Test Report No.: UNT160324C05 Client Name: **GMET Mfa Processes Co., Ltd.** No.50, Guangfu S. Rd., Hukou Township, Hsinchu County Address: 303, Taiwan Test Item: Lithium iron phosphate Rechargeable Battery Cell Identification: G32103155 Testing laboratory Name: Bureau Veritas Consumer Products Services (H.K.) Ltd., Taoyuan Branch Address: No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan City, TAIWAN Test specification United Nations, Recommendations on the Transport of Standard: Dangerous Goods, Manual of Test and Criteria (Rev. 6th), Section 38.3 Test Result: The test item passed. **Prepared By:** 22/6.05.31 Signature Bob Tsai Supervisor Approved By: 2016-5-31 Signature **Edward Chiueh**

This report should not be used by the client to claim product certification, approval, or endorsement by TAF, NVLAP, NIST or any government agencies.

Technical Manager





This report is for your exclusive use. Any copying or replication of this report to or for any other person or entity, or use of our name or trademark, is permitted only with our prior written permission. This report sets forth our findings solely with respect to the test samples identified herein. The results set forth in this report are not indicative or representative of the quality or characteristics of the lot from which a test sample was taken or any similar or identical product unless specifically and expressly noted. Our report includes all of the tests requested by you and the results thereof based upon the information that you provided to us. You have 60 days from date of issuance of this report to notify us of any material error or omission caused by our negligence, provided, however, that such notice shall be in writing and shall specifically address the issue you wish to raise. A failure to raise such issue within the prescribed time shall constitute your unqualified acceptance of the completeness of this report, the tests conducted and the correctness of the report contents. Unless specific mention, the uncertainty of measurement has been explicitly taken into account to declare the compliance or non-compliance to the specification.



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TEST REPORT

United Nations, Recommendations on the Transport of Dangerous Goods, Manual of Test and Criteria (Rev. 6th), Section 38.3

Report Reference No. :: UNT160324C05
Compiled by :: See cover sheet
Approved by :: See cover sheet
Date of issue. :: 2016-05-31

Total number of pages 22

Branch

Address No.19, Hwa Ya 2nd Rd., Wen Hwa Vil., Kwei Shan Dist., Taoyuan

City, TAIWAN

Applicant's name...... GMET Mfg Processes Co., Ltd.

Taiwan

Test specification:

Goods, Manual of Test and Criteria (Rev. 6th), Section 38.3.

Test item description..... Lithium iron phosphate Rechargeable Battery Cell

GMET or

Trade Mark:

GMET

Manufacturer GMET Mfg Processes Co., Ltd.

Summary of testing:

The load conditions used during testing: The battery pack is charged and discharged according to its rating.

Nominal capacity (Ah):	30
Nominal voltage (Vdc):	3.2
Minimum end voltage of discharge (Vdc)	2.0
Max. charge voltage (Vdc):	3.6
Max. charge current (A):	120
Max. continue discharge current (A)	120

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Tests performed (name of test and test clause):

Reference Standard	Clause	Contents of Test
UN 38.3	38.3.4.1	Altitude simulation
UN 38.3	38.3.4.2	Thermal test
UN 38.3	38.3.4.3	Vibration
UN 38.3	38.3.4.4	Shock
UN 38.3	38.3.4.5	External short circuit
UN 38.3	38.3.4.6	Crush
UN 38.3	38.3.4.7	Overcharge
UN 38.3	38.3.4.8	Forced discharge

Copy of marking plate



Product: GMET 30Ah LiFePO4

Cell model: G32103155

Lot NO.: 201509001

S/N:2015-09-01-1147 生產批號及編碼

Charge Voltage :3.6V

Nominal Voltage :3.2V

Typical Capacity: 30000mAh



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Test item particulars	
Classification of installation and use:	Built-in
Supply Connection:	Customized terminal
:	
:	
Possible test case verdicts:	
- test case does not apply to the test object	N/A
- test object does meet the requirement	P (Pass)
- test object does not meet the requirement	F (Fail)
Testing	
Date of receipt of test item:	2016-03-24

General remarks:

The test results presented in this report relate only to the object tested.

Date (s) of performance of tests 2016-03-24 to 2016-05-06

This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report.

"(see appended table)" refers to a table appended to the report.

Throughout this report a point is used as the decimal separator.

