Garrett’s Workshop

GW4208A “RAM128”

RAM Expansion Card for Apple II-series

User’s Guide

# Overview

The RAM128 (GW4208A) RAM expansion card provides the Apple II, II+, and IIe with 128 kB of Language Card and Saturn-compatible expansion memory.

## Low-Power, SRAM-Based Design

Thanks to a modern, low-power design, RAM128 uses a maximum of 0.1 watts when idle (20 mA @ 5V) and 0.2W in active use (40 mA @ 5V). Unlike other Apple II expansion RAM cards, which are built with vintage asynchronous DRAM chips, RAM128 uses modern SRAM. This design allows for low power consumption and improved reliability over other memory cards using 15+ year old chips.

## Ecologically Friendly, Gold-Plated PCB

RAM128 features a lead-free, ENIG gold-plated PCB and is fully EU RoHS-compliant. All units are tested extensively before shipment. Only new parts are used to build RAM128, and all RAM128 cards are manufactured in our semi-automated facility in Columbus, Ohio, in the United States.

## Open-Source Design

RAM128’s design is fully open-source. The schematics, board layouts, and CPLD firmware, are all freely available for commercial and noncommercial use. To download the design files, visit the Garrett's Workshop GitHub page, <https://github.com/garrettsworkshop>.