



**Newland AIDC**  
Scanning Made Simple

## OEM Product Portfolio

Making everyday tasks easier, faster and more intuitive.

# ABOUT US

## Newland AIDC

As one of the world-leading companies in automatic identification and data capture, Newland AIDC empowers your workforce in retail store floor, warehouse & distribution center, manufacturing facility and other industries to transform your business with full data visibility and accuracy.

With our global sales & services network, we are committed to offering cutting-edge data capturing technology that helps our enterprise customers to win.

# OUR STRENGTH

## MEMBER OF NEWLAND GROUP

Newland AIDC (Newland Auto-ID Tech. Co., Ltd.), founded in 1999, is a wholly-owned subsidiary of Newland Digital Technology Co., Ltd. (a listed company, Stock code: 000997) and a member company of Newland Group (Newland Hi-Tech Group Co., Ltd., founded in 1994).

With more than 30 member companies, Newland Group covers 3 high-tech territories -- Information Technology, Internet of Things and Big Data, and provides leading solutions and services including Payment, auto-identification, Telecommunication, Software, Education, etc.

The important acquisitions of Perceive World Technology Co., Ltd. and Speedata were made by Newland, which shined the product portfolio of Newland AIDC with mobile terminal embranchment.

## LEADING IN INDUSTRY

Newland AIDC, with over 20 years of R&D in data capturing & enterprise mobility, is the industry-leading company in China and well-known expert in global market. It is the only company in China that has full stack 2D barcode technology, and the only company that makes 2D decoder ASIC in the world.

Newland owns more than 200 patents related to barcode products/technology:

- 5 patents in USA and 5 patents in Europe.
- 120 patents for IC and 50 patents for scan engine in China.
- 22 patents in 2D barcode IOT business in China.



Data Capture



Traceability



Mobile Payment



Cloud & Big Data



Transportation & Logistics



O2O



IOT



Intelligence



Digitalization





## TECHNOLOGY

As the result of decade's dedication to imaging-based decoding technology, Newland AIDC's exclusive **UIMG®** technology is highly admitted as:

- High-quality digital image capture technology
- Intelligent image processing and decoding technology
- High-performance embedded computing platform
- Embedding application development technology

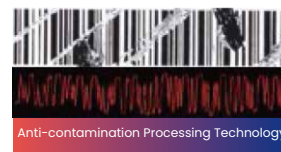
## ADVANCED FACILITIES

From R&D to mass production, Newland AIDC is equipped with comprehensively advanced instruments for experiments, including environmental, mechanical, electrical, safety testing, etc. Professional facilities including radiation anechoic chamber, automatic scanning DOF, speed testing, optical lens testing, etc.

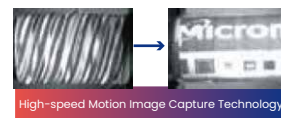
Newland AIDC owns the laboratory approved by CNAS specified in barcode testing, where the generated reports are acknowledged by CNAS mutual recognition organizations amount 80 economy entities worldwide.



Sub-pixel Image Processing Technology



Anti-contamination Processing Technology



High-speed Motion Image Capture Technology



Robot Arm



Barcode DOF Testing System



Anechoic Chamber



Barcode Engine Assembling Line



Automatic Lens Adjustment



Surface Mounting Line

## EXCELLENT SUPPLY CHAIN MANAGEMENT

- ISO20000, ISO9001 and ISO14000 certified
- Stabilized multi-channels for key components supply
- Owns 2000 m<sup>2</sup> modernized factory, including dust-free workshop and engine assembling line. Additional outsourcing factories covering over 10000 m<sup>2</sup>

## CUSTOMIZATION ABILITY

By partnering with Newland AIDC, you will get to leverage our industry-leading technologies and the agile R&D team, shorten the development cycle, and optimize your spending on development, from demand insight to solutions, from engineering to mass production.

Your incumbent market position + Newland's proven track record of success = Maximum of ROI.