General product information:

- 1) The equipment under test (EUT) is a Lithium iron phosphate Rechargeable Battery Cell.
- 2) The maximum ambient temperature is specified as Max. 45 °C for Charging and 60 °C for Discharging.
- 3) Dimension of the battery cell: (T) 32.0 mm by (W) 103.0 mm by (L) 155.0 mm.
- 4) Weight: approx. 920g.

Test condition:

Temperature: 20±5°C Relative humidity: 60% Air pressure: 950 mbar

The test samples were pre-production samples without serial number.



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United Nations, Recommendations on the Transport of Dangerous Goods,				
Manual of Test and Criteria (Rev. 6 th), Section 38.3				
Clause Requirement + Test Result - Remark				

38.3	Lithium batteries			
38.3.1	Purpose	Р		
20 2 2	Seems	В		

38.3.1	Purpose				
38.3.2	Scope		Р		
38.3.2.1	Lithium cells or batteries which differ from a tested type by:	This a new product (new application)	N/A		
	(a) A change of more than 0.1 g or 20% by mass, whichever is greater, to the cathode, to the anode, or to the electrolyte; or				
	(b) A change that would materially affect the test results.				
38.3.2.2	Classification	The EUT is a Lithium iron phosphate Rechargeable Battery Cell.	Р		
38.3.3	The number and condition of cells and batteries				
	Cells (Primary/Rechargeable)	The EUT is a Lithium iron phosphate Rechargeable Battery Cell.	Р		
	Batteries (Primary/Rechargeable)	The EUT is a Lithium iron phosphate Rechargeable Battery Cell.	N/A		
38.3.4	Procedure				
	Each cell and battery type must be subjected to tests 1 to 8. Tests 1 to 5 must be conducted in sequence on the same cell or battery. Tests 6	The sequence Test 1 to Test 5 tests were conducted on the same samples.			
	and 8 should be conducted using not otherwise tested cells or batteries. Test 7 may be conducted using undamaged batteries	Test 6 was conducted on the new component cell samples.	Р		
	previously used in Tests 1 to 5 for purposes of testing on cycled batteries.	Test 8 was conducted on the new component cell samples.			
38.3.4.1	Altitude simulation	The cells were no mass loss, no leakage, no venting, no disassembly, no rupture and no fire and the OCV of batteries after testing was not less than 90% of its voltage before testing.	Р		



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	United Nations, Recomm	nendations on the Transport of Dangerous Goods,	
	Manual of Test and	Criteria (Rev. 5 th , Amendment 1), Section 38.3	
Clause	Requirement + Test	Result - Remark	Verdict
38.3.4.2	Thermal test	The cells were no mass loss, no leakage, no venting, no disassembly, no rupture and no fire and the OCV of batteries after testing was not less than 90% of its voltage before testing.	Р
38.3.4.3	Vibration	The cells were no mass loss, no leakage, no venting, no disassembly, no rupture and no fire and the OCV of batteries after testing was not less than 90% of its voltage before testing.	Р
38.3.4.4	Shock	The cells were no mass loss, no leakage, no venting, no disassembly, no rupture and no fire and the OCV of batteries after testing was not less than 90% of its voltage before testing.	Р
38.3.4.5	External short test	The cells were no disassembly, no fire and no rupture, and the external temperature did not exceed 170 °C.	Р
38.3.4.6	Impact	The cell is a prismatic type.	N/A
	Crush	The cells were no disassembly, no fire and no rupture, and the external temperature did not exceed 170 °C.	Р
38.3.4.7	Overcharge	The EUT is a Lithium iron phosphate Rechargeable Battery Cell.	N/A
38.3.4.8	Forced discharge	The cells were no disassembly and no fire.	Р

Doc. No.: FSAF-86 Edition: A5 Date: February 03, 2016

and no fire.



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United Nations, Recommendations on the Transport of Dangerous Goods,					
	Manual of Test and Criteria (Rev. 5 th , Amendment 1), Section 38.3				
Clause Requirement + Test Result - Remark					

38.3.2.2	TAB	ABLE: List of critical Components						
Object/part No.		Manufacturer/ trademark	Type/Model	Technical Data	Standard		Marks of onformity	
supplementary information:								

