EMC TEST REPORT

For

Beijing Ping An Lihe Technology Development Co., Ltd.

43-Inch Queuing Machine

Model No.: P-GX1-B43ZXU-J1900+4+128G

Prepared for	:	Beijing Ping An Lihe Technology Development Co., Ltd.
Address	:	Room 102, First Floor, No. 30, Hospital, 5 Jiantai Road, Chaoyang District, Beijing
Prepared by	:	Shenzhen AOCE Testing Technology Service Co., Ltd
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Date of receipt of test sample	:	December 01, 2021
Number of tested samples	:	1
Serial number	:	Prototype
Date of Test	:	December 01, 2021 - December 15, 2021
Date of Report	:	December 15, 2021

EMC TEST REPORT
EN 55032:2015+A11:2020
Information technology equipment-Radio disturbance characteristics-Limits of measurement
EN 55035:2017+A11:2020;
Information technology equipment-Immunity characteristics-Limits and methods of measurement

Report Reference No. .....:	**AOC201013103E-R1**
Date Of Issue .....:	December 15, 2021
Testing Laboratory Name.....:	**Shenzhen AOCE Testing Technology Service Co., Ltd**
Address .....:	Room 202, 2nd Floor, No.12th Building of Xinhe Tongfuyu Industrial Park, Fuhai Street, Baoan District, Shenzhen, Guangdong, China
Testing Location/ Procedure .....:	Full application of Harmonised standards ■ Partial application of Harmonised standards □ Other standard testing method □
Applicant's Name .....:	Beijing Ping An Lihe Technology Development Co., Ltd.
Address .....:	Room 102, First Floor, No. 30, Hospital, 5 Jiantai Road, Chaoyang District, Beijing
Test Specification:	
Standard .....:	EN 55032:2015+A11:2020; EN 61000-3-2:2019+A1:2021; EN61000-3-3:2013+A1:2019+A2:2021; EN 55035:2017+A11:2020;
Test Report Form No.....:	AOCEMC-1.0
TRF Originator .....:	Shenzhen AOCE Testing Technology Service Co., Ltd
Master TRF .....:	Dated 2011-03

Test Item Description. .....:	**43-Inch Queuing Machine**
Trade Mark .....:	P-AN
Model/ Type Reference .....:	P-GX1-B43ZXU-J1900+4+128G
Ratings .....:	Input: 110-240V~, 50/60Hz, Max:180W; Output: DC12V, 5A
Result .....:	**Positive**

Compiled by:	**Supervised by:**	**Approved by:**
David Liu	Kevin Huang	Jackson
David Liu/ File administrators	Kevin Huang/ Technique principal	Jackson Fang/ Manager

EMC -- TEST REPORT

Test Report No. : AOC201013103E-R1	December 15, 2021 Date of issue

Type / Model.....	:	P-GX1-B43ZXU-J1900+4+128G
EUT.....	:	43-Inch Queuing Machine
Applicant.....	**:**	**Beijing Ping An Lihe Technology Development Co., Ltd.**
Address.....	:	Room 102, First Floor, No. 30, Hospital, 5 Jiantai Road, Chaoyang District, Beijing
Telephone.....	:	/
Fax.....	:	/
Manufacturer.....	**:**	**Beijing Ping An Lihe Technology Development Co., Ltd.**
Address.....	:	Room 102, First Floor, No. 30, Hospital, 5 Jiantai Road, Chaoyang District, Beijing
Telephone.....	:	/
Fax.....	:	/
Factory.....	**:**	**Beijing Ping An Lihe Technology Development Co., Ltd.**
Address.....	:	Room 102, First Floor, No. 30, Hospital, 5 Jiantai Road, Chaoyang District, Beijing
Telephone.....	:	/
Fax.....	:	/

Test Result according to the standards on page 7:	**Positive**

The test report merely corresponds to the test sample.
It is not permitted to copy extracts of these test result without the written permission of the test laboratory.

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1. SUMMARY OF STANDARDS AND RESULTS

1.1.Description of Standards and Results

The EUT have been tested according to the applicable standards as referenced below.

EMISSION (EN 55032:2015+A11:2020)			
Description of Test Item	**Standard**	**Limits**	**Results**
Conducted disturbance at mains terminals	EN 55032:2015+A11:2020	Class B	PASS
Conducted disturbance at telecommunication port	EN 55032:2015+A11:2020	Class B	N/A
Radiated disturbance	EN 55032:2015+A11:2020	Class B	PASS
Harmonic current emissions	EN 61000-3-2:2019+A1:2021	Class A	PASS
Voltage fluctuations & flicker	EN61000-3-3:2013+A1:2019+A2:2021	--------	PASS

IMMUNITY (EN 55035:2017+A11:2020;)			
Description of Test Item	**Basic Standard**	**Performance Criteria**	**Results**
Electrostatic discharge (ESD)	EN 61000-4-2: 2009	B	PASS
Radio-frequency, Continuous radiated disturbance	EN 61000-4-3: 2006+A1: 2010	A	PASS
Electrical fast transient (EFT)	EN 61000-4-4: 2012	B	PASS
Surge (Input a.c. power ports)	EN 61000-4-5: 2014+A1: 2017	B	PASS
Surge (Telecommunication ports)		B	N/A
Radio-frequency, Continuous conducted disturbance	EN 61000-4-6: 2014+AC: 2015	A	PASS
Power frequency magnetic field	EN 61000-4-8: 2010	A	PASS
Voltage dips, >95% reduction	EN 61000-4-11: 2004+A1: 2017	C	PASS
Voltage dips, 30% reduction		C	PASS
Voltage interruptions		C	PASS
N/A is an abbreviation for Not Applicable.			

1.2.Description of Performance Criteria

General Performance Criteria

Examples of functions defined by the manufacturer to be evaluated during testing include, but are not limited to, the following:

— essential operational modes and states;

— tests of all peripheral access (hard disks, floppy disks, printers, keyboard, mouse, etc.);

— quality of software execution;

— quality of data display and transmission;

— quality of speech transmission.

1.2.1.Performance criterion A

The equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed below a performance level specified by the manufacture when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, then either of these may be deriver from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

1.2.2.Performance criterion B

After the test, the equipment shall continue to operate as intended without operator intervention. No degradation of performance or loss of function is allowed, after the application of the phenomena below a performance level specified by the manufacture, when the equipment is used as intended. The performance level may be replaced by a permissible loss of performance.

During the test, degradation of performance is allowed. However, no change of operation 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 deriver from the product description and documentation, and by what the user may reasonably expect from the equipment if used as intended.

1.2.3.Performance criterion C

Loss of function is allowed, provided the function is self-recoverable, or can be restored by the operation of the controls by the user in accordance with the manufacture’s instructions.

Functions, and/or information stored in non-volatile memory, or protected by a battery backup, shall not be loss.

2. GENERAL INFORMATION

2.1.Description of Device (EUT)

EUT : 43-Inch Queuing Machine

Model Number : P-GX1-B43ZXU-J1900+4+128G

Power Supply : Input: 110-240V~, 50/60Hz, Max:180W; Output: DC12V, 5A

2.2.Description of Test Facility

EMC Lab.

2.3.Statement of the measurement uncertainty

The data and results referenced in this document are true and accurate. The reader is cautioned that there may be errors within the calibration limits of the equipment and facilities. The measurement uncertainty was calculated for all measurements listed in this test report acc. To CISPR 16 – 4 "Specification for radio disturbance and immunity measuring apparatus and methods – Part 4: Uncertainty in EMC Measurements" and is documented in the AOC quality system acc. To DIN EN ISO/IEC 17025. Furthermore, component and process variability of devices similar to that tested may result in additional deviation. The manufacturer has the sole responsibility of continued compliance of the device.

