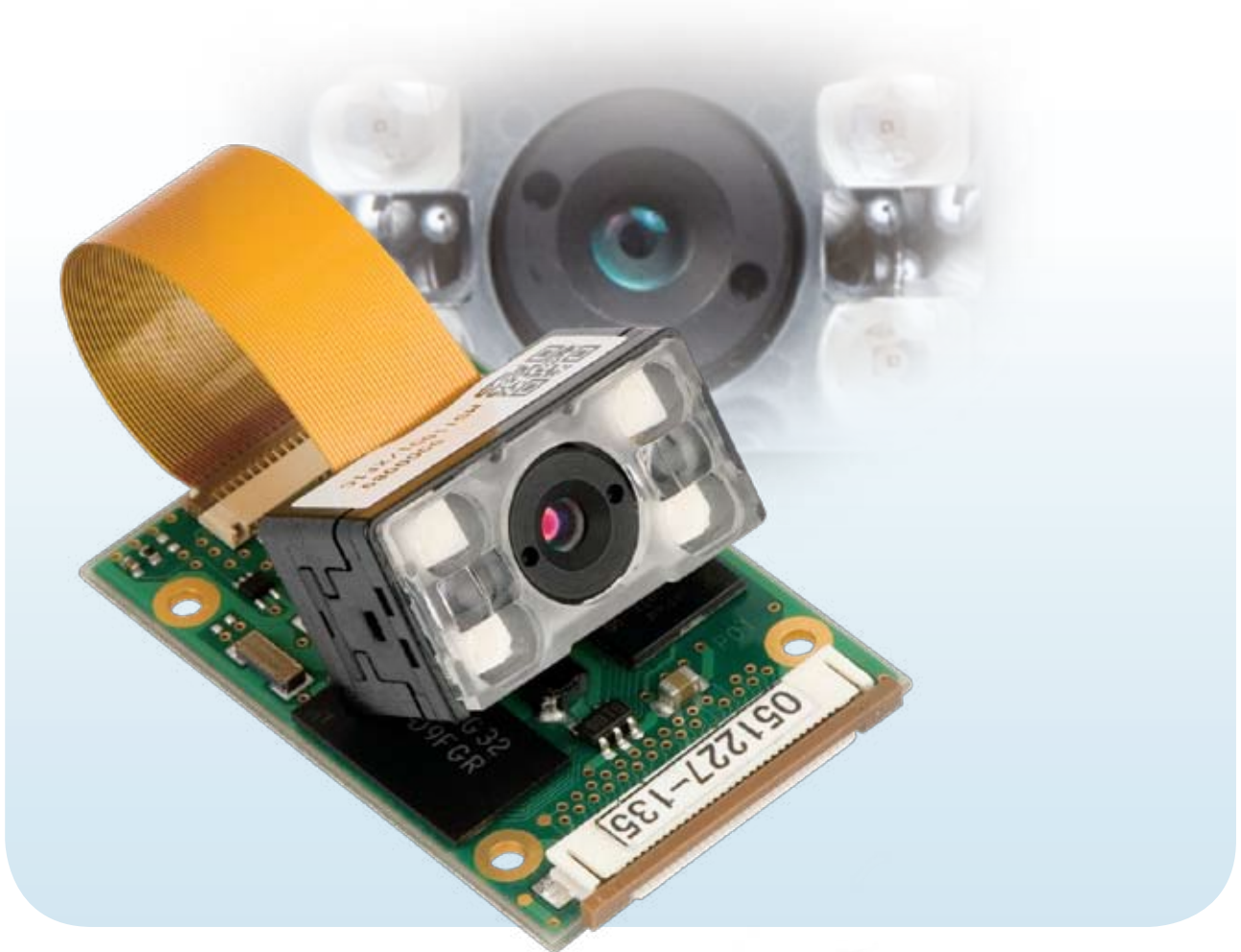


2D Imaging

Beyond Imaging. *It's Extended.*



Ideal tool for:

- ✓ Healthcare
- ✓ Mobile Ticketing
- ✓ Logistics
- ✓ E-Marketing



Scan



Communicate

GREAT TRACEABILITY

The imagers of Opticon read barcodes of linear and 2D format. The imager easily decodes PDF417, QR Code, Data Matrix and many other symbologies.* The use of 2D codes is widely adapted, since they contain more space for data capture than the linear 1D codes. The 2D code can act as an information carrier of production details, shipping data, expiring data or any other information relevant for the specific type of business.

* Refer to the full list of symbologies on the last page.



IMAGE CAPTURING

The CMOS camera (usually measuring 1.3 megapixel - SVGA) quickly captures the image of the code. High performance LEDs create sharp contrast between the code and the background. The barcode image is instantly converted by on-board decoding software into human readable and computer processable data.



SIGNATURE CAPTURE

The digital camera provides the possibility of capturing grey-scale images for a wider range of registration possibilities in custom applications. For example, an image of a customer's signature can be made in order to verify a transaction.

