

(12) **United States Patent**  
**Casebolt et al.**

(10) **Patent No.:** **US 6,625,790 B1**  
 (45) **Date of Patent:** **\*Sep. 23, 2003**

(54) **METHOD AND APPARATUS FOR DETECTING THE TYPE OF INTERFACE TO WHICH A PERIPHERAL DEVICE IS CONNECTED**

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(\* ) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

This patent is subject to a terminal disclaimer.

(21) Appl. No.: **09/409,683**

(22) Filed: **Oct. 1, 1999**

**Related U.S. Application Data**

(63) Continuation-in-part of application No. 09/112,171, filed on Jul. 8, 1998, now Pat. No. 6,460,094.

(51) **Int. Cl.**<sup>7</sup> ..... **G06F 9/45**

(52) **U.S. Cl.** ..... **716/8; 716/9; 716/10; 716/11**

(58) **Field of Search** ..... **716/4, 8; 712/1, 712/230; 710/8, 26, 63, 108, 262, 269, 305, 306; 379/142.15**

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(57) **ABSTRACT**

A peripheral device is connectable to a computer having one of a first interface and a second interface. The first interface communicates with the peripheral device over a differential data connection having a first data conductor and a second data conductor. The second interface communicates with the peripheral device over a clock conductor and a single ended data connection which includes a data conductor. The peripheral device includes an interface detection component coupled to at least one of first and second communication conductors used to communicate between the peripheral device and the computer. The interface detection component is configured to detect which of the first and second interfaces the peripheral device is connected to.

**33 Claims, 7 Drawing Sheets**

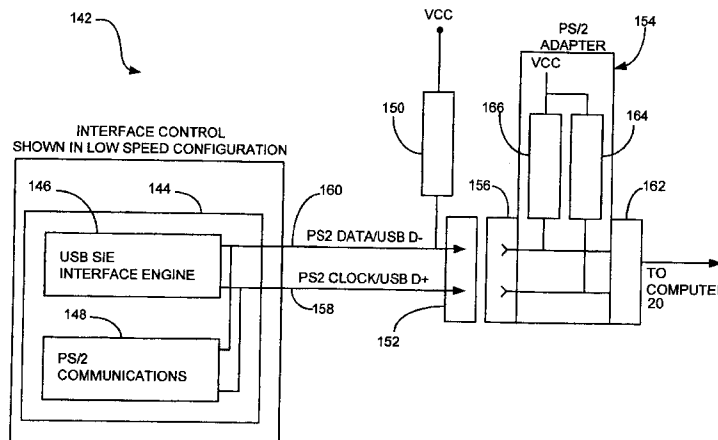
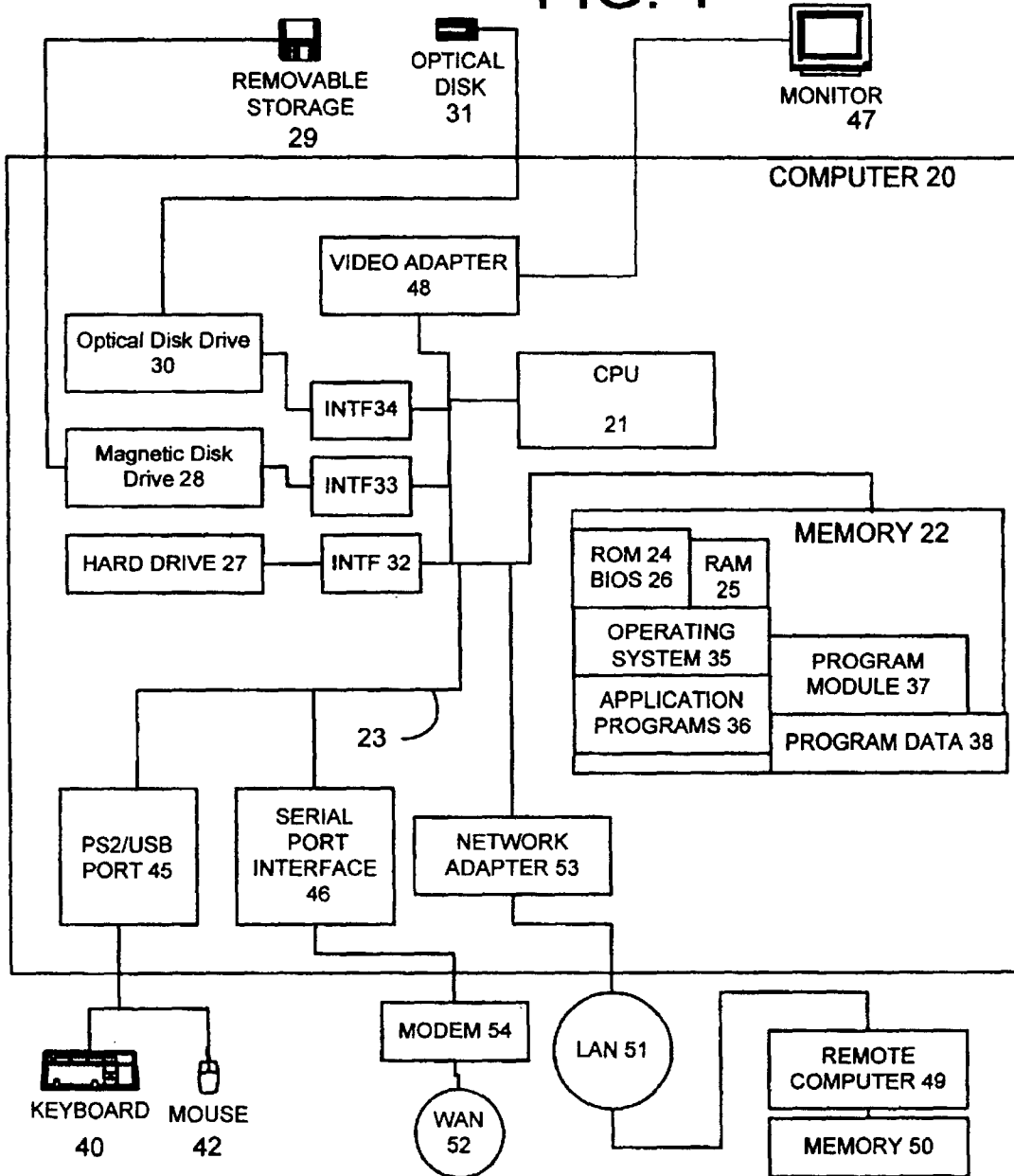


