

REV	REVISIONS DESCRIPTION	DATE	APPROVED
1	ENGR RELEASE PER ERC No E0260D	11/29/83	<i>[Signature]</i>

ENVIRONMENTAL / RELIABILITY ENGINEERING
TEST REPORT

1450XLD Shock Impact Stress

One prototype 1450XLD computer model was subjected to our standard shock tests at Viking Laboratories on November 11, 1983. The testing was fully instrumented to gain as much information as possible about the mechanical integrity of the design. It should be emphasized that the mechanical components in place on this model were experimental, and that improvements were already in process.



The specimen was mounted on the shock machine in each of six orientations as shown on sheet 2 of this report. The shock level was set up to be 15g, 20g, 25g, and finally 30g with an 11 ms. half sine pulse shape in the Z1 axis. All other axes were then tested at 30g, 11ms, with 3 shocks in each axis. A triaxial accelerometer from Atari had been calibrated in conjunction with a Honeywell oscillographic recorder to display the shock levels seen at the disk drive mounting plate, which was thought to be the most critical area of the system under test.

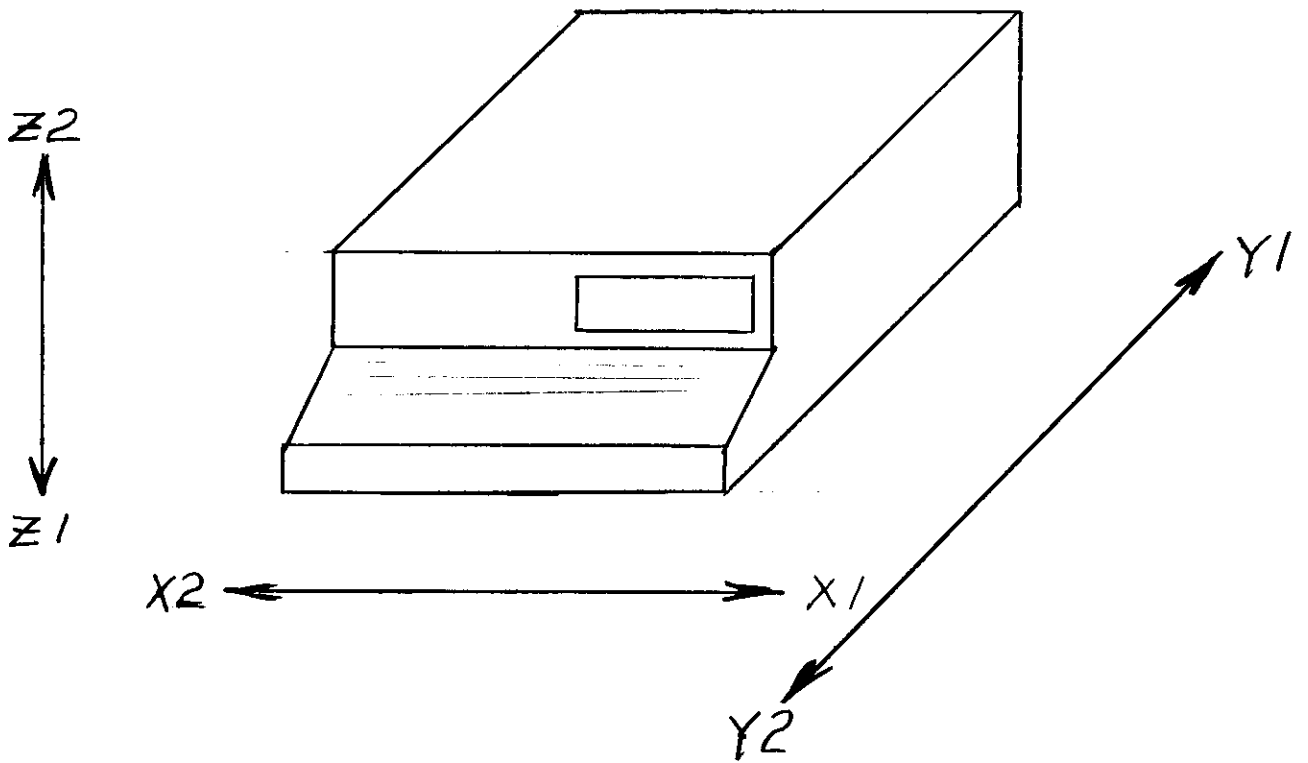
Results:

No performance failures were observed when tested between axis changes. The 1450XLD passed the shock test requirement.

