APPROVED FOR PUBLIC RELEASE, CASE 06-1104.

Memorandum M-2144

Digital Computer Laboratory Massachusetts Institute of Technology Cambridge, Massachusetts

SUBJECT: Z PLANE DRIVER

To:

N. H. Taylor, R. A. Nelson, Group 62 Section Chiefs, and N. P. Edwards at I. B. M. via Kromer.

From:

D. Shansky

Date:

May 7, 1953

Abstract: This memo outlines the specifications of the Z plane driver, estimates the total number of drivers required, and offers a tentative schematic diagram.

> The Z Plane Driver is required to furnish a current pulse of approximately 0.5 amp amplitude, 1 1/2 usec. duration, .3 µsec. rise and fall time into a load which presents a back voltage of approximately 100 volts. The long time regulation is required to be within 4% of the nominal value. The top of the pulse is to be flat within 3%. The driver should be able to deliver one pulse immediately following the other. The maximum duty cycle to be approximately 40%.

One of these drivers will be required for each digit plane in the WWII magnetic core memory, bringing the total number of drivers needed to 33.

To date a driver capable of meeting most of these specifications has been designed and debugged. The circuit evolved differs only in detail from the present M. T. C. Z plane driver. At the present moment there appears to be no reason for not adhering to the original time schedule.

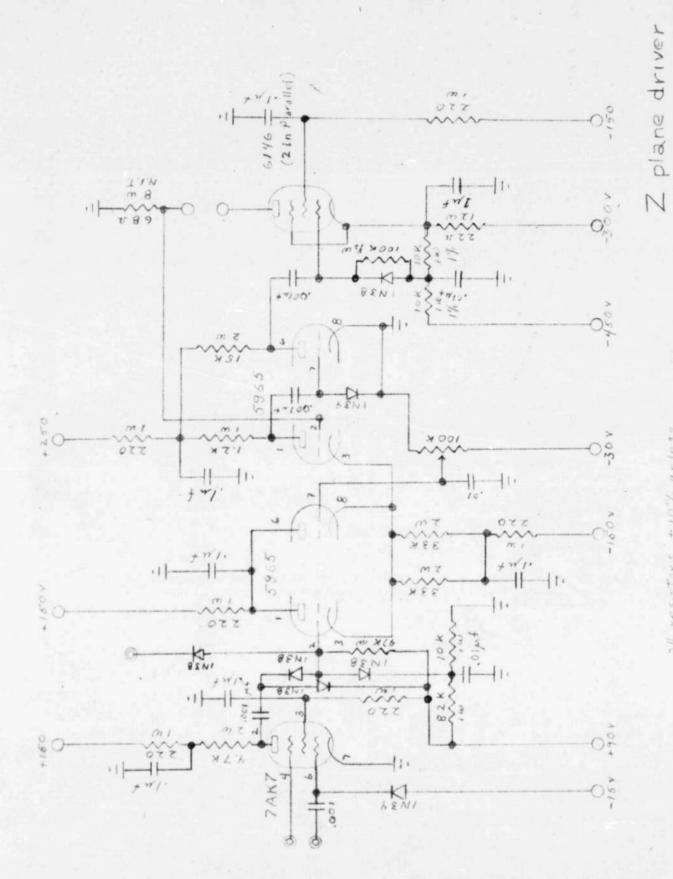
Drawing: SA-54918-1

R. L. Best, Section Chief

DS:ln

Approved N. H

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3/ resistors ±10% unless other others

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