

## Card Spy

# Analyze communication between smart card and terminal.

### Overview.

**Card Spy** offers an unmatched solution for analyzing card-terminal communication. It is both contact, contactless and allows to investigate any problems that may occur during this interaction.

### Easily investigate and troubleshoot card-terminal communication.

It provides an ideal tool for troubleshooting interoperability-related problems between cards and card accepting devices, such as EMV® payment terminals (POS or ATM), eMRTD readers and AFC readers. **Card Spy** supports cross-industry data interpretation on contact and contactless communication.

### How it works.

**Card Spy** provides an automatic interpretation of smart card commands and responses. It shows the exchange of data between a smart card and card acceptance device in a clear, logical, understandable manner on your screen.

Fime can help you at any stage of your project lifecycle.

Define

Design

Deliver

Test



Card-terminal communication analysis tool.

Used by Fime Labs

### Key benefits

- In-depth spying of communication between the smart card and the terminal.
- Assists in fault cause analysis of interoperability problems.
- Gain insight to application logic with comprehensive reports.
- Save time through fast analysis.
- Easy to use.

### Key features

- Provides automatic interpretation of smart card commands and responses.
- Display data exchange between a smart card and card acceptance device in a clear, logical, understandable manner on-screen.
- View cross-industry data interpretation on contact and contactless communication.
- Works with industry-proven hardware **SmartConnect** (contact/ contactless), **SmartLink Box** (contact) and **SmartWave Box** (contactless).
- Card Simulator is included in **Brand Test Tool** (BTT).



## Specifications for contactless cards.

### Generic

- ISO 14443: Provides low-level data interpretation for type A or type B card protocols, Radio Frequency -on and Radio Frequency -off events.

### Payment

Provides application data layer interpretation according to the following specifications:

- American Express ExpressPay.
- Interac Flash.
- Mastercard PayPass.
- Visa payWave.

### E-identification

- ICAO (International Civil Aviation Organization): Provides application data interpretation according to ICAO specifications.

### Transit

- MIFARE DESFire: Provides application data interpretation according to MIFARE specifications.

## Specifications for contact cards.

### Generic

- ISO 7816-3: Provides low-level data interpretation for T=0 and T=1 protocol, clock changes and supply voltage events.
- ISO 7816-4: Provides application data layer interpretation according to the ISO standard payment.

### Payment

Application data interpretation adheres to EMVCo specifications. The data interpretation also includes the proprietary data elements specified by the payment schemes, such as Mastercard, Visa, American Express, Discover, etc.

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## What's in the box?

### Available hardware.

- Contact & contactless spying: **SmartConnect.**
- Contact spying: **SmartLink Box.**
- Contactless spying: **SmartWave Box.**



## Contact

To learn more about how Fime can help your business:

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F-T-CARDSPY-A  
Card-terminal communication analysis tool.

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