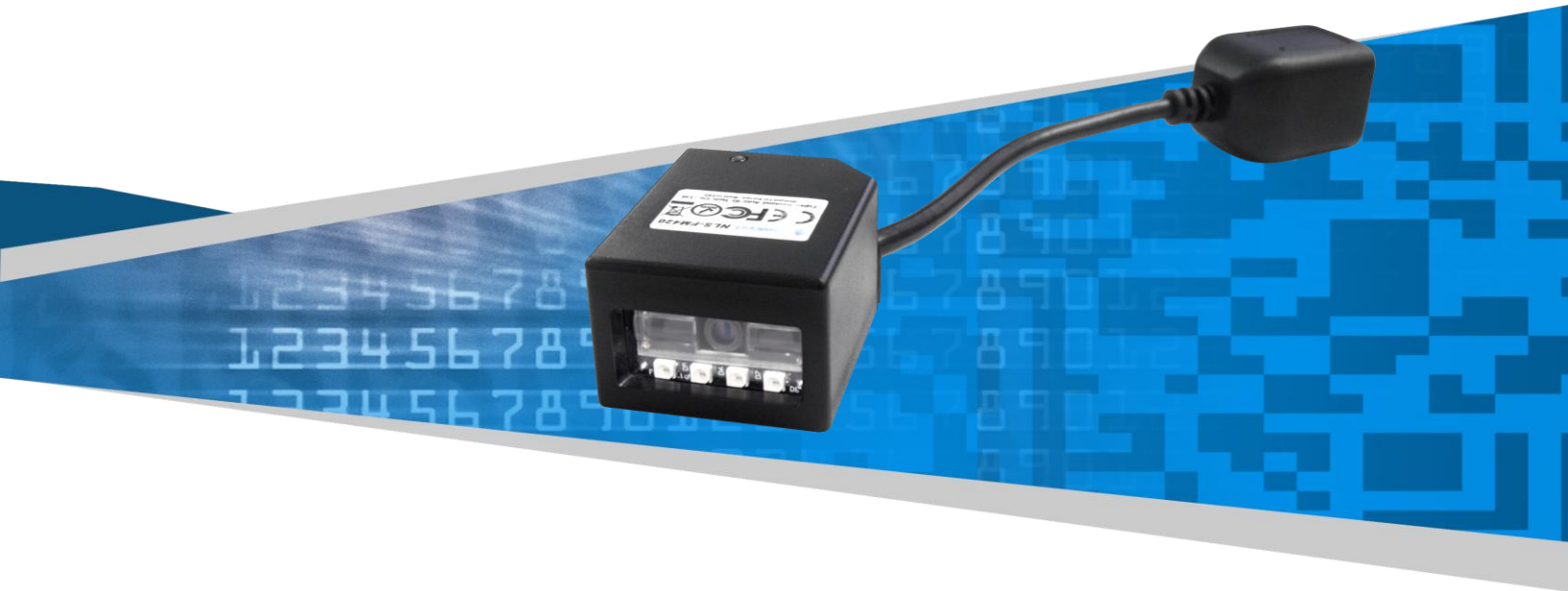# NLS-FM100 Series

1D CCD Fixed Scan Engine

Designed for OEM applications, this high performance fixed CCD scan engine can easily be integrated into various solutions such as kiosks, ticketing machines, (Reverse) Vending Machines and many more.

Product Features
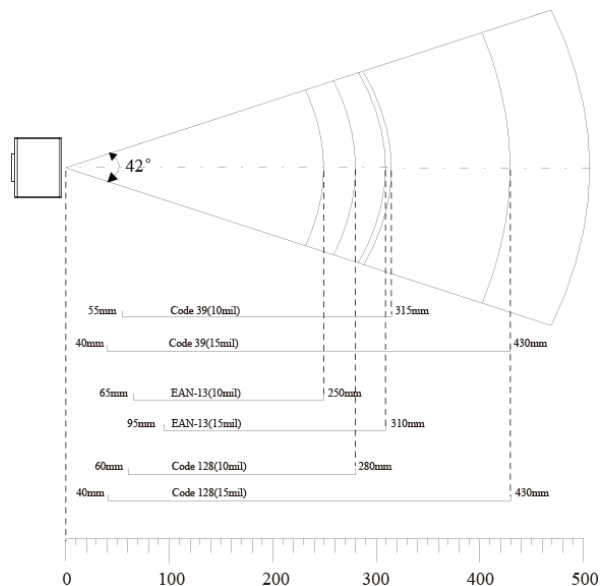
- **Ease of integration**

  Compact and easy to integrate design. The small form factor enables easy integration into various solutions. The FM100 has an IP54 rating meaning it is dust -and water resistant.

