



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

PDA's • POS • desktop devices • portable devices • self-service kiosks and more.

Performance	Image Sensor	640×480 CMOS	
	Illumination	Red LED 625±10 nm	
	Symbologies	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	≥3mil	
	Typical Depth of Field	EAN-13	70mm-340mm (13mil)
		Code 39	40mm-155mm (5mil)
		PDF 417	45mm-105mm (6.67mil)
		Data Matrix	40mm-105mm (10mil)
		QR Code	45mm-145mm (15mil)
	Symbol Contrast*	≥20%	
	Scan Angle**	Roll: 360°, Pitch: ±45°, Skew: ±50°	
	Field of View	Horizontal 44°, Vertical 33.2°	
	Mechanical/	Interface	TTL-232, USB (HID-KBW, COM Port Emulation, HID-POS)
Electrical		Operating Voltage	3.3VDC ±5%
	Rated Power Consumption	608mW (typical)	
Current@3.3VDC	Operating	190mA (typical), 227mA (max.)	
	Standby	10mA	
	Sleep	<10uA	
Dimensions	Imager	21.5(D)×9.8(W)×8.5(H)mm (max.)	
	Decoder Board	21.3(D)×21.3(W)×4.1(H)mm (max.)	
Weight		4g	
Environmental	Operating Temperature	-20°C to 50°C (-4°F to 122°F)	
	Storage Temperature	-40°C to 70°C (-40°F~158°F)	
	Humidity	5%~95% (non-condensing)	
	Ambient Light	0~100000lux (natural light)	
Accessories	NLS-EVK	Software development board 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		DC5V power adapter to power the NLS-EVK with RS-232 cable.	

*Test conditions: T=23°C; Illumination=300lux using incandescent lamp; sample 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: V1.3

Newland EMEA HQ

+31 (0) 345 87 00 33
info@newland-id.com
newland-id.com

D-A-C-H

+49 (0) 6182 82916-16
info@newland-id.de

United Kingdom

+44 (0) 1442 212020
sales@newland-id.co.uk

France

+39 (0) 345 8804096
france@newland-id.com

Russia

+31 (0) 345 87 00 33
russia@newland-id.com

Benelux

+31 (0) 345 87 00 33
benelux@newland-id.com

Turkey

+90 (0) 544 538 40 49
turkey@newland-id.com

Ibérica

+34 (0) 93 303 74 66
info@newland-id.es

Middle East

+39 (0) 345 8804096
middleeast@newland-id.com

Italy

+39 (0) 342 0562227
italy@newland-id.com

South Africa

Gauteng: +27 (0) 11 553 8010
Cape Town: +27 (0) 21 9140819
info@newland-id.co.za

Nordic & Baltic

+46 (0) 70 88 47 767
nordic@newland-id.com

Iran

+90 (0) 544 538 40 49
iran@newland-id.com