

Rev.1 Tester Board hardware description

Introduction

This chapter gives a description of the hardware of the FlipChip test pins for the Rev.1 Tester Board. A FlipChip can have 18 contact fingers at both sides of the board. That is a total of 36 contact fingers. The Tester Board has only 32 input/output channels available, so 4 contact fingers are not controlled by the Tester *software*, but these 4 contact fingers are controlled hardware-wise. All FlipChips have 4 contact fingers (on row “A”) always allocated to the same function. They are the following.

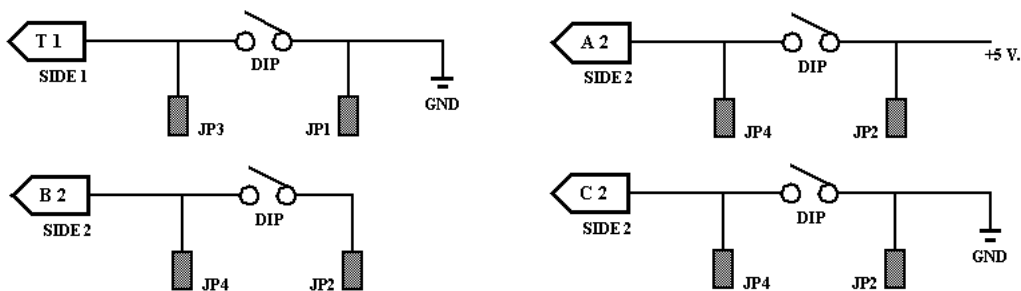
- T1 : an additional GND connection for double-sided modules (open or connected to GND)
- A2 : +5V power supply
- B2 : -15V power supply (if needed)
- C2 : GND of the power supply

These 4 contact fingers are electrical differently wired on the Rev.1 Tester Board.

If the FlipChip has the “double-height” form factor, all 18/36 contact fingers of row “B” can have any allocation. As the Tester Board is also used for row “B” (for double-height FlipChips) you must understand the limitation caused by the fixed allocation of the input/output channels, omitting the contact fingers T1, A2, B2, and C2 on the Rev.1 Tester Boards.

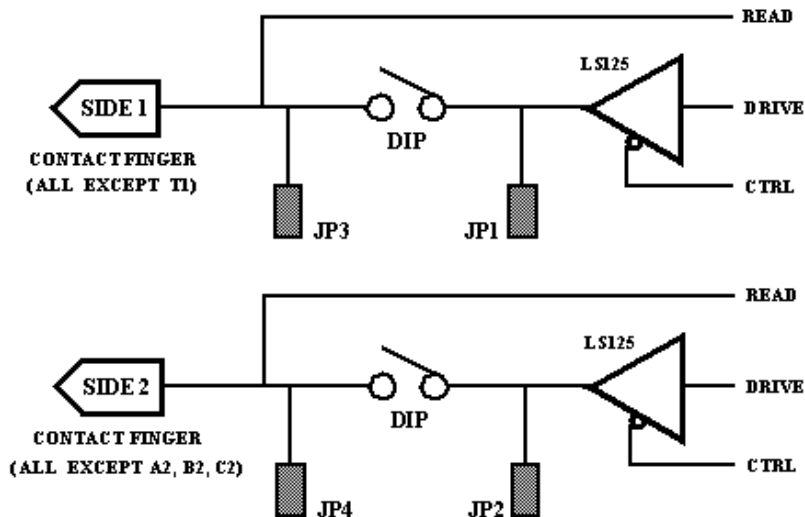
The “special” contact fingers T1, A2, B2, and C2.

You have direct access to these contact fingers through the JP3/JP4 headers. These 4 contact fingers are not connected to an input channel of the Rev.1 Tester Board, so their signal level can not be read by the software. The corresponding DIP switch closes the connection to the JP1/JP2 headers and to the correct power supply connection (except for the contact finger B2).



The “normal” contact fingers.

All contact fingers, except T1, A2, B2, and C2, can be controlled by the software in both read and write data direction. The contact fingers are *always* connected to an input channel of the Rev.1 Tester Board, but can be disconnected from the output physically by a DIP switch, or (if the DIP switch is closed) can be electrically floating, because of the three-state output of the 74LS125 driver.



When you want to test a double-height FlipChip you must know the above described hardware design, because the Tester can not control the contact fingers T1, A2, B2, and C2 of row “B”. If the double-height FlipChip uses one or more of these contact fingers on row “B”, you must do the following.

1. Set the corresponding DIP switch in the “open” position. *Do not forget this!*
2. Use a jumper wire from the JP3/JP4 header to connect the “special contact finger” of row “B” to a normal contact finger on row “B” or row “A”. The Tester software running on the PC will give details which contact finger(s) need re-routing through a jumper wire.

to be continued ...?