

Boxed MOS 6502 CPU

2019-05-11 by Michael Steil

Back in 1975, you could order a **boxed** 6502 CPU directly from MOS in Norristown, PA. Here are some high-res photos of such a box and its contents.



This is the box the 6502 and its documentation was shipped in. It measures 30cm × 25cm × 4.5 cm.

3 01-78-783



MICROCOMPUTERS
MICROCOMPUTERS
MICROCOMPUTERS

MOS TECHNOLOGY, INC.
VALLEY FORGE CORPORATE CENTER • 950 RITTENHOUSE ROAD • NORRISTOWN, PA. 19401

TO:

Tom Rataski
429 N. Hawlins Avenue
Akron, Ohio 44313

On the top, there is an 8.5" x 5.5" sticker saying

MOS MICROCOMPUTERS
MOS TECHNOLOGY, INC.
VALLEY FORGE CORPORATE CENTER • 950 RITTENHOUSE ROAD
• NORRISTOWN, PA. 19401



I/OE

MICROCOMPUTERS

MICROCOMPUTERS

MICROCOMPUTERS

MICROCOMPUTERS

PROGRAMMING MANUAL

The open box reveals documentation at the bottom, and the chip at the top right.
There is a spot for another chip at the top left that is empty.



The height of the box is just perfect for the two books.



The two books, the "Hardware Manual" and the "Programming Manual" are 178 and 254 pages, respectively.



Publication Number 6500-10

**MCS6500
MICROCOMPUTER FAMILY
HARDWARE MANUAL**

AUGUST 1975

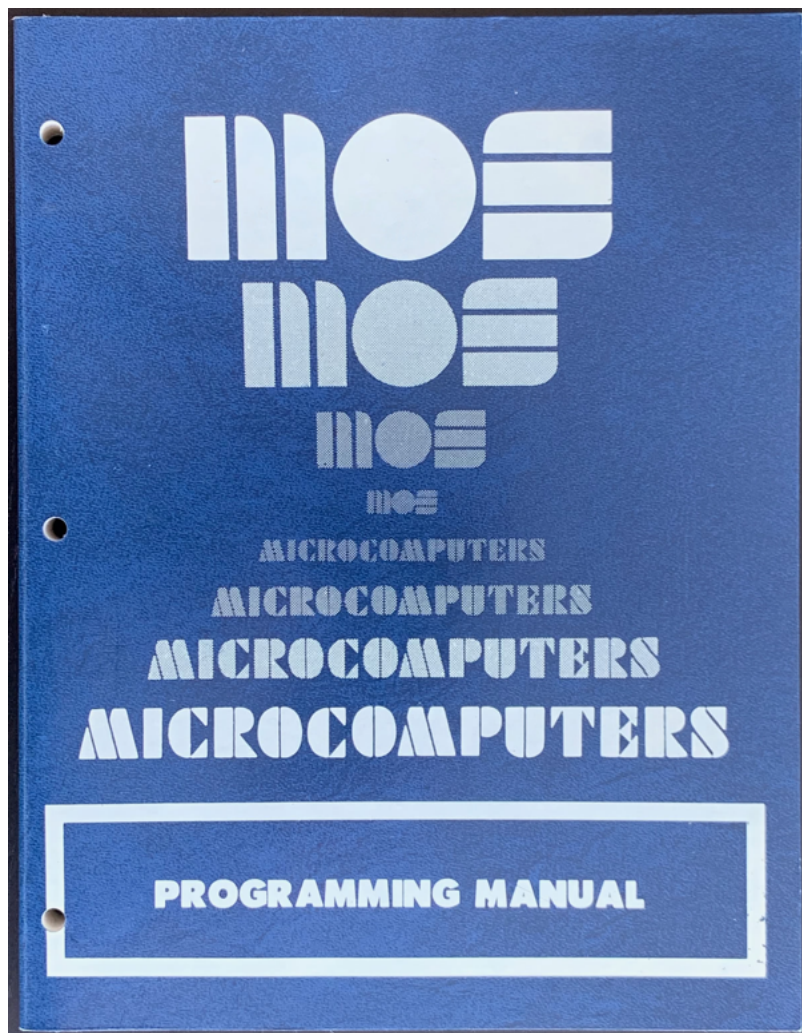
The information in this manual has been reviewed and is believed to be entirely reliable. However, no responsibility is assumed for inaccuracies. The material in this manual is for informational purposes only and is subject to change without notice.

