



NLS-N1-ER

OEM SCAN ENGINE

FEATURES

○ Ultra-long Scan Distance

Scan distance for Code 128 (20mil) is up to 0.8m and 1.4m for Code 128 (40mil).


○ User-friendly Aiming

Designed with the end user in mind, the NLS-N1-ER employs highly visible laser aimer to achieve crisp and accurate targeting.

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



CMOS



1D Barcode



TTL232



Laser Aimer



USB



2D Barcode



CHIP

NLS-N1-ER

Performance

Image Sensor		640*480 CMOS
Illumination		3000K white LED
Aiming		650nm laser diode
Symbolologies	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, AIM 128, Plessey, MSI-Plessey
Resolution		3mil(1D) 6.67mil(2D)
Typical Depth of Field ¹	EAN-13	105mm-680mm (13mil)
	Code 39	120mm-260mm (5mil)
	Code 39	65mm-800mm (20mil)
	Code 128	115mm-1400mm (40mil)
	QR Code	80mm-250mm (15mil)
Min. Symbol Contrast		20%
Scan Angle ²		Roll: 360°, Pitch: ±60°, Skew: ±60°
Field of View		Horizontal 28°, Vertical 21°

Physical

Interface		TTL-232, USB
Operating Voltage		3.3VDC±5%
Current@3.3VDC	Operating ³	102.73mA (typical)
	(RMS)	
	Idle	11.8mA
	Sleep	<0.3mA
Dimensions		23.8(W)×10.5(D)×7.0(H)mm (max.)
Weight		2g

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 (natural light)

Certificates

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

NLS-EVK	Optional	Software development board, equipped with a trigger button, beeper and RS-232 & USB interfaces.
Cable	Optional	75mm FPC cable used to connect the N1-ER to a host device.

¹ Depth of Field: T=23°C; Illumination=300lux using incandescent lamp; sample barcodes made by Newland.

² Scan Angle: Scan Distance=(min. DOF + max. DOF)/2; 2D: QR Code, PCS=I; sample barcodes made by Newland.

³ Operating Current: Scan Distance=(min. DOF + max. DOF)/2; test in the normal mode.

Specifications are subject to change without notice.

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The following table lists the pin functions of the 13-pin FPC connector.

PIN#	Signal	I/O	State	Function
1	GND	-	-	Power-supply ground
2	nTRIG	I	Pull-up	Trigger signal input
3	nRST	I	Pull-up	Reset signal input
4	LED	O	Pull-down	Good Read LED output
5	BUZ	O	Pull-down	Beeper output
6	Ext.LED.Ctrl	O	Unconnected	External illumination control signal
7	USB_D+	-	-	USB_D+ signal
8	USB_D-	-	-	USB_D- signal
9	TTL_TX	O	-	TTL level 232 transmit data
10	TTL_RX	I	-	TTL level 232 receive data
11	GND	-	-	Power-supply ground
12	VCC	-	-	3.3V power input
13	VCC	-	-	3.3V power input

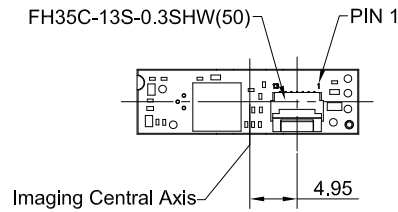
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Version: V1.5

NLS-N1-ER

Interface

Pinouts

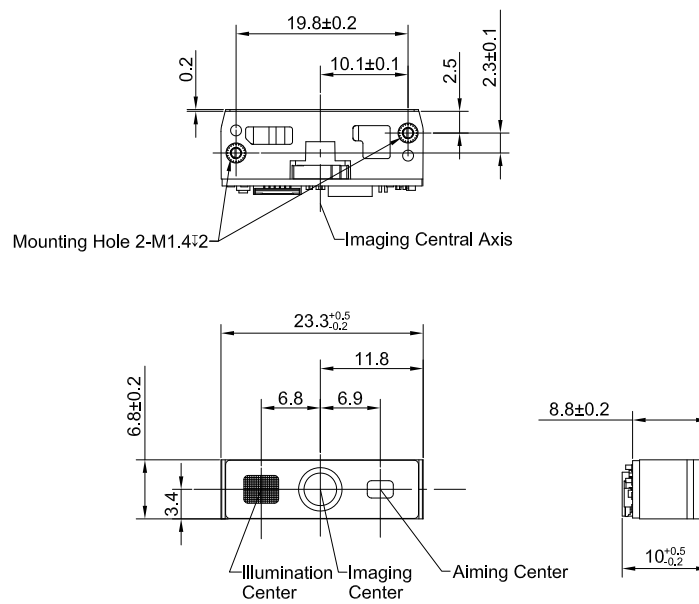


Mechanical

Mounting

Dimensions

(unit: mm)



Dimensions: 23.8 (W)×10.5 (D)×7.0 (H)mm (max)

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Version: V1.5

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