

# OPTICON

## Companion Scanner

# OPN-2004

## Ultra Compact Laser Barcode Scanner

USB (HID/VCP)



### + Features and Benefits

- Simple, one-touch barcode scanning
- Most affordable USB batch scanner
- Small form factor: 2.44" x 1.26" x 0.69" and weighs only 1.1 ounces
- Easily fits into a pocket or on a key chain
- High speed 100 scans/second laser barcode scanner
- Stores over 10,000 barcodes plus timestamps
- USB rechargeable, high capacity Lithium-Ion battery
- Audible and visible feedback after a successful scan
- Leverage the free Software Development Kit (SDK) to customize scanning behavior
- Scanner comes with USB data/charging cable and neck lanyard
- Backed by a two year warranty

## Operation

- **CPU:** STR7 32 bit, 96 MHz
- **OS:** Proprietary
- **Software:** Programmable in C-language. Ansi-C cross compiler obtainable. Free downloadable software development kit available
- **RTC:** Accurate to  $\pm 90$  seconds per month. Leap year supported

## Memory

- **FlashROM:** 512 KB (Program Storage) + 1 MB (Storage) + time/date stamps
- **RAM:** 96 KB

## Operating Indicators

- **Visual:** 2 dual red/green LED's
- **Audible:** Multi-Tone speaker

## Operating Keys

- 1 Trigger Key
- 1 Multi-Function Key

## Communication

- **USB:** Mini USB-B, Ver 2.0 (HID, VCP)

## Power

- **Battery:** 3.7V 140mAh, Lithium Polymer, Rechargeable Internal Battery
- **Operating Time:** 8 hours or more at 1 scan/5 seconds
- **Charging Method:** Enclosed USB cable

## Barcode Scanner Optics

- **Light Source:** Visible Red (650 nm) Laser
- **Scan Method:** Vibrating Mirror
- **Scan Rate:** 100 scans/sec
- **Minimum Barcode Resolution:** 0.127 mm
- **Reading Pitch Angle:** -30° to 0°, 0° to +30°
- **Reading Skew Angle:** -50° to -8°, +8° to +50°
- **Reading Tilt Angle:** Tilt:  $\pm 20^\circ$
- **Curvature:** R>15 mm (EAN8), R>20 mm (EAN13)
- **Minimum PCS value:** 0.45
- **Depth of Field (UPC @ PCS 0.9):**  
39 mil (1.0 mm): 2.95 - 22.44 in (75 - 570 mm)  
19.69 mils (0.5 mm): 2.17 - 13.78 in (55 - 350 mm)  
9.84 mils (0.25 mm): 2.17 - 7.87 in (55 - 200 mm)  
5.91 mils (0.15 mm): 2.17 - 4.33 in (55 - 110 mm)  
5 mils (0.127 mm): 2.56 in - 3.54 in (65 - 90 mm)

## Supported Symbologies

- **Barcode (1D):** EAN-13, EAN-13 Add-on, EAN-8, EAN-8 Add-on, UPC-A, UPC-A Add-on, UPC-E, UPC-E1, UPC-E Add-on, Code 39, NW-7 (Codabar), Industrial 2 of 5, Interleaved 2 of 5, Code 93, Code 128, MSI/Plessey, IATA, UK/Plessey, Telepen, Matrix 2 of 5, NW-7 ABC Code, NW-7 CX Code, S-Code, Tri-Optic, Code 39 Full ASCII, Code 39 It.Pharmaceutical, EAN 128, GS1 DataBar Omnidirectional, GS1 DataBar Limited, GS1 DataBar Expanded, Code 11
- **Barcode (Postal Codes):** Korean Post, Chinese Post Matrix 2 of 5

## Durability

- **Temperature:**  
Operation: 32 to 122 °F (0 to 50 °C)  
Storage: -4 to 140 °F (-20 to 60 °C)
- **Humidity:**  
Operation: 20 - 85% (noncondensing)  
Storage: 20 - 85% (non-condensing)
- **Ambient Light Immunity:**  
Fluorescent: ~ 4,000 lx  
Incandescent: ~ 4,000 lx  
Sunlight: ~ 80,000 lx
- **Drop Test:** 4 ft (1.2 m) onto concrete surface
- **Vibration Test:** 10 - 100 Hz with 2G for 1 hour
- **MTBF:** 10,000 hours

## Physical

- **Dimensions (WxHxD):** 2.44 x 1.26 x 0.69 in (62 x 32 x 17.5 mm)
- **Weight (Body):** Ca. 1.1 oz (30 g) (including battery)
- **Case:** ABS, Black

## Regulatory and Safety

- **Product Compliance:** FCC Part 15 Subpart B Class B, VCCI Class B, RoHS, JIS-C-6802:2005 Class 2, IEC 60825-1 Ed2 2007 Class 2, FDA CDRH Class II

## Enclosed Items

- OPN-2004
- USB data/charging cable
- Lanyard
- Quick Start Guide

## Sold separately

- AC USB adapter

Copyright 2014 Opticon. All rights reserved. This information is subject to change without notice. For availability, contact your local representative.

- **The Netherlands:** Hoofddorp  
- **France:** Issy Les Moulineaux  
- **Germany:** Dietzenbach  
- **Italy:** Castel Maggiore (BO)  
- **Sweden:** Järfälla  
- **United Kingdom:** Luton, Bedfordshire

- **U.S.A.:** Renton, WA  
- **Brazil:** São Paulo  
- **Japan:** Warabi City  
- **Taiwan:** Taipei  
- **P.R.China:** Shanghai

**Opticon, Inc.**  
2220 Lind Ave. SW, Suite 100  
Renton, WA 98057  
**Toll Free:** 800.636.0090  
**Local:** 425.651.2120  
**Fax:** 425.454.0865  
**Email:** Sales@OpticonUSA.com  
**Email:** Support@OpticonUSA.com

# OPTICON

WWW.OPTICONUSA.COM