

N5703 SERIES

007640

Issue 1

COMPACT, UNDECODED 2D SCAN ENGINES

The compact N5703 Series barcode scan engines are easy-to-integrate, enhanced performance devices that fit into tight mobile device designs.

The N5703 Series Undecoded 2D barcode scan engines are Honeywell's latest compact 2D imagers. Designed to address your critical 2D scan engine needs, this product possesses a compact form factor, a longer read range, high motion tolerance and are easy to integrate. This product's high performance brings you the best-in-class solution for building your next generation device.

The read range has been significantly improved compared to its predecessor. Based on a 1 Mpx global shutter sensor, this product is able to read Code 39 20 mils at 0,86 m [34.2 in] distance (SR optics typical read range) and provides an increased read range by 32% compared to its predecessor. Its white LED illumination enhances image capture accuracy while the new design optics allow reading of higher resolution codes (down to 3 mils on Code 39 1D and down to 7 mils on 2D).

The MIPI interface helps to simplify integration into mobile devices that require the most current, as well as traditional, processor interfaces. The small form factor of 8,1 mm x 22 mm x 10,8 mm [0.32 in x 0.87 in x 0.43 in] frees up room to allow integration of other technology.

Honeywell's advanced image decoder technology provides fast symbology reading including 1D, 2D and OCR fonts, even on hard to read codes, as well as those displayed on mobile phone screens.

This N5703 Series is electrically backward-compatible with Honeywell's N670X Series, N660X Series, N4603 Series and N360X Series, all which use the same connector,



N5703 Series

reducing integration time and design costs while increasing design flexibility and choice.

The N36/46 Series and the N5703 Series scan engines are able to fit into compact enclosures, enabling you to offer two different levels of barcode scanning performance to your customers without a housing change or additional accessory design.

POTENTIAL APPLICATIONS

For 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.

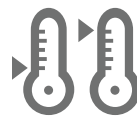
FEATURES AND BENEFITS



Compact size allows use in tight mobile device designs.



Improved snappiness with global shutter technology has much higher motion tolerance of 6 m/s versus 0,1 m/s in rolling shutter, delivering fast scanning speed to improve logistics throughput.



Wide operational temperature range of -30°C to 60°C [-22°F to 140°F] increases potential applications.



Supports optional Honeywell functionalities such as OCR and EasyParse™ for potential use with driving licenses and boarding passes.



Compatible with other Honeywell scan engine families for reduced integration time and design costs, as well as increased design flexibility and choice.

Honeywell

N5703 SERIES Technical Specifications

| TABLE 1. MECHANICAL | |
|------------------------|--------------------------------------------------------|
| Characteristic | Parameter |
| Dimensions (H x W x D) | 8,1 mm x 22 mm x 10,8 mm [0.32 in x 0.87 in x 0.43 in] |
| Weight | 2,1 g [0.07 oz] |
| Interface | MIPI |

| TABLE 2. ELECTRICAL | |
|---------------------|--------------------|
| Characteristic | Parameter |
| Input voltage | 3.3 Vdc ±5 % |
| Current | 170 mA at scanning |

| TABLE 3. PERFORMANCE | |
|----------------------|-------------------------------------------------------------------------------------------------------|
| Characteristic | Parameter |
| Sensor technology | global shutter |
| Resolution | 1280 pixel x 800 pixel |
| Illumination | white LED (exempt risk group) |
| Aimer | 650 nm high-visibility red laser: advanced red laser, cross target and framers |
| Scan rate | 60 fps max. |
| Motion tolerance | 6 m/s [19.7 ft/s] |
| Field of view | horizontal: 44°, vertical: 28.5° |
| Scan angles | tilt: 360°, pitch: ±55°, 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 4. ENVIRONMENTAL | |
|-----------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Characteristic | Parameter |
| Operating temperature | -30°C to 60°C [-22°F to 140°F] |
| Storage temperature | -40°C to 70°C [-40°F to 158°F] |
| Humidity (operating and storage) | up to 95 %RH, non-condensing at 60°C [140°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)* | 327,786 hours |

| TABLE 5. 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 | |
| 2D Stacked | |
| Codablock A, Codablock F, PDF417, MicroPDF417 | |
| 2D Matrix | |
| Aztec Code, Data Matrix, MaxiCode, QR Code, Chinese Sensible (Han Xin), Grid Matrix, Dot Code | |
| Postal | |
| Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet | |

| TABLE 6. READ RANGES** | | | |
|------------------------|-------------------------|------------------------|-----------------|
| Symbology | Near Distance (mm [in]) | Far Distance (mm [in]) | Delta (mm [in]) |
| 5 MIL C39 | 70 [2.8] | 311 [12.2] | 241 [9.4] |
| 10 MIL 39 | 40 [1.6] | 536 [21.1] | 496 [19.5] |
| 20 MIL 39 | 68 [2.7] | 868 [34.2] | 800 [31.5] |
| 5 MIL 128 | 75 [3.0] | 272 [10.7] | 197 [7.7] |
| 10 MIL PDF | 45 [1.8] | 425 [16.7] | 380 [15] |
| 20 MIL QR | 57 [2.2] | 513 [20.2] | 456 [18.0] |
| 100%UPCA | 44 [1.7] | 573 [22.6] | 529 [20.8] |
| 10 MIL DATA MATRIX | 64 [2.5] | 297 [11.7] | 233 [9.2] |

FIGURE 1. LASER AIMER



*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.

LASER LIGHT-DO NOT STARE INTO BEAM
RAYONNEMENT LASER-NE PAS REGARDER
DANS LE FAISCEAU. MAX. 1 mW: 630-680 nm.
 IEC 60825-1:2014. Pulse duration of 16.8 mSec.
 Complies with 21CFR 1040.10 and 1040.11
 except for conformance with IEC 60825-1 Ed. 3.,
 as described in Laser Notice No. 56, dated
 May 8, 2019.

CLASS 2 LASER PRODUCT.
 APPAREIL À LASER DE CLASSE 2.

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.

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
- An installation manual is available by request on our [website](#). Please contact your Honeywell sales representative

FOR MORE INFORMATION

To learn more about Honeywell scan engines and barcode decoding software, visit our [website](#).

Honeywell

Advanced Sensing Technologies

830 East Arapaho Road
Richardson, TX 75081
sps.honeywell.com/ast