

TEST REPORT

Product Name : paper shredder

: PC420D, PC312D, PC210D, Model Number

ES531547AAA, PCxyyD,

PC3bbD, PCzwwD

Prepared for : NINGBO WONGHING INTELLIGENT MANUFACTURING

CO., LTD

Address Zhengjia 17 House Settlement, XiePu ZhenHai, Ningbo,

Zhejiang, 315203, P.R.China

Prepared by

: EMTEK (NINGBO) CO., LTD. Address

: No. 8, Building 8, Lane 216, Qingyi Road, Hi-Tech Zone,

Ningbo, Zhejiang, China

Tel: +86-574-27907998 Fax: +86-574-27721538

Report Number : ENB2404010172E00101R Date(s) of Tests : April 01, 2024 to April 11, 2024

Date of issue : April 16, 2024





TABLE OF CONTENT

Test Report Description	Page
1. SUMMARY OF TEST RESULT	
2. GENERAL INFORMATION	6
2.1. Description of Device (EUT)	6
2.2. Input / Output Ports	7
2.3. Independent Operation Modes	7
2.4. Test Voltage and Frequency for J 55014-1	
2.5. Test Manner	
2.6. Description of Test Facility	
Support Device	
3. MEASURING DEVICE AND TEST EQUIPMENT	
3.1. For Conducted Emissions at Mains Measurement	
3.2. For Click Measurement	
3.3. For Disturbance Power Measurement	
4. CONDUCTED EMISSIONS AT MAINS MEASUREMENT	
4.1. Block Diagram of Test Setup	
4.2. Measurement Standard	
4.3. Measurement Limits	
4.4. Test Procedure	
4.5. Measuring Results	12
5. CLICKS MEASUREMENT	17
5.1. Block Diagram of Test Setup	17
5.2. Measurement Standard	17
5.3. Measurement Limits	
5.4. Test Procedure	
5.5. Test Result	
6. DISTURBANCE POWER MEASUREMENT	
6.1. Block Diagram of Test Setup	
6.2. Measurement Standard	
6.4. Test Procedure	
6.5. Test Results	
7. PHOTOGRAPHS OF TEST	
7.1. Photo of Power Line Conducted Emission Measurement	
7.2. Photo of Click Measurement	
7.3. Photo of Disturbance Power Measurement	

APPENDIX I (Photos of the EUT) (9 pages)



TEST REPORT DESCRIPTION

Applicant : NINGBO WONGHING INTELLIGENT MANUFACTURING CO., LTD

Manufacturer : NINGBO WONGHING INTELLIGENT MANUFACTURING CO., LTD

Trade Mark : N/A

EUT : paper shredder

Model No. : PC420D, PC312D, PC210D, ES531547AAA, PCxyyD, PC3bbD, PCzwwD

Power Supply : AC 100V, 50/60Hz



Test Procedure Used:

J55014-1 (H27)

The device described above is tested by EMTEK (NINGBO) CO., LTD. to determine the maximum emission levels emanating from the device and the severe levels of the device can endure and its performance criterion. The measurement results are contained in this test report and EMTEK (NINGBO) CO., LTD. is assumed full responsibility for the accuracy and completeness of these measurements. Also, this report shows that the EUT to be technically compliant with the J55014-1 requirements.

This report applies to above tested sample only and shall not be reproduced in part without written approval of EMTEK (NINGBO) CO., LTD.

Date of lest :	April 01, 2024 to April 11, 2024
Prepared by :	June Gao
	June Gao/Engineer
Reviewer:	Hole Kromg
Approved & Authorized Signer:	Ade Wang/Supervisor
	Tony Wei/Manager



Modified History

Version	Report No.	Revision date	Summary	
	ENB2404010172E00101R	/	Original Report	





1. SUMMARY OF TEST RESULT

EMISSION							
Standard	Limits	Results					
J 55014-1(H27)	Table 1	Pass					
J 55014-1(H27)	Table 1	N/A					
J 55014-1(H27)	Section 4.2	Pass					
J 55014-1(H27)	Table 2a&2b	Pass					
J 55014-1(H27)	Table 3	N/A					
	Standard J 55014-1(H27) J 55014-1(H27) J 55014-1(H27) J 55014-1(H27)	Standard Limits J 55014-1(H27) Table 1 J 55014-1(H27) Table 1 J 55014-1(H27) Section 4.2 J 55014-1(H27) Table 2a&2b					



2. GENERAL INFORMATION

2.1. Description of Device (EUT)

EUT : paper shredder

Model Number : PC420D, PC312D, PC210D, ES531547AAA, PCxyyD, PC3bbD,

PCzwwD

(Note: All models are the same except the knife head.