Imager Technology

Beyond Imaging. It's Extended.

MOBILE TICKETING

The imager technology is prepared to read barcodes from mobile phone displays. Self-service machines and entrance control gate keepers can profit from the various models in the 2D imagers range.



AIMING CONVENIENCE

The 2D-code (within the scanning field) will be read correctly from any orientation. This omni-directional capability makes aiming easier for operators. Some models are equipped with additional aiming indicators, providing even more user guidance and scanning comfort. For flexibility in scanning distance the auto-focus function has been developed.



PRODUCT LAYOUT

The wide choice in models support differences in ergonomics and communication. Every model is developed for fast collection of data and effective communication across the applicable information systems.



+ NLV2101 - RUGGED FIXED-POSITION DESIGN

Cased in a rugged industrial metal housing, with mounting holes located on two sides to maximize mounting options. RS232 and USB interfaces provide fast integration.

+ M5 - HANDS-FREE DESK SCANNING

Supported by the integrated auto-trigger function, this device detects an object and automatically initiates scanning, allowing hands-free operation.



+ OPI2002 - ERGONOMIC DAILY SCANNING

A lightweight and balanced design provides an ergonomic fit for all day extended use. RS232, Keyboard Wedge and USB interface support direct cabled communication.

+ OPI2201 - AUTO-FOCUS IMAGER

The auto-focus function expands the scanning performance. The optics feature self-adaption of the lens to focus on varying distances. This scanner supports RS232, Keyboard Wedge and USB cabled interfaces.



+ OPI4002 - WIRELESS CONNECTIVITY

The OPI4002 hand scanner provides wireless connectivity using protocol IEEE 802.15.4.

+ PX25 - MOBILITY AT HAND

The PX25 datacollector with alphanumeric keypad uses the widely available and reliable Bluetooth™ communication protocol.



2D Imaging



+ H19 - GPS AS STANDARD

This complete device with dial keypad features Microsoft Windows Mobile™ 6.0 Professional, Quad-band GSM/GPRS/EDGE, WiFi (802.11b/g), Bluetooth™ and GPS.

+ H15B - COMPACT TERMINAL

This compact device features Microsoft CE 5.0, WiFi (802.11b/g), Bluetooth and is extended with auto-focus scanning performance.

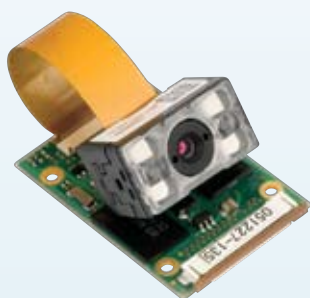


+ PHL7254 - WINDOWS CE- FOR HEAVY USE

This terminal with full keypad and solid housing is driven by Microsoft CE 5.0. Communication can be performed by WiFi(802.11b), Bluetooth and GSM/GPRS.

+ PHL8152 - WINDOWS CE

This terminal with (alpha)numeric keypad and solid housing is driven by Microsoft CE 5.0. Communication can be performed by WiFi(802.11b) and Bluetooth.



+ MDI1000 - OEM

The CMOS camera with its decoding board can be obtained as a manufacturer module to embed in custom applications.

+ MDI2000/2200 - AUTO-FOCUS

The CMOS camera with auto-focus function can be obtained as OEM unit. This model is called MDI2000. The unit that is available for screw fixation is called MDI2200.



+ MDI2100 - LONG RANGE

For long distance reading up to 2.5 m an auto-focus imager with higher illumination belongs to the options.



Auto-focus

ADAPTIVE LENS EXTENDS READING POSSIBILITIES

Auto-focus imagers consist of a real-time adapting lens, a fast shutter speed and auto-contrast control. Technology that provides good performance, increases the resistance to hand movement and creates sharp contrast images. This auto-focus function improves the motion tolerance from one work location by the ability to scan labels nearby, at far distances and difficult to reach angles. A sharp laser pointer is used as aiming spot to ease the manual scan operation and distinct the scannable code out of multiple labels.



The Opticon imager product range
shows the power

of versatile
2D reading

✓ Healthcare



Applications

- Medication management systems
- Laboratory
- Life sciences
- Electronic Health Record (EHR)
- Bedside scanning

In conjunction with any Health Care Information System the 2D Imager makes the medical history and drug prescriptions available for the care professionals. The unique barcode connects to the patient's Electronic Health Record, identifies the correct drugs, blood or any other article when scanned. Integration of barcode scanning eliminates errors and increases patient safety.

✓ Logistics



Applications

- Shelf replenishment
- Inventory management
- Storage locations
- Stock quantities
- Store level inventory
- Bulk supplies
- Floor materials

Article information and logistic specific information are essential to keep track of the goods in the logistics process. The variety in 2D symbologies enables easy tracking for different kinds of information like shipping, sorting, parts identification and small parts marking. Having access to more accurate information turns into operational efficiencies.

