

# FCC PART 18 TEST REPORT

For

## Continental Conair Limited

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Kwun Tong, Kowloon, Hong Kong

**FCC ID: U43ICT200**

<b>Report Type:</b> Original Report	<b>Product Name:</b> Induction Cooktop
<b>Test Engineer:</b> <u>Lebron Wang</u>	<i>Lebron Wang</i>
<b>Report Number:</b> <u>RSZ111215550-00</u>	
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\* This report contains data that are not covered by the NVLAP accreditation and are marked with an asterisk "★" (Rev.2)

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## GENERAL INFORMATION

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### Product Description for Equipment under Test (EUT)

The *Continental Conair Limited*'s model: *ICT200 (FCC ID: U43ICT200)* (the "EUT") in this report was an *Induction Cooktop*, which was measured approximately: 359 mm (L) x 294 mm (W) x 63 mm (H), the rated input voltage: AC 120V/60Hz. The operating frequency is from 18 kHz to 40 kHz.

*\* All measurement and test data in this report was gathered from production sample serial number: 1112007 (Assigned by BACL, Shenzhen). The EUT was received on 2011-12-15.*

### Objective

This test 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 the compliance of EUT 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 measurement was performed at Bay Area Compliance Laboratories Corp. 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 December 06, 2010. 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.

Additionally, Bay Area Compliance Laboratories Corp. (Shenzhen) is an ISO/IEC 17025 accredited laboratory, and is accredited by National Voluntary Laboratory Accredited Program (Lab Code 200707-0).



The current scope of accreditations can be found at <http://ts.nist.gov/Standards/scopes/2007070.htm>

## SYSTEM 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.

### Special Accessories

No special accessory.

### Equipment Modifications

No modification was made to the EUT tested.

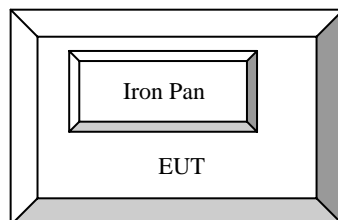
### Local Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
Ileosip	Iron Pan	N/A	N/A

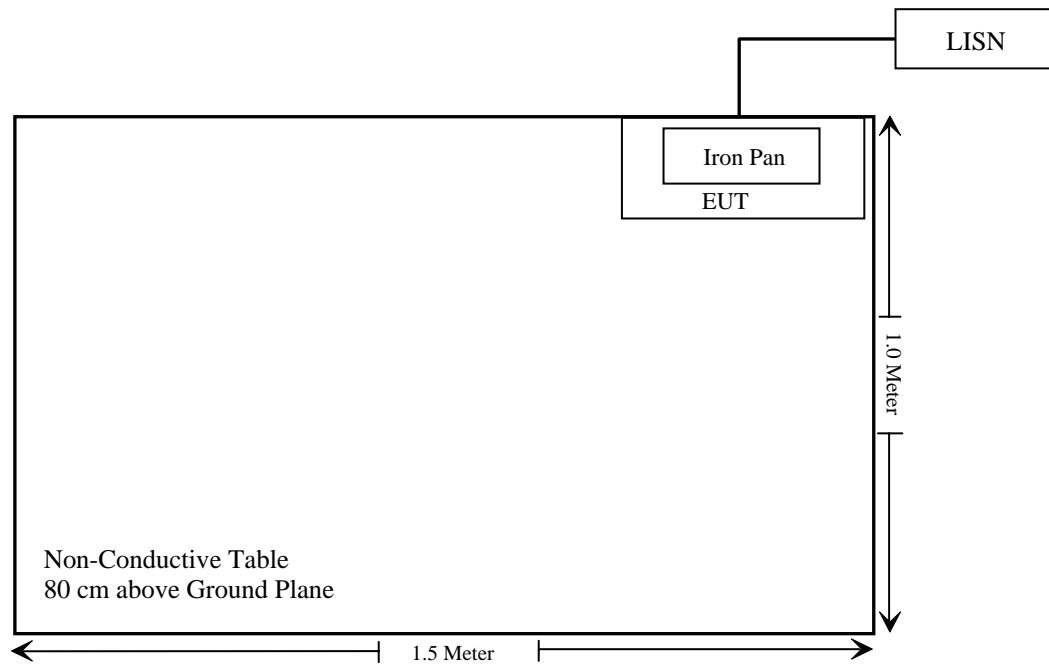
### External Cable

Cable Description	Length (m)	From Port	To
Unshielded Detachable AC Power Cable	1.0	EUT	LISN

