

BusBoard-2 - Zig-Zag Prototype Board, Size 2



Prototype circuit board for high connectivity IC and connector applications.

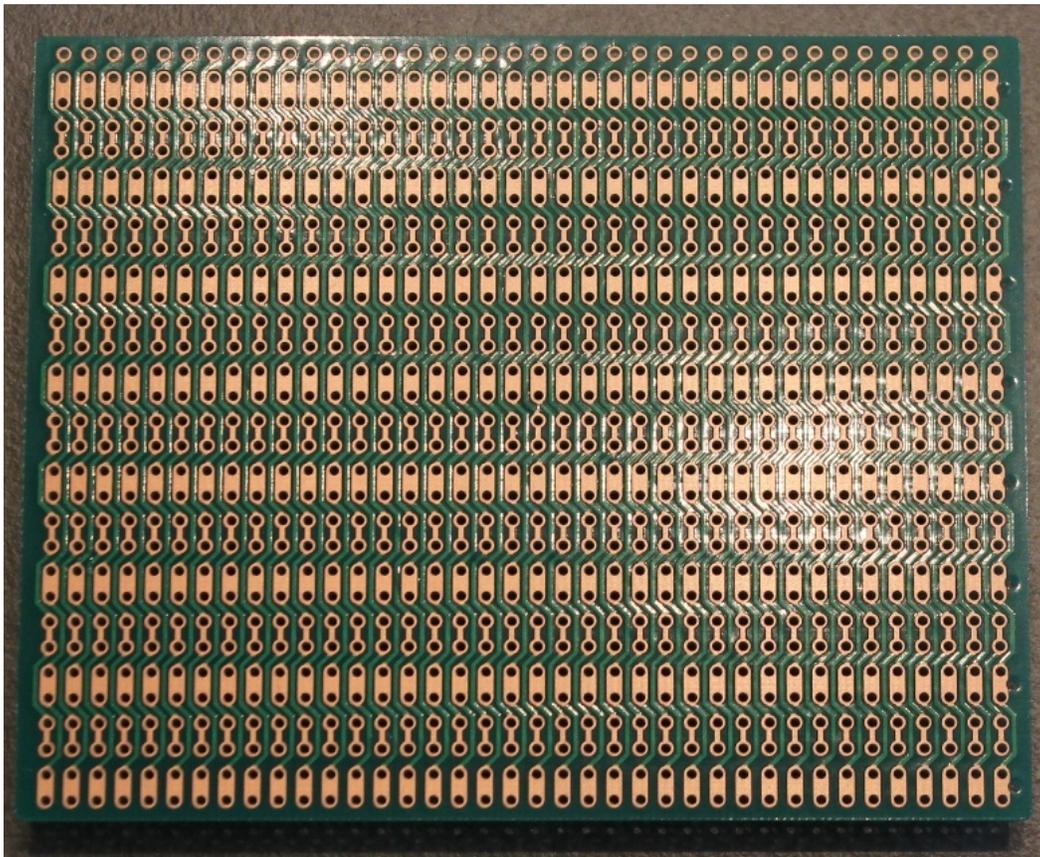
Features

The BusBoard-2 prototyping circuit board has the BusBoard zig-zag circuit pattern. It is great for high connectivity I.C. and connector applications.

The pattern connects DIL headers and DIP ICs pin-to-pin without cutting tracks or adding wires. Opposite sides of the IC or connector are on separate tracks to simplify wiring. It's great for 2-row parts with many common signals, such as memory buses or DIL connector breakout boards.

Narrow and wide tracks identify the connected pads. Indicator holes show which are the wide tracks from the top side. The solder mask helps avoid solder bridges and shorts between tracks.

