

[54] **BUS STRUCTURE FOR OVERLAPPED DATA TRANSFER**

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[21] Appl. No.: 173,212

[22] Filed: **Mar. 24, 1988**

[51] Int. Cl.<sup>5</sup> ..... **G06F 13/40**

[52] U.S. Cl. .... **364/200; 364/240; 364/240.2; 364/242.92**

[58] Field of Search ... **364/200 MS File, 900 MS File**

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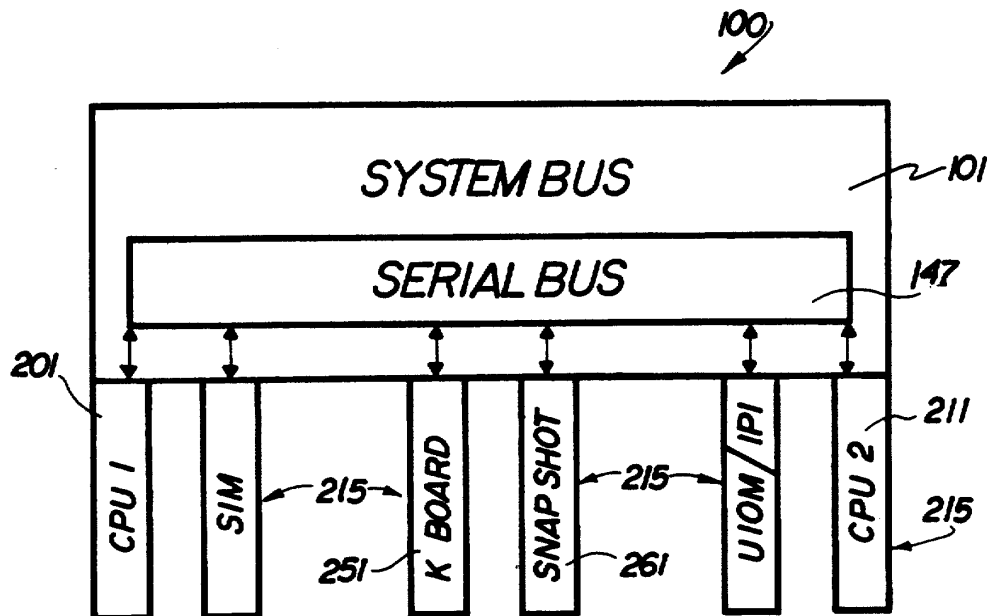
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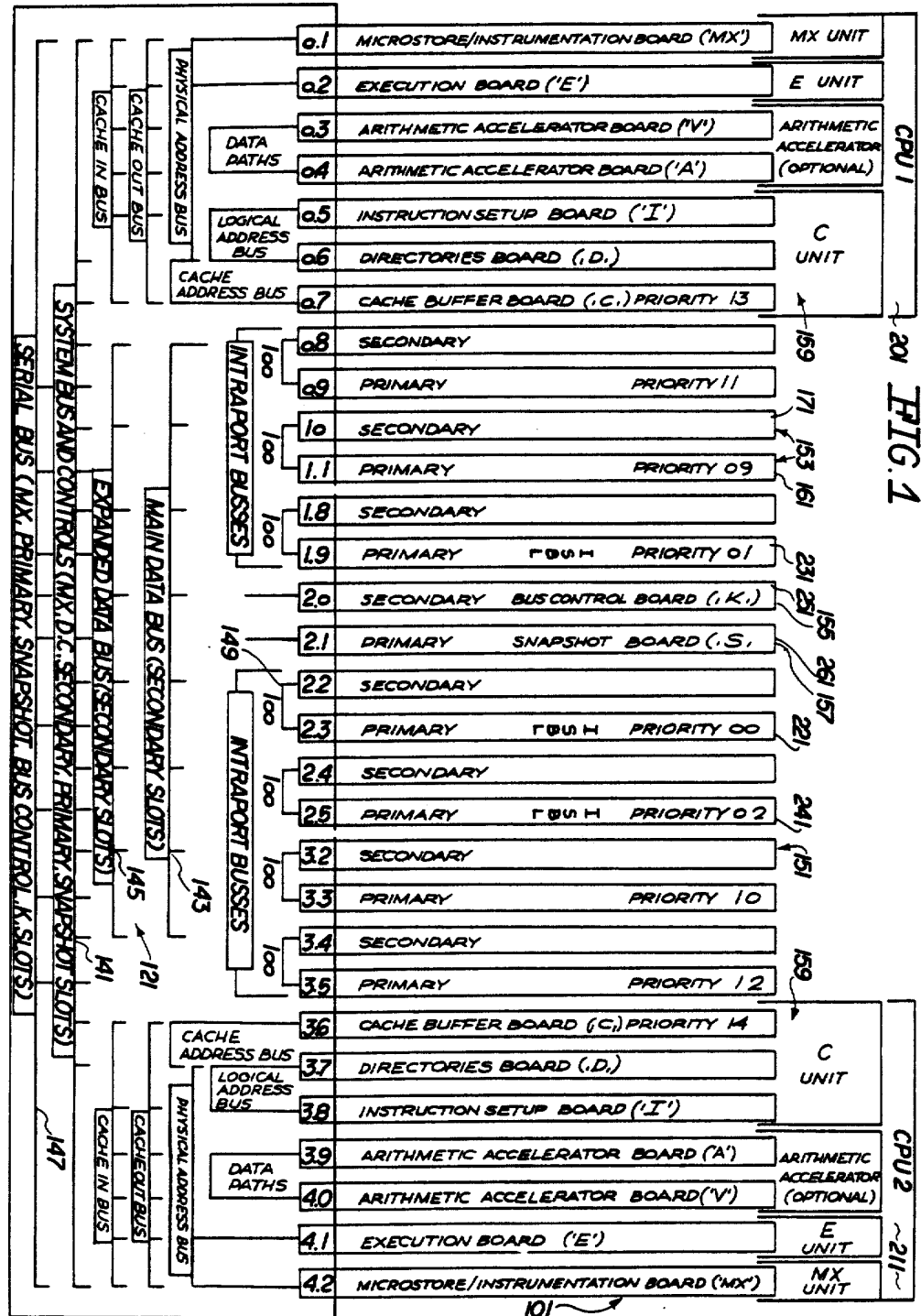
*Primary Examiner*—David Y. Eng  
*Attorney, Agent, or Firm*—Fleit, Jacobson, Cohn, Price, Holman & Stern

