#### **EMC TEST REPORT**

#### For

#### GUANGXI CHUANGYUAN MACHNERY TECHNOLOGY CO., LTD

Bag Making Machine

Test Model: CY-40IIF

Additional Model No.: CY-30IIH, CY-40IIH, CY-50IIH, CY-60IIH, CY-65IIH, CY-30IIF, CY-50IIF, CY-60IIF, CY-60IIF, CY-60IIIH, CY-60IIIH, CY-60IIIH, CY-60IIIF, CY-60IIIF, CY-60IIIF, CY-60IIIF, CY-60IIIF, CY-30R, CY-40R, CY-50R, CY-60R, CY-26M, CY-30M, CY-40M

Prepared for : GUANGXI CHUANGYUAN MACHNERY TECHNOLOGY

CO., LTD

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Date of receipt of test sample : February 05, 2025

Number of tested samples : 1

Serial number : Prototype

Date of Test : February 05, 2025~February 19, 2025

Date of Report : February 19, 2025

EMC TEST REPORT EN IEC 61000-6-4:2019 & EN IEC 61000-6-2:2019			
Report Reference No::	AOC250219101E		
Date Of Issue	February 19, 2025		
1 6	Shenzhen AOCE Electronic Technology Service Co., Ltd 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  ■		

Testing Location/ Proce Partial application of Harmonised standards □

Other standard testing method □

Applicant's Name.....: GUANGXI CHUANGYUAN MACHNERY TECHNOLOGY Address.....: 102#, Building 14, LIANDO U VALLEY, No. 60, Lianchou

Road, Xixiangtang District, Nanning City, Guangxi Province

**Test Specification** 

Standard..... : EN IEC 61000-6-2:2019 EN IEC 61000-6-4:2019

> EN IEC 61000-3-2:2019+A1:2021+A2:2024 EN 61000-3-3:2013+A1:2019+A2:2021+AC:2022

Test Report Form No. ..... AOCEMC-1.0

TRF Originator.....: Shenzhen AOCE Electronic Technology Service Co., Ltd

Master TRF.....: Dated 2017-09

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Test Item Description.....: Bag Making Machine

Trade Mark....:

Test Model.....: CY-40IIF

Ratings.....: AC 380V, 50Hz, 11.5KW

Result .....: Positive

Compiled by: **Supervised by:** Approved by:

Johnson Wang/ Administrators

Joey Liu/ Technique principal

Murry Yu/ Manager

# **EMC -- TEST REPORT**

Test Report No.: AOC250219101E

February 19, 2025

Date of issue

Test Model..... : CY-40IIF EUT..... : Bag Making Machine : GUANGXI CHUANGYUAN MACHNERY Applicant..... TECHNOLOGY CO., LTD Address..... : 102#, Building 14, LIANDO U VALLEY, No. 60, Lianchou Road, Xixiangtang District, Nanning City, Guangxi Province Telephone..... : / : / Fax : GUANGXI CHUANGYUAN MACHNERY Manufacturer..... **TECHNOLOGY CO., LTD** Address..... : 102#, Building 14, LIANDO U VALLEY, No. 60, Lianchou Road, Xixiangtang District, Nanning City, Guangxi Province Telephone..... : / Fax.... . / : GUANGXI CHUANGYUAN MACHNERY Factory..... **TECHNOLOGY CO., LTD** Address..... : 102#, Building 14, LIANDO U VALLEY, No. 60, Lianchou Road, Xixiangtang District, Nanning City, Guangxi Province Telephone..... : / Fax....

Test Result Pos	sitive
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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. GENERAL INFORMATION

Model No. List

#### 1.1. Product Description for Equipment Under Test (EUT)

EUT : Bag Making Machine

Test Model : CY-40IIF

CY-30IIH, CY-40IIH, CY-50IIH, CY-60IIH, CY-65IIH, CY-30IIF,

. CY-50IIF, CY-60IIF, CY-65IIF, CY-50IIIH, CY-60IIIH, CY-50IIIF,

· CY-60IIIF, CY-30R, CY-40R, CY-50R, CY-60R, CY-26M, CY-30M,

CY-40M

Model No. difference : The internal structure of the product is the same, only the size

and color are different.

Power Supply : AC 380V, 50Hz, 11.5KW

Hardware Version : /

Software Version : /

#### 1.3. Related Submittal(s)/Grant(s)

No Related Submittals.

#### 1.4. Test Methodology

All measurements contained in this report were conducted with EN IEC 61000-6-2:2019, EN IEC 61000-6-4:2019, EN IEC 61000-3-2:2019+A1:2021+A2:2024 and EN 61000-3-3:2013+A1:2019+A2:2021+AC:2022.

