



## CODE READER™ 8000

Miniature in size, giant in capabilities, the CR8000 does the work of two readers.

A patented, high performance, miniature barcode imaging engine, the CR8000 continues Code's legacy of dual optical fields; featuring a high density field for reading the smallest of barcodes and a wide-angle field for reading oversized barcodes.

Its innovative design includes Code's patented glare reduction technology to effortlessly read barcodes printed on shiny or reflective surfaces. In addition, Code has designed-in functionality to allow the integration and control of additional illumination blocks, for applications such as document scanning, direct part marking, and other use cases that require expanded lighting.

### Features & Benefits

- Dual field optics, both high density and wide field in the same unit
- Ultra fast microprocessor platform with world-class decoding platform
- Code's glare reduction technology
- Attachable illumination blocks for different applications
- Bright LED aiming mechanism
- Compact size fits any application
- Simple to setup and configure
- Customizable parsing routines using JavaScript
- On-board 128MB Flash ROM available for data/program storage
- Built in TTL RS232 or USB interface
- Optional mounting bracket

### Ultra-efficient OEM integration.

The CR8000 draws significantly less current and transitions in and out of its low power state faster than any other imager-based scan engine. These two factors are critical when integrating the engine into OEM devices, since enhanced power management from the imager facilitates longer battery life for mobile devices and lowers overall operational costs. The CR8000 communicates via an RS232 or USB interface. Tabs, blind through-holes and mounting bracket options are also available for the scan engine and decode board for ease of mounting. A Software Developer's Kit and Integration Manual can be downloaded, free of charge, from Code's website to support JavaScript development.

For flexible, advanced performance, the CR8000 makes a powerful addition to your operation.

### Applications

Medical Devices, ATMs, Price-lookup, Lottery, Age Verification, Direct Part Marking and more

### Features at a Glance



# CODE READER™ 8000 SPECIFICATIONS

## Physical Characteristics

<b>CR8000 Dimensions</b>	0.81" W x 0.53" D x 0.47" H (20.58mm W x 13.46mm D x 11.94mm H)
<b>CR8000 with Tabs Dimensions</b>	1.25" W x 0.53" D x 0.47" H (31.75mm W x 13.46mm D x 11.94 mm H)
<b>Decode PCB</b>	1.54" W x 0.98" D x 0.30" H (39.11mm W x 24.89mm D x 7.62mm H)
<b>CR8000 with Tabs Weight</b>	0.10 oz. (3.0 g)
<b>CR8000 and Decode PCB Weight</b>	0.17 oz. (5.0 g)
<b>CR8000 without Tabs Weight</b>	0.09 oz. (3.0 g)

## User Environment

<b>Operating Temperature</b>	-20° to 55° C / -4° to 131° F
<b>Storage Temperature</b>	-30° to 65° C / -22° to 150° F
<b>Humidity</b>	5% to 95% non-condensing
<b>Decode Capability</b>	<p><b>1D:</b> BC412, Codabar, Code 11, Code 32, Code 39, Code 93, Code 128, IATA 2 of 5, Interleaved 2 of 5, GS1 DataBar, Hong Kong 2 of 5, Matrix 2 of 5, MSI Plessey, NEC 2 of 5, Pharmacode, Plessey, Straight 2 of 5, Telepen, Trioptic, UPC/EAN/JAN</p> <p><b>Stacked 1D:</b> Codablock F, Code 49, GS1 Composite (CC-A/CC-B/CC-C), MicroPDF, PDF417</p> <p><b>2D:</b> Aztec Code, Data Matrix, Data Matrix Rectangular Extension, Grid Matrix, Han Xin, Maxicode, Micro QR Code, QR Code, QR Model 1</p> <p><b>Proprietary 2D:</b> GoCode® (Additional License Required)</p> <p><b>Postal Codes:</b> Australian Post, Canada Post, Intelligent Mail, Japan Post, KIX Code, Korea Post, Planet, Postnet, UK Royal Mail, UPU ID-tags</p>
<b>Image Output Options</b>	JPEG, PGM, BMP
<b>Field Selection</b>	High-Density or Wide Field
<b>Data Editing</b>	JavaScript

## Working Ranges

### CR8000 Performance

Test Barcode	Min Inches (mm)	Max Inches (mm)
3 mil Code 39	3.1" (80 mm)	4.0" (102 mm)
7.5 mil Code 39	1.3" (33 mm)	7.2" (182 mm)
10.5 mil GS1 Databar	0.8" (20 mm)	8.7" (220 mm)
13 mil UPC	1.1" (28 mm)	11.0" (280 mm)
5 mil DM	1.7" (43 mm)	4.5" (115 mm)
6.3 mil DM	1.3" (33 mm)	5.9" (150 mm)
10 mil DM	0.8" (20 mm)	7.1" (180 mm)
20.8 mil DM	1.1" (28 mm)	13.5" (343 mm)

Note: working ranges are a combination of both the wide and high density fields. All samples were high quality barcodes and were read along a physical center line at a 10° angle. Default AGC settings were used. Accuracy = +/- 10%.

## Performance Characteristics

<b>Field of View</b>	High Density Field: 30° horizontal by 20° vertical Wide Field: 50° horizontal by 33.5° vertical
<b>Focal Point</b>	High Density Field: approximately 100 mm Wide Field: approximately 115 mm
<b>Sensor</b>	CMOS 1.2 Megapixel (1280 x 960) gray scale
<b>Optical Resolution</b>	High Density Field: 960 x 640 Wide Field: 960 x 640
<b>Pitch</b>	± 65° (from front to back)
<b>Skew</b>	± 60° from plane parallel to symbol (side-to-side)
<b>Rotational Tolerance</b>	± 180°
<b>Symbol Contrast</b>	15% minimum reflectance difference
<b>Target Beam</b>	Single, blue targeting bar
<b>Ambient Light Immunity</b>	Sunlight: Up to 9,000ft-candles/96,890 lux
<b>Shock</b>	Withstands multiple drops of 6' (1.8 Meters) to concrete
<b>Power Requirements</b>	Reader @ 5vdc (mA): Typical = 303 mA; Idle = 57 mA; Sleep = 1.6 mA
<b>Memory Capacity</b>	128MB Flash ROM, 32MB RAM
<b>Communication Interfaces</b>	RS232, USB 2.0 (Generic HID, HID Keyboard, Virtual COM Port), Micro-USB connection available
<b>Warranty</b>	<a href="http://codecorp.com/warranty">http://codecorp.com/warranty</a>

## Accessories

- Available Ribbon Cables: 2.0" (50 mm), 6.0" (150 mm) and 12.0" (300 mm)
- Horizontal Decode PCB Mounting Bracket
- Custom Mounting Brackets available upon request



**code**<sup>®</sup>  
REVOLUTIONIZING BARCODE READING

[www.codecorp.com](http://www.codecorp.com)