

# ContactLAB Contact Spy / Tester

## Communication Emulator & Analyzer

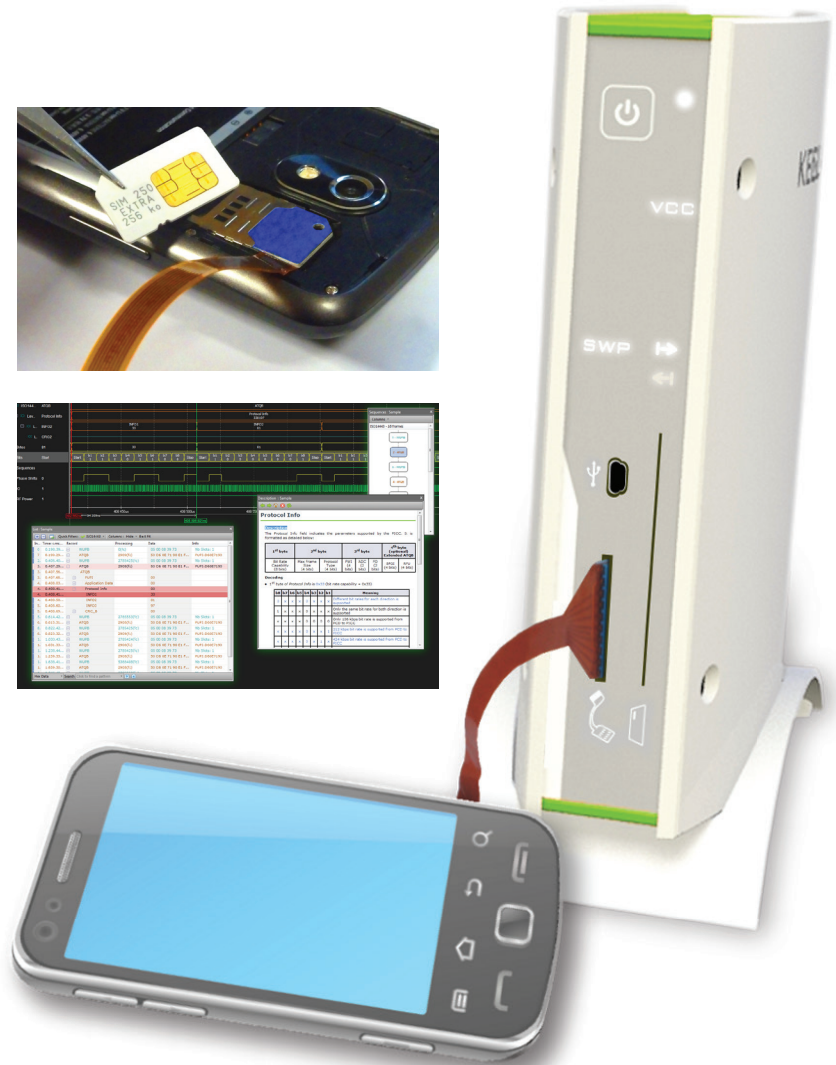
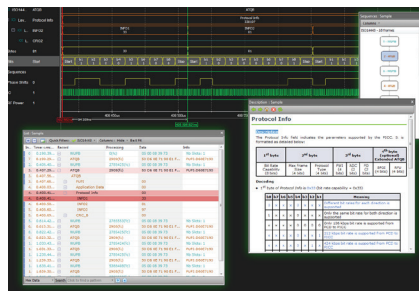
### All-in-One Platform

Fully Configurable Signal Emulation,  
Spy and Analysis

- Validate contact smartcards, USIM and contactless front ends for mobile
- Total, precise control of signal parameters
- Purchase only functions you need
- Integrates with PROXISPY
  - Full visibility of contact and contactless NFC interfaces

**Ideal for prototyping, characterization, standard-specific validation and interoperability troubleshooting.**

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ContactLAB is an advanced laboratory solution designed specifically to address the challenges of validation for contact smart cards and USIM in NFC enabled mobile handsets implementing Single Wire Protocol (SWP) and ISO 7816 interfaces. It encompasses the roles of both a fully programmable laboratory reader, SWP signal emulator and protocol analyzer.

#### Standards

- ISO 7811
- SWP (HCL/SHDLC)

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## Communication Emulator & Analyzer

ContactLAB allows capture and analysis of ISO 7816 transactions between (1) UICC and application processor, and SWP transactions between (2) UICC and the ContactLess Front end (CLF) for interoperability testing and system validation.

Fully configurable reader capabilities facilitate testing of (3) ISO 7816 and (4) SWP interfaces on the UICC. With (5) SWP emulation (HCI, HDLC), ContactLAB can also act as the UICC to test the handset's CLF.

In combination with ProxiSPY (6), ContactLAB integrates capture and analysis of communication with external contactless readers. With ProxiLAB (7), it allows complete testing of all parameters of the external contactless reader.

### Fully configurable reader & emulator

ContactLAB combines control of the full range of ISO 7816 and SWP parameters for comprehensive testing, with the added possibility of creating specific combinatorial situations for evaluation of behavior in out-of-norm conditions.

#### Features include:

- Control of all reader/card voltage, timing parameters
- Plug-and-play integration with external tools
- Triggering on combinations of events and patterns

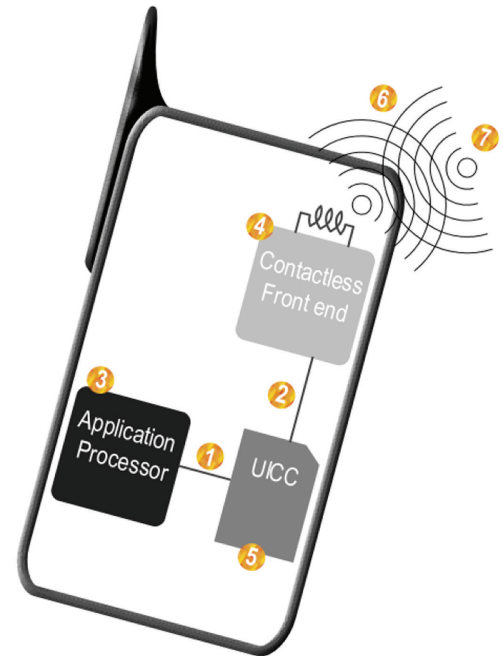
### Comprehensive protocol analysis

Innovative and accurate, ContactLAB provides a detailed analysis of card/reader exchanges. This is combined with single-click access to user-friendly interpretation of ISO 7816 and SWP smart card protocols (including EMV, GSM, HDLC and HCI). A smart card's USB interface can also be traced.

### Complete software environment

ContactLAB software with the Real-time Generic Protocol Analyzer (RGPA) is designed to provide flexibility in accessing all emulation parameters. The software interface includes precise time measurement, wave form and listing views of test results, search functions, statistics and detailed protocol command descriptions.

ContactLAB can also be controlled via scripting languages (C, JScript, VBasic) and integrates with a range of SCRIPTIS based solutions to facilitate implementation of standard specific, in-house conformance testing.



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