

UL Card Spy

Who is it for?

UL Card Spy serves as an essential tool for anyone in the business of smart cards and card-accepting devices who wants to thoroughly analyze card-terminal communication. The UL Card Spy is used in the payment, e-identification and transit industries.

Why do you need it?

UL Card Spy offers an unmatched solution for analyzing card-terminal communication — both contact and contactless — and investigating any problems that may occur during this interaction. 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.

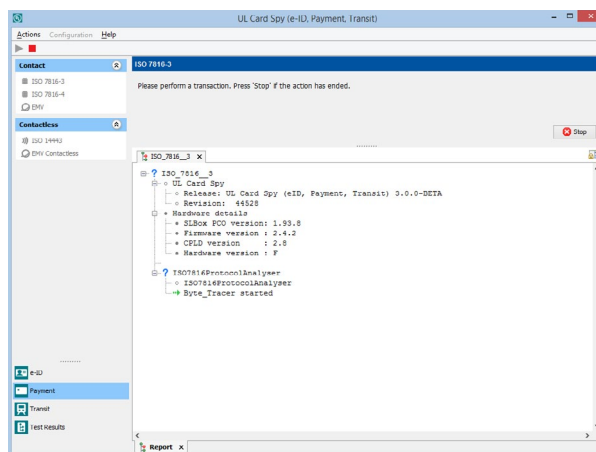
What is inside?

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

It supports cross-industry data interpretation on contact and contactless communication and works in conjunction with industry-proven hardware SmartConnect (contact/ contactless), SmartLink Box (contact) and SmartWave Box (contactless).

Key benefits

- In-depth spying of communication between the Smart card and the terminal
- Assists in fault cause analysis of interoperability problems
- Comprehensive reports including insight to application logic
- Save time through fast analysis
- Easy to use



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

It provides application data layer interpretation according to the following specifications:

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

E-identification

The International Civil Aviation Organization (ICAO)

Provides application data interpretation according to ICAO specifications

Transit

MIFARE DESFire

Provides application data interpretation according to MIFARE 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

EMV

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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