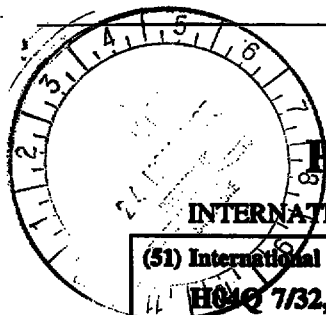




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(54) Title: BATTERY-POWERED RADIO TRANSCEIVER WITH IMPROVED BATTERY LIFE AND METHOD OF OPERATION

(57) Abstract

The present invention provides a battery-powered radio transceiver for transmitting and receiving digital signals and method of operation for reducing electrical power consumption and thereby improving battery life between recharges. The radio transceiver includes an operator interface and a transmitter, electrically connected to a microphone in the operator interface, to convert speech signals into digital radio frequency (RF) signals for transmission. A receiver is electrically connected to a speaker in the operator interface to receive digital RF signals and to convert the RF signals into audio signals from the speaker. A microprocessor electrically connected to the operator interface, the transmitter and the receiver controls the operation of these components in processing telephone calls. An electrical storage battery is electrically connected to the microprocessor to supply electrical power to the microprocessor, the operator interface, the transmitter and the receiver via the microprocessor. An antenna assembly is connected to the transmitter and the receiver for transmitting and receiving the RF signals. The transmitter comprises a digital signal processor which is programmed to de-energize at least some of its components and to generate an artificial noise signal for transmission when speech is not being received by the microphone.