✓ E-Marketing



Applications

- Interactive advertising
- Campaign tracking
- Volume and frequency registering
- Geographic measuring

2D images are an ideal marketing tool. A code on a ticket can be representing a coupon for free beverages, gas-discount or else. A web visitor can print or download a code and take this to a retail store to profit from a campaign or can even send it to friends. Actions can even be personalized and sent by e-mail or SMS. 2D scanning builds interactivity with the target group.

✓ Mobile Ticketing



Applications

- Entrance control
- Check-out
- Visitor counting
- Peak time registering
- Lead-tracking
- Optional real-time tracking

Digital ticket reading is a commonly used authentication method to get entrance in facilities and events. Scanning the barcode confirms the receipt of payment or the validity of subscription. Mobile ticketing concerns digital tickets on mobile phones, which can be identified by advanced 2D imagers. Mobile ticketing reduces costs, increases efficiency and provides insight in the stored data providing traceable input for visitor management reports.

+ Basic Product Specifications

	MDI 1000	MDI 2000 /2200	MDI 2100	NLV 2101	M5	OPI 2002	OPI 2201	OPI 4002	PX25	H15B	PHL 7254	PHL 8152	H19B
Optics		1LED	4LEDs										
CMOS Gray-scale Camera (pixels)	1.3 M	900x512	900x512	1.3 M	752x480	1.3 M	1.3 M	1.3 M	1.3 M	900x512	1.3 M	1.3 M	
Scan rate (frames per second)	> 30 fps	> 80 fps*	> 30 fps*	> 30 fps	> 50 fps	> 30 fps	> 30 fps*	> 30 fps	> 30 fps	> 80 fps*	> 30 fps	> 30 fps	> 30 fps
*Autofocus: activation is 100ms after triggering		✓	✓				✓			✓			
Aiming	2 LEDS	Laser	Laser	2 LEDS	LEDbeam	n.a.	Laser	2 LEDS	2 LEDS	Laser	2 LEDS	2 LEDS	2 LEDS
Depth of Field (mm)	45-260	45-1000	180-2500	50-230	0-150	40-230	50-1500	25-130	35-140	45-1000	50-215	50-215	
Functionality													
Manual				✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Multiple read	✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Auto-trigger	✓			✓	✓	✓	✓	✓					
Stand detection						✓	✓	✓					
Image format: Windows Bitmap, JPEG, TIFF	✓	✓	✓	✓	✓	✓	✓	✓					✓
Communication													
CMOS UART, USB	✓	✓	✓										
RS232, Keyboard Wedge, USB				RS232, USB	✓	✓	✓						
IrDA									✓			✓	
IEEE 802.15.4								✓					
Bluetooth									✓	✓	✓	✓	✓
W-LAN, WiFi, IEEE 802.11										✓ b/g	b	b/g	✓ b/g
GSM/GPRS 900/1800/1900											✓		✓
EDGE, GSM/GPRS 850													✓
GPS													✓
Supported symbolologies													
1D	JAN/UPC/EAN incl. add on, Codabar/NW-7	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Code 11		✓	✓		✓		✓		✓			
	Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1 Dabar (RSS), IATA, Industrial 2of5, Interleaved 2of5	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
	ISBN-ISSN-ISMN	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
	Matrix 2of5, MSI/Plessey, UK/Plessey, S-Code, Telepen, Tri-Optic	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
Postal	Chinese Post, Korean Postal Authority code	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	Intelligent Mail Barcode, POSTNET		✓	✓		✓			✓	✓	✓	✓	✓
2D	Aztec Code, Aztec Runes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
	Chinese Sensible code		✓	✓									
	Codablock F	✓	✓	✓	✓	✓	✓	✓	✓	✓			
	Composite codes		✓	✓	✓	✓	✓	✓	✓	✓	✓		
	Data Matrix (ECC200/ECO-140), Maxi Code (mode 2~5), MicroPDF417, Micro QR Code, PDF417, QR code	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

Copyright Opticon. All rights reserved. This information is subject to change without prior notice. For availability, contact your local representative.

SALESGUIDE_2D-IMAGERS_004

- **The Netherlands:** Hoofddorp
- **France:** Issy Les Moulineaux
- **Germany:** Dietzenbach
- **Italy:** Castel Maggiore (BO)
- **Spain:** Valencia
- **Sweden:** Järfälla
- **United Kingdom:** Luton, Bedfordshire
- **U.S.A.:** Renton, WA
- **Japan:** Warabi City

- **Taiwan:** Taipei
- **P.R.China:** Shanghai
- **Australia:** Kariong
- **Brazil:** São Paulo

Opticon Sensors Europe B.V
European headquarters
Opaallaan 35
2132 XV Hoofddorp
The Netherlands
phone: +31 (0)23-5692700
fax: +31 (0)23-5638266
email: sales@opticon.com
internet: www.opticon.com

OPTICON
WWW.OPTICON.COM