



# **DATAMAN 8700DX**

## **HANDHELD BARCODE READER**

Cutting-edge performance  
for the toughest codes

**COGNEX**



## DATAMAN 8700DX HANDHELD BARCODE READER

Cutting-edge performance for the toughest codes

Manufacturing environments in automotive, medical device, electronics, aerospace, and other industries require rugged, high performing, and easy to use barcode reading technology to ensure top component traceability and productivity. The DataMan® 8700DX handheld barcode reader decodes the toughest direct part mark (DPM) and label-based codes while withstanding harsh oils, dirt, and water. A built-in display screen enables quick setup and operator feedback, and the reader supports a broad range of industrial protocols and communications to connect and operate efficiently in any facility.

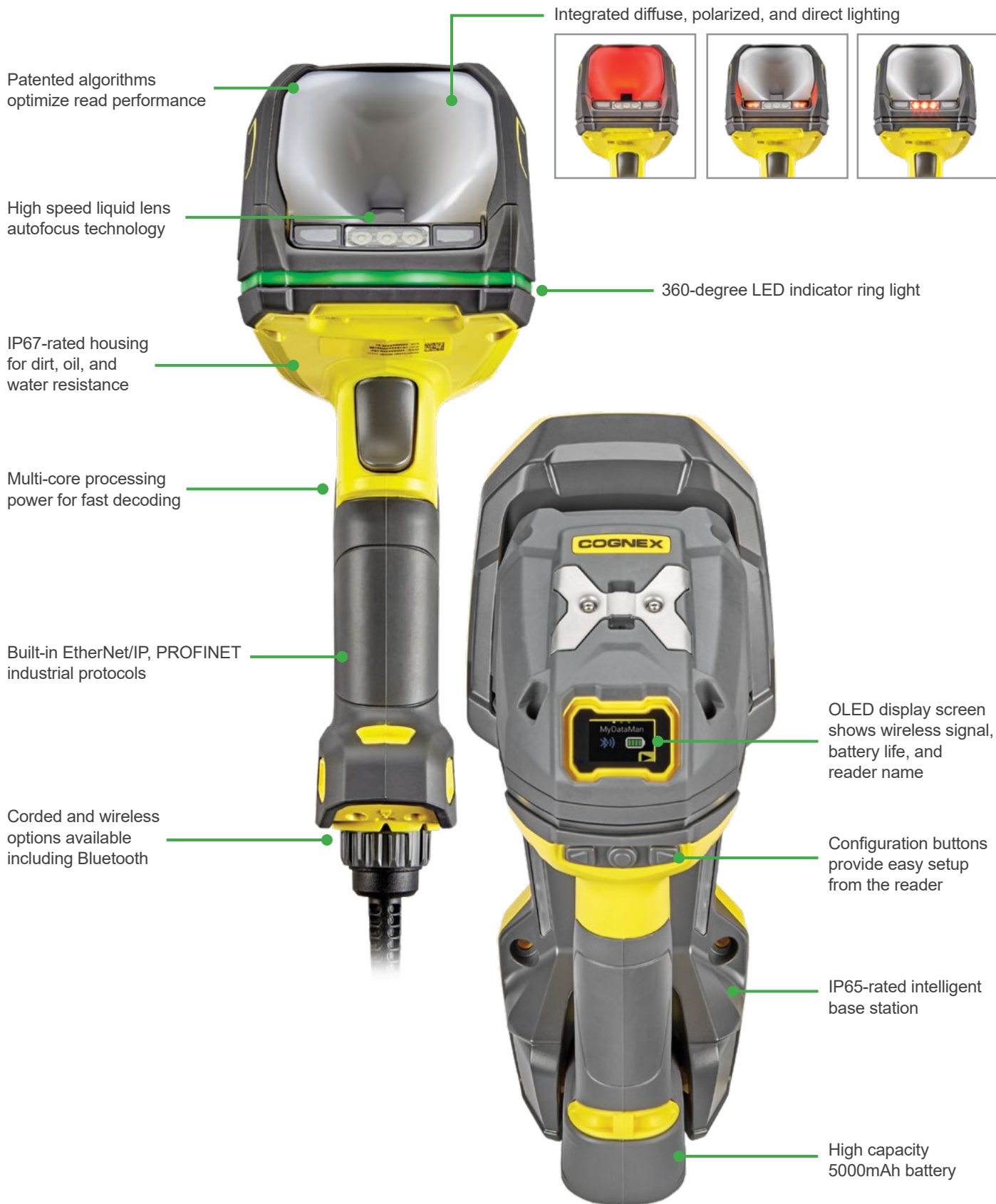
- Oil and water resistant
- High capacity battery
- Patented decoding algorithms
- Advanced integrated lighting
- Fast response times

