



# NLS-EM2096

## OEM SCAN ENGINE

## FEATURES

### ○ **UIMG® Technology**

Armed with Newland's sixth-generation of **UIMG®** technology, the scan engine can decode even poor quality barcodes with ease. The slim footprint makes this scan engine easier to fit into today's and tomorrow's super-thin devices.

### ○ **Snappy On-Screen Barcode Capture**

The NLS-EM2096 excels at reading on-screen barcodes even when the screen is covered with protective film or set to its lowest brightness level.

### ○ **Flexible Integration**

The decoder board and the imager can be separately mounted, which provides flexibility for integration and suits devices with small space inside.

### ○ **Low Power Consumption**

The advanced **NLDC** technology incorporated in the scan engine promises low power consumption and prolonged service life.

### ○ **Multiple Interfaces**

The NLS-EM2096 supports USB and TTL-232 interfaces to meet diverse customer needs.



CMOS



1D Barcode



2D Barcode



POS

# NLS-EM2096

## Performance

Image Sensor		640×480 CMOS
Illumination		Red LED 625±10 nm
Symbologies	2D	PDF417, QR Code (QR1/2, Micro), Data Matrix (ECC200, ECC000, 050, 080, 100, 140), Chinese Sensible Code
	ID	Code 128, UCC/EAN-128, AIM-128, EAN-8, EAN-13, ISBN/ISSN, UPC-E, UPC-A, Interleaved 2 of 5, ITF-6, ITF-4, Matrix 2 of 5, Industrial 25, Standard 25, Code 39, Codabar, Code 93, Code 11, Plessey, MSI-Plessey, GSI-DataBarTM (RSS), (RSS-14, RSS-Limited, RSS-Expand)
Resolution*		≥3mil
Typical Depth of Field*	EAN-13	70mm-340mm (13mil)
	Code 39	40mm-155mm (5mil)
	PDF 417	45mm-105mm (6.67mil)
	Data Matrix	40mm-105mm (10mil)
	QR Code	45mm-145mm (15mil)
Min. Symbol Contrast*		20%
Scan Angle**		Roll: 360°, Pitch: ±45°, Skew: ±50°
Field of View		Horizontal 44°, Vertical 33.2°

## Physical

Interface		TTL-232, USB (HID-KBW, COM Port Emulation, HID-POS)
Operating Voltage		3.3VDC ±5%
Rated Power Consumption		608mW (typical)
Current@5VDC	Operating	190mA (typical), 227mA (max.)
	Idle	10mA
	Sleep	<10uA
Dimensions	Imager	21.5(D)×9.8(W)×8.5(H)mm (max.)
	Decoder Board	21.3(D)×21.3(W)×4.1(H)mm (max.)
Weight		4g

## Environmental

Operating Temperature	-20°C to 50°C (-4°F to 122°F)
Storage Temperature	-40°C to 70°C (-40°F~158°F)
Humidity	5% to 95% (non-condensing)
Ambient Light	0-100,000lux (natural light)

## Accessories

NLS-EVK		Software development board equipped with a trigger button, beeper and RS-232 & USB interfaces.
Cable	USB	Used to connect the NLS-EVK to a host device.
	RS-232	Used to connect the NLS-EVK to a host device.
Power Adapter		DC5V power adapter to power the NLS-EVK with RS-232 cable.

\*Test conditions: T=23°C; Illumination=300lux using incandescent lamp; sample printed barcodes made by Newland.

\*\*Test conditions: Scan Distance= (min. DOF + max. DOF) / 2; T=23°C; Illumination=300lux using incandescent lamp;

ID: EAN-13 (13mil).

Specifications are subject to change without notice.

Version: V1.4

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