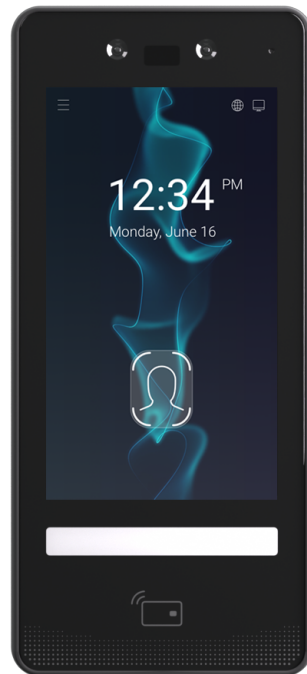


# NovaFace-3™ Data Sheet

Compact facial recognition terminal with powerful subject finding, ultra-fast algorithm processing, and adjustable field of view

March 2026



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## APPLICATION

High throughput access control, Time and Attendance, and ID management applications

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# Product Description

NovaFace-3 is CMITech's latest, next generation face recognition terminal that provides highly accurate face recognition in a compact and cost-effective embedded system. Employing the latest high-performance ARM processor, the NovaFace-3 performs subject and face detection, face imaging, template generation and matching at industry leading speeds, with typical authentication decisions of 0.5 seconds. The user experience resembles a natural "walk through" flow, as subject detection begins at up to 2.0 meters, with a typical face image capture range of 0.4 to 1.4 meters.

Image and algorithm processing utilize an embedded Neural Processing Units (NPU) for ultra-fast image capture and algorithm processing. This architecture allows for the utilization of the latest and most powerful, but complex, face algorithms available.

A key addition to the NovaFace-3 system is Adaptive Field of View Control in which the field of view is extra-wide in face finding mode. A proprietary Digital Pan & Tilt function shifts the region of interest (ROI) to display only the detected subject, thereby minimizing detection of unintended subjects.

The IP65 (ingress protection) and IK06 (impact protection) ratings provide added durability against incidental dust and moisture in controlled semi-outdoor environments while being designed primarily for indoor installations. Dual visible and near-infrared illuminators provide consistent imaging in low-light environments.

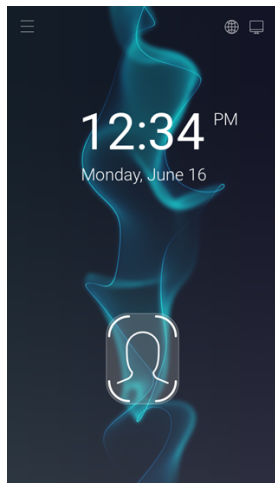
The system is also highly compact, with dimensions of 82 x 182 x 28 mm while weighing 380 g (without wall plate); it can readily be mounted on any wall, desktop, kiosk front-plate, or turnstile.

The user interface is effortless and intuitive. Positioning instructions are clearly shown on the display to guide subject movements, while authentication and authorization decisions are presented immediately in clear notations around the subject's face. The system also provides color-based cues for face finding, fake face detection, and mask detection, in addition to positive identification (or authentication), and identification rejection.

# Simple and Intuitive Subject Positioning

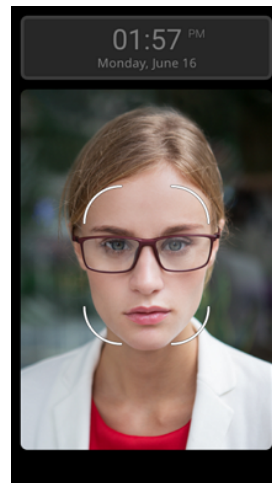
NovaFace-3 detects the subject's face over 2 meters from the system and displays the face on the high-resolution color LCD. The subject will simply and naturally walk toward the face capture range of 0.4 to 2 meters. Once the system recognizes the face, the result will be displayed immediately with a colored indication frame over the subject's face image.

