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imp
IMAGE MATCH DESIGN



INDICUS

GF421DM / GF421DM-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.

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1. REVOLUTIONARY TECHNOLOGY

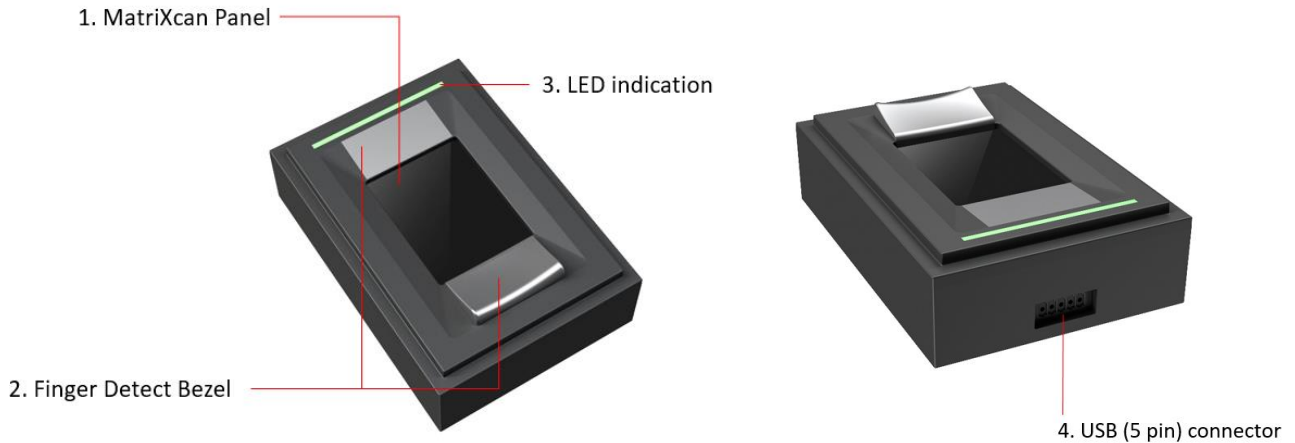


Differing from two kinds of typical fingerprint verification solution, optical and capacitive, iMD's world-leading technology MatriXcan™ is able to capture the best quality of fingerprint images, to extract most minutiae you have ever seen, and to output with outstanding speed and security. MatriXcan™ 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
- 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 (GF421DM-S)

3. PRODUCT DETAILS



- 1. MatriXcan Panel:** Sensing area 15.24 mm x 20.32 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

