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Ousley et al.

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(54) **MEASUREMENT DEVICE THAT APPEARS TO A COMPUTER SYSTEM AS A FILE STORAGE DEVICE**

(75) Inventors: **Timothy H. Ousley**, Austin, TX (US);
Mike Muecke, Austin, TX (US);
Robert Watzlavick, Austin, TX (US)

(73) Assignee: **National Instruments Corporation**,
Austin, TX (US)

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Related U.S. Application Data

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(51) **Int. Cl.**
G01D 1/00 (2006.01)

(52) **U.S. Cl.** **702/127; 702/57; 702/77;**
702/121; 702/122; 702/123; 702/188; 702/189;
710/8; 710/72; 710/74

(58) **Field of Classification Search** **702/127,**
702/57, 77, 121-123, 188, 189; 710/8, 13,
710/22, 72-74

See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

5,987,530 A 11/1999 Thomson
6,073,205 A 6/2000 Thomson
6,412,028 B1 * 6/2002 Steed et al. 710/22
6,789,030 B1 9/2004 Coyle et al.

* cited by examiner

Primary Examiner—Marc S. Hoff

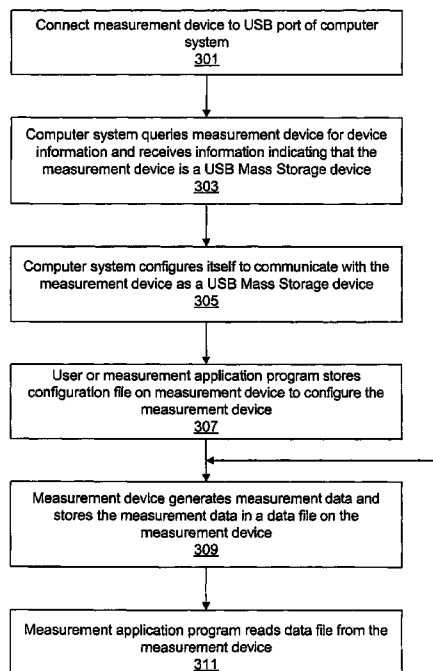
Assistant Examiner—Phuong Huynh

(74) *Attorney, Agent, or Firm*—Meyertons Hood Kivlin Kowert & Goetzel, P.C.; Jeffrey C. Hood; Jason L. Burgess

(57) **ABSTRACT**

A measurement device operable to communicate with a computer system via files. The computer system may receive one or more files created by the measurement device, where the files include measurement data generated by the measurement device and may utilize the files to perform a measurement application. The measurement device may also be operable to receive a configuration file from the computer system and configure or control itself according to commands or settings therein. In one embodiment the measurement device may appear to the computer system as a USB Mass Storage device, and the files created by the measurement device may appear as files stored on a USB Mass Storage device. Thus, the computer system may communicate with the measurement device to obtain the measurement data files in the same standard manner in which it would obtain files stored on any other USB Mass Storage device.

