



Reliability Laboratory

TEST REPORT



Report No.: HCN0018/2013
Page: 1 of 6
Date: November 29, 2013

GETAC TECHNOLOGY CORP.
5F, BUILDING A, NO. 209, SEC. 1,
NANGANG RD., NANGANG DIST.,
TAIPEI CITY, TAIWAN, R.O.C.

The following merchandise was submitted and identified by the vendor as:

Product Description: Getac F110 Rugged Tablet Computer
Style/Item No.: F110/ No.1, No.2
Manufacturer/Vendor: Getac Technology Corp.
Country of Origin: Taiwan
Quantity: Total 2 pieces
Testing Period: Nov. 26, 2013 to Nov. 28, 2013

We have tested the submitted sample(s) as requested and the following results were obtained:

Test Required:

Test for Degrees of Protection Provided by Enclosures (IEC 60529 Edition 2.1: 2001)

IP Code	IP65
First characteristic numeral	Degrees of protection against access to hazardous parts and against solid foreign objects
Second characteristic numeral	Degrees of protection against ingress of water

Test Results:

Conclusion
Submittals sample(s) comply with the requirement and acceptance conditions of IEC 60529 Edition 2.1: 2001 Degrees of Protection Provided by Enclosures -- IP65 The detailed description of test result, please see attached sheet(s).

Signed for and on behalf of
SGS TAIWAN Ltd.

Hank Chiou

Hank Chiou
Asst. Supervisor

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TEST REPORT

Report No.: HCN0018/2013

Page: 2 of 6

Test for Degrees of Protection Provided by Enclosures:Test Equipment:

Name	Brand	Model	Serial No.
1.0 mm Test Wire Probe	E.D.&D.	TRP-02	B0050180
Digital Force Gauge	ALGOL	HF-50	HF-106764
Dust Tester	T-MACHINE	TMJ-9723S	T-23-110708
IPX5 Water Jet Hose Nozzle Set	PTL	P03.26	5050565

Lab Environmental Conditions:Ambient temperature: $(25 \pm 3) ^\circ\text{C}$ Ambient humidity: $(55 \pm 20) \% \text{RH}$ Test Method/ Specification:

Test method: IEC 60529 Edition 2.1: 2001--IP65

1. Test for protection against access to hazardous parts:

Test method: The test wire with 1.0 mm in diameter and 100 mm long is pushed against or inserted through any openings of the enclosure with designated force. Examine whether the test wire touches the hazardous live parts inside the enclosure or not.

Test force: 1 N \pm 10 %**2. Test for protection against solid foreign objects:**Sample condition: OperatingType of dust: Talcum powderThe amount of dust: 6.75 kgThe chamber size: 3.375 m³The maximum depression: -20 mbarTest duration: 8 hours

- Examine the protection against ingress of dust of specimen(s) and perform functional check after this test.
- Functional check: Examine whether the booting function of specimen could be work normally or not.

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TEST REPORT

Report No.: HCN0018/2013

Page: 3 of 6

Test Method/ Specification--Continued:**3. Test for protection against water:**Sample condition: Operating

Internal diameter

of the nozzle: 6.3 mmDelivery rate: 12.5 l/minute $\pm 5\%$

Distance from nozzle

to enclosure surface: between 2.5 m and 3 m

Core of the substantial

stream: circle of approximately 40 mm diameter at 2.5 m distance from nozzleTest duration: Total 3 minutes (total: 6 faces, each face 30 seconds)

- Examine the protection against ingress water of specimen(s) and perform functional check after this test.
- Functional check: Examine whether the booting function of specimen could be work normally or not.

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TEST REPORT

Report No.: HCN0018/2013

Page: 4 of 6

Specimen:

Style/ Item No.: F110/ No.1, No.2

Quantity: Total 2 pieces

Test Result:

A. Degrees of protection against access to hazardous parts and against solid foreign objects (IP6X)

A-1 Test for protection against access to hazardous parts (IP6X)

Test Result		
Check Item		Style/ Item No.
		F110/ No.1
1	Does the test wire penetrate any openings of the enclosure?	No
2	(followed check item 1) If the test wire penetrates any openings of the enclosure, does the test wire touch any hazardous live parts or any hazardous mechanical parts?	N/A
3	(followed check item 2) Does adequate clearance be kept between the test wire and hazardous live parts or hazardous mechanical parts?	N/A

Note 1: N/A means "Not Applicable".

Note 2: The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60529 Edition 2.1: 2001 and in accordance with the acceptance conditions specified by client.

A-2 Test for protection against solid foreign objects (IP6X)

Test Result		
Check Item		Style/ Item No.
		F110/ No.1
1	Does any dust deposit inside the enclosure?	No
2	Functional Check	Normal

Note 1: N/A means "Not Applicable".

Note 2: The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60529 Edition 2.1: 2001 and in accordance with the acceptance conditions specified by client.

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TEST REPORT

Report No.: HCN0018/2013

Page: 5 of 6

Test Result--Continued:

B. Degree of protection against ingress of water (IPX5)

Test Result		
Check Item		Style/ Item No.
		F110/ No.2
1	Does any water permeate into the specimen?	No
2	(followed check item 1) If any water has entered, does the water accumulate near the cable end or live parts?	N/A
2.1	(followed check item 2) Does the water be sufficient to interfere with the correct operation of the equipment or impair safety?	N/A
2.2	(followed check item 2.1) Does the water deposit on insulation parts where it could lead to tracking along the creep age distances?	N/A
2.3	(followed check item 2.2) Does the water reach live parts or windings not designed to operate when wet?	N/A
3	Functional Check	Normal
Note 1: N/A means "Not Applicable". Note 2: The check items in this test report for inspecting the degree of protection provided by enclosures are reference to the requirements specified in IEC 60529 Edition 2.1: 2001 and in accordance with the acceptance conditions specified by client.		

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TEST REPORT

Report No.: HCN0018/2013

Page: 6 of 6

Test Photos:

	
1. Appearance of specimen	2. Appearance of specimen
	
3. Test for protection against solid foreign objects (Dust test)	4. Test for protection against water
	
5. Functional Check	

— — — The End of Test Report — — —

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