

Q-250 2D CMOS Imager

The Q-250 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, ticketing, kiosks and manufacturing.



Highlights

- Full spectrum illuminated 2D CMOS imager suitable for on and off screen scanning
- Wide-Angle Lens: Provides a broad field of view, enhancing the scanner's ability to capture barcodes from close by and various angles and positions
- 120 frames per second CMOS imager sensor enables high speeding scanning of 1D and 2D barcodes
- Fast global shutter technology with auto exposure
- Supports various configurations for easy integration into different environments, such as point-of-sale systems and kiosks
- Intuitive touch-to-scan functionality ensures user-friendly operation, streamlining the scanning process
- High-level motion tolerance for moving applications
- Built to withstand extreme conditions, our barcode scan engine operates reliably between -20°C and 70°C
- Adjustable illumination LEDs for optimal use with both paper and displays of varying backlight levels
- Good read LEDs: Dual status LEDs offer clear visual confirmation of successful scans, improving user experience
- A buzzer for audible feedback signals to provide immediate acknowledgment of barcode reads, reducing the chances of missed scans
- Communication interface: USB or RS232
- USB composite device, meaning it functions as both a keyboard (HID) and a serial port (COM) at the same time over a single USB connection.
- Backed by a two year warranty

Q-250

Product Specifications



Operation

CPU: Dual-core 1.2GHz

Operating indicators:

- **Visual:** LED (red/green)

- **Non-visual:** Buzzer

Communication

Interface: Serial and USB Composite (RS232, USB COM, USB HID)

Physical: USB-C, 12-pin connector (USB, RS232)

Power

Voltage requirement: 5V $\pm$ 10%

Operating Current: max. 370 mA

Barcode scanner optics

Light source: cool 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: $\pm 65^\circ$

Reading skew angle: $\pm 65^\circ$

Reading tilt angle: 360°

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

Min. resolution at pcs 0.9: 0.2 mm / 7.87 mil

Min. pcs value: 0.2

Field of view: horizontal 74° , vertical 60°

Depth of field at code 39:

10 - 75 mm (0.127 mm) / 0.39 - 2.95 in (5 mil)

10 - 115 mm (0.254 mm) / 0.39 - 4.53 in (10 mil)

30 - 140 mm (0.508 mm) / 1.18 - 5.51 in (20 mil)

Depth of field at code EAN13:

10 - 150 mm (0.33 mm) / 0.39 - 5.91 in (13 mil)

Depth of field at code QR code:

0 - 42 mm (0.169 mm) / 0.59 - 1.57 in (6.7 mil)

0 - 110 mm (0.381 mm) / 0 - 4.53 in (15 mil)

Supported symbologies

Barcode (1D): 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, DataMatrix (ECC000-140), Passport MRZ (OCR-B), MaxiCode (mode 2-5), DotCode, MicroPDF417, MicroQR Code, PDF417, QR Code

Durability

Temperature in operation: -20 to 70 $^\circ\text{C}$ / -4 to 158 $^\circ\text{F}$

Temperature in storage: -40 to 70 $^\circ\text{C}$ / -40 to 158 $^\circ\text{F}$

Humidity in operation: 5 - 90% (non-condensing)

Humidity in storage: 5 - 90% (non-condensing)

Ambient light immunity: Fluorescent 10,000 lx max, direct sun 100,000 lx max, incandescent 10,000 lx max

Physical

Dimensions (WxHxD): 60.2 x 66 x 31.4 mm / 2.37 x 2.6 x 1.2 in

Weight: Ca. 30 g / 1.06 oz

Case: black

Regulatory & Safety

CE, FCC, IEC62471:2006 (Exempt group), IEC 62368-1:2018

Accessories sold separately

USB-C cable