"x" can be 4 to 6 which indicates customer code; letter "z" can be 1 to 2 which indicates customer code. Letter "ww" denote micro-cut units and can be 01 to 10 which indicates the amount of paper shredded; "bb" denote micro-cut units and can be 01 to 12 which indicates the amount of paper shredded. "yy" denote cross-cut units and can be 01 to 20 which

indicates the amount of paper shredded.

Model ES531647AAA is same as model PC312D except the model

name, We prepared model PC420D for EMC test.)

Test Voltage : AC 100V/60Hz

Highest Frequency: Below 108 MHz

Sample Number : ENB2404010172E001-1-1

Applicant : NINGBO WONGHING INTELLIGENT MANUFACTURING CO., LTD

Address Zhengjia 17 House Settlement, XiePu ZhenHai, Ningbo, Zhejiang,

315203, P.R.China

Manufacturer : NINGBO WONGHING INTELLIGENT MANUFACTURING CO., LTD

Address Zhengjia 17 House Settlement, XiePu ZhenHai, Ningbo, Zhejiang,

315203, P.R.China

Date of receiver : April 01, 2024

Date of Test : April 01, 2024 to April 11, 2024



2.2. Input / Output Ports

Port #	Name	Type*	Cable Max. >3m	Cable Shielded	Comments
1	AC mains	AC	No	Unshielded	None
/	/	/	/	/	/

*Note: Use abbreviations:

AC= AC Power port

DC= DC Power port

N/E= Non-Electrical

A/D=Analogue/digital data port (signal/control port, antenna port, wired network port, broadcast receiver tuner port, optical fibre port)

2.3. Independent Operation Modes

A. FWD

B. REV

2.4. Test Voltage and Frequency for J 55014-1

A test at about 160 kHz and at about 50 MHz shall be made over a range of 0,9 to 1,1 times the rated voltage in order to check whether the level of disturbance varies considerably with the supply voltage; in which case, the measurements are to be made at the voltage that causes maximum disturbance.

If an appliance has a rated voltage range, the multipliers 0,9 and 1,1 apply to the lowest and highest, most common nominal supply voltages that fall within the rated voltage range that is specified by the manufacturer.

NOTE The most common nominal supply voltages are 100 V, 110 V, 115 V, 120 V, 127 V, 220 V, 230 V, 240 V and 250 V.

If an appliance has more than one rated voltage the multipliers 0,9 and 1,1 apply to the rated voltage that causes maximum disturbance.

For appliances with a frequency range of 50 Hz to 60 Hz, a test at about 160 kHz and at about 50 MHz shall be made using supply frequencies of 50 Hz and 60 Hz at the above determined supply voltage, in order to check whether the level of disturbance varies considerably with the supply frequency; in which case, the measurements are to be made at the supply frequency which causes maximum disturbance.

We prepared AC 110V/60Hz voltage for EMC test.

2.5. Test Manner

Test Items	Test Voltage	Operation Modes	Worst case
Conducted Emissions at Mains Terminals	AC 110V/60Hz	Mode A Mode B	Mode A Mode B
Click	AC 110V/60Hz	Mode A	Mode A
Disturbance Power	AC 110V/60Hz	Mode A Mode B	Mode A Mode B



2.6. Description of Test Facility

Site Description

EMC Lab. : Accredited by CNAS

The Certificate Registration Number is L6666.

The Laboratory has been assessed and proved to be in compliance with

CNAS-CL01:2018 (identical to ISO/IEC 17025:2017)

Designation by FCC

Designation Number: CN1354

Test Firm Registration Number: 427606

Accredited by A2LA

The Certificate Number is 4321.03. The certificate isvalid until May 31, 2025

Designation by Industry Canada

The Conformity Assessment Body Identifier is CN0114

Name of Firm : EMTEK (NINGBO) CO., LTD.

Site Location : No. 8, Building 8, Lane 216, Qingyi Road, Hi-Tech Zone, Ningbo, Zhejiang,

China

2.7. Support Device

N/A

2.8. Measurement Uncertainty

Conducted Emission Uncertainty : 2.08dB (9 k-150 kHz)

2.40dB (150 k-30 MHz)

Click Uncertainty : 1.50dB

Disturbance Power Uncertainty : 4.34dB



3. MEASURING DEVICE AND TEST EQUIPMENT

3.1. For Conducted Emissions at Mains Measurement

Equ. No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-001	EMI Test Receiver	R&S	ESCI	101108	Dec 14, 2023	1 Year
ENE-158	L.I.S.N	Schwarzbeck	NNLK 8129	0373	Nov 17, 2023	1 Year
ENE-004	L.I.S.N	Schwarzbeck	NSLK 8126	8126-462	July 06, 2023	1 Year
ENE-006	Pulse Limiter	MTS-systemtechnik	IMP-136	2611115-001 -0033	July 06, 2023	1 Year
ENE-278	RF Switching Unit	HTEC	HRSU	222101	July 06, 2023	1 Year
ENE-083	RF Cable	Hubber Suhner/Swiss	CBL-RE-3	/	May 31, 2023	1 Year
ENE-162-2	RF Cable	TIMES	2M(N-N)	605236-0002	May 31, 2023	1 Year
ENE-149	Conduction Test Room 1#	SKET	11.5*5*4m	/	Dec 17, 2021	3 Year

