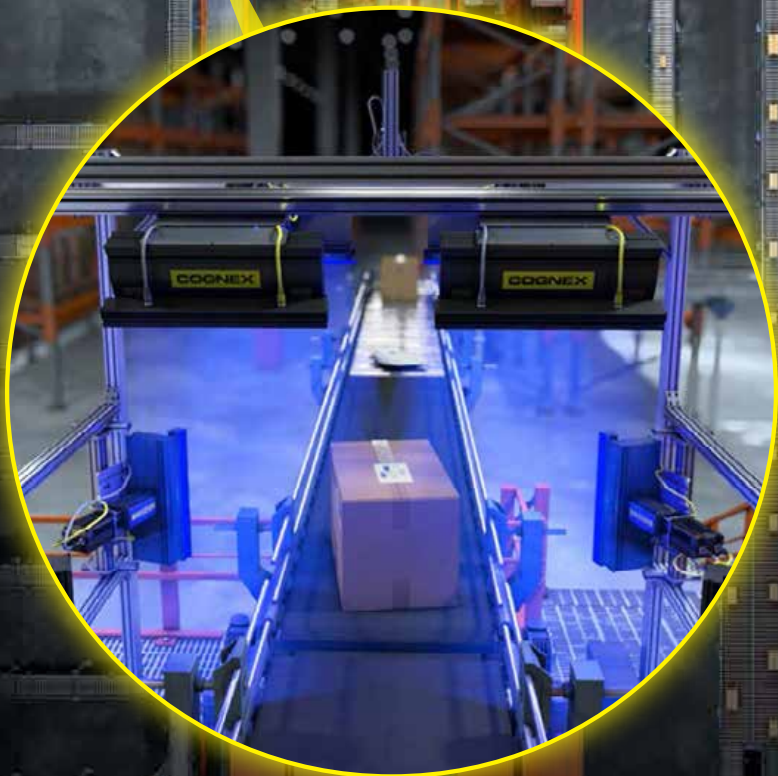


COGNEX

RETAIL DISTRIBUTION LOGISTICS SOLUTIONS GUIDE POWER UP YOUR OPERATIONS



THE GLOBAL LEADER

IN MACHINE VISION AND INDUSTRIAL BARCODE READING

Cognex®, the world's most trusted machine vision and industrial barcode reading company.

With over one million systems installed in facilities around the world and over thirty five years of experience, Cognex is solely focused on industrial machine vision and image-based barcode reading technology. Deployed by the world's top logistics companies, manufacturers and machine builders, Cognex solutions cut costs, improve efficiencies and maximize throughput.

Smarter automation using Cognex vision and barcode reading systems means fewer errors, which equates to lower costs and higher customer satisfaction. With the widest range of solutions and largest network of vision experts to meet the most challenging applications, Cognex is the best choice to help power up your operations.

