MAGNETIC-CORE MATRIX SWITCH DRIVER (X & Y PLANE DRIVER). PB 18


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5 June 1953

This memo offers preliminary specifications for a magnetic-core matrix switch driver and offers tentative schematic diagrams.

It is proposed that a magnetic-core matrix switch be utilized to perform the functions of selection and memory-plane driving. It has been determined that the switch will deliver properly shaped current pulses when the switch itself is driven with a specially shaped current pulse. The Magnetic Core Matrix Switch Driver (set and reset winding), Drawing #SB 55238, will deliver this current pulse into the set and reset windings of a magnetic core switch.

Tentative specifications on the current pulse shape are:

- Initial rise time to 400 ma -- .3 μsec., linear rise of current to 600 ma at the end of 2 μsec. and fall time of .3 to .5 μsec.

A total of 2 such drivers are necessary to drive the WWII memory.

The Magnetic-Core Matrix Switch Driver (bias winding), Drawing #SB 55239, was designed to deliver a rectangular pulse of current with a nominal amplitude of 500 ma, and rise and fall times of .3 μsec. with the pulse length variable up to about 10 μsec. The total number of these drivers required for WWII would be 12.

No change in the original time schedule for X & Y plane drivers is deemed necessary at this time.