



EM20-85
OEM Scan Engines

Features

Customer Facing Scanning

EM20-85 is a close-range scanner with soft, glare-free illumination which can be pointed in a user's direction without any glare, thus ensuring unique usability for scanning processes in self-service.

Snappy On Screen and Printed Barcode Capture

EM20-85 is ready for any smartphone or tablet presented to it. The wide scan angle and optimization for near-distance scanning match the intuitive way end-users present their device to a scanner. This keeps lines moving and operations running smoothly. Besides, EM20-85 achieves optimal performance in reading commodity barcodes from various materials like paper, plastic and metal.

Optional NFC Functionality

A unique feature of the EM20-85 is the integrated NFC reader module. This allows customers to read either barcodes or NFC tags. It supports access cards, user cards and membership cards

which opens a range of new and exciting possibilities in customer self-service.

Ultra-Compact Size

At less than 2 cm, the slim footprint makes this scan engine easier to fit into super-thin devices.

6th Generation UIMG Technology

The EM20-85 is armed with Newland's latest-generation scanning technology. Sporting a new decoding algorithm on its CPU processor, the engine delivers excellence no matter what code it's facing. Additionally, it allows the firmware to be adapted to your specific environment and application.

EasySet Configuration.

The EM20-85 is compatible with our master configuration software EasySet. Built for Windows OS, this software is a valuable tool to integrators for building and testing configurations, cloning and deploying configurations, and updating scanner firmware.



65.5 mm 61.5 mm 18.3 mm

Suggested industries



Gaming



Healthcare



Hospitality



Parking



Retail

EM20-85 Technical specifications

Data Capture

1D	Code 128, UCC/EAN128, AIM128, EAN-8, EAN-13, ISSN/ISBN, UPC-E, UPC-A, Interleaved 2 of 5, ITF-6, ITF-14, Standard 25, CodaBar, Industrial 25, Code 39, Code 93, Code 11, Plessey, MSI-Plessey, GS1-128 (UCC/EAN-128), GS1-Databar™ (RSS) (RSS14, RSS-Limited, RSS-Expand, Matrix 2 of 5)
2D	PDF 417, Micro PDF 417, QR Code, Micro QR, Data Matrix, Aztec, Maxicode
Image Sensor	640x480 CMOS
Illumination	White LED
Depth of Field EAN 13 (13mil)	30mm-85mm
Depth of Field Code 39 (5mil)	25mm-70mm
Depth of Field PDF417 (6.67mil)	30mm-50mm
Depth of Field DataMatrix (10mil)	25mm-60mm
Depth of Field QR (15mil)	15mm-75mm

Performance

Minimal Print Contrast	25%
Scan Angle Roll	360°
Scan Angle Pitch	±60°
Scan Angle Skew	±60°
Field of View Horizontal	68°
Field of View Vertical	51°
Motion Tolerance	1.5 m/s

Physical

Dimensions (mm)	With foam: 61.5(W) x 18.5 (D) x 18.8 (H)mm (max), With Glass: 61.5 (W) x 65.5 (D) x 18.3 (H)mm (max)
Weight	27.4g (With Foam), 36.4g (With Glass)
Interfaces	TTL-232, RS-232, USB
Notifications	Beeper
Input Voltage	5VDC±5%
Current @ 5VDC Operating	215mA (typical), 578mA (max) (Non-NFC), 253mA (typical), 736 (max) (NFC)
Current @ 5VDC Standby	120mA (Non-NFC), 144 mA (NFC)
Power Consumption	1.07W (Non-NFC), 1.26W (NFC)

Environmental

Ambient Light	0~100,000lux (natural light)
Operating Temperature	-20°C to 60°C
Storage Temperature	-40°C to 70°C
Humidity	5% to 95% (non-condensing)

Wireless

RFID	NFC Function Available, Reading distance of NFC card 0-40mm (typical)
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Specifications are subject to change without notice

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EM20-85 Technical specifications

Accessories

Standard	USB, RS-232, FFC Cable
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Certifications

Hardware	FCC Part15 Class B, CE EMC Class B, RoHS
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