

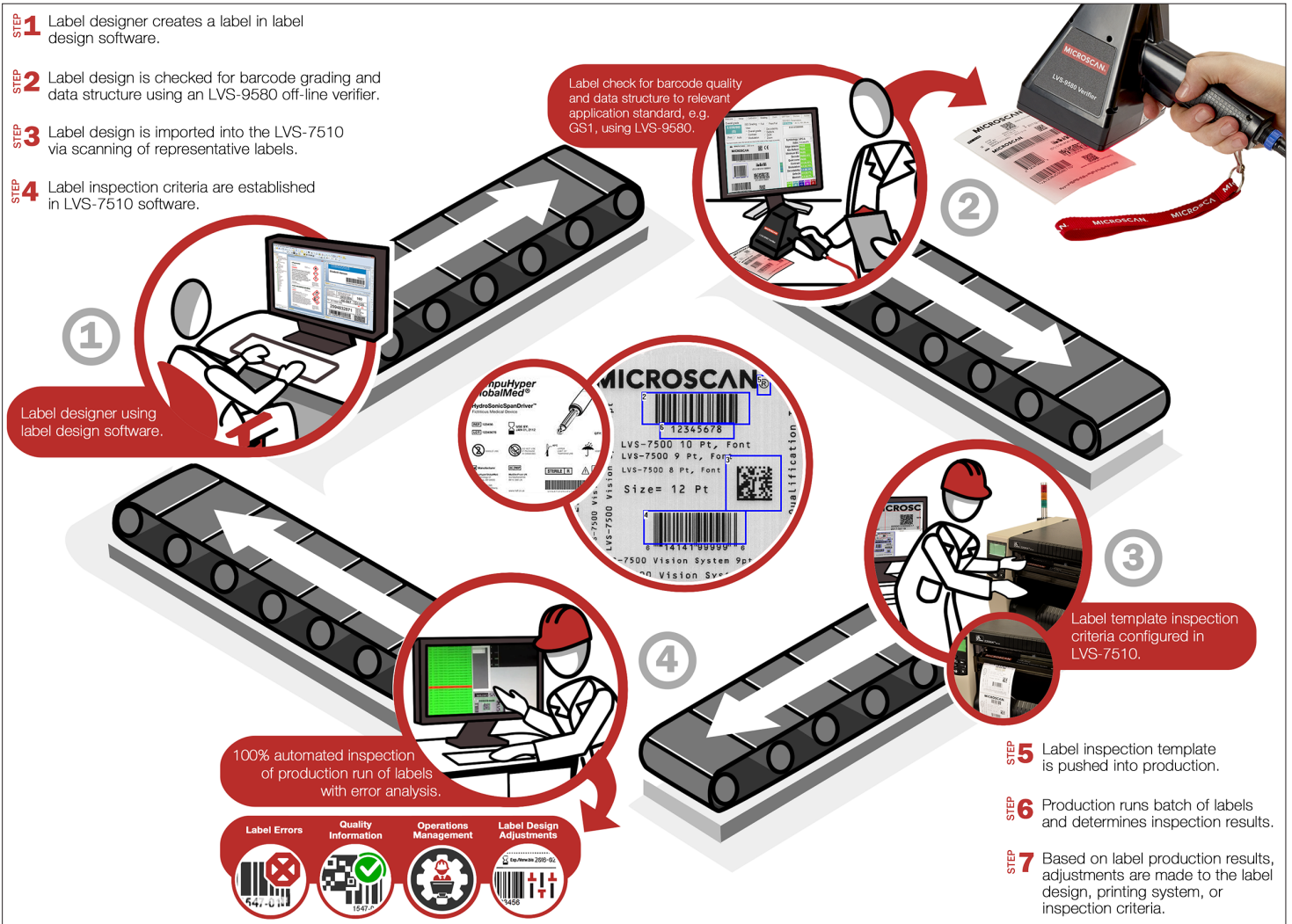
LVS-7510

Thermal Printer Label Inspection System



Ensure that 100% of labels are compliant with regulations and quality requirements at the point of label production, avoiding costly downstream errors.

The LVS-7510 provides print quality inspection and barcode verification, with integration into popular industrial thermal transfer printers. In-line inspection is an integral part of a label compliance and quality approach, which includes label design software, off-line barcode verification, and 100% label quality checks, as shown below.