3.2. For Click Measurement

Equ. No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-003	L.I.S.N	R & S	ENV216	101193	July 06, 2023	1 Year
ENE-162-3	RF Cable	TIMES	2M(N-N)	605241-0001	May 31, 2023	1 Year
ENE-138-1	Click Switching Operation Box	A.F.J	SW04/32A	SW0421371 45	Nov 17, 2023	1 Year
ENE-138	Click Meter	A.F.J	DDA55+	1404213420 5	Nov 17, 2023	1 Year
ENE-150	Conduction Test Room2#	SKET	6.5*5*4m	/	Apr 17, 2023	3 Year



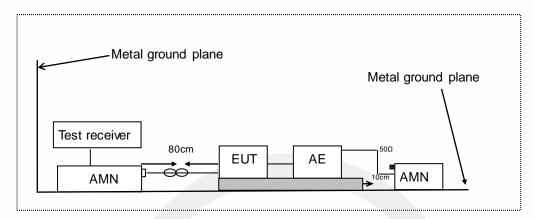
3.3. For Disturbance Power Measurement

Equ. No.	Equipment	Manufacturer	Model No.	Serial No.	Last Cal.	Cal. Interval
ENE-001	EMI Test Receiver	R&S	ESCI	101108	Dec 14, 2023	1 Year
ENE-007	Absorbing Clamp	R&S	MDS21	100397	July 06, 2023	1 Year
ENE-008	Coaxial attenuator	R&S	MDS21	100397	July 06, 2023	1 Year
ENE-278	RF Switching Unit	HTEC	HRSU	222101	July 06, 2023	1 Year
ENE-165-2	RF Cable	TIMES	10M (N-N)	605239-0003	May 31, 2023	1 Year
ENE-162-2	RF Cable	TIMES	2M(N-N)	605236-0002	May 31, 2023	1 Year
ENE-149	Conduction Test Room 1#	SKET	11.5*5*4m	/	Dec 17, 2021	3 Year



4. CONDUCTED EMISSIONS AT MAINS MEASUREMENT

4.1. Block Diagram of Test Setup



AMN: Artificial mains network AE: Associated equipment EUT: Equipment under test

4.2. Measurement Standard

J 55014-1(H27)

4.3. Measurement Limits

dBuV
59 to 46*
46
50

The lower limit applies at the transition frequencies.
*: Decreasing linearly with logarithm of frequency from

☐ Tools Mains port

Frequency range	□P≤700W		□700W<	P≤1000W	□P>1	000W
MHz	Quasi-peak dBuV	Average dBuV	Quasi-peak dBuV	Average dBuV	Quasi-peak dBuV	Average dBuV
0.15 to 0.35	66 to 59*	59 to 49*	70 to 63*	63 to 53*	76 to 69*	69 to 59*
0.35 to 5	59	49	63	53	69	59
5 to 30	64	54	68	58	74	64

The lower limit applies at the transition frequencies.

Key: P = rated power of the motor only.

^{*:} Decreasing linearly with logarithm of frequency from



4.4. Test Procedure

The EUT was placed on a desk 0.4 m height from the metal ground plane and 0.4 m from the conducting wall of the shielding room and it was kept at least 0.8 m from any other grounded conducting surface. The size of the table will nominally be 1.5 m x1.0 m.

The rear of the arrangement shall be flush with the back of the supporting tabletop unless that would not be possible or typical of normal use.

All units of equipment forming the system under test (includes the EUT as well as connected peripherals and associated equipment or devices) shall be arranged such that a nominal 0.1 m separation is achieved between the neighboring units.

Connect EUT to the power mains through a artificial mains network (AMN). Where the mains cable supplied by the manufacturer is longer than 1 m, the excess should be folded at the centre into a bundle no longer than 0.4 m, so that its length is shortened to 1 m.

All the support units are connecting to the other AMN.

The AMN provides 50 ohm coupling impedance for the measuring instrument.

The CISPR states that the AMN with 50 ohm and 50 microhenry should be used.

Both sides of AC line were checked for maximum conducted interference.

For frequency band 150 KHz to 30 MHz, the bandwidth is set at 9 KHz. The frequency range from 150 kHz to 30 MHz is investigated.

Set the test-receiver system to quasi peak detect function and average detect function, and to measure the conducted emissions values.

