EnviroSen
For a future more sensitive to the environment.

eCONTROL-I

Control and Power Management Module

Features

- Connectivity: Bluetooth 2.1+EDR, USB 2.0
- Charging: Wireless Qi Compliant, MicroUSB
- Battery: 3-pin Single-Cell Li-on
- 5V or 8V Configurable, 3.3V Digital
- Battery Time: 6 Hrs at 1350 mAh on Normal Use
- Data Storage: 32MB
- PCB Dimensions: 70.6(2.78) x 31.7(1.25) mm(in)

Temperature Sensing

- Sensor Attachment: 4x PT1000 RTDs
- 4 Hz Sampling/Channel or 16 Hz for 1 Channel
- Temperature Range: -20°C - 100°C
- Precision: 0.01°C
- Accuracy: ±0.05°C

Applications

- Electrochemical Sensing
- DNA/Protein Sensing
- Assay Automation
- Microfluidics
- Environmental Monitoring

Description

The eCONTROL-I acts as the communications and power management hub for the other modules of the eSEN-II family. The module can interface with smartphones and tablets over Bluetooth and with computers through USB. It uses a single-cell Lithium-ion Battery to power the rest of the modules, and recharging can be done through MicroUSB or wireless charging. Data storage capabilities allows for at least twenty minutes of amperometric or potentiometric sensing at the highest sampling speed. The module is also capable of multiplexing and taking readings from four PT1000 temperature sensors.

Block Diagram

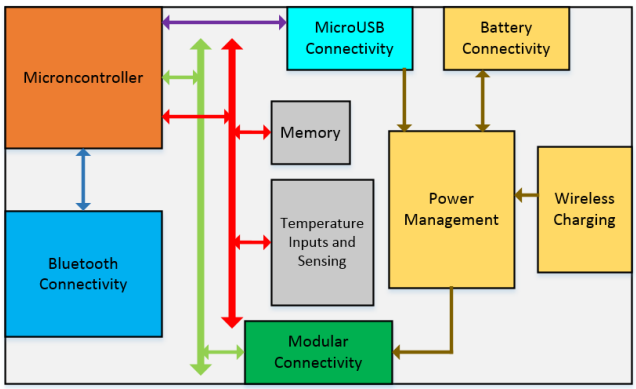

Fig. 1, Top level system diagram

Fig. 2, eCONTROL-I PCB board (top view)

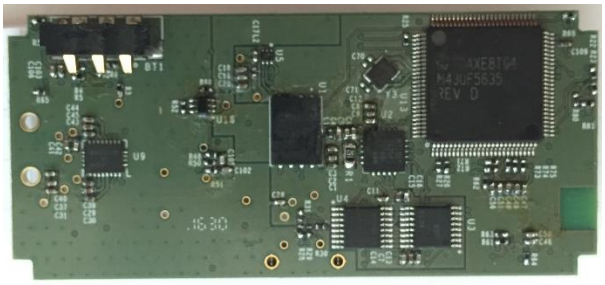

Fig. 3, eCONTROL-I PCB board (bottom view)

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