



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



CMOS



ID 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 <sup>1</sup>	EAN-13	40mm-110mm (13mil)
	QR Code	30mm-70mm (15mil)
Min. Symbol Contrast		25%
Scan Angle <sup>2</sup>		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 <sup>3</sup>	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
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## 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.

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

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

<sup>3</sup> 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 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.

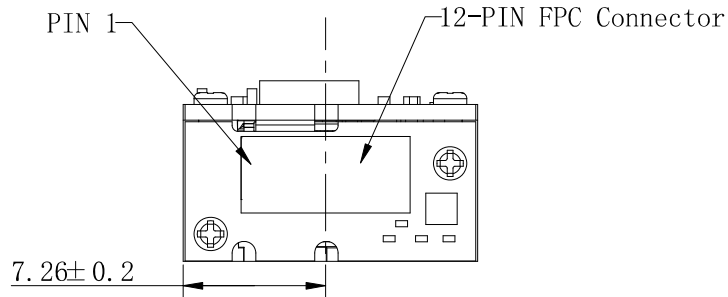
Specifications are subject to change without notice.

Version: V1.2

# NLS-EM3080-W V2

## Interface

### Pinouts

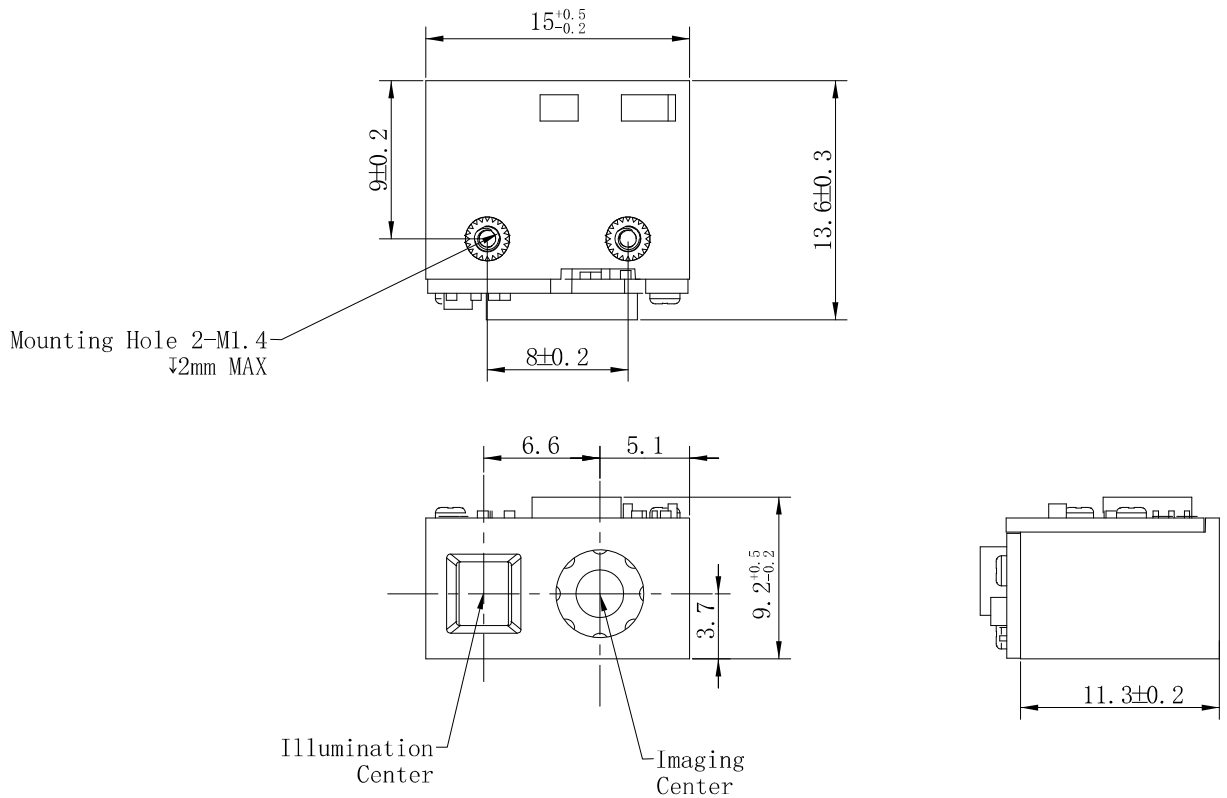


## Mechanical

### Mounting

### Dimensions

(unit: mm)



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

Specifications are subject to change without notice.

Version: V1.2

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