

# Falcon® 4400 Series

Windows® CE. NET Color Mobile Computer



**Mechanical**  
**Dimensions**  
 Length: 22.6 cm / 9.0"      Width at display: 8.6 cm / 3.5"  
 Width at grip: 6.4 cm / 2.5"      Height at grip: 41 cm / 16"  
**Weight:** 724 g / 23.3 oz (Will vary depending upon the configuration selected. Falcon 4423 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 Full Alphanumeric (handed version only), 52-Key Full Alphanumeric, and 5250 support  
**Construction:** Industrial, polycarbonate/ABS-blend plastic shell with thermoplastic urethane overmold  
**Environmental**  
**Temperature Rating**  
 Operating: -10° to 50° C / 14° to 122° F  
 Storage: -25° to 70° C / -13° to 158° F  
**Humidity:** 5 to 95% NC  
**Shock:** Multiple 1.5 M / 5.0' drops to concrete  
**Water & Dust:** IEC52 Rating IP54DW

**Features**

- Overmold for 15 M / 5 ft. drop to concrete
- Optional array imager for 2D bar code applications
- Tethered Stylus for enhanced stylus security
- Optional serial printer connector for printing applications
- Keypad options include 26-, 48-, and 52- key versions
- Ergonomic Design
- Intel® XScale™ PXA255 400MHz
- Windows CE .NET Operating System
- Bright 64K Color TFT Active Matrix QVGA display
- Standard, Long Range, Advanced Long Range Integrated Laser Scanner, or Linear Imager Options
- Industry Leading Beeper Volume
- Instant-On Trigger (Falcon 442x Only)
- Open Architecture—PC Card Slot for RF, Memory, etc.
- Supports Cisco Aironet (802.11b)

**Accessories**

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



The Falcon 4400 product family 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.

Optical	Laser Scan Engine		Linear Imager	2D Imager
	SR*	LR*/XLR*		
Light Source	650 nm	650 nm	645nm	626 nm
Scan Rate	35 ± 5 scans/sec.	35 ± 5 scans/sec.	36 ± 5 scans/sec.	N/A
Ambient Light Immunity				
Artificial Light	4,844 lux / 450 ft. candles	4,844 lux / 450 ft. candles	100,000 lux / 9,290 ft. candles	N/A
Sunlight	86,112 lux / 8,000 ft. candles	86,112 lux / 8,000 ft. candles	100,000 lux / 9,290 ft. candles	100,000 lux / 9,290 ft. candles

**DEPTH OF FIELD TABLE**  
Typical Range Comparisons

Label Density	Standard Range	Long Range	Advanced Long Range	Linear Imager	2D Imager
5 mil	8-13 cm / 3-5'	—	—	8-13 cm / 30-50'	—
6.6 mil PDF-417	—	—	—	—	11-16 cm / 40-6.5'
7.5 mil	6-23 cm / 2.5-9'	—	—	—	—
8 mil	—	—	—	—	8-20 cm / 3.3-8'
10 mil	6-33 cm / 2.5-13'	23-56 cm / 9-22'	—	4-23 cm / 15-9'	8-23 cm / 3.2-9.2'
100% +/-13 mil	—	—	48.3-99.1 cm / 19-29'	4-27 cm / 15-10.5'	6-32 cm / 2.5-12.5'
15 mil	6-48 cm / 2.5-19'	18-96 cm / 7-38'	51-127 cm / 20-50'	—	5-33 cm / 2-12.8'
15 mil Data Matrix	—	—	—	—	9-17 cm / 3.7-6.5'
20 mil	6-53 cm / **21"	18-114 cm / 7-45'	—	4-30 cm / 15-12'	—
30 mil	—	—	84-249 cm / 33-98'	—	—
35 mil MaxiCode	—	—	—	—	5-33 cm / 2-13'
40 mil	6-76 cm / **30"	25-229 cm / 10-90"	—	4-43 cm / 15-17"	—
55 mil	6-91 cm / **36"	25-250 cm / 10-100"	69-277 cm / 27-109"	—	—
70 mil (reflective)	—	152-457 cm / 62-240"	290-635 cm / 114-250"	—	—
100 mil (reflective)	—	157-610 cm / 60-240"	318-914 cm / 125-360"	—	—

\*\* Minimum distance determined by symbol length and scan angle. Dependent upon printing resolution, contrast, and ambient light.

**System**

**Operating System:** Windows® CE .NET  
**Microprocessor:** Intel® XScale™ PXA255, 400 MHz  
**Memory:** RAM: 64 MB; Flash: 64 MB  
**Communications Port:** USB 11 (ActiveSync) & RS-232 (ActiveSync and other RS-232 protocols)  
**Dock Communications:** USB 11 (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:** Cisco Aironet (802.11b), Symbol Wireless Networker (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 Environments:** 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.

**Decoding Capability (autodiscrimination)†**

- ID 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
  - UPC A, 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 / IUN  
**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



PSC Inc.  
 959 Terry Street  
 Eugene OR 97402-9150 USA  
 Tel: 800 695 5700 or 541 683 5700  
 Fax: 541 345 7140



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