First Edition
©MOS TECHNOLOGY, INC., 1975
"All Rights Reserved"

**MOS TECHNOLOGY, INC.
950 Rittenhouse Road
Norristown, PA. 19401**

The "MCS6500 MICROCOMPUTER FAMILY HARDWARE MANUAL" (Publication Number 6500-10) from August 1975 is available from archive.org. It came with a one-page [erratum](#) about the set-overflow pin only being available on the 6502, not the 6501.

These manuals were printed at a time where MOS was offering two 6500-family CPUs: The 6501, which was pin-compatible with the Motorola 6800, and the 6502 with an on-chip clock oscillator¹. After a lawsuit with Motorola, the 6501 was dropped in March 1976.



Publication Number 6500-50

**MCS6500
MICROCOMPUTER FAMILY
PROGRAMMING MANUAL**

AUGUST 1975

The information in this manual has been reviewed and is believed to be entirely reliable. However, no responsibility is assumed for inaccuracies. The material in this manual is for informational purposes only and is subject to change without notice.

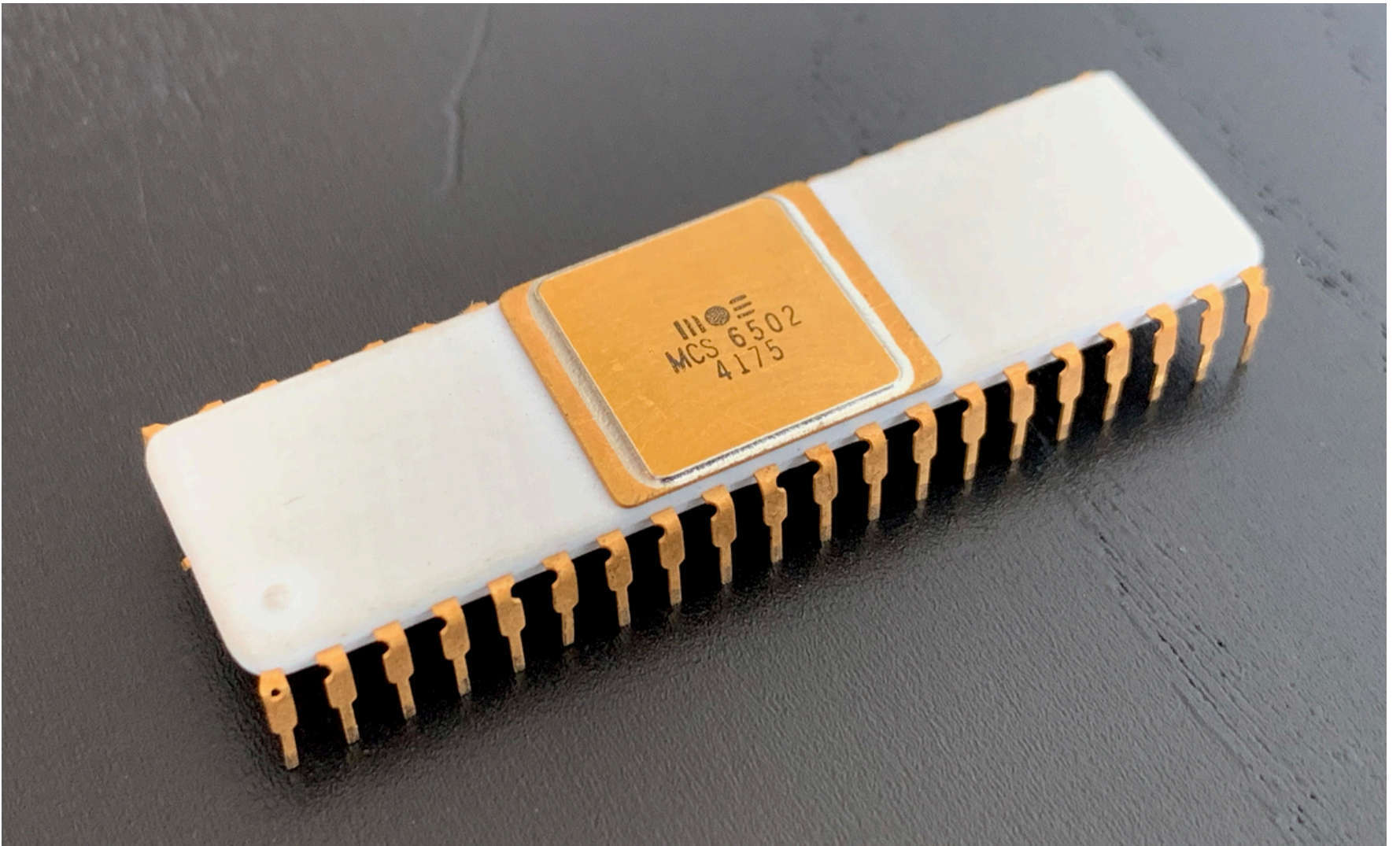
First Edition
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MOS TECHNOLOGY, INC.
950 Rittenhouse Road
Norristown, PA. 19401

