



VESP Technology Corporation

Address: Area A, 1st Floor, Building 5, Mingzhu Industrial Park, High-tech Zone, Hefei, Anhui

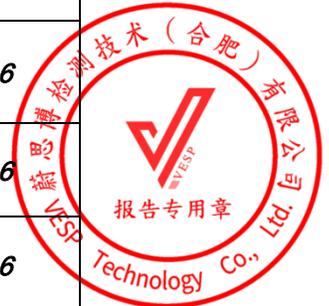
TEL: +86-21-3880-9688 FAX: +86-21-5080-4105

HBM Test Report

Testing laboratory is accredited by

IEC quality assessment system (IECQ) : ISO/IECQ 17025 (Certificate No. : IECQ-L ULTW 21.0001)

	Signature	Date
Testing Engineer	<i>Riser Yao</i>	2023/03/16
Technical Manager		2023/03/16
Approval Manager	<i>Jones Fan</i>	2023/03/16



NOTE :

- This report is generated subject to certain conditions (including but not limited to: designated samples, designated environment parameters and designated input signals). VESP Technology Co., Ltd. does not guarantee that the test results under different conditions or generated by other people will coincide with this report.
- This report shall be effective only if the authorized staff of VESP Technology Co., Ltd. signs on it. VESP Technology Co., Ltd. is not responsible for any copy or partial content of this report.
- VESP Technology Co., Ltd. is not responsible for whether the samples tested in this report will function well as their original design and/or meet any expectation.

1. Application Information :

1.1 Test Items : Human Body Mode (HBM)

1.2 Test Serial No. : VWO5-23030057

2. Customer Basic Information :

2.1 Company : Chipintelli Technology Co., Ltd.

2.2 Applicant : Jiao He

2.3 Address : The 12th floor, Building 4A, Jingronghui, No.200 Tianfu 5th Street, High-tech Zone, Chengdu, China.

2.4 Package/Pin Count : TSSOP/24

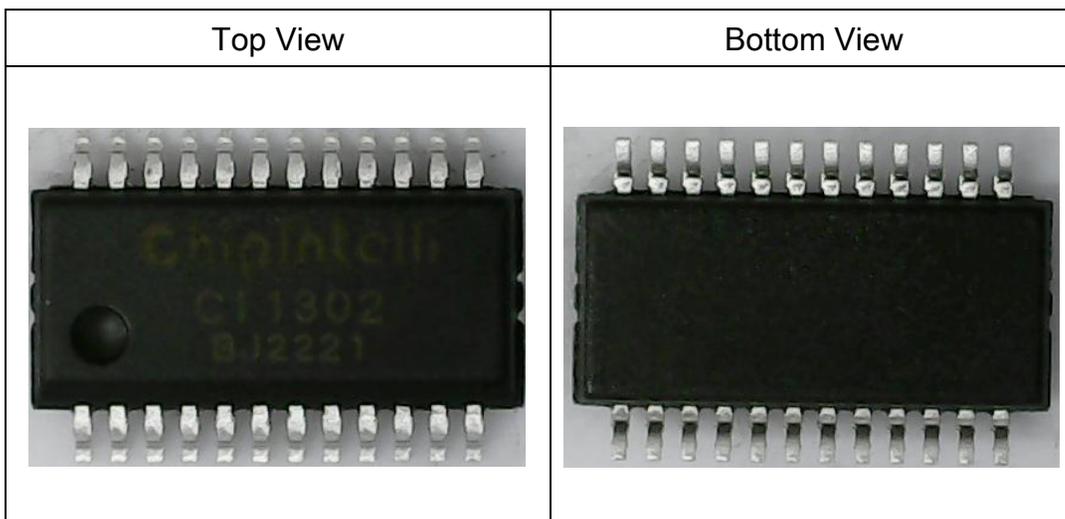
2.5 Application Date : 2023/03/10

2.6 Tested Date : 2023/03/10

2.7 Device Information :

Device Name	Lot No.	Sample Q' ty (ea)
CI1302	BJ2221	3

2.8 Device Photos :



3. Environmental Conditions of Laboratory :

3.1 Temperature : 22.7°C

3.2 Humidity : 51.6% R.H.

4. Test Equipment :

4.1 Test Item : Human Body Mode

4.2 Test Equipment :

Item	Test Equipment	Serial No.	Calibration Expiration
HBM	HANWA HED-N5000	653177	2023/09/04

5. Test Procedure :

5.1 Reference Specification : ANSI/ESDA/JEDEC JS-001-2017

5.2 Test Procedure and Conditions :

5.2.1 Test Voltage : $\pm 2000V \sim \pm 5000V$, Step: 1000V

5.2.2 Pin Assignment :

VIN5V 5.5V: 2

AVDD 3.6V: 1

VDD33 3.6V: 3

VDD11 1.2V: 4

AGND: 24

GND: 5,8

IP 3.6V: 6,18,19,20,21

OP 3.6V: 7,17,22,23

IO 3.6V: 9,10,11,12,13,14,15,16

5.2.3 Test Combination :

Zap Pins / Terminal A	GND / Terminal B
ALL PINS	VIN5V
ALL PINS	AVDD
ALL PINS	VDD33
ALL PINS	VDD11
ALL PINS	AGND
ALL PINS	GND
IO	IO

Note : Failure Criterion: I-V curve shift >30% (according by client's specification)

6. Test Result :

Model : HBM	ESD Sensitivity Pass: <u>±5000 V</u>		V CLASS: <u>3A</u>
Pin Combination	Sample Size	Pass Voltage	Bases on ANSI/ESDA/JEDEC JS-001-2017
ALL TO VIN5V	3	5000V	CLASS 0Z: <50V
ALL TO AVDD		5000V	CLASS 0A: 50V to < 125V
ALL TO VDD33		5000V	CLASS 0B: 125V to < 250V
ALL TO VDD11		5000V	CLASS 1A: 250V to < 500V
ALL TO AGND		5000V	CLASS 1B: 500V to < 1000V
ALL TO GND		5000V	CLASS 1C: 1000V to < 2000V
IO TO IO		5000V	CLASS 2: 2000V to < 4000V
		5000V	CLASS 3A: 4000V to < 8000V
			CLASS 3B: ≥ 8000V

7. Special Remarks : NA

8. Attachment :

Human Body Mode : $\pm 5000V$ Mode

(Unit : Volt)

Test Mode	ALL TO VIN5V/ALL TO AVDD/ALL TO VDD33/ALL TO VDD11/ALL TO AGND/ALL TO GND/IO TO IO		
	$\pm 2000V \sim \pm 5000V, \text{Step:} 1000V$		
PASS Voltage Pin	#1	#2	#3
1	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
2	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
3	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
4	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
5	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
6	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
7	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
8	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
9	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
10	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
11	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
12	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
13	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
14	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
15	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
16	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
17	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
18	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)



19	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
20	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
21	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
22	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
23	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)
24	PASS($\pm 5000V$)	PASS($\pm 5000V$)	PASS($\pm 5000V$)

The tested Sample (units) was complied with test level $\pm 5000V$, I-V curve shift $\leq 30\%$.

Blank Below