

ABSTRACT

The present disclosure discloses an electronic shelf label system, relating to the field of shelf labels. The system includes: an energy transducer, a transducer reverse protection circuit, a primary battery, a primary battery reverse protection circuit, and an electronic shelf label main body module. The electronic shelf label main body module includes a MCU. The MCU sends a first control signal to the primary battery reverse protection circuit to control power supply from the primary battery. The energy transducer converts at least one type of energy into electrical energy to supply power to the electronic shelf label main body module. The transducer reverse protection circuit prevents current backflow from the electronic shelf label system to the energy transducer. The primary battery supplies power to the electronic shelf label main body module according to a second control signal. The primary battery reverse protection circuit prevents charging of the primary battery by the transducer or other energy sources. The present disclosure provides, for electronic shelf labels, a long-life and flexibly deployable multi-power supply system in which a plurality of clean energy sources are complementary to a primary battery.