



US 20070239019A1

(19) **United States**

(12) **Patent Application Publication**

**Richard et al.**

(10) **Pub. No.: US 2007/0239019 A1**

(43) **Pub. Date: Oct. 11, 2007**

(54) **PORTABLE ULTRASONIC IMAGING PROBE THAN CONNECTS DIRECTLY TO A HOST COMPUTER**

**Publication Classification**

(51) **Int. Cl.**  
*A61B 8/00* (2006.01)  
(52) **U.S. Cl.** ..... **600/459; 600/443**

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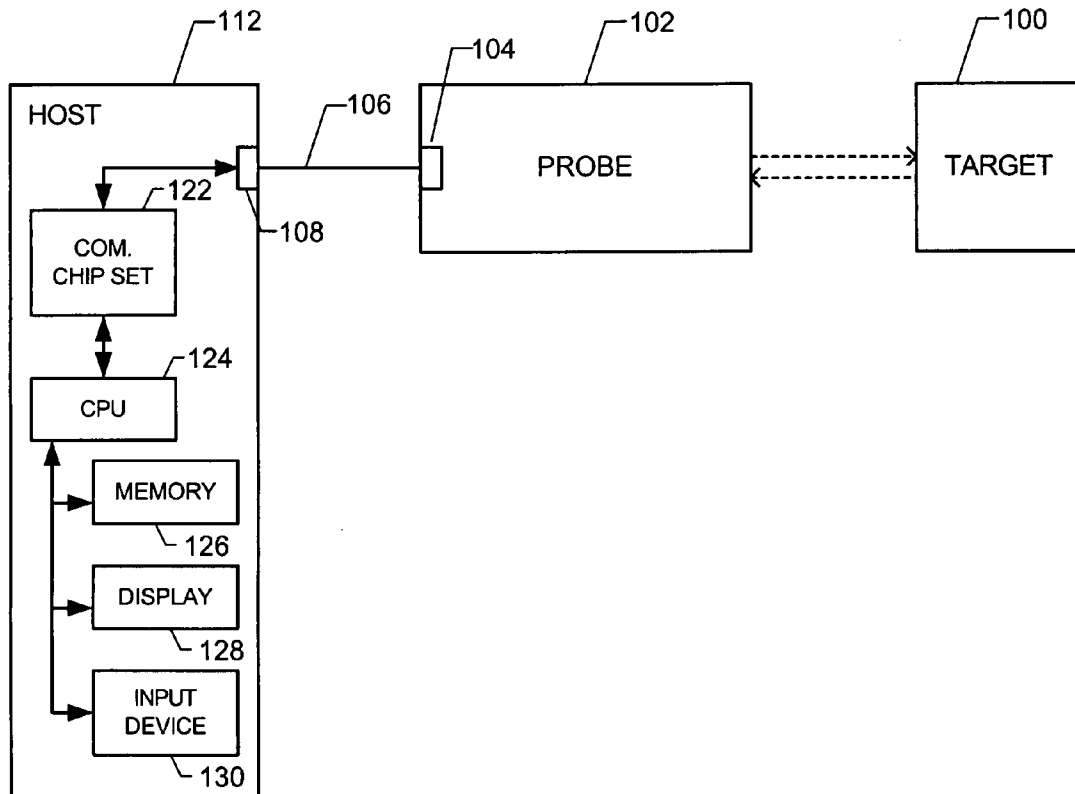
(57) **ABSTRACT**

A portable ultrasonic imaging probe is adapted to connect to a host computer via a passive interface cable, e.g., a standard USB 2.0 peripheral interface cable or a standard IEEE 1394 "Firewire" peripheral interface cable. In accordance with an embodiment, the portable ultrasound imaging probe includes a probe head, a logarithmic compressor, an envelope detector, and analog-to-digital converter and interface circuitry, all of which receive power from the host computer via the passive interface cable. To simplify the portable ultrasonic imaging probe, none of electronic beamforming, time gain compensation, gray-scale mapping and scan conversion are performed within the probe. This abstract is not intended to describe all of the various embodiments of the present invention, or to limit the scope of the invention.

