EMC TEST REPORT

For

Iron
Model No.:R.11221H, A.80301, ACL-95301, R.11218G, R.11218W, R.11221V, R.11222L, R.11218K, JJY-02

Prepared for	:	Cixishi Jijiayou Electrical Appliance Co., Ltd.
Address	:	No. 120, Zhongjiatang, Zhouxiang Town, Cixi City,Zhejiang, China

Prepared By	:	Guangdong KAIXU Testing Technology Co., Ltd.
Address	:	Room 215, Building 2, No. 123, Dongcheng Section, Guanlong Road, Dongcheng Street, Dongguan City, Guangdong Province, China

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Report Number	:	KTi250808E435
Date of Receipt	:	Aug. 08, 2025
Date of Test	:	Aug. 08-13, 2025
Date of Report	:	Aug. 14, 2025

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Test Result Certification

Applicant's name:	Cixishi Jijiayou Electrical Appliance Co., Ltd.
Address:	No. 120, Zhongjiatang, Zhouxiang Town, Cixi City,Zhejiang, China
Manufacture's Name:	Cixi Hengda Electrical Appliance Co., Ltd
Address:	No. 120, Zhongjiatang, Zhouxiang Town, Cixi City,Zhejiang, China
Product name:	Iron
Model name:	R.11221H, A.80301, ACL-95301, R.11218G, R.11218W, R.11221V, R.11222L, R.11218K, JJY-02
Trademark:	N/A
Standards:	EN IEC 55014-1:2021 EN IEC 55014-2:2021 EN IEC 61000-3-2:2019+A2:2024 EN 61000-3-3:2013+A1:2019+A2:2021

This device described above has been tested by Guangdong KAIXU Testing Technology Co., Ltd.. and the test results show that the equipment under test (EUT) is in compliance with the EMC requirements. And it is applicable only to the tested sample identified in the report.

Tested by:	Kevin Yang	
	Kevin Yang	Aug. 14, 2025
Reviewed by:	Terry Huang	
	Terry Huang	Aug. 14, 2025
Approved by:	Store Chu	
	Store Chu	Aug. 14, 2025

GUANGDONG KAIXU TESTING TECHNOLOGY CO., LTD KTi APPROVAL

1 General Description

1.1 Description of EUT

Product name:	Iron
Model name:	R.11221H
Series Model:	A.80301, ACL-95301, R.11218G, R.11218W, R.11221V, R.11222L, R.11218K, JJY-02
Different of series model:	All model names differ only in color and size.
Power supply:	AC 230V, 50Hz
Adapter information:	N/A

1.2 Test mode

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Test mode	Description
Mode 1	Working
Mode 2	/
Mode 3	/
Note: The test modes were carried out for all operation modes. The final test mode of the EUT was the worst test mode for EMI, and its test data is showed.	

1.3 Test setup

See photographs of the test setup in the report for the actual setup and connections between EUT and support equipment.

1.4 Ancillary equipment

Equipment	Model	S/N	Manufacturer
/	/	/	/

2 Summary of Test Result

No.	Test Standard	Description of Test	Result	Remark
Emission				
1	EN IEC 55014-1:2021	Conducted emission	Pass	
2		Radiated emission	Pass	
3	EN IEC 61000-3-2:2019+A2:2024	Harmonic current emission	Pass	
4	EN 61000-3-3:2013+A1:2019+A2:2021	Voltage fluctuations &flicker	Pass	
Immunity				
1	EN IEC 55014-2:2021	Electrostatic discharges (ESD)	Pass	
2		Radiated electromagnetic field disturbances (RS)	Pass	
3		Conducted disturbances (CS)	Pass	
4		Power frequency magnetic field	N/A	
5		Electrical fast transients/burst (EFT/S)	Pass	
6		Surges	Pass	
7		Voltage dips and interruptions	Pass	
N/A: Mean not applicable.				

3 Test Facilities and Accreditations

3.1 Test laboratory

Test Site	Guangdong KAIXU Testing Technology Co., Ltd.
Test Site Location	Room 215, Building 2, No. 123, Dongcheng Section, Guanlong Road, Dongcheng Street, Dongguan City, Guangdong Province, China
Telephone:	(86-755)-85254458
Fax:	(86-755)-85254458
CNAS Registration No.:	/

3.2 Environmental conditions

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

Temperature:	20ºC~30ºC
Humidity	30%~70% (30%~60% for ESD)
Atmospheric pressure	98kPa~101kPa

3.3 Measurement uncertainty

Measurement Uncertainty for a Level of Confidence of 95 %, U=2xUc(y)

Conducted emission(150kHz~30MHz)	± 2.5 dB
Radiated emission(30MHz~1GHz)	± 4.2 dB
Radiated emission (above 1GHz)	± 4.3 dB
Temperature	±1 degree
Humidity	± 5 %

3.4 Test software

Software name	Manufacturer	Model	Version
EMI Measurement Software	Farad	EZ-EMC	V1.1.4.2
Conducted immunity test system	Scholder	EN61000-4-6.exe	V1.3.0
Harmonics and flicker test system	TTI	HA-PC Link	V2.02
DIPS Test Firmware	Prima	DRP61011AG	V4.1.2
EFT Test Firmware	HTEC	HCOMPACT	V1.0.1
Surge Test Firmware	HTEC+	HCOMPACT	V1.0.1

4 List of test equipment

Radiation emission							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	EMI Test Receiver	KTi-E004	Rohde&schwarz	ESPI	1000314	2024/10/10	2025/10/09
2	Broadband antenna	KTi-E006	schwarabeck	VULB9163	872	2024/10/10	2025/10/09
3	Horn antenna	KTi-E007	schwarabeck	BBHA9120D	1201	2024/10/10	2025/10/09
4	amplifier	KTi-E014	America	8447D	3113A06150	2024/10/10	2025/10/09
5	amplifier	KTi-E034	Agilent	8449B	3008A02400	2024/10/10	2025/10/09
6	18-40GHz amplifier	KTi-E052	Chengdu step Micro Technology	ZLNA-18-40G-21	1608001	2024/10/10	2025/10/09
7	spectrum analyzer	KTi-E049	Rohde&schwarz	FSP-38	100019	2024/10/10	2025/10/09
8	15-40G Antenna	KTi-E053	Schwarzbeek	BBHA9170	BBHA9170582	2024/10/10	2025/10/09
9	Active Loop Antenna 9kHz - 30MHz	KTi-E051	Schwarzbeck	FMZB 1519 B	00044	2024/10/10	2025/10/09

Conduction emission							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Artificial power network	KTi-E037	Schwarzbeck	NSLK8127	NSLK8127#841	2024/10/10	2025/10/09
2	EMI Test Receiver	KTi-E003	Rohde&schwarz	ESCI	101368	2024/10/10	2025/10/09
3	Artificial power network	KTi-E058	Schwarzbeck	NSLK8127	NSLK8127#841	2024/10/10	2025/10/09

Conduction immunity							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Conduction Immunity Signal Generator	KTi-E015	Schloder	CDG6000	126A1343/2015	2024/10/10	2025/10/09
2	Coupled decoupling network	KTi-E016	Schloder	CDA M2/M3	A2210332/2015	2024/10/10	2025/10/09

Voltage dips, short interruptions and voltage variations immunity							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Drop generator	KTi-E025	Prima/China	DRP61011AG	PR15056303	2024/10/10	2025/10/09

Working frequency magnetic field immunity							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	power frequency magnetic field generator	KTi-E011	china HTEC	HPFMF 100	153703	2024/10/10	2025/10/09

Electrostatic discharge immunity							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	ESD Simulator	KTi-E008	Schloder	SESD 30000	509325	2024/10/10	2025/10/09

Surge immunity							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Surge Generator	KTi-E010	china HTEC	HCWG 51	153702	2024/10/10	2025/10/09

Harmonic & flicker emissions							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	AC power source	KTi-E023	shenzhen tongyuan	TY-8205	20150916809	2024/10/10	2025/10/09
2	Harmonic scintillation Analyzer	KTi-E013	Laplace	AC2000A	311216	2024/10/10	2025/10/09

