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Abstract
This thesis involves the development which is based on embedded physiological measurement system, and that is designed for the system developer take able to design and to test easily. In this thesis, the examples from this system were based on the non-invasive method to detect the physiological signal, including pulse-sensing reading or electrogastrography(ECG) recording. Besides, the system can change other application easily by replacing the sensors and signal processing circuit. The system is based on a Cypress Programmable System on Chip (PSOC). The filters, amplifiers, interface module, signal processing are easy to be used by the Integrated Develop Environment. Besides, the two designed examples were analyzed in this thesis.
The communication interface RS-232C, Universal Serial Bus(USB) and Bluetooth module were designed in these system. The measured signal can be transmitted and received between the system and computer. Besides, the system were verified by Tektronix oscilloscope and National Instrumentation USB-6251 Data acquisition card.
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