



Newland AIDC
Scanning Made Simple



NLS-CM30 V2

OEM SCAN ENGINE

FEATURES

○ **UIMG® Technology**

Armed with Newland's seven-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).

○ **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.

○ **Support IIC and MIPI Interfaces**

Keeping up with emerging technologies, the NLS-CM30 V2 provides IIC and MIPI interfaces to enable easy integration with the latest processors.

○ **Outstanding Power Efficiency**

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



1D Barcode



2D Barcode



CMOS

NLS-CM30 V2

Performance

Image Sensor		640 * 480 CMOS
Illumination		5000K White LED 625nm Red LED
Symbologies	2D	PDF417, QR Code, Data Matrix
	1D	Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, Code 93,UCC/EAN-128, GSI Databar, Matrix 2 of 5, Code 11, Industrial 2 of 5, Standard 2 of 5, Plessey, MSI-Plessey
Resolution	1D	≥3mil
Typical Depth of Field ¹	EAN-13	60mm-330mm (13mil)
	Code 39	65mm-150mm (5mil)
	PDF417	60mm-120mm (6.7mil)
	Data Matrix	50mm-120mm (10mil)
	QR Code	35mm-180mm (15mil)
Min. Symbol Contrast		25%
Scan Angle ²		Roll: 360°, Pitch: ±60°, Skew: ±60°
Field of View		Horizontal 42°, Vertical 31.5°

Physical

Interface		IIC, MIPI
Operating Voltage		3.3VDC±5%
Current@3.3VDC	Operating ³	80mA (typical), 85mA (max.)
	Idle	11mA
	Sleep	2.1mA
Dimensions		21.5(W)×8.8(D)×7.0(H)mm (max)
Weight		1.1g

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, IEC62471
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Accessories

Cable	Optional	13-PIN FPC cable used to connect the NLS-EVK to a host device.
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¹ Test conditions: T=23°C; Illumination=300lux using incandescent lamp; sample printed barcodes made by Newland.

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

2D: QR Code; 10 Bytes; Resolution=30mil; PCS=0.8.

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

Specifications are subject to change without notice.

Version: V2.0

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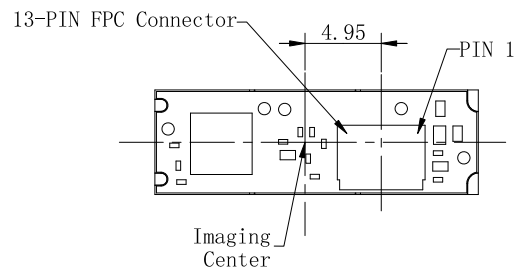
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NLS-CM30 V2

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

PIN#	Signal	I/O	Function
1	GND	-	Power-supply ground
2	VCC	-	3.3V power input
3	VCC	-	3.3V power input
4	MIPI_MCP	O	MIPI clock signal
5	MIPI_MCn	O	MIPI clock signal
6	MIPI_MDlp	O	MIPI data lane 1
7	MIPI_MDln	O	MIPI data lane 1
8	MIPI_MD0p	O	MIPI data lane 0
9	MIPI_MD0n	O	MIPI data lane 0
10	EXT_LEDOUT	O	Illumination control signal
11	I2C_SDA	I/O	I2C data signal
12	I2C_SCL	I/O	I2C clock signal
13	GND	-	Power-supply ground

Interface Pinouts

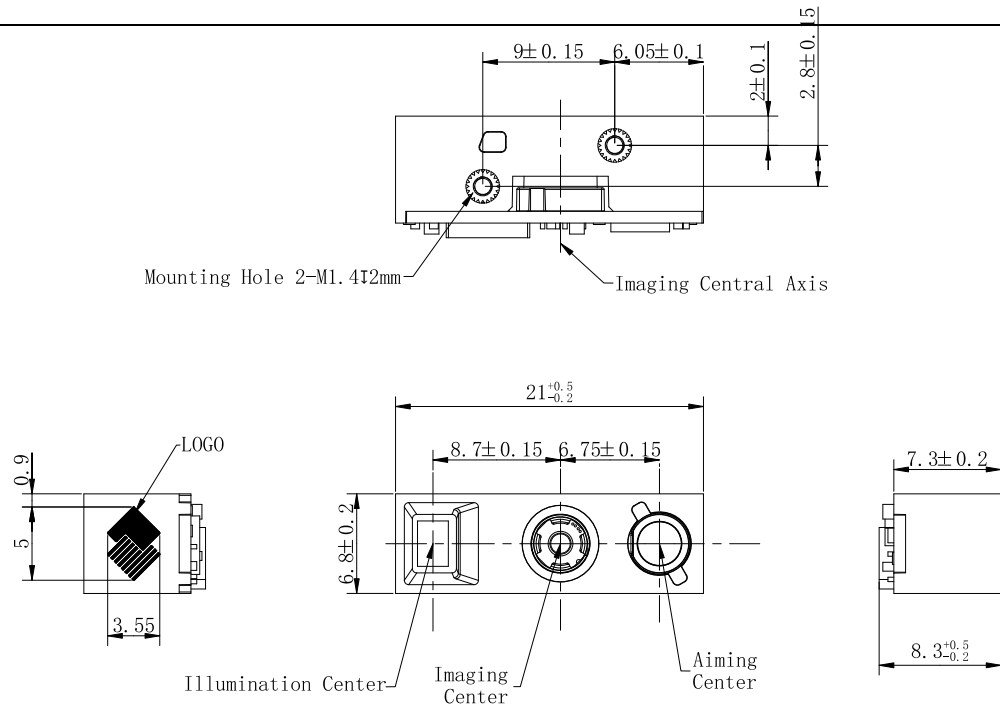


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NLS-CM30 V2

Mechanical
Mounting
Dimensions
(unit: mm)



21.5(W)×8.8(D)×7.0(H)mm (max)

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