

OPN2004

Ultra Compact Laser Barcode Reader

USB-HID**USB-VCP**

+ Features & Benefits

- Simple, one-touch scanning
- Most affordable batch USB scanner
- Small form factor - weighs only 1.1 oz
- 100 scans/second laser barcode scanner
- Stores over 10,000 barcodes plus timestamps
- Long life Lithium-Ion battery
- Internal battery is rechargeable via USB port
- Audible feedback after a successful scan
- Straightforward USB interface
- Backed by a two-year warranty



Operation

- CPU: STR7 32 bit, 96 MHz
- O/S: 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
- Auditory: 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 Angles:
 - Pitch: -30° to 0° , 0° to $+30^\circ$
 - Skew: -50° to -8° , $+8^\circ$ to $+50^\circ$
 - Tilt: $\pm 20^\circ$
 - Curvature:
 - $R \geq 15$ mm (EAN-8)
 - $R \geq 20$ mm (EAN-13)
- Min. PCS Value: 0.45
- Depth Of Field (PCS 0.9):
 - 75 mm - 570 mm (2.95 in - 22.44 in), Res. 1 mm (39.37 mils)
 - 55 mm - 350 mm (2.17 in - 13.78 in), Res.

0.5 mm (19.69 mils)

- 55 mm - 200 mm (2.17 in - 7.87 in), Res. 0.25 mm (9.84)
- 55 mm - 110 mm (2.17 in - 4.33 in), Res. 0.15 mm (5.91)
- 65 mm - 90 mm (2.56 in - 3.54 in), Res. 0.127 mm (5 mils)

Supported Symbolologies

- 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
- Postal Code:
 - Korean Post, Chinese Post Matrix 2 of 5
- 2D:
 - PDF 417, MicroPDF 417

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 - 85% (noncondensing)
- Humidity in Storage: 20 - 85% (non-condensing)
- Ambient Light Immunity:
 - Fluorescent: $\sim 4,000$ lx
 - Incandescent: $\sim 4,000$ lx
 - Sunlight: $\sim 80,000$ lx
- Drop Test: 1.2 m (4 ft) drop onto concrete surface
- Vibration Test: 10 - 100 Hz with 2G for 1 hour
- MTBF: 10,000 hours

Physical

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

Regulatory & 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

- OPN2004
- USB Data/Charging cable
- Lanyard
- Quick Start Guide

Sold Separately

- AC USB Adapter

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- **The Netherlands:** Hoofddorp
- **France:** Issy Les Moulineaux
- **Germany:** Dietzenbach
- **Italy:** Villanova di Castenaso (BO)
- **Sweden:** Järfälla
- **United Kingdom:** Luton, Bedfordshire
- **U.S.A.:** Renton, WA
- **Brazil:** São Paulo

- **Japan:** Warabi City
- **Taiwan:** Taipei
- **P.R.China:** Shanghai
- **Australia:** West Ryde

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