E OPTICON

Companion Scanners

OPN-6000 2D CMOS Imager

Designed for a variety of markets such as healthcare, hospitality, retail, and logistics, the OPN-6000 enables real-time barcode scanning into any Bluetooth® ready device. In addition to being extremely small and lightweight, the OPN-6000 comes at an affordable price point that enables any business to integrate barcode scanning into their mobile applications.





Highlights

- Advanced ergonomic design allows for all day comfort and scanning efficiency regardless of hand size
- Ready-to-go out of the box—just pair it with your Bluetooth device
- By supporting a wide range of Bluetooth and USB interfaces and configurable batch capabilities it integrates seamlessly with almost any existing or new barcode application
- An ultra-fast 100 frames per second (fps) CMOS imager rapidly scans and decodes 1D and 2D barcodes
- Fully configurable and customizable using OptiConnect, OptiConfigure and the OPN Companion application. Programmable using our free software development kit

- Inductive charging or charging via USB-C port
- Bluetooth 5.4 compliant that supports Bluetooth low energy (BLE)
- Audible and visible feedback via LED, vibrating motor and buzzer
- 4 days battery life with 1,000 scans per day
- Extremely durable: IP54 rating and survives 1.5 m drop test
- Configurable and programmable with the free Software Development Kit to customize scanning behavior
- Small form factor: weighs only 52g, 64.4 \times 44 \times 19.4 mm
- Backed by a two year warranty

OPN-6000

Product Specifications



Operation

CPU: 32-bit O/S: Proprietary RTC: Supports year, month, day, hour, minute, second (leap year supported)

Memory

Flashrom: 1 MB Ram: 256 kB External Flashrom: 2 MB

Operating indicators

Visual: 4 LEDs Non-visual: buzzer, vibrate

Operating keys

Entry options: 2 keys total, 1 function key, 1 scan key

Communication

USB: USB-C, USB VCP/CDC (Virtual COM port), HID (Human Interface Device), MSD (Mass Storage Device), OPN2001 mode (Companion application) Bluetooth: Ver. 5.4 Bluetooth Low Energy, HID (Human Interface Device), DFU (Device firmware update), UART (Serial port emulation), BAS (Battery service), OptiConnect service

Power

Rechargeable battery: Lithium-Ion 500 mAh Operating time (Batch, Bluetooth): 4 days (1000 scans/day) Operating time (Batch, idle): >6 months Operating time (Bluetooth, idle): >1 month Data retention time: Indefinite Charge method: USB-C cable, or wireless charging Max charging time: 4 hrs

2D Imager optics

Light source: Green LED (aiming) and warm white LED (illumination) Scan method: CMOS area sensor, 640 x 480 pixels, black and white Scan rate: Up to 100 fps Reading pitch angle: ± 65° Reading skew angle: ± 65° Reading tilt angle: 360° Curvature: R>15 mm (EAN8), R>20 mm (EAN13) Min. resolution at pcs 0.9: 0.1 mm / 4 mil Min. pcs value: 0.2 (0.3 for UD model) Field of view: Horizontal 38°, Vertical 28.9° Depth of field at code 39:

55 - 128 mm (0.127 mm) / 2.16 - 5.04 in (5 mil) 54 - 239 mm (0.254 mm) / 2.13 - 9.41 in (10 mil) 71 - 435 mm (0.508 mm) / 2.79 - 17.13 in (20 mil) Depth of field at QR code:

62 - 113 mm (0.169 mm) / 2.44 - 4.45 in (6.7 mil) 24 - 252 mm (0.381 mm) / 0.94 - 9.92 in (15 mil)

Supported symbologies

Barcode (1D): JAN/UPC/EAN incl. add on, Codabar/ NW-7, Code 11, Code 39, Code 93, Code 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, Intelligent Mail Barcode, Korean Postal Authority code, POSTNET 2D code: Aztec Code, Aztec Runes, Chinese Sensible code, Codablock F, Composite codes, Data matrix (ECC200), Passport MRZ (OCR-B), maxi Code (mode 2-5), MicroPDF417, MicroQR Code, PDF417, QR Code

Durability

Temperature in operation: -20 to 60 °C / -4 to 140 °F Temperature in storage: -40 to 70 °C / -40 to 158 °F Humidity in operation: 5 - 90% (non-condensing) Humidity in storage: 5 - 90% (non-condensing) Ambient light immunity: Fluorescent 10,000 lx max, Sunlight 100,000 lx max, Incandescent 10,000 lx max Drop test: 1.5 m / 5 ft drop onto concrete surface Protection rate: IP54

Physical

Dimensions (WxHxD): 64.4 x 44 x 19.4 mm / 2.54 x 1.73 x 0.76 in Weight: Ca. 52g / 1.8 oz

Regulatory & Safety

CE, FCC, RoHS, IEC/EN 62471, EN IEC 62368, EN 55032, EN 55035

Items

Free service: OptiConnect App, SDK for programming and configuration

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