

DATAMAN 262 ULTRA HIGH DEFINITION BARCODE READER

High performance barcode reader for direct part mark (DPM) microcodes



In today's fast paced electronics market, devices and their components are increasingly getting smaller. Additionally, today's manufacturing process requires that each individual component has a unique code directly marked (DPM) on the part. With little room to mark the code, the size of the code ends up being well below other market standards. Code sizes of 3 mil or less, or in extreme cases, sub-1 mil codes ($<25\text{ }\mu\text{m}$ in size) are becoming standard in the electronics industry.

To reliably image and decode these very small codes (microcodes), users must use large systems, comprised of many individual components including a high resolution barcode reader, an expensive telecentric lens and an external light. The cost, setup and footprint of the system is far from ideal. The setup of this system requires the alignment and optimization of each individual component, wasting time and resources and introducing user error. Marking and assembly machines today have limited space, making the large footprint of these systems unfeasible. With such difficult constraints (cost, size and ease of use), finding a system to read these microcodes reliably, efficiently and cost effectively has been an arduous task, until now.

A better solution for reading microcodes

The DataMan[®] 262 Ultra High Definition barcode reader is the answer. The DataMan 262 Ultra High Definition barcode readers were designed to read DPM microcodes that are marked directly on any surface of components today. The DataMan 262 Ultra High Definition barcode reader is small in size while delivering the best performance on DPM microcodes, running Cognex's industry best algorithms. Setup is a snap as the reader, the optics and the lighting are contained in one small package. Additionally, the size of the reader allows for installation into the small spaces on today's marking and assembly machines. All of this adds up to the best ID reader and easiest to deploy to read the most challenging microcodes.

DataMan 262 Ultra High Definition key details

1. **Performance** – Highest read rates on DPM microcodes, down to 0.7 mil codes
2. **Ease of use** – Small, integrated package containing lens and light eliminates the need for and setup of separate lighting and expensive lenses.
3. **Compact Size** – Easily install into small spaces on microcode marking and assembly machines

The DataMan 262 Ultra High Definition barcode reader makes reading microcodes in the electronics market reliable, easy to install and setup, and cost effective. For more information, talk to your local Cognex Sales Engineer today.

SPECIFICATIONS

	DataMan 262 Series with UltraHD technology																							
Barcode reading algorithms	1DMax® with HotBars® II technology and 2DMax® with PowerGrid™ technology																							
Lens	25 mm, f/6.0																							
Lighting	On-axis (bright field) and off-axis (low angle dark field)																							
Working distance	30 mm																							
Field of view	7 mm x 5.3 mm																							
Minimum module size	0.7 mil																							
Image sensor	1/3 inch CMOS																							
Image sensor properties	4.8 mm (W) x 3.6 mm (H), 3.75 μm2 pixels																							
Image resolution	1280 x 960																							
Environmental Protection	IP40																							
Weight	142 g																							
Operating temperature	0 °C–40 °C (32 °F–104 °F)																							
Storage temperature	-10 °C–60 °C (-14 °F–140 °F)																							
Maximum humidity	<95% (non-condensing)																							
RS-232	RxD, TxD according to TIA/EIA-232-F																							
Supported code symbologies	DataMatrix, (1DMax: ECC 0, 50, 80, 100, 140 and 200; IDQuick: ECC 200), QR Code, microQR code, UPC, EAN, JAN, Codabar, Interleaved 2 of 5, Code 25, Code 39, Code 128, Code 93, Pharma, Postal, RSS/CS, PDF 417, MicroPDF 417, AztecCode, DotCode, MaxiCode and MSI																							
Discrete I/O operating limits	<table><tr><td rowspan="6">HS Output 0, 1, 2, 3 Input 0 (Trigger) Input 1</td><td>I_{MAX}</td><td>@ 24 VDC</td><td>50 mA</td></tr><tr><td>R_{MAX}</td><td>@ 12 VDC</td><td>150 Ω</td></tr><tr><td></td><td>@ 24 VDC</td><td>470 Ω</td></tr><tr><td>V_{IH}</td><td colspan="2">±15–±25 V</td></tr><tr><td>V_{IL}</td><td colspan="2">0–±5 V</td></tr><tr><td>IT_{YP}</td><td>@ 12 VDC</td><td>2.0 mA</td></tr><tr><td></td><td></td><td>@ 24 VDC</td><td>4.2 mA</td></tr></table>	HS Output 0, 1, 2, 3 Input 0 (Trigger) Input 1	I_{MAX}	@ 24 VDC	50 mA	R_{MAX}	@ 12 VDC	150 Ω		@ 24 VDC	470 Ω	V_{IH}	±15–±25 V		V_{IL}	0–±5 V		IT_{YP}	@ 12 VDC	2.0 mA			@ 24 VDC	4.2 mA
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Power supply requirements	Ethernet with external power (no PoE): 24 VDC +/- 10%, max. 3.0 W																							
Power consumption	<3.0 W (external power)																							
Ethernet speed	10/100																							
Duplex mode	Full duplex or half duplex																							

COGNEX

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

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