NFC Mobile Reader

Technical Specifications V1.00

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1.0. Introduction

NFC Mobile Card Reader is the perfect tool that you can use with your mobile device. With the combination of two card technologies into one, it provides its user flexibility to use magnetic stripe cards and smart cards without the additional cost. NFC Mobile seamlessly unites card reader functionality with mobility which allows you to access secure applications anytime, anywhere.

1.1. Secure Card Reader

NFC Mobile is a reliable card reader that uses AES-128 encryption algorithm and DUKPT Key Management System for a secure transaction. It is capable of reading both high-coercivity and low-coercivity magnetic cards that conform to ISO 7810 and ISO 7811 standards. Also, it supports ISO 14443 Type A and B cards, MIFARE®, FeliCa, and all four types of NFC tags and devices compliant to ISO 18092 standard, which makes it an ideal device for a broad range of solutions, such as e-Banking and e-Payment.

1.2. Ingenious Design

NFC Mobile is specifically designed to be brought anytime, anywhere. With its rechargeable Lithium-ion battery as its power supply and standard 3.5 mm audio jack interface, it allows NFC Mobile to be integrated impeccably into any smartphone or tablet available in the market.

1.3. Ease of Integration

NFC Mobile can be easily integrated with any mobile device running the Android™ platform with versions 2.0 and above, and iOS platform with versions 5.0 and above.

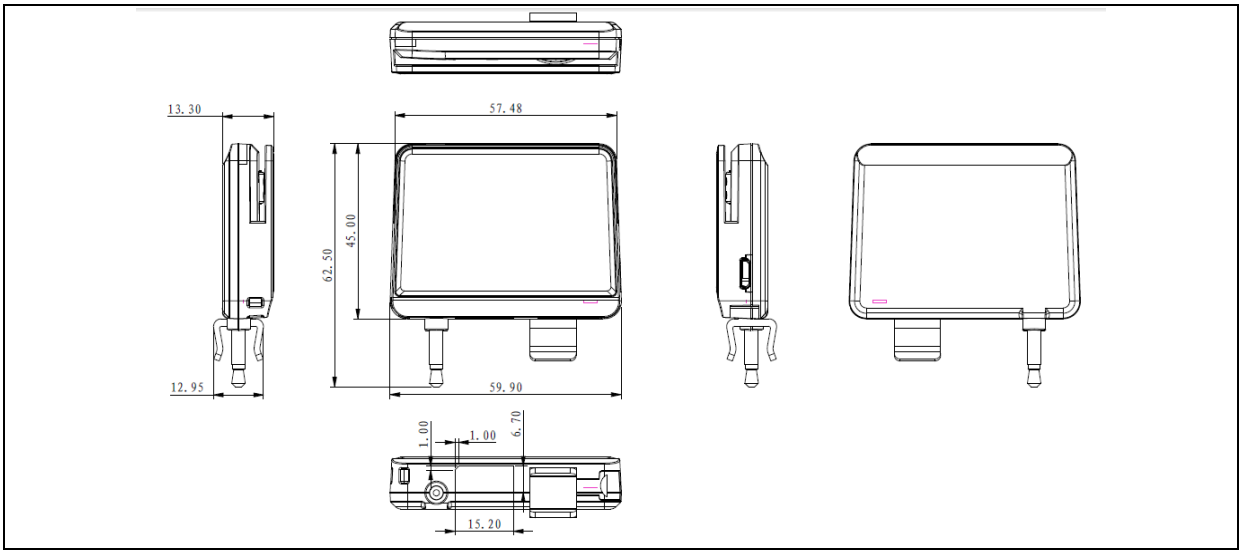
2.0. Features

- 3.5 mm Audio Jack Interface
- Powered by a Lithium-ion battery (rechargeable through USB cable)
- Smart Card Reader:
    - Built-in antenna for contactless tag access, with reading distance of up to 50 mm (depending on tag type)
    - Supports ISO 14443 Part 4 Type A and B cards
    - Supports MIFARE®
    - Supports FeliCa
    - Supports ISO 18092 Tags (NFC Tags)*
    - Built-in anti-collision feature (only one tag is accessed at any time)
    - NFC Support:
        - Card reader/writer mode
- Magnetic Stripe Card Reader:
    - Reads up to two tracks of card data
    - Capable of bi-directional reading
    - Supports AES-128 encryption algorithm
    - Supports DUKPT Key Management System
    - Supports ISO 7810/7811 magnetic cards
    - Supports Hi-coercivity and Low-coercivity magnetic cards
    - Supports JIS1 and JIS2
- Supports Android™ 2.0 and above**
- Supports iOS 5.0 and above**
- Compliant with the following standards:
    - ISO 18092
    - ISO 14443
    - CE
    - FCC
    - VCCI
    - RoHS
    - REACH

3.0. Typical Applications

- Mobile Banking
- Mobile Payment
- e-Healthcare
- Loyalty Program

4.0. Technical Specifications



Power	
Operating Voltage.....	3.2 V to 3.7 V DC (One single Li-ion Battery)
Operation Mode.....	Standalone
Standalone Mode.....	Battery-powered
.....	Rechargeable Li-ion Battery (charging through USB)
Operation Time	Approx. 10 hrs (after each fully charge)
Power Consumption	Ave. 10 mA
Battery.....	Lithium-ion
Contactless Smart Card Interface	
Standard	ISO/IEC 18092 NFC, ISO 14443 Type A & B, MIFARE, FeliCa
Protocol.....	ISO 14443 T=CL for ISO14443-4 compliant cards and T=CL Emulation for MIFARE® Classic 1K/4K, ISO 18092, FeliCa and NFC tags
Operating Frequency	13.56 MHz
Operating Distance	Up to 50 mm (depending on tag type)
Smart Card Read/Write Speed.....	106 Kbps, 212 Kbps, 424 Kbps
Magnetic Card Interface	
Standard	ISO 7810/7811 Hi-Co and Low-Co Magnetic Cards
.....	JIS 1 and JIS 2
Card Swipe Speed	Max. 10 in/s
Card Swipe Cycles.....	Min. 500,000
Physical Specifications	
Dimensions	60.0 mm (L) x 45.0 mm (W) x 13.3 mm (H)
Color	White
Weight.....	29 g (with battery)
Operating Conditions	
Temperature	0 °C – 50 °C
Humidity.....	10% – 90%
Mean Time Between Failure	500,000
Certifications/Compliance	
EN60950/IEC 60950, ISO14443, ISO/IEC 18092, CE, FCC, VCCI, RoHS, REACH	
Device Driver Operating System Support	
Android™ 2.0 and above, iOS 5.0 and above	