



NLS-EM3088-W

OEM SCAN ENGINE

FEATURES

- **Ultra Wide-viewing FOV**
Featuring excellent near-field reading and the widest viewing angle H:99°/V:72.4°/D:109° in the AIDC industry, the scan engine offers stunning performance on decoding in close-range for extended-length 1D barcodes or 2D barcodes with rich data.
- **Excellent Decoding Performance**
With 1280×800 pixel CMOS sensor, the EM3088-W is able to decode extended-length 1D barcodes, 2D barcodes with rich data, passport OCR-B and even poor quality barcodes (e.g., low contrast, laminated, damaged, torn, warped or wrinkled).
- **Smooth Gradient Illumination**
Designed with big-FOV and smooth gradient warm-white LED illumination, EM3088-W maximizes the overall decoding performance in close-range reading.
- **Support NRE on Firmware or Decoding Algorithm**
Newland experienced software RD team can fulfill your special requirements on firmware or decoding algorithm in time based on project NRE.



CMOS



1D Barcode



TTL232



2D Barcode



USB

NLS-EM3088-W

Performance

Image Sensor		1280*800 CMOS
Illumination		White LED
Symbologies	2D	PDF 417, Micro PDF417, QR, Micro QR, Data Matrix, Chinese Sensible Code, GridMatrix, Code One, Aztec
	1D	Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Codabar, Interleaved 2/5, ITF-14, ITF-6, ISBN, ISSN, Code 93, Code 11, GS1 Databar, GS1 Composite, Matrix 2/5, COOP 25, Industrial 2/5, Standard 2/5, MSI Plessey, Plessey, Code 49, Code 16K, GS1 128, AIM 128, ISBT 128
	Postal	USPS Postnet, USPS Intelligent Mail, Royal Mail, USPS Planet, KIX Post, Australian Postal, Japan Post
	OCR	Passport OCR, Chinese ID Card OCR, China Travel Permit OCR
Resolution		≥3mil(Code 39)
Typical Depth of Field ¹	EAN-13	30mm-85mm (13mil)
	PDF417	30mm-55mm (6.7mil)
	Code 39	35mm-65mm (5mil 50mm)
	Data Matrix	23mm-65mm (10mil)
	QR Code	20mm-80mm (15mil)
Min. Symbol Contrast		25%
Scan Angle ²		Roll: 360°, Pitch: ±50°, Skew: ±50°
Field of View		Horizontal 99°, Vertical 72.4°, Diagonal 109°

Physical

Interface		TTL-232, USB
Operating Voltage		3.3VDC±5%
Current@3.3VDC	Operating (RMS) ³	423mA (max.)
	Idle (RMS)	44mA
Dimensions		21.7(W)×14.5(D)×12(H)mm (max.)
Weight		3g

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	0lux

Certificates

Certificates & Protection	FCC Part 15 Class B, CE EMC Class B, RoHS, IEC62471
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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=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.

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

PIN#	Signal	I/O	Function
1	NC	-	Reserved
2	VCC	-	3.3V power input
3	GND	-	Ground
4	TTL232_RX	I	TTL level 232 receive data
5	TTL232_TX	O	TTL level 232 transmit data
6	USB_D-	I/O	USB_D- signal
7	USB_D+	I/O	USB_D+ signal
8	EXT_IO	-	Reserved
9	EXT_BUZ	O	Beeper output
10	EXT_DSF	O	Good Read LED output
11	EXT_RST#	I	Reset signal input
12	EXT_TRIG#	I	Trigger signal input

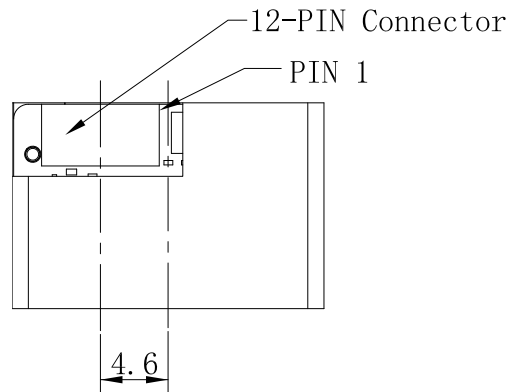
Specifications are subject to change without notice.

Version: V1.0

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Interface

Pinouts

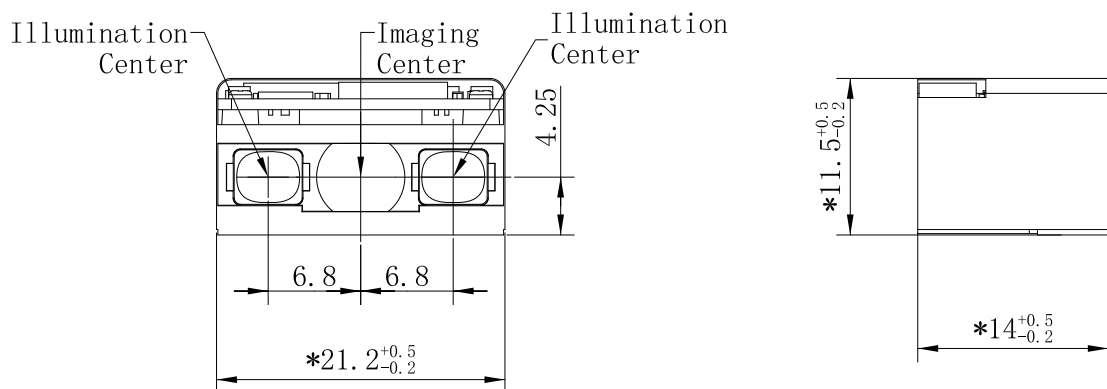
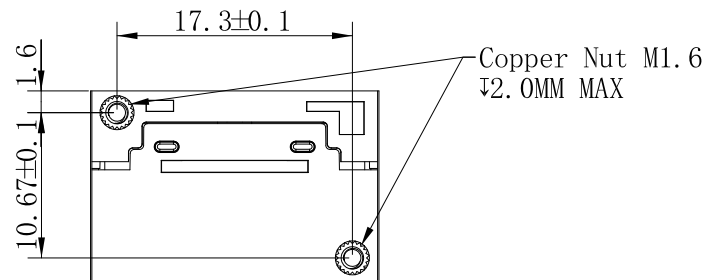


Mechanical

Mounting

Dimensions

(unit: mm)



Dimensions: 21.7(W)×14.5(D)×12(H)mm (max.)

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Version: V1.0

Newland AIDC

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