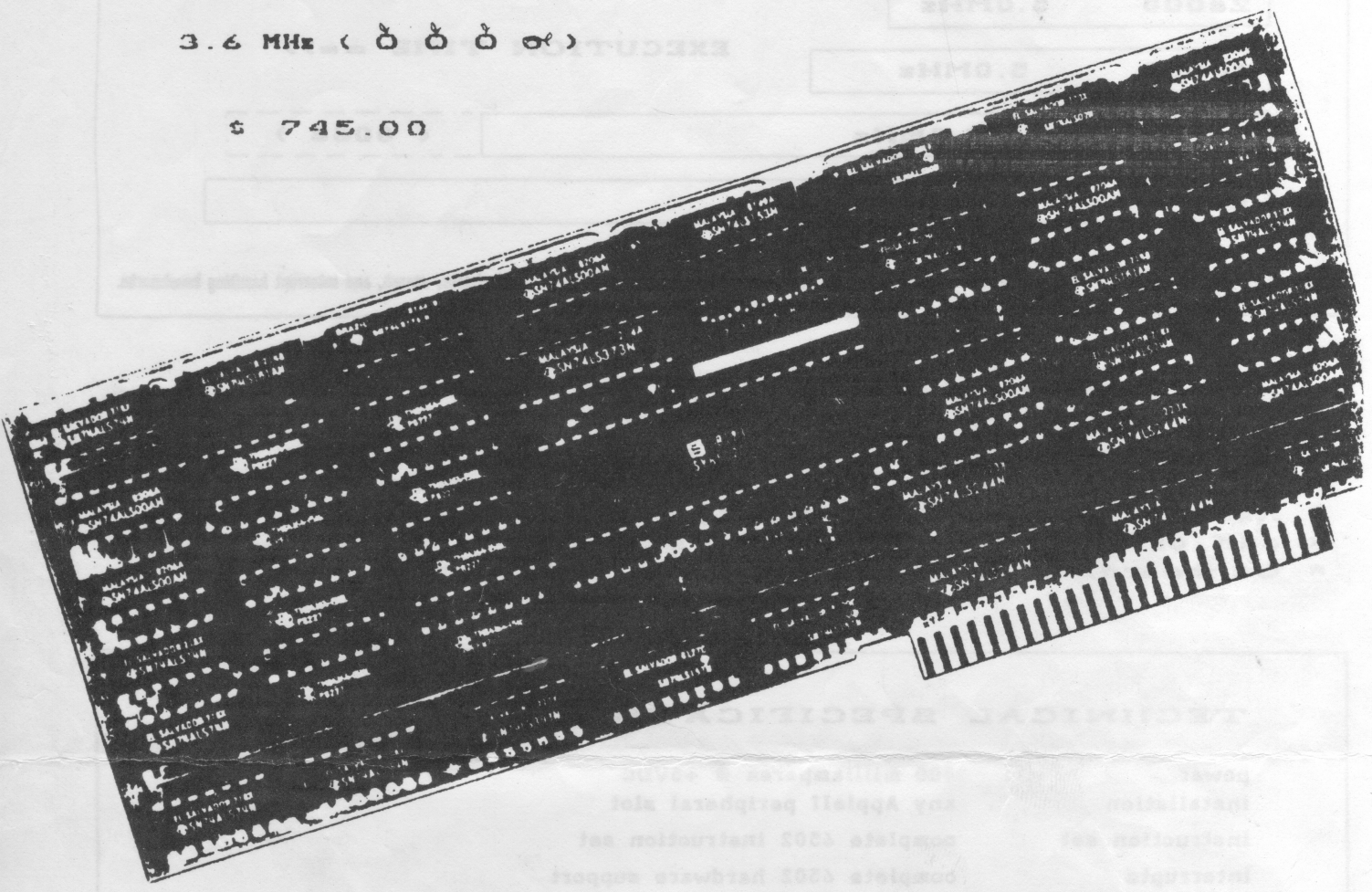


number nine booster card

3.6 MHz (0 0 0 0)

\$ 745.00



The Booster Card is a state-of-the-art microcomputer subsystem designed to dramatically reduce the AppleII's processing time.