Electrical Fast Transient/Burst immunity							
Item	Equipment name	Equipment No.	Manufacturer	Model	Serial No.	Calibration date	Due date
1	Electrical Fast Transient Generator	KTi-E009	HTEC	HEFT 51	153701	2024/10/10	2025/10/09

Radiated electromagnetic field immunity					
Equipment	Manufacturer	Model	Serial No.	Calibration date	Due date
Signal Generator	R&S	SMB100A	106148	2024/10/10	2025/10/09
RF Power Amplifier	BONN Elektronik	STLP9128D	128740	2024/10/10	2025/10/09
Gestockte Breitband (S tacked) Log. -per.Antenna	SCHWARZBECK	STLP9128D	043	2024/10/10	2025/10/09
Power Meter	R&S	NRP2	102031	2024/10/10	2025/10/09
Amplifier	NJNT	NTWPAS-2560025	2560025	2024/10/10	2025/10/09
Broad-band Horn Antenna	SCHWARZBECK	BBHA 9120 D	BBHA9120D-667	2024/10/10	2025/10/09

Note: the calibration interval of the above test instruments is 12 months and the calibrations are traceable to international system unit (SI).

5 Emission test

5.1 Conducted emission

5.1.1 Limits

Frequency (MHz)	Class A (dBμV)		Class B (dBμV)	
	Quasi-peak	Average	Quasi-peak	Average
0.15 -0.5	79	66	66 - 56 *	59 - 46 *
0.5 -5	73	60	56	46
5 -30	73	60	60	50
Note 1: the tighter limit applies at the band edges. *Note 2: the limit of " * " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.*				

5.1.2 Test Procedures

a)The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipment powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.

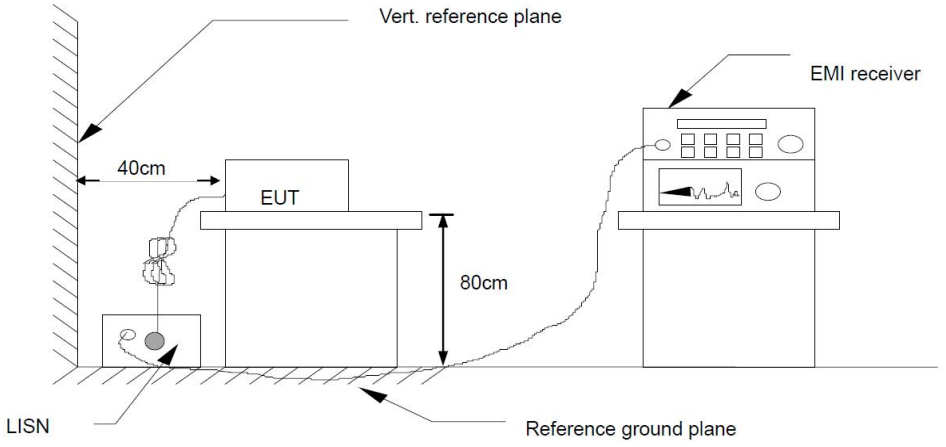
b)Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.

c)I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.

d)LISN is at least 80 cm from nearest part of EUT chassis.

e)For the actual test configuration, please refer to the related Item – photographs of the test setup.

5.1.3 Test setup

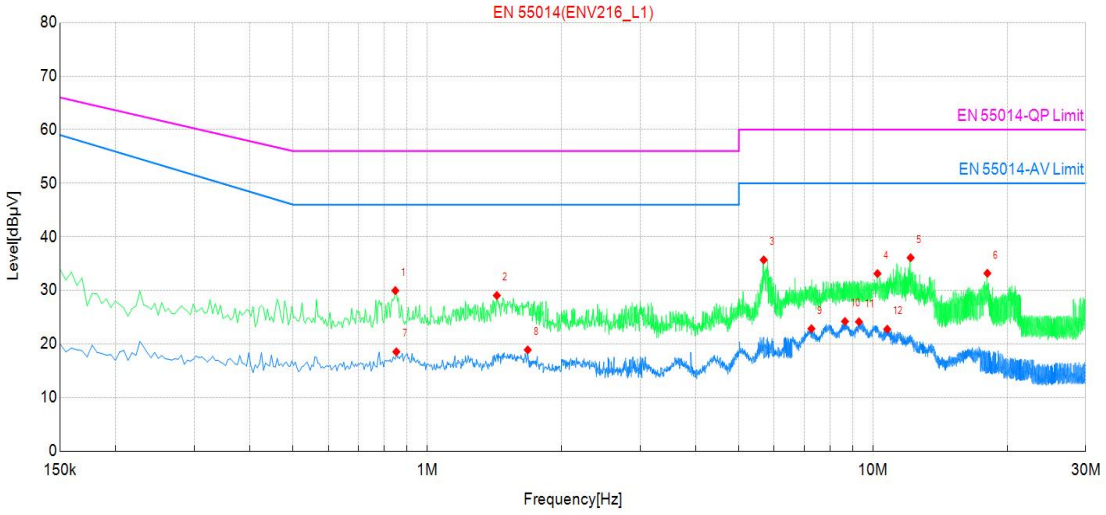


5.1.4 Test Result

PASS

EUT:	Iron	Model Number:	R.11221H
Test voltage:	AC 230V/50Hz	Test mode:	Mode 1
Pressure:	101kPa	Polarization:	L1
Temperature:	24℃	Relative Humidity:	53%

Line:



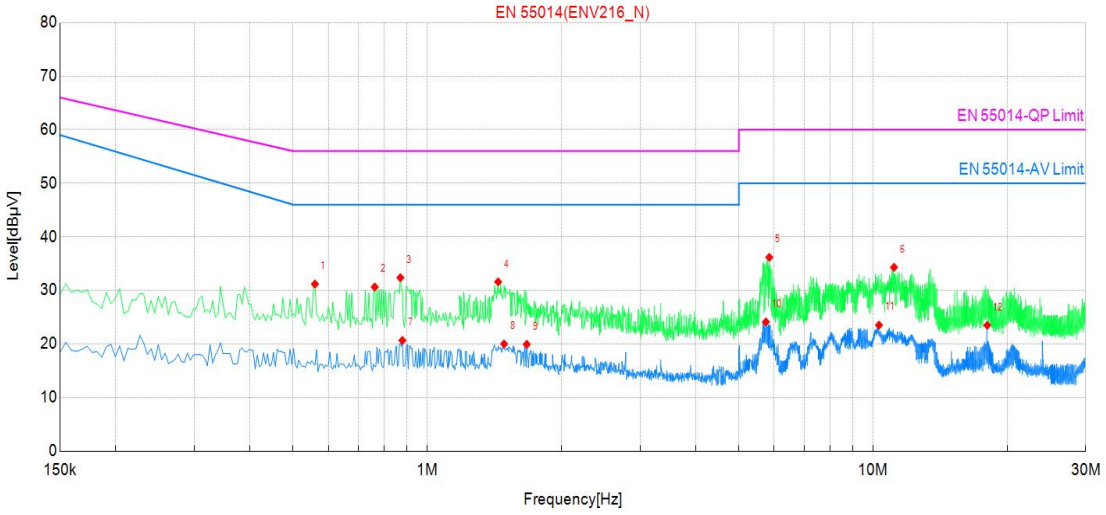
Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Phase	Detector	Verdict
1	0.847500	10.71	29.96	19.25	56.00	26.04	L1	QP	PASS
2	1.432500	9.85	29.05	19.20	56.00	26.95	L1	QP	PASS
3	5.685000	16.51	35.69	19.18	60.00	24.31	L1	QP	PASS
4	10.234500	13.68	33.13	19.45	60.00	26.87	L1	QP	PASS
5	12.142500	16.73	36.10	19.37	60.00	23.90	L1	QP	PASS
6	18.055500	13.81	33.19	19.38	60.00	26.81	L1	QP	PASS
7	0.852000	-0.70	18.54	19.24	46.00	27.46	L1	AV	PASS
8	1.680000	-0.31	18.89	19.20	46.00	27.11	L1	AV	PASS
9	7.273500	3.68	22.85	19.17	50.00	27.15	L1	AV	PASS
10	8.650500	4.88	24.20	19.32	50.00	25.80	L1	AV	PASS
11	9.298500	4.75	24.14	19.39	50.00	25.86	L1	AV	PASS
12	10.761000	3.34	22.77	19.43	50.00	27.23	L1	AV	PASS

Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level

EUT:	Iron	Model Number:	R.11221H
Test voltage:	AC 230V/50Hz	Test mode:	Mode 1
Pressure:	101kPa	Polarization:	N
Temperature:	24℃	Relative Humidity:	53%

Neutral:



Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Phase	Detector	Verdict
1	0.559500	11.97	31.19	19.22	56.00	24.81	N	QP	PASS
2	0.762000	11.36	30.63	19.27	56.00	25.37	N	QP	PASS
3	0.870000	13.13	32.37	19.24	56.00	23.63	N	QP	PASS
4	1.441500	12.39	31.59	19.20	56.00	24.41	N	QP	PASS
5	5.851500	16.91	36.17	19.26	60.00	23.83	N	QP	PASS
6	11.143500	15.05	34.31	19.26	60.00	25.69	N	QP	PASS
7	0.879000	1.42	20.66	19.24	46.00	25.34	N	AV	PASS
8	1.486500	0.79	19.99	19.20	46.00	26.01	N	AV	PASS
9	1.671000	0.74	19.94	19.20	46.00	26.06	N	AV	PASS
10	5.748000	4.86	24.11	19.25	50.00	25.89	N	AV	PASS
11	10.311000	4.25	23.51	19.26	50.00	26.49	N	AV	PASS
12	18.042000	4.10	23.48	19.38	50.00	26.52	N	AV	PASS

5.2 Radiated emission

5.2.1 Limits

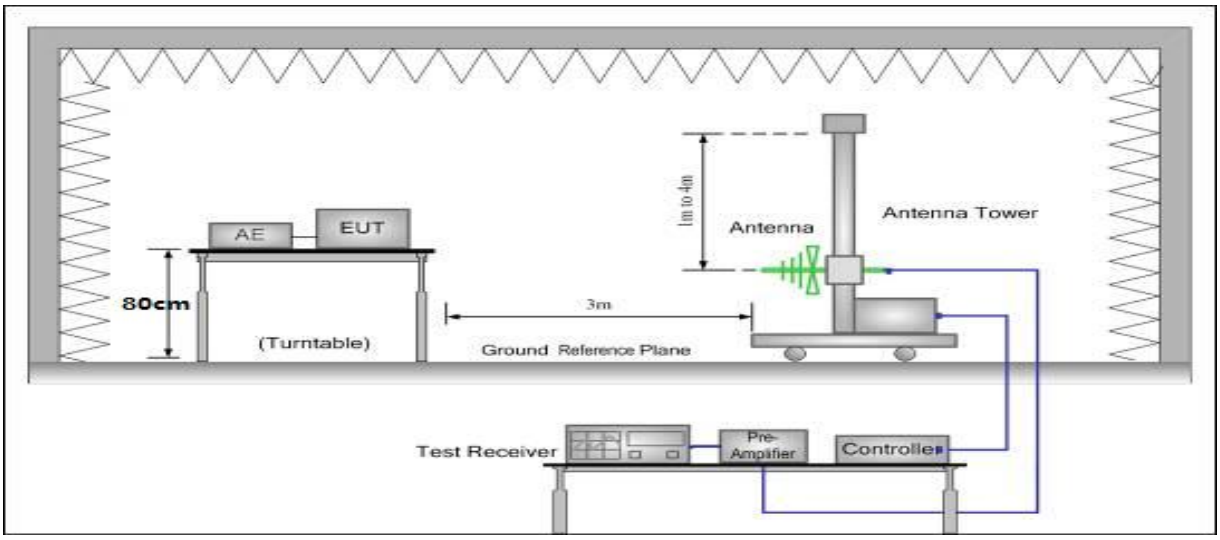
Frequency (MHz)	Class A (at 3m) dBμV/m		Class B (at 3m) dBμV/m	
	Quasi-peak		Quasi-peak	
30-230	50		40	
230-1000	57		47	
/	Peak	Average	Peak	Average
1000-3000	76	56	70	50
3000-6000	80	60	74	54

5.2.2 Test Procedures

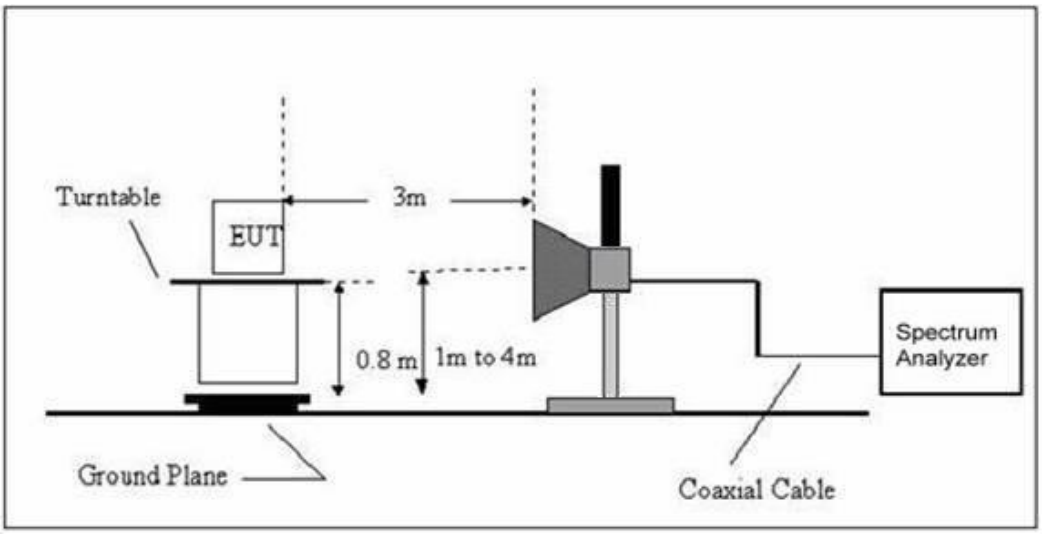
a)The radiated emission tests were performed in the 3 meters.
b)The EUT was placed on the top of a rotating table 0.8 meters above the ground. The table was rotated 360 degrees to determine the position of the highest radiation.
c)The height of the test antenna shall vary between 1m to 4m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
d)If the peak mode measured value compliance with and lower than quasi peak mode limit, the EUT shall be deemed to meet QP limits and then no additional QP mode measurement performed.
e)If the peak mode measured value compliance with and lower than average mode limit, the EUT shall be deemed to meet average limits and then no additional average mode measurement performed.
f) For the actual test configuration, please refer to the related item – EUT test photos.

5.2.3 Test Setup

Radiated emission test-up frequency for 30MHz - 1GHz



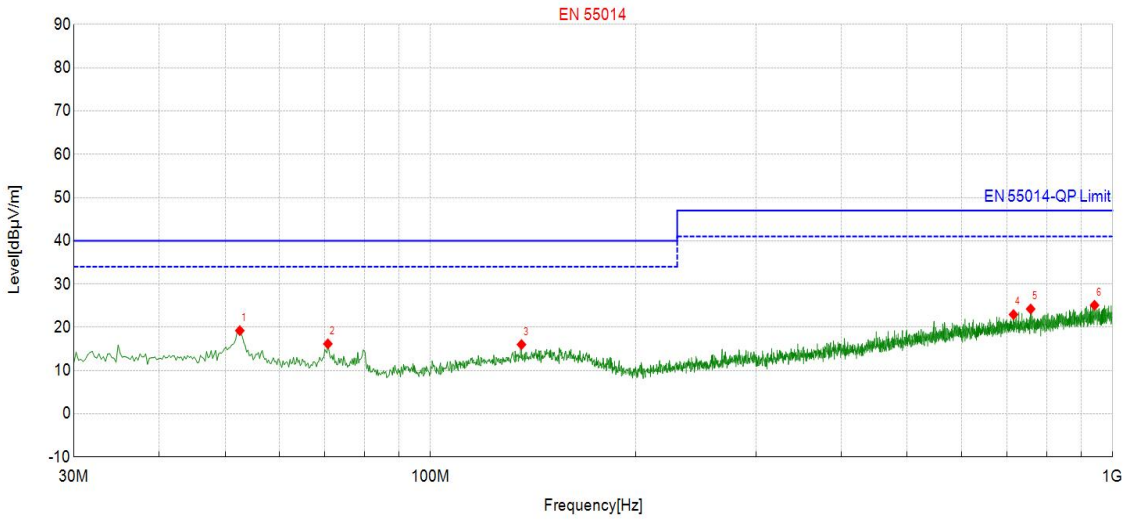
Radiated emission test-up frequency for above 1GHz



5.2.4 Test Result

Note: the highest working frequency of EUT is below 108MHz.

