

# NLS-EM3296

## OEM Scan Engine

- ◆ **UIMG® Technology**
- ◆ **Two-In-One Design**
- ◆ **Miniature and Ultralight Form Factor**
- ◆ **Outstanding Power Efficiency**
- ◆ **Multiple Interfaces**



## Features

### ■ **UIMG® Technology**

Built with Newland's fifth-generation of **UIMG®** technology, the scan engine can decode even poor quality barcodes with ease.

### ■ **Miniature and Ultralight Form Factor**

Ultra-compact, light and integrator-friendly, the NLS-EM3296 caters for miniaturization needs of OEM applications.

### ■ **Multiple Interfaces**

The NLS-EM3296 supports USB and TTL-232 interfaces to meet diverse customer needs.

### ■ **Two-In-One Design**

Seamless integration of image sensor and decoder board makes the scan engine small, lightweight and easy to fit into even the most space-constrained equipment.

### ■ **Outstanding Power Efficiency**

The advanced **NDC** technology incorporated in the scan engine helps reduce the power consumption and prolong the service life of the device.

## Application Scenarios (as an accessory)

Self-service cabinets used in e-commerce, express delivery services and smart homes; ATMs; kiosks; queue machines; lottery machines; certificate makers.

## OEM Scan Engine

<b>Performance</b>	Image Sensor		640×480 CMOS	
	Light Source		Red LED 625±10 nm	
	Symbologies	2D		PDF417, QR Code (QR1/2, Micro), Data Matrix (ECC200, ECC000, 050, 080, 100, 140), Chinese Sensible Code
		1D		Code128, UCC/EAN-128, AIM128, 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, GS1-DataBar™(RSS), (RSS-14, RSS-Limited, RSS-Expand)
	Resolution		≥5mil	
	Typical Depth of Field	EAN-13		45mm-380mm (13mil)
		Code 39		30mm-180mm (5mil)
		Data Matrix		20mm-115mm (10mil)
		QR Code		25mm-165mm (15mil)
		PDF 417		30mm-125mm (6.67mil)
Symbol Contrast		≥30% reflectance difference		
Scan Angle**		Roll: 360°, Pitch: ±50°, Skew: ±50°		
Field of View		Horizontal 44°, Vertical 33.2°		
<b>Mechanical/ Electrical</b>	Interface		TTL-232, USB (HID-KBW, COM Port Emulation, HID-POS)	
	Operating Voltage		3.0~3.6VDC	
	Current@3.3VDC	Operating		210mA
		Standby		7mA
	Dimensions		21.2(W)×14(D)×11.1(H)mm	
Weight		4g		
<b>Environmental</b>	Operating Temperature		-20°C~+50°C ( -4°F~122°F )	
	Storage Temperature		-40°C~+70°C ( -4°F~158°F )	
	Humidity		5%~95% (non-condensing)	
	Ambient Light		0~100000lux (natural light)	
<b>Accessories</b>	NLS-EVK3000		Software development board for the NLS-EM3296, equipped with a trigger button, beeper and RS-232 & USB interfaces.	
	Cable	USB		Used to connect the NLS-EVK3000 to a host device.
		RS-232		Used to connect the NLS-EVK3000 to a host device.
	Power Adaptor		Used to provide power for the NLS-EVK3000. Output: DC5V, 2A; Input: AC100~240V, 50~60Hz	

\*\*Test conditions: Code 39; 3 Bytes; Resolution=10mil; W:N=3:1; PCS=0.8; Barcode Height=11mm; Scan Distance=120mm; T=23°C; Illumination=200lux.

\*Specifications are subject to change without notice.\*

Version: V1.0

**Newland China**  
+86-400-608-0591  
marketing@nlscan.com

**Newland Europe**  
+31(0)-345-87-0033  
info@newland-id.com

**Newland Taiwan**  
+886-2-7731-5388  
info@newland-id.com.tw

**Newland North America**  
+1-510-490-3888  
info@newlandna.com