#### 1.6. Support Equipment List

Manufacturer	Description	Model	Serial Number	Certificate
			-	

#### 1.7. External I/O

I/O Port Description	Quantity	Cable
/	/	/

# 1.8. List Of Measuring Equipment

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
1	X-series USB Peak and Average Power Sensor Aglient	Agilent	U2021XA	MY54080022	2024-04-14	2025-04-13
2	4 CH. Simultaneous Sampling 14 Bits 2MS/s	Agilent	U2531A	MY54080016	2024-04-14	2025-04-13
3	Test Software	Ascentest	AT890-SW	20160630	N/A	N/A
4	RF Control Unit	Ascentest	AT890-RFB	N/A	2024-04-14	2025-04-13
5	ESA-E SERIES SPECTRUM ANALYZER	Agilent	E4407B	MY41440754	2024-04-14	2025-04-13
6	MXA Signal Analyzer	Agilent	N9020A	MY49100040	2024-04-14	2025-04-13
7	SPECTRUM ANALYZER	R&S	FSP	100503	2024-04-14	2025-04-13
8	MXG Vector Signal Generator	Agilent	N5182A	MY47071151	2024-04-14	2025-04-13
9	ESG VECTOR SIGNAL GENERATOR	Agilent	E4438C	MY42081396	2024-04-14	2025-04-13
10	PSG Analog Signal Generator	Agilent	E8257D	MY4520521	2024-04-14	2025-04-13
11	Universal Radio Communication Tester	R&S	CMU 200	105788	2024-04-14	2025-04-13
12	WIDEBAND RADIO COMMUNICATION TESTER	R&S	CMW 500	103818	2024-04-14	2025-04-13
13	RF Control Unit	Tonscend	JS0806-1	N/A	2024-04-14	2025-04-13
14	DC Power Supply	Agilent	E3642A	N/A	2024-04-14	2025-04-13
15	LTE Test Software	Tonscend	JS1120-1	N/A	N/A	N/A
16	Temperature & Humidity Chamber	GUANGZHOU GOGNWEN	GDS-100	70932	7000mAh	2025-04-13
17	DC Source	CHROMA	62012P-80-60	34782951	2024-04-14	2025-04-13
18	RF Filter	Micro-Tronics	BRC50718	S/N-017	2024-04-14	2025-04-13
19	RF Filter	Micro-Tronics	BRC50719	S/N-011	2024-04-14	2025-04-13
20	RF Filter	Micro-Tronics	BRC50720	S/N-011	2024-04-14	2025-04-13
21	RF Filter	Micro-Tronics	BRC50721	S/N-013	2024-04-14	2025-04-13
22	RF Filter	Micro-Tronics	BRM50702	S/N-195	2024-04-14	2025-04-13
23	Splitter/Combiner	Micro-Tronics	PS2-15	CB11-20	2024-04-14	2025-04-13
24	Splitter/Combiner	Micro-Tronics	CB11-20	N/A	2024-04-14	2025-04-13
25	Attenuator	Micro-Tronics	PAS-8-10	S/N23466	2024-04-14	2025-04-13
26	Exposure Level Tester	Narda	ELT-400	N-0713	2024-04-14	2025-04-13
27	B-Field Probe	Narda	ELT-400	M-1154	2024-04-14	2025-04-13
28	3m Semi Anechoic Chamber	SIDT FRANKONIA	SAC-3M	03CH03-HY	2024-04-14	2025-04-13
29	Positioning Controller	MF	MF-7082	1	2024-04-14	2025-04-13
30	EMI Test Software	AUDIX	E3	N/A	2024-04-14	2025-04-13
31	EMI Test Receiver	R&S	ESR 7	101181	2024-04-14	2025-04-13
32	AMPLIFIER	QuieTek	QTK-A2525G	CHM10809065	2024-04-14	2025-04-13
33	Active Loop Antenna	SCHWARZBECK	FMZB 1519B	00005	2024-04-14	2025-04-13
34	By-log Antenna	SCHWARZBECK	VULB9163	9163-470	2024-04-14	2025-04-13
35	Horn Antenna	SCHWARZBECK	BBHA 9120 D	9120D-1925	2024-04-14	2025-04-13
36	Broadband Horn Antenna	SCHWARZBECK	BBHA 9170	791	2024-04-14	2025-04-13
37	Broadband Preamplifier	SCHWARZBECK	BBV 9719	9719-025	2024-04-14	2025-04-13
38	RF Cable-R03m	Jye Bao	RG142	CB021	2024-04-14	2025-04-13
39	RF Cable-HIGH	SUHNER	SUCOFLEX 106	03CH03-HY	2024-04-14	2025-04-13

Item	Equipment	Manufacturer	Model No.	Serial No.	Cal Date	Due Date
40	Artificial Mains	R&S	ENV216	101288	2024-04-14	2025-04-13
41	Power Analyzer Test System	Voltech	PM6000	20000670053	2024-04-14	2025-04-13
42	ESD Simulator	SCHLODER	SESD 230	604035	2024-04-14	2025-04-13
43	RF POWER AMPLIFIER	OPHIR	5225R	1052	2024-04-14	2025-04-13
44	RF POWER AMPLIFIER	OPHIR	5273F	1019	2024-04-14	2025-04-13
45	Stacked Broadband Log Periodic Antenna	SCHWARZBECK	STLP 9128	9128ES-145	2024-04-14	2025-04-13
46	Stacked Mikrowellen LogPer Antenna	SCHWARZBECK	STLP 9149	9149-482	2024-04-14	2025-04-13
47	Electric field probe	Narda S.TS./PMM	EP601	611WX80208	2024-04-14	2025-04-13
48	Power Meter	Agilent	E4419B	MY45104493	2024-04-14	2025-04-13
49	Power Sensor	Agilent	E9301H	MY41495234	2024-04-14	2025-04-13
50	Power Sensor	Agilent	E4412A	MY41500229	2024-04-14	2025-04-13
51	Sound Level meter	BK Precision	735	73500873100	2024-04-14	2025-04-13
52	Audio Analyzer	R&S	UPV	1146.2003K0	2024-04-14	2025-04-13
53	Mouse Simulation	Bruel & Kjaer	4227	A0304216	2024-04-14	2025-04-13
54	Ear Simulation and supply	Bruel & Kjaer	2669.4182.5935	A0305284	2024-04-14	2025-04-13
55	Acoustical Calibrators	Bruel & Kjaer	4231	A0304215	2024-04-14	2025-04-13
56	Immunity Simulative Generator	EM TEST	UCS500-M4	0101-34	2024-04-14	2025-04-13
57	Simulator	FRANKONIA	CIT-10	A126A1195	2024-04-14	2025-04-13
58	CDN	FRANKONIA	CDN-M2	5100100100	2024-04-14	2025-04-13
59	CDN	FRANKONIA	CDN-M3	0900-11	2024-04-14	2025-04-13
60	Attenuator	FRANKONIA	ATT6	0010222A	2024-04-14	2025-04-13
61	Infuse tongs	EM TEST	EM-Clamp	0513A031201	2024-04-14	2025-04-13
62	Voltage dips and up generator	3CTEST	VDG-1105G	EC0171014	2024-04-14	2025-04-13

#### 1.9. Measurement Uncertainty

Item	MU	Remark
Uncertainty for Power point Conducted Emissions Test	2.42dB	
Uncertainty for Radiation Emission test in 3m chamber	3.54dB	Polarize: V
(30MHz to 1GHz)	4.1dB	Polarize: H
Uncertainty for Radiation Emission test in 3m chamber	2.08dB	Polarize: H
(1GHz to 25GHz)	2.56dB	Polarize: V
Uncertainty for radio frequency	0.01ppm	
Uncertainty for conducted RF Power	0.65dB	
Uncertainty for temperature	0.2℃	
Uncertainty for humidity	1%	
Uncertainty for DC and low frequency voltages	0.06%	