33 Claims, 4 Drawing Sheets



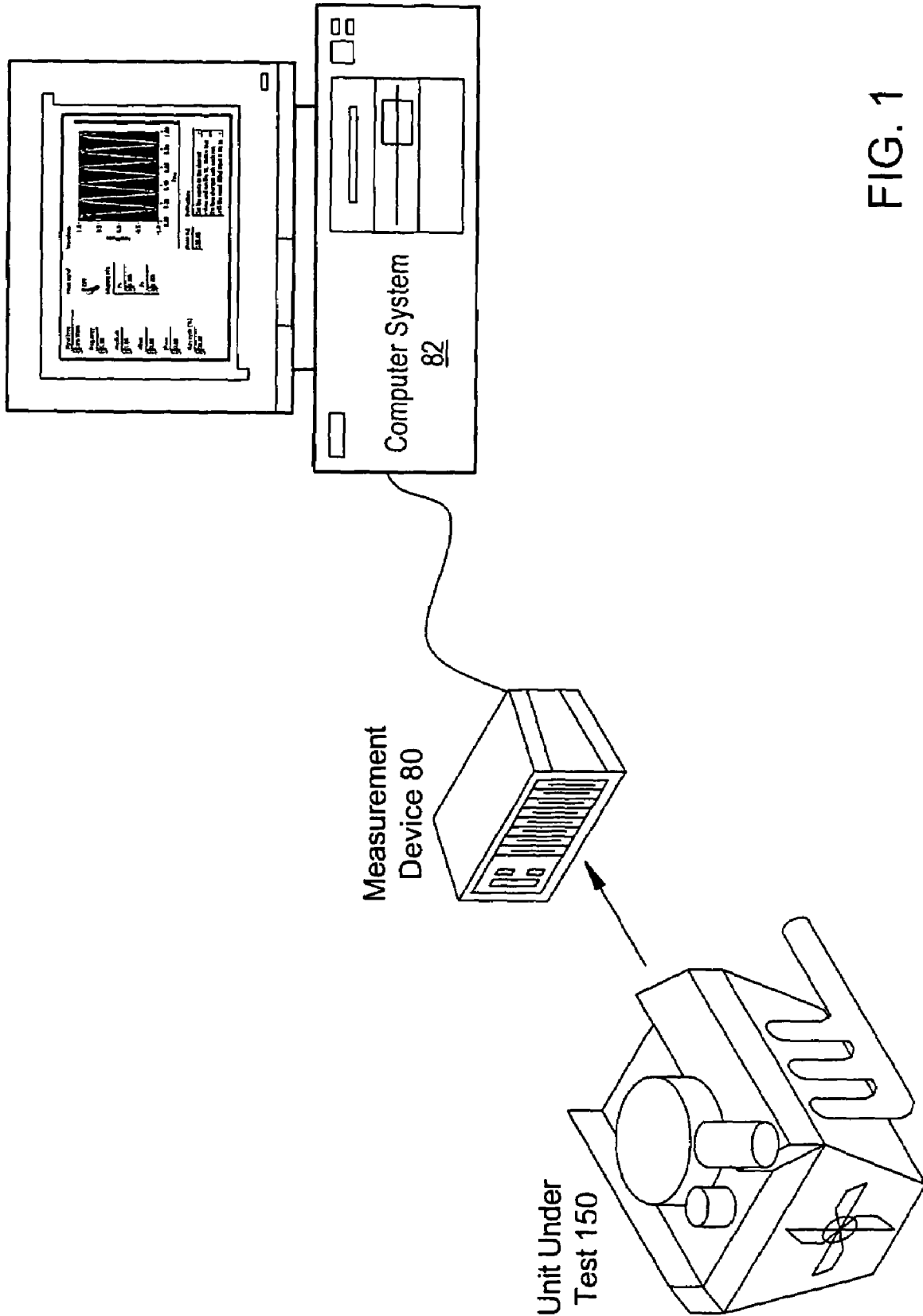


FIG. 1