EUT:	Iron	Model Number:	R.11221H
Test voltage:	AC 230V/50Hz	Test mode:	Mode 1
Pressure:	101kPa	Polarization:	Horizontal
Temperature:	24℃	Relative Humidity:	53%

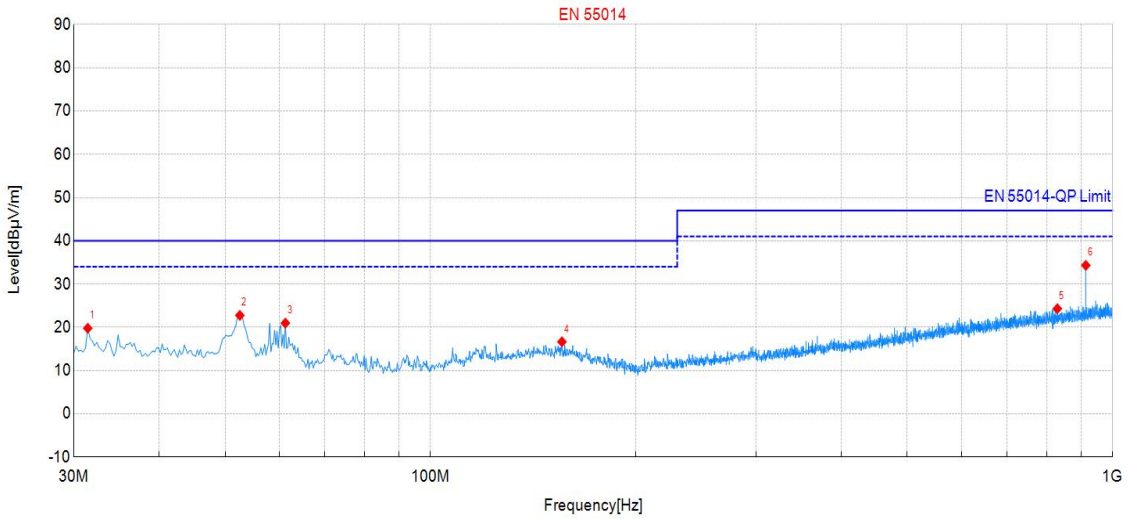


Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	52.55	36.66	19.23	-17.43	40.00	20.77	100	210	QP	Hori	PASS
2	70.74	35.81	16.17	-19.64	40.00	23.83	100	150	QP	Hori	PASS
3	135.97	32.67	16.02	-16.65	40.00	23.98	100	90	QP	Hori	PASS
4	715.55	31.61	22.95	-8.66	47.00	24.05	100	330	QP	Hori	PASS
5	758.23	32.53	24.24	-8.29	47.00	22.76	100	250	QP	Hori	PASS
6	940.83	31.99	25.10	-6.89	47.00	21.90	100	60	QP	Hori	PASS

Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level

EUT:	Iron	Model Number:	R.11221H
Test voltage:	AC 230V/50Hz	Test mode:	Mode 1
Pressure:	101kPa	Polarization:	Vertical
Temperature:	24℃	Relative Humidity:	53%



Suspected Data List

NO.	Frequency [MHz]	Reading [dBµV]	Level [dBµV/m]	Factor [dB/m]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Det	Pol	Verdict
1	31.46	37.49	19.79	-17.70	40.00	20.21	100	100	QP	Vert	PASS
2	52.55	40.19	22.76	-17.43	40.00	17.24	100	277	QP	Vert	PASS
3	61.28	39.20	20.97	-18.23	40.00	19.03	100	250	QP	Vert	PASS
4	155.86	32.73	16.65	-16.08	40.00	23.35	100	287	QP	Vert	PASS
5	829.77	32.01	24.31	-7.70	47.00	22.69	100	24	QP	Vert	PASS
6	913.43	41.42	34.33	-7.09	47.00	12.67	100	0	QP	Vert	PASS

Note:(1)Level=Reading+Factor
(2)Margin=Limit-Level

5.3 Harmonic current emission

5.3.1 Limits

Limits for Class A equipment

Harmonics Order n	Max. permissible harmonics current A	Harmonics Order n	Max. permissible harmonics current A
Odd harmonics		Even harmonics	
3	2.30	2	1.08
5	1.14	4	0.43
7	0.77	6	0.30
9	0.40	8<=n<=40	0.23x8/n
11	0.33		
13	0.21		
15<=n<=39	0.15x15/n		

(b) Limits for Class B equipment

For Class B equipment, the harmonics of the input current shall not exceed the values given in Table that is the limit of Class A multiplied by a factor of 1,5.

(c) Limits for Class C equipment

Harmonics Order n	Maximum permissible harmonic current expressed as a percentage of the input current at the fundamental frequency %
2	2
3	30 . λ*
5	10
7	7
9	5
11<n<39 (odd harmonics only)	3
* λ is the circuit power factor	

(d) Limits for Class D equipment

Harmonics Order n	Maximum permissible harmonic current per watt mA/W	Maximum permissible harmonic current A
3	3.4	2.30
5	1.9	1.14
7	1.0	0.77
9	0.5	0.40
11	0.35	0.33
11 < n < 39 (odd harmonics only)	3.85/n	See limit of Class A

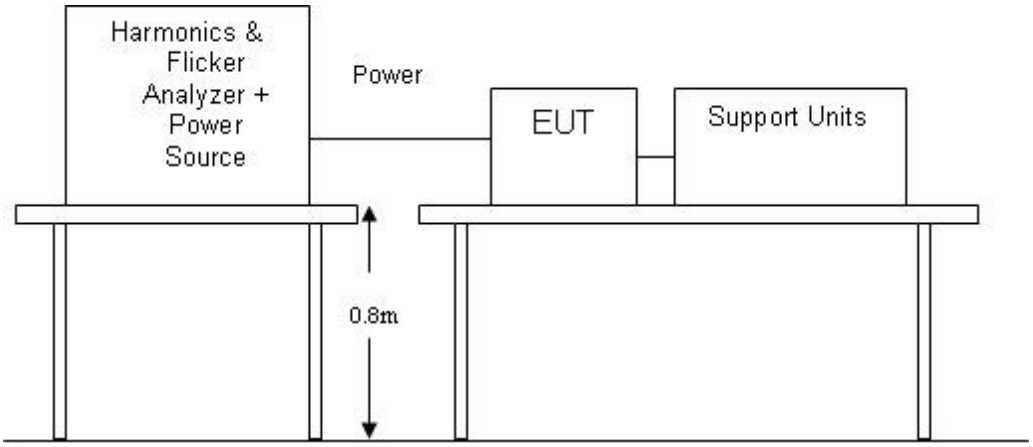
NOTE: According to section 7 of EN 61000-3-2, the above limits for all equipment except for lighting equipment having an active input power > 75 W and no limits apply for equipment with an active input power up to and including 75 W.

