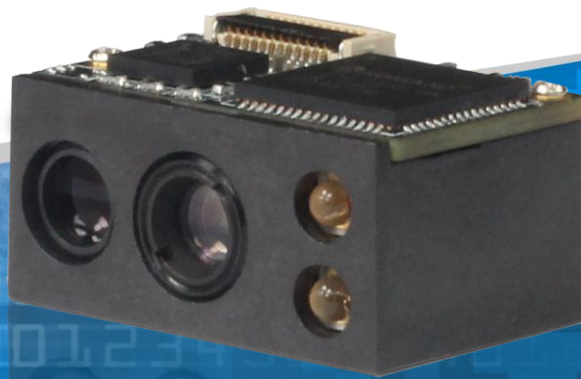


NLS-EM3096

OEM Scan Engine



The NLS-EM3096 OEM scan engine, armed with the Newland patented **UIMG[®]**, a computerized image recognition system, brings about a new era of 2D barcode scan engines.

The EM3096'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 EM3096 supports all mainstream 1D as well as PDF417, QR Code (M1/M2/Micro), Data Matrix and GS1-DataBar[™](RSS) (Limited/Stacked/ Expanded versions).

This compact engine weighs only 5 grams and 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 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 1D and 2D barcodes with a power consumption only one third 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.

NLS-EM3096 Specifications

Performance		
Image Sensor		752×480 CMOS
Processor		Newland IOTC 2D decoder chip 48MHz
Illumination		Red LED 625±10 nm
Symbologies	2D	PDF 417, 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, etc.
Reading Precision		≥ 5mil
Depth of Field*	EAN13 (13mil)	55mm - 185mm
	Code 39 (5mil)	55mm - 100mm
	PDF 417 (6.67mil)	40mm - 130mm
	Data Matrix (10mil)	40mm - 135mm
	QR Code (15mil)	40mm - 160mm
Symbol Contrast		≥ 30% reflectance difference
Scan Angle**		Roll: 360°, Pitch: ±55°, Skew: ±55°
Field of View		Horizontal 36°; Vertical 23°
Mechanical/Electrical		
Interface		TTL-232, USB (optional)
Rated Power Consumption		0.76 W
Operating Voltage		3.3±10% VDC
Current @ 3.3 VDC	Operating Current	230 mA
	Standby Current	4mA (USB communication not supported); 7mA (USB communication supported)
	Sleep Current	<5 uA
Dimensions		21.17(W)×14.6(D)×11.52(H)mm
Weight		5.0g
Environmental		
Operating Temperature		-20°C ~ +60°C
Storage Temperature		-40°C ~ +80°C
Humidity		5% ~ 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, equipped with a trigger button, beeper and RS-232 & USB interfaces.
Cable	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: T=23°C, Illumination=300 LUX

** 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=300 LUX

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