

## **5000 LED Aimer**

## **5100 High Visibility LED Aimer**

## **5300 Laser Aimer**

### *Miniature Image Engines*



## **Optical Subassembly and Licensed Decoder**

### **Features**

*Powered by Adaptus™ Imaging Technology - The world's finest technology for data collection. Adaptus Imaging Technology delivers superior value through versatility and performance and embodies Hand Held Products continuous commitment to leading technology, superior solutions, and helping business customers solve their data capture problems.*

*Small, Lightweight and Versatile - Compact package minimizes integration hassles into legacy and next generation devices.*

*Point and Shoot Ease of Use - Available in high visibility LED and laser aimer versions, these omni-directional area imagers make reading linear and full matrix codes quick and easy with industry-leading motion tolerance, low light sensitivity and broad depth of field reading distances.*

*Durable - Because they're designed with industrial grade image sensor technology and no moving parts, these imagers can withstand rugged applications and sub zero freezing temperatures.*

*Fifth Generation Imaging - Based on a history of applying image based technology to reading bar codes, these engines bring a legacy of industry-leading image processing performance. In addition to reading bar codes well, these products also capture crisp digital images for use in your data collection system.*

The 5000 family combines the latest CMOS industrial grade image sensor technology, illumination, and optics to create a compact, lightweight optical module capable of reading linear, stacked linear and matrix bar codes. In addition, these imagers can read and decode OCR fonts and capture digital images.

Our fifth generation of image engines builds on the Hand Held Products legacy of reading the most comprehensive list of bar code symbologies and value added image capture and OCR reading capability. Hand Held Products has a long history of supplying OEM devices to the bar code reading industry. Our commitment to applying innovative image based processing to traditional bar code applications will help ease your transition to image based readers. In addition, our partnership friendly culture and sensitivity to life cycle management helps you manage your engine integration and evolution to ensure your devices always have the latest and best technology available.

These full omni-directional readers are available in configurations to meet your integration needs. Several focal distances, mounting options, aiming ergonomics, and decoder license configurations are available. These options help integrators incorporate the benefits of image capture into a wide variety of devices including bar code scanners, hand held mobile computers, medical instrumentation, diagnostic equipment, gaming terminals, vending machines, and robotics.

To learn how the 5000 Series engines can work for you, contact us at any of the locations listed on the back or visit us at [www.handheld.com](http://www.handheld.com).

# 5X00 Series Specifications



5300 Only

## Performance

### Focal Point:

SR 7 inches (17.8cm) from lens plate  
SF 4.5 inches (11.4cm) from lens plate

### SR Working Range:\*

	8.3 mil Linear (.020cm)	10 mil PDF417 (.025cm)	13 mil UPC (.033cm)	15 mil Data Matrix (.038cm)	15 mil QR (.038cm)	35 mil MaxiCode (.089cm)
Near	3.5 in. (8.9cm)	3.1 in. (7.9cm)	2.1 in. (5.3cm)	2.3 in. (5.8cm)	3.1 in. (7.9cm)	2.0 in. (5.1cm)
Far	7.6 in. (19.3cm)	9 in. (22.9cm)	13.2 in. (33.5cm)	10.2 in. (25.9cm)	8.8 in. (22.4cm)	13.0 in. (33cm)

### SF Working Range:\*

	6.6 mil PDF417 (.017cm)	7.5 mil Linear (.019cm)	8.3 mil Data Matrix (.021cm)	8.3 mil QR (.021cm)	10 mil Linear (.025cm)	13 mil UPC (.033cm)
Near	2.8 in. (7.1cm)	2.5 in. (6.4cm)	3.4 in. (8.6cm)	3.4 in. (8.6cm)	2.2 in. (5.6cm)	2.0 in. (5.1cm)
Far	6 in. (15.2cm)	6.5 in. (16.5cm)	5.7 in. (14.5cm)	5.4 in. (13.7cm)	7.6 in. (19.3cm)	8.9 in. (22.6cm)

\*Data characterized at 23°C and 0 lux ambient light

### Image Sensor:

752 X 480 CMOS sensor

### Motion Tolerance:

4 in. (10.2cm) per second

### Rotational Sensitivity:

360°

### Viewing Angle:

+40°

### Ambient Light:

Total darkness to 100,000 lux (full sunlight)

### Illumination LEDs:

626nm ±30nm

### Aiming:

#### LEDs:

526nm ±30nm

#### Laser:

650nm ±10nm

## Symbologies

### 2 Dimensional:

PDF417, MicroPDF417, MaxiCode, Data Matrix, QR Code, Aztec, Aztec Mesa, Code 49, UCC Composite

### Linear:

Code 39, Code 128, Codabar, UPC, EAN, Interleaved 2 of 5, RSS, Code 93, Codablock

### Postal:

Postnet (US), Planet Code, BPO 4 State, Canadian Post, Japanese Post, KIX (Netherlands) Post

### OCR Fonts:

OCR-A, OCR-B

## Mechanical

### 5000

#### Size:

.564 in. Depth x .810 in. Width (without mounting tabs) x .450 in. Height  
(14.33 mm Depth x 20.57 mm Width (without mounting tabs) x 11.43 mm Height)

#### Weight:

.175 ounces (4.96 grams)

### 5100

#### Size:

.660 in. Depth x 1.1 in. Width (without mounting tabs) x .450 in. Height  
(16.76 mm Depth x 27.94 mm Width (without mounting tabs) x 11.43 mm Height)

#### Weight:

.19 ounces (5.4 grams)

### 5300

#### Size:

.7 in. Depth x 1.1 in. Width (without mounting tabs) x .475 in. Height  
(1.78cm Depth x 2.79cm Width (without mounting tabs) x 1.21cm Height)

#### Weight:

.21 ounces (5.9 grams)

## Electrical

### Operational Input Voltage:

#### Imager:

3.3 VDC ±5% (23°C)

#### Illumination + Aimer 5000/5100:

3.0 VDC to 6.0 VDC (23°C)

#### Illumination + Aimer 5300:

3.0 VDC to 5.5 VDC (23°C)

### Current Draw:

#### Imager:

Maximum Operating Current – 100 mA, Standby Current – 100 µA

5X00:	Average Current*	Standby Current	Peak	*Interlaced Mode
	150 mA	500 uA	350mA	

## Environmental

### Temperature Ranges:

#### Operating

-30° to +50°C (-34° to 122°F)

#### Storage

-40° to +70°C (-40° to 158°F)

#### Humidity:

up to 95% RH, non-condensing at 122° F (50°C)

#### Shock:

18 shocks of 3,500 G for .5 msec at 73° F (23°C)

#### Vibration:

10G over a frequency range of 5Hz to 500Hz  
1G over a frequency range of 500Hz to 2,000Hz

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