FIG. 1



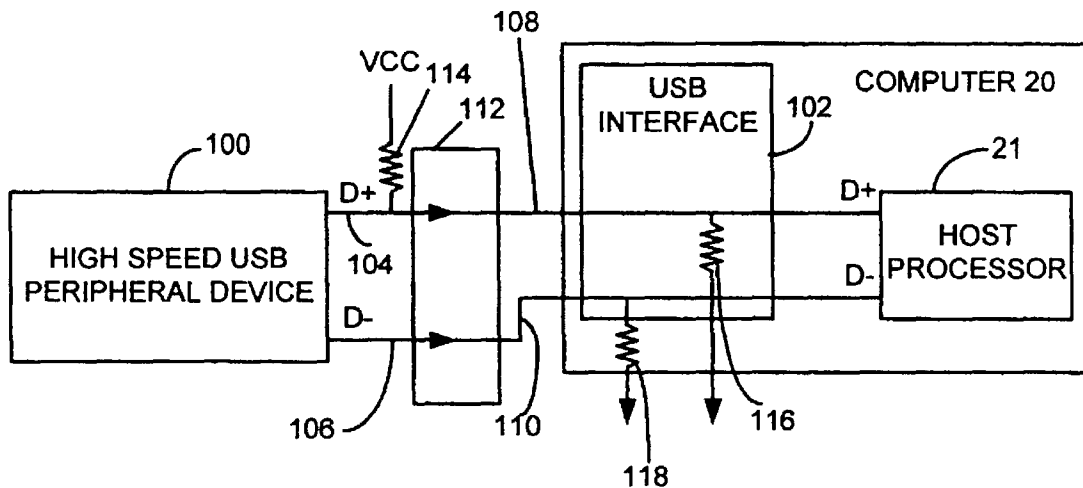


FIG. 2A

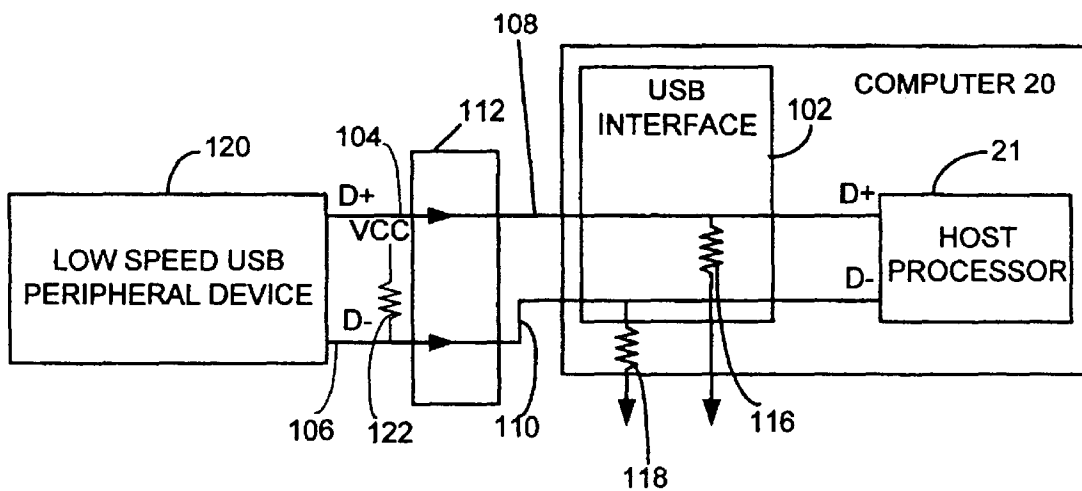


