

高g值加速度计在高冲击下的失效特性的研究

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摘要:

弹体高速侵彻硬目标过程中, 弹载电子仪器特别是加速度传感器承受了高g值加速度冲击作用。主要研究了在冲击环境下加速度计的零漂机理、机械滤波器的保护、加速度计与信号导线的失效分析等问题, 研究结果对弹载电子仪器的抗高冲击设计和正常使用具有一定的参考价值。

关键词: 侵彻, 加速度计, 冲击, 失效分析

The Study of Failure Characteristic of High g Acceleration in High Shock

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Abstract:

During the process of projectile penetration into hard target with high velocity, the missile electronic instruments, especially accelerometer sensor bear the impact of high g acceleration. the mechanism of zero drift, the protection of mechanical filter, failure analysis of accelerometer and signal wire in shock environment are studied. The results of research have certain referential value for the anti-high-shock design and normal use of the missile electronic instruments.

Keywords: penetration, accelerometer, shock, failure analysis

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