Rapid Elevated Body Temperature and Biometric Screening Solution

NeoFace® Thermal Express

NEC's NeoFace® Thermal Express provides rapid, touchless physical access and hygienic thermal screening in demanding, high-throughput environments. Built with industry-leading sensors and top-ranked NEC software, NeoFace Thermal Express achieves fast results and exceptional accuracy. NeoFace Thermal Express operates on NEC's cloud-based Digital Services Platform—the secure foundation for all our digital identity management solutions—offering sensor management, biometric matcher orchestration, scalability, interoperability, and numerous other advantages. With its robust capture process and sleek design, NeoFace Thermal Express delivers hygienic, touchless screening in a variety of settings.

At a Glance

- **Detects elevated body temperatures (EBT) that may indicate a fever and alerts operators**
- **Detects personal protective equipment, including face masks**
- **Offers NeoFace, the industry's most accurate and proven face recognition technology**
- **Delivers a scalable and modular platform with enhanced video and thermal analytics**
- **Provides high customer throughput**
- **Improves customer experience and decreases or eliminates lengthy queues**

Solution Overview

NeoFace Thermal Express combines NEC's world-class artificial intelligence (AI)-driven advanced video and thermal analytics, and industry-leading face recognition technologies with trusted infrared (IR) thermal imaging sensors to deliver a solution that simultaneously verifies identities and detects body temperatures without contact. Access control is achieved through biometric authentication coupled with thermal sensing, allowing individuals to enter secured workplaces or restricted areas without requiring identification cards or pin codes. Touchless technology minimizes physical contact, secures access, and offers a safer work environment.

Calibrated specifically to measure temperature differences on human skin, our thermal imaging technology delivers superior accuracy in an easy-to-use solution. In addition, NEC's face recognition algorithm outperforms all other face recognition algorithms on the market today: it is proven to rapidly match poor-quality, low-resolution face images, including those partially covered by personal protective equipment (PPE). Locations with entry/exit points, such as building access, airport and seaport boarding gates, border crossings, stadiums, and theme parks, all benefit from the speed and precision of NEC's thermal screening and face recognition capabilities.

PROVEN RESULTS:

- **Speedy and hygienic**
  Eliminates the need for physical identification cards

- **Frictionless access**
  Touchless recognition for a seamless journey

- **Thoughtful design**
  User-friendly interface

- **Efficient system administration**
  Enhanced efficiency with improved operator experience

Best Technology, Lowest Risk

NEC's thermal imaging technology option employs high-quality sensors, including those that have been certified by the US Food and Drug Administration (FDA) for EBT screening – 510(K). FDA-certified devices are those that meet the FDA's recommendations for measuring EBT in conjunction with secondary evaluation methods. Our solution provides high accuracy, tight margins of error, and adaptability, making it desirable for varying operational environments.

Since 2011, NEC's face recognition algorithms have proven to be the industry's fastest and most accurate, based on independent benchmarks performed by the National Institute of Standards and Technology (NIST). NIST's independent testing confirms that NEC's face recognition technologies are the most resilient to low-resolution, poor-quality images and difficult viewing angles.

NeoFace Thermal Express runs on a platform supporting multiple workflows with both centralized and edge processing and the ability to scale to meet varying use cases, including individual and group screening. The platform supports optional advanced analytics, including camera-based contact tracing, social distancing analysis, people counting and tracking, and crowd capacity limits management.

Complete Customer Care

NEC's Biometrics Operations Support Service (BOSS) center provides comprehensive 24 x 7 multi-tier customer support for problem tracking and resolution and advanced remote diagnostics. Highly experienced engineers and developers provide technical support and troubleshooting services to ensure our customers get the information and help they need without delay.

Innovative Force in Identification

NEC is a pioneer in biometric research and a world leader in integrated, high-availability biometric identification systems for over 30 years. NEC offers matching capabilities for a variety of identification modalities, including face, fingerprint, palmprint, voice, and iris. Under the company's corporate message of "Orchestrating a Brighter World," NEC seeks to create technologies that address the safety, security, efficiency, and equality of societies worldwide, both now and in the future.

Key Product Features

- Touchless, simultaneous capture of face image and body temperature
- Quality capture in a wide range of environmental conditions
- Presentation attack detection technology using AI
- High tolerance matching of off-angle poses
- Capable of matching partially obstructed faces (e.g., masks)
- Monitors appropriate usage of PPE, detecting the presence of masks
- Focuses thermal sensor on key areas of the face
- Local support for both one-to-one (1:1) and one-to-many (1:N) face recognition
- +/- 0.5o F thermal screening accuracy [2]

NEC's NeoFace face recognition algorithms have been consistently ranked #1 by NIST for nine years [1]

For More Information: 1.800.777.2347
www.necam.com/ARS

1 https://www.necam.com/AdvancedRecognitionSystems/NISTValidation/FingerprintFacial/
2 *Depends on the camera sensor, lens, use of a blackbody and environmental use case*

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