

# The Inline X-Ray Component Counter: The Next Step in SMT Inventory Automation

## Introduction

As technology continues to advance, so too do the tools and processes used in the manufacturing industry. One such development is the inline X-ray component counter, which utilizes X-ray technology to accurately count and verify the number of components on a circuit board.

## How does the X-ray component counter help you?

- Accuracy:
  - X-ray technology allows for a more precise count of components, as it can see through packaging and other materials that may obscure the view of traditional counting methods.
- Speed:
  - X-ray component counters can quickly and efficiently count large numbers of components, making the process much faster than manually counting or using other methods.
- Versatility:
  - X-ray component counters can count various components with different shapes, sizes, and materials.
- Contactless
  - X-ray component counters do not damage the components being counted, making them ideal for counting sensitive or expensive components.

## Inline X-ray component counter

The inline X-ray component counter, [Neo Counter X800](#), can receive materials from an automated guided vehicle (AGV) or manually loaded by a trolley. The materials are picked up by a robotic arm and sent to the counter for counting. After the counting process, the software records the results and automatically prints a label with the correct quantity. This label is then attached to the surface of the reel. A stacker stacks the materials before being unloaded by the AGV or trolley. This process ensures accurate counting, efficient labelling, and streamlined material handling, making it a convenient way of managing electronic component inventory.

## How Does the Inline X-Ray Component Counter Work?

After the electronic components are counted and measured using an X-ray component counter, the components are then stored in an automatic storage system. The updated quantity of the components is then entered into the software, which tracks inventory levels. This allows for efficient reordering of components as the software will indicate when the inventory is running low and needs to be replenished. In short, the X-ray component counter ensures accurate counting; this information is then stored in an automatic storage system and updated in software to track the inventory level. This information is used for the efficient reordering of components.

X-ray component counters are reliable and efficient for counting electronic components. X-ray technology allows for a precise count, even through packaging and other materials, and allows for a quick and efficient process. As it is non-destructive, it can count sensitive and expensive components.

## The Future of SMT Inventory Automation

The inline X-ray component counter represents a significant step forward in the automation of SMT inventory. By using advanced technology to count and verify the number of components accurately, manufacturers can improve their overall efficiency and productivity while reducing costs and improving quality control.

As technology evolves, we will likely see more advanced forms of SMT inventory automation. This could include using artificial intelligence and machine learning to improve the accuracy and efficiency of component counting and other automated systems to handle the assembly and inspection of components.

Overall, the inline X-ray component counter represents a significant step forward in SMT inventory automation. It will be interesting to see how it continues to evolve and shape the manufacturing industry in the future.