

DO-160 Compliance Summary – HEADlab

Conformities of HEADlab products in aircraft applications based on *Environmental Conditions and Test Procedures for Airborne Equipment (RTCA DO-160)*

The following HEADlab products have been extensively tested for environmental resistance and reliability in accordance with the RTCA DO-160 test guideline *Environmental Conditions and Test Procedures for Airborne Equipment*. DO-160 defines stringent and aviation-proven test methods that help ensure equipment performs safely and consistently under demanding real-world conditions. This data sheet summarises the tested products and the tests performed according to selected parameters. The results serve as proof that the devices meet the high requirements for use in aircraft applications.

TESTED PRODUCTS

- › labCTRL II.1 (Code 3704)
- › labSAR I.1 (Code 3705.1)
- › labSWP-8 (Code 3707.2-8)
- › labSSD I (Code 3706.1)
- › labVF6 II (Code 3752)
- › labV12 II (Code 3753)
- › labV24 II (Code 3755)

RESULTS

Parameter	DO-160 categories and conditions
Temperature: Severe operating conditions	§ 4.5.2 & § 4.5.4 Cat. A1 ^{1, 2}
Steady state altitude	§ 4.6.1 Cat. A2 ^{3, 4}
Temperature: Variation	§ 5 Cat. C
Humidity	§ 6 Cat. C
Operational shocks	§ 7.2 Cat. D 30 g, 20 ms, 3 axes, both directions
Crash safety	§ 7.3 Cat. E Impulse 20 g, 20 ms, 3 axes Sustained 9 g, 3 s, 3 axes
Operational vibrations	§ 8 Cat. S Sine sweep 6 g, 10 Hz to 2000 Hz, 1 oct/min., 3 axes ⁵
Magnetic effect	§ 15 Cat. A
EMC emission	§ 21 Cat. M

- 1 Cat. A1 specifies -15 °C to +55 °C. Tested range -20 °C to +60 °C.
- 2 Operation below -20 °C requires thermal isolation.
- 3 Also tested: cabin loss of pressure from altitude 2000 ft to 14000 ft in 2 minutes.
- 4 Also tested: 1.5 bar pressure.
- 5 SNR of analog modules may be reduced during vibration excitation.

Contact Information

Ebertstraße 30a

52134 Herzogenrath, Germany

Phone: +49 (0) 2407 577-0

E-Mail: sales@head-acoustics.com

Website: www.head-acoustics.com