

# Falcon® 4220

Windows® CE PDA



## Features:

- Intel® XScale™ PXA255 400MHz processor
- Windows® CE v 4.2 operating system
- Integrated bar code scanner (laser or linear imager)
- Ruggedized (IP54 & 4' drop)
- Optional handle for scan intensive applications
- Open architecture—user accessible SD & CF slot
- 802.11g wireless LAN (optional)

## Accessories:

- Standard and high-capacity Lilon rechargeable batteries
- Four-slot Lilon battery charger
- Single-slot dock (with ethernet option)
- Four-slot ethernet dock
- Triggered handle
- Powered Vehicle Dock
- Bluetooth® card and cover
- Car charger/adaptor
- Holster
- Extended warranty
- Service options

## Mechanical

### Dimensions

Length: 6.6" / 16.8 cm  
 Width: 3.1" / 7.8 cm  
 Height: 1.3" / 3.3 cm

Weight: With battery 12.7 oz / 360 g  
 Without battery 11.1 oz / 315 g

Display: 3.5" / 8.9 cm, 240 x 320 graphic, transfective TFT, 256,000 colors, sunlight readable (for outdoor use)

Keypad: 17 keys, plus 4-way navigation

Construction: Industrial, high-strength polycarbonate/ABS-blend plastic

Indicators: One triple-color LED for ALARM notification (R) and charger indicator (G/B) and one dual-color LED for scanner indicator

## Environmental

### Temperature rating

Operating: 14° to 122° F / -10° to 50° C  
 Storage: -4° to 140° F / -20° to 60° C

Humidity: 5 to 95% NC

Shock: Multiple 4.0' / 1.2m drops to concrete

Water & Dust: IEC529 rating IP54

## Decoding capability (autodiscriminates)

- UPC-E
- UCC/EAN 128
- EAN-8/JAN-8
- EAN-13/UPC-A
- IATA-25
- ISBN
- Codabar/NW7
- Matrix 2 of 5
- MSI/Plessey
- Korea Code 35
- Italian Pharmacy
- Industrial 2 of 5
- Code 4, 11, 32, 39, 93, 128
- Interleaved 2 of 5
- UPC-EAN Add-on 2/5
- EAN-8 Convert to EAN-13
- UPC-E Convert to UPC-A
- China Postage/Datalogic 25

## Optical

### Linear imager

Light source: 617nm highly visible LED  
 Scan rate: Up to 200 scans/second  
 Depth of field: See depth of field table below

### Laser Scanner

Light source: 650nm VLD  
 Scan rate: 39 scans/second nominal  
 Depth of field: See depth of field table below

| DEPTH OF FIELD            |                              |                             |
|---------------------------|------------------------------|-----------------------------|
| Typical Range Comparisons |                              |                             |
| LABEL DENSITY             | LINEAR IMAGER                | LASER SCANNER               |
| 5 mil                     | 44 - 66" / 11.2 - 16.8 cm    | 2.2 - 5.0" / 5.6 - 12.7 cm  |
| 75 mil                    | —                            | 1.8 - 7.5" / 4.6 - 19.1 cm  |
| 10 mil                    | 2.8 - 9.2" / 7.1 - 23.3 cm   | 2.0 - 9.7" / 5.1 - 24.6 cm  |
| 100% UPC                  | 1.8 - 9.4" / 4.5 - 24.0 cm   | 2.8 - 9.2" / 7.0 - 23.3 cm  |
| 13 mil                    | —                            | 2.0 - 12.0" / 5.1 - 30.5 cm |
| 20 mil                    | 1.7 - 11.8" / 4.4 - 30.0 cm  | * - 15.0" / * - 38.1 cm     |
| 40 mil                    | 4.7 - 15.7" / 12.0 - 40.0 cm | * - 22.0" / * - 55.9 cm     |
| 55 mil                    | —                            | * - 29.0" / * - 73.7 cm     |

\* Minimum distance determined by symbol length and scan angle.  
 Printing resolution, contrast and ambient light dependent.



# Data Sheet

## System

Operating system: Windows® CE v4.2

Microprocessor: Intel® XScale™ PXA255, 400 MHz

Memory: 64MB flash ROM, 64MB SDRAM, option for 128MB SDRAM on select models

### Communications Ports

Infrared: One IrDA 1.2 compliant port

Serial: RS-232 via optional cable or cradle

USB: Supports USB v1.1 both host & client (dock & terminal)

### Expansion Slots

SD: (Secure Digital) card slot

CF: (Compact Flash) Type II slot (3.3V)

Audio: One mono speaker, 2.5mm stereo earphone jack with microphone input (headset)

Power Options: 1800mAh Lilon removable/rechargeable battery, Optional 2700mAh battery, 25mAh rechargeable backup battery (Holds system data at least 2 hours without main battery), AC adapter with 100-240 VAC, 50-60Hz, support for Xscale application modes including: Turbo Mode, Normal mode, Idle Mode, Sleep Mode.

Radio Support: Optional integrated 802.11g

System Support: VT100/220, HP700/92, IBM 3270/5250 terminal emulators; Browser support via Microsoft® Internet Explorer; TCP/IP communications.

### Management Tools

Falcon Desktop Utility (FDU) for security & configuration. Falcon Management Utility (FMU) or Wavelink Avalanche for remote device management & software distribution.

### Development Environments

Many standard Windows® CE development tools, (Embedded Visual C++, Visual C#.NET, Visual Basic .NET, Personal Java 1.1), Java Virtual Machine (JVM), Falcon® CE Developers Toolkit, and Wavelink® Studio.

### Docking Station

Spare battery charging slot, USB host and client interface, Standard RS-232 communication, ethernet module ready (optional).

## Safety and Regulatory

Battery: EN60950, UL60950-1, IATA/UN

Electrical: EN60950, UL60950, CSA 60950

Emissions: FCC Part 15-B, VCCI, CISPR 22

Radio: FCC Part 15-C, R&TTE, IC, IDA,

Radio Approved Countries: Contact PSC

Linear Imager Safety: Class I LED (Europe)

Laser classification: CDRH Class II;

(CAUTION: Laser Radiation – do not stare into beam)  
 IEC 60825-1, Class 2

Restriction of Hazardous Substances: Complies to EU RoHS



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