### Configuration of Test Setup



## 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  $\mu$ H/50 ohms line impedance stabilization network (LISN).

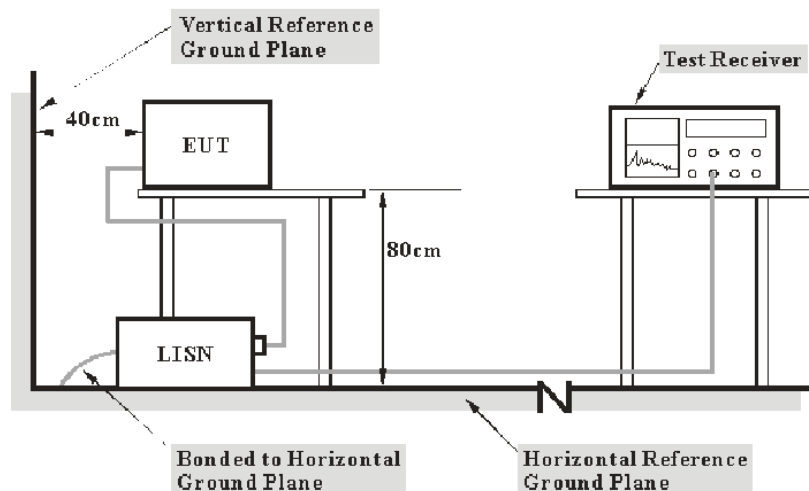
Frequency of emission (MHz)	Conducted limit (dB $\mu$ V)	
	Quasi-peak	Average
0.009–0.05	110	-
0.05–0.15	90–80*	-
0.15–0.5	66 to 56*	56 to 46*
0.5–5	56	46
5–30	60	50

### Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, and LISN.

Based on CISPR 16-4-2, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of any conducted emissions measurement at Bay Area Compliance Laboratories Corp. is 2.4 dB (k=2, 95% level of confidence).

### 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.

The EUT was connected to a 120 VAC/60 Hz power source.

### 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:

<i><b>Frequency Range</b></i>	<i><b>IFBW</b></i>
9kHz~150kHz	200Hz
150 kHz – 30 MHz	9 kHz

### Test Procedure

During the conducted emission test, the EUT was connected to the LISN.

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

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

### Test Equipment List and Details

<b>Manufacturer</b>	<b>Description</b>	<b>Model</b>	<b>Serial Number</b>	<b>Calibration Date</b>	<b>Calibration Due Date</b>
Rohde & Schwarz	EMI Test Receiver	ESCS30	830245/006	2011-03-03	2012-03-02
Rohde & Schwarz	L.I.S.N.	ESH2-Z5	892107/021	2011-03-09	2012-03-08
Rohde & Schwarz	Pulse limiter	ESH3Z2	DE25985	2011-07-08	2012-07-07

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. attests that all calibrations have been performed in accordance to NVLAP requirements, traceable to the NIST.

### Test Results Summary

According to the recorded data in following table, the EUT complied with the FCC Part 18, with the worst margin reading of:

**5.53 dB at 4.895 MHz in the Neutral conducted mode**

## Test Data

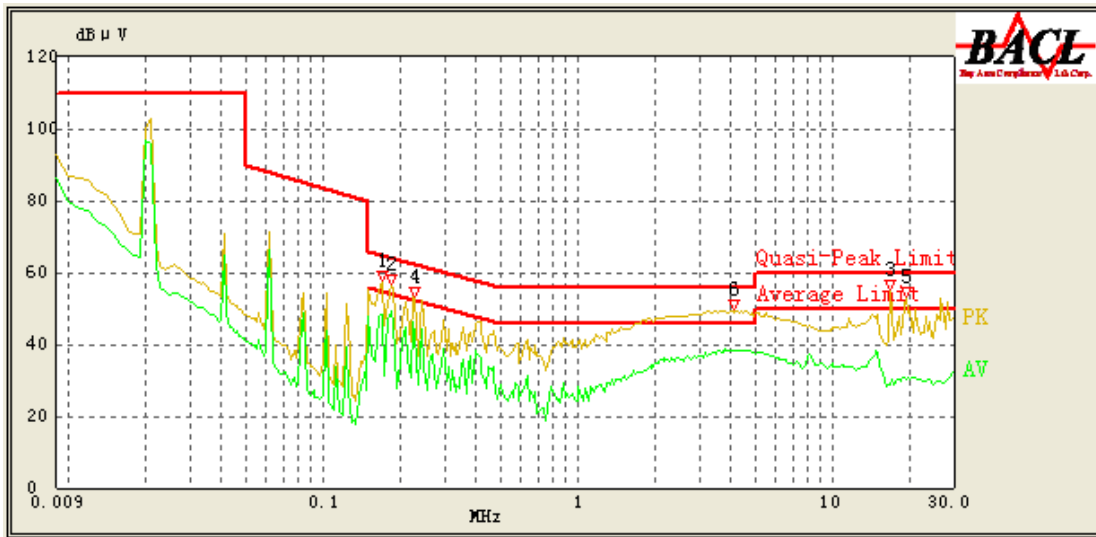
### Environmental Conditions

Temperature:	25 °C
Relative Humidity:	48 %
ATM Pressure:	100.0 kPa

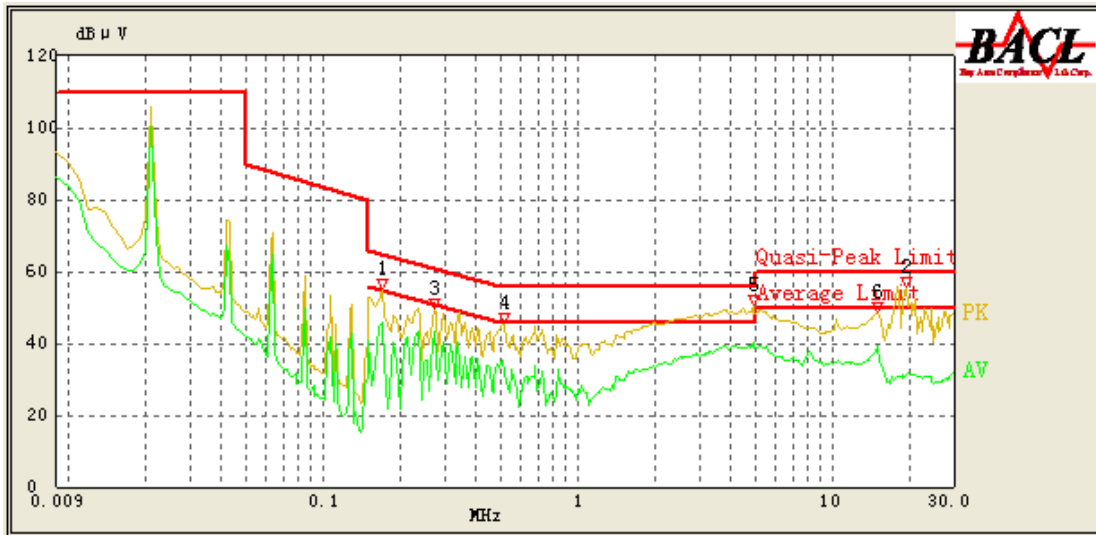
Testing was performed by Lebron Wang on 2011-11-28.

Test Mode: Running (Max power)

AC 120V/60 Hz, Line:



Frequency (MHz)	Corrected Amplitude (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/Ave./QP)
0.185	49.22	10.23	55.00	5.78	Ave.
0.170	48.31	10.23	55.43	7.12	Ave.
4.090	38.35	10.52	46.00	7.65	Ave.
4.090	46.63	10.52	56.00	9.37	QP
0.230	42.85	10.23	53.71	10.86	Ave.
0.230	51.59	10.23	63.71	12.12	QP
0.185	49.50	10.23	65.00	15.50	QP
0.170	48.79	10.23	65.43	16.64	QP
19.515	30.07	11.52	50.00	19.93	Ave.
16.970	28.85	11.48	50.00	21.15	Ave.
19.360	37.69	11.52	60.00	22.31	QP
16.970	35.86	11.48	60.00	24.14	QP

**AC 120V/ 60 Hz, Neutral:**

Frequency (MHz)	Corrected Amplitude (dBμV)	Correction Factor (dB)	Limit (dBμV)	Margin (dB)	Detector (PK/Ave./QP)
4.895	40.47	10.59	46.00	5.53	Ave.
0.275	43.18	10.23	52.43	9.25	Ave.
0.170	45.87	10.23	55.43	9.56	Ave.
0.505	35.37	10.23	46.00	10.63	Ave.
15.060	39.07	11.44	50.00	10.93	Ave.
4.915	44.31	10.59	56.00	11.69	QP
0.275	48.53	10.23	62.43	13.90	QP
15.070	45.30	11.44	60.00	14.70	QP
0.170	49.13	10.23	65.43	16.30	QP
0.515	37.59	10.23	56.00	18.41	QP
19.225	30.84	11.52	50.00	19.16	Ave.
19.440	36.23	11.52	60.00	23.77	QP

