

ANSER IS
YOUR ANSWER

imd
IMAGE MATCH DESIGN



FABALIS

GF631EM / GF631EM-S
MODULE DATASHEET

We are committed to developing sensing technology and providing customers with innovative and diverse sensor products including modules and readers. Our MatriXcan provides the most advanced fingerprint identification extraction technology, providing advanced and convenient fingerprint collection.

Table of Contents

1. REVOLUTIONARY TECHNOLOGY.....	3
2. FEATURE	4
3. PRODUCT DETAILS.....	5
4. USB (5 Pin) CONNECTOR	6
5. GF631BM 2D DRAWING.....	7
6. SPECIFICATIONS.....	8
7. REVISION HISTORY	10

1. REVOLUTIONARY TECHNOLOGY

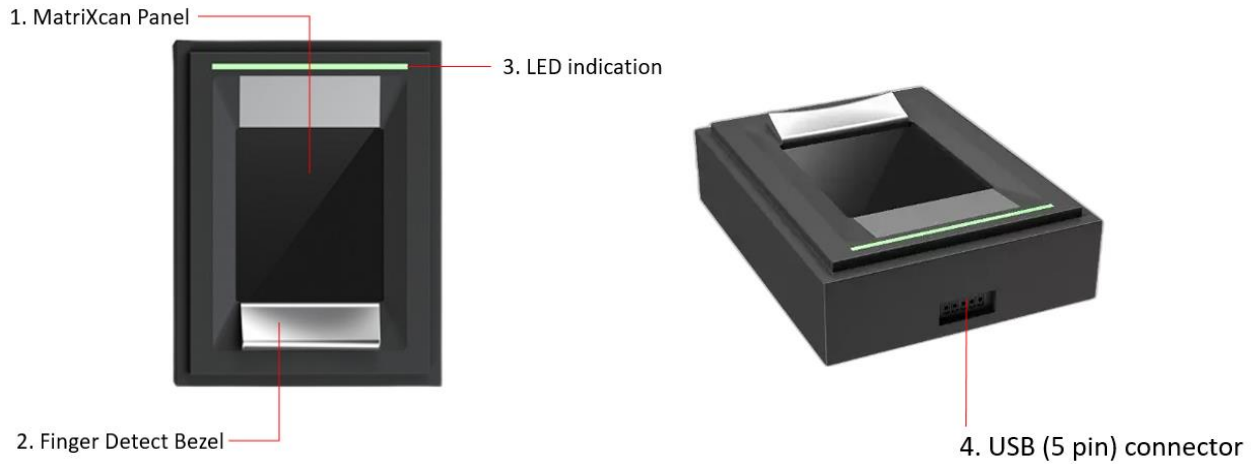


Differing from two kinds of typical fingerprint verification solution, optical and capacitive, iMD's world-leading technology MatriXcan™ is able to capture the best quality of fingerprint images, to extract most minutiae you have ever seen, and to output with outstanding speed and security. MatriXcan™ the extremely clear and distinct images captured on dry or worn fingers makes the high possibility to adapt all sorts of finger conditions without exceptions.

2. FEATURE

- Remarkable GF series fingerprint sensor!
- 1 finger registration/verification
- Optimal fit for the thumbprint
- Live finger detection
- High security and reliability
- Outstanding image quality on dry/worn fingers
- Low power consumption
- Latent print, UV, strong light resistance
- Hard surface for scratch protection
- Excellent ESD performance
- RoHS compliant and low-halogen
- Slim and compact design
- Encryption function (GF631BM-S)

3. PRODUCT DETAILS



- 1. MatriXcan Panel:** Sensing area 20.32 mm x 25.4 mm
- 2. Finger Detect Bezel:** Detects whether a finger touches the product and includes an anti-counterfeiting function
- 3. LED indication:** Indicate to users by light signal
- 4. USB Connector:** USB 2.0 (5 pin) connector

