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United States Patent [19]

Tiede et al.

[11] **Patent Number:** **5,900,021**[45] **Date of Patent:** **May 4, 1999**[54] **PAD INPUT SELECT CIRCUIT FOR USE WITH BOND OPTIONS**[75] Inventors: **John William Tiede; Jon Allan Faue**, both of Colorado Springs, Colo.[73] Assignees: **United Memories, Inc.**, Colorado Springs; **Nippon Steel Semiconductor Corporation**, Chiba, Japan[21] Appl. No.: **08/833,105**[22] Filed: **Apr. 4, 1997**[51] **Int. Cl.⁶** **G06F 12/00; G11C 7/00**[52] **U.S. Cl.** **711/170; 365/189.02; 365/230.02**[58] **Field of Search** **711/170; 365/189.02, 365/230.02; 395/653**[56] **References Cited****U.S. PATENT DOCUMENTS**

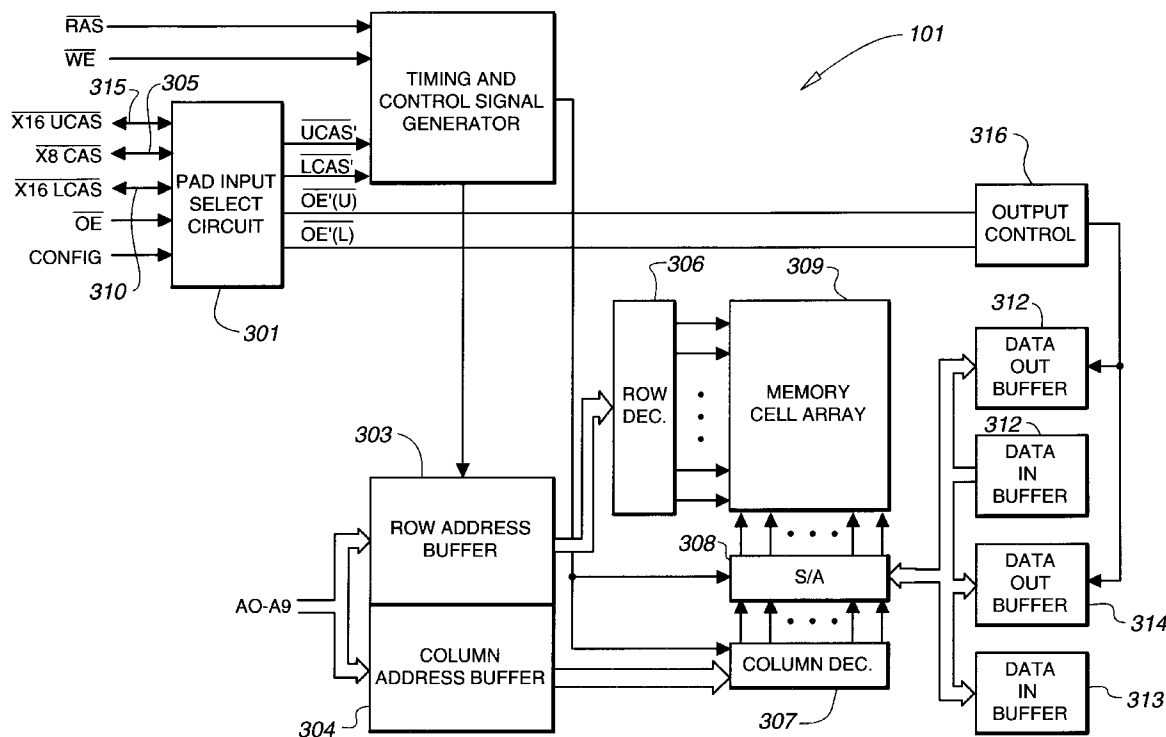
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Primary Examiner—Tod R. Swann*Assistant Examiner*—Tuan V. Thai*Attorney, Agent, or Firm*—Richard A. Bachand; Stuart T. Langley; Holland & Hart llp[57] **ABSTRACT**

A configurable input device for an integrated circuit having a plurality of input pads, the input device including a plurality of buffers, where each buffer is associated with one of the input pads. Each buffer receives a mode select signal and the buffer is responsive to the mode select signal to place the buffer in an enabled mode or a disabled mode. A receiver portion within each buffer is coupled to the associated input pad. The receiver portion pulls the associated input pad to a preselected logic state while the buffer is in the disabled mode. An output driver within each buffer generates an output signal responsive to a signal on the associated input pad while the buffer is in the enable mode and provides a high impedance while the buffer is in the disabled mode. An output node is coupled to the output drivers of the plurality of buffers.

