



Newland AIDC
Scanning Made Simple



NLS-CM60

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).

○ **User-friendly Illumination & Aiming**

Designed with the end user in mind, the NLS-CM60 employs highly visible laser aimer to achieve crisp and accurate targeting while using flicker-free white soft illumination to reduce eye strain and fatigue from long-time operation.

○ **Compact & Lightweight Design**

Seamless integration of imager sensor and aimer makes the scan engine extremely small and lightweight and easy to fit into miniature equipment.

○ **Highly Visible Laser Aimer**

The NLS-CM60 provides a laser-generated crosshair aiming pattern that is clear and bright even in bright sunlight, ensuring first time accurate aim.



1D Barcode



2D Barcode



CMOS



Laser Aimer

NLS-CM60

Performance

Image Sensor		1280 * 800 CMOS
Illumination		3000K white LED
Aiming		650nm red laser
Symbolologies	2D	PDF417, Micro PDF417, QR Code, Micro QR, Data Matrix, Aztec, Chinese Sensible Code, Maxicode, etc.
	1D	EAN-13, EAN-8, UPC-A, UPC-E, Code 128, Code 39, Codabar, UCC/EAN-128, RSS, ITF, ITF14, ITF6, ISSN, ISBN, Standard 25, Matrix 25, Industrial 25, Plessey, MSI Plessey, Code 11, Code 93, GSI Composite, etc.
Resolution	1D	≥3mil
Typical Depth of Field ¹	EAN-13	70mm-600mm (13mil)
	PDF 417	110mm-230mm (6.7mil)
	Code 39	120mm-280mm (5mil)
	Data Matrix	110mm-260mm (10mil)
	QR Code	55mm-400mm (15mil)
Min. Symbol Contrast		25%
Scan Angle ²		Roll: 360°, Pitch: ±50°, Skew: ±50°
Field of View		Horizontal 42°, Vertical 28°

Physical

Interface		IIC, MIPI
Operating Voltage		VIMG:3.3VDC±5% VLED: 3.3VDC±5%
Current	Operating ³	115mA (typical) 285mA (max.)
	Idle	4.6mA
Dimensions		23.8(W)×16.7(D)×7.0(H)mm (max.)
Weight		2.4g

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 Part 15 Class B, CE EMC Class B, RoHS
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Accessories

Cable	Optional	34-PIN board to board cable used to connect the EVK-CM60 to a host device
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¹ Test conditions: T=23°C; Illumination=300lux; sample printed barcodes made by Newland.

² Test conditions: Scan Distance= (min. DOF + max. DOF)/2; T=23°C; Illumination=300lux;

2D: QR Code; 10 Bytes; Resolution=15mil; PCS=0.8

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

Specifications are subject to change without notice.

Version: V3.0

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NLS-CM60

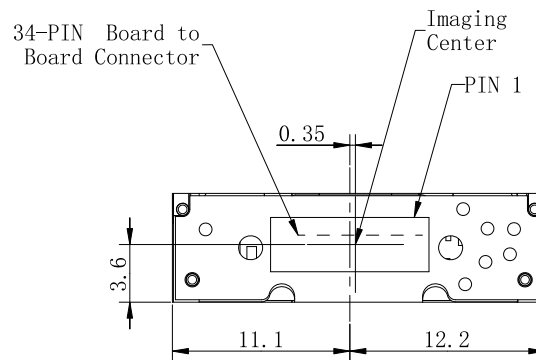
The following table lists the pin functions of the 34-pin board-to-board connector.

PIN#	Signal	I/O	Function
1	GND	-	Power-supply ground
2	GND	-	Power-supply ground
3	VIN_3V3_LED_LASER	-	3.3VDC±5% power supply for illumination/aimer
4	MD0n	O	MIPI data lane 0
5	VIN_3V3_LED_LASER	-	3.3VDC±5% power supply for illumination/aimer
6	MD0p	O	MIPI data lane 0
7	NC	-	No connection
8	GND	-	Power-supply ground
9	I2C_SCL	I/O	I2C clock signal
10	MD1n	O	MIPI data lane 1
11	GND	-	Power-supply ground
12	MD1p	O	MIPI data lane 1
13	I2C_SDA	I/O	I2C data signal
14	GND	-	Power-supply ground
15	NC	-	No connection
16	MCn	O	MIPI clock signal
17	NC	-	No connection
18	NC	-	No connection
19	NC	-	No connection
20	MCp	O	MIPI clock signal
21	NC	-	No connection
22	GND	-	Power-supply ground
23	NC	-	No connection
24	NC	-	No connection
25	NC	-	No connection
26	NC	-	No connection
27	NC	-	No connection
28	GND	-	Power-supply ground
29	VIN_3V3_IMGR	-	3.3VDC±5% power supply for the engine
30	NC	-	No connection
31	VIN_3V3_IMGR	-	3.3VDC±5% power supply for the engine
32	NC	-	No connection
33	GND	-	Power-supply ground
34	GND	-	Power-supply ground

NLS-CM60

Interface

Pinouts

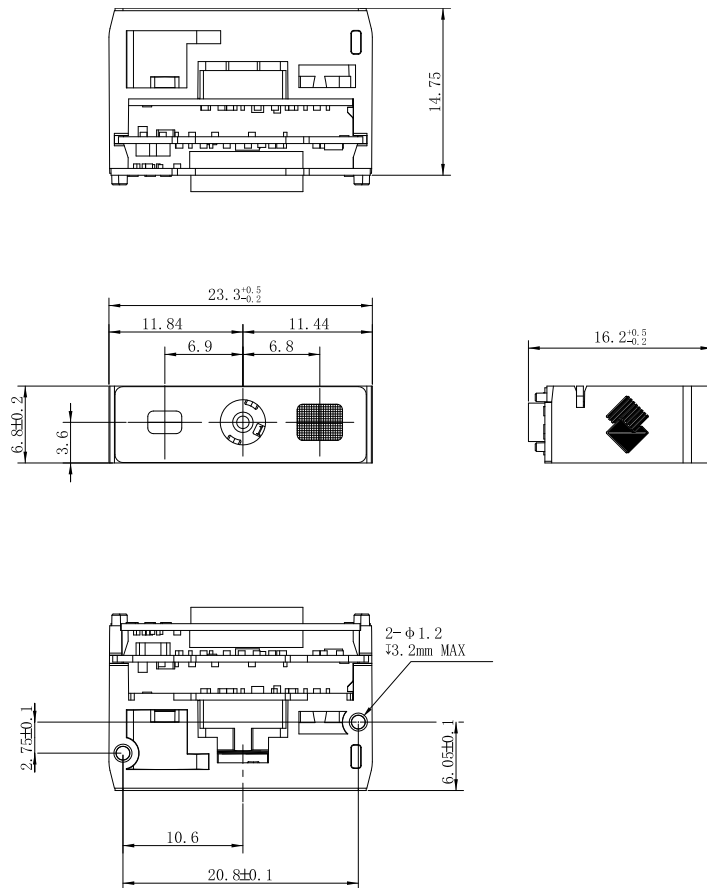


Mechanical

Mounting

Dimensions

(unit: mm)



Dimensions: 23.8 (W)×16.7 (D)×7.0 (H)mm (max)

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