38.3.4.1	Altitude si	imulation							Р
Model / Sample No.		Sample Status	Before test Weight OCV		After test Weight OCV		1 1000	Residual	
Wiodol7 Cd		Campio Giaido	(g)	(V)	(g)	(V)	(%)	OCV (%)	Event
G32103155	/ 001	At first cycle	920	3.60	920	3.58	0	99	OK
G32103155	/ 002	At first cycle	920	3.59	920	3.57	0	99	OK
G32103155	/ 003	At first cycle	920	3.58	920	3.57	0	99	OK
G32103155	/ 004	At first cycle	920	3.59	920	3.57	0	99	OK
G32103155	/ 005	At first cycle	920	3.60	920	3.58	0	99	OK
G32103155	/ 006	At first cycle	920	3.60	920	3.57	0	99	OK
G32103155	/ 007	At first cycle	920	3.58	920	3.56	0	99	OK
G32103155	/ 008	At first cycle	920	3.59	920	3.56	0	99	OK
G32103155	/ 009	At first cycle	920	3.59	920	3.57	0	99	OK
G32103155	/ 010	At first cycle	920	3.58	920	3.56	0	99	OK

Note(s):

Mass loss limit:

Mass M of cell or battery	Mass loss limit
M<1g	0.5%
1g <m<5g< td=""><td>0.2%</td></m<5g<>	0.2%
M>5g	0.1%

L-Leakage V-Venting

D-Disassembly

R-Rupture

F-Fire

OK-No Leakage, No Venting, No Disassembly, No Rupture, No Fire



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United Nations, Recommendations on the Transport of Dangerous Goods,					
	Manual of Test and Criteria (Rev. 6 th), Section 38.3				
	Clause	Requirement + Test	Result - Remark	Verdict	

38.3.4.2	Thermal to	est							Р
Model / Sa	mple No.	Sample Status	Before Weight (g)	e test OCV (V)	After Weight (g)	OCV (V)	Mass loss (%)	Residua OCV (%	
G32103155	/ 001	At first cycle	920	3.58	920	3.47	0	97	OK
G32103155	/ 002	At first cycle	920	3.57	920	3.45	0	97	ОК
G32103155	/ 003	At first cycle	920	3.57	920	3.48	0	97	ОК
G32103155	/ 004	At first cycle	920	3.57	920	3.47	0	97	OK
G32103155	/ 005	At first cycle	920	3.58	920	3.44	0	96	OK
G32103155	/ 006	At first cycle	920	3.57	920	3.46	0	97	OK
G32103155	/ 007	At first cycle	920	3.56	920	3.43	0	96	OK
G32103155	/ 008	At first cycle	920	3.56	920	3.46	0	97	OK
G32103155	/ 009	At first cycle	920	3.57	920	3.44	0	96	ОК
G32103155	/ 010	At first cycle	920	3.56	920	3.47	0	97	OK

Note(s):

Mass loss limit:

Mass M of cell or battery	Mass loss limit
M<1g	0.5%
1g <m<5g< td=""><td>0.2%</td></m<5g<>	0.2%
M>5g	0.1%
	<u> </u>

L-Leakage

V-Venting

D-Disassembly

R-Rupture

F-Fire

OK-No Leakage, No Venting, No Disassembly, No Rupture, No Fire



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United Nations, Recommendations on the Transport of Dangerous Goods,	
Manual of Test and Criteria (Rev. 6 th), Section 38.3	
	Т

Clause	Requirement + Test	Result - Remark	Verdict
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38.3.4.3	Vibration								Р
Model / Sa	mple No.	Sample Status	Before Weight (g)	e test OCV (V)	After Weight (g)	OCV (V)	Mass loss (%)	Residual OCV (%)	
G32103155	/ 001	At first cycle	920	3.47	920	3.41	0	99	OK
G32103155	/ 002	At first cycle	920	3.45	920	3.40	0	99	OK
G32103155	/ 003	At first cycle	920	3.48	920	3.41	0	99	ОК
G32103155	/ 004	At first cycle	920	3.47	920	3.42	0	99	OK
G32103155	/ 005	At first cycle	920	3.44	920	3.39	0	99	OK
G32103155	/ 006	At first cycle	920	3.46	920	3.40	0	99	OK
G32103155	/ 007	At first cycle	920	3.43	920	3.37	0	98	ОК
G32103155	/ 008	At first cycle	920	3.46	920	3.38	0	99	OK
G32103155	/ 009	At first cycle	920	3.44	920	3.38	0	99	ОК
G32103155	/ 010	At first cycle	920	3.47	920	3.40	0	99	ОК

Note(s):

Mass loss limit:

Mass M of cell or battery	Mass loss limit
M<1g	0.5%
1g <m<5g< td=""><td>0.2%</td></m<5g<>	0.2%
M>5g	0.1%

