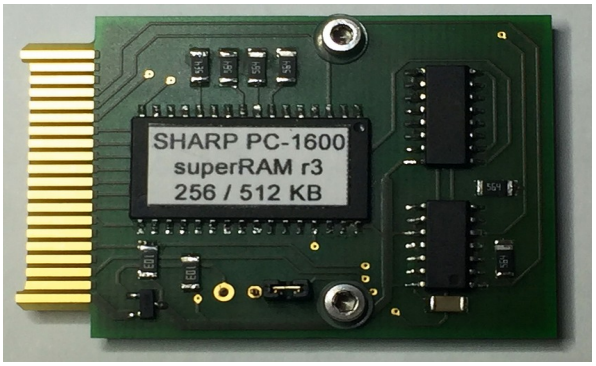
SHARP PC-1600 “superRAM” Memory Expansion

256KB / 512KB RAM Custom Module – Revision 3



IMPORTANT:

- Before kit assembly or use, please read these instructions.
- Avoid touching the contacts of an assembled module (risk of damage by static electricity).
- Insert and remove the module only when the computer is switched off.
- The module is designed for use in slot 2 of the SHARP PC-1600 and is not suitable for any other types of computers, even if it fits mechanically - such as in the SHARP PC-1500 (A).
- Don't use or shelve the module without the jumper set to either position.

1 Introduction

The *superRAM* r3 memory expansion module supports two operation modes with different advantages (and trade-offs), so you can choose the appropriate mode with respect to your requirements:

- **256 KB mode (default)**
  Advantage: Largest possible native mode. No PEEKs and POKEs or additional driver- or init-software is required, the PC-1600 recognizes the *superRAM* module automatically in this mode.
  Trade-off: Only half of the modules memory capacity is used.
- **512 KB mode**
  Advantage: Full and unpartitioned usage of the modules memory capacity.
  Trade-off: A custom init-routine is required. So you need an upload option for binary files from your host computer to the PC-1600 in order to get this mode running. Optionally a ROM-disk module containing the necessary software is provided.

The r3 module provides a battery buffer (CR2016 by default), so that the data stored on it is retained even if you remove the module from the PC-1600. A special capacitor bridges a module coin cell replacement for about 15sec, without loosing data.

The superRAM module is the first RAM module for the SHARP PC-1600 that provides a 512KB mode. The largest original RAM module from SHARP is the CE-1601M with 64KB.