FCC Test Report

Client Information:

Applicant: Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd

Applicant add.: No.6, Yong An Road, Beijiao, Shunde, Foshan, China

ProductInformation:

EUT Name: Induction Cooker

Model No.: MC-ID175, NS-IC2ZBK7

Brand Name: N/A

FCC ID: VG8ID175

Standards: 47 CFR PART 18:2015

Prepared By:

UL-CCIC Company Limited

Add. : Electronic Building, Parage Electronic Industrial Park, No. 8 Nanyun Er Road, Guangzhou Science Park, Guangzhou, 510663 China

Date of Receipt:Jun27, 2017 Date of Test: June28~July. 10, 2017

Date of Issue: July.10, 2017 Test Result: Pass

This device described above has been tested by Compliance Certification Services (Shenzhen) Inc., and the test results show that the equipment under test (EUT) is in compliance with the FCC requirements. And it is applicable only to the tested sample identified in the report.
This report shall not be reproduced except in full, without the written approval of UL-CCIC Company Limited.

Reviewed by: Eason Shan **Approved by:** Linda Ni

Table of Contents **Page**

1 TEST SUMMARY

Electromagnetic Interference (EMI)				
Test	**Test Requirement**	**Test Method**	**Class / Severity**	**Result**
Conducted Emission (9 kHz to 30MHz)	47 CFR PART 18:2015	FCCOST/ MP-5:1986	18.307(a)	PASS
Radiated Emission (9 kHz to 30 MHz)	47 CFR PART 18:2015	FCCOST/ MP-5:1986	18.305(b)	PASS

Remark :
None.

General of product information:

Model MC-ID175 & NS-IC2ZBK7 are the same product, MC-ID175 is the orginal model, NS-IC2ZBK7 is the buyer model.

2 GENERAL INFORMATION

2.1 CLIENT INFORMATION

Applicant:	Guangdong Midea Kitchen Appliances Manufacturing Co.,Ltd
Address of Applicant:	No.6, Yong An Road, Beijiao, Shunde, Foshan, China

2.2 GENERAL DESCRIPTION OF E.U.T.

Product Description:	Induction Cooker
Model No.:	MC-ID175

2.3 DETAILS OF E.U.T.

Rated Supply (Voltage):	AC 120V 60Hz 1440W
Power Cable:	1.0m x 2 wires unscreened AC mains cable.

2.4 DESCRIPTION OF SUPPORT UNITS

The EUT has been tested with water.
Enamelware
Diameter 18.5cm*Height14 cm with full of 80% purified water.
Diameter 11.5cm*Height14 cm with full of 80% purified water.

2.5 DEVIATION FROM STANDARDS

None.

2.6 GENERAL TEST CLIMATE DURING TESTING

Temperature: 15-30 °C Humidity: 30~70 %RH Atmospheric Pressure: 860-1060 mbar

2.7 ABNORMALITIES FROM STANDARD CONDITIONS

None.

2.8 TEST LOCATION

Compliance Certification Services (Shenzhen) Inc.

No.10-1 Mingkeda Logistics Park,No.18 Huanguan South RD. Guan lan Town,Baoan District,Shenzhen China

2.9 TEST FACILITY

FCC- Registration No: 441872

3 EQUIPMENT LIST

CONDUCTED EMISSION MEASUREMENT AT TELECOMMUNICATION PORTS

Conducted Emission Test Site					
Name of Equipment	**Manufacturer**	**Model Number**	**Serial Number**	**Last Calibration**	**Due Calibration**
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100783	02/11/2017	02/10/2018
LISN(EUT)	ROHDE&SCHWARZ	ENV216	101543-WX	02/11/2017	02/10/2018
LISN	EMCO	3825/2	8901-1459	02/12/2017	02/11/2018
ISN	TESEQ	ISN T8-CAT6	39886	02/11/2017	02/10/2018
ISN	TESEQ	ISN T400A	25654	02/11/2017	02/10/2018
Temp. / Humidity Meter	VICTOR	HTC-1	N/A	02/15/2017	02/14/2018
Test S/W	FARAD	EZ-EMC/ CCS-3A1-CE			

RADIATED EMISSION TEST SITE (10M CHAMBER)

Radiated Emission Test Site (10m Chamber)					
Name of Equipment	**Manufacturer**	**Model Number**	**Serial Number**	**Last Calibration**	**Due Calibration**
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100088	02/11/2017	02/10/2018
EMI TEST RECEIVER	ROHDE&SCHWARZ	ESCI	100145	02/11/2017	02/10/2018
Preamplifier	EMEC	EM330	I00425	02/11/2017	02/10/2018
Preamplifier	EMEC	EM330	I00426	02/11/2017	02/10/2018
Bi-log Antenna	TESEQ	CBL6143A	26039	02/12/2017	02/11/2018
Bi-log Antenna	TESEQ	CBL6143A	32399	02/12/2017	02/11/2018
System-Controller	CCS	CC-C-F	N/A	N.C.R	N.C.R
System-Controller	CCS	CC-C-F	N/A	N.C.R	N.C.R
Turn Table	CCS	CC-T-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Antenna Tower	CCS	CC-A-1F	N/A	N.C.R	N.C.R
Temp. / Humidity Meter	VICTOR	HTC-1	N/A	02/15/2017	02/14/2018
Test S/W	FARAD	EZ-EMC/ CCS-2Ant			

4 EMISSION TEST RESULTS

4.1 CONDUCTED EMISSIONS, 9 KHZ TO 30MHZ

Test Requirement: 47 CFR PART 18

Test Method: FCC OST/ MP-5

Test Date: 2017-06-28

Power Supply: AC 120V 60Hz

Frequency Range: 150 KHz to 30 MHz

Detector: Peak for pre-scan, Quasi-Peak and Average for the final result.
(200 Hz Resolution Bandwidth for 9 kHz to 150 kHz,
9kHz Resolution Bandwidth for 150 kHz to 30 MHz)

Limit:

Frequency range MHz	**AC mains terminals** dB (μV)	
	Quasi-peak	Average
0.009 to 0.05	110	—
0.05 to 0.15	90 to 80*	—
0.15 to 0.5	66 to 56*	56 to 46*
0.5 to 5	56	46
5 to 30	60	50

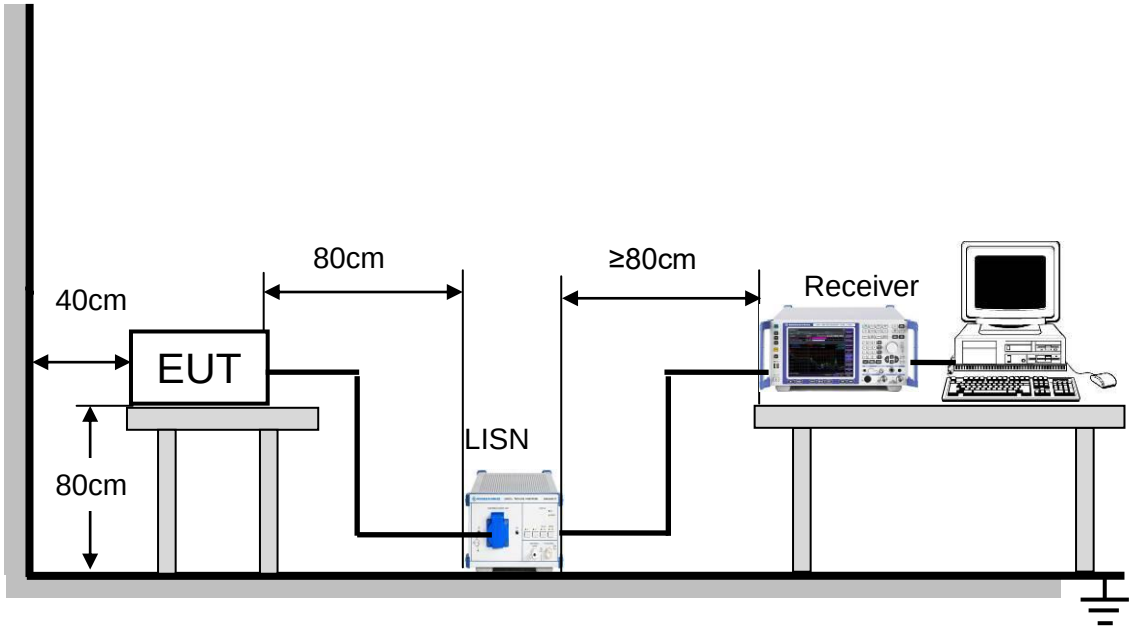
Note1: The limit decreases linearly with the logarithm of the frequency in therange 0.05 MHz to 0.5 MHz.