## *Access Control Authentication and Verification*



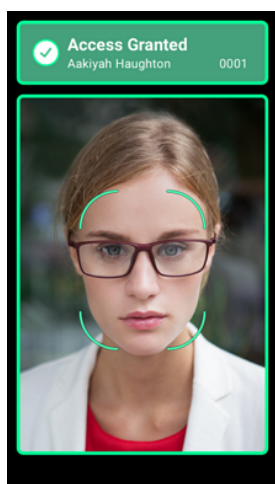
### 1. LAUNCHER VIEW

Home Page for start-up and administrator control.



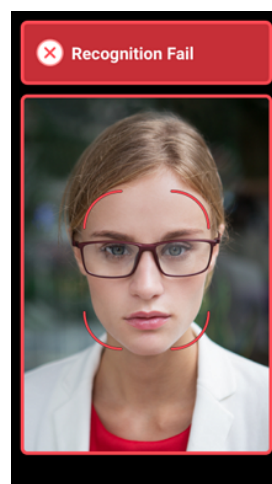
### 2. FACE DETECTION STARTS

White scan frame around face shows which subject has been detected and is being actively processed.



### IDENTIFICATION SUCCESS!

Subject is recognized and authorized with green color coding. Name and ID are shown.



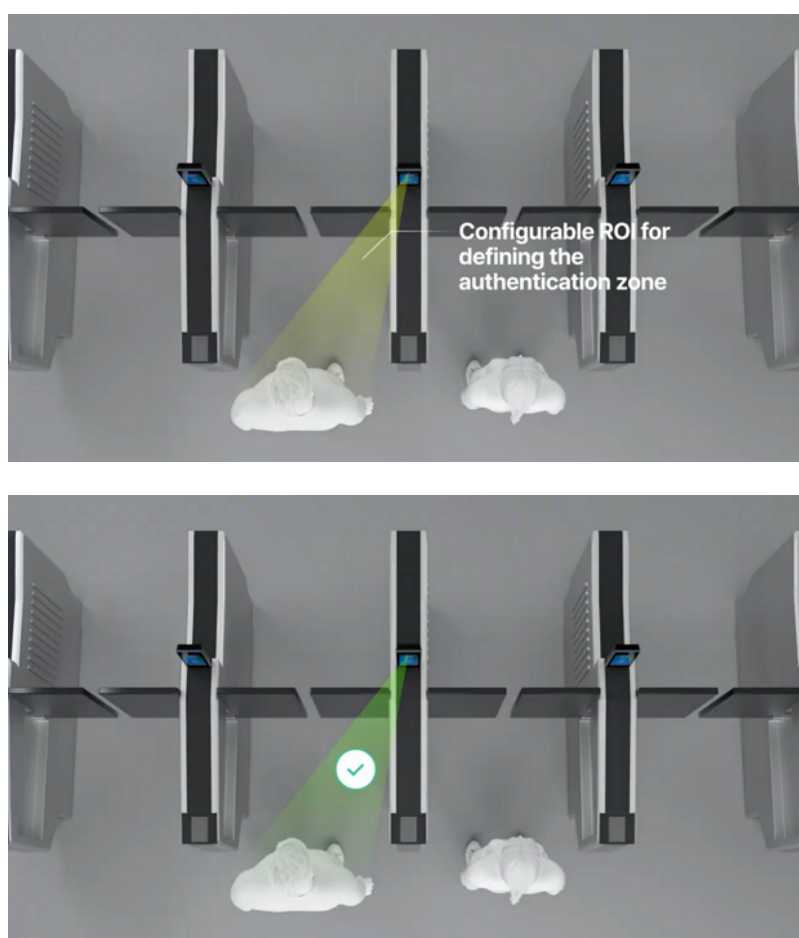
### IDENTIFICATION REJECTION

No match against internal, on-board database with red color coding.

# Adaptive Field of View Control

The NovaFace-3 provides a configurable horizontal region of interest (ROI) so installers can control where face detection is active. This capability is particularly valuable in turnstile and multi-lane access control scenarios where precise detection zone control is essential.

