NLS-FM420 Series

Mobile Phone
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.
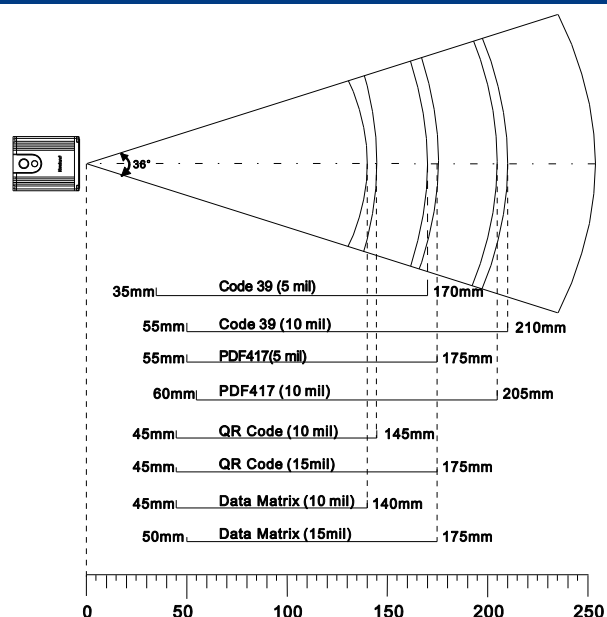
Product Features

- **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.
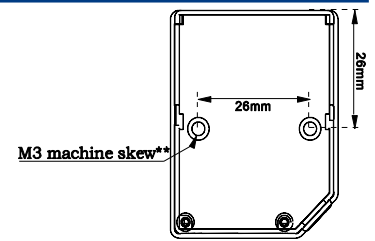
Decode Zones

35mm	Code 39 (5 mil)	170mm
55mm	Code 39 (10 mil)	210mm
55mm	PDF417(5 mil)	175mm
60mm	PDF417 (10 mil)	205mm
45mm	QR Code (10 mil)	145mm
45mm	QR Code (15mil)	175mm
45mm	Data Matrix (10 mil)	140mm
50mm	Data Matrix (15mil)	175mm

0   50   100   150   200   250

Specifications

Performance

Image Sensor		CMOS
Resolution		752 * 480
Interface		RS232 / USB 1.1 compatible with USB 2.0
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, etc
Sensitivity	**Pitch**	±60°@ 0°Roll and 0° Skew
	Roll	360°@ 0°Pitch and 0° Skew
	Yaw	±60°@ 0°Roll and 0° Pitch
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		35mm ~ 210 mm
Print Contrast Signal		≥ 30%
Illumination		0 ~ 100,000 LUX

Mechanical/ Electrical

Power Consumption		1.75W
Voltage		DC 5 V
Current	**Max**	420 mA
	Working	260 mA
	Idle	1 mA
Dimensions		60.0*50.0*26.0 mm
Weight		70g

Environment

Operating 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

Flex Cable	**RS232**	This cable connect to the RS232 port of FM420 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	This cable connect to the USB Slave port of FM420 with a RJ45 port. With a standard USB Slave port to connect to standard USB Host port.
Power Adapter		The power adapter for FM420 by the CBL-FM420R. Output: DC 5V, 2A; Input: AC100~240V, 50~60HZ.

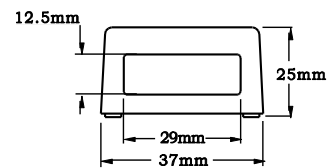*Specifications are subject to change without notice.*
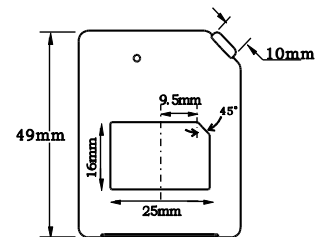
Dimension (Unit: mm)

Bottom View

Right View

Front View

Top View

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

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