Empowered by Innovation

NeoScan 45™
Mobile Fingerprint Collection Device

The Simplicity You Need.
The Design You Want.

NEC Corporation of America
necam.com/NeoScan

Operational Simplicity. Elegant Design. Unmatched Accuracy.

At a Glance

- The thinnest and lightest FAP 45 multi-fingerprint capture device
- 600% more fingerprint image capture than legacy FAP 10 devices
- Forensic image quality for the cascading of searches against unsolved latent collection
- Intuitive interface for rapidly accurate fingerprint capture process
- Bluetooth and Wi-Fi-enabled for both Apple® iOS and Android operating systems
- Supports Mobile ID, Field Booking, and Cite & Release Workflows
- Compatibility with most AFIS systems extends existing investments

Designed for public safety applications in the field, NeoScan 45 delivers the highest degree of speed and accuracy for mobile fingerprint roll and plain capture, including simultaneous two-finger capture. This innovative solution from NEC is simple to use, and features a large (1.6" x 1.5") scanning platen for better image quality and greater accuracy, as proven by NIST (National Institute of Standards and Technology)*.

NeoScan 45 supports multiple communication protocols including Bluetooth® and Wi-Fi. As such, the device is compatible with Apple® iOS and Android® operating systems, including the latest Apple and Samsung smartphone and tablet models. Equipped with a single and dual, plain and roll fingerprint capture sensor, NeoScan 45 is compliant with the FBI Image Quality Specification (IQS) Appendix F standards. With NEC's Smart ID biometric identification solution, NeoScan 45 adheres to NIST and FBI EBTS transmission standards.

As an open device, NeoScan 45 can operate with nearly all AFIS solutions, including NEC's Integra-ID Multi-modal Biometrics Identification Solution (MBIS), enabling agencies to extend their existing AFIS infrastructure investments into mobile applications. NEC engineering teams worldwide collaborated to create this new standard in accuracy and compactness with NEC's lightweight FAP 45 fingerprint collection device. Manufactured in Japan, it abides by NEC's strict manufacturing and quality standards that are intended to substantially improve the design, ergonomics and reliability of the device.

Ultra-Portable Design

Accurate fingerprint identification is crucial in the field. Public Safety, Homeland Security, First Responders and even Healthcare providers all demand a compact, fail-proof tool that works in their real time operational environments. As the thinnest and lightest FAP 45 multi-fingerprint capture device, NEC's NeoScan 45 offers an advanced design for rapid and ease-of-use application in the field. Slightly larger than an Apple® iPhone 6 Plus, NEC's NeoScan 45 fits into a shirt pocket or clip-on belt. Weighing at only 9 ounces it can be comfortably operated with only one hand.

Operational Simplicity

The intuitive user interface of the NeoScan 45 guides users clearly through the fingerprint capture and identification process. Distinct color indicators provide scanning prompts and confirmation, while also displaying the fingerprint capture profile.

Convenient LED indicators show device status including battery life, wireless connection, and fingerprint capture process. Fingerprint images are confirmed as high quality by an onboard NFIQ (NIST Fingerprint Image Quality) image test prior to image acceptance. When a quality fingerprint is captured, the finger icon LED illuminates in green.

The NeoScan 45 adapts to the environment and user for unparalleled operational simplicity. If necessary, missing or scarred fingertips can be skipped without hassle. The "Add New" button streamlines the scanning process when capturing a series of fingerprints from different individuals during the same session. Collected fingerprint sets are stored on the device until downloaded via Bluetooth or Wi-Fi. The ease of use of the NeoScan 45 helps reduce capture errors and wrong finger sequence captures.

Built-in magnetic card swipe supports rapid demographic data collection by swiping Drivers Licenses and ID cards, as well as credit cards.

Accurate, High-Quality Fingerprint Images

NeoScan 45 is tested and certified to FBI FAP 45 specifications including EBTS Appendix F and PIV-071006. With capture dimensions of 1.6" x 1.5", the NeoScan 45 can collect a larger size image, it is able to scan a two-finger slap capture, as well as up to 10 rolled fingerprints. When more fingerprint images are captured simultaneously matching horse power is reduced while speed of identification increases.

