

# CLASS-3150

## Contactless Smart Card Analyzer

- ISO/IEC 14443 Protocol Analyser.
- Contactless Smart card Analyser.
- Contactless Smart card Simulator.
- Terminal testing



**The CLASS 3150 is a tool dedicated to laboratories. It combines two products:  
ISO 14443 Contactless smart card analyzer**

The CLASS 3150 traps **all exchanges** between the PICC (type A or type B) and the reader, and thus is a perfect tool for protocol analysis. With a trace depth of **several millions** of events, you can get the modulation and the byte exchanges between the reader and the card. Dating and duration of each event are expressed in periods of the carrier or in nanoseconds (accuracy **20 ns**).

You can find and fix quickly any error in the protocol or the application thanks to the CLASScope software.

### **ISO 14443 Contactless smart card simulation**

Used to **test terminal** protocols and applications, the CLASS 3150 allows the simulation of type A or B contactless smart cards through a rich set of APIs. You can develop and test your application even without a smart card. You can simulate a variety of configurations (collisions, framing and **timing modifications** ..) to test the terminal functionality.

Analyser and simulator can be used simultaneously.

As the other products in the CLASS family, the CLASS 3150 is an open system. TCP/IP communication offers high speed transfer of data between a host and the tool.

Applications can be developed in C language either on PC, or in embedded environment if real time is needed. Several applications can be stored in the CLASS 3150.

### **CLASScope**

CLASScope is a software package that allows **very simple** and user friendly visualisation and configuration of the whole set of information trapped by the CLASS 3150. The trace of each event (modulation, carrier frequency and character) is displayed graphically. Two cursors allow **accurate timing** measurements.

Note : All specifications are subject to change without notice



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## CLASS 3150 Technical data

### Logic and protocol analyser

- Modulation capture
  - Capture depth up to several millions of events.
- Trace can be downloaded to CLASSCOPE for further analyse
- Timing dating in periods of the carrier or ns

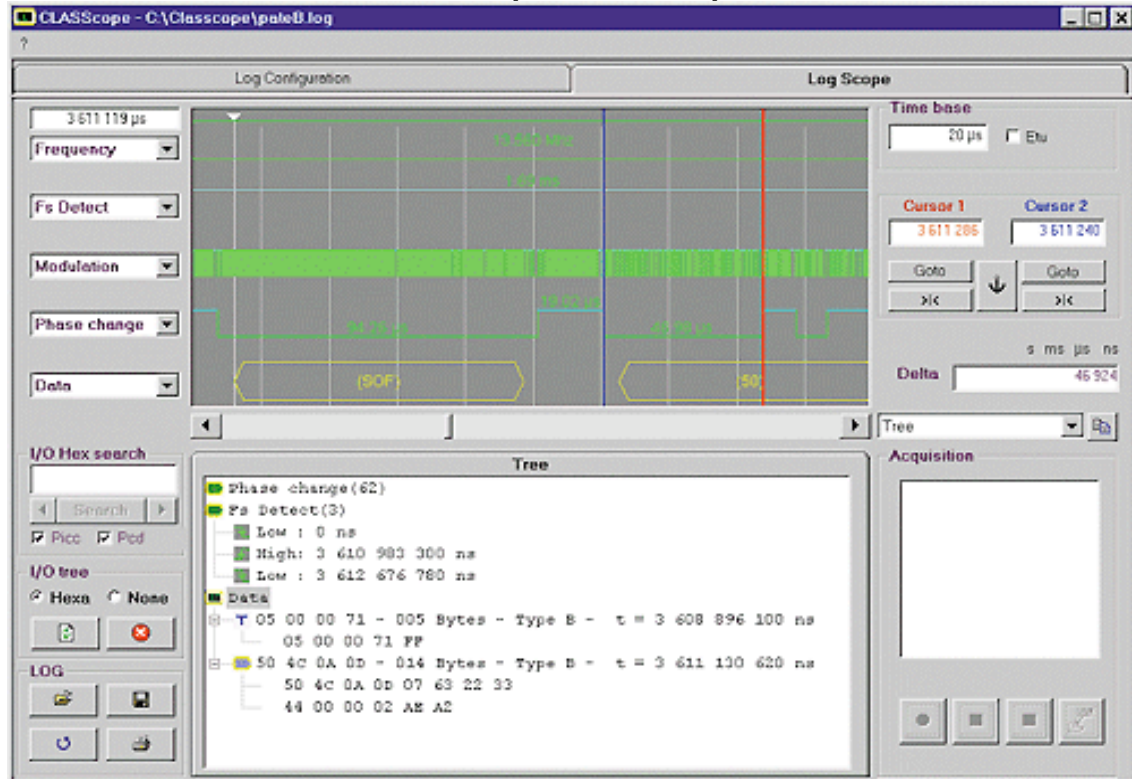
### PICC simulator

- Supports type A and type B.
- Supports data rate 106, 212 and 414 Kbits/s
- Programmable SOF,EOF and EGT duration.
- Programmable bit duration
- Adjustable load modulation amplitude
- Programmable OOK to 0.25, 0.5 or 0.75 of the bit duration
- Transmit and receive error generation (protocol and application): parity, guard times, APDU

### Miscellaneous

- **MicroController COLDFIRE MCF 5307**
- **Serial port** : 9600, 19200, 38400,115200 bps - RJ 11 connector
- **Ethernet port** (10 baseT - RJ45) for TCP/IP: Provides standard sockets interface and FTP client.
- **USB port 1.1**
- **RAM** : 64 MB SDRAM
- **Flash** : 1 MB
- **User EEPROM**: 128 words (16 bits): non volatile storage convenient for configuration parameters
- Power On LED, User defined bicolour LED
- Supplied with : Power supply, serial cable, Antenna, application examples, communication DLL, documentation.

### CLASScope screen example



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