

FCC PART 18 TEST REPORT

For

Continental Conair Limited

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FCC ID: U43WIH400

Report Type: Class II Permissive Change	Product Type: Commercial Induction Range
Report Number: SZ2210430-14855E-EM-00	
Report Date: 2021-06-03	
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GENERAL INFORMATION

Product Description for Equipment under Test (EUT)

Product	Commercial Induction Range
Tested Model	WIH400
Multiple Model	WIH400#####
Model Differences	Refer to the DoS letter
Voltage Range	AC 120V/60Hz
Highest operating frequency	28 kHz
Date of Test	2021-05-27 to 2021-05-31
Sample serial number	SZ2210430-14855E-EM-S_4KL (Assigned by BACL, Shenzhen)
Received date	2021-04-30
Sample/EUT Status	Good condition

Objective

This report is 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.

This is a CIIPC application of the device; the differences between the original device and the current one are as follows:

- (1) Change the chip.
- (2) Add the model number “WIH400#####”.
- (3) Change the material of the lamp board.

Based on above difference listed, the modifications will impact all test data, so in this report, all the test items were performed.

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.

Each test item follows test standards and with no deviation.

Measurement Uncertainty

Parameter		uncertainty
Conducted Emissions		$\pm 1.95\text{dB}$
Radiated Emissions	Below 1GHz	$\pm 4.75\text{dB}$
	Above 1GHz	$\pm 4.88\text{dB}$

Note: The extended uncertainty given in this report is obtained by combining the standard uncertainty times the coverage factor K with the 95% confidence interval. Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.

Test Facility

The Test site used by Bay Area Compliance Laboratories Corp. (Shenzhen) to collect test data is located on the 5F(B-West), 6F, 7F, the 3rd Phase of Wan Li Industrial Building D, Shihua Rd, FuTian Free Trade Zone, Shenzhen, China.

The test site has been approved by the FCC under the KDB 974614 D01 and is listed in the FCC Public Access Link (PAL) database, FCC Registration No.: 342867, the FCC Designation No.: CN1221.

The test site has been registered with ISED Canada under ISED Canada Registration Number 3062B.

OPERATING CONDITION/TEST CONFIGURATION

Justification

The EUT was operated at maximum (continuous) RF output power.

EUT Exercise Software

No exercise software was used.

Special Accessories

No special accessory was used.

Equipment Modifications

No modifications were made to the EUT tested.

