

Exhibit A

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

(10) **Patent No.:** **US 7,804,435 B2**
 (45) **Date of Patent:** **Sep. 28, 2010**

- (54) **VIDEO DECODER WITH REDUCED POWER CONSUMPTION AND METHOD THEREOF** 7,227,847 B2 6/2007 Gluck
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- (75) Inventors: **Greg Sadowski**, Cambridge, MA (US);
George Jacobs, Sterling, MA (US); **Paul Chow**, Richmond Hill (CA)
- (73) Assignee: **ATI Technologies ULC**, Markham, Ontario (CA)
- (*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.
- (21) Appl. No.: **11/469,335**
- (22) Filed: **Aug. 31, 2006**

- (65) **Prior Publication Data**
 US 2008/0055119 A1 Mar. 6, 2008
- (51) **Int. Cl.**
H03M 1/12 (2006.01)
- (52) **U.S. Cl.** **341/155**
- (58) **Field of Classification Search** 341/155,
 341/157, 158; 375/222, 219, 316, 345
 See application file for complete search history.

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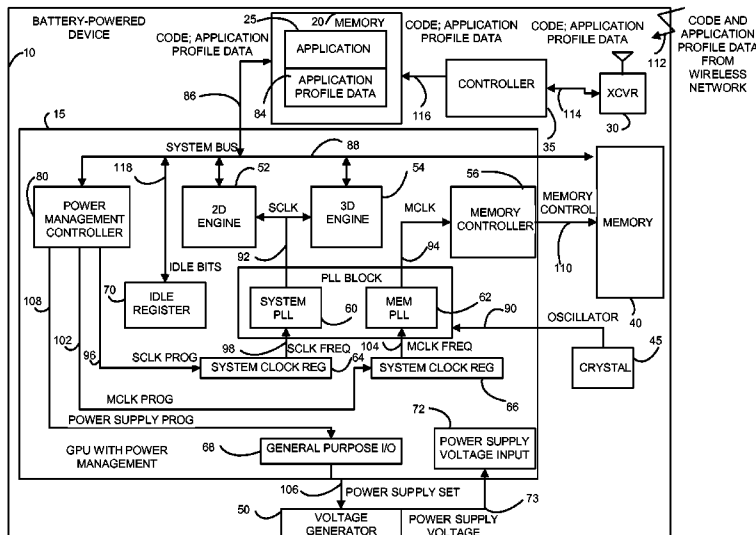
Primary Examiner—Brian Young

(74) Attorney, Agent, or Firm—Vedder Price P.C.

(57) **ABSTRACT**

A video decoder (10) with reduced power consumption includes a power management controller (45) that is operative to select one of a plurality of different power consumption states for a video decoder (10), and, in response to the determination, vary power consumption of at least one operational portion of the video decoder (10). In addition, in one example, a method (200) for reducing power consumption for a video decoder (10) includes determining input stream encoding description data (34) to select one of a plurality of different power consumption states for a video decoder (10) and, in response to the determination, varying power consumption of at least one operational portion of the video decoder (10).

