

**5010/5080 LED Aimer**  
**5110/5180 High Visibility LED Aimer**  
**5310/5380 Laser Aimer**  
*Decoded Miniature Image Engines*



**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.*

*Point-and-Shoot Scanning 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 reading distances.*

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

*Decoding - Built on a 30-year old tradition of decoding expertise, these decoded out engines will read all major linear, stacked linear, and matrix bar codes, as well as machine-readable OCR fonts, quickly and easily.*

*Fifth Generation Image Processing - 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, light-weight optical module capable of reading linear, stacked linear, and matrix bar codes like never before. In addition, these images can read and decode OCR fonts and capture digital images.

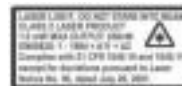
This fifth generation of image engines build on the Hand Held Products legacy of reading the most comprehensive list of bar code symbologies and combine with value add image capture and OCR reading capability. Hand Held Products has a long history of supplying OEM devices to the bar code reading industry. Our commitment to applying image-based processing innovation to traditional bar code applications enables us to 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.

Designed for ease-of-integration and superior durability, the 5X10/5X80 decoded engines are ideal as drop-in modules to most data capture applications. The small size and low current draw of the devices allow the engines to be integrated with minimal mechanical modifications. Incorporating sensor technology with no moving parts, the 5X10/5X80 Series engines are built to withstand 2,500G of shock. The decoder module supports standard serial and USB interfaces that, in most cases, does not require hardware modifications to existing platforms.

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 enable integrators to design in 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 5X10/5X80 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).

# 5X10/5X80 Series Specifications



## Performance

### Focal Point

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

### SR Working Range:\*

	<b>8.3 mil Linear</b> <b>(.020cm)</b>	<b>10 mil PDF417</b> <b>(.025cm)</b>	<b>13 mil UPC</b> <b>(.033cm)</b>	<b>15 mil Data Matrix</b> <b>(.038cm)</b>	<b>15 mil QR</b> <b>(.038cm)</b>	<b>35 mil MaxiCode</b> <b>(.089cm)</b>
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:\*

	<b>6.6 mil PDF417</b> <b>(.017cm)</b>	<b>7.5 mil Linear</b> <b>(.019cm)</b>	<b>8.3 mil Data Matrix</b> <b>(.021cm)</b>	<b>8.3 mil QR</b> <b>(.021cm)</b>	<b>10 mil Linear</b> <b>(.025cm)</b>	<b>13 mil UPC</b> <b>(.033cm)</b>
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 inches per second

### Rotational Sensitivity:

360°

### Viewing Angle:

±40°

### Ambient Light:

Total darkness to 100,000 lux (full sunlight)

### Illumination

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, Reduced Space Symbology, Code 93, Codablock

### Postal:

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

### OCR Fonts:

OCR-A and OCR-B

## Mechanical Specifications

	<b>5010/5080</b>	<b>5110/5180</b>	<b>5310/5380</b>	<b>5010/5080</b>	<b>5110/80, 5310/80</b>	<b>Decoder</b>
	<b>Image Module</b>	<b>Image Module</b>	<b>Image Module</b>	<b>Bracketed Device</b>	<b>Bracketed Device</b>	<b>Board</b>
Depth:	.584 in. (14.83mm)	.564 in. (16.74mm)	.7 in. (1.78cm)	.982 in. (24.94mm)	1.11 in. (28.19mm)	1.51 in. (38.35mm)
Width:	.83 in. (21.08mm)	1.1 in. (27.94mm)	1.1 in. (2.79cm)	1.51 in. (38.35mm)	1.51 in. (38.35mm)	.86 in. (22.8mm)
Height:	.47 in. (11.94mm)	.45 in. (11.43mm)	.475 in. (1.21cm)	.765 in. (19.43mm)	.765 in. (19.43mm)	.357 in. (9.07mm)
Weight:	1 ounce (28.3g)	1 ounce (28.3g)	1 ounce (28.3g)	1 ounce (28.3g)	1 ounce (28.3g)	

## Electrical Specifications

### Operational Input Voltage

Imager: 3.3 VDC ± 5% (23° C)

5X10/5X80: 3.0 VDC to 5.5 VDC (23° C)

### Current Draw

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

	<b>Average Current*</b>	<b>Standby Current</b>	<b>Peak</b>	
5X10/5X80:	510 mA	120 uA	600 mA	*Interlaced Mode

## Environmental Specifications

### Temperature Ranges

Operating: -30° to +50° C (-22° 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 2,500 G

## Worldwide Offices

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