Note2: The lower limit is applicable at the transition frequency.

4.1.1 E.U.T. OPERATION

Test the EUT in Induction Cooking mode with full power.

4.1.2 TEST SETUP AND PROCEDURE



1. The mains terminal disturbance voltage test was conducted in a shielded room.
2. The EUT was connected to nominal power supply through a LISN 1 (Line Impedance Stabilization Network) which provides a 50Ω/50μH + 5Ω linear impedance. The power cables of all other units of the EUT were connected to a second LISN 2, which was bonded to the ground reference plane in the same way as the LISN 1 for the unit being measured. A multiple socket outlet strip was used to connect multiple power cables to a single LISN provided the rating of the LISN was not exceeded.
3. The tabletop EUT was placed upon a non-metallic table 1 m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. The test was performed with a vertical ground reference plane. The rear of the EUT shall be 0.4 m from the vertical ground reference plane. The vertical ground reference plane was bonded to the horizontal ground reference plane. The LISN 1 was placed 0.8 m from the boundary of the unit under test and bonded to a ground reference plane for LISN mounted on top of the ground reference plane. This distance was between the closest points of the LISN 1 and the EUT. All other units of the EUT and associated equipment was at least 0.8 m from the LISN 2.

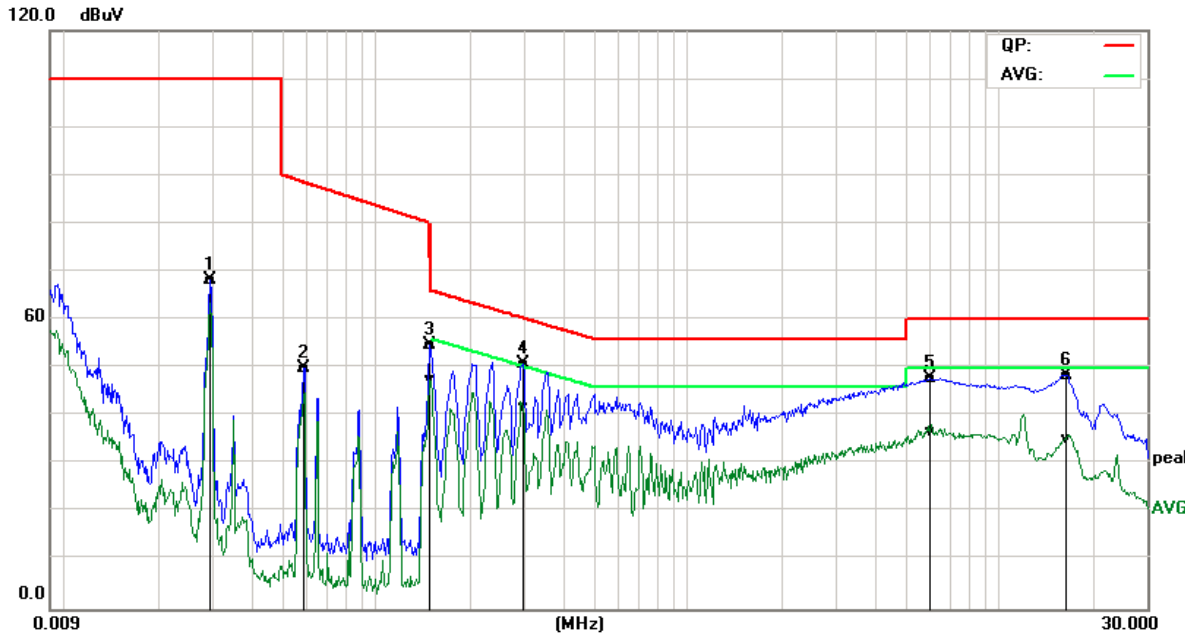
4.1.3 MEASUREMENT DATA

Pre-scan was performed with peak detected on both live and neutral cable. Quasi-peak & average measurements were performed at the frequencies which maximum peak emission level was detected.

Please see the attached Quasi-peak and Average test results.

Live line:

Peak Scan

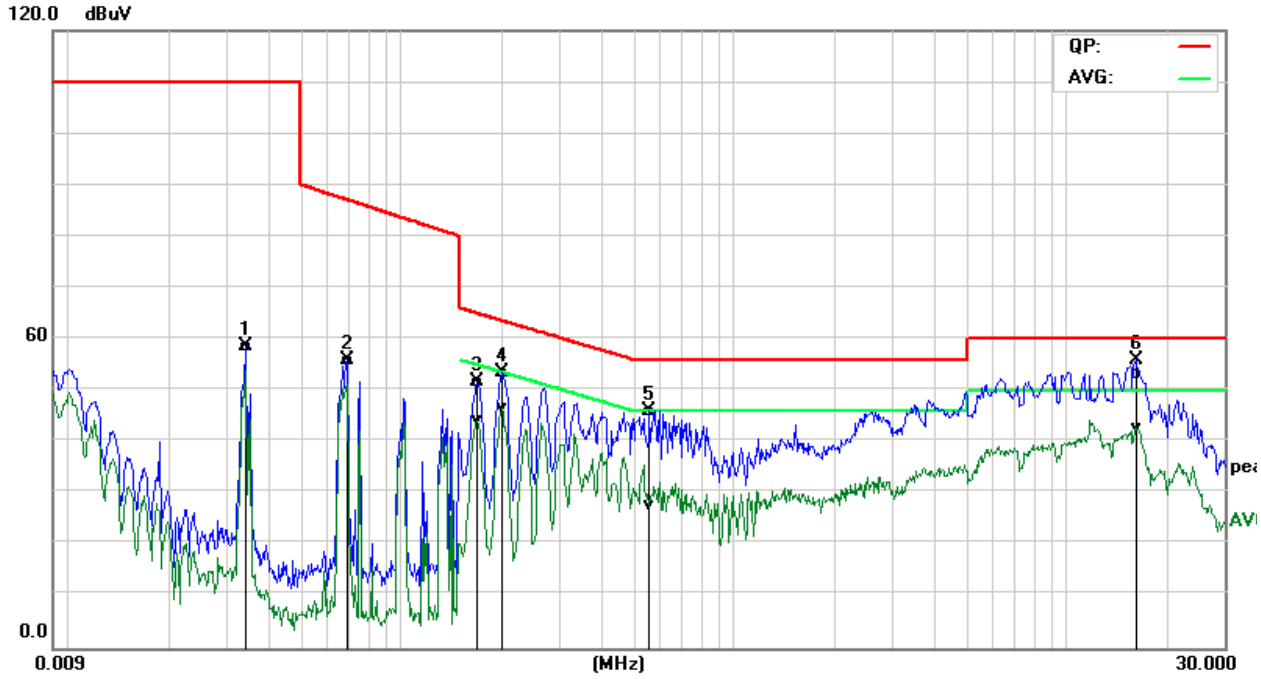


Quasi-peak and Average measurement:

No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)
1*	0.0295	47.90		20.24	68.14		110.00		-41.86	
2	0.0591	30.22		19.85	50.07		88.48		-38.41	
3	0.1500	35.22	27.96	19.52	54.74	47.48	65.99	56.00	-11.25	-8.52
4	0.2980	31.38	22.20	19.54	50.92	41.74	60.30	50.30	-9.38	-8.56
5	6.0420	27.92	16.81	19.83	47.75	36.64	60.00	50.00	-12.25	-13.36
6	16.5620	28.52	15.22	20.07	48.59	35.29	60.00	50.00	-11.41	-14.71

Neutral line:

Peak Scan



Quasi-peak and Average measurement:

No.	Frequency	QuasiPeak reading	Average reading	Correction factor	QuasiPeak result	Average result	QuasiPeak limit	Average limit	QuasiPeak margin	Average margin
	(MHz)	(dBuV)	(dBuV)	(dB)	(dBuV)	(dBuV)	(dBuV)	(dBuV)	(dB)	(dB)
1	0.0340	38.35		20.26	58.61		110.00		-51.39	
2*	0.0689	35.93		20.04	55.97		87.08		-31.11	
3	0.1696	32.07	24.65	19.63	51.70	44.28	64.98	54.98	-13.28	-10.70
4	0.2011	33.90	26.88	19.64	53.54	46.52	63.56	53.57	-10.02	-7.05
5	0.5590	26.47	8.35	19.55	46.02	27.90	56.00	46.00	-9.98	-18.10
6	16.3270	33.23	22.64	20.09	53.32	42.73	60.00	50.00	-6.68	-7.27

