INTEL CORPORATION
3065 Bowers Avenue
Santa Clara, California 95051
(408) 987-8080

Dear Customer:

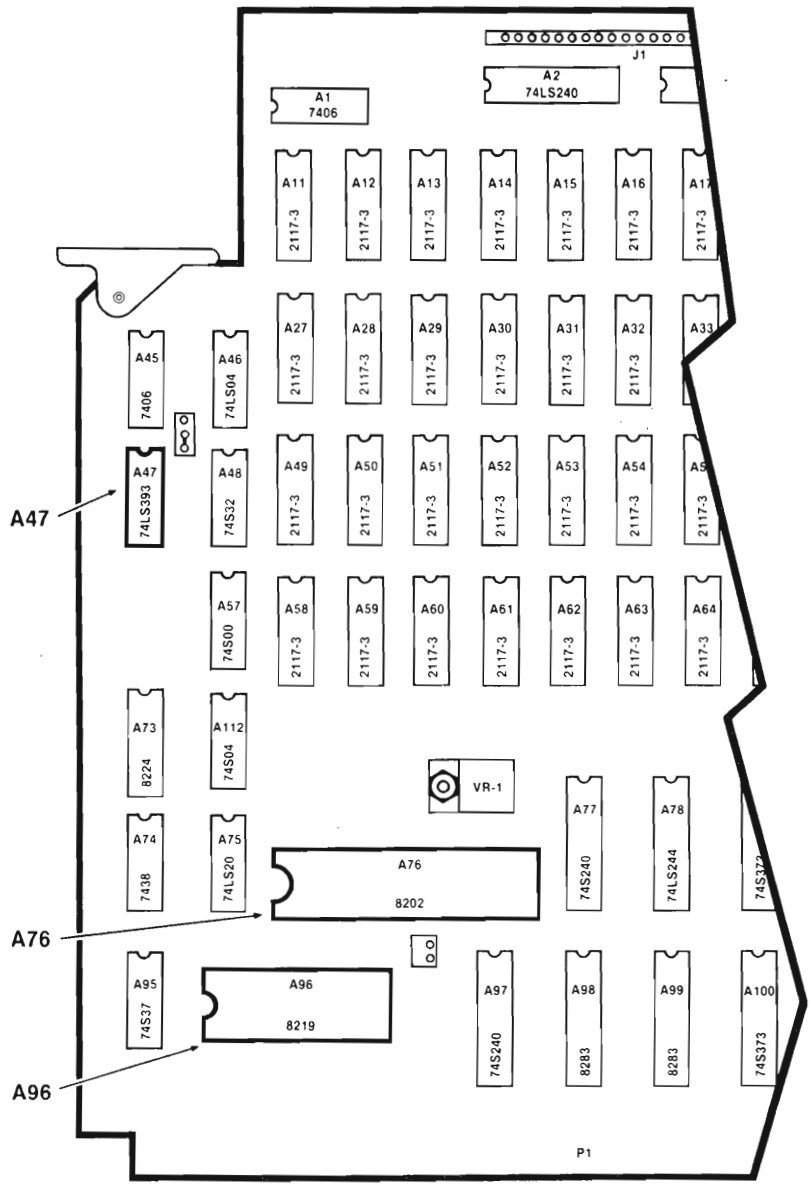
In keeping with our committment to protect your investment in Intel microcomputer development systems, several minor modifications may be necessary to your Series II to ensure compatibility with the Series III environment. Included within this accessory kit are several components that may be needed to replace existing socketed components on both the 8085-based IPC (integrated processor card) and IOC (input/output controller) assemblies within your Intellec Series II development system. The six components packaged in this accessory kit are:

* an 8202A RAM Controller integrated circuit
* a Bus Controller "Piggy-Back" assembly (PWA 123605)
* four 2716 EPROMs (containing enhanced IOC firmware) with the following part numbers:

104593-001
104593-002
104593-003
104593-004

IPC MODIFICATIONS

To determine if any components need to be replaced on the IPC assembly, power down the development system and remove the IPC assembly from its top slot in the mainframe chassis. Refer to the illustration on the following page for component location.