L-Leakage

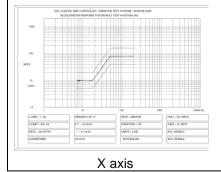
V-Venting

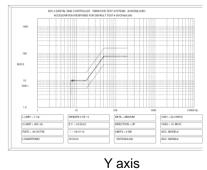
D-Disassembly

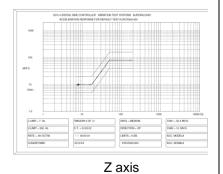
R-Rupture

F-Fire

OK-No Leakage, No Venting, No Disassembly, No Rupture, No Fire









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United Nations, Recommendations on the Transport of I	Dangerous Goods,
Manual of Test and Criteria (Rev. 6 th), Section	on 38.3

Clause Requirement + Lest Result - Remark Verdic	Clause	Requirement + Test	Result - Remark	Verdict
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38.3.4.4	Shock								Р
Model / Sa	mple No.	Sample Status	Before Weight (g)	e test OCV (V)	After Weight (g)	OCV (V)	Mass loss (%)	Residual OCV (%)	
G32103155	/ 001	At first cycle	920	3.41	920	3.39	0	99	ОК
G32103155	/ 002	At first cycle	920	3.40	920	3.38	0	99	ОК
G32103155	/ 003	At first cycle	920	3.41	920	3.38	0	99	ОК
G32103155	/ 004	At first cycle	920	3.42	920	3.38	0	99	OK
G32103155	/ 005	At first cycle	920	3.39	920	3.36	0	99	OK
G32103155	/ 006	At first cycle	920	3.40	920	3.38	0	99	OK
G32103155	/ 007	At first cycle	920	3.37	920	3.35	0	99	ОК
G32103155	/ 008	At first cycle	920	3.38	920	3.36	0	99	OK
G32103155	/ 009	At first cycle	920	3.38	920	3.36	0	99	OK
G32103155	/ 010	At first cycle	920	3.40	920	3.38	0	99	ОК

Note(s):

Mass loss limit:

Mass M of cell or battery	Mass loss limit
M<1g	0.5%
1g <m<5g< td=""><td>0.2%</td></m<5g<>	0.2%
M>5g	0.1%

L-Leakage

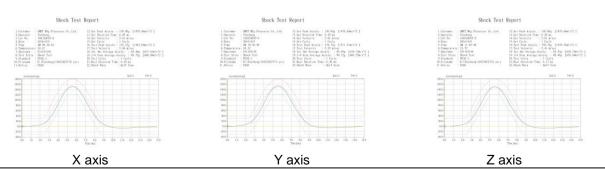
V-Venting

D-Disassembly

R-Rupture

F-Fire

OK-No Leakage, No Venting, No Disassembly, No Rupture, No Fire





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	United Nations, Recommendations on the Transport of Dangerous Goods,					
	Manual of Test and Criteria (Rev. 6 th), Section 38.3					
Clause Requirement + Test Result - Remark						

38.3.4.5	38.3.4.5 External short circuit			Р	
Model / S	Sample No.	Sample Status	Max. External temperature of EUT surface(°C)	Other E	Event
G32103155	/ 001	At first cycle	86.1	Ok	(
G32103155	/ 002	At first cycle	92.0	Ok	(
G32103155	/ 003	At first cycle	90.1	Ok	(
G32103155	/ 004	At first cycle	94.5	Ok	(
G32103155	/ 005	At first cycle	92.9	Ok	(
G32103155	/ 006	At first cycle	90.3	Ok	(
G32103155	/ 007	At first cycle	86.2	Ok	(
G32103155	/ 008	At first cycle	94.3	Ok	(
G32103155	/ 009	At first cycle	88.6	Ok	(
G32103155	/ 010	At first cycle	97.7	Ok	(

Note(s):

D-Disassembly

R-Rupture

F-Fire

OK- No Disassembly, No Fire, The external temperature of cell not exceeds 170°C.



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	United Nations, Recommendations on the Transport of Dangerous Goods,			
	Manual of Test and Criteria (Rev. 6 th), Section 38.3			
Clause	Requirement + Test	Result - Remark	Verdict	

38.3.4.6	Impact			N/A	
Model / S	Sample No.	Sample Status	Max. External temperature of EUT surface(°C)	Other Event	
Note(s): The	Note(s): The component cell is a prismatic type				

38.3.4.6	Crush				Р
Model / Sar	nple No.	Sample Status	Max. External temperature of EUT surface(°C)	Oth	er Event
G32103155	/ 011	At first cycle 50% of the design rated capacity	23.8		ОК
G32103155	/ 012	At first cycle 50% of the design rated capacity	24.6		ОК
G32103155	/ 013	At first cycle 50% of the design rated capacity	23.3		ОК
G32103155	/ 014	At first cycle 50% of the design rated capacity	23.7		ОК
G32103155	/ 015	At first cycle 50% of the design rated capacity	24.3		ОК

Note(s):

D-Disassembly

F-Fire

OK- No Disassembly, No Fire, The external temperature of cell not exceeds 170° C.

