

Code Readers in Law Enforcement Agencies

code

Innovating Bar Code Technology



The use of bar codes for data collection has vastly improved processes within law enforcement. Using Code's CR2 or CR3 wireless or cabled Bar Code Readers enhances the benefits of eCitation, eCrash Reporting, Roadside Inspection, Chain-of-Custody and Asset Tracking systems.

Code Readers use advanced digital imaging technology to read bar codes. Code's Readers utilize Dynamic Optimization Technology (DOT) automatically improving the Reader's decode performance by continuously processing resolution, illumination, and image field settings, ensuring fast and efficient bar code reading. Reader firmware decodes the image and sends data to a software application residing either on a palm-held device or Mobile Data Terminal (MDT) residing in a nearby squad car, or to a host computer in an office setting.

Officers use Code's Readers as part of the eCitation, eCrash and Roadside Inspection processes, to read bar codes on driver licenses, vehicle registrations and vehicle identification numbers (VINs) through a windshield. The data is instantly decoded and can be wirelessly transmitted or sent via cabled connection to the MDT or palm-held device. The flexibility of the CR3 allows an officer to toggle between applications before reading bar codes or entering additional information. JavaScript commands prepare the data to be received by each specific application (including Aspen) without additional programming ensuring accurate data integration.

Administrative personnel and officers handling evidence use Code Readers to track Chain-of-Custody, by reading bar codes on evidence packaging and identification badges. CR3 has a realtime date stamp that becomes 'attached' to the scanned data, further supporting the process. Personnel responsible for Asset Tracking easily maintain identification and location of bar coded items by reading asset labels and tags and automatically updating information to databases.

Code Readers ... Innovating Bar Code Technology within law enforcement agencies.



