Fixed Industrial Scanners

Move goods at the speed of demand

PRIVATE LABEL OPTION

OEM OPTION

We can put your company name, brand....on these

When it comes to automating your supply chain, you want a leader you can count on...

When it comes to choosing a provider for your fixed industrial scanning solutions, you want the best.

You want a leader you can count on.

A leader who can support your operations no matter where in the world they are located.

A leader with proven technology — technology that companies all around the world count on every day to run their businesses, including the majority of the Fortune 500.

A leader that is constantly innovating, on the cutting edge of developing and delivering solutions that continually improve workforce productivity, process efficiency, the user experience — and profitability.

A leader whose technologies deliver a true performance edge.

~6,800 patents and patents pending
Constantly innovating to bring you leading edge technology

50+ years of innovation
A company you can count on today...and tomorrow

$4.58 billion in sales
Best-in-class solutions embraced globally

Global reach
Support in virtually every corner of the world...

122 facilities globally

10,000+ channelpartners
in over 185 countries

#1 Enterprise Mobile Computing

#1 Barcode Scanning

#1 Barcode Printing

RFID
#1 Mobile RFID

Introducing Fixed Industrial Scanning solutions

| Easy to set up, deploy and run | Proven industry-leading technologies | Upgradeability — add features with a software license | One software platform to manage the entire portfolio |

Move goods at the speed of demand

Supply chain efficiencies have never been more integral to business success. Shoppers purchasing goods anywhere and anytime with ever-increasing expectations for faster delivery put tremendous pressure on your manufacturing and distribution operations to create and move more goods, faster than ever. And with Fixed Industrial Scanners, you can.

Whether you are reading barcodes to ensure the right part is being used at the right time on your production line or to track and trace finished goods as they move into, through and out of your facility, our solutions instantly transform your data into actionable business information that enables error-free actions. Productivity and quality improve across your operations, from manufacturing through packaging and distribution. And the flawless movement of perfect products from the production line to the customer allows you to outperform your objectives — and exceed your potential.
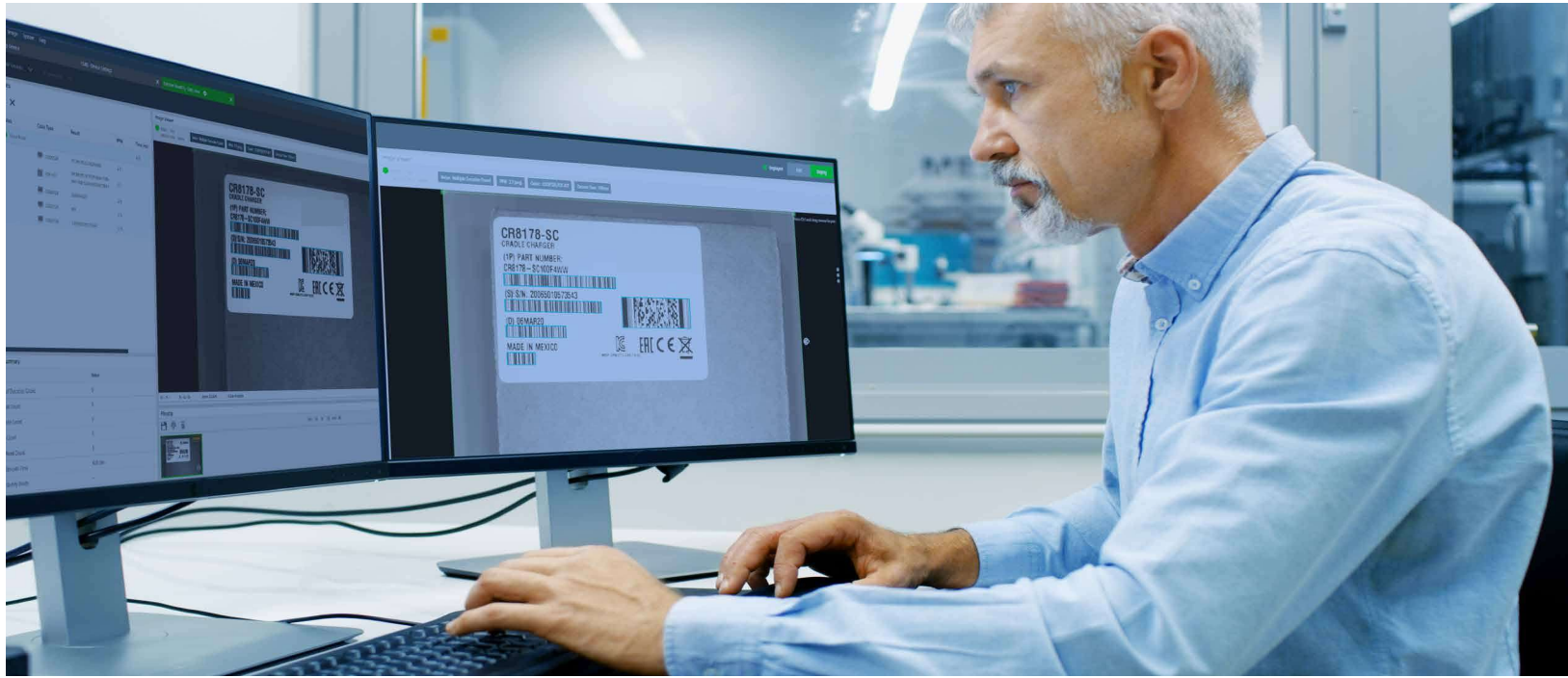
Portfolio of Fixed Industrial Scanners
Buy the features you need today...
upgrade to the features you need tomorrow

