US005371709A

United States Patent [19]

Fisher et al.

[11] Patent Number: 5,371,709

[45] Date of Patent: Dec. 6, 1994

[54] **POWER MANAGEMENT SYSTEM FOR SERIAL EEPROM DEVICE**

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[21] Appl. No.: **41,067**

[22] Filed: **Apr. 1, 1993**

[51] **Int. Cl.**[5] **G11C 5/14**

[52] **U.S. Cl.** **365/226**; 365/227

[58] **Field of Search** 365/226, 227, 228, 229

[56] **References Cited**

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[57] **ABSTRACT**

Power consumption of a serial EEPROM is reduced while simultaneously precluding data corruption during write operations. These results are achieved by operating a brownout detector in the device to sense EEPROM supply voltage below a predetermined level and thereupon to place the EEPROM in a reduced power mode, but only during an interval that a write sequence is taking place. Such an interval includes loading of data in a temporary storage cache and writing the loaded data into the EEPROM. At the same time that the low voltage level is detected during a write sequence, any load or write operation then in progress is aborted. The brownout detector is intentionally left disabled or in a sleep mode during any read mode or standby mode since there is no jeopardy of corrupting the EEPROM memory during those times.

9 Claims, 4 Drawing Sheets