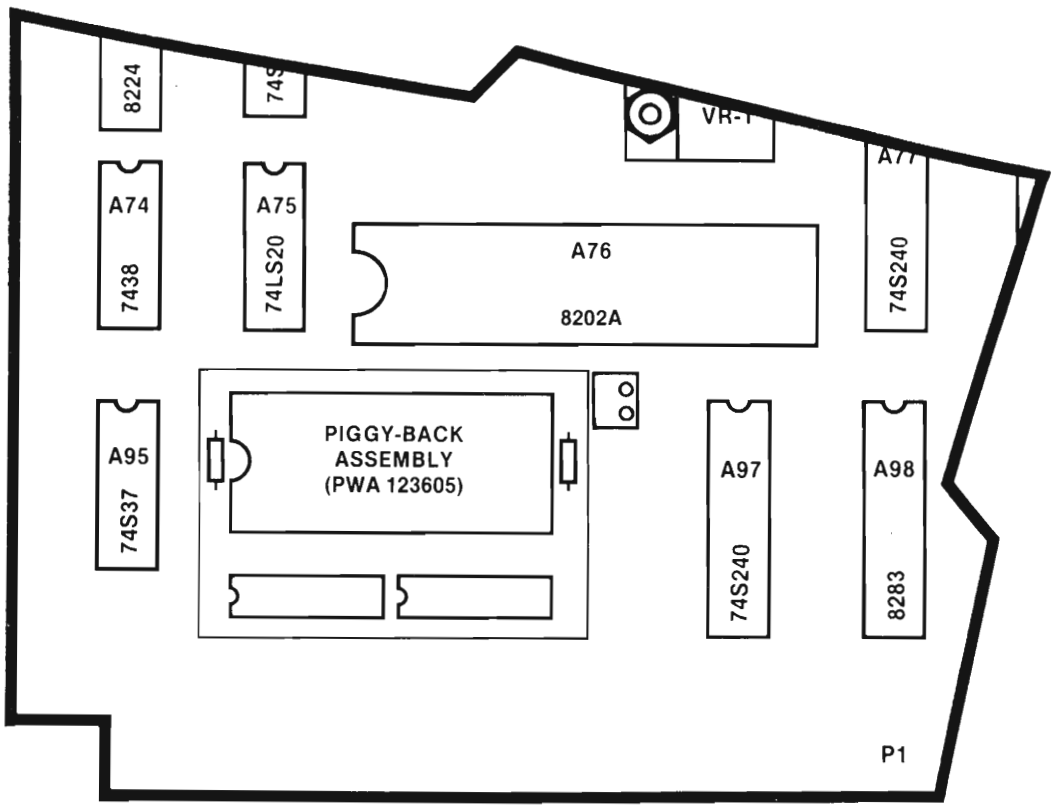
8202A RAM Controller

If the RAM controller integrated circuit installed in the socket at location A76 is an 8202 (without an "A" suffix), this integrated circuit must be replaced with the 8202A supplied in the accessory kit package. To remove the 8202 from the IPC, insert the blade of a small screwdriver between the integrated circuit and socket at one end and gently pry the circuit up slightly. Insert the blade from the other end and again pry gently. Continue to pry from each end until the integrated circuit is free of the socket (the 8202 can be discarded).

Align pin 1 of the 8202A with pin 1 of its associated socket and push the integrated circuit down into the socket with firm, even pressure. Once the pins start to enter the socket, check to be sure that no pins have been bent before pushing the circuit completely down.

Bus Controller "Piggy-Back" Assembly

If a single 8219 Bus Controller integrated circuit is installed in the socket at location A96, the integrated circuit must be replaced with the "Piggy-Back" assembly included in the accessory kit. Remove the 8219 from its socket as previously described (the 8219 can be discarded) and insert the "Piggy-Back" assembly into the socket. Note that when correctly oriented, the two TTL integrated circuits on the assembly will be facing the IPC assembly's P1 connector as shown in the following illustration. When inserting the "piggy-back" assembly, make sure that the pins on the bottom of the assembly are properly aligned with the socket.



