Introduction

The performance of electronic devices in a radiation environment is often limited by susceptibility to single-event effects (SEE), as well as the effects of total dose (TID) and displacement damage (DD) [1]. SEE refers to the coupling of single charge particles that result in switching errors, soft errors, or latchup, and is highly dependent on the circuit design [2]. TID refers to the accumulation of ionization in a device due to the passage of charged particles, which can lead to a change in device characteristics or failure [3]. DD is a consequence of the ionizing effects of heavy ion and electron impacts, which can result in the movement of atoms within a device, leading to permanent damage [4].

Resources for Radiation Test Data


Other search engines such as Google can be useful for finding radiation test results. However, even with specific search keywords, there may be results that are not relevant to the specific test conditions of interest. Therefore, it is necessary to verify that the search criteria is appropriate.

Cautions

Here are a few aspects to consider:

1. Radiation test conditions can vary widely, so it is important to verify that the test conditions are compatible with the specific device and application.
2. Even when specific search criteria are used, some test results may not be found. It is important to consider other possible test conditions to ensure all relevant test results are considered.
3. Test results may be proprietary or not available for public use. Therefore, it is necessary to verify the access rights to the test results.

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Summary

This paper presents a summary of resources for searching radiation test data. It emphasizes the importance of considering the appropriate test conditions and accessing the relevant test results. The summary highlights the benefits of using established radiation test data resources and encourages the use of these resources to support aerospace engineering and spacecraft design.

References