

DERMALOG

LF10™

Unchallenged speed,
reliability and image quality.





High-quality Fingerprint and Signature Images with DERMALOG's LF10 - Made in Germany.

The DERMALOG LF10 is the first ten-print and rolled fingerprint scanner with integrated fake detection safeguarding against fake fingers with a 3.39 inch x 3.39 inch (86 mm x 84 mm) scanning area. With its large scanning window the LF10 is optimized for creating high quality images. Its advanced optical system takes plain fingerprint images in just a second. It captures rolled fingerprints in a 3.2 inch x 3.2 inch (81 mm x 81 mm) scanning area to create a rolled fingerprint image.

The fingerprint images captured by DERMALOG's LF10 meet the FBI's EBTS/F standard. Fully programmable LEDs and an acoustic buzzer provide the largest degree of freedom to system developers to design an intuitive user interface. Unchallenged image quality is another major advantage of the DERMALOG LF10 scanner. Latest optics ensure the best possible image quality for plain ten-prints and single prints as well as for rolled fingerprints.

The LF10 captures signatures on the fingerprint scanning area which turns your fingerprint scanner into a signature pad. The fingerprint and signature are recorded on exactly the same scanning window. The SDK allows to switch between fingerprint and signature, no additional signature pad is required and - except for a pen -, no additional hardware is needed. An optimum use of the LF10 is guaranteed by an integrated switching function ensuring both applications can be used in a quick succession.

In many countries, this technology covers the need for multifunctional devices for biometric identification. It is suitable for use in various environments and applications including border control, electronic ID and passport issuing as well as voter registration and verification. Moreover it can be used in security documents, such as visa.

Outstanding Features



- Fake detection to prevent attacks with fake fingers operating with dedicated special light sources ensuring the highest possible security
- Instant fast capturing - no initialization required
- High-quality images - no reference images necessary
- Best against disturbing light - no side effects caused by other light sources
- Excellent results for both dry and wet fingerprints
- WSQ Fingerprint Image Compression, FBI-certified
- Automatic NIST Fingerprint Image Quality Checking Module
- Automatic Fingerprint Segmentation Module
- Fingerprint coding and matching routines available
- Plain ten prints as well as rolled fingerprints
- Captures signatures on the fingerprint surface

LF10 – The ultimate in Fingerprint Quality.

Each fingerprint scanned by the LF10 undergoes a complete analysis of spectral imaging and optical features. This prevents biometric systems supporting border control and many other applications from attacks with fake fingers - and even from deception by cut off fingers. Thus, the scanner can easily be integrated into a wide range of applications.

Numerous Applications



Biometric registration, ePassports and law enforcement – secure verification and identification.



The LF10 offers the best in fingerprint quality supporting electronic identification documents, particularly in areas where rolled fingerprints are needed. A possible application is its use in systems for refugees' registration. Moreover it is used to support biometric national identification cards and ePassports containing biometric information to authenticate the identity of travelers. These have already been launched in numerous countries around the world.

Other applications include voter registration and identification programs supporting the preparation and/or holding of elections. Nations are increasingly turning to biometric voting systems in order to organize fair and credible elections. Thus, the absence of fraud and illegal practices protects democratic principles. Election integrity represents a cornerstone of modern democracy because it promotes trust in elected governments and leaders. The DERMALOG LF10 prevents duplicate registrations and ensures precise biometric voting identification. It always safeguards quick and accurate results while meeting the highest requirements and standards of other related authorities such as federal police forces, law enforcement and government agencies.

In practice it can be used in security documents' applications (e.g. visa). The DERMALOG LF10 is especially versatile due to its advanced signature capturing functions. Fingerprints and signatures are recorded on exactly the same scanning window, turning the LF10 scanner into a signature pad.



Border Management.

DERMALOG has developed superior border control systems and successfully deployed them in countries such as Brunei, Kuwait, Indonesia and Malaysia. Travelers crossing the border - entering or departing - can be checked within a few seconds. The software offers several options - from authenticity checks to quick comparisons with existing entries in the database. The verification of biometrics is already implemented. The Malaysian Border Control System is working in combination with an Automated Fingerprint Identification System (AFIS), which has also been delivered by DERMALOG. Ever since the deployment of this new border control solution it has been impossible for impostors to enter Malaysia by using different identities and not being noticed by the immigration authorities. DERMALOG's LF10 is a reliable and secure fingerprint scanner offering secure methods of border control. It enables a smooth, fast and safe crossing for travelers.





Customization – one System fits numerous Requirements.

Since preconditions differ throughout the world, every customer has different expectations. Thus, all our hard- and software experts are capable of customizing our systems to put them closely into line with various requirements. As a result, DERMALOG's solutions are as adaptable as possible.

Two in one Device – capturing of Fingerprints and Signatures.

Dermalog has applied for a patent using a fingerprint scanner as signature pad. Hence, the LF10 is a two in one device to capture fingerprints and signatures saving desk space and providing one less point of failure.

Support directly from the Manufacturer – DERMALOG is your Partner in biometric Technology.

The sustainability of DERMALOG's biometric products is ensured by our availability of strong maintenance and outstanding support. This applies to the LF10 as well. DERMALOG cooperates with established local partners and organizes on-site support teams consisting of high professional specialists. These local teams are fully involved in the project execution and cooperate closely with the DERMALOG staff. We put emphasis on the transfer of skills and required know-how to the customer's staff. Thus, the local support team provides first-level support. Issues that are beyond a local support team are handled by DERMALOG staff on a second level basis.

Technical Data



Active imaging dimensions	3.2 inch x 3.2 inch (81 mm x 81 mm)
Display	RGB LED status indicator for each fingertip
Optical Resolution/Dimension	500 ppi, > 8-bit 256 gray levels
Image Quality	FBI IAFIS IQS Appendix F certified
Weight / Dimension	weight: 2.3 kg / width: 163 mm x height: 120 mm x depth: 238 mm
Voltage/Power requirements	external power supply, 100-240 V AC, 55/60 Hz or optionally in the USB powered Version
Operating Temperature/Humidity	ambient temperature: 32° F - 122° F (0° C - 50° C); relative humidity: 5% - 95%
Housing	sealed package, container with high tolerance for shock and vibration
Interface	standard USB 2.0 cable, 1.8 m length
Supported Image Formats	WSQ, BMP, PNG, JPG2000, JPG, TIFF
Fourprint Segmentation	separation of single fingerprint segments from a fourprint (CAPI and .NET) image
NIST Quality Check	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
Certifications	FBI EBTS/F, FCC, CE, and RoHS compliant

Signature functions

Hardware	LF10 + PC (at least Core 2 Duo) + screen
Writing surface	80 mm X 60 mm
Digital Size	1600 px X 1200 px
Resolution	500 ppi horizontal / 500 ppi vertical
Temporal Coverage	60 frames / second

All data subject to modification due to ongoing technical innovations.

More information:



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