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(21) **Appl. No.: 11/353,185**

(22) **Filed: Feb. 13, 2006**



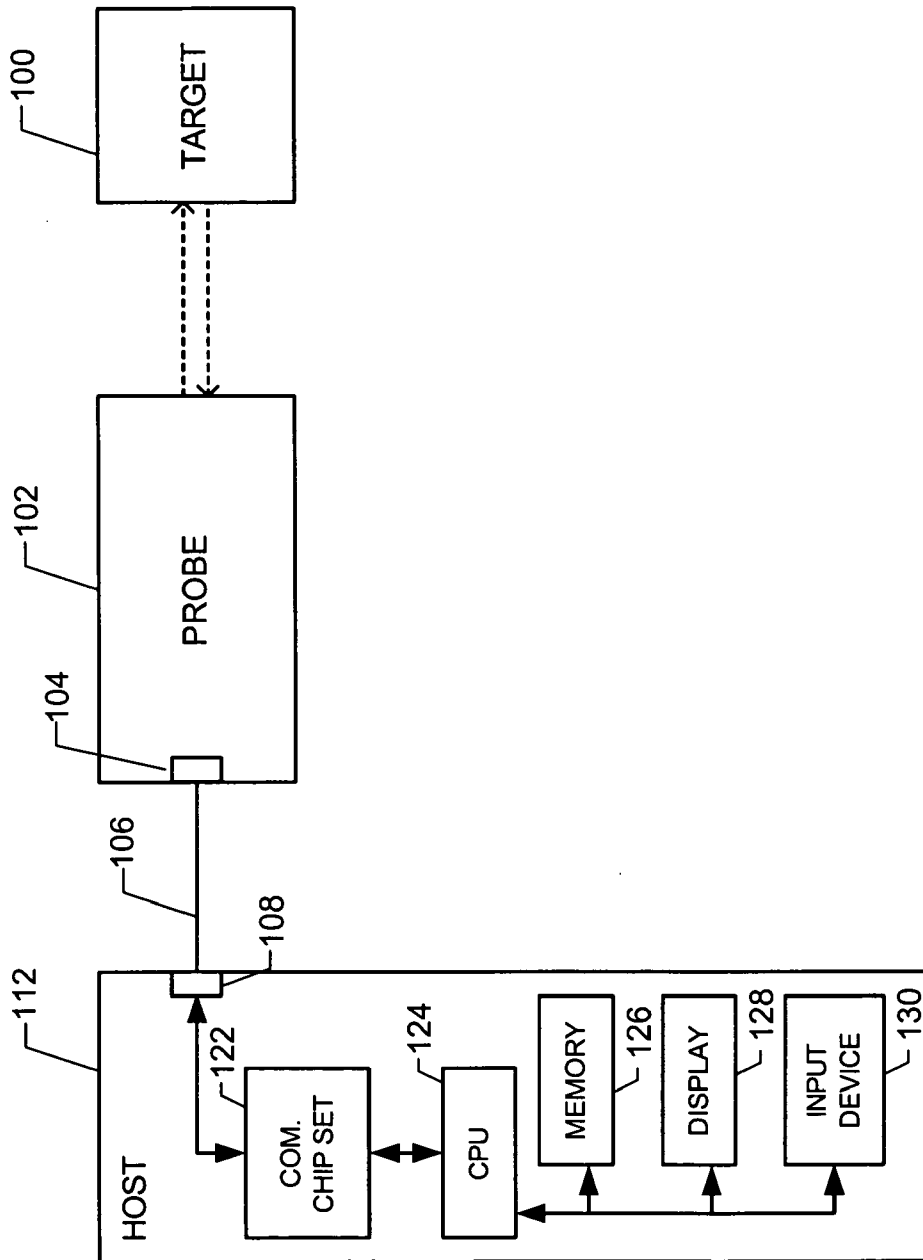


FIG. 1A

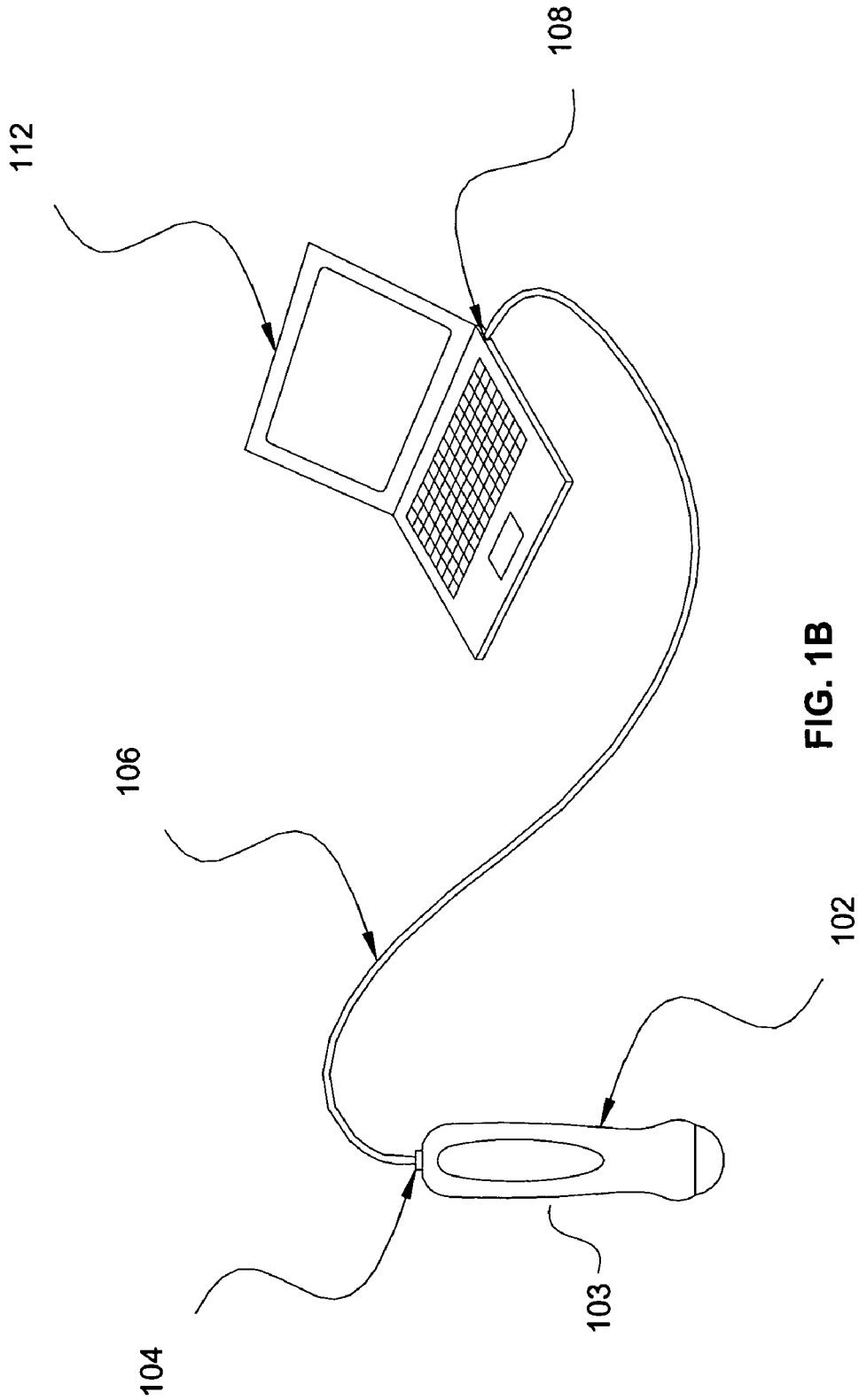


FIG. 1B

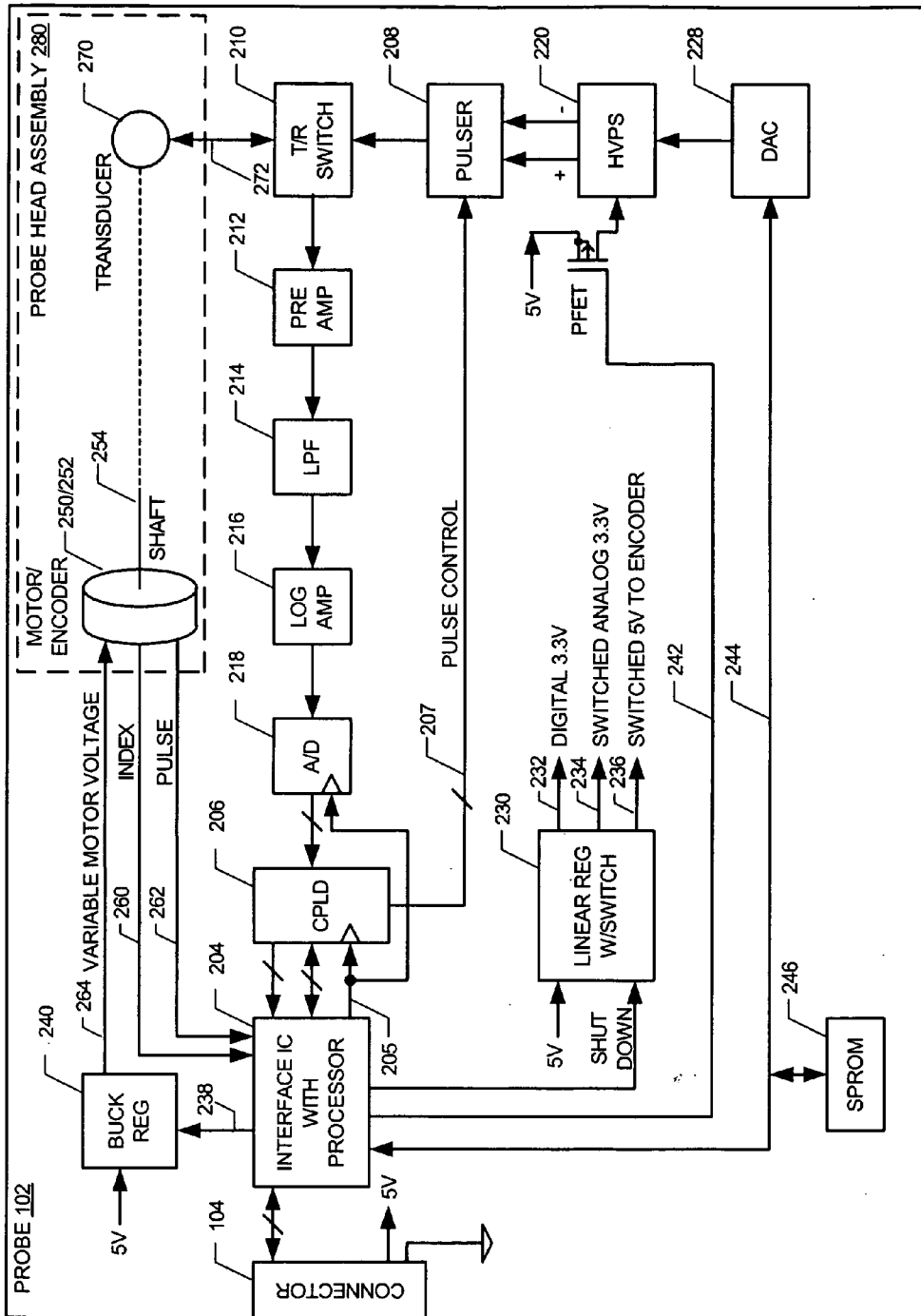


FIG. 2

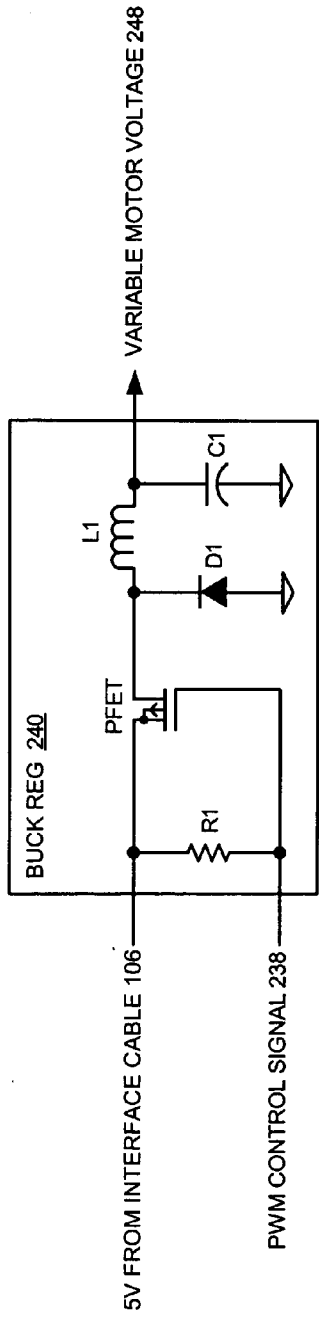


FIG. 3