38.3.4.7	Overcharge N/A			N/A	
Mod	Model / Sample No. Sample Status Other Event				
Note(s): EUT is a lithium ion battery cell					



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United Nations, Recommendations on the Transport of Dangerous Goods,	
Manual of Test and Criteria (Rev. 6 th), Section 38.3	

Clause Requirement + Test Result - Remark Verdict

38.3.4.8	Forced discharge			Р
Mod	lel / Sample No.	Sample Status	Other Event	
G32103155	6 / 016	At first cycle	ОК	
G32103155	5 / 017	At first cycle	OK	
G32103155	6 / 018	At first cycle	ОК	
G32103155	7 019	At first cycle	ОК	
G32103155	6 / 020	At first cycle	ОК	
G32103155	6 / 021	At first cycle	OK	
G32103155	6 / 022	At first cycle	OK	
G32103155	6 / 023	At first cycle	OK	
G32103155	6 / 024	At first cycle	OK	
G32103155	/ 025	At first cycle	OK	
G32103155	/ 026	After 50 cycles	OK	
G32103155	6 / 027	After 50 cycles	OK	
G32103155	6 / 028	After 50 cycles	OK	
G32103155	6 / 029	After 50 cycles	ОК	
G32103155	6 / 030	After 50 cycles	OK	
G32103155	6 / 031	After 50 cycles	ОК	
G32103155	6 / 032	After 50 cycles	ОК	
G32103155	/ 033	After 50 cycles	ОК	
G32103155	7 034	After 50 cycles	ОК	
G32103155	/ 035	After 50 cycles	ОК	
Note(s):				
D D:				

D-Disassembly

F-Fire

OK- No Disassembly, No Fire



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List of test equipment used:

(Note: This is an example of the required attachment. Other forms with a different layout but containing similar information are also acceptable.)

Clause	Measurement / testing	Testing / measuring equipment / material used	Range used	Calibration date
/				

Nov-05-2016

Jul-02-2016 Jul-16-2016

Jul-03-2015 Jul-17-2015

87-Ⅲ

Fluke Fluke

> Digital Multimeter Digimatic Caliper

Digital Multimeter

R, V, A. Full Range R, V, A. Full Range

39, 70360742 40, 70360756 Nov-08-2016 Jun-08-2015 Nov-09-2016 Jun-22-2016

500-197 CD-8°CS Nov-09-2015

Sep-07-2016

Nov-10-2015 Jun-23-2015 Sep-08-2015

Chyau Jye QUARTZ

Сһуац Јув

Timer (Clock) Timer (Clock)

Real Time Real Time

ORIENT Extech

Jun-09-2014

TH-48-C

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STANDARD TEMPERATURE &HUMIDITY CHAMBER

