

OPN-3002

2D CMOS Imager

The OPN-3002 enables real-time barcode scanning into any Bluetooth device. It is extremely small, making it an ideal solution for field sales and service, POS, inventory management, asset tracking and many more. The OPN-3002 comes in a n- and i-version.



OPN-3002n



OPN-3002i

Highlights

- 2D 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
- Ready-to-go out of the box, just pair it with your Bluetooth device
- Supports Apple MFi (i-version), SPP and HID Bluetooth profiles for added flexibility
- Memory: 1 MB Storage Flash, 96 KB RAM and 512 KB + 32 KB System Flash
- Small form factor: weighs only 57 grams, 36 x 83 x 21.5 mm (W x H x D)
- Audible and visible feedback after a successful scan
- USB rechargeable, high capacity Lithium-Ion battery
- Extremely durable: IP42 rating against dust and moisture and survives 1.5 m drop test
- Two year warranty protects your investment

OPN-3002

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/orange)

Non-visual: buzzer

Operating keys

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

Communication

USB: Mini USB, VCP

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

Power

Operating time: 12 hours (2 scans / 10 sec. incl Bluetooth communication)

2D Imager Optics

Light source: Green aiming LED, 2 illumination red LEDs

Scan method: CMOS area sensor, 752 x 480 pixels

Scan rate: Up to 60 fps

Focal distance: 124.8 mm / 4.91 in from the front

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

Reading pitch angle: $\pm 50^\circ$

Reading skew angle: $\pm 50^\circ$

Reading tilt angle: 360°

Field of view: Horizontal 40.6° , Vertical 26.4°

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

Min. PCS value: 0.30

Depth of field at code 39:

90 - 110 mm (0.127 mm) / 3.54 - 4.33 in (5 mil)

65 - 185 mm (0.254 mm) / 2.56 - 7.28 in (10 mil)

65 - 260 mm (0.508 mm) / 2.56 - 10.24 in (20 mil)

Depth of field at QR Code:

90 - 110 mm (0.212 mm) / 3.54 - 4.33 in (8.4 mil)

55 - 180 mm (0.381 mm) / 2.17 - 7.09 in (15 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 0 - 140 / ECC 200), Maxi Code (mode 2-5), MicroPDF417, Micro QR Code, PDF417, QR Code, Chinese Sensible Code

Durability

Temperature in operation: 0 to 50 °C / 32 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: IP42

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. 57 g / 2 oz (incl. battery)

Case: ABS, Black (n-version) or White (i-version)

Regulatory & safety

Product compliance: CE, FCC, VCCI, RoHS, IEC62471-1, EN60950-1, IEC60950-1, EN55022, EN55024

Items

Enclosed: USB cable, Neck strap