

MP300 SCL1 (spy+smartcard simulation)

The ultimate contactless protocol analyser and terminal tester

- ◆ Supports the ISO/IEC 14443, ISO/IEC 15693, MifareTM and FeliCaTM protocols
- ◆ Supplies a graphical representation of the spied exchanges using the MPManager suite
- ◆ Optional contactless smartcard emulation feature
- ◆ Advanced physical testing (Electro Magnetic Disturbance generation, load modulation setting, …)



OVERVIEW :

The main features of the MP300 SCL1 are :

- Protocol analysis of exchanges using the ISO/IEC 14443, ISO/IEC 15693, MifareTM, FeliCaTM protocols
- Automatic detection of baudrate changes
- Detailed graphical representation of all spied exchanges
- Non intrusive data acquisition probe
- Evolvity into a contactless smartcard simulator
- Protocolary test features (customisable response time, wrong CRC, parity errors)
- Advanced physical test features (customisable load modulation, generation of EMD (electro magnetical disturbance))
- Open platform : integrate the MP300 SCL1 inside your own test platform
- Supplied with the MPManager software suite, enabling the complete control of the tester without any programming knowdedge
- This tester is recognised as the reference tester for Level 1 contactless terminal certification by the main payment organisation

This tester will typically be used in the following contexts :

- Debug of the protocol handling of a smartcard, or a reader
- Characterisation of a reader (protocolary and physical)
- On site debugging

SPECIFICATIONS :

Protocols Supported

| ISO/IEC 14443 | |
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| Type A | Available |
| Type B | Available |
| Supported data rates | 106, 212, 424, 848 kbps Asymmetrical data rates supported |
| Anticollision | Available |

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| T=CL protocol | Available |
| Mifare TM | |
| Supported versions | Classic Light Ultra light Ultra light C |
| ISO/IEC 15693 | |
| FeliCa TM | |
| Supported data rates | 212 and 424 kbps |
| Out of standard protocols | |
| Gives the possibility to exchange frames without any protocolary encapsulation | |

Programmable parameters (contactless smartcard emulation only)

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|--|---|
| Logical parameters | |
| FDT, TR0, TR1, SOF, EOF, EGT | Adjustable in clock cycles |
| Physical parameters | |
| Load modulation of the emulated smartcard | Adjustable (phase and amplitude can be defined) |
| Generation of EMD (Electro Magnetic Disturbance) | Available |

Spy feature

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| Resolution | 20ns |
| Events displayed | Carrier and subcarrier detection Type A sequences Phase changes Bytes Frames User events Trigger in Trigger out I/O direction Baudrate changes (asymmetrical baudrates are supported) |

Card emulation programming modes

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|-------------------|---|
| Scenario mode | Timings are respected to the clock cycle, deterministic approach |
| Event driven mode | The user defines the reaction of the emulated smartcard on reception of events, with possibility to define the reaction depending on the event and the value of the received frames |

Triggers

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| The MP300 SCL1 offers triggers, to synchronise or to be synchronised by external laboratory devices (oscilloscopes, ...) |
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Physical information

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| Weight (Desktop package) | 3.10 kg |
| Dimensions (Desktop package) | Width : 130mm Height : 240mm Depth : 320mm |
| Weight (Unitary rack package) | 1.98 kg |

| | |
|-----------------------------------|---|
| Dimensions (Unitary rack package) | Width : 150mm Height : 78mm Depth : 270mm |
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Communication parameters

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| USB 2.0 |
| TCP/IP 10/100 Mbps |
| RS 232 |

Software development

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| Remote development (the code is executed from the PC) | |
| Elements available | Communication DLL supplied |
| Supported programming languages | C, C++, VB, Java, .NET Any language that supports DLL |
| Embedded development (the code is executed directly by the MP300) | |
| Recommended cross compiler | Windriver compiler (preferred version : 4.4b) |

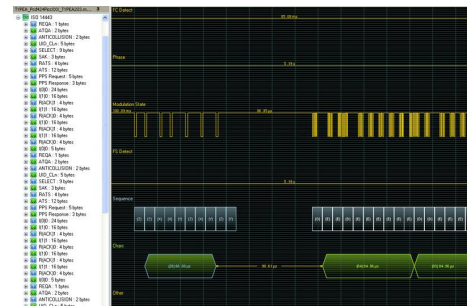
User Interface

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|-----------|
| MPManager |
|-----------|

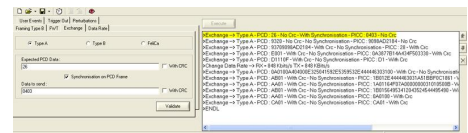
SOFTWARES :

The MP300 SCLI is supplied with the MPManager software. Its easy and intuitive interface will help you to start the spy sessions, just clicking on one button.

At the end of the spy session, all exchanged that have been trapped are displayed, either under a tree shape, or under a graphical approach.



The contactless smartcard simulator can be also driven using the MPManager software. The content of the frames, the activation of the triggers, the generation of errors can be activated very easily :



Using the DLL component that is supplied by Micropross, it is also possible to program smartcard simulation scripts from a user defined program. This way, it even becomes possible to program non-deterministic scripts (ideal to simulate cryptographic behaviours)

ACCESSORIES :

Micropross supplies a complete range of accessories for the MP300 SCL1, that include :

Spare spy probes

Software upgrade, to make a contactless smartcard simulator out of the MP300 SCL1

We also supply packages to extend the warranty of the tester. Please ask us for the maintenance contracts available.