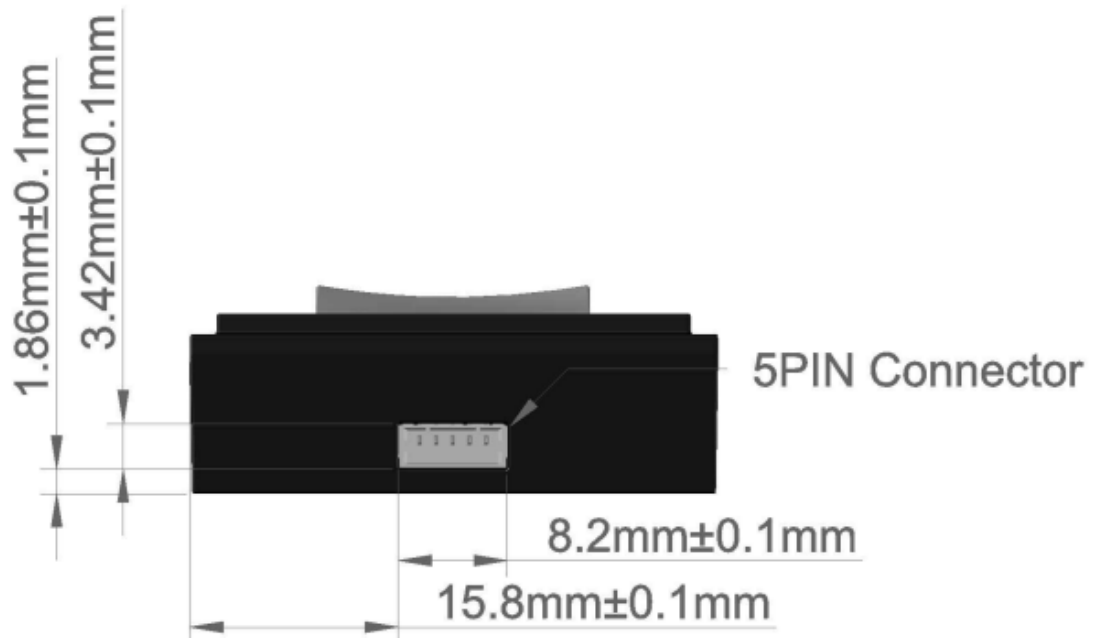
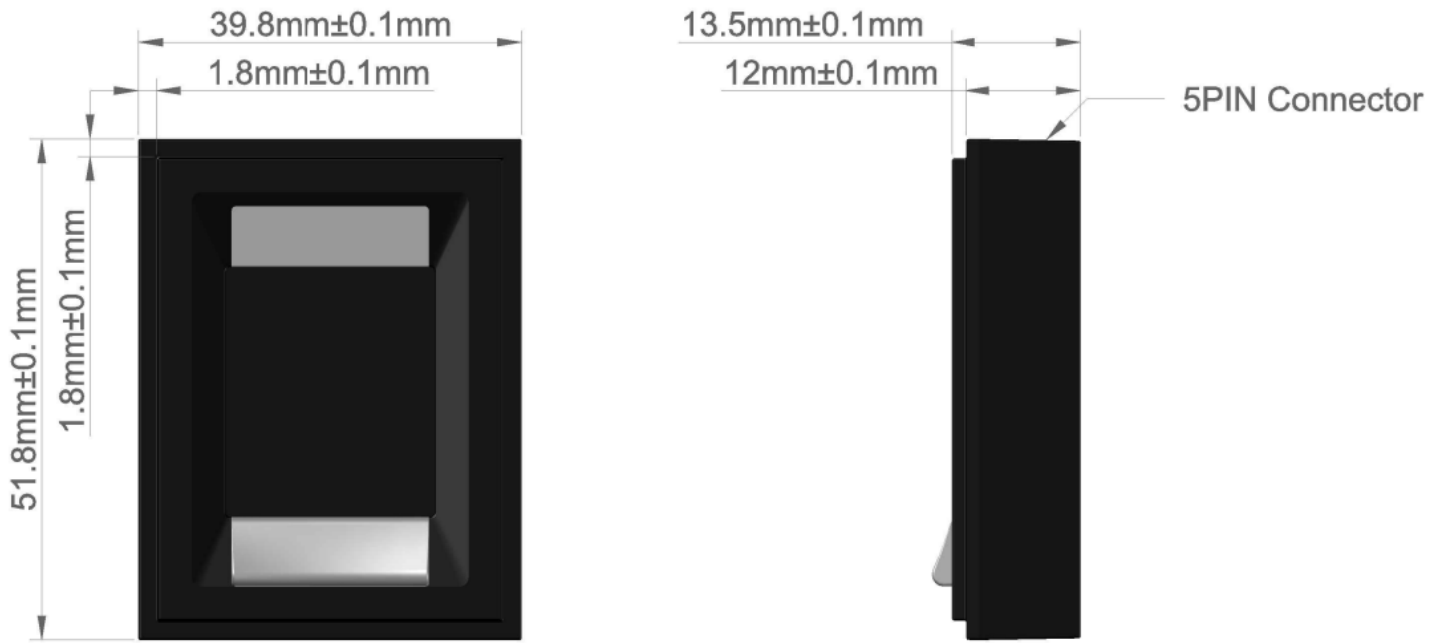
4. USB (5 Pin) CONNECTOR

Pin Number	Pin Description
1	5V
2	D+
3	D-
4	GND
5	GND



Molex Connector part number: 532610571

5. GF631BM 2D DRAWING



6. SPECIFICATIONS

General Specifications	
Model Name	GF631BM / GF631BM-S
Image Size	400 Pixels x 500 Pixels
Sensing Area	20.32 mm x 25.4 mm
Resolution	500 dpi
Grayscale	256 (8bit)
FPS	Flats: 2/sec
LED indicator	RGB
LFD	Supported
Interface	USB 2.0 Full Speed (5 pin) connector
Power Consumption (read image)	85 mA
Power Consumption (standby)	65~75 mA
ESD Level	IEC 61000-4-2 Level 4
Encryption Function (GF631BM-S)	AES CBC:128 192 256 / AES ECB:128 193 256
Dimensions and weight	
Device Size	51.8 mm x 39.8 mm x 13.5 mm

Device Weight	19.9 g
Housing Material	Steel
OS Support	
Windows	Windows7+ or later
Linux	Linux(X64, ARM) or later
Android	Android 4.2+ or later
Certifications	
FBI	PIV (FAP30)
Environmental Specification	
Operating temperature	-20° C to +70° C
Storage temperature	-40° C to +80° C
RCA	200 cycle
Pencil Hardness	7H
Protection / Water / Dust	IP65 (sealed bezel to scanning surface)

7. REVISION HISTORY

Version	Date	Changes	Approved	Checked	Author
V1.0	3/22/2024	First Version	Colman	Hyde	Sam