KEOLABS
your challenges, our solutions

ProxiLAB Quest Contactless Tester

Explore, prototype, and characterize contactless technologies for smart cards, readers and any contactless device.

ProxiLAB Quest is the ideal platform for contactless card and reader **characterization**. ProxiLAB Quest brings unprecedented ease of use to developers to measure all parameters from a device to determine its performance on all aspects.

ProxiLAB Quest can be used at all steps of the development process: **initial development, prototyping and production**.

Product developers have a total control on **all analog and digital parameters**, allowing them to verify the technical features of their product and to ensure its performance and reliability once on the field.

KEY FEATURES

- Contactless reader and card emulator
- Dedicated to Analog, Digital, and Applicative tests
- Digital & Analog traces up to 25 points per clock cycle
- Advanced I/Q demodulation (Patent pending)
- Various realtime triggers
- Resonance frequency / Q factor measurement from 8MHz to 80 MHz, power from -30dBm to +20dBm
- Complex impedance measurement (resistance, inductance, capacitance)
- Magnetic field measurement
- Generation and measurement of EMD (Electro Magnetic Disturbance)
- 2 independents Accurate AWG (Arbitrary Waveform Generator)
- Python, C, C++, VB, JScript, Windows COM Object

QUEST TOOLS

- Digital & Analog trace including timing measurement
- LMA measurement
- EMD analysis
- PCD Waveform analysis
- Hinit/HLP
- VNA
- 2D Shmoo Plot
- 3D Shmoo Plot based on KEOLABS' robots
- PICC performance measurement

STANDARDS COMPLIANCE

- EMVCo
- ICAO / ISO 18745-2
- NFC Forum
- ISO 10373-6
- CEN TS 16974-2

SUPPORTED PROTOCOLS

- ISO 14443 (A/B/B'), Mifare™
- VHBR (ASK, PSK up to 27 Mbps)
- ISO 15693
- ISO 18092
- FeliCa™
- NFC -IP1, -IP2

COMMUNICATION INTERFACES

- USB
- PC/SC
- General purpose I/O
- 2 Extension Ports
- 2 Analog inputs
- 2 RF outputs

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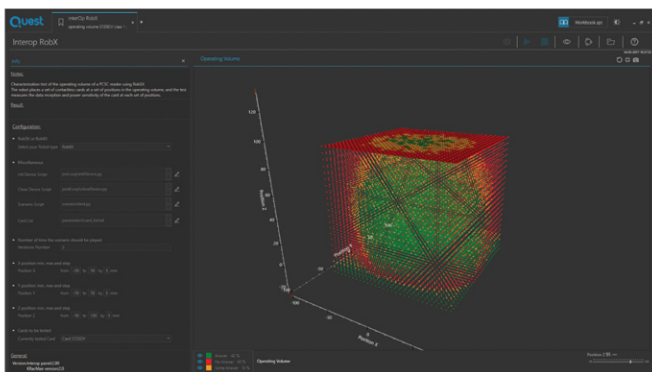## Quest — PERFORMANCE EXPLORER

Quest, software environment delivered with all KEOLABS platforms, provides state of the art instrumentation in a single click.

In the quest to improve product performance and reliability, having the right testing tool is essential to understanding and optimizing technology.
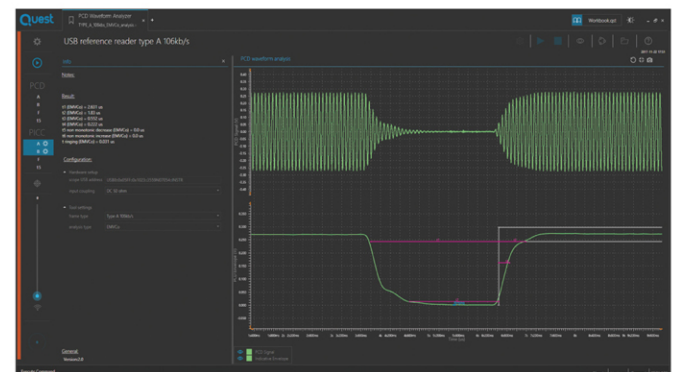
KEOLABS' Quest line of testing tools challenges technology and provides insights into performance in order to help users clearly understand and overcome problems with ease and efficiency.

Quest provides characterization tests as preconfigured scenarios. These scenarios control the ProxiLAB Quest features to enable single-click access to contactless tests analysis and performance profiling.
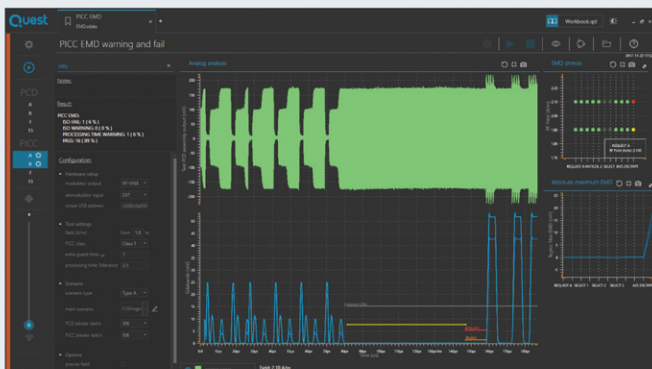
Quest allows saving testing experiments (test descriptions, scripts and results) into workbook that can be easily shared with others.
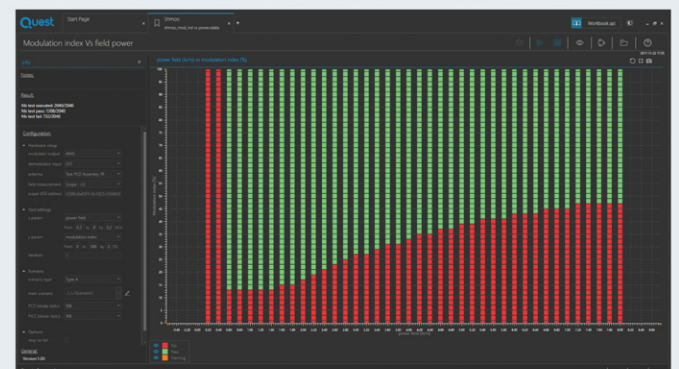

RobX 3D Shmoo plot - Operation Volume

Digital and Analog traces

EMD analysis

2D configurable Shmoo plot