5.3.2 Test Procedures

a)The EUT was installed and placed on a non-conductive table and operated to produce the maximum harmonic components under normal operating conditions for each successive harmonic component in turn.

b)The correspondent test program of test instrument to measure the current harmonics / voltage fluctuations & flicker emanated from EUT. The measure time shall be not less than the time necessary for the EUT to be exercised.

5.3.3 Test Setup



5.3.4 Test Result

Harmonic current emission:

PASS

5.4 Voltage fluctuations & flicker

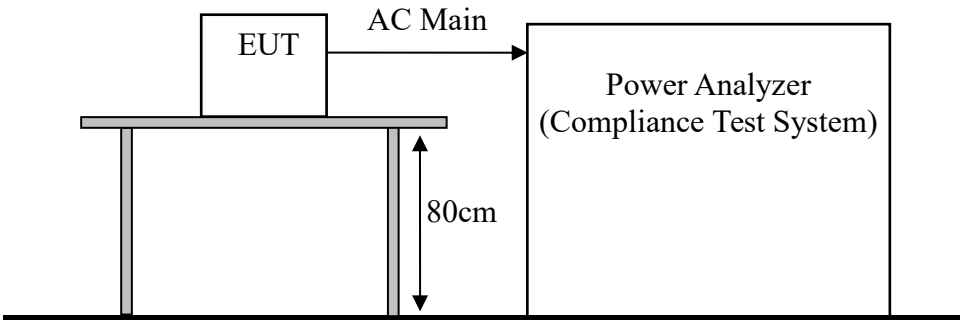
5.4.1 Limits

Test Item	Limit	Note
Pst	1.0	Pst means Short-term flicker indicator
Plt	0.65	Plt means long-term flicker indicator
Tdt	0.2	Tdt means maximum time that dt exceeds 3%
dmax(%)	4%	dmax means maximum relative voltage change.
dc(%)	3%	dc means relative steady-state voltage change.

5.4.2 Test Procedures

The EUT was placed on the top of a wooden table 0.8 meters above the ground and operated to produce the most unfavorable sequence of voltage changes under normal conditions During the flick measurement, the measure time shall include that part of whole operation changes. The observation period for short-term flicker indicator is 10 minutes and the observation period for long-term flicker indicator is 2 hours.

5.4.3 Test Setup



5.4.4 Test Result and data

Voltage fluctuations & flicker
PASS

6 Immunity test

6.1 Performance criteria

A functional description and a definition of performance criteria, during or as a consequence of the EMC testing, shall be provided by the manufacturer and noted in the test report, based on the following criteria.	
Performance criterion	Description
A	The apparatus shall continue to operate as intended during the test.No degradation of performance or loss of function is allowed below a performance level(or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.
B	The apparatus shall continue to operate as intended after the test No degradation of performance or loss of function is allowed below a performance level(or permissible loss of performance) specified by the manufacturer, when the apparatus is used as intended. During the test, degradation of performance is allowed, however no change of actual operating state or stored data is allowed to persist after the test. If the minimum performance level or the permissible performance loss is not specified by the manufacturer.then either of these may be derived from the product description and documentation, and from what the user may reasonably expect from the apparatus if used as intended.
C	Temporary loss of function is allowed, provided the function is self.recoverable or can be restored by the operation of the controls, or by any operation specified in the instructions for use.
Particular performance criteria: The selection, the specification of functions, and the permissible degradation is left to the responsibility of the manufacturer.	

6.2 Electrostatic discharge (ESD)

6.2.1.Test Procedures

a)The test generator necessary to perform direct and indirect application of discharges to the EUT in the following manner:

Contact discharge was applied to conductive surfaces and coupling planes of the EUT. During the test, it was performed with single discharges. For the single discharge time between successive single discharges was at least 1 second.

b)Vertical Coupling Plane (VCP):

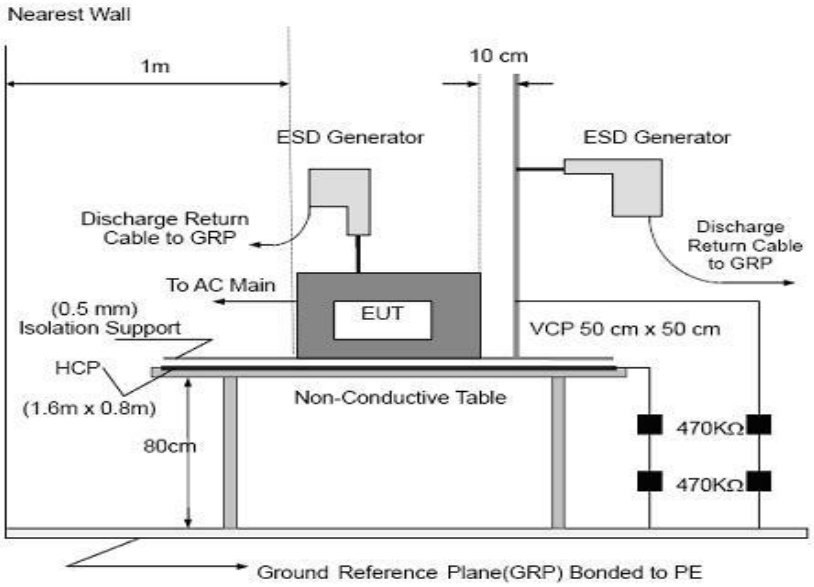
The coupling plane, of dimensions 0.5m x 0.5m, is placed parallel to, and positioned at a distance 0.1m from, the EUT, with the Discharge Electrode touching the coupling plane. The four faces of the EUT will be performed with electrostatic discharge.

c)Horizontal Coupling Plane (HCP):

The coupling plane is placed under to the EUT. The generator shall be positioned vertically at a distance of 0.1m from the EUT, with the Discharge Electrode touching the coupling plane. The four faces of the EUT will be performed with electrostatic discharge.

Air discharges at insulation surfaces of the EUT. It was at least ten single discharges with positive and negative at the same selected point. For the actual test configuration, please refer to the related Item –EUT Test Photos.

6.2.2.Test Setup



6.2.3. Test levels

Environmental phenomenon	Test specification	Test set-up
Electrostatic discharge	8 kV air discharge 4 kV contact discharge	IEC 61000-4-2

6.2.4.Test Result

Indirect discharge

EUT:	Iron	Model Name:	R.11221H
Temperature:	24℃	Relative Humidity:	52%
Pressure:	101kPa	Test mode:	All mode

No.	Test Point	Contact discharge level (kV)	Number and polarity	Criterion met	Criterion Required	Result
1	VCP-Front side	☐..2 ☒..4 ☐..6 ☐..8	10 (+)	A	B	Compliance
			10 (-)	A		
2	VCP-Rear side	☐..2 ☒..4 ☐..6 ☐..8	10 (+)	A		
			10 (-)	A		
3	VCP-Left side	☐..2 ☒..4 ☐..6 ☐..8	10 (+)	A		
			10 (-)	A		
4	VCP-Right side	☐..2 ☒..4 ☐..6 ☐..8	10 (+)	A		
			10 (-)	A		
5	HCP	☐..2 ☒..4 ☐..6 ☐..8	10 (+)	A		
			10 (-)	A		

Direct discharge

No.	Test Point	Contact discharge level (kV)	Air discharge level (kV)	Number and polarity	Criterion met	Criterion Required	Result
1	Each non-conductive location touchable	☐..2 ☐..4 ☐..6 ☐..8	☐..2 ☐..4 ☐..6 ☒..8	10 (+)	B	B	Compliance
				10 (-)	B		
2	Each conductive location touchable	☐..2 ☒..4 ☐..6 ☐..8	☐..2 ☐..4 ☐..6 ☐..8	10 (+)	B		
				10 (-)	B		
Note1: Please see the photographs blew about the details of test points.							

6.3 Radiated electromagnetic field immunity (RS)

6.3.1.Test Procedures

a)The EUT and support equipment, which are placed on a table that is 0.8 meter above ground and the testing was performed in a fully-an echoic chamber.

b)The testing distance from antenna to the EUT was 3 meters.

c)The other condition as following manner:

i. The field strength level was 3V/m.

