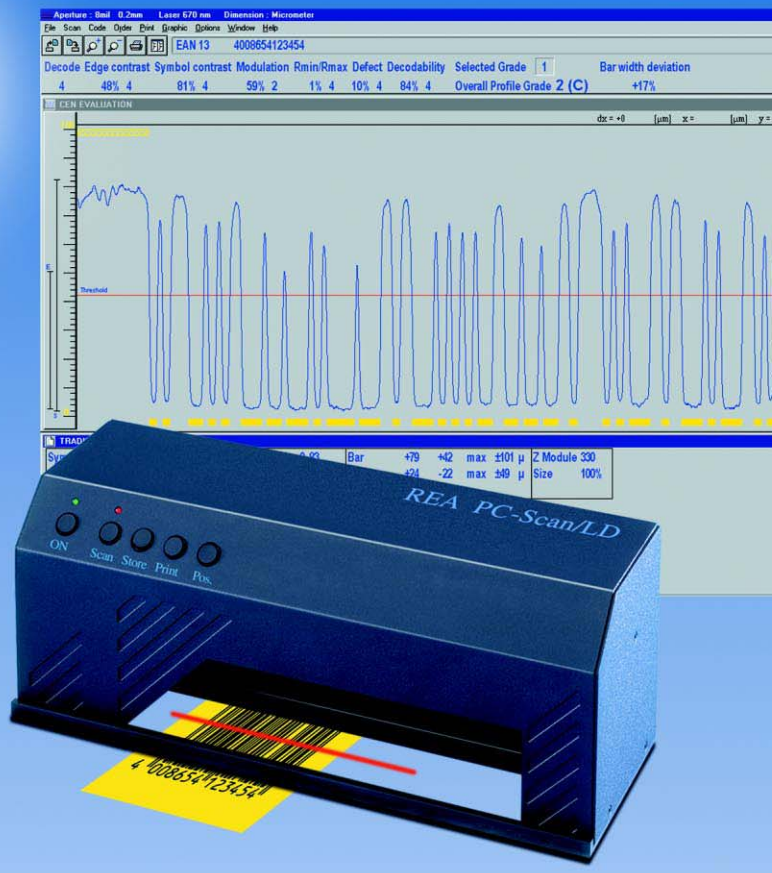
Measure your printed bar codes and bar code Film Masters with maximum precision and ease

REA PC-Scan

A bar code quality measuring tool

Is time wasted at check out because of poor bar codes ?

Does your automatic sorting throw out too many items because of bar codes like these ?



Measure all quality aspects of your bar codes and meet your customers specification !

- Contactless verification by a precision measuring unit
- Meets new ISO/IEC standard 15416 and incorporates traditional method
- Meets ISO/IEC standard 15421 for Film Master measurement
- 155mm wide measuring path and optional 240mm
- Clear presentation of results on PC screen
- Automatic size determination and metric values in microns
- Automatic calibration for each measurement

The REA PC-Scan is a measuring device for the most precise requirements

REA Elektronik GmbH

REA PC-Scan

The REA PC-Scan incorporates a software package and a measuring device (Laser Device). The Laser Device has a built in measuring unit with a solid state red light laser driven by a motor. Measurements are transferred to the software for evaluation.

