Honeywell

5X80 Series Decoded Miniature Image Scan Engines

5080 LED Aimer
5180 High Visibility LED Aimer
5380 Laser Aimer

The 5X80 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 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 Honeywell legacy of reading the most comprehensive list of bar code symbologies and combine with value add image capture and OCR reading capability. Honeywell 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 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 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.

powered by
Adaptus®
imaging technology *5.0*

Features

- **Powered by Adaptus® Imaging Technology :** Adaptus Imaging Technology delivers superior value through versatility and performance and embodies Honeywell 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:** Because they incorporate industrial grade image sensor technology and are designed with 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.

Performance

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

Working Range:

SR*	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*	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 inches 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, 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

	5080 Image Module	5180 Image Module	5380 Image Module	5080 Bracketed Device	5180, 5380 Bracketed Device	Decoder Board
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)		
	5X80:	3.0 VDC to 5.5 VDC (23° C)		
Current Draw:	Imager:	Maximum Operating Current – 100 mA, Standby Current – 100 µA		
		Average Current (Interlaced Mode)	**Standby Current**	**Peak**
	5X80:	510 mA	120 uA	600 mA

Environmental Specifications

Operating Temperature:	-30° to +50°C (-22° to 122° F)
Storage Temperature:	-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

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