



EM3296V4

Scan Engines



1D & 2D



Chip



CMOS



Compact
Size



Dual
Interface



EasySet



LED
aimer



Power
consumption



Red
illumination



Standard



Warranty
2 Years



11.8 mm 21.8 mm 15.3 mm

Features

Newland's 6th Generation UIMG Technology.

The EM3296 is armed with Newland's latest scanning technology, including our new decoder chip O610. By leveraging our own technology, Newland has further perfected the engine's overall value, simplicity and scan performance, supporting all common 1D, 2D and Aztec codes.

Consistent Allround Performance.

The overall scanning performance of the EM3296 is convincing from paper, plastic and smartphones alike. The engine's CMOS sensor of 640 x 480 pixels ensures consistent decoding on 1D and 2D barcodes. As a result, you can count on speed and efficiency, even when codes are underlit or damaged. Notable is also its ability to scan successfully from cylindrical surfaces.

Outstanding Power Efficiency.

The EM3296 can aim, illuminate and decode barcodes while drawing minimal current from the host device. It prolongs battery life compared to like-for-like scanners, as well as offering an eco-conscious solution.

Near Distance Scanning.

The EM3296 leverages a wide scan angle, red illumination and LED aimer to ensure successful scans, even in low-light environments. This also optimizes the engine's ability to scan codes from up-close.

EasySet Configuration.

The EM3296 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



TECHNICAL SPECIFICATIONS

EM3296V4

Data Capture

1D	All major 1D symbologies, including Code128, UCC/EAN-128, AIM128, EAN-8, EAN-13, ISBN/ISSN, UPC-E, UPC-A, Interleaved 2 of 5, ITF-6, ITF-4, Matrix 2 of 5, Industrial 25, Standard 25, Code 39, Codabar, Code 93, Code 11, Plessey, MSI-Plessey, GS1-DataBarTM(RSS), (RSS-14, RSS-Limited, RSS-Expand).
2D	All major 2D symbologies, including PDF417, QR Code (QR1/2, Micro), Data Matrix (ECC200, ECC000, 050, 080, 100, 140), Aztec, Chinese Sensible Code.

Aiming	Red LED (625±10nm)
Depth of Field Code 39 (5mil)	40 mm - 165 mm
Depth of Field DataMatrix (10mil)	35 mm - 115 mm
Depth of Field EAN 13 (13mil)	50 mm - 365 mm
Depth of Field PDF417 (6.67mil)	45 mm - 115 mm
Depth of Field QR (15mil)	35 mm - 145 mm
Field of View Horizontal	44°
Field of View Vertical	33.2°
Illumination	Red LED (625±10nm)
Image Sensor	640 x 480 CMOS
Minimal Print Contrast	25%
Scan Angle Pitch	±50°
Scan Angle Roll	360°
Scan Angle Skew	±50°
Scan Modes	Trigger Mode, Sense Mode, Continuous Mode, Batch Mode
Scan Rate	100 frames per second

Performance

Decoder	ASIC (0610)
---------	-------------

Physical

Current @ 3.3VDC Operating	100 mA (typical), 168 mA (max)
Current @ 3.3VDC Standby	8,1 mA
Dimensions	21.8(W) × 15.3(D) × 11.8(H) mm
Housing	PPA, PP
Input Voltage	3.3 VDC ±5%
Interfaces	USB, TTL-232
Power Consumption	330 mW
Weight	4 g

Environmental

Ambient Light	0 to 100,000 lux (natural light)
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	FCC, RoHS, CE, EN 62471
-------------------------	-------------------------

Warranty

Warranty Standard	2 Years
-------------------	---------

Accessories

Accessories Optional

USB cable, RS-232 cable, Software development board

Accessories Standard

75mm flexible flat cable (FFC)



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