

REA PC-Scan/LD3

Verify bar codes with highest precision and comfort



- Non-Contact measuring of bar codes with high precision
- Scan length 155 mm or optional 240 mm
- Automatic calibration before each scan
- Meets ISO/IEC 15416 and incorporates optional FSLWB parameters
- GS1-128 data structure check
- Verification report in GS1 layout
- Grading of Size and Ratio in ISO/IEC 15416 system

REA PC-Scan/LD3:

The REA PC-Scan/LD3 is a package consisting of the high precision measuring device (Laser Device 3) and the evaluation software TransWin32.

The Laser Device uses a moving slide with a built in red light laser diode and an optical sensor. This allows precise measurements with constant angles and distances over the complete scan path. The verification result is provided to the host computer, running REA TransWin32, by a high speed network interface. The communication and remote control uses the standardized TCP/IP protocol and an Ethernet cable. Therefore the complete available network infrastructure of a company can be used.

Bar code verification and qualifying procedure is based on the international standard ISO/IEC 15416. User selectable, evaluation can be based alternative on ANSI standards.

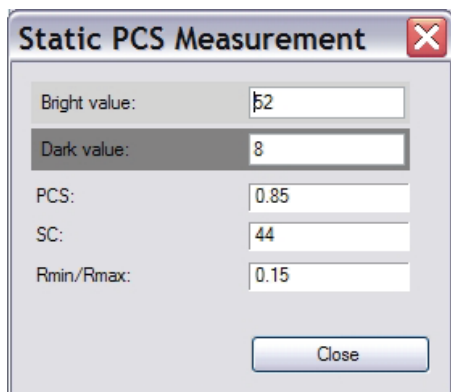
The ISO/IEC 15416 evaluation can be extended by using of Optional Parameters. Optional Parameters are based on symbology standards like ISO/IEC 15420 which is the EAN/UPC bar code family specification.

One part of the display shows the ISO/IEC 15416 evaluation and the other part bar code symbology specific Optional Parameters. The ISO/IEC 15416 evaluation judges bar code print quality in 5 grades (4,3,2,1, and 0). The required quality level can be defined by the user as grade for a pass/fail compare. Optional Parameters extend the basic ISO/IEC 15416 evaluation by size verification, bar darkness verification and print accuracy measurement. The detailed evaluation provides a table for the details of each character regarding content, character set, reference value, decodability and metric value like bar width deviations and bar position movements.

Finally all results are summarized into a simple "Pass" or "Fail" result for a fast and easy orientation. Pass and Fail can be indicated additionally in a traffic light style. At the same time the representation of results allows to find details for error identification quickly.

The results are clearly shown on the PC screen. The reports can be saved, exported in CSV, printed or provided as PDF file.

For design, prepress and planning the REA PC-Scan/LD3 offers a static reflectance measurement. This shows quick and simple, reflectance values of different materials and colours.



Verification reports can be completed with addresses and comments. Report file names can be extended automatically by user defined text (order number). Reports saved in the native format are always available for reopening without loss of information with any other REA TransWin 32 installation.

Options and Variations

The REA PC-Scan/LD3 Laser device is available with different laser light sources and different measuring path lengths.

Adaptor for round-shaped bodies

This is a special aluminium plate with a prism to adapt to different diameters of round shaped bodies. Without this plate it is very difficult to keep correct angles and distances for round shaped bodies with the result of incorrect evaluations. Using this plate offers a quick and secure positioning of round shaped bodies like cans and bottles. The bar codes shall be printed in ladder orientation.

Optional bar code symbologies

This software option adds several non common bar code symbologies to be measured. This option incorporates a measuring program. The measuring program allows scanning of any sample with and without a bar code. The measuring program provides reflectance values and bar width measurements. This is i.e. good for analysis of non decodeable bar codes and any other application for which reflectance and width information are needed.

Features:

- Non-Contact measuring device with a very high accuracy.
- Bar Code evaluations and grading according to international verification standards.
- Enhancement of bar code evaluation by Optional Parameters. This allows to adapt evaluation to i.e. print process control.
- PCS (**P**rint **C**ontrast **S**ignal) measurement can be incorporated for extended bar darkness control.
- Simple Pass/Fail result by preset of quality grade level for comparison.
- Automatic discrimination of most popular bar code symbologies.
- Multiple measurements with calculation of average value reports for up to 10 measurements.
- Quiet zone verification with extended scan reflectance profile view for control if minimum widths are close to fail.
- Checking of ratio for two bar width symbologies (i.e. Code39, 2/5i, Codabar).
- Automatic analysis of the GS1 general specifications and of EAN/GS1 data structures.
- Automatic analysis of code sizes and check digits.
- Reports can be completed by references and comments.
- Verification report available in GS1 report layout.
- Multilingual user interface.
- Fast data communication via Ethernet - TCP/IP protocol.
- Accuracy better than ISO/IEC 15426-1 requirements.

Technical Data

Measuring device LD3

Physical size: (WxHxD)

Version with 155 mm path:

215x84x92mm; weight 1,340g

Version with 240 mm path:

333x84x92mm; weight 1,580g

Interface:

Ethernet RJ 45 interface

Keys:

ON/OFF, Scan, Store, Print, Pos.

Light source:

Red light, semiconductor laser, Laser protection class II, 670nm, alternative 635nm.

Aperture: selectable 4; 6 or 8 mil, 0,1; 0,15; 0,2 mm

Measuring precision:

+/- 3 µm for mean bar deviation

+/- 6 µm for min/max bar deviations

+/- 5 % for contrast values

Power supply:

Power-Over-Ethernet-supply,

prim. 110-240Volt with

IEC-plug and power cord either

for EURO, US, UK socket

User Maintenance:

regular test equipment monitoring

and cleaning of calibration fields.

Factory Maintenance: one time in

two years, harsh environments

reduce cycles

REA TransWin 32 – Evaluation program

Operating system:

MS® WINDOWS® 2000, XP,

VISTA®

.NET Framework > Version 2.0

Full functionality with

REA PC-Scan/LD3,

REA ScanCheck3,

REA MLV-2D

data upload, data-display, -data

storage, change of parameter

settings and remote control,

graphic visualisation,

different print formats,

GS1 reports

Evaluation of the following

code symbologies

EAN-13, EAN-8,UPC-A, UPC-E

2/5 Interleaved, ITF-14

Code 39

PZN, Code 32, Code 128,

GS1-128, GS1-Databar, GS1

Databar stacked

ADD-ON, Check-digit, ANSI

Ratio, HIBC, UPU are available

as code properties

Optional Codes

2/5 3 Bars, 2/5 5 Bars, 2/5 IATA,

2/5 Baggage, 2/5 DHL Express

(Frachtpost-Code), Code39 Full

ASCII, Code93, MSI, Plessey,

Code128UPU, Code39UPU,

Code39HIBC, Code128HIBC,

Codabar Monarch (18),

LAETUS Pharma code,

LAETUS Mini Pharma Code

Measuring program and static.

PCS reflectance measurement

PC Hardware requirements

CPU

1,5GHz clock frequency,

1GB RAM memory

Free hard disk space

min. 500MB

Display

1 colour display,

min. 1280x1024 Pixels

Colour graphic card:

according to display used

Optical disk drive

1 CD-ROM- or DVD-drive

Interfaces

RJ45 Ethernet interface or

network access

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