

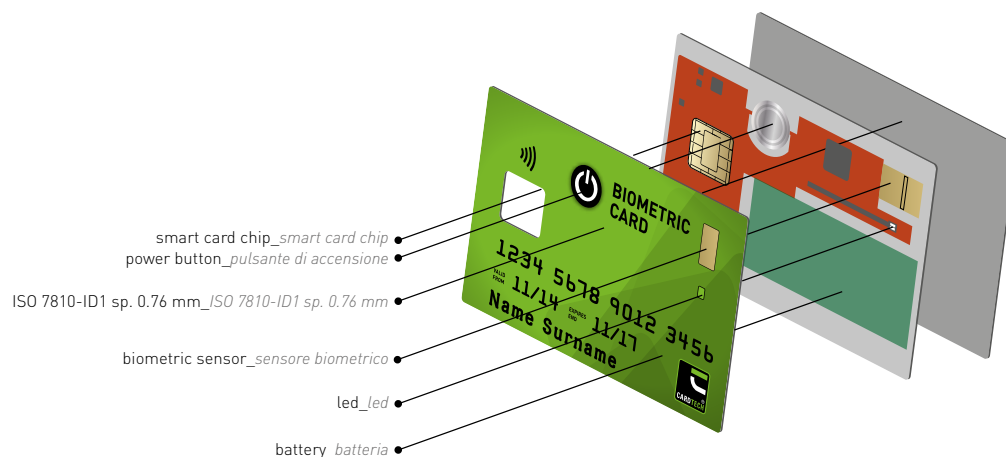


Biometric System on Card



Card Tech® biometric smart card is a revolutionary ISO standard powered smart card which features a stand-alone biometric authentication system. The fingerprint sensor, which is embedded in the 0,76 mm thin smart card, only allows the legitimate owner of the card to access the smart card functionality. Vice-versa, if the user is not authenticated, the card will be seen as blank or dummy card. The biometric data, namely the fingerprint template, is stored in the encrypted

memory of the card and it can not be accessed from the outside, also it is never transmitted because the matching process is carried out inside the card by its built in processor. This card offers contact and contactless operations, targeted at the physical and logical access control market, the identification market and the banking/financial market. The biometric smart card is compatible with current identification and payment global infrastructure.



Use cases

Physical access control

- Badge replacement – RFID
- Door and gate electronic locks – RFID, contact
- Turnstiles – RFID, contact
- Check-in systems – contact



Logical access control

- OTP-based token – contact, RFID
- OTP generator card – contact
- Keyring unlock – RFID, contact
- Web- and net-based services – RFID, contact



National identification

- Passport/ID Card – contact, RFID
- Driving license (generic and specific [i.e. taxi license]) – contact, RFID
- Healthcare program card – contact, RFID



Banking/financial applications

- Debit card – contact, NFC
- Credit card – contact, NFC
- Prepaid card – contact, NFC
- Home banking/OTP secure access card – contact, RFID



New markets

Other than common usage scenarios, the high security and application flexibility of the biometric smart card can open new scenarios, especially leveraging the multiple application support and the dynamic switching capabilities.



Technical Specifications

- Complete Match-on-Card system
- Up to 10 fingerprints saved on-card
- Up to 5 users (2 fingers each) enrolment
- Capacitive swipe fingerprint reader
 - 376dpi (500dpi option), 9.5mm-wide
 - 20 to 30 minutiae extraction capability
 - 0.01% FAR, 0.1% FRR
 - Template-based matching
- Standards
 - ISO/IEC 7810
 - ISO/IEC 7816-1-2-3-4
 - ISO/IEC 17839 (Biometric System-on-Card)
 - ISO/IEC 14443
 - ISO/IEC 18092
 - ISO/IEC 10373-1-2-3-4-6
- Supported protocols
 - T=0, T=1 according to ISO/IEC 7816-3
 - ISO/IEC 14443 A
 - NFC-Tag Type2
 - NFC-Tag Type4
 - Interoperable with Mifare contactless systems
- Memory
 - Up to 32kB EEPROM for application
 - Multiple application support possible
 - Dynamic application switching
 - 10.000 write cycles lifetime
- Class-A device, 5V operations
- Rechargeable thin-film battery
 - Up to 80 activations for single charge
 - 7.000 activations lifetime
 - 5 years device lifetime (4 uses per day)