Newland AIDC
Scanning Made Simple

NLS-EM50S-20

OEM SCAN ENGINE

FEATURES

○ **Superior Scanning Performance**
Armed with Newland's sixth-generation of **UIMG®** technology, this CPU-based scan engine delivers stunning performance on decoding even poor-quality and damaged barcodes.

○ **Megapixel CMOS**
Thanks to its 1280×800 pixel CMOS sensor, the NLS- EM50S-20 is able to capture high resolution images and decode high density barcodes.

○ **Multiple Interfaces**
The NLS-EM50S-20 supports USB and TTL-232 interfaces to meet diverse customer needs.

○ **Compact, Lightweight Design**
The miniature size, light weight and separate mounting of imager and decoder board facilitate the integration of the NLS-EM50S-20 into a wide variety of thin-and-light equipment.

○ **User-friendly Illumination & Aiming**
Designed with the end user in mind, the NLS-EM50S-20 employs highly visible laser aimer to achieve crisp and accurate targeting while using flicker-free white soft illumination to reduce eye strain and fatigue from long-time operation.

| 1D Barcode | 2D Barcode | OCR | Postal | USB | RS232 |

NLS-EM50S-20

Performance

Image Sensor		1280×800 CMOS
Illumination		White LED
Aimer		650nm laser diode
Symbologies	2D	PDF417, MicroPDF417, QR / MicroQR, DataMatrix, Aztec, HanXin, MaxiCode, GridMatrix, Code One, DotCode
	1D	EAN UPC, Coupon, GS1 Composite, CodaBar, Interleave 25 / ITF-14 / ITF6, Matrix 25, Industrial 25, COOP 25, Standard 25, China post 25, Code 39, Code 93 / Code 93i, Code 128 series, Plessey, MSI Plessey, Code11, RSS, Code 49, Code 16K
	Postal	USPS Postnet, USPS Intelligent Mail, Royal Mail, USPS Planet, KIX, Australian Postal, Japanese Post
	OCR	Passport OCR, Passport Visa, TD1, TD2, etc.
Resolution*		≥3mil
Typical Depth of Field*	EAN-13	70mm-500mm（13mil)
	Code 39	90mm-265mm（5mil)
	PDF417	70mm-225mm（6.7mil)
	Data Matrix	65mm-215mm（10mil)
	QR Code	40mm-295mm（15mil)
Min. Symbol Contrast*		25%
Scan Angle**		Roll: 360°, Pitch: ±60°, Skew: ±60°
Field of View		Horizontal 42°, Vertical 28°

Physical

Interface		TTL-232, USB
Operating Voltage		3.3VDC±5%
Current@3.3VDC	Operating	269mA（RMS typical), 399mA（RMS max.)
	Idle	<70mA
	Sleep	<1mA
Dimensions		Imager: 21.5(W)×10.2(D)×8.6(H) mm (max.)
		Decoder board: 21.5(W)×21.5(D)×4.2(H) mm (max.)
Weight		4g

Environmental

Operating Temperature	-20℃ to 60℃（-4℉ to 140℉）
Storage Temperature	-40℃ to 70℃（-40℉ to 158℉）
Humidity	5% to 95%（non-condensing)
Ambient Light	0~100,000LUX

Certificates

Certificates & Protection	FCC Part15 Class B, CE EMC Class B, RoHS

Accessories

NLS-EVK		Software development board for the NLS-EM50S, equipped with a trigger button, beeper and RS-232 & USB interfaces.
Cable	USB	Used to connect the NLS-EVK to a host device.
	RS-232	Used to connect the NLS-EVK to a host device.
Power Adapter		DC5V power adapter to power the NLS-EVK with RS-232 cable.

*Test conditions: T=23℃; Illumination=300lux using incandescent lamp; sample printed barcodes made by Newland

**Test conditions: Scan Distance=（min. DOF + max. DOF)/2; T=23℃; Illumination=300lux using incandescent lamp; 1D: Code 128; 5 Bytes; Resolution=10mil; PCS=0.8.

Specifications are subject to change without notice.   Version: V1.3

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