OPI4002

Wireless 2D CMOS Imager

2.4 GHz Wireless (IEEE 802.15.4)

USB-HID (via OPA-1001 wireless adapter)

+ Features & Benefits

- Lightweight wireless 2D CMOS imager
- Ideal for warehouse, inventory, logistics and retail applications
- Features 2.4 GHz Wireless (IEEE 802.15.4) based communication protocol for quick, accurate, wireless performance
- 1.3 megapixel and 30 fps scan rate imager rapidly reads standard 1D and 2D barcodes from any orientation
- Features targeting LED that guides the user to scanners' focal point for quick scanning
- Delivers lower power draw to preserve battery life
- Connects to a host device with a wireless dongle allowing the scanner to appear as a USB keyboard – just scan the barcode on the dongle to setup
- Rugged – withstands five foot drop to concrete
- Features IP42 rating – comprehensive sealing against dust and moisture
- Trigger modes include manual, multiple read, auto-trigger and stand detection
- Two-year warranty protects your investment

Operating Indicators

- **Visual:** 1 LED (red/green/orange)
- **Audible:** Beeper

Operating Keys

- **Scan Key:** 1 scan key (trigger orientation)

Communication

- **2.4 GHz Wireless (IEEE 802.15.4):** range up to 30 m, 1 to 1 connection to USB-HID wireless dongle OPA1001
- **Security:** All wireless communications between the OPI4002 and OPA1001 use CCM (IEEE 802.15.4 security level 7), which combines AES-128 encryption with a 16 byte integrity code (CBC-MAC).

Power

- **Rechargeable battery:** Li-Ion 3.6V, 1150 mAh
- **Operating time:** Ca. 30 hours (1 scan / 5 sec)
- **Charging method:**
  AC adapter: 32-00606-00 (sold separately)
  Charging cradle: CHG4001 (sold separately)
- **Battery charging time:** Ca. 3 hours (full charge)

Supported Symbologies

- **Barcode (1D):** JAN/UPC/EAN incl. add on, Codabar/NW-7, Code 39, Code 93, Code 128, GS1-128 (EAN-128), GS1-128 (EAN-128), GS1 DataBar (RSS), IATA, Industrial 2of5, Interleaved 2of5, ISBN-ISSN-ISMN, Matrix 2of5, MSI/Plessey, S-Code, Telepen, Tri-Optic, UK/Plessey
- **Postal code:** Chinese Post, Korean Postal Authority code
- **2D code:** Aztec Code, Aztec Runes, Composite codes, Data Matrix (ECC200/EC0-140), Maxi Code (mode 2~5), MicroPDF417, Micro QR Code, PDF417, QR code

2D Imager Optics

- **Light source:**
  Illumination: 4 red LEDs (630 nm)
  Aiming: 2 green LEDs (527 nm)
- **Scan method:** CMOS area sensor, SXGA (1.3 million pixels), gray scale
- **Scan rate:** Up to 30 fps
- **Trigger modes:** Manual, multiple read, auto-trigger, stand detection
- **Image format:** Windows Bitmap, JPEG, TIFF
- **Gradulation:** 256, 16, 2
- **Image output mode:** 4 resolutions (full, 1/2, 1/3, 1/4), 2 ranges (horizontal, vertical)
- **Reading pitch angle:** -50 to 0°, 0 to +50°
- **Reading skew angle:** -60 to 0°, 0 to +60°
- **Reading tilt angle:** 360°
- **Focal plane:** 3.35 in (85 mm) from window
- **Curvature:**
  EAN-8: R ≥ 15 mm
  EAN-13: R ≥ 20 mm
- **Min. resolution at PCS 0.9:**
  Code 39: 4 mils (0.10 mm)
  PDF417: 5 mils (0.127 mm)
- **Min. PCS value:** 0.45
- **Field of view:** Horizontal 47°, Vertical 37.5°
- **Depth of field (Code 39 @PCS 0.9):**
  10 mils (0.25 mm): 1.18 - 4.13 in (30 - 105 mm)
  4 mils (0.10 mm): 2.17 - 2.95 in (55 - 75 mm)
- **Depth of field (PDF417 @PCS 0.9):**
  13 mils (0.40 mm): 0.98 - 5.12 in (25 - 130 mm)
  5 mils (0.127 mm): 1.89 - 3.15 in (48 - 80 mm)

Durability

- **Temperature in operation:** -0 to 40 °C /-32 to 104 °F
- **Temperature in storage:** -20 to 60 °C / -4 to 140 °F
- **Humidity in operation:** 5 - 90% (non-condensing)
- **Humidity in storage:** 5 - 90% (non-condensing)
- **Ambient light immunity:**
  Fluorescent: 10,000 lx max
  Incandescent: 10,000 lx max
  Direct sun: 100,000 lx max
- **Antistatic electricity:** 15 kV (non-destructive)
- **Drop test:** 1.5 m / 5 ft drop onto concrete surface
- **Vibration test:** 10 - 100 Hz with 2G for 1 hour
- **Protection rate:** IP 42

Physical

- **Dimensions (w x h x d):** 59 x 164 x 43 mm / 2.32 x 6.46 x 1.69 in
- **Weight body:** Ca. 125 g / 4.4 oz (excl. battery)
- **Case:** ABS, White

Regulatory & Safety

- **Product compliance:** CE, FCC, VCCI, RoHS

Sold Separately

- **CHG4001 Cradle:** Charging
- **OPA1001 Dongle:** 2.4 GHz wireless (IEEE 802.15.4) communication
- **Power supply:** 100-240V/0.5A, 50/60 Hz, 6V/2A (for battery charging)