



Newland AIDC
Scanning Made Simple



NLS-EM3096-V3

OEM SCAN ENGINE

FEATURES

○ **UIMG[®] Technology**

Built with Newland's sixth-generation of **UIMG[®]** technology, the scan engine can decode even poor quality barcodes with ease.

○ **Compact & Lightweight Design**

Seamless integration of image sensor and decoder board makes the scan engine small, lightweight and easy to fit into even the most space-constrained equipment.

○ **Snappy On-screen Barcode Capture**

The NLS-EM3096 V3 excels at reading barcodes from LCD monitors and mobile phones, making it the ideal choice for the burgeoning barcode-based mobile payment industry.

○ **Outstanding Power Efficiency**

The advanced **NLDC** technology incorporated in the scan engine helps reduce its power consumption and prolong its service life.



CMOS



ID Barcode



2D Barcode



TTL232



USB



CHIP

NLS-EM3096-V3

Performance

| | | |
|-------------------------|-------------|---|
| Image Sensor | | 752 * 480 CMOS |
| Illumination | | Red LED (625nm±10nm) |
| Aimer | | Red LED (625nm±10nm) |
| Symbologies | 2D | PDF 417, Data Matrix (ECC200, ECC000, 050, 080, 100, 140), QR Code, Micro QR, Aztec |
| | 1D | Code 128, EAN-13, EAN-8, Code 39, UPC-A, UPC-E, Code 11, Codabar, Interleaved 2 of 5, ITF-6, ITF-14, ISBN, Code 93, MSI-Plessey, UCC/EAN-128, Matrix 2 of 5, Standard 2 of 5, Plessey, GS1 Databar, Industrial 2 of 5, etc. |
| Resolution* | | ≥4mil (1D) |
| Typical Depth of Field* | EAN-13 | 60mm-290mm (13mil) |
| | Code 39 | 55mm-165mm (5mil) |
| | PDF417 | 55mm-135mm (6.7mil) |
| | Data Matrix | 55mm-130mm (10mil) |
| | QR Code | 45mm-175mm (15mil) |
| Min. Symbol Contrast* | | 20% |
| Scan Angle** | | Roll: 360°, Pitch: ±55°, Skew: ±55° |
| Field of View | | Horizontal 36°, Vertical 23° |

Physical

| | | |
|-------------------------|-----------|--------------------------------------|
| Interface | | TTL-232, USB |
| Operating Voltage | | 3.3VDC ±5% |
| Rated Power Consumption | | 450.5mW (typical) |
| Current@3.3VDC | Operating | 136.5mA (typical), 195mA (max.) |
| | Idle | 8.7mA |
| | Sleep | <100uA |
| Dimensions | | 21.8(W) × 15.3(D) × 11.8(H)mm (max.) |
| Weight | | 4g |

Environmenta

| | |
|-----------------------|--------------------------------|
| 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) |
| Ambient Light | 0-100,000lux (natural light) |

Certificates

| | |
|--------------|--|
| Certificates | FCC Part15 Class B, CE EMC Class B, RoHS |
|--------------|--|

Accessories

| | | |
|---------------|--------|---|
| NLS-EVK | | Software development board for the NLS-EM3096 V3, 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 | | DC 5V power adapter used to provide power for the NLS-EVK. |

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

**Test conditions: Scan Distance= (min. DOF + max. DOF) / 2; T=23°C; Illumination=300lux using incandescent lamp;

2D: QR Code; 10 Bytes; Resolution=15mil; PCS=0.8.

Specifications are subject to change without notice.

Version: V1.1

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