HONEYWELL GEN7 DB

Miniature Decoder Board

> Next generation, miniature decoder board enhances performance of Honeywell's new N670X Series and Extended FlexRange™ EX30 Scan Engines through 2.5 times faster processor speed and a newer software decoder platform.

The Honeywell Gen7 DB Decoder Board is the next generation version of Honeywell's successful MINI DB Decoder Board. Besides its high performance and small form factor, users will continue to benefit from the most complete barcode symbology support, superb motion tolerance, and aggressive scanning of all barcode types, even those poorly printed or read directly off of smartphone screens. The Honeywell Gen7 DB is also flash-upgradable, ensuring continuous innovation and support.

Customers may choose either a TTL serial or a USB interface for board-to-board, snap-on installation to the customer's main board which is then secured using additional hold-down screws. This "cable-less" solution eliminates the need for an additional flex cable and connector while providing a more compact footprint.

Honeywell Gen7 DB, front and back views

The Honeywell Gen7 DB operates at a wide temperature range of -30°C to 60°C [-22°F to 140°F] which matches the operating temperature range of the higher performance N670X Series Scan Engine.

The Honeywell Gen7 DB is fully backwards compatible with the MINI DB Decoder Board, sharing the same electrical pin-outs and mechanical fit, helping to smooth the migration of current designs to the new Honeywell GEN7 DB platform and boost performance. When combined with the Extended FlexRange EX30, the N670X Series, or the N3601 scan engines, customers may then easily embed a complete 2D imaging solution in an exceptionally small space—offering greater design flexibility and integration than ever before.

FEATURES AND BENEFITS

- Compact form factor frees up more room to integrate other technologies, minimizes adjustments, helps to expedite design, and reduce total costs.

- Electrically and mechanically compatible with MINI DB to support Honeywell's latest optic offerings.

- Supports beyond barcodes functionalities such as OCR and TotalFreedom which offer an open-system architecture for developing software plug-ins to implement value-added custom features such as Honeywell's EasyDL™.

- Wide operating temperature range provides application flexibility.

- Includes Honeywell's latest decode library for optimized performance.

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HONEYWELL GEN7 DB DECODER BOARD Technical Specifications

TABLE 1. MECHANICAL

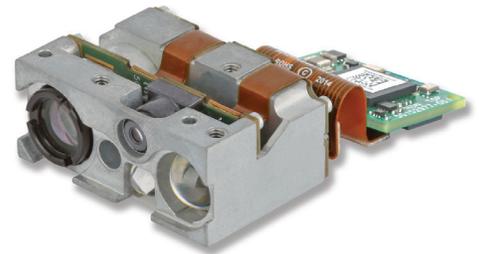| CHARACTERISTIC	PARAMETER
DIMENSIONS (L X W X H)	20 mm x 14 mm x 4,8 mm [0.79 in x 0.55 in x 0.19 in]

INTERFACE:
  INPUT
  OUTPUT
	30-pin connector for scan engine parallel interface
	board- to- board connector with RS TTL and USB HS (480 Mbit/s) available

TABLE 2. PERFORMANCE

CHARACTERISTIC	PARAMETER		
	GEN7 DB + EXTENDED FLEXRANGE™ EX30 SCAN ENGINE	GEN7 DB + N670X SERIES SCAN ENGINE	GEN7 DB + N3601 SCAN ENGINE
INPUT VOLTAGE	3.1 V to 3.6 V		

OPERATING CURRENT AT 3.3 V:
  RS MODE
  USB FULL SPEED
  USB HIGH SPEED
	420 mA
	430 mA
	432 mA
		310 mA
		320 mA
		322 mA
			250 mA
			260 mA
			263 mA

IDLE CURRENT AT 3.3 V:
  SCAN ENGINE POWERED:
  RS MODE
  USB FULL SPEED
  USB HIGH SPEED
	105 mA
	110 mA
	113 mA
		83 mA
		90 mA
		93 mA
			74 mA
			80 mA
			82 mA

SCAN ENGINE NOT POWERED:
  RS MODE
  USB FULL SPEED
  USB HIGH SPEED
		75 mA
		80 mA
		83 mA	

STANDBY/SUSPEND:
  RS MODE
  USB FULL SPEED
  USB HIGH SPEED
		2.0 mA
		1.0 mA
		1.2 mA	

WORKING MODE	• operation (scanning/decoding) • standby (RS)/suspend (USB) • idle • power off		
INDICATORS	beeper and good read LED signals available on the output connector		
SUPPORTED SCAN ENGINES	Extended FlexRange EX30, N670X Series, N3601		
SUPPORTED SOFTWARE	ESS, OCR, EasyDL™, TotalFreedom®		
MTBF*	3,786,789 hr		
WARRANTY	15-month limited warranty; the warranty period starts at date of shipment from Honeywell to customer		

* 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.

TABLE 3. ENVIRONMENTAL

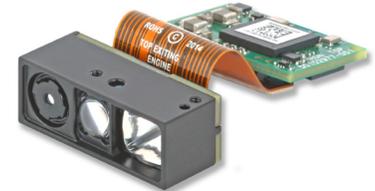| CHARACTERISTIC	PARAMETER

TEMPERATURE RANGES:
  OPERATING
  STORAGE
	-30°C to 60°C [-22°F to 140°F]
	-40° to 70°C [-40°F to 158°F]

HUMIDITY	95 %RH at 60°C [140°F]
SHOCK	18 shock at 3500 G at 0.4 ms
COMPLIANCE AND REGULATORY REQUIREMENTS	EMC Class B, FCC Class B
SAFETY	• CB Scheme: IEC 60950-1 Second Edition; IEC 62368-1: 2014 • UL/C-UL (Recognized Component) • UL 60950-1 Second Edition • CSA C22.2 No. 60950-1-07, 2nd Edition

FIGURE 1. HONEYWELL GEN7 DB WITH THE EXTENDED FLEXRANGE EX30 SCAN ENGINE

FIGURE 2. HONEYWELL GEN7 DB WITH THE N670X SERIES SCAN ENGINE

FIGURE 3. HONEYWELL GEN7 DB WITH THE N3601 SCAN ENGINE

TABLE 4. DECODER BOARD COMPARISON

CHARACTERISTIC	GEN7 DB	MINI DB	GEN6 DB
SCAN ENGINE COMPATIBILITY	Extended FlexRange EX30, N670X Series, N3601	N560X Series, N660X Series	N560X Series
DIMENSIONS	20 mm x 14 mm [0.79 in x 0.55 in]	20 mm x 14 mm [0.79 in x 0.55 in]	39,8 mm x 19,1 mm [1.6 in x 0.75 in]
INPUT VOLTAGE	3.3 V	3.3 V	3.3 V, 5 V
CONNECTION	board-to-board, board-to-ZIF	board-to-board, board-to-ZIF	micro USB, board-to-ZIF
INTERFACE	TTL, USB	TTL, USB	TTL, USB 1.1 or USN 2.0

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 scan engines and barcode decoding software, visit sensing.honeywell.com/optical-sensing

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ADDITIONAL INFORMATION

- Integration manual is available upon request; contact your Honeywell representative.

- For a listing of common compliance approvals and certifications, please visit **sensing.honeywell.com/product-certifications–webpage**

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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