2.4.Measurement Uncertainty

Test Item		Frequency Range	Uncertainty	Note
Radiation Uncertainty	:	30MHz~200MHz	±2.96dB	(1)
		200MHz~1000MHz	±3.10dB	(1)
Conduction Uncertainty	:	150kHz~30MHz	±1.63dB	(1)
Power disturbance	:	30MHz~300MHz	±1.60dB	(1)

(1). This uncertainty represents an expanded uncertainty expressed at approximately the 95% confidence level using a coverage factor of k=2.

3. MEASURING DEVICES AND TEST EQUIPMENT

3.1.Conducted Disturbance

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101142	2020/06/18
2	10dB Attenuator	SCHWARZBECK	OSPAM236	9729	2020/06/18
3	Artificial Mains	ROHDE & SCHWARZ	ENV216	101288	2020/06/18
4	EMI Test Software	AUDIX	E3	N/A	2020/06/18

3.2.Disturbance Power

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	101142	2020/06/18
2	Absorbing clamp	ROHDE & SCHWARZ	MDS 21	4033	2020/06/18
3	EMI Test Software	AUDIX	E3	N/A	2020/06/18
4	EMI Test Receiver	ROHDE & SCHWARZ	ESPI	101840	2020/06/18

3.3.Radiated Electromagnetic Disturbance

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	EMI Test Receiver	ROHDE & SCHWARZ	ESCI	1011423	2020/06/18
2	Triple-loop Antenna	EVERFINE	LLA-2	11050003	2020/06/18
3	EMI Test Receiver	ROHDE & SCHWARZ	ESPI	101840	2020/06/18
4	EMI Test Software	AUDIX	E3	N/A	2020/06/18

3.4.Radiated Disturbance (Electric Field)

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2020/06/18
2	EMI Test Receiver	ROHDE & SCHWARZ	ESPI	101840	2020/06/18
3	Log per Antenna	SCHWARZBECK	VULB9163	9163-470	2020/06/18
4	EMI Test Software	AUDIX	E3	N/A	2020/06/18
5	Positioning Controller	MF	MF-7082	/	2020/06/18
6	Horn Antenna	ETS.LINDGREN	3115	00034771	2020/06/18
7	Spectrum Analyzer	Agilent	E4407B	MY41440754	2020/06/18

3.5.Harmonic Current

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Power Analyzer Test System	Voltech	PM6000	20000670053	2020/06/18

3.6.Voltage fluctuation and Flicker

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Power Analyzer Test System	Voltech	PM6000	20000670053	2020/06/18

3.7.Electrostatic Discharge

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	ESD Simulator	KIKUSUI	KC001311	KES4021	2020/06/18

3.8.RF Field Strength Susceptibility

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	SIGNAL GENERATOR	HP	8648A	625U00573	2020/06/18
2	Amplifier	AR	500A100	17034	2020/06/18
3	Amplifier	AR	100W/1000M1	17028	2020/06/18
4	Isotropic Field Monitor	AR	FM2000	16829	2020/06/18
5	Isotropic Field Probe	AR	FP2000	16755	2020/06/18
6	Bi-conic Antenna	EMCO	3108	9507-2534	2020/06/18
7	By-log-periodic Antenna	AR	AT1080	16812	2020/06/18
8	EMS Test Software	ROHDE & SCHWARZ	ESK1	N/A	2020/06/18

3.9.Electrical Fast Transient/Burst

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Electrical fast transient(EFT)generator	3CTEST	EFT-4021	EC0461044	2020/06/18
2	Coupling Clamp	3CTEST	EFTC	EC0441098	2020/06/18

3.10.Surge

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Surge test system	3CTEST	SG5006G	EC5581070	2020/06/18
2	Coupling/decoupling network	3CTEST	SGN-5010G	CS5591033	2020/06/18

3.11.Conducted Susceptibility

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Simulator	EMTEST	CIT-10	A126A1195	2020/06/18
2	CDN	EMTEST	CDN-M2	A2210177	2020/06/18
3	CDN	EMTEST	CDN-M3	A2210177	2020/06/18
4	Attenuator	EMTEST	ATT6	50FP-006-H3B	2020/06/18

3.12.Power Frequency Magnetic Field Susceptibility

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Power frequency mag-field generator	EVERFINE	EMS61000-8K	906003	2020/06/18

	System				

3.13.Voltage Dips

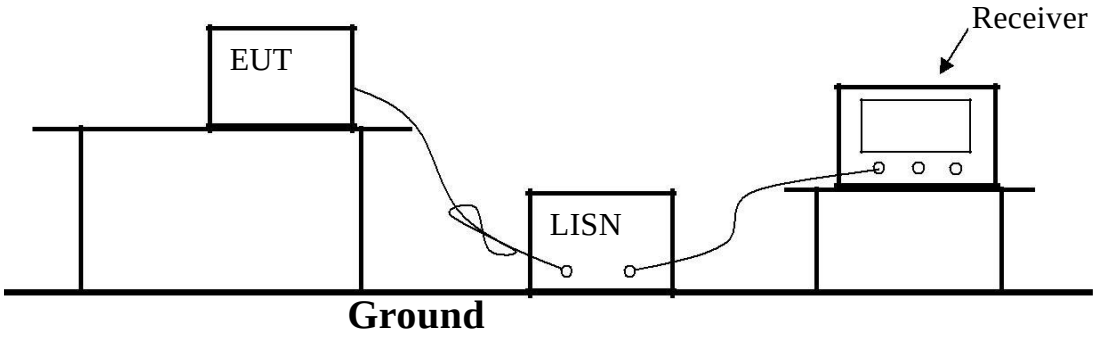
Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Voltage dips and up generator	3CTEST	VDG-1105G	EC0171014	2020/06/18

3.14.Voltage Short Interruptions

Item	Test Equipment	Manufacturer	Model No.	Serial No.	Last Cal.
1	Voltage dips and up generator	3CTEST	VDG-1105G	EC0171014	2020/06/18

4. POWER LINE CONDUCTED MEASUREMENT

4.1.Block Diagram of Test Setup



4.2.Conducted Power Line Emission Measurement Standard and Limits

4.2.1.Standard:

EN 55032:2015+A11:2020

4.2.2.Limits

Frequency	At mains terminals (dBμV)	
	Quasi-peak Level	Average Level
0.15MHz ~ 0.50MHz	66 ~ 56*	56 ~ 46*
0.50MHz ~ 5MHz	56	46
5MHz ~ 30MHz	60	50

NOTE1-The lower limit shall apply at the transition frequencies.
NOTE2-The limit decreases linearly with the logarithm of the frequency in the range 0.15MHz to 0.50MHz.

4.3.EUT Configuration on Test

The following equipments are installed on Conducted Emission Measurement to see EN 55032 requirements and operating in a manner which tends to maximize its emission characteristics in normal application.

4.4.Operating Condition of EUT

4.4.1.Setup the EUT as shown in Section 4.1.

4.4.2.Turn on the power of all equipments.

4.4.3.Let the EUT work in test mode (On) and measure it.

4.5.Test Procedure

The EUT is put on the plane 0.8m high above the ground by insulating support and connected to the AC mains through Line Impedance Stability Network (L.I.S.N). This provided 50-ohm coupling impedance for the tested equipments. Both sides of AC line are investigated to find out the maximum conducted emission according to the EN 55032 regulations during conducted emission measurement.

The bandwidth of the field strength meter is set at 9kHz in 150kHz~30MHz.

