment, February 1986. All measurements were performed at Bay Area Compliance Laboratory Corporation. The radiated testing was performed at an antenna-to-EUT distance of 3 meters.

Test Facility

The test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 6/F, the 3rd Phase of WanLi Industrial Building, ShiHua Road, FuTian Free Trade Zone Shenzhen, Guangdong, China.

Test site at Bay Area Compliance Laboratories Corp. (Shenzhen) has been fully described in reports submitted to the Federal Communication Commission (FCC). The details of these reports have been found to be in compliance with the requirements of Section 2.948 of the FCC Rules on October 31, 2013. The facility also complies with the radiated and AC line conducted test site criteria set forth in ANSI C63.4-2009.

The Federal Communications Commission has the reports on file and is listed under FCC Registration No.: 382179. The test site has been approved by the FCC for public use and is listed in the FCC Public Access Link (PAL) database.

OPERATING CONDITION/TEST CONFIGURATION

Justification

The system was configured for testing in a typical fashion (as normally used by a typical user).

EUT Exercise Software

No exercise software was used.

Special Accessories

No special accessory was used.

Equipment Modifications

No modification was made to the EUT tested.

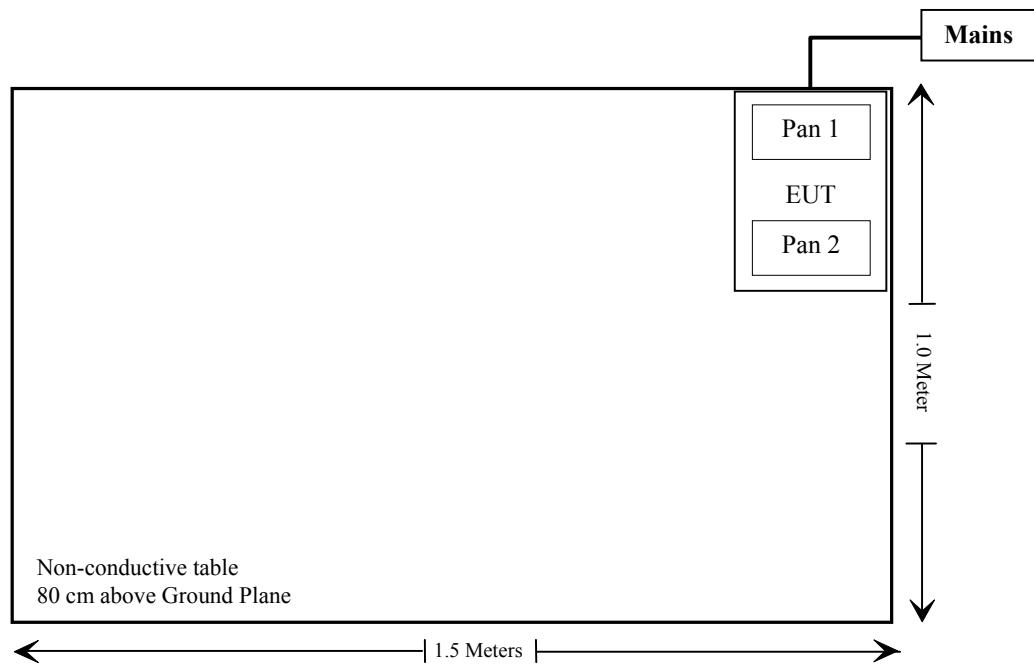
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
N/A	Pan 1	N/A	N/A
N/A	Pan 2	N/A	N/A

External Cable

Cable Description	Length (m)	From/Port	To
Un-Shielding Un-Detachable AC Cable	1.0	EUT	Mains

Block Diagram of Test Setup



FCC §18.307 - AC LINE CONDUCTED EMISSIONS

Applicable Standard

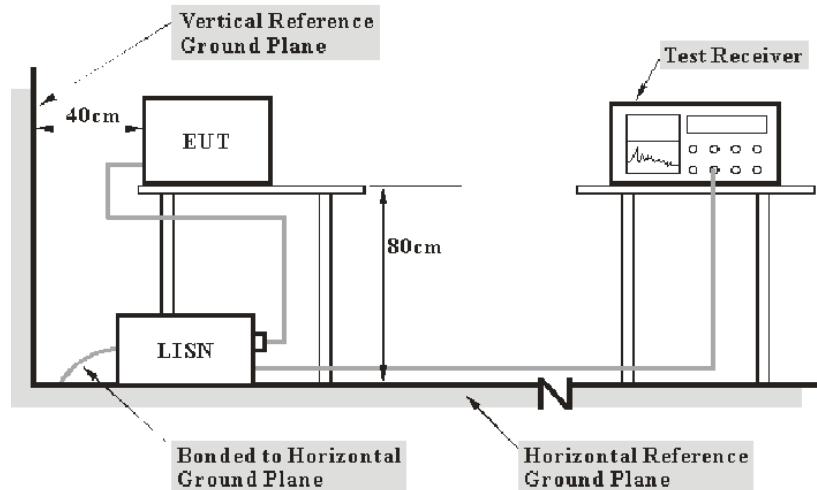
Conduction limits. For the following equipment, when designed to be connected to the public utility (AC) power line the radio frequency voltage that is conducted back onto the AC power line on any frequency or frequencies shall not exceed the limits in the following tables. Compliance with the provisions of this paragraph shall be based on the measurement of the radio frequency voltage between each power line and ground at the power terminal using a 50 μ H/50 ohms line impedance stabilization network (LISN).

