Honeywell

N8680 Series

N8680WA/ N8680DR

High Megapixel - Miniature Area-Imaging Engines

A superior, best-in-class, high resolution scan engine is now available with the N8600 Series High Megapixel Miniature Area Imaging Engine. The N8600 Series engine integrates high density camera technology with, Honeywell's Adaptus 6.0 imaging platform for applications where scanning single or multiple high density barcodes are required.

N8600 series engines provide a super high resolution imaging solution by embedding CMOS sensors with up to five million pixels inside. This fully integrated imaging and decoding system helps integrators benefit from both excellent system performance and convenient, low profile packaging.

N8600 series engines continue to expanded the use of Honeywell's industry-famous imaging platform – Adaptus 6.0, which delivers the highest standards of bar code and OCR font reading performance, with unmatched speed and accuracy. Adaptus 6.0 leads the industry in its ability to decode hard-to-read bar codes.

A strong durable IP6x engine design ensures the N8600 series engines work in the harshest environments. Backed by Honeywell's expert OEM integration support team, and proven quality and reliability, N8600 Series engines deliver tremendous value to OEM integrators and their customers by providing a best-in-class data capture solution, reducing development investment, and decreasing total ownership costs.

N8600 series engines are available with wide angle and document reading versions suitable for capturing multiple high density barcodes and decoding them with one simple scan. Highly efficient, the N8600 series engine is optimized for use in different vertical industries such as pharmacy, industry automation and banking applications.

Features

- **Superior High Density Scan:** Industry trends toward minimized label size helps in reducing material costs, freeing up valuable packaging surface area making scanning challenging. With a high resolution (2592×1944) five megapixels sensor, the WA version can achieve finer details with min. resolution of 2.5 mil (1D) and 5 mil (2D) barcodes.
- **Better Durability with Lower Cost of Ownership:** Best-in-class shock rating of 2500g, this imager has a lower failure rate which means less maintenance spent across the end user's product life.
- **Special IP6x Protection on Key Device:** Sealed imaging technology ensures good imaging quality in dusty application environments.
- **Supports TotalFreedom®:** An open-system architecture for developing software plug-ins to implement valueadded custom features.
- **Superior Scan Performance: O**ffers best HD resolution without sacrificing depth of field performance on industry standard labels (e.g. EAN-13/100% UPC); Best-in-class, down to 20% Min. print contrast, ensure this imager is capable in tolerating poor quality barcode printing.
- **Adaptus 6.0 Imaging Technology:** Provides fast and accurate reading of bar codes and OCR fonts with best- in-class range and extraordinary motion tolerance, even on hard-to-read codes as well as those displayed on mobile phone screens.
- **Faster to Market:** Fully system integrated optics and decoding system, with low profile packaging make it easier to design in, shortening end product design in time cycle.

N8680 Series Technical Specifications

Performance	
Sensor	CMOS sensor, 2592 × 1944 pixel resolution
Illumination	White LED (6500K)
Typical frame rate	6 frames per second, up to 14fps
Motion Tolerance	100mm/sec at best focus (WA:127mm (5"), DR: 270mm(10.6"") for 13mil (100%)UPC(picket fence) (motion perpendicular with direction of bars)
Field of View	WA: Horizontal Field Angle: +/-25°, Vertical Field Angle: +/-19° DR: Horizontal Field Angle: +/-25.5°, Vertical Field Angle: +/-20°
Scan Angles	Tilt: 360°, Pitch: +/- 45°, Skew: +/- 65°
Symbol Contrast	20% minimum reflectance
Symbologies	Aztec Code, Codabar, Codablock F, Code 11, Code 16K, Code 128, Code 2 of 5, Code 39, Code 49, Code 93, Data Matrix, EAN/JAN-13, EAN/JAN 8, EAN-UCC Composite Codes, EAN-UCC Emulation, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MaxiCode, MicroPDF417, MSI, PDF417, Postal Codes (Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet), Plessey Code, PosiCode, QR Code, RSS Expanded, RSS Limited, RSS-14, TCIF Linked Code 39, Telepen, Trioptic Code, UPC-A, UPC E
Mechanical/Electrical	
Dimensions (H x W x D)	43 mm x 48.3 mm x 14.73 mm
Weight	20g
Interface	12-pin FPC or Micro-USB
Input Voltage	TTL-RS232: 4.5 – 5.5 VDC; USB: 4.5 – 5.25VDC
Typical Current Draw @5.0VDC	350 mA (manual trigger); 250µA (sleep)
Environmental/Other	
Temperature	WA: Operating: -20°C to 50°C (-4°F to 122°F); Storage: -20°C to 80°C (-20°F to 176°F) DR: Operating: -20°C to 50°C (-4°F to 122°F); Storage: -20°C to 80°C (-4°F to 176°F)
Humidity	0 to 95% relative humidity, non-condensing, at 50°C (122°F)
Ambient Light	0–100,000 lux (total darkness–bright sunlight)
Shock Rating	18 shocks of 2,000 G's for 0.7msec and 18 shocks of 2,500 Gs for 0.7msec at 23°C applied via the mounting surface
Vibration	Displacement of 0.20" (5.1mm) p-p from 5Hz to 22Hz and with an acceleration of 5g's peak from 22Hz to 300Hz
MTBF	70,000 hours
Warranty	15 month limited warranty

For a complete listing of all compliance approvals and certifications, please visit www.honeywellaidc.com/compliance

Symbology - WA version		
Symbology/X-Dim	**Typical Range***	
4mil Code39	72mm-164mm	(2.83in-6.46in)
5mil Code39	55mm-188mm	(2.17in-7.4in)
7.5mil Code39	36mm-267mm	(1.42in-10.51in)
10mil Code39	20mm-337mm	(0.79in-13.27in)
20mil Code39	39mm-493mm	(1.54in-19.41in)
13mil UPC-A	38mm-420mm	(1.5in-16.54in)
6.7mil PDF 417	41mm-235mm	(1.61in-9.25in)
10mil PDF 417	31mm-327mm	(1.22in-12.87in)
8.3mil Data Matrix	51mm-208mm	(2.01in-8.19in)
10 mil Data Matrix	42mm-244mm	(1.65in-9.61in)
15mil Data Matrix	22mm-331mm	(0.87in-13.03in)
8.3mil QR	49mm-205mm	(1.93in-8.07in)
10mil QR	37mm-236mm	(1.46in-9.29in)

Symbology - DR version		
Symbology/X-Dim	**Typical Range***	
5mil Code39	179mm-332mm	(7.03in-13.06in)
7.5mil Code39	153mm-409mm	(6.04in-16.08in)
10mil Code39	127mm-437mm	(5.00in-17.21in)
13mil UPC-A	84mm-499mm	(3.30in-19.65in)
15mil Data Matrix	136mm-446mm	(5.34in-17.55in)
NYSDL	165mm-384mm	(6.50in-15.12in)
6.7mil PDF 417	158mm-376mm	(6.22in-14.80in)
10mil PDF 417	120mm-450mm	(4.72in-17.70in)
8.3mil PDF 417	139mm-427mm	(5.47in-16.81in)
8.3mil QR	186mm-352mm	(7.34in-13.86)
20mil QR	75mm-522mm	(2.93in-20.55in)

**Performance may be impacted by bar code quality and environmental conditions.*

For more information:

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