- **Advanced Technology**

  Includes core-technology **UIMG®** which is independently designed and manufactured by Newland Auto-ID. **UIMG®** technology includes the optical, CMOS, digitizer, decoder, image processing & embedded systems. The scanner supports all global standard 1D barcode symbologies. Its' reading performance reaches and exceeds global standards. By using the accessories provided, the user can ideally set up the scanner to its user environment.

Decode Zone

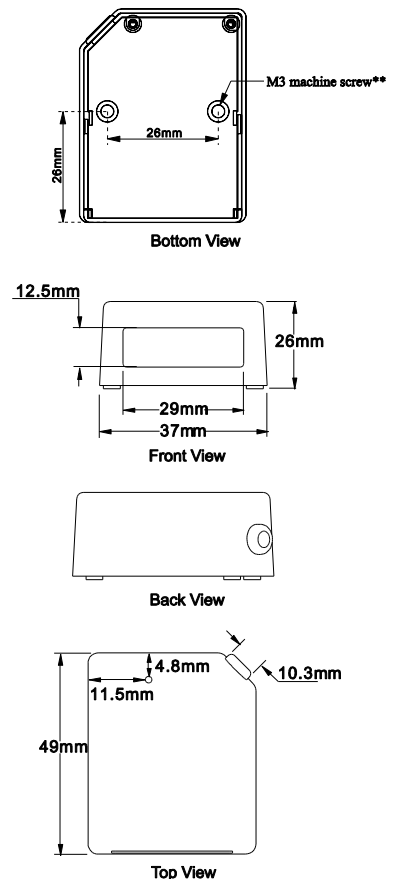|		
55mm	Code 39(10mil)	315mm
40mm	Code 39(15mil)	430mm
65mm	EAN-13(10mil)	250mm
95mm	EAN-13(15mil)	310mm
60mm	Code 128(10mil)	280mm
40mm	Code 128(15mil)	430mm

42°

0   100   200   300   400   500

Specifications

Performance	
Image Sensor	CCD
Resolution	2500
Interface	RS232, USB 1.1
Symbologies	Code128, EAN-13, EAN-8, Code39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ISBN/ISSN, Code 93, UCC/EAN-128, GS1Databar,etc.
Precision	$\geq$ 5mil(Condition: PCS=0.9, testing code: Code 39)
Depth of Scan Field	40mm-430mm
Print Contrast Signal	$\geq$ 30%

Sensitivity**	**Pitch**	$\pm$65°@ 0°Roll and 0° Skew
	Roll	$\pm$30°@ 0°Pitch and 0° Skew
	Skew	$\pm$60°@ 0°Roll and 0° Pitch

Illumination	0 ~ 100,000 LUX
Light Source	LED(622 nm - 628 nm)
Light Intensity	265 LUX (130 mm)

Mechanical/ Electrical	
Power Consumption	1.25W
Voltage	DC 5 V

Current	**Max**	250 mA
	Working	170mA
	Idle	65mA

Dimensions	49.0 *37.0 * 26.0 mm
Weight	70 g

Environment	
Operate Temperature	-5°C - +45°C
Storage Temperature	-40°C - +60°C
Humidity	5% - 95% （non-condensing）

Certificates	
FCC Part15 Class B, CE EMC Class B	

Accessories		
Cable	**RS232 Cable**	This cable connect to the RS232 port of FM100 with a RJ45 port. With a standard female RS232 port to connect to standard male RS232 port. With a power port to accept power adapter supply.
	USB Cable	This cable connect to the USB Slave port of FM100 with a RJ45 port. With a standard USB Slave port to connect to standard USB Host port.
Power Adapter		The power adapter for FM100 by the CBL-FM100R. Output: DC 5V, 2A; Input: AC100~240V, 50~60HZ.

**Test Condition:

Code39: 3 Bytes ; Resolution = 10mil; W:N = 3:1 ; PCS = 0.8 ;

Barcode Height = 11mm; Distance = 120mm; T=23°C; Illumination= 200 LUX

Dimension (Unit: mm)

Bottom View

Front View

Back View

Top View

**Note: The length of the screw into FM100 must be less than 5 mm.

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Newland

Specifications are subject to change without notice.