



FM420

Embedded 1D/2D Barcode Scanner



Designed for OEM applications, this high performance fixed 1D/2D CMOS scan engine can easily be integrated into various solutions such as kiosks, ticketing machines, (Reverse) Vending Machines, mobile ticket validators and many more.

Product Features

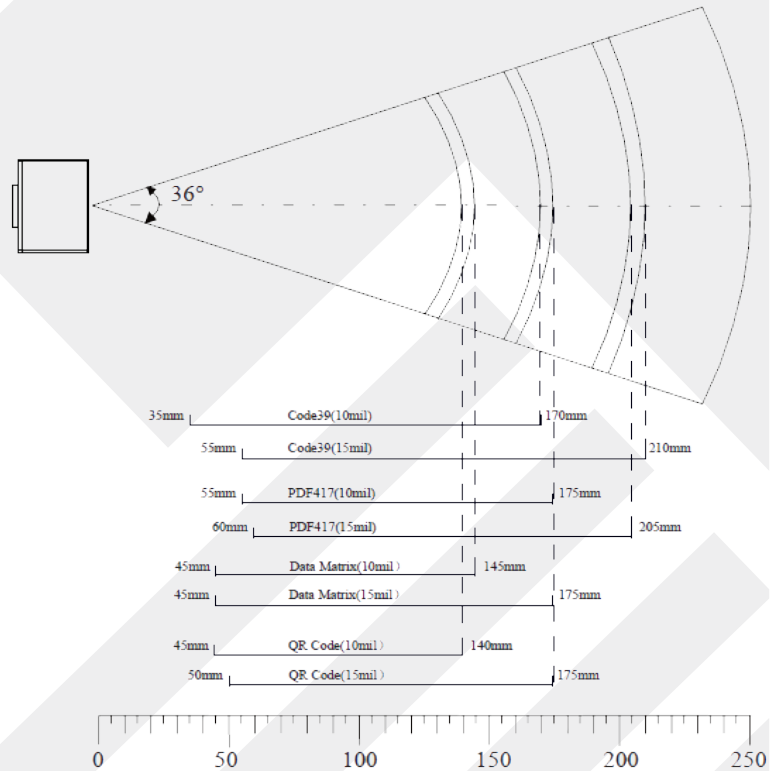
- **Ease of integration**

Compact and easy to integrate design. The small form factor enables easy integration into various solutions. This 1D/2D fixed barcode scanner has an IP54 rating making it dust & water-proof.

- **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 and 2D 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.

Field of View





FM420 Specifications

Performance

Image Sensor	CMOS
Resolution	752 * 480
Interface	RS232 / USB 1.1
Symbologies	2D PDF417, QR Code (Model 1/2), DataMatrix(ECC200, ECC000, 050, 080,100,140), Aztec, Maxicode, etc.
	1D Code128, EAN-13, EAN-8, Code39, UPC-A, UPC-E, Codabar, Interleaved 2 of 5, ISBN/ISSN, Code 93, GS1 Databar, etc.
Precision	≥ 5mil
CMOS Acquisition	60 fps
Light Source	LED(617.5 nm - 633.5 nm)
Light Intensity	320 LUX (130 mm)
Depth of Scan Field	25 ~ 210 mm
Print Contrast Signal	≥ 25%
Roll	360°
Pitch	60°
Skew	60°

Mechanical/ Electricals

Power Consumption	1.75W	
Voltage	DC 5.0V	
Current	Max	420 mA
	Working	260 mA
	Idle	1 mA
IP rating	IP54	
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

Accessories

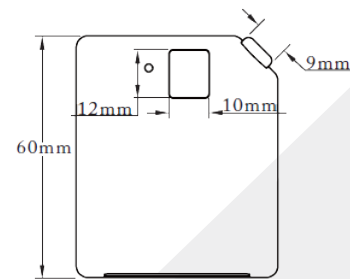
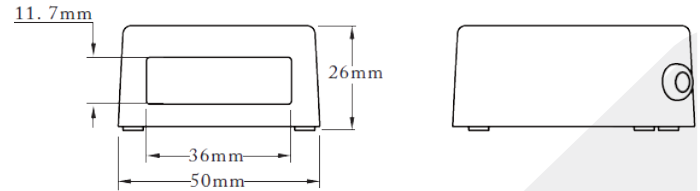
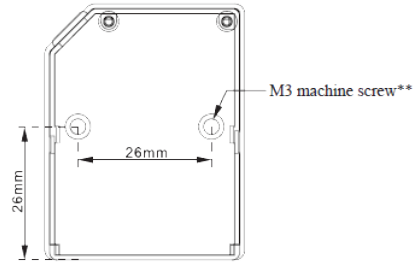
Interface cable

	This cable connect to the RS232 port of FM420 with a RJ45 port.
CBL-FM420R	With a standard female RS232 port to connect to standard male RS232 port. With a power port to accept power adapter supply.
	This cable connect to the USB Slave port of FM420 with a RJ45 port.
CBL-FM420U	With a standard USB Slave port to connect to standard USB Host port.

Power

ADP006	The power adapter for FM420 by the CBL-FM420R. Output: DC 5V, 2A; Input: AC100~240V, 50~60HZ.
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Dimensions (Unit: mm)



**Note: The length of the screw into FM420 must be less than 5 mm.

Applicable Accessories

• Quick Set

A platform for 2D barcode scanning configuration based on the Microsoft Windows. Quick set connects the scanner engine through USB or RS-232, Users are able to modify the scan engine parameters in real-time through a Windows interface.

• 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.