# 1.10. Description Of Test Modes

There was 3 test Modes. TM1 to TM3 were shown below:

**TM1**: Operate in normal work mode;

TM2 : Power on mode;

TM3 : Idle mode

#### \*\*\*Note:

1. All test modes were tested, but we only recorded the worst case in this report.

# 2. SUMMARY OF TEST RESULTS

Rule	Description of Test Items	Result
§11	EN 61000-6-4	Compliant
811	Conducted Emission (AC mains input/output port)	Compilant
§11	EN 61000-6-4	N/A*
811	Conducted Emission (DC power input/output port)	1 1/2 1
§11	EN 61000-6-4	N/A*
3-1	Conducted Emission (Wired network port)	1 1/11
§11	EN 61000-6-4	Compliant
3	Radiated Emission (Enclosure of ancillary equipment)	•
§	Harmonic current emissions (AC mains input port)	Compliant
§	Voltage fluctuations and flicker (AC mains input port)	Compliant
	EN 61000-6-2	
<b>§8</b>	Electrostatic discharge (Enclosure port)	Compliant
	(EN 61000-4-2)	_
	EN 61000-6-2	
<b>§8</b>	RF electromagnetic field (80MHz to 1000MHz) (Enclosure port)	Compliant
	(EN 61000-4-3)	
	EN 61000-6-2	
§8	Fast transients common mode (signal, wired network and control ports, DC	Compliant
80	and AC power ports)	Compilant
	(EN 61000-4-4)	
	EN 61000-6-2	
<b>§8</b>	Surges, line to line and line to ground (AC mains power input ports, wired	Compliant
	network ports)	1
	(EN 61000-4-5)	
	EN 61000-6-2 RF common mode 0.15MHz to 80MHz (signal, wired network and control	
<b>§8</b>	ports, DC and AC power ports)	Compliant
	(EN 61000-4-6)	
	EN 61000-4-0) EN 61000-6-2	
§8	Voltage dips and interruptions (AC mains power input ports)	Compliant
80	(EN 61000-4-11)	Compilant
	(EN 01000-4-11)	

#### 3. LINE CONDUCTED EMISSION

#### 3.1. Conducted Emission Limit

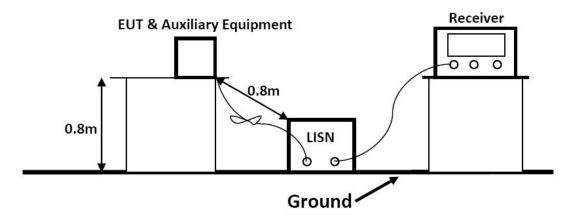
**Relevant Standard(s):** EN IEC 61000-6-2:2019 /CISPR 11:2009

Limits for Line Conducted Emission				
Frequency	Limit (dBµV)			
(MHz)	Quasi-peak Level	Average Level		
$0.15 \sim 0.50$	79 *	66 *		
$0.50 \sim 30.00$	73.0	60		

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.

#### 3.2. Test Configuration



The external I/O cables were draped along the test table and formed a bundle 30 to 40 cm long in the middle.

The spacing between the peripherals was 10 cm.

The EUT received charging power from the Adapter which received power through a LISN supplying power of AC 380V/50Hz.

#### 3.3. EMI Test Receiver Setup

During the conducted emission test, the EMI test receiver was set with the following configurations:

Receiver Parameter	Setting
Attenuation	Auto
Start ~ Stop Frequency	150KHz ~ 30MHz
(IF)RBW	9kHz

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

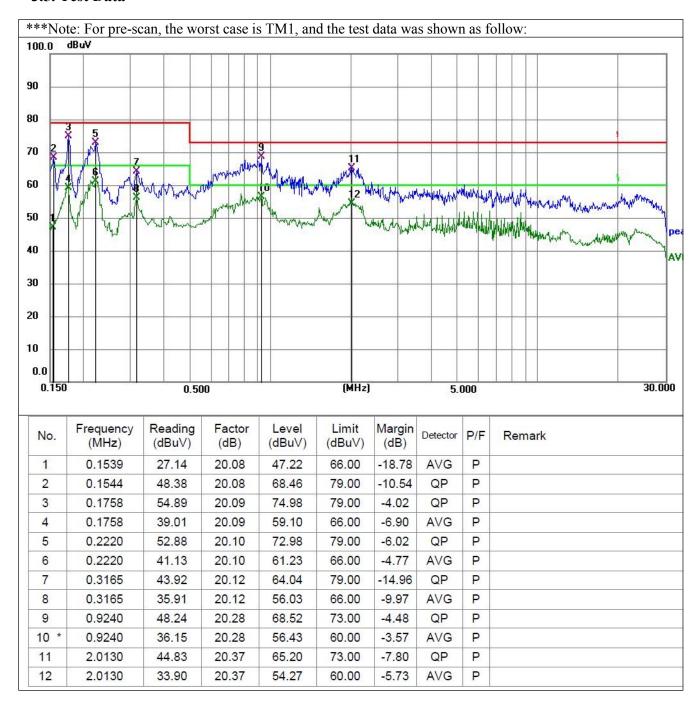
#### 3.4. Test Procedure

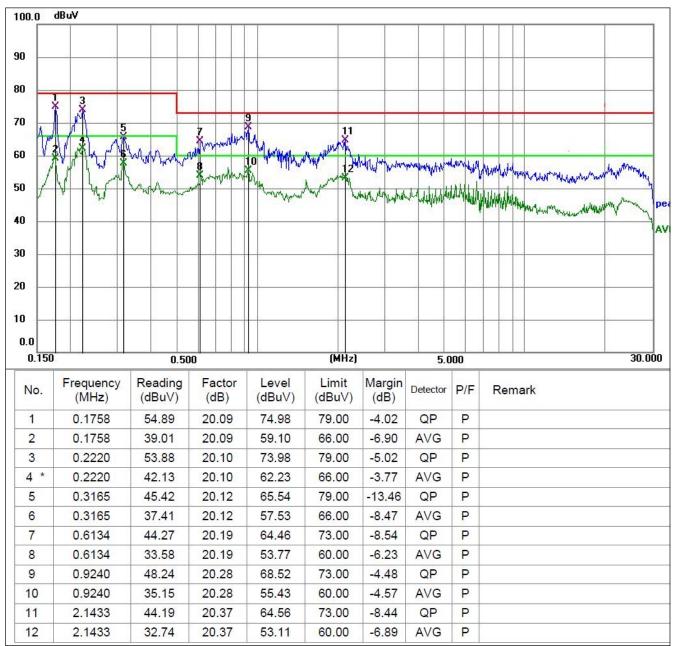
Power on the EUT, the EUT begins to work. Make sure the EUT operates normally during the test.

