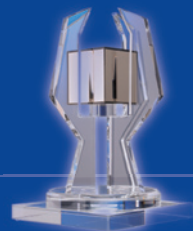# MORPHOSMART™ FINGER VP

OEM SERIES

MULTIMODAL FINGER VEIN AND FINGERPRINT MODULE

The Ultimate Solution for Security, Accuracy and Performance

- Fusion of two complementary biometrics
- Innovative and universal biometric technology
- Unequalled trade-off between security and comfort of use
- Enhanced resistance to spoofing
- Identification with large scale databases
- Simple to integrate
- Robust (IP 65 rated optical sensor)
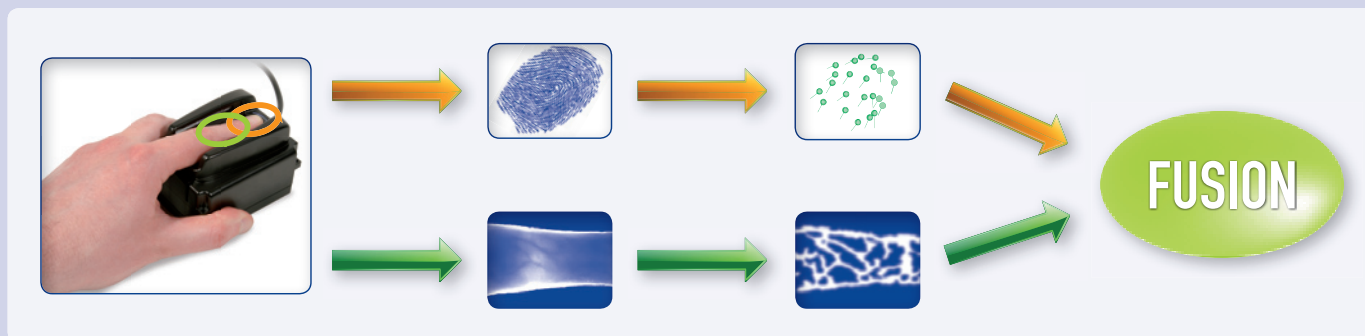- FBI PIV IQS certified

Security Innovation Award, Essen 2010

SAFRAN

Morpho

MORPHOSMART™ FINGER VP

OEM SERIES

MULTIMODAL FINGER VEIN AND FINGERPRINT MODULE

World leader in biometrics, Morpho has developed the first ever multimodal device capable of capturing and processing finger vein and fingerprint biometric data at the same time.

With the MorphoSmart™ FINGER VP OEM Series, it is now possible to integrate easily this innovative technology into a vast range of end-user applications, e.g. access control terminals, ATM, mobile devices for identity checks and secure payments.

A new era for biometrics

- **Universal and easy-to-adopt:** successful enrollment is guaranteed - particularly for individuals who experience difficulties with mono-modal devices - with the same simplicity and ease of use as for fingerprints alone

  > The failure To Enroll (FTE) rate is greatly improved

- **Unparalleled accuracy:** by reducing the probability of rejecting genuine individuals and accepting impostors, it gives an efficient response to both comfort and security concerns in any biometric application

  > @FAR=10^{-4}, FRR is 10 times lower than with the best of the 2 modalities

- **Resistance to spoofing:** it combines the protection mechanisms intrinsic to each technology and also makes the most of the new characteristics resulting from the fusion

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Simple to integrate

- Compact and light package: 83x65x57.2mm ; 150g
- All-in-one module:
  - **FBI PIV IQS** certified optical sensor, capturing all the necessary finger vein and fingerprint data
  - Unrivalled algorithms: embedded feature extractor and matcher (**FIPS201** and **MINEX** compliant for fingerprint)
  - Intuitive and ergonomic MMI with positioning guides, LED indicator and **finger presence detection**
- Convenient interfaces: **USB (2.0 High Speed)** or Serial (up to 920.6 Kbps) for communication and power supply
- **Comprehensive SDK** for Windows XP, Vista, Seven, Server, CE/Mobile and Linux

Robust design

- **IP 65** rated sensing window
- Scratch, vibration and shock resistant
- Temperature range: -10°C to 50°C (operating) ; -20°C to 70°C (storage)
- Humidity range: ≤ 95% RH non-condensing

Extensive and best-in-class biometric/security features

- **Fast recognition:**
  - One-to-one **authentication** in 1s (average)
  - One-to-many **identification** in 1s average (1 to 500), 1.5s average (1 to 5,000)
- **Large storage capacity: 5,000 users** (10,000 templates)
- **Multiple biometric outputs:**
  - Multimodal template
  - Fingerprint image (500dpi, 256 grayscale, 400x400 pixels): RAW or WSQ compressed (under license)
  - Fingerprint templates (under license): proprietary, ISO 19794-2:2005, ANSI/INCITS 378
- **Adjustable FAR** from 10^{-2} down to 10^{-8} ; remains **stable** whatever the number of individuals in the database
- Data integrity check by the host to exchange data under secure channel (in option)

Fully certified

- EMC/Safety standards: CE, CB, FCC, NF EN 60825-1 2008-01 (Laser Safety)
- RoHS, REACh and WEEE compliant

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