The frequency range from 150kHz to 30MHz is investigated

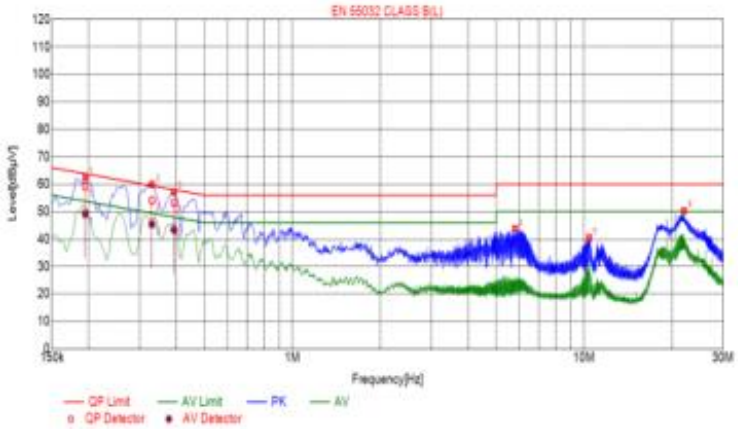
4.6.Test Results

PASS.

The test result please refer to the next page.

Model No.	P-GX1-B43ZXU-J1900+4+128G	**Test Mode**	ON
Environmental Conditions	24℃/ 56% RH	**Test Engineer**	Liang
Pol	Line	**Test Date**	March 10, 2020

Test Graph

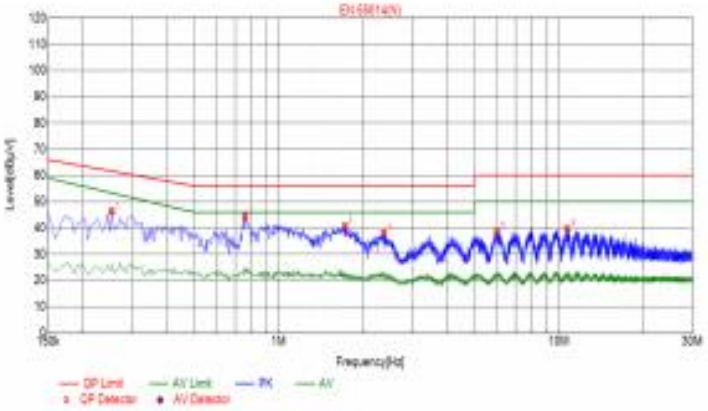


Suspected List

NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.1950	62.59	10.03	63.82	1.23	52.56	PK	L
2	0.3300	59.90	10.04	59.45	-0.45	49.86	PK	L
3	0.3930	57.12	10.04	58.00	0.88	47.08	PK	L
4	5.8065	43.79	10.24	60.00	16.21	33.55	PK	L
5	10.4190	40.48	10.04	60.00	19.52	30.44	PK	L
6	22.0155	50.30	10.16	60.00	9.70	40.14	PK	L

Model No.	P-GX1-B43ZXU-J1900+4+128G	**Test Mode**	ON
Environmental Conditions	24℃/ 56% RH	**Test Engineer**	Liang
Pol	Neutral	**Test Date**	March 10, 2020

Test Graph

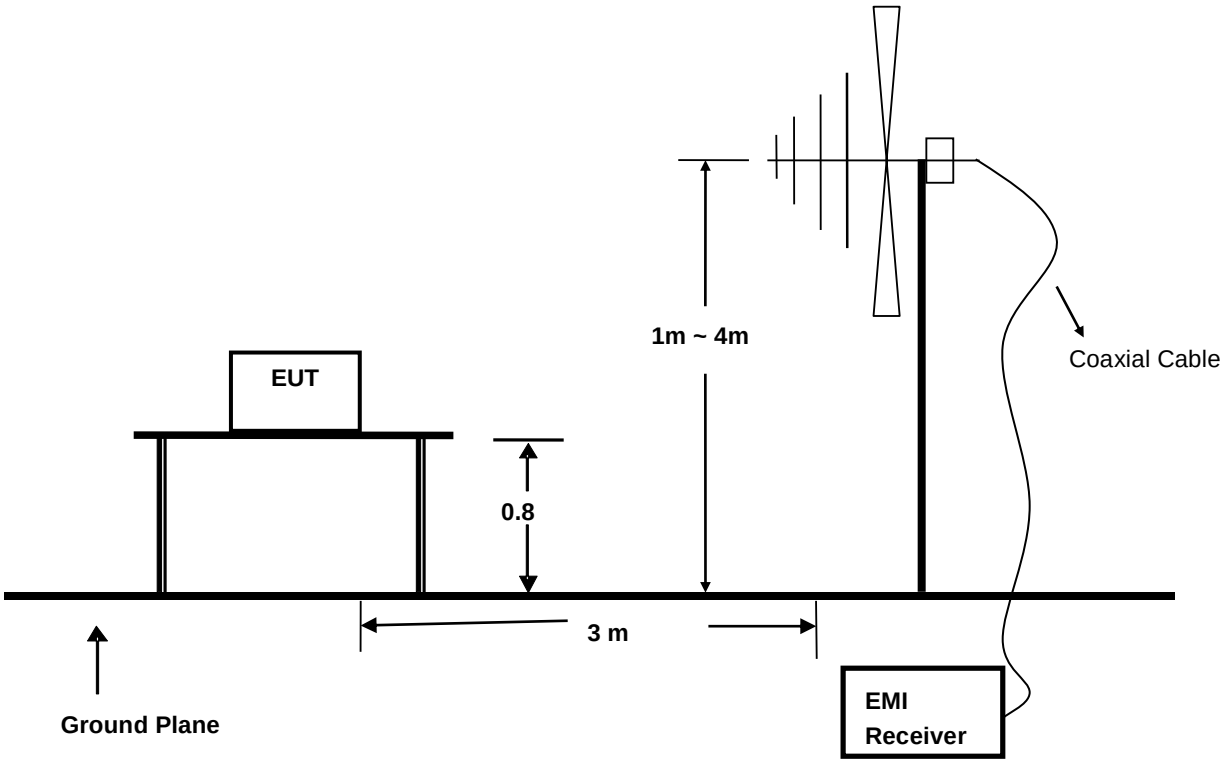


Suspected List

NO.	Freq. [MHz]	Level [dBµV]	Factor [dB]	Limit [dBµV]	Margin [dB]	Reading [dBµV]	Detector	Type
1	0.2535	46.36	10.04	61.64	15.28	36.32	PK	N
2	0.7575	44.45	10.06	56.00	11.55	34.39	PK	N
3	1.7250	40.72	10.13	56.00	15.28	30.59	PK	N
4	2.3730	37.97	10.18	56.00	18.03	27.79	PK	N
5	6.0180	38.71	10.23	60.00	21.29	28.48	PK	N
6	10.7205	39.61	10.03	60.00	20.39	29.58	PK	N

5. RADIATED EMISSION MEASUREMENT

5.1.Block Diagram of Test Setup



5.2.Test Standard

EN 55032:2015+A11:2020

5.3.Radiated Emission Limits

All emanations from a class B device or system, including any network of conductors and apparatus connected thereto, shall not exceed the level of field strengths specified below:

FREQUENCY (MHz)	DISTANCE (Meters)	FIELD STRENGTHS LIMIT (dBμV/m)
30 ~ 230	3	40
230 ~ 1000	3	47

Note: (1) The smaller limit shall apply at the combination point between two frequency bands.

(2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

5.4.EUT Configuration on Test

The EN 55032 regulations test method must be used to find the maximum emission during radiated emission measurement.

5.5.Operating Condition of EUT

5.5.1 Turn on the power.

5.5.2 After that, let the EUT work in test mode (ON) and measure it.

5.6.Test Procedure

The EUT is placed on a turntable, which is 0.8 meter high above the ground. The turntable can rotate 360 degrees to determine the position of the maximum emission level. The EUT is set 10 meters away from the receiving antenna, which is mounted on an antenna tower. The antenna can be moved up and down from 1 to 4 meters to find out the maximum emission level. By-log antenna (calibrated by Dipole Antenna) is used as a receiving antenna. Both horizontal and vertical polarization of the antenna is set on test.

The bandwidth of the Receiver is set at 120kHz.

