

# 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
<b>Engine</b>	N560X, N660X Parallel Only)	N560X, N660X Parallel Only)
<b>Dimension</b>	39.8 x 19.1 mm	20 x 14 mm
<b>Input</b>	3.3V, 5V	Only 3.3V
<b>Connection</b>	USB, ZIF	Board to Board Board to ZIF
<b>Pin</b>	RS232, USB	RS232, USB
<b>Total Freedom</b>	More add-ins	Limited add-ins

For a complete listing of all compliance approvals and certifications, please visit [www.honeywellaidc.com/compliance](http://www.honeywellaidc.com/compliance).

For a complete listing of all supported bar code symbologies, please visit [www.honeywellaidc.com/symbologies](http://www.honeywellaidc.com/symbologies).

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