Overview V.1.0

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Eutronsec S.p.A. is a company managed and coordinated by Selesta S.p.A. (fiscal code IT 02825520105)

This hardware key is in compliance with the following test specification:

CEI EN 61000-4-2; CEI EN 61000-4-3; CISPR22

as required by:

CEI EN 61000-6-1, CEI EN 61000-6-2, CEI EN 61000-6-3, CEI EN 61000-6-4

which are specified for the following test:

- "ESD Immunity test"
- "Radiated radio-frequency and electromagnetic field immunity test"
- "Radiated Emission Verification"

In compliance with the "Essential Requisites" for the EMC Directive 89/336/EEC.

FCC ID: TFC-AAH

Eutronsec Spa
SIMReaderCombo
Supply: 5V DC
Absorption: 250 mA

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio
frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Caution: changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT REMARKS

Due to the limited space on the product shell, all FCC certification references are on this technical manual.

SIMReaderCombo

Eutronsec, one of the world´s leading manufacturers of secure devices, has developed a new portable USB smart card reader. The SIMReaderCombo is a fully functional smart card reader for SIM-sized smart cards and is especially well suited for the use with mobile devices.

High-Speed
Based on revolutionary chip technology, jointly developed with Atmel, the portable SIMReaderCombo supports reader-to-card data transmission rates of up to 420 KBits per second, exceeding the performance of other smart card readers.

Standards
Because the SIMReaderCombo complies with all relevant industry standards (ISO 7816, EMV (Europay, Mastercard, Visa) 2000, Microsoft® WHQL, USB CCID, PC/SC, HBCI (Home Banking Computer Interface, the PC-2001 Specification and many more) it is open for any smart card for any application on any computer .

The usage within an application is based on standardized interfaces like PC/SC, OCF (Open Card Framework) or CT-API.

Applications
Applications for the new reader include the download of GSM applications from the internet to the SIM card, W-LAN authentication, secure PC log-on, PKI for mobile users, digital signature, secure mobile banking and online transactions, loyalty programs, healthcare solutions and many more future applications.

The SIMReaderCombo is CCID-compliant and features a full-speed USB 2.0 interface. With CCID drivers becoming a standard feature of many operating systems, the SIMReaderCombo can simply be plugged into a USB port and automatically be operated without the necessity to install additional drivers..

SIMReaderCombo

Host Interface	
USB 2.0 CCID [1] (also compliant with USB 1.1)	√
Transmission Speed	12 Mbps
Power supply	Bus powered

Smart Card Interface	
Compliant with ISO 7816 and EMV [2] 2000 Level 1	√
Supports T=0, T=1	√
Supports 2-wire (SLE 4432/42), 3-wire (SLE 4418/28), SLE 4404	√
Supports I^2C (S=8)	√
Card Size	ID-000 (SIM size)
High performance smart card interface (up to 420 Kbps when supported by card)	√
Smart card clock frequency up to 8 MHz	√
Supports 5V, 3V & 1.8V smart cards	√
Supplies 60 mA current to power the smart card	√
Smart card movement detection with auto power-off	√
Automatic detection of smart card type	√
Short circuit and thermal protection	√

Other Features	
Status indicator	LED

Options	
Customer specific logo or label	On request
Customer specific colors	On request

Compliance	
Microsoft® WHQL [3]	√
EMV [2] 2000 level 1 certified	√
ISO 7816	√
HBCI [4]	√
USB 2.0 (USB 1.1 compatible)	√
RoHS, WEEE	√

API	
PC/SC driver	√
CT-API (on top of PC/SC)	√
OCF (on top of (PC/SC)	√

PC /SC Driver Support	
Windows® 98/ME	√
Windows® 2000/XP	√
Windows® 2003 Server	√
Windows® Vista 32/64 bit	√
Windows® XP 64Bit (AMD64, EM64T, IA64)	√
Windows® CE 5.0 / CE.NET (on request)	Depending on hardware
Linux®	√
Mac® OS X (Power PC)	√

Embedded Technology	
CardMan® Smart@Link Chip set	√

Hardware Specifications	
Colors	Gray-Red
Dimensions	74 x 21 x 10mm 2.43"x.70"x.30"
Weight	10 gr/0.35 ounces
Operating temperature	0-55℃/32-131℉
Operating humidity	10-90% rH
Composition	Polycarbonate
Durability	100,000 Insertions
Meantime between failure	500,000 Hours

Safety and Environmental Standards	
CE	√
FCC	√
UL	√

RoHS COMPLIANT 2002/95/EC

1= Chip Card Interface Device 2= Europay® MasterCard® Visa® 3= Windows® Hardware Quality Lab 4= Homebanking Computer Interface

Flash memory functionalities:

Flash memory capacity: 128MB–256MB–512MB–1GB–2GB
- Reading transfer rate from flash memory: 18 MB/s
- Writing transfer rate to flash memory: 11 MB/s

The flash memory embedded in the device is handled as a single drive unit which can optionally be partitioned into 3 areas selecting among the following types:

- *Standard mass storage:* where data are visibly stored
- *Encrypted mass storage* with AES 256
- *CD-ROM* with autorun function