26 Claims, 12 Drawing Sheets



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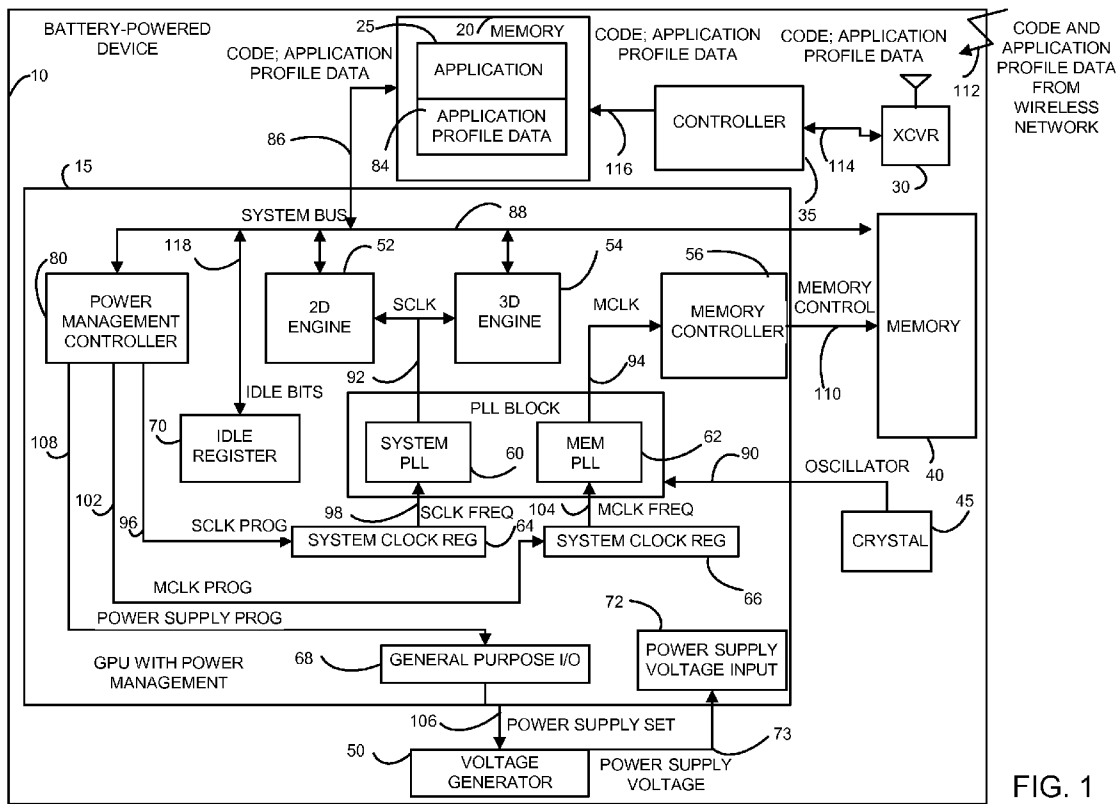


FIG. 1

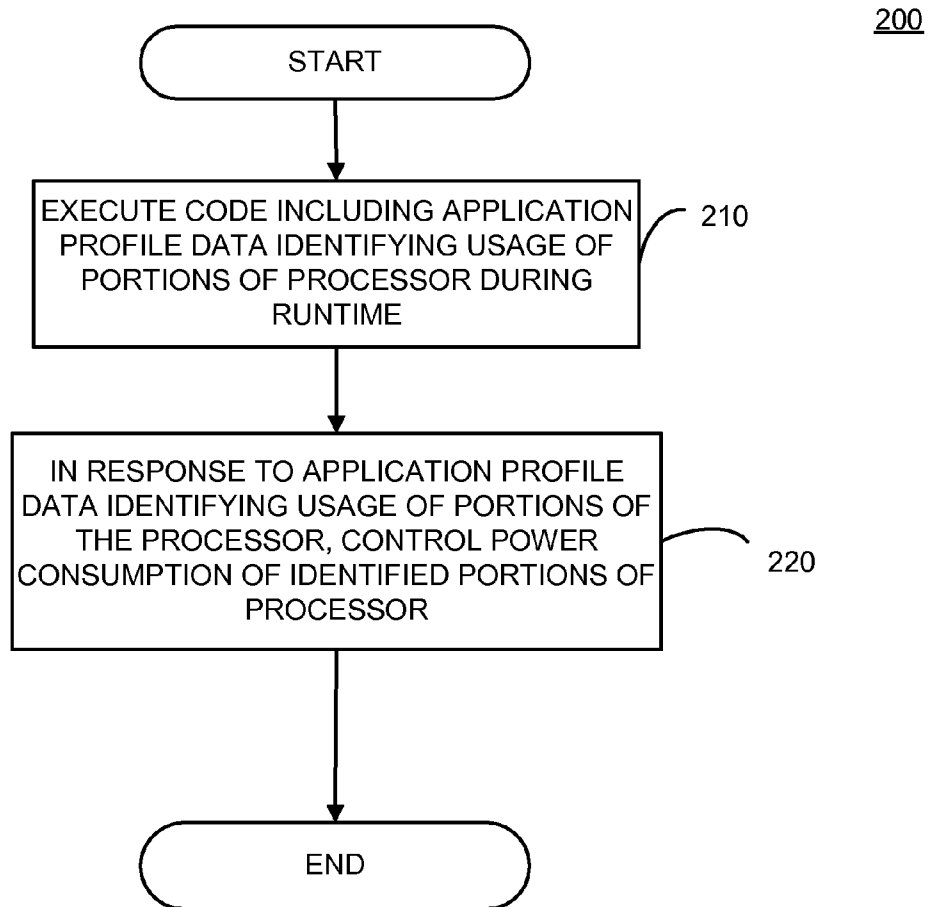


FIG. 2

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