Tag Reader

ES800TR5

Operational Description

The wireless access control Tag Reader ES800TR5 is a battery operated, wireless, passive, powerful access control and system arming device.
The Tag Reader features:

- User identify verification via portable proximity RFID tag in wireless access control application.
- An intuitive user-friendly interface
- 5-buttons design provide system status, arming and other functions
- Based on advanced proprietary technology
- Requires three (3) AA-size alkaline batteries
- Provide command option to Arm, Partial Arm, Disarming and Force Arm the system
- Provide command options for personal SOS alarm (panic button)
- Dual purpose as tag reader and doorbell button
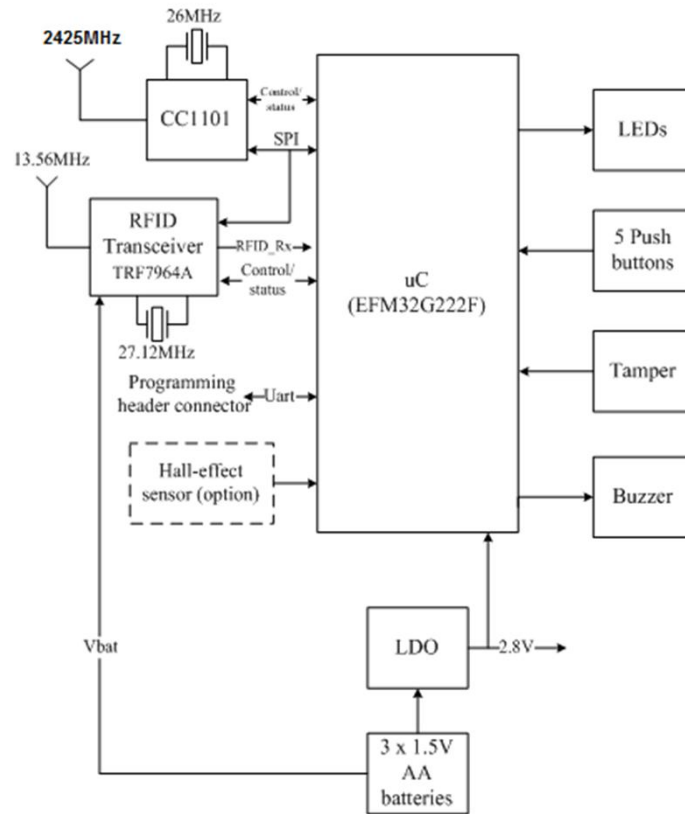- Support for up to 8 Tags

- With regards to communications:
  - Up to 500m RF range (open air)
  - ECOP bi-directional radio protocol (onboard)
  - Modulation and Frequency: DSSS, 2.4GHz

- With regards to security:
  - RFID technology
  - Tamper Alarm – when detached from wall
  - Unique electronic serial number

Certifications and approvals:

For more information, go to: www.essence-grp.com/pages/WeR/Home

The diagram labels:
- 2425MHz
- 26MHz
- CC1101
- Control/status
- SPI
- 13.56MHz
- RFID Transceiver TRF7964A
- RFID_Rx
- Control/status
- 27.12MHz
- Programming header connector — Uart
- Hall-effect sensor (option)
- uC (EFM32G222F)
- LEDs
- 5 Push buttons
- Tamper
- Buzzer
- Vbat
- LDO — 2.8V
- 3 x 1.5V AA batteries

Block Diagram Description

The 3 AA batteries provide the power to the RFID Transceiver and LDO which convert it to several voltages needed by the components.

Close range RFID Tag reader supports dMIFARE and NFC protocols .When a User Tag is close to the ES800TR5 it detects the RFID Tag and starts the RFID reader.

It has five buttons with internal LED indicators to operate the alarm system and two colored LED arrays to indicate Tag reading.