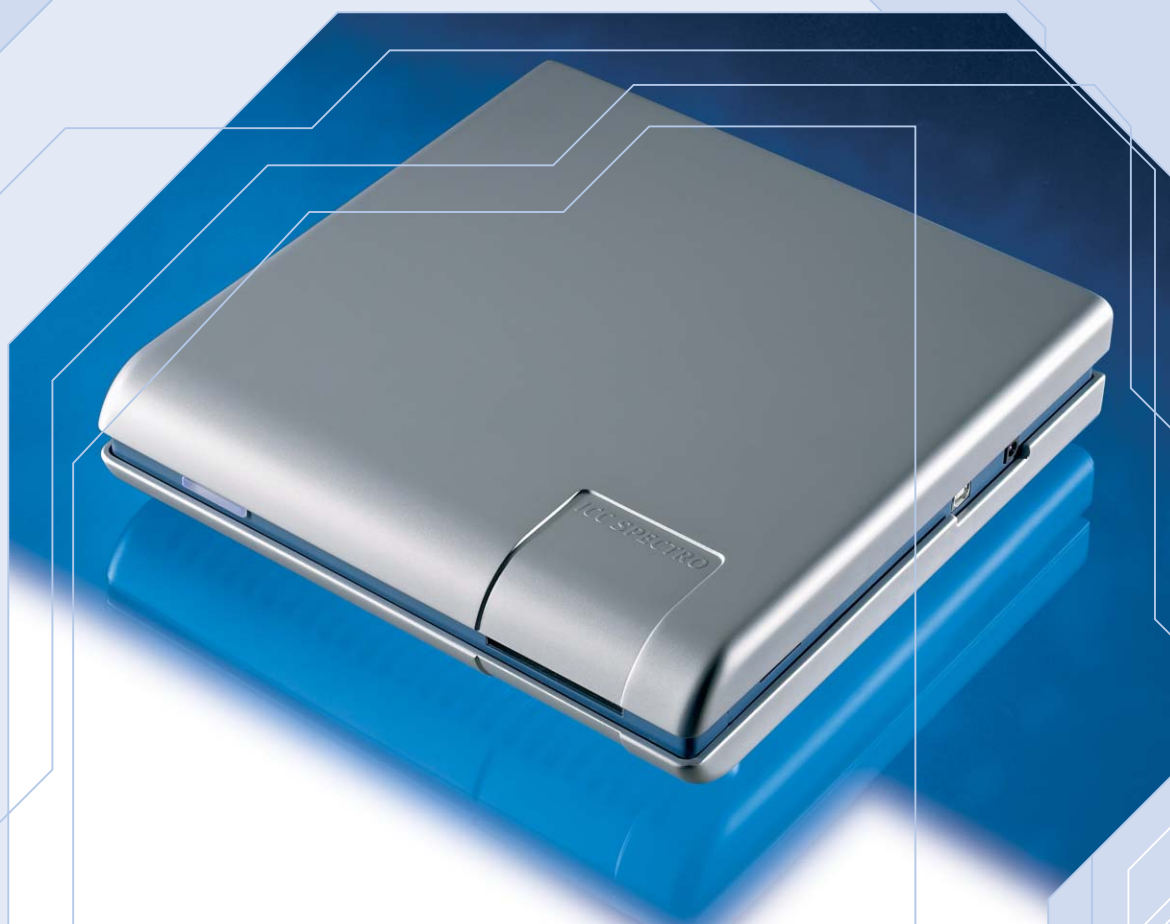


TESTABILITY FROM COMPRION



## ICC SPECTRO

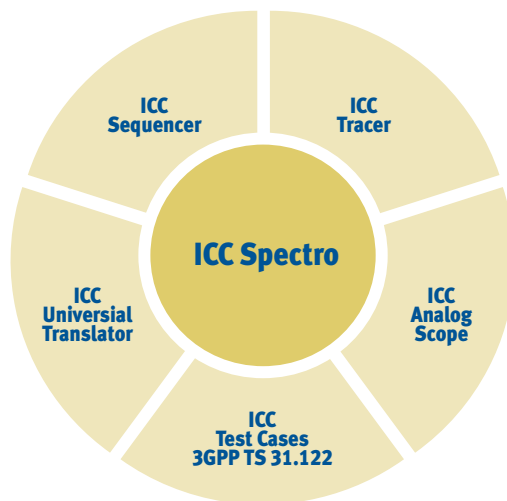
**ICC Spectro is a test and measurement device for Smart Cards operating with ISO/SWP/USB interface technology. It is a terminal simulator for Smart Card testing that supports all development phases:**

- Chip development
- Smart Card Protocol implementation
- Application implementation

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# ICC SPECTRO

## Modular product design



- Basic Hardware and Operational Software
- Optional add-on Software Modules

## Basic functions

- Support of 1.2V, 1.8V, 3.0V and 5.0V
- ISO/IEC 7816 1-4
  - Electrical measurements
  - Electrical signal generation (Analog simulation)
  - Adjustment of all T=0 and T=1 protocol parameters
  - Error simulation
  - Digital monitoring
- SWP
  - Digital monitoring
  - SWP card testing with ICC Sequencer
- USB
  - Digital monitoring
  - USB card testing with ICC Sequencer
- Test case development API
- Test Manager for test scenarios, results and reports
- Software controlled trigger output

## Modules functions

- ICC Tracer:**  
Monitoring tool and end-to-end analysis of communication between smart card and terminal on ISO/SWP/USB
- ICC Sequencer:**  
Test sequence creator for developing customized APDU sequences and measurements by using predefined APDUs and measurement templates
- ICC Testcases 3GPP TS 31.122:**  
UICC/USIM conformance test cases containing diverse electrical and protocol test cases
- ICC Analog Scope:**  
Integrated oscilloscope for detailed electrical measurement and analysis on contacts Vcc, RST, CLK and I/O with max. 3 analog and max. 12 digital channels

## ICC Universal Translator:

Translation tool for HEX data into logical content in multi-technology environment (GSM, 3G and CDMA)

## Measurement capabilities

- Measurement
  - Voltage range -2V to 7V, resolution 2.5mV, accuracy\* +/-25mV
  - Rise & fall time resolution 1ns, accuracy\* up to +/- 1ns (depending on the absolute time and signal swing)
  - VCC contact with two current measurement channels: 1mA, accuracy\* +/-5µA and up to 250mA, accuracy\* +/-500µA
  - Each contact (RST/CLK/I/O) with two current measurement channels, up to 125nA resolution & +/- 1µA accuracy\*
  - Measurement of the capacitance on CLK, RST and I/O contact is available
- Settings
  - VCC-, RST-, CLK-, I/O-voltage range - 0.5V to 6.5V, resolution 100µV, accuracy\*: +/-5mV
  - Signal rise & fall time: resolution 1ns, accuracy\* +/-1ns (depending on the absolute time and signal swing)

## Dimensions

- Dimension (W x D x H):  
appr. 275 x 280 x 70 mm
- Weight 3,0 kg

## Host requirements

- OS: Windows 2000/XP/VISTA
- USB-Interface: USB 2.0
- RAM: 1GB
- Hard disc: min. 50MB
- Processor 2GHz or higher

\* Measurement accuracy is based on own observations

# COMPRION

Technologiepark 11  
33100 Paderborn - Germany  
Phone: +49 - 52 51- 699 86 0  
Fax: +49 - 52 51- 699 86 99  
E-mail: [info@comprion.com](mailto:info@comprion.com)  
Web: [www.comprion.com](http://www.comprion.com)

Handed over by: