The OPN 2002 Bluetooth memory scanner combines convenient barcode data collection with flexible communication options. The device allows storage and removal of barcode scans. The final collection can be transmitted by cabled or wireless interface, both options are provided.

### Product Features

**Bluetooth & USB communication interface**
For data transmission to a Bluetooth hosting device, two profiles are available on the OPN 2002. The SPP profile allows the user to use a data loading tool and configure some Bluetooth transmission settings. For direct transmission without using any tools the HID profile will fit the immediate wireless transfer needs. In occasions where Bluetooth is not provided, access by the USB port enables (cabled) data transfer to any USB device.

**Scanning control by two buttons**
Using this high performance laser scanner is very easy – scan a barcode and it will be stored automatically. When you make a mistake, the lower button allows you to re-scan the barcode in order to remove the item from the memory.

**Wide storage & large capacity**
Over 25,000 codes can be stored and removed by the user at any time.

**Lightweight**
Large application flexibility is provided in this lightweight device of less then 30 grams (1 ounce).
# Specifications

## OPN 2002 Pocket Memory Scanner with Bluetooth

### Electrical specifications
- **Main battery pack**: Lithium-ion polymer rechargeable (240 mAH)
- **Main battery pack operating time**: over 7 hours
- **Charging method**: The main battery in the scanner will be charged through the 10-bay cradle or USB cable.
- **Battery charging time**: Ca. 2.5 hours

### Optical specifications
- **Light source**: 650 nm visible laser diode
- **Scan method**: vibrating mirror
- **Scan rate**: 100 scans/sec
- **Decode rate**: 100 decodes/sec
- **Reading pitch angle**: -35 to 0°, 0 to +35°
- **Reading skew angle**: -50 to -8°, +8 to +50°
- **Reading tilt angle**: -20 to 0°, 0 to +20°
- **Curvature**: R<15 mm (EAN8), R>20 mm (EAN13)
- **Min. PCS value**: 0.45
- **Depth of field**: at PCS 0.9, UPC
  - 60 - 570 mm / 2.36 - 22.44 in (res. 1.0 mm / 39 mil),
  - 40 - 360 mm / 1.57 - 14.17 in (res. 0.5 mm / 20 mil),
  - 40 - 220 mm / 1.57 - 8.66 in (res. 0.25 mm / 10 mil),
  - 40 - 120 mm / 1.57 - 4.72 in (res. 0.15 mm / 6 mil),
  - 50 - 100 mm / 1.97 - 3.94 in (res. 0.127 mm / 5 mil)

### Communication specifications
- **Interface USB**: ver. 1.1, VCP
- **Interface Bluetooth**: ver. 1.2
- **Output power level**: Class 2
- **Profile**: SPP, HID
- **Operation range**: 10 m
- **Connection mode**: 1 to 1
- **Operation mode**: master
- **Security mode**: authentication, encryption

### Identification
- **Supported 2D code symbologies**: MicroPDF417, PDF417

### Functionality
- **FlashROM**: 1 MB (Program storage + >25,000 barcodes + time stamp)
- **Memory RAM**: 1 MB
- **Microprocessor**: 32 bits
- **Real time clock**: Quartz RTC, time and date programmable, leap year handling, (accuracy +/- 60 sec./month)
- **Keyboard**: 1 scan button, 1 function key

### Environmental specifications
- **Temperature in operation**: 0 to 50 °C / 32 to 122 °F
- **Temperature in storage**: -20 to 80 °C / -4 to 140 °F
- **Humidity in operation**: 20 - 85 % (non-condensing)
- **Humidity in storage**: 20 - 85 % (non-condensing)
- **Ambient fluorescent light rejection**: 3,000 lx max.
- **Ambient white light rejection**: 3,000 lx max.
- **Ambient direct sun light rejection**: 50,000 lx max.
- **Protection against dust and moisture**: according to IEC529: IP 42

### Physical specifications
- **Dimensions**: 32 x 62 x 16 mm / 1.26 x 2.44 x 0.63 in
- **Weight body**: Ca. 29 g / 1 oz

### Regulatory
- **Laser safety class**: JIS-C-6802 Class 2, IEC 60825-1 Class 2, FDA CDRH Class II
- **Product compliance**: CE, FCC, VCCI, RoHS

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### Depth of field

![Depth of field diagram](image)

- **Unit**: mm (in)
  - Res. 0.127 (5 mil): 50 - 100 (1.97 - 3.94)
  - Res. 0.15 (6 mil): 40 - 120 (1.57 - 4.72)
  - Res. 0.25 (10 mil): 40 - 220 (1.57 - 8.66)
  - Res. 0.5 (20 mil): 40 - 360 (1.57 - 14.17)
  - Res. 1.0 (39 mil): 60 - 570 (2.36 - 22.44)

### Dimensions

![Dimensions diagram](image)

- **Unit**: mm (in)
  - Width: 32 (1.26)
  - Depth: 62 (2.44)
  - Height: 16 (0.63)

### Enclosed items
- **USB cable**, **Neck strap**

### Accessories
- **Solid separately**: AC USB adapter
- **CRD 2000-U10**: 10-bay charging and USB communication cradle
- **CRD 2000-RU10**: 10-bay charging and USB + RS232 communication cradle

### Conditions
- **To be determined**: Availability & Ordering quantity

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