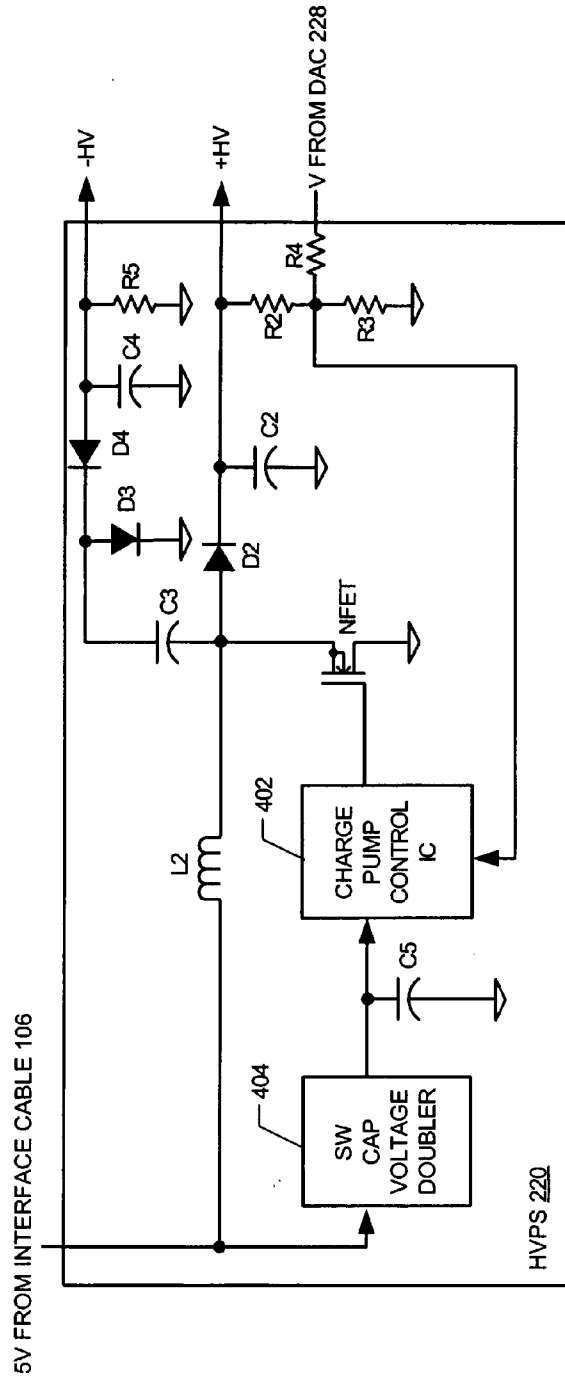


FIG. 4

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