In high-traffic environments with adjacent lanes or gates, the adjustable field of view allows administrators to narrow the detection area to the left or right side, preventing unintended face detection from neighboring lanes. This selective coverage ensures that the system authenticates only the intended user passing through the designated gate, reducing cross-lane detections in multi-lane installations.



The configurable horizontal field of view can be adjusted through the Settings menu to match your specific installation requirements, from wide-open areas to constrained multi-lane configurations.

## Digital Pan-and-Tilt

Digital pan-and-tilt tracking combines with adaptive coverage to maintain optimal face framing across the entire capture volume while respecting the configured detection boundaries. Subjects' faces are automatically centered and optimally sized. The result is flexible deployment across different site layouts without compromising recognition performance.



## Key Features

| Feature                                                           | User Advantages                                                                                                                                                                                                  |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| State-of-the-art optical design                                   | Optical design utilizes highest quality optics and a very fast shutter speed, allowing the system to exceed industry norms for image quality.                                                                    |
| Dual face cameras                                                 | Two cameras—one in visible and one in NIR—optimize face detection in the lowest of ambient lighting conditions and provide for superior live face detection.                                                     |
| Wide angle face imaging                                           | Flexibly tune coverage for the site: wide for general entrances, or narrow/shifted ROI to reduce unintended detections in lanes and turnstiles.                                                                  |
| Advanced real-time subject tracking with simple user instructions | Accurately locates the subject face in real time.                                                                                                                                                                |
| Intuitive user interface                                          | Modeled after latest smart-phone user displays, the user experience will be intuitive and effortless for virtually all subjects.                                                                                 |
| Adaptive Field of View                                            | Proprietary and configurable adjustment where face detection is active. Allows for optimized detection of single, intended face in variety of physical deployment configurations.                                |
| Digital pan-and-tilt                                              | Optimizes presentation of face framing on display.                                                                                                                                                               |
| Face matching engine (on-board)                                   | Latest generation neural network-based encoding and matching algorithm delivers highest levels of matching accuracy. Includes integrated dual cameras with algorithm co-processor for fastest processing speeds. |
| Display of authentication (matching) results                      | Automatic display of matching results, positioned adjacent to subject's face.                                                                                                                                    |
| Language support                                                  | English, Korean, Simplified Chinese, Traditional Chinese, Japanese, Arabic, Spanish, Italian, Turkish, French                                                                                                    |
| Large on-board (embedded) face template database                  | Stores up to 50,000 active face templates on-board in 1:N recognition (identification) mode.                                                                                                                     |
| High speed face matching                                          | Up to 50,000 matches per second on-board.                                                                                                                                                                        |

| Feature                             | User Advantages                                                                                                                                                                                            |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Widest range of lighting conditions | Embedded illuminators in both white and NIR ranges expand use in adverse ambient lighting environments.                                                                                                    |
| Standard multi-band RFID reader     | MiFare, DesFire, FeliCa card support with standard embedded ISO/ IEC 14443 reader.                                                                                                                         |
| HID™ compatible card reader         | HID Omnikey™ embedded card reader optional, for compatibility with range of HID iClass™ cards.                                                                                                             |
| Live face detection                 | YES, included in proprietary algorithm.                                                                                                                                                                    |
| Mask and helmet (PPE) detection     | Detects face masks and safety helmets to support PPE (personal protective equipment) policy enforcement in environments such as construction sites.                                                        |
| Outdoor-friendly protection         | IP65 / IK06 rated housing supports outdoor and semi-outdoor installation conditions.                                                                                                                       |
| Intercom capability                 | Built-in microphone and speaker plus one-way video streaming enable entry intercom use cases.                                                                                                              |
| BLE                                 | Bluetooth 5.2 enables modern mobile credential and peripheral scenarios.                                                                                                                                   |
| PoE (power over Ethernet)           | Optional IEEE 802.3af support simplifies installation where PoE infrastructure is available.                                                                                                               |
| Powerful and simple SDK             | High-level SDK architecture supports fast integration. APIs reside on host-side applications in Windows C++, Windows C# (.NET) and Linux OS, minimizing device-level programming. Reference code supplied. |
| Access control panel connectivity   | Supports dual Wiegand and OSDP connections with SDK programming                                                                                                                                            |
| Full range of deployment options    | Standard connections include Ethernet, Wiegand (IN and OUT), GPI, RS-485, dry contact relay, tamper detection, factory reset button, SIM socket, USB host.                                                 |