Track and trace items traveling on the conveyor or through key portal transition points in manufacturing plants, distribution centers and warehouses with Fixed Industrial Scanners. Whether you need simple and straightforward capture of barcodes on package labels to the complex capture of printed and direct part marked barcodes of varying sizes at varying distances, there is a model built to meet your needs. And when your needs change, you can simply upgrade the Fixed Industrial Scanners you purchase today to meet new business needs tomorrow. This unique device architecture protects your investment — you'll never need to retire devices early when you need new functionalities. Whether you want to capture new types of data — such as Direct Part Marks (DPMs) or Deep Learning-based OCR — or add machine vision capabilities, you can address it all with the simple purchase of a software license. The result? A guaranteed maximum return on the fixed industrial scanner investment you make today.

Fixed Industrial Scanners					Connectivity Gateway

FS10
Compact fits-anywhere plug and play scanning for basic offline track-and-trace applications.

FS20
Easily integrate compact plug-and-play high-quality scanning into a PLC or Host network.

FS40
Comprehensive features for sophisticated track-and-trace applications.

FS42
Powerful processor for high-speed scanning and deep learning-based-OCR applications.

FS70
Completely customizable to enable the most challenging track-and-trace applications.

GS20
Take production line throughput to the next level with the GS20's next generation scan tunnel architecture. Aggregates all the data from up to 16 cameras and sends only the information required to the host application, substantially increasing scanning speed.

Want to boost scanning functionality?
Upgrade your Decoder Package to add support for new symbologies and faster frame rates to accommodate faster conveyor speeds

Want to add machine vision capabilities?
Upgrade to any Machine Vision (MV) toolset to turn your Fixed Industrial Scanner into a Machine Vision Smart Camera

When it comes to improving operational efficiency and error-proofing everyday tasks in the supply chain that are crucial to business success, fixed industrial scanning portfolio delivers.

Aurora Focus software
One single software platform to manage it all

Aurora Focus brings a new level of elegance and simplicity to the control of enterprise-wide manufacturing and logistics automation solutions. With this single unified platform, you can easily manage all Fixed Industrial Scanners and Machine Vision Smart Cameras, eliminating the need to use different applications to control different types of capabilities.

Simplified management — easy to setup, deploy and run
The highly intuitive modern interface presents logical workflows. No need to hunt for needed features and functions — they are just a click or two away. And even complicated settings are easy to execute, presented as sliders and radio buttons.

Designed for beginners and experts
First-time users can easily navigate through the well-designed management platform, which guides them through all the steps in the proper order. Experienced users will appreciate easy access to all functions and streamlined processes that substantially reduce the time and number of clicks it takes to perform tasks.

Single tool simplicity for reduced ramp up and training time
The architecture of your industrial automation solutions is simpler — your workers only need to learn one tool, minimizing training time and effort.

Real-time performance insights with the Web HMI dashboard
Access key metrics for every camera from your web browser including device health, resource utilization, decode results and scan performance metrics.