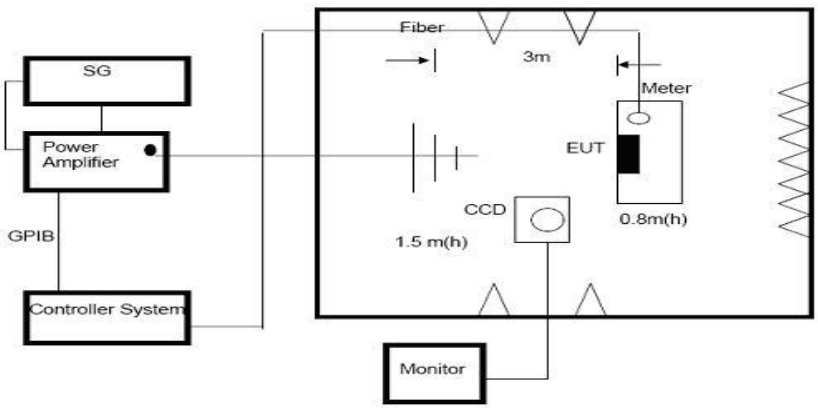
ii. The frequency range is swept from 80 MHz to 1000 MHz with the signal 80%amplitude modulated with a 1kHz sine wave. The rate of sweep did not exceed 1.5x 10-3 decade/s. Where the frequency range is swept incrementally, the step size was 1% of fundamental.

d)The dwell time at each frequency shall be not less than the time necessary for the EUT to be able to respond.

e)The test was performed with the EUT exposed to both vertically and horizontally polarized fields on each of the four sides.

f) For the actual test configuration, please refer to the related Item –EUT Test Photos.

6.3.2.Test setup



6.3.3. Test levels

Environmental phenomenon	Test specifications	Test set-up
Radio-frequency electromagnetic field, 1 kHz, 80% AM	80 MHz to 1 000 MHz 3 V/m (r.m.s.) (unmodulated)	IEC 61000-4-3 or IEC 61000-4-22

6.3.4.Test Result

EUT:	Iron	Model Name:	R.11221H
Temperature:	24℃	Relative Humidity:	52%
Pressure:	101kPa	Test mode:	All Mode

Frequency Range (MHz)	RF Field Position	R.F. Field Strength	Azimuth	Perform. Criteria	Measurement	Result
80- 1000	H / V	3 V/m (rms) AM Modulated 1000Hz, 80%	Front	A	A	Compliance
			Rear			
			Left			
			Right			

6.4 Conducted disturbances (CS)

6.4.1.Test Procedures

a)The EUT are placed on an insulating support 0.1m high above a ground reference plane. CDN (coupling and decoupling device) is placed on the ground plane about 0.3m from EUT. Cables between CDN and EUT are as short as possible, and their height above the ground reference plane shall be between 30 and 50 mm (where possible).

b)The disturbance signal described below is injected to EUT through CDN.

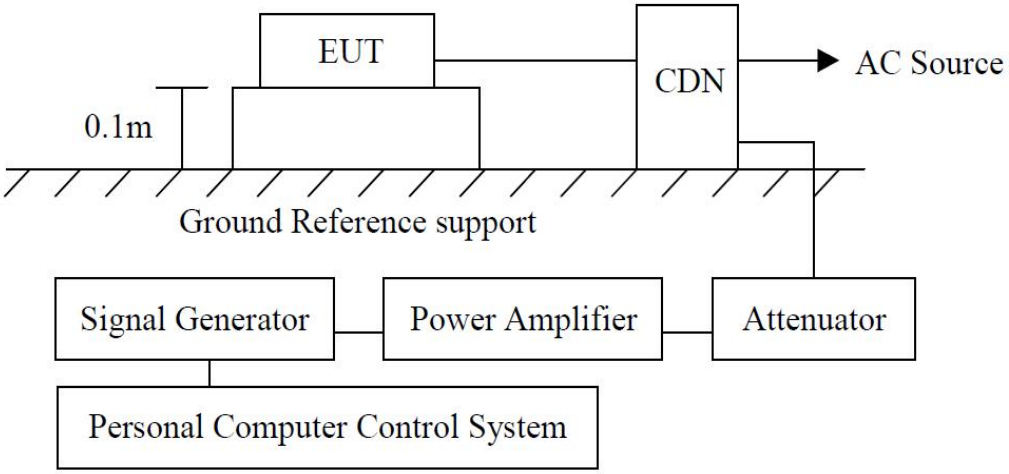
c)The EUT operates within its operational mode(s) under intended climatic conditions after power on.

d)The frequency range is swept from 0.150MHz to 80MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1 kHz sine wave.

e)The rate of sweep shall not exceed 1.5*10-3decades/s. Where the frequency is swept incrementally; the step size shall not exceed 1% of the start and thereafter 1% of the preceding frequency value.

f) Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

6.4.2.Test Setup



6.4.3.Test level

Table 8 – Ports for signal lines and control lines

Environmental phenomenon	Test specifications	Test set-up
RF current common mode 1 kHz, 80 % AM	0,15 MHz to 80 MHz 1 V (r.m.s.) (unmodulated) 150 Ω source impedance	IEC 61000-4-6
Applicable only to ports interfacing with cables whose total length can exceed 3 m according to the manufacturer's functional specification.		

Table 9 – Input and output d.c. power ports

Environmental phenomenon	Test specifications	Test set-up
RF current common mode 1 kHz, 80 % AM	0,15 MHz to 80 MHz 1 V (r.m.s.) (unmodulated) 150 Ω source impedance	IEC 61000-4-6
Not applicable to battery operated appliances that cannot be connected to the mains while in use. Not applicable to input ports intended for connection to a battery or a rechargeable battery which shall be removed or disconnected from the apparatus for recharging. Apparatus with a d.c. power input port intended for use with an a.c. – d.c. power adaptor shall be tested on the a.c. power input of the a.c.- d.c. power adaptor specified by the manufacturer or, where none is so specified, using a typical a.c. – d.c. power adaptor. For d.c. input and output power ports intended to be connected permanently, the test is not applicable provided the instructions require external cables not to be longer than 3 m.		

Table 10 – Input and output a.c. power ports

Environmental phenomenon	Test specifications	Test set-up
RF current common mode 1 kHz, 80 % AM	0,15 MHz to 80 MHz 3 V (r.m.s.) (unmodulated) 150 Ω source impedance	IEC 61000-4-6
For extra low voltage a.c ports and output a.c. ports, this testing is only applicable to ports interfacing with cables whose total length may exceed 3 m according to the manufacturer's functional specification.		

6.4.4.Test Result

EUT:	Iron	Model Name:	R.11221H
Temperature:	24℃	Relative Humidity:	52%
Pressure:	101kPa	Test mode:	All mode
Modulation: AM, 80%,1KHz Sine wave Frequency step size: 1% preceding frequency value Coupling mode ☑ M2 ☐ M3 □ Clamp			

Port Type	Frequency(MHz)	Test Voltage	Criterion met	Criterion Required	Result
AC Mains	0.15 to 80	3 V (rms) AM Modulated 1000Hz, 80%	A	A	Compliance

6.5 Electrical fast transients/burst (EFT/S)

6.5.1.Test Procedures

a)The EUT and its simulators were placed on the ground reference plane and were insulated from it by a wood support 0.1m + 0.01m thick. The ground reference plane was 1m*1m metallic sheet with 0.65mm minimum thickness. This reference ground plane was project beyond the EUT by at least 0.1m on all sides and the minimum distance between EUT and all other conductive structure, except the ground plane was more than 0.5m. All cables to the EUT was placed on the wood support, cables not subject to EFT/B was routed as far as possible from the cable under test to minimize the coupling between the cables.

