

# MOTOROLA DS4208 

## GENERAL PURPOSE HANDHELD 2D IMAGER

## 2D BAR CODES - THE WAVE OF THE FUTURE IS HERE

2D bar codes help businesses better manage inventory; costeffectively comply with track and trace regulations for food, pharmaceuticals and more; and capture new types of data to improve overall process efficiency. In addition, both retailers and manufacturers alike must implement new standard 2D bar codes that were created to streamline the entire supply chain. But 2D imagers typically lack the speed and accuracy of 1 D laser scanners. How can you implement 2D imaging without impacting business productivity?

## FUTURE-PROOF YOUR BUSINESS WITH HIGH PERFORMANCE AFFORDABLE 2D IMAGING

Motorola's DS4208 delivers the blazing speed typical of laser scanners on both 1 D and 2 D bar codes, allowing you to accommodate 2 D bar codes without sacrificing scanning quality or performance. Users never need to take time to align the bar code with the scanner or pause between scans. And since you can capture bar codes printed on paper labels or displayed on the screen of a mobile phone, retailers can accommodate customers who download mobile coupons, mobile loyalty cards and more. You get industry leading scanning speed on every bar code; true point-and-shoot first time scanning simplicity on even damaged and poorly printed bar codes; and a durable design for all day everyday reliability - all at an affordable price.

## DRIVE CUSTOMER SERVICE AND REVENUE TO A NEW LEVEL WITH SUPPORT FOR MOBILE BAR CODES

Since the DS4208 can scan bar codes on mobile phone displays, you can attract the millions of customers who are using their cell phones to better manage their lives. Retailers can scan mobile coupons, mobile loyalty cards, mobile gift cards and more. Quick service restaurants can accept mobile coupons at the register. Location-based mobile couponing allows retailers and restaurants to entice customers to stop in by automatically issuing discount coupons when patrons are in the vicinity of your facility. Hotels can allow guests to use electronic loyalty cards stored on their cell phones, eliminating the need to carry physical cards. And since theaters, theme parks and stadiums can scan mobile tickets as easily as a paper ticket, they can offer customers an added convenience - paperless ticketing.

## GET THE SMART INVESTMENT WITH A LOW TOTAL COST OF OWNERSHIP (TCO)

The DS4208 is built to last - and our toughness tests prove it. The DS4208 delivers outstanding performance, even after exposure to heat, cold, dust, a spilled beverage - and 2,000 consecutive drops. In addition, with our unique support program, Service from the Start Advance Exchange Support, you can count on next-business-day device replacement no questions asked - providing the uptime you need to keep business running smoothly. And with two Motorola tools 123 Scan ${ }^{2}$ and Remote Scanner Management - everyday management is easier and less time consuming, reducing IT time and cost.

## FEATURES

Scans 1D, 2D and PDF417 bar codes on paper, mobile phones and computer displays Scan virtually any bar code on any medium; supports the technology your customers are embracing
— electronic bar codes
Two models to meet various data capture needs
SR (Standard Range) designed for intensive scanning of paper and electronic (mobile phone) 1D/2D bar codes

HD (High Density) for the tiny and dense codes common in manufacturing

Omni-directional scan pattern Eliminates the need to align bar code and scanner

## Supports all

common interfaces
Easy integration with your existing technology environment; easily migrate to new hosts

Rugged design: IP43 sealing plus a 6 ft ./ 1.83 m drop to concrete Built to last, providing reliable operation despite spills and drops
Compatible with 123 Scan ${ }^{2}$ and Remote Scanner Management (RSM) Reduces management time and cost, from initial configuration to day-to-day management

For more information on how the DS4208 can benefit your business, please visit us on the web at www.motorola.com/DS4208 or access our global contact directory at www.motorola.com/enterprisemobility/contactus

## SPECIFICATIONS CHART

## PHYSICAL CHARACTERISTICS

| Dimensions | $6.7 \mathrm{in} . \mathrm{H} \times 3.7 \mathrm{in} . \mathrm{L} \times 2.7 \mathrm{in} . \mathrm{W}$ <br> $(17 \mathrm{~cm} \mathrm{H} \times 9.3 \mathrm{~cm} \mathrm{~L} \mathrm{\times 6.8cm} \mathrm{W)}$ |
| :--- | :--- |
| Weight (w/o cable) | $6.1 \mathrm{oz} .(172.9 \mathrm{~g})$ |
| Power | $5 \mathrm{VDC} \pm 10 \%$ @ 275 mA (RMS typical) |
| PERFORMANCE CHARACTERISTICS |  |
| Light Source | Aiming pattern: 617 nm LED <br> Illumination: 625 nm LEDs |
| Imager Field of View | $39^{\circ}(\mathrm{H}) \times 25^{\circ}$ (V) |
| Roll | $0-360^{\circ}$ |
| Pitch | $\pm 65^{\circ}$ or greater |
| Yaw | $\pm 60^{\circ}$ or greater |
| Print Contrast | $25 \%$ minimum reflective difference |