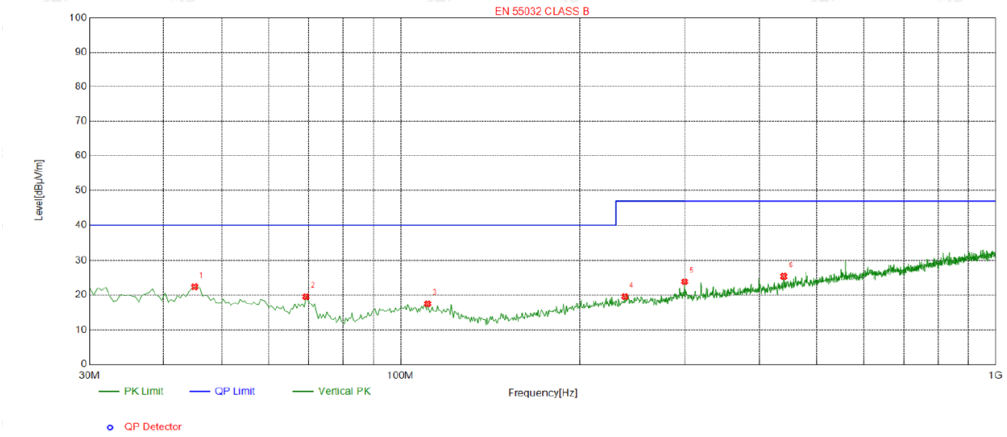
The frequency range from 30MHz to 1000MHz is investigated.

5.7.Test Results

PASS.

The test result please refer to the next page.

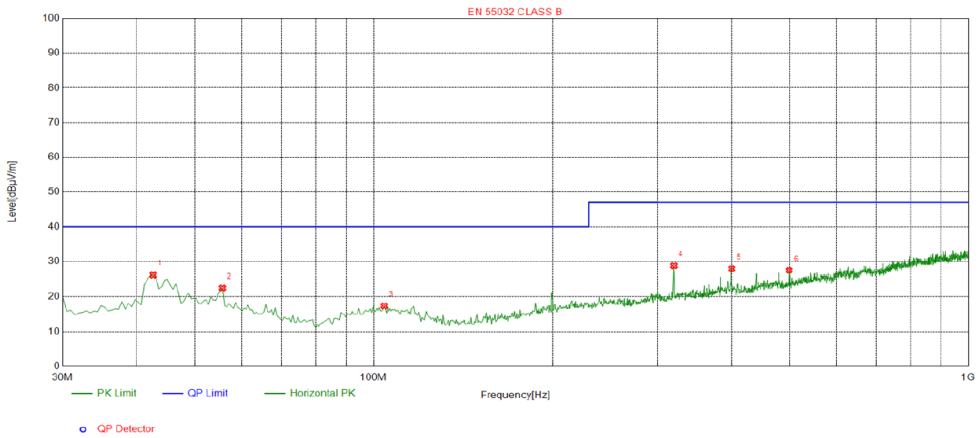
Model No.	P-GX1-B43ZXU-J1900+4+128G	**Test Mode**	ON
Environmental Conditions	24℃/ 56% RH	**Detector Function**	Quasi-peak
Pol	Vertical	**Distance**	3m
Test Engineer	Liang	**Test Date**	March 10, 2020



Suspected List

NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	45.0350	22.33	-13.65	40.00	17.67	100	137	Vertical
2	69.2850	19.56	-17.49	40.00	20.44	100	212	Vertical
3	110.995	17.52	-15.60	40.00	22.48	100	107	Vertical
4	238.065	19.60	-13.94	47.00	27.40	100	0	Vertical
5	300.145	23.87	-12.73	47.00	23.13	100	348	Vertical
6	440.310	25.43	-9.41	47.00	21.57	100	345	Vertical

Model No.	P-GX1-B43ZXU-J1900+4+128G	**Test Mode**	ON
Environmental Conditions	24℃/ 56% RH	**Detector Function**	Quasi-peak
Pol	Horizontal	**Distance**	3m
Test Engineer	Liang	**Test Date**	March 10, 2020

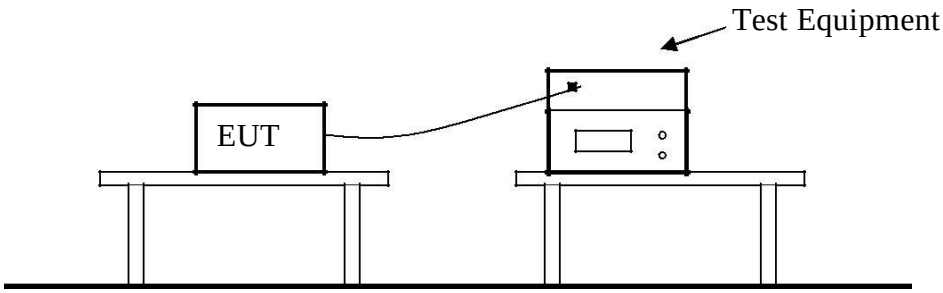


Suspected List

NO.	Freq. [MHz]	Level [dBµV/m]	Factor [dB]	Limit [dBµV/m]	Margin [dB]	Height [cm]	Angle [°]	Polarity
1	42.6100	26.18	-14.08	40.00	13.82	100	60	Horizontal
2	55.7050	22.54	-14.51	40.00	17.46	100	250	Horizontal
3	104.205	17.42	-15.41	40.00	22.58	100	182	Horizontal
4	320.030	28.77	-12.10	47.00	18.23	100	311	Horizontal
5	400.055	27.91	-10.40	47.00	19.09	100	15	Horizontal
6	499.965	27.44	-8.30	47.00	19.56	100	63	Horizontal

6. HARMONIC CURRENT MEASUREMENT

6.1.Block Diagram of Test Setup



6.2.Test Standard

EN 61000-3-2:2019+A1:2021

6.3.Operating Condition of EUT

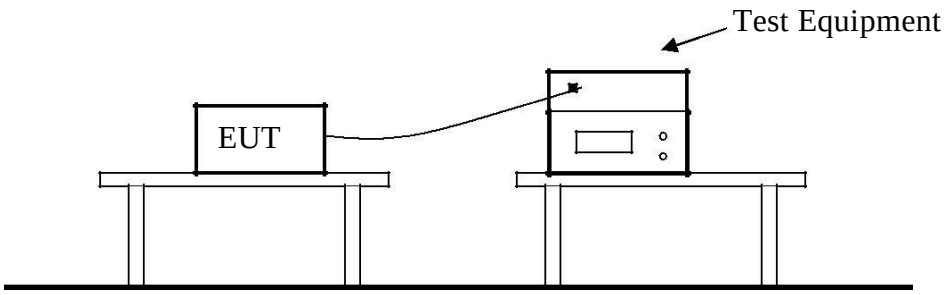
Same as Section 4.4. except the test setup replaced by Section 7.1.

6.4.Test Results

PASS.

7. VOLTAGE FLUCTUATIONS & FLICKER MEASUREMENT

7.1.Block Diagram of Test Setup



7.2.Test Standard

EN61000-3-3:2013+A1:2019+A2:2021

7.3.Operating Condition of EUT

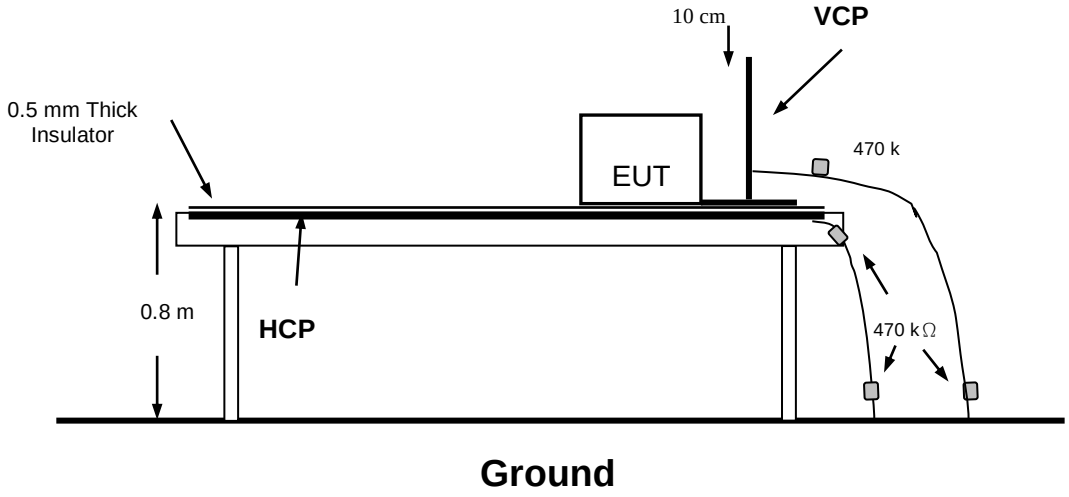
Same as Section 4.4. except the test setup replaced by Section 8.1.

