

 BRAND

FR[®] S21

THE CRYPTOCURRENCY WALLET



S21

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group of companies:



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FR S21™ is a subsidiary brand owned by FR HOLDING Technologies which is intently focusing on cryptocurrency wallet ecosystem. The products of FR wallet include but not limited to blockchain cryptocurrency software wallet, hardware wallet and companion configuration tool.

FR S21 is the first model of FR S21 hardware cryptocurrency wallet product line. It is aiming to offer extreme security for protecting crypto assets without sacrificing much on usability. FR S21 employs CC EAL6+ secure element working with dual data communication interfaces (USB + BLE) to offer secure cryptocurrency transactions for all major platforms.

All the powerful functions and security designs of FR S21 are fitted in a super slim body which makes the FR S21 wallet can be easily kept in anywhere.

Connection

FR S21 wallet makes transactions over either USB or Bluetooth. Transactions can be easily completed by using the companion application on computers or mobile devices. JuBiter offers more than a month of battery life for each full charge under regular usage.

Security

CC EAL6+ Secure element.
CC EAL5+ Java OS.
Wallet seed never leaves the secure element.
Open source for all applets.

Display

Built-in OLED display shows the details of every transaction. Display is directly connected to the SE. The risk of man in the middle is eliminated.

Currencies

Easily add / delete currencies on the wallet by using the wallet PC management tool. Support BTC, ETH and ERC-20 tokens. More currencies are coming.

Restoration

BIP32 / BIP39 / BIP44 compliant. Restore wallet from any other wallet by using recovery phrases. Restoration process is totally conducted online.

FIDO U2F

Works as a FIDO U2F security key. Can be used either over USB on PC or Bluetooth on mobile device. Google, Facebook, Github, Dropbox etc. all supported.





Specification

Dimension	85mm × 50mm × 2.3mm	Supported Platforms	Android, iOS, Windows, Linux, Mac OS
Buttons	4 buttons: up, down, OK, Cancel / power	Currency Management / Update	Yes
Display	1.4" 134 × 94 pixel monochrome OLED	Supported Currency	BTC, ETH, ERC-20 (Continuously updating)
Chip Vendor	SE: Infineon BLE: Nordic	Recovery Phrases	BIP32 / 39 / 44 standards
Security Level	Secure element chip: CC EAL6+ Java OS: CC EAL5+	Unique Attestation Certificate	Yes
Battery	33mAh rechargeable Li-ion battery	FIDO U2F	Yes, Ver. 1.2
Certificates <small>(Some are under processing)</small>	CE, FCC, CC EAL5+ / 6+, FIDO U2F, RoHS compliant.	Applet Open Source	Yes
Interfaces	Micro USB (HID), Bluetooth 4.1	Java OS Open Source	No
Casing Material	Zinc alloy	Companion Application Open Source	Yes
		Language	English
		SE Free Space	>900k
		Bluetooth Pairing	Yes

FR S21 Cryptocurrency Wallet

Overview

FRS21™ is a subsidiary brand owned by FR holding Technologies which is intently focusing on cryptocurrency wallet ecosystem. FR S21 is a secure hardware wallet that protects cryptocurrencies include Bitcoin, Ethereum, Ethereum Classic, ERC-20 tokens and more to come. It is designed to be used in ATM, also can make the infra payments.

Features

Connection:

FRS21 wallet makes transactions over either USB (Coming soon) or Bluetooth. No sensitive data is transferred in link layer during Bluetooth communications.

Trusted Display:

Built-in OLED display shows the details of every transaction. The SE directly connected display eliminates the possibility of man-in-the-middle attacks.

Security:

CC EAL6+ Infineon Secure element High-security Java OS developed by the team with CC EAL 5+ OS development experience. Wallet seed never leaves the secure element.

Restoration:

BIP39 compliant. Restore wallet from any other wallet by using recovery phrases. The restoration process is entirely conducted offline.

Currency management:

Easily add/delete currencies on the wallet by using the wallet PC management tool. Support BTC, HT and ERC-20 tokens for now. More coins are coming.

FIDO™ U2F:

Work as a FIDO U2F security key (ver 1.2). Can be used on Google, Facebook, GitHub, Dropbox, etc.

Certificates

The following certificates have been granted:

FCC ID: ZD3FTJC6JUBLD1
CE, WEEE, DOE, CEC.
And RoHS compliant.

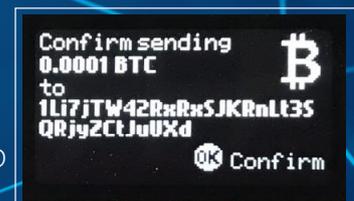
Dimension



Length: 85mm Width: 50mm Thickness: 2.3mm

Display

Resolution: 134x94 pixels
Type: Monochrome OLED
Size: 1.40"



Chips

Secure Element: Infineon SLE78CC EAL 6+
Bluetooth: Nordic 51802 (BLE ver. 4.1)

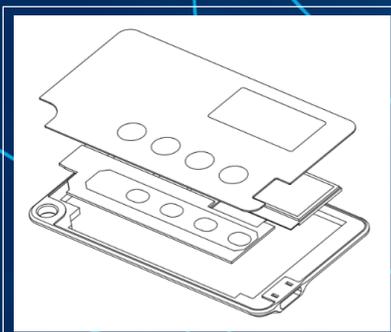
Battery

33mAh Li-ion rechargeable battery
Input: 5V/0.2A.

Standards

BIP 32/39/44 compliant

The Hardware Structure



FRS21 uses single chip hardware structure design. Display, buttons, USB, and Bluetooth are directly controlled by a single secure element.

FR S21 Cryptocurrency Wallet

Interface

Micro USB (HID), Bluetooth 4.1

Supported Platforms

Wallet apps are available on Android (6.0+) and iOS (9+). Hardware can be used on Android/iOS over Bluetooth. Be used on Linux/Mac/Windows over HID.

Supported Currencies

Bitcoin, Bitcoin Cash, Ethereum, ER20 (Top100), Ethereum Classic
Coming: Litecoin, EOS

FIDO U2F

Version 1.2

Revision History

FRS21 Cryptocurrency Wallet

Revision: 2019-12-27

Version	Date	Remark
1.0	2018-11-06	Original version
1.1	2018-12-27	Specs updated, images added. Format rearranged
S21	2021-12-01	Specs updated, images added. Format rearranged, ATM USED, Money loaded, eyescaner

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Other Specifications

SE Free Space	>100K
API Open	Yes
API Language	C
Open Source	Java Card Applets, Mobile apps
Material	Zinc Alloy
Updating tool	Yes. Windows/MacOS (Coming)
JavaCard DataChanel	GP SCP11C
Working Temperature	-10°C - 50°C
Storage Temperature	-20°C - 60°C

