

Falcon® 4400 Series

Windows® CE.NET Color Mobile Computer

Data Sheet



Features

- Overmold for 5 ft. /15 M 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 4420 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 been 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 tested Cisco product(s) and disclaims any implied warranties of merchantability, fitness for a particular use or against infringement.

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 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 (handled version only), 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 50' / 15 M drops to concrete

Water & Dust: IEC52 Rating IP54DW

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	450 ft. candles/ 4,844 Lux	450 ft. candles/ 4,844 Lux	9,290 ft. candles/ 100,000 lux	N/A
Sunlight	8,000 ft. candles/ 86,112 Lux	8,000 ft. candles/ 86,112 Lux	9,290 ft. candles/ 100,000 lux	9,290 ft. candles/ 100,000 lux

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

DEPTH OF FIELD TABLE Typical Range Comparisons					
Label Density	Standard Range	Long Range	Advanced Long Range	Linear Imager	2D Imager
5 mil	3-5' / 8-13 cm	—	—	3-0-50' / 8-13 cm	—
6.6 mil PDF-417	—	—	—	—	40-65' / 11-16 cm
7.5 mil	2-5-9' / 6-23 cm	—	—	—	—
8 mil	—	—	—	—	33-8' / 8-20 cm
10 mil	2-5-13' / 6-33 cm	9-22' / 23-56 cm	—	15-9' / 4-23 cm	32-9-2' / 8-23 cm
100% +/13 mil	—	—	19-29' / 48.3-99.1 cm	15-10-5' / 4-27 cm	25-12-5' / 6-32 cm
15 mil	2-5-19' / 6-48 cm	7-38' / 18-96 cm	20-50' / 51-127 cm	—	21-12-8' / 5-33 cm
15 mil Data Matrix	—	—	—	—	37-6-5' / 9-17 cm
20 mil	** 2' / 6-53 cm	7-45' / 18-114 cm	—	15-12' / 4-30 cm	—
30 mil	—	—	33-98' / 84-249 cm	—	—
35 mil MaxiCode	—	—	—	—	21-3' / 5-33 cm
40 mil	** 30' / 6-76 cm	10-90' / 25-229 cm	—	15-17' / 4-43 cm	—
55 mil	** 36' / 6-91 cm	10-100' / 25-250 cm	27-109' / 69-277 cm	—	—
70 mil (reflective)	—	62-240' / 152-457 cm	114-250' / 290-635 cm	—	—
100 mil (reflective)	—	60-240' / 157-610 cm	125-360' / 318-914 cm	—	—

** 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) & RS232 (ActiveSync and other RS232 protocols)

Dock Communications: USB 11 (ActiveSync) & RS232 (ActiveSync and other RS232 protocols)

PC Card: Internal PC Card Type III 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 11, 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



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