**\$521
MILLION**
2016 REVENUE

OVER 35
YEARS IN THE BUSINESS

500+
CHANNEL PARTNERS

GLOBAL OFFICES IN
20+ COUNTRIES

1,000,000+
SYSTEMS SHIPPED



RETAIL DISTRIBUTION SOLUTIONS

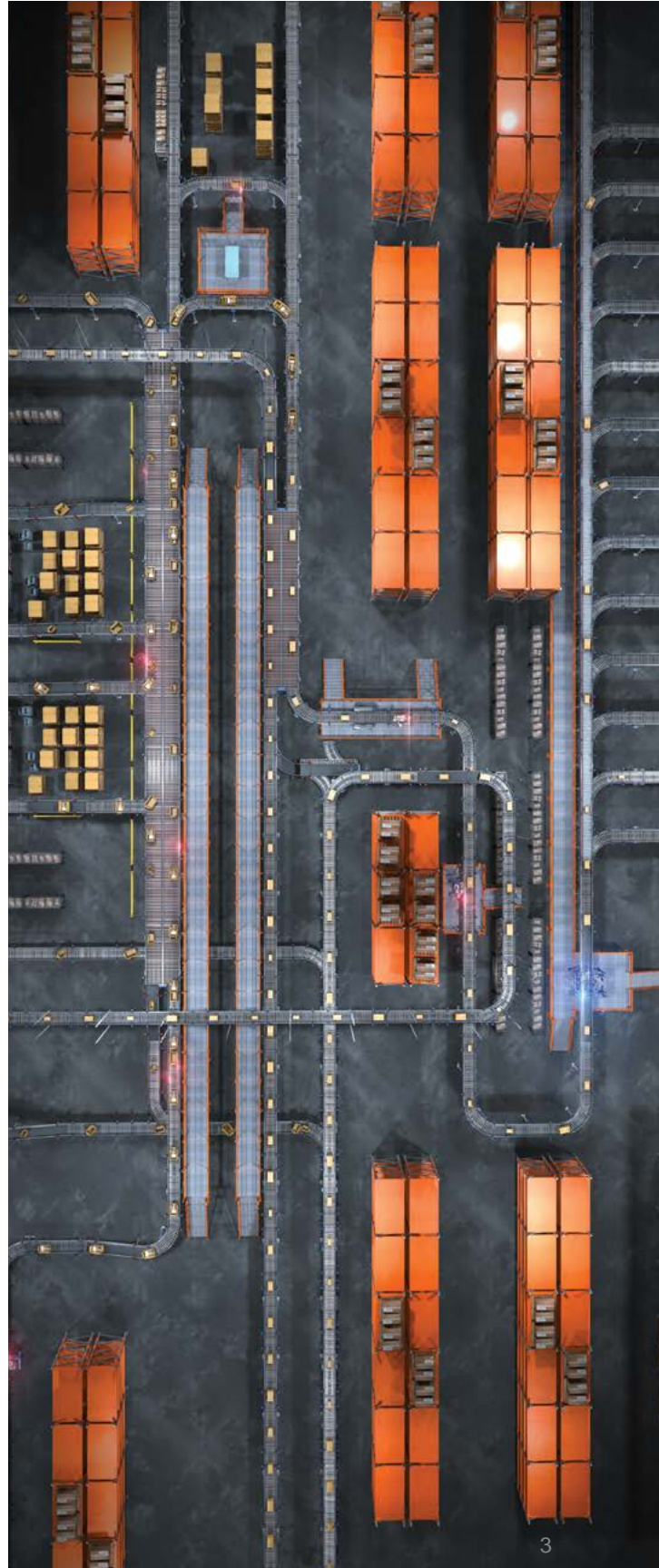
POWER UP YOUR OPERATIONS

As the retail industry continues to grow, the pressure to meet customer demands and performance metrics is greater than ever. Successful retail distribution, ecommerce, grocery and apparel companies are scaling and optimizing operations while minimizing manual rework and equipment downtime. Barcode reading applications are increasingly critical to:

- Prevent or correct label and shipping errors
- Drive up efficiency and throughput
- Lower maintenance costs

Cognex image-based barcode readers quickly and reliably decode 1-D and 2-D codes, combining the benefits of image-based readers with the ease-of-use and affordability of laser scanners. With the highest industry read rates in the market, Cognex technology can dramatically increase the speed, accuracy and productivity of your entire operation.

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AUTOMATED SORTING

DELIVER THE RIGHT PACKAGE TO THE RIGHT PLACE AT THE RIGHT TIME

PROBLEM:

Automated sorting systems use 1-D and 2-D codes to move and track goods through a facility. Labels—located on various sides of packages—often need to be read in rapid succession, simultaneously, and from extreme angles. Also, sorting systems must be able to identify compromised labels and quickly correct problems.

SOLUTION:

Image-based barcode readers are essential for decoding information and ensuring packages are properly sorted and delivered on time. High read rates at automated sorting locations reduce labor costs and maximize productivity rates.