OEM SCAN ENGINE



FIXED MOUNT SCANNER >



FM3080

- Support 1D and 2D barcodes
- Scan window: 50 x 50 mm
- Optimized to read on-screen barcodes
- Flush mount: integrates easily into kiosks or counter
- Illumination color can be changed to suit a variety of purposes
- Size: 78.7(L) x 67.7(W) x 47.5(H)mm



New



FM3270

- Support 1D and 2D barcodes
- Improved sensitivity with the combination of IR and light sensors
- Optimized to read on-screen barcodes
- Size: 78.7(L)×47.7(W)×67.7(H)mm

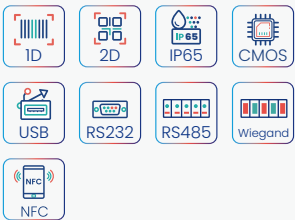


New



FM3280

- Support 1D and 2D barcodes
- Improved sensitivity with the combination of IR and light sensors
- Multiple interface: USB/RS232/RS485/Wiegand
- NFC version available
- Optimized to read on-screen barcodes
- Size: 78.7(L)×47.7(W)×67.7(H)mm







### FM430

- Support 1D and 2D barcodes
- Depth of field: 55-360mm
- Improved sensitivity with the combination of IR and light sensors
- White illumination with laser diode or green LED aimer
- Acuscan: accurate "point-to-read" feature
- Optimized to read on-screen barcodes
- Size: 41.5(L) x 49.5(W) x 24.3(H)mm



New



### FM431

- Support 1D and 2D barcodes
- Depth of field: 55-450mm
- Improved sensitivity with high motion tolerance for rolling or moving barcodes
- Region-of-Interest reading for multi-barcodes at one frame
- Size: 41.5(L) x 49.5(W) x 24.5(H)mm



### FM60

- Megapixel Imager, support 1D and 2D barcodes
- Depth of field: 0-150mm
- Fast motion tolerance 2m/s
- Middle-sized scanning window (96mm\*76mm)
- Ideal for integration into self-service kiosk
- Size: 114(W) x 46(H) x 94(D)mm



### FM80

- Megapixel Imager, support 1D and 2D barcodes
- Depth of field: 0-140mm
- Ultra-fast motion tolerance 3.5m/s
- Large-sized scanning window (118mm\*97mm)
- Ideal for integration into self-service kiosk
- Size: 149(L) x 78.5(W) x 166.5(H)mm



## SCAN ENGINE - ALL IN ONE >



### N1

- Support 1D and 2D barcodes
- Depth of field: 60-350mm
- Operating temperature: -20°C to 55°C (-4°F to 131°F)
- Ultra-small scan engine with decoder
- Size: 21.5(L) x 9.0(W) x 7.0(H)mm



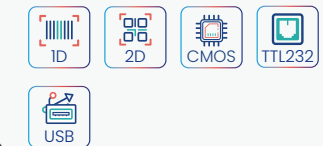
### N1-ER

- Support 1D and 2D barcodes
- Depth of field: 105-680mm
- Operating temperature: -20°C to 55°C (-4°F to 131°F)
- Size: 23.8(L) x 10.5(W) x 7.0(H)mm



### N1-W

- Support 1D and 2D barcodes
- Depth of field: 25-45mm
- 68° ultra-wide FOV & close-range DOF
- Operating temperature: -20°C to 55°C (-4°F to 131°F)
- Size: 23.8(L) x 7.5(W) x 7.0(H)mm





EM2037

- Support 1D / 2D barcodes & Postal codes
- Operating temperature: -20°C to 60°C (-4°F to 140°F)
- Size: 39.5(L) x 25.4(W) x 20.0(H)mm
- Optional SR and HD version
- Wide input voltage: 3.3V-5V
- Support USB direct connection to host



EM3296

- Support 1D and 2D barcodes
- Depth of field: 50-365mm
- Operating temperature: -20°C to 60°C (-4°F to 140°F)
- Size: 21.8(L) x 15.3(W) x 11.8(H)mm



EM3080-W

- Support 1D / 2D barcodes
- Depth of field: 40mm-110mm
- Operating temperature: -20°C to 50°C (-4°F to 122°F)
- Size: 15.5(L) x 13.9(W) x 9.7(H)mm



EM3396

- Support 1D and 2D barcodes
- Depth of field: 60-290mm
- Operating temperature: -20°C to 55°C (-4°F to 131°F)
- Size: 21.5(L) x 15.3(W) x 11.8(H)mm



NEW



EM3088-W

- Support 1D / 2D barcodes
- Depth of field: 30mm-85mm
- Operating temperature: -20°C to 60°C (-4°F to 158°F)
- Size: 21.7(L) x 14.5(W) x 12(H)mm



EM50S-10

- Support 1D, 2D and OCR codes
- White eye friendly illumination
- Smallest 2D all-in-one megapixel hardware decoding engine
- Acuscan: accurate "point-to-read" feature
- Size: 21.7(L) x 14.7(W) x 11.9(H)mm