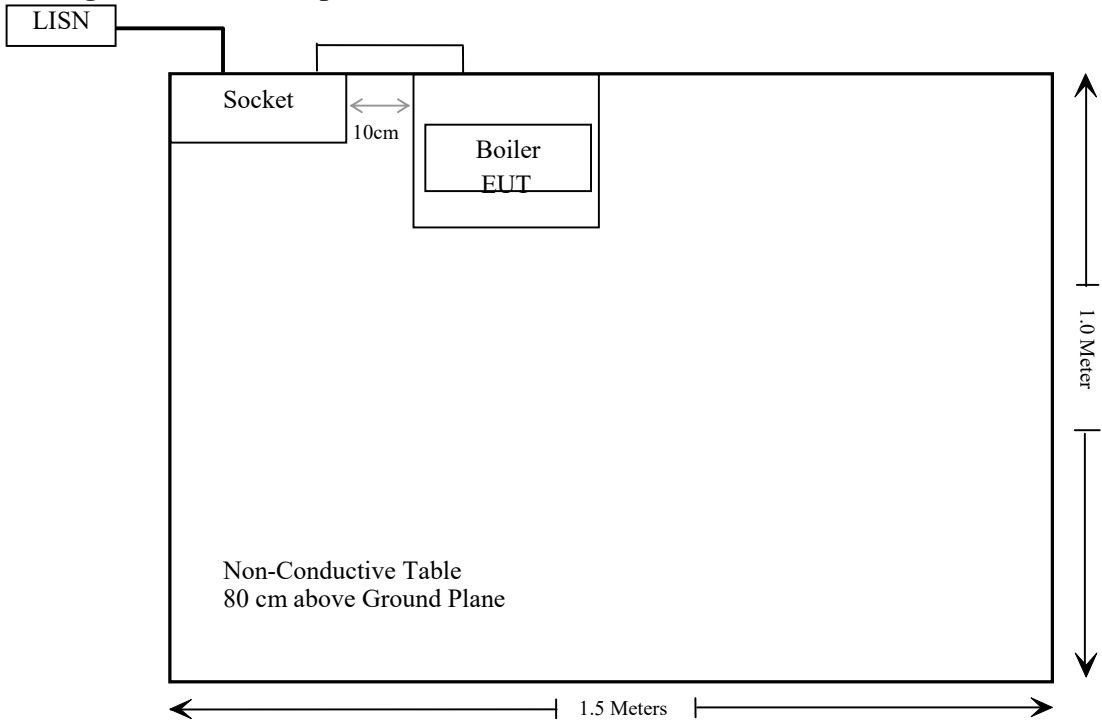
Support Equipment List and Details

Manufacturer	Description	Model	Serial Number
OUKE	Boiler	Unknown	Boiler

External Cable List and Details

Cable Description	Length (m)	From/Port	To
Un-shielded Un-detachable AC cable	1.0	LISN	Socket
Un-shielded Un-detachable AC cable	1.0	Socket	EUT

Block Diagram of Test Setup



SUMMARY OF TEST RESULT

FCC Rules	Description of Test	Results
§18.307	AC Line Conducted Emissions	Compliant
§18.305	Field Strength	Compliant

TEST EQUIPMENT LIST

Manufacturer	Description	Model	Serial Number	Calibration Date	Calibration Due Date
CONDUCTED EMISSIONS					
Rohde & Schwarz	EMI Test Receiver	ESCI	101120	2020/08/04	2021/08/03
Rohde & Schwarz	LISN	ENV216	101613	2020/08/04	2021/08/03
Rohde & Schwarz	Transient Limitor	ESH3Z2	DE25985	2020/11/29	2021/11/28
Unknown	CE Cable	CE Cable	UF A210B-1-0720-504504	2020/11/29	2021/11/28
Rohde & Schwarz	CE Test software	EMC 32	V8.53.0	NCR	NCR
RADIATION HAZARD MEASUREMENT					
R&S	EMI Test Receiver	ESR3	102455	2020/08/04	2021/08/03
Sonoma instrument	Pre-amplifier	310 N	186238	2020/08/04	2021/08/03
ETS	Passive Loop Antenna	6512	29604	2018/07/14	2021/07/13
Unknown	Cable 2	RF Cable 2	F-03-EM197	2020/11/29	2021/11/28
Unknown	Cable	Chamber Cable 4	EC-007	2020/11/29	2021/11/28
Rohde & Schwarz	Auto test software	EMC 32	V9.10	NCR	NCR

