

# Falcon® 4420

Windows® Based Mobile Computer



## At A Glance

"We usually receive several truckloads of inventory every morning. The lightweight 4420 with triggered handle provides my operators with an ideal product for scan intensive inventory functions, especially when used at high volume."

— Warehouse Manager, PSC Warehouse Customer



FEATURES	BENEFITS
Ergonomic and Durable Design	<ul style="list-style-type: none"> <li>The lightweight form factor fits comfortably in the user's hand and reduces fatigue during long duration usage.</li> <li>Rugged design survives multiple 5 ft / 1.5 M drops to concrete.</li> </ul>
Flexible Input Options	<ul style="list-style-type: none"> <li>Select from Standard, Long Range, and Advanced Long Range Laser, Linear Imager and 2D Imager scan engines</li> <li>Select from 26-Key Standard Alphanumeric; 48-Key Full Alphanumeric and 5250 support; 52-Key Full Alphanumeric and 5250 support</li> </ul>
Industry Leading Mobile Computing	<ul style="list-style-type: none"> <li>Microsoft® Windows Mobile® and Windows® CE provide easy-to-use graphical user interfaces and a host of powerful computing technologies.</li> <li>Intel XScale Microprocessor and 802.11b/g radios deliver superior mobile computing performance.</li> </ul>
Usability & Productivity	<ul style="list-style-type: none"> <li>The 3.5" QVGA 64K Color Active Matrix Display provides superior low-light and outdoor visibility while maximizing data displayed, yielding higher productivity.</li> <li>The loudest beeper available for audio feedback in noisy industrial environments.</li> </ul>

### Accessories

- Powered Vehicle Mount Dock
- Single-Slot and Four-Slot Dock
- Four-Slot Battery Charger
- Optional Handstrap Conversion Kit
- Holsters/Softcases
- USB Data Cable
- Serial Charging Cable
- Serial Printer Adapter
- Stylus Tether
- Extended Warranty
- Service Options

### Alternative PSC Solutions

- Falcon® 4410 Mobile Computer
- Falcon® 4220 PDA
- Falcon® 5500 Hybrid Computer

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The Falcon 4400 Series has tested compatible with Cisco's wireless solution. The Cisco Compatible logo signifies that PSC's product has undergone interoperability testing by PSC together with Cisco and a third-party test house based on testing criteria set by Cisco. PSC is solely responsible for the support and warranty of its product. Cisco makes no warranties, express or implied, with respect to PSC's product or its interoperability with the listed Cisco product(s) and disclaims any implied warranties of merchantability, fitness for a particular use or against infringement.



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# Falcon® 4400 Series

Windows® Based Mobile Computer

# Data Sheet



### Features

- Choice of Microsoft® Windows Mobile® or Windows® CE Operating Systems
- Supports 802.11b and 802.11g Radios
- Standard/Long Range/Advanced Long Range Integrated Laser Scanner, or Linear/2D Imager Options
- Keypad options include 26-key, 48-key, 52-key, and 5250 emulation versions
- Ergonomic Design
- Rugged design survives multiple 5 ft / 15 M drops to concrete
- Tethered Stylus provides enhanced stylus security
- Intel® XScale™ PXA255 400MHz
- Bright 64K Color TFT Active Matrix QVGA display
- Industry leading beeper volume
- Instant-On Trigger (Falcon 4420 Only)

### Accessories

- Powered Vehicle Dock
- Single-Slot Dock and Four-Slot Dock
- Four-Slot Battery Charger
- Handle/Handstrap Conversion Kit
- Holsters/Softcases
- USB Data Cable
- Serial Charging Cable
- Serial Printer Adapter



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### Mechanical

#### Dimensions

Length: 9.0" / 22.6 cm Width at display: 3.5" / 8.6 cm  
Width at grip: 2.5" / 6.4 cm Height at grip: 1.6" / 4.1 cm

**Weight:** 23.3 oz / 724 g (Will vary depending upon the configuration selected. Falcon 4400 model shown with radio, scanner, and battery pack)

**Display:** 3.5" active matrix TFT QVGA display, 320 x 240, pixels; 64K colors

**Indicators:** Good read LED; scan LED

**Keypads:** 26-Key Standard Alphanumeric; 48-Key (handed version only) Full Alphanumeric and 5250 support; 52-Key Full Alphanumeric and 5250 support

**Construction:** Industrial, polycarbonate/ABS-blend plastic shell with thermoplastic urethane overmold

### Environmental

#### Temperature Rating

Operating: 14° to 122° F / -10° to 50° C  
Storage: -13° to 158° F / -25° to 70° C

**Humidity:** 5 to 95% NC

**Shock:** Multiple 5.0' / 15 M drops to concrete

**Water & Dust:** IEC529, Rating IP54DW

Optical	Laser Scan Engine		Linear Imager	2D Imager
	SR*	LR*/ALR*		
Light Source	650 nm	650 nm	645 nm	626 nm
Scan Rate	35 ± 5 scans/sec.	35 ± 5 scans/sec.	36 ± 5 scans/sec.	N/A
<b>Ambient Light Immunity</b>				
Artificial Light	4,844 Lux	4,844 Lux	100,000 Lux	N/A
Sunlight	86,112 Lux	86,112 Lux	100,000 Lux	100,000 Lux

\* Key: SR = Standard Range, LR = Long Range, ALR = Advanced Long Range.

