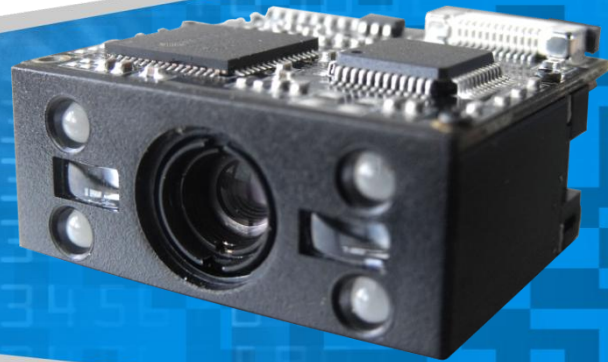


# NLS-EM3070 Series

## Embedded 2D Barcode Scan Engine



NLS-EM3070 series embedded 2D barcode scan engines, armed with the Newland patented **UIMG<sup>®</sup>**, a computerized image recognition system, bring about a new era of 2D barcode scan engines.

The NLS-EM3070s' 2D barcode decoder chip ingeniously blends **UIMG<sup>®</sup>** technology and advanced chip design & manufacturing, which significantly simplifies application design and delivers superior performance and solid reliability with low power consumption.

The NLS-EM3070s support all mainstream 1D and standard 2D barcode symbologies (e.g., PDF417, QR Code M1/M2/Micro and Data Matrix) as well as GS1-DataBar<sup>™</sup>(RSS) (Limited/Stacked/Expanded versions).

This compact, lightweight engine fits easily into even the most space-constrained equipments such as data collectors, meter readers, ticket validators and PDAs.

### Features:

- **2D Barcode Decoder Chip:** The engine armed with the unique 2D barcode decoder chip invented by Newland demonstrates unprecedented reading performance.
- **Two-In-One Design:** Seamless integration of CMOS image sensor and decoder board makes the engine small, lightweight and easy for integration.
- **High Performance & Low Power Consumption:** The EM3070s can read most 1D and 2D barcodes with a power consumption only one third that of a traditional engine.
- **Compatibility:** The EM3070s are compatible with the EM3000s in interface and installation.

## Specifications

Performance		
Image Sensor		752x480 CMOS
Processor		Newland IOTC 2D Barcode Decoder Chip 72MHz
Illumination		Red LED 625±10 nm
Symbologies	2D	PDF417, Data Matrix (ECC200, ECC000, 050, 080, 100, 140), QR Code
	1D	Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, Code 93, UCC/EAN-128, GS1 Databar, Matrix 2 of 5, Code 11, Industrial 2 of 5, Standard 2 of 5, Plessey, MSI-Plessey
Reading Precision		≥ 5mil
Depth of Field	Code 39	35mm -205mm (10mil);
	EAN-13	50mm -260mm (13mil);
	PDF417	50mm -215mm (10mil); 60mm~285mm (15mil)
	Data Matrix	50mm -160mm (10mil); 50mm~225mm (15mil)
	QR	55mm -140mm (10mil); 50mm~210mm (15mil)
Symbol Contrast		≥ 25%
Scan Angle**		Roll: 360°; Pitch: ±55°; Skew: ±55°
Field of View		Horizontal 36°; Vertical 23°
Mechanical/Electrical		
Interface		TTL-232, USB (USB HID-KBW, USB COM Port Emulation)
Power Consumption		< 0.9 W
Operating Voltage		3.3±10% VDC
Current @ 3.3 VDC	Operating Current	270 mA
	Standby Current	7 mA
	Low Power	3 uA
Dimensions		28.0(W)x24.5(D)x13.9(H) mm
Weight		9.5g
Environmental		
Operating Temperature		-20°C to +55°C
Storage Temperature		-40°C to +80°C
Humidity		5% to 95% (non-condensing)
Ambient Light		0 ~ 100000 lux (natural light)
Certifications		
FCC Part15 Class B, CE EMC Class B		
Accessories		
NLS-EVK3000		Software development board for the EM3070, equipped with a trigger button, beeper and RS-232 & USB interfaces.
Cables	RS-232 Cable	Used to connect the NLS-EVK3000 to a host device; equipped with a power connector.
	USB Cable	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=200 lux

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\*Specifications are subject to change without notice.\* V1.0.0

