



# Fujitsu LIFEBOOK® E558/E458 Notebook PC

## Environmental MIL-STD-810G w/Change 1 Testing Summary

P/N: 5089-2017-0053  
 REV: A

Equipment tested	Fujitsu LIFEBOOK E558/E458	
Independent test company	Quanta Laboratories, 3199 De La Cruz Boulevard, Santa Clara, CA95054 <a href="http://www.quantalabs.com/">http://www.quantalabs.com/</a>	American Association for Laboratory Accreditation: Certificate #2454.01 (Valid to August 31,2018)
Independent test company	Element Materials Technology Minneapolis LLC 9725 Girard Ave, South Minneapolis, MN 55431 <a href="http://www.element.com/locations/usa/minneapolis">http://www.element.com/locations/usa/minneapolis</a>	American Association for Laboratory Accreditation: Certificate #1719.01 (Valid to August 31,2018)



Fujitsu LIFEBOOK E558/E458

Notes: All environmental testing listed in the table below was performed and reported independently by accredited testing companies listed above.

Documented MIL-STD-810G testing guidelines were followed, a summary listing of the tests are presented in the following table.

## LIFEBOOK E558/E458 Notebook PC MIL-STD-810G Testing Summary Table

#	Test Listing	Test Method	Description/Parameters	Result <sup>1,2</sup>
1	Altitude	MIL-STD-810G Method 500.6 Procedures I & II	Storage/Air Transport test at 30,000 ft, duration 1 hour, unit is non-operational Operational/Air Carriage test at 15,000 ft, duration 1 hour, unit is operational	Pass
2	Low temperature	MIL-STD-810G Method 502.6 Procedures I & II	Non-operational test at -30°C, duration 7 hours, unit is non-operational Operational test at -20°C, duration 5 hours, unit is operational	Pass
3	High temperature	MIL-STD-810G Method 501.6 Procedures I & II	Constant temperature Non-operational test at +70°C duration 4 hours, unit is non-operational Operational test at +60°C duration 4 hours, unit is operational	Pass
4	Humidity	MIL-STD-810G Method 507.6 Procedure II	Aggravated humidity. Temperature cycled between 30°C and 60°C Test duration: ten 24-hours cycles. Relative humidity maintained at 95% Unit is non-operational, functional test after 5th and 10th cycles	Pass
5	Functional shock	MIL-STD-810G Method 516.7 Procedure I	3 shocks, ± per axis. Non-operational test - 40G, 11ms, saw-tooth pulse configuration, unit is non-operational Operational test - 20G, 11 ms, half sine wave configuration, unit is operational	Pass
6	Vibration, integrity	MIL-STD-810G Method 514.7 Category 24	Non-operational test, Minimum integrity test 20-2000Hz; 20-1000 Hz at 0.04G <sup>2</sup> /Hz, 1000-2000Hz at 6dB, overall 7.7G RMS; test profile see in figure 514.7E-1. Test duration: 1 hours x 3 axis. Unit is non-operational	Pass
7	Vehicle Vibration	MIL-STD-810G Method 514.7 Category 4	Operational test - Ground vehicle, US Highways 1,000 miles of transportation, test profile see figure 514.7C-2 and table 514.7C-1. Test duration: 1 hours x 3 axis. Unit is operational.	Pass
8	Blowing Dust	MIL-STD-810G Method 510.6 Procedure I	Dust density 10±7 g/m <sup>3</sup> , air velocity 8.9m/s, 140 mesh silica flower. Non-operational test duration 6 hours at 23°C ambient. Unit is non-operational. Operational test duration 6 hours at 35°C ambient. Unit is operational.	Pass
9	Transit Drop	MIL-STD-810G Method 516.7 Procedure IV	Non-operational test, transit drop from 3 feet height on 2" plywood. One drop each on 4 corners, 8 edges, 6 faces on a single test unit. Unit is closed and non-operational.	Pass *

<sup>1</sup>Pass for Operational test indicates that unit remained operational during the entirety of the test. After the test ran and verified one complete pass of Fujitsu proprietary diagnostic software.

<sup>2</sup>Pass for Non-operational test indicates that after the test unit powered, booted to Windows OS, ran and verified one complete pass of Fujitsu proprietary diagnostic software.

\* Test unit passed functional performance test after each drop and remained operational after all tests were completed. Some mechanical damage was observed.

#### Contact

FUJITSU LIMITED  
Address: 4-1-1, Kamikodanaka, Nakahara-ku,  
Kawasaki 211-8588, JAPAN  
Telephone: +81-(0)3-5462-9825  
Website: <http://www.fujitsu.com>

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