LVS-7510 THERMAL PRINTER LABEL INSPECTION SYSTEM

Barcode Verification and Trend Graphing

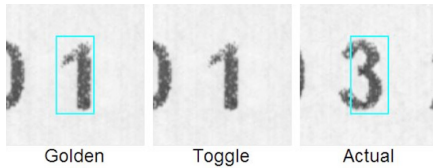


Data Matrix verification parameters and results

Score	Barcode 2D grade
Minimum passing score	1.5
okay	33 / 33 - 100%
Decoded Text	30000-0.1MG DOSE CARTON to 30029-0.1MG DOSE CARTON
Overall	B:11 (93%), C:22 (97%)
Symbology	Data Matrix
Xdim	22.2 to 22.4, average was 22.3
Contrast	B:23 (79%), C:18 (30%)
Modulation	B:11 (94%), C:18 (23%)
AxisNonUniform	A:33 (100%)
GridNonUniform	A:33 (100%)
CornerDef	A:33 (100%)
FindDef	A:31 (94%), B:2 (6%)

Grade 1D and 2D symbols to ISO/IEC 15415 and ISO/IEC 15416 standards with user-configurable thresholds for establishing a "pass" grade. ECC-200 Data Matrix, QR Code, PDF417, Micro-PDF417, GS1-128, Code 39, UPC-A, UPC-E, EAN, Aztec, and other symbologies are supported.

Blemish Detection



Create and store hundreds of reference "golden images" with the ability to detect print faults, to distinguish fixed from variable information, to detect die-cut errors and label misalignment, and to identify missing information. Blemish, barcode, and OCR/OCV error images can be viewed on the operator HMI.

OCR and OCV

Verify Optical Character Recognition (OCR) and Optical Character Verification (OCV) data such as lot number or expiration date, comparing information against expected values and triggering errors when a mismatch occurs. Validation of an expected numerical series, such as serial numbers, can be compared against an imported file containing expected numbers. The system can be trained to learned additional Latin-based character fonts.

LVS-7510 Functionality at a Glance

- Used for product label verification in medical device manufacturing, pharmaceutical manufacturing, consumer goods packaging, cosmetics packaging, food and beverage packaging, and specialty chemical manufacturing.
- 100% label inspection, including 1D/2D barcode quality verification, OCR/OCV verification, serialization, and blemish detection.
- Integrated into popular Zebra and Printronix industrial thermal transfer printers.
- Provides operator notification of print quality degradation, enabling proactive maintenance.
- Can be used with off-line verifiers to create a seamless label design and production quality system.

For more information, visit www.microscan.com/LVS-7510.

Database Archive and Connectivity

Job data is archived and stored in .csv file format for ease of export. All records are date, time-stamped and automatically archived. Remotely review errors and record acceptance or rejection action. Run summary report for quality control and data validity checking. Import of matchfile date in .csv format for use in inspection jobs supported. Data exchange via TCP/IP commands is supported.

Error Notification

Multiple output options for error notification including stop relay interface to the printer, external light stack, and on-screen warning set to user-defined thresholds.

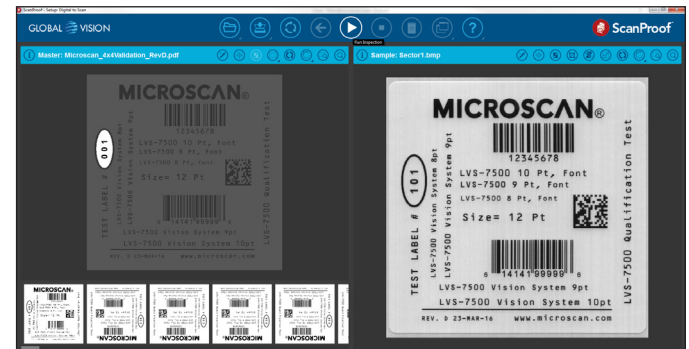
Validated System Applications

21 CFR part 11-compliant-ready with multiple security levels and comprehensive data management and reporting options. Microsoft Active Directory, audit trail of operator actions, and inspection archive for each label.

AutoExecute Function

AutoExecute allows the user to initiate the automatic import of one or more LVS-7510 jobs. This helps automate the processing of multiple jobs without operator interaction.

