

NLV-5201

2D CMOS Imager

The NVL-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 speed 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 ±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: ± 65°

Reading skew angle: ± 65°

Reading tilt angle: 360°

Curvature: R≥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)