4.2 RADIATED EMISSIONS,9 KHZ TO 30MHZ

Test Requirement:	47 CFR PART 18
Test Method:	FCC OST/ MP-5
Power Supply:	AC 120V 60Hz
Test Date:	2017-06-28~2017-07-03
Frequency Range:	9 KHz to 25GHz
Measurement Distance:	10m
Detector:	Peak for pre-scan, Average for the final result (200 Hz Resolution Bandwidth for 9 kHz to 150 kHz 9 kHz Resolution Bandwidth for 150 kHz to 30 MHz)

Limit:

Equipment	Operating frequency	RF Power generated by equipment (watts)	Field strength limit (uV/m)	Distance (meters)
Induction cooking ranges	Below 90 kHz	Any	1,500	[4]30
	On or above 90 kHz	Any	300	[4]30

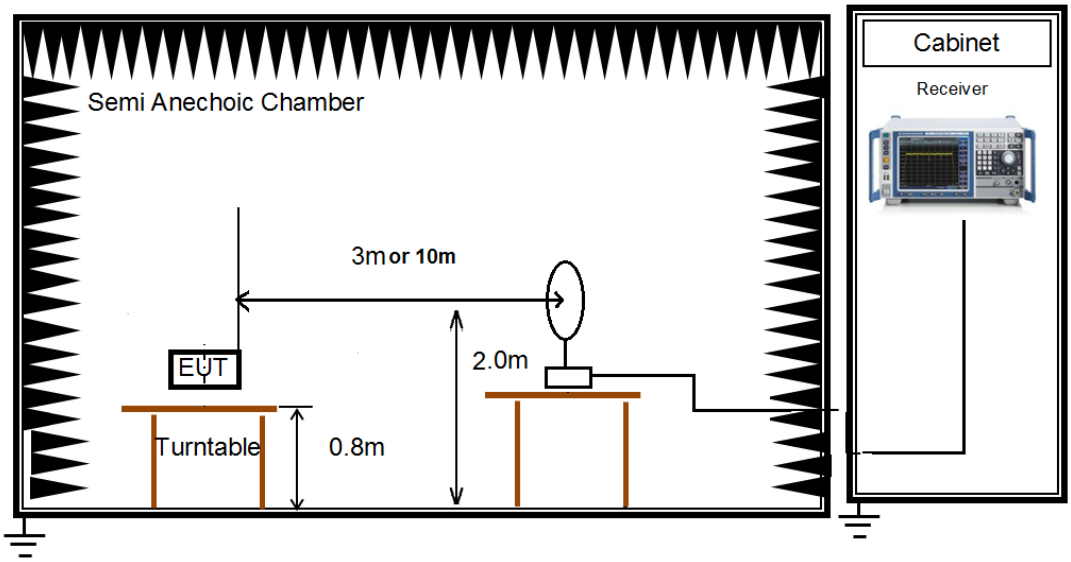
For Induction cooking ranges and the operating frequency is below 90 kHz, the field strength limit is 1,500μV/m@30m,
i.e. **20lg(1500)+20lg(30/10)=63.52+9.54=73.06dBuV/m @10m distance.**

4.2.1 E.U.T. OPERATION

Test the EUT in Induction Cooking mode with full power.

4.2.2 TEST SETUP AND PROCEDURE

9 KHz to 30 MHz



1. The magnetic emissions test was conducted in a semi-anechoic chamber.
2. The EUT was connected to AC power source through a mains power outlet which was bonded to the ground reference plane; The mains cables shall drape to the ground reference plane.
3. The tabletop EUT was placed upon a non-metallic table 1 m above the ground reference plane. And for floor-standing arrangement, the EUT was placed on the horizontal ground reference plane, but separated from metallic contact with the ground reference plane by 0.1m of insulation.
4. Before final measurements of magnetic emissions, a pre-scan was performed in the spectrum mode with the peak detector to find out the maximum emission spectrum signature data plots of the EUT.

   The frequencies of maximum emission were determined in the final magnetic emissions measurement, The physical arrangement of the test system and associated cabling was varied in order to determine the effect on the EUT's emissions in amplitude, direction and frequency. At each frequency, the EUT was rotated 360 °, the antenna was supported in the vertical plane and be rotatable about a vertical axis. The antenna height was set at around 2 m above the ground reference plane.

4.2.3 MEASUREMENT DATA

9 KHz to 30 MHz:

Test Mode: Full power

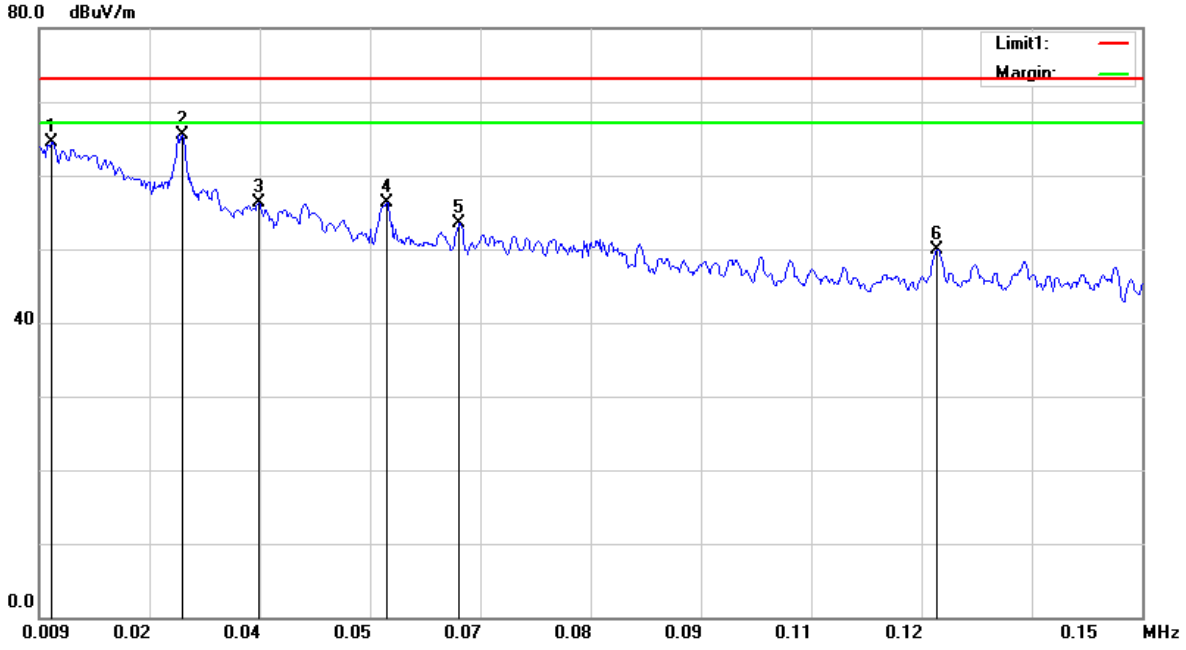
Vertical:

Peak scan
Level (dBμV/m)

No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	0.0106	64.56	0.00	64.56	73.06	-8.50			peak
2*	0.0273	65.54	0.00	65.54	73.06	-7.52			peak
3	0.0371	56.22	0.00	56.22	73.06	-16.84			peak
4	0.0534	56.38	0.00	56.38	73.06	-16.68			peak
5	0.0627	53.48	0.00	53.48	73.06	-19.58			peak
6	0.1237	49.89	0.00	49.89	73.06	-23.17			peak

Average measurement

Level = Read Level + Antenna Factor + Cable Loss – Preamp Factor.



