

# Falcon® 4220

Windows® CE .NET PDA



#### Features:

- Intel® XScale™ PXA255 400MHz
- Windows CE .NET Operating System
- Choice of Laser or LRCCD Scanning Options
- Optional Handle for Scan Intensive Applications
- Open Architecture – SDIO and CF slot for RF, Memory, etc.
- 802.11b Cisco Compatible Wireless LAN
- Bluetooth for wireless printing and communications
- GPRS WWAN for field applications

The Falcon® 4220 is PSC's latest generation PDA device, combining a compact, ruggedized form factor with the flexibility of Microsoft's CE .NET operating system. The Falcon 4220 is designed for retail, logistics, and field force automation applications where maximum performance and durability is required in a compact handheld device.

#### Performance is Power

Under the hood, the Falcon 4220 uses cutting edge technologies from the leaders in mobile and wireless technology, such as Microsoft, Intel, Cisco and others. The Falcon 4220 features the Intel® XScale™ PXA255 400MHz processor and the Microsoft™ Windows CE .NET operating system, providing you with the power and flexibility to deploy sophisticated mobile applications in your enterprise.

The Intel XScale processor provides you with the highest performing mobile processor available today along with advanced power management capabilities for extended battery life. Microsoft's Windows CE .NET operating system gives you the freedom to select the software solution that best meets your needs. This architecture provides all the power you need to run multiple applications, Voice over IP (VoIP), and even voice recognition in the future.

#### Rugged Yet Versatile

The Falcon 4220 is designed from the ground up for rugged applications. With its IP54 sealing, 4 foot (1.2m) repeated drops to concrete, and wide operating temperature range, the Falcon 4220 stands up to most any demanding application.

#### A Stunning Display

The Falcon 4220 incorporates the latest technology in Color TFT displays. With its super-bright, high contrast display, the 4220 works as well outdoors as it does inside. The integrated touchscreen allows for pen/touch based input and handwriting recognition.

#### Communications, Communications, Communications

The Falcon 4220 integrates the 3 leading wireless technologies in one device. Featuring 802.11b WLAN, Bluetooth, and GPRS WWAN, the 4220 can communicate wherever your mobile worker requires.



# Specifications

Falcon® 4220

## 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, transflective TFT  
256,000 colors  
Sunlight readable (for outdoor use)

### Keypad

17 plus 4-way navigation

### Construction

Industrial, high-strength polycarbonate/  
ABS-blend plastic

## 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

### Vibration:

Exceeds MIL STD 810F

## Optical

### Light source:

Laser: 650nm VLD

### Scan rate:

39 scans/second nominal

### Depth of Field:

see chart below

### Indicators:

One triple-color LED for ALARM notification (R)  
and charger indicator (G/B)

One dual-color LED for scanner indicator

### Ambient light immunity

#### Standard

Artificial light: 450 ft-candles / 4,844 lux  
Sunlight: 10,000 ft-candles / 107,639 lux

## Decoding Capability

### 1D Scan Engine

Code 39  
Code 39 Extended  
Interleaved 2 of 5  
EAN8,13,128  
UPC-A  
UPC-E  
Code 128  
Code 93  
Codabar  
Chinese Postage Code IATA  
MSI/Plessey  
Code 32  
STD 2 of 5  
Code 11  
Matrix 2 of 5

## Safety and Regulatory



Electrical: Complies to CE  
Emissions: FCC Part 15 - Class A, CISPR B  
Laser classification: CDRH Class II;  
(CAUTION: Laser Radiation –  
do not stare into beam);  
IEC 60825 Class 2

## Cradle

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

## Depth-of-Field Chart

(printing resolution, contrast and ambient light dependent;  
\* Minimum distance determined by symbol length and scan angle)

Label Density	Typical Range			
5 mil	2.2"	to	5.0"	/ 5.6 to 12.7 cm
75 mil	1.8"	to	7.5"	/ 4.6 to 191 cm
10 mil	2.0"	to	9.7"	/ 5.1 to 246 cm
13 mil	2.0"	to	12.0"	/ 5.1 to 305 cm
20 mil	*	to	15.0"	/ * to 381 cm
40 mil	*	to	22.0"	/ * to 55.9 cm
55 mil	*	to	29.0"	/ * to 73.7 cm

## System

### Operating System

Windows® CE.NET 4.2

### Microprocessor

Intel® XScale™ PXA255

### Memory

64MB flash ROM

64MB SDRAM

### Communication Ports

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

### I/O Slots

One SDIO card slot  
One Compact Flash Type II slot (3.3V)

### Audio

One mono speaker  
2.5mm DIA stereo earphone jack with  
microphone input (headset)

### Power Options

1800mAh Li-Polymer removable/rechargeable battery.  
Optional 2700mAh hour 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  
Peripheral power - On/Off controllable via software

### Radio Support

Cisco compatible 802.11b

### System Support

VT100/220, HP700/92, IBM 3270 & 5250  
via PowerNet Twin Client™

Browser support via Microsoft® Internet Explorer  
Wireless software distribution and terminal  
configuration via Falcon Management Utility (FMU)  
TCP/IP Communications

### Development Environments

Many standard Windows CE development tools  
(Embedded Visual C++, Visual C#, Visual Basic,  
.NET, Personal Java 1.1)

Java Virtual Machine (JVM)

Falcon® CE Developers Toolkit

Wavelink Studio



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