Operational description

The Lipid ProTM, is a fast, portable and reliable self testing system. This system is intended for in vitro diagnostic use.
Analyte is Lipid profile composed of Total cholesterol, Triglyceride and HDL (High density lipoprotein cholesterol) and glucose.
Do not use the Lipid Profile Measuring System for any other than for measuring system.

1) Setting Mode

①It enters setting mode by pressing " mode button" for 3second in turn-off status.
②By pressing ▲▼, adjust year, measuring unit, temperature and press

2) Memory Mode

When the test results is over the capacity memory, the recent test result will replace with the oldest test result.

①Please press MODE key In the state that no test strip is inserted into the cholesterol port in order to enter Memory mode.
②By using ▲▼, please select the item you would like to recall and press MODE key.
③By using ▲▼, the analyzer shows the memories in the order of time.
④When you recall the other items, please press MODE key and select the item you like by using ▲▼ and press MODE key.
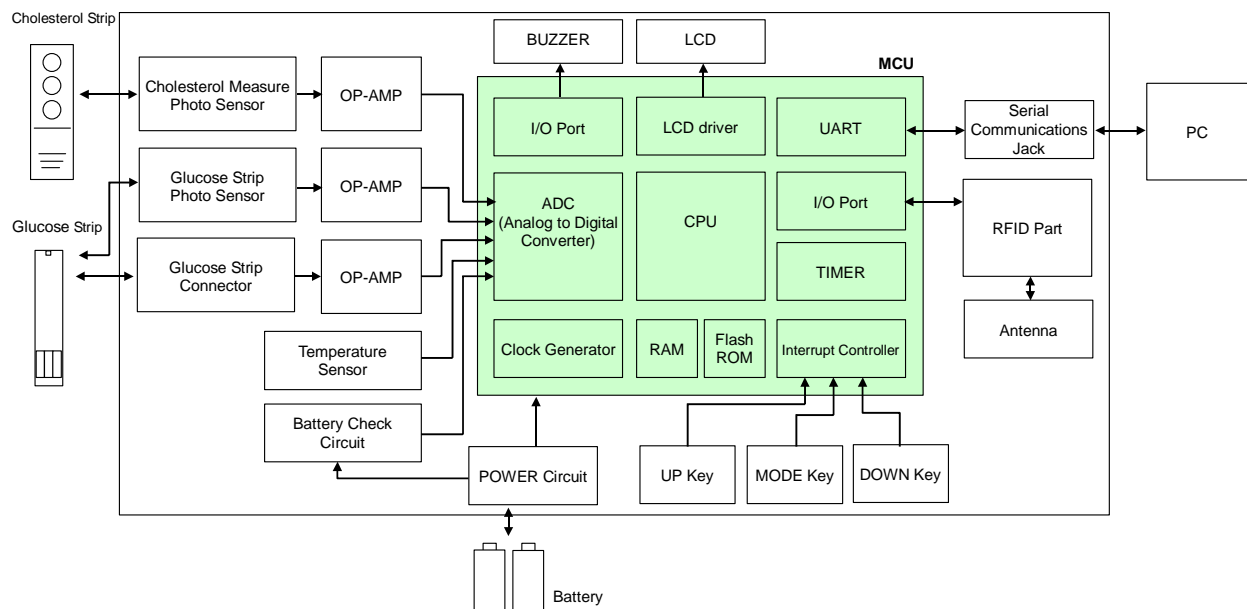
3) Glucose Test Procedure

①Insert the test strip into the analyzer. The analyzer automatically displays the code number. Please make sure the code number on the display of the analyzer with that on the strip bottle.
②Pricking the fresh capillary blood and get it to the channel of the test strip port until beep sounds.
③In 3 seconds, the result will come on the display of the analyzer with the measuring unit and date of test.
④Remove the test strip and discard.

4)Lipid profile Test Procedure

①Meter automatically displays the code number by pulling up the strip vial having RFID chip.
②Check each code number of TC, HDL and TG of the analyzer with those on the strip bottle.
③ Prick the finger with a lancing device for the sample blood.

④Collecting the sample blood to the capillary rod.

⑤Contact the capillary rod with the sample blood to each strip hole so as to strat the test.

⑥The testing time of each item is different. When the test is completed, the analyzer displays the icon. The test of all three items completes, the analyzer displays the value of LDL.

⑦Remove the test strip and discard.

Short description of how the product work internal

Cholesterol Strip

BUZZER   LCD   MCU

Cholesterol Measure Photo Sensor — OP-AMP

I/O Port   LCD driver   UART   Serial Communications Jack   PC

Glucose Strip Photo Sensor — OP-AMP

ADC (Analog to Digital Converter)   CPU   I/O Port   RFID Part

Glucose Strip

Glucose Strip Connector — OP-AMP

TIMER

Temperature Sensor

Antenna

Clock Generator   RAM   Flash ROM   Interrupt Controller

Battery Check Circuit

POWER Circuit   UP Key   MODE Key   DOWN Key

Battery

1) Sensor input (Cholesterol / Glucose Strip)

→ The device has two different type strips. The cholesterol strip and the Glucose strip. The Photo sensor unit is for measuring of the Cholesterol and Glucose from the each strip.

2) OP-AMP

→ The OP-AMP unit amplifies the signal of the each photo sensor.

3) ADC (Analog to Digital Converter)

→ The ADC unit convert electrical analog signal to digital signal for the MCU.

4) Interrupt Controller (UP / DOWN / MODE Key)

→ It is for the control buttons recalls, stores, and/or changes the information such as time and unit, and enters the communication mode.

5) UART (Serial communications Jack) to PC

→ This unit stores information and capable to transmit these information to personal computer (PC).

6) I/O Port to RFID part

→The RFID unit can identified the strip code value with wireless communication by attaching the RFID Tag to the device.

7) Temperature Sensor

→ The device displays the current temperature on the LCD using the temperature sensor. Also, it is apply the compensation of temperature to the device.

8) POWER Circuit (Battery Check circuit)

→ The power circuit has battery check circuit measuring for the battery capacity.