



MET Laboratories, Inc. *Safety Certification - EMI - Telecom Environmental Simulation*

CERTIFICATE OF COMPLIANCE
Certification Number : ESL98214-C810G

Company: Getac Inc.

Equipment Tested: Getac K120 Rugged Tablet Computer with Detachable Keyboard

Test Standard: MIL-STD-810G w/ Change 1

Testing Completed: 05/10/2018

Details: This is to certify that the following environmental tests have been performed on the **Getac K120 Rugged Tablet Computer with Detachable Keyboard** and found to be in compliance with the requirements and procedures of **MIL-STD-810G w/ Change 1** detailed in the following summary table.

For each test, the Getac K120 Rugged Tablet Computer was tested attached to the Detachable Keyboard. In addition where noted, certain tests were also performed on the tablet by itself without Detachable Keyboard attached.

No evidence of functional failure was observed during testing.

All calibrated Test equipment utilized during testing is maintained in a current state of calibration per the requirements of ISO/IEC 17025:2005.

For further test details please reference the MET Laboratories, Inc. test report, ESL98214-MIL.

Johnnie Evans
Manager, Environmental Laboratory
MET Laboratories, Inc.

06/12/2018
Date

Naveed Raygani
Project Engineer, Environmental Laboratory
MET Laboratories, Inc.

06/12/2018
Date

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The table below is to show that the following environmental testing was performed on the **Getac K120 Rugged Tablet Computer with Detachable Keyboard** and is in compliance with the requirements of MIL-STD-810G w/ Change 1 below;

Test	Procedure Specification	MIL-STD-810G Reference	Pass/Fail
Low Pressure (Altitude) – Storage/Air Transport	Non-operating: 50,000ft with altitude change rate 2,000 ft/min.	Method 500.6 Procedure I	Pass
Low Pressure (Altitude) – Operation/Air Carriage	Operating: 50,000ft with altitude change rate 2,000 ft/min.	Method 500.6 Procedure II	Pass
High Temperature – Storage	Seven 24 hour cycles of 33-71°C (91– 160°F) (Non-operating)	Method 501.6 Procedure I Induced A1 Hot Dry	Pass
High Temperature – Operation	72 hours constant temperature exposure 63°C (145°F) (Operating)	Method 501.6 Procedure II	Pass
High Temperature – Tactical Standby to Operational	High storage (non-operating) to high operating (test for operation)	Method 501.6 Procedure III	Pass
Low Temperature – Storage Induced (storage and Transit) C3 – Severe Cold	72 hours constant temperature exposure -51.1°C (-60°F)	Method 502.6 Procedure I	Pass
Low Temperature – Operation	72 hours constant temperature exposure -29°C (-20°F)/ -31.7°C (-25°F) -29°C (-20°F) operating on Battery Mode -31.7°C (-25°F) operating on AC Mode	Method 502.6 Procedure II	Pass
Temperature Shock	Multi-cycle shocks from constant extreme temperature: -51.1°C~93.3°C (-60° F~200° F), temperature shock non-operating, three cycles	Method 503.6 Procedure I-C	Pass
Contamination by Fluids	Testing performed on an entire device as well at the tablet portion only All 26 fluids	Method 504.2 Procedure II	Pass
Solar Radiation	Cyclic heat, 7 days	Method 505.6 Procedure I	Pass
Blowing Rain – Operation	Blowing Rain – 5.8 in/hr rain, 70 mph wind, 30 minutes per surface	Method 506.6 Procedure I	Pass
Rain – Drip	Rain Drip, 15 minute exposure (280L/m2/hr)	Method 506.6 Procedure III	Pass
Humidity – Procedure I	Cycle B3 for normal test duration of Natural Cycle (15 days) and Induced cycles (15 days)	Method 507.6 Procedure I	Pass
Humidity – Aggravated Non-operational	Ten 24-hour temperature cycles between 30°C and 60°C with relative humidity maintained at 95% RH non-operating mode	Method 507.6 Procedure II	Pass
Salt Fog	Testing performed on an entire device as well at the tablet portion only 24 hours of salt fog soaking followed by a 24 hour drying period. Repeated for a total of two cycles	Method 509.6	Pass
Sand and Dust – Blowing Dust – Operation	Testing performed on an entire device as well at the tablet portion only Dust resistance using Silica flour with 6 hours at 23°C and an additional 6 hours at 63°C	Method 510.6 Procedure I	Pass
Sand and Dust – Blowing Sand - Operation	Testing performed on an entire device as well at the tablet portion only Blowing Sand with a sand concentration of 2.2±0.5 g/m ³ at 63°C	Method 510.6 Procedure II	Pass
Explosive Atmosphere	Operating for altitude 20,000 ft and temperature of 63°C (145°F)	Method 511.6 Procedure I	Pass
Vibration – General Vibration	Category 4, Typical mission/field transportation scenario, common carrier Figure 514.7C-2, 2hr/ axis (Transportation)	Method 514.7 Procedure I Category 4	Pass
Vibration – General Vibration	Category 20, Ground vehicles - Ground mobile, composite wheeled vehicles, Figure 514.7C-4, 2hr/ axis (Transportation)	Method 514.7 Procedure I Category 20	Pass

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Test	Procedure Specification	MIL-STD-810G Reference	Pass/Fail
Vibration – General Vibration	Category 5, Loose cargo (Transportation)	Method 514.7 Procedure II	Pass
Vibration – General Vibration	Under Fig 514.7 E-1 General min. integrity exposure for non-operating	Method 514.7 Procedure I Category 24	Pass
Shock- Functional shock	40g, 11ms, Terminal Saw tooth, Operating	Method 516.7 Procedure I	Pass
Shock- Functional shock	Peak Acceleration of 75g's, Effective Shock Duration of 8-13ms, and Cross-Over Frequency of 80Hz	Method 516.7 Procedure I	Pass
Shock: Transit drop	26 total drops from 36 in height, free drop onto 2 in of plywood while operating. Use the same unit to test 36 inch drop test in laptop mode	Method 516.7 Procedure IV	Pass
Shock: Transit drop	Testing performed on an entire device as well at the tablet portion only 26 total drops from 48 in height, free drop onto 2 in of plywood while operating. Tablet mode: Use the same tablet to test 48 and 60 inch drop test Laptop mode: Use the same laptop to test 48 and 60 inch drop test	Method 516.7 Procedure IV	Pass
Shock: Transit drop	Testing performed on an entire device as well at the tablet portion only 26 total drops from 60 in height, free drop onto 2 in of plywood while operating. Tablet mode: Use the same tablet to test 48 and 60 inch drop test Laptop mode: Use the same laptop to test 48 and 60 inch drop test	Method 516.7 Procedure IV	Pass
Shock: Transit drop	Testing performed on the tablet portion only 26 total drops from 72 in height, free drop onto 2 in of plywood while operating. Tablet mode: Use the same tablet to test 48, 60 and 72 inch drop test	Method 516.7 Procedure IV	Pass
Shock: Bench Handling	4 drops on solid wooden bench top in operating mode	Method 516.7 Procedure VI	Pass
Freeze/Thaw	Rapid Temperature change for 3 cycles	Method 524.1 Procedure III	Pass

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