DEPTH OF FIELD TABLE					
Typical Range Comparisons					
Label Density	Laser Scan Engine			Linear Imager	2D Imager
	SR*	LR*	ALR*		
5 mil UPCA	30-50' / 8-13 cm	—	—	30-50' / 8-13 cm	—
75 mil	2.5-90' / 6-23 cm	—	—	—	—
8 mil	—	—	—	—	2.5-6.6' / 6-17 cm
10 mil	2.5-13.0' / 6-33 cm	1.5-24' / 39-61 cm	—	1.5-70' / 4-18 cm	2.1-8.0' / 5-20 cm
13 mil Code 39	—	—	15.0-45.0' / 38-114 cm	1.5-80' / 4-20 cm	2.5-12.5' / 6-32 cm
15 mil Code 39	2.5-19' / 6-48 cm	9-33' / 23-84 cm	20-50' / 5H27 cm	—	2.1-2.8' / 5-33 cm
15 mil Data Matrix	—	—	—	—	2.3-9.2' / 6-23 cm
15 mil QR Code	—	—	—	—	3.1-7.8' / 8-20 cm
20 mil Code 39	10-29' / 3-74 cm	11-47' / 28-119 cm	—	1.5-11.5' / 4-29 cm	—
30 mil Code 39	—	—	32-85' / 81-216 cm	—	—
35 mil MaxiCode	—	—	—	—	2.1' / 5-28 cm
40 mil Code 39	2.5-30' / 6-76 cm	1.3-83' / 33-211 cm	—	3.0-15.0' / 8-38 cm	—
55 mil Code 39	4.0-45' / 10-114 cm	16-100' / 41-254 cm	26-100' / 66-254 cm	—	—
70 mil (reflective)	—	47-199' / 119-505 cm	113-249' / 287-632 cm	—	—
100 mil (reflective)	—	59-240' / 150-610 cm	124-350' / 315-889 cm	—	—

\* Key: SR = Standard Range, LR = Long Range, ALR = Advanced Long Range. Minimum distance determined by symbol length and scan angle. Dependent upon printing resolution, contrast, and ambient light.

### System

**Operating System:** Windows® CE v4.2 or v5.0, Windows Mobile® v5.0

**Microprocessor:** Intel® XScale™ PXA255, 400 MHz

#### Memory

Windows® CE: RAM: 64 MB or 128 MB; Flash: 64 MB

Windows Mobile®: RAM: 64 MB; Flash: 64 MB

**Dock Communications:** USB 1.1 (ActiveSync) & RS-232

(ActiveSync and other RS-232 protocols)

**PC Card:** Internal PC Card Type I/II slot

**Beep Tone:** 86dBA (at 24" / 61cm) / 100dBA (at 10 cm) (typical)  
Programmable for pitch and duration

#### Power Options

**Rechargeable Lithium Ion Battery Pack (2000 mAh)**

**Falcon Single and Four-Slot Dock** with power supply

**Advanced Power Management:** (without PC Card & backlight):

Sleep/off mode with programmable timeout: 5 mA; Idle mode: 60 mA (typical); Operating mode: 155 mA (typical). Rechargeable lithium backup battery; Low battery indicator (display icon)

#### Radio Support

Windows® CE: 802.11b or 802.11g

Windows Mobile®: 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:

Windows® CE: Embedded Visual C++, Visual C# .NET, Visual Basic

.NET, Personal Java 1.1, Java Virtual Machine (JVM), Falcon® CE

Developers Toolkit, and Wavelink® Studio.

Windows Mobile®: Visual Studio 2005 and Wavelink® Studio.

#### Decoding Capability (auto-discrimination)†

- 1D Codes
- Code 32, 39, 93
  - EAN/JAN 8, 13
  - Matrix 2/5
  - EAN/UPC 2 digit ext.
  - Codabar
  - EAN 128
  - MSI / Plessey
  - EAN/UPC 5 digit ext.
  - Code 128
  - UPCA, E
  - Standard 2/5
  - EAN/UCC Composite
  - Code 128 ext.
  - Interleaved 2/5
  - Code 39 Full ASCII
  - RSS-14/RSS Limited

- 2D Codes
- PDF-417
  - RSS Expanded
  - Data Matrix
  - QR Code
  - Micro PDF-417
  - Aztec Code
  - Maxi Code
  - OCR-A/B
  - U.S. Currency Serial Number
  - MICR E 13 B
  - Postal Codes

† Please refer to the appropriate Product Reference Guide (PRG) for specific symbology support for the laser scan engine or imaging scan engine options.

### Safety and Regulatory

**Electrical:** EN60950, UL60950, CSA60950

**Battery:** IATA/UN

**Emissions:** FCC Part 15C, EN55022, VCCI, ICES-003, CNS 13438, AS/NZS 3548

**Radio:** FCC Part 15.247, EN 300 328

**Laser Classification:** CDRH Class II;

(CAUTION: Laser Radiation—do not stare into beam); IEC

60825-1, Class 2, Class 3R for ALR devices

**Restriction of Hazardous Substances:** Complies to EU RoHS



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