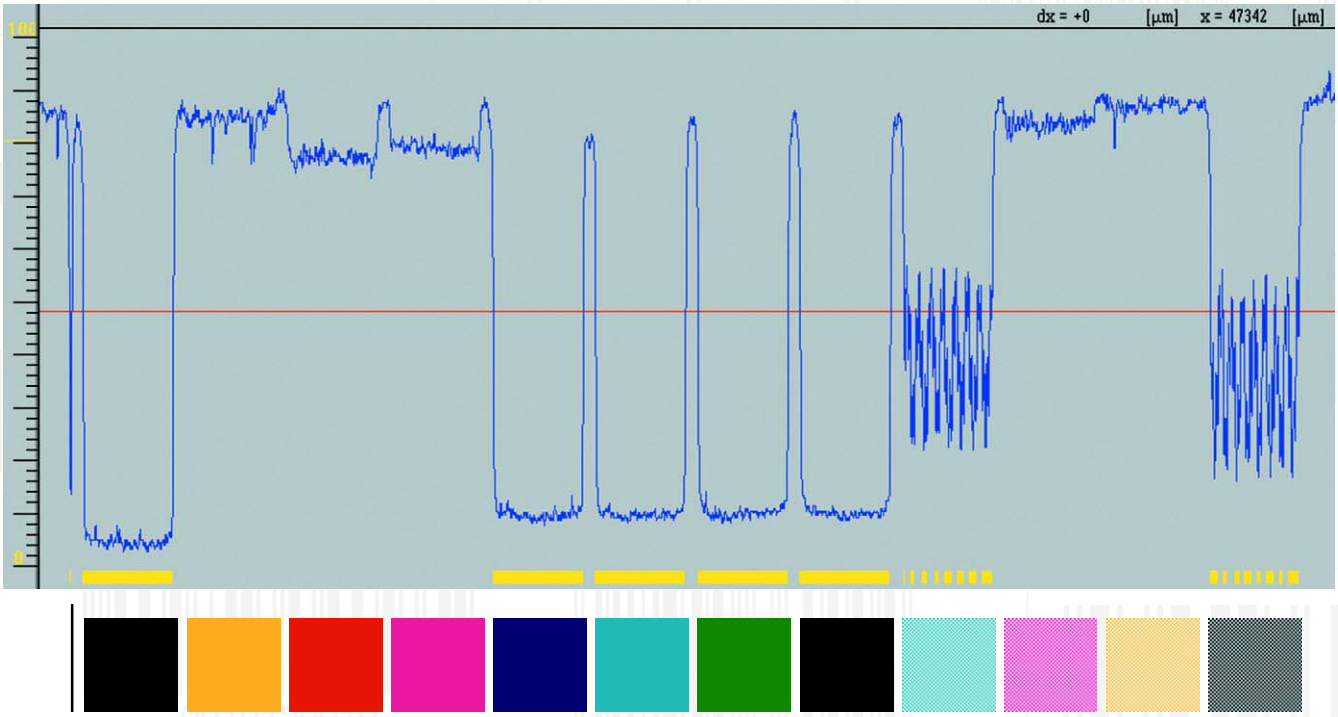
The evaluation is divided into two parts. One part according to ISO/IEC 15416 (CEN or ANSI evaluation) the other part according to Symbology specifications and/or standards. In case of EAN Codes ISO/IEC 15420 (traditional evaluation)

Against the standards and specifications measured values are presented clearly on the screen.

The screen shows the two evaluation methods at the same time. ISO/IEC 15416 method evaluates in detail the reflectance profile with different aspects. Quality is presented in 5 steps. The user is able to preset a quality requirement according to the application or material characteristics.
The traditional evaluation gives detailed metric results, bar width and positions as extreme and average values direct on the screen. Detail values for each bar and space can be shown in a separate table.
As well as printed codes the REA PC-Scan is able to measure positive and negative Film Masters according to ISO/IEC 15421

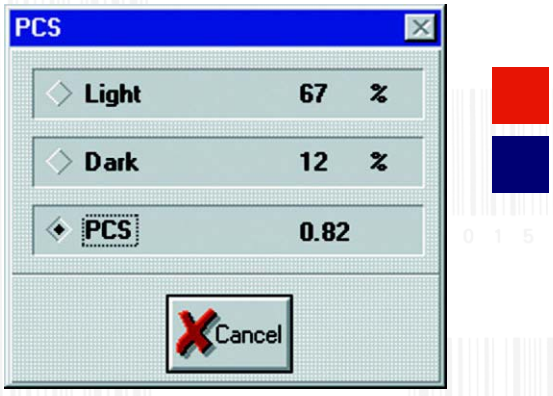
Bars and spaces can only be printed in certain colors, due to the spectral response of the visible red laser light. The REA PC-Scan is able to evaluate which colors can be used for bars and spaces . In standard version this is done by using the static reflectance measurement mode. When ordering the optional codes add-on this measuring program is included.