Cognex barcode readers can:

- Achieve 99.9% read rates
- Read smudged or damaged codes
- Read codes at extreme angles
- Provide real-time performance feedback

CUSTOMER SUCCESS STORY

FOREVER 21

Fashion retailer

AUTOMATED SORTING CHALLENGES:

Forever 21's laser scanners could not read 5% to 6% of codes, requiring manual intervention for 1,728 items per hour.

RECOMMENDED SOLUTIONS:

DataMan® 150/260

DataMan 300/360

DataMan 503 Series

BENEFITS:

Cognex image-based barcode readers improved read rates to over 99%, thus improving productivity by 15% and providing a cost savings of approximately \$1 million per year.



“With the image-based scanners, our current read rate is **OVER 99%**. We're able to process a lot more orders with the same amount of people.”

—Jason Kim, Forever 21

15%
PRODUCTIVITY

COST SAVINGS OF APPROX.
\$1 MILLION
PER YEAR

PALLET SCANNING

SCAN PALLETS QUICKLY AND ACCURATELY

PROBLEM:

In a distribution center, items are typically received and shipped on pallets. Pallet scanning systems unload and route items to their appropriate locations. Many barcode reading challenges arise for traditional laser scanning systems, such as:

- A pallet of boxes contains many barcodes, making it difficult to read the right code.
- Barcodes are printed on or covered by reflective material, such as tape or plastic.
- Labels can become damaged during transport or upon unloading from the dock.

SOLUTION:

Cognex barcode readers scan pallets as easily as boxes, at an affordable cost. With a large depth-of-field and wide field-of-view, image-based barcode readers capture a pallet label—even one surrounded by other labels—quickly and accurately.

Cognex readers decode even the most damaged, distorted, blurred, or low-contrast label-based barcodes, delivering industry-leading 99.9% read rates.

CUSTOMER SUCCESS STORY

EDEKA

Grocery retailer

PALLET SCANNING CHALLENGES:

EDEKA needed a solution that would outperform their laser-based system and reliably read damaged, scratched or reflective manufacturer labels on pallets.

RECOMMENDED SOLUTIONS:

DataMan 300/360 Series

DataMan 503 Series

MX Mobile Terminals

BENEFITS:

Cognex image-based barcode readers improved read rates by 8% on 380,000 pallets and containers per day, ensuring maximum receiving and routing efficiencies.



PICK AND PACK SORTING

IMPROVE PICK TIMES AND ACCURACY



CUSTOMER SUCCESS STORY

OCADO

Online supermarket

PICK AND PACK SORTING CHALLENGES:

Ocado needed a solution that would read poorly printed, distorted and reflective manufacturer labels to improve pick times on over 1.5 million picks per day.

RECOMMENDED SOLUTIONS:

DataMan 70 Series

DataMan 150/260 Series

DataMan 300/360 Series

DataMan 503 Series

MX Mobile Terminals

BENEFITS:

Cognex image-based barcode readers improved pick times and order accuracy resulting in higher throughput.

PROBLEM:

Order fulfillment operations manage inventory by tracking and sorting goods using 1-D and 2-D codes located on various sides of items or packages. Manual pick and pack sorting applications, such as pick-to-light, put-to-light, and pick-and-pass, use fixed-mount presentation scanners to scan barcodes and verify that the item in hand matches the order.

Laser scanning challenges occur when codes are damaged from transport or handling, or when operators must manually present barcodes to a scanner several times before obtaining a successful read. This results in costly rework, delays and order inaccuracies.