74LS393 Counter

While the IPC assembly is removed from its chassis, verify that the integrated circuit at A47 is a 74LS393 manufactured by Texas Instruments. If an LS device is not installed or if the device is not manufactured by Texas Instruments (all Texas Instruments integrated circuits carry the "map-of-Texas" logo), contact your nearest Intel Repair Center to arrange board replacement.

IOC MODIFICATIONS

The four 2716 EPROMs and the associated "IOC Firmware Enhancement Kit Installation Instructions" (Manual Order No. 121637-002) included in this accessory kit are equivalent to Intel's Model 510 IOC Firmware Enhancement Kit. If an IOC enhancement kit has not been installed in your Series II, replace the existing EPROMs in location A50 through A53 on the IOC assembly with the EPROMs provided. You may install these components yourself by following the Model 510 installation instructions or, if you prefer, you may contact the nearest Intel service center to arrange installation by qualified Intel service personnel.

MODEL 510
IOC FIRMWARE ENHANCEMENT KIT
INSTALLATION INSTRUCTIONS

Manual Order No. 121637-002 Rev. B

Intel Corporation, 3065 Bowers Avenue, Santa Clara, California 95051

Additional copies of this manual or other Intel literature may be obtained from:

Literature Department
Intel Corporation
3065 Bowers Avenue
Santa Clara, CA 95051

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Insite	Megachassis	UPI
Intel	Micromap	μScope
Intelevision		

and the combination of ICE, iCS, iSBC, iSBX, MCS, or RMX and a numerical suffix.

INTRODUCTION

The Model 510 Kit, which consists of four preprogrammed PROM chips containing the I/O Controller (IOC) firmware, enhances the CRT display of the Intellec Series II Microcomputer Development System.

INSTALLATION

1. Turn off system power, disconnect power cord(s), and disconnect all cables connected to mainframe rear panel.
2. If low-profile diskette drive(s) are installed on top of mainframe chassis, remove the two aluminum ground strips between mainframe and first drive chassis. Remove drive(s) from top of mainframe.
3. Remove mainframe top cover. Refer to figure 1 and disconnect cables from connectors J14, J15, and J16 on top edge of IOC board. If mainframe includes an integral diskette drive, also disconnect cables from connectors J17 and J18.
4. If system includes a hard disk or a dual double density diskette drive(s), and controller boards are installed in mainframe cardcage, remove mainframe front panel and disconnect hooded connector from controller interface board.
5. Remove the four screws holding rear panel to mainframe. Pull rear panel assembly away from mainframe, withdrawing drive controller cable (if present) through opening along side of chassis.
6. Place rear panel assembly face down on a padded flat surface. Refer to figure 2 and remove the 11 screws attaching IOC card to rear panel. Lift IOC card free of rear panel.
7. Refer to figure 3 and remove the the four PROM chips from locations A50, A51, A52, and A53.

CAUTION

When handling the PROM chips, be extremely careful to avoid bending the dual in-line pins.

8. Install the four replacement PROM chips as follows:

PROM Part No.	Location
104593-001	A50
104593-002	A51
104593-003	A52
104593-004	A53

9. Reattach IOC board to rear panel using the 11 screws removed in step 6.
10. Position rear panel assembly against mainframe, while guiding drive controller cable (if present) through opening along side of chassis; make sure that no cables are pinched between IOC board and mainframe. Secure rear panel assembly to mainframe using the four screws removed in step 5.
11. Reattach hooded connector of drive controller cable (if present) to controller interface board and reinstall mainframe front panel.
12. Reconnect cables to connectors J14 through J18 on top edge of IOC board. Replace mainframe top cover.
13. Reinstall low-profile diskette drive (if present) on top of mainframe. Reconnect all cables removed in step 1.
14. Reconnect power cord(s) and turn on system power.
15. Execute firmware diagnostics as described in the *Intellec Series II Installation Manual*, Order No. 9800559.