7.4.Test Results

PASS.

8. ELECTROSTATIC DISCHARGE TEST

8.1.Block Diagram of Test Setup



8.2.Test Standard

EN 55035:2017+A11:2020 (EN 61000-4-2: 2009, Severity Level: Air Discharge: Level 3, ± 8KV Contact Discharge: Level 2, ±4KV)

8.3.Severity Levels and Performance Criterion

8.3.1.Severity level

Level	Test Voltage Contact Discharge (KV)	Test Voltage Air Discharge (KV)
1.	±2	±2
2.	±4	±4
3.	±6	±8
4.	±8	±15
X	Special	Special

8.3.2.Performance criterion: **B**

8.4.EUT Configuration on Test

The configuration of EUT is listed in Section 3.7.

8.5.Operating Condition of EUT

8.5.1.Setup the EUT as shown in Section 6.1.
8.5.2.Turn on the power of all equipments.
8.5.3.Let the EUT work in test mode (ON) and measure it.

8.6.Test Procedure

8.6.1.Air Discharge

This test is done on a non-conductive surfaces. The round discharge tip of the discharge electrode shall be approached as fast as possible to touch the EUT. After each discharge, the discharge electrode shall be removed from the EUT. The generator is then re-triggered for a new single discharge and repeated 10 times for each pre-selected test point. This procedure shall be repeated until all the air discharge completed.

Because the case of the EUT is metal surface, so it does not need to be tested.

8.6.2.Contact Discharge

All the procedure shall be same as Section 6.6.1. except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

8.6.3.Indirect Discharge For Horizontal Coupling Plane

At least 20 single discharges shall be applied to the horizontal coupling plane, at points on each side of the EUT. The discharge electrode positions vertically at a distance of 0.1m from the EUT and with the discharge electrode touching the coupling plane.

8.6.4.Indirect Discharge For Vertical Coupling Plane

At least 20 single discharge shall be applied to the center of one vertical edge of the coupling plane. The coupling plane, of dimensions 0.5m X 0.5m, is placed parallel to, and positioned at a distance of 0.1m from the EUT. Discharges shall be applied to the coupling plane, with this plane in sufficient different positions that the four faces of the EUT are completely illuminated.

8.7.Test Results

PASS.

Please refer to the following page.

Electrostatic Discharger Test Results

Standard	☐ IEC 61000-4-2 ☑ EN 61000-4-2		
Applicant	Beijing Ping An Lihe Technology Development Co., Ltd.		
EUT	43-Inch Queuing Machine	**Temperature**	26℃
M/N	P-GX1-B43ZXU-J1900+4+128G	**Humidity**	51％
Criterion	B	**Pressure**	1021mbar
Test Mode	ON	**Test Engineer**	Liang

Air Discharge

Test Points	Test Levels			Results		
	± 2KV	± 4KV	± 8KV	Pass	Fail	Performance Criterion
Front	☒	☒	☒	☒	☐	☐A ☒B
Back	☒	☒	☒	☒	☐	☐A ☒B
Left	☒	☒	☒	☒	☐	☐A ☒B
Right	☒	☒	☒	☒	☐	☐A ☒B
Top	☒	☒	☒	☒	☐	☐A ☒B
Bottom	☒	☒	☒	☒	☐	☐A ☒B

Contact Discharge

Test Points	Test Levels		Results		
	± 2 KV	±4 KV	Pass	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐A ☒B
Back	☒	☒	☒	☐	☐A ☒B
Left	☒	☒	☒	☐	☐A ☒B
Right	☒	☒	☒	☐	☐A ☒B
Top	☒	☒	☒	☐	☐A ☒B
Bottom	☒	☒	☒	☐	☐A ☒B

Discharge To Horizontal Coupling Plane

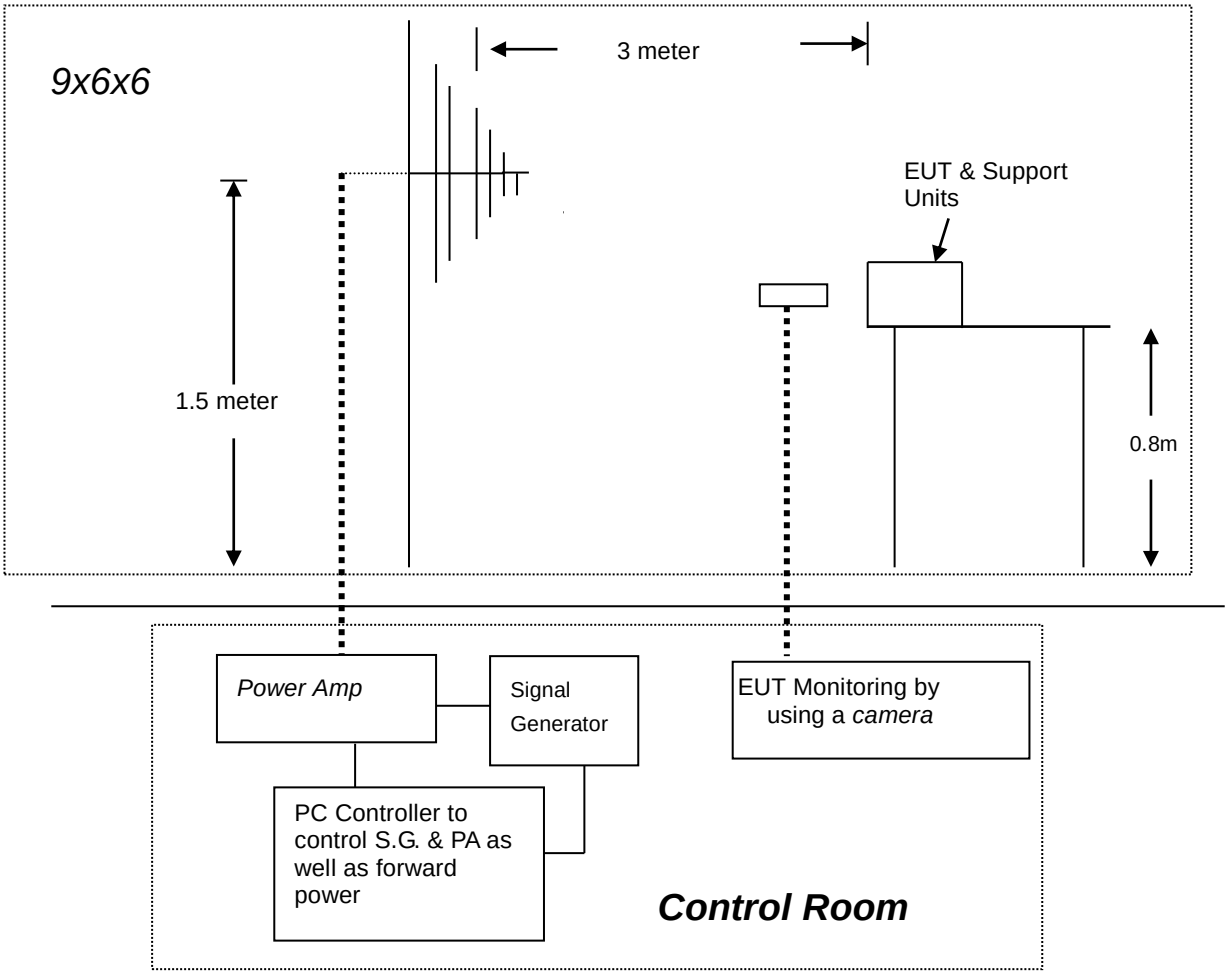
Side of EUT	Test Levels		Results		
	± 2 KV	± 4 KV	Pass	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐A ☒B
Back	☒	☒	☒	☐	☐A ☒B
Left	☒	☒	☒	☐	☐A ☒B
Right	☒	☒	☒	☐	☐A ☒B