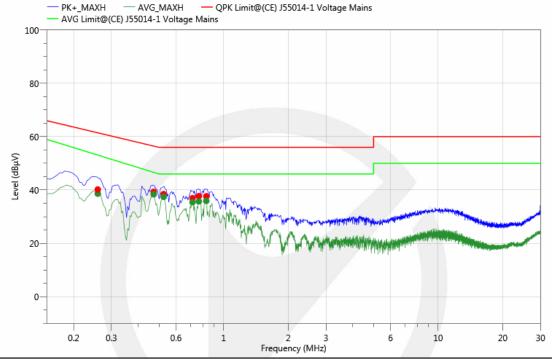
4.5. Measuring Results

Pass.

Please refer to the following pages.



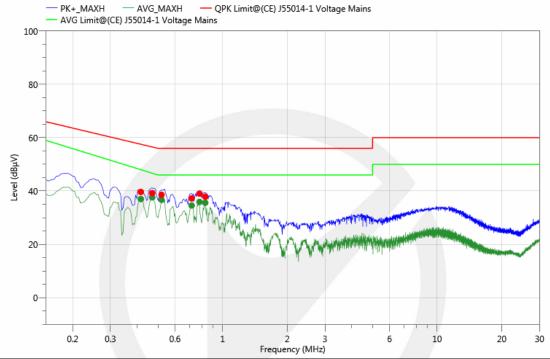
Project Information							
Model: PC420D Mode: FWD							
Voltage: AC 110V/60Hz Engineer: Alan Li							
Temp: 21°C Humi: 53%							



Fina	Final Result (Margin=Limit-Meas.(Reading +Corr.))									
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Verdict
1	0.259	30.30	9.89	40.19	61.46	21.27	QPK	N	GND	Pass
2	0.259	28.73	9.89	38.62	53.10	14.48	AVG	N	GND	Pass
3	0.472	29.35	9.96	39.31	56.48	17.17	QPK	N	GND	Pass
4	0.472	28.43	9.96	38.39	46.62	8.23	AVG	N	GND	Pass
5	0.525	28.49	9.99	38.48	56.00	17.52	QPK	N	GND	Pass
6	0.525	27.44	9.99	37.43	46.00	8.57	AVG	N	GND	Pass
7	0.716	26.86	10.07	36.93	56.00	19.07	QPK	N	GND	Pass
8	0.716	25.33	10.07	35.40	46.00	10.60	AVG	N	GND	Pass
9	0.766	27.59	10.1	37.69	56.00	18.31	QPK	N	GND	Pass
10	0.766	25.62	10.1	35.72	46.00	10.28	AVG	N	GND	Pass
11	0.830	27.53	10.12	37.65	56.00	18.35	QPK	N	GND	Pass
12	0.830	25.80	10.12	35.92	46.00	10.08	AVG	N	GND	Pass



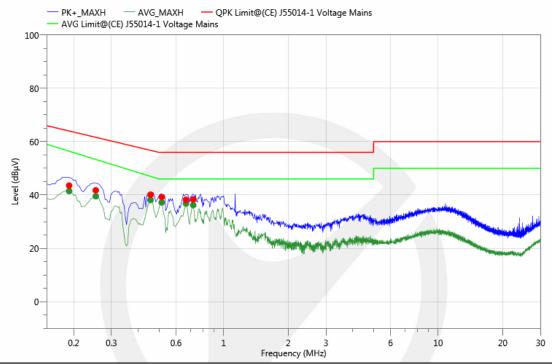
Project Information									
Model:	PC420D	Mode :	FWD						
Voltage :	AC 110V/60Hz	Engineer:	Alan Li						
Temp:	21°C	Humi :	53%						



Fina	Final Result (Margin=Limit-Meas.(Reading +Corr.))									
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Verdict
1	0.416	29.70	9.95	39.65	57.54	17.89	QPK	L1	GND	Pass
2	0.416	27.03	9.95	36.98	48.00	11.02	AVG	L1	GND	Pass
3	0.470	29.26	9.96	39.22	56.52	17.30	QPK	L1	GND	Pass
4	0.470	27.64	9.96	37.60	46.68	9.08	AVG	L1	GND	Pass
5	0.519	28.61	9.98	38.59	56.00	17.41	QPK	L1	GND	Pass
6	0.519	26.73	9.98	36.71	46.00	9.29	AVG	L1	GND	Pass
7	0.717	27.14	10.07	37.21	56.00	18.79	QPK	L1	GND	Pass
8	0.717	24.50	10.07	34.57	46.00	11.43	AVG	L1	GND	Pass
9	0.780	28.93	10.1	39.03	56.00	16.97	QPK	L1	GND	Pass
10	0.780	25.82	10.1	35.92	46.00	10.08	AVG	L1	GND	Pass
11	0.830	27.73	10.12	37.85	56.00	18.15	QPK	L1	GND	Pass
12	0.830	25.47	10.12	35.59	46.00	10.41	AVG	L1	GND	Pass



