L-46X
2D CMOS Imager

The L-46X is the perfect combination of performance, durability and reliability. The L-46X 2D Imager integrates Opticon's industry leading 2D CMOS imaging technology providing true point-and-shoot barcode scanning.

Highlights

- High speed 2D CMOS imager
- Rapidly scans and decodes a wide variety of 1D or 2D barcodes
- Custom configuration capabilities including multi-read
- Enhanced motion tolerance
- Improved scanning of curved, wide and poorly printed barcodes
- Durable – survives 1.8 meter drop to concrete
- IP42 rating against dust and moisture

- Trigger modes: manual, auto-trigger and stand detection
- Communication interface: USB or RS232
- Interchangeable cables, making it easy to switch between USB or RS232
- Antimicrobial coating optional
- Available in black or white
- Stand optional
- Backed by a two year warranty

L-46X
Product Specifications

Operation
CPU: ARM-Cortex-A7

Operating indicators
Visual: 1 LED (red/green/blue)
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/VCP, USB-A connector

Power
Voltage requirement: 5V ± 10%
Current consumption: Typ. 330mA (RS232), 340mA (USB)

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 100 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: 0.1 mm
Field of view: Horizontal 38,0°, Vertical 26,4°
Min. PCS value: 0.2
Depth of field at code 39:
23 - 69 mm (0.127 mm) / 0.91 - 2.72 in (5 mil)
21 - 168 mm (0.254 mm) / 0.83 - 6.61 in (10 mil)
43 - 330 mm (0.508 mm) / 1.69 - 12.99 in (20 mil)
Depth of field at Code 128:
36 - 124 mm (0.2 mm) / 1.42 - 4.88 in (7.87 mil)
Depth of field at UPC:
21 - 207 mm (0.33 mm) / 0.83 - 8.15 in (13 mil)
Depth of field at PDF417:
16 - 88 mm (0.169 mm) / 0.63 - 3.46 in (5 mil)
12 - 142 mm (0.254 mm) / 0.47 - 1.65 in (10 mil)
Depth of field at QR Code:
32 - 56 mm (0.169 mm) / 1.26 - 2.21 in (5 mil)
0 - 173 mm (0.381 mm) / 0 - 6.81 in (15 mil)
Depth of field at DataMatrix:
34 - 60 mm (0.169 mm) /1.34 - 2.36 in (5 mil)
14 - 108 mm (0.254 mm) / 0.55 - 4.25 in (10 mil)

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

Durability
Temperature in operation: -5 to 50 $^\circ$C / 23 to 122 $^\circ$F
Temperature in storage: -30 to 60 $^\circ$C / -22 to 140 $^\circ$F
Humidity in operation: 0% to 90% (non-condensing)
Humidity in storage: 0% to 90% (non-condensing)
Ambient light immunity: Fluorescent 10,000 lx, direct sun 100,000 lx, Incandescrent 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
Case: Black or White
Cable Length: 2.0 Meter

Regulatory & safety
Product compliance: CE, FCC, VCCI, RoHS, IEC62471-1:2006, EN55032, EN55024

Items
Sold separately: Stand

Models
Interface versions: RS232, USB

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