Test Mode: Full power

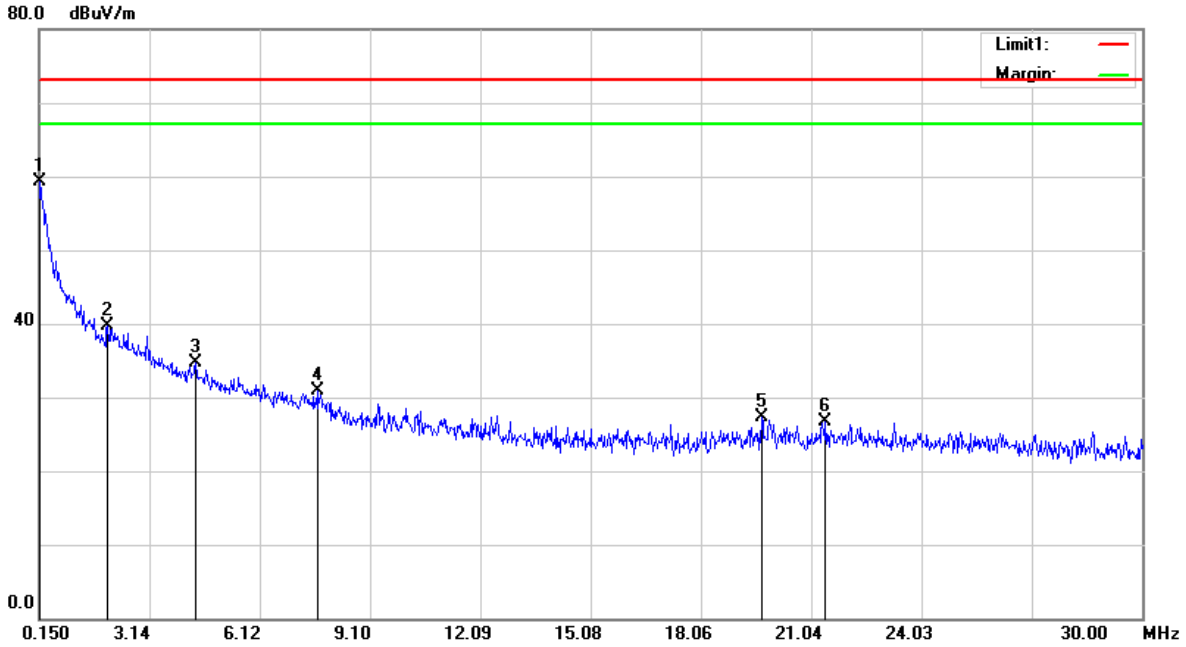
Vertical:

Peak scan
Level (dBμV/m)

No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1*	0.1798	59.28	0.00	59.28	73.06	-13.78			peak
2	2.0007	39.77	0.00	39.77	73.06	-33.29			peak
3	4.3887	34.61	0.00	34.61	73.06	-38.45			peak
4	7.6722	30.85	0.00	30.85	73.06	-42.21			peak
5	19.7018	27.26	0.00	27.26	73.06	-45.80			peak
6	21.4331	26.64	0.00	26.64	73.06	-46.42			peak

Average measurement

Level = Read Level + Antenna Factor + Cable Loss – Preamp Factor.



Test Mode: Full power

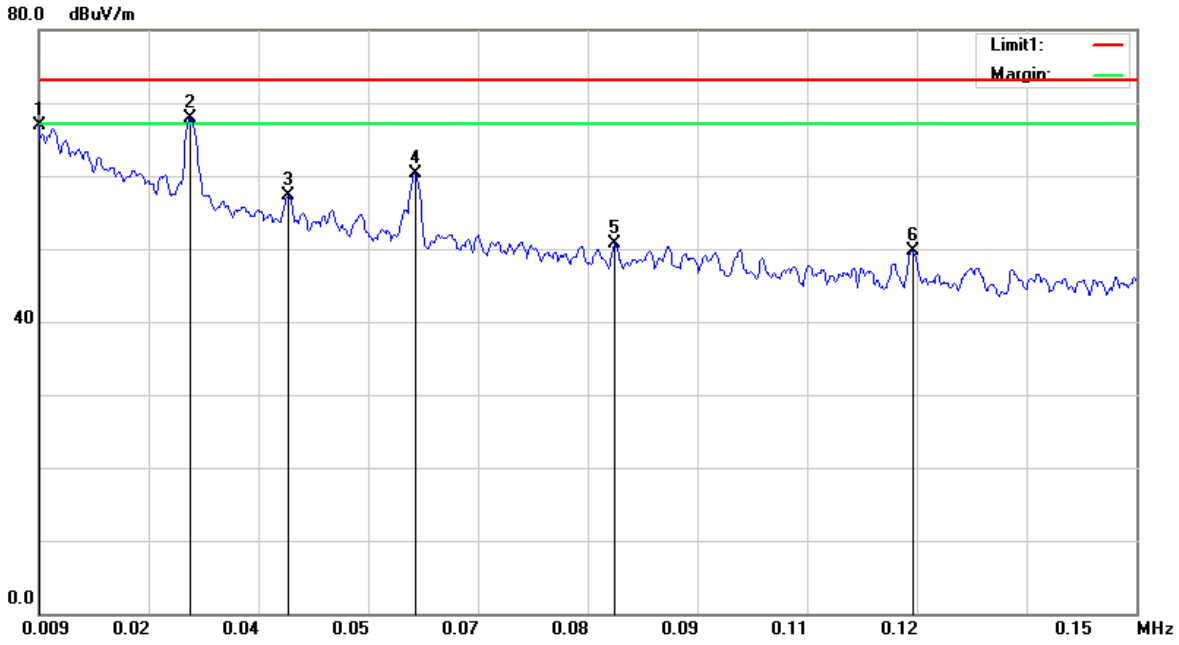
Horizontal:

Peak scan
Level (dBμV/m)

No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1	0.0090	66.92	0.00	66.92	73.06	-6.14			peak
2*	0.0285	67.88	0.00	67.88	73.06	-5.18			peak
3	0.0410	57.33	0.00	57.33	73.06	-15.73			peak
4	0.0573	60.28	0.00	60.28	73.06	-12.78			peak
5	0.0830	50.65	0.00	50.65	73.06	-22.41			peak
6	0.1212	49.66	0.00	49.66	73.06	-23.40			peak

Average measurement

Level = Read Level + Antenna Factor + Cable Loss – Preamp Factor.



Test Mode: Full power

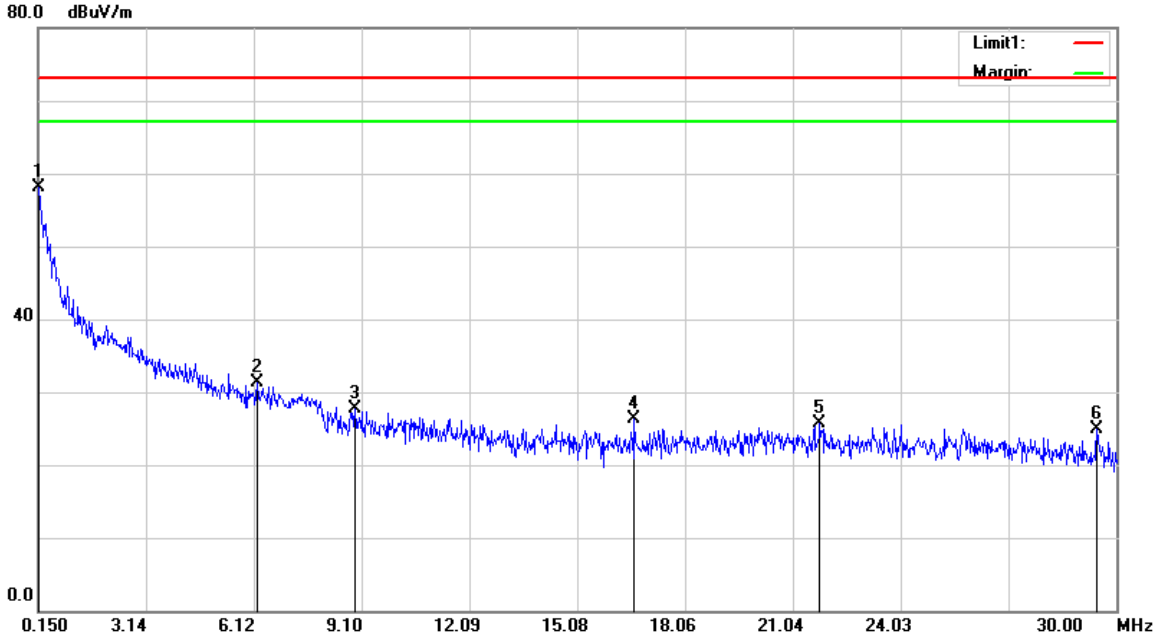
Horizontal:

Peak scan
Level (dBμV/m)

No.	Frequency (MHz)	Reading (dBuV)	Correction factor(dB/m)	Result (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Degree (deg.)	Height (cm)	Remark
1*	0.1500	58.08	0.00	58.08	73.06	-14.98			peak
2	6.2096	31.37	0.00	31.37	73.06	-41.69			peak
3	8.9260	27.78	0.00	27.78	73.06	-45.28			peak
4	16.6571	26.37	0.00	26.37	73.06	-46.69			peak
5	21.7913	25.66	0.00	25.66	73.06	-47.40			peak
6	29.4627	24.98	0.00	24.98	73.06	-48.08			peak

