xperix

# BioMini Slim 3

## Ultra-Slim FAP30 Authentication Scanner

## User Manual



# INTRODUCTION

## 1. BioMini Slim 3

BioMini Slim 3 is FAP30 certified fingerprint scanner featuring an array of cutting-edge technologies. Along with its 15.0mm slim optical sensor, BioMini Slim 3 features Xperix's proprietary Multi-dynamic Range (MDR) technology, FBI PIV/Mobile ID FAP30 compliance and Android device support. BioMini Slim 3 also provides developers more physical flexibility with its reduced form factor and the ultra-slim optical sensor ensures robust operation over time. BioMini Slim 3 provides new and advanced Live Finger Detection (LFD) technology by applying a machine learning method based AI(Artificial Intelligence) as an World-class Trained Inspector which can be upgradeable by BioMini SDK.

## 2. Features



- World's thinnest FAP30 optical fingerprint sensor




- FBI PIV and FBI Mobile ID FAP30 certificates
- Image compression standard (WSQ)




- Capturing high-quality fingerprint images even when the finger is dry & wet.
- Operates under direct sunlight up to 100,000 LUX



- Live Fingerprint Detection (LFD) Technology
  - Distinguishes fake fingerprints made from various materials including clay, rubber, silicon, glue, paper, film and more



- Easy Integration
  - BioMini SDK for easy application development
  - Android, MS Windows & Linux compatible
  - Multi-threaded code design for multi-core CPU utilization

# FEATURES AND SPECIFICATIONS

## 1.1. Specifications

| | | |
|---|---|---|
| Sensor | Image Certificate | FBI PIV / FBI Mobile ID FAP30 compliant |
| | Sensor Type | Optical |
| | Resolution | 500 ppi |
| | Gray Scale | 256 level |
| | Platen Size | 21.5 x 26.5 (W x L mm) |
| | Sensing Area | 20.32 x 25.4 (W x H mm) |
| | Image Size | 400 x 500 (W x H pixels) |
| HW | Interface | USB 2.0 High Speed |
| | Operating Temperature | -10 ~ 50℃ |
| | Storage Temperature | -20 ~ 70℃ |
| | Operating Humidity | 0 ~ 90% RH |
| | Ingress Protection | IP65 (Sensor Surface) |
| | Dimensions (W x L x H mm) | 83 x 45.9 x 20 |
| | Weight | 111g |
| SW | Windows | Windows 7 or Above (32/64bit) |
| | Linux | Linux Kernel 3.10.X or Above |
| | Android | Android 5.0 (Lollipop) or Above, USB Host |
| | Image Format | RAW, BMP, WSQ, ISO19794-4 |
| | Template Type | Xperix, ISO19794-2, ANSI-378 |
| | LFD | Supported |
| Certification | CE, FCC, KC, RoHS, CB, REACH, IEC62471, WEEE, WHQL | |

## 1.2. Firmware

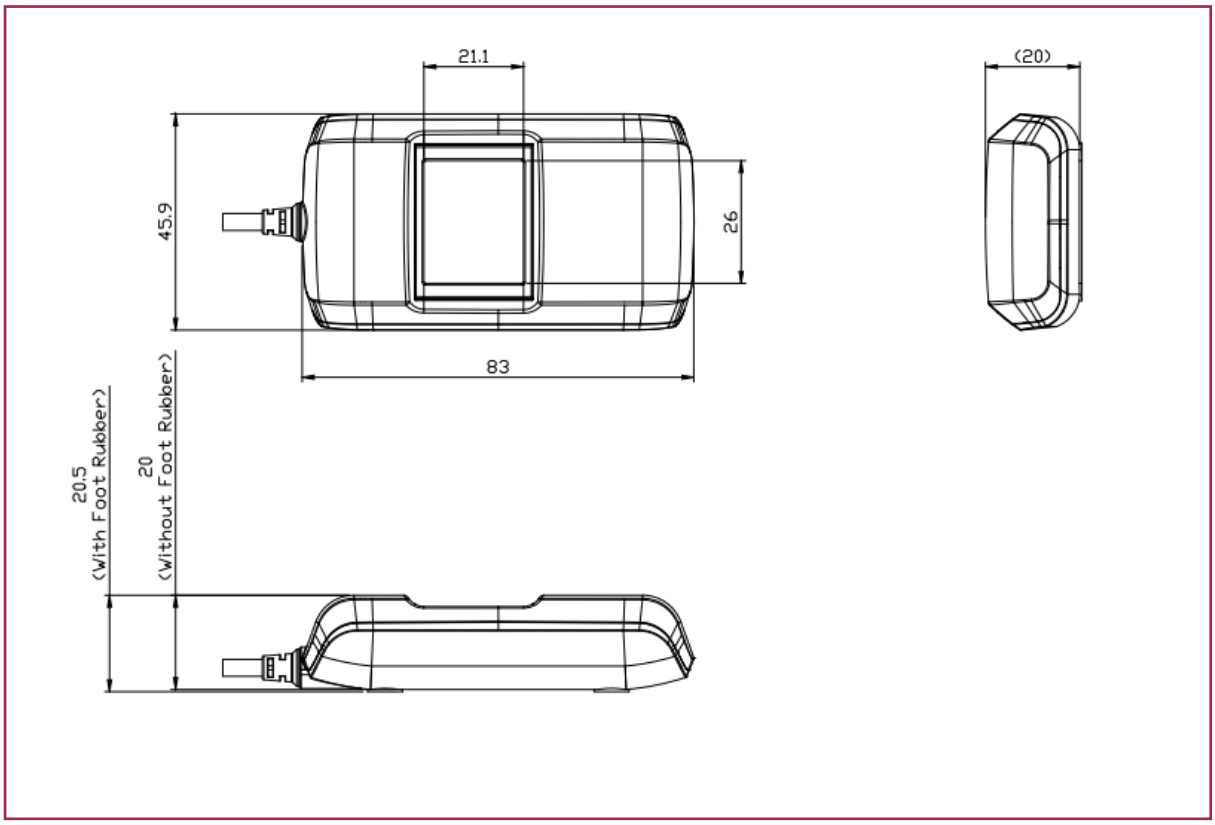
Firmware Version: v01.04.19 or above

## 1.3. Electrical Features

| Range of working Voltage | | 5V±0.5V |
|---|---|---|
| Power Consumption (mA) | Idle | 103 |
| | Sleep | 30 |
| | Capture Single | 195 |
| | When finger is placed | 211 |

## 2. Exterior

2.1. Drawing



# Capture

## 1. Notes for Fingerprint Scanning



Top Scanning



Side Scanning

- Top Scanning: If only the top of a finger is placed on the scanning area, only the top of the finger part will be scanned.
- Side Scanning: If only the side of a finger is placed on the scanning area, and if the center of the finger is not placed on the scanning area, only the side of the finger part will be scanned.



Distorted image

- Distorted Image: When a finger is placed on the scanning area with too much pressure, the image may become distorted as the important data in the fingerprint disappear.



Good Fingerprint Image

- To scan a fingerprint successfully, place the finger at the center of the scanning area with reasonable pressure.
- If a fingerprint image is blurred, remove pressure from the finger and scan the fingerprint again when a fingerprint image is good.