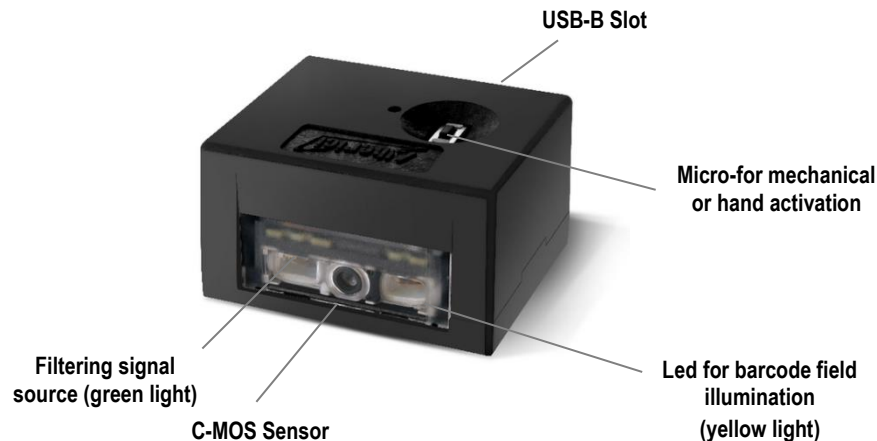


OPTIC ONE optical barcode reader

Data Sheet

Rev. 1.00



1. Product description

The Optic One Reader is an "imager" mode detector of barcodes and QR codes. As an additional function, thanks to a tiny and powerful integrated camera, it can also acquire small identity documents, such as digital identity cards or digital driving licenses.

It can read a great variety of standards both of barcodes and of two-dimensional codes (eg QR), and among these the GS1-128 standard (ISO / IEC 15417), which is the most widespread standard both in the industrial and administrative fields, but it can also read other standards, such as the EAN.

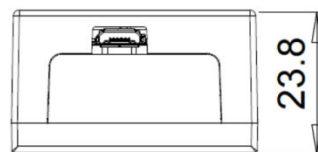
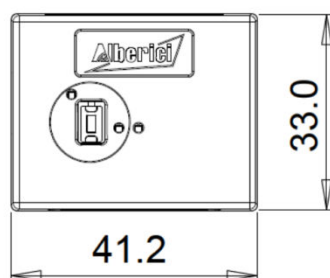
It is connected via USB-B to the machine CPU, from which it receives commands in ASCII code and to which it responds with the alpha-numeric data read, again expressed in ASCII code. So there is no need to implement any particular protocol: implementing the ASCII reading and decoding commands is enough.

A C-MOS scanning sensor reads the code picture: when the sensor is activated, either by CPU command or by its pushbutton, an LED will illuminate the barcode and an emitter will spread on it a filtering light, which "cleans up" the acquisition process from any interference, a useful function when reading for example faded bar clusters. The sheet with the bar code must be positioned perpendicular to the reader lens, within a range of 9 cm (variable between 8-10 according to environmental conditions).

The Optic One reads barcodes easily even from displays of mobile phones, tablets and computers.

The acquisition speed reaches 100 frames per second, useful if the reader is implemented on counting-piece machine, such as in packaging lines or in warehouse inventory.

2. Dimensions



N.B.: All measures shown are in mm

3. Technical Specs

| | |
|-------------------------|--|
| Weight | 0,245 Kg |
| Dimension | 41,26 x 32,97 x 23,65 mm |
| Operating Voltage | +5 Vcc (from the USB port) |
| Max. current draw | 300 mA |
| Operational temperature | -30°C ÷ 60°C |
| Protocols | USB |
| Image detector | Surface sensor CMOS, 640 x 480 pixel, black and white Barcode (1D): JAN/UPC/EAN incl. add on, Codabar/ NW-7, Code 11, Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1 Databar (RSS), IATA, Industrial 2of5, Interleaved 2of5, ISBN-ISSN-ISMN, Matrix 2of5, MSI/ Plessey, S-Code, Telepen, Tri-Optic, UK/Plessey |
| Supported symbols | Post Code: Chinese Post, Intelligent Mail Barcode, Korean Postal Authority code, POSTNET 2D Code: Aztec Code, Aztec Runes, Chinese Sensible code, Codablock F, Composite codes, Data matrix (ECC200), Passport MRZ (OCR-B), maxi Code (mode 2-5), MicroPDF417, MicroQR Code, PDF417, QR Code |
| Humidity | 5% ÷ 90% (w/out condensation) |
| Scanning speed | Up to 100 scans/sec. |

4.1 Configuration of the COM Port:

The Optic One peripheral unit creates a COM virtual port; such COM Port must be set up as follows::

BAUD = 115.200 BIT Data = 8
PARITY = None STOP BIT = 1
HARDWARE FLOW CONTROL = None

4.2 ASCII basic commands:

By default, the Optic reader can read most of 1D and 2D barcodes on the market.

The two fundamental commands are the following:

- 1) Command Z: activates the reader and enables its optics to read the barcode. If one barcode is perceived in the reading area, the reader will return the barcode ASCII information through virtual COM Port, then shuts down. If no barcode is pinpointed, the reader remains awake. To start the reading, send:
1B 5A 0D (hexadecimals) = ESC Z CR (ASCII characters)
- 2) Command Y: interrupts the search for the barcode. To interrupt, send:
1B 59 0D (hexadecimals) = ESC Y CR (ASCII characters).



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