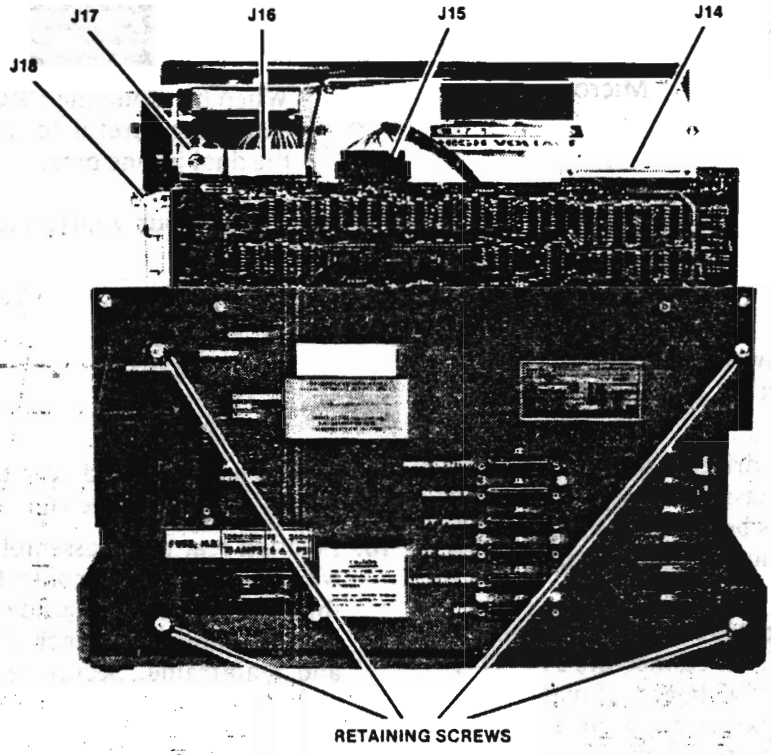

Figure 1. Intellec® Series II Mainframe Rear Panel 878-27

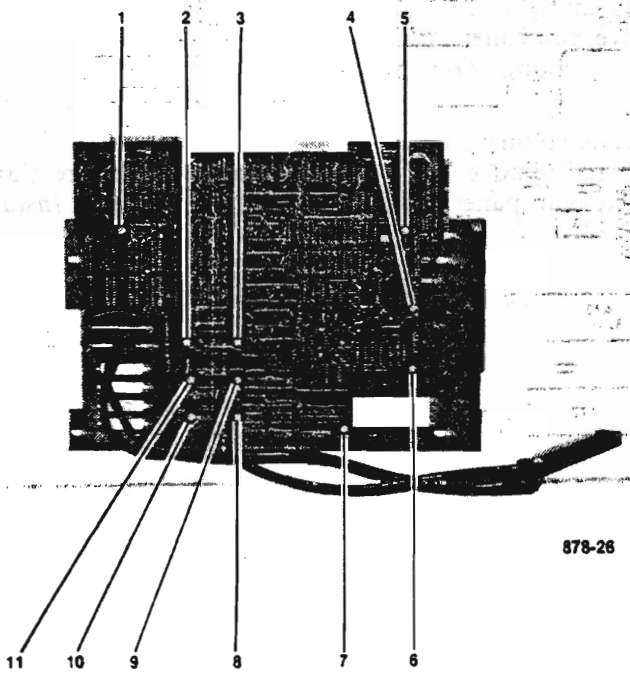

Figure 2. Rear Panel/IOC Board Attaching Screws 878-26

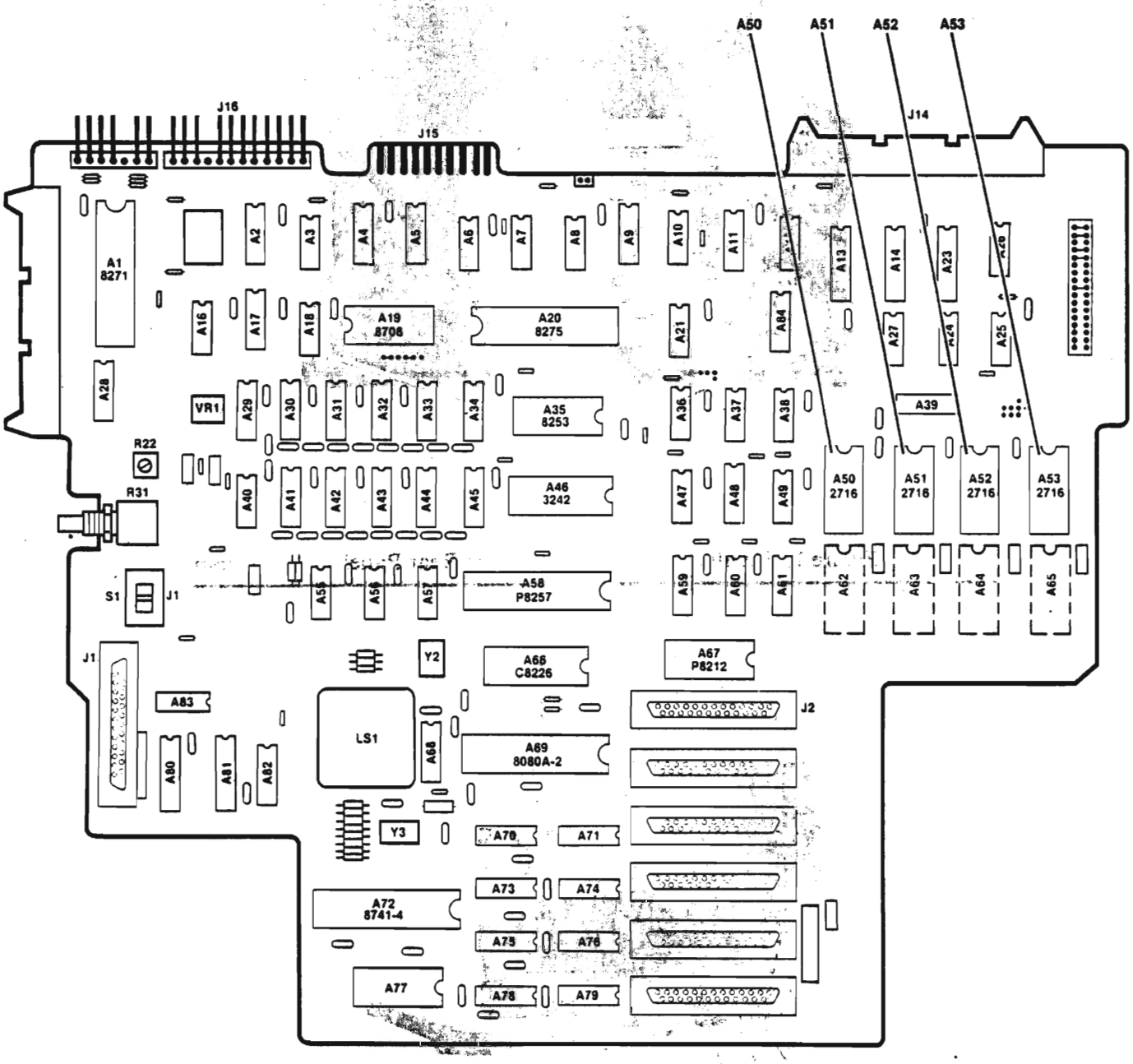

Figure 3. IOC Board Component Location Diagram

121637-1

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Dear Customer:

In keeping with
Intel microcomputer
may be necessary to
Series III environm
several components
components on both
IOC (input/output c
II development syst
kit are:

* an 8202A RAM
* a Bus Contro
* four 2716 EP
following pa

IPC MODIFICATIONS

To determine if
assembly, power dow
assembly from its t
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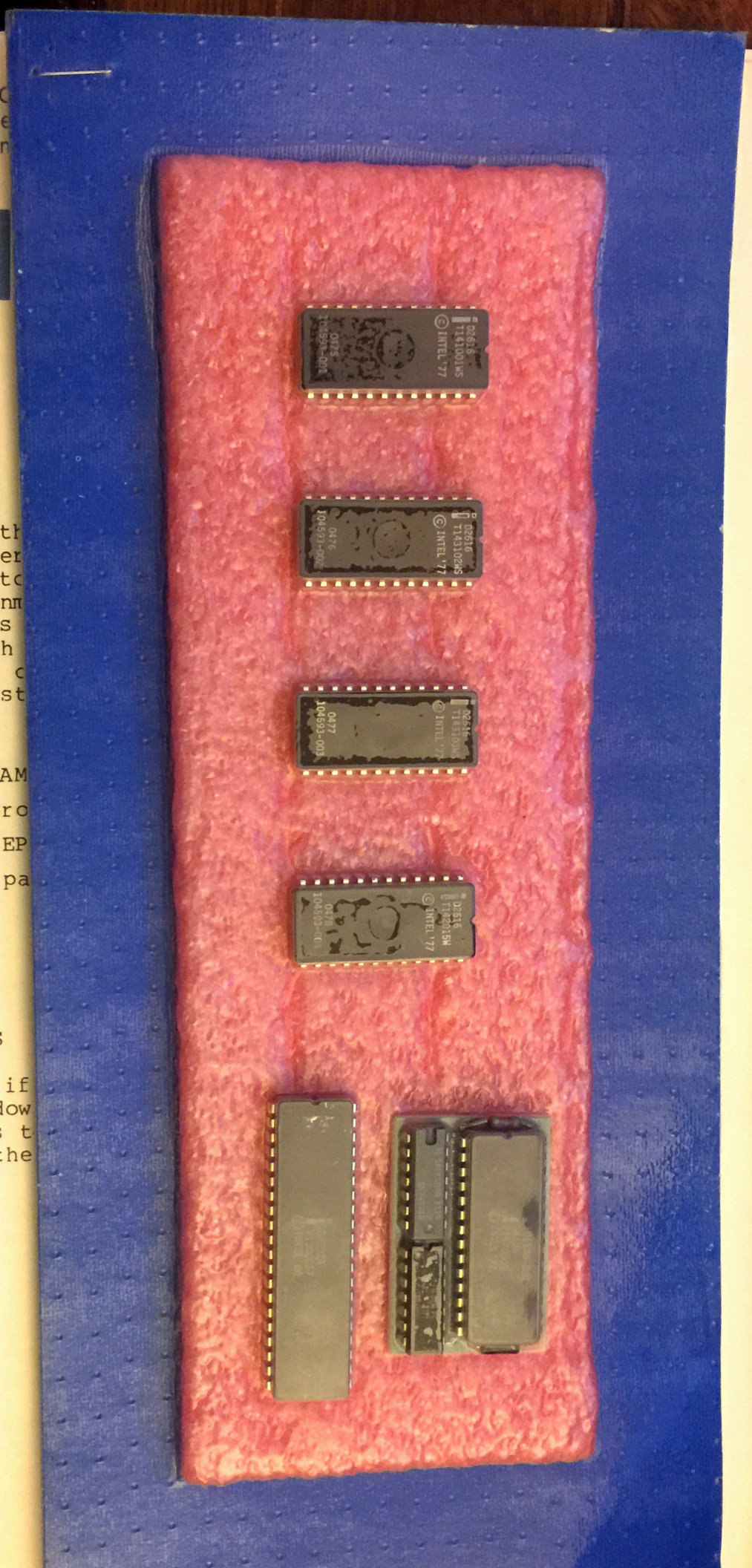
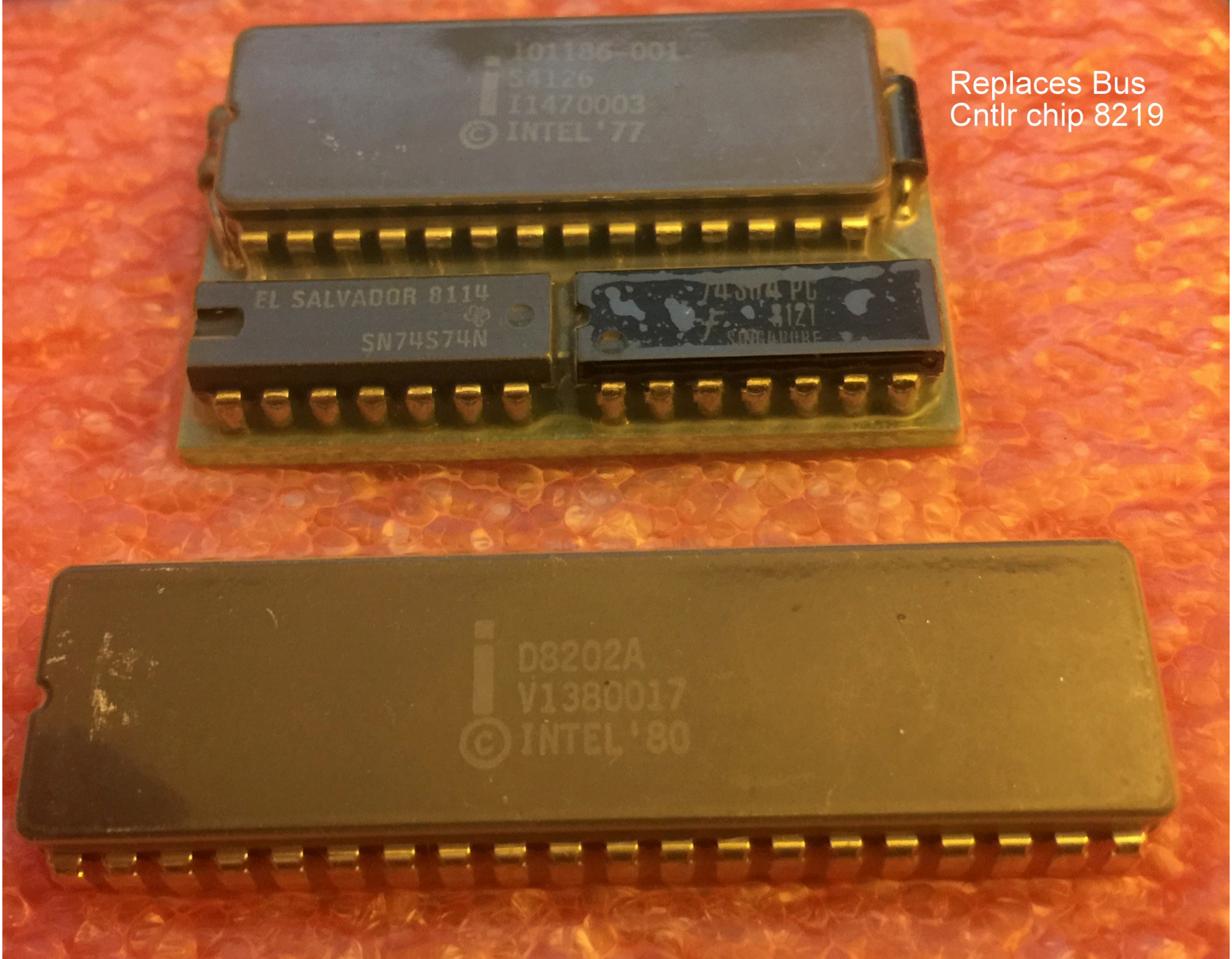
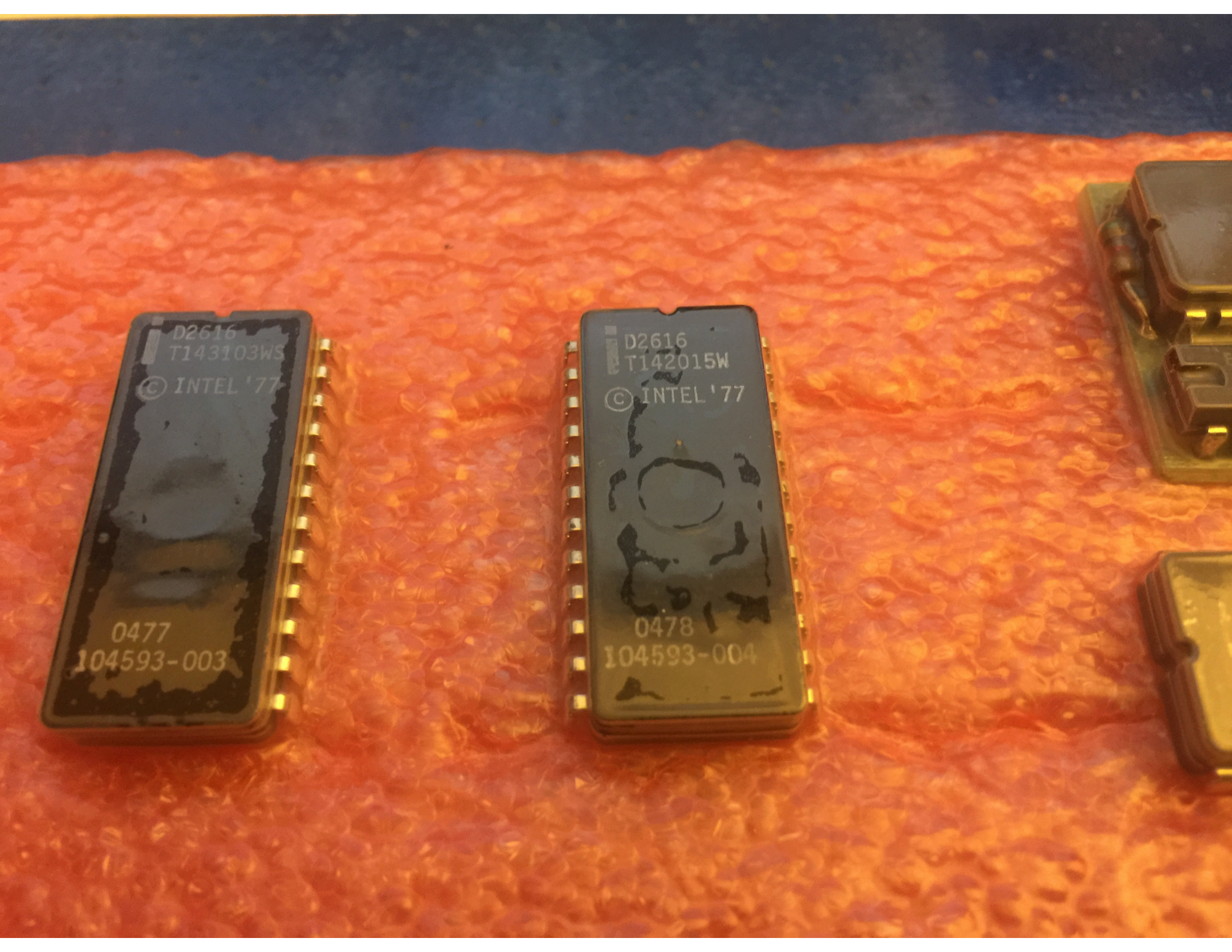




Replaces Bus
Cntlr chip 8219


D2616
T143103WS
© INTEL '77
0477
104593-003
D2616
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0478
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D2616
T141001WS
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