EM3096

- Support 1D and 2D barcodes
- Depth of field: 60-290mm
- Operating temperature: -20°C to 60°C (-4°F to 140°F)
- Size: 21.8(L) x 15.3(W) x 11.8(H)mm



## SCAN ENGINE – SPECIAL DESIGN >

### EM20-80



- Support 1D and 2D barcodes
- Depth of field: 25-110mm
- Optimized to read on-screen barcodes
- Operating temperature: -40°C to 65°C (-4°F to 149°F)
- Size: 61.5(L) x 65.5(W) x 31.9(H)mm



### EM20-85



- Support 1D and 2D barcodes
- Depth of field: 25-85mm
- Operating temperature: -20°C to 60°C (-4°F to 140°F)
- Optional for NFC version
- Size: 61.5(W) x 65.5(D) x 18.3(H)mm



## SCAN ENGINE – SPLIT >

### EM50S-20



- Support 1D, 2D and OCR codes
- White eye-friendly illumination
- Smallest 2D split megapixel hardware decoding engine
- Acuscan: accurate “point-to-read” feature
- Size: 21.5(L) x 10.2(W) x 8.6(H)mm



## SCAN ENGINE – IVD >

### FM510



- Support 1D barcodes
  - Ultra-High Scan Speed and Motion Tolerance:  
780 scans per second
  - Depth of field:  
FM510-V: 15-95mm; FM510-H: 25-105mm
  - Operating temperature: 0°C to 50°C (32°F to 122°F)
  - Size: FM510-V: 62.5(W)×57(D)×21.5(H)mm;  
FM510-H: 62.5(W)×50.5(D)×21.5(H)mm; 120g
- \*\* For IVD only*



### FM515



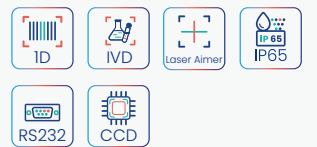
- Support 1D barcodes
  - Ultra-High Scan Speed and Motion Tolerance:  
780 scans per second
  - Depth of field:  
FM515-V: 25-180mm; FM515-H: 25-190mm
  - Operating temperature: 0°C to 50°C (32°F to 122°F)
  - Size: FM515-V: 62.5(W)×57(D)×21.5(H)mm;  
FM515-H: 62.5(W)×50.5(D)×21.5(H)mm; 166g
- \*\* For IVD only*



### FM530



- Support 1D barcodes
- Ultra-high scan speed and motion tolerance,  
780 scans per second
- long-distance scanning up to 10 to 15 rows
- Ultra-compact design
- Laser positioning
- Wide voltage input
- Operating temperature: 0° to 50°C (32°F to 122°F)
- Size: 110(L) x 90(W) x 29(H)mm



New



### FM550

- Support 1D / 2D barcodes
- Depth of view: Horizontal 52°, Vertical 76.5°
- Dual laser aiming
- Ultra-Compact Design
- Able to transmit images in the specific area in different formats
- Operating temperature: 0° to 50°C (32°F to 122°F)
- Size: 54(L) x 27.5(W) x 25.5(H)mm

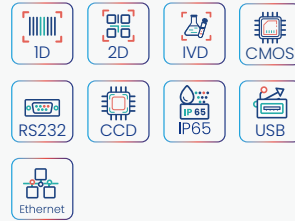


New



### FM600

- Support 1D & 2D barcodes
- Powerful Deep Learning Function
- Integrated Algorithm Solution
- Modular Design
- Adjustable Focus
- RS-232, Ethernet and USB interfaces
- Operating temperature: 0° to 50°C (32°F to 122°F)
- Size: 55.5(L) x 37(W) x 42.5(H)mm



## ODM & JDM >

By leveraging extensive experiences on development of scanning and enterprise mobility, and capacity of manufacturing for supply chain, Newland AIDC ready to provide professional contract manufacturing and product support services to our customers.



## PRIVATE LABEL >

By private labeling Newland AIDC's solutions and technologies, customer gets to shorten the cycle of product development, maximize the ROI.





