MANTRA

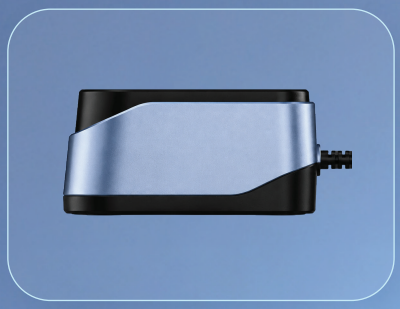
MFS210

FAP20 Optical Fingerprint Scanner

STQC | Hardware-Based Spoof Detection Sytem

- Fingerprint Scanner
- Operating Systems
- USB 2.0
- IP65
- Lower FAR & FRR
- FBI PIV Certified

MFS210



The Mantra MFS210 optical fingerprint scanner is known for its excellent image quality, high reliability and broad compatibility, while also meeting FBI PIV standards. It follows ANSI 378 and ISO 19794-2 standards and works with the WSQ image format. This scanner is well suited for a wide range of applications, including banking, e-Governance, public safety and computer security. It also incorporates advanced features to ensure accurate and secure fingerprint detection.

Technical Specification

Sensor

Fingerprint Sensor Type
Scratch Free Optical Sensor

Spatial Resolution
500 DPI +/- 2%

Platen Area
15.24 mm x 20.32 mm

Image size
300 x 400 Pixels

Image Grayscale
256 (8 - Bit Gray Level)

Illumination Source
Red LED

Maximum Acquisition time
(Placement to Template)
< 2 Sec

FRR & FAR
< 0.1% & < 0.001%

Certifications
CE, RoHS, BIS, IP654

Capture mode
Auto capture with built-in quality check
(incorporates NIST quality considerations)

Device Dimensions
(L x W x H)
68 x 56.5 x 31.5 mm

Device Weight
105 grams

Module Dimensions (L x W x H)
44.10 x 38 x 28.7 mm

Module Weight
40 grams

Security

Crypto operation
Hardware based RSA2048 Key Generation, AES-GCM-256, SHA-256, TRNG support

Secure Memory & Secure Boot
TEE support by the device.
Secure memory support key wrapping feature

Tamper & Liveness Detection
2D & 3D materials detection

Electrical

Operating Voltage
5V +/- 5% (USB Powered Device)

Operating Current
<90 mA

Stand by Current
50 mA

Environmental

Operating Temperature
0°C to +50°C

Storage Temperature
-10°C to +70°C

Humidity (Operating / Storage)
< 90% RH, Non-condensing

Compliant to Following Standard

Biometric Data Interchange Format
SO 19794-2 : 2005 & 2011 for minutiae,
ISO 19794-4 : 2005 & 2011 for Image
Template in Encrypted mode

Safety
EN/IEC 62368-1,
IS 13252 (Part 1)

EMI / EMC Compliance
CE, FCC Part 15B class A

Environmental, Health and Safety
RoHS & WEEE

IP Rating
IP65

ESD protection
+/- 8kV, Air Discharge: +/- 15kV

Image Quality Compliance
FBI PIV Certification, STQC

Device Driver
WHQL certified

USB Interface
USB-IF Certified

System Requirements

Operating System
Windows x86 & x64,
Android - 7 & Above

Standard Software/SDK
UIDAI & STQC Certified L1 RD Service

Main Feature

- Scratch free sensor surface
- USB 2.0 interface with plug and play
- IP65 water and dust protection
- MINEX Compliance extractor
- FBI PIV Certified Image Quality
- Support Windows, Android, Linux
- 500 DPI Optical fingerprint sensor
- Lowest FAR and FRR

Applications

Public Distribution System

Ensure rightful beneficiaries with biometric authentication

Banking

Secure and seamless identity verification for account opening, KYC & beyond

Payment

Fast, secure and contactless biometric authentication for every transaction

Merchant Payment

Enable a frictionless payment experience with biometric verification

Institution

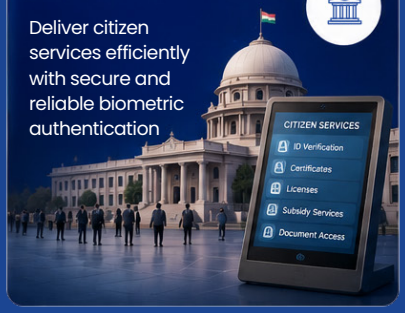
Strengthen access control and identity management across educational and government institutions

Corporates

Simplify workforce attendance, access and identity management

E-Governance

Deliver citizen services efficiently with secure and reliable biometric authentication



Benefits

- Compact device
- Easy-to-handle
- Flexible Integration
- Convenient to carry
- Simple to operate
- Ergonomic Design

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