CR3 has keypad and display

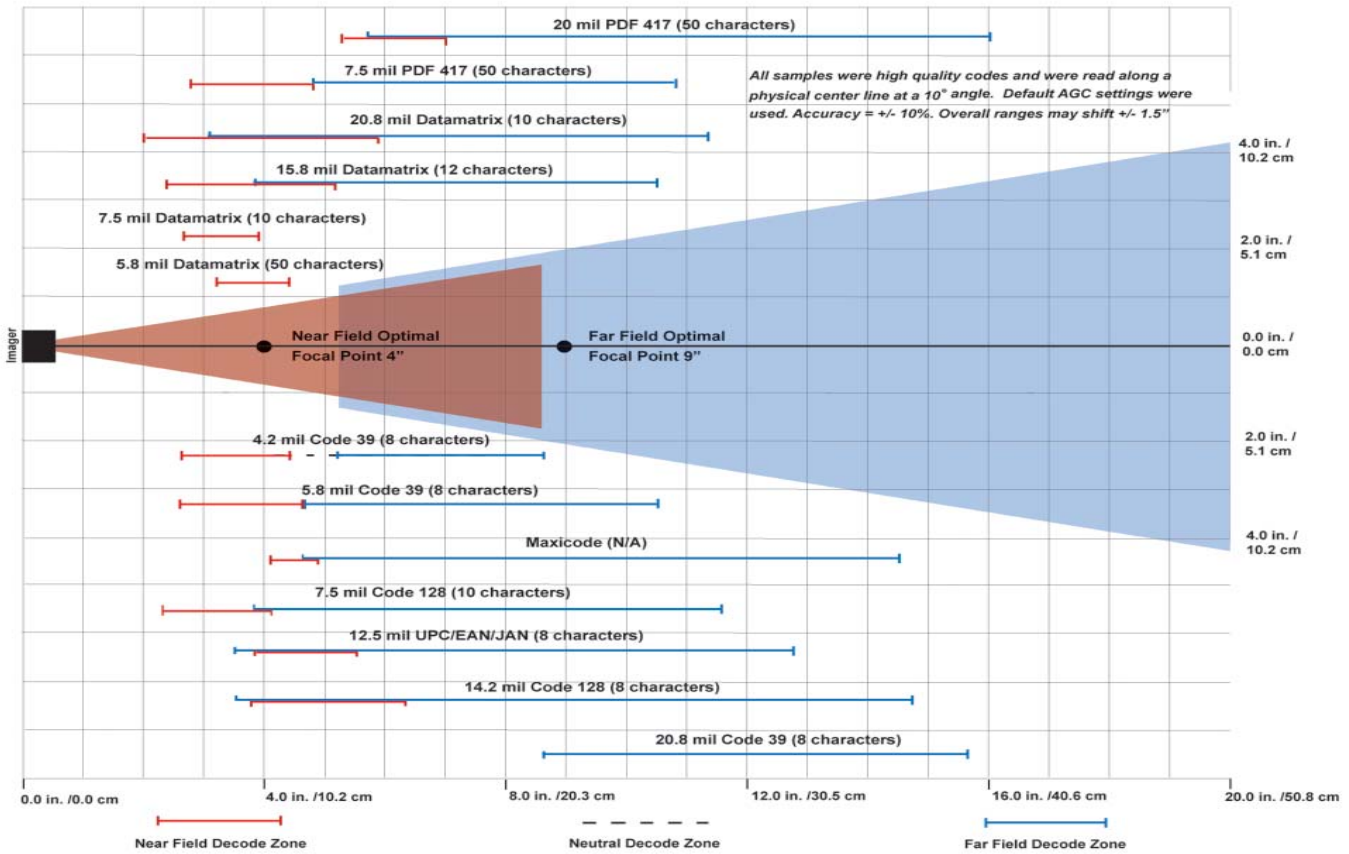
 featuring
DOT

Code Reader Features & Benefits

- Readers are lightweight, small and ergonomically designed for mobility, maximizing space inside squad cars.
- Digital imaging technology, accompanied by DOT, enable Code's Readers to easily read all bar codes symbols.
- Two-way communication allows data to be sent back to the officer while outside the squad car, such as 'wants and warrants' information or a stolen vehicle notification.
- One-to-one Bluetooth™ transmission ensures data remains secure during wireless communications, without interference from WiFi or other wireless frequencies.
- Cabled or wireless Readers provide use-case options for specific procedures.
- Reader firmware prepares scanned data through JavaScript commands for integration into multiple software applications without any additional programming.
- Accessories available to further ruggedize Code Readers prolonging Reader life.



CR2 & CR3 Symbology Decode Diagram



Physical Characteristics

CR3 Dimensions:	1.6" H x 4.4" L x 1.8" W (4cm H x 11.2 cm L x 4.6 cm W)
CR3 Weight w/o Battery:	3.93 oz (112 gm)
CR3 Display:	128 x 128 Monochrome
CR2 Dimensions:	1.3" H x 4.3" L x 1.8" W (3.3cm H x 10.9cm L x 4.6cm W)
CR2 Weight w/o Battery:	2.5 oz (71.5 gm)
Battery/Battery Blank Weight:	2.1 oz (60 gm) / .5 oz (13.6 gm)

Performance Characteristics

Field of View:	Near: 21.5° horizontal by 16.2° vertical Far: 22.9° horizontal by 11.6° vertical
Focal Point:	Near: approximately 4"; Far: approximately 9"
Sensor:	Progressive Scan CMOS 1.33 MP (1024 x 1280) 256 level gray scale Processor - RMI Alchemy Au1200™ 400 MHz
Optical Resolution:	Near Field: 1024 x 640; Far Field: 1024 x 640
Pitch:	± 60° (from front to back)
Skew/Rotational Tolerance:	± 60° from plane parallel to symbol (side-to-side) / ± 180°
Print Contrast Res.:	25% (1-D symbologies) or 35% (PDF417) absolute dark/light reflectance differential, measured at 650 nm
Target Beam:	Class 2M Visible Laser Diode at 630nm
Ambient Light Immunity:	Sunlight: Up to 9,000 ft-candles/96,890 lux
Shock:	Withstands multiple drops of 4 ft (CR3) and 6 ft (CR2) to concrete
CR3 Power Requirements:	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
CR2 Power Requirements:	Reader @ 5vdc (mA) - Typical = 140; Peak = 310; Idle = n/a; Sleep = 3; Bluetooth Radio @ 90m away (mA) Typical = 280 Peak = 350; Idle = 96; Sleep = 3 1950 mAh Battery in reader with radio will support 11,000+ reads/transmits per charge.
Optional Cable Interfaces:	USB 2.0 Compliant (Full Speed), RS232 & PS/2
Code Quality:	Code Readability Index
Memory:	4 MB (CR3) and 3.8 MB (CR2) of Non-volatile Memory
Operating Modes:	Batch, Cabled or Wireless Modes

User Environment

Operating Temperature:	0° to 50° C / 32° to 122° F
Note:	Readers will function in extreme cold weather conditions; battery life may be affected.
Storage Temperature:	-20° to 65° C / -4° to 150° F
Humidity:	5% to 95% non condensing
Decode Capability:	MaxiCode, PDF417 (including Macro support), Data Matrix, QR & Micro QR Code, MicroPDF417, GoCode*, Composite, Code 11, Aztec, Code 39, Code 128, PharmacoCode, UPC/EAN/JAN, Int 2 of 5, Codabar, Codablock F, Code 93, RSS, Postnet, Planet, Japanese Post, Australian Post, Royal Mail, KIX, MSI Plessy, Trioptic, NEC 2 of 5, Matrix 2 of 5, Telepen, OCR (A & B*) and Hong Kong (2 of 5)



Image Output Options:	Formats: JPEG, Raw (Uncompressed)
Field Selection:	Near or Far
Resolution Selection:	1024 x 640 (Multiple Window Options)
Grayscale:	256 Level
(CR3) Real Time Clock:	7 year On-Board Battery Backup
Data Editing:	JavaScript Capable *
* Requires additional licensing.	

Accessories

- External Two-Bay Battery Charger
- CodeXML Bluetooth Modem
- CodeXML Router Software
- Software Development Kits
- Ruggedized Cabled or Battery Handle
- Reader Stand
- USB, PS/2 & RS232 Cables
- Power Cables
- 1950 mAh Li-Ion Battery
- Elastomer Protective Boot, Protective Case Cover or Holster



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Specifications subject to change without notice.