

# MELO20

OEM Module / Sensor : MOPvO20

## OPTICAL FINGERPRINT SENSOR

Mantra Identity MELO20 features a rock-solid design with special scratch-proof glass that captures perfect fingerprints every time and works flawlessly even in the toughest conditions.



Operating Systems



USB 2.0



IP65



Lower FAR & FRR



FBI PIV Certified



# OPTICAL FINGERPRINT SENSOR










## Introduction

Perfect for busy security checkpoints, it handles endless daily scans without breaking down. Its rugged design shrugs off dust, drops, and vibrations, making it ideal for factories, construction sites, and outdoor settings. It's the best scanner that security professionals trust when accuracy matters and downtime isn't an option.

## Benefits

- ◆ Scratch Resistant
- ◆ Easy to Use
- ◆ Compact and Light Weight
- ◆ Highly Accurate
- ◆ Faster Operation

## Features

-  Scratch Free Optical Sensor
-  FBI PIV Certified
-  Latent Fingerprint Detection
-  Support ISO/IEC 19794-2:2005 & 2011, WSQ, JPEG, ANSI INCITS 378-2004 Biometric Data Interchange Format
-  Adaptable to All Kinds of Fingerprints
-  Lower FRR and FAR
-  IP65 Water and Dust Protection for Harsh Environments

## Specifications



### Sensor Characteristics

Fingerprint Sensor Type	: Scratch Free Optical Sensor
Pixel Resolution	: 500 DPI ±2%
Platen Size	: 15.24mm x 20.32mm
Image Size	: 300 x 400 Pixels
Image Grayscale	: 256 (8 - Bit Gray Level)
FRR & FAR	: < 0.1% & < 0.001%
Maximum Acquisition Time (Placement to Template )	: < 2 Sec
Capture Mode	: Auto Finger Detection Functionality & Auto Capture With Built-in Quality Check (incorporates NIST Quality Considerations)
Latent Finger Detection	: Supported (Does not accept prints left behind )
Light Source	: RED LEDs



### Interface

Communication Protocol	: USB2.0 SPI (Up to 24 Mbps)* UART (Baud Rate- Default 115200)*
Connector	: Product: USB Type-A Male Module: Wire to Board **



### Electrical

Operating Voltage	: 5V +/- 5% (USB Powered Device)
Current (Operating / Standby)	: 150mA / 110mA



### Environmental Characteristics

Operating Temperature	: -10°C to +70°C
Storage Temperature	: -20°C to +85°C
Humidity (Operating / Storage)	: < 90% RH, Non-condensing



### Compliance Standards

Biometric Data Interchange Format	: ISO 19794-2 : 2005 & 2011, ISO 19794-4 : 2005 & 2011, ANSI 378, WSQ3.1, JPEG2000
EMI / EMC Compliance	: CE & FCC Part 15B class A
ESD Protection	: Contact Discharge: +/- 8kV, Air Discharge: +/- 15kV
Environmental, Health and Safety	: RoHS, WEEE
Safety	: EN/IEC62368-1, IS 13252 (Part 1)
Image Quality	: FBI PIV Certified
IP Rating	: IP65
Device Driver	: WBF Certified

## Specifications



### Dimensions

Device Dimensions (L x W x H)	: 82.54 x 63.45 x 22.86mm
Device Weight	: Approx 0.120kg
Module Dimensions (L x W x H)	: 65.8 x 48.6 x 18.5mm
Module Weight	: Approx 0.045kg

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### System Requirements

Operating System	: Windows, Android, Linux
Standard Software/SDK	: 1:1 Matching: MORFIN_AUTH, 1:N Matching: MORFIN_SEARCH

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\* UART & SPI interface is available in sensor module only

\*\* FPC Connector available for USB, UART & SPI interface in sensor module only

## Certifications



# MANTRA

[www.mantraidentity.com](http://www.mantraidentity.com)



**MANTRA**

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