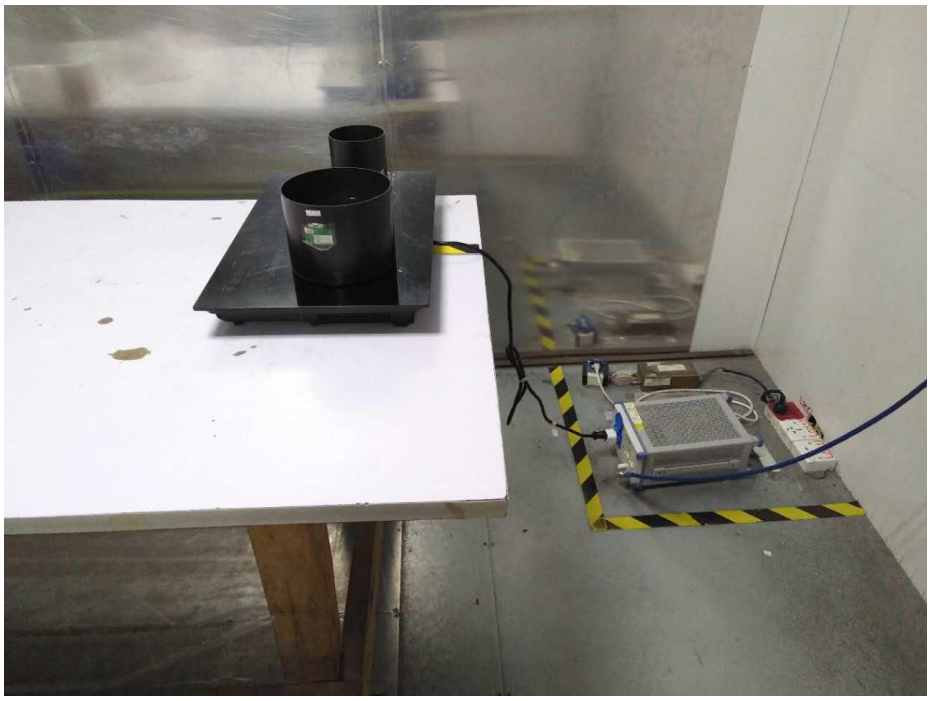
Average measurement

Level = Read Level + Antenna Factor + Cable Loss – Preamp Factor.

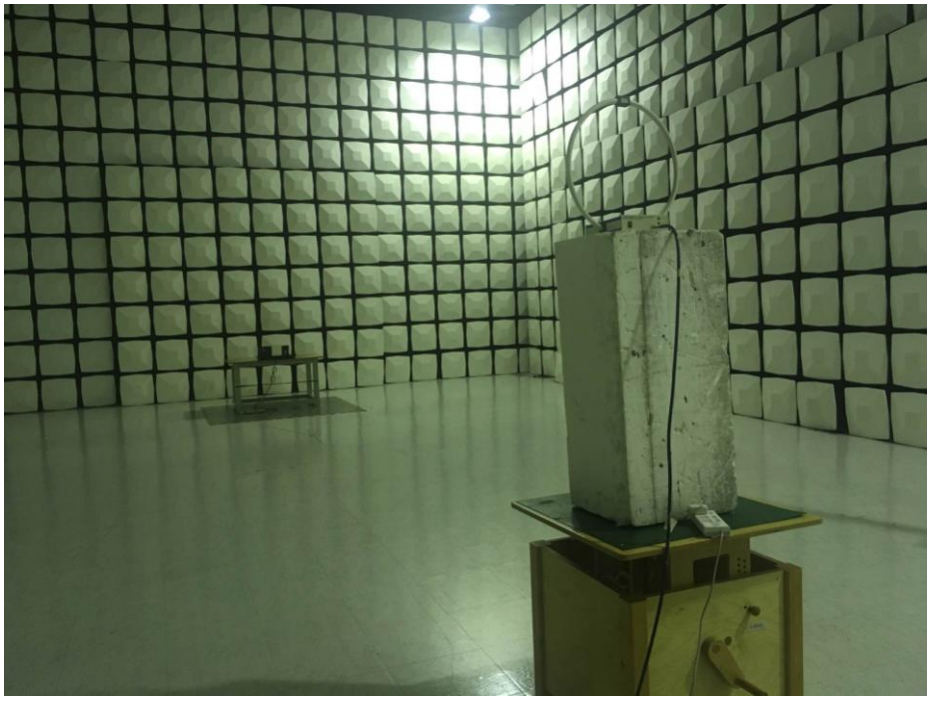


5 PHOTOGRAPHS

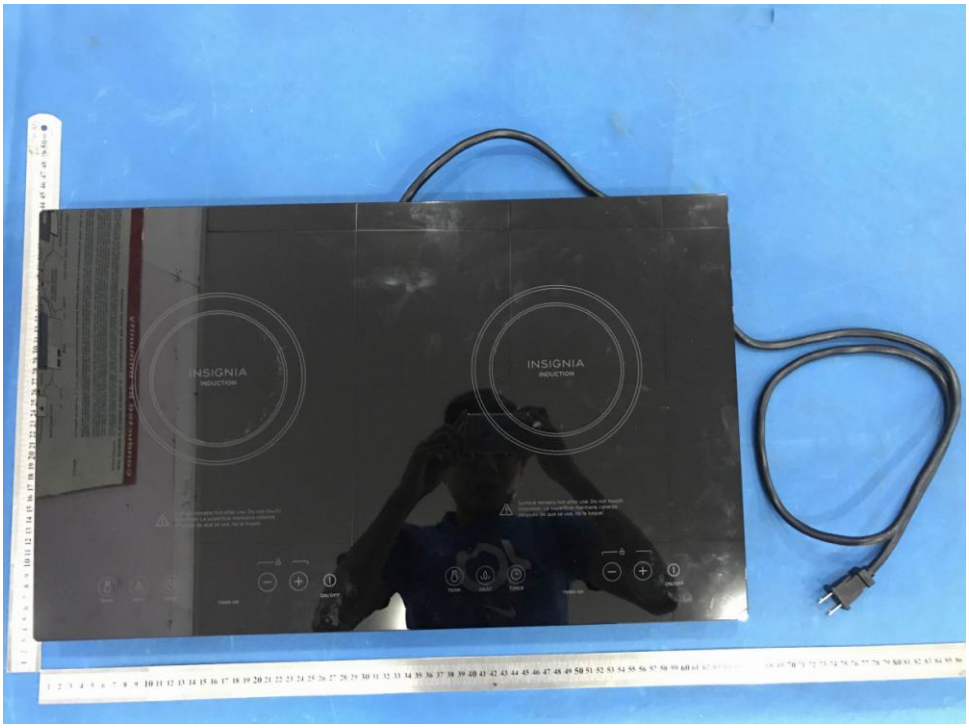
5.1 CONDUCTED EMISSIONS, 9KHZ TO 30 MHZ TEST SETUP

