

Construction

If you build a Tester only for single-height FlipChips (FCs) you need the following components.

1. Core Board
2. One I/O Board
3. One Tester Board
4. One Connector Board

The connection between the Core Board and the I/O Board is a 20-conductor flat cable. The length of that flat cable depends on the location of the Core and the I/O Board relative to each other. You can position the Core and I/O Board next to each other, or install the I/O Board on top of the Core Board with stand-offs.

The Tester Board is installed on top of the I/O Board, and you make the connections between the I/O Board and the Tester Board by one of the following two options.

1. Seven 16-pin male headers soldered on the component side of the I/O Board and seven 16-pin male headers soldered on the component side of the Tester board. Seven 16-conductor short flat cables connect the headers of the I/O Board to the Tester Board.
2. Seven 16-pin female headers soldered on the component side of the I/O Board and seven 16-pin female headers soldered on the *solder side* of the Tester Board. Seven 16-pin male headers between these female headers connect the I/O Board to the Tester Board.

The connections between the Tester Board and the Connector Board are two 34-conductor flat cables. Make these two flat cables of sufficient length, because you need good access to the Connector Board as that is the component you will work with most of the time. The flat cables have at both ends a 34-pin IDC header. On the Tester Board are two 34-pin male headers, and one end of both flat cables connects to the Tester Board. Solder two 34-pin male headers on the Connector Board. The other end of the flat cable connects to the Connector Board through the 34-pin IDC headers.

Do not forget to connect the +5V and GND power supply to the Core Board, the I/O Board, and the Tester Board. The Tester Board has two sets of +5V/GND connections. You can use one set to connect the power supply to the I/O Board installed underneath the Tester Board. ***Notice the correct polarity!***

If you build the Tester for double-height FlipChips (FCs) you need the following components.

1. Core Board
2. Two I/O Boards
3. Two Tester Boards
4. One Connector Board

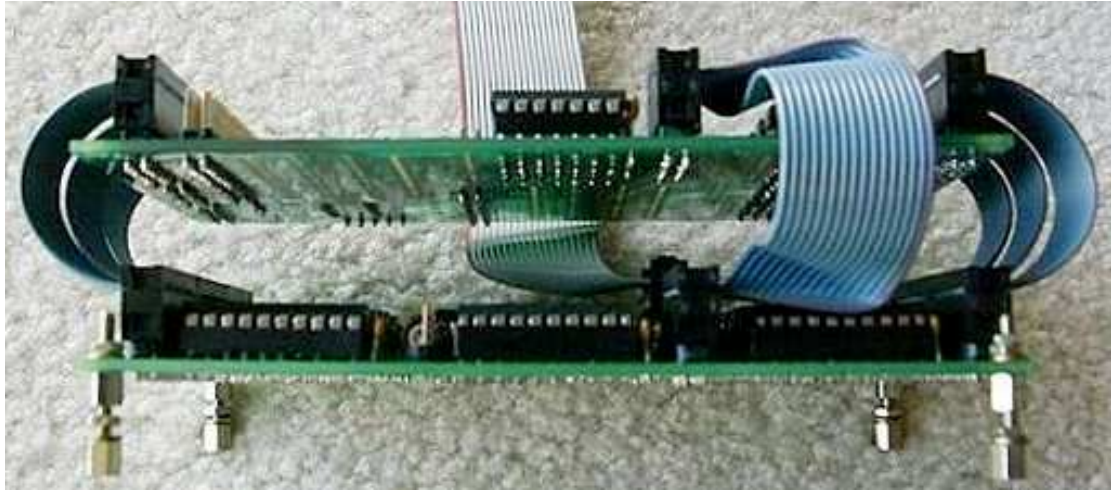
The connection between the Core Board and the I/O Boards is a 20-conductor flat cable. The length of that flat cable depends on the location of the Core and the I/O Boards relative to each other. A possible setup has the Core Board “at one end” and both I/O Boards at the left or the right side of the Core Board. The 20-conductor flat cable runs from the Core Board to the first I/O Board and then continues to the other I/O Board. Put the I/O Board that is configured as Board #0 at the right side, and the I/O Board that is configured as Board #1 at the left side of I/O Board #0.

The Tester Boards are installed on top of the I/O Boards, see the single-height FlipChip description. The connection between the Tester Boards and the Connector Board is made four 34-conductor flat cables to connect row “A” and row “B” of the Connector Block. See the single-height FlipChip description for the connection description.

Do not forget to connect the +5V and GND power supply to the Core Board, the I/O Boards, and the Tester Boards. You can use one set to connect the power supply to the I/O Board installed underneath the Tester Board. ***Notice the correct polarity!***

The following pictures show the I/O Board - Tester Board connection options.

- I/O Board and Tester Board with male headers.
The interconnection uses seven flatcables with 16-pin IDC headers.



- I/O Board and Tester Board with female headers.
The interconnection uses seven 16-pin male headers between the female headers.
Remark. Slide the 16 pins (one by one) of the male headers in the black plastic holder, so that the pins have the same length at both sides of the black plastic holder.

