Fingerprint Scanner ZF 1

Providing security, efficient and easy to operate.

DERMALOG

Federal Office
for Information Security

Certificate
according to Technical Guidelines of BSI

BSI-TR-03104

Certificate-ID:
BSI-K-TR-0046-2009

Outstanding Features

> Additional Liveness Detection
> Excellent quality for both wet and dry fingerprints
> Durable platen glass and a rugged scanner surface

Key Benefits

Capturing fingerprints for numerous documents such as ePassports, eID Cards – the ZF1 is a reliable choice of quality in compliance with international standards.

The DERMALOG ZF1 – fingerprint biometrics whenever and wherever needed.

Numerous fields of application – meeting the highest image quality.

The ZF1 captures fingerprints for ePassports, ID cards and can be used for enrollment, authentication and identification in governmental, commercial and industrial environments. Its variety of application sectors makes the ZF1 scanner the everyday solution for biometric business.

Fingerprints
The optical scanner provides a 500 dpi fingerprint image. Due to the automated fingerprint optimisation, results will be fully applicable even in poor conditions (and wet and dry fingerprints).

Liveness Detection
High security will be ensured by using the latest liveness detection technology. Exclusive security features detect fake fingerprints or manipulation. (Optional purchase)

Ease of Use
The device combines usability and easy handling. The self-explanatory ZF1 design leads users to put a finger on the scanner in a correct way without needing assistance.

Product Features

> Excellent quality for both wet and dry fingerprints

> Robust against disturbing light sources

> High quality fingerprint images - no reference images required

> Liveness detection to prevent attacks using fake fingers (optional purchase)

> Durable platen glass and a rugged scanner surface
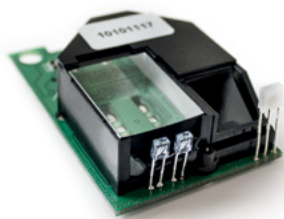
OEM Device

DERMALOG's ZF1 design offers all benefits of flexible and easy integration into OEM equipment. It enables a wide range of applications while delivering images of highest quality.
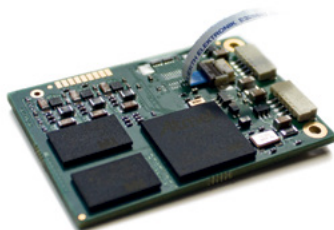
Embedded Board

The ZF1 can optionally be supplemented with the Embedded Board. This ensures support for fingerprint scanning with DERMALOG Fingerprint Scanners even on low performance platforms such as POS devices. The embedded board provides the necessary computing power for fingerprint capturing, coding and matching for the cost of a little increment in power consumption.

Certified Image Quality

The German Federal Office for Information Security has certified the DERMALOG ZF1 fingerprint scanner according to the "BSI-TR-03104" standard. Since the ZF1 stores fingerprint information in German ePassports. The ZF1 furthermore meets the criteria of AFIS Image Quality Standard PIV.

Specifications **Fingerprint** Scanner **ZF1**

Technical Features

Fingerprint scanning window size	25 mm x 18 mm
Optical scanning area	24.4 mm x 16.3 mm
Image resolution	480 x 320 pixels, 500 dpi
Bit Depth	8 bit, 256 gray levels
Raw fingerprint image file size WSQ compressed	Approx. 160 kByte Approx. 18 kByte
Interface	USB 2.0 high-speed with 1.8 meters standard USB cable
Dimensions (H x W x D)	60 mm x 83 mm x 49 mm
Weight (including USB cable)	166 g
Operating temperature	-10 °C to +55 °C (14 °F to 131 °F) at a humidity of 20 - 75 % non-condensing
Storage temperature	-10 °C to +60 °C (14 °F to 140 °F) at a humidity of 10 – 90 % non-condensing
Light source	Infrared light-emitting diode (LED)
Supply	DC 4.5 – 5.5 V / 200 mA (USB powered)
Certifications	CE, BSI-TR-03104, FBI-PIV, FCC Part 15 Subpart B Class A

SDK Features

NIST Quality Check	NFIQ 1.0: calculation of the NIST quality from a given image. The quality is calculated in the NRQ range from 1 (good quality) to 5 (bad quality) using the official NIST standard NFIQ 2.0: calculation of the NIST quality from a given image. The quality is calculated in the NRQ range from 100 (good quality) to 0 (bad quality) using the official NIST standard
WSQ Compression	FBI-certified
Operating Systems	Windows, Linux, Android

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