

Manual for the 4116 Adapter

Objective

This device is specifically designed to test 4116 memory chips in conjunction with an existing RAM Tester (<https://github.com/tops4u/ram-tester>).

The project is open source from the beginning. Schematics, PCB layout, and firmware can be found at the above GitHub address.

This board requires an existing RAM Tester (see above) with Firmware version 3.0.0 or higher.

Valid for all RAM-Tester with Firmware from 3.0.0 / Edition: 21.09.2025



Disclaimer

This product is in the **prototype** stage and is delivered as a **laboratory** and **development** tool.

- It is sold exclusively to technically skilled users who are aware of and accept the risks. This board does not contain integrated protection measures such as TVS diodes, ferrite filters, or fuses.
- It offers no protection against ESD, overvoltage, overcurrent, or EMC interference.
- Operation should only be carried out with a stabilized 5V USB power source (max. 1A). Power supplies and cables are not included.
- Use the device exclusively in a controlled laboratory environment, away from flammable materials.
- Appropriate ESD protection measures are mandatory during assembly, testing, and use.
- This device is not intended for continuous operation or connection to other systems. Use at your own risk.

The manufacturer assumes no liability for damage to devices, property, or persons caused by assembly, misuse, or operation. Warranty, repair, or return claims are excluded.

Test procedure

1. Disconnect the RAM Tester from the power supply, if not already done.
2. Set the 20-pin DIP switch
3. **Warning:** Socket allocation
No component should be present or inserted into the ZIP Socket of the RAM Tester as long as the Adapter Board is present!
4. **Warning:** Component Type
Only 4116 type components should be inserted into the 4116 Adapter board.
Other Components may be destroyed!
5. Power the RAM Tester with a USB-C cable.

Insert the component into the appropriate socket. The Test is then started by pressing the «RESET» button.

Warning: If one of the two control light on the 4116 Adapter board dims or goes out when inserting the component into the socket, immediately remove the component as there may be a short circuit in the component! This can lead to heating of the component or the adapter board! There is a limit in the design that limits the short circuit currents to about 80mA on the 12V rail and -40mA on the -5V rail.

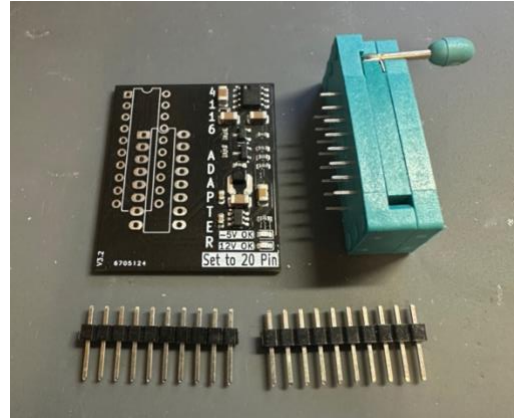
1. After the reset, the adapter board is automatically recognized, and a 4116 component preselected.
 2. The usual Test logic is then run for the 4116 component.
 3. The result is indicated after a short while if the component is ok or not.
- At the end of the test, disconnect the RAM Tester from power and remove the adapter board.

Neither the RAM Tester nor the adapter board is intended for unattended continuous operation!

Assembly of the kit

Kit parts:

- The PCB with SMD Parts
- 2x 10-pin headers
- One 16-pin ZIF Socket



Start by soldering the socket strips on the bottom side (the side without SMD components) of the adapter board. Solder from the top – on the populated side. Then insert the ZIF socket from the top. **IMPORTANT:** The lever of the ZIF socket shall be on the top side of the board when reading the text. Then solder from the bottom – be careful with the solder joints between the socket strips.