[57] **ABSTRACT**

An improved system bus structure for versatile use in various digital computer architecture configurations, particularly those of mini-supercomputers, and, designed to support high speed, high reliability, parallel processing of bi-directional signal transfers in a multi-port and multiple central processor unit (CPU) communication environment as between system bus units or devices. The system bus structure may be sized for a compact encasement and may carry as many as 129 simultaneous signals to and from various units connected to it. The system bus structure includes enabling structure for a centralized arbitration system, a centralized clock and synchronized transfer system, a centralized transfer monitor, a centralized parity error assessor and signalling system including transfer termination, and, a memory/inter-system inhibit system.

**11 Claims, 34 Drawing Sheets**





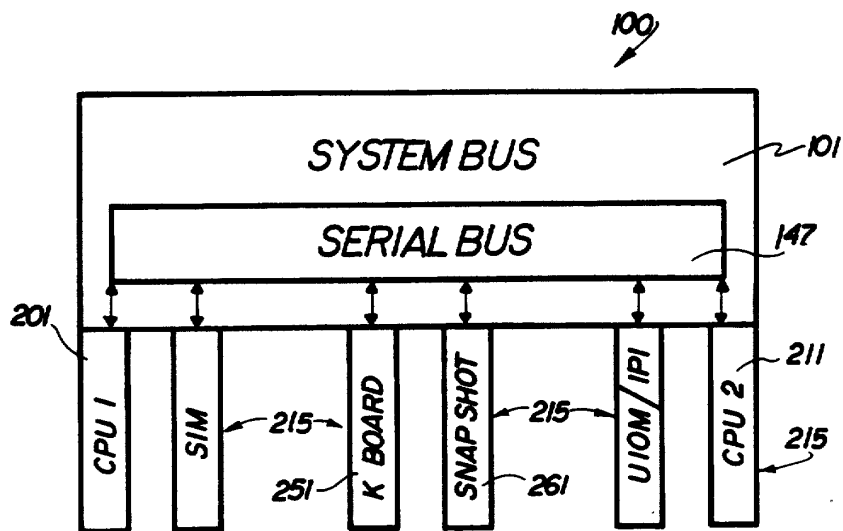


FIG. 2

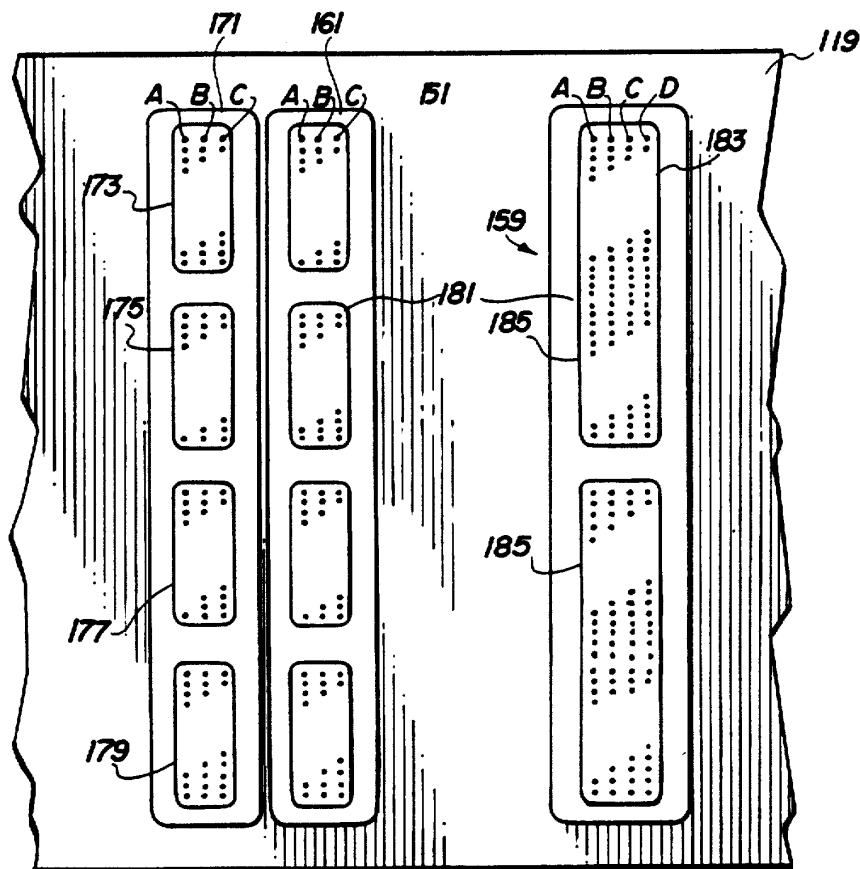


FIG. 3

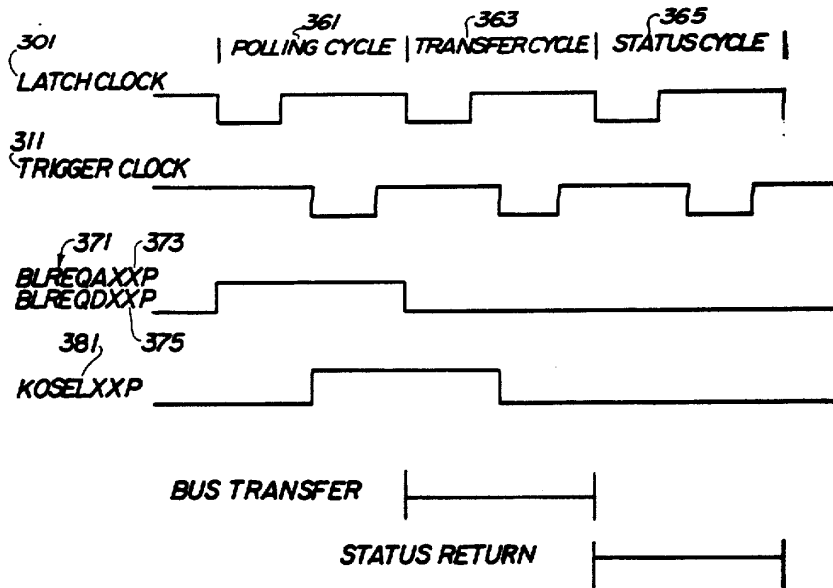


FIG. 4

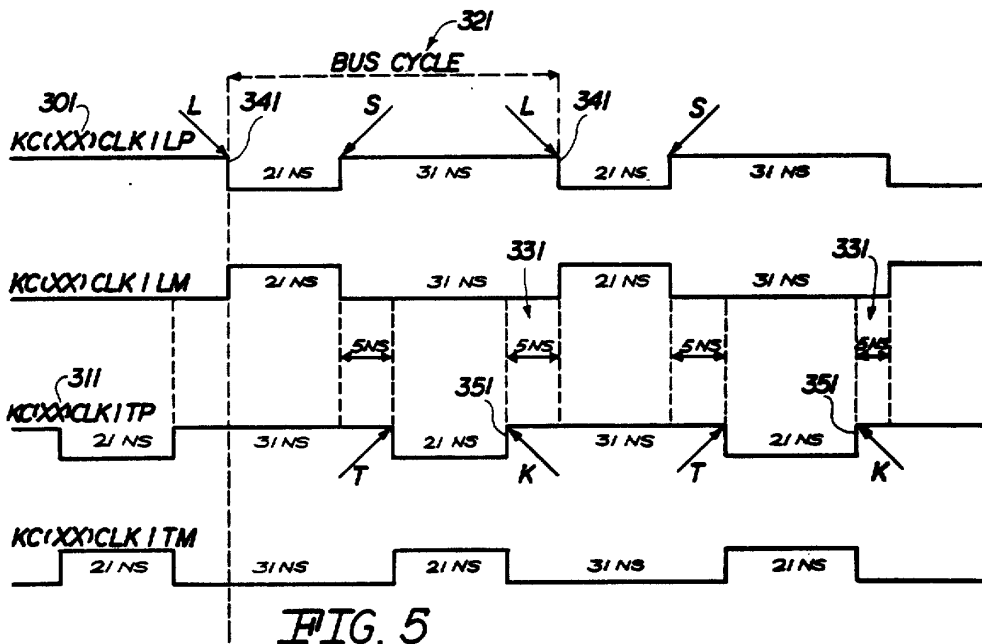


FIG. 5

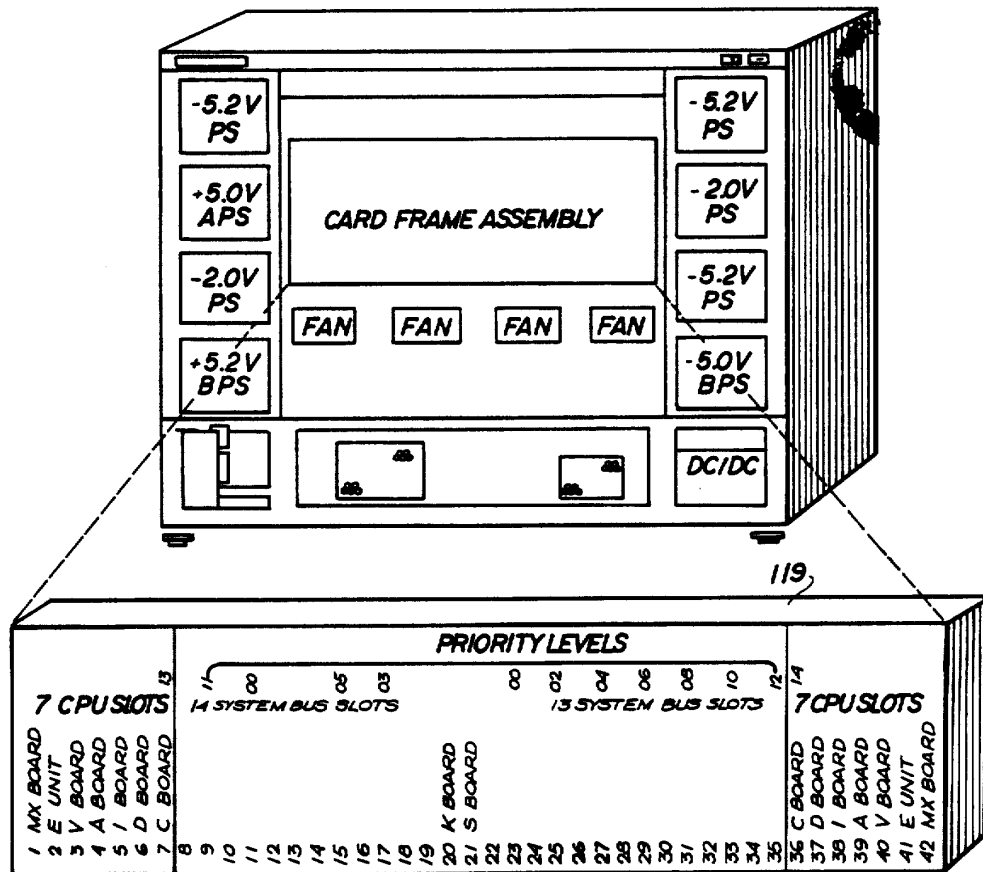


FIG. 6

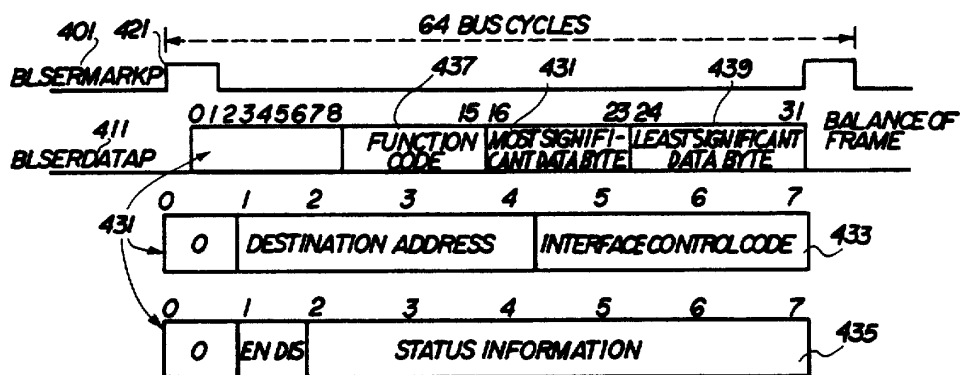


FIG. 7

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