

# Falcon® 4220

Windows® CE.NET PDA



## Features:

- Intel® XScale™ PXA255 400MHz Processor
- Windows CE .NET 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
- 802.11b Wireless LAN (optional)

## Accessories:

- Standard and High-Capacity Li-Ion Rechargeable Batteries
- 4 Slot Lilon Battery Charger
- Single-Slot Dock (with Ethernet Option)
- Four-Slot Ethernet Dock
- Triggered Handle
- GPRS Card and Cover
- Car Charger/Adapter
- Holster
- Extended Warranty
- Service Options

## Mechanical

### Dimensions

Length: 6.6" / 16.8 cm  
 Width: 3.1" / 78 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
- Codabar/NW7
- Code 4, 11, 32, 39, 93, 128
- UCC/EAN 128
- Matrix 2 of 5
- Interleaved 2 of 5
- EAN-8/JAN-8
- MSI/Plessey
- UPC-EAN Add-on 2/5
- EAN-13/UPC-A
- Korea Code 35
- EAN-8 Convert to EAN-13
- IATA-25
- Italian Pharmacy
- UPC-E Convert to UPC-A
- ISBN
- Industrial 2 of 5
- 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	—	18 - 75" / 4.6 - 19.1 cm
10 mil	2.8 - 9.2" / 7.0 - 23.3 cm	2.0 - 9.7" / 5.1 - 24.6 cm
100% UPC	18 - 94" / 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 .NET 4.2  
 Microprocessor: Intel® XScale™ PXA255, 400 MHz  
 Memory: 64MB flash ROM, 64MB SDRAM

## Communications Ports

Infrared: One IrDA 1.2 compliant port  
 Serial: RS232 via optional cable or cradle  
 USB: Supports USB v1.1 both host & client (dock & terminal)

## I/O 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 802.11b

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 Enviroments

Many standard Windows CE development tools, (Embedded Visual C++, Visual C#.NET, Visual Basic .NET, Personal Java 1i), Java Virtual Machine (JVM), Falcon® CE Developers Toolkit, and Wavelink® Studio.

## Docking Station

Spare battery charging slot, USB host and client interface, Standard RS232 communication, Ethernet module ready (optional).

## Safety and Regulatory

Battery: EN60950, UL60950-1, IATA/IUN  
 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



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