Optional PDF Comparator Software



The PDF Comparator is an optional advanced error detection program for the LVS-7510 which compares one reference "golden image" to a PDF master artwork file selected by the user. The PDF Comparator compares the approved master artwork file to the golden image, and the Blemish Detection Tool compares the golden image to the rest of the labels.

Accuracy and Data Integrity

- Reduce Inspection Costs
- Identify Defects
- Maintain Quality
- Reduce Rework
- Control Waste
- Reduce Non-Compliance Risk

Typical LVS-7510 Applications

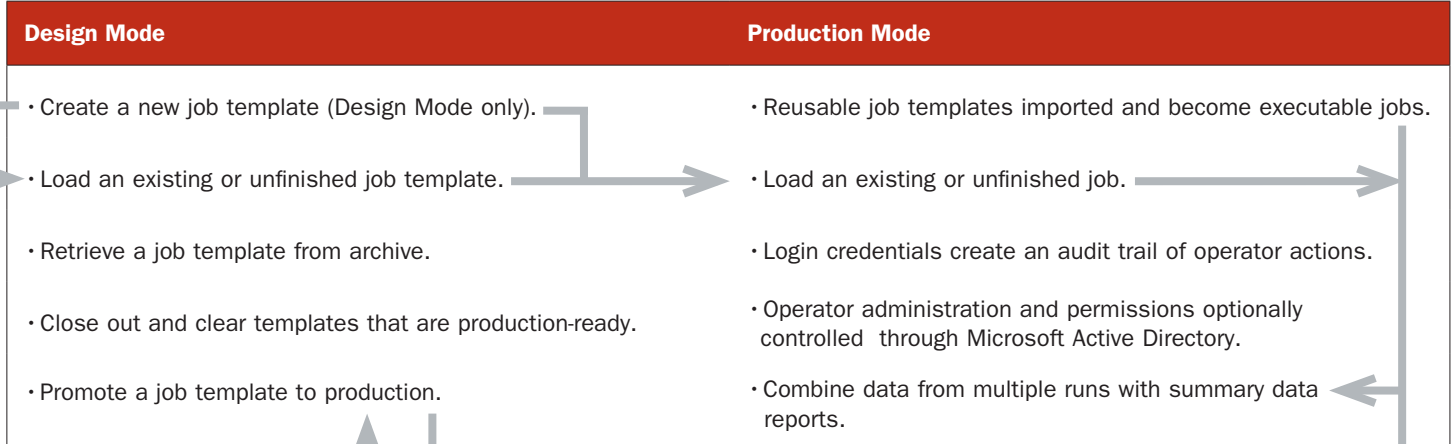
- Medical Device Manufacturing
- Pharmaceutical Manufacturing
- Consumer Goods Packaging
- Specialty Chemical Manufacturing

LVS-7510 THERMAL PRINTER LABEL INSPECTION SYSTEM

System Overview

LVS-7510 software can be configured via settings in an intuitive editor. Two operation modes are available: **Design Mode** and **Production Mode**. These two modes provide a secure environment for label production and validation. The option of using one

LVS-7510 system to switch between Design Mode and Production Mode is available. Job templates are created in Design Mode only. The job templates are then imported and become executable jobs in Production Mode. Functions of each are listed below.

