

L-250 BT

2D CMOS Imager

The cable-free freedom of wireless communication offers the ability to roam away from the host device, which improves productivity and scanning convenience. The L-250BT scanner is designed for a wide variety of applications and built for all day use due to the large battery.



Highlights

- High-speed 2D CMOS imager (up to 120 fps with global shutter) for fast, accurate scanning
- 360° high-speed reading with exceptional motion tolerance and response, even in poor lighting
- Rapidly scans and decodes a wide variety of 1D and 2D barcodes, including curved, wide, and poorly printed codes
- Large capacity 3500mAh battery, supports days of frequent use without recharging
- BT Classic and LE support: compatible with legacy and modern devices
- Flexible USB interface: USB-C for both communication and charging; configurable to USB-COM or USB-HID
- OptiConnect mobile app support for device setup, management, and data processing
- Trigger modes: manual, auto-trigger, and stand detection
- Support for optional charging cradle with auto-trigger mode for hands-free scanning
- Custom configuration capabilities, including multi-read functionality
- LED status indicators on top of the scanner for clear visibility
- Durable design: survives 1.5-meter drops to concrete
- Backed by a two-year warranty

L-250BT

Product Specifications



Memory

CPU: 1.2 GHz

Flash ROM: 32 Mbyte

RAM: 128 Mbyte

Operating indicators

Visual: 3 LED (blue, red/green)

Non-visual: buzzer

Operating keys

Entry options: 1 scan key

Communication

USB: Ver. 2.1, HID keyboard, SPP (Serial COM emulation), OptiConnect, USB-C connector

BT: Ver. 4.2, SPP, HID keyboard

BT profiles: BLE: BAS (battery service), OptiConnect, OPN2006

Power

Voltage requirement: 5V $\pm$ 10%

Current consumption: Typ. 370mA scanning, 90mA idle, less than 2mA sleep, less than 100uA shutdown

Battery: Lithium-Ion 3.6V 3500 mAh

Standby time: Approx. 1400h (with wireless connection), deep sleep without connection approx. 2500h

Reading: Approx. 250 hours (1,000 scans/day)

Charging method: USB-C or separate cradle

Battery charging time:

0 to 100% up to 8h @0.5A USB current limit, up to 6h @1A USB current limit.

10 to 80% up to 6h @0.5A USB current limit, up to 4h @1A USB current limit.

Typical; when L-250BT is idle, at 200C, USB-C to USB-A charge cable 0.5A current limit, USB-C to USB-C 1A current limit.

2D Imager optics

Light source: Aiming green LED, white illumination LED

Scan method: CMOS area sensor, 640 x 480 pixels

Scan rate: Up to 120 fps

Trigger mode: Manual, auto-trigger

Reading pitch angle: 360°

Reading skew angle: 15°

Reading tilt angle: 360°

Curvature: R $\geq$ 20 mm (UPC)

Min. resolution at PCS 0.9: 0.2 mm

Field of view: Horizontal 33.2°, vertical 25.4°

Min. PCS value: 0.2

Depth of field at code 39:

30 - 150 mm (0.127 mm) / 1.18 - 5.9 in (5 mil)

50 - 210 mm (0.254 mm) / 1.97 - 8.27 in (10 mil)

100 - 240 mm (0.508 mm) / 3.94 - 9.45 in (20 mil)

Depth of field at code 128:

25 - 150 mm (0.2 mm) / 0.98 - 5.9 in (7.9 mil)

Depth of field at EAN/UPC:

30 - 230 mm (0.33 mm) / 1.18 - 9.06 in (13 mil)

Depth of field at PDF417:

20 - 140 mm (0.169 mm) / 0.79 - 5.51 in (6.7 mil)

36 - 190 mm (0.254 mm) / 1.42 - 7.48 in (10 mil)

Depth of field at QR code:

30 - 115 mm (0.169 mm) / 1.18 - 4.53 in (6.7 mil)

50 - 200 mm (0.381 mm) / 1.97 - 7.87 in (15 mil)

Depth of field at Data Matrix:

40 - 110 mm (0.169 mm) / 1.57 - 4.33 in (6.7 mil)

20 - 145 mm (0.254 mm) / 0.79 - 5.7 in (10 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, Planet, Japanese postal, Netherlands KIX code, Australian postal, UK postal, 4-State Mailmark barcode

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: -5 to 50 °C / 23 to 122 °F

Temperature in storage: -30 to 60 °C / -22 to 140 °F

Humidity in operation: 5 - 90% (non-condensing, no frost)

Humidity in storage: 5 - 90% (non-condensing, no frost)

Ambient light immunity: Fluorescent 10,000 lx max, Sunlight 100,000 lx max, Incandescent 10,000 lx max

Max drop test: 1.5 m / 5 ft drop onto concrete surface

Protection rate: IP42

Physical

Dimensions Scanner (W x H x D): 105.4 x 153.4 x 60 mm / 4.15 x 6.04 x 2.36 in

Weight body: Ca. 150 g / 5.3 oz

Case: Black

Regulatory & safety

Product compliance: CE, FCC, RoHS, IEC62471-1:2006, EN55032, EN55024

Items

Enclosed: USB-C cable

Sold separately: Charging cradle CHG-250, L-250 Stand