SOLUTION:

Despite these material handling and presentation scanning challenges, Cognex image-based barcode readers improve pick and pack sorting times and maximize throughput by reliably reading:

- Omnidirectional codes
- Codes at angles exceeding 85 degrees
- Damaged, smudged or distorted codes

PRINT AND APPLY

IDENTIFY AND RESOLVE LABEL PRINTING AND PLACEMENT PROBLEMS

PROBLEM:

Whether your organization has a one million square foot facility or small regional warehouses, fulfillment starts with accurately printing and applying a tracking label to ensure each item is sorted and routed correctly. Smudged, wrinkled, flagged, or improperly placed labels lower read rates and lead to costly manual rework, delayed shipments and even fines.

SOLUTION:

Cognex image-based barcode readers do more than read codes. They catch issues early on, allowing facility managers to identify and fix label printing and placement problems.

Cognex barcode readers can:

- Achieve 99.9% read rates
- Read smudged or damaged codes
- Provide real-time performance feedback

CUSTOMER SUCCESS STORY

IHLE

Tire wholesaler, part of Michelin Group

PRINT AND APPLY CHALLENGES:

IHLE needed a solution that could increase throughput and shorten delivery times by reliably reading 1-D and 2-D codes on and under shrink wrap.

RECOMMENDED SOLUTIONS:

DataMan 70 Series

DataMan 150/260 Series

DataMan 300/360 Series

DataMan 503 Series

BENEFIT:

Cognex image-based barcode readers achieved over 99% read rates on 1-D and 2-D codes, ensuring fast and accurate delivery of thousands of tire packages.



99%+ READ RATES

WAREHOUSING

ACHIEVE NEXT LEVEL WAREHOUSING PRODUCTIVITY

PROBLEM:

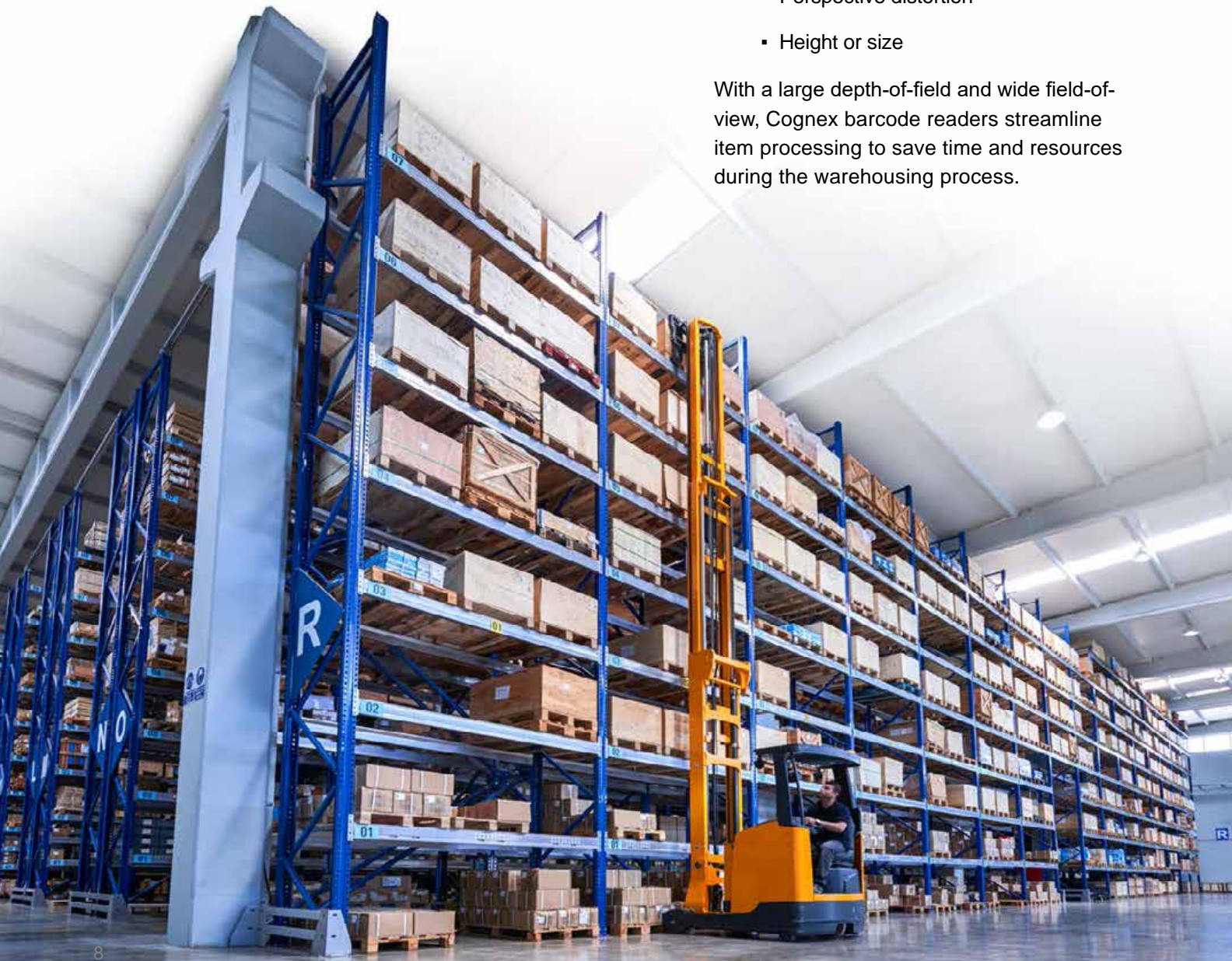
Warehousing is the process of receiving and storing goods for hours, days or weeks at a time. Some facilities use automated storage and retrieval systems (ASRS), while others store items manually on shelves. Pallets or packages may have poorly printed labels, scratched barcodes, labels on one side, multiple sides, or under plastic which can contribute to barcode scanning challenges and costly tracking and routing inefficiencies.

