



EM3296
OEM scan engine

FEATURES

Advanced technology.

Armed with Newland's fifth-generation of UIMG technology, the scan engine can decode even poor quality barcodes with ease.

Miniature and ultralight form factor.

Ultra-compact, light and integrator-friendly, the EM3296 caters for miniaturization needs of OEM applications.

Multi-interface.

The EM3296 supports USB and TTL-232 interfaces to meet diverse customer needs.

Two-in-one design.

Seamless integration of image sensor and decoder board makes the scan engine small, lightweight and easy to fit into even the most space-constrained equipment.

Outstanding power efficiency.

The advanced NLDC technology incorporated in the scan engine helps reduce the power consumption and prolong the service life of the device.

Application Scenarios

Self-service cabinets used in e-commerce • express delivery services • smart homes • ATMs • kiosks • queue machines • lottery machines • certificate makers.

Performance	Image Sensor	640×480 CMOS		
	Illumination	Red LED 625±10 nm		
	Aiming	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, AIM128, 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*	≥4mil		
	Typical Depth of Field*	EAN-13	50mm-365mm (13mil)	
		Code 39	40mm-165mm (5mil)	
		Data Matrix	35mm-115mm (10mil)	
		QR Code	35mm-145mm (15mil)	
		PDF 417	45mm-115mm (6.67mil)	
	Symbol Contrast*	≥25%		
	Scan Angle**	Roll: 360°, Pitch: ±50°, Skew: ±50°		
	Field of View	Horizontal 44°, Vertical 33.2°		
	Mechanical/ Electrical	Interface	TTL-232, USB (HID-KBW, COM Port Emulation, HID-POS)	
Rated Power Consumption		437mW (typical)		
Operating Voltage		3.3 VDC±10%		
Current@3.3VDC		Operating	141mA (typical), 198mA (max.)	
		Standby	10mA	
		Sleep	<10uA	
Dimensions		21.8(W)×15.3(D)×11.8(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 to 158°F)		
	Humidity	5% to 95% (non-condensing)		
	Ambient Light	0~100,000lux		
Certifications	FCC Part15 Class B , CE EMC Class B			
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 used to provide power for the NLS-EVK		

*Test conditions: T=23°C; Illumination=300lux using incandescent lamp; sample barcodes made by Newland.

Version: V1.3

**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.

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