



**Green Bit S.p.A.**



# DactyScan84c

**FBI certified 10-prints and Rolls Livescan**

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# Applications

The DactyScan84c addresses all applications where *FBI IAFIS IQS App. F* certified 10 - print acquisition is requested:

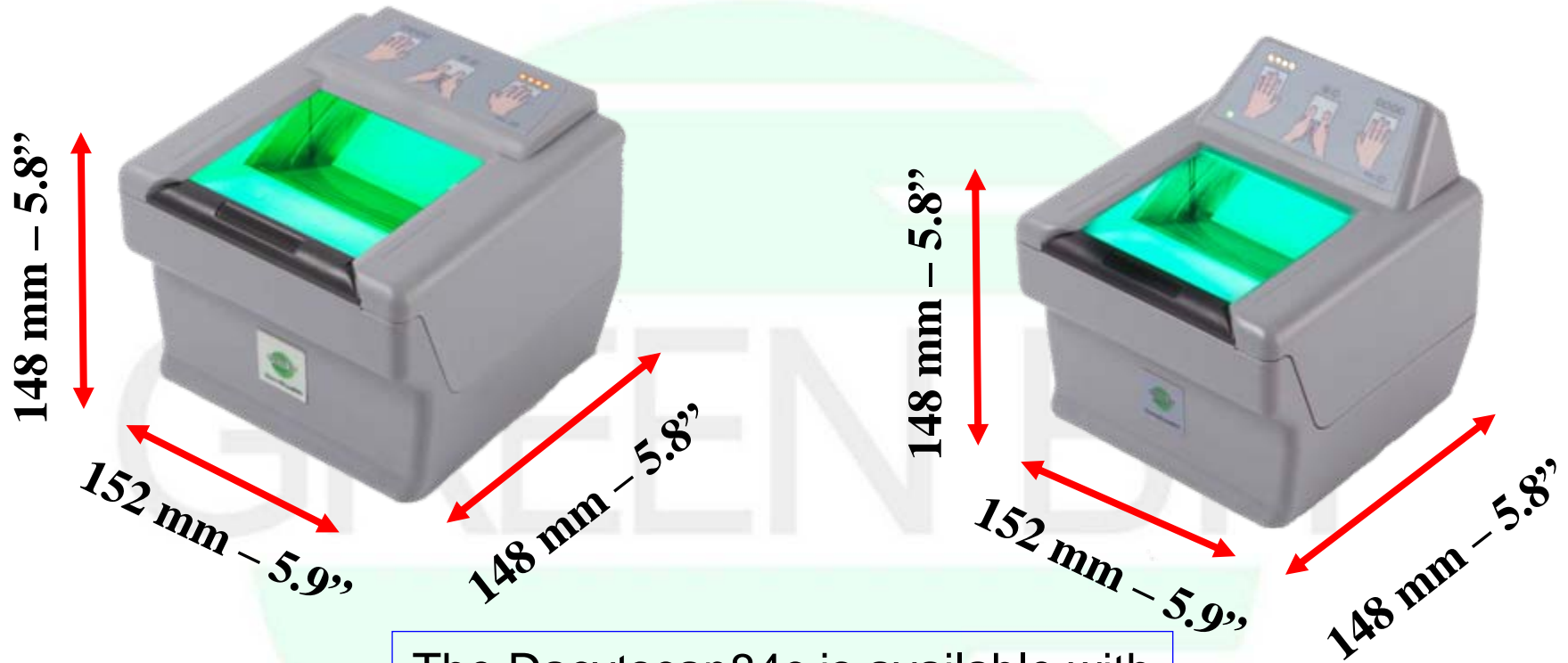
- **e-ID Issuing**
- **VISA Issuing**
- **Border Control**
- **Criminal Background Check**



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# DactyScan84c – Product Views

# Product Views



The Dacytscan84c is available with two distinct casings – **FLAT TOP** and **STANDARD**

## Product Views – ct'd



Intuitive 12 3-color LED-based GUI to facilitate the acquisition process

# Data Sheet

<b>DactyScan84C</b>	
<b>Scanning Area</b>	3,2" x 3,0" (4-slaps), 1.6" x 1.6" (rolls)
<b>Resolution</b>	500 dpi, 256 grayscale
<b>Image Quality</b>	FBI CJIS-RS-0010 (V7) appendix F
<b>FBI IAFIS IQS App. F certified</b>	Identification Flats and Live-Scan Systems
<b>Temperature</b>	0 to 50 Celsius
<b>Humidity</b>	10 to 90% without condensing
<b>Dimensions (W x L x H)</b>	152 x 148 x 148 mm
<b>Weight</b>	1.5 kg
<b>Interface</b>	USB 2.0/3.0
<b>User Interface</b>	GUI: 12 3-color LEDs to manage scanning process

# Main Product Features

*Fast Acquisition* – up to 27 fps for 4-slap (Preview Mode) and 25 fps for rolled acquisition. Frame Rate will be adjusted automatically based on PC performance

*Automatic Acquisition Start and Stop* –sensing of slap/single finger placement on the scanner and highest quality image selection during flat fingerprint scanning

*Rolled Fingerprint Capturing* – display in real-time, self-adaptive to rolling speed and directions, seamless composite image generation, automatic stop detection

