



# United States Patent [19] Staples

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- [54] **PC CARD MODEM WITH MICROPHONE AND SPEAKER CONNECTIVITY**
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- [73] Assignee: **Data Race, Inc.**, San Antonio, Tex.
- [21] Appl. No.: **08/703,444**
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- [51] **Int. Cl.<sup>6</sup>** ..... **H04M 11/00**
- [52] **U.S. Cl.** ..... **379/90.01; 370/93.05; 370/110.01**
- [58] **Field of Search** ..... 379/90.1, 93.05, 379/93.07, 93.14, 93.15, 93.23, 93.37, 110.01; 370/58.1; 365/164; 395/882, 884

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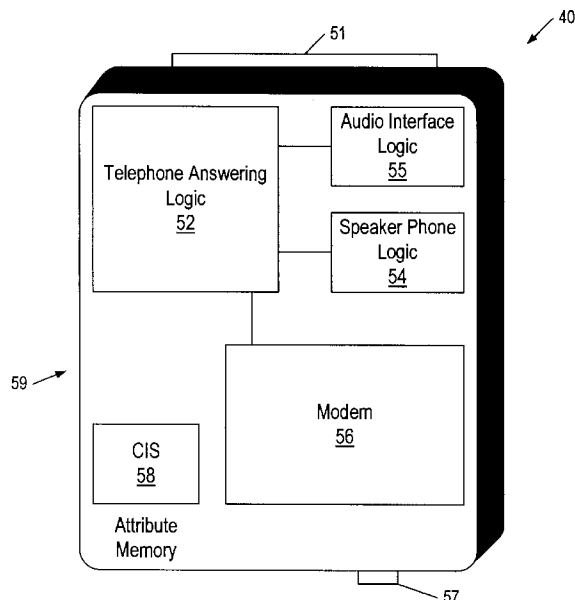
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[57] **ABSTRACT**

The present invention comprises a PC Card adapted for insertion in a PC Card slot in a computer system. The PC Card includes a housing having a PC Card adapter having a plurality of input and output pins for coupling the housing to the PC Card slot and receiving and transmitting signals in said computer system. A microphone is disposed within said housing, as is audio interface logic coupled to the microphone. The audio interface logic is configured to process audio signals from the microphone across said PC Card adapter. The PC card further includes a modem coupled to a connector defining an external communication path and configured to receive telephony signals, and telephone answering logic operably coupled to the modem and audio interface logic and configured to receive telephony signals from the modem and to store data corresponding to the telephony signals. The PC Card further includes speakerphone logic configured to provide speakerphone functionality to the PC Card. In one embodiment, the PC Card also includes a speaker configured to provide an audio output. The audio interface logic interfaces the microphone and/or speaker to the PC Card and the telephone answering and speakerphone logic. In alternate embodiments, the PC Card provides for external microphone and/or speaker connectivity.

**30 Claims, 9 Drawing Sheets**



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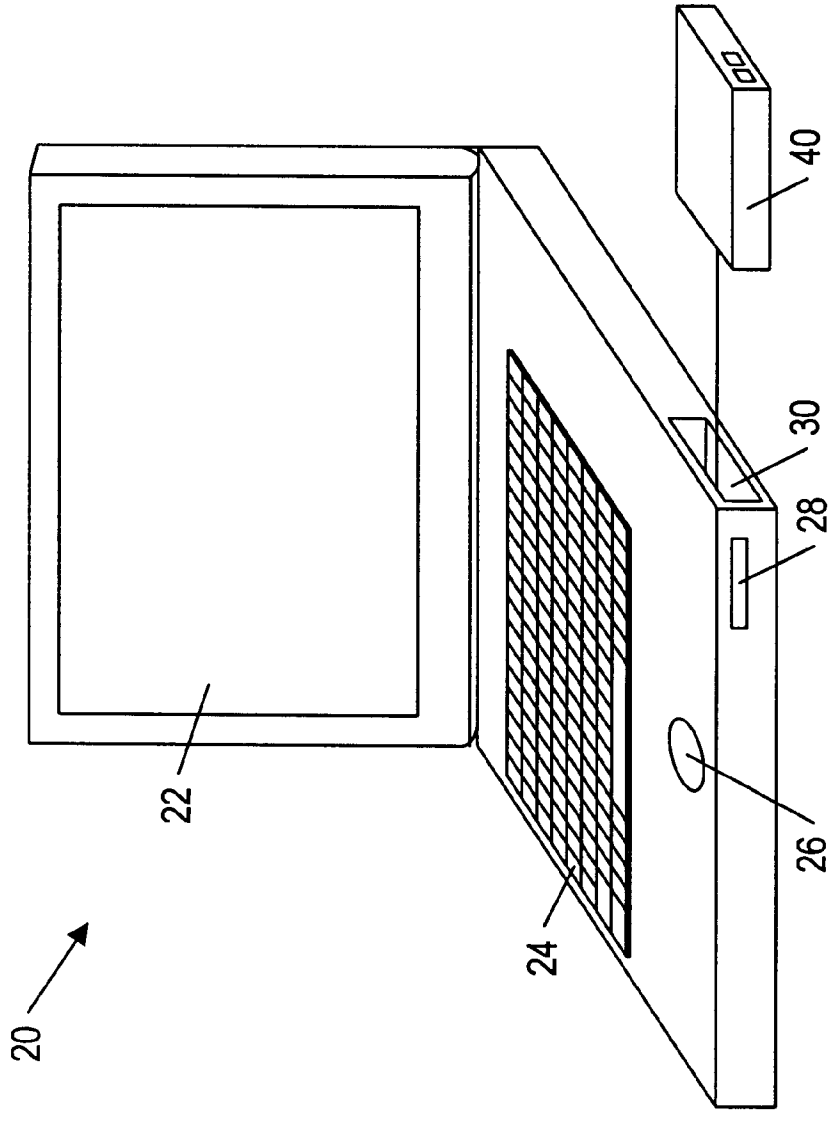


