



**EM3000**  
OEM scan engine



## FEATURES

### Advanced technology.

The EM3000 embedded 2D barcode scan engine, powered by advanced imaging technology and Newland patented UIMG technology, a computerized image recognition system, can read barcodes on various mediums such as paper and plastic, with excellent motion tolerance.

### Two-in-one design.

Seamless integration of CMOS image sensor and decoder board makes the engine small, lightweight and easy for integration.

### Superior decoding performance.

The EM3000 scan engine delivers speedy and accurate scanning performance and supports mainstream 1D/2D barcode symbologies.

### Ease of application development.

The provided SDK and APIs allow software developers to conveniently create their own applications.

## Application Scenarios

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

<b>Performance</b>	Image Sensor		752×480 CMOS	
	Light Source		Red LED 625±10 nm	
	Symbologies	2D	PDF417, QR Code, Data Matrix, Chinese Sensible Code, Aztec Code, Maxicode, MicroPDF417*, etc.	
		1D	Code128, EAN-13, EAN-8, Code39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, Code 93, UCC/EAN-128, GS1 Databar, GS1 Composite Code, Matrix 2 of 5, Code11, Industrial 25, Standard 25, Plessey, MSI-Plessey, etc.	
		OCR*	ID cards, passports	
	Reading Precision		≥5mil	
	Typical Depth of Field	PDF 417	55mm -145mm(10mil); 70mm~160mm(15mil)	
		Code 39	50mm -135mm(10mil); 70mm~170mm(15mil)	
		Data Matrix	40mm -120mm(10mil); 60mm~145mm(15mil)	
		QR Code	40mm -115mm(10mil); 60mm~150mm(15mil)	
	Symbol Contrast		≥25%	
	Scan Angle**		Roll: 360°, Pitch: ±50°, Skew: ±50°	
	Field of View		Horizontal 36°, Vertical 23°	
	<b>Mechanical/ Electrical</b>	Interface		TTL-232
Operating Voltage		3.0~3.6VDC		
Current@3.3VDC		Current	400mA	
		Operating	300mA	
		Idle	65mA	
Dimensions		Imager	28.0(W)×24.5(D)×13.5(H) mm	
Weight		10.1g		
<b>Environmental</b>	Operating Temperature		-20°C~+45°C	
	Storage Temperature		-40°C~+60°C	
	Humidity		5%~95% (non-condensing)	
	Ambient Light		0~100000lux (natural light)	
<b>Accessories</b>	EVK3000		Software development board for the EM3000, equipped with a trigger button, beeper and RS-232 & USB interfaces.	
	Cable	USB	Used to connect the EVK3000 to a host device.	
		RS-232	Used to connect the EVK3000 to a host device; equipped with a power connector.	
	Power Adapter		Used to provide power for the EVK3000. Output: DC5V, 2A; Input: AC100~240V, 50~60Hz.	

\*Standard EM3000 does not support Micro PDF417 or OCR, whereas customized EM3000 supports both.

Version: V1.1.0

\*\*Test conditions: Code39, 3 Bytes; Resolution=10mil; W:N=3:1; PCS=0.8; Barcode Height=11mm; Scan Distance=120mm; T=23°C; Illumination=200 lux

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

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