

# OPN-4000

## CCD Linear Imager

The OPN-4000 enables real-time barcode scanning into any Bluetooth device. It is extremely small, making it an ideal solution for field sales and service, retail point-of-sale (POS), inventory management, asset tracking and many more. OPN-4000 comes in a n- and i-version.



## Highlights

- CCD linear sensor rapidly scans and decodes 1D barcodes
- Price point makes real-time barcode scanning with an Android, Apple or Windows device 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 Flash ROM, 96 kB SRAM
- Small form factor: weighs only 53 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-4000

## 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)

Non-visual: buzzer

### Operating keys

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

### Communication

USB: Mini USB

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

### Power

Rechargeable battery: Lithium-Ion Polymer 3.7V  
600 mAh

Operating time: 25 hours (2 scans / 10 seconds incl.  
Bluetooth communication)

Charging method: Enclosed USB cable

### Barcode scanner optics

Light source: 1 red LED

Scan method: CCD linear image sensor, 1500 pixels

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

Reading skew angle:  $\pm 65^\circ$

Reading tilt angle:  $\pm 25^\circ$

Curvature:  $R \geq 15$  (EAN 8),  $R \geq 20$  (EAN 13)

Min. resolution at PCS 0.9: 0.1 mm

### Depth of field at code 39:

75 - 140 mm (0.127 mm) / 2.95 - 5.51 in (5 mil)

65 - 140 mm (0.15 mm) / 2.56 - 5.51 in (6 mil)

65 - 220 mm (0.254 mm) / 2.56 - 8.66 in (10 mil)

60 - 350 mm (0.508 mm) / 2.36 - 13.78 in (20 mil)

80 - 520 mm (1.0 mm) / 3.15 - 20.47 in (39 mil)

### Supported symbologies

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) (excl. stacked), IATA,  
Industrial 2of5, Interleaved 2of5, ISBN-ISMN-ISSN,  
Matrix 2of5, MSI/Plessey, UK/Plessey, S-Code, Telepen,  
Tri-Optic

Postal code: Chinese Post, Korean Postal Authority  
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

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. 53 g / 1.87 oz (incl. battery)

Case: ABS, White

### Regulatory & safety

Product compliance: CE, FCC, VCCI, RoHS, IEC62471-  
1, EN60950-1, IEC60950-1, EN55022, EN301 489-01  
V1.9.2, EN301 489-17 V2.1.1, EN300 328 V1.7.1

### Items

Enclosed: USB cable, Neck strap