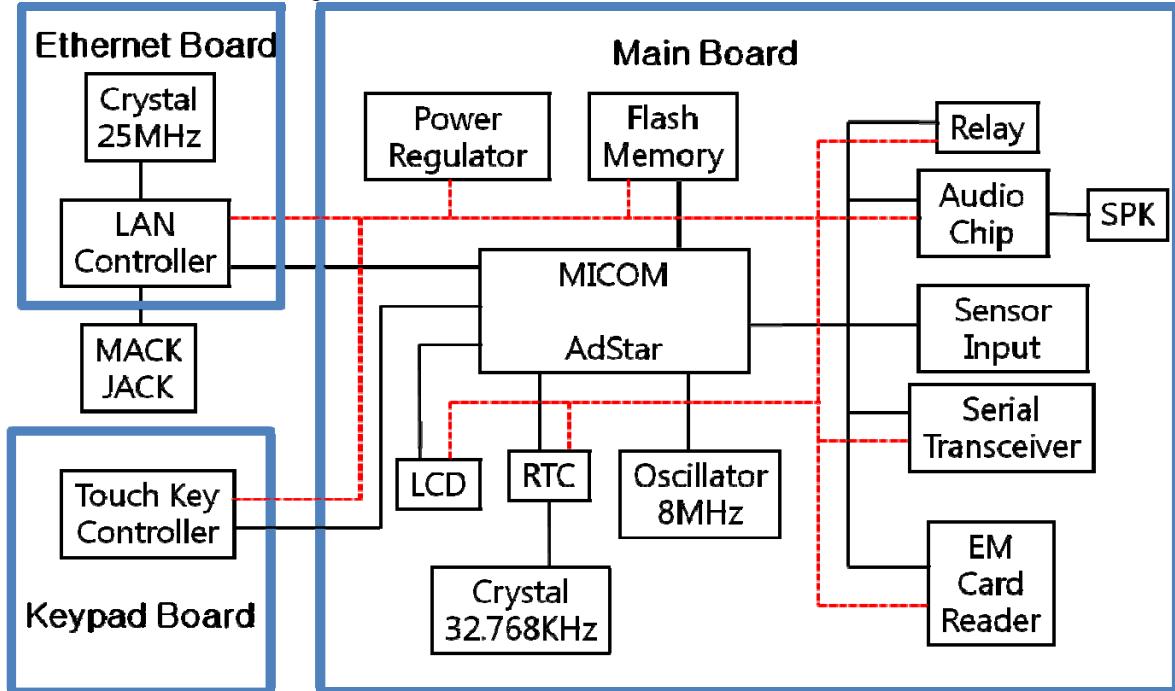


## Operation Description for FR-200NM

### 1. Hardware Block diagram



### 2. General

It supports various functions as follows

- User enrollment with user ID, RFID card and/or password
- User deletion with user ID
- User authentication using user ID and card
- User identification using card
- Configurable security modes
- Custom user display name or ID
- Standalone/Network communication via TCP/IP
- Onboard menu configurable 3 inputs and 1 Relay output
- Various functions configurable with Key Pad and LCD

### 3. Operation

#### A. Card

- CPU reads card ID via RF Card Reader
- In Enroll process CPU write user ID and card ID to Flash Memory
- In authentication/identification process, CPU reads new card ID and compares enrolled card ID
- If authentication/identification is successful, CPU drive the Relay, display User ID on the LCD and play audio file for announcement

#### B. Delete User

- User can use the Key Pad, select Delete User function from the Management Mode
- User can delete single user data by entering the User ID
- User can delete all user data by select Delete All User function
- Completion of user deletion by erasing the user data that on a Flash Memory

C. Communication

- CPU communicate using TCP/IP, UDP protocol with the PC via Ethernet Controller
- CPU makes exchange with the PC about information for the operation of FR-200 and User

D. Sensor

- Periodically, CPU checks the state of Sensor Input, notify to the PC or write to Flash Memory
- Sensor Input connected to Exit Button, CPU drives the relay