

# Portable DNA Analyzer



**The entire process of DNA analysis on a single chip. 25 minute DNA analysis at the crime scene.**

Our revolutionary ideas combined with our innovative technology and extensive expertise has enabled us to crystallize the entire process of DNA analysis onto a single chip. The chip is disposable which intrinsically avoids DNA mistyping. This is a world first analyzer from NEC that will revolutionize criminal investigations.

## Compact for improved Portability

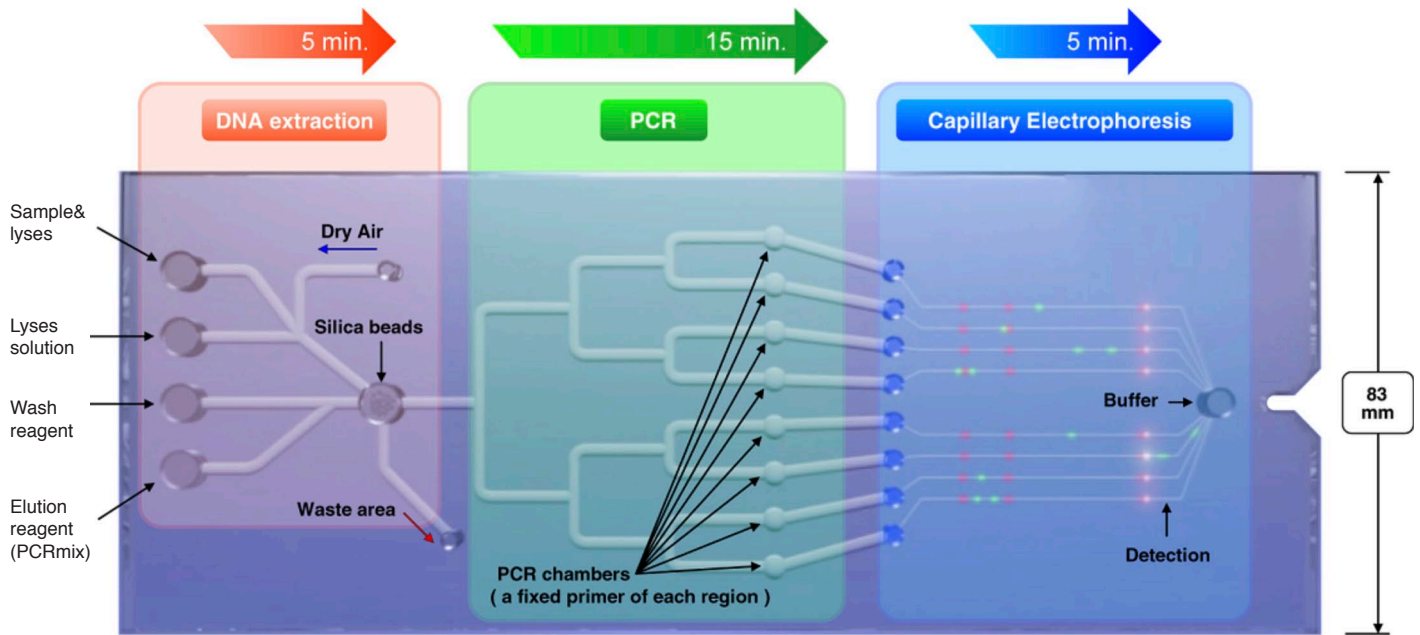
Conventional PCR and electrophoresis equipment are the size of a small printer and a compact refrigerator, respectively. NEC achieves amazing compactness and performance through our advanced “lab-on-a-chip” technology. This technology, along with miniaturizing both the PCR and electrophoresis components, has resulted in drastically reduced dimensions.

## Entire process finishes within 25 minutes

The smaller sizes also makes the connections of each process easier and faster. Additionally, the repetitive process of heating and cooling is drastically shortened. DNA analysis traditionally requires an entire day to complete, which makes it difficult to create a quick shortlist of suspects following a crime. But NEC’s new portable DNA analyzer can quickly complete DNA analysis at the scene of the crime.

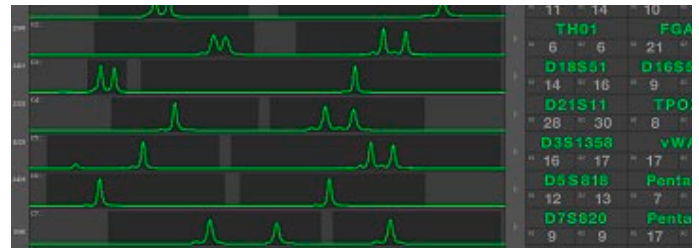
## The entire DNA analyzing STR process (DNA extraction, PCR amplification and Electrophoresis) is automatically conducted on a single chip

NEC’s micro-precise “Lab-on-a-chip” technology employs a small plastic chip with 5mm wells that serve as test tubes and fluid-transferring channels that serve as pipettes. The multiple layers of silicon film are laminated onto a single layer of resin.



## Easy to operate: No professional skills are required

A capsule contains a complete suite of reagents that eliminates the need to use pipettes. The newly developed special bud allows layman to inject extracted DNA to the well on the chip. After analysis, disposes the chip safely. The waste area facilitated in the chip has liberated the operator from tedious cleaning work.



## The cost per analysis is lower than ever

Applying printing technology to the chip production allows you to the lower consumables prices.

### Environment Specification

- Input Voltage : AC 100 - 220 V / DC 12V
- Operating temperature : 10 – 30 °C

### 2013 year model

- Dimensions : 752 (W) x 552(D) x 240(H) mm Weight : 32kg
- 5 loci analyzer (Screening use)

### 2014 year model

- Dimensions : 850 (W) x 470(D) x 250(H) mm Weight : 32kg
- 16 loci analyzer (These are compatible to the existing loci.)



### Corporate Headquarters (Japan)

NEC Corporation  
[www.nec.com/security](http://www.nec.com/security)

### North America (USA)

NEC Corporation of America  
[www.necam.com](http://www.necam.com)

### Asia

NEC Asia Pacific  
[www.nec.com.sg](http://www.nec.com.sg)

### Latin America

NEC Corporation  
[www.nec.com/security](http://www.nec.com/security)

### Europe

NEC Europe  
[www.nec.com/eu](http://www.nec.com/eu)