HONEYWELL GEN8 DB

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Issue 4

Miniature Decoder Board

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



Honeywell GEN8 DB, front and back views

The Honeywell 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 nearterm 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, snapon 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.

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 Honeywell EasyDL™

Honeywell

GEN8 DB MINIATURE DECODER BOARD Technical Specifications

TABLE 1. MECHANICAL	
CHARACTERISTIC	**PARAMETER**
Dimensions (L x W x H)	20 mm × 14 mm × 4,8 mm [0.79 in × 0.55 in × 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**	**GEN8 DB + N6803LR SCAN ENGINE**	**GEN8 DB + N6903UR SCAN ENGINE**
Input voltage	3.15 V to 3.45 V		3.3 V	
Operating current at 3.3 V: **RS232** **USB full speed** **USB high speed** **INRUSH (maximum)**	 475 mA 490 mA 490 mA 700 mA	 584 mA 603 mA 610 mA 650 mA	 355 mA 360 mA 360 mA 1300 mA	 462 mA 466 mA 476 mA 1600 mA
Idle current at 3.3 V (scan engine powered): **RS232** **USB full speed** **USB high speed**	 175 mA 185 mA 190 mA	 158 mA 166 mA 175 mA	 160 mA 175 mA 175 mA	 185 mA 201 mA 201 mA
Idle current at 3.3 V (scan engine not powered): **RS232** **USB full speed** **USB high speed**	 125 mA 130 mA 135 mA	 125 mA 130 mA 138 mA	 140 mA 140 mA 140 mA	 141 mA 143 mA 155 mA
Standby/suspend: **RS232** **USB full speed** **USB high speed**	 4.5 mA 3.8 mA 4.2 mA	 4 mA 3 mA 3 mA	 7.5 mA 7.6 mA 7.6 mA	 4.3 mA 4.8 mA 4.5 mA
Working mode	• Operation (scanning/decoding) • Idle		• Standby (RS)/suspend (USB) • Power off	
Indicators	Beeper and green LED signals available on the output connector			
Supported scan engines	N5703, N6703, and N6803MR/FR/LR			
Supported software	EZConfig, HSM USB Serial Driver, OCR A/B, and EasyDL™			
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. Current measurement in RMS value.*

Figure 1. Honeywell GEN8 DB with the N6803MR Scan Engine

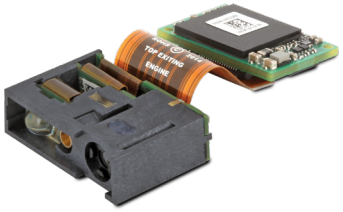


Figure 2. Honeywell GEN8 DB with the N6803FR Scan Engine (green aimer)



Figure 3. Honeywell Gen8 DB with the N6803LR Scan Engine

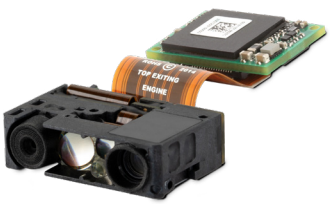
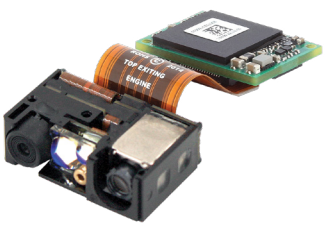


Figure 4. Honeywell Gen8 DB with the N6903UR Scan Engine



GEN8 DB MINIATURE DECODER BOARD Technical Specifications

TABLE 3. DECODER BOARD COMPARISON

CHARACTERISTIC	GEN8 DB	GEN7 DB	MINI DB	GEN6 DB
Scan engine compatibility	N5703, N6703, N6803MR/FR/LR, N6903UR	Extended FlexRange EX30, N660X Series, N670X Series, N3601	N560X Series, N660X Series	
Dimensions	20 mm × 14 mm [0.79 in × 0.55 in]			39,8 mm × 19,1 mm [1.6 in × 0.75 in]
Input voltage	3.3 V			3.3 V, 5 V
Processor	Ingenic, 1.2 GHz	Ingenic, 1 GHz	IMX25, 400 MHz	IMX25, 400MHz
Connection	board-to-board, board-to-ZIF			micro USB, 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	• CB Scheme: IEC 62368-1: 2018 • UL/C-UL (Recognized Component) • UL 62368-1 Third Edition • CSA C22.2 NO. 62368-1, 3rd Edition

TABLE 5. DECODER CAPABILITIES[1]

LINEAR	2D STACKED	2D MATRIX	POSTAL CODE
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	Codablock A, Codablock F, PDF417, MicroPDF417	Aztec Code, Data Matrix, MaxiCode, QR Code, Chinese Sensible (Han Xin), Grid Matrix, Dot Code	Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet

1 Decode capabilites dependent on configuration.

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

ADDITIONAL INFORMATION

- Integration Manual is available upon request; contact your Honeywell representative
- For a listing of common compliance approvals and certifications, visit our website.

For more information

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For a complete listing of all compliance approvals and certifications, please visit www.honeywell.com/PSScompliance

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