

**FEITIAN**

aR520 datasheet



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**FEITIAN TECHNOLOGIES**

Website: [www.ftsafte.com.cn](http://www.ftsafte.com.cn)

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## 1.1 Title

FEITIAN aR520

## 1.2 Introduction

FEITIAN aR520 is swipe card reader and NFC contactless reader specially engineered to accommodate a range of smart card applications. Developers use it as a platform to generate and deploy related products and services. Moreover, FEITIAN aR520 is a terminal unit which is seamlessly integrated to all major systems of operation. Additional features such as the built-in inclusive support for different smart card interfaces has facilitated the wide scale and cross industry adoption of aR520.

aR520 suits customers where security concerns are the most salient and satisfies the demand for a flexible solution for ID authentication, e-commerce, e-payment, information security and access control.

## 1.3 Feature

- General
  - 330mHa battery inside, full speed can work more than 2h, standby 20h
  - Full battery only need charging 2hours
- Contact part
  - Support magnetic strip card
  - 3.5mm standard headphone jack & MicroUSB
  - Support track 1,2,3 and key management with DUKPT(3DES&AES)
  - Low battery consumption
  - Micro-USB port for pass-through charging
- Contactless part
  - Firmware supports upgrading in encryption
  - Supports contactless smart cards compliant with ISO 14443 type A and type B, Mifare card, Felica
  - Through beeper and light to informed reader/card/battery status

## 1.4 Hardware configuration

We provide three lights which is red/blue/yellow, each means charge battery/low battery/card status.

Card status light – blue color light

Contents	Contents	Contents
1	No card	Light OFF
2	Card detected	Light ON

Low battery light – yellow color light

Number	Progress	Status
1	Full battery	Light OFF
2	Low battery	Light ON

Charge battery light – red color light

Number	Progress	Status
1	Charging completed	Light OFF
2	Charging	Light ON

## 1.5 Specification

Type	Comments	
<b>Basic Parameters</b>	Specification	Parameters
	Working Current	50-80mA
	Communication Rate	8000bps
	Supported Card Type	ISO 14443 standard Type A/B, Mifare, Felica, Mifare tag 1 MSR
	Working Temperature	0°C to 50°C (32 to 122°F)
	Storage Temperature	- 20°C to 70°C (-4 to 158°F)
	Operating Humidity	0 to 90%RH non-condensing
	Storage Humidity	0 to 90%RH non-condensing
	Size	59*50*12mm
	Port	3.5mm audio jack/Micro USB(Type B)
	Supported OS	Android 2.2+/iOS4.3+
	Certification	CE/FCC/MFI/RoHS
	Lights	Red/Yellow/Blue colors
<b>Battery</b>	Electricity	330mHa
	Charging time	2hours
	Max work time(full speed)	Around 2hours(depends on cards)
	Standby time	Around 20hours
<b>Custom items</b>	Casing	Can be OEM
	LOGO	Custom logo
	Firmware	Can do OEM firmware
<b>Communication Security</b>	Support DUKPT(Derived unique key per transaction)	
<b>Hardware Security</b>	Support Card short circuit protection Support firmware upgrading	