

## N3601 Series

### Compact, Undecoded 2D Imager

The N3601 Series 2D barcode scan engine is a very compact, undecoded 2D imager designed for use in mobile devices. The N3601 Series inherits Honeywell's long history of successful decoding experience and hardware performance to provide an easier-to-integrate, enhanced performance device that fits into tight mobile device designs.

Parallel or MIPI interface availability helps simplify integration into mobile devices that require the most current, as well as traditional, processor interfaces. The dimensions (8,1 mm [0.32 in] height x 10,8 mm [0.43 in] depth) are some of the most compact in its class. The reduced footprint frees up room for other technology integration.

The N3601 Series does not compromise on performance. Based on a 1 Mpx rolling shutter sensor, the N3601 Series increases its read range by 80% versus traditional VGA sensor-based imagers and can read EAN 100% at 541 mm [21.3 in] distance (typical read range). Its new sensor enables the reading of higher resolution codes (down to 3 mils on Code 39 1D barcode) and the white LED illumination system enhances image capture results and readability of colored barcodes. The visible and high definition LED green dot aimer makes usage more comfortable and helps to increase productivity, particularly in dynamic environments where barcodes are close to each other.

The wide operational temperature range (-20°C to 50°C [-13°F to 122°F]) allows expansion into more demanding applications and the lower power consumption (170 mA at 3.3 V, typical) increases the battery life provided by a single charge.



*N3601 Series*

This product is compatible with Honeywell's N660X Series and N670X High Performance 2D Imager and uses the same connector as these two scan engine families, reducing integration time and design costs while increasing design flexibility and choice. The N670X is even slimmer than the N3601 Series and both can fit in compact enclosures. This means that you may offer two different levels of barcode scanning performance to your customers without a housing change or additional accessory design.

Potential applications include use in professional-grade, mobile devices such as tablets, wearable scanners, mobile terminals, accessories in retail stores, warehouses, and healthcare facilities, as well as delivery, pick-up/drop-off, and field servicing.

## FEATURES & BENEFITS

- Parallel or MIPI interface availability helps simplify integration.
- Compact size allows use in tight mobile device designs.
- Higher performance includes increased read range and higher resolution readability.
- White LED enhances image capture and colored barcode readability.
- LED green dot aimer helps increase productivity.
- Wider operational temperature range increases potential applications.
- Lower power consumption increases battery life.
- Compatible with other Honeywell scan engine families for reduced integration time and design costs, as well as increased design flexibility and choice.
- Supports optional Honeywell functionalities such as OCR and EasyParse for potential use with driving licences and boarding passes.
- Honeywell's dedicated hardware and software global integration support team is available to help customers identify and secure market availability of their new solutions.

# N3601 Series Technical Specifications

TABLE 1. MECHANICAL	
Characteristic	Parameter
DIMENSIONS (H X W X D):	8,1 mm x 21,6 mm x 10,8 mm [0.32 in x 0.85 in x 0.43 in]
WEIGHT	3 g [0.11 oz]
INTERFACE	parallel or MIPI

TABLE 2. ELECTRICAL	
Characteristic	Parameter
INPUT VOLTAGE	3.3 Vdc ±5%
TYPICAL CURRENT	parallel: 160 mA MIPI: 170 mA

TABLE 3. ENVIRONMENTAL	
Characteristic	Parameter
OPERATING TEMPERATURE	-20°C to 50°C [-13°F to 122°F]
STORAGE TEMPERATURE	-40°C to 85°C [-40°F to 185°F]
HUMIDITY (OPERATING AND STORAGE)	up to 95% RH, non-condensing at 50°C [122°F]
SHOCK	3500 G for 0.4 ms at 23°C [73°F]
VIBRATION	3 axes, 1 hour per axis: 2,54 cm (1 in) 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)
AMBIENT LIGHT	0 lux to 100,000 lux (total darkness to bright sunlight)
MEAN TIME BETWEEN FAILURE (MTBF)*	aimer: >6.9 M hr

TABLE 4. PERFORMANCE	
Characteristic	Parameter
SENSOR	1 Mpx
ILLUMINATION	white LED (exempt risk group)
AIMING	visible green LED
TYPICAL FRAME RATE	up to 30 frames/s
FIELD OF VIEW	horizontal: 49°, vertical: 32°
SCAN ANGLES	tilt: 360°, pitch: ±65°, skew: ±70°
SYMBOL CONTRAST	20% minimum print contrast ratio
WARRANTY	15-month limited warranty; the warranty period starts at date of shipment from Honeywell to customer

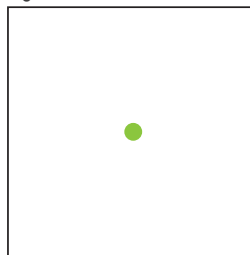
TABLE 5. SYMBOLOGIES	
<b>Linear:</b>	Codabar, Code 11, Code 128, Code 2 of 5, Code 39, Code 93 and 93i, EAN/JAN-13, EAN/JAN 8, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MSI, GS1 Databar, UPC-A, UPC E, UPC-A/EAN-13 with Extended Coupon Code, Coupon GS1 Code 32(PARAF), EAN-UCC Emulation, GS1 Data Bar
<b>2D Stacked:</b>	Codablock A, Codablock F, PDF417, MicroPDF417
<b>2D Matrix:</b>	Aztec Code, Data Matrix, MaxiCode, QR Code, Chinese Sensible (Han Xin), grid matrix, dot code
<b>Postal:</b>	Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnett

TABLE 6. READ RANGES (TYPICAL)**			
Symbology	Near Distance (mm [in])	Far Distance (mm [in])	Delta (mm [in])
13 MIL UPC	41 [1.6]	541 [21.3]	500 [19.7]
10 MIL C39	31 [1.2]	455 [17.9]	424 [16.7]
20 MIL C39	49 [1.9]	740 [29.1]	691 [27.2]
15 MIL C128	46 [1.8]	630 [24.8]	584 [23]
6,7 MIL PDF417	63 [2.5]	200 [7.9]	137 [5.4]
15 MIL QR	30 [1.2]	297 [11.7]	267 [10.5]

\* Based on MIL-HDBK-217F (released December 1, 1991). The calculation is based on the part count method for the Ground Benign (GB) environmental conditions.

\*\* Barcode quality and environmental conditions may affect performance.

Figure 1. LED Aimer



## ADDITIONAL INFORMATION

- Integration Manual is available upon request; contact your Honeywell representative
- For a listing of common compliance approvals and certifications, please visit <https://aidc.honeywell.com/Pages/product-certifications.aspx>

## NOTICE

### MISUSE OF DOCUMENTATION

- The information presented in this datasheet is for reference only. Do not use this document as a product installation guide.
- An installation Manual is available by request ([honeywellaidc.com](https://honeywellaidc.com)). Please contact your Honeywell sales representative.

### 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.**

While Honeywell may provide application assistance personally, through our literature and the Honeywell web site, it is buyer's sole responsibility to determine the suitability of the product in the application.

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.

### Find out more

To learn more about Honeywell's scan engines and barcode decoding software, visit [honeywellaidc.com](https://honeywellaidc.com).

### Honeywell Sensing and Internet of Things

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