Reflectance profile of the measuring program above a color scale



The reflectance profile allows you to see that black blue and green appears dark to the scanner (low reflectance values). These colors may be used as bar colors, on the other hand red, yellow and white are used as space colors. Colors created by screening may be used only if the dots and background colors have no reflectance difference in red light.

You can do this also with the static contrast measurement program.



The light reflectance value is taken from the red square and the dark reflectance value from the blue square. The measuring program is the most effective tool evaluating a screen print.

Technical Specifications and Options

Options

Optional Codes

This software has optional extra symbologies. The measuring program is also included in this package. Unknown Codes or random samples can be measured by the measuring program. This is useful for color contrast evaluation in preprint or to evaluate unreadable bar codes.

Film platen

The Film platen has a 1 cm slit instead of the 3 cm slit in the standard platen. A positive and negative Film Master is included for calibration purposes.

Adaptor for curved surfaces

This option is a special bottom plate prism. This supports the measurement of bar codes on circular bodies like cans, bottles and beakers. A defined position is required for measuring. Bar code have to be printed in ladder form on curved surfaces.

Models

The measuring unit of the REA PC-Scan (Laser Device) is available in four different models. Two different red light wave lengths either 670 or 635 nm and two different measuring widths either 155 mm or 240 mm.

Features

- Evaluation according to Symbology standards and specifications (traditional evaluation)
- Evaluation according to ISO/IEC 15416 (CEN/ANSI evaluation)
- Selection of quality grades (CEN/ISO or ANSI)
- Preset of required quality grade in comparison to the measured grade
- Average measurement
- PCS evaluation at two different positions
- Evaluation of bar and space reflectance values in addition to contrast values
- Manufactured in conformity to ISO/IEC 15426-1
- Automatic reflectance calibration and internal metric built in scale
- Autodiscrimination of Symbologies
- Static contrast measurement
- Verification of light margins
- Verification of Ratio (relation between thin and thick bars)
- Automatic size verification
- Check digit verification
- Verification of EAN-128 data structure
- Zoomable scan reflectance profile for additional manual evaluation
- Indication of defects, edge contrast and symbol contrast in scan reflectance profile
- Measuring of free selectable reflectance values and distances within the scan reflectance profile
- Contactless measurement
- Linear measurement for maximum accuracy
- Supported languages German, English, French and Spanish
- Export of measured data in CSV table
- Report print on PC default printer
- Important functions can be operated directly from the Laser Device
- Shipment in a case with all required accessories (without PC).

Bar Code Symbologies

EAN-13, UPC-A, EAN-8, UPC-E, including Instore and 2- or 5-digit Add-Ons, Code 128, EAN 128, 2/5 interleaved, ITF-14, Code 39, PZN-Code (Pharma-Zentral-Nummer), Code 32 (Italian Pharmacode)

Optional Codes

EAN-D3, Code 128 UPU, 2/5 Frachtpost, 2/5 5 bars (straight), 2/5 3 bars (Matrix), 2/5 IATA, Codabar ANSI, CODABAR Monarch, Code 39 Full ASCII, Code 39 UPU, Code 93, MSI, Pharma and Mini Pharma Code, 2/5 Siemens, 2/5 Hoeft&Wessel, Measuring program for unknown Codes

Technical Specifications

- PC with Windows (95, 98, NT, 2000, XP) required for Operation, one serial port
- Size of Laser Device: 251x84x92 mm (WxDxH), standard version 155 mm measuring width
- Size of Laser Device: 222x84x92 mm (WxDxT) optional version with 240 mm measuring width for wide codes
- Light source solid state laser with 670 nm wave length or optional 635 nm (both red light)
- Laser class II
- Selectable aperture 4, 6 and 8 mil
- Accuracy +/- 2 µm metrical +/-5% contrast
- Power supply 100 Volt to 240 Volt
- Convertible primary socket adapter (EURO, US, UK); others on request

Technical specification are subject to change without notice
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