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Cannon et al.

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(54) **UNIFIED PASSCODE PAIRING OF PICONET DEVICES**

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(51) **Int. Cl.**
H04B 7/00 (2006.01)

(52) **U.S. Cl.** **455/41.2**; 455/420; 455/466; 455/456.6; 455/90.1

(58) **Field of Classification Search** 455/426.1, 455/41.1–41.3, 426.2, 466, 518, 519, 520
See application file for complete search history.

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Primary Examiner—Charles R. Craver

(57) **ABSTRACT**

The present invention relates to an application layer function outside the BLUETOOTH protocol which associates a BLUETOOTH unique address, i.e., the 48-bit unique BD_ADDR address, with a short passcode or PIN which is associated with a particular type of BLUETOOTH device in a particular piconet. The passcode or PIN can be pre-determined by the manufacturer of the BLUETOOTH device, or can be input and defined by the user. Upon installation in a piconet, in one embodiment shown and described with reference to FIGS. **1** and **2**, a user can be asked to manually input a particular passcode or PIN into a relevant piconet device, and an inquiry can be broadcast to all communicating piconet devices and only those other piconet devices having a matching passcode or PIN associated therewith can automatically forward their respective 48-bit unique BD_ADDR addresses to the inquiring piconet device. Alternatively, a user can inquire and be provided with a list of available passcodes or PINs already established by other devices in the piconet, and select a particular passcode or PIN associated with one or more other piconet devices. The passcode or personal identification number (PIN) may be input upon electronic device setup (e.g., a four character code). The passcode or PIN may be numeric, text, or alphanumeric.