According to a study by NIST (NISTIR 7950), larger fingerprint sensors with higher FAP levels – like the NeoScan 45 – are more accurate, reduce sequence errors, and provide a higher rate of identification.* NeoScan 45 with its FAP 45 sensor captures over 600% more fingerprint image data than legacy FAP 10 devices. High resolution scans enable efficient cascading searches for latent fingerprint recognition; in turn, higher accuracy reduces demands on backend systems for better overall system performance.

Open and Connected

Support of multiple communication protocols, such as Bluetooth and Wi-Fi, ensure reliable connectivity for the NeoScan 45. Compatibility with Apple® iOS and Android® operating systems provide extraordinary integration and operational flexibility.

Battery life surpasses any other comparable device. The NeoScan 45 can power up to 200 scans per day and 24 hours of standby. Because it can operate with nearly all AFIS solutions, agencies are able to extend their existing AFIS infrastructure investments into the latest mobile applications with NeoScan 45.

Smart ID® and Live Scan Functionality

Paired with NEC's Smart ID and Smart LC applications, NeoScan 45 would also support cite-and-release, field booking and scene of crime print elimination.

NEC's Smart ID biometric identification application meets NIST and EBTS transmission standards.

Field booking and cite-and-release capabilities are possible with the efficiently designed NeoScan 45 and optional Live Scan Support Module. The NEC-patented Live Scan Support Module with a tablet PC transforms the NeoScan 45 into a portable booking station. Demographic data and fingerprints can be paired with a photograph, and sent for search against local, state and FBI RISC and other databases from nearly everywhere.

Innovative Force in Biometric Identification

For more than 30 years, NEC has been a world leader in integrated, high availability biometric identification systems. The unparalleled identification accuracy and speed of our technologies have been independently verified by NIST time and again. NEC is well-versed in deploying massive-scale multi-modal identification systems globally. NeoScan 45 is NEC's latest addition of innovative products and technologies. In par with our legacy innovations, NeoScan 45 provides the simplicity you need and the design you want!

* National Institute of Standards and Technology (NIST) and FBI testing. NIST report (NISTIR 7950).

Specifications for NeoScan 45

Overall Configuration	Wireless handheld biometric capture attachment
Central Processing Unit	ARM® Cortex®-A5 536 MHz
Operating System	Linux® V4.2
Memory and Storage	1.256 GB
Wireless Interface	Wireless LAN 802.11b/g/n Bluetooth® Class 1 Version 2.1 + EDR
Wired Interface	Micro USB 2.0 (for power and configuration control)
OS Compatibility	Android® V4 and newer Apple® iOS V7 and newer (iPhone and iPad) Microsoft® Windows® 7, 8 and Phone 8
Power Requirements	5.0 VDC and 1.2 A (via Micro USB)
Power Consumption	Sleep < 12 ma Idle 140 ma Full Scanning 600 mA (at 5.0 Volts)
Operating Temperature	32°F to 105°F (0°C to 40°C)
Storage Temperature	-10°F to 140°F (-23°C to 60°C)
Humidity	10 - 95% RH (non-condensing)
CE Compliant	CE Emissions: EN 55022:2006 Class A CE Immunity EN 55024:1998/A1:2001/A2:2003, IEC 61000-4-2
FCC Certification	FCC Part 15 Class A
RoHS Compliant	RoHS Directive 2002/95/EC
Enclosure	IP 41
API Interface	Capture Single/Multi Finger Direct Multi-device / Multi- thread support XML V3.0 and HTML 5
User Interface	OS Membrane: Status LEDs: Battery, Wireless, Capture Type & Finger Digit, Read Command Touch Buttons: Power, Scan, Add New & Skip
Physical Dimensions	6.9” (L) 3.3” (W) 0.7” (H) [174.5 (L) 82.5(W) 17.5 (H) mm]
Physical Weight	9 oz. (217 g)
Fingerprint Sensor	Integrated Biometrics Sherlock Sensor
Resolution	500 ppi
Image Platen Area	1.6”(W) x 1.5”(H) [41.0 mm (W) x 38.4 (H) mm]
Image Size	800 (W) x 750 (H) pixels
Speed	12 fps
Image Quality	FBI Appendix F IQS Certified FAP 45

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