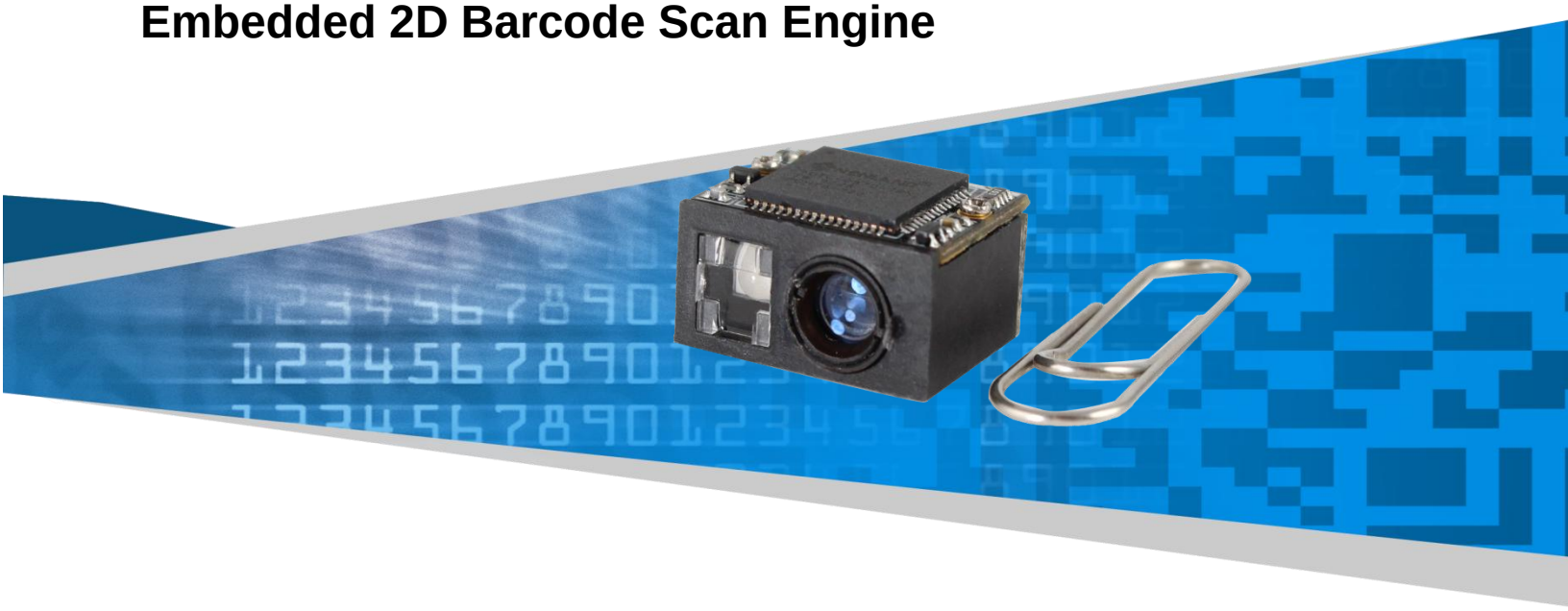
NLS-EM3080 Series

Embedded 2D Barcode Scan Engine



NLS-EM3080 series embedded 2D barcode scan engines, armed with the Newland patented UIMG®, a computerized image recognition system, bring about a new era of 2D barcode scan engines.

The NLS-EM3080's 2D barcode decoder chip ingeniously blends UIMG® technology and advanced chip design & manufacturing, which significantly simplifies application design and delivers superior performance and solid reliability with low power consumption.

The EM3080 supports all mainstream 1D as well as PDF417, QR Code, Data Matrix and GS1-DataBarTM(RSS) (RSS-Limited, RSS-14, RSS-14 Stacked and RSS-Expand). It provides an ideal solution for both emerging mobile phone-based barcode applications, like digital coupons, electronic tickets and boarding passes, and traditional applications.

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

This compact engine weighs only 3 grams and fits easily into even the most space-constrained equipments such as data collectors, meter readers, ticket validators and PDAs. Moreover, the instant power on/off feature along with ultra-low power consumption brings greater efficiency and convenience in barcode scanning.

Features:

- **2D Barcode Decoder Chip:** The engine armed with the state-of-the-art 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 & Ultra-Low Power Consumption:** The engine can read most 1D and 2D barcodes with a power consumption only one fourth that of a traditional engine.
- **All-Round Scanning Capability:** It can read barcodes on virtually any medium - paper, plastic cards, mobile phones and LCD displays.

Specifications

Performance		
Image Sensor		640×480 CMOS
Illumination		Red LED 625±10 nm
Symbologies	**2D**	PDF417, QR Code(QR1, QR2, Micro QR),Data Matrix (ECC200, ECC000, 050, 080, 100, 140)
	1D	Code128, UCC/EAN-128, AIM 128, EAN-8, EAN-13, ISBN/ISSN, UPC-E, UPC-A, Interleaved 2 of 5, ITF-6, ITF-14, Matrix 2 of 5, Industrial 25, Standard 25, Code39, Codabar, Code 93, Code 11, Plessey, MSI-Plessey, GS1-DataBarTM(RSS) (RSS-14, RSS-Limited, RSS-Expand).
Reading Precision		≥5mil
Depth of Field	**UPC-A**	55mm -245mm(13mil)
	PDF417	50mm -155mm(6.67mil)
	Data Matrix	45mm -160mm(10mil)
	QR Code	45mm -235mm(20mil)
Symbol Contrast		≥30%
Scan Angle**		Roll: 360°; Pitch: ±50°; Skew: ±50°
Field of View		Horizontal 36°; Vertical 23°
Mechanical/Electrical		
Interface		TTL-232
Operating Voltage		3.0~3.6 VDC
Current @ 3.3 VDC	**Operating Current**	120mA
	Idle Current	94mA
	Sleep Current	40mA
Dimensions		15.1(W)×13.1(D)×9.0(H)mm
Weight		3g
Environmental		
Operating Temperature		-20 °C to +60°C
Storage Temperature		-40°C to +85°C
Humidity		5% to 95% (non-condensing)
Ambient Light		0 ~ 100000 lux (natural light)
Certifications		

Accessories		
NLS-EVK3000		Software development board for the EM3080, 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℃; Illumination=200 lux

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