14 Claims, 6 Drawing Sheets

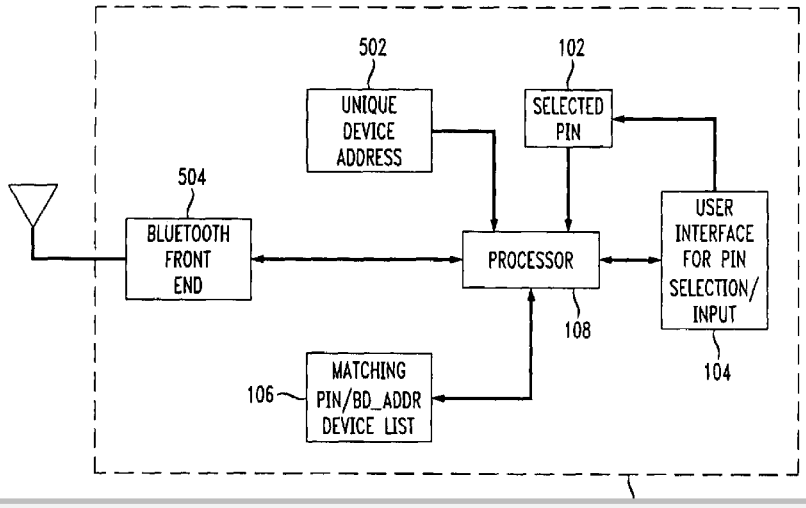

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FIG. 1

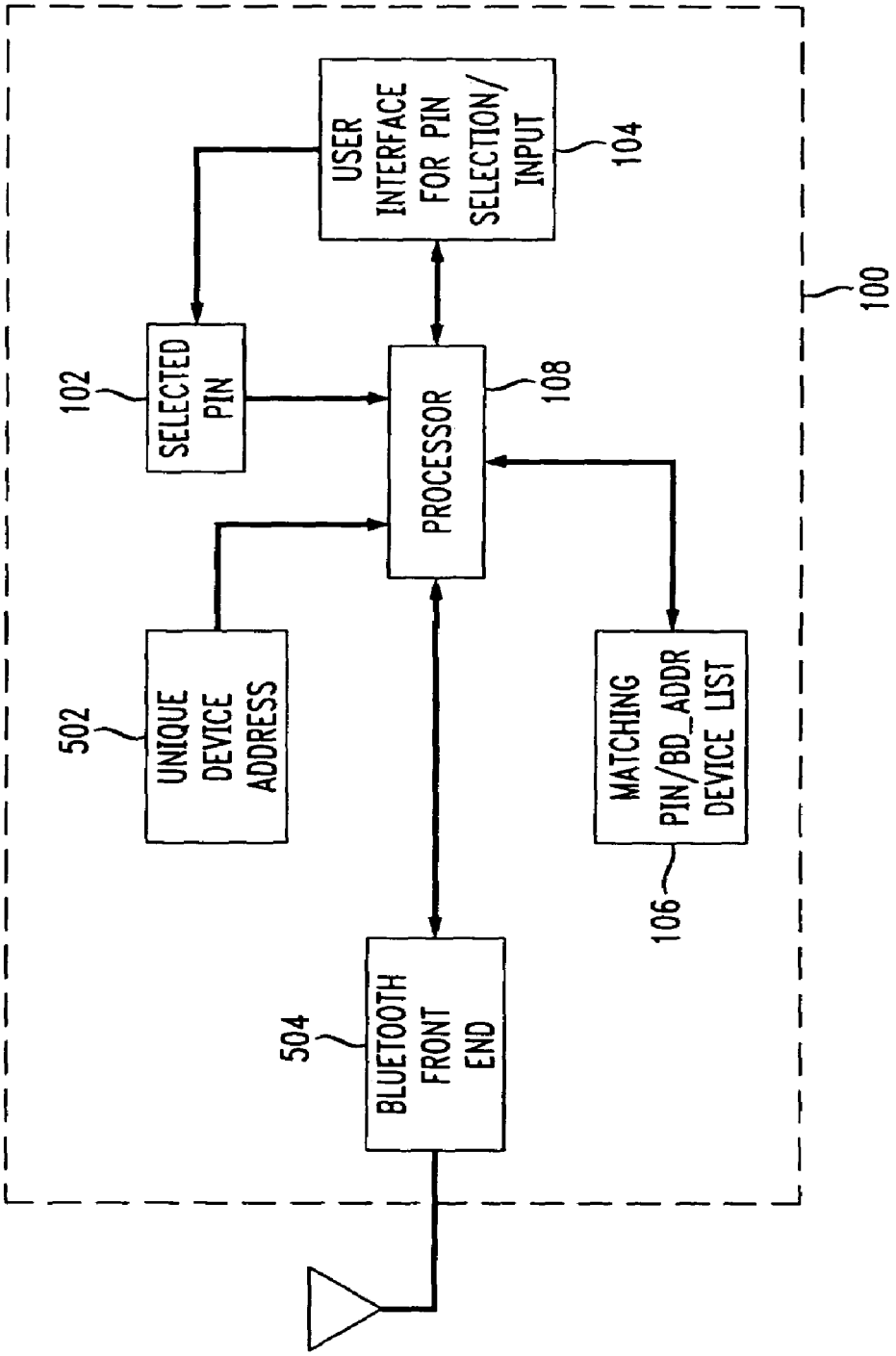

