## Function

The ODT-HH-MAH120-HD is a robust and inexpensive handheld for all current 1D and 2D barcodes. What is more, it is suitable for capturing high resolution data matrix codes.The megapixel CMOS image converter together with a specially developed optics permits an extremely large reading area both with regard to the reading distance and the image window. The reading area starts as low as 2 cm and ranges up to approx. 25 cm depending on the size of the code or the modules.

Thanks to its automated dynamic optimization, the handheld recognizes a wide variety of different codes and enables you to work efficiently.

As a guide to orientation there is a color-differentiated target projection in the form of a sectional drawing to support the optimal guidance visually during positioning.

The use of the reader under difficult ambient conditions is simplified by the stable design of the ODT-HH-MAH120, which can survive a fall from a height of 2m to a solid floor without affecting its functionality. Successful reading feedback is optical, acoustic or tactile (vibration motor).

Standard USB interfaces, such as the RS232 or PS/2, can be used - depending on which connection cable you choose. With the help of a simple program or configuration code, the handheld can be programmed. Optionally, a client-specific solution can be created using a JavaScript editor. The Linux core of the operation system makes additional options available to you.



CE

## Model Number

**ODT-HH-MAH120-HD**

Handheld for all standard 1D and 2D codes, high-density version

## Features

- All common 1D or 2D codes can be read
- Omni-directional reading
- Optimal price/power ratio
- Rugged housing

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## Technical data

**General specifications**

| | |
|---|---|
| Light type | Integrated LED lightning (red) |
| Symbologies | Maxi Code, PDF 417, Data Matrix, QR Code, MicroPDF 417, GoCode, UCC Composite, Aztec Code, Code 39, Code 128, UPC, EAN, JAN, Int 2 of 5, Codabar, Code 93, UCC RSS, POSTNET, PLANET, Japanese Post, Australia Post, Royal Mail, RM4SCC, KIX Code, Codablock , 4-State Customer Barcode (Intelligent Mail® Barcode) |
| Read distance | 20 ... 150 mm Depending on code symbology |
| Reading field | max. 80 mm x 100 mm |
| Modul size | ≥ 0.15 mm |
| Sensor principle | Camera system |
| Target velocity | Stop |
| Data Matrix | |
| Symbol size | rectangular up to 144 x 144 modules<br>rectangular up to 16 x 48 modules |
| Orientation | omnidirectional |

**Nominal ratings**

| | |
|---|---|
| Camera | |
| Type | CMOS |
| Number of pixels | 1024 x 1280 pixels |
| Gray scale | 256 |
| Image recording | real-time , manually triggered |
| Processor | |
| Clock pulse frequency | 400 MHz |
| Digital resolution | 8 Bit |

**Electrical specifications**

| | |
|---|---|
| Supply | via cable |

**Interface**

| | |
|---|---|
| Physical | USB 2.0 , RS 232 or PS/2 |
| Protocol | ASCII |

**Ambient conditions**

| | |
|---|---|
| Ambient temperature | 0 ... 50 °C (32 ... 122 °F) |
| Storage temperature | -20 ... 60 °C (-4 ... 140 °F) |

**Mechanical specifications**

| | |
|---|---|
| Protection degree | IP20 |
| Material | |
| Housing | plastic |
| Mass | approx. 185 g |

**Compliance with standards and directives**

| | |
|---|---|
| Directive conformity | |
| EMC Directive 89/336/EEC | EN 55024 |
| Standard conformity | |
| Noise immunity | EN 61000-4-2/3/4/6, EN 55022 |
| Emitted interference | EN 55022 |
| Protection degree | EN 60529 |
| Laser class | IEC 60825-1:2007 |

## Accessories

**Vision Configurator**
Software for all camera-based sensors

**ODZ-MAH-SUPPLY**
Power supply

**ODZ-MAH-CAB-R2**
Connection cable RS 232 interface

**ODZ-MAH120-BRACKET-W**
Bracket for ODT-HH-MAH120

**ODZ-MAH-CAB-R6**
Connecting cable PS/2 interface

**ODZ-MAH-CAB-B14**
Connecting Cable with USB Interface

**ODZ-MAH120-BRACKET**
Bracket for ODT-HH-MAH120

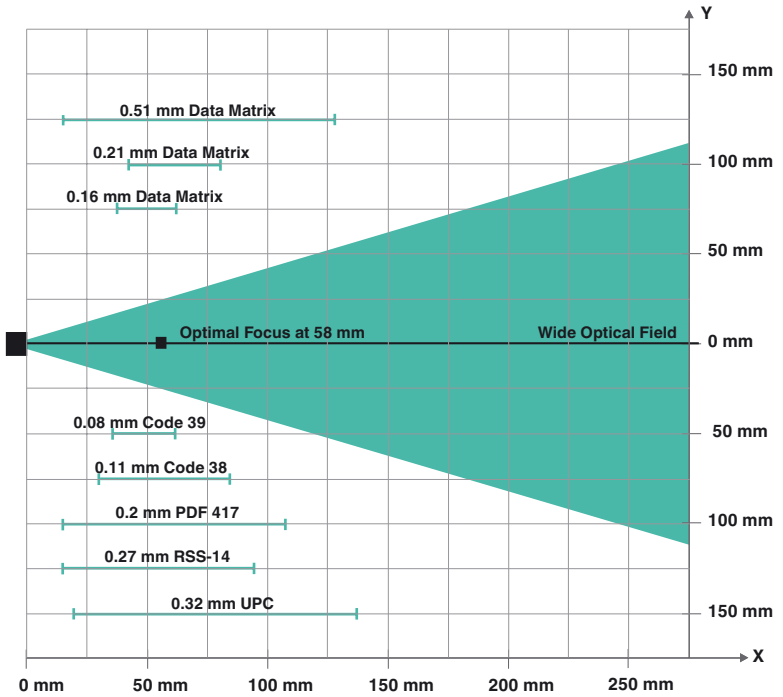**ODS-MAH-RULERUNNER**
Rule Runner Java Script licence

**ODZ-MAH200-CODEROUTER**
Code Router Software

**ODZ-MAH-5V-110V**
Power supply

## Read range for various symbologies



0.51 mm Data Matrix
0.21 mm Data Matrix
0.16 mm Data Matrix
Optimal Focus at 58 mm
Wide Optical Field
0.08 mm Code 39
0.11 mm Code 38
0.2 mm PDF 417
0.27 mm RSS-14
0.32 mm UPC

**Note: Smallest symbology that can be read is 0,15 mm Data Matrix**

Subject to reasonable modifications due to technical advances.