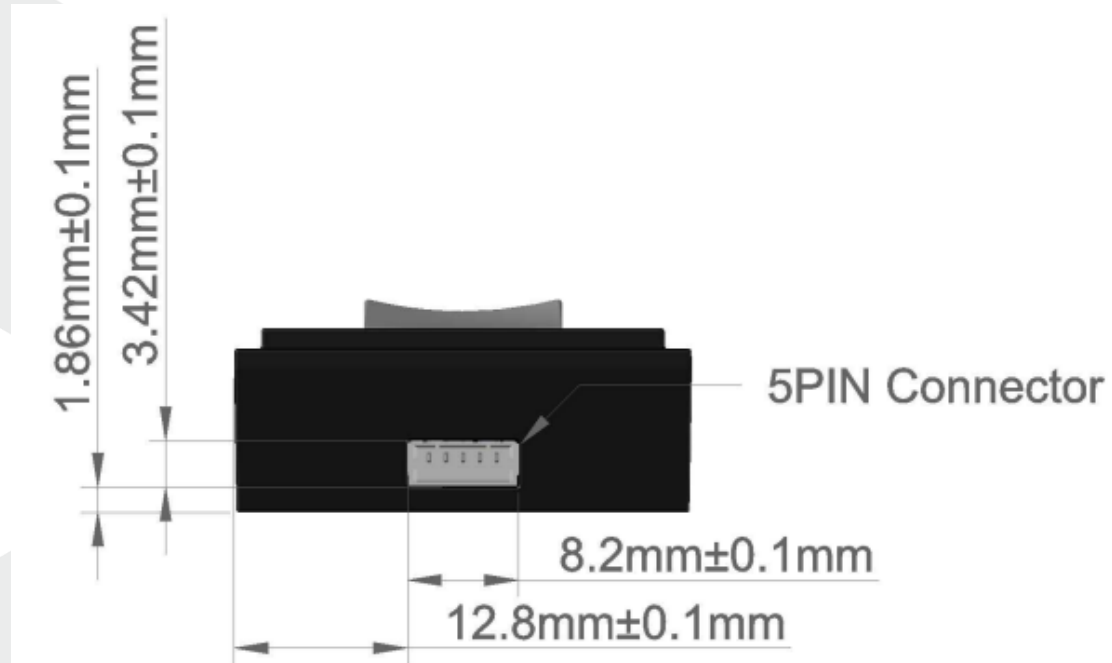
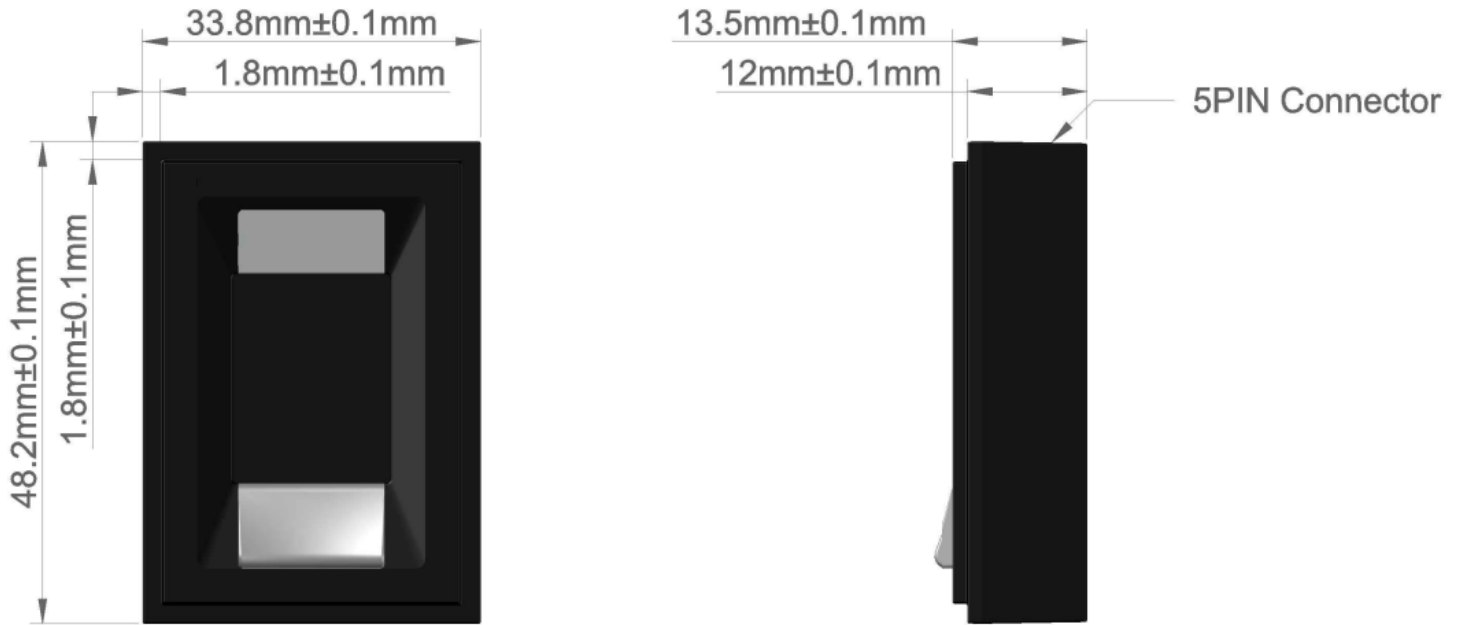
4. USB (5 Pin) CONNECTOR

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



Molex Connector part number: 532610571

5. GF421DM 2D DRAWING



6. SPECIFICATIONS

| General Specifications | |
|---------------------------------|---|
| Model Name | GF421DM / GF421DM-S |
| Image Size | 300 Pixels x 400 Pixels |
| Sensing Area | 15.24 mm x 20.32 mm |
| Resolution | 500 dpi |
| Grayscale | 256 (8bit) |
| FPS | Flats: 11/sec |
| LED indicator | RGB |
| LFD | Supported |
| Interface | USB 2.0 Full Speed (5 pin) connector |
| Power Consumption (read image) | 95 mA |
| Power Consumption (standby) | 80~90 mA |
| ESD Level | IEC 61000-4-2 Level 4 |
| Encryption Function (GF421DM-S) | AES CBC:128 192 256 / AES ECB:128 193 256 |
| Dimensions and weight | |
| Device Size | 48.2 mm x 33.8 mm x 13.5 mm |

| | |
|------------------------------------|---|
| Device Weight | 17.1 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 (FAP20) |
| 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 |
| | | | | | |
| | | | | | |