Discharge To Vertical Coupling Plane

Side of EUT	Test Levels		Results		
	± 2 KV	± 4 KV	Pass	Fail	Performance Criterion
Front	☒	☒	☒	☐	☐A ☒B
Back	☒	☒	☒	☐	☐A ☒B
Left	☒	☒	☒	☐	☐A ☒B
Right	☒	☒	☒	☐	☐A ☒B

9. RF FIELD STRENGTH SUSCEPTIBILITY TEST

9.1.Block Diagram of Test Setup



9.2.Test Standard

EN 55035:2017+A11:2020 (EN 61000-4-3: 2006+A1: 2010, Severity Level: 2, 3V / m)

9.3.Severity Levels and Performance Criterion

9.3.1.Severity level

Level	Field Strength (V/m)
1	1
2	3
3	10
X	Special

9.3.2.Performance criterion: **A**

9.4.EUT Configuration on Test

The configuration of EUT are listed in Section 2.1.

9.5.Operating Condition of EUT

9.5.1.Setup the EUT as shown in Section 7.1.
9.5.2.Turn on the power of all equipments.
9.5.3.Let the EUT work in test mode (On) and measure it.

9.6.Test Procedure

The EUT and its simulators are placed on a turn table which is 0.8 meter above ground. EUT is set 3 meter away from the transmitting antenna which is mounted on an antenna tower. Both horizontal and vertical polarization of the antenna are set on test. Each of the four sides of EUT must be faced this transmitting antenna and measured individually. In order to judge the EUT performance, a CCD camera is used to monitor EUT screen. All the scanning conditions are as follows:

Condition of Test	Remarks
1. Fielded Strength	3 V/m (Severity Level 2)
2. Radiated Signal	Unmodulated
3. Scanning Frequency	80 - 1000 MHz
4. Dwell time of radiated	0.0015 decade/s
5. Waiting Time	3 Sec.

9.7.Test Results

PASS.

Please refer to the following page.

RF Field Strength Susceptibility Test Results

Standard	☐ IEC 61000-4-3 ☑ EN 61000-4-3		
Applicant	Beijing Ping An Lihe Technology Development Co., Ltd.		
EUT	43-Inch Queuing Machine	**Temperature**	26℃
M/N	P-GX1-B43ZXU-J1900+4+128G	**Humidity**	51%
Field Strength	3 V/m	**Criterion**	A
Test Mode	ON	**Test Engineer**	Liang
Frequency Range	80 MHz to 1000 MHz		
Modulation	☐None ☐ Pulse ☑AM 1KHz 80%		
Steps	1%		

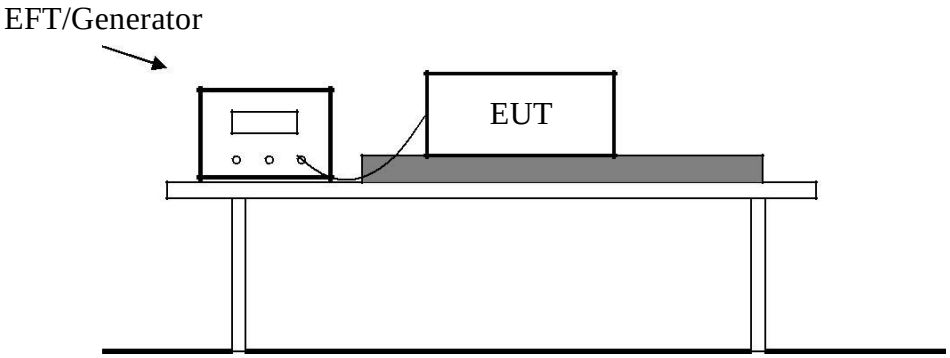
	Horizontal	**Vertical**
Front	PASS	PASS
Right	PASS	PASS
Rear	PASS	PASS
Left	PASS	PASS

Test Equipment:
1. Signal Generator: 2031 (MARCONI)
2. Power Amplifier: 500A100 & 100W/1000M1 (A&R)
3. Power Antenna: 3108 (EMCO) & AT1080 (A&R)
4. Field Monitor: FM2000 (A&R)

Note:

10. ELECTRICAL FAST TRANSIENT/BURST TEST

10.1.Block Diagram of Test Setup



10.2.Test Standard

EN 55035:2017+A11:2020 (EN 61000-4-4: 2012, Severity Level: Level 2: 1KV)

10.3.Severity Levels and Performance Criterion

10.3.1.Severity level

Open Circuit Output Test Voltage ±10%		
Level	On Power Supply Lines	On I/O (Input/Output) Signal data and control lines
1.	0.5 KV	0.25 KV
2.	1 KV	0.5 KV
3.	2 KV	1 KV
4.	4 KV	2 KV
x.	Special	Special

10.3.2.Performance criterion: **B**

10.4.EUT Configuration on Test

The configuration of EUT are listed in Section 3.9.

10.5.Operating Condition of EUT

10.5.1.Setup the EUT as shown in Section 11.1.

10.5.2.Turn on the power of all equipments.

10.5.3.Let the EUT work in test mode (ON) and measure it.

10.6.Test Procedure

The EUT is put on the table which is 0.8 meter high above the ground. This reference ground plane shall 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 beneath the EUT, shall be more than 0.5m.

10.6.1.For input and output AC power ports:

The EUT is connected to the power mains by using a coupling device which couples the EFT interference signal to AC power lines. Both polarities of the test voltage should be applied during compliance test and the duration of the test is 2 mins.

10.6.2.For signal lines and control lines ports:

No I/O ports. It's unnecessary to test.

10.6.3.For DC output line ports:

It's unnecessary to test.

10.7.Test Results

PASS.

Please refer to the following page.

Electrical Fast Transient/Burst Test Results

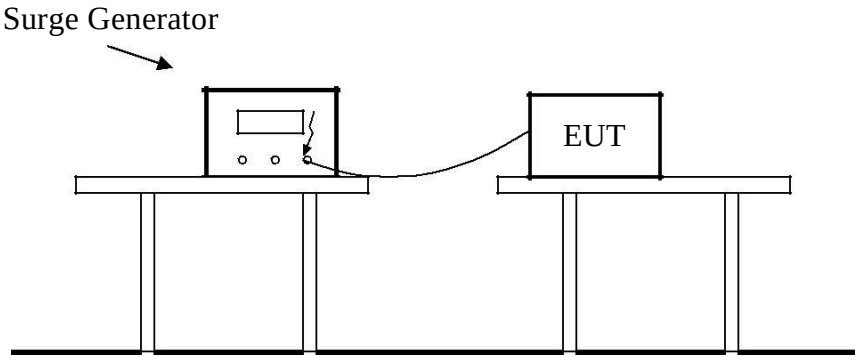
Standard	☐ IEC 61000-4-4 ☑ EN 61000-4-4		
Applicant	Beijing Ping An Lihe Technology Development Co., Ltd.		
EUT	43-Inch Queuing Machine	**Temperature**	26℃
M/N	P-GX1-B43ZXU-J1900+4+128G	**Humidity**	51％
Criterion	B	**Pressure**	1021mbar
Test Mode	ON	**Test Engineer**	Liang