Aurora Focus in action
Job Setup: make complex functionality simple

Setting up a job can be a tedious and time consuming task, but with the intuitive and user-friendly interface in Aurora Focus, it's easy. All of the controls you need are exposed at the right level, so you're never more than a click or two away from what you need to complete the task at hand.
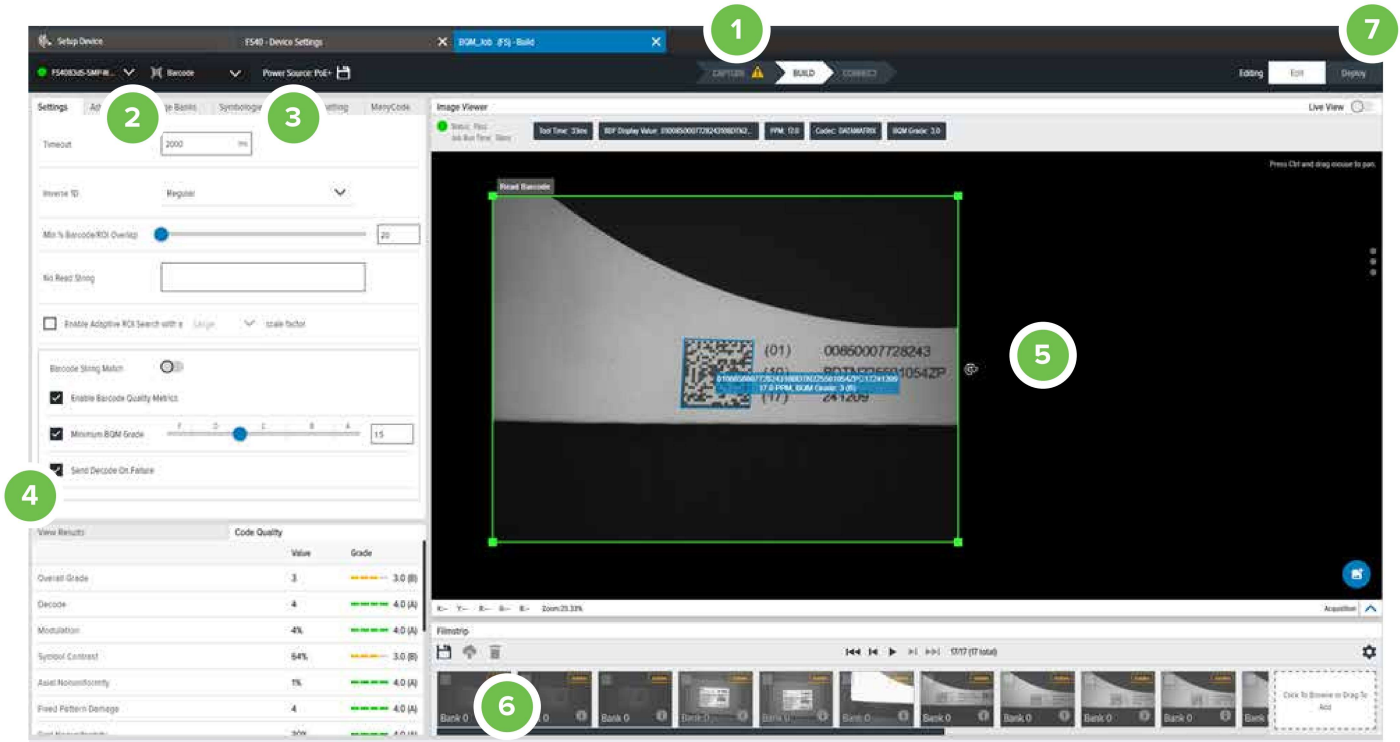
1
The workflow

Organized into 3 easy and logical steps:

Capture
Configure to achieve the best images for your job. Set the exposure, gain, focus, Illumination control and more.

Build
Create your jobs — quickly add and configure the tools you need to get it done.

Connect
Interface with your systems. Setup and customize PLC communications, GPIO behaviors and define the key data you want to send out.

2
Tool menu

Tools are organized by tool category and are easy to find.

Click on the Tool Category to reveal the drop-down box of tools for that category.

Type the tool you are looking for in the search box.

5
QuickDraw

Adding tools has never been so easy and fast. Just draw a box around the area you want to inspect, right on the image, then choose and configure your tool.

3
FlowBuilder*

Create the required Toolbox for your job.

View the Toolbox at-a-glance to see the entire flow for a job.

Drag and drop to move a Toolbox.

Copy/paste to create a quick starting point for a similar tool.

6
Filmstrip

Images you capture and save during the build or deploy state appear here for easy access.

4
Toolbox

Allows users to adjust settings and quickly configure tools to solve their application. With slider bars, check boxes and radio buttons, tool configuration is easy — no need to program and no intimidating user-interface.

7
Deploy

Just click to push your job to the camera and start running the job.

* FlowBuilder feature available for devices upgraded with machine vision toolsets.

Aurora in action
Achieve image perfection with ImagePerfect+

Want your system to work perfectly? Unleash ImagePerfect+ technology. Automatically create up to 16 images in one trigger event to create the perfect result. Handle lighting, part variation, inspections with different focal depths and more with ease. The result? The need for multiple cameras, external lights and complex custom code is eliminated, replacing solution complexity with solution success — and a lower total cost of ownership.
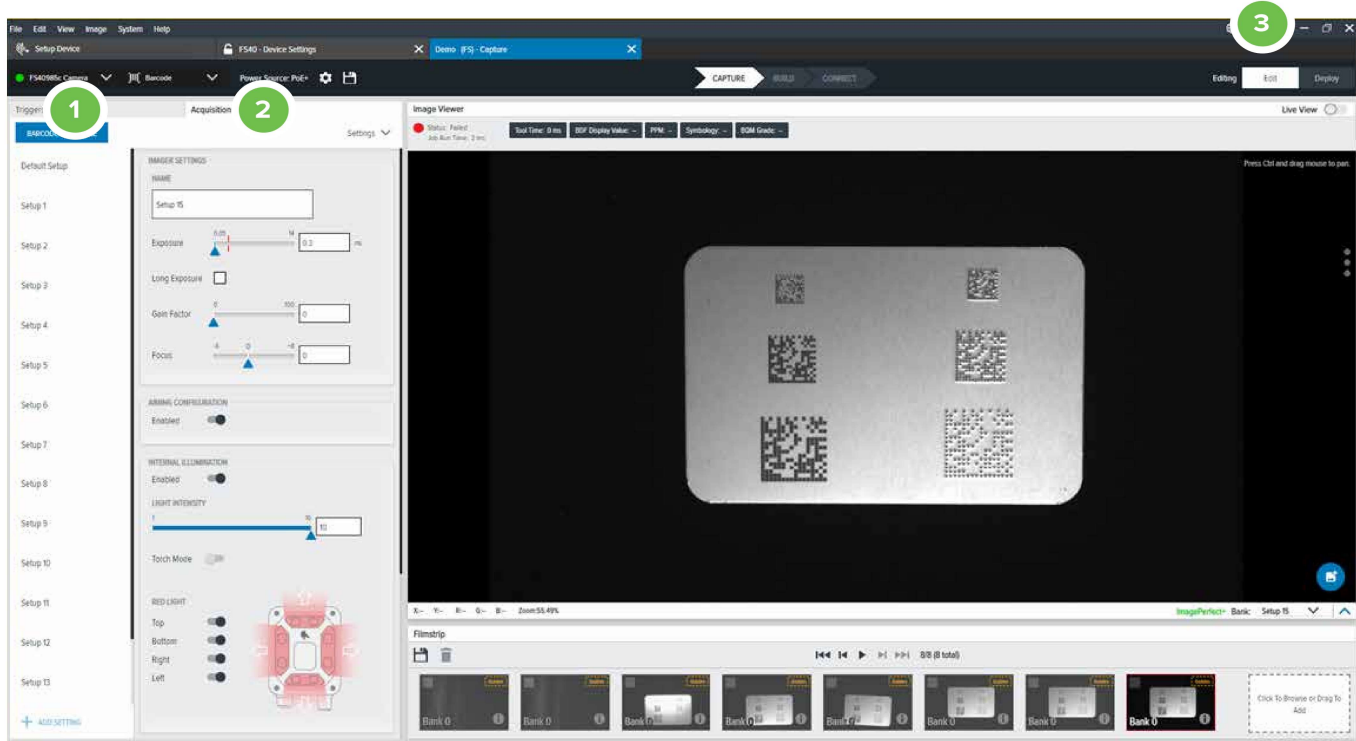
1 ImagePerfect+

