

equal to the nominal battery voltage for more than one half of a total number of cycles counted.

[0005a] In another aspect, there is provided a logic circuit configured to stabilize battery voltage of a battery device while optimizing power delivered to a receiver during communication of a broadcast packet, the logic circuit comprising:
a processor configured to receive a broadcast packet having a predetermined number of bits for communication by a controller to a receiver located remotely from the controller;
determine a number of cycles in which a sampled battery voltage is either greater than or less than or equal to a nominal battery voltage over a first subset of the predetermined number of bits of the broadcast packet; and perform a either a tune-up or tune-down procedure based on the number of cycles counted in which the sampled battery voltage is not equal to the nominal battery voltage for more than one half of a total number of cycles counted.

[0005b] In yet another aspect, there is provided a communication system, comprising:
a processor configured to stabilize a voltage potential generated by an event indicator while optimizing power delivered to a receiver during communication of a broadcast packet by the event indicator to the receiver, the broadcast packet having a predetermined number of bits; and
an event indicator system with dissimilar metals positioned on opposite ends, wherein the event indicator is configured to generate a voltage potential when the dissimilar metals positioned on opposite ends dissolve in a conducting fluid;
wherein the processor is further configured to:
determine a number of cycles in which a sampled voltage potential is either greater than or less than or equal to a nominal voltage potential over a first subset of the predetermined number of bits of the broadcast packet;
perform a either a tune-up or tune-down procedure based on the number of cycles counted in which the sampled battery voltage is not equal to the nominal battery voltage for more than one half of a total number of cycles counted.

FIGURES

[0006] FIG. 1 is a block diagram representation of one aspect of an event indicator system with dissimilar metals positioned on opposite ends.

[0006] FIG. 2 is a block diagram illustration of one aspect of a control device used that may be employed in the system of FIG. 1.

[0007] FIG. 3 is a block diagram of one aspect of an event indicator system in communication with a receiver.

[0008] FIG. 4A illustrates one aspect of a beacon switching module providing a sniff period longer than a transmit signal repetition period.

[0009] FIG. 4B illustrates one aspect of a beacon switching module providing a short but frequent sniff period and a long transmit packet are provided.

[0010] FIG. 5 illustrates one aspect of a decision logic for an automatic calibration process.

[0011] FIG. 6 illustrates one aspect of a decision logic for an automatic calibration tune-up process.

[0012] FIG. 7 illustrates one aspect of a decision logic for an automatic calibration tune-down process.

[0013] FIG. 8 illustrates one aspect of a battery availability determination circuit to determine the availability of battery power prior to the ingestible communication device entering a high current draw mode of operation.

[0014] FIG. 9 illustrates a circuit diagram for providing a negative terminal connection that can be placed on the top side of a wafer that is activated only during test modes and is left in a high impedance state during all other modes of operation.

DESCRIPTION

[0015] Before explaining various aspects of apparatuses, systems, and methods for adaptively optimizing power dissipation and broadcast power in a power source for a communication device in detail, it should be noted that the aspects of such techniques disclosed herein are not limited in application or use to the details of construction and