Board Photo

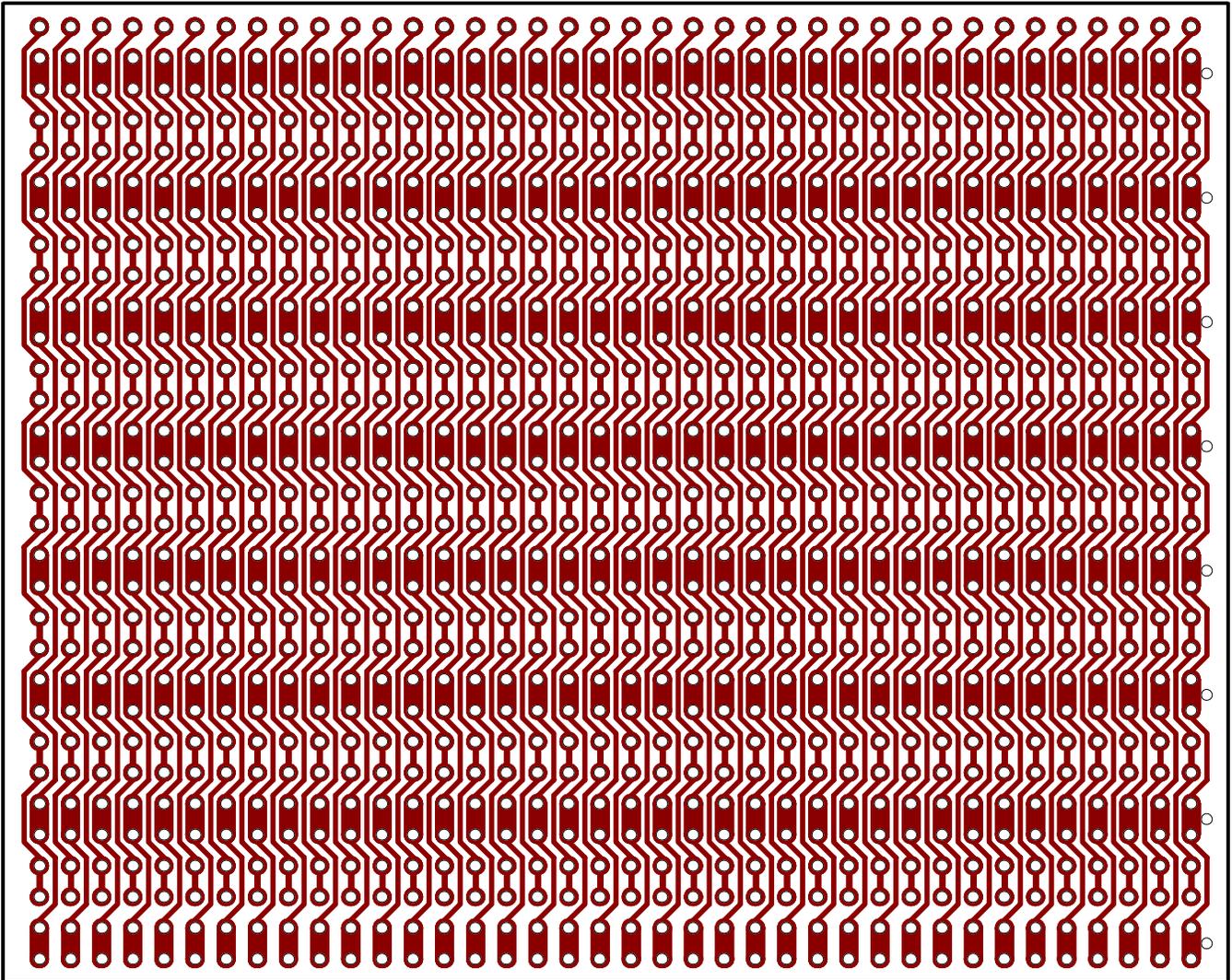


Specifications

- Etched FR4 glass-epoxy circuit board.
- Solder mask to prevent solder bridges.
- Single-sided, 1oz/ft2 copper, anti-tarnish coating for easy soldering. Lead free and RoHS compatible.
- Holes are drilled on 0.1" (2.54mm) centers.
- 0.037" (0.94mm) holes sized for ICs or square post headers.
- 31 x 38 holes, 62 separate BusBoard traces.
- Size 2 = 100 x 80mm (3.94 x 3.15in), 1/16" thick (1.6mm)

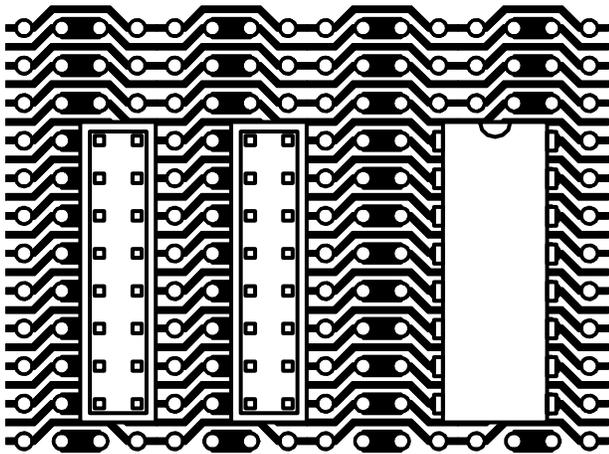
Order Part# BB2

Board Layout



BusBoard Usage Tips

BusBoard has wide and narrow traces interleaved in a zig-zag pattern. When a DIL header or a DIP IC is connected the even pins on are wide traces and odd numbered pins are on the narrow traces (or vice-versa). This can be used to connect ICs or header pin-to-pin with any extra wires needed.



In this diagram the two headers are connected pin-to-pin. The even pins on are wide traces and odd numbered pins are on the narrow traces.

Each pin of the the headers are also connected to the pins of the DIP IC in this example.

Microcontroller Boards with DIL Headers

Development boards with dual in-line (DIL) headers can be difficult to use with prototyping boards because cut tracks and wires are needed to connect to the side-by-side pins. Some examples of dev boards with DIL headers are the ST-Micro Discovery-F4, Discovery-F3, BeagleBoards and the Arduino Mega or Due digital header.

BusBoard is very useful for use with these because the zig-zag patterns brings out each pin out on separate traces. Expansion circuitry can be added without adding jumper wires to connect to the inside rows of pins.

DIL Header or Ribbon Cable Extender Buses

The BusBoard zig-zag pattern connects DIL headers pin-to-pin without the need for any extra wires. This makes it easy to to make adapters to connect multiple DIL headers or IDC-ribbon cables, putting the same signal on each pin for each part.

DIL Header Breakout Boards (Spy Boards)

BusBoard is useful to create ribbon cable breakout boards with testpoint pins. This allows an oscilloscope our meter to be connected to observe the signals.

It can be helpful to disconnect signals is some cases for testing. The tracks can be cut and jumpers installed to allow easy connection and disconnection of signals. For example, a current meter can be inserted in each conductor of a ribbon cable one at a time to perform measurements.

Microcontroller Projects

When a DIP IC microcontroller is being used for a project, it's sometimes necessary to bring together signals on opposite sides of the chip. By mounting the IC on BusBoard, each signal runs the length of the board, even underneath the IC. The tracks for the even pin and the opposite odd pin are now side-by-side allow easy connections with fewer wires. However, the overall circuit density can be higher with PadBoard, ProtoBoard or StripBoard.

Board Dimensions