-42 ~150 Degree C

45. W981030

0-200 mm

43, 0009834

Jun-24-2016 Nov-29-2016

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DR230 DR230

Yokokawa /okokawa

8205

Insulation Tester

30-1000V, 0.1-50GD

40-400°C, 60CH 40-400°C, 30CH

57.12WB22613

53, 1420073

nsulation

46-1, 8330R

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66. DU200-32

71. 204020068

nput / Leakage /

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HJJB: 97/05/27

Issued Date: 05-27-08 Revised: 05-04-2016 Page 1 of 3

Calibration Due

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TEST INSTRUMENTS	

INSTRUMENTATION RECORD DATA SHEET	
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Test	Function Check	Instr No. S/N.	Range Used	* Instruments, Type	Maker	Model	Calibration Date Calibration D	Calibration D
Thermal abuse	^	1. 970210		Test Oven	TAICHY	MCKR-200	Jun-08-2015	Jun-07-2016
Mechanical shock	>	2. 0K97		Shock Tester	VISOURCE	SHOCK-2	Jun-16-2015	Jun-15-2016
Crushing of cells	>	3.9701		Hydraulio Ram Apparatus	Asia Otech	AT-1	May-16-2015	May-15-2016
Low pressure	>	4.0801		Vacuum Chamber	Asia Qtech	A-1	Oct-23-2015	Oct-22-2016
Heating		11. 41VA0567	-40-400°C, 30CH	Hybrid Recorder	Yokokawa	HR 2500E	Apr-15-2015	asn dogs
		13, 43VH0086	40-400°C, 20CH	Hybrid Recorder	Уокодама	HR 1300	Dec-11-2015	Dec-10-2016
	>	14, 48JE0043	-40-400°C, 20CH	Hybrid Recorder	Уокодама	DR130	Jun-10-2015	Jun-09-2016
		15. 42VF0429	-40-400°C, 30CH	Hybrid Recorder	Yokogawa	HR 2300	Mar-08-2016	Mar-07-2017
Input / Leakage /		22. 805020222	250V/10A, 300W 11	Electric Load	Prodigit 3302	3302	Sep-02-2015	Sep-01-2016
Heating / Abnormal		23. 805020223	250V/10A, 300W *1	Electric Load	Prodigit 3302	3302	Oct-28-2015	Oct-27-2016
		24. 805020220	150V/8A, 300W *1	Electric Load	Prodigit 3302	3251	Jan-21-2016	Jan-20-2017
Total Control of		24 000000	00000	Don't Deal Market	Allow	AE 90	2000 000	Mar. 05 0040

Aug-16-2016 Jun-24-2016 Dec-09-2016

Dec-10-2015

VS-5060L

/ISOURCE

Vibration Test

10Hz-100Hz, 0.2-1.5mm

4292

Recorder

40-400°C, 20CH 40-400°C, 40CH

DR130-00-24-1

DR230

3302 3302

Prodigit 3312C Prodigit 3324

Гоюодэмв /okokawa /okokawa

(1 Hybrid Recorder

40-400°C, 20CH

77. 12A933583 78. 12B615473 86. 12B419024

73, 204020077

Electric Load Electric Load

250V/10A, 300W*1 500V/5A, 200W*1

Mar-07-2017

Mar-10-2017 Oct-27-2016

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HJJB: 97/05/27

文件編號: FSAF-39

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TEST INSTRUMENTS

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香港商立衛國際商品試練有限公司機图分公司	Bureau Veritas Consumer Products Services (H.K.) Lac	
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Test	Function Check	Instr No. S/N.	Range Used	* Instruments, Type	Maker	Model	Calibration Date Calibration Du	Calibration Du
		101.27CA14591	-40-400°C, 30CH	Hybrid Recorder	Yokogawa	DR-230	Jan-21-2016	Jan-20-2017
		102.27CA14592	-40-400°C, 30CH	Hybrid Recorder	Yokogawa	DR-230	Aug-25-2015	Aug-24-2016
		103.27CA14593	-40-400°C, 30CH (7	Hybrid Recorder	Yokogawa	DR-230	May-06-2015	under calibration
		104.27CA14594	-40-400°C, 30CH	Hybrid Recorder	Yokogawa	DR-230	Sep-11-2015	Sep-10-2016
		105.27CA14595	-40-400'C, 30CH	Hybrid Recorder	Yokogawa	DR-230	Sep-22-2015	Sap-21-2016
Input / Leakage /		106.30801A016	60W60A	Electronic Load	Prodigit	3301A	May-12-2015	May-11-2016
Heating / Abnormal		107.30801A017	60V/50A	Electronic Load	Prodigit	3301A	Jan-03-2011	stop use
		108.30801A019	60V/90A	Electronic Load	Prodigit	3301A	May-12-2015	May-11-2016
		109.30801A020	60V/90A	Electronic Load	Prodigit	3301A	Dec-18-2015	Dec-17-2016
		110.30901A021	60V/60A	Electronic Load	Prodigit.	3301A	Jul-17-2015	Jul-16-2016
	>	112.221052	150KG	Electronic Balance	KINGSHIP	GRP-150	Nov-09-2015	Nov-08-2016
General		113.033290010	R, V, A full range	DC+AC 100kHz TRMS DMM	BRYMEN	BM859CF	Sep-02-2015	Sep-01-2016
		114. 033290030	R, V, A full range	DC+AC 100kHz TRMS DMM	BRYMEN	BM859CF	Nov-11-2015	Nov-10-2016
Temperature cycling	>	116.920904	-70°C~100°C. 20%~98% RH	THERMO-HYGROMETER	TAICHY	MHU-480SU	Nov-16-2015	Nov-15-2016
Moulded case stress at high ambient temperature		117.920905	0-200C	TEMPERATUER OVEN	TAICHY	CK-500	Nov-16-2015	Nov-15-2016
General		122, 680594	0-500V, 20A	Digital Power Meter	ldre	CP-320A	Dec-14-2015	Dec-13-2016
		123.680595	0-500V, 20A	Digital Power Meter	Idro	CP-320A	Sep-25-2015	Sep-24-2016
Free fall		128. —	0-5m	tape measure	KDS	5.5mm	Jun-24-2015	Jun-23-2016
Hesting		135, 27E214538 504	-40-400°C, 30CH	Data Acquisition Unit	Yокодама	MX100-E-1D	Jan-21-2016	Jan-20-2017
General		137, 40905090004	0.03µH-9999H, 0.003pF~80.00mF, 0Q~500MQ	LCR Meter	Motech	MT4090/I-S1	Jan-22-2016	Jan-21-2017
incorrect installation of a cell		154. —	_	1ohm Resistor	Yen Sheng	_	-	I
		160.9100201	ı	Crush Tester Equipment	Asia Qtoch	IB-5	Sep-24-2015	Sap-23-2017
		161.9100202	-	Projectile Tester Equipment	排料	PROJ-8	Sep-24-2015	Sep-23-2017