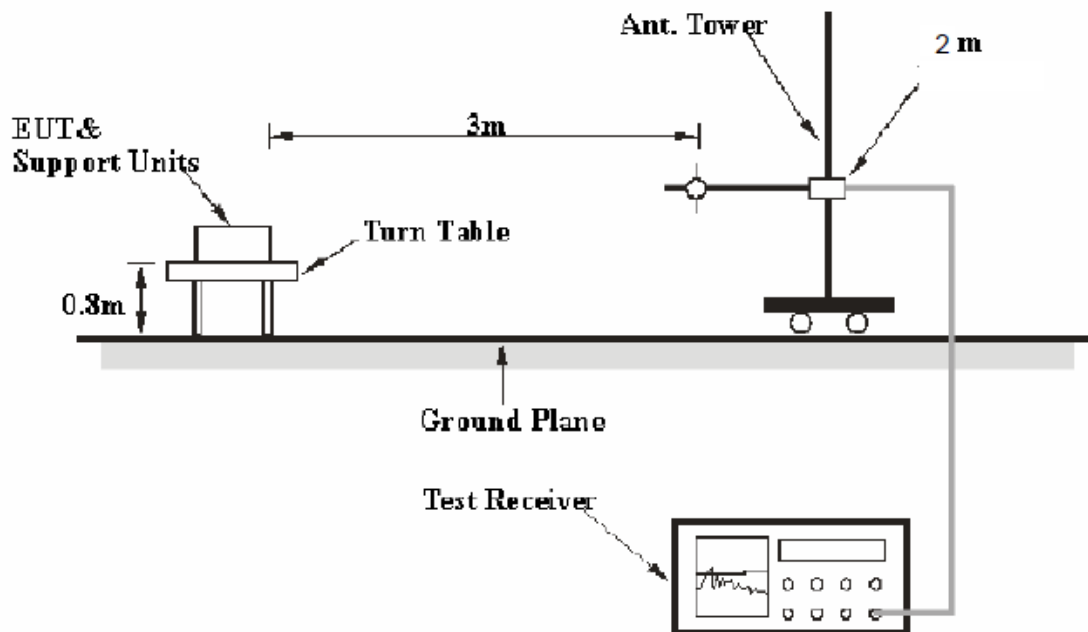
## FCC §18.305 – FIELD STRENGTH

### Measurement Uncertainty

All measurements involve certain levels of uncertainties, especially in field of EMC. The factors contributing to uncertainties are spectrum analyzer, cable loss, antenna factor calibration, antenna directivity, antenna factor variation with height, antenna phase center variation, antenna factor frequency interpolation, measurement distance variation, site imperfections, mismatch (average), and system repeatability.

Based on CISPR 16-4-2, The Treatment of Uncertainty in EMC Measurements, the best estimate of the uncertainty of a radiation emissions measurement at Bay Area Compliance Laboratories Corp. (Shenzhen) is 4.0 dB (k=2, 95% level of confidence).

### EUT Setup



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

The EUT was connected to 120 VAC/60 Hz power source.

## 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:

<i>Frequency Range</i>	<i>R B/W</i>	<i>Video B/W</i>	<i>IF B/W</i>
9 kHz– 150 kHz	300 Hz	1 kHz	200Hz
150 kHz– 30 MHz	10 kHz	30 kHz	9 kHz

## Test Procedure

During the conducted emission test, the EUT was connected to the LISN.

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

All data was recorded in the average 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:

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

The “**Margin**” column of the following data tables indicates the degree of compliance with the applicable limit. For example, a margin of 7dB 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	2011-07-14	2012-07-13
Rohde & Schwarz	EMI Test Receiver	ESCI	100035	2011-11-11	2012-11-10

\* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed per the NVLAP requirements, traceable to NIST.

**Test Data****Environmental Conditions**

<b>Temperature:</b>	25 °C
<b>Relative Humidity:</b>	48 %
<b>ATM Pressure:</b>	100.0 kPa

*The testing was performed by Lebron Wang on 2011-12-31.*

*Test Mode: Running (Max Power)*

Frequency (kHz)	Reading (dBμA/m)	Detector (PK/QP/ Ave.)	Direction (Degree)	Height (m)	Antenna Factor (dB S/m)	Cable Loss (dB)	Result		Limit (dBμV/m)	Margin (dB)
							dBμA/m	dBμV/m		
0.019	-10.01	Ave.	360.00	2.0	29.8	0.1	19.9	71.4	83.5	12.1
0.038	-10.52	Ave.	360.00	2.0	23.9	0.1	13.5	65.0	83.5	18.5
0.056	-15.15	Ave.	360.00	2.0	18.7	0.1	3.7	55.2	83.5	28.3
0.075	-25.40	Ave.	360.00	2.0	16.5	0.1	-8.8	42.7	83.5	40.8
0.101	-34.07	Ave.	360.00	2.0	14.2	0.1	-19.8	31.7	83.5	51.8
0.117	-34.03	Ave.	360.00	2.0	13.5	0.1	-20.4	31.1	83.5	52.4

*Note: dBμV/m= dBμA/m+51.5*

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