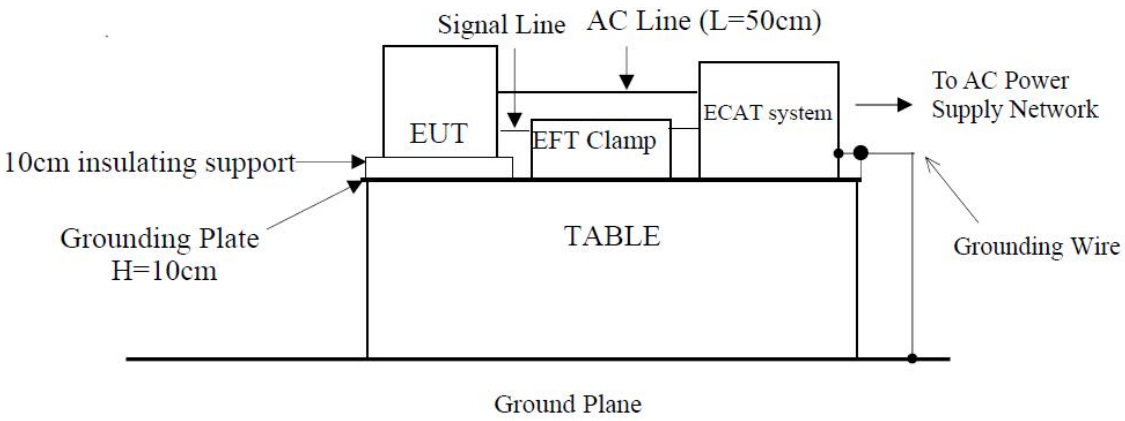
b)For input and AC power ports:

The EUT was connected to the power mains by using a coupling device that couples the EFT interference signal to AC power lines. Both positive transients and negative transients of test voltage were applied during compliance test and the duration of the test can't less than 1min.

c)For signal lines and control lines ports:

Ports which are intended to be connected to telecommunication networks (e.g. public switched telecommunication networks, integrated services digital networks, local area networks and similar networks.)

6.5.2.Test Setup



6.5.3. Test level

Environmental phenomenon	Test specifications	Test set-up
Fast transients common mode	1 kV (peak) 5/50 ns T_r/T_d 5 kHz repetition frequency	IEC 61000-4-4
For extra low voltage a.c. ports and output a.c. ports, this testing is only applicable to ports interfacing with cables whose total length may exceed 3 m according to the manufacturer's functional specification.		

6.5.4.Test Result

EUT:	Iron	Model Name:	R.11221H
Temperature:	24℃	Relative Humidity:	52%
Pressure:	101kPa	Test mode:	All mode

Port Type	Injected Line	Test Voltage	Criterionmet	Criterion Required	Result
AC Mains	L	±1kV	A	B	Compliance
	N	±1kV	A		
	L-N	±1kV	A		
	L-PE	±2kV	N/A		
	N-PE	±2kV	N/A		
	L-N-PE	±2kV	N/A		
Note: +/- 1KV for AC mains port；+/- 0.5KV for analogue digital data ports and DC network power port.					

6.6 Surges

6.6.1.Test Procedures

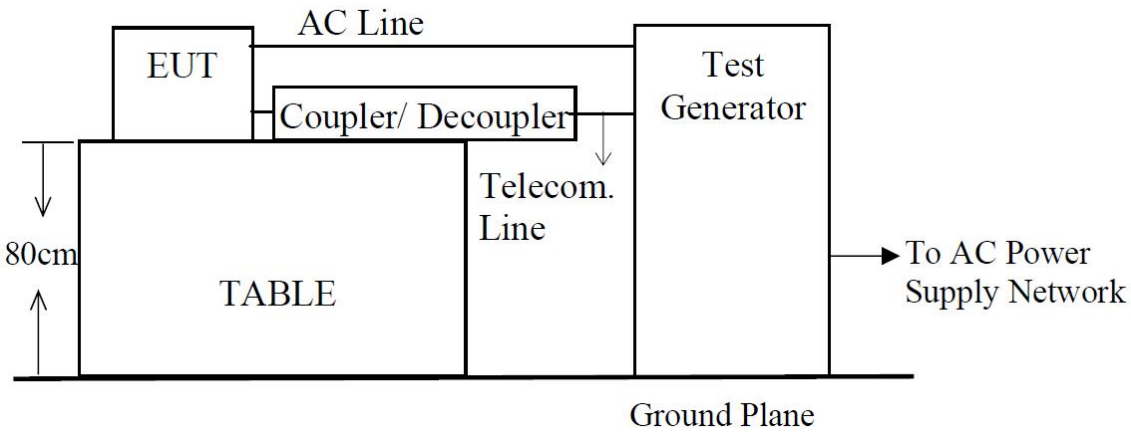
a)For line-to-line coupling mode, provide a 1kV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points, and for active line / neutral lines to ground are same except test level is 2kV.

b)At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are applied during test.

c)Different phase angles are done individually.

d)Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

6.6.2.Test Setup



6.6.3 Test level

Environmental phenomenon	Test specifications	Test set-up
Surge	1,2/50 (8/20) µs T_r/T_d 2 kV line-to-earth with 12 Ω Impedance 1 kV line-to-line with 2 Ω Impedance	IEC 61000-4-5

Five positive and five negative pulses shall be applied as far as applicable, successively:

- between phase and phase: 1 kV;
- between phase and neutral: 1 kV;
- between phase and earth: 2 kV;
- and between neutral and earth: 2 kV.

The positive pulses are applied 90° relative to the phase angle of the a.c. line voltage to the equipment under test, and the negative pulses are applied 270° relative to the phase angle of the a.c. line voltage to the equipment under test. Tests with other (lower) voltages than those given in Table 12 are not required.

6.6.4.Test Result

EUT:	Iron	Model Name:	R.11221H
Temperature:	24℃	Relative Humidity:	52%
Pressure:	101kPa	Test mode:	All mode

Port Type	Injected Line	Test Voltage	Criterionmet	Criterion Required	Result
AC Mains	L–N	±1kV	B	B	Compliance
	L–PE	±1kV, ±2kV	N/A		
	N–PE	±1kV, ±2kV	N/A		

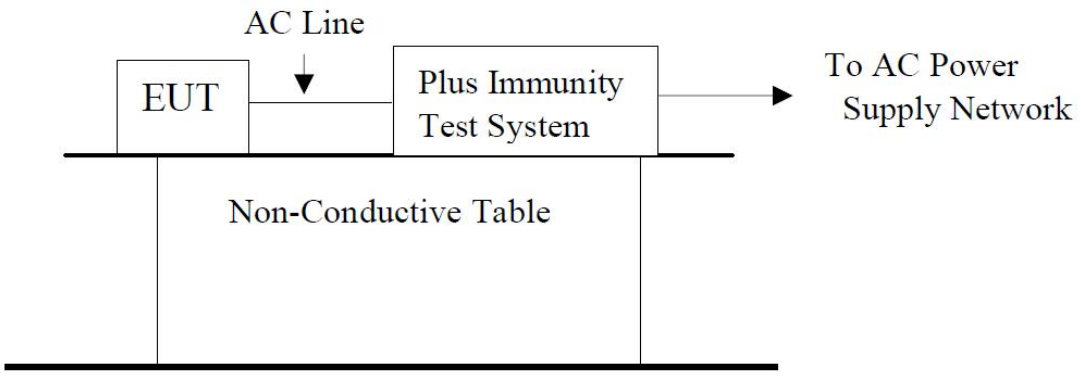
6.7 Voltage dips and interruptions

6.7.1.Test procedures

a)The interruptions are introduced at selected phase angles with specified duration.

b)Record any degradation of performance

6.7.2.Test setup



6.7.3. Test level

Environmental phenomena		Test level in % U_T	Durations for voltage dips		Test set-up
			50 Hz	60 Hz	
Voltage dips in % U_T	100	0	0,5 cycle	0,5 cycle	IEC 61000-4-11
	60	40	10 cycles	12 cycles	Voltage change shall occur at zero crossing
	30	70	25 cycles	30 cycles	
U_T is the rated voltage of the equipment under test.					