SYMBOLOGY DECODE CAPABILITY

| 1D | UPC/EAN, UPC/EAN with supplementals, Bookland EAN, ISSN, UCC Coupon Extended Code, Code 128, GS1-128, ISBT 128, Code 39, Code 39 Full ASCII, Trioptic Code 39, Code 32, Code 93, Code 11, Matrix 2 of 5, Interleaved 2 of 5, Discrete 2 of 5 , Codabar, MSI, Chinese 2 of 5, GS1 DataBar variants, Korean 3 of 5, ISBT Concat |
| :---: | :---: |
| 2D | PDF417, MicroPDF417, Composite Codes, TLC-39, Data Matrix, Maxicode, QR Code, MicroQR, Aztec |
| Postal | Australian Post, US PLANET, Royal Mail 4 State Customer, US POSTNET, KIX Code (Dutch), UK Postal, Japan Post, UPU 4 State Postal FICS (Post US4), USPS 4 State Postal (Post US3) |
| Motion Tolerances | Up to 25 in / / 63.5 cm per second |
| Interfaces Supported | The scanner supports the following protocols over USB: HID Keyboard (default mode), SNAPI, COM Port Emulation, IBM SurePOS (Yellowstone) (IBM Handheld,IBM Tabletop, OPOS); The scanner supports the following protocols over RS232: Standard, Wincor Nixdorf, ICL, Fujitsu, Olivetti |
| Minimum Resolution | -SR: Code 394 mil; UPC 60\% 5 mil; PDF417 5 mil, Datamatrix 7.5 mil -HD: Code 393 mil; UPC 60\% 5 mil; PDF417 4 mil, Datamatrix 5 mil |
| USER ENVIRONMENT |  |
| Operating Temp. | $32^{\circ} \mathrm{F}$ to $104^{\circ} \mathrm{F}\left(0^{\circ} \mathrm{C}\right.$ to $\left.40^{\circ} \mathrm{C}\right)$ |
| Storage Temp. | $-40^{\circ} \mathrm{F}$ to $158^{\circ} \mathrm{F}\left(-40^{\circ} \mathrm{C}\right.$ to $\left.70^{\circ} \mathrm{C}\right)$ |
| Humidity | $5 \%$ to 95\%, non-condensing |
| Drop Spec | Withstands multiple 6 ft . (1.83 m) drops to concrete |
| Sealing | IP43 |
| Ambient Light Immunity | Immune to normal indoor lighting up to 1600 Lux. Immune to sunlight up to 86,000 Lux. |
| ACCESSORIES |  |
| Hands-Free Options | Intellistand |


| Power Supplies | Power supplies are available for applications that <br> do not supply power over the host cable |
| :--- | :--- |
| REGULATORY |  |
| Electrical Safety | UL60950-1 2nd ed, CSA C22.2 No. 60950-1 2nd ed, <br> EN60950-1/IEC60950-1 2nd ed. |
| LED Safety | IEC/EN60825-1:2001, IEC/EN62471:2006 |
| EMI/RFI | FCC Part 15 Class B, ICES-003 Class B, EN55022 <br> Class B, EN55024 |
| Environmental | Compliant with RoHS directive 2002/95/EEC |
| WARRANTY |  |
| Subject to the terms of Motorola's hardware warranty statement, the DS4208 <br> is warranted against defects in workmanship and materials for a period of 5 <br> years from the date of shipment. For the complete Motorola hardware product <br> warranty statement, go to: http://www.motorola.com/warranty |  |

RECOMMENDED SERVICES
Support Services Service from the Start Advance Exchange Support

