

MP65

A low cost multiprotocol reader for contact smartcard tests and validation

- ◆ Fast multiprotocol smart card reader
- ◆ Supports ISO/IEC 7816, SWP, USB 2.0 protocols
- ◆ Support of USB-IC optional
- ◆ Ideal for validation and quality inspection



OVERVIEW :

This tester will typically be used in the following contexts :

- Debug of a smartcard operating system
- Quality inspection tasks

The main features of the MP 65 are :

- Emulation of a contact smartcard reader, or a CLF
- Compatible with smartcards, micro-modules, M2M components
- Support of the ISO/IEC 7816-3 and -4, USB 2.0, SWP/S-HDLC/HCI protocols
- Support of the USB-IC protocol available as an option
- Completely supports the ETSI TS 102 613 and TS 102 622 specifications
- Open for implementation of custom protocols
- Endless possibilities of protocolary customisation
- Possibility to adjust the Vcc, clock frequency, SWP baudrates
- Open platform : integrate the MP 65 inside your own test platform
- Supplied with the MPManager software suite, enabling the complete control of the tester without any programming knowledge

SPECIFICATIONS :

Protocols supported

ISO/IEC 7816	T=0 and T=1 protocols implemented by firmware, communication managed by hardware
USB 2.0	Low speed, full speed. ISO 7816-12, mass storage, custom protocols
USB-IC	Optional
SWP (ETSI TS 102 613 and TS 102 622)	Up to 1.6Mbps SWP and LLC (S-HDLC, ACT, CLT) managed by firmware

Raw mode	Gives the possibility to exchange frames without any protocolary encapsulation
Out of standard chips	Benefit from Micropross\' experience in smartcard programming

Programmable parameters

Physical parameters	
Voltages	
Vcc	1V to 6V
Frequency	
ISO 7816 clock frequency	10kHz to 10MHz
ISO 7816 clock duty cycle	50%
Pin states	
All pins are independent from each other, and can be separately managed	
ISO 7816 communication parameters	
ETU width	From 1 to 4096 clock cycles (bit sampling adjustable)
BGT, initial ETU width	Adjustable in clock cycles
BWT, CWT, EGT, RGT, WWT	Adjustable in ETUs
Clock stop at high or low state	Adjustable
Clock stop tG and tH timings	Adjustable in clock cycles
Parity control	Can be forced to 0, 1, odd, even
Input parity error checking	Can be disabled
Pull-up resistor	5k Ω ; or 20k Ω ;
SWP communication parameters	
Baudrates supported	106, 212, 424, 848 kbps, 1.6Mbps
S2 detection threshold	Can be adjusted from 1nA to 1.1mA
Activation time, P2, P3 timings	Can be adjusted
USB-IC parameters	
Voltage classes supported	1.8V and 3.0V
USB-IC specific attachment procedure	Managed by the tester

Physical information

Weight	420g
Dimensions	Width : 130mm Height : 40mm Depth : 195mm

Communication parameters

USB 2.0
TCP/IP 10/100 Mbps
RS 232

Software development

MPSDK .NET library available on demand
Communication DII supplied
Usable programming languages : C, C++, VB, Java, .NET environments

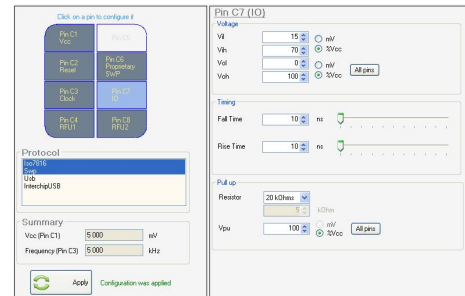
User Interface

MPManager

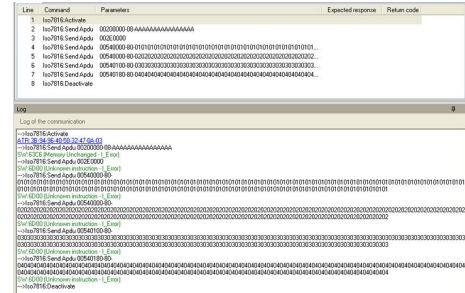
SOFTWARES :

The MP 65 is supplied with the MPManager software, whose aim is to open all of the tester's functionalities, accessible just with mouse clicks.

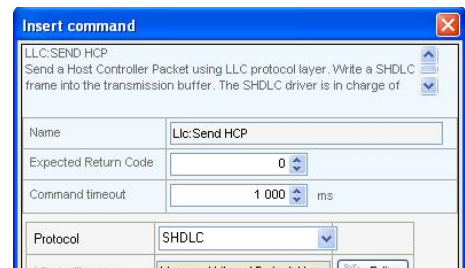
First, the MPManager software will make it possible for you to define all electrical settings, including applied voltages, the clock frequency, the rise and fall time of all signals.



This user interface will allow you to edit your test scripts, starting from the library of commands available. They cover a full range of functionalities, such as sending APDU commands, or launching electrical measurement.



Many possibilities are offered to edit HCI commands, and send them to the smartcard.



This user interface gives also access to all electrical measurements of the smartcard. For example, the shmoo plot window will make it possible for you to study the influence of the combination of several electrical or protocolary parameters on the execution of a given script.



ACCESSORIES :

Micropross supplies a complete range of accessories for the MP 65, that include :

A probe for oscilloscope connection
The support of the USB-IC protocol

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