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United States Patent [19]

Oh et al.

[73]

[11]

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5,355,339

Date of Patent: [45]

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[21] Appl. No.: 91,839

Assignee:

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Foreign Application Priority Data [30]

Int. Cl.⁵ G11C 7/00

U.S. Cl. 365/200; 371/10.2 [58] Field of Search 365/200, 225.7, 230.03;

371/10.1, 10.2

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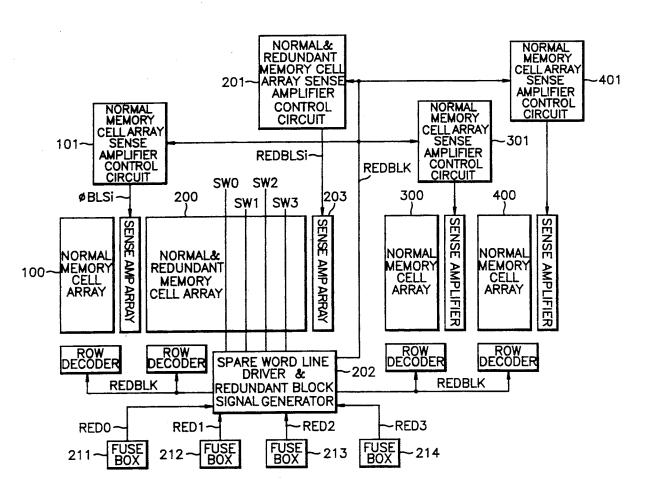
B. F. Fitzgerald et al., "Memory System with High-Performance Word Redundancy," IBM Technical Disclosure Bulletin, vol. 19, No. 5, Oct. 1976, pp. 1638-1639.

Primary Examiner—Eugene R. LaRoche Assistant Examiner-Son Dinh Attorney, Agent, or Firm-Cushman, Darby & Cushman

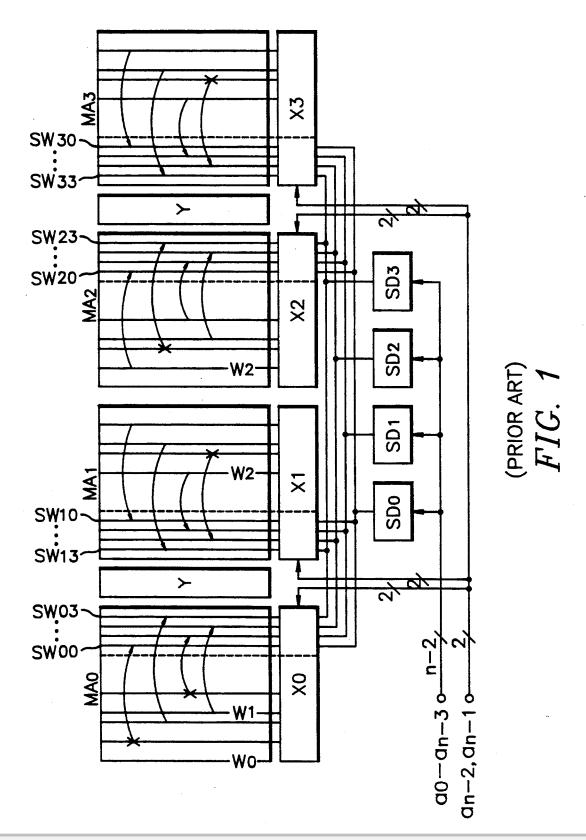
[57] **ABSTRACT**

Disclosed is a semiconductor device with redundancy for replacing a memory cell with a predetermined defect with additional spare cells. In a semiconductor memory device having a plurality of normal submemory arrays, the present invention discloses a redundancy technique that allows any redundant address decoder to be used with any of the submemory arrays. This maximizes efficiency in redundant repairs as well as maximizes the use of the chip area.