Maximizing procedure was performed on the six (6) highest emissions of the EUT.

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

#### 3.5. Test Data





Note: For conducted emission and radiated emission test, a power supply of 230VAC and 120VAC was used for testing respectively, and only recorded the worst case of 230VAC.

#### 4. RADIATED DISTURBANCE

#### 4.1. Radiated Emission Limit

**Relevant Standard(s):** EN IEC 61000-6-2:2019 /CISPR 11:2009

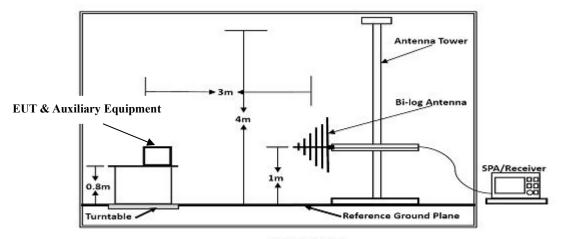
Limits for Radiated Disturbance Below 1GHz					
Frequency	Distance	Field Strengths Limit			
(MHz)	(Meters)	(dBµV/m)			
30 ~ 230	3	50			
230 ~ 1000	3	57			

<sup>\*\*\*</sup>Note:

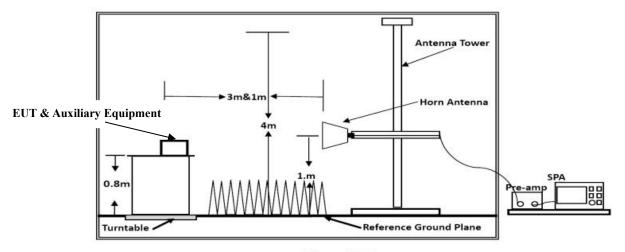
- (1) The smaller limit shall apply at the combination point between two frequency bands.
- (2) Distance refers to the distance in meters between the measuring instrument antenna and the closed point of any part of the EUT.

Limits for Radiated Disturbance Above 1GHz					
Frequency	Distance	Peak Limit	Average Limit		
(MHz)	(Meters)	(dBµV/m)	(dBµV/m)		
1000 ~ 3000	3	76	56		
3000 ~ 6000	3	80	60		
***Note: The lower limit	***Note: The lower limit applies at the transition frequency.				

#### 4.2. Test Configuration



Below 1GHz



Above 1GHz

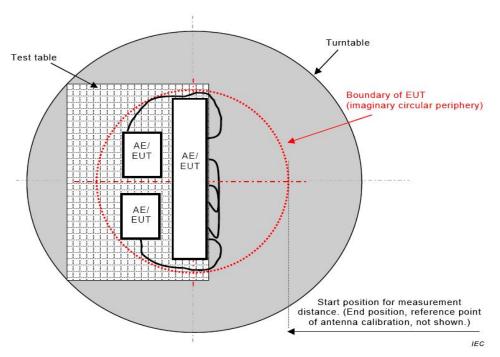


Figure C.2 - Boundary of EUT, Local AE and associated cabling

#### 4.3. Test Procedure

# 1) Sequence of testing 30 MHz to 1 GHz Setup:

- --- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- --- If the EUT is a tabletop system, a table with 0.8 m height is used, which is placed on the ground plane.
- --- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- --- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- --- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- --- The measurement distance is 3 meter.
- --- The EUT was set into operation.

#### **Pre-measurement:**

- --- The turntable rotates from 0° to 315° using 45° steps.
- --- The antenna is polarized vertical and horizontal.
- --- The antenna height changes from 1 to 4 meter.
- --- At each turntable position, antenna polarization and height the analyzer sweeps three times in peak to find the maximum of all emissions.

#### Final measurement:

- --- The final measurement will be performed with minimum the six highest peaks.
- --- According to the maximum antenna and turntable positions of premeasurement the software maximize the peaks by changing turntable position ( $\pm$  45°) and antenna movement between 1 and 4 meter.
- --- The final measurement will be done with QP detector with an EMI receiver.
- --- The final levels, frequency, measuring time, bandwidth, antenna height, antenna polarization, turntable angle, correction factor, margin to the limit and limit will be recorded. Also a plot with the graph of the pre-measurement with marked maximum final measurements and the limit will be stored.

# 2) Sequence of testing 1 GHz to 6 GHz Setup:

- --- The equipment was set up to simulate a typical usage like described in the user manual or described by manufacturer.
- --- If the EUT is a tabletop system, a rotatable table with 0.8 m height is used.
- --- If the EUT is a floor standing device, it is placed on the ground plane with insulation between both.
- --- Auxiliary equipment and cables were positioned to simulate normal operation conditions
- --- The AC power port of the EUT (if available) is connected to a power outlet below the turntable.
- --- The measurement distance is 3 meter.
- --- The EUT was set into operation.

#### **Pre-measurement:**

- --- The turntable rotates from  $0^{\circ}$  to  $315^{\circ}$  using  $45^{\circ}$  steps.
- --- The antenna is polarized vertical and horizontal.
- --- The antenna height scan range is 1 meter to 4 meter.
- --- At each turntable position and antenna polarization the analyzer sweeps with peak detection to find the maximum of all emissions.

