

# 3820

## Cordless Linear Imager



### Overview

Hand Held Products 3820 combines exclusive Adaptus Imaging Technology with Bluetooth wireless connectivity to provide class-leading performance and durability for retail and commercial cordless bar code reading.

In applications where operators must move about to read bar codes, cables become a limiting factor. They cause inefficiencies or safety and ergonomic concerns. Cable length often limits working range, resulting in an object being moved to the reader because the reader can't be taken to the object. With cordless bar code reading, operators have freedom of movement required to quickly, safely, and ergonomically read bar code data. With a 33 foot (10m) working range and 24 inch (61cm) read-range, the 3820 has the right combination of performance and features.

Having the right performance is only part of the solution; staying in service is just as important. The 3820 also has class-leading durability. It was designed to survive in real world mobile applications. Hand Held Products is committed to creating some of the most rugged products available, and the 3820 is another example of that commitment. With no moving parts and a robust housing design, the 3820 will easily provide years of service in retail and commercial environments, creating a favorable total cost of ownership.

### Features

- **Adaptus™ Imaging Technology:** Hand Held Products exclusive brand of imaging technology provides best-in-class read range and an unsurpassed ability to read poor quality bar codes. Both features are well suited to cordless applications where improved efficiency and ergonomics are primary goals.
- **Bluetooth® v1.2 Class 2 Radio:** Developed to reduce interference in existing RF backbones, including 802.11. Only v1.2 uses Adaptive Frequency Hopping (AFH) to mitigate data collisions in the 2.4 GHz frequency band, while providing a 33 foot (10m) working range.
- **FIPS 140-2 Certification Pending:** In-process for Federal Information Processing Standards (FIPS) certification for wireless data transmission, required by US Government Departments and recommended in private sector and non-US Government applications for sensitive data security.
- **Unique Base Design offers the following features:**
  - A minimal footprint that is up to 33% smaller than major competitors', simplifying installation and leaving more counter space for customer service or other application needs.
  - Presentation scanning with a docked imager for efficient, hands-free bar code reading.
  - Host-powered interface and RF link; an exclusive Hand Held Products feature that extends the mobile capabilities of the 3820 by drawing power from a portable device for radio and host communications.
- **Battery:** A long lasting, high capacity lithium ion battery provides 57,000 scans per full charge with no conditioning required. The battery is field-replaceable.
- **Durable:** Hand Held Products solid state, no-moving-parts imager design withstands more than fifty 6 foot (1.8m) drops to concrete.

# 3820 Specifications

## Performance

<b>Illumination:</b>	630 NM Visible Red LED
<b>Receiving Device:</b>	3648 element linear imager
<b>Reading Distance:</b>	From 1 in. (2.5 cm) to 24 in. (61 cm) on medium density codes
<b>Reading Width:</b>	7.5 mil code: 7 in. (18 cm) from nose, 6.6 in. (17 cm) wide 13 mil code: 16.5 in. (42 cm) from nose, 10 in. (25 cm) wide
<b>Resolution:</b>	5 mil. at 5 in. (13 cm) distance
<b>Skew Angle:</b>	±65°
<b>Pitch Angle:</b>	±65°
<b>Minimum Symbol Contrast:</b>	20%
<b>Scan Rate:</b>	Up to 270 scans per second
<b>Decode Rate:</b>	270 decodes per second

## Wireless Technology

<b>Frequency:</b>	2.4 to 2.4835 GHz (ISM Band) Frequency-Hopping Bluetooth v. 1.2
<b>Range:</b>	33 ft. (10 m) typical
<b>Data Rates:</b>	720 KBps
<b>Security:</b>	FIPS 140-2 (Certification Pending)

## Battery (Lithium Ion)

<b>Capacity:</b>	1,800 mAh (minimum)
<b>Number of Scans:</b>	57,000
<b>Expected Hours of Operation:</b>	16 hours
<b>Charge Time with 9 VDC External Power Supply:</b>	4 hours for full charge from full discharge

**Symbologies:** China Post, Codabar, Codablock F, Code 2 of 5, Code 11, Code 16K, Code 39, Code 32 Pharmaceutical (PARAF), Code 49, Code 128, EAN/JAN, IATA Code 2 of 5, Interleaved 2 of 5, Korea Post, Matrix 2 of 5, Coupon Code, MSI, Plessey Code, PosiCode, GS1 DataBar, Telepen, Trioptic, UPC-A, UPC-E, and ISBT 128 Concatenation (requires a paid license). 2005 Sunrise/GTIN compliant.