SOLUTION:

Cognex image-based barcode readers use the most advanced algorithms in the industry to quickly and accurately read damaged 1-D and 2-D codes with variations in:

- Contrast
- Resolution
- Quiet zone violations
- Perspective distortion
- Height or size

With a large depth-of-field and wide field-of-view, Cognex barcode readers streamline item processing to save time and resources during the warehousing process.



REAL TIME MONITORING

IMPROVE EFFICIENCY AND THROUGHPUT WITH PERFORMANCE INSIGHTS



Laser scanning systems cannot detect label issues or provide real-time performance data. This leaves facility managers lacking relevant information to make decisions about operational improvements.

Cognex RTM technology provides actionable insights in an easy-to-use interface to help customers diagnose and resolve barcode issues. It can collect and grade the quality of barcode images and provide valuable process control metrics over time across an entire facility.

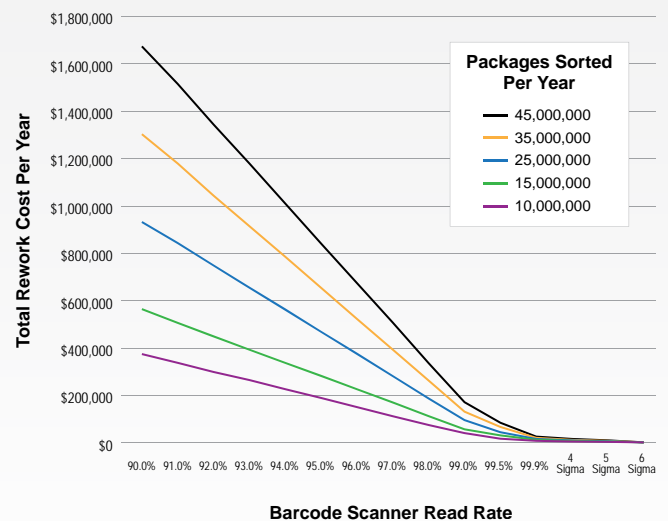
This powerful, data-driven approach enables facility managers to monitor performance and implement corrective actions to achieve higher read rates and peak productivity.