#### **Final measurement:**

- --- The final measurement will be performed with minimum the six highest peaks.
- --- According to the maximum antenna and turntable positions of pre-measurement the software maximize the peaks by changing turntable position ( $\pm$  45°) and antenna movement between 1 and 4 meter. This procedure is repeated for both antenna polarizations.
- --- The final measurement will be done in the position (turntable, EUT-table and antenna polarization) causing the highest emissions with Peak and Average detector.
- --- The final levels, frequency, measuring time, bandwidth, turntable position, EUT-table position, antenna polarization, correction factor, margin to the limit and limit will be recorded. Also a plot with

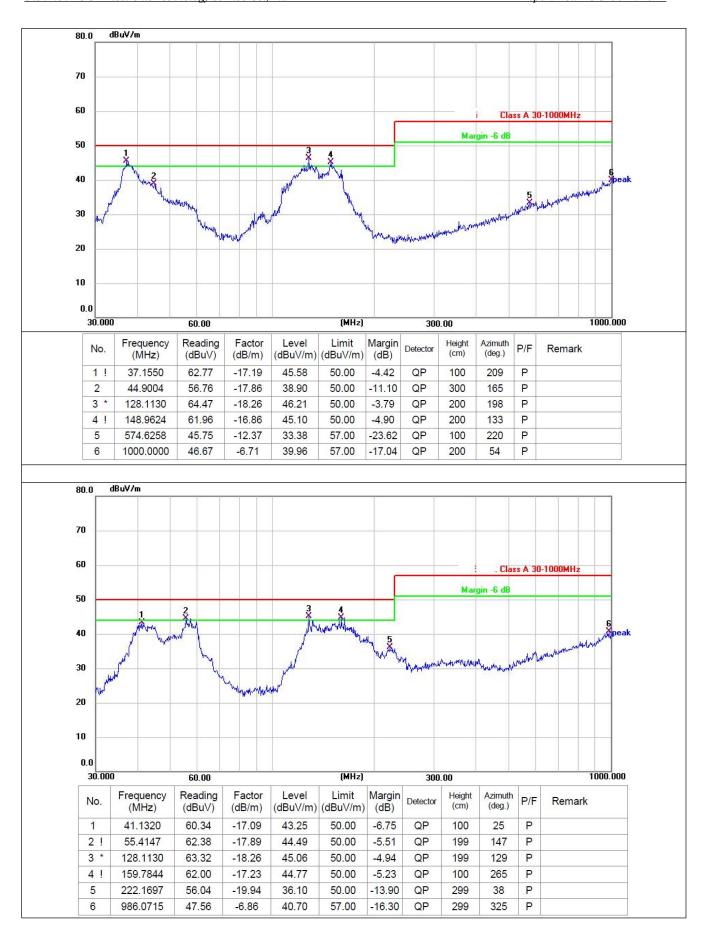
the graph of the pre-measurement with marked maximum final measurements and the limit will be stored.

Receiver Parameter	Setting	
Attenuation	Auto	
Start ~ Stop Frequency	30MHz~1000MHz / RBW 100kHz for QP	

Spectrum Parameter	Setting	
Attenuation	Auto	
Start Frequency	1000 MHz	
Stop Frequency	6000 MHz	
RBW / VBW	1MHz / 1MHz for Peak, 1 MHz / 10Hz for	
KDW / VBW	Average	

#### 4.4. Test Data

The worst test mode of the EUT was TM1, and its test data was showed as the follow:



<b>Test Mode:</b> TM1 (Above 1GHz)			Test Distance: 3m				
Test Voltage: AC 380V/50Hz		Test Results: Passed					
<b>Detector Fu</b>	nction: Peak +	AV					
Polarization	Frequency		n Level		mit	Margin	
1 Olai ization	(MHz)	(dBµ	V/m)	(dBµ	V/m)	(d	B)
	1350.63	50.09	37.90	76.00	56.00	-19.91	-12.10
	1884.93	47.85	36.33	76.00	56.00	-22.15	-13.67
Horizontal	2188.83	49.02	31.69	76.00	56.00	-24.98	-22.31
попиона	3290.43	56.29	31.63	80.00	60.00	-17.71	-22.37
	4332.04	51.33	34.55	80.00	60.00	-22.67	-19.45
	5886.54	53.77	36.46	80.00	60.00	-20.23	-17.54
	1350.31	50.01	36.54	76.00	56.00	-19.99	-13.46
	1884.74	47.84	36.12	76.00	56.00	-22.16	-13.88
Vertical	2191.17	48.03	30.57	76.00	56.00	-25.97	-23.43
vertical	3294.60	57.43	33.09	80.00	60.00	-16.57	-20.91
	4328.72	50.94	35.04	80.00	60.00	-23.06	-18.96
	5884.18	55.10	36.79	80.00	60.00	-18.90	-17.21

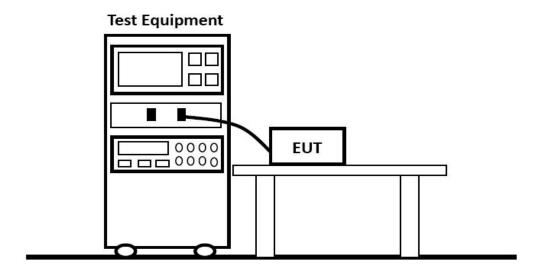
<sup>1.</sup> Field strength limits for frequency above 1000MHz are based on average limits. However, Peak mode field strength shall not exceed the average limits specified plus 20dB.

<sup>2.</sup> Measurements above show only up to 6 maximum emissions noted.

<sup>3.</sup> Data of measurement within this frequency range shown " -- " in the table above means the reading of emissions are attenuated more than 20dB below the permissible limits or the field strength is too small to be measured.

#### 5. HARMONIC CURRENT EMISSIONS

# 5.1. Test Configuration



#### 5.2. Test Standard

According to EN IEC 61000-6-2:2019 & EN 61000-3-2: 2014

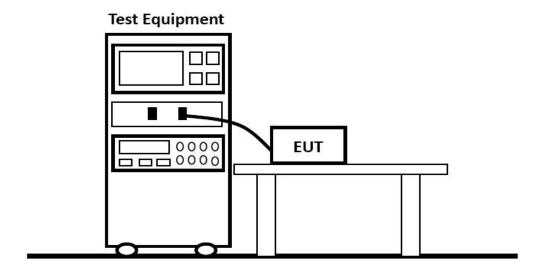
#### 5.3. Test Data

Test Model	CY-40IIF	Test Engineer	Jason Li
<b>Environmental Conditions</b>	24.6℃, 52.6% RH	Test Voltage	AC 380V/50Hz

Because power of EUT less than 75W, According standard EN 61000-3-2, Harmonic current unnecessary to test.

# 6. VOLTAGE FLUCTUATION AND FLICKER

# 6.1. Test Configuration



#### 6.2. Test Standard

According to EN IEC 61000-6-2:2019 & EN 61000-3-3: 2013

#### 6.3. Test Data

PASS.

