

Mini DB

Ultra Compact, Miniature Decoder Board

Mini DB is a next generation, miniature sized decoder board introduced by Honeywell. A design that results in a 60 percent footprint reduction compared to previous generation decoders, Mini DB saves on space without sacrificing Honeywell’s renowned decoding capability.

Mini DB is dedicated for use with Honeywell’s latest flagship scan engines: N660X Series Slim Imager, which includes N6600 (LED aimer) and N6603 (laser aimer). When Mini DB is combined with a slim scan engine, customers can easily embed a complete 2D imaging solution in an exceptionally small space—offering greater design flexibility and integration than ever before.

Now, high performance 2D imaging can be added to even the smallest of devices: miniature handheld scanners, sleek consumerized smartphones and even wearable devices.

Mini DB supports the N660X’s parallel interface (30-pin). For the host interface, we creatively combined three types of host connections:

- **Board to Board (B2B):** Allows a snap-on installation to the main board with additional hold-down screws. The benefit of this “cable-less” solution is to eliminate an additional flex cable and connector while providing a more compact footprint.
- **Flex Cable (12-pin):** For designs where the host connection needs to mount the decode board separate from the host board.



While 60 percent smaller than previous-generation decoders, the Mini DB doesn’t sacrifice performance.

- **RS232 and USB:** Both the B2B and 12-pin flex connector versions support both RS232 and USB signals. The flex cable option is compatible with the other Honeywell scan engines, such as the N568X and N431X.

Mini DB includes our latest decode library for optimized performance. Besides a compact form factor with high performance, users still benefit from the most complete barcode symbology support, unparalleled motion tolerance, and aggressive scanning on all types of barcodes—even those poorly printed, or read directly off the screens of smartphones. And to ensure continuous innovation and support, Mini DB is flash-upgradeable.

FEATURES & BENEFITS



With a miniature form factor, Mini DB is 60% smaller than previous-generation decoder boards.



Honeywell’s advanced Adaptus® imaging technology lends full symbology support, outstanding motion tolerance, mobile phone reading, and damaged barcode reading.



Support multiple interfaces, including both B2B (board to board) and flex cable connections with RS232 and USB options.



Optimized for use with Honeywell’s flagship N660X Series SlimImager.



TotalFreedom support offers an open-system architecture for developing software plug-ins to implement value-added custom features such as Honeywell’s EasyDL™.

Mini DB Technical Specifications

DIMENSIONS

Length: 20 ± 0.25 mm

Width: 14 ± 0.25 mm

Height: 4.8mm

ELECTRICAL SPECIFICATIONS

Input Voltage: 3.25V to 3.5V

INTERFACE

Input: 30-pin connector for scan engine parallel interface

Output: Board to board connector with RS TTL and USB HS (480 Mbit/s) available simultaneously

WORKING CURRENT

Operating current (Mini DB + N6603/N6600):

RS mode: 330mA @ 3.3V

USB Full Speed: 345mA @ 3.3V

USB Hig Speed: 350mA @ 3.3V

IDLE CURRENT

Idle current @ 3.3V (imager powered):

RS mode: 100mA

Full Speed mode: 115mA

High Speed mode: 125mA

Idle current @3.3V (imager not powered):

RS mode: 65mA

Full Speed mode: 78mA

High Speed mode: 88mA

Standby/Suspend @3.3V:

RS mode: 2.5mA

Full Speed mode: 3mA

High Speed mode: 3.2mA

WORKING MODE

Will support all the power modes of Gen6 decoder (N568x).

- Operation (scanning/decoding)
- Idle
- Standby (RS) / Suspend (USB)
- Power Off

INDICATORS

BEEPER and GREEN_LED signals available on the output connector.

ENGINE SUPPORTED

N560X

N660X (Parallel only)

SOFTWARE

ESS, OCR, EasyDL™ and TotalFreedom® Supported

ENVIRONMENTAL

Operating temperature: -25° to +50°C

Storage temperature: -40° to +70°C

Humidity: 95% RH @ 45°C (113°F)

Shock: 18 shock @ 2000G for 0.7ms (similar to Gen6 decoder board)

COMPLIANCE & REGULATORY REQUIREMENTS

EMC Class B, FCC class B

SAFETY

CB Scheme: IEC 60950-1 Second Edition
UL/C-UL (Recognized component)
UL 60950-1 Second Edition
CSA C22.2 No. 60950-1-07, 2nd Edition

MTBF

MTBF estimate: 70,000 hours

PRODUCT WARRANTY

15 months

HONEYWELL DECODER BOARD FAMILY OVERVIEW

	GEN 6 DB	MIN DB
Engine	N560X, N660X (Parallel Only)	N560X, N660X (Parallel Only)
Dimension	39.8 x 19.1 mm	20 x 14 mm
Input	3.3V, 5V	Only 3.3V
Connection	USB, ZIF	Board to Board Board to ZIF
Pin	RS232, USB	RS232, USB
Total Freedom	More add-ins	Limited add-ins

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

For a complete listing of all supported bar code symbologies, please visit www.honeywellaidc.com/symbologies.

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