DERMALOG

All-in-One Scanner VF1

for fingerprints, ePassports, ID cards,
signatures, boarding passes, barcodes, photos etc.

Fingerprint Scanner

Passport Reader

ID Card Scanner

Signature Pad

Flight Ticket Scanner

Photo Scanner

Barcode Reader

Document Reader

Federal Office for Information Security

Certificate
according to Technical Guidelines of BSI

BSI TR-03121

Certificate-ID:
BSI-K-TR-0275-2017

Key Benefits

The DERMALOG VF1 is the world's first scanner for biometrics and documents.
Fingerprints and documents can be scanned now using one single device.

The VF1 is ideal for integration into eGates, kiosks and mobile units. One single
device can now capture fingerprints, passports, flight tickets, signatures etc.

VF1 – for Fingerprints and Documents

The world's first combined scanner

DERMALOG's VF1 is the world's first multipurpose scanner for fingerprints and documents. Its latest sensor technology makes this possible with one single device. For the first time all capabilities of an optical tenprint scanner (4-4-2 scanner) and a full color document reader (with RFID) are fully integrated. To make this device even more versatile the VF1 is able to capture barcodes, flight tickets and signatures on the same scanning area.

Fingerprints
The VF1 includes all features of a ten fingerprint scanner/ 4-4-2 scanner and is certified according to FBI Appendix F. It provides the best fingerprint quality, also for moist and dry fingers, and moreover has an extremely high capturing speed.

Rolled Fingerprints
The VF1 also provides the functions to capture rolled fingerprints, which can be useful for example when registering criminals.
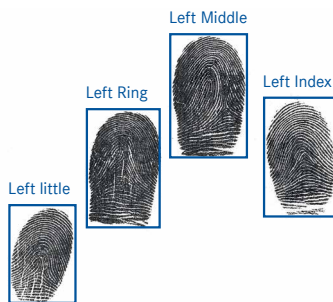

Liveness Detection
The VF1 detects plastic fingers or fake fingerprints immediately. Its outstanding performance in liveness detection makes the VF1 the most secure fingerprint scanner on the market today.

Fingerprint Scan Features

> Fingerprint scan (4-4-2) for plain tenprints, fourprints and twoprints

> Capture of rolled fingerprints

> Fingerprint liveness detection

> Moist and dry finger scan optimization

> Fingerprint segmentation

> Left/right hand detection

> Latent fingerprints scan

> NIST quality analysis

> FBI Appendix F Certification

> Fingerprint scan resolution: 500 dpi

Fingerprint Quality and Segmentation
The VF1 automatically checks the quality of fingerprints according to NIST standards (NFIQ 1 and 2). Moreover, there is a segmentation function to enhance fingerprint recognition.

Left-Right-Detection
DERMALOG VF1 fingerprint features automatically detect if the captured fingerprints are from the right hand or from the left hand. This makes the VF1 very easy to use.

Signatures
The DERMALOG VF1 can be used to capture signatures with a touch pen. This function replaces an extra signature pad.

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VF1 – for Fingerprints and Documents

The scanner for ePassports, ID cards, signatures, flight tickets, money, photos and numerous documents of your choice

DERMALOG's VF1 is a perfect solution for national registration, automated border control, passenger management and the banking sector. It is easy to integrate into existing solutions and self-explanatory to every user.

ePassports

The VF1 is a full high resolution color document reader, including ultraviolett (UV) and infrared (IR) images as well as image checks. Passport data stored on the chip can be read by integrated RFID Reader.

ID Cards

ID Cards can be scanned in color. The RFID reader is also able to read contactless chip cards.

Barcode Reader

The VF1 scanner scans barcodes or 2-D-barcodes from flight tickets, ID Cards or from other documents.

Document Scan Features

> Passport and ePassports scan

> ID cards and eID cards scan

> RFID scan

> Bar code scan e.g. Flight tickets

> Arrival/departure cards scan

> Photo scan

> Money scan

> Cheques scan

> Auto rotation of documents and images

> Automatic check for faked documents

> Document scan resolution: 250 and 400 dpi

Photo Scan
The VF1 can also scan photographs and other small documents. It automatically rotates them into the correct perspective.

Banknotes/Cheques
Due to the integrated UV and infrared light sources, DERMALOG's VF1 visualizes and verifies security features built into banknotes and cheques.

Documents
The authenticity of any high security document can easily be verified through the UV and IR features of the VF1.

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Mobile: All-in-One Device

> Removeable front

> Over-all weight: 11.5 kg

> Dimensions (H x W x D): 400 mm x 280 mm x 260 mm

DERMALOG VF1 in a Mobile Case

The world's first combined scanner – now available in a handy case

Verification (1:1) and identification (1:N) when and wherever needed.

DERMALOGs mobile authentication solution is available in an easy-to-handle case that meets the highest demands. The VF1 is robust and stable while operating extremely reliably – wherever it is meant to get the job done. Operating from a temporary office is a task frequently faced in regions where infrastructure remains less developed. Whether voter registration, banking business or immigration matters – the VF1 mobile case provides an essential solution for the use of biometrics on the road.

Specifications **All-in-One** Scanner **VF1**

Fingerprint

Fingerprint scanning window size	126 mm x 89 mm
Optical scanning area	82 mm x 77 mm
Image resolution	1600 x 1500 pixels, 500 dpi
Capturing	Tenprint scanner/ 4-4-2 scanner for plain and rolled fingerprints, signature and documents
Bit depth	8 bit, 256 gray levels
Raw fingerprint image file size WSQ compressed	Approx. 2.4 MB Approx. 0.4 MB
Interface	USB 2.0 hi-speed, integrated 2-port USB hub
Dimensions (H x W x D)	184 mm x 185 mm x 291 mm
Weight (including USB cable)	3.5 kg
Operating temperature	0 °C to 50 °C at a humidity of 5-90% non-condensing
Storage temperature	-20 °C to 60 °C at a humidity of 5-90% non-condensing
Light source	Infrared light-emitting diode (LED) + VIS + UV
Supply	External AC adapter with 1.8 m cable, 100-240 V, 50-60 Hz, 1.6 A
Certifications	FBI-EBTS/F

Passport

Scanning area	126 mm x 89 mm
Optical resolution	High resolution color camera with 400 dpi / 250 dpi
Lighting	Full color passport scan, infrared (IR), ultraviolet (UV)
RFID Reader	RFID reader for both pages of a passport / 4 SAM card slots
Certifications	BSI TR-03121 Part 5.1

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

Specifications may be subject to change due to ongoing technical innovations.

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Specifications **All-in-One** Scanner **VF1** with Mobile Case

Flight Case

Dimensions (H x W x D)	400 mm x 280 mm x 260 mm
Weight	11.5 kg
Power supply	100-240 V, 50/60 Hz, 2.8 A, C13 female connector accessible from the outside

Tablet

Model	Acer Switch Alpha 12
Display	12" IPS-Display
Dimensions	2160 x 1440 pixels
Processor	Intel Core i5-6200U, 2 x 2.30 GHz, 4 GB RAM
Disk	128 GB SSD
Software	Software Windows 10
Cameras	2.0 megapixels

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