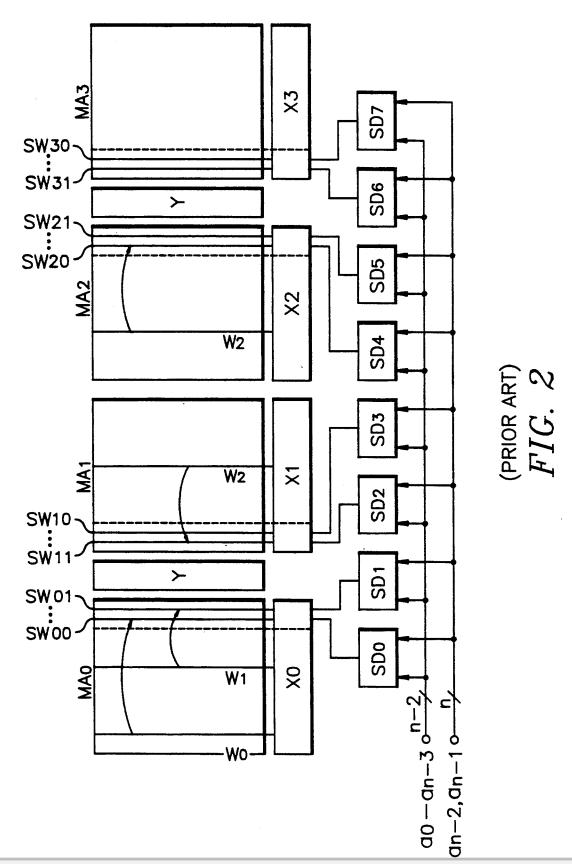
11 Claims, 10 Drawing Sheets













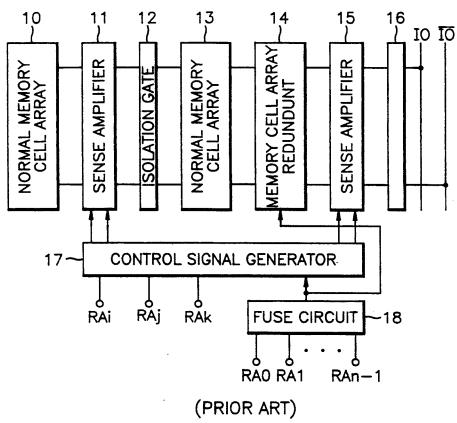


FIG. 3

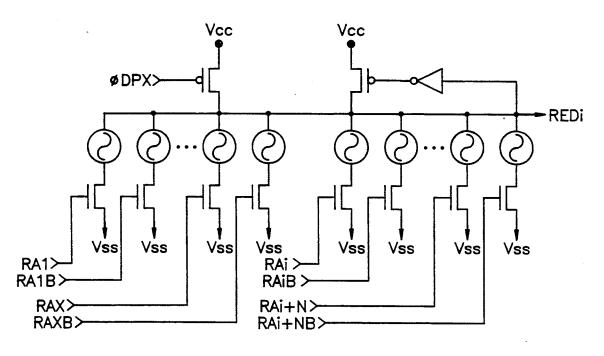
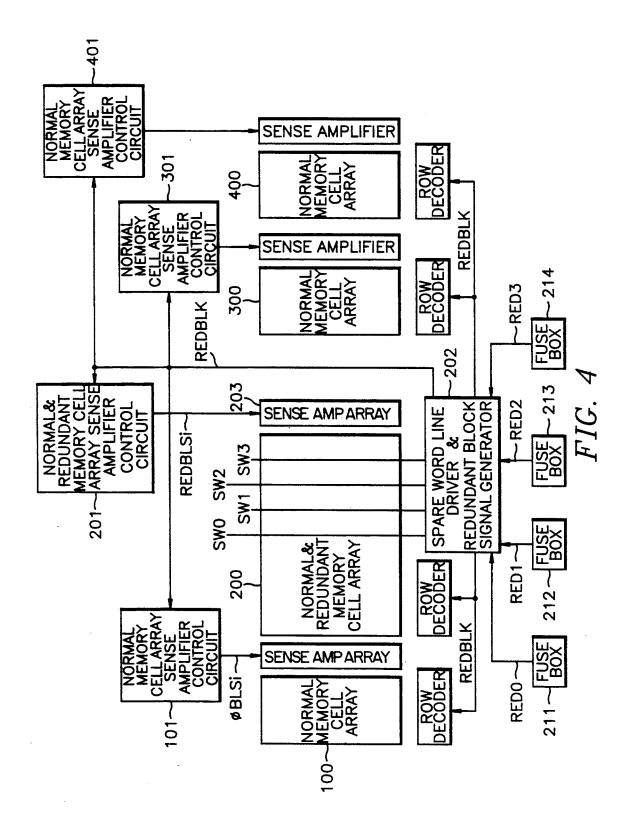


FIG. 5







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