HONEYWELL N3780 SERIES

Compact, Decoded 2D Scan Engines

The Honeywell N3780 series is a compact, lightweight, fully decoded 2D scan engine designed to deliver enterprise class scanning performance in space constrained, customer facing applications.



N3780 USB version

Optimized to reliably read barcodes and QR codes displayed on mobile phone screens, it is ideal for kiosks, access control, ticketing, and self service workflows. Its one piece design eliminates the need for an external decoder board, host CPU, or operating system, simplifying system architecture and enabling faster integration and cleaner mechanical designs. Support for USB and TTL serial interfaces through an industry standard 12 pin connector provides flexible integration across a wide range of platforms and accelerates time to market for OEMs.

Optimized for everyday scanning workflows, the N3780 series delivers reliable performance with read distances of up to 510 mm, supporting comfortable user interaction and flexible device placement across kiosks, mobile POS systems, access control terminals, and wearables. Built on Honeywell's 7th generation Smart Adaptus™ decoding technology, it provides fast, responsive scanning with robust decoding of low contrast, damaged, and high density barcodes, as well as broad 1D and 2D symbology support. Designed for long term reliability, the N3780 series combines durable construction with power efficient operation to extend battery life in portable devices and improve efficiency in always on installations, while an intuitive green dot LED aimer enhances targeting and the end user experience.

FEATURES AND BENEFITS

Compact, lightweight design for easy integration
Compact and lightweight one-piece design enables fast, clean integration into space-constrained applications such as kiosks, mobile POS, access control, and wearables.

Reliable mobile phone screen barcode reading
Optimized to consistently read QR codes and barcodes from mobile phone screens—critical for kiosks, access control, ticketing, and self-service applications.

Power efficient operation for modern devices
Designed for reduced power consumption, improving battery life in portable devices and efficiency in always-on or unattended systems.

Flexible USB and TTL interface options
Supports both USB and TTL serial interfaces, allowing easy integration across a wide range of host platforms and design reuse.

Built on 7th generation Smart Adaptus™ decoding technology
Built on Honeywell's Smart Adaptus™ Gen7 platform, delivering improved snappiness and robust decoding of low-contrast, damaged, and challenging barcodes.

Honeywell

N3780 Series Technical Specifications

TABLE 1. SCAN PERFORMANCE	
CHARACTERISTIC	**PARAMETER**
Sensor technology	ROLLING SHUTTER
Resolution	1280 X 800 pixels
FPS	44 max
Illumination	White LED
Aiming	Green LED Dot Aimer
Field of view	Horizontal: 48°, Vertical: 31°
Symbol contrast	≥20%
Resolution 1D	3 mil C39
13mil UPC	38 mm to 510 mm [1.50 in to 20.07 in]
5 Mil C39	46 mm to 260 mm [1.81 in to 10.24 in]
10 Mil DM	42 mm to 250 mm [1.65 in to 9.84 in]
5 Mil C128	55 mm to 220 mm [2.17 in to 8.66 in]
6.67 Mil PDF	51 mm to 258 mm [2.01 in to 10.16 in]
15 Mil QR	25 mm to 350 mm [0.98 in to 13.78 in]

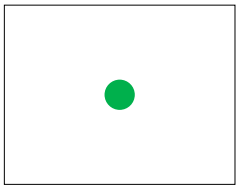


Figure 1. Green Dot LED Aimer

TABLE 2. MECHANICAL/ELECTRICAL	
CHARACTERISTIC	**PARAMETER**
Dimensions (h x w x d) USB	11.5mm x 21.15mm x 8.74mm [0.45 in x 0.83 in x 0.34 in]
Weight USB	2.5g (0.08oz)
Interface	USB or TTL
Input voltage	USB: 5.0 Vdc ± 5%
Typical current USB	5.0V input: 200mA RMS while scanning, 60mA RMS at idle, 1.4 mA while on standby.

TABLE 3. ENVIRONMENTAL/OTHER	
CHARACTERISTIC	**PARAMETER**
Operating temperature	-20°C to 50°C [-4°F to 122°F], up to 95% RH, non-condensing at 50°C[122°F]
Storage temperature	-30°C to 70°C [-22°F to 158°F], up to 95% RH, non-condensing at 50°C[122°F]
Humidity (operating and storage)	Operating: up to 95% RH, non-condensing at 50° C [122°F] Storage: up to 95% RH, non-condensing at 50° C [122°F]
Ambient light	0 lux to 100,000 lux
Shock	18 shocks (3 shocks x 3 axes x 2 directions) to mounting surface at 2500 G (pulse peak) for 0.4 ms (full pulse width) at 23°C [73°F]
Vibration	A sinuosity vibration of 3 axes, 1 hour per axis: 2.54 cm (1") peak-to-peak displacement (5 Hz to 13 Hz), 10 G acceleration (13 Hz to500Hz), 1 G acceleration (500 Hz to 2,000 Hz)
WARRANTY	15 months

TABLE 4. 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, ITF-6, ITF-14, ISBN, ISSN, UCC/EAN-128, Industrial 2 of 5, Standard 2 of 5, Plessey.
2D
PDF417,MicroPDF417, QR Code, Micro QR, Data Matrix, Aztec Code

WARRANTY/REMEDY

Honeywell warrants goods of its manufacture as being free of defective materials and faulty workmanship during the applicable warranty period. Honeywell's standard product warranty applies unless agreed to otherwise by Honeywell in writing; please refer to your order acknowledgment or consult your local sales office for specific warranty details. If warranted goods are returned to Honeywell during the period of coverage, Honeywell will repair or replace, at its option, without charge those items that Honeywell, in its sole discretion, finds defective.

The foregoing is buyer's sole remedy and is in lieu of all other warranties, expressed or implied, including those of merchantability and fitness for a particular purpose. In no event shall Honeywell be liable for consequential, special, or indirect damages.

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Specifications may change without notice. The information we supply is believed to be accurate and reliable as of this writing. However, Honeywell assumes no responsibility for its use.

ADDITIONAL INFORMATION

- Integration Manual is available upon request; contact your Honeywell representative
- For a listing of common compliance approvals and certifications, visit our **website**.

NOTICE

Misuse of Documentation

The information presented in this datasheet is for reference only. Do not use this document as a product installation guide

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