

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re *Inter Partes* Review of:)
U.S. Patent No. 7,329,970)
Issued: Feb. 12, 2008)
Application No.: 11/480,868)
Filing Date: July 6, 2006)

For: **Touch Sensor And Location Indicator Circuits**

FILED VIA PRPS

**REPLY DECLARATION OF PAUL BEARD IN SUPPORT
OF PETITION FOR *INTER PARTES* REVIEW
OF U.S. PATENT NO. 7,329,970**

I, Paul Beard, resident of Bigfork, Montana, hereby declare as follows:

1. I previously provided a declaration in support of Apple Inc.'s ("Apple") petition in IPR2015-01173 challenging the validity of U.S. Patent No. 7,329,970 (the "970 Patent"). (Ex. 1003, "Beard Decl.").

I. THE BEARD REFERENCE'S INFRARED TRANSCEIVER AND INTERFACE CIRCUITRY

2. Figure 11 of U.S. Patent No. 5,898,290 (Ex. 1005 ("Beard")) depicts an "infrared transceiver," labeled 235, and associated "interface circuitry," labeled 233, in the battery pack 201. This infrared transceiver can be used to receive the "peak, minimum and typical loading characteristics" of the portable electronic device 203 when the battery pack is inserted into the device. (Beard at 11:52-57.) It can also be used to transmit "battery capacity information" from the battery pack to the device. (*Id.* at 10:26-30.)

3. Like all active electronic components, infrared transceiver 235 consumes energy when it is used. Interface circuitry 233 also consumes energy when it is used.

4. As depicted in Figure 11, infrared transceiver 235 receives power from the batteries 231. Interface circuitry 233 also receives power from the batteries 231.

5. Also as depicted in Figure 11, infrared transceiver 235 and interface circuitry 233 receive power from the batteries 231 under control of the control

circuitry 223. The control circuitry 223 is located between the batteries 231 and the interface circuitry and transceiver.

6. A person of ordinary skill in the art reviewing Figure 11 and the associated text in columns 11 and 12 would understand that, while not a claimed feature in the Beard patent, the arrangement of the control circuitry, batteries, infrared transceiver and interface circuitry indicates that the control circuitry controls power from the batteries to the transceiver and interface.

7. In addition, it would have been obvious to implement control circuitry 223 to control power from the batteries 231 to the interface circuitry 233 and the infrared transceiver 235. In Figure 11 of Beard, the control circuitry is located between the batteries and both the interface circuitry and infrared transceiver. Based on this configuration, it would have been obvious that the control circuitry could be used to control power from the batteries to the transceiver. For example, it would have been obvious to use the control circuit to control power to the infrared transceiver in order to control data transmission.

II. THE BEARD REFERENCE'S TIMING CIRCUIT

8. Beard discloses in column 10 a “timing circuit” that is used to automatically deactivate a display after ten seconds, when the display is activated by a user pressing the touch sensor. (Beard at 10:51-54.) The “timing circuit” “prevents the contact 155 from holding the display 157 and associated circuitry in

an active state from more than a ten (10) second interval.” (*Id.*) “After the ten second display period, deactivation occurs whether or not the contact 155 is being touched.” (*Id.* at 10:54-56.)

9. This “timing circuit” is activated when the user presses the “touch contact 155.” (Beard at 10:48-50.) The touch contact sends an activation signal, via the control circuitry, which activates the display and the timing circuit.

10. This timing circuit is automatically deactivated after ten seconds. The timing circuit “prevents the contact 155 from holding the display 157 and associated circuitry in an active state from more than a ten (10) second interval.” At the conclusion of this ten second interval, both the display and the timing circuit are automatically deactivated. The timing circuit is deactivated, among other reasons, to preserve battery power.

Executed on June 4, 2016 in Bigfork, Montana.



Paul Beard