30 Pin SIMM Test Board Introduction and Setup

For Vetus Pars firmware version 2.1.0

The 30 Pin SIMM Test Board lets Vetus Pars test compatible 30 pin memory modules and identify the attached board through its onboard MCU. The SIMM receives power through the Vetus Pars ZIF bus, while the board MCU uses a ZIF-bus enable line controlled by BRD_ON.

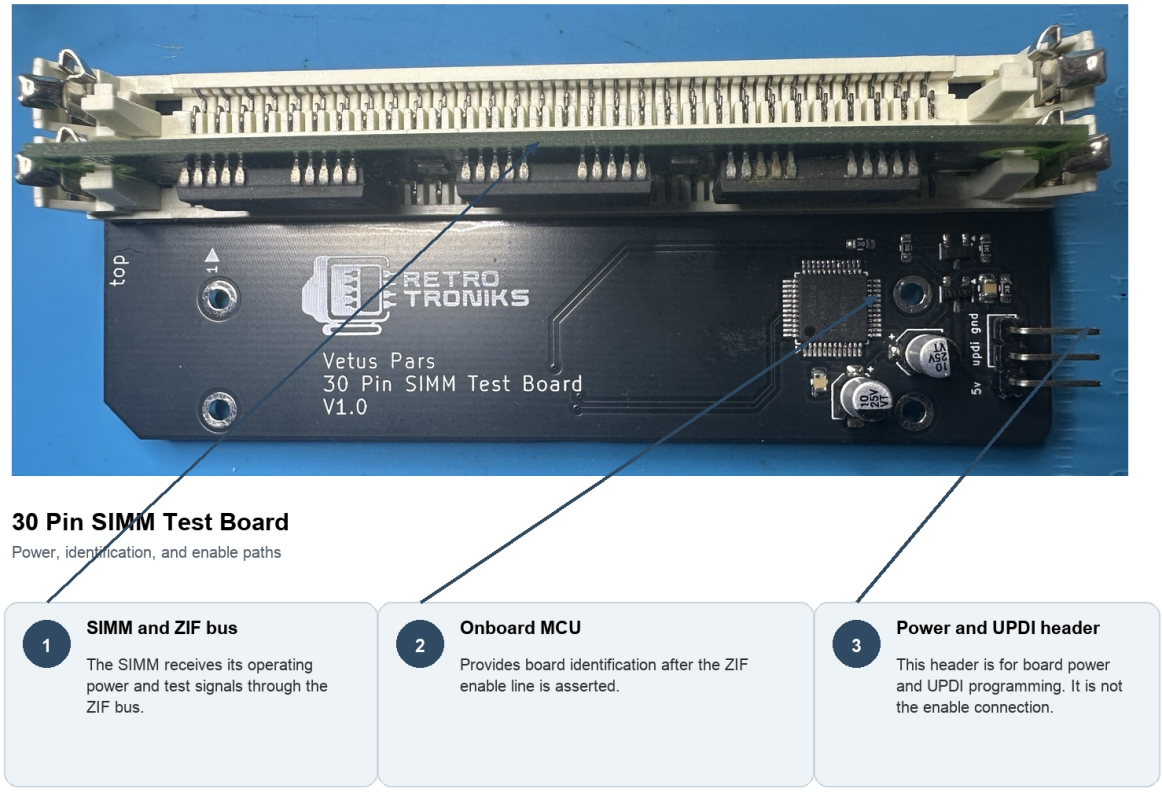


Figure 1 SIMM board signal and power paths

Power and enable behavior

The SIMM is powered from the normal ZIF-bus supply. The separate three-pin header shown in the photograph is used for board power and UPDI programming; it does not carry the enable signal.

The board enable signal is assigned to a ZIF-bus line. Vetus code asserts that line with BRD_ON. Until BRD_ON runs, the onboard MCU is not enabled and its board ID cannot be recovered.

Path	Function
ZIF bus power	Supplies operating power to the installed 30 pin SIMM.
ZIF enable line	Enabled by BRD_ON so the board MCU can respond with identification data.
Three-pin header	Provides board power and UPDI programming access. It is not the enable path.

Connect the board to Vetus Pars

1. **Turn Vetus Pars off**
   Make the board and SIMM connections only while Vetus Pars is powered off.

2. **Install the SIMM**
   Seat the 30 pin SIMM evenly in the board socket and lock both retaining clips.

3. **Connect the ZIF bus**
   Connect the test board in the correct ZIF-bus orientation. This connection supplies the SIMM power and test signals, including the enable line.

4. **Connect the board header**
   Connect the board power and UPDI header as required for the installation. Do not treat this header as the enable connection.

5. **Check the installation**
   Confirm the SIMM, ZIF connection, and board header are secure before applying power.

Scan for the board

1. **Open Add On Boards**
   From the Vetus Pars main menu, open the Add On Boards screen.

2. **Start the scan**
   Start the board scan. BRD_ON must assert the ZIF enable line before the MCU identification can be recovered.

3. **Confirm identification**
   Verify that the 30 Pin SIMM Test Board appears before beginning the SIMM test.

Enable the board in Vetus code

Place BRD_ON before any operation that depends on the board MCU. BRD_ON controls the ZIF enable line; it does not provide the SIMM supply, which already comes from the ZIF bus. After the enable step, SIMM tests use the normal Vetus test instructions. No board commands are required.

```
BRD_ON
DELMS 50
// SIMM test instructions go here
BRD_OFF
ENDTEST
```

Optional board ID check

BRD_ID may be used if the user wants to check the board identity. This check is optional and is not needed for a normal SIMM test. Enable the board before requesting its ID.

```
BRD_ON
DELMS 50
BRD_ID
BRD_OFF
ENDTEST
```

Instruction summary

Instruction	Purpose
BRD_ON	Asserts the board enable line through the ZIF bus so the MCU can respond.
BRD_ID	Optionally requests the board identity. It is not required for normal SIMM testing.
BRD_OFF	Releases the board enable line when the board operation is complete.