FIG. 2B

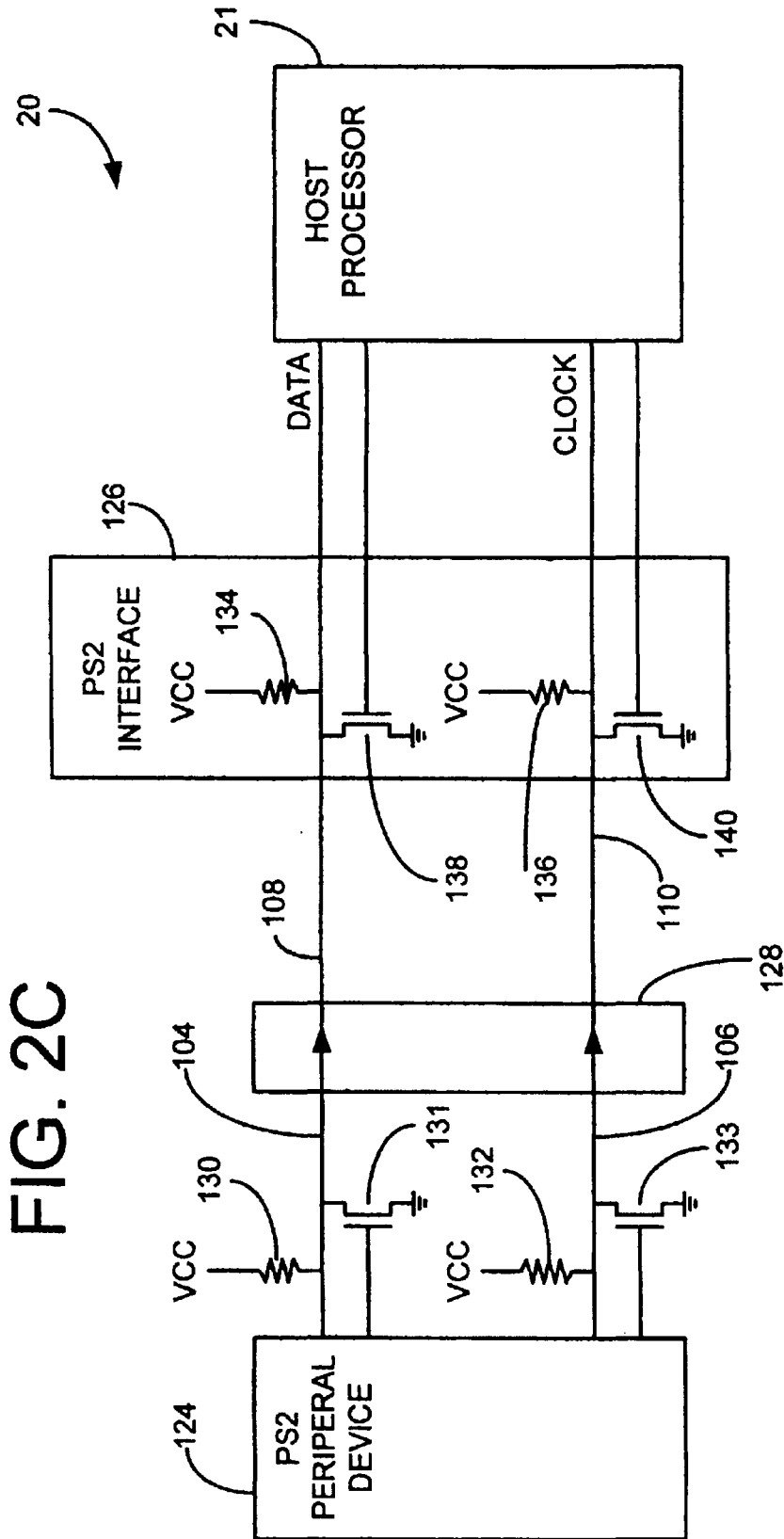


FIG. 2C

