

HONEYWELL GEN8 DB

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Issue 1

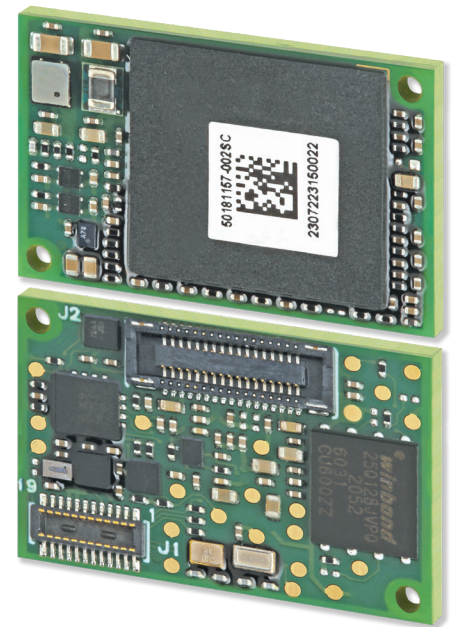
Miniature Decoder Board

Honeywell's next generation, miniature decoder board is packed with powerful processing and performance that unleashes Honeywell's Smart Adaptus™ 8.0 platform through its dual core processors and 4x memory speed.

Honeywell's Gen8 DB Decoder Board is the next generation platform that follows the successful Gen7 DB and MINI DB Decoder Boards. With its ultra-powerful processor, combined with Honeywell's comprehensive barcode symbology support, the GEN8 DB delivers superior decoding performance for all barcode types and beyond, including OCR applications.

Through its 1.2 GHz dual processor and 4x memory speed, the GEN8 DB enables near-term and future application flexibility over the total cost of ownership, further providing flexibility tailored to changing development needs. It is also flash-upgradable, catering to maintenance needs, continuous innovation and support.

Designed to simplify complex integrations and streamline OEM configurations, the GEN8 DB is equipped with MIPI interface with optional TTL or USB interface support. Customers may choose either a TTL serial or 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. This product is also built on the same form factor footprint as the GEN7 DB and MINI DB, providing drop-in mechanical fit, allowing customers to expect frictionless migration from current designs to the GEN8 DB platform.



Honeywell GEN8 DB, front and back views

FEATURES AND BENEFITS



- Powerful 1.2 GHz dual processor and 4x memory enable future proofing of your end applications to maximize your total cost of ownership.



- Packaged in a compact and sleek 20 mm x 14 mm [0.79 in x 0.55 in] form factor that provides design and real estate flexibility.



- MIPI interface reduces development costs and simplifies integration.



- Frictionless migration at your own ease and convenience from GEN7 DB to GEN8 DB.



- Supports beyond barcodes functionalities such as OCR and Swiftdecoder microservices to implement value-added custom features such as Honeywell's EasyDL™.

Honeywell

HONEYWELL GEN8 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	34-pin connector for scan engine MIPI interface board-to-board connector with RS TTL and USB HS (480 Mbit/s) available

TABLE 2. PERFORMANCE		
Characteristic	Parameter	
	Gen8 DB + N6803MR Scan Engine	Gen8 DB + N6803FR Scan Engine
Input voltage	3.15 V to 3.45 V	
Operating current at 3.3 V: RS mode USB full speed USB high speed INRUSH (maximum)	475 mA (RMS, exposure time: 12.5 ms) 490 mA (RMS, exposure time: 12.5 ms) 490 mA (RMS, exposure time: 12.5 ms) 700 mA	417 mA (RMS, exposure time: 9 ms) 422 mA (RMS, exposure time: 9 ms) 432 mA (RMS, exposure time: 9 ms) 650 mA
Idle current at 3.3 V (scan engine powered): RS mode USB full speed USB high speed	175 mA (RMS) 190 mA (RMS) 200 mA (RMS)	148 mA (RMS) 155 mA (RMS) 165 mA (RMS)
Idle current at 3.3 V (scan engine not powered): RS mode USB full speed USB high speed	125 mA 130 mA 135 mA	125 mA 130 mA 138 mA
Standby/suspend at 3.3 V: RS mode USB full speed USB high speed	4.5 mA (RMS) 3.8 mA (RMS) 4.2 mA (RMS)	8 mA (RMS) 8.1 mA (RMS) 8.3 mA (RMS)
Working mode	<ul style="list-style-type: none"> operation (scanning/decoding) standby (RS)/suspend (USB) idle power off 	
Indicators	beeper and green LED signals available on the output connector	
Supported scan engines	N6803MR, N6803FR	
Supported software	EZConfig, HSM USB Serial Driver	
MTBF*	1,741,553 hours	
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. DECODER BOARD COMPARISON				
Characteristic	GEN8 DB	GEN7 DB	MINI DB	GEN6 DB
Scan engine compatibility	N6803MR/FR, N670X MIPI	Extended FlexRange EX30, N670X Series, N3601	N560X Series, N660X Series	
Dimensions	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, 5 V
Processor	Ingenic, 1.2GHz	Ingenic, 1GHz	IMX25, 400MHz	IMX25, 400MHz
Connection	board-to-board, board-to-ZIF			microUSB, board-to-ZIF
Interface	TTL, USB			TTL, USB 1.1, USB 2.0

TABLE 4. ENVIRONMENTAL	
Characteristic	Parameter
Temperature ranges: operating storage	-30°C to 60°C [-22°F to 140°F] -40°C to 70°C [-40°F to 158°F]
Humidity	95 %RH at 60°C [140°F]
Shock	18 shocks at 3500 G/0.4 ms
Compliance and regulatory requirements	EMC Class B, FCC Class B
Safety	<ul style="list-style-type: none"> CB Scheme: IEC 62368-1: 2018 UL/C-UL (Recognized Component) UL 62368-1 Third Edition CSA C22.2 NO. 62368-1, 3rd Edition

FIGURE 1. HONEYWELL GEN8 DB WITH THE N6803MR SCAN ENGINE

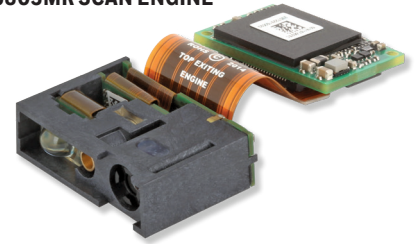


FIGURE 1. HONEYWELL GEN8 DB WITH THE N6803FR SCAN ENGINE

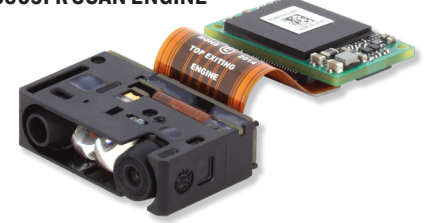


TABLE 5. SYMBOLOGIES	
Linear	Codabar, Code 11, Code 128, Code 2 of 5, Code 39, Code 93 and 93i, EAN/JAN-13, EAN/JAN 8, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MSI, UPC-A, UPC E, UPC-A/EAN-13 with Extended Coupon Code, Coupon GS1 Code 32(PARAF), EAN-UCC Emulation, GS1 Data Bar
2D Stacked	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

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](#).

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