All Induction cooking ranges and ultrasonic equipment

Frequency of emission (MHz)	Conducted limit (dB μ V)	
	Quasi-peak	Average
0.009–0.05	110	-
0.05–0.15	90–80	-
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

*Decreases with the logarithm of the frequency *The tighter limits shall apply at the boundary between two frequency ranges

EUT Setup



Note:

1. Support units were connected to second LISN.
2. Both of LISNs (AMN) 80 cm from EUT and at the least 80 cm from other units and other metal planes support units.

The setup of EUT is according with MP-5: 1986 measurement procedure. Specification used was with the FCC Part 18 limits.

The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

EMI Test Receiver Setup

The EMI test receiver was set to investigate the spectrum from 9 kHz to 30 MHz.

During the conducted emission test, the EMI test receiver was set with the following configurations:

Frequency Range	IF B/W
9 kHz – 150 kHz	200 Hz
150 kHz – 30 MHz	9 kHz

Test Procedure

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-Peak detection and Average detection mode.

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
Rohde & Schwarz	LISN	ENV216	3560.6650.12-101613-Yb	2015-12-15	2016-12-14
Rohde & Schwarz	EMI Test Receiver	ESCS30	100176	2015-06-01	2016-05-31
Rohde & Schwarz	Transient Limiter	ESH3Z2	DE25985	2015-05-14	2016-05-14
Rohde & Schwarz	CE Test software	EMC 32	V8.53	NCR	NCR

*** Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 18.307(a), the worst margin reading as below:

3.7 dB at 0.020078 MHz in the Neutral conducted mode

Refer to CISPR16-4-2:2011 and CISPR 16-4-1:2009, the measured level complies with the limit if

$$L_m + U_{(Lm)} \leq L_{lim} + U_{cisp}$$

In BACL., $U_{(Lm)}$ is less than U_{cisp} , if L_m is less than L_{lim} , it implies that the EUT complies with the limit.

Test Data

Environmental Conditions

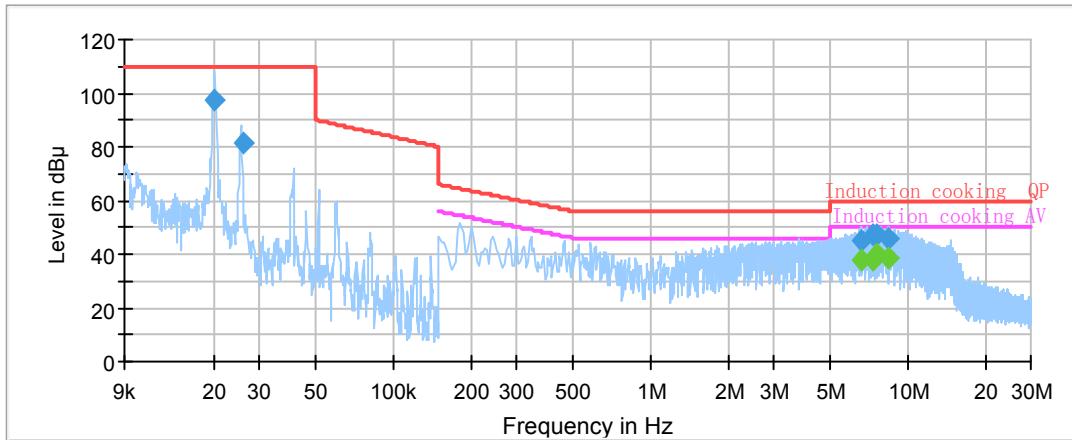
Temperature:	25 °C
Relative Humidity:	51 %
ATM Pressure:	101.0 kPa

Testing was performed by Joson Xiao on 2016-01-05.