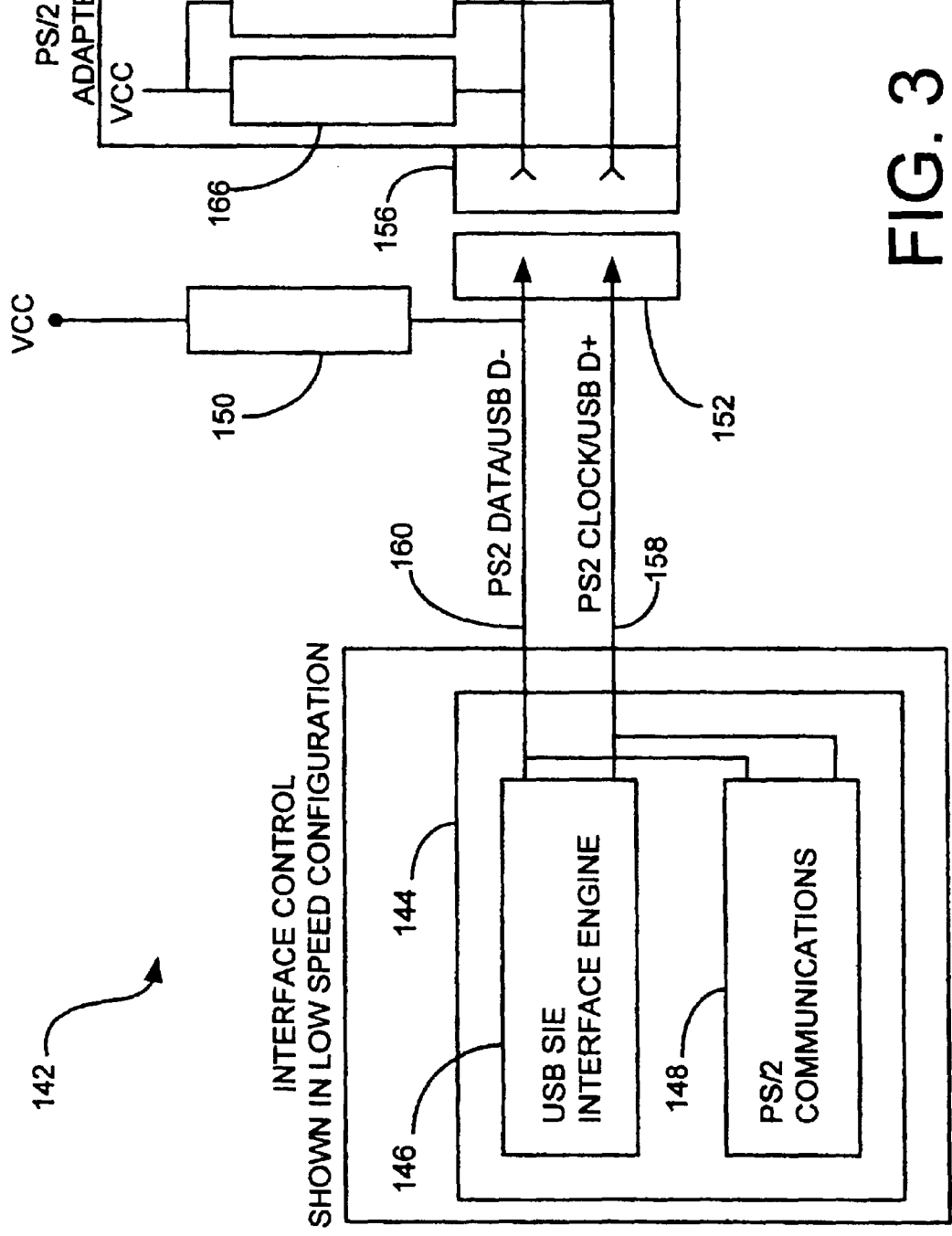


FIG. 3

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