18 Claims, 5 Drawing Sheets

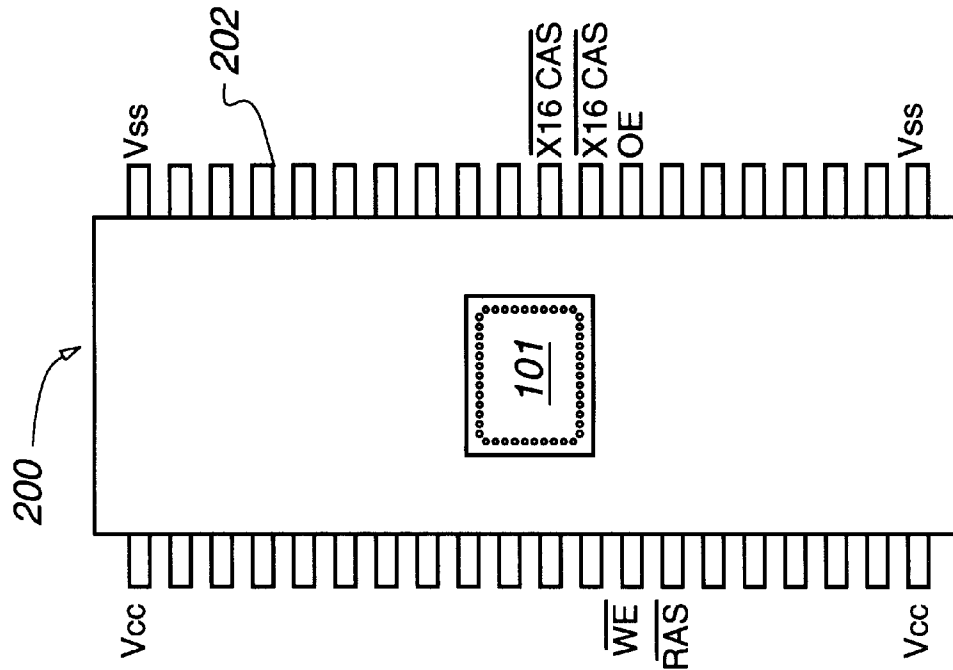


Fig. 2