# Technical Specifications

| Specification                                     | Description                                                                                                                                                                                                                                                                  |
|---------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| CPU                                               | Octa core ARM with NPU                                                                                                                                                                                                                                                       |
| Number of cameras                                 | Two (2)                                                                                                                                                                                                                                                                      |
| Illumination                                      | One visible (white) and one near-infrared (NIR) LED for optimal face detection and operation in low ambient light conditions                                                                                                                                                 |
| Dimensions                                        | 82 x 182 x 27 mm (without wall plate), 82 x 182 x 28 mm (with wall plate)                                                                                                                                                                                                    |
| Weight                                            | 380 g (without wall mount plate), 465 g (with wall mount plate)                                                                                                                                                                                                              |
| Display                                           | 4.96 inch (nominal), touch screen                                                                                                                                                                                                                                            |
| Operating capture range                           | 40 cm to 200 cm<br>Configurable maximum operating distance                                                                                                                                                                                                                   |
| User height range                                 | 120 cm to 210 cm (with system installed at 135 cm)                                                                                                                                                                                                                           |
| Face extraction (encoding) and matching algorithm | YES, on-board algorithm functions included as standard                                                                                                                                                                                                                       |
| Authentication speed                              | Within 0.5 second                                                                                                                                                                                                                                                            |
| Enrollment speed                                  | Within 3.0 second                                                                                                                                                                                                                                                            |
| Fake face detection                               | YES                                                                                                                                                                                                                                                                          |
| Data base size, on-board                          | Maximum 50,000 subjects in 1:N mode (authentication)                                                                                                                                                                                                                         |
| Text Log                                          | 3,000,000                                                                                                                                                                                                                                                                    |
| Image Log                                         | 10,000                                                                                                                                                                                                                                                                       |
| Audio In / Out                                    | Embedded microphone and built-in speaker                                                                                                                                                                                                                                     |
| RF card reader                                    | Standard ISO/IEC 14443 A/B, MiFare, DesFire, FeliCa, and HID (optional)                                                                                                                                                                                                      |
|                                                   | <div>  <div> <b>HID card support (optional)</b> <ul style="list-style-type: none"> <li>• HID iClass™ (13.56 MHz): OMNIKEY chipset</li> <li>• HID Prox™ (125 kHz)</li> </ul> </div> </div> |
| BLE                                               | Bluetooth 5.2                                                                                                                                                                                                                                                                |

| Specification         | Description                                                                                                                                                           |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| I/O connections       | RJ45 for Ethernet (10/100/1000), Wiegand IN, Wiegand OUT, GPI x 4, dry contact relay, RS-485 (2 channels), tamper, factory reset, SIM socket (optional), USB 2.0 host |
| OSDP compatibility    | V2 supported<br>2 channel master or slave through RS-485 port                                                                                                         |
| PoE                   | Optional (IEEE 802.3af)                                                                                                                                               |
| Power requirements    | 12 to 24 V DC, Power supply included.                                                                                                                                 |
| Power consumption     | Maximum 15 W                                                                                                                                                          |
| Operating temperature | -20° C to 50° C                                                                                                                                                       |
| Operating humidity    | 10% to 90% non-condensing                                                                                                                                             |
| IP/IK rating          | IP65, IK06                                                                                                                                                            |
| Certifications        | CE, FCC, KC, UKCA, RoHS                                                                                                                                               |

## Contact Information

Please contact CMITech or your representative for more information about the NovaFace-3 product, NovaFace Software Development Kits (SDK) and other supporting software.

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