

# DB0431 OEM DECODER



## SMALL AND POWERFUL DECODING FOR ALL SCAN ENGINES

The DB0431 OEM Decoder is a general-purpose decoder board capable of connecting to any Datalogic Undecoded Scan Engine. The powerful processor provides fast decoding for VGA, WVGA and Megapixel scan engines in a compact footprint. USB and RS-232 interfaces are supported in one model for plug & play integration.

## OPTIMUM DECODING FOR ALL APPLICATIONS

Incorporating the latest Datalogic decoding libraries, the DB0431 gives World-Class performance that is capable of the most demanding applications, including DIGIMARC and OCR Applications. Whether quickly decoding megapixel video or high frame rate VGA input, one model does it all.

## EASY INTEGRATION

With input connections for MIPI and Parallel video, the DB0431 is compatible with all Datalogic Undecoded Scan Engines, including the Halogen™ DE2X1X and the Halogen™ DE210X Micro Scan Engines. Both scan engines work immediately upon connection and are supported by simple and powerful tools for configuration and firmware updates.

Support for both USB and RS-232 host interface in a single model is perfect for integrators who must support multiple platforms and applications.

## FEATURES

- One model supports all Datalogic Undecoded Scan Engines
- Optimal for integrators working with multiple applications
- Latest Datalogic Decoding Libraries for world-class performance
- Simple utility for configuration and firmware update in addition to label programming
- Powerful processing, optimized for megapixel scan engines
- Small footprint for easy integration
- Micro-USB and ribbon connector for USB Interface

## Industry - Applications

- OEM Applications: Self-Service Kiosks
- Medical / Laboratory Devices
- Lottery Terminals
- POS Terminals
- Access Control Devices
- Small Wireless Scanning Devices
- Handheld Terminals and PDAs
- Automated Data Capture Devices

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## TECHNICAL SPECIFICATIONS

### DECODING CAPABILITY

<b>1D / Linear Codes</b>	All standard 1D codes including: UPC/EAN/JAN, P2 / P5 add-ons; Code 39; Italian Pharmacode 39; Code 128; C128 ISBT; I 2 of 5; Standard 2 of 5; Interleaved 2 of 5; Industrial 2 of 5; Datalogic 2 of 5; IATA; Code 11; Codabar; ABC Codabar; EAN 128; Code 93; MSI/Plessey; RSS-14; BC412; Databar Limited; Databar Omnidirectional; Databar Expanded; IATA; Trioptic; Matrix 2/5; Telepen. Composite codes CC-A, CC-B and CC-C
<b>2D Codes</b>	Aztec Code; China Han Xin Code; Data Matrix; MaxiCode; Micro QR Code; QR Code
<b>Postal Codes</b>	Australian Post; British Post; China Post; IMB; Japanese Post; KIX Post; Planet Code; Postnet; Royal Mail Code (RM4SCC)
<b>Digital Watermarks</b>	Supports Digimarc® Barcode

### CURRENT CONSUMPTION (RMS @ 5V)

<b>With DE2012 Scan Engine Connected</b>	Operating (scan engine running / decoding): 235 mA Idle (scan engine stop / ready): 45 mA Low power (standby / suspend): 5 mA Peak current: <400 mA (<500 us peak width)
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### ELECTRICAL

<b>Input Voltage</b>	3.2V to 5.5V – USB power compliant (increased range after startup: 3V to 5.5V)
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### ENVIRONMENTAL

<b>Temperatures</b>	Operating temperature: -30 to 60 °C / -22 to 140 °F Storage temperature: -40 to 70 °C / -40 to 158 °F
<b>Humidity (Non-Condensing)</b>	95% RH
<b>Mechanical Shock</b>	2000 G ± 5% (at -30° and 70° C for a period of 0.85 ± 0.05 msec); 2500 G ± 5% (at 23° C for a period of 0.85 ± 0.05 msec)
<b>ESD Protection (Air Discharge)</b>	±2.0 KV

### INTERFACES

<b>Interfaces</b>	Scan Engine FFC/FPC connectors: 21-pin for MIPI CSI2 interface scan engine and 21-pin connector for parallel interface scan engine; Host FFC/FPC connector: 27-pin with USART-TTL and USB FullSpeed interfaces, plus signaling/control interface; microUSB connector: USB power and FullSpeed interface
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### PHYSICAL CHARACTERISTICS

<b>Length</b>	Length: 30 ± 0.1 mm
<b>Width</b>	Width: 30 ± 0.1 mm
<b>Height</b>	Height: 6.45 ± 0.1 mm
<b>Weight</b>	Weight: 6 g

### SAFETY & REGULATORY

<b>Environmental Compliance</b>	Complies to China RoHS; Complies to EU RoHS
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### SOFTWARE

<b>Application</b>	Datalogic Aladdin™, Datalogic Decoded Engine Simple Protocol (DESP) Library, Datalogic Configuration and Control Sample Application for Windows OS.
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### SUPPORTED SCAN ENGINES

RESOLUTION	VIDEO INTERFACE	
	PARALLEL	MIPI CSI-2
640 x 480	-	DE2101
752 x 480	DE2011	-
1280 x 800	-	DE2102
1280 x 960	DE2012	DE2112

### HUMAN INTERFACE

<b>Feedback Signals</b>	Trigger input signal; Aim input signal; External Illuminator control output signal; Beeper control output signal; Good Read / Green Spot output signal; Power-On output signal; Triggered State output signal; System Ready output signal
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### WARRANTY

<b>Warranty</b>	18-Month Factory Warranty
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### Dimensions of DB0431 OEM Decoder (measurements in millimeters)