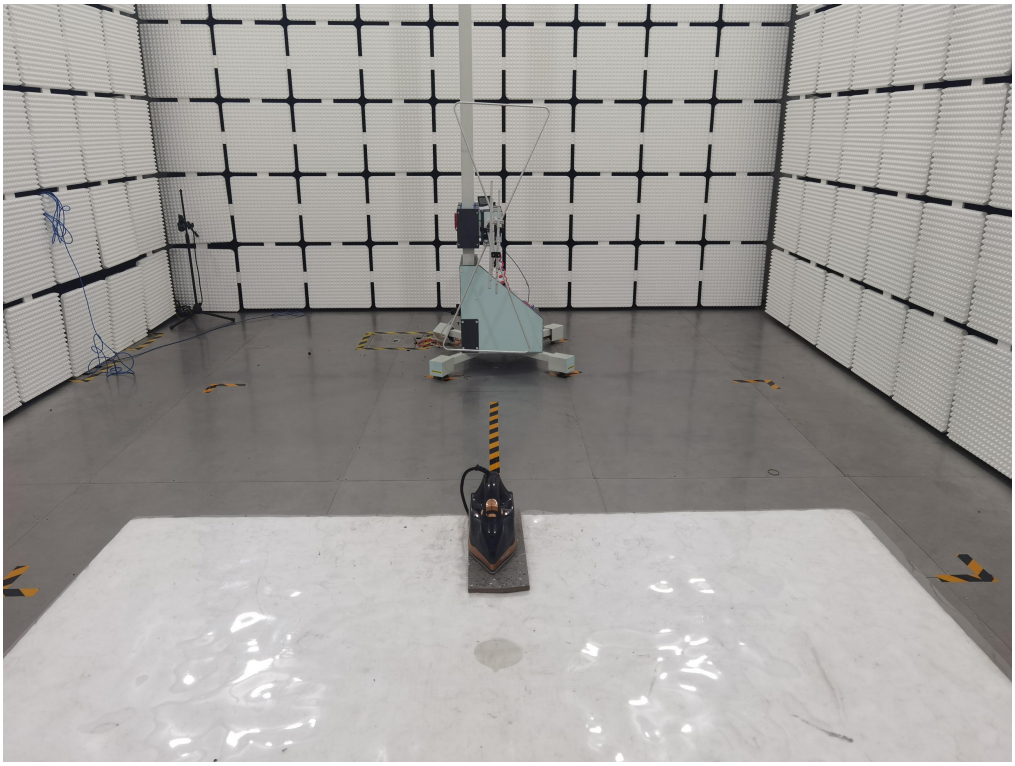
6.7.4.Test result

EUT:	Iron	Model Name:	R.11221H
Temperature:	24℃	Relative Humidity:	51%
Pressure:	101kPa	Test mode:	All mode

Test Level in %UT	Period	Criterion	Result	Result
0%	0.5	B	A	Compliance
40%	10	C	B	Compliance
70%	25	C	C	Compliance

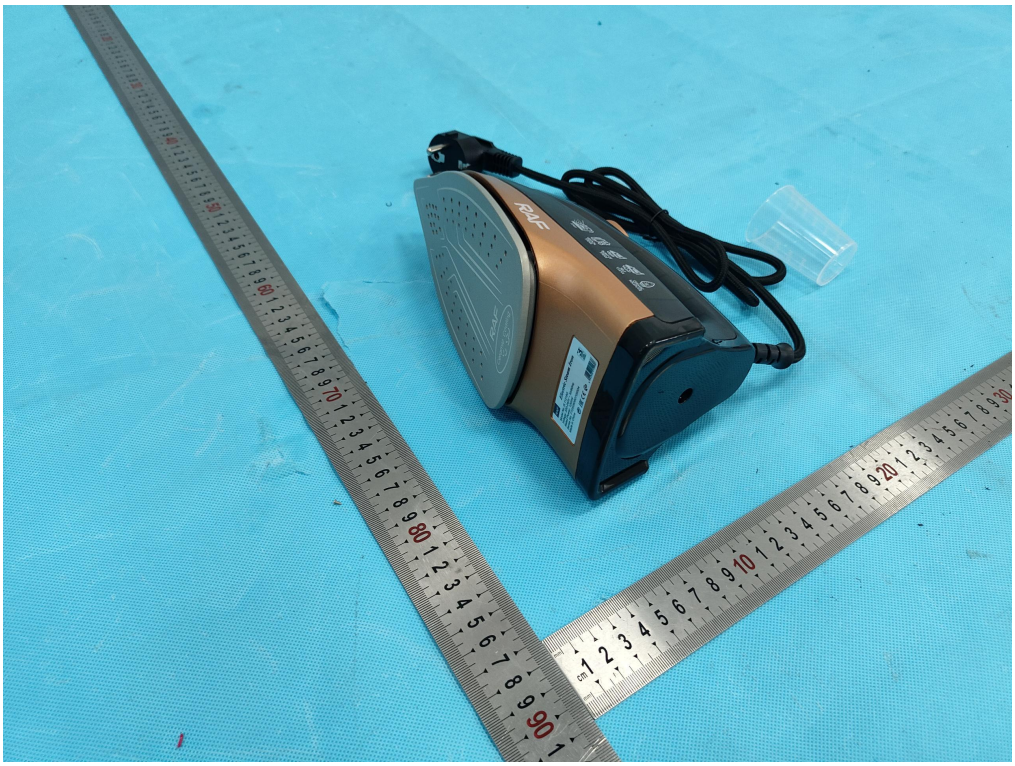
Test photographs of the EUT

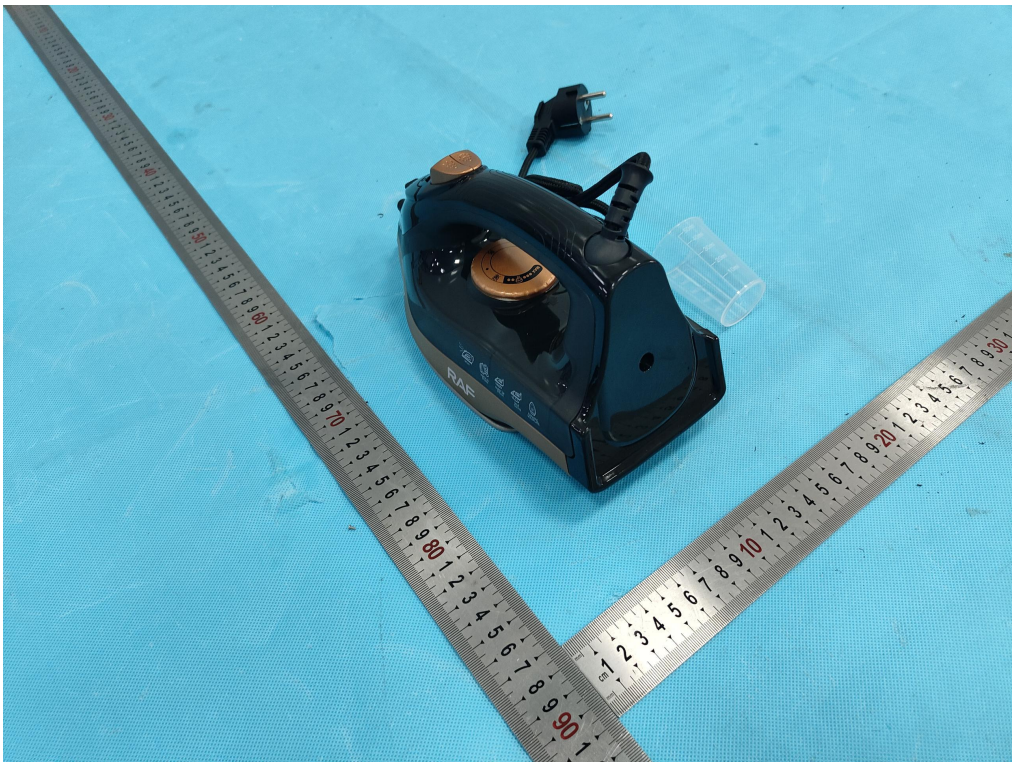
Conducted emission test

Radiated emission test


ESD test

Photographs of the EUT




RAF


MIN


PRO-HEAT
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