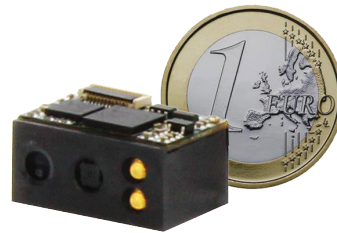


# EM3296

## OEM Scan Engine



## Features

### ◆ Advanced technology.

Armed 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 EM3296 caters for miniaturization needs of OEM applications.

### ◆ Multi-interface.

The 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

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

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<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		21.8(W)×15.3(D)×11.8(H)mm (max.)
	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.

Version: V1.3

\*\*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.\*

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