

一种高可靠星载大容量存储器的坏块表存储方案设计

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摘 要: 通过分析传统 NAND FLASH 坏块信息存储方式, 聚焦问题所在点, 提出了一种高可靠性的坏块表存储方案设计. 在存储区中划分出一块区域, 将坏块信息独立存储, 并通过冗余存储的方式提高坏块表存储的安全可靠性. 实验表明, 在坏块信息区出现使用坏块, 信息存储失败或故障掉电引起的坏块信息更新不完全的情况下, 该算法都能够自主定位坏块信息的异常存储份, 找到可靠份, 从而实现星载大容量存储器的可靠快速启动.

关键词: NAND FLASH; 坏块; SSR

Design of a High-Reliable NAND FLASH Bad Block

Table Storage Scheme

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Abstract: The traditional FLASH NAND bad block information storage method is analysed, and the vulnerabilities and a high reliable bad block table storage scheme are given out. An xxx area was used to store the bad block address information separately instead of using the spare area of NAND FLASH to store the information by every page. There are two copies for the bad block information to guarantee the validity of it. The experiment shows that the scheme can locate the correct information when a bad block occurs in the reserved area or information store failed or information loss partly. And the SSR will still be able to get the correct information under those severe circumstances.

Key words: NAND FLASH; bad block; SSR

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