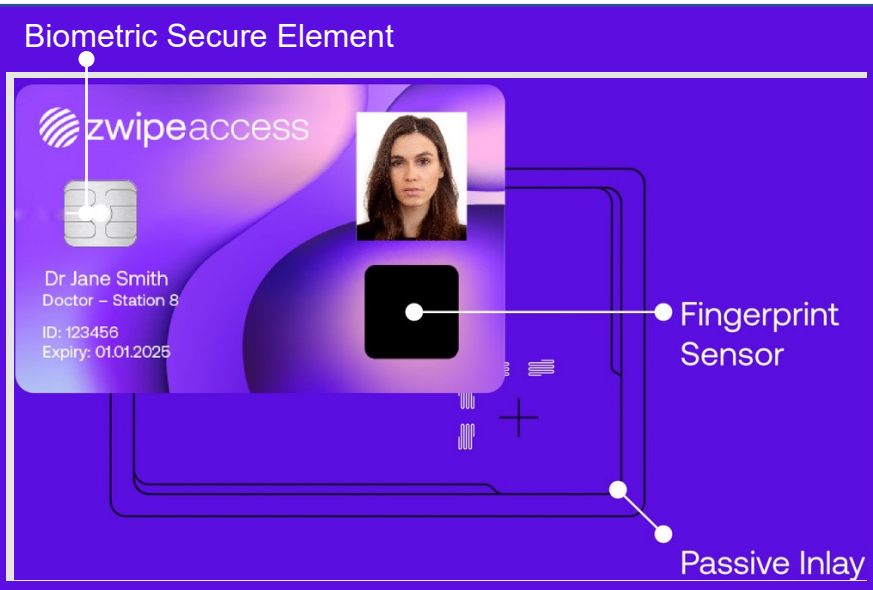
Zwipe Access
LEGIC Advant



Zwipe Access is a card-based fingerprint access control solution. Fingerprint capture, extraction, and comparison are performed within the Zwipe Access card. This means that the cardholder's biometric data never leaves the card providing increased data privacy to the cardholder.

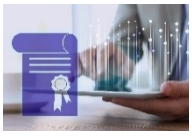
Zwipe Access enables two-factor authentication with biometrics without the need of an additional fingerprint reader, where the card verifies the cardholder identity, and the access control system verifies the card's authenticity and integrity.

Zwipe Access can easily be integrated into existing access control infrastructure and is fully compatible with market-leading card-based access control solutions. LEGIC functionality is activated through the LEGIC Advant card-in-card technology. With the LEGIC Advant card-in-card applet, LEGIC applications such as access control, time & attendance, and cashless payment can be virtualized and combined with strong fingerprint authentication. Customers may also run their own Java Card applications, such as FIDO, PKI, Crypto wallets, secure storage, or any other applications on the Zwipe Access platform.

Zwipe Access shares a platform with our payment product, called **Zwipe Pay,** which has undergone the security and durability testing mandated by payment schemes (Visa & Mastercard) for the daily usage of payment cards.

✓ JavaCard based multi-application support

✓ Secure on-card capture & storage of fingerprint data.



✓ Share same platform with certified payment product.

✓ Secure data transfer between FP sensor and SE.

✓ Integrates into existing physical and logical access.

✓ Batteryless and card harness power from RF field.

Zwipe AS | Rådhusgata 24, 0151 Oslo, Norway
sales@zwipe.com | zwipe.com

Specifications

Product Name	Zwipe Access
Order through	sales@zwipe.com
Biometric Secure Element	
Secure Element	Idemia Starchip® SCR496U
Architecture	CORTUS® APS3cd 32-bit core with RISC Architecture.
Fingerprint sensor	
Fingerprint Sensor	IDEX Biometrics IDX3405
Fingerprint sensing technology	Off-chip capacitive
Fingerprint active sensing area	9.5 mm x 9.5 mm
Functional	
Operating Frequency	13.56 MHz with ISO/IEC 14443 Type A
Communication	ISO/IEC 7816-3, ISO/IEC 14443 Type A
Communication speed	848 kb/s (ISO/IEC 14443 Type A)
Typical Maximum Read Range	2-5 cm (depending on the reader used)
NVM Memory Type	FLASH
Write Endurance / Data Retention	Min 500,000 cycles / 10 years
Platform	Oracle Java Card Platform, Classic Edition 3.0.4 and Global Platform Card Specification, v2.3 with Global Platform Financial Configuration, v1.0.2
Security Certification	EMVCo certified Hardware platform.
Durability Certification	Mastercard CQM & Visa Biometric Card Body Innovation Testing
Multi-application support	Yes
Available memory	200 kBytes
LEGIC Advant	
Application Specific Revision	AFS4096-JP11
Application Specific Memory	4 kBytes
Typical Transaction Time	~1-1.5s (@ 1.5 A/m)
Authorization-(Key) management (per application)	Master-Token System-Control
Data transfer encryption	3DES
Data storage encryption (per appln)	AES (128/256 bit), 3DES, DES, LEGIC encryption
Max. number of applications[1]	127
Memory segmentation	Dynamic
Application segment size	Variable
Reader modules supported	All LEGIC SM-4x00 or SM-63x0 readers. For, LEGIC SM/SC2xy0 reader generation, the firmware must be >=v3.0.
Physical & Operational	
Dimensions	ISO/IEC 7810 ID1 size - 85.6 × 53.98 × 0.68 mm^3
Material Composition	5-layer symmetrical laminated PVC with embedded copper wire inlay
Operating Temperature	0 °C - 45 °C
Operating Humidity	20% - 80% RH, non-condensing
Operating lifetime	5 years (normal use conditions)
Printing Options	
Printable	Yes (glossy white front avoiding fingerprint and contact pad area /glossy white back). For details, sales@zwipe.com.
Slot Punch	Not available

[1] The actual max. number of applications depends on the memory requirements of applied applications

Zwipe AS | Rådhusgata 24, 0151 Oslo, Norway
sales@zwipe.com | zwipe.com