Zwipe Pay

Product Brief

Zwipe Pay is a biometric payment solution. Biometric feature extraction and comparison is performed within the secure element, on a single die. The primary application is for biometric payment cards and wearable devices. Zwipe Pay consists of three key components:

- an IC module with biometric secure element
- a fingerprint sensor
- a passive inlay, just like a standard dual interface card inlay.

The IC module and fingerprint sensor can be embedded into the card body after lamination. There are no active electronics on the inlay, reducing cost and increasing reliability.

Passive inlays come on prelaminated sheets, made to smart card manufacturer specifications. These prelaminates enable hot lamination in a standard card manufacturing process.

Primary Benefits

1. Enabling a passive Inlay
2. Enabling low power consumption & excellent read range
3. Enabling greater finger placement tolerance, lower biometric error rates
4. Enabling secure communication between SE & sensor
5. Enabling standard production processes & significantly lowering yield losses

Certifications

- EMVCo™
- CQM compliance

Specification Compliance

- Visa VBSS 1.0.1
- Mastercard M/Chip Advance Biometric Application Specification 1.2.3

Zwipe AS | Rådhusgata 24, 0151 Oslo, Norway | Org. # 994553607
sales@zwipe.com | zwipe.com

Version 1.4 | November 2022
Technical Data

**IC module**

- **Module Design:**
  - Offset - 6
- **Outer Dimensions:**
  - 12.8 mm x 11.6 mm ± 0.2 mm
- **Plating:**
  - Gold or Palladium (see right)
- **Bond pads (#):**
  - 6 active, 2 mechanical
- **Bonding method:**
  - ACF (Dexerials EH1038-40 recommended)
- **Secure Element:**
  - IDEMIA StarChip SCR496U
- **Interfaces:**
  - ISO/IEC 7816-3, Class A & B
  - ISO/IEC 14443, Type A
- **Flash Memory:**
  - 496 k Byte
- **OS:**
  - GlobalPlatform Financial Configuration / Java Card compliant

**Fingerprint Sensor**

- **Sensor manufacturer & model:**
  - IDEX Biometrics IDX3405
- **Sensing technology:**
  - Off-chip capacitive
- **Sensor dimensions:**
  - 16.2 mm x 16.2 mm ± 0.1 mm
- **Active sensing area:**
  - 9.5 mm x 9.5 mm
- **Security:**
  - Secure messaging to SE
- **Current consumption:**
  - < 5 mA
- **Bond pads (#):**
  - 4 active, 4 mechanical
- **Bonding method:**
  - ACF (Dexerials EH1038-40 recommended)

**Prelaminate**

- **Inlay type:**
  - Passive, embedded wire
- **Substrate material:**
  - PVC, white
- **Prelaminate geometries:**
  - To customer specification
- **Prelaminate thickness:**
  - 320 µm ± 20µm