#### 7. GENERAL PERFORMANCE CRITERIA FOR IMMUNITY TEST

#### Performance criteria for EN IEC 61000-6-2

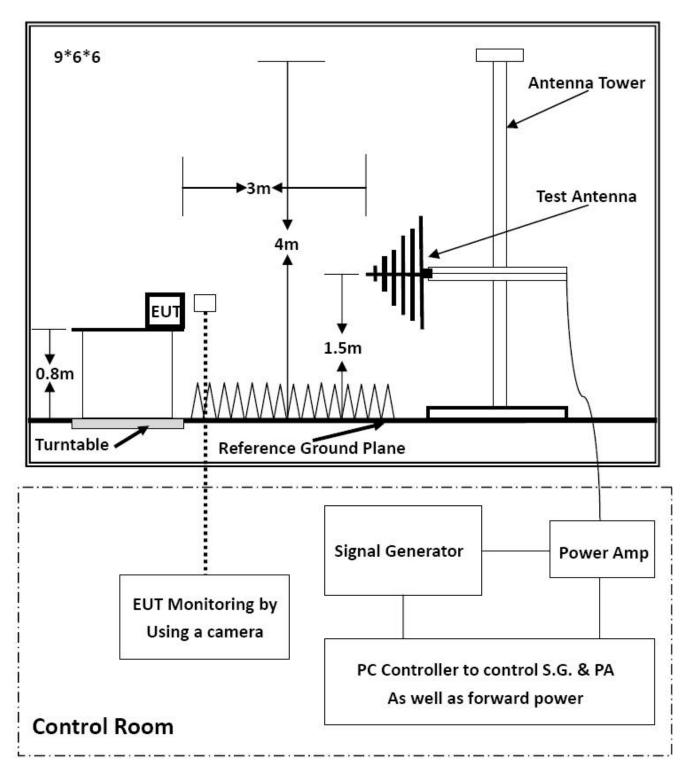
A functional description and a definition of specific performance criteria, during or as a consequence of immunity testing of equipment under test (EUT), shall be provided by the manufacturer and noted in the test report. They shall be consistent with one of the following general criteria for each test as specified in Table 1 to Table 4:

- a) Performance criterion A: The EUT shall continue to operate as intended during and after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the EUT is used as intended. If the performance level is not specified by the manufacturer, this may be derived from the product description and documentation and what the user may reasonably expect from the equipment if used as intended.
- b) Performance criterion B: The EUT shall continue to operate as intended after the test. No degradation of performance or loss of function is allowed below a performance level specified by the manufacturer, when the EUT is used as intended. The performance level may be replaced by a permissible loss of performance. However, during the test degradation of performance is allowed but no change of actual operating state or stored data is allowed. If the minimum performance level or the permissible performance loss is not specified by the manufacturer, either of these may be derived from the product description and documentation and what the user may reasonably expect from the equipment if used as intended.
- c) Performance criterion C: Temporary loss of function is allowed during the test, provided the function is self-recoverable or can be restored by the operation of the controls.

If, as a result of the application of the tests defined in this standard, the EUT becomes dangerous or unsafe, it shall be deemed to have failed the test.

# 8. RF ELECTROMAGNETIC FIELD (80 MHz - 1000 MHz)

### 8.1. Test Configuration



#### 8.2. Test Standard

EN 61000-6-2, EN61000-4-3

Test level 3 at 10V/m.

#### 8.3. Severity Level

Level	Field Strength (V/m)			
1	1			
2	3			
3	10			
X	Special			
Performance Criterion: A				

#### 8.4. 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	Remark	
Fielded Strength	10 V/m (Severity Level 2)	
Radiated Signal	Unmodulated	
Scanning Frequency	80-1000MHz	
Dwell time of radiated	0.0015 decade/s	
Waiting Time	3 Sec.	

#### 8.5. Test Result

Test Model	CY-40IIF	Test Engineer	Jason Li
<b>Environmental Conditions</b>	23.5℃, 53.2% RH	Test Voltage	AC 380V/50Hz

#### 2.4G TM1 Test Result:

EUT Working Mode	Antenna Polarity	Frequency (MHz)	Fielded Strength (V/m)	Observation	Position	Conclusion
Operating Mode	Vertical	80-1000	10	CT, CR	Front, Right, Left, Back	Pass
Operating Mode	Horizontal	80-1000	10	CT, CR	Front, Right, Left, Back	Pass
ldle	Vertical	80-1000	10	See Note	Front, Right, Left, Back	Pass
idle	Horizontal	80-1000	10	See Note	Front, Right, Left, Back	Pass

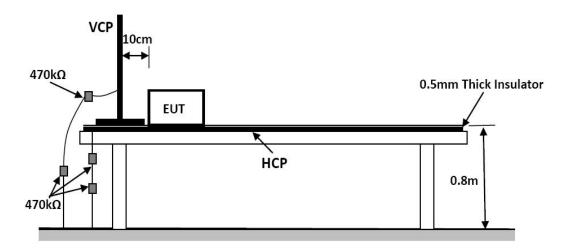
#### **TM2-TM3 Test Result:**

EUT Working Mode	Antenna Polarity	Frequency (MHz)	Fielded Strength (V/m)	Observation	Position	Conclusion
Operating Mode	Vertical	80-1000	10	See Note	Front, Right, Left, Back	Pass
Operating wode	Horizontal	80-1000	10	See Note	Front, Right, Left, Back	Pass
Idlo	Vertical	80-1000	10	See Note	Front, Right, Left, Back	Pass
Idle	Horizontal	80-1000	10	See Note	Front, Right, Left, Back	Pass

#### 9. ELECTROSTATIC DISCHARGE

Please refer to ETSI EN 301 489-1 and EN 61000-4-2.

#### 9.1. Test Configuration



EN 61000-4-2 specifies that a tabletop EUT shall be placed on a non-conducting table which is 80 centimeters above a ground reference plane and that floor mounted equipment shall be placed on a insulating support approximately 10 centimeters above a ground plane. During the tests, the EUT is positioned over a ground reference plane in conformance with this requirement.