Line	Test Voltage	Result (+)	Result (-)
L	1KV	PASS	PASS
N	1KV	PASS	PASS
PE	1KV	PASS	PASS
L-N	1KV	PASS	PASS
L-PE	1KV	PASS	PASS
N-PE	1KV	PASS	PASS
L-N-PE	1KV	PASS	PASS
Signal Line			
I/O Cable			

Note:

11. SURGE IMMUNITY TEST

11.1.Block Diagram of Test Setup



11.2.Test Standard

EN 55035:2017+A11:2020 (EN61000-4-5: 2014+A1: 2017, Severity Level: Line to Line: Level 2, 1.0KV; Line to Earth: Level 3, 2.0KV)

11.3.Severity Levels and Performance Criterion

11.3.1.Severity level

Severity Level	Open-Circuit Test Voltage (KV)
1	0.5
2	1.0
3	2.0
4	4.0
*	Special

11.3.2.Performance criterion: **B**

11.4.EUT Configuration on Test

The configuration of EUT are listed in Section 3.10.

11.5.Operating Condition of EUT

11.5.1.Setup the EUT as shown in Section 12.1.

11.5.2.Turn on the power of all equipments.

11.5.3.Let the EUT work in test mode (ON) and measure it.

11.6.Test Procedure

11.6.1.Set up the EUT and test generator as shown on Section 12.1.

11.6.2.For line to line coupling mode, provide a0.5KV 1.2/50us voltage surge (at open-circuit condition) and 8/20us current surge to EUT selected points.

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

11.6.4. Different phase angles are done individually.

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

11.7.Test Results

PASS.

Please refer to the following page.

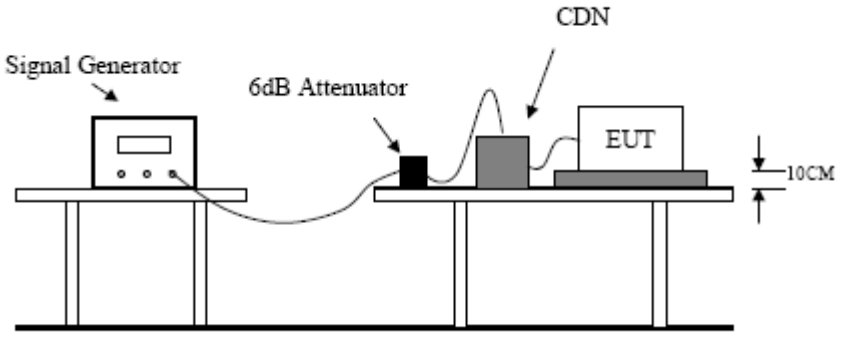
Electrical Fast Transient/Burst Test Results

Standard	☐ IEC 61000-4-5 ☑ EN 61000-4-5		
Applicant	Beijing Ping An Lihe Technology Development Co., Ltd.		
EUT	43-Inch Queuing Machine	**Temperature**	26℃
M/N	P-GX1-B43ZXU-J1900+4+128G	**Humidity**	51%
Criterion	B	**Pressure**	1021mbar
Test Mode	ON	**Test Engineer**	Liang

Location	**Polarity**	**Phase Angle**	**Number of Pulse**	**Pulse Voltage (KV)**	**Result**
L-N	+	0^o	5	1.0	PASS
	+	90^o	5	1.0	PASS
	+	180^o	5	1.0	PASS
	+	270^o	5	1.0	PASS
	-	0^o	5	1.0	PASS
	-	90^o	5	1.0	PASS
	-	180^o	5	1.0	PASS
	-	270^o	5	1.0	PASS
L-PE	+	0^o	5	2.0	PASS
	+	90^o	5	2.0	PASS
	+	180^o	5	2.0	PASS
	+	270^o	5	2.0	PASS
	-	0^o	5	2.0	PASS
	-	90^o	5	2.0	PASS
	-	180^o	5	2.0	PASS
	-	270^o	5	2.0	PASS
N-PE	+	0^o	5	2.0	PASS
	+	90^o	5	2.0	PASS
	+	180^o	5	2.0	PASS
	+	270^o	5	2.0	PASS
	-	0^o	5	2.0	PASS
	-	90^o	5	2.0	PASS
	-	180^o	5	2.0	PASS
	-	270^o	5	2.0	PASS
Signal Line					

12. INJECTED CURRENTS SUSCEPTIBILITY TEST

12.1.Block Diagram of Test Setup



12.2.Test Standard

EN 55035:2017+A11:2020(EN 61000-4-6: 2014, Severity Level: 3V (rms), 0.15MHz ~ 80MHz)

12.3.Severity Levels and Performance Criterion

12.3.1.Severity level

Level	Field Strength (V)
1.	1
2.	3
3.	10
X	Special

12.3.2.Performance criterion: **A**

12.4.EUT Configuration on Test

The configuration of EUT are listed in Section 3.11.

12.5.Operating Condition of EUT

12.5.1.Setup the EUT as shown in Section 13.1.

12.5.2.Turn on the power of all equipments.

12.5.3.Let the EUT work in test mode (ON) and measure it.

12.6.Test Procedure

12.6.1.Set up the EUT, CDN and test generators as shown on Section 13.1.

12.6.2.Let the EUT work in test mode and measure it.

12.6.3.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).

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

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

12.6.6.The frequency range is swept from 150kHz to 80MHz using 3V signal level, and with the disturbance signal 80% amplitude modulated with a 1kHz sine wave.

12.6.7.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.

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

12.7.Test Results

PASS.

Please refer to the following page.

Injected Currents Susceptibility Test Results

Standard	☐ IEC 61000-4-6 ☑ EN 61000-4-6		
Applicant	Beijing Ping An Lihe Technology Development Co., Ltd.		
EUT	43-Inch Queuing Machine	**Temperature**	26℃
M/N	P-GX1-B43ZXU-J1900+4+128G	**Humidity**	51%
Test Mode	Normal	**Criterion**	A
Test Engineer	Liang	**Test Date**	March 10, 2020

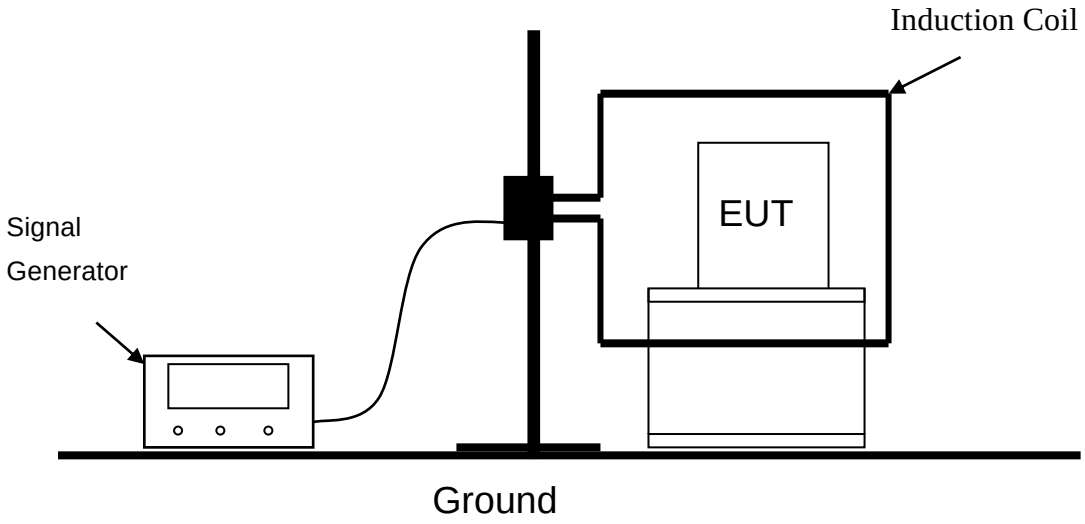
Frequency Range (MHz)	**Injected Position**	**Strength (Unmodulated)**	**Criterion**	**Result**
0.15 ~ 80	AC Mains	3V	A	PASS

Remark:
Modulation Signal:1kHz 80% AM

Note:

13. MAGNETIC FIELD IMMUNITY TEST

13.1.Block Diagram of Test Setup



13.2.Test Standard

EN 55035:2017+A11:2020 (EN 61000-4-8: 2010, Severity Level 2: 3A/m)

13.3.Severity Levels and Performance Criterion

13.3.1.Severity level

Level	Magnetic Field Strength (A/m)
1.	1
2.	3
3.	10
4.	30
5.	100
X	Special

13.3.2.Performance criterion: **A**

13.4.EUT Configuration on Test

The configuration of EUT are listed in Section 3.12.