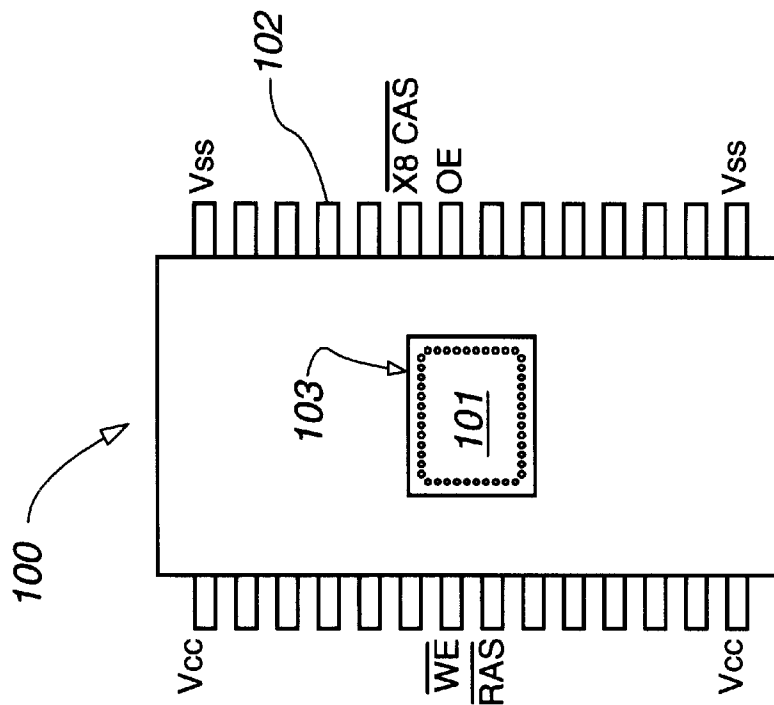
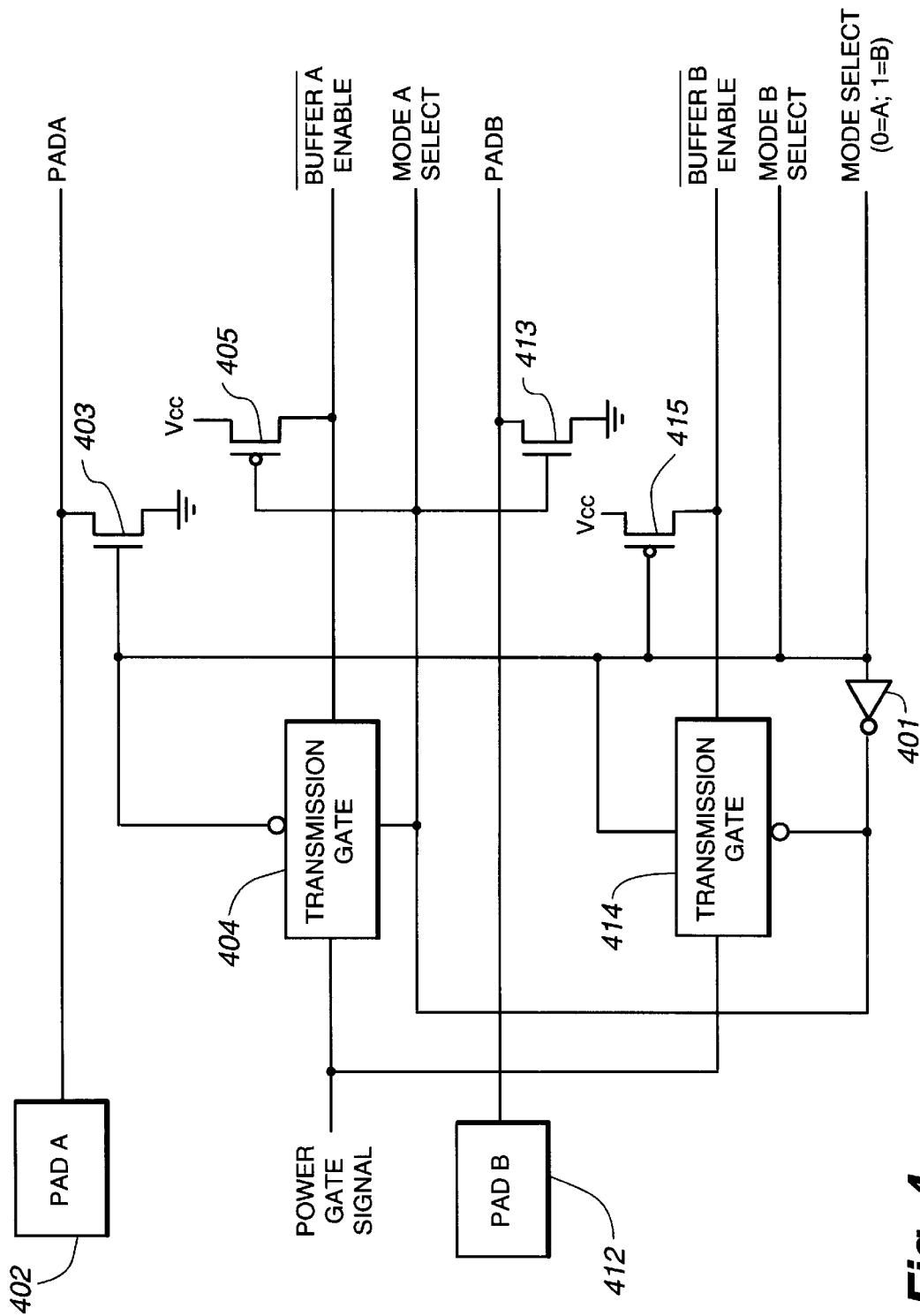
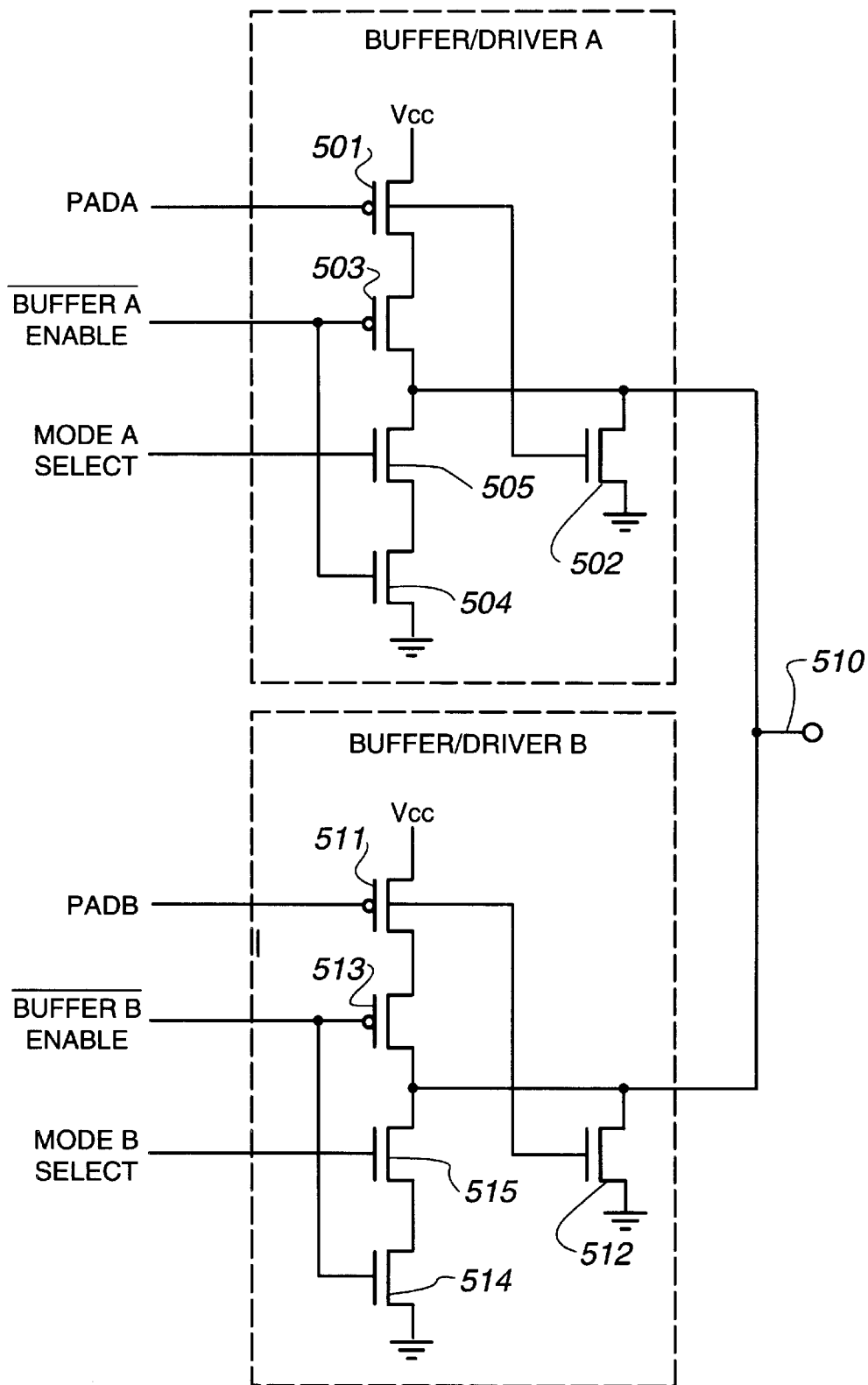


Fig. 1



**Fig. 4**

**Fig. 5**

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