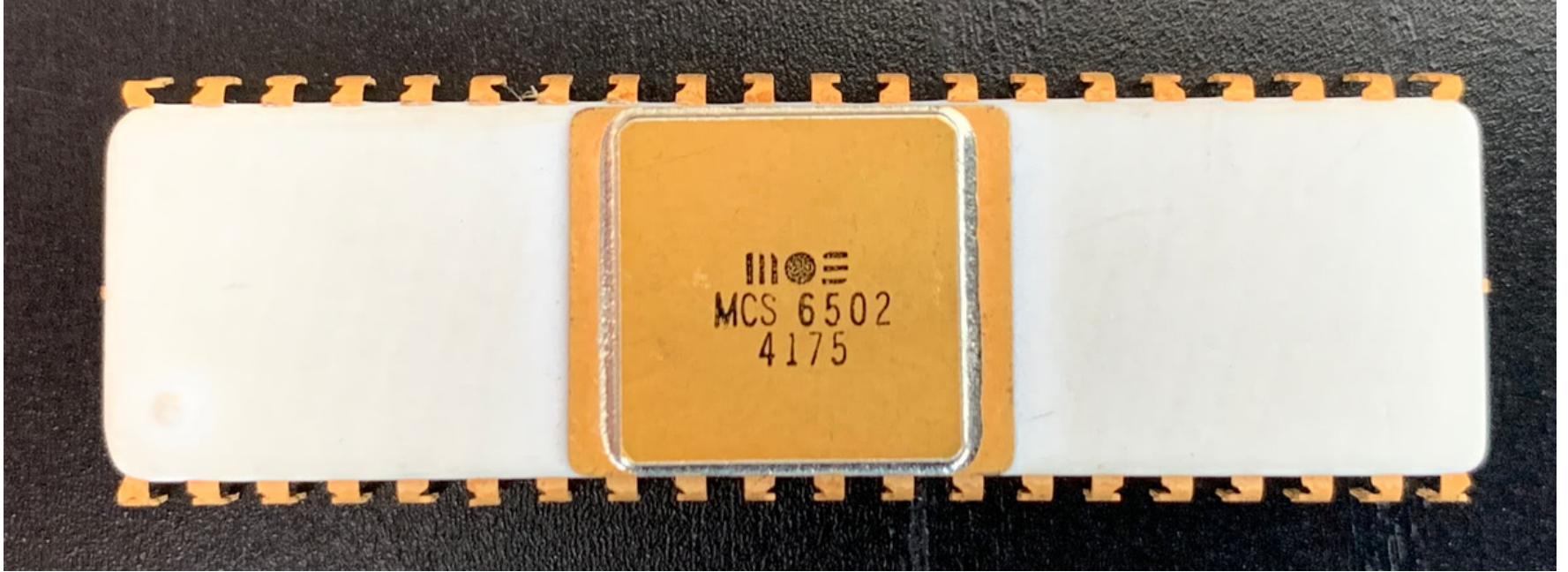
The "MCS6500 MICROCOMPUTER FAMILY PROGRAMMING MANUAL" (Publication Number 6500-50) from August 1975 doesn't seem to be archived anywhere, but the January 1976 version (6500-50A) is available at 6502.org, and the [Synertek version](#) is identical except for the title page. This version does document the "ROR" instruction, which [did not work correctly](#) in the first mask revision.



