# Falcon® 4220

*Windows® CE.NET PDA*

# Data Sheet



## 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 LiIon 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:** 16.8 cm / 6.6"
- **Width:** 7.8 cm / 3.1"
- **Height:** 3.3 cm / 1.3"

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

**Display:** 8.9 cm / 3.5", 240 x 320 graphic, transflective TFT, 256,000 colors, Sunlight readeable (for outdoor use)

**Keypad:** 17 keys, plus 4-way navagation

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

**Humidity:** 5 to 95% NC

**Shock:** Multiple 1.2m / 4.0' 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 | 11.2 - 16.8 cm / 4.4 - 6.6" | 5.6 - 12.7 cm / 2.2 - 5.0" |
| 7.5 mil | — | 4.6 - 19.1 cm / 1.8 - 7.5" |
| 10 mil | 7.0 - 23.3 cm / 2.8 - 9.2" | 5.1- 24.6 cm / 2.0 - 9.7" |
| 100% UPC | 4.5 - 24.0 cm / 1.8 - 9.4" | 7.0 - 23.3 cm / 2.8 - 9.2" |
| 13 mil | — | 5.1- 30.5 cm / 2.0 - 12.0" |
| 20 mil | 4.4 - 30.0 cm / 1.7 - 11.8" | * - 38.1 cm / * -15.0" |
| 40 mil | 12.0 - 40.0 cm / 4.7 - 15.7" | * - 55.9 cm / * - 22.0" |
| 55 mil | — | * - 73.7 cm / * - 29.0" |

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

## 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 LiIon removable/rechargable battery, Optional 2700mAh battery, 25mAh rechargable 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 managment & software distribution

## Development Enviroments

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 RS232 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 1 LED (Europe)
**Laser classification:** CDRH Class II;
(CAUTION: Laser Radiation – do not stare into beam) IEC 60825-1 , Class 2

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