

# L-46XS

## 2D CMOS Imager

The L-46XS combines performance, durability, and reliability. With enhanced motion tolerance and improved reading performance, it features Opticon's advanced 2D CMOS imaging for effortless point-and-shoot scanning.



## Highlights

- High-speed 2D CMOS imager
- Rapidly scans 1D and 2D barcodes, including curved, wide, or poorly printed codes
- Best-in-class reading depth: reads JAN 0.33 mm from 0-400 mm; 2D codes down to 0.127 mm (5 mil)
- World's fastest motion tolerance: up to 10 m/s for quick, accurate scanning
- Enhanced decoding algorithm and new optical system for top-tier performance
- Upward compatibility with the L-46X – no hardware/software changes needed
- Best-in-class ESD resistance for reliable use in retail and industrial settings
- Durable: survives 1.8 m drops to concrete
- IP42-rated for protection against dust and moisture
- Standard antimicrobial coating on black and white model
- Custom configuration, including multi-read support
- Trigger modes: manual, auto-trigger, and stand detection
- USB or RS232 communication with interchangeable cables
- Available in black or white
- Optional stand and wall-mountable stand
- Optional coiled cable
- Backed by a two-year warranty

# L-46XS

## Product Specifications



### Operating indicators

**Visual:** 1 LED (multicolor)

**Non-visual:** buzzer, vibrator(optional)

### Operating keys

**Entry options:** 1 scan key

### Communication

**RS232C:** DB9 pin (with external power supply),

RS232(gp) pin 9 power supply

**USB:** ver. 2.0, HID/COM, USB-A connector

### Power

**Voltage requirement:** 5V ± 10%

**Current consumption:** Typ. 250mA

### 2D Imager optics

**Light source:** Aiming green LED, warm 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:** ± 65°

**Reading skew angle:** ± 65°

**Reading tilt angle:** 360°

**Curvature:** R≥20 mm (12-digit UPC)

**Min. resolution at PCS 0.9:** 0.076 mm

**Field of view:** Horizontal 38°, Vertical 28.9°

**Min. PCS value:** 0.2

**Depth of field at code 39:**

6 - 64 mm (0.076 mm) / 0.24 - 2.52 in (3 mil)

0 - 177 mm (0.127 mm) / 0 - 6.97 in (5 mil)

0 - 321 mm (0.254 mm) / 0 - 12.64 in (10 mil)

15 - 559 mm (0.508 mm) / 0.59 - 22 in (20 mil)

**Depth of field at Code 128:**

15 - 247 mm (0.2 mm) / 0.59 - 9.72 in (7.87 mil)

**Depth of field at EAN/UPC:**

0 - 401 mm (0.33 mm) / 0 - 15.78 in (13 mil)

**Depth of field at PDF417:**

0 - 74 mm (0.127 mm) / 0 - 2.91 in (5 mil)

2 - 170 mm (0.254 mm) / 0.08 - 6.69 in (10 mil)

**Depth of field at QR Code:**

11 - 49 mm (0.127 mm) / 0.43 - 1.93 in (5 mil)

0 - 209 mm (0.381 mm) / 0 - 8.23 in (15 mil)

**Depth of field at DataMatrix:**

12 - 54 mm (0.127 mm) / 0.47 - 2.13 in (5 mil)

0 - 129 mm (0.254 mm) / 0 - 5.08 in (10 mil)

### Supported symbologies

**Barcode (1D):** UPC-A/E/E1, UPC-A/E Add-on, EAN-8/13, EAN-8/13 Add-on, JAN-8/13, Code 39, NW-7(Codabar), Industrial 2 of 5, Interleaved 2 of 5, Code 93, Code 128, GS1-128, MSI/Plessey, Code 11, GS1 DataBar, GS1 DataBar Limited, GS1 DataBar Expanded, Composite GS1 DataBar, Composite GS1-128, Composite EAN, Composite UPC, TELEPEN, IATA

**Postal code:** Japanese Postal, Intelligent Mail Barcode, POSTNET, PLANET, Netherlands KIX Code, UK Postal, Australian Postal, Korean Postal Authority code

**2D code:** PDF417, MicroPDF417, Codablock F, QR Code, Micro QR Code, DataMatrix (ECC 200), MaxiCode, Aztec Code, Chinese Sensible Code, OCR-B

### 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% to 90% (non-condensing, no frost)

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

**Ambient light immunity:** Fluorescent 10,000 lx, direct sun 100,000 lx, Incandescent 10,000 lx

**Max drop test:** 1.8 m / 6 ft drop onto concrete surface

**Vibration test:** 10 - 100Hz with 2G for 1 hour

**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. 112 g / 3.9 oz (excl. cable)

**Dimensions stand (W x H x D):** 53 x 112 x 73 mm / 2.09 x 4.41 x 2.87 in

**Weight stand:** Ca. 365 g / 12.9 oz

**Dimensions wall mount holder (W x H x D):** 80 x 85 x 80 mm / 3.15 x 3.35 x 3.15 in

**Case:** Black or white

**Cable length:** 2.0 Meter

### Regulatory & safety

**Product compliance:** CE, FCC, VCCI, RoHS, IEC62471:2006, EN55032, EN55035

### Items

**Sold separately** (MOQ applies):

Cable: Straight, Coiled - Color: black and white -

Interface: USB, RS-232C, RS-232CVCC9 -

Stand: Desk stand, ST-2 (wall mount)

### Models

**Interface versions:** USB, RS-232 (optional)

**Color:** Black and White (optional)