



Defense Technology

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An Overview Of Defense Technology Testing Standards

Part 2/3

In addition to meeting the requirements of one or more defense-related standards, defense technologies may also be subject to other requirements. For example, federal procurement policies and procedures may mandate compliance with the requirements in certain federal standards and specifications.

Defense technologies may also be expected to meet the requirements of non-government standards, including internationally accepted standards and industry-specific standards that have been developed using a consensus process.

The standards applicable to defense technologies cover a wide spectrum of systems and devices used in diverse military environments, including on the ground, in the air, and at sea. The following sections provide a summary of each of the most commonly used defense standards and their specific focus.

Learn more about TÜV SÜD's Defense Testing Services.

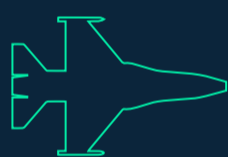
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MIL-STD-461

Requirements for the Control of Electromagnetic Interference Characteristics of Subsystems and Equipment

This standard establishes requirements for the control of electromagnetic interference (EMI) emissions and susceptibility in electrical and electronic equipment and subsystems procured for defense-related uses. Revision G of the standard was published in December 2020.



RTCA/DO-160

Environmental Conditions and Test Procedures for Airborne Equipment

Published by the American Radio Technical Commission for Aeronautics (RTCA), this standard provides procedures and environmental test criteria for testing equipment intended for use in aviation applications. Revision G of RTCA/DO-160 was published in 2010.



MIL-STD-810

Environmental Engineering Considerations and Laboratory Tests

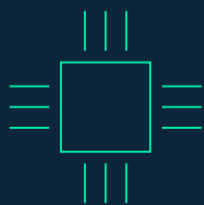
This standard addresses material acquisition program planning and engineering-related issues for evaluating the effect of environmental stresses on product materials over their entire service life. Revision H of the standard was published in January 2019.



MIL-STD-202

Test Method Standard, Electronic and Electrical Component Parts

MIL-STD-202 establishes uniform methods for testing electronic and electrical component parts to determine resistance to the effects of natural elements and conditions experienced in military operations, as well as physical and electrical tests. (It does not address microelectronic components and devices, which are covered under MIL-STD-883.) Revision G of MIL-STD-202 was last updated in June 2019.



MIL-STD-883

Microcircuits

This standard establishes uniform methods, controls, and procedures for testing microelectronic components used in military and aerospace electronic systems to determine resistance to the effects of natural elements and conditions experienced in military and space operations, as well as mechanical and electrical tests. Revision L of the standard was published in September 2019.



MIL-STD-1399

Interface Standard for Shipboard Systems

This standard defines interface characteristics and constraints applicable to the design of ships and systems and equipment used on ships to ensure interface compatibility within the shipboard environment. Revision C of the standard was published in February 1988.



MIL-STD-704

Aircraft Electric Power Characteristics

MIL-STD-704 establishes the requirements and characteristics of aircraft electric power provide at the input terminals of electric utilization equipment. The standard does not address EMI issues or the handling of voltage spikes. Revision F of the standard was last updated in December 2016.