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FIG. 2

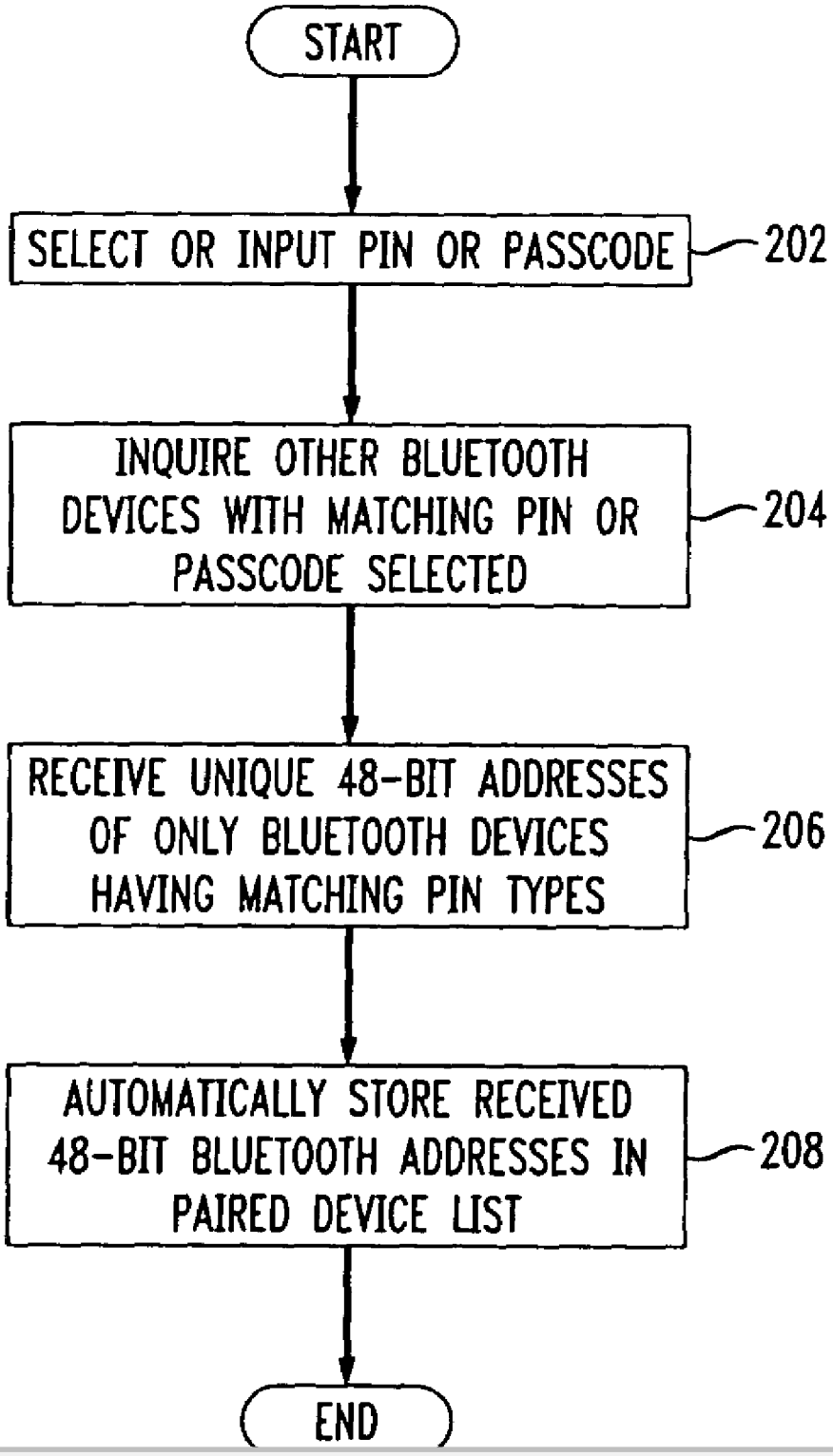

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FIG. 3