*Elimination of Latent Fingerprint* – elimination of latent fingerprints originating from recent scans

*Halo Elimination* – elimination of halo due to moist fingerprints during acquisition



## Main Product Features – 2

*Dry Finger Image Enhancement* – low contrasted images due to dry skin conditions are automatically improved

*Image Quality Checking* – as per NISTIR7151

*Segmentation* – automatic splitting of four- slap and two thumbs fingerprint images in single flat images

*Automatic Sequence Checking* – eliminates incorrect fingerprint sequence scanning: hands and fingers swapping or incorrect input

*Slide Detection for Flat Prints* – detects deformations of fingerprints due to sliding during acquisition

*Artifacts Control* - detects artifacts created during improper rolled print acquisition

## Main Product Features – 3

*Anti-Fake “Lite”* - distinguishes between real human finger patterns and other surfaces with relief structure (e.g. gloves, tissue)

*Finger Allocation Check* - checks presence of finger core, and basic/ distal flows

*WSQ Compression* – FBI certified for several OSs

*Standard Output Format* – Creation of ANSI/NIST-ITL-1-2007 and 2011 type 1, 2, 4 and 14 records

*Multi OS Compatibility* – supports WIN XP, 2000, 2003 Server, Vista, 7, 8 and 8.1 in 32/64-bit configs as well as Linux OS Fedora and Ubuntu distribution in 32/64-bit configs

# Main Product Features – 4

*Buzzer* – On board programmable buzzer

*USB 2.0 Interface* – for power and data transmission

*Scanner addressability* - allows for multiple Dactyscan84 connected to the same PC

*Programmable scanner recalibration* - allows to recalibrate the scanner on site

*GUI* – 12 3-colour LEDs based User Interface guiding through the acquisition process (Finger indicators, Rolls indicator, Power indicator)



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## Multiscan SDK

# Overview

In order to properly match integrator needs different SDK configurations are available:

1. **Basic**: *addressing major integrators, having many SW features already implemented in their final application thus needing only RAW image acquisition*
2. **Full Enhanced**: *addressing small/medium integrators, in need of enhanced SW features in order to cut development costs and to save resources*
3. **Both *BASIC* and *FULL ENHANCED*** are available with ***Rolled Fingerprint support***

# Multiscan SDK Features: Basic

- **Acquisition**
  - 4-slap, 2-thumbs and individual flat acquisition
  - Acquisition of dry and moist fingerprints
  - Rolled Prints acquisition; self-adaptive to rolling speed and direction (in ROLLED config)
- **Auto Acquisition Start and Stop**
  - auto senses a flat/slap placed on the scanner
- **Enhancement**
  - Halo Elimination
  - Ghost/Latent Print Elimination
- **Contrast Based Quality Assessment with instant feedback**
- **Compatibility**
  - Win XP, 2000, 2003 Server, Vista, 7, 8 and 8.1 with 32/64-bit support
  - Linux Ubuntu and Fedora distributions with 32/64-bit support
  - Supports C++, C# applications on the client

# Multiscan SDK Features: Full Enhanced

Based on the same features provided by the Multiscan BASIC SDK, adding the following features; All FULL ENHANCED SDK functions are applicable through a proprietary SW-GUI implementing all following features; GUI allows for fast and convenient integration with the end-user application

- **Segmentation** of any 4-slap and 2-thumb image in individual slap images
  - Automatic segment naming: identifying segmented fingers (index, middle, ring, little)
  - Manual segment naming
  - Left/right hand mixing up control.
- **Dry Finger Image Enhancement**
  - Images resulting too light due to dry finger conditions are automatically enhanced

# SDK Features: Full Enhanced - ct'd

- **Sequence Check**
  - Automatic checking on correct acquisition sequence
- **Format**
  - Provision of bounding box coordinates
  - “ANSI/NIST-ITL-1-2007 and 2011” type 1, 2, 4 and 14 records
- **Quality Check**
  - NISTIR7151 Quality Assessment
- **Marking**
  - Marking of amputated and/or bandaged fingers
- **Compression**
  - WSQ (FBI certified)
  - JPEG,
  - JPEG2000
- **BioAPI 2.0 compliant**
  - Biometric Service Provider (BSP) for the BioAPI 2.0 framework





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# Multiscan SDK - Unique SW Features

# Multiscan SDK - Unique Features

**The following features help to prevent voluntary or involuntary spoofing of the scanner. These additional controls are particularly suited for unattended applications**

- **Slide Detection for Flat Prints**
  - The Software detects deformation of fingerprints due to sliding of flat fingerprints during acquisition
- **Correct Position Check**
  - The Software detects improper finger placement on the scanner surface (e.g. too close to the corners, too high etc.)

# Green Bit Unique SDK Features - ct'd

- **Artifact Detection**

- The Software detects artifacts created during improper rolled print acquisition
- Available for ROLLED configuration

- **Anti-Fake “Lite”**

- Invalid pattern detection (The Software distinguishes between real human finger patterns and other surfaces with relief structure (e.g. gloves, tissue))
- Checking of correct manner of finger allocation (check presence of finger core, and basic/ distal flows)

# Contact



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