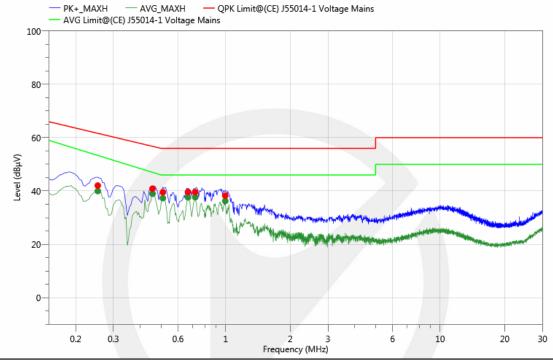
Project Information									
Model:	PC420D	Mode :	REV						
Voltage :	AC 110V/60Hz	Engineer:	Alan Li						
Temp:	21°C	Humi :	53%						



Fina	Final Result (Margin=Limit-Meas.(Reading +Corr.))									
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Verdict
1	0.191	33.69	9.86	43.55	64.01	20.46	QPK	L1	GND	Pass
2	0.191	31.62	9.86	41.48	56.42	14.94	AVG	L1	GND	Pass
3	0.254	31.89	9.89	41.78	61.64	19.86	QPK	L1	GND	Pass
4	0.254	29.64	9.89	39.53	53.33	13.80	AVG	L1	GND	Pass
5	0.456	30.16	9.96	40.12	56.77	16.65	QPK	L1	GND	Pass
6	0.456	28.17	9.96	38.13	46.99	8.86	AVG	L1	GND	Pass
7	0.515	29.27	9.98	39.25	56.00	16.75	QPK	L1	GND	Pass
8	0.515	27.24	9.98	37.22	46.00	8.78	AVG	L1	GND	Pass
9	0.668	28.17	10.05	38.22	56.00	17.78	QPK	L1	GND	Pass
10	0.668	26.73	10.05	36.78	46.00	9.22	AVG	L1	GND	Pass
11	0.722	28.28	10.08	38.36	56.00	17.64	QPK	L1	GND	Pass
12	0.722	26.12	10.08	36.20	46.00	9.80	AVG	L1	GND	Pass



Project Information									
Model:	PC420D	Mode :	REV						
Voltage :	AC 110V/60Hz	Engineer:	Alan Li						
Temp:	21°C	Humi :	53%						

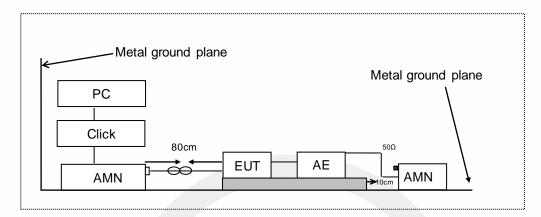


Fina	Final Result (Margin=Limit-Meas.(Reading +Corr.))									
No.	Freq. (MHz)	Reading (dBµV)	Corr. (dB)	Meas. (dBµV)	Limit (dBµV)	Margin (dB)	Det.	Line	PE	Verdict
1	0.254	32.16	9.89	42.05	61.64	19.59	QPK	Ν	GND	Pass
2	0.254	30.08	9.89	39.97	53.33	13.36	AVG	Z	GND	Pass
3	0.456	30.91	9.96	40.87	56.77	15.90	QPK	Ν	GND	Pass
4	0.456	29.02	9.96	38.98	46.99	8.01	AVG	Ν	GND	Pass
5	0.510	29.57	9.98	39.55	56.00	16.45	QPK	Ν	GND	Pass
6	0.510	27.34	9.98	37.32	46.00	8.68	AVG	Z	GND	Pass
7	0.668	29.56	10.05	39.61	56.00	16.39	QPK	Ν	GND	Pass
8	0.668	27.55	10.05	37.60	46.00	8.40	AVG	Z	GND	Pass
9	0.722	29.51	10.07	39.58	56.00	16.42	QPK	N	GND	Pass
10	0.722	27.57	10.07	37.64	46.00	8.36	AVG	N	GND	Pass
11	0.996	28.04	10.21	38.25	56.00	17.75	QPK	N	GND	Pass
12	0.996	26.04	10.21	36.25	46.00	9.75	AVG	N	GND	Pass



5. CLICKS MEASUREMENT

5.1. Block Diagram of Test Setup



AMN: Artificial mains network AE: Associated equipment EUT: Equipment under test

Click: Click Switching Operation Box and Click Meter

5.2. Measurement Standard

J 55014-1(H27)

5.3. Measurement Limits

According to Section 4.2 of standard J 55014-1.

5.4. Test Procedure

This test is done when switch operations in thermostatically controlled appliances, automatic program controlled machines and other electrically controlled or operated appliances may generate discontinuous disturbance (Click). The measurement of disturbance shall be performed at the following restricted number of frequencies: 150 KHz, 500 KHz, 1.4 MHz and 30 MHz. At each frequency, for appliances, which stop automatically, duration of the minimum number of complete programs necessary to produce 40 counted clicks or, where relevant, 40 counted clicks have not been produced, the test is stopped at the end of the program in course. The relevant click rate N. The appliance under test shall be deemed to comply with the limit if not more than a quarter of the number of the counted click registered during the observation time.

