

# OPN-2004

## Ultra Compact Laser Barcode Scanner



### Highlights

- 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

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## Product Specifications

### 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 ±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: ± 20°  
**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

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