

# NLV-5201

## 2D CMOS Imager

The NLV-5201 is specifically designed to deliver high-volume, hands-free scanning of any barcode no matter the quality. It can be incorporated into an assortment of application within retail, hospitality, healthcare and manufacturing.



## Highlights

- Full spectrum illuminated 2D CMOS imager
- Ultra-fast 100 frames per second CMOS imager sensor enables high speeding scanning of 1D and 2D barcodes
- Rapidly scans and decodes a wide variety of 1D or 2D barcodes
- Fast global shutter technology with auto exposure – easily scan barcodes off a wide variety of surfaces
- Custom configuration capabilities including multi-read
- Exceptional motion tolerance for moving applications
- Improved scanning of curved, wide and poorly printed barcodes
- Green bar LED aim function providing laser-free aiming with no laser class warning
- Complete unit with integrated decoder
- IP65 rating against dust and moisture
- Low power consumption provides design flexibility
- Communication interface: USB or RS232
- Backed by a two year warranty

# NLV-5201

## Product Specifications



### Operating indicators

**Visual:** 1 LED (red, green, orange)

**Non-visual:** buzzer

### Communication

**RS232:** 1.5 m cable without connector

**USB:** 1.5 m cable with USB connector

### Power

**Voltage requirement:** 5V  $\pm$ 10%

**Current consumption:** 265 mA, standby current: 40 mA

### 2D Imager optics

**Light source:** Aiming single green LED, warm white illumination LED

**Scan method:** CMOS area sensor, 640 x 480 pixels

**Scan rate:** up to 100 fps

**Reading pitch angle:**  $\pm$  65°

**Reading skew angle:**  $\pm$  65°

**Reading tilt angle:** 360°

**Curvature:** R $\geq$ 20 mm (UPC12)

**Min. resolution at pcs 0.9:** 0.1 mm / 3.94 mil for 1D codes, 0.169 mm / 6.6 mil for 2D and stacked codes

**Min. pcs value:** 0.3

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

**Depth of field at code 39:**

53 - 126 mm (0.127 mm) / 2.09 - 4.96 in (5 mil)

52 - 237 mm (0.254 mm) / 2.05 - 9.33 in (10 mil)

69 - 433 mm (0.508 mm) / 2.72 - 17.05 in (20 mil)

**Depth of field at QR Code:**

60 - 111 mm (0.169 mm) / 2.36 - 4.37 in (6.7 mil)

22 - 250 mm (0.381 mm) / 0.87 - 9.84 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-A, OCR-B), Maxi Code (mode 2-5), MicroPDF417, MicroQR Code, PDF417, QR Code

### Durability

**Temperature in operation:** 0 to 45 °C / 32 to 113 °F

**Temperature in storage:** -20 to 60 °C / -4 to 140 °F

**Humidity in operation:** 20 - 85% (non-condensing)

**Humidity in storage:** 20 - 90% (non-condensing)

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

**Electrostatic discharge protection:** 6 kV contact discharge / 15 kV air discharge (non-destructive)

**Drop test:** 0.75 m / 2.5 ft drop onto concrete surface

**Vibration test:** 10 - 100 Hz with 2G for 60 min per cycle in each X, Y and Z direction.

**Protection rate:** IP65

### Physical

**Dimensions (WxHxD):** 41.1 x 24.0 x 33.0 mm / 1.62 x 0.94 x 1.3 in

**Weight:** Ca. 125 g / 4.2 oz (excl. cable)

**Case:** Zinc alloy die casting, black

### Regulatory & safety

**Product compliance:** CE, FCC Class B, VCCI Class B, RoHS, IEC 62471, EN55032 Class B, EN55024 Class B

### Models

**Lens type:** SR-Standard Range (113 mm), HD-high density (63 mm), UHD-Ultra high density (43 mm)