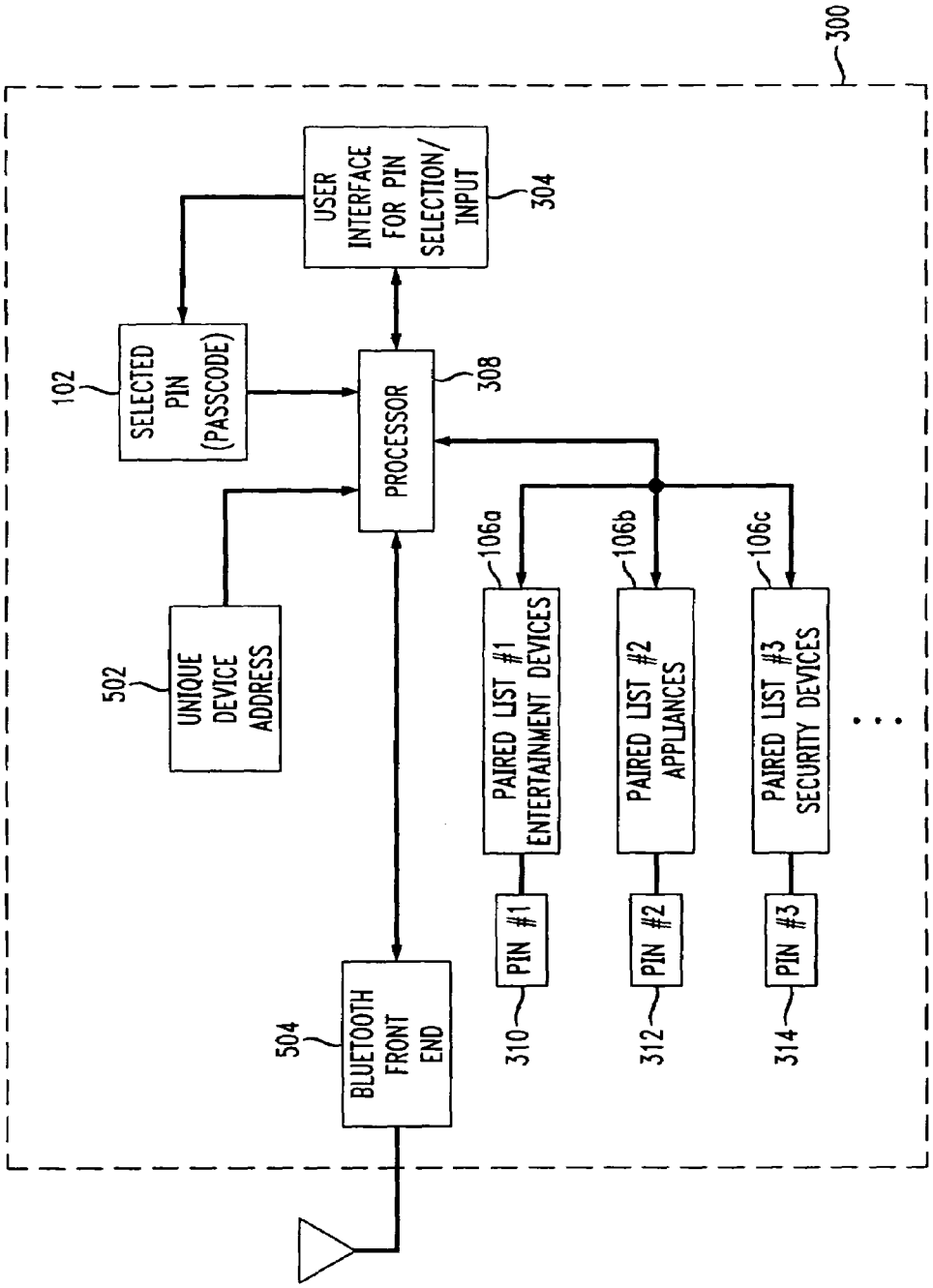

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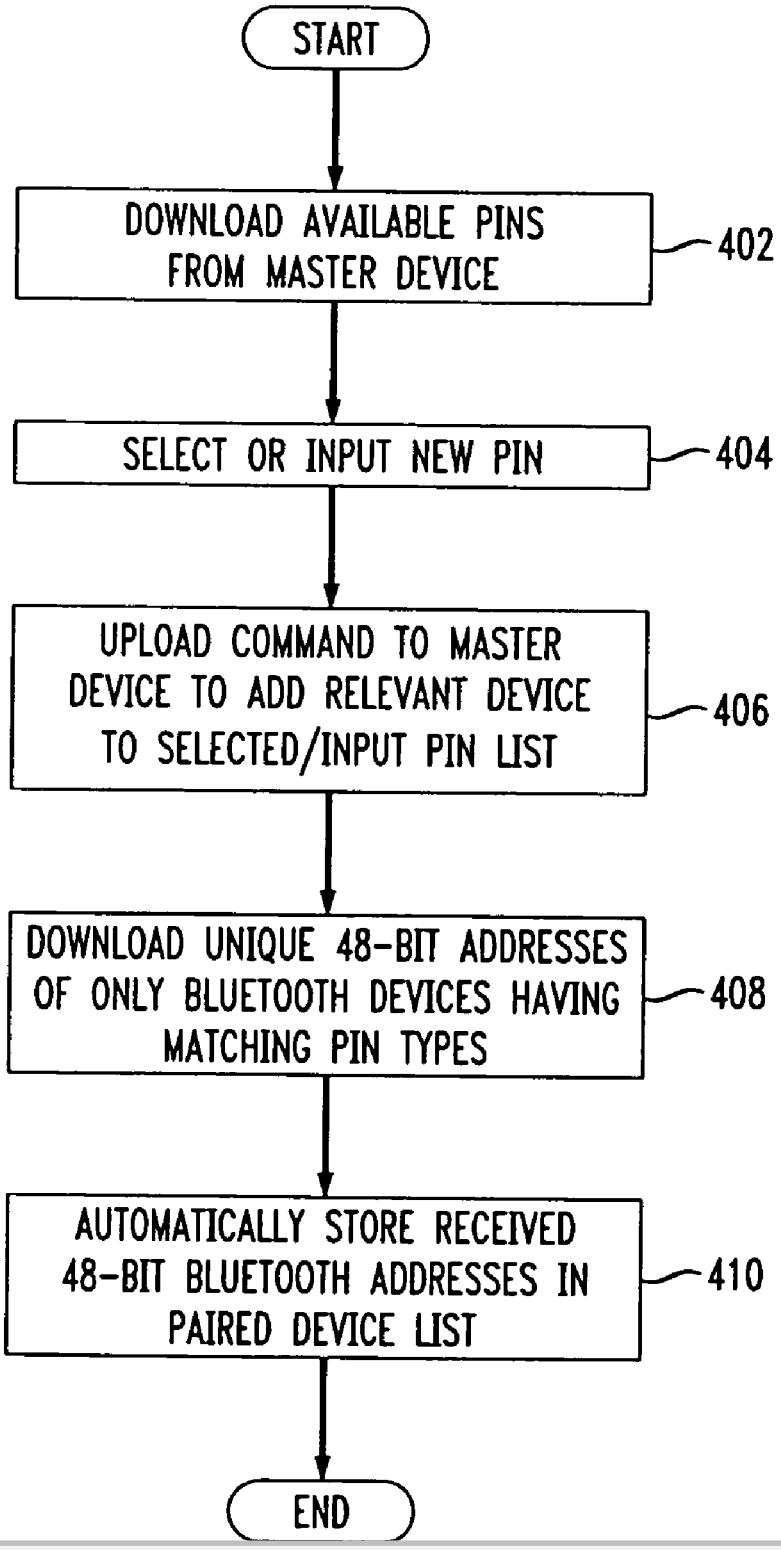
FIG. 4



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