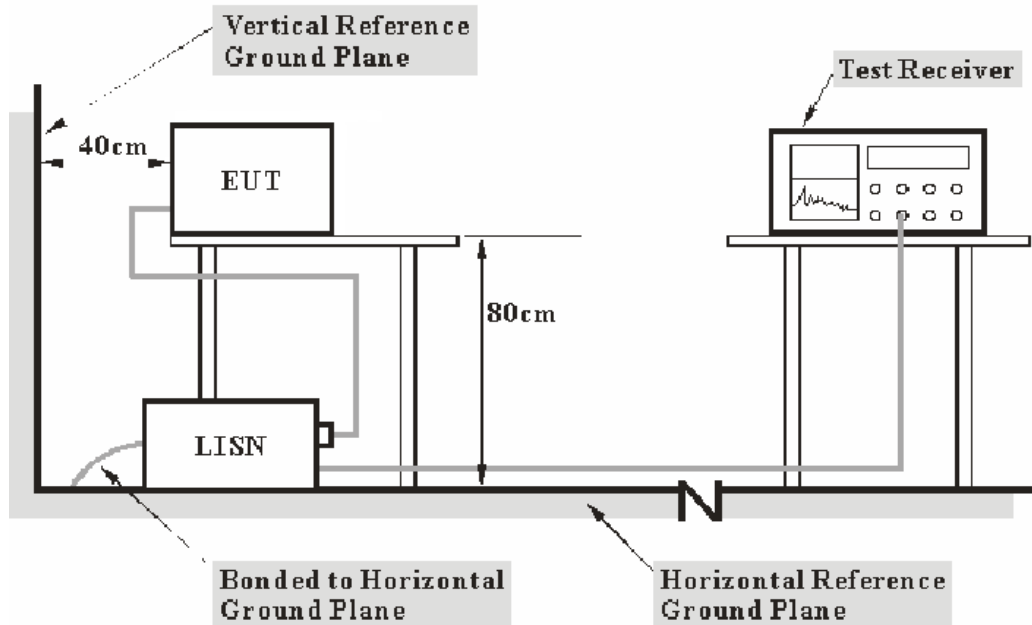
* **Statement of Traceability:** Bay Area Compliance Laboratories Corp. (Shenzhen) attests that all calibrations have been performed in accordance to requirements that traceable to National Primary Standards and International System of Units (SI).

CONDUCTED EMISSIONS

Applicable Standard

FCC §18.307

EUT Setup



- Note:** 1. Support units were connected to second LISN.
 2. Both of LISNs (AMN) 80 cm from EUT and at the least 30 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.

The socket was connected to a 120 VAC/ 60Hz 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:

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.

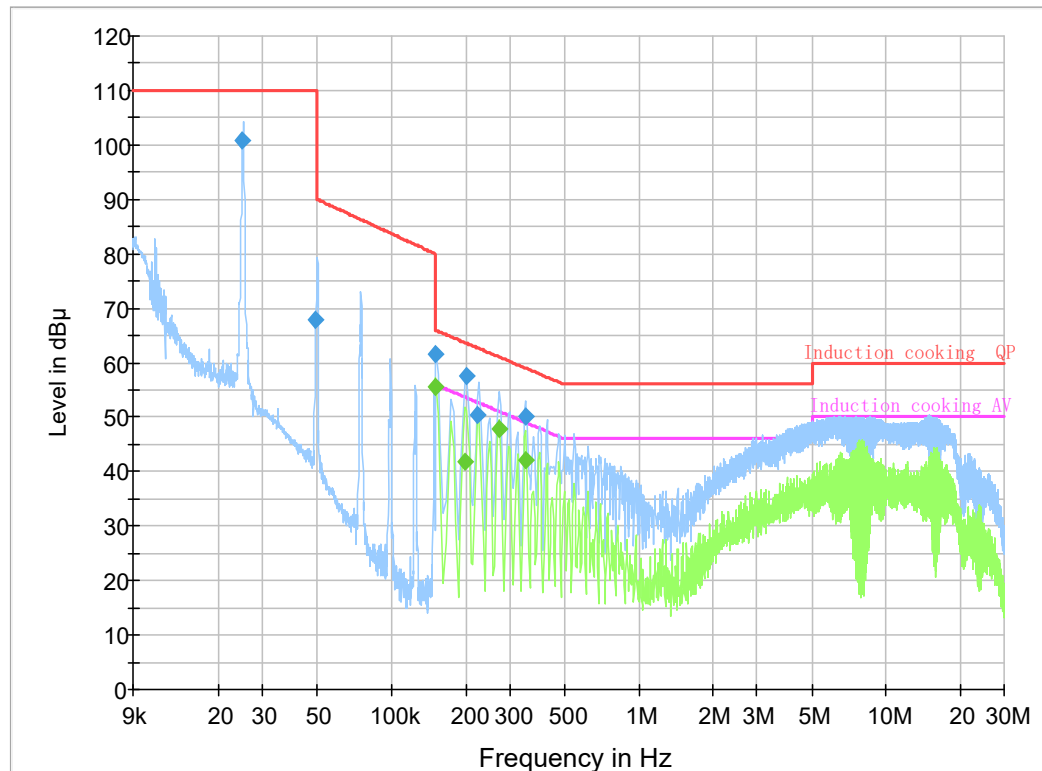
All final data was recorded in the Quasi-peak and average detection mode.

