



NLS-EM20-80

OEM SCAN ENGINE

FEATURES

- **Snappy On-screen Barcode Capture**

Featuring excellent near-field reading, wide-viewing angle and snappy reading, the CPU-powered NLS-EM20-80 is incredibly reader-friendly on smartphone & tablet displays.


- **Robust Design with High Vibration Resistance**

The single PCB construction and vibration-proof connectors make the scan engine more resistant against vibration and help improve its reliability.

- **Slimmer, More Compact Construction**

Compared with its predecessor, the new generation of NLS-EM20 is thinner, lighter and more compact, and thus easier to be integrated into any devices.

- **Outstanding Power Efficiency**

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

- **Multiple Interfaces**

The NLS-EM20-80 supports USB, RS-232 and TTL-232 interfaces to meet diverse customer needs.



1D Barcode



2D Barcode



RS232



USB

NLS-EM20-80

Performance

Image Sensor		640 * 480 CMOS
Illumination		White LED
Symbologies	2D	PDF 417, QR Code, Micro QR, Data Matrix, Aztec, Maxicode, Chinese Sensible Code, GM Code, Micro PDF417 Code, Code One
	1D	EAN-8, EAN-13, UPC-E, UPC-A, Code 128, UCC/EANI28, I2Of5, ITF-14, ITF-6, Matrix 25, CodaBar, Code 39, Code 93, ISSN, ISBN, Industrial 25, Standard 25, Plessey, Code11, MSI-Plessey, UCC/EAN Composite, GSI Databar, Code 49, Code 16K
Resolution*		≥5mil
Typical Depth of Field*	EAN-13	25mm-110mm (13mil)
	QR Code	0mm-90mm (15mil)
	PDF417	35mm-45mm (6.7mil)
	Data Matrix	35mm-50mm (10mil)
Min. Symbol Contrast*		30%
Scan Angle**		Roll: 360°, Pitch: ±40°, Skew: ±45°
Field of View		Horizontal 68°, Vertical 51°, Diagonal 84.8°

Physical

Interface		TTL-232, RS-232, USB
Operating Voltage		12-pin FPC connector: 3.3-5VDC±5% 4-pin box connector: 3.3-5VDC±5%
Rated Power Consumption@5VDC		1129mW (typical)
Current@5VDC	Operating	237mA (typical), 319mA (max.)
	Idle	69mA
Rated Power Consumption@3.3VDC		1103mW (typical)
Current@3.3VDC	Operating	335mA (typical), 479mA (max.)
	Idle	93mA
Dimensions		61.5(W)×65.5(D)×31.9(H)mm (max.)
Weight		33g
Notification		Beeper, Green LED Indicator

Environmental

Operating Temperature	-40°C to 65°C (-40°F to 149°F)
Storage Temperature	-40°C to 75°C (-40°F to 167°F)
Humidity	5% to 95% (non-condensing)
Ambient Light	0-100,000lux (natural light)

Certificates

Certificates & Protection	FCC Part15 Class B, CE EMC Class B, RoHS
---------------------------	--

Accessories

NLS-EVK		Software development board for the NLS-EM20-80, 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; WeChat Pay QR code on a 5.5" Android smartphone with brightness set to 100%.

**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: V1.5

Newland AIDC

Add: No.1 Rujiang West Rd.,
Mawei, Fuzhou, Fujian 350001, China
Tel: +86-591-83979500
Fax: +86-591-83979216
Email: info@nlsan.com
Web: www.newlandaidc.com

North America&Latin America

Add: 46559 Fremont Blvd.,
Fremont, CA 94538, USA
Tel: +1 510 490 3888
Fax: +1 510 490 3887
Email: info@nlsan.com
Web: www.newlandamerica.com

Europe & Middle East

Add: Rolweg 25, 4104 AV Culemborg,
The Netherlands
Tel: +31 (0) 345 87 00 33
Email: sales@newland-id.com
Tech Support: tech-support@newland-id.com
Web: www.newland-id.com

Asia Pacific

Taiwan:
Add: 7F-6, No. 268, Liancheng Rd.,
Jhonghe Dist. 235, New Taipei City, Taiwan
Tel: +886 2 7731 5388
Email: info@newland-id.com.tw