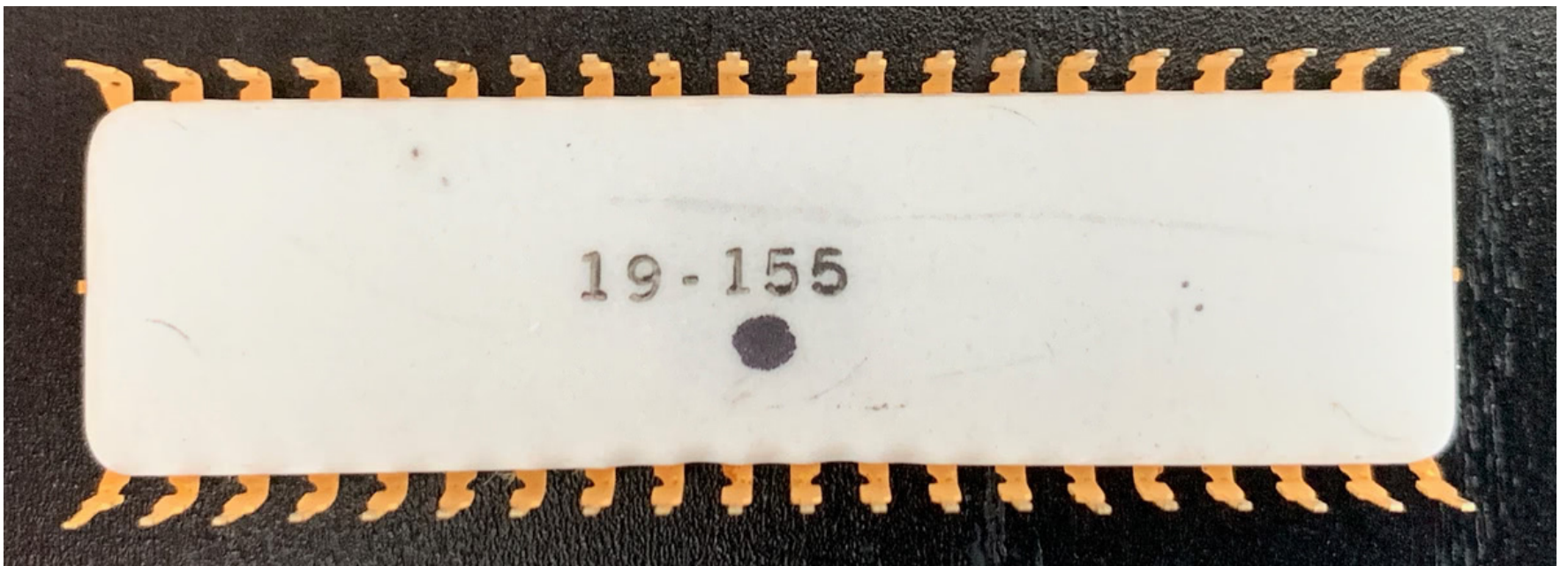
The 6502 CPU is in a plastic tray in the cardboard.



The CPU is the ceramic "MCS" version.