This groundbreaking feature allows the capture of up to 16 images per trigger event. Each of the images can have its own unique settings for exposure, gain, illumination control and more.

2 Image settings

It's easy to configure the right settings for image capture — simply adjust the sliders and click radio buttons to adjust exposure, gain, focus and lighting to get the perfect image.

3 Real-time Live View

Just click to turn on Live View so you can see what the camera sees in real time, making it easy to define the perfect settings.

Aurora in action
Easy troubleshooting with Golden Image Compare

When barcodes or jobs fail, this unique tool enables rapid troubleshooting and issue resolution, minimizing downtime. In just two clicks, you can view the image that failed and a golden image created at setup, side by side, revealing the source of the issue — from a dirty lens or a lighting problem to misalignment of the camera.
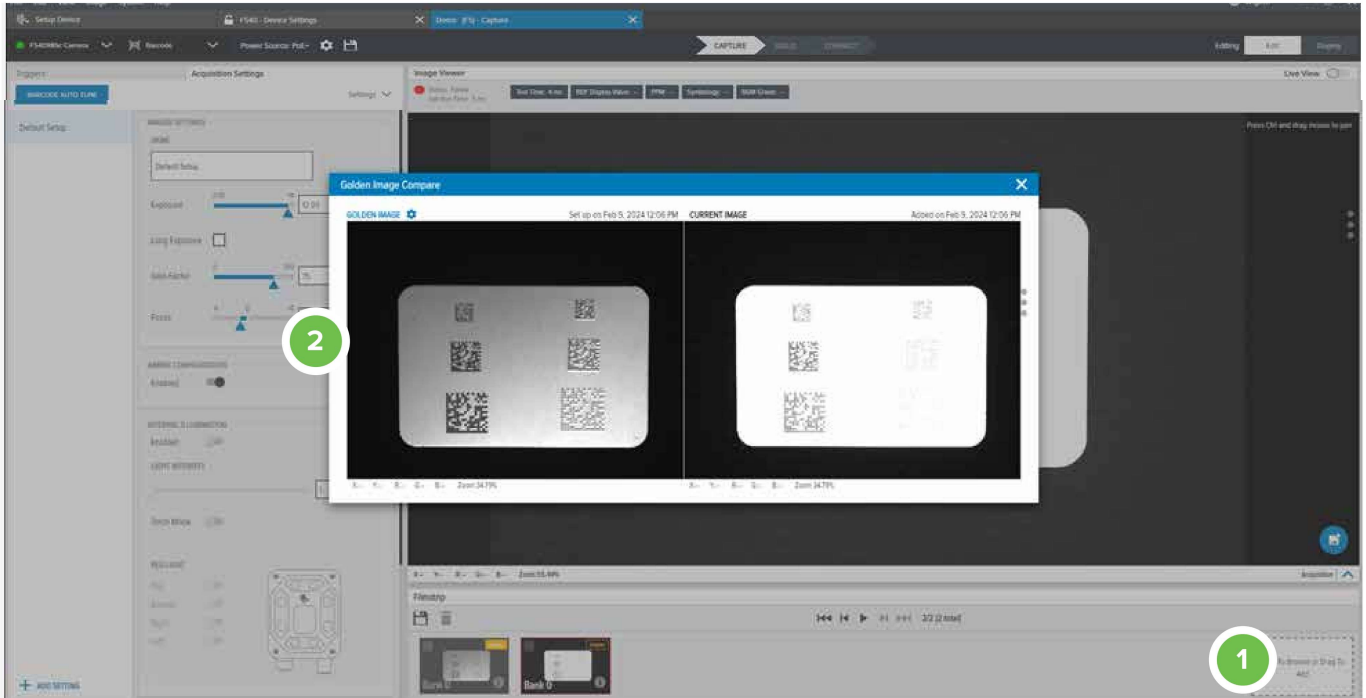
1 Select the current image

To start the side-by-side comparison, just click to select the current image from the live camera.

