

OPN-3102i

2D CMOS Imager

The OPN-3102i adds real-time barcode scanning to any Bluetooth device. It is extremely small, making it an ideal solution for field sales, POS, inventory management, and many more. The integrated NFC tag enables easy Bluetooth pairing. It contains wireless charging technology and can as well be charged over a standard USB cable.



Highlights

- An ultra-fast 100 frames per second (fps) CMOS imager rapidly scans and decodes 1D and 2D barcodes
- Price point makes real-time barcode scanning with an Android, Apple or Windows devices affordable
- Thanks to the built-in NFC tag, Bluetooth pairing is very easy
- Supports Apple MFi
- SPP and HID Bluetooth profiles for added flexibility
- Dedicated cradle available
- Small form factor: weighs only 60 grams, 36 x 83 x 21.5 mm
- Audible and visible feedback after a successful scan
- USB rechargeable or Wireless charging, high capacity Lithium-Ion battery
- Extremely durable: IP54 rating against dust and moisture and survives 1.5 m drop test
- Two year warranty protects your investment

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Product Specifications

Operation

CPU: 32-bit

O/S: Proprietary

RTC: Supports year, month, day, hour, minute, second
(leap year supported)

Memory

Flashrom: 1 MB

Ram: 96 kB

Operating indicators

Visual: 1 LED (red/green/blue)

Non-visual: buzzer, vibrate

Operating keys

Entry options: 2 keys total, 1 function key, 1 scan key

Communication

USB: Micro USB

Bluetooth: Ver. 2.1, SPP, HID, 1 to 1 connection, master / slave mode, authentication and encryption.

NFC: ISO 14443 tag for easy Bluetooth pairing

Power

Rechargeable battery: Lithium-Ion 600 mAh

Operating time: 10 hours (2 scans / 10 sec. incl Bluetooth communication)

2D Imager Optics

Light source: Green aiming LED, warm white LED

Scan method: CMOS area sensor, 640 x 480 pixels

Scan rate: Up to 100 fps

Focal distance: 109.2 mm / 4.3 in from the front

Curvature: $R \geq 20$ mm (12 digits), $R \geq 16$ mm (10 digits)

Reading pitch angle: $\pm 70^\circ$

Reading skew angle: $\pm 70^\circ$

Reading tilt angle: 360°

Field of view: Horizontal 38° , Vertical 28.9° ,
Diagonal 46.4°

Min. resolution at PCS 0.9: 0.127 mm / 5 mil min.

Min. PCS value: 0.2

Depth of field at code 39:

60 - 150 mm (0.127 mm) / 2.36 - 5.90 in (5 mil)

70 - 205 mm (0.254 mm) / 2.76 - 8.07 in (10 mil)

80 - 390 mm (0.508 mm) / 3.15 - 15.35 in (20 mil)

Depth of field at Code 128:

80 - 165 mm (0.2 mm) / 3.15 - 6.50 in (7.87 mil)

Depth of field at UPC:

65 - 260 mm (1.33 mm) / 2.56 - 10.24 in (52.36 mil)

Depth of field at PDF417:

65 - 125 mm (0.169 mm) / 2.56 - 4.92 in (6.65 mil)

50 - 180 mm (0.254 mm) / 1.97 - 7.09 in (10 mil)

Depth of field at QR Code:

70 - 95 mm (0.169 mm) / 2.76 - 3.74 in (6.65 mil)

35 - 225 mm (0.381 mm) / 1.38 - 8.86 in (15 mil)

Depth of field at Data Matrix:

60 - 130 mm (0.212 mm) / 2.36 - 5.12 in (8.35 mil)

50 - 150 mm (0.254 mm) / 1.97 - 5.91 in (10 mil)

* The depth of field depends on the view angle and symbol length

Supported symbologies

Barcode (1D): UPC-A, UPC-A Add-on, UPC-E, UPC-E Add-on, EAN-13, EAN-13 add-on, EAN-8, EAN-8 Add-on, JAN-8, JAN-13, Codabar / NW-7, Code 11, Code 39, Code 93, Code 128, GS1 DataBar, GS1 DataBar Limited, GS1 DataBar Expanded, Composite GS1-DataBar, Composite GS1-128, Composite EAN, Composite UPC, IATA, Industrial 2of5, Interleaved 2of5, Matrix 2of5, MSI/Plessey, UK/Plessey, S-Code, Telepen, Tri-Optic
Postal code: Chinese Post, Korean Postal Authority code
2D code: Aztec Code, Codablock F, Data Matrix (ECC 200), Maxi Code (mode 2 to 5), MicroPDF417, Micro QR Code, PDF417, QR Code, Chinese Sensible Code

Durability

Temperature in operation: -10 to 50°C / 14 to 122°F

Temperature in storage: -20 to 60°C / -4 to 140°F

Humidity in operation: 20% to 85% (non-condensing)

Humidity in storage: 20% to 85% (non-condensing)

Ambient light immunity: Fluorescent 10,000 lx max, direct sun 100,000 lx max, Incandescent 10,000 lx max

Drop test: 1.5 m / 5 ft drop onto concrete surface

Protection rate: IP54

Physical

Dimensions (W x H x D): 36 x 83 x 21.5 mm /
1.42 x 3.27 x 0.85 in

Weight body: Ca. 60 g / 2.12 oz (incl. battery)

Case: Black or white version

Regulatory & safety

Product compliance: CE, FCC, VCCI, RoHS, IEC62471:2006, EN60950-1, IEC60950-1, EN62479, EN55032 Class B, EN55024

Items

Enclosed: MicroUSB cable, Neck strap

Sold separately: CRD-3000 cradle