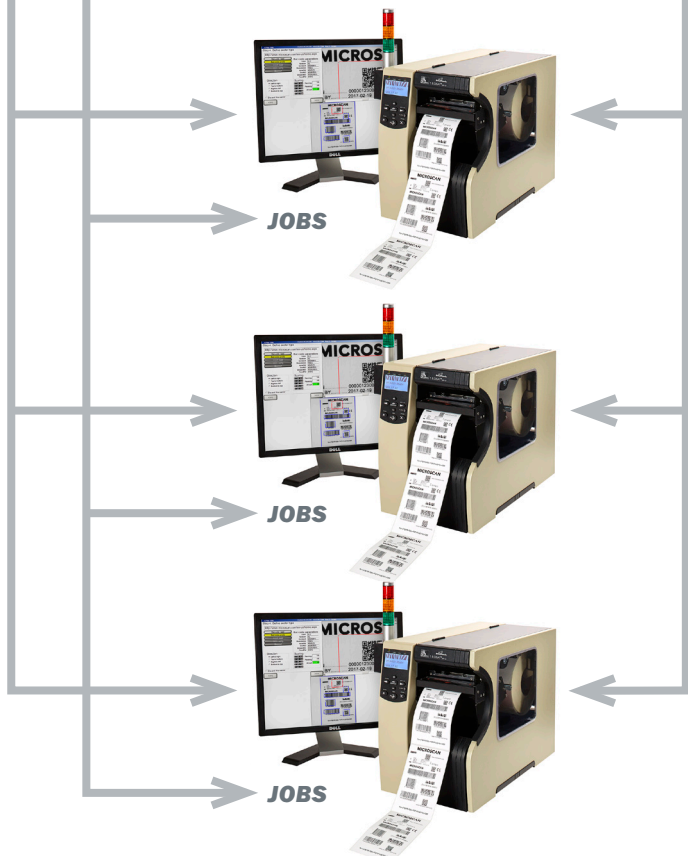


Design Mode



Print Job Template Design

Production Mode



Print Job Execution

LVS-7510 THERMAL PRINTER LABEL INSPECTION SYSTEM

AVAILABLE MODELS

Printer Model Number	Description
7510P-5-110Xi4-300DPI	LVS-7510 5" System w/LT, Zebra 110Xi4 Kit, 300 dpi with Printer
7510P-5-110Xi4-600DPI	LVS-7510 5" System w/LT, Zebra 110Xi4 Kit, 600 dpi with Printer
7510P-5-170Xi-300DPI	LVS-7510-5-170Xi4-300DPI, Integrated with Printer
7510P-8-170Xi-300DPI	LVS-7510-8-170Xi4-300DPI, Integrated with Printer
7510P-8-2200Xi-300DPI	LVS-7510-8-220Xi4-300DPI, Integrated with Printer
7510P-5-T8304	LVS-7510 5" System w/LT, Printronix T8304, Integrated with Printer
7510P-8-T8308	LVS-7510 8" System w/LT, Printronix T8308, Integrated with Printer

Contact Microscan for additional models not listed here.

SPECIFICATIONS

Maximum Print Speed	Up to 254 mm/sec (10"/sec)
Supported Print Widths	Up to 216 mm (8.5") of label width inspected, maximum web width of 220 mm (8.7").
Barcode Verification	Grading according to ISO 15415 and ISO 15416 of 1D and 2D codes.
Minimum Barcode Dimension	For reading only: 1D = 0.160 mm (0.0063") 2D = 0.254 mm (0.0100") For verification: 1D = 0.223mm (0.0088") 2D = 0.317 mm (0.0125")
OCR Fonts Supported	Minimum 6-point font, Latin-based fonts, Mono-spaced fonts, OCR-B for upper and lower case, maximum of 39 characters.
Label Sizes	Up to 300 mm (12") long labels, with ability to inspect multiple labels across the 216 mm (8.5") width of the label roll.

SYSTEM PERFORMANCE AND REQUIREMENTS

- Inspects at print speeds of up to 254 mm/sec (10"/sec)
- Requires PC for each connected printer, with Intel® Quad Core 2.6GHz processor, 4GB RAM, 500 GB storage
- Windows® 7, Windows® 8.1 Pro, or Windows® 10 Pro

SERVICES AND ACCESSORIES

- Optional PDF Comparator Software is available
- IQ/OQ validation procedure guidelines are available
- On-site installation and training services

ALSO AVAILABLE FROM MICROSCAN LVS-7500 External System



For use with a broad variety of thermal label printers that have I/O interface capability. Adjustable stainless steel mounting brackets allow the read head to be mounted and matched to the height of the printer. The user's printer is placed onto the steel base plate where the printer discharge aligns to the LVS-7500 read head.

LVS-95XX Series Barcode Verifiers



Off-line solutions include the LVS-95XX series of barcode verifiers, which evaluate the quality and data integrity of 1D and 2D symbolologies to ISO, ANSI, and GS1 standards.

SAFETY CERTIFICATIONS DESIGNED FOR

FCC, CE, UL

RoHS COMPLIANT

QMS CERTIFICATION

www.microscan.com/quality

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Warranty – For current warranty information about this product, please visit www.microscan.com/warranty.



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