Test Data**Environmental Conditions**

Temperature:	25 °C
Relative Humidity:	65 %
ATM Pressure:	101.0 kPa

The testing was performed by Haiguo Li on 2021-05-27.

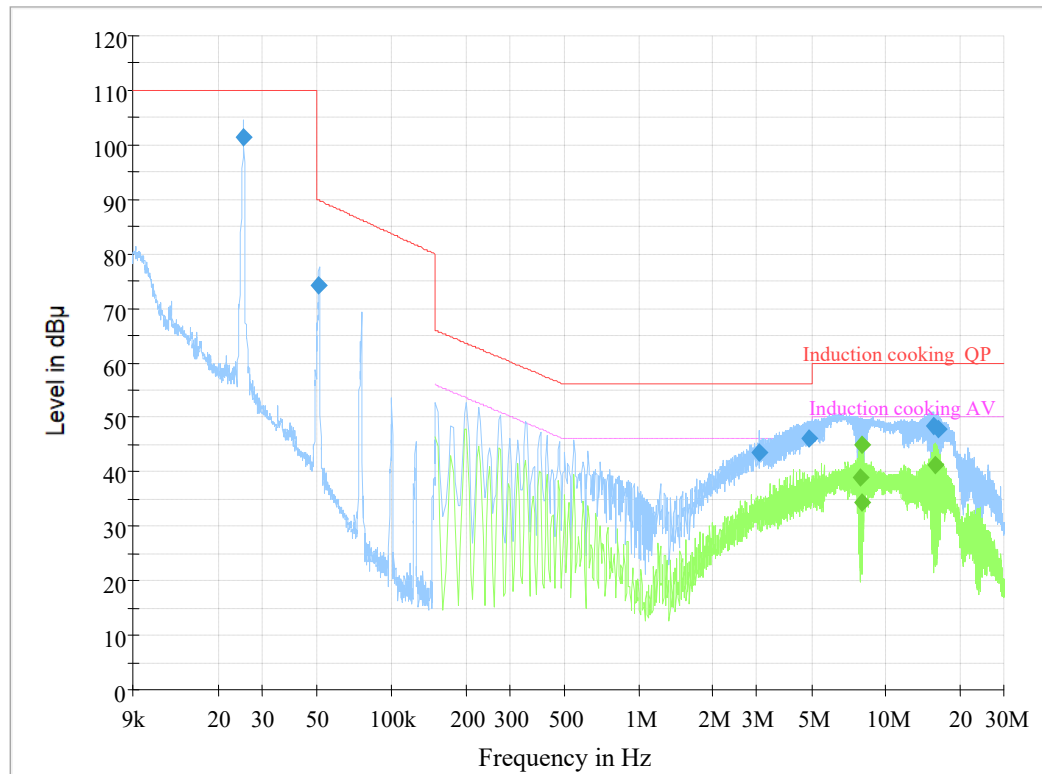
Test mode: Cooking

AC 120V/60 Hz, Line**Final Result 1**

Frequency (MHz)	QuasiPeak (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.024756	100.9	0.200	L1	20.3	9.1	110.0
0.049422	67.9	0.200	L1	19.9	42.1	110.0
0.150000	61.6	0.200	L1	19.8	4.4	66.0
0.201500	57.6	9.000	L1	19.8	5.9	63.5
0.221500	50.3	9.000	L1	19.8	12.5	62.8
0.348750	50.2	9.000	L1	19.9	8.8	59.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.150000	55.4	9.000	L1	19.8	0.6	56.0
0.198000	41.8	9.000	L1	19.8	11.9	53.7
0.274000	47.8	9.000	L1	19.8	3.2	51.0
0.350000	42.0	9.000	L1	19.9	7.0	49.0

