



Features

- Eight Channel Electrochemical Cells
- Sixteen Channel Microfluidic Controllers
- Four PT1000 Temperature Sensors
- Two Electrical Lysis Electrodes
- Two Electrode PH Sensor Connection
- One Impedance Sensor
- One PCR Heater
- PCB Dimension: 70.6(2.78) x 25.4(1) mm(in)

Electrochemical Electrode

- Working Electrode Diameter: 0.50(0.0197)
- Metal Type: Gold-plated

Applications

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

Description

The eSensor-I utilizes the functionalities of the eSEN-II modules. Electrochemical and biological sensing experiments are done on the board. These experiment processes include polymerase chain reaction (PCR), electrical cell lysis, microfluidic automation, PH monitoring, impedance sensing and electrochemical cell sensing.

Block Diagram

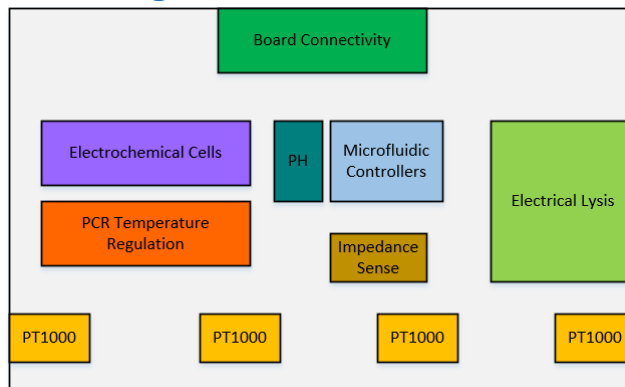


Fig. 1, Top level system diagram

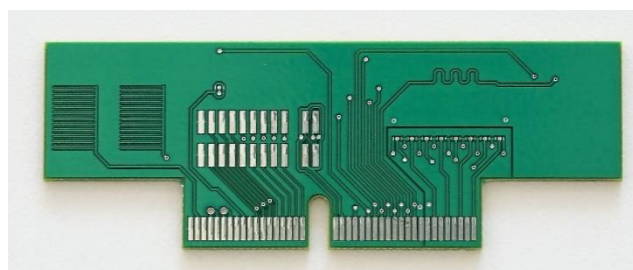


Fig. 2, eSENSOR-I PCB board (top view)

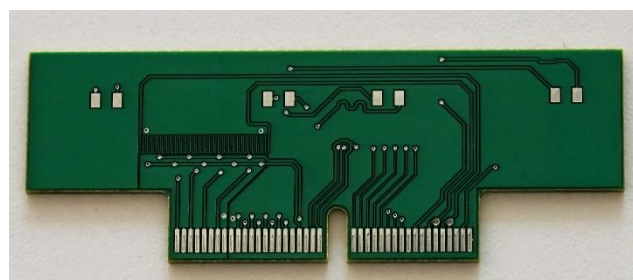


Fig. 3, eSENSOR-I PCB board (bottom view)