



**Newland AIDC**  
Scanning Made Simple



# NLS-EM3096-V3

OEM SCAN ENGINE

## FEATURES

### ○ **UIMG<sup>®</sup> Technology**

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

### ○ **Compact & Lightweight 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.

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

The NLS-EM3096 V3 excels at reading barcodes from LCD monitors and mobile phones, making it the ideal choice for the burgeoning barcode-based mobile payment industry.

### ○ **Outstanding Power Efficiency**

The advanced **NLDC** technology incorporated in the scan engine helps reduce its power consumption and prolong its service life.



CMOS



ID Barcode



2D Barcode



TTL232



USB



CHIP

# NLS-EM3096-V3

## Performance

Image Sensor		752 * 480 CMOS
Illumination		Red LED (625nm±10nm)
Aimer		Red LED (625nm±10nm)
Symbologies	2D	PDF 417, Data Matrix (ECC200, ECC000, 050, 080, 100, 140), QR Code, Micro QR, Aztec
	1D	Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Code 11, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, Code 93, MSI-Plessey, UCC/EAN-128, Matrix 2 of 5, Standard 2 of 5, Plessey, GS1 Databar, Industrial 2 of 5, etc.
Resolution*		≥4mil (1D)
Typical Depth of Field*	EAN-13	60mm-290mm (13mil)
	Code 39	55mm-165mm (5mil)
	PDF417	55mm-135mm (6.7mil)
	Data Matrix	55mm-130mm (10mil)
	QR Code	45mm-175mm (15mil)
Min. Symbol Contrast*		20%
Scan Angle**		Roll: 360°, Pitch: ±55°, Skew: ±55°
Field of View		Horizontal 36°, Vertical 23°

## Physical

Interface		TTL-232, USB
Operating Voltage		3.3VDC ±5%
Rated Power Consumption		450.5mW (typical)
Current@3.3VDC	Operating	136.5mA (typical), 195mA (max.)
	Idle	8.7mA
	Sleep	<100uA
Dimensions		21.8(W) × 15.3(D) × 11.8(H)mm (max.)
Weight		4g

## Environmenta

Operating Temperature	-20°C to 60°C (-4°F to 140°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	5% to 95% (non-condensing)
Ambient Light	0-100,000lux (natural light)

## Certificates

Certificates	FCC Part15 Class B, CE EMC Class B, RoHS
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## Accessories

NLS-EVK		Software development board for the NLS-EM3096 V3, 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		DC 5V power adapter used to provide power for the NLS-EVK.

\*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;

2D: QR Code; 10 Bytes; Resolution=15mil; PCS=0.8.

Specifications are subject to change without notice.

Version: V1.1

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