RECOMMENDED FOR YOU INNOVATION



Self Service & Vending Machine & Kiosk






Model No.	Image	Decode Capability	Depth of Field	Window Size	Interface	Illumination	Dimension (mm)
EM20-80		1D&2D	25-110mm	50×61mm	RS-232 USB TTL-232	White LED	61.5(L) 65.5(W) 31.9(H)
EM20-85		1D&2D	30-85mm	/	TTL-232 RS-232 USB	White LED	61.5(L) 65.5(W) 18.3(H)
FM3280		1D&2D	0-290mm	45×45mm	RS-232 USB RS-485 Wiegand	White LED	47.7(L) 78.7(W) 67.7(H)
FM430		1D&2D	55-360mm	/	RS-232 USB	White LED	41.5(L) 49.5(W) 24.3(H)
FM60		1D&2D	0-140mm	50×61mm	RS-232 USB	White LED	114(L) 46(W) 94(H)
FM80		1D&2D	0-140mm	75.5×95.5mm	RS-232 USB	Red LED	149(L) 78.5(W) 166.5(H)






Ticket Validation & Access Control



EFT POS & Mobile Computer


Model No.	Image	Decode Capability	Depth of Field	Form Factor	Interface	Illumination	Dimension (mm)
EM20-80		1D&2D	25-110mm	All-in-One	RS-232 USB TTL-232	White LED	61.5(L) 65.5(W) 31.9(H)
EM20-85		1D&2D	30-85mm	All-in-One	RS-232 USB TTL-232	White LED	61.5(L) 65.5(W) 18.3(H)
FM3080		1D&2D	/	All-in-One	RS-232 USB	4 Color Options	78.7(L) 67.7(W) 47.5(H)
FM3280		1D&2D	0-290mm	All-in-One	RS-232 USB RS-485 Wiegand	White LED	47.7(L) 78.7(W) 67.7(H)
FM430		1D&2D	55-360mm	All-in-One	RS-232 USB	White LED	41.5(L) 49.5(W) 24.3(H)

Model No.	Image	Decode Capability	Depth of Field	Form Factor	Interface	Illumination	Dimension (mm)
N1		1D&2D	60-350mm	All-in-One	USB TTL-232	Red LED	21.5(L) 9.0(W) 7.0(H)
EM50S-10		1D&2D Postal, OCR	70-500mm	All-in-One	RS-232 USB TTL-232	White LED	21.7(L) 14.7(W) 11.9(H)
EM50S-20		1D&2D Postal, OCR	70-500mm	Split-up	USB TTL-232	White LED	Imager: 21.5×10.2×8.6 Decoder board: 21.5×21.5×4.2



In Vitro Diagnostics






Model No.	Image	Decode Capability	Depth of Field	Scan Speed	Interface	Illumination	Dimension (mm)
FM510 Series		1D	FM510-V: 15-95mm FM510-H: 25-105mm	780 scans/sec	USB TTL-232	Red LED	57(L)×62.5(W)×21.5(H)
FM515 Series		1D	FM515-V: 25-180mm FM515-H: 25-190mm	780 scans/sec	USB TTL-232	Red LED	57(L)×62.5(W)×21.5(H)
FM530		1D	30-350mm	780 scans/sec	RS232	Red LED	110(L)×90(W)×29.8(H)
FM550		1D & 2D	45-150mm	60 scans/sec	RS232 USB	White LED	25.5(L)×27.5(W)×54(H)
FM600		1D & 2D	Adjustable Focal Length	60 scans/sec	Ethernet RS232 USB	White LED	37(L)×37(W)×42.5(H)

Model No.	Image	Decode Capability	Depth of Field	Form Factor	Interface	Illumination	Dimension (mm)
NI		1D&2D	60-350mm	All-in-One	USB TTL-232	White LED	21.5(L) 9.0(W) 7.0(H)
EM2037V4		1D&2D	60-240mm	All-in-One	USB TTL-232	Red LED	39.5(L) 25.4(W) 20.0(H)
EM3080-W		1D&2D	40-110mm	All-in-One	USB TTL-232	White LED	15.5(L) 13.9(W) 9.7(H)
EM3088-W		1D&2D OCR, Images	30-85mm	All-in-One	USB TTL-232	White LED	21.7(L) 14.5(W) 12(H)
EM50S-10		1D&2D Postal, OCR	70-500mm	All-in-One	USB TTL-232	White LED	21.7(L) 14.7(W) 11.9(H)






















Voting Machine & Gaming

Model No.	Image	Decode Capability	Depth of Field	Form Factor	Interface	Illumination	Dimension (mm)
N1		1D&2D	60-350mm	All-in-One	USB TTL-232	Red LED	21.5(L) 9.0(W) 7.0(H)
EM20-80		1D&2D	25-110mm	All-in-One	RS-232 USB TTL-232	White LED	61.5(L) 65.5(W) 31.9(H)
EM20-85		1D&2D	30-85mm	All-in-One	RS-232 USB TTL-232	White LED	61.5(L) 65.5(W) 18.3(H)
EM3296		1D&2D	50-365mm	All-in-One	USB TTL-232	Red LED	78.7(L) 67.7(W) 53(H)
FM430		1D&2D	55-360mm	All-in-One	RS-232 USB	White LED	41.5(L) 49.5(W) 24.3(H)