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INSTRUMENTATION RECORD DATA SHEET TEST INSTRUMENTS

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Calibration Date Calibration Due	341-02-2016
Calibration Date	ul-03-2015
Model	3302F-01-11E
Maker	Prodoit
* Instruments, Type	Flactronic Load
Range Used	60W60A/300W
Instr No. S/N.	166.3302F-01-
Function Check	^
Test	

_	Test	Check	Instr No. S/N.	Range Used	" Instruments, Type	Maker	Model	Calibration Date Calibration Due	Calibration Due
1 1									
_		>	166.3302F-01- 00602FD0434	60V/60A/300W	Electronic Load	Prodigit	3302F-01-11F Jul-03-2015	Jul-03-2015	Jul-02-2016
		>	167, 3302F-01- 00602FD0441	60V/60A/300W	Electronic Load	Prodigit	3302F-01-11F	Jul-17-2015	Jul-16-2016
		>	168, 3302F-01- 00602FD0436	60V/60A/300W	Electronic Load	Prodigit	3302F-01-11F	Jul-03-2015	Jul-02-2016
		>	169.3302F-01- 00602FD0435	60V/60A/300W	Electronic Load	Prodigit	3302F-01-11F	Jul-03-2015	Jul-02-2016
		>	170.500156	30V,25A	Programable DC Source	IDRC	DSP-030-025HD Jul-17-2015	Jul-17-2015	Jul-16-2016
_									

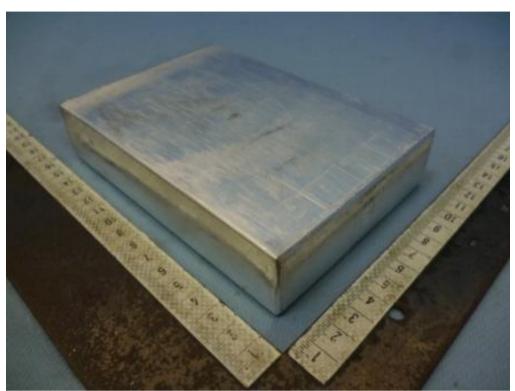
-1	00602FD0441		2000 0110 0000	ufficer		0.00	
	168, 3302F-01- 00602FD0436	60V/60A/300W	Electronic Load	Prodigit	3302F-01-11F	Jul-03-2015	Jul-02-2016
	169, 3302F-01- 00602FD0435	60V/60A/300W	Electronic Load	Prodigit	3302F-01-11F	Jul-03-2015	Jul-02-2018
	170.500156	30V,25A	Programable DC Source	IDRC	DSP-030-025HD	Jul-17-2015	Jul-16-2016
	171.500157	30V,25A	Programable DC Source	IDRC	DSP-030-026HD	Jul-17-2015	Jul-16-2016
	172.500155	30V,25A	Programable DC Source	IDRC	DSP-030-027HD	Jul-17-2015	Jul-16-2016
	173.500158	30V,25A	Programable DC Source	IDRC	DSP-030-028HD	Jul-17-2015	Jul-16-2016
	211. BD06D4611902		USB connector endurance	SE	1220\$	Sep-01-2015	Aug-31-2016
	214.6293	1Hz-200Hz, 0.2-1mm	Vibration Test	玩鐵科技	VS-100	Jan-26-2016	Jan-25-2017
	222, 131113325	0-1MΩ, 0-60V	Internal resistance meter	HIOKI	BT3562	Feb-02-2016	Feb-01-2017
	223. Q829392	Temp.: 0~50°C Humi.: 0~100%	Thermo-Hygre Graph	CAESAR	CEHT-3009	Feb-02-2016	Feb-01-2017
	224. C2PK22022V	0-800V, 0-20A	DIGITAL POWER METER	Yokogawa	WT310	Dec-18-2015	Dec-17-2016
	225. 130612	30V,25A	Programable DC Source	IDRC	DSP-030-025HR	Dec-18-2015	Dec-17-2016
	226.39108378	300~1200 hPa	atmospheric pressure gauge	pesto	testo 511	Jun-11-2015	Jun-10-2016