It's 3.6 MHz operation transforms the AppleII into one of the most powerful microcomputers available. With a bus cycle time of 280 nanoseconds, it matches or outperforms the best 16-bit microprocessors (2X the performance of a 4MHz Z-80).

This performance increase means that all your programs will execute 3.6 times faster. A tremendous advantage in time critical business, industrial, and scientific applications.

Simple to use; just plug it into any peripheral slot. Compatible with all Apple peripherals and software.

The card is based on a fast 6502-C processor, and contains 64K of low power, high speed memory. 16K of memory is used by a built-in Language Card, supporting faster compilation and execution of Pascal, Applesoft, Fortran, Visicalc; etc..

State-of-the-art performance without sacrificing your current investment in hardware, software, and system familiarity.

Number Nine Computer Eng. Inc.
P.O.Box 1802 : Hartford, CT 06144
(203) 233-8134

6502-C vs 16-bit
microprocessors

6502-C	3.6MHz	
Z8000	5.0MHz	
68000	5.0MHz	
8086	5.0MHz	(8088)
LSI 11/23	3.3MHz	

EXECUTION TIME -->

Comparisons based on "Benchmarks quantify performance" EDN April, 1981. Average of loop constructs, bit manipulation, search, and interrupt handling benchmarks.

MAJOR FEATURES

- * 3.6 times faster processor operation.
- * Transparent execution of all AppleII software.
- * Hardware compatible with Apple Peripherals.
- * 64K of resident, high speed memory.
- * On board, high speed, 16K "Language Card".

TECHNICAL SPECIFICATIONS

power	400 milliamperes @ +5VDC
installation	any AppleII peripheral slot
instruction set	complete 6502 instruction set
interrupts	complete 6502 hardware support
cycle time	280ns bus cycle time
speed control	automatically optimized by resident hardware clock control Only a single 1000ns instruction cycle executed during any I/O access instruction. Speed override soft-switch located at C0x1 for ON, and C0x0 for OFF (x=slot no.+8), OFF on power-up.
RAM refresh	on board, distributed, dynamic ram refresh, transparent during all phases of processor operation.
size	7.7 in x 2.8 in x .6 in max (plus edge connector)
weight	approx 4oz
pc board	FR-4 epoxy, solder mask on both sides
bus connector	50-pin edge connector (gold plated)
operating temp.	40 to 105°F (5 to 40°C)
storage temp.	-40 to 210°F (-40 to 100°C)
humidity	10% to 90% (non condensing)

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MODEL # 9502

NUMBER NINE BOOSTER CARD

A Sophisticated processor design replaces the Apple II's CPU functions. 6502-C processor, together with 64K of high-speed Ram, and supporting clock/bus control circuitry, ensures overall hardware and software compatibility with the Apple II, while providing vastly superior performance (280 ns bus cycle time, 840 ns typical instruction time).

HARDWARE:

48k of fast memory replaces 48K of Apple's main board Ram (\$0000-\$BFFF). The remaining 16K of fast memory can be allocated to either a fast "Language Card" or a fast monitor and Rom Basic (see switch 1). (note: The on board Ram is not accessible to other add-on processors.)

The processor will slow down to 1MHz whenever a program encounters I/O space, or is forced down by the speed override switch (see switch 2).

SWITCH 1

OFF - selects the on board 16K Ram Card (Language card if in slot 0.)

ON - whenever using Fast Monitor Disc in slot 0.

SWITCH 2

OFF - disables the soft-switch speed override function.

ON - storing any data to location \$C0s0 will force the Card to 1MHz.
storing any data to location \$C0s4 allows the Card to run at 3.6MHz.
(s = slot number + 8)

Note: Switches 1 and 2 should not both be in the ON position.

SWITCH 3

MUST REMAIN IN THE ON POSITON unless the Apple's tri-state buffers are removed.

SWITCH 8

MUST REMAIN IN THE OFF POSITION (or opposite of switch 3).

SWITCHES 4, 5, 6, & 7

Correspond to slots 4, 5, 6, & 7 respectively.

OFF - whenever a Disc Drive Card RESIDES in that slot.

ON - no time dependent code executed in that slot.

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