EXTENDED FLEXRANGE™ EX30

2D Scan Engine, Undecoded, Auto-Focus

The Extended FlexRange EX30 2D Scan Engine for warehouse and distribution center operations seamlessly reads barcodes from 10 cm to 20 m [4 in to 66 ft] using the latest technology for a fast auto-focus mechanism.

Warehouse and distribution center operation managers need barcode scanning solutions that can read barcodes at close distances as well as those farther away, such as package labels on shelves as high as 10 cm to 20 m [4 in to 66 ft]. The EX30 answers this key requirement by enabling a wide angle read range of 42° at close distances and up to 20 m [66 ft].

Operators reading barcodes at both near and far distances expect to switch seamlessly between both operations. The Extended FlexRange EX30 uses the latest technology for a fast auto-focus lens mechanism that provides the focus change multiple times faster than its predecessor. At this level of performance, the operator feels no latency in reading across the entire distance range, allowing an efficient and comfortable work pace.

The Extended FlexRange EX30's electrical interface is fully compatible with Honeywell's N670X Series, N660X Series, and N360X Series fixed-focus, compact scan engines. This compatibility provides customers with a complete barcode scanning performance offering, ranging from better to best, that fits into the same mobile device, keeping design time and resources to a minimum. The Extended FlexRange EX30 is available with either a parallel or the MIPI interface, now commonly used with the newest generation of processors.

The Extended FlexRange EX30 may easily be embedded into mobile devices running under an OS by using the resources of the device's main processor. Honeywell supports its customers with integrating decoder software into their solutions, saving the cost of ownership by eliminating hardware and also enhancing performance by using the main processor's power.

Extended FlexRange EX30 2D Scan Engine

The Extended FlexRange EX30 may also be powered by the new Honeywell Gen7 DB Decoder Board, allowing easy integration into non-OS devices such as drones, mobile accessories and sleds.

POTENTIAL APPLICATIONS

Both near and far barcode scanning in same device for use in warehouse and distribution centers.

FEATURES AND BENEFITS

- Near and Extended FlexRange™ read ranges of 10 cm to 20 m [4 in to 66 ft] allow both near and far barcode reading in the same device.
- MIPI interface provides compatibility with newer processors.

- Patented, embedded, auto-focus lens mechanism enables fast, aim-and-scan operation, allowing job efficiency.

- Compact dimensions of 13 mm x 30,5 mm x 22,2 mm [0.51 in x 1.2 in x 0.87 in] allow easier fit into slimmer mobile device designs.

- Fully compatible with Honeywell's N670X, N660X, and N360X Series scan engines, reduces integration time and increases design flexibility.

- Flexible choice of decoder software or hardware (Honeywell Gen7 DB Decoder Board) options allow integration into both OS and non-OS supported devices.

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EXTENDED FLEXRANGE™ EX30 2D SCAN ENGINE Technical Specifications

TABLE 1. MECHANICAL	
CHARACTERISTIC	PARAMETER
DIMENSIONS (H X W X D)	13 mm x 30,5 mm x 22,2 mm [0.51 in x 1.2 in x 0.87 in]
WEIGHT	23,5 g [0.88 oz]
INTERFACE	MIPI or parallel

TABLE 2. PERFORMANCE	
CHARACTERISTIC	PARAMETER
SENSOR TECHNOLOGY	global shutter
RESOLUTION	1280 x 800 pixels
FRAMES PER SECOND	60
ILLUMINATION	white LED
AIMER	laser pointer (dot)
MOTION TOLERANCE: NEAR FAR	 up to 6 m/s [19.7 ft/s] up to 0,9 m/s [3.0 ft/s]
FIELD OF VIEW: NEAR FAR	 horizontal: 42.5° ±2°, vertical: 27.4° ±2° horizontal: 11.4° ±1°, vertical: 7.2° ±1°
SYMBOL CONTRAST	20%
RESOLUTION ID	3 mil
MTBF[1]	340,000 hr
WARRANTY	15-month limited warranty; the warranty period starts at date of shipment from Honeywell to customer.

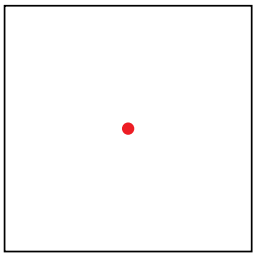
TABLE 3. READ RANGES (TYPICAL, WHITE ILLUMINATION[2, 3]			
SYMBOLOGY	NEAR DISTANCE (CM [IN])	FAR DISTANCE (CM [IN])	DELTA (CM [IN])
13 MIL UPC	5 [1.97]	280 [110.24]	275 [108.27]
5 MIL C39	9,5 [3.74]	136 [53.54]	126,5 [49.8]
10 MIL C39	6 [2.36]	263 [103.54]	257 [101.18]
20 MIL C39	8 [3.15]	589 [231.89]	581 [228.74]
55 MIL C39	20 [7.07]	1500 [590.55]	1480 [583.48]
10 MIL QR	9 [3.54]	138 [54.33]	129 [50.79]
55 MIL QR	12 [4.72]	704 [277.16]	692 [272.44]
100 MILS C39 RFL	36 [14.17]	2900 [1141.73]	2864 [1127.56]
100 MILS C128 RFL	26 [10.24]	2250 [885.83]	2224 [875.59]

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, GS1 Data Bar
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 5. ELECTRICAL	
CHARACTERISTIC	PARAMETER
INPUT VOLTAGE	3.3 Vdc ± 5%
CURRENT	340 mA typ.

TABLE 6. ENVIRONMENTAL	
CHARACTERISTIC	PARAMETER
OPERATING TEMPERATURE[4]	-20°C to 60°C [-4°F to 140°F]
STORAGE TEMPERATURE	-40°C to 70°C [-40°F to 158°F]
HUMIDITY	5 %RH to 85 %RH, no n-condensing
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[5]	0 lux to 100,000 lux

FIGURE 1. LASER AIMER



LASER LIGHT-DO NOT STARE INTO BEAM RAYONNEMENT LASER-NE PAS REGARDER DANS LE FAISCEAU. MAX. 1 mW: 650 nm. IEC 60825-1:2007 and IEC 60825-1:2014. Pulse duration of 16.8 mSec. Complies with 21CFR 1040.10 and 1040.11 except for deviations pursuant to Laser Notice No. 50, dated June 24, 2007.
CLASS 2 LASER PRODUCT.
APPAREIL Á LASER DE CLASSE 2.

1 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.

2 Barcode quality and environmental conditions may affect performance.

3 Code resolution: 1D: 13 mil, 2D: 20 mil 1.

4 Extreme temperatures will reduce the depth of field.

5 Extreme ambient light conditions will reduce the depth of field.

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, please 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.

FOR MORE INFORMATION

To learn more about Honeywell scan engines and barcode decoding software, visit our website.

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