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Newland AIDC
Scanning Made Simple

NLS-EM3080-W V2

OEM SCAN ENGINE

FEATURES

Unmatched Scanning Performance

Featuring excellent near-field reading, wide-viewing angle and snappy reading, the NLS-EM3080-W V2 also offers stunning performance on decoding poor-quality and damaged barcodes.

Multiple Interfaces

The NLS-EM3080-W V2 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 small and lightweight and easy to fit into miniature equipment.

Outstanding Power Efficiency

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

CMOS | 1D Barcode | TTL232 | USB | 2D Barcode | CHIP

NLS-EM3080-W V2

Performance

Image Sensor		640*480 CMOS
Illumination		White 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		≥5mil
Typical Depth of Field [1]	EAN-13	40mm-110mm (13mil)
	QR Code	30mm-70mm (15mil)
Min. Symbol Contrast		25%
Scan Angle [2]		Roll: 360°, Pitch: ±45°, Skew: ±45°
Field of View		Horizontal 69.5°, Vertical 54.8°, Diagonal 82.2°

Physical

Interface		TTL-232, USB
Operating Voltage		3.3VDC±5%
Rated Power Consumption		181.8mW
Current@3.3VDC	Operating [3]	55.1mA RMS (typical), 105mA RMS (max.)
	Idle	9mA
	Sleep	1mA
Dimensions		15.5(W)×13.9(D)×9.7(H)mm (max.)
Weight		2.2±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)

Certificates

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

Accessories

NLS-EVK		Software development board for the NLS-EM3080-W V2, 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.

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

2 Scan Angle: Scan Distance=(min. DOF + max. DOF)/2; 2D: QR Code; PCS=1; 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.

Version: V1.1

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The following table lists the pin functions of the 12-pin FPC connector.

PIN#	Signal	I/O	Function
1	-	-	Not connected.
2	VDD	-	3.3V power supply.
3	GND	-	Power-supply ground.
4	RXD	I	TTL level 232 receive data.
5	TXD	O	TTL level 232 transmit data.
6	USB_D-	I/O	USB D- differential data signal
7	USB_D+	I/O	USB D+ differential data signal
8	-	-	Not connected.
9	BUZZ	O	Beeper output.
10	VIB	O	Good Read LED output: When using this signal, a driver circuit is needed to drive an external LED.
11	nRESET	I	Reset signal input: active low. Driving this pin low for 100us resets the engine.
12	nTRIG	I	Trigger signal input: Driving this pin low for 50ms causes the engine to start a scan and decode session.

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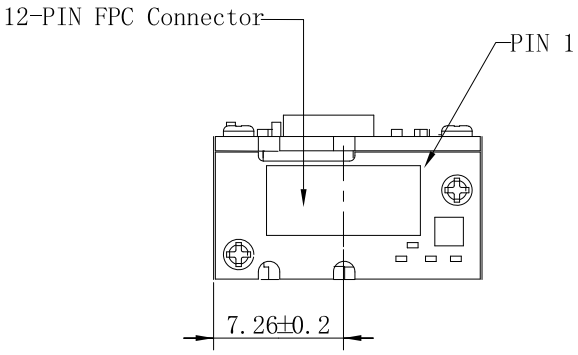
Interface

Pinouts

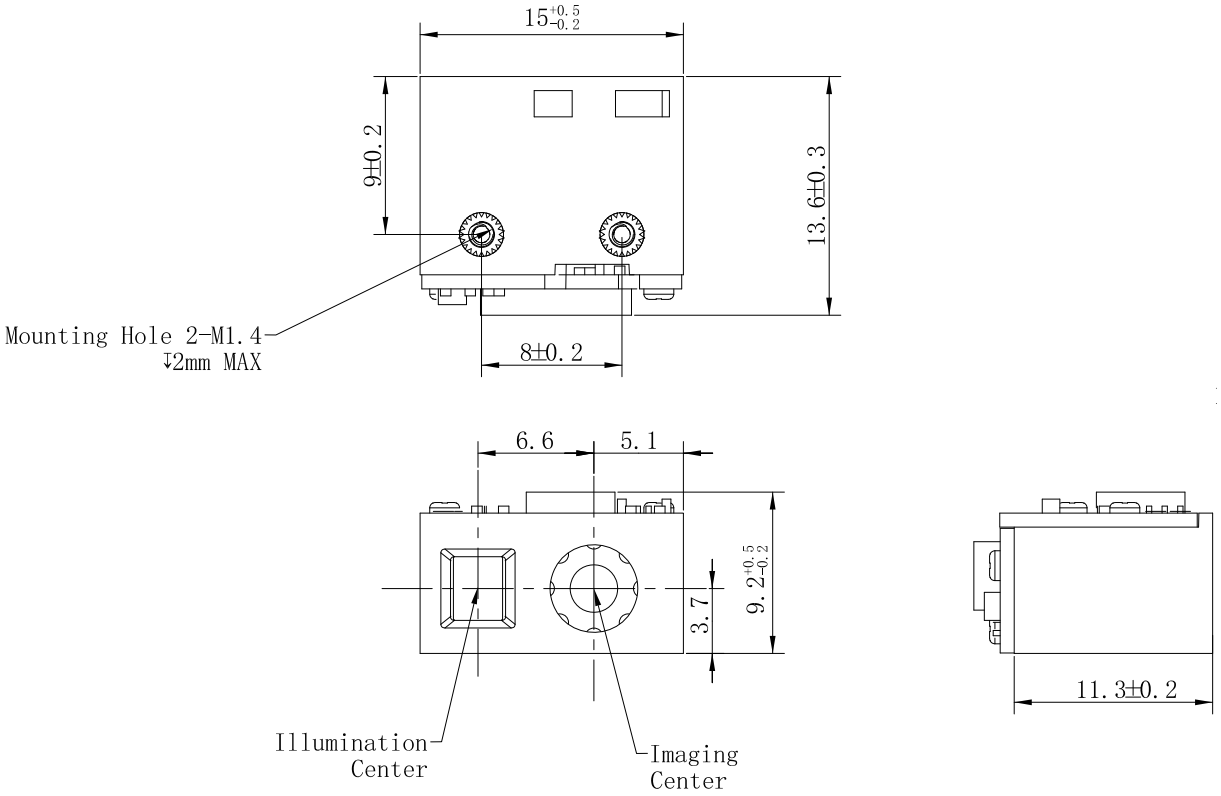


Mechanical

Mounting

Dimensions

(unit: mm)



Dimensions: 15.5(W)×13.9(D)×9.7(H)mm (max)

Specifications are subject to change without notice.

Version: V1.1

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