



# NLS-EM50S-10

## OEM SCAN ENGINE

### FEATURES

- **Superior Scanning Performance**

Armed with Newland's sixth-generation of **UIMG®** technology, this CPU-based scan engine delivers stunning performance on decoding even poor-quality and damaged barcodes.

- **All-in-One Design**

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

- **Multiple Interfaces**

The NLS-EM50S-10 supports USB and TTL-232 interfaces to meet diverse customer needs.

- **Megapixel CMOS**

Thanks to its 1280×800 pixel CMOS sensor, the NLS-EM50S-10 is able to capture high resolution images and decode high density barcodes.

- **User-friendly Illumination & Aiming**

Designed with the end user in mind, the NLS-EM50S-10 employs highly visible laser aimer to achieve crisp and accurate targeting while using flicker-free white soft illumination to reduce eye strain and fatigue from long-time operation.



1D Barcode



2D Barcode



Postal



OCR



USB



RS232

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## Performance

Image Sensor		1280 * 800 CMOS
Illumination		White LED 650nm laser
Symbologies	2D	PDF417, Micro PDF417, QR / Micro QR, DataMatrix, Aztec, Chinese Sensible Code, Maxicode, GridMatrix, Code One, DotCode
	ID	EAN, UPC, Coupon, GSI Composite, CodeBar, Interleave 25 / ITF-14 / ITF6, Matrix 25, Industrial 25, COOP 25, Standard 25, China Post 25, Code 39, Code 93 / Code 93i, Code 128 series, Plessey, MSI Plessey, Code11, RSS, Code 49, Code 16K
	Postal	USPS Postnet, USPS Intelligent Mail, Royal Mail, USPS Planet, KIX, Australian Postal, Japanese Post
	OCR	Passport OCR, Passport Visa, TD1, TD2, etc.
Resolution*		≥3mil
Typical Depth of Field*	EAN-13	70mm-500mm (13mil)
	Code 39	90mm-265mm (5mil)
	PDF417	70mm-225mm (6.7mil)
	Data Matrix	65mm-215mm (10mil)
	QR Code	40mm-295mm (15mil)
Min. Symbol Contrast*		25%
Scan Angle**		Roll: 360°, Pitch: ±60°, Skew: ±60°
Field of View		Horizontal 42°, Vertical 28°

## Physical

Interface		TTL-232, USB
Operating Voltage		3.3VDC±5%
Current@3.3VDC	Operating	269mA (typical), 399mA (max.)
	Idle	<70mA
	Sleep	<1mA
Dimensions		21.7(W)×14.7(D)×11.9(H) mm (max.)
Weight		3.9g

## Environmental

Operating Temperature	-20°C to 60°C (-4°F to 140°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)
Humidity	5% to 95% (non-condensing)
Ambient Light	0-100,000LUX

## Certificates

Certificates & Protection	FCC Part 15 Class B, CE EMC Class B, RoHS
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## Accessories

NLS-EVK		Software development board for the NLS-EM50S, 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 printed barcodes made by Newland

\*\*Test conditions: Scan Distance= (min. DOF + max. DOF) / 2; T=23°C; Illumination=300lux using incandescent lamp;

ID: Code 128; 5 Bytes; Resolution=10mil; PCS=0.8.

Specifications are subject to change without notice.

Version: V1.4

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