As shown in the test data form, sheet 3, serious vibration ringing was generated when tested in the Z1 direction. This effect indicates potential failure on subsequent vibration testing.

The most serious shock transmissibility problem arose in the Y1 direction, on its back. This problem is not critical, however.

		DRAWN BY	DATE	 <p>Atari, Inc. 30 E. Plumeria Drive San Jose, CA 95134</p> <p> A Warner Communications Company</p>	
		CHECKED			
NEXT ASSY	USED ON	ENGINEER	TITLE 1450XLD, Shock Impact Tests		
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		APPROVED <i>[Signature]</i> 11/14/83	SCALE	SHEET 1 OF 6	



AXIS DEFINITION

C024673-115

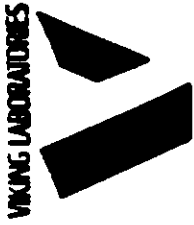
Sheet 2 of 6

ENGINEERING RELEASED

RECEIVED

Date Started	Specimen Description			NOTE:	
11-11-83	1450 XL (Proto-Type Unit)			The MONITOR	
Date Completed	Type of Test			Tri-axial Accelerometer	
11-14-83	Impact Shock			was mounted on the	
Engineer (Signature)	Manufacturer			disk drive casting	
<i>H.D. Duzman</i>	Test Specifications				
<i>H.D. Duzman</i>	EEM Cob1616 (Rev. 1A) Para. 3.3.3				
AXIS	CONTROL	X MAN- AMP (g's)	Y MOV. AMP (g's)	Z MOV. AMP (g's)	REMARKS
	DUR. (MS)	DUR. (MS)	DUR. (MS)	DUR. (MS)	
Z-1	15	11		12 15	RINGS FOR 280 MS
	20	13		15 20	-RINGS FOR 280 MS
	25	14		20 20	RINGS FOR 330 MS
Z-1	30	12		21 20	RINGS FOR 310 MS
Z-2	30	11	6	5 27 11	
Y-1	30	11	9	4 36 11 10 4	
Y-2	30	11	18	4 18 10 10 2	Pulse clipped - disk drive probably bottomed out
X-1	30	11	30	9 8 5 6 2	
X-2	30	11	22	11 10 4 12 4	
					No physical or functional discrepancies noted due to this test

EQUIPMENT LIST



JOB NUMBER 41412-6

TEST DESCRIPTION: SHOCK-HALF SINE

EQUIPMENT DESCRIPTION	MANUFACTURER	MODEL NUMBER	ASSET NUMBER	RANGE	ACCURACY	CALIB. DATE	CALIB. PERIOD
Shock Machine	BARRY CONTROLS	VA-100	6225	Table Size: 24x24" Max. Impact Vel: 36 ft/sec Max. Accel: 1500 g's Min. Duration: 1.0 m.s.	+ 10%	11-11-83	T.O.I.
Charge Amplifier	Endevco Corp.	2140A	6501	Freq. Resp.: 0.1HZ To 5KHZ	+ 5%	7-14-83	6 mo.
Accelerometer	Endevco Corp.	2852	6502	Freq. Resp.: 2 Hz to 7MHz Max. Accel.: 5K g's		7-8-83	6 mo.
Oscilloscope	Tektronix Inc.	547	8041	Freq. Resp.: DC to 30MHz Rise Time: 22 ns 0.1u sec. to 5 sec/cm	+ 3%	7-6-83	6 mo.
Oscilloscope	Tektronix Inc.	CA	2229	Freq. Resp.: DC to 15MHz Rise Time: 10 ns 0.05v to 20v/cm (AC-DC)	+ 3%	9-9-83	6 mo.
Camera	Tektronix Inc.	C-12	2404	1.0:09 Object to figure	No	Co-1.	Required

