

# NLS-EM3296

## OEM Scan Engine

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



## Features

### ■ **UIMG<sup>®</sup> Technology**

Built with Newland' s fifth-generation of **UIMG<sup>®</sup>** 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 **NLDC** technology incorporated in the scan engine helps reduce the power consumption and prolong the service life of the device.

## Application Scenarios (as an accessory)

PDA, POS terminals, tablets and other thin lightweight mobile devices.

## OEM Scan Engine

<b>Performance</b>	Image Sensor		640×480 CMOS	
	Illumination		Red LED 625±10 nm	
	Aiming		Red LED 625±10 nm	
	Symbolologies	2D		PDF417, QR Code (QR1/2, Micro), Data Matrix (ECC200, ECC000, 050, 080, 100, 140), Chinese Sensible Code
		1D		Code 128, 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*		≥4mil	
	Typical Depth of Field*	EAN-13		50mm-365mm (13mil)
		Code 39		40mm-165mm (5mil)
		Data Matrix		35mm-115mm (10mil)
		QR Code		35mm-145mm (15mil)
		PDF 417		45mm-115mm (6.67mil)
	Symbol Contrast*		≥25%	
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)	
	Rated Power Consumption		437mW (typical)	
	Operating Voltage		3.3 VDC±10%	
	Current@3.3VDC	Operating		141mA (typical), 198mA (max.)
		Standby		10mA
		Sleep		<10uA
	Dimensions		21.2(W)×14(D)×11.1(H)mm	
Weight		4g		
<b>Environmental</b>	Operating Temperature		-20°C to 50°C ( -4°F to 122°F )	
	Storage Temperature		-40°C to 70°C ( -40°F to 158°F )	
	Humidity		5% to 95% (non-condensing)	
	Ambient Light		0~100,000lux	
<b>Certifications</b>			FCC Part15 Class B , CE EMC Class B	
<b>Accessories</b>	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 used to provide power for the NLS-EVK

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

\*\*Test conditions: Scan Distance=(min. DOF + max. DOF)/2; T=23°C; Illumination=300lux using incandescent lamp;  
2D: QR Code; 10 Bytes; Resolution=15mil; PCS=0.8.

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

Version: V1.2

**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