Shock testing

Mechanical shock is one of the most common causes of nonstructural failure in mechanical and electrical systems.

Shocks occur in:

- Routine shipping and handling
- Accidental abuse
- Normal operational environments of ground vehicles and aircraft
- As a result of explosive events in warfare
- Special environments such as during the actuation of explosive bolts and other pyrotechnics

What is shock testing?

The Mechanical Shock test is a test performed to determine the ability of equipment to withstand moderately severe shocks resulting from sudden applied forces or abrupt changes in motion encountered during mishandling, improper transportation or field operation.

Shocks of this type can cause devices to degrade in performance, or to even get damaged permanently. Shock pulses that are repetitive can also cause damage that is similar to those caused by extreme vibration. IEC 60068-2-27 is the most widely-used industry standard for performing this test.

Why is it important?

Especially during handling in production and during transport electrical products may be subject to severe mishandling like tumbling and drops. The mechanical shock tests ensure that equipment can absorb a certain level of sudden impact without being damaged or releasing loose parts.

Specifications:

- Max Force: 315 kN
- Max Accelaration: 300g
- Max Weight: 1000 kg
- Shock Profiles: sinusoidal, triangular, saw-tooth pulse

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