

FOR ELECTRICAL TERMINAL TESTING



→ FOR YOUR IT<sup>3</sup>

## IT<sup>3</sup> ANALOG SIMULATOR

How does the handset reacts under electrical testing?  
Our IT<sup>3</sup> Analog Simulator allows accurate simulation of electrical signals and manipulation of electrical behaviour – rigorous testing of the card/terminal interface.

- MONITOR
- DIGITAL
- ANALOG

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→ FOR YOUR IT<sup>3</sup>

# IT<sup>3</sup> ANALOG SIMULATOR

## Technical details

- Simulation of Smart Cards with T=0 and T=1 in accordance with ISO/IEC 7816-3
- Setting of the protocol parameters
- Adjustment of electrical parameters
- Accurate simulation of electrical signals
- Manipulation of electrical behaviour
- Analysis of the protocols T=0 and T=1
- Support of voltage classes 1.8V, 3V and 5V
- Timing analysis of transmitted signals
- Timing measurement resolution: 20ns
- Timing measurement in etu and seconds
- Measurement of electrical signals
- Support of enhanced speed up to 8 clock cycles per etu at 10 MHz
- Error simulation

## Analog measurements

- Voltage: -2V – 10V
- Current: 0.1mA – 5mA
- Frequency: 0.1 – 6MHz
- Duty-Cycle: 30% – 70%
- Rise-/Fall time: 100ns-2000ns or 0.05% – 20%

## Simulation modules

- GSM SIM simulation – 3GPP TS 51.011
- 3G UICC/USIM simulation – ETSI TS 102 221, 3GPP 31.102
- GSM SAT simulation – 3GPP TS 11.14
- 3G USAT simulation – 3GPP TS 31.111

## Test suites

### GSM

- 3GPP TS 51.010-1 Test Cases Digital
- 3GPP TS 51.010-1 Test Cases Analog
- 3GPP TS 11.10-4 SAT Test Cases Rel. 99 Stage I + Stage II

### 3G

- 3GPP TS 31.121/ETSI TS 102 230 Test Cases Digital
- ETSI TS 102 230 Test Cases Analog
- 3GPP TS 31.124/USAT

### CDMA 2000

- 3GPP2 C.S0048-0 Digital
- 3GPP2 C.S0048-0 Analog

## Platform specification

- Integrated PC with
- Ethernet 10/100 MBit
  - RS 232
  - DVI/VGA graphics adapter
  - USB
  - CD RW
  - Keyboard
  - Mouse

## Operating system/software

- MS Windows 2000 prof.
- MS Visual C++

## Add-on products for this platform

- IT<sup>3</sup> Live!
- (U)SAT Editor
- IT<sup>3</sup> Analog Scope
- GSM-Translator
- UMTS-Translator
- CDMA-Translator

MONITOR

DIGITAL

ANALOG

# COMPRION

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