2 Select the Golden Image

Select the Golden Image captured during setup. The images appear side-by-side, enabling a rapid diagnosis of the root cause of the issue.

Aurora in action

Deep Learning-Based OCR tool

Easily capture text information on parts, labels and more with the Deep Learning-Based OCR Tool. Setup is simple — just draw a box around the text you want to read for text information that is in a fixed position. Whether you need to capture text on parts on the production line or labels on boxes, with support for printed, engraved, solid, dot-formed and direct part marking, this tool makes it easy to capture it all. Using state-of-the-art techniques based on Artificial Intelligence eliminates the need for font training — there's no need to sample all possible fonts and all of their variations. Text is captured, regardless of how it is printed, the surface it is on or the way the code is illuminated — and even tough-to-read and low-contrast characters on confusing backgrounds are easy to read.
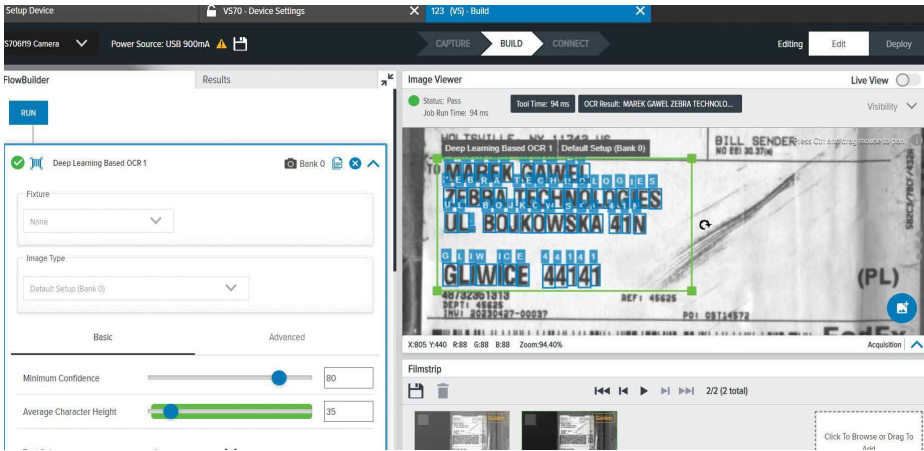
Web HMI Dashboard for easy monitoring

Put actionable intelligence at the fingertips of your operators without the need to buy and install a PC at every station, simplifying and reducing the cost of your automation solution architecture. The dashboard enables operators to see and interact with the data. And the dashboard can be viewed via any web browser or by directly connecting a monitor to the Fixed Industrial Scanner.
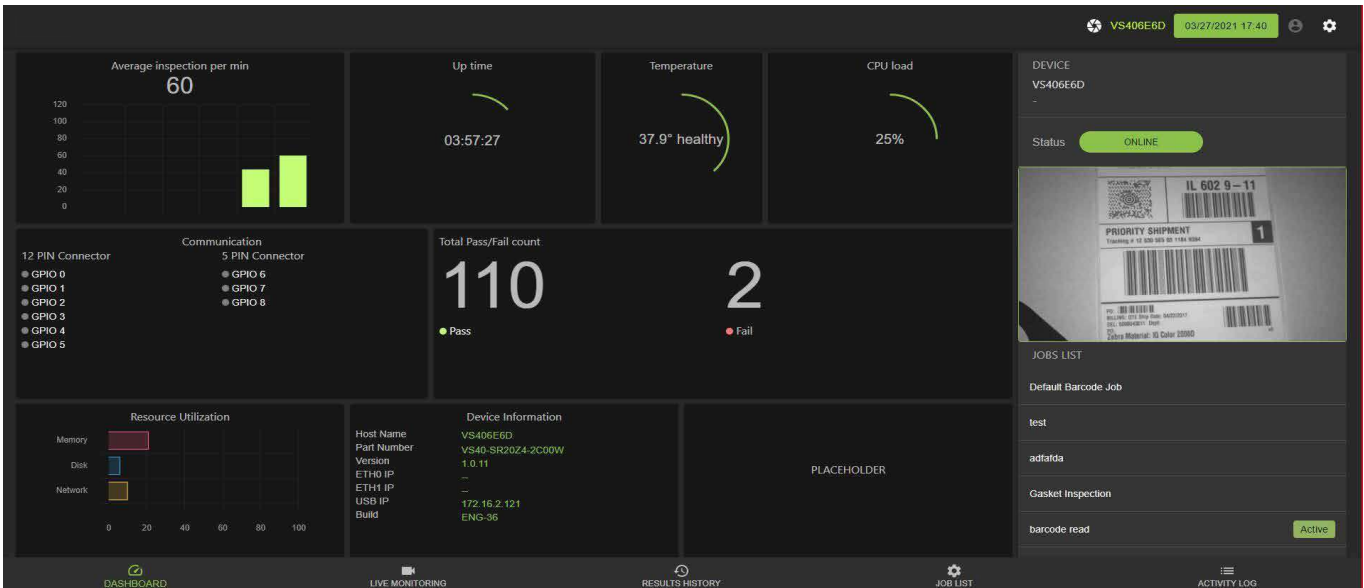
Just a few of the many unique Aurora Focus features that drive unsurpassed performance into our products — and your organization