5.5. Test Result

Pass.

Please refer to the following pages.





TEST REPORT

TEST PASS

03/04/2023 18:30:49

ENB2404010172E001-1-1 00:06:01:27 Sample No: Time Test

21°C Executed by WK Luo Temp:

Humi: 53%

Model PC420D

SN Type

Report ENB2404010172E001

Mode **FWD** f = 1

Type of Eut paper shredder

Rx 500 kHz Att. [dB] 20 Rx 150 KHz Att. [dB] 20 Rx 1.4 MHz Att. [dB] 20 20 Rx 30 MHz Att. [dB]

Rx 150 kHz Input 0 Rx 500 kHz Input 0 Offset [dB] Offset [dB]

Rx 1.4 MHz Input 0 Rx 30 MHz Input Offset [dB] Offset [dB]

External Att. [dB] NONE

Remote SW04 LT32 -NEUTRAL

	150 kHz	500 kHz	1.4 MHz	30 MHz
First Run				
Short	5	18	22	0
Long	0	0	0	0
Long (10< t ≤20 ms)	0	0	0	0
Tot. Clicks Corr	5	18	22	0
Events	0	0	0	0
Time(s)	0.00	0.00	0.00	0.00
Sw.Op.	40	40	40	40
5.4.3.5 events	0	0	0	0
Limit dBuV	66	56	56	60
N	6.66	6.66	6.66	6.66
	PASS	PASS	PASS	PASS

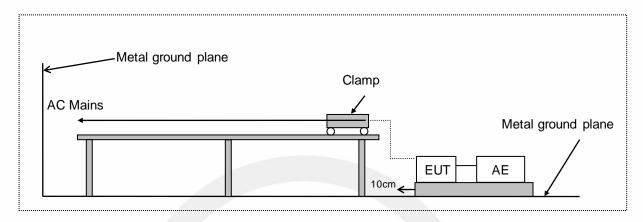


150 kHz	New Limit	Calculated	500 kHz	New Limit Calculated		
1.4 MHz	New Limit	Calculated	30 MHz	No Clicks		
New Limit [dBuV]	79.07	69.07	69.07	73.07		
Allowed Clic	ks 10	9	3	0		
Short	0	0	0	0		
Long	0	0	0	0		
Tot. Clicks (Corr 0	0	0	0		
Events	0	0	0	0		
Time(s)	0.00	0.00	0.00	0.00		
5.4.3.5 ever	its 0	0	0	0		
	PASS	PASS	PASS	PASS		



6. DISTURBANCE POWER MEASUREMENT

6.1. Block Diagram of Test Setup



6.2. Measurement Standard

J 55014-1(H27)

6.3. Measurement Limits

All emanations from devices or system shall not exceed the level of field strengths specified below:

6.3.1.Limits (Table 2a of standard J 55014-1)

Frequency	⊠Household and similar appliances			Tools							
range			□P≤700W		□700W <p≤1000w< td=""><td colspan="2">□P>1000W</td></p≤1000w<>		□P>1000W				
MHz	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW			
30 to 300	45 to 55*	35 to 45*	45 to 55*	35 to 45*	49 to 59*	39 to 49*	55 to 65*	45 to 55*			
The lower li	imit applies at	the transit	ion frequencie	s.							

6.3.2. Margin when performing disturbance power measurement (Table 2b of standard J 55014-1)

Frequency	⊠ Household and similar appliances		Tools							
range			□P≤700W		□700W <p≤1000w< td=""><td colspan="2">□P>1000W</td></p≤1000w<>		□P>1000W			
MHz	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW	Quasi-peak dBpW	Average dBpW		
30 to 300	0 to 10*	0	0 to 10*	0	0 to 10*	0	0 to 10*	0		

The lower limit applies at the transition frequencies.

^{*:} Decreasing linearly with logarithm of frequency from

Key: P = rated power of the motor only.

^{*:} Decreasing linearly with logarithm of frequency from

Key: P = rated power of the motor only.



6.4. Test Procedure

The EUT are placed on an insulating support 0.8m high above a ground reference plane and away from other metallic surface at least 0.8m. It is connected to the power mains through an extension cord of 6m min. The absorber clamp clamps the cord and moves from the far end to the EUT to measure the disturbing energy emitted from the cord.

The bandwidth of the receiver is set at 120 kHz in 30 MHz to 300 MHz. The frequency range from 30 MHz to 300 MHz is investigated.