- Track read rates over time with a performance overview dashboard
- Monitor barcode grading quality with 1-D and 2-D process control metrics
- Collect and review images for immediate visual feedback and photographic proof of errors
- Manage the impact of barcode reader configuration changes with the ability to see an audit trail

A light version of RTM is included with all DataMan barcode readers in the Cognex Setup Tool.

SAVE MONEY

IMPROVING READ RATES BY JUST 0.9%
CAN ADD HUNDREDS OF THOUSANDS
OF DOLLARS TO YOUR BOTTOM LINE.



COGNEX LOGISTICS PRODUCTS

READ ALL YOUR TOUGHEST CODES

Cognex barcode readers are optimized with patented algorithms to ensure industry-leading 99.9% read rates of 1-D and 2-D symbologies in the most challenging barcode reading applications.



DATAMAN 70 SERIES

DataMan 70 is a compact fixed-mount barcode reader providing the highest read rates for 1-D and 2-D label-based codes. Its flexible configuration options and size make it an easy replacement for small laser-based systems.

DATAMAN 150/260 SERIES

DataMan 150/260 delivers unprecedented performance, flexibility and ease of use. Patented algorithms can decode even the most damaged, scratched and poorly printed 1-D and 2-D codes.



Hotbars® technology—locates, extracts and decodes 1-D linear barcodes up to 10x the speed of a typical image-based reader.



DATAMAN 300/360 SERIES

DataMan 300/360 is the most versatile fixed-mount barcode reader offering multiple integrated lighting and lens options to reliably read a wide range of 1-D linear and 2-D matrix codes.



Xpand™ technology uses an innovative optical design that increases field-of-view by over 50% for a single DataMan 300/360 or 503 barcode reader. This enables logistics applications to be solved using fewer readers, simplifying set-up and reducing overall cost.



DATAMAN 503 SERIES

DataMan 503 is the highest performing fixed-mount barcode reader well-suited for applications that have high speeds, wide belt widths or large variations in package heights.



DataMan 503 readers can be configured as a five-sided scanning tunnel to quickly and accurately scan multiple sides of packages.

MX MOBILE TERMINALS

MX-1000™ and MX-1502 vision-enabled mobile terminals leverage the latest iOS® and Android® smartphones in a rugged housing, tough enough to handle 1-D and 2-D code reading applications inside and outside the four walls of your facility.



RECOMMENDED SOLUTIONS

Cognex logistics professionals can help you evaluate your application needs and recommend the best solution to enhance your operational performance.

	DataMan 70	DataMan 150/260	DataMan 300/360	DataMan 503	MX Mobile Terminals
Automated Sorting		■	■	■	
Pallet Scanning			■	■	■
Pick and Pack Sorting	■	■	■	■	■
Print and Apply	■	■	■		
Warehousing		■	■		■

COGNEX LOGISTICS SOLUTIONS

POWER UP YOUR OPERATIONS

Maximize deliverability and minimize manual handling with advanced barcode reading solutions from Cognex. With the highest industry read rates in the market, Cognex technology will dramatically increase the speed, accuracy, and productivity of your entire operation.

RETAIL DISTRIBUTION



The world's leading retailers use Cognex barcode readers to quickly scan and track goods through their distribution centers.



Ecommerce

Ecommerce businesses rely on image-based barcode readers to scan and sort goods quickly and accurately.



Grocery

Grocery retailers use Cognex's image-based barcode readers to ensure maximum pallet receiving and routing efficiencies.



Apparel

Fashion and apparel companies use image-based barcode readers to help manage changes in volume and SKUs and minimize manual handling.

PARCEL & POSTAL



Parcel and postal organizations rely on Cognex barcode readers to reliably decode multiple 1-D and 2-D codes on various types of packages.

AIRPORTS



Airport baggage handling systems depend on Cognex's barcode reading solutions to speed up luggage processing times.



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