## DECODE RANGES

| SR Focus Range |  | Typical Working Ranges |  |
| :--- | :---: | :---: | :---: |
| Bar Code Type Symbol Density Near Far <br> Code 39 5.0 mil $0.2 \mathrm{in} / 0.5 \mathrm{~cm}$ $6.8 \mathrm{in} / 17.3 \mathrm{~cm}$ <br> $80 \%$ UPCA 10.0 mil $0 \mathrm{in} / 0 \mathrm{~cm}$ $12.7 \mathrm{in} / 32.3 \mathrm{~cm}$ <br> $100 \%$ UPCA 13.0 mil $0.3 \mathrm{in} / 0.8 \mathrm{~cm}$ $15.2 \mathrm{in} / 38.6 \mathrm{~cm}$ <br> PDF 417 5.0 mil $1.5 \mathrm{in} / 3.8 \mathrm{~cm}$ $4.3 \mathrm{in} / 10.9 \mathrm{~cm}$ <br> PDF 417 6.6 mil $0.8 \mathrm{in} / 2.0 \mathrm{~cm}$ $6.0 \mathrm{in} / 15.2 \mathrm{~cm}$ <br> Data Matrix 10.0 mil $0.4 \mathrm{in} / 1.0 \mathrm{~cm}$ $7.2 \mathrm{in} / 18.3 \mathrm{~cm}$ |  |  |  |


| HD Focus Range |  | Typical Working Ranges |  |
| :---: | :---: | :---: | :---: |
| Bar Code Type | Symbol Density | Near | Far |
| Code 39 | 3.0 mil | $0.2 \mathrm{in} / 0.5 \mathrm{~cm}$ | 3.7 in / 9.4 cm |
| Code 39 | 4.0 mil | $0.1 \mathrm{in} / 0.3 \mathrm{~cm}$ | 4.6 in / 11.7 cm |
| Code 39 | 5.0 mil | $0.1 \mathrm{in} / 0.3 \mathrm{~cm}$ | $5.1 \mathrm{in} / 13.0 \mathrm{~cm}$ |
| Code 39 | 7.5 mil | $0.1 \mathrm{in} / 0.3 \mathrm{~cm}$ | $6.4 \mathrm{in} / 16.3 \mathrm{~cm}$ |
| Code 39 | 10.0 mil | $0.2 \mathrm{in} / 0.5 \mathrm{~cm}$ | $7.7 \mathrm{in} / 19.6 \mathrm{~cm}$ |
| 60\% UPC | 7.8 mil | $0.2 \mathrm{in} / 0.5 \mathrm{~cm}$ | $5.4 \mathrm{in} / 13.7 \mathrm{~cm}$ |
| 80\% UPC | 10.4 mil | $0.3 \mathrm{in} / 0.8 \mathrm{~cm}$ | $6.5 \mathrm{in} / 16.5 \mathrm{~cm}$ |
| 100\% UPC | 13.0 mil | $0.7 \mathrm{in} / 1.8 \mathrm{~cm}$ | $7.6 \mathrm{in} / 19.3 \mathrm{~cm}$ |
| Code 128 | 5.0 mil | $0.3 \mathrm{in} / 0.8 \mathrm{~cm}$ | 4.0 in / 10.2 cm |
| 12055 | 10.0 mil | $0.8 \mathrm{in} / 2.0 \mathrm{~cm}$ | $7.2 \mathrm{in} / 18.3 \mathrm{~cm}$ |
| PDF 417 | 4.0 mil | $0.7 \mathrm{in} / 1.8 \mathrm{~cm}$ | $2.7 \mathrm{in} / 6.9 \mathrm{~cm}$ |
| PDF 417 | 5.0 mil | 0.3 in / 0.8 cm | $3.0 \mathrm{in} / 7.6 \mathrm{~cm}$ |
| PDF 417 | 6.67 mil | $0.4 \mathrm{in} / 1.0 \mathrm{~cm}$ | 3.6 in / 9.1 cm |
| PDF 417 | 10.0 mil | $0.8 \mathrm{in} / 2.0 \mathrm{~cm}$ | $4.7 \mathrm{in} / 11.9 \mathrm{~cm} 1$ |
| Data Matrix | 5.0 mil | $0.4 \mathrm{in} / 1.0 \mathrm{~cm}$ | 2.8 in / 7.1 cm |
| Data Matrix | 7.5 mil | $0.4 \mathrm{in} / 1.0 \mathrm{~cm}$ | $3.9 \mathrm{in} / 9.9 \mathrm{~cm}$ |
| Data Matrix | 10.0 mil | $0.1 \mathrm{in} / 0.3 \mathrm{~cm}$ | 4.6 in / 11.6 cm |
| QR Code | 10.0 mil | $0.4 \mathrm{in} / 1.0 \mathrm{~cm}$ | 3.9 in / 9.9 cm |

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