


REV	REVISIONS DESCRIPTION	DATE	APPROVED
1A	ENG REL ESD # EQ ESD 745H	5/23/84	MM

ENVIRONMENTAL/RELIABILITY ENGINEERING

TEST REPORT

ESD EVALUATION OF THE 7800, 2100 & CX-24

ENGINEERING RELEASED

		DRAWN BY	DATE	 Atari, Inc. 30 E. Plumeria Drive San Jose, CA 95134 <small>© A Warner Communications Company</small>		
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				ENGINEER	5/2/84	ESD EVALUATION OF THE 7800, 2100 & CX-24 PROLINE CONTROLLER
				APPROVED	5/2/84	SIZE
				APPROVED		DRAWING NO.
		SCALE	SHEET 1 OF 3	REV TA		

MAR 19 1984



Home Computer Division

To: Gene Kuczynski

DEVELOPMENT & ENGINEERING

From: Gil Seymour

By: E. R. KUCZYNSKI

Subject: "ESD" Evaluation of the 7800 , 2100 & CX-24
Proline Controller

Date: 3/19/84

The 7800 console, 6532 IC, fails at an "ESD" level of 25KV applied to port 1 or port 2 with the controllers inserted. An acceptable solution is to add 12 Volt zener diodes, C062081, to Rev. 7.0 P.C.B. as shown in figure 1.

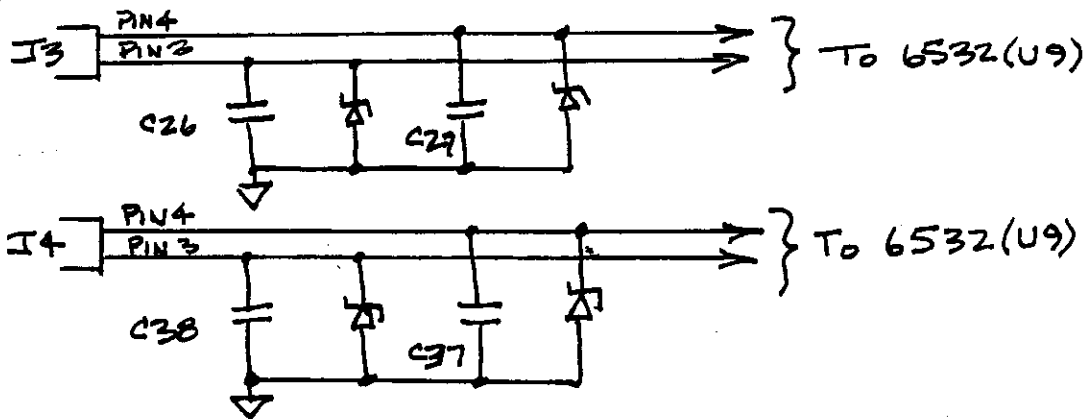


FIGURE 1

Further, the 7800 console, 6532 IC, fails at an "ESD" level of 20KV applied to the seams of controller 1 or controller 2. Two acceptable solutions are needed and identified as follows:

1. 7800 Console:

Provide the basic "ESD" protection for the console ports, by adding the zeners as identified in figure 1. (Dan Schwinn of GCC was notified 3/15/84 by FAX, ref. C024673-159, that the additional zeners are required for "ESD" protection.)

2. CX-24 Proline Controller:

Eliminate the source of the ESD to the console, proline controller seams, by providing an isolated ground discharge path through a ferrite bead in the controller. The new (3/16/84) controller P.C.B. with minor updates, ground isolation, will eliminate the "ESD" source to the console.

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From: Gil Seymour
3/19/84
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The 2100 console, 6532 IC, fails @ an "ESD" level of 25KV applied to the seams of the proline controller 1 or controller 2. Two acceptable solutions are needed and identified as follows:

1. CX-24 Proline Controller (Long term - following the use of the existing 200,000 P.C.B.)

Eliminate the "ESD" source to the console by updating the P.C.B. to provide an isolated ground discharge path through a ferride bead. (Same as previously discussed.)

2. CX-24 Proline Controller (Short term - exhaust the existing 200,000 P.C.B. stock.)

Provide a continuous metal strip along the inside seams and around the bottom mounting post. Ensure that the metal strip extends beyond the P.C.B. and is flush against the seams.

GS/pw

cc: G. Allen
K. Ashton
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