Opterna-RFID Based security systems

I. Introduction

This education system contains a total of 20 chapters, including active and passive RFID basic introduction, desktop PDA card read and write and access control system experiments, active basic RFID and advanced experiments, PT1 series of voice communications instance, RFID using in situations (access control system design, plant patrol design, precious asset management system design, medicine humidity control system design, international express postal logistics system design, personnel location management analysis, shopping behavior and analysis system design, voice communication system design, application of fingerprint identification module of the digital content management system design, WI-FI digital content and navigation system design) and so on.

Top layer

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Middle layer

Lower layer

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II. Product List

Name and NO.	picture	Name and NO.	picture
wireless intercom reader X1		5dBi antenna X2	
1A-PT1 transformer X2		**w**ireless walkie-talkie X2	
MINI-USB charger X1		HUB X1	
HUB transformer X1		USB TO RS485 Converter X1	
MIFARE card reader X1		2 door interconnect controller X1	
MIFARE card X3		USB MIFARE card reader X1	
USB-A to mini USB X1		1 to 4 cable X1	
2 dBi antenna X1		network-type card reader X1	
1NransformerX1		temperature and humidity TAGX1	
strap inductionTAG+ temperature X1		flash buzzer X1	
passive infrared detection X1		button-type TAG+ shock X1	
MIFARE Dual TAGX1		M2.0 crosshead X1	

2.45GHz wireless intercom reader

reading distance, high stability of the system

external antenna can be replaced

2.45GHz 5dBi antenna

2.45GHz wireless walkie-talkie wrist

Wireless setting parameters / adjust signal transmit and receive interval

support the signal strength detection / low voltage warning
LED light indication and buzzer

HUB

USB TO RS485 Converter

MIFARE¬ card

MIFARE¬ Card Reader

USB MIFARE card reader

Built-in antenna, two-color LED indicator and buzzer
automatically detect the card and read the UID or block data
support different digits and decimal format of the ID
hold independent device serial number for identification
Built-in user data storage device

2.45GHz 2dBi antenna

2.45GHz network-type card reader

reading distance, high stability of the system
anti-collision mechanism, can read most of TAG
standard network interface
external antenna replaced

2.45GHz temperature and humidity TAG

distant transmission
long battery life
wireless settings tab parameters
adjust the signal transmitting and receiving interval
support the signal strength detection, low-voltage warning
LED indication and buzzer
motion detection function
temperature exceeded warning (option)
Key: emergency call / signal transmission / switch

2.45GHz strap induction TAG

distant transmission
wireless settings tab parameters
adjust the signal transmitting and receiving interval
support the signal strength detection, low-voltage warning
LED indication and buzzer
temperature exceeded warning
Key: emergency call / signal transmission / switch
Replacement wrist strap (medical special or elastic)

Flash Buzzer

Passive infrared detection

2.45GHz button-type TAG + shock sensor

distant transmission
cheap and wide use

small size, easy to carry
wireless settings tab parameters
adjust the signal transmitting and receiving interval
support the signal strength detection, low-voltage warning
LED indicating key functions (emergency call, signal transmission, switch)
motion detection function

2.45GHz MIFARE Dual Tag

distant transmission
low cost, wide use
standard card size
long life
wireless settings tab parameters
Support RSSI / LQI detect signal strength and quality
low voltage warning
LED indication and buzzer
key functions (emergency call, signal transmission, switch)
Integrated Active / Passive RFID dual card
adjust the signal transmitting / receiving frequency
2.45GHz + 13.56MHz (Mifare)

IV software resources

textbook chapters

1. current situation and future trend of RFID
2.r Active RFID
3. passive RFID
4. Desktop card read and write
5. PDA card read and write
6. Access Control System
7. Active RFID - Use more than one active monitor e-label reader
8. Active RFID - Using RSSI control zone and the path to achieve location-based applications
9. Active RFID - Tag all tag status (DI) Testing
10. Active RIFD advanced
11. PTI series of voice communication (PC to the Tag) / (Tag on the Tag)
12. System design of RFID Access Control
13. System design of Patrol RFID factory
14. System design of RFID precious asset management
15. System design of RFID Temperature and Humidity Monitoring Drugs
16. System design of international express postal RFID logistics
17. System design of RFID personnel location management and shopping behavior analysis
18. System design of RFID voice communications
19. System design of application of fingerprint identification module of of digital content

management

20. System design of WIFI digital content and navigation