N570X SERIES

Compact, undecoded 2D scan engines

The compact N570X Series barcode scan engines are engineered to provide superior performance and seamless integration into the most constraint designs of mobile devices



N5703 and N5701 scan engines

The N570X Series Undecoded 2D barcode scan engines are Honeywell's latest Compact Series imagers. Designed to fulfill essential 2D scanning needs, they offer SR and HD optic options. These engines are optimized for compact size, high motion tolerance, low power consumption, and easy integration. Their performance makes them an excellent choice for developing next-generation compact mobile devices.

Featuring a 1 Mpx global shutter sensor, the Standard Range variant can read Code 39 barcodes at a distance of 0.86 meters (33.86 in). It uses white LED illumination and Honeywell's signature laser crosshair and corner bracket aimer to easily locate barcodes in various lighting conditions, making it ideal for logistics applications that function in both direct sunlight and indoor lighting.

The newly introduced High Density variant is tailored for close-range reading, making it ideal for the retail and healthcare industries. It features a warm white LED, providing soft illumination alongside a bright green LED dot aimer. This variant excels in reading codes as small as 2 mil in 1D and 4 mil in 2D, significantly improving the user experience in challenging scenarios, such as reading dot codes and mobile displayed barcodes.

The MIPI interface facilitates easy integration into mobile devices with software host decode, allowing for the tightest integration. For setups without an operating system, pairing with the latest Gen7M DB offers a streamlined solution without the need for software driver developments. Its compact form factor, measuring just 8.1 mm x 21.6 mm x 10.4 mm (0.32 in x 0.85 in in x 0.41 in), frees up space to integrate other technologies.

The N570X Series is electrically backward-compatible with Honeywell's Ultra Slim N670X and N660X Series, as well as the Compact N4603 and N360X Series, all of which use the same connector. This compatibility reduces integration time and design costs while enhancing design flexibility and options. The Compact Series scan engines are designed to fit within most constrained housing enclosures, allowing you to offer varying levels of barcode scanning performance without the need to modify the mechanical housing or develop additional accessory designs. Honeywell's platform approach ensures that your investment is well-protected.

POTENTIAL APPLICATIONS

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

FEATURES AND BENEFITS

Compact size allows use in most constrained mobile device designs.

Improved snappiness with global shutter has much higher motion tolerance of 6 m/s versus 0,1 m/s in rolling shutter.

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

N570X SERIES Technical Specifications

TABLE 1. MECHANICAL	
CHARACTERISTIC	**PARAMETER**
Dimensions (H x W x D)	8,1 mm x 21,6 mm x 10,4 mm [0.32 in x 0.85 in x 0.41 in]
Weight	2.1g [0.07oz] N5703SR, 1.9g [0.067oz] N5701HD
Interface	MIPI

TABLE 2. ELECTRICAL	
CHARACTERISTIC	**PARAMETER**
Input voltage	3.3 Vdc ±5 %
Current	N5701HD :165mA (Max) N5703SR: 180mA (Max)

TABLE 3. PERFORMANCE	
CHARACTERISTIC	**PARAMETER**
Sensor technology	Global shutter
Resolution	1280*800
Illumination	White LED (N5703SR), Warm White LED (N5701HD), exempt risk group
Aimer	N5703SR: 650 nm high-visibility red laser: advanced red laser, cross target and framers N5701HD: Green led dot aimer
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 (N5703SR), 725,680 hours (N5701HD)

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

*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.

TABLE 6. N5703SR READ RANGES**			
SYMBOLOGY	**NEAR DISTANCE (MM/IN)**	**FAR DISTANCE (MM/IN])**	**DELTA (MM/IN)**
13mil UPC-A	44/1.7	573/22.6	529/20.8
5 MIL C39	70/2.8	311/2.2	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 DM	64/2.5	297/11.7	233/9.2
20 MIL QR	57/2.2	513/20.2	456/18.0
10 MIL PDF	45/1.8	425/16.7	380/15

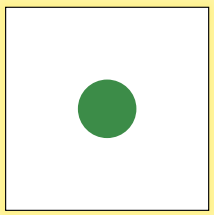
TABLE 7. N5701HD READ RANGES**			
SYMBOLOGY	**NEAR DISTANCE (MM/IN)**	**FAR DISTANCE (MM/IN)**	**DELTA (MM/IN)**
13mil UPC-A	44/1.73	480/18.90	436/17.17
3mil C39	76/2.99	170/6.69	94/3.7
5mil C39	50/1.97	285/11.22	235/9.25
10mil C128	33/1.3	430/16.93	397/15.6
5mil DM	82/3.23	150/5.91	68/2.67
10mil DM	44/1.73	280/11.02	236/9.3
6.67mil PDF	48/1.89	295/11.61	247/9.72

FIGURE 1. LASER AIMER



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.

FIGURE 2. LED AIMER



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

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Additional trademark information can go here.
Approximately three lines of text should fit in this space.

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