OEM PRODUCT AT-A-GLANCE

OEM PRODUCT AT-A-GLANCE (SCAN ENGINE)











Image											
Model No.	NI	EM2037	EM3080-W	EM3088-W	EM3096	EM3296	EM3396	EM50S-10	EM50S-20	EM20-80	EM20-85
Scanning Capabilities	1D 2D	1D 2D Postal OCR	1D 2D	1D 2D OCR	1D 2D	1D 2D	1D 2D	1D 2D Postal OCR	1D 2D Postal OCR	1D 2D	1D 2D
Illumination	White	Red	White	White	Red	Red	Red	White	White	White	White
Aiming Pattern			/	/						/	/
Used For	Fixed/Mobile Device	Fixed/Mobile Device	Fixed/Mobile Device	Fixed/Mobile Device	Fixed/Mobile Device	Fixed/Mobile Device	Fixed/Mobile Device	Fixed/Mobile Device	Fixed/Mobile Device	Fixed Device	Fixed Device
Form Factor	All-in-One	All-in-One	All-in-One	All-in-One	All-in-One	All-in-One	All-in-One	All-in-One	Split	All-in-One	All-in-One
Interface	Serial & USB	Serial & USB	Serial & USB	Serial & USB	Serial & USB	Serial & USB	Serial & USB	Serial & USB	Serial & USB	Serial & USB	Serial & USB
Scanning Range	Standard Range	SR: Standard Range HD: Near Field	Near Field	Near Field	Standard Range	Standard Range	Standard Range	Standard Range	Standard Range	Near Field	Near Field
Field of View Medium ★ Large ★★ Ultra-large ★★★	★	SR: ★ HD: ★★	★★	★★★★	★	★	★	★	★	★★	★★
Dimension Small ★★★★★ Medium ★★★★★ Large ★★	★★★★	★★	★★★★	★★	★★	★★	★★	★★	★★	★	★

OEM PRODUCT AT-A-GLANCE (FIXED MOUNT SCANNER)

Image							
Model No.	FM3080	FM3270	FM3280	FM430	FM431	FM60	FM80
Scanning Capabilities	1D 2D	1D 2D	1D 2D	1D 2D Postal OCR	1D 2D Postal OCR	1D 2D Postal OCR	1D 2D Postal OCR
Illumination	White	White	White	White	White	White	Red
Aiming Pattern	/	/	/	Optional 	Configurable 	/	/
Used For	Fixed Device	Fixed Device	Fixed Device	Fixed Device	Fixed Device	Fixed Device	Fixed Device
Form Factor	All-in-One	All-in-One	All-in-One	All-in-One	All-in-One	All-in-One	All-in-One
Interface	Serial & USB	Serial & USB	Serial & USB & RS485 & Wiegand	Serial & USB	Serial & USB	Serial & USB	Serial & USB
Scanning Range	Near Field	Near Field	Near Field	Standard Range	Near Filed Standard Range Optional	Standard Range	Standard Range
Field of View Medium ★ Large ★★ Ultra-large ★★★	★★	★★	★★★	★★	★★	★★	★★
Dimension Small ★★★ Medium ★★ Large ★	★★	★★	★★	★★★	★★★	★★	★



# OEM PRODUCT AT-A-GLANCE (In vitro diagnostics)

Image					
Model No.	FM510	FM515	FM530	FM550	FM600
Scanning Capabilities	ID	ID	ID	ID & 2D	ID & 2D & Vision
Illumination	Red	Red	Red	White	White
Aiming Pattern					
Used For	Fixed Device	Fixed Device	Fixed Device	Fixed Device	Fixed Device
Form Factor	All-in-One	All-in-One	All-in-One	All-in-One	All-in-One
Interface	Serial	Serial	Serial	Serial & USB	Serial & USB & Ethernet
Scanning Range	Near Field	Near & Middle Field	Near / Middle / Far Field	Near Field	Near / Middle / Far Field
Field of View Medium ★ Large ★★ Ultra-large ★★★	★★	★★	★★	★★★	★ ★★ ★★★
Dimension Small ★★★ Medium ★★ Large ★	★★	★★	★	★★★	★★★

# CONTACT US



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