Advanced features

ImagePerfect+

Capture up to 16 images* with a single trigger event, each with its own unique settings to ensure the capture of the perfect image

Golden Image Compare

When a barcode or image capture fails, quickly identify and resolve the issue

Advanced Filtering and Formatting

Customize rules and actions by symbology type, character set, barcode length and more

Leader/Follower

Built-in configuration flexibility for scan tunnel and dock door scanning applications

Web browser-based HMI Dashboard

Display live operation of the camera from a web browser or direct connection to a monitor through USB-C — no need to run or install Aurora Focus software

Deep Learning-based OCR

Leverage AI-derived tools to quickly read a variety of fonts without training within a user-defined region of interest.

Easy Text Interface (ZETI)

Issue device commands directly from the host via TCP/IP Telnet for streamlined device setup and management

* Only applicable with the FS40, FS42, and FS70 models.

The Anatomy of the FS42
A look at the hardware advantages

FS42 Fixed Industrial Scanners are packed with hardware features that make these devices easy to setup, deploy and run in industrial environments.

Modular and powerful illumination
White, Red, IR or combined LED boards. wavelength band-pass color filter, wavelength and polarizing filters

User Interface
Trigger, Auto-Tune, Status-LEDs

Liquid Lens
Standard 30 degree and wide angle 46 degree

PRZM Intelligent Imaging
First-time every-time data capture

Power and I/O
10-30VDC, PoE, USB Power, 9 configurable I/O ports

Sensor Resolution
2.3 MP

USB-C
Power and peripheral support; USB 3.0 SuperSpeed Type-C with DisplayPort and Alt Mode

Ultra-rugged design
IP65 and IP67 sealed

External Light Connector
Power and intensity control for external lights

M12 Gigabit Ethernet
X-Coded Ethernet/IP, PROFINET, Modbus TCP, TCP/IP, RS-232, Dual Ethernet Port option available

360° LED Indicator
Pass/Fail

Accessories

No matter which model or models you use in your facility, our accessory family has you covered. From power supplies and external lights for every model to model specific accessories, such as internal lighting for the FS42 and C-mount lenses for the FS70.

Power Supplies

Filters

Cables

Internal Lighting

External Lights

Lenses

For more details, see the Fixed Industrial Scanners Accessory Catalog

Key applications

Dock Door Scanning
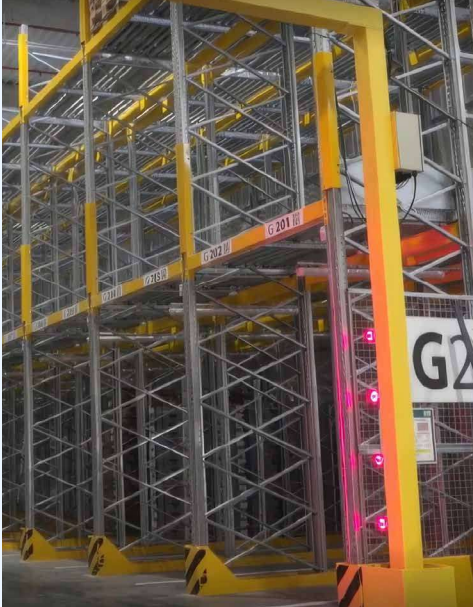
How it works	Top benefits
• Two or more fixed industrial scanners are mounted in an arch on either side of the loading door. • Forklift passes through the arch and fixed scanners capture barcode data at high speeds. • Data is relayed to the forklift's onboard computer, which confirms that onboard pallet is correct. • Automated system accurately scans the labels, saving time and increasing shipping output.	• **Better inventory accuracy:** Dock door scanning helps reduce discrepancies and ensures accurate stock levels. • **More efficient order fulfillment:** Dock door technology enhances order accuracy and speeds up the picking and packing processes. • **Improved operational visibility:** Building smarter and more connected environments delivers better visibility to make informed decisions and improve business outcomes.