### Oil- and water-resistant housing

In the past, oils and fluids surrounding the application site have quickly damaged barcode scanners, but the DataMan 8700DX is built to last in the harshest environments. It has IP67-rated housing and meets the ISO 16750-5 oil specification for oil resistance. It is submersible in one meter of water without causing damage and withstands multiple drops from 2.5 meters onto concrete.



## Rugged design with innovative technology



## Premium read performance in milliseconds

DataMan 8700DX is equipped with the latest patented decoding algorithms, HDR technology, integrated lighting, high speed liquid lens, and a multi-core processor to read codes in under 150 milliseconds.



1DMax



Hotbars

**1DMax® with Hotbars®** is an algorithm and technology optimized for omnidirectional 1D barcode reading, decoding up to 10X the speed of a conventional barcode reader.

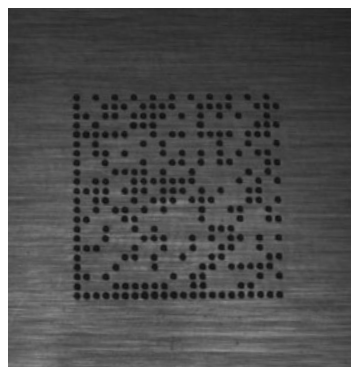


2DMax

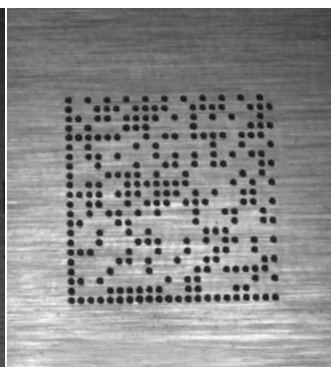


PowerGrid

**2DMax® with PowerGrid®** is a breakthrough algorithm and technology designed to read 2D codes with significant damage to or complete elimination of a code's finder or clocking pattern, or quiet zone.



No HDR



With HDR



**High Dynamic Range (HDR)** imaging uses the latest CMOS image sensor technology to acquire single images that are significantly more detailed than conventional sensors. HDR takes advantage of the extra available image data to:

- Enhance image quality and contrast
- Show more detail in the image
- Capture features that were not visible before
- Increase depth of field
- Reduce light intensity



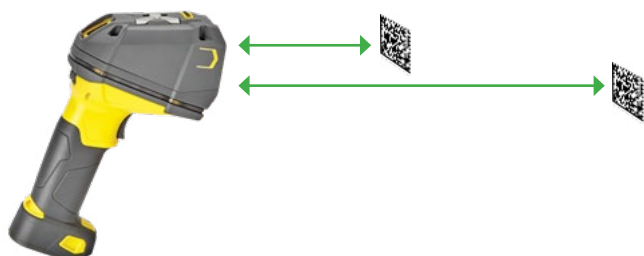
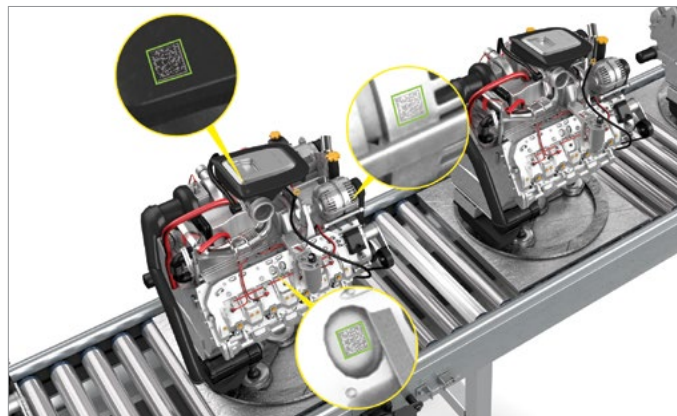
**High speed multi-core processor** provides ultra-high speed decode response times, enabling operators to scan codes faster.