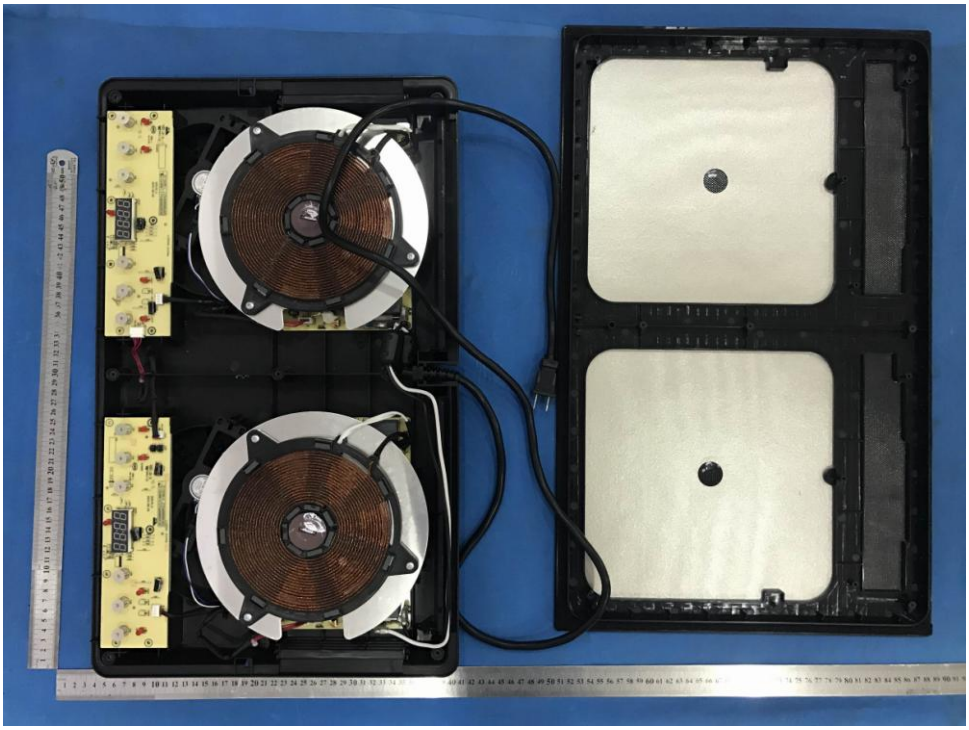


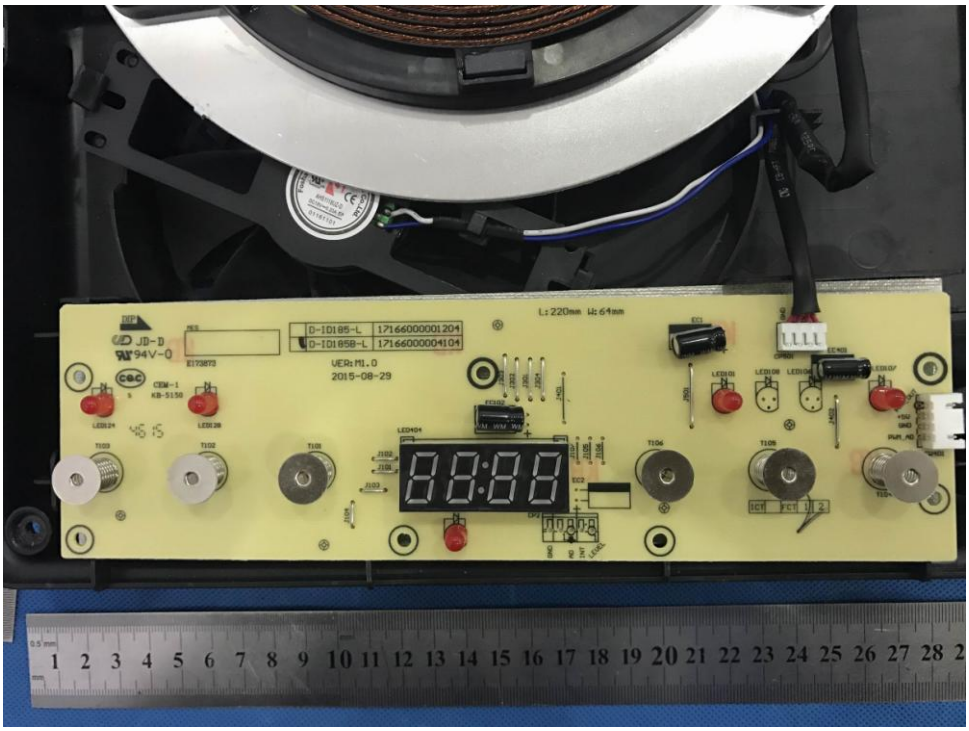
5.2 RADIATED EMISSIONS, 9KHZ TO 30 MHZ TEST SETUP