Test Mode: Heating up water

AC 120V/60 Hz, Line:

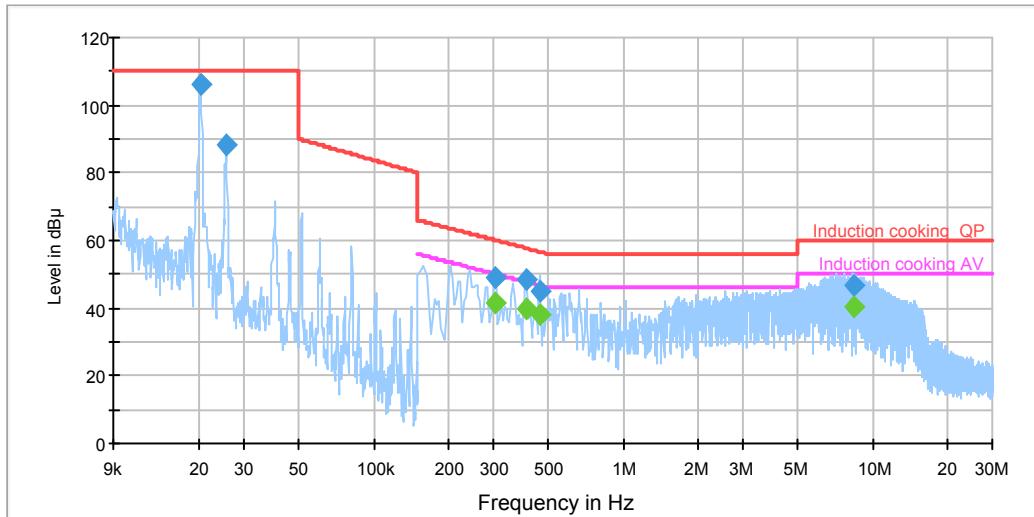
FCC part 18 Induction cooking L



Frequency (MHz)	Corrected Amplitude (dB μ V)	Correction Factor (dB)	Limit (dB μ V)	Margin (dB)	Detector (PK/Ave./QP)
0.019936	97.7	19.9	110.0	12.3	QP
0.025895	81.3	20.0	110.0	28.7	QP
6.606910	45.3	20.0	60.0	14.7	QP
6.606910	37.9	20.0	50.0	12.1	Ave.
7.323870	47.5	20.0	60.0	12.5	QP
7.323870	38.1	20.0	50.0	11.9	Ave.
7.607190	47.5	20.1	60.0	12.5	QP
7.607190	40.3	20.1	50.0	9.7	Ave.
8.399670	45.8	20.1	60.0	14.2	QP
8.399670	38.3	20.1	50.0	11.7	Ave.

AC 120V/ 60 Hz, Neutral:

Copy of FCC part 18 induction cooking N



Frequency (MHz)	Corrected Amplitude (dB μ V)	Correction Factor (dB)	Limit (dB μ V)	Margin (dB)	Detector (PK/Ave./QP)
0.020078	106.3	19.9	110.0	3.7	QP
0.025512	88.4	20.0	110.0	21.6	QP
0.306000	48.9	19.9	60.1	11.2	QP
0.306000	41.3	19.9	50.1	8.8	Ave.
0.406000	48.3	19.9	57.7	9.4	QP
0.406000	40.0	19.9	47.7	7.7	Ave.
0.462000	45.1	19.9	56.7	11.6	QP
0.462000	37.8	19.9	46.7	8.9	Ave.
8.378000	46.9	20.1	60.0	13.1	QP
8.378000	40.4	20.1	50.0	9.6	Ave.

Note:

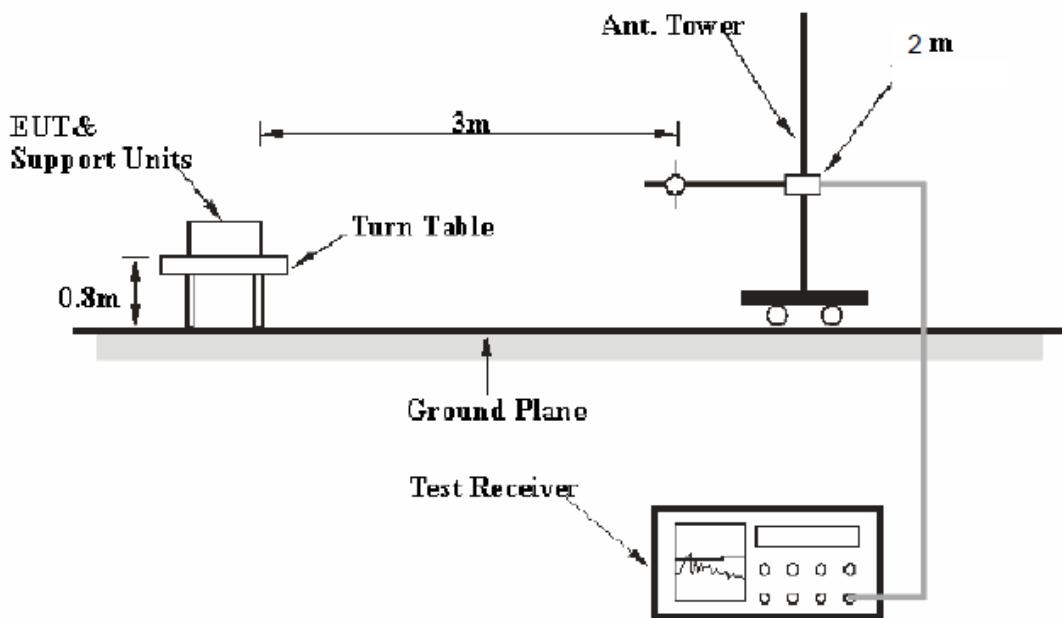
- 1) Corrected Amplitude = Reading + Correction Factor
- 2) Correction Factor = LISN/ISN VDF (Voltage Division Factor) + Cable Loss + Pulse Limiter Attenuation
- 3) Margin = Limit – Corrected Amplitude

FCC §18.305 – FIELD STRENGTH

Applicable Standard

FCC §18.305(b)

EUT Setup



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the FCC MP - 5.

EMI Test Receiver Setup and Spectrum Analyzer Setup

The system was investigated from 9 kHz to 30 MHz.

During the radiated emission test, the EMI test receiver and Spectrum Analyzer were set with the following configurations:

Frequency Range	RBW	Video B/W	IF B/W	Detector
9 kHz – 150 kHz	200 Hz	1 kHz	200 Hz	QP
150 kHz – 30 MHz	9 kHz	30 kHz	9 kHz	QP

Test Procedure

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

All final data was recorded in the Quasi-peak detection mode.

Corrected Amplitude Calculation

The Corrected Amplitude is calculated by adding the Antenna Factor and Cable Loss, and subtracting the Amplifier Gain from the Meter Reading. The basic equation is as follows:

$$\text{Corrected Amplitude} = \text{Reading} + \text{Antenna Factor} + \text{Cable Loss}$$

The “Margin” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7 dB means the emission is 7 dB below the limit. The equation for margin calculation is as follows:

$$\text{Margin} = \text{Limit} - \text{Corrected Amplitude}$$

Test Equipment List and Details

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
ETS-LINDGREN	Passive Loop Antenna	6512	00029604	2014-12-24	2017-12-23
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2015-12-15	2016-12-14
TDK	Chamber	Chamber A	2#	2013-10-15	2016-10-15
HP	Amplifier	HP8447E	1937A01046	2015-05-06	2016-05-05
R&S	Auto test Software	EMC32	V9.10	NCR	NCR

* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements, traceable to National Primary Standards and International System of Units (SI).

Test Data

Environmental Conditions

Temperature:	25 °C
Relative Humidity:	47 %
ATM Pressure:	101.0 kPa

The testing was performed by Joson Xiao on 2016-01-05.

Test Mode: Heating up water

9 kHz-30 MHz:

Frequency (MHz)	Level (dB μ V/m)	Detector (PK/QP/AV)	Direction (Degree)	Height (m)	Correction Factor (dB/m)	Limit (dB μ V/m)	Margin (dB)
0.89	58.36	QP	241	2	48.0	83.52	25.16
1.06	67.24	QP	106	2	46.2	83.52	16.28
3.67	60.68	QP	125	2	40.9	83.52	22.84
8.24	56.31	QP	67	2	32.9	83.52	27.21
11.38	52.18	QP	29	2	32.3	83.52	31.34
13.55	50.82	QP	137	2	32.3	83.52	32.7

Note: Within measurement uncertainty.

PRODUCT SIMILARITY DECLARATION LETTER**Continental Conair Limited**

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2016-01-06

To Whom It May Concern,

We, Continental Conair Limited, hereby declare that the Multiple Models are identical with Testing products except the information in the below table. We require the lab. to use the same test data in the Multiple Model's report. Details as below:

Testing Model	Multiple Models	Difference Description
ICT-60	ICT-60C, ICT-60#####, ICT-60#####C	Only model no. is different. ##### represent any 1 - 5 letters or digits. Just for distinguish the model no.. No actual meaning.

We guarantee all the information provided above is true, and notice that we'll bear all the consequences caused by any false information or concealing

Best Regards,

Signature: 

Print Name: Leo Leung

Title: Engineering Director – Kitchen Appliances Dept

Email: leo_leung@conair.com

******* END OF REPORT *******