

CONTACTLESS LABORATORY TESTERS



Test and personalization tools for smartcards, RFID and NFC industry

Benefit from Micropross'experience in contactless devices testing

MP300 TCL2

The most complete tester for contactless smartcards, RFID tags and NFC objects



Key features

- ➔ Fully customisable contactless smartcard reader
- ➔ Total coverage of all NFC modes
- ➔ Integrated spy feature
- ➔ Evolutivity into a contactless smartcard emulator
- ➔ Ideal tool for protocolary and RF testing
- ➔ Reference tester for NFC objects certification

Supported protocols

- ➔ ISO/IEC 14443 A/B
- ➔ ISO/IEC 15693
- ➔ Mifare™
- ➔ FeliCa™
- ➔ ISO/IEC 18092 (NFC-IP1 and -IP2)
- ➔ NFC Forum
- ➔ Custom protocols

Tests available

- ➔ Protocolary testing (wrong CRC, response times measurement, framing, minimum FDT, parity error forcing, much more...)
- ➔ Smartcard resonance frequency measurement
- ➔ Chip impedance measurement
- ➔ Generation of Electro Magnetic Disturbances

Spy feature

- ➔ Graphical display of spied exchanges
- ➔ Comprehensive protocol analysis against worldwide standards
- ➔ Possibility to measure response times, to study the used protocol

NFC Forum defined operating modes coverage

- ➔ Tag mode (optional)
- ➔ Reader/writer mode
- ➔ Peer to peer mode

Available configurations

- ➔ MP300 TCL2 : smartcard tester, coverage of NFC reader/writer and peer to peer protocols
- ➔ MP300 TCL2 + smartcard simulator option: smartcard tester, smartcard emulator, coverage of all NFC protocols

Smartcard emulation mode (optional)

- ➔ Embedded engine for great respect of the timings
- ➔ Possibility to control the execution of test scenarii from a PC

MP300 SCL1

The worldwide reference for contactless smartcard simulation, and protocol analysis of a transaction



Key features

- ➔ High performance contactless protocol analyser
- ➔ Multiprotocol
- ➔ Support of the highest datarates
- ➔ Evolutivity into a contactless smartcard emulator
- ➔ Reference tester for certification of contactless banking terminals

Supported protocols

- ➔ ISO/IEC 14443 A/B
- ➔ ISO/IEC 15693
- ➔ Mifare™
- ➔ FeliCa™
- ➔ Custom protocols

Spy feature

- ➔ Graphical display of spied exchanges
- ➔ Comprehensive protocol analysis against worldwide standards
- ➔ Possibility to measure response times, to study the used protocol

Smartcard emulation mode (optional)

- ➔ Embedded engine for great respect of the timings
- ➔ Possibility to control the execution of test scenarii from a PC

Available tests (with smartcard emulation mode)

- ➔ Minimum FDT checking
- ➔ Addition of perturbations in the dialogue (CRC error, parity, framing errors, ...)
- ➔ Protocol tests (sending of bad blocks, wrong repetition management, ...)
- ➔ Reader sensitivity characterization (adjustment of the load modulation of the emulated smartcard)

Available configurations

- ➔ MP300 SCL1 : protocol analyser for contactless applications
- ➔ MP300 SCL1 + smartcard emulator : protocol analyser for contactless applications + contactless smartcard emulator

CONTACTLESS LABORATORY TESTERS

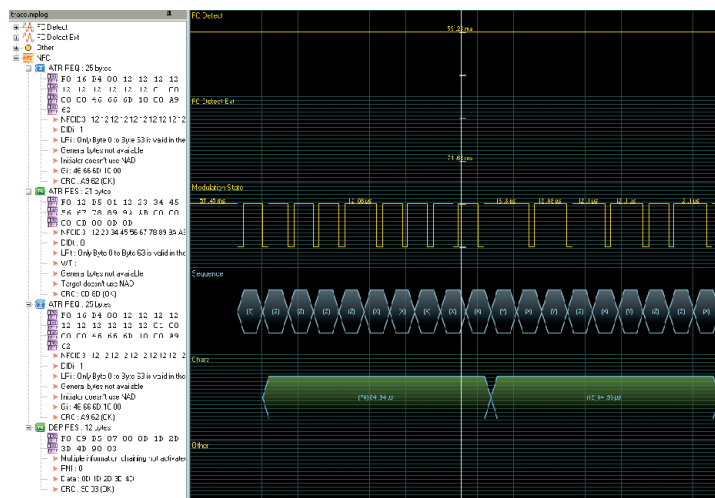


Test and personalization tools for smartcards, RFID and NFC industry

MP MANAGER

Our laboratory testers are bundled with our graphical user interface, called MPManager. The aim of this software is to help the user to get the most out of his Micropross tester, without the hassle of doing complicated programming : everything is done with mouse clicks. The main features of this software include :

Graphical display of spied exchanges



- ➔ Example of spy session
- ➔ The left of the screen displays which exchanges have been performed, with an interpretation based on different standards (ISO/IEC 14443 A/B, ISO/IEC 15693, NFC...)
- ➔ The right of the screen is the graphical representation, giving details about framing, response times, reaction to perturbations, and much more.

Execution of test scenarii

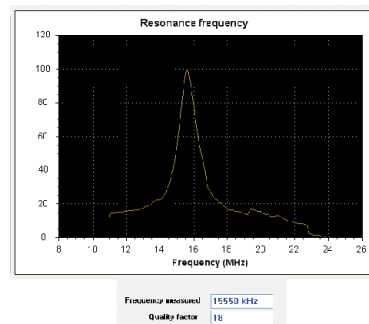
Line	Command	Parameters	Expected response
1	Select Card Type	Type A	
2	Power On		
3	Request	Request Type A	
4	Anticollision		
5	Send RATS	Nb bytes : 2 - Command : E001	
6	Send PPS	CID : 1 - DRI : 848 - DSI : 848	
7	Iso14443:Select Data Rate	PCD->PICC : 848, PICC->PCD : 848	
8	Iso7816:Send Apdu	A0CADF20-00	
9	Iso7816:Send Apdu	800E009E-01-55	
10	Iso7816:Send Apdu	8008009E-01-55	
11	Power Off		

No matter in which technology you are focused, you do not need any knowledge in programming to start testing your product. MPManager offers a simple and intuitive user interface, to allow you to define the test you are looking for.

Open platform

Our testers have been designed to easily integrate your own test software infrastructure. We supply to you all necessary resources, drivers, code samples to help you make the task of using our technology a successful experience.

Performance of physical measurement



Smartcard resonance frequency is one of the many measurement available on the MP300 TCL2, and directly accessible from MPManager.

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