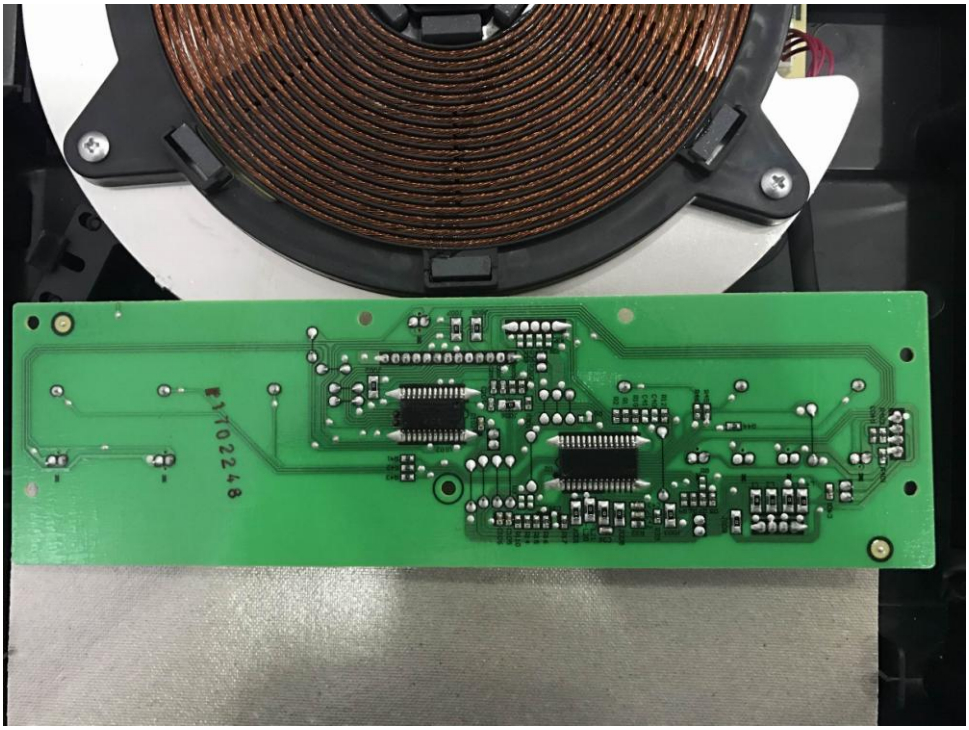


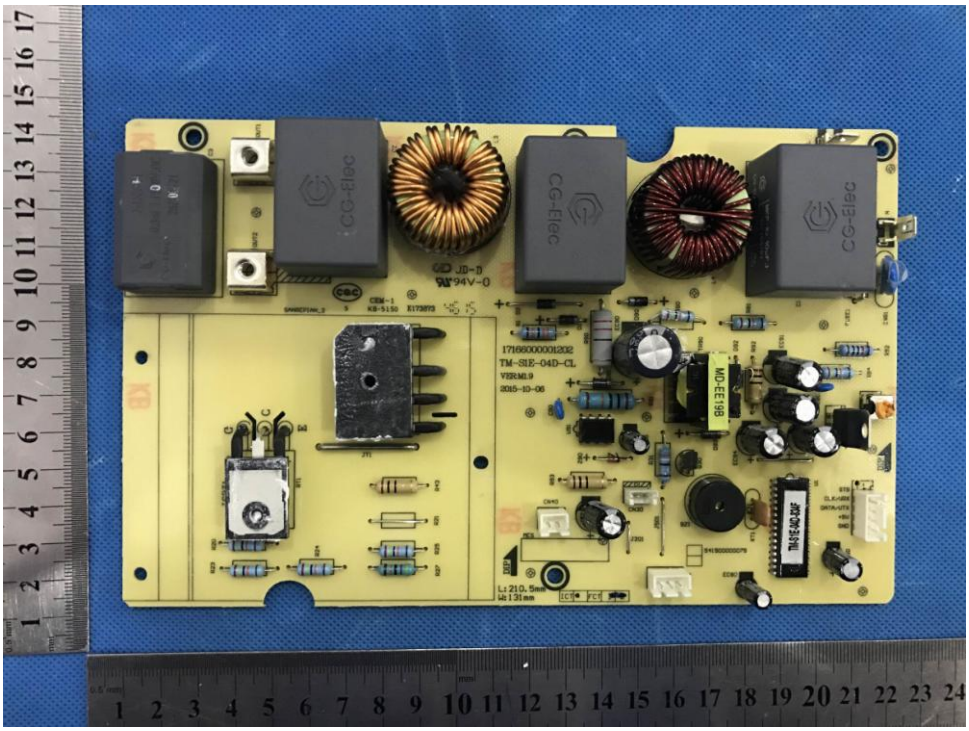
5.3 EUT CONSTRUCTIONAL DETAILS

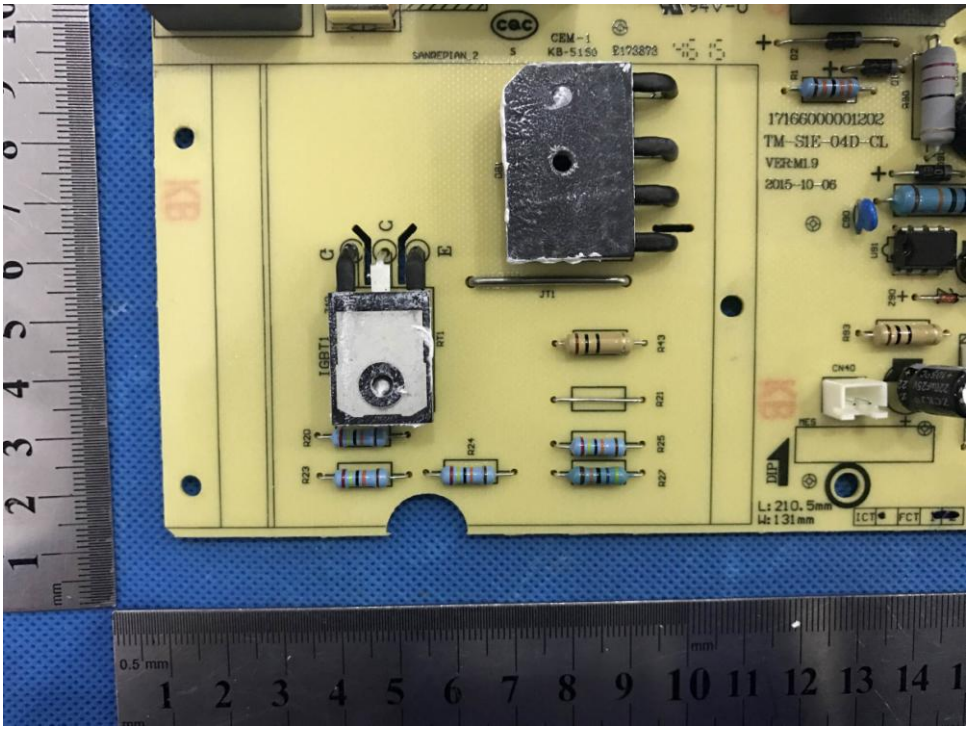


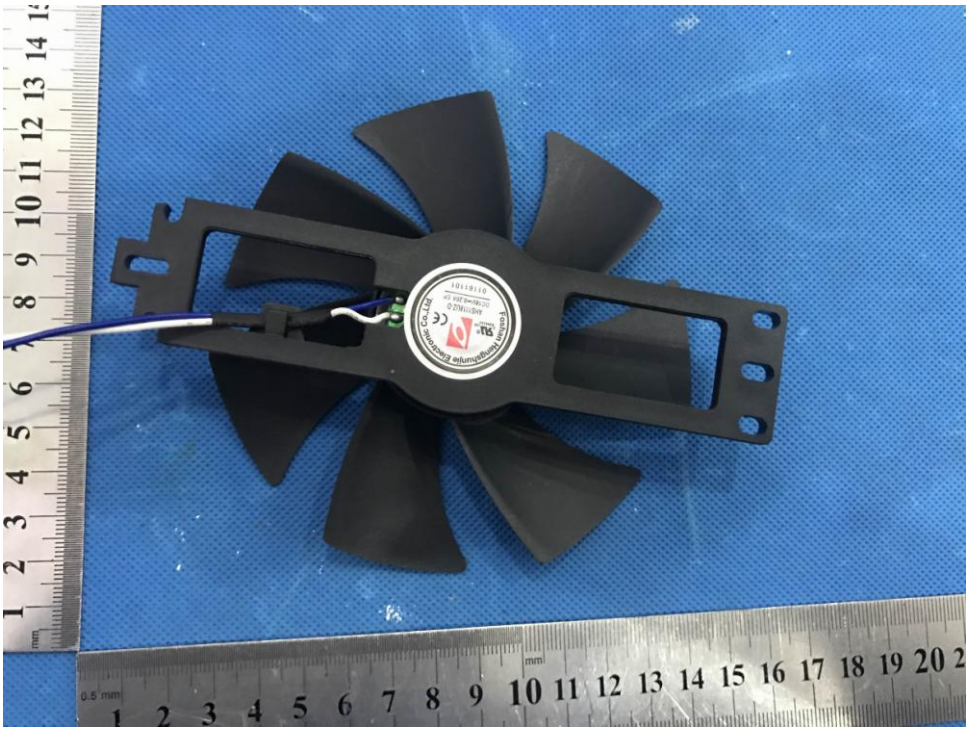


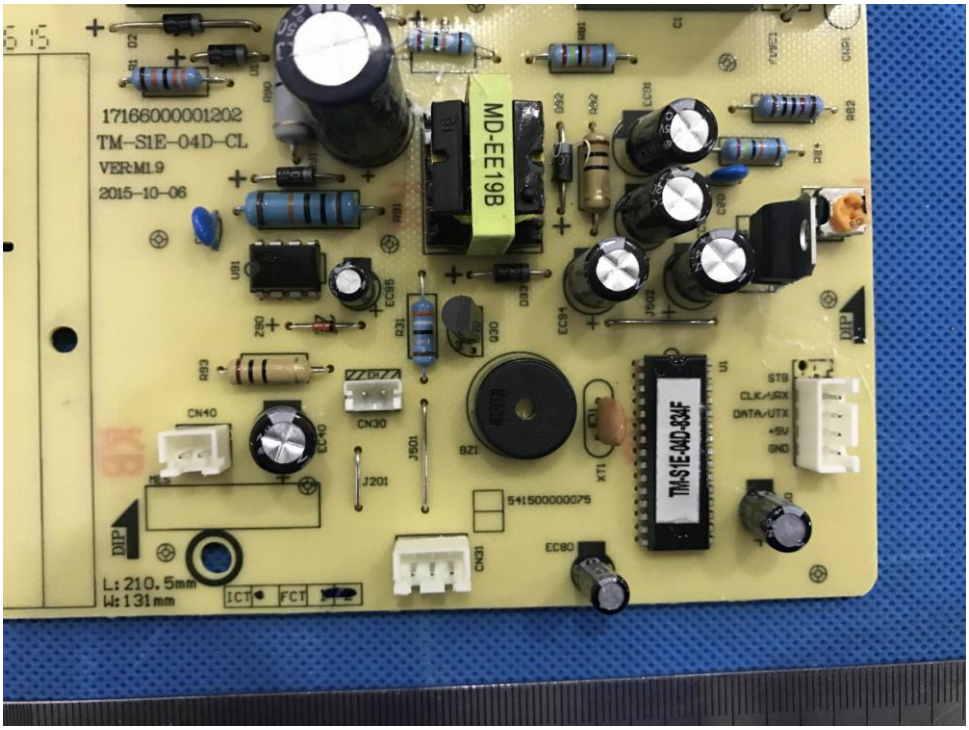

D-ID185-L 171660000001204
D-ID185B-L 171660000004104
VER:M1.0
2015-08-29
L:220mm W:64mm