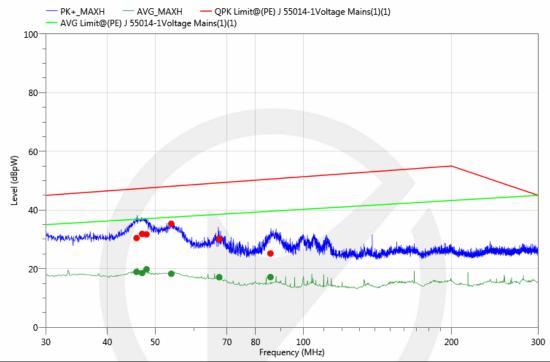
6.5. Test Results

Pass.

Please refer to the following pages.



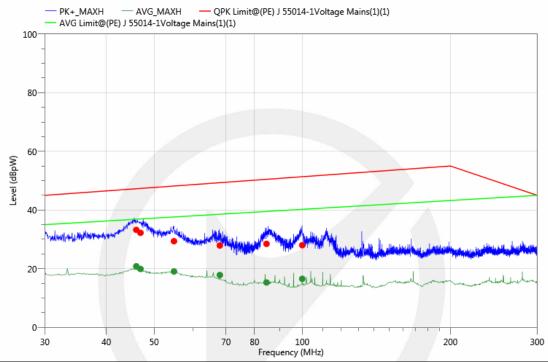
Project Information									
Model:	PC420D	Mode:	FWD						
Voltage:	AC 110V/60Hz	Engineer:	Alan Li						
Temp:	21℃	Humi :	53%						



Final Result (Margin=Limit-Meas.(Reading +Corr.))								
No.	Freq. (MHz)	Reading (dBpW)	Corr. (dB)	Meas. (dBpW)	Limit (dBpW)	Margin (dB)	Det.	Verdict
1	45.851	21.09	9.34	30.43	47.24	16.81	QPK	Pass
2	45.851	9.54	9.34	18.88	36.84	17.96	AVG	Pass
3	47.058	22.43	9.4	31.83	47.37	15.54	QPK	Pass
4	47.058	9.10	9.4	18.50	36.96	18.46	AVG	Pass
5	48.032	22.24	9.45	31.69	47.48	15.79	QPK	Pass
6	48.032	10.33	9.45	19.78	37.04	17.26	AVG	Pass
7	53.931	25.58	9.71	35.29	48.09	12.80	QPK	Pass
8	53.931	8.54	9.71	18.25	37.55	19.30	AVG	Pass
9	67.498	22.22	7.93	30.15	49.27	19.12	QPK	Pass
10	67.498	9.14	7.93	17.07	38.52	21.45	AVG	Pass
11	85.769	18.33	6.83	25.16	50.54	25.38	QPK	Pass
12	85.769	10.28	6.83	17.11	39.56	22.45	AVG	Pass



Project Information							
Model:	PC420D	Mode :	REV				
Voltage :	AC 110V/60Hz	Engineer:	Alan Li				
Temp:	21°C	Humi :	53%				



Final Result (Margin=Limit-Meas.(Reading +Corr.))								
No.	Freq. (MHz)	Reading (dBpW)	Corr. (dB)	Meas. (dBpW)	Limit (dBpW)	Margin (dB)	Det.	Verdict
1	46.000	23.88	9.34	33.22	47.25	14.03	QPK	Pass
2	46.000	11.47	9.34	20.81	36.86	16.05	AVG	Pass
3	46.920	22.82	9.39	32.21	47.36	15.15	QPK	Pass
4	46.920	10.50	9.39	19.89	36.94	17.05	AVG	Pass
5	54.880	19.62	9.74	29.36	48.18	18.82	QPK	Pass
6	54.880	9.30	9.74	19.04	37.62	18.58	AVG	Pass
7	68.000	20.03	7.86	27.89	49.31	21.42	QPK	Pass
8	68.000	9.95	7.86	17.81	38.55	20.74	AVG	Pass
9	84.600	21.69	6.76	28.45	50.46	22.01	QPK	Pass
10	84.600	8.51	6.76	15.27	39.50	24.23	AVG	Pass
11	100.000	21.49	6.5	27.99	51.35	23.36	QPK	Pass
12	100.000	10.02	6.5	16.52	40.23	23.71	AVG	Pass



7. PHOTOGRAPHS OF TEST

7.1. Photo of Power Line Conducted Emission Measurement







7.2. Photo of Click Measurement



7.3. Photo of Disturbance Power Measurement





APPENDIX I (Photos of EUT)























