

# Code Reader 3.0™



## Features & Benefits

- Lightweight, ergonomic, fully-mobile modular design (hand held, handle, presentation stand)
- Rapid battery replacement, multiple battery formats and charging options
- User feedback with vibration and/or audible tones
- Reads all linear stacked and 2D matrix symbologies
- High speed digital image capture
- Powerful data management capability via JavaScript
- Customize design menus, input screens, and data collection essentials with ease
- Firmware is field upgradeable

## Overview



The CR3 establishes a new benchmark for Portable Data Terminals and Hand Held Computers by combining the industry's best imaging technology with a graphic display and rugged keyboard to create the smallest and lightest full-featured bar code reading terminal on the market. The CR3 features a 1.3 MegaPixel dual-field image collection engine, a 400MHz Microprocessor, and 10MB of non-volatile memory. Available in two portable options: 1950 mAh Lithium Ion Battery and a Real Time Clock with its own battery backup system or 2.4 GHz radio system compatible with a wide range of Bluetooth™ systems.

Using the same ergonomic platform as the highly successful Code Reader 2.0, the CR3 extends mobile all-symbology bar code reading to include information display and keyboard entry. The CR3 instantly reads large linear as well as high density matrix symbols and adapts to resolution, illumination, and image field for the fastest and widest range of symbology types, sizes, hard to read surfaces and ambient lighting.

Code eliminates the need for costly, high-overhead operating systems by providing an open platform JavaScript development environment within its CodeXML Applications Development Suite. With CodeXML and JavaScript, developers and Information Technology organizations can integrate data with any enterprise software. A unique feature of the Applications Development Suite is the ability to protect both development investment and data security by a customer-unique key encryption, which allows the developer to control the distribution and modification of applications to specific serial-numbered CR3 units.

# Code Reader 3.0™ Specifications

## Physical Characteristics

<b>Reader Dimensions:</b>	1.6" H x 4.4" L x 1.8" W (4 cm H x 11.2 cm L x 4.6 cm W)
<b>Reader Weight:</b>	3.93 oz (112 g)
<b>Battery Weight:</b>	2.1 oz (60 g)
<b>Battery Blank Weight:</b>	0.5 oz (13.6 g)

## Performance Characteristics

<b>Field of View:</b>	Near: 21.5° horizontal by 16.2° vertical Far: 22.9° horizontal by 11.6° vertical
<b>Focal Point:</b>	Near: approximately 4"; Far: approximately 9"
<b>Sensor:</b>	CMOS 1.3 Megapixel (1024x1280) 256 level gray scale
<b>Optical Resolution:</b>	Near Field: 1024 x 640 Far Field: 1024 x 640
<b>Pitch:</b>	± 60° (from front to back)
<b>Skew:</b>	± 60° from plane parallel to symbol (side-to-side)
<b>Rotational Tolerance:</b>	± 180°
<b>Print Contrast Res.:</b>	25% (1-D symbologies) or 35% (PDF417) absolute dark/light reflectance differential, measured at 650 nm
<b>Target Beam:</b>	Class 2M Visible Laser Diode at 630nm
<b>Ambient Light Immunity:</b>	Sunlight: Up to 9,000 ft-candles/96,890 lux
<b>Shock:</b>	Withstands multiple drops of 4 feet to concrete
<b>Power Requirements:</b>	Reader @ 4.2Vdc - Peak (w/backlight) = 400mA; Continuous Scan (w/backlight) = 350mA; Idle (no backlight) = 150mA; Sleep = 12mA; Power Off = 0.5uA Bluetooth Radio @ 10m away at 4.2V Continuous Scan (w/backlight) = 400mA; Peak (w/backlight) = 525mA; Idle (no backlight) = 250mA
<b>Optional Cable Interfaces:</b>	USB (Full Speed V1.1), RS232 & PS/2
<b>Memory:</b>	10MB of Non-volatile Memory
<b>Operating Modes:</b>	Batch, Cabled or Wireless Modes

## Accessories

- Single-Bay or Two-Bay Battery Charger
- Cabled or Wireless Handle
- Battery Handle Charger or Universal Mountable Charger
- CodeXML Router Software
- CodeXML Bluetooth® Modems
- Software Development Kits
- Reader Stand
- USB, PS/2, or RS232 Cables
- 1950 and 3900 mAh Li-Ion Batteries
- Battery Blank
- US, Europe/South America, or UK Power Supply

## User Environment

<b>Operating Temperature:</b>	0° to 40° C / 32° to 104° F
<b>Storage Temperature:</b>	-20° to 60° C / -4° to 140° F
<b>Humidity:</b>	5% to 95% non condensing
<b>Decode Capability:</b>	<b>1D:</b> UPC/EAN/JAN, Code 39, Code 128, Interleaved 2 of 5, Codabar, GS1 DataBar (RSS), MSI Plessey, Code 11, Code 93, NEC 2 of 5, Matrix 2 of 5, Trioptic Code, Telepen, Hong Kong 2 of 5, Pharmacode, Composite Codes <b>Stacked 1D:</b> PDF417, Micro PDF417, Codablock A & F <b>2D:</b> Data Matrix, QR Code, Micro QR Code, Aztec Code, Maxicode <b>Proprietary 2D:</b> GoCode (Requires Additional Licensing) <b>Postal:</b> USPS OneCode (4CB), POSTNET, PLANET, Japanese Post, Australian Post, Royal Mail, KIX Code <b>OCR:</b> OCR-A and OCR-B Fonts
<b>Image Output Options:</b>	Formats: JPEG, PGM, Raw (Uncompressed)
<b>Field Selection:</b>	Near or Far
<b>Field Resolution Selection:</b>	1024 x 640 (Multiple Window Options)
<b>Real Time Clock:</b>	7 year On-Board Battery Backup
<b>Data Editing:</b>	JavaScript (Additional License Required) / CodeXML Rules



## Working Ranges

Code Reader CR 3.0 Performance	
Near Field	Depth of Field
6.3 mil Data Matrix	63 mm - 99 mm
20.8 mil Data Matrix	46 mm - 113 mm
5.8 mil PDF417	55 mm - 97 mm
7.5 mil Code39	78 mm - 108 mm
10.5 mil GS1 DataBar Stacked	38 mm - 108 mm
12.5 mil Code128	101 mm - 131 mm
Far Field	Depth of Field
6.3 mil Data Matrix	135 mm - 178 mm
20.8 mil Data Matrix	109 mm - 237 mm
7.5 mil Code39	114 mm - 245 mm
10.5 mil GS1 DataBar Stacked	89 mm - 276 mm
12.5 mil Code128	67 mm - 306 mm

*All samples were high quality codes and were read along a physical center line at a 10° angle. Default AGC settings were used. Accuracy = +/- 10%.*

**code**

14940 S Pony Express Rd. #500  
Bluffdale, UT 84065

phone: (801) 495-2200 fax: (801) 495-2202  
web: www.codecorp.com

Specifications subject to change without notice.