FIG. 1

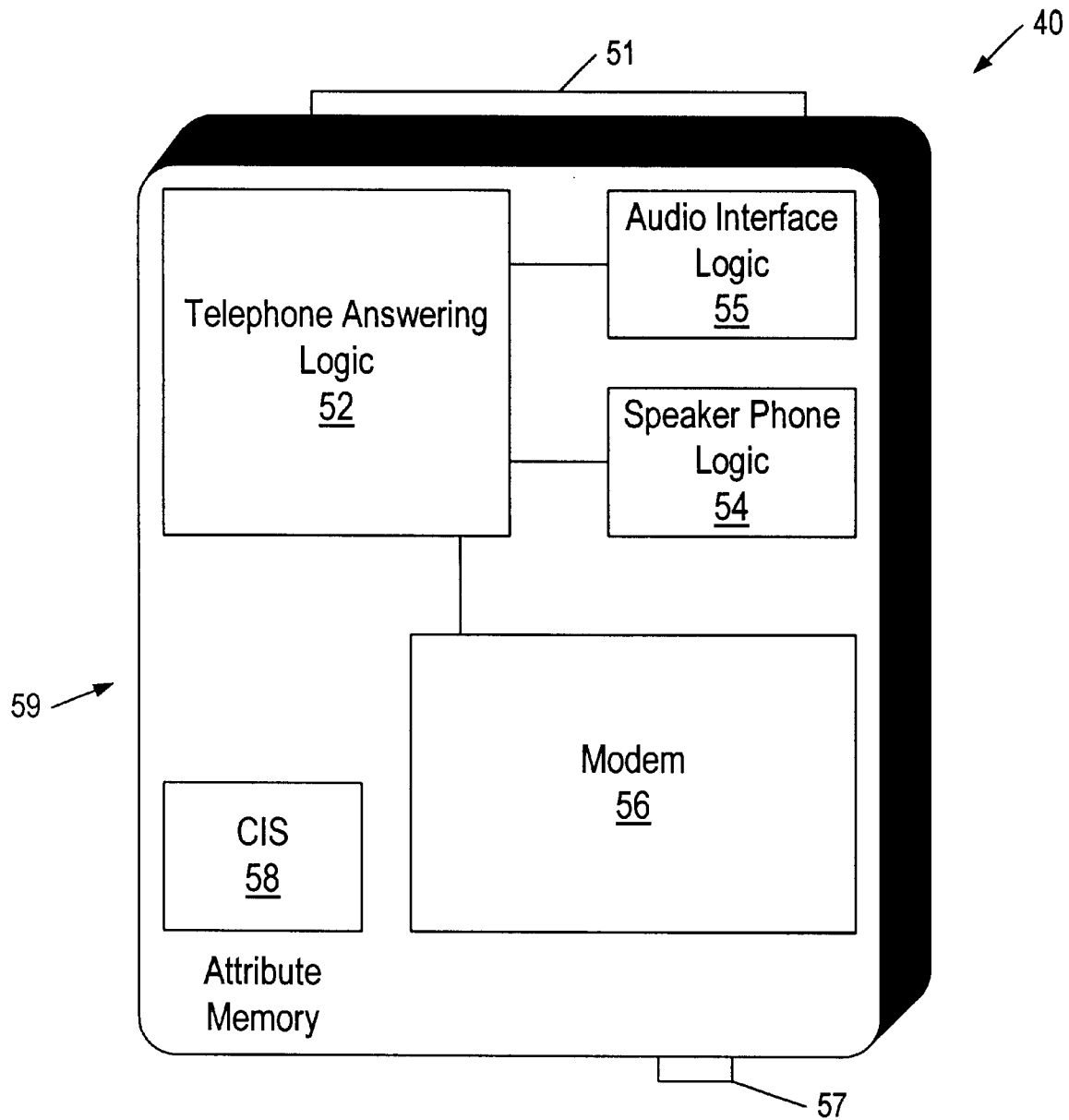


FIG. 2

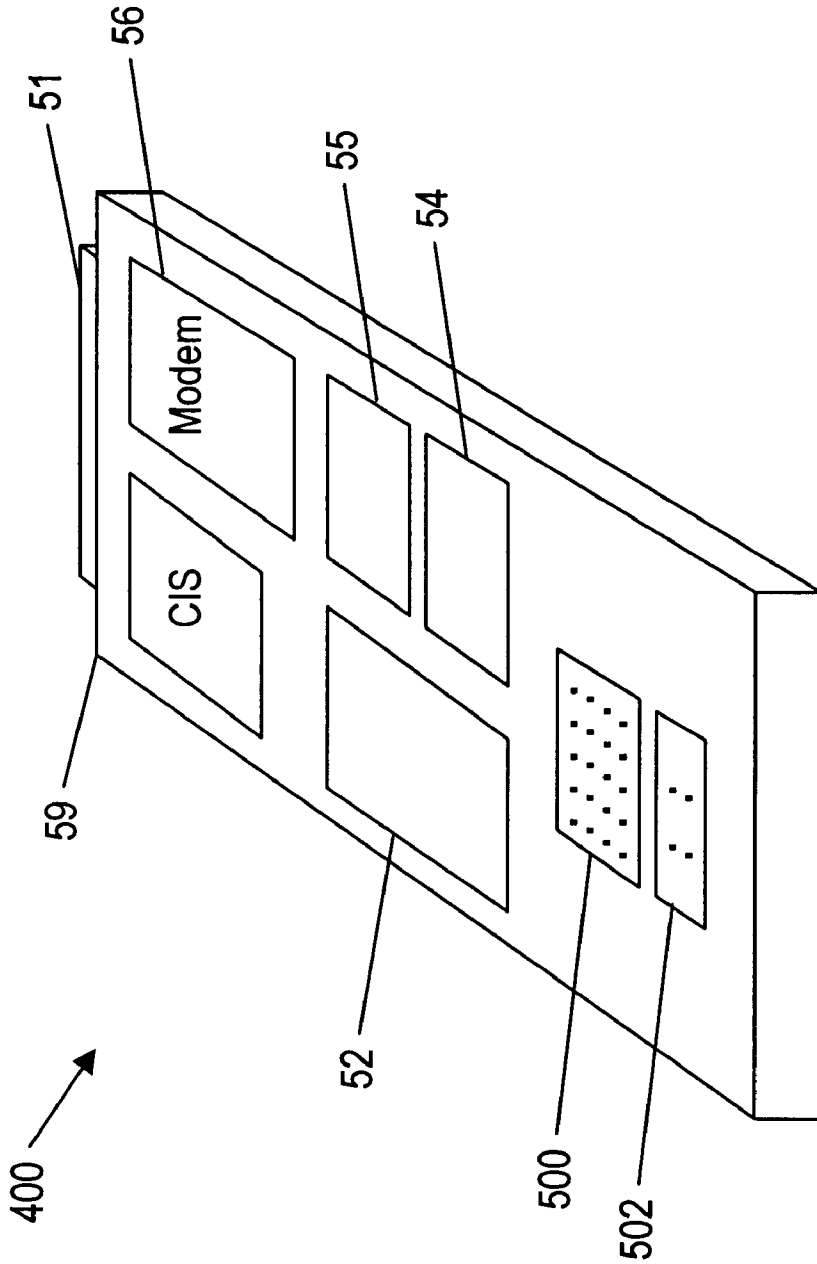


FIG. 2a

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