For tabletop equipment, a 1.5 by 1.0-meter metal sheet (HCP) is placed on the table and connected to the ground plane via a metal strap with two 470 k Ohms resistors in series. The EUT and attached cables are isolated from this metal sheet by 0.5-millimeter thick insulating material. A Vertical Coupling Plane (VCP) grounded on the ground plane through the same configuration as in the HCP is used.

#### 9.2. Test Procedure

EN IEC 61000-6-2:2019 / EN 61000-4-2: 2009

Test level 3 for Air Discharge at ±8 kV

Test level 2 for Contact Discharge at ±4 kV

#### 9.2.1. Air Discharge

This test is done on a non-conductive surface. 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.

#### 9.2.2. Contact Discharge

All the procedure shall be same as Section 9.2.1. except that the tip of the discharge electrode shall touch the EUT before the discharge switch is operated.

#### 9.2.3. Indirect Discharge For Horizontal Coupling Plane

At least 10 single discharges (in the most sensitive polarity) shall be applied at the front edge of each HCP opposite the center point of each unit (if applicable) of the EUT and 0.1m from the front of the EUT. The long axis of the discharge electrode shall be in the plane of the HCP and perpendicular to its front edge during the discharge.

#### 9.2.4. Indirect Discharge For Vertical Coupling Plane

At least 10 single discharges (in the most sensitive polarity) 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.

#### 9.3. Test Data

PASS.

Electrostatic Discharge Test Results						
Standard	☐ IEC 61000-4-2 ☐ EN 61000-4-2					
Applicant	GUANGXI CHUANGYUAN MACHNERY TECHNOLOGY CO., LTD					
EUT	Bag Making Machine Temperature 23.5℃					
M/N	CY-40IIF	Humidity	53.1%			
Criterion	B Pressure 1021mbar					
Test Mode	TM1-TM3 Test Date					
Test Engineer	Jason Li					

#### **TEST RESULT OF TM1**

Test Voltage	Coupling	Observation	Result (Pass/Fail)
±2KV, ±4kV	Contact Discharge	CT, CR	Pass
$\pm 2KV$ , $\pm 4kV$ , $\pm 8kV$	Air Discharge	CT, CR	Pass
±2KV, ±4kV	Indirect Discharge HCP	CT, CR	Pass
±2KV, ±4kV	Indirect Discharge VCP	CT, CR	Pass

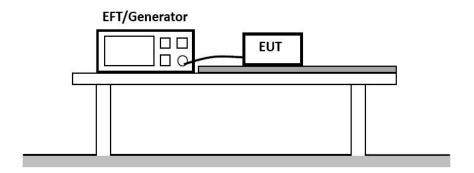
#### **TEST RESULT OF TM2-TM3**

Test Voltage	Coupling	Result (Pass/Fail)
±2KV, ±4kV	Contact Discharge	Pass
±2KV, ±4kV, ±8kV	Air Discharge	Pass
±2KV, ±4kV	Indirect Discharge HCP	Pass
±2KV, ±4kV	Indirect Discharge VCP	Pass

Note: The EUT performance complied with performance criteria for CT&CR to MS Function and there is no any degradation of performance and function.

#### 10. ELECTRICAL FAST TRANSIENT IMMUNITY

#### 10.1. Test Configuration



#### 10.2. Test Standard

EN IEC 61000-6-2:2019/EN61000-4-4: 2012

Test level 2 kV

1 CSt 1 C V C1 Z K V				
Test Level				
Open (	Circuit Output Test Voltage $\pm 10$	0%		
Level On Power Supply Lines On I/O (Input/Output) Signal data and control lines				
1	0.5 kV	0.25 kV		
2	2 1 kV 0.5 kV			
3	2 kV	1 kV		
4	4 kV	2 kV		
X	Special	Special		
Performance Criterion: B				

#### 10.3. 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.

#### 10.3.1. 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 minutes.

- 10.3.2. For signal lines and control lines ports: No I/O ports. It's unnecessary to test.
- 10.3.3. For DC output line ports: It's unnecessary to test.

#### 10.4. Test Data

#### PASS.

Please refer to the following page.

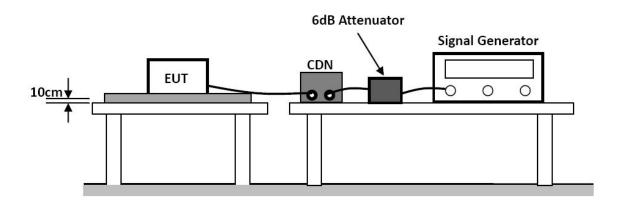
Electrical Fast Transient/Burst Test Results			
Standard	Standard □ IEC 61000-4-4 ☑ EN 61000-4-4		
Applicant	GUANGXI CHUANGYUAN MACHNERY TECHNOLOGY CO., LTD		
EUT	Bag Making Machine Temperature 24.6°C		
M/N	CY-40IIF Humidity		52.6%
Test Mode	TM1-TM3	Criterion	В
Test Engineer	Jason Li		

TEST RESULT OF TM1				
Line	Test Voltage	Polarity	Observation	Result (Pass/Fail)
L	2KV	+/-	CT, CR	Pass
N	2KV	+/-	CT, CR	Pass
L-N	2KV	+/-	CT, CR	Pass

TEST RESULT OF TM2-TM3				
Line	Test Voltage	Result (Pass/Fail)		
L	2KV	+/-	Pass	
N	2KV	+/-	Pass	
L-N	2KV	+/-	Pass	

#### 11. RF COMMON MODE

# 11.1. Test Configuration



#### 11.2. Test Standard

EN IEC 61000-6-2:2019/ EN 61000-4-6: 2014 Test level 3 at 310V (r.m.s.), 0.15 MHz ~ 80 MHz,

Modulation type: AM Modulation depth: 80% Modulation signal: 1 kHz

1110 GG1GG1G11 SIGNAT. I HITZ		
Test Level		
Level	Voltage Level (r.m.s)	
Level	(V)	
1	1	
2	3	
3	10	
X	Special	
Performance Criterion: A	•	

#### 11.3. Test Procedure

- 11.3.1. Let the EUT work in test mode and test it.
- 11.3.2. 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 50mm (where possible).
- 11.3.3. The disturbance signal described below is injected to EUT through CDN.
- 11.3.4. The EUT operates within its operational mode(s) under intended climatic conditions after power on.
- 11.3.5. 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.
- 11.3.6. The rate of sweep shall not exceed 1.5\*10-3 decades/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.
- 11.3.7. Recording the EUT operating situation during compliance testing and decide the EUT immunity criterion.