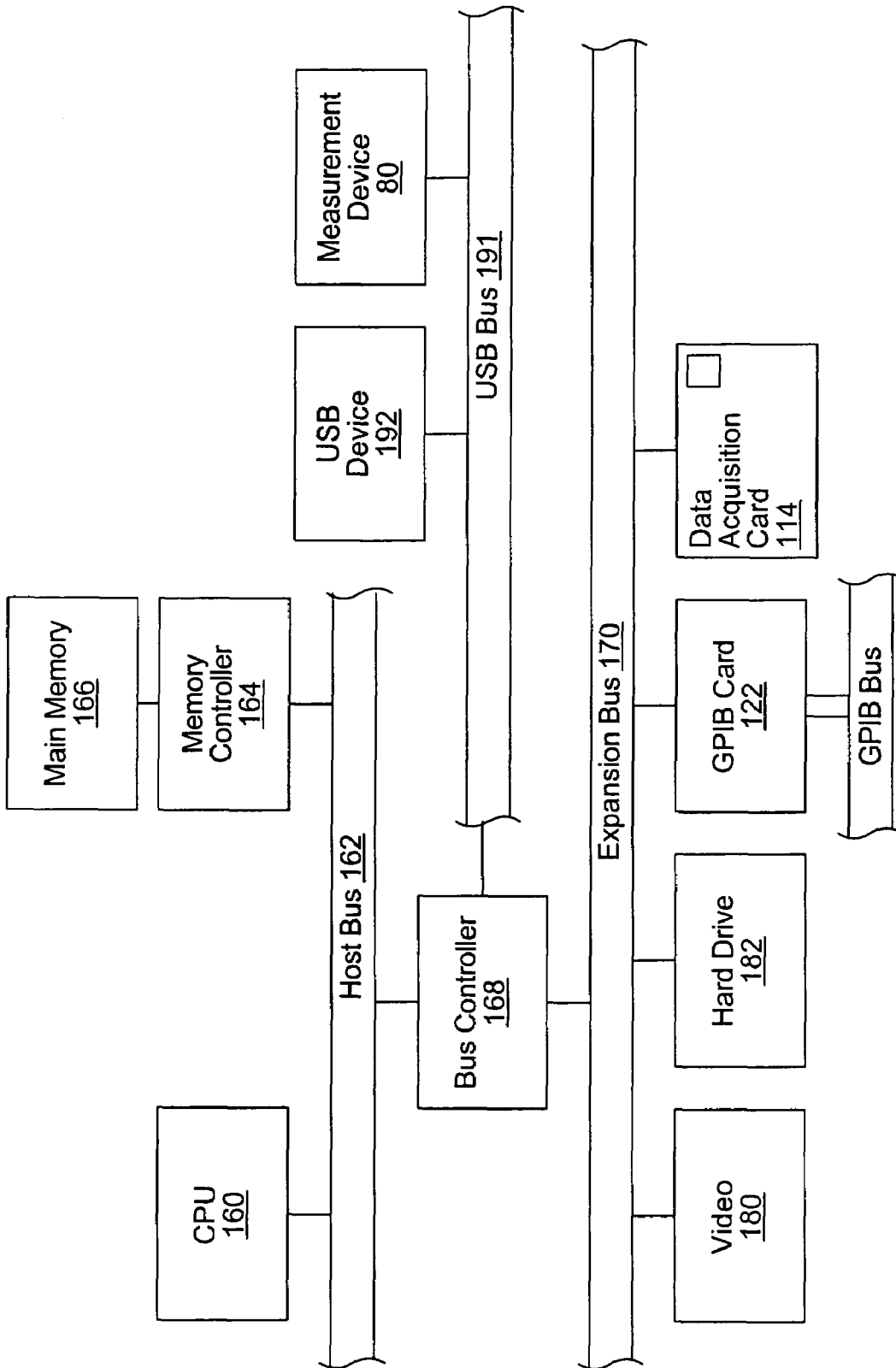


FIG. 2

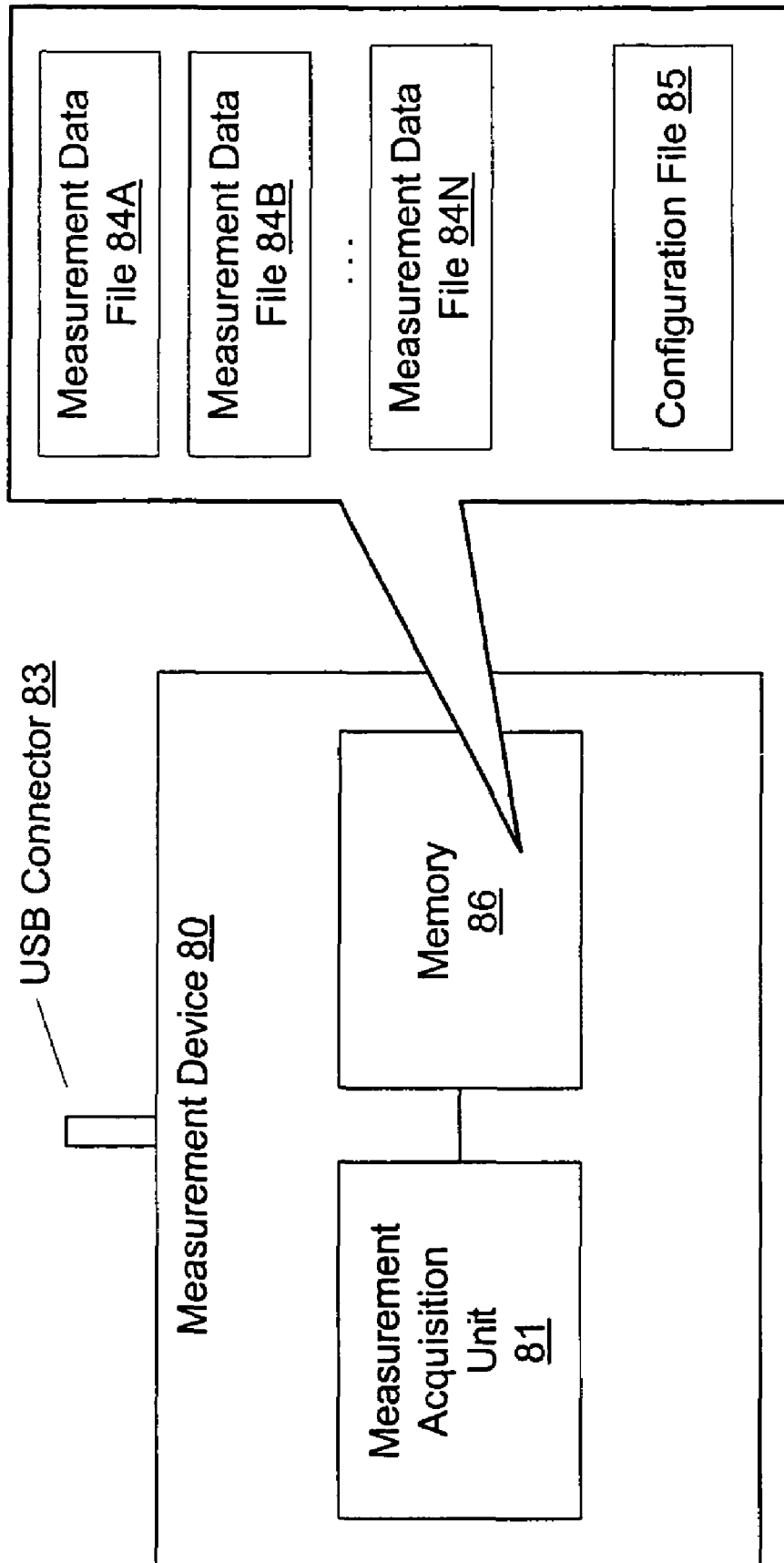


FIG. 3

