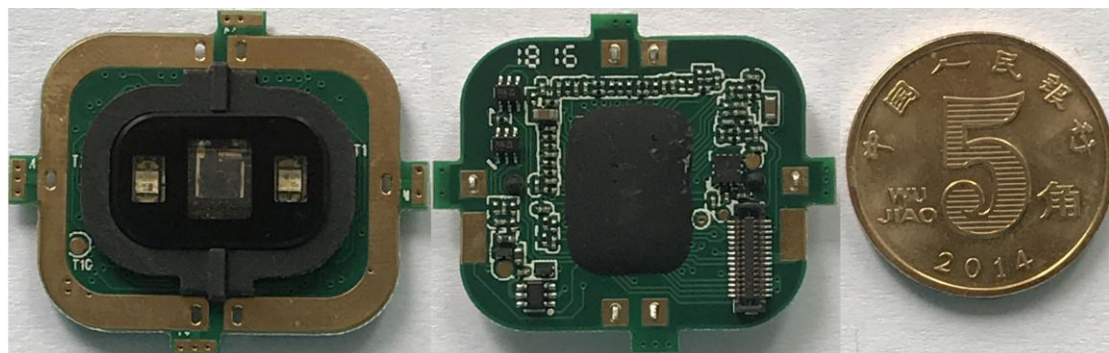


Bio-M001A is a Bio-module in healthcare; The Bio-module measures and transfers various types of bio-data including ECG, RESP, GSR, HR, PPG, HCM and BIA etc, integrated Bio-Processor with Analog Front-End to make an all-in-one health monitoring solution.

The algorithm core runs in Bio-Processor, including SPO2, motion recognition, dynamic heart rate monitoring, trend analysis of blood pressure, Emotional and mental stress etc.



Top

Bottom

The Bio-module integrates red (660 nm), green (520 nm) and infrared (940 nm) three-color LED and photodiode(PD) sensor to realize PPG-related applications; and supports four electrodes to achieve applications with human electrical activities and impedance activities; on-module 14-bit three-axis Gsensor for motion/sleep applications.

The Bio-module hardware interface supports SPI/I2C/UART optional, FPC connector reference DF37NB-30DS-0.4V.

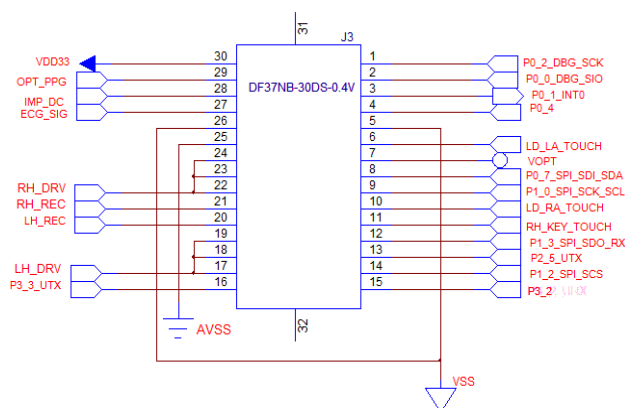
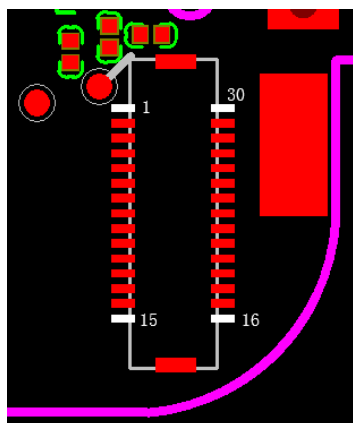
APPLICATIONS

1. Fitness, wristband devices;
2. Healthcare devices;
3. Mobile devices and robots etc;

FEATURES

- Single lead ECG :
 - 3 electrodes with right leg driver;
 - Lead-off detect;
- Bio-impedance with 4 electrodes:
 - Built-in DAC and multi-frequency waveform generator;
 - Support RESP,BIA and GSR etc;
- PPG:
 - on-module red (660 nm), green (520 nm) and IR (940 nm) LED and PD;
 - Support HR,SPO2 and bio-assay etc;
- Electrodes mean interface:
 - Support electrodes as input keypad;
 - Support pair of electrodes as data channel: eg,USB/UART etc;
 - Support pair of electrodes as power charger channel;
- Gsensor:
 - Built-in 14 bits 3-axis Gsensor, range + 2G, + 4G, + 8g, + 16g;
 - Pedometer,Action recognition;
- Hardware interface:
 - Optional SPI/UART/I2C;
 - FPC connector [DF37NB-30DS-0.4V](#),from hirose;
- Small size, suitable for wristband devices:
 - 22x26mm;

FPC Connector



RESOURCES

- Bio-sensor--M001A User's Manual:
https://github.com/feelkit/BIO_SENSOR/raw/master/DOC/M001A/M001A_UM_CN.pdf
- Evaluation kits for Bio-sensor--M001A:
https://github.com/feelkit/BIO_SENSOR
- Bio-sensor--M001A CAD files (scale: 1:1, dxf file type):
[Module top layout](#) , [Module bottom layout](#)
- FPC Connector : [DF37NB-30DS-0.4V](#) ;

Contact

If you have technical problems and ideas to communicate with us, you can contact us by Email: fanfeiwu@gmail.com