#### 11.4. Test Data

#### PASS.

Please refer to the following page.

Injected Currents Susceptibility Test Results				
<b>Standard</b> □ IEC 61000-4-6 ☑ EN 61000-4-6				
Applicant	GUANGXI CHUANGYUAN MACHNERY TECHNOLOGY CO., LTD			
EUT	Bag Making Machine Temperature 22.6°C			
M/N	CY-40IIF Humidity 52.3%			
Test Mode	TM1-TM3 Criterion A			
Test Engineer	Jason Li			

	TEST RESULT OF TM1				
Frequency Injected Strength Observation Result (Pastern 1997) Resu				Result (Pass/Fail)	
0.15 ~ 80	AC Mains	3V	CT, CR	Pass	

	TEST RESULT OF TM2-TM3			
Frequency Range (MHz) Injected Strength (Unmodulated) Result (Pass/Fail)				
0.15 ~ 80	AC Mains	10V	Pass	

#### Remark:

1. Modulation Signal:1kHz 80% AM

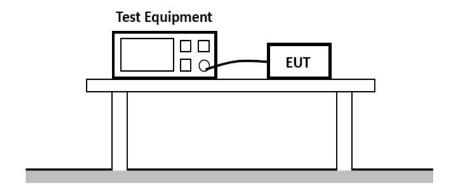
2. Measurement Equipment:

Simulator: CIT-10 (FRANKONIA)

CDN : ☑CDN-M2 (FRANKONIA) ☐CDN-M3 (FRANKONIA)

#### 12. SURGES, LINE TO LINE AND LINE TO GROUND

#### 12.1. Test Configuration



#### 12.2. Test Standard

EN IEC 61000-6-2:2019 / EN 61000-4-5: 2014

L-N: Test level 2 at 1 kV

L-PE, N-PE Test Level 3 at 2kV

L-1 L, N-1 L Test Level 3 at 2x v				
Test Level				
Open C	Circuit Output Test Voltage $\pm 10$	0%		
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				
Performance Criterion: B				

#### 12.3. Test Procedure

- 12.3.1. For line to line coupling mode, provide a 0.5 kV 1.2/50us voltage surge (at open-circuit condition).
- 12.3.2. At least 5 positive and 5 negative (polarity) tests with a maximum 1/min repetition rate are conducted during test.
- 12.3.3. Different phase angles are done individually.
- 12.3.4. Record the EUT operating situation during compliance test and decide the EUT immunity criterion for above each test.

#### 12.4. Test Data

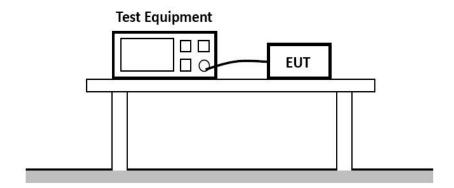
Surge Immunity Test Result				
<b>Standard</b> □ IEC 61000-4-5 ☑ EN 61000-4-5				
Applicant	GUANGXI CHUANGYUAN MACHNERY TECHNOLOGY CO., LTD			
EUT	Bag Making Machine Temperature 24.6°C			
M/N	CY-40IIF Humidity		52.6%	
Test Mode	TM1-TM3 Criterion		A	
Test Engineer	Jason Li			

TEST RESULT OF TM1						
Location	Polarity	Phase Angle	Number of Pulse	Pulse Voltage (KV)	Observation	Result (Pass/Fail)
LNI	+	0°, 90°, 180°, 270°	5	1.0	CT, CR	Pass
L-N	-	0°, 90°, 180°, 270°	5	1.0	CT, CR	Pass

TEST RESULT OF TM2-TM3					
Location	Polarity	Phase Angle	Number of Pulse	Pulse Voltage (KV)	Result (Pass/Fail)
L-N	+	0°, 90°, 180°, 270°	5	1.0	Pass
	-	0°, 90°, 180°, 270°	5	1.0	Pass

#### 13. VOLTAGE DIPS/INTERRUPTIONS IMMUNITY TEST

#### 13.1. Test Configuration



#### 13.2. Test Standard

EN IEC 61000-6-2:2019/ EN 61000-4-11: 2004

Test levels and Performance Criterion

1000 10 VOID WHA I OFFORMATION				
Test Level				
Voltage Reduction	Voltage Dips	Duration		
%U <sub>T</sub>	%U <sub>T</sub>	(in Period)		
100	0	0.5		
100	0	1		
30	70	5		
Voltage Reduction	Voltage Dips	Duration		
%U <sub>T</sub>	%U <sub>T</sub>	(in Period)		
100	0	250		
Performance Criterion: B&C				

#### 13.3. Test Procedure

- 13.3.1. The interruption is introduced at selected phase angles with specified duration.
- 13.3.2. Record any degradation of performance.

#### 13.4. Test Data

Voltage Dips And Interruptions Test Results				
Standard	□ IEC 61000-4-11 □ EN 61000-4-11			
Applicant	GUANGXI CHUANGYUAN MACHNERY TECHNOLOGY CO., LTD			
EUT	Bag Making Machine	Temperature	24.6℃	
M/N	CY-40IIF	Humidity	52.6%	
Test Mode	TM1-TM3	Criterion	A	
Test Engineer	Jason Li			

TEST RESULT OF TM1					
Test Level % U <sub>T</sub>	Voltage Dips & Short Interruptions % U <sub>T</sub>	Duration (in periods)	Observation	Result (Pass/Fail)	
0	100	0.5P	CT, CR	Pass	
0	100	1P	CT, CR	Pass	
40	100	0.5P	CT, CR	Pass	
40	100	1P	CT, CR	Pass	
70	30	25P	CT, CR	Pass	
0	100	250P	CT, CR	Pass	

TEST RESULT OF TM2-TM3				
Test Level % U <sub>T</sub>	Voltage Dips & Short Interruptions % U <sub>T</sub>	Duration (in periods)	Result (Pass/Fail)	
0	100	0.5P	Pass	
0	100	1P	Pass	
40	100	0.5P	Pass	
40	100	1P	Pass	
70	30	25P	Pass	
0	100	250P	Pass	

# 14. Setup Photographs



Fig.1

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