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(54) **WIRELESSLY POWERED BATTERY PACK FOR RETROFIT IN BATTERY POWERED DEVICES**

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(57) **ABSTRACT**

A device charging system includes a legacy battery-powered electronic device configured for wired-only charging and a wireless charging enabled battery pack. The wireless charging enabled battery pack may contain one or more battery cells as well as a power management integrated circuit (IC) configured to manage charging of the battery cells. The wireless charging enabled battery pack also contains a wireless power module to receive power wirelessly from a WPT (wireless power transfer) power source outside of the legacy device. In keeping with embodiments of the disclosure, a pack microcontroller in the battery pack interfaces to the legacy device, presenting an interface consistent with a wired-only charged battery pack.