Newland AIDC
SCANNING MADE SIMPLE



EM50S-20

Scan Engines

1D & 2D | CPU | Dual Interface | EasySet | Laser Aimer | Megapixel

Superior Level | Warranty 2 Years







Features

6th Generation UIMG Technology.
The EM50S series 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 faced with. Additionally, it allows the firmware to be adapted to your specific environment and application.

Advanced Megapixel Scanning.
Thanks to advanced megapixel imaging technology, the EM50S series captures high-resolution images with impressive speed and ease. Even OCR, high-density, dual barcodes and DotCode prove no challenge for the EM50S series.

Compact and Dynamic Design.
The EM50S series is compact, lightweight and integration-friendly. With 2 versions available, you can select the perfect engine for you. The EM50S-10 offers a compact, all-in-one housing, while the EM50S-20's separate mounting of the decoder board and imager adds flexibility, ideal for integrations into thin and lightweight equipment.

Intelligent Sensors.
The EM50S series' innovative AEC (Automatic Exposure Control) sensor automatically adjusts to the light conditions. This ensures high-contrast images when reading off mobile screens or in dark environments.

Precision Aiming.
A highly visible laser aimer adds an extra level of accuracy, guaranteeing you hit the codes you intend to scan. This visual guidance is specifically suited to improve scan precision in portable integrations.

EasySet Configuration.
The EM50S series is compatible with our master configuration software EasySet. Built for Windows OS, this software is a useful tool to integrators for building and testing configurations, cloning and deploying configurations, and updating scanner firmware.

2 Years Full Warranty

EasySet

TECHNICAL SPECIFICATIONS

EM50S-20

Data Capture

1D	All major 1D symbologies, including Code 11, Code 128, Code 39, GS1 128 (UCC/EAN-128), AMI 128, Codabar, ISBT 128, Code 93, UPC-A, UPC-E, Coupon, GS1 Composite, EAN-13, EAN-8, ISSN, ISBN, Interleaved 2 of 5, Matrix 2 of 5, ITF14, ITF6, Industrial 25, Standard 25, China Post 25, MSI Plessey, Plessey, GS1 Databar (RSS), Code 49, Code 16K.
2D	All major 2D symbologies, including PDF417, QR Code, Micro QR, Data Matrix, Aztec, MaxiCode, GM Code, Chinese Sensible Code, MicroPDF417, Code One
Aiming	Laser diode (650nm)
Depth of Field Code 39 (5mil)	90 mm - 265 mm
Depth of Field DataMatrix (10mil)	65 mm - 215 mm
Depth of Field EAN 13 (13mil)	70 mm - 500 mm
Depth of Field PDF417 (6.67mil)	70 mm - 225 mm
Depth of Field QR (15mil)	40 mm - 295 mm
Field of View Horizontal	42°
Field of View Vertical	28°
Illumination	White LED
Image Sensor	1280 x 800 CMOS
Minimal Print Contrast	25%
Scan Angle Pitch	±60°
Scan Angle Roll	360°
Scan Angle Skew	±60°

Physical

Current @ 3.3VDC Operating	269 mA (RMS typical), 399 mA (RMS max)
Current @ 3.3VDC Standby	< 70 mA
Dimensions	Imager: 21.5(W) x 10.2(D) x 8.6(H) mm (max.); Decoder board: 21.5(W) x 21.5(D) x 4.2(H) mm (max.)
Input Voltage	3.3 VDC ±5%
Power Consumption	888 mW (typical)
Weight	4 g

Environmental

Humidity	5% to 95% (non-condensing)
Operating Temperature	-20°C to 60°C (-4°F to 140°F)
Storage Temperature	-40°C to 70°C (-40°F to 158°F)

Software

Configuration Tools	EasySet

Certifications

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

Warranty

Warranty Standard	2 Years

Accessories

Accessories Optional	Software development board, RS-232 cable, USB cable, Adapter
Accessories Standard	75mm flexible flat cable (FFC)

Newland AIDC EMEA
SCANNING MADE SIMPLE

Newland AIDC EMEA
Feel free to contact us or a partner near you.
info@newland-id.com - newland-id.com

Specifications are subject to change without notice

© Newland AIDC EMEA 2026 - All rights reserved