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.

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.

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

Applications

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

Features at a Glance

IMAGER | 1D | 2D | PDF | POSTAL | CortexARM™

JAVASCRIPT | USB | RS232 | BLUETOOTH | MEMORY | SHIFTKEY & KEYPAD

Physical Characteristics

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

User Environment

Operating Temperature	-20° to 55° C / -4° to 131° F
Storage Temperature	-30° to 65° C / -22° to 150° F
Humidity	5% to 95% non-condensing
Decode Capability	**1D:** Codabar, Code 11, Code 32, Code 39, Code 93, Code 128, IATA 2 of 5, Interleaved 2 of 5, GS1 DataBar (RSS), 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
	Stacked 1D: GS1 Composite (CC-A/CC-B/CC-C), MicroPDF, PDF417
	2D: Aztec Code, Code 49, Codablock F, Data Matrix, Han Xin, MaxiCode, Micro QR, QR Code
	Postal Codes: Australian Post, Intelligent Mail, Japan Post, KIX Code, Korea Post, Planet, Postnet, UK Royal Mail, UPU ID-tags
	Proprietary 2D: GoCode® (Additional License Required)
Image Output Options	JPEG, PGM, BMP
Field Selection	High-Density or Wide Field
Data Editing	JavaScript

Performance Characteristics

Field of View	High Density Field: 30° horizontal by 20° vertical Wide Field: 50° horizontal by 33.5° vertical
Focal Point	High Density Field: approximately 100 mm Wide Field: approximately 115 mm
Sensor	CMOS 1.2 Megapixel (1280 x 960) gray scale
Optical Resolution	High Density Field: 960 x 640 Wide Field: 960 x 640
Pitch	± 60° (from front to back)
Skew	± 60° from plane parallel to symbol (side-to-side)
Rotational Tolerance	± 180°
Print Contrast	25% absolute dark/light reflectance differential, measured at 650 nm
Target Beam	Single, blue targeting bar
Ambient Light Immunity	Sunlight: Up to 9,000ft-candles/96,890 lux
Shock	Withstands multiple drops of 6' (1.8 Meters) to concrete
Power Requirements	Reader @ 5vdc (mA): Typical = 303 mA; Idle = 57 mA; Sleep = 1.6 mA
Memory Capacity	128MB Flash ROM, 32MB RAM
Communication Interfaces	RS232, USB 2.0 (Generic HID, HID Keyboard, Virtual COM Port), Micro-USB connection available
Warranty*	1 year

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

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%.

code®
ADVANCED BARCODE READERS

Web: www.codecorp.com

* North America, APAC and EMEA Warranty Period.