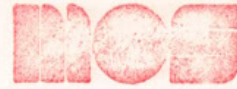


The markings say "MOS MCS 6502", and the date code is 4175, which is week 41 of 1975. This chip has the original mask with the [ROR bug](#). The only computers this would work correctly in are the Apple I and the KIM-1².



At the bottom, it says "19-155", and there is a black dot.

MOS TECHNOLOGY, INC.
VALLEY FORGE CORPORATE CENTER
950 RITTENHOUSE ROAD, NORRISTOWN, PA. 19401



The invoice came in this custom envelope with the MOS address and logo printed on. It also carries a MOS stamp next to the Norristown postal stamp dated October 31, 1975.

MOS TECHNOLOGY, INC.

VALLEY FORGE CORPORATE CENTER (215) 666-7950
950 RITTENHOUSE ROAD, NORRISTOWN, PA. 19401

INVOICE

No. 2194

Tom Rataski

INVOICE DATE	October 29, 1975
OUR ORDER NO.	
YOUR ORDER NO.	Order Form
TERMS	Cash
F.O.B.	Norristown
SALESMAN	McShane
SHIPPED VIA	

Tom Rataski
429 N. Hawlins Avenue
Akron, Ohio 44313

SHIPPED TO

PPD. OR COLL.

QUANTITY	DESCRIPTION	PRICE	AMOUNT
1	MICROPROCESSOR — PART NUMBER MCS 6501 MCS 6502	20.00 25.00	25.00
1	PUBLICATIONS — HARDWARE MANUAL	5.00	5.00
1	PROGRAMMING MANUAL	5.00	5.00
	CROSS ASSEMBLER MANUAL	4.00	
	ACKNOWLEDGEMENT YOUR ORDER WILL BE SHIPPED ON OR ABOUT as soon as possible		
	TOTAL		\$35.00

FORM 1400, REGENT FORMS, PENNSAUKEN, N.J. 08109

The invoice is number 2194 and dated October 29, 1975. It seems MOS invoices came pre-printed with the five products MOS was selling:

- MCS 6501 (20.00 USD)
- MCS 6502 (25.00 USD)
- Hardware Manual (5.00 USD)
- Programming Manual (5.00 USD)
- Cross Assembler Manual (4.00 USD)

As this was before March 1976, the 6501 was still available.

This invoice is about one 6502 and the hardware and programming manuals, and totals to 35 USD.

The 48 page "MCS6500 MICROCOMPUTER FAMILY CROSS ASSEMBLER MANUAL" was not part of this order, but it is available from retro.hansotten.nl³.

INVOICE

No. 2194

MOST TECHNOLOG, INC
QUALITY MICRO COMPUTER CENTER
100 WILSON AVENUE, PENNSAUKEN, N.J. 08109

Tom Rataski
429 N. Hawlins Avenue
Akron, Ohio 44313

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OUR ORDER NO.	
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SHIPPED TO _____ PPD. OR COLL. _____

QUANTITY	DESCRIPTION	PPD. OR COLL.
1	MICROPROCESSOR --- PART NUMBER MOS 6501 MOS 6502	
1	PUBLICATIONS --- HARDWARE MANUAL PROGRAMMING MANUAL CROSS ASSEMBLER MANUAL	
	as soon as possible	
	PACKING LIST	TOTAL

FORM 1400, REGENT FORMS, PENNSAUKEN, N.J. 08109

Inside the box, there was a packing list: a carbon copy of the invoice.

1. The dies of the 6501 and the 6502 were identical, they were just bonded differently. ↻
2. All Apple I computers and some KIM-1 boards shipped with the original 6502, so all software had to [work around the faulty ROR instruction](#). ↻

3. The cross-assembler ran on the "G.E. Timesharing" system and on the "NCSS system". This is the assembler that defined the syntax of all [Commodore 8 bit source code](#): .PAGE, .SKIP, etc. 

6502, Archeology, Teardown

< Commodore MAX Machine

1 thought on "Boxed MOS 6502 CPU"

Andre

2019-05-11 at 11:09 | Reply

I find it interesting that the cross assembler even allowed comments after the opcode without separating semicolon, just with space as separator!

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