![Newland logo]

FM100

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.
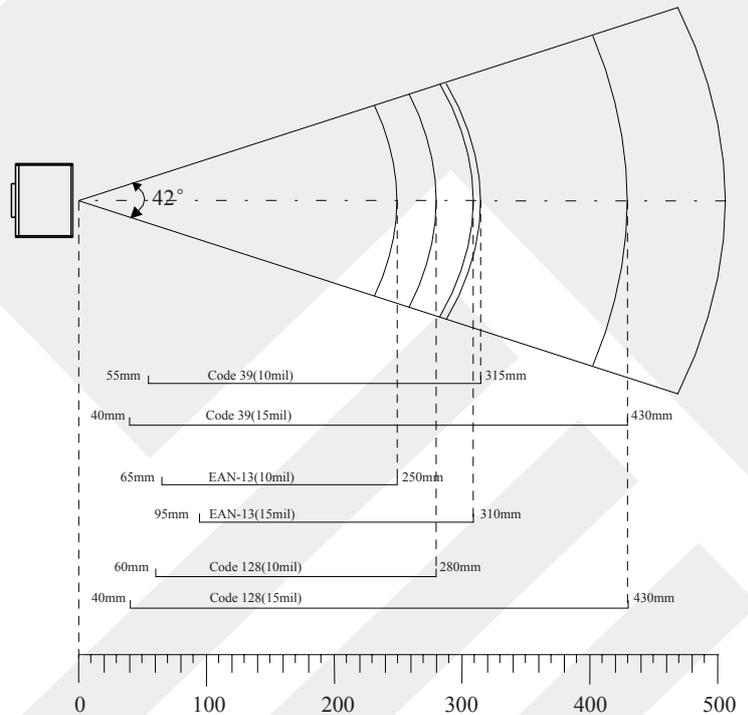
Product Features

- **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 Zones

42°	

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

0   100   200   300   400   500

FM100 Specifications

Performance

Interface	RS232, USB 1.1
Image Sensor	CCD
Resoluing	2500
Symbologies	Code128, EAN-13, EAN-8, Code39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ISBN/ISSN, Code 93, UCC/EAN-128, GS1 Databar, etc.
Precision	≥ 5mil (Condition:PCS=0.9, testing code: Code 39)
Light Source	LED(622 nm - 628 nm)
Light Intensity	265 LUX (130 mm)
Depth of Scan Field	40mm-430mm
Print Contrast Signal	≥ 30%
Sensitivity** — Pitch	±65°@ 0°Roll and 0° Skew
Sensitivity** — Roll	±30°@ 0°Pitch and 0° Skew
Sensitivity** — Skew	±60°@ 0°Roll and 0° Pitch
Illumination	0 ~ 100,000 LUX

Mechanical/ Electrical

Power Consumption		1.25 W
Voltage		DC 5 V
Current	Max	250mA
	Working	170mA
	Idle	65mA
Weight		70g

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

**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
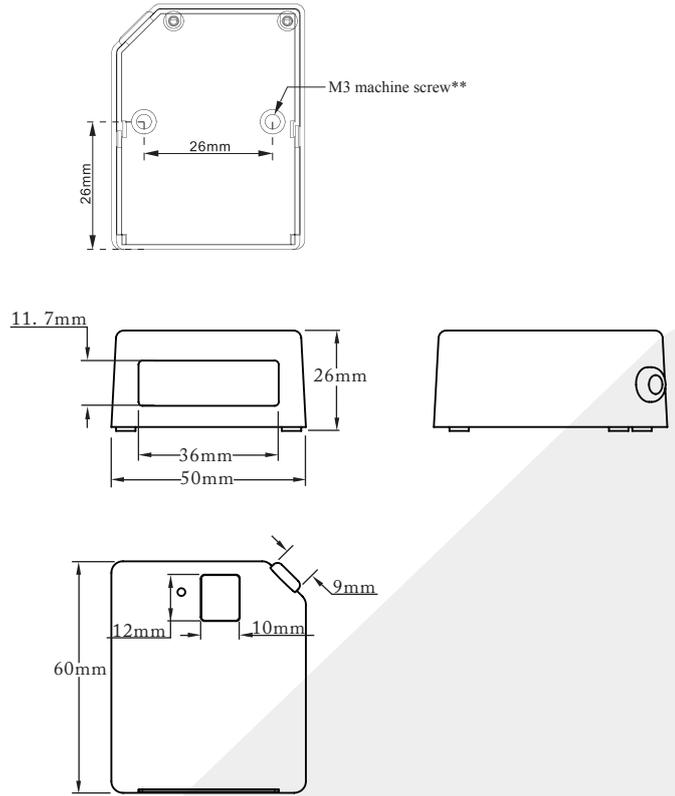
Accessories

Flex 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

Power Adapter	The power adapter for FM100 by the CBL-FM100R. Output: DC 5V, 2A; Input: AC100~240V, 50~60HZ.

Dimensions (mm)

M3 machine screw**

26mm

26mm

11. 7mm

26mm

36mm

50mm

60mm

12mm   10mm

9mm

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

Applicable Accessories

- Integration Manual / Programming Guide

A manual to explain the user the basics of the scanner, how to integrate it and how to configure it. Furthermore, it enables the user to set the scanner to the specific wishes regarding scanning modes, readable barcodes and barcode formats.

Version	Description	Date
Pre-release version		20100707