



1D & 2D



CPU



Superior



Megapixel



Laser
aimer



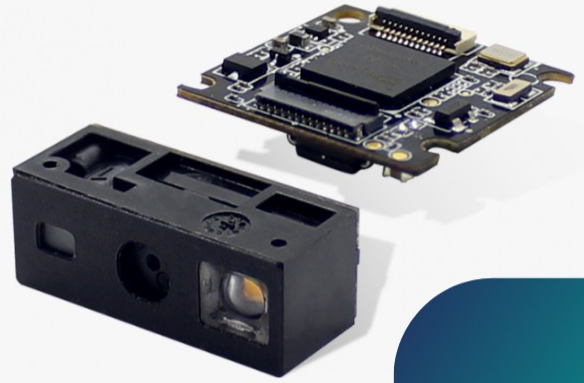
Dual
Interface



EasySet



Warranty
2 Years



EM50S-20
OEM Scan Engines

Features

Superior Scanning Performance.

The EM50S-20 is a CPU based scan engine that delivers stunning performance. Armed with Newland's sixth-generation of UIMG technology, decoding damaged or poor-quality barcodes is no match for this scan engine.

Megapixel CMOS.

Thanks to its 1280x800 pixel CMOS sensor, the EM50S-20 is able to capture high resolution images and decode high density barcodes with ease.

Dynamic Design.

The EM50S-20 delivers on compact, lightweight

and easy integration needs. Separate mountings for the imager and decoder board allow for a wide variety of integration, even in thin and light equipment.

User Friendly Illumination & Aiming.

Designed with the end user in mind, the EM50S-20 features a flicker-free, soft white illumination and a highly visible laser aimer for accurate targeting.

Multiple Interfaces.

The EM50S-20 supports USB and TTL-232 interfaces to meet diverse customer needs.



8.6 mm

21.5 mm

10.2 mm

Suggested industries



Warehousing



Manufacturing



Healthcare



Industrial

EM50S-20 Technical specifications

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
Image Sensor	1280x800 CMOS
Aiming	650nm laser diode
Illumination	White LED
Depth of Field EAN 13 (13mil)	70-500mm
Depth of Field Code 39 (5mil)	90-265mm
Depth of Field PDF417 (6.67mil)	70-225mm
Depth of Field DataMatrix (10mil)	65-215mm
Depth of Field QR (15mil)	40-295mm
Field of View Horizontal	42°
Field of View Vertical	28°
Scan Angle Roll	360°
Scan Angle Pitch	±60°
Scan Angle Skew	±60°
Minimal Print Contrast	25%

Physical

Current @ 3.3VDC Operating	269mA (RMS typical), 399mA (RMS max.)
Current @ 3.3VDC Standby	<70mA
Dimensions (mm)	Imager: 21.5(W)x10.2(D)x8.6(H) mm (max.) Decoder board: 21.5(W)x21.5(D)x4.2(H) mm (max.)
Input Voltage	3.3VDC±5%
Power Consumption	888mW (typical)
Weight	4g

Environmental

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

Accessories

Standard	75mm flexible flat cable (FFC)
Optional	EVK3030-U, RS232 Cable, Adapter, USB Cable

Software

Configuration Tools	EasySet
---------------------	---------

Newland AIDC EMEA

Email address: info@newland-id.com

Feel free to contact us or a partner near you

visit newland-id.com

Specifications are subject to change without notice

© Newland AIDC EMEA 2025, all rights reserved



EM50S-20 Technical specifications

Certifications

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

Warranty

Standard	2 years
----------	---------