

DERMALOG

All-in-One Scanner VF1

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



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.

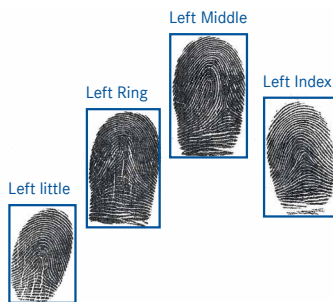


Liveness Detection

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.

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 ultraviolet (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.

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	Approx. 2.4 MB
WSQ compressed	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	Specifications may be subject to change due to ongoing technical innovations.
Operating systems	Windows, Linux	