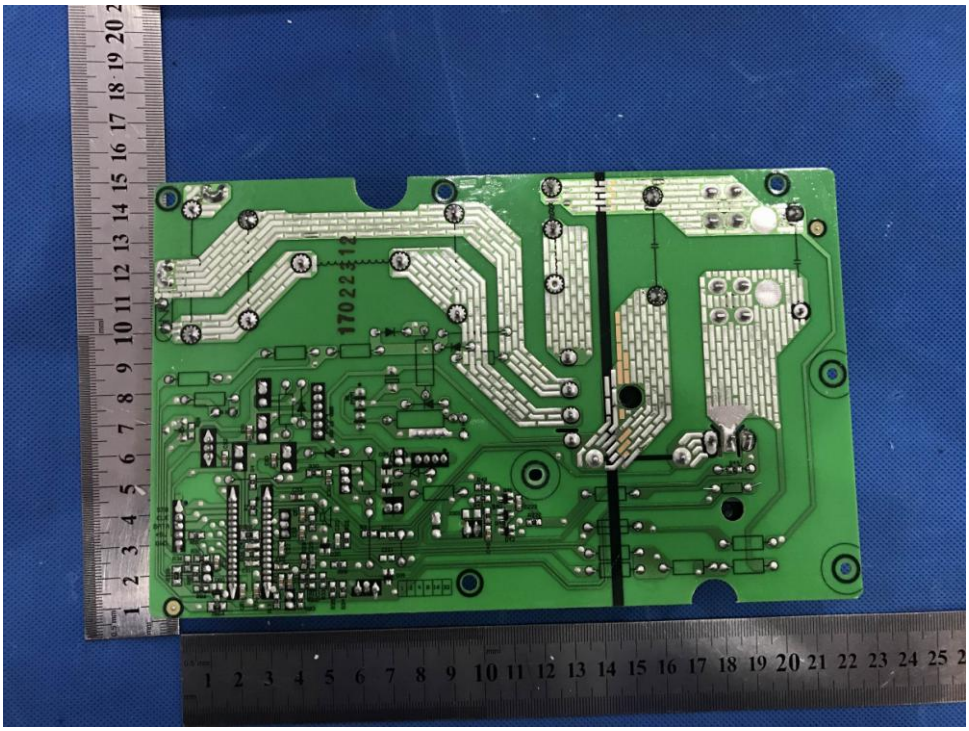

E170224 8

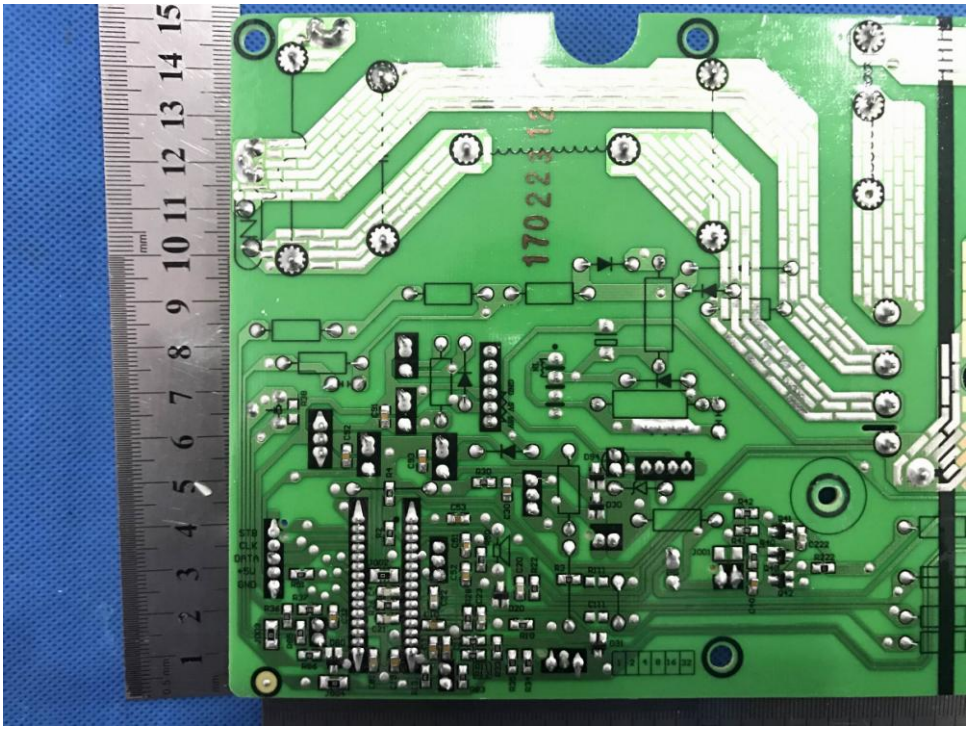

CG-Elec
CG-Elec
CG-Elec
TM-SIE-04D-CL

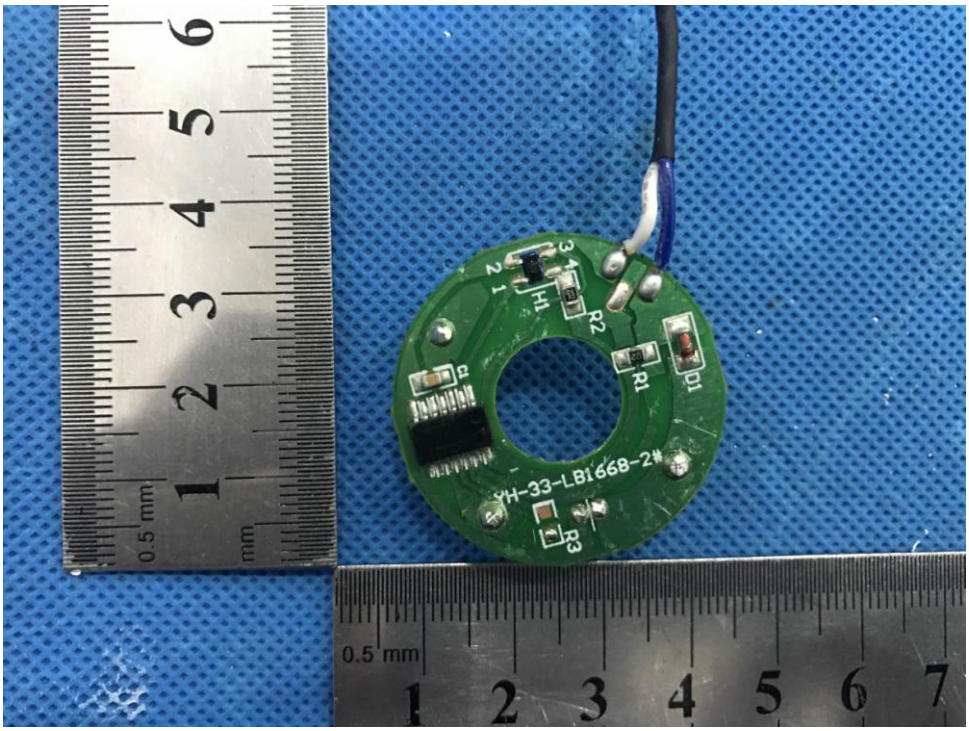

CEM-1
KB-5150
SANDEPIAN_2
1716600000012302
TM-SIE-04D-CL
VER:M1.9
2015-10-06
L:210.5mm
W:131mm

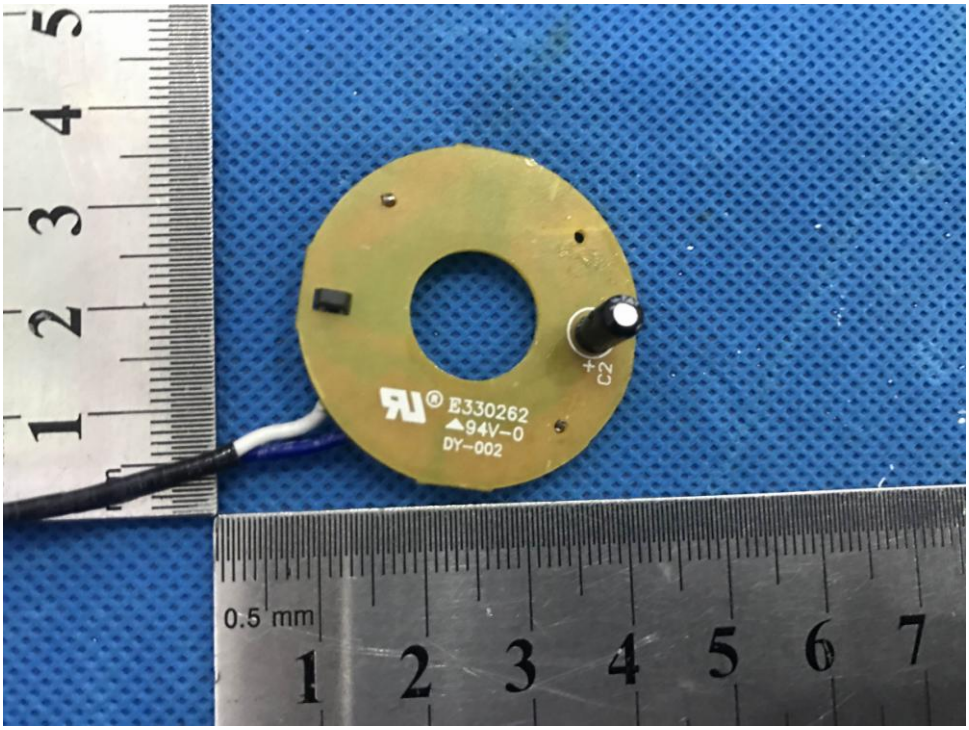



17166000001202
TM-S1E-04D-CL
VER:M1.9
2015-10-06
MD-EE19B
TM-S1E-04D-BSAF
L:210.5mm
W:131mm
ICT
FCT






YH-33-LBI668-2#
R1
R2
R3
D1
H1
0.5 mm



--End of Report--