Integrated **diffuse, polarized, and direct lighting** enables superior image formation to read dot peen, laser-etched, and label-based codes on challenging (shiny, cylindrical, dark) surfaces without any hot spots.

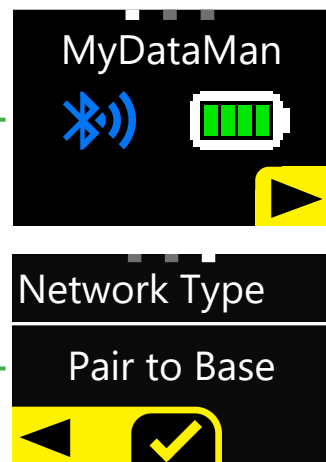


**High speed liquid lens (autofocus) technology** automatically adapts to changes in working distances without any reconfiguration or wait time to focus. It enables greater depth of field range without compromising optical quality to read codes faster and easier at distances near and far.

## Easy setup

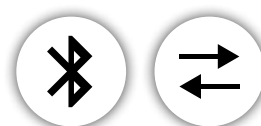
DataMan 8700DX provides a first-of-its-kind OLED display screen to make setup easy and to give operators quick and intuitive feedback without connecting to a PC.

- Setup the reader using the configurator buttons below the screen
- Name the reader so it's easy to know which station it belongs to
- View the wireless signal strength to ensure the reader is within range
- Monitor battery life so the reader doesn't power down mid-shift
- Review code data to ensure a successful read



## Expanded communications

Integrated industrial protocols enable DataMan 8700DX to easily connect to PLCs and factory networks. The DataMan 8700DX supports more communication options than ever before including Bluetooth 4.2 and a corded option. It allows for a direct connection to computers, tablets, and phones.



DataMan 8700DX offers cutting-edge performance, robustness, and ease-of-use to improve part traceability and improve factory efficiency and productivity. To learn more, visit [cognex.com/dataman-8700](http://cognex.com/dataman-8700).