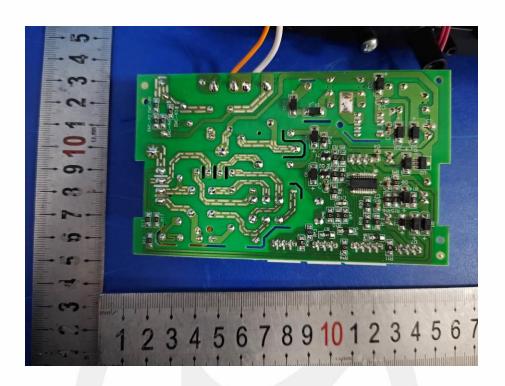


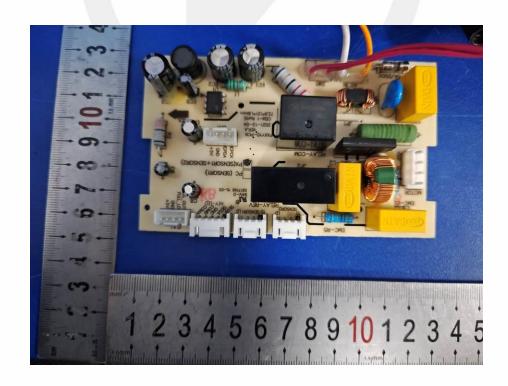




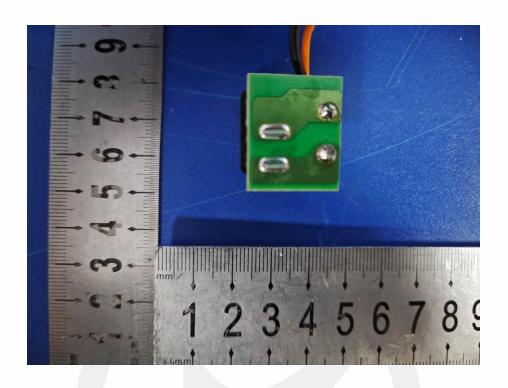


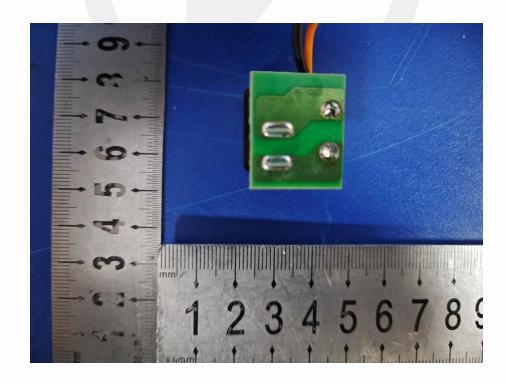




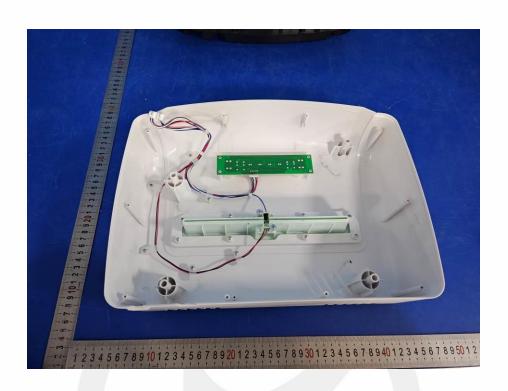


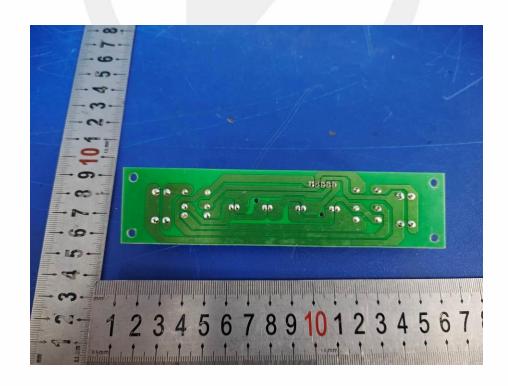
















*** End of Report ***



声明 Statement

1. 本报告无授权批准人签字及"检验检测专用章"无效;

This report will be void without authorized signature or special seal for testing report.

2. 未经许可本报告不得部分复制;

This report shall not be copied partly without authorization.

3. 本报告的检测结果仅对送测样品有效,委托方对样品的代表性和资料的真实性负责;

The test results or observations are applicable only to tested sample. Client shall be responsible for representativeness of the sample and authenticity of the material.

4. 本检测报告中检测项目标注有特殊符号则该项目不在资质认定范围内,仅作为客户委托、科研、教学或内部质量 控制等目的使用;

The observations or tests with special mark fall outside the scope of accreditation, and are only used for purpose of commission, research, training, internal quality control etc.

5. 本检测报告以实测值进行符合性判定,未考虑不确定度所带来的风险,本实验室不承担相关责任,特别约定、标准或规范中有明确规定的除外;

The test results or observations are provided in accordance with measured value, without taking risks caused by uncertainty into account. Without explicit stipulation in special agreements, standards or regulations, EMTEK shall not assume any responsibility.

6. 对本检测报告若有异议,请于收到报告之日起20日内提出;

Objections shall be raised within 20 days from the date receiving the report.