

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, $1\frac{1}{2}$ μ sec. duration, .3 μ sec. 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

Signed D. Shansky
D. Shansky

Approved R. L. Best
R. L. Best, Section Chief

DS:ln

Approved N. H. Taylor
N. H. Taylor