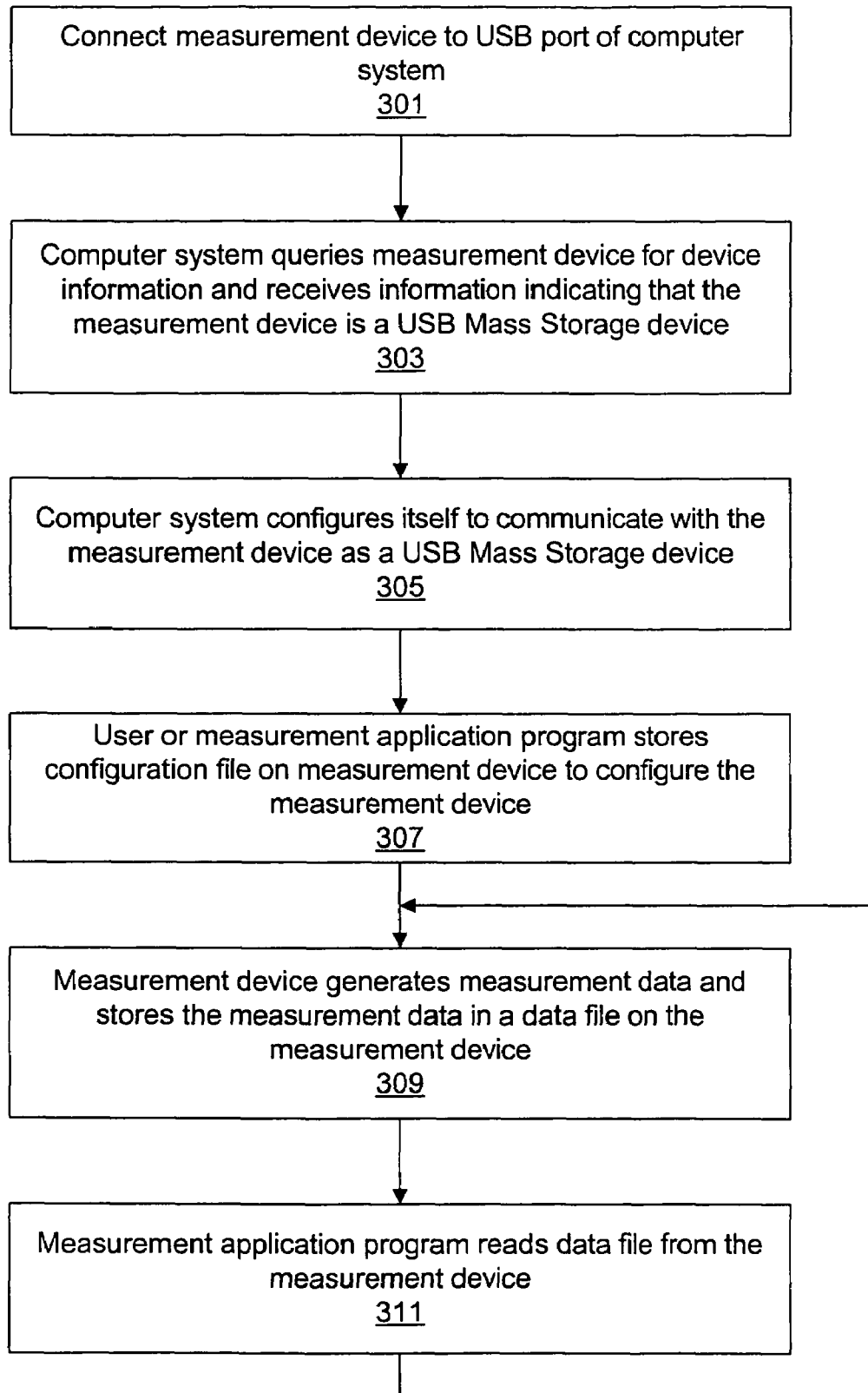


FIG. 4

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