



Newland AIDC
Scanning Made Simple



NLS-N1

OEM SCAN ENGINE

FEATURES

○ **UIMG[®] Technology**

Armed with Newland's six-generation of **UIMG[®]** technology, the scan engine can swiftly and effortlessly decode even poor quality barcodes (e.g., low contrast, laminated, damaged, torn, warped or wrinkled).

○ **Snappy On-Screen Barcode Capture**

The NLS-N1 excels at reading on-screen barcodes even when the screen is covered with protective film or set to its lowest brightness level.

○ **Multiple Interfaces**

The NLS-N1 supports USB and TTL-232 interfaces to meet diverse customer needs.

○ **Compact & Lightweight Design**

Seamless integration of imager and decoder board makes the scan engine extremely smallest and lightweight and easy to fit into miniature equipment.

○ **Outstanding Power Efficiency**

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



1D Barcode



2D Barcode



USB

NLS-N1

Performance

Image Sensor		640 * 480 CMOS
Illumination		5000K White LED 625nm Red LED
Symbologies	2D	PDF417, QR Code, Micro QR, Data Matrix, Aztec
	1D	Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, ISSN, Code 93, UCC/EAN-128, GS1 Databar, Matrix 2 of 5, Code 11, Industrial 2 of 5, Standard 2 of 5, AIM128, Plessey, MSI-Plessey
Resolution*		≥3mil
Typical Depth of Field*	EAN-13	60mm-350mm (13mil)
	Code 39	40mm-150mm (5mil)
	PDF417	50mm-125mm (6.7mil)
	Data Matrix	45mm-120mm (10mil)
	QR Code	30mm-170mm (15mil)
Min. Symbol Contrast*		25%
Scan Angle**		Roll: 360°, Pitch: ±60°, Skew: ±60° Horizontal 42°, Vertical 31.5°

Physical

Interface		TTL-232, USB
Operating Voltage		3.3VDC±5%
Current@3.3VDC	Operating (RMS)	91.08mA (typical)
	Idle	11.8mA
	Sleep	<0.3mA
Dimensions		21.5(W)×9.0(D)×7.0(H)mm (max)
Weight		1.2g

Environmental

Operating Temperature	-20°C to 55°C (-4°F to 131°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)

Certificates

Certificates & Protection	FCC Part15 Class B, CE EMC Class B, RoHS 2.0, IEC62471
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Accessories

NLS-EVK		Software development board, equipped with a trigger button, beeper and RS-232 & USB interfaces.
Cable	USB	Used to connect the EVK-N1 to a host device.
	RS-232	Used to connect the EVK-N1 to a host device.

*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;

2D: QR Code; 10 Bytes; Resolution=30mil; PCS=0.8.

Specifications are subject to change without notice.

Version: V1.7

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