

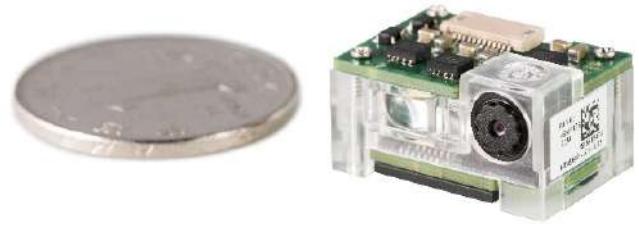
# N3680 Series

## Compact Decoded 2D Barcode Engine

The N3680 barcode scan engine is a revolutionary, fully decoded, compact 2D engine from Honeywell. It inherits the legendary Adaptus 6.0 decoding performance in our most compact design. The N3680 represents a fine balance between size, performance, and ease of integration – ensuring an excellent end user experience.

Not only does the N3680 series support a wide variety of symbologies – including 1D, 2D and PDF417 barcodes – it also includes advanced features that support reading poorly printed bar codes and can even read barcodes directly from smartphone screens. This makes the N3680 a perfect choice for reading mobile coupons and loyalty cards, mobile ticketing, paperless boarding passes and barcode payment systems for mobile wallet applications.

Integration is simplified, with the N3680 available in either TTL serial or USB versions, both with an industry standard 12-pin ZIF connector. To provide an easy upgrade path for customers desiring a 1D laser with a 2D imaging option, the N3680 is the same size as our N4315, and even features the same mounting holes and electrical pin-out. This gives you the greatest flexibility to quickly provide barcode reading solutions with the lowest design cost, in the most compact designs.

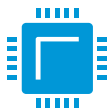


With its compact dimensions and integrated decoder, the N3680 makes it easy to incorporate high performance scanning into your designs.

Super-compact and ready to power the next generation of intelligent data collection devices, the N3680 weighs in at just 3.6 grams and fits easily into a wide range of small devices. Thanks to its small form factor and fully integrated design, there is no need for extra decoder board, and no need for extra host decoder programming and debugging. In fact, the N3680 does not require a separate CPU or OS for integration into your device.

The N3680 offers high reliability and performance, enabling more design freedom inside virtually any kind of device across all market segments, especially for retail, healthcare, point-of-sale, kiosks and ATMs, wearables and the IOT.

## FEATURES & BENEFITS



Integrated decode eliminates the need for a separate decoder board and extra programming and integration work. The N3680 can even work without an OS and host CPU.



Multiple interface support – either TTL serial or USB for easy integration into the most popular devices and applications.



Compact size and fully compatible with the N4315 1D laser engine for maximum design flexibility and design reuse.



Based on Honeywell's advanced Adaptus technology, users will experience high performance scanning and support for a wide set of 1D and 2D barcode symbologies, along with advanced imaging capabilities.



Uncanny ability to scan hard-to-read codes, as well as those displayed on mobile phone screens.

# N3680 Series Technical Specifications

## PERFORMANCE

**Sensor:** CMOS sensor with 640 x 480 pixel resolution  
**Illumination & Aiming:** White LED illumination; Red LED dot aimer  
**Typical frame rate:** 30 frames per second  
**Motion Tolerance:** Up to 100 cm/s (4 in/s) for 13 mil UPC at optimal focus  
**Field of View:** Horizontal: 37.8°, Vertical: 28.8°  
**Scan Angles:** Tilt: 360°, Pitch: ± 45°, Skew: ± 45°  
**Symbol Contrast:** 35% minimum print contrast ratio  
**Symbologies:**  
Linear: Codabar, Code 11, Code 128, Code 2 of 5, Code 39, Code 93 and 93i, EAN/JAN-13, EAN/JAN 8, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MSI, GS1 Databar, UPC-A, UPC E, UPC-A/EAN-13 with Extended coupon Code, Coupon GS1 Code 32(PARAF), EAN-UCC Emulation, GS1 Data bar  
2D Stacked: Codablock A, Codablock F, PDF417, MicroPDF417  
2D Matrix: Aztec Code, Data Matrix, MaxiCode, QR Code, Chinese Sensible(Han Xin) code  
Postal Codes: Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet

## MECHANICAL / ELECTRICAL

**Dimensions:**  
Typical (WxDxH): 21.17 x 14.6 x 11.52 mm  
Maximum (WxDxH): 21.57 x 14.95 x 11.73 mm  
**Weight:** 3.6 g  
**Interface:** 12-pin ZIF connector, with both TTL serial and USB configurations  
**Input Voltage:**  
TTL Serial: 3.3 VDC ± 5%  
USB: 5.0 VDC ± 5%  
**Typical Current Draw:**  
TTL Serial: 3.3 V input – 310 mA RMS while scanning, 65 mA RMS at idle, 3.5mA while on standby  
USB: 5 V input – 220 mA RMS while scanning, 60 mA RMS at idle, 2.5 mA while on standby

## ENVIRONMENTAL / OTHER

**Temperature:**  
Operating: -10°C to 40°C  
Storage: -40°C to 60°C  
**Humidity:** to 95% relative humidity, non-condensing, at 40°C  
**Ambient Light:** 0–100,000 lux (total darkness to bright sunlight)  
**Shock Rating:** 2500 G for 0.4 ms at 23°C  
**Vibration:** 3 axes, 1 hour per axis: 2.54 cm (1") peak-to-peak displacement (5 Hz to 13 Hz), 10 G acceleration (13 Hz to 500 Hz), 1 G acceleration (500 Hz to 2,000 Hz)  
**MTBF:** 70,000 hrs  
**Warranty:** 15 month limited warranty

## STANDARD RANGE (SR) OPTICS

SYMBOLGY / X-DIM	TYPICAL RANGE*
100% U.P.C.	55 to 280 mm (2.1 in to 11.0 in)
5 mil Code 39	61 to 130 mm (2.4 in to 5.1 in)
20 mil Code 39	60 to 380 mm (2.4 in to 15.0 in)
6.7 mil PDF4117	60 to 125 mm (2.4 in to 4.9 in)
10 mil Data Matrix	60 to 130 mm (2.4 in to 5.1 in)
20 mil QR	50 to 230 mm (2.0 in to 9.0 in)

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

Refer to the Honeywell Scanning & Mobility Compliance Center at [www.honeywellaidc.com/compliance](http://www.honeywellaidc.com/compliance) to review and download any publicly available documentation pertaining to the certification of this product in a given country.

Refer to the Honeywell Scanning & Mobility Supported Symbologies Datasheet at [www.honeywellaidc.com/symbologies](http://www.honeywellaidc.com/symbologies) for a complete listing of all supported barcode symbologies.



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