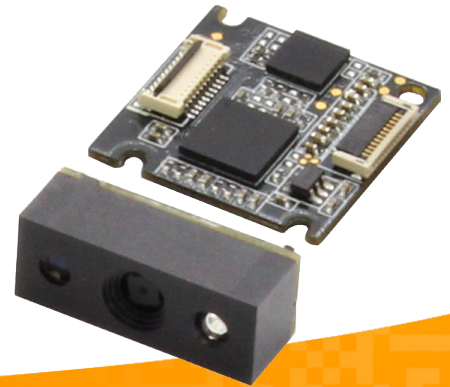


# EM2096

## OEM Scan Engine



### Features

- ◆ **UIMG Technology**  
Armed with Newland's sixth-generation of UIMG technology, the scan engine can decode even poor quality barcodes with ease.
- ◆ **Snappy On-Screen Barcode Capture**  
The EM2096 excels at reading on-screen barcodes even when the screen is covered with protective film or set to its lowest brightness level.
- ◆ **Multi-Interface**  
The EM2096 supports USB and TTL-232 interfaces to meet diverse customer needs.
- ◆ **Flexible Integration**  
The decoder board and the imager can be separately mounted, which provides flexibility for integration and suits devices with small space inside.
- ◆ **Low Power Consumption**  
The advanced NLDC technology incorporated in the scan engine promises low power consumption and prolonged service life.

### Application Scenarios (as an accessory)

PDA, POS, desktop devices, portable devices, self-service kiosks.

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<b>Performance</b>	Image Sensor	640×480 CMOS		
	Light Source	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, AIM-128, 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	≥5mil		
	Typical Depth of Field	EAN-13	60mm-345mm (13mil)	
		PDF 417	40mm-115mm (6.67mil)	
		Code 39	35mm-160mm (5mil)	
		Data Matrix	35mm-110mm (10mil)	
		QR Code	40mm-150mm (15mil)	
	Symbol Contrast	≥30% reflectance difference		
	Scan Angle**	Roll: 360°, Pitch: ±40°, Skew: ±40°		
Field of View	Horizontal 44°, Vertical 33.2°			
<b>Mechanical/ Electrical</b>	Interface	TTL-232, USB (HID-KBW, COM Port Emulation, HID-POS)		
	Operating Voltage	3.0~3.6VDC		
	Current@3.3VDC	Operating	210mA	
		Idle	7mA	
		Sleep	<5uA	
	Dimensions	Imager	21(D)×9.2(W)×8(H)mm	
		Decoder Board	21(D)×21(W)×1(H)mm	
Weight	15g			
<b>Environmental</b>	Operating Temperature	-20°C~ +50°C (-4°F~122°F)		
	Storage Temperature	-40°C~ +80°C (-40°F~176°F)		
	Humidity	5%~95% (non-condensing)		
	Ambient Light	0~100000lux (natural light)		
<b>Accessories</b>	NLS-EVK3000	Software development board for the NLS-EM2096, equipped with a trigger button, beeper and RS-232 & USB interfaces.		
	Cable	USB	Used to connect the NLS-EVK3000 to a host device.	
		RS-232	Used to connect the NLS-EVK3000 to a host device.	
Power Adapter	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=300lux.

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

Version: V1.0

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