Edition: A5 Date: February 03, 2016

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Photos:



Top view of cell

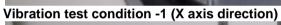


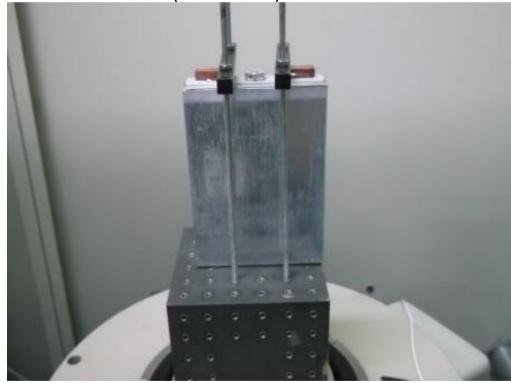
Bottom view of cell





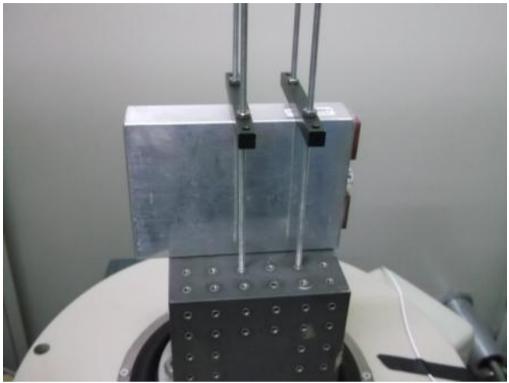




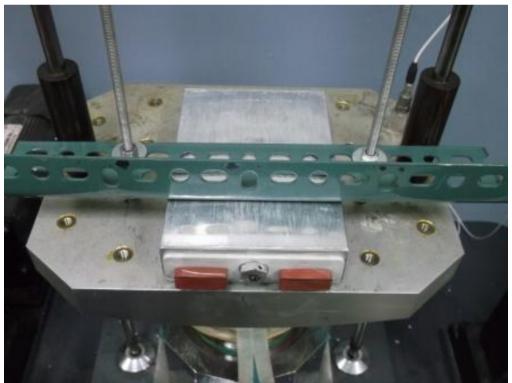


Vibration test condition -2 (Y axis direction)



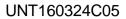


Vibration test condition -3 (Z axis direction)

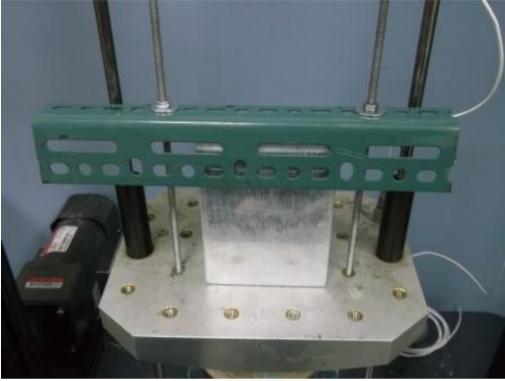


Shock test condition -1 (X axis direction)

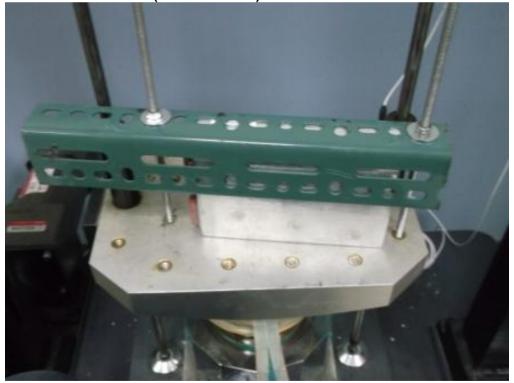








Shock test condition -2 (Y axis direction)



Shock test condition -3 (Z axis direction)