## SPECIFICATIONS

|                                     |                                                                                                                                                                                                                                                                                                                                     |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Algorithms                          | 1DMax, 2DMax, Hotbars, PowerGrid                                                                                                                                                                                                                                                                                                    |
| Resolution                          | 1.6MP                                                                                                                                                                                                                                                                                                                               |
| Lens                                | 8mm lens with liquid lens                                                                                                                                                                                                                                                                                                           |
| Aimer                               | On-axis green LED aimer                                                                                                                                                                                                                                                                                                             |
| Status Outputs                      | OLED display, LED ring light, beeper, vibration                                                                                                                                                                                                                                                                                     |
| Communications                      | Serial: RS-232 and USB<br>Ethernet: TCP/IP, FTP, industrial protocols: EtherNet/IP, PROFINET, MC protocol, Modbus TCP<br>Intelligent base station: RS-232, USB, Ethernet, industrial protocols<br>Bluetooth communicates to intelligent Bluetooth base station or directly to PC/phone/tablet                                       |
| Lighting                            | Diffuse, polarized, direct                                                                                                                                                                                                                                                                                                          |
| Symbologies                         | 1D: UPC/EAN/JAN, Codabar, Interleaved 2 of 5, Code 39, Code 128, Code 93, POSTNET, PLANET Code, IMB, Postal<br>2D: Data Matrix, QR, MicroQR, PDF417, MaxiCode, Aztec                                                                                                                                                                |
| Dimensions                          | Wireless: 221mm (H) x 112.5mm (L)<br>Corded: 241mm (H) x 112.5mm (L)                                                                                                                                                                                                                                                                |
| Weight                              | Wireless weight: 530 g (battery included)<br>Corded weight: 450 g (+ approx. 130 g for cables)                                                                                                                                                                                                                                      |
| Operating Temperature               | 0°C–40°C (32°F–104°F)                                                                                                                                                                                                                                                                                                               |
| Storage Temperature                 | -40°C–60°C (-40°F–140°F)                                                                                                                                                                                                                                                                                                            |
| Maximum Humidity                    | 95% (non-condensing)                                                                                                                                                                                                                                                                                                                |
| Power Supply Requirements           | DataMan 8700 with serial/USB: 5.5 V DC, 6.0 W maximum LPS or NEC Class 2 power supply<br>DataMan 8700 with Ethernet: PoE Class 2 power supply<br>DataMan 8700 with Bluetooth: 3.7 V, 5000 mAh Li-ion battery<br>DataMan Intelligent Base Station: 5.5 V DC, 6 W maximum LPS or NEC Class 2 power supply or PoE Class 2 power supply |
| Wireless Unit Scans per Full Charge | 125,000+                                                                                                                                                                                                                                                                                                                            |
| Protection                          | Handheld reader: IP67; Base station: IP65                                                                                                                                                                                                                                                                                           |
| Drop Test                           | Multiple drops from 2.5 meters                                                                                                                                                                                                                                                                                                      |
| Environmental                       | Compliant with latest EU RoHS and China RoHS                                                                                                                                                                                                                                                                                        |
| Regulatory                          | EU: CE EMC & RED<br>USA/Canada: cTUVus IEC 61010-1, part 15B, ICES 03<br>Korea: KCC                                                                                                                                                                                                                                                 |
| Data Validation                     | US DoD UID guidelines, GS-1, ISO15434 and ISO15418                                                                                                                                                                                                                                                                                  |
| Operating System                    | Windows 7 and Windows 10                                                                                                                                                                                                                                                                                                            |

# COGNEX

Companies around the world rely on Cognex vision and barcode reading solutions to optimize quality, drive down costs and control traceability.

**Corporate Headquarters** One Vision Drive Natick, MA 01760 USA

### Regional Sales Offices

#### Americas

North America +1 844-999-2469  
Brazil +55 (11) 2626 7301  
Mexico +800 733 4116

#### Europe

Austria +49 721 958 8052  
Belgium +32 289 370 75  
France +33 1 7654 9318  
Germany +49 721 958 8052

Hungary +36 800 80291  
Ireland +44 121 29 65 163  
Italy +39 02 3057 8196  
Netherlands +31 207 941 398  
Poland +48 717 121 086  
Spain +34 93 299 28 14  
Sweden +46 21 14 55 88  
Switzerland +41 445 788 877  
Turkey +90 216 900 1696  
United Kingdom +44 121 29 65 163

#### Asia

China +86 21 6208 1133  
India +9120 4014 7840  
Japan +81 3 5977 5400  
Korea +82 2 530 9047  
Malaysia +6019 916 5532  
Singapore +65 632 55 700  
Taiwan +886 3 578 0060  
Thailand +66 88 7978924  
Vietnam +84 2444 583358

© Copyright 2021, Cognex Corporation.  
All information in this document is subject to change without notice. All Rights Reserved. Cognex, DataMan, 1DMax, Hotbars, 2DMax, PatMax, and PowerGrid are registered trademarks of Cognex Corporation. All other trademarks are property of their respective owners. Lit. No. DSDM8700DX-01-2021

**www.cognex.com**