

FACT SHEET



DISCOVERY MAXSCAN

Contact Scanning Technology for High Resolution Print Inspection



PRODUCT OVERVIEW



The inspection and verification of integrity marks and security features are common requirements for a wide range of web and sheet-based products, such as statements, bills & invoices as well as for bank notes, cheques, lottery tickets and software security labels. Requirements include checking the presence, position and integrity of applied features such as barcodes, QRcodes, foils and hologram devices and base paper inserts such as security threads and watermarks.

Reading these integrity marks and security features accurately and reliably is paramount for any inspection or integrity control system. Although standard line scan cameras produce extremely high resolution images, they require a lens to project the image onto the sensor and need a large headroom to see to entire width of a web. These requirements creates issues for certain applications and devices.

Introducing Discovery Maxscan

This revolutionary technology uses a unique sensor, lens and illumination arrangement that enables the unit to operate at a close working distance while maintaining clear, sharp image definition over its entire length.

Fully integrated into a single housing, the white light LED arrays provide homogenous, shade free illumination along the length of the sensor, meaning inspection performance can be maintained even at the very edges of the image.

True, Uniform 600dpi Image Resolution

Unlike standard camera technology, the new Discovery Maxscan image sensor array produce an image with remarkable uniformity giving true 600DPI resolution for print inspection applications at web or sheet widths up to 929mm(36"). This can match or exceed the resolution of most print engines enabling a variety of inspection functions including missing or blocked jets using the full Discovery Multiscan toolset. In addition Discovery Maxscan provides full colour images with excellent colour representation and repeatability.

Requires Only 12mm Working Distance

Discovery Maxscan has a working distance of just 12mm (1/2") and with a maximum headroom requirement of less than 130mm(5"), the Discovery Maxscan is perfect for integration within the transport system of a press, without the need for additional rollers, redesigned web paths or complex optical assemblies typical with standard camera inspection technologies. Furthermore, Discovery Maxscan can be placed unobtrusively inside printers, winders and cutters preventing it from collecting dust and being knocked - causing unnecessary maintenance or calibration issues. Discovery Maxscan units are available in three different lengths, enabling it to fit a wide range of devices and applications.

Virtually No Image Distortions

Single lens camera systems, set high above the web means that there can be angular variations in the way that the sensor 'sees' the sample along the length of the web. This can be particularly important when imaging rows of (or lanes) holograms, since by their very nature, any slight change in orientation changes their appearance. A major advantage of Discovery Maxscan is its ability to always capture an image "head on", providing consistent and reflection free images of holograms and foils across the full width of the web.



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DISCOVERY MULTISCAN

Discovery Maxscan is an exciting new addition to the Discovery Multiscan family. Our Multiscan Manager pulls together the images and data from a wide variety of cameras, including the new Discovery Maxscan contact scanners, and enables the implementation of any number of Discovery software tools to read, control, inspect, verify, log, track and report – providing 100% quality inspection and print data integrity. Sophisticated image processing software and our new 64bit OS, enables Multiscan to read and quickly process the extremely large (1GB+) images that are typically created by Discovery Maxscan. Our 20 years of imaging expertise has enabled Lake Image Systems to be one of the first vendors to offer Discovery Maxscan solution.

APPLICABLE MARKETS

Financial & Direct Mail Documents

- Financial Statements & Bills
- Invoices & General Correspondence
- DM & Card Attaching
- Personalised booklets

Shipping & Licensing Labels

- Courier and postage labels
- Anti-counterfeit Software License labels

Tax Stamps & Pharmaceutical Labels

- Alcohol and Cigarette Tax Stamps
- Drug & dosage verification
- Anti counterfeit drug Labels

TYPICAL USES

Reads

- Variable Data
- OCR, Barcode, 2D
- QRcodes, Micro text
- Holograms, Foils
- Flexible Packaging

Proven On

- Label Presses
- Narrow Web
- Inkjet Print Presses
- Digital presses

Inspects

- Missing or blocked inkjets
- Print quality, streaks, hickies and voids
- Print registration targets
- Zoom & zoom sequence for operator web monitoring

Control

- Matching print images (duplex)
- Variable data integrity

Verify

- Unique identifiers for track & trace
- Correct sequencing
- Print File reconciliation
- Identify duplicate and missing pieces

Log and Report

- 100% Proof of printing
- Operator / job / production data
- Full networked reporting

ADVANTAGES

- **Machine independent** - Can be retro-fitted to most existing printing and converting equipment
- **Reliable** - No image distortion or angular variations. Read variable data from highly reflective/holographic/foil surfaces
- **Flexible** - Low profile allow easy installation inside presses, closed to printing heads with cost retrofits or paper path alterations
- **Multiple Configurations.** Multiple widths and Speeds for all requirements
- **Supported** - Comprehensive maintenance contracts featuring remote diagnostics

BENEFITS

- **Lower Costs** - Automatically detects prints/data. Prevents costly reprints
- **Improved Productivity** - Automates manual integrity & quality inspection processes
- **Increased Customer Satisfaction** - Ensure barcode meets the standard agreed with your customer, support by detailed reports
- **Less Scrap / Less Waste** - Immediately prevent costly scrapping of large runs of defect print
- **Mitigate risks** - Ensure all print work meets with specific industry and government regulations

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