**Interfaces:** All popular PCs and terminals via keyboard wedge, keyboard replacement/direct connect, USB, TTL level RS-232, wand emulation mode, TTL level Serial Wedge, and IBM 46XX retail terminals.

## Mechanical/Electrical

Dimensions	3820 Scanner with Battery	2020 Base
<b>Weight:</b>	9.2 oz. (261 g)	8.8 oz. (250 g) w/o cable
<b>Height:</b>	6.5 in. (16.5 cm)	3.1 in. (7.9 cm)
<b>Power Requirements</b>		
<b>Input Voltage:</b>	3.7 V internal battery	4.7 to 14 VDC (host) 8.5 to 9.5 VDC external power supply

### Current Draw

125 mA max @ 5V (no charging)  
100 mA max @ 12V (no charging)  
825 mA max @ 12V (charging)

## Environmental

	3820 Scanner with Battery	2020 Base
<b>Sealing:</b>	IP 41 (Water and Dust Resistant)	
<b>Operating Temperature:</b>	32° to 122°F (0° to 50°C)	32° to 122°F (0° to 50°C)
<b>Storage Temperature:</b>	-40° to 140°F (-40° to 60°C)	-40° to 140°F (-40° to 60°C)
<b>Humidity:</b>	up to 95%, non condensing	up to 95%, non condensing
<b>Mechanical Shock:</b>	Functional after 50 drops from 6 ft. (1.8 m)	Functional after 50 drops from 3.3 ft. (1 m)
<b>Ambient Illumination:</b>	0-76,000 lux	
<b>ESD Protection:</b>	Functional after 15 kV discharge	
<b>Warranty:</b>	3 years (Note: battery warranty is 1 year)	

BLUETOOTH is a trademark owned by Bluetooth SIG, Inc., U.S.A. and licensed to Hand Held Products.



### Worldwide Offices

#### NORTH AMERICA

Skaneateles Falls, NY  
Tel: +1 315 685 8945  
or, in North America:  
+1 800 582 4263  
napresales@handheld.com

Carolinas  
Tel: +1 803 835 8000  
or, in North America:  
+1 800 582 4263  
napresales@handheld.com

#### ASIA AND THE PACIFIC RIM

Hong Kong  
Tel: +852 2511 3050  
appresales@handheld.com

Japan  
Tel: +813 5770 6312  
appresales@handheld.com

Shanghai  
Tel: +86 21 6361 3818  
appresales@handheld.com

Malaysia  
Tel: +603-6201 9020  
appresales@handheld.com

#### LATIN AMERICA

Naples, Florida  
Tel: +1 239 263 7600  
lapresales@handheld.com

Rio De Janeiro  
Tel: +55 21 2178 0500  
lapresales@handheld.com

Mexico  
Tel: +52 55 5203 2100  
lapresales@handheld.com

#### EUROPE, MIDDLE EAST, AND AFRICA

Europe  
Tel: +31 (0) 40 29 01 600  
eusales@handheld.com

United Kingdom  
Tel: +44 (0) 1 925 240055  
eusales@handheld.com

Italy  
Tel: +39 02 7254 6754  
Info.italy@handheld.com

France  
Tel: +33 (0) 1 41 158220  
Info.france@handheld.com

Germany  
Tel: +49 (0) 7 477 151377  
Info.germany@handheld.com

Spain  
Tel: +34 93 228 78 68  
Info.spain@handheld.com

Hand Held Products, Inc., ("Hand Held Products") ©1999-2007. All rights reserved. Printed in the U.S.A. Web Site Address: [www.handheld.com](http://www.handheld.com)  
Due to Hand Held Products' continuing product improvement programs, specifications and features herein are subject to change without notice.

