



EM3085-M
OEM scan engine



FEATURES

Advanced technology.

Newland's sixth-generation UIMG technology makes the EM3085-M capable of reading most of the 1D & 2D barcodes with ease, even poorly printed.

Multiple interfaces.

The EM3085-M engine supports USB and TTL-232 interfaces, meeting diverse customer needs.

Compact and lightweight.

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

All-round scanning capability.

The EM3085-M scan engine can read barcodes on virtually any medium - paper, plastic cards, mobile phones and LCD displays.

Outstanding power efficiency.

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

Application Scenarios

Data collectors • meter readers • ticket validators • PDAs • tablets • self service kiosks and more.

Performance	Image Sensor	640×480 CMOS		
	Illumination	White LED		
	Aimer	Red LED (650 nm±10 nm)		
	Symbologies	2D	PDF417, QR Code (QR1/2, Micro), Data Matrix (ECC200, ECC000, 050, 080, 100, 140)	
		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.	
	Resolution*	≥5mil		
	Typical Depth of Field*	EAN-13	60mm-230mm (13mil)	
		Code 39	55mm-125mm (5mil)	
		QR Code	40mm-120mm (15mil)	
	Min. Symbol Contrast*	25%		
	Scan Angle**	Roll: 360°, Pitch: ±45°, Skew: ±40°		
	Field of View	Horizontal 45.6°, Vertical 34.2°		
	Mechanical/ Electrical	Interface	TTL-232, USB (HID Keyboard, COM Port Emulation, HID-POS)	
Operating Voltage		3.3VDC±5%		
Electrical	Rated Power Consumption	480mW		
	Current@3.3VDC	Operating	145±15mA	
		Standby	<11mA	
		Sleep	<200uA	
Dimensions	21.5(W)×15.3(D)×11.8(H)mm (max.)			
Weight	3.6±0.2g			
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 (natural light)		
Certifications	FCC Part15 Class B, CE EMC Class B			
Accessories	NLS-EVK	Software development board for the EM3085-M, equipped with a trigger button, beeper and RS-232 & USB interfaces.		
	Cable	USB	Used to connect the EVK to a host device.	
		RS-232	Used to connect the EVK to a host device.	
	Power Adapter	DC5V power adapter to power the EVK with RS-232 cable.		

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

Version:V1.2

**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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