

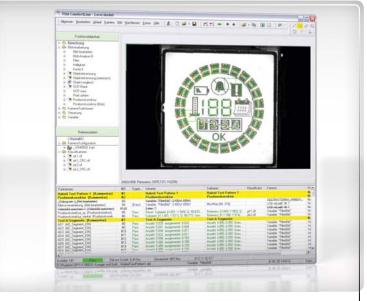
TOM Line™

Industrial Image Processing Software and System Solutions

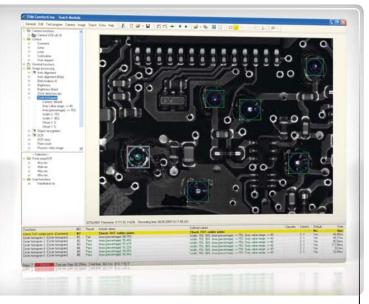




Industrial Vision Solutions Software



LC display test



Selective solder joint inspection



ID card inspection

TOM Line™ Software

- Powerful image processing software for industrial application
- Generation of complex test programs without programming knowledge



Proven

 Since 1996 more than 500 TOM Line systems are globally in industrial use



Efficient

 Rapid, intuitive inspection program generation without any programming knowledge



Modular

- Compatible with all common camera interfaces
- Freely extendable for multi camera applications



PC based

- Windows compatible image processing software
- Optimised for multi threading



Flexible

- Customer programmed software algorithms via UI
- Remote controllable per RS232, Ethernet or DIO



Universal

Comprehensive range of practical test functions

TOM Line™ Options

easyOCR™ Europe

Unique algorithm for intelligent pre-processing and reading of European fonts with no need for pre-training of any classifier

easyOCR™ Asia

Unique algorithm for intelligent pre-processing and reading of Asian fonts with no need for pre-training of any classifier

easySymbolMatch™

Tool for automated generation of symbol recognition classifiers based on synthetic image data (e.g. layout from a Photoshop file)

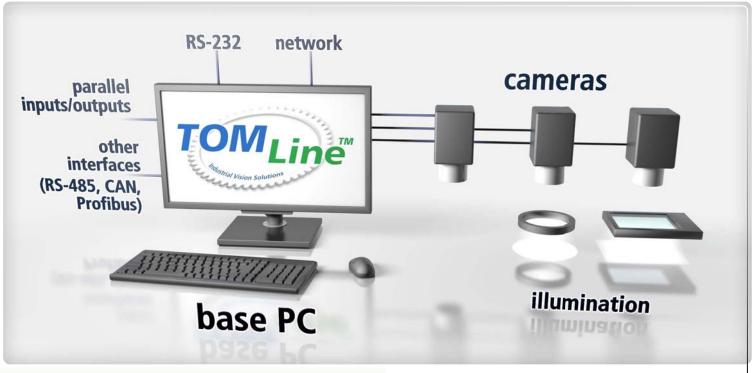
easyPhotoMatch™

Tool to compare passport photographs and hologram images on identification documents with image data from a database

Automotive Package

Includes powerful test functions to inspect instrument clusters and head units: static/dynamic recognition of tachometer needles, switching time of symbols, interaction with the CAN bus system

Industrial Vision Solutions Engineering



TOM system architecture

TOM Line™ System Solutions

The modular system concept includes image recording, lens and illumination components, an industrial PC as well as the TOM image processing software.

Utilising a multitude of supported interfaces, the entire system can ideally be integrated in an industrial environment. The modular hardware set-up and the opportunity to parameterise and adjust test runs provides maximum flexibility for changing test requirements.

One-stop Image Processing Expertise

Project planning

- Feasability studies
- System conception

Implementation

- System setup
- System integration
- System test

Training/service

- Onsite training for Personnel
- Maintenance and instructions

Additional services

- Application consulting
- Application assistance for in-house integration
- Execution of customised tests
- Development of user functions



TOM Selective-Line for selective solder joint inspection

Systems



TOM Automotive Package



TOM easyOCR™



TOM In-Line



ISO 9001 certified

Application Examples

- Brightness and colour check of LEDs
- Check of LCDs
- Data reading and verification on plastic cards and letters
- Selective solder joint inspection
- Check of connectors
- Check of laser labelling on plastics
- Measurement and breaking edge check of ceramic substrates
- Data matrix and barcode reading
- Adhesive bead check
- Reading and calibration of indicator instruments
- UV protective paint check

Systems based on TOM Technology

TOM Selective-Line™

Easy-to-integrate module for selective solder joint inspection

TOM Combi-Line™

Optical inspection system for vehicle instrument clusters

TOM In-Line™

Cost-efficient optical inline test system

PINspector™

Module for checking correct geometric position of connector pins

SurfaceInspect™

Surface inspection of ID, bank and debit cards

References

More than 500 installations around the globe in development, production and quality assurance areas of well-known enterprises in industry segments such as:

- Automotive and supplier industries
- Electronics industry
- Medical technology
- Solar industry
- Telecommunication industry
- Production of ID, bank and debit cards

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