13.5.Operating Condition of EUT

13.5.1.Setup the EUT as shown in Section 13.1.
13.5.2.Turn on the power of all equipments.
13.5.3.Let the EUT work in test mode (On) and measure it.

13.6.Test Procedure

13.6.1.Set up the EUT system as shown on Section 13.1.

13.6.2.The Induction coil is set up in horizontal or vertical.

13.6.3.Let the EUT work in test mode and measure it.

13.7.Test Results

PASS.

Please refer to the following page.

Magnetic Field Immunity Test Result

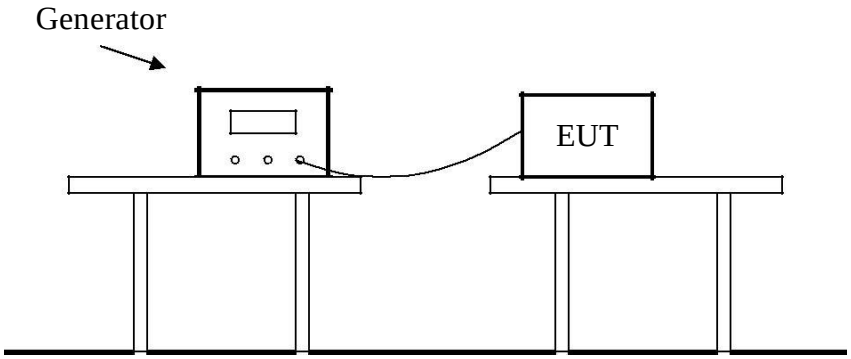
Standard	☐ IEC 61000-4-8 ☑ EN 61000-4-8		
Applicant	Beijing Ping An Lihe Technology Development Co., Ltd.		
EUT	43-Inch Queuing Machine	**Temperature**	26℃
M/N	P-GX1-B43ZXU-J1900+4+128G	**Humidity**	51%
Test Mode	Normal	**Criterion**	A
Test Engineer	Liang	**Test Date**	March 10, 2020

Test Level (A/M)	Testing Duration	Coil Orientation	Criterion	Result
3	5 mins	X	A	PASS
3	5 mins	Y	A	PASS
3	5 mins	Z	A	PASS

Note:

14. VOLTAGE DIPS AND INTERRUPTIONS TEST

14.1.Block Diagram of Test Setup



14.2.Test Standard

EN 55035:2017+A11:2020 (EN 61000-4-11: 2004+A1: 2017)

14.3.Severity Levels and Performance Criterion

14.3.1.Severity level

Test Level (%U_T)	Voltage dip and short Interruptions (%U_T)	Duration (in period)
0	100	0.5
70	30	10

14.3.2.Performance criterion: **B&C**

14.4.EUT Configuration on Test

The configuration of EUT are listed in Section 3.13&3.14.

14.5.Operating Condition of EUT

14.5.1.Setup the EUT as shown in Section 15.1.

14.5.2.Turn on the power of all equipments.

14.5.3.Let the EUT work in test mode (ON) and measure it.

14.6.Test Procedure

14.6.1.Set up the EUT and test generator as shown on Section 15.1.

14.6.2.The interruptions is introduced at selected phase angles with specified duration.

14.6.3.Record any degradation of performance.

14.7.Test Result

PASS.

Please refer to the following page.

Magnetic Field Immunity Test Result

Standard	☐ IEC 61000-4-11 ☑ EN 61000-4-11		
Applicant	Beijing Ping An Lihe Technology Development Co., Ltd.		
EUT	43-Inch Queuing Machine	**Temperature**	26℃
M/N	P-GX1-B43ZXU-J1900+4+128G	**Humidity**	51%
Test Mode	Normal	**Criterion**	A
Test Engineer	Liang	**Test Date**	March 10, 2020

Test Level % U_T	**Voltage Dips & Short Interruptions % U_T**	**Duration (in periods)**	**Criterion**	**Result**
0	100	0.5P	B	PASS
70	30	10P	C	PASS

Note:

15. PHOTOGRAPH

15.1.Photo of Power Line Conducted Measurement

/

15.2.Photo of Radiated Measurement

/

16. EXTERNAL AND INTERNAL PHOTOS OF THE EUT

Fig. 1

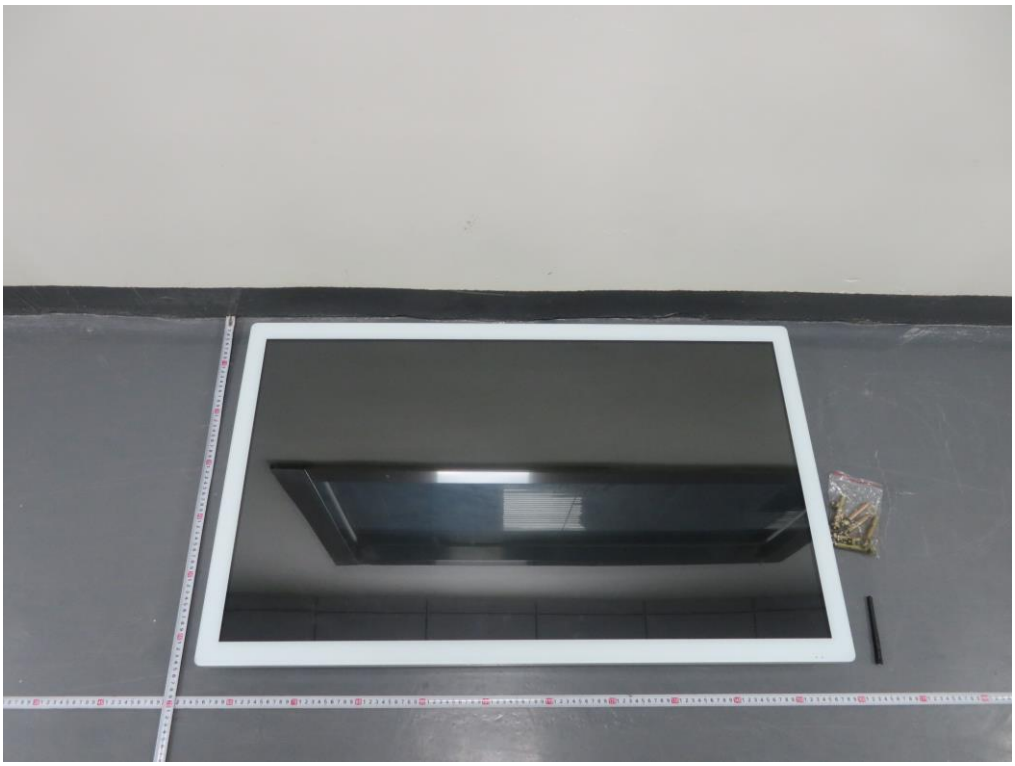


Fig. 2

----------THE END OF REPORT----------