AC 120V/60 Hz, Neutral**Final Result 1**

Frequency (MHz)	QuasiPeak (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
0.025234	101.4	0.200	N	20.5	8.6	110.0
0.049983	72.9	0.200	N	19.8	16.9	89.8
3.078000	43.6	9.000	N	19.9	12.4	56.0
4.882000	46.2	9.000	N	19.9	9.8	56.0
15.666000	48.4	9.000	N	20.0	11.6	60.0
16.222000	47.7	9.000	N	20.1	12.3	60.0

Final Result 2

Frequency (MHz)	Average (dB μ V)	Bandwidth (kHz)	Line	Corr. (dB)	Margin (dB)	Limit (dB μ V)
7.914000	38.9	9.000	N	19.9	11.1	50.0
7.958000	44.8	9.000	N	19.9	5.2	50.0
8.026000	34.4	9.000	N	19.9	15.6	50.0
15.818000	41.3	9.000	N	20.0	8.7	50.0

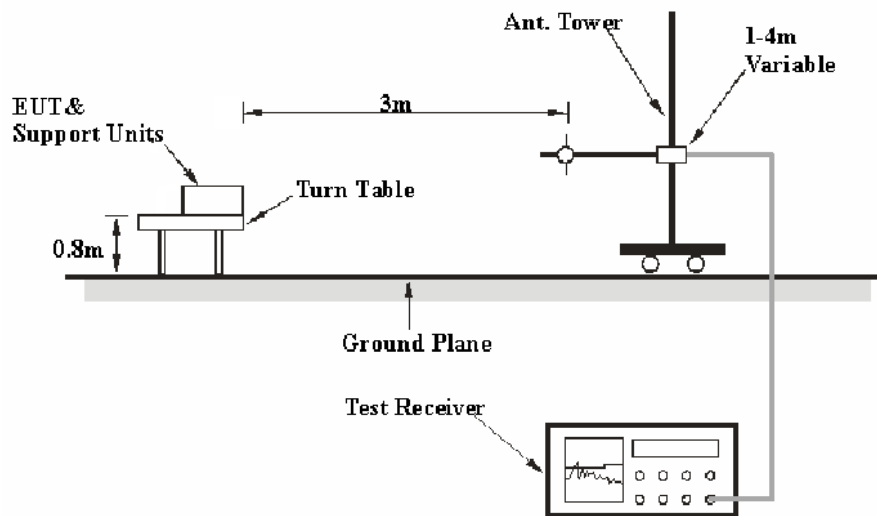
RADIATED EMISSIONS

Applicable Standard

FCC §18.305 and FCC §18.309

EUT Setup

Below 1GHz:



The radiated emission tests were performed in the 3 meters chamber test site, using the setup accordance with the FCC MP - 5. The specification used was the FCC part 18 limits.

The socket 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:

Frequency Range	RBW	Video B/W	IF B/W	Measurement
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 to ensure that the EUT complied with all installation combinations.

The EUT was in the normal (naïve) operating mode during the final qualification test to represent the worst results.

Corrected Amplitude & Margin 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:

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

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 7dB below the limit. The equation for margin calculation is as follows:

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

Test Data and Plots

Environmental Conditions

Temperature:	29 °C
Relative Humidity:	60 %
ATM Pressure:	101.0 kPa

The testing was performed by Harris He on 2021-05-31.

9 KHz –30 MHz

Frequency (MHz)	Reading (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Height (m)	Turntable Degree	Correction Factor (dB/m)
0.32	42.68	103.52	57.84	2.0	281.0	55.6
0.49	47.24	103.52	53.28	2.0	147.0	51.9
2.03	38.19	103.52	62.33	2.0	335.0	40.9
6.14	43.33	103.52	57.19	2.0	203.0	34.3
10.36	49.54	103.52	50.98	2.0	96.0	32.3
16.57	40.47	103.52	60.05	2.0	169.0	32.2

Result: Compliance

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