Scan Tunnels
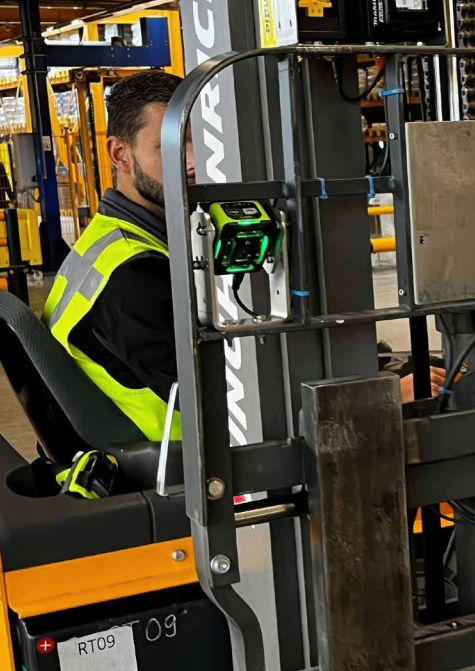
How it works	Top benefits
• One or more scanners or smart cameras are mounted to a gantry that spans the conveyor line. • The array of high-tech cameras captures all sides of a parcel, reading barcodes and other machine-readable text. • As items move through the scan tunnel, the system captures data in real-time. • Intelligent software decodes data stored in barcodes to route packages appropriately.	• **Better barcode reading and verification:** Improve tracking, tracing and inventory management through rapid and accurate verification of barcodes, preventing costly errors in shipping and logistics. • **Improved product inspection:** Improve quality control and compliance through automatic and accurate inspection of items for defects, contamination or damage and automatically diverting problematic products from production lines. • **Labor reduction and cost savings:** Reduces the need for manual inspection and handling, saving costs and increasing throughput.

Key applications

Forklift Truck Scanning

How it works	Top benefits
• Two fixed industrial scanners or smart cameras are mounted on the front of the forklift between its tines, acting as the eyes of the vehicle. • When the forklift approaches a pallet, the scanners automatically scan labels and transmit the captured data to the forklift's onboard computer. • Data transfer is wired or wireless, depending on region and unique installation requirements.	• **Better inventory accuracy:** Machine vision-equipped forklifts automatically capture data from barcodes, RFID tags or visual cues, reducing the need for manual documentation and improving inventory accuracy. • **Picking and putaway efficiency:** Machine vision technology guides forklift operators to the precise location of items, improving picking and putaway efficiency and reducing errors. • **Fewer operational errors:** Reduced human intervention improves data quality and accuracy and streamlines operations.

Pack Bench

How it works	Top benefits
• A fixed industrial scanner and a smart camera are mounted over the packing station to capture real-time data. • The operator places a box under the scanner, which will flash green and beep, providing visible and audible cues for successful decodes. • Plug scanners directly into the USB port of a workstation, laptop, tablet or other host device to begin capturing barcode data immediately. • FS scanners also connect directly to handheld devices for even faster operations.	• **Greater efficiency:** Adding fixed industrial scanners to existing warehouse processes improves inspection capabilities like volume verification and package integrity assessment. • **Better speed and productivity:** Packing benches streamline high-volume warehouse process by reducing manual inspection time, automating label creation with a printer, and automating quality checks. • **Enhanced quality control:** Packing errors can result in costly returns and unsatisfied customers. Packing bench solutions minimize errors through automated verification and content validation.

Which model is right for your application?

Model	FS10	FS20	FS40	FS42	FS70
General Description	Compact fits-anywhere plug-and-play scanning	Easily integrates into your network	Comprehensive features for extraordinary flexibility	Powerful processor for high-speed scanning	Completely customizable to meet unique scanning needs
Applications	Ideal for use cases over short distances with tight space constraints	Ideal for use cases over short and medium working distances	Ideal for medium and long working distances, such as scan tunnels and dock doors	Ideal for medium and long working distances for high-speed scanning and DL-OCR	Larger field of view (FOV) use cases

GENERAL FEATURES					
Connectivity	Plug and play USB	Built-in Ethernet network support	Built-in network support and Power-over-Ethernet (PoE) Dual Ethernet option		Built-in network support and Power-over-Ethernet (PoE) Dual Ethernet option
Sensor/Lens	1 MP	1 MP	2.3 MP		2.3 MP or 5.1 MP Any external C-mount lens
Leader/ Follower	Yes	Yes	Yes		Yes
Lighting	Powerful integrated lighting (red and white LED)	Powerful integrated lighting (red and white LED)	Extensive options — internal and external		Any external lighting solution
I/O Ports	Not available	4 programmable	9 programmable		9 programmable
Power	4.4 to 5.5 VDC host powered	Standard PoE, 24 VDC power supply	PoE+, 24 VDC power supply, USB-C		PoE+, 24 VDC power supply, USB-C; 10 to 30 VDC external power supply
Indicators	3 status LEDs: Decode, Power, Online/Run + beeper	4 status LEDs: Decode, Power, Online/Run, Ethernet + beeper	5 status LEDs: Decode, Power, Online/Run, Ethernet, Focus Warning, Error + beeper 360° Decode status lights — visibility on all sides		5 status LEDs: Decode, Power, Online/Run, Ethernet, Focus Warning, Error + beeper 360° Decode status lights — visibility on all sides
USB-C for Expansion	Yes	No	Yes		Yes
Aiming	Amber LED for easy aiming	Amber LED for easy aiming	Laser starburst for fail-proof aiming simplicity		Not applicable
Other Shared Features	Automatic setup with Auto-Tune; ultra-rugged IP65/IP67, chemical and oil resistant aluminum housing; operating temperature for all models: 32° F to 113° F/ 0° C to 45° C; storage temperature for all models: -40° F to 158° F/ -40° C to 70° C				

Aurora Focus Connectivity Gateway:

Easily increase package tracking, sorting efficiency and throughput

Aurora Focus connectivity gateway functionality allows FS devices to be designated as a leader or follower network. The technology helps warehouse, manufacturing and logistics customers scale operations, improve scanning performance and easily synchronize and configure multiple devices. The connectivity gateway allows not only tight multi-device synchronization but also integration with other devices, including tablets, printers, handheld scanners and scales.

For higher throughput applications, such as multi-sided scan tunnels, GS20 designated leader module supports up to 16 cameras. The GS20 rapidly aggregates and processes all captured scan data, and sends only the information required by the host application.

GS20 Specifications

Configuration IO
4 GPIO; 2 dedicated inputs; 2 dedicated outputs

Interface Ports
Ethernet; Power/ GPI/Serial

Power
PoE; 10 to 30 VDC power supply

Rugged
Ultra-rugged; IP65 and IP67; chemical and oil resistant aluminum housing; vibration and shock tested

Host Communication
PLC; TCP/IP; Serial; GPIO

Follower Devices
Scanners, printers, tablets and third party devices such as scales

OneCare Maintenance and Support Services

Unwavering support around the clock and around the globe

Your Fixed Industrial Scanners play a critical role in your business operations. Get the constant peak performance and device uptime your business demands with OneCare Essential and Select Maintenance plans.

OneCare Essential provides around-the-clock support including comprehensive coverage for normal wear and tear and accidental damage, live agent technical support Mon—Fri 8—5 local time, 3-business day turnaround time, software updates and patches. For advanced device replacement and next-business day shipping, you have OneCare Select. Both plans provide you with 3- or 5-year coverage according to your needs.
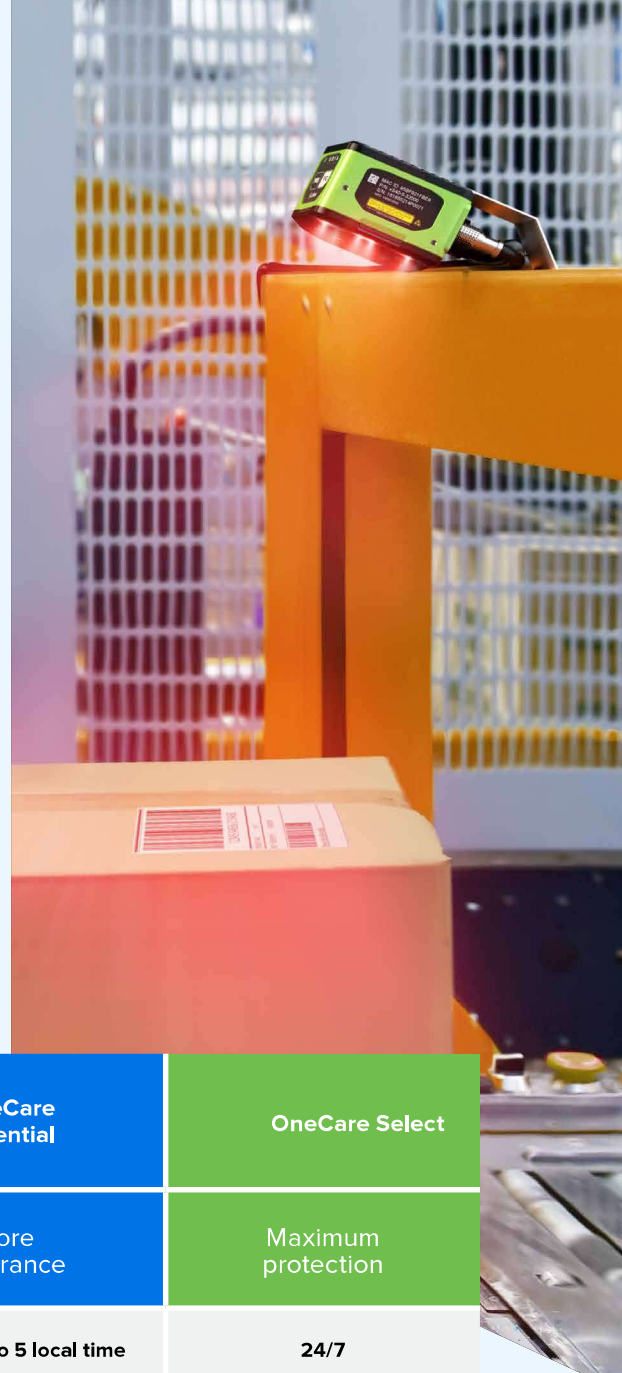
Service features at-a-glance

Feature	OneCare Technical and Software Support (TSS)	OneCare Essential	OneCare Select
	Standalone technical and software support	Core assurance	Maximum protection
Live-agent support	Mon-Fri, 8 to 5 local time	Mon-Fri, 8 to 5 local time	24/7
Repair turnaround time		3-day repair turnaround	"Like-new" replacement device ships for next day delivery
Coverage		Accidental damage and normal wear and tear	Accidental damage and normal wear and tear
Software updates	✓	✓	✓
Cloud-based visibility into